Fireplace Products International, Ltd.

Project # 23-200
Model: F5200
Type: Catalytic Wood Fired Heater
September 28, 2023
Revised: April 12, 2024

ASTM E2780 Standard Test Method for Determining Particulate Matter Emissions from Wood Heaters
EPA Test Method 28R for Certification and Auditing of Wood Heaters

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Revision Summary

Date: September 28, 2023– Original Issue

Date: October 20, 2023 – Updated analytical balance calibration sheet in Appendix C, see page 512 of Non-CBI report.

Date: April 12, 2024 – The following changes were made per request from EPA:

- Added additional information regarding tunnel velocity measurement equipment, see Notes section on page 4.
- Specified emissions values if negative sample weights are uncorrected, see page 9.
- Added discussion of handling of negative weights, see page 9.

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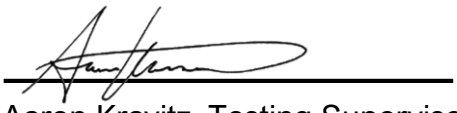
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Affidavit

PFS-TECO was contracted by Fireplace Products International (FPI) to provide testing services for the F5200 Catalytic Wood-Fired Room Heater per EPA Method 28R, *Certification and Auditing of Wood Heaters*. All testing and associated procedures were conducted at PFS-TECO's Portland Laboratory beginning on 8/21/2023 and ending on 8/25/2023. PFS-TECO's Portland Laboratory is located at 11785 SE Highway 212 – Suite 305, Clackamas, Oregon 97015. Testing procedures followed EPA Method 28R and ASTM E2780, *Standard Test Method for Determining Particulate Matter Emissions from Wood Heaters*. Particulate sampling was performed per ASTM E2515, *Standard Test Method for Determination of Particulate Matter Emissions Collected by a Dilution Tunnel*.

PFS-TECO is accredited by the U.S. Environmental Protection Agency for the certification and auditing of wood heaters pursuant to subpart AAA of 40 CFR Part 60, New Source Performance Standards for Residential Wood Heaters and subpart QQQQ of 40 CFR Part 60, Standards of Performance for New Hydronic Heaters and Forced Air Furnaces, Methods 28R, 28WHH, 28 WHH-PTS, and all methods listed in Sections 60.534 and 60.5476. PFS-TECO holds EPA Accreditation Certificate Numbers 4 and 4M (mobile). PFS-TECO is accredited by IAS to ISO 17020:2012 "Criteria for Bodies Performing Inspections", and ISO 17025:2017 "Requirements for Testing Laboratories." PFS-TECO is also accredited by Standards Council of Canada to ISO 17065:2012 "Requirements for Bodies Operating Product Certification Systems."

The following people were associated with the testing, analysis and report writing associated with this project.



Aaron Kravitz, Testing Supervisor

Introduction

FPI contracted with PFS-TECO to perform EPA certification testing on the F5200 Wood-Fired Room Heater. All testing was performed at PFS-TECO's Portland Laboratory. All testing was performed by Aaron Kravitz and Sebastian Button.

Notes

- Prior to start of testing, 50 hours of conditioning was performed by the manufacturer at a medium burn setting in accordance with ASTM E2780.
- Prior to start of testing, the dilution tunnel was cleaned with a steel brush.
- A separate, independent, third filter train was utilized to determine 1st hour emissions for all test runs.
- A total of 5 test runs were completed. One test run in each of the 4 specified burn rate categories, as well as a fan confirmation test performed at a category 2 burn rate. All runs have been found to be appropriate, no anomalies occurred. See the Run Narrative section for further detail on each run.
- Dilution Tunnel Velocity Measurement: In accordance with test method ASTM E2515, dilution tunnel velocity was measured prior to each run by performing a velocity traverse, and monitored throughout each run by measuring pitot pressure at the tunnel centroid. Traverses were performed using a Dwyer Model 1430 Microtector in accordance with the instrument owners' manual. This includes leveling and zeroing the instrument prior to each use and performing pre- and post-test leak checks on the pitot tubing. To monitor and log centroid pitot pressure, the pressure transducer of an Apex Instruments XC-60-DIR sample box was used. This piece of equipment, #203B, is calibrated annually and its certificate may be found in Appendix C. Both pieces of equipment offer precision in excess of the +/-0.001" specified in section 6.1.5 of ASTM E2515, and are therefore suitable for use with flows under 800 ft/min. Both pieces of equipment are plumbed to the same pitot tube.

Wood Heater Identification and Testing

- Appliance Tested: ***F5200***
- Serial Number: ***PFS Tracking Number 157***
- *Manufacturer:* ***FPI***
- Catalyst: ***Yes***
- Heat exchange blower: ***Optional***
- Type: ***Wood Stove***
- Style: ***Free Standing Wood Stove***
- Date Received: ***Thursday, August 10, 2023***
- Testing Period – Start: ***Monday, August 21, 2023***
  Finish: ***Friday, August 25, 2023***
- Test Location: ***PFS TECO***
  11785 SE Hwy 212
  Clackamas, OR 97015
- Elevation: ***~131 Feet above sea level***
- Test Technician(s): ***Aaron Kravitz and Sebastian Button***
- Observers: ***None***

Test Procedures and Equipment

All Sampling and analytical procedures were performed by Aaron Kravitz and Sebastian Button. All procedures used are directly from ASTM E2780 and ASTM E2515. See the list below for equipment used. See Appendix C submitted with this report for calibration data.

Equipment List:

Equipment ID#	Equipment Description
50	Digiweigh DWP12i Platform Scale
53	APEX XC-60-ED Digital Emissions Sampling Box A
54	APEX XC-60-ED Digital Emissions Sampling Box B
203	APEX XC-50-DIR Digital Emissions Sampling Box C
55	Apex Ambient Air Sample Box
57	California Analytical ZRE CO2/CO/O2 IR ANALYZER
94	Moisture meter calibration block
95	Anemometer
97	10 lb audit weight
107	Sartorius Analytical Balance
109A/B	Troemner 100mg/200mg Audit Weights
111	Microtector
115	Delmhorst Wood Moisture Meter
189	Mettler 3'x3' floor scale w/digital weight indicator
202	Digital Barometer
207	Dewalt Tape Measure
208	Digital Calipers
215	Temperature Logger
CC121798	Gas Analyzer Calibration Span Gas
CC139173	Gas Analyzer Calibration Mid Gas

Results

A total of 5 test runs where performed on the F5200. Run #5, a fan confirmation test, was not used in any weighted average results calculations. The weighted average emissions rate for the 4 run test series was measured to be **0.84 g/hr** with a Higher Heating Value efficiency of **80%.** The average CO emission rate for the 4 tests was **1.0 g/min.** The FPI F5200 Wood-Fired Room Heater meets the 2020 cribwood PM emission standard of ≤ 2.0 g/hr per CFR 40 part 60, §60.532 (b).

Detailed individual run data can be found in Appendix A submitted with this report.

Summary Table

	Cat. 2 ≤1.00 kg/hr	Cat. 2 0.80 - 1.25 kg/hr	Cat. 3 1.25 - 1.90 kg/hr	Cat. 4 Max Burn Rate	Fan Confirmation (Cat. 2)*
Date	8/22/2023	8/21/2023	8/24/2023	8/23/2023	8/25/2023
Run Number	2	1	4	3	5
Emission Rate (g/hr)	0.53	0.93	1.00	0.92	1.01
Burn Rate (kg/hr)	0.89	1.11	1.49	2.58	1.05
Heat Output (Btu/hr)	13,876	16,664	22,198	36,398	14,686
Overall Efficiency (% HHV)	83%	80%	80%	75%	75%
CO Emissions (g/MJ Output)	0.74	3.27	1.93	3.27	7.48
CO Emissions (g/kg Dry Fuel)	12.17	51.82	30.42	48.81	111.48
CO Emissions (g/min)	0.18	0.96	0.75	2.09	1.93
Emissions – 1st hr (g/hr)	1.86	3.78	3.64	3.72	3.12
Weighted particulate emission average of 4 test runs: 0.84 grams per hour.					
Weighted average HHV efficiency of 6 test runs: 80%.					
Average CO Emissions Rate: 1.0 g/min					

*Fan Confirmation test not included in weighted average calculations.

Test Run Narrative

Run 1

Run 1 was performed on 8/21/2023 as a category 2 test, per EPA Method 28R. The total test time was 635 minutes. The particulate emissions rate for the test was 0.93 g/hr, the burn rate was 1.11 kg/hr with an HHV efficiency of 79.9%. All test results were appropriate and valid. There were no anomalies and all test criteria were met.

Run 2

Run 2 was performed on 8/22/2023 as an attempted category 1 test, per EPA Method 28R. The total test time was 775 minutes. The particulate emissions rate for the test was 0.53 g/hr, the burn rate was 0.89 kg/hr with an HHV efficiency of 83.1%. All test results were appropriate and valid. There were no anomalies and all test criteria were met. This test meets the burn rate requirements described in EPA Method 28 Section 8.1.1.3.2 as a category 2 test with a burn rate of 1.00 kg/hr or less for wood stoves that cannot be operated at burn rates less than 0.8 kg/hr. This test was performed with the air control set to its lowest setting, it is not possible to operate the stove at a lower air setting. Therefore, this test will be used in lieu of a category 1 test.

Run 3

Run 3 was performed on 8/23/2023 as a category 4 test, per EPA Method 28R. The total test time was 276 minutes. The particulate emissions rate for the test was 0.92 g/hr, the burn rate was 2.58 kg/hr with an HHV efficiency of 75.3%. All test results were appropriate and valid. There were no anomalies and all test criteria were met.

Run 4

Run 4 was performed on 8/24/2023 as a category 3 test, per EPA Method 28R. The total test time was 468 minutes. The particulate emissions rate for the test was 1.00 g/hr, the burn rate was 1.49 kg/hr with an HHV efficiency of 79.6%. All test results were appropriate and valid. There were no anomalies and all test criteria were met.

Run 5

Run 5 was performed on 8/23/2023 as a category 2 fan confirmation test, per EPA Method 28R. The total test time was 653 minutes. The particulate emissions rate for the test was 1.01 g/hr with a burn rate of 1.05 kg/hr. All test results were appropriate and valid. There were no other anomalies and all test criteria were met. Since the particulate emissions rate is within 1.0 g/hr of the category 2 test, the blower is determined not to have a significant impact on emissions performance and may therefore be approved as an optional accessory. This test run is not included in the weighted average calculations presented in the results summary.

Negative Catch Weight Discussion

For Run 2, one of the O-ring sample catch values was -0.1 mg. Negative O-ring or probe catch values are corrected to “zero” for purposes of calculating emissions values, as, unlike with filters, no material removal from these sample items can be expected during test runs or sample handling. If Run 2’s negative O-ring catch weight is not corrected to zero, the emissions result would be 0.52 g/hr.

Test Conditions Summary

Testing conditions for all runs fell within allowable specifications of the ASTM 2780 and ASTM E2515. A summary of facility conditions, fuel burned, and run times is listed below.

Run	Ambient (°F)		Relative Humidity (%)		Average Barometric Pressure (In. Hg.)	Preburn Fuel Weight (lbs)	Test Fuel Weight (lbs)	Test Fuel Moisture (%DB)	Test Run Time (Min)
	Pre	Post	Pre	Post					
1	70	77.4	40.9	33.9	29.81	29.45	31.26	21.0	635
2	76	75.9	37.7	42.5	29.83	29.1	30.47	20.4	775
3	73	78.4	32.9	34.7	30.00	27.65	31.33	20.2	276
4	78	82.8	33.6	21.4	29.73	29.7	30.97	21.3	468
5	83	80.8	31.2	22.5	29.76	28.81	30.46	22.0	653

Appliance Operation and Test Settings

The appliance was operated according to procedures as described in the Operations Manual, found in Appendix B submitted with this report. Detailed run information can be found in Appendix A submitted with this report.

Settings & Run Notes

	Pre-Burn Air Setting	Test Run Air and Fan Settings
Run 1	Air control fully closed	Air control fully closed, fan on high
Run 2	Air control fully closed	Air control fully closed, fan on high
Run 3	Air control fully open	Air control fully open, fan on high
Run 4	Air control 0.357” open from fully closed	Air control 0.357” open from fully closed, fan on high
Run 5	Air control fully closed	Air control fully closed, fan off (fan confirmation)

Appliance Description

Model(s): F5200

Appliance Type: Catalytic Wood-Fired Stove

Total/Usable Firebox Volume: 4.42 ft^3

Air Introduction System Primary combustion air enters the appliance through the air control opening located on the bottom front of the stove. Air is routed up the sides of the firebox, then down into the combustion chamber in front of the door glass. Secondary air brought in through a fixed opening on the bottom rear of the appliance and is routed up the back of the firebox and feed into a secondary air tube. Dimensions on all these features can be found in Appendix D.

Baffles: Combustion air is routed to the front of the stove with a steel baffle that sits on top of the secondary air tubes, then back and through the catalytic combustor.

Catalytic Combustor: A 14" x 3.5", 3" thick ceramic catalyst is located in the flue gas path just prior to the flue collar. A bypass door located in the baffle is actuated via a handle located on the left side of the appliance. When the handle is pulled forward, the bypass plate opens allowing flue gasses to exit the firebox directly into the flue. When pushed back, all flue gasses are routed through the catalyst. The appliance also features a catalyst temperature monitoring probe on the top of the appliance, the temperature probe tip is located within 1" of the catalyst exit.

Refractory Insulation: The firebox is lined with 1.25" thick high-density firebrick.

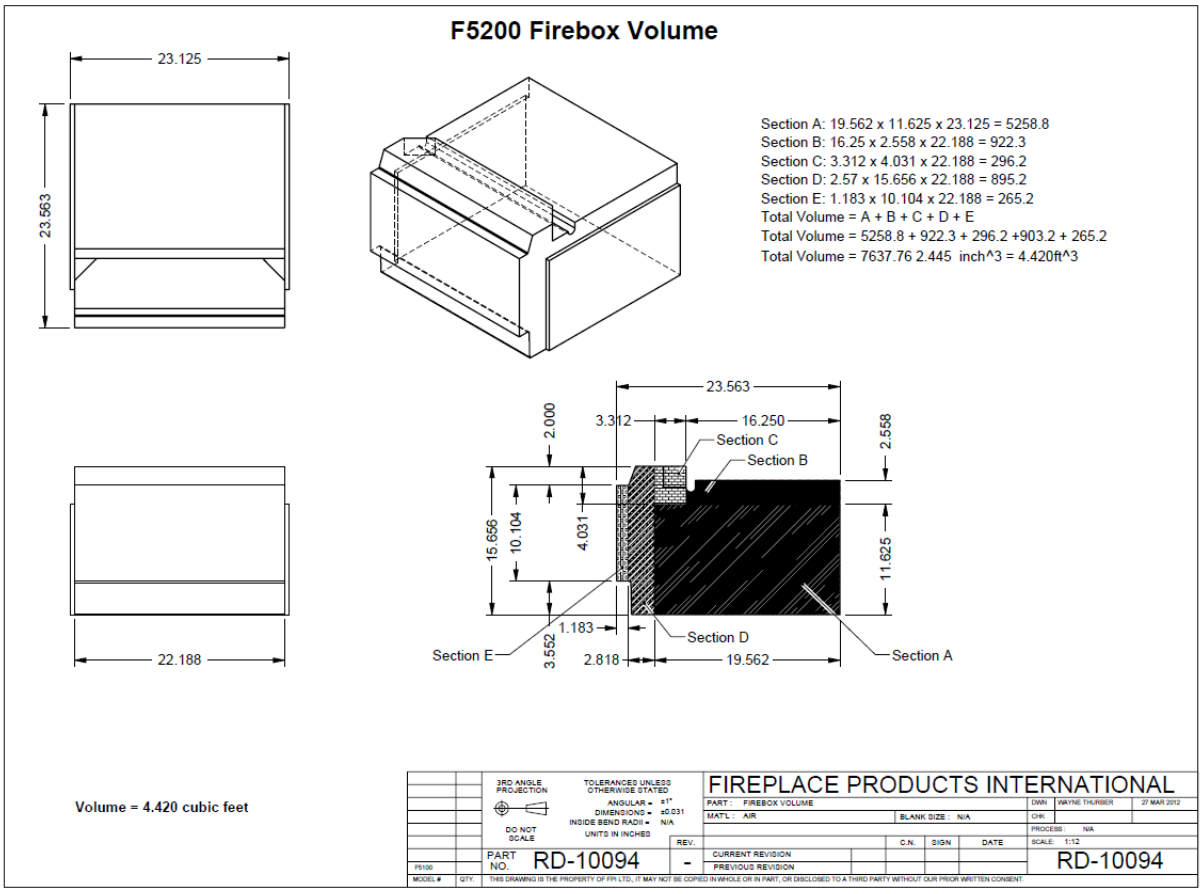
Flue Outlet: 8-inch exhaust outlet located on the top of the appliance.

Fan: An optional variable speed convection fan is mounted to the rear of the appliance.

Appliance design drawings can be found in Appendix D submitted with the CBI copy of this report.

Firebox Volume Dimension

Total Firebox Volume = Usable Firebox Volume



Appliance Front



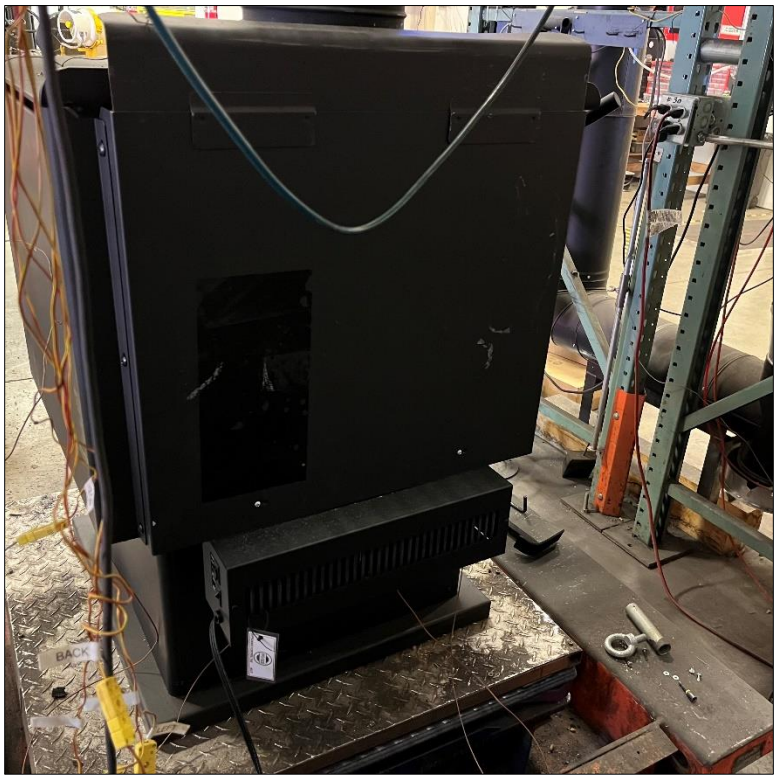
Appliance Left



Appliance Right



Appliance Rear



Test Fuel Properties

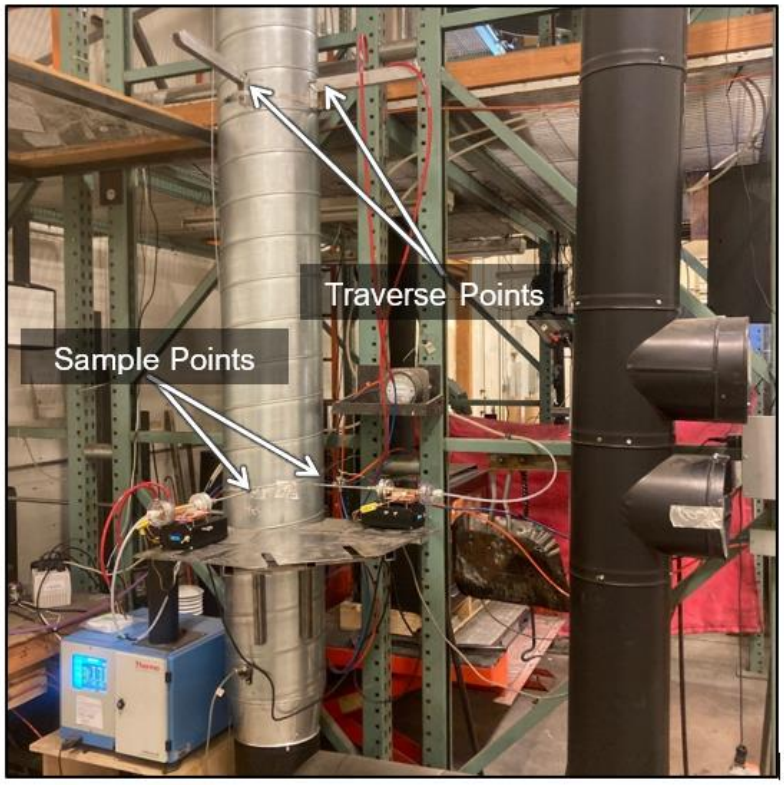
Test fuel used was Douglas Fir dimensional lumber, air-dried to the specified moisture content range. A typical fuel load is pictured below:

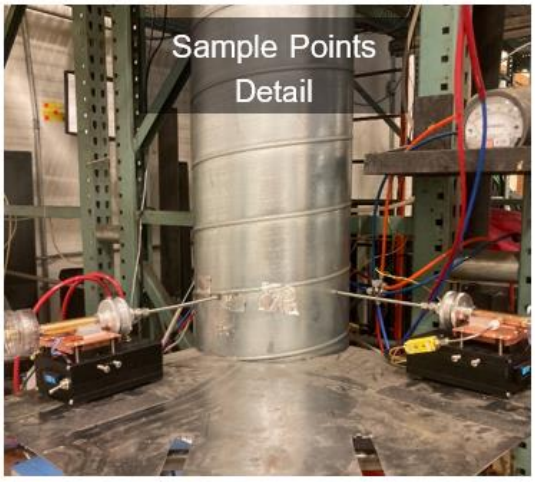
Typical Fuel Load



Sampling Locations and Descriptions

Sample ports are located 16.5 feet downstream from any disturbances and 3.5 feet upstream from any disturbances. Flow rate traverse data was collected 8 feet downstream from any disturbances and 4 feet upstream from any disturbances. (See below).







Sampling Methods

ASTM E2515 was used in collecting particulate samples. The dilution tunnel is 12 inches in diameter. All sampling conditions per ASTM E2515 were followed. No alternate procedures were used.

Analytical Methods Description

All sample recovery and analysis procedures followed ASTM E2515 procedures. At the end of each test run, filters, O-Rings and probes were removed from their housings dessicated for a minimum of 24 hours, and then weighed in pairs to a constant weight per ASTM E2515-11 Section 10. .

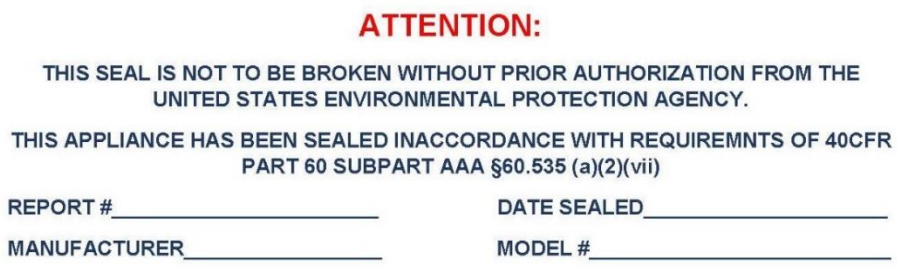
Calibration, Quality Control and Assurances

Calibration procedures and results were conducted per EPA Method 28R and ASTM E2515-11. Test method quality control procedures (leak checks, volume meter checks, stratification checks, proportionality results) followed the procedures outlined.

Appliance Sealing and Storage

Upon completion of testing, the appliance was secured with metal strapping and the seal below was applied, the appliance was then returned to the manufacturer's location at: 6988 Venture St, Delta, BC V4G 1H4, Canada, for archival.

Sealing Label



Sealed Unit



List of Appendices

The following appendices have been submitted electronically in conjunction with this report:

Appendix A – Test Run Data, Technician Notes, and Sample Analysis

Appendix B – Labels and Manuals

Appendix C –Equipment Calibration Records

Appendix D – Design Drawings (CBI Report Only)

Appendix E – Manufacturer QAP (CBI Report Only)

EPA Method 28R Weighted Average Emissions

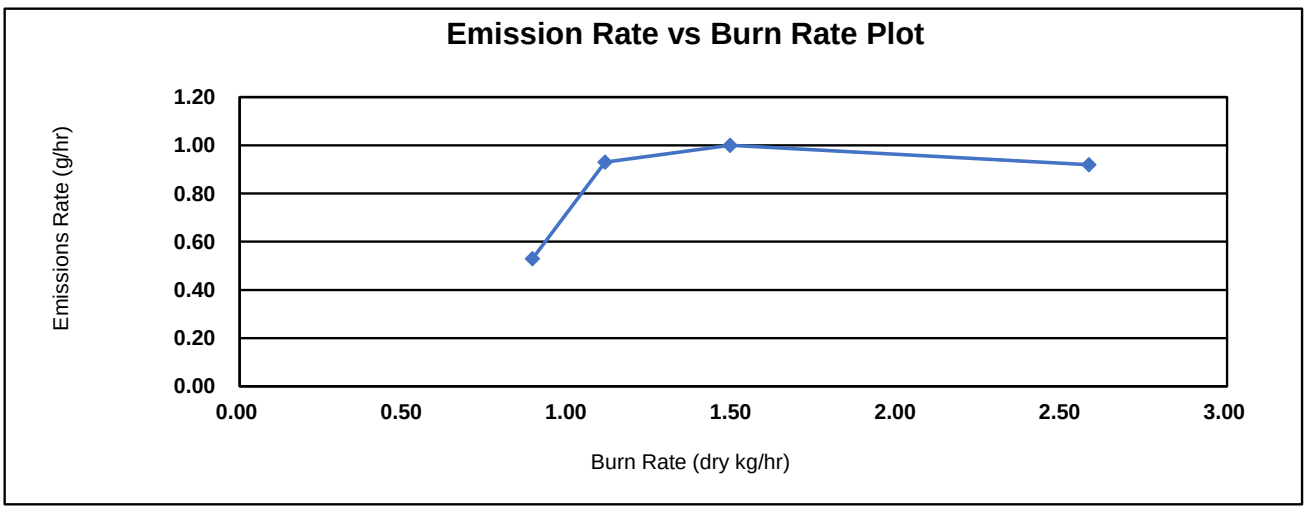
Client: FPI
Stove Model: F5200
Test Dates: 8/21/23 - 8/25/23
Job Number: F23-200

Signature/Date:

Weighted Average Particulate Emissions (g/hr):	**0.84**
Weighted Average HHV Efficiency (%):	**80.0%**
Weighted Average LHV Efficiency (%):	**86.4%**
Average CO Emissions (g/min):	**1.0**

Individual Run Summaries

Run Number:	2	Run Number:	1
Burn Rate (dry kg/hr):	0.89	Burn Rate (dry kg/hr):	1.11
Emissions Rate (g/hr):	0.53	Emissions Rate (g/hr):	0.93
HHV Efficiency (%):	83.1%	HHV Efficiency (%):	79.9%
LHV Efficiency (%):	89.8%	LHV Efficiency (%):	86.3%
Weighting Percentage (%):	27.74%	Weighting Percentage (%):	27.01%
Run Number:	4	Run Number:	3
Burn Rate (dry kg/hr):	1.49	Burn Rate (dry kg/hr):	2.58
Emissions Rate (g/hr):	1.00	Emissions Rate (g/hr):	0.92
HHV Efficiency (%):	79.6%	HHV Efficiency (%):	75.3%
LHV Efficiency (%):	86.0%	LHV Efficiency (%):	81.4%
Weighting Percentage (%):	30.03%	Weighting Percentage (%):	15.22%



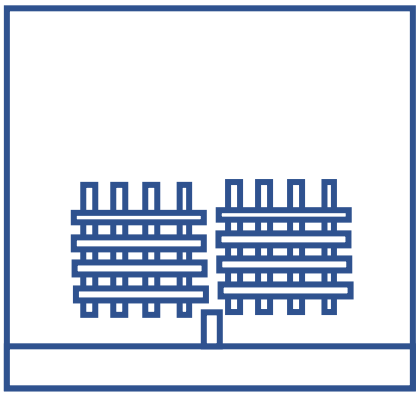
Regency F5200 EPA Test Burn Instructions Vol:4.42cu.ft. – Test load weight - 27.8lb - 30.9lb – 34lb.

Pre-Test

- Remove ash and charcoals from the firebox with a dustpan and brush.
- Clean the door glass with water, paper towel, and left-over ashes. Use steel wool or a scraping tool to remove difficult build up. Do not use chemical cleaners. Do not clean the glass while hot.
- Ensure the by-pass is open, the primary air fully open and the fan is off for the startup period.
- When setting air for Low, Med/Low, and Med/High, set the lever from the right to left

Kindling

- Prepare 10lb +/- 0.5 of kindling that is ~10" long and 0.5"-1.0" in diameter.
- Create 2 square stacks in the front half of the firebox by placing each layer perpendicular to the last. The stacks should be right next to one another.



- Light the kindling at the base, in the middle of the 2 stacks.
- Close the door when lots of flame starts to reach the catalyst with the bypass open (approx. 4-5min). When closing the door, if the firebox begins to fill with smoke AND the fire begins to die, crack the door 1-2" for 30s, then try again.
- Close the by-pass when Tcat reaches 500F.
- At approx. 4-4.5lb, look for unburnt pieces in the kindling. Stir if there are unburnt pieces, while keeping the coals in the front middle.
- When the coalbed weight reaches 2.0-2.3 lbs., (approx. 45min) level the coalbed and load the pre-burn.

Pre-burn

- The pre-burn load consists of 28-29lb using 20" long pieces 2x4. This should be 14-16pcs, 14 is ideal.
- The by-pass can remain closed while loading the pre-burn.
- The pre-burn is loaded in the following order:
    - 4 pieces, north-south, wide face down, 1" between pieces
    - 5-6pcs, east west, narrow face down, evenly spaced
    - 5-6pcs, north-south, narrow face down, evenly spaced
- For all runs, the fan will be set High.
- Set the air and start the pre-burn phase for runs as follows:
    - High – immediately after loading Pre-burn load
    - Med/High – When coal bed reaches 16.0lb (approx. 40min)
    - Med/Low – When coal bed reaches 11.0lb (approx. 2h)
    - Low – When coal bed reaches 10.0lb (approx.. 2h)
- For Med/High, Med/Low, and Low, stir the coals and bring large/unburnt pieces to the front after 5mins into pre-burn, and again at 45min if the coalbed for the test load is more than 0.2lb above the upper limit.
    - When stirring, ensure that the bottom pieces are lifted from the floor
    - For high, stir the coals and bring to front at 15 – 16lb, approx. 1h30min

- After at least 1 hour at the test setting, when the coal bed is within range, rake the coalbed hard to ensure a flat surface for the test load.

Test Burn

- The test load consists of 6pcs 20" 4x4.
- Rake the coals hard to ensure a level surface
- When ready to load, return the air to high and turn the fan off, then load in the following fashion:
    - Place the heaviest two pieces on the left, with the heavier on top
    - Place the lightest two pieces in the middle, with the heavier on top
    - Place the remainder on the right, heaviest on top.
- Pieces should be loaded as far back as possible
- Close the door right away
- For all runs, set the air at 2 minutes
- For High and Med/High, the fan is turned on at 15min
- For Low and Med/Low, the fan is turned on at 30min

Conditioning dates 7/5/23 - 7/2/23

Medium Air Setting

Fuel Moisture ~22.4%

Elapsed Time (min)	Scale Weight (lbs)	Flue (F)	Ambient (F)	FB Top (F)	FB Bottom (F)	FB Back (F)	FB Left (F)	FB Right (F)	Catalyst (F)	Avg. Surface Temp (F)
0	31	389.6	87.2	438.9	268.7	237.7	281.9	330.7	831.6	311.6
1	31	414	87.7	436.3	269.7	241	279.3	329.2	759.5	311.1
2	30.86	383.1	87.7	438.5	269.7	244.3	280	327.3	758.9	312
3	30.71	378.8	87.7	429.3	271.3	244.4	276.5	324.5	787.2	309.2
4	30.56	386.5	87.3	427.2	272.6	245.9	273.3	321.9	833	308.2
5	30.44	390.9	87.8	424.9	274	246.5	273.9	319.3	874.3	307.7
6	30.33	357.3	87.7	423	276.5	245.3	269.3	316.4	877.4	306.1
7	30.24	341	88	420	277.5	246	269.5	313.8	888.5	305.4
8	30.15	332.9	87.7	417.9	278.2	245.8	267.2	311.3	903	304.1
9	30.07	328.7	88.4	418.4	278.8	243.2	264.5	308.5	913.1	302.7
10	29.99	324.5	88	424.9	279.1	242.5	262.7	305.7	914	303
11	29.89	322	88	422.2	279.9	241.4	260	303.3	911	301.4
12	29.82	319.9	88.2	424	279.8	240	259.2	300.4	906.5	300.7
13	29.74	317.3	88	426.4	280.4	239	253.5	298.4	900.2	299.6
14	29.65	316.1	88	428.2	280.6	237.5	254.4	295.8	895.9	299.3
15	29.55	315.4	88.1	427.3	280.6	235	251.3	293.4	891.8	297.5
16	29.44	316.2	88.1	428.9	280.4	235.2	248.9	290.8	893.6	296.8
17	29.34	316.3	87.8	432.5	280.3	233.7	247.4	288.3	899.5	296.4
18	29.24	315.8	87.8	434.6	280	232.4	246.7	286.7	909.7	296.1
19	29.15	316	87.8	442.3	279.9	230.3	245.6	284.6	919.8	296.5
20	29.06	316	88.2	450.3	279.6	229.7	241.4	282.8	925.9	296.8
21	28.97	314.9	88.4	442.5	279.4	227.7	242.1	281.2	927.7	294.6
22	28.89	313.8	88.1	444.4	278.7	227.9	241.5	279.4	928	294.4
23	28.79	314.3	88.3	449.2	279	226.6	238.7	277.8	926.9	294.3
24	28.7	314.8	87.9	446.8	278.2	224.5	238.6	276.8	923	293
25	28.63	314.1	87.8	455	277.5	213.8	236.5	275.4	915	291.6
26	28.54	312.1	88.4	458.9	277.2	206.5	235	274	905.2	290.3
27	28.44	308.7	88.3	461.3	276.8	201.1	233.5	272.5	896.9	289
28	28.37	306.2	88.2	461	276	197.4	231.9	271.7	891	287.6
29	28.29	303.9	88.1	454.6	275.8	193.6	232.9	270.4	888.1	285.4
30	28.19	303.6	88.3	455.1	275.3	189.6	229.1	269.7	888.3	283.8
31	28.1	302.9	88.3	450.9	274.6	186.6	229.9	267.9	891.4	282
32	28.01	302.8	88.1	449	274.1	185.1	228	267.6	897.5	280.7
33	27.9	302.5	88.2	455.9	273.5	183.6	226.4	266.5	906.3	281.2
34	27.82	303.3	88.5	447.4	272.6	178.4	226.7	265.4	914.6	278.1
35	27.72	304.2	88.5	449.3	272	178.9	224.9	264.3	922.4	277.9
36	27.62	304.5	88.7	449.8	271.4	177.4	223.3	263.5	928.1	277.1

Conditioning dates 7/5/23 - 7/2/23

Medium Air Setting

Fuel Moisture ~22.4%

37	27.51	304.6	88.6	458.3	270.9	175.9	224.2	263.2	932.4	278.5
38	27.43	304.6	88.5	453.9	269.9	174.4	223.6	262.2	935.8	276.8
39	27.33	304.7	88.3	458.4	269.1	173.3	224	261.6	935.9	277.3
40	27.23	304.2	88.6	462.9	268.3	173.1	222	260.9	935.1	277.4
41	27.13	304.2	88.2	464.5	267.8	170.5	220.7	260.6	937.8	276.8
42	27.05	304.8	88.1	456.5	266.5	171.1	219.3	260.2	937	274.7
43	26.97	303.7	88.5	463.6	266.2	170.2	218.3	259.2	935.8	275.5
44	26.86	302.7	88.3	458.1	265.4	168.6	218.2	259.4	934.4	274
45	26.79	301.2	88.2	460.6	264.6	168.5	218.1	258.1	932.4	274
46	26.7	301.1	88.3	462.1	264.3	167.8	217.8	257.9	930.4	274
47	26.61	298.5	88.3	465.8	263.6	165.6	218.6	257.7	928	274.2
48	26.52	298.3	88.3	463	262.5	167.4	217.7	257.1	926.2	273.5
49	26.44	298.4	88.7	461.5	262.3	165.4	218.5	257	925.7	272.9
50	26.35	297.5	88.8	465.2	261	166	218.5	256.6	925.1	273.5
51	26.27	296.9	88.6	464.3	260.5	164.8	216.8	256.2	924.8	272.5
52	26.18	295.9	89.1	457.6	259.9	164.8	217.2	255.5	923.8	271
53	26.1	295.3	88.9	459.9	259.2	163.4	217.1	256	923.5	271.1
54	26.01	296.3	89.3	459.4	258.5	164.5	215.6	255.2	924	270.7
55	25.92	296	89.5	463.4	258	164.7	215.3	255.2	924.8	271.3
56	25.82	295.2	89.1	454	257.6	163.1	214.2	254.8	925.1	268.8
57	25.75	294.2	89.3	458.3	256.8	161.4	215.1	254.3	925.6	269.2
58	25.66	294.4	89	457.3	256	163	214.9	254.4	926.8	269.1
59	25.57	293.1	89.2	456.6	255.3	161.5	214.3	254.1	927.7	268.4
60	25.49	292.7	89.3	456.3	254.6	162.3	213.4	253.5	929	268
61	25.4	292.7	89.5	457.4	254.2	161.7	215	253.6	930.6	268.4
62	25.32	292.2	89.4	458	253.7	161.1	212.6	253.4	932	267.8
63	25.21	292.5	89.4	451.4	253.4	161.5	213.4	253	933.8	266.6
64	25.13	292.8	89.4	451.7	252.6	160.4	212.9	253	935.9	266.1
65	25.04	293.3	89.3	459.5	251.9	161.4	213.5	252.7	939.1	267.8
66	24.97	293.5	89	457.4	251.1	161.5	213.2	253.1	942	267.3
67	24.87	294.3	89.2	456	250.9	160.8	213.4	252.4	945.1	266.7
68	24.79	296.7	89	448	250.1	161.7	213.4	252.9	948.8	265.2
69	24.68	297.7	89.2	451	250	161.3	212.4	252.7	952.4	265.5
70	24.59	297.5	89.5	456.2	249.4	160.9	212.2	252.9	955.4	266.3
71	24.49	297.8	90	459.2	248.8	161	211.8	252.9	958.6	266.8
72	24.41	298.4	89.9	459.2	248	161.1	211.1	252.6	961.4	266.4
73	24.32	299	90	461.4	247.7	161.1	212.6	252.6	964.2	267.1
74	24.22	298.7	89.7	460.5	247.3	160.5	213.8	253	967.3	267

Conditioning dates 7/5/23 - 7/2/23

Medium Air Setting

Fuel Moisture ~22.4%

75	24.14	298.8	88.7	461.4	246.5	160.8	211.3	253.3	971	266.7
76	24.03	298.1	89.5	463.8	245.9	160.5	211.8	253.1	974.8	267
77	23.94	299.1	89.7	453.8	245.6	161.3	212	252.7	978.6	265.1
78	23.86	299.9	89.2	470.6	244.8	161.6	212.9	253.6	981.8	268.7
79	23.76	300.5	89.4	465	244.2	161.2	214.4	253.8	984.8	267.7
80	23.67	301.7	89.9	464	243.8	161.3	212.6	253.5	988	267
81	23.58	301.3	89.1	468.8	243.1	160.5	212.8	254.2	990.6	267.9
82	23.49	302.1	88.9	471.8	242.6	161.1	214.1	254.5	993.1	268.8
83	23.39	301.2	88.6	476.2	242.1	160.6	213.1	254.7	995.3	269.3
84	23.3	302.2	89.2	474.6	241.7	161.2	212.4	254.8	998.2	268.9
85	23.21	302.4	88.7	477.2	241.1	161.7	214.2	255.1	1001.4	269.9
86	23.11	302.7	89.5	478.7	240.7	160.9	212.6	255.8	1005.5	269.7
87	23.02	303.5	89.4	480.3	240.1	162	214	255.7	1009	270.4
88	22.94	304.1	89.3	482	239.5	162	213.2	256.1	1012.1	270.6
89	22.84	305.2	89.5	486.6	239	161.7	212.3	256.3	1013.8	271.2
90	22.74	306.6	89.9	483.1	238.4	161.6	214.5	257	1016.9	270.9
91	22.65	307.9	89.8	484.3	237.7	162	215.1	257.9	1018.9	271.4
92	22.56	308.4	89.6	489.2	237.2	161.7	215.8	258.3	1020.7	272.4
93	22.47	309	89.4	492.3	236.6	161.8	215.6	258.7	1022.4	273
94	22.37	308.8	89.6	482.8	236.1	161.9	214.4	259	1023.7	270.8
95	22.28	309.3	89.2	491.8	235.8	161.9	216.1	259.9	1024.2	273.1
96	22.18	309.1	89.8	497.1	235.2	162	215.1	260.2	1023.8	273.9
97	22.09	310.2	88.9	500.3	234.4	162.5	216.1	260.4	1023	274.7
98	22	309.5	89.1	501.7	234.1	162.6	215.4	260.1	1020.6	274.8
99	21.9	309.8	89.9	504.3	234	162.9	215.9	260.5	1018.9	275.5
100	21.82	308.6	89.7	504.3	233.2	162.8	218	260.2	1015.8	275.7
101	21.72	308.8	89.6	501.6	232.7	162.3	218	260.1	1012.7	274.9
102	21.64	308	89.2	503.7	232.5	162.2	216.9	260.1	1009.7	275.1
103	21.54	307.5	89.3	505.2	231.7	163.1	217.2	260.2	1007	275.5
104	21.47	306.3	89.7	500.6	231.6	162.4	218.6	260	1003.8	274.6
105	21.39	305.5	89.6	511.2	231	164	218.1	259.9	1001.8	276.9
106	21.29	305.9	89.4	510.2	230.6	163.4	218.9	259.8	1001.2	276.6
107	21.22	304.3	89.5	509.7	230.3	162.2	219.1	259.9	1001	276.3
108	21.14	305	89.1	509.7	229.9	163.9	219.4	259.8	1001	276.5
109	21.06	304.3	88.9	505.6	229.3	163.7	219.5	259.5	1002.4	275.5
110	20.97	304.4	88.7	507.7	228.8	163	219.9	259.6	1004.7	275.8
111	20.89	302.9	88.6	504	228.8	163.2	218.4	259.9	1007.9	274.8
112	20.8	304.5	88.9	502.7	228.4	163.4	220.1	259.7	1013	274.9

Conditioning dates 7/5/23 - 7/2/23

Medium Air Setting

Fuel Moisture ~22.4%

113	20.72	304.4	89.1	505.7	227.8	163.8	220.6	259.6	1017.4	275.5
114	20.65	304.5	89.2	512	227.8	164	219.4	260	1024.2	276.7
115	20.56	305.7	89.6	506.9	227.1	163.9	219.7	260	1032.1	275.5
116	20.47	306.1	89.4	511.3	226.9	163.3	220.3	260.5	1041.1	276.5
117	20.39	307.7	89.7	506.7	226.6	162.7	221.2	260.5	1050	275.6
118	20.31	308.6	89.2	515.7	226.3	163.7	220.4	260.3	1056.8	277.3
119	20.22	308.7	89.5	515.4	225.9	164.9	221	260.7	1061	277.6
120	20.15	308.2	89.4	521.9	225.8	164.3	220.1	260.9	1062.4	278.6
121	20.07	308.6	89.3	520.5	225.3	164.3	220.4	260.7	1062.5	278.2
122	19.99	309.2	89.6	519.1	225.1	164.1	221.3	260.7	1061.5	278.1
123	19.91	309.2	89.7	514.2	224.8	164.1	221.3	261.2	1060.9	277.1
124	19.83	310.2	89.1	524.8	224.4	165.1	220.6	261.6	1060.5	279.3
125	19.76	310	89.6	525.4	223.9	164.3	221.4	261.7	1060.7	279.4
126	19.68	310.8	89.4	524.6	223.7	164.8	222.1	261.9	1061	279.4
127	19.59	310.5	89.5	523.9	223.5	163.8	222.1	262.3	1061.7	279.1
128	19.51	310.8	89.2	519.2	223.2	164.4	222.7	262.6	1062.6	278.4
129	19.43	311	89	524.5	223	165.3	221.2	263.2	1063.2	279.4
130	19.35	311.8	89.6	513.5	222.5	164.4	221.8	263.5	1064.9	277.2
131	19.26	312	89.2	530.8	222.5	164.8	221.6	264	1067.1	280.7
132	19.18	312.6	89.7	523.9	221.8	164.8	222.8	264.3	1069.9	279.5
133	19.11	313.4	89.4	527.4	221.7	164.8	221.9	265.1	1074	280.2
134	19.01	314.6	89.2	523.8	221.4	165	221.1	265.6	1077.3	279.4
135	18.93	315.4	89.6	526.7	221.2	164.1	222.3	266.3	1079.4	280.1
136	18.84	315.4	89.1	529.4	220.8	165.2	222.2	266.4	1081.9	280.8
137	18.75	316.6	89.5	526.6	220.4	165.8	221.1	266.8	1083.6	280.1
138	18.66	317.1	89.2	534.1	220.3	165.8	222	267.7	1085.9	282
139	18.56	317.3	89.7	532	219.8	165.7	221.3	267.8	1086.9	281.3
140	18.5	317.6	89.3	531.4	219.7	165.6	223	268.3	1087	281.6
141	18.42	317.3	89.4	537.7	219.5	166.2	223.4	269.2	1086.5	283.2
142	18.33	316.7	89.6	537.8	219.4	165.2	221.5	269.4	1085.7	282.7
143	18.24	316.9	89.8	529.5	219	166.7	223	270.2	1084.7	281.7
144	18.15	318.4	89.2	539	218.5	166.3	223.7	270.6	1084.6	283.6
145	18.08	317.7	89.6	540.5	218.4	167.4	224.1	271.1	1084.5	284.3
146	17.99	318.1	89.1	545	218	166.5	223.7	271.8	1084.8	285
147	17.9	318.3	89.7	542.4	217.8	166.4	223.4	272.8	1085.3	284.5
148	17.81	319	89.6	537	217.5	166	224.8	273.3	1086.1	283.7
149	17.73	319.1	89.3	538.4	217.4	166.6	224.3	273.2	1088.2	284
150	17.64	319.3	89.5	537.6	217.4	166.8	224.7	274	1091.2	284.1

Conditioning dates 7/5/23 - 7/2/23

Medium Air Setting

Fuel Moisture ~22.4%

151	17.56	320	89.1	537.9	217	167.8	223.7	274.6	1093.9	284.2
152	17.47	320.3	89.6	544.4	216.7	167.6	224.3	275.3	1097.3	285.7
153	17.38	320	89.3	544.4	216.4	167.5	225.1	275.4	1101.1	285.8
154	17.29	320.9	89.4	543.9	216.3	168.3	225.9	276.2	1106	286.1
155	17.2	321.2	89.2	545.1	216	168	224.8	276.9	1111.7	286.2
156	17.1	323.2	89.7	553.9	215.8	168.3	225.4	277	1117.2	288.1
157	17	324.2	89.3	555.5	215.7	168.6	225.2	277.8	1124.1	288.6
158	16.91	325.9	89.2	557.3	215.5	168.1	226.6	278.5	1131.8	289.2
159	16.81	327.7	89.5	562	215.2	169.5	225.1	279.1	1140.5	290.2
160	16.71	328.4	89.6	566.7	215.1	168.7	226.2	279.6	1146.8	291.3
161	16.6	329.9	89.7	571.4	215	168.8	225.6	280.3	1151.6	292.2
162	16.49	332.5	89.5	575.4	214.7	169.2	227.2	281	1154.5	293.5
163	16.38	334	89.1	575.9	214.6	170.4	225.7	281.1	1155.5	293.5
164	16.27	335.5	88.6	586.5	214.3	170	226.3	281.3	1155.1	295.6
165	16.15	337.2	88.9	585.6	214.1	170.5	228.5	282.4	1153.7	296.2
166	16.05	339.5	88.7	590.2	213.9	170.8	228.1	282.6	1152.8	297.1
167	15.93	339.2	88.2	596.6	213.8	171.5	229.2	283.3	1151.6	298.9
168	15.82	339.8	88.6	595.6	213.7	171.7	229.1	284.3	1151.6	298.9
169	15.69	340.9	88.9	596.2	213.5	172.6	229.6	284.3	1151.7	299.2
170	15.57	341.8	88.4	602.1	213.3	171.1	230.2	285.2	1152.1	300.4
171	15.46	341.4	88.9	606.2	213.1	173.1	232.1	286.1	1151.8	302.1
172	15.35	343.2	88.7	607.4	213.2	172.8	231.9	286.3	1152.1	302.3
173	15.23	342.4	88.6	608.6	213	173.8	232.4	287.3	1152.2	303
174	15.11	343.6	88.8	616.6	213	174.7	232.5	287.4	1152.3	304.8
175	14.99	344.7	88.9	607.2	213	174.6	232.7	288.4	1152.1	303.2
176	14.87	345.4	88.2	616.4	212.5	173.9	233.7	289.6	1152.2	305.2
177	14.75	345.6	88.7	610.4	212.5	175.2	235.1	290.1	1152.3	304.7
178	14.63	346.3	88.6	619.2	212.5	176.3	235.2	290.9	1152.4	306.8
179	14.5	345.3	88.2	613.1	212.5	175.4	235.5	290.9	1152.4	305.5
180	14.38	345.5	88.9	618.3	212.5	177	236.8	291.7	1152.2	307.3
181	14.25	346.8	88.6	618.7	212.3	177.4	238.5	292.5	1153.2	307.9
182	14.13	346.1	88.4	622.1	212.2	178.6	238.2	293.4	1154	308.9
183	14.02	347	88.9	619.6	212.3	178.1	237.4	293.8	1154.4	308.2
184	13.9	347.1	88.7	617.7	212.2	178.6	239.2	294.7	1155.2	308.5
185	13.78	346.8	89.1	619.9	212.1	177.7	239.4	295.4	1155.8	308.9
186	13.66	346.9	88.9	622.9	212.2	179	240	296.4	1157	310.1
187	13.53	348	88.5	623.3	212.1	180.8	240.6	296.8	1157.6	310.7
188	13.4	347.9	88.9	618.1	212.1	180.1	241.9	297.7	1157.7	310

Conditioning dates 7/5/23 - 7/2/23

Medium Air Setting

Fuel Moisture ~22.4%

189	13.29	349.2	88.7	618.9	212.3	181.4	242.3	298.3	1157.7	310.6
190	13.16	348.5	88.6	624.2	212.2	181.9	243.3	299.5	1157.3	312.2
191	13.03	349.2	88.8	614.9	212.3	182.1	244.2	300.1	1156.9	310.7
192	12.92	349	88.4	616.3	212.2	182	243.6	300.5	1156.1	310.9
193	12.79	349.8	88.6	620.7	212.3	183.2	245.7	301.4	1155.4	312.7
194	12.67	350.4	88.5	626.7	212.4	184.4	244.9	302.1	1155.7	314.1
195	12.54	349.8	88.6	621.9	212.4	183.8	245.8	302.8	1156.5	313.3
196	12.41	350.5	88.7	624.4	212.5	184.6	247.7	303.6	1155.8	314.6
197	12.29	350.4	88.6	609.7	212.7	185.7	247.5	304.3	1155.5	312
198	12.16	350.4	88.5	624.6	212.6	185.7	248.6	305.3	1155.2	315.3
199	12.04	351	88.5	625	212.8	184.7	248.3	305.8	1155.1	315.3
200	11.91	351.1	88.7	628.4	212.9	186.2	248.5	306.9	1154.9	316.6
201	11.78	351	88.6	616.8	213	186.9	249.8	307.4	1154.6	314.8
202	11.65	353.1	88.9	615.7	213.2	188	250.4	308.2	1154.4	315.1
203	11.52	353	89.2	620.7	213.2	188	252	309.5	1153.3	316.7
204	11.39	353.2	89.2	625.5	213.3	188.9	250.9	310.2	1151.7	317.8
205	11.26	351.3	89.1	619.9	213.3	188.5	251.4	311.3	1150	316.9
206	11.13	352.1	89	610.8	213.4	190.4	252.6	311.4	1149	315.7
207	11.01	351.4	89	622.3	213.7	190.9	253.3	312.1	1147.5	318.5
208	10.89	351.4	89	615.4	213.7	189.8	252	313.3	1144.7	316.8
209	10.77	350.2	88.8	614	213.8	190.5	253.2	314.5	1142	317.2
210	10.65	349.1	88.9	609.5	214	192.8	253.3	316.1	1139.7	317.1
211	10.55	347.9	88.7	608.3	214.1	192.9	254.6	315.8	1138.4	317.1
212	10.43	346.4	88.9	604.3	214.4	193	255.6	316.6	1138	316.8
213	10.32	345.5	88.9	608.3	214.4	194.6	256.3	317.6	1138.3	318.2
214	10.21	345.5	88.7	612	214.5	195	254.9	318.3	1138.3	318.9
215	10.1	344.7	88.9	614.2	214.5	196.6	257.1	319.2	1138.1	320.3
216	9.99	345.1	88.6	619	214.8	195.6	256.6	319.9	1135	321.2
217	9.9	342.6	89	613.2	214.9	195.5	257.8	320.5	1133.1	320.4
218	9.8	341.3	89.4	608.5	215	198.1	258.6	321.5	1123.2	320.4
219	9.7	339.3	89.5	609.2	215.5	197.1	258.8	323.2	1109.9	320.8
220	9.6	338.3	89.4	606.6	215.5	199.1	260	324.6	1100.3	321.2
221	9.5	335.5	89.6	607.1	215.7	198.7	258.8	325.2	1094.5	321.1
222	9.4	334	89.7	612.1	215.8	199.9	259.8	326.7	1091.5	322.9
223	9.31	334.4	89.6	603.5	216.3	199.8	260.9	328.6	1091.4	321.8
224	9.22	334.2	89.5	597.9	216.4	200.2	260.3	329.7	1088.9	320.9
225	9.13	334.7	89.3	601.3	216.4	203.3	260.3	330.4	1087.2	322.3
226	9.03	334.5	89.1	605.1	216.6	201.3	261.9	331.3	1087.8	323.2

Conditioning dates 7/5/23 - 7/2/23

Medium Air Setting

Fuel Moisture ~22.4%

227	8.92	334.8	88.9	608.7	216.6	201	261.1	332.5	1090.3	324
228	8.82	334.7	88.9	603.6	217.3	201.8	262.2	333	1091.9	323.6
229	8.73	334	89.4	604.5	217.3	203	261.5	332.9	1091.7	323.8
230	8.64	333.4	89.3	609.9	217.2	203.6	262.5	333.4	1090.7	325.3
231	8.56	331.5	88.7	604.1	217.6	204.7	261.9	333.2	1088.6	324.3
232	8.46	328.6	89.2	613.4	217.9	204	263.7	334	1086.2	326.6
233	8.37	329.1	89.4	603.1	218	204.6	263.6	334.4	1083.8	324.8
234	8.29	329.6	89.5	602.4	218.2	206.4	264	333.8	1082	324.9
235	8.21	329.1	89.1	602.6	218.5	206.1	264.2	334.3	1080.2	325.1
236	8.12	327.8	89.6	601	218.3	205.2	264.2	334.1	1078.7	324.6
237	8.04	327.9	89.1	607.7	219.1	203.7	264	333.7	1076.8	325.6
238	7.96	326.6	89	606.6	218.7	206.5	264.5	334.3	1074.5	326.2
239	7.89	326.2	89	601.9	219	206	264.9	334.3	1072.7	325.2
240	7.8	325.8	88.9	603.8	219.1	207.7	266.3	334.6	1071.8	326.3
241	7.71	324.4	88.6	613.3	219.6	207.7	265.4	334.8	1070.4	328.2
242	7.65	323.9	88.7	603.7	219.8	210.1	266.8	335.1	1069.2	327.1
243	7.57	323	88.9	603.1	219.8	208.9	266.7	335.8	1068.3	326.9
244	7.49	321.8	89.1	601.6	220.1	208.5	267.9	335.6	1067.3	326.7
245	7.41	320.9	89.5	606	220.5	206.7	266	336.3	1066.5	327.1
246	7.34	320.1	89.2	604.7	220.3	210.4	266.3	336.5	1066.3	327.6
247	7.27	320.3	89	601.6	221	209.2	268.1	336.6	1065.6	327.3
248	7.19	319.9	89	608	221	210.5	268.6	336.7	1065.3	329
249	7.12	320.2	89.3	604.9	221.2	210.8	268.5	338.1	1063.9	328.7
250	7.04	318.1	89.5	602.5	221.4	209.3	268.9	338.3	1062.2	328.1
251	6.99	316.7	89.4	602.1	221.8	211.1	269.7	337.9	1060.1	328.5
252	6.91	316.2	89.3	597.7	221.7	211.8	268.5	339.4	1057.1	327.8
253	6.85	316	89.5	602.5	222.1	211.3	269.4	339.5	1053.4	329
254	6.8	313.3	89.6	598.6	222.5	212.9	271.9	340.3	1050.1	329.2
255	6.75	311.9	89.4	598.1	222.3	211.7	269.2	340	1049	328.3
256	6.7	309.3	89.5	598.1	222.7	213.5	270.8	340.6	1046.7	329.1
257	6.64	309.4	89.3	597	223.2	211.9	269.2	340.4	1045.1	328.3
258	6.6	308.4	89.1	591.3	223.2	212.8	271.7	340.5	1042.1	327.9
259	6.54	307.3	89.3	586.7	223.5	213.1	271.6	340.6	1038.8	327.1
260	6.5	307.2	89.5	580.7	223.7	212.8	271.6	340.8	1035.1	325.9
261	6.44	305.7	89.1	587.4	223.9	213.7	272.2	340.2	1031.2	327.5
262	6.4	304.7	89.5	584.9	224.1	211.7	271.1	340.6	1027.3	326.5
263	6.35	304.3	89.2	575	224.4	215	272.5	340.6	1024.1	325.5
264	6.31	303.3	89.4	580	224.6	216.8	271.5	340.6	1021	326.7

Conditioning dates 7/5/23 - 7/2/23

Medium Air Setting

Fuel Moisture ~22.4%

265	6.25	303.4	89.5	572.9	225	212.8	272.1	341.2	1018	324.8
266	6.21	301.8	89.4	574.4	225.1	215.1	272.2	339.9	1015.5	325.4
267	6.14	302.4	89.6	569.4	225.8	216.9	272.2	339.9	1013.4	324.8
268	6.09	302.5	89.5	573.7	226	213.8	272.8	339.6	1017.8	325.2
269	6.04	302.8	89.4	567.5	226	215.1	273.2	339	1025.2	324.1
270	5.99	301.7	89.6	564.4	226.4	214.4	274.2	339.4	1027.3	323.8
271	5.94	301.5	89.2	553.1	226.6	215.4	274	338.7	1023.7	321.6
272	5.88	300.3	89.3	546.1	226.6	214.5	275.2	339	1015.7	320.3
273	5.85	300.4	89.5	545.3	227.4	215.8	276.2	338.2	1005.7	320.6
274	5.8	298.2	89.6	544.8	227.2	214.9	275.4	338.1	994.6	320.1
275	5.76	297.9	89.4	536.7	227.4	214.4	277.5	337.9	983.8	318.8
276	5.72	297	89.7	538.3	227.8	216.5	275.6	337.5	973.7	319.1
277	5.69	294.4	89.5	533.9	228.2	213.7	275.2	336.5	964.7	317.5
278	5.64	291.8	89.3	531.1	228.1	215.5	276.1	336.4	957.1	317.4
279	5.59	291.1	89.2	519.3	228.5	217.6	276.4	336.3	950	315.6
280	5.58	289.4	89.6	515.2	229	213.6	276.4	335.8	943.8	314
281	5.52	288.1	89.4	512.6	229.5	214.6	275.7	335	937.8	313.5
282	5.48	287.2	89.5	507.3	229.7	214.6	275.2	334.9	931.9	312.3
283	5.46	285.4	89.8	508.4	229.7	214.9	274	334.6	925.3	312.3
284	5.44	284.8	89.9	502	230	212.6	274.2	333.8	919	310.5
285	5.39	282.8	89.6	500.9	230.3	213	273.3	333.5	913.2	310.2
286	5.37	281.3	89.7	494.4	230.4	213.6	272.5	333.5	908	308.9
287	5.32	281.2	89.6	490.1	231.2	213.2	271.8	333.4	902.5	308
288	5.31	280	89.9	486.3	231.3	215.4	271.6	333.8	895.7	307.7
289	5.27	278.6	89.8	483.5	231.6	214.8	272.9	333.4	888	307.2
290	5.25	277.7	89.87	482.1	232	213.9	271.5	334.2	878.1	306.7
291	5.22	275.8	89.6	476.4	232.3	214	271.9	334.3	867.3	305.8
292	5.2	273.1	89.7	466	232.5	214.2	270	334.3	856.8	303.4
293	5.17	271.4	89.8	473.8	232.9	213.4	270	334.9	846.8	305
294	5.15	269.5	89.9	458.4	233.2	213.4	268.5	336.2	837.6	301.9
295	5.13	267.3	89.8	456.1	233.5	214.1	269.7	335.1	829.6	301.7
296	5.1	266.1	89.6	457.1	233.9	212.6	267.2	335.4	822.5	301.2
297	5.07	264.2	89.8	448.4	234.2	211.7	268.1	335.7	816.3	299.6
298	5.05	261.5	89.6	448.5	234.3	213.9	266.9	335.5	811.4	299.8
299	5.03	260.5	89.7	444	234.7	212.2	264.7	335.6	807.4	298.2
300	5.02	259.1	89.7	438.3	235	211.6	265.2	335.1	805.1	297
301	5	258.2	89.8	438.5	235.2	209.7	265.2	334.9	804.3	296.7
302	4.97	257.9	89.6	437.7	235.3	211.3	264.5	334.7	804.4	296.7

Conditioning dates 7/5/23 - 7/2/23

Medium Air Setting

Fuel Moisture ~22.4%

303	4.96	256.5	89.7	434.6	235.8	211.5	262.8	334.5	804.9	295.8
304	4.93	255.5	89.7	433	236.2	211.5	262.4	334.7	805.2	295.5
305	4.91	254.4	89.7	424.9	236.5	209.2	261.9	333.9	805.3	293.3
306	4.89	252.9	88.9	425	236.4	210.6	262.3	334.3	804.6	293.7
307	4.87	253.3	89.6	421.3	236.8	209.9	260.5	333.7	803.7	292.4
308	4.85	251.7	89.6	423.1	237	208.3	260.9	333.4	802.3	292.6
309	4.83	252	89.6	421.5	237.5	210.3	259.5	333.6	800.7	292.5
310	4.81	250.6	89.2	420.3	237.8	207.6	259	333	798.7	291.6
311	4.79	250.3	89.4	423.5	238	208.6	256.6	333.7	796.9	292.1
312	4.76	249.7	89.1	419.8	238.3	206.6	256.2	333.2	794.8	290.8
313	4.74	249.2	89.3	421.7	238.6	207	255.6	333	792.6	291.2
314	4.73	247.8	89.4	413.2	238.8	206.7	255.6	333	790.4	289.5
315	4.71	248.3	89	416.2	239	205.9	255.3	332.8	787.9	289.9
316	4.69	248	89.4	413.4	239.4	205.9	253.9	333	785.3	289.1
317	4.66	247.2	89.4	414.8	239.4	205.4	254.2	333.3	782.6	289.4
318	4.64	246.4	89.4	411.5	239.8	204	253.8	333.5	780.2	288.5
319	4.64	245.7	89.1	413	240	204.6	253	332.8	777.8	288.7
320	4.62	244.1	88.7	405	240.3	204.2	251.7	333	775.2	286.8
321	4.59	243.6	88.9	405.7	240.5	204.1	251.5	332.3	773.5	286.8
322	4.56	243.2	88.9	406.5	240.7	203.7	251.6	332.7	771.9	287.1
323	4.54	241.5	88.9	405.2	240.9	204	249.8	332.7	770.8	286.5
324	4.53	241.8	88.9	405.4	241.1	204.6	250	332.7	769.8	286.8
325	4.52	241.5	89	403.7	241.5	204	248.6	332.4	769.3	286
326	4.49	241.3	88.3	402.5	241.9	203.2	248.3	331.9	768.9	285.5
327	4.46	241.4	88.6	401.2	242	202.8	248	331.8	768.5	285.2
328	4.46	240.3	88.7	397	241.8	202.4	248.8	331.7	768.2	284.3
329	4.41	240.2	88.6	400.9	242	203.4	247.6	332.6	768	285.3
330	4.4	240.1	88.7	400.4	242.3	202	248.1	331.7	768.1	284.9
331	4.38	240.5	88.6	399.6	242.4	201.8	247.3	332	768	284.6
332	4.36	239.8	88.6	402.5	242.5	201.4	247.1	331.6	768.3	285
333	4.34	238.5	88.4	400.2	242.7	201.2	245.4	330.9	768.7	284.1
334	4.33	238.8	88.2	396.6	242.9	202.2	246.4	331.5	768.5	283.9
335	4.29	239.1	88.6	395.2	243.1	201.4	246.5	331	768.6	283.5
336	4.28	237.2	88.1	397.4	243.3	201.5	244.8	331.7	768.6	283.8
337	4.26	237.2	88.4	399.3	243.1	200.7	245	331.3	768.3	283.9
338	4.24	237.2	88.5	398.6	243.3	199.5	244.7	331.9	768.1	283.6
339	4.22	236.6	87.9	397.5	243.4	201.4	243.5	331.1	767.7	283.4
340	4.2	236.7	88.1	393.3	243.6	201.5	242.9	331.1	767	282.5

Conditioning dates 7/5/23 - 7/2/23

Medium Air Setting

Fuel Moisture ~22.4%

341	4.18	237.6	88.7	395.5	243.6	198.9	244.3	331.6	766.5	282.8
342	4.17	237.2	88.5	396.6	243.6	201.3	243.5	331.5	766.2	283.3
343	4.14	235.9	88.4	395.6	243.8	198.6	242.5	331.3	765.4	282.4
344	4.13	235.6	88.1	396.7	243.8	198.1	241.8	331.2	764.8	282.3
345	4.11	235.6	88.5	394.3	243.9	198.4	240.2	331.4	763.6	281.7
346	4.09	235.7	87.8	395.1	243.9	198.7	241.9	331.2	762.8	282.2
347	4.07	234.1	88.2	394.4	244	199.5	241.9	330.9	762	282.1
348	4.05	233.3	88.5	393.6	244	200	241.1	331.4	760.9	282
349	4.04	234.5	87.7	393.8	244.1	198.4	240.9	331.1	760.4	281.7
350	3.98	233.6	88.8	391.8	244	200	241	331.5	760.5	281.7
351	4	233.9	88.2	389.9	244.1	198.2	240.5	331.6	761.3	280.8
352	3.97	234	88.4	389.1	244	197.2	240.9	331.3	762.5	280.5
353	3.94	234.7	88.1	391.7	244.1	198.7	239.6	331.5	764.2	281.1
354	3.93	234.3	87.9	391.7	244.4	196.7	240	331.2	766	280.8
355	3.91	234	87.7	393.7	244.4	198.1	240	331.5	768	281.5
356	3.89	233.9	88.4	392.7	244.4	196.8	239.1	331	769.3	280.8
357	3.86	235.2	88.4	393	244.6	196.1	237.8	331.3	770.5	280.6
358	3.87	234.8	87.7	389.5	244.5	196.2	237.9	331.6	771.7	279.9
359	3.83	234.8	87.7	391.3	244.5	196	238.3	331.3	772.7	280.3
360	3.81	234.7	87.8	391.8	244.6	195.5	236.7	331.8	773.6	280.1
361	3.78	234.2	87.9	394	244.7	195.4	236.8	332.6	774.1	280.7
362	3.77	233.6	88	391.9	244.8	195.8	236.9	332.2	774.2	280.3
363	3.75	234.1	87.6	393.8	244.7	194.9	235.8	331.9	774.5	280.2
364	3.73	234	88	394.2	244.7	194.3	237.1	332.4	774.3	280.5
365	3.71	234	87.6	392.9	244.8	194	236.6	332.9	774.5	280.2
366	3.68	234.4	87.7	392.6	244.8	194.5	235.7	332.4	774.7	280
367	3.67	233.2	87.8	393.4	244.8	194.8	235.5	333.3	774.5	280.3
368	3.64	232.8	87.7	392.3	244.9	194	236.1	333.5	774.2	280.2
369	3.63	233.2	88.1	393.7	244.7	195.4	235.9	333.2	774	280.6
370	3.61	233.2	87.4	392.1	244.8	194.8	235	333.6	774.1	280.1
371	3.58	233.1	87.6	396.8	244.7	194.6	234.9	333.5	773.6	280.9
372	3.56	234.3	87.7	391.8	244.9	195.2	235.5	334.1	773.9	280.3
373	3.55	233.7	86.8	393.4	244.9	193.5	234.4	334.5	774	280.1
374	3.52	233.3	87.6	393.8	244.9	195.3	234.9	334.1	774.1	280.6
375	3.5	233.6	87.1	389.5	244.9	193.8	234.5	334.1	774.1	279.4
376	3.48	233.3	87.1	392.4	245	194.1	235.2	335.2	774.1	280.4
377	3.46	233.3	87.6	394	245.1	194.4	233.8	334.8	774.2	280.4
378	3.43	233.6	87.1	391.7	244.9	192.8	234	335.6	774.7	279.8

Conditioning dates 7/5/23 - 7/2/23

Medium Air Setting

Fuel Moisture ~22.4%

379	3.41	234.1	87.7	392.7	245	194.6	234.6	335.5	774.6	280.5
380	3.4	234.3	87.8	393.5	245	193.7	233.7	336.3	774.6	280.5
381	3.39	235.3	87.5	391.8	245.2	194.1	233.1	335.6	774.6	280
382	3.37	235.3	86.7	393.1	245	193.5	233.2	335.9	775	280.1
383	3.34	235.8	86.6	390.6	245	193.4	233.9	336.7	774.5	279.9
384	3.33	235.6	87	389.2	245.2	194.5	234	336.7	774.9	279.9
385	3.29	235	87	390.7	245.3	193.8	233.5	337.3	775.2	280.1
386	3.28	234.8	87	390.6	245.2	195.8	233.1	337.1	774.9	280.4
387	3.26	235.1	87.1	389.2	245	193.6	233.2	338.4	775	279.9
388	3.23	234.6	87	387.5	245.2	193.2	233.7	337.7	775.1	279.5
389	3.22	235.6	86.9	388.3	245.3	193.1	232.4	338.5	775.5	279.5
390	3.2	235.1	86.9	387.3	245.2	194.2	231.6	338.9	776	279.4
391	3.17	234.5	87	390.7	245.2	193.9	233.5	338.8	776.9	280.4
392	3.15	234.6	86.3	392.8	245.3	193.8	231.9	338.8	777.7	280.5
393	3.13	235.1	86.6	390	245.1	193.4	233.5	338.3	777.6	280.1
394	3.1	235.4	86.6	391.9	245.2	193.4	233	339.1	777	280.5
395	3.08	234.5	85.8	390.8	245.4	194.3	232.4	339.2	774.7	280.4
396	3.06	235.3	85.8	393.1	245.3	194.3	233.5	339.8	770.1	281.2
397	3.04	235.1	86	389.1	245.2	195.1	232.2	340.4	763.7	280.4
398	3.01	234	86.2	389.6	245.4	194.6	232.8	340.6	756.8	280.6
399	2.99	234	86	385.4	245.3	195.5	232.2	341.3	750.1	280
400	2.97	232.9	86.8	383.7	245.2	196.4	232	341.1	743.9	279.7
401	2.96	233.5	86.1	383.6	245.4	195	232	341.9	737.9	279.6
402	2.94	232.8	85.7	381.6	245.6	197.4	233.4	342.3	733.2	280.1
403	2.92	232	86.4	380.1	245.6	196.8	232.8	342.8	729.1	279.6
404	2.88	231	86.4	381	245.6	197.2	233	342.9	725.7	279.9
405	2.87	231.5	86.3	377.1	245.7	196.6	232.9	343.9	723.4	279.3
406	2.84	231.4	86.2	376.5	245.6	198.8	232.8	344.5	721.2	279.6
407	2.83	231.2	86.8	375.8	245.9	199.5	232.9	345	719.4	279.8
408	2.8	231.4	86.5	373.6	246	200.1	232.7	345.1	717.9	279.5
409	2.78	230.6	86.3	372.6	245.8	199.5	233.1	345.3	716.6	279.3
410	2.75	230.3	85.3	373.1	246	199.6	233.9	346.5	716.4	279.8
411	2.72	230.9	85.7	372.3	246.1	199.9	231.9	347.4	715.7	279.5
412	2.71	229.7	86	371.6	246.1	200.2	233.3	346.6	715.5	279.6
413	2.67	228.6	85.8	369.8	246.1	199.7	233.8	347.9	715.6	279.5
414	2.66	229.6	85.6	370.9	246.2	202.8	233.3	347.4	715.5	280.1
415	2.63	229.7	85.2	367.9	246.3	202.2	234.3	348.1	715.2	279.8
416	2.61	229.9	85.8	369.5	246.5	202.8	232.2	348.4	715	279.9

Conditioning dates 7/5/23 - 7/2/23

Medium Air Setting

Fuel Moisture ~22.4%

417	2.59	229.8	86	364.7	246.6	203.2	233.4	348.4	714.2	279.3
418	2.56	229.5	86.3	366	246.8	203.3	233.8	348.1	713.6	279.6
419	2.54	229.9	85.4	367.1	246.9	203.6	232.3	348.4	713.4	279.6
420	2.52	230.3	86.2	365.9	247	202.2	234.2	349.1	713.5	279.7
421	2.5	230	86.3	363.6	246.9	205.4	234.1	349.1	713	279.8
422	2.48	229.4	86.3	360.6	247.2	203.7	234.7	348.9	713.1	279
423	2.46	228.9	86.1	365	247.4	203.9	233.4	348.9	712.6	279.7
424	2.44	228.7	86.3	358.8	247.3	204.3	233.7	348.5	713.2	278.5
425	2.42	228.1	86.5	352.5	247.2	201.7	233.2	348.9	714.5	276.7
426	2.4	228.6	86.3	354.5	247.6	204.3	233.7	348.6	716.3	277.7
427	2.38	228.2	86	347.1	247.7	204.6	233.9	348.1	718	276.3
428	2.36	229.4	86.4	356	247.9	204.3	233.8	348.1	719.8	278
429	2.33	228.9	86.3	359.1	247.7	205	233.6	347.2	721.2	278.5
430	2.31	229.7	85.9	353	247.9	205.7	234.4	346.8	722.9	277.6
431	2.29	229.1	85.9	360.7	248	205.5	234.5	345.5	723.8	278.8
432	2.29	229.3	86.2	353.3	248.1	204.8	234.1	346.3	724.8	277.3
433	2.25	229.6	86.3	359.1	248.2	207.1	234.4	345.7	725.6	278.9
434	2.22	229.9	85.8	360.7	248.3	205.9	234.1	344.5	726.3	278.7
435	2.2	230.3	86.4	358.7	248.6	205.9	235.8	344.9	726.9	278.8
436	2.19	230.3	86.2	359	248.6	204.4	234.8	344	727.9	278.2
437	2.16	229.8	86.1	364.2	248.8	205.7	233.9	343.6	728.3	279.3
438	2.14	230.1	86.1	361.3	249.1	205.2	235	343.4	728.7	278.8
439	2.13	229.8	86.1	362.1	249	205.5	234	342.8	728.9	278.7
440	2.11	230.1	85.9	352.3	249	204.8	234.4	342.4	729	276.6
441	2.1	229.9	85.8	356.2	249.4	205.6	233.7	342	729.4	277.4
442	2.06	230.2	85.4	359.4	249.1	204.3	234.3	342	729.3	277.8
443	2.04	230.3	86.1	361.5	249.5	204.4	234.4	341	729.1	278.2
444	2.03	230.9	85.9	357	249.5	205.4	233.8	341.2	728.8	277.4
445	2.01	231.3	85.6	362.8	249.8	206.6	236.1	340.6	728.7	279.2
446	1.99	229.3	85.8	356.2	249.7	206.6	234.2	339.9	728.8	277.3
447	1.97	229.8	86.1	359.3	249.5	206.4	233.7	340.4	729.2	277.9
448	1.94	229.6	85.9	358.6	249.7	203.3	233.9	339.8	729.4	277.1
449	1.93	230.3	85.9	354.6	249.8	205.4	234.5	339.9	730.2	276.9
450	1.91	230.8	85.9	358.8	249.8	205.9	233.9	339.2	731	277.5
451	1.89	231	85.9	357.4	250	205.3	234.2	339.7	731.6	277.3
452	1.86	231.2	86	360.1	250	205.2	233.7	339.3	732.7	277.7
453	1.85	231.1	86	353.9	250.2	203.5	233.7	338.4	733.5	275.9
454	1.82	231.5	85.9	354.1	250.3	203.3	232.5	338.7	734.1	275.8

Conditioning dates 7/5/23 - 7/2/23

Medium Air Setting

Fuel Moisture ~22.4%

455	1.81	231.2	85.4	359.1	250.1	205.6	233.2	338.1	734.5	277.2
456	1.78	230.9	85.5	357.9	250.3	204.3	233.5	338.4	735.5	276.9
457	1.76	230.6	85.3	363.4	250.5	203.6	232.5	338.6	736.6	277.7
458	1.73	230.2	85.6	358.2	250.5	207.4	233.2	338.1	737.6	277.5
459	1.72	230	86	364	250.4	205	234.2	337.8	738.1	278.3
460	1.71	231.1	85.5	361.2	250.6	203.4	232.8	337.9	739.4	277.2
461	1.67	230.4	85.4	362.4	250.5	205.4	232.5	337.1	740.2	277.6
462	1.66	231.1	84.9	362.5	250.7	205.6	234.2	337.4	741	278.1
463	1.63	231.2	85.6	361.2	250.7	206.1	233.3	337.2	741.8	277.7
464	1.62	231.9	85.4	358.5	250.6	204	232.2	338	741.9	276.7
465	1.59	232.1	85.3	364.2	250.6	205.6	232.8	337.1	741.5	278.1
466	1.57	232.1	85.7	355.7	250.8	205.3	232.9	337.4	741.4	276.4
467	1.56	231.5	85.7	359.6	250.6	204.4	231.5	337.6	741.1	276.8
468	1.53	231.2	85.2	363.6	250.5	204.8	231.7	337.7	740.6	277.7
469	1.51	230.9	85.4	361.9	250.6	205.8	231.2	337.8	740.4	277.4
470	1.48	231.9	85.8	365.8	251	206.5	232.4	337.3	739.9	278.6
471	1.47	232.4	85	365	250.8	205.4	233	336.8	739.1	278.2
472	1.45	232.3	85.5	359.6	250.6	203.6	230.9	337.1	737.9	276.4
473	1.42	231.8	85.2	363.4	250.7	205	231.1	337.4	736.2	277.5
474	1.41	231.9	85.6	360.3	250.8	205.7	232.6	336	734.2	277.1
475	1.38	231.4	85.1	360.1	250.8	204.6	231.5	337.2	731.3	276.8
476	1.39	230.9	85.2	352.4	250.8	204.5	230.9	336.7	727.8	275.1
477	1.35	230.8	85	363.5	250.8	205.7	232.5	336.6	723.7	277.8
478	1.32	230.5	85.4	361.5	250.8	204.9	231.3	336	718.8	276.9
479	1.29	230.4	85.1	361.8	250.9	203.8	230.7	336.2	714.3	276.7
480	1.28	230.8	85	360	250.8	204	230.8	335.9	709.4	276.3
481	1.25	229.7	85.1	359.2	250.8	205	231.9	335.8	704.8	276.5
482	1.24	229.2	85.3	357.5	250.8	203.6	229.8	335.4	700.9	275.5
483	1.22	228.8	84.6	355.7	251.1	204.1	230.4	336	697.3	275.5
484	1.21	228.1	85.1	348.5	250.9	203.2	229.7	336.5	693.4	273.8
485	1.18	228	85.3	350	251.1	202.3	228.8	336.2	690.2	273.7
486	1.16	227.1	85.2	352.9	251.3	202.4	230.4	336.3	687.6	274.7
487	1.13	226.3	85.2	351	251.5	203.1	231.5	336.2	684.7	274.7
488	1.12	225.7	84.6	344.7	251.5	202.6	231.7	335.9	682.9	273.3
489	1.11	225.7	84.9	345.1	251.6	200.8	230.4	336.9	681.3	273
490	1.08	224.2	84.6	346.8	251.8	203.5	230.2	336.8	680.3	273.8
491	1.06	225.1	84.7	344	252.2	201.1	229.7	337.3	679.7	272.9
492	1.04	225.1	84.6	335.3	252.3	200.9	229.4	337.2	680	271

Conditioning dates 7/5/23 - 7/2/23

Medium Air Setting

Fuel Moisture ~22.4%

493	1.02	224.9	84.5	344.3	252.5	202.3	230.7	335.7	680.3	273.1
494	0.99	224.9	85.2	342	252.5	200.8	231.1	336.2	681.1	272.5
495	0.97	224.7	84.9	343.4	252.8	200.4	230.3	335.2	681.4	272.4
496	0.95	224.6	84.5	340.8	252.9	201.9	229.2	335.3	681.6	272
497	0.93	224.6	84.8	339.9	253.1	200.2	229.6	334.3	681.9	271.4
498	0.91	224.4	84.6	333.5	253.2	200.4	230.8	334.3	681.4	270.4
499	0.9	223.3	84.6	341.4	253.6	199.7	230	333.5	681	271.7
500	0.88	223.6	84.6	335	253.9	200.2	231.2	333.7	680.8	270.8
501	0.85	223.3	84.7	339.4	254.4	199.8	229.8	332.6	679.9	271.2
502	0.83	222.6	84.1	337.8	254.5	200.4	229	332.3	679.5	270.8
503	0.82	222.7	84.7	332.6	254.4	199.3	230.7	331.6	678.8	269.7
504	0.8	222	84.4	336.2	255	200.6	229.4	331.8	678.7	270.6
505	0.79	222.5	84.8	334.6	255.1	199	229.5	330.5	678.6	269.7
506	0.77	221.5	85	337	255.4	198.7	228.8	330.8	678.5	270.1
507	0.73	221.9	84.5	335.3	255.6	199.1	229.6	329.5	678.4	269.8
508	0.72	221.8	84.5	332	256.1	199.9	229.2	329.5	678.3	269.3
509	0.71	221.3	84.1	335	256.3	200.2	229.8	329.2	678.3	270.1
510	0.68	221.5	84	338.1	256.4	198.7	228.8	328.8	678.4	270.2
511	0.65	221.2	84.2	338.2	256.7	199.2	228	328.9	678.5	270.2
512	0.63	221.4	84	338.6	257	199.1	229.1	328.8	678.7	270.5
513	0.64	221.6	84.5	330.9	257.2	200.6	228	326.9	678.6	268.7
514	0.61	221.3	84.2	334.7	257.6	198.3	229.2	327.1	678.9	269.4
515	0.58	221.1	83.6	334.5	257.6	197.1	228.7	327.4	678.8	269
516	0.57	221	83.9	337.1	258	199.5	229.5	326.7	679.1	270.1
517	0.55	220.1	83.9	336	258.7	199.8	228.8	325.5	679.1	269.7
518	0.53	220.7	84.4	330.2	258.5	198.5	229.9	325.1	679.4	268.4
519	0.52	220.3	84.2	335.9	258.8	197.9	227.8	325.3	679.2	269.1
520	0.5	220.5	83.8	330.6	259.1	196.2	229.3	325.5	679.3	268.1
521	0.49	220.5	84.5	331.5	259.5	198	227.9	324.5	679.5	268.3
522	0.45	220.2	83.9	335	259.4	197.6	228.9	324.1	679.4	269
523	0.45	220.5	84.4	329.6	259.5	197.1	228.9	324.5	679.6	267.9
524	0.42	220	84	335.3	260.2	197.4	229	323.8	679.8	269.1
525	0.41	220.8	83.9	327.6	260.3	195.4	229.3	323.3	679.6	267.2
526	0.38	220.5	83.4	335.7	260.2	197.5	228.3	323.2	679.9	269
527	0.36	219.7	84.2	331.7	260.6	195.5	228.3	322.8	680	267.8
528	0.34	219.7	84.3	336.9	260.7	197.8	229	321.9	680.7	269.3
529	0.33	219.3	83.9	334.3	261	196.6	227.8	321.6	681.2	268.3
530	0.31	219.5	84.1	331.8	261.4	194.6	228.3	321.9	681.7	267.6

Conditioning dates 7/5/23 - 7/2/23

Medium Air Setting

Fuel Moisture ~22.4%

531	0.29	218.8	83.7	330.2	261.2	196.4	228.8	321.1	682.1	267.5
532	0.27	218.5	83.8	329.1	261.4	196.6	227.6	320.9	682.4	267.1
533	0.26	219.4	83.9	327.6	261.8	196.7	227.4	320.5	682.4	266.8
534	0.24	219.7	83.5	333.9	261.8	197.3	228.7	320.9	683.1	268.5
535	0.2	219.6	83.9	331.2	262.2	197	227.3	319.6	683.5	267.5
536	0.2	219.4	84.2	332.2	262.2	195.5	228.7	320.1	684.1	267.8
537	0.16	218.1	83.5	333.9	262.4	195.5	228.3	319.2	684.2	267.9
538	0.15	218.8	83.9	335.7	262.6	195.6	227.7	319.3	684.8	268.2
539	0.14	218.1	83.8	330.2	262.8	194.3	228.2	319.3	685.5	267
540	0.13	217.8	84.1	334.4	262.6	193.7	227.7	319.3	685.5	267.5
541	0.1	217	83.9	329.1	262.9	196.1	226.7	318.9	685.5	266.7
542	0.08	218	83.4	335	263.2	195	226.8	318.5	685.5	267.7
543	0	219	83.8	335.3	263.3	194.4	228.6	318.8	685.1	268.1

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

Elapsed Time (min)	Scale Weight (lbs)	Flue (F)	Ambient (F)	FB Top (F)	FB Bottom (F)	FB Back (F)	FB Left (F)	FB Right (F)	Catalyst (F)	Avg. Surface Temp (F)
0	29.57	357.1	86.9	470.3	229.4	218.4	258.2	310	819.6	297.3
1	29.57	394.6	86.8	464.1	229.9	220.9	256.3	309	735	296.1
2	29.43	362.8	86.8	457.8	229.6	222.8	254.3	307.8	732.8	294.5
3	29.29	357.9	86.7	447.6	229.6	224	254.1	307.5	761	292.6
4	29.15	362.4	86.9	442.2	229.9	225	252.3	305.4	808.8	291
5	28.98	374.4	86.9	438.2	230.4	226.6	251.1	304.1	866.5	290.1
6	28.88	341.5	86.5	441.1	232.8	226.9	249	303.1	870.4	290.6
7	28.81	321.4	86.9	439.5	233.5	226.6	248	301.9	874.6	289.9
8	28.74	309.5	86.5	439	234	227.9	245.8	300	880.2	289.3
9	28.68	301.8	86.8	439.9	234.5	226.6	245.5	298.2	879.5	288.9
10	28.61	295.3	86.8	437.9	234.6	226.1	242.9	296.3	872.7	287.6
11	28.54	291.7	86.8	438	235.3	224.9	241.7	295.2	864.7	287
12	28.47	289	86.8	437.5	235.7	224.7	239.4	293.4	859	286.1
13	28.38	286.8	86.7	434.1	236.2	224.7	239.2	290.8	854.8	285
14	28.31	285.2	86.7	432.5	237	225	236.9	289.3	852.2	284.1
15	28.21	285	86.6	430.4	237.4	222.2	235.2	287.4	853	282.5
16	28.13	285.3	86.7	430.1	237.2	221.5	236.7	286.1	859.4	282.3
17	28.03	285.6	86.7	427.5	237.5	219.9	231	284.9	869.8	280.2
18	27.94	286.1	86.6	423	238.2	219.7	231	283.2	883.4	279
19	27.84	286.6	86.5	428.6	238.6	219.1	230.5	281.8	896.6	279.7
20	27.75	287.8	87.1	430	238.2	217.8	229.9	281.5	907	279.5
21	27.66	287.7	86.8	430.8	238.5	217.9	230.1	279	914.4	279.3
22	27.57	287.7	86.9	435.6	238.5	216.2	228.1	278.1	918.5	279.3
23	27.49	288.6	87.1	431.9	238.7	216.8	228.2	277	920	278.5
24	27.4	289.2	86.8	433.6	239.2	215.1	227.3	275.7	919.7	278.2
25	27.32	288.4	87	434.5	239	215.4	226.7	274.3	918.4	278
26	27.23	289.1	86.9	433.6	239.1	212.9	224.5	273.1	916.1	276.6
27	27.15	287.8	87	434.2	239.3	214	223.2	271.8	913.3	276.5
28	27.07	286.9	86.9	436.1	239	212.6	225	271.1	910.9	276.8
29	26.99	286.2	86.6	434.1	238.9	212.4	224	270.2	909.1	275.9
30	26.9	285.2	86.7	436.7	239	210.7	223.4	268.8	906.9	275.7
31	26.81	284.3	86.9	442.6	238.9	198	221.8	268	904.6	273.8
32	26.74	282.2	87.1	446.4	238.9	193	221	267.2	902.4	273.3
33	26.66	280.9	87	444.6	238.8	187.6	220.7	266	900.4	271.5
34	26.56	280.3	86.8	444.3	238.6	185.2	220.3	264.9	899.2	270.7

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

35	26.48	279.9	86.7	439.5	238.7	183.7	219	263.8	899.3	268.9
36	26.43	279.3	86.8	442.5	238.5	180.5	219	262.9	900.3	268.7
37	26.34	277.7	87.1	442.9	238.4	177.6	220.2	261.6	902.6	268.1
38	26.25	277.3	87.2	440.5	238	176	218.2	261	904.8	266.7
39	26.18	276.7	87.1	444.5	237.7	174.2	218.3	260.2	906.9	267
40	26.09	276.6	87.1	433.7	237.7	172.3	216.4	259.2	910.4	263.9
41	26	275.9	86.9	443.1	237.2	171.7	217.5	258.4	914	265.6
42	25.93	275.9	86.8	442.9	236.9	170.6	214.9	257.7	918.5	264.6
43	25.86	275.1	87	442.4	236.5	168.8	214.3	256.9	922.8	263.8
44	25.77	274.6	87.2	440.6	236.4	169.4	214.6	255.9	925.8	263.4
45	25.68	274.9	87.3	441.5	235.5	167.6	215.7	256.2	925.9	263.3
46	25.61	273.6	87.1	438.8	235.7	167.1	214.5	254.5	924.2	262.1
47	25.54	273.9	87.4	445.9	235.1	166	214.8	254	921.7	263.2
48	25.46	273.2	87.2	445.9	234.7	165.2	214.4	253.4	919.2	262.7
49	25.38	273.1	87.6	439.2	234.5	165.5	214.7	253.3	917.6	261.4
50	25.3	272.5	87.3	443.8	234.2	163.6	214	252.6	916.5	261.6
51	25.23	272.4	87.3	441.2	234	164.3	212.7	251.6	916.1	260.8
52	25.13	272.3	87.4	442.1	233.4	163.6	211.3	251.3	917.5	260.4
53	25.07	272.3	87.3	443	232.7	163.2	213.5	251	919.6	260.7
54	24.98	272.5	87.1	435.4	232.8	163.3	212.2	250.2	922.3	258.8
55	24.91	273.2	87.3	441	232.1	161.2	214	249.9	925	259.6
56	24.83	274.6	87.7	440.8	232.2	161	212.4	249.1	928.4	259.1
57	24.75	274.9	87.5	439.6	231.6	161.4	213.3	249.2	932	259
58	24.66	275.5	87.6	437.6	231.4	160.7	213.2	248.9	935.7	258.3
59	24.57	276	87.6	448.2	231.1	160.6	213.2	248.9	939.5	260.4
60	24.49	276.6	87.5	438.9	230.4	159.6	213.4	248.4	944.2	258.1
61	24.41	277.4	87.4	447.2	230	159.8	212.7	248.2	948.9	259.6
62	24.32	276.2	87.5	449	229.9	159.7	211.8	247.8	954.2	259.6
63	24.23	277.1	87.4	441.8	229.2	158.9	213.4	247.8	959.9	258.2
64	24.15	279.2	87.6	450.4	229.3	159.5	211.6	247.7	966	259.7
65	24.07	279.2	87.5	450.2	228.7	158.8	211.5	247	971.5	259.3
66	23.99	279.2	87.5	452	228.5	159	212.3	247.3	976.6	259.8
67	23.91	280.1	87.7	454.3	228.4	159.3	211.9	246.9	981.3	260.2
68	23.81	279.7	87.6	458.2	228.4	159.9	211.6	247	985.1	261
69	23.73	281.3	88	460	227.7	158.6	211.9	246.7	989.1	261
70	23.65	282.6	88.1	468.9	227.2	159.2	211.4	246.7	992.5	262.7

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

71	23.57	282.4	88.1	465	227.1	159.3	211.5	247	995.8	262
72	23.47	283	87.9	463.7	226.7	157	212.8	249.6	998.9	261.9
73	23.38	283.7	88.7	465.1	226.4	158.9	210.9	248.9	1001.6	262
74	23.29	284	88.1	475.7	226.5	158.7	211.6	248.7	1004.1	264.2
75	23.21	284.5	88.2	478.6	226.4	158.2	211.9	248.6	1006.8	264.7
76	23.12	285.1	87.9	479	225.9	158.3	212.4	248.9	1009.1	264.9
77	23.04	285.1	88	480.4	225.9	158.7	211.7	248.8	1011	265.1
78	22.95	285	88	487	225.6	158	211.6	248.9	1012.5	266.2
79	22.86	285.5	88	487.7	225.5	158.7	211.3	249	1014.4	266.4
80	22.77	285.7	88	484	225.2	158.1	210.1	249.2	1016.4	265.3
81	22.69	284.1	88.2	490.8	224.9	157.8	211.2	249.4	1018	266.8
82	22.6	285.3	88.1	492.2	224.2	157.5	212.5	249.6	1020.5	267.2
83	22.52	285.4	88.1	489	224.5	158.1	211.6	249.6	1023.1	266.6
84	22.43	285.4	88.3	483.6	224.1	159	212.8	249.6	1025.7	265.8
85	22.33	285.8	88.1	492.5	223.8	159	213.7	249.7	1028.6	267.7
86	22.26	287.5	88.1	494.2	223.7	157.4	212.8	249.9	1032.3	267.6
87	22.17	287.6	88.1	500.1	223.2	158.2	212.4	250.1	1036.9	268.8
88	22.08	289.1	87.9	503	222.9	159.1	212.7	250.2	1041.9	269.6
89	21.98	291.8	88	503.4	223.1	157.8	212	250.6	1048.3	269.4
90	21.89	292.2	88.2	505.7	222.6	157.4	211.5	251	1054.8	269.6
91	21.78	293.6	88	513.4	222.4	158.6	212.7	251.3	1061.6	271.7
92	21.69	293.2	88	517.3	222.5	158.5	212.5	251.4	1067.8	272.4
93	21.6	294.7	88	521.2	221.8	158.8	212.5	251.3	1073.5	273.1
94	21.51	296	88.1	521.5	221.8	159	212.5	251.9	1078	273.4
95	21.42	297.8	88	523	221.5	158.3	212.9	252.1	1081.7	273.6
96	21.33	298	87.9	520.2	221.7	158.7	213.1	252.2	1084.1	273.2
97	21.23	298.8	88	523	221.1	158.9	214.3	252.9	1085.3	274
98	21.14	299.3	88.1	536.6	221.1	158.1	215.1	253	1086.8	276.8
99	21.04	300.2	88.1	539.6	220.7	158.6	216	253.7	1087.7	277.7
100	20.95	300.5	88	541.1	220.7	159.2	215.2	254.1	1089.7	278.1
101	20.87	299.8	88	546.4	220.3	158.9	215.2	254.1	1091.7	279
102	20.78	300.5	88	548	220.2	159.3	216.1	254.8	1094.9	279.7
103	20.67	301.2	88.2	550.8	219.7	159.8	217	254.9	1097.9	280.5
104	20.57	302.1	88.1	549.2	220	159.6	217.1	255.5	1101.1	280.3
105	20.48	302.3	88	556.2	219.6	159.4	215.8	255.4	1103.6	281.3
106	20.37	303.7	87.8	557.7	219.4	159	218.4	255.5	1106	282

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

107	20.27	302.7	88	560.8	219.3	160.1	216.9	256.6	1108.5	282.7
108	20.18	304.3	88.1	563.2	219.2	159.7	217.2	256.7	1110.2	283.2
109	20.08	305.6	87.9	560.9	218.9	160.3	219	257.3	1111.7	283.3
110	19.98	305.8	87.9	562.6	218.8	161	220.8	258.1	1113.1	284.3
111	19.88	306	88	562.8	218.5	161.4	220.4	258.1	1114.8	284.2
112	19.78	307.5	88.1	564.8	218.6	160	219.3	258.8	1115.7	284.3
113	19.68	307.4	88	570.8	218.9	161.9	221.7	259.2	1115.6	286.5
114	19.58	307.3	88.1	569.5	217.9	161.3	220.4	259.8	1115.4	285.8
115	19.48	307.1	88.1	569	217.9	162.1	222.5	260.2	1114.6	286.3
116	19.38	307.5	88.1	573.9	218.1	161.6	222.2	260.6	1112.4	287.3
117	19.28	307.3	88.2	578.7	217.7	163	222.1	261.4	1110.1	288.6
118	19.17	309.4	88	576.9	217.5	161.5	223.2	261.8	1108.3	288.2
119	19.07	309.8	88	579.1	217.5	163.2	223.2	262.4	1106.3	289.1
120	18.96	310.8	88.1	582.8	217.5	163	224.6	263	1104.5	290.2
121	18.86	310.7	88.3	581.7	217.3	163.2	224.2	263.8	1102.5	290
122	18.76	310.8	88.2	582.9	217.3	163.5	224.2	264.5	1100.9	290.5
123	18.64	311.4	88.1	580.1	217.3	163.1	224.7	265.3	1099.3	290.1
124	18.52	312.6	88.4	581.1	216.9	164.8	227.5	265.6	1097.7	291.2
125	18.41	312.9	88.2	585.2	217.4	163.5	226.9	266.3	1092.5	291.9
126	18.3	311.8	88.2	588.3	217	164.3	227.4	266.8	1084.4	292.7
127	18.2	310.8	88.1	594.5	216.9	165.1	226.6	267.1	1068.9	294
128	18.1	309.4	88.1	595.7	217	164.8	227.6	267.7	1054.2	294.6
129	17.98	309.3	88.1	591.4	216.8	166.4	226.6	268.4	1039.9	293.9
130	17.88	309.6	88.1	590.3	216.4	166.7	228.5	268.3	1027.1	294.1
131	17.76	308.3	88.1	593.5	216.5	167.2	227.1	268.5	1018.4	294.5
132	17.66	307.3	88.2	589.7	216.1	167.7	227.8	269.3	1010.7	294.1
133	17.57	305.5	88.3	588.3	216.4	168.1	229.1	268.7	1003	294.1
134	17.45	304.4	88.2	592.9	216.4	168.3	229	269.4	998.9	295.2
135	17.35	302.8	88.1	589.3	216.4	168.3	227.7	270	993.2	294.4
136	17.26	301.1	88.3	586.6	216.4	169.8	228	269.9	988.5	294.1
137	17.15	298.5	88.1	587.9	216.6	169.6	230.6	270.4	984	295
138	17.06	297	88.3	588.3	216.2	168.6	229.5	271	979.7	294.7
139	16.96	295.4	88.2	585.1	215.9	169.9	231.3	271.6	980	294.8
140	16.87	294.4	88.3	583.2	216.3	169.7	231.6	271.6	984	294.5
141	16.79	293.6	88.3	572.8	216.3	170.3	231.3	272.1	991.6	292.6
142	16.72	291.6	88.3	572.1	216.2	170.8	232.3	272.6	1001.5	292.8

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

143	16.61	292.7	88.3	576	216.4	171.9	232.3	272.8	1011.6	293.9
144	16.55	291.5	88.4	570.7	216.4	171.8	233.3	273.3	1021.9	293.1
145	16.47	290.6	88.2	570.9	216.2	170.4	233.7	273.8	1030.9	293
146	16.39	290.4	88.2	566.5	216.2	171.2	234.3	275.1	1038	292.7
147	16.32	291.4	88.4	569.1	215.9	172.4	235.3	275.5	1045.7	293.7
148	16.22	291.6	88.3	563.1	216.1	171.9	236.6	276	1052.7	292.7
149	16.15	291.8	88.3	565.5	216.1	173.2	234.2	276.4	1060.8	293.1
150	16.07	292.2	88.3	558.2	216	172.4	235	276.5	1069.1	291.6
151	15.99	293.5	88.4	561.5	216.1	173.1	236.6	277.6	1075.9	293
152	15.91	292.7	88.3	567	216	174	234.2	278	1081	293.8
153	15.82	294.5	88.1	570.7	216.1	173.2	234.7	278.5	1084.3	294.7
154	15.76	294.7	88.3	569.7	216	171.8	234.9	278.8	1086.9	294.2
155	15.66	296.1	88.3	572	216	172.8	236.1	279	1088.4	295.2
156	15.56	297	88.3	573.2	216	174.3	236.8	279.5	1090	295.9
157	15.49	297.9	88.3	572.8	215.7	173.6	238.8	280.3	1090.5	296.2
158	15.39	299.6	88.3	576	215.7	174.2	236.6	280.6	1089.5	296.6
159	15.3	301.2	88.3	579.6	215.4	174.8	237.2	281	1085	297.6
160	15.19	300.1	88.5	577.8	215.5	174.9	237.6	282.1	1074.5	297.6
161	15.1	300.4	88.2	582.2	215.2	174.5	237.2	283.1	1061.5	298.5
162	15	300.5	88.5	576.5	215.5	175.5	237.9	283.3	1050.9	297.7
163	14.91	300.2	88.5	579	215.4	174.1	239.3	284.4	1042.8	298.5
164	14.82	300.4	88.4	579.4	215	174.6	239.8	286.4	1036.3	299
165	14.73	300.3	88.4	577.8	214.9	176.6	237.4	287.1	1035.7	298.8
166	14.63	300.1	88.4	579.2	214.8	176.8	239.6	288.4	1033.7	299.8
167	14.53	299.2	88.3	579.3	215	175.7	239.2	289.6	1032.7	299.8
168	14.43	299.2	88.4	577.4	215	177.3	239.6	290.4	1032.7	299.9
169	14.34	300	88.3	587.1	215.1	177.8	240.1	290.5	1033.7	302.1
170	14.24	299.5	88.5	575.2	214.6	177.2	239.5	291.8	1036.4	299.7
171	14.14	299.5	88.4	585	214.7	178.4	240.6	291.8	1039.3	302.1
172	14.05	299.3	88.4	579.2	214.6	177.6	239.9	292.6	1041.9	300.8
173	13.94	299.1	88.5	586.6	214.9	178.2	240.7	293	1043.5	302.7
174	13.85	297.8	88.5	587.6	214.8	178.8	240.7	292.9	1043	303
175	13.75	298.1	88.6	591.4	215.1	178.8	241.1	294.5	1043	304.2
176	13.66	297.3	88.5	588	214.6	178.4	241.3	294.4	1038.5	303.4
177	13.58	297.4	88.4	591.9	214.7	178.8	242.5	294.2	1033.5	304.5
178	13.48	296.9	88.4	588.2	214.5	179.2	241.8	294.9	1029.5	303.7

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

179	13.37	296.4	88.5	589.6	214.7	179.6	242.5	295.7	1031.7	304.4
180	13.29	296.7	88.3	582.8	214.6	179.8	241.6	296.2	1034.8	303
181	13.18	296	88.5	582	214.7	179.8	244.3	296	1038.2	303.4
182	13.11	297.1	88.5	580.8	214.8	181.6	242.1	297	1039.6	303.3
183	13.01	297.3	88.6	578.9	214.5	181.1	243.6	298.4	1039.9	303.3
184	12.9	297.5	88.5	570.8	214.6	181.6	241.9	299.2	1039.1	301.6
185	12.8	297.6	88.4	574.6	214.8	181.9	244.8	299.4	1038.4	303.1
186	12.71	298.3	88.5	573	214.7	182.4	245.9	301.1	1037.6	303.4
187	12.61	298.4	88.5	569.1	214.5	182.2	245.5	301.3	1035.5	302.5
188	12.51	298.1	88.4	566.8	214.7	182.2	247.3	302	1033.2	302.6
189	12.4	298.3	88.4	565.5	214.6	183.4	246.5	302.6	1031.8	302.5
190	12.29	299.3	88.4	565.3	214.6	182.7	247.1	304	1031.3	302.7
191	12.18	299.6	88.5	566.8	214.8	182.2	247.7	304.3	1030.3	303.2
192	12.07	298.8	88.5	557.2	214.6	183.1	249	305.6	1032.8	301.9
193	11.97	300.1	88.5	564.9	214.4	184	248.7	306.2	1040.9	303.6
194	11.87	300.6	88.5	563.1	214.6	186.1	250	306.9	1052.9	304.1
195	11.76	303.2	88.5	568	214.7	185	248.8	307.5	1064	304.8
196	11.63	304.6	88.6	571.8	214.3	185.4	248.8	307.7	1072.7	305.6
197	11.52	306.4	88.6	569.9	215	184.6	248.3	307.6	1078.6	305.1
198	11.41	307.1	88.5	569.2	214.5	185.3	246.5	308.2	1082.4	304.7
199	11.28	309.1	88.6	577.5	214.4	185.6	247.3	308.6	1084	306.7
200	11.16	309.4	88.5	577.6	214.5	186.1	249.7	308.5	1086.8	307.3
201	11.06	310.7	88.4	579.6	214.7	186.1	247.8	308.2	1089.9	307.3
202	10.94	311.7	88.4	580	214.7	186.8	248.2	307.6	1092.3	307.5
203	10.82	311.9	88.5	580.4	214.5	185.9	248.6	307.7	1092.9	307.4
204	10.7	313.2	88.3	586.4	214.2	187.2	248.4	307.6	1093.5	308.7
205	10.59	314.1	88.6	584.3	214.6	187.1	249.5	307.3	1094	308.5
206	10.48	314.2	88.7	582.8	214.7	188.7	247.2	307.6	1094	308.2
207	10.35	314.3	88.4	584.6	215.4	188	246.7	307.1	1093.3	308.3
208	10.23	313.4	88.4	581.9	214.7	190.2	248.2	307.3	1091.7	308.5
209	10.12	313	88.3	580.1	214.6	188.9	248.6	307.5	1089.6	307.9
210	10.01	312.4	88.4	585.1	214.7	189.3	247.8	307.4	1086.8	308.8
211	9.91	312	88.3	587	215	188.6	247.4	308.3	1084.3	309.3
212	9.81	312.2	88.4	584.8	214.7	190	246.9	308.5	1081.8	309
213	9.71	309.7	88.4	587.2	214.6	189.9	247.3	308.7	1078.6	309.5
214	9.61	308.6	88.4	590.1	214.9	187.7	245.8	309	1074.9	309.5

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

215	9.53	308	88.4	583.6	214.9	191.4	246.1	309.1	1071.7	309
216	9.43	305.9	88.6	581.4	215.2	189.8	246.7	309.1	1070.4	308.4
217	9.33	306	88.4	589.8	215.1	191	246.1	309.8	1069.3	310.4
218	9.24	304.8	88.4	587	215.6	190.1	246.2	309.9	1067.9	309.8
219	9.14	304.1	88.2	586.7	214.9	190.9	247.2	310.7	1066.1	310.1
220	9.07	304	88.4	585.8	215.5	190.5	246.2	311.3	1064.7	309.9
221	8.98	302.9	88.2	587.3	215.6	192.2	247	311.7	1063.5	310.8
222	8.89	301.6	88.4	581.9	215.3	191.1	247.6	313.1	1063.2	309.8
223	8.82	301.3	88.4	586.7	215.4	190.5	246.1	313.3	1062.3	310.4
224	8.72	300.9	88.5	582.4	215.7	193	245.6	314	1061.9	310.1
225	8.63	301.4	88.5	583.8	215.6	192.1	246.8	314.6	1061.3	310.6
226	8.55	301.4	88.3	583.9	215.7	192.1	247.8	315.3	1060.6	311
227	8.47	300.4	88.4	584.9	215.5	192.1	246.7	316.9	1059.2	311.2
228	8.38	299.1	88.4	584.7	216	193.6	245.8	318.2	1056.5	311.7
229	8.31	298.7	88.4	580.1	216.5	192.9	247	318.8	1053.9	311.1
230	8.24	297.1	88.4	583.3	216.3	193.2	247.4	319.2	1051.4	311.9
231	8.15	295.7	88.2	581.8	216.3	193.7	247.1	320.6	1049.1	311.9
232	8.09	295.5	88.3	581.4	216.3	193.2	248.4	321.2	1045.9	312.1
233	8.03	293.1	88.2	586.3	216.4	193.7	247.2	321.5	1042.7	313
234	7.97	291.8	88.4	583.7	216.8	193.5	247.1	322.2	1040.2	312.7
235	7.9	290.3	88.3	576.1	216.6	195.2	246.7	322.9	1038.5	311.5
236	7.86	288.1	88.4	580.1	217.1	193.3	247	322.9	1037	312.1
237	7.8	287.7	88.2	576	216.9	195.6	249	323.5	1035.4	312.2
238	7.75	285.2	88.2	576.2	217	195.3	248.6	324.2	1034	312.3
239	7.71	284.8	88.2	579.2	217.1	196.7	248.8	324.5	1033.9	313.3
240	7.66	284.6	88.2	577.2	217.6	194	246.9	324.2	1038	312
241	7.6	283.9	88.1	574.9	217.4	197.8	248.4	325.6	1046	312.8
242	7.56	283.1	88.3	573.5	217.6	197.1	248.9	325.7	1050	312.6
243	7.51	283	88	575.2	217.7	195.9	247.3	326.3	1051.3	312.5
244	7.47	282	88.2	566.6	217.7	195.9	247.5	326.4	1050.2	310.8
245	7.43	281.4	88	567	218.1	195.6	249.3	326.6	1047.4	311.3
246	7.39	281.1	88.2	562.3	218.2	197.7	248	326.5	1044.3	310.5
247	7.33	281.4	88.2	566.2	218.3	198.5	247.6	327.2	1040.6	311.6
248	7.31	279.4	88.1	563.1	218.7	198.6	247.8	327.6	1036.1	311.2
249	7.26	278.6	88	560.6	218.3	198.6	247.9	328.3	1031.7	310.8
250	7.22	278.1	88.1	557.4	218.7	199.3	248.1	328	1026.9	310.3

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

251	7.18	278.2	88.2	552.3	218.7	198.6	247.9	328.8	1022	309.3
252	7.13	277.8	87.8	551.5	218.6	199.3	249.1	329.3	1016.8	309.6
253	7.09	276.3	87.9	545	218.8	198.5	248.5	329.1	1011.9	308
254	7.07	274.8	87.8	550.6	219	200.6	248.6	329.5	1006.7	309.7
255	7	273.4	88	545.3	219.2	199.5	248.4	329.5	1001.6	308.4
256	6.98	273.7	88	545.5	219.3	199.1	248.1	329.8	996.8	308.4
257	6.94	272.8	88	531.7	219.5	199.4	248.6	330.1	991.9	305.9
258	6.9	271.2	88	535.3	219.8	198.3	247.5	329.6	986.5	306.1
259	6.87	270.8	87.9	533	219.7	199.4	250.5	330.2	981.9	306.6
260	6.83	270.4	88.1	528.3	219.7	198.1	248.3	330.4	977.2	305
261	6.79	269.6	87.8	530.5	219.9	200.3	248.6	329.7	972.4	305.8
262	6.76	269.1	87.6	526.5	220.1	200.2	247.8	330.4	967.1	305
263	6.73	268.7	87.6	520.4	220	200.2	248.5	330.2	961.7	303.9
264	6.68	265.8	87.8	518.2	220.4	201.3	248.2	330.6	956	303.8
265	6.67	264.1	87.6	514	220.3	202.2	246.8	330.7	949.5	302.8
266	6.62	263.3	87.6	513.7	220.6	200.2	247.2	330.1	942.6	302.3
267	6.6	262.9	87.7	507.4	220.6	199.9	248	330.6	935.3	301.3
268	6.58	260.9	87.8	503.8	220.5	201	247.9	330.7	927.3	300.8
269	6.55	259.8	87.6	502	221	197.7	246.2	329.9	918.8	299.4
270	6.51	258.7	87.8	492.6	221.1	201.6	246.8	330.6	909.9	298.5
271	6.51	257.8	87.6	494	221.1	200.5	247.1	330.2	901.2	298.6
272	6.47	256.3	87.7	487.2	221.4	201.7	246.3	330.1	892.5	297.4
273	6.45	254.6	87.5	488.7	221.4	200	246	331.1	884.2	297.5
274	6.43	252.7	87.6	482.4	221.5	201.8	246.8	329.9	876.8	296.5
275	6.41	252.1	87.8	478	221.6	200.2	244.9	329.6	870.5	294.9
276	6.37	249.8	87.6	473.1	221.7	199.6	245.9	329.1	864.7	293.9
277	6.36	249.1	87.6	471.3	222	201.1	245	328.8	860.1	293.6
278	6.33	248	87.5	471.3	222.1	200.1	243.1	329	856.5	293.1
279	6.31	246.9	87.6	466.4	222	199.4	243.5	328.3	852.2	291.9
280	6.28	244.9	87.5	461.2	222.1	200.8	243.3	328.3	848.9	291.2
281	6.28	243.9	87.5	460.3	222.5	199.3	242.1	327.5	845.5	290.3
282	6.24	243.4	87.4	460.8	222.5	199.3	244	327.7	842.5	290.9
283	6.22	242.4	87.4	456	222.5	199.9	243.5	326.9	839.7	289.8
284	6.19	241.9	87.4	449.8	222.9	200.9	242.1	327.5	837	288.6
285	6.17	241.3	87.4	448.4	222.7	199.8	243.2	326.1	834.4	288
286	6.15	240.2	87.4	452.7	222.7	200.9	243.2	326.4	832.4	289.2

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

287	6.12	239.3	87.6	447.3	223.2	198.1	242.6	325.6	830.2	287.4
288	6.1	238.4	87.3	440	222.9	199.9	241.7	325.2	827.9	285.9
289	6.07	238.1	87.2	441.2	223.3	198	242.2	325	826.1	285.9
290	6.06	237.8	87.5	439.3	223.4	199	240.7	325	824.3	285.5
291	6.03	237.6	87.4	433.5	223.3	199.7	240.3	324.7	822.6	284.3
292	6	236.4	87.4	434	223.6	199.8	239.7	323.9	820.7	284.2
293	6	236.1	87.3	433.2	223.8	200.3	239.6	323.2	818.8	284
294	5.97	235.2	87.2	434.5	224	199.7	238.7	323.2	817.2	284
295	5.94	234.3	87.5	431.6	224	197.6	239.6	322.9	815.6	283.1
296	5.93	233.2	87.3	423.4	224.1	198.4	240.8	321.8	814	281.7
297	5.91	233.9	87.1	426.3	224.4	198.1	239.3	322	812.4	282
298	5.89	233.4	87.2	427	224.2	197.9	237.2	321.7	810.5	281.6
299	5.86	233.1	87.1	426.7	224.6	197.8	237.6	321.6	808.9	281.7
300	5.84	232.7	87.2	418	224.9	198.2	237.3	321.1	807.2	279.9
301	5.82	232.5	87.2	418.4	224.7	197.6	236.4	320.7	805.6	279.6
302	5.81	232.6	87.2	416.8	224.8	195.9	235.1	320.1	803.7	278.5
303	5.78	231.5	87.2	416.7	224.9	196.3	236.6	320.3	802	279
304	5.77	231	87.1	414	225	197.3	236.1	319.7	800.1	278.4
305	5.75	230.1	87.2	414	225.4	196.8	234.7	319.6	798.1	278.1
306	5.72	230	87.1	414.2	225.2	194.6	235	319.2	796.3	277.6
307	5.71	228.8	86.9	414.6	225.4	195.9	235.3	318.5	794.6	278
308	5.69	228.6	87.1	411.1	225.6	195.1	234.2	317.8	793.2	276.7
309	5.67	228.3	86.8	410.2	225.7	195.6	234.1	317.6	791.3	276.6
310	5.65	227.7	86.9	407.3	225.8	195.8	234.4	317.2	789.7	276.1
311	5.62	227.2	87	406.8	225.7	196.5	232.7	317.5	787.9	275.8
312	5.61	227.4	86.7	404.7	225.8	195.4	234.4	316.1	786.6	275.3
313	5.59	226.1	86.7	405.3	225.8	197.2	234.4	316.4	785	275.8
314	5.57	225.6	86.8	401.4	226.2	196.4	233.6	315.9	783.4	274.7
315	5.55	225.3	86.8	400.1	226.1	195.4	234	315.1	781.9	274.2
316	5.53	225.3	86.8	400	226.4	195.7	232.5	315.4	780	274
317	5.52	224.7	86.9	405.4	226.2	195.1	232.4	315	778.2	274.8
318	5.49	225.1	86.9	403.1	226.7	196	232.4	313.8	776.9	274.4
319	5.49	224.3	86.9	397.4	226.6	197.3	231.7	314.2	774.7	273.4
320	5.45	223.8	86.7	397.6	226.6	197.3	232.1	313.4	773.2	273.4
321	5.45	223.7	86.6	397.8	226.5	195	231.5	314	771.7	273
322	5.42	223.1	86.8	396.4	226.6	196.1	231.8	313.3	769.8	272.8

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

323	5.4	223.5	86.7	396.2	226.7	195.2	229.9	313.1	768.5	272.2
324	5.39	223.6	86.6	394.1	226.8	196	229.5	312.9	767	271.9
325	5.37	222.9	86.8	392.7	227	195.3	230.7	311.9	765.7	271.5
326	5.35	221.7	86.8	388.7	227	195.3	229.1	311.4	764.5	270.3
327	5.33	221.5	86.6	393	227.2	193.2	229.4	311.3	763	270.8
328	5.31	220.8	86.8	391.5	227.1	194.5	229.1	310.9	762.2	270.6
329	5.3	221.1	86.6	391.9	227.2	195.1	229.8	311	761.4	271
330	5.28	221.4	86.3	387.6	227.2	193.2	227.7	310.2	760	269.2
331	5.26	221.1	86.5	388.2	227.3	195.4	228.8	309.9	759.1	269.9
332	5.24	221.1	86.4	388.4	227.2	195	228.6	310.2	757.6	269.9
333	5.21	219.4	86.4	387.4	227.4	194	228.5	309.4	756.8	269.3
334	5.2	219.4	86.3	383.3	227.6	194.3	227.5	309	755.4	268.3
335	5.19	219.1	86.5	385	227.6	192.6	228	308.7	754.1	268.4
336	5.16	218.2	86.1	389.8	227.4	192.3	227.5	308.7	753	269.1
337	5.17	217.8	86.4	382.4	227.7	192.7	226.4	308.5	752	267.5
338	5.13	218.1	86.3	381	227.4	191.8	227.3	308	751.1	267.1
339	5.12	217.2	86.2	386	227.7	191.9	226.3	307.6	750.3	267.9
340	5.11	216.4	86.4	379.2	227.7	192.8	227.6	307.7	749.3	267
341	5.09	216.6	86.5	378.6	227.7	192.2	226	307.6	748.2	266.4
342	5.08	216.1	86.3	381.3	227.5	192.1	226.3	306.7	747.8	266.8
343	5.05	216.8	86.2	380.2	227.7	191.6	225.9	306.7	746.8	266.4
344	5.03	216.2	86.3	378.5	228	191.8	224.7	306.9	745.9	266
345	5.02	216.8	86.3	380.4	227.8	190.7	225.3	306.4	745.1	266.1
346	5	216.4	86.2	378.1	228.1	192.4	225.8	306.6	744.3	266.2
347	4.98	215.6	86	379.1	227.7	192.4	224	305.9	743.8	265.8
348	4.97	215.6	86.2	378.8	227.7	190.1	224.4	305.1	742.8	265.2
349	4.95	214.4	86	377.1	228	190.4	225.1	305.2	742.2	265.2
350	4.93	214.6	86.1	372.6	227.9	192.5	224.9	305.2	741.8	264.6
351	4.92	214.3	86.1	374.6	227.9	191.6	223.4	305	741.4	264.5
352	4.91	214	86	377.9	228	191.3	223.3	304.7	741	265
353	4.89	214.7	86	375.3	227.9	190.7	224.4	304.3	740.3	264.5
354	4.87	214.3	85.9	374.8	228	189.3	222.6	303.7	739.8	263.7
355	4.84	214	86.1	373.8	227.9	190.7	224.4	303.9	739.2	264.2
356	4.83	214.6	86	373.1	228.1	190	223	303.8	739	263.6
357	4.81	214.4	85.9	374.3	227.9	189.9	222.8	303.9	738.7	263.8
358	4.8	213.8	86.1	375.1	228	191.2	223.6	303.7	738.8	264.3

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

359	4.77	213.7	85.9	372.8	228	190.2	223.2	303.2	737.9	263.5
360	4.76	213.6	85.9	368.9	228.3	189.4	223.4	303.4	738	262.7
361	4.74	213.6	85.7	374.8	228.2	189.8	222.6	302.6	737.5	263.6
362	4.73	213.6	85.8	371.5	228.1	189.1	220.9	302.3	737.2	262.4
363	4.7	213.9	85.6	371.9	228.2	188.5	222.8	302.2	736.8	262.7
364	4.69	212.8	85.7	372.9	228.4	189.8	221.9	301.9	736.6	263
365	4.67	212.7	85.7	372.7	228.2	188.5	222.2	301.9	737.1	262.7
366	4.65	212.7	85.7	371.3	228.3	190.7	221.5	301.9	738.3	262.7
367	4.64	212.2	85.7	369.5	228.3	189	221.7	301.7	739.4	262
368	4.61	212.8	85.6	370	228.3	188.7	221.6	301.6	740.2	262
369	4.6	213.6	85.5	372.5	228.5	189.1	220.8	301	740.3	262.4
370	4.58	212.3	85.4	369.9	228.5	188.9	222	301.5	741.2	262.1
371	4.56	212.5	85.5	366.3	228.4	188.5	223	300.7	740.9	261.4
372	4.53	212.8	85.3	367.7	228.6	189.4	221.5	301	741.8	261.6
373	4.51	214.2	85.5	368.8	228.5	190.3	219.8	300.3	742.6	261.5
374	4.5	213.6	85.3	367.8	228.8	188.5	220.7	300.2	743	261.2
375	4.48	212.6	85.3	368.8	228.9	189.4	221.5	299.4	743.7	261.6
376	4.45	212.6	85.5	368.4	228.8	188.2	220.6	298.9	742.8	261
377	4.44	213.2	85.4	366.8	228.9	188.7	220.7	298.6	740.3	260.7
378	4.42	213.2	85.3	372.7	228.7	187.9	219.7	298.2	736	261.4
379	4.4	211.7	85.3	368.9	228.8	189.1	220.9	297.9	730.4	261.1
380	4.39	211.2	85.3	361.4	228.8	188.1	219.9	297.4	725.2	259.1
381	4.37	211.4	85.4	363.4	229.2	186.7	219.8	296.8	719.7	259.2
382	4.34	210.9	85.2	364.1	229.4	186.5	219	296.5	715	259.1
383	4.32	210.4	85.2	359.4	229.4	187.9	219.4	296.1	711.2	258.4
384	4.3	210	85.4	359.6	229.6	187.1	219.8	295.1	707.6	258.2
385	4.29	208.7	85.2	358.6	229.3	186.1	219.1	295	705.2	257.6
386	4.27	209.2	85.5	356.8	229.4	185.8	219.2	294.9	702.9	257.2
387	4.25	208.5	85.2	355.6	229.6	186	221.3	294.7	700.9	257.4
388	4.23	209.1	85.1	357.2	229.7	185.6	218.9	294.4	699.1	257.2
389	4.21	208.3	84.9	355.5	229.6	185.9	219.5	293.9	698	256.9
390	4.19	207.7	84.9	352.8	230.1	185.5	219.6	294.2	696.9	256.4
391	4.18	207	85.1	352.5	230	186.6	219.7	293	695.7	256.3
392	4.17	207.1	85	352.8	230.2	184.8	218.4	293.1	695	255.9
393	4.14	206.8	84.9	349.6	230.3	185.1	219.1	293	694.3	255.4
394	4.11	206.2	85	349.2	230.3	182.4	219.7	292.9	694.1	254.9

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

395	4.11	205.9	85	346.8	230.5	184.3	218.2	292.6	693.8	254.5
396	4.1	206.2	85.1	349.7	230.6	185	219	292.4	693.4	255.4
397	4.07	206	84.9	347.7	230.5	183.2	218.1	292.5	692.6	254.4
398	4.05	206.2	84.9	348.6	230.8	184.8	218.8	293.2	692	255.3
399	4.04	205.5	84.7	349.9	231	184.3	218.9	292.8	690.8	255.4
400	4.02	204.9	84.5	347.7	231.1	183.6	217.4	291.9	689.3	254.4
401	3.99	205.1	84.9	348.1	231.1	182.8	218.5	291.6	687.2	254.4
402	3.98	204.5	84.7	346.5	231.4	183.2	219	291.8	686	254.4
403	3.97	205.7	84.7	347.3	231.3	181	219.1	291.7	684	254.1
404	3.94	204.6	84.5	344.8	231.6	183	218.9	291.8	682.4	254
405	3.94	204.4	84.6	342.7	231.6	182.1	218.6	291.3	681.1	253.3
406	3.92	204.8	84.6	339.9	231.7	181.6	218	291.3	679.8	252.5
407	3.89	204.1	84.6	343	231.9	182.2	217.9	291.2	678.6	253.2
408	3.88	204.8	84.4	342.8	232.1	181.7	218.5	291.6	677.2	253.4
409	3.87	203.9	84.2	342.2	232.1	182.3	218.8	291.2	676.3	253.3
410	3.84	203.5	84.3	339.6	232.1	181.9	218.6	291.3	675.3	252.7
411	3.83	204.3	84.4	340.2	232.5	182.1	218	291.7	674.7	252.9
412	3.82	203.8	84.1	338.9	232.5	181.5	216.8	291.5	674	252.2
413	3.79	203.9	84.1	337.1	232.6	180	217.4	290.9	672.8	251.6
414	3.77	204	84.2	335.8	232.9	180.1	217	290.7	671.6	251.3
415	3.75	203.7	84.1	337	232.7	180.7	217.1	290.9	671.1	251.7
416	3.75	203.7	84.2	334.4	233.1	180.5	216.8	291.6	670.6	251.3
417	3.72	202.8	84.1	335.4	233.2	181.2	217.6	291.1	669.7	251.7
418	3.71	203.3	84.1	336.2	233.4	182.4	216.8	291.2	669.1	252
419	3.69	202.3	84.2	336.3	233.7	180.3	217.6	291.6	668.4	251.9
420	3.67	202	83.9	338.5	233.8	180.5	217.6	291.5	668.1	252.4
421	3.66	202	84.1	334.2	234.1	180.6	216.9	292	667.4	251.5
422	3.64	201.4	84	333.2	234.1	181.6	216.7	291.6	667	251.5
423	3.62	201.6	83.9	333.2	234.4	180.5	217.5	291.4	666.8	251.4
424	3.61	201.7	84	335.1	234.3	180.9	218.2	291.6	666.7	252
425	3.58	202.6	83.8	334.2	234.6	181.5	215.8	292	666.2	251.6
426	3.57	202.2	83.8	333.9	234.5	181.5	217.4	292.1	665.9	251.9
427	3.56	201.6	83.6	329.3	235.1	181.2	217.8	292.3	666.1	251.2
428	3.53	201.6	83.7	332.2	235.1	179.9	217.2	292	666.1	251.3
429	3.52	201.7	83.6	333.9	235.1	181.6	217	291.7	666	251.9
430	3.5	201	83.4	334.3	235.2	179.8	217.3	292.4	665.5	251.8

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

431	3.49	201.4	83.6	332.2	235.7	179.8	216.1	292.5	665.4	251.3
432	3.46	201.6	83.4	333.6	235.7	181.3	217	291.9	665.4	251.9
433	3.45	200.8	83.5	335.7	236.1	179.2	217.3	292.7	665.1	252.2
434	3.44	200.2	83.3	331.1	236.1	181.1	218.2	292.7	664.8	251.8
435	3.42	200	83.4	327.7	236.1	181.6	218.9	292.3	664.7	251.3
436	3.4	199.9	83.3	333.2	236.4	180.6	217.5	292.3	664.6	252
437	3.39	200.2	83.3	333.6	236.6	184.1	216.9	293	664.5	252.8
438	3.37	200.1	83.3	331.2	236.9	181.8	218	293.6	664.7	252.3
439	3.35	200.5	83.3	329.3	237	181.6	216.6	292.7	664.7	251.4
440	3.33	199.9	83.2	333	237.2	181	217.1	293.5	664.8	252.4
441	3.32	200.8	83.3	331.6	237.2	181.4	215.5	293.1	664.7	251.8
442	3.31	201.5	83	330.2	237.4	180.5	217.8	293.2	665	251.8
443	3.29	201.5	83.2	328.5	237.4	181.6	217.1	293.8	665.5	251.7
444	3.27	201	82.9	330.6	237.6	181.3	217	293.5	665.8	252
445	3.25	200.3	83	331.3	237.7	182.7	217.2	293.2	666.1	252.4
446	3.24	199.7	83	328	237.8	182.7	217.5	293.6	666.5	251.9
447	3.22	199.5	83	329.2	237.8	181.4	216.5	293.2	667.3	251.6
448	3.18	199.5	82.8	328.8	238.4	181.4	216.2	293.2	667.8	251.6
449	3.17	199	83	329.7	238.3	181.7	216.8	293.1	668.1	251.9
450	3.16	199.8	82.9	329	238.4	182.6	218.4	293.3	668.5	252.4
451	3.14	200	82.9	327.2	238.6	181.9	217.6	293.3	669.1	251.7
452	3.12	200.2	82.9	329.1	238.8	181.4	217.3	293.9	669.4	252.1
453	3.11	200.9	83	330.9	239	181.5	215.7	293.9	670.1	252.2
454	3.09	200.5	82.7	333	238.7	180.6	217.5	294.2	670.5	252.8
455	3.08	199.4	82.6	329	239	181.2	215.6	293.4	670.4	251.7
456	3.06	199.7	82.6	328.6	239	181.2	215.6	293.5	670.5	251.6
457	3.05	199.9	82.6	330.9	239.4	183.7	216.1	293.6	670.6	252.7
458	3.03	200	82.6	329.6	239.3	182.4	215.6	293.5	670.7	252.1
459	3.02	200.5	82.5	332.9	239.3	180.7	217.9	293.5	671.2	252.8
460	2.99	200.8	82.6	328.3	239.5	182.6	216.7	293.4	671.1	252.1
461	2.98	200.9	82.5	329.4	239.6	182.2	217	293.3	671.5	252.3
462	2.96	200.4	82.5	330.4	239.5	182.3	217.4	293.7	671.6	252.7
463	2.94	200.7	82.4	330.1	239.9	182.2	216.9	293.1	671.9	252.4
464	2.93	200.1	82.5	327.7	239.9	181.9	217.2	293.4	671.7	252
465	2.9	199.8	82.4	332.1	240.1	181.3	217.3	293.6	671.6	252.8
466	2.9	199.2	82.3	332.9	240.3	181.7	216.9	293.4	671.9	253

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

467	2.87	200.3	82.2	330.2	240.3	181.5	217.7	293.1	672	252.5
468	2.86	200.9	82.3	330.8	240.3	181	216.6	293.1	672.2	252.4
469	2.85	200.6	82.4	330.6	240.6	181.4	216.8	292.8	672.4	252.4
470	2.83	200.8	82.3	332.7	240.8	182.3	216.7	292.4	672.3	253
471	2.81	201.4	82.2	329.9	240.4	181.5	216.3	292.5	672.5	252.1
472	2.79	201	82.4	329.9	240.6	183.1	216.7	293	672.9	252.7
473	2.77	200.3	82.1	331.7	240.9	181.9	216.7	292.5	673.2	252.7
474	2.76	200.9	82.2	332.8	240.7	181.5	215.4	292.4	673.2	252.5
475	2.74	200.6	82.2	334.1	240.9	182.7	215.7	291.8	673.5	253.1
476	2.73	200	82.2	331.7	241.1	182.5	215.7	292.5	674.1	252.7
477	2.7	199.8	82.1	333.3	241.1	180.7	216	291.5	674.9	252.5
478	2.71	200.2	82.3	329.6	241.2	183	216.1	292.4	674.8	252.5
479	2.67	200.7	82	332.4	241.3	182.3	215.3	292.1	675.2	252.7
480	2.66	200.6	82	328.3	241.3	181.8	217	291.5	675.4	252
481	2.65	199.5	82.2	331.7	241.5	182.1	215.8	291.4	675.5	252.5
482	2.63	200	81.8	331.4	241.3	182	216.3	291.7	674.6	252.5
483	2.61	200.2	82	329.8	241.3	181.6	216.7	290.8	673.5	252
484	2.6	199.9	81.9	331.6	241.5	181.6	215.9	290.4	671.6	252.2
485	2.58	200.8	81.8	331.4	241.8	181.2	217.1	290.8	668.5	252.5
486	2.57	201	81.8	331.7	241.8	182.2	214.8	289.8	664.9	252
487	2.54	199.8	82.2	327.1	241.9	183	216.2	289.6	662	251.5
488	2.53	199.8	82	326	242	182.4	216.8	288.7	659.6	251.2
489	2.51	200.2	81.9	329.3	241.8	182.1	215.8	288.3	657.2	251.5
490	2.5	199.6	81.7	327.5	241.8	181.8	216.5	287.9	655.5	251.1
491	2.48	199.1	81.7	322.3	241.9	179.5	215.3	287.7	653.7	249.3
492	2.47	199	81.7	322.6	241.8	181.7	216.3	286.7	652.2	249.8
493	2.45	198.6	81.7	323.1	242.1	181.3	215.7	286.7	651.1	249.8
494	2.43	197.8	81.7	324	242.2	181.4	215	286.9	650.1	249.9
495	2.43	197.8	81.6	322.5	242.3	181.8	214.8	285.5	649.8	249.4
496	2.4	197	81.7	321.2	242.2	179.8	215.4	284.5	649.3	248.6
497	2.39	197.5	81.8	320.1	241.9	179.7	216.3	284.5	649.2	248.5
498	2.37	197.7	81.7	318	242	179.8	215.7	283.7	649.4	247.8
499	2.36	197.7	81.6	319.3	242.2	179.1	216.1	284	649.3	248.1
500	2.34	197.2	81.4	320.9	242	179.5	215.4	282.7	649.7	248.1
501	2.32	197.9	81.5	316.3	242.1	179.4	214.6	282.5	649.9	247
502	2.32	197.3	81.5	319.5	242.2	179.5	214.5	281.9	649.7	247.5

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

503	2.29	197.2	81.5	319.9	242.1	180	214.8	281.2	649.3	247.6
504	2.28	197.4	81.5	318.8	242.3	178.3	214.3	281.2	649	247
505	2.25	197.5	81.4	319.1	242.4	181.5	216	280.8	648.8	247.9
506	2.24	196.8	81.3	314.8	242.3	180.7	215	280.3	647.9	246.6
507	2.22	197.3	81.1	316.8	242.4	180.5	215.4	279.1	647.6	246.9
508	2.22	196.8	81.6	316.4	242.1	179.1	215.4	279	646.8	246.4
509	2.19	196.7	81.1	313.1	242.3	181.1	215	279	645.9	246.1
510	2.17	197.5	81.2	319.2	242.3	178.6	215.4	278.4	645.4	246.8
511	2.15	196.6	81.3	315.9	242.6	181.1	215.1	277.9	644.1	246.5
512	2.13	196.9	81.3	314.6	242.5	178.1	214.7	278.5	643.5	245.7
513	2.12	196.7	81.1	314.7	242.4	179.3	214.2	277.5	642.6	245.6
514	2.1	196.7	80.9	316.7	242.3	180.2	215.6	277.2	641.7	246.4
515	2.08	196.3	81.1	313.8	242.9	182	214.3	276.5	641.4	245.9
516	2.07	196.3	81.1	314.4	242.8	178.7	214.2	275.7	641.2	245.2
517	2.06	196.3	81	313.5	242.8	178.7	215.2	275.7	640.6	245.2
518	2.06	196.5	81	310.4	242.8	177.6	213.4	275.7	641.1	244
519	2.03	196.1	81.1	313.9	243	180.2	212.9	275.2	641.4	245
520	2.01	195.6	80.8	315.4	243	180.4	213.8	275	641.4	245.5
521	1.99	195.5	80.9	312.9	242.9	181	212.9	274.1	641.4	244.8
522	1.98	195.1	80.7	313	243.1	177.7	213.7	273.4	640.7	244.2
523	1.96	195.6	80.8	311.8	243.5	178.6	213.6	273.4	639.7	244.2
524	1.95	196.6	80.9	311.6	243.2	179.8	213	272.7	639.4	244
525	1.94	195.9	80.8	313.2	243.6	179	212.7	272.9	639.2	244.3
526	1.93	194.7	80.6	312.8	243.5	179.4	212.9	272.2	638.5	244.2
527	1.9	193.6	81.1	314.2	243.9	177.6	214.6	271.7	637.8	244.4
528	1.88	193.9	80.5	314.6	243.9	179.5	213.3	272.5	637.5	244.8
529	1.87	193.6	80.8	312.7	244.1	178.9	213.6	271.3	637.1	244.1
530	1.86	193.1	80.5	312	244.1	178.3	212.9	270.6	637	243.6
531	1.85	193.8	80.6	310.5	244.5	175.8	213.2	270	637.2	242.8
532	1.82	194.1	80.4	310.4	244.5	177.9	213.6	270.9	637.7	243.5
533	1.81	193.8	80.5	311.2	244.6	177.4	211.9	269.8	637.6	243
534	1.8	193.4	80.5	311.1	244.3	176.3	212.3	269.5	638.2	242.7
535	1.79	193.2	80.6	308.7	245	178.6	211.5	269.2	638.6	242.6
536	1.78	193.2	80.4	308.5	244.9	178.5	212.8	268.7	638.7	242.7
537	1.76	193.6	80.4	307.3	245	177.4	212	268.9	639.2	242.1
538	1.75	193.1	80.6	306.7	245.1	176.7	213.1	268.2	639.3	242

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

539	1.73	193.5	80.1	308.9	245	178.8	211	267.9	639.7	242.3
540	1.72	193.1	80.5	308.1	245.5	176.6	213.5	267.6	639.6	242.2
541	1.71	193	80.3	313.7	245.4	176.7	211.2	267.1	639.4	242.8
542	1.69	192.2	80.4	308.7	245.5	177.8	212	267.8	639.5	242.4
543	1.68	192.4	80.3	305.8	245.3	178.7	211.6	266.8	639.8	241.6
544	1.66	192.2	80.2	308	245.4	177.5	210.4	266.8	639.9	241.6
545	1.64	192.4	80.4	304.7	245.6	177.3	211.2	266.4	639.9	241.1
546	1.62	192.4	80.1	309.3	245.6	176.5	211.4	266.3	640.2	241.8
547	1.62	192.6	80.1	308.4	245.7	177.3	210.2	266.5	640.9	241.6
548	1.6	192.2	80.2	306.8	245.8	178.3	210.1	265.9	641.7	241.4
549	1.59	192.6	80.2	305.9	245.7	177.6	210.4	265.7	642.5	241.1
550	1.58	192.8	80	305.3	246	176.8	210.4	266.2	643	241
551	1.56	192.5	79.9	304.9	245.9	176	210.8	265.4	645	240.6
552	1.54	192.7	80.2	311.2	245.9	176.8	209.5	265.1	646.3	241.7
553	1.53	192.8	80	307.3	245.8	176.6	210.8	265.1	647.6	241.1
554	1.51	192	79.8	311.7	245.9	178	210.5	265	648.9	242.2
555	1.49	192.8	80.1	313	246	178.5	208.9	265	650.2	242.3
556	1.49	192.9	80	310.2	245.7	177	209.1	264.8	651.6	241.3
557	1.46	192.9	79.6	311.2	245.9	176.4	210	265.4	652.6	241.8
558	1.44	192.7	79.8	309.1	245.5	176.3	208.9	264.7	653.8	240.9
559	1.44	193.2	80	314.1	245.5	177.5	209.5	264.8	654.5	242.3
560	1.42	193.2	79.7	311.5	245.5	176.4	209.2	264.2	655.3	241.3
561	1.4	193.5	79.7	310.6	245.3	176	208.7	264.9	656	241.1
562	1.38	194	79.7	314.6	245.4	178	208.8	263.6	656.2	242.1
563	1.37	194.1	79.7	313	245.5	176.4	208.3	264.1	655.9	241.5
564	1.36	194.5	79.7	315	245.4	177.1	208.5	264.4	655.7	242.1
565	1.34	194	79.5	313.5	245.5	178.1	208.9	264.1	656	242
566	1.32	194.7	79.3	313.7	245.4	175.5	208.8	263.5	656.2	241.4
567	1.31	194.3	79.4	316	245.4	177.4	208.2	264.4	656.6	242.3
568	1.29	193.5	79.5	315.4	245.3	176.2	208.3	262.7	657.3	241.6
569	1.28	193.7	79.4	312.9	245.4	175.5	208.3	262.9	659.3	241
570	1.25	193.9	79.3	315.3	245.1	176	208.2	263.1	661.3	241.5
571	1.24	193.8	79.5	318.1	245.2	176.6	209.1	263.2	663.6	242.4
572	1.24	194.5	79.6	318.6	245	174.5	208.6	263	666.4	241.9
573	1.22	194.6	79.6	313.2	244.6	175.6	206	262.8	668.6	240.4
574	1.2	194.3	79.4	317.1	244.6	177.1	208.3	261.7	670.7	241.8

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

575	1.17	194.9	79.2	316.1	244.9	175	208.1	262.7	672.5	241.4
576	1.17	194.1	79.2	317.8	244.7	175	207.3	262.1	674.4	241.4
577	1.16	194.6	79.3	317.5	244.5	175.6	208.3	262.2	675.5	241.6
578	1.13	195.7	79.2	317.2	244.3	176.1	207.1	261.8	677.4	241.3
579	1.12	196.6	79.4	319.1	244.3	176.8	207.6	261.7	678.2	241.9
580	1.1	197.4	79.1	319.4	244.1	176.1	206	261.9	679	241.5
581	1.08	197.4	79.1	320.7	244.4	177.2	207.3	261.9	680.1	242.3
582	1.07	197.2	79.1	319.7	244.3	176	206.9	261.5	681.1	241.7
583	1.05	196.3	79.2	320.4	244	175	207.6	262.1	682.4	241.8
584	1.04	196.8	79.4	320.4	243.9	176.2	207	261.5	682.7	241.8
585	1.01	197.2	79	321.8	244.1	175.9	206.9	262	684.2	242.1
586	0.99	197.4	79.1	323.4	243.7	176	206.6	261.9	684.2	242.3
587	0.98	196.7	79	325.4	243.6	174.9	207.3	262.5	685	242.7
588	0.95	197.6	79	318.9	243.7	176.5	207.1	261.8	685.8	241.6
589	0.94	197.4	79.3	325.9	243.9	175.9	206.8	261.6	686.9	242.8
590	0.92	197.6	79	324	243.6	175.7	206.2	261.5	687.4	242.2
591	0.91	198.2	79	325.4	243.7	175.8	208.1	262.2	688.2	243.1
592	0.9	197.9	79.1	324.5	243.6	176.2	207.3	261.3	689.3	242.6
593	0.87	198.7	79	326.1	243.7	176.6	207.6	261.1	690.2	243
594	0.85	198.2	78.7	325	243.7	175.3	207.8	261	690.8	242.6
595	0.85	197.8	79	321.9	243.9	177.3	207.7	261.4	692.3	242.4
596	0.83	198.5	78.9	328.2	243.7	177.3	206	261.4	692.8	243.3
597	0.81	198.4	79	327.6	243.5	177.2	207.3	260.9	693.7	243.3
598	0.8	199	79	329.4	243.5	176	206.9	261	694.7	243.4
599	0.79	198.6	78.7	326.8	243.6	175.7	206.6	260.9	695.7	242.7
600	0.75	199.5	78.8	328.5	243.5	176.3	208.3	261.9	697	243.7
601	0.74	199.1	78.7	329.4	243.3	176.4	208.3	260.8	697.8	243.6
602	0.72	199.2	78.7	328.6	243.3	179.8	205.8	261.4	698.6	243.8
603	0.7	199.4	78.9	330	243.3	175.8	207.3	260.9	699.3	243.5
604	0.68	199.8	78.6	332	243	178.9	207.6	260.3	700.1	244.4
605	0.67	200.6	79	326.7	243.3	177.7	207.8	260.5	701.2	243.2
606	0.64	200.4	78.6	329.4	243.5	176.8	207.7	260.7	702	243.6
607	0.63	200.6	78.9	329.6	243.3	178.2	208.1	261	702.8	244.1
608	0.6	201.2	78.7	332.1	243	178.4	206	260.6	703.6	244
609	0.59	202.1	78.8	331.3	243	176.7	207.5	261	704.2	243.9
610	0.57	201.5	78.6	328	242.8	177	207.6	260.3	704.5	243.1

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.8%

611	0.56	202.3	78.9	333	242.8	179.4	208	260.2	705.5	244.7
612	0.54	202.2	78.8	333.3	243	178.7	206.6	260.5	706.5	244.4
613	0.52	202.8	78.9	331.8	243.1	178.8	207.6	260.9	707.7	244.4
614	0.5	202	78.7	335.4	243.4	178.5	207.6	260.8	708.3	245.1
615	0.48	201.6	78.8	336.2	242.9	179.1	207.3	260.6	708.8	245.2
616	0.46	202.4	78.7	336.7	243	180	207.1	261	709.5	245.6
617	0.44	202.6	78.6	335.7	243	177.2	207	260.8	710.2	244.8
618	0.41	203.9	78.6	336.2	243.1	178.3	208.4	260.4	711.6	245.3
619	0.39	202.2	78.5	336.9	242.9	179	208.4	260.8	712.4	245.6
620	0.39	202.3	78.8	335.3	243.3	176.7	207.3	260.7	713.1	244.6
621	0.36	202.8	78.4	337.5	243.4	178.9	208.9	260.4	713.8	245.8
622	0.34	203.2	78.6	335	243.4	177.9	207.7	259.9	715	244.8
623	0.31	203.8	78.7	337.2	243.1	177.8	207.5	260.5	716.6	245.2
624	0.3	203.9	78.6	336.7	243.1	178	209.9	260.2	717.6	245.6
625	0.29	204.9	78.6	336.8	243.2	178.8	207.4	259.8	718.2	245.2
626	0.26	204.8	78.3	337.6	243.1	178.7	209.9	259.7	718.9	245.8
627	0.25	205.4	78.4	339.1	243.4	180.8	209.2	260.2	719.4	246.6
628	0.23	205.2	78.7	339.6	243.4	180.1	208.8	259.9	719.2	246.3
629	0.2	205.6	78.6	340.5	243.5	180	208.3	259.7	719.2	246.4
630	0.19	205.5	78.5	337.6	243.3	179.5	207.2	260.2	719.5	245.6
631	0.17	205.8	78.4	339.5	243.5	180.3	208.1	259.8	719.8	246.2
632	0.15	206.5	78.5	340.5	243.9	179.1	207.4	259.9	719.9	246.1
633	0.14	206.3	78.3	342	243.8	178.7	209.6	260.2	719.7	246.9
634	0.12	205.6	78.4	338.9	243.7	180.4	209.3	259.7	719.6	246.4
635	0.1	205.7	78.6	339.8	243.6	180.1	208.7	259.5	719.4	246.3
636	0.08	205.7	78.1	340.7	243.8	179.7	208.8	259.7	718.7	246.6
637	0	206.1	78.3	342.7	244	180.2	209.3	259.9	718.9	247.2

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

Elapsed Time (min)	Scale Weight (lbs)	Flue (F)	Ambient (F)	FB Top (F)	FB Bottom (F)	FB Back (F)	FB Left (F)	FB Right (F)	Catalyst (F)	Avg. Surface Temp (F)
0	31.57	339.6	77.4	408.1	204.7	206.1	236.4	290	748.7	269.1
1	31.52	369.2	77.3	399.9	205	208.5	238.8	291.7	694.6	268.8
2	31.37	350	77.3	395.3	204.6	212.1	235.5	292.2	711.6	267.9
3	31.22	349.8	77.3	391.9	204.6	214.1	234.6	293.2	754.6	267.7
4	31.03	359.4	77.4	387.7	204.6	214.7	230.9	292.9	807.5	266.2
5	30.88	364.6	77.5	387.8	206.5	216.4	231.5	293.1	859.4	267.1
6	30.78	332.9	77.2	387.1	207.9	217.6	229.1	292.7	865.9	266.9
7	30.66	316.1	77.5	387.9	208.6	216.7	227.5	291.9	881.1	266.5
8	30.58	306.9	77.2	391.4	209.2	217.8	225.6	290.1	902.1	266.8
9	30.49	302.1	77.2	396.2	209.8	216.1	224.8	288.4	921.2	267.1
10	30.39	299.3	77.1	399.3	210.2	216.3	220.8	287	933.8	266.7
11	30.29	296.7	77.4	398.5	210.9	215.9	219.7	285.2	940.6	266
12	30.2	295.6	77.6	405.9	211.4	213.8	217	282.8	944.1	266.2
13	30.11	294.2	77.2	405.2	212.1	214.3	216.7	280.8	944.3	265.8
14	30	295	77.3	412.3	212.6	212.2	213.6	278.6	948.2	265.9
15	29.89	293.9	77.5	414.4	213.2	211.4	213.1	277.7	950	266
16	29.82	293.4	77.6	423.6	213.9	209.9	212.3	275.3	952.7	267
17	29.73	293.2	77.7	420.5	214.1	208.6	211.2	274.3	956.3	265.7
18	29.63	292.5	77.7	430.4	214.6	208.4	209	271.7	957	266.8
19	29.52	294.1	77.8	429.5	214.9	207.7	208.7	270.9	961.7	266.3
20	29.42	294.1	77.5	434.9	215.4	206.5	206.8	268.8	962.8	266.5
21	29.32	295	77.8	439.5	215.6	205.2	205.3	266.7	964.2	266.5
22	29.24	294.8	77.7	440.1	215.7	203.9	204.7	265.1	965.8	265.9
23	29.15	294.1	77.8	442.7	216.1	202.9	203.2	263.8	963	265.7
24	29.04	293.7	77.8	451.9	216.2	201.6	202.8	262.1	956.7	267
25	28.97	292	77.9	446.2	216.5	200.9	201.8	260.5	947.6	265.2
26	28.89	291.2	78	446.8	216.7	200.9	201.9	259.2	937.9	265.1
27	28.79	290.5	78	445.9	216.7	201.6	200.3	257.4	927.5	264.4
28	28.71	290	78.1	447.5	216.7	200.8	200	256.7	917.2	264.3
29	28.63	287.9	77.9	444.7	216.8	199.8	198.4	254.8	908.1	262.9
30	28.53	286.2	78.2	444.7	216.5	185.5	199.7	254	900.5	260.1
31	28.45	283.2	78	438.7	216.8	181.9	198.8	252.5	894.8	257.7
32	28.37	280.4	78	446.1	216.8	177.7	198.6	251.3	891.3	258.1
33	28.27	278.5	78	446.4	216.6	174.1	197.7	250.3	889.5	257
34	28.2	276.9	78	442.8	216.7	170.5	197.9	250	889.9	255.6

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

35	28.11	275.6	78.1	438.5	216.6	168.8	195.5	248.7	891.1	253.6
36	28.02	274.3	78	439.6	216.3	167.7	196.5	248.1	893.3	253.7
37	27.94	273.8	78.2	439.4	216.1	164.5	195.8	247.2	895.2	252.6
38	27.86	273.5	78.1	432.3	215.9	164.5	196	246.3	896.3	251
39	27.78	272.5	78	434.4	215.9	162.5	195.7	244.9	895.9	250.7
40	27.7	271.4	78	432	215.3	162.2	195.7	244.5	894.7	250
41	27.62	270.9	78.2	432.5	215.2	160.8	195.4	243.9	892	249.6
42	27.54	269.5	78.2	427.7	215.2	159.6	195	243	888.5	248.1
43	27.46	269.4	78.3	428.9	214.6	159.8	195.1	242.1	885.8	248.1
44	27.38	268.7	78.2	424.7	214.4	157.9	195.2	241.7	883.5	246.8
45	27.31	268	78.3	423.1	214.1	156.5	195.4	240.6	881.8	245.9
46	27.22	267.4	78.4	424.4	213.6	157.1	194.4	240	880.8	245.9
47	27.15	267.2	78.2	420	213.6	156.1	195.2	239.1	879.6	244.8
48	27.08	266.7	78.3	420.2	213	154.6	193.7	238.4	878.7	244
49	27	265.8	78.3	420.7	213	154.3	193.6	237.7	877.3	243.9
50	26.92	263.9	78.4	419	212.8	153.5	194.5	237.3	876.9	243.4
51	26.86	262.7	78.3	421.9	212.1	154.6	193.6	236.3	877	243.7
52	26.79	262.4	78.5	418.6	212	152.5	193.1	235.7	876.8	242.4
53	26.71	261.9	78.3	407.7	211.6	152.4	192.9	234.4	876	239.8
54	26.64	260.6	78.2	419.4	211.4	152.9	193.3	234.5	874.2	242.3
55	26.58	259.7	78.4	414.3	211	152	194.4	233.5	872.1	241
56	26.51	259.7	78.3	413.4	210.4	151.8	192.1	232.8	869.8	240.1
57	26.45	258.6	78.1	412.2	210	150.3	191.7	231.8	867.3	239.2
58	26.38	258.2	78.3	409.6	209.9	150.4	191.2	231.5	865.1	238.5
59	26.31	257.7	78.4	412.7	209.3	150.2	191.5	230.6	862.8	238.9
60	26.25	256.7	78.2	408.4	208.9	150.2	191.8	230	860.7	237.9
61	26.17	255	78.2	410.3	208.8	150	191.4	229.8	858.8	238.1
62	26.09	255.4	78.3	408	208.4	149	191.6	229	856.9	237.2
63	26.03	254.5	78.5	407.3	208.4	148.4	191.5	228.5	855.4	236.8
64	25.98	253.2	78.4	408.3	207.8	148.6	190.8	228	853.7	236.7
65	25.91	252.3	78.6	406.2	207.7	147.5	191.6	227.7	852.6	236.2
66	25.84	251.9	78.4	400.7	207.3	149.1	191.6	226.6	851.8	235.1
67	25.76	252	78.6	403.2	207	145.9	190.6	226.1	850.9	234.6
68	25.71	250.6	78.8	406.4	206.7	147.4	191.6	226.3	850.7	235.7
69	25.63	250.4	78.6	403.4	206.2	147.4	191.2	225.8	850.3	234.8
70	25.58	249.4	78.7	400.2	205.8	146.4	190.3	225.2	850.1	233.6

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

71	25.52	249.3	78.8	397.7	205.6	146.2	191.1	224.5	850.2	233
72	25.45	248.5	78.6	398.8	205.3	146.5	190.9	224.6	850	233.2
73	25.39	248.6	78.8	400.1	205.4	145.4	191.4	223.8	849.6	233.2
74	25.32	248.6	78.6	396.4	204.6	146.5	190.3	223.8	849.5	232.3
75	25.26	247.2	78.9	395.1	204.5	145.7	190.8	223.3	848.7	231.9
76	25.2	247	78.7	391	204	146	191.8	223.1	847.5	231.2
77	25.14	246.5	78.5	400	204	145.7	190	222.7	846.6	232.5
78	25.07	246	78.7	395.8	203.4	145	190.9	222.4	845.4	231.5
79	25	245.7	78.7	399.9	203.5	144.2	191.7	222.5	843.6	232.4
80	24.94	245.6	78.7	397.3	203.1	143.6	189.5	221.7	841.6	231
81	24.89	245.2	78.7	392.1	203	144.6	190.8	221.5	838.9	230.4
82	24.83	244.9	78.6	398.1	202.3	145.4	191.4	221.2	836.6	231.7
83	24.77	243.8	78.8	394.3	202.2	143.6	190.6	221.2	834.5	230.4
84	24.71	242.6	78.8	395	202.2	145.3	190.4	220.7	832.6	230.7
85	24.66	242	78.6	394.9	201.5	144.5	190.3	220.1	830.8	230.2
86	24.6	239.9	78.9	393.3	201.4	142.7	190.2	220	828.8	229.5
87	24.54	240	79.1	392.1	201.3	143.8	190	219.9	827	229.4
88	24.47	239.6	78.8	392.5	200.6	143.6	189.8	219.8	825.4	229.3
89	24.43	238.6	78.9	392.8	200.3	143.6	189.9	219.6	823.9	229.2
90	24.36	238.6	78.9	387.1	200	144.7	189.9	219	823	228.2
91	24.31	237.4	78.9	388.9	199.9	143.6	190.2	218.8	821.8	228.3
92	24.24	237.3	79.1	385.7	200	142.4	189.6	218.7	820.9	227.3
93	24.19	236.9	78.9	386.6	199.7	143.2	190.2	218.3	820.1	227.6
94	24.13	236.5	78.9	387	199.2	142.3	189.6	218	819.5	227.2
95	24.09	236.4	79.1	384.1	199.1	141.8	190.9	218	819.3	226.8
96	24.02	235.9	78.8	385.5	198.8	143.6	191	218	819.1	227.4
97	23.96	235.1	79	385.9	198.7	143.5	190.5	217.6	819.3	227.2
98	23.91	235.7	79.1	385.6	198.2	141.4	190.8	217.3	819.7	226.6
99	23.86	235.7	79	383.6	197.9	142.7	190	216.8	820.1	226.2
100	23.8	235.4	79.3	382.8	197.7	141.9	189.5	217	820.4	225.8
101	23.74	234.9	79.1	387.2	197.6	141.9	189.9	216.8	820.5	226.7
102	23.68	234.4	79	384.7	197.4	141.1	189.8	216.8	821	226
103	23.63	233.9	79.1	381.9	196.9	142.3	190	216.1	822	225.4
104	23.56	234.1	79	385.2	196.7	142.4	189.3	216.2	823.4	226
105	23.51	234.7	79	382.5	196.5	141.2	189.9	216	825.4	225.2
106	23.45	234.6	78.9	383.3	196.1	140.8	188.8	215.9	827.7	225

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

107	23.39	235.1	79.1	385	195.9	141.3	189	216.1	830.2	225.4
108	23.34	235.8	79.1	382.8	195.5	141.3	189.3	215.5	833.4	224.9
109	23.27	236.7	79.3	383.4	195.4	141.6	189.2	215.3	837.4	225
110	23.22	237.7	79.2	384.4	195.3	141.7	188.9	215.3	841.5	225.1
111	23.13	237.8	79	391.6	194.9	140.8	190.5	215.2	845.9	226.6
112	23.1	238.2	79.1	383.2	194.6	141.4	189.2	215.2	850.7	224.7
113	23.05	238.3	79.2	386.7	194.3	140.8	188.9	215.3	853.9	225.2
114	22.97	239.1	79.1	391.7	194.2	141.3	190.1	214.7	857.5	226.4
115	22.94	238.8	79.1	390.9	194	140.7	190.3	215	860.7	226.2
116	22.86	238.7	79.4	390.5	193.6	140.9	189.1	214.3	864.4	225.7
117	22.8	239.2	79.2	393.3	193.5	141.3	191	214.6	868.1	226.7
118	22.73	239.2	79.4	394.1	193.4	141.1	189.9	214.4	871.8	226.6
119	22.66	239.9	79.4	393.9	193.2	140.8	190.2	214.6	875.5	226.5
120	22.62	240.1	79.4	396.1	192.8	140.8	190.9	214.4	879.1	227
121	22.54	240.5	79.5	397	192.7	140.7	192	214.1	883.5	227.3
122	22.48	241.6	79.5	398.6	192.5	140.1	190.7	214	887.6	227.2
123	22.42	242.1	79.9	402	192.3	140.4	191.4	214.4	892.8	228.1
124	22.34	242.6	80	401.9	192.3	141	191.7	214.4	897.7	228.2
125	22.29	242.8	79.8	403.4	191.8	140.8	191.2	214.4	902.2	228.3
126	22.21	243.1	79.9	404.6	191.9	140.8	191.5	214.4	907.3	228.7
127	22.15	244.4	80	412.3	191.5	141.1	193.1	214.7	912.8	230.5
128	22.09	246.4	79.9	411.8	191.5	141	192.4	214.8	917.9	230.3
129	22.02	246.8	79.8	409.1	191.2	141.6	193.1	214.4	923.4	229.9
130	21.95	248	79.8	413.9	191.1	141.9	192.8	214.7	929.1	230.9
131	21.88	248.7	80	413	190.7	140.9	193.4	214.8	934.5	230.6
132	21.81	250	80	414.8	190.9	141.1	194.1	214.6	940	231.1
133	21.74	251.7	80.1	421.5	190.8	141.3	192.6	214.9	945.1	232.2
134	21.67	252	80.1	423.5	190.5	141.9	193	215.2	950.3	232.8
135	21.6	253.3	80.1	424.9	190.5	142.6	193.1	215.4	955.7	233.3
136	21.52	255.2	80.3	422	190.3	141.8	193.6	215	960.8	232.5
137	21.45	255.5	80.2	430.2	190.1	142.8	194.4	215.6	966.5	234.6
138	21.37	256.3	80.1	434.9	190	142.2	194.6	215.7	972	235.5
139	21.27	261	80.3	438.6	189.9	142.7	194.1	216.1	982	236.3
140	21.18	263.9	80.3	442.3	189.9	143.3	193.2	215.9	987.6	236.9
141	21.1	265.5	80.4	448.4	189.8	143	193.6	215.9	987.2	238.2
142	21.01	265.4	80.2	460.7	189.4	143.3	194.8	216	978.7	240.8

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

143	20.93	266.7	80.3	462.1	189.6	143.7	195.1	216.2	970.8	241.4
144	20.83	267.2	80.2	470	189.4	142.9	193.8	216.3	967.3	242.5
145	20.76	267.3	80.5	466.3	189.4	144.1	194	216.7	966.8	242.1
146	20.67	267	80.4	473	189.3	145.7	195.5	217.2	970.9	244.1
147	20.59	267.1	80.3	477	189.1	145.2	194.2	217.6	979.1	244.6
148	20.5	267.3	80.5	474.6	189.2	145.5	195.9	218.2	990.7	244.7
149	20.43	268.7	80.4	481.5	189.2	145.1	196	218.1	1003.5	246
150	20.34	269.9	80.3	488.9	189.1	144.8	196	218.9	1015.8	247.5
151	20.26	271.5	80.5	491.4	189	145.9	196.1	219.4	1026.9	248.4
152	20.17	271.7	80.6	489.2	189	145.2	197.3	219.9	1036.5	248.1
153	20.08	273	80.5	496.4	188.9	146	196.6	220	1042.4	249.6
154	19.99	274	80.6	500.8	188.9	146	197	221	1049.6	250.7
155	19.91	274.6	81.1	496.1	189.2	147.1	197	221.3	1054.9	250.2
156	19.82	275.7	81.1	500	189.2	147.9	196.5	222	1059.4	251.1
157	19.73	277.7	81.1	500.1	188.9	147.4	198.3	222.1	1062.6	251.4
158	19.64	278.8	80.9	508.5	189.1	148	198.3	223	1066.5	253.4
159	19.54	282	81.2	512.2	188.9	147.7	198.9	223	1069.4	254.1
160	19.45	282.3	80.8	518.6	189.3	147.8	198	223.7	1072.7	255.5
161	19.36	284.9	80.9	521.6	189.5	147.9	199.4	224.3	1076.5	256.5
162	19.25	286.5	80.9	526.3	189	149.1	199.1	225.7	1078.8	257.8
163	19.15	287.1	81	527.5	189	150	199.9	225.7	1081.3	258.4
164	19.05	290	81.1	532.4	189.1	148.9	201.4	226.1	1083.4	259.6
165	18.95	292.9	80.9	540.3	188.8	150	200.6	226.9	1085.9	261.3
166	18.83	294.9	81.1	545.3	189.1	149.3	202	227.8	1088.3	262.7
167	18.72	296.3	81.4	547.9	189	151	201.8	228.6	1089.7	263.6
168	18.6	299.1	81.2	544.3	189.1	151.3	201.4	228.9	1090.9	263
169	18.48	301	81.3	552.6	189.3	151.4	201.7	229.8	1092.8	265
170	18.36	302.5	81.3	554.6	189.2	151.7	204.1	230.8	1093.1	266.1
171	18.24	303.9	81.3	557.2	189.3	152.3	203.7	230.8	1092	266.7
172	18.13	304.9	81.2	557.3	189.1	152.3	204.1	232.3	1090.8	267
173	18.01	306.2	81.4	552.3	189.4	151.9	205.1	232.7	1090.3	266.3
174	17.89	305.4	81.6	561.7	189.3	153	205.9	233.6	1089.9	268.7
175	17.77	305.8	81.4	569.2	189.2	153.7	206.3	234.5	1089.5	270.6
176	17.67	306.7	81.5	565.9	189.3	153.9	206.8	235	1088.8	270.2
177	17.55	307	81.5	565.6	189.3	154.2	207.6	235.9	1088.5	270.5
178	17.44	306.4	81.5	570	189.4	155.2	207.5	236.6	1088.6	271.8

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

179	17.33	306.2	81.5	570.2	189.4	155.1	207.4	237.1	1089.4	271.8
180	17.22	307	81.4	573.4	189.8	156.6	209.1	238.1	1090.4	273.4
181	17.12	306.9	81.4	564	189.4	156	209.2	239.2	1091.7	271.6
182	17	306.8	81.7	577.8	189.7	156	209	239.1	1094.1	274.3
183	16.9	307.9	81.4	567.4	190	157	212.1	240.3	1096.8	273.4
184	16.79	307.3	81.8	579.2	189.6	157.5	211.5	240.8	1099.1	275.7
185	16.69	307.4	81.7	579.8	189.7	157.4	209.9	241.8	1101.2	275.7
186	16.6	308.5	81.7	575	189.7	158	211.2	241.9	1103.4	275.2
187	16.48	309.2	81.8	574.4	190	159.5	211.5	242.7	1106	275.6
188	16.37	308.7	81.7	577	190.3	157.9	210.9	243.1	1108.5	275.8
189	16.26	309.6	81.8	586.1	190.5	159.1	212.4	243.9	1110.2	278.4
190	16.15	309.7	81.7	584.7	190.1	159.6	213.6	243.9	1111.2	278.4
191	16.04	310.4	81.6	578.8	190.1	160.4	215.8	245.1	1111.5	278
192	15.95	310.9	81.6	576.9	190.2	159.6	213.9	246	1111.7	277.3
193	15.82	312.2	81.6	584.3	190.3	159.4	214.9	246.4	1111.9	279.1
194	15.7	312.3	81.5	577.3	190.3	160.8	216.3	246.6	1111.7	278.3
195	15.59	313.3	81.7	585.1	190.6	161.1	216.3	247.4	1111	280.1
196	15.48	313.5	81.7	592.6	190.3	162.4	216.6	248.3	1109.8	282
197	15.36	313.9	81.6	586.2	191.2	162.9	216.9	248.8	1108.5	281.2
198	15.23	314.4	81.8	589.9	191	162.3	218.5	249.7	1107.4	282.3
199	15.11	315.8	81.5	590.9	190.9	162.3	218.5	250.3	1106.2	282.6
200	14.98	315.6	81.6	586.9	190.6	163.9	219.6	251	1105.9	282.4
201	14.86	316.3	81.6	588.5	190.9	163.9	219.4	252.2	1105.7	283
202	14.73	317.5	81.8	587.5	191.1	165.4	220.7	252.9	1105.4	283.5
203	14.6	318.5	81.6	585.6	190.9	165.3	221.4	253.3	1105.3	283.3
204	14.48	317.7	81.8	575.6	190.9	165.2	220.5	253.9	1104.9	281.2
205	14.36	318.2	81.9	593.3	191.2	165.9	221	254.9	1104.6	285.3
206	14.19	319.9	82	586.5	191	167.1	222.8	256.4	1104.1	284.8
207	14.07	321.2	82.1	582.6	191.3	166.3	222.6	256.7	1104.1	283.9
208	13.92	322.1	82	582.2	191.3	166.4	223.4	257.1	1103.8	284.1
209	13.78	322.6	82.1	583.3	191.4	167.5	225.3	257.7	1102.6	285.1
210	13.64	323.2	82.3	583.7	191.8	168.8	225.4	259.2	1101.9	285.8
211	13.51	324.1	82.2	584	191.6	168.2	227.5	260.3	1101.8	286.3
212	13.33	324.5	82.1	587.6	191.8	169.6	227.5	261.5	1101.7	287.6
213	13.2	325.6	82.3	578.3	191.8	169.1	229.1	261.5	1101.3	286
214	13.05	325.1	82.1	580.8	191.9	169.5	228.5	262.7	1100.9	286.7

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

215	12.91	326.6	82.3	581.8	191.9	169.9	228.8	263.1	1099.6	287.1
216	12.77	327.3	82.3	573.1	192.6	170.7	228.7	264.1	1098.2	285.8
217	12.61	327.6	82.4	570.6	192.6	172.2	230.6	264.7	1097.3	286.2
218	12.46	327.7	82.6	571.5	192.9	173	231.1	265.1	1096.8	286.7
219	12.3	329.5	82.5	570	192.9	173.3	231.8	265.6	1095.9	286.7
220	12.15	329.7	82.4	571.2	193.1	173.2	233.5	267.4	1094.8	287.7
221	11.99	330.8	82.6	565.8	193.1	173.6	233.4	267.6	1093.3	286.7
222	11.82	329.6	82.6	570.6	193.6	175.1	233.2	268.3	1090.7	288.2
223	11.68	329.1	82.7	570.2	193.8	175.7	235.7	268.6	1088.4	288.8
224	11.54	327.6	82.5	572.3	194.3	177.2	233.5	269.6	1086.5	289.4
225	11.4	326.9	82.5	570.7	194.2	176.5	234.2	270.4	1083.5	289.2
226	11.27	325.8	82.7	566.6	194.4	177.4	235.9	271.1	1080.1	289.1
227	11.14	323.9	82.6	569.5	194.6	177.6	236.1	272	1078.5	289.9
228	10.99	322.8	83	564.4	194.7	179	237.3	272.5	1076.8	289.6
229	10.88	321.2	82.7	573.3	194.8	180.4	235.3	273.5	1076.2	291.5
230	10.74	319.5	82.8	557.4	194.9	180.2	237.9	274.1	1075.2	288.9
231	10.61	319	82.9	569.9	195.2	179.9	237.6	275.1	1074.5	291.5
232	10.48	318.5	83.1	564.3	195.3	181.2	238.3	275.1	1074	290.8
233	10.36	317.9	83	573.8	195.3	181.5	240.2	275.6	1073.3	293.3
234	10.23	317.2	83.1	570.1	195.5	182.2	239.9	276.6	1072.8	292.9
235	10.11	315.7	83	573.7	195.6	182.5	239.5	277.4	1071.2	293.7
236	10	313.9	83	566.6	195.5	182.8	241.3	278.2	1068.8	292.9
237	9.89	313.4	83.2	568.8	196	183.4	241.4	278.2	1065.5	293.6
238	9.77	312.1	83.2	570.7	196.5	182.5	241.1	279.2	1063.1	294
239	9.67	311.5	83.3	563.4	196.9	183.4	242.2	278.8	1060.9	292.9
240	9.57	309.5	83.1	567.8	196.8	184.5	243.1	279.8	1059	294.4
241	9.46	307.4	83.3	561.6	196.9	184.2	242	280.2	1057.5	293
242	9.36	306.6	83.2	568.2	197	183.3	242.5	281.1	1056.2	294.4
243	9.26	305.4	83.2	572.8	197.1	185.1	243.3	281.4	1055.6	296
244	9.16	303.7	83.1	569.7	197.7	186.2	243.5	281.8	1054.7	295.8
245	9.07	303.2	83.3	567.8	197.6	186.4	244.2	282.7	1053.4	295.7
246	8.96	302.3	83.4	567.6	197.8	186.6	244.5	283.4	1051.8	296
247	8.88	301.1	83.7	570.2	198.1	187.6	246.6	283.5	1050.5	297.2
248	8.78	300.6	83.5	563.4	198.6	186.8	246.1	284.2	1049.3	295.8
249	8.69	299.9	83.4	566.6	198.6	185.9	246	284.6	1048	296.3
250	8.59	298.4	83.6	569.6	198.6	187	247	284.8	1046.4	297.4

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

251	8.51	297.5	83.3	564.9	198.8	188.1	247.6	285.9	1044.9	297.1
252	8.42	296.6	83.6	571.7	199	188	246.4	286.3	1042.7	298.3
253	8.34	295.3	83.6	563.2	199.6	188.6	249.3	286.7	1040.2	297.5
254	8.25	294.2	83.6	565.6	199.3	188.9	249.7	287.2	1038.1	298.1
255	8.18	293.1	83.5	559.8	199.5	188.6	250.1	287.9	1035.2	297.2
256	8.1	291.4	83.6	566.3	199.6	190.1	250.2	288.5	1032.8	298.9
257	8.04	291	83.8	566.5	200	190.8	250.4	289	1030.5	299.4
258	7.96	289.6	83.7	564.6	200.2	189.7	251.3	289.4	1028.6	299.1
259	7.89	287.5	83.8	567.2	200.7	188.9	250.3	289.9	1027.5	299.4
260	7.83	286.4	83.8	561.7	200.7	189.1	252.6	289.9	1026.5	298.8
261	7.75	285.3	83.7	564.3	201	191	254.3	290.5	1025.8	300.2
262	7.68	283.6	83.7	565.9	201.6	191.1	253.8	290.4	1025.3	300.6
263	7.62	282	83.9	563.1	201.7	191.8	254.7	291.1	1024.6	300.5
264	7.55	282.3	83.9	555.6	201.8	190.1	255.3	290.9	1023.9	298.7
265	7.5	282.6	83.9	558	202	191.8	255.1	291.4	1022.7	299.6
266	7.43	281.9	83.9	555.5	201.8	192.1	256.6	292.1	1021.9	299.6
267	7.37	281.3	83.9	554.1	202.5	191.2	255.1	291.1	1020.5	298.8
268	7.31	280.6	84	559.9	202.5	192.8	256.5	292.2	1018.8	300.8
269	7.24	278.6	83.9	554.7	202.5	191.1	256.1	292.5	1017.5	299.4
270	7.18	279	84	545.2	203.2	192.9	258	292.3	1015.3	298.3
271	7.12	278.3	84	552.6	202.9	192.1	257.7	292.8	1013.3	299.6
272	7.06	277.3	84.1	548.4	203.1	193.9	259	293.1	1010.2	299.5
273	7.02	276.1	84	558.2	203.5	192.4	257.9	293	1008.5	301
274	6.96	274	84	553.4	203.8	193.3	259.7	293.6	1009.5	300.8
275	6.91	273.4	84.1	546	204.1	193.2	259	292.7	1013.9	299
276	6.87	273.4	83.9	554.1	204.2	192.9	258.8	293.6	1019	300.7
277	6.84	272.7	84	552.4	204.6	193.6	259.6	293.2	1023.8	300.7
278	6.79	272.1	84	548.1	204.5	194.1	260.1	293.5	1029.7	300
279	6.74	270.7	84	548.9	204.8	194.3	263.1	293.4	1029.3	300.9
280	6.7	270.9	84.1	543.1	205.4	194	259.4	293	1028.3	299
281	6.66	269.8	84	545.1	205.6	194.4	260.6	293.7	1028.9	299.9
282	6.62	268.6	84	540.1	205.6	195.1	261.6	294	1024.5	299.3
283	6.59	268.2	84.2	540.2	205.7	193.3	263.5	293	1017.5	299.1
284	6.56	267.4	84.4	542.7	205.7	195.6	263.6	292.8	1009.9	300.1
285	6.52	266	84.3	535.7	206.1	194.1	263.3	292.6	1002.5	298.4
286	6.49	265.2	84.1	530.4	206.6	192.5	262.2	292.7	993.8	296.9

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

287	6.45	264.4	84.2	531.1	206.3	194.4	264.8	292.2	984.5	297.8
288	6.43	263.1	84.1	530.2	206.6	195.5	265.6	292.4	973.9	298.1
289	6.4	262.9	84.4	523.3	207	193.8	265.6	291	961.5	296.1
290	6.36	260	84.1	520.8	207.4	195.1	267.2	291	948	296.3
291	6.34	258.3	84.3	515.4	207.3	194.3	266.9	290.9	934.4	295
292	6.31	257.6	84.3	511.7	207.6	194.3	265.7	290.3	921.3	293.9
293	6.29	255.4	84.2	507.3	207.7	193.9	266.3	290.2	909.4	293.1
294	6.27	253.3	84.2	504.1	208.1	195.4	266.4	289.3	898	292.7
295	6.25	251.6	84.2	497.8	208.4	193.8	268.9	288.8	887.7	291.5
296	6.21	249.3	84.2	484.8	208.3	194.4	270.7	288.4	878.6	289.3
297	6.19	247.1	84.5	484.5	208.7	192.4	269	287.4	870.4	288.4
298	6.17	245.6	84.3	484.5	208.8	193.8	268.9	287.1	862.7	288.6
299	6.15	243.8	84.4	478.6	208.9	194.1	269.5	286.6	856.2	287.5
300	6.12	241.8	84.2	471.3	209	195.5	270.9	286.3	850	286.6
301	6.1	240.6	84.4	473.6	209.2	194.2	270.3	285.4	843.8	286.5
302	6.07	238.6	84.3	466.4	209.2	194.2	271.1	284.9	838	285.2
303	6.06	237.7	84.4	458.1	209.6	192.8	270.4	283.9	832.7	283
304	6.05	236.4	84.4	453	209.8	194.1	269.5	283.4	827.6	282
305	6.02	234.4	84.5	453.2	210	193.7	270.5	282.9	822.4	282
306	6	233.5	84.2	448.3	209.9	193.8	271.3	282.7	817.9	281.2
307	5.97	232.5	84.3	446.9	210.2	192.3	271.1	282	813.1	280.5
308	5.96	231.3	84.3	443.4	210.1	192.6	272.7	281.6	808.7	280.1
309	5.94	231	84.3	443	210.8	193.7	270.2	280.4	804.3	279.6
310	5.93	229.7	84.1	435.8	210.6	193	270.6	280.1	800.3	278
311	5.9	229	84.4	430.1	211	190.3	273.4	279.5	796.3	276.9
312	5.88	227.1	84.4	430.4	211.2	191.2	272.9	279.1	792.5	276.9
313	5.87	225.7	84.3	423.9	211.1	190.4	271	278.3	788.9	275
314	5.86	224.6	84.5	425.1	211.4	192	271.3	277.9	785.5	275.5
315	5.84	222.8	84.5	424.4	211.5	190.4	270.6	277.1	781.8	274.8
316	5.81	222.2	84.3	421.4	211.4	190.1	269.9	276.5	778.8	273.9
317	5.8	221.7	84.4	415.4	211.9	188.6	269.6	275.6	775.7	272.2
318	5.77	221.1	84.4	419.1	211.9	190.3	269.5	274.9	772.6	273.1
319	5.76	221.2	84.4	418.9	211.9	189	269.9	274.6	769.4	272.9
320	5.74	220	84.4	412.3	212.2	186.6	270.4	273.9	766.9	271.1
321	5.73	219	84.4	410.1	211.9	188.3	271.9	273.6	763.7	271.2
322	5.71	218.6	84.4	410.1	212.2	188.9	271.2	273.2	760.9	271.1

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

323	5.69	218.3	84.2	408.2	212.4	187.3	271.1	272.6	758.3	270.3
324	5.67	216.9	84.4	402.8	212.5	187.7	270.2	271.6	755.8	269
325	5.66	216.1	84.4	404.4	212.3	188.6	271.4	270.8	753.2	269.5
326	5.64	214.6	84.5	402.2	212.5	186.9	268.7	270.7	751.2	268.2
327	5.63	214	84.3	399.8	212.8	186.5	269.5	269.8	749.4	267.7
328	5.6	213.4	84.4	399.2	212.7	186.3	270.4	269.4	747.8	267.6
329	5.59	212.9	84.3	391.8	212.7	184.5	270.1	269.7	746.3	265.8
330	5.58	211.9	84.3	393.8	212.7	184.9	269.8	267.9	744.4	265.8
331	5.55	211	84.3	391	212.7	185.2	269.1	268	742.3	265.2
332	5.53	209.9	84.4	389.8	212.8	185.2	270.1	267.2	740.7	265
333	5.52	210.1	84.3	391.5	212.8	185.2	268.6	267.1	739.4	265
334	5.5	210	84.3	389.2	212.8	184.8	270.2	266.5	737.8	264.7
335	5.5	208.9	84.5	383	212.8	184.3	267.2	265.6	736	262.6
336	5.48	208.3	84.3	383.7	213.2	183.1	268.4	265.1	734.6	262.7
337	5.45	207.2	84.5	383.1	213.1	183.7	268.7	264.8	733.1	262.7
338	5.44	207.3	84.5	384	212.9	183.1	268.6	264.9	731.2	262.7
339	5.41	207.3	84.4	382.3	213	182.2	267.8	263.7	729.6	261.8
340	5.39	207	84.5	380.4	212.8	182	264.5	263.9	728	260.7
341	5.39	207.1	84.4	377.4	212.7	183	268.1	262.7	726.3	260.8
342	5.37	205.8	84.4	378.3	213.1	182.9	268.8	262.3	724.8	261.1
343	5.36	205.2	84.5	379.4	212.9	181.3	267.4	261.8	723.1	260.6
344	5.35	204.6	84.4	377.7	212.9	181.4	267.2	261.4	721.7	260.1
345	5.33	205.2	84.3	377.4	212.7	182	268.2	260.8	720.4	260.2
346	5.31	205.1	84.4	375.3	212.7	180.5	269.4	260.5	718.8	259.7
347	5.3	204.9	84.4	373.4	212.5	180.6	267.1	260.5	717.5	258.8
348	5.29	204.5	84.4	371.7	212.6	180.7	267.6	259.9	715.8	258.5
349	5.26	204.5	84.3	371.6	212.5	180.7	269.6	259.7	715	258.8
350	5.26	204.8	84.4	370.2	212.6	180.2	266.6	258.9	713.3	257.7
351	5.24	204	84.5	370.9	212.6	179	267.5	258.9	712.5	257.8
352	5.22	203.9	84.4	368.9	212.4	179.6	267.3	258.1	711	257.3
353	5.21	203	84.4	368.2	212.3	178	268.3	258	710.1	257
354	5.19	202.2	84.3	366.6	212.4	179.9	266.6	257.3	708.8	256.6
355	5.19	202	84.3	366.8	212.2	178.8	267.8	257.4	707	256.6
356	5.17	201.7	84.6	366.4	212.2	178.3	267.2	256.4	705.8	256.1
357	5.15	200.9	84.5	367.2	212.1	178.4	266.1	255.9	704.4	255.9
358	5.14	200.9	84.5	364.9	212.1	176.7	267.2	256	703.3	255.4

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

359	5.11	200.1	84.2	366.1	211.8	177.1	267.2	255.4	702.3	255.5
360	5.1	199.8	84.3	362.8	211.7	178.3	265.3	255.1	701.1	254.6
361	5.08	200.4	84.6	364	211.5	176.4	265.7	254.5	700.4	254.4
362	5.07	199.2	84.5	361.7	211.6	178.2	266.7	253.7	699.8	254.4
363	5.05	198.7	84.5	362.7	211.7	176.7	265.9	253.3	700.3	254.1
364	5.03	198.4	84.5	360.7	211.6	177.5	264.5	252.7	701.1	253.4
365	5.02	197.8	84.4	361	211.4	176.2	266.7	252.4	701.5	253.5
366	4.99	197.3	84.4	363.1	211.4	176.6	264.8	251.8	701.8	253.6
367	4.98	197.4	84.4	361.7	211.4	175.7	263.1	251.1	701.9	252.6
368	4.96	197	84.4	361.1	211.1	175.2	263.5	250.6	701.4	252.3
369	4.95	196	84.4	361.1	211	173.7	262.9	250.1	701.2	251.7
370	4.94	196.3	84.4	362.6	210.8	175.5	261.5	249.7	700.4	252
371	4.93	196.3	84.4	362.4	210.9	174.8	262.3	249.3	699.9	251.9
372	4.91	195.5	84.4	358.4	210.9	172.7	263.9	248.3	698.6	250.8
373	4.9	195.5	84.5	361.3	210.7	174.1	261.6	248.1	697.6	251.2
374	4.89	194.9	84.4	360.9	210.5	174.4	260.1	248.3	696.3	250.8
375	4.87	194.8	84.5	360.6	210.5	174.3	260	247.5	694.8	250.6
376	4.86	194.3	84.5	362.5	210.6	172.6	260.9	246.8	694	250.7
377	4.84	194.4	84.3	360.4	210.2	172.5	260.4	246.5	692.3	250
378	4.83	193.6	84.3	357.9	210.2	172	258.7	246.4	692	249
379	4.81	193.5	84.2	360.2	210.1	172.4	258.9	245.4	691.4	249.4
380	4.8	192.8	84.3	358.3	210.3	172.2	256.5	244.9	690	248.4
381	4.79	192.5	84.3	357.2	209.9	171.9	259.2	244.8	688.8	248.6
382	4.77	191.6	84.2	359.3	210	172.7	257.5	244.6	687.4	248.8
383	4.76	190.9	84.3	355.9	209.8	171.1	257.9	244	687.3	247.7
384	4.74	191.8	84.4	356.5	209.7	170.5	257.5	243.3	686.1	247.5
385	4.73	191.7	84.2	354.2	209.7	170.1	257	243.5	685.6	246.9
386	4.72	190.8	84.3	354.9	209.7	170.5	255.2	242.9	685.2	246.7
387	4.72	191	84.3	354.4	209.4	170.1	258	242.9	684.1	247
388	4.69	191.4	84.3	353.3	209.5	170	256.9	242	683.6	246.3
389	4.69	191	84.3	352.8	209.4	169.6	257.7	241.4	682.7	246.2
390	4.66	190.9	84.4	351.8	209.1	169	253.6	241.1	682.2	244.9
391	4.66	190.6	84.1	351.2	209.1	168.2	254.2	240.7	681.5	244.7
392	4.65	190.6	84.2	352.4	209	170.3	255.4	240.6	680.7	245.5
393	4.62	191	84.2	350.7	209	167.8	254.1	240.6	679.8	244.4
394	4.62	191.3	84.4	349.1	208.8	167.3	254.3	239.8	679.2	243.9

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

395	4.6	191	84.3	350	208.8	169.3	254	239.9	678.6	244.4
396	4.59	191.2	84.3	349.5	208.6	166.9	252	239.2	677.6	243.2
397	4.58	191.3	84.2	347.6	208.4	167.8	253.7	239.1	676	243.3
398	4.56	191.1	84.3	347.9	208.2	166.6	254.3	238.6	674	243.1
399	4.55	190.5	84.3	347.9	208.3	167.7	254.2	238.1	672.5	243.2
400	4.55	190.1	84.2	344.4	208.2	166.1	253.3	237.6	670.1	241.9
401	4.53	188.9	84.4	346.3	208.1	166.6	252.9	237.3	668.2	242.2
402	4.52	188.6	84.3	345.7	207.9	166.4	250.5	237	666.4	241.5
403	4.52	187.8	84.3	342.6	207.9	166	251.8	236.6	664.4	241
404	4.48	188.4	84.1	344.1	207.8	164.9	252.2	236.2	663	241
405	4.49	188.3	84.2	342.5	207.6	165.8	250.2	235.9	661.6	240.4
406	4.47	187.5	84.2	334.9	207.5	165.2	250.6	235.8	660.5	238.8
407	4.47	187.7	84.1	336.8	207.3	164.9	252.1	235.3	659.1	239.3
408	4.44	187.4	84.1	338.8	207.2	166.3	251.9	234.8	656.9	239.8
409	4.45	187.9	84.3	339	207	164.8	251.6	234.4	655.8	239.4
410	4.43	187.1	84.1	339.6	206.8	165.5	251.9	234.3	654.2	239.6
411	4.41	186.9	84.2	337.7	206.7	165.1	251.4	233.9	653.3	239
412	4.41	185.5	84.1	334.9	206.7	164.7	251.6	233.6	652	238.3
413	4.39	186	84.1	333.3	206.4	163.5	251.4	233	650.8	237.5
414	4.38	185.8	84.1	332.6	206.3	164.4	251.3	232.7	650.2	237.5
415	4.37	184.9	84.1	332.6	206.3	162.9	251.8	232	648.4	237.1
416	4.37	185	83.9	332.2	206.1	163.6	252.3	232	647.8	237.2
417	4.35	184.4	84.1	331.3	205.9	164.2	250.9	231.7	646.9	236.8
418	4.34	183.6	84.2	331.6	205.7	163	251.6	231	646.2	236.6
419	4.33	183.3	84	330.3	205.6	162.6	250.9	231	645.6	236.1
420	4.32	183.1	84.1	329.5	205.4	163.3	252.3	230.7	644.9	236.2
421	4.3	183.7	84.1	328.4	205.3	162.6	251.8	230.1	644.4	235.6
422	4.29	183.6	84.2	329.3	204.9	162.5	253.3	229.7	644.1	235.9
423	4.27	183.2	84.1	329	205	163.6	251.4	229.2	643.6	235.7
424	4.26	182.9	84.1	327	204.8	163.2	251.4	229.1	643.2	235.1
425	4.25	183	84.1	324	204.8	162.9	252.8	228.7	642.7	234.7
426	4.24	182.7	84.1	324.9	204.5	162.3	252.2	228.7	642	234.5
427	4.23	182.4	83.9	324.9	204.1	163.1	252.8	228.2	641.6	234.6
428	4.21	182.7	84.1	324.9	204.1	161.4	251.9	227.9	641.4	234
429	4.2	182.6	83.9	324.6	203.9	161.6	252.1	227.6	640.4	233.9
430	4.19	182.7	84	322.7	203.7	162.8	250.5	227.2	640.2	233.4

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

431	4.17	182.1	84	317.8	203.6	161.2	249.3	227	640.9	231.8
432	4.16	181.7	84.1	321.7	203.6	160.9	251.7	226.7	640.3	232.9
433	4.15	181.5	84	321.8	203.3	161.6	250.1	227	639.8	232.8
434	4.14	180.9	84.1	321.7	203	161.7	251.1	226.4	640	232.8
435	4.13	180.8	84	323.2	202.8	161.6	251.6	225.9	639.3	233
436	4.13	180.4	84.1	320.9	202.9	162.8	251.5	225.4	638.8	232.7
437	4.11	181.3	83.8	320.6	202.7	160.6	250.6	225.8	638.5	232.1
438	4.08	180.7	83.9	321	202.3	160.5	252.2	225.4	638	232.3
439	4.07	180.5	83.7	319.4	202.1	160.8	250.9	225.2	637.8	231.7
440	4.06	181	83.9	319.4	201.9	161.7	251.7	225.1	637.6	232
441	4.06	180.7	83.9	318.5	201.9	161.8	250.8	224.9	637.8	231.6
442	4.05	180.9	83.9	318.2	201.7	161.8	250.1	224.3	637.6	231.2
443	4.03	179.7	83.9	318	201.5	161.7	250.6	224.7	637.2	231.3
444	4.02	179.7	83.8	318.6	201.1	160.7	253	223.6	637.1	231.4
445	4.01	180	83.9	317.4	201.1	162.5	250.3	224	636.9	231.1
446	3.99	180	83.8	321.5	200.9	162.2	250.9	224	635.7	231.9
447	3.98	180.2	83.5	316.9	200.8	160.6	250.4	223.5	635.5	230.4
448	3.96	180.5	83.7	315.5	200.4	161	250.6	223.1	635.3	230.1
449	3.96	180.2	83.8	315.3	200.2	161.5	249.6	223	635	229.9
450	3.94	180.1	83.8	316.1	200.2	161.6	249.1	222.6	634.7	229.9
451	3.94	180.4	83.8	314.9	200	161	248.8	222.7	634.9	229.5
452	3.92	179.8	83.8	315.7	199.8	160.7	250.3	222.4	634.7	229.8
453	3.9	180.1	83.7	314.7	199.7	161.1	250.5	222.2	634	229.6
454	3.89	179.8	83.6	313.2	199.5	161.1	249.9	222.4	633.7	229.2
455	3.89	178.9	83.6	315.4	199.3	160.7	250.1	222	633.6	229.5
456	3.88	179	83.6	316.4	199.1	160.3	249.7	221.6	633.2	229.4
457	3.86	178.4	83.6	314.9	199.1	161.7	250.9	221.5	633	229.6
458	3.84	179.1	83.6	315.2	198.7	159.8	249	221.3	633.1	228.8
459	3.84	178.8	83.7	315.6	198.4	161.4	250.5	220.9	632.7	229.4
460	3.82	179.4	83.7	316.3	198.5	160.8	248.2	221.6	633	229.1
461	3.8	179.4	83.6	315.5	198.3	161.4	248.9	221	632.7	229
462	3.77	179.5	83.5	312.5	198.2	160.3	248.5	221.1	632.3	228.1
463	3.77	179.3	83.7	315.8	197.9	162	246.8	221	633.2	228.7
464	3.75	179	83.6	312.5	197.8	160.6	248.2	220.8	634.1	228
465	3.74	179.3	83.4	313.6	197.5	160.3	249.9	220.6	636.6	228.4
466	3.72	179.1	83.6	314.6	197.2	160.8	249.1	220.5	638.9	228.5

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

467	3.69	179.7	83.6	314.5	197.2	160.8	246.7	220.4	641.3	227.9
468	3.69	179.7	83.6	315.5	197.2	161.8	249	220.8	643.8	228.9
469	3.68	180.1	83.4	313.8	196.9	161.1	249	220.2	646.4	228.2
470	3.65	180.1	83.4	312.1	197	162.5	246.6	220.1	648.7	227.6
471	3.62	180.4	83.7	315.5	196.8	160.2	247.3	220.1	650.7	228
472	3.62	180.2	83.4	315.6	196.7	160.5	246.9	220.2	652.8	228
473	3.6	180.9	83.5	315.5	196.4	160.1	249.6	220.5	654.3	228.4
474	3.59	180.9	83.5	316.5	196.1	162	247.2	220.3	655.7	228.4
475	3.56	181.2	83.5	316.4	196.1	160.9	247.3	220	656.5	228.1
476	3.55	181.4	83.4	318.3	195.9	161.5	249.3	220.3	657.7	229.1
477	3.54	181.1	83.4	318.8	195.7	161.5	249.3	220.3	658.6	229.1
478	3.52	181.2	83.5	318.7	195.6	160.8	249.7	220.2	659.5	229
479	3.5	182	83.4	317.6	195.4	162.9	248.2	220.1	660.6	228.8
480	3.48	182	83.5	318.5	195.4	162.4	247.2	219.7	661.3	228.6
481	3.46	183.2	83.4	320.5	195.4	162.4	246.4	219.7	662	228.9
482	3.44	182.8	83.4	322.1	195.1	163.7	247.1	220.7	663	229.7
483	3.43	182.7	83.4	321.6	195.2	163.1	248.6	220	663.9	229.7
484	3.41	182.4	83.3	319.7	195	163.6	248.3	220.1	664.6	229.3
485	3.39	183	83.2	321	194.9	163	250.1	220.1	665.5	229.8
486	3.37	183.3	83.4	320.8	194.7	164.1	248.6	220.3	666	229.7
487	3.36	183.5	83.4	319.8	194.7	164	248.9	220.3	667	229.6
488	3.34	183.6	83.3	321.5	194.7	164.8	249.2	220.3	667.6	230.1
489	3.31	183.6	83.3	323.9	194.4	164.4	249.4	220.6	669	230.5
490	3.31	184.1	83.2	319.7	194.6	164.4	247.3	220.3	669.9	229.2
491	3.27	184.3	83.4	323.9	194.4	165.6	249.1	220.4	671.1	230.7
492	3.27	185	83.2	324	194.3	164.7	247.7	220.4	671.7	230.2
493	3.24	184.9	83.3	324.4	194.2	166.1	249.4	220.6	672.1	231
494	3.22	185	83.2	322.9	194.4	165.9	247.2	220.7	673.1	230.2
495	3.21	185.3	83.2	322.4	194.4	165.1	248.1	220.8	674.2	230.2
496	3.19	185	83.3	326.8	194.4	165.7	246.5	220.8	675.1	230.8
497	3.16	185.7	83.4	321.4	194.1	166.6	250.5	221.1	676.1	230.7
498	3.16	186.8	83	321.6	194	166.2	247.5	221.2	676.3	230.1
499	3.12	185.9	83.2	324.6	194.1	165.7	248.9	221.2	677.8	230.9
500	3.12	186	83	325.1	194	165.4	249.2	221.3	678.1	231
501	3.09	187.4	82.9	323.9	194.1	167.7	250.5	221.5	679.6	231.5
502	3.06	187	83	326.9	194	167.7	250.4	221.6	680.4	232.1

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

503	3.05	187.8	82.9	329.6	194	166.6	249	221.9	681.7	232.2
504	3.02	187.8	82.9	327.8	194.1	168.7	249.4	221.9	683.1	232.4
505	3.01	188.7	82.9	328.3	194.1	168.3	249.3	221.9	684.3	232.4
506	2.98	188.9	83.1	331.5	194	169	249.5	221.9	687.1	233.2
507	2.95	188.5	83	329.5	194.1	168.5	249.6	222.5	687.8	232.8
508	2.93	188.2	83	333.8	194.1	170.2	249.7	222.4	688.4	234
509	2.94	188.6	82.9	331.9	194.1	169.6	249	222.6	688.9	233.4
510	2.89	189.2	82.9	334.7	194.1	171.2	250.8	222.4	689.8	234.6
511	2.89	189	83	335.1	194.3	169.9	249.2	223.3	689.8	234.4
512	2.87	188.9	83.1	335	194.3	171.3	249.2	223.3	689.5	234.6
513	2.84	189.2	82.9	330.3	194.5	170.6	250	222.9	689.9	233.7
514	2.81	189.5	82.9	333.5	194.3	171.2	250.1	223.4	690.3	234.5
515	2.8	189.6	82.7	331.5	194.6	170.8	250.7	223.9	690.9	234.3
516	2.78	190.1	82.9	331.9	194.2	171.9	249.6	223.6	691.4	234.3
517	2.76	190.1	82.9	336.1	194.4	170.7	250.3	223.8	692.4	235.1
518	2.73	189.3	82.9	337.5	194.5	171.9	249.1	223.8	693.4	235.4
519	2.74	188.8	82.9	336.7	194.8	173.1	250.2	224.3	694.2	235.8
520	2.7	189.7	82.9	335.7	194.7	173.5	249.2	224.3	695.4	235.5
521	2.68	190.6	82.7	336.2	194.8	173.3	248.7	224.6	696.1	235.5
522	2.66	191.3	82.7	337.9	194.9	173	249.5	225	696.4	236.1
523	2.64	191.8	82.7	338.6	194.9	174.1	250.8	224.9	697	236.7
524	2.62	191	82.7	338.6	195	175.3	249.5	225.4	697.7	236.8
525	2.61	191.1	82.6	337.9	195.1	173.8	249.4	225.6	698.2	236.4
526	2.58	191.4	82.5	339.8	195	175.8	249.8	226	698.6	237.3
527	2.56	191.8	82.5	337.8	195.2	176.3	250.6	225.7	698	237.1
528	2.53	192	82.8	336.9	195.3	175.4	249.7	226.6	698.5	236.8
529	2.53	191.7	82.8	338.8	195.6	175.6	250.3	226.3	698.6	237.3
530	2.51	192.4	82.6	338.2	195.6	176.8	250.1	226.3	698.9	237.4
531	2.5	191.8	82.7	338.5	195.8	176.6	248.3	226.9	698.5	237.2
532	2.45	192	82.5	338.1	196	176.3	250	226.9	698.2	237.5
533	2.45	192	82.7	339.1	196.1	176.7	249	226.7	698.3	237.5
534	2.42	192.5	82.7	340.4	196.2	178	249.3	227	698.5	238.2
535	2.41	191.9	82.6	338.5	196.4	177.4	249.7	227.1	697.8	237.8
536	2.4	192.8	82.8	340.7	196.4	176.6	250.4	227.4	697.2	238.3
537	2.37	193	82.5	344.2	196.9	178.7	248.8	227.4	696.1	239.2
538	2.36	193.1	82.5	341.2	196.9	178.6	247.1	227.9	695.3	238.3

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

539	2.33	193	82.5	342.7	197.1	177.5	250	227.9	695	239
540	2.31	192.6	82.5	342.1	197.1	179.1	249.9	228.2	694.4	239.3
541	2.29	192.7	82.5	343.1	197.1	177.9	249.4	228.4	693.5	239.2
542	2.28	192.7	82.6	342.6	197.4	178.1	248.5	228.4	693.2	239
543	2.25	193	82.4	342.4	197.7	180.5	248.7	228.8	693.2	239.6
544	2.24	192.8	82.5	340.6	197.8	179.8	250.2	229.1	693	239.5
545	2.23	193.2	82.4	341.7	198	179	249.7	229	692.5	239.5
546	2.19	193.2	82.4	342.1	198	180.5	249.3	228.8	692.9	239.7
547	2.19	194.2	82.4	342.7	198.3	180.2	251.1	229.3	693.3	240.3
548	2.16	194.3	82.4	339.9	198.4	179	249.1	229	693.6	239.1
549	2.16	194.5	82.5	341.8	198.5	179.4	250.1	229.4	694.4	239.9
550	2.13	194.5	82.5	341.5	198.7	181.5	250.1	229.5	694.7	240.2
551	2.11	193.8	82.6	342.8	199	180.9	249.1	229.1	694.9	240.2
552	2.09	194.2	82.5	341.2	199.1	180.3	249.7	229.7	695.6	240
553	2.09	193.2	82.6	339.6	199.2	182.6	249.3	229.9	696.6	240.1
554	2.05	194.2	82.5	341	199.4	181.8	250.6	229.7	697.4	240.5
555	2.03	194.3	82.5	338.8	199.8	182.8	248.9	229.5	697.7	240
556	2.01	194.1	82.5	342.4	200	181.9	250.4	229.9	698.5	240.9
557	1.99	195	82.3	340.5	200	182	249.4	229.9	698.9	240.4
558	1.97	194.3	82.5	341.3	200.2	183.1	251.1	230.4	699.8	241.2
559	1.95	194.7	82.3	342.9	200.4	181.8	250.6	229.7	700.7	241.1
560	1.94	194	82.5	343.9	200.5	183	249.9	229.8	701.2	241.4
561	1.91	194.5	82.4	339.8	200.9	183	250.5	229.6	701.6	240.8
562	1.89	194.8	82.3	344.9	200.8	183.1	249.2	230.1	703	241.6
563	1.88	194.9	82.3	342.8	201.2	184.5	249.3	229.8	703.9	241.5
564	1.86	193.7	82.3	340.4	201.3	184.4	248.4	230.5	704.6	241
565	1.83	194	82.4	342.4	201.5	183.7	249.5	230.4	705.8	241.5
566	1.82	194.5	82.3	343.9	201.8	185.2	248.1	230.3	706.5	241.9
567	1.79	194.5	82.4	345.1	201.8	184.9	248.9	230.9	707	242.3
568	1.78	195.1	82.3	345.2	202.1	185	251.2	230.1	707.7	242.7
569	1.75	196.4	82.3	342.9	202.1	184.9	250	230.6	707.4	242.1
570	1.75	195.5	82.2	349	202.5	187.8	248.3	230.4	708.7	243.6
571	1.72	196.2	82.3	345.4	202.4	186.8	249	231	708.9	242.9
572	1.7	196.2	82.3	344.4	202.6	186.8	247.7	230.9	709.4	242.5
573	1.67	196.3	82.3	346.2	202.8	187.8	251.9	231	710	243.9
574	1.65	196.6	82.4	349	203.1	186.5	249	231	710.6	243.7

Conditioning dates 7/5/23 - 7/2/23 | Medium Low Air Setting | Fuel Moisture ~21.2%

575	1.66	197	82.3	345	203.1	187.6	249.7	231.1	710.8	243.3
576	1.62	196.5	82.3	346.9	203.4	189.4	249.3	231.6	711.2	244.1
577	1.6	196.5	82.2	348.7	203.4	188.3	250.1	231.5	710.9	244.4
578	1.59	196.4	82	345.6	203.6	188.5	250.6	230.9	711.3	243.9
579	1.56	196.8	82.2	349.1	203.9	186.6	250	231.3	711.5	244.2
580	1.54	196.9	82.3	345	204.1	188.3	250.5	231.6	711.7	243.9
581	1.52	197.2	82.2	349.3	204.2	188.5	250.2	231.8	710.8	244.8
582	1.5	197	82.1	347.8	204.6	188	249.2	231.5	711.5	244.2
583	1.49	196.9	82.1	350	204.8	188.7	248.5	231.8	711.4	244.8
584	1.47	197.3	82.1	350.8	204.7	190.3	249.4	232.2	711.3	245.5
585	1.45	197.7	82.1	348.6	204.9	189.5	250.6	232.1	710.7	245.1
586	1.43	198	82.2	346.8	204.9	191.1	249.9	232.3	710.2	245
587	1.4	198.6	82.1	349.8	205.4	189.7	249.2	232.5	708.3	245.3
588	1.38	198.1	82.1	348.6	205.5	189.7	250.4	232.5	705.9	245.3
589	1.36	198.5	82.1	347.9	205.4	191.5	248.7	232.7	703	245.2
590	1.36	198.2	82.1	346.2	205.6	189	248.6	232.4	699	244.4
591	1.33	198.4	82	342	206	190.8	249.4	232.2	694.6	244.1
592	1.31	198.2	81.9	342.1	206.4	190.3	248.8	233.1	690.9	244.1
593	1.29	197.8	82.1	343.8	206.3	189.8	250	232.5	686.9	244.5
594	1.27	197.8	82	346.4	206.7	192.7	248.7	233.2	683.9	245.6
595	1.24	197.4	82.1	340.8	206.7	192	250.4	233.2	680.9	244.6
596	1.23	197.4	82	342	206.9	192.9	248.3	233.3	677.9	244.7
597	1.21	197.2	82	338.1	207	190.8	248.4	233.2	675.1	243.5
598	1.19	197.2	81.8	337.1	207.2	191.6	248.5	234.2	672.7	243.7
599	1.17	196.4	82	338.5	207.6	192.1	247.7	233.7	670.3	243.9
600	1.15	195.8	81.7	337.1	207.7	192.2	247.4	234.2	668.9	243.7
601	1.12	196	82	336.5	207.8	192	250	234.7	667.4	244.2
602	1.12	196	82	334	208.2	192.3	249	234.4	665.6	243.6
603	1.1	195.7	81.9	336.1	208.3	193.8	248.3	234.1	664.7	244.1
604	1.08	194.9	81.8	331.9	208.6	193.4	249.3	234.6	663.6	243.5
605	1.06	195	81.7	336.6	208.7	192.4	249	235	662.4	244.3
606	1.03	194.4	81.7	336.4	209.1	193.1	247.7	235.2	661.7	244.3
607	1.01	194.7	81.4	332.9	209.1	193.6	249.7	235	660.9	244.1
608	1	195.5	81.7	334.1	209.3	193.1	248.6	235.1	660.4	244.1
609	0.98	195.2	81.8	331.3	209.7	194	248.8	235.1	659.9	243.8
610	0.97	194.6	81.7	330.4	209.9	194.8	249.2	235.9	659.2	244.1

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

611	0.94	193.6	81.6	329.9	210	193.9	249.2	235.4	658.9	243.7
612	0.93	194.5	81.5	331	210.6	193.5	247.3	235.2	658.6	243.5
613	0.92	194.6	81.5	328.5	210.9	193.9	246.9	235	658.4	243
614	0.9	194.5	81.8	330.4	210.9	194.5	247.5	236.2	658.8	243.9
615	0.89	193.8	81.7	328.1	211	194	248.7	235.9	658.7	243.5
616	0.86	193.3	81.7	330.9	211.3	194.8	247.6	236.1	659.4	244.1
617	0.84	193.3	81.6	330.3	211.8	193.2	248.6	235.9	659.8	244
618	0.82	193.1	81.7	330.2	211.8	194.8	247.3	236.2	659.8	244
619	0.81	193	81.7	328	212.2	196	246.6	236.4	659.5	243.8
620	0.8	193.4	81.8	327.1	212.5	194.8	247.9	236.5	658.9	243.8
621	0.78	193.5	81.5	329	212.6	193.8	247.3	236.5	658.7	243.8
622	0.76	193.7	81.6	328.8	212.9	196.5	245.2	236.7	658.2	244
623	0.75	193.8	81.8	328	213	195	246.8	237.3	657.4	244
624	0.73	192.8	81.8	328.4	213.3	196.4	247.3	236.7	656.9	244.4
625	0.71	193.1	81.6	329	213.6	195.7	246.1	236.9	656.3	244.3
626	0.69	192.7	81.6	328.4	213.9	194.7	246.2	237	655.6	244
627	0.67	192.2	81.5	327.2	214	194	244.6	237	655	243.4
628	0.65	192.9	81.4	324.6	214.2	196.1	246.3	238.2	654.8	243.9
629	0.65	193.3	81.5	328	214.4	197.1	245.3	237.6	654.7	244.5
630	0.63	193.3	81.6	326.4	214.8	196.9	244.4	237.7	654.8	244
631	0.61	192.8	81.5	324.2	214.8	196.7	244.8	237.4	654.4	243.6
632	0.59	192.6	81.4	325.3	215.1	195.8	245	237.1	654.3	243.7
633	0.56	193.2	81.4	326.9	215.3	196.8	244	237.6	654.5	244.1
634	0.56	193.5	81.6	324.8	215.3	194.7	242.7	237.6	654.6	243
635	0.55	193.2	81.4	324.2	215.6	196.4	244	237.9	654.5	243.6
636	0.52	193	81.6	326	215.9	196	241.5	238	654.5	243.5
637	0.5	192.5	81.4	326	216	195.4	241.3	237.5	654.1	243.3
638	0.49	191.6	81.3	325.1	216.3	194.2	241.5	237.5	653.9	242.9
639	0.47	191	81.2	325.8	216.4	194.9	242.3	237.9	653.8	243.5
640	0.47	191.7	81.2	323.7	216.5	195.2	243	237.7	653.8	243.2
641	0.45	191.9	81.4	326.2	216.8	194.8	241.1	238.4	653.9	243.4
642	0.42	192.3	81.3	325.4	216.9	195.8	241.9	237.6	653.6	243.5
643	0.41	191.8	81.2	323.9	217	194.4	240.8	237.8	653.9	242.8
644	0.4	192.2	81.1	323.4	217.2	196.2	241.5	237.9	653.8	243.2
645	0.39	192.7	81.2	320.8	217.4	194.2	240.7	237.7	653.4	242.2
646	0.36	192.9	81	322.4	217.4	194.2	240.5	237.8	653.7	242.5

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.2%

647	0.35	192.7	81	323.8	217.5	192.6	241.1	238.1	653.7	242.6
648	0.33	192.6	81.1	322.4	217.5	192.8	239.6	238.1	653.7	242.1
649	0.31	192.1	81.1	323.8	217.9	195.1	239.1	238.1	653.9	242.8
650	0.3	192.1	81	325.2	218	193.4	239.2	238.3	654	242.8
651	0.28	192.2	80.9	322.9	218	194.6	238.9	237.9	654	242.5
652	0.27	193	80.9	320.9	218.1	193.1	238.6	237.7	654.4	241.7
653	0.24	192.8	80.8	322.9	218.3	193.3	240.7	237.9	654.6	242.6
654	0.23	192.8	81	322.2	218.5	192.9	238.8	237.4	654.1	242
655	0.23	192.2	80.9	321.9	218.6	192.9	237.7	237.7	653.9	241.8
656	0.21	192.3	81.1	320.8	219	193.4	238.4	237.8	653.1	241.9
657	0.19	191.6	81	320.8	218.9	194	237.2	237.7	652.2	241.7
658	0.17	191.3	80.8	321.3	219.1	193.3	237.9	237.8	650.8	241.9
659	0.16	191.7	80.9	321.6	219	192.9	236	237.3	649.3	241.4
660	0.14	192.2	80.9	322.1	219.2	191.7	236.1	237.6	648.6	241.3
661	0.14	191.9	80.9	323	219.3	191.9	235.8	237.3	647.4	241.5
662	0.11	191.7	80.8	320.1	219.5	193.5	236.9	237.6	646.4	241.5
663	0.11	191.6	80.8	316.8	219.6	191.9	236.6	237.8	645.6	240.5
664	0.09	191.5	80.6	319.8	219.7	192.1	236.1	236.9	644.9	240.9
665	0.06	192.2	80.7	316.8	219.9	193	235.1	237.4	644.1	240.4
666	0	191.6	80.9	318.7	220.1	192.2	234.5	236.7	642.9	240.4

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

Elapsed Time (min)	Scale Weight (lbs)	Flue (F)	Ambient (F)	FB Top (F)	FB Bottom (F)	FB Back (F)	FB Left (F)	FB Right (F)	Catalyst (F)	Avg. Surface Temp (F)
0	32.19	310.4	82.1	432.7	245.4	206.5	256.1	307	771.4	289.5
1	32.15	352.1	82.1	426.9	245	211.1	255.2	306.2	709.2	288.9
2	32.52	335.5	82.1	416.6	244.7	213.9	252.2	304.7	696.7	286.4
3	31.99	335.6	82.1	417.5	245.1	216.4	251.5	303.4	705.3	286.8
4	31.85	339.8	82	407.9	245.3	218	248.4	301.2	734.5	284.2
5	31.7	349.5	81.9	404.6	245.5	219.6	248.5	299.4	775.9	283.5
6	31.61	324.5	82	400	248.5	220.8	246.9	297.2	785	282.7
7	31.52	307.7	81.9	394.2	249.1	221.7	244.2	295.7	791.4	281
8	31.46	297.1	81.9	399.4	250	220.4	242.5	293.6	798.5	281.2
9	31.39	290.1	82	391	250.4	221.4	240	291.3	802.5	278.8
10	31.33	285.4	82	395.9	250.5	221.2	239.7	289.1	803.3	279.3
11	31.25	282.9	82	392.2	251.2	221.5	239.3	287.3	802.8	278.3
12	31.17	281.8	82.2	391.3	251.8	220.5	236.4	285	804.5	277
13	31.08	281.1	82	387.3	252	219.5	234.9	282.8	809.7	275.3
14	30.98	281.9	82.2	387.3	252	219.3	235.3	280.8	825.2	275
15	30.87	284.1	82.3	388	253	219.2	233	278.3	849.8	274.3
16	30.74	287.8	82.2	393.4	252.6	216.4	229.8	276.5	880.9	273.8
17	30.64	291.4	82.3	397.7	253.5	217.1	230.8	274.7	912.3	274.8
18	30.51	294.3	82.3	405.3	253.8	215.5	229.4	272.8	940.5	275.4
19	30.43	297	82.2	413.6	253.8	215.3	227.7	271.6	962.4	276.4
20	30.31	299.8	82.4	414.3	254.3	215.4	228.1	270.4	977.5	276.5
21	30.19	303.6	82.4	423.4	253.9	213.8	229.2	269.2	988.4	277.9
22	30.07	306.6	82.7	427.7	254.2	213.5	226.9	267	997.9	277.9
23	29.94	309.2	82.5	430	254.4	213.6	226.3	266.6	1005.6	278.2
24	29.84	310.3	82.2	437.1	254.2	212.3	223.9	264.8	1012.1	278.4
25	29.72	311.2	82.4	443.9	254.1	211	225.1	263.7	1017.3	279.6
26	29.6	313.3	82.2	452.4	253.6	210.5	221.8	262.8	1021.2	280.2
27	29.48	315	82.3	453.3	253.6	209.8	221.8	261.6	1025	280
28	29.36	316.5	82.3	457.6	253.5	209.5	221.4	260.4	1029.1	280.5
29	29.23	318.3	82.5	474	253.2	195.5	221.5	260.4	1033.9	280.9
30	29.13	319.4	82.5	472.8	252.9	190.1	219.9	259.8	1038.8	279.1
31	29	319.6	82.4	478.3	252.5	184.3	219.9	259.2	1043.4	278.8
32	28.87	320.3	82.1	478.4	252.1	181.5	218.9	258.5	1047.8	277.9
33	28.75	321	82	484.3	252.1	177.8	219.8	258.2	1050.2	278.4
34	28.62	320.9	82.4	486.4	251.8	176.1	219.3	258	1052.2	278.3

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

35	28.52	320.8	82.5	482.9	251.5	175	219	257.5	1052.7	277.2
36	28.38	320.5	82.5	488.9	251.1	171.8	218.8	256.6	1052.3	277.4
37	28.25	320.7	82.2	489.3	249.9	170.6	217.9	257	1053.2	277
38	28.14	320.8	82	488.5	249.2	171.1	217	256.9	1054.6	276.6
39	28	321.9	82.1	499.4	249.3	170.5	218.2	256.6	1057	278.8
40	27.9	322.3	82.3	486	248.5	169	219.7	256.6	1059.3	276
41	27.77	321.6	82.3	494.4	248.5	167.5	218.9	256.8	1061.6	277.2
42	27.65	322.1	82.3	496.7	247.6	167.1	217.4	256.9	1062.9	277.1
43	27.53	322	82.2	499.5	246.9	164.6	215.4	256.4	1063.2	276.6
44	27.41	321.7	82.3	502.2	245.9	165.9	215.6	256.1	1062.8	277.1
45	27.31	322.2	82.1	503.2	245.6	165.7	216.9	256.5	1061.9	277.6
46	27.19	322.1	82.4	500.6	245.7	166.1	216.6	256.1	1060.7	277
47	27.09	321.8	82.4	494.4	245	163.5	216.1	256	1059.2	275
48	26.97	321.2	82.5	502.6	244.7	163.4	217.7	256	1058.4	276.9
49	26.86	320.6	82.3	504.6	243.4	162.2	216.6	256.2	1057.6	276.6
50	26.75	319.5	82.4	501	242.6	162.8	215.8	256.1	1058	275.6
51	26.64	319.1	82.5	499.9	242.6	162.2	215.2	255.8	1058.7	275.1
52	26.55	318	82.6	505.6	242.3	161.6	215.9	255.5	1059.4	276.2
53	26.44	317.3	82.5	504.2	241.7	162.2	215.1	256.1	1059.5	275.9
54	26.33	317.4	82.4	505.4	240.9	162.7	214.8	255.4	1057.2	275.8
55	26.23	316.2	82.6	506.5	240.6	161.6	215.1	255.4	1053.9	275.8
56	26.15	315.7	82.3	501.6	239.9	161.8	215	254.7	1051.3	274.6
57	26.03	314.9	82.5	501.1	239.4	160.1	213.6	255	1048.4	273.9
58	25.94	314.6	82.2	499.2	238.5	159.9	214.9	254.9	1046.2	273.5
59	25.85	314.5	82.3	503.2	238.1	160	214.1	254.8	1045.6	274
60	25.73	314.4	82.6	506.5	238.1	159.8	214.4	254.6	1046.7	274.7
61	25.64	314.2	82.5	511.9	237.2	160.4	213.5	254.4	1048.2	275.5
62	25.54	313.2	82.5	505.4	237	159.4	212.9	254.6	1050.2	273.9
63	25.41	312.9	82.5	498.4	236.2	160.1	213.9	255.1	1053.2	272.7
64	25.32	313	82.5	508.5	235.7	159.3	212.4	254.6	1057.5	274.1
65	25.2	313.3	82.6	502.3	235.3	159.9	212.1	254.8	1062.1	272.9
66	25.11	313.3	82.6	506.1	235.1	160.1	213.3	255.1	1067.2	273.9
67	25	314.9	82.7	504.6	234.6	158.7	212.5	255	1073.5	273.1
68	24.89	316	82.7	501.4	234.1	159.5	212.8	255	1079.2	272.6
69	24.77	317.6	82.6	510.5	233.9	158.7	213	255.5	1084.4	274.3
70	24.66	318.8	82.7	508.6	233	158.8	212.4	255.4	1089.8	273.6

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

71	24.56	319.1	82.6	518.5	233.1	157.8	211	256.1	1094.4	275.3
72	24.45	320.2	82.7	510	232.3	159.1	212	256.2	1099.6	273.9
73	24.32	322.5	82.8	518.4	232.1	158	213	255.7	1103.9	275.4
74	24.21	323.5	83.1	515.6	231.8	158.9	211.9	256.4	1108.5	274.9
75	24.11	324.5	83.2	519.6	231.6	159	212.4	256.7	1112.7	275.9
76	24	325.8	83	523.5	231	159	211.9	256.5	1116.9	276.4
77	23.87	326.6	83	524	230.8	158	213.8	257	1120.4	276.7
78	23.74	327.8	83.3	529.2	230.4	157.9	213.3	257.1	1124.3	277.6
79	23.62	328.8	83	538.8	230.4	157.3	212.2	257.4	1126.8	279.2
80	23.51	329.4	83.2	538.7	230.2	159	213.2	257.8	1128.5	279.8
81	23.39	330.6	83.1	541.9	229.4	158.7	213.9	258.1	1129.4	280.4
82	23.26	331.3	83.2	546.3	229.1	159.3	213.7	258.1	1128	281.3
83	23.14	330.9	83.1	546.1	228.9	159.5	214.8	258.9	1126.7	281.6
84	23.01	332.4	83.4	554.8	228.7	158.6	215.2	259	1125.2	283.3
85	22.89	333.5	83.4	553.8	228.5	159.4	215.2	259.5	1123.2	283.3
86	22.76	333.6	83.7	558.1	228.4	160	217.3	260.3	1121.8	284.8
87	22.64	334.2	83.6	558.4	227.8	159.1	216.9	260.5	1120.1	284.5
88	22.5	334.4	83.2	563.9	227.3	160.1	218.1	261	1119	286.1
89	22.37	334.8	83.2	560.1	226.9	159.9	217.4	261.8	1118.6	285.2
90	22.21	333.9	83.2	568.7	226.8	160.2	218.6	262.4	1118.5	287.4
91	22.12	333.9	83.2	568.3	226.4	160.6	218.9	262.9	1118.9	287.4
92	21.99	336.1	83.2	565	226.3	161.8	219.3	263.3	1118.7	287.2
93	21.86	336.7	83.4	563.2	226.1	161.3	219.2	264.1	1120.1	286.8
94	21.72	336.9	83.2	578.2	225.7	161	220.6	264.6	1120.2	290
95	21.58	336.7	83.2	574.5	225.5	161	219.6	264.6	1118.9	289
96	21.44	336.6	83.4	568.8	224.9	161.8	219.1	265.3	1117.6	288
97	21.31	335.7	83.4	579.3	224.9	162.4	221	266	1116.6	290.7
98	21.18	336.1	83.5	579.6	224.6	163.2	221.2	266.6	1116	291
99	21.05	334.9	83.3	585.1	224.2	162.3	221.5	267.6	1115.8	292.1
100	20.9	334.4	83.4	575.9	224	163.6	221.3	268.3	1115.6	290.6
101	20.79	335.1	83.4	584.3	224.1	162.9	221.4	268.6	1114.9	292.2
102	20.65	335.9	83.5	584.4	223.8	163.1	221.9	269.5	1114.4	292.5
103	20.51	336.1	83.4	589.8	223.4	164	224	269.6	1114.7	294.1
104	20.37	336.4	83.5	585	223.1	163.7	223	270.2	1114.8	293
105	20.24	336.5	83.5	593.5	222.8	165.4	223.9	271.5	1114.7	295.4
106	20.12	337.1	83.6	586.5	222.7	165.2	224.2	271.5	1114.8	294

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

107	19.96	336.7	83.5	585.8	222.5	165.3	225.5	272	1113.7	294.2
108	19.83	337.5	83.7	588.6	222.7	166.2	226.4	272.7	1112.6	295.3
109	19.7	337.9	83.7	587.8	222.3	165.6	226.8	273.5	1111.4	295.2
110	19.57	337.3	83.8	591.4	222.1	165.5	225.6	274.5	1110.7	295.8
111	19.43	336.7	83.7	582.6	221.8	165.4	226	274.5	1109.9	294.1
112	19.29	336.5	83.6	591.7	222	167	227.8	274.8	1109.5	296.6
113	19.15	336.4	83.7	579.7	221.7	167.2	228	276	1109.1	294.5
114	19.02	335.7	83.8	589.9	221.7	166.8	227.6	276.1	1108.5	296.4
115	18.88	336.6	83.8	591.8	221.2	167.1	228.8	276.7	1107.9	297.1
116	18.74	337	83.6	586	221.4	167.7	229.1	277.8	1107	296.4
117	18.59	337.1	83.8	586.9	221.4	169.5	228.1	277.9	1106.3	296.7
118	18.43	338.9	83.8	592.3	221.2	168.6	230	278.2	1106.2	298
119	18.28	340.6	83.7	589.3	221	169.9	230.9	279.2	1101.3	298.1
120	18.1	342.5	83.7	587.2	220.9	170.2	231.8	280.4	1091.2	298.1
121	17.91	343.2	83.7	577.6	220.7	169.4	232.7	281.1	1080.6	296.3
122	17.74	343.7	83.7	584.5	220.8	170.4	233.9	282.2	1067.3	298.4
123	17.55	343.4	83.8	577.9	220.6	172	235.4	283.6	1054.7	297.9
124	17.37	343	83.5	571.7	220.6	173.3	236.1	284.8	1044.2	297.3
125	17.18	342.2	83.6	574.4	220.6	173.3	237.3	286.7	1036.5	298.4
126	16.99	341.4	83.7	567.6	220.5	174.1	239.4	287.4	1030.7	297.8
127	16.8	341.1	83.7	561	220.5	175	240.3	288.7	1025.7	297.1
128	16.6	340.7	83.6	561.4	220.6	175.8	240.1	290	1021.2	297.5
129	16.42	339.6	83.6	562.2	220.3	176	240.5	291.2	1013.8	298
130	16.24	337.2	84	562	219.9	176.5	240.7	291.2	1005	298.1
131	16.07	333.8	83.7	567.9	219.9	177.2	241.5	290.8	996	299.4
132	15.92	329.6	83.9	565.8	220.1	177	242.2	291.4	989.6	299.3
133	15.79	327.5	84	569.3	219.8	178.6	240.8	291.3	986.8	299.9
134	15.66	322.8	83.8	572.7	220.3	177.3	241.7	291	989.4	300.6
135	15.54	320.9	83.8	566.1	219.9	177.8	241.8	291.2	1002.1	299.4
136	15.42	319.9	83.7	564.8	219.9	177.7	242.3	291.1	1022.8	299.1
137	15.3	319.4	84	557.3	219.7	177.7	242.6	290.8	1042.4	297.6
138	15.18	319.2	84.1	567.5	219.6	177.6	241.9	291.7	1056.9	299.7
139	15.06	318.9	84	574.7	219.5	178.5	242.2	291.9	1067.1	301.4
140	14.94	318.3	84.1	575.7	219.5	178.2	242.9	291.1	1073.6	301.5
141	14.81	318.9	84	571	219.4	178.2	242.2	291.5	1076.9	300.4
142	14.7	318.6	84.1	581.1	219.4	178.3	243.8	292	1078.3	302.9

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

143	14.6	318	84.1	576.5	219.2	179	244.3	292.6	1078.9	302.3
144	14.49	318.3	84	573.1	218.9	178.7	243.9	292.1	1079.2	301.4
145	14.37	317.4	83.9	578.9	219.2	178.1	243.6	292.4	1079.2	302.4
146	14.25	316.5	84	586.8	218.7	179.4	243.7	293.3	1079.3	304.4
147	14.15	316.7	84	575.4	218.5	180.2	245.3	293	1078.9	302.5
148	14.04	316.7	84.1	581	218.5	178.3	246.4	292.6	1078.9	303.4
149	13.93	316.1	84.1	579.3	218.4	178.8	246.4	293.8	1078.5	303.3
150	13.81	315.1	84	583	218.3	179.5	247.1	292.9	1078.3	304.2
151	13.71	314.4	84	579.1	218.5	179.4	246.3	293.6	1078.4	303.4
152	13.6	314	84.1	580.4	218	180.2	245.9	293.8	1078.3	303.7
153	13.5	314.6	84.2	582.2	217.7	179.6	245	294.7	1078.3	303.8
154	13.38	313.4	84.2	580.7	217.6	180.5	247.9	294.8	1078.2	304.3
155	13.28	314.1	84	588.5	217.1	181	247.2	295.4	1078.9	305.9
156	13.17	314.5	84.2	585.4	217.1	181.1	247.5	296	1079.6	305.4
157	13.06	314.6	84.4	583.6	217	181.8	247.9	295.5	1080.5	305.2
158	12.94	314.7	84.2	579.6	217.1	183	248.1	296.4	1081.5	304.8
159	12.82	316.2	84.1	582.5	217.3	182.2	248.1	296.8	1082.5	305.4
160	12.7	317.2	84.2	586.9	217.1	182.9	247.3	297.6	1083.4	306.4
161	12.57	317.8	84.4	585.9	216.7	182.5	249.2	298.3	1084.4	306.5
162	12.45	318.7	84.4	589.4	217	183	248	297.9	1084	307.1
163	12.32	319.3	84.4	590	216.5	183.5	248.5	299.5	1083.8	307.6
164	12.19	320.4	84.2	584.9	216.5	182.8	250.5	299.7	1083.6	306.9
165	12.06	321.7	84.3	580.3	216.6	182.8	251.8	299.8	1083.5	306.3
166	11.92	320.4	84.3	583.9	216.6	184.1	250	300	1083.3	306.9
167	11.8	320.9	84.4	575.2	216.4	184.7	250.8	300.9	1082.1	305.6
168	11.67	321.2	84.2	579.1	216.2	183.2	253.1	300.5	1080.6	306.4
169	11.55	320.2	84.2	569.1	216.3	184.2	253.1	300.8	1078.8	304.7
170	11.44	318.9	84.3	572.3	216.4	183.8	251.3	301.6	1075.9	305.1
171	11.31	318.7	84.3	575.3	217	185.8	253.4	302.5	1073.7	306.8
172	11.2	318	84.2	579.1	216.9	185.8	251.9	302.9	1072.5	307.3
173	11.09	316.3	84.2	564.6	216.8	185.7	252.3	303.2	1072.2	304.5
174	10.97	315.1	84.2	574.3	216.9	184.3	253	304.9	1071.7	306.7
175	10.88	314.4	84.2	575.8	216.7	185.6	253.2	304.5	1071.1	307.2
176	10.77	312.9	84.3	574.9	216.8	186.1	254.5	304.6	1071.4	307.4
177	10.66	312.5	84.4	574.5	216.3	186.3	254.8	305	1071.9	307.4
178	10.56	312.2	84.3	566.8	216.4	187.4	255.5	306	1071.8	306.4

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

179	10.45	312.7	84.2	574.8	216.8	186	255.2	306.2	1071.9	307.8
180	10.35	310.1	84.3	573.7	216.4	186.8	256.9	306.4	1069.9	308
181	10.24	308.9	84.3	575.1	216.5	188.4	255.1	307.8	1063.9	308.6
182	10.15	308	84.3	564.2	216.7	187.7	256.5	307.8	1054.2	306.6
183	10.04	306.6	84.2	569.3	216.6	188.8	257.4	309.3	1044.4	308.3
184	9.96	306	84.2	571.4	217	189.2	258.3	310.4	1036.5	309.3
185	9.87	304.7	84.4	564.4	217.3	190.2	260.4	310.5	1030.6	308.6
186	9.77	302.9	84.4	562.2	216.7	190.1	260.7	312.1	1027	308.4
187	9.68	300.3	84.4	560.6	216.8	190.9	262.9	313.3	1025.1	308.9
188	9.59	299.7	84.3	554.7	216.8	190.9	261.7	313.9	1023.2	307.6
189	9.52	298.5	84.5	562.3	217	192.1	263	314.4	1021.9	309.7
190	9.43	296.4	84.3	559.8	217.1	191.5	260.8	315	1021.1	308.8
191	9.35	295.4	84.5	554	217.1	191.4	261.5	316.6	1019.1	308.1
192	9.29	293.5	84.4	551	217.1	192.7	262.3	317.4	1016.2	308.1
193	9.23	291.5	84.4	554.3	217.3	194.8	261.2	317.2	1014.9	309
194	9.16	291	84.5	545.3	217.3	194.3	262.9	317.4	1017.9	307.5
195	9.1	289.7	84.3	550.3	217.6	194	261.8	317.9	1027.9	308.3
196	9.04	289.8	84.4	549.3	217.6	194.2	261.4	318.4	1046.1	308.2
197	8.98	290.6	84.5	548.5	217.7	193.9	261.7	318.9	1066.4	308.2
198	8.93	290.2	84.4	551.9	217.7	195.5	262.7	318.7	1076.5	309.3
199	8.88	288.9	84.5	546.7	217.7	194.6	262.8	319.8	1074.8	308.3
200	8.83	287.8	84.5	548.4	217.7	196.4	261.5	319.3	1067	308.6
201	8.78	286.7	84.4	548.8	218.1	197.8	260.6	319.9	1049.9	309
202	8.73	286.7	84.4	542.6	218.5	195.7	259.6	320	1034.3	307.3
203	8.69	285.8	84.4	543.6	218	194.6	257.9	320.5	1022.7	306.9
204	8.63	283.4	84.4	543.7	218.3	197.6	258.6	320.1	1013.7	307.6
205	8.58	282.2	84.4	536.8	218.3	197.9	259.1	320.7	1005.6	306.6
206	8.53	280.8	84.6	537.1	218.6	196	257.1	319.9	997.8	305.7
207	8.49	279.3	84.6	522.4	218.5	195.3	256.6	320.2	990.4	302.6
208	8.43	278.4	84.7	526.3	218.7	196.5	256.2	320.8	983.7	303.7
209	8.38	278.4	84.7	527.1	218.4	197.5	254.7	321	978.7	303.7
210	8.32	277.2	84.5	520.4	218.8	196.6	255.8	321	974.7	302.5
211	8.29	276.7	84.5	519.2	218.7	195.9	253.7	321.5	971.9	301.8
212	8.21	275.2	84.5	517.3	218.8	196.1	253.3	322.5	970.5	301.6
213	8.17	275	84.9	512.9	218.9	196.8	253.6	321.6	970.1	300.7
214	8.11	274.5	84.8	508	218.9	195.3	253.3	322.1	970.1	299.5

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

215	8.08	273.1	84.6	510.7	218.9	195	252.5	322.9	971.4	300
216	8.01	272.2	84.8	512.7	218.8	195.3	253.4	324.3	973.4	300.9
217	7.96	272	84.6	509.1	219.5	194.8	251.7	323.1	976.6	299.7
218	7.92	272	84.8	505.9	219.3	193.7	252.2	324.2	979.1	299
219	7.88	271.2	84.7	507.2	219.2	193.6	248.9	324.6	979.2	298.7
220	7.83	270.2	84.3	504	219.6	194.9	249.7	324.1	978.6	298.5
221	7.78	269.3	84.4	504.9	219.6	194.9	249.6	324.3	977.3	298.7
222	7.74	267.9	84.6	507.2	219.9	195.8	246.1	324.3	973.9	298.7
223	7.73	267.5	84.7	502.6	219.8	194.5	248.1	324.2	967.9	297.8
224	7.68	266.3	84.6	504.3	220.5	194.2	246.1	323.8	959.5	297.8
225	7.65	265	84.7	496.7	220.1	193.9	246.5	324.2	948.7	296.3
226	7.63	262.9	84.6	496.7	220.1	193	245.9	324.4	935.7	296
227	7.57	261.9	84.6	492.1	220.5	192.9	245.1	323.3	921.4	294.8
228	7.55	260.3	84.8	493.9	220.4	194	245.6	323	907.3	295.4
229	7.53	259.3	84.6	485.6	220.9	192.6	244.9	323.5	893.8	293.5
230	7.5	257	84.6	482.5	220.8	192.8	244.6	323.4	881.5	292.8
231	7.47	254.9	84.6	477.9	221	190.1	243.6	322.8	870.3	291.1
232	7.44	252.6	84.5	472.5	221.4	192.4	242.1	322.2	860.4	290.1
233	7.41	250.5	84.6	469	221.4	191.9	242.8	322.7	852	289.6
234	7.38	249.3	84.4	465.7	222	191.3	243.4	322.1	845.3	288.9
235	7.34	247.8	84.5	461.8	221.9	189.7	242.9	321.9	839.9	287.7
236	7.31	246.2	84.4	458.3	221.8	191.7	242.3	321.8	835.3	287.2
237	7.28	244.9	84.5	455.9	222.2	190.3	240.5	320.6	831.2	285.9
238	7.26	243.9	84.5	450.6	222.2	190.2	240	320.6	828.2	284.7
239	7.22	242.5	84.7	446.9	222.6	190.1	241.4	320.3	825.1	284.2
240	7.2	241.1	84.8	446.8	222.4	189.9	239.5	319.9	822.8	283.7
241	7.16	240.1	84.6	445.9	222.9	188.4	239.2	320.1	820.7	283.3
242	7.13	239.7	84.7	436.6	222.9	188.7	239	319.4	819	281.3
243	7.1	239.4	84.4	442.1	223.3	190.5	236.9	319	817.4	282.4
244	7.07	237.9	84.7	440.7	223.4	189.6	236.5	318.7	815.8	281.8
245	7.04	237.1	84.7	436.6	223.7	189.5	237.5	318.4	814.1	281.1
246	7.01	236.1	84.7	434.1	223.9	188.5	236.8	317.7	812.6	280.2
247	6.98	234.8	84.7	431.4	224	189.2	237.7	317.7	810.8	280
248	6.95	233.8	84.8	428.2	224.4	185.4	236.3	316.6	809.2	278.2
249	6.93	232.8	84.7	430.6	225	188.2	234.8	316.7	806.9	279
250	6.9	233.2	84.7	427.5	224.9	187	235.2	316.6	804.3	278.2

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

251	6.88	232.4	84.7	425.8	225.1	187.9	235.7	315.3	801	278
252	6.86	232.3	84.8	423.8	225.2	187.7	234.5	316.1	796.7	277.4
253	6.84	230.9	84.8	424.9	225.4	185.7	236.1	315	791.7	277.4
254	6.81	229.2	84.8	418.4	225.6	184.9	235.2	313.9	786.2	275.6
255	6.79	227.9	84.7	417.8	225.9	186.6	235.8	314.6	780.2	276.1
256	6.77	227.2	85	414.3	225.9	187.4	235.1	313.1	773.7	275.2
257	6.75	225.7	84.9	412.6	226.4	185.6	234.2	313	767.5	274.3
258	6.73	224.7	84.9	412.2	226.5	184.6	234.9	312	761.4	274
259	6.73	224	84.9	407.5	226.4	186.4	234.6	312	755.2	273.4
260	6.7	222.3	84.8	404.7	226.8	184.3	232.4	311.4	749.7	271.9
261	6.68	221	84.9	402.6	227	184.4	232.6	310.7	744.4	271.4
262	6.68	220.4	84.7	397.3	227.4	182.5	232.4	310.2	739.8	269.9
263	6.66	219	84.7	399.2	227.3	183.3	232.6	309.6	735.9	270.4
264	6.63	218.6	84.6	394.2	227.5	183.4	231.2	309.1	732	269.1
265	6.62	217.8	84.8	393.4	227.7	183.3	232.1	308.8	728.5	269.1
266	6.61	216.4	84.8	392.5	227.8	183	231.4	308.8	725.6	268.7
267	6.58	215.1	84.9	390.7	227.9	182.6	230.2	307.4	723.3	267.7
268	6.57	214.1	84.9	392.3	228.5	181.9	229.7	307.1	721.1	267.9
269	6.56	213.7	85	389	228.5	183.3	229.9	307	719.6	267.5
270	6.55	212.7	84.9	387.8	228.4	182.7	227.8	306.8	718.7	266.7
271	6.52	211.8	84.8	380.9	228.5	181.4	229.3	305.7	718	265.2
272	6.51	211.7	84.8	383.6	228.7	181.2	228.6	305.2	717.3	265.5
273	6.49	210.8	84.7	380.5	228.8	181.6	228.2	305.1	716.6	264.8
274	6.48	210.2	85	381.1	229	179.8	228.1	304	715.9	264.4
275	6.46	210	84.9	377.8	229.2	181.7	226.8	303.9	715.1	263.9
276	6.44	209.6	84.7	377.5	229.3	180.3	226.9	303.7	714.7	263.5
277	6.43	209.3	84.9	375.6	229.4	180.5	227.1	302.9	713.9	263.1
278	6.41	208.9	85	375.1	229.5	180	227.1	303.1	713	263
279	6.41	208.5	84.9	373.1	229.6	181.6	225.7	301.8	712.3	262.3
280	6.38	209.1	84.8	373.8	229.7	179.6	225.4	301.7	711.2	262
281	6.37	207.9	85	373.8	229.7	180.4	226	301	709.6	262.2
282	6.35	207	84.9	372.2	229.7	180.2	225.7	301.1	708.8	261.8
283	6.34	206.7	84.7	368.7	229.7	180.5	226.2	300.4	707.7	261.1
284	6.33	206.4	84.8	371.4	230	179.4	224.1	300	706.5	261
285	6.32	206.3	84.7	368.2	230.3	180.1	223.1	299.4	705.7	260.2
286	6.29	205.5	84.8	368.8	230	178.7	223	299	705	259.9

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

287	6.27	204.7	84.8	367.1	230.1	179.3	222.4	299	704.6	259.6
288	6.26	204.4	84.6	366.3	230	178.7	220.9	299.1	704	259
289	6.23	204	84.9	363.9	230.2	177	221.1	298.2	704	258.1
290	6.24	203.1	84.6	364.9	230.2	179.2	221.8	298.2	703.9	258.9
291	6.21	203	84.8	362.9	230.2	177.9	222	297.7	703.4	258.1
292	6.19	202.3	84.8	364	230.1	178.9	223	297.6	703.1	258.7
293	6.18	202	84.8	363.7	230.3	177.3	220.3	297	702.7	257.7
294	6.17	201.8	84.8	364.9	230.5	178.3	219.6	297.3	702.5	258.1
295	6.15	200.5	84.6	363.4	230.4	178.8	219.4	296.5	701.8	257.7
296	6.14	200.3	84.8	362.4	230.2	176.8	219.8	296.4	700.7	257.1
297	6.12	200.1	84.7	359.8	230.2	176	218.8	295.7	700	256.1
298	6.11	200.5	84.8	359.2	230.2	175.5	217.5	295.7	698.9	255.6
299	6.09	200.7	84.6	359	230.1	177.7	220.2	295.9	698.2	256.6
300	6.07	200.4	84.5	360	230.3	176	218.6	295.8	697.5	256.2
301	6.05	200.8	84.7	357.4	230.4	177.2	218.1	295.6	696.1	255.7
302	6.05	200.1	84.7	355.7	230.3	175.9	218.7	295.6	695.7	255.2
303	6.02	199.9	84.6	360.5	230.2	175	216.6	294.7	694.7	255.4
304	6	199.3	84.7	354.7	230.4	175	219.1	294.5	694.1	254.7
305	5.98	199	84.7	356.3	230	175.5	217.7	294.3	693.3	254.8
306	5.98	199.2	84.9	359.5	230.1	175.3	217.1	294.3	693.1	255.3
307	5.96	199	84.7	355.6	230.3	176.1	217.3	294.3	692.7	254.7
308	5.94	198.7	84.5	355.3	229.9	174.8	214.8	294.1	691.8	253.8
309	5.94	198.2	84.8	355.3	229.9	176.5	217.7	293.4	692.1	254.6
310	5.93	197.3	84.7	354.8	229.9	177.2	218.5	293.4	691.4	254.8
311	5.91	197.5	84.7	354.7	229.9	174.9	216	292.6	691.3	253.6
312	5.89	197.5	84.6	355.4	229.8	175.5	215.4	293.6	691.2	253.9
313	5.88	196.8	84.8	353.8	229.9	174	215	292.8	691.3	253.1
314	5.87	197.2	84.6	353.5	229.9	175.7	215.6	292.9	691.2	253.5
315	5.85	197.3	84.5	351.5	229.6	175.4	215.9	292.5	691.7	253
316	5.83	197.3	84.6	351.7	229.6	174.1	214	291.7	692.1	252.2
317	5.81	196.7	84.5	356.5	229.6	174.3	213.9	291.9	692.9	253.2
318	5.79	196.3	84.5	353.3	229.5	174	213.7	291	693.5	252.3
319	5.78	196.8	84.6	351.1	229.6	173.9	213.8	291.3	693.8	252
320	5.76	197.5	84.7	351.7	229.5	173.8	215	290.3	695.2	252
321	5.75	197.8	84.7	350.8	229.6	173.8	213.9	290.2	695.8	251.7
322	5.73	198.3	84.7	351.7	229.5	171.9	214.3	289.8	696.7	251.4

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

323	5.73	197.6	84.6	353	229.3	173.6	214.7	289.7	697.4	252.1
324	5.7	197.4	84.6	348.8	229.5	173.7	214.3	289.3	698.1	251.1
325	5.69	197.7	84.4	352.7	229.3	173.6	213.6	288.9	698.7	251.6
326	5.67	198.4	84.6	353.4	229.7	174.4	212.4	288.2	699.4	251.6
327	5.66	197.6	84.5	352	229.6	172.5	213.3	287.8	700	251
328	5.65	196.9	84.6	352.6	229.4	173.3	212.4	287.7	700.8	251.1
329	5.63	196.6	84.5	351.7	229.4	174.6	213.3	287.1	701.4	251.2
330	5.6	196.8	84.4	352.3	229.2	173.6	212.9	287	702.2	251
331	5.6	197.3	84.5	349.6	229.2	172.3	212.7	286.4	702.4	250
332	5.58	196.9	84.5	349.4	229.1	172.2	213.2	286.9	703.3	250.2
333	5.57	196.6	84.5	352.6	229.1	173.3	214.3	285.7	703.4	251
334	5.54	197	84.6	352.7	229.4	173.1	213.2	285.2	704.6	250.7
335	5.52	196.9	84.5	350.2	229.3	173.5	213.6	285.7	705.6	250.5
336	5.52	197	84.5	352.5	229.3	172.8	213.5	285	707	250.6
337	5.5	197.4	84.4	350.5	229.3	173.3	213	285	708	250.2
338	5.48	197.7	84.5	349.3	229	172.4	212	284.6	709.7	249.5
339	5.48	197.7	84.4	349.9	229.2	173.4	212.1	284.2	711.1	249.8
340	5.46	198	84.4	354.4	229.1	171.5	211.9	284.1	713.1	250.2
341	5.44	197.3	84.4	352.5	229.1	172.5	212.4	283.5	713.9	250
342	5.42	197.7	84.3	353.1	229.1	173.4	212	283.1	715.3	250.1
343	5.41	198.1	84.5	351.6	229	173	213.1	283	715.8	249.9
344	5.38	198.2	84.3	351.8	228.8	172.6	212.6	283.1	715.9	249.8
345	5.37	198.7	84.2	355.3	228.7	172.2	213.4	282.9	715.5	250.5
346	5.35	198.4	84.3	352.4	228.9	173.1	212.1	283	712.8	249.9
347	5.35	198.4	84.2	354.1	228.7	172	213.8	283.1	709.9	250.3
348	5.33	198.5	84.3	355.9	228.7	172.5	213.3	282.4	706.3	250.5
349	5.33	198.3	84.3	355	228.5	172.5	213.1	282.3	702.6	250.3
350	5.3	197.7	84.4	350.9	228.6	171.5	212.9	282	699.2	249.2
351	5.28	197.8	84.3	353.2	228.5	171.7	211.7	282.2	696.6	249.5
352	5.27	197.5	84.3	348.5	228.4	170.5	211.2	282	694.7	248.1
353	5.26	198	84.2	349.3	228.5	171	210.6	281.9	693.3	248.3
354	5.23	197.7	84.4	350.1	228.3	171.2	213.2	281.4	692.8	248.8
355	5.22	196.8	84.2	348.4	228.2	172.4	212.3	281.7	692.4	248.6
356	5.22	197.1	84.3	347.5	228.2	172.5	211.1	280.8	692.2	248
357	5.19	197.1	84.3	347.3	228.2	170	210.5	281.9	692.2	247.6
358	5.17	197.7	84.2	348.7	228.2	170.8	210.8	281.1	693.3	247.9

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

359	5.18	196.9	84.1	348.2	228.1	172.7	211.5	280.8	693.7	248.3
360	5.15	197.4	84.2	348.8	228	170.6	211.5	280.4	694.8	247.9
361	5.13	196.7	84.2	345.9	227.9	171.3	210.6	280.5	696	247.3
362	5.12	197.7	84.2	347.2	227.8	172.4	211.5	280.1	697.3	247.8
363	5.09	197.6	84.3	347	227.8	171.2	210	279.9	699	247.2
364	5.08	197.6	84.2	345.5	227.9	170.6	210.1	280.1	700.8	246.8
365	5.07	196.7	84.2	347.4	228	172.4	210.3	280.1	702.4	247.6
366	5.05	196.7	84.2	347.8	227.8	170.8	210.9	279.5	703.3	247.4
367	5.03	196.9	84.3	347	227.7	171.4	210.8	279.7	703.8	247.3
368	5.02	196.6	84.3	345.7	227.7	171.9	210	279.5	703.1	247
369	5	196.9	84.1	347.4	227.5	171.9	210	279.7	701.9	247.3
370	4.98	197	84.1	344.2	227.6	170.8	210.9	280.4	699.6	246.8
371	4.96	197.3	84.1	346.3	227.3	170.8	210.7	280.3	697.8	247.1
372	4.96	197	84.1	346.3	227.2	172.5	209.8	280.7	695	247.3
373	4.93	196.7	84.1	346.4	227.2	171	210.3	281.3	693.4	247.2
374	4.9	196.5	84.1	341.1	227.2	172.2	209.6	281.7	692.2	246.4
375	4.89	197	84	346.6	227	171.8	210.3	281.9	691	247.5
376	4.88	196.2	84.1	343.8	227.1	172	210	282.5	690.1	247.1
377	4.86	196.8	84.2	344	227	172.3	210.1	282.8	689.9	247.2
378	4.84	196.4	84	343.6	227.1	172.8	211.1	283.8	689.5	247.7
379	4.81	196.6	84.1	341.6	227	171.8	210.7	284.2	689.2	247
380	4.81	196.3	84.1	341.9	226.8	171.2	210	285.2	689.2	247
381	4.77	196.8	84.1	342.7	227	173.5	209.4	285.3	689.6	247.6
382	4.76	196.8	83.9	340.2	226.9	173.5	210.5	286.7	689.7	247.6
383	4.75	196.6	84.1	337.9	226.7	173.2	210.6	286.9	690	247.1
384	4.72	197.2	84	340.7	226.6	172.1	210.4	288	690.7	247.6
385	4.7	197.2	84	338.2	226.6	172.4	210.6	288.4	691.4	247.3
386	4.68	196.9	83.9	339.3	226.6	174.3	211.1	289.1	692.2	248.1
387	4.66	196.9	84.1	343.2	226.6	174.9	211.3	290.9	693	249.4
388	4.64	198.2	84.1	340	226.5	175.2	210.4	291	694.5	248.7
389	4.63	198.3	84	339.9	226.6	175.1	210.1	291.3	695.8	248.6
390	4.59	198.7	84	338	226.4	173	211	292.1	697	248.1
391	4.6	198.1	84	340.1	226.3	173.1	209.8	292.6	698.5	248.4
392	4.58	198.4	84	341.6	226.2	172.9	212.4	293.5	700.9	249.3
393	4.55	199.3	83.9	338.1	226.1	175.1	211.1	294.1	704.1	248.9
394	4.52	199.6	84	341.5	225.9	175.2	210.7	295.2	708.3	249.7

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

395	4.51	200.2	84	341.8	226.1	175.1	212.2	294.5	713.3	249.9
396	4.49	199.7	83.9	344.6	226	174.5	212.6	294.7	717.9	250.5
397	4.47	200.9	84.1	344	225.9	176.2	212.5	294.9	722.6	250.7
398	4.45	201.4	83.9	346.4	225.9	175.9	210.9	295.6	726.9	250.9
399	4.44	202	83.9	346.3	225.6	175.9	212.1	295.4	730.3	251.1
400	4.42	203.2	83.8	346.2	226.2	175.5	211.9	295	733.3	250.9
401	4.4	204.2	83.7	348.2	225.7	176.1	212.2	294.9	735.8	251.4
402	4.38	203.9	83.7	350	225.5	175.6	212.2	294.7	737.6	251.6
403	4.36	204.7	83.8	350.5	225.3	175.9	212.7	295.2	739.5	251.9
404	4.33	204.5	83.6	354.3	225.3	175.4	213.2	295.4	740.5	252.7
405	4.33	205.2	83.7	354.9	225.4	176.6	211.9	294.5	742.4	252.7
406	4.28	205.2	83.7	351.6	225.4	175.7	214.2	294.4	743.4	252.2
407	4.28	205.5	83.6	351.4	225.3	176.3	212.4	294.5	744.6	252
408	4.26	205.9	83.7	353.8	225.3	175.3	212.1	294.3	745.4	252.1
409	4.24	206.2	83.5	353	225.3	173.4	212.5	293.7	746.4	251.6
410	4.22	206.8	83.6	357.7	225	176.6	212.5	294.5	747.5	253.3
411	4.19	207.2	83.4	356.9	225.1	176.7	213.1	294.1	748.8	253.2
412	4.18	207.9	83.6	357.7	225.1	175.3	213.5	294.2	750.2	253.2
413	4.15	207.9	83.5	359.9	224.9	176.4	212.8	294.4	751.7	253.7
414	4.13	208.3	83.5	360.8	224.6	176.4	213.4	294.9	753.8	254
415	4.12	209.5	83.6	360.6	224.9	176.8	213.2	294.5	755.5	254
416	4.09	208.7	83.5	362.2	224.8	177.3	213.6	294	757.2	254.4
417	4.07	209.2	83.6	361.3	224.8	175.3	212.1	294.3	759	253.6
418	4.05	209.2	83.6	363.6	224.9	176.6	213.3	294.1	761	254.5
419	4.02	209	83.5	362.3	224.6	176.3	213.8	294.7	763	254.3
420	4	209.5	83.5	364.7	224.6	177.1	213.8	294.6	765.5	255
421	3.97	209.8	83.5	364.8	224.4	177.2	213.2	294.2	767.5	254.7
422	3.97	210.5	83.4	369.4	224.5	178.8	214.8	294.3	769.6	256.4
423	3.94	211.5	83.7	368.9	224.5	177.6	214.4	294	771.7	255.9
424	3.9	212.1	83.4	368.8	224.6	178.5	214.7	294.2	773.2	256.2
425	3.9	212.9	83.5	368	224.8	176.8	213.3	294.3	774.1	255.4
426	3.87	214.1	83.5	371.1	224.5	177.4	214.2	294.4	773.4	256.3
427	3.83	213.1	83	370.8	224.6	178.3	215.3	294.9	775.3	256.8
428	3.82	214.1	83.4	372.4	224.8	178.2	214.8	295.2	774.5	257.1
429	3.8	214.7	83.4	368.4	224.8	178.2	215.6	294.9	770.1	256.4
430	3.76	215.4	83.4	367.4	225	178.5	215.5	294.5	761.7	256.2

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

431	3.76	214.8	83.3	368.1	224.8	177.2	216.9	295.5	750.5	256.5
432	3.73	214.9	83.3	365.8	225	177.5	216.2	295.7	738.4	256
433	3.7	213.9	83.2	363.9	225.2	178.2	217.7	296	727	256.2
434	3.68	213	83.4	361.4	225.3	178.1	216.9	295.3	716	255.4
435	3.66	212.2	83.5	359	225.4	178.8	218.6	295.8	706.3	255.5
436	3.64	211.1	83.4	357.6	225.5	179	219.4	295.8	697.9	255.5
437	3.62	210.5	83.4	355.8	225.6	180.8	218.8	296.2	691.3	255.4
438	3.6	209.8	83.4	354	225.8	180	218.5	296.3	685.6	254.9
439	3.59	208.9	83.4	353.4	226.1	179.8	219.4	296.4	681	255
440	3.57	208.2	83.4	349.8	226.3	180.2	220.1	296.3	676.8	254.5
441	3.54	207.6	83.3	347.6	226.6	178.7	219.3	296	673.4	253.6
442	3.53	207.5	83.2	344.8	226.7	179.3	219.8	296	670.3	253.3
443	3.51	206.9	83.3	345.9	227	180.1	218.4	295.5	667.5	253.4
444	3.49	206.8	83.4	341.6	227.2	179.4	220.3	295.8	665.1	252.8
445	3.46	206.1	83.2	341.4	227.4	180.9	218.6	295.8	663.5	252.8
446	3.45	205.3	83.2	340.7	227.9	180.3	219.9	295.5	661.8	252.9
447	3.43	205	83.4	335.6	228.2	180.9	220.8	295.1	660.8	252.1
448	3.42	204.1	83.3	338.3	228.5	180.4	220.1	294.3	660.3	252.3
449	3.4	204.1	83.1	336.1	228.8	179.4	221.5	294.1	659.5	252
450	3.38	204.4	82.8	336.8	228.8	178.4	220.2	294.2	659.2	251.7
451	3.37	204.5	83	333.5	229.3	180.6	220.5	292.9	659	251.3
452	3.35	203.5	83	333.3	229.6	179.8	221.6	292.9	659.1	251.4
453	3.34	203.6	82.9	331.6	229.8	178.9	219.7	292.3	659.4	250.5
454	3.3	202.8	83.1	333.2	230.4	179.5	221.1	291.9	659.6	251.2
455	3.29	202.6	83.1	330.1	230.5	178.3	219	291	660.1	249.8
456	3.28	203	82.8	331.2	230.8	178.5	220.6	291	660.9	250.4
457	3.25	202.9	82.8	331.4	231.2	179.2	221.2	290.2	661.5	250.7
458	3.24	202.9	82.8	330.9	231.5	178.8	219.7	289.5	662.1	250.1
459	3.23	203.4	83	329.9	232	179.8	219.6	288.8	662.6	250
460	3.21	202.7	82.9	330	232.1	178.3	219.8	288.4	663.1	249.7
461	3.18	203	83	329.9	232.1	178.1	220.5	287.6	663.5	249.6
462	3.17	202.1	83	329.5	232.4	177.1	220.1	287.9	664	249.4
463	3.16	202.2	82.9	329	232.9	178.1	219.9	286.5	664.2	249.3
464	3.14	202.1	83	328.4	233.1	178.5	219.7	286.3	664.7	249.2
465	3.12	202.2	82.8	328.9	233.3	178.4	219.8	286.3	665.2	249.3
466	3.1	202.1	82.7	328.8	233.4	178.5	220.7	286.3	665.5	249.5

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

467	3.09	201.7	83	328	233.7	178.8	218.6	285	666.2	248.8
468	3.06	201.9	83	329.4	234	177.6	218	284.8	666.5	248.8
469	3.06	202.2	82.8	325.6	234.1	178	218.9	284.5	666.8	248.2
470	3.05	202.8	82.9	328.6	234.4	178.3	219.7	284	666.9	249
471	3.01	202.3	82.7	327.7	234.7	176.4	219.4	283	666.4	248.2
472	3	201.9	83	328	234.7	179.8	218	282.7	665.7	248.6
473	2.98	202	83	327.7	235.1	178	219	281.7	664.4	248.3
474	2.97	201.6	82.6	328.2	235.5	177.2	219	281.5	663.5	248.3
475	2.95	201.8	82.4	329	235.4	176.4	219	281.6	663	248.3
476	2.94	202	82.8	330.3	235.6	179.3	218	281.4	662.2	248.9
477	2.92	202.1	82.9	327.6	235.6	177.6	218.3	280.6	661.3	247.9
478	2.9	201.7	82.6	328.4	235.5	177.5	219.5	280.7	660.8	248.3
479	2.88	201.3	83	327.9	236.1	177	219.3	279.8	660.9	248
480	2.87	201.8	82.7	327.1	236.3	178.7	218	279	661.4	247.8
481	2.86	202	82.7	327.7	236.3	176.7	218.6	278.7	661.7	247.6
482	2.83	201.8	82.8	327.5	236.6	176.5	218.9	279	662.1	247.7
483	2.81	202	82.7	328.6	236.7	176.6	219.5	278.2	662.8	247.9
484	2.79	201.9	82.5	326.1	236.6	176.4	218.4	278.2	663.5	247.1
485	2.78	202.2	82.9	327.3	236.7	177.8	219.4	277.4	664	247.7
486	2.77	202.4	82.9	325.3	237.2	176.5	218.1	277.2	663.6	246.9
487	2.75	201.9	82.8	326.2	237.1	177.4	217.7	277	663.9	247.1
488	2.72	201.8	82.8	324.2	237.4	178.4	218.5	276.5	663.7	247
489	2.72	201.9	82.7	325.2	237.7	177.7	219.1	276.1	664	247.2
490	2.7	202.1	82.8	324.9	237.6	177.4	218.8	275.7	664	246.9
491	2.68	201.9	82.5	326.2	237.8	177.4	218.3	275.5	664.1	247.1
492	2.67	201.7	82.7	324.3	237.8	177	219.1	275.6	664.2	246.8
493	2.63	201.8	82.8	324.5	238.2	177.8	219.2	274.8	664.5	246.9
494	2.64	200.6	82.8	325.6	238.4	177.7	218	274.8	664.8	246.9
495	2.61	200.6	82.8	323.8	238.5	178.5	218.2	274.5	664.7	246.7
496	2.59	201.2	82.3	321.9	238	177.1	217.6	275	664.8	245.9
497	2.57	200.7	82.5	325.7	238.7	177.9	219.5	273.8	664.4	247.1
498	2.55	200.3	82.6	322.7	238.7	176	219.7	274.1	663.1	246.2
499	2.53	199.7	82.5	322.6	238.8	177.9	218.9	273.7	661.9	246.4
500	2.51	200.2	82.7	323.6	239.1	179.5	218.3	273.9	660.1	246.9
501	2.51	199.9	82.6	321.3	239	176.7	219	274.4	658.1	246.1
502	2.48	200	82.4	322.5	239.5	177.7	218.8	273.4	656.3	246.4

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

503	2.46	200.4	81.8	321.3	239.3	178.7	219.9	273.7	654.6	246.6
504	2.45	199.9	82.5	321.3	239.5	179.3	220.3	273.5	652.9	246.8
505	2.43	199.8	82.7	321.9	240	180.5	218.5	273.2	651.5	246.8
506	2.41	199.4	82.2	321.7	239.7	180.6	217.3	273.8	650.7	246.6
507	2.4	198.6	82	319.9	240	179.2	219.9	272.4	650.3	246.3
508	2.37	199.1	82.3	319.4	240	180.1	219.8	272.3	650.1	246.3
509	2.37	199.6	82.2	321.6	240.4	180.7	219.6	273	650.3	247.1
510	2.35	199.5	82.2	321.4	240.4	180.5	220.4	272.5	650.6	247.1
511	2.33	199.8	82.2	321.2	240.4	178.4	219.1	273.1	651	246.4
512	2.3	200.2	82.5	317.3	240.7	180.9	219.9	272.7	652	246.3
513	2.29	200.4	82.1	320.1	240.7	179.5	220.1	272.4	652.8	246.6
514	2.28	200.8	82.2	321.9	240.8	180.1	219.8	271.8	653.9	246.9
515	2.26	200.3	82.3	320	241	180.5	220.4	272.2	655.7	246.8
516	2.25	200.1	82.5	320.5	241	181.3	219.5	272.2	657.7	246.9
517	2.21	200	82.5	319.2	241.2	180.9	217.5	271.9	660.3	246.1
518	2.2	200.6	82.6	320.8	241.2	183	218.5	271.4	662.3	247
519	2.18	200.8	82.5	319.6	241.2	181.4	218.2	271.6	664.4	246.4
520	2.17	200.4	82.4	321.2	241.6	180.6	218.1	271.4	666.3	246.6
521	2.16	200.7	82.2	322.5	241.2	181.1	219	271.5	668.3	247.1
522	2.13	200.2	82.3	322.9	241.4	181.9	218.4	271.6	670.1	247.3
523	2.12	200.2	82.4	324.6	241.5	181.8	218	271.1	672	247.4
524	2.11	200.8	82.2	322.5	241.7	181.5	219.3	271.2	673.7	247.2
525	2.08	201.1	82.4	324.1	242	181.4	219.8	271.3	675.2	247.7
526	2.07	201.4	82.1	324.2	242	181.2	217.4	271.4	676.6	247.3
527	2.04	201.8	82.1	322.8	241.9	180.4	218.8	271.2	678.6	247
528	2.03	201.7	82.2	326.5	241.9	179.8	218.3	270.5	680.2	247.4
529	2.02	201.8	82.2	328.4	242.5	181	217.7	270.4	682.4	248
530	2	202.5	82.3	327.4	242.6	181.9	218.2	270.7	684.9	248.2
531	1.98	202.6	82.3	327.2	242.3	181.8	218.6	270.5	688.4	248.1
532	1.96	202.9	82.1	328.1	242.4	181.1	216.6	270.3	691.8	247.7
533	1.95	202.6	82.1	327.8	242.4	179.1	217.1	270.7	695.2	247.4
534	1.93	202.4	82.2	329.6	242.5	179.9	216.6	269.7	698.3	247.7
535	1.91	202.6	82.4	330.4	242.7	181.7	217.2	270.4	700.9	248.5
536	1.88	203.6	82.1	330.5	243	180.8	216.6	270.1	703	248.2
537	1.86	204.2	82	331.7	242.6	180.4	216.3	270.4	705.2	248.3
538	1.85	204.3	82.2	333.1	243.1	180.5	216.2	270.2	706.8	248.6

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

539	1.83	204.4	81.9	333.1	243	179.2	217.8	270.7	708.2	248.8
540	1.82	204.9	82.1	334.6	243	178.5	217.4	270.4	709	248.8
541	1.8	204.9	82.2	335.6	243	180.5	216.3	270.4	710.3	249.1
542	1.78	205.2	82.2	335.9	243.3	182.3	216	270.4	711.3	249.6
543	1.76	205.3	82	336.5	243.4	179	215.5	270.1	712	248.9
544	1.74	205.3	82.1	336.5	243.5	181	215.5	270.5	712.8	249.4
545	1.72	204.7	81.8	336.7	243.5	179.2	215.9	270	713.8	249.1
546	1.71	205.2	82.2	337	243.6	181.5	215.9	269.4	714.7	249.5
547	1.69	206	82.1	335.9	243.4	181.5	216.1	270.4	715.5	249.5
548	1.65	206.5	82	337.9	243.8	180	215.4	269.7	716.4	249.3
549	1.65	206.1	81.9	338.8	243.6	180.2	214.9	269.5	716.5	249.4
550	1.64	205.9	82	340	243.8	179.3	214.6	270	716.8	249.5
551	1.61	206.2	81.9	339.2	243.9	180.5	216.1	269.9	717	249.9
552	1.59	205.4	82	341.1	244	182.3	215.7	270.3	716.8	250.7
553	1.58	205.8	82	343.4	243.9	181.1	213.7	270.3	716.4	250.5
554	1.55	206.3	81.9	342.3	244.1	180.7	215.1	270.2	716	250.5
555	1.53	206.3	82	344.4	244.3	180.6	215	270.4	716.3	250.9
556	1.51	206.1	82	342.9	243.9	180.6	213.8	270.8	716.5	250.4
557	1.49	205.9	81.9	343.5	244.4	179.6	214.5	270.7	716.5	250.6
558	1.47	206	82	345.4	244.4	180.3	215	270.4	716.6	251.1
559	1.46	206.1	82	347	244.4	179.1	213.4	271.1	717	251
560	1.44	205.7	82.1	343.2	244.6	180.9	213.7	271.5	717	250.8
561	1.43	206.4	81.8	344.1	244.6	182.5	216.3	271.2	717.1	251.7
562	1.4	205.8	81.9	344.9	244.8	182.1	214.3	271	717.5	251.4
563	1.39	205.3	81.8	343.9	244.8	180.6	215.1	271.5	718.1	251.2
564	1.36	205.3	81.9	346.2	244.8	181.6	215	271.4	717.9	251.8
565	1.35	205.9	81.9	345.1	244.8	180.3	216.5	271.3	718.3	251.6
566	1.33	205.8	81.8	347.1	244.9	181.2	214.3	271.2	718.3	251.7
567	1.3	206.8	81.8	346.4	244.7	182.3	214.3	271.8	718.6	251.9
568	1.29	206.6	81.8	345.9	245.1	180.3	216.9	271.1	718.5	251.9
569	1.28	206.2	81.8	345.2	245.1	179.8	215	271.1	718.7	251.3
570	1.26	206.3	81.8	347.4	244.8	180.1	215.9	271.7	718.7	252
571	1.24	206.2	81.8	345.2	245.1	181	216.3	271.8	718.7	251.9
572	1.22	205.7	81.6	348.2	245.1	180.6	215	271.8	718.7	252.1
573	1.21	205.8	81.8	344.9	244.9	179	214.2	271.7	718.9	250.9
574	1.18	205.9	81.9	346.5	245	180.8	215.8	271.7	719.3	251.9

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

575	1.17	206.4	81.7	345.6	245.2	181.6	214.7	271.5	719.6	251.7
576	1.14	206.4	81.7	346.9	245.4	183.4	214.8	271.7	719.7	252.4
577	1.13	206.4	81.6	346.7	245.5	181.8	216.7	271.1	719.8	252.4
578	1.11	205.9	81.7	347.4	245.4	181.3	215.8	271.5	720.4	252.3
579	1.08	206.3	81.7	348	245.5	182.4	217.1	271.5	721	252.9
580	1.07	207.5	81.7	348.3	245.5	181.2	214.8	271.1	722	252.2
581	1.04	208.3	81.5	350.2	245.4	183.4	216	271.8	723.3	253.4
582	1.02	208.1	81.6	349.4	245.6	181.7	214.9	271.6	724.5	252.6
583	1	208.1	81.7	350.4	245.7	179.1	215.1	271.1	726.5	252.3
584	0.98	208.7	81.5	350.6	246	181.7	214.8	271.4	729.3	252.9
585	0.96	208.8	81.7	347.8	246	180.7	215.7	270.7	732.3	252.2
586	0.93	209.5	81.7	350.4	245.8	180.8	215.3	271.4	734.5	252.7
587	0.92	209.9	81.5	348.7	245.9	182.4	214.2	270.7	736.6	252.4
588	0.89	209.8	81.5	349.6	246.3	182.4	215	270.5	738.4	252.8
589	0.88	209.6	81.6	352.2	246	180	214.2	270.6	739.9	252.6
590	0.86	209.5	81.5	353	246.2	180.8	213.5	270.4	740.5	252.8
591	0.83	210.1	81.5	354	246.2	180.4	215.7	270.2	741	253.3
592	0.8	210.5	81.3	352.4	246.3	180.6	213.2	270.2	741.4	252.6
593	0.78	210.6	81.4	353.9	246.1	180.5	215.3	271.1	741.5	253.4
594	0.76	211	81.6	352.1	246.2	181.4	214.7	271.2	740.5	253.1
595	0.74	211.2	81.5	355.9	246.1	179.5	215.8	271.4	737.5	253.7
596	0.72	211	81.4	353.9	246.2	180.5	215.7	271.1	731.8	253.5
597	0.71	211.2	81.3	352.2	246.2	181.9	216.7	270.8	723.3	253.6
598	0.68	210.8	81.6	351.1	246.4	181.3	216.2	271.3	713.8	253.2
599	0.67	210.7	81.4	352.5	246.2	183.2	217.2	271.4	703.8	254.1
600	0.65	209.7	81.3	349.4	246.5	182.2	217.4	272	694.2	253.5
601	0.64	209.2	81.5	347.6	246.4	182.7	217.9	271.9	686.3	253.3
602	0.61	208.3	81.3	347.5	246.7	184	216.9	272.3	679.1	253.5
603	0.6	207.7	81.5	344.4	246.3	184.8	218	272.5	673.3	253.2
604	0.57	207.2	81.3	342.4	246.7	183.9	218.7	272.1	668	252.7
605	0.56	206.5	81.3	340	246.9	184.5	217.1	271.9	663.9	252.1
606	0.54	205.3	81.3	343.1	246.8	182.4	219.1	272.4	660.9	252.8
607	0.52	205.1	81.2	337.6	246.9	183	217.9	272.5	658.5	251.6
608	0.52	204.8	81.4	338.7	246.8	184.6	219.5	272.3	656.8	252.4
609	0.48	204.7	81.2	335.1	246.9	184	218.1	272.1	655.2	251.2
610	0.46	204.1	81.2	331.4	247	186.1	217.8	272.4	653.8	250.9

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~21.6%

611	0.45	203.5	81.3	333.1	247.2	185.6	217.4	272.5	652.9	251.2
612	0.44	203.8	81.2	330.8	247.3	185.9	220.4	272.4	652	251.3
613	0.42	203.2	81.1	330.5	247.5	185.5	219.4	272.2	651.7	251
614	0.4	202.4	81	329.9	247.8	184.9	218.5	272.3	651.3	250.7
615	0.38	202.2	81.1	330.5	247.9	184.6	219	271.9	651.2	250.8
616	0.37	201	81.1	328.3	248.1	185.4	219.3	271.8	651.5	250.6
617	0.35	201	81.2	328.4	248	183.9	219.5	271.6	651.6	250.3
618	0.33	201.2	81.2	327.5	248	184.2	220.5	271.9	652	250.4
619	0.31	201	81.1	325.6	248.4	185.6	219.5	271.6	652.2	250.1
620	0.3	201.1	81.1	325.1	249	185.2	218.7	270.5	652.6	249.7
621	0.29	201	81.1	323.3	248.7	185.7	218.1	271.4	652.5	249.4
622	0.26	201.1	81.2	325.6	248.9	186.3	218.3	271	652.7	250
623	0.25	201.1	81	324.5	249.2	183.8	219	270.7	653	249.4
624	0.24	200.4	81.1	325.2	249.4	184.2	218.4	270.9	653.6	249.6
625	0.21	200.6	81.2	325.2	249.7	184.6	218	270.4	654	249.6
626	0.2	200.1	81	320.6	249.7	184.6	217.6	270.5	655	248.6
627	0.18	200.6	81.1	322.6	250.3	184.5	221.1	269.6	655.9	249.6
628	0.16	200.3	81	323	250.1	182.9	217.5	269.7	656.8	248.6
629	0.15	199.7	81.1	324.9	250.6	183.9	218.8	269.5	657.9	249.6
630	0.14	200.4	81	323	250.6	184.3	218.9	269.2	658.9	249.2
631	0.11	199.9	80.9	323.1	251.1	184.1	216.9	269.4	659.7	248.9
632	0.1	200.1	81.1	321.4	251.1	182.8	217.6	268.6	659.9	248.3
633	0.08	200.1	80.9	322	251.3	184.5	217.7	269.3	660.8	249
634	0.05	200.2	80.9	321.8	251.3	184.3	215.8	268.4	661.3	248.3
635	0	200	80.8	322.8	251.9	184.4	217.3	268.4	661.2	249

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

Elapsed Time (min)	Scale Weight (lbs)	Flue (F)	Ambient (F)	FB Top (F)	FB Bottom (F)	FB Back (F)	FB Left (F)	FB Right (F)	Catalyst (F)	Avg. Surface Temp (F)
0	30.25	317.7	78.9	411	224.2	182.8	238	301.7	764.9	271.5
1	30.25	346.3	79.2	409.6	224.3	187.9	236.3	301.1	697.1	271.8
2	30.17	334.4	79	406.2	223.9	192.4	234.2	299.8	694.5	271.3
3	30.1	316.3	79.1	400.9	226.3	195.5	233	297.8	695.5	270.7
4	30.06	294.9	78.6	394.5	227.1	197.9	232.9	296	692.8	269.7
5	30.02	280.9	79.2	391.8	227.7	200	229.5	294	694	268.6
6	29.97	271.8	79	389.3	228.3	200.8	227.2	291.7	697.3	267.5
7	29.92	265	78.8	382.1	229	201.5	227.6	289.7	700.8	266
8	29.89	259.8	78.7	381.7	229.5	201.6	223.5	287.3	703.6	264.7
9	29.86	255.9	78.9	376.8	230	200.9	221.5	284.9	705.2	262.8
10	29.79	253.5	78.3	374	230.9	202.6	220.1	282.3	706.6	262
11	29.74	251.7	78.2	372.5	231.5	200.6	219.3	279.8	707.1	260.7
12	29.7	250.1	78.6	368.1	231.7	201.2	218.2	277.4	708.2	259.3
13	29.64	248.5	78.2	365.9	231.9	200.2	215.5	275.3	712	257.7
14	29.59	247.7	77.9	361.6	232.7	200.5	214.8	272.6	718	256.4
15	29.53	247.9	78.3	359.8	232.8	199.3	213.3	270	725.2	255
16	29.49	248.7	78.6	359.2	233.4	199.3	209.8	268.7	733.7	254.1
17	29.42	249.8	78.8	359.5	234	198.1	209.5	266.4	744	253.5
18	29.32	251.4	78.7	361	233.9	197.6	209.3	264	752.8	253.2
19	29.26	252.4	78.6	363.7	234.4	197.5	208	262.4	759.9	253.2
20	29.2	252.8	78.4	366.7	234.6	197.1	205.6	260.5	766	252.9
21	29.13	254	78.6	368.3	234.8	196.3	205.4	258.7	771.9	252.7
22	29.05	254.6	78.4	370.4	234.7	194.8	203.8	256.8	777.2	252.1
23	28.99	255.5	78.4	370.1	234.8	193.9	203.3	255.3	782.2	251.5
24	28.91	256.5	78.8	374.8	234.9	192.8	202.2	253.6	786.2	251.6
25	28.85	257.1	78.6	377.7	234.9	192.4	201.9	252.1	789.6	251.8
26	28.78	258.2	78.4	378.7	235.2	191.9	200	250.6	792.3	251.3
27	28.71	259.2	78.2	382.1	234.7	191.8	199.5	249.6	795.4	251.5
28	28.63	258.8	78.2	382.3	234.9	190.8	198.1	247.6	799	250.7
29	28.57	259.5	78.4	382.6	235.2	189.8	198.7	246.3	802.3	250.5
30	28.51	259.6	78.7	376	234.6	166.9	196.9	245.7	804.9	244.1
31	28.44	259.1	78.3	368.6	234.6	156.5	197.3	244.5	805.7	240.3
32	28.38	257.6	78.8	364.2	234.2	150.6	196	243.2	805	237.6
33	28.31	255.9	78.9	359.9	233.9	147.2	195.2	241.9	803	235.6
34	28.25	253.8	78.5	360.6	233.5	143	194.5	241.1	800.7	234.5

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

35	28.17	252.6	78.3	354.9	233.4	140.3	196.2	239.7	798.6	232.9
36	28.1	251	78.5	356.1	233.1	137.1	192.8	239.3	797.7	231.7
37	28.05	250.2	78.2	349.9	232.6	135.9	194.5	238	797	230.2
38	27.97	249.1	78.1	350.7	232.4	133.8	192.8	237.1	797.1	229.4
39	27.9	248.3	78.4	346.4	232	131.4	192.8	236.8	797.3	227.9
40	27.83	247.4	78.5	341.1	231.3	130.8	192.5	235.6	797.1	226.3
41	27.77	247.3	78.5	340.7	230.8	130.2	191.4	235.2	796.1	225.6
42	27.7	246.7	78.5	342.1	230.3	128.8	191.8	234.4	794.5	225.5
43	27.64	247	78.5	340.1	229.8	127.5	191.6	233.4	793	224.5
44	27.58	246.3	78.1	337.9	229	127.5	190.1	232.9	791.1	223.5
45	27.5	245.7	78.4	336.8	228.6	126.2	190.9	232.3	789.2	222.9
46	27.43	244.9	78.3	335.3	227.9	126.3	190.5	232.1	787.4	222.4
47	27.36	244.4	78.4	333.8	227.3	125.9	190.1	231.5	785.7	221.7
48	27.29	244.2	78.6	333.4	226.7	125.4	189.3	230.7	784.3	221.1
49	27.23	244	78.5	330.9	226.3	123.9	188.7	230.1	783.7	220
50	27.14	243.6	78.6	330.2	225.5	123.7	189.3	229.8	783.5	219.7
51	27.08	242.8	78.7	328	224.7	123.2	189.6	229.3	783.3	219
52	27.01	242.1	78.9	328.4	224.3	123.1	188.6	228.7	783.7	218.6
53	26.94	242	78.9	325.2	224	122.5	188.4	228.4	784.4	217.7
54	26.86	241.8	78.6	323.6	223.3	122.9	187.2	228.1	785.2	217
55	26.81	241.7	78.8	324.2	222.5	122.2	188.8	227.7	786.1	217.1
56	26.73	241.4	78.5	322.3	222.2	123	187.4	227.3	787.1	216.4
57	26.67	240.8	78.7	322.2	221.5	122.4	188.5	226.6	787.2	216.3
58	26.6	241	78.8	318	221.1	120.8	187.4	226.6	787.3	214.8
59	26.51	239.8	79.1	318.7	220.4	121.2	186.6	226.1	787.5	214.6
60	26.45	239.9	79.2	317.4	220.4	121	186.9	225.7	787.1	214.3
61	26.38	239.2	79.1	319	219.2	120.2	186.5	225.4	786.8	214.1
62	26.3	238.3	79.1	319	219.1	120.3	186.7	224.6	785.9	213.9
63	26.23	237.6	79.1	317.4	218.7	120.7	187.9	224.4	785.5	213.8
64	26.17	237.1	79.1	318.7	218.2	120.2	187.5	224	785.8	213.7
65	26.11	236.1	79.6	318.3	217.7	120.4	186.5	223.4	787	213.2
66	26.02	235.7	79.1	318.6	217	120	185.3	222.8	789.1	212.7
67	25.96	235.9	79.2	315.8	216.6	119.6	187.3	222.2	792.2	212.3
68	25.88	237	79.5	318.2	215.9	119.4	185.5	221.8	796.6	212.2
69	25.8	237.3	79.5	318.3	215.3	119.5	187	221.5	802.1	212.3
70	25.74	238.1	79.6	317.1	214.9	119.3	186.2	221.1	808.9	211.7

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

71	25.65	238.6	79.4	319.4	214.4	119.5	186.6	220.8	815.6	212.1
72	25.57	239	79.9	319.5	214.1	119.7	187.1	220	822	212.1
73	25.52	239.6	79.4	321.2	213.8	119	186.2	219.5	827.3	212
74	25.45	240	79.3	319.9	213	119.2	186.5	219.5	831.2	211.6
75	25.35	240.1	79.7	323.4	212.4	119.5	187.4	219	833.8	212.3
76	25.3	240.4	79.2	320.9	212.5	119	185.9	218.5	835.2	211.4
77	25.22	240.5	79.6	324.9	211.8	119	187.2	217.8	835.9	212.1
78	25.15	240.9	79.9	325.4	211.3	118.7	186.3	217.8	836.4	211.9
79	25.08	241.9	79.8	327.8	210.9	118.8	186.9	217.5	837	212.4
80	25.02	242.2	79.7	327	210.6	118.1	187.5	217	837.3	212.1
81	24.96	242.9	80	329.9	209.8	118.5	186.1	216.9	838.2	212.2
82	24.86	242.8	80.1	328.1	209.7	119	186.3	216.5	839.4	211.9
83	24.8	243.5	80	330.5	209.3	118.8	186	216.6	841.7	212.2
84	24.71	244.1	80	331.2	209.1	118.3	187.3	216.3	844.3	212.4
85	24.64	244.8	79.9	329.6	208.6	117.9	186.2	216.1	847.9	211.7
86	24.59	245.2	79.4	331.8	208.5	118.1	186.6	216.1	851.8	212.2
87	24.5	246	79.8	333.9	208.2	117.7	186.9	216.4	855.9	212.6
88	24.43	247.2	79.7	334.9	207.7	118.6	187.7	216	861.1	213
89	24.37	248.3	79.4	335.5	207.6	118.4	187.9	216.2	866.8	213.1
90	24.29	249.3	79.4	337.4	207.3	118.8	188	216.1	873	213.5
91	24.2	251.6	79.5	335.8	207.1	118.8	187.5	216	880.5	213
92	24.12	253.6	79.6	341.5	206.9	118.8	187	215.6	889.9	213.9
93	24.03	254.6	79.8	344.7	206.5	119.1	187.9	215.7	901.1	214.8
94	23.95	256.2	79.9	344.3	206.3	119	188.1	215.7	912.8	214.7
95	23.87	258	80	346.9	206	119.4	187.5	215.4	923.6	215
96	23.79	260.1	80	350.7	205.7	119.5	189	215.5	931	216.1
97	23.71	260.7	79.8	354.3	205.4	119.7	188.1	215.5	936.3	216.6
98	23.64	261.3	79.8	354.4	205.3	118.9	188.5	215.5	938.3	216.5
99	23.55	261.8	80	362.1	204.9	119.6	189.8	215.6	939	218.4
100	23.47	263.3	80	359.8	204.7	119.5	189.6	216.1	938.6	217.9
101	23.4	264.3	80	363.3	204.6	119.2	190.3	215.8	937.2	218.6
102	23.31	264.8	80.1	366.6	204.4	119.3	190.4	216.3	935.9	219.4
103	23.25	265.4	80.1	367.2	204.2	119.5	190.5	216.2	934.7	219.5
104	23.17	266	79.7	371.6	204	120	190.5	216.3	933.4	220.5
105	23.09	266.2	80.3	369.4	204	119.7	189.9	216.3	932.2	219.9
106	23.01	267.3	80.2	369.9	203.6	120.2	191.4	216.8	931.8	220.4

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

107	22.94	267.6	80.2	371.1	203.4	120.4	191.3	216.9	931.9	220.6
108	22.84	267.4	80.1	374.7	203.3	119.8	191.9	216.9	932	221.3
109	22.76	267.5	80.4	373.8	203.1	120.1	192.4	217.3	932.6	221.3
110	22.68	268.6	80.2	374.1	203	120.1	193.3	217.4	933.7	221.6
111	22.59	269.5	79.9	372.6	202.7	120.6	192.7	218	935.2	221.3
112	22.53	268.9	80.1	376.8	202.7	120.7	194.2	217.8	937	222.5
113	22.45	269.6	80.3	375.7	202.5	120.2	193.9	218.1	939.3	222.1
114	22.37	270.9	80.5	376.5	202.4	120.9	194.1	218.4	942.4	222.4
115	22.28	272.1	80.7	382.2	202.2	120.6	193.5	218.6	944.3	223.4
116	22.18	273	80.3	382.2	202.2	121.4	193.8	218.8	945.1	223.7
117	22.11	273	80.4	384.2	202	121.2	195.1	218.5	945.7	224.2
118	22.03	273.4	80.4	386.9	201.8	120.9	195	218.5	946.2	224.6
119	21.93	273.7	80.3	388.1	201.8	121.4	195.5	218.6	946.6	225.1
120	21.88	273.4	80.6	387.2	201.6	121.4	195	218.6	948.1	224.8
121	21.79	273.8	80.4	389.4	201.6	122.1	194.9	218.7	949.7	225.3
122	21.71	273.5	80.4	394.3	201.6	121.8	195.6	218.9	951.3	226.4
123	21.62	273.8	80.3	392.2	201.4	121.7	195.5	218.8	952.7	225.9
124	21.55	273.8	80.2	394.7	201.3	122.2	195.7	218.9	953.4	226.6
125	21.46	273.7	80.3	397.2	201.2	122	195.4	219.1	952.8	227
126	21.37	274.3	80.4	397.2	201.2	122.5	195	219.8	952.7	227.2
127	21.3	273.9	80.5	397.6	201.2	122.4	196.9	219.7	953.6	227.6
128	21.23	273.2	80.3	401.9	201.2	122.8	196.5	220.2	955.2	228.5
129	21.16	273.9	80.2	397.6	201.2	122.7	196	220.8	958.2	227.7
130	21.06	274.4	80.3	399.5	201.1	124	195.8	221.2	961.6	228.3
131	21	274.7	80.6	403.7	201	123.3	196.6	222.3	965.3	229.4
132	20.9	275.2	80.8	403	201.1	123.9	198.1	222.3	968.6	229.7
133	20.83	275.3	80.4	403.4	201	124.3	197.8	223.1	972.5	229.9
134	20.74	276.9	80.3	403.3	201.1	123.6	198.8	223.1	976.2	230
135	20.67	277.4	80.5	402.3	201	124	198.8	223.8	980.1	230
136	20.59	278.4	80.9	403.4	201	124.1	198	224.7	984.6	230.2
137	20.5	279.3	80.7	408.6	201	125	199.1	225	989.8	231.7
138	20.42	280.5	80.6	410.2	201	124.7	199.1	225.8	995.1	232.1
139	20.31	280.7	80.7	413.1	201	124.1	199.4	226	1000.7	232.7
140	20.25	281.9	80.3	414.9	200.9	124.8	200.8	226.7	1006.7	233.6
141	20.17	283.6	80.6	413.6	200.9	125.2	201.4	227.3	1013.2	233.7
142	20.07	285.5	80.6	416.8	200.9	125.7	200.4	227.9	1021.1	234.3

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

143	19.97	286.4	80.4	419	200.9	125.4	200.4	228.5	1028.8	234.8
144	19.88	288.2	81.2	426.3	200.9	126.2	201.7	229.3	1037	236.9
145	19.79	290.4	80.9	426.6	201	126.1	202.4	230	1045.7	237.2
146	19.68	292.8	80.6	427.7	200.9	125.5	202.1	230.4	1054.3	237.3
147	19.6	293.8	80.9	436.1	200.9	126.3	202.4	230.8	1063.3	239.3
148	19.5	295.5	80.7	439	200.9	125.8	203.5	231.9	1071.3	240.2
149	19.41	298	81.1	442.2	200.9	126.7	203.5	232.9	1078.8	241.2
150	19.3	300.3	80.9	447.5	200.9	126.7	204.3	233.2	1087.5	242.5
151	19.19	302.2	81.2	452.6	200.8	127.4	204.2	233.7	1094.2	243.7
152	19.09	304.1	80.5	456.5	200.7	126.8	203.6	234.4	1097	244.4
153	18.98	305.6	80.8	459.3	200.8	127.4	206.2	235.1	1098.3	245.7
154	18.88	306.7	80.6	468.4	200.7	127.4	205.9	236	1100.2	247.7
155	18.78	307.7	81	474.2	200.7	128.7	206.3	236.5	1102.1	249.3
156	18.68	307.9	80.7	477	200.7	128	206.7	237.1	1104.8	249.9
157	18.58	308.6	80.7	479.7	200.6	128	207.1	237.6	1107.2	250.6
158	18.46	309.3	80.8	484.9	200.7	128.2	209	238.6	1109.5	252.3
159	18.36	310.5	81	484	200.6	128.7	209.4	239.5	1111.7	252.4
160	18.27	312.1	80.6	489.6	200.7	128.6	210.5	240	1114.5	253.9
161	18.15	313.7	80.8	493.7	200.6	129	209.6	240.8	1116.8	254.8
162	18.06	314.4	80.6	496.2	200.6	129.3	211	241.6	1118.7	255.7
163	17.94	316.1	80.8	503.2	200.6	129.6	211.6	242.5	1119.5	257.5
164	17.84	317.4	81.2	506.2	200.6	130.3	211.8	243.5	1119.5	258.5
165	17.74	316.9	81.2	503.8	200.4	130	212.6	244.2	1119	258.2
166	17.62	317.6	80.8	511	200.5	130.9	213.2	245.5	1118.2	260.2
167	17.54	317.3	81.2	505.3	200.4	130.5	213.9	246	1117.9	259.2
168	17.41	317.6	80.8	508	200.4	130	214.6	247	1117.5	260
169	17.27	320.4	81.2	513.4	200.4	131.4	215.1	247.8	1119.7	261.6
170	17.2	321.7	81	516.6	200.4	131.2	215.2	248.6	1113.8	262.4
171	17.07	321.1	81.2	515.7	200.4	131.8	216	249.4	1104	262.7
172	17	320.4	81	512.5	200.4	132.3	216.9	250.2	1089.6	262.5
173	16.88	320.1	81.3	522.4	200.3	132	217.3	250.9	1076	264.6
174	16.78	318.7	81.5	518.7	200.2	132.2	218.1	251.7	1064.4	264.2
175	16.65	316.9	81.1	516.8	200.3	133.7	219.9	252.3	1054.5	264.6
176	16.57	316.4	81.3	518.2	200	133.2	221.6	253.4	1047.3	265.3
177	16.45	315.6	80.9	525.1	200.2	134.3	221	254.6	1042.7	267
178	16.36	314.1	81.1	520.1	200.2	134.6	220.1	254.8	1041.4	266

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

179	16.26	314.7	80.9	517.3	200.1	133.5	221.5	255.8	1042.6	265.6
180	16.16	314.4	81.5	516	200.1	133.9	220.9	256.4	1043.7	265.5
181	16.04	314.4	81.3	524.9	200.1	134.8	222.2	256.9	1045.2	267.8
182	15.94	313.6	81.4	522	200.2	134.9	222.2	257.7	1046	267.4
183	15.82	313.8	81.2	523.7	200.1	135.5	223.8	258.2	1046.7	268.3
184	15.73	313.8	81.4	522.4	200.2	134.8	224.2	259	1047.1	268.1
185	15.63	314.2	81.2	522.2	200.2	135.5	225.5	259.6	1047.6	268.6
186	15.52	313.2	81.5	519.6	200.2	135.9	224.9	260.4	1047.5	268.2
187	15.43	313.4	81.2	524.4	200.2	136.4	225.5	260.9	1047.5	269.5
188	15.33	313.2	81.2	526.2	200.2	136.6	225.8	261.9	1047.9	270.2
189	15.22	312.5	81.4	526	200.1	136.7	226.7	262.2	1048.5	270.3
190	15.11	312.8	81.4	524	200.1	136.1	227.4	262.8	1049.3	270.1
191	15.01	313.4	81.2	526.6	200.3	137.9	228.5	263.3	1049.6	271.3
192	14.89	313.4	81.1	527.5	200.2	136.5	229.2	264.2	1050.7	271.5
193	14.79	312.8	81.2	527.5	200.3	137.3	229.7	264.9	1051.6	271.9
194	14.69	313.7	81.7	519.6	200.3	137	229.5	265.3	1052.3	270.4
195	14.57	314.3	81.4	524.9	200.4	137.9	229.7	265.6	1053.2	271.7
196	14.48	314.2	81.4	520.9	200.4	138.1	231.9	266.4	1053.7	271.5
197	14.37	314.4	81.1	520.1	200.5	137.3	232.1	266.9	1054.4	271.4
198	14.25	314.2	81.2	521.8	200.4	138.1	231.9	268	1055.2	272
199	14.15	315.5	81.4	528.5	200.5	137.9	232.7	268.2	1056.1	273.6
200	14.04	315.4	81.1	523.2	200.5	139	232.3	268.6	1056.5	272.7
201	13.93	315.3	81.2	518.9	200.5	139.2	234	269.7	1056.5	272.5
202	13.82	315.3	81.2	522.3	200.5	139.9	233	270	1056.1	273.1
203	13.72	315.9	81.3	524.8	200.7	139.4	235.6	270.8	1055.1	274.3
204	13.62	314.8	81.5	524.6	200.7	138.9	234.9	271	1054.5	274
205	13.51	315.1	81.5	521.7	200.7	140	236	271.6	1053.4	274
206	13.41	314.9	81.4	518	200.9	140.6	237.9	272.1	1052.3	273.9
207	13.3	314.9	81.3	516.7	200.9	140.7	237	272.5	1051.6	273.6
208	13.19	315.3	81.6	519.5	200.9	139.9	236.8	273.2	1051.2	274.1
209	13.09	314.7	81.5	515.6	200.7	139.7	237.6	273.6	1051	273.4
210	12.99	314.5	81.5	516.7	201	140.2	237.8	274	1051.2	273.9
211	12.88	314.9	81.2	517.5	201	141.1	239.1	274.2	1050.9	274.6
212	12.77	314.6	81.4	522.5	201.1	141	239.1	274.6	1051.1	275.7
213	12.68	314.8	81.4	518.6	201.1	141.3	239.3	275.4	1052	275.1
214	12.58	315.5	81.3	521.8	201.3	140.9	240.3	275.7	1053.4	276

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

215	12.46	316	81.2	525.9	201.3	142.6	240.7	276.2	1054.7	277.4
216	12.37	315.8	81.4	519.1	201.4	142.3	242.3	276.1	1055.6	276.2
217	12.26	315	81.6	526.5	201.5	142.2	240.8	276.4	1055.7	277.5
218	12.15	315	81.2	526.2	201.5	142.8	241.5	277.2	1055.5	277.9
219	12.05	314.8	81.6	525.7	201.5	142	242.5	277.3	1055.1	277.8
220	11.95	315.4	81.5	524.5	201.7	142	243	277.8	1054.9	277.8
221	11.85	315.3	81.5	527.5	201.8	144	242.5	278.3	1054	278.8
222	11.74	315.4	81.6	520.4	201.8	142.1	243.4	278.6	1053.8	277.3
223	11.65	315.5	81.5	523	201.8	143.2	243.3	279.1	1054.3	278.1
224	11.53	316.5	81.4	516.8	202	144.2	244.1	279.4	1054.3	277.3
225	11.45	316.2	81.4	519.5	202	143.9	244	279.8	1054.9	277.8
226	11.33	316.3	81.6	526.2	202.1	144.9	244.3	280.2	1055.8	279.5
227	11.23	316.3	81.5	520.5	202.2	144.4	245.7	281.3	1056.5	278.8
228	11.12	316.4	81.7	518.5	202.3	144.2	246.1	281.2	1057.4	278.5
229	11.01	316.5	81.5	518.9	202.4	145.6	246.6	282.5	1057.7	279.2
230	10.91	316.7	81.4	513	202.6	145.7	246.9	282.8	1056.8	278.2
231	10.81	316.5	81.5	514.1	202.8	146.5	246.1	282.7	1055.6	278.4
232	10.71	316.3	81.5	513.9	202.6	146.5	247.8	283.2	1054.6	278.8
233	10.61	316	81.5	514	202.8	146.1	248.2	283.7	1053.8	278.9
234	10.51	315.2	81.4	510.6	202.7	146.6	247.6	284.2	1053.4	278.3
235	10.42	314.6	81.3	514.6	202.7	146.6	247.2	284.3	1052.7	279.1
236	10.31	313.8	81.7	513.6	203	146	249.3	284.7	1051.9	279.3
237	10.23	313.7	81.6	516.3	202.9	145.9	249.3	285.3	1051.4	279.9
238	10.11	314	81.6	517.8	202.9	147.2	249.9	285.6	1050.4	280.7
239	10.04	313.5	81.4	516.5	203.2	148	250.4	286.1	1049.5	280.8
240	9.93	313.1	81.5	510.9	203.3	148.1	249.3	286.7	1048.8	279.7
241	9.84	313.2	81.6	507.5	203.2	148.9	249.9	287	1048.3	279.3
242	9.73	312.1	81.5	515.5	203.3	149.1	251.2	287.1	1047.8	281.3
243	9.66	312.1	81.9	509	203.3	149.6	250.5	287.7	1047.6	280
244	9.55	312.4	81.5	511.5	203.4	148.9	251.5	287.9	1047.2	280.6
245	9.46	312.6	81.5	509.9	203.6	148.8	251.4	288.8	1047	280.5
246	9.36	311.7	81.7	510.4	203.6	149.6	252.5	288.9	1046.9	281
247	9.28	311.6	81.2	507.2	203.8	150.2	251.7	289.2	1046.4	280.4
248	9.2	311.3	81.3	508.5	203.8	151.2	252.8	290.1	1046.1	281.3
249	9.09	310.5	81.6	508.7	203.8	150.1	252.6	290.4	1045.6	281.1
250	8.99	309.7	81.5	509.2	203.7	150.5	254.3	290.7	1044.6	281.7

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

251	8.92	308.3	81.4	513.1	204	151.1	254.7	291	1043.6	282.8
252	8.82	307.4	81.6	514.6	204.1	151.2	255.6	291.1	1042.8	283.3
253	8.74	306.4	81.3	512	204.4	151.4	255.5	291.3	1041.9	282.9
254	8.65	306	81.4	511	204.3	150.9	255.8	291.5	1041.2	282.7
255	8.58	305.9	81.5	514	204.3	152	256.2	292.4	1039.5	283.8
256	8.48	305.3	81.5	512.8	204.3	152.6	256.1	292.4	1036.9	283.7
257	8.41	304.2	81.6	513.5	204.4	152.2	256.6	292.8	1034.1	283.9
258	8.33	303.1	81.4	514.1	204.6	152.9	256.9	293.5	1030.3	284.4
259	8.27	301.4	81.7	513.3	204.4	153.1	258.8	293	1026.7	284.5
260	8.21	300.2	81.5	513.5	204.4	152.3	257.9	293.5	1022.9	284.3
261	8.13	299.1	81.7	513.6	204.7	153.6	257.6	293.8	1019.6	284.6
262	8.06	297.6	81.9	513.6	204.7	154.4	258.5	294	1017.1	285.1
263	7.99	296.3	81.7	507.8	205.1	155.1	258.2	293.8	1015	284
264	7.92	295.5	81.3	509.8	205.1	154.5	259.7	294.1	1013.3	284.7
265	7.87	294	81.6	509.2	205.7	155.7	259.4	294.6	1011.9	284.9
266	7.79	293.4	81.6	511.6	205.5	155.5	259.6	294.9	1010.8	285.4
267	7.71	293.7	81.2	512	205.7	155.9	260	295.2	1009.7	285.8
268	7.65	292.5	81.3	512	205.7	156.4	260.3	294.8	1008.9	285.9
269	7.58	292.1	81.4	511	205.7	157.1	260.9	295.6	1008.4	286
270	7.5	291.3	81.7	512.9	206	157.3	261.7	295.6	1007.6	286.7
271	7.43	292	81.6	510.5	205.8	156.9	262	295.8	1007.1	286.2
272	7.38	291.4	81.6	510.7	206.1	157.8	262.3	296.3	1006.5	286.6
273	7.31	291	81.4	510.1	206.2	158.8	264.1	296	1005.5	287
274	7.25	290.6	81.5	511.1	206.3	157.6	263.7	296.4	1004.7	287
275	7.19	290.5	81.4	507.6	206.5	158.3	261.7	297	1004.1	286.2
276	7.12	291	81.5	508.9	207	158.8	263.2	297.4	1003	287.1
277	7.05	289.5	81.8	509.3	206.4	159.1	263.8	297	1001.7	287.1
278	7	288.2	81.7	509.4	206.4	158.7	263.9	297.4	999.8	287.2
279	6.95	287	81.6	506.1	206.7	159.9	263.9	297.7	997.8	286.9
280	6.89	286.1	81.6	508	206.6	159.5	264.3	297.6	996.6	287.2
281	6.84	285.9	81.3	509.5	207.5	160	267.2	298.2	995.3	288.5
282	6.79	284.7	81.9	504.1	207.2	159.7	264	298.1	994.4	286.6
283	6.72	283.9	81.7	506.6	207.3	160.1	266.6	298.2	995.4	287.8
284	6.67	282.6	81.6	505.4	207.3	161.3	265.6	298.7	996.5	287.7
285	6.62	282.2	81.3	506.1	207.5	160.2	266.7	298.4	995.3	287.8
286	6.57	281.2	82.1	504.1	207.5	162.2	266.1	298.8	993.5	287.7

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

287	6.52	280.8	82	505.4	207.5	161	267.9	298.7	991.4	288.1
288	6.47	279.8	81.6	501.5	207.9	161.3	267.7	298.8	988.3	287.4
289	6.43	280	81.4	500	208.3	160.8	267.5	299.5	985	287.2
290	6.38	278.8	81.9	499.6	208.1	161	267.1	299.7	981.5	287.1
291	6.34	278.3	81.3	497	208.3	162	266.6	299.7	978.5	286.7
292	6.28	278	81.5	497.6	208.7	160.6	267.4	299.6	975.3	286.8
293	6.26	277.4	82.1	493.2	208.5	162	268.1	299.3	972.4	286.2
294	6.21	276.3	81.4	488.9	208.8	161.8	267	299.7	969.5	285.3
295	6.16	275.2	81.3	489.8	209	163.2	267.8	299.5	967.4	285.9
296	6.11	275.2	81.3	487.3	209	162.4	266.5	300.3	965	285.1
297	6.06	274.5	81.3	485.6	209.1	163.8	265.6	299.2	963.1	284.7
298	6.02	274.2	81.7	480.7	209.1	162.6	265.9	299.9	961.3	283.6
299	5.97	273.4	81.8	480.2	209.5	162.1	268	300	960.6	284
300	5.91	273.7	81.3	478.9	209.5	162.3	266.1	299.7	963.5	283.3
301	5.87	273.6	81.2	475.8	209.4	162.4	267.7	299.1	967.2	282.9
302	5.82	273.8	81.5	471	209.8	163	263.8	298.8	969	281.3
303	5.77	273	81.6	468.2	209.7	164.8	264.8	298.8	969.6	281.3
304	5.74	271.9	81.1	465.6	210.2	164.1	265.8	299	970.3	280.9
305	5.68	272.1	81.1	459.7	210.3	163.4	264.5	298.2	971.8	279.2
306	5.66	271.6	81.3	457.1	210.2	164.5	265	297.7	973.8	278.9
307	5.59	271.6	81.1	458.1	210.6	162.8	264.9	297.6	974.9	278.8
308	5.56	271	81.2	455.7	210.9	163	264.7	297.4	975	278.3
309	5.51	271.3	81.4	455	211.1	164.6	264	296.7	972.6	278.3
310	5.49	270.1	81.3	453.1	211.4	163.3	265	296.8	967.8	277.9
311	5.45	269.3	81.1	452.2	211.4	165.6	264.2	296.3	961.1	277.9
312	5.42	268.1	81	447.2	211.4	164.9	264.3	296.2	952.2	276.8
313	5.39	267.2	80.8	448.6	211.6	164.7	262.6	295.6	941.4	276.6
314	5.37	265.9	80.9	444.8	211.7	163.5	261.7	295.5	929.6	275.4
315	5.34	264	80.9	441.3	212	164.1	261.9	295	916.7	274.8
316	5.32	262.5	81.1	439.8	212.1	163.4	260.3	294.4	904	274
317	5.29	260.4	81.2	433.5	212	165	260.7	293.8	891.8	273
318	5.28	258.6	81.4	431.4	212.1	163.7	261.2	293.2	880.3	272.3
319	5.25	257	81	429.4	212.4	166.2	260.9	293.3	869.6	272.5
320	5.24	255.6	81	422	212.9	165.9	260.6	292.5	859.2	270.8
321	5.21	253.7	81.1	418.5	212.8	165.2	259	291.9	849.4	269.5
322	5.2	252.1	81	415	212.9	165.1	258.4	291	839.9	268.5

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

323	5.15	250.6	81.4	407.9	213.1	164.3	257.7	290.5	829.6	266.7
324	5.17	249.2	81.2	401.1	213.5	165	258.2	290.5	819.6	265.7
325	5.14	248.2	81.2	399.8	213.7	164.4	256.8	289.7	810.1	264.9
326	5.13	247.1	80.9	389.2	213.9	162.8	256.1	288.9	801.5	262.2
327	5.1	245.1	80.9	392.1	213.9	164.6	255.4	288.1	793.6	262.8
328	5.1	243.6	80.9	386.6	214.2	162.3	255.1	287.8	787.2	261.2
329	5.09	242.2	80.7	382	214.3	162.6	254.4	286.8	781.3	260
330	5.07	241.3	80.8	375.8	214.3	163.9	254.5	286.4	776.1	259
331	5.06	239.9	81	370.4	214.5	162.7	252.1	285.3	771.2	257
332	5.04	238.4	80.8	368.1	214.7	161.9	252.5	284.6	766.9	256.4
333	5.03	237.5	80.6	364	214.9	161.6	250.8	283.8	762.6	255
334	5.02	236.8	80.7	361.2	214.9	160.4	251.2	283.8	758.1	254.3
335	4.99	235.4	80.6	360.6	215.3	161.2	250	282.9	754.2	254
336	4.98	234.2	80.6	356.6	215.5	161.8	249.1	282.2	750.4	253
337	4.96	233.1	80.6	353.8	215.5	159.4	248.8	281.4	746.9	251.8
338	4.95	231.7	80.5	349.3	215.7	159	249.3	280.9	743.7	250.8
339	4.93	230.6	80.4	347	215.9	160.5	247.5	279.8	740.4	250.1
340	4.91	230.1	80.5	344.6	216.2	160.4	247.4	279	737.7	249.5
341	4.9	229.5	80.4	342.4	216.2	159.3	246.3	278.3	735.4	248.5
342	4.88	228.8	80.6	342.2	216.2	159.7	247.9	277.7	733.4	248.8
343	4.87	228.3	80.3	339.8	216.4	158.8	246.2	276.7	731.8	247.6
344	4.87	227.5	80.3	337.1	216.4	158.5	244.7	276.3	730	246.6
345	4.85	226.1	80.4	338	216.6	156.7	244.9	275.3	728.3	246.3
346	4.83	225.1	80.5	335.5	216.8	156.4	242.7	274.4	727	245.1
347	4.82	223.9	80.3	335.6	217	155.9	243.3	274	725.2	245.2
348	4.79	223.9	80.4	330.9	217	155.4	242.1	273.3	723.2	243.8
349	4.78	223.1	80.2	331.2	217.1	157.4	242.4	272.4	721.5	244.1
350	4.77	222.6	80.3	330.9	217.2	156.9	241.1	271.9	719.9	243.6
351	4.75	221.7	80.1	327	217.4	156.1	241.1	271.7	718.1	242.7
352	4.73	221.2	80	327.3	217.3	156.3	239.6	270.6	716.3	242.2
353	4.71	220.5	80.1	325.9	217.5	156.3	238.4	270	714.4	241.6
354	4.71	219.6	79.9	324.8	217.3	154.1	238.5	269.6	712.6	240.9
355	4.69	219.8	80.1	322.6	217.6	154.3	238.7	268.6	711	240.4
356	4.68	219	80.2	321.4	217.5	153.8	238.5	268.2	709.2	239.9
357	4.66	218.6	80.1	320.5	217.5	154.9	239.1	267.8	707.9	240
358	4.64	217.9	80.2	320	217.7	153.8	236.5	267.1	706.3	239

359	4.63	216.9	80.1	317.3	217.5	152.5	237.4	266.3	704.9	238.2
360	4.62	216.4	79.9	316.9	217.5	153.8	236.9	265.4	703.5	238.1
361	4.61	216.2	79.9	318.3	217.6	152.5	235.2	265.1	702.6	237.8
362	4.59	216.1	80	315.4	217.5	153.2	235.1	265.1	700.9	237.3
363	4.57	215.5	80	314.6	217.7	152.9	234.5	263.9	699.6	236.7
364	4.57	214.5	79.9	313.1	217.5	152.1	234.3	262.8	698.2	235.9
365	4.55	214.3	80	312.4	217.7	152.1	234.7	262.9	697	235.9
366	4.53	213.7	79.8	311	217.7	151.5	235	262.3	695.8	235.5
367	4.52	212.9	80	311.8	217.7	152.7	233.8	261.5	694.8	235.5
368	4.5	212	80	308.8	217.7	153	233.8	260.8	694.1	234.8
369	4.49	211.7	80.2	310	217.6	151.8	233	260.2	693.2	234.5
370	4.47	211.7	79.9	307.6	217.5	152.4	233.3	260.3	692.3	234.2
371	4.46	210.6	79.8	309.7	217.6	150.7	232.5	259.1	691.3	233.9
372	4.45	210.3	79.8	308	217.5	151	231.2	259.2	690.7	233.4
373	4.43	209.5	80.2	307.5	217.4	151.1	230.9	258.8	690.2	233.2
374	4.42	209.1	80	306.8	217.6	151.5	232	258.1	689.6	233.2
375	4.4	208.5	79.8	307.4	217.5	151.2	231.4	257.2	688.7	232.9
376	4.4	207.9	79.8	304.9	217.4	150.2	230.3	256.6	688.4	231.9
377	4.37	207.4	79.9	303	217.4	151.3	230.7	256.5	688	231.8
378	4.35	207.5	79.6	303.3	217.3	151.1	229.7	255.7	687.5	231.4
379	4.33	206.9	80	303	217.1	150.7	230.5	255.4	687.3	231.3
380	4.32	206.3	79.9	302.4	217.2	150.2	229.9	255	687.2	231
381	4.31	206.1	79.8	300.9	217.3	150.6	228.1	254.8	686.9	230.3
382	4.29	204.8	80	302	216.9	151.2	228.1	254	686.9	230.4
383	4.27	204.9	80	301.9	217	150.9	229.4	253.4	687	230.5
384	4.27	204.7	79.8	302.2	216.9	151.4	229.1	253	687.3	230.5
385	4.25	204.7	79.8	301.6	216.9	150.4	227.8	252.7	687.4	229.9
386	4.22	204.7	80	298.4	217	149.9	228	252.6	687.8	229.2
387	4.21	204.7	79.9	300	216.6	150.9	226.5	251.7	688.2	229.2
388	4.19	204.6	79.6	298.4	216.8	149.8	228.2	252.1	689.1	229
389	4.17	204.4	79.7	298.8	216.6	150.3	227.9	251.5	689.4	229
390	4.16	203.8	79.8	298.5	216.6	150.1	226.4	250.7	690.3	228.5
391	4.15	204.1	79.6	299.8	216.5	149.4	227.6	250.2	690.7	228.7
392	4.12	203.6	79.4	299.4	216.6	150	227.3	249.6	691.4	228.6
393	4.09	202.6	79.9	300.3	216.3	150.3	227.1	249.6	692	228.7
394	4.08	202.3	79.6	300.7	216.4	150.3	228.6	249.4	692.2	229.1

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

395	4.06	202.2	79.3	298.6	216.3	150.3	227.1	249	692.7	228.3
396	4.05	202.3	79.5	299.5	216.2	149.2	227.7	248.9	692.9	228.3
397	4.03	201.7	79.5	298.4	216.1	149.6	228.8	248.5	693.1	228.3
398	4.02	201.8	79.5	301.1	215.9	150.3	229.6	248.1	693.3	229
399	4	201.9	79.2	300.9	215.9	150	228.6	247.9	693.4	228.6
400	3.98	201.5	79.3	299.8	215.9	150.3	228.1	247.6	693.6	228.3
401	3.96	201.5	79.3	300.6	215.8	149.1	228.4	247.2	693.1	228.2
402	3.94	200.8	79.3	298.7	215.6	150.1	230.5	247.1	692.9	228.4
403	3.93	201.1	79.3	299.2	215.6	150.9	227.5	246.6	692.6	227.9
404	3.91	201.4	79.4	298.1	215.7	151.1	229.2	246.7	692.4	228.2
405	3.91	200.7	79.1	298.4	215.5	150.6	229.5	246.9	692.1	228.2
406	3.88	201	79.1	298.6	215.5	150.6	229.5	245.9	691.5	228
407	3.84	201.3	79.2	299.1	215.4	149.5	230.3	245.6	691	228
408	3.85	200.8	79.1	298.9	215.6	149.3	230.3	245.3	690.7	227.9
409	3.83	200.3	79.3	299	215.4	151.4	230.4	245.4	690.5	228.3
410	3.81	200.3	79.3	299.2	215.3	149.9	229.1	245.1	689.8	227.7
411	3.79	200.6	78.9	299.7	215.2	151.1	230.6	244.6	689.8	228.2
412	3.76	200.3	79.3	300.6	215.2	150.1	231.9	244.2	689.1	228.4
413	3.75	200.3	79	299.3	215.2	149.3	230.4	244.6	687.8	227.8
414	3.73	200.9	78.9	299.8	215.1	149.4	230.5	244	685.4	227.7
415	3.72	200.1	79.1	297.4	215.1	151	230.4	244	682.4	227.6
416	3.7	200	79.3	295.5	215.2	149.6	230.1	243.8	679	226.8
417	3.69	200.3	79	295.3	215	150.4	229.8	243.9	675.7	226.9
418	3.66	199.6	78.9	296.3	215	149.3	232	243.3	673.1	227.2
419	3.66	199.3	78.9	295.2	215	149.3	229.8	242.7	670.3	226.4
420	3.64	198.7	78.9	292.5	215	149.8	230.9	242.6	668.1	226.2
421	3.62	198.5	78.6	294.2	214.8	148.8	231.1	242.4	666.7	226.3
422	3.59	197.3	78.7	294.6	214.9	150	231.1	242.6	665.4	226.7
423	3.59	196.8	78.6	293.5	214.7	149.4	231.4	241.7	664.8	226.2
424	3.57	196.9	78.9	292	214.9	149.3	230.3	241.8	664.3	225.7
425	3.56	196.5	79.1	292.1	215	150.9	231.1	241.6	664.2	226.1
426	3.55	196.7	78.8	291.3	214.9	149.4	232.2	241.3	664.4	225.8
427	3.52	196.2	78.5	291	214.9	150	231.9	241.4	665.3	225.8
428	3.5	195.9	78.7	289.9	214.8	149	229.2	241.2	666.3	224.8
429	3.48	195.5	78.7	290.9	215	149.8	230.8	241.1	667.6	225.5
430	3.48	195.2	78.8	290.2	215	149.9	230.3	240.3	669	225.1

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

431	3.46	194.8	78.9	291.1	215.1	150.9	229.9	240.2	670.5	225.4
432	3.44	195.3	78.5	290.7	215	150	229.9	239.9	671.6	225.1
433	3.42	195.1	78.4	290.6	214.8	149.3	230.4	239.2	672	224.9
434	3.41	195	78.3	289.8	214.8	148.7	228.5	239	672.7	224.1
435	3.39	195.2	78.4	290.8	214.9	149.8	228.8	239.1	673	224.7
436	3.38	194.8	78.5	289.9	214.8	149.1	227.1	239	673.8	224
437	3.37	194.8	78.5	290.4	215	149.4	228.2	238.6	673.9	224.3
438	3.34	195.1	78.4	288.9	214.9	149	228.3	238.3	674.1	223.9
439	3.33	195.1	77.9	291.3	214.8	149.3	228.8	238.2	674.3	224.5
440	3.32	195.7	77.9	290.4	214.8	149.3	226.6	237.5	674.8	223.7
441	3.29	195.1	78.6	289.6	214.7	149.4	226.4	237.9	675.4	223.6
442	3.28	195	78.7	289.8	215	150.3	226.1	237.3	675.5	223.7
443	3.26	195	78.4	291.6	215	149.3	226	236.9	675.6	223.8
444	3.25	194.9	78.6	290	214.9	149.4	225.7	237.5	676.4	223.5
445	3.23	194.7	79	288.6	214.9	149.7	226	236.9	676.4	223.2
446	3.21	194.9	79	289.6	215.1	150.1	224.8	236.5	676.7	223.2
447	3.2	195.1	78.4	289.2	215	149.7	225.4	236.1	676.6	223.1
448	3.19	195.5	78.3	289.5	214.9	150.3	226.3	236.5	676.9	223.5
449	3.16	195.3	78.1	289.2	215	150.1	225.8	235.9	677.1	223.2
450	3.14	194.7	78.3	290.2	214.9	149.3	226.5	235.4	677.2	223.3
451	3.13	195	78	289.7	214.8	149.9	224.1	235.5	677.3	222.8
452	3.12	194.3	78	290.9	215	150.3	226.1	235.9	677.1	223.6
453	3.11	195	78.2	290.3	215.1	150.2	225.1	235.2	675.7	223.2
454	3.08	194.6	77.9	290.1	214.8	150.1	225.4	235.1	675	223.1
455	3.07	194.3	78	290.7	214.9	150.3	226.8	235.4	673	223.6
456	3.05	194.7	78	287.9	214.9	150.6	225.8	235.1	671.5	222.9
457	3.04	194.3	78	288.7	214.8	151.1	225.6	234.8	669.8	223
458	3.02	194.3	77.8	288.8	214.8	151	225.7	234.7	668	223
459	3	194.4	77.5	288.3	214.8	151.2	224.6	234.4	666.4	222.7
460	2.97	193.7	77.8	289.3	214.7	151.9	224.3	234.4	665.3	222.9
461	2.97	193.5	77.7	288.5	214.6	152	224.5	234	664.3	222.7
462	2.95	193.6	77.5	287.5	214.7	151.8	224.4	234.1	663.6	222.5
463	2.92	193.4	77.8	286.8	214.9	151.8	224.1	234.7	662.9	222.4
464	2.92	193.3	77.5	286.8	214.7	151	225	234.1	662.3	222.3
465	2.91	193.7	77.7	287.3	214.6	151.6	223.7	234	662.2	222.2
466	2.87	193.8	77.7	287	214.6	152.4	225.7	233.8	661.8	222.7

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

467	2.85	193.5	77.7	286.1	214.5	153.8	223.5	234.1	661.5	222.4
468	2.84	193.6	77.4	285.9	214.8	152.7	224.9	233.9	661.2	222.4
469	2.82	193.2	77.5	286.1	214.6	153.1	225.1	234	660.5	222.6
470	2.82	192.7	77.4	284.1	214.5	153.9	225.4	233.2	659.9	222.2
471	2.79	192.1	77.4	284.5	214.5	153.1	225.2	233.5	659.7	222.2
472	2.78	192.5	77.6	285.3	214.6	152.8	224.1	233.4	659.1	222
473	2.76	193.1	77.9	283.7	214.5	152.5	224.2	233.4	658.6	221.7
474	2.74	192.5	77.8	284.7	214.6	152.5	224.8	232.9	658.6	221.9
475	2.71	192.4	77.8	285.1	214.6	152.6	225.9	232.7	658.6	222.2
476	2.7	192.7	77.4	283	214.8	152.5	225.8	233	658.7	221.8
477	2.68	191.9	78	284.2	214.6	152.6	222.7	232.7	658.7	221.4
478	2.67	192.1	77.7	284.4	214.6	153.5	225.2	233.2	658.4	222.2
479	2.65	192.1	77.3	283.3	214.7	151.5	224.6	232.5	658.4	221.3
480	2.63	192.2	77.3	284.1	214.7	152.9	224.6	232.5	658.2	221.8
481	2.63	192.2	77.1	283.3	214.6	151.5	224.4	232.4	658.1	221.2
482	2.62	192.3	77.5	282.7	214.7	153.1	224.4	232.4	658.1	221.5
483	2.59	191.6	77.6	283.3	214.8	153.6	225	232.4	657.8	221.8
484	2.58	191	77.6	282.3	214.9	151.9	225.6	231.9	657.6	221.3
485	2.56	191.1	77.2	283.1	214.8	151.3	224.3	231.5	657.5	221
486	2.54	191.1	77.2	282.9	214.7	152.4	225.7	232	657.1	221.6
487	2.52	191.3	77.1	282.3	215	151.5	223.6	231.3	656.8	220.7
488	2.51	191.3	77.2	282	215.1	152.3	226.2	231.2	656	221.4
489	2.47	191.1	77.4	281.6	215	152.2	224.8	231.5	655.8	221
490	2.47	190.8	77.3	281.1	214.8	149.6	225.8	231.6	655.1	220.6
491	2.46	190.6	76.9	281.8	214.9	151.6	224.9	231.1	655	220.9
492	2.45	190.7	76.9	281.5	214.8	151.1	224.8	231.5	654.5	220.7
493	2.42	190.4	77.1	280.5	215.2	151.5	226.2	231.2	654.9	220.9
494	2.41	190.2	76.8	279.8	215.1	150.4	225.5	231.2	654.7	220.4
495	2.38	189.9	76.9	280	215.1	150.8	224.7	230.5	654.8	220.2
496	2.38	189.8	76.8	280.1	215.2	150.1	224.7	230.6	655.2	220.1
497	2.35	190.3	77	280.3	215.2	150.5	225.5	231	655.7	220.5
498	2.34	190	76.6	279.4	215	150.6	224.1	230.6	656.4	219.9
499	2.33	190	76.6	280.8	215.4	150.8	225.1	230.3	657.5	220.5
500	2.3	190.2	76.5	281.1	215.4	151.4	223.7	230.6	659	220.4
501	2.3	190.1	76.5	278.7	215.3	151.7	223.7	230.3	660.6	220
502	2.28	190.2	76.6	278.9	215.5	150.7	224.9	230.8	662	220.2

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

503	2.26	189.6	76.6	279.6	215.3	150.5	224.2	230.4	663.2	220
504	2.23	189.9	76.3	279.8	215.3	151.6	224.8	230	664.2	220.3
505	2.21	190.6	76.4	280.9	215.5	151.3	223.8	230.3	665.1	220.3
506	2.19	190.3	76.5	280.2	215.4	151.5	223.7	230	666.5	220.1
507	2.17	190.6	76.1	279.9	215.3	150.7	223.4	229.9	667.6	219.8
508	2.17	191.7	76.3	281.7	215.5	151.1	224.1	230	668.5	220.5
509	2.13	191.8	76.1	282	215.5	150.3	225.4	230	668.9	220.6
510	2.13	191.6	76	281.4	215.5	151.2	221.7	230	669.8	220
511	2.11	192.1	76.3	281.5	215.6	150.8	224.4	230.6	670.3	220.6
512	2.1	191.9	76	282.4	215.6	151.3	222.8	229.9	670.3	220.4
513	2.08	191.9	76	281.8	215.5	151.7	223.4	230	670.2	220.5
514	2.06	191.9	76.3	282.2	215.6	151.1	222.5	229.8	669.5	220.2
515	2.03	191.8	76	282.8	215.7	152	223.6	229.7	668.9	220.8
516	2.03	191	76	281.7	215.7	152.4	222.4	230	667.8	220.4
517	2	190.8	75.8	282.9	215.4	151.7	222.1	230.5	666.9	220.5
518	1.97	191.1	75.9	282.3	215.5	152.1	221.3	230.2	666.8	220.3
519	1.96	191.1	75.8	280.4	215.6	152.4	222.4	229.7	666	220.1
520	1.94	191.7	76	281.2	215.4	151.8	221.6	230.5	665.4	220.1
521	1.92	191.7	75.8	280.6	215.6	151.8	221.7	230.6	665.2	220
522	1.88	191.6	75.9	281	215.6	151.7	223	231.1	665.3	220.5
523	1.86	191.9	75.8	281.4	215.7	150.6	221.7	231.4	666.6	220.2
524	1.85	191.5	75.8	282.1	215.8	151	221.7	232.1	668.7	220.6
525	1.82	191.4	75.8	281.6	215.8	150.8	221.1	232.1	671.5	220.3
526	1.8	191.1	75.9	281.1	215.9	149.9	221.1	232.2	674	220
527	1.77	191.3	75.7	281.9	215.8	149.7	222	233	677	220.5
528	1.74	191.1	75.8	281.9	216	149.6	222.9	233.8	680.6	220.8
529	1.73	191.4	75.7	281.5	215.9	148.8	222.8	233.7	682.2	220.5
530	1.71	192.1	75.6	281.1	216	148.9	221.9	234	683.4	220.4
531	1.68	192.9	75.8	282.3	216.2	148.6	223	234.5	682.9	220.9
532	1.65	193.5	75.5	283.1	216.1	147.9	222.9	234.3	680.7	220.9
533	1.64	193.4	75.4	281.6	216	148.1	221.7	234.8	677.2	220.4
534	1.62	193.4	75.5	281.5	216.4	146.8	221.2	234.9	673.9	220.2
535	1.6	193.4	75.6	283.3	216.4	147.3	223.3	235.5	670.4	221.2
536	1.58	193.5	75.5	279.6	216.5	147.5	221.5	236.1	666.9	220.2
537	1.57	192.7	75.4	278.7	216.6	146.8	222	235.9	663.2	220
538	1.55	192.8	75.3	279.5	216.8	146.6	221.1	236.1	659.9	220

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

539	1.52	191.7	75.4	279.4	216.7	145.9	222.5	235.9	657.3	220.1
540	1.5	191.5	75.4	279.7	217	145.4	221.2	236.3	654.9	219.9
541	1.49	191.3	75.5	279.8	217.2	145.8	219.9	235.9	653.5	219.7
542	1.47	191.1	75.3	277.7	217.5	144.7	220.9	236.4	653.3	219.4
543	1.43	191.6	75.4	277.7	217.6	144.4	221	236.7	653.4	219.5
544	1.42	192	75.3	278.9	217.9	144.2	219.4	236.8	653.5	219.4
545	1.4	191.5	75.3	278.1	217.9	143.8	221.7	236.2	653.3	219.5
546	1.39	190.4	75.2	277.6	218.3	143	220.3	236.6	652.5	219.2
547	1.38	190.3	75.2	277.7	218.4	143.4	219.6	236.7	651.4	219.2
548	1.34	189.7	75.3	277.6	218.8	142.7	219.7	237	649.5	219.2
549	1.34	188.8	75.1	275.8	219	142	218.9	237.3	648.1	218.6
550	1.33	188.8	75.4	275.9	218.9	141.1	220.1	237.8	646.9	218.8
551	1.31	188.5	75.2	275.3	219.1	141.8	220.1	237.6	646.1	218.8
552	1.29	189.2	75	274.6	219.2	141.1	219.3	238	645.7	218.4
553	1.27	189	75.1	276.2	219.7	140.8	220.6	238.3	645.3	219.1
554	1.26	188.7	75.3	275.3	219.9	141	220.1	238.5	644.2	219
555	1.25	187.8	75.1	274.2	220.2	140.6	219.2	238.7	642.5	218.6
556	1.21	187.9	74.9	275	220	139.9	221.2	239.2	640.1	219
557	1.21	187.7	75.2	273.1	220.4	140.2	221.2	239.6	637.3	218.9
558	1.19	187.1	75.2	271.3	220.5	139.4	219	239.9	635.1	218
559	1.18	186.7	75	273.3	220.6	139.6	219.4	239.6	632.8	218.5
560	1.17	186.8	75.1	270.5	220.7	139.6	217.1	240.4	631.2	217.7
561	1.15	187	75.1	271.2	221	139.4	218.3	239.9	629.8	218
562	1.13	187.1	75.1	270	221.1	138	217.2	240.5	629.7	217.4
563	1.11	186.4	75.3	270.4	220.9	138.2	216.9	240.4	629.2	217.4
564	1.09	186	75.2	269.2	221.3	138.5	217.9	240.4	628.9	217.5
565	1.08	185.8	75	268	221.4	137.8	218.2	240.3	628.8	217.1
566	1.05	185.4	74.9	269.8	221.5	138.2	217.1	240.7	628.6	217.5
567	1.05	185.4	74.9	268.4	221.6	138.1	217.2	241	628.2	217.3
568	1.04	185.1	75	269.2	221.5	138.4	216.6	241.3	628	217.4
569	1.01	184.9	74.8	266.9	221.7	137.4	215.9	241.1	628.1	216.6
570	1.01	184.3	75.1	267.9	221.8	137.6	216.2	241.2	627.8	216.9
571	0.98	184.5	75	267.7	221.8	137.5	216.2	241.2	628.1	216.9
572	0.98	184.4	74.9	265.6	221.9	137	216.2	241.5	628.2	216.4
573	0.96	184.1	74.8	266.4	222	136.8	216.1	241	628.1	216.5
574	0.94	183.9	75	265.5	222	137.7	215.9	241.4	628	216.5

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

575	0.93	184	74.8	266.7	221.9	137.4	216	241.6	628.3	216.7
576	0.92	184.5	74.9	265.9	222.2	136.5	215.1	241.6	628.1	216.3
577	0.91	184.4	74.6	265.1	221.9	137.2	214.1	241.6	628.1	216
578	0.89	184.7	74.7	264.6	222.1	137	213.9	241.9	627.9	215.9
579	0.85	183.5	74.6	266	222.2	136.5	215.3	241	627.9	216.2
580	0.86	183.8	74.8	264.7	222.3	136.8	214.3	241.5	628.1	215.9
581	0.84	183.9	75.1	264.7	222.2	137.2	214.1	241.6	628.9	216
582	0.84	183.6	74.6	264.6	222.3	137.3	214	241.6	629.9	216
583	0.8	183.5	74.4	265.6	222.1	137	212.7	241.8	630.7	215.8
584	0.79	183.6	74.6	265.7	222.3	136.6	213	241.5	631.8	215.8
585	0.77	183.5	74.7	266.5	222.1	137	213.5	241.7	633.3	216.1
586	0.77	183.9	74.4	265.7	222.5	136.6	212.8	242	635.4	215.9
587	0.74	183.1	74.6	266.2	222.4	137.3	214.1	241.5	636.9	216.3
588	0.73	183.6	74.5	265.5	222.3	136.8	212.1	241.7	638.8	215.7
589	0.72	184.1	74.7	265.4	222.3	137.1	212.7	241.7	640.5	215.8
590	0.7	184.4	74.5	264.7	221.9	137.1	212.7	241.7	642.2	215.6
591	0.68	184.7	74.5	266.8	222.1	136.1	211.5	241.8	643.9	215.7
592	0.66	184.8	74.6	268.4	222.1	137.2	213.5	242.3	645.4	216.7
593	0.65	184.8	74.6	269.1	222	137.1	212.3	242.4	647.4	216.6
594	0.62	185	74.4	267	221.8	137	211.3	241.9	648.7	215.8
595	0.62	185.7	74.5	267.2	221.9	137.6	211.3	242.6	650.1	216.1
596	0.6	185.8	74.5	268.9	221.9	136.7	211	243.1	651.2	216.3
597	0.57	186.1	74.2	269.3	221.8	136.7	210.3	242.5	652.1	216.1
598	0.56	186.1	74.5	268.6	221.7	138.2	211.6	242.9	653	216.6
599	0.55	186.5	74.3	268.3	221.8	138.2	210.2	243	654.1	216.3
600	0.52	187.1	74.7	268.4	221.7	137.6	211.1	243.1	654.9	216.4
601	0.5	187.5	74.4	268.9	221.6	138.1	209.9	243.4	655.7	216.4
602	0.49	187.2	74.3	271.5	221.6	137.5	209.5	243.6	656.5	216.7
603	0.47	187.7	74.2	269.4	221.7	137.9	209.3	243.5	656.8	216.4
604	0.45	188	74.4	270.1	221.5	138.2	208.6	243.8	657.5	216.4
605	0.44	187.8	74.2	270.7	221.5	137.6	208.5	244.3	658	216.5
606	0.43	188.2	74.2	269.6	221.3	138.6	208	244.3	658.9	216.4
607	0.41	188.3	74.2	271.9	221.3	138.6	207.8	244.1	659.1	216.7
608	0.38	187.8	74.3	271.2	221.3	138.7	206.7	244.6	659.5	216.5
609	0.37	187.6	74.2	270.9	221.1	138.4	207.7	244.4	659.1	216.5
610	0.35	188.2	74	269.1	221.1	138.3	206.3	243.9	659.5	215.7

Conditioning dates 7/5/23 - 7/2/23

Medium Low Air Setting

Fuel Moisture ~20.8%

611	0.33	188.6	74	270.5	221.2	137.6	207	243.8	659.2	216
612	0.31	188.6	74.1	271.2	221.1	138.9	207.9	243.6	659.4	216.5
613	0.3	188.4	73.9	270.8	220.9	138	205.7	243.2	659.5	215.7
614	0.28	187.9	73.8	272	221.1	138	206.5	243.3	659.4	216.2
615	0.28	187.9	73.9	272.7	220.8	138.9	207.4	243.7	659.9	216.7
616	0.27	188.5	73.8	270.7	220.9	137.8	207.3	243	659.4	216
617	0.24	189	73.9	269.9	220.8	137.5	205.5	243.2	659.3	215.4
618	0.22	188.2	73.9	271	220.8	138.2	205	242.8	659.3	215.6
619	0.2	188.4	74	271.7	220.8	137.6	205.1	243.1	658.8	215.7
620	0.19	188.4	73.6	272.6	220.9	137.6	204.3	243.2	658.4	215.7
621	0.17	188.6	73.8	271.7	220.7	138.1	203.6	243.1	658	215.4
622	0.17	188.1	74	270.9	220.8	138.7	204.9	242.3	658.1	215.5
623	0.13	188.3	74	270.8	220.7	138.8	204.6	242.7	657.7	215.5
624	0.12	188.3	73.7	272.9	220.7	138.2	204.7	242.3	656.9	215.8
625	0.11	188.9	73.8	271.1	220.8	138.3	202.8	241.6	656.6	214.9
626	0.1	188.6	73.8	269.9	220.6	137.8	202.8	241.8	654.7	214.6
627	0.07	188.5	73.8	270.5	220.7	138.6	202.2	241.9	653.6	214.8
628	0	188.6	74	268.2	220.5	138.9	202.5	241.3	652.2	214.3

WOOD STOVE TEST DATA PACKET
ASTM E2780/E2515

Run 1 Data Summary

Client:	FPI
Model:	F5200
Job #:	23-200
Tracking #:	157
Test Date:	8/21/2023

Techician Signature

8/28/2023
Date

TEST RESULTS - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Burn Rate (kg/hr):	1.11

	Ambient Sample	Sample Train A	Sample Train B	1st Hour Filter
Total Sample Volume (ft^3)	70.186	104.314	101.417	9.231
Average Gas Velocity in Dilution Tunnel (ft/sec)	8.1			
Average Gas Flow Rate in Dilution Tunnel (dscf/hr)	21526.9			
Average Gas Meter Temperature (°F)	76.5	101.8	100.9	79.3
Total Sample Volume (dscf)	68.999	98.652	96.045	9.123
Average Tunnel Temperature (°F)	86.1			
Total Time of Test (min)	635			
Total Particulate Catch (mg)	0.0	4.4	4.0	1.6
Particulate Concentration, dry-standard (g/dscf)	0.0000000	0.0000446	0.0000416	0.0001754
Total PM Emissions (g)	0.00	10.16	9.49	3.78
Particulate Emission Rate (g/hr)	0.00	0.96	0.90	3.78
Emissions Factor (g/kg)	-	0.86	0.81	-
Difference from Average Total Particulate Emissions (g)	-	0.34	0.34	-
Difference from Average Total Particulate Emissions (%)	-	3.4%	3.4%	
Difference from Average Emissions Factor (g/kg)	-	0.03	0.03	-

Final Average Results	
Total Particulate Emissions (g)	9.82
Particulate Emission Rate (g/hr)	0.93
Emissions Factor (g/kg)	0.84
HHV Efficiency (%)	79.9%
LHV Efficiency (%)	86.3%
CO Emissions (g/min)	0.96

Quality Checks	Requirement	Observed	Result
Dual Train Precision	Each train within 7.5% of average emissions (in grams), or emission factors within 0.5 g/kg	See Above	OK
Filter Temps	<90 °F	85.3	OK
Face Velocity	< 30 ft/min	9.3	OK
Leakage Rate	Less than 4% of average sample rate	0 cfm	OK
Ambient Temp	55-90 °F	Min:69.7/Max:79.1	OK
Negative Probe Weight Evaluation	<5% of Total Catch	Probe Catch Not Negative	OK
Pro-Rate Variation	90% of readings between 90-110%; none greater than 120% or less than 80%	See Data Tabs	OK
Stove Surface ΔT	<126°F	13.3	OK

B415.1 Efficiency Results

Manufacturer:	FPI
Model:	F5200
Date:	08/21/23
Run:	1
Control #:	23-200
Test Duration:	635
Output Category:	2

Test Results in Accordance with CSA B415.1-09

	HHV Basis	LHV Basis
Overall Efficiency	79.9%	86.3%
Combustion Efficiency	96.3%	96.3%
Heat Transfer Efficiency	82.9%	89.6%

Output Rate (kJ/h)	17,567	16,664	**(Btu/h)**
Burn Rate (kg/h)	1.11	2.45	**(lb/h)**
Input (kJ/h)	21,991	20,861	**(Btu/h)**

Test Load Weight (dry kg)	11.75	25.89	**dry lb**
MC wet (%)	17.38		
MC dry (%)	21.03		
Particulate (g)	9.82		
CO (g)	609		
Test Duration (h)	10.58		

Emissions	**Particulate**	**CO**
g/MJ Output	0.05	3.27
g/kg Dry Fuel	0.84	51.82
g/h	0.93	57.53
g/min	0.02	0.96
lb/MM Btu Output	0.12	7.61

Air/Fuel Ratio (A/F)	10.52

VERSION: **2.4** **4/15/2010**

WOODSTOVE FUEL DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Preburn Fuel Information

Size	Length (in)	Moisture Content (% DB)	Size	Length (in)	Moisture Content (% DB)
2x4	20.00	21.7	2x4	20.00	23.8
2x4	20.00	24.6	2x4	20.00	23.9
2x4	20.00	19.2	2x4	20.00	23.4
2x4	20.00	24.2	2x4	20.00	24.6
2x4	20.00	19.7	2x4	20.00	19.3
2x4	20.00	20.0	2x4	20.00	24.3
2x4	20.00	24.8			
2x4	20.00	22.8			
Total Fuel Weight (lbs):		29.45	Average Moisture (%DB):		22.6

Firebox Volume (ft^3): 4.42
Total 2x4 Crib Weight, with spacers (lbs): 0.00
Total 4x4 Crib Weight, with spacers (lbs): 31.26
Total Wet Fuel Weight, with spacers (lbs): 31.26

Coal Bed Range (20-25%):
Min (lbs): 6.25
Max (lbs): 7.82

Test Fuel Information

Size	Length (in)	Weight (lbs)	Moisture Content (%DB)			Dry Weight (lbs)
4x4	20.00	4.94	19.8	19.7	20.3	4.12
4x4	20.00	5.53	19.4	24.5	22.8	4.52
4x4	20.00	4.59	21.5	20.3	23.8	3.77
4x4	20.00	4.78	19.5	22.3	21.5	3.95
4x4	20.00	4.30	21.9	19.3	23.7	3.54
4x4	20.00	5.14	19.9	19.0	19.4	4.30
					Total Dry Weight, no spacers (lbs):	24.20
					Total Dry Weight, with spacers (lbs):	25.90

Spacer Moisture Readings (%DB)

18.9	15.7	12.3	14.0				
17.9	19.5	15.9	13.0				
18.3	16.4	14.0	16.6				
15.3	19.1						
17.7	14.7						
14.0	18.6						

Quality Checks	Requirement	Observed	Result
Fuel Density	25 - 36 (lbs/ft^3, DB)	28.4	OK
Loading Density	6.3 - 7.7 (lbs/ft^3, WB)	7.07	OK
2x4 Fuel Mix	35 - 65 % of total weight	N/A	N/A

DILUTION TUNNEL & MISC. DATA - ASTM E2780 / E2515

Client:	FPI	Job #:	23-200
Model:	F5200	Tracking #:	157
Run #:	1	Technician:	AK
Test Start Time:	11:38	Date:	8/21/2023

Total Sampling Time (min):	635	
Recording Interval (min):	1	
Meter Box γ Factor:	1.004	(A)
Meter Box γ Factor:	1.004	(B)
Meter Box γ Factor:	1.011	(C)
Meter Box γ Factor:	1.003	(Ambient)

	Pre-Test	Post Test	Avg.
Barometric Pressure (in. Hg)	29.71	29.91	29.81
Relative Humidity (%)	40.9	33.9	
Room Air Velocity (ft/min)	0	0	
Pitot Tube Leak Check	0	0	
Ambient Sample Volume:		70.186	ft^3

Induced Draft Check (in. H_2O):	0
Smoke Capture Check (%):	100%
Date Flue Pipe Last Cleaned:	8/17/2023
Test Fuel Scale Audit (lbs)	10.00
Platform Scale Audit (lbs)	10.0

Sample Train Leak Checks

	Pre-test	Post-test		
(A)	0.000	0.000	cfm @	-5 in. Hg
(B)	0.000	0.000	cfm @	-5 in. Hg
(C)	0.000	0.000	cfm @	-5 in. Hg
(Ambient)	0.000	0.000	cfm @	-12 in. Hg

DILUTION TUNNEL FLOW

Traverse Data

Point	dP (in H_2O)	Temp (°F)
1	0.008	105
2	0.014	105
3	0.018	105
4	0.018	105
5	0.014	105
6	0.012	105
7	0.010	106
8	0.016	106
9	0.018	106
10	0.016	106
11	0.016	106
12	0.008	106
Center	0.018	106

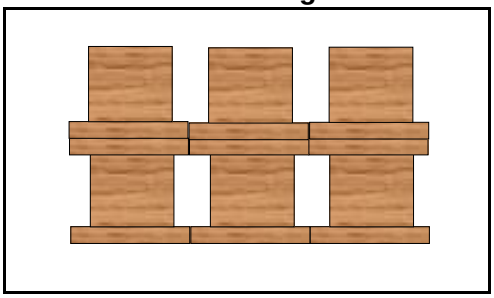
Dilution Tunnel H_2O:	2.00	percent
Tunnel Diameter:	12	inches
Pitot Tube Cp:	0.99	[unitless]
Dilution Tunnel MW(dry):	29.00	lb/lb-mole
Dilution Tunnel MW(wet):	28.78	lb/lb-mole
Tunnel Area:	0.7854	ft^2
V_{strav}:	8.07	ft/sec
V_{scent}:	9.24	ft/sec
F_p:	0.874	[ratio]
Initial Tunnel Flow:	346.1	scf/min

Static Pressure: -0.110 in. H_2O

TEST FUEL PROPERTIES

Fuel Load Configuration

Firebox Front



Firebox Back

Firebox Side View

Actual Fuel Used Properties

Fuel Type:	D. Fir
HHV (kJ/kg)	19,810
%C	48.73
%H	6.87
%O	43.9
%Ash	0.5
MC (%DB)	21.0

WOODSTOVE PREBURN DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Recording Interval (min): 1
Run Time (min): 60

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
0	9.99	-0.073	296	389	274	883	173	403.0	492	70
1	9.85	-0.073	297	391	265	863	174	397.9	439	70
2	9.73	-0.067	297	392	259	848	175	394.0	409	70
3	9.61	-0.067	298	391	252	837	176	390.7	389	70
4	9.51	-0.064	300	391	246	814	177	385.5	375	70
5	9.42	-0.066	299	390	242	786	178	379.0	364	70
6	9.20	-0.070	297	390	239	769	179	374.8	439	70
7	9.03	-0.069	297	390	235	773	179	374.9	403	70
8	8.87	-0.068	297	389	234	783	180	376.6	384	70
9	8.73	-0.065	300	388	232	789	182	377.9	372	70
10	8.60	-0.064	299	386	229	796	182	378.2	362	70
11	8.47	-0.064	293	384	228	803	183	378.4	353	70
12	8.37	-0.062	294	382	225	808	184	378.7	346	70
13	8.26	-0.062	296	381	222	815	185	379.8	339	70
14	8.18	-0.060	291	378	222	816	186	378.7	332	70
15	8.10	-0.060	292	375	219	812	187	377.0	326	70
16	8.03	-0.057	292	373	217	812	188	376.3	321	70
17	7.97	-0.055	289	370	217	810	189	374.9	317	70
18	7.90	-0.057	288	368	215	798	189	371.6	313	70
19	7.84	-0.055	285	365	214	787	190	368.3	309	70
20	7.78	-0.056	286	363	211	767	191	363.5	305	70
21	7.72	-0.054	284	361	211	744	192	358.2	302	70
22	7.67	-0.055	282	358	209	723	193	353.1	299	70
23	7.62	-0.054	279	356	209	709	194	349.5	297	70
24	7.56	-0.052	278	355	207	694	194	345.6	296	70
25	7.53	-0.051	278	352	206	676	195	341.2	292	70
26	7.47	-0.052	276	350	204	656	195	336.4	290	70
27	7.44	-0.051	271	348	204	634	196	330.5	288	70
28	7.40	-0.049	273	346	203	616	197	326.7	285	70
29	7.36	-0.047	271	344	201	598	197	322.1	282	70
30	7.33	-0.049	269	342	200	584	198	318.5	279	70
31	7.30	-0.048	266	339	199	572	199	314.7	277	70
32	7.26	-0.048	267	337	198	559	199	311.9	275	70
33	7.23	-0.048	265	335	195	547	200	308.3	273	70
34	7.19	-0.046	263	332	195	539	200	305.8	271	70
35	7.16	-0.048	261	330	195	531	201	303.4	268	70
36	7.13	-0.046	260	328	192	523	201	300.7	268	70
37	7.10	-0.046	262	326	191	516	202	299.1	264	70
38	7.06	-0.045	258	324	191	509	202	296.9	263	70
39	7.04	-0.044	254	321	189	502	203	293.9	261	70
40	7.00	-0.043	256	320	188	497	203	292.9	260	70
41	6.96	-0.045	253	317	187	492	204	290.7	257	70
42	6.93	-0.044	252	315	186	486	204	288.8	256	70
43	6.90	-0.047	254	313	186	481	205	287.7	255	70
44	6.86	-0.045	251	312	185	477	205	285.9	253	70

WOODSTOVE PREBURN DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Recording Interval (min): 1
Run Time (min): 60

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
45	6.84	-0.042	248	310	184	473	206	284.0	251	70
46	6.81	-0.042	246	308	183	467	207	282.2	250	71
47	6.78	-0.043	247	307	182	461	207	280.9	248	70
48	6.73	-0.042	246	305	181	460	208	280.0	246	70
49	6.70	-0.042	245	303	180	459	208	279.0	245	70
50	6.66	-0.043	243	301	180	461	209	278.7	244	70
51	6.64	-0.041	244	301	178	460	210	278.4	243	70
52	6.60	-0.041	242	298	177	463	210	278.0	242	70
53	6.57	-0.040	240	297	177	461	211	277.0	241	70
54	6.55	-0.041	240	296	177	457	212	276.3	238	70
55	6.52	-0.039	242	295	176	451	212	275.2	237	70
56	6.47	-0.039	239	294	175	447	213	273.3	235	70
57	6.46	-0.040	239	292	174	441	214	271.6	234	70
58	6.44	-0.039	239	291	174	438	214	270.9	232	70
59	6.41	-0.039	236	289	174	435	215	269.6	230	70
60	6.39	-0.040	235	288	173	430	216	268.3	228	70

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
0	0.000		0.018	1.37	74	0.8		31.34		92	317	72	70
1	0.131	0.131	0.018	2.03	74	0.9	-	31.39	0.05	109	373	74	70
2	0.277	0.146	0.019	2.08	74	0.9	-	31.21	-0.18	92	339	74	70
3	0.417	0.140	0.018	2.11	74	0.9	-	31.14	-0.07	86	301	74	70
4	0.565	0.148	0.019	2.13	74	0.9	-	31.09	-0.05	85	277	74	70
5	0.712	0.147	0.019	2.14	74	0.9	-	31.03	-0.06	84	264	74	70
6	0.858	0.146	0.018	2.16	74	0.9	-	30.96	-0.07	84	258	74	70
7	1.008	0.150	0.018	2.19	74	0.9	-	30.88	-0.08	82	255	74	70
8	1.154	0.146	0.019	2.19	75	0.9	-	30.83	-0.05	83	253	74	70
9	1.305	0.151	0.018	2.20	75	0.9	-	30.77	-0.06	83	254	74	70
10	1.451	0.146	0.019	2.23	75	0.9	93	30.71	-0.06	83	254	74	70
11	1.603	0.152	0.019	2.24	75	0.9	-	30.64	-0.07	83	255	74	70
12	1.750	0.147	0.018	2.25	75	0.9	-	30.57	-0.07	82	255	74	70
13	1.903	0.153	0.017	2.26	75	0.9	-	30.51	-0.06	82	256	74	70
14	2.050	0.147	0.018	2.27	76	0.9	-	30.44	-0.07	83	257	74	70
15	2.204	0.154	0.018	2.28	76	0.9	-	30.36	-0.08	84	259	74	70
16	2.353	0.149	0.018	2.29	76	0.9	-	30.28	-0.08	83	261	74	70
17	2.507	0.154	0.018	2.30	76	0.9	-	30.21	-0.07	83	263	75	70
18	2.656	0.149	0.017	2.32	76	0.9	-	30.13	-0.08	84	263	75	70
19	2.809	0.153	0.018	2.32	77	0.9	-	30.07	-0.06	83	264	75	70
20	2.961	0.152	0.018	2.33	77	0.9	97	30.00	-0.07	84	264	75	70
21	3.114	0.153	0.018	2.33	77	0.9	-	29.93	-0.07	83	265	75	70
22	3.267	0.153	0.019	2.34	78	0.9	-	29.87	-0.06	83	264	75	71
23	3.421	0.154	0.019	2.35	78	0.9	-	29.81	-0.06	83	265	75	71
24	3.576	0.155	0.019	2.36	78	0.9	-	29.75	-0.06	82	265	75	71
25	3.728	0.152	0.017	2.37	78	0.9	-	29.67	-0.08	83	266	75	71
26	3.884	0.156	0.018	2.37	79	0.9	-	29.60	-0.07	83	266	75	70
27	4.035	0.151	0.019	2.37	79	0.9	-	29.53	-0.07	83	265	75	71
28	4.192	0.157	0.018	2.38	79	0.9	-	29.48	-0.05	83	265	75	71
29	4.345	0.153	0.018	2.39	80	0.9	-	29.41	-0.07	82	264	75	71
30	4.502	0.157	0.019	2.39	80	0.9	98	29.36	-0.05	83	264	75	71
31	4.655	0.153	0.019	2.40	80	0.9	-	29.29	-0.07	81	262	75	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
32	4.812	0.157	0.018	2.39	81	0.9	-	29.23	-0.06	81	258	75	71
33	4.967	0.155	0.018	2.41	81	0.9	-	29.17	-0.06	81	255	75	71
34	5.123	0.156	0.019	2.42	81	0.9	-	29.11	-0.06	80	253	75	71
35	5.281	0.158	0.017	2.42	82	0.9	-	29.04	-0.07	80	251	75	71
36	5.433	0.152	0.018	2.42	82	0.9	-	28.99	-0.05	81	249	75	71
37	5.592	0.159	0.018	2.42	82	1.0	-	28.93	-0.06	80	248	75	71
38	5.747	0.155	0.018	2.42	83	0.9	-	28.87	-0.06	80	246	75	71
39	5.906	0.159	0.019	2.43	83	0.9	-	28.81	-0.06	80	245	75	71
40	6.061	0.155	0.019	2.43	83	0.9	97	28.74	-0.07	80	244	75	71
41	6.218	0.157	0.019	2.43	83	0.9	-	28.68	-0.06	80	243	75	71
42	6.377	0.159	0.018	2.44	84	1.0	-	28.63	-0.05	80	242	75	71
43	6.531	0.154	0.018	2.44	84	1.0	-	28.56	-0.07	80	241	75	71
44	6.691	0.160	0.018	2.45	84	0.9	-	28.50	-0.06	80	241	75	71
45	6.847	0.156	0.020	2.46	85	0.9	-	28.44	-0.06	80	241	75	71
46	7.006	0.159	0.018	2.45	85	1.0	-	28.39	-0.05	80	240	75	71
47	7.162	0.156	0.018	2.45	85	0.9	-	28.32	-0.07	80	240	75	71
48	7.321	0.159	0.019	2.47	86	1.0	-	28.26	-0.06	80	239	75	71
49	7.481	0.160	0.019	2.47	86	0.9	-	28.20	-0.06	80	238	75	71
50	7.635	0.154	0.018	2.46	86	0.9	99	28.13	-0.07	80	237	75	71
51	7.798	0.163	0.018	2.48	86	1.0	-	28.07	-0.06	80	237	75	72
52	7.954	0.156	0.018	2.48	87	1.0	-	28.01	-0.06	80	238	75	71
53	8.113	0.159	0.020	2.47	87	0.9	-	27.91	-0.10	80	238	75	71
54	8.274	0.161	0.017	2.47	87	1.0	-	27.87	-0.04	80	238	75	71
55	8.429	0.155	0.019	2.47	87	1.0	-	27.82	-0.05	80	239	75	71
56	8.591	0.162	0.019	2.48	88	1.0	-	27.75	-0.07	80	238	75	71
57	8.749	0.158	0.018	2.48	88	0.9	-	27.69	-0.06	80	239	75	71
58	8.909	0.160	0.019	2.48	88	1.0	-	27.62	-0.07	80	239	75	71
59	9.069	0.160	0.018	2.50	88	1.0	-	27.56	-0.06	80	239	75	72
60	9.226	0.157	0.019	2.50	89	0.9	99	27.50	-0.06	80	239	75	72
61	9.388	0.162	0.019	2.49	89	1.0	-	27.44	-0.06	80	239	75	72
62	9.546	0.158	0.018	2.50	89	1.0	-	27.37	-0.07	80	240	75	72
63	9.707	0.161	0.018	2.51	89	1.0	-	27.30	-0.07	80	239	75	72

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
64	9.867	0.160	0.018	2.49	90	1.0	-	27.24	-0.06	80	239	75	72
65	10.026	0.159	0.018	2.50	90	1.0	-	27.17	-0.07	80	239	75	72
66	10.187	0.161	0.020	2.50	90	1.0	-	27.10	-0.07	80	240	75	72
67	10.346	0.159	0.019	2.50	90	1.0	-	27.05	-0.05	80	238	75	72
68	10.507	0.161	0.019	2.51	90	1.0	-	26.99	-0.06	80	237	75	72
69	10.668	0.161	0.018	2.50	91	1.0	-	26.93	-0.06	80	237	75	72
70	10.826	0.158	0.018	2.52	91	1.0	100	26.86	-0.07	80	237	75	72
71	10.989	0.163	0.018	2.50	91	1.0	-	26.80	-0.06	80	237	75	72
72	11.147	0.158	0.019	2.51	91	1.0	-	26.74	-0.06	80	238	75	72
73	11.308	0.161	0.019	2.50	91	1.0	-	26.67	-0.07	80	239	75	72
74	11.471	0.163	0.018	2.51	91	0.9	-	26.61	-0.06	80	237	75	72
75	11.628	0.157	0.019	2.52	92	1.0	-	26.54	-0.07	80	238	75	72
76	11.793	0.165	0.018	2.52	92	1.0	-	26.49	-0.05	80	238	75	72
77	11.950	0.157	0.018	2.51	92	1.0	-	26.42	-0.07	80	236	75	72
78	12.112	0.162	0.019	2.52	92	1.0	-	26.36	-0.06	80	236	75	72
79	12.276	0.164	0.019	2.52	92	1.0	-	26.31	-0.05	80	237	75	72
80	12.432	0.156	0.019	2.51	93	1.0	100	26.25	-0.06	80	236	75	72
81	12.597	0.165	0.018	2.52	93	1.0	-	26.17	-0.08	80	236	75	73
82	12.756	0.159	0.019	2.52	93	1.0	-	26.12	-0.05	80	236	75	73
83	12.918	0.162	0.018	2.54	93	1.0	-	26.06	-0.06	80	236	75	73
84	13.081	0.163	0.019	2.53	93	1.0	-	25.99	-0.07	80	236	76	73
85	13.240	0.159	0.019	2.54	93	0.9	-	25.94	-0.05	81	236	76	73
86	13.403	0.163	0.018	2.52	94	1.0	-	25.86	-0.08	81	235	76	72
87	13.565	0.162	0.019	2.53	94	1.0	-	25.79	-0.07	81	236	76	73
88	13.725	0.160	0.019	2.53	94	1.0	-	25.74	-0.05	81	235	76	73
89	13.889	0.164	0.019	2.53	94	1.0	-	25.69	-0.05	80	235	76	73
90	14.048	0.159	0.019	2.54	94	0.9	99	25.63	-0.06	80	236	76	73
91	14.210	0.162	0.019	2.53	94	1.0	-	25.57	-0.06	80	236	76	73
92	14.375	0.165	0.019	2.53	94	1.0	-	25.51	-0.06	80	236	76	73
93	14.532	0.157	0.018	2.53	95	1.0	-	25.45	-0.06	80	235	76	73
94	14.698	0.166	0.019	2.54	95	1.0	-	25.39	-0.06	80	235	76	73
95	14.857	0.159	0.019	2.54	95	1.0	-	25.33	-0.06	80	236	76	73

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
96	15.020	0.163	0.019	2.54	95	1.0	-	25.26	-0.07	80	237	76	73
97	15.183	0.163	0.018	2.54	95	1.0	-	25.19	-0.07	80	236	76	73
98	15.343	0.160	0.018	2.53	95	1.0	-	25.14	-0.05	81	236	76	73
99	15.506	0.163	0.019	2.54	95	1.0	-	25.08	-0.06	81	236	76	73
100	15.670	0.164	0.018	2.54	95	1.0	100	25.02	-0.06	81	237	76	73
101	15.828	0.158	0.019	2.55	95	1.0	-	24.96	-0.06	81	237	76	73
102	15.994	0.166	0.020	2.54	96	1.0	-	24.91	-0.05	81	237	76	73
103	16.154	0.160	0.020	2.54	96	1.0	-	24.85	-0.06	81	237	76	73
104	16.317	0.163	0.019	2.55	96	1.0	-	24.79	-0.06	81	238	76	73
105	16.481	0.164	0.019	2.55	96	1.0	-	24.73	-0.06	81	238	76	73
106	16.641	0.160	0.020	2.54	96	1.0	-	24.67	-0.06	81	238	76	73
107	16.804	0.163	0.018	2.55	96	1.0	-	24.62	-0.05	81	238	76	73
108	16.968	0.164	0.017	2.55	96	1.0	-	24.56	-0.06	81	238	76	73
109	17.127	0.159	0.019	2.55	96	1.0	-	24.50	-0.06	81	238	76	73
110	17.293	0.166	0.018	2.54	96	1.0	101	24.42	-0.08	81	238	76	73
111	17.454	0.161	0.018	2.56	96	1.0	-	24.37	-0.05	81	238	76	73
112	17.617	0.163	0.018	2.56	97	1.0	-	24.32	-0.05	81	238	76	73
113	17.781	0.164	0.018	2.56	97	1.0	-	24.27	-0.05	81	238	76	73
114	17.942	0.161	0.019	2.55	97	1.0	-	24.21	-0.06	81	238	76	73
115	18.105	0.163	0.019	2.55	97	1.0	-	24.16	-0.05	81	238	76	73
116	18.270	0.165	0.019	2.55	97	1.0	-	24.11	-0.05	81	238	76	73
117	18.429	0.159	0.019	2.55	97	1.0	-	24.05	-0.06	81	239	76	73
118	18.596	0.167	0.020	2.56	97	1.0	-	23.99	-0.06	81	239	76	73
119	18.756	0.160	0.020	2.55	97	1.0	-	23.93	-0.06	81	239	76	73
120	18.919	0.163	0.019	2.56	97	1.0	100	23.88	-0.05	81	239	76	73
121	19.084	0.165	0.019	2.56	97	1.0	-	23.81	-0.07	81	239	76	73
122	19.245	0.161	0.019	2.56	97	1.0	-	23.75	-0.06	81	240	76	73
123	19.408	0.163	0.019	2.55	98	1.0	-	23.70	-0.05	81	240	76	73
124	19.573	0.165	0.019	2.56	98	1.0	-	23.63	-0.07	81	241	76	73
125	19.733	0.160	0.020	2.56	98	1.0	-	23.58	-0.05	81	240	76	73
126	19.898	0.165	0.019	2.57	98	1.0	-	23.51	-0.07	81	241	76	73
127	20.062	0.164	0.019	2.55	98	1.0	-	23.46	-0.05	82	241	76	73

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
128	20.222	0.160	0.019	2.56	98	0.9	-	23.39	-0.07	82	242	77	74
129	20.389	0.167	0.018	2.57	98	1.0	-	23.34	-0.05	82	242	77	74
130	20.549	0.160	0.020	2.56	98	1.0	97	23.28	-0.06	82	242	77	74
131	20.713	0.164	0.019	2.57	98	1.0	-	23.22	-0.06	82	242	77	74
132	20.878	0.165	0.019	2.56	98	1.0	-	23.16	-0.06	82	243	77	74
133	21.039	0.161	0.019	2.56	98	1.0	-	23.09	-0.07	82	244	77	74
134	21.202	0.163	0.019	2.56	98	1.0	-	23.03	-0.06	82	245	77	74
135	21.368	0.166	0.019	2.57	98	1.0	-	22.96	-0.07	82	246	77	74
136	21.527	0.159	0.020	2.56	98	1.0	-	22.90	-0.06	82	247	77	74
137	21.694	0.167	0.019	2.57	99	1.0	-	22.83	-0.07	82	248	77	74
138	21.856	0.162	0.019	2.57	99	1.0	-	22.76	-0.07	82	249	77	74
139	22.018	0.162	0.018	2.58	99	1.0	-	22.70	-0.06	82	250	77	74
140	22.185	0.167	0.019	2.56	99	1.0	98	22.63	-0.07	82	251	77	74
141	22.345	0.160	0.020	2.57	99	1.0	-	22.56	-0.07	82	252	77	74
142	22.509	0.164	0.019	2.57	99	1.0	-	22.49	-0.07	82	253	77	74
143	22.674	0.165	0.019	2.57	99	0.9	-	22.41	-0.08	82	255	77	74
144	22.836	0.162	0.018	2.57	99	1.0	-	22.35	-0.06	83	257	77	74
145	23.000	0.164	0.020	2.57	99	1.0	-	22.28	-0.07	83	259	77	74
146	23.165	0.165	0.020	2.57	99	1.0	-	22.20	-0.08	83	261	77	74
147	23.325	0.160	0.020	2.56	99	1.0	-	22.13	-0.07	83	262	77	74
148	23.493	0.168	0.020	2.58	99	1.0	-	22.06	-0.07	82	264	77	74
149	23.654	0.161	0.020	2.57	99	1.0	-	21.98	-0.08	82	265	77	74
150	23.817	0.163	0.019	2.58	99	0.9	99	21.91	-0.07	83	268	77	74
151	23.983	0.166	0.019	2.57	99	1.0	-	21.83	-0.08	83	269	77	74
152	24.144	0.161	0.019	2.58	99	1.0	-	21.74	-0.09	83	270	77	75
153	24.309	0.165	0.019	2.57	99	0.9	-	21.67	-0.07	83	272	77	75
154	24.474	0.165	0.020	2.58	99	1.0	-	21.57	-0.10	83	276	77	75
155	24.635	0.161	0.019	2.57	100	1.0	-	21.48	-0.09	83	279	78	75
156	24.800	0.165	0.020	2.58	100	1.0	-	21.37	-0.11	83	279	78	75
157	24.965	0.165	0.019	2.58	100	1.0	-	21.28	-0.09	84	281	78	75
158	25.125	0.160	0.020	2.57	100	1.0	-	21.18	-0.10	84	282	78	75
159	25.293	0.168	0.019	2.58	100	1.0	-	21.08	-0.10	84	282	78	75

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
160	25.456	0.163	0.018	2.58	100	1.0	100	21.00	-0.08	84	280	78	75
161	25.617	0.161	0.019	2.56	100	1.0	-	20.93	-0.07	84	280	78	75
162	25.785	0.168	0.019	2.57	100	1.0	-	20.85	-0.08	84	280	78	74
163	25.946	0.161	0.019	2.59	100	1.0	-	20.77	-0.08	84	281	78	75
164	26.110	0.164	0.018	2.57	100	1.0	-	20.69	-0.08	85	283	78	75
165	26.275	0.165	0.019	2.58	100	1.0	-	20.62	-0.07	84	285	78	75
166	26.438	0.163	0.019	2.58	100	1.0	-	20.53	-0.09	85	287	78	75
167	26.602	0.164	0.020	2.57	100	1.0	-	20.44	-0.09	85	287	78	75
168	26.768	0.166	0.019	2.58	100	1.0	-	20.35	-0.09	85	289	78	75
169	26.929	0.161	0.020	2.58	100	1.0	-	20.28	-0.07	85	289	78	75
170	27.094	0.165	0.020	2.57	100	1.0	99	20.20	-0.08	85	291	78	75
171	27.259	0.165	0.019	2.58	100	1.0	-	20.11	-0.09	85	292	78	75
172	27.420	0.161	0.018	2.57	100	1.0	-	20.02	-0.09	85	292	78	75
173	27.587	0.167	0.018	2.56	100	1.0	-	19.93	-0.09	85	293	78	75
174	27.749	0.162	0.018	2.57	100	1.0	-	19.85	-0.08	86	294	79	75
175	27.913	0.164	0.019	2.58	100	0.9	-	19.75	-0.10	86	297	79	75
176	28.079	0.166	0.019	2.56	100	1.0	-	19.67	-0.08	86	297	79	75
177	28.240	0.161	0.019	2.57	101	1.0	-	19.58	-0.09	86	299	79	75
178	28.405	0.165	0.018	2.57	101	1.0	-	19.48	-0.10	86	302	79	75
179	28.571	0.166	0.019	2.58	101	1.0	-	19.39	-0.09	86	303	79	75
180	28.732	0.161	0.019	2.57	101	1.0	98	19.28	-0.11	86	305	79	75
181	28.897	0.165	0.018	2.58	101	1.0	-	19.19	-0.09	87	307	79	75
182	29.064	0.167	0.018	2.58	101	1.0	-	19.09	-0.10	87	308	79	75
183	29.223	0.159	0.019	2.58	101	1.0	-	18.98	-0.11	87	309	79	75
184	29.391	0.168	0.019	2.59	101	1.0	-	18.91	-0.07	87	310	79	75
185	29.555	0.164	0.018	2.56	101	1.0	-	18.80	-0.11	87	311	79	75
186	29.716	0.161	0.019	2.59	101	0.9	-	18.69	-0.11	87	312	79	75
187	29.884	0.168	0.018	2.58	101	1.0	-	18.60	-0.09	87	314	79	75
188	30.045	0.161	0.020	2.59	101	1.0	-	18.49	-0.11	87	314	79	75
189	30.210	0.165	0.019	2.58	101	1.0	-	18.39	-0.10	87	314	79	75
190	30.376	0.166	0.019	2.58	101	1.0	100	18.28	-0.11	88	316	79	75
191	30.538	0.162	0.019	2.58	101	1.0	-	18.17	-0.11	88	318	79	75

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
192	30.703	0.165	0.019	2.58	101	1.0	-	18.07	-0.10	88	319	79	75
193	30.869	0.166	0.019	2.58	101	1.0	-	17.96	-0.11	88	319	79	75
194	31.031	0.162	0.019	2.57	101	1.0	-	17.86	-0.10	88	319	80	76
195	31.196	0.165	0.019	2.57	101	1.0	-	17.75	-0.11	88	320	80	76
196	31.362	0.166	0.019	2.56	101	1.0	-	17.64	-0.11	88	321	80	76
197	31.522	0.160	0.019	2.56	101	1.0	-	17.53	-0.11	88	321	80	76
198	31.690	0.168	0.019	2.57	101	1.0	-	17.42	-0.11	88	321	80	76
199	31.854	0.164	0.020	2.57	101	1.0	-	17.32	-0.10	89	322	80	76
200	32.016	0.162	0.019	2.58	101	1.0	99	17.20	-0.12	89	323	80	76
201	32.184	0.168	0.019	2.57	101	1.0	-	17.08	-0.12	89	323	80	76
202	32.345	0.161	0.018	2.58	102	1.0	-	16.97	-0.11	89	323	80	76
203	32.510	0.165	0.019	2.58	102	1.0	-	16.86	-0.11	89	323	80	76
204	32.677	0.167	0.019	2.58	102	1.0	-	16.75	-0.11	89	324	80	76
205	32.839	0.162	0.019	2.59	102	1.0	-	16.64	-0.11	89	324	80	76
206	33.005	0.166	0.019	2.60	102	1.0	-	16.52	-0.12	89	325	80	76
207	33.171	0.166	0.019	2.58	102	1.0	-	16.40	-0.12	89	325	80	76
208	33.334	0.163	0.019	2.57	102	1.0	-	16.30	-0.10	89	326	80	76
209	33.499	0.165	0.019	2.56	102	1.0	-	16.18	-0.12	89	326	81	76
210	33.665	0.166	0.019	2.58	102	1.0	100	16.06	-0.12	89	326	81	77
211	33.827	0.162	0.019	2.56	102	1.0	-	15.93	-0.13	89	326	81	76
212	33.993	0.166	0.018	2.57	102	1.0	-	15.83	-0.10	89	327	81	76
213	34.160	0.167	0.018	2.58	102	1.0	-	15.69	-0.14	90	327	81	76
214	34.321	0.161	0.018	2.58	102	1.0	-	15.59	-0.10	90	328	81	76
215	34.488	0.167	0.019	2.55	102	1.0	-	15.47	-0.12	89	328	81	76
216	34.654	0.166	0.019	2.57	102	1.0	-	15.35	-0.12	90	329	81	76
217	34.815	0.161	0.018	2.55	102	1.0	-	15.24	-0.11	90	329	81	76
218	34.984	0.169	0.019	2.57	102	1.0	-	15.11	-0.13	89	328	81	76
219	35.146	0.162	0.019	2.57	102	1.0	-	15.00	-0.11	89	329	81	76
220	35.310	0.164	0.019	2.56	102	1.0	100	14.88	-0.12	89	329	81	77
221	35.478	0.168	0.020	2.57	102	1.0	-	14.77	-0.11	89	329	81	77
222	35.640	0.162	0.019	2.58	102	1.0	-	14.65	-0.12	89	329	81	77
223	35.806	0.166	0.019	2.58	102	1.0	-	14.54	-0.11	89	328	81	77

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
224	35.972	0.166	0.020	2.58	102	1.0	-	14.42	-0.12	89	329	81	77
225	36.134	0.162	0.019	2.58	102	1.0	-	14.30	-0.12	89	329	81	77
226	36.301	0.167	0.019	2.57	102	1.0	-	14.19	-0.11	89	328	81	77
227	36.467	0.166	0.020	2.58	103	1.0	-	14.08	-0.11	88	327	81	77
228	36.630	0.163	0.020	2.57	103	1.0	-	13.97	-0.11	87	327	81	77
229	36.795	0.165	0.018	2.57	103	1.0	-	13.85	-0.12	88	326	81	77
230	36.961	0.166	0.019	2.58	103	1.0	100	13.75	-0.10	89	325	81	77
231	37.124	0.163	0.017	2.58	103	1.0	-	13.63	-0.12	89	326	81	77
232	37.290	0.166	0.018	2.59	103	1.0	-	13.52	-0.11	89	327	81	76
233	37.456	0.166	0.019	2.58	103	1.0	-	13.42	-0.10	89	326	81	77
234	37.617	0.161	0.019	2.58	103	1.0	-	13.30	-0.12	89	326	81	77
235	37.785	0.168	0.018	2.59	103	1.0	-	13.19	-0.11	89	327	81	76
236	37.951	0.166	0.018	2.60	103	1.0	-	13.09	-0.10	90	326	81	77
237	38.113	0.162	0.019	2.58	103	1.0	-	12.99	-0.10	89	326	81	77
238	38.281	0.168	0.018	2.57	103	1.0	-	12.86	-0.13	89	326	81	77
239	38.444	0.163	0.019	2.57	103	1.0	-	12.74	-0.12	90	328	81	77
240	38.608	0.164	0.020	2.57	103	1.0	98	12.62	-0.12	90	329	81	77
241	38.776	0.168	0.019	2.58	103	1.0	-	12.49	-0.13	90	330	81	77
242	38.938	0.162	0.018	2.58	103	1.0	-	12.37	-0.12	90	329	81	77
243	39.104	0.166	0.019	2.57	103	1.0	-	12.27	-0.10	90	331	81	77
244	39.270	0.166	0.019	2.57	103	1.0	-	12.15	-0.12	90	329	81	77
245	39.433	0.163	0.019	2.56	103	1.0	-	12.03	-0.12	90	328	81	77
246	39.599	0.166	0.019	2.54	103	1.0	-	11.92	-0.11	90	328	81	77
247	39.765	0.166	0.019	2.54	103	1.0	-	11.81	-0.11	90	327	81	77
248	39.929	0.164	0.019	2.54	103	1.0	-	11.71	-0.10	90	326	81	77
249	40.094	0.165	0.019	2.55	103	1.0	-	11.60	-0.11	90	325	81	77
250	40.260	0.166	0.018	2.54	103	1.0	100	11.50	-0.10	91	324	82	77
251	40.423	0.163	0.019	2.58	103	1.0	-	11.40	-0.10	91	323	82	77
252	40.589	0.166	0.019	2.57	103	1.0	-	11.30	-0.10	91	323	82	77
253	40.757	0.168	0.020	2.57	103	1.0	-	11.19	-0.11	90	324	82	77
254	40.918	0.161	0.020	2.58	103	1.0	-	11.09	-0.10	90	324	82	77
255	41.085	0.167	0.020	2.58	103	1.0	-	11.00	-0.09	90	324	82	78

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
256	41.251	0.166	0.020	2.59	103	1.0	-	10.90	-0.10	90	323	82	78
257	41.413	0.162	0.018	2.59	103	1.0	-	10.80	-0.10	90	324	82	77
258	41.581	0.168	0.019	2.60	103	1.0	-	10.70	-0.10	90	322	82	78
259	41.746	0.165	0.020	2.59	103	1.0	-	10.60	-0.10	90	323	82	78
260	41.909	0.163	0.019	2.59	103	1.0	101	10.50	-0.10	90	323	82	78
261	42.077	0.168	0.019	2.58	104	1.0	-	10.42	-0.08	89	322	82	78
262	42.240	0.163	0.019	2.59	103	1.0	-	10.32	-0.10	90	322	82	78
263	42.405	0.165	0.020	2.59	104	1.0	-	10.22	-0.10	90	322	82	78
264	42.573	0.168	0.019	2.58	104	1.0	-	10.13	-0.09	89	322	82	78
265	42.735	0.162	0.019	2.56	104	1.0	-	10.04	-0.09	89	320	82	78
266	42.902	0.167	0.019	2.56	104	1.0	-	9.93	-0.11	90	322	82	78
267	43.068	0.166	0.019	2.56	104	1.0	-	9.83	-0.10	90	321	82	78
268	43.231	0.163	0.019	2.56	104	1.0	-	9.74	-0.09	90	321	82	78
269	43.397	0.166	0.020	2.58	104	1.0	-	9.64	-0.10	91	321	82	78
270	43.564	0.167	0.019	2.57	104	1.0	100	9.53	-0.11	91	320	82	78
271	43.727	0.163	0.018	2.58	104	1.0	-	9.45	-0.08	91	319	82	78
272	43.893	0.166	0.019	2.57	104	1.0	-	9.37	-0.08	90	319	82	78
273	44.060	0.167	0.019	2.58	104	1.0	-	9.28	-0.09	91	318	82	78
274	44.223	0.163	0.019	2.56	104	1.0	-	9.20	-0.08	91	318	82	78
275	44.389	0.166	0.019	2.56	104	1.0	-	9.11	-0.09	91	318	82	78
276	44.556	0.167	0.019	2.56	104	1.0	-	9.02	-0.09	91	316	82	78
277	44.719	0.163	0.020	2.55	104	1.0	-	8.93	-0.09	91	315	82	78
278	44.885	0.166	0.019	2.55	104	1.0	-	8.85	-0.08	91	315	82	78
279	45.053	0.168	0.019	2.55	104	1.0	-	8.77	-0.08	91	315	82	78
280	45.215	0.162	0.020	2.55	104	1.0	98	8.68	-0.09	91	314	82	78
281	45.382	0.167	0.019	2.57	104	1.0	-	8.60	-0.08	91	314	82	78
282	45.548	0.166	0.020	2.56	104	1.0	-	8.52	-0.08	91	313	83	78
283	45.710	0.162	0.019	2.56	104	1.0	-	8.45	-0.07	91	313	83	78
284	45.879	0.169	0.019	2.60	104	1.0	-	8.38	-0.07	90	313	83	79
285	46.044	0.165	0.020	2.59	104	1.0	-	8.30	-0.08	90	313	83	79
286	46.207	0.163	0.019	2.60	104	1.0	-	8.23	-0.07	90	312	83	79
287	46.376	0.169	0.018	2.61	104	1.0	-	8.14	-0.09	90	312	83	78

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
288	46.540	0.164	0.019	2.60	104	1.0	-	8.06	-0.08	90	311	83	78
289	46.703	0.163	0.018	2.59	104	1.0	-	7.99	-0.07	91	309	83	78
290	46.873	0.170	0.019	2.59	104	1.0	99	7.91	-0.08	90	309	83	78
291	47.035	0.162	0.018	2.57	104	1.0	-	7.85	-0.06	91	308	83	78
292	47.201	0.166	0.019	2.60	104	1.0	-	7.78	-0.07	91	307	83	78
293	47.369	0.168	0.019	2.58	104	1.0	-	7.71	-0.07	91	308	83	78
294	47.532	0.163	0.018	2.60	104	1.0	-	7.65	-0.06	91	307	83	78
295	47.699	0.167	0.018	2.60	105	1.0	-	7.58	-0.07	91	305	83	78
296	47.866	0.167	0.018	2.60	105	1.0	-	7.53	-0.05	91	304	83	78
297	48.028	0.162	0.018	2.58	105	1.0	-	7.46	-0.07	91	303	83	78
298	48.195	0.167	0.018	2.59	105	1.0	-	7.40	-0.06	91	301	83	78
299	48.362	0.167	0.018	2.58	105	1.0	-	7.35	-0.05	91	300	83	78
300	48.526	0.164	0.018	2.60	105	1.0	101	7.30	-0.05	91	300	83	78
301	48.693	0.167	0.018	2.59	105	1.0	-	7.24	-0.06	91	299	83	78
302	48.859	0.166	0.018	2.60	105	1.0	-	7.18	-0.06	91	298	83	78
303	49.024	0.165	0.018	2.62	105	1.0	-	7.13	-0.05	91	298	83	78
304	49.190	0.166	0.018	2.60	105	1.0	-	7.08	-0.05	91	297	83	79
305	49.357	0.167	0.018	2.63	105	1.0	-	7.02	-0.06	91	295	83	78
306	49.520	0.163	0.018	2.61	105	1.0	-	6.97	-0.05	91	295	83	78
307	49.686	0.166	0.018	2.61	105	1.0	-	6.91	-0.06	91	295	83	78
308	49.854	0.168	0.018	2.60	105	1.0	-	6.86	-0.05	91	292	83	78
309	50.018	0.164	0.018	2.59	105	1.0	-	6.80	-0.06	91	293	83	79
310	50.184	0.166	0.019	2.57	105	1.0	101	6.74	-0.06	91	294	83	78
311	50.351	0.167	0.018	2.58	105	1.0	-	6.68	-0.06	91	294	83	78
312	50.515	0.164	0.018	2.58	105	1.0	-	6.63	-0.05	91	293	83	78
313	50.681	0.166	0.018	2.60	105	1.0	-	6.57	-0.06	91	292	83	79
314	50.849	0.168	0.018	2.61	105	1.0	-	6.52	-0.05	91	292	83	79
315	51.012	0.163	0.018	2.61	105	1.0	-	6.47	-0.05	91	291	83	79
316	51.179	0.167	0.018	2.59	105	1.0	-	6.41	-0.06	91	290	83	79
317	51.346	0.167	0.018	2.59	105	1.0	-	6.37	-0.04	91	289	83	79
318	51.509	0.163	0.018	2.61	105	1.0	-	6.32	-0.05	91	287	83	79
319	51.677	0.168	0.018	2.59	105	1.0	-	6.28	-0.04	91	286	83	79

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
320	51.844	0.167	0.019	2.58	105	1.0	100	6.23	-0.05	91	287	83	79
321	52.006	0.162	0.018	2.61	105	1.0	-	6.18	-0.05	91	286	83	79
322	52.176	0.170	0.018	2.61	105	1.0	-	6.14	-0.04	91	284	83	79
323	52.343	0.167	0.018	2.60	105	1.0	-	6.10	-0.04	91	284	83	79
324	52.505	0.162	0.018	2.59	106	1.0	-	6.06	-0.04	91	282	83	79
325	52.674	0.169	0.018	2.59	106	1.0	-	6.01	-0.05	91	281	83	79
326	52.839	0.165	0.018	2.58	106	1.0	-	5.98	-0.03	91	279	83	79
327	53.002	0.163	0.019	2.59	106	1.0	-	5.95	-0.03	91	278	83	79
328	53.172	0.170	0.018	2.59	106	1.0	-	5.91	-0.04	90	277	83	79
329	53.336	0.164	0.018	2.60	106	1.0	-	5.88	-0.03	90	275	83	79
330	53.499	0.163	0.018	2.58	106	1.0	101	5.85	-0.03	90	274	83	79
331	53.669	0.170	0.018	2.58	106	1.0	-	5.82	-0.03	90	272	83	79
332	53.833	0.164	0.018	2.57	106	1.0	-	5.79	-0.03	90	271	83	79
333	53.997	0.164	0.018	2.59	106	1.0	-	5.77	-0.02	90	269	83	79
334	54.167	0.170	0.018	2.60	106	1.0	-	5.74	-0.03	90	268	83	79
335	54.330	0.163	0.018	2.59	106	1.0	-	5.72	-0.02	90	266	83	79
336	54.496	0.166	0.018	2.62	106	1.0	-	5.69	-0.03	90	264	83	79
337	54.665	0.169	0.018	2.61	106	1.0	-	5.67	-0.02	90	261	83	79
338	54.828	0.163	0.018	2.60	106	1.0	-	5.64	-0.03	90	260	83	79
339	54.994	0.166	0.018	2.60	106	1.0	-	5.62	-0.02	90	258	83	79
340	55.162	0.168	0.018	2.60	106	1.0	103	5.59	-0.03	90	257	83	79
341	55.326	0.164	0.018	2.60	106	1.0	-	5.57	-0.02	90	255	83	79
342	55.493	0.167	0.018	2.60	106	1.0	-	5.55	-0.02	90	254	83	79
343	55.661	0.168	0.018	2.61	106	1.0	-	5.52	-0.03	90	252	83	79
344	55.823	0.162	0.018	2.61	106	1.0	-	5.51	-0.01	90	250	83	79
345	55.991	0.168	0.018	2.61	106	1.0	-	5.48	-0.03	90	249	83	79
346	56.158	0.167	0.018	2.61	106	1.0	-	5.46	-0.02	89	247	83	79
347	56.321	0.163	0.018	2.60	106	1.0	-	5.44	-0.02	89	245	83	79
348	56.489	0.168	0.019	2.61	106	1.0	-	5.41	-0.03	89	244	83	79
349	56.656	0.167	0.019	2.62	106	1.0	-	5.39	-0.02	89	242	83	79
350	56.820	0.164	0.018	2.63	106	1.0	102	5.37	-0.02	89	241	83	79
351	56.987	0.167	0.018	2.63	106	1.0	-	5.35	-0.02	89	240	83	79

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
352	57.154	0.167	0.018	2.61	106	1.0	-	5.33	-0.02	89	239	83	79
353	57.319	0.165	0.019	2.61	106	1.0	-	5.31	-0.02	89	237	83	79
354	57.486	0.167	0.018	2.61	106	1.0	-	5.28	-0.03	89	237	83	79
355	57.653	0.167	0.018	2.62	106	1.0	-	5.27	-0.01	89	235	83	79
356	57.818	0.165	0.018	2.62	106	1.0	-	5.24	-0.03	89	234	83	79
357	57.985	0.167	0.018	2.61	106	1.0	-	5.22	-0.02	89	234	83	79
358	58.152	0.167	0.018	2.62	107	1.0	-	5.19	-0.03	89	233	83	79
359	58.317	0.165	0.019	2.60	107	1.0	-	5.17	-0.02	89	232	83	79
360	58.483	0.166	0.019	2.60	107	1.0	101	5.15	-0.02	89	232	83	79
361	58.651	0.168	0.019	2.62	107	1.0	-	5.13	-0.02	89	231	83	79
362	58.816	0.165	0.018	2.62	107	1.0	-	5.11	-0.02	89	230	83	79
363	58.982	0.166	0.018	2.61	107	1.0	-	5.09	-0.02	89	230	83	79
364	59.150	0.168	0.018	2.62	107	1.0	-	5.07	-0.02	89	229	83	79
365	59.315	0.165	0.018	2.59	107	1.0	-	5.04	-0.03	89	228	83	79
366	59.481	0.166	0.019	2.58	107	1.0	-	5.03	-0.01	89	227	83	79
367	59.649	0.168	0.019	2.58	107	1.0	-	5.00	-0.03	89	227	83	79
368	59.813	0.164	0.019	2.58	107	1.0	-	4.99	-0.01	89	226	83	79
369	59.980	0.167	0.018	2.59	107	1.0	-	4.96	-0.03	88	225	83	79
370	60.148	0.168	0.018	2.59	107	1.0	101	4.94	-0.02	88	225	83	79
371	60.312	0.164	0.019	2.58	107	1.0	-	4.92	-0.02	88	224	83	79
372	60.478	0.166	0.018	2.59	107	1.0	-	4.90	-0.02	88	224	83	79
373	60.646	0.168	0.019	2.59	107	1.0	-	4.88	-0.02	88	224	83	79
374	60.811	0.165	0.018	2.58	107	1.0	-	4.86	-0.02	88	224	83	79
375	60.977	0.166	0.018	2.57	107	1.0	-	4.84	-0.02	88	223	83	79
376	61.145	0.168	0.018	2.59	107	1.0	-	4.82	-0.02	88	222	83	79
377	61.309	0.164	0.018	2.58	107	1.0	-	4.80	-0.02	88	222	83	79
378	61.476	0.167	0.019	2.57	107	1.0	-	4.78	-0.02	88	221	83	79
379	61.644	0.168	0.018	2.57	107	1.0	-	4.76	-0.02	88	221	83	79
380	61.808	0.164	0.018	2.58	107	1.0	102	4.74	-0.02	88	220	83	79
381	61.975	0.167	0.018	2.58	107	1.0	-	4.71	-0.03	88	220	83	79
382	62.143	0.168	0.018	2.59	107	1.0	-	4.69	-0.02	88	219	83	79
383	62.307	0.164	0.019	2.58	107	1.0	-	4.68	-0.01	88	219	83	79

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
384	62.474	0.167	0.019	2.57	107	1.0	-	4.66	-0.02	88	218	83	79
385	62.642	0.168	0.019	2.57	107	1.0	-	4.63	-0.03	88	218	83	79
386	62.806	0.164	0.019	2.57	107	1.0	-	4.62	-0.01	88	218	83	79
387	62.974	0.168	0.018	2.56	107	1.0	-	4.60	-0.02	88	218	83	79
388	63.142	0.168	0.019	2.58	107	1.0	-	4.58	-0.02	88	218	83	79
389	63.306	0.164	0.018	2.57	107	1.1	-	4.55	-0.03	88	218	83	79
390	63.473	0.167	0.018	2.57	107	1.0	103	4.53	-0.02	88	217	83	79
391	63.641	0.168	0.018	2.56	107	1.0	-	4.52	-0.01	88	217	83	79
392	63.805	0.164	0.019	2.55	107	1.0	-	4.50	-0.02	88	217	83	79
393	63.972	0.167	0.018	2.55	107	1.0	-	4.48	-0.02	88	217	83	79
394	64.141	0.169	0.018	2.55	107	1.0	-	4.46	-0.02	88	216	83	79
395	64.304	0.163	0.018	2.55	107	1.0	-	4.45	-0.01	88	215	83	79
396	64.472	0.168	0.018	2.56	107	1.0	-	4.42	-0.03	88	215	83	79
397	64.640	0.168	0.018	2.56	107	1.0	-	4.41	-0.01	88	215	83	79
398	64.803	0.163	0.019	2.55	107	1.0	-	4.39	-0.02	88	214	83	79
399	64.971	0.168	0.019	2.57	107	1.0	-	4.37	-0.02	88	214	83	79
400	65.140	0.169	0.018	2.58	107	1.0	103	4.35	-0.02	88	213	83	79
401	65.303	0.163	0.019	2.56	107	1.0	-	4.34	-0.01	88	213	83	79
402	65.471	0.168	0.018	2.59	107	1.0	-	4.31	-0.03	88	214	83	79
403	65.639	0.168	0.018	2.58	107	1.0	-	4.29	-0.02	88	214	83	79
404	65.803	0.164	0.018	2.58	107	1.0	-	4.28	-0.01	88	213	83	79
405	65.970	0.167	0.018	2.59	107	1.0	-	4.26	-0.02	88	213	83	79
406	66.139	0.169	0.018	2.59	107	1.0	-	4.24	-0.02	88	212	83	79
407	66.302	0.163	0.019	2.59	107	1.0	-	4.22	-0.02	88	212	83	79
408	66.470	0.168	0.018	2.61	107	1.0	-	4.21	-0.01	88	211	83	79
409	66.638	0.168	0.019	2.62	107	1.0	-	4.19	-0.02	88	211	83	79
410	66.801	0.163	0.018	2.61	107	1.0	102	4.17	-0.02	88	211	83	79
411	66.970	0.169	0.018	2.61	107	1.0	-	4.16	-0.01	88	211	83	79
412	67.138	0.168	0.019	2.63	107	1.0	-	4.14	-0.02	88	211	83	79
413	67.301	0.163	0.018	2.61	107	1.0	-	4.12	-0.02	88	211	83	79
414	67.469	0.168	0.019	2.63	107	1.0	-	4.10	-0.02	88	210	83	79
415	67.638	0.169	0.018	2.63	107	1.0	-	4.08	-0.02	88	209	83	79

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
416	67.801	0.163	0.018	2.63	107	1.0	-	4.06	-0.02	88	209	83	79
417	67.969	0.168	0.018	2.62	107	1.0	-	4.05	-0.01	88	208	83	79
418	68.137	0.168	0.018	2.62	107	1.0	-	4.03	-0.02	87	208	83	79
419	68.300	0.163	0.019	2.62	107	1.0	-	4.01	-0.02	87	209	83	79
420	68.468	0.168	0.019	2.62	107	1.0	101	4.00	-0.01	87	208	83	79
421	68.637	0.169	0.019	2.61	107	1.0	-	3.97	-0.03	87	208	83	79
422	68.800	0.163	0.018	2.61	107	1.0	-	3.95	-0.02	87	208	83	79
423	68.968	0.168	0.019	2.61	107	1.0	-	3.94	-0.01	87	207	83	79
424	69.136	0.168	0.018	2.61	107	1.0	-	3.91	-0.03	87	208	83	79
425	69.299	0.163	0.018	2.60	107	1.0	-	3.89	-0.02	87	207	83	79
426	69.467	0.168	0.018	2.60	107	1.0	-	3.88	-0.01	87	207	83	79
427	69.636	0.169	0.019	2.62	107	1.0	-	3.86	-0.02	87	207	83	79
428	69.799	0.163	0.018	2.59	107	1.0	-	3.83	-0.03	87	207	83	79
429	69.967	0.168	0.018	2.61	107	1.0	-	3.82	-0.01	87	207	83	79
430	70.135	0.168	0.018	2.61	107	1.0	101	3.80	-0.02	87	206	83	79
431	70.299	0.164	0.019	2.60	107	1.0	-	3.77	-0.03	87	206	83	79
432	70.467	0.168	0.018	2.61	107	1.0	-	3.76	-0.01	87	207	83	79
433	70.635	0.168	0.018	2.61	107	1.0	-	3.73	-0.03	87	207	83	79
434	70.799	0.164	0.018	2.60	107	1.0	-	3.72	-0.01	87	207	83	79
435	70.967	0.168	0.018	2.61	107	1.0	-	3.70	-0.02	87	207	83	79
436	71.135	0.168	0.018	2.62	107	1.0	-	3.68	-0.02	87	206	83	79
437	71.299	0.164	0.019	2.61	108	1.0	-	3.66	-0.02	87	206	83	79
438	71.467	0.168	0.019	2.61	108	1.0	-	3.64	-0.02	87	206	83	79
439	71.635	0.168	0.018	2.61	108	1.0	-	3.62	-0.02	87	205	83	79
440	71.799	0.164	0.018	2.61	108	1.0	102	3.60	-0.02	87	205	83	79
441	71.967	0.168	0.018	2.60	108	1.0	-	3.58	-0.02	87	205	83	79
442	72.135	0.168	0.018	2.61	108	1.0	-	3.57	-0.01	87	205	83	79
443	72.299	0.164	0.018	2.59	108	1.0	-	3.55	-0.02	87	204	83	79
444	72.467	0.168	0.018	2.60	108	1.0	-	3.53	-0.02	87	204	83	79
445	72.635	0.168	0.018	2.60	108	1.0	-	3.51	-0.02	87	203	83	79
446	72.799	0.164	0.018	2.60	108	1.0	-	3.49	-0.02	87	202	83	79
447	72.967	0.168	0.018	2.58	108	1.0	-	3.47	-0.02	87	202	83	79

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
448	73.135	0.168	0.018	2.60	108	1.0	-	3.46	-0.01	87	202	83	79
449	73.300	0.165	0.018	2.59	108	1.0	-	3.44	-0.02	87	201	83	79
450	73.467	0.167	0.018	2.58	108	1.0	103	3.42	-0.02	87	201	83	79
451	73.635	0.168	0.018	2.59	108	1.0	-	3.40	-0.02	87	200	83	79
452	73.800	0.165	0.018	2.60	108	1.0	-	3.38	-0.02	87	200	83	79
453	73.967	0.167	0.018	2.59	108	1.0	-	3.37	-0.01	87	200	83	79
454	74.135	0.168	0.018	2.60	108	1.0	-	3.35	-0.02	87	202	83	79
455	74.300	0.165	0.018	2.60	108	1.0	-	3.33	-0.02	87	201	83	79
456	74.467	0.167	0.018	2.60	108	1.0	-	3.31	-0.02	87	200	83	79
457	74.635	0.168	0.018	2.59	108	1.0	-	3.28	-0.03	87	200	83	79
458	74.800	0.165	0.019	2.58	108	1.0	-	3.27	-0.01	87	200	83	79
459	74.967	0.167	0.018	2.58	108	1.0	-	3.25	-0.02	87	200	83	79
460	75.135	0.168	0.018	2.59	108	1.0	102	3.23	-0.02	87	199	83	79
461	75.300	0.165	0.018	2.57	108	1.0	-	3.22	-0.01	87	199	83	79
462	75.467	0.167	0.018	2.59	108	1.0	-	3.20	-0.02	87	199	83	79
463	75.635	0.168	0.018	2.58	108	1.0	-	3.18	-0.02	87	200	83	79
464	75.800	0.165	0.019	2.58	108	1.0	-	3.16	-0.02	87	199	83	79
465	75.967	0.167	0.018	2.57	108	1.0	-	3.14	-0.02	87	199	83	79
466	76.135	0.168	0.019	2.58	108	1.0	-	3.12	-0.02	87	200	83	79
467	76.300	0.165	0.018	2.57	108	1.0	-	3.10	-0.02	87	200	83	79
468	76.467	0.167	0.018	2.58	108	1.0	-	3.08	-0.02	87	199	83	79
469	76.635	0.168	0.018	2.59	108	1.0	-	3.07	-0.01	87	199	83	79
470	76.800	0.165	0.019	2.58	108	1.0	101	3.04	-0.03	87	199	83	79
471	76.967	0.167	0.019	2.58	108	1.0	-	3.03	-0.01	87	199	83	79
472	77.135	0.168	0.019	2.57	108	1.0	-	3.01	-0.02	87	199	83	79
473	77.300	0.165	0.018	2.58	108	1.0	-	2.99	-0.02	87	200	83	79
474	77.467	0.167	0.018	2.58	108	1.0	-	2.97	-0.02	87	200	83	79
475	77.635	0.168	0.018	2.60	108	1.0	-	2.95	-0.02	87	201	83	79
476	77.800	0.165	0.019	2.58	108	1.0	-	2.93	-0.02	87	201	83	79
477	77.967	0.167	0.018	2.58	108	1.0	-	2.92	-0.01	87	201	83	79
478	78.135	0.168	0.018	2.59	108	1.0	-	2.89	-0.03	87	202	83	79
479	78.300	0.165	0.019	2.58	108	1.0	-	2.87	-0.02	87	202	83	79

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
480	78.468	0.168	0.019	2.59	108	1.0	100	2.85	-0.02	87	202	83	79
481	78.636	0.168	0.019	2.59	108	1.0	-	2.84	-0.01	87	202	83	79
482	78.797	0.161	0.018	2.59	108	1.0	-	2.82	-0.02	87	203	83	79
483	78.968	0.171	0.019	2.59	108	1.0	-	2.79	-0.03	87	202	83	79
484	79.136	0.168	0.018	2.60	108	1.0	-	2.78	-0.01	87	202	83	79
485	79.301	0.165	0.019	2.59	108	1.0	-	2.76	-0.02	87	202	83	79
486	79.468	0.167	0.019	2.58	108	1.0	-	2.74	-0.02	87	203	83	79
487	79.636	0.168	0.018	2.60	108	1.0	-	2.72	-0.02	87	202	83	79
488	79.801	0.165	0.019	2.59	108	1.0	-	2.69	-0.03	87	203	83	79
489	79.968	0.167	0.018	2.58	108	1.0	-	2.68	-0.01	87	204	83	79
490	80.136	0.168	0.019	2.60	108	1.0	100	2.65	-0.03	87	204	83	79
491	80.301	0.165	0.019	2.59	108	1.0	-	2.63	-0.02	87	203	82	79
492	80.468	0.167	0.019	2.59	108	1.0	-	2.61	-0.02	87	203	83	79
493	80.636	0.168	0.019	2.59	108	1.0	-	2.59	-0.02	87	203	82	79
494	80.801	0.165	0.019	2.59	108	1.0	-	2.57	-0.02	87	204	82	79
495	80.968	0.167	0.018	2.59	108	1.0	-	2.55	-0.02	87	204	82	79
496	81.136	0.168	0.019	2.59	108	1.0	-	2.53	-0.02	87	204	82	79
497	81.301	0.165	0.019	2.60	108	1.0	-	2.51	-0.02	87	205	82	79
498	81.468	0.167	0.019	2.59	108	1.0	-	2.48	-0.03	87	205	82	79
499	81.636	0.168	0.018	2.59	108	1.0	-	2.46	-0.02	86	205	82	79
500	81.801	0.165	0.019	2.60	108	1.0	100	2.45	-0.01	86	205	82	79
501	81.969	0.168	0.019	2.59	108	1.0	-	2.43	-0.02	86	204	82	79
502	82.136	0.167	0.019	2.59	108	1.0	-	2.41	-0.02	86	205	82	79
503	82.301	0.165	0.019	2.59	108	1.0	-	2.39	-0.02	86	205	82	79
504	82.469	0.168	0.019	2.59	108	1.0	-	2.37	-0.02	86	205	82	79
505	82.636	0.167	0.019	2.58	108	1.0	-	2.36	-0.01	86	204	82	79
506	82.801	0.165	0.019	2.60	108	1.0	-	2.34	-0.02	86	205	82	79
507	82.969	0.168	0.019	2.59	108	1.0	-	2.32	-0.02	86	205	82	79
508	83.136	0.167	0.019	2.60	108	1.0	-	2.30	-0.02	86	205	82	79
509	83.301	0.165	0.019	2.59	108	1.0	-	2.28	-0.02	86	204	82	79
510	83.469	0.168	0.019	2.59	108	1.0	100	2.26	-0.02	86	205	82	79
511	83.636	0.167	0.019	2.59	108	1.0	-	2.25	-0.01	86	205	82	79

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
512	83.801	0.165	0.019	2.61	108	1.0	-	2.23	-0.02	86	205	82	79
513	83.969	0.168	0.019	2.60	108	1.0	-	2.21	-0.02	86	205	82	79
514	84.136	0.167	0.019	2.59	108	1.0	-	2.19	-0.02	86	205	83	79
515	84.301	0.165	0.019	2.60	108	1.0	-	2.17	-0.02	86	205	82	79
516	84.469	0.168	0.019	2.60	108	1.0	-	2.16	-0.01	86	205	82	79
517	84.637	0.168	0.019	2.59	108	1.0	-	2.14	-0.02	86	205	82	79
518	84.801	0.164	0.019	2.59	108	1.0	-	2.11	-0.03	86	205	82	79
519	84.969	0.168	0.019	2.58	108	1.0	-	2.10	-0.01	86	204	82	79
520	85.137	0.168	0.019	2.58	108	1.0	100	2.08	-0.02	86	204	82	79
521	85.302	0.165	0.019	2.59	108	1.0	-	2.06	-0.02	86	204	82	79
522	85.470	0.168	0.019	2.60	108	1.0	-	2.05	-0.01	86	203	82	78
523	85.638	0.168	0.019	2.59	108	1.0	-	2.03	-0.02	86	204	82	79
524	85.802	0.164	0.019	2.58	108	1.0	-	2.01	-0.02	86	204	82	79
525	85.968	0.166	0.019	2.59	108	1.0	-	2.00	-0.01	86	204	82	78
526	86.139	0.171	0.018	2.59	108	1.0	-	1.98	-0.02	86	205	82	78
527	86.303	0.164	0.019	2.59	108	1.0	-	1.96	-0.02	86	204	82	79
528	86.471	0.168	0.019	2.59	108	1.0	-	1.94	-0.02	86	204	82	79
529	86.636	0.165	0.019	2.58	108	1.0	-	1.92	-0.02	86	204	82	79
530	86.804	0.168	0.019	2.59	108	1.0	100	1.91	-0.01	86	204	82	78
531	86.971	0.167	0.019	2.60	108	1.0	-	1.89	-0.02	86	203	82	79
532	87.136	0.165	0.019	2.58	108	1.0	-	1.87	-0.02	86	203	82	78
533	87.304	0.168	0.019	2.59	108	1.0	-	1.85	-0.02	86	203	82	78
534	87.472	0.168	0.019	2.60	108	1.0	-	1.84	-0.01	86	202	82	78
535	87.640	0.168	0.019	2.58	108	1.0	-	1.81	-0.03	86	203	82	78
536	87.804	0.164	0.019	2.60	108	1.0	-	1.80	-0.01	86	204	82	78
537	87.969	0.165	0.019	2.59	108	1.0	-	1.78	-0.02	86	203	82	78
538	88.138	0.169	0.019	2.59	108	1.0	-	1.76	-0.02	86	203	82	78
539	88.305	0.167	0.019	2.59	108	1.0	-	1.75	-0.01	86	202	82	78
540	88.472	0.167	0.019	2.59	108	1.0	100	1.73	-0.02	86	202	82	78
541	88.641	0.169	0.019	2.58	108	1.0	-	1.70	-0.03	86	202	82	78
542	88.805	0.164	0.019	2.59	108	1.0	-	1.69	-0.01	86	202	82	78
543	88.972	0.167	0.019	2.60	108	1.0	-	1.67	-0.02	86	203	82	78

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
544	89.142	0.170	0.019	2.60	108	1.0	-	1.65	-0.02	86	204	82	78
545	89.303	0.161	0.019	2.59	108	1.0	-	1.64	-0.01	86	203	82	78
546	89.472	0.169	0.019	2.59	108	1.0	-	1.62	-0.02	86	202	82	78
547	89.642	0.170	0.019	2.58	108	1.0	-	1.60	-0.02	86	202	82	78
548	89.803	0.161	0.019	2.59	108	1.0	-	1.59	-0.01	86	203	82	78
549	89.973	0.170	0.019	2.59	108	1.0	-	1.57	-0.02	86	203	82	78
550	90.140	0.167	0.019	2.59	108	1.0	100	1.55	-0.02	86	202	82	78
551	90.307	0.167	0.019	2.59	108	1.0	-	1.53	-0.02	86	203	82	78
552	90.471	0.164	0.019	2.60	108	1.0	-	1.51	-0.02	86	203	82	78
553	90.643	0.172	0.019	2.59	108	1.0	-	1.49	-0.02	86	203	82	78
554	90.808	0.165	0.019	2.60	108	1.0	-	1.47	-0.02	86	203	82	78
555	90.971	0.163	0.018	2.60	108	1.0	-	1.46	-0.01	86	203	82	78
556	91.141	0.170	0.019	2.59	108	1.0	-	1.44	-0.02	86	203	82	78
557	91.308	0.167	0.019	2.59	108	1.0	-	1.43	-0.01	86	202	82	78
558	91.473	0.165	0.019	2.60	108	1.0	-	1.40	-0.03	86	203	82	78
559	91.644	0.171	0.019	2.59	108	1.0	-	1.38	-0.02	86	203	82	78
560	91.809	0.165	0.019	2.59	108	1.0	100	1.37	-0.01	86	202	82	78
561	91.971	0.162	0.019	2.59	108	1.0	-	1.35	-0.02	86	201	82	78
562	92.144	0.173	0.019	2.59	108	1.0	-	1.33	-0.02	86	200	82	78
563	92.309	0.165	0.019	2.59	108	1.0	-	1.31	-0.02	86	200	82	78
564	92.471	0.162	0.019	2.59	108	1.0	-	1.29	-0.02	85	200	82	78
565	92.644	0.173	0.019	2.59	108	1.0	-	1.27	-0.02	85	200	82	78
566	92.809	0.165	0.019	2.58	108	1.0	-	1.25	-0.02	85	199	82	78
567	92.974	0.165	0.019	2.59	108	1.0	-	1.23	-0.02	85	199	82	78
568	93.145	0.171	0.019	2.59	108	1.0	-	1.21	-0.02	85	198	82	78
569	93.307	0.162	0.019	2.59	108	1.0	-	1.21	0.00	85	198	82	78
570	93.474	0.167	0.019	2.60	108	1.0	99	1.18	-0.03	85	197	82	78
571	93.645	0.171	0.019	2.59	108	1.0	-	1.16	-0.02	85	198	82	78
572	93.811	0.166	0.019	2.59	108	1.0	-	1.14	-0.02	85	198	82	78
573	93.972	0.161	0.019	2.59	108	1.0	-	1.13	-0.01	85	198	82	78
574	94.145	0.173	0.019	2.59	108	1.0	-	1.11	-0.02	85	198	82	78
575	94.308	0.163	0.020	2.59	108	1.0	-	1.09	-0.02	85	198	82	78

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
576	94.473	0.165	0.019	2.60	108	1.0	-	1.07	-0.02	85	198	82	78
577	94.643	0.170	0.019	2.60	108	1.0	-	1.06	-0.01	85	198	82	78
578	94.809	0.166	0.019	2.60	108	1.0	-	1.03	-0.03	85	198	82	78
579	94.973	0.164	0.019	2.60	108	1.0	-	1.01	-0.02	85	199	82	78
580	95.144	0.171	0.019	2.59	108	1.0	100	0.99	-0.02	85	199	82	78
581	95.310	0.166	0.019	2.60	108	1.0	-	0.98	-0.01	85	199	82	78
582	95.474	0.164	0.020	2.59	108	1.0	-	0.97	-0.01	85	199	82	78
583	95.644	0.170	0.019	2.61	108	1.0	-	0.95	-0.02	85	199	82	78
584	95.811	0.167	0.019	2.61	108	1.0	-	0.93	-0.02	85	199	82	78
585	95.974	0.163	0.019	2.60	108	1.0	-	0.90	-0.03	85	199	82	78
586	96.144	0.170	0.019	2.61	108	1.0	-	0.89	-0.01	85	199	82	78
587	96.311	0.167	0.019	2.60	108	1.0	-	0.87	-0.02	85	200	82	78
588	96.474	0.163	0.019	2.59	108	1.0	-	0.85	-0.02	85	199	82	78
589	96.644	0.170	0.019	2.60	108	1.0	-	0.83	-0.02	85	199	82	78
590	96.811	0.167	0.019	2.60	108	1.0	99	0.81	-0.02	85	200	82	78
591	96.974	0.163	0.019	2.58	108	1.0	-	0.79	-0.02	85	200	82	78
592	97.144	0.170	0.019	2.60	108	1.0	-	0.78	-0.01	85	201	82	78
593	97.311	0.167	0.019	2.60	108	1.0	-	0.76	-0.02	85	200	82	78
594	97.474	0.163	0.019	2.59	108	1.0	-	0.74	-0.02	85	200	82	78
595	97.644	0.170	0.019	2.60	108	1.0	-	0.72	-0.02	85	200	82	78
596	97.812	0.168	0.019	2.60	108	1.0	-	0.71	-0.01	85	200	82	78
597	97.975	0.163	0.019	2.60	108	1.0	-	0.69	-0.02	85	200	82	78
598	98.144	0.169	0.019	2.59	108	1.0	-	0.67	-0.02	85	199	82	78
599	98.312	0.168	0.019	2.59	108	1.0	-	0.65	-0.02	85	200	82	78
600	98.475	0.163	0.020	2.60	108	1.0	98	0.64	-0.01	85	199	82	78
601	98.644	0.169	0.019	2.61	108	1.0	-	0.61	-0.03	85	199	82	78
602	98.812	0.168	0.019	2.59	108	1.0	-	0.59	-0.02	85	199	82	78
603	98.976	0.164	0.019	2.61	108	1.0	-	0.58	-0.01	85	199	82	78
604	99.145	0.169	0.019	2.60	108	1.0	-	0.56	-0.02	85	199	82	78
605	99.313	0.168	0.019	2.59	108	1.0	-	0.55	-0.01	85	199	82	78
606	99.476	0.163	0.019	2.59	108	1.0	-	0.53	-0.02	85	199	82	78
607	99.645	0.169	0.019	2.60	108	1.0	-	0.51	-0.02	85	199	82	78

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
608	99.813	0.168	0.019	2.59	108	1.0	-	0.50	-0.01	85	198	82	78
609	99.976	0.163	0.019	2.60	108	1.0	-	0.48	-0.02	85	198	82	78
610	100.145	0.169	0.020	2.60	108	1.0	97	0.46	-0.02	85	198	82	78
611	100.313	0.168	0.019	2.59	108	1.0	-	0.44	-0.02	85	198	82	78
612	100.476	0.163	0.019	2.59	108	1.0	-	0.43	-0.01	85	197	82	78
613	100.645	0.169	0.019	2.61	108	1.0	-	0.41	-0.02	85	197	82	78
614	100.813	0.168	0.019	2.61	108	1.0	-	0.39	-0.02	85	197	82	77
615	100.977	0.164	0.020	2.61	108	1.0	-	0.37	-0.02	84	197	82	77
616	101.145	0.168	0.020	2.62	108	1.0	-	0.35	-0.02	84	196	82	77
617	101.314	0.169	0.020	2.61	108	1.0	-	0.33	-0.02	84	197	82	77
618	101.477	0.163	0.019	2.60	108	1.0	-	0.32	-0.01	84	196	82	77
619	101.645	0.168	0.020	2.61	108	1.0	-	0.30	-0.02	84	197	82	77
620	101.814	0.169	0.019	2.60	108	1.0	98	0.28	-0.02	84	196	82	78
621	101.978	0.164	0.020	2.61	108	1.0	-	0.26	-0.02	84	197	82	77
622	102.145	0.167	0.019	2.61	108	1.0	-	0.25	-0.01	84	197	82	77
623	102.314	0.169	0.019	2.61	108	1.0	-	0.23	-0.02	84	197	82	77
624	102.478	0.164	0.019	2.61	108	1.0	-	0.22	-0.01	84	196	82	77
625	102.645	0.167	0.020	2.60	108	1.0	-	0.19	-0.03	84	197	82	77
626	102.814	0.169	0.020	2.62	108	1.0	-	0.18	-0.01	84	197	82	77
627	102.978	0.164	0.020	2.61	108	1.0	-	0.16	-0.02	84	196	82	77
628	103.145	0.167	0.020	2.61	108	1.0	-	0.14	-0.02	84	196	82	77
629	103.314	0.169	0.020	2.63	108	1.0	-	0.13	-0.01	84	196	82	77
630	103.478	0.164	0.019	2.62	108	1.0	99	0.11	-0.02	84	196	82	77
631	103.645	0.167	0.020	2.62	108	1.0	-	0.09	-0.02	84	196	82	77
632	103.814	0.169	0.020	2.62	108	1.0	-	0.07	-0.02	84	196	81	77
633	103.978	0.164	0.019	2.62	108	1.0	-	0.04	-0.03	84	196	82	77
634	104.146	0.168	0.020	2.62	108	1.0	-	0.03	-0.01	84	196	82	77
635	104.314	0.168	0.020	2.62	108	1.0	97	0.00	-0.03	84	196	81	77
Avg/Tot	104.314	0.164	0.019	2.56	101.8	1.0	100			86.1	246.7	80.4	76.5

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
0	0.000		1.74	75	1.8		74	-0.052	3.23	0.161
1	0.150	0.150	2.36	74	1.8	-	77	-0.064	2.21	0.161
2	0.298	0.148	2.38	74	1.9	-	77	-0.055	6.14	0.076
3	0.450	0.152	2.38	75	1.6	-	77	-0.048	7.61	0.045
4	0.602	0.152	2.38	75	2.0	-	77	-0.048	7.78	0.041
5	0.756	0.154	2.39	75	1.8	-	76	-0.046	7.61	0.036
6	0.906	0.150	2.40	75	1.6	-	76	-0.045	8.36	0.042
7	1.059	0.153	2.40	75	1.6	-	76	-0.049	8.80	0.036
8	1.209	0.150	2.39	75	1.6	-	76	-0.048	7.83	0.041
9	1.362	0.153	2.39	75	1.6	-	76	-0.048	7.92	0.038
10	1.512	0.150	2.39	75	1.9	100	76	-0.049	7.60	0.039
11	1.666	0.154	2.39	75	1.9	-	76	-0.047	7.97	0.041
12	1.818	0.152	2.40	76	1.5	-	76	-0.048	8.01	0.046
13	1.970	0.152	2.39	76	1.5	-	76	-0.048	8.72	0.044
14	2.124	0.154	2.40	76	2.0	-	76	-0.047	9.02	0.045
15	2.273	0.149	2.39	76	1.6	-	76	-0.047	8.71	0.048
16	2.428	0.155	2.40	77	1.6	-	77	-0.050	10.64	0.044
17	2.577	0.149	2.39	77	1.5	-	77	-0.048	9.79	0.046
18	2.733	0.156	2.41	77	2.0	-	77	-0.048	9.12	0.042
19	2.884	0.151	2.41	77	1.6	-	77	-0.048	9.19	0.044
20	3.039	0.155	2.42	78	1.9	100	77	-0.048	9.21	0.042
21	3.189	0.150	2.41	78	1.6	-	77	-0.047	8.96	0.047
22	3.344	0.155	2.41	78	1.6	-	77	-0.048	8.81	0.047
23	3.495	0.151	2.40	79	1.7	-	77	-0.050	8.66	0.048
24	3.650	0.155	2.41	79	1.8	-	77	-0.047	8.81	0.048
25	3.804	0.154	2.41	79	1.7	-	77	-0.048	9.10	0.047
26	3.956	0.152	2.42	79	1.8	-	77	-0.048	9.09	0.045
27	4.110	0.154	2.42	80	1.6	-	77	-0.048	8.68	0.047
28	4.262	0.152	2.41	80	1.6	-	77	-0.049	8.61	0.044
29	4.419	0.157	2.42	80	1.7	-	77	-0.048	8.49	0.041
30	4.570	0.151	2.42	81	1.6	100	77	-0.047	8.67	0.044
31	4.727	0.157	2.43	81	2.0	-	77	-0.046	8.84	0.055

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
32	4.878	0.151	2.43	81	1.7	-	77	-0.047	8.76	0.044
33	5.033	0.155	2.43	82	1.7	-	77	-0.045	8.78	0.053
34	5.189	0.156	2.44	82	1.8	-	77	-0.044	8.79	0.047
35	5.343	0.154	2.44	82	1.6	-	77	-0.045	8.73	0.042
36	5.498	0.155	2.43	83	1.5	-	77	-0.046	8.69	0.046
37	5.650	0.152	2.43	83	1.9	-	77	-0.045	8.78	0.052
38	5.808	0.158	2.44	83	2.0	-	77	-0.046	8.75	0.046
39	5.961	0.153	2.44	84	1.6	-	77	-0.046	8.76	0.052
40	6.117	0.156	2.44	84	1.8	99	77	-0.046	8.73	0.054
41	6.270	0.153	2.44	84	2.0	-	77	-0.044	8.75	0.043
42	6.427	0.157	2.45	84	1.8	-	77	-0.041	8.77	0.045
43	6.584	0.157	2.45	85	1.8	-	77	-0.045	8.81	0.051
44	6.736	0.152	2.45	85	1.5	-	77	-0.044	8.79	0.044
45	6.894	0.158	2.45	85	1.6	-	77	-0.044	8.86	0.048
46	7.048	0.154	2.45	86	1.9	-	77	-0.044	8.88	0.041
47	7.205	0.157	2.46	86	1.9	-	77	-0.042	8.87	0.045
48	7.359	0.154	2.45	86	1.9	-	76	-0.043	8.86	0.049
49	7.516	0.157	2.45	86	1.6	-	77	-0.042	8.94	0.050
50	7.673	0.157	2.46	87	1.6	100	77	-0.044	8.97	0.047
51	7.827	0.154	2.46	87	1.7	-	77	-0.044	9.05	0.048
52	7.985	0.158	2.46	87	1.9	-	77	-0.043	9.11	0.051
53	8.140	0.155	2.46	87	2.0	-	77	-0.045	9.15	0.048
54	8.297	0.157	2.46	88	2.0	-	77	-0.041	9.18	0.054
55	8.452	0.155	2.45	88	1.6	-	77	-0.045	9.07	0.046
56	8.610	0.158	2.47	88	1.9	-	77	-0.041	9.19	0.049
57	8.767	0.157	2.47	88	1.8	-	77	-0.043	9.15	0.052
58	8.921	0.154	2.46	89	1.6	-	77	-0.045	9.10	0.050
59	9.081	0.160	2.47	89	1.9	-	77	-0.045	9.08	0.048
60	9.236	0.155	2.48	89	1.6	100	77	-0.044	9.03	0.049
61	9.393	0.157	2.47	90	1.6	-	77	-0.042	9.06	0.051
62	9.550	0.157	2.48	90	2.0	-	77	-0.042	9.06	0.049
63	9.707	0.157	2.48	90	1.6	-	77	-0.045	8.99	0.048

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
64	9.864	0.157	2.47	90	1.6	-	77	-0.045	9.02	0.041
65	10.020	0.156	2.48	90	2.0	-	77	-0.045	9.04	0.049
66	10.179	0.159	2.48	91	2.0	-	77	-0.043	8.94	0.050
67	10.333	0.154	2.47	91	1.7	-	77	-0.043	8.93	0.048
68	10.492	0.159	2.48	91	1.6	-	77	-0.045	8.90	0.053
69	10.650	0.158	2.48	91	1.8	-	77	-0.045	8.92	0.049
70	10.805	0.155	2.48	91	1.9	100	77	-0.044	8.93	0.051
71	10.965	0.160	2.48	91	1.6	-	77	-0.044	8.81	0.049
72	11.120	0.155	2.49	92	1.8	-	77	-0.046	8.96	0.054
73	11.278	0.158	2.48	92	1.8	-	77	-0.044	8.92	0.046
74	11.437	0.159	2.48	92	1.5	-	77	-0.043	8.90	0.046
75	11.593	0.156	2.48	92	2.0	-	77	-0.044	8.81	0.047
76	11.752	0.159	2.49	92	1.7	-	77	-0.044	8.77	0.046
77	11.908	0.156	2.49	93	1.6	-	77	-0.044	8.71	0.048
78	12.068	0.160	2.49	93	2.0	-	77	-0.045	8.70	0.052
79	12.225	0.157	2.49	93	1.5	-	77	-0.047	8.75	0.052
80	12.383	0.158	2.49	93	1.5	100	77	-0.042	8.77	0.053
81	12.541	0.158	2.49	93	1.5	-	77	-0.044	8.71	0.049
82	12.698	0.157	2.50	94	1.6	-	77	-0.043	8.74	0.049
83	12.858	0.160	2.49	94	1.7	-	77	-0.043	8.74	0.057
84	13.014	0.156	2.50	94	1.6	-	77	-0.045	8.75	0.051
85	13.173	0.159	2.50	94	1.6	-	77	-0.043	8.84	0.049
86	13.333	0.160	2.50	94	1.9	-	77	-0.043	8.89	0.047
87	13.462	0.129	2.50	94	2.0	-	77	-0.043	8.85	0.050
88	13.623	0.161	2.50	94	1.5	-	77	-0.046	8.79	0.052
89	13.778	0.155	2.49	94	1.6	-	77	-0.043	8.78	0.041
90	13.938	0.160	2.50	95	1.8	97	77	-0.045	8.93	0.050
91	14.097	0.159	2.50	95	1.5	-	77	-0.044	8.95	0.043
92	14.254	0.157	2.50	95	1.7	-	77	-0.046	8.99	0.046
93	14.415	0.161	2.51	95	1.8	-	77	-0.042	8.97	0.051
94	14.571	0.156	2.49	95	1.6	-	77	-0.046	9.03	0.049
95	14.731	0.160	2.50	95	1.8	-	77	-0.047	9.13	0.051

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
96	14.890	0.159	2.50	95	1.8	-	77	-0.042	9.23	0.052
97	15.047	0.157	2.50	95	1.8	-	77	-0.042	9.27	0.053
98	15.208	0.161	2.51	96	2.0	-	77	-0.043	9.29	0.049
99	15.364	0.156	2.49	96	1.9	-	77	-0.045	9.16	0.056
100	15.524	0.160	2.50	96	1.7	100	77	-0.045	9.28	0.055
101	15.684	0.160	2.51	96	1.6	-	77	-0.044	9.20	0.056
102	15.840	0.156	2.50	96	1.5	-	77	-0.045	9.18	0.059
103	16.002	0.162	2.51	96	1.5	-	77	-0.043	9.12	0.055
104	16.158	0.156	2.50	96	1.9	-	77	-0.042	9.17	0.056
105	16.318	0.160	2.50	96	2.0	-	77	-0.043	9.06	0.056
106	16.478	0.160	2.51	96	1.6	-	77	-0.043	9.03	0.060
107	16.635	0.157	2.50	96	1.6	-	77	-0.045	9.03	0.056
108	16.796	0.161	2.51	96	1.9	-	77	-0.043	9.04	0.053
109	16.953	0.157	2.51	96	1.6	-	77	-0.044	8.95	0.055
110	17.113	0.160	2.51	97	1.5	102	78	-0.044	9.13	0.053
111	17.272	0.159	2.51	97	1.6	-	78	-0.042	9.07	0.053
112	17.430	0.158	2.51	97	1.5	-	78	-0.042	9.06	0.054
113	17.590	0.160	2.51	97	1.8	-	78	-0.044	9.12	0.049
114	17.749	0.159	2.51	97	1.6	-	78	-0.043	9.19	0.056
115	17.908	0.159	2.51	97	2.0	-	78	-0.043	9.29	0.055
116	18.068	0.160	2.51	97	2.0	-	78	-0.044	9.22	0.051
117	18.226	0.158	2.50	97	1.5	-	78	-0.044	9.31	0.058
118	18.386	0.160	2.51	97	2.0	-	78	-0.045	9.29	0.053
119	18.545	0.159	2.51	97	1.8	-	78	-0.044	9.37	0.053
120	18.703	0.158	2.51	97	1.5	100	78	-0.044	9.45	0.054
121	18.865	0.162	2.51	97	1.8	-	78	-0.042	9.57	0.057
122	19.022	0.157	2.51	97	1.9	-	78	-0.046	9.61	0.051
123	19.181	0.159	2.51	97	1.6	-	78	-0.044	9.62	0.056
124	19.341	0.160	2.51	98	1.6	-	78	-0.044	9.66	0.054
125	19.499	0.158	2.51	98	1.7	-	78	-0.046	9.67	0.058
126	19.661	0.162	2.51	98	2.0	-	78	-0.047	9.67	0.052
127	19.817	0.156	2.51	98	1.6	-	78	-0.043	9.81	0.057

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
128	19.977	0.160	2.51	98	1.6	-	78	-0.045	9.86	0.060
129	20.138	0.161	2.51	98	1.9	-	78	-0.043	9.80	0.051
130	20.295	0.157	2.50	98	1.6	98	78	-0.044	9.88	0.055
131	20.457	0.162	2.51	98	1.9	-	78	-0.045	9.97	0.052
132	20.613	0.156	2.51	98	1.6	-	78	-0.045	10.07	0.053
133	20.774	0.161	2.50	98	1.6	-	78	-0.047	10.11	0.054
134	20.934	0.160	2.51	98	1.7	-	78	-0.046	10.28	0.058
135	21.091	0.157	2.51	98	2.0	-	78	-0.046	10.38	0.054
136	21.254	0.163	2.51	98	2.0	-	78	-0.047	10.55	0.061
137	21.410	0.156	2.51	98	1.7	-	78	-0.044	10.71	0.055
138	21.571	0.161	2.51	98	1.8	-	78	-0.044	10.83	0.056
139	21.730	0.159	2.51	98	1.6	-	78	-0.046	10.93	0.059
140	21.888	0.158	2.51	98	1.6	98	78	-0.046	11.16	0.060
141	22.050	0.162	2.51	99	1.6	-	78	-0.045	11.34	0.059
142	22.207	0.157	2.50	99	2.0	-	79	-0.046	11.36	0.060
143	22.367	0.160	2.51	99	1.8	-	79	-0.048	11.49	0.061
144	22.527	0.160	2.51	99	1.8	-	79	-0.044	11.54	0.066
145	22.685	0.158	2.51	99	1.9	-	79	-0.049	11.61	0.060
146	22.846	0.161	2.51	99	1.9	-	79	-0.046	11.63	0.066
147	23.004	0.158	2.50	99	1.7	-	79	-0.048	11.66	0.058
148	23.164	0.160	2.51	99	1.6	-	79	-0.047	11.84	0.058
149	23.324	0.160	2.51	99	1.6	-	79	-0.045	11.98	0.060
150	23.482	0.158	2.51	99	1.6	99	79	-0.049	12.08	0.060
151	23.642	0.160	2.50	99	1.8	-	79	-0.052	12.28	0.066
152	23.802	0.160	2.50	99	1.9	-	79	-0.048	12.43	0.060
153	23.960	0.158	2.51	99	2.0	-	79	-0.049	12.62	0.063
154	24.122	0.162	2.50	99	1.7	-	79	-0.052	13.55	0.048
155	24.279	0.157	2.51	99	1.7	-	79	-0.049	14.65	0.228
156	24.440	0.161	2.51	99	1.7	-	79	-0.050	14.76	0.264
157	24.600	0.160	2.51	99	1.6	-	79	-0.047	14.52	0.137
158	24.757	0.157	2.50	99	1.6	-	79	-0.055	13.99	0.067
159	24.920	0.163	2.50	99	1.6	-	79	-0.048	13.64	0.068

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
160	25.077	0.157	2.51	99	1.6	100	79	-0.052	13.37	0.045
161	25.237	0.160	2.51	99	1.9	-	79	-0.051	13.39	0.060
162	25.397	0.160	2.51	99	2.0	-	79	-0.050	13.24	0.066
163	25.555	0.158	2.51	99	1.6	-	80	-0.049	13.17	0.060
164	25.717	0.162	2.51	100	1.8	-	80	-0.052	13.01	0.059
165	25.874	0.157	2.50	100	1.6	-	80	-0.051	13.15	0.056
166	26.035	0.161	2.50	100	1.9	-	80	-0.054	13.13	0.059
167	26.195	0.160	2.51	100	1.6	-	80	-0.054	13.13	0.063
168	26.353	0.158	2.51	100	1.7	-	80	-0.052	13.27	0.069
169	26.514	0.161	2.51	100	1.8	-	80	-0.051	13.27	0.062
170	26.673	0.159	2.51	100	1.6	99	80	-0.051	13.48	0.060
171	26.832	0.159	2.51	100	1.6	-	80	-0.054	13.56	0.071
172	26.993	0.161	2.51	100	1.6	-	80	-0.051	13.68	0.070
173	27.151	0.158	2.51	100	1.6	-	80	-0.057	13.95	0.062
174	27.311	0.160	2.50	100	1.6	-	80	-0.055	14.20	0.078
175	27.471	0.160	2.50	100	1.6	-	80	-0.052	14.29	0.080
176	27.629	0.158	2.51	100	1.6	-	80	-0.050	14.33	0.082
177	27.791	0.162	2.50	100	1.8	-	80	-0.052	14.48	0.088
178	27.948	0.157	2.50	100	1.7	-	80	-0.052	14.76	0.104
179	28.109	0.161	2.50	100	1.9	-	80	-0.053	14.81	0.121
180	28.270	0.161	2.50	100	1.8	98	80	-0.054	14.99	0.138
181	28.427	0.157	2.50	100	1.7	-	81	-0.053	15.31	0.195
182	28.589	0.162	2.50	100	1.9	-	81	-0.055	15.28	0.288
183	28.746	0.157	2.51	100	1.6	-	81	-0.056	15.32	0.313
184	28.907	0.161	2.50	100	2.0	-	81	-0.055	15.46	0.408
185	29.068	0.161	2.51	100	1.6	-	81	-0.055	15.30	0.497
186	29.225	0.157	2.50	100	1.8	-	81	-0.055	15.27	0.577
187	29.387	0.162	2.51	100	1.6	-	81	-0.057	15.23	0.619
188	29.545	0.158	2.50	100	1.9	-	81	-0.057	15.28	0.722
189	29.705	0.160	2.51	100	1.7	-	81	-0.058	15.09	0.750
190	29.865	0.160	2.50	100	2.0	99	81	-0.053	15.20	0.906
191	30.024	0.159	2.50	100	1.6	-	81	-0.058	15.11	0.972

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
192	30.185	0.161	2.51	100	2.0	-	81	-0.057	15.17	1.084
193	30.345	0.160	2.51	100	1.7	-	81	-0.054	15.12	1.142
194	30.503	0.158	2.51	101	1.9	-	81	-0.060	15.07	1.332
195	30.665	0.162	2.51	101	1.7	-	81	-0.056	15.10	1.380
196	30.822	0.157	2.50	101	1.7	-	81	-0.058	15.07	1.391
197	30.983	0.161	2.50	101	1.6	-	81	-0.060	15.01	1.536
198	31.144	0.161	2.51	101	1.7	-	82	-0.061	14.83	1.602
199	31.301	0.157	2.50	101	1.8	-	82	-0.057	14.98	1.771
200	31.464	0.163	2.50	101	1.6	100	82	-0.061	14.87	1.833
201	31.621	0.157	2.50	101	1.9	-	82	-0.059	14.89	1.894
202	31.782	0.161	2.50	101	2.0	-	82	-0.058	14.82	1.954
203	31.942	0.160	2.51	101	1.9	-	82	-0.059	14.76	2.014
204	32.101	0.159	2.51	101	1.6	-	82	-0.058	14.80	2.043
205	32.262	0.161	2.51	101	1.6	-	82	-0.060	14.78	2.118
206	32.421	0.159	2.51	101	1.9	-	82	-0.060	14.77	2.108
207	32.581	0.160	2.51	101	1.5	-	82	-0.057	14.83	2.182
208	32.742	0.161	2.51	101	1.8	-	82	-0.058	14.82	2.231
209	32.901	0.159	2.51	101	1.9	-	82	-0.061	14.69	2.395
210	33.061	0.160	2.50	101	2.0	99	82	-0.058	14.69	2.437
211	33.221	0.160	2.50	101	1.8	-	82	-0.060	14.60	2.519
212	33.380	0.159	2.51	101	1.9	-	82	-0.059	14.57	2.677
213	33.542	0.162	2.51	101	1.7	-	82	-0.060	14.43	2.832
214	33.699	0.157	2.51	101	1.8	-	83	-0.060	14.41	3.062
215	33.861	0.162	2.50	101	2.0	-	82	-0.060	14.40	3.159
216	34.021	0.160	2.51	101	2.0	-	83	-0.063	14.37	3.176
217	34.179	0.158	2.51	101	2.0	-	83	-0.057	14.42	3.084
218	34.342	0.163	2.52	101	1.9	-	83	-0.059	14.44	2.998
219	34.499	0.157	2.50	101	1.8	-	83	-0.057	14.43	3.009
220	34.661	0.162	2.51	101	2.0	100	83	-0.060	14.39	3.026
221	34.821	0.160	2.50	101	2.0	-	83	-0.061	14.33	3.036
222	34.979	0.158	2.50	102	1.6	-	83	-0.063	14.26	3.195
223	35.141	0.162	2.51	102	1.5	-	83	-0.060	14.22	3.294

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
224	35.300	0.159	2.51	102	2.0	-	83	-0.064	14.20	3.370
225	35.459	0.159	2.51	102	1.5	-	83	-0.060	14.26	3.272
226	35.621	0.162	2.51	102	1.9	-	83	-0.061	14.26	3.004
227	35.779	0.158	2.51	102	2.0	-	83	-0.060	14.31	2.803
228	35.940	0.161	2.50	102	1.7	-	83	-0.059	14.48	2.521
229	36.101	0.161	2.51	102	1.8	-	83	-0.055	14.58	2.207
230	36.258	0.157	2.50	102	1.8	99	83	-0.059	14.60	2.125
231	36.421	0.163	2.51	102	1.9	-	83	-0.059	14.71	1.974
232	36.578	0.157	2.51	102	1.6	-	83	-0.059	14.79	2.002
233	36.740	0.162	2.50	102	1.5	-	83	-0.062	14.77	2.032
234	36.900	0.160	2.51	102	1.6	-	83	-0.060	14.71	2.184
235	37.059	0.159	2.50	102	1.6	-	83	-0.059	14.79	2.275
236	37.220	0.161	2.51	102	1.7	-	83	-0.058	14.58	2.396
237	37.380	0.160	2.50	102	1.6	-	83	-0.060	14.51	2.606
238	37.539	0.159	2.51	102	1.9	-	83	-0.059	14.58	2.792
239	37.701	0.162	2.51	102	1.8	-	83	-0.059	14.47	3.024
240	37.859	0.158	2.51	102	2.0	98	83	-0.059	14.34	3.247
241	38.020	0.161	2.50	102	1.9	-	83	-0.060	14.30	3.503
242	38.181	0.161	2.51	102	1.9	-	83	-0.058	14.16	3.690
243	38.339	0.158	2.50	102	1.7	-	83	-0.061	14.22	3.516
244	38.502	0.163	2.50	102	2.0	-	83	-0.060	14.08	3.471
245	38.659	0.157	2.51	102	1.6	-	83	-0.061	14.24	3.079
246	38.820	0.161	2.50	102	1.9	-	83	-0.059	14.41	2.714
247	38.981	0.161	2.51	102	1.8	-	83	-0.059	14.51	2.476
248	39.139	0.158	2.50	102	1.6	-	83	-0.060	14.59	2.295
249	39.301	0.162	2.50	102	1.6	-	83	-0.056	14.60	2.155
250	39.460	0.159	2.50	102	2.0	100	84	-0.055	14.64	1.931
251	39.620	0.160	2.51	102	2.0	-	84	-0.058	14.69	1.810
252	39.781	0.161	2.50	102	1.5	-	84	-0.060	14.80	1.698
253	39.940	0.159	2.51	102	1.8	-	84	-0.058	14.71	1.718
254	40.100	0.160	2.50	103	2.0	-	84	-0.056	14.94	1.581
255	40.261	0.161	2.50	103	1.9	-	84	-0.057	14.86	1.487

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
256	40.419	0.158	2.51	103	1.6	-	84	-0.060	14.86	1.361
257	40.582	0.163	2.50	103	1.9	-	84	-0.057	14.89	1.451
258	40.740	0.158	2.50	102	1.8	-	84	-0.055	14.80	1.328
259	40.901	0.161	2.50	103	1.6	-	84	-0.058	15.08	1.256
260	41.061	0.160	2.51	103	1.9	101	84	-0.055	14.90	1.212
261	41.220	0.159	2.50	103	2.0	-	84	-0.058	14.89	1.275
262	41.382	0.162	2.51	103	2.0	-	84	-0.057	14.88	1.241
263	41.541	0.159	2.51	103	2.0	-	84	-0.059	14.98	1.267
264	41.701	0.160	2.50	103	1.9	-	84	-0.057	14.84	1.296
265	41.862	0.161	2.50	103	1.6	-	84	-0.059	14.80	1.327
266	42.021	0.159	2.51	103	1.8	-	84	-0.055	14.90	1.392
267	42.182	0.161	2.50	103	1.9	-	84	-0.054	14.85	1.466
268	42.343	0.161	2.50	103	1.9	-	84	-0.056	14.81	1.550
269	42.501	0.158	2.51	103	1.6	-	84	-0.055	14.64	1.656
270	42.664	0.163	2.50	103	1.5	100	84	-0.055	14.73	1.605
271	42.822	0.158	2.51	103	1.5	-	84	-0.055	14.80	1.473
272	42.983	0.161	2.50	103	1.6	-	84	-0.056	14.72	1.317
273	43.143	0.160	2.51	103	1.7	-	84	-0.057	14.75	1.235
274	43.302	0.159	2.50	103	1.8	-	84	-0.055	14.66	1.405
275	43.464	0.162	2.51	103	1.7	-	84	-0.052	14.64	1.256
276	43.623	0.159	2.50	103	1.6	-	84	-0.054	14.54	1.347
277	43.784	0.161	2.51	103	1.6	-	84	-0.054	14.66	1.222
278	43.945	0.161	2.51	103	2.0	-	84	-0.055	14.53	1.201
279	44.104	0.159	2.50	103	1.6	-	84	-0.058	14.57	1.003
280	44.264	0.160	2.50	103	1.7	98	84	-0.056	14.68	1.033
281	44.425	0.161	2.51	103	1.9	-	84	-0.054	14.60	1.041
282	44.583	0.158	2.50	103	1.6	-	84	-0.056	14.61	0.953
283	44.746	0.163	2.50	103	2.0	-	84	-0.051	14.59	0.900
284	44.904	0.158	2.50	103	1.6	-	84	-0.056	14.62	0.913
285	45.066	0.162	2.51	104	2.0	-	84	-0.055	14.69	0.815
286	45.226	0.160	2.51	104	1.5	-	84	-0.055	14.65	0.690
287	45.385	0.159	2.51	104	2.0	-	84	-0.057	14.77	0.650

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
288	45.547	0.162	2.50	103	1.6	-	84	-0.051	14.71	0.620
289	45.706	0.159	2.50	103	1.6	-	84	-0.051	14.70	0.454
290	45.866	0.160	2.51	103	1.5	98	84	-0.053	14.71	0.418
291	46.029	0.163	2.50	104	1.5	-	84	-0.053	14.53	0.383
292	46.187	0.158	2.50	104	2.0	-	84	-0.053	14.65	0.259
293	46.348	0.161	2.50	104	1.6	-	84	-0.053	14.69	0.279
294	46.510	0.162	2.51	104	1.9	-	85	-0.050	14.64	0.227
295	46.667	0.157	2.51	104	1.6	-	85	-0.053	14.57	0.201
296	46.831	0.164	2.51	104	1.6	-	85	-0.055	14.54	0.161
297	46.988	0.157	2.51	104	1.6	-	85	-0.053	14.29	0.084
298	47.150	0.162	2.50	104	1.8	-	85	-0.051	14.05	0.051
299	47.311	0.161	2.51	104	1.6	-	85	-0.055	13.97	0.052
300	47.470	0.159	2.50	104	1.8	101	85	-0.051	13.94	0.046
301	47.632	0.162	2.51	104	1.5	-	85	-0.053	13.83	0.050
302	47.792	0.160	2.51	104	2.0	-	85	-0.052	13.75	0.056
303	47.951	0.159	2.51	104	1.8	-	85	-0.052	13.82	0.049
304	48.114	0.163	2.50	104	1.6	-	85	-0.051	13.65	0.049
305	48.271	0.157	2.51	104	2.0	-	85	-0.049	13.69	0.048
306	48.434	0.163	2.51	104	1.9	-	85	-0.050	13.57	0.046
307	48.594	0.160	2.51	104	1.6	-	85	-0.050	13.47	0.045
308	48.753	0.159	2.51	104	1.5	-	85	-0.050	13.48	0.042
309	48.916	0.163	2.51	104	1.8	-	85	-0.050	13.52	0.152
310	49.074	0.158	2.51	104	1.9	101	85	-0.050	14.04	0.334
311	49.236	0.162	2.50	104	1.8	-	85	-0.048	13.94	0.274
312	49.397	0.161	2.50	104	2.0	-	85	-0.046	13.84	0.185
313	49.556	0.159	2.51	104	1.7	-	85	-0.052	13.72	0.175
314	49.717	0.161	2.51	104	1.6	-	85	-0.046	13.59	0.149
315	49.879	0.162	2.51	104	2.0	-	85	-0.052	13.46	0.065
316	50.037	0.158	2.51	104	2.0	-	85	-0.046	13.34	0.053
317	50.200	0.163	2.51	104	1.6	-	85	-0.049	13.20	0.051
318	50.358	0.158	2.51	104	1.5	-	85	-0.049	13.30	0.048
319	50.520	0.162	2.50	104	1.8	-	85	-0.049	13.14	0.049

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
320	50.681	0.161	2.51	104	1.5	100	85	-0.050	13.08	0.044
321	50.841	0.160	2.52	104	1.5	-	85	-0.051	12.84	0.037
322	51.003	0.162	2.51	104	1.6	-	85	-0.048	12.77	0.042
323	51.163	0.160	2.51	104	1.8	-	85	-0.050	12.78	0.041
324	51.323	0.160	2.51	105	2.0	-	85	-0.046	12.40	0.042
325	51.486	0.163	2.51	105	1.6	-	85	-0.046	12.36	0.039
326	51.643	0.157	2.50	105	1.6	-	85	-0.047	12.11	0.034
327	51.805	0.162	2.50	105	1.8	-	85	-0.049	12.05	0.037
328	51.966	0.161	2.50	105	2.0	-	85	-0.048	11.93	0.040
329	52.125	0.159	2.50	105	1.6	-	85	-0.045	11.61	0.043
330	52.287	0.162	2.51	105	2.0	101	85	-0.045	11.45	0.034
331	52.447	0.160	2.50	105	2.0	-	85	-0.043	11.17	0.033
332	52.607	0.160	2.51	105	2.0	-	85	-0.044	11.19	0.036
333	52.769	0.162	2.51	105	1.9	-	85	-0.045	11.00	0.034
334	52.928	0.159	2.51	105	1.6	-	85	-0.045	10.88	0.033
335	53.089	0.161	2.51	105	1.7	-	85	-0.046	10.77	0.030
336	53.251	0.162	2.51	105	2.0	-	85	-0.047	10.73	0.033
337	53.409	0.158	2.50	105	1.5	-	85	-0.043	10.75	0.031
338	53.573	0.164	2.51	105	1.6	-	85	-0.042	10.84	0.028
339	53.730	0.157	2.51	105	1.7	-	85	-0.042	10.69	0.031
340	53.893	0.163	2.51	105	2.0	102	85	-0.043	10.64	0.035
341	54.054	0.161	2.51	105	1.5	-	85	-0.040	10.54	0.025
342	54.213	0.159	2.50	105	1.6	-	85	-0.045	10.66	0.036
343	54.375	0.162	2.51	105	2.0	-	85	-0.041	10.64	0.031
344	54.536	0.161	2.51	105	1.9	-	85	-0.040	10.79	0.033
345	54.695	0.159	2.51	105	1.6	-	85	-0.037	10.71	0.030
346	54.858	0.163	2.51	105	2.0	-	85	-0.041	10.68	0.028
347	55.016	0.158	2.51	105	2.0	-	85	-0.039	10.75	0.032
348	55.178	0.162	2.51	105	1.6	-	85	-0.044	10.74	0.030
349	55.340	0.162	2.51	105	1.9	-	85	-0.039	10.78	0.030
350	55.499	0.159	2.51	105	1.6	102	85	-0.039	10.75	0.037
351	55.661	0.162	2.52	105	1.7	-	85	-0.039	10.81	0.029

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
352	55.821	0.160	2.51	105	1.5	-	85	-0.041	10.77	0.033
353	55.980	0.159	2.52	105	1.5	-	85	-0.038	10.84	0.032
354	56.144	0.164	2.51	105	1.5	-	85	-0.036	10.80	0.032
355	56.302	0.158	2.51	105	1.5	-	85	-0.037	10.78	0.035
356	56.464	0.162	2.51	105	2.0	-	85	-0.038	10.78	0.035
357	56.625	0.161	2.51	105	1.7	-	85	-0.039	10.77	0.032
358	56.785	0.160	2.51	105	1.6	-	85	-0.036	10.75	0.037
359	56.947	0.162	2.51	105	1.7	-	85	-0.038	10.79	0.035
360	57.107	0.160	2.51	105	1.6	101	85	-0.037	10.77	0.034
361	57.267	0.160	2.51	105	2.0	-	85	-0.040	10.79	0.035
362	57.430	0.163	2.51	105	1.9	-	85	-0.036	10.79	0.035
363	57.589	0.159	2.52	105	2.0	-	85	-0.036	10.82	0.033
364	57.751	0.162	2.51	105	1.8	-	85	-0.036	10.85	0.034
365	57.912	0.161	2.51	105	1.6	-	85	-0.037	10.88	0.032
366	58.071	0.159	2.51	105	1.5	-	85	-0.036	10.86	0.034
367	58.234	0.163	2.51	105	2.0	-	85	-0.035	10.81	0.029
368	58.393	0.159	2.51	105	1.6	-	85	-0.038	10.81	0.034
369	58.555	0.162	2.52	105	1.7	-	85	-0.036	10.83	0.035
370	58.716	0.161	2.51	105	1.9	101	85	-0.037	10.81	0.033
371	58.876	0.160	2.51	105	1.7	-	85	-0.036	10.89	0.028
372	59.037	0.161	2.51	105	2.0	-	85	-0.037	10.89	0.034
373	59.199	0.162	2.51	105	2.0	-	85	-0.037	10.91	0.033
374	59.357	0.158	2.51	105	2.0	-	85	-0.036	10.87	0.035
375	59.522	0.165	2.51	105	1.6	-	85	-0.033	10.94	0.032
376	59.679	0.157	2.50	105	1.8	-	85	-0.037	10.87	0.031
377	59.842	0.163	2.52	105	1.6	-	85	-0.037	10.95	0.031
378	60.002	0.160	2.51	105	1.6	-	85	-0.033	10.97	0.037
379	60.162	0.160	2.50	105	1.7	-	85	-0.036	10.98	0.033
380	60.324	0.162	2.51	105	1.6	102	85	-0.034	10.88	0.034
381	60.485	0.161	2.50	105	1.6	-	85	-0.035	10.95	0.033
382	60.644	0.159	2.51	105	1.9	-	85	-0.034	10.91	0.032
383	60.808	0.164	2.51	105	1.5	-	85	-0.033	10.94	0.035

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
384	60.966	0.158	2.51	105	2.0	-	85	-0.035	10.95	0.035
385	61.128	0.162	2.51	105	1.8	-	85	-0.032	10.66	0.031
386	61.290	0.162	2.52	105	1.5	-	85	-0.035	10.70	0.028
387	61.449	0.159	2.51	106	1.6	-	85	-0.034	10.50	0.026
388	61.611	0.162	2.52	105	1.8	-	85	-0.033	10.50	0.032
389	61.772	0.161	2.51	105	1.8	-	85	-0.033	10.51	0.028
390	61.932	0.160	2.52	106	1.5	102	85	-0.033	10.45	0.035
391	62.095	0.163	2.51	106	2.0	-	85	-0.033	10.46	0.024
392	62.254	0.159	2.51	106	1.7	-	85	-0.036	10.44	0.033
393	62.416	0.162	2.51	106	1.7	-	85	-0.035	10.50	0.029
394	62.578	0.162	2.52	106	1.5	-	85	-0.031	10.43	0.029
395	62.737	0.159	2.51	106	1.6	-	85	-0.032	10.37	0.031
396	62.899	0.162	2.52	106	1.9	-	85	-0.034	10.42	0.026
397	63.060	0.161	2.52	106	2.1	-	85	-0.032	10.44	0.032
398	63.220	0.160	2.52	106	2.0	-	85	-0.033	10.34	0.033
399	63.383	0.163	2.52	106	2.0	-	85	-0.034	10.44	0.031
400	63.541	0.158	2.52	106	1.6	102	85	-0.034	10.37	0.031
401	63.704	0.163	2.52	106	2.0	-	85	-0.033	10.42	0.033
402	63.865	0.161	2.52	106	2.1	-	85	-0.035	10.41	0.028
403	64.025	0.160	2.51	106	1.6	-	85	-0.033	10.35	0.026
404	64.187	0.162	2.52	106	1.5	-	85	-0.033	10.37	0.025
405	64.348	0.161	2.51	106	1.8	-	85	-0.032	10.31	0.025
406	64.508	0.160	2.52	106	1.7	-	85	-0.030	10.25	0.025
407	64.671	0.163	2.51	106	1.9	-	85	-0.033	10.28	0.032
408	64.829	0.158	2.52	106	1.9	-	85	-0.033	10.32	0.033
409	64.992	0.163	2.51	106	2.0	-	85	-0.031	10.32	0.029
410	65.153	0.161	2.52	106	1.5	102	85	-0.033	10.21	0.025
411	65.313	0.160	2.51	106	1.7	-	85	-0.031	10.23	0.028
412	65.475	0.162	2.52	106	1.6	-	85	-0.030	10.23	0.029
413	65.636	0.161	2.52	106	1.8	-	85	-0.033	10.39	0.028
414	65.796	0.160	2.52	106	1.7	-	85	-0.033	10.36	0.026
415	65.960	0.164	2.51	106	1.6	-	85	-0.031	10.30	0.024

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
416	66.118	0.158	2.52	106	2.0	-	85	-0.031	10.38	0.029
417	66.281	0.163	2.52	106	1.9	-	85	-0.032	10.26	0.023
418	66.442	0.161	2.52	106	1.5	-	85	-0.035	10.27	0.023
419	66.602	0.160	2.51	106	1.9	-	85	-0.032	10.13	0.022
420	66.764	0.162	2.52	106	1.6	101	85	-0.032	10.21	0.024
421	66.925	0.161	2.52	106	1.9	-	85	-0.031	10.22	0.022
422	67.084	0.159	2.52	106	1.5	-	84	-0.031	10.66	0.027
423	67.248	0.164	2.51	106	1.6	-	85	-0.033	10.95	0.030
424	67.406	0.158	2.52	106	1.6	-	85	-0.031	11.03	0.034
425	67.569	0.163	2.51	106	1.5	-	85	-0.032	11.03	0.033
426	67.730	0.161	2.52	106	1.7	-	85	-0.033	10.97	0.029
427	67.890	0.160	2.51	106	1.6	-	85	-0.033	10.85	0.028
428	68.052	0.162	2.52	106	2.0	-	84	-0.031	10.92	0.030
429	68.213	0.161	2.52	106	2.1	-	84	-0.031	10.92	0.027
430	68.373	0.160	2.51	106	1.9	101	84	-0.034	10.86	0.025
431	68.537	0.164	2.52	106	1.8	-	84	-0.032	10.90	0.027
432	68.695	0.158	2.51	106	1.5	-	84	-0.031	10.96	0.030
433	68.858	0.163	2.51	106	1.9	-	84	-0.035	10.62	0.014
434	69.019	0.161	2.52	106	1.9	-	84	-0.032	10.55	0.016
435	69.179	0.160	2.51	106	1.5	-	84	-0.035	10.60	0.018
436	69.341	0.162	2.51	106	2.1	-	84	-0.030	10.61	0.016
437	69.502	0.161	2.52	106	2.0	-	84	-0.031	10.54	0.017
438	69.662	0.160	2.52	106	1.8	-	84	-0.031	10.55	0.015
439	69.826	0.164	2.52	106	2.0	-	84	-0.032	10.57	0.017
440	69.984	0.158	2.51	106	2.0	102	84	-0.030	10.60	0.015
441	70.147	0.163	2.51	106	2.1	-	84	-0.033	10.64	0.015
442	70.308	0.161	2.52	106	2.0	-	84	-0.033	10.56	0.018
443	70.468	0.160	2.52	106	1.5	-	84	-0.032	10.59	0.015
444	70.630	0.162	2.52	106	1.8	-	84	-0.030	10.61	0.018
445	70.791	0.161	2.52	106	2.0	-	84	-0.032	10.58	0.013
446	70.951	0.160	2.52	106	2.1	-	84	-0.032	10.60	0.014
447	71.115	0.164	2.52	106	2.0	-	84	-0.031	10.62	0.013

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
448	71.273	0.158	2.52	106	1.7	-	84	-0.029	10.60	0.016
449	71.436	0.163	2.52	106	2.1	-	84	-0.030	10.62	0.010
450	71.598	0.162	2.53	106	2.0	102	84	-0.030	10.61	0.014
451	71.757	0.159	2.52	106	1.5	-	84	-0.028	10.71	0.014
452	71.920	0.163	2.53	106	1.6	-	84	-0.032	10.72	0.012
453	72.081	0.161	2.52	106	2.0	-	84	-0.031	10.57	0.010
454	72.241	0.160	2.52	106	1.7	-	84	-0.031	10.72	0.017
455	72.404	0.163	2.51	106	2.0	-	84	-0.030	10.62	0.013
456	72.563	0.159	2.51	106	2.0	-	84	-0.028	10.72	0.013
457	72.726	0.163	2.51	106	2.0	-	84	-0.028	10.73	0.015
458	72.887	0.161	2.52	106	2.0	-	84	-0.031	10.74	0.016
459	73.046	0.159	2.51	106	1.7	-	84	-0.028	10.66	0.014
460	73.209	0.163	2.52	106	2.0	102	84	-0.029	10.75	0.013
461	73.370	0.161	2.51	106	1.9	-	84	-0.029	10.69	0.015
462	73.530	0.160	2.52	106	1.6	-	84	-0.028	10.64	0.009
463	73.693	0.163	2.51	106	1.7	-	84	-0.027	10.69	0.013
464	73.852	0.159	2.52	106	1.5	-	84	-0.028	10.65	0.012
465	74.015	0.163	2.52	106	2.0	-	84	-0.029	10.74	0.013
466	74.176	0.161	2.52	106	1.9	-	84	-0.031	10.69	0.015
467	74.336	0.160	2.52	106	2.0	-	84	-0.029	10.77	0.015
468	74.498	0.162	2.52	106	1.7	-	84	-0.028	10.88	0.019
469	74.659	0.161	2.51	106	2.0	-	84	-0.030	10.88	0.027
470	74.819	0.160	2.52	106	2.0	100	84	-0.029	10.84	0.025
471	74.983	0.164	2.52	106	1.8	-	84	-0.028	10.90	0.021
472	75.141	0.158	2.52	106	2.0	-	84	-0.032	10.84	0.024
473	75.304	0.163	2.52	106	1.6	-	84	-0.031	10.86	0.025
474	75.466	0.162	2.52	106	2.0	-	84	-0.031	10.90	0.018
475	75.625	0.159	2.51	106	1.8	-	84	-0.030	10.85	0.022
476	75.788	0.163	2.52	106	2.0	-	84	-0.029	10.91	0.024
477	75.949	0.161	2.52	106	1.6	-	84	-0.034	10.86	0.023
478	76.108	0.159	2.52	106	1.9	-	84	-0.029	10.94	0.030
479	76.272	0.164	2.52	106	1.5	-	84	-0.032	10.91	0.017

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
480	76.431	0.159	2.52	106	1.8	99	84	-0.030	10.86	0.027
481	76.593	0.162	2.51	106	2.0	-	84	-0.031	10.93	0.025
482	76.752	0.159	2.52	106	1.5	-	84	-0.028	10.88	0.035
483	76.914	0.162	2.51	106	1.9	-	84	-0.030	10.93	0.020
484	77.077	0.163	2.52	106	1.7	-	84	-0.029	10.95	0.025
485	77.238	0.161	2.51	106	1.6	-	84	-0.031	10.86	0.018
486	77.398	0.160	2.52	106	2.0	-	84	-0.031	10.97	0.022
487	77.561	0.163	2.51	106	1.5	-	84	-0.031	10.88	0.023
488	77.720	0.159	2.52	106	2.0	-	84	-0.028	10.68	0.027
489	77.883	0.163	2.51	106	2.0	-	84	-0.031	11.05	0.026
490	78.044	0.161	2.52	106	1.6	99	84	-0.028	11.01	0.023
491	78.204	0.160	2.51	106	2.0	-	84	-0.030	11.06	0.025
492	78.366	0.162	2.52	106	2.0	-	84	-0.031	10.96	0.029
493	78.527	0.161	2.51	106	1.7	-	84	-0.032	10.99	0.027
494	78.687	0.160	2.52	106	1.6	-	84	-0.032	10.89	0.030
495	78.851	0.164	2.51	106	1.8	-	84	-0.033	10.83	0.030
496	79.009	0.158	2.52	106	1.8	-	84	-0.029	10.72	0.020
497	79.172	0.163	2.52	106	1.8	-	84	-0.030	10.64	0.025
498	79.333	0.161	2.52	106	1.9	-	84	-0.032	10.68	0.025
499	79.493	0.160	2.51	106	1.9	-	84	-0.029	10.75	0.025
500	79.655	0.162	2.52	106	1.5	99	84	-0.032	10.64	0.022
501	79.817	0.162	2.52	106	2.1	-	84	-0.033	10.70	0.023
502	79.976	0.159	2.51	106	1.6	-	84	-0.028	10.57	0.028
503	80.140	0.164	2.51	106	1.7	-	84	-0.030	10.56	0.023
504	80.299	0.159	2.52	106	2.0	-	84	-0.030	10.55	0.023
505	80.462	0.163	2.51	106	1.9	-	84	-0.033	10.58	0.026
506	80.623	0.161	2.51	106	1.5	-	84	-0.031	10.55	0.024
507	80.783	0.160	2.51	106	1.7	-	84	-0.033	10.54	0.025
508	80.945	0.162	2.51	106	1.9	-	84	-0.029	10.49	0.024
509	81.107	0.162	2.52	106	2.0	-	84	-0.033	10.49	0.023
510	81.266	0.159	2.52	106	1.7	99	84	-0.027	10.41	0.029
511	81.430	0.164	2.52	106	2.0	-	84	-0.030	10.39	0.032

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
512	81.588	0.158	2.52	106	2.0	-	84	-0.032	10.40	0.014
513	81.751	0.163	2.52	106	1.5	-	84	-0.033	10.42	0.021
514	81.912	0.161	2.52	106	2.0	-	84	-0.031	10.43	0.017
515	82.072	0.160	2.52	106	1.6	-	84	-0.031	10.37	0.023
516	82.234	0.162	2.52	106	2.0	-	84	-0.028	10.49	0.020
517	82.397	0.163	2.52	106	1.8	-	84	-0.032	10.47	0.023
518	82.555	0.158	2.52	106	1.8	-	84	-0.031	10.43	0.019
519	82.720	0.165	2.53	106	1.9	-	84	-0.029	10.37	0.023
520	82.878	0.158	2.52	106	1.8	99	84	-0.035	10.48	0.022
521	83.041	0.163	2.52	106	1.6	-	84	-0.030	10.41	0.019
522	83.202	0.161	2.52	106	2.1	-	84	-0.035	10.36	0.023
523	83.363	0.161	2.52	106	2.0	-	84	-0.030	10.42	0.022
524	83.524	0.161	2.52	106	1.5	-	84	-0.032	10.32	0.018
525	83.684	0.160	2.51	106	1.6	-	84	-0.030	10.33	0.019
526	83.845	0.161	2.52	106	2.1	-	84	-0.033	10.29	0.020
527	84.010	0.165	2.52	106	1.6	-	84	-0.032	10.26	0.023
528	84.168	0.158	2.52	106	2.0	-	84	-0.032	10.36	0.023
529	84.328	0.160	2.52	106	1.6	-	84	-0.034	10.33	0.020
530	84.492	0.164	2.52	106	1.9	99	84	-0.029	10.32	0.025
531	84.653	0.161	2.52	106	1.6	-	84	-0.032	10.32	0.023
532	84.812	0.159	2.52	106	1.5	-	84	-0.031	10.27	0.017
533	84.977	0.165	2.53	106	1.5	-	84	-0.030	10.21	0.018
534	85.135	0.158	2.52	106	1.9	-	84	-0.030	10.25	0.017
535	85.300	0.165	2.53	106	1.7	-	84	-0.033	10.28	0.020
536	85.459	0.159	2.52	106	1.7	-	84	-0.031	10.37	0.021
537	85.619	0.160	2.52	106	1.9	-	84	-0.032	10.32	0.020
538	85.780	0.161	2.52	106	1.8	-	84	-0.030	10.40	0.019
539	85.942	0.162	2.52	106	1.6	-	84	-0.031	10.23	0.022
540	86.105	0.163	2.52	106	2.0	99	84	-0.032	10.43	0.018
541	86.267	0.162	2.53	106	2.0	-	84	-0.031	10.30	0.020
542	86.426	0.159	2.52	106	1.8	-	84	-0.032	10.38	0.019
543	86.589	0.163	2.53	106	1.9	-	84	-0.034	10.38	0.019

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
544	86.749	0.160	2.52	106	1.8	-	84	-0.029	10.50	0.021
545	86.908	0.159	2.52	106	1.6	-	84	-0.035	10.45	0.023
546	87.073	0.165	2.52	106	1.6	-	84	-0.032	10.46	0.019
547	87.232	0.159	2.52	106	1.5	-	84	-0.032	10.46	0.022
548	87.392	0.160	2.52	106	2.0	-	84	-0.032	10.49	0.021
549	87.556	0.164	2.52	106	2.0	-	84	-0.030	10.56	0.019
550	87.713	0.157	2.52	106	1.5	99	84	-0.031	10.51	0.022
551	87.879	0.166	2.52	106	1.9	-	84	-0.032	10.53	0.024
552	88.036	0.157	2.52	106	1.6	-	84	-0.031	10.51	0.023
553	88.200	0.164	2.52	106	2.0	-	84	-0.032	10.36	0.024
554	88.363	0.163	2.52	106	1.7	-	84	-0.032	10.47	0.019
555	88.520	0.157	2.52	106	1.6	-	84	-0.031	10.31	0.012
556	88.682	0.162	2.52	106	1.5	-	84	-0.029	10.33	0.011
557	88.846	0.164	2.52	106	1.6	-	84	-0.032	10.19	0.011
558	89.006	0.160	2.52	106	1.7	-	84	-0.032	10.21	0.008
559	89.168	0.162	2.52	106	1.8	-	84	-0.031	10.20	0.012
560	89.329	0.161	2.52	106	1.5	99	84	-0.029	10.27	0.014
561	89.487	0.158	2.52	106	2.0	-	84	-0.030	10.22	0.012
562	89.653	0.166	2.52	106	1.6	-	84	-0.032	10.20	0.011
563	89.811	0.158	2.52	106	1.6	-	84	-0.029	10.30	0.008
564	89.971	0.160	2.52	106	2.0	-	84	-0.030	10.35	0.008
565	90.135	0.164	2.52	106	1.9	-	84	-0.030	10.32	0.009
566	90.295	0.160	2.52	106	1.8	-	84	-0.032	10.33	0.008
567	90.458	0.163	2.52	106	2.0	-	84	-0.029	10.41	0.009
568	90.619	0.161	2.52	106	1.7	-	84	-0.031	10.52	0.016
569	90.777	0.158	2.53	106	2.0	-	84	-0.028	10.58	0.011
570	90.943	0.166	2.52	106	1.6	99	84	-0.029	10.47	0.015
571	91.101	0.158	2.52	106	2.0	-	84	-0.029	10.50	0.013
572	91.264	0.163	2.52	106	1.6	-	83	-0.032	10.41	0.014
573	91.423	0.159	2.52	106	1.5	-	84	-0.032	10.49	0.016
574	91.585	0.162	2.52	106	1.8	-	84	-0.028	10.52	0.017
575	91.745	0.160	2.52	106	1.5	-	84	-0.031	10.47	0.014

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
576	91.905	0.160	2.52	106	1.6	-	84	-0.029	10.48	0.019
577	92.066	0.161	2.52	106	1.6	-	84	-0.030	10.46	0.015
578	92.229	0.163	2.53	106	1.7	-	83	-0.031	10.38	0.017
579	92.388	0.159	2.52	106	1.5	-	84	-0.028	10.44	0.012
580	92.551	0.163	2.53	106	1.7	99	83	-0.033	10.38	0.020
581	92.712	0.161	2.52	106	2.1	-	83	-0.032	10.38	0.012
582	92.873	0.161	2.52	106	1.9	-	83	-0.029	10.36	0.019
583	93.035	0.162	2.53	106	1.6	-	83	-0.031	10.40	0.010
584	93.196	0.161	2.52	106	1.8	-	83	-0.031	10.32	0.017
585	93.356	0.160	2.52	106	1.8	-	83	-0.033	10.55	0.019
586	93.520	0.164	2.53	106	1.9	-	83	-0.029	10.56	0.022
587	93.679	0.159	2.53	106	1.8	-	83	-0.032	10.67	0.018
588	93.842	0.163	2.52	106	1.7	-	83	-0.031	10.75	0.018
589	94.003	0.161	2.53	106	2.0	-	83	-0.030	10.53	0.016
590	94.163	0.160	2.52	106	1.6	99	83	-0.031	10.47	0.023
591	94.325	0.162	2.52	106	1.7	-	83	-0.032	10.48	0.019
592	94.486	0.161	2.52	106	1.9	-	83	-0.032	10.42	0.019
593	94.646	0.160	2.53	106	2.0	-	83	-0.032	10.31	0.021
594	94.810	0.164	2.52	106	1.5	-	83	-0.032	10.34	0.018
595	94.969	0.159	2.53	106	2.0	-	83	-0.030	10.23	0.017
596	95.131	0.162	2.53	106	1.7	-	83	-0.030	10.26	0.015
597	95.293	0.162	2.52	106	2.1	-	83	-0.031	10.21	0.016
598	95.452	0.159	2.52	106	2.0	-	83	-0.030	10.25	0.015
599	95.615	0.163	2.53	106	1.8	-	83	-0.029	10.31	0.018
600	95.776	0.161	2.52	106	1.8	98	83	-0.028	10.47	0.020
601	95.936	0.160	2.53	106	2.0	-	83	-0.030	10.36	0.019
602	96.100	0.164	2.52	106	1.6	-	83	-0.031	10.37	0.020
603	96.259	0.159	2.53	106	1.6	-	83	-0.028	10.38	0.019
604	96.421	0.162	2.51	106	1.6	-	83	-0.031	10.22	0.016
605	96.583	0.162	2.52	106	1.9	-	83	-0.031	10.12	0.011
606	96.742	0.159	2.52	106	1.5	-	83	-0.028	10.13	0.007
607	96.905	0.163	2.53	106	2.0	-	83	-0.033	10.08	0.009

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
608	97.066	0.161	2.51	106	1.7	-	83	-0.034	9.99	0.017
609	97.226	0.160	2.52	106	1.8	-	83	-0.030	10.08	0.009
610	97.389	0.163	2.52	106	1.9	97	83	-0.030	10.10	0.015
611	97.548	0.159	2.53	106	2.0	-	83	-0.031	10.21	0.013
612	97.711	0.163	2.52	106	1.5	-	83	-0.033	10.19	0.012
613	97.872	0.161	2.53	106	2.0	-	83	-0.032	10.25	0.017
614	98.032	0.160	2.52	106	1.5	-	83	-0.032	10.17	0.013
615	98.194	0.162	2.53	106	2.0	-	83	-0.031	10.10	0.012
616	98.356	0.162	2.52	106	1.8	-	83	-0.030	10.22	0.014
617	98.515	0.159	2.52	106	2.0	-	83	-0.028	10.15	0.018
618	98.679	0.164	2.52	106	2.0	-	83	-0.031	10.26	0.016
619	98.838	0.159	2.53	106	1.9	-	83	-0.034	10.21	0.018
620	99.000	0.162	2.52	106	1.7	98	83	-0.029	10.29	0.015
621	99.162	0.162	2.52	106	1.9	-	83	-0.028	10.28	0.009
622	99.322	0.160	2.52	106	2.0	-	83	-0.032	10.21	0.019
623	99.484	0.162	2.52	106	2.0	-	83	-0.031	10.16	0.017
624	99.646	0.162	2.52	106	1.9	-	83	-0.029	10.14	0.014
625	99.804	0.158	2.52	106	2.0	-	83	-0.032	10.09	0.016
626	99.969	0.165	2.52	106	2.0	-	83	-0.032	10.12	0.015
627	100.127	0.158	2.53	106	1.8	-	83	-0.032	10.17	0.015
628	100.290	0.163	2.52	106	1.6	-	83	-0.029	10.13	0.020
629	100.451	0.161	2.53	106	1.5	-	83	-0.030	10.13	0.010
630	100.611	0.160	2.53	106	1.5	99	83	-0.029	10.21	0.014
631	100.773	0.162	2.52	106	1.5	-	83	-0.030	10.40	0.016
632	100.936	0.163	2.53	106	2.0	-	83	-0.030	10.87	0.019
633	101.094	0.158	2.52	106	1.5	-	83	-0.030	10.80	0.016
634	101.259	0.165	2.53	106	1.6	-	83	-0.031	10.75	0.020
635	101.417	0.158	2.53	106	2.0	97	83	-0.029	10.61	0.013
Avg/Tot	101.417	0.160	2.50	100.9	1.8	100	82.0	-0.042	11.27	0.350

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
0	0.000		0.66	74	1.7		72
1	0.147	0.147	0.99	73	1.7	-	73
2	0.296	0.149	1.00	73	1.7	-	73
3	0.441	0.145	1.01	73	1.6	-	73
4	0.591	0.150	1.01	74	1.8	-	73
5	0.739	0.148	1.00	74	1.7	-	73
6	0.888	0.149	1.01	74	1.8	-	73
7	1.037	0.149	1.02	74	1.7	-	73
8	1.188	0.151	1.03	74	1.8	-	73
9	1.339	0.151	1.04	74	1.8	-	73
10	1.489	0.150	1.04	74	1.6	98	73
11	1.640	0.151	1.04	75	1.7	-	73
12	1.791	0.151	1.05	75	1.7	-	73
13	1.942	0.151	1.04	75	1.7	-	73
14	2.093	0.151	1.04	75	1.7	-	73
15	2.245	0.152	1.04	76	1.7	-	73
16	2.396	0.151	1.04	76	1.7	-	74
17	2.547	0.151	1.04	76	1.7	-	74
18	2.699	0.152	1.04	76	1.7	-	74
19	2.850	0.151	1.03	77	1.8	-	74
20	3.002	0.152	1.04	77	1.7	99	74
21	3.154	0.152	1.04	77	1.8	-	74
22	3.306	0.152	1.04	77	1.6	-	74
23	3.459	0.153	1.04	77	1.8	-	74
24	3.612	0.153	1.04	78	1.7	-	74
25	3.765	0.153	1.04	78	1.8	-	74
26	3.918	0.153	1.05	78	1.8	-	74
27	4.072	0.154	1.05	78	1.7	-	74
28	4.225	0.153	1.06	79	1.8	-	74
29	4.380	0.155	1.07	79	1.7	-	74
30	4.534	0.154	1.07	79	1.8	100	74
31	4.688	0.154	1.07	79	1.8	-	74

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
32	4.843	0.155	1.08	80	1.8	-	74
33	4.998	0.155	1.08	80	1.8	-	74
34	5.153	0.155	1.08	81	1.8	-	74
35	5.309	0.156	1.08	81	1.7	-	74
36	5.463	0.154	1.08	81	1.9	-	74
37	5.618	0.155	1.08	81	1.8	-	74
38	5.774	0.156	1.07	82	1.7	-	74
39	5.930	0.156	1.08	82	1.7	-	74
40	6.087	0.157	1.08	82	1.8	99	74
41	6.243	0.156	1.09	82	1.9	-	74
42	6.400	0.157	1.09	83	1.7	-	74
43	6.556	0.156	1.09	83	1.8	-	74
44	6.711	0.155	1.09	83	1.7	-	74
45	6.868	0.157	1.08	83	1.7	-	74
46	7.025	0.157	1.09	83	1.7	-	74
47	7.183	0.158	1.09	84	1.8	-	74
48	7.340	0.157	1.10	83	1.7	-	74
49	7.497	0.157	1.10	84	1.7	-	74
50	7.653	0.156	1.09	84	1.7	101	74
51	7.811	0.158	1.08	85	1.8	-	74
52	7.969	0.158	1.09	85	1.7	-	74
53	8.127	0.158	1.10	84	1.7	-	74
54	8.285	0.158	1.10	85	1.8	-	74
55	8.441	0.156	1.10	85	1.7	-	74
56	8.599	0.158	1.09	85	1.7	-	74
57	8.758	0.159	1.10	85	1.7	-	74
58	8.916	0.158	1.10	85	1.7	-	74
59	9.074	0.158	1.10	85	1.7	-	74
60	9.231	0.157	1.10	86	1.7	101	75
Avg/Tot	9.231	0.154	1.06	79.3	1.7	100	73.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Stove ΔT: 13

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
0	235	287	184	426	215	269.5	746.4
1	234	287	190	411	218	267.8	653.3
2	233	285	192	404	215	265.7	633.3
3	231	283	196	398	219	265.4	627.0
4	227	280	198	393	219	263.4	629.6
5	226	278	201	392	220	263.1	640.8
6	225	275	202	391	221	262.8	660.0
7	222	272	203	397	223	263.2	685.9
8	222	270	203	394	223	262.1	711.4
9	218	267	204	392	224	260.8	734.4
10	216	263	203	389	225	259.1	752.3
11	216	261	204	389	225	258.9	766.9
12	212	258	203	389	226	257.5	777.9
13	211	255	202	397	227	258.5	787.4
14	209	253	203	406	227	259.3	794.8
15	207	250	200	414	228	259.8	802.6
16	207	248	200	427	228	261.8	810.7
17	207	245	199	430	228	261.8	816.2
18	204	244	198	430	229	260.8	821.6
19	202	242	197	428	229	259.7	827.0
20	201	240	197	428	229	258.9	831.6
21	201	238	196	426	230	258.2	835.7
22	199	236	195	423	230	256.5	838.4
23	200	235	194	420	230	255.7	840.8
24	198	234	192	417	230	254.1	842.2
25	198	232	192	415	230	253.3	841.9
26	195	230	192	413	230	252.1	839.8
27	193	229	190	412	231	250.9	837.2
28	197	230	189	408	230	251.0	833.3
29	193	228	189	407	230	249.4	828.9
30	192	226	188	405	230	248.3	824.4
31	192	225	175	398	230	244.2	821.0
32	191	224	169	393	230	241.5	818.2
33	191	223	163	389	230	239.2	816.0
34	190	222	159	385	230	237.1	813.7
35	188	222	154	383	230	235.3	812.0
36	188	221	151	380	230	233.9	809.6
37	189	220	148	376	229	232.3	808.0
38	187	219	146	373	229	230.9	805.7
39	189	219	144	371	228	230.2	804.7
40	188	218	143	369	228	229.2	803.7
41	187	218	140	367	228	227.8	802.5
42	187	217	139	364	227	227.0	801.4
43	185	217	138	363	227	225.9	800.0
44	185	216	137	362	227	225.4	798.5
45	184	216	136	361	227	224.7	797.5
46	186	215	135	360	226	224.5	796.3
47	184	215	134	360	226	223.8	795.6

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Stove ΔT: 13

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
48	185	215	133	359	226	223.6	795.0
49	183	214	133	359	225	223.0	795.3
50	183	214	132	359	225	222.5	796.3
51	182	213	132	359	224	221.9	798.0
52	182	213	131	359	224	221.8	801.5
53	182	213	130	359	223	221.5	805.2
54	182	213	130	358	224	221.3	808.9
55	181	212	130	357	223	220.7	811.8
56	183	212	130	359	223	221.2	813.7
57	181	212	129	358	222	220.5	814.9
58	181	211	129	357	222	220.1	815.8
59	181	212	129	356	222	219.8	816.1
60	182	212	128	355	222	219.9	816.1
61	180	212	128	354	222	219.1	816.0
62	179	212	129	354	222	218.8	815.3
63	180	211	128	353	221	218.6	814.8
64	180	211	128	352	221	218.4	814.1
65	179	211	128	351	220	217.8	812.9
66	178	212	128	350	220	217.5	812.0
67	180	212	127	349	220	217.6	810.8
68	180	212	128	349	219	217.4	809.3
69	179	212	127	348	219	217.0	808.1
70	179	212	127	347	219	216.6	806.9
71	179	212	127	346	219	216.3	806.0
72	179	212	127	345	219	216.3	805.6
73	178	213	127	344	218	216.0	805.5
74	177	213	127	343	218	215.7	805.5
75	179	213	127	343	218	215.9	805.7
76	178	213	127	342	217	215.5	805.8
77	178	213	127	342	217	215.4	805.7
78	176	213	127	341	217	215.0	805.8
79	178	213	127	341	217	215.1	805.6
80	178	214	127	340	217	215.1	805.4
81	178	214	127	340	216	214.9	805.6
82	179	214	127	340	216	215.1	805.9
83	177	214	127	340	216	214.6	806.2
84	177	214	127	340	215	214.5	806.7
85	176	214	127	340	215	214.4	807.0
86	176	214	127	340	214	214.3	807.6
87	176	214	127	340	214	214.2	807.9
88	176	214	126	340	214	214.3	808.5
89	176	215	126	340	214	214.3	808.9
90	177	214	127	341	214	214.5	809.0
91	176	215	127	341	214	214.2	809.6
92	178	215	127	341	214	214.7	810.1
93	176	215	127	341	213	214.2	811.1
94	175	215	127	342	213	214.4	812.4
95	177	215	127	343	213	215.0	814.3

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Stove ΔT: 13

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
96	176	215	127	344	213	215.0	817.0
97	176	215	127	346	213	215.3	819.9
98	176	215	126	347	212	215.2	823.4
99	176	215	127	347	212	215.3	826.6
100	176	215	127	347	212	215.2	830.0
101	176	215	127	347	212	215.1	833.3
102	176	215	127	346	211	215.1	836.4
103	176	215	126	347	211	215.0	839.9
104	177	215	127	346	211	215.1	842.7
105	177	215	127	346	211	215.0	844.5
106	177	215	127	346	211	215.0	845.2
107	177	215	127	345	211	214.8	844.9
108	177	215	127	346	210	214.7	844.2
109	176	215	126	346	210	214.5	842.8
110	176	215	126	345	210	214.4	841.4
111	176	215	126	345	210	214.3	840.3
112	176	215	126	345	210	214.3	839.1
113	175	214	127	345	210	214.2	837.9
114	177	215	126	346	209	214.3	837.2
115	177	215	126	345	209	214.4	837.1
116	179	215	127	345	210	215.0	837.8
117	177	215	126	345	209	214.4	838.4
118	177	215	127	346	209	214.8	839.4
119	179	215	127	346	209	215.2	840.9
120	177	215	127	346	209	214.8	842.2
121	178	215	127	346	208	214.9	844.1
122	179	215	127	346	209	215.2	845.9
123	179	216	127	347	209	215.5	847.6
124	179	216	127	348	208	215.4	849.9
125	179	216	127	349	208	215.7	852.6
126	179	216	127	349	208	215.8	854.7
127	180	216	127	350	208	216.2	856.8
128	180	217	127	351	208	216.5	859.1
129	179	216	128	352	208	216.7	861.3
130	180	217	128	353	208	217.1	863.1
131	181	217	128	353	208	217.4	865.8
132	181	217	128	354	209	217.7	868.9
133	181	217	128	355	209	217.8	871.9
134	181	217	128	356	209	218.2	875.4
135	181	218	128	357	208	218.5	878.7
136	182	218	128	358	208	218.9	883.7
137	182	218	129	361	209	219.6	888.9
138	183	218	129	362	209	220.2	895.0
139	183	218	129	364	208	220.6	901.3
140	183	218	129	367	209	221.0	906.2
141	185	219	129	369	209	222.0	913.0
142	186	219	130	372	209	223.2	920.1
143	185	220	130	375	209	223.6	927.9

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Stove ΔT: 13

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
144	185	220	130	377	209	224.1	935.7
145	188	220	130	380	209	225.5	943.1
146	185	220	130	383	210	225.6	950.0
147	187	221	130	386	210	226.6	957.0
148	188	221	131	388	210	227.5	963.4
149	191	221	131	391	210	228.7	969.3
150	189	222	131	394	210	229.1	974.8
151	187	222	131	398	210	229.7	980.8
152	189	222	131	401	210	230.7	987.1
153	190	223	131	408	211	232.5	991.4
154	192	223	132	432	211	238.0	1001.8
155	191	223	132	465	211	244.6	1006.7
156	192	223	132	491	211	250.0	1006.4
157	192	223	134	520	211	256.1	999.7
158	194	223	133	528	212	258.0	997.1
159	190	224	134	530	212	258.0	994.6
160	193	224	134	516	213	255.7	997.5
161	194	224	134	502	213	253.4	1003.1
162	196	225	134	494	212	252.3	1013.1
163	194	225	135	489	212	251.0	1025.1
164	196	225	135	485	213	250.7	1035.6
165	196	225	135	482	213	250.2	1043.3
166	197	225	136	481	213	250.4	1048.5
167	197	226	137	481	213	250.7	1052.1
168	198	227	136	480	213	250.9	1055.3
169	198	227	137	480	213	251.0	1057.6
170	199	228	137	481	213	251.6	1060.3
171	200	228	138	481	214	252.0	1063.4
172	199	228	138	483	214	252.3	1066.6
173	200	229	138	486	214	253.2	1070.7
174	200	229	138	489	214	254.0	1075.5
175	200	230	138	492	214	254.8	1081.3
176	203	231	139	495	214	256.3	1087.3
177	203	231	139	501	214	257.5	1094.2
178	204	232	140	505	215	259.1	1100.9
179	204	233	140	509	215	260.1	1108.4
180	203	233	140	514	215	261.0	1116.1
181	205	234	140	519	216	262.6	1123.8
182	206	234	141	526	215	264.3	1130.7
183	206	235	141	531	216	265.7	1137.1
184	207	236	142	537	215	267.4	1142.1
185	209	236	143	543	215	269.1	1145.6
186	208	238	142	547	216	270.1	1148.0
187	210	238	143	552	216	271.7	1148.8
188	210	239	143	556	216	272.8	1149.1
189	212	240	144	560	216	274.3	1149.6
190	212	240	145	562	217	275.1	1150.0
191	212	241	144	567	217	276.2	1150.1

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Stove ΔT: 13

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
192	212	242	145	570	218	277.4	1149.7
193	213	243	146	574	218	278.5	1148.8
194	215	244	146	574	218	279.4	1148.1
195	217	245	147	579	218	280.9	1147.3
196	219	246	147	582	218	282.3	1146.6
197	218	247	148	584	218	282.9	1146.5
198	219	248	148	586	218	284.0	1146.2
199	220	249	149	589	219	285.2	1145.9
200	219	250	149	591	219	285.6	1145.2
201	221	251	150	593	219	286.5	1144.4
202	223	252	151	594	220	287.9	1143.5
203	222	253	151	593	220	287.8	1142.7
204	221	254	151	595	220	288.2	1142.1
205	224	255	152	597	221	289.6	1141.4
206	224	256	152	598	221	290.1	1140.2
207	224	257	152	598	222	290.6	1139.6
208	225	258	153	598	222	291.1	1139.4
209	227	259	153	601	222	292.4	1139.8
210	229	260	154	601	223	293.3	1139.3
211	225	261	154	602	223	292.9	1139.3
212	227	262	154	602	224	293.7	1138.5
213	227	263	154	602	224	294.0	1137.7
214	228	264	155	603	224	294.7	1136.5
215	230	265	156	604	224	295.5	1135.1
216	229	266	156	604	225	296.0	1133.1
217	231	267	157	605	225	296.9	1131.3
218	231	268	157	606	225	297.3	1130.0
219	231	268	159	606	226	297.9	1129.6
220	233	269	159	607	226	298.8	1130.0
221	234	270	160	607	226	299.5	1130.5
222	234	271	159	607	227	299.6	1131.1
223	234	272	160	607	227	300.2	1130.6
224	234	273	160	608	227	300.5	1130.0
225	236	274	161	608	228	301.3	1128.7
226	236	275	162	609	228	301.9	1126.7
227	238	276	162	610	228	302.6	1126.1
228	237	277	162	607	229	302.3	1126.0
229	239	278	163	611	229	303.9	1125.9
230	237	278	164	611	229	303.8	1127.5
231	237	279	163	611	230	304.0	1130.0
232	238	280	164	611	230	304.8	1132.1
233	241	281	164	613	230	305.7	1134.0
234	239	282	165	613	230	305.9	1135.4
235	239	283	165	613	231	305.9	1136.1
236	240	284	166	614	231	306.9	1136.1
237	242	285	167	612	231	307.3	1136.2
238	241	286	167	615	232	308.0	1136.0
239	241	286	167	615	232	308.1	1136.0

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Stove ΔT: 13

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
240	241	287	168	616	232	308.9	1135.1
241	242	288	168	616	232	309.1	1134.1
242	242	289	168	615	233	309.5	1132.4
243	246	290	170	614	233	310.4	1129.8
244	246	290	170	615	233	310.7	1127.7
245	244	291	170	616	233	310.7	1125.4
246	244	292	170	616	234	311.0	1123.6
247	243	293	170	617	234	311.2	1123.1
248	247	294	170	617	234	312.4	1123.0
249	246	294	171	618	234	312.6	1124.5
250	245	295	171	618	235	312.7	1126.2
251	248	296	171	618	235	313.7	1127.9
252	247	296	173	619	235	313.9	1130.0
253	249	297	173	618	235	314.4	1132.3
254	251	298	173	617	235	314.7	1134.4
255	248	299	174	616	236	314.5	1136.5
256	249	299	174	616	236	314.8	1138.5
257	248	300	174	616	236	314.8	1139.9
258	249	300	175	616	236	315.3	1140.4
259	252	301	175	617	236	316.2	1141.2
260	252	302	175	618	237	317.0	1141.8
261	252	303	176	617	237	317.0	1142.7
262	252	303	177	616	237	317.2	1143.4
263	251	305	177	616	237	317.1	1143.3
264	253	305	178	616	237	317.8	1143.2
265	254	305	178	616	238	318.1	1143.4
266	251	306	179	616	238	318.0	1143.1
267	252	307	179	617	238	318.5	1141.8
268	253	308	179	619	238	319.2	1140.6
269	255	308	179	619	238	319.7	1139.8
270	254	309	180	618	239	319.9	1137.4
271	254	309	181	619	239	320.1	1135.6
272	254	310	181	618	239	320.2	1135.1
273	254	310	181	618	239	320.4	1134.9
274	255	311	181	618	239	320.8	1134.8
275	254	311	182	617	239	320.7	1134.5
276	257	312	183	618	239	321.9	1133.5
277	258	313	183	617	239	322.0	1132.3
278	257	313	183	616	240	321.7	1130.2
279	257	313	184	616	239	321.8	1128.2
280	257	313	184	615	240	321.8	1127.5
281	256	314	184	614	240	321.6	1127.0
282	258	314	185	614	240	322.2	1126.1
283	262	315	185	612	240	322.6	1126.2
284	260	315	187	611	240	322.4	1125.4
285	259	315	186	610	240	322.1	1124.8
286	259	315	188	608	240	322.0	1123.7
287	262	315	187	609	240	322.5	1123.1

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Stove ΔT: 13

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
288	260	316	188	608	240	322.4	1122.1
289	259	316	188	607	241	322.2	1120.7
290	259	316	189	607	241	322.2	1119.4
291	262	316	190	606	241	323.1	1117.8
292	261	316	189	604	241	322.4	1116.8
293	261	317	190	604	241	322.6	1115.6
294	260	317	190	603	241	322.3	1114.3
295	260	317	190	602	241	322.1	1112.9
296	262	318	190	601	241	322.5	1110.2
297	261	319	191	600	242	322.4	1106.8
298	260	319	191	598	241	321.8	1103.2
299	261	320	191	595	242	321.7	1099.2
300	261	320	192	593	242	321.4	1094.8
301	259	320	192	590	242	320.3	1090.6
302	260	321	192	587	242	320.2	1086.4
303	260	321	193	584	242	319.8	1082.3
304	261	321	193	581	242	319.6	1078.3
305	261	321	193	579	242	319.3	1074.7
306	261	322	194	577	242	318.9	1071.0
307	263	321	193	574	242	318.8	1067.5
308	264	321	194	572	243	318.6	1064.0
309	262	322	194	569	243	317.9	1063.4
310	263	323	195	569	243	318.3	1062.7
311	262	322	194	570	243	318.3	1063.1
312	263	323	194	571	243	318.6	1064.4
313	265	322	195	570	243	319.0	1065.7
314	263	323	194	570	243	318.7	1065.7
315	266	323	195	568	243	319.0	1064.4
316	263	323	195	566	244	318.2	1062.0
317	266	323	195	564	244	318.2	1058.8
318	263	323	195	562	244	317.3	1055.2
319	262	323	194	560	244	316.7	1051.3
320	264	323	194	557	244	316.5	1047.2
321	263	323	194	555	244	315.9	1042.6
322	264	324	194	551	244	315.4	1037.9
323	265	323	194	548	244	314.9	1032.7
324	264	323	194	545	244	314.1	1026.9
325	263	323	194	542	244	313.3	1021.1
326	264	323	195	538	245	312.8	1015.2
327	264	323	194	535	245	312.2	1008.9
328	263	323	194	531	245	311.1	1001.9
329	262	323	195	526	244	310.1	994.8
330	263	322	195	522	245	309.4	987.6
331	260	322	193	517	245	307.5	980.3
332	263	322	194	513	245	307.4	972.7
333	263	321	193	509	245	306.1	964.8
334	262	321	193	504	245	305.2	956.8
335	260	321	194	499	245	303.8	948.6

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Stove ΔT: 13

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
336	262	321	193	496	245	303.2	939.5
337	261	320	193	491	245	302.0	930.2
338	261	320	194	488	245	301.5	920.8
339	261	320	194	484	245	300.6	911.5
340	260	319	194	480	245	299.5	902.8
341	259	318	194	477	245	298.5	893.7
342	262	318	194	473	245	298.4	884.8
343	261	318	193	470	245	297.3	876.3
344	258	317	193	467	246	295.9	868.2
345	258	317	193	464	245	295.2	861.4
346	259	316	193	461	245	294.9	854.7
347	259	316	194	458	245	294.3	848.6
348	258	315	193	455	245	293.2	843.4
349	260	314	192	453	246	292.9	838.2
350	257	314	193	450	246	292.0	833.6
351	257	314	193	449	246	291.6	829.1
352	256	313	194	446	246	290.9	825.6
353	258	313	194	444	245	290.7	821.4
354	256	312	192	442	246	289.5	818.1
355	259	311	193	440	246	289.8	814.8
356	256	311	193	439	246	288.7	812.4
357	258	310	192	437	246	288.4	810.4
358	257	310	192	434	246	287.7	807.9
359	256	309	193	433	246	287.3	805.6
360	255	309	192	431	246	286.6	803.7
361	255	308	192	429	246	286.1	801.4
362	256	307	192	428	246	285.7	799.6
363	255	307	192	426	246	285.1	797.3
364	256	306	192	425	246	285.0	795.7
365	255	306	192	423	246	284.5	793.7
366	256	305	191	422	246	283.9	792.5
367	254	305	192	421	246	283.4	790.4
368	254	304	192	420	246	283.0	788.4
369	255	304	192	418	246	283.0	786.6
370	254	303	192	416	246	282.4	785.4
371	254	302	192	415	247	282.0	784.3
372	254	302	192	414	247	281.7	782.8
373	255	301	191	413	246	281.5	781.3
374	253	301	191	412	247	280.8	780.1
375	253	301	191	411	247	280.5	779.3
376	254	300	191	411	247	280.3	777.2
377	254	299	191	410	247	280.3	776.3
378	254	299	191	408	247	279.7	774.3
379	252	299	191	407	247	279.1	772.3
380	253	298	192	407	247	279.2	771.0
381	253	297	190	406	247	278.7	769.8
382	253	297	192	405	247	278.6	769.9
383	253	296	190	404	247	278.0	768.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Stove ΔT: 13

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
384	251	296	190	403	247	277.5	767.9
385	252	295	190	402	247	277.1	767.1
386	252	295	192	400	247	277.1	765.3
387	253	295	190	399	247	276.7	764.0
388	252	294	191	398	247	276.1	762.0
389	251	294	190	397	247	275.7	760.0
390	252	293	190	396	247	275.7	759.0
391	251	292	191	396	247	275.3	759.1
392	249	292	191	395	247	274.6	757.9
393	250	292	190	394	247	274.7	756.5
394	250	292	190	393	247	274.3	755.8
395	250	291	190	393	248	274.1	754.7
396	250	291	190	392	248	273.9	753.5
397	248	291	190	391	248	273.5	752.4
398	248	291	189	391	248	273.2	750.3
399	249	290	189	390	248	273.3	751.2
400	247	290	189	389	248	272.4	750.1
401	246	289	190	388	248	272.3	749.5
402	248	289	188	387	248	272.0	748.0
403	245	289	188	387	248	271.3	746.9
404	246	289	189	386	248	271.5	746.1
405	246	288	188	385	248	271.0	745.4
406	245	288	188	384	248	270.7	744.4
407	245	288	188	384	248	270.4	743.7
408	247	288	188	383	248	270.7	742.8
409	246	287	188	382	248	270.3	741.2
410	245	287	187	381	248	269.4	740.5
411	243	287	188	380	248	269.2	739.8
412	243	287	187	379	248	268.6	738.2
413	244	287	188	378	248	269.0	737.1
414	241	286	188	378	248	268.3	736.0
415	242	286	188	377	249	268.4	734.9
416	241	286	188	376	249	267.7	734.1
417	243	286	187	376	249	268.0	733.0
418	244	286	187	375	249	268.0	732.1
419	242	285	188	374	249	267.6	731.0
420	241	285	187	374	249	267.0	729.9
421	242	285	188	373	249	267.3	729.0
422	241	284	188	372	249	266.7	728.9
423	241	284	188	372	249	266.7	727.8
424	239	284	188	371	249	266.3	727.3
425	239	284	190	372	249	266.6	727.4
426	240	284	189	371	250	266.8	727.6
427	238	284	189	372	250	266.3	728.7
428	238	283	190	371	250	266.4	729.5
429	239	283	189	372	250	266.4	730.2
430	238	282	189	371	250	266.2	730.9
431	238	282	190	371	250	266.5	731.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Stove ΔT: 13

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
432	238	282	190	371	250	266.3	730.8
433	238	282	190	370	250	266.0	731.5
434	237	283	190	369	250	265.7	731.1
435	237	282	191	368	250	265.5	729.3
436	237	282	191	366	250	265.3	726.2
437	237	282	191	365	250	265.1	721.4
438	237	283	191	364	251	265.0	716.3
439	236	283	191	364	251	264.9	711.2
440	236	283	191	363	251	264.8	706.5
441	236	283	191	362	251	264.5	702.4
442	235	283	191	361	251	264.3	698.4
443	237	283	191	360	251	264.4	694.6
444	235	283	192	359	252	264.3	691.3
445	236	283	192	358	252	264.1	688.6
446	236	283	192	358	252	264.2	686.6
447	235	284	192	357	252	264.0	684.8
448	236	284	192	357	252	264.1	683.3
449	236	283	192	356	252	263.8	681.4
450	236	284	193	355	252	263.9	680.5
451	234	284	192	355	253	263.4	679.7
452	234	284	193	354	253	263.4	678.9
453	235	284	192	354	253	263.5	678.2
454	236	284	193	353	253	263.9	677.3
455	235	284	193	353	253	263.6	676.5
456	235	284	194	353	254	263.8	675.8
457	235	284	194	353	254	263.8	675.7
458	235	284	193	352	254	263.6	675.5
459	233	284	193	352	254	263.2	675.4
460	234	285	195	352	254	263.8	676.0
461	234	285	195	352	254	263.7	676.2
462	232	285	194	351	255	263.3	677.1
463	232	285	194	351	254	263.4	677.4
464	231	285	195	351	255	263.3	678.1
465	232	285	194	351	255	263.4	678.8
466	233	285	195	351	255	263.7	679.4
467	233	284	195	351	255	263.5	679.8
468	233	285	195	351	255	263.7	680.0
469	232	284	195	352	256	263.7	681.4
470	232	285	194	352	256	263.6	683.5
471	232	284	195	353	256	263.8	686.4
472	232	284	195	353	256	264.0	690.3
473	231	284	195	354	256	263.8	694.1
474	233	284	195	354	256	264.3	697.9
475	232	284	195	355	256	264.2	701.5
476	229	284	195	355	256	263.8	704.5
477	231	284	194	356	256	264.3	707.9
478	231	284	195	356	256	264.4	710.4
479	230	285	194	356	257	264.3	712.6

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Stove ΔT: 13

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
480	230	285	195	357	257	264.6	714.1
481	230	284	193	357	257	264.2	716.3
482	230	285	195	357	257	264.8	717.9
483	230	285	194	358	257	264.6	719.3
484	228	285	194	358	257	264.2	719.6
485	228	285	194	358	257	264.6	721.2
486	228	285	193	358	257	264.4	721.7
487	228	285	194	359	257	264.4	722.2
488	228	285	194	358	257	264.6	723.5
489	228	286	194	358	257	264.5	724.0
490	228	285	193	359	258	264.8	724.6
491	226	286	193	359	258	264.4	724.9
492	226	286	193	360	257	264.4	726.0
493	226	286	192	360	258	264.4	726.7
494	227	286	192	361	258	264.8	727.7
495	227	286	192	361	258	264.6	729.4
496	227	286	193	361	258	264.9	730.0
497	227	286	192	361	258	264.7	730.9
498	226	286	191	362	258	264.5	731.0
499	227	286	191	362	258	264.6	731.7
500	226	286	190	362	258	264.4	731.8
501	225	286	190	362	258	264.2	732.2
502	225	286	190	362	258	264.3	731.8
503	226	286	190	362	258	264.6	731.7
504	225	287	189	362	258	264.2	731.1
505	225	287	190	363	258	264.4	731.1
506	224	287	189	363	258	264.0	730.8
507	224	287	189	363	258	264.1	730.9
508	226	287	188	363	258	264.2	730.7
509	224	287	188	363	258	264.0	730.3
510	224	287	188	363	258	264.0	729.6
511	224	287	188	363	258	263.9	729.5
512	224	287	187	363	258	263.8	729.2
513	224	287	187	363	258	263.7	728.5
514	223	287	188	363	258	263.5	728.4
515	223	287	186	362	259	263.6	727.1
516	222	287	187	362	258	263.3	727.3
517	222	287	186	362	258	263.0	726.4
518	224	287	186	362	259	263.4	726.1
519	222	287	186	361	258	263.1	725.0
520	222	287	185	361	258	262.8	724.7
521	223	287	186	361	259	263.2	725.1
522	222	287	185	361	259	262.7	724.5
523	222	287	185	361	258	262.7	724.2
524	222	287	185	361	259	262.8	723.7
525	221	288	185	361	259	262.6	722.9
526	223	288	185	360	259	262.8	721.5
527	222	288	185	360	259	262.8	722.3

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Stove ΔT: 13

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
528	222	288	185	360	259	262.6	721.7
529	221	287	185	359	259	262.2	721.4
530	220	287	185	359	260	262.1	720.3
531	222	287	184	358	260	262.2	719.5
532	221	287	185	358	259	262.2	719.2
533	221	287	185	358	259	261.9	718.9
534	221	287	184	357	260	261.9	718.2
535	220	288	184	358	260	261.8	717.4
536	221	288	185	358	260	262.2	716.3
537	220	287	185	357	260	261.9	716.4
538	220	287	184	357	260	261.7	716.1
539	221	287	184	357	260	261.9	715.3
540	220	288	185	357	260	261.8	715.3
541	220	287	185	357	260	261.7	714.5
542	221	288	185	357	260	262.0	714.3
543	220	287	184	356	260	261.6	714.4
544	220	288	184	356	261	261.7	714.2
545	220	287	184	356	261	261.7	714.4
546	219	288	185	356	260	261.7	714.4
547	220	288	185	356	261	261.8	714.5
548	220	288	184	356	261	261.8	714.3
549	220	288	186	356	261	262.2	714.0
550	218	288	185	356	261	261.7	713.9
551	220	288	186	356	261	262.1	714.8
552	219	288	185	356	261	261.8	715.1
553	219	288	185	356	261	261.9	715.5
554	220	288	185	356	261	262.0	715.7
555	219	288	185	355	261	261.8	715.4
556	220	288	185	354	261	261.8	715.1
557	220	289	186	353	261	261.8	713.7
558	219	289	186	352	261	261.4	710.3
559	219	289	187	352	262	261.5	706.1
560	218	289	187	351	262	261.2	701.7
561	219	289	188	350	262	261.4	697.4
562	220	289	187	349	262	261.2	692.5
563	220	289	187	348	262	261.2	688.0
564	219	289	187	347	262	260.9	684.7
565	220	290	187	346	262	261.0	681.5
566	219	290	187	345	262	260.7	678.1
567	219	289	188	345	262	260.5	675.6
568	219	289	187	345	263	260.5	673.8
569	219	289	189	345	263	261.0	672.4
570	219	290	188	345	263	260.9	672.0
571	220	289	189	344	263	260.9	673.3
572	219	289	189	344	263	260.7	675.0
573	220	289	188	344	263	260.9	676.7
574	219	289	189	344	263	260.8	679.0
575	219	289	189	344	263	260.7	680.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Stove ΔT: 13

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
576	219	289	189	344	263	260.6	683.0
577	219	288	188	344	264	260.6	684.5
578	220	288	188	344	264	260.8	687.3
579	220	288	189	344	264	260.9	689.7
580	219	288	189	344	264	260.8	691.7
581	221	287	188	344	264	260.8	692.9
582	219	287	188	344	264	260.4	694.4
583	219	287	189	344	264	260.6	695.0
584	220	287	189	344	264	260.7	696.0
585	220	286	189	344	264	260.7	696.7
586	220	286	189	344	264	260.7	696.9
587	219	286	188	345	264	260.2	697.3
588	219	286	187	345	264	260.2	697.7
589	218	286	189	345	264	260.3	698.4
590	219	286	188	345	264	260.5	698.9
591	220	285	188	345	264	260.4	699.1
592	219	285	187	345	264	260.2	699.2
593	220	285	188	345	264	260.2	698.9
594	218	284	188	345	264	259.8	699.0
595	219	284	188	345	264	260.0	698.9
596	220	284	187	345	264	259.8	698.5
597	220	284	188	345	264	259.9	698.3
598	219	284	187	344	264	259.6	698.3
599	218	283	187	344	264	259.3	697.1
600	218	283	187	344	264	259.2	696.1
601	218	283	187	344	264	259.1	696.1
602	218	283	187	344	264	259.1	695.6
603	217	283	187	344	264	258.9	695.8
604	218	283	187	343	264	259.0	695.0
605	218	282	188	343	264	258.9	694.3
606	219	282	187	342	264	259.0	692.9
607	218	282	187	342	264	258.6	690.5
608	219	281	188	341	264	258.4	687.8
609	218	281	187	341	264	258.1	685.8
610	218	281	187	340	264	258.0	682.7
611	218	281	187	340	264	257.8	681.2
612	219	281	188	340	264	258.1	679.9
613	219	280	187	339	264	257.7	679.2
614	218	280	188	339	264	257.9	678.5
615	219	280	187	339	264	257.6	678.8
616	218	280	187	339	264	257.3	680.1
617	219	280	187	339	264	257.4	680.6
618	219	279	187	339	264	257.5	681.1
619	218	279	186	339	264	257.1	682.6
620	218	279	186	339	264	257.1	683.2
621	219	279	187	339	264	257.3	684.0
622	218	278	187	339	264	257.1	684.5
623	218	278	187	339	264	257.1	683.7

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

Stove ΔT: 13

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
624	219	278	187	339	264	257.2	684.1
625	218	278	186	339	264	256.8	684.2
626	219	277	186	339	263	257.0	684.4
627	219	277	187	339	264	256.9	684.0
628	219	277	186	339	264	256.8	683.3
629	218	276	186	339	264	256.5	683.4
630	219	276	186	339	264	256.5	682.8
631	219	275	185	339	264	256.3	682.6
632	219	275	187	339	264	256.7	682.2
633	218	275	186	340	264	256.4	682.4
634	219	275	186	340	264	256.7	682.9
635	219	274	185	340	264	256.2	682.8
Average	223.0	271.3	172.1	428.7	239.1	266.9	858.5

LAB SAMPLE DATA - ASTM E2515

Client: FPI
Model: F5200
Run #: 1

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/21/2023

		Sample ID	Tare, mg	Final, mg	Catch, mg
Filters	**A**	G00633	244.2	247.4	3.2
	B	G00634	243.5	246.7	3.2
	C - 1st Hour	G00635	244.9	245.8	0.9
	Amb	G00636	244.0	244.0	0.0
Probes	**A**	14A	116632.2	116632.9	0.7
	B	14B	116618.2	116618.7	0.5
	C - 1st Hour	14C	116529.6	116530.1	0.5
O-rings	**A**	14A	3366.4	3366.9	0.5
	B	14B	3341.6	3341.9	0.3
	C - 1st Hour	14C	3445.3	3445.5	0.2

Placed in Dessicator on:	8/22/2023

		Balance Audit (mg):	100.0		100.0					
			Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time
Filters	**A**		247.5	8/25 - 9:00	247.4	8/28 - 8:30				
	B		246.6	8/25 - 9:00	246.7	8/28 - 8:30				
	C - 1st Hour		245.9	8/25 - 9:00	245.8	8/28 - 8:30				
	Amb		244.0	8/25 - 9:00	244.0	8/28 - 8:30				
Probes	**A**		116632.9	8/25 - 9:00	116632.9	8/28 - 8:30				
	B		116618.7	8/25 - 9:00	116618.7	8/28 - 8:30				
	C - 1st Hour		116530.2	8/25 - 9:00	116530.1	8/28 - 8:30				
O-Rings	**A**		3366.9	8/25 - 9:00	3366.9	8/28 - 8:30				
	B		3341.9	8/25 - 9:00	3341.9	8/28 - 8:30				
	C - 1st Hour		3445.5	8/25 - 9:00	3445.5	8/28 - 8:30				

Train A Aggregate, mg:	**4.4**
Train B Aggregate, mg:	**4.0**
Train C Aggregate, mg:	**1.6**
Ambient, mg:	**0.0**

ASTM E2780 Wood Heater Run Sheets

Client: FPI Job Number: 23-200 Tracking #: 157
Model: F5200 Run Number: 1 Test Date: 8/21/23

Wood Heater Run Notes

Test Control Settings

Primary Air Setting(s): Fully Closed
Targeted Burn Category: I

Preburn Notes

Time	Notes
5:00 60:00	Stirred Coals Leveled coal bed, turn off fan, set air to high in preparation of fuel loading

Test Notes

Test Burn Start Time: 11:38 Test Fuel Loaded by: 40 seconds
Door Closed: 60 seconds Air Control Set at: 120 seconds
Other Loading Notes: Fan on high @ 30 min

Time	Notes
	-None-

Test Burn End Time: 22:13

Flue Gas Concentration Measurement

Calibration Gas Values: Span Gas CO_2 (%): 17.01 CO (%): 4.306
Mid Gas CO_2 (%): 10.09 CO (%): 2.530

Calibration Results:

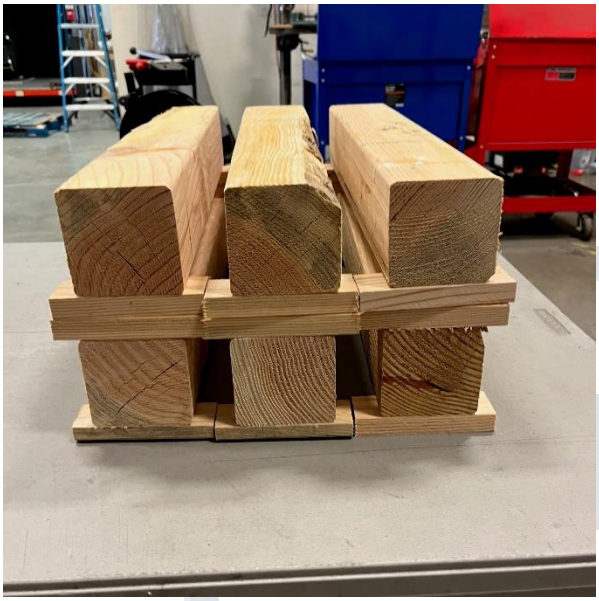
	Pre Test			Post Test		
	Zero	Span	Mid	Zero	Span	Mid
Time	9:03	9:05	9:06	8/22 11:22	8/22 11:23	8/22 11:24
CO_2	0.00	17.01	10.14	-0.04	17.06	10.13
CO	0.000	4.307	2.522	-0.014	4.285	4.292

Flue Gas Probe Leak Check: Initial: No Leakage Final: No Leakage

Technician Signature:  Date: 8/23/23

ASTM E2780 Wood Heater Run Sheets

Client: FPI Job Number: 23-200 Tracking #: 157
Model: F5200 Run Number: 1 Test Date: 8/21/23



Test Fuel Front/Side View



Test Fuel Iso View



Test Fuel Loaded in Stove



Air Setting

Technician Signature: Date: 8/23/23

WOOD STOVE TEST DATA PACKET
ASTM E2780/E2515

Run 2 Data Summary

Client:	FPI
Model:	F5200
Job #:	23-200
Tracking #:	157
Test Date:	8/22/2023

Technician Signature

8/28/2023
Date

TEST RESULTS - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Burn Rate (kg/hr):	0.89

	Ambient Sample	Sample Train A	Sample Train B	1st Hour Filter
Total Sample Volume (ft^3)	85.736	129.167	124.816	9.309
Average Gas Velocity in Dilution Tunnel (ft/sec)	8.1			
Average Gas Flow Rate in Dilution Tunnel (dscf/hr)	21528.7			
Average Gas Meter Temperature (°F)	78.2	105.6	104.4	84.2
Total Sample Volume (dscf)	84.057	121.419	117.551	9.123
Average Tunnel Temperature (°F)	89.2			
Total Time of Test (min)	775			
Total Particulate Catch (mg)	0.1	3.1	3.1	0.8
Particulate Concentration, dry-standard (g/dscf)	0.0000012	0.0000255	0.0000264	0.0000877
Total PM Emissions (g)	0.33	6.77	7.00	1.86
Particulate Emission Rate (g/hr)	0.03	0.52	0.54	1.86
Emissions Factor (g/kg)	-	0.59	0.61	-
Difference from Average Total Particulate Emissions (g)	-	0.12	0.12	-
Difference from Average Total Particulate Emissions (%)	-	1.7%	1.7%	
Difference from Average Emissions Factor (g/kg)	-	0.01	0.01	-

Final Average Results	
Total Particulate Emissions (g)	6.89
Particulate Emission Rate (g/hr)	0.53
Emissions Factor (g/kg)	0.60
HHV Efficiency (%)	83.1%
LHV Efficiency (%)	89.8%
CO Emissions (g/min)	0.18

Quality Checks	Requirement	Observed	Result
Dual Train Precision	Each train within 7.5% of average emissions (in grams), or emission factors within 0.5 g/kg	See Above	OK
Filter Temps	<90 °F	88.5	OK
Face Velocity	< 30 ft/min	9.3	OK
Leakage Rate	Less than 4% of average sample rate	0 cfm	OK
Ambient Temp	55-90 °F	Min:75.5/Max:80.6	OK
Negative Probe Weight Evaluation	<5% of Total Catch	Probe Catch Not Negative	OK
Pro-Rate Variation	90% of readings between 90-110%; none greater than 120% or less than 80%	See Data Tabs	OK
Stove Surface ΔT	<126°F	38.2	OK

B415.1 Efficiency Results

Manufacturer:	FPI
Model:	F5200
Date:	08/22/23
Run:	2
Control #:	23-200
Test Duration:	775
Output Category:	2

Test Results in Accordance with CSA B415.1-09

	HHV Basis	LHV Basis
Overall Efficiency	83.1%	89.8%
Combustion Efficiency	99.4%	99.4%
Heat Transfer Efficiency	83.7%	90.4%

Output Rate (kJ/h)	14,628	13,876	**(Btu/h)**
Burn Rate (kg/h)	0.89	1.96	**(lb/h)**
Input (kJ/h)	17,597	16,693	**(Btu/h)**

Test Load Weight (dry kg)	11.47	25.29	**dry lb**
MC wet (%)	16.92		
MC dry (%)	20.37		
Particulate (g)	6.89		
CO (g)	140		
Test Duration (h)	12.92		

Emissions	**Particulate**	**CO**
g/MJ Output	0.04	0.74
g/kg Dry Fuel	0.60	12.17
g/h	0.53	10.81
g/min	0.01	0.18
lb/MM Btu Output	0.08	1.72

Air/Fuel Ratio (A/F)	12.01

VERSION: **2.4** **4/15/2010**

WOODSTOVE FUEL DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Preburn Fuel Information

Size	Length (in)	Moisture Content (% DB)	Size	Length (in)	Moisture Content (% DB)
2x4	20.00	21.9	2x4	20.00	24.6
2x4	20.00	23.8	2x4	20.00	20.9
2x4	20.00	21.9	2x4	20.00	20.9
2x4	20.00	24.7	2x4	20.00	24.3
2x4	20.00	21.0	2x4	20.00	21.4
2x4	20.00	20.6	2x4	20.00	20.2
2x4	20.00	22.3			
2x4	20.00	19.1			
Total Fuel Weight (lbs):		29.1	Average Moisture (%DB):		22.0

Firebox Volume (ft^3):	4.42
Total 2x4 Crib Weight, with spacers (lbs):	0.00
Total 4x4 Crib Weight, with spacers (lbs):	30.47
Total Wet Fuel Weight, with spacers (lbs):	30.47

Coal Bed Range (20-25%):
Min (lbs): 6.09
Max (lbs): 7.62

Test Fuel Information

Size	Length (in)	Weight (lbs)	Moisture Content (%DB)			Dry Weight (lbs)
4x4	20.00	4.54	21.6	21.9	19.3	3.75
4x4	20.00	4.43	19.8	19.9	19.0	3.71
4x4	20.00	4.67	20.6	21.9	20.5	3.86
4x4	20.00	4.94	19.1	21.1	20.2	4.11
4x4	20.00	5.25	19.2	20.5	21.5	4.36
4x4	20.00	4.70	20.1	21.0	19.5	3.91
					Total Dry Weight, no spacers (lbs):	23.70
					Total Dry Weight, with spacers (lbs):	25.39

Spacer Moisture Readings (%DB)

13.0	12.3	19.2	17.1				
15.3	14.8	15.6	13.1				
18.7	16.8	13.2	13.8				
15.6	13.5						
16.0	14.3						
13.9	14.4						

Quality Checks	Requirement	Observed	Result
Fuel Density	25 - 36 (lbs/ft^3, DB)	27.9	OK
Loading Density	6.3 - 7.7 (lbs/ft^3, WB)	6.89	OK
2x4 Fuel Mix	35 - 65 % of total weight	N/A	N/A

DILUTION TUNNEL & MISC. DATA - ASTM E2780 / E2515

Client:	FPI	Job #:	23-200
Model:	F5200	Tracking #:	157
Run #:	2	Technician:	AK
Test Start Time:	13:02	Date:	8/22/2023

Total Sampling Time (min):	775	
Recording Interval (min):	1	
Meter Box γ Factor:	1.004	(A)
Meter Box γ Factor:	1.004	(B)
Meter Box γ Factor:	1.011	(C)
Meter Box γ Factor:	1.003	(Ambient)

	Pre-Test	Post Test	Avg.
Barometric Pressure (in. Hg)	29.71	29.94	29.83
Relative Humidity (%)	37.7	42.5	
Room Air Velocity (ft/min)	0	0	
Pitot Tube Leak Check	0	0	
Ambient Sample Volume:		85.736	ft^3

Induced Draft Check (in. H_2O):	0
Smoke Capture Check (%):	100%
Date Flue Pipe Last Cleaned:	8/17/2023
Test Fuel Scale Audit (lbs)	10.00
Platform Scale Audit (lbs)	10.0

Sample Train Leak Checks

	Pre-test	Post-test		
(A)	0.000	0.000	cfm @	-5 in. Hg
(B)	0.000	0.000	cfm @	-6 in. Hg
(C)	0.000	0.000	cfm @	-5 in. Hg
(Ambient)	0.000	0.000	cfm @	-12 in. Hg

DILUTION TUNNEL FLOW

Traverse Data

Point	dP (in H_2O)	Temp (°F)
1	0.008	105
2	0.014	105
3	0.018	105
4	0.018	105
5	0.014	105
6	0.012	105
7	0.010	106
8	0.016	106
9	0.018	106
10	0.016	106
11	0.016	106
12	0.008	106
Center	0.018	106

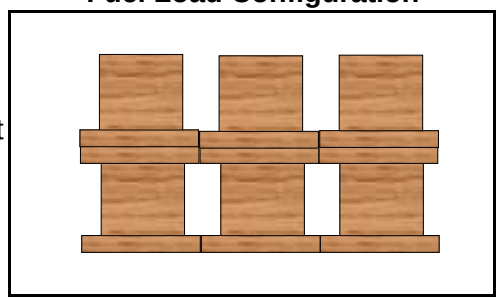
Static Pressure: -0.110 in. H_2O

Dilution Tunnel H_2O:	2.00	percent
Tunnel Diameter:	12	inches
Pitot Tube Cp:	0.99	[unitless]
Dilution Tunnel MW(dry):	29.00	lb/lb-mole
Dilution Tunnel MW(wet):	28.78	lb/lb-mole
Tunnel Area:	0.7854	ft^2
V_{strav}:	8.07	ft/sec
V_{scent}:	9.24	ft/sec
F_p:	0.874	[ratio]
Initial Tunnel Flow:	346.2	scf/min

TEST FUEL PROPERTIES

Fuel Load Configuration

Firebox Left



Firebox Right

Firebox Front View

Actual Fuel Used Properties

Fuel Type:	D. Fir
HHV (kJ/kg)	19,810
%C	48.73
%H	6.87
%O	43.9
%Ash	0.5
MC (%DB)	20.4

WOODSTOVE PREBURN DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Recording Interval (min): 1
Run Time (min): 100

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
0	10.09	-0.072	311	376	280	865	199	405.9	476	75
1	9.94	-0.069	311	378	271	865	200	404.9	429	76
2	9.81	-0.067	312	379	262	860	200	402.5	402	76
3	9.69	-0.066	313	379	256	855	201	400.7	385	76
4	9.55	-0.064	312	380	250	851	202	399.1	370	75
5	9.43	-0.065	312	379	245	820	203	392.0	461	75
6	9.28	-0.066	313	379	241	810	203	389.0	410	75
7	9.16	-0.065	315	379	239	805	203	388.3	382	75
8	9.07	-0.062	311	378	235	805	204	386.6	362	75
9	9.00	-0.060	312	378	232	806	204	386.4	347	75
10	8.94	-0.060	311	377	229	795	205	383.4	336	75
11	8.87	-0.058	307	376	227	781	205	379.4	329	75
12	8.81	-0.057	306	375	226	761	206	374.8	322	75
13	8.75	-0.056	306	374	224	730	207	368.2	316	75
14	8.69	-0.055	303	373	222	703	208	361.8	311	75
15	8.64	-0.054	301	371	221	679	208	356.2	309	75
16	8.58	-0.055	302	370	218	659	209	351.5	306	75
17	8.52	-0.052	298	368	217	643	209	347.2	304	75
18	8.46	-0.053	297	366	217	632	210	344.4	303	75
19	8.41	-0.050	296	366	215	620	211	341.4	301	75
20	8.36	-0.052	295	365	214	610	211	338.9	299	75
21	8.31	-0.053	292	362	213	606	211	337.0	297	75
22	8.26	-0.051	290	361	214	601	212	335.4	295	75
23	8.20	-0.051	289	360	210	594	213	333.0	293	75
24	8.15	-0.051	285	358	210	592	213	331.5	292	75
25	8.10	-0.051	285	356	210	589	213	330.4	291	75
26	8.05	-0.049	285	354	207	585	213	328.9	290	75
27	8.02	-0.048	279	352	207	580	214	326.2	287	75
28	7.98	-0.048	279	350	206	571	214	324.0	286	75
29	7.92	-0.047	279	348	204	566	214	322.1	284	75
30	7.88	-0.048	279	346	203	561	215	320.7	282	75
31	7.84	-0.047	275	344	202	555	215	318.5	282	75
32	7.80	-0.047	274	343	202	551	216	317.0	281	75
33	7.76	-0.047	275	340	201	546	216	315.5	279	75
34	7.71	-0.048	275	339	199	540	216	313.8	277	75
35	7.68	-0.047	271	336	199	536	217	311.7	276	75
36	7.64	-0.046	270	334	198	531	217	310.0	274	75
37	7.60	-0.048	270	332	197	527	217	308.8	273	75
38	7.55	-0.046	268	331	196	523	218	307.2	271	75
39	7.52	-0.046	269	329	195	520	218	306.2	270	75
40	7.48	-0.045	269	327	194	514	219	304.6	269	75
41	7.44	-0.045	268	326	194	511	219	303.4	269	75
42	7.40	-0.045	267	324	193	507	219	301.9	267	75
43	7.36	-0.044	265	322	192	503	220	300.4	266	75
44	7.33	-0.042	264	322	191	498	220	298.8	264	75

WOODSTOVE PREBURN DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Recording Interval (min): 1
Run Time (min): 100

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
45	7.31	-0.042	263	319	191	494	221	297.5	262	75
46	7.28	-0.043	263	319	191	487	221	295.9	261	75
47	7.26	-0.042	260	317	189	481	222	293.7	259	75
48	7.23	-0.041	261	316	189	475	222	292.5	256	75
49	7.21	-0.041	258	314	189	470	222	290.8	254	75
50	7.18	-0.041	260	313	188	465	223	289.7	251	75
51	7.16	-0.040	258	313	187	460	223	288.0	250	75
52	7.13	-0.039	256	311	187	455	224	286.4	247	75
53	7.11	-0.041	258	310	186	449	224	285.4	245	75
54	7.08	-0.040	255	308	185	444	225	283.3	242	75
55	7.06	-0.041	256	307	184	439	225	282.4	240	75
56	7.05	-0.039	255	306	184	434	226	280.8	237	75
57	7.01	-0.037	255	305	183	431	226	280.0	236	75
58	6.99	-0.037	254	304	183	427	227	278.9	233	75
59	6.98	-0.037	255	303	183	423	227	278.0	231	75
60	6.95	-0.037	250	301	182	420	228	276.0	229	75
61	6.93	-0.036	250	301	180	416	228	275.2	228	75
62	6.91	-0.036	252	299	180	413	229	274.6	226	75
63	6.89	-0.036	249	299	181	410	229	273.4	225	75
64	6.88	-0.034	249	297	179	407	230	272.5	223	75
65	6.86	-0.035	248	297	180	404	231	271.9	222	75
66	6.84	-0.034	247	296	179	402	231	270.9	220	75
67	6.81	-0.036	245	295	178	398	232	269.4	218	75
68	6.79	-0.033	244	294	177	397	232	269.0	217	75
69	6.78	-0.035	244	293	177	395	233	268.3	216	75
70	6.76	-0.033	243	292	176	393	234	267.7	215	75
71	6.74	-0.033	244	292	176	390	234	267.3	214	75
72	6.72	-0.033	242	292	176	389	235	266.6	213	75
73	6.71	-0.031	241	290	176	387	236	265.8	211	75
74	6.69	-0.033	241	290	175	385	236	265.5	211	75
75	6.67	-0.032	241	289	174	383	237	264.8	209	75
76	6.65	-0.031	238	288	174	381	237	263.7	208	75
77	6.64	-0.033	237	288	173	379	238	263.0	208	75
78	6.62	-0.031	238	287	173	377	239	262.4	207	75
79	6.61	-0.030	236	286	174	375	239	262.0	206	75
80	6.59	-0.030	236	285	173	372	240	261.2	205	75
81	6.57	-0.030	235	285	172	370	241	260.4	204	75
82	6.55	-0.031	235	285	172	369	241	260.3	203	75
83	6.53	-0.030	233	284	171	367	242	259.4	202	75
84	6.52	-0.028	234	283	171	365	243	259.1	201	75
85	6.50	-0.029	232	283	171	364	243	258.6	201	75
86	6.49	-0.029	232	282	170	361	244	257.8	200	75
87	6.46	-0.029	230	282	170	360	244	257.2	199	75
88	6.45	-0.028	229	281	169	358	246	256.7	198	75
89	6.44	-0.027	228	281	169	357	246	256.3	197	75

WOODSTOVE PREBURN DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Recording Interval (min): 1
Run Time (min): 100

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
90	6.42	-0.028	230	281	169	356	246	256.2	197	75
91	6.41	-0.029	228	280	169	355	247	255.7	196	76
92	6.40	-0.027	227	280	168	353	248	255.3	195	76
93	6.38	-0.028	226	279	167	351	249	254.6	194	76
94	6.37	-0.028	225	279	168	350	249	254.2	194	76
95	6.35	-0.028	225	278	166	349	250	253.5	193	75
96	6.32	-0.029	225	278	166	347	251	253.4	192	75
97	6.31	-0.029	224	277	166	347	251	252.8	192	75
98	6.30	-0.028	225	277	166	346	252	253.0	191	75
99	6.28	-0.027	223	276	166	344	252	252.3	190	75
100	6.26	-0.025	224	276	166	344	252	252.2	190	75

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
0	0.000		0.019	1.37	79	0.8		30.44		93	274	78	76
1	0.142	0.142	0.019	2.19	79	0.9	-	30.43	-0.01	106	315	79	76
2	0.294	0.152	0.019	2.22	79	0.9	-	30.34	-0.09	95	295	79	76
3	0.441	0.147	0.018	2.24	79	0.9	-	30.27	-0.07	93	286	79	76
4	0.595	0.154	0.018	2.27	79	0.9	-	30.22	-0.05	91	258	79	76
5	0.743	0.148	0.019	2.28	79	0.9	-	30.19	-0.03	91	242	80	76
6	0.898	0.155	0.018	2.30	79	0.9	-	30.14	-0.05	90	231	80	76
7	1.047	0.149	0.018	2.33	79	0.9	-	30.08	-0.06	90	226	80	76
8	1.204	0.157	0.019	2.34	79	0.9	-	30.04	-0.04	90	223	80	76
9	1.355	0.151	0.020	2.36	80	0.9	-	29.98	-0.06	90	222	80	76
10	1.512	0.157	0.019	2.36	80	0.9	95	29.93	-0.05	90	222	80	76
11	1.664	0.152	0.019	2.38	80	0.9	-	29.87	-0.06	90	223	80	76
12	1.819	0.155	0.019	2.39	80	0.9	-	29.82	-0.05	90	223	80	76
13	1.974	0.155	0.018	2.40	80	0.9	-	29.77	-0.05	90	225	80	76
14	2.130	0.156	0.018	2.42	81	0.9	-	29.72	-0.05	90	225	80	76
15	2.288	0.158	0.019	2.42	81	0.9	-	29.66	-0.06	89	226	80	76
16	2.440	0.152	0.019	2.43	81	0.9	-	29.62	-0.04	89	226	81	76
17	2.600	0.160	0.018	2.43	81	0.9	-	29.57	-0.05	90	226	81	76
18	2.755	0.155	0.019	2.45	82	0.9	-	29.52	-0.05	89	226	81	76
19	2.914	0.159	0.019	2.46	82	0.9	-	29.46	-0.06	89	228	81	76
20	3.069	0.155	0.019	2.45	82	0.9	97	29.40	-0.06	90	228	81	76
21	3.227	0.158	0.019	2.46	82	0.9	-	29.33	-0.07	90	230	81	76
22	3.387	0.160	0.018	2.47	83	0.9	-	29.27	-0.06	90	231	81	76
23	3.541	0.154	0.019	2.47	83	0.9	-	29.21	-0.06	90	233	81	76
24	3.703	0.162	0.019	2.49	83	0.9	-	29.15	-0.06	90	235	81	76
25	3.859	0.156	0.019	2.48	84	0.9	-	29.09	-0.06	90	237	81	76
26	4.018	0.159	0.018	2.49	84	0.9	-	29.02	-0.07	90	238	81	76
27	4.177	0.159	0.019	2.50	84	0.9	-	28.96	-0.06	90	238	81	76
28	4.336	0.159	0.019	2.51	85	0.9	-	28.91	-0.05	89	239	81	76
29	4.496	0.160	0.018	2.49	85	0.9	-	28.84	-0.07	90	240	81	76
30	4.653	0.157	0.019	2.51	85	0.9	98	28.80	-0.04	89	240	81	76
31	4.814	0.161	0.018	2.52	86	0.9	-	28.74	-0.06	89	237	81	76

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
32	4.972	0.158	0.018	2.52	86	0.9	-	28.68	-0.06	88	235	81	76
33	5.132	0.160	0.019	2.51	86	0.9	-	28.62	-0.06	88	233	81	76
34	5.294	0.162	0.019	2.53	87	0.9	-	28.57	-0.05	89	232	81	76
35	5.451	0.157	0.019	2.54	87	0.9	-	28.51	-0.06	88	230	81	76
36	5.614	0.163	0.019	2.55	87	0.9	-	28.46	-0.05	88	229	81	76
37	5.773	0.159	0.019	2.53	88	0.9	-	28.41	-0.05	88	228	81	76
38	5.933	0.160	0.018	2.55	88	0.9	-	28.36	-0.05	88	227	81	76
39	6.096	0.163	0.018	2.56	88	0.9	-	28.31	-0.05	88	226	81	76
40	6.254	0.158	0.019	2.56	88	0.9	99	28.26	-0.05	88	226	81	76
41	6.417	0.163	0.019	2.55	89	0.9	-	28.21	-0.05	87	224	81	76
42	6.579	0.162	0.019	2.55	89	0.9	-	28.15	-0.06	87	224	81	76
43	6.737	0.158	0.019	2.56	89	0.9	-	28.09	-0.06	87	223	81	76
44	6.902	0.165	0.018	2.56	90	0.9	-	28.04	-0.05	87	222	81	77
45	7.061	0.159	0.018	2.57	90	0.9	-	27.99	-0.05	87	221	81	76
46	7.223	0.162	0.018	2.57	90	0.9	-	27.94	-0.05	88	221	81	76
47	7.387	0.164	0.018	2.58	91	0.9	-	27.89	-0.05	88	221	81	76
48	7.545	0.158	0.018	2.57	91	0.9	-	27.83	-0.06	88	220	81	76
49	7.711	0.166	0.018	2.57	91	0.9	-	27.78	-0.05	88	219	81	76
50	7.871	0.160	0.018	2.57	91	0.9	100	27.73	-0.05	88	218	81	76
51	8.033	0.162	0.018	2.58	92	0.9	-	27.68	-0.05	88	218	81	76
52	8.197	0.164	0.019	2.58	92	0.9	-	27.63	-0.05	88	218	81	76
53	8.358	0.161	0.019	2.58	92	0.9	-	27.58	-0.05	88	217	81	76
54	8.520	0.162	0.019	2.57	92	1.0	-	27.53	-0.05	88	217	81	76
55	8.686	0.166	0.018	2.59	93	0.9	-	27.47	-0.06	88	216	81	76
56	8.844	0.158	0.018	2.58	93	0.9	-	27.42	-0.05	88	216	81	76
57	9.010	0.166	0.019	2.58	93	0.9	-	27.36	-0.06	88	217	81	76
58	9.172	0.162	0.018	2.60	93	0.9	-	27.31	-0.05	88	216	81	76
59	9.334	0.162	0.019	2.60	94	0.9	-	27.23	-0.08	88	215	81	76
60	9.500	0.166	0.018	2.60	94	1.0	102	27.20	-0.03	87	215	81	76
61	9.660	0.160	0.018	2.59	94	1.0	-	27.15	-0.05	88	215	81	76
62	9.825	0.165	0.019	2.60	94	0.9	-	27.11	-0.04	88	214	81	76
63	9.989	0.164	0.018	2.60	95	0.9	-	27.05	-0.06	88	215	81	77

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
64	10.151	0.162	0.019	2.60	95	0.9	-	27.00	-0.05	88	215	81	77
65	10.315	0.164	0.018	2.60	95	0.9	-	26.94	-0.06	88	216	81	76
66	10.480	0.165	0.018	2.60	95	0.9	-	26.89	-0.05	88	216	81	77
67	10.640	0.160	0.019	2.59	95	0.9	-	26.84	-0.05	88	215	81	77
68	10.808	0.168	0.019	2.61	96	0.9	-	26.78	-0.06	88	216	81	77
69	10.970	0.162	0.018	2.61	96	0.9	-	26.73	-0.05	88	217	81	76
70	11.133	0.163	0.018	2.62	96	0.9	102	26.67	-0.06	88	216	81	76
71	11.300	0.167	0.018	2.60	96	0.9	-	26.63	-0.04	88	217	81	76
72	11.461	0.161	0.019	2.61	96	0.9	-	26.56	-0.07	88	218	81	77
73	11.626	0.165	0.019	2.63	97	1.0	-	26.52	-0.04	88	218	81	77
74	11.792	0.166	0.019	2.62	97	0.9	-	26.46	-0.06	88	218	81	77
75	11.954	0.162	0.020	2.63	97	1.0	-	26.40	-0.06	88	219	81	77
76	12.119	0.165	0.020	2.62	97	1.0	-	26.34	-0.06	88	219	81	77
77	12.285	0.166	0.019	2.63	97	0.9	-	26.29	-0.05	87	220	81	77
78	12.447	0.162	0.019	2.62	97	0.9	-	26.24	-0.05	87	220	81	77
79	12.613	0.166	0.019	2.62	98	0.9	-	26.18	-0.06	87	219	81	77
80	12.778	0.165	0.018	2.62	98	1.0	102	26.12	-0.06	87	220	81	77
81	12.939	0.161	0.019	2.62	98	1.0	-	26.05	-0.07	87	221	81	77
82	13.108	0.169	0.019	2.64	98	0.9	-	26.01	-0.04	88	221	81	77
83	13.271	0.163	0.019	2.62	98	1.0	-	25.95	-0.06	88	222	81	77
84	13.434	0.163	0.019	2.63	98	1.0	-	25.89	-0.06	88	222	81	77
85	13.602	0.168	0.019	2.64	99	1.0	-	25.83	-0.06	87	223	81	77
86	13.764	0.162	0.019	2.63	99	0.9	-	25.77	-0.06	87	223	81	77
87	13.930	0.166	0.019	2.64	99	0.9	-	25.71	-0.06	87	225	81	77
88	14.097	0.167	0.018	2.63	99	0.9	-	25.64	-0.07	88	226	81	77
89	14.260	0.163	0.018	2.64	99	0.9	-	25.58	-0.06	88	228	81	77
90	14.425	0.165	0.018	2.63	99	1.0	102	25.52	-0.06	88	229	81	77
91	14.592	0.167	0.019	2.63	99	0.9	-	25.46	-0.06	88	229	81	77
92	14.755	0.163	0.019	2.64	99	0.9	-	25.40	-0.06	88	229	81	77
93	14.921	0.166	0.019	2.65	100	0.9	-	25.34	-0.06	88	230	81	77
94	15.088	0.167	0.018	2.63	100	0.9	-	25.28	-0.06	88	230	81	77
95	15.251	0.163	0.019	2.64	100	0.9	-	25.23	-0.05	88	231	81	77

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
96	15.417	0.166	0.019	2.64	100	0.9	-	25.17	-0.06	88	231	81	77
97	15.584	0.167	0.019	2.63	100	1.0	-	25.11	-0.06	88	232	81	77
98	15.747	0.163	0.019	2.65	100	1.0	-	25.04	-0.07	88	231	82	77
99	15.913	0.166	0.019	2.64	100	0.9	-	24.99	-0.05	88	232	82	77
100	16.081	0.168	0.019	2.65	100	1.0	101	24.93	-0.06	88	231	82	77
101	16.243	0.162	0.019	2.65	101	0.9	-	24.86	-0.07	88	232	81	77
102	16.410	0.167	0.018	2.65	101	0.9	-	24.81	-0.05	88	232	82	77
103	16.577	0.167	0.020	2.63	101	0.9	-	24.74	-0.07	88	233	82	77
104	16.739	0.162	0.019	2.65	101	0.9	-	24.68	-0.06	88	233	82	77
105	16.907	0.168	0.019	2.63	101	0.9	-	24.62	-0.06	88	234	82	77
106	17.074	0.167	0.019	2.63	101	1.0	-	24.55	-0.07	88	236	82	77
107	17.236	0.162	0.020	2.63	101	0.9	-	24.50	-0.05	88	235	82	77
108	17.405	0.169	0.019	2.64	101	1.0	-	24.42	-0.08	88	237	82	77
109	17.570	0.165	0.019	2.64	101	1.0	-	24.36	-0.06	88	236	82	77
110	17.733	0.163	0.019	2.64	101	0.9	99	24.30	-0.06	88	238	82	77
111	17.903	0.170	0.020	2.63	101	1.0	-	24.24	-0.06	88	239	82	77
112	18.067	0.164	0.019	2.61	102	0.9	-	24.17	-0.07	88	240	82	77
113	18.230	0.163	0.019	2.62	102	0.9	-	24.12	-0.05	88	241	82	77
114	18.399	0.169	0.019	2.62	102	1.0	-	24.05	-0.07	88	242	82	77
115	18.563	0.164	0.018	2.62	102	1.0	-	24.00	-0.05	88	242	82	77
116	18.728	0.165	0.019	2.61	102	1.0	-	23.93	-0.07	89	242	82	77
117	18.897	0.169	0.019	2.61	102	0.9	-	23.86	-0.07	89	242	82	77
118	19.060	0.163	0.019	2.62	102	0.9	-	23.81	-0.05	88	241	82	77
119	19.226	0.166	0.019	2.63	102	1.0	-	23.75	-0.06	88	242	82	77
120	19.395	0.169	0.018	2.64	102	0.9	101	23.69	-0.06	88	241	82	77
121	19.558	0.163	0.020	2.64	102	1.0	-	23.63	-0.06	88	241	82	77
122	19.725	0.167	0.018	2.65	102	0.9	-	23.58	-0.05	88	240	82	77
123	19.892	0.167	0.018	2.64	102	0.9	-	23.52	-0.06	89	240	82	77
124	20.056	0.164	0.018	2.64	102	1.0	-	23.45	-0.07	89	241	82	77
125	20.223	0.167	0.018	2.63	102	0.9	-	23.39	-0.06	89	240	82	77
126	20.390	0.167	0.018	2.64	103	0.9	-	23.34	-0.05	89	240	82	77
127	20.553	0.163	0.018	2.65	103	0.9	-	23.28	-0.06	89	241	82	77

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
128	20.721	0.168	0.020	2.63	103	1.0	-	23.22	-0.06	89	241	82	77
129	20.888	0.167	0.019	2.64	103	1.0	-	23.16	-0.06	89	240	82	77
130	21.052	0.164	0.018	2.64	103	1.0	102	23.11	-0.05	89	241	82	77
131	21.219	0.167	0.018	2.63	103	0.9	-	23.05	-0.06	89	240	82	77
132	21.386	0.167	0.018	2.63	103	1.0	-	22.97	-0.08	89	242	82	77
133	21.550	0.164	0.019	2.64	103	0.9	-	22.90	-0.07	89	243	82	77
134	21.718	0.168	0.018	2.63	103	1.0	-	22.83	-0.07	89	245	82	77
135	21.885	0.167	0.018	2.60	103	1.0	-	22.75	-0.08	90	245	82	77
136	22.049	0.164	0.018	2.61	103	0.9	-	22.69	-0.06	90	245	82	77
137	22.216	0.167	0.019	2.61	103	1.0	-	22.62	-0.07	90	245	82	77
138	22.384	0.168	0.018	2.63	103	0.9	-	22.56	-0.06	90	243	82	77
139	22.548	0.164	0.019	2.63	103	0.9	-	22.50	-0.06	90	242	82	77
140	22.715	0.167	0.018	2.64	103	1.0	102	22.44	-0.06	90	242	82	77
141	22.882	0.167	0.018	2.65	103	0.9	-	22.39	-0.05	90	243	82	77
142	23.047	0.165	0.019	2.65	103	0.9	-	22.33	-0.06	90	242	82	77
143	23.214	0.167	0.019	2.65	103	1.0	-	22.28	-0.05	90	241	82	77
144	23.381	0.167	0.019	2.65	103	1.0	-	22.21	-0.07	89	241	82	77
145	23.546	0.165	0.018	2.65	104	1.0	-	22.14	-0.07	90	241	82	77
146	23.713	0.167	0.019	2.63	104	0.9	-	22.09	-0.05	89	241	82	77
147	23.880	0.167	0.019	2.62	104	1.0	-	22.03	-0.06	90	241	82	77
148	24.045	0.165	0.018	2.62	104	1.0	-	21.98	-0.05	90	241	82	77
149	24.212	0.167	0.018	2.63	104	1.0	-	21.92	-0.06	90	241	83	77
150	24.379	0.167	0.018	2.64	104	1.0	102	21.87	-0.05	90	242	82	77
151	24.544	0.165	0.019	2.63	104	1.0	-	21.80	-0.07	90	242	82	77
152	24.711	0.167	0.019	2.63	104	1.0	-	21.75	-0.05	90	242	82	77
153	24.879	0.168	0.019	2.63	104	0.9	-	21.70	-0.05	90	243	83	77
154	25.043	0.164	0.019	2.62	104	1.0	-	21.62	-0.08	90	243	83	77
155	25.210	0.167	0.018	2.61	104	1.0	-	21.57	-0.05	90	243	83	77
156	25.378	0.168	0.018	2.61	104	1.0	-	21.51	-0.06	90	244	83	77
157	25.543	0.165	0.018	2.61	104	1.0	-	21.45	-0.06	90	244	83	77
158	25.710	0.167	0.018	2.61	104	1.0	-	21.39	-0.06	90	244	83	77
159	25.878	0.168	0.018	2.62	104	1.0	-	21.34	-0.05	90	246	83	77

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
160	26.043	0.165	0.018	2.62	104	1.0	102	21.27	-0.07	90	246	83	77
161	26.210	0.167	0.018	2.62	104	1.0	-	21.20	-0.07	90	247	83	77
162	26.378	0.168	0.018	2.64	104	1.0	-	21.15	-0.05	90	247	83	77
163	26.543	0.165	0.019	2.65	104	0.9	-	21.08	-0.07	90	248	83	77
164	26.710	0.167	0.019	2.65	104	1.0	-	21.02	-0.06	90	248	83	77
165	26.878	0.168	0.019	2.66	104	1.0	-	20.95	-0.07	90	249	83	77
166	27.043	0.165	0.019	2.66	104	1.0	-	20.89	-0.06	90	249	83	77
167	27.210	0.167	0.018	2.66	104	1.0	-	20.83	-0.06	90	249	83	77
168	27.378	0.168	0.020	2.66	104	1.0	-	20.77	-0.06	90	250	83	77
169	27.543	0.165	0.020	2.66	104	1.0	-	20.71	-0.06	89	251	83	77
170	27.710	0.167	0.019	2.65	104	0.9	101	20.65	-0.06	89	251	83	77
171	27.878	0.168	0.019	2.64	104	1.0	-	20.59	-0.06	89	252	82	77
172	28.043	0.165	0.019	2.65	105	0.9	-	20.53	-0.06	89	253	83	77
173	28.210	0.167	0.018	2.65	105	1.0	-	20.46	-0.07	90	253	83	77
174	28.378	0.168	0.018	2.65	105	0.9	-	20.41	-0.05	90	254	83	77
175	28.543	0.165	0.019	2.65	105	1.0	-	20.34	-0.07	90	255	83	77
176	28.710	0.167	0.019	2.64	105	1.0	-	20.28	-0.06	90	256	83	77
177	28.878	0.168	0.019	2.64	105	1.0	-	20.21	-0.07	90	256	83	77
178	29.043	0.165	0.018	2.65	105	1.0	-	20.14	-0.07	90	255	83	77
179	29.210	0.167	0.019	2.65	105	1.0	-	20.08	-0.06	90	255	83	77
180	29.378	0.168	0.018	2.65	105	1.0	101	20.02	-0.06	90	256	83	77
181	29.543	0.165	0.018	2.67	105	1.0	-	19.96	-0.06	90	258	83	77
182	29.710	0.167	0.018	2.66	105	1.0	-	19.89	-0.07	90	258	83	77
183	29.878	0.168	0.019	2.67	105	1.0	-	19.82	-0.07	90	259	83	77
184	30.043	0.165	0.018	2.66	105	1.0	-	19.75	-0.07	91	259	83	77
185	30.210	0.167	0.019	2.65	105	0.9	-	19.68	-0.07	91	260	83	77
186	30.377	0.167	0.019	2.67	105	0.9	-	19.61	-0.07	91	260	83	77
187	30.543	0.166	0.019	2.67	105	1.0	-	19.53	-0.08	91	262	83	78
188	30.709	0.166	0.018	2.65	105	1.0	-	19.47	-0.06	91	263	83	78
189	30.877	0.168	0.019	2.66	105	1.0	-	19.39	-0.08	91	264	83	78
190	31.043	0.166	0.019	2.65	105	1.0	101	19.32	-0.07	91	264	83	78
191	31.210	0.167	0.020	2.66	105	0.9	-	19.24	-0.08	90	265	83	78

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
192	31.378	0.168	0.019	2.65	105	1.0	-	19.16	-0.08	90	266	83	78
193	31.543	0.165	0.019	2.65	105	1.0	-	19.09	-0.07	91	267	83	78
194	31.710	0.167	0.019	2.64	105	0.9	-	19.01	-0.08	91	266	83	78
195	31.878	0.168	0.018	2.64	105	1.0	-	18.94	-0.07	91	268	83	78
196	32.043	0.165	0.018	2.63	105	1.0	-	18.86	-0.08	91	269	83	78
197	32.210	0.167	0.018	2.63	105	1.0	-	18.79	-0.07	91	269	83	78
198	32.378	0.168	0.018	2.62	105	1.0	-	18.72	-0.07	92	271	83	78
199	32.543	0.165	0.019	2.65	105	1.0	-	18.64	-0.08	92	271	83	78
200	32.710	0.167	0.019	2.66	105	0.9	100	18.57	-0.07	92	271	84	78
201	32.878	0.168	0.018	2.65	105	1.0	-	18.49	-0.08	92	271	84	78
202	33.043	0.165	0.018	2.68	105	1.0	-	18.41	-0.08	92	271	84	78
203	33.211	0.168	0.019	2.64	105	1.0	-	18.34	-0.07	92	272	84	79
204	33.378	0.167	0.018	2.63	105	0.9	-	18.26	-0.08	92	272	84	79
205	33.543	0.165	0.018	2.64	105	1.0	-	18.19	-0.07	92	272	84	79
206	33.711	0.168	0.018	2.64	105	1.0	-	18.11	-0.08	92	272	84	79
207	33.879	0.168	0.018	2.63	106	1.0	-	18.04	-0.07	92	273	84	79
208	34.043	0.164	0.018	2.65	106	1.0	-	17.97	-0.07	92	274	84	79
209	34.211	0.168	0.019	2.64	106	1.0	-	17.89	-0.08	92	275	84	79
210	34.380	0.169	0.019	2.65	106	1.0	100	17.82	-0.07	92	275	84	79
211	34.544	0.164	0.018	2.64	106	1.0	-	17.75	-0.07	92	276	84	79
212	34.712	0.168	0.018	2.64	106	1.0	-	17.69	-0.06	92	277	84	79
213	34.881	0.169	0.018	2.65	106	1.0	-	17.61	-0.08	92	278	84	79
214	35.045	0.164	0.019	2.66	106	1.0	-	17.54	-0.07	92	279	84	79
215	35.213	0.168	0.018	2.64	106	1.0	-	17.47	-0.07	92	279	84	79
216	35.382	0.169	0.019	2.64	106	1.0	-	17.40	-0.07	92	280	84	79
217	35.546	0.164	0.018	2.65	106	1.0	-	17.33	-0.07	92	279	84	79
218	35.714	0.168	0.018	2.66	106	0.9	-	17.26	-0.07	92	280	85	79
219	35.883	0.169	0.018	2.65	106	1.0	-	17.19	-0.07	92	281	85	79
220	36.047	0.164	0.018	2.66	106	0.9	101	17.12	-0.07	92	281	85	79
221	36.215	0.168	0.019	2.66	106	0.9	-	17.05	-0.07	92	281	85	79
222	36.384	0.169	0.019	2.67	106	1.0	-	16.97	-0.08	92	282	85	79
223	36.548	0.164	0.019	2.66	106	1.0	-	16.90	-0.07	93	283	85	79

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
224	36.716	0.168	0.018	2.66	106	1.0	-	16.83	-0.07	93	284	85	79
225	36.886	0.170	0.018	2.68	106	1.0	-	16.75	-0.08	93	284	85	79
226	37.050	0.164	0.019	2.65	106	1.0	-	16.68	-0.07	93	284	85	79
227	37.216	0.166	0.019	2.67	107	0.9	-	16.61	-0.07	93	284	85	79
228	37.387	0.171	0.018	2.66	107	1.0	-	16.54	-0.07	93	285	85	79
229	37.552	0.165	0.019	2.67	107	1.0	-	16.46	-0.08	93	287	85	79
230	37.718	0.166	0.018	2.67	107	1.0	103	16.39	-0.07	93	287	85	79
231	37.889	0.171	0.019	2.63	107	1.0	-	16.31	-0.08	93	288	85	79
232	38.054	0.165	0.019	2.63	107	1.0	-	16.23	-0.08	93	288	85	79
233	38.219	0.165	0.019	2.65	107	1.0	-	16.16	-0.07	93	288	85	79
234	38.390	0.171	0.019	2.63	107	1.0	-	16.08	-0.08	93	288	85	79
235	38.556	0.166	0.018	2.63	107	1.0	-	16.00	-0.08	93	290	85	79
236	38.720	0.164	0.019	2.62	107	1.0	-	15.92	-0.08	93	289	85	80
237	38.891	0.171	0.018	2.61	107	1.0	-	15.85	-0.07	93	290	85	79
238	39.058	0.167	0.018	2.60	107	1.0	-	15.76	-0.09	93	291	85	80
239	39.222	0.164	0.018	2.61	107	1.0	-	15.69	-0.07	93	293	85	79
240	39.392	0.170	0.018	2.62	107	1.0	103	15.60	-0.09	93	293	85	79
241	39.560	0.168	0.018	2.64	107	1.0	-	15.52	-0.08	93	293	85	79
242	39.724	0.164	0.018	2.63	107	1.0	-	15.44	-0.08	93	294	85	80
243	39.894	0.170	0.018	2.66	107	1.0	-	15.36	-0.08	93	295	85	79
244	40.062	0.168	0.018	2.67	107	1.0	-	15.28	-0.08	94	295	85	80
245	40.226	0.164	0.019	2.65	107	1.0	-	15.20	-0.08	94	297	85	80
246	40.395	0.169	0.018	2.67	107	1.0	-	15.11	-0.09	94	298	85	79
247	40.564	0.169	0.018	2.66	107	1.0	-	15.03	-0.08	94	299	85	79
248	40.728	0.164	0.018	2.64	107	1.0	-	14.94	-0.09	94	300	86	79
249	40.896	0.168	0.019	2.65	108	1.0	-	14.86	-0.08	94	300	86	80
250	41.065	0.169	0.018	2.66	108	1.0	103	14.77	-0.09	94	301	86	79
251	41.230	0.165	0.019	2.64	108	1.0	-	14.68	-0.09	94	302	86	79
252	41.398	0.168	0.018	2.64	108	1.0	-	14.60	-0.08	94	302	86	79
253	41.566	0.168	0.018	2.65	108	1.0	-	14.50	-0.10	94	304	86	80
254	41.732	0.166	0.019	2.65	108	1.0	-	14.42	-0.08	94	304	86	79
255	41.900	0.168	0.019	2.65	108	1.0	-	14.33	-0.09	94	304	86	79

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
256	42.069	0.169	0.019	2.65	108	1.0	-	14.23	-0.10	94	305	86	79
257	42.234	0.165	0.019	2.64	108	1.0	-	14.14	-0.09	94	306	86	79
258	42.402	0.168	0.019	2.64	108	1.0	-	14.05	-0.09	95	307	86	79
259	42.570	0.168	0.019	2.64	108	1.0	-	13.95	-0.10	95	308	86	80
260	42.736	0.166	0.019	2.65	108	1.0	101	13.86	-0.09	95	310	86	80
261	42.904	0.168	0.019	2.62	108	1.0	-	13.75	-0.11	95	309	86	80
262	43.072	0.168	0.019	2.64	108	1.0	-	13.66	-0.09	95	310	86	80
263	43.237	0.165	0.019	2.63	108	1.0	-	13.56	-0.10	95	312	86	80
264	43.406	0.169	0.018	2.63	108	1.0	-	13.46	-0.10	95	313	86	80
265	43.575	0.169	0.019	2.63	108	1.0	-	13.35	-0.11	95	313	86	80
266	43.740	0.165	0.019	2.63	108	1.0	-	13.26	-0.09	95	313	86	80
267	43.908	0.168	0.019	2.63	108	1.0	-	13.15	-0.11	95	315	86	80
268	44.077	0.169	0.019	2.63	108	1.0	-	13.06	-0.09	95	315	86	80
269	44.242	0.165	0.019	2.62	108	1.0	-	12.95	-0.11	95	317	86	80
270	44.409	0.167	0.018	2.64	108	1.0	101	12.84	-0.11	95	316	86	80
271	44.579	0.170	0.019	2.64	108	1.0	-	12.75	-0.09	95	317	86	80
272	44.744	0.165	0.019	2.63	108	1.0	-	12.64	-0.11	95	317	86	80
273	44.911	0.167	0.019	2.65	108	1.0	-	12.55	-0.09	96	317	86	80
274	45.082	0.171	0.019	2.65	108	1.0	-	12.45	-0.10	96	317	86	80
275	45.248	0.166	0.019	2.64	108	1.0	-	12.34	-0.11	95	317	86	80
276	45.413	0.165	0.019	2.66	108	1.0	-	12.26	-0.08	96	317	86	80
277	45.584	0.171	0.019	2.66	108	1.0	-	12.15	-0.11	96	317	86	80
278	45.751	0.167	0.019	2.67	108	1.0	-	12.06	-0.09	96	316	86	80
279	45.915	0.164	0.019	2.67	108	1.0	-	11.96	-0.10	96	316	86	80
280	46.086	0.171	0.019	2.66	108	1.0	102	11.86	-0.10	96	317	86	80
281	46.253	0.167	0.019	2.64	108	1.0	-	11.77	-0.09	96	317	87	80
282	46.417	0.164	0.019	2.64	108	1.0	-	11.68	-0.09	96	316	86	80
283	46.587	0.170	0.018	2.65	109	1.0	-	11.58	-0.10	96	316	87	80
284	46.756	0.169	0.018	2.64	108	1.0	-	11.50	-0.08	96	315	87	80
285	46.920	0.164	0.018	2.64	109	1.0	-	11.41	-0.09	96	315	87	80
286	47.089	0.169	0.018	2.65	109	1.0	-	11.31	-0.10	96	314	87	80
287	47.259	0.170	0.019	2.65	109	1.0	-	11.23	-0.08	96	314	87	80

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
288	47.423	0.164	0.018	2.66	109	1.0	-	11.15	-0.08	96	314	87	80
289	47.591	0.168	0.019	2.64	109	1.0	-	11.05	-0.10	96	314	87	80
290	47.760	0.169	0.019	2.65	109	1.0	100	10.97	-0.08	96	314	87	80
291	47.926	0.166	0.018	2.65	109	1.0	-	10.88	-0.09	96	314	87	80
292	48.094	0.168	0.019	2.65	109	1.0	-	10.80	-0.08	96	313	87	80
293	48.263	0.169	0.019	2.65	109	1.0	-	10.71	-0.09	96	314	87	80
294	48.429	0.166	0.018	2.65	109	1.0	-	10.62	-0.09	96	313	87	80
295	48.597	0.168	0.019	2.65	109	1.0	-	10.54	-0.08	96	313	87	80
296	48.765	0.168	0.019	2.64	109	1.0	-	10.46	-0.08	96	312	87	80
297	48.931	0.166	0.019	2.65	109	1.0	-	10.36	-0.10	96	311	87	80
298	49.099	0.168	0.019	2.65	109	1.0	-	10.27	-0.09	96	311	87	80
299	49.268	0.169	0.019	2.64	109	1.0	-	10.18	-0.09	96	312	87	80
300	49.433	0.165	0.019	2.64	109	1.0	100	10.10	-0.08	96	312	87	80
301	49.602	0.169	0.019	2.64	109	1.0	-	10.01	-0.09	96	311	87	80
302	49.771	0.169	0.019	2.65	109	1.0	-	9.93	-0.08	96	311	87	80
303	49.936	0.165	0.019	2.65	109	1.0	-	9.84	-0.09	96	312	87	80
304	50.105	0.169	0.019	2.65	109	1.0	-	9.75	-0.09	96	312	87	80
305	50.275	0.170	0.019	2.65	109	1.0	-	9.68	-0.07	96	311	87	80
306	50.439	0.164	0.019	2.64	109	1.0	-	9.60	-0.08	96	310	87	80
307	50.606	0.167	0.019	2.66	109	1.0	-	9.52	-0.08	96	309	87	80
308	50.777	0.171	0.019	2.63	109	1.0	-	9.44	-0.08	96	308	87	80
309	50.944	0.167	0.019	2.65	109	1.0	-	9.37	-0.07	96	308	87	80
310	51.109	0.165	0.019	2.65	109	1.0	100	9.30	-0.07	96	307	87	80
311	51.280	0.171	0.018	2.66	109	1.0	-	9.22	-0.08	96	307	87	80
312	51.447	0.167	0.019	2.65	109	1.0	-	9.16	-0.06	96	306	87	80
313	51.611	0.164	0.019	2.64	109	1.0	-	9.09	-0.07	96	305	87	80
314	51.782	0.171	0.019	2.64	109	1.0	-	9.02	-0.07	96	304	87	80
315	51.950	0.168	0.019	2.64	109	1.0	-	8.95	-0.07	96	304	87	80
316	52.114	0.164	0.018	2.65	109	1.0	-	8.88	-0.07	96	304	87	80
317	52.284	0.170	0.019	2.65	109	1.0	-	8.83	-0.05	96	302	87	80
318	52.454	0.170	0.019	2.66	109	0.9	-	8.76	-0.07	96	302	87	80
319	52.618	0.164	0.019	2.66	109	1.0	-	8.70	-0.06	96	301	87	80

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
320	52.787	0.169	0.019	2.65	109	1.0	100	8.64	-0.06	95	299	87	80
321	52.956	0.169	0.019	2.66	109	1.0	-	8.59	-0.05	95	298	87	80
322	53.121	0.165	0.019	2.65	110	1.0	-	8.53	-0.06	95	297	87	80
323	53.290	0.169	0.019	2.65	109	1.0	-	8.48	-0.05	95	296	87	80
324	53.459	0.169	0.019	2.66	110	1.0	-	8.43	-0.05	95	294	87	80
325	53.625	0.166	0.019	2.64	110	1.0	-	8.38	-0.05	95	293	87	80
326	53.793	0.168	0.019	2.64	109	1.0	-	8.33	-0.05	95	291	87	80
327	53.962	0.169	0.019	2.65	110	1.0	-	8.28	-0.05	95	290	87	80
328	54.128	0.166	0.019	2.65	110	1.0	-	8.23	-0.05	95	288	87	80
329	54.296	0.168	0.019	2.64	110	1.0	-	8.18	-0.05	95	287	87	80
330	54.465	0.169	0.019	2.64	110	1.0	100	8.14	-0.04	95	286	87	80
331	54.630	0.165	0.019	2.65	110	1.0	-	8.09	-0.05	95	284	87	80
332	54.799	0.169	0.019	2.65	110	1.0	-	8.04	-0.05	95	283	87	80
333	54.969	0.170	0.019	2.66	110	1.0	-	8.01	-0.03	95	282	87	80
334	55.134	0.165	0.019	2.66	110	1.0	-	7.95	-0.06	95	281	87	80
335	55.302	0.168	0.018	2.66	110	1.0	-	7.91	-0.04	95	280	87	80
336	55.473	0.171	0.019	2.66	110	1.0	-	7.87	-0.04	95	279	87	80
337	55.638	0.165	0.018	2.65	110	1.0	-	7.82	-0.05	95	278	87	80
338	55.805	0.167	0.018	2.65	110	1.0	-	7.78	-0.04	95	277	87	80
339	55.976	0.171	0.018	2.63	110	1.0	-	7.73	-0.05	95	276	87	80
340	56.143	0.167	0.019	2.63	110	1.0	100	7.69	-0.04	95	275	87	80
341	56.308	0.165	0.019	2.63	110	1.0	-	7.65	-0.04	95	274	87	80
342	56.479	0.171	0.019	2.62	110	1.0	-	7.62	-0.03	94	273	87	80
343	56.647	0.168	0.019	2.62	110	1.0	-	7.57	-0.05	94	273	87	80
344	56.811	0.164	0.019	2.63	110	1.0	-	7.53	-0.04	94	271	87	80
345	56.982	0.171	0.019	2.65	110	1.0	-	7.50	-0.03	94	271	87	80
346	57.151	0.169	0.019	2.64	110	1.0	-	7.46	-0.04	94	269	87	80
347	57.316	0.165	0.019	2.65	110	1.0	-	7.42	-0.04	94	268	87	80
348	57.484	0.168	0.019	2.64	110	1.0	-	7.39	-0.03	94	266	87	80
349	57.654	0.170	0.019	2.64	110	1.0	-	7.34	-0.05	94	265	87	80
350	57.820	0.166	0.019	2.65	110	1.0	100	7.31	-0.03	94	264	87	80
351	57.988	0.168	0.019	2.64	110	1.0	-	7.28	-0.03	94	262	87	80

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
352	58.158	0.170	0.019	2.64	110	1.0	-	7.24	-0.04	94	261	87	80
353	58.324	0.166	0.019	2.63	110	1.0	-	7.22	-0.02	94	260	87	80
354	58.492	0.168	0.019	2.65	110	1.0	-	7.18	-0.04	94	259	87	80
355	58.661	0.169	0.019	2.64	110	1.0	-	7.15	-0.03	94	258	87	80
356	58.826	0.165	0.019	2.64	110	1.0	-	7.12	-0.03	94	256	87	80
357	58.996	0.170	0.019	2.63	110	1.0	-	7.08	-0.04	94	256	87	80
358	59.165	0.169	0.019	2.63	110	1.0	-	7.05	-0.03	94	255	87	80
359	59.330	0.165	0.019	2.64	110	1.0	-	7.02	-0.03	93	254	87	80
360	59.499	0.169	0.019	2.65	110	1.0	100	6.99	-0.03	94	252	87	81
361	59.669	0.170	0.019	2.64	110	1.0	-	6.96	-0.03	93	251	87	80
362	59.834	0.165	0.019	2.63	110	1.0	-	6.93	-0.03	93	250	87	80
363	60.001	0.167	0.019	2.64	110	1.0	-	6.90	-0.03	93	249	87	80
364	60.173	0.172	0.019	2.63	110	1.0	-	6.88	-0.02	93	248	87	80
365	60.340	0.167	0.019	2.64	110	1.0	-	6.85	-0.03	93	246	87	80
366	60.505	0.165	0.019	2.63	110	1.0	-	6.83	-0.02	93	245	87	80
367	60.676	0.171	0.019	2.64	110	1.0	-	6.80	-0.03	93	244	87	80
368	60.844	0.168	0.019	2.64	110	1.0	-	6.78	-0.02	93	242	87	80
369	61.009	0.165	0.019	2.64	110	1.0	-	6.75	-0.03	93	241	87	80
370	61.179	0.170	0.019	2.65	110	1.0	100	6.73	-0.02	93	240	87	80
371	61.349	0.170	0.019	2.65	110	1.0	-	6.70	-0.03	93	239	87	80
372	61.514	0.165	0.019	2.66	110	0.9	-	6.67	-0.03	93	238	87	80
373	61.682	0.168	0.019	2.66	110	1.0	-	6.65	-0.02	93	237	87	80
374	61.852	0.170	0.019	2.65	110	1.0	-	6.63	-0.02	93	236	87	80
375	62.018	0.166	0.019	2.64	110	1.0	-	6.60	-0.03	93	235	87	80
376	62.187	0.169	0.019	2.65	110	1.0	-	6.58	-0.02	93	235	87	80
377	62.356	0.169	0.018	2.66	110	1.0	-	6.56	-0.02	93	233	87	80
378	62.522	0.166	0.019	2.68	110	1.0	-	6.54	-0.02	93	233	87	80
379	62.691	0.169	0.019	2.66	110	1.0	-	6.51	-0.03	93	232	87	80
380	62.860	0.169	0.019	2.66	110	1.0	100	6.50	-0.01	93	230	87	80
381	63.026	0.166	0.019	2.66	110	1.0	-	6.48	-0.02	92	229	86	81
382	63.195	0.169	0.019	2.65	110	1.0	-	6.46	-0.02	92	228	86	81
383	63.365	0.170	0.019	2.66	110	1.0	-	6.44	-0.02	92	227	86	80

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
384	63.530	0.165	0.018	2.64	110	1.0	-	6.42	-0.02	92	227	86	80
385	63.697	0.167	0.018	2.65	110	1.0	-	6.40	-0.02	92	226	86	80
386	63.869	0.172	0.019	2.66	110	1.0	-	6.37	-0.03	92	224	86	80
387	64.036	0.167	0.019	2.66	110	0.9	-	6.36	-0.01	92	223	86	80
388	64.201	0.165	0.019	2.67	110	1.0	-	6.34	-0.02	92	223	86	80
389	64.372	0.171	0.019	2.67	110	1.0	-	6.32	-0.02	92	222	86	80
390	64.541	0.169	0.019	2.66	110	1.0	100	6.30	-0.02	92	221	86	80
391	64.705	0.164	0.019	2.66	110	1.0	-	6.28	-0.02	92	221	86	80
392	64.876	0.171	0.019	2.67	110	1.0	-	6.26	-0.02	92	221	86	80
393	65.045	0.169	0.019	2.66	110	0.9	-	6.25	-0.01	92	220	86	80
394	65.210	0.165	0.018	2.65	110	1.0	-	6.23	-0.02	92	219	86	80
395	65.379	0.169	0.019	2.65	110	1.0	-	6.21	-0.02	92	218	86	80
396	65.548	0.169	0.019	2.65	110	1.0	-	6.19	-0.02	92	218	86	80
397	65.714	0.166	0.019	2.64	110	1.0	-	6.17	-0.02	92	217	86	80
398	65.883	0.169	0.019	2.64	110	1.0	-	6.15	-0.02	92	217	86	80
399	66.053	0.170	0.018	2.66	110	1.0	-	6.13	-0.02	92	217	86	80
400	66.219	0.166	0.019	2.65	110	1.0	100	6.11	-0.02	92	215	86	80
401	66.388	0.169	0.019	2.65	110	1.0	-	6.10	-0.01	91	216	86	80
402	66.557	0.169	0.018	2.65	110	1.0	-	6.08	-0.02	91	214	86	80
403	66.723	0.166	0.018	2.66	110	1.0	-	6.06	-0.02	91	214	86	80
404	66.892	0.169	0.019	2.65	110	1.0	-	6.04	-0.02	92	214	86	80
405	67.062	0.170	0.019	2.64	110	1.0	-	6.02	-0.02	91	214	86	80
406	67.227	0.165	0.019	2.64	110	1.0	-	6.00	-0.02	91	214	86	80
407	67.395	0.168	0.018	2.65	110	1.0	-	5.99	-0.01	91	213	86	80
408	67.566	0.171	0.018	2.65	110	1.0	-	5.97	-0.02	91	213	86	80
409	67.732	0.166	0.019	2.64	110	1.0	-	5.95	-0.02	91	212	86	80
410	67.898	0.166	0.019	2.66	110	1.0	100	5.93	-0.02	91	212	86	80
411	68.070	0.172	0.018	2.66	110	1.0	-	5.91	-0.02	91	211	86	80
412	68.238	0.168	0.019	2.65	110	1.0	-	5.89	-0.02	91	211	86	80
413	68.402	0.164	0.019	2.65	110	1.0	-	5.87	-0.02	91	211	86	80
414	68.573	0.171	0.018	2.65	110	1.0	-	5.85	-0.02	91	210	86	80
415	68.743	0.170	0.019	2.65	110	1.0	-	5.83	-0.02	91	210	86	80

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
416	68.908	0.165	0.018	2.65	110	1.0	-	5.82	-0.01	91	210	86	80
417	69.077	0.169	0.019	2.65	110	1.0	-	5.80	-0.02	91	210	86	80
418	69.246	0.169	0.019	2.65	110	1.0	-	5.78	-0.02	91	210	86	80
419	69.413	0.167	0.019	2.65	110	1.0	-	5.77	-0.01	91	209	86	80
420	69.582	0.169	0.019	2.65	110	1.0	100	5.74	-0.03	91	209	86	80
421	69.751	0.169	0.019	2.65	110	1.0	-	5.72	-0.02	91	209	86	80
422	69.917	0.166	0.019	2.65	110	1.0	-	5.71	-0.01	91	208	86	80
423	70.086	0.169	0.019	2.65	110	1.0	-	5.68	-0.03	91	207	86	80
424	70.255	0.169	0.018	2.65	110	1.0	-	5.68	0.00	91	207	86	80
425	70.421	0.166	0.019	2.64	110	1.0	-	5.65	-0.03	91	207	86	80
426	70.590	0.169	0.019	2.66	110	1.0	-	5.64	-0.01	91	207	86	80
427	70.760	0.170	0.019	2.65	110	1.0	-	5.61	-0.03	91	207	86	80
428	70.925	0.165	0.019	2.66	110	1.0	-	5.60	-0.01	91	206	86	80
429	71.093	0.168	0.018	2.66	110	0.9	-	5.58	-0.02	91	206	86	80
430	71.265	0.172	0.019	2.65	110	1.0	100	5.56	-0.02	91	205	86	80
431	71.431	0.166	0.019	2.64	110	1.0	-	5.55	-0.01	91	205	86	80
432	71.597	0.166	0.019	2.66	110	1.0	-	5.53	-0.02	91	205	86	80
433	71.768	0.171	0.019	2.64	110	1.0	-	5.52	-0.01	91	205	86	80
434	71.937	0.169	0.019	2.64	110	1.0	-	5.50	-0.02	90	204	86	80
435	72.102	0.165	0.019	2.64	110	1.0	-	5.48	-0.02	90	203	86	80
436	72.272	0.170	0.019	2.65	110	1.0	-	5.46	-0.02	90	204	86	80
437	72.442	0.170	0.019	2.65	110	1.0	-	5.44	-0.02	90	204	86	80
438	72.607	0.165	0.019	2.66	110	1.0	-	5.43	-0.01	90	203	86	80
439	72.775	0.168	0.019	2.65	110	1.0	-	5.41	-0.02	90	203	86	80
440	72.945	0.170	0.019	2.66	110	0.9	100	5.40	-0.01	90	202	86	80
441	73.112	0.167	0.019	2.66	110	1.0	-	5.38	-0.02	90	202	86	80
442	73.280	0.168	0.019	2.64	110	1.0	-	5.37	-0.01	90	202	86	80
443	73.449	0.169	0.018	2.65	110	1.0	-	5.34	-0.03	90	203	86	80
444	73.615	0.166	0.019	2.65	110	1.0	-	5.33	-0.01	90	202	86	80
445	73.785	0.170	0.019	2.63	110	1.0	-	5.31	-0.02	90	202	86	80
446	73.955	0.170	0.019	2.66	110	1.0	-	5.30	-0.01	90	202	86	80
447	74.120	0.165	0.019	2.65	110	1.0	-	5.28	-0.02	90	202	86	80

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
448	74.289	0.169	0.018	2.65	110	1.0	-	5.26	-0.02	90	201	86	80
449	74.459	0.170	0.019	2.64	110	1.0	-	5.25	-0.01	90	201	86	80
450	74.625	0.166	0.019	2.64	110	1.0	100	5.23	-0.02	90	201	85	80
451	74.793	0.168	0.019	2.65	110	1.0	-	5.22	-0.01	90	200	85	80
452	74.964	0.171	0.019	2.65	110	1.0	-	5.20	-0.02	90	200	85	80
453	75.132	0.168	0.019	2.65	110	1.0	-	5.18	-0.02	90	200	85	80
454	75.296	0.164	0.019	2.64	110	1.0	-	5.17	-0.01	90	200	85	80
455	75.467	0.171	0.019	2.67	110	1.0	-	5.16	-0.01	90	199	85	80
456	75.637	0.170	0.019	2.66	110	1.0	-	5.14	-0.02	90	199	85	80
457	75.802	0.165	0.019	2.65	110	1.0	-	5.12	-0.02	90	199	85	80
458	75.971	0.169	0.019	2.65	110	1.0	-	5.10	-0.02	90	199	85	80
459	76.141	0.170	0.019	2.64	110	1.0	-	5.09	-0.01	90	199	85	80
460	76.307	0.166	0.019	2.64	110	0.9	100	5.08	-0.01	90	199	85	80
461	76.476	0.169	0.019	2.65	110	1.0	-	5.06	-0.02	90	198	85	80
462	76.645	0.169	0.019	2.67	110	1.0	-	5.05	-0.01	90	197	85	80
463	76.811	0.166	0.019	2.65	110	1.0	-	5.04	-0.01	90	197	85	80
464	76.980	0.169	0.018	2.66	110	1.0	-	5.02	-0.02	90	197	85	80
465	77.150	0.170	0.019	2.65	110	1.0	-	5.00	-0.02	90	197	85	80
466	77.316	0.166	0.019	2.66	110	1.0	-	4.99	-0.01	90	196	85	80
467	77.485	0.169	0.019	2.65	110	1.0	-	4.97	-0.02	89	196	85	80
468	77.655	0.170	0.019	2.66	110	1.0	-	4.96	-0.01	90	196	85	80
469	77.820	0.165	0.019	2.64	110	1.0	-	4.94	-0.02	89	196	85	80
470	77.988	0.168	0.019	2.65	110	0.9	100	4.93	-0.01	89	195	85	80
471	78.160	0.172	0.019	2.65	110	1.0	-	4.91	-0.02	89	194	85	80
472	78.326	0.166	0.019	2.65	110	1.0	-	4.90	-0.01	89	194	85	80
473	78.492	0.166	0.019	2.66	110	1.0	-	4.88	-0.02	89	194	85	80
474	78.663	0.171	0.019	2.66	110	1.0	-	4.87	-0.01	89	194	85	79
475	78.832	0.169	0.019	2.66	110	1.0	-	4.85	-0.02	89	193	85	79
476	78.997	0.165	0.019	2.65	110	1.0	-	4.84	-0.01	89	193	85	79
477	79.167	0.170	0.019	2.67	110	1.0	-	4.82	-0.02	89	193	85	79
478	79.337	0.170	0.019	2.67	110	1.0	-	4.80	-0.02	89	194	85	79
479	79.502	0.165	0.019	2.66	110	1.0	-	4.78	-0.02	89	194	85	79

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
480	79.671	0.169	0.019	2.66	110	1.0	100	4.77	-0.01	89	194	85	80
481	79.840	0.169	0.019	2.67	110	1.0	-	4.75	-0.02	89	193	85	80
482	80.007	0.167	0.019	2.67	110	1.0	-	4.73	-0.02	89	193	85	79
483	80.176	0.169	0.019	2.67	110	1.0	-	4.72	-0.01	89	192	85	79
484	80.345	0.169	0.019	2.66	110	1.0	-	4.70	-0.02	89	193	85	79
485	80.511	0.166	0.019	2.66	110	0.9	-	4.68	-0.02	89	193	85	79
486	80.680	0.169	0.019	2.66	110	1.0	-	4.66	-0.02	89	193	85	79
487	80.850	0.170	0.019	2.66	110	1.0	-	4.65	-0.01	89	192	85	79
488	81.016	0.166	0.019	2.67	110	1.0	-	4.63	-0.02	89	193	85	79
489	81.184	0.168	0.019	2.67	110	0.9	-	4.61	-0.02	89	193	85	79
490	81.354	0.170	0.019	2.66	110	0.9	100	4.60	-0.01	89	192	85	79
491	81.520	0.166	0.019	2.67	110	1.0	-	4.58	-0.02	89	193	85	79
492	81.687	0.167	0.019	2.67	110	1.0	-	4.56	-0.02	89	193	85	79
493	81.859	0.172	0.019	2.68	110	1.0	-	4.55	-0.01	89	192	85	79
494	82.026	0.167	0.019	2.67	110	1.0	-	4.53	-0.02	89	192	85	79
495	82.190	0.164	0.019	2.66	110	1.0	-	4.51	-0.02	89	192	85	79
496	82.361	0.171	0.019	2.67	110	0.9	-	4.49	-0.02	89	192	85	79
497	82.531	0.170	0.019	2.65	110	1.0	-	4.47	-0.02	89	192	85	79
498	82.696	0.165	0.019	2.65	110	1.0	-	4.46	-0.01	89	192	85	79
499	82.865	0.169	0.018	2.66	110	1.0	-	4.44	-0.02	89	191	85	79
500	83.035	0.170	0.019	2.67	110	1.0	100	4.42	-0.02	89	191	85	79
501	83.200	0.165	0.019	2.67	110	1.0	-	4.41	-0.01	89	192	85	79
502	83.369	0.169	0.019	2.65	110	1.0	-	4.39	-0.02	89	193	85	79
503	83.539	0.170	0.019	2.66	110	1.0	-	4.37	-0.02	89	193	85	79
504	83.705	0.166	0.019	2.65	110	1.0	-	4.36	-0.01	89	192	85	79
505	83.873	0.168	0.019	2.64	110	1.0	-	4.34	-0.02	89	192	85	79
506	84.042	0.169	0.019	2.64	110	0.9	-	4.31	-0.03	89	192	85	79
507	84.208	0.166	0.019	2.64	110	1.0	-	4.30	-0.01	89	193	85	79
508	84.377	0.169	0.019	2.63	110	1.0	-	4.28	-0.02	88	193	84	79
509	84.547	0.170	0.018	2.64	110	1.0	-	4.27	-0.01	88	192	84	79
510	84.712	0.165	0.019	2.65	110	0.9	99	4.25	-0.02	88	192	84	79
511	84.880	0.168	0.019	2.66	110	1.0	-	4.23	-0.02	88	191	84	79

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
512	85.051	0.171	0.019	2.65	110	1.0	-	4.21	-0.02	88	192	84	79
513	85.216	0.165	0.019	2.65	110	1.0	-	4.20	-0.01	88	192	84	79
514	85.383	0.167	0.019	2.65	110	1.0	-	4.18	-0.02	88	191	84	79
515	85.554	0.171	0.019	2.65	110	1.0	-	4.16	-0.02	88	191	84	79
516	85.721	0.167	0.019	2.65	110	1.0	-	4.14	-0.02	88	191	84	79
517	85.886	0.165	0.019	2.66	110	0.9	-	4.13	-0.01	88	191	84	79
518	86.058	0.172	0.019	2.65	110	1.0	-	4.10	-0.03	88	191	84	79
519	86.226	0.168	0.019	2.64	110	1.0	-	4.09	-0.01	88	191	84	79
520	86.390	0.164	0.019	2.65	110	1.0	99	4.07	-0.02	88	191	84	79
521	86.561	0.171	0.019	2.65	110	1.0	-	4.05	-0.02	88	191	84	79
522	86.730	0.169	0.019	2.65	110	1.0	-	4.02	-0.03	88	191	84	79
523	86.895	0.165	0.019	2.66	110	1.0	-	4.01	-0.01	88	192	84	79
524	87.063	0.168	0.019	2.66	110	1.0	-	3.99	-0.02	88	192	84	79
525	87.233	0.170	0.019	2.67	110	1.0	-	3.97	-0.02	88	192	84	79
526	87.399	0.166	0.019	2.65	110	1.0	-	3.95	-0.02	88	192	84	79
527	87.568	0.169	0.019	2.66	110	1.0	-	3.94	-0.01	88	192	84	79
528	87.737	0.169	0.019	2.67	110	1.0	-	3.91	-0.03	88	193	84	79
529	87.903	0.166	0.019	2.67	110	1.0	-	3.90	-0.01	88	192	84	79
530	88.072	0.169	0.019	2.66	110	1.0	100	3.87	-0.03	88	192	84	79
531	88.241	0.169	0.019	2.66	110	1.0	-	3.85	-0.02	88	192	84	79
532	88.406	0.165	0.019	2.66	110	1.0	-	3.83	-0.02	88	192	84	79
533	88.576	0.170	0.019	2.68	110	0.9	-	3.81	-0.02	88	193	84	79
534	88.746	0.170	0.019	2.67	110	1.0	-	3.80	-0.01	88	193	84	79
535	88.911	0.165	0.019	2.67	110	1.0	-	3.77	-0.03	88	193	84	79
536	89.079	0.168	0.019	2.67	110	1.0	-	3.75	-0.02	88	193	84	79
537	89.250	0.171	0.019	2.66	109	1.0	-	3.73	-0.02	88	192	84	79
538	89.417	0.167	0.019	2.66	109	0.9	-	3.72	-0.01	88	192	84	79
539	89.583	0.166	0.019	2.68	109	1.0	-	3.70	-0.02	88	193	84	79
540	89.754	0.171	0.019	2.67	109	1.0	100	3.68	-0.02	88	193	84	79
541	89.921	0.167	0.019	2.67	109	0.9	-	3.66	-0.02	88	192	84	79
542	90.085	0.164	0.019	2.66	109	1.0	-	3.64	-0.02	88	192	84	79
543	90.256	0.171	0.019	2.66	109	1.0	-	3.62	-0.02	88	192	84	79

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
544	90.425	0.169	0.019	2.66	109	1.0	-	3.60	-0.02	88	192	84	79
545	90.590	0.165	0.019	2.66	109	1.0	-	3.58	-0.02	88	192	84	79
546	90.760	0.170	0.019	2.67	109	1.0	-	3.56	-0.02	88	192	84	79
547	90.929	0.169	0.019	2.68	109	1.0	-	3.54	-0.02	88	192	84	79
548	91.095	0.166	0.019	2.66	109	1.0	-	3.52	-0.02	88	193	84	79
549	91.263	0.168	0.019	2.66	109	1.0	-	3.50	-0.02	88	193	84	79
550	91.433	0.170	0.019	2.67	109	1.0	99	3.48	-0.02	88	193	84	79
551	91.599	0.166	0.019	2.67	109	1.0	-	3.46	-0.02	88	193	84	79
552	91.768	0.169	0.019	2.67	109	1.0	-	3.44	-0.02	88	193	84	79
553	91.936	0.168	0.019	2.67	109	1.0	-	3.42	-0.02	88	193	84	79
554	92.102	0.166	0.019	2.67	109	1.0	-	3.40	-0.02	87	194	84	79
555	92.271	0.169	0.019	2.67	109	1.0	-	3.38	-0.02	87	193	84	79
556	92.441	0.170	0.019	2.67	109	1.0	-	3.36	-0.02	87	193	84	79
557	92.606	0.165	0.019	2.68	109	1.0	-	3.35	-0.01	87	193	84	79
558	92.775	0.169	0.019	2.67	109	1.0	-	3.32	-0.03	87	193	84	79
559	92.945	0.170	0.019	2.67	109	1.0	-	3.30	-0.02	87	193	84	79
560	93.110	0.165	0.019	2.66	109	1.0	99	3.28	-0.02	87	192	84	79
561	93.277	0.167	0.019	2.67	109	1.0	-	3.27	-0.01	87	193	84	79
562	93.449	0.172	0.019	2.67	109	1.0	-	3.24	-0.03	87	193	84	79
563	93.615	0.166	0.019	2.67	109	1.0	-	3.22	-0.02	87	193	84	79
564	93.781	0.166	0.019	2.66	109	1.0	-	3.21	-0.01	87	194	84	79
565	93.952	0.171	0.019	2.68	109	1.0	-	3.18	-0.03	87	193	83	79
566	94.120	0.168	0.019	2.67	109	1.0	-	3.17	-0.01	87	194	83	79
567	94.284	0.164	0.019	2.66	109	1.0	-	3.15	-0.02	87	193	83	79
568	94.455	0.171	0.018	2.67	109	1.0	-	3.13	-0.02	87	193	83	79
569	94.624	0.169	0.019	2.68	109	1.0	-	3.11	-0.02	87	193	83	79
570	94.789	0.165	0.019	2.67	109	0.9	99	3.09	-0.02	87	194	83	79
571	94.957	0.168	0.019	2.67	109	1.0	-	3.07	-0.02	87	194	83	79
572	95.127	0.170	0.019	2.67	109	1.0	-	3.05	-0.02	87	193	83	79
573	95.292	0.165	0.019	2.66	109	1.0	-	3.04	-0.01	87	194	83	78
574	95.461	0.169	0.019	2.66	109	1.0	-	3.02	-0.02	87	193	83	79
575	95.631	0.170	0.019	2.65	109	1.0	-	3.00	-0.02	87	193	83	78

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
576	95.797	0.166	0.019	2.66	109	1.0	-	2.98	-0.02	87	194	83	78
577	95.965	0.168	0.019	2.64	109	1.0	-	2.96	-0.02	87	194	83	78
578	96.134	0.169	0.019	2.65	109	1.0	-	2.95	-0.01	87	193	83	78
579	96.299	0.165	0.019	2.66	109	1.0	-	2.92	-0.03	87	193	83	78
580	96.468	0.169	0.019	2.66	109	1.0	99	2.91	-0.01	87	193	83	78
581	96.638	0.170	0.019	2.65	109	1.0	-	2.89	-0.02	87	194	83	78
582	96.803	0.165	0.018	2.66	109	1.0	-	2.87	-0.02	87	193	83	78
583	96.972	0.169	0.019	2.66	109	1.0	-	2.85	-0.02	87	193	83	78
584	97.142	0.170	0.019	2.65	109	1.0	-	2.83	-0.02	87	193	83	78
585	97.306	0.164	0.019	2.64	109	1.0	-	2.82	-0.01	87	194	83	78
586	97.474	0.168	0.019	2.66	109	1.0	-	2.80	-0.02	87	194	83	78
587	97.645	0.171	0.019	2.66	109	1.0	-	2.78	-0.02	87	193	83	78
588	97.811	0.166	0.019	2.67	109	0.9	-	2.76	-0.02	87	193	83	78
589	97.977	0.166	0.019	2.66	109	1.0	-	2.74	-0.02	87	193	83	78
590	98.148	0.171	0.019	2.66	109	1.0	99	2.73	-0.01	87	193	83	78
591	98.315	0.167	0.019	2.66	109	1.0	-	2.71	-0.02	87	193	83	78
592	98.480	0.165	0.019	2.65	109	1.0	-	2.69	-0.02	87	193	83	78
593	98.650	0.170	0.019	2.66	109	1.0	-	2.67	-0.02	87	193	83	78
594	98.819	0.169	0.019	2.67	109	1.0	-	2.65	-0.02	87	193	83	78
595	98.984	0.165	0.019	2.66	109	1.0	-	2.64	-0.01	87	193	83	78
596	99.153	0.169	0.019	2.67	109	1.0	-	2.61	-0.03	87	193	83	78
597	99.323	0.170	0.019	2.67	109	1.0	-	2.59	-0.02	87	193	83	78
598	99.488	0.165	0.019	2.66	109	1.0	-	2.57	-0.02	87	193	83	78
599	99.656	0.168	0.019	2.66	109	1.0	-	2.56	-0.01	87	192	83	78
600	99.826	0.170	0.019	2.66	109	1.0	99	2.54	-0.02	87	193	83	78
601	99.992	0.166	0.019	2.67	109	1.0	-	2.52	-0.02	87	193	83	78
602	100.160	0.168	0.019	2.66	109	1.0	-	2.50	-0.02	87	193	83	78
603	100.329	0.169	0.019	2.67	108	1.0	-	2.48	-0.02	87	194	83	78
604	100.495	0.166	0.019	2.69	109	1.0	-	2.46	-0.02	87	194	83	78
605	100.664	0.169	0.019	2.68	108	1.0	-	2.45	-0.01	87	194	83	78
606	100.832	0.168	0.019	2.67	108	1.0	-	2.43	-0.02	86	193	83	78
607	100.998	0.166	0.019	2.68	108	0.9	-	2.40	-0.03	86	194	83	78

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
608	101.167	0.169	0.019	2.67	108	1.0	-	2.38	-0.02	86	194	83	78
609	101.336	0.169	0.019	2.67	108	1.0	-	2.36	-0.02	86	194	83	78
610	101.501	0.165	0.019	2.66	108	0.9	99	2.35	-0.01	87	194	83	78
611	101.669	0.168	0.019	2.67	108	1.0	-	2.33	-0.02	86	194	83	78
612	101.840	0.171	0.019	2.66	108	1.0	-	2.31	-0.02	86	194	83	78
613	102.004	0.164	0.019	2.67	108	1.0	-	2.29	-0.02	86	194	83	78
614	102.171	0.167	0.019	2.66	108	1.0	-	2.27	-0.02	86	194	83	78
615	102.343	0.172	0.019	2.66	108	1.0	-	2.25	-0.02	86	193	83	78
616	102.509	0.166	0.019	2.64	108	1.0	-	2.23	-0.02	86	194	82	78
617	102.675	0.166	0.019	2.65	108	0.9	-	2.21	-0.02	86	194	82	78
618	102.846	0.171	0.019	2.66	108	0.9	-	2.19	-0.02	86	194	82	78
619	103.014	0.168	0.019	2.65	108	1.0	-	2.17	-0.02	86	194	82	78
620	103.178	0.164	0.019	2.64	108	1.0	99	2.14	-0.03	86	194	82	78
621	103.348	0.170	0.019	2.66	108	1.0	-	2.13	-0.01	86	195	82	78
622	103.517	0.169	0.019	2.65	108	1.0	-	2.11	-0.02	86	194	82	78
623	103.682	0.165	0.019	2.65	108	1.0	-	2.09	-0.02	86	194	82	78
624	103.851	0.169	0.019	2.65	108	1.0	-	2.07	-0.02	86	194	82	78
625	104.020	0.169	0.019	2.65	108	1.0	-	2.05	-0.02	86	194	82	78
626	104.186	0.166	0.019	2.65	108	1.0	-	2.03	-0.02	86	195	82	78
627	104.354	0.168	0.019	2.64	108	1.0	-	2.01	-0.02	86	195	82	78
628	104.523	0.169	0.019	2.65	108	1.0	-	1.99	-0.02	86	195	82	78
629	104.690	0.167	0.019	2.65	108	1.0	-	1.97	-0.02	86	195	82	78
630	104.858	0.168	0.019	2.65	108	1.0	100	1.96	-0.01	86	194	82	78
631	105.027	0.169	0.019	2.66	108	1.0	-	1.94	-0.02	86	194	82	78
632	105.192	0.165	0.019	2.66	108	1.0	-	1.92	-0.02	86	194	82	78
633	105.361	0.169	0.019	2.65	108	1.0	-	1.90	-0.02	86	195	82	78
634	105.530	0.169	0.019	2.66	108	1.0	-	1.88	-0.02	86	195	82	78
635	105.695	0.165	0.019	2.66	108	1.0	-	1.86	-0.02	86	195	82	78
636	105.861	0.166	0.019	2.65	108	1.0	-	1.83	-0.03	86	194	82	78
637	106.034	0.173	0.019	2.66	108	1.0	-	1.82	-0.01	86	194	82	78
638	106.199	0.165	0.019	2.66	108	1.0	-	1.80	-0.02	86	193	82	78
639	106.367	0.168	0.019	2.66	108	1.0	-	1.78	-0.02	86	192	82	78

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
640	106.537	0.170	0.019	2.66	108	1.0	99	1.75	-0.03	86	192	82	78
641	106.702	0.165	0.019	2.65	108	0.9	-	1.74	-0.01	86	191	82	78
642	106.869	0.167	0.019	2.66	108	0.9	-	1.72	-0.02	86	190	82	78
643	107.041	0.172	0.019	2.66	108	1.0	-	1.70	-0.02	86	190	82	78
644	107.207	0.166	0.019	2.65	108	1.0	-	1.67	-0.03	86	189	82	78
645	107.372	0.165	0.019	2.65	108	1.0	-	1.66	-0.01	86	189	82	78
646	107.543	0.171	0.019	2.66	108	1.0	-	1.64	-0.02	86	189	82	78
647	107.711	0.168	0.019	2.66	108	1.0	-	1.62	-0.02	86	188	82	78
648	107.875	0.164	0.019	2.65	108	1.0	-	1.60	-0.02	86	188	82	78
649	108.045	0.170	0.019	2.66	108	1.0	-	1.58	-0.02	86	187	82	78
650	108.215	0.170	0.019	2.66	108	1.0	99	1.56	-0.02	86	187	82	78
651	108.379	0.164	0.018	2.66	108	1.0	-	1.55	-0.01	86	187	82	78
652	108.548	0.169	0.018	2.67	108	0.9	-	1.53	-0.02	85	187	82	78
653	108.717	0.169	0.019	2.67	108	0.9	-	1.51	-0.02	85	187	82	78
654	108.883	0.166	0.019	2.67	108	1.0	-	1.49	-0.02	85	187	82	78
655	109.051	0.168	0.019	2.65	108	1.0	-	1.47	-0.02	85	186	82	78
656	109.220	0.169	0.019	2.65	108	1.0	-	1.46	-0.01	85	185	82	78
657	109.387	0.167	0.019	2.65	108	1.0	-	1.45	-0.01	85	186	82	78
658	109.555	0.168	0.019	2.64	108	1.0	-	1.43	-0.02	85	185	82	78
659	109.723	0.168	0.019	2.64	108	1.0	-	1.41	-0.02	85	184	82	78
660	109.889	0.166	0.019	2.65	108	1.0	99	1.40	-0.01	85	184	82	78
661	110.058	0.169	0.019	2.63	108	0.9	-	1.38	-0.02	85	184	82	78
662	110.227	0.169	0.019	2.65	108	0.9	-	1.36	-0.02	85	184	82	78
663	110.392	0.165	0.019	2.66	108	1.0	-	1.35	-0.01	85	185	82	77
664	110.561	0.169	0.019	2.66	108	1.0	-	1.33	-0.02	85	184	82	77
665	110.731	0.170	0.019	2.65	108	1.0	-	1.32	-0.01	85	184	82	77
666	110.895	0.164	0.019	2.66	108	1.0	-	1.30	-0.02	85	184	82	77
667	111.063	0.168	0.019	2.65	108	1.0	-	1.28	-0.02	85	184	82	77
668	111.234	0.171	0.019	2.66	108	1.0	-	1.26	-0.02	85	184	82	77
669	111.399	0.165	0.019	2.66	108	0.9	-	1.25	-0.01	85	184	82	77
670	111.566	0.167	0.019	2.67	108	1.0	99	1.23	-0.02	85	184	82	77
671	111.737	0.171	0.019	2.66	108	0.9	-	1.21	-0.02	85	183	82	77

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
672	111.903	0.166	0.019	2.66	108	1.0	-	1.20	-0.01	85	183	82	77
673	112.068	0.165	0.019	2.66	108	1.0	-	1.18	-0.02	85	183	82	77
674	112.239	0.171	0.018	2.66	108	1.0	-	1.16	-0.02	85	184	82	77
675	112.407	0.168	0.019	2.66	108	1.0	-	1.14	-0.02	85	183	82	77
676	112.571	0.164	0.018	2.65	108	1.0	-	1.13	-0.01	85	182	82	77
677	112.741	0.170	0.018	2.66	108	1.0	-	1.12	-0.01	85	182	82	77
678	112.911	0.170	0.019	2.67	108	0.9	-	1.11	-0.01	85	181	81	77
679	113.075	0.164	0.019	2.66	108	1.0	-	1.09	-0.02	85	181	81	77
680	113.244	0.169	0.019	2.68	108	0.9	99	1.08	-0.01	85	180	81	77
681	113.414	0.170	0.019	2.69	108	0.9	-	1.07	-0.01	85	180	81	77
682	113.579	0.165	0.020	2.68	108	1.0	-	1.06	-0.01	85	179	81	77
683	113.747	0.168	0.019	2.68	108	1.0	-	1.04	-0.02	85	179	81	77
684	113.916	0.169	0.019	2.68	108	1.0	-	1.03	-0.01	85	178	81	77
685	114.082	0.166	0.019	2.68	108	1.0	-	1.02	-0.01	85	178	81	77
686	114.251	0.169	0.019	2.67	108	1.0	-	1.01	-0.01	85	178	81	77
687	114.419	0.168	0.019	2.68	107	1.0	-	1.00	-0.01	84	177	81	77
688	114.585	0.166	0.019	2.67	107	1.0	-	0.99	-0.01	84	177	81	77
689	114.754	0.169	0.019	2.68	108	1.0	-	0.97	-0.02	84	177	81	77
690	114.922	0.168	0.018	2.66	108	1.0	101	0.96	-0.01	84	177	81	77
691	115.087	0.165	0.019	2.67	107	1.0	-	0.94	-0.02	84	177	81	77
692	115.256	0.169	0.019	2.67	107	1.0	-	0.93	-0.01	84	178	81	77
693	115.426	0.170	0.019	2.66	107	0.9	-	0.92	-0.01	84	178	81	77
694	115.590	0.164	0.019	2.66	107	1.0	-	0.91	-0.01	84	178	81	77
695	115.759	0.169	0.019	2.69	107	0.9	-	0.89	-0.02	84	178	81	77
696	115.929	0.170	0.019	2.67	107	1.0	-	0.88	-0.01	84	177	81	77
697	116.093	0.164	0.019	2.66	107	1.0	-	0.87	-0.01	84	178	81	77
698	116.261	0.168	0.019	2.65	107	0.9	-	0.86	-0.01	84	179	81	77
699	116.431	0.170	0.019	2.66	107	1.0	-	0.84	-0.02	84	179	81	77
700	116.593	0.162	0.018	2.66	107	0.9	102	0.83	-0.01	84	178	81	77
701	116.763	0.170	0.019	2.67	107	1.0	-	0.82	-0.01	84	177	81	77
702	116.935	0.172	0.019	2.67	107	1.0	-	0.80	-0.02	84	178	81	77
703	117.102	0.167	0.019	2.67	107	1.0	-	0.79	-0.01	84	178	81	77

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
704	117.266	0.164	0.019	2.67	107	1.0	-	0.78	-0.01	84	178	81	77
705	117.436	0.170	0.019	2.66	107	0.9	-	0.78	0.00	84	177	81	77
706	117.604	0.168	0.019	2.67	107	1.0	-	0.76	-0.02	84	177	81	77
707	117.769	0.165	0.019	2.69	107	1.0	-	0.75	-0.01	84	176	81	77
708	117.939	0.170	0.019	2.69	107	1.0	-	0.74	-0.01	84	176	81	77
709	118.108	0.169	0.018	2.69	107	1.0	-	0.73	-0.01	84	175	81	77
710	118.269	0.161	0.019	2.67	107	1.0	101	0.72	-0.01	84	174	81	77
711	118.441	0.172	0.018	2.69	107	0.9	-	0.70	-0.02	84	174	81	77
712	118.610	0.169	0.019	2.68	107	1.0	-	0.69	-0.01	84	173	81	77
713	118.775	0.165	0.019	2.68	107	1.0	-	0.68	-0.01	84	173	81	77
714	118.943	0.168	0.019	2.67	107	1.0	-	0.67	-0.01	84	173	81	77
715	119.112	0.169	0.019	2.68	107	1.0	-	0.66	-0.01	84	172	81	77
716	119.278	0.166	0.019	2.68	107	1.0	-	0.65	-0.01	84	172	81	77
717	119.443	0.165	0.019	2.68	107	0.9	-	0.64	-0.01	84	172	81	77
718	119.612	0.169	0.019	2.68	107	1.0	-	0.62	-0.02	84	172	81	77
719	119.781	0.169	0.019	2.67	107	1.0	-	0.61	-0.01	84	172	81	77
720	119.949	0.168	0.019	2.68	107	0.9	99	0.60	-0.01	84	172	81	77
721	120.118	0.169	0.019	2.67	107	1.0	-	0.59	-0.01	84	171	81	77
722	120.283	0.165	0.019	2.68	107	1.0	-	0.57	-0.02	84	171	81	77
723	120.452	0.169	0.019	2.69	107	0.9	-	0.56	-0.01	84	171	81	77
724	120.622	0.170	0.019	2.69	107	1.0	-	0.55	-0.01	84	171	81	77
725	120.786	0.164	0.019	2.69	107	1.0	-	0.55	0.00	84	170	81	77
726	120.952	0.166	0.019	2.68	107	1.0	-	0.53	-0.02	84	170	81	77
727	121.125	0.173	0.019	2.69	107	0.9	-	0.52	-0.01	83	170	81	77
728	121.289	0.164	0.019	2.68	107	1.0	-	0.51	-0.01	83	170	81	77
729	121.457	0.168	0.018	2.69	107	0.9	-	0.50	-0.01	83	170	81	77
730	121.627	0.170	0.019	2.69	107	1.0	99	0.48	-0.02	83	169	81	77
731	121.793	0.166	0.019	2.70	107	1.0	-	0.47	-0.01	83	170	81	77
732	121.957	0.164	0.019	2.69	107	1.0	-	0.46	-0.01	83	169	81	77
733	122.131	0.174	0.019	2.69	107	1.0	-	0.45	-0.01	83	169	81	77
734	122.297	0.166	0.019	2.69	107	1.0	-	0.44	-0.01	83	168	81	77
735	122.462	0.165	0.019	2.69	107	1.0	-	0.43	-0.01	83	168	81	77

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
736	122.631	0.169	0.019	2.69	107	1.0	-	0.42	-0.01	83	167	81	76
737	122.800	0.169	0.019	2.68	107	1.0	-	0.40	-0.02	83	167	80	76
738	122.962	0.162	0.019	2.68	107	1.0	-	0.40	0.00	83	167	80	76
739	123.135	0.173	0.019	2.69	107	1.0	-	0.39	-0.01	83	167	80	76
740	123.304	0.169	0.019	2.69	107	1.0	99	0.37	-0.02	83	167	80	77
741	123.464	0.160	0.019	2.68	107	1.0	-	0.36	-0.01	83	168	80	76
742	123.637	0.173	0.019	2.69	107	0.9	-	0.35	-0.01	83	167	80	76
743	123.806	0.169	0.019	2.68	107	0.9	-	0.34	-0.01	83	167	80	76
744	123.968	0.162	0.018	2.68	107	1.0	-	0.34	0.00	83	167	80	76
745	124.137	0.169	0.019	2.68	107	1.0	-	0.33	-0.01	83	166	80	76
746	124.306	0.169	0.019	2.67	107	0.9	-	0.32	-0.01	83	167	80	76
747	124.475	0.169	0.019	2.66	107	1.0	-	0.31	-0.01	83	167	80	76
748	124.643	0.168	0.019	2.66	107	1.0	-	0.30	-0.01	83	167	80	76
749	124.809	0.166	0.019	2.64	107	1.0	-	0.28	-0.02	83	166	80	76
750	124.977	0.168	0.019	2.65	107	0.9	99	0.27	-0.01	83	166	80	76
751	125.146	0.169	0.019	2.64	107	1.0	-	0.26	-0.01	83	166	80	76
752	125.314	0.168	0.019	2.64	107	1.0	-	0.25	-0.01	83	166	80	76
753	125.480	0.166	0.019	2.62	107	1.0	-	0.24	-0.01	83	166	80	76
754	125.646	0.166	0.019	2.63	107	1.0	-	0.23	-0.01	83	166	80	76
755	125.818	0.172	0.019	2.62	107	1.0	-	0.22	-0.01	83	166	80	76
756	125.983	0.165	0.019	2.63	107	1.0	-	0.21	-0.01	83	166	80	76
757	126.151	0.168	0.019	2.63	107	0.9	-	0.21	0.00	83	166	80	76
758	126.318	0.167	0.019	2.62	107	1.0	-	0.19	-0.02	83	166	80	76
759	126.486	0.168	0.019	2.62	107	1.0	-	0.18	-0.01	83	166	80	76
760	126.651	0.165	0.019	2.63	107	1.0	99	0.17	-0.01	83	166	80	76
761	126.824	0.173	0.019	2.63	107	1.0	-	0.16	-0.01	83	166	80	76
762	126.989	0.165	0.019	2.63	107	1.0	-	0.15	-0.01	83	166	80	76
763	127.153	0.164	0.019	2.64	107	1.0	-	0.14	-0.01	83	166	80	76
764	127.327	0.174	0.019	2.65	107	0.9	-	0.13	-0.01	83	167	80	76
765	127.493	0.166	0.019	2.66	107	0.9	-	0.12	-0.01	83	166	80	76
766	127.658	0.165	0.018	2.66	107	1.0	-	0.11	-0.01	83	166	80	76
767	127.829	0.171	0.019	2.66	107	1.0	-	0.10	-0.01	83	165	80	76

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
768	127.994	0.165	0.018	2.64	107	0.9	-	0.09	-0.01	82	166	80	76
769	128.161	0.167	0.018	2.65	107	1.0	-	0.07	-0.02	82	165	80	76
770	128.329	0.168	0.019	2.66	107	1.0	99	0.07	0.00	82	164	80	76
771	128.500	0.171	0.019	2.65	107	0.9	-	0.05	-0.02	82	164	80	76
772	128.664	0.164	0.019	2.66	107	1.0	-	0.04	-0.01	82	164	80	76
773	128.831	0.167	0.018	2.68	107	1.0	-	0.03	-0.01	82	164	80	76
774	129.003	0.172	0.019	2.68	107	1.0	-	0.02	-0.01	82	164	80	76
775	129.167	0.164	0.018	2.67	107	1.0	100	0.00	-0.02	82	163	80	76
Avg/Tot	129.167	0.167	0.019	2.64	105.6	1.0	100			89.2	225.1	83.4	78.2

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
0	0.000		1.68	79	1.9		79	-0.043	5.11	0.018
1	0.143	0.143	2.46	79	1.9	-	81	-0.051	2.46	0.144
2	0.299	0.156	2.47	79	1.7	-	81	-0.047	5.82	0.034
3	0.453	0.154	2.48	79	1.6	-	81	-0.044	6.85	0.031
4	0.609	0.156	2.48	80	1.7	-	81	-0.041	7.48	0.012
5	0.761	0.152	2.48	80	1.5	-	81	-0.041	6.93	0.015
6	0.919	0.158	2.48	80	1.5	-	81	-0.039	6.96	0.016
7	1.072	0.153	2.47	80	2.1	-	82	-0.038	7.34	0.019
8	1.228	0.156	2.47	80	2.1	-	82	-0.039	7.62	0.015
9	1.382	0.154	2.48	80	2.0	-	82	-0.038	8.53	0.020
10	1.538	0.156	2.48	80	1.5	100	82	-0.039	8.59	0.018
11	1.694	0.156	2.48	80	2.0	-	82	-0.041	8.63	0.020
12	1.847	0.153	2.47	81	1.5	-	82	-0.040	7.70	0.022
13	2.004	0.157	2.48	81	1.5	-	82	-0.039	7.29	0.018
14	2.157	0.153	2.48	81	1.5	-	82	-0.040	7.99	0.017
15	2.315	0.158	2.48	81	1.6	-	82	-0.042	7.36	0.016
16	2.468	0.153	2.47	81	1.9	-	82	-0.042	7.20	0.019
17	2.625	0.157	2.48	82	1.9	-	82	-0.040	7.22	0.020
18	2.782	0.157	2.49	82	1.7	-	82	-0.040	7.75	0.016
19	2.935	0.153	2.48	82	1.6	-	82	-0.040	8.31	0.022
20	3.093	0.158	2.48	83	1.9	100	82	-0.040	9.16	0.022
21	3.247	0.154	2.49	83	1.8	-	82	-0.041	9.35	0.026
22	3.405	0.158	2.49	83	1.6	-	82	-0.042	9.27	0.020
23	3.559	0.154	2.48	84	1.7	-	82	-0.039	8.98	0.020
24	3.716	0.157	2.48	84	1.7	-	82	-0.042	8.68	0.019
25	3.874	0.158	2.49	84	1.8	-	82	-0.039	8.67	0.023
26	4.028	0.154	2.48	85	1.8	-	82	-0.042	8.60	0.019
27	4.186	0.158	2.49	85	1.6	-	82	-0.041	8.63	0.020
28	4.340	0.154	2.49	85	1.6	-	82	-0.044	8.58	0.021
29	4.498	0.158	2.48	86	1.7	-	82	-0.042	8.58	0.024
30	4.653	0.155	2.49	86	1.8	100	82	-0.042	8.50	0.022
31	4.811	0.158	2.49	86	1.8	-	82	-0.039	8.52	0.020

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
32	4.968	0.157	2.49	87	1.6	-	82	-0.039	8.40	0.020
33	5.123	0.155	2.49	87	1.6	-	82	-0.042	8.39	0.022
34	5.283	0.160	2.50	87	1.8	-	82	-0.040	8.31	0.019
35	5.437	0.154	2.49	87	1.6	-	82	-0.039	8.34	0.020
36	5.595	0.158	2.50	88	1.6	-	82	-0.040	8.40	0.023
37	5.754	0.159	2.49	88	2.0	-	82	-0.039	8.38	0.022
38	5.909	0.155	2.50	88	1.7	-	82	-0.041	8.29	0.021
39	6.069	0.160	2.51	89	1.9	-	82	-0.042	8.27	0.021
40	6.225	0.156	2.50	89	1.9	100	82	-0.041	8.18	0.023
41	6.384	0.159	2.50	89	2.0	-	82	-0.039	8.11	0.019
42	6.541	0.157	2.51	90	1.6	-	82	-0.040	8.09	0.026
43	6.699	0.158	2.51	90	1.5	-	82	-0.038	8.01	0.019
44	6.857	0.158	2.51	90	1.5	-	82	-0.038	8.02	0.021
45	7.014	0.157	2.51	91	1.6	-	82	-0.037	8.05	0.018
46	7.174	0.160	2.51	91	2.0	-	82	-0.040	8.07	0.021
47	7.330	0.156	2.51	91	1.7	-	82	-0.038	8.05	0.023
48	7.490	0.160	2.51	91	1.6	-	82	-0.040	8.14	0.021
49	7.649	0.159	2.51	91	1.5	-	82	-0.038	8.08	0.021
50	7.805	0.156	2.51	92	2.0	101	82	-0.040	8.05	0.024
51	7.966	0.161	2.52	92	1.5	-	82	-0.040	8.09	0.019
52	8.122	0.156	2.51	92	1.6	-	82	-0.039	8.08	0.025
53	8.282	0.160	2.51	93	1.8	-	82	-0.037	8.12	0.023
54	8.441	0.159	2.51	93	1.7	-	82	-0.038	8.11	0.023
55	8.598	0.157	2.52	93	1.8	-	82	-0.040	8.17	0.021
56	8.759	0.161	2.52	93	2.0	-	82	-0.037	8.20	0.021
57	8.916	0.157	2.51	94	1.6	-	82	-0.036	8.14	0.024
58	9.076	0.160	2.52	94	1.7	-	83	-0.038	8.25	0.021
59	9.235	0.159	2.52	94	1.6	-	82	-0.038	8.30	0.024
60	9.393	0.158	2.53	94	1.6	103	82	-0.036	8.38	0.027
61	9.553	0.160	2.52	94	1.5	-	82	-0.038	8.41	0.027
62	9.711	0.158	2.52	95	1.6	-	82	-0.038	8.45	0.025
63	9.871	0.160	2.52	95	1.7	-	82	-0.038	8.48	0.027

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
64	10.030	0.159	2.52	95	1.7	-	82	-0.037	8.55	0.022
65	10.187	0.157	2.52	95	1.8	-	82	-0.037	8.57	0.028
66	10.348	0.161	2.52	96	1.9	-	82	-0.041	8.65	0.027
67	10.506	0.158	2.52	96	1.7	-	82	-0.037	8.61	0.021
68	10.665	0.159	2.53	96	1.6	-	82	-0.040	8.68	0.017
69	10.825	0.160	2.52	96	1.6	-	82	-0.039	8.67	0.036
70	10.983	0.158	2.52	96	1.6	102	83	-0.038	8.66	0.025
71	11.144	0.161	2.52	97	1.8	-	82	-0.039	8.70	0.024
72	11.303	0.159	2.53	97	1.6	-	82	-0.037	8.78	0.024
73	11.461	0.158	2.52	97	1.6	-	83	-0.040	8.78	0.028
74	11.623	0.162	2.53	97	1.9	-	83	-0.037	8.82	0.025
75	11.780	0.157	2.53	97	1.9	-	83	-0.039	8.86	0.033
76	11.940	0.160	2.52	98	1.8	-	83	-0.040	8.83	0.029
77	12.101	0.161	2.53	98	2.0	-	83	-0.038	8.85	0.029
78	12.258	0.157	2.53	98	1.6	-	83	-0.039	8.91	0.029
79	12.421	0.163	2.53	98	2.0	-	83	-0.039	8.95	0.029
80	12.578	0.157	2.53	98	1.9	102	83	-0.039	9.08	0.030
81	12.739	0.161	2.53	98	1.7	-	83	-0.040	9.07	0.027
82	12.899	0.160	2.52	99	1.7	-	83	-0.041	9.16	0.026
83	13.057	0.158	2.52	99	1.6	-	83	-0.041	9.25	0.026
84	13.219	0.162	2.53	99	2.0	-	83	-0.038	9.32	0.027
85	13.377	0.158	2.53	99	1.5	-	83	-0.041	9.47	0.031
86	13.538	0.161	2.54	99	1.6	-	83	-0.040	9.42	0.029
87	13.698	0.160	2.53	99	1.8	-	83	-0.040	9.62	0.030
88	13.857	0.159	2.53	99	1.6	-	83	-0.041	9.68	0.029
89	14.018	0.161	2.54	99	1.7	-	83	-0.040	9.64	0.025
90	14.178	0.160	2.54	100	1.5	102	83	-0.044	9.61	0.029
91	14.337	0.159	2.54	100	1.9	-	83	-0.039	9.37	0.032
92	14.500	0.163	2.54	100	1.6	-	83	-0.041	9.24	0.028
93	14.657	0.157	2.54	100	2.0	-	83	-0.039	9.27	0.030
94	14.819	0.162	2.53	100	1.9	-	83	-0.043	9.22	0.031
95	14.980	0.161	2.54	100	1.9	-	83	-0.037	9.19	0.025

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
96	15.138	0.158	2.53	100	1.6	-	83	-0.041	9.22	0.027
97	15.301	0.163	2.54	100	2.0	-	83	-0.040	9.22	0.025
98	15.458	0.157	2.53	100	2.0	-	83	-0.039	9.27	0.034
99	15.620	0.162	2.53	100	1.6	-	83	-0.042	9.38	0.026
100	15.780	0.160	2.53	101	1.5	101	83	-0.040	9.42	0.033
101	15.939	0.159	2.53	101	1.8	-	83	-0.040	9.54	0.030
102	16.101	0.162	2.54	101	2.0	-	83	-0.042	9.58	0.027
103	16.262	0.161	2.53	101	2.0	-	83	-0.043	9.63	0.035
104	16.421	0.159	2.54	101	1.6	-	83	-0.040	9.77	0.028
105	16.583	0.162	2.54	101	1.6	-	83	-0.043	9.93	0.022
106	16.741	0.158	2.54	101	1.6	-	83	-0.044	10.27	0.022
107	16.903	0.162	2.53	101	1.8	-	83	-0.044	10.15	0.021
108	17.064	0.161	2.53	101	2.0	-	83	-0.043	10.06	0.026
109	17.223	0.159	2.53	101	2.0	-	83	-0.040	10.03	0.022
110	17.385	0.162	2.53	101	1.8	100	83	-0.041	10.23	0.024
111	17.544	0.159	2.53	102	2.0	-	83	-0.045	10.35	0.024
112	17.705	0.161	2.54	102	1.7	-	83	-0.041	10.31	0.021
113	17.866	0.161	2.53	102	1.6	-	83	-0.042	10.15	0.020
114	18.025	0.159	2.53	102	1.6	-	83	-0.043	9.95	0.029
115	18.186	0.161	2.53	102	1.8	-	83	-0.043	9.91	0.025
116	18.348	0.162	2.53	102	1.9	-	83	-0.045	9.89	0.027
117	18.505	0.157	2.53	102	1.9	-	83	-0.045	9.91	0.027
118	18.669	0.164	2.53	102	1.6	-	83	-0.044	9.86	0.022
119	18.827	0.158	2.53	102	1.6	-	83	-0.045	9.80	0.026
120	18.989	0.162	2.53	102	1.9	101	83	-0.040	9.77	0.025
121	19.150	0.161	2.53	102	1.9	-	83	-0.041	9.73	0.027
122	19.309	0.159	2.53	102	1.8	-	83	-0.041	9.71	0.025
123	19.471	0.162	2.54	102	1.7	-	83	-0.043	9.74	0.026
124	19.631	0.160	2.53	102	1.7	-	83	-0.042	9.68	0.028
125	19.791	0.160	2.54	102	1.6	-	83	-0.043	9.62	0.029
126	19.954	0.163	2.53	102	1.6	-	83	-0.042	9.53	0.025
127	20.111	0.157	2.54	102	1.8	-	83	-0.044	9.53	0.026

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
128	20.274	0.163	2.54	103	1.6	-	83	-0.045	9.40	0.032
129	20.434	0.160	2.53	103	1.7	-	83	-0.043	9.43	0.028
130	20.594	0.160	2.53	103	1.6	102	83	-0.045	9.40	0.024
131	20.756	0.162	2.53	103	1.6	-	83	-0.046	9.26	0.027
132	20.916	0.160	2.53	103	1.6	-	83	-0.047	11.23	0.023
133	21.076	0.160	2.53	103	1.6	-	83	-0.046	11.89	0.017
134	21.239	0.163	2.53	103	1.8	-	83	-0.046	11.66	0.018
135	21.397	0.158	2.54	103	1.6	-	83	-0.044	11.62	0.013
136	21.560	0.163	2.54	103	1.8	-	83	-0.047	11.22	0.015
137	21.721	0.161	2.54	103	2.0	-	83	-0.042	10.85	0.015
138	21.880	0.159	2.54	103	1.7	-	83	-0.044	10.45	0.014
139	22.043	0.163	2.54	103	1.6	-	83	-0.043	10.36	0.014
140	22.201	0.158	2.53	103	1.8	102	83	-0.044	10.33	0.022
141	22.363	0.162	2.54	103	1.9	-	83	-0.044	10.16	0.022
142	22.524	0.161	2.54	103	1.6	-	83	-0.042	10.20	0.021
143	22.684	0.160	2.54	103	1.8	-	83	-0.043	10.08	0.021
144	22.845	0.161	2.53	103	1.7	-	84	-0.044	10.04	0.022
145	23.008	0.163	2.54	103	1.6	-	84	-0.043	10.09	0.027
146	23.165	0.157	2.53	103	1.8	-	84	-0.044	10.04	0.026
147	23.330	0.165	2.54	103	1.9	-	84	-0.046	10.01	0.032
148	23.487	0.157	2.53	103	1.6	-	84	-0.046	9.96	0.022
149	23.650	0.163	2.54	103	1.6	-	84	-0.043	9.93	0.024
150	23.811	0.161	2.53	103	1.6	102	84	-0.042	9.97	0.025
151	23.971	0.160	2.53	103	1.7	-	84	-0.044	10.00	0.031
152	24.132	0.161	2.54	103	2.0	-	84	-0.045	10.12	0.023
153	24.294	0.162	2.54	103	1.9	-	84	-0.042	10.14	0.025
154	24.453	0.159	2.54	103	1.7	-	84	-0.045	10.11	0.027
155	24.617	0.164	2.54	103	1.9	-	84	-0.043	10.14	0.031
156	24.775	0.158	2.54	103	1.5	-	84	-0.042	10.22	0.031
157	24.938	0.163	2.53	103	1.5	-	84	-0.045	10.34	0.033
158	25.099	0.161	2.54	103	1.5	-	84	-0.043	10.41	0.026
159	25.259	0.160	2.53	104	1.5	-	84	-0.044	10.48	0.035

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
160	25.420	0.161	2.54	104	1.7	102	84	-0.045	10.46	0.028
161	25.582	0.162	2.53	104	1.8	-	84	-0.048	10.46	0.033
162	25.741	0.159	2.54	104	1.6	-	84	-0.041	10.55	0.031
163	25.905	0.164	2.54	104	2.0	-	84	-0.042	10.61	0.028
164	26.063	0.158	2.54	104	1.5	-	84	-0.047	10.69	0.028
165	26.226	0.163	2.54	104	1.5	-	84	-0.045	10.64	0.021
166	26.387	0.161	2.54	104	1.9	-	84	-0.045	10.79	0.026
167	26.547	0.160	2.53	104	1.6	-	84	-0.047	10.78	0.032
168	26.709	0.162	2.54	104	1.6	-	84	-0.041	10.58	0.025
169	26.871	0.162	2.53	104	2.0	-	84	-0.042	10.51	0.028
170	27.030	0.159	2.54	104	1.7	101	84	-0.046	10.52	0.024
171	27.193	0.163	2.53	104	2.0	-	84	-0.046	10.64	0.026
172	27.352	0.159	2.54	104	1.6	-	84	-0.047	10.57	0.028
173	27.514	0.162	2.53	104	1.6	-	84	-0.048	10.57	0.027
174	27.676	0.162	2.53	104	1.9	-	84	-0.047	10.67	0.024
175	27.835	0.159	2.53	104	1.6	-	84	-0.047	10.79	0.029
176	27.997	0.162	2.54	104	1.7	-	84	-0.045	10.85	0.026
177	28.158	0.161	2.53	104	2.0	-	84	-0.045	10.91	0.023
178	28.318	0.160	2.54	104	1.6	-	84	-0.046	10.87	0.027
179	28.481	0.163	2.53	104	1.7	-	84	-0.046	11.05	0.024
180	28.640	0.159	2.54	104	1.9	101	84	-0.048	11.18	0.027
181	28.802	0.162	2.53	104	2.0	-	84	-0.048	11.19	0.024
182	28.964	0.162	2.53	104	1.6	-	84	-0.043	11.42	0.024
183	29.123	0.159	2.53	104	1.6	-	84	-0.046	11.49	0.019
184	29.285	0.162	2.54	104	1.6	-	84	-0.048	11.54	0.020
185	29.446	0.161	2.54	104	1.9	-	84	-0.044	11.82	0.019
186	29.606	0.160	2.54	104	1.6	-	84	-0.048	11.83	0.025
187	29.769	0.163	2.54	104	1.6	-	84	-0.048	12.00	0.021
188	29.928	0.159	2.54	104	1.6	-	84	-0.047	12.08	0.023
189	30.090	0.162	2.53	104	1.5	-	84	-0.047	12.20	0.022
190	30.251	0.161	2.54	104	1.7	101	84	-0.047	12.28	0.017
191	30.411	0.160	2.53	104	1.7	-	84	-0.048	12.31	0.021

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
192	30.573	0.162	2.54	104	1.9	-	84	-0.046	12.43	0.021
193	30.734	0.161	2.54	104	1.7	-	84	-0.049	12.44	0.018
194	30.894	0.160	2.54	104	1.9	-	84	-0.049	12.58	0.019
195	31.057	0.163	2.54	104	1.6	-	84	-0.049	12.64	0.012
196	31.216	0.159	2.54	104	1.8	-	84	-0.049	12.54	0.015
197	31.378	0.162	2.53	104	1.5	-	85	-0.046	12.48	0.017
198	31.540	0.162	2.54	104	1.6	-	85	-0.045	12.44	0.019
199	31.699	0.159	2.53	104	1.8	-	85	-0.046	12.48	0.019
200	31.862	0.163	2.54	104	1.9	100	85	-0.049	12.57	0.019
201	32.022	0.160	2.53	104	1.7	-	85	-0.051	12.48	0.013
202	32.182	0.160	2.54	104	1.6	-	85	-0.048	12.67	0.014
203	32.346	0.164	2.53	104	1.8	-	85	-0.047	12.64	0.013
204	32.504	0.158	2.53	105	1.9	-	85	-0.048	12.84	0.013
205	32.667	0.163	2.54	105	2.0	-	85	-0.046	12.65	0.020
206	32.828	0.161	2.54	105	1.7	-	85	-0.048	12.90	0.034
207	32.987	0.159	2.54	105	1.6	-	85	-0.049	12.95	0.039
208	33.150	0.163	2.54	105	1.6	-	85	-0.046	12.75	0.040
209	33.311	0.161	2.54	105	2.0	-	85	-0.048	12.51	0.031
210	33.470	0.159	2.54	105	2.0	100	85	-0.045	12.37	0.037
211	33.634	0.164	2.54	105	1.5	-	85	-0.050	12.38	0.040
212	33.792	0.158	2.53	105	1.6	-	86	-0.049	12.30	0.036
213	33.955	0.163	2.53	105	1.5	-	86	-0.052	12.25	0.030
214	34.116	0.161	2.53	105	1.9	-	86	-0.050	12.21	0.038
215	34.276	0.160	2.53	105	1.6	-	86	-0.049	12.31	0.037
216	34.438	0.162	2.53	105	1.6	-	86	-0.051	12.32	0.038
217	34.600	0.162	2.53	105	1.6	-	86	-0.048	12.26	0.035
218	34.759	0.159	2.54	105	1.5	-	86	-0.046	12.40	0.039
219	34.923	0.164	2.54	105	1.6	-	86	-0.047	12.49	0.037
220	35.081	0.158	2.53	105	1.7	101	86	-0.048	12.52	0.034
221	35.244	0.163	2.54	105	1.6	-	86	-0.050	12.57	0.033
222	35.406	0.162	2.54	105	2.0	-	86	-0.047	12.73	0.039
223	35.565	0.159	2.54	105	1.9	-	86	-0.052	12.75	0.037

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
224	35.728	0.163	2.53	105	2.1	-	86	-0.051	12.78	0.040
225	35.889	0.161	2.53	105	1.8	-	86	-0.049	12.87	0.037
226	36.049	0.160	2.53	105	1.6	-	86	-0.051	12.92	0.039
227	36.213	0.164	2.54	105	1.7	-	86	-0.048	12.96	0.039
228	36.371	0.158	2.54	105	1.6	-	86	-0.050	13.03	0.039
229	36.534	0.163	2.53	105	2.0	-	86	-0.052	13.15	0.045
230	36.695	0.161	2.53	105	1.6	103	86	-0.049	13.11	0.038
231	36.855	0.160	2.53	105	1.9	-	86	-0.049	13.11	0.034
232	37.018	0.163	2.53	106	1.6	-	86	-0.052	13.34	0.040
233	37.178	0.160	2.53	106	2.0	-	86	-0.050	13.46	0.040
234	37.338	0.160	2.53	106	1.6	-	86	-0.052	13.51	0.044
235	37.502	0.164	2.53	106	1.8	-	87	-0.052	13.46	0.039
236	37.661	0.159	2.53	106	1.6	-	87	-0.049	13.64	0.036
237	37.823	0.162	2.53	106	1.8	-	87	-0.048	13.71	0.039
238	37.985	0.162	2.53	106	1.9	-	87	-0.050	13.71	0.046
239	38.144	0.159	2.54	106	1.8	-	87	-0.051	13.79	0.045
240	38.307	0.163	2.53	106	2.0	102	87	-0.054	13.90	0.040
241	38.468	0.161	2.53	106	2.0	-	87	-0.053	13.90	0.044
242	38.628	0.160	2.53	106	1.7	-	87	-0.049	13.95	0.050
243	38.792	0.164	2.53	106	1.7	-	87	-0.054	13.97	0.051
244	38.951	0.159	2.53	106	1.8	-	87	-0.050	13.97	0.046
245	39.113	0.162	2.52	106	2.0	-	87	-0.051	14.10	0.054
246	39.275	0.162	2.53	106	1.7	-	87	-0.051	14.20	0.072
247	39.434	0.159	2.52	106	1.6	-	87	-0.051	14.17	0.076
248	39.597	0.163	2.53	106	1.7	-	87	-0.049	14.19	0.060
249	39.758	0.161	2.52	106	1.6	-	87	-0.051	14.35	0.101
250	39.918	0.160	2.53	106	1.9	102	87	-0.052	14.29	0.123
251	40.082	0.164	2.53	106	2.0	-	87	-0.052	14.40	0.152
252	40.240	0.158	2.53	106	1.6	-	87	-0.056	14.44	0.178
253	40.403	0.163	2.53	106	1.9	-	87	-0.051	14.35	0.198
254	40.565	0.162	2.53	106	1.8	-	87	-0.056	14.46	0.238
255	40.725	0.160	2.53	106	2.0	-	87	-0.054	14.57	0.252

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
256	40.887	0.162	2.53	106	1.8	-	87	-0.055	14.66	0.298
257	41.049	0.162	2.53	106	1.8	-	87	-0.053	14.58	0.333
258	41.208	0.159	2.52	106	2.0	-	87	-0.053	14.73	0.401
259	41.373	0.165	2.53	106	1.5	-	87	-0.053	14.70	0.459
260	41.531	0.158	2.53	106	1.9	101	87	-0.052	14.90	0.519
261	41.694	0.163	2.53	106	1.6	-	87	-0.058	14.71	0.625
262	41.855	0.161	2.53	106	2.0	-	87	-0.054	14.99	0.656
263	42.016	0.161	2.53	106	1.5	-	87	-0.054	14.98	0.738
264	42.177	0.161	2.53	107	1.6	-	87	-0.051	15.06	0.780
265	42.340	0.163	2.53	107	1.9	-	88	-0.058	15.05	0.924
266	42.499	0.159	2.53	107	1.9	-	88	-0.053	14.94	0.984
267	42.663	0.164	2.53	107	2.0	-	88	-0.055	15.11	0.967
268	42.822	0.159	2.53	107	2.0	-	88	-0.052	15.01	1.013
269	42.984	0.162	2.53	107	1.9	-	88	-0.054	15.09	1.217
270	43.146	0.162	2.53	107	2.0	101	88	-0.058	14.92	1.253
271	43.306	0.160	2.53	107	1.8	-	88	-0.055	15.09	1.147
272	43.469	0.163	2.53	107	1.9	-	88	-0.058	15.16	1.123
273	43.631	0.162	2.54	107	1.6	-	88	-0.052	15.02	1.064
274	43.790	0.159	2.53	107	1.6	-	88	-0.052	15.09	1.060
275	43.954	0.164	2.53	107	2.0	-	88	-0.056	14.90	1.100
276	44.114	0.160	2.52	107	1.7	-	88	-0.055	15.03	1.016
277	44.275	0.161	2.53	107	1.7	-	88	-0.054	15.12	1.055
278	44.438	0.163	2.53	107	1.6	-	88	-0.058	14.96	1.040
279	44.597	0.159	2.53	107	1.9	-	88	-0.056	15.03	1.048
280	44.760	0.163	2.53	107	1.6	101	88	-0.057	15.19	1.037
281	44.921	0.161	2.53	107	1.6	-	88	-0.058	15.00	1.103
282	45.082	0.161	2.53	107	1.6	-	88	-0.056	15.04	1.079
283	45.244	0.162	2.53	107	1.6	-	88	-0.056	15.05	0.934
284	45.406	0.162	2.53	107	1.9	-	88	-0.052	15.09	0.809
285	45.566	0.160	2.53	107	1.8	-	88	-0.055	14.99	0.698
286	45.730	0.164	2.53	107	1.9	-	88	-0.052	15.10	0.706
287	45.889	0.159	2.53	107	2.0	-	88	-0.054	14.90	0.727

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
288	46.051	0.162	2.53	107	1.8	-	88	-0.054	14.87	0.671
289	46.213	0.162	2.53	107	1.6	-	88	-0.057	14.89	0.596
290	46.373	0.160	2.53	107	1.6	100	88	-0.054	14.88	0.544
291	46.536	0.163	2.54	107	1.6	-	88	-0.056	14.90	0.521
292	46.698	0.162	2.52	107	1.5	-	88	-0.055	15.00	0.452
293	46.857	0.159	2.53	107	1.6	-	88	-0.058	15.09	0.476
294	47.022	0.165	2.53	107	1.6	-	88	-0.053	15.02	0.468
295	47.180	0.158	2.53	107	1.6	-	88	-0.055	15.17	0.462
296	47.343	0.163	2.53	107	1.8	-	88	-0.056	15.03	0.471
297	47.505	0.162	2.53	107	1.9	-	88	-0.056	14.99	0.557
298	47.666	0.161	2.53	107	2.0	-	88	-0.052	15.03	0.561
299	47.827	0.161	2.53	107	1.6	-	88	-0.055	15.09	0.636
300	47.991	0.164	2.53	107	1.8	100	88	-0.055	15.02	0.725
301	48.149	0.158	2.53	107	1.5	-	88	-0.054	14.92	0.801
302	48.314	0.165	2.53	107	1.8	-	88	-0.053	15.01	0.880
303	48.473	0.159	2.53	107	1.5	-	88	-0.058	14.99	0.834
304	48.635	0.162	2.54	107	1.5	-	88	-0.051	14.96	0.766
305	48.798	0.163	2.53	107	1.8	-	88	-0.056	14.97	0.730
306	48.958	0.160	2.54	107	1.6	-	88	-0.053	14.92	0.628
307	49.121	0.163	2.53	107	1.6	-	88	-0.052	14.78	0.500
308	49.282	0.161	2.53	107	1.6	-	88	-0.055	14.91	0.420
309	49.442	0.160	2.53	108	1.6	-	88	-0.054	14.75	0.381
310	49.605	0.163	2.53	107	1.9	100	88	-0.051	14.62	0.289
311	49.766	0.161	2.53	107	1.9	-	89	-0.050	14.67	0.227
312	49.927	0.161	2.53	107	1.5	-	89	-0.054	14.62	0.202
313	50.091	0.164	2.53	107	1.5	-	89	-0.052	14.58	0.081
314	50.250	0.159	2.54	108	1.8	-	88	-0.053	14.58	0.068
315	50.413	0.163	2.53	108	2.0	-	88	-0.052	14.40	0.047
316	50.575	0.162	2.53	108	1.7	-	88	-0.053	14.22	0.041
317	50.735	0.160	2.53	108	1.7	-	88	-0.050	13.94	0.037
318	50.898	0.163	2.53	108	1.5	-	88	-0.048	13.84	0.034
319	51.059	0.161	2.53	108	1.5	-	88	-0.049	13.52	0.027

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
320	51.219	0.160	2.54	108	1.8	100	89	-0.052	13.34	0.027
321	51.383	0.164	2.53	108	1.9	-	89	-0.050	13.20	0.031
322	51.542	0.159	2.53	108	2.0	-	89	-0.051	12.91	0.031
323	51.705	0.163	2.53	108	2.0	-	89	-0.049	12.73	0.028
324	51.867	0.162	2.53	108	1.8	-	89	-0.051	12.68	0.031
325	52.028	0.161	2.53	108	1.5	-	89	-0.051	12.50	0.025
326	52.190	0.162	2.53	108	1.7	-	89	-0.050	12.20	0.025
327	52.353	0.163	2.53	108	1.7	-	89	-0.044	12.19	0.022
328	52.512	0.159	2.53	108	2.0	-	89	-0.047	12.07	0.024
329	52.676	0.164	2.53	108	1.6	-	89	-0.051	12.00	0.018
330	52.836	0.160	2.53	108	1.9	100	89	-0.049	11.97	0.025
331	52.998	0.162	2.53	108	2.0	-	89	-0.048	11.95	0.022
332	53.161	0.163	2.54	108	1.6	-	89	-0.048	11.86	0.026
333	53.320	0.159	2.54	108	1.5	-	89	-0.047	11.81	0.024
334	53.484	0.164	2.53	108	1.7	-	89	-0.049	11.70	0.023
335	53.645	0.161	2.53	108	1.6	-	88	-0.049	11.60	0.022
336	53.806	0.161	2.54	108	1.8	-	88	-0.047	11.58	0.020
337	53.969	0.163	2.53	108	2.0	-	88	-0.046	11.59	0.021
338	54.131	0.162	2.53	108	1.5	-	88	-0.047	11.56	0.023
339	54.291	0.160	2.54	108	1.7	-	88	-0.048	11.42	0.021
340	54.455	0.164	2.53	108	1.5	100	88	-0.049	11.40	0.022
341	54.614	0.159	2.54	108	1.6	-	88	-0.045	11.42	0.022
342	54.777	0.163	2.53	108	2.0	-	88	-0.044	11.36	0.023
343	54.939	0.162	2.53	108	1.6	-	88	-0.048	11.34	0.027
344	55.100	0.161	2.53	108	1.9	-	88	-0.046	11.19	0.022
345	55.262	0.162	2.53	108	1.8	-	88	-0.044	11.13	0.020
346	55.425	0.163	2.54	108	1.6	-	88	-0.047	11.06	0.021
347	55.584	0.159	2.53	108	1.6	-	88	-0.045	10.93	0.021
348	55.749	0.165	2.54	108	1.6	-	88	-0.043	10.97	0.023
349	55.908	0.159	2.54	108	1.6	-	88	-0.046	10.85	0.018
350	56.071	0.163	2.54	108	1.6	100	88	-0.044	10.80	0.022
351	56.234	0.163	2.53	108	1.9	-	88	-0.042	10.71	0.018

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
352	56.393	0.159	2.54	108	2.0	-	88	-0.044	10.52	0.018
353	56.556	0.163	2.53	108	1.6	-	88	-0.045	10.56	0.015
354	56.718	0.162	2.54	108	1.5	-	88	-0.043	10.52	0.017
355	56.879	0.161	2.54	108	1.7	-	88	-0.044	10.45	0.017
356	57.042	0.163	2.54	108	1.6	-	88	-0.044	10.58	0.017
357	57.204	0.162	2.54	108	2.0	-	88	-0.042	10.55	0.022
358	57.364	0.160	2.54	108	2.0	-	88	-0.038	10.57	0.022
359	57.528	0.164	2.53	108	1.5	-	88	-0.041	10.51	0.020
360	57.687	0.159	2.54	108	1.5	100	88	-0.043	10.44	0.022
361	57.851	0.164	2.53	108	2.0	-	88	-0.040	10.38	0.017
362	58.013	0.162	2.54	108	1.9	-	88	-0.042	10.35	0.021
363	58.173	0.160	2.53	108	2.0	-	88	-0.040	10.27	0.020
364	58.335	0.162	2.54	108	2.0	-	88	-0.043	10.06	0.020
365	58.499	0.164	2.54	108	2.0	-	88	-0.040	10.17	0.023
366	58.658	0.159	2.53	108	1.6	-	88	-0.039	10.17	0.014
367	58.823	0.165	2.54	108	1.8	-	88	-0.041	10.05	0.016
368	58.982	0.159	2.54	108	1.8	-	88	-0.039	10.02	0.014
369	59.145	0.163	2.54	108	1.5	-	88	-0.041	9.96	0.019
370	59.308	0.163	2.54	108	1.8	100	88	-0.040	10.00	0.017
371	59.467	0.159	2.54	108	1.5	-	88	-0.041	9.94	0.021
372	59.631	0.164	2.54	108	2.0	-	88	-0.039	9.91	0.017
373	59.793	0.162	2.54	108	1.9	-	88	-0.036	9.90	0.017
374	59.953	0.160	2.53	108	1.8	-	88	-0.038	9.93	0.019
375	60.117	0.164	2.54	108	1.7	-	88	-0.041	9.92	0.017
376	60.278	0.161	2.54	108	1.6	-	88	-0.038	9.88	0.020
377	60.439	0.161	2.53	108	1.6	-	88	-0.037	9.76	0.018
378	60.603	0.164	2.53	108	1.5	-	88	-0.039	9.75	0.017
379	60.762	0.159	2.54	108	2.0	-	88	-0.041	9.77	0.015
380	60.925	0.163	2.54	108	1.8	99	88	-0.037	9.78	0.021
381	61.087	0.162	2.54	108	1.6	-	88	-0.039	9.70	0.016
382	61.249	0.162	2.54	108	1.8	-	88	-0.037	9.60	0.017
383	61.411	0.162	2.53	108	1.8	-	88	-0.036	9.60	0.018

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
384	61.574	0.163	2.54	108	2.0	-	88	-0.036	9.59	0.016
385	61.734	0.160	2.54	108	2.0	-	88	-0.036	9.50	0.019
386	61.897	0.163	2.54	108	1.6	-	88	-0.035	9.49	0.012
387	62.058	0.161	2.54	108	2.0	-	88	-0.035	9.61	0.017
388	62.219	0.161	2.54	108	1.7	-	88	-0.036	9.61	0.014
389	62.384	0.165	2.54	108	1.7	-	88	-0.038	9.50	0.017
390	62.543	0.159	2.54	108	1.7	100	88	-0.035	9.48	0.016
391	62.706	0.163	2.53	108	1.5	-	88	-0.035	9.56	0.022
392	62.869	0.163	2.54	108	2.0	-	88	-0.037	9.53	0.019
393	63.029	0.160	2.53	108	1.6	-	88	-0.035	9.53	0.016
394	63.192	0.163	2.54	109	1.9	-	88	-0.035	9.54	0.016
395	63.354	0.162	2.53	109	2.0	-	88	-0.034	9.56	0.021
396	63.514	0.160	2.53	108	1.5	-	88	-0.035	9.38	0.019
397	63.679	0.165	2.54	109	1.6	-	88	-0.031	9.39	0.015
398	63.837	0.158	2.53	109	1.9	-	88	-0.035	9.37	0.017
399	64.001	0.164	2.54	108	1.5	-	88	-0.033	9.45	0.016
400	64.163	0.162	2.54	108	1.7	100	88	-0.034	9.49	0.016
401	64.324	0.161	2.54	108	1.9	-	88	-0.037	9.41	0.015
402	64.487	0.163	2.53	108	1.5	-	88	-0.035	9.45	0.016
403	64.649	0.162	2.54	108	2.0	-	87	-0.035	9.51	0.013
404	64.809	0.160	2.53	108	1.7	-	87	-0.032	9.48	0.017
405	64.972	0.163	2.54	108	2.0	-	87	-0.038	9.43	0.020
406	65.134	0.162	2.54	108	1.6	-	87	-0.036	9.47	0.016
407	65.295	0.161	2.54	108	1.8	-	87	-0.034	9.46	0.019
408	65.459	0.164	2.54	108	1.8	-	87	-0.033	9.45	0.016
409	65.618	0.159	2.54	109	1.5	-	87	-0.029	9.50	0.019
410	65.781	0.163	2.53	108	2.0	99	87	-0.034	9.51	0.017
411	65.944	0.163	2.54	109	1.6	-	87	-0.030	9.52	0.019
412	66.104	0.160	2.53	109	1.8	-	87	-0.033	9.53	0.013
413	66.267	0.163	2.54	109	1.5	-	87	-0.030	9.50	0.019
414	66.430	0.163	2.54	109	1.5	-	87	-0.033	9.49	0.016
415	66.589	0.159	2.54	109	1.8	-	87	-0.035	9.55	0.019

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
416	66.754	0.165	2.54	109	2.0	-	87	-0.034	9.51	0.017
417	66.914	0.160	2.54	109	1.6	-	87	-0.032	9.53	0.018
418	67.076	0.162	2.54	109	1.5	-	87	-0.031	9.47	0.015
419	67.240	0.164	2.54	109	1.5	-	87	-0.032	9.48	0.018
420	67.399	0.159	2.53	109	1.9	99	87	-0.029	9.52	0.014
421	67.563	0.164	2.54	109	1.7	-	87	-0.031	9.47	0.015
422	67.725	0.162	2.55	109	1.8	-	87	-0.031	9.50	0.017
423	67.885	0.160	2.54	109	1.9	-	87	-0.032	9.41	0.016
424	68.049	0.164	2.54	109	1.6	-	87	-0.030	9.44	0.016
425	68.210	0.161	2.53	109	2.0	-	87	-0.032	9.43	0.016
426	68.371	0.161	2.54	109	2.0	-	87	-0.033	9.48	0.014
427	68.535	0.164	2.54	109	1.9	-	87	-0.033	9.46	0.015
428	68.694	0.159	2.54	108	2.0	-	87	-0.034	9.35	0.014
429	68.858	0.164	2.54	108	1.7	-	87	-0.033	9.44	0.016
430	69.020	0.162	2.54	108	1.6	100	87	-0.033	9.43	0.015
431	69.181	0.161	2.54	109	1.9	-	87	-0.032	9.31	0.014
432	69.343	0.162	2.54	108	1.6	-	87	-0.035	9.41	0.016
433	69.506	0.163	2.55	109	1.6	-	87	-0.031	9.39	0.013
434	69.666	0.160	2.54	108	2.0	-	87	-0.032	9.35	0.014
435	69.829	0.163	2.54	108	1.6	-	87	-0.033	9.38	0.017
436	69.991	0.162	2.54	108	1.5	-	87	-0.032	9.31	0.016
437	70.152	0.161	2.54	108	1.6	-	87	-0.032	9.29	0.016
438	70.316	0.164	2.54	109	1.8	-	87	-0.035	9.32	0.015
439	70.475	0.159	2.54	109	1.7	-	87	-0.031	9.27	0.015
440	70.639	0.164	2.54	109	2.0	99	87	-0.030	9.32	0.015
441	70.801	0.162	2.54	109	1.9	-	87	-0.033	9.33	0.014
442	70.961	0.160	2.54	109	1.6	-	87	-0.032	9.35	0.009
443	71.124	0.163	2.54	109	1.6	-	87	-0.029	9.28	0.017
444	71.287	0.163	2.54	108	1.6	-	87	-0.032	9.29	0.014
445	71.446	0.159	2.54	109	2.0	-	87	-0.033	9.30	0.010
446	71.612	0.166	2.54	109	2.0	-	87	-0.032	9.39	0.019
447	71.771	0.159	2.54	108	1.5	-	87	-0.031	9.24	0.015

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
448	71.934	0.163	2.55	109	1.7	-	87	-0.030	9.28	0.016
449	72.097	0.163	2.54	109	1.5	-	87	-0.034	9.33	0.014
450	72.257	0.160	2.54	108	1.5	99	87	-0.032	9.19	0.017
451	72.420	0.163	2.54	108	1.9	-	87	-0.033	9.16	0.016
452	72.582	0.162	2.54	108	1.9	-	87	-0.031	9.23	0.011
453	72.743	0.161	2.54	108	2.0	-	87	-0.029	9.29	0.014
454	72.906	0.163	2.55	108	1.7	-	87	-0.032	9.00	0.016
455	73.068	0.162	2.54	108	1.8	-	87	-0.032	8.87	0.013
456	73.228	0.160	2.54	108	1.5	-	87	-0.030	8.87	0.012
457	73.393	0.165	2.54	108	1.6	-	87	-0.033	8.79	0.013
458	73.552	0.159	2.54	108	2.0	-	87	-0.032	8.82	0.014
459	73.716	0.164	2.54	108	1.9	-	87	-0.031	8.80	0.011
460	73.878	0.162	2.54	108	1.9	99	86	-0.031	8.81	0.014
461	74.039	0.161	2.54	108	2.0	-	86	-0.032	8.84	0.011
462	74.202	0.163	2.54	108	1.6	-	86	-0.031	8.86	0.015
463	74.364	0.162	2.55	108	1.7	-	86	-0.033	8.82	0.012
464	74.524	0.160	2.54	108	1.7	-	86	-0.030	8.86	0.014
465	74.688	0.164	2.54	108	1.7	-	86	-0.031	8.83	0.014
466	74.849	0.161	2.54	108	1.8	-	86	-0.030	8.82	0.012
467	75.010	0.161	2.54	108	1.9	-	86	-0.032	8.90	0.014
468	75.174	0.164	2.54	108	1.9	-	86	-0.031	8.84	0.012
469	75.334	0.160	2.55	108	1.7	-	86	-0.030	8.91	0.012
470	75.497	0.163	2.53	108	1.5	99	86	-0.036	8.90	0.012
471	75.659	0.162	2.55	108	2.0	-	86	-0.030	8.91	0.009
472	75.820	0.161	2.54	108	1.6	-	86	-0.025	8.85	0.011
473	75.982	0.162	2.54	108	2.0	-	86	-0.028	8.91	0.011
474	76.146	0.164	2.54	108	1.8	-	86	-0.027	8.90	0.015
475	76.305	0.159	2.54	108	1.6	-	86	-0.031	8.91	0.012
476	76.470	0.165	2.55	108	2.0	-	86	-0.027	8.99	0.014
477	76.630	0.160	2.54	108	1.8	-	86	-0.030	9.08	0.013
478	76.792	0.162	2.55	108	1.8	-	86	-0.028	9.27	0.012
479	76.956	0.164	2.54	108	1.6	-	86	-0.031	9.31	0.012

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
480	77.115	0.159	2.54	108	1.9	99	86	-0.029	9.26	0.018
481	77.279	0.164	2.55	108	1.5	-	86	-0.031	9.24	0.010
482	77.441	0.162	2.55	108	1.8	-	86	-0.028	9.29	0.015
483	77.601	0.160	2.55	108	1.7	-	86	-0.031	9.34	0.014
484	77.765	0.164	2.55	108	2.0	-	86	-0.029	9.31	0.015
485	77.927	0.162	2.54	108	1.5	-	86	-0.032	9.25	0.010
486	78.087	0.160	2.54	108	1.7	-	86	-0.030	9.28	0.015
487	78.252	0.165	2.54	108	2.0	-	86	-0.029	9.29	0.015
488	78.411	0.159	2.54	108	1.6	-	86	-0.029	9.22	0.013
489	78.574	0.163	2.54	108	1.6	-	86	-0.031	9.35	0.017
490	78.736	0.162	2.54	108	1.9	99	86	-0.028	9.26	0.015
491	78.897	0.161	2.54	108	2.0	-	86	-0.026	9.33	0.012
492	79.060	0.163	2.54	108	1.6	-	86	-0.032	9.43	0.014
493	79.222	0.162	2.54	108	1.6	-	86	-0.029	9.41	0.017
494	79.382	0.160	2.54	108	1.9	-	86	-0.026	9.44	0.012
495	79.545	0.163	2.54	108	1.5	-	86	-0.028	9.40	0.013
496	79.707	0.162	2.54	108	2.0	-	86	-0.028	9.46	0.016
497	79.868	0.161	2.54	108	2.0	-	86	-0.029	9.41	0.019
498	80.032	0.164	2.54	108	2.0	-	86	-0.027	9.46	0.016
499	80.191	0.159	2.54	108	1.7	-	86	-0.033	9.38	0.016
500	80.354	0.163	2.54	108	1.8	99	86	-0.030	9.48	0.015
501	80.517	0.163	2.55	108	1.6	-	86	-0.030	9.42	0.014
502	80.677	0.160	2.54	108	1.6	-	86	-0.028	9.43	0.012
503	80.840	0.163	2.54	108	1.8	-	86	-0.031	9.44	0.018
504	81.003	0.163	2.55	108	1.7	-	86	-0.032	9.47	0.016
505	81.162	0.159	2.53	108	1.6	-	86	-0.028	9.43	0.015
506	81.327	0.165	2.54	108	1.7	-	86	-0.027	9.60	0.016
507	81.486	0.159	2.54	108	1.8	-	86	-0.030	9.52	0.018
508	81.649	0.163	2.54	108	1.5	-	86	-0.032	9.48	0.012
509	81.812	0.163	2.54	108	1.9	-	86	-0.027	9.57	0.016
510	81.971	0.159	2.54	108	1.7	99	86	-0.027	9.55	0.013
511	82.134	0.163	2.54	108	2.0	-	86	-0.028	9.60	0.015

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
512	82.296	0.162	2.54	108	2.0	-	86	-0.032	9.59	0.016
513	82.457	0.161	2.54	108	1.8	-	86	-0.028	9.63	0.016
514	82.620	0.163	2.55	108	1.9	-	85	-0.031	9.65	0.017
515	82.782	0.162	2.54	108	1.9	-	85	-0.027	9.64	0.014
516	82.942	0.160	2.54	108	2.0	-	85	-0.031	9.70	0.017
517	83.107	0.165	2.54	108	1.8	-	85	-0.029	9.70	0.018
518	83.266	0.159	2.55	108	1.6	-	85	-0.026	9.73	0.018
519	83.429	0.163	2.54	108	1.6	-	85	-0.028	9.76	0.018
520	83.591	0.162	2.54	108	1.6	99	85	-0.031	9.73	0.014
521	83.752	0.161	2.55	108	2.0	-	85	-0.029	9.71	0.017
522	83.914	0.162	2.54	108	1.6	-	85	-0.030	9.74	0.016
523	84.077	0.163	2.54	108	1.6	-	85	-0.029	9.78	0.018
524	84.236	0.159	2.54	108	1.6	-	85	-0.031	9.81	0.017
525	84.401	0.165	2.55	108	1.6	-	85	-0.029	9.84	0.018
526	84.561	0.160	2.55	108	2.0	-	85	-0.031	9.84	0.016
527	84.723	0.162	2.55	108	2.0	-	85	-0.027	9.87	0.019
528	84.886	0.163	2.55	108	2.0	-	85	-0.030	9.62	0.016
529	85.046	0.160	2.55	108	2.0	-	85	-0.030	9.76	0.022
530	85.210	0.164	2.55	108	1.8	99	85	-0.028	10.01	0.015
531	85.372	0.162	2.55	108	1.8	-	85	-0.027	9.93	0.015
532	85.532	0.160	2.55	108	1.5	-	85	-0.029	9.85	0.017
533	85.695	0.163	2.55	108	2.1	-	85	-0.030	9.87	0.020
534	85.857	0.162	2.54	108	1.5	-	85	-0.028	9.84	0.021
535	86.017	0.160	2.55	108	1.9	-	85	-0.030	9.84	0.018
536	86.182	0.165	2.54	108	1.5	-	85	-0.031	9.83	0.016
537	86.341	0.159	2.54	108	1.9	-	85	-0.026	9.81	0.019
538	86.505	0.164	2.54	108	1.7	-	85	-0.030	9.75	0.018
539	86.666	0.161	2.54	108	1.6	-	85	-0.029	9.81	0.018
540	86.827	0.161	2.55	108	1.5	99	85	-0.030	9.78	0.022
541	86.989	0.162	2.55	108	1.9	-	85	-0.030	9.82	0.017
542	87.152	0.163	2.55	108	2.0	-	85	-0.031	9.86	0.017
543	87.312	0.160	2.54	107	1.7	-	85	-0.031	9.89	0.018

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
544	87.476	0.164	2.55	108	2.0	-	85	-0.028	9.86	0.023
545	87.636	0.160	2.54	108	1.7	-	85	-0.031	9.87	0.020
546	87.797	0.161	2.55	108	1.7	-	85	-0.031	9.91	0.020
547	87.962	0.165	2.55	108	1.7	-	85	-0.031	9.90	0.020
548	88.121	0.159	2.55	108	1.7	-	85	-0.030	9.85	0.012
549	88.284	0.163	2.55	108	1.7	-	85	-0.028	9.87	0.017
550	88.447	0.163	2.54	108	1.7	99	85	-0.033	9.88	0.019
551	88.607	0.160	2.54	107	2.0	-	85	-0.031	9.89	0.012
552	88.770	0.163	2.55	107	2.0	-	85	-0.030	9.86	0.016
553	88.932	0.162	2.55	107	1.8	-	85	-0.032	9.86	0.018
554	89.092	0.160	2.54	107	1.7	-	85	-0.030	9.91	0.015
555	89.257	0.165	2.55	107	1.7	-	85	-0.030	9.98	0.017
556	89.415	0.158	2.55	107	2.0	-	85	-0.028	9.86	0.025
557	89.579	0.164	2.55	107	1.9	-	85	-0.032	9.88	0.015
558	89.741	0.162	2.55	107	1.9	-	85	-0.028	9.95	0.019
559	89.901	0.160	2.54	107	1.5	-	85	-0.032	9.96	0.020
560	90.064	0.163	2.54	107	2.0	99	85	-0.033	9.97	0.021
561	90.226	0.162	2.55	107	1.5	-	85	-0.032	9.98	0.017
562	90.386	0.160	2.54	107	1.9	-	85	-0.029	10.00	0.023
563	90.550	0.164	2.55	107	2.0	-	85	-0.032	9.94	0.020
564	90.711	0.161	2.54	107	2.0	-	85	-0.031	10.00	0.022
565	90.871	0.160	2.54	107	1.8	-	85	-0.028	10.01	0.021
566	91.036	0.165	2.55	107	1.7	-	85	-0.029	10.02	0.013
567	91.195	0.159	2.55	107	2.0	-	85	-0.029	9.99	0.024
568	91.358	0.163	2.55	107	1.9	-	85	-0.030	9.96	0.022
569	91.520	0.162	2.55	107	1.8	-	85	-0.031	10.00	0.015
570	91.680	0.160	2.54	107	1.5	99	85	-0.031	10.01	0.021
571	91.843	0.163	2.55	107	2.0	-	85	-0.031	9.98	0.023
572	92.005	0.162	2.54	107	1.7	-	85	-0.028	9.94	0.017
573	92.165	0.160	2.54	107	1.5	-	85	-0.028	9.95	0.025
574	92.330	0.165	2.55	107	1.8	-	85	-0.029	9.89	0.023
575	92.488	0.158	2.54	107	1.7	-	85	-0.030	9.89	0.020

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
576	92.652	0.164	2.55	107	1.7	-	85	-0.028	9.88	0.019
577	92.814	0.162	2.55	107	1.5	-	85	-0.031	9.83	0.021
578	92.974	0.160	2.55	107	1.9	-	85	-0.031	9.85	0.021
579	93.137	0.163	2.55	107	1.6	-	84	-0.029	9.86	0.016
580	93.300	0.163	2.55	107	1.5	99	84	-0.030	9.87	0.020
581	93.459	0.159	2.55	107	1.9	-	84	-0.029	9.82	0.021
582	93.623	0.164	2.55	107	1.8	-	84	-0.031	9.84	0.015
583	93.784	0.161	2.54	107	1.5	-	84	-0.031	9.79	0.020
584	93.945	0.161	2.55	107	2.0	-	84	-0.028	9.83	0.019
585	94.109	0.164	2.55	107	2.0	-	84	-0.033	9.84	0.017
586	94.268	0.159	2.55	107	2.0	-	84	-0.030	9.80	0.018
587	94.431	0.163	2.55	107	1.6	-	84	-0.031	9.80	0.021
588	94.593	0.162	2.55	107	1.9	-	84	-0.030	9.76	0.016
589	94.753	0.160	2.54	107	2.0	-	84	-0.029	9.75	0.021
590	94.916	0.163	2.54	107	2.0	99	84	-0.029	9.77	0.024
591	95.078	0.162	2.54	107	1.7	-	84	-0.027	9.75	0.019
592	95.238	0.160	2.54	107	1.9	-	84	-0.032	9.73	0.018
593	95.403	0.165	2.55	107	1.9	-	84	-0.032	9.89	0.018
594	95.561	0.158	2.54	107	2.0	-	84	-0.030	10.00	0.019
595	95.725	0.164	2.55	107	2.0	-	84	-0.028	10.09	0.022
596	95.887	0.162	2.55	107	1.8	-	84	-0.029	10.08	0.018
597	96.047	0.160	2.55	107	1.6	-	84	-0.030	10.07	0.021
598	96.210	0.163	2.56	107	1.5	-	84	-0.032	10.06	0.024
599	96.372	0.162	2.55	107	1.7	-	84	-0.031	10.05	0.019
600	96.532	0.160	2.55	107	2.0	99	84	-0.030	10.14	0.022
601	96.696	0.164	2.55	107	1.7	-	84	-0.031	9.95	0.019
602	96.856	0.160	2.55	107	1.5	-	84	-0.032	9.92	0.016
603	97.017	0.161	2.55	107	1.5	-	84	-0.029	10.04	0.015
604	97.181	0.164	2.55	107	1.7	-	84	-0.030	10.04	0.020
605	97.340	0.159	2.55	107	2.0	-	84	-0.031	9.99	0.018
606	97.504	0.164	2.54	107	1.6	-	84	-0.030	9.96	0.023
607	97.666	0.162	2.55	107	2.0	-	84	-0.030	9.90	0.022

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
608	97.826	0.160	2.54	107	1.7	-	84	-0.030	9.99	0.021
609	97.989	0.163	2.54	107	2.0	-	84	-0.032	10.00	0.022
610	98.150	0.161	2.54	107	1.8	99	84	-0.031	9.95	0.021
611	98.310	0.160	2.55	107	2.0	-	84	-0.030	9.97	0.019
612	98.475	0.165	2.55	107	2.0	-	84	-0.026	9.93	0.019
613	98.633	0.158	2.55	107	1.8	-	84	-0.027	10.27	0.029
614	98.797	0.164	2.54	107	1.6	-	84	-0.031	10.35	0.025
615	98.958	0.161	2.55	107	2.0	-	84	-0.032	10.35	0.022
616	99.119	0.161	2.55	107	1.7	-	84	-0.030	10.25	0.023
617	99.281	0.162	2.55	107	2.1	-	84	-0.032	10.26	0.022
618	99.444	0.163	2.56	107	1.9	-	84	-0.030	10.30	0.028
619	99.603	0.159	2.55	107	2.0	-	84	-0.031	10.25	0.033
620	99.768	0.165	2.55	107	1.6	99	84	-0.031	10.13	0.024
621	99.928	0.160	2.55	107	2.0	-	84	-0.031	10.23	0.022
622	100.089	0.161	2.55	107	1.5	-	84	-0.029	10.16	0.026
623	100.253	0.164	2.54	107	1.6	-	84	-0.031	10.15	0.021
624	100.412	0.159	2.55	107	1.5	-	84	-0.030	10.12	0.023
625	100.575	0.163	2.55	107	1.6	-	84	-0.029	10.17	0.025
626	100.737	0.162	2.55	107	1.9	-	84	-0.030	10.12	0.022
627	100.898	0.161	2.55	107	1.8	-	84	-0.030	10.14	0.026
628	101.061	0.163	2.55	107	1.5	-	84	-0.030	10.15	0.023
629	101.222	0.161	2.55	107	1.5	-	84	-0.028	10.11	0.025
630	101.383	0.161	2.55	107	2.0	99	84	-0.029	10.06	0.014
631	101.547	0.164	2.55	107	2.0	-	84	-0.029	9.91	0.011
632	101.706	0.159	2.55	107	1.9	-	84	-0.030	9.85	0.011
633	101.869	0.163	2.54	106	1.6	-	84	-0.034	9.82	0.011
634	102.031	0.162	2.55	106	2.0	-	84	-0.031	9.86	0.010
635	102.191	0.160	2.55	107	1.8	-	84	-0.030	9.81	0.008
636	102.351	0.160	2.55	106	1.5	-	84	-0.032	9.85	0.004
637	102.517	0.166	2.55	107	1.5	-	84	-0.030	9.89	0.009
638	102.675	0.158	2.55	106	1.7	-	84	-0.030	9.93	0.015
639	102.840	0.165	2.55	107	1.9	-	84	-0.028	9.93	0.008

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
640	102.999	0.159	2.55	106	1.5	99	84	-0.035	9.93	0.008
641	103.162	0.163	2.55	106	1.6	-	84	-0.032	9.90	0.011
642	103.325	0.163	2.55	107	1.8	-	84	-0.032	9.93	0.009
643	103.484	0.159	2.55	106	1.9	-	84	-0.028	9.85	0.010
644	103.647	0.163	2.55	107	1.7	-	84	-0.030	9.86	0.010
645	103.809	0.162	2.55	106	2.0	-	84	-0.029	9.92	0.010
646	103.969	0.160	2.55	106	1.5	-	84	-0.030	9.81	0.008
647	104.132	0.163	2.55	106	1.9	-	84	-0.028	9.71	0.009
648	104.294	0.162	2.55	106	1.9	-	83	-0.031	9.81	0.010
649	104.454	0.160	2.55	106	2.0	-	84	-0.032	9.73	0.008
650	104.618	0.164	2.55	106	1.6	99	84	-0.028	9.58	0.008
651	104.777	0.159	2.55	106	1.8	-	83	-0.030	9.64	0.014
652	104.940	0.163	2.55	106	2.0	-	83	-0.030	9.62	0.010
653	105.103	0.163	2.55	106	2.0	-	83	-0.030	9.51	0.006
654	105.263	0.160	2.54	106	1.9	-	83	-0.029	9.54	0.012
655	105.425	0.162	2.55	106	2.1	-	83	-0.030	9.48	0.014
656	105.588	0.163	2.55	106	1.5	-	83	-0.031	9.48	0.011
657	105.747	0.159	2.54	106	1.5	-	83	-0.027	9.51	0.009
658	105.912	0.165	2.55	106	1.5	-	83	-0.030	9.45	0.014
659	106.070	0.158	2.54	106	1.5	-	83	-0.028	9.41	0.005
660	106.234	0.164	2.55	106	1.6	99	83	-0.031	9.30	0.015
661	106.396	0.162	2.55	106	1.7	-	83	-0.029	9.35	0.011
662	106.556	0.160	2.55	106	2.1	-	83	-0.027	9.33	0.009
663	106.718	0.162	2.55	106	1.7	-	83	-0.027	9.26	0.010
664	106.881	0.163	2.55	106	1.8	-	83	-0.025	9.30	0.008
665	107.040	0.159	2.55	106	1.7	-	83	-0.031	9.41	0.011
666	107.204	0.164	2.55	106	1.9	-	83	-0.028	9.32	0.011
667	107.364	0.160	2.55	106	1.7	-	83	-0.031	9.33	0.010
668	107.525	0.161	2.55	106	1.9	-	83	-0.028	9.35	0.011
669	107.689	0.164	2.55	106	1.8	-	83	-0.030	9.29	0.011
670	107.848	0.159	2.55	106	1.7	99	83	-0.029	8.82	0.007
671	108.011	0.163	2.55	106	1.6	-	83	-0.028	8.83	0.008

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
672	108.173	0.162	2.55	106	1.5	-	83	-0.027	8.87	0.005
673	108.333	0.160	2.55	106	1.5	-	83	-0.028	8.76	0.006
674	108.496	0.163	2.55	106	1.6	-	83	-0.028	8.71	0.006
675	108.658	0.162	2.55	106	1.6	-	83	-0.029	8.49	0.012
676	108.818	0.160	2.55	106	1.7	-	83	-0.029	8.40	0.006
677	108.982	0.164	2.55	106	1.9	-	83	-0.026	8.32	0.010
678	109.141	0.159	2.55	106	1.6	-	83	-0.031	8.15	0.006
679	109.304	0.163	2.55	106	1.8	-	83	-0.027	8.11	0.007
680	109.466	0.162	2.55	106	1.7	99	83	-0.030	8.08	0.007
681	109.626	0.160	2.55	106	1.7	-	83	-0.031	8.03	0.006
682	109.788	0.162	2.54	106	1.8	-	83	-0.031	8.08	0.014
683	109.951	0.163	2.55	106	1.5	-	83	-0.027	8.06	0.008
684	110.110	0.159	2.55	106	2.0	-	83	-0.028	8.04	0.018
685	110.275	0.165	2.55	106	1.6	-	83	-0.026	8.11	0.012
686	110.434	0.159	2.55	106	2.0	-	83	-0.029	8.07	0.017
687	110.597	0.163	2.56	106	1.7	-	83	-0.028	8.05	0.011
688	110.759	0.162	2.55	106	2.0	-	83	-0.031	8.05	0.009
689	110.919	0.160	2.55	106	1.5	-	83	-0.029	8.01	0.015
690	111.082	0.163	2.55	106	1.9	100	83	-0.030	8.02	0.020
691	111.244	0.162	2.55	106	1.5	-	83	-0.029	8.00	0.017
692	111.403	0.159	2.55	106	1.9	-	83	-0.030	8.03	0.014
693	111.567	0.164	2.55	106	1.5	-	83	-0.029	8.07	0.016
694	111.728	0.161	2.55	106	1.7	-	83	-0.030	8.09	0.019
695	111.888	0.160	2.55	106	2.0	-	83	-0.028	8.10	0.019
696	112.052	0.164	2.55	106	1.5	-	83	-0.032	8.09	0.016
697	112.211	0.159	2.55	106	1.9	-	83	-0.026	7.99	0.019
698	112.375	0.164	2.55	106	1.5	-	83	-0.031	7.81	0.009
699	112.537	0.162	2.56	106	1.8	-	83	-0.028	7.77	0.009
700	112.694	0.157	2.55	106	1.5	102	83	-0.028	7.75	0.007
701	112.860	0.166	2.56	106	1.9	-	83	-0.025	7.74	0.010
702	113.021	0.161	2.55	106	1.8	-	83	-0.027	7.81	0.009
703	113.181	0.160	2.55	106	1.7	-	83	-0.029	7.76	0.008

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
704	113.345	0.164	2.55	106	1.5	-	83	-0.025	7.74	0.007
705	113.504	0.159	2.55	106	1.7	-	83	-0.027	7.76	0.009
706	113.667	0.163	2.55	106	1.8	-	83	-0.031	7.79	0.007
707	113.829	0.162	2.55	106	1.6	-	83	-0.029	7.81	0.008
708	113.990	0.161	2.55	106	1.6	-	83	-0.030	7.80	0.009
709	114.151	0.161	2.55	106	1.5	-	83	-0.027	7.79	0.012
710	114.311	0.160	2.55	106	2.0	100	83	-0.027	7.79	0.010
711	114.473	0.162	2.55	106	1.5	-	83	-0.028	7.85	0.008
712	114.638	0.165	2.56	106	1.6	-	83	-0.025	7.85	0.009
713	114.797	0.159	2.55	106	1.7	-	82	-0.026	7.89	0.011
714	114.959	0.162	2.55	106	1.5	-	82	-0.025	7.90	0.012
715	115.123	0.164	2.55	106	1.8	-	82	-0.028	7.86	0.011
716	115.282	0.159	2.56	106	1.8	-	82	-0.029	7.80	0.011
717	115.442	0.160	2.55	106	1.8	-	82	-0.028	7.79	0.011
718	115.604	0.162	2.55	106	1.6	-	82	-0.027	7.79	0.015
719	115.767	0.163	2.55	106	1.5	-	82	-0.026	7.84	0.007
720	115.930	0.163	2.55	106	1.6	99	82	-0.027	7.83	0.008
721	116.091	0.161	2.55	106	1.7	-	82	-0.024	7.84	0.011
722	116.251	0.160	2.56	106	1.8	-	82	-0.028	7.85	0.011
723	116.415	0.164	2.55	106	1.6	-	82	-0.027	7.90	0.013
724	116.574	0.159	2.56	106	1.9	-	82	-0.023	7.87	0.009
725	116.737	0.163	2.55	106	1.7	-	82	-0.026	7.63	0.013
726	116.896	0.159	2.56	106	1.5	-	82	-0.028	7.59	0.007
727	117.059	0.163	2.55	106	2.0	-	82	-0.025	7.58	0.005
728	117.222	0.163	2.55	106	1.6	-	82	-0.026	7.61	0.010
729	117.384	0.162	2.55	106	1.9	-	82	-0.030	7.51	0.010
730	117.544	0.160	2.55	106	1.7	99	82	-0.025	7.55	0.010
731	117.708	0.164	2.55	106	2.0	-	82	-0.029	7.48	0.013
732	117.864	0.156	2.56	106	1.9	-	82	-0.023	7.51	0.011
733	118.030	0.166	2.55	106	1.5	-	82	-0.024	7.51	0.015
734	118.191	0.161	2.55	106	1.5	-	82	-0.028	7.46	0.009
735	118.352	0.161	2.55	106	1.7	-	82	-0.025	7.45	0.017

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
736	118.512	0.160	2.55	106	1.8	-	82	-0.026	7.44	0.011
737	118.677	0.165	2.56	106	1.6	-	82	-0.028	7.39	0.013
738	118.833	0.156	2.55	106	1.5	-	82	-0.027	7.28	0.013
739	119.000	0.167	2.55	106	1.7	-	82	-0.031	7.35	0.008
740	119.160	0.160	2.56	106	1.5	99	82	-0.026	7.38	0.013
741	119.320	0.160	2.56	106	2.1	-	82	-0.028	7.31	0.013
742	119.485	0.165	2.55	106	1.6	-	82	-0.025	7.28	0.013
743	119.644	0.159	2.55	106	1.6	-	82	-0.025	7.31	0.013
744	119.804	0.160	2.56	105	1.6	-	82	-0.023	7.26	0.013
745	119.967	0.163	2.55	106	2.0	-	82	-0.025	7.27	0.011
746	120.126	0.159	2.56	106	1.7	-	82	-0.027	7.30	0.014
747	120.292	0.166	2.55	105	1.7	-	82	-0.025	7.25	0.011
748	120.453	0.161	2.56	106	1.9	-	82	-0.026	7.25	0.013
749	120.611	0.158	2.56	105	1.9	-	82	-0.025	7.21	0.014
750	120.778	0.167	2.56	105	2.0	99	82	-0.027	7.27	0.013
751	120.937	0.159	2.56	105	2.0	-	82	-0.025	7.34	0.011
752	121.100	0.163	2.56	105	1.5	-	82	-0.023	7.40	0.012
753	121.262	0.162	2.56	105	1.5	-	82	-0.027	7.35	0.015
754	121.419	0.157	2.55	105	2.0	-	82	-0.028	7.33	0.015
755	121.584	0.165	2.55	105	2.0	-	82	-0.027	7.33	0.019
756	121.746	0.162	2.55	105	2.0	-	82	-0.029	7.31	0.015
757	121.906	0.160	2.56	105	2.0	-	82	-0.025	7.40	0.018
758	122.068	0.162	2.56	105	2.0	-	82	-0.025	7.26	0.017
759	122.229	0.161	2.55	105	1.8	-	82	-0.026	7.26	0.018
760	122.389	0.160	2.55	105	1.9	99	82	-0.026	7.20	0.018
761	122.554	0.165	2.55	105	2.0	-	82	-0.025	7.10	0.017
762	122.715	0.161	2.56	105	1.8	-	82	-0.026	7.13	0.018
763	122.874	0.159	2.56	105	2.0	-	82	-0.027	7.09	0.016
764	123.039	0.165	2.56	105	1.5	-	82	-0.027	7.15	0.013
765	123.198	0.159	2.56	105	1.7	-	82	-0.027	7.04	0.011
766	123.363	0.165	2.56	105	1.8	-	82	-0.026	7.05	0.009
767	123.523	0.160	2.56	105	1.5	-	82	-0.027	7.06	0.010

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
768	123.682	0.159	2.55	105	1.5	-	81	-0.025	7.05	0.012
769	123.847	0.165	2.56	105	1.8	-	82	-0.025	7.05	0.011
770	124.004	0.157	2.56	105	1.7	99	82	-0.026	7.02	0.011
771	124.170	0.166	2.55	105	2.1	-	82	-0.029	7.08	0.011
772	124.331	0.161	2.56	105	1.9	-	81	-0.025	7.09	0.011
773	124.489	0.158	2.56	105	1.6	-	81	-0.026	7.12	0.015
774	124.654	0.165	2.56	105	1.6	-	81	-0.025	7.11	0.010
775	124.816	0.162	2.55	105	2.0	100	81	-0.028	7.12	0.013
Avg/Tot	124.816	0.161	2.54	104.4	1.7	100	84.8	-0.038	10.12	0.074

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
0	0.000		0.63	79	1.7		78
1	0.147	0.147	1.00	78	1.7	-	78
2	0.296	0.149	1.00	78	1.8	-	79
3	0.445	0.149	1.01	78	1.8	-	79
4	0.596	0.151	1.03	78	1.8	-	79
5	0.747	0.151	1.03	79	1.7	-	79
6	0.898	0.151	1.04	79	1.7	-	79
7	1.049	0.151	1.04	79	1.8	-	79
8	1.200	0.151	1.05	79	1.7	-	79
9	1.352	0.152	1.05	79	1.6	-	79
10	1.504	0.152	1.05	79	1.8	97	79
11	1.656	0.152	1.05	80	1.7	-	79
12	1.808	0.152	1.05	80	1.8	-	80
13	1.960	0.152	1.05	80	1.8	-	80
14	2.112	0.152	1.05	80	1.7	-	80
15	2.265	0.153	1.05	81	1.6	-	80
16	2.417	0.152	1.06	81	1.8	-	80
17	2.570	0.153	1.06	81	1.8	-	80
18	2.723	0.153	1.06	82	1.7	-	80
19	2.877	0.154	1.07	82	1.7	-	80
20	3.030	0.153	1.07	82	1.8	99	80
21	3.184	0.154	1.07	82	1.9	-	80
22	3.338	0.154	1.07	82	1.7	-	80
23	3.492	0.154	1.08	82	1.8	-	80
24	3.647	0.155	1.08	83	1.7	-	80
25	3.801	0.154	1.08	83	1.7	-	80
26	3.956	0.155	1.08	83	1.8	-	80
27	4.111	0.155	1.07	84	1.8	-	80
28	4.266	0.155	1.07	84	1.8	-	80
29	4.422	0.156	1.08	84	1.7	-	80
30	4.578	0.156	1.08	84	1.7	99	81
31	4.735	0.157	1.09	85	1.7	-	81

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
32	4.891	0.156	1.09	85	1.7	-	81
33	5.047	0.156	1.09	85	1.8	-	81
34	5.202	0.155	1.09	86	1.8	-	80
35	5.359	0.157	1.08	86	1.8	-	80
36	5.516	0.157	1.09	86	1.8	-	80
37	5.674	0.158	1.09	86	1.8	-	80
38	5.831	0.157	1.10	86	1.7	-	80
39	5.988	0.157	1.10	87	1.8	-	80
40	6.144	0.156	1.10	87	1.7	100	81
41	6.302	0.158	1.09	87	1.8	-	81
42	6.460	0.158	1.10	88	1.8	-	81
43	6.618	0.158	1.10	88	1.7	-	81
44	6.775	0.157	1.11	88	1.8	-	81
45	6.932	0.157	1.10	88	1.7	-	81
46	7.090	0.158	1.09	88	1.8	-	80
47	7.248	0.158	1.10	88	1.7	-	81
48	7.407	0.159	1.11	88	1.9	-	80
49	7.565	0.158	1.11	89	1.8	-	80
50	7.722	0.157	1.10	89	1.7	102	80
51	7.881	0.159	1.10	89	1.9	-	80
52	8.039	0.158	1.10	89	1.8	-	80
53	8.198	0.159	1.11	89	1.8	-	80
54	8.356	0.158	1.11	89	1.8	-	81
55	8.514	0.158	1.10	89	1.7	-	81
56	8.674	0.160	1.10	90	1.8	-	81
57	8.833	0.159	1.11	90	1.8	-	81
58	8.991	0.158	1.11	89	1.9	-	81
59	9.150	0.159	1.10	90	1.8	-	80
60	9.309	0.159	1.10	90	1.7	103	80
Avg/Tot	9.309	0.155	1.07	84.2	1.8	100	80.0

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
0	221	274	179	345	251	254.1	607.1
1	223	274	185	338	253	254.4	556.9
2	220	273	188	334	252	253.5	549.1
3	218	272	192	336	253	254.0	551.2
4	215	270	194	335	255	253.8	557.4
5	214	268	196	334	256	253.3	562.9
6	212	265	197	334	256	252.7	570.9
7	209	263	199	339	257	253.3	581.2
8	207	261	199	344	257	253.5	594.1
9	205	258	199	351	258	254.4	611.4
10	204	256	200	354	258	254.3	629.0
11	201	254	199	356	259	253.9	646.7
12	202	252	199	353	260	253.1	662.8
13	200	250	199	353	260	252.1	676.9
14	199	247	199	354	259	251.7	687.8
15	196	246	199	352	260	250.5	694.4
16	196	244	198	348	260	249.2	697.5
17	195	242	197	346	260	247.8	699.3
18	193	240	197	345	260	247.0	700.0
19	193	238	196	348	260	246.8	702.0
20	192	237	196	350	259	246.9	706.3
21	190	236	194	353	259	246.4	713.3
22	190	234	194	356	260	246.9	722.5
23	189	233	194	358	259	246.6	733.1
24	189	232	193	360	258	246.2	743.1
25	188	231	194	363	258	246.7	751.1
26	186	229	193	365	257	246.0	757.1
27	187	229	192	365	257	246.1	760.6
28	186	228	191	366	256	245.5	762.8
29	187	227	191	366	256	245.4	764.5
30	187	226	178	361	255	241.5	765.5
31	185	226	171	357	255	238.6	765.6
32	186	225	165	353	254	236.7	764.5
33	184	224	161	351	254	234.7	763.8
34	185	223	157	348	253	233.2	762.1
35	183	223	153	346	253	231.6	759.9
36	184	222	152	344	252	230.6	757.7
37	184	221	149	343	251	229.5	754.1
38	183	221	147	342	250	228.6	752.0
39	184	220	146	340	249	227.8	749.6
40	182	219	145	339	248	226.6	747.0
41	183	219	143	337	247	225.9	743.9
42	181	219	143	335	246	224.8	741.5
43	182	218	141	334	246	224.1	737.7
44	181	218	141	332	245	223.2	734.3
45	181	217	140	331	244	222.6	731.2
46	182	216	138	330	244	221.9	729.1
47	180	216	138	330	243	221.3	726.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
48	181	215	138	329	241	220.4	723.4
49	181	214	137	328	240	220.0	722.1
50	181	214	137	327	239	219.4	721.7
51	179	214	136	327	239	218.8	717.8
52	180	213	136	326	238	218.3	717.1
53	179	212	135	325	237	217.6	715.9
54	180	212	134	324	236	217.3	714.2
55	181	211	135	323	235	216.9	712.3
56	179	211	134	322	234	216.2	711.9
57	179	211	134	322	234	215.8	711.3
58	179	211	133	321	233	215.4	712.0
59	180	210	133	320	232	215.0	713.8
60	180	210	133	319	232	215.0	715.8
61	179	210	133	319	231	214.3	716.9
62	178	210	133	319	230	213.9	718.1
63	179	209	133	319	229	213.9	719.5
64	178	209	133	319	229	213.4	721.5
65	179	208	132	320	228	213.2	724.1
66	179	208	132	320	227	213.1	727.2
67	178	207	132	321	227	213.0	730.3
68	178	207	132	322	226	213.0	733.7
69	177	207	131	323	225	212.8	737.1
70	177	207	132	323	225	212.7	740.1
71	176	206	132	325	224	212.6	743.1
72	177	207	131	326	223	212.6	745.8
73	178	206	131	327	223	213.1	748.5
74	175	206	131	328	223	212.7	751.0
75	178	206	131	329	222	213.2	753.5
76	177	206	131	329	221	212.8	756.1
77	177	206	131	331	221	213.3	758.8
78	177	206	131	332	220	213.3	761.6
79	176	206	131	333	220	213.1	764.0
80	174	205	131	335	219	212.9	766.8
81	177	205	131	336	218	213.3	769.5
82	176	205	131	337	218	213.4	772.3
83	175	205	131	338	218	213.4	775.9
84	175	205	130	340	218	213.7	779.7
85	176	205	131	341	217	214.0	783.6
86	176	205	130	342	217	214.1	788.2
87	175	206	130	343	216	213.9	793.3
88	175	205	131	344	216	214.0	798.7
89	175	206	131	344	215	214.1	804.1
90	175	206	130	344	215	213.9	809.6
91	175	206	131	344	214	213.9	814.1
92	175	206	131	344	214	214.0	817.3
93	175	206	130	344	214	213.7	819.3
94	175	206	131	344	213	213.8	819.6
95	175	206	131	344	213	213.9	819.0

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
96	174	206	131	345	213	213.8	817.5
97	177	206	130	344	212	214.0	815.8
98	174	206	131	345	212	213.4	813.6
99	175	207	131	345	211	213.8	812.5
100	175	206	131	346	211	213.8	811.6
101	176	207	131	347	211	214.4	811.4
102	175	207	131	348	210	214.3	812.4
103	175	207	132	349	210	214.4	815.1
104	175	207	131	352	210	214.9	819.0
105	176	207	132	355	210	215.9	823.9
106	176	207	132	361	209	216.9	828.3
107	175	207	132	363	209	217.2	832.5
108	175	207	132	370	209	218.5	837.6
109	175	207	133	375	208	219.6	842.2
110	175	207	133	385	208	221.5	846.4
111	176	207	133	393	208	223.4	850.0
112	175	207	133	396	208	223.8	852.7
113	176	208	134	399	207	224.7	855.0
114	176	208	133	401	207	225.0	858.4
115	174	207	133	404	207	225.1	860.7
116	175	208	133	407	206	226.0	861.1
117	175	208	133	410	206	226.6	860.6
118	175	208	134	410	206	226.5	858.0
119	175	208	133	406	206	225.7	856.7
120	176	208	134	404	206	225.6	855.5
121	176	209	134	400	206	224.9	855.0
122	176	209	134	398	206	224.3	855.2
123	176	209	134	395	205	223.8	855.9
124	175	209	134	391	205	222.9	858.0
125	176	209	134	389	205	222.7	859.0
126	176	209	134	386	205	221.9	860.6
127	177	210	134	384	205	221.9	861.2
128	177	210	134	382	205	221.5	860.9
129	178	210	135	379	205	221.3	860.3
130	177	210	135	377	205	220.8	858.0
131	178	210	134	376	204	220.5	857.1
132	178	211	135	397	204	224.9	859.2
133	177	211	136	414	204	228.2	857.6
134	177	211	136	429	204	231.3	855.0
135	179	211	136	441	203	234.0	853.0
136	178	211	136	449	203	235.4	850.6
137	178	211	137	451	203	236.0	848.7
138	178	211	136	451	203	236.0	846.8
139	179	212	137	446	203	235.3	845.9
140	180	212	137	440	203	234.3	845.3
141	178	212	137	437	203	233.4	845.2
142	178	212	137	434	202	232.8	845.9
143	179	213	138	430	203	232.5	846.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
144	179	213	137	424	203	231.0	847.6
145	179	213	137	420	202	230.2	849.0
146	179	214	138	416	202	229.5	851.2
147	180	214	138	412	202	229.1	853.6
148	179	214	138	408	202	228.2	855.9
149	180	215	138	405	202	227.7	859.0
150	179	215	138	402	202	227.1	861.6
151	180	215	138	398	201	226.4	864.6
152	181	215	139	396	201	226.2	866.8
153	180	215	139	396	201	226.2	868.5
154	180	216	138	394	202	226.1	869.3
155	181	216	139	392	201	225.8	869.3
156	181	217	139	391	201	225.9	870.0
157	181	217	139	391	201	225.7	872.0
158	182	217	139	390	201	225.7	875.1
159	181	217	139	391	201	225.9	878.8
160	182	217	139	391	201	226.0	882.5
161	183	218	139	392	201	226.4	885.7
162	183	218	140	392	201	226.9	887.8
163	181	218	140	393	201	226.5	889.3
164	182	218	140	394	200	226.9	890.5
165	183	219	140	393	200	227.1	892.9
166	183	220	141	394	200	227.4	894.9
167	183	220	141	395	200	227.6	896.5
168	184	220	141	395	200	227.7	899.0
169	183	220	141	394	200	227.5	901.5
170	184	221	142	395	200	228.2	904.7
171	185	221	141	395	200	228.3	907.4
172	184	221	142	397	199	228.4	909.7
173	185	221	142	399	199	229.2	911.3
174	185	221	142	399	199	229.3	912.2
175	184	222	143	400	199	229.3	913.0
176	185	222	142	401	199	229.9	913.8
177	185	222	143	403	199	230.3	914.6
178	185	222	143	405	199	230.8	915.8
179	187	223	143	406	199	231.6	916.9
180	186	223	143	407	199	231.6	918.1
181	187	224	143	409	199	232.2	919.5
182	186	224	145	410	199	232.7	921.4
183	186	225	144	413	198	233.0	923.7
184	187	225	144	415	198	234.0	926.6
185	187	226	145	417	198	234.6	930.0
186	187	226	145	418	198	234.9	932.9
187	188	227	146	422	199	236.3	936.2
188	188	227	145	425	199	236.8	939.9
189	188	228	146	428	199	237.7	943.9
190	190	228	146	432	198	238.8	948.5
191	190	228	147	436	199	239.7	952.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
192	190	229	147	442	198	241.1	955.7
193	190	230	148	447	198	242.3	958.2
194	190	230	148	452	198	243.7	960.5
195	191	231	148	457	198	245.1	961.5
196	191	232	149	460	198	245.7	961.7
197	192	232	149	462	198	246.8	961.4
198	193	233	150	464	198	247.6	961.0
199	194	234	150	466	198	248.4	961.9
200	194	235	151	469	198	249.2	962.7
201	195	236	151	471	198	250.0	963.0
202	194	236	152	472	198	250.6	962.3
203	196	237	152	475	198	251.5	961.4
204	196	238	152	476	198	252.2	960.9
205	196	238	153	472	198	251.6	960.9
206	197	239	154	471	198	251.6	964.7
207	196	239	154	470	199	251.3	973.5
208	197	239	154	470	198	251.5	986.7
209	198	240	154	471	198	252.2	999.8
210	198	240	154	472	199	252.3	1010.3
211	198	240	155	471	198	252.3	1017.6
212	197	240	155	472	198	252.5	1022.0
213	199	240	155	473	198	252.8	1023.7
214	198	240	155	473	198	252.7	1024.3
215	199	240	155	473	198	253.0	1024.6
216	199	240	155	473	198	253.1	1024.2
217	200	240	155	473	198	253.2	1024.2
218	200	240	155	473	198	253.3	1024.1
219	201	240	155	474	199	253.8	1024.1
220	201	240	155	475	198	253.9	1024.7
221	201	241	156	476	199	254.2	1025.4
222	201	241	156	476	199	254.5	1026.5
223	201	241	156	478	198	254.8	1028.0
224	202	241	156	478	199	255.3	1029.5
225	201	241	158	480	199	255.8	1031.5
226	203	242	156	481	199	256.2	1033.5
227	202	242	156	483	199	256.4	1035.3
228	203	242	158	484	199	257.2	1037.5
229	204	242	158	486	199	257.7	1040.0
230	204	243	157	487	199	258.1	1042.3
231	204	243	158	489	199	258.6	1044.6
232	204	244	159	490	199	259.1	1047.4
233	204	244	159	492	199	259.5	1050.2
234	205	244	159	494	200	260.3	1053.0
235	206	245	158	496	200	260.9	1056.3
236	207	245	159	499	200	261.9	1059.5
237	207	245	159	501	200	262.5	1063.0
238	207	246	160	503	200	263.0	1066.3
239	208	246	160	506	200	264.0	1069.6

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
240	209	246	160	508	201	264.7	1072.6
241	208	247	160	510	201	265.2	1075.1
242	209	247	161	512	202	265.9	1077.5
243	209	247	162	514	202	266.6	1080.0
244	209	248	161	515	202	267.0	1082.2
245	209	249	162	518	202	267.8	1084.1
246	210	249	163	520	202	268.6	1086.2
247	210	249	163	522	202	269.3	1088.5
248	210	250	163	524	202	270.0	1091.2
249	211	251	164	527	203	270.9	1093.6
250	211	251	164	529	203	271.7	1096.5
251	212	252	164	531	203	272.4	1099.1
252	212	252	165	534	203	273.2	1101.7
253	212	253	165	536	204	274.0	1104.4
254	213	254	165	538	204	274.8	1107.0
255	214	254	165	540	204	275.6	1109.7
256	213	255	165	543	205	276.1	1112.5
257	216	255	166	545	205	277.5	1115.6
258	216	256	166	548	205	278.2	1118.6
259	217	257	167	551	205	279.4	1122.2
260	216	257	168	554	206	280.1	1125.4
261	217	258	168	557	206	281.1	1128.3
262	217	258	168	561	206	282.1	1131.2
263	217	259	169	564	207	283.0	1133.8
264	218	260	169	567	207	284.1	1135.9
265	219	260	169	570	207	285.2	1137.1
266	219	261	170	573	207	286.1	1138.5
267	218	261	171	576	208	286.6	1139.6
268	219	263	171	579	208	287.9	1139.6
269	220	263	171	582	208	288.8	1139.9
270	219	264	172	584	208	289.6	1140.2
271	221	265	172	587	209	290.5	1140.3
272	221	265	173	588	209	291.1	1139.8
273	221	266	173	590	209	291.8	1139.0
274	221	266	173	592	210	292.4	1138.2
275	222	267	173	594	210	293.1	1137.0
276	222	268	174	595	210	293.8	1136.5
277	225	268	175	597	210	294.9	1136.5
278	224	269	175	598	210	295.3	1136.5
279	224	269	175	600	211	295.7	1136.2
280	225	270	176	602	211	296.7	1135.9
281	226	272	177	603	211	297.6	1135.8
282	226	272	177	605	212	298.3	1135.1
283	226	272	177	606	212	298.6	1133.8
284	226	273	178	607	212	299.3	1133.2
285	228	274	178	607	212	299.6	1134.1
286	226	274	178	607	212	299.7	1135.3
287	228	275	179	608	213	300.4	1136.2

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
288	229	276	181	608	213	301.3	1136.9
289	229	276	180	608	213	301.1	1137.4
290	229	277	180	608	214	301.3	1137.8
291	228	277	180	608	214	301.4	1138.2
292	228	278	180	609	214	301.7	1138.5
293	229	279	180	608	214	302.1	1138.7
294	229	279	180	609	215	302.2	1138.7
295	230	280	182	609	215	302.7	1138.6
296	230	280	182	609	215	303.3	1138.5
297	230	281	182	610	215	303.5	1138.8
298	231	281	182	611	215	303.9	1139.0
299	231	282	182	612	215	304.3	1138.9
300	232	282	182	613	215	304.8	1138.3
301	232	283	183	614	216	305.3	1137.2
302	232	283	183	615	216	305.8	1136.0
303	234	284	184	615	216	306.6	1134.7
304	234	284	184	616	216	306.8	1133.2
305	235	284	185	617	217	307.4	1131.9
306	236	285	184	617	217	307.5	1130.7
307	236	285	185	616	217	307.8	1129.8
308	235	285	184	615	217	307.5	1129.7
309	236	286	186	615	218	307.9	1128.7
310	236	286	186	614	218	307.7	1127.7
311	237	286	186	612	218	307.7	1126.3
312	237	286	186	610	218	307.4	1124.2
313	238	287	186	609	218	307.5	1122.3
314	238	287	187	607	218	307.3	1120.3
315	239	287	186	605	219	307.1	1117.8
316	239	287	187	602	219	306.8	1114.8
317	241	287	187	599	219	306.6	1111.0
318	239	287	188	596	219	305.8	1106.4
319	241	287	188	592	220	305.4	1101.0
320	240	287	187	587	220	304.3	1095.0
321	243	287	188	582	220	303.9	1088.4
322	241	287	188	577	220	302.7	1081.7
323	243	287	188	572	220	302.1	1074.7
324	241	287	188	567	220	300.8	1067.5
325	242	287	188	562	220	300.0	1060.3
326	243	287	189	557	220	299.2	1053.6
327	243	287	188	553	221	298.4	1046.9
328	243	287	189	548	221	297.5	1040.3
329	244	287	189	544	221	296.8	1034.1
330	243	287	188	539	221	295.6	1028.2
331	243	287	189	535	222	295.1	1022.7
332	244	287	189	531	222	294.4	1017.5
333	244	287	189	527	222	293.6	1012.5
334	244	287	189	523	222	293.0	1008.1
335	244	287	188	519	222	291.9	1003.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
336	244	287	189	515	222	291.5	998.9
337	244	287	189	512	222	290.8	994.9
338	244	287	189	508	222	290.2	990.8
339	244	287	189	505	223	289.6	986.8
340	244	287	189	502	223	288.8	982.7
341	244	286	189	499	223	288.2	978.8
342	245	287	189	496	223	287.8	975.0
343	245	286	189	493	223	287.1	971.1
344	244	286	189	490	223	286.6	967.2
345	243	286	190	487	223	286.0	963.2
346	245	286	190	484	224	285.6	959.3
347	245	286	189	482	224	284.9	955.2
348	244	286	189	479	224	284.4	950.7
349	244	286	189	476	224	283.9	946.5
350	244	286	189	473	224	283.3	941.6
351	244	286	188	471	224	282.6	936.4
352	243	285	188	468	224	281.8	931.2
353	244	286	188	465	225	281.4	925.7
354	244	286	189	462	225	281.0	920.0
355	243	286	188	461	225	280.4	914.1
356	243	285	188	458	225	279.9	908.5
357	243	285	188	456	225	279.3	902.6
358	242	285	189	454	226	279.2	897.2
359	242	285	188	452	226	278.4	892.0
360	242	285	188	450	226	278.2	887.4
361	241	285	188	448	226	277.5	882.5
362	242	285	187	447	226	277.3	878.6
363	240	285	187	445	226	276.4	873.9
364	240	284	187	442	226	275.9	869.1
365	241	284	186	441	227	275.7	864.5
366	241	284	186	439	227	275.3	859.6
367	240	284	187	437	227	274.9	854.7
368	239	283	186	435	227	274.0	849.7
369	241	283	187	433	227	274.1	844.9
370	237	283	187	431	227	273.1	840.2
371	240	283	186	429	227	273.1	835.3
372	238	283	186	428	227	272.2	830.1
373	239	283	186	426	227	272.0	825.6
374	238	283	186	424	228	271.6	821.0
375	239	282	186	423	228	271.4	816.9
376	237	282	186	421	228	270.5	812.7
377	238	281	185	419	228	270.1	808.4
378	238	282	186	417	228	270.0	804.0
379	237	282	185	415	228	269.3	800.4
380	236	281	185	414	228	268.7	796.9
381	236	281	185	412	228	268.4	793.0
382	236	280	185	410	228	267.8	789.1
383	235	280	185	409	229	267.3	785.1

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
384	234	280	184	407	229	266.8	781.6
385	234	280	184	406	229	266.4	778.9
386	236	280	184	404	229	266.4	775.1
387	235	279	183	403	229	265.7	771.6
388	235	279	183	401	229	265.4	768.6
389	234	279	183	400	229	265.0	764.3
390	234	278	183	399	229	264.5	762.5
391	235	278	183	397	229	264.5	760.7
392	234	278	183	396	229	263.9	758.3
393	233	278	183	394	229	263.5	756.7
394	234	277	183	393	229	263.3	755.0
395	233	277	183	392	229	262.8	753.3
396	233	277	182	391	230	262.6	751.3
397	233	276	182	390	230	262.2	750.0
398	233	276	182	389	230	261.9	748.9
399	233	276	181	388	230	261.4	747.0
400	232	275	182	386	230	261.0	745.1
401	232	274	181	385	230	260.4	743.5
402	232	274	181	384	230	260.3	742.0
403	232	274	181	384	230	260.2	739.9
404	232	273	181	382	230	259.6	737.5
405	232	273	181	381	230	259.4	736.8
406	232	273	181	381	230	259.3	736.2
407	231	272	182	380	230	258.9	734.6
408	230	272	181	379	230	258.5	733.8
409	231	271	181	378	230	258.5	732.6
410	230	271	181	378	231	258.0	732.2
411	230	271	181	377	231	257.7	730.7
412	230	271	180	376	231	257.5	730.2
413	231	270	181	375	231	257.4	728.4
414	231	270	181	374	231	257.4	727.6
415	229	270	180	374	231	256.6	726.8
416	229	270	181	372	231	256.5	725.7
417	230	269	181	372	231	256.5	724.7
418	228	269	180	372	231	256.0	723.8
419	228	269	181	371	231	256.0	722.3
420	227	269	180	370	231	255.5	721.1
421	228	268	180	370	232	255.4	719.6
422	228	269	180	369	232	255.4	718.2
423	228	268	180	368	232	255.0	717.1
424	228	268	180	367	232	254.9	716.7
425	226	268	179	366	232	254.3	715.9
426	228	268	180	366	232	254.6	714.5
427	227	268	179	365	232	254.2	713.4
428	226	267	180	364	232	253.8	712.8
429	225	267	180	363	232	253.4	711.5
430	228	267	180	362	232	253.7	710.4
431	227	267	180	362	232	253.5	709.0

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
432	226	267	179	361	232	253.2	707.5
433	226	267	180	360	233	253.0	705.6
434	226	267	179	360	233	252.8	705.1
435	225	267	179	359	233	252.6	703.5
436	225	267	179	359	233	252.6	702.3
437	225	266	179	358	233	252.3	701.2
438	226	266	179	358	233	252.3	700.8
439	225	266	179	357	233	252.1	699.9
440	224	266	179	356	233	251.9	699.7
441	225	266	179	356	234	251.8	698.5
442	224	266	179	355	234	251.5	697.4
443	224	266	179	355	234	251.3	696.3
444	224	266	178	354	234	251.1	694.9
445	224	266	179	353	234	251.1	694.1
446	223	266	178	353	234	250.6	693.3
447	222	266	178	352	234	250.4	693.2
448	224	265	178	352	234	250.6	692.3
449	222	266	178	351	234	250.2	691.5
450	223	265	178	350	234	250.2	691.3
451	223	265	178	350	234	250.0	690.5
452	222	265	179	349	234	250.0	689.5
453	223	265	178	349	234	249.9	688.2
454	222	265	177	348	234	249.5	687.0
455	222	265	178	347	235	249.4	685.8
456	222	265	178	347	235	249.2	685.1
457	222	265	178	346	235	249.3	682.9
458	222	265	178	345	235	249.0	682.3
459	221	265	178	344	235	248.5	681.1
460	221	265	178	343	235	248.4	678.5
461	221	264	177	343	235	248.1	677.0
462	221	264	177	342	235	248.0	676.0
463	221	264	178	342	235	247.8	674.6
464	221	264	177	341	235	247.6	673.3
465	220	264	177	340	235	247.2	671.6
466	219	264	176	340	235	246.8	669.1
467	220	263	177	339	235	246.8	668.3
468	220	263	176	338	235	246.6	667.5
469	219	263	177	338	235	246.3	666.8
470	221	262	176	337	235	246.0	666.0
471	220	262	175	337	235	245.7	665.3
472	219	262	175	336	235	245.4	664.9
473	220	262	176	335	235	245.6	663.9
474	220	261	175	335	235	245.3	662.9
475	220	261	175	335	235	245.2	662.0
476	221	261	175	334	235	245.1	660.5
477	220	260	174	333	235	244.6	660.1
478	220	260	174	333	235	244.6	660.0
479	219	260	174	333	235	244.1	659.5

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
480	220	260	174	332	235	244.3	660.1
481	220	260	174	333	235	244.3	660.8
482	220	259	174	332	235	244.1	662.2
483	220	259	174	332	235	244.0	662.4
484	221	259	174	332	235	244.1	663.2
485	220	259	173	332	235	243.8	663.3
486	220	259	173	331	235	243.5	664.6
487	220	258	174	331	235	243.6	664.8
488	220	258	173	331	235	243.4	665.7
489	218	258	173	331	235	243.1	665.2
490	220	258	173	331	235	243.2	665.7
491	218	258	173	330	235	242.6	664.8
492	219	258	173	330	235	243.0	665.3
493	220	257	173	330	235	242.9	665.6
494	218	257	172	330	235	242.5	665.3
495	219	257	172	330	235	242.5	665.9
496	220	257	172	330	235	242.7	665.7
497	219	257	172	330	235	242.6	664.9
498	222	257	172	329	235	243.1	665.8
499	220	257	172	329	235	242.6	666.4
500	220	257	172	329	235	242.5	666.1
501	220	257	172	329	235	242.6	666.2
502	220	257	172	329	235	242.8	666.1
503	220	257	172	329	235	242.7	665.9
504	220	257	172	329	235	242.7	666.5
505	220	257	172	329	235	242.5	666.3
506	219	257	172	329	235	242.4	666.3
507	219	257	172	329	236	242.6	666.3
508	219	258	172	329	236	242.4	667.0
509	220	257	172	329	236	242.6	667.5
510	220	258	172	329	236	242.7	667.2
511	219	258	172	329	236	242.5	667.4
512	219	258	171	329	236	242.5	668.1
513	220	258	171	329	236	242.6	667.4
514	220	258	171	329	236	242.8	667.7
515	218	258	172	329	236	242.5	668.8
516	219	258	173	329	237	243.0	669.0
517	220	258	171	329	236	242.8	668.9
518	220	259	172	328	236	243.0	670.3
519	220	259	172	328	237	243.2	669.8
520	220	259	172	328	237	243.2	670.2
521	219	259	172	329	237	243.2	670.4
522	218	260	172	329	237	243.0	671.1
523	219	260	173	329	237	243.5	672.9
524	220	260	173	329	237	243.9	673.2
525	220	260	173	329	238	244.0	673.4
526	220	261	172	329	237	243.6	675.0
527	220	261	173	329	238	243.9	673.7

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
528	220	261	172	329	237	243.9	674.8
529	220	261	172	328	238	243.7	675.4
530	220	262	172	329	238	244.1	675.3
531	219	262	172	328	238	243.8	675.3
532	220	262	172	328	238	244.0	675.7
533	219	262	172	328	238	243.9	676.8
534	220	262	173	328	238	244.4	676.6
535	220	263	172	328	238	244.3	677.5
536	220	263	172	328	239	244.3	677.8
537	220	263	172	328	239	244.4	677.0
538	220	264	172	328	239	244.5	677.5
539	220	264	171	328	239	244.5	677.6
540	220	264	171	328	239	244.5	676.7
541	220	264	173	328	239	244.9	677.8
542	222	265	172	329	240	245.4	677.1
543	221	265	172	329	239	245.2	677.2
544	222	266	171	329	240	245.4	678.9
545	220	266	171	329	240	245.0	678.3
546	221	267	171	329	240	245.4	676.8
547	220	267	171	329	240	245.4	677.8
548	221	268	170	329	240	245.6	678.5
549	221	269	170	329	240	245.6	678.8
550	222	269	170	329	240	245.9	677.8
551	221	270	170	329	241	246.1	677.6
552	221	271	170	329	241	246.3	677.6
553	220	271	169	329	241	246.1	678.4
554	221	272	170	329	241	246.4	679.1
555	222	273	169	329	241	246.6	679.7
556	220	273	169	329	241	246.5	680.1
557	220	274	169	329	241	246.7	679.4
558	220	275	169	329	242	246.9	679.5
559	221	275	169	329	242	247.3	680.9
560	221	276	169	329	242	247.5	681.8
561	221	277	169	330	242	247.6	682.1
562	221	278	169	330	242	247.9	681.5
563	222	278	168	330	242	248.0	682.0
564	221	279	169	330	242	248.3	682.8
565	221	280	169	330	243	248.4	683.0
566	221	281	168	331	243	248.5	683.7
567	222	282	168	330	243	249.0	683.7
568	222	282	169	331	243	249.3	683.3
569	222	283	168	331	243	249.3	684.0
570	221	283	168	331	243	249.4	684.1
571	221	284	168	331	243	249.5	684.3
572	221	285	168	331	243	249.7	683.9
573	221	286	169	330	244	249.9	684.0
574	220	287	168	331	244	249.8	684.4
575	221	288	168	330	244	250.0	683.9

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
576	221	288	168	331	244	250.3	683.5
577	220	289	168	330	244	250.3	684.5
578	221	290	168	330	244	250.6	684.4
579	220	291	168	330	245	250.7	683.7
580	220	291	168	330	245	250.8	684.2
581	219	292	168	330	245	250.6	682.4
582	220	292	168	330	245	250.9	682.0
583	221	293	168	330	245	251.2	681.6
584	220	293	168	330	245	251.3	681.7
585	220	294	168	330	246	251.4	681.1
586	219	294	168	330	246	251.3	680.2
587	218	295	169	329	246	251.3	679.6
588	219	295	168	329	246	251.4	679.4
589	219	295	168	329	246	251.6	677.8
590	219	296	168	329	246	251.5	678.6
591	219	296	169	329	247	251.9	677.8
592	218	296	169	328	247	251.7	677.4
593	219	296	169	328	247	251.9	677.0
594	218	296	169	328	247	251.8	676.1
595	219	296	170	328	248	252.0	676.3
596	219	297	169	328	248	252.0	676.2
597	217	297	170	328	248	251.9	676.1
598	217	297	169	328	249	251.9	677.0
599	219	297	170	328	249	252.3	678.4
600	216	297	170	328	249	251.9	678.8
601	217	297	170	328	249	252.2	678.9
602	217	298	170	328	250	252.4	679.3
603	218	299	169	328	250	252.6	680.1
604	217	299	170	328	250	252.6	679.6
605	217	300	171	328	251	253.1	680.9
606	216	300	170	328	251	252.8	681.5
607	216	300	170	328	251	252.8	681.4
608	215	301	170	328	251	252.8	681.6
609	216	301	170	328	251	253.1	682.3
610	216	301	170	328	252	253.4	682.1
611	216	301	170	328	252	253.3	682.1
612	215	302	169	327	252	253.1	682.6
613	214	302	170	327	252	253.2	682.8
614	215	303	170	328	253	253.5	682.4
615	215	302	170	328	253	253.5	682.3
616	215	302	170	328	253	253.6	682.3
617	214	303	170	328	253	253.4	683.1
618	214	302	170	328	253	253.6	684.4
619	214	302	170	329	254	253.9	686.5
620	214	303	170	329	254	253.8	687.0
621	213	302	170	329	254	253.8	687.7
622	213	302	170	329	254	253.7	689.1
623	213	302	171	329	254	253.7	689.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
624	213	302	171	330	255	253.9	689.0
625	212	302	170	330	255	253.7	689.3
626	212	302	170	330	255	253.7	689.5
627	211	302	171	330	255	253.9	690.2
628	212	302	170	330	255	253.8	690.6
629	212	302	170	330	256	253.9	690.7
630	212	303	171	330	256	254.2	690.0
631	212	303	170	328	256	254.0	688.3
632	212	304	170	327	256	253.7	688.4
633	211	305	171	325	257	253.7	685.1
634	211	306	171	324	257	253.5	680.5
635	213	307	171	323	257	253.8	674.6
636	211	308	171	321	257	253.6	667.1
637	212	310	170	320	257	253.9	659.8
638	211	312	171	319	258	254.0	652.9
639	212	313	171	318	258	254.3	646.7
640	211	315	171	318	258	254.4	641.0
641	212	316	171	317	258	254.6	637.2
642	210	318	170	316	258	254.6	633.1
643	211	320	171	315	259	255.1	630.1
644	210	322	171	315	258	255.0	627.3
645	210	324	171	314	259	255.5	625.6
646	211	325	170	313	258	255.5	624.1
647	211	326	170	313	259	255.7	622.5
648	211	327	171	312	259	255.8	621.4
649	212	329	170	312	259	256.2	620.5
650	211	330	170	311	259	256.0	619.7
651	210	331	170	311	259	256.0	618.5
652	211	332	170	310	259	256.3	617.3
653	210	333	170	310	259	256.2	616.9
654	210	333	170	309	259	256.2	616.4
655	211	334	170	309	259	256.3	615.7
656	210	334	170	308	259	256.3	614.9
657	210	335	169	308	259	256.4	614.5
658	209	335	169	308	259	256.1	614.4
659	209	336	169	307	259	256.0	613.9
660	209	336	169	307	259	255.9	614.0
661	209	336	168	307	259	255.7	613.9
662	209	336	169	306	259	255.7	614.0
663	208	337	168	306	259	255.4	613.8
664	208	336	168	305	258	255.3	613.7
665	207	336	168	305	258	254.9	613.8
666	208	336	168	305	258	255.0	613.4
667	208	336	168	305	258	254.9	613.0
668	207	336	168	304	258	254.4	611.9
669	207	335	167	303	258	254.3	610.5
670	207	335	168	302	258	253.8	609.3
671	206	335	167	301	258	253.2	607.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
672	205	334	167	301	258	252.9	606.9
673	207	334	167	299	257	252.8	604.3
674	204	333	167	298	257	251.8	601.1
675	204	333	167	298	257	251.5	597.2
676	205	332	166	297	257	251.4	592.6
677	204	332	165	296	257	250.6	588.7
678	203	331	165	295	257	250.1	585.0
679	203	329	165	294	257	249.5	581.8
680	203	328	165	293	256	249.1	579.0
681	202	327	164	292	256	248.3	576.6
682	202	326	164	292	256	247.8	575.3
683	202	325	163	291	256	247.4	572.7
684	201	324	164	291	256	247.0	572.9
685	201	321	163	291	256	246.5	573.6
686	200	321	163	290	256	245.8	575.2
687	201	319	162	290	256	245.6	577.3
688	199	318	162	290	256	244.9	580.4
689	199	317	161	290	255	244.6	583.6
690	199	316	162	290	255	244.2	587.0
691	198	315	161	290	256	243.8	590.2
692	198	313	160	290	255	243.2	593.7
693	196	312	160	290	255	242.7	596.6
694	197	310	160	290	255	242.4	598.7
695	196	310	159	290	255	241.9	601.5
696	195	308	159	290	255	241.4	603.7
697	194	308	159	290	255	241.2	605.5
698	194	306	159	290	255	240.8	607.1
699	194	306	158	289	255	240.3	607.7
700	193	305	158	289	255	239.7	608.7
701	193	303	158	288	255	239.3	607.3
702	193	303	158	287	255	239.1	603.5
703	193	302	158	286	255	238.6	599.9
704	192	301	157	286	255	237.9	595.2
705	192	301	157	285	255	237.7	590.6
706	192	300	157	284	254	237.4	585.2
707	192	299	156	284	254	236.8	580.9
708	191	298	156	283	254	236.5	575.7
709	192	298	156	282	255	236.4	574.0
710	191	298	156	282	254	236.1	571.2
711	190	297	156	281	254	235.6	569.7
712	190	296	156	281	254	235.3	568.4
713	190	296	155	280	254	235.3	566.9
714	189	295	155	280	254	234.7	565.0
715	191	295	155	280	254	235.0	563.6
716	190	295	155	279	254	234.7	564.7
717	188	294	156	279	254	234.1	564.7
718	190	293	155	279	254	234.0	565.5
719	188	293	155	278	254	233.5	565.2

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
720	188	292	155	277	254	233.2	565.5
721	188	292	154	277	254	232.6	565.4
722	187	291	154	276	254	232.4	564.9
723	188	291	154	275	253	232.3	563.9
724	188	290	154	275	254	232.2	562.4
725	187	290	154	275	254	231.9	562.2
726	187	289	154	274	254	231.7	560.0
727	187	288	153	274	254	231.2	559.4
728	186	288	153	273	254	230.9	558.5
729	186	287	154	273	254	230.6	558.2
730	186	286	153	272	254	230.3	555.1
731	185	286	154	272	254	230.0	555.3
732	185	285	153	271	254	229.6	554.6
733	186	284	153	270	254	229.5	553.5
734	185	284	152	270	254	228.8	553.2
735	184	283	153	269	254	228.5	553.2
736	185	282	152	268	254	228.2	553.2
737	184	282	153	268	254	228.0	553.8
738	184	281	152	268	253	227.6	553.6
739	184	280	152	268	254	227.5	553.2
740	183	280	152	267	253	227.0	553.0
741	184	279	151	267	253	226.8	552.4
742	182	278	152	266	253	226.2	552.7
743	183	277	152	266	253	226.0	551.9
744	182	276	151	266	253	225.5	551.8
745	181	276	151	265	253	225.3	551.8
746	181	275	151	265	252	224.7	551.8
747	181	274	151	264	252	224.5	550.9
748	181	273	150	264	252	224.1	550.3
749	180	273	150	264	252	223.6	550.7
750	180	272	150	263	252	223.4	551.1
751	180	272	150	263	252	223.2	550.2
752	179	271	150	263	251	222.8	550.3
753	179	270	150	263	251	222.5	550.7
754	180	270	150	263	251	222.6	552.0
755	178	269	149	263	251	221.9	553.6
756	178	268	149	263	250	221.7	553.6
757	179	267	149	263	251	221.6	556.0
758	178	267	149	262	251	221.5	557.6
759	178	266	149	262	250	221.0	558.1
760	177	266	148	262	250	220.6	559.0
761	176	265	148	261	250	220.1	561.2
762	177	264	148	261	250	220.0	561.7
763	176	263	148	261	250	219.6	562.1
764	177	263	148	260	250	219.4	562.0
765	176	263	148	260	249	219.1	561.1
766	176	262	148	259	249	218.7	557.6
767	175	261	148	259	249	218.2	556.7

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

Stove ΔT: 38

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
768	175	261	147	258	248	218.0	555.8
769	175	261	147	258	248	217.8	553.5
770	175	260	147	258	248	217.4	551.1
771	174	259	147	257	248	217.1	547.7
772	174	259	147	256	248	216.7	546.0
773	175	258	147	256	247	216.8	544.5
774	174	258	147	256	247	216.3	540.0
775	173	257	147	255	247	215.9	539.8
Average	207.4	263.5	164.4	382.6	230.8	249.7	781.5

LAB SAMPLE DATA - ASTM E2515

Client: FPI
Model: F5200
Run #: 2

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/22/2023

		Sample ID	Tare, mg	Final, mg	Catch, mg
Filters	**A**	G00637	244.2	247.1	2.9
	B	G00638	244.2	246.9	2.7
	C - 1st Hour	G00639	243.7	244.3	0.6
	Amb	G00640	244.5	244.6	0.1
Probes	**A**	15A	117238.6	117238.8	0.2
	B	15B	116751.4	116751.8	0.4
	C - 1st Hour	15C	116846.6	116846.7	0.1
O-rings	**A**	15A	3570.0	3569.9	0.0
	B	15B	3571.1	3571.1	0.0
	C - 1st Hour	15C	3397.0	3397.1	0.1

**Negative value corrected to zero*

Placed in Dessicator on:	8/23/2023

Balance Audit (mg):		100.0		100.0					
		Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time
Filters	**A**	247.0	8/25 - 9:00	247.1	8/28 - 8:30				
	B	246.9	8/25 - 9:00	246.9	8/28 - 8:30				
	C - 1st Hour	244.4	8/25 - 9:00	244.3	8/28 - 8:30				
	Amb	244.6	8/25 - 9:00	244.6	8/28 - 8:30				
Probes	**A**	117238.9	8/25 - 9:00	117238.8	8/28 - 8:30				
	B	116752.0	8/25 - 9:00	116751.8	8/28 - 8:30				
	C - 1st Hour	116846.7	8/25 - 9:00	116846.7	8/28 - 8:30				
O-Rings	**A**	3569.9	8/25 - 9:00	3569.9	8/28 - 8:30				
	B	3571.1	8/25 - 9:00	3571.1	8/28 - 8:30				
	C - 1st Hour	3397.0	8/25 - 9:00	3397.1	8/28 - 8:30				

Train A Aggregate, mg:	**3.1**
Train B Aggregate, mg:	**3.1**
Train C Aggregate, mg:	**0.8**
Ambient, mg:	**0.1**

ASTM E2780 Wood Heater Run Sheets

Client: FPI Job Number: 23-200 Tracking #: 157
Model: F5200 Run Number: 2 Test Date: 8/22/23

Wood Heater Run Notes

Test Control Settings

Primary Air Setting(s): Fully Closed
Targeted Burn Category: I

Preburn Notes

Time	Notes
4:00 100:00	Stirred Coals Leveled coal bed, turn off fan, set air to high in preparation of fuel loading

Test Notes

Test Burn Start Time: 13:02 Test Fuel Loaded by: 35 seconds
Door Closed: 50 seconds Air Control Set at: 120 seconds
Other Loading Notes: Fan on high @ 30 min

Time	Notes
	-None-

Test Burn End Time: 8/23 01:57

Flue Gas Concentration Measurement

Calibration Gas Values: Span Gas CO_2 (%): 17.01 CO (%): 4.306
Mid Gas CO_2 (%): 10.09 CO (%): 2.530

Calibration Results:

	Pre Test			Post Test		
	Zero	Span	Mid	Zero	Span	Mid
Time	11:22	11:23	11:24	8/23 8:35	8/23 8:36	8/23 8:38
CO_2	-0.04	17.06	10.13	0.00	17.11	10.17
CO	-0.014	4.285	2.492	-0.015	4.305	2.497

Flue Gas Probe Leak Check: Initial: No Leakage Final: No Leakage

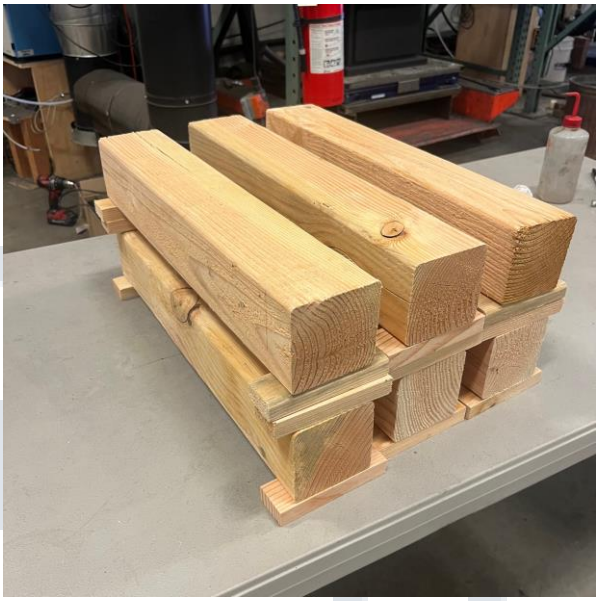
Technician Signature:  Date: 8/23/23

ASTM E2780 Wood Heater Run Sheets

Client: FPI Job Number: 23-200 Tracking #: 157
Model: F5200 Run Number: 2 Test Date: 8/22/23



Test Fuel Front/Side View



Test Fuel Iso View



Test Fuel Loaded in Stove



Air Setting

Technician Signature: Date: 8/23/23

WOOD STOVE TEST DATA PACKET
ASTM E2780/E2515

Run 3 Data Summary

Client:	FPI
Model:	F5200
Job #:	23-200
Tracking #:	157
Test Date:	8/23/2023

Techician Signature

8/28/2023
Date

TEST RESULTS - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

Burn Rate (kg/hr):	2.58

	Ambient Sample	Sample Train A	Sample Train B	1st Hour Filter
Total Sample Volume (ft^3)	30.894	45.021	43.876	9.201
Average Gas Velocity in Dilution Tunnel (ft/sec)	8.1			
Average Gas Flow Rate in Dilution Tunnel (dscf/hr)	21128.1			
Average Gas Meter Temperature (°F)	76.8	97.4	97.7	83.5
Total Sample Volume (dscf)	30.541	43.178	42.048	9.080
Average Tunnel Temperature (°F)	101.4			
Total Time of Test (min)	276			
Total Particulate Catch (mg)	0.0	2.0	1.7	1.6
Particulate Concentration, dry-standard (g/dscf)	0.0000000	0.0000463	0.0000404	0.0001762
Total PM Emissions (g)	0.00	4.50	3.93	3.72
Particulate Emission Rate (g/hr)	0.00	0.98	0.85	3.72
Emissions Factor (g/kg)	-	0.38	0.33	-
Difference from Average Total Particulate Emissions (g)	-	0.29	0.29	-
Difference from Average Total Particulate Emissions (%)	-	6.8%	6.8%	
Difference from Average Emissions Factor (g/kg)	-	0.02	0.02	-

Final Average Results	
Total Particulate Emissions (g)	4.22
Particulate Emission Rate (g/hr)	0.92
Emissions Factor (g/kg)	0.36
HHV Efficiency (%)	75.3%
LHV Efficiency (%)	81.4%
CO Emissions (g/min)	2.09

Quality Checks	Requirement	Observed	Result
Dual Train Precision	Each train within 7.5% of average emissions (in grams), or emission factors within 0.5 g/kg	See Above	OK
Filter Temps	<90 °F	88.1	OK
Face Velocity	< 30 ft/min	9.3	OK
Leakage Rate	Less than 4% of average sample rate	0 cfm	OK
Ambient Temp	55-90 °F	Min:73.4/Max:79	OK
Negative Probe Weight Evaluation	<5% of Total Catch	Probe Catch Not Negative	OK
Pro-Rate Variation	90% of readings between 90-110%; none greater than 120% or less than 80%	See Data Tabs	OK
Stove Surface ΔT	<126°F	43.6	OK

B415.1 Efficiency Results

Manufacturer:	FPI
Model:	F5200
Date:	08/23/23
Run:	3
Control #:	23-200
Test Duration:	276
Output Category:	4

Test Results in Accordance with CSA B415.1-09

	HHV Basis	LHV Basis
Overall Efficiency	75.3%	81.4%
Combustion Efficiency	96.5%	96.5%
Heat Transfer Efficiency	78.1%	84.4%

Output Rate (kJ/h)	38,370	36,398	**(Btu/h)**
Burn Rate (kg/h)	2.57	5.67	**(lb/h)**
Input (kJ/h)	50,937	48,319	**(Btu/h)**

Test Load Weight (dry kg)	11.83	26.07	**dry lb**
MC wet (%)	16.79		
MC dry (%)	20.18		
Particulate (g)	4.22		
CO (g)	577		
Test Duration (h)	4.60		

Emissions	**Particulate**	**CO**
g/MJ Output	0.02	3.27
g/kg Dry Fuel	0.36	48.81
g/h	0.92	125.51
g/min	0.02	2.09
lb/MM Btu Output	0.06	7.60

Air/Fuel Ratio (A/F)	9.56

VERSION: **2.4** **4/15/2010**

WOODSTOVE FUEL DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

Preburn Fuel Information

Size	Length (in)	Moisture Content (% DB)	Size	Length (in)	Moisture Content (% DB)
2x4	20.00	19.3	2x4	20.00	19.2
2x4	20.00	21.7	2x4	20.00	19.1
2x4	20.00	19.1	2x4	20.00	24.5
2x4	20.00	24.6	2x4	20.00	24.3
2x4	20.00	24.9	2x4	20.00	23.5
2x4	20.00	24.2	2x4	20.00	22.7
2x4	20.00	23.9			
2x4	20.00	21.1			
Total Fuel Weight (lbs):		27.65	Average Moisture (%DB):		22.3

Firebox Volume (ft^3): 4.42
Total 2x4 Crib Weight, with spacers (lbs): 0.00
Total 4x4 Crib Weight, with spacers (lbs): 31.33
Total Wet Fuel Weight, with spacers (lbs): 31.33

Coal Bed Range (20-25%):
Min (lbs): 6.27
Max (lbs): 7.83

Test Fuel Information

Size	Length (in)	Weight (lbs)	Moisture Content (%DB)			Dry Weight (lbs)
4x4	20.00	4.94	20.2	20.2	20.2	4.11
4x4	20.00	5.00	19.0	19.7	19.5	4.19
4x4	20.00	4.92	19.7	21.5	21.5	4.07
4x4	20.00	4.98	21.7	19.4	21.0	4.13
4x4	20.00	4.58	19.1	19.3	20.6	3.83
4x4	20.00	4.67	19.6	20.6	20.5	3.88
					Total Dry Weight, no spacers (lbs):	24.20
					Total Dry Weight, with spacers (lbs):	26.13

Spacer Moisture Readings (%DB)

14.3	18.5	18.7	15.4				
14.4	13.1	18.2	19.5				
17.2	17.5	13.0	16.1				
15.5	15.9						
17.3	14.6						
19.4	12.9						

Quality Checks	Requirement	Observed	Result
Fuel Density	25 - 36 (lbs/ft^3, DB)	28.5	OK
Loading Density	6.3 - 7.7 (lbs/ft^3, WB)	7.09	OK
2x4 Fuel Mix	35 - 65 % of total weight	N/A	N/A

DILUTION TUNNEL & MISC. DATA - ASTM E2780 / E2515

Client:	FPI	Job #:	23-200
Model:	F5200	Tracking #:	157
Run #:	3	Technician:	AK
Test Start Time:	10:20	Date:	8/23/2023

Total Sampling Time (min):	276
Recording Interval (min):	1

Meter Box γ Factor:	1.004	(A)
Meter Box γ Factor:	1.004	(B)
Meter Box γ Factor:	1.011	(C)
Meter Box γ Factor:	1.003	(Ambient)

	Pre-Test	Post Test	Avg.
Barometric Pressure (in. Hg)	30.00	29.99	30.00
Relative Humidity (%)	32.9	34.7	
Room Air Velocity (ft/min)	0	0	
Pitot Tube Leak Check	0	0	
Ambient Sample Volume:		30.894	ft^3

Induced Draft Check (in. H_2O):	0
Smoke Capture Check (%):	100%
Date Flue Pipe Last Cleaned:	8/17/2023
Test Fuel Scale Audit (lbs)	10.00
Platform Scale Audit (lbs)	10.0

Sample Train Leak Checks

	Pre-test	Post-test		
(A)	0.000	0.000	cfm @	-5 in. Hg
(B)	0.000	0.000	cfm @	-5 in. Hg
(C)	0.000	0.000	cfm @	-5 in. Hg
(Ambient)	0.000	0.000	cfm @	-11 in. Hg

DILUTION TUNNEL FLOW

Traverse Data

Point	dP (in H_2O)	Temp (°F)
1	0.012	100
2	0.014	100
3	0.018	100
4	0.018	100
5	0.012	100
6	0.008	100
7	0.010	99
8	0.018	99
9	0.020	99
10	0.018	99
11	0.014	99
12	0.012	99
Center	0.020	99

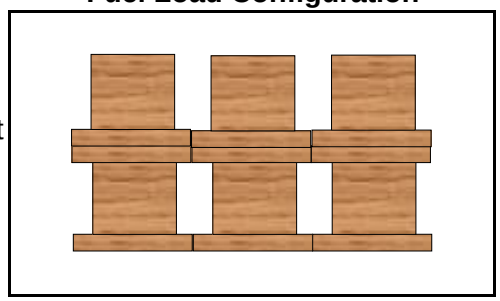
Static Pressure: -0.120 in. H_2O

Dilution Tunnel H_2O:	2.00	percent
Tunnel Diameter:	12	inches
Pitot Tube Cp:	0.99	[unitless]
Dilution Tunnel MW(dry):	29.00	lb/lb-mole
Dilution Tunnel MW(wet):	28.78	lb/lb-mole
Tunnel Area:	0.7854	ft^2
V_{strav}:	8.14	ft/sec
V_{scent}:	9.63	ft/sec
F_p:	0.845	[ratio]
Initial Tunnel Flow:	355.4	scf/min

TEST FUEL PROPERTIES

Fuel Load Configuration

Firebox Left



Firebox Right

Firebox Front View

Actual Fuel Used Properties

Fuel Type:	D. Fir
HHV (kJ/kg)	19,810
%C	48.73
%H	6.87
%O	43.9
%Ash	0.5
MC (%DB)	20.2

WOODSTOVE PREBURN DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

Recording Interval (min): 1
Run Time (min): 138

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
0	29.44	-0.081	250	304	223	728	149	330.7	580	74
1	29.30	-0.081	251	309	219	677	151	321.3	514	74
2	29.16	-0.079	251	310	216	643	153	314.6	482	74
3	29.02	-0.079	251	310	210	620	155	309.2	463	74
4	28.87	-0.077	248	309	206	614	156	306.8	452	73
5	28.71	-0.077	246	307	202	638	157	310.1	445	73
6	28.55	-0.077	246	306	198	682	159	318.1	440	73
7	28.38	-0.077	243	303	195	727	160	325.5	436	73
8	28.19	-0.076	240	300	193	729	162	324.7	433	73
9	28.03	-0.076	237	297	191	719	163	321.3	430	73
10	27.84	-0.076	236	294	186	721	164	320.1	429	73
11	27.67	-0.077	234	291	185	703	165	315.5	430	72
12	27.53	-0.077	233	289	181	687	166	311.2	430	73
13	27.38	-0.075	232	287	180	666	167	306.4	428	72
14	27.24	-0.073	229	284	178	647	169	301.2	424	73
15	27.08	-0.075	227	281	175	638	171	298.4	420	72
16	26.92	-0.074	228	278	173	638	172	297.9	418	72
17	26.77	-0.074	225	275	171	636	172	295.9	416	72
18	26.61	-0.074	221	273	169	635	173	294.2	414	72
19	26.46	-0.074	222	272	167	638	174	294.3	414	72
20	26.30	-0.074	221	268	166	651	174	296.1	415	72
21	26.11	-0.075	219	266	164	672	175	299.3	415	72
22	25.96	-0.075	218	264	162	676	176	299.4	417	72
23	25.79	-0.069	216	263	161	673	176	297.5	418	72
24	25.64	-0.076	216	261	160	666	176	295.5	419	72
25	25.47	-0.074	214	259	158	662	176	293.9	420	72
26	25.31	-0.073	214	257	158	663	176	293.8	421	72
27	25.14	-0.074	213	256	156	663	177	292.9	422	72
28	24.96	-0.074	212	254	155	668	177	293.3	422	72
29	24.79	-0.074	213	254	154	675	177	294.3	424	72
30	24.62	-0.075	212	253	153	686	176	296.1	424	72
31	24.45	-0.077	211	252	153	705	176	299.3	424	72
32	24.28	-0.073	211	251	152	726	176	303.1	424	72
33	24.11	-0.075	212	250	152	744	176	306.7	423	72
34	23.94	-0.075	211	250	152	760	176	309.8	425	72
35	23.76	-0.075	210	249	151	776	175	312.2	427	72
36	23.58	-0.073	211	249	150	787	175	314.4	429	72
37	23.39	-0.075	211	249	150	797	175	316.3	432	72
38	23.22	-0.075	211	249	150	806	175	318.0	434	72
39	23.04	-0.074	210	248	150	812	175	319.0	435	72
40	22.86	-0.076	211	248	150	813	175	319.3	436	72
41	22.68	-0.075	212	248	150	814	175	319.7	436	72
42	22.52	-0.073	211	248	149	813	174	319.1	437	72
43	22.36	-0.075	212	248	149	813	174	319.3	436	72
44	22.18	-0.075	212	248	149	812	173	318.8	435	72

WOODSTOVE PREBURN DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

Recording Interval (min): 1
Run Time (min): 138

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
45	22.00	-0.075	214	249	150	812	172	319.3	437	72
46	21.85	-0.073	215	250	150	809	172	318.9	437	72
47	21.67	-0.075	216	251	150	804	172	318.2	437	72
48	21.50	-0.075	216	251	151	800	172	318.0	437	72
49	21.31	-0.077	218	252	151	804	171	319.3	441	71
50	21.12	-0.076	217	253	151	805	171	319.1	443	72
51	20.93	-0.076	218	253	152	809	170	320.2	448	72
52	20.71	-0.077	218	254	152	816	170	322.2	454	72
53	20.49	-0.079	219	255	153	828	170	325.1	461	72
54	20.28	-0.079	220	257	154	833	169	326.5	465	72
55	20.05	-0.080	223	259	155	840	169	329.2	470	72
56	19.82	-0.079	224	261	155	846	169	331.1	473	72
57	19.59	-0.079	226	263	157	849	169	332.5	474	72
58	19.36	-0.080	228	265	158	855	169	334.9	476	71
59	19.15	-0.080	230	267	158	843	168	333.2	476	71
60	18.95	-0.079	232	270	160	832	168	332.5	475	71
61	18.76	-0.080	232	272	161	825	168	331.6	474	71
62	18.58	-0.081	235	275	163	817	168	331.5	471	71
63	18.40	-0.079	236	277	163	814	168	331.5	468	71
64	18.23	-0.079	236	278	164	812	168	331.6	465	71
65	18.07	-0.077	239	280	165	800	167	330.1	463	72
66	17.92	-0.071	239	282	166	789	167	328.6	453	72
67	17.76	-0.077	240	283	166	780	167	327.4	455	71
68	17.61	-0.078	241	285	167	777	167	327.3	455	72
69	17.44	-0.077	243	286	168	776	167	328.0	454	72
70	17.29	-0.077	245	288	169	769	167	327.6	454	71
71	17.15	-0.078	246	290	171	760	166	326.6	453	71
72	16.99	-0.077	247	292	172	754	167	326.2	454	72
73	16.84	-0.076	249	294	172	740	166	324.3	456	72
74	16.69	-0.077	249	297	173	721	167	321.2	456	72
75	16.50	-0.077	251	298	174	713	167	320.8	459	72
76	16.34	-0.080	252	301	175	718	168	322.6	464	72
77	16.17	-0.079	253	302	177	723	168	324.6	468	72
78	16.00	-0.079	255	304	179	728	168	326.8	470	72
79	15.83	-0.078	259	305	179	734	168	329.0	472	72
80	15.68	-0.078	259	306	180	732	168	329.0	472	72
81	15.53	-0.077	260	308	182	712	168	326.1	475	72
82	15.37	-0.078	262	308	183	701	168	324.3	477	72
83	15.21	-0.079	264	310	184	696	168	324.5	479	72
84	15.04	-0.077	266	311	185	709	168	327.8	480	72
85	14.86	-0.077	266	312	186	730	168	332.4	478	72
86	14.70	-0.078	268	313	188	751	168	337.6	476	72
87	14.52	-0.077	269	315	189	763	168	340.6	473	72
88	14.36	-0.077	273	317	190	770	169	343.7	470	72
89	14.20	-0.077	274	318	191	778	169	345.9	468	72

WOODSTOVE PREBURN DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

Recording Interval (min): 1
Run Time (min): 138

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
90	14.03	-0.077	275	319	192	787	169	348.4	467	72
91	13.86	-0.077	277	321	193	795	169	351.2	466	72
92	13.70	-0.081	279	322	194	797	170	352.5	465	72
93	13.53	-0.075	280	324	196	803	170	354.5	464	72
94	13.35	-0.080	280	326	197	805	170	355.5	464	72
95	13.19	-0.076	283	327	197	808	171	357.0	464	72
96	13.01	-0.078	284	328	199	813	171	359.1	464	72
97	12.84	-0.077	286	330	199	817	171	360.7	467	72
98	12.67	-0.076	288	331	201	821	171	362.6	469	72
99	12.49	-0.077	290	333	202	824	172	364.0	470	72
100	12.31	-0.076	295	334	204	829	172	366.7	469	72
101	12.14	-0.076	295	336	205	836	173	368.9	471	73
102	11.95	-0.078	297	338	207	843	174	371.7	473	72
103	11.76	-0.078	298	340	209	853	174	374.9	476	73
104	11.58	-0.077	300	341	210	859	174	376.8	477	73
105	11.41	-0.078	303	343	212	862	175	379.1	479	73
106	11.24	-0.078	307	344	212	866	175	380.8	480	73
107	11.06	-0.081	309	347	213	866	176	382.1	481	73
108	10.88	-0.077	310	348	216	864	176	382.7	480	73
109	10.71	-0.079	311	350	216	865	177	383.5	479	73
110	10.55	-0.080	314	352	218	863	177	384.8	479	73
111	10.38	-0.078	314	354	220	861	178	385.2	479	73
112	10.21	-0.078	316	355	221	863	179	386.8	479	73
113	10.03	-0.079	319	357	223	866	179	388.7	481	73
114	9.85	-0.078	321	359	224	863	180	389.4	481	72
115	9.68	-0.079	320	361	225	866	180	390.5	481	73
116	9.52	-0.078	321	363	225	865	181	391.2	480	73
117	9.36	-0.078	324	365	227	862	181	391.7	480	73
118	9.20	-0.077	325	367	228	853	182	390.9	479	73
119	9.06	-0.080	323	369	227	845	183	389.2	477	72
120	8.91	-0.078	324	370	229	841	184	389.6	475	72
121	8.78	-0.078	324	372	230	843	184	390.4	474	73
122	8.63	-0.076	325	374	231	848	184	392.6	472	73
123	8.50	-0.076	330	375	233	851	185	394.6	471	73
124	8.36	-0.075	329	377	233	852	186	395.3	470	73
125	8.22	-0.076	330	379	235	854	187	396.9	468	73
126	8.09	-0.075	330	380	233	841	188	394.4	468	73
127	7.96	-0.077	332	382	236	824	189	392.5	466	73
128	7.85	-0.076	333	384	236	798	189	388.1	464	73
129	7.75	-0.075	334	387	238	767	190	383.0	462	73
130	7.65	-0.076	330	389	238	743	192	378.1	457	73
131	7.55	-0.075	333	391	238	725	193	376.0	454	73
132	7.44	-0.073	332	393	238	714	194	374.3	451	73
133	7.33	-0.073	334	396	239	702	196	373.3	449	74
134	7.23	-0.073	332	398	238	690	197	370.9	448	74

WOODSTOVE PREBURN DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

Recording Interval (min): 1
Run Time (min): 138

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
135	7.13	-0.074	334	400	239	680	198	370.0	447	73
136	7.02	-0.075	331	401	236	674	200	368.4	446	73
137	6.90	-0.073	334	402	239	673	200	369.7	445	73
138	6.78	-0.072	331	404	240	678	201	370.7	444	73

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
0	0.000		0.019	0.58	78	0.6		31.33		109	481	75	73
1	0.147	0.147	0.019	2.17	78	0.9	-	31.05	-0.28	130	540	79	73
2	0.292	0.145	0.019	2.19	78	0.9	-	30.77	-0.28	114	496	79	74
3	0.444	0.152	0.019	2.22	78	0.9	-	30.48	-0.29	112	487	79	74
4	0.589	0.145	0.019	2.24	78	0.9	-	30.19	-0.29	111	488	80	74
5	0.742	0.153	0.019	2.25	78	0.9	-	29.91	-0.28	110	492	80	74
6	0.889	0.147	0.019	2.27	78	0.9	-	29.66	-0.25	111	498	80	74
7	1.042	0.153	0.018	2.29	78	0.9	-	29.43	-0.23	111	500	81	74
8	1.191	0.149	0.019	2.31	78	0.9	-	29.18	-0.25	110	503	81	74
9	1.345	0.154	0.019	2.32	78	0.9	-	28.95	-0.23	111	505	81	74
10	1.494	0.149	0.019	2.32	78	0.9	97	28.72	-0.23	110	506	81	74
11	1.649	0.155	0.018	2.35	78	0.9	-	28.50	-0.22	111	507	82	74
12	1.799	0.150	0.018	2.36	79	0.9	-	28.28	-0.22	111	508	82	74
13	1.953	0.154	0.019	2.36	79	0.9	-	28.05	-0.23	112	509	82	74
14	2.105	0.152	0.019	2.37	79	0.9	-	27.82	-0.23	111	510	82	75
15	2.259	0.154	0.020	2.38	79	0.9	-	27.58	-0.24	111	512	83	74
16	2.414	0.155	0.019	2.39	80	0.9	-	27.37	-0.21	109	510	83	74
17	2.568	0.154	0.019	2.40	80	0.9	-	27.15	-0.22	108	507	83	74
18	2.725	0.157	0.019	2.40	80	0.9	-	26.91	-0.24	108	506	83	74
19	2.875	0.150	0.019	2.41	80	0.9	-	26.67	-0.24	108	507	83	74
20	3.033	0.158	0.018	2.42	81	0.9	101	26.43	-0.24	108	506	83	74
21	3.186	0.153	0.020	2.43	81	0.9	-	26.20	-0.23	108	507	83	74
22	3.345	0.159	0.019	2.44	81	1.0	-	25.95	-0.25	108	506	83	74
23	3.499	0.154	0.019	2.45	81	0.9	-	25.73	-0.22	108	507	83	75
24	3.655	0.156	0.019	2.45	82	0.9	-	25.48	-0.25	108	508	84	75
25	3.812	0.157	0.020	2.45	82	0.9	-	25.24	-0.24	108	509	84	75
26	3.968	0.156	0.018	2.47	82	0.9	-	24.99	-0.25	108	509	84	75
27	4.126	0.158	0.019	2.46	83	1.0	-	24.75	-0.24	108	510	84	75
28	4.280	0.154	0.019	2.46	83	1.0	-	24.50	-0.25	108	511	84	74
29	4.441	0.161	0.020	2.47	83	0.9	-	24.25	-0.25	108	511	84	74
30	4.596	0.155	0.019	2.49	84	1.0	102	23.98	-0.27	108	513	84	74
31	4.754	0.158	0.020	2.48	84	1.0	-	23.74	-0.24	108	513	84	74

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
32	4.912	0.158	0.019	2.49	84	1.0	-	23.49	-0.25	108	512	84	74
33	5.070	0.158	0.019	2.50	85	0.9	-	23.25	-0.24	109	513	84	75
34	5.229	0.159	0.019	2.49	85	0.9	-	23.00	-0.25	108	512	84	75
35	5.384	0.155	0.018	2.50	85	1.0	-	22.76	-0.24	108	512	84	75
36	5.547	0.163	0.019	2.50	85	0.9	-	22.51	-0.25	109	511	84	75
37	5.702	0.155	0.019	2.50	86	1.0	-	22.27	-0.24	109	510	85	75
38	5.862	0.160	0.020	2.51	86	0.9	-	22.03	-0.24	109	511	85	75
39	6.023	0.161	0.019	2.53	86	0.9	-	21.79	-0.24	109	511	85	75
40	6.177	0.154	0.019	2.50	87	1.0	102	21.55	-0.24	109	511	85	75
41	6.341	0.164	0.019	2.53	87	1.0	-	21.30	-0.25	109	511	85	75
42	6.497	0.156	0.019	2.53	87	1.0	-	21.05	-0.25	109	511	85	75
43	6.657	0.160	0.019	2.53	88	1.0	-	20.80	-0.25	109	512	85	75
44	6.816	0.159	0.018	2.53	88	1.0	-	20.57	-0.23	109	510	85	75
45	6.975	0.159	0.019	2.53	88	1.0	-	20.31	-0.26	109	510	85	75
46	7.139	0.164	0.020	2.53	88	1.0	-	20.07	-0.24	108	511	85	75
47	7.296	0.157	0.020	2.56	89	1.0	-	19.83	-0.24	108	509	85	75
48	7.456	0.160	0.019	2.54	89	1.0	-	19.59	-0.24	109	510	85	75
49	7.619	0.163	0.019	2.54	89	0.9	-	19.33	-0.26	109	509	85	75
50	7.776	0.157	0.019	2.55	90	0.9	102	19.08	-0.25	109	511	85	75
51	7.940	0.164	0.019	2.56	90	0.9	-	18.83	-0.25	109	508	85	76
52	8.097	0.157	0.019	2.55	90	0.9	-	18.56	-0.27	110	509	85	76
53	8.259	0.162	0.019	2.54	90	1.0	-	18.31	-0.25	109	508	85	75
54	8.422	0.163	0.019	2.56	91	1.0	-	18.05	-0.26	109	509	85	75
55	8.578	0.156	0.019	2.56	91	1.0	-	17.80	-0.25	109	507	85	76
56	8.743	0.165	0.020	2.56	91	1.0	-	17.55	-0.25	108	506	85	76
57	8.901	0.158	0.019	2.56	91	0.9	-	17.30	-0.25	109	506	85	76
58	9.063	0.162	0.019	2.57	92	0.9	-	17.06	-0.24	109	505	85	76
59	9.226	0.163	0.019	2.56	92	1.0	-	16.81	-0.25	109	505	85	76
60	9.385	0.159	0.019	2.58	92	1.0	102	16.57	-0.24	109	505	86	76
61	9.548	0.163	0.019	2.57	92	1.0	-	16.33	-0.24	109	504	86	76
62	9.710	0.162	0.019	2.57	93	1.0	-	16.09	-0.24	109	503	86	76
63	9.870	0.160	0.019	2.57	93	1.0	-	15.85	-0.24	109	504	86	76

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
64	10.035	0.165	0.020	2.58	93	1.0	-	15.59	-0.26	108	503	85	76
65	10.194	0.159	0.019	2.58	93	1.0	-	15.37	-0.22	108	502	85	76
66	10.357	0.163	0.020	2.58	93	1.0	-	15.15	-0.22	108	501	85	76
67	10.521	0.164	0.019	2.58	94	1.0	-	14.92	-0.23	108	501	85	76
68	10.680	0.159	0.019	2.58	94	1.0	-	14.68	-0.24	108	501	85	76
69	10.845	0.165	0.020	2.59	94	1.0	-	14.46	-0.22	108	501	85	76
70	11.005	0.160	0.020	2.58	94	0.9	101	14.27	-0.19	108	501	85	76
71	11.167	0.162	0.020	2.60	94	1.0	-	14.04	-0.23	108	500	85	76
72	11.331	0.164	0.020	2.59	95	1.0	-	13.84	-0.20	107	499	85	76
73	11.492	0.161	0.019	2.59	95	1.0	-	13.64	-0.20	108	499	85	76
74	11.655	0.163	0.018	2.59	95	1.0	-	13.44	-0.20	108	499	85	76
75	11.819	0.164	0.021	2.59	95	1.0	-	13.24	-0.20	107	498	85	76
76	11.979	0.160	0.020	2.59	95	1.0	-	13.05	-0.19	106	498	85	76
77	12.144	0.165	0.020	2.59	95	1.0	-	12.87	-0.18	107	496	85	77
78	12.306	0.162	0.020	2.60	96	1.0	-	12.67	-0.20	107	496	85	77
79	12.467	0.161	0.020	2.60	96	1.0	-	12.48	-0.19	107	495	85	76
80	12.633	0.166	0.019	2.59	96	1.0	101	12.30	-0.18	107	494	85	77
81	12.793	0.160	0.019	2.59	96	1.0	-	12.12	-0.18	107	493	85	76
82	12.957	0.164	0.019	2.60	96	1.0	-	11.94	-0.18	107	493	85	76
83	13.121	0.164	0.019	2.61	96	0.9	-	11.76	-0.18	107	491	85	76
84	13.283	0.162	0.019	2.60	96	1.0	-	11.58	-0.18	107	491	85	76
85	13.447	0.164	0.019	2.61	97	1.0	-	11.40	-0.18	107	490	85	76
86	13.611	0.164	0.019	2.61	97	1.0	-	11.23	-0.17	107	491	85	76
87	13.771	0.160	0.019	2.60	97	0.9	-	11.05	-0.18	107	489	85	76
88	13.938	0.167	0.019	2.60	97	1.0	-	10.88	-0.17	107	488	85	76
89	14.098	0.160	0.020	2.61	97	1.0	-	10.71	-0.17	106	489	85	76
90	14.262	0.164	0.020	2.61	97	1.0	101	10.53	-0.18	106	488	85	77
91	14.427	0.165	0.021	2.60	97	1.0	-	10.34	-0.19	106	487	85	77
92	14.589	0.162	0.020	2.61	98	0.9	-	10.18	-0.16	106	487	85	77
93	14.752	0.163	0.019	2.60	98	1.0	-	10.00	-0.18	106	488	85	76
94	14.918	0.166	0.019	2.62	98	0.9	-	9.84	-0.16	106	488	85	77
95	15.078	0.160	0.020	2.61	98	1.0	-	9.67	-0.17	106	487	85	76

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
96	15.243	0.165	0.019	2.61	98	0.9	-	9.51	-0.16	107	486	85	76
97	15.408	0.165	0.019	2.61	98	1.0	-	9.34	-0.17	106	487	85	77
98	15.569	0.161	0.018	2.62	98	1.0	-	9.17	-0.17	106	487	85	76
99	15.736	0.167	0.020	2.61	98	1.0	-	9.02	-0.15	106	487	85	76
100	15.897	0.161	0.020	2.61	98	0.9	100	8.87	-0.15	106	486	85	76
101	16.062	0.165	0.019	2.61	98	1.0	-	8.70	-0.17	106	486	85	76
102	16.227	0.165	0.019	2.61	99	1.0	-	8.55	-0.15	106	484	85	77
103	16.389	0.162	0.019	2.63	99	1.0	-	8.40	-0.15	106	483	85	76
104	16.554	0.165	0.019	2.61	99	1.0	-	8.26	-0.14	106	481	85	77
105	16.719	0.165	0.019	2.61	99	1.0	-	8.12	-0.14	106	480	85	77
106	16.881	0.162	0.021	2.63	99	1.0	-	7.98	-0.14	105	479	85	77
107	17.046	0.165	0.020	2.62	99	0.9	-	7.85	-0.13	105	477	85	77
108	17.211	0.165	0.019	2.63	99	1.0	-	7.70	-0.15	105	475	85	77
109	17.371	0.160	0.020	2.62	99	1.0	-	7.58	-0.12	105	474	85	77
110	17.539	0.168	0.020	2.63	99	1.0	100	7.45	-0.13	105	472	85	77
111	17.702	0.163	0.021	2.61	99	0.9	-	7.35	-0.10	105	469	85	77
112	17.864	0.162	0.019	2.62	99	1.0	-	7.24	-0.11	105	467	85	77
113	18.032	0.168	0.020	2.63	99	1.0	-	7.12	-0.12	104	465	85	77
114	18.193	0.161	0.021	2.63	99	0.9	-	7.01	-0.11	104	463	85	77
115	18.358	0.165	0.020	2.62	100	1.0	-	6.90	-0.11	104	461	85	77
116	18.523	0.165	0.020	2.62	100	1.0	-	6.77	-0.13	104	460	85	77
117	18.686	0.163	0.020	2.63	100	1.0	-	6.67	-0.10	104	458	85	78
118	18.851	0.165	0.020	2.61	100	1.0	-	6.57	-0.10	104	457	85	77
119	19.016	0.165	0.019	2.64	100	1.0	-	6.47	-0.10	104	456	85	77
120	19.179	0.163	0.019	2.64	100	1.0	101	6.38	-0.09	104	453	85	77
121	19.344	0.165	0.019	2.62	100	1.0	-	6.30	-0.08	104	451	85	77
122	19.510	0.166	0.020	2.64	100	1.0	-	6.22	-0.08	104	448	85	78
123	19.671	0.161	0.020	2.63	100	1.0	-	6.14	-0.08	103	445	85	78
124	19.839	0.168	0.019	2.63	100	1.0	-	6.06	-0.08	103	442	85	77
125	20.003	0.164	0.019	2.62	100	1.0	-	5.99	-0.07	103	437	85	77
126	20.165	0.162	0.020	2.64	100	1.0	-	5.93	-0.06	102	432	85	78
127	20.333	0.168	0.020	2.63	101	1.0	-	5.85	-0.08	102	428	85	77

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
128	20.495	0.162	0.020	2.63	101	1.0	-	5.79	-0.06	102	425	85	78
129	20.660	0.165	0.020	2.64	101	1.0	-	5.73	-0.06	102	423	85	77
130	20.827	0.167	0.020	2.63	101	1.0	101	5.67	-0.06	101	421	85	77
131	20.988	0.161	0.020	2.64	101	0.9	-	5.60	-0.07	101	418	85	77
132	21.154	0.166	0.019	2.63	101	0.9	-	5.54	-0.06	101	414	85	77
133	21.320	0.166	0.020	2.63	101	1.0	-	5.48	-0.06	101	412	85	77
134	21.483	0.163	0.020	2.64	101	1.0	-	5.41	-0.07	101	410	85	77
135	21.649	0.166	0.019	2.62	101	1.0	-	5.34	-0.07	101	409	85	77
136	21.814	0.165	0.020	2.62	101	1.0	-	5.28	-0.06	101	407	85	77
137	21.977	0.163	0.019	2.62	101	1.0	-	5.24	-0.04	100	408	85	77
138	22.143	0.166	0.020	2.62	101	0.9	-	5.17	-0.07	100	407	85	78
139	22.310	0.167	0.021	2.63	101	1.0	-	5.10	-0.07	99	406	85	78
140	22.471	0.161	0.020	2.63	101	1.0	99	5.05	-0.05	100	406	85	78
141	22.636	0.165	0.019	2.64	101	1.0	-	4.99	-0.06	100	406	85	78
142	22.804	0.168	0.020	2.63	101	0.9	-	4.93	-0.06	100	405	85	78
143	22.966	0.162	0.019	2.62	101	1.0	-	4.87	-0.06	100	404	85	78
144	23.135	0.169	0.019	2.64	101	0.9	-	4.82	-0.05	100	403	85	77
145	23.298	0.163	0.019	2.63	101	0.9	-	4.77	-0.05	100	402	85	78
146	23.461	0.163	0.020	2.63	102	1.0	-	4.72	-0.05	100	401	84	78
147	23.630	0.169	0.020	2.63	102	1.0	-	4.67	-0.05	99	400	84	78
148	23.792	0.162	0.020	2.62	102	1.0	-	4.62	-0.05	99	399	84	78
149	23.958	0.166	0.020	2.61	102	1.0	-	4.57	-0.05	99	397	84	78
150	24.125	0.167	0.020	2.62	102	1.0	100	4.53	-0.04	98	396	84	78
151	24.287	0.162	0.019	2.62	102	0.9	-	4.49	-0.04	98	396	84	78
152	24.453	0.166	0.020	2.61	102	1.0	-	4.44	-0.05	98	394	84	78
153	24.619	0.166	0.020	2.61	102	1.0	-	4.41	-0.03	98	392	84	78
154	24.783	0.164	0.020	2.63	102	1.0	-	4.35	-0.06	98	390	84	77
155	24.948	0.165	0.019	2.61	102	1.0	-	4.33	-0.02	98	388	84	77
156	25.115	0.167	0.021	2.61	102	1.0	-	4.28	-0.05	98	385	84	77
157	25.278	0.163	0.019	2.60	102	1.0	-	4.25	-0.03	98	384	84	77
158	25.444	0.166	0.020	2.60	102	1.0	-	4.22	-0.03	98	381	84	77
159	25.611	0.167	0.020	2.61	102	1.0	-	4.18	-0.04	98	379	84	77

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
160	25.774	0.163	0.021	2.62	102	1.0	98	4.13	-0.05	98	377	84	77
161	25.940	0.166	0.019	2.62	102	1.0	-	4.09	-0.04	98	376	84	77
162	26.108	0.168	0.020	2.63	102	1.0	-	4.06	-0.03	97	375	84	77
163	26.270	0.162	0.020	2.62	102	1.0	-	4.01	-0.05	97	373	84	77
164	26.437	0.167	0.021	2.63	102	1.0	-	3.98	-0.03	97	372	84	78
165	26.604	0.167	0.020	2.63	102	1.0	-	3.93	-0.05	96	372	84	78
166	26.765	0.161	0.021	2.63	102	1.0	-	3.89	-0.04	96	372	84	78
167	26.934	0.169	0.021	2.63	102	1.0	-	3.84	-0.05	96	372	84	78
168	27.099	0.165	0.020	2.64	102	1.0	-	3.80	-0.04	96	371	84	77
169	27.262	0.163	0.020	2.64	102	1.0	-	3.75	-0.05	97	371	84	78
170	27.431	0.169	0.019	2.64	102	1.0	100	3.71	-0.04	97	372	84	77
171	27.595	0.164	0.019	2.63	103	1.0	-	3.67	-0.04	97	370	84	77
172	27.758	0.163	0.020	2.63	103	1.0	-	3.63	-0.04	97	369	84	77
173	27.927	0.169	0.019	2.63	103	1.0	-	3.58	-0.05	97	367	84	77
174	28.090	0.163	0.020	2.63	103	0.9	-	3.54	-0.04	96	364	84	78
175	28.256	0.166	0.020	2.64	103	1.0	-	3.51	-0.03	96	362	84	78
176	28.424	0.168	0.019	2.62	103	1.0	-	3.48	-0.03	96	360	84	77
177	28.586	0.162	0.022	2.63	103	1.0	-	3.44	-0.04	96	358	84	78
178	28.753	0.167	0.020	2.63	103	1.0	-	3.41	-0.03	96	357	84	78
179	28.920	0.167	0.020	2.63	103	1.0	-	3.37	-0.04	96	356	84	78
180	29.083	0.163	0.020	2.64	103	0.9	100	3.33	-0.04	96	354	84	77
181	29.250	0.167	0.020	2.63	103	0.9	-	3.31	-0.02	96	354	84	77
182	29.417	0.167	0.020	2.64	103	1.0	-	3.28	-0.03	96	352	84	77
183	29.580	0.163	0.020	2.64	103	0.9	-	3.24	-0.04	96	351	84	77
184	29.747	0.167	0.019	2.64	103	1.0	-	3.21	-0.03	96	349	84	77
185	29.914	0.167	0.020	2.63	103	1.0	-	3.18	-0.03	96	348	84	78
186	30.078	0.164	0.021	2.63	103	1.0	-	3.15	-0.03	96	347	84	78
187	30.244	0.166	0.020	2.63	103	1.0	-	3.12	-0.03	96	347	84	78
188	30.411	0.167	0.020	2.64	103	1.0	-	3.10	-0.02	96	346	84	78
189	30.575	0.164	0.019	2.63	103	1.0	-	3.05	-0.05	95	347	84	78
190	30.741	0.166	0.019	2.63	103	1.0	101	3.03	-0.02	96	346	84	77
191	30.908	0.167	0.019	2.63	103	1.0	-	2.99	-0.04	95	346	84	77

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
192	31.072	0.164	0.020	2.63	103	1.0	-	2.96	-0.03	95	345	84	78
193	31.238	0.166	0.019	2.64	103	1.0	-	2.92	-0.04	95	345	84	78
194	31.406	0.168	0.020	2.63	103	0.9	-	2.89	-0.03	95	345	84	78
195	31.562	0.156	0.020	2.62	103	1.0	-	2.86	-0.03	95	344	84	78
196	31.735	0.173	0.020	2.62	103	0.9	-	2.82	-0.04	95	344	83	77
197	31.903	0.168	0.021	2.60	103	1.0	-	2.79	-0.03	95	344	83	77
198	32.065	0.162	0.020	2.59	103	1.0	-	2.75	-0.04	95	344	84	78
199	32.233	0.168	0.020	2.61	103	1.0	-	2.72	-0.03	95	344	84	78
200	32.400	0.167	0.021	2.60	103	1.0	99	2.68	-0.04	94	344	83	78
201	32.561	0.161	0.021	2.60	103	0.9	-	2.65	-0.03	94	345	83	78
202	32.730	0.169	0.020	2.62	103	1.0	-	2.62	-0.03	95	344	83	78
203	32.896	0.166	0.021	2.61	103	1.0	-	2.58	-0.04	94	344	83	78
204	33.059	0.163	0.021	2.61	103	1.0	-	2.54	-0.04	94	345	83	78
205	33.228	0.169	0.021	2.61	103	1.0	-	2.52	-0.02	94	345	83	78
206	33.393	0.165	0.021	2.62	103	0.9	-	2.48	-0.04	94	346	83	78
207	33.557	0.164	0.021	2.62	103	0.9	-	2.44	-0.04	94	346	83	78
208	33.726	0.169	0.020	2.63	103	0.9	-	2.40	-0.04	94	346	83	78
209	33.890	0.164	0.020	2.63	104	0.9	-	2.37	-0.03	95	347	83	78
210	34.054	0.164	0.020	2.64	103	1.0	98	2.33	-0.04	95	347	83	78
211	34.223	0.169	0.020	2.63	103	1.0	-	2.29	-0.04	94	347	83	78
212	34.386	0.163	0.021	2.62	104	1.0	-	2.26	-0.03	94	347	83	78
213	34.552	0.166	0.020	2.63	104	0.9	-	2.22	-0.04	94	347	83	78
214	34.721	0.169	0.020	2.64	104	0.9	-	2.19	-0.03	94	347	83	78
215	34.883	0.162	0.020	2.63	104	1.0	-	2.15	-0.04	95	347	83	78
216	35.050	0.167	0.021	2.63	104	1.0	-	2.11	-0.04	95	347	83	78
217	35.218	0.168	0.020	2.65	104	1.0	-	2.08	-0.03	95	348	83	78
218	35.381	0.163	0.020	2.65	104	1.0	-	2.03	-0.05	94	349	83	78
219	35.548	0.167	0.021	2.65	104	1.0	-	2.00	-0.03	94	350	83	78
220	35.716	0.168	0.020	2.64	104	1.0	99	1.97	-0.03	95	349	83	78
221	35.878	0.162	0.020	2.65	104	1.0	-	1.93	-0.04	95	350	83	78
222	36.046	0.168	0.020	2.65	104	1.0	-	1.89	-0.04	95	350	83	78
223	36.213	0.167	0.020	2.64	104	1.0	-	1.86	-0.03	95	351	83	78

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
224	36.377	0.164	0.020	2.65	104	1.0	-	1.82	-0.04	95	351	84	78
225	36.544	0.167	0.020	2.64	104	1.0	-	1.78	-0.04	95	351	84	78
226	36.711	0.167	0.020	2.63	104	1.0	-	1.76	-0.02	95	350	84	78
227	36.875	0.164	0.020	2.64	104	1.0	-	1.71	-0.05	95	351	84	78
228	37.042	0.167	0.020	2.63	104	0.9	-	1.68	-0.03	95	351	84	78
229	37.209	0.167	0.020	2.64	104	1.0	-	1.62	-0.06	95	352	84	78
230	37.374	0.165	0.019	2.64	104	0.9	100	1.61	-0.01	95	351	84	78
231	37.540	0.166	0.020	2.62	104	1.0	-	1.57	-0.04	95	351	84	78
232	37.708	0.168	0.019	2.63	104	1.0	-	1.54	-0.03	95	352	84	78
233	37.872	0.164	0.020	2.62	104	1.0	-	1.50	-0.04	95	353	84	78
234	38.038	0.166	0.020	2.62	104	1.0	-	1.46	-0.04	95	353	84	78
235	38.206	0.168	0.020	2.63	104	1.0	-	1.43	-0.03	95	352	84	78
236	38.370	0.164	0.021	2.63	104	1.0	-	1.39	-0.04	95	353	84	78
237	38.537	0.167	0.020	2.64	104	1.0	-	1.35	-0.04	95	353	84	79
238	38.704	0.167	0.020	2.63	104	0.9	-	1.32	-0.03	95	354	84	78
239	38.868	0.164	0.020	2.63	104	1.0	-	1.28	-0.04	94	354	84	79
240	39.035	0.167	0.020	2.62	104	1.0	101	1.25	-0.03	94	354	84	79
241	39.202	0.167	0.021	2.62	104	0.9	-	1.21	-0.04	94	355	84	79
242	39.366	0.164	0.020	2.63	104	0.9	-	1.17	-0.04	94	354	84	78
243	39.533	0.167	0.019	2.62	104	1.0	-	1.13	-0.04	95	353	84	78
244	39.701	0.168	0.020	2.63	104	1.0	-	1.10	-0.03	95	354	84	79
245	39.865	0.164	0.021	2.62	104	0.9	-	1.08	-0.02	95	353	84	78
246	40.031	0.166	0.021	2.61	104	1.0	-	1.03	-0.05	95	353	84	78
247	40.200	0.169	0.019	2.63	104	1.0	-	1.00	-0.03	95	352	84	79
248	40.363	0.163	0.021	2.61	104	1.0	-	0.97	-0.03	95	352	84	79
249	40.530	0.167	0.020	2.60	104	1.0	-	0.93	-0.04	95	351	84	79
250	40.698	0.168	0.019	2.61	104	1.0	101	0.91	-0.02	95	352	84	79
251	40.861	0.163	0.020	2.60	104	0.9	-	0.86	-0.05	95	352	84	78
252	41.029	0.168	0.020	2.62	104	1.0	-	0.83	-0.03	95	352	84	78
253	41.197	0.168	0.020	2.62	104	0.9	-	0.81	-0.02	95	352	84	78
254	41.360	0.163	0.020	2.61	104	1.0	-	0.77	-0.04	95	352	84	78
255	41.528	0.168	0.020	2.63	104	1.0	-	0.71	-0.06	95	352	84	78

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
256	41.696	0.168	0.021	2.64	104	1.0	-	0.71	0.00	95	352	84	79
257	41.859	0.163	0.020	2.63	104	1.0	-	0.67	-0.04	95	352	84	78
258	42.027	0.168	0.020	2.64	104	1.0	-	0.64	-0.03	95	350	84	78
259	42.195	0.168	0.020	2.65	104	1.0	-	0.59	-0.05	95	350	84	78
260	42.358	0.163	0.020	2.64	104	1.0	100	0.56	-0.03	95	350	84	78
261	42.526	0.168	0.021	2.66	104	1.0	-	0.52	-0.04	95	350	84	78
262	42.693	0.167	0.020	2.66	104	1.0	-	0.49	-0.03	94	349	84	78
263	42.856	0.163	0.020	2.66	104	1.0	-	0.46	-0.03	94	349	84	78
264	43.024	0.168	0.019	2.66	104	1.0	-	0.42	-0.04	95	348	84	79
265	43.192	0.168	0.020	2.64	104	1.0	-	0.39	-0.03	95	349	84	78
266	43.354	0.162	0.021	2.64	105	1.0	-	0.36	-0.03	94	348	84	79
267	43.523	0.169	0.019	2.65	104	1.0	-	0.32	-0.04	94	348	84	79
268	43.690	0.167	0.020	2.65	105	0.9	-	0.29	-0.03	94	348	84	79
269	43.853	0.163	0.021	2.64	105	1.0	-	0.26	-0.03	94	348	84	79
270	44.022	0.169	0.021	2.66	105	0.9	98	0.21	-0.05	94	347	84	79
271	44.189	0.167	0.021	2.66	105	1.0	-	0.18	-0.03	94	348	84	79
272	44.352	0.163	0.021	2.64	105	1.0	-	0.15	-0.03	94	348	84	79
273	44.522	0.170	0.020	2.65	105	1.0	-	0.12	-0.03	94	348	84	79
274	44.688	0.166	0.020	2.66	105	1.0	-	0.08	-0.04	94	347	84	79
275	44.851	0.163	0.020	2.65	105	1.0	-	0.05	-0.03	95	347	84	79
276	45.021	0.170	0.019	2.65	105	1.0	100	0.00	-0.05	95	346	84	78
Avg/Tot	45.021	0.163	0.020	2.58	97.4	1.0	100			101.4	423.4	84.0	76.8

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
0	0.000		0.72	78	1.5		78	-0.076	8.29	0.084
1	0.151	0.151	2.45	78	2.0	-	83	-0.079	6.74	0.073
2	0.307	0.156	2.44	78	1.5	-	84	-0.080	15.15	0.738
3	0.459	0.152	2.45	78	2.0	-	84	-0.081	15.76	2.385
4	0.615	0.156	2.46	78	1.6	-	84	-0.082	16.22	2.631
5	0.767	0.152	2.46	78	1.5	-	84	-0.082	15.81	2.198
6	0.922	0.155	2.45	79	1.8	-	84	-0.082	15.93	1.906
7	1.073	0.151	2.44	79	2.1	-	85	-0.081	15.76	1.539
8	1.229	0.156	2.45	79	1.7	-	85	-0.082	15.71	1.168
9	1.383	0.154	2.45	79	2.0	-	85	-0.080	15.99	1.015
10	1.536	0.153	2.45	79	1.6	103	85	-0.081	15.70	0.825
11	1.691	0.155	2.45	79	1.6	-	85	-0.082	15.60	0.619
12	1.842	0.151	2.44	79	1.9	-	86	-0.081	15.64	0.463
13	1.999	0.157	2.46	80	1.8	-	86	-0.081	15.85	0.472
14	2.151	0.152	2.45	80	1.9	-	86	-0.081	16.20	0.412
15	2.307	0.156	2.46	80	1.8	-	86	-0.082	16.36	0.473
16	2.459	0.152	2.45	80	1.6	-	86	-0.081	16.39	0.606
17	2.614	0.155	2.46	81	1.6	-	86	-0.083	16.31	0.680
18	2.769	0.155	2.46	81	1.6	-	86	-0.082	16.41	0.717
19	2.923	0.154	2.46	81	1.6	-	86	-0.083	16.49	0.855
20	3.078	0.155	2.46	81	1.7	104	86	-0.081	16.58	1.055
21	3.230	0.152	2.45	82	1.7	-	86	-0.083	16.59	1.195
22	3.389	0.159	2.47	82	1.9	-	86	-0.083	16.50	1.375
23	3.541	0.152	2.47	82	1.8	-	86	-0.081	16.40	1.330
24	3.697	0.156	2.47	83	2.0	-	87	-0.081	16.48	1.284
25	3.850	0.153	2.46	83	1.6	-	87	-0.082	16.44	1.455
26	4.007	0.157	2.47	83	1.8	-	87	-0.082	16.49	1.333
27	4.163	0.156	2.47	84	1.7	-	87	-0.082	16.46	1.413
28	4.316	0.153	2.47	84	2.0	-	87	-0.083	16.46	1.488
29	4.473	0.157	2.47	84	1.7	-	87	-0.083	16.46	1.669
30	4.627	0.154	2.47	85	1.6	104	87	-0.082	16.55	1.805
31	4.785	0.158	2.48	85	1.6	-	87	-0.084	16.51	1.766

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
32	4.938	0.153	2.47	85	1.6	-	87	-0.082	16.51	1.730
33	5.095	0.157	2.48	86	1.6	-	87	-0.084	16.61	1.584
34	5.251	0.156	2.48	86	1.5	-	87	-0.083	16.65	1.413
35	5.405	0.154	2.48	86	1.8	-	87	-0.083	16.63	1.259
36	5.563	0.158	2.48	86	2.1	-	87	-0.081	16.64	1.274
37	5.718	0.155	2.49	87	1.7	-	87	-0.082	16.65	1.279
38	5.876	0.158	2.49	87	1.7	-	87	-0.083	16.74	1.293
39	6.030	0.154	2.47	87	2.0	-	88	-0.081	16.63	1.260
40	6.188	0.158	2.49	88	2.0	103	88	-0.084	16.72	1.258
41	6.345	0.157	2.49	88	1.5	-	88	-0.085	16.71	1.277
42	6.499	0.154	2.48	88	1.6	-	88	-0.082	16.68	1.276
43	6.658	0.159	2.49	88	1.6	-	88	-0.081	16.77	1.318
44	6.810	0.152	2.48	89	1.7	-	88	-0.083	16.77	1.328
45	6.971	0.161	2.49	89	1.6	-	88	-0.085	16.70	1.367
46	7.127	0.156	2.49	89	1.6	-	88	-0.085	16.80	1.397
47	7.285	0.158	2.50	90	1.8	-	88	-0.084	16.84	1.406
48	7.442	0.157	2.49	90	1.8	-	88	-0.084	16.76	1.590
49	7.598	0.156	2.49	90	1.6	-	88	-0.083	16.80	1.707
50	7.758	0.160	2.49	90	1.7	103	88	-0.082	16.89	1.863
51	7.912	0.154	2.49	91	2.0	-	88	-0.082	16.84	1.952
52	8.071	0.159	2.50	91	1.6	-	88	-0.081	16.89	1.953
53	8.229	0.158	2.50	91	1.6	-	88	-0.083	16.80	1.953
54	8.384	0.155	2.49	91	1.6	-	88	-0.083	16.83	1.904
55	8.544	0.160	2.50	92	1.7	-	88	-0.083	16.87	1.817
56	8.699	0.155	2.50	92	1.9	-	88	-0.085	16.84	1.731
57	8.858	0.159	2.50	92	1.7	-	88	-0.082	16.89	1.698
58	9.016	0.158	2.50	92	1.9	-	88	-0.085	16.90	1.683
59	9.172	0.156	2.50	93	1.6	-	88	-0.080	16.81	1.681
60	9.333	0.161	2.50	93	2.0	103	88	-0.080	16.88	1.604
61	9.489	0.156	2.51	93	1.7	-	88	-0.083	16.85	1.704
62	9.648	0.159	2.50	93	1.7	-	88	-0.083	16.86	1.779
63	9.805	0.157	2.51	94	1.6	-	88	-0.083	16.80	1.857

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
64	9.963	0.158	2.51	94	1.8	-	88	-0.082	16.82	1.908
65	10.121	0.158	2.51	94	2.0	-	88	-0.081	16.77	1.987
66	10.278	0.157	2.51	94	2.0	-	88	-0.083	16.66	2.073
67	10.437	0.159	2.51	94	1.6	-	88	-0.081	16.68	1.886
68	10.594	0.157	2.51	95	1.6	-	88	-0.084	16.70	1.539
69	10.753	0.159	2.51	95	2.0	-	88	-0.079	16.78	1.182
70	10.912	0.159	2.51	95	1.9	101	88	-0.079	17.04	0.796
71	11.068	0.156	2.51	95	1.7	-	88	-0.079	17.00	0.626
72	11.229	0.161	2.52	95	1.6	-	88	-0.082	16.98	0.476
73	11.384	0.155	2.51	96	1.8	-	88	-0.081	16.93	0.390
74	11.544	0.160	2.51	96	1.8	-	88	-0.082	16.94	0.391
75	11.703	0.159	2.51	96	1.7	-	88	-0.080	16.76	0.393
76	11.860	0.157	2.51	96	1.7	-	88	-0.079	16.79	0.379
77	12.021	0.161	2.52	97	1.6	-	88	-0.081	16.77	0.363
78	12.176	0.155	2.51	97	2.0	-	88	-0.083	16.87	0.312
79	12.336	0.160	2.52	97	2.0	-	88	-0.075	16.96	0.241
80	12.495	0.159	2.51	97	1.6	101	88	-0.082	16.95	0.192
81	12.653	0.158	2.52	97	1.6	-	88	-0.082	16.72	0.108
82	12.814	0.161	2.52	97	1.6	-	88	-0.081	16.61	0.086
83	12.970	0.156	2.52	97	1.9	-	88	-0.080	16.67	0.097
84	13.130	0.160	2.52	97	2.0	-	88	-0.079	16.76	0.127
85	13.289	0.159	2.52	98	1.6	-	88	-0.078	16.71	0.138
86	13.446	0.157	2.51	98	2.0	-	88	-0.080	16.66	0.131
87	13.608	0.162	2.53	98	2.0	-	88	-0.079	16.67	0.185
88	13.764	0.156	2.51	98	1.7	-	88	-0.079	16.60	0.200
89	13.924	0.160	2.51	98	1.7	-	88	-0.076	16.59	0.267
90	14.084	0.160	2.52	98	1.9	101	88	-0.079	16.50	0.316
91	14.241	0.157	2.51	98	1.8	-	88	-0.080	16.62	0.403
92	14.402	0.161	2.53	98	2.0	-	88	-0.078	16.70	0.470
93	14.559	0.157	2.52	99	2.0	-	88	-0.080	16.71	0.506
94	14.719	0.160	2.52	99	1.7	-	88	-0.077	16.68	0.416
95	14.878	0.159	2.52	99	1.6	-	88	-0.080	16.69	0.364

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
96	15.036	0.158	2.52	99	2.0	-	88	-0.082	16.55	0.225
97	15.196	0.160	2.52	99	1.9	-	88	-0.081	16.51	0.261
98	15.355	0.159	2.52	99	1.6	-	88	-0.083	16.52	0.281
99	15.514	0.159	2.53	99	1.6	-	88	-0.078	16.54	0.231
100	15.674	0.160	2.51	99	1.8	99	88	-0.079	16.39	0.180
101	15.832	0.158	2.52	99	1.6	-	88	-0.079	16.24	0.180
102	15.993	0.161	2.52	99	1.7	-	88	-0.078	16.23	0.137
103	16.152	0.159	2.52	99	1.6	-	88	-0.075	15.99	0.047
104	16.310	0.158	2.52	100	1.8	-	88	-0.081	15.72	0.029
105	16.471	0.161	2.52	100	1.8	-	88	-0.079	15.63	0.015
106	16.629	0.158	2.52	100	1.7	-	88	-0.077	15.58	0.014
107	16.788	0.159	2.52	100	1.8	-	88	-0.077	15.45	0.027
108	16.949	0.161	2.52	100	1.9	-	88	-0.080	15.40	0.016
109	17.107	0.158	2.53	100	1.9	-	88	-0.078	15.16	0.015
110	17.269	0.162	2.53	100	1.6	100	88	-0.078	14.83	0.018
111	17.425	0.156	2.53	100	1.6	-	88	-0.073	14.52	0.020
112	17.586	0.161	2.53	100	1.6	-	88	-0.077	14.25	0.017
113	17.747	0.161	2.53	100	1.8	-	88	-0.078	14.28	0.023
114	17.904	0.157	2.53	100	1.6	-	88	-0.078	13.85	0.027
115	18.067	0.163	2.53	100	1.9	-	88	-0.075	13.89	0.019
116	18.223	0.156	2.53	100	1.6	-	88	-0.076	14.03	0.104
117	18.384	0.161	2.52	101	1.6	-	88	-0.074	13.61	0.096
118	18.544	0.160	2.53	101	1.6	-	88	-0.075	13.15	0.109
119	18.703	0.159	2.53	101	1.6	-	88	-0.075	12.92	0.037
120	18.864	0.161	2.53	101	2.0	101	88	-0.075	12.55	0.020
121	19.023	0.159	2.53	101	1.6	-	88	-0.076	12.52	0.025
122	19.183	0.160	2.53	101	2.0	-	88	-0.075	12.07	0.022
123	19.343	0.160	2.53	101	1.6	-	88	-0.073	11.70	0.014
124	19.501	0.158	2.52	101	1.8	-	88	-0.071	11.67	0.009
125	19.662	0.161	2.53	101	1.8	-	88	-0.072	11.52	0.015
126	19.822	0.160	2.52	101	1.8	-	87	-0.072	11.48	0.012
127	19.981	0.159	2.53	101	1.9	-	87	-0.070	11.27	0.009

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
128	20.143	0.162	2.53	101	1.6	-	87	-0.069	11.05	0.013
129	20.300	0.157	2.52	101	1.9	-	87	-0.070	10.99	0.016
130	20.461	0.161	2.52	101	1.8	100	87	-0.070	10.98	0.014
131	20.622	0.161	2.53	101	1.7	-	87	-0.069	11.04	0.013
132	20.779	0.157	2.53	101	1.8	-	87	-0.067	11.16	0.019
133	20.942	0.163	2.53	101	1.7	-	87	-0.069	11.20	0.016
134	21.099	0.157	2.52	101	1.9	-	87	-0.071	11.21	0.017
135	21.260	0.161	2.52	101	1.7	-	87	-0.070	11.21	0.019
136	21.421	0.161	2.53	101	1.8	-	87	-0.070	11.29	0.021
137	21.579	0.158	2.53	101	1.7	-	87	-0.067	11.16	0.021
138	21.740	0.161	2.53	102	1.9	-	87	-0.068	11.00	0.020
139	21.899	0.159	2.52	102	1.6	-	87	-0.069	10.95	0.016
140	22.059	0.160	2.53	102	2.0	99	87	-0.067	10.57	0.019
141	22.217	0.158	2.53	102	1.6	-	87	-0.070	10.56	0.020
142	22.379	0.162	2.53	102	1.9	-	87	-0.065	10.51	0.019
143	22.539	0.160	2.53	102	2.0	-	87	-0.067	10.45	0.019
144	22.701	0.162	2.53	102	1.9	-	87	-0.067	10.21	0.023
145	22.858	0.157	2.53	102	2.0	-	87	-0.070	10.12	0.020
146	23.021	0.163	2.52	102	1.7	-	87	-0.068	10.01	0.023
147	23.179	0.158	2.53	102	1.7	-	87	-0.067	10.00	0.020
148	23.340	0.161	2.53	102	2.0	-	87	-0.066	9.91	0.016
149	23.500	0.160	2.53	102	1.6	-	87	-0.067	9.79	0.022
150	23.659	0.159	2.53	102	1.9	99	87	-0.069	9.65	0.024
151	23.821	0.162	2.53	102	1.6	-	86	-0.068	9.69	0.024
152	23.980	0.159	2.53	102	1.7	-	86	-0.065	9.50	0.021
153	24.140	0.160	2.53	102	1.6	-	86	-0.063	9.35	0.021
154	24.301	0.161	2.53	102	1.8	-	86	-0.066	9.29	0.021
155	24.460	0.159	2.54	102	1.7	-	86	-0.066	9.34	0.020
156	24.620	0.160	2.53	102	1.6	-	86	-0.065	9.37	0.018
157	24.781	0.161	2.53	102	1.6	-	86	-0.067	9.36	0.022
158	24.940	0.159	2.54	102	1.6	-	86	-0.065	9.44	0.018
159	25.102	0.162	2.52	102	1.8	-	86	-0.067	9.46	0.023

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
160	25.260	0.158	2.53	102	1.6	98	86	-0.063	9.51	0.023
161	25.422	0.162	2.53	102	1.7	-	86	-0.064	9.44	0.020
162	25.582	0.160	2.54	102	1.7	-	86	-0.063	9.53	0.015
163	25.741	0.159	2.53	102	1.7	-	86	-0.063	9.84	0.021
164	25.903	0.162	2.53	102	1.9	-	86	-0.064	9.75	0.019
165	26.062	0.159	2.53	103	1.6	-	86	-0.066	9.86	0.018
166	26.222	0.160	2.54	103	1.9	-	86	-0.065	9.93	0.017
167	26.383	0.161	2.53	103	1.7	-	86	-0.066	9.98	0.023
168	26.542	0.159	2.53	103	1.7	-	86	-0.063	10.17	0.021
169	26.703	0.161	2.53	102	1.8	-	86	-0.063	10.22	0.023
170	26.864	0.161	2.53	102	1.8	99	86	-0.065	9.67	0.019
171	27.022	0.158	2.53	102	1.8	-	86	-0.062	9.29	0.013
172	27.185	0.163	2.53	102	1.9	-	86	-0.062	9.08	0.016
173	27.343	0.158	2.53	102	1.9	-	86	-0.062	9.06	0.012
174	27.504	0.161	2.53	103	1.9	-	86	-0.061	8.99	0.013
175	27.665	0.161	2.54	103	1.6	-	86	-0.060	8.99	0.016
176	27.824	0.159	2.54	103	1.8	-	86	-0.062	9.03	0.013
177	27.985	0.161	2.53	103	1.7	-	86	-0.062	8.97	0.017
178	28.145	0.160	2.53	103	1.8	-	86	-0.062	8.96	0.013
179	28.305	0.160	2.53	103	1.6	-	86	-0.064	8.93	0.010
180	28.467	0.162	2.53	103	2.0	100	86	-0.061	8.94	0.015
181	28.626	0.159	2.54	103	1.8	-	86	-0.060	8.85	0.014
182	28.787	0.161	2.54	103	1.8	-	86	-0.060	8.80	0.014
183	28.948	0.161	2.53	103	1.6	-	86	-0.059	8.92	0.015
184	29.106	0.158	2.53	103	1.6	-	86	-0.063	8.90	0.016
185	29.270	0.164	2.54	103	1.9	-	86	-0.058	8.95	0.011
186	29.427	0.157	2.53	103	1.7	-	86	-0.059	8.88	0.019
187	29.589	0.162	2.53	103	2.0	-	86	-0.057	8.87	0.013
188	29.749	0.160	2.53	103	1.7	-	86	-0.061	8.78	0.014
189	29.908	0.159	2.53	103	2.0	-	86	-0.059	8.82	0.012
190	30.070	0.162	2.53	103	1.6	100	85	-0.059	8.89	0.016
191	30.231	0.161	2.54	103	1.6	-	86	-0.059	8.99	0.012

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
192	30.390	0.159	2.54	103	1.9	-	86	-0.061	8.98	0.012
193	30.553	0.163	2.53	103	1.7	-	86	-0.057	9.05	0.011
194	30.710	0.157	2.54	103	1.8	-	85	-0.057	8.98	0.015
195	30.866	0.156	2.53	103	1.7	-	85	-0.061	8.87	0.013
196	31.033	0.167	2.54	103	1.7	-	85	-0.062	8.91	0.013
197	31.192	0.159	2.54	103	2.0	-	85	-0.059	9.01	0.015
198	31.354	0.162	2.54	103	1.7	-	85	-0.061	9.07	0.019
199	31.512	0.158	2.54	103	1.6	-	85	-0.057	9.12	0.017
200	31.674	0.162	2.53	103	1.6	99	85	-0.058	9.16	0.018
201	31.834	0.160	2.53	103	1.7	-	85	-0.059	9.15	0.018
202	31.994	0.160	2.54	103	1.8	-	85	-0.057	9.19	0.015
203	32.154	0.160	2.53	103	1.8	-	85	-0.059	9.17	0.018
204	32.316	0.162	2.53	103	1.9	-	85	-0.060	9.21	0.012
205	32.474	0.158	2.53	103	1.8	-	85	-0.061	9.32	0.016
206	32.637	0.163	2.53	103	1.9	-	85	-0.060	9.35	0.019
207	32.795	0.158	2.54	103	1.7	-	85	-0.059	9.35	0.019
208	32.957	0.162	2.53	103	1.9	-	85	-0.058	9.40	0.015
209	33.118	0.161	2.54	103	1.7	-	85	-0.058	9.38	0.017
210	33.277	0.159	2.53	103	1.9	97	85	-0.060	9.40	0.019
211	33.438	0.161	2.53	103	1.7	-	85	-0.060	9.44	0.020
212	33.598	0.160	2.53	103	1.8	-	85	-0.061	9.47	0.016
213	33.758	0.160	2.53	103	1.7	-	85	-0.062	9.45	0.016
214	33.920	0.162	2.53	103	1.6	-	85	-0.061	9.51	0.024
215	34.078	0.158	2.54	103	1.8	-	85	-0.057	9.48	0.017
216	34.240	0.162	2.53	103	1.8	-	85	-0.061	9.48	0.017
217	34.401	0.161	2.54	103	1.6	-	85	-0.059	9.37	0.016
218	34.559	0.158	2.53	103	1.7	-	85	-0.061	9.24	0.013
219	34.723	0.164	2.53	103	1.9	-	85	-0.060	9.21	0.018
220	34.880	0.157	2.53	103	1.8	98	85	-0.059	9.20	0.021
221	35.042	0.162	2.54	103	1.9	-	85	-0.060	9.19	0.019
222	35.203	0.161	2.54	103	1.9	-	85	-0.064	9.19	0.017
223	35.362	0.159	2.54	103	2.0	-	85	-0.062	9.17	0.019

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
224	35.524	0.162	2.54	103	1.6	-	85	-0.059	9.19	0.020
225	35.685	0.161	2.53	103	1.5	-	85	-0.058	9.28	0.023
226	35.844	0.159	2.54	103	1.6	-	85	-0.058	9.27	0.021
227	36.007	0.163	2.54	103	1.7	-	85	-0.059	9.32	0.022
228	36.165	0.158	2.54	103	2.0	-	86	-0.064	9.34	0.017
229	36.327	0.162	2.54	103	1.9	-	85	-0.060	9.27	0.016
230	36.488	0.161	2.53	103	1.6	100	85	-0.058	9.29	0.016
231	36.647	0.159	2.53	103	1.7	-	85	-0.063	9.26	0.020
232	36.809	0.162	2.53	103	1.8	-	85	-0.059	9.24	0.027
233	36.969	0.160	2.53	103	1.9	-	85	-0.062	9.29	0.018
234	37.129	0.160	2.53	104	1.6	-	86	-0.064	9.27	0.017
235	37.291	0.162	2.54	104	1.8	-	85	-0.061	9.28	0.020
236	37.450	0.159	2.54	104	1.6	-	85	-0.059	9.24	0.018
237	37.612	0.162	2.53	104	1.9	-	85	-0.060	9.24	0.019
238	37.773	0.161	2.54	104	1.8	-	85	-0.062	9.22	0.022
239	37.931	0.158	2.54	104	1.8	-	85	-0.061	9.21	0.023
240	38.095	0.164	2.54	104	1.6	100	85	-0.062	9.13	0.014
241	38.253	0.158	2.53	104	1.9	-	85	-0.061	9.14	0.022
242	38.415	0.162	2.53	104	1.8	-	85	-0.060	9.16	0.020
243	38.575	0.160	2.54	104	1.8	-	85	-0.059	9.14	0.020
244	38.735	0.160	2.54	104	1.8	-	85	-0.060	9.16	0.018
245	38.896	0.161	2.53	104	1.8	-	86	-0.062	9.17	0.016
246	39.058	0.162	2.53	104	2.0	-	86	-0.061	8.83	0.014
247	39.216	0.158	2.53	104	1.7	-	86	-0.062	8.82	0.017
248	39.379	0.163	2.53	104	1.9	-	86	-0.060	8.75	0.015
249	39.537	0.158	2.54	104	1.9	-	86	-0.063	8.75	0.023
250	39.699	0.162	2.53	104	1.8	100	86	-0.061	8.75	0.019
251	39.861	0.162	2.54	104	2.0	-	86	-0.063	8.79	0.018
252	40.020	0.159	2.54	104	1.6	-	86	-0.060	8.81	0.018
253	40.182	0.162	2.54	104	1.7	-	86	-0.058	8.88	0.020
254	40.342	0.160	2.54	104	1.6	-	86	-0.061	8.86	0.020
255	40.502	0.160	2.54	104	1.7	-	86	-0.060	8.83	0.018

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
256	40.665	0.163	2.53	104	1.7	-	86	-0.059	8.83	0.018
257	40.823	0.158	2.54	104	1.7	-	86	-0.058	8.89	0.017
258	40.985	0.162	2.54	104	1.6	-	86	-0.060	8.86	0.017
259	41.146	0.161	2.54	104	1.6	-	86	-0.060	8.83	0.016
260	41.305	0.159	2.54	104	2.0	100	86	-0.059	8.87	0.021
261	41.468	0.163	2.53	104	1.6	-	86	-0.059	8.85	0.016
262	41.627	0.159	2.53	104	1.7	-	86	-0.057	8.86	0.018
263	41.788	0.161	2.53	104	1.6	-	86	-0.059	8.85	0.015
264	41.950	0.162	2.53	104	1.9	-	86	-0.059	8.82	0.018
265	42.109	0.159	2.54	104	1.8	-	86	-0.061	8.88	0.014
266	42.271	0.162	2.53	104	2.0	-	86	-0.062	8.84	0.017
267	42.432	0.161	2.54	104	1.6	-	86	-0.059	8.90	0.014
268	42.590	0.158	2.53	104	1.8	-	85	-0.058	8.92	0.014
269	42.754	0.164	2.54	104	1.8	-	86	-0.059	8.89	0.016
270	42.912	0.158	2.53	104	1.6	97	86	-0.060	8.80	0.015
271	43.074	0.162	2.53	104	1.8	-	86	-0.061	8.66	0.016
272	43.235	0.161	2.53	104	1.8	-	86	-0.058	8.61	0.016
273	43.395	0.160	2.54	104	1.7	-	85	-0.062	8.63	0.015
274	43.555	0.160	2.53	104	1.8	-	86	-0.059	8.77	0.014
275	43.717	0.162	2.53	104	1.6	-	86	-0.060	8.79	0.023
276	43.876	0.159	2.53	104	2.0	98	86	-0.060	8.79	0.016
Avg/Tot	43.876	0.159	2.51	97.7	1.8	100	86.4	-0.070	12.38	0.401

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
0	0.000		0.32	78	1.6		76
1	0.144	0.144	0.99	77	1.8	-	77
2	0.291	0.147	1.00	77	1.7	-	77
3	0.440	0.149	1.01	77	1.6	-	78
4	0.589	0.149	1.02	77	1.8	-	78
5	0.738	0.149	1.03	77	1.7	-	78
6	0.887	0.149	1.02	78	1.7	-	79
7	1.036	0.149	1.02	78	1.8	-	79
8	1.185	0.149	1.02	78	1.8	-	79
9	1.335	0.150	1.02	78	1.7	-	79
10	1.486	0.151	1.03	79	1.7	100	80
11	1.637	0.151	1.03	79	1.8	-	80
12	1.788	0.151	1.04	79	1.7	-	80
13	1.938	0.150	1.04	79	1.8	-	80
14	2.088	0.150	1.04	80	1.7	-	80
15	2.239	0.151	1.04	80	1.8	-	80
16	2.389	0.150	1.04	80	1.9	-	81
17	2.540	0.151	1.04	80	1.7	-	81
18	2.691	0.151	1.04	81	1.7	-	81
19	2.842	0.151	1.04	81	1.8	-	81
20	2.993	0.151	1.04	81	1.9	103	81
21	3.145	0.152	1.04	82	1.8	-	81
22	3.297	0.152	1.04	82	1.7	-	81
23	3.449	0.152	1.04	82	1.7	-	81
24	3.602	0.153	1.05	82	1.7	-	82
25	3.755	0.153	1.05	82	1.8	-	82
26	3.908	0.153	1.05	82	1.7	-	82
27	4.061	0.153	1.05	82	1.8	-	82
28	4.214	0.153	1.05	83	1.8	-	82
29	4.368	0.154	1.06	83	1.7	-	82
30	4.522	0.154	1.07	84	1.7	104	82
31	4.676	0.154	1.07	84	1.7	-	82

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
32	4.831	0.155	1.07	84	1.9	-	82
33	4.985	0.154	1.07	84	1.8	-	82
34	5.140	0.155	1.08	85	1.8	-	82
35	5.294	0.154	1.08	85	1.9	-	82
36	5.449	0.155	1.08	85	1.9	-	82
37	5.604	0.155	1.08	85	1.8	-	82
38	5.759	0.155	1.08	86	1.8	-	82
39	5.913	0.154	1.08	86	1.9	-	82
40	6.069	0.156	1.07	86	1.7	103	82
41	6.225	0.156	1.07	86	1.7	-	83
42	6.381	0.156	1.08	87	1.7	-	83
43	6.537	0.156	1.09	87	1.7	-	83
44	6.691	0.154	1.09	87	1.8	-	83
45	6.850	0.159	1.09	87	1.8	-	83
46	7.005	0.155	1.09	87	1.8	-	83
47	7.161	0.156	1.09	88	1.9	-	83
48	7.317	0.156	1.08	87	1.8	-	83
49	7.474	0.157	1.09	88	1.8	-	83
50	7.631	0.157	1.09	88	1.7	104	83
51	7.788	0.157	1.10	89	1.8	-	83
52	7.945	0.157	1.10	89	1.8	-	83
53	8.100	0.155	1.09	89	1.7	-	83
54	8.258	0.158	1.08	89	1.8	-	83
55	8.415	0.157	1.09	89	1.8	-	83
56	8.572	0.157	1.10	90	1.9	-	83
57	8.730	0.158	1.10	90	1.8	-	83
58	8.887	0.157	1.10	89	1.8	-	83
59	9.043	0.156	1.09	90	1.9	-	83
60	9.201	0.158	1.09	89	1.9	104	83
Avg/Tot	9.201	0.153	1.05	83.5	1.8	103	81.3

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

Stove ΔT: 44

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
0	333	406	240	677	204	371.8	1016.2
1	331	409	248	652	207	369.1	944.4
2	328	410	258	685	207	377.6	956.3
3	326	408	266	731	209	388.0	1000.4
4	322	405	271	773	211	396.3	1050.3
5	317	401	273	807	213	402.3	1087.4
6	314	397	278	835	215	407.7	1110.2
7	311	392	280	859	215	411.4	1123.2
8	307	388	281	878	218	414.4	1132.2
9	304	383	282	894	219	416.1	1138.3
10	301	379	283	906	220	417.5	1140.5
11	299	374	280	916	222	418.2	1141.8
12	294	370	281	925	224	419.0	1144.0
13	294	367	282	935	225	420.7	1147.4
14	295	364	280	943	225	421.5	1152.9
15	292	361	270	951	227	420.2	1160.5
16	291	358	257	944	227	415.5	1167.6
17	291	356	249	945	229	413.8	1171.8
18	289	354	240	944	230	411.2	1173.5
19	291	351	233	942	231	409.5	1174.7
20	289	351	227	942	231	407.7	1173.7
21	289	349	223	942	231	406.6	1172.9
22	292	348	218	940	232	405.9	1172.9
23	291	348	215	940	232	404.9	1173.6
24	289	348	212	942	232	404.4	1175.4
25	291	347	210	942	232	404.4	1178.7
26	289	347	208	940	232	403.2	1181.9
27	292	347	207	938	232	403.1	1183.9
28	291	347	204	938	232	402.2	1185.7
29	292	348	204	936	232	402.3	1186.0
30	290	348	201	933	232	400.9	1186.1
31	294	348	201	931	232	401.1	1189.3
32	293	348	201	930	231	400.5	1191.8
33	294	348	201	925	231	400.0	1195.2
34	296	349	201	926	231	400.5	1198.8
35	296	349	200	924	230	399.9	1200.9
36	299	349	199	923	230	399.9	1202.1
37	300	350	200	921	229	400.1	1202.5
38	299	351	199	922	229	399.7	1202.7
39	301	351	199	922	228	400.1	1203.1
40	301	351	199	920	228	399.8	1203.3
41	303	352	199	917	228	399.5	1203.2
42	306	352	200	916	227	400.0	1202.4
43	303	352	200	912	226	398.9	1200.5
44	307	353	200	910	226	399.1	1198.3
45	307	353	201	906	226	398.7	1194.9
46	309	354	201	902	226	398.6	1191.2
47	311	355	201	901	226	398.6	1187.9

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

Stove ΔT: 44

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
48	310	356	203	898	226	398.5	1184.2
49	313	357	203	897	225	398.9	1181.1
50	313	358	203	894	225	398.5	1177.6
51	314	360	205	892	224	399.0	1174.3
52	316	362	205	892	224	399.8	1171.9
53	315	363	204	888	224	399.1	1169.9
54	318	365	207	890	224	400.8	1168.5
55	321	368	207	885	224	400.9	1167.4
56	321	370	206	885	224	401.2	1166.1
57	322	371	209	883	224	401.6	1164.8
58	324	373	210	883	223	402.7	1163.6
59	325	375	211	883	223	403.4	1163.2
60	324	377	212	881	221	403.0	1163.2
61	326	379	212	880	222	403.8	1163.0
62	327	381	213	879	221	404.2	1162.4
63	329	383	214	876	221	404.6	1161.8
64	329	385	214	875	223	405.0	1160.5
65	330	386	215	876	222	405.8	1158.9
66	334	387	219	876	221	407.3	1158.7
67	332	389	221	880	221	408.3	1159.8
68	334	390	220	880	222	408.8	1159.4
69	335	392	221	881	221	409.9	1160.0
70	332	394	222	882	222	410.3	1162.5
71	335	395	224	883	222	411.6	1166.0
72	336	395	226	881	223	412.1	1167.9
73	336	396	226	881	222	412.3	1168.4
74	339	397	228	882	223	413.8	1167.9
75	338	399	228	884	222	414.3	1167.5
76	338	400	230	885	224	415.1	1167.3
77	338	401	231	886	224	415.9	1167.0
78	340	402	233	888	224	417.5	1166.8
79	340	403	233	889	224	417.7	1165.8
80	340	403	235	888	224	417.9	1163.8
81	343	403	234	882	225	417.3	1159.8
82	344	404	236	881	224	418.0	1154.3
83	343	405	237	878	225	417.5	1149.4
84	340	406	239	875	225	417.1	1145.9
85	343	406	240	871	224	416.9	1143.8
86	348	407	241	869	225	417.9	1142.1
87	346	409	242	866	225	417.5	1141.9
88	347	409	242	864	225	417.6	1141.7
89	350	410	245	862	226	418.5	1141.7
90	350	411	244	860	227	418.3	1142.0
91	348	412	246	860	227	418.4	1143.5
92	352	413	246	861	226	419.5	1145.9
93	352	413	247	864	227	420.6	1148.6
94	355	414	248	865	228	422.0	1150.5
95	353	415	248	865	227	421.7	1151.5

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

Stove ΔT: 44

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
96	355	416	249	864	228	422.3	1150.9
97	355	417	249	862	228	422.1	1150.7
98	355	418	250	861	228	422.3	1151.2
99	356	419	251	861	228	423.0	1151.6
100	356	420	252	862	229	423.7	1152.3
101	356	420	253	857	229	423.0	1149.5
102	357	421	253	854	230	423.0	1143.9
103	357	421	254	849	230	422.1	1136.4
104	358	421	255	845	231	421.9	1128.3
105	357	422	256	840	233	421.5	1120.4
106	357	422	257	835	233	420.7	1113.6
107	355	423	257	827	233	418.9	1107.9
108	358	423	258	826	234	419.7	1103.5
109	358	424	257	822	234	419.0	1100.1
110	359	424	258	816	235	418.5	1097.3
111	356	424	260	805	236	416.1	1093.6
112	358	424	259	790	236	413.5	1088.9
113	357	425	260	783	238	412.7	1083.8
114	357	426	260	771	239	410.4	1079.1
115	360	426	262	759	240	409.1	1074.5
116	359	426	262	768	240	411.3	1069.6
117	360	427	263	778	242	413.8	1066.2
118	357	426	262	775	242	412.5	1066.3
119	357	427	263	769	242	411.5	1065.9
120	356	427	262	759	244	409.5	1061.8
121	356	428	263	748	246	408.1	1053.6
122	352	429	262	735	246	404.9	1041.5
123	353	429	261	724	246	402.4	1027.3
124	353	430	262	712	246	400.7	1011.9
125	349	430	262	705	249	398.9	997.6
126	349	430	261	697	250	397.2	984.8
127	347	430	260	685	251	394.7	974.2
128	344	430	259	674	252	391.7	966.4
129	347	429	259	663	253	390.0	960.9
130	347	429	258	652	252	387.5	955.9
131	343	428	258	645	253	385.3	950.8
132	343	427	258	637	253	383.6	946.0
133	341	426	256	630	255	381.7	942.1
134	342	425	257	624	254	380.4	938.9
135	340	425	255	619	255	378.7	937.1
136	339	425	257	616	256	378.6	936.5
137	339	423	258	612	257	377.7	936.6
138	339	422	257	609	258	376.9	936.2
139	337	421	256	604	259	375.2	936.0
140	338	420	257	601	259	374.9	936.5
141	334	419	257	598	260	373.6	936.8
142	337	418	255	595	260	373.0	936.4
143	334	417	255	593	260	371.7	935.3

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

Stove ΔT: 44

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
144	336	416	254	589	261	371.2	933.7
145	334	417	254	585	261	370.3	932.1
146	331	414	253	580	261	368.0	930.1
147	328	413	254	577	264	367.1	927.2
148	329	412	253	573	264	366.2	923.6
149	329	410	253	569	265	365.2	919.5
150	328	409	251	565	265	363.5	915.8
151	328	407	250	559	266	361.8	912.6
152	326	405	250	559	266	361.1	908.1
153	323	404	248	554	266	358.9	902.2
154	325	402	248	552	265	358.3	895.2
155	322	401	248	547	266	356.8	887.7
156	320	399	247	545	266	355.4	880.6
157	317	398	246	542	266	353.6	874.1
158	319	396	248	537	266	353.0	868.3
159	314	395	246	535	268	351.5	863.1
160	314	393	245	532	268	350.4	858.5
161	315	391	244	529	268	349.4	855.0
162	311	390	245	526	268	348.0	852.2
163	311	389	245	523	269	347.6	850.2
164	310	388	244	523	269	346.8	849.0
165	310	387	242	521	270	346.1	848.8
166	310	386	244	518	270	345.7	848.9
167	309	385	245	517	270	345.2	848.9
168	312	384	242	515	270	344.5	849.1
169	309	384	243	513	271	343.8	849.6
170	307	383	243	512	271	342.9	849.9
171	307	383	244	510	271	342.9	847.6
172	307	382	243	512	271	342.7	841.2
173	308	382	242	513	272	343.5	832.7
174	308	382	243	512	273	343.4	824.2
175	303	382	244	511	272	342.5	816.5
176	308	382	242	510	274	343.1	810.1
177	308	381	240	508	274	342.4	804.8
178	306	381	242	506	275	341.9	800.5
179	305	381	240	504	276	341.1	796.8
180	306	381	240	502	275	340.7	793.3
181	306	380	237	501	275	339.8	790.2
182	307	380	239	499	276	340.2	787.4
183	304	379	239	496	277	338.8	785.0
184	305	379	238	495	277	338.9	783.3
185	305	378	237	493	278	338.4	782.1
186	302	377	237	491	279	337.5	781.7
187	305	377	237	489	278	337.2	781.5
188	301	377	237	486	279	335.9	781.2
189	302	376	235	485	280	335.5	781.0
190	301	375	237	485	280	335.5	780.6
191	305	375	236	483	281	335.7	780.2

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

Stove ΔT: 44

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
192	300	374	236	481	282	334.6	779.5
193	301	374	235	481	283	334.7	778.8
194	298	373	234	479	284	333.6	778.1
195	299	372	234	476	284	332.9	777.0
196	298	372	233	475	285	332.4	776.0
197	299	371	234	474	285	332.6	775.4
198	297	371	232	472	286	331.4	775.4
199	297	370	233	471	286	331.4	775.5
200	297	369	233	470	286	331.2	775.9
201	298	369	232	470	288	331.2	776.6
202	294	368	231	469	289	330.2	777.6
203	295	368	232	468	289	330.4	779.0
204	293	367	232	466	290	329.7	780.6
205	294	368	232	466	290	329.9	782.4
206	295	367	233	466	291	330.4	784.2
207	295	367	232	466	290	329.9	785.6
208	293	366	232	465	291	329.4	786.6
209	293	367	231	464	292	329.4	787.3
210	294	367	231	463	293	329.6	788.3
211	292	367	231	463	294	329.1	789.1
212	293	367	232	461	294	329.4	790.3
213	292	367	232	462	295	329.6	791.5
214	293	367	231	462	295	329.6	792.6
215	291	367	230	461	296	328.8	793.5
216	293	367	231	461	296	329.6	794.1
217	290	367	230	458	296	328.3	794.6
218	293	368	230	459	298	329.3	795.4
219	292	368	231	458	298	329.3	796.7
220	291	368	231	457	298	328.9	797.7
221	292	368	231	456	299	329.2	798.9
222	292	368	231	456	300	329.2	799.7
223	291	368	230	455	300	328.8	800.3
224	291	368	230	454	300	328.9	801.1
225	293	368	231	453	300	329.2	801.9
226	294	368	231	454	301	329.5	802.9
227	290	369	231	453	301	328.9	804.1
228	292	369	230	452	302	329.1	805.6
229	291	369	231	452	304	329.3	806.5
230	291	369	230	452	303	329.1	807.3
231	291	369	230	451	303	329.1	808.1
232	290	369	230	451	305	329.0	808.7
233	288	369	231	450	305	328.5	809.1
234	290	370	231	451	305	329.2	809.6
235	292	369	231	449	305	329.2	809.5
236	290	370	231	450	306	329.3	809.6
237	291	370	231	450	307	329.6	809.8
238	290	369	232	448	307	329.4	809.8
239	291	370	231	449	307	329.6	810.2

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

Stove ΔT: 44

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
240	291	370	231	448	308	329.6	810.2
241	292	370	232	449	309	330.2	809.9
242	292	370	231	448	308	329.7	809.8
243	291	370	232	448	309	329.9	809.4
244	291	370	231	447	309	329.6	809.3
245	293	370	232	447	310	330.3	809.0
246	290	370	231	447	310	329.6	808.3
247	292	370	232	446	310	329.7	806.5
248	290	371	233	446	310	329.9	805.0
249	292	371	232	445	311	329.9	804.2
250	293	371	231	444	310	329.8	804.2
251	290	372	231	444	310	329.4	804.4
252	291	372	231	444	310	329.4	805.1
253	290	371	232	442	311	329.1	806.3
254	291	372	231	442	312	329.4	806.6
255	288	373	230	441	312	328.9	805.7
256	289	372	231	439	311	328.6	803.9
257	291	373	232	439	311	329.1	801.8
258	288	373	231	438	311	328.2	799.9
259	289	373	231	438	311	328.3	798.5
260	289	373	231	438	312	328.4	797.4
261	289	374	231	437	310	328.1	796.6
262	288	374	230	437	310	327.8	795.9
263	287	373	232	436	310	327.9	795.3
264	289	374	231	436	310	328.1	794.5
265	288	375	231	435	310	327.9	793.4
266	290	375	230	435	310	328.0	792.5
267	288	375	232	434	311	328.0	791.4
268	289	376	231	434	311	328.0	790.4
269	288	376	231	434	311	328.0	789.1
270	289	377	230	433	310	328.0	788.0
271	289	378	231	432	310	327.9	786.8
272	289	379	231	432	310	328.1	785.6
273	289	379	230	432	309	327.9	784.6
274	289	380	231	431	310	328.1	784.0
275	288	381	231	431	310	328.0	783.8
276	288	383	230	431	310	328.2	784.1
Average	314.6	385.5	236.8	665.2	259.5	372.3	972.2

LAB SAMPLE DATA - ASTM E2515

Client: FPI
Model: F5200
Run #: 3

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/23/2023

		Sample ID	Tare, mg	Final, mg	Catch, mg
Filters	**A**	G641	243.3	244.5	1.2
	B	G642	243.8	245.5	1.7
	C - 1st Hour	G643	242.7	242.8	0.1
	Amb	G644	243.0	243.0	0.0
Probes	**A**	16A	116377.8	116378.1	0.3
	B	16B	115860.5	115860.5	0.0
	C - 1st Hour	16C	114147.0	114147.0	0.0
O-rings	**A**	16A	3572.9	3573.4	0.5
	B	16B	3638.6	3638.6	0.0
	C - 1st Hour	16C	3601.9	3603.4	1.5

Placed in Dessicator on:	8/23/2023

		Balance Audit (mg):	100.0		100.0					
			Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time
Filters	**A**		244.7	8/25 -9:00	244.5	8/28 - 8:30				
	B		245.5	8/25 -9:00	245.5	8/28 - 8:30				
	C - 1st Hour		242.8	8/25 -9:00	242.8	8/28 - 8:30				
	Amb		243.1	8/25 -9:00	243.0	8/28 - 8:30				
Probes	**A**		116378.3	8/25 -9:00	116378.1	8/28 - 8:30				
	B		115860.7	8/25 -9:00	115860.5	8/28 - 8:30				
	C - 1st Hour		114147.2	8/25 -9:00	114147.0	8/28 - 8:30				
O-Rings	**A**		3573.3	8/25 -9:00	3573.4	8/28 - 8:30				
	B		3638.5	8/25 -9:00	3638.6	8/28 - 8:30				
	C - 1st Hour		3603.2	8/25 -9:00	3603.4	8/28 - 8:30				

Train A Aggregate, mg:	**2.0**
Train B Aggregate, mg:	**1.7**
Train C Aggregate, mg:	**1.6**
Ambient, mg:	**0.0**

ASTM E2780 Wood Heater Run Sheets

Client: FPI Job Number: 23-200 Tracking #: 157
Model: F5200 Run Number: 3 Test Date: 8/23/23

Wood Heater Run Notes

Test Control Settings

Primary Air Setting(s): Fully Open
Targeted Burn Category: IV

Preburn Notes

Time	Notes
138:00	Leveled coal bed, turn off fan in preparation of fuel loading

Test Notes

Test Burn Start Time: 10:20 Test Fuel Loaded by: 40 seconds
Door Closed: 45 seconds Air Control Set at: 0 seconds
Other Loading Notes: Fan on high @ 15 min

Time	Notes
	-None-

Test Burn End Time: 14:56

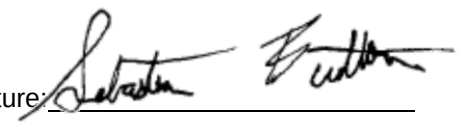
Flue Gas Concentration Measurement

Calibration Gas Values: Span Gas CO_2 (%): 17.01 CO (%): 4.306
Mid Gas CO_2 (%): 10.09 CO (%): 2.530

Calibration Results:

	Pre Test			Post Test		
	Zero	Span	Mid	Zero	Span	Mid
Time	8:35	8:36	8:38	15:30	15:34	15:28
CO_2	0.00	17.11	10.17	-0.01	17.09	10.24
CO	-0.015	4.305	2.497	-0.005	4.346	2.501

Flue Gas Probe Leak Check: Initial: No Leakage Final: No Leakage

Technician Signature:  Date: 8/24/2023

ASTM E2780 Wood Heater Run Sheets

Client: FPI Job Number: 23-200 Tracking #: 157
Model: F5200 Run Number: 3 Test Date: 8/23/23



Test Fuel Front/Side View



Test Fuel Iso View



Test Fuel Loaded in Stove



Air Setting

Technician Signature: _____ Date: 8/24/2023

WOOD STOVE TEST DATA PACKET
ASTM E2780/E2515



Run 4 Data Summary

Client:	FPI
Model:	F5200
Job #:	23-200
Tracking #:	157
Test Date:	8/24/2023

Techician Signature

8/29/2023
Date

TEST RESULTS - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

Burn Rate (kg/hr):	1.49

	Ambient Sample	Sample Train A	Sample Train B	1st Hour Filter
Total Sample Volume (ft^3)	52.463	77.707	75.329	9.288
Average Gas Velocity in Dilution Tunnel (ft/sec)	8.5			
Average Gas Flow Rate in Dilution Tunnel (dscf/hr)	22240.1			
Average Gas Meter Temperature (°F)	82.6	106.6	106.1	85.3
Total Sample Volume (dscf)	50.854	72.659	70.484	9.053
Average Tunnel Temperature (°F)	96.6			
Total Time of Test (min)	468			
Total Particulate Catch (mg)	0.1	3.3	3.4	1.5
Particulate Concentration, dry-standard (g/dscf)	0.0000020	0.0000454	0.0000482	0.0001657
Total PM Emissions (g)	0.34	7.54	8.03	3.64
Particulate Emission Rate (g/hr)	0.04	0.97	1.03	3.64
Emissions Factor (g/kg)	-	0.65	0.69	-
Difference from Average Total Particulate Emissions (g)	-	0.24	0.24	-
Difference from Average Total Particulate Emissions (%)	-	3.1%	3.1%	
Difference from Average Emissions Factor (g/kg)	-	0.02	0.02	-

Final Average Results	
Total Particulate Emissions (g)	7.78
Particulate Emission Rate (g/hr)	1.00
Emissions Factor (g/kg)	0.67
HHV Efficiency (%)	79.6%
LHV Efficiency (%)	86.0%
CO Emissions (g/min)	0.75

Quality Checks	Requirement	Observed	Result
Dual Train Precision	Each train within 7.5% of average emissions (in grams), or emission factors within 0.5 g/kg	See Above	OK
Filter Temps	<90 °F	89.4	OK
Face Velocity	< 30 ft/min	9.2	OK
Leakage Rate	Less than 4% of average sample rate	0.001 cfm	OK
Ambient Temp	55-90 °F	Min:77.5/Max:84.6	OK
Negative Probe Weight Evaluation	<5% of Total Catch	Probe Catch Not Negative	OK
Pro-Rate Variation	90% of readings between 90-110%; none greater than 120% or less than 80%	See Data Tabs	OK
Stove Surface ΔT	<126°F	32.5	OK

B415.1 Efficiency Results

Manufacturer:	FPI
Model:	F5200
Date:	08/24/23
Run:	4
Control #:	23-200
Test Duration:	468
Output Category:	3

Test Results in Accordance with CSA B415.1-09

	HHV Basis	LHV Basis
Overall Efficiency	79.6%	86.0%
Combustion Efficiency	97.9%	97.9%
Heat Transfer Efficiency	81.3%	87.9%

Output Rate (kJ/h)	23,400	22,198	**(Btu/h)**
Burn Rate (kg/h)	1.48	3.27	**(lb/h)**
Input (kJ/h)	29,394	27,883	**(Btu/h)**

Test Load Weight (dry kg)	11.57	25.51	**dry lb**
MC wet (%)	17.56		
MC dry (%)	21.29		
Particulate (g)	7.78		
CO (g)	352		
Test Duration (h)	7.80		

Emissions	Particulate	CO
g/MJ Output	0.04	1.93
g/kg Dry Fuel	0.67	30.42
g/h	1.00	45.13
g/min	0.02	0.75
lb/MM Btu Output	0.10	4.48

Air/Fuel Ratio (A/F)	10.61

VERSION: **2.4** **4/15/2010**

WOODSTOVE FUEL DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

Preburn Fuel Information

Size	Length (in)	Moisture Content (% DB)	Size	Length (in)	Moisture Content (% DB)
2x4	20.00	25.7	2x4	20.00	22.4
2x4	20.00	25.4	2x4	20.00	19.8
2x4	20.00	21.7	2x4	20.00	25.7
2x4	20.00	23.3	2x4	20.00	18.4
2x4	20.00	21.9	2x4	20.00	20.0
2x4	20.00	18.7	2x4	20.00	21.9
2x4	20.00	23.3			
2x4	20.00	19.7			
Total Fuel Weight (lbs):		29.7	Average Moisture (%DB):		22.0

Firebox Volume (ft^3): 4.42
Total 2x4 Crib Weight, with spacers (lbs): 0.00
Total 4x4 Crib Weight, with spacers (lbs): 30.97
Total Wet Fuel Weight, with spacers (lbs): 30.97

Coal Bed Range (20-25%):
Min (lbs): 6.19
Max (lbs): 7.74

Test Fuel Information

Size	Length (in)	Weight (lbs)	Moisture Content (%DB)			Dry Weight (lbs)
4x4	20.00	5.05	20.0	22.3	20.6	4.17
4x4	20.00	5.41	22.0	22.1	22.1	4.43
4x4	20.00	4.40	22.3	19.5	20.8	3.64
4x4	20.00	4.26	18.8	21.9	20.6	3.54
4x4	20.00	5.53	23.8	21.2	22.4	4.52
4x4	20.00	4.31	21.9	21.7	19.3	3.56
					Total Dry Weight, no spacers (lbs):	23.86
					Total Dry Weight, with spacers (lbs):	25.62

Spacer Moisture Readings (%DB)

12.3	15.4	19.0	15.6				
14.5	12.4	11.4	16.0				
15.8	12.9	13.6	10.6				
18.1	11.5						
15.5	12.2						
17.5	10.4						

Quality Checks	Requirement	Observed	Result
Fuel Density	25 - 36 (lbs/ft^3, DB)	28.1	OK
Loading Density	6.3 - 7.7 (lbs/ft^3, WB)	7.01	OK
2x4 Fuel Mix	35 - 65 % of total weight	N/A	N/A

DILUTION TUNNEL & MISC. DATA - ASTM E2780 / E2515

Client:	FPI	Job #:	23-200
Model:	F5200	Tracking #:	157
Run #:	4	Technician:	AK
Test Start Time:	12:23	Date:	8/24/2023

Total Sampling Time (min):	468	
Recording Interval (min):	1	
Meter Box γ Factor:	1.004	(A)
Meter Box γ Factor:	1.004	(B)
Meter Box γ Factor:	1.011	(C)
Meter Box γ Factor:	1.003	(Ambient)

	Pre-Test	Post Test	Avg.
Barometric Pressure (in. Hg)	29.81	29.64	29.73
Relative Humidity (%)	33.6	21.4	
Room Air Velocity (ft/min)	0	0	
Pitot Tube Leak Check	0	0	
Ambient Sample Volume:		52.463	ft^3

Induced Draft Check (in. H_2O):	0
Smoke Capture Check (%):	100%
Date Flue Pipe Last Cleaned:	8/17/2023
Test Fuel Scale Audit (lbs)	10.00
Platform Scale Audit (lbs)	10.0

Sample Train Leak Checks

	Pre-test	Post-test		
(A)	0.000	0.001	cfm @	-5 in. Hg
(B)	0.000	0.000	cfm @	-5 in. Hg
(C)	0.000	0.001	cfm @	-5 in. Hg
(Ambient)	0.000	0.000	cfm @	-12 in. Hg

DILUTION TUNNEL FLOW

Traverse Data

Point	dP (in H_2O)	Temp (°F)
1	0.012	99
2	0.016	99
3	0.018	99
4	0.020	99
5	0.016	99
6	0.014	99
7	0.012	99
8	0.014	99
9	0.018	99
10	0.020	99
11	0.020	99
12	0.014	99
Center	0.020	99

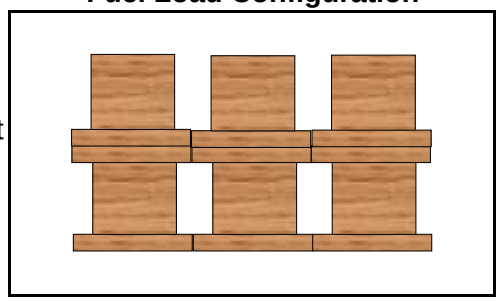
Static Pressure: -0.118 in. H_2O

Dilution Tunnel H_2O:	2.00	percent
Tunnel Diameter:	12	inches
Pitot Tube Cp:	0.99	[unitless]
Dilution Tunnel MW(dry):	29.00	lb/lb-mole
Dilution Tunnel MW(wet):	28.78	lb/lb-mole
Tunnel Area:	0.7854	ft^2
V_{strav}:	8.65	ft/sec
V_{scent}:	9.66	ft/sec
F_p:	0.895	[ratio]
Initial Tunnel Flow:	375.4	scf/min

TEST FUEL PROPERTIES

Fuel Load Configuration

Firebox Left



Firebox Right

Firebox Front View

Actual Fuel Used Properties

Fuel Type:	D. Fir
HHV (kJ/kg)	19,810
%C	48.73
%H	6.87
%O	43.9
%Ash	0.5
MC (%DB)	21.3

WOODSTOVE PREBURN DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

Recording Interval (min): 1
Run Time (min): 90

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
0	15.77	-0.079	281	351	269	913	185	399.7	498	74
1	15.58	-0.078	285	354	251	889	186	392.8	470	74
2	15.42	-0.075	283	356	245	875	186	388.9	451	74
3	15.26	-0.075	284	357	242	869	187	387.6	438	74
4	15.13	-0.072	284	358	236	860	188	385.1	427	75
5	14.99	-0.073	286	359	232	847	189	382.5	419	74
6	14.86	-0.072	286	359	230	843	189	381.4	412	75
7	14.72	-0.069	287	359	228	843	190	381.3	407	74
8	14.44	-0.075	287	360	226	825	191	377.6	494	75
9	14.20	-0.075	288	361	224	823	191	377.5	458	75
10	13.99	-0.074	287	361	223	826	192	377.8	440	75
11	13.80	-0.071	290	361	222	835	193	380.1	426	75
12	13.63	-0.071	289	361	220	845	193	381.6	417	75
13	13.47	-0.069	290	361	218	852	193	382.7	409	75
14	13.31	-0.069	290	360	216	856	194	383.2	404	75
15	13.18	-0.068	289	359	216	858	194	383.2	398	75
16	13.05	-0.067	286	359	214	859	195	382.5	395	75
17	12.92	-0.067	286	358	212	857	195	381.6	392	75
18	12.79	-0.066	287	357	211	858	195	381.5	389	75
19	12.66	-0.066	288	357	209	854	196	380.4	387	75
20	12.55	-0.067	285	356	209	850	196	379.3	385	75
21	12.43	-0.066	286	355	207	848	196	378.3	381	75
22	12.32	-0.067	283	355	208	844	197	377.1	378	75
23	12.21	-0.064	285	355	206	831	197	374.9	377	75
24	12.10	-0.066	282	355	206	813	197	370.5	374	75
25	11.99	-0.065	282	356	205	791	197	366.3	374	75
26	11.88	-0.067	282	358	205	766	198	361.5	372	75
27	11.78	-0.064	284	359	203	746	198	357.9	371	75
28	11.68	-0.061	283	361	204	727	198	354.4	370	75
29	11.57	-0.064	281	362	205	710	198	351.2	369	75
30	11.48	-0.064	283	364	204	699	199	349.6	370	76
31	11.38	-0.062	280	365	204	689	198	347.3	369	75
32	11.26	-0.065	280	367	203	684	199	346.4	369	75
33	11.17	-0.064	279	367	203	682	199	346.0	368	75
34	11.05	-0.065	280	368	203	680	198	345.6	367	75
35	10.99	-0.064	278	369	204	674	199	344.7	366	75
36	10.87	-0.063	277	370	203	664	199	342.4	366	75
37	10.78	-0.068	275	370	202	657	199	340.5	364	75
38	10.70	-0.060	275	371	203	655	199	340.4	366	75
39	10.60	-0.061	275	371	202	651	200	339.7	364	75
40	10.51	-0.059	276	372	203	649	200	339.8	364	76
41	10.43	-0.062	273	372	202	635	200	336.1	362	75
42	10.35	-0.059	274	372	202	620	200	333.5	360	76
43	10.28	-0.056	274	372	202	607	200	331.1	360	76
44	10.18	-0.063	274	372	201	595	200	328.6	359	76

WOODSTOVE PREBURN DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

Recording Interval (min): 1
Run Time (min): 90

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
45	10.11	-0.060	272	372	202	585	201	326.3	359	76
46	10.04	-0.060	276	372	203	577	201	325.7	358	76
47	9.97	-0.061	275	372	203	570	201	324.1	357	76
48	9.91	-0.065	273	372	203	567	201	323.1	355	76
49	9.81	-0.062	273	372	203	569	201	323.5	356	76
50	9.73	-0.060	274	371	203	567	201	323.1	354	76
51	9.65	-0.059	273	371	202	567	202	323.0	351	76
52	9.59	-0.058	270	371	202	565	202	321.9	349	76
53	9.52	-0.059	272	370	202	559	203	321.1	347	76
54	9.46	-0.056	270	370	202	552	203	319.1	344	76
55	9.39	-0.058	270	369	201	547	203	318.0	343	76
56	9.32	-0.059	269	368	201	543	203	316.6	343	76
57	9.25	-0.060	267	367	201	539	204	315.5	343	76
58	9.18	-0.059	268	365	201	536	204	314.9	344	76
59	9.11	-0.059	265	364	200	534	205	313.7	345	76
60	9.05	-0.058	267	363	199	533	205	313.3	345	76
61	8.97	-0.060	265	361	199	531	205	312.2	344	76
62	8.91	-0.058	265	360	198	529	206	311.6	345	76
63	8.84	-0.058	264	359	198	527	206	310.8	344	76
64	8.77	-0.057	264	358	197	525	207	309.9	344	76
65	8.70	-0.060	261	356	197	524	207	308.9	343	76
66	8.64	-0.057	262	355	196	526	207	309.3	343	77
67	8.58	-0.059	264	353	196	527	208	309.5	342	76
68	8.51	-0.057	262	351	195	530	209	309.3	342	76
69	8.44	-0.057	263	350	194	533	209	309.8	342	77
70	8.37	-0.058	261	348	194	536	210	309.8	342	77
71	8.30	-0.056	259	347	194	541	211	310.1	341	77
72	8.21	-0.058	259	345	193	546	212	310.9	340	77
73	8.15	-0.057	261	344	193	551	212	312.1	340	77
74	8.08	-0.058	262	343	192	555	213	312.9	340	77
75	8.01	-0.057	259	341	192	555	213	312.1	339	77
76	7.95	-0.054	263	341	193	556	214	313.4	338	77
77	7.89	-0.055	262	340	192	556	215	313.2	338	77
78	7.82	-0.055	263	339	192	554	216	312.9	337	77
79	7.76	-0.056	265	338	192	551	216	312.5	337	77
80	7.70	-0.057	263	338	192	547	217	311.5	336	77
81	7.65	-0.056	263	337	191	542	218	310.1	334	77
82	7.59	-0.054	263	336	192	537	219	309.2	333	77
83	7.53	-0.056	263	336	192	533	220	308.6	333	77
84	7.49	-0.056	264	336	192	529	221	308.2	332	77
85	7.43	-0.055	263	335	190	527	221	307.3	331	77
86	7.36	-0.054	262	335	191	524	222	306.9	329	77
87	7.31	-0.054	261	334	191	522	223	306.3	327	77
88	7.26	-0.056	263	334	191	521	224	306.4	326	77
89	7.20	-0.055	263	333	190	520	225	305.9	324	77

WOODSTOVE PREBURN DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

Recording Interval (min): 1
Run Time (min): 90

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
90	7.16	-0.053	262	333	190	517	225	305.6	322	77

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
0	0.000		0.020	0.16	78	0.3		30.94		104	399	77	78
1	0.144	0.144	0.019	2.16	78	0.9	-	30.87	-0.07	121	443	79	78
2	0.294	0.150	0.019	2.19	78	0.9	-	30.69	-0.18	106	409	79	78
3	0.441	0.147	0.019	2.22	78	0.9	-	30.57	-0.12	100	377	79	78
4	0.593	0.152	0.021	2.24	79	0.9	-	30.46	-0.11	98	359	79	78
5	0.741	0.148	0.020	2.26	79	0.9	-	30.33	-0.13	97	350	80	78
6	0.893	0.152	0.019	2.27	79	0.9	-	30.21	-0.12	98	347	80	78
7	1.042	0.149	0.020	2.29	79	0.9	-	30.10	-0.11	97	346	80	78
8	1.195	0.153	0.020	2.32	79	0.9	-	29.99	-0.11	97	346	80	78
9	1.346	0.151	0.020	2.31	79	0.9	-	29.89	-0.10	99	346	81	78
10	1.500	0.154	0.019	2.33	79	0.9	95	29.77	-0.12	97	347	81	78
11	1.652	0.152	0.019	2.35	79	0.9	-	29.66	-0.11	98	348	81	78
12	1.807	0.155	0.020	2.37	80	0.9	-	29.55	-0.11	98	347	81	78
13	1.962	0.155	0.020	2.39	80	0.9	-	29.45	-0.10	97	348	81	78
14	2.115	0.153	0.019	2.39	80	0.9	-	29.34	-0.11	97	349	81	78
15	2.271	0.156	0.020	2.38	80	0.9	-	29.22	-0.12	98	350	81	78
16	2.423	0.152	0.020	2.39	81	0.9	-	29.12	-0.10	95	347	81	78
17	2.583	0.160	0.019	2.41	81	0.9	-	29.03	-0.09	94	342	81	78
18	2.736	0.153	0.019	2.42	81	0.9	-	28.95	-0.08	93	335	81	78
19	2.894	0.158	0.019	2.43	82	0.9	-	28.88	-0.07	93	331	82	78
20	3.048	0.154	0.020	2.42	82	0.9	97	28.80	-0.08	93	328	82	78
21	3.205	0.157	0.019	2.44	82	0.9	-	28.73	-0.07	92	325	82	78
22	3.364	0.159	0.019	2.44	82	0.9	-	28.64	-0.09	92	323	82	79
23	3.517	0.153	0.020	2.44	83	0.9	-	28.56	-0.08	92	321	82	79
24	3.677	0.160	0.019	2.45	83	0.9	-	28.46	-0.10	92	320	82	78
25	3.833	0.156	0.020	2.47	83	0.9	-	28.38	-0.08	92	320	82	78
26	3.993	0.160	0.020	2.47	84	1.0	-	28.28	-0.10	92	320	82	79
27	4.149	0.156	0.020	2.47	84	1.0	-	28.17	-0.11	92	321	82	78
28	4.308	0.159	0.019	2.48	84	1.0	-	28.06	-0.11	92	322	82	79
29	4.468	0.160	0.019	2.49	85	1.0	-	27.95	-0.11	92	323	82	79
30	4.622	0.154	0.019	2.48	85	0.9	98	27.83	-0.12	92	324	82	79
31	4.785	0.163	0.019	2.49	85	1.0	-	27.72	-0.11	92	324	82	79

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
32	4.941	0.156	0.019	2.49	86	1.0	-	27.60	-0.12	93	326	82	79
33	5.101	0.160	0.021	2.51	86	0.9	-	27.47	-0.13	92	326	82	79
34	5.263	0.162	0.020	2.51	87	1.0	-	27.35	-0.12	92	328	82	79
35	5.419	0.156	0.019	2.50	87	0.9	-	27.23	-0.12	93	330	82	79
36	5.582	0.163	0.020	2.50	87	1.0	-	27.11	-0.12	93	332	82	79
37	5.739	0.157	0.020	2.52	88	1.0	-	26.98	-0.13	92	333	82	79
38	5.899	0.160	0.019	2.50	88	1.0	-	26.86	-0.12	93	335	82	79
39	6.062	0.163	0.019	2.52	88	0.9	-	26.72	-0.14	93	337	82	79
40	6.219	0.157	0.019	2.53	89	1.0	100	26.58	-0.14	93	339	82	79
41	6.383	0.164	0.020	2.54	89	1.0	-	26.44	-0.14	93	343	82	79
42	6.541	0.158	0.019	2.53	89	1.0	-	26.29	-0.15	93	346	82	79
43	6.702	0.161	0.020	2.53	90	1.0	-	26.16	-0.13	93	348	82	79
44	6.865	0.163	0.020	2.54	90	1.0	-	26.02	-0.14	94	350	83	79
45	7.022	0.157	0.019	2.53	90	1.0	-	25.90	-0.12	93	352	83	79
46	7.187	0.165	0.020	2.55	91	1.0	-	25.77	-0.13	93	352	83	79
47	7.346	0.159	0.020	2.54	91	1.0	-	25.65	-0.12	94	353	83	79
48	7.508	0.162	0.020	2.55	91	1.0	-	25.51	-0.14	94	354	83	79
49	7.671	0.163	0.020	2.55	92	1.0	-	25.38	-0.13	94	353	83	80
50	7.830	0.159	0.019	2.56	92	1.0	101	25.26	-0.12	94	353	83	80
51	7.993	0.163	0.020	2.56	92	1.0	-	25.13	-0.13	94	351	83	80
52	8.156	0.163	0.020	2.56	92	1.0	-	25.01	-0.12	94	349	83	80
53	8.315	0.159	0.020	2.55	93	1.0	-	24.89	-0.12	94	345	83	80
54	8.481	0.166	0.019	2.55	93	1.0	-	24.78	-0.11	94	342	83	80
55	8.639	0.158	0.019	2.55	93	1.0	-	24.67	-0.11	94	339	83	80
56	8.803	0.164	0.020	2.56	94	0.9	-	24.57	-0.10	94	339	83	80
57	8.966	0.163	0.018	2.56	94	0.9	-	24.46	-0.11	94	337	83	80
58	9.126	0.160	0.019	2.56	94	1.0	-	24.34	-0.12	94	337	83	80
59	9.291	0.165	0.020	2.57	94	0.9	-	24.24	-0.10	94	336	83	80
60	9.454	0.163	0.020	2.57	95	1.0	100	24.11	-0.13	94	337	83	80
61	9.614	0.160	0.019	2.57	95	1.0	-	24.00	-0.11	94	337	83	80
62	9.781	0.167	0.019	2.58	95	1.0	-	23.88	-0.12	94	337	83	80
63	9.941	0.160	0.020	2.58	96	1.0	-	23.76	-0.12	94	338	84	80

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
64	10.105	0.164	0.020	2.59	96	1.0	-	23.65	-0.11	95	339	84	80
65	10.270	0.165	0.019	2.58	96	1.0	-	23.53	-0.12	95	341	84	80
66	10.431	0.161	0.020	2.58	96	0.9	-	23.40	-0.13	95	341	84	80
67	10.595	0.164	0.020	2.57	96	1.0	-	23.27	-0.13	95	343	84	80
68	10.761	0.166	0.020	2.59	97	1.0	-	23.15	-0.12	95	345	84	80
69	10.920	0.159	0.020	2.58	97	1.0	-	23.03	-0.12	95	347	84	81
70	11.087	0.167	0.020	2.59	97	1.0	99	22.91	-0.12	95	349	84	81
71	11.250	0.163	0.019	2.60	97	1.0	-	22.77	-0.14	95	352	84	81
72	11.412	0.162	0.019	2.59	98	1.0	-	22.65	-0.12	95	354	84	80
73	11.579	0.167	0.018	2.59	98	1.0	-	22.52	-0.13	95	357	84	80
74	11.740	0.161	0.020	2.60	98	0.9	-	22.38	-0.14	95	358	84	80
75	11.905	0.165	0.019	2.60	98	0.9	-	22.25	-0.13	96	360	84	80
76	12.070	0.165	0.019	2.58	99	1.0	-	22.12	-0.13	96	361	84	80
77	12.233	0.163	0.019	2.61	99	1.0	-	21.98	-0.14	96	363	84	80
78	12.398	0.165	0.019	2.62	99	1.0	-	21.86	-0.12	96	364	84	80
79	12.564	0.166	0.019	2.61	99	1.0	-	21.71	-0.15	96	366	84	80
80	12.726	0.162	0.020	2.62	99	1.0	99	21.59	-0.12	96	367	84	81
81	12.892	0.166	0.019	2.62	100	1.0	-	21.46	-0.13	96	368	85	81
82	13.058	0.166	0.019	2.61	100	1.0	-	21.33	-0.13	96	369	85	81
83	13.219	0.161	0.019	2.60	100	1.0	-	21.21	-0.12	96	368	85	81
84	13.386	0.167	0.020	2.60	100	0.9	-	21.08	-0.13	96	368	85	81
85	13.551	0.165	0.019	2.62	100	1.0	-	20.96	-0.12	97	368	85	81
86	13.713	0.162	0.020	2.60	101	1.0	-	20.83	-0.13	97	368	85	81
87	13.881	0.168	0.019	2.59	101	1.0	-	20.72	-0.11	97	366	85	81
88	14.043	0.162	0.020	2.59	101	1.0	-	20.61	-0.11	97	365	85	81
89	14.208	0.165	0.019	2.62	101	1.0	-	20.49	-0.12	97	366	85	81
90	14.376	0.168	0.020	2.59	101	1.0	99	20.37	-0.12	97	365	85	81
91	14.538	0.162	0.020	2.60	101	1.0	-	20.26	-0.11	97	364	85	81
92	14.703	0.165	0.020	2.58	102	1.0	-	20.15	-0.11	96	365	85	81
93	14.870	0.167	0.020	2.60	102	1.0	-	20.03	-0.12	97	364	85	81
94	15.033	0.163	0.019	2.61	102	1.0	-	19.91	-0.12	97	365	85	82
95	15.199	0.166	0.019	2.61	102	1.0	-	19.80	-0.11	97	365	85	82

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
96	15.365	0.166	0.020	2.60	102	1.0	-	19.69	-0.11	97	365	85	82
97	15.529	0.164	0.020	2.60	102	1.0	-	19.56	-0.13	97	365	86	82
98	15.694	0.165	0.019	2.60	103	1.0	-	19.44	-0.12	97	366	86	82
99	15.861	0.167	0.018	2.58	103	1.0	-	19.32	-0.12	97	367	86	82
100	16.024	0.163	0.019	2.58	103	1.0	100	19.20	-0.12	97	369	86	82
101	16.190	0.166	0.019	2.60	103	1.0	-	19.07	-0.13	97	370	86	82
102	16.358	0.168	0.020	2.62	103	1.0	-	18.93	-0.14	97	372	86	82
103	16.520	0.162	0.020	2.61	103	1.0	-	18.79	-0.14	98	374	86	82
104	16.687	0.167	0.019	2.59	103	1.0	-	18.65	-0.14	98	376	86	82
105	16.853	0.166	0.019	2.59	104	1.0	-	18.51	-0.14	98	377	86	82
106	17.015	0.162	0.018	2.58	104	1.0	-	18.35	-0.16	99	380	86	82
107	17.184	0.169	0.019	2.57	104	1.0	-	18.19	-0.16	100	382	86	82
108	17.350	0.166	0.019	2.59	104	1.0	-	18.04	-0.15	100	383	86	82
109	17.512	0.162	0.019	2.61	104	1.0	-	17.87	-0.17	100	383	86	82
110	17.682	0.170	0.019	2.63	104	0.9	102	17.72	-0.15	100	384	86	82
111	17.846	0.164	0.019	2.61	104	1.0	-	17.55	-0.17	101	384	87	82
112	18.010	0.164	0.018	2.62	104	1.0	-	17.39	-0.16	101	384	87	82
113	18.179	0.169	0.019	2.61	105	1.0	-	17.23	-0.16	101	383	87	82
114	18.343	0.164	0.019	2.63	105	1.0	-	17.07	-0.16	101	385	87	82
115	18.507	0.164	0.019	2.63	105	1.0	-	16.91	-0.16	101	386	87	82
116	18.677	0.170	0.019	2.61	105	0.9	-	16.74	-0.17	101	385	87	82
117	18.840	0.163	0.019	2.59	105	0.9	-	16.58	-0.16	101	384	87	82
118	19.006	0.166	0.019	2.63	105	1.0	-	16.44	-0.14	101	381	87	82
119	19.175	0.169	0.019	2.62	105	1.0	-	16.30	-0.14	101	379	87	82
120	19.338	0.163	0.019	2.60	105	1.0	102	16.16	-0.14	101	377	87	82
121	19.504	0.166	0.019	2.61	105	0.9	-	16.02	-0.14	101	376	87	82
122	19.673	0.169	0.019	2.61	106	1.0	-	15.89	-0.13	101	374	87	83
123	19.836	0.163	0.019	2.61	106	1.0	-	15.75	-0.14	101	375	87	83
124	20.003	0.167	0.019	2.62	106	1.0	-	15.61	-0.14	101	374	87	83
125	20.171	0.168	0.018	2.60	106	1.0	-	15.47	-0.14	101	374	87	83
126	20.334	0.163	0.019	2.61	106	1.0	-	15.34	-0.13	101	374	87	83
127	20.501	0.167	0.019	2.63	106	1.0	-	15.19	-0.15	101	375	88	83

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
128	20.669	0.168	0.019	2.62	106	1.0	-	15.05	-0.14	101	376	88	83
129	20.833	0.164	0.019	2.62	106	1.0	-	14.91	-0.14	101	376	88	83
130	21.000	0.167	0.019	2.61	106	1.0	102	14.76	-0.15	101	376	88	83
131	21.167	0.167	0.018	2.63	106	1.0	-	14.62	-0.14	101	377	88	83
132	21.331	0.164	0.019	2.61	107	1.0	-	14.47	-0.15	102	377	88	83
133	21.499	0.168	0.019	2.63	107	1.0	-	14.32	-0.15	102	377	88	83
134	21.666	0.167	0.019	2.61	107	1.0	-	14.18	-0.14	102	377	88	83
135	21.830	0.164	0.019	2.62	107	1.0	-	14.04	-0.14	101	375	88	83
136	21.997	0.167	0.019	2.59	107	1.0	-	13.90	-0.14	101	374	88	83
137	22.165	0.168	0.019	2.60	107	1.0	-	13.78	-0.12	101	373	88	83
138	22.329	0.164	0.019	2.59	107	1.0	-	13.65	-0.13	101	372	88	83
139	22.496	0.167	0.019	2.59	107	0.9	-	13.52	-0.13	101	372	88	83
140	22.664	0.168	0.019	2.58	107	1.0	102	13.40	-0.12	101	373	88	83
141	22.828	0.164	0.019	2.57	107	1.0	-	13.27	-0.13	101	374	88	83
142	22.996	0.168	0.019	2.57	107	1.0	-	13.15	-0.12	101	373	88	83
143	23.163	0.167	0.019	2.59	107	1.0	-	13.02	-0.13	101	373	88	83
144	23.328	0.165	0.019	2.59	107	1.0	-	12.89	-0.13	101	374	88	83
145	23.495	0.167	0.019	2.61	107	0.9	-	12.77	-0.12	102	373	88	83
146	23.663	0.168	0.019	2.60	107	1.0	-	12.64	-0.13	101	373	88	83
147	23.828	0.165	0.019	2.64	108	1.0	-	12.51	-0.13	102	372	88	83
148	23.995	0.167	0.019	2.63	108	1.0	-	12.38	-0.13	102	372	88	83
149	24.162	0.167	0.019	2.61	108	1.0	-	12.26	-0.12	102	371	88	83
150	24.327	0.165	0.019	2.62	108	1.0	102	12.14	-0.12	101	370	88	83
151	24.495	0.168	0.019	2.61	108	0.9	-	12.03	-0.11	101	370	88	83
152	24.662	0.167	0.019	2.60	108	1.0	-	11.90	-0.13	101	368	88	83
153	24.827	0.165	0.019	2.61	108	1.0	-	11.79	-0.11	101	368	88	83
154	24.995	0.168	0.019	2.62	108	1.0	-	11.67	-0.12	101	367	88	83
155	25.162	0.167	0.019	2.61	108	1.0	-	11.56	-0.11	101	367	88	83
156	25.327	0.165	0.019	2.60	108	1.0	-	11.45	-0.11	101	367	88	83
157	25.494	0.167	0.019	2.61	108	1.0	-	11.34	-0.11	102	367	88	83
158	25.662	0.168	0.019	2.58	108	1.0	-	11.22	-0.12	102	366	89	83
159	25.827	0.165	0.019	2.59	108	1.0	-	11.10	-0.12	102	365	89	83

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
160	25.995	0.168	0.019	2.59	108	1.0	102	11.00	-0.10	102	364	89	83
161	26.163	0.168	0.019	2.60	109	1.0	-	10.89	-0.11	101	364	89	83
162	26.327	0.164	0.019	2.59	109	1.0	-	10.78	-0.11	101	364	89	83
163	26.496	0.169	0.019	2.59	109	1.0	-	10.67	-0.11	101	363	89	83
164	26.664	0.168	0.019	2.60	109	1.0	-	10.56	-0.11	101	364	89	83
165	26.828	0.164	0.020	2.60	109	1.0	-	10.45	-0.11	101	363	89	83
166	26.996	0.168	0.019	2.61	109	1.0	-	10.34	-0.11	101	363	89	83
167	27.165	0.169	0.019	2.62	109	1.0	-	10.24	-0.10	101	362	89	83
168	27.329	0.164	0.019	2.63	109	1.0	-	10.13	-0.11	101	362	89	83
169	27.497	0.168	0.019	2.63	109	1.0	-	10.02	-0.11	101	361	89	83
170	27.666	0.169	0.019	2.62	109	1.0	102	9.92	-0.10	101	362	89	83
171	27.830	0.164	0.020	2.61	109	1.0	-	9.81	-0.11	101	363	89	83
172	27.998	0.168	0.019	2.62	109	1.0	-	9.70	-0.11	101	363	89	83
173	28.167	0.169	0.019	2.62	109	1.0	-	9.60	-0.10	101	363	89	83
174	28.331	0.164	0.019	2.61	109	1.0	-	9.48	-0.12	101	364	89	83
175	28.498	0.167	0.019	2.62	109	1.0	-	9.37	-0.11	102	364	89	83
176	28.668	0.170	0.019	2.61	109	1.0	-	9.27	-0.10	102	364	89	84
177	28.832	0.164	0.019	2.60	109	1.0	-	9.15	-0.12	102	364	89	84
178	28.999	0.167	0.019	2.60	109	1.0	-	9.04	-0.11	102	365	89	84
179	29.169	0.170	0.019	2.61	109	1.0	-	8.93	-0.11	102	365	89	84
180	29.333	0.164	0.020	2.60	109	1.0	100	8.83	-0.10	102	364	89	83
181	29.499	0.166	0.019	2.59	109	1.0	-	8.72	-0.11	102	363	89	84
182	29.670	0.171	0.019	2.61	109	1.0	-	8.62	-0.10	102	363	89	84
183	29.835	0.165	0.019	2.62	109	1.0	-	8.52	-0.10	102	363	89	84
184	30.000	0.165	0.020	2.61	109	1.0	-	8.42	-0.10	102	362	89	84
185	30.171	0.171	0.019	2.61	109	1.0	-	8.32	-0.10	102	362	89	84
186	30.336	0.165	0.019	2.62	109	1.0	-	8.23	-0.09	102	362	89	84
187	30.501	0.165	0.019	2.62	110	1.0	-	8.13	-0.10	102	361	89	84
188	30.672	0.171	0.019	2.61	110	1.0	-	8.05	-0.08	102	361	89	84
189	30.838	0.166	0.019	2.61	110	1.0	-	7.96	-0.09	102	361	89	84
190	31.002	0.164	0.019	2.61	110	1.0	100	7.88	-0.08	102	360	89	84
191	31.173	0.171	0.019	2.63	110	1.0	-	7.79	-0.09	101	358	89	84

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
192	31.339	0.166	0.019	2.61	110	1.0	-	7.71	-0.08	102	358	89	84
193	31.503	0.164	0.020	2.61	110	1.0	-	7.63	-0.08	102	358	89	84
194	31.674	0.171	0.019	2.63	110	1.0	-	7.54	-0.09	101	358	89	84
195	31.841	0.167	0.019	2.61	110	1.0	-	7.47	-0.07	102	356	89	84
196	32.004	0.163	0.019	2.61	110	1.0	-	7.40	-0.07	102	356	89	84
197	32.174	0.170	0.019	2.61	110	1.0	-	7.32	-0.08	102	355	89	84
198	32.342	0.168	0.019	2.61	110	1.0	-	7.25	-0.07	102	353	89	84
199	32.506	0.164	0.019	2.60	110	1.0	-	7.18	-0.07	102	353	89	84
200	32.675	0.169	0.019	2.62	110	1.0	102	7.12	-0.06	101	352	89	84
201	32.843	0.168	0.019	2.62	110	1.0	-	7.05	-0.07	101	351	89	84
202	33.007	0.164	0.019	2.60	110	1.0	-	6.98	-0.07	101	349	89	84
203	33.176	0.169	0.019	2.60	110	0.9	-	6.91	-0.07	101	348	89	84
204	33.345	0.169	0.019	2.60	110	1.0	-	6.84	-0.07	101	347	89	84
205	33.509	0.164	0.019	2.59	110	1.0	-	6.79	-0.05	101	346	89	84
206	33.677	0.168	0.019	2.60	110	1.0	-	6.72	-0.07	101	345	89	84
207	33.847	0.170	0.019	2.61	110	1.0	-	6.66	-0.06	101	343	89	84
208	34.011	0.164	0.019	2.60	110	1.0	-	6.59	-0.07	101	342	89	84
209	34.179	0.168	0.019	2.59	110	1.0	-	6.53	-0.06	101	340	89	84
210	34.348	0.169	0.019	2.61	110	1.0	102	6.48	-0.05	101	339	89	84
211	34.513	0.165	0.019	2.59	110	1.0	-	6.42	-0.06	101	337	89	84
212	34.681	0.168	0.019	2.61	110	1.0	-	6.37	-0.05	101	336	89	84
213	34.849	0.168	0.019	2.60	110	1.0	-	6.32	-0.05	101	335	89	84
214	35.015	0.166	0.019	2.59	110	1.0	-	6.26	-0.06	100	333	89	84
215	35.183	0.168	0.019	2.60	110	1.0	-	6.21	-0.05	100	331	89	84
216	35.352	0.169	0.019	2.60	110	1.0	-	6.17	-0.04	100	329	89	84
217	35.517	0.165	0.019	2.62	110	1.0	-	6.11	-0.06	100	327	89	84
218	35.685	0.168	0.020	2.62	110	1.0	-	6.07	-0.04	100	324	89	84
219	35.853	0.168	0.019	2.61	110	1.0	-	6.02	-0.05	100	323	89	84
220	36.019	0.166	0.019	2.63	111	1.0	101	5.98	-0.04	100	320	89	84
221	36.187	0.168	0.019	2.61	111	1.0	-	5.92	-0.06	100	318	89	84
222	36.355	0.168	0.019	2.61	111	1.0	-	5.87	-0.05	100	316	89	84
223	36.520	0.165	0.020	2.62	111	1.0	-	5.83	-0.04	100	315	89	84

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
224	36.689	0.169	0.019	2.61	111	1.0	-	5.78	-0.05	100	313	89	84
225	36.858	0.169	0.020	2.62	111	1.0	-	5.73	-0.05	100	312	89	84
226	37.023	0.165	0.019	2.62	111	1.0	-	5.68	-0.05	100	310	89	84
227	37.191	0.168	0.019	2.61	111	1.0	-	5.63	-0.05	99	309	89	84
228	37.361	0.170	0.019	2.60	111	1.0	-	5.58	-0.05	99	309	89	84
229	37.525	0.164	0.020	2.60	111	1.0	-	5.54	-0.04	99	307	89	84
230	37.693	0.168	0.020	2.60	111	1.0	100	5.50	-0.04	99	306	89	84
231	37.863	0.170	0.019	2.61	111	1.0	-	5.44	-0.06	99	305	89	85
232	38.028	0.165	0.019	2.60	111	1.0	-	5.40	-0.04	99	305	89	84
233	38.194	0.166	0.019	2.61	111	1.0	-	5.35	-0.05	99	305	89	84
234	38.366	0.172	0.018	2.62	111	1.0	-	5.30	-0.05	99	304	89	84
235	38.532	0.166	0.019	2.61	111	1.0	-	5.26	-0.04	99	303	89	84
236	38.697	0.165	0.019	2.62	111	1.0	-	5.22	-0.04	99	302	89	84
237	38.868	0.171	0.019	2.62	111	1.0	-	5.18	-0.04	99	302	89	84
238	39.035	0.167	0.019	2.60	111	1.0	-	5.14	-0.04	99	301	89	84
239	39.199	0.164	0.019	2.61	111	1.0	-	5.10	-0.04	99	299	89	84
240	39.370	0.171	0.020	2.61	111	1.0	99	5.07	-0.03	99	297	89	84
241	39.538	0.168	0.020	2.59	111	1.0	-	5.03	-0.04	99	295	89	84
242	39.703	0.165	0.019	2.58	111	1.0	-	5.00	-0.03	99	294	89	84
243	39.872	0.169	0.020	2.60	111	1.0	-	4.97	-0.03	99	292	89	84
244	40.042	0.170	0.020	2.61	111	1.0	-	4.94	-0.03	99	289	89	84
245	40.206	0.164	0.020	2.63	111	1.0	-	4.90	-0.04	98	287	89	84
246	40.375	0.169	0.019	2.62	111	1.0	-	4.87	-0.03	98	285	89	84
247	40.544	0.169	0.020	2.63	111	1.0	-	4.84	-0.03	98	283	89	84
248	40.709	0.165	0.020	2.61	111	1.0	-	4.81	-0.03	98	281	89	84
249	40.878	0.169	0.020	2.63	111	1.0	-	4.79	-0.02	98	279	89	84
250	41.047	0.169	0.020	2.62	111	1.0	99	4.76	-0.03	98	277	89	84
251	41.213	0.166	0.020	2.63	111	1.0	-	4.74	-0.02	98	275	89	84
252	41.381	0.168	0.020	2.62	111	1.0	-	4.71	-0.03	98	274	89	84
253	41.550	0.169	0.020	2.61	112	1.0	-	4.68	-0.03	98	272	89	84
254	41.715	0.165	0.020	2.60	111	1.0	-	4.65	-0.03	98	271	89	84
255	41.884	0.169	0.020	2.60	112	1.0	-	4.63	-0.02	98	269	89	84

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
256	42.054	0.170	0.020	2.60	112	1.0	-	4.61	-0.02	98	268	89	84
257	42.219	0.165	0.020	2.61	112	1.0	-	4.58	-0.03	97	267	89	84
258	42.388	0.169	0.020	2.61	112	1.0	-	4.56	-0.02	97	266	89	84
259	42.558	0.170	0.019	2.60	112	1.0	-	4.53	-0.03	97	265	89	84
260	42.723	0.165	0.020	2.60	112	1.0	99	4.51	-0.02	97	264	88	84
261	42.890	0.167	0.020	2.60	112	1.0	-	4.48	-0.03	97	263	88	84
262	43.061	0.171	0.020	2.60	112	1.0	-	4.46	-0.02	97	262	89	84
263	43.228	0.167	0.020	2.60	112	1.0	-	4.43	-0.03	97	261	88	84
264	43.393	0.165	0.020	2.61	112	1.0	-	4.41	-0.02	97	260	89	84
265	43.565	0.172	0.020	2.60	112	1.0	-	4.39	-0.02	97	260	88	84
266	43.732	0.167	0.020	2.63	112	1.0	-	4.36	-0.03	97	260	88	84
267	43.897	0.165	0.020	2.63	112	1.0	-	4.34	-0.02	97	259	88	84
268	44.067	0.170	0.020	2.61	112	1.0	-	4.32	-0.02	97	259	88	84
269	44.237	0.170	0.020	2.60	112	1.0	-	4.30	-0.02	97	258	88	84
270	44.401	0.164	0.020	2.58	112	1.0	99	4.27	-0.03	97	257	88	84
271	44.570	0.169	0.020	2.59	112	1.0	-	4.24	-0.03	97	257	88	84
272	44.740	0.170	0.020	2.61	112	1.0	-	4.22	-0.02	97	256	88	84
273	44.906	0.166	0.020	2.60	112	1.0	-	4.20	-0.02	96	256	88	84
274	45.074	0.168	0.020	2.60	112	1.0	-	4.18	-0.02	96	255	88	84
275	45.244	0.170	0.020	2.61	112	1.0	-	4.16	-0.02	96	256	88	84
276	45.410	0.166	0.020	2.60	112	1.0	-	4.14	-0.02	96	254	88	84
277	45.579	0.169	0.020	2.60	112	1.0	-	4.11	-0.03	96	254	88	84
278	45.747	0.168	0.020	2.60	112	1.0	-	4.09	-0.02	96	253	88	84
279	45.913	0.166	0.020	2.62	112	1.0	-	4.07	-0.02	96	253	88	84
280	46.082	0.169	0.020	2.61	112	1.0	99	4.05	-0.02	96	252	88	84
281	46.252	0.170	0.020	2.61	112	1.0	-	4.03	-0.02	96	251	88	84
282	46.417	0.165	0.020	2.62	112	1.0	-	4.01	-0.02	96	251	88	84
283	46.586	0.169	0.020	2.61	112	1.0	-	3.99	-0.02	96	250	88	84
284	46.756	0.170	0.020	2.60	112	1.0	-	3.97	-0.02	96	249	88	84
285	46.921	0.165	0.020	2.60	112	1.0	-	3.95	-0.02	96	248	88	84
286	47.088	0.167	0.020	2.60	112	1.0	-	3.93	-0.02	96	248	88	84
287	47.260	0.172	0.020	2.60	112	1.0	-	3.90	-0.03	96	247	88	84

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
288	47.427	0.167	0.020	2.61	112	1.0	-	3.88	-0.02	96	247	88	84
289	47.592	0.165	0.020	2.61	112	1.0	-	3.86	-0.02	96	246	88	84
290	47.763	0.171	0.020	2.62	112	1.0	99	3.84	-0.02	96	245	88	84
291	47.932	0.169	0.020	2.62	113	1.0	-	3.82	-0.02	96	244	88	84
292	48.097	0.165	0.019	2.62	112	1.0	-	3.80	-0.02	96	244	88	84
293	48.267	0.170	0.020	2.63	113	1.0	-	3.77	-0.03	95	243	88	84
294	48.436	0.169	0.020	2.62	112	1.0	-	3.75	-0.02	96	244	88	84
295	48.601	0.165	0.020	2.62	113	1.0	-	3.73	-0.02	95	243	88	84
296	48.770	0.169	0.020	2.63	113	0.9	-	3.71	-0.02	95	243	88	84
297	48.939	0.169	0.020	2.62	113	1.0	-	3.69	-0.02	95	242	88	84
298	49.106	0.167	0.019	2.62	113	1.0	-	3.67	-0.02	95	241	88	84
299	49.274	0.168	0.020	2.63	113	1.0	-	3.66	-0.01	95	241	88	84
300	49.443	0.169	0.020	2.65	113	1.0	99	3.63	-0.03	95	240	88	84
301	49.609	0.166	0.020	2.64	113	1.0	-	3.61	-0.02	95	240	88	84
302	49.778	0.169	0.019	2.64	113	1.0	-	3.59	-0.02	95	240	88	84
303	49.947	0.169	0.019	2.63	113	1.0	-	3.57	-0.02	95	239	88	84
304	50.113	0.166	0.020	2.64	113	1.0	-	3.55	-0.02	95	239	88	84
305	50.282	0.169	0.020	2.64	113	1.0	-	3.53	-0.02	95	239	88	84
306	50.452	0.170	0.019	2.63	113	1.0	-	3.51	-0.02	95	238	87	84
307	50.617	0.165	0.020	2.63	113	1.0	-	3.50	-0.01	95	238	87	84
308	50.785	0.168	0.020	2.63	113	1.0	-	3.47	-0.03	95	238	87	84
309	50.956	0.171	0.019	2.62	113	1.0	-	3.45	-0.02	95	238	87	84
310	51.123	0.167	0.020	2.63	113	1.0	99	3.43	-0.02	95	238	87	84
311	51.289	0.166	0.020	2.63	113	1.0	-	3.41	-0.02	95	238	87	84
312	51.460	0.171	0.020	2.63	113	1.0	-	3.40	-0.01	95	238	87	84
313	51.628	0.168	0.019	2.62	113	1.0	-	3.38	-0.02	95	238	87	84
314	51.793	0.165	0.020	2.62	113	1.0	-	3.36	-0.02	95	238	87	84
315	51.963	0.170	0.020	2.62	113	1.0	-	3.33	-0.03	95	238	87	84
316	52.133	0.170	0.020	2.62	113	1.0	-	3.31	-0.02	95	238	87	84
317	52.298	0.165	0.020	2.62	113	1.0	-	3.29	-0.02	95	238	87	84
318	52.467	0.169	0.020	2.62	113	1.0	-	3.27	-0.02	95	239	87	84
319	52.636	0.169	0.020	2.61	113	1.0	-	3.25	-0.02	95	239	87	84

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
320	52.803	0.167	0.020	2.63	113	1.0	98	3.23	-0.02	95	239	87	84
321	52.972	0.169	0.019	2.61	113	1.0	-	3.21	-0.02	95	239	87	84
322	53.141	0.169	0.020	2.61	113	1.0	-	3.19	-0.02	95	239	87	84
323	53.307	0.166	0.020	2.61	113	1.0	-	3.16	-0.03	95	238	87	84
324	53.476	0.169	0.020	2.61	113	1.0	-	3.14	-0.02	95	238	87	84
325	53.646	0.170	0.020	2.61	113	1.0	-	3.12	-0.02	95	238	87	84
326	53.811	0.165	0.020	2.62	113	1.0	-	3.10	-0.02	95	238	87	84
327	53.980	0.169	0.020	2.62	113	1.0	-	3.08	-0.02	95	238	87	84
328	54.151	0.171	0.020	2.61	113	1.0	-	3.06	-0.02	95	239	87	84
329	54.316	0.165	0.019	2.60	113	1.0	-	3.04	-0.02	95	239	87	84
330	54.483	0.167	0.019	2.61	113	1.0	100	3.02	-0.02	95	239	87	84
331	54.655	0.172	0.020	2.61	113	1.0	-	2.99	-0.03	95	238	87	84
332	54.822	0.167	0.020	2.60	113	1.0	-	2.98	-0.01	94	238	87	84
333	54.987	0.165	0.020	2.60	113	1.0	-	2.95	-0.03	94	238	87	84
334	55.158	0.171	0.019	2.62	113	1.0	-	2.93	-0.02	95	238	87	84
335	55.327	0.169	0.019	2.62	113	1.0	-	2.91	-0.02	95	238	87	84
336	55.492	0.165	0.019	2.62	113	1.0	-	2.89	-0.02	95	238	87	84
337	55.662	0.170	0.020	2.63	113	1.0	-	2.86	-0.03	95	238	87	84
338	55.832	0.170	0.020	2.63	113	1.0	-	2.84	-0.02	95	238	87	84
339	55.997	0.165	0.020	2.62	113	1.0	-	2.82	-0.02	95	238	87	84
340	56.166	0.169	0.020	2.62	113	1.0	100	2.80	-0.02	94	237	87	84
341	56.336	0.170	0.020	2.62	113	1.0	-	2.77	-0.03	94	238	87	84
342	56.503	0.167	0.019	2.63	113	1.0	-	2.75	-0.02	94	238	87	84
343	56.671	0.168	0.020	2.61	113	1.0	-	2.73	-0.02	94	237	87	84
344	56.840	0.169	0.019	2.61	113	1.0	-	2.71	-0.02	94	238	87	84
345	57.006	0.166	0.020	2.61	113	1.0	-	2.68	-0.03	94	238	87	84
346	57.176	0.170	0.020	2.62	113	1.0	-	2.66	-0.02	94	238	87	84
347	57.346	0.170	0.020	2.61	113	1.0	-	2.63	-0.03	94	237	87	84
348	57.512	0.166	0.019	2.61	113	1.0	-	2.60	-0.03	94	237	87	84
349	57.679	0.167	0.020	2.61	113	1.0	-	2.58	-0.02	94	238	87	84
350	57.851	0.172	0.019	2.60	113	1.0	100	2.56	-0.02	94	237	87	84
351	58.018	0.167	0.019	2.60	113	1.0	-	2.54	-0.02	94	237	87	84

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
352	58.184	0.166	0.019	2.61	113	1.0	-	2.51	-0.03	94	236	87	84
353	58.355	0.171	0.020	2.61	113	1.0	-	2.49	-0.02	94	236	87	84
354	58.524	0.169	0.019	2.61	113	1.0	-	2.46	-0.03	94	235	87	84
355	58.689	0.165	0.020	2.60	113	1.0	-	2.44	-0.02	94	235	87	84
356	58.859	0.170	0.020	2.63	113	1.0	-	2.42	-0.02	94	235	87	84
357	59.029	0.170	0.019	2.62	113	1.0	-	2.39	-0.03	94	235	87	84
358	59.194	0.165	0.020	2.62	113	1.0	-	2.37	-0.02	94	234	87	84
359	59.363	0.169	0.019	2.61	113	1.0	-	2.34	-0.03	94	234	87	84
360	59.533	0.170	0.020	2.61	113	1.0	100	2.32	-0.02	94	234	87	84
361	59.700	0.167	0.020	2.61	113	1.0	-	2.30	-0.02	94	233	87	84
362	59.869	0.169	0.019	2.60	113	1.0	-	2.27	-0.03	94	232	87	84
363	60.037	0.168	0.019	2.61	113	1.0	-	2.26	-0.01	94	232	87	84
364	60.203	0.166	0.019	2.60	113	1.0	-	2.23	-0.03	94	233	87	84
365	60.373	0.170	0.019	2.61	113	1.0	-	2.21	-0.02	94	232	87	83
366	60.543	0.170	0.019	2.60	113	1.0	-	2.18	-0.03	94	232	87	84
367	60.708	0.165	0.020	2.60	113	1.0	-	2.16	-0.02	94	232	87	83
368	60.876	0.168	0.019	2.61	113	1.0	-	2.13	-0.03	94	232	87	83
369	61.048	0.172	0.019	2.60	113	1.0	-	2.11	-0.02	94	232	87	83
370	61.214	0.166	0.019	2.61	113	1.0	100	2.09	-0.02	94	232	87	84
371	61.380	0.166	0.019	2.61	113	1.0	-	2.07	-0.02	94	231	87	83
372	61.552	0.172	0.020	2.62	113	1.0	-	2.04	-0.03	94	232	87	83
373	61.720	0.168	0.020	2.61	113	1.0	-	2.02	-0.02	94	232	87	83
374	61.885	0.165	0.020	2.61	113	1.0	-	1.99	-0.03	94	232	87	84
375	62.056	0.171	0.020	2.61	113	1.0	-	1.97	-0.02	94	232	87	83
376	62.226	0.170	0.019	2.61	113	1.0	-	1.94	-0.03	94	231	87	83
377	62.391	0.165	0.020	2.61	113	1.0	-	1.93	-0.01	94	232	87	84
378	62.559	0.168	0.020	2.61	113	1.0	-	1.90	-0.03	94	231	87	83
379	62.729	0.170	0.019	2.62	113	0.9	-	1.88	-0.02	94	231	87	83
380	62.896	0.167	0.019	2.62	113	1.0	101	1.86	-0.02	94	231	87	83
381	63.065	0.169	0.019	2.61	113	1.0	-	1.83	-0.03	94	231	87	83
382	63.234	0.169	0.020	2.61	113	1.0	-	1.80	-0.03	94	231	87	83
383	63.400	0.166	0.019	2.61	113	1.0	-	1.79	-0.01	94	231	87	83

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
384	63.570	0.170	0.019	2.61	113	1.0	-	1.77	-0.02	94	231	87	83
385	63.740	0.170	0.019	2.60	113	1.0	-	1.75	-0.02	94	232	87	83
386	63.905	0.165	0.020	2.61	113	1.0	-	1.72	-0.03	94	231	87	83
387	64.074	0.169	0.020	2.62	113	1.0	-	1.70	-0.02	94	231	87	83
388	64.245	0.171	0.019	2.61	113	1.0	-	1.68	-0.02	94	231	87	83
389	64.411	0.166	0.020	2.61	113	1.0	-	1.66	-0.02	94	230	87	83
390	64.578	0.167	0.019	2.62	113	1.0	101	1.63	-0.03	94	231	87	84
391	64.749	0.171	0.020	2.62	113	1.0	-	1.61	-0.02	94	230	87	83
392	64.917	0.168	0.020	2.61	113	1.0	-	1.59	-0.02	94	230	87	83
393	65.082	0.165	0.019	2.60	113	1.0	-	1.57	-0.02	94	230	87	83
394	65.253	0.171	0.020	2.62	113	1.0	-	1.55	-0.02	94	230	87	83
395	65.423	0.170	0.019	2.61	113	1.0	-	1.52	-0.03	94	231	87	83
396	65.588	0.165	0.019	2.60	113	1.0	-	1.49	-0.03	94	231	87	83
397	65.757	0.169	0.019	2.61	113	1.0	-	1.47	-0.02	94	231	87	83
398	65.927	0.170	0.020	2.62	113	1.0	-	1.45	-0.02	94	231	87	83
399	66.093	0.166	0.020	2.61	113	1.0	-	1.43	-0.02	94	230	87	83
400	66.262	0.169	0.020	2.61	113	1.0	100	1.41	-0.02	94	230	87	83
401	66.431	0.169	0.019	2.61	113	1.0	-	1.38	-0.03	94	230	87	83
402	66.598	0.167	0.019	2.62	113	1.0	-	1.37	-0.01	94	230	87	83
403	66.767	0.169	0.020	2.61	113	1.0	-	1.34	-0.03	94	229	87	83
404	66.937	0.170	0.020	2.60	113	1.0	-	1.32	-0.02	94	229	87	83
405	67.102	0.165	0.019	2.61	113	1.0	-	1.30	-0.02	94	229	87	83
406	67.271	0.169	0.020	2.62	113	1.0	-	1.28	-0.02	94	229	87	83
407	67.442	0.171	0.020	2.62	113	1.0	-	1.26	-0.02	94	229	87	83
408	67.608	0.166	0.020	2.61	113	1.0	-	1.23	-0.03	94	230	87	83
409	67.775	0.167	0.020	2.62	113	1.0	-	1.21	-0.02	93	229	87	83
410	67.947	0.172	0.019	2.61	113	1.0	100	1.19	-0.02	94	229	87	83
411	68.114	0.167	0.019	2.61	113	1.0	-	1.17	-0.02	93	229	87	83
412	68.279	0.165	0.020	2.60	113	1.0	-	1.14	-0.03	93	230	86	83
413	68.450	0.171	0.020	2.61	113	1.0	-	1.12	-0.02	93	229	87	83
414	68.619	0.169	0.020	2.61	113	1.0	-	1.10	-0.02	93	229	86	83
415	68.784	0.165	0.020	2.61	113	1.0	-	1.09	-0.01	93	229	87	83

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
416	68.954	0.170	0.019	2.61	113	1.0	-	1.06	-0.03	93	229	86	83
417	69.124	0.170	0.019	2.60	113	1.0	-	1.04	-0.02	93	229	87	83
418	69.290	0.166	0.019	2.61	113	1.0	-	1.02	-0.02	93	229	87	83
419	69.459	0.169	0.019	2.60	113	1.0	-	0.99	-0.03	93	229	87	83
420	69.628	0.169	0.019	2.62	113	1.0	101	0.98	-0.01	93	229	86	83
421	69.795	0.167	0.020	2.61	113	1.0	-	0.95	-0.03	93	229	87	83
422	69.964	0.169	0.020	2.61	113	1.0	-	0.93	-0.02	93	229	87	83
423	70.133	0.169	0.020	2.61	113	1.0	-	0.91	-0.02	93	229	87	83
424	70.300	0.167	0.020	2.61	113	1.0	-	0.89	-0.02	93	229	86	83
425	70.469	0.169	0.020	2.61	113	1.0	-	0.86	-0.03	93	228	87	83
426	70.639	0.170	0.019	2.61	113	1.0	-	0.85	-0.01	93	228	86	83
427	70.805	0.166	0.019	2.60	113	1.0	-	0.83	-0.02	93	229	87	83
428	70.972	0.167	0.020	2.62	113	1.0	-	0.80	-0.03	93	229	86	83
429	71.144	0.172	0.020	2.60	113	1.0	-	0.79	-0.01	93	229	86	83
430	71.312	0.168	0.020	2.60	113	1.0	100	0.76	-0.03	93	229	86	83
431	71.477	0.165	0.020	2.60	113	1.0	-	0.74	-0.02	93	229	86	83
432	71.648	0.171	0.019	2.61	113	1.0	-	0.72	-0.02	93	229	86	83
433	71.818	0.170	0.019	2.61	113	1.0	-	0.70	-0.02	93	228	86	83
434	71.983	0.165	0.019	2.61	113	1.0	-	0.68	-0.02	93	228	86	83
435	72.152	0.169	0.020	2.61	113	1.0	-	0.66	-0.02	93	228	86	83
436	72.322	0.170	0.020	2.61	113	1.0	-	0.63	-0.03	93	229	86	83
437	72.488	0.166	0.019	2.61	113	1.0	-	0.62	-0.01	93	229	86	83
438	72.657	0.169	0.020	2.60	113	1.0	-	0.60	-0.02	93	228	86	83
439	72.827	0.170	0.019	2.61	113	1.0	-	0.57	-0.03	93	228	86	83
440	72.993	0.166	0.019	2.61	113	1.0	100	0.55	-0.02	93	228	86	83
441	73.162	0.169	0.020	2.61	113	1.0	-	0.53	-0.02	93	228	86	83
442	73.332	0.170	0.019	2.60	113	1.0	-	0.51	-0.02	93	228	86	83
443	73.498	0.166	0.020	2.61	113	1.0	-	0.49	-0.02	93	228	86	83
444	73.667	0.169	0.020	2.61	113	1.0	-	0.47	-0.02	93	229	86	83
445	73.837	0.170	0.019	2.61	113	1.0	-	0.45	-0.02	93	229	86	83
446	74.003	0.166	0.019	2.61	113	1.0	-	0.44	-0.01	93	229	86	83
447	74.171	0.168	0.020	2.61	113	1.0	-	0.41	-0.03	93	229	86	83

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
448	74.342	0.171	0.019	2.61	113	1.0	-	0.39	-0.02	93	229	86	83
449	74.510	0.168	0.019	2.61	113	1.0	-	0.37	-0.02	93	230	86	83
450	74.675	0.165	0.019	2.60	113	1.0	101	0.35	-0.02	93	229	86	83
451	74.846	0.171	0.019	2.61	113	1.0	-	0.33	-0.02	93	230	86	83
452	75.016	0.170	0.019	2.60	113	1.0	-	0.31	-0.02	93	229	86	83
453	75.181	0.165	0.019	2.61	113	1.0	-	0.29	-0.02	93	230	86	83
454	75.350	0.169	0.019	2.61	113	1.0	-	0.27	-0.02	93	231	86	83
455	75.520	0.170	0.019	2.62	113	1.0	-	0.26	-0.01	93	230	86	83
456	75.686	0.166	0.019	2.61	113	1.0	-	0.24	-0.02	93	231	86	83
457	75.855	0.169	0.019	2.60	113	1.0	-	0.21	-0.03	93	231	86	83
458	76.025	0.170	0.019	2.61	113	1.0	-	0.20	-0.01	93	231	86	83
459	76.191	0.166	0.019	2.61	113	1.0	-	0.17	-0.03	93	231	86	83
460	76.360	0.169	0.019	2.61	113	1.0	101	0.16	-0.01	93	231	86	83
461	76.530	0.170	0.019	2.60	113	1.0	-	0.14	-0.02	93	231	86	83
462	76.696	0.166	0.019	2.61	113	1.0	-	0.12	-0.02	93	231	86	83
463	76.865	0.169	0.019	2.62	113	1.0	-	0.10	-0.02	93	231	86	83
464	77.035	0.170	0.019	2.61	113	1.0	-	0.08	-0.02	93	231	86	83
465	77.201	0.166	0.019	2.61	113	1.0	-	0.07	-0.01	93	231	86	83
466	77.368	0.167	0.019	2.60	113	1.0	-	0.04	-0.03	93	232	86	83
467	77.540	0.172	0.019	2.61	113	1.0	-	0.02	-0.02	93	232	86	83
468	77.707	0.167	0.019	2.61	113	1.0	101	0.00	-0.02	93	231	86	83
Avg/Tot	77.707	0.166	0.019	2.58	106.6	1.0	100			96.6	298.1	86.6	82.6

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
0	0.000		0.19	79	1.1		77	-0.064	4.29	0.117
1	0.145	0.145	2.43	79	1.9	-	80	-0.067	2.89	0.141
2	0.298	0.153	2.44	79	2.0	-	80	-0.067	8.56	0.033
3	0.454	0.156	2.44	79	1.5	-	80	-0.062	11.00	0.025
4	0.606	0.152	2.45	79	1.7	-	80	-0.064	10.77	0.020
5	0.762	0.156	2.44	79	1.6	-	80	-0.061	10.89	0.018
6	0.916	0.154	2.45	79	1.7	-	80	-0.062	11.10	0.019
7	1.070	0.154	2.45	79	1.6	-	80	-0.062	10.62	0.027
8	1.226	0.156	2.45	79	2.1	-	80	-0.061	10.52	0.020
9	1.378	0.152	2.44	79	1.8	-	81	-0.061	10.14	0.020
10	1.535	0.157	2.45	80	1.5	100	81	-0.063	11.02	0.018
11	1.687	0.152	2.45	80	1.5	-	81	-0.063	10.52	0.026
12	1.845	0.158	2.45	80	1.5	-	81	-0.060	10.09	0.031
13	1.997	0.152	2.45	80	1.5	-	81	-0.064	9.63	0.027
14	2.152	0.155	2.45	80	1.5	-	81	-0.061	9.69	0.025
15	2.308	0.156	2.46	81	1.6	-	81	-0.061	11.40	0.022
16	2.463	0.155	2.46	81	2.0	-	81	-0.060	11.47	0.016
17	2.618	0.155	2.45	81	1.7	-	81	-0.059	9.74	0.018
18	2.771	0.153	2.45	82	1.6	-	81	-0.058	8.81	0.018
19	2.929	0.158	2.46	82	1.8	-	81	-0.057	8.30	0.023
20	3.083	0.154	2.46	82	1.6	100	81	-0.056	8.17	0.023
21	3.239	0.156	2.45	83	1.7	-	81	-0.056	8.26	0.025
22	3.394	0.155	2.47	83	1.6	-	81	-0.058	8.52	0.029
23	3.550	0.156	2.46	83	1.7	-	81	-0.057	8.95	0.027
24	3.706	0.156	2.46	84	1.6	-	81	-0.057	9.15	0.025
25	3.859	0.153	2.45	84	1.7	-	81	-0.058	10.03	0.024
26	4.019	0.160	2.47	84	1.7	-	81	-0.056	9.87	0.024
27	4.173	0.154	2.47	85	1.6	-	81	-0.057	10.26	0.027
28	4.330	0.157	2.46	85	1.9	-	81	-0.055	10.98	0.018
29	4.485	0.155	2.47	85	1.6	-	81	-0.056	11.66	0.019
30	4.642	0.157	2.47	86	1.9	100	81	-0.059	12.32	0.020
31	4.799	0.157	2.47	86	1.9	-	81	-0.055	12.42	0.023

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
32	4.953	0.154	2.47	86	1.9	-	81	-0.057	12.79	0.022
33	5.113	0.160	2.47	87	2.0	-	81	-0.059	12.63	0.021
34	5.267	0.154	2.48	87	1.6	-	81	-0.058	12.46	0.029
35	5.425	0.158	2.48	87	1.6	-	81	-0.059	12.43	0.023
36	5.582	0.157	2.47	88	1.7	-	82	-0.058	12.58	0.026
37	5.738	0.156	2.47	88	2.0	-	81	-0.059	12.81	0.024
38	5.897	0.159	2.48	89	1.9	-	82	-0.058	12.97	0.020
39	6.052	0.155	2.48	89	1.9	-	82	-0.059	13.47	0.021
40	6.211	0.159	2.48	89	1.9	102	82	-0.061	14.09	0.025
41	6.367	0.156	2.48	89	1.7	-	82	-0.060	14.38	0.025
42	6.525	0.158	2.48	90	1.5	-	82	-0.061	14.34	0.029
43	6.684	0.159	2.48	90	1.6	-	82	-0.062	14.13	0.034
44	6.839	0.155	2.48	90	1.9	-	82	-0.062	13.72	0.034
45	7.000	0.161	2.49	91	1.8	-	82	-0.061	13.36	0.033
46	7.155	0.155	2.48	91	1.7	-	82	-0.060	12.80	0.034
47	7.314	0.159	2.49	91	1.8	-	82	-0.062	12.54	0.031
48	7.473	0.159	2.49	92	2.0	-	82	-0.059	12.42	0.033
49	7.628	0.155	2.48	92	1.9	-	82	-0.063	12.51	0.027
50	7.789	0.161	2.49	92	2.0	102	82	-0.065	12.58	0.025
51	7.945	0.156	2.49	93	1.6	-	82	-0.063	12.77	0.016
52	8.105	0.160	2.49	93	1.7	-	82	-0.062	12.53	0.014
53	8.264	0.159	2.49	93	1.6	-	82	-0.058	11.93	0.017
54	8.420	0.156	2.48	93	1.8	-	82	-0.060	11.89	0.014
55	8.581	0.161	2.49	94	1.7	-	82	-0.061	11.71	0.012
56	8.737	0.156	2.49	94	1.8	-	82	-0.059	12.06	0.012
57	8.897	0.160	2.49	94	1.7	-	82	-0.059	12.08	0.014
58	9.057	0.160	2.50	95	2.0	-	83	-0.059	12.23	0.016
59	9.212	0.155	2.49	95	1.8	-	83	-0.058	12.20	0.013
60	9.374	0.162	2.49	95	1.9	100	83	-0.058	12.28	0.016
61	9.530	0.156	2.49	95	1.6	-	83	-0.057	12.48	0.014
62	9.690	0.160	2.50	96	1.5	-	83	-0.059	12.60	0.017
63	9.850	0.160	2.50	96	1.9	-	83	-0.059	12.59	0.021

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
64	10.006	0.156	2.49	96	1.7	-	83	-0.059	12.67	0.021
65	10.168	0.162	2.50	96	1.8	-	83	-0.059	12.75	0.020
66	10.324	0.156	2.50	97	1.6	-	83	-0.062	12.79	0.019
67	10.484	0.160	2.50	97	1.6	-	83	-0.060	13.05	0.023
68	10.644	0.160	2.50	97	1.8	-	83	-0.060	13.27	0.026
69	10.801	0.157	2.49	97	1.7	-	83	-0.060	13.50	0.030
70	10.963	0.162	2.50	98	1.6	99	83	-0.061	13.72	0.033
71	11.119	0.156	2.50	98	2.0	-	83	-0.064	13.75	0.030
72	11.280	0.161	2.51	98	1.6	-	83	-0.063	13.85	0.034
73	11.440	0.160	2.50	98	1.6	-	84	-0.062	14.03	0.032
74	11.597	0.157	2.50	98	1.5	-	84	-0.061	14.17	0.032
75	11.759	0.162	2.51	99	1.6	-	84	-0.064	14.31	0.038
76	11.916	0.157	2.50	99	1.7	-	84	-0.061	14.36	0.034
77	12.077	0.161	2.51	99	1.8	-	84	-0.062	14.40	0.034
78	12.237	0.160	2.50	99	1.7	-	84	-0.064	14.47	0.029
79	12.395	0.158	2.51	99	1.5	-	84	-0.063	14.59	0.037
80	12.556	0.161	2.51	100	1.6	99	84	-0.064	14.48	0.038
81	12.716	0.160	2.51	100	1.5	-	84	-0.063	14.45	0.039
82	12.875	0.159	2.51	100	1.9	-	84	-0.061	14.23	0.031
83	13.037	0.162	2.51	100	1.6	-	84	-0.061	13.97	0.032
84	13.194	0.157	2.50	100	2.0	-	84	-0.063	13.74	0.027
85	13.354	0.160	2.50	101	1.7	-	84	-0.060	13.56	0.029
86	13.515	0.161	2.50	101	1.6	-	84	-0.064	13.59	0.027
87	13.673	0.158	2.50	101	1.9	-	84	-0.061	13.36	0.027
88	13.836	0.163	2.50	101	1.6	-	85	-0.065	13.32	0.022
89	13.993	0.157	2.50	101	1.6	-	85	-0.062	13.29	0.023
90	14.155	0.162	2.50	101	1.6	99	85	-0.063	13.37	0.026
91	14.314	0.159	2.51	102	1.6	-	85	-0.059	13.41	0.040
92	14.473	0.159	2.51	102	1.6	-	85	-0.063	13.33	0.033
93	14.635	0.162	2.51	102	1.7	-	85	-0.064	13.47	0.025
94	14.793	0.158	2.51	102	1.6	-	85	-0.062	13.55	0.028
95	14.955	0.162	2.51	102	1.8	-	85	-0.063	13.80	0.034

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
96	15.115	0.160	2.51	102	1.6	-	85	-0.062	13.95	0.030
97	15.274	0.159	2.50	103	1.6	-	85	-0.063	14.12	0.034
98	15.435	0.161	2.51	103	1.8	-	85	-0.063	14.39	0.051
99	15.596	0.161	2.50	103	2.0	-	85	-0.060	14.46	0.061
100	15.755	0.159	2.50	103	1.7	100	85	-0.062	14.72	0.091
101	15.917	0.162	2.51	103	1.6	-	85	-0.060	14.88	0.127
102	16.075	0.158	2.51	103	1.9	-	85	-0.066	15.13	0.220
103	16.237	0.162	2.50	103	1.9	-	85	-0.063	15.32	0.292
104	16.397	0.160	2.51	103	1.7	-	85	-0.064	15.50	0.489
105	16.556	0.159	2.50	104	1.9	-	85	-0.066	15.50	0.731
106	16.718	0.162	2.51	104	1.6	-	86	-0.066	15.55	1.041
107	16.878	0.160	2.50	104	1.6	-	86	-0.065	15.76	0.916
108	17.038	0.160	2.51	104	1.9	-	86	-0.064	15.64	1.350
109	17.200	0.162	2.51	104	1.6	-	86	-0.067	15.32	1.768
110	17.359	0.159	2.50	104	2.0	101	86	-0.064	15.25	2.059
111	17.520	0.161	2.50	104	1.9	-	86	-0.066	14.93	2.131
112	17.682	0.162	2.51	105	1.7	-	86	-0.068	14.98	2.446
113	17.840	0.158	2.50	105	2.0	-	86	-0.065	14.69	2.627
114	18.004	0.164	2.51	105	2.0	-	86	-0.067	14.80	2.728
115	18.161	0.157	2.50	105	1.8	-	87	-0.068	14.74	2.719
116	18.323	0.162	2.51	105	1.6	-	87	-0.063	14.85	2.643
117	18.484	0.161	2.50	105	1.7	-	87	-0.065	15.03	2.356
118	18.643	0.159	2.50	105	1.6	-	87	-0.061	15.24	1.827
119	18.805	0.162	2.51	105	1.8	-	87	-0.065	15.35	1.421
120	18.966	0.161	2.50	105	1.7	102	87	-0.062	15.36	1.199
121	19.125	0.159	2.50	105	1.8	-	87	-0.067	15.42	1.077
122	19.288	0.163	2.51	106	1.6	-	87	-0.065	15.49	1.017
123	19.447	0.159	2.51	106	1.9	-	87	-0.064	15.44	1.041
124	19.609	0.162	2.50	106	1.6	-	87	-0.063	15.40	1.117
125	19.770	0.161	2.51	106	1.6	-	87	-0.064	15.44	1.217
126	19.929	0.159	2.50	106	1.8	-	87	-0.066	15.31	1.340
127	20.091	0.162	2.51	106	1.7	-	87	-0.067	15.27	1.403

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
128	20.252	0.161	2.51	106	1.9	-	87	-0.063	15.33	1.516
129	20.411	0.159	2.51	106	1.7	-	87	-0.065	15.21	1.646
130	20.575	0.164	2.50	106	1.7	102	87	-0.065	15.23	1.813
131	20.733	0.158	2.50	106	1.7	-	88	-0.063	15.25	1.952
132	20.896	0.163	2.51	106	1.7	-	88	-0.067	15.19	2.132
133	21.056	0.160	2.50	106	1.7	-	88	-0.062	15.24	2.224
134	21.216	0.160	2.50	107	1.7	-	88	-0.065	15.47	1.607
135	21.378	0.162	2.51	107	1.9	-	88	-0.061	15.45	1.269
136	21.539	0.161	2.50	107	1.9	-	88	-0.068	15.53	0.902
137	21.699	0.160	2.50	107	2.0	-	88	-0.063	15.38	0.726
138	21.862	0.163	2.50	107	1.7	-	88	-0.062	15.29	0.594
139	22.020	0.158	2.50	107	1.6	-	88	-0.062	15.23	0.464
140	22.183	0.163	2.50	107	1.6	101	88	-0.062	15.08	0.199
141	22.344	0.161	2.50	107	1.7	-	88	-0.062	14.98	0.338
142	22.504	0.160	2.50	107	2.0	-	88	-0.061	15.24	0.561
143	22.666	0.162	2.50	107	1.9	-	88	-0.066	15.03	0.794
144	22.826	0.160	2.51	107	1.7	-	88	-0.064	14.98	0.939
145	22.987	0.161	2.50	107	1.9	-	88	-0.065	14.77	1.031
146	23.150	0.163	2.50	107	1.7	-	88	-0.063	14.86	1.034
147	23.309	0.159	2.51	107	1.7	-	88	-0.060	14.90	0.875
148	23.471	0.162	2.50	107	1.9	-	88	-0.063	14.94	0.840
149	23.633	0.162	2.51	107	1.7	-	88	-0.063	14.79	0.773
150	23.792	0.159	2.50	107	1.7	101	88	-0.062	14.96	0.700
151	23.955	0.163	2.51	107	1.8	-	88	-0.060	14.84	0.671
152	24.115	0.160	2.50	108	1.9	-	88	-0.062	14.76	0.629
153	24.276	0.161	2.50	108	1.7	-	88	-0.060	14.88	0.584
154	24.439	0.163	2.50	108	1.7	-	88	-0.064	14.76	0.536
155	24.597	0.158	2.50	108	1.8	-	88	-0.063	14.91	0.633
156	24.760	0.163	2.50	108	1.7	-	88	-0.064	15.00	0.558
157	24.921	0.161	2.50	108	1.6	-	88	-0.059	15.01	0.596
158	25.081	0.160	2.51	108	2.0	-	88	-0.064	14.72	0.555
159	25.244	0.163	2.51	108	1.7	-	88	-0.062	14.70	0.556

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
160	25.404	0.160	2.51	108	1.6	101	88	-0.060	14.64	0.540
161	25.565	0.161	2.51	108	1.6	-	88	-0.061	14.71	0.595
162	25.729	0.164	2.51	108	1.6	-	88	-0.065	14.76	0.687
163	25.887	0.158	2.51	108	1.6	-	88	-0.059	14.75	0.712
164	26.050	0.163	2.51	108	1.8	-	88	-0.062	14.75	0.764
165	26.212	0.162	2.51	108	1.9	-	88	-0.062	14.53	0.822
166	26.372	0.160	2.51	108	1.9	-	88	-0.059	14.50	0.866
167	26.534	0.162	2.51	108	1.8	-	88	-0.061	14.64	0.773
168	26.696	0.162	2.51	108	1.9	-	88	-0.064	14.64	0.814
169	26.856	0.160	2.51	108	1.9	-	88	-0.059	14.61	0.733
170	27.020	0.164	2.51	108	1.7	102	89	-0.063	14.61	0.696
171	27.179	0.159	2.51	109	1.8	-	89	-0.061	14.54	0.690
172	27.341	0.162	2.51	109	2.0	-	89	-0.063	14.55	0.718
173	27.503	0.162	2.51	109	1.6	-	89	-0.061	14.67	0.807
174	27.663	0.160	2.50	109	2.0	-	89	-0.061	14.61	0.909
175	27.826	0.163	2.51	109	1.6	-	89	-0.061	14.62	0.978
176	27.987	0.161	2.50	109	1.8	-	89	-0.060	14.59	0.982
177	28.147	0.160	2.51	109	1.7	-	89	-0.061	14.64	1.045
178	28.311	0.164	2.50	109	1.9	-	89	-0.062	14.57	1.046
179	28.470	0.159	2.51	109	1.7	-	89	-0.059	14.72	1.089
180	28.633	0.163	2.50	109	1.9	100	89	-0.064	14.63	1.192
181	28.794	0.161	2.51	109	1.6	-	89	-0.062	14.65	1.157
182	28.955	0.161	2.50	109	1.9	-	89	-0.060	14.58	1.111
183	29.117	0.162	2.50	109	1.9	-	89	-0.064	14.66	0.968
184	29.279	0.162	2.51	109	1.8	-	89	-0.060	14.54	0.828
185	29.438	0.159	2.51	109	1.6	-	89	-0.062	14.53	0.769
186	29.603	0.165	2.51	109	1.7	-	89	-0.063	14.41	0.670
187	29.761	0.158	2.50	109	1.6	-	89	-0.063	14.20	0.455
188	29.924	0.163	2.51	109	1.9	-	89	-0.060	14.29	0.352
189	30.086	0.162	2.51	109	1.9	-	89	-0.061	14.12	0.299
190	30.246	0.160	2.51	109	2.0	100	89	-0.064	14.01	0.250
191	30.408	0.162	2.51	109	1.6	-	89	-0.061	14.09	0.243

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
192	30.571	0.163	2.51	109	1.8	-	89	-0.062	14.00	0.189
193	30.730	0.159	2.50	109	1.9	-	89	-0.063	13.95	0.143
194	30.894	0.164	2.51	109	2.0	-	89	-0.060	14.01	0.152
195	31.054	0.160	2.50	109	1.6	-	89	-0.060	13.93	0.127
196	31.215	0.161	2.51	109	2.0	-	89	-0.061	13.61	0.117
197	31.378	0.163	2.51	109	1.6	-	89	-0.058	13.41	0.079
198	31.537	0.159	2.50	109	1.6	-	89	-0.058	13.29	0.070
199	31.700	0.163	2.50	109	1.6	-	89	-0.064	13.18	0.068
200	31.862	0.162	2.50	109	1.6	101	89	-0.060	13.11	0.049
201	32.022	0.160	2.50	110	1.8	-	89	-0.057	13.07	0.042
202	32.185	0.163	2.50	110	1.9	-	89	-0.059	13.03	0.037
203	32.346	0.161	2.51	110	1.6	-	89	-0.059	12.90	0.021
204	32.507	0.161	2.50	110	1.9	-	89	-0.056	12.84	0.014
205	32.671	0.164	2.50	110	1.7	-	89	-0.058	12.83	0.013
206	32.830	0.159	2.51	110	2.0	-	89	-0.058	12.83	0.005
207	32.992	0.162	2.51	110	1.6	-	89	-0.057	12.78	0.011
208	33.155	0.163	2.51	110	1.7	-	89	-0.059	12.76	0.012
209	33.315	0.160	2.50	110	1.6	-	89	-0.056	12.60	0.010
210	33.477	0.162	2.51	110	1.8	101	89	-0.056	12.37	0.012
211	33.639	0.162	2.50	110	2.0	-	89	-0.058	12.29	0.007
212	33.799	0.160	2.51	110	1.8	-	89	-0.055	11.86	0.006
213	33.964	0.165	2.50	110	1.6	-	89	-0.054	11.55	0.007
214	34.122	0.158	2.50	110	1.8	-	89	-0.055	11.50	0.004
215	34.286	0.164	2.51	110	1.6	-	89	-0.057	11.46	0.004
216	34.447	0.161	2.51	110	1.6	-	89	-0.054	11.38	0.005
217	34.608	0.161	2.51	110	1.9	-	89	-0.051	11.39	0.005
218	34.770	0.162	2.51	110	1.6	-	89	-0.056	11.32	0.005
219	34.933	0.163	2.51	110	1.6	-	89	-0.054	11.26	0.005
220	35.093	0.160	2.51	110	2.0	101	89	-0.050	11.23	0.005
221	35.256	0.163	2.51	110	1.7	-	89	-0.056	11.30	0.004
222	35.417	0.161	2.50	110	1.6	-	89	-0.052	11.35	0.005
223	35.578	0.161	2.51	110	1.8	-	89	-0.053	11.31	0.003

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
224	35.742	0.164	2.51	110	1.9	-	89	-0.051	11.38	0.005
225	35.901	0.159	2.51	110	2.0	-	89	-0.055	11.31	0.005
226	36.064	0.163	2.51	110	1.7	-	89	-0.051	11.32	0.005
227	36.226	0.162	2.51	110	2.0	-	89	-0.052	11.22	0.004
228	36.387	0.161	2.51	110	2.0	-	89	-0.053	11.22	0.002
229	36.550	0.163	2.51	110	1.6	-	89	-0.052	11.27	0.004
230	36.711	0.161	2.50	110	1.9	100	89	-0.055	11.54	0.003
231	36.872	0.161	2.51	110	1.6	-	89	-0.049	11.44	0.003
232	37.036	0.164	2.51	110	2.0	-	89	-0.053	11.43	0.002
233	37.195	0.159	2.51	110	1.8	-	89	-0.052	11.35	0.004
234	37.359	0.164	2.51	110	1.9	-	88	-0.049	11.26	0.003
235	37.520	0.161	2.50	110	1.6	-	88	-0.052	11.18	0.004
236	37.681	0.161	2.51	110	1.6	-	88	-0.051	11.14	0.003
237	37.843	0.162	2.51	110	1.7	-	88	-0.051	10.98	0.003
238	38.006	0.163	2.51	110	1.7	-	88	-0.049	10.75	0.002
239	38.166	0.160	2.51	110	1.6	-	88	-0.049	10.70	0.004
240	38.330	0.164	2.51	110	2.0	99	88	-0.049	10.56	0.003
241	38.491	0.161	2.51	110	1.5	-	88	-0.052	10.42	0.001
242	38.652	0.161	2.51	110	1.7	-	88	-0.051	10.09	0.002
243	38.816	0.164	2.51	110	1.5	-	88	-0.050	10.09	0.001
244	38.976	0.160	2.52	110	2.0	-	88	-0.049	9.95	0.002
245	39.139	0.163	2.51	110	2.0	-	88	-0.046	10.02	0.002
246	39.301	0.162	2.51	110	2.0	-	88	-0.047	9.92	0.002
247	39.462	0.161	2.51	110	1.8	-	88	-0.045	9.88	0.002
248	39.625	0.163	2.51	110	1.8	-	88	-0.046	9.90	0.002
249	39.787	0.162	2.51	110	1.8	-	88	-0.047	9.87	0.002
250	39.947	0.160	2.51	111	1.8	98	88	-0.047	9.84	0.001
251	40.112	0.165	2.51	111	1.6	-	88	-0.048	9.80	0.002
252	40.271	0.159	2.51	111	1.9	-	88	-0.046	9.89	0.001
253	40.434	0.163	2.52	111	1.8	-	88	-0.043	9.79	0.000
254	40.598	0.164	2.51	110	1.9	-	88	-0.043	9.83	0.002
255	40.757	0.159	2.51	111	1.5	-	88	-0.043	9.87	0.001

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
256	40.921	0.164	2.52	111	1.6	-	88	-0.046	9.80	0.001
257	41.083	0.162	2.51	111	1.6	-	88	-0.044	9.86	0.002
258	41.244	0.161	2.52	111	2.0	-	88	-0.047	9.85	0.001
259	41.407	0.163	2.52	111	1.6	-	88	-0.046	9.86	0.002
260	41.569	0.162	2.51	111	1.9	99	88	-0.048	9.86	0.002
261	41.730	0.161	2.52	111	1.9	-	88	-0.041	9.84	0.001
262	41.895	0.165	2.51	111	1.5	-	88	-0.046	9.87	0.002
263	42.054	0.159	2.51	111	1.7	-	88	-0.042	9.90	0.001
264	42.218	0.164	2.52	111	1.9	-	88	-0.044	9.88	0.002
265	42.380	0.162	2.52	111	2.0	-	88	-0.045	9.70	0.001
266	42.540	0.160	2.52	111	1.9	-	88	-0.041	9.69	0.001
267	42.704	0.164	2.51	111	2.0	-	88	-0.039	9.71	0.005
268	42.866	0.162	2.52	111	2.0	-	88	-0.039	9.67	0.001
269	43.027	0.161	2.51	111	2.0	-	88	-0.043	9.52	0.003
270	43.190	0.163	2.51	111	1.9	98	88	-0.043	9.48	0.002
271	43.352	0.162	2.52	111	1.8	-	88	-0.044	9.53	0.003
272	43.513	0.161	2.52	111	2.0	-	88	-0.041	9.45	0.003
273	43.678	0.165	2.51	111	1.5	-	87	-0.040	9.52	0.003
274	43.837	0.159	2.52	111	1.8	-	87	-0.040	9.49	0.002
275	44.001	0.164	2.52	111	1.6	-	87	-0.041	9.39	0.001
276	44.163	0.162	2.51	111	1.6	-	87	-0.043	9.48	0.003
277	44.324	0.161	2.52	111	2.0	-	87	-0.040	9.20	0.005
278	44.487	0.163	2.52	111	1.6	-	87	-0.043	9.24	0.001
279	44.650	0.163	2.52	111	2.0	-	87	-0.039	9.08	0.002
280	44.810	0.160	2.51	111	1.6	98	87	-0.043	9.02	0.002
281	44.974	0.164	2.51	111	1.6	-	87	-0.045	9.08	0.002
282	45.136	0.162	2.51	111	1.5	-	87	-0.042	9.09	0.001
283	45.297	0.161	2.52	111	1.5	-	87	-0.040	9.06	0.001
284	45.461	0.164	2.51	111	1.5	-	87	-0.042	9.06	0.004
285	45.621	0.160	2.51	111	2.0	-	87	-0.044	9.21	0.003
286	45.785	0.164	2.51	111	1.6	-	87	-0.040	9.05	0.003
287	45.947	0.162	2.51	111	1.8	-	87	-0.038	9.01	0.002

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
288	46.108	0.161	2.52	111	1.6	-	87	-0.039	9.06	0.002
289	46.271	0.163	2.52	111	1.5	-	87	-0.038	9.04	0.003
290	46.434	0.163	2.52	111	1.7	98	87	-0.040	9.02	0.001
291	46.594	0.160	2.51	111	1.6	-	87	-0.039	9.04	0.003
292	46.758	0.164	2.51	111	2.0	-	87	-0.041	8.99	0.002
293	46.920	0.162	2.51	111	1.6	-	87	-0.040	8.97	0.002
294	47.081	0.161	2.51	111	1.8	-	87	-0.041	9.01	0.001
295	47.245	0.164	2.51	111	2.0	-	87	-0.041	8.92	0.001
296	47.405	0.160	2.51	111	1.7	-	87	-0.041	8.95	0.002
297	47.568	0.163	2.51	111	1.8	-	87	-0.039	9.06	0.001
298	47.731	0.163	2.51	111	1.7	-	87	-0.039	9.00	0.002
299	47.892	0.161	2.51	111	1.6	-	87	-0.038	9.07	0.001
300	48.054	0.162	2.51	112	1.6	98	87	-0.039	9.17	0.003
301	48.218	0.164	2.52	111	1.8	-	87	-0.040	9.02	0.004
302	48.378	0.160	2.51	112	1.9	-	87	-0.040	9.09	0.000
303	48.542	0.164	2.51	111	1.7	-	87	-0.040	9.08	0.003
304	48.703	0.161	2.51	112	1.5	-	87	-0.038	9.08	0.001
305	48.865	0.162	2.52	112	1.6	-	87	-0.036	9.10	0.005
306	49.029	0.164	2.51	112	1.6	-	87	-0.041	9.18	0.004
307	49.189	0.160	2.52	112	1.5	-	87	-0.039	9.12	0.005
308	49.353	0.164	2.51	112	1.7	-	87	-0.035	9.17	0.003
309	49.515	0.162	2.51	112	1.7	-	87	-0.036	9.10	0.003
310	49.676	0.161	2.52	112	1.8	98	87	-0.039	9.07	0.002
311	49.839	0.163	2.51	112	1.7	-	87	-0.042	9.12	0.003
312	50.002	0.163	2.51	112	1.7	-	87	-0.038	9.13	0.003
313	50.163	0.161	2.51	112	1.6	-	87	-0.035	9.18	0.003
314	50.326	0.163	2.51	112	1.8	-	87	-0.037	9.15	0.002
315	50.488	0.162	2.52	112	2.0	-	87	-0.043	9.20	0.002
316	50.649	0.161	2.52	112	1.8	-	87	-0.041	9.13	0.005
317	50.814	0.165	2.51	112	1.6	-	86	-0.036	9.09	0.002
318	50.973	0.159	2.52	112	1.6	-	86	-0.038	9.08	0.002
319	51.137	0.164	2.51	112	1.9	-	86	-0.037	9.06	0.002

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
320	51.299	0.162	2.51	112	1.6	98	86	-0.038	9.07	0.005
321	51.461	0.162	2.51	112	1.9	-	86	-0.039	9.05	0.002
322	51.623	0.162	2.52	112	1.6	-	86	-0.039	9.02	0.003
323	51.787	0.164	2.52	112	1.7	-	86	-0.040	9.05	0.005
324	51.947	0.160	2.51	112	1.6	-	86	-0.037	9.01	0.004
325	52.111	0.164	2.52	112	1.6	-	86	-0.043	8.96	0.002
326	52.273	0.162	2.52	112	1.8	-	86	-0.038	9.03	0.004
327	52.434	0.161	2.52	112	1.6	-	86	-0.041	9.07	0.002
328	52.599	0.165	2.51	112	1.6	-	86	-0.040	9.14	0.003
329	52.758	0.159	2.51	112	1.5	-	86	-0.038	9.08	0.004
330	52.922	0.164	2.51	112	1.7	99	86	-0.039	9.13	0.003
331	53.084	0.162	2.51	112	1.6	-	86	-0.042	9.18	0.004
332	53.246	0.162	2.51	112	1.6	-	86	-0.044	9.17	0.006
333	53.408	0.162	2.52	112	1.6	-	86	-0.042	9.23	0.001
334	53.571	0.163	2.52	112	1.7	-	86	-0.042	9.29	0.003
335	53.732	0.161	2.51	112	1.8	-	86	-0.038	9.46	0.003
336	53.896	0.164	2.51	112	1.9	-	86	-0.040	9.43	0.003
337	54.058	0.162	2.52	112	1.5	-	86	-0.037	9.48	0.001
338	54.219	0.161	2.52	112	1.6	-	86	-0.036	9.52	0.001
339	54.384	0.165	2.52	112	1.7	-	86	-0.039	9.48	0.005
340	54.543	0.159	2.52	112	1.8	99	86	-0.036	9.48	0.004
341	54.708	0.165	2.52	112	1.9	-	86	-0.039	9.60	0.003
342	54.870	0.162	2.52	112	1.5	-	86	-0.037	9.57	0.002
343	55.031	0.161	2.52	112	2.0	-	86	-0.038	9.57	0.001
344	55.195	0.164	2.52	112	1.8	-	86	-0.041	9.62	0.002
345	55.357	0.162	2.52	112	1.8	-	86	-0.039	9.64	0.001
346	55.518	0.161	2.52	112	1.6	-	86	-0.041	9.60	0.002
347	55.682	0.164	2.52	112	1.6	-	86	-0.037	9.59	0.003
348	55.844	0.162	2.52	112	2.0	-	86	-0.038	9.65	0.001
349	56.005	0.161	2.52	112	1.8	-	86	-0.038	9.68	0.002
350	56.170	0.165	2.52	112	1.6	100	86	-0.039	9.69	0.004
351	56.330	0.160	2.51	112	1.6	-	86	-0.038	9.61	0.001

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
352	56.494	0.164	2.52	112	1.9	-	86	-0.037	9.68	0.000
353	56.657	0.163	2.52	112	1.6	-	86	-0.038	9.67	0.000
354	56.817	0.160	2.52	112	1.9	-	86	-0.041	9.63	0.002
355	56.981	0.164	2.52	112	1.9	-	86	-0.036	9.69	0.001
356	57.144	0.163	2.52	112	1.5	-	86	-0.036	9.61	0.001
357	57.305	0.161	2.51	112	1.5	-	86	-0.039	9.57	0.001
358	57.468	0.163	2.52	112	1.6	-	86	-0.040	9.63	0.000
359	57.631	0.163	2.51	112	1.6	-	86	-0.038	9.60	0.000
360	57.791	0.160	2.52	112	2.0	99	86	-0.041	9.59	0.000
361	57.957	0.166	2.51	112	1.6	-	86	-0.040	9.55	0.002
362	58.116	0.159	2.52	112	1.5	-	86	-0.040	9.55	0.002
363	58.279	0.163	2.52	112	1.9	-	86	-0.038	9.59	0.002
364	58.443	0.164	2.51	112	1.9	-	86	-0.037	9.63	0.002
365	58.603	0.160	2.51	112	1.9	-	86	-0.036	9.58	0.001
366	58.767	0.164	2.52	112	1.5	-	86	-0.041	9.58	0.001
367	58.930	0.163	2.52	112	1.7	-	86	-0.037	9.51	0.000
368	59.090	0.160	2.51	112	1.8	-	86	-0.040	9.47	0.000
369	59.254	0.164	2.51	112	1.7	-	86	-0.038	9.48	0.001
370	59.416	0.162	2.51	112	1.6	99	86	-0.035	9.48	0.000
371	59.576	0.160	2.51	112	2.0	-	86	-0.036	9.43	0.001
372	59.742	0.166	2.52	112	1.6	-	86	-0.036	9.49	0.002
373	59.902	0.160	2.51	112	1.6	-	86	-0.037	9.48	0.000
374	60.065	0.163	2.52	112	2.0	-	86	-0.034	9.55	0.002
375	60.229	0.164	2.52	112	1.5	-	86	-0.038	9.56	0.001
376	60.388	0.159	2.52	112	1.5	-	86	-0.040	9.57	0.001
377	60.553	0.165	2.52	112	2.0	-	86	-0.040	9.52	0.001
378	60.715	0.162	2.52	112	1.7	-	86	-0.038	9.62	0.000
379	60.876	0.161	2.51	112	1.8	-	86	-0.038	9.53	0.002
380	61.039	0.163	2.51	112	1.7	101	86	-0.036	9.26	0.001
381	61.203	0.164	2.52	112	2.0	-	86	-0.039	9.32	0.002
382	61.363	0.160	2.52	112	2.0	-	86	-0.038	9.31	0.002
383	61.528	0.165	2.52	112	2.0	-	86	-0.036	9.36	0.001

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
384	61.689	0.161	2.51	112	1.5	-	86	-0.036	9.32	0.000
385	61.850	0.161	2.52	112	1.9	-	86	-0.039	9.31	0.001
386	62.015	0.165	2.52	112	1.8	-	86	-0.038	9.33	0.001
387	62.175	0.160	2.52	112	1.6	-	86	-0.036	9.18	0.001
388	62.339	0.164	2.51	112	1.7	-	86	-0.039	9.32	0.001
389	62.501	0.162	2.52	112	1.6	-	86	-0.037	9.37	0.001
390	62.663	0.162	2.52	112	1.7	101	86	-0.035	9.34	0.001
391	62.825	0.162	2.51	112	1.7	-	86	-0.037	9.39	0.001
392	62.989	0.164	2.52	112	1.5	-	86	-0.035	9.38	0.001
393	63.149	0.160	2.52	112	1.6	-	86	-0.038	9.44	0.001
394	63.313	0.164	2.52	112	2.0	-	86	-0.038	9.44	0.000
395	63.475	0.162	2.52	112	2.0	-	86	-0.039	9.34	0.000
396	63.637	0.162	2.52	112	1.6	-	86	-0.040	9.40	0.000
397	63.801	0.164	2.51	112	2.0	-	86	-0.036	9.46	0.000
398	63.961	0.160	2.52	112	2.0	-	86	-0.037	9.44	0.000
399	64.125	0.164	2.52	112	1.6	-	86	-0.039	9.46	0.000
400	64.287	0.162	2.51	112	1.9	99	86	-0.036	9.44	0.000
401	64.449	0.162	2.51	112	1.9	-	86	-0.033	9.48	0.000
402	64.612	0.163	2.52	112	1.6	-	86	-0.036	9.42	0.001
403	64.775	0.163	2.53	112	1.8	-	86	-0.036	9.48	0.000
404	64.935	0.160	2.52	112	2.1	-	86	-0.038	9.52	0.001
405	65.099	0.164	2.52	112	2.0	-	86	-0.038	9.47	0.002
406	65.262	0.163	2.52	112	1.6	-	86	-0.037	9.50	0.001
407	65.423	0.161	2.52	112	1.6	-	86	-0.042	9.49	0.003
408	65.588	0.165	2.51	112	1.7	-	86	-0.036	9.52	0.001
409	65.747	0.159	2.52	112	2.0	-	86	-0.037	9.41	0.001
410	65.912	0.165	2.52	112	1.5	99	86	-0.033	9.40	0.001
411	66.074	0.162	2.52	112	2.0	-	86	-0.039	9.44	0.001
412	66.235	0.161	2.52	112	1.5	-	86	-0.038	9.42	0.002
413	66.398	0.163	2.52	112	1.9	-	86	-0.038	9.45	0.001
414	66.561	0.163	2.52	112	1.9	-	86	-0.038	9.40	0.001
415	66.722	0.161	2.52	112	2.0	-	86	-0.036	9.42	0.001

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
416	66.886	0.164	2.52	112	1.5	-	86	-0.037	9.33	0.001
417	67.048	0.162	2.51	112	2.0	-	86	-0.039	9.38	0.000
418	67.209	0.161	2.52	112	1.9	-	86	-0.036	9.38	0.001
419	67.374	0.165	2.52	112	1.8	-	86	-0.035	9.37	0.000
420	67.533	0.159	2.51	112	2.0	100	86	-0.037	9.41	0.000
421	67.697	0.164	2.52	112	2.0	-	86	-0.039	9.39	0.001
422	67.861	0.164	2.52	112	1.5	-	86	-0.038	9.49	0.001
423	68.021	0.160	2.52	112	1.5	-	86	-0.038	9.42	0.001
424	68.185	0.164	2.52	112	1.5	-	86	-0.037	9.36	0.000
425	68.347	0.162	2.52	112	2.0	-	86	-0.038	9.40	0.000
426	68.508	0.161	2.52	112	2.0	-	86	-0.039	9.38	0.000
427	68.672	0.164	2.52	112	1.9	-	86	-0.036	9.34	0.001
428	68.835	0.163	2.52	112	2.0	-	86	-0.039	9.37	0.001
429	68.995	0.160	2.51	112	2.0	-	86	-0.038	9.39	0.002
430	69.160	0.165	2.52	112	1.5	100	86	-0.038	9.39	0.001
431	69.321	0.161	2.52	112	1.8	-	86	-0.037	9.35	0.000
432	69.483	0.162	2.52	112	1.5	-	86	-0.040	9.38	0.001
433	69.648	0.165	2.52	112	1.6	-	86	-0.032	9.33	0.000
434	69.807	0.159	2.53	112	1.6	-	86	-0.038	9.35	0.000
435	69.971	0.164	2.51	112	2.0	-	86	-0.039	9.43	0.002
436	70.134	0.163	2.52	112	1.5	-	86	-0.036	9.40	0.001
437	70.295	0.161	2.52	112	2.0	-	86	-0.040	9.39	0.000
438	70.458	0.163	2.51	112	1.7	-	85	-0.040	9.34	0.000
439	70.622	0.164	2.52	112	1.9	-	85	-0.037	9.33	0.000
440	70.781	0.159	2.52	112	1.6	99	86	-0.038	9.25	0.001
441	70.946	0.165	2.52	112	1.9	-	85	-0.040	9.14	0.000
442	71.107	0.161	2.51	112	1.5	-	85	-0.038	9.17	0.001
443	71.269	0.162	2.52	112	1.7	-	85	-0.035	9.16	0.000
444	71.434	0.165	2.52	112	1.7	-	85	-0.035	9.14	0.001
445	71.594	0.160	2.52	112	1.6	-	85	-0.039	9.13	0.001
446	71.757	0.163	2.51	112	2.0	-	85	-0.039	9.11	0.001
447	71.920	0.163	2.52	112	1.7	-	85	-0.037	9.05	0.000

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
448	72.081	0.161	2.52	112	2.0	-	86	-0.036	8.79	0.001
449	72.244	0.163	2.52	112	1.6	-	85	-0.037	8.80	0.002
450	72.407	0.163	2.52	112	2.0	101	85	-0.037	8.75	0.000
451	72.568	0.161	2.51	112	1.5	-	85	-0.036	8.75	0.001
452	72.732	0.164	2.52	112	2.0	-	85	-0.038	8.72	0.001
453	72.894	0.162	2.52	112	1.7	-	85	-0.038	8.73	0.002
454	73.055	0.161	2.52	112	1.5	-	85	-0.040	8.74	0.002
455	73.220	0.165	2.52	112	1.5	-	85	-0.038	8.71	0.002
456	73.379	0.159	2.52	112	1.9	-	85	-0.036	8.63	0.002
457	73.543	0.164	2.52	112	2.0	-	85	-0.040	8.63	0.001
458	73.706	0.163	2.51	112	2.0	-	85	-0.038	8.62	0.003
459	73.867	0.161	2.52	112	1.9	-	85	-0.039	8.61	0.001
460	74.031	0.164	2.52	112	2.0	101	85	-0.039	8.57	0.001
461	74.193	0.162	2.52	112	2.0	-	85	-0.037	8.52	0.001
462	74.354	0.161	2.52	112	1.7	-	85	-0.037	8.51	0.001
463	74.518	0.164	2.52	112	2.0	-	85	-0.038	8.52	0.001
464	74.680	0.162	2.52	112	1.6	-	85	-0.039	8.47	0.002
465	74.841	0.161	2.52	112	2.0	-	85	-0.039	8.41	0.003
466	75.006	0.165	2.51	112	1.6	-	85	-0.037	8.27	0.000
467	75.165	0.159	2.52	112	1.7	-	85	-0.038	8.28	0.001
468	75.329	0.164	2.52	112	1.6	101	85	-0.039	8.24	0.000
Avg/Tot	75.329	0.161	2.50	106.1	1.7	100	86.0	-0.050	11.31	0.210

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
0	0.000		0.10	80	0.9		77
1	0.147	0.147	0.99	79	1.6	-	78
2	0.295	0.148	1.00	79	1.7	-	78
3	0.445	0.150	1.01	79	1.8	-	78
4	0.595	0.150	1.02	79	1.7	-	79
5	0.744	0.149	1.03	79	1.8	-	79
6	0.895	0.151	1.03	79	1.7	-	79
7	1.045	0.150	1.03	79	1.8	-	79
8	1.196	0.151	1.03	80	1.6	-	79
9	1.348	0.152	1.03	80	1.8	-	79
10	1.499	0.151	1.04	80	1.8	98	80
11	1.650	0.151	1.03	80	1.7	-	80
12	1.801	0.151	1.03	80	1.8	-	80
13	1.953	0.152	1.03	81	1.7	-	80
14	2.105	0.152	1.03	81	1.9	-	80
15	2.257	0.152	1.03	81	1.7	-	80
16	2.409	0.152	1.03	82	1.7	-	80
17	2.561	0.152	1.04	82	1.7	-	81
18	2.714	0.153	1.04	82	1.8	-	81
19	2.866	0.152	1.04	82	1.7	-	81
20	3.020	0.154	1.05	83	1.8	99	81
21	3.173	0.153	1.05	83	1.9	-	81
22	3.327	0.154	1.05	83	1.7	-	81
23	3.481	0.154	1.05	84	1.8	-	81
24	3.635	0.154	1.06	84	1.9	-	81
25	3.790	0.155	1.07	84	1.8	-	81
26	3.945	0.155	1.07	84	1.8	-	81
27	4.100	0.155	1.08	84	1.7	-	81
28	4.255	0.155	1.08	85	1.7	-	81
29	4.410	0.155	1.08	85	1.8	-	81
30	4.566	0.156	1.08	85	1.8	100	81
31	4.720	0.154	1.08	85	1.7	-	81

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
32	4.876	0.156	1.07	86	1.7	-	81
33	5.032	0.156	1.07	86	1.8	-	81
34	5.189	0.157	1.08	86	1.8	-	81
35	5.346	0.157	1.09	87	1.8	-	81
36	5.502	0.156	1.09	87	1.9	-	81
37	5.659	0.157	1.09	87	1.9	-	81
38	5.814	0.155	1.09	88	1.9	-	81
39	5.971	0.157	1.08	88	1.7	-	81
40	6.129	0.158	1.09	88	1.8	102	81
41	6.286	0.157	1.09	88	1.7	-	82
42	6.443	0.157	1.09	88	1.8	-	82
43	6.601	0.158	1.10	89	1.9	-	82
44	6.757	0.156	1.09	89	1.9	-	82
45	6.915	0.158	1.08	89	1.9	-	82
46	7.073	0.158	1.09	90	1.7	-	82
47	7.231	0.158	1.10	89	1.8	-	82
48	7.389	0.158	1.10	90	1.9	-	82
49	7.545	0.156	1.10	90	1.7	-	82
50	7.703	0.158	1.09	91	1.8	102	82
51	7.862	0.159	1.09	91	1.7	-	82
52	8.020	0.158	1.10	91	1.7	-	82
53	8.179	0.159	1.10	91	1.9	-	82
54	8.336	0.157	1.09	91	1.7	-	82
55	8.495	0.159	1.09	92	1.8	-	82
56	8.654	0.159	1.10	92	1.8	-	82
57	8.813	0.159	1.10	92	1.8	-	82
58	8.970	0.157	1.10	92	1.8	-	82
59	9.129	0.159	1.09	93	1.8	-	82
60	9.288	0.159	1.10	93	1.7	101	82
Avg/Tot	9.288	0.155	1.05	85.3	1.8	100	80.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

Stove ΔT: 32

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
0	263	333	203	515	226	307.9	933.9
1	263	332	209	498	228	305.9	813.0
2	261	330	215	489	229	304.5	785.1
3	257	328	220	505	230	308.1	783.7
4	257	327	222	538	231	314.9	800.2
5	253	324	225	567	232	320.2	828.9
6	255	322	225	587	232	324.2	860.1
7	250	319	227	603	234	326.5	887.2
8	247	317	228	617	235	329.0	905.5
9	246	315	229	619	235	328.9	917.1
10	244	313	228	622	236	328.9	924.3
11	241	311	228	607	237	324.7	930.3
12	239	309	228	589	238	320.3	937.8
13	235	307	227	572	238	315.9	943.7
14	236	305	227	572	239	315.6	945.9
15	233	303	226	607	240	321.9	940.8
16	232	302	211	621	241	321.3	930.2
17	230	300	202	608	241	316.3	922.5
18	229	298	195	587	242	309.9	918.9
19	227	296	189	564	242	303.7	918.3
20	225	295	183	544	242	297.9	916.2
21	224	293	180	526	242	293.1	913.5
22	222	291	176	511	242	288.6	910.9
23	221	289	173	502	242	285.5	909.4
24	219	288	170	500	242	283.8	910.1
25	217	286	167	516	242	285.8	911.9
26	218	285	165	521	242	286.0	912.4
27	217	284	163	532	242	287.6	913.0
28	217	283	162	548	242	290.2	913.2
29	214	283	160	566	242	292.8	913.7
30	213	282	159	584	241	296.0	915.0
31	213	282	157	590	241	296.7	919.9
32	214	282	156	598	240	298.1	928.9
33	214	282	156	605	240	299.2	939.7
34	212	283	155	608	240	299.6	951.0
35	212	282	155	612	239	300.1	960.6
36	212	283	154	620	239	301.6	967.3
37	212	283	154	625	238	302.6	971.3
38	212	284	153	627	238	302.8	975.1
39	213	284	153	632	237	303.8	980.6
40	212	285	153	638	236	304.9	988.7
41	212	287	153	641	236	305.7	999.0
42	213	288	152	639	236	305.4	1011.4
43	212	289	153	634	235	304.5	1023.4
44	213	290	153	624	235	302.9	1033.2
45	213	291	152	613	234	300.8	1039.4
46	214	292	152	604	234	299.2	1040.7
47	213	293	152	597	233	297.7	1037.2

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

Stove ΔT: 32

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
48	215	294	152	599	232	298.6	1029.8
49	216	295	153	606	232	300.5	1018.4
50	214	296	153	619	232	302.7	1005.6
51	215	297	152	637	231	306.3	991.1
52	215	297	153	652	231	309.3	977.7
53	215	296	153	660	230	310.8	967.2
54	214	297	153	672	230	313.1	961.6
55	216	296	153	676	229	313.9	959.2
56	214	296	152	682	228	314.6	959.2
57	214	296	152	682	228	314.1	960.8
58	213	295	152	682	227	313.9	963.3
59	213	296	152	679	227	313.5	965.9
60	215	296	152	675	226	312.7	968.8
61	214	296	151	670	226	311.4	971.6
62	215	296	151	667	225	310.8	975.1
63	215	296	151	665	225	310.3	979.6
64	217	296	151	663	224	310.2	984.4
65	216	296	151	660	224	309.5	989.7
66	216	297	151	655	224	308.4	995.6
67	217	297	152	647	223	307.3	1002.5
68	219	298	153	640	223	306.3	1010.1
69	219	298	153	633	223	305.1	1018.6
70	219	299	153	627	222	303.8	1027.2
71	220	300	153	623	222	303.5	1036.0
72	219	301	153	617	221	302.1	1044.0
73	221	302	154	615	220	302.3	1051.4
74	221	303	154	613	220	302.2	1058.2
75	220	304	154	613	220	302.3	1063.6
76	220	305	154	614	219	302.7	1068.4
77	221	307	155	613	219	302.9	1073.1
78	222	308	155	605	218	301.8	1077.8
79	224	309	157	604	218	302.5	1083.4
80	223	311	157	604	218	302.8	1090.2
81	223	312	158	606	218	303.5	1095.7
82	224	313	158	608	217	304.0	1099.3
83	226	315	159	612	217	306.0	1101.1
84	225	315	160	616	217	306.5	1100.5
85	226	316	159	623	217	308.0	1097.5
86	226	316	160	624	217	308.8	1093.2
87	226	317	162	628	216	309.9	1089.1
88	226	318	161	632	216	310.5	1086.0
89	227	319	162	631	216	311.0	1080.8
90	227	319	163	632	216	311.4	1078.1
91	226	320	162	631	215	310.7	1078.6
92	227	320	163	634	215	311.8	1079.6
93	228	321	164	633	215	311.9	1079.1
94	229	321	163	629	215	311.5	1078.8
95	228	323	163	626	215	310.9	1079.3

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

Stove ΔT: 32

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
96	228	323	164	625	214	310.6	1083.4
97	228	324	164	624	214	310.8	1089.3
98	228	325	165	616	214	309.6	1096.1
99	230	325	165	614	214	309.6	1103.7
100	230	326	166	610	214	309.1	1111.8
101	231	327	165	607	214	308.7	1119.4
102	232	329	166	608	213	309.5	1125.7
103	233	330	167	610	214	310.8	1131.1
104	233	331	168	611	213	311.2	1133.7
105	233	333	169	614	213	312.2	1134.7
106	234	334	169	624	213	314.9	1133.6
107	235	335	170	643	213	319.1	1129.1
108	235	336	172	658	213	322.7	1120.7
109	236	337	172	670	212	325.6	1109.6
110	236	338	172	678	212	327.4	1098.7
111	237	339	173	681	212	328.5	1091.2
112	238	340	173	671	212	327.0	1090.3
113	239	341	174	666	212	326.2	1093.2
114	238	342	174	663	212	325.8	1096.9
115	239	343	174	662	212	326.1	1098.1
116	240	344	175	676	212	329.4	1096.0
117	240	345	175	702	212	335.0	1088.0
118	241	347	176	718	212	338.5	1076.8
119	242	348	177	727	212	341.0	1067.7
120	241	348	177	732	212	342.0	1063.3
121	242	349	177	736	212	343.1	1063.2
122	242	350	177	737	212	343.6	1065.9
123	243	351	178	736	212	344.0	1069.2
124	243	351	178	736	212	343.9	1072.1
125	244	352	179	735	212	344.2	1073.9
126	244	353	179	734	212	344.2	1075.0
127	246	354	179	733	212	344.6	1076.2
128	244	354	179	731	212	344.0	1076.9
129	246	355	180	727	212	344.0	1077.5
130	247	356	181	725	212	344.1	1077.7
131	249	356	181	723	212	344.1	1077.0
132	248	357	183	721	212	344.1	1075.2
133	250	358	182	720	212	344.5	1072.4
134	250	359	184	726	212	345.9	1068.3
135	251	359	184	730	213	347.3	1065.0
136	250	360	184	732	213	347.9	1065.5
137	252	361	186	732	213	348.7	1074.0
138	252	362	186	729	212	348.3	1083.6
139	253	362	186	726	213	347.9	1091.8
140	254	363	186	715	213	346.1	1097.8
141	255	363	187	710	213	345.6	1102.2
142	256	363	188	712	213	346.5	1104.8
143	257	364	188	718	213	348.1	1105.7

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

Stove ΔT: 32

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
144	258	364	189	721	213	349.0	1105.3
145	259	364	190	720	214	349.2	1103.2
146	260	363	190	722	214	349.8	1100.9
147	261	364	190	724	214	350.4	1097.9
148	263	363	191	729	214	352.1	1094.0
149	263	363	192	734	214	353.2	1090.0
150	264	362	192	734	214	353.3	1087.5
151	265	362	193	732	214	353.3	1086.5
152	266	362	193	731	215	353.2	1085.9
153	266	361	195	729	215	352.9	1085.9
154	267	361	195	727	215	353.1	1086.2
155	269	360	195	728	215	353.5	1085.8
156	270	360	195	725	215	353.1	1085.8
157	269	359	196	725	215	352.9	1086.1
158	272	359	196	725	215	353.2	1085.5
159	272	359	198	721	215	353.0	1085.3
160	274	358	197	716	215	352.1	1085.7
161	274	358	197	711	215	350.9	1087.2
162	275	358	198	708	215	350.6	1088.9
163	275	358	198	705	216	350.1	1090.8
164	277	357	199	700	215	349.6	1092.7
165	278	357	199	695	215	348.8	1094.3
166	280	358	200	688	216	348.3	1095.8
167	280	357	200	680	215	346.5	1096.6
168	282	357	201	672	215	345.4	1097.5
169	283	357	201	663	215	343.8	1099.2
170	283	357	202	656	215	342.6	1102.7
171	285	358	203	651	215	342.3	1106.6
172	286	357	202	651	215	342.3	1109.9
173	287	358	203	654	215	343.5	1111.3
174	288	358	203	659	215	344.6	1111.6
175	289	357	204	662	215	345.5	1110.9
176	289	358	205	664	215	346.1	1109.3
177	290	358	205	665	215	346.5	1108.7
178	291	358	204	666	215	346.8	1107.4
179	292	358	205	665	215	346.8	1104.9
180	294	358	205	663	215	346.9	1102.9
181	294	358	206	662	215	346.9	1100.8
182	296	358	206	659	215	346.7	1099.3
183	297	358	206	655	215	346.1	1101.3
184	297	359	207	653	215	346.0	1104.7
185	297	358	207	649	215	345.2	1109.3
186	299	358	208	645	215	344.8	1112.9
187	300	358	207	638	215	343.8	1116.3
188	300	358	208	632	215	342.7	1118.0
189	300	359	207	627	215	341.6	1118.1
190	301	359	209	622	215	340.9	1117.1
191	301	358	210	618	215	340.3	1114.9

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

Stove ΔT: 32

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
192	300	359	209	615	215	339.7	1112.5
193	302	359	210	611	215	339.2	1109.8
194	304	359	210	608	215	339.0	1107.2
195	304	359	211	605	215	338.7	1104.3
196	303	360	211	602	215	338.0	1100.5
197	304	359	212	598	215	337.5	1097.1
198	305	359	212	594	215	337.0	1093.4
199	305	359	213	591	216	336.6	1089.2
200	303	359	213	588	216	335.7	1084.5
201	306	360	212	584	215	335.6	1079.7
202	306	359	213	581	216	334.9	1074.6
203	307	360	212	578	216	334.5	1069.4
204	306	360	213	576	216	334.1	1064.6
205	307	360	212	572	216	333.6	1060.3
206	307	360	214	570	216	333.3	1055.9
207	308	360	214	567	216	333.0	1052.2
208	308	361	214	565	216	332.6	1048.6
209	306	360	214	562	216	331.8	1045.2
210	307	360	215	559	216	331.5	1041.6
211	306	360	215	557	217	330.9	1037.8
212	307	360	215	553	217	330.2	1032.2
213	307	360	216	549	217	329.8	1023.8
214	308	360	217	545	217	329.4	1013.4
215	306	360	215	542	217	328.1	1001.4
216	306	360	216	539	218	327.8	989.0
217	306	360	216	535	218	326.9	976.9
218	306	360	216	532	217	326.2	965.5
219	307	360	216	529	218	325.9	954.9
220	306	359	217	526	218	325.1	945.5
221	306	359	217	523	219	324.8	937.3
222	305	359	217	520	219	324.0	930.1
223	304	359	218	517	219	323.3	924.0
224	305	358	219	515	219	323.1	919.1
225	303	358	218	512	219	322.2	914.9
226	303	358	219	509	220	321.7	911.3
227	304	358	220	508	220	321.8	908.0
228	303	358	220	505	220	321.1	905.2
229	302	358	220	503	220	320.5	902.5
230	302	357	221	498	221	319.7	900.8
231	301	357	223	497	221	319.6	899.5
232	303	357	222	498	221	320.1	899.2
233	302	356	223	496	222	319.8	899.0
234	300	355	223	495	222	319.0	898.7
235	299	355	225	493	222	318.7	897.4
236	300	356	224	491	222	318.4	894.8
237	299	355	224	489	223	317.9	890.6
238	299	355	225	486	223	317.4	884.5
239	299	354	225	484	223	317.0	877.1

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

Stove ΔT: 32

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
240	298	354	225	480	224	316.3	868.3
241	299	354	227	477	224	316.0	858.3
242	298	353	226	474	224	314.8	847.1
243	298	353	227	471	224	314.8	835.5
244	297	353	228	470	225	314.5	824.3
245	299	352	228	467	225	314.2	813.7
246	297	352	229	465	226	313.6	803.6
247	295	351	229	463	226	312.7	793.9
248	294	351	228	461	226	311.8	785.0
249	294	351	229	459	226	312.0	776.9
250	296	350	229	457	227	311.8	769.5
251	293	350	228	456	228	310.7	762.8
252	292	349	230	454	228	310.4	757.0
253	293	348	229	452	228	309.8	751.9
254	292	348	229	449	228	309.2	747.5
255	290	348	228	447	229	308.4	743.6
256	290	347	228	445	229	307.7	740.4
257	288	347	228	443	229	306.9	737.5
258	288	346	227	441	230	306.4	735.0
259	286	346	227	439	230	305.7	732.6
260	288	345	226	437	230	305.4	730.4
261	285	345	227	436	231	304.9	728.4
262	286	345	227	434	232	304.5	726.5
263	283	344	226	432	232	303.4	724.9
264	283	344	226	430	232	303.1	722.7
265	282	343	226	428	233	302.3	720.9
266	281	343	226	426	233	301.7	719.1
267	281	342	226	425	233	301.4	717.3
268	279	342	226	423	234	300.8	715.8
269	279	342	225	421	234	300.2	714.1
270	278	341	223	419	235	299.2	712.1
271	279	340	223	417	235	298.9	710.7
272	277	340	222	416	235	297.8	710.6
273	278	339	223	414	236	297.9	710.4
274	276	339	222	412	236	297.0	709.0
275	275	338	222	410	236	296.4	708.5
276	276	338	220	409	237	295.7	707.1
277	274	337	221	407	237	295.1	707.5
278	272	337	220	405	237	294.3	706.2
279	272	336	219	403	238	293.7	703.8
280	272	335	218	401	238	292.8	701.1
281	271	334	219	400	239	292.4	698.4
282	271	334	218	398	239	292.1	695.5
283	270	333	217	397	239	291.3	692.2
284	269	333	216	395	239	290.4	688.9
285	267	332	217	395	239	289.9	685.8
286	267	331	216	394	240	289.5	683.0
287	267	330	216	393	240	289.2	680.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

Stove ΔT: 32

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
288	267	329	215	392	240	288.6	678.6
289	266	329	215	391	240	288.2	676.7
290	265	328	215	390	241	287.8	675.0
291	264	327	214	389	241	287.1	673.9
292	264	327	214	387	241	286.6	673.2
293	265	326	213	387	241	286.3	672.4
294	264	326	212	386	242	286.1	672.2
295	262	325	212	386	242	285.5	671.3
296	262	324	213	385	242	285.3	669.8
297	262	324	211	385	242	285.0	667.8
298	263	324	212	384	243	284.9	666.2
299	261	324	212	384	243	284.6	664.6
300	261	323	211	383	243	283.9	663.6
301	262	322	210	382	243	283.7	663.9
302	260	322	211	382	243	283.4	664.0
303	260	321	210	381	243	283.0	663.8
304	258	321	209	381	244	282.5	663.8
305	259	321	209	380	244	282.4	664.6
306	258	320	208	379	244	281.8	665.3
307	257	320	208	378	244	281.6	665.7
308	259	319	208	377	244	281.5	667.0
309	258	319	208	376	245	281.2	667.8
310	257	319	206	376	245	280.3	668.1
311	257	318	207	375	245	280.3	668.1
312	257	318	207	374	245	280.3	668.3
313	256	318	207	374	245	280.0	668.5
314	255	318	206	373	245	279.3	669.4
315	256	317	206	372	245	279.2	670.5
316	256	317	206	372	246	279.2	673.1
317	256	317	205	371	246	278.9	674.2
318	255	316	205	371	246	278.7	674.5
319	254	316	204	370	246	278.0	674.7
320	254	316	204	370	247	278.1	675.3
321	253	315	205	370	246	277.7	675.9
322	255	316	205	369	247	278.1	677.0
323	253	315	205	369	247	277.5	679.8
324	253	315	205	368	247	277.4	681.3
325	252	315	204	368	247	277.1	681.8
326	252	315	204	367	247	276.8	682.3
327	250	315	203	367	247	276.3	681.8
328	251	315	204	366	247	276.7	681.0
329	252	315	204	366	248	276.9	680.9
330	251	314	204	366	247	276.4	681.3
331	251	314	204	365	247	276.3	681.3
332	251	314	204	365	247	276.1	681.5
333	250	314	204	365	248	276.1	681.6
334	250	314	204	365	249	276.4	681.5
335	250	314	205	364	248	276.4	681.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

Stove ΔT: 32

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
336	250	314	205	364	248	276.2	681.5
337	248	314	205	364	248	275.9	681.5
338	248	315	204	364	249	275.9	681.3
339	248	315	205	363	249	276.0	680.8
340	249	315	205	363	249	276.2	680.4
341	248	315	206	363	249	275.9	680.6
342	247	316	206	362	250	276.1	680.7
343	248	315	207	362	249	276.2	680.6
344	249	316	206	362	250	276.4	680.4
345	247	316	207	361	250	276.4	680.1
346	248	316	207	361	250	276.6	679.2
347	248	316	207	361	249	276.3	678.5
348	247	317	208	360	250	276.3	677.9
349	248	317	208	360	250	276.7	676.6
350	246	318	208	359	250	276.2	674.9
351	247	318	210	358	250	276.6	672.3
352	248	318	210	358	251	276.9	669.7
353	248	319	210	357	251	277.0	666.5
354	249	319	211	357	251	277.4	663.4
355	247	319	212	357	251	277.2	660.6
356	247	319	212	357	251	277.2	657.8
357	246	320	213	356	251	277.3	655.1
358	247	320	213	356	252	277.8	652.7
359	247	321	214	356	252	277.9	650.5
360	247	321	214	356	251	277.8	648.7
361	247	322	215	355	252	278.2	647.2
362	246	322	215	355	252	278.2	645.9
363	246	322	216	355	252	278.3	644.8
364	246	323	216	355	253	278.6	643.9
365	247	323	217	355	252	278.8	643.2
366	246	324	217	355	253	278.9	642.7
367	247	324	218	355	253	279.2	642.6
368	245	324	219	355	253	279.3	642.3
369	245	325	218	355	253	279.2	642.0
370	245	325	218	355	254	279.3	641.8
371	245	325	219	354	254	279.5	641.7
372	246	325	220	354	254	279.7	641.5
373	245	326	219	354	254	279.5	640.9
374	246	326	220	354	255	280.2	640.3
375	246	326	221	354	255	280.3	639.8
376	247	327	220	354	255	280.3	639.2
377	246	327	220	354	255	280.2	638.6
378	245	328	221	353	255	280.5	638.1
379	246	328	221	353	255	280.6	637.6
380	246	328	221	353	256	280.8	637.4
381	247	329	221	354	256	281.2	636.9
382	246	329	221	354	256	281.1	636.4
383	246	329	221	353	257	281.3	635.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

Stove ΔT: 32

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
384	245	329	220	353	257	280.8	634.3
385	245	329	220	354	257	281.0	633.5
386	245	330	222	353	257	281.3	633.0
387	246	330	219	353	257	281.0	632.9
388	245	330	221	353	258	281.3	632.9
389	246	330	220	353	258	281.1	633.1
390	247	330	220	353	258	281.4	633.4
391	245	330	220	353	258	281.1	633.9
392	246	330	219	353	258	281.1	634.1
393	244	331	218	353	259	280.8	634.5
394	245	330	219	352	259	281.1	634.7
395	246	330	217	353	259	281.0	634.9
396	246	331	218	353	260	281.3	634.3
397	245	331	217	352	260	280.8	633.9
398	246	330	218	352	260	281.2	633.4
399	245	331	216	353	260	280.9	632.9
400	246	330	217	353	261	281.2	632.3
401	246	330	216	353	261	281.1	632.2
402	245	330	214	353	261	280.6	632.3
403	245	330	215	353	261	281.0	632.5
404	245	330	215	353	262	280.9	633.0
405	245	330	215	353	262	280.9	633.5
406	246	330	214	353	263	281.1	634.2
407	245	330	214	353	263	280.8	634.9
408	245	330	214	353	263	281.1	635.6
409	245	329	214	353	263	281.0	636.3
410	246	330	213	353	264	281.1	637.0
411	245	330	213	353	264	281.0	637.5
412	246	330	212	353	264	281.1	637.9
413	245	330	212	353	265	281.1	638.5
414	246	329	212	354	265	281.3	638.7
415	244	329	212	354	265	280.8	639.1
416	246	330	211	354	266	281.2	639.3
417	246	329	212	354	266	281.3	639.3
418	245	329	211	354	266	281.0	639.1
419	246	329	211	353	267	281.1	638.5
420	245	329	210	353	267	280.7	637.9
421	246	328	211	353	267	281.1	637.2
422	246	328	210	353	268	280.9	636.7
423	246	328	210	354	267	281.1	636.3
424	246	328	210	354	268	281.1	635.9
425	245	328	210	354	268	280.9	635.8
426	245	328	210	354	269	280.9	635.9
427	245	327	208	354	269	280.6	635.9
428	246	327	208	354	269	280.8	636.0
429	247	326	209	354	269	281.1	636.1
430	246	326	208	354	269	280.8	636.5
431	246	326	208	354	270	280.7	637.0

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

Stove ΔT: 32

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
432	245	325	208	354	270	280.4	637.3
433	245	325	207	354	270	280.4	637.8
434	245	326	208	354	270	280.4	638.3
435	246	325	208	354	271	280.7	639.0
436	245	325	207	354	270	280.4	639.8
437	246	325	207	354	271	280.5	640.4
438	247	324	206	354	271	280.3	641.1
439	245	324	207	354	271	280.2	641.9
440	247	324	206	354	271	280.3	642.5
441	246	323	207	354	271	280.0	643.3
442	246	322	206	353	272	279.8	644.0
443	246	322	207	353	272	280.1	644.7
444	245	322	207	354	272	280.0	645.1
445	247	322	206	353	272	280.0	645.4
446	246	322	206	353	273	279.9	645.7
447	246	321	205	353	272	279.7	645.8
448	246	321	205	353	272	279.4	646.1
449	247	320	205	353	273	279.5	646.7
450	247	320	205	353	273	279.3	647.4
451	245	320	204	352	273	278.9	648.8
452	246	319	204	352	273	278.8	650.2
453	245	319	203	352	273	278.2	652.2
454	246	318	204	352	273	278.6	653.9
455	244	318	203	352	273	278.1	655.9
456	245	317	203	352	273	277.8	657.5
457	244	317	201	352	273	277.4	659.1
458	245	317	202	351	273	277.4	660.4
459	245	316	203	351	273	277.6	661.7
460	245	316	202	351	273	277.3	662.8
461	244	315	201	351	273	277.1	663.6
462	244	315	201	351	273	276.8	664.3
463	244	314	200	351	273	276.4	664.6
464	243	314	200	351	273	276.2	664.9
465	243	313	199	351	273	275.9	665.1
466	243	313	200	350	273	275.7	665.2
467	243	313	200	350	273	275.8	664.7
468	242	313	199	350	273	275.5	663.7
Average	255.4	330.1	199.5	503.8	236.0	305.0	855.1

LAB SAMPLE DATA - ASTM E2515

Client: FPI
Model: F5200
Run #: 4

Job #: 23-200
Tracking #: 157
Technician: AK
Date: 8/24/2023

		Sample ID	Tare, mg	Final, mg	Catch, mg
Filters	**A**	G645	243.5	246.3	2.8
	B	G646	244.2	246.9	2.7
	C - 1st Hour	G647	243.7	244.8	1.1
	Amb	G648	242.9	243.0	0.1
Probes	**A**	17A	116809.7	116810.2	0.5
	B	17B	117139.6	117140.0	0.4
	C - 1st Hour	17C	113140.9	113141.0	0.1
O-rings	**A**	17A	3613.6	3613.6	0.0
	B	17B	3569.4	3569.7	0.3
	C - 1st Hour	17C	3597.2	3597.5	0.3

Placed in Dessicator on:	8/24/2023

Balance Audit (mg):		100.0		100.0					
		Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time
Filters	**A**	246.2	8/28 -8:30	246.3	8/29 - 11:00				
	B	246.8	8/28 -8:30	246.9	8/29 - 11:00				
	C - 1st Hour	244.9	8/28 -8:30	244.8	8/29 - 11:00				
	Amb	243.0	8/28 -8:30	243.0	8/29 - 11:00				
Probes	**A**	116810.0	8/28 -8:30	116810.2	8/29 - 11:00				
	B	117139.8	8/28 -8:30	117140.0	8/29 - 11:00				
	C - 1st Hour	113140.8	8/28 -8:30	113141.0	8/29 - 11:00				
O-Rings	**A**	3613.5	8/28 -8:30	3613.6	8/29 - 11:00				
	B	3569.5	8/28 -8:30	3569.7	8/29 - 11:00				
	C - 1st Hour	3597.4	8/28 -8:30	3597.5	8/29 - 11:00				

Train A Aggregate, mg:	**3.3**
Train B Aggregate, mg:	**3.4**
Train C Aggregate, mg:	**1.5**
Ambient, mg:	**0.1**

ASTM E2780 Wood Heater Run Sheets

Client: FPI Job Number: 23-200 Tracking #: 157
Model: F5200 Run Number: 4 Test Date: 8/24/23

Wood Heater Run Notes

Test Control Settings

Primary Air Setting(s): Medium High (0.357" open from fully closed)
Targeted Burn Category: III

Preburn Notes

Time	Notes
7:00 90:00	Stirred Coals Leveled coal bed, turn off fan, set air to high in preparation of fuel loading

Test Notes

Test Burn Start Time: 12:23 Test Fuel Loaded by: 35 seconds
Door Closed: 45 seconds Air Control Set at: 120 seconds
Other Loading Notes: Fan on high @ 15 min

Time	Notes
	-None-

Test Burn End Time: 20:11

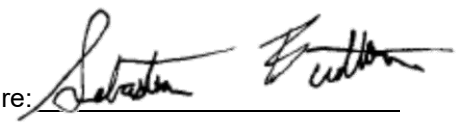
Flue Gas Concentration Measurement

Calibration Gas Values: Span Gas CO_2 (%): 17.01 CO (%): 4.306
Mid Gas CO_2 (%): 10.09 CO (%): 2.530

Calibration Results:

	Pre Test			Post Test		
	Zero	Span	Mid	Zero	Span	Mid
Time	9:05	9:08	9:10	8/25 – 8:15	8/25 – 8:10	8/25 – 8:13
CO_2	0.00	17.04	10.04	-0.10	9.96	16.98
CO	0.000	4.332	2.496	-0.035	2.488	4.312

Flue Gas Probe Leak Check: Initial: No Leakage Final: No Leakage

Technician Signature:  Date: 8/25/2023

ASTM E2780 Wood Heater Run Sheets

Client: FPI Job Number: 23-200 Tracking #: 157
Model: F5200 Run Number: 4 Test Date: 8/24/23



Test Fuel Front/Side View



Test Fuel Iso View



Test Fuel Loaded in Stove



Air Setting

Technician Signature: Date: 8/25/2023

WOOD STOVE TEST DATA PACKET
ASTM E2780/E2515

Run 5 Data Summary

Client:	FPI
Model:	F5200
Job #:	23-200
Tracking #:	157
Test Date:	8/25/2023

Techician Signature

8/30/2023
Date

TEST RESULTS - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Burn Rate (kg/hr):	**1.05**

	Ambient Sample	Sample Train A	Sample Train B	1st Hour Filter
Total Sample Volume (ft^3)	73.246	109.406	105.065	9.395
Average Gas Velocity in Dilution Tunnel (ft/sec)	8.4			
Average Gas Flow Rate in Dilution Tunnel (dscf/hr)	21700.7			
Average Gas Meter Temperature (°F)	84.2	113.0	112.4	93.4
Total Sample Volume (dscf)	70.875	101.286	97.328	9.034
Average Tunnel Temperature (°F)	102.0			
Total Time of Test (min)	653			
Total Particulate Catch (mg)	0.0	4.6	4.6	1.3
Particulate Concentration, dry-standard (g/dscf)	0.0000000	0.0000454	0.0000473	0.0001439
Total PM Emissions (g)	0.00	10.73	11.16	3.12
Particulate Emission Rate (g/hr)	0.00	0.99	1.03	3.12
Emissions Factor (g/kg)	-	0.94	0.98	-
Difference from Average Total Particulate Emissions (g)	-	0.22	0.22	-
Difference from Average Total Particulate Emissions (%)	-	2.0%	2.0%	
Difference from Average Emissions Factor (g/kg)	-	0.02	0.02	-

Final Average Results	
Total Particulate Emissions (g)	10.94
Particulate Emission Rate (g/hr)	1.01
Emissions Factor (g/kg)	0.96
HHV Efficiency (%)	75.2%
LHV Efficiency (%)	81.3%
CO Emissions (g/min)	1.93

Quality Checks	**Requirement**	**Observed**	**Result**
Dual Train Precision	Each train within 7.5% of average emissions (in grams), or emission factors within 0.5 g/kg	See Above	OK
Filter Temps	<90 °F	87.9	OK
Face Velocity	< 30 ft/min	9.3	OK
Leakage Rate	Less than 4% of average sample rate	0.001 cfm	OK
Ambient Temp	55-90 °F	Min:80.8/Max:87.1	OK
Negative Probe Weight Evaluation	<5% of Total Catch	Probe Catch Not Negative	OK
Pro-Rate Variation	90% of readings between 90-110%; none greater than 120% or less than 80%	See Data Tabs	OK
Stove Surface ΔT	<126°F	34.6	OK

B415.1 Efficiency Results

Manufacturer:	FPI
Model:	F5200
Date:	08/25/23
Run:	5
Control #:	23-200
Test Duration:	653
Output Category:	2

Test Results in Accordance with CSA B415.1-09

	HHV Basis	LHV Basis
Overall Efficiency	75.2%	81.3%
Combustion Efficiency	91.9%	91.9%
Heat Transfer Efficiency	81.8%	88.4%

Output Rate (kJ/h)	15,482	14,686	**(Btu/h)**
Burn Rate (kg/h)	1.04	2.29	**(lb/h)**
Input (kJ/h)	20,591	19,532	**(Btu/h)**

Test Load Weight (dry kg)	11.31	24.93	**dry lb**
MC wet (%)	18.04		
MC dry (%)	22.01		
Particulate (g)	10.94		
CO (g)	1,261		
Test Duration (h)	10.88		

Emissions	Particulate	CO
g/MJ Output	0.06	7.48
g/kg Dry Fuel	0.97	111.48
g/h	1.01	115.87
g/min	0.02	1.93
lb/MM Btu Output	0.15	17.39

Air/Fuel Ratio (A/F)	11.09

VERSION: **2.4** **4/15/2010**

WOODSTOVE FUEL DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Preburn Fuel Information

Size	Length (in)	Moisture Content (% DB)	Size	Length (in)	Moisture Content (% DB)
2x4	20.00	19.9	2x4	20.00	25.5
2x4	20.00	20.1	2x4	20.00	23.8
2x4	20.00	23.8	2x4	20.00	23.8
2x4	20.00	19.0	2x4	20.00	21.9
2x4	20.00	18.1	2x4	20.00	20.5
2x4	20.00	20.6	2x4	20.00	18.9
2x4	20.00	21.6			
2x4	20.00	21.9			

Total Fuel Weight (lbs): 28.81
Average Moisture (%DB): 21.4

Firebox Volume (ft^3): 4.42
Total 2x4 Crib Weight, with spacers (lbs): 0.00
Total 4x4 Crib Weight, with spacers (lbs): 30.46
Total Wet Fuel Weight, with spacers (lbs): 30.46

Coal Bed Range (20-25%):
Min (lbs): 6.09
Max (lbs): 7.62

Test Fuel Information

Size	Length (in)	Weight (lbs)	Moisture Content (%DB)			Dry Weight (lbs)
4x4	20.00	4.25	20.6	21.0	19.4	3.53
4x4	20.00	4.41	24.7	22.7	23.8	3.56
4x4	20.00	5.20	19.7	19.9	20.9	4.33
4x4	20.00	5.38	24.3	23.8	23.8	4.34
4x4	20.00	4.64	25.7	22.9	21.6	3.76
4x4	20.00	4.65	20.0	20.9	20.5	3.86

Total Dry Weight, no spacers (lbs): 23.38
Total Dry Weight, with spacers (lbs): 25.09

Spacer Moisture Readings (%DB)

11.4	17.2	12.8	11.8				
12.9	12.1	10.9	14.9				
16.1	12.8	11.4	11.8				
14.0	16.7						
14.9	10.6						
12.3	15.6						

Quality Checks	Requirement	Observed	Result
Fuel Density	25 - 36 (lbs/ft^3, DB)	27.5	OK
Loading Density	6.3 - 7.7 (lbs/ft^3, WB)	6.89	OK
2x4 Fuel Mix	35 - 65 % of total weight	N/A	N/A

DILUTION TUNNEL & MISC. DATA - ASTM E2780 / E2515

Client:	FPI	Job #:	23-200
Model:	F5200	Tracking #:	157
Run #:	5	Technician:	SJB
Test Start Time:	12:25	Date:	8/25/2023

Total Sampling Time (min):	653	
Recording Interval (min):	1	
Meter Box γ Factor:	1.004	(A)
Meter Box γ Factor:	1.004	(B)
Meter Box γ Factor:	1.011	(C)
Meter Box γ Factor:	1.003	(Ambient)

	Pre-Test	Post Test	Avg.
Barometric Pressure (in. Hg)	29.77	29.75	29.76
Relative Humidity (%)	31.2	22.5	
Room Air Velocity (ft/min)	0	0	
Pitot Tube Leak Check	0	0	
Ambient Sample Volume:		73.246	ft^3

Induced Draft Check (in. H_2O):	0
Smoke Capture Check (%):	100%
Date Flue Pipe Last Cleaned:	8/17/2023
Test Fuel Scale Audit (lbs)	10.00
Platform Scale Audit (lbs)	10.0

Sample Train Leak Checks

	Pre-test	Post-test			
(A)	0.000	0.001	cfm @	-5	in. Hg
(B)	0.000	0.001	cfm @	-5	in. Hg
(C)	0.000	0.000	cfm @	-5	in. Hg
(Ambient)	0.000	0.000	cfm @	-12	in. Hg

DILUTION TUNNEL FLOW

Traverse Data

Point	dP (in H_2O)	Temp (°F)
1	0.010	103
2	0.014	103
3	0.018	103
4	0.020	103
5	0.016	103
6	0.012	103
7	0.012	103
8	0.016	103
9	0.018	103
10	0.018	103
11	0.016	103
12	0.014	103
Center	0.020	103

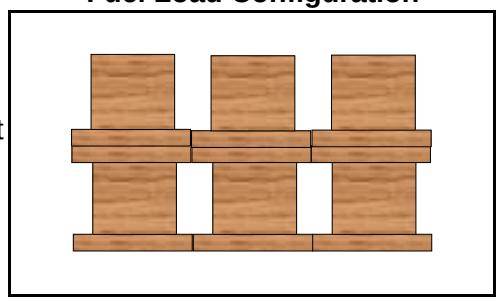
Static Pressure: -0.115 in. H_2O

Dilution Tunnel H_2O:	2.00	percent
Tunnel Diameter:	12	inches
Pitot Tube Cp:	0.99	[unitless]
Dilution Tunnel MW(dry):	29.00	lb/lb-mole
Dilution Tunnel MW(wet):	28.78	lb/lb-mole
Tunnel Area:	0.7854	ft^2
V_{strav}:	8.46	ft/sec
V_{scent}:	9.70	ft/sec
F_p:	0.872	[ratio]
Initial Tunnel Flow:	364.3	scf/min

TEST FUEL PROPERTIES

Fuel Load Configuration

Firebox Left



Firebox Right

Firebox Front View

Actual Fuel Used Properties

Fuel Type:	D. Fir
HHV (kJ/kg)	19,810
%C	48.73
%H	6.87
%O	43.9
%Ash	0.5
MC (%DB)	22.0

WOODSTOVE PREBURN DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Recording Interval (min): 1
Run Time (min): 60

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
0	10.03	-0.067	336	430	333	753	216	413.6	471	84
1	9.94	-0.065	336	431	334	744	219	412.7	427	85
2	9.87	-0.063	338	432	335	733	220	411.5	402	85
3	9.78	-0.064	336	432	336	722	222	409.7	386	84
4	9.69	-0.061	338	432	337	714	224	408.8	375	85
5	9.63	-0.062	335	430	338	705	225	406.9	368	85
6	9.38	-0.068	336	430	339	720	228	410.4	438	85
7	9.25	-0.066	335	430	337	749	229	416.1	409	85
8	9.12	-0.065	335	429	337	777	231	421.7	391	85
9	9.02	-0.064	331	427	337	800	233	425.5	378	85
10	8.92	-0.064	329	424	337	811	234	427.0	368	84
11	8.83	-0.060	329	423	335	821	236	428.5	360	85
12	8.75	-0.059	329	421	334	825	237	429.1	354	85
13	8.67	-0.059	324	418	333	824	239	427.3	348	85
14	8.60	-0.056	325	415	332	819	240	426.2	342	85
15	8.54	-0.057	324	413	329	804	242	422.3	337	85
16	8.49	-0.056	321	411	330	789	243	418.6	332	85
17	8.43	-0.057	317	408	328	778	244	414.9	328	85
18	8.37	-0.055	317	405	326	766	246	411.9	324	85
19	8.32	-0.052	315	403	324	753	247	408.3	320	85
20	8.28	-0.054	312	401	321	736	248	403.8	318	85
21	8.24	-0.054	311	398	322	721	249	400.1	316	85
22	8.18	-0.053	309	396	320	703	250	395.6	313	85
23	8.15	-0.053	310	393	318	686	250	391.5	310	85
24	8.11	-0.052	306	391	317	672	251	387.4	309	85
25	8.06	-0.051	305	388	316	659	252	383.9	307	85
26	8.03	-0.050	304	386	316	647	253	380.9	304	85
27	7.99	-0.050	300	383	314	636	253	377.3	303	85
28	7.96	-0.051	300	381	313	627	254	374.8	300	85
29	7.93	-0.050	297	379	313	619	254	372.6	298	85
30	7.90	-0.048	297	376	311	612	255	370.2	296	85
31	7.87	-0.047	295	374	309	605	255	367.7	294	85
32	7.84	-0.048	296	373	308	598	255	366.0	292	85
33	7.80	-0.047	295	370	307	592	256	363.8	290	85
34	7.77	-0.046	292	368	303	587	256	361.2	288	85
35	7.74	-0.045	292	366	304	582	257	360.1	285	85
36	7.71	-0.046	291	364	302	578	257	358.4	284	85
37	7.68	-0.046	291	362	302	574	257	357.1	282	85
38	7.66	-0.045	288	360	300	569	257	354.8	280	85
39	7.63	-0.044	287	359	297	563	258	352.7	277	85
40	7.60	-0.044	285	357	298	558	258	351.0	275	85
41	7.58	-0.043	284	356	298	554	258	350.0	273	85
42	7.56	-0.044	285	353	295	550	258	348.3	271	85
43	7.53	-0.044	283	352	295	546	259	346.9	270	85
44	7.51	-0.042	280	350	295	543	259	345.2	267	85

WOODSTOVE PREBURN DATA - ASTM E2780

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Recording Interval (min): 1
Run Time (min): 60

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
45	7.48	-0.043	280	348	292	541	259	344.1	266	85
46	7.46	-0.042	278	347	294	539	259	343.4	264	85
47	7.44	-0.042	278	345	292	537	259	342.4	263	85
48	7.43	-0.042	278	344	289	534	259	340.8	261	85
49	7.40	-0.041	275	342	289	533	260	339.8	259	85
50	7.37	-0.042	276	341	290	530	260	339.2	258	85
51	7.36	-0.040	274	340	289	526	260	337.7	257	85
52	7.34	-0.040	273	338	288	522	260	336.2	255	85
53	7.33	-0.041	272	336	287	517	260	334.5	254	85
54	7.31	-0.039	271	334	286	513	261	332.9	253	85
55	7.30	-0.038	270	334	286	509	260	331.9	251	85
56	7.29	-0.038	268	332	285	506	261	330.3	249	85
57	7.26	-0.039	267	331	283	501	261	328.6	248	85
58	7.25	-0.038	266	330	281	498	261	327.3	247	85
59	7.24	-0.037	264	329	282	494	261	326.0	246	85
60	7.22	-0.036	265	328	281	490	261	325.2	245	85

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
0	0.000		0.019	1.56	87	0.9		30.42		110	311	72	83
1	0.147	0.147	0.019	2.28	87	0.9	-	30.31	-0.11	128	369	75	83
2	0.302	0.155	0.020	2.30	87	0.9	-	30.28	-0.03	116	352	76	84
3	0.454	0.152	0.020	2.33	87	1.0	-	30.25	-0.03	108	314	76	83
4	0.612	0.158	0.020	2.35	87	1.0	-	30.21	-0.04	105	290	76	83
5	0.765	0.153	0.020	2.38	88	0.9	-	30.17	-0.04	104	273	77	83
6	0.924	0.159	0.020	2.40	88	0.9	-	30.11	-0.06	103	264	77	83
7	1.077	0.153	0.019	2.41	88	0.9	-	30.05	-0.06	102	259	77	83
8	1.235	0.158	0.020	2.43	88	0.9	-	30.01	-0.04	102	255	78	83
9	1.394	0.159	0.021	2.44	88	1.0	-	29.96	-0.05	102	252	78	84
10	1.549	0.155	0.020	2.44	88	0.9	98	29.90	-0.06	102	251	78	83
11	1.710	0.161	0.021	2.45	88	0.9	-	29.85	-0.05	101	249	78	83
12	1.867	0.157	0.020	2.46	89	1.0	-	29.81	-0.04	101	248	79	83
13	2.026	0.159	0.020	2.47	89	1.0	-	29.76	-0.05	101	247	79	83
14	2.186	0.160	0.020	2.48	89	1.0	-	29.71	-0.05	101	246	79	83
15	2.345	0.159	0.019	2.50	89	1.0	-	29.66	-0.05	101	245	79	83
16	2.505	0.160	0.021	2.50	90	1.0	-	29.61	-0.05	100	245	79	83
17	2.663	0.158	0.020	2.51	90	1.0	-	29.55	-0.06	100	245	79	83
18	2.824	0.161	0.020	2.50	90	1.0	-	29.50	-0.05	100	244	80	83
19	2.984	0.160	0.019	2.51	90	1.0	-	29.45	-0.05	100	243	80	83
20	3.144	0.160	0.020	2.51	91	0.9	98	29.39	-0.06	99	244	80	83
21	3.306	0.162	0.020	2.52	91	1.0	-	29.33	-0.06	99	244	80	84
22	3.464	0.158	0.020	2.52	91	1.0	-	29.28	-0.05	100	244	80	83
23	3.626	0.162	0.021	2.53	92	1.0	-	29.22	-0.06	99	244	80	83
24	3.788	0.162	0.020	2.53	92	1.0	-	29.18	-0.04	99	242	80	83
25	3.947	0.159	0.020	2.53	92	0.9	-	29.13	-0.05	99	242	80	83
26	4.111	0.164	0.020	2.53	93	0.9	-	29.07	-0.06	99	242	80	83
27	4.270	0.159	0.020	2.55	93	1.0	-	29.03	-0.04	99	241	81	83
28	4.432	0.162	0.020	2.55	93	1.0	-	28.98	-0.05	99	241	81	83
29	4.597	0.165	0.020	2.56	94	1.0	-	28.93	-0.05	98	240	81	83
30	4.754	0.157	0.020	2.55	94	1.0	99	28.88	-0.05	98	240	81	83
31	4.921	0.167	0.020	2.56	94	1.0	-	28.84	-0.04	99	239	81	83

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
32	5.080	0.159	0.020	2.56	95	0.9	-	28.79	-0.05	98	238	81	83
33	5.243	0.163	0.020	2.56	95	1.0	-	28.75	-0.04	98	237	81	83
34	5.407	0.164	0.020	2.56	95	1.0	-	28.69	-0.06	98	236	81	83
35	5.569	0.162	0.020	2.57	96	1.0	-	28.65	-0.04	99	234	81	83
36	5.731	0.162	0.020	2.58	96	1.0	-	28.60	-0.05	98	234	81	83
37	5.897	0.166	0.021	2.58	96	1.0	-	28.54	-0.06	98	234	81	83
38	6.057	0.160	0.020	2.57	97	1.0	-	28.49	-0.05	99	234	81	83
39	6.222	0.165	0.020	2.56	97	0.9	-	28.43	-0.06	98	234	81	83
40	6.386	0.164	0.020	2.58	97	1.0	99	28.38	-0.05	98	234	81	83
41	6.546	0.160	0.021	2.57	98	1.0	-	28.32	-0.06	99	234	81	83
42	6.714	0.168	0.020	2.59	98	1.0	-	28.26	-0.06	99	235	79	83
43	6.875	0.161	0.019	2.58	98	1.0	-	28.20	-0.06	98	236	78	83
44	7.039	0.164	0.019	2.59	98	1.0	-	28.14	-0.06	98	236	77	83
45	7.204	0.165	0.020	2.59	99	1.0	-	28.09	-0.05	98	236	77	83
46	7.367	0.163	0.021	2.59	99	1.0	-	28.04	-0.05	99	236	76	83
47	7.532	0.165	0.020	2.60	99	1.0	-	27.99	-0.05	98	236	76	83
48	7.697	0.165	0.021	2.59	100	0.9	-	27.92	-0.07	99	236	76	83
49	7.860	0.163	0.021	2.61	100	1.0	-	27.87	-0.05	98	237	76	84
50	8.025	0.165	0.020	2.61	100	1.0	99	27.82	-0.05	98	237	76	84
51	8.192	0.167	0.020	2.60	100	1.0	-	27.76	-0.06	98	237	76	83
52	8.353	0.161	0.020	2.61	101	1.0	-	27.71	-0.05	98	238	76	83
53	8.520	0.167	0.020	2.60	101	1.0	-	27.64	-0.07	99	238	76	83
54	8.686	0.166	0.020	2.62	101	1.0	-	27.59	-0.05	99	239	76	84
55	8.848	0.162	0.021	2.60	102	1.0	-	27.53	-0.06	99	239	76	84
56	9.017	0.169	0.020	2.61	102	1.0	-	27.48	-0.05	99	239	76	84
57	9.180	0.163	0.020	2.60	102	1.0	-	27.41	-0.07	99	240	76	84
58	9.343	0.163	0.021	2.58	102	1.0	-	27.36	-0.05	99	239	77	84
59	9.512	0.169	0.020	2.62	103	1.0	-	27.30	-0.06	99	239	77	84
60	9.675	0.163	0.021	2.60	103	1.0	98	27.24	-0.06	99	239	77	84
61	9.841	0.166	0.020	2.61	103	1.0	-	27.19	-0.05	99	239	77	84
62	10.009	0.168	0.021	2.58	103	1.0	-	27.13	-0.06	98	239	77	84
63	10.172	0.163	0.020	2.62	104	1.0	-	27.07	-0.06	98	240	78	84

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
64	10.339	0.167	0.020	2.60	104	1.0	-	27.03	-0.04	99	241	78	84
65	10.506	0.167	0.021	2.60	104	1.0	-	26.96	-0.07	99	240	78	84
66	10.669	0.163	0.020	2.58	104	1.0	-	26.91	-0.05	99	240	78	84
67	10.836	0.167	0.020	2.62	104	1.0	-	26.85	-0.06	98	241	79	84
68	11.003	0.167	0.020	2.60	105	1.0	-	26.79	-0.06	98	241	79	84
69	11.166	0.163	0.020	2.63	105	1.0	-	26.73	-0.06	98	241	79	84
70	11.333	0.167	0.020	2.63	105	0.9	98	26.67	-0.06	98	242	79	84
71	11.500	0.167	0.021	2.61	105	1.0	-	26.62	-0.05	98	242	79	84
72	11.665	0.165	0.020	2.62	105	0.9	-	26.56	-0.06	98	242	80	84
73	11.831	0.166	0.020	2.61	106	1.0	-	26.50	-0.06	98	243	80	84
74	11.998	0.167	0.021	2.63	106	1.0	-	26.44	-0.06	99	244	80	84
75	12.163	0.165	0.020	2.62	106	0.9	-	26.38	-0.06	99	244	80	84
76	12.330	0.167	0.020	2.61	106	0.9	-	26.32	-0.06	98	244	80	84
77	12.497	0.167	0.020	2.63	106	1.0	-	26.26	-0.06	98	244	80	84
78	12.662	0.165	0.020	2.64	107	1.0	-	26.20	-0.06	98	244	80	84
79	12.828	0.166	0.020	2.61	107	1.0	-	26.14	-0.06	99	246	81	84
80	12.996	0.168	0.021	2.62	107	1.0	98	26.07	-0.07	99	247	81	84
81	13.161	0.165	0.020	2.57	107	1.0	-	26.02	-0.05	99	248	81	84
82	13.328	0.167	0.020	2.60	107	1.0	-	25.96	-0.06	98	248	81	84
83	13.495	0.167	0.021	2.63	107	1.1	-	25.90	-0.06	99	248	81	84
84	13.660	0.165	0.020	2.62	108	1.0	-	25.84	-0.06	98	249	81	84
85	13.827	0.167	0.021	2.60	108	1.0	-	25.78	-0.06	98	251	81	84
86	13.995	0.168	0.021	2.63	108	1.0	-	25.72	-0.06	99	251	81	84
87	14.159	0.164	0.020	2.60	108	1.0	-	25.66	-0.06	99	251	81	84
88	14.327	0.168	0.021	2.60	108	1.0	-	25.60	-0.06	99	252	82	84
89	14.495	0.168	0.021	2.59	108	1.0	-	25.53	-0.07	99	252	82	84
90	14.660	0.165	0.020	2.60	108	1.0	98	25.46	-0.07	99	253	82	84
91	14.827	0.167	0.020	2.62	108	1.0	-	25.41	-0.05	99	253	82	84
92	14.995	0.168	0.021	2.62	109	1.0	-	25.34	-0.07	100	255	82	84
93	15.160	0.165	0.021	2.62	109	1.0	-	25.28	-0.06	100	255	82	84
94	15.327	0.167	0.020	2.61	109	1.0	-	25.21	-0.07	100	256	82	84
95	15.495	0.168	0.020	2.62	109	1.0	-	25.16	-0.05	99	257	82	85

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
96	15.661	0.166	0.020	2.61	109	1.0	-	25.08	-0.08	100	258	82	84
97	15.828	0.167	0.020	2.62	109	1.0	-	25.02	-0.06	100	259	82	84
98	15.996	0.168	0.020	2.62	109	1.0	-	24.95	-0.07	100	260	82	84
99	16.161	0.165	0.020	2.62	110	1.0	-	24.88	-0.07	99	261	83	84
100	16.329	0.168	0.020	2.61	110	0.9	99	24.82	-0.06	100	262	83	84
101	16.496	0.167	0.020	2.61	110	1.0	-	24.75	-0.07	100	263	83	85
102	16.662	0.166	0.020	2.62	110	1.0	-	24.68	-0.07	99	264	83	84
103	16.830	0.168	0.020	2.60	110	1.0	-	24.60	-0.08	100	265	83	84
104	16.997	0.167	0.020	2.60	110	1.0	-	24.54	-0.06	100	266	83	84
105	17.162	0.165	0.021	2.60	110	1.0	-	24.47	-0.07	100	268	83	84
106	17.331	0.169	0.020	2.59	110	1.0	-	24.40	-0.07	100	269	83	84
107	17.499	0.168	0.020	2.61	110	1.0	-	24.33	-0.07	100	270	83	84
108	17.663	0.164	0.020	2.63	111	1.0	-	24.26	-0.07	101	271	83	84
109	17.832	0.169	0.021	2.60	111	1.0	-	24.18	-0.08	100	272	83	85
110	18.001	0.169	0.021	2.61	111	1.0	98	24.11	-0.07	100	274	83	85
111	18.166	0.165	0.021	2.62	111	1.0	-	24.04	-0.07	101	276	83	85
112	18.334	0.168	0.020	2.63	111	1.0	-	23.97	-0.07	101	277	83	85
113	18.503	0.169	0.021	2.61	111	1.0	-	23.89	-0.08	101	278	83	84
114	18.667	0.164	0.021	2.61	111	1.0	-	23.83	-0.06	101	279	83	85
115	18.835	0.168	0.021	2.59	111	1.0	-	23.75	-0.08	102	280	83	85
116	19.005	0.170	0.020	2.60	111	1.0	-	23.67	-0.08	101	281	84	85
117	19.169	0.164	0.020	2.63	111	1.0	-	23.60	-0.07	101	282	84	85
118	19.336	0.167	0.021	2.61	111	1.0	-	23.53	-0.07	102	283	84	85
119	19.507	0.171	0.021	2.62	111	1.0	-	23.45	-0.08	101	284	84	85
120	19.672	0.165	0.020	2.62	112	1.0	98	23.38	-0.07	102	284	84	85
121	19.838	0.166	0.021	2.60	112	1.0	-	23.31	-0.07	102	285	84	85
122	20.009	0.171	0.020	2.60	112	1.0	-	23.24	-0.07	102	286	84	85
123	20.175	0.166	0.020	2.59	112	1.0	-	23.17	-0.07	102	286	84	85
124	20.340	0.165	0.021	2.59	112	1.0	-	23.09	-0.08	102	286	84	85
125	20.511	0.171	0.020	2.60	112	1.0	-	23.02	-0.07	102	287	84	85
126	20.678	0.167	0.020	2.59	112	1.0	-	22.95	-0.07	102	288	84	85
127	20.842	0.164	0.021	2.59	112	1.0	-	22.88	-0.07	101	290	84	85

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
128	21.012	0.170	0.020	2.62	112	1.0	-	22.80	-0.08	101	290	84	85
129	21.180	0.168	0.020	2.59	112	1.0	-	22.73	-0.07	102	289	84	85
130	21.345	0.165	0.021	2.59	112	1.0	98	22.65	-0.08	102	290	84	85
131	21.514	0.169	0.021	2.60	112	1.0	-	22.58	-0.07	102	291	84	85
132	21.684	0.170	0.021	2.60	112	1.0	-	22.51	-0.07	103	291	84	85
133	21.848	0.164	0.020	2.60	113	1.0	-	22.44	-0.07	103	292	84	85
134	22.016	0.168	0.021	2.60	113	1.0	-	22.37	-0.07	102	291	84	85
135	22.186	0.170	0.020	2.62	113	1.0	-	22.29	-0.08	103	292	84	85
136	22.351	0.165	0.021	2.60	113	1.0	-	22.21	-0.08	102	293	84	85
137	22.519	0.168	0.021	2.59	113	1.0	-	22.14	-0.07	103	294	84	85
138	22.688	0.169	0.020	2.61	113	1.0	-	22.07	-0.07	103	294	84	85
139	22.854	0.166	0.020	2.62	113	1.0	-	21.99	-0.08	103	295	84	85
140	23.022	0.168	0.021	2.63	113	1.0	97	21.90	-0.09	103	296	85	85
141	23.191	0.169	0.021	2.64	113	1.0	-	21.82	-0.08	104	298	85	85
142	23.357	0.166	0.021	2.64	113	1.0	-	21.74	-0.08	104	299	85	85
143	23.525	0.168	0.020	2.62	113	1.0	-	21.66	-0.08	104	300	85	85
144	23.693	0.168	0.021	2.60	113	1.0	-	21.57	-0.09	104	302	85	86
145	23.859	0.166	0.021	2.60	113	1.0	-	21.48	-0.09	104	302	85	86
146	24.028	0.169	0.020	2.60	113	1.0	-	21.40	-0.08	104	304	85	86
147	24.197	0.169	0.020	2.59	113	1.0	-	21.31	-0.09	104	307	85	86
148	24.362	0.165	0.021	2.60	113	1.0	-	21.22	-0.09	104	308	85	86
149	24.531	0.169	0.020	2.59	113	1.0	-	21.13	-0.09	104	309	85	86
150	24.701	0.170	0.021	2.59	113	1.0	97	21.04	-0.09	105	310	85	86
151	24.865	0.164	0.021	2.59	113	1.0	-	20.94	-0.10	105	313	85	86
152	25.032	0.167	0.021	2.60	113	1.0	-	20.85	-0.09	105	314	84	86
153	25.203	0.171	0.021	2.59	114	1.0	-	20.76	-0.09	105	315	81	86
154	25.370	0.167	0.020	2.60	114	1.0	-	20.66	-0.10	105	318	80	86
155	25.535	0.165	0.020	2.61	114	1.0	-	20.56	-0.10	105	319	79	86
156	25.707	0.172	0.021	2.61	114	1.0	-	20.47	-0.09	106	321	79	86
157	25.874	0.167	0.020	2.61	114	1.0	-	20.37	-0.10	105	321	79	86
158	26.038	0.164	0.021	2.60	114	1.0	-	20.27	-0.10	105	324	79	86
159	26.209	0.171	0.021	2.61	114	1.0	-	20.15	-0.12	106	325	79	86

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
160	26.378	0.169	0.020	2.60	114	1.0	98	20.05	-0.10	106	327	79	86
161	26.543	0.165	0.020	2.59	114	1.0	-	19.94	-0.11	106	329	79	86
162	26.712	0.169	0.020	2.60	114	1.0	-	19.83	-0.11	106	330	79	86
163	26.882	0.170	0.021	2.60	114	1.0	-	19.72	-0.11	106	331	79	86
164	27.047	0.165	0.021	2.59	114	1.0	-	19.61	-0.11	106	334	79	86
165	27.216	0.169	0.021	2.59	114	1.0	-	19.50	-0.11	106	335	80	86
166	27.385	0.169	0.020	2.59	114	1.0	-	19.35	-0.15	107	339	80	86
167	27.552	0.167	0.021	2.59	114	1.0	-	19.21	-0.14	107	342	80	86
168	27.720	0.168	0.021	2.59	114	1.0	-	19.07	-0.14	108	345	80	86
169	27.889	0.169	0.020	2.59	114	0.9	-	18.93	-0.14	108	345	81	86
170	28.054	0.165	0.020	2.59	114	0.9	99	18.80	-0.13	108	346	81	86
171	28.223	0.169	0.021	2.59	114	1.0	-	18.66	-0.14	108	346	81	86
172	28.393	0.170	0.021	2.60	114	1.1	-	18.53	-0.13	108	346	82	86
173	28.558	0.165	0.021	2.61	114	1.0	-	18.40	-0.13	108	346	82	86
174	28.727	0.169	0.021	2.62	114	1.1	-	18.26	-0.14	108	347	82	86
175	28.897	0.170	0.020	2.61	114	1.0	-	18.12	-0.14	108	347	82	86
176	29.062	0.165	0.020	2.60	114	1.0	-	17.99	-0.13	109	349	83	87
177	29.229	0.167	0.020	2.60	114	1.0	-	17.86	-0.13	109	349	83	87
178	29.401	0.172	0.021	2.60	114	1.0	-	17.73	-0.13	109	350	83	87
179	29.567	0.166	0.020	2.59	114	1.0	-	17.59	-0.14	109	350	83	86
180	29.733	0.166	0.021	2.60	114	1.0	99	17.46	-0.13	109	350	84	86
181	29.904	0.171	0.020	2.59	115	1.0	-	17.32	-0.14	109	350	84	87
182	30.071	0.167	0.021	2.58	115	1.0	-	17.19	-0.13	109	352	84	87
183	30.236	0.165	0.021	2.58	115	1.1	-	17.05	-0.14	110	352	84	87
184	30.406	0.170	0.021	2.58	115	1.0	-	16.92	-0.13	110	352	84	87
185	30.576	0.170	0.021	2.59	115	1.0	-	16.79	-0.13	110	352	85	87
186	30.740	0.164	0.021	2.59	115	1.0	-	16.65	-0.14	109	352	85	87
187	30.909	0.169	0.021	2.59	115	1.0	-	16.52	-0.13	109	353	85	87
188	31.079	0.170	0.021	2.60	115	1.0	-	16.39	-0.13	109	353	85	87
189	31.244	0.165	0.022	2.60	115	1.1	-	16.24	-0.15	110	354	85	87
190	31.412	0.168	0.021	2.60	115	1.0	97	16.10	-0.14	110	354	85	87
191	31.581	0.169	0.021	2.61	115	1.0	-	15.97	-0.13	110	354	85	87

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
192	31.748	0.167	0.020	2.60	115	1.0	-	15.82	-0.15	110	355	85	87
193	31.916	0.168	0.021	2.60	115	1.0	-	15.68	-0.14	110	355	86	87
194	32.085	0.169	0.021	2.60	115	1.1	-	15.55	-0.13	110	356	86	87
195	32.251	0.166	0.021	2.61	115	1.0	-	15.41	-0.14	109	355	78	87
196	32.420	0.169	0.020	2.61	115	1.0	-	15.27	-0.14	109	356	77	87
197	32.589	0.169	0.021	2.60	115	1.0	-	15.13	-0.14	109	355	77	86
198	32.755	0.166	0.020	2.61	115	1.0	-	14.99	-0.14	110	355	77	86
199	32.924	0.169	0.020	2.62	115	1.0	-	14.84	-0.15	110	356	77	86
200	33.095	0.171	0.020	2.63	115	1.0	99	14.70	-0.14	111	356	76	86
201	33.260	0.165	0.019	2.66	115	1.0	-	14.56	-0.14	111	357	76	86
202	33.427	0.167	0.020	2.66	115	1.0	-	14.40	-0.16	112	359	77	86
203	33.599	0.172	0.020	2.66	115	1.0	-	14.24	-0.16	112	361	77	86
204	33.766	0.167	0.019	2.63	115	1.0	-	14.09	-0.15	112	361	77	86
205	33.932	0.166	0.020	2.63	115	1.0	-	13.96	-0.13	112	358	77	86
206	34.103	0.171	0.019	2.63	115	1.0	-	13.83	-0.13	113	355	77	86
207	34.272	0.169	0.019	2.60	115	1.0	-	13.71	-0.12	112	351	77	86
208	34.437	0.165	0.019	2.62	115	1.0	-	13.59	-0.12	112	346	77	86
209	34.607	0.170	0.020	2.63	115	1.0	-	13.46	-0.13	112	343	78	86
210	34.777	0.170	0.020	2.63	115	1.0	100	13.33	-0.13	112	343	78	86
211	34.943	0.166	0.020	2.63	115	1.0	-	13.21	-0.12	112	343	78	86
212	35.112	0.169	0.019	2.62	115	1.0	-	13.08	-0.13	112	344	78	86
213	35.282	0.170	0.020	2.62	115	1.0	-	12.96	-0.12	112	345	78	87
214	35.448	0.166	0.020	2.62	115	1.0	-	12.82	-0.14	112	347	79	86
215	35.617	0.169	0.020	2.63	115	1.0	-	12.69	-0.13	112	347	79	86
216	35.787	0.170	0.020	2.63	115	1.0	-	12.56	-0.13	112	348	79	86
217	35.953	0.166	0.019	2.62	116	1.0	-	12.43	-0.13	113	349	79	86
218	36.122	0.169	0.020	2.62	116	1.0	-	12.29	-0.14	113	350	80	86
219	36.293	0.171	0.020	2.61	116	1.0	-	12.16	-0.13	112	350	80	86
220	36.458	0.165	0.020	2.63	116	1.0	100	12.03	-0.13	113	350	80	86
221	36.626	0.168	0.020	2.63	116	1.0	-	11.90	-0.13	112	351	80	86
222	36.798	0.172	0.020	2.63	116	1.0	-	11.76	-0.14	112	351	81	86
223	36.965	0.167	0.019	2.61	116	1.0	-	11.62	-0.14	112	352	81	86

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
224	37.130	0.165	0.020	2.61	116	1.0	-	11.48	-0.14	112	353	81	86
225	37.301	0.171	0.020	2.61	116	1.0	-	11.34	-0.14	113	354	82	86
226	37.470	0.169	0.020	2.60	116	1.0	-	11.19	-0.15	113	354	82	86
227	37.636	0.166	0.020	2.58	116	1.0	-	11.05	-0.14	113	355	82	86
228	37.805	0.169	0.020	2.61	116	1.0	-	10.90	-0.15	113	356	82	86
229	37.975	0.170	0.020	2.61	116	1.0	-	10.76	-0.14	113	356	83	86
230	38.141	0.166	0.020	2.61	116	1.0	100	10.61	-0.15	112	356	83	86
231	38.310	0.169	0.020	2.62	116	1.0	-	10.47	-0.14	113	357	83	86
232	38.480	0.170	0.020	2.62	116	1.0	-	10.33	-0.14	112	357	83	86
233	38.646	0.166	0.020	2.62	116	1.0	-	10.19	-0.14	112	355	84	86
234	38.815	0.169	0.020	2.62	116	1.0	-	10.05	-0.14	112	356	84	86
235	38.985	0.170	0.020	2.61	116	1.0	-	9.91	-0.14	112	355	84	86
236	39.151	0.166	0.020	2.61	116	1.1	-	9.77	-0.14	112	354	84	86
237	39.320	0.169	0.020	2.60	116	1.0	-	9.63	-0.14	112	354	84	86
238	39.490	0.170	0.020	2.60	116	1.0	-	9.50	-0.13	112	354	85	86
239	39.656	0.166	0.020	2.61	116	1.0	-	9.37	-0.13	112	353	85	86
240	39.823	0.167	0.020	2.61	116	1.0	100	9.23	-0.14	112	352	85	86
241	39.995	0.172	0.019	2.60	116	1.0	-	9.10	-0.13	112	352	85	86
242	40.162	0.167	0.020	2.61	116	1.0	-	8.98	-0.12	112	351	85	86
243	40.327	0.165	0.020	2.62	116	1.0	-	8.85	-0.13	112	349	86	86
244	40.498	0.171	0.020	2.62	116	1.0	-	8.74	-0.11	112	347	86	86
245	40.667	0.169	0.020	2.62	116	1.0	-	8.64	-0.10	112	346	86	86
246	40.833	0.166	0.020	2.61	116	1.0	-	8.52	-0.12	112	344	86	86
247	41.003	0.170	0.020	2.61	117	1.0	-	8.42	-0.10	112	341	86	86
248	41.172	0.169	0.020	2.62	116	1.0	-	8.31	-0.11	112	340	86	86
249	41.338	0.166	0.020	2.61	116	1.0	-	8.21	-0.10	112	338	86	86
250	41.507	0.169	0.019	2.59	117	1.0	101	8.13	-0.08	111	336	87	86
251	41.677	0.170	0.020	2.60	117	1.0	-	8.04	-0.09	111	334	87	86
252	41.843	0.166	0.020	2.60	117	1.0	-	7.95	-0.09	111	332	87	86
253	42.012	0.169	0.020	2.59	117	1.0	-	7.88	-0.07	111	330	87	86
254	42.181	0.169	0.020	2.60	117	1.0	-	7.81	-0.07	111	327	87	86
255	42.347	0.166	0.020	2.61	117	1.0	-	7.73	-0.08	111	325	87	86

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
256	42.517	0.170	0.020	2.61	117	1.0	-	7.66	-0.07	111	325	87	86
257	42.686	0.169	0.020	2.61	117	1.0	-	7.59	-0.07	111	323	87	86
258	42.852	0.166	0.020	2.62	117	1.0	-	7.53	-0.06	111	322	87	86
259	43.020	0.168	0.020	2.63	117	1.0	-	7.47	-0.06	111	319	87	86
260	43.191	0.171	0.020	2.60	117	1.0	101	7.42	-0.05	111	317	87	86
261	43.358	0.167	0.020	2.60	117	1.0	-	7.37	-0.05	111	316	87	86
262	43.524	0.166	0.020	2.61	117	1.0	-	7.32	-0.05	110	315	88	86
263	43.695	0.171	0.020	2.62	117	1.1	-	7.27	-0.05	110	314	88	86
264	43.863	0.168	0.020	2.61	117	1.0	-	7.22	-0.05	110	313	88	86
265	44.028	0.165	0.020	2.59	117	1.0	-	7.17	-0.05	110	312	88	86
266	44.199	0.171	0.020	2.59	117	1.0	-	7.12	-0.05	110	311	88	86
267	44.369	0.170	0.020	2.60	117	1.0	-	7.08	-0.04	110	309	88	86
268	44.534	0.165	0.020	2.59	117	1.1	-	7.04	-0.04	109	308	88	86
269	44.703	0.169	0.020	2.59	117	1.0	-	6.99	-0.05	109	307	88	86
270	44.873	0.170	0.020	2.59	117	1.0	100	6.96	-0.03	110	307	88	86
271	45.040	0.167	0.020	2.59	117	1.0	-	6.92	-0.04	109	305	88	86
272	45.208	0.168	0.020	2.59	117	1.0	-	6.89	-0.03	109	304	88	86
273	45.377	0.169	0.020	2.58	117	1.0	-	6.84	-0.05	109	303	88	86
274	45.543	0.166	0.020	2.59	117	1.0	-	6.81	-0.03	109	301	88	86
275	45.713	0.170	0.020	2.58	117	1.0	-	6.78	-0.03	109	300	88	86
276	45.883	0.170	0.020	2.58	117	1.0	-	6.74	-0.04	109	298	88	86
277	46.048	0.165	0.020	2.58	117	1.0	-	6.71	-0.03	108	297	88	86
278	46.217	0.169	0.020	2.59	117	1.0	-	6.68	-0.03	109	296	88	86
279	46.388	0.171	0.020	2.57	117	1.0	-	6.66	-0.02	108	295	88	86
280	46.555	0.167	0.020	2.60	117	1.0	100	6.63	-0.03	108	293	88	86
281	46.721	0.166	0.020	2.59	117	1.0	-	6.60	-0.03	108	292	88	86
282	46.892	0.171	0.020	2.60	117	1.0	-	6.57	-0.03	108	290	88	86
283	47.061	0.169	0.020	2.58	117	1.0	-	6.55	-0.02	108	289	88	86
284	47.226	0.165	0.020	2.58	117	1.0	-	6.53	-0.02	108	288	88	86
285	47.397	0.171	0.020	2.60	117	1.0	-	6.50	-0.03	108	286	88	86
286	47.566	0.169	0.020	2.59	117	1.0	-	6.48	-0.02	108	285	88	86
287	47.732	0.166	0.020	2.59	117	1.0	-	6.44	-0.04	107	284	88	86

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
288	47.901	0.169	0.020	2.59	117	1.0	-	6.43	-0.01	107	282	88	86
289	48.071	0.170	0.020	2.61	117	1.0	-	6.40	-0.03	107	281	88	86
290	48.238	0.167	0.020	2.62	117	1.1	99	6.38	-0.02	107	280	88	86
291	48.407	0.169	0.020	2.62	117	1.0	-	6.35	-0.03	107	278	88	86
292	48.575	0.168	0.020	2.62	117	1.0	-	6.34	-0.01	107	277	88	86
293	48.741	0.166	0.020	2.61	117	1.0	-	6.33	-0.01	107	275	88	86
294	48.911	0.170	0.020	2.60	117	1.0	-	6.29	-0.04	107	273	88	86
295	49.081	0.170	0.020	2.60	117	1.0	-	6.27	-0.02	107	272	88	86
296	49.247	0.166	0.020	2.61	117	1.0	-	6.25	-0.02	107	270	88	86
297	49.415	0.168	0.020	2.61	117	1.0	-	6.24	-0.01	106	268	88	86
298	49.587	0.172	0.020	2.61	117	1.0	-	6.22	-0.02	106	266	88	86
299	49.753	0.166	0.020	2.61	117	1.0	-	6.19	-0.03	106	264	88	86
300	49.920	0.167	0.019	2.61	117	1.0	101	6.17	-0.02	106	263	88	86
301	50.091	0.171	0.019	2.62	117	1.0	-	6.16	-0.01	106	262	88	86
302	50.260	0.169	0.020	2.61	117	1.0	-	6.13	-0.03	106	260	88	86
303	50.425	0.165	0.019	2.62	117	1.0	-	6.11	-0.02	106	259	88	86
304	50.595	0.170	0.020	2.62	117	1.0	-	6.10	-0.01	106	259	88	86
305	50.765	0.170	0.020	2.62	117	1.0	-	6.07	-0.03	106	258	88	86
306	50.931	0.166	0.020	2.62	117	1.0	-	6.05	-0.02	106	257	88	86
307	51.101	0.170	0.020	2.61	117	1.0	-	6.03	-0.02	106	257	88	86
308	51.270	0.169	0.020	2.61	117	1.0	-	6.02	-0.01	106	255	88	86
309	51.437	0.167	0.020	2.62	117	1.0	-	6.00	-0.02	106	254	88	86
310	51.606	0.169	0.020	2.61	117	1.0	101	5.98	-0.02	106	253	88	86
311	51.775	0.169	0.020	2.62	117	1.0	-	5.96	-0.02	106	252	88	85
312	51.942	0.167	0.020	2.62	117	1.0	-	5.94	-0.02	106	250	88	86
313	52.111	0.169	0.020	2.61	117	1.0	-	5.92	-0.02	106	250	88	85
314	52.281	0.170	0.020	2.61	117	1.0	-	5.89	-0.03	105	250	88	85
315	52.447	0.166	0.020	2.60	117	1.0	-	5.88	-0.01	105	249	88	85
316	52.615	0.168	0.019	2.61	117	1.0	-	5.86	-0.02	105	249	88	86
317	52.787	0.172	0.019	2.61	117	1.0	-	5.84	-0.02	105	248	88	86
318	52.954	0.167	0.020	2.61	117	1.0	-	5.82	-0.02	105	247	88	85
319	53.119	0.165	0.019	2.60	117	1.0	-	5.80	-0.02	105	246	88	85

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
320	53.291	0.172	0.019	2.61	117	1.0	101	5.79	-0.01	105	245	88	86
321	53.461	0.170	0.019	2.60	117	1.0	-	5.77	-0.02	105	245	88	86
322	53.626	0.165	0.020	2.60	117	1.0	-	5.75	-0.02	105	244	88	85
323	53.795	0.169	0.020	2.61	117	1.0	-	5.73	-0.02	105	244	88	85
324	53.965	0.170	0.020	2.62	117	1.0	-	5.72	-0.01	105	243	88	85
325	54.132	0.167	0.019	2.61	117	1.0	-	5.70	-0.02	105	242	88	85
326	54.301	0.169	0.019	2.61	117	1.0	-	5.68	-0.02	105	242	88	85
327	54.470	0.169	0.020	2.62	117	1.0	-	5.67	-0.01	105	240	88	85
328	54.636	0.166	0.019	2.61	117	1.0	-	5.65	-0.02	104	240	87	85
329	54.806	0.170	0.020	2.60	117	1.0	-	5.63	-0.02	104	240	87	85
330	54.976	0.170	0.020	2.61	117	1.0	101	5.61	-0.02	104	239	87	85
331	55.142	0.166	0.020	2.61	117	1.0	-	5.59	-0.02	104	239	87	85
332	55.310	0.168	0.020	2.62	117	1.0	-	5.58	-0.01	104	238	87	85
333	55.481	0.171	0.020	2.61	117	1.0	-	5.56	-0.02	104	238	87	85
334	55.648	0.167	0.020	2.61	117	1.0	-	5.55	-0.01	104	237	87	85
335	55.815	0.167	0.019	2.62	117	1.0	-	5.53	-0.02	104	237	87	85
336	55.986	0.171	0.019	2.62	117	1.0	-	5.51	-0.02	104	236	87	85
337	56.155	0.169	0.019	2.61	117	1.0	-	5.50	-0.01	104	235	87	85
338	56.320	0.165	0.019	2.62	117	1.0	-	5.47	-0.03	104	236	87	85
339	56.491	0.171	0.020	2.62	117	1.0	-	5.46	-0.01	104	236	87	85
340	56.661	0.170	0.020	2.62	117	1.0	99	5.44	-0.02	104	234	87	85
341	56.826	0.165	0.019	2.61	117	1.0	-	5.43	-0.01	104	234	87	85
342	56.995	0.169	0.020	2.61	117	1.0	-	5.41	-0.02	104	234	87	85
343	57.166	0.171	0.019	2.61	117	1.0	-	5.39	-0.02	104	234	87	85
344	57.332	0.166	0.020	2.61	117	1.0	-	5.37	-0.02	104	234	87	85
345	57.501	0.169	0.020	2.61	117	1.0	-	5.36	-0.01	103	234	87	85
346	57.670	0.169	0.020	2.60	117	1.0	-	5.34	-0.02	103	233	87	85
347	57.836	0.166	0.019	2.61	117	0.9	-	5.32	-0.02	103	234	87	85
348	58.006	0.170	0.019	2.60	117	1.0	-	5.30	-0.02	103	234	87	85
349	58.176	0.170	0.019	2.60	117	1.0	-	5.29	-0.01	103	234	87	85
350	58.342	0.166	0.019	2.60	117	1.0	100	5.27	-0.02	103	233	87	85
351	58.510	0.168	0.020	2.61	117	1.0	-	5.25	-0.02	103	234	87	85

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
352	58.682	0.172	0.019	2.62	117	1.0	-	5.23	-0.02	103	233	87	85
353	58.849	0.167	0.020	2.62	117	1.0	-	5.21	-0.02	103	233	87	85
354	59.015	0.166	0.020	2.60	117	1.0	-	5.19	-0.02	103	233	87	85
355	59.186	0.171	0.019	2.61	117	1.0	-	5.17	-0.02	103	233	87	85
356	59.356	0.170	0.020	2.61	117	1.0	-	5.16	-0.01	103	232	87	85
357	59.521	0.165	0.019	2.61	117	1.0	-	5.14	-0.02	103	232	87	85
358	59.691	0.170	0.019	2.61	117	1.0	-	5.13	-0.01	103	232	87	85
359	59.861	0.170	0.019	2.61	117	1.0	-	5.10	-0.03	103	232	87	85
360	60.027	0.166	0.020	2.60	117	1.0	100	5.08	-0.02	103	232	87	85
361	60.197	0.170	0.020	2.60	117	1.0	-	5.06	-0.02	102	232	87	85
362	60.366	0.169	0.019	2.62	117	1.0	-	5.05	-0.01	103	232	87	85
363	60.533	0.167	0.019	2.62	117	1.0	-	5.03	-0.02	103	232	87	85
364	60.702	0.169	0.019	2.61	117	1.0	-	5.01	-0.02	103	234	87	85
365	60.873	0.171	0.019	2.61	117	1.0	-	4.99	-0.02	103	233	87	85
366	61.039	0.166	0.019	2.62	117	1.0	-	4.97	-0.02	102	233	87	85
367	61.207	0.168	0.019	2.62	117	1.0	-	4.95	-0.02	102	233	87	85
368	61.379	0.172	0.019	2.62	117	1.0	-	4.93	-0.02	102	233	87	85
369	61.546	0.167	0.020	2.61	117	1.0	-	4.91	-0.02	102	233	87	85
370	61.712	0.166	0.019	2.62	117	1.0	100	4.90	-0.01	102	232	87	85
371	61.883	0.171	0.020	2.61	117	1.0	-	4.88	-0.02	102	233	87	85
372	62.053	0.170	0.020	2.61	117	1.0	-	4.85	-0.03	102	233	87	85
373	62.219	0.166	0.019	2.61	117	1.0	-	4.84	-0.01	102	232	87	85
374	62.388	0.169	0.020	2.62	117	1.0	-	4.82	-0.02	102	232	87	85
375	62.558	0.170	0.019	2.62	117	1.0	-	4.81	-0.01	102	232	87	85
376	62.725	0.167	0.019	2.62	117	1.0	-	4.78	-0.03	102	232	87	85
377	62.895	0.170	0.020	2.62	117	1.0	-	4.76	-0.02	102	232	87	85
378	63.064	0.169	0.020	2.62	117	1.0	-	4.74	-0.02	102	233	87	85
379	63.231	0.167	0.020	2.62	117	1.0	-	4.73	-0.01	102	232	86	85
380	63.400	0.169	0.020	2.62	117	1.0	100	4.71	-0.02	102	232	86	85
381	63.571	0.171	0.020	2.61	117	1.0	-	4.69	-0.02	102	232	86	85
382	63.736	0.165	0.020	2.62	117	1.0	-	4.67	-0.02	102	232	86	85
383	63.905	0.169	0.020	2.61	117	1.0	-	4.64	-0.03	102	232	86	85

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
384	64.077	0.172	0.020	2.62	117	1.0	-	4.62	-0.02	102	232	86	85
385	64.244	0.167	0.019	2.61	117	1.0	-	4.60	-0.02	102	232	86	85
386	64.410	0.166	0.019	2.62	117	1.0	-	4.58	-0.02	102	232	86	85
387	64.581	0.171	0.020	2.62	117	1.0	-	4.55	-0.03	101	231	86	85
388	64.751	0.170	0.019	2.62	117	1.0	-	4.53	-0.02	101	232	86	85
389	64.916	0.165	0.020	2.62	117	1.0	-	4.51	-0.02	101	232	86	85
390	65.086	0.170	0.019	2.62	117	1.0	100	4.49	-0.02	101	232	86	85
391	65.256	0.170	0.019	2.62	117	1.0	-	4.47	-0.02	102	233	86	85
392	65.423	0.167	0.019	2.62	117	1.0	-	4.45	-0.02	101	233	86	85
393	65.592	0.169	0.019	2.62	117	1.0	-	4.43	-0.02	101	233	86	85
394	65.762	0.170	0.019	2.62	117	1.0	-	4.41	-0.02	101	233	86	85
395	65.928	0.166	0.019	2.63	117	1.0	-	4.39	-0.02	101	234	86	85
396	66.098	0.170	0.020	2.62	117	1.0	-	4.37	-0.02	101	233	86	85
397	66.268	0.170	0.020	2.61	117	1.0	-	4.34	-0.03	101	234	86	85
398	66.434	0.166	0.019	2.62	117	1.0	-	4.33	-0.01	101	234	86	85
399	66.603	0.169	0.019	2.62	117	1.0	-	4.30	-0.03	101	234	86	85
400	66.774	0.171	0.019	2.61	117	1.0	102	4.28	-0.02	101	234	86	85
401	66.941	0.167	0.020	2.61	117	1.0	-	4.26	-0.02	101	234	86	85
402	67.107	0.166	0.019	2.62	117	1.0	-	4.24	-0.02	101	234	86	85
403	67.279	0.172	0.019	2.63	117	1.0	-	4.22	-0.02	101	235	86	85
404	67.448	0.169	0.019	2.60	117	1.0	-	4.20	-0.02	101	235	86	85
405	67.613	0.165	0.019	2.61	117	1.0	-	4.18	-0.02	101	234	86	85
406	67.784	0.171	0.019	2.61	117	1.0	-	4.16	-0.02	101	234	86	85
407	67.953	0.169	0.019	2.63	117	1.0	-	4.14	-0.02	101	235	86	85
408	68.120	0.167	0.019	2.61	117	1.0	-	4.12	-0.02	101	235	86	85
409	68.289	0.169	0.019	2.62	117	1.0	-	4.10	-0.02	101	235	86	85
410	68.459	0.170	0.020	2.62	117	1.0	100	4.08	-0.02	101	235	86	85
411	68.625	0.166	0.019	2.63	117	1.0	-	4.06	-0.02	101	234	86	85
412	68.795	0.170	0.019	2.61	117	1.0	-	4.04	-0.02	101	234	86	85
413	68.965	0.170	0.019	2.62	117	1.0	-	4.02	-0.02	101	235	86	85
414	69.131	0.166	0.019	2.62	117	1.0	-	4.01	-0.01	101	235	86	85
415	69.300	0.169	0.019	2.61	117	1.0	-	3.98	-0.03	101	235	86	85

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
416	69.471	0.171	0.019	2.62	117	1.0	-	3.96	-0.02	101	235	86	85
417	69.637	0.166	0.019	2.62	117	1.0	-	3.95	-0.01	101	235	86	84
418	69.805	0.168	0.019	2.62	117	1.0	-	3.93	-0.02	101	235	86	84
419	69.976	0.171	0.019	2.62	117	1.0	-	3.91	-0.02	101	234	86	84
420	70.145	0.169	0.019	2.62	117	1.0	100	3.89	-0.02	101	234	86	84
421	70.310	0.165	0.019	2.61	117	1.0	-	3.87	-0.02	101	234	86	85
422	70.481	0.171	0.019	2.63	117	1.0	-	3.85	-0.02	101	234	86	84
423	70.651	0.170	0.019	2.64	117	1.0	-	3.83	-0.02	101	234	86	84
424	70.817	0.166	0.019	2.64	117	1.0	-	3.81	-0.02	101	234	86	84
425	70.986	0.169	0.019	2.63	117	1.0	-	3.79	-0.02	101	233	86	84
426	71.156	0.170	0.019	2.62	117	1.0	-	3.77	-0.02	101	234	86	84
427	71.323	0.167	0.019	2.61	117	1.0	-	3.76	-0.01	101	234	86	84
428	71.492	0.169	0.019	2.60	117	1.0	-	3.74	-0.02	101	233	86	84
429	71.662	0.170	0.019	2.60	117	1.0	-	3.72	-0.02	101	233	86	84
430	71.829	0.167	0.019	2.60	117	1.0	102	3.70	-0.02	101	233	86	84
431	71.998	0.169	0.019	2.60	117	1.0	-	3.68	-0.02	101	233	86	84
432	72.169	0.171	0.019	2.59	117	1.0	-	3.67	-0.01	101	233	86	84
433	72.335	0.166	0.019	2.58	117	1.0	-	3.65	-0.02	101	232	86	84
434	72.502	0.167	0.019	2.59	117	1.0	-	3.63	-0.02	101	231	86	84
435	72.674	0.172	0.019	2.60	117	1.0	-	3.61	-0.02	101	230	86	84
436	72.842	0.168	0.019	2.61	117	1.0	-	3.60	-0.01	101	229	86	84
437	73.008	0.166	0.019	2.60	117	1.0	-	3.58	-0.02	101	228	86	84
438	73.179	0.171	0.019	2.62	117	1.0	-	3.57	-0.01	101	228	86	84
439	73.349	0.170	0.019	2.61	117	1.0	-	3.55	-0.02	101	226	86	84
440	73.515	0.166	0.019	2.62	117	1.0	102	3.53	-0.02	101	225	86	84
441	73.684	0.169	0.019	2.62	117	1.0	-	3.52	-0.01	101	225	86	84
442	73.854	0.170	0.019	2.62	117	1.0	-	3.50	-0.02	101	224	86	84
443	74.021	0.167	0.019	2.63	117	1.0	-	3.49	-0.01	100	223	86	84
444	74.190	0.169	0.019	2.63	117	1.0	-	3.47	-0.02	100	222	85	84
445	74.360	0.170	0.019	2.64	117	1.0	-	3.45	-0.02	100	222	85	84
446	74.526	0.166	0.019	2.64	117	1.0	-	3.44	-0.01	100	222	85	84
447	74.695	0.169	0.019	2.62	117	1.0	-	3.42	-0.02	100	221	85	84

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
448	74.866	0.171	0.019	2.63	117	1.0	-	3.40	-0.02	100	220	85	84
449	75.032	0.166	0.019	2.60	117	1.0	-	3.39	-0.01	100	220	85	84
450	75.199	0.167	0.019	2.62	117	1.1	101	3.37	-0.02	100	220	85	84
451	75.371	0.172	0.019	2.63	117	1.0	-	3.36	-0.01	100	220	85	84
452	75.539	0.168	0.019	2.61	117	1.0	-	3.34	-0.02	100	219	85	84
453	75.704	0.165	0.019	2.62	117	1.0	-	3.32	-0.02	100	219	85	84
454	75.875	0.171	0.019	2.61	117	1.0	-	3.31	-0.01	100	218	85	84
455	76.046	0.171	0.019	2.61	117	1.0	-	3.29	-0.02	100	218	85	84
456	76.211	0.165	0.019	2.60	116	1.0	-	3.27	-0.02	100	219	85	84
457	76.380	0.169	0.019	2.60	116	1.0	-	3.26	-0.01	100	218	85	84
458	76.550	0.170	0.019	2.59	116	1.0	-	3.25	-0.01	100	218	85	84
459	76.718	0.168	0.019	2.62	116	1.0	-	3.23	-0.02	100	218	85	84
460	76.887	0.169	0.019	2.61	116	1.0	102	3.22	-0.01	100	217	85	84
461	77.056	0.169	0.019	2.60	116	1.0	-	3.19	-0.03	100	217	85	84
462	77.222	0.166	0.019	2.61	116	1.0	-	3.18	-0.01	100	217	85	84
463	77.392	0.170	0.019	2.61	116	1.0	-	3.16	-0.02	100	216	85	84
464	77.563	0.171	0.019	2.60	116	1.0	-	3.15	-0.01	100	216	85	84
465	77.728	0.165	0.019	2.60	116	1.0	-	3.13	-0.02	100	216	85	84
466	77.896	0.168	0.019	2.62	116	1.0	-	3.12	-0.01	100	215	85	84
467	78.069	0.173	0.019	2.62	116	1.0	-	3.10	-0.02	99	216	85	84
468	78.236	0.167	0.019	2.62	116	1.0	-	3.09	-0.01	99	215	85	84
469	78.401	0.165	0.019	2.61	116	1.0	-	3.07	-0.02	99	215	85	84
470	78.573	0.172	0.019	2.62	116	1.0	102	3.06	-0.01	99	214	85	84
471	78.743	0.170	0.019	2.62	116	1.0	-	3.04	-0.02	99	214	85	84
472	78.909	0.166	0.019	2.62	116	1.0	-	3.03	-0.01	99	215	85	84
473	79.078	0.169	0.019	2.61	116	1.0	-	3.01	-0.02	99	214	85	84
474	79.248	0.170	0.019	2.63	116	1.0	-	3.00	-0.01	99	214	85	83
475	79.415	0.167	0.019	2.63	116	1.0	-	2.98	-0.02	99	214	85	83
476	79.585	0.170	0.019	2.62	116	1.0	-	2.96	-0.02	99	213	85	84
477	79.754	0.169	0.019	2.63	116	1.0	-	2.96	0.00	99	213	85	83
478	79.920	0.166	0.020	2.63	116	1.0	-	2.93	-0.03	99	213	85	83
479	80.091	0.171	0.019	2.63	116	1.0	-	2.93	0.00	99	213	85	83

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
480	80.261	0.170	0.019	2.61	116	1.0	102	2.91	-0.02	99	213	85	83
481	80.427	0.166	0.019	2.62	116	1.0	-	2.90	-0.01	99	213	85	83
482	80.595	0.168	0.019	2.63	116	1.0	-	2.88	-0.02	99	214	85	83
483	80.767	0.172	0.019	2.62	116	1.0	-	2.87	-0.01	99	214	85	83
484	80.935	0.168	0.019	2.63	116	1.0	-	2.85	-0.02	99	214	85	83
485	81.100	0.165	0.019	2.63	116	1.0	-	2.84	-0.01	99	214	85	83
486	81.271	0.171	0.019	2.63	116	1.0	-	2.83	-0.01	99	214	85	83
487	81.442	0.171	0.019	2.63	116	1.0	-	2.81	-0.02	99	214	85	83
488	81.608	0.166	0.019	2.63	116	1.0	-	2.80	-0.01	99	214	85	83
489	81.777	0.169	0.019	2.62	116	1.0	-	2.78	-0.02	99	213	85	83
490	81.947	0.170	0.019	2.62	116	1.0	102	2.77	-0.01	99	214	85	83
491	82.114	0.167	0.019	2.63	116	1.0	-	2.76	-0.01	99	214	85	83
492	82.283	0.169	0.019	2.62	116	1.0	-	2.74	-0.02	99	215	85	83
493	82.453	0.170	0.019	2.63	116	1.0	-	2.73	-0.01	99	214	85	83
494	82.619	0.166	0.019	2.63	116	1.0	-	2.71	-0.02	99	214	85	83
495	82.789	0.170	0.019	2.63	116	1.0	-	2.70	-0.01	99	214	85	83
496	82.960	0.171	0.019	2.63	116	1.0	-	2.69	-0.01	98	214	85	83
497	83.125	0.165	0.019	2.63	116	1.0	-	2.67	-0.02	98	214	84	83
498	83.293	0.168	0.019	2.63	116	1.0	-	2.66	-0.01	98	214	84	83
499	83.465	0.172	0.019	2.63	116	1.0	-	2.65	-0.01	98	213	84	83
500	83.633	0.168	0.019	2.63	116	1.0	102	2.63	-0.02	98	214	84	83
501	83.798	0.165	0.019	2.63	116	1.0	-	2.62	-0.01	98	214	84	83
502	83.969	0.171	0.019	2.62	116	1.0	-	2.60	-0.02	98	214	84	83
503	84.140	0.171	0.019	2.61	116	1.0	-	2.58	-0.02	98	213	84	83
504	84.305	0.165	0.019	2.62	116	1.0	-	2.57	-0.01	98	213	84	83
505	84.474	0.169	0.019	2.61	116	1.0	-	2.56	-0.01	98	213	84	83
506	84.644	0.170	0.019	2.61	116	1.0	-	2.55	-0.01	98	213	84	83
507	84.811	0.167	0.019	2.62	116	1.0	-	2.53	-0.02	98	213	84	83
508	84.980	0.169	0.019	2.61	116	1.0	-	2.52	-0.01	98	213	84	83
509	85.150	0.170	0.019	2.61	116	1.0	-	2.50	-0.02	98	213	84	83
510	85.316	0.166	0.019	2.61	116	1.0	101	2.48	-0.02	98	213	84	83
511	85.486	0.170	0.018	2.60	116	1.0	-	2.47	-0.01	98	213	84	83

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
512	85.656	0.170	0.019	2.60	116	1.0	-	2.46	-0.01	98	213	84	83
513	85.822	0.166	0.019	2.61	116	1.0	-	2.44	-0.02	98	213	84	83
514	85.990	0.168	0.019	2.63	116	1.0	-	2.43	-0.01	98	212	84	83
515	86.162	0.172	0.019	2.63	116	1.0	-	2.41	-0.02	98	212	84	83
516	86.329	0.167	0.019	2.62	116	1.0	-	2.40	-0.01	98	212	84	83
517	86.495	0.166	0.019	2.62	116	1.0	-	2.38	-0.02	98	212	84	83
518	86.666	0.171	0.019	2.62	116	1.0	-	2.37	-0.01	98	211	84	83
519	86.836	0.170	0.019	2.63	116	1.0	-	2.35	-0.02	98	211	84	83
520	87.001	0.165	0.019	2.64	116	1.0	101	2.33	-0.02	98	212	84	83
521	87.171	0.170	0.019	2.63	116	1.0	-	2.32	-0.01	98	212	84	83
522	87.341	0.170	0.019	2.63	116	1.0	-	2.30	-0.02	97	212	84	83
523	87.508	0.167	0.019	2.63	116	1.0	-	2.29	-0.01	98	212	84	83
524	87.677	0.169	0.019	2.63	116	1.0	-	2.28	-0.01	97	212	84	83
525	87.847	0.170	0.019	2.63	116	1.0	-	2.26	-0.02	97	212	84	83
526	88.013	0.166	0.019	2.64	116	1.0	-	2.25	-0.01	97	213	84	83
527	88.183	0.170	0.019	2.63	116	1.0	-	2.23	-0.02	97	213	84	83
528	88.353	0.170	0.019	2.63	116	1.0	-	2.22	-0.01	97	213	84	83
529	88.519	0.166	0.019	2.62	116	1.0	-	2.20	-0.02	97	214	84	83
530	88.687	0.168	0.019	2.62	116	1.0	102	2.19	-0.01	97	214	84	83
531	88.859	0.172	0.019	2.61	116	1.0	-	2.16	-0.03	97	214	84	83
532	89.026	0.167	0.019	2.60	116	1.0	-	2.15	-0.01	97	214	84	83
533	89.192	0.166	0.019	2.60	116	1.0	-	2.14	-0.01	97	215	84	82
534	89.364	0.172	0.019	2.61	116	1.0	-	2.12	-0.02	97	214	84	83
535	89.532	0.168	0.019	2.61	116	1.0	-	2.11	-0.01	97	214	84	82
536	89.698	0.166	0.019	2.61	116	1.0	-	2.10	-0.01	97	213	84	83
537	89.868	0.170	0.019	2.63	116	1.0	-	2.08	-0.02	97	213	84	83
538	90.038	0.170	0.019	2.63	116	1.0	-	2.07	-0.01	97	213	84	83
539	90.205	0.167	0.019	2.62	116	1.0	-	2.05	-0.02	97	212	84	82
540	90.374	0.169	0.019	2.62	116	1.0	102	2.04	-0.01	97	211	84	82
541	90.544	0.170	0.019	2.63	116	1.0	-	2.02	-0.02	97	211	84	82
542	90.710	0.166	0.019	2.64	116	1.0	-	2.01	-0.01	97	211	84	82
543	90.880	0.170	0.019	2.64	116	1.0	-	2.00	-0.01	97	211	84	82

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
544	91.050	0.170	0.019	2.63	116	1.0	-	1.98	-0.02	97	211	84	82
545	91.216	0.166	0.020	2.64	115	1.0	-	1.97	-0.01	97	210	84	82
546	91.385	0.169	0.019	2.64	115	1.0	-	1.95	-0.02	97	210	84	82
547	91.556	0.171	0.019	2.64	115	1.0	-	1.94	-0.01	97	210	84	82
548	91.722	0.166	0.020	2.63	115	1.0	-	1.92	-0.02	97	210	84	82
549	91.889	0.167	0.019	2.63	115	1.0	-	1.90	-0.02	97	210	84	82
550	92.061	0.172	0.019	2.64	115	1.0	102	1.90	0.00	97	209	84	82
551	92.229	0.168	0.019	2.62	115	1.0	-	1.88	-0.02	97	209	84	82
552	92.395	0.166	0.019	2.63	115	1.0	-	1.87	-0.01	97	209	84	82
553	92.565	0.170	0.019	2.64	115	1.0	-	1.85	-0.02	97	208	84	82
554	92.735	0.170	0.020	2.64	115	1.0	-	1.83	-0.02	97	208	84	82
555	92.901	0.166	0.020	2.64	115	1.0	-	1.81	-0.02	96	208	84	82
556	93.070	0.169	0.020	2.63	115	1.0	-	1.80	-0.01	96	208	84	82
557	93.241	0.171	0.019	2.63	115	1.0	-	1.79	-0.01	96	208	84	82
558	93.407	0.166	0.020	2.62	115	1.0	-	1.77	-0.02	96	208	84	82
559	93.576	0.169	0.019	2.62	115	1.0	-	1.75	-0.02	96	208	84	82
560	93.745	0.169	0.019	2.62	115	1.0	101	1.74	-0.01	96	208	84	82
561	93.912	0.167	0.020	2.64	115	1.0	-	1.72	-0.02	96	208	84	82
562	94.081	0.169	0.020	2.64	115	1.0	-	1.70	-0.02	96	208	84	82
563	94.252	0.171	0.020	2.62	115	1.0	-	1.68	-0.02	96	208	84	82
564	94.417	0.165	0.020	2.61	115	1.0	-	1.66	-0.02	96	209	84	82
565	94.585	0.168	0.019	2.61	115	1.0	-	1.64	-0.02	96	209	84	82
566	94.757	0.172	0.019	2.62	115	1.0	-	1.62	-0.02	96	209	84	82
567	94.924	0.167	0.019	2.61	115	1.0	-	1.61	-0.01	96	209	84	82
568	95.089	0.165	0.019	2.62	115	1.0	-	1.59	-0.02	96	209	84	82
569	95.261	0.172	0.019	2.63	115	1.0	-	1.57	-0.02	96	209	84	82
570	95.430	0.169	0.019	2.63	115	1.0	101	1.55	-0.02	96	209	84	82
571	95.596	0.166	0.020	2.64	115	1.0	-	1.53	-0.02	96	209	84	82
572	95.765	0.169	0.020	2.63	115	1.0	-	1.51	-0.02	96	208	84	82
573	95.935	0.170	0.020	2.64	115	1.0	-	1.49	-0.02	96	208	83	82
574	96.101	0.166	0.020	2.63	115	1.0	-	1.47	-0.02	96	209	84	82
575	96.271	0.170	0.020	2.62	115	1.0	-	1.46	-0.01	96	208	84	82

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
576	96.440	0.169	0.020	2.62	115	1.0	-	1.44	-0.02	96	208	84	82
577	96.606	0.166	0.020	2.63	115	1.0	-	1.42	-0.02	96	208	83	82
578	96.775	0.169	0.020	2.62	115	1.0	-	1.40	-0.02	96	208	83	82
579	96.945	0.170	0.019	2.63	115	1.0	-	1.38	-0.02	96	208	83	82
580	97.111	0.166	0.019	2.62	115	1.0	101	1.36	-0.02	96	208	83	82
581	97.280	0.169	0.020	2.64	115	1.0	-	1.34	-0.02	96	209	83	82
582	97.451	0.171	0.020	2.63	115	1.0	-	1.33	-0.01	96	209	83	82
583	97.616	0.165	0.020	2.63	115	1.0	-	1.31	-0.02	96	208	83	82
584	97.784	0.168	0.020	2.64	115	1.0	-	1.29	-0.02	96	209	83	82
585	97.956	0.172	0.020	2.63	115	1.0	-	1.28	-0.01	96	208	83	82
586	98.123	0.167	0.020	2.63	115	1.0	-	1.25	-0.03	96	208	83	82
587	98.288	0.165	0.019	2.63	115	1.0	-	1.24	-0.01	96	208	83	82
588	98.459	0.171	0.019	2.64	115	1.0	-	1.22	-0.02	96	209	83	82
589	98.630	0.171	0.020	2.63	115	1.0	-	1.19	-0.03	96	209	83	82
590	98.795	0.165	0.020	2.62	115	1.0	100	1.17	-0.02	96	210	83	82
591	98.964	0.169	0.020	2.61	115	1.0	-	1.16	-0.01	96	210	83	82
592	99.133	0.169	0.020	2.63	115	1.0	-	1.13	-0.03	96	210	83	82
593	99.300	0.167	0.019	2.62	115	1.0	-	1.11	-0.02	96	210	83	82
594	99.469	0.169	0.019	2.62	115	1.0	-	1.09	-0.02	96	210	83	82
595	99.639	0.170	0.019	2.62	115	1.0	-	1.07	-0.02	96	211	83	82
596	99.805	0.166	0.019	2.63	115	1.0	-	1.06	-0.01	96	212	83	82
597	99.975	0.170	0.020	2.63	115	1.0	-	1.04	-0.02	96	212	83	82
598	100.145	0.170	0.019	2.63	115	1.0	-	1.02	-0.02	96	212	83	82
599	100.311	0.166	0.019	2.64	115	1.0	-	0.99	-0.03	96	212	83	82
600	100.479	0.168	0.019	2.65	115	1.0	100	0.98	-0.01	96	212	83	82
601	100.650	0.171	0.020	2.65	115	1.0	-	0.96	-0.02	96	213	83	82
602	100.817	0.167	0.020	2.64	115	1.0	-	0.94	-0.02	96	213	83	82
603	100.984	0.167	0.019	2.67	115	1.0	-	0.93	-0.01	96	214	83	82
604	101.155	0.171	0.019	2.67	115	1.0	-	0.90	-0.03	96	213	83	82
605	101.324	0.169	0.019	2.67	115	1.0	-	0.88	-0.02	96	213	83	82
606	101.489	0.165	0.019	2.67	115	1.0	-	0.86	-0.02	96	214	83	82
607	101.659	0.170	0.019	2.66	115	1.0	-	0.84	-0.02	96	214	83	82

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
608	101.829	0.170	0.019	2.68	115	1.0	-	0.83	-0.01	96	215	83	82
609	101.995	0.166	0.019	2.66	115	1.0	-	0.80	-0.03	96	215	83	82
610	102.164	0.169	0.019	2.67	115	1.0	102	0.79	-0.01	96	215	83	82
611	102.334	0.170	0.019	2.68	115	1.0	-	0.78	-0.01	96	215	83	82
612	102.501	0.167	0.019	2.67	115	1.0	-	0.76	-0.02	96	215	83	82
613	102.670	0.169	0.019	2.67	115	1.0	-	0.74	-0.02	96	216	83	82
614	102.840	0.170	0.019	2.68	115	1.0	-	0.72	-0.02	96	216	83	82
615	103.006	0.166	0.018	2.68	115	1.0	-	0.70	-0.02	96	217	83	82
616	103.175	0.169	0.019	2.67	115	1.0	-	0.68	-0.02	96	216	83	81
617	103.346	0.171	0.018	2.66	115	1.0	-	0.66	-0.02	96	216	83	81
618	103.512	0.166	0.018	2.66	115	1.0	-	0.64	-0.02	96	217	83	82
619	103.679	0.167	0.019	2.67	115	1.0	-	0.63	-0.01	96	217	83	81
620	103.851	0.172	0.019	2.65	115	1.0	102	0.61	-0.02	96	217	83	81
621	104.019	0.168	0.019	2.63	114	1.0	-	0.59	-0.02	96	216	83	81
622	104.184	0.165	0.019	2.62	114	1.0	-	0.56	-0.03	96	217	83	81
623	104.355	0.171	0.019	2.62	114	1.0	-	0.55	-0.01	96	217	83	81
624	104.525	0.170	0.019	2.63	114	1.0	-	0.53	-0.02	96	217	83	81
625	104.691	0.166	0.019	2.62	114	1.0	-	0.52	-0.01	96	217	83	81
626	104.860	0.169	0.019	2.61	114	1.0	-	0.50	-0.02	96	217	83	81
627	105.029	0.169	0.019	2.63	114	1.0	-	0.48	-0.02	96	217	83	81
628	105.197	0.168	0.019	2.63	114	1.0	-	0.46	-0.02	96	217	83	81
629	105.366	0.169	0.019	2.63	114	1.0	-	0.44	-0.02	96	217	83	81
630	105.535	0.169	0.019	2.63	114	1.0	101	0.42	-0.02	96	217	83	81
631	105.701	0.166	0.019	2.63	114	1.0	-	0.40	-0.02	96	217	83	81
632	105.871	0.170	0.019	2.61	114	1.0	-	0.38	-0.02	96	217	83	81
633	106.041	0.170	0.019	2.63	114	1.0	-	0.37	-0.01	96	216	83	81
634	106.207	0.166	0.019	2.62	114	1.0	-	0.35	-0.02	96	216	83	81
635	106.375	0.168	0.019	2.62	114	1.0	-	0.33	-0.02	95	217	83	81
636	106.547	0.172	0.019	2.62	114	1.0	-	0.31	-0.02	96	217	83	81
637	106.714	0.167	0.018	2.62	114	1.0	-	0.29	-0.02	96	217	83	81
638	106.880	0.166	0.019	2.63	114	1.0	-	0.27	-0.02	96	217	83	81
639	107.051	0.171	0.020	2.63	114	1.0	-	0.26	-0.01	96	218	83	81

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
640	107.220	0.169	0.019	2.62	114	1.0	102	0.24	-0.02	96	217	83	81
641	107.385	0.165	0.019	2.62	114	1.0	-	0.22	-0.02	96	217	83	81
642	107.555	0.170	0.019	2.62	114	1.0	-	0.20	-0.02	95	218	83	81
643	107.725	0.170	0.019	2.62	114	1.0	-	0.18	-0.02	95	217	83	81
644	107.891	0.166	0.019	2.63	114	1.0	-	0.16	-0.02	96	217	83	81
645	108.060	0.169	0.019	2.62	114	1.0	-	0.15	-0.01	96	218	83	81
646	108.230	0.170	0.019	2.62	114	1.0	-	0.13	-0.02	96	217	83	81
647	108.396	0.166	0.019	2.62	114	1.0	-	0.11	-0.02	96	218	83	81
648	108.565	0.169	0.019	2.62	114	1.0	-	0.09	-0.02	95	218	83	81
649	108.735	0.170	0.019	2.62	114	1.0	-	0.08	-0.01	96	218	83	81
650	108.901	0.166	0.019	2.64	114	1.0	101	0.05	-0.03	95	218	83	81
651	109.071	0.170	0.019	2.63	114	1.0	-	0.04	-0.01	95	218	83	81
652	109.241	0.170	0.019	2.61	114	1.0	-	0.02	-0.02	96	218	83	81
653	109.406	0.165	0.019	2.60	114	1.0	101	0.00	-0.02	95	218	83	81
Avg/Tot	109.406	0.168	0.020	2.61	113.0	1.0	100			102.0	256.3	83.6	84.2

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
0	0.000		1.78	88	1.6		72	-0.052	2.69	0.102
1	0.158	0.158	2.46	87	1.6	-	75	-0.068	2.02	0.130
2	0.312	0.154	2.46	88	2.0	-	76	-0.054	4.55	0.050
3	0.470	0.158	2.46	88	2.1	-	76	-0.047	6.52	0.015
4	0.625	0.155	2.46	88	1.5	-	77	-0.047	5.84	0.014
5	0.783	0.158	2.45	88	1.8	-	77	-0.045	5.79	0.014
6	0.939	0.156	2.45	88	1.6	-	77	-0.046	5.74	0.016
7	1.093	0.154	2.44	88	1.9	-	77	-0.047	6.79	0.014
8	1.253	0.160	2.46	88	1.6	-	77	-0.045	6.66	0.007
9	1.407	0.154	2.46	88	2.1	-	78	-0.043	6.49	0.011
10	1.564	0.157	2.45	89	1.9	102	78	-0.046	6.87	0.011
11	1.721	0.157	2.46	89	1.9	-	78	-0.046	6.57	0.011
12	1.877	0.156	2.45	89	1.8	-	78	-0.047	6.51	0.015
13	2.035	0.158	2.45	89	1.6	-	78	-0.044	6.35	0.010
14	2.189	0.154	2.45	90	2.0	-	79	-0.045	6.30	0.015
15	2.349	0.160	2.46	90	1.8	-	79	-0.044	6.29	0.009
16	2.503	0.154	2.45	90	2.0	-	79	-0.042	6.40	0.015
17	2.661	0.158	2.45	90	1.6	-	79	-0.043	7.63	0.012
18	2.818	0.157	2.45	91	2.0	-	79	-0.042	6.94	0.010
19	2.973	0.155	2.45	91	1.7	-	79	-0.045	6.40	0.015
20	3.132	0.159	2.45	91	1.7	100	79	-0.042	7.64	0.011
21	3.287	0.155	2.45	92	1.7	-	80	-0.043	8.49	0.014
22	3.445	0.158	2.45	92	1.6	-	80	-0.044	7.23	0.014
23	3.601	0.156	2.45	92	1.8	-	80	-0.044	7.89	0.016
24	3.759	0.158	2.45	93	2.0	-	80	-0.042	7.44	0.017
25	3.916	0.157	2.45	93	1.7	-	80	-0.041	7.00	0.013
26	4.072	0.156	2.45	93	1.9	-	80	-0.042	7.20	0.016
27	4.232	0.160	2.46	94	1.9	-	80	-0.041	7.14	0.012
28	4.387	0.155	2.45	94	1.9	-	80	-0.041	7.00	0.013
29	4.545	0.158	2.46	94	1.6	-	80	-0.041	6.72	0.012
30	4.704	0.159	2.45	95	2.0	100	80	-0.043	6.78	0.015
31	4.859	0.155	2.45	95	1.7	-	81	-0.040	6.88	0.013

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
32	5.020	0.161	2.46	95	1.9	-	81	-0.042	6.92	0.014
33	5.175	0.155	2.46	96	1.6	-	81	-0.040	6.91	0.012
34	5.333	0.158	2.45	96	2.0	-	81	-0.040	6.98	0.013
35	5.492	0.159	2.45	96	1.6	-	81	-0.038	7.06	0.010
36	5.648	0.156	2.46	97	1.6	-	81	-0.041	7.30	0.013
37	5.809	0.161	2.46	97	1.9	-	81	-0.042	7.66	0.012
38	5.965	0.156	2.46	97	2.0	-	81	-0.043	7.98	0.011
39	6.124	0.159	2.46	97	1.7	-	81	-0.041	8.16	0.017
40	6.282	0.158	2.46	98	1.7	100	81	-0.040	8.00	0.012
41	6.440	0.158	2.46	98	2.0	-	81	-0.039	7.95	0.012
42	6.599	0.159	2.46	98	1.8	-	79	-0.041	7.81	0.012
43	6.757	0.158	2.47	99	1.9	-	77	-0.042	7.83	0.014
44	6.916	0.159	2.46	99	2.0	-	76	-0.040	7.87	0.013
45	7.075	0.159	2.47	99	1.9	-	76	-0.039	7.75	0.012
46	7.233	0.158	2.47	100	2.0	-	75	-0.045	7.75	0.017
47	7.393	0.160	2.48	100	1.8	-	75	-0.038	7.78	0.013
48	7.551	0.158	2.48	100	1.6	-	75	-0.044	7.84	0.018
49	7.711	0.160	2.47	100	1.9	-	75	-0.041	7.85	0.019
50	7.870	0.159	2.48	101	2.0	100	74	-0.044	7.97	0.012
51	8.028	0.158	2.47	101	1.7	-	74	-0.040	8.02	0.017
52	8.189	0.161	2.47	101	1.7	-	74	-0.040	8.08	0.015
53	8.346	0.157	2.47	102	1.7	-	74	-0.044	8.18	0.015
54	8.506	0.160	2.47	102	1.7	-	74	-0.044	8.22	0.014
55	8.667	0.161	2.47	102	1.8	-	74	-0.042	8.30	0.015
56	8.824	0.157	2.47	102	1.8	-	75	-0.041	8.27	0.020
57	8.986	0.162	2.47	103	1.7	-	75	-0.043	8.18	0.009
58	9.143	0.157	2.47	103	1.6	-	75	-0.040	8.09	0.017
59	9.304	0.161	2.47	103	1.6	-	75	-0.044	7.97	0.015
60	9.464	0.160	2.48	103	2.0	99	76	-0.040	7.97	0.019
61	9.622	0.158	2.48	104	1.6	-	76	-0.040	7.92	0.020
62	9.785	0.163	2.48	104	2.0	-	76	-0.045	7.94	0.016
63	9.941	0.156	2.47	104	2.0	-	76	-0.039	7.95	0.020

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
64	10.102	0.161	2.48	104	1.8	-	77	-0.044	8.00	0.020
65	10.263	0.161	2.48	105	1.6	-	77	-0.042	8.03	0.016
66	10.421	0.158	2.48	105	1.8	-	77	-0.043	8.26	0.016
67	10.581	0.160	2.47	105	1.8	-	77	-0.045	8.26	0.019
68	10.740	0.159	2.47	105	1.9	-	78	-0.044	8.31	0.020
69	10.900	0.160	2.47	105	1.7	-	78	-0.041	8.46	0.022
70	11.061	0.161	2.48	105	1.8	98	78	-0.043	8.47	0.022
71	11.219	0.158	2.48	106	1.7	-	78	-0.043	8.60	0.023
72	11.379	0.160	2.47	106	1.9	-	79	-0.042	8.54	0.020
73	11.540	0.161	2.47	106	1.9	-	79	-0.043	8.65	0.021
74	11.698	0.158	2.48	106	1.9	-	79	-0.043	8.66	0.023
75	11.861	0.163	2.48	107	1.6	-	79	-0.043	8.77	0.022
76	12.017	0.156	2.47	107	1.7	-	79	-0.042	8.89	0.029
77	12.179	0.162	2.47	107	1.7	-	80	-0.043	8.89	0.025
78	12.340	0.161	2.48	107	1.9	-	80	-0.044	9.10	0.029
79	12.498	0.158	2.48	107	1.7	-	80	-0.044	9.07	0.030
80	12.661	0.163	2.48	107	2.0	98	80	-0.043	9.18	0.029
81	12.818	0.157	2.47	108	2.0	-	80	-0.044	9.13	0.033
82	12.980	0.162	2.48	108	1.7	-	80	-0.044	9.15	0.030
83	13.140	0.160	2.47	108	1.8	-	81	-0.041	9.17	0.035
84	13.299	0.159	2.47	108	1.9	-	81	-0.044	9.23	0.032
85	13.460	0.161	2.47	108	1.8	-	81	-0.041	9.26	0.035
86	13.620	0.160	2.47	108	1.9	-	81	-0.048	9.33	0.030
87	13.779	0.159	2.48	108	1.7	-	81	-0.046	9.43	0.034
88	13.942	0.163	2.48	109	1.9	-	81	-0.043	9.50	0.031
89	14.099	0.157	2.47	109	1.9	-	81	-0.043	9.56	0.034
90	14.261	0.162	2.47	109	2.0	98	82	-0.046	9.63	0.034
91	14.422	0.161	2.48	109	2.0	-	82	-0.044	9.78	0.034
92	14.581	0.159	2.48	109	1.8	-	82	-0.044	9.85	0.032
93	14.743	0.162	2.48	109	1.7	-	82	-0.046	9.94	0.034
94	14.901	0.158	2.48	109	1.7	-	82	-0.048	9.99	0.034
95	15.063	0.162	2.48	109	1.8	-	82	-0.046	10.06	0.034

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
96	15.223	0.160	2.47	109	1.8	-	82	-0.047	10.08	0.036
97	15.383	0.160	2.48	110	1.7	-	82	-0.045	10.26	0.036
98	15.544	0.161	2.47	110	1.6	-	82	-0.048	10.25	0.036
99	15.705	0.161	2.47	110	1.9	-	82	-0.048	10.29	0.035
100	15.863	0.158	2.48	110	1.7	99	82	-0.051	10.29	0.034
101	16.027	0.164	2.47	110	1.9	-	83	-0.047	10.42	0.034
102	16.185	0.158	2.48	110	1.9	-	83	-0.048	10.55	0.035
103	16.347	0.162	2.48	110	1.8	-	83	-0.047	10.56	0.033
104	16.508	0.161	2.48	110	1.7	-	83	-0.052	10.71	0.036
105	16.667	0.159	2.48	111	1.7	-	83	-0.048	10.71	0.036
106	16.828	0.161	2.48	111	1.9	-	83	-0.050	10.75	0.038
107	16.989	0.161	2.48	111	1.8	-	83	-0.046	11.00	0.030
108	17.148	0.159	2.47	111	1.6	-	83	-0.050	11.03	0.045
109	17.311	0.163	2.48	111	1.7	-	83	-0.050	11.17	0.037
110	17.469	0.158	2.48	111	1.7	98	83	-0.052	11.28	0.036
111	17.631	0.162	2.48	111	1.7	-	83	-0.049	11.37	0.039
112	17.792	0.161	2.48	111	1.7	-	83	-0.049	11.32	0.040
113	17.951	0.159	2.47	111	1.8	-	83	-0.049	11.35	0.041
114	18.114	0.163	2.48	111	2.0	-	83	-0.049	11.19	0.041
115	18.274	0.160	2.48	111	1.7	-	83	-0.047	11.33	0.037
116	18.435	0.161	2.48	111	1.8	-	84	-0.048	11.27	0.041
117	18.596	0.161	2.47	111	1.7	-	84	-0.050	11.31	0.038
118	18.756	0.160	2.48	112	1.7	-	84	-0.055	11.26	0.041
119	18.917	0.161	2.47	112	1.8	-	84	-0.048	11.19	0.041
120	19.079	0.162	2.48	112	1.7	98	84	-0.051	11.24	0.040
121	19.237	0.158	2.48	112	1.8	-	84	-0.052	11.19	0.043
122	19.401	0.164	2.47	112	1.7	-	84	-0.050	11.18	0.036
123	19.559	0.158	2.47	112	1.7	-	84	-0.050	11.22	0.043
124	19.722	0.163	2.48	112	1.8	-	84	-0.052	11.26	0.035
125	19.882	0.160	2.47	112	2.0	-	84	-0.051	11.27	0.030
126	20.042	0.160	2.48	112	1.8	-	84	-0.053	11.28	0.035
127	20.203	0.161	2.47	112	1.9	-	84	-0.048	11.30	0.037

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
128	20.365	0.162	2.48	112	1.6	-	84	-0.053	11.35	0.034
129	20.524	0.159	2.47	112	1.6	-	84	-0.054	11.22	0.031
130	20.688	0.164	2.47	112	2.0	98	84	-0.052	11.14	0.037
131	20.846	0.158	2.47	113	1.9	-	84	-0.053	11.28	0.031
132	21.008	0.162	2.47	113	2.0	-	84	-0.055	11.21	0.033
133	21.169	0.161	2.48	113	1.7	-	84	-0.053	11.29	0.036
134	21.329	0.160	2.47	113	1.8	-	84	-0.050	11.32	0.029
135	21.491	0.162	2.47	113	1.9	-	84	-0.050	11.50	0.033
136	21.652	0.161	2.46	113	1.8	-	84	-0.054	11.75	0.037
137	21.811	0.159	2.47	113	1.7	-	84	-0.049	11.86	0.037
138	21.975	0.164	2.47	113	1.6	-	84	-0.053	11.97	0.034
139	22.133	0.158	2.47	113	1.9	-	85	-0.054	12.18	0.033
140	22.295	0.162	2.47	113	1.6	97	85	-0.049	12.39	0.038
141	22.457	0.162	2.48	113	2.0	-	85	-0.055	12.66	0.038
142	22.616	0.159	2.47	113	1.7	-	85	-0.053	12.84	0.037
143	22.778	0.162	2.47	113	2.0	-	85	-0.054	13.04	0.042
144	22.939	0.161	2.47	113	1.7	-	85	-0.054	13.03	0.037
145	23.099	0.160	2.48	113	1.9	-	85	-0.052	13.15	0.039
146	23.262	0.163	2.47	113	1.6	-	85	-0.052	13.42	0.039
147	23.420	0.158	2.48	113	1.8	-	85	-0.053	13.41	0.033
148	23.583	0.163	2.47	113	1.7	-	85	-0.054	13.67	0.047
149	23.744	0.161	2.47	113	1.8	-	85	-0.054	13.66	0.043
150	23.903	0.159	2.47	114	1.8	97	85	-0.051	13.85	0.062
151	24.066	0.163	2.47	114	1.7	-	85	-0.056	14.03	0.058
152	24.226	0.160	2.47	114	1.7	-	85	-0.052	14.01	0.088
153	24.386	0.160	2.48	114	1.9	-	80	-0.059	14.15	0.127
154	24.549	0.163	2.47	114	1.9	-	79	-0.056	14.33	0.134
155	24.707	0.158	2.48	114	1.8	-	78	-0.056	14.23	0.154
156	24.871	0.164	2.48	114	1.7	-	78	-0.055	14.38	0.218
157	25.031	0.160	2.47	114	1.6	-	78	-0.055	14.42	0.272
158	25.191	0.160	2.48	114	1.9	-	78	-0.061	14.59	0.320
159	25.354	0.163	2.48	114	1.8	-	78	-0.056	14.60	0.422

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
160	25.515	0.161	2.48	114	2.0	98	78	-0.058	14.76	0.509
161	25.675	0.160	2.48	114	1.7	-	78	-0.058	14.70	0.608
162	25.838	0.163	2.48	114	1.7	-	78	-0.056	14.86	0.743
163	25.996	0.158	2.48	114	1.7	-	78	-0.062	14.85	0.825
164	26.160	0.164	2.47	114	1.7	-	79	-0.059	15.10	0.923
165	26.321	0.161	2.47	114	1.7	-	79	-0.071	15.02	1.250
166	26.481	0.160	2.48	114	1.9	-	79	-0.061	15.03	1.888
167	26.643	0.162	2.47	114	1.7	-	79	-0.061	14.69	2.566
168	26.804	0.161	2.47	114	1.8	-	79	-0.062	14.43	3.778
169	26.964	0.160	2.48	114	1.7	-	80	-0.061	14.24	3.712
170	27.127	0.163	2.47	114	1.7	100	80	-0.061	14.18	3.645
171	27.286	0.159	2.47	114	1.7	-	80	-0.061	14.30	3.503
172	27.449	0.163	2.47	114	1.7	-	80	-0.063	14.32	3.439
173	27.610	0.161	2.48	114	1.7	-	80	-0.064	14.29	3.369
174	27.769	0.159	2.47	114	1.8	-	80	-0.059	14.25	3.289
175	27.932	0.163	2.48	114	1.8	-	81	-0.062	14.29	3.269
176	28.093	0.161	2.47	114	1.6	-	81	-0.062	14.33	3.326
177	28.253	0.160	2.48	114	2.0	-	81	-0.058	14.32	3.378
178	28.416	0.163	2.47	114	1.9	-	81	-0.063	14.32	3.490
179	28.575	0.159	2.48	114	2.0	-	82	-0.064	14.16	3.522
180	28.738	0.163	2.47	114	1.7	98	82	-0.066	14.04	3.492
181	28.899	0.161	2.47	114	1.7	-	82	-0.061	14.18	3.560
182	29.058	0.159	2.47	115	1.9	-	83	-0.065	14.16	3.577
183	29.221	0.163	2.47	115	1.7	-	83	-0.066	14.07	3.627
184	29.382	0.161	2.46	115	1.7	-	83	-0.058	14.05	3.707
185	29.541	0.159	2.47	115	1.7	-	83	-0.061	14.11	3.717
186	29.705	0.164	2.47	115	1.7	-	83	-0.060	14.05	3.754
187	29.863	0.158	2.47	115	1.6	-	84	-0.066	14.09	3.924
188	30.026	0.163	2.47	115	1.8	-	84	-0.063	14.04	3.946
189	30.187	0.161	2.46	115	1.7	-	84	-0.064	14.06	4.111
190	30.347	0.160	2.47	115	1.9	97	84	-0.063	13.90	4.298
191	30.509	0.162	2.47	115	1.7	-	85	-0.064	13.89	4.480

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
192	30.670	0.161	2.47	115	1.6	-	85	-0.070	13.87	4.409
193	30.830	0.160	2.47	115	1.7	-	85	-0.062	13.77	4.646
194	30.993	0.163	2.46	115	1.7	-	85	-0.066	13.90	4.586
195	31.151	0.158	2.46	115	2.0	-	82	-0.064	13.77	4.714
196	31.314	0.163	2.47	115	1.7	-	80	-0.063	13.83	4.898
197	31.475	0.161	2.47	115	1.7	-	79	-0.061	13.80	4.812
198	31.635	0.160	2.47	115	1.9	-	78	-0.063	13.78	4.858
199	31.798	0.163	2.48	115	1.6	-	78	-0.065	13.78	4.927
200	31.959	0.161	2.47	115	2.0	98	78	-0.065	13.79	4.954
201	32.119	0.160	2.48	115	1.7	-	77	-0.066	13.78	5.000
202	32.283	0.164	2.47	115	1.8	-	77	-0.061	13.83	5.000
203	32.442	0.159	2.48	115	2.0	-	77	-0.066	14.31	5.000
204	32.604	0.162	2.47	115	1.8	-	77	-0.062	14.09	4.406
205	32.766	0.162	2.48	115	1.9	-	77	-0.064	14.15	3.953
206	32.926	0.160	2.48	115	1.8	-	77	-0.062	14.29	3.490
207	33.089	0.163	2.48	115	1.9	-	77	-0.062	14.45	3.111
208	33.250	0.161	2.48	115	1.6	-	77	-0.064	14.15	3.312
209	33.410	0.160	2.48	115	1.9	-	77	-0.059	13.65	3.898
210	33.574	0.164	2.48	115	1.9	100	77	-0.058	13.71	4.122
211	33.733	0.159	2.48	115	1.6	-	77	-0.061	13.65	4.174
212	33.896	0.163	2.48	115	1.8	-	77	-0.061	13.83	4.326
213	34.057	0.161	2.48	115	1.6	-	77	-0.059	13.67	4.574
214	34.217	0.160	2.47	115	1.6	-	77	-0.065	13.66	4.753
215	34.380	0.163	2.48	115	1.8	-	78	-0.063	13.54	4.973
216	34.542	0.162	2.48	115	1.8	-	78	-0.063	13.45	5.000
217	34.701	0.159	2.47	115	1.6	-	78	-0.059	13.35	5.000
218	34.866	0.165	2.48	115	2.0	-	78	-0.062	13.50	5.000
219	35.024	0.158	2.47	115	1.7	-	79	-0.064	13.49	5.000
220	35.187	0.163	2.48	115	1.6	100	79	-0.064	13.45	5.000
221	35.348	0.161	2.47	115	1.8	-	79	-0.063	13.54	5.000
222	35.509	0.161	2.47	115	1.6	-	79	-0.062	13.53	5.000
223	35.671	0.162	2.47	115	1.7	-	80	-0.062	13.46	5.000

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
224	35.833	0.162	2.47	115	2.0	-	80	-0.063	13.36	5.000
225	35.992	0.159	2.47	115	2.0	-	80	-0.065	13.34	5.000
226	36.156	0.164	2.47	115	1.6	-	80	-0.065	13.19	5.000
227	36.315	0.159	2.47	115	1.7	-	81	-0.065	13.17	5.000
228	36.477	0.162	2.47	115	2.0	-	81	-0.067	13.03	5.000
229	36.639	0.162	2.47	115	2.0	-	81	-0.063	12.94	5.000
230	36.799	0.160	2.47	115	1.8	100	82	-0.065	12.99	5.000
231	36.961	0.162	2.47	116	1.7	-	82	-0.060	12.95	5.000
232	37.123	0.162	2.47	116	1.9	-	82	-0.065	12.92	5.000
233	37.283	0.160	2.47	116	1.9	-	83	-0.064	12.88	5.000
234	37.446	0.163	2.47	116	1.7	-	83	-0.063	12.85	5.000
235	37.606	0.160	2.47	116	1.7	-	83	-0.063	12.90	5.000
236	37.767	0.161	2.47	116	1.9	-	83	-0.065	12.91	5.000
237	37.930	0.163	2.47	116	2.0	-	84	-0.066	12.97	5.000
238	38.089	0.159	2.48	116	1.6	-	84	-0.059	12.97	5.000
239	38.252	0.163	2.47	116	1.6	-	84	-0.061	12.93	5.000
240	38.413	0.161	2.47	116	1.9	100	84	-0.063	12.91	5.000
241	38.573	0.160	2.47	116	1.6	-	85	-0.062	12.84	5.000
242	38.736	0.163	2.47	116	2.0	-	85	-0.063	12.91	5.000
243	38.896	0.160	2.46	116	2.1	-	85	-0.063	12.95	5.000
244	39.057	0.161	2.47	116	1.6	-	85	-0.063	13.09	5.000
245	39.220	0.163	2.47	116	1.7	-	85	-0.061	13.12	5.000
246	39.379	0.159	2.47	116	1.6	-	86	-0.063	13.08	4.999
247	39.542	0.163	2.47	116	2.0	-	86	-0.059	13.20	4.873
248	39.703	0.161	2.46	116	1.9	-	86	-0.059	13.24	4.563
249	39.864	0.161	2.47	116	1.6	-	86	-0.059	13.44	4.011
250	40.026	0.162	2.47	116	2.0	101	86	-0.061	13.55	3.613
251	40.187	0.161	2.47	116	1.7	-	86	-0.059	13.48	3.238
252	40.347	0.160	2.46	116	1.9	-	86	-0.057	13.61	3.065
253	40.511	0.164	2.46	116	2.0	-	87	-0.058	13.49	2.746
254	40.669	0.158	2.47	116	2.0	-	87	-0.058	13.78	2.277
255	40.832	0.163	2.46	116	1.6	-	87	-0.054	13.85	1.953

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
256	40.994	0.162	2.47	116	1.8	-	87	-0.058	13.85	1.912
257	41.154	0.160	2.47	116	1.7	-	87	-0.055	13.98	1.499
258	41.316	0.162	2.47	116	2.0	-	87	-0.056	14.06	1.078
259	41.477	0.161	2.46	116	1.9	-	87	-0.054	14.00	0.777
260	41.637	0.160	2.47	116	2.0	101	87	-0.052	13.85	0.575
261	41.801	0.164	2.46	116	1.7	-	87	-0.052	13.60	0.429
262	41.959	0.158	2.47	116	2.0	-	87	-0.052	13.48	0.349
263	42.122	0.163	2.47	116	2.0	-	87	-0.053	13.44	0.277
264	42.284	0.162	2.47	116	2.0	-	87	-0.052	13.22	0.210
265	42.443	0.159	2.47	116	1.9	-	88	-0.053	13.09	0.138
266	42.606	0.163	2.47	116	1.7	-	88	-0.052	13.00	0.139
267	42.767	0.161	2.47	116	1.9	-	88	-0.053	12.80	0.133
268	42.927	0.160	2.47	116	1.9	-	88	-0.052	12.85	0.110
269	43.091	0.164	2.46	116	1.6	-	88	-0.048	12.71	0.079
270	43.250	0.159	2.47	116	1.6	100	88	-0.052	12.66	0.076
271	43.412	0.162	2.46	116	2.0	-	88	-0.053	12.46	0.059
272	43.574	0.162	2.47	116	1.6	-	88	-0.051	12.52	0.060
273	43.734	0.160	2.46	116	1.6	-	88	-0.049	12.49	0.042
274	43.896	0.162	2.47	116	1.7	-	88	-0.051	12.24	0.038
275	44.058	0.162	2.46	116	2.0	-	88	-0.051	12.09	0.027
276	44.217	0.159	2.47	116	1.6	-	88	-0.047	11.89	0.036
277	44.382	0.165	2.47	116	1.6	-	88	-0.049	11.72	0.022
278	44.540	0.158	2.47	116	1.9	-	88	-0.048	11.64	0.021
279	44.703	0.163	2.47	116	1.8	-	88	-0.049	11.56	0.025
280	44.864	0.161	2.47	116	1.6	100	88	-0.050	11.37	0.017
281	45.025	0.161	2.47	116	2.0	-	88	-0.047	11.21	0.019
282	45.187	0.162	2.47	116	1.7	-	88	-0.048	11.14	0.021
283	45.350	0.163	2.47	116	1.6	-	88	-0.046	11.02	0.014
284	45.508	0.158	2.47	116	2.0	-	88	-0.043	11.04	0.019
285	45.673	0.165	2.47	116	2.1	-	88	-0.048	10.98	0.019
286	45.831	0.158	2.47	116	1.7	-	88	-0.047	10.95	0.025
287	45.994	0.163	2.47	116	1.9	-	88	-0.045	10.73	0.020

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
288	46.156	0.162	2.47	116	1.6	-	88	-0.045	10.76	0.020
289	46.316	0.160	2.47	116	1.9	-	88	-0.046	10.69	0.015
290	46.478	0.162	2.47	116	1.7	99	88	-0.047	10.46	0.015
291	46.640	0.162	2.47	116	2.0	-	88	-0.047	10.12	0.009
292	46.799	0.159	2.47	116	1.6	-	88	-0.046	10.12	0.010
293	46.963	0.164	2.48	116	1.9	-	88	-0.047	9.97	0.012
294	47.123	0.160	2.47	116	2.0	-	88	-0.046	9.94	0.006
295	47.284	0.161	2.47	116	2.0	-	88	-0.043	9.81	0.008
296	47.447	0.163	2.47	116	1.6	-	88	-0.044	9.89	0.015
297	47.606	0.159	2.47	116	1.7	-	88	-0.040	10.11	0.010
298	47.769	0.163	2.47	116	1.9	-	88	-0.045	10.16	0.017
299	47.931	0.162	2.47	116	1.7	-	88	-0.045	10.29	0.018
300	48.090	0.159	2.46	116	1.7	100	88	-0.044	10.30	0.018
301	48.253	0.163	2.47	116	1.8	-	88	-0.039	10.26	0.018
302	48.414	0.161	2.47	116	2.0	-	88	-0.041	9.98	0.013
303	48.575	0.161	2.47	116	1.6	-	88	-0.040	9.83	0.013
304	48.738	0.163	2.47	116	2.0	-	88	-0.043	9.80	0.018
305	48.897	0.159	2.47	116	1.6	-	88	-0.042	9.77	0.013
306	49.060	0.163	2.47	116	1.7	-	88	-0.042	9.84	0.012
307	49.222	0.162	2.47	116	2.0	-	88	-0.038	9.98	0.015
308	49.382	0.160	2.47	116	1.7	-	88	-0.044	10.00	0.015
309	49.545	0.163	2.47	116	1.6	-	88	-0.041	10.08	0.017
310	49.706	0.161	2.47	116	1.8	101	88	-0.042	10.07	0.019
311	49.866	0.160	2.47	116	2.0	-	88	-0.041	10.09	0.012
312	50.030	0.164	2.48	116	1.9	-	88	-0.042	10.10	0.010
313	50.189	0.159	2.48	116	1.9	-	88	-0.039	10.11	0.017
314	50.351	0.162	2.47	116	1.8	-	88	-0.041	10.11	0.016
315	50.513	0.162	2.47	116	1.6	-	87	-0.041	10.02	0.015
316	50.673	0.160	2.46	116	1.7	-	88	-0.041	10.02	0.014
317	50.835	0.162	2.48	116	2.0	-	87	-0.040	9.99	0.018
318	50.997	0.162	2.46	116	1.6	-	87	-0.037	10.02	0.015
319	51.157	0.160	2.48	116	1.9	-	87	-0.039	9.94	0.014

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
320	51.321	0.164	2.46	116	1.6	100	87	-0.041	10.01	0.012
321	51.479	0.158	2.47	116	1.6	-	87	-0.039	9.98	0.012
322	51.642	0.163	2.47	116	1.7	-	87	-0.040	9.97	0.013
323	51.804	0.162	2.47	116	2.0	-	87	-0.039	9.92	0.016
324	51.964	0.160	2.47	116	2.0	-	87	-0.042	9.81	0.014
325	52.126	0.162	2.47	116	1.7	-	87	-0.040	9.84	0.009
326	52.289	0.163	2.47	116	1.9	-	87	-0.038	9.75	0.016
327	52.447	0.158	2.46	116	1.8	-	87	-0.038	9.66	0.015
328	52.612	0.165	2.47	116	1.9	-	87	-0.037	9.81	0.015
329	52.770	0.158	2.46	116	2.0	-	87	-0.039	9.80	0.016
330	52.933	0.163	2.47	116	1.6	100	87	-0.037	9.90	0.020
331	53.095	0.162	2.47	116	1.6	-	87	-0.034	9.91	0.012
332	53.255	0.160	2.47	116	1.6	-	87	-0.042	9.91	0.015
333	53.417	0.162	2.47	116	2.0	-	87	-0.037	9.94	0.017
334	53.579	0.162	2.47	116	1.6	-	87	-0.034	9.84	0.015
335	53.738	0.159	2.47	116	2.0	-	87	-0.042	9.88	0.015
336	53.903	0.165	2.48	116	1.6	-	87	-0.039	10.00	0.012
337	54.063	0.160	2.47	116	1.9	-	87	-0.037	10.07	0.019
338	54.224	0.161	2.48	116	1.9	-	87	-0.037	10.12	0.015
339	54.387	0.163	2.47	116	1.6	-	87	-0.038	10.00	0.015
340	54.546	0.159	2.47	116	1.6	99	87	-0.039	9.89	0.017
341	54.709	0.163	2.47	116	2.0	-	87	-0.039	10.01	0.019
342	54.871	0.162	2.47	116	2.0	-	87	-0.037	10.08	0.021
343	55.030	0.159	2.47	116	1.8	-	87	-0.035	10.02	0.017
344	55.193	0.163	2.47	116	1.9	-	87	-0.037	10.03	0.019
345	55.354	0.161	2.47	116	2.0	-	87	-0.036	10.12	0.014
346	55.515	0.161	2.47	116	1.7	-	87	-0.037	10.16	0.015
347	55.678	0.163	2.47	116	1.8	-	87	-0.035	10.17	0.018
348	55.837	0.159	2.47	116	1.7	-	87	-0.039	10.12	0.014
349	56.000	0.163	2.47	116	1.6	-	87	-0.036	10.16	0.018
350	56.161	0.161	2.48	116	1.7	100	87	-0.037	10.31	0.015
351	56.322	0.161	2.47	116	1.8	-	87	-0.039	10.28	0.015

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
352	56.485	0.163	2.48	116	1.9	-	87	-0.034	10.30	0.016
353	56.646	0.161	2.47	116	2.0	-	87	-0.037	10.20	0.018
354	56.806	0.160	2.48	116	1.6	-	87	-0.039	10.18	0.015
355	56.970	0.164	2.47	116	1.6	-	87	-0.038	10.26	0.018
356	57.129	0.159	2.48	116	1.6	-	87	-0.037	10.40	0.021
357	57.292	0.163	2.47	116	1.7	-	87	-0.035	10.36	0.018
358	57.453	0.161	2.48	116	2.0	-	87	-0.034	10.33	0.019
359	57.613	0.160	2.47	116	1.6	-	87	-0.035	10.42	0.025
360	57.776	0.163	2.48	116	1.9	100	87	-0.034	10.43	0.020
361	57.938	0.162	2.48	116	1.9	-	87	-0.039	10.49	0.025
362	58.097	0.159	2.47	116	1.6	-	87	-0.035	10.52	0.027
363	58.262	0.165	2.47	116	1.8	-	86	-0.036	10.42	0.022
364	58.420	0.158	2.47	116	1.7	-	86	-0.036	10.41	0.027
365	58.584	0.164	2.47	116	1.7	-	86	-0.034	10.41	0.029
366	58.745	0.161	2.47	116	1.8	-	86	-0.033	10.43	0.025
367	58.906	0.161	2.47	116	1.8	-	86	-0.036	10.43	0.020
368	59.068	0.162	2.48	116	1.9	-	86	-0.036	10.48	0.024
369	59.231	0.163	2.48	116	1.7	-	86	-0.037	10.42	0.025
370	59.390	0.159	2.48	116	1.6	100	86	-0.036	10.43	0.018
371	59.554	0.164	2.48	116	1.8	-	86	-0.038	10.45	0.021
372	59.714	0.160	2.47	116	1.9	-	86	-0.036	10.52	0.023
373	59.875	0.161	2.48	116	1.7	-	86	-0.035	10.42	0.015
374	60.038	0.163	2.48	116	2.0	-	86	-0.038	10.40	0.021
375	60.197	0.159	2.47	116	1.8	-	86	-0.036	10.51	0.024
376	60.361	0.164	2.48	116	1.6	-	86	-0.034	10.52	0.021
377	60.522	0.161	2.47	116	2.0	-	86	-0.037	10.50	0.020
378	60.683	0.161	2.48	116	1.6	-	86	-0.039	10.42	0.026
379	60.845	0.162	2.48	116	2.1	-	86	-0.035	10.49	0.021
380	61.007	0.162	2.47	116	2.0	100	86	-0.038	10.47	0.024
381	61.167	0.160	2.48	116	1.6	-	86	-0.035	10.72	0.025
382	61.331	0.164	2.47	116	2.0	-	86	-0.036	10.84	0.022
383	61.490	0.159	2.48	116	1.8	-	86	-0.036	11.04	0.025

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
384	61.653	0.163	2.48	116	1.9	-	86	-0.038	11.03	0.025
385	61.815	0.162	2.48	116	2.0	-	86	-0.034	11.09	0.026
386	61.975	0.160	2.47	116	1.9	-	86	-0.040	11.19	0.030
387	62.138	0.163	2.48	116	1.6	-	86	-0.035	11.10	0.025
388	62.299	0.161	2.47	116	1.9	-	86	-0.037	11.13	0.032
389	62.459	0.160	2.47	116	1.7	-	86	-0.035	11.07	0.031
390	62.624	0.165	2.47	116	1.9	100	86	-0.037	11.13	0.027
391	62.782	0.158	2.47	116	1.6	-	86	-0.036	11.15	0.032
392	62.946	0.164	2.48	116	1.7	-	86	-0.035	11.18	0.031
393	63.107	0.161	2.47	116	2.0	-	86	-0.035	11.11	0.031
394	63.268	0.161	2.48	116	1.7	-	86	-0.036	11.09	0.026
395	63.430	0.162	2.48	116	2.0	-	86	-0.035	11.05	0.027
396	63.592	0.162	2.48	116	1.8	-	86	-0.037	10.96	0.027
397	63.751	0.159	2.47	116	1.9	-	86	-0.037	10.96	0.026
398	63.916	0.165	2.48	116	1.7	-	86	-0.039	10.99	0.025
399	64.076	0.160	2.47	116	1.7	-	86	-0.034	10.95	0.021
400	64.237	0.161	2.48	116	1.9	101	86	-0.035	10.94	0.028
401	64.400	0.163	2.47	116	2.0	-	86	-0.036	10.93	0.029
402	64.559	0.159	2.47	116	1.7	-	86	-0.038	10.88	0.031
403	64.722	0.163	2.47	116	1.8	-	86	-0.039	10.93	0.030
404	64.884	0.162	2.47	116	1.6	-	86	-0.036	10.88	0.026
405	65.044	0.160	2.47	116	1.6	-	86	-0.036	10.80	0.033
406	65.206	0.162	2.47	116	1.6	-	86	-0.038	10.86	0.031
407	65.367	0.161	2.47	116	1.6	-	86	-0.038	10.78	0.026
408	65.528	0.161	2.47	116	1.6	-	86	-0.037	10.72	0.025
409	65.692	0.164	2.47	116	1.7	-	86	-0.036	10.76	0.030
410	65.850	0.158	2.47	116	2.0	100	86	-0.040	10.68	0.023
411	66.014	0.164	2.47	116	1.6	-	86	-0.033	10.74	0.027
412	66.175	0.161	2.48	116	1.9	-	86	-0.037	10.66	0.024
413	66.335	0.160	2.47	116	2.0	-	86	-0.040	10.61	0.029
414	66.498	0.163	2.48	116	1.9	-	86	-0.037	10.61	0.025
415	66.659	0.161	2.47	116	1.9	-	86	-0.037	10.53	0.025

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
416	66.820	0.161	2.48	116	1.6	-	86	-0.035	10.63	0.025
417	66.983	0.163	2.47	116	2.0	-	86	-0.036	10.55	0.027
418	67.142	0.159	2.47	116	1.9	-	86	-0.034	10.55	0.026
419	67.305	0.163	2.47	116	2.0	-	86	-0.036	10.51	0.024
420	67.467	0.162	2.47	116	1.8	100	86	-0.036	10.50	0.027
421	67.627	0.160	2.47	116	1.6	-	86	-0.036	10.46	0.027
422	67.789	0.162	2.48	116	1.8	-	86	-0.035	10.44	0.021
423	67.951	0.162	2.47	116	1.7	-	86	-0.036	10.49	0.023
424	68.111	0.160	2.47	116	1.6	-	86	-0.038	10.42	0.021
425	68.275	0.164	2.47	116	1.6	-	86	-0.037	10.55	0.024
426	68.434	0.159	2.48	116	1.6	-	86	-0.044	10.39	0.027
427	68.597	0.163	2.48	116	1.6	-	86	-0.039	10.02	0.010
428	68.758	0.161	2.47	116	1.6	-	86	-0.038	9.78	0.009
429	68.919	0.161	2.48	116	2.0	-	86	-0.039	9.69	0.008
430	69.081	0.162	2.47	116	1.8	101	86	-0.036	9.67	0.007
431	69.243	0.162	2.48	116	1.6	-	86	-0.036	9.59	0.006
432	69.402	0.159	2.48	116	1.6	-	86	-0.038	9.50	0.004
433	69.567	0.165	2.47	116	2.0	-	86	-0.036	9.54	0.009
434	69.726	0.159	2.48	116	1.9	-	86	-0.036	9.60	0.006
435	69.888	0.162	2.48	116	2.0	-	85	-0.038	9.48	0.004
436	70.051	0.163	2.47	116	1.9	-	85	-0.035	9.50	0.009
437	70.210	0.159	2.48	116	1.9	-	85	-0.036	9.48	0.011
438	70.373	0.163	2.48	116	1.9	-	85	-0.037	9.51	0.009
439	70.535	0.162	2.48	116	1.8	-	85	-0.035	9.49	0.009
440	70.695	0.160	2.47	116	1.7	101	85	-0.038	9.50	0.011
441	70.858	0.163	2.48	116	1.7	-	85	-0.034	9.53	0.006
442	71.019	0.161	2.48	116	1.6	-	85	-0.036	9.53	0.007
443	71.179	0.160	2.48	116	2.0	-	85	-0.036	9.57	0.005
444	71.343	0.164	2.47	116	2.0	-	85	-0.033	9.46	0.008
445	71.502	0.159	2.48	116	1.8	-	85	-0.035	9.51	0.008
446	71.665	0.163	2.48	116	1.7	-	85	-0.033	9.50	0.008
447	71.827	0.162	2.48	116	1.6	-	85	-0.035	9.51	0.008

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
448	71.986	0.159	2.48	116	1.8	-	85	-0.032	9.54	0.006
449	72.149	0.163	2.48	116	1.6	-	85	-0.032	9.67	0.009
450	72.310	0.161	2.47	115	1.6	101	85	-0.035	9.68	0.010
451	72.471	0.161	2.48	116	1.6	-	85	-0.031	9.59	0.007
452	72.634	0.163	2.47	115	1.8	-	85	-0.035	9.51	0.010
453	72.793	0.159	2.48	115	1.6	-	85	-0.035	9.44	0.007
454	72.956	0.163	2.47	115	1.9	-	85	-0.036	9.54	0.009
455	73.118	0.162	2.48	115	1.7	-	85	-0.033	9.47	0.009
456	73.278	0.160	2.48	115	2.0	-	85	-0.036	9.43	0.010
457	73.440	0.162	2.48	115	2.0	-	85	-0.034	9.44	0.012
458	73.602	0.162	2.47	115	1.8	-	85	-0.036	9.45	0.007
459	73.762	0.160	2.48	115	1.8	-	85	-0.032	9.35	0.006
460	73.926	0.164	2.48	115	1.6	101	85	-0.034	9.37	0.010
461	74.084	0.158	2.48	115	1.7	-	85	-0.037	9.38	0.008
462	74.248	0.164	2.48	115	1.9	-	85	-0.036	9.39	0.008
463	74.409	0.161	2.47	115	1.6	-	85	-0.033	9.32	0.007
464	74.570	0.161	2.47	115	2.0	-	85	-0.036	9.30	0.008
465	74.732	0.162	2.48	115	2.0	-	85	-0.032	9.37	0.010
466	74.894	0.162	2.48	115	1.9	-	85	-0.037	9.31	0.012
467	75.053	0.159	2.48	115	1.8	-	85	-0.031	9.39	0.012
468	75.218	0.165	2.48	115	1.6	-	85	-0.034	9.31	0.007
469	75.377	0.159	2.48	115	1.8	-	85	-0.031	9.33	0.010
470	75.539	0.162	2.49	115	1.8	101	85	-0.037	9.34	0.007
471	75.702	0.163	2.48	115	1.7	-	85	-0.034	9.30	0.012
472	75.861	0.159	2.48	115	1.6	-	85	-0.034	9.32	0.010
473	76.024	0.163	2.48	115	1.7	-	85	-0.034	9.24	0.011
474	76.186	0.162	2.48	115	1.6	-	85	-0.033	9.32	0.007
475	76.346	0.160	2.48	115	1.9	-	85	-0.033	9.24	0.010
476	76.509	0.163	2.48	115	1.9	-	85	-0.030	9.21	0.011
477	76.670	0.161	2.48	115	2.0	-	85	-0.032	9.19	0.009
478	76.830	0.160	2.48	115	1.6	-	85	-0.034	8.98	0.010
479	76.994	0.164	2.48	115	1.7	-	85	-0.032	9.23	0.011

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
480	77.153	0.159	2.48	115	1.6	101	85	-0.033	9.12	0.012
481	77.316	0.163	2.47	115	1.6	-	85	-0.035	9.14	0.015
482	77.478	0.162	2.48	115	1.8	-	85	-0.035	9.09	0.011
483	77.638	0.160	2.48	115	2.0	-	85	-0.034	9.09	0.014
484	77.801	0.163	2.49	115	2.1	-	85	-0.034	9.13	0.012
485	77.962	0.161	2.48	115	2.1	-	85	-0.036	9.08	0.013
486	78.122	0.160	2.49	115	1.9	-	85	-0.034	9.06	0.012
487	78.286	0.164	2.48	115	2.0	-	85	-0.030	9.00	0.014
488	78.445	0.159	2.48	115	2.0	-	85	-0.032	9.00	0.013
489	78.608	0.163	2.48	115	1.6	-	85	-0.038	8.94	0.011
490	78.769	0.161	2.48	115	1.6	101	85	-0.030	8.93	0.012
491	78.930	0.161	2.48	115	1.9	-	84	-0.036	8.91	0.011
492	79.092	0.162	2.48	115	1.7	-	84	-0.034	8.94	0.014
493	79.254	0.162	2.48	115	1.5	-	84	-0.034	8.95	0.015
494	79.413	0.159	2.47	115	1.6	-	84	-0.032	8.91	0.013
495	79.578	0.165	2.48	115	1.6	-	84	-0.036	8.94	0.013
496	79.736	0.158	2.48	115	1.9	-	84	-0.034	8.91	0.017
497	79.899	0.163	2.48	115	1.8	-	84	-0.033	8.96	0.015
498	80.061	0.162	2.48	115	1.6	-	84	-0.034	8.88	0.011
499	80.221	0.160	2.48	115	1.8	-	84	-0.034	8.87	0.011
500	80.383	0.162	2.48	115	2.0	101	84	-0.039	8.84	0.012
501	80.545	0.162	2.48	115	2.0	-	84	-0.033	8.85	0.008
502	80.704	0.159	2.47	115	1.9	-	84	-0.037	8.92	0.013
503	80.868	0.164	2.48	115	1.6	-	84	-0.036	8.81	0.015
504	81.028	0.160	2.48	115	1.6	-	84	-0.035	8.83	0.013
505	81.190	0.162	2.48	115	1.7	-	84	-0.031	8.86	0.012
506	81.352	0.162	2.48	115	2.0	-	84	-0.034	8.83	0.016
507	81.511	0.159	2.48	115	1.6	-	84	-0.036	8.87	0.013
508	81.674	0.163	2.48	115	2.1	-	84	-0.034	8.87	0.013
509	81.836	0.162	2.48	115	2.0	-	84	-0.033	8.80	0.009
510	81.996	0.160	2.47	115	1.6	101	84	-0.032	8.81	0.011
511	82.159	0.163	2.48	115	2.1	-	84	-0.032	8.81	0.013

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
512	82.319	0.160	2.47	115	1.6	-	84	-0.035	8.91	0.015
513	82.480	0.161	2.48	115	1.6	-	84	-0.034	8.84	0.006
514	82.643	0.163	2.48	115	1.6	-	84	-0.034	8.89	0.011
515	82.802	0.159	2.48	115	1.7	-	84	-0.033	8.97	0.012
516	82.965	0.163	2.48	115	1.8	-	84	-0.033	8.92	0.012
517	83.126	0.161	2.48	115	1.6	-	84	-0.036	9.05	0.016
518	83.287	0.161	2.47	115	1.9	-	84	-0.033	9.11	0.017
519	83.449	0.162	2.48	115	2.0	-	84	-0.034	9.15	0.015
520	83.610	0.161	2.48	115	1.6	101	84	-0.033	9.12	0.019
521	83.771	0.161	2.48	115	1.6	-	84	-0.035	9.15	0.016
522	83.934	0.163	2.48	115	1.6	-	84	-0.036	9.19	0.015
523	84.093	0.159	2.48	115	1.6	-	84	-0.034	9.15	0.018
524	84.256	0.163	2.48	115	2.0	-	84	-0.037	9.12	0.015
525	84.418	0.162	2.48	115	1.6	-	84	-0.033	9.09	0.021
526	84.577	0.159	2.48	115	1.6	-	84	-0.038	9.07	0.017
527	84.740	0.163	2.48	115	1.8	-	84	-0.036	9.12	0.016
528	84.901	0.161	2.48	115	1.6	-	84	-0.036	9.10	0.018
529	85.061	0.160	2.48	115	2.0	-	84	-0.035	9.03	0.017
530	85.225	0.164	2.47	115	2.0	101	84	-0.036	8.76	0.016
531	85.384	0.159	2.49	115	2.0	-	84	-0.039	8.60	0.009
532	85.547	0.163	2.47	115	1.6	-	84	-0.035	8.55	0.004
533	85.708	0.161	2.48	115	1.7	-	84	-0.037	8.45	0.008
534	85.868	0.160	2.48	115	2.0	-	84	-0.034	8.52	0.008
535	86.031	0.163	2.48	115	1.7	-	84	-0.034	8.47	0.008
536	86.193	0.162	2.48	115	1.6	-	84	-0.034	8.44	0.007
537	86.352	0.159	2.48	115	1.7	-	84	-0.035	8.47	0.007
538	86.517	0.165	2.48	115	1.6	-	84	-0.032	8.50	0.007
539	86.675	0.158	2.48	115	2.1	-	84	-0.034	8.48	0.009
540	86.838	0.163	2.48	114	1.7	101	84	-0.033	8.48	0.006
541	86.999	0.161	2.48	115	1.6	-	84	-0.035	8.51	0.007
542	87.160	0.161	2.48	114	1.6	-	84	-0.034	8.35	0.006
543	87.322	0.162	2.48	114	2.0	-	84	-0.032	8.48	0.009

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
544	87.484	0.162	2.48	114	1.6	-	84	-0.034	8.47	0.005
545	87.643	0.159	2.48	114	2.0	-	84	-0.032	8.48	0.008
546	87.807	0.164	2.48	114	1.7	-	84	-0.033	8.50	0.007
547	87.966	0.159	2.48	114	2.1	-	84	-0.034	8.55	0.007
548	88.129	0.163	2.48	114	2.0	-	84	-0.032	8.59	0.007
549	88.290	0.161	2.48	114	2.0	-	84	-0.034	8.54	0.007
550	88.450	0.160	2.49	114	2.1	101	84	-0.033	8.62	0.012
551	88.613	0.163	2.48	114	1.8	-	84	-0.031	8.54	0.009
552	88.775	0.162	2.49	114	1.6	-	84	-0.034	8.66	0.014
553	88.934	0.159	2.48	114	1.7	-	84	-0.032	8.86	0.014
554	89.098	0.164	2.49	114	1.5	-	84	-0.034	8.94	0.017
555	89.258	0.160	2.48	114	2.0	-	84	-0.035	8.85	0.009
556	89.419	0.161	2.48	114	1.8	-	84	-0.033	8.90	0.013
557	89.582	0.163	2.48	114	1.6	-	84	-0.032	8.98	0.015
558	89.741	0.159	2.47	114	2.0	-	84	-0.032	8.98	0.010
559	89.903	0.162	2.47	114	1.8	-	84	-0.034	9.14	0.010
560	90.065	0.162	2.47	114	1.7	101	83	-0.032	9.24	0.012
561	90.224	0.159	2.47	114	1.7	-	83	-0.031	9.38	0.011
562	90.387	0.163	2.48	114	2.0	-	83	-0.033	9.45	0.011
563	90.548	0.161	2.48	114	1.8	-	83	-0.031	9.57	0.013
564	90.708	0.160	2.48	114	1.7	-	83	-0.037	9.69	0.008
565	90.872	0.164	2.47	114	1.9	-	83	-0.033	9.72	0.012
566	91.030	0.158	2.48	114	1.7	-	83	-0.031	9.67	0.009
567	91.193	0.163	2.47	114	1.9	-	83	-0.033	9.65	0.008
568	91.355	0.162	2.48	114	1.7	-	83	-0.034	9.65	0.009
569	91.515	0.160	2.48	114	1.8	-	83	-0.037	9.73	0.009
570	91.677	0.162	2.48	114	1.8	101	83	-0.030	9.80	0.009
571	91.839	0.162	2.48	114	1.6	-	83	-0.031	9.86	0.012
572	91.999	0.160	2.48	114	1.7	-	83	-0.033	9.80	0.011
573	92.162	0.163	2.48	114	1.8	-	83	-0.033	9.83	0.007
574	92.321	0.159	2.48	114	1.6	-	83	-0.031	9.71	0.009
575	92.484	0.163	2.48	114	1.6	-	83	-0.034	9.67	0.011

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
576	92.645	0.161	2.48	114	1.6	-	83	-0.032	9.69	0.010
577	92.805	0.160	2.48	114	1.9	-	83	-0.031	9.72	0.007
578	92.967	0.162	2.49	114	1.6	-	83	-0.032	9.71	0.007
579	93.128	0.161	2.47	114	1.6	-	83	-0.031	9.66	0.012
580	93.289	0.161	2.48	114	1.6	101	83	-0.034	9.61	0.010
581	93.452	0.163	2.48	114	1.7	-	83	-0.037	9.70	0.009
582	93.611	0.159	2.48	114	1.6	-	83	-0.032	9.68	0.014
583	93.773	0.162	2.48	114	1.6	-	83	-0.031	9.84	0.009
584	93.935	0.162	2.48	114	1.9	-	83	-0.032	9.91	0.013
585	94.095	0.160	2.48	114	2.0	-	83	-0.031	9.95	0.012
586	94.257	0.162	2.49	114	1.6	-	83	-0.033	9.89	0.018
587	94.418	0.161	2.48	114	2.0	-	83	-0.032	10.03	0.014
588	94.579	0.161	2.48	114	1.6	-	83	-0.035	9.92	0.012
589	94.742	0.163	2.47	114	1.8	-	83	-0.035	9.89	0.014
590	94.901	0.159	2.49	114	1.6	100	83	-0.034	9.97	0.015
591	95.063	0.162	2.47	114	1.8	-	83	-0.032	9.93	0.011
592	95.225	0.162	2.49	114	1.6	-	83	-0.036	9.95	0.014
593	95.385	0.160	2.48	114	2.0	-	83	-0.034	9.96	0.017
594	95.547	0.162	2.49	114	1.9	-	83	-0.034	9.47	0.017
595	95.709	0.162	2.48	114	2.1	-	83	-0.031	9.55	0.019
596	95.868	0.159	2.48	114	2.0	-	83	-0.031	9.64	0.020
597	96.032	0.164	2.48	114	1.6	-	83	-0.034	9.76	0.016
598	96.191	0.159	2.49	114	1.6	-	83	-0.037	9.75	0.019
599	96.354	0.163	2.48	114	1.9	-	83	-0.033	9.76	0.018
600	96.515	0.161	2.48	114	1.6	100	83	-0.032	9.76	0.020
601	96.676	0.161	2.48	114	2.0	-	83	-0.032	9.76	0.014
602	96.837	0.161	2.48	114	1.7	-	83	-0.035	9.82	0.019
603	97.000	0.163	2.49	114	1.8	-	83	-0.034	9.81	0.018
604	97.159	0.159	2.48	114	2.0	-	83	-0.033	9.76	0.019
605	97.324	0.165	2.49	114	1.9	-	83	-0.037	9.81	0.020
606	97.481	0.157	2.48	114	1.6	-	83	-0.035	9.82	0.015
607	97.645	0.164	2.49	114	2.0	-	83	-0.037	9.72	0.023

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
608	97.806	0.161	2.48	114	2.1	-	83	-0.041	9.72	0.014
609	97.966	0.160	2.48	114	1.6	-	83	-0.035	9.75	0.013
610	98.128	0.162	2.48	114	1.5	101	83	-0.033	9.77	0.018
611	98.291	0.163	2.48	114	1.7	-	83	-0.034	9.70	0.019
612	98.449	0.158	2.49	114	2.0	-	83	-0.034	9.69	0.014
613	98.614	0.165	2.49	114	1.9	-	83	-0.034	9.70	0.022
614	98.772	0.158	2.49	114	1.8	-	83	-0.036	9.71	0.013
615	98.935	0.163	2.49	114	2.0	-	83	-0.034	9.72	0.017
616	99.097	0.162	2.48	114	1.9	-	83	-0.038	9.70	0.015
617	99.257	0.160	2.49	114	1.7	-	83	-0.033	9.71	0.017
618	99.419	0.162	2.48	113	1.6	-	83	-0.031	9.61	0.015
619	99.581	0.162	2.49	113	1.7	-	83	-0.034	9.65	0.014
620	99.740	0.159	2.48	113	1.5	101	83	-0.037	9.74	0.020
621	99.904	0.164	2.49	113	1.8	-	83	-0.038	9.60	0.016
622	100.064	0.160	2.49	113	1.7	-	83	-0.038	9.67	0.018
623	100.225	0.161	2.49	113	2.1	-	83	-0.037	9.75	0.017
624	100.388	0.163	2.48	113	1.5	-	83	-0.033	9.71	0.016
625	100.547	0.159	2.49	113	1.6	-	83	-0.033	9.86	0.018
626	100.710	0.163	2.48	113	1.9	-	83	-0.033	9.93	0.014
627	100.871	0.161	2.49	113	1.6	-	83	-0.035	9.91	0.011
628	101.031	0.160	2.48	113	1.6	-	83	-0.032	9.82	0.023
629	101.194	0.163	2.49	113	2.1	-	83	-0.033	9.86	0.018
630	101.355	0.161	2.49	113	1.6	101	83	-0.035	9.70	0.020
631	101.515	0.160	2.49	113	1.5	-	83	-0.035	9.77	0.017
632	101.679	0.164	2.49	113	1.7	-	83	-0.036	9.71	0.016
633	101.837	0.158	2.49	113	1.8	-	83	-0.033	9.76	0.016
634	102.001	0.164	2.49	113	1.6	-	83	-0.033	9.74	0.018
635	102.162	0.161	2.49	113	1.6	-	83	-0.038	9.78	0.018
636	102.322	0.160	2.49	113	2.1	-	83	-0.038	9.65	0.017
637	102.485	0.163	2.49	113	1.6	-	83	-0.034	9.79	0.021
638	102.646	0.161	2.49	113	1.7	-	83	-0.036	9.69	0.018
639	102.806	0.160	2.49	113	2.1	-	83	-0.037	9.68	0.017

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
640	102.970	0.164	2.48	113	1.9	101	83	-0.037	9.71	0.017
641	103.128	0.158	2.49	113	2.0	-	83	-0.033	9.78	0.017
642	103.291	0.163	2.49	113	1.7	-	83	-0.035	9.80	0.013
643	103.453	0.162	2.49	113	1.8	-	83	-0.036	9.72	0.020
644	103.612	0.159	2.48	113	1.9	-	83	-0.036	9.72	0.016
645	103.775	0.163	2.49	113	2.1	-	83	-0.033	9.73	0.020
646	103.936	0.161	2.48	113	2.0	-	83	-0.036	9.71	0.017
647	104.096	0.160	2.49	113	1.6	-	83	-0.035	9.73	0.016
648	104.260	0.164	2.48	113	1.5	-	83	-0.033	9.49	0.014
649	104.418	0.158	2.49	113	2.1	-	83	-0.037	9.36	0.014
650	104.581	0.163	2.49	113	1.9	101	83	-0.037	9.47	0.015
651	104.743	0.162	2.48	113	1.5	-	83	-0.032	9.45	0.015
652	104.903	0.160	2.49	113	1.5	-	83	-0.038	9.41	0.016
653	105.065	0.162	2.49	113	1.7	101	83	-0.036	9.39	0.019
Avg/Tot	105.065	0.161	2.47	112.4	1.8	100	83.4	-0.043	10.38	0.626

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
0	0.000		0.66	88	1.8		77
1	0.148	0.148	1.02	87	1.6	-	78
2	0.298	0.150	1.03	87	1.8	-	78
3	0.450	0.152	1.03	87	1.8	-	78
4	0.602	0.152	1.04	88	1.8	-	79
5	0.755	0.153	1.04	88	1.8	-	79
6	0.907	0.152	1.04	88	1.7	-	79
7	1.060	0.153	1.04	88	1.8	-	79
8	1.213	0.153	1.04	88	1.8	-	80
9	1.366	0.153	1.05	89	1.8	-	80
10	1.520	0.154	1.05	89	1.8	99	80
11	1.673	0.153	1.06	89	1.8	-	80
12	1.827	0.154	1.06	89	1.9	-	80
13	1.981	0.154	1.06	90	1.9	-	80
14	2.135	0.154	1.07	90	1.9	-	81
15	2.290	0.155	1.07	90	1.7	-	81
16	2.445	0.155	1.07	90	1.8	-	81
17	2.599	0.154	1.08	91	1.8	-	81
18	2.754	0.155	1.07	91	1.7	-	81
19	2.911	0.157	1.07	91	1.7	-	81
20	3.067	0.156	1.08	91	1.7	98	81
21	3.224	0.157	1.08	92	1.8	-	81
22	3.380	0.156	1.09	92	1.9	-	81
23	3.537	0.157	1.09	92	1.9	-	81
24	3.693	0.156	1.09	92	1.9	-	81
25	3.850	0.157	1.08	92	1.7	-	81
26	4.007	0.157	1.08	93	1.8	-	82
27	4.165	0.158	1.08	93	1.9	-	82
28	4.322	0.157	1.09	93	1.7	-	82
29	4.480	0.158	1.10	93	1.8	-	82
30	4.636	0.156	1.09	94	1.7	99	82
31	4.794	0.158	1.08	94	1.8	-	82

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
32	4.952	0.158	1.09	94	1.8	-	82
33	5.110	0.158	1.10	94	1.8	-	82
34	5.269	0.159	1.10	94	1.8	-	82
35	5.425	0.156	1.09	95	1.8	-	82
36	5.584	0.159	1.09	95	1.7	-	82
37	5.742	0.158	1.09	95	1.7	-	82
38	5.901	0.159	1.10	95	1.8	-	82
39	6.059	0.158	1.10	96	1.7	-	82
40	6.217	0.158	1.09	96	1.8	100	82
41	6.376	0.159	1.09	96	1.8	-	82
42	6.534	0.158	1.10	96	1.9	-	82
43	6.693	0.159	1.10	97	1.7	-	82
44	6.850	0.157	1.10	97	1.8	-	82
45	7.010	0.160	1.09	97	1.7	-	82
46	7.169	0.159	1.10	97	1.8	-	82
47	7.328	0.159	1.10	97	1.7	-	82
48	7.485	0.157	1.10	97	1.8	-	82
49	7.645	0.160	1.09	98	1.9	-	82
50	7.804	0.159	1.10	98	1.8	100	82
51	7.963	0.159	1.10	98	1.8	-	82
52	8.121	0.158	1.10	99	1.7	-	82
53	8.281	0.160	1.09	98	1.8	-	82
54	8.440	0.159	1.10	99	1.9	-	82
55	8.600	0.160	1.10	99	1.8	-	82
56	8.757	0.157	1.10	99	1.8	-	82
57	8.917	0.160	1.09	99	1.8	-	82
58	9.077	0.160	1.10	99	1.8	-	82
59	9.237	0.160	1.10	100	1.8	-	83
60	9.395	0.158	1.10	99	1.8	98	83
Avg/Tot	9.395	0.157	1.07	93.4	1.8	99	81.2

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Stove ΔT: 35

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
0	263	327	281	480	259	321.8	740.1
1	263	325	282	461	262	318.4	660.2
2	262	324	278	449	259	314.2	619.7
3	259	321	277	437	261	310.9	608.0
4	257	318	276	427	261	307.8	605.2
5	252	316	274	419	261	304.3	609.6
6	253	312	270	413	262	301.7	620.0
7	252	309	268	411	262	300.2	634.2
8	248	306	266	410	262	298.2	648.2
9	247	303	263	408	262	296.3	660.5
10	243	300	262	410	262	295.2	670.9
11	242	297	259	407	262	293.2	678.6
12	240	294	255	403	262	290.6	684.3
13	238	291	255	399	262	288.8	688.1
14	236	289	253	394	262	286.5	690.4
15	235	286	250	390	261	284.4	692.2
16	233	284	248	386	261	282.5	694.2
17	228	282	246	388	261	281.0	695.6
18	230	279	243	385	261	279.5	695.4
19	226	277	242	381	261	277.5	695.9
20	226	275	240	387	260	277.6	698.2
21	224	273	237	390	260	276.8	700.4
22	224	271	236	391	260	276.2	703.7
23	219	269	234	393	259	274.8	708.4
24	219	267	232	390	259	273.4	711.8
25	219	265	231	386	259	272.0	714.6
26	217	263	229	385	258	270.4	718.0
27	217	262	228	384	257	269.5	719.2
28	215	260	227	382	257	268.0	719.1
29	214	258	225	379	257	266.5	716.9
30	213	257	224	378	256	265.6	713.0
31	213	256	222	376	256	264.4	708.2
32	211	255	222	374	255	263.2	702.6
33	211	253	220	372	254	262.1	696.2
34	208	252	220	371	254	260.8	690.6
35	208	251	219	369	253	260.0	686.4
36	209	250	216	367	253	258.9	684.3
37	206	249	216	366	252	257.9	684.3
38	205	248	215	367	252	257.4	685.1
39	204	247	214	368	251	256.8	687.9
40	203	246	214	368	251	256.4	692.3
41	203	246	212	368	250	255.7	697.4
42	204	245	211	367	249	255.1	703.2
43	204	244	211	365	249	254.5	708.3
44	202	244	211	365	248	253.8	712.5
45	201	243	210	364	247	252.8	715.6
46	200	243	209	362	247	252.2	718.1
47	200	242	209	361	246	251.5	720.3

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Stove ΔT: 35

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
48	198	241	208	360	246	250.6	722.2
49	198	241	208	360	245	250.3	724.2
50	198	240	207	359	245	249.8	726.2
51	197	240	206	359	244	249.1	728.1
52	198	239	205	359	243	248.8	730.2
53	197	239	205	359	243	248.6	731.5
54	197	239	205	360	242	248.5	732.7
55	196	238	204	360	242	248.0	733.7
56	198	237	204	361	241	248.1	733.9
57	196	237	203	361	241	247.3	733.9
58	196	237	203	360	240	247.1	734.0
59	195	236	203	359	240	246.5	734.7
60	196	235	201	358	239	245.8	734.9
61	194	235	202	357	238	245.3	735.2
62	195	234	201	357	238	245.1	736.5
63	194	234	200	357	237	244.5	737.4
64	195	234	201	356	237	244.5	738.0
65	194	233	200	356	236	243.9	739.4
66	193	233	200	356	236	243.5	740.0
67	193	233	200	356	235	243.2	741.3
68	193	232	199	356	235	243.1	743.2
69	192	232	199	357	234	242.8	746.2
70	194	232	197	357	234	242.7	749.7
71	193	232	199	358	234	242.8	753.5
72	194	231	197	358	233	242.4	757.6
73	193	231	198	358	232	242.4	762.1
74	193	231	198	359	232	242.4	765.9
75	192	230	197	359	232	242.0	769.4
76	193	230	197	360	231	242.3	772.8
77	193	230	197	361	231	242.3	776.3
78	193	229	197	362	231	242.2	780.1
79	193	229	197	363	230	242.3	783.9
80	193	229	195	364	230	242.3	788.4
81	192	228	197	366	230	242.4	793.0
82	192	228	197	366	229	242.5	798.0
83	193	228	196	368	229	242.6	802.9
84	193	228	196	369	228	242.7	807.6
85	192	228	197	369	228	242.7	811.9
86	191	228	196	371	228	242.6	815.2
87	192	228	196	371	227	242.8	818.4
88	192	228	195	373	227	243.0	821.8
89	193	228	195	374	227	243.1	824.6
90	193	228	196	375	226	243.4	827.2
91	194	227	196	376	226	243.9	829.9
92	193	227	196	378	226	243.8	833.1
93	194	228	197	379	226	244.5	836.3
94	193	227	196	381	225	244.3	839.9
95	194	228	196	382	225	244.9	844.1

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Stove ΔT: 35

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
96	193	228	196	383	225	245.1	848.8
97	194	228	197	385	225	245.8	854.0
98	195	228	196	387	224	245.9	859.5
99	194	228	197	388	224	246.3	864.3
100	197	228	198	390	224	247.2	869.4
101	195	228	198	392	224	247.3	874.7
102	195	229	198	394	224	247.8	880.4
103	196	228	198	396	224	248.5	886.2
104	196	229	197	398	223	248.5	891.8
105	197	229	198	399	224	249.3	897.7
106	196	230	198	402	223	249.7	903.7
107	197	230	199	404	223	250.6	909.4
108	198	230	199	407	223	251.4	915.5
109	198	230	200	409	223	252.0	921.6
110	199	231	198	411	223	252.5	928.1
111	198	231	200	414	223	253.0	934.2
112	199	231	199	417	223	253.8	940.0
113	200	232	200	419	223	254.7	945.6
114	199	232	200	422	223	255.1	950.5
115	200	233	201	425	223	256.2	955.0
116	200	233	202	427	223	256.8	959.1
117	200	234	201	429	223	257.1	962.1
118	202	234	202	432	223	258.4	964.8
119	201	234	203	433	222	258.7	966.8
120	201	235	203	435	223	259.3	968.3
121	201	235	203	437	222	259.9	969.2
122	201	236	205	439	222	260.4	969.8
123	201	236	204	440	223	260.7	970.7
124	202	237	206	442	223	261.7	971.3
125	204	237	205	443	223	262.5	972.2
126	204	238	206	445	223	262.9	972.8
127	203	238	207	446	223	263.3	973.9
128	204	239	207	448	223	264.0	974.6
129	204	239	208	449	223	264.5	975.2
130	204	240	208	450	223	265.0	976.0
131	206	240	208	451	223	265.7	976.7
132	206	241	209	452	223	266.2	977.1
133	206	241	210	454	223	266.9	977.9
134	207	241	211	455	223	267.3	978.8
135	206	242	210	456	223	267.5	980.4
136	206	243	211	458	223	268.3	982.5
137	207	243	212	460	223	269.0	985.4
138	208	244	212	462	223	269.9	989.1
139	207	244	213	465	223	270.3	993.8
140	208	245	212	467	223	271.0	999.4
141	209	245	215	471	224	272.5	1005.7
142	209	245	213	474	224	273.0	1012.9
143	209	246	214	478	224	274.2	1020.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Stove ΔT: 35

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
144	211	246	214	482	224	275.4	1028.6
145	213	247	217	486	224	277.2	1037.2
146	211	248	217	490	224	277.7	1045.1
147	212	248	217	495	224	279.1	1053.5
148	213	249	219	500	224	280.8	1061.2
149	214	249	217	504	224	281.6	1068.8
150	214	250	218	509	225	283.1	1076.0
151	215	250	218	514	225	284.2	1082.5
152	215	251	220	518	225	285.6	1088.6
153	216	252	220	523	225	287.0	1094.8
154	215	252	221	528	225	288.2	1100.3
155	215	253	221	533	225	289.3	1105.3
156	217	253	224	538	225	291.4	1110.1
157	217	254	223	543	225	292.3	1113.7
158	219	254	222	547	226	293.6	1117.2
159	219	255	225	552	225	295.1	1120.3
160	220	255	224	557	226	296.4	1122.8
161	221	256	226	562	226	298.2	1125.0
162	221	257	227	567	226	299.5	1126.7
163	221	258	227	571	226	300.6	1127.7
164	224	258	229	576	226	302.8	1131.5
165	224	259	229	581	226	303.8	1138.8
166	225	260	230	590	226	306.1	1142.0
167	227	261	230	591	227	306.9	1138.0
168	227	263	231	589	227	307.4	1122.3
169	229	264	233	590	227	308.5	1105.5
170	230	265	234	595	227	310.1	1098.8
171	230	266	234	601	227	311.7	1103.2
172	231	268	236	605	227	313.2	1111.6
173	233	269	236	609	227	314.8	1119.3
174	232	269	237	612	227	315.6	1124.9
175	232	270	239	615	227	316.7	1128.8
176	234	271	239	618	228	317.8	1131.8
177	235	271	240	620	228	318.9	1133.6
178	235	273	241	622	228	319.9	1135.1
179	237	273	240	624	228	320.4	1135.5
180	234	274	241	626	228	320.6	1136.3
181	237	275	243	627	228	321.9	1136.4
182	238	275	242	629	229	322.5	1136.4
183	238	276	243	630	229	323.0	1136.7
184	238	277	245	632	229	324.1	1136.7
185	238	278	245	633	229	324.4	1137.3
186	240	279	245	634	229	325.5	1137.5
187	241	279	246	635	229	326.0	1137.7
188	242	280	246	636	229	326.7	1138.2
189	242	281	247	638	229	327.4	1138.7
190	241	282	250	639	229	328.2	1138.9
191	242	283	251	638	229	328.7	1140.5

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Stove ΔT: 35

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
192	244	284	250	639	229	329.0	1139.5
193	244	285	250	638	230	329.2	1137.1
194	245	286	252	638	229	329.9	1134.0
195	244	287	253	638	230	330.3	1131.6
196	244	288	253	638	230	330.5	1130.4
197	245	289	254	638	230	331.2	1128.8
198	244	290	255	638	230	331.4	1127.3
199	245	291	255	638	230	331.8	1126.4
200	244	292	256	639	230	332.3	1125.5
201	244	293	257	640	230	332.8	1126.0
202	247	293	257	647	230	334.8	1124.6
203	246	295	258	648	230	335.6	1121.5
204	247	297	259	680	230	342.7	1101.3
205	248	299	260	703	230	348.0	1076.3
206	247	300	260	724	230	352.3	1053.3
207	249	302	261	737	230	355.7	1029.8
208	249	303	262	707	230	350.2	1018.6
209	249	304	262	692	231	347.7	1020.3
210	249	305	263	682	231	345.9	1040.9
211	248	306	265	675	231	344.9	1066.8
212	249	306	264	670	231	344.1	1087.6
213	249	307	264	666	231	343.2	1101.5
214	250	307	265	663	231	343.1	1109.9
215	248	308	265	660	231	342.3	1114.4
216	249	309	265	657	231	342.2	1116.2
217	249	310	266	655	231	342.1	1116.7
218	250	310	267	653	231	342.2	1115.5
219	250	311	267	652	231	342.3	1114.9
220	252	311	268	651	231	342.6	1114.7
221	251	312	269	650	231	342.7	1114.6
222	252	313	268	650	231	342.8	1115.4
223	251	313	270	649	231	343.0	1116.1
224	252	314	270	648	231	343.0	1117.0
225	251	315	270	648	231	342.9	1117.7
226	253	316	272	647	231	343.6	1117.6
227	252	316	274	646	231	344.0	1117.6
228	253	318	272	646	232	344.0	1116.9
229	253	319	275	645	232	344.6	1116.5
230	254	319	275	645	232	344.9	1115.9
231	255	320	277	645	232	345.6	1115.3
232	254	321	276	645	232	345.3	1114.3
233	253	322	277	644	232	345.6	1114.1
234	254	322	278	644	232	346.1	1114.3
235	256	323	278	644	232	346.5	1113.7
236	255	324	279	643	232	346.7	1112.1
237	255	325	280	643	232	347.1	1110.2
238	257	326	281	643	232	347.7	1108.3
239	257	326	280	643	232	347.9	1107.6

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Stove ΔT: 35

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
240	257	327	282	643	233	348.2	1106.9
241	256	329	283	643	233	348.8	1105.4
242	259	329	283	643	233	349.2	1103.1
243	257	330	284	643	233	349.3	1099.6
244	258	331	285	644	233	349.8	1095.9
245	259	332	285	644	233	350.4	1093.1
246	260	332	286	644	233	351.1	1091.0
247	260	333	288	645	233	351.8	1089.1
248	259	334	287	645	233	351.9	1085.8
249	259	335	289	646	233	352.5	1082.5
250	262	337	289	646	234	353.4	1079.7
251	262	338	290	648	234	354.0	1077.6
252	260	339	290	648	234	354.3	1076.1
253	262	340	290	649	234	354.9	1074.6
254	262	341	291	650	234	355.5	1072.9
255	263	342	291	651	234	356.1	1072.2
256	264	343	292	651	234	356.7	1072.6
257	262	344	293	651	234	356.9	1072.0
258	264	345	292	651	234	357.2	1071.7
259	263	346	294	649	235	357.3	1077.7
260	264	346	294	647	234	357.3	1084.6
261	265	347	294	644	235	356.8	1087.3
262	266	348	295	641	235	356.9	1087.4
263	264	349	293	638	235	355.8	1085.1
264	265	349	295	635	235	355.7	1081.3
265	265	350	297	631	235	355.4	1076.2
266	266	350	296	627	235	354.8	1070.8
267	266	350	296	623	235	354.0	1065.0
268	266	350	296	620	235	353.4	1058.8
269	265	351	295	617	236	352.8	1053.0
270	267	351	296	613	236	352.4	1047.2
271	267	351	295	610	236	351.5	1041.6
272	266	351	295	606	236	350.8	1036.4
273	266	352	297	603	236	350.5	1031.0
274	267	351	297	600	236	350.0	1025.5
275	266	352	297	596	236	349.2	1020.0
276	267	351	297	592	236	348.6	1014.3
277	267	351	296	588	236	347.6	1009.0
278	266	351	297	584	237	346.9	1003.6
279	267	350	297	580	237	346.2	997.9
280	267	350	298	576	237	345.5	991.8
281	267	350	298	572	237	344.6	985.0
282	267	349	296	568	237	343.2	977.7
283	268	349	296	564	237	342.7	970.1
284	268	348	297	560	237	341.8	962.0
285	267	348	297	556	237	341.0	953.4
286	267	348	296	553	237	340.1	944.8
287	267	348	297	549	237	339.6	936.2

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Stove ΔT: 35

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
288	267	347	296	545	237	338.5	927.9
289	268	347	296	542	237	338.1	919.9
290	267	347	296	540	238	337.3	911.2
291	268	346	296	535	238	336.7	903.2
292	267	346	297	532	238	335.7	893.8
293	267	346	296	527	238	334.7	882.6
294	267	345	296	523	238	333.8	870.9
295	267	344	296	519	238	332.9	858.9
296	268	344	295	516	238	332.2	847.3
297	267	343	295	514	238	331.3	837.1
298	267	343	294	511	238	330.6	828.4
299	266	342	295	509	238	330.0	822.7
300	266	341	293	507	238	329.3	819.4
301	266	341	295	505	238	328.9	818.1
302	266	340	293	502	238	328.0	817.7
303	266	340	294	499	239	327.3	817.5
304	264	339	293	496	239	326.3	816.4
305	266	339	293	493	239	325.9	813.2
306	265	338	294	491	239	325.4	808.8
307	263	338	294	488	239	324.3	803.3
308	263	337	294	486	239	323.6	798.1
309	264	336	293	483	239	323.0	793.6
310	263	336	293	482	239	322.5	789.6
311	264	335	292	480	239	321.9	786.1
312	263	334	292	478	239	321.1	783.3
313	262	334	292	476	239	320.4	781.2
314	261	334	291	475	239	319.8	778.9
315	262	333	290	473	239	319.2	776.6
316	262	332	291	472	239	319.2	774.6
317	260	332	291	470	239	318.2	772.3
318	261	331	291	468	239	318.1	769.5
319	262	331	290	467	240	317.7	767.2
320	260	330	289	466	240	317.0	765.0
321	261	330	289	464	239	316.6	762.7
322	259	329	288	463	240	315.6	760.3
323	260	329	288	461	240	315.4	757.4
324	260	328	288	460	240	315.0	755.5
325	258	328	287	458	240	314.1	752.6
326	259	327	287	456	240	313.8	750.6
327	258	326	285	455	240	312.8	748.5
328	258	326	286	454	240	312.5	746.9
329	258	326	285	453	240	312.2	745.4
330	257	325	285	451	240	311.7	744.1
331	258	325	284	451	240	311.4	742.8
332	256	324	285	450	240	310.9	741.7
333	257	324	284	449	240	310.5	741.5
334	256	323	284	448	240	310.2	740.5
335	255	323	284	447	240	309.5	739.9

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Stove ΔT: 35

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
336	256	322	281	446	240	308.9	739.2
337	255	322	282	445	240	308.8	738.7
338	253	322	283	444	240	308.4	738.4
339	255	320	281	444	240	308.0	739.0
340	255	320	281	444	240	308.0	739.4
341	254	320	282	443	240	307.8	739.0
342	253	320	281	443	240	307.2	738.7
343	253	319	280	442	240	306.9	738.4
344	253	319	281	442	240	307.1	738.3
345	252	318	280	442	240	306.6	738.3
346	252	318	280	442	240	306.3	738.1
347	252	318	280	441	240	306.1	737.8
348	252	318	281	441	240	306.3	737.7
349	251	317	280	440	240	305.8	737.9
350	251	317	280	440	240	305.6	738.1
351	251	317	280	439	240	305.4	738.4
352	252	317	280	439	240	305.3	738.3
353	251	317	279	438	240	304.9	738.3
354	251	317	279	438	240	304.8	738.9
355	251	316	280	437	240	304.7	738.7
356	251	316	280	436	240	304.7	738.6
357	250	316	279	436	240	304.2	739.2
358	250	316	278	436	240	304.0	739.3
359	250	316	279	435	240	303.9	740.2
360	249	315	279	435	240	303.7	742.1
361	250	315	278	435	240	303.6	743.9
362	248	315	279	435	240	303.4	745.9
363	250	315	277	435	240	303.2	747.9
364	250	315	279	435	240	303.7	749.8
365	249	314	279	435	240	303.3	751.3
366	249	314	279	435	240	303.4	752.3
367	249	314	278	435	240	303.2	752.7
368	249	314	278	435	240	303.2	753.5
369	249	314	279	435	240	303.2	753.9
370	249	314	278	434	240	303.0	754.1
371	248	313	279	434	240	302.9	754.0
372	248	313	280	435	240	303.1	754.6
373	250	313	279	434	240	303.0	754.8
374	249	313	279	434	240	302.9	754.4
375	248	313	279	434	240	302.8	754.3
376	249	313	279	434	240	303.0	754.1
377	248	313	279	434	240	302.8	753.9
378	248	313	278	434	240	302.4	754.0
379	249	312	278	434	240	302.5	754.1
380	248	312	279	433	240	302.4	754.1
381	248	312	279	434	240	302.4	754.2
382	249	312	279	434	240	302.7	754.2
383	249	312	279	434	240	302.6	754.7

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Stove ΔT: 35

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
384	248	312	279	435	240	302.7	755.5
385	248	311	279	435	240	302.7	756.9
386	248	311	279	436	240	302.9	758.8
387	249	311	279	436	240	303.0	760.5
388	249	311	279	437	240	303.4	762.6
389	249	311	279	438	240	303.2	765.2
390	249	311	280	438	240	303.5	767.1
391	250	311	280	438	240	303.7	769.2
392	249	311	278	439	240	303.4	770.8
393	250	310	279	439	240	303.6	771.7
394	249	310	279	440	240	303.7	772.9
395	249	310	279	441	240	303.6	773.9
396	249	310	279	441	240	303.8	775.0
397	248	310	278	441	240	303.5	775.7
398	250	310	279	441	241	304.0	776.2
399	251	310	279	442	240	304.2	776.4
400	250	309	279	442	241	304.1	777.0
401	250	309	279	442	240	304.0	777.1
402	250	309	279	443	240	304.1	777.1
403	251	309	279	443	240	304.2	777.4
404	250	308	278	443	240	303.9	777.1
405	252	308	278	443	241	304.3	776.9
406	251	308	278	443	240	304.0	777.3
407	251	308	278	443	241	304.0	777.3
408	252	307	277	443	241	303.9	776.8
409	252	307	278	443	241	304.0	776.3
410	251	307	277	443	241	303.5	775.7
411	253	306	277	443	241	304.0	775.2
412	251	306	277	443	241	303.4	774.6
413	252	306	277	443	241	303.6	774.1
414	252	305	276	443	241	303.4	773.4
415	253	305	277	443	240	303.5	773.0
416	252	305	276	443	240	303.1	772.1
417	254	304	276	443	240	303.3	771.7
418	254	304	276	442	241	303.2	771.2
419	253	303	275	442	241	302.8	770.1
420	254	303	276	442	240	302.9	769.9
421	254	302	275	442	241	302.6	769.6
422	254	302	275	442	241	302.5	768.9
423	254	301	274	441	241	302.3	769.2
424	254	301	274	441	241	302.2	769.2
425	254	300	273	441	241	301.8	768.5
426	254	300	273	440	241	301.4	767.8
427	254	299	275	440	240	301.6	766.2
428	255	299	274	437	240	301.1	764.9
429	255	299	274	435	241	300.6	762.4
430	256	298	272	433	241	299.6	757.1
431	257	297	273	430	240	299.6	749.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Stove ΔT: 35

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
432	257	297	273	428	240	299.0	740.7
433	257	297	273	427	240	298.8	731.6
434	259	296	274	425	240	298.8	722.0
435	259	295	272	424	241	298.2	713.2
436	259	295	273	423	240	297.8	705.7
437	259	294	271	421	240	297.3	699.3
438	260	293	272	420	240	297.2	693.7
439	262	293	271	419	240	297.0	689.4
440	261	292	272	418	240	296.7	686.3
441	261	292	271	417	240	296.2	683.1
442	263	291	271	415	240	296.1	680.9
443	265	291	272	414	240	296.4	679.0
444	263	290	271	413	240	295.3	677.0
445	264	289	271	413	240	295.2	675.5
446	265	288	270	412	240	295.0	674.6
447	266	288	270	411	240	294.9	673.4
448	266	287	269	410	240	294.5	672.0
449	266	286	270	409	240	294.3	671.1
450	266	286	269	409	240	293.9	670.5
451	266	285	268	408	240	293.5	670.0
452	266	285	269	407	240	293.4	669.3
453	267	284	268	406	240	293.1	668.6
454	267	283	268	406	240	292.8	668.2
455	267	283	267	405	240	292.5	667.9
456	269	282	267	405	240	292.7	667.4
457	268	281	267	404	240	292.1	667.5
458	268	281	266	403	240	291.6	667.4
459	268	280	265	402	240	291.3	667.4
460	269	280	266	402	240	291.2	666.9
461	269	279	266	401	240	291.0	666.4
462	270	278	264	400	240	290.5	665.1
463	269	278	264	400	240	290.1	663.8
464	269	277	263	399	240	289.8	662.5
465	269	276	263	398	240	289.2	661.7
466	269	276	264	398	240	289.3	661.1
467	269	275	263	397	240	289.0	659.9
468	268	275	263	397	240	288.6	659.1
469	270	275	263	396	240	288.9	658.5
470	271	274	263	396	240	288.8	657.8
471	270	273	262	396	240	288.2	658.0
472	268	273	262	395	240	287.6	658.3
473	269	272	262	394	240	287.4	657.9
474	270	272	262	394	240	287.3	658.4
475	270	271	261	394	240	287.0	658.1
476	269	270	262	393	240	286.7	658.2
477	269	270	261	393	240	286.5	658.8
478	269	270	260	392	240	286.0	659.1
479	269	269	260	392	240	286.0	659.3

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Stove ΔT: 35

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
480	268	269	259	392	240	285.4	659.9
481	269	268	261	392	240	285.9	660.9
482	268	268	260	392	240	285.3	662.1
483	268	267	258	391	240	284.7	663.9
484	268	266	259	391	240	284.9	665.2
485	267	266	259	391	240	284.5	666.5
486	267	266	258	391	240	284.2	667.7
487	266	265	258	391	240	283.9	669.1
488	265	265	258	390	239	283.3	670.5
489	265	264	258	390	239	283.2	670.8
490	266	264	258	390	240	283.5	671.6
491	265	264	259	389	240	283.3	672.2
492	265	263	258	390	240	282.9	672.9
493	264	263	257	389	239	282.3	673.0
494	263	262	257	389	239	282.1	673.0
495	265	262	257	389	239	282.3	674.0
496	263	261	257	389	239	281.8	674.7
497	264	261	255	389	239	281.7	674.9
498	263	260	256	388	239	281.3	674.6
499	263	260	257	388	239	281.6	674.0
500	263	260	256	388	239	280.9	673.2
501	263	259	257	387	239	281.1	672.6
502	263	259	257	387	239	280.7	672.2
503	263	259	255	387	239	280.3	672.0
504	262	258	255	387	239	280.0	670.5
505	262	258	254	386	239	279.9	669.7
506	263	258	255	386	239	280.0	669.2
507	262	257	255	386	239	279.8	668.6
508	262	257	255	385	239	279.4	668.3
509	262	257	254	385	239	279.1	668.8
510	262	256	255	385	238	279.2	667.8
511	261	256	254	384	238	278.9	667.2
512	259	256	255	384	238	278.3	665.8
513	259	255	253	383	238	277.7	664.9
514	259	256	255	382	238	277.9	664.7
515	259	255	253	382	238	277.4	664.0
516	259	255	254	381	238	277.4	663.2
517	260	254	254	381	238	277.5	662.0
518	258	254	254	381	238	277.1	661.6
519	258	254	254	381	238	277.0	661.7
520	258	254	254	382	238	277.1	662.0
521	257	254	254	382	238	277.0	663.2
522	259	253	254	383	238	277.2	665.5
523	257	253	255	383	238	277.0	668.5
524	257	253	254	383	238	276.8	672.0
525	258	252	256	383	237	277.2	674.8
526	257	252	254	383	237	276.7	677.0
527	258	252	255	383	237	276.8	679.3

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Stove ΔT: 35

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
528	257	251	254	383	237	276.4	681.7
529	255	251	255	383	237	276.2	683.5
530	258	251	255	382	237	276.5	685.3
531	255	251	255	381	237	275.8	685.6
532	255	251	255	380	237	275.7	685.2
533	255	251	256	379	237	275.4	683.1
534	253	250	254	378	237	274.5	679.5
535	254	251	253	377	237	274.3	675.5
536	254	251	254	376	237	274.4	670.5
537	255	250	254	375	237	274.3	665.4
538	254	250	255	374	237	274.0	660.4
539	254	250	254	374	237	273.8	656.2
540	253	250	255	373	237	273.5	652.9
541	252	250	255	372	237	273.3	650.3
542	251	250	256	371	237	272.9	647.3
543	251	250	256	371	237	273.1	645.6
544	248	250	255	370	237	272.1	644.2
545	249	250	255	369	237	272.2	643.2
546	249	250	255	369	237	272.0	642.3
547	249	250	256	369	237	272.1	641.3
548	249	250	255	368	237	271.8	640.5
549	247	250	256	367	237	271.4	639.4
550	248	250	256	367	237	271.6	639.2
551	246	250	256	367	237	271.2	638.7
552	247	250	255	367	237	271.2	638.7
553	246	250	256	366	237	270.9	638.8
554	244	250	256	367	238	271.0	639.8
555	244	250	255	367	238	270.8	641.0
556	244	250	256	367	237	270.9	643.0
557	243	250	254	366	238	270.2	645.3
558	243	251	257	366	238	270.8	647.9
559	244	251	256	366	238	270.8	648.6
560	242	251	256	365	238	270.4	649.2
561	240	251	256	365	238	270.0	648.7
562	241	251	255	366	238	270.2	648.4
563	242	252	257	366	238	270.9	649.0
564	242	252	257	366	238	270.8	649.1
565	240	252	258	366	238	271.0	649.2
566	240	253	259	366	238	271.1	649.2
567	240	253	258	366	238	271.1	649.0
568	240	253	260	366	239	271.6	648.6
569	239	254	260	366	239	271.5	647.7
570	241	255	261	366	239	272.1	647.2
571	240	255	260	366	239	271.9	647.1
572	239	256	262	367	239	272.3	646.0
573	239	256	261	366	239	272.0	645.3
574	237	256	263	366	239	272.2	645.5
575	239	257	262	366	239	272.7	644.7

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Stove ΔT: 35

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
576	237	257	264	366	239	272.7	644.2
577	238	258	263	367	240	273.1	643.5
578	238	259	263	366	239	273.1	642.9
579	239	260	266	367	240	274.0	642.6
580	237	260	265	367	240	273.7	641.8
581	238	261	264	367	240	274.0	641.1
582	239	261	266	367	240	274.5	641.3
583	238	262	266	367	240	274.4	641.8
584	237	263	267	368	241	274.9	642.5
585	237	263	266	368	240	274.9	644.0
586	237	264	267	368	240	275.4	645.4
587	237	264	267	369	241	275.4	647.3
588	237	265	268	369	241	275.8	649.7
589	238	265	268	370	241	276.4	652.3
590	237	266	268	370	241	276.6	654.1
591	235	267	269	370	241	276.3	655.6
592	237	267	270	371	241	277.0	657.2
593	236	268	270	371	241	277.0	658.4
594	235	268	270	371	241	277.2	659.9
595	235	268	270	371	242	277.2	661.0
596	238	269	269	371	242	277.8	662.1
597	236	270	270	372	242	277.8	663.3
598	235	270	270	373	242	277.8	665.3
599	234	271	271	373	242	278.2	667.6
600	235	271	270	374	242	278.4	670.3
601	235	272	270	375	243	278.8	673.1
602	233	273	271	375	243	278.7	675.8
603	236	273	269	375	243	279.4	678.5
604	234	274	271	376	243	279.6	680.8
605	234	274	271	377	243	279.7	684.0
606	232	274	270	377	243	279.5	686.8
607	233	276	270	377	244	280.0	688.6
608	233	276	272	378	244	280.5	690.4
609	233	276	272	378	244	280.5	691.5
610	233	277	272	379	244	280.9	692.2
611	233	277	271	378	244	280.9	693.6
612	232	278	272	379	245	281.2	693.9
613	233	279	272	380	245	281.5	694.3
614	233	279	272	380	245	281.7	694.8
615	233	280	272	380	245	282.0	695.7
616	232	280	271	380	245	281.9	696.3
617	232	281	272	380	246	282.1	695.1
618	231	282	272	380	246	282.1	695.8
619	232	282	273	380	246	282.8	696.4
620	233	282	272	381	246	282.7	696.3
621	233	283	272	381	247	283.1	696.1
622	231	284	273	381	247	283.0	696.6
623	232	284	272	381	247	283.3	697.2

WOODSTOVE SURFACE TEMPERATURE DATA

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

Stove ΔT: 35

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
624	233	285	273	382	247	283.8	697.5
625	232	286	273	382	247	284.0	697.4
626	232	286	273	381	247	283.9	697.1
627	232	287	273	382	247	284.2	697.3
628	232	287	273	382	248	284.3	698.2
629	231	287	272	382	248	284.0	698.7
630	233	288	273	382	248	284.7	698.8
631	232	289	273	382	248	284.7	699.8
632	232	290	272	382	248	284.8	700.4
633	232	290	273	382	248	284.8	700.7
634	231	290	273	382	249	284.9	701.1
635	234	291	274	382	248	285.8	701.2
636	230	291	274	382	249	285.3	701.5
637	232	292	273	382	249	285.7	701.8
638	231	292	274	383	249	285.9	702.2
639	232	293	273	383	249	285.7	702.3
640	231	294	273	383	250	286.1	702.4
641	233	293	274	383	250	286.5	702.9
642	233	294	274	383	250	286.6	703.0
643	231	293	275	383	250	286.4	703.2
644	232	294	272	383	250	286.3	703.4
645	232	295	274	384	250	286.8	703.5
646	231	295	274	384	250	286.6	703.5
647	232	296	274	383	250	286.9	703.5
648	232	296	274	383	250	286.8	703.7
649	231	296	274	383	250	286.9	703.8
650	230	297	274	383	250	286.9	703.4
651	232	297	273	383	250	287.1	702.9
652	231	297	273	383	250	286.9	702.1
653	232	297	274	383	251	287.1	701.7
Average	240.7	283.3	256.8	453.2	237.8	294.4	814.3

LAB SAMPLE DATA - ASTM E2515

Client: FPI
Model: F5200
Run #: 5

Job #: 23-200
Tracking #: 157
Technician: SJB
Date: 8/25/2023

		Sample ID	Tare, mg	Final, mg	Catch, mg
Filters	**A**	G649	243.5	246.9	3.4
	B	G650	248.7	252.1	3.4
	C - 1st Hour	G651	252.6	252.7	0.1
	Amb	G652	252.7	252.7	0.0
Probes	**A**	18A	117498.9	117499.3	0.4
	B	18B	117330.9	117331.6	0.7
	C - 1st Hour	18C	114334.2	114334.6	0.4
O-rings	**A**	18A	3602.8	3603.6	0.8
	B	18B	3546.4	3546.9	0.5
	C - 1st Hour	18C	3528.7	3529.5	0.8

Placed in Dessicator on:	8/26/2023

		100.0		100.0		100.0			
Balance Audit (mg):		Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time
Filters	**A**	247.0	8/28 - 8:30	246.9	8/29 - 11:00				
	B	252.1	8/28 - 8:30	252.1	8/29 - 11:00				
	C - 1st Hour	252.7	8/28 - 8:30	252.7	8/29 - 11:00				
	Amb	252.7	8/28 - 8:30	252.7	8/29 - 11:00				
Probes	**A**	117499.1	8/28 - 8:30	117499.5	8/29 - 11:00	117499.3	8/30 - 12:30		
	B	117331.5	8/28 - 8:30	117331.6	8/29 - 11:00				
	C - 1st Hour	114334.5	8/28 - 8:30	114334.6	8/29 - 11:00				
O-Rings	**A**	3603.5	8/28 - 8:30	3603.6	8/29 - 11:00				
	B	3547.0	8/28 - 8:30	3546.9	8/29 - 11:00				
	C - 1st Hour	3529.5	8/28 - 8:30	3529.5	8/29 - 11:00				

Train A Aggregate, mg:	**4.6**
Train B Aggregate, mg:	**4.6**
Train C Aggregate, mg:	**1.3**
Ambient, mg:	**0.0**

ASTM E2780 Wood Heater Run Sheets

Client: FPI Job Number: 23-200 Tracking #: 157
Model: F5200 Run Number: 5 Test Date: 8/25/23

Wood Heater Run Notes

Test Control Settings

Primary Air Setting(s): Fully Closed
Targeted Burn Category: II – Fan Confirmation Test

Preburn Notes

Time	Notes
5:00 60:00	Stirred Coals Leveled coal bed, set air to high in preparation of fuel loading

Test Notes

Test Burn Start Time: 12:25 Test Fuel Loaded by: 55 seconds
Door Closed: 65 seconds Air Control Set at: 120 seconds
Other Loading Notes: Fan off – Fan Confirmation Test

Time	Notes
	-None-

Test Burn End Time: 23:18

Flue Gas Concentration Measurement

Calibration Gas Values: Span Gas CO_2 (%): 17.01 CO (%): 4.306
Mid Gas CO_2 (%): 10.09 CO (%): 2.530

Calibration Results:

	Pre Test			Post Test		
	Zero	Span	Mid	Zero	Mid	Span
Time	8:18	8:20	8:22	8/26 – 9:20	8/26 – 9:17	8/26 – 9:15
CO_2	0.00	10.08	17.05	0.03	10.15	17.09
CO	0.00	2.521	4.311	-0.005	2.519	4.323

Flue Gas Probe Leak Check: Initial: No Leakage Final: No Leakage

Technician Signature: Date: 8/28/2023

ASTM E2780 Wood Heater Run Sheets

Client: FPI Job Number: 23-200 Tracking #: 157
Model: F5200 Run Number: 5 Test Date: 8/25/23



Test Fuel Front/Side View



Test Fuel Iso View



Test Fuel Loaded in Stove



Air Setting

Technician Signature: _____ Date: 8/28/2023

Sample Calculations – ASTM E2780 & E2515

Client:	FPI
Model:	F5200
Run:	1

Equations used to calculate the parameters listed below are described in this appendix. Sample calculations are provided for each equation. The raw data and printout results from a sample run are also provided for comparison to the sample calculations.

M_{Sdb} – Weight of test fuel spacers, dry basis, kg

M_{Cdb}– Weight of test fuel crib, excluding nails and spacers, dry basis, kg

D_{Cdb} - Density of fuel crib, excluding spacers and nails, dry basis, lbs/ft^3

M_{FTAdb} - Total weight of fuel crib excluding nails, dry basis, kg

BR – Dry burn rate, kg/hr

V_s – Average gas velocity in the dilution tunnel, ft/sec

Q_{sd} – Average gas flow rate in dilution tunnel, dscf/hr

$V_{m(std)}$ – Volume of gas sampled, corrected to dry standard conditions, dscf

m_n – Total particulate matter collected, mg

C_s - Concentration of particulate matter in tunnel gas, dry basis, corrected to STP, g/dscf

E_T – Total particulate emissions, g

PR - Proportional rate variation

PM_R – Particulate emissions for test run, g/hr

PM_F – Particulate emission factor for test run, g/dry kg of fuel burned

M_{Sdb} – Weight of test fuel spacers, dry basis, kg
ASTM E2780 equation (1)

$$M_{Sdb} = (M_{Swb})(100/(100 + FM_S))$$

Where,

FM_S = average fuel moisture of test fuel spacers, % dry basis

M_{Swb} = weight of test fuel spacers, wet basis, kg

Sample Calculation:

FM_S = 16.2 %

M_{Swb} = 2.0 lbs

0.4536 = Conversion factor from lbs to kg

M_{Sdb} = [(2.0 x 0.4536) (100/(100 + 16.2)

M_{Sdb} = **0.77** kg

M_{Cdb}– Weight of test fuel crib, excluding nails and spacers, dry basis, kg
ASTM E2780 equation (2)

$$M_{Cdb} = \Sigma[(M_{CPnwb})(100/(100 + FM_{CPn}))]$$

Where,

M_{CPnwb} = weight of each test fuel piece n in fuel crib, excluding nails and spacers, wet basis, kg

FM_{CPn} = Average fuel moisture of test fuel n in fuel crib, % dry basis

Sample Calculation (test fuel piece 1):

MC_{Pnwb} = 4.94

FM_{CPn} = 19.9

= 4.9 (100/(100+ 19.9)

= 4.1 lbs

Total dry crib weight, excluding spacers = 24.20 lbs

M_{Cdb} = **10.98** kg

D_{Cdb} - Density of fuel crib, excluding spacers and nails, dry basis, lbs/ft^3
ASTM E2780 equation (3)

$$D_{Cdb} = M_{Cdb}/V_C$$

Where,

V_C = Volume of fuel crib, ft^3

Sample calculation:

V_C = 1470 in^3

1728 = conversion from in^3 to ft^3

D_{Cdb} = 24.20 / 1470 * 1728

= **28.44** lbs/ft^3

M_{FTAdb} - Total weight of fuel crib excluding nails, dry basis, kg
ASTM E2780 equation (4)

$$M_{FTAdb} = M_{Sdb} + M_{Cdb}$$

Sample calculation:

$$M_{FTAdb} = 0.77 + 10.98$$

$$= \#\#\#\# \text{ kg}$$

BR – dry burn rate, kg/hr
ASTM E2780 equation (5)

$$BR = \frac{60\ M_{FTAdb}}{\theta}$$

Where,

θ = Total length of test run, min

Sample Calculation:

M_{Bdb} = 11.75 kg
θ = 635 min

$$BR = \frac{60 \times 11.7}{635}$$

BR = **1.11** kg/hr

V_s – Average gas velocity in the dilution tunnel, ft/sec
ASTM E2515 equations (9)

$$v_s = F_P \times k_p \times C_p \times (\sqrt{\Delta P})_{avg} \times \sqrt{\frac{T_{s(avg)}}{P_s \times M_s}}$$

Where:

F_p	=	Adjustment factor for pitot tube center point reading = $\frac{V_{strav}}{V_{scent}}$, ASTM E2515 Equation (1)
v_{scent}	=	Dilution tunnel velocity calculated after the multi-point pitot traverse at the center, ft/sec
v_{strav}	=	Dilution tunnel velocity calculated after the multi-point pitot traverse, ft/sec
k_p	=	Pitot tube constant, 85.49
C_p	=	Pitot tube coefficient: 0.99, unitless
ΔP*	=	Velocity pressure in the dilution tunnel, in H_2O
T_s	=	Absolute average gas temperature in the dilution tunnel, °R; (°R = °F + 460)
P_s	=	Absolute average gas static pressure in dilution tunnel, = P_{bar} + P_g , in Hg
P_{bar}	=	Barometric pressure at test site, in. Hg
P_g	=	Static pressure of tunnel, in. H_20; (in Hg = in H_20/13.6)
M_s	=	
		**The dilution tunnel wet molecular weight; M_s = 28.78 assuming a dry weight of 29 lb/lb-mole

Sample calculation:

$$Fp = \frac{8.07}{9.24} = 0.874$$

$$V_s = 0.874 \times 85.49 \times 0.99 \times 0.137 \times \left(\frac{86.1 + 460}{\left(29.81 + \frac{-0.11}{13.6}\right) \times 28.78} \right)^{1/2}$$

V_s = **8.07** ft/s

*The ASTM test standard mistakenly has the square root of the average delta p instead of the average of the square root of delta p. The current EPA Method 2 is also incorrect. This was verified by Mike Toney at EPA.

**The ASTM test standard mistakenly identifies Ms as the dry molecular weight. It should be the wet molecular weight as indicated in EPA Method 2.

Q_{sd} – Average gas flow rate in dilution tunnel, dscf/hr
ASTM E2515 equation (3)

$$Q_{sd} = 3600 \times (1 - B_{ws}) \times v_s \times A \times \frac{T_{std}}{T_{s(avg)}} \times \frac{P_s}{P_{std}}$$

Where:

3600	=	Conversion from seconds to hours (ASTM method uses 60 to convert in minutes)
B_{ws}	=	Water vapor in gas stream, proportion by volume; assume 2%
A	=	Cross sectional area of dilution tunnel, ft^2
T_{std}	=	Standard absolute temperature, 528 °R
P_s	=	Absolute average gas static pressure in dilution tunnel, = P_{bar} + P_g , in Hg
$T_{s(avg)}$	=	Absolute average gas temperature in the dilution tunnel, °R; (°R = °F + 460)
P_{std}	=	Standard absolute pressure, 29.92 in Hg

Sample calculation:

$$Q_{sd} = 3600 \times (1 - 0.02) \times 8.07 \times 0.7854 \times \frac{528}{86.1 + 460} \times \frac{29.81 + \frac{-0.11}{13.6}}{29.92}$$

Q_{sd} = **21526.9** dscf/hr

$V_{m(std)}$ – Volume of Gas Sampled Corrected to Dry Standard Conditions, dscf
ASTM E2515 equation (6)

$$V_{m(std)} = K_1 \, V_m \, Y \frac{P_{bar} + \left(\frac{\Delta H}{13.6}\right)}{T_m}$$

Where:

K_1	=	17.64 °R/in. Hg
V_m	=	Volume of gas sample measured at the dry gas meter, dcf
Y	=	Dry gas meter calibration factor, dimensionless
P_{bar}	=	Barometric pressure at the testing site, in. Hg
ΔH	=	Average pressure differential across the orifice meter, in. H_2O
T_m	=	Absolute average dry gas meter temperature, °R

Sample Calculation:

Using equation for Train A:

$V_{m(std)}$ = 17.64 x ###### x 1.004 x $\dfrac{(\ 29.81 + \frac{2.56}{13.6}\ )}{(\ 101.8 + 460\ )}$

$V_{m(std)}$ = **98.652** dscf

Using equation for Train B:

$V_{m(std)}$ = 17.64 x ###### x 1.004 x $\dfrac{(\ 29.81 + \frac{2.50}{13.6}\ )}{(\ 100.9 + 460\ )}$

$V_{m(std)}$ = **96.045** dscf

Using equation for ambient train:

$V_{m(std)}$ = 17.64 x 70.19 x 1.003 x $\dfrac{(\ \underline{29.81} + \frac{0.00}{13.6}\ )}{(\ 76.5 + 460\ )}$

$V_{m(std)}$ = **68.999** dscf

m_n – Total Particulate Matter Collected, mg
ASTM E2515 Equation (12)

$$m_n = m_p + m_f + m_g$$

Where:

m_p = mass of particulate matter from probe, mg
m_f = mass of particulate matter from filters, mg
m_g = mass of particulate matter from filter seals, mg

Sample Calculation:

Using equation for Train A:

m_n = 0.7 + 3.2 + 0.5

m_n = **4.4** mg

Using equation for Train B:

m_n = 0.5 + 3.2 + 0.3

m_n = **4** mg

C_s - Concentration of particulate matter in tunnel gas, dry basis, corrected to STP, g/dscf
ASTM E2515 equation (13)

$$C_s = K_2 \times \frac{m_n}{V_{m(std)}}$$

Where:

K_2	=	Constant, 0.001 g/mg
m_n	=	Total mass of particulate matter collected in the sampling train, mg
$V_{m(std)}$	=	Volume of gas sampled corrected to dry standard conditions, dscf

Sample calculation:

For Train A:

$$C_s = 0.001 \times \frac{4.4}{98.65}$$

C_s = **0.00004** g/dscf

For Train B

$$C_s = 0.001 \times \frac{4.0}{96.05}$$

C_s = **0.00004** g/dscf

For Ambient Train

$$C_r = 0.001 \times \frac{0.0}{69.00}$$

C_r = **0.000000** g/dscf

E_T – Total Particulate Emissions, g
ASTM E2515 equation (15)

$$E_T = (c_s - c_r) \times Q_{std} \times \theta$$

Where:

C_s	=	Concentration of particulate matter in tunnel gas, g/dscf
C_r	=	Concentration particulate matter room air, g/dscf
Q_{std}	=	Average dilution tunnel gas flow rate, dscf/hr
θ	=	Total time of test run, minutes

Sample calculation:

For Train A

E_T = (0.000045 - 0.000000) x 21526.9 x 635 /60

E_T = **10.16** g

For Train B

E_T = (0.000042 - 0.000000) x 21526.9 x 635 /60

E_T = **9.49** g

Average

E = **9.82** g

PR - Proportional Rate Variation

ASTM E2515 equation (16)

$$PR = \left[\frac{\theta \times V_{mi} \times V_s \times T_m \times T_{si}}{\theta_i \times V_m \times V_{si} \times T_{mi} \times T_s} \right] \times 100$$

Where:

θ	=	Total sampling time, min
θ_i	=	Length of recording interval, min
V_{mi}	=	Volume of gas sample measured by the dry gas meter during the “ith” time interval, dcf
V_m	=	Volume of gas sample as measured by dry gas meter, dcf
V_{si}	=	Average gas velocity in the dilution tunnel during the "ith" time interval, ft/sec
V_s	=	Average gas velocity in the dilution tunnel, ft/sec
T_{mi}	=	Absolute average dry gas meter temperature during the "ith" time interval, ^oR
T_m	=	Absolute average dry gas meter temperature, ^oR
T_{si}	=	Absolute average gas temperature in the dilution tunnel during the "ith" time interval, ^oR
T_s	=	Absolute average gas temperature in the dilution tunnel, ^oR

Sample calculation (for the first 10-min interval of Train 1):

$$PR = \left(\frac{635 \times 1.451 \times 8.07 \times (82.9 + 460) \times (101.8 + 460)}{10 \times 104.31 \times 8.11 \times (86.1 + 460) \times (74.7 + 460)} \right) \times 100$$

PR = **92** %

PM_R – Particulate emissions for test run, g/hr
ASTM E2780 equation (6)

$$PM_R = 60 (E_T/\theta)$$

Where,

E_T = Total particulate emissions, grams

θ = Total length of full integrated test run, min

Sample Calculation:

E_T (Dual train average) = 9.82 g

θ = 635 min

$PM_R = 60 \times (9.82 / 635)$

PM_R = **0.93** g/hr

PM_F – Particulate emission factor for test run, g/dry kg of fuel burned
ASTM E2780 equation (7)

$$PM_F = E_T/M_{FTAdb}$$

Sample Calculation:

E_T (Dual train average) = 9.82 g

M_{Bdb} = 11.75 kg

PM_F = 9.82 / ####

PM_F = **0.84** g/kg

Stack Loss Efficiency and CO emissions calculations are done in accordance with CSA B415.1, using the password protected excel spreadsheet provided with the test standard. No alterations or alternative calculations are used for determining efficiency or CO emissions. The following pages are a sample of the calculations page from the B415.1 Spreadsheet (V2_4 - Dated April 15, 2010).

Manufacturer:	FPI
Model:	F5200
Date:	08/21/23
Run:	1
Control #:	23-200
Test Duration:	**635** min

Note: In the “Input data”, "Calc. % O_2", "Fuel Properties", and “Mass Balance” columns, [e], [d], [g], [a]. [b], [c], [h], [u], [w], [j], and [k] refer to their respective variables in Clauses 13.7.3 to 13.7.5.

	HHV	LHV
Eff	**79.88%**	**86.34%**
Comb Eff	**96.34%**	**96.34%**
HT Eff	**82.92%**	**89.62%**
Output	**17,567**	**kJ/h**
Burn Rate	**1.11**	**kg/h**
Grams CO	**609**	**g**
Input	**21,991**	**kJ/h**
MC wet	**17.38**	

Ultimate CO_2	
$CO_{2\text{-ult}}$	19.64
F_0	
	1.063

Overall Heating Efficiency:	79.88%		Air Fue	
Combustion Efficiency:	96.34%		Dry Molecular W	
Heat Transfer Efficiency:	82.92%		Dry Moles Exhaus	
			Air Fuel Ratio	
Heat Output:	16,664	Btu/h	17,567	kJ/h
Heat Input:	20,861	Btu/h	21,991	kJ/h
Burn Duration:	10.58	h		
Burn Rate:	2.45	lb/h	1.110	kg/h
Stack Temp:	246.6	Deg. F	119.2	Deg. C

Averages	**0.35**	**11.27**	**0.78**	**20.17**	**8.73**	**119.28**	**24.72**	**98.4%**	**83.6%**	**82.3%**	**10.73**	**5.15**
INPUT DATA			**Oxygen Calculation**			**Input Data**		**Combust Eff**	**Heat Transfer**	**Net Eff**	**Air Fuel**	**Wet Wt Now**
Elapsed Time	**Weight Remaining (kg)**	**% CO [e]**	**% CO_2 [d]**	**Excess Air EA**	**Total O_2**	**Calc. % O_2 [g]**	**Flue Gas (°C)**	**Room Temp (°C)**	**%**	**%**	**%**	**Ratio**	**Wt**
0	14.22	0.16	3.23	479.8%	20.72	17.41	158.6	21.2	97.5%	63.0%	61.5%	34.9	14.22
1	14.24	0.16	2.21	729.5%	20.78	18.50	189.2	21.2	96.5%	43.2%	41.7%	49.9	14.24
2	14.16	0.08	6.14	216.2%	20.53	14.36	170.7	21.2	99.6%	73.6%	73.3%	19.1	14.16
3	14.13	0.05	7.61	156.5%	20.43	12.80	149.4	21.1	100.0%	78.3%	78.3%	15.5	14.13
4	14.11	0.04	7.78	151.2%	20.42	12.63	136.2	20.9	100.0%	79.7%	79.7%	15.2	14.11
5	14.08	0.04	7.61	156.8%	20.43	12.80	129.0	21.2	100.1%	80.2%	80.3%	15.5	14.08
6	14.05	0.04	8.36	133.9%	20.39	12.01	125.4	21.2	100.0%	81.2%	81.2%	14.1	14.05
7	14.01	0.04	8.80	122.4%	20.36	11.54	123.8	21.1	100.0%	81.7%	81.8%	13.4	14.01
8	13.99	0.04	7.83	149.4%	20.42	12.57	122.9	21.1	100.0%	80.9%	81.0%	15.1	13.99
9	13.96	0.04	7.92	146.9%	20.41	12.48	123.2	21.1	100.1%	81.0%	81.1%	14.9	13.96
10	13.93	0.04	7.60	157.0%	20.44	12.81	123.4	21.1	100.1%	80.7%	80.7%	15.5	13.93
11	13.90	0.04	7.97	145.4%	20.41	12.43	124.0	21.2	100.0%	81.0%	81.0%	14.8	13.90
12	13.87	0.05	8.01	143.9%	20.41	12.38	123.8	21.2	100.0%	81.1%	81.0%	14.7	13.87
13	13.84	0.04	8.72	124.1%	20.36	11.62	124.3	21.2	100.0%	81.6%	81.6%	13.5	13.84
14	13.81	0.05	9.02	116.8%	20.34	11.30	124.8	21.1	99.9%	81.8%	81.8%	13.1	13.81
15	13.77	0.05	8.71	124.3%	20.36	11.63	126.3	21.2	99.9%	81.5%	81.4%	13.6	13.77
16	13.74	0.04	10.64	83.9%	20.23	9.58	127.3	21.3	99.9%	82.7%	82.6%	11.1	13.74
17	13.71	0.05	9.79	99.8%	20.29	10.48	128.5	21.3	99.9%	82.1%	82.0%	12.1	13.71
18	13.67	0.04	9.12	114.3%	20.33	11.19	128.4	21.3	100.0%	81.6%	81.6%	13.0	13.67
19	13.64	0.04	9.19	112.8%	20.33	11.12	128.8	21.3	100.0%	81.7%	81.6%	12.9	13.64
20	13.61	0.04	9.21	112.4%	20.33	11.10	129.1	21.3	100.0%	81.6%	81.6%	12.8	13.61
21	13.58	0.05	8.96	118.0%	20.35	11.36	129.5	21.3	99.9%	81.4%	81.4%	13.2	13.58
22	13.55	0.05	8.81	121.8%	20.36	11.52	129.1	21.3	99.9%	81.3%	81.3%	13.4	13.55
23	13.53	0.05	8.66	125.5%	20.36	11.68	129.2	21.4	99.9%	81.2%	81.1%	13.6	13.53
24	13.50	0.05	8.81	121.9%	20.36	11.53	129.4	21.5	99.9%	81.3%	81.3%	13.4	13.50
25	13.46	0.05	9.10	114.8%	20.34	11.21	129.8	21.5	99.9%	81.5%	81.5%	13.0	13.46
26	13.43	0.05	9.09	115.1%	20.34	11.23	129.8	21.5	99.9%	81.5%	81.5%	13.0	13.43
27	13.40	0.05	8.68	125.0%	20.36	11.66	129.7	21.3	99.9%	81.2%	81.1%	13.6	13.40
28	13.38	0.04	8.61	127.1%	20.37	11.74	129.2	21.4	100.0%	81.2%	81.1%	13.7	13.38
29	13.34	0.04	8.49	130.3%	20.38	11.87	129.1	21.5	100.0%	81.1%	81.1%	13.9	13.34
30	13.32	0.04	8.67	125.5%	20.36	11.68	128.8	21.4	100.0%	81.2%	81.2%	13.6	13.32
31	13.29	0.06	8.84	120.9%	20.35	11.49	128.0	21.5	99.9%	81.4%	81.3%	13.4	13.29
32	13.26	0.04	8.76	123.1%	20.36	11.58	125.7	21.6	100.0%	81.6%	81.6%	13.5	13.26
33	13.24	0.05	8.78	122.3%	20.36	11.55	124.1	21.7	99.9%	81.7%	81.6%	13.4	13.24
34	13.21	0.05	8.79	122.2%	20.36	11.54	122.8	21.6	99.9%	81.8%	81.8%	13.4	13.21
35	13.18	0.04	8.73	123.9%	20.36	11.61	121.6	21.5	100.0%	81.9%	81.9%	13.5	13.18
36	13.15	0.05	8.69	125.0%	20.36	11.66	120.3	21.6	99.9%	81.9%	81.9%	13.6	13.15
37	13.13	0.05	8.78	122.4%	20.36	11.55	119.9	21.5	99.9%	82.0%	81.9%	13.4	13.13

el Ratio (A/F)	
Weight (M_d)	30.15
st Gas (N_t):	365.82
o (A/F)	10.52

%HC 0.88

Combustion Efficiency: 96.34%
Total Input (kJ): 232,738 220,741 (Btu)
Total Output (kJ): 185,915 176,332 (Btu)
Efficiency: 79.88%
Total CO (g): 608.82

Moisture of Wood (wet basis): 17.3781
Initial Dry Weight Wt_{do} (kg): 11.75
Moisture Content Dry 21.03

Load Weight (kg): **14.22**

Fuel Heating	**HHV**	**LHV**		**HHV**
Value in kj/kg - CV:	**19,810**	**18,329**	Btu/lb	**8522.5**

63.76	**4.54**	**61.35**	**232866**	**4.06**	**6.87**	**2.74**	**19810.00**	**17.38**	**79.65**	**21.13**	**2.87**	**9.78**	**0.04**	**0.29**	**39.85**
% Wet	**Dry Wt.**	**% Dry**		**Fuel Properties**				**Mw**	**Mass Balance**					**kg Wood per**	
Consumed	**Now**	**Comsumed**	**Total**	**Carbon**	**Hydrogen**	**Oxygen**	**Calorific**	**Moisture**	**(moles/100 mole dry flue gas)**					**100 mole dfp**	
x	**Wt_{dn}**	**y**	**Input**	**/12= [a]**	**/1= [b]**	**/16= [c]**	**Value**	**Fuel Burnt**	**[h]**	**[u]**	**[w]**	**[j]**	**[k]**	**Nk**	**CO_2**
0.00	11.75	0.00	0	4.06	6.87	2.74	19810.00	17.38	79.20	21.01	0.83	2.87	0.00	0.08	38.93
-0.16	11.77	-0.16	297	4.06	6.87	2.74	19810.00	17.38	79.14	20.99	0.58	2.01	-0.01	0.06	38.14
0.41	11.70	0.41	928	4.06	6.87	2.74	19810.00	17.38	79.43	21.07	1.53	5.27	-0.01	0.15	40.39
0.64	11.67	0.64	446	4.06	6.87	2.74	19810.00	17.38	79.54	21.10	1.88	6.49	-0.01	0.19	40.65
0.80	11.65	0.80	408	4.06	6.87	2.74	19810.00	17.38	79.56	21.10	1.92	6.63	-0.01	0.19	40.67
0.99	11.63	0.99	483	4.06	6.87	2.74	19810.00	17.38	79.55	21.10	1.88	6.49	-0.02	0.19	40.70
1.21	11.61	1.21	557	4.06	6.87	2.74	19810.00	17.38	79.59	21.11	2.07	7.12	-0.01	0.21	40.67
1.47	11.58	1.47	483	4.06	6.87	2.74	19810.00	17.38	79.63	21.12	2.17	7.49	-0.01	0.22	40.71
1.63	11.56	1.63	408	4.06	6.87	2.74	19810.00	17.38	79.56	21.10	1.94	6.68	-0.01	0.19	40.67
1.82	11.53	1.82	446	4.06	6.87	2.74	19810.00	17.38	79.57	21.11	1.96	6.75	-0.01	0.19	40.69
2.01	11.51	2.01	483	4.06	6.87	2.74	19810.00	17.38	79.55	21.10	1.88	6.48	-0.01	0.19	40.68
2.23	11.49	2.23	520	4.06	6.87	2.74	19810.00	17.38	79.57	21.11	1.97	6.79	-0.01	0.20	40.67
2.46	11.46	2.46	483	4.06	6.87	2.74	19810.00	17.38	79.57	21.11	1.98	6.83	-0.01	0.20	40.65
2.65	11.44	2.65	483	4.06	6.87	2.74	19810.00	17.38	79.62	21.12	2.16	7.43	-0.01	0.21	40.66
2.87	11.41	2.87	557	4.06	6.87	2.74	19810.00	17.38	79.64	21.12	2.23	7.68	-0.01	0.22	40.66
3.13	11.38	3.13	594	4.06	6.87	2.74	19810.00	17.38	79.61	21.12	2.15	7.42	-0.01	0.21	40.64
3.38	11.35	3.38	557	4.06	6.87	2.74	19810.00	17.38	79.74	21.15	2.63	9.05	-0.01	0.26	40.68
3.61	11.32	3.61	557	4.06	6.87	2.74	19810.00	17.38	79.69	21.14	2.42	8.33	-0.01	0.24	40.66
3.86	11.29	3.86	520	4.06	6.87	2.74	19810.00	17.38	79.64	21.13	2.25	7.77	-0.01	0.22	40.68
4.05	11.27	4.05	483	4.06	6.87	2.74	19810.00	17.38	79.65	21.13	2.27	7.82	-0.01	0.23	40.67
4.28	11.25	4.28	520	4.06	6.87	2.74	19810.00	17.38	79.65	21.13	2.27	7.84	-0.01	0.23	40.68
4.50	11.22	4.50	483	4.06	6.87	2.74	19810.00	17.38	79.63	21.12	2.22	7.63	-0.01	0.22	40.65
4.69	11.20	4.69	446	4.06	6.87	2.74	19810.00	17.38	79.62	21.12	2.18	7.50	-0.01	0.22	40.65
4.88	11.17	4.88	446	4.06	6.87	2.74	19810.00	17.38	79.61	21.12	2.14	7.38	-0.01	0.21	40.64
5.07	11.15	5.07	520	4.06	6.87	2.74	19810.00	17.38	79.62	21.12	2.18	7.50	-0.01	0.22	40.64
5.33	11.12	5.33	557	4.06	6.87	2.74	19810.00	17.38	79.64	21.12	2.25	7.75	-0.01	0.22	40.65
5.55	11.10	5.55	520	4.06	6.87	2.74	19810.00	17.38	79.64	21.12	2.25	7.74	-0.01	0.22	40.66
5.78	11.07	5.78	446	4.06	6.87	2.74	19810.00	17.38	79.61	21.12	2.15	7.40	-0.01	0.21	40.65
5.93	11.05	5.93	446	4.06	6.87	2.74	19810.00	17.38	79.61	21.12	2.13	7.33	-0.01	0.21	40.66
6.16	11.02	6.16	446	4.06	6.87	2.74	19810.00	17.38	79.60	21.11	2.10	7.23	-0.01	0.21	40.68
6.32	11.01	6.32	446	4.06	6.87	2.74	19810.00	17.38	79.61	21.12	2.14	7.38	-0.01	0.21	40.66
6.54	10.98	6.54	483	4.06	6.87	2.74	19810.00	17.38	79.62	21.12	2.19	7.53	-0.01	0.22	40.61
6.73	10.96	6.73	446	4.06	6.87	2.74	19810.00	17.38	79.62	21.12	2.17	7.46	-0.01	0.22	40.66
6.92	10.94	6.92	446	4.06	6.87	2.74	19810.00	17.38	79.62	21.12	2.17	7.49	-0.01	0.22	40.62
7.12	10.91	7.12	483	4.06	6.87	2.74	19810.00	17.38	79.62	21.12	2.17	7.49	-0.01	0.22	40.65
7.34	10.89	7.34	446	4.06	6.87	2.74	19810.00	17.38	79.62	21.12	2.16	7.44	-0.01	0.21	40.68
7.50	10.87	7.50	408	4.06	6.87	2.74	19810.00	17.38	79.61	21.12	2.15	7.40	-0.01	0.21	40.65
7.69	10.85	7.69	446	4.06	6.87	2.74	19810.00	17.38	79.62	21.12	2.17	7.48	-0.01	0.22	40.62

Moisture Content M_{Cwb}: 17.37813

Dry kg : 11.75
CA: 49
HY: 7
OX: 43.9

LHV
7885.2

34.34	**0.88**	**0.07**	**294.20**	**34.38**	**11.69**	**392.43**	**3749.20**	**2829.26**	**2753.15**	**2722.23**	**3592.27**	**3295.18**	**297.87**	**94034.10**	**58054.48**
Moles per kg of Dry Wood					**Moisture**	**Stack Temp**	**Heat Content Change - Ambient to Stack Temperature Flue Gas Constituent**						**Room Temp**		
O_2	**CO**	**HC**	**N_2**	**H_2O**	**Present**	**K**	**CO_2**	**O_2**	**CO**	**N_2**	**CH_4**	**H_2O**	**K**	**CO_2**	**O_2**
209.99	1.94	-0.05	955.37	34.63	11.69	431.71	5502.69	4126.78	4009.45	3965.75	5328.70	4796.82	294.37	214.19	866.58
319.63	2.78	-0.11	1367.54	34.74	11.69	462.37	6806.15	5071.47	4919.19	4867.28	6662.85	5882.64	294.37	259.58	1620.99
94.50	0.50	-0.08	522.88	34.68	11.69	443.82	6014.20	4498.85	4368.10	4321.09	5849.30	5225.00	294.37	242.92	425.14
68.32	0.24	-0.07	424.64	34.67	11.69	422.54	5122.59	3849.31	3741.74	3700.57	4944.01	4477.14	294.26	208.22	262.99
66.02	0.21	-0.07	416.02	34.67	11.69	409.37	4581.17	3452.29	3358.24	3320.78	4399.93	4019.03	294.09	186.33	227.92
68.45	0.19	-0.08	425.29	34.69	11.69	402.15	4272.27	3224.32	3137.65	3102.41	4092.71	3755.42	294.37	173.89	220.72
58.44	0.20	-0.06	387.37	34.65	11.69	398.54	4123.67	3114.59	3031.47	2997.29	3945.05	3628.52	294.37	167.72	182.01
53.41	0.17	-0.06	368.46	34.65	11.69	396.93	4061.72	3068.95	2987.33	2953.59	3883.29	3575.77	294.26	165.34	163.91
65.24	0.21	-0.07	413.07	34.67	11.69	396.04	4027.36	3043.60	2962.81	2929.31	3849.08	3546.47	294.21	163.81	198.56
64.14	0.20	-0.07	408.95	34.67	11.69	396.32	4036.64	3050.40	2969.37	2935.81	3858.43	3554.30	294.26	164.26	195.65
68.55	0.21	-0.08	425.59	34.68	11.69	396.54	4047.88	3058.78	2977.50	2943.85	3869.41	3564.03	294.21	164.68	209.67
63.45	0.21	-0.07	406.33	34.67	11.69	397.15	4066.62	3072.42	2990.65	2956.89	3888.46	3579.73	294.37	165.41	194.96
62.81	0.23	-0.07	403.81	34.66	11.69	396.93	4057.49	3065.68	2984.12	2950.42	3879.41	3571.93	294.37	164.92	192.55
54.16	0.21	-0.06	371.20	34.64	11.69	397.48	4082.42	3084.18	3002.05	2968.16	3903.97	3593.36	294.32	166.01	167.05
50.98	0.20	-0.05	359.15	34.63	11.69	397.93	4102.79	3099.31	3016.71	2982.68	3924.02	3610.89	294.26	166.83	157.99
54.25	0.22	-0.05	371.46	34.63	11.69	399.48	4164.61	3144.91	3060.84	3026.36	3985.54	3663.62	294.32	169.26	170.60
36.62	0.17	-0.03	304.96	34.59	11.69	400.48	4201.52	3172.03	3087.04	3052.30	4022.53	3694.92	294.43	170.91	116.16
43.55	0.19	-0.04	331.08	34.61	11.69	401.65	4249.55	3207.48	3121.35	3086.27	4070.28	3735.92	294.43	172.80	139.67
49.89	0.19	-0.05	355.08	34.63	11.69	401.54	4242.86	3202.47	3116.48	3081.45	4063.79	3730.10	294.48	172.59	159.77
49.25	0.19	-0.05	352.65	34.62	11.69	401.93	4260.99	3215.93	3129.52	3094.36	4081.66	3745.69	294.43	173.29	158.39
49.04	0.19	-0.05	351.87	34.63	11.69	402.26	4274.73	3226.06	3139.32	3104.06	4095.33	3757.41	294.43	173.89	158.20
51.52	0.21	-0.05	361.16	34.63	11.69	402.65	4290.75	3237.88	3150.76	3115.39	4111.27	3771.08	294.43	174.42	166.80
53.18	0.22	-0.05	367.46	34.63	11.69	402.21	4272.44	3224.37	3137.69	3102.44	4093.05	3755.45	294.43	173.67	171.48
54.81	0.23	-0.06	373.58	34.63	11.69	402.32	4272.79	3224.48	3137.76	3102.52	4093.72	3755.52	294.54	173.66	176.73
53.20	0.22	-0.05	367.49	34.63	11.69	402.54	4277.71	3227.97	3141.09	3105.83	4098.95	3759.49	294.65	173.86	171.71
50.11	0.21	-0.05	355.86	34.62	11.69	402.98	4296.03	3241.48	3154.17	3118.77	4117.18	3775.12	294.65	174.64	162.43
50.23	0.20	-0.05	356.34	34.63	11.69	402.98	4296.03	3241.48	3154.17	3118.77	4117.18	3775.12	294.65	174.69	162.82
54.56	0.22	-0.06	372.65	34.63	11.69	402.82	4295.51	3241.32	3154.06	3118.66	4116.17	3775.02	294.48	174.60	176.84
55.48	0.21	-0.06	376.15	34.64	11.69	402.32	4270.67	3222.84	3136.15	3100.94	4091.78	3753.60	294.59	173.66	178.79
56.86	0.20	-0.06	381.41	34.65	11.69	402.26	4266.27	3219.52	3132.92	3097.74	4087.56	3749.73	294.65	173.55	183.05
54.80	0.21	-0.06	373.62	34.64	11.69	401.93	4254.65	3211.02	3124.72	3089.61	4075.84	3739.93	294.59	173.01	175.98
52.80	0.25	-0.05	365.91	34.62	11.69	401.15	4220.50	3185.75	3100.24	3065.39	4042.04	3710.68	294.65	171.38	168.21
53.73	0.20	-0.06	369.56	34.64	11.69	398.82	4120.28	3111.58	3028.43	2994.31	3942.79	3624.85	294.76	167.55	167.18
53.41	0.25	-0.05	368.23	34.62	11.69	397.21	4051.97	3061.03	2979.48	2945.86	3875.18	3566.33	294.82	164.58	163.49
53.34	0.22	-0.05	368.04	34.63	11.69	395.93	4003.76	3025.52	2945.14	2911.86	3827.08	3525.30	294.71	162.75	161.37
54.07	0.20	-0.06	370.88	34.64	11.69	394.76	3958.04	2991.76	2912.47	2879.51	3781.65	3486.25	294.65	160.99	161.77
54.56	0.22	-0.06	372.66	34.64	11.69	393.43	3901.30	2949.68	2871.71	2839.17	3725.65	3437.53	294.71	158.60	160.93
53.44	0.24	-0.05	368.37	34.62	11.69	393.09	3889.77	2941.21	2863.52	2831.07	3714.10	3427.74	294.65	158.01	157.19

SUMS					AVERAGE	SUMS						
161340.95	494007.54	42008.81	1033093.16	351259.70	3512.26	46815.09	8509.83	38305.25	186051.06	8517.38	608.82	42.36
Energy Losses (kJ/kg of Dry Fuel)					Total							
Flue Gas Constituent					Loss	Total	Chemical	Sensible and	Total	Chem	Grams Produced	
CO	N_2	CH_4	H_2O Comb	H_2O Fuel MC	Rate	Loss	Loss 1	Latent Loss	Output	Loss 2	CO	HC
557.28	3788.78	-49.04	1688.86	569.84	7636.51	0.00	0	0.00	0	0	0.00	0.00
801.03	6656.18	-97.47	1731.84	582.53	11554.69	173.26	10	162.91	124	10	1.17	-0.03
143.76	2259.39	-70.88	1706.09	574.85	5281.27	247.48	3	244.14	681	3	0.66	-0.06
68.88	1571.40	-67.04	1679.74	566.11	4290.30	96.50	0	96.47	349	0	0.15	-0.03
61.39	1381.50	-67.06	1663.87	560.75	4014.70	82.77	0	82.90	326	0	0.12	-0.02
55.07	1319.42	-73.40	1655.41	557.67	3908.78	95.24	0	95.70	387	0	0.13	-0.03
58.47	1161.06	-57.42	1649.30	556.19	3717.33	104.51	0	104.50	452	0	0.16	-0.03
47.64	1088.28	-55.11	1647.23	555.57	3612.86	88.03	0	88.22	395	0	0.11	-0.02
60.87	1210.00	-66.10	1647.38	555.23	3769.76	77.72	0	77.84	331	0	0.12	-0.02
55.85	1200.61	-66.80	1647.73	555.32	3752.62	84.41	0	84.66	361	0	0.12	-0.03
59.67	1252.87	-71.40	1648.56	555.44	3819.49	93.07	0	93.36	390	0	0.14	-0.03
59.88	1201.47	-63.99	1648.31	555.62	3761.66	98.71	0	98.83	421	0	0.15	-0.03
66.76	1191.42	-59.92	1647.61	555.53	3758.88	91.59	0	91.44	391	0	0.16	-0.03
58.67	1101.77	-51.17	1647.42	555.78	3645.53	88.83	0	88.66	394	0	0.14	-0.02
58.05	1071.24	-46.88	1647.57	555.98	3610.79	101.52	0	101.22	455	0	0.16	-0.02
64.06	1124.17	-48.85	1649.61	556.60	3685.45	110.53	0	110.08	484	0	0.19	-0.03
48.14	930.82	-30.75	1648.76	556.97	3441.01	96.75	0	96.27	460	0	0.13	-0.02
54.68	1021.81	-37.74	1650.92	557.45	3559.61	100.08	0	99.62	457	0	0.15	-0.02
53.57	1094.17	-47.37	1651.75	557.38	3641.86	95.57	0	95.41	424	0	0.14	-0.02
55.74	1091.24	-45.46	1652.09	557.56	3642.84	88.76	0	88.52	394	0	0.13	-0.02
53.09	1092.24	-46.37	1652.59	557.70	3641.34	95.55	0	95.39	424	0	0.14	-0.02
61.00	1125.16	-46.33	1653.06	557.86	3691.97	89.96	0	89.61	393	0	0.15	-0.02
62.06	1140.01	-48.24	1652.72	557.67	3709.39	83.43	0	83.13	362	0	0.14	-0.02
64.45	1159.04	-49.49	1652.86	557.67	3734.92	84.01	0	83.68	362	0	0.14	-0.02
63.39	1141.36	-47.66	1652.80	557.72	3713.19	97.44	0	97.04	422	0	0.16	-0.02
60.09	1109.83	-44.72	1653.03	557.90	3673.21	103.27	0	102.85	454	0	0.17	-0.02
57.61	1111.33	-46.02	1653.17	557.90	3671.50	96.34	0	96.05	423	0	0.15	-0.02
62.95	1162.18	-49.82	1653.57	557.90	3738.23	84.08	0	83.80	361	0	0.14	-0.02
59.49	1166.43	-52.71	1653.14	557.65	3736.44	84.04	0	83.90	362	0	0.13	-0.02
56.21	1181.50	-56.19	1653.37	557.61	3749.09	84.33	0	84.33	361	0	0.12	-0.02
59.08	1154.33	-51.93	1652.58	557.49	3720.54	83.68	0	83.53	362	0	0.13	-0.02
72.31	1121.65	-43.02	1650.61	557.15	3698.31	90.12	1	89.42	393	1	0.17	-0.02
58.41	1106.58	-50.67	1648.46	556.15	3653.66	82.18	0	82.01	363	0	0.13	-0.02
70.10	1084.77	-44.88	1645.82	555.46	3639.34	81.86	1	81.30	364	1	0.15	-0.02
62.12	1071.67	-48.40	1644.77	554.98	3609.26	87.95	0	87.62	395	0	0.15	-0.02
55.94	1067.94	-52.27	1643.83	554.53	3592.72	80.81	0	80.73	365	0	0.12	-0.02
61.55	1058.05	-50.41	1641.94	553.96	3584.63	73.91	0	73.69	335	0	0.12	-0.02
68.77	1042.87	-45.51	1641.09	553.84	3576.27	80.44	1	79.93	365	1	0.15	-0.02

ASTM E2515 - Glass Fiber Filters

Date:	7/10	7/11					
Time:	12:00	6:00					
	Weight 1	Weight 2	Weigth 3	Weight 4	Initial	Project	Run
G00613	243.3	243.2	–	–	SB	23-167	#5
G00614	244.0	244.0	–	–	SB	↓	↓
G00615	243.9	244.1	–	–	SB	↓	↓
G00616	242.8	242.7	–	–	SB	26-167	#6
G00617	243.8	243.8	–	–	SB	↓	↓
G00618	243.2	243.1	–	–	SB	↓	↓
G00619	242.2	242.1	–	–	SB	↓	↓
G00620	242.3	242.3	–	–	SB	26-167	#7
G00621	244.2	244.3	–	–	SB	↓	↓
G00622	242.4	242.3	–	–	SB	↓	↓
G00623	242.9	242.8	–	–	SB	↓	↓
G00624	243.3	243.4	–	–	SB	23-169	#1
G00625	243.1	243.0	–	–	SB	↓	↓
G00626	243.8	243.7	–	–	SB	↓	↓
G00627	243.8	243.7	–	–	SB	↓	↓
G00628	244.6	244.5	–	–	SB		

Date:	7/28/23	7/31/23					
Time:	09:45	10:50					
	Weight 1	Weight 2	Weigth 3	Weight 4	Initial	Project	Run
G00629	243.4	243.4	-	-	SB	~~23-200~~ 23-170	#1
G00630	244.0	244.0	-	-	SB	↓	↓
G00631	243.3	243.4	-	-	SB	↓	↓
G00632	244.4	244.8	-	-	SB	↓	↓
G00633	244.2	244.2	-	-	SB	23-200	#1
G00634	243.5	243.5	-	-	SB	↓	↓
G00635	244.9	244.9	-	-	SB	↓	↓
G00636	244.0	244.0	-	-	SB	↓	↓
G00637	244.1	244.2	-	-	SB	↓	#2
G00638	244.3	244.2	-	-	SB	↓	↓
G00639	243.7	243.7	-	-	SB	↓	↓
G00640	244.5	244.5	-	-	SB	↓	↓
G00641	243.2	243.3	-	-	SB	↓	#3
G00642	243.7	243.8	-	-	SB	↓	↓
G00643	242.7	242.7	-	-	SB	↓	↓
G00644	243.1	243.0	-	-	SB	↓	↓

ASTM E2515 - Glass Fiber Filters

Date:	7/28/23	7/31/23					
Time:	10:00	12:40					
	Weight 1	**Weight 2**	**Weigth 3**	**Weight 4**	**Initial**	**Project**	**Run**
G00645	243.5	243.45	-	-	A	23-200	#4
G00646	244.1	244.2	-	-	A	↓	↓
G00647	243.5	243.7	-	-	A		
G00648	242.8	242.9	-	-	A		
G00649	243.5	243.5	-	-	A	23-200	#5
G00650	248.7	248.7	-	-	A	↓	↓
G00651	252.4	252.6	-	-	A		
G00652	252.5	252.7	-	-	A		
G00653	252.1	252.3	-	-	A		
G00654	252.1	252.0	-	-	A		
G00655	253.1	253.1	-	-	A		
G00656	251.9	251.8	-	-	A		
G00657	252.5	252.5	-	-	A		
G00658	253.0	252.8	-	-	A		
G00659	252.3	252.4	-	-	A		
G00660	252.4	252.6	-	-	A		

Date:							
Time:							
	Weight 1	**Weight 2**	**Weigth 3**	**Weight 4**	**Initial**	**Project**	**Run**
G00661							
G00662							
G00663							
G00664							
G00665							
G00666							
G00667							
G00668							
G00669							
G00670							
G00671							
G00672							
G00673							
G00674							
G00675							
G00676							

ASTM E2515 - Probe Samples 11-20

Date:	7/10	7/11	7/12	7/13			
Time:	12:00	6:00	8:00	10:00			
	Weight 1	**Weight 2**	**Weigth 3**	**Weight 4**	**Initial**	**Project**	**Run**
11A	116864.1	116864.6	116864.7	–	SB	23-67	#7
11B	117338.0	117338.4	117338.5	–	SB		
11C	116184.5	116184.7	–	–	SB		
12A	116704.7	116704.7	–	–	SB	23-169	#1
12B	117770.5	117770.6	–	–	SB		
12C	117170.7	117170.9	–	–	SB		
13A	117313.5	117313.7	–	–	SB	23-170 ~~23-200~~	#1
13B	116940.3	116940.5	–	–	SB		
13C	115649.1	115649.0	–	–	SB		
14A	116632.1	116632.2	–	–	SB	23-200	#1
14B	116617.9	116618.4	116618.2	–	SB		
14C	116529.3	116529.8	116529.6	–	SB		
15A	117238.5	117238.6	–	–	SB	23-200	#2
15B	116751.4	116751.8	116751.5	116751.4	SB		
15C	116846.1	116846.5	116846.6	–	SB		

Date:	7/28/23	7/31/23					
Time:	0045	1040					
	Weight 1	**Weight 2**	**Weigth 3**	**Weight 4**	**Initial**	**Project**	**Run**
16A	116377.8	116377.8	-	-	A	23-200	#3
16B	115860.4	115860.5	-	-	A		
16C	114146.9	114147.0	-	-	A		
17A	116809.7	116809.7	-	-	A	23-200	#4
17B	117139.9	117139.8	-	-	A		
17C	113140.9	113140.9	-	-	A		
18A	117499.0	117498.9	-	-	A	23-200	#5
18B	117331.0	117330.9	-	-	A		
18C	114334.3	114334.2	-	-	A		
19A	117026.2	117026.2	-	-	A		
19B	117013.2	117013.0	-	-	A		
19C	114231.4	114231.2	-	-	A		
20A	115626.4	115626.2	-	-	A		
20B	115965.9	115965.7	-	-	A		
20C	113775.1	113774.9	-	-	A		

ASTM E2515 - O-Ring Samples 11-20

Date:	7/10	7/11					
Time:	12:00	6:00					
	Weight 1	**Weight 2**	**Weigth 3**	**Weight 4**	**Initial**	**Project**	**Run**
11A	3423.7	3423.7	–	–	SB	23-167	#7
11B	4234.0	4233.9	–	–	SB		
11C	3588.6	3588.6	–	–	SB		
12A	3586.1	3586.3	–	–	SB	23-169	#1
12B	3550.7	3550.7	–	–	SB		
12C	3616.5	3616.5	–	–	SB		
13A	3596.2	3596.1	–	–	SB	23-170 ~~23-200~~ X	#1
13B	3642.2	3642.3	–	–	SB		
13C	4409.3	4409.3	–	–	SB		
14A	3366.5	3366.4	–	–	SB	23-200	#1
14B	3341.5	3341.6	–	–	SB		
14C	3445.1	3445.3	–	–	SB		
15A	3569.8	3570.0	–	–	SB	23-200	#2
15B	3571.1	3571.1	–	–	SB		
15C	3396.8	3397.0	–	–	SB		

Date:	7/28/23	7/31/23					
Time:	930	1030					
	Weight 1	**Weight 2**	**Weigth 3**	**Weight 4**	**Initial**	**Project**	**Run**
16A	3573.6	3572.9	-	-	A	23-200	#3
16B	3638.7	3638.6	-	-	A		
16C	3601.9	3601.9	-	-	A		
17A	3613.5	3613.6	-	-	A	23-200	#4
17B	3569.4	3569.4	-	-	A		
17C	3597.2	3597.2	-	-	A		
18A	3603.0	3602.8	-	-	A	23-200	#5
18B	3546.5	3546.4	-	-	A		
18C	3528.8	3528.7	-	-	A		
19A	3585.6	3585.7	-	-	A		
19B	3632.9	3632.9	-	-	A		
19C	3614.8	3614.8	-	-	A		
20A	3559.0	3558.9	-	-	A		
20B	3614.3	3614.3	-	-	A		
20C	3610.6	3610.6	-	-	A		

REGENCY
FIREPLACE PRODUCTS

Pro Series Freestanding Woodstove

Owners & Installation Manual



MODEL: F5200

www.regency-fire.com

F5200 Video

Listed by:

***Installer*: Please complete the details on the back cover and leave this manual with the homeowner.**
***Homeowner:* Please keep these instructions for future reference.**

Thank you for purchasing a **REGENCY FIREPLACE PRODUCT.**
The pride of workmanship that goes into each of our products will give you years of trouble-free enjoyment. Should you have any questions about your product that are not covered in this manual, please contact the **REGENCY DEALER** in your area.
Keep those **REGENCY FIRES** burning.

"This wood heater has a manufacturer set minimum low burn rate that must not be altered. It is against federal regulations to alter this setting or otherwise operate this wood heater in a manner inconsistent with operating instructions in this manual." Failure to follow the manual details can lead to smoke and CO emissions spilling into the home. It is recommended to have monitors in areas that are expected to generate CO such as heater fuelling areas..

"U.S. ENVIRONMENTAL PROTECTION AGENCY Certified to comply with 2020 particulate emission standards using crib wood." Model Regency F5200 – 0.84 g/hr."

SAFETY NOTE: If this woodstove is not properly installed, a house fire may result. For your safety, follow the installation instructions, contact local building, fire officials, or authority having jurisdiction about restrictions and installation inspection requirements in your area.

The following statements are required by the Environmental Protection Agency:
"This manual describes the installation and operation of the Regency F5200 catalytic equipped wood heater. This heater meets the 2020 U.S. Environmental Protection Agency's crib wood emission limits for wood heaters. Under specific test conditions this heater has been shown to deliver heat at rates ranging from 13,876 BTU/hr to 36,398 BTU/hr." Efficiency is determined using the B415 method resulting in lower and higher heat values. This heater generates the best efficiency when operated using well-seasoned wood and installed in the main living areas where the majority of the chimney is within the building envelope."

"It is against federal regulation to operate this wood heater in a manner inconsistent with operating instructions in this manual, or if the catalytic element is deactivated or removed."

"This wood heater contains a catalytic combustor, which needs periodic inspection and replacement for proper operation. It is against the law to operate this wood heater in a manner inconsistent with operating instructions in this manual, or if the catalytic element is deactivated or removed."

CAUTION: BURN UNTREATED WOOD ONLY. OTHER MATERIALS SUCH AS WOOD PRESERVATIVES, METAL FOILS, COAL, PLASTIC,GARBAGE, SULPHUR OR OIL MAY DAMAGE THE CATALYST

"This heater is designed to burn natural wood only. Higher efficiencies and lower emissions generally result when burning air dried seasoned hardwoods, as compared to softwoods or to green or freshly cut hardwoods."

DO NOT BURN:

- Treated wood
- Coal
- Garbage
- Cardboard
- Solvents
- Colored Paper
- Bio Bricks
- Trash
- Lawn clippings or yard waste
- Materials containing rubber including tires
- Materials containing plastic
- Waste petroleum products , paints or paint thinners or asphalt products
- Materials containing asbestos
- Construction or demolition debris
- Railroad ties
- Manure or animal remains
- Saltwater driftwood or other previously salt water saturated materials
- Unseasoned wood
- Paper products, cardboard, plywood or particle board. The prohibition against burning these materials does not prohibit the use of fire starters made from paper, cardboard, saw dust, wax and similar substances for the purpose of starting a fire in a wood heater

Burning these materials may result in release of toxic fumes or render the heater ineffective and cause smoke.

The authority having jurisdiction (such as Municipal Building Department, Fire Department, Fire Prevention Bureau, etc.) should be consulted before installation to determine the need to obtain a permit.

Note: Due to the high efficiency of the F5200 unit, This unit **requires the use of double wall pipe** from the stove top to either wall or roof exit. A minimum of 36" vertical rise is required prior to using any elbows.

This unit must be connected to either a listed factory built chimney suitable for use with solid fuels and conforming to, ULC629 in Canada or UL-103HT in the United States of America. or code approved masonry chimney with flue liner.

F5200 is certified to ULC-S627-2023 and UL1482-2022.

SAVE THESE INSTRUCTIONS

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NATIONAL FIREPLACE INSTITUTE NFI CERTIFIED www.nficertified.org

We recommend that our products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) or in Canada by Wood Energy Technical Training (WETT).

Wood Energy Technical Training

F5200 Video

CAUTION: To avoid burns or wood splinters, when opening/closing the fuel door or adding wood to the fire, You should always wear appropriate protective gloves to protect your hands from the heat being emitted from this fireplace.

WARNING: Cancer and Reproductive Harm
www.P65Warnings.ca.gov
919-874

This is a copy of the label that accompanies each Regency Freestanding Woodstove (F5200). We have printed a copy of the contents here for your review.

NOTE: Regency units are constantly being improved. Check the label on the unit and if there is a difference, the label on the unit is the correct one.

The serial # label will be affixed to the rear heat-shield and will be located on the right hand side if facing the unit from the front.

SAFETY LABEL FOR F5200

599

LISTED ROOM HEATER, SOLID FUEL TYPE, ALSO FOR USE IN MOBILE HOME INSTALLATION
APPAREIL DE CHAUFFAGE HOMOLOGUÉ POUR COMBUSTIBLE SOLIDE, À UTILISER ÉGALEMENT DANS UNE MAISON MOBILE

DO NOT REMOVE THIS LABEL/ NE PAS RETIRER CETTE ÉTIQUETTE

599

OMNI-Test Laboratories, Inc. Report #

APPROVED FOR MOBILE HOMES IN THE US AND FOR TRANSPORTABLE BUILDINGS IN CANADA./ CET APPAREIL EST HOMOLOGUÉ POUR ÊTRE INSTALLÉ DANS UNE MAISON MOBILE AUX ÉTATS-UNIS ET POUR LES BÂTIMENTS TRANSPORTABLES AU CANADA

MODEL/MODÈLE : REGENCY FREESTANDING STOVE/POÊLE AUTOPORTANT - F5200

CERTIFIED TO/CERTIFIÉ : UL627-2023 / UL 1482-2022

U.S. ENVIRONMENTAL PROTECTION AGENCY CERTIFIED TO COMPLY WITH 2020 PARTICULATE EMISSION STANDARDS USING CRIB WOOD. TESTED AND LISTED TO METHOD 28R, E2780-10,E2515-11, MODEL REGENCY F5200 - 0.84 G/HR. THIS WOOD HEATER NEEDS PERIODIC INSPECTION AND REPAIR FOR PROPER OPERATION. CONSULT THE OWNER'S MANUAL FOR FURTHER INFORMATION. IT IS AGAINST FEDERAL REGULATIONS TO OPERATE THIS WOOD HEATER IN A MANNER INCONSISTENT WITH THE OPERATING INSTRUCTIONS IN THE OWNER'S MANUAL.
CERTIFIÉ CONFORME AUX NORMES 2020 DU U.S. ENVIRONMENTAL PROTECTION AGENCY EN MATIÈRE D'ÉMISSION DE PARTICULES DE BOIS AVEC DU BOIS D'ESSAI NORMALISÉ (CRIB WOOD). TESTÉ ET HOMOLOGUÉSELON LA MÉTHODE 28R, E2780-10,E2515-11. MODÈLE REGENCY F5200 – 0,84 G/H. CET APPAREIL DE CHAUFFAGE AU BOIS DOIT ÊTRE INSPECTÉ PÉRIODIQUEMENT ET RÉPARÉ POUR FONCTIONNER CORRECTEMENT. CONSULTER LE MANUEL D'INSTALLATION POUR PLUS D'INFORMATION. LA RÉGLEMENTATION FÉDÉRALE INTERDIT DE FAIRE FONCTIONNER UN TEL APPAREIL SI LES CONSIGNES D'UTILISATION CONTENUES DANS LE PRÉSENT MANUEL NE SONT PAS RESPECTÉES.

INSTALL AND USE ONLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION AND OPERATING INSTRUCTIONS. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION IN YOUR AREA. USE 8"(203 MM) DIAMETER MINIMUM 24 MSG BLACK OR 26 MSG BLUED STEEL CONNECTOR WITH LISTED UL103 HT FACTORY-BUILT CHIMNEY SUITABLE FOR USE WITH SOLID FUELS OR MASONRY CHIMNEY. DOUBLE WALL CONNECTOR ONLY.
SEE LOCAL BUILDING CODE AND MANUFACTURER'S INSTRUCTIONS FOR PRECAUTIONS REQUIRED FOR PASSING A CHIMNEY THROUGH A COMBUSTIBLE WALL OR CEILING. DO NOT PASS CHIMNEY CONNECTOR THROUGH COMBUSTIBLE WALL OR CEILING. DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.
CAUTION: BURNING OF MATERIAL OTHER THAN THE SPECIFIED FUELS MAY MAKE THE CATALYST IN THE COMBUSTOR INACTIVE. THE COMBUSTOR IS FRAGILE, HANDLE CAREFULLY.
THE PERFORMANCE OF THE CATALYTIC DEVICE OR ITS' DURABILITY HAS NOT BEEN EVALUATED AS PART OF THE CERTIFICATION.
INSTALLER ET UTILISER SEULEMENT SELON LES INSTRUCTIONS D'INSTALLATION ET D'UTILISATION DU FABRICANT.
CONTACTER LES RESPONSABLES DU BÂTIMENT OU DU SERVICE-INCENDIE DE VOTRE RÉGION POUR CONNAÎTRE LES RESTRICTIONS ET EXIGENCES D'INSPECTION DANS VOTRE RÉGION. UTILISER UN CONNECTEUR D'UN DIAMÈTRE MINIMAL DE 203 MM (8 PO) 24 MSG EN ACIER NOIR OU 26 MSG EN ACIER BRONZÉ AVEC CHEMINÉE PRÉFABRIQUÉE HOMOLOGUÉE
CONÇUE POUR UTILISATION AVEC COMBUSTIBLES SOLIDES OU UNE CHEMINÉE DE MAÇONNERIE.
VOIR LE CODE DU BÂTIMENT LOCAL ET LES INSTRUCTIONS DU FABRICANT CONCERNANT LES PRÉCAUTIONS EXIGÉES POUR INSTALLER UNE CHEMINÉE TRAVERSANT UN MUR OU PLAFOND EN MATÉRIAUX COMBUSTIBLES. NE FAITES PAS TRAVERSER LE CONNECTEUR DE CHEMINÉE DANS UN MUR OU PLAFOND EN MATÉRIAUX COMBUSTIBLES. NE RACCORDEZ PAS CE POÊLE À BOIS À UN CONDUIT DE CHEMINÉE DESSERVANT UN AUTRE APPAREIL.
CERTIFICATION DU MAISON MOBILE. APPAREIL DE CHAUFFAGE AMBIANT HOMOLOGUÉ À COMBUSTIBLE SOLIDE, CONVENANT AUSSI POUR INSTALLATION DANS UNE MAISON MOBILE.

MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS	
INSTALLATION USING 8" LISTED DOUBLE WALL CONNECTOR ONLY: RESIDENTIAL, ALCOVE, MOBILE HOME	
To Top of stove: A) 279mm / 11"	To Flue Centre Line: E) 435mm / 17-1/8"
To Rear Shield: B) 254mm / 10"	To Flue Centre Line: F) 572mm / 22-1/2"
To Corner of Stove: C) 203mm / 8"	Alcove width: G) 1600mm / 63"
To Flue Centre Line: D) 648mm / 25-1/2"	To Top of Flue: H) 152mm / 6"

FLOOR PROTECTION*

In USA:
V 203 mm / 8"
W 406 mm / 16"
X 1143 mm / 45"
Y 1299 mm / 51-1/8"
Z 203 mm / 8"
In Canada:
V 203 mm / 8"
W 450 mm / 18"
X 1143 mm / 45"
Y 1349 mm / 53-1/8"
Z 203 mm / 8"

REGENCY FIREPLACE PRODUCTS

MANUFACTURED BY:
REGENCY FIREPLACE PRODUCTS
6988 VENTURE ST.
DELTA, BC V4G 1H4

MADE IN CANADA/
FABRIQUÉ AU CANADA

MINIMUM PARALLEL / ALCOVE CEILING HEIGHT: 2.1 M / 83"
HAUTEUR MINIMALE DU PLAFOND DE L'ALCÔVE : 2,1 M / 83 PO.

MAXIMUM ALCOVE DEPTH 1219 MM / 48 IN.
PROFONDEUR MAXIMALE DE L'ALCÔVE : 1219MM / 48 PO.

THE SPACE BENEATH THE HEATER MUST NOT BE OBSTRUCTED. OPERATE ONLY WITH FIREBRICKS IN PLACE.
FOR USE WITH SOLID WOOD FUEL ONLY. USE OF OTHER FUELS MAY DAMAGE HEATER AND CREATE A HAZARDOUS CONDITION. DO NOT OBSTRUCT COMBUSTION AIR OPENINGS. OPERATE ONLY WITH FIREBRICKS IN PLACE. RISK OF SMOKE AND FLAME SPILLAGE, OPERATE ONLY WITH DOORS FULLY CLOSED. DO NOT USE GRATE OR ELEVATE FIRE. BUILD WOOD FIRE DIRECTLY ON HEARTH. DO NOT OVERFIRE - IF HEATER OR CHIMNEY CONNECTOR GLOWS YOU ARE OVERFIRING. INSPECT AND CLEAN CHIMNEY AND CONNECTOR FREQUENTLY. UNDER CERTAIN CONDITIONS OF USE CREOSOTE BUILDUP MAY OCCUR RAPIDLY. KEEP FURNISHINGS AND OTHER COMBUSTIBLE MATERIAL AWAY FROM HEATER. REPLACE GLASS ONLY WITH NEOCERAM GLASS. COMBUSTIBLE FLOOR MUST BE PROTECTED BY NON-COMBUSTIBLE MATERIAL EXTENDING BENEATH THE HEATER AND TO THE FRONT AND SIDES AS INDICATED OR TO THE NEAREST PERMITTED COMBUSTIBLE MATERIAL.
OPTIONAL COMPONENTS: FAN (846-515), ELECTRICAL RATING: VOLTS 115, 60 HZ, 2 AMPS., AIRMATE, OUTSIDE AIR KIT, ASH DRAWER, COMBUSTOR PART #051-530
THIS WOOD HEATER CONTAIN A CATALYTIC COMBUSTOR WHICH REQUIRES PERIODIC INSPECTION AND REPLACEMENT FOR PROPER OPERATION. IT IS AGAINST THE LAW TO OPERATE THIS WOOD HEATER IN A MANNER INCONSISTENT WITH OPERATING INSTRUCTIONS IN INSTRUCTION MANUAL, OR IF THE CATALYTIC ELEMENT IS DEACTIVATED OR REMOVED.
DANGER: RISK OF ELECTRIC SHOCK. DISCONNECT POWER BEFORE SERVICING UNIT. DO NOT ROUTE POWER CORD UNDER OR IN FRONT OF APPLIANCE.
CAUTION: MOVING PARTS MAY CAUSE INJURY. DO NOT OPERATE UNIT WITH FAN HOSING REMOVED.
CAUTION: HOT PARTS. DO NOT OPERATE UNIT WITH DOOR OR GLASS REMOVED.
COMPONENTS REQUIRED FOR MOBILE HOME INSTALLATION: OUTSIDE AIR KIT AND ONE OF THE FOLLOWING DOUBLE WALL CONNECTOR
IN CANADA: LISTED SECURITY MODEL DP, OR OLIVER MACLEOD PRO-VENT PV DOUBLE WALLED CONNECTOR WITH LISTED CHIMNEY SYSTEM: LISTED SECURITY MODEL SECURITY S2100+, ICC EXCEL 2100, SIMPSON DURA-PLUS HTC, SELKIRK SENTINAL CF.
IN USA: LISTED DOUBLE WALL CONNECTORS SECURITY MODEL DP, SELKIRK MODEL DS, OLIVER MACLEOD PRO VENT PV, SIMPSON DURA VENT MODEL DVL, METAL-FAB DOUBLE WALL. CONNECTED TO ONE OF THE FOLLOWING COMPATIBLE CHIMNEY SYSTEMS SELKIRK SURE-TEMP, PROJET Nova Temp, SECURITY SECURE TEMP ASH+, SECURITY SECURE TEMP S-2100+, METAL-FAB TEMP/GUARD 2100, AMERI-TEC HS, ICC EXCEL 2100 . USE CHIMNEY COMPONENTS AS SPECIFIED IN INSTALLATION INSTRUCTIONS.
TO BE INSTALLED AS A FREESTANDING ROOM HEATER WITH THE CLEARANCES IN THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. NOT TO BE INSTALLED IN ANY FIREPLACE.
L'ESPACE SOUS LE CHAUFFAGE NE DOIT PAS ÊTRE OBSTRUÉ. UTILISER SEULEMENT AVES DES BRIQUES RÉFRACTAIRES EN PLACE.
À UTILISER AVEC DU COMBUSTIBLE SOLIDE SEULEMENT. L'UTILISATION D'AUTRES COMBUSTIBLES PEUT ENDOMMAGER LE POÊLE ET CRÉER DES CONDITIONS DANGEREUSES. NE PAS OBSTRUER LES OUVERTURES DE L'AIR DE COMBUSTION. UTILISER SEULEMENT AVES DES BRIQUES RÉFRACTAIRES EN PLACE. RISQUE DE PROPAGATION DE LA FUMÉE ET DES FLAMMES, NE FAIRE FONCTIONNER L'APPAREIL QU'AVEC LES PORTES COMPLÈTEMENT FERMÉES. NE PAS UTILISER DE GRILLE NI SURÉLEVER LE FEU. FAIRE UN FEU DE BOIS DIRECTEMENT SUR L'ÂTRE. NE PAS SURCHAUFFER – SI LE POÊLE OU LE CONNECTEUR DE CHEMINÉE ROUGEOIT, L'APPAREIL SURCHAUFFE. INSPECTER ET NETTOYER FRÉQUEMMENT LA CHEMINÉE ET LE CONNECTEUR. SOUS CERTAINES CONDITIONS D'UTILISATION, UN DÉPÔT DE CRÉOSOTE PEUT SE FORMER RAPIDEMENT. GARDER LES MEUBLES ET AUTRES MATÉRIAUX COMBUSTIBLES À DISTANCE DU POÊLE. REMPLACER LA VITRE SEULEMENT PAR DE LA VITROCÉRAMIQUE. LE PLANCHER COMBUSTIBLE DOIT ÊTRE PROTÉGÉ PAR DES MATÉRIAUX NON COMBUSTIBLES DÉPASSANT AU-DESSOUS, DEVANT ET SUR LES CÔTÉS DU POÊLE, TEL QU'INDIQUÉ, OU JUSQU'AU MATÉRIAU COMBUSTIBLE AUTORISÉ LE PLUS PROCHE.
PIÈCES EN OPTION : VENTILATEUR (846-515), PUISSANCE ÉLECTRIQUE : 115 VOLTS, 60 HZ, 2 A, DIFFUSEUR AIRMATE, KIT DE PRISE D'AIR EXTÉRIEUR, TIROIR À CENDRES, CHAMBRE DE COMBUSTION PIÈCE N° 051-530.
CET APPAREIL AU BOIS CONTIENT UN CATALYSEUR DE POSTCOMBUSTION QUI NÉCESSITE D'ÊTRE INSPECTÉ ET REMPLACÉ PÉRIODIQUEMENT POUR UN BON FONCTIONNEMENT OPTIMAL. LA RÉGLEMENTATTATION FÉDÉRALE INTERDIT DE FAIRE FONCTIONNER UN TEL APPAREIL SI LES CONSIGNES D'UTILISATION CONTENUES DANS LE MANUEL NE SONT PAS RESPECTÉES OU SI L'ÉLÉMENT CATALYTIQUE EST DÉSACTIVÉ OU RETIRÉ.
DANGER : RISQUE D'ÉLECTROCUTION. AVANT DE RÉALISER L'ENTRETIEN, DÉBRANCHER L'APPAREIL. NE PAS PLACER LE CORDON D'ALIMENTATION EN FACE OU EN DESSOUS DE L'APPAREIL.
ATTENTION : LE DÉPLACEMENT DE PIÈCES PEUT CAUSER DES BLESSURES. NE JAMAIS METTRE EN MARCHE L'APPAREIL LORSQUE LE LOGEMENT DU VENTILATEUR EST ENLEVÉ.
ATTENTION : PIÈCES CHAUDES. NE JAMAIS FAIRE FONCTIONNER L'APPAREIL SI LA PORTE VITRÉE N'EST PAS BIEN EN PLACE.
PIÈCES REQUISES POUR INSTALLATION DANS UNE MAISON MOBILE : KIT DE PRISE D'AIR EXTÉRIEUR ET UN DES CONNECTEURS DE CHEMINÉE À DOUBLE PAROI SUIVANTS :
AU CANADA: CONNECTEURS DE CHEMINÉE HOMOLOGUÉS À DOUBLE PAROI MODÈLE DP, OU CONNECTEUR OLIVER MACLEOD PRO-VENT PV À DOUBLE PAROI AVEC SYSTÈME DE CHEMINÉE HOMOLOGUÉ : MODÈLE DE SÉCURITÉ SECURITY S2100+, ICC EXCEL 2100, SIMPSON DURA-PLUS HTC, SELKIRK SENTINAL CF.
AUX ÉTATS-UNIS : CONNECTEURS DE CHEMINÉE HOMOLOGUÉS À DOUBLE PAROI: SECURITY MODEL DP, SELKIRK MODEL DS, OLIVER MACLEOD PRO VENT PV, SIMPSON DURA VENT MODEL DVL, METAL-FAB DOUBLE WALL. CONNECTÉ À L'UN DES SYSTÈMES DE CHEMINÉE COMPATIBLES SUIVANTS : SELKIRK SURE-TEMP, PROJET Nova Temp, SECURITY SECURE TEMP ASH+, SECURITY SECURE TEMP S-2100+, METAL-FAB TEMP/GUARD 2100, AMERI-TEC HS, ICC EXCEL 2100 .
UTILISER L'APPAREIL AUTOPORTANT AVEC LES DÉGAGEMENTS SPÉCIFIÉS DANS LES CONSIGNES D'INSTALLATION. NE PAS INSTALLER DANS UN FOYER.

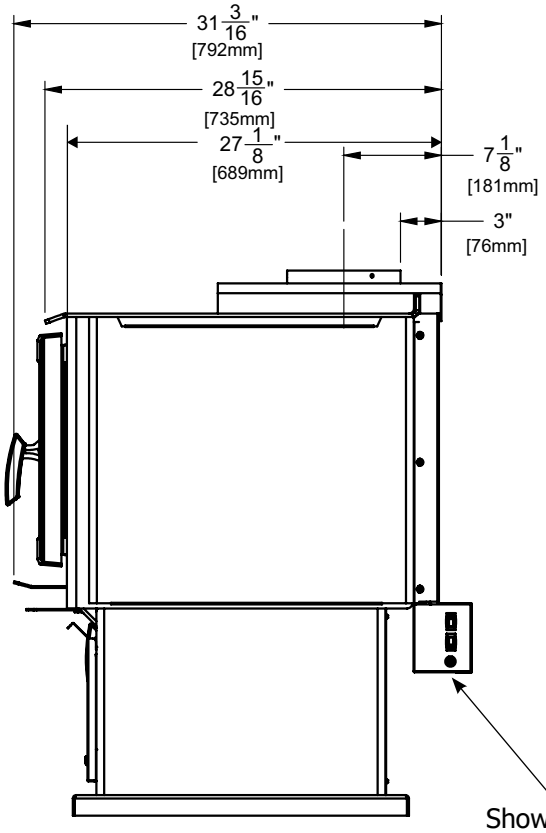
DATE OF MANUFACTURE/DATE DE FABRICATION
JAN ○ FEB ○ MAR ○ APR ○ MAY ○ JUN ○ JUL ○ AUG ○ SEPT ○ OCT ○ NOV ○ DEC ○
2023 ○ 2024 ○ 2025 ○ 2026 ○ 2027 ○

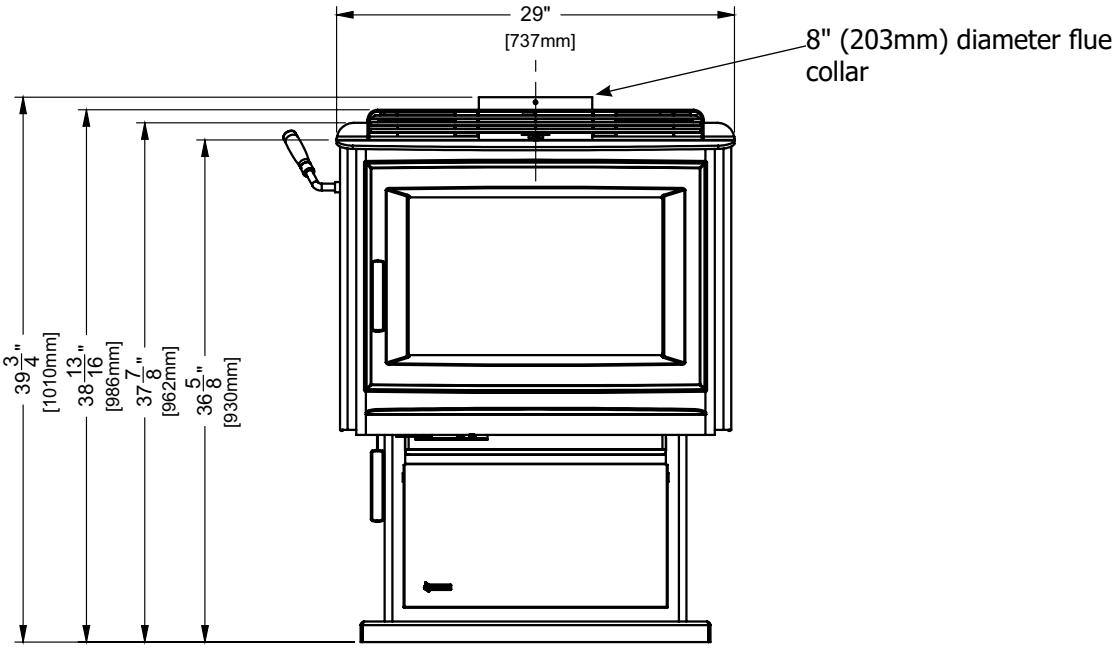
CAUTION
HOT WHILE IN OPERATION DO NOT TOUCH. KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS. READ NAMEPLATE AND INSTRUCTIONS.

ATTENTION
CHAUD EN COURS DE FONCTIONNEMENT.
NE PAS TOUCHER. ÉLOIGNER LES ENFANTS, LES VÊTEMENTS ET LES MEUBLES DE L'APPAREIL. LE CONTACT AVEC L'APPAREIL PEUT OCCASIONNER DES BRÛLURES. LIRE CETTE ÉTIQUETTE ET LES CONSIGNES.

920-722

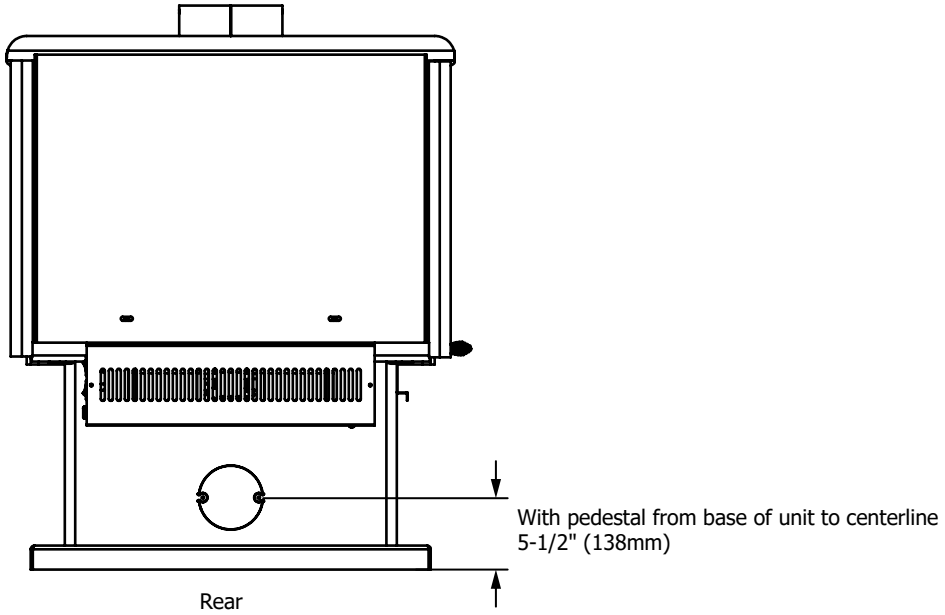
UNIT DIMENSIONS





ALL PICTURES / DIAGRAMS SHOWN THROUGHOUT THIS MANUAL ARE FOR ILLUSTRATION PURPOSES ONLY. ACTUAL PRODUCT MAY VARY DUE TO PRODUCT ENHANCEMENTS.

WOOD STOVE OUTSIDE AIR DIMENSIONS



RESIDENTIAL INSTALLATION

1. Please read this entire manual before you install and use your new woodstove. Failure to follow instructions may result in property damage, bodily injury or even death. Be aware that local Codes and Regulations may override some items in this manual. Check with your local inspector.
   DO NOT INSTALL THE FREESTANDING WOODSTOVE IN ANY FIREPLACE.
2. Select a position for your Regency Stove. Consult the minimum clearance chart for your model and set the stove in place. **For installation use listed double wall connector systems only.**
3. To insure vertical alignment, suspend a plumb bob from the ceiling over the exact center of your stove flue and mark a spot on the ceiling to indicate the center of the chimney.
4. Check that the area above the ceiling is clear for cutting. Re-confirm the clearance from the stove to combustibles to insure that they are within the prescribed limits.
5. This woodstove must be connected to a UL 103 HT (ULC S629) listed chimney or a code approved masonry chimney with a flue liner.

   Space heater is to be connected to a factory built chimney conforming to CAN/ULC-5629 standard for 650C factory built chimneys. The chimney requirement is 8", refer to appropriate sections in this manual for specifics.
6. Install chimney according to chimney manufacturers instructions. The performance of your woodstove is governed to a very large part by the chimney system. Too short a chimney can cause difficult start-up, dirty glass, back smoking when door is open, and even reduced heat output.

   Too tall a chimney may prompt excessive draft which can result in very short burn times and excessive heat output. The use of an inexpensive flue pipe damper may be helpful in reducing excessive draft.

   CAUTION: The chimney should be the same size as the 8" flue outlet on the stove. The chimney must be listed as suitable for use with solid fuels. For other types of chimneys check with your local building code officials. Do not confuse a chimney with a type "B" Venting System used for gas appliances as suitable for a wood burning appliance. For Mobile Home installations refer to that section within this manual.

WHEN THIS ROOM HEATER IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW THE INSTALLATION INSTRUCTIONS. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

7. Mark the location of the pedestal base or legs on the floor, then move the stove aside and mark the position of the floor protector.
8. The floor protector must be of Type 1 non-combustible material and must extend 16" (406mm) (USA), 18"(457 mm) (Canada) in front of the door opening and 8" (203mm) to the sides and rear of the unit (Canada/USA). Some areas may require a larger size floor protector. See your local inspector. For outside air installation refer to Mobile Home installation instructions within this manual.

NOTE: In Canada, floor protection must extend 18" (450mm) to the front and 8" (203mm) to each side and back of the stove.

9. When the floor protection is complete, position the stove with the flue collar centered under the installed chimney.

ROOM AIR - IMPORTANT

For installation using room air for combustion, remove knockout from the pedestal. Mobile home installations require the use of outside air. Fresh air is important - if heater is starved for air caused by exhaust fans or icing, the unit will not operate properly. On pedestal units there are two locations where outside air may be adapted to the unit. If using the bottom of the pedestal, do not remove knockout from the rear of the pedestal. Only remove rear knockout if outside air will be brought in from the rear.

Note: Once the knockout is removed there are two tabs remaining. Bend both tabs out for ease of installation of outside air kit.

10. In areas with frequent seismic activity, Regency recommends that your unit is secured to the floor by using the bolt down holes inside the pedestal (the same ones used in Mobile Home installations).
11. For residential installations 8" double wall chimney only, the chimney connector must be at least 24 gauge steel. Do not use galvanized pipe. For Mobile Home installation refer to the Mobile Home installation instructions within this manual.

NOTE: Do not install the chimney directly at the outlet of the appliance. A chimney connector (flue pipe) is required unless the appliance is specifically approved for that type of installation.

12. **DO NOT CONNECT THIS UNIT TO A CHIMNEY SERVING ANOTHER APPLIANCE.**
13. A chimney connector cannot pass through an attic or roof space, closet or similar concealed space, or a floor, ceiling, wall or partition of combustible construction. In Canada, if passage through a wall, or partition of combustible construction is desired, the installation shall conform to CAN/CSA-B365, Installation Code for Solid-Fuel-Burning Appliances and Equipment.
14. Your Regency Woodstove is not to be connected to any air distribution duct.
15. To be installed as a freestanding space heater with the clearances in the manufacturer's installation instructions. "Not to be installed in any fireplace."

Emissions from burning wood or gas could contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

NOTE: In Canada, chimney must be removed for transportation of a transportable building.

CAUTION:
Do not alter or makeshift chimney or install. Install as per Manual.

IMPORTANT:
Smoke and CO Detectors:
Make sure your home has a working smoke and CO detector, especially near any bedrooms. We recommend having a smoke and CO detector in the same room as the wood appliance for additional safety. Location of both detectors should be chosen wisely to avoid false alarms when reloading the appliance.

Fire Extinguisher:
A fire extinguisher should be installed in the home. The location of the fire extinguisher should be known by all family members.

MODULAR INSTALLATION OPTIONS

WARNING: ONLY USE SPECIFIED COMPONENTS.
The following items are required when assembling your Regency Stove. F5200 unit - the Rear Heat Deflector is supplied with the stove, but if you choose not to use it you must use the Airmate instead.

Modular Part	See the Minimum Clearance to Combustible Materials chart in the Installation section of this manual
F5200 Airmate OR Rear Heat Deflector	Convection heat with Airmate vs. Radiant Heat with Rear Heat Deflector. The Airmate pushes heat forward out into the room, the Rear Heat Deflector deflects the heat upward. Refer to the Installation sections within this manual.
OPTIONS: These can be installed at time of installation or added later:	
Blower/Fan	Adding the blower will increase the area heated by the stove, it can move warm air beyond the room where the stove is located.
Ash Drawer Kit	Adding the Ash Drawer Kit makes cleaning ashes out of the stove easier and cleaner (refer to Bottom Shield Ash Drawer Kit, Installation section).
Airmate	The Airmate pushes heat forward out into the room.
Outside Air Kit	Draw combustion air from the outside of dwelling.

STOVE ASSEMBLY PRIOR TO INSTALLATION

The F5200 unit requires the pedestal attached to the base. The F5200 stove requires either the Airmate or Rear Heat Deflector on top of the stove. Clearances to combustible materials vary depending on whether the airmate or rear heat deflector is installed, so be sure to check the Minimum Clearances, Installation section.

Airmate Assembly for F5200

1. The Airmate sits on top of the stove with the slots in the sides fitting over the curved deflector on the rear stove top. See Diagram 1. Recycle the Rear Heat Deflector that is supplied with the unit, it is not required if the airmate is installed.
2. Center the Airmate and push it forward to the front of the stove. The back of the airmate should be level with the back and sides of the rear heat shield. See Diagrams 2 & 3.

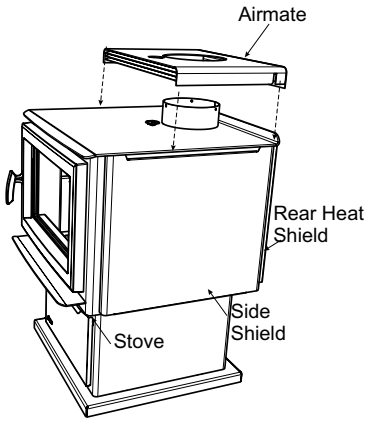


Diagram 1

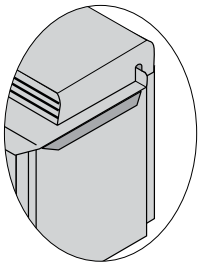


Diagram 2

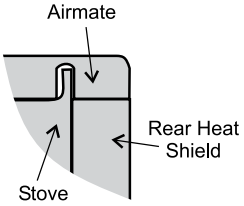


Diagram 3

Rear Heat Deflector Assembly for F5200

The rear heat deflector is supplied with the stove and must be installed unless the optional airmate has been selected. It stops the heat radiated from the flue collar from overheating the rear wall. The rear heat deflector is installed on top of the rear heat shield, as shown in Diagram 4.

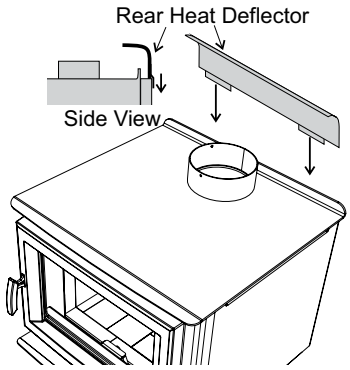


Diagram 4

Side Shield Adjustment

The left and right side shields are lowered for shipping and handling. It allows for a handhold on the top of the stove. Before placing in the Step Stove in its final position, the side shields must be raised.

Loosen the screws on the rear on the stove (3 per side), slide the side panel up as far as possible and then secure by tightening the screws.

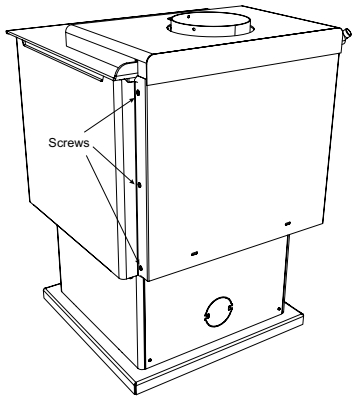


Diagram 5

Logo Installation

1. Push the Regency logo into the two holes in the front bottom left corner of the pedestal cover plate.

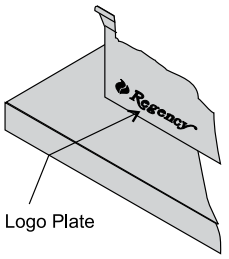


Diagram 6

Note: Any paint touch up should be done prior to placing logo on pedestal.

2. If not using ash drawer, then cover plate must be installed.

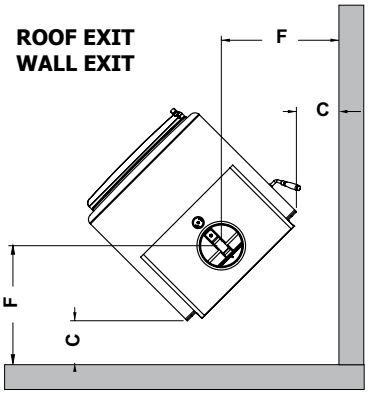
MINIMUM CLEARANCE TO COMBUSTIBLE MATERIALS

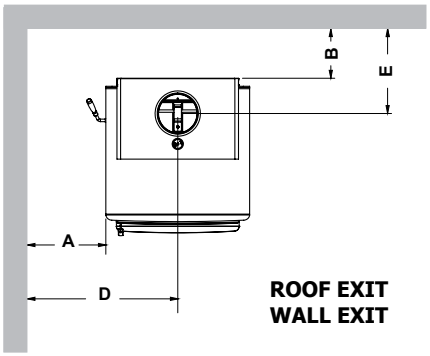
Please read the section below carefully as clearances depend on whether the Airmate or the Rear Heat Deflector is installed on the stove. Measurements "From Unit" are from the top plate of the stove to a side wall or to a corner, and from the rear heat shield to a back wall.

Clearances may only be reduced by means approved by the regulatory authority.

Note: Minimum ceiling height roof exit - 83" (2108 mm)

NOTE: This clearance is also required for air space between the appliance and wall/ceiling.





NOTE: Approved with Listed Double Wall pipe only. Do not use single wall pipe.

NOTE: Be aware that local Codes and Regulations may override some clearances listed in this manual. Check with your local inspector.

NOTE: Clearances to combustibles are for the safety of the property. To avoid overheating and damaging the appliance these clearances should be maintained for non-combustibles also.

Residential Close Clearance (To be installed with required pipe components) Listed Double Wall Pipe

When the stove is installed as a close clearance residential unit, a listed double wall connector is required from the stove collar to the ceiling level.

		A	B	C	D	E	F
F5200	with Airmate or Rear Deflector	11" 279mm	10" 254mm	8" 203mm	25-1/2" 648mm	17-1/8" 435mm	22-1/2" 572mm

Mobile Home Close Clearance (To be installed with required pipe components) Listed Double Wall Pipe

When the stove is installed as a close clearance residential unit, a listed double wall connector is required from the stove collar to the ceiling level. Refer to Mobile Home Installation in this manual.

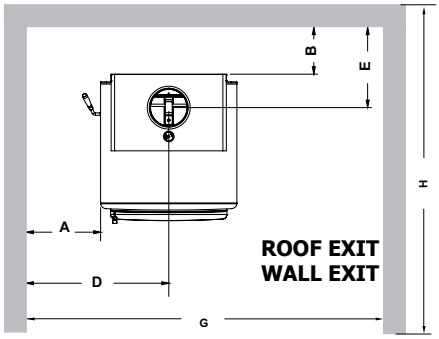
		A	B	C	D	E	F
F5200	with Airmate or Rear Deflector	11" 279mm	10" 254mm	8" 203mm	25-1/2" 648mm	17-1/8" 435mm	22-1/2" 572mm"

Minimum Alcove Clearance to Combustible Materials

The Regency Freestanding models have been alcove approved and must be installed with a listed double wall connector to the ceiling level.

Note: Minimum alcove ceiling height - 83" (2108 mm)
H = Maximum depth of alcove - 48" (1219 mm)
G= Minimum width of alcove - 63" (1600 mm)

NOTE: This clearance is also required for air space between the appliance and wall/ ceiling.



FLOOR PROTECTION (EMBER PROTECTION ONLY REQUIRED)

A combustible floor must be protected by a non-combustible material (like tile, concrete board, or certified to UL-1618 Type 1 or as defined by local codes). Type 1 Hearth Pads typically provide protection from embers only, but won't provide thermal protection from the heat of the appliance.

Canada: Beneath the heater and extending to at least 18" (457 mm) on the fuel loading side and at least 8" (203 mm) on the sides and back.

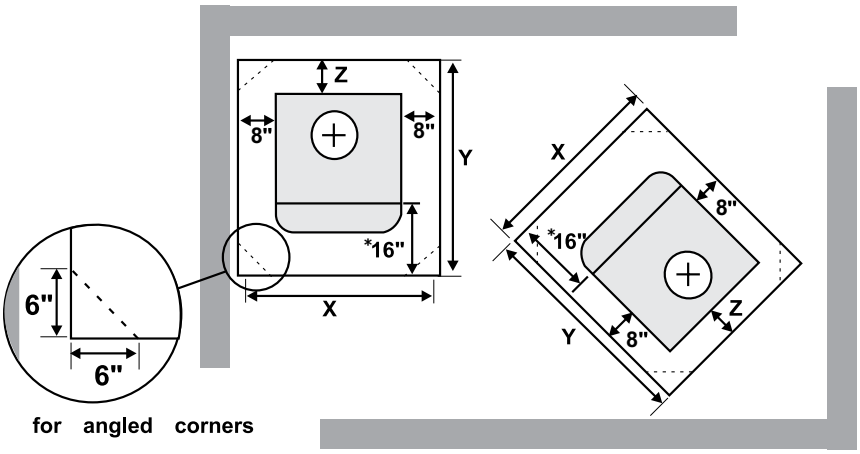
USA: Beneath the heater and extending to at least 16" (406 mm) beyond the fuel loading side and ash removal opening and at least 8" (203 mm) on the sides and back and under the chimney connector extending 2" (51 mm) beyond each side for horizontal applications.

Note: The measurements for floor protection for front are taken from fuel door opening & sides are taken from the unit heat shield. Where the appliance is installed less than 8" (203 mm) from a rear wall, the ember pad only needs to extend to the base of the wall based on the clearances noted in this manual.

Minimum Overall Width (X) of Floor Protector for all installations:

Stove	F5200	45" (1143 mm)

Note:
Side & Rear measurements are taken from unit heat shield.
*Front measurement is taken from fuel door opening.

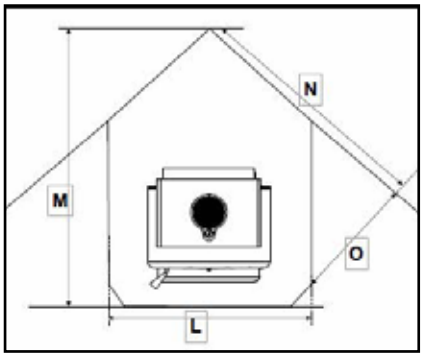


***NOTE:** USA clearances shown above.

Minimum Overall Depth (Y) of Floor Protector						
Unit	**Residential Close Clearance**		**Mobile Home Close Clearance**		**Alcove**	
F5200	**Y**	**Z**	Y	**Z**	Y	**Z**
USA	51-1/8" (1299mm)	8" (203mm)	51-1/8" (1299mm)	8" (203mm)	51-1/8" (1299mm)	8" (203mm)
Canada	53-1/8" (1349mm)	8" (203mm)	53-1/8" (1349mm)	8" (203mm)	53-1/8" (1349mm)	8" (203mm)

The rear clearance to combustibles is less than 6" (for corner installations the rear corners may be angled to take advantage of the closer clearances.

Minimum Overall Depth (Y) of Floor Protector - Corner Hearth				
Hearth Depth				
F5200	**L**	**M**	**N**	**O**
Canada	45" (1143mm)	75-1/2" (1918mm)	64-11/16" (1643mm)	33-7/8" (860mm)
USA	45" (1143mm)	73-1/2" (1867mm)	63-11/16" (1618mm)	31-7/8" (810mm)
Reference only when hearth pad is installed to rear wall at minimum pipe clearances. Residential Close Clearance (To be installed with required pipe components)				



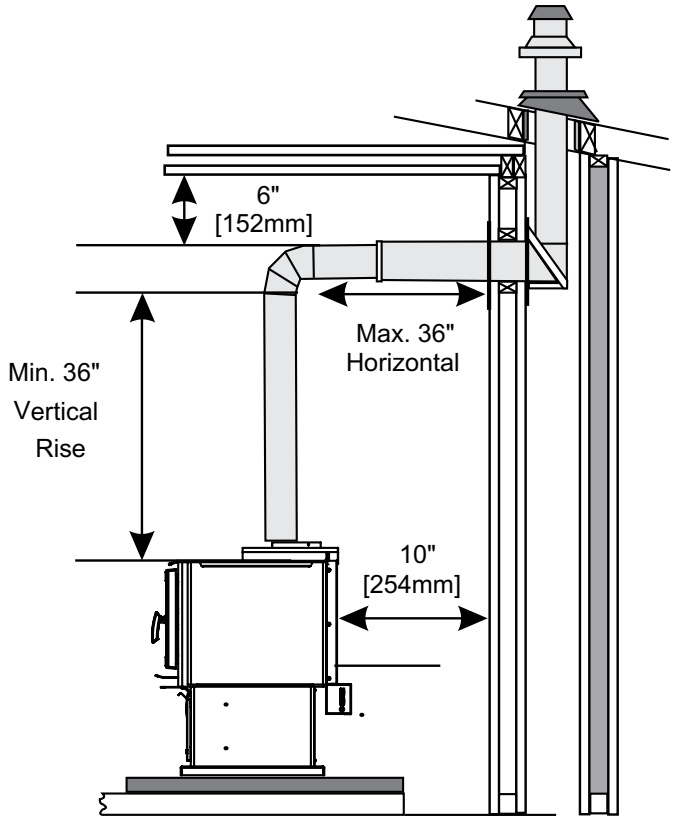
WALL EXIT CLEARANCE FACTORY BUILT CHIMNEY

When a metal prefabricated chimney is used, the manufacturer's installation instructions must be followed. You must also purchase and install the ceiling support package or wall pass-through and "T" section package, firestops (where needed), insulation shield, roof flashing, chimney cap, etc. Maintain proper clearance to the structure as recommended by the manufacturer. The chimney must be the required height above the roof or other obstructions for safety and proper draft operation.

Minimum vertical of 36" before any offset.
Horizontal Maximum of 36" with 1/4" rise per foot.

NOTE: Recommend using 2-45º instead of 90º to improve draft and performance.

NOTE: Approved with listed 8" (203 mm) double wall pipe only. Do not use single wall pipe.
Chimney size cannot be reduced in cross sectional area.
Chimney must remain 8" (203 mm)



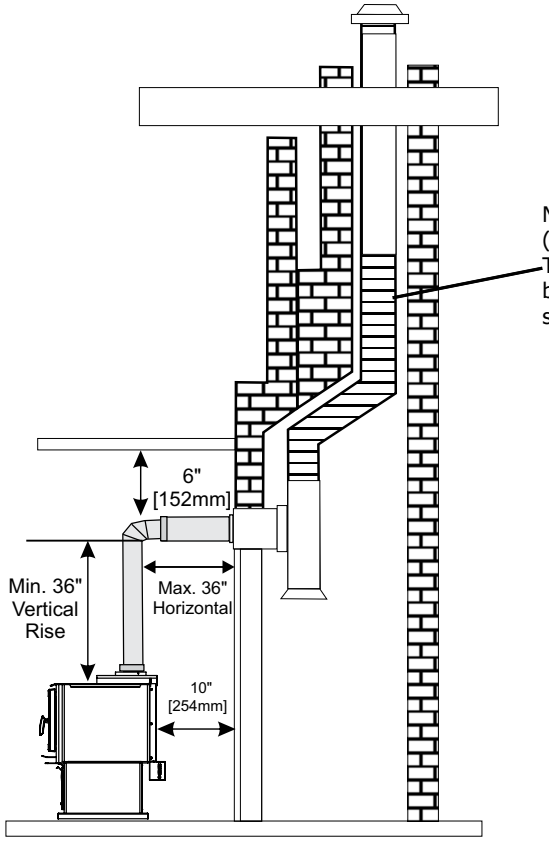
MASONRY FIREPLACE

There are listed kits available to connect a stove to a masonry fireplace. The kit is an adapter that is installed at the location of the fireplace damper. The existing damper may have to be removed to allow installation.

Minimum vertical of 36" before any offset.
Horizontal Maximum of 36" with 1/4" rise per foot.

NOTE: Recommend using 2-45º instead of 90º to improve draft and performance.

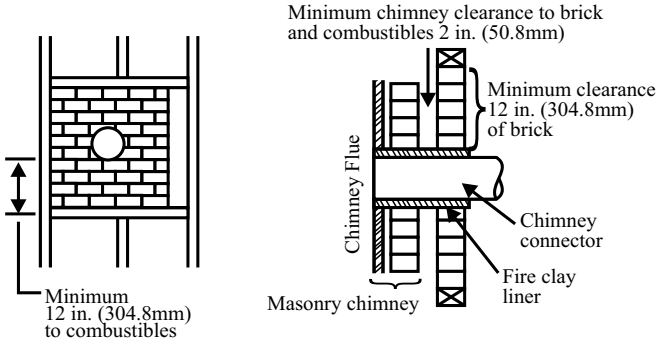
NOTE: Approved with listed double wall pipe only. Do not use single wall pipe.



COMBUSTIBLE WALL CHIMNEY CONNECTOR PASS-THROUGHS

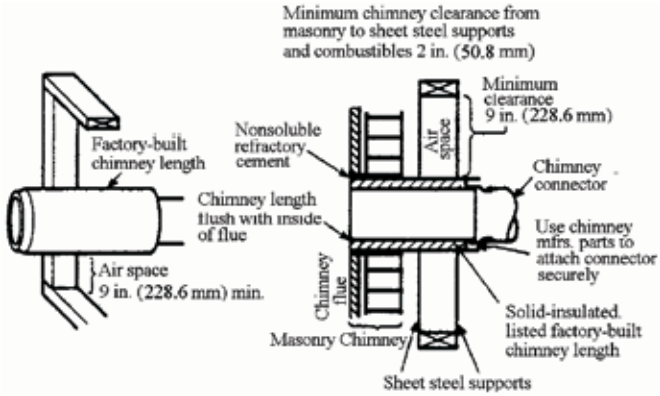
Method A: 12" (304.8 mm) Clearance to Combustible Wall Member:

Using a minimum thickness 3.5" (89 mm) brick and a 5/8" (15.9 mm) minimum wall thickness clay liner, construct a wall pass-through. The clay liner must conform to ASTM C315 (Standard Specification for Clay Fire Linings) or its equivalent. Keep a minimum of 12" (304.8 mm) of brick masonry between the clay liner and wall combustibles. The clay liner shall run from the brick masonry outer surface to the inner surface of the chimney flue liner but not past the inner surface. Firmly grout or cement the clay liner in place to the chimney flue liner.



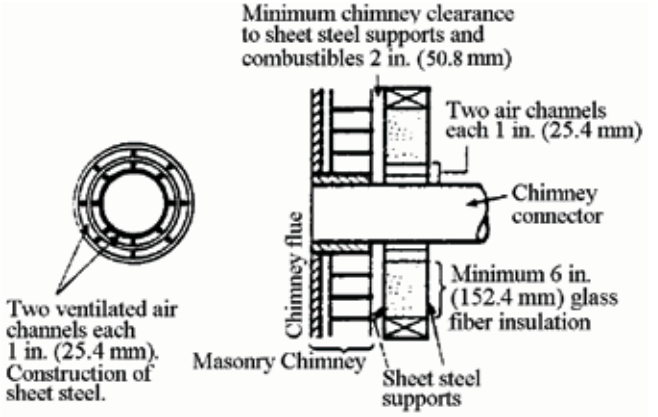
Method B: 9" (228.6 mm) Clearance to Combustible Wall Member:

Using a 8" (203.2 mm) inside diameter, listed, factory-built Solid-Pak chimney section with insulation of 1" (25.4 mm) or more, build a wall pass-through with a minimum 9" (228.6 mm) air space between the outer wall of the chimney length and wall combustibles. Use sheet metal supports fastened securely to wall surfaces on all sides, to maintain the 9" (228.6 mm) air space. When fastening supports to chimney length, do not penetrate the chimney liner (the inside wall of the Solid-Pak chimney). The inner end of the Solid-Pak chimney section shall be flush with the inside of the masonry chimney flue, and sealed with a non-water soluble refractory cement. Use this cement to also seal to the brick masonry penetration.



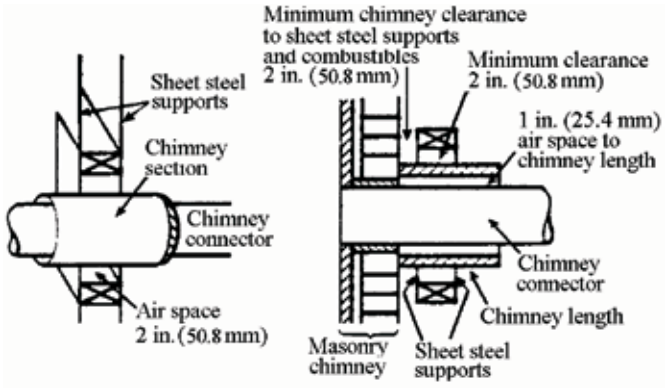
Method C: 6" (152.4 mm) Clearance to Combustible Wall Member:

Starting with a minimum 24 gage (.024" [.61 mm]) 8" (203.2 mm) metal chimney connector, and a minimum 24 gage ventilated wall thimble which has two air channels of 1" (25.4 mm) each, construct a wall pass-through. There shall be a minimum 6" (152.4) mm separation area containing fiberglass insulation, from the outer surface of the wall thimble to wall combustibles. Support the wall thimble, and cover its opening with a 24-gage minimum sheet metal support. Maintain the 6" (152.4 mm) space. There should also be a support sized to fit and hold the metal chimney connector. See that the supports are fastened securely to wall surfaces on all sides. Make sure fasteners used to secure the metal chimney connector do not penetrate chimney flue liner.



Method D: 2" (50.8 mm) Clearance to Combustible Wall Member:

Start with a solid-pak listed factory built chimney section at least 12" (304 mm) long, with insulation of 1" (25.4 mm) or more, and an inside diameter of 8" (2 inches [51 mm] larger than the 8" [203.2 mm] chimney connector). Use this as a pass-through for a minimum 24-gage single wall steel chimney connector. Keep solid-pak section concentric with and spaced 1" (25.4 mm) off the chimney connector by way of sheet metal support plates at both ends of chimney section. Cover opening with and support chimney section on both sides with 24 gage minimum sheet metal supports. See that the supports are fastened securely to wall surfaces on all sides. Make sure fasteners used to secure chimney flue liner.



STEP-BY-STEP CHIMNEY AND CONNECTOR INSTALLATION

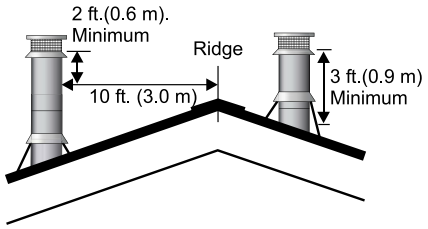
Note: These are a generic set of chimney installation instructions. Always follow the manufacturers own instructions explicitly. Verify the Minimum Recommended Heights for Woodstove Flue (Table 1 in the Installation section).

1. With your location already established, cut and frame the roof hole. It is recommended that no ceiling support member be cut for chimney and support box installation. If it is necessary to cut them, the members must be made structurally sound.

2. Install radiant shield and support from above.

3. Stack the insulated pipe onto your finish support to a minimum height of 3 feet above the roof penetration, or 2 feet above any point within 10 feet measured horizontally. There must be at least 3 feet of chimney above the roof level.

NOTE: Ensure each section of chimney is positively attached and secured.



Note: Increasing the chimney height above this minimum level will sometimes help your unit to "breathe" better by allowing a greater draft to be created. This greater draft can decrease problems such as, difficult start-ups, back-smoking when door is open, and dirty glass. It might be sufficient to initially try with the minimum required height, and then if problems do arise add additional height at a later date.

4. Slide the roof flashing over your chimney and seal the flashing to the roof with roofing compound. Secure the flashing to your roof with nails or screws.

5. Place the storm collar over the flashing, sealing the joints with a silicone caulking.

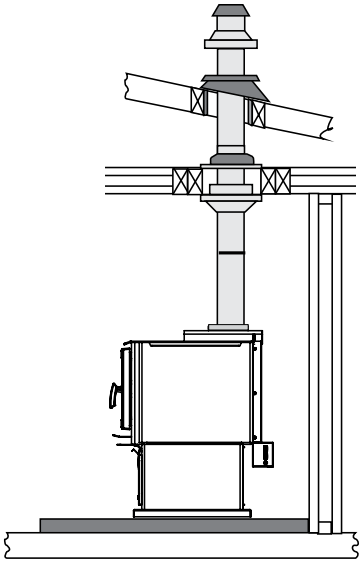
6. Fasten the raincap with spark screens (if required) to the top of your chimney.

7. To complete the chimney installation, install the double wall connector pipe from the stove's flue collar to the chimney support device.

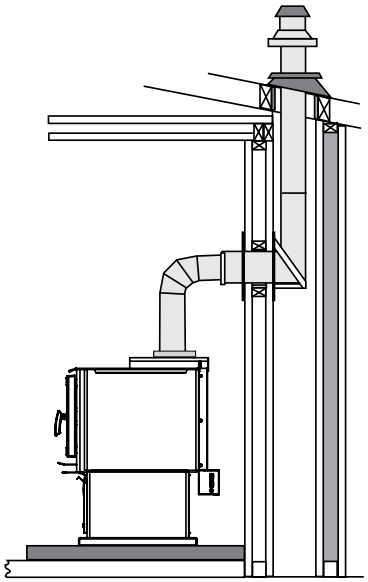
8. If you are using a horizontal connector, the chimney connector should be as high as possible while still maintaining the 18" (457mm) minimum distance from the horizontal connector to the ceiling.

NOTE: Residential Close Clearance and Alcove installations require a listed double wall connector from the stove collar to the ceiling level.

The Diagrams below illustrate one way to install your unit into a standard ceiling or with a horizontal connector. Check with your dealer or installer for information on other options available to you.



Standard Ceiling Installation



Horizontal Installation

RECOMMENDED HEIGHTS FOR WOODSTOVE FLUE

Simple rules on draft (refer to Table 1).

1) At sea level minimum height is 12' straight.

2) Add the following vertical height to compensate for:
45 deg. elbow = 1 ft.
90 deg. elbow = 2 ft.
"T" = 3 ft.
Each foot of horizontal run = 2 ft.

3) Add 4% overall for each 1000' above sea level.

Example: a)
1-1/2 ft. of horizontal run = 3 ft.
one "T" = 3 ft.
Total Addition (at sea level) = 6 ft.

Example: b)
One 90 deg. elbow = 2 ft.
2 ft. of horizontal run = 4 ft.
one "T" = 3 ft.
Total Addition (at sea level) = 9 ft.

	Recommended Flue Height	
Elevation	**Example a)**	**Example b)**
0'	18'	21'
1000'	18.72'	21.84'
2000'	19.44'	22.68'
5000'	21.60'	25.20'
8000'	23.76'	27.72'

MINIMUM RECOMMENDED FLUE HEIGHTS IN FEET (Measured from the top of the unit)				
ELEVATION (FT) ABOVE SEA LEVEL	**NUMBER OF ELBOWS For listed double wall pipe.**			
	0	2 x 15°	2 x 30°	2 x 45°
0-1000	12.0	13.0	15.0	16.0
1000-2000	12.5	13.5	15.5	16.5
2000-3000	13.0	14.0	16.0	17.0
3000-4000	13.5	14.5	17.0	18.0
4000-5000	14.0	15.0	17.5	18.5
5000-6000	14.5	15.5	18.0	19.0
6000-7000	15.0	16.0	18.5	20.0
7000-8000	15.5	16.5	19.0	20.5
8000-9000	16.0	17.0	20.0	21.0
9000-10000	16.5	17.5	20.5	22.0
NOTE: No more than one offsets (two elbows) allowed. Two 45° elbows equal one 90° elbow.				

Table 1

MOBILE HOME INSTALLATION (USA ONLY)

For USA Installations: see Outside Air Kit - Part # 846-502.
There are further requirements when installing this unit into a mobile home in the US only.

Once you have properly marked the position of your unit and the floor protection as outlined in the Residential Installation items #1 through #8, a supply of fresh air has to be supplied to your unit.

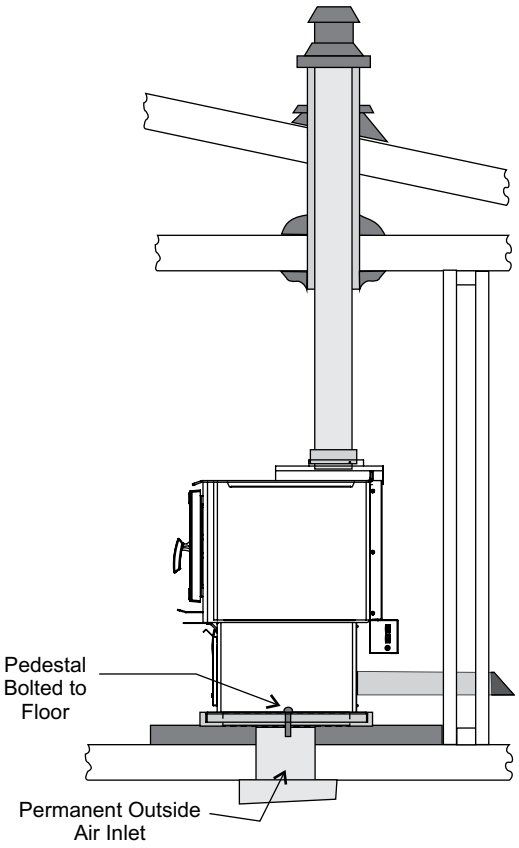
See Optional Outside Air Kit instructions in this manual.

Place your unit in position and secure it to the floor using two lag bolts 3/8" (10mm) x 3-1/2" (89mm) through the two holes inside the pedestal base. It is important to maintain the structural integrity of the Mobile Home floor, walls and roof when installing your unit.

For Mobile Home units installed in the U.S. the unit must be grounded using a #8 ground wire with approved termination and star washer.

CAUTION: At no time use unlabelled parts, or substitute parts made for another chimney system.

Install as per chimney manufacturer's installation instructions.



WARNING: Operate only with door fully closed - open feed door to feed fire only.

1. Identify the position of the outside air damper by the orientation of the metal handle that rests outside the galvanized pipe. The metal handle and the damper disc are in line with each other. This means that if the metal handle is in a horizontal position, the damper is flat and fully open.

2. Open the damper fully whenever you start a fire. This will allow the outside air to be drawn in the pedestal base eliminating any potential smoke escaping the stove and entering the room. (Negative air pressure)

In addition to standard installation instructions the following requirements are mandatory for installation in a mobile home.

1. The stove must be permanently bolted to the floor of the Mobile Home using the floor screws provided.

2. The stove must have a permanent outside air source for combustion.

3. The stove must be electrically grounded to the steel chassis of the Mobile Home.

4. A listed double-wall connector chimney system, roof thimble, spark arrestor and roof flashing kit suitable for use in Mobile Homes must be used.

5. If the chimney exits the Mobile Home at a location other than through the roof, and exits at a point 7ft. (2130mm) or less above the ground level on which the Mobile Home is positioned , a guard or method of enclosing the chimney shall be fitted at the point of exit for a height up to 7ft. (2130mm).

6. The chimney shall be attached directly to the room heater and shall extend at least 3 ft. (914mm) above the part of the roof through which it passes. The top of the chimney should project at least 2ft. (610mm) above the highest elevation of any part of the Mobile Home within 10 ft. (3048mm) of the chimney.

7. The chimney system shall comply with Local Requirements.

8. Any openings in a chimney guard where required must not permit the entrance of 3/4" (19mm) diameter rod.

9. CAUTION: THE STRUCTURAL INTEGRITY OF THE MOBILE HOME ROOF, FLOOR, WALLS AND CEILING MUST BE MAINTAINED.

10. Check any other local building code as other local codes may apply.

11. WARNING: DO NOT INSTALL IN A SLEEPING ROOM OF A MOBILE HOME.

12. Use silicone to create an effective vapour barrier at the location where the chimney or other component penetrates to the exterior of the structure.

OPTIONAL OUTSIDE AIR KIT

The Outside Air Kit is an option for Freestanding Stoves. Outside air for combustion can be brought in either through the bottom of the pedestal or through the rear plate of the pedestal.

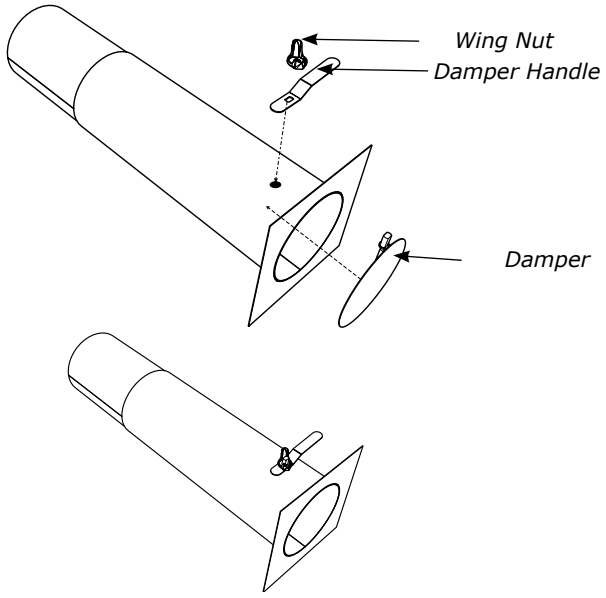
Damper Installation

NOTE: The damper cannot be installed if attaching outside air to the bottom of the appliance.

Supplied damper allows the combustion air to be closed off when unit is not in operation.

Install the damper within the round pipe in an easily accessible location.

1. Drill a 5/16" hole in the desired location.
2. Insert damper with threaded section out.
3. Install damper handle and secure with wing nut.

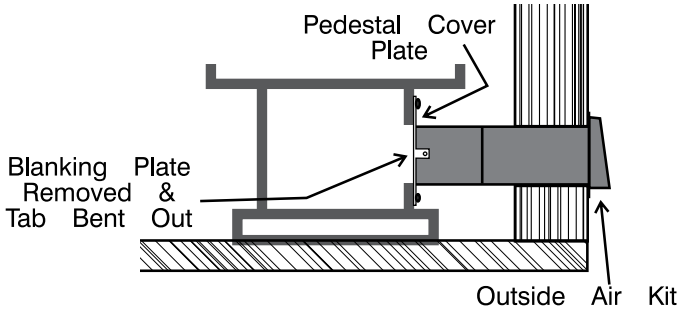


Completed Install

Outside Air Through Pedestal Rear

Remove the blanking plate from the rear of the pedestal and bend the two tabs out 90 degrees. Pipe fresh air into the pedestal area by using a minimum 4" metallic duct pipe with a mesh grill at the outside termination.

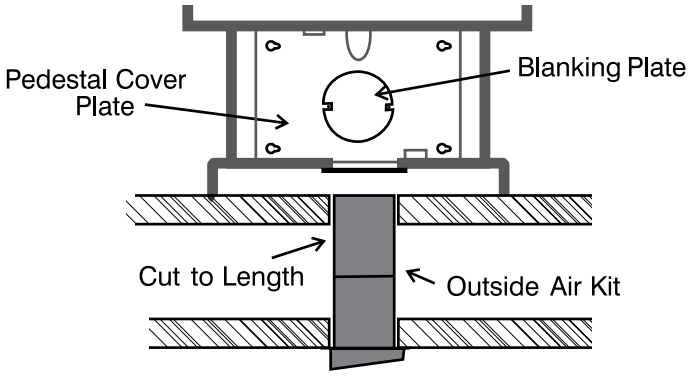
Fasten the pipe to the cover plate using the tabs and 2 screws.



Side View

Outside Air Through Pedestal Bottom

Mark the position of your unit as outlined in the "General Information" and "Clearances to Combustibles" section of the manual. Pipe fresh air into the pedestal area by using a minimum 4" duct pipe with a mesh grill at the outside termination.



Rear View

LISTED COMPONENTS FOR MOBILE HOME INSTALLATION

The Regency F5200 Freestanding pedestal units are approved for installation in a Mobile Home (USA only) if one of the following pipe systems is used.

NOTE: Required double wall chimney connector must be in good condition and kept clean.

U.S. Installation*

SELKIRK SURE-TEMP

Qty.	Part #	Description
1	8T-FCK	Flat Ceiling kit
1	8T-PCK	Pitched ceiling kit
1	8ST-48	48" Chimney length (also in 6", 9", 12", 18", 24", 36" lengths)

PROJET Nova Temp

Qty.	Part #	Description
1	80-CSC	Round support w/coupler
1	80-CSBC	Square support w/coupler
1	81-RF17	Flashing
1	81-08SL48	48" Chimney length (also in 8", 12", 24", 36" lengths)
1	81-RDC	Rain Cap

SECURITY SECURE TEMP ASHT+

Qty.	Part #	Description
1	8XSCC	Round support w/coupler
1	8XSSC	Square support w/coupler
1	8FA	Flashing
1	8L48	48" Chimney length (also in 8", 12", 18", 24", 36" lengths)
1	8CC	Rain Cap

SECURITY SECURE TEMP S-2100+

Qty.	Part #	Description
1	8XSCC	Round support w/coupler
1	8XSSC	Square support w/coupler
1	8FA	Flashing
1	8L48	48" Chimney length (also in 8", 12", 18", 24", 36" lengths)
1	8CC	Rain Cap

METAL-FAB TEMP/GUARD 2100

Qty.	Part #	Description
1	8DWBA	Connector
1	8TGRS	Roof Support
1	8TGG36	Chimney Length
1	8TGG12	Chimney Length
1	8TGF	Flashing
1	8TGC	Rain Cap

AMERI-TEC HS

Qty.	Part #	Description
1	8HSRA-12	Roof support assembly (6PLRS-12-BK)
1	8FFU	Flat to 6/12 Flashing
1	8HSS-6	48" Chimney length (also in 12", 24", 36" lengths)
1	6HS-RCS	Rain Cap

SIMPSON DURA-PLUS

Qty.	Part #	Description
1	9245N	Round Ceiling support
1	9248AN	Square Ceiling support 11"
1	9248	Rain Cap
1	9249V	0/12 - 6/12 Flashing
1	9959	Storm collar
1	9217	36" Chimney length (also in 6", 9", 12", 24" lengths)

ICC EXCEL 2100

Qty.	Part #	Description
1	8EL48	48" Chimney length (also in 12", 18", 24" lengths.
1	8ERC	Rain Cap
1	8ERCS	Spark Screen (for rain cap)
1	8ERDS/ESS	Round/Square support box
1	8EF	Flashing
1	8UBSE	"Ultrablack" Close Clearance Connector

Canadian Installations*

SECURITY S2100+ (see to left for details)

ICC EXCEL 2100 (see above for details)

SIMPSON DURA-PLUS HTC

Qty.	Part #	Description
1	9245N	Round Ceiling support
1	9248AN	Square Ceiling support 11"
1	9248	Rain Cap
1	9249V	0/12 - 6/12 Flashing
1	9959	Storm collar
1	9217CF	36" Chimney length (also in 6", 9", 12", 24" lengths.

SELKIRK SENTINAL CF

Qty.	Part #	Description
1	8CF-CBSP	Ceiling support kit
1	8CF-CCSK	Square support kit
1	8CF-FRA-A	0/12 - 6/12 Flashing
1	8CF-36	36" Chimney length (also in 9", 12", 18", 24" lengths.

*The use of alternate pitch flashings, support box extensions, additional chimney lengths, and additional chimney bracing, may be used on each of the previously listed systems. These parts though must be from the same system as listed, and must be a similar and/or complimentary part.

CAUTION: At no time use unlabelled parts, or substitute parts made for another chimney system.

Install as per chimney manufacturer's installation instructions.

STAINLESS STEEL SMOKE DEFLECTOR INSTALLATION/REPLACEMENT

1. The stainless smoke deflector is located in the upper front area of the firebox (see diagram below). The deflector is held in place with 2 x 7/16" hex head bolts. Prior to the first fire, ensure deflector is seated properly and secured with 2 hand tightened bolts.



2. To replace the deflector, loosen off both 7/16" bolts and slide deflector upward and out. Install new deflector and hand tighten 7/16" hex head bolts. Ensure positive location of the deflector prior to hand tightening. **WARNING:** Operation of the unit without proper installation of smoke deflector will void warranty.



3. Ensure deflector is seated so bolts are situated at the top of the opening before tightening. Hand tighten bolts only.



4. Correct Install: Ensure return edge of smoke deflector is seated within the backside of the glass wash.



5. Incorrect Install: Return edge of smoke deflector seated under the glass wash.

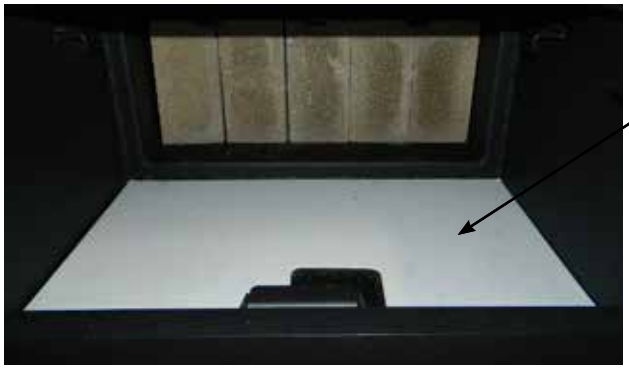


BRICK INSTALLATION

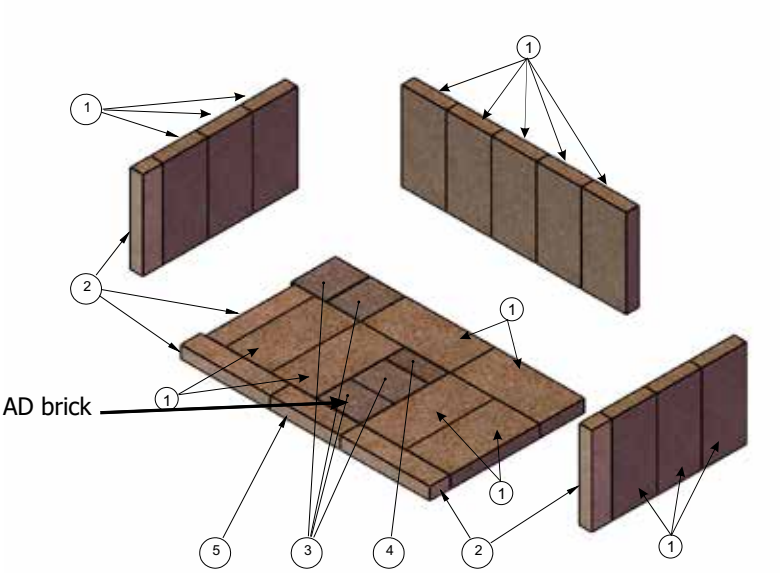
Firebrick is included to extend the life of your stove and radiate heat more evenly. Install all firebricks per the Diagram below and place in their correct positions. Do not use a grate.

1. Remove box of firebricks from inside unit.

2. Remove Lyotherm sheet from mailer tube and install on base of firebox as shown below.

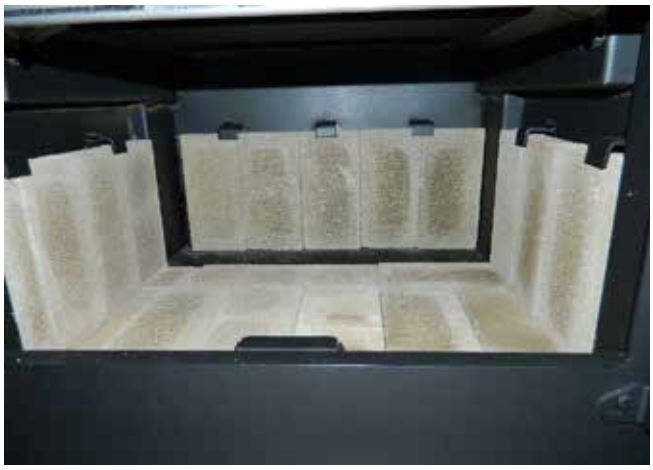


3. Order of firebrick install:
- a) Rear Firebrick
- b) Firebox floor - install brick over Lytherm Sheet
- c) Right and left side Firebricks



Fire bricks	
#	Size
1	4-1/2" x 9"
2	2" x 9"
3	3-1/2" x 4-1/2"
4	1-3/4" x 4-1/2"
5	2" x 7"

NOTE: The "AD" brick covers the Ash Dump hole that is used when the Ash Drawer Kit is installed.



Final Install

FAN INSTALLATION

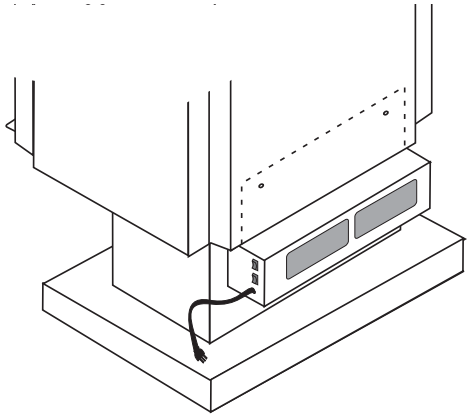
Fan assembly for use only with the room heater marked to indicate such use.

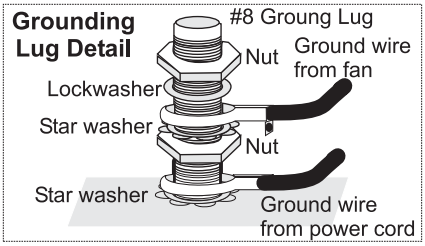
FAN INSTALLATION (120V FAN)

1. Remove the two screws from the top of the fan housing.
2. Slide the fan up into the rear heat shield.
3. After aligning holes, secure the fan to the rear heat shield using the two screws removed earlier.

Note: The connection cord should not be in contact with any hot surfaces.

WARNING: FAN ASSEMBLY MUST BE DISCONNECTED FROM THE SOURCE OF ELECTRICAL SUPPLY BEFORE ATTEMPTING THE INSTALLATION.





FAN OPERATION

AUTOMATIC

To operate the fan automatically, push the bottom switch on the side of the fan housing to "AUTO" and the top switch to either "HIGH" or "LOW" for fan speed.

This will allow the fan to turn on as the stove has come up to operating temperature. It will also shut the fan system off after the fire has gone out and the unit cooled to below a useful heat output range.

If the fan cycles on and off continuously the thermo switch sensor is not making contact with the stove body. Remove the fan, bend the bracket closer to the stove and re-install the fan.

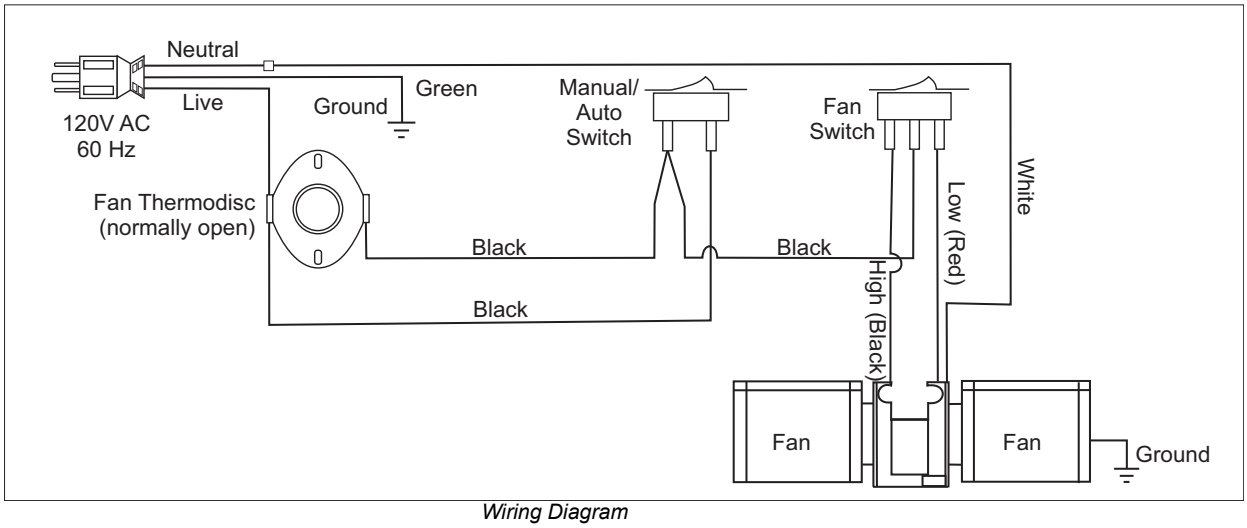
MANUAL

To manually operate the fan system push the bottom switch to "MAN" and the top switch to either "HIGH" or "LOW". This will bypass the sensing device and allow full control of the fan.

Switching from "AUTO" to "MAN" or "HIGH" to "LOW" may be done anytime.

WARNING: Electrical Grounding Instructions
This appliance is equipped with a three pronged (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.

CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.



Wiring Diagram

SEASONED WOOD

Whether you burn wood in a fireplace, stove or insert, good quality firewood is the key to convenience, efficiency and safety. Wet wood and pieces that are not the right size and shape for your wood burner can be frustrating, burn inefficiently and deposit creosote that can fuel a dangerous chimney fire. Good planning, seasoning and storage of the firewood supply are essential to successful wood burning.

- Stack the wood in separate rows in an open location where the summer sun can warm it and breezes can carry away the moisture. Do not stack unseasoned wood tightly in an unvented storage area.
- Do not allow firewood to lie on the ground for more than a couple of days before stacking. Mould and rot can set in quickly.
- Stack the wood up off the ground on poles, lumber rails or pallets.
- The top of the pile can be covered to keep off rain, but do not cover the sides.

Softer woods like pine, spruce and poplar/aspen that is cut, split and stacked properly in the early spring maybe be ready for burning in the fall. Extremely hard woods like oak and maple, and large pieces of firewood, may take a minimum of a full year to dry enough. Drying may also take longer in damp climates

There are a few ways to tell if wood is dry enough to burn efficiently. Use as many indicators as possible to judge the dryness of the firewood your are considering. Here are ways to judge firewood moisture.

- Using a moisture meter, select the species of fuel and then penetrate the pins into a split piece. Ideal moisture and seasoned firewood should be less than 20% moisture content.
- Checks or cracks in the end grain can be an indication of dryness, but may not be a reliable indicator. Some wet wood has checks and some dry wood has no checks.
- The wood tends to darken from white or cream colour to grey or yellow as it dries.
- Two dry pieces banged together sound hollow; wet pieces sound solid and dull.
- Dry wood weighs much less than wet wood.
- Split a piece of wood. If the exposed surface feels damp, the wood is too wet to burn.

OPERATING INSTRUCTIONS

With your unit now correctly installed and safety inspected by your local authority, you are now ready to start a fire. Before establishing your first fire, it is important that you fully understand the operation of your Catalytic combustor and draft control.

WARNING

Fireplace Stoves equipped with doors should be operated only with doors fully closed. If doors are left partly open, gas and flame may be drawn out of the fireplace stove opening, creating risks from both fire and smoke.

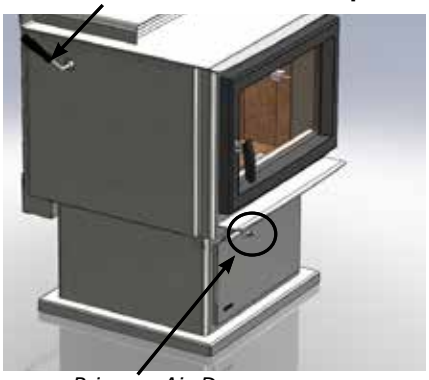
DRAFT CONTROL

Both the primary and air wash drafts are controlled by the control slide located on the front left side of the unit (when facing the unit). To increase your draft - slide to the left to open, and to decrease - slide to the right to close. The F5200 unit has a secondary draft system that continually allows combustion air to the induction ports at the top of the firebox, just in front of the catalytic combustor.

Draft is the force which moves air from the appliance up through the chimney. The amount of draft in your chimney depends on the length of the chimney, local geography, nearby obstructions and other factors. Too much draft may cause excessive temperatures in the appliance and may damage the catalytic combustor. Inadequate draft may cause back puffing into the room and plugging of the chimney or catalyst.

Catalyst Bypass Control

Back - Closed **Front - Open**



Primary Air Damper

Left - Open **Right - Closed**

WARNING: To build a fire in ignorance or to disregard the information contained in this section can cause serious permanent damage to the unit and void your warranty!

FIRST FIRE

When your installation is completed and inspected you are ready for your first fire.

THIS UNIT IS DESIGNED TO BURN SEASONED CORDWOOD ONLY. COAL, BRIQUETTES AND ALL OTHERS LISTED ON PAGE 2 ARE NOT APPROVED. SEASONED CORDWOOD SHOULD BE LESS THAN 24% MOISTURE CONTENT.

1. Open the catalytic by-pass control fully. (Handle facing forward).
   When starting the fire, ensure the bypass is in the fully open position and air control is in the fully open position (far left).
   To start a good and clean fire, you will need approx. 10-11 lb kindling , pieces that are 10"-12" long and 0.5"-1" in diameter.
   Load 5-6 pieces of crumpled paper in front of the firebox and create 2 square stacks in the front half of the firebox by placing each layer perpendicular to the last. (Criss cross loading). The stacks should be right next to one another.
   DO NOT USE A GRATE TO ELEVATE THE FIRE.
   Light the kindling at the base, in the middle of the 2 stacks. (Leaving the door slightly open will help your fire start more rapidly.)
   Close the door when lots of flame starts to reach the catalyst with the bypass open. When closing the door, if the firebox begins to fill with smoke AND the fire begins to die, crack the door 1-2" for 30s, then try again.
   Close the by-pass when the catalyst is active (approx 500F).
2. Once most of the kindling has burned down but there are still flames, load 14-16 pieces of larger wood (approx 2"-3" in diameter) and 20" long in a criss cross pattern. When a good fire is established close the door to keep the catalyst from cooling down. Burn it on high for approx. 2-2.5 hours. When the wood is charcoaled, open the door and the by-pass and rake and level the coals to create an uniform charcoal bed. Load 6-7 larger logs maximum 20" long front to back, North/South orientation. Once loaded close the door and the by-pass. Burn on high setting for 5-10 minutes.
   Now you can adjust the air control to your desired position.

   CAUTION: Never leave unit unattended if door is left open. This procedure is for fire start-up only, as unit may overheat if door is left open for too long.
3. After 15 to 30 minutes the fan can be set on high setting.
   High Fire: Air control to far left.
   Low Fire: Air control to far right.
   Med Low Fire: Air control slightly left of low fire setting.
   Med High Fire: Approx. 1" from low air setting.
4. The temperature in the stove and the gases entering the combustor must reach between 500F - 700F for catalytic activity to start. From the start up of a cold stove, a medium to high firing rate must be maintained for 30min. This ensures that the stove, catalyst and fuel are all stabilized at proper operating temperatures. Even though it is possible to have temperatures at 600F within minutes after a fire has been started, if the fire is allowed to die down immediately it may go out or the combustor may stop working. Once the combustor starts working, heat generated in it by burning the smoke will keep it working. During re-fueling and rekindling of the cool fire, or a fire that has burned down to the charcoal phase, operate the stove at a medium to high firing rate for about 10 minutes to ensure that the catalyst reaches operating temperatures.

   WARNING: Never build a roaring fire in a cold stove. Always warm your stove up slowly!
5. When re-fueling, always open by-pass, load fuel, then wait for at least 10-15 minutes before closing the by-pass. Reason for the 10-15 min. is the fresh fuel and the opening of the door will cause the catalyst to drop in temperature as well as the moisture within the wood which is the first thing to be released.
6. During the first few fires, keep the combustion rate at a moderate level and avoid a large fire. Only after 5 or 6 such fires can you operate the stove at its maximum setting, and only after the metal has been warmed.

   CAUTION: Do not build the fire too close to the glass, unless/otherwise specified.
7. For the first few days, the stove will give off an odour from the paint. This is to be expected as the high temperature paint becomes seasoned. Windows and/or doors should be left open to provide adequate ventilation while this temporary condition exists. Burning the stove at a very high temperature the first few times may damage the paint. Burn fires at a moderate level the first few days.
8. Do not place anything on the stove top during the curing process. This may result in damage to your paint finish.
9. During the first few days it may be more difficult to start the fire. As you dry out your firebrick and your masonry flue, your draft will increase.
10. For those units installed at higher elevations or into sub-standard masonry fireplaces, drafting problems may occur. Consult an experienced dealer or mason on methods of increasing your draft.
11. Some cracking and popping noises may be experienced during the heating up process. These noises will be minimal when your unit reaches temperature.
12. Before opening your door to reload, open the by-pass damper fully for approximately 10 to 15 seconds until the fire has been re-established. This will minimize any smoking (spilling) back into the room. After loading wood and front door closed, close the by-pass damper.

How to Light and Maintain a Wood Stove Fire

13. All fuel burning appliances consume oxygen during operation. It is important that you supply a source of fresh air to your unit while burning. A slightly opened window is sufficient for the purpose. If you also have a fireplace in your home, a downdraft may be created by your Regency Stove causing a draft down your chimney. If this occurs, slightly open a window near your unit.

CAUTION: If the body of your unit, e or any part of the chimney connector starts to glow, you are over firing. Stop loading fuel immediately and close the draft control until the glow has completely subsided.

14. Green or wet wood is not recommended for your unit. If you must add wet or green fuel, open the draft control fully until all moisture has been dispersed by the intense fire. Once all moisture has been removed, the draft control may be adjusted to maintain the fire.

15. If you have been burning your stove on a low draft, use caution when opening the door. After opening the damper, open the door a crack, and allow the fire to adjust before fully opening the door.

16. The controls of your unit or the air supply passages should not be altered to increase firing for any reason.

17. If you burn the unit too slowly or at too low a setting your unit will not be operating as efficiently as it can. An easy rule of thumb says that if your glass is clean, catalytic thermostat is active, then your flue is clean and your exhaust is clean. Burn the stove hot enough to keep your glass clean and catalytic combustor ,you won't need to clean your flue as often.

FAN OPERATION

Automatic
To operate the fan automatically, push the bottom switch on the side of the fan housing to "AUTO" and the top switch to either "HIGH" or "LOW" for fan speed.

This will allow the fan to turn on as the stove has come up to operating temperature. It will also shut the fan system off after the fire has gone out and the unit cooled to below a useful heat output range.

Route power cord to either left or right behind unit.

Manual
To manually operate the fan system push the bottom switch to "MAN" and the top switch to either "HIGH" or "LOW". This will bypass the sensing device and allow full control of the fan.

Switching from "AUTO" to "MAN" or "HIGH" to "LOW" may be done anytime.

ASH DISPOSAL

During constant use, ashes should be removed every few days. The Ash Drawer option features a convenient ash dump for easy removal of ash, refer to Modular Installation Options section.

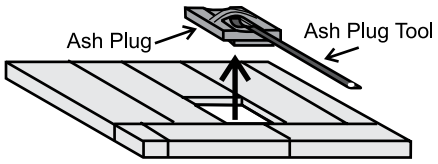
Safety Precautions

1. Do not allow ashes to build up to the loading doors! Only remove ashes when the fire has died down. Even then, expect to find a few hot embers.
2. Please take care to prevent the build-up of ash around the start-up air housing located inside the stove box, under the loading door lip.
3. Never start a fire if the ash plug and ash drawer are not in place. This will cause over firing which can cause excessive warping of the stove. Evidence of over firing can void the warranty on your stove.
4. The firebricks are brittle and can be damaged if the plug is replaced carelessly or pieces that are too large are forced through the hole.

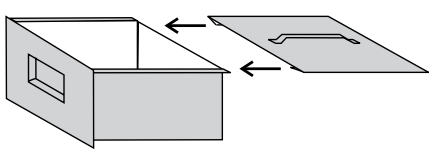
Ash Drawer Operating Guideline

1. Only clean ashes out of the stove when the unit has cooled down. Remove the plug by lifting on the handle using the tool provided. The plug may still be warm, use caution. Push the ashes down the hole into the ash drawer, the large pieces can be left in the firebox and burned during the next fire or removed through the door opening.

2. Always leave 1/2 to 1 inch of ash in the bottom of the firebox. This helps in easier starting and a more uniform burn of your fire. Replace ash plug when ashes have been removed.



3. **Pedestal Units:**
   To remove the drawer, lift slightly and slide it out. When the drawer is completely out, slide the cover plate over the ash drawer and carry away.



HOT WHILE IN OPERATION. KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.

4. When emptying the ash drawer, make sure the ashes are cold. Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled. Other waste should not be placed in the ash container.
5. Before putting the ash drawer back into place, make sure the ash plug is back in place.

   Pedestal Units: make sure the cover lid is off.

SAFETY GUIDELINES AND WARNINGS

DO NOT USE CHEMICALS FOR FLUIDS TO START FIRE.

1. Never use gasoline, gasoline type lantern fuels, kerosene, charcoal lighter fuel, or similar liquids to start or 'freshen up' a fire in your heater. Keep all such liquids well away from the heater while it is in use.
2. Keep the door closed during operation and maintain all seals in good condition.
3. Do not burn any quantities of paper, garbage, and never burn flammable fluids such as gasoline, naptha or engine oil in your stove.
4. If you have smoke detectors, prevent smoke spillage as this may set off a false alarm.
5. Do not overfire heater. If the chimney connector, flue baffle or the stove top begin to glow, you are over firing. Stop adding fuel and close the draft control. Over firing can cause extensive damage to your stove including warping and premature steel corrosion. Over firing will void your warranty.
6. Do not permit creosote or soot build-up in the chimney system. Check and clean chimney at regular intervals. Failure to do so can result in a serious chimney fire.
7. Your Regency stove can be very hot. You may be seriously burned if you touch any radiant surfaces on this stove while it is operating, keep children, clothing and furniture away. Warn children of the burn hazard.
8. The stove consumes air while operating, provide adequate ventilation with an air duct or open a window while the stove is in use.
9. Do not connect this unit to a chimney flue serving another appliance.
10. Do not use grates or andirons or other methods for supporting fuel. Burn directly on the bricks.
11. Open the draft control fully for 10 to 15 seconds prior to slowly opening the door when refuelling the fire.
12. Do not connect your unit to any air distribution duct.
13. This heater is designed to burn natural wood only. Higher efficiencies and lower emissions generally result when burning air dried seasoned hardwoods, as compared to softwoods or to green or freshly cut hardwoods.

DO NOT BURN:

- Treated wood
- Coal
- Garbage
- Cardboard
- Solvents
- Colored Paper
- Trash
- Salt drift wood
- Cut lumber, plywood, mill ends.

Burning treated wood, garbage, solvents, colored paper or trash may result in release of toxic fumes and may poison or render ineffective the catalytic combustor. Burning coal, cardboard, or loose paper can produce soot, or large flakes of char or fly ash that can coat the combustor, causing smoke spillage into the room, and rendering the combustor ineffective.

14. **CAUTION: Do not store fuel within space heater installation clearances or within the space required for charging and ash removal.** Do not place wood, paper, furniture, drapes or other combustibles near the appliance.

15. **WARNING: Do not operate without either the Ash Plug properly seated or the Ash Dump Plates screwed in place, excessive temperatures will result.**

16. **CAUTION : Do not operate with cracked/ broken, plugged, or glazing catalyst.**

IMPORTANT : It is against federal regulation to operate this wood heater in a manner inconsistent with operating instructions in this manual, or if the catalytic element is deactivated or removed.

DO NOT BURN GARBAGE OR FLAMMABLE LIQUIDS SUCH AS GASOLINE, NAPTHA OR ENGINE OIL. SOME FUELS COULD GENERATE CARBON MONOXIDE AND ARE VERY DANGEROUS.

CAUTION: DO NOT CONNECT TO, OR USE IN CONJUNCTION WITH ANY AIR DISTRIBUTION DUCT WORK UNLESS SPECIFICALLY APPROVED FOR SUCH INSTALLATION.

	Troubleshooting Guide	
PROBLEM	**POSSIBLE CAUSE**	**SOLUTION**
Crumbling Substrate	Extreme Thermal Shock Refueling with Wet Wood High Draft	Bypass combustor when the stove is running Use seasoned, dried wood. Do not exceed .06" of water draft. Install a manual damper and draft gauge or a barometric damper.
Fly-Ash Build-up Fly-Ash Masking Fly-ash Plugging	Combustor has not maintained light-off temperature. Combustor has not maintained light-off temperature. Burning materials that produce a lot of char and fly-ash. Closing the bypass too soon	Brush cold combustor with a soft bristled brush or vacuum lightly. Brush cold combustor with a soft bristled brush or vacuum lightly. Do not burn cardboard, gift wrap or garbage. Follow instructions for proper light-off.
Thermal Cracking	Uneven temperatures, flame impingement and heat spikes.	If cracking causes large pieces to fall out, replace combustor.
Mechanical Cracks	Combustor mishandled or abused. Distortion of combustor holder.	Handle combustor with care. Replace if necessary. Replace combustor is large pieces are missing, replace any warped stove parts as well.
Plugging (Creosote)	Burning wet, pitchy woods or burning large loads of small diameter wood with the combustor in the operating position without light-off ever occurring.	Burn dried seasoned wood. Make sure combustor has light-off before closing the bypass damper. It may be possible to burn off the soot or creosote accumulation by putting the combustor in a partially open and partially closed position after a hot fire has been started.
Masking (Soot)	Combustor has not maintained a light-off. Burning coal will cause a sulfur-based compound to coat the catalyst.	Place combustor in a partially open and partially position after a hot fire has been started to burn off the soot accumulation. Revert to burning wood and fire the combustor to elevated temperatures for one hour.

MAINTENANCE

It is very important to carefully maintain your fireplace stove, including burning seasoned wood and maintaining a clean stove and chimney system. Have the chimney cleaned before the burning season and as necessary during the season, as creosote deposits may build up rapidly. Moving parts of your stove require no lubrication.

THERMOMETER

The catalyst thermometer is only a indication of the flue gas temperature as they pass through the catalyst. The thermostat probe that is inserted into the opening, must be cleaned at least once a year. Use 220 sand paper to clean probe.



CREOSOTE

When wood is burned slowly, it produces tar and other organic vapours combine with moisture to form creosote. The creosote vapours condense in the relatively cool chimney flue of a slow burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote can result in an extremely hot fire.

The chimney connector and chimney should be inspected at least once every two months during the heating season to determine if creosote build up has occurred. If creosote has accumulated it should be removed to reduce the risk of chimney fire.

WARNING: Things to remember in case of a chimney fire:

1. Close all draft and damper controls.

2. CALL THE FIRE DEPARTMENT.

Ways to Prevent and Keep Unit Free of Creosote

1. Burn stove with the draft control wide open for about 10-15 minutes every morning during burning season.

2. Burn stove with draft control wide open for about 10 - 15 minutes every time you apply fresh wood. This allows the wood to achieve the charcoal stage faster and burns up any unburned gas vapours which might otherwise be deposited within the system.

3. **Only burn seasoned wood!** Avoid burning wet or green wood. Seasoned wood has been dried at least one year.

4. A small hot fire is preferable to a large smouldering one that can deposit creosote within the system.

5. The chimney and chimney connector should be inspected at least once every two months during the heating season to determine is a creosote buildup has occurred.

6. **Have chimney system and unit cleaned by competent chimney sweeps twice a year during the first year of use and at least once a year thereafter or when a significant layer of creosote has accumulated (3 mm/1/8" or more) it should be removed to reduce the risk of a chimney fire.**

DOOR CATCH ADJUSTMENT

The door Catch may require adjustment as the door gasket compresses after a few fires. The door latch compression may require adjustment to renew seal. Removal of the spacer washer, (see page 28), will allow the latch to be moved closer to the door frame, causing a tighter seal. Remove and replace the nuts, washer and spacer as shown on in this manual.

DOOR GASKET

If the door gasket requires replacement 5/8" diameter material must be used. Regency uses a gasket rope 5/8" Medium Density (Part #936-060). A proper high temperature gasket adhesive is required. See your Regency Dealer.

GLASS MAINTENANCE

Your Regency stove is supplied with 5mm Neoceram ceramic glass (Part #943-384/P) that will withstand the highest heat that your unit will produce. In the event that you break your glass by impact, purchase your replacement from an authorized Regency dealer only, and follow our step-by-step instructions for replacement (refer to Glass Replacement section).

Allow the stove to cool down before cleaning the glass, do not clean the glass when it is hot. Cleaning the glass will prevent build up of carbon and allow full view of the fire.
Do not use abrasive cleaners, a damp cloth and glass cleaner is effective.

WOOD STORAGE

Store wood under cover, such as in a shed, or covered with a tarp, plastic, tar paper, sheets of scrap plywood, etc., as uncovered wood can absorb water from rain or snow, delaying the seasoning process.

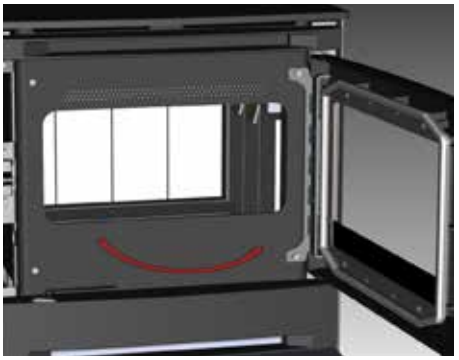


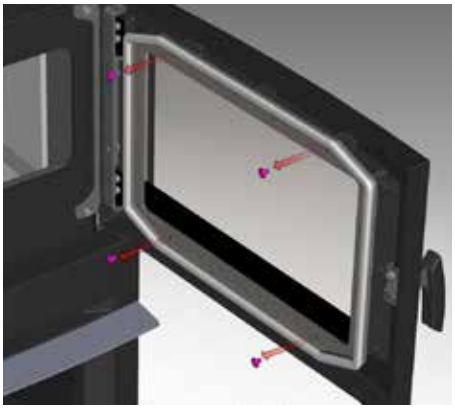
GLASS REPLACEMENT

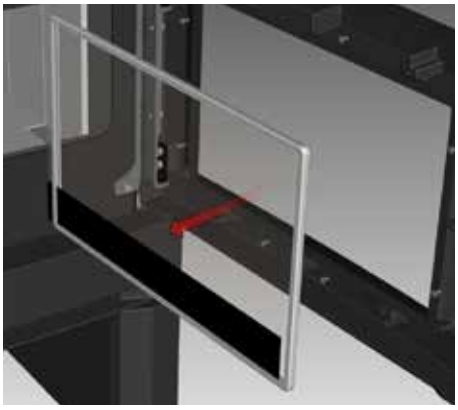
Allow the stove to cool before removing or replacing glass. Remove the door from the stove and remove the glass retainer. To avoid injury use caution when removing broken glass. Wear safety gloves. When placing the replacement glass in the door, make sure that the glass gasketing will properly seal your unit. Replace the retainer, it should rest on the gasket not the glass, and tighten securely with a glass clips and screws. Do not wrench down on the glass as this may cause breakage.

Do not use substitute materials. If your glass does break, do not use your unit until it has been replaced.

Do not abuse the door by striking or slamming shut.







CATALYTIC COMBUSTOR

ACHIEVING AND MAINTAINING CATALYST LIGHT-OFF:
The temperature in the stove and the gases entering the combustor must be raised to between 500F to 700F for catalytic activity to be initiated. During the start up of a cold stove a medium to high firing rate must be maintained for about 30 minutes. This ensures that the stove, catalyst and fuel are all stabilized at proper operating temperatures. Even though it is possible to have temperatures at 600F within minutes after a fire has been started, if the fire is allowed to die down immediately it may go out or the combustor may stop working. Once the combustor starts working, heat generated in it by burning the smoke will keep it working. During re-fueling and rekindling of the cool fire, or a fire that has burned down to the charcoal phase, operate the stove at a medium to high firing rate for about 10 minutes to ensure that he catalyst reaches operating temperatures.

There are some obvious signs of trouble that your inspection may reveal. The temperature in the stove and the gases entering the combustor must be raised to between 500F to 700F for catalytic activity to be initiated. During the start up of a cold stove a medium to high firing rate must be maintained for about 30 minutes. This ensures that the stove, catalyst and fuel are all stabilized at proper operating temperatures. Even though hit is possible to have temperatures at 600F within minutes after a fire has been started, if the fire is allowed to die down immediately it may go out or the combustor may stop working. Once the combustor starts working, heat generated in it by burning the smoke will keep it working. During re-fueling and rekindling of the cool fire, or a fire that has burned down to the charcoal phase, operate the stove at a medium to high firing rate for about 10 minutes to ensure that he catalyst reaches operating temperatures.

CATALYST MONITORING: It is important to periodically monitor the operation of the catalytic combustor to ensure that it is functioning properly and to determine when it needs to be replaced. A non-functioning combustor will result in a loss of heating efficiency, and an increase in creosote and emissions. Following is a list of items that should be checked on a periodic basis.

- Combustors should be visually inspected at least three times during the heating season to determine if physical degradation has occurred. Actual removal of the combustor is not recommended unless more detailed inspection is warranted because of decreased performance. If any of these conditions exist, refer to Catalyst trouble shooting section of this owner's manual.

- A good combustor is designed to withstand approximately 12,000 hours of continuous use. This will translate into five to ten years of use, depending on the length of your heating season and how often you use your stove. Proper maintenance will increase the combustor's effectiveness and prevent many problems. Inspect your combustor before each heating season, and during the season if your stove's performance seems to change.

- This catalytic heater is equipped with a temperature probe to monitor catalyst operation. Properly functioning combustors typically maintain temperatures in excess of 500F and often reach temperatures in excess of 1000F. If catalyst temperatures are not in within, refer to Catalyst trouble shooting section of this manual.

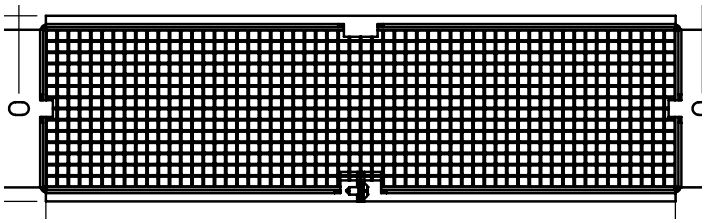
- You can get an indication of whether the catalyst is working by comparing the amount of smoke leaving the chimney when the smoke is going through the combustor and catalyst light – off has been achieved, to the amount of smoke leaving the chimney when the smoke is not routed (by-pass open) through the combustor.

Step 1: Light the stove in accordance with instructions within this manual.
Step 2: With smoke routed through the catalyst (by-pass closed) go outside and observe the emissions leaving the chimney.
Step 3: Engage the bypass mechanism and move to by-pass open position. And again observe the emission leaving the chimney. Significantly more smoke should be seen when the smoke is not routed through the combustor (by-pass open). Be careful not to confuse smoke with steam.

ACHIEVING PROPER DRAFT: Draft is the force which moves air from the appliance up through the chimney. The amount of draft in your chimney depends on the length of the chimney, local geography, nearby obstructions and other factors. Too much draft may cause excessive temperatures in the appliance and may damage the catalytic combustor. Inadequate draft may cause back puffing into the room and plugging of the chimney or catalyst.

CATALYTIC COMBUSTOR CLEANING:

Method #1
A vacuum cleaner may be used, but **never use high pressured air** to blow the cells free of any build-up. This can damage the cell walls. Any cell blockage can be removed with the use of a pipe cleaner or a cotton swab as well.
Method #2
Should the combustor's cells become covered with fly-ash, use a paintbrush or soft-bristled brush and dust the combustor gently. Never use anything abrasive to clean the combustor.
Method #3
Normally the catalytic combustor requires little or no maintenance, it generates such high temperatures and therefore is basically self-cleaning. However, should the combustor become covered with soot or creosote, it is possible to burn the accumulation off by opening the bypass and building a hot fire. Once the hot fire is created, close the bypass halfway and burn for 30 to 60 minutes with the bypass left in this position. **Never use cleaning solvents to clean it.** Check and clean the combustor, if necessary, before each burning season and inspect the flue system for any signs of creosote buildup. A clean flue helps prevent chimney flue fires.



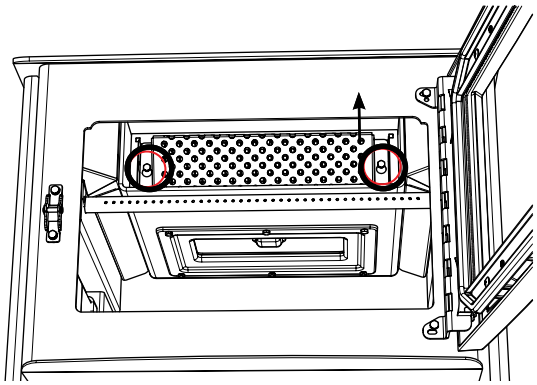
COMBUSTOR ASSEMBLY REMOVAL/REPLACEMENT

The catalytic thermometer on top of the stove should read in the active zone after the stove has been in operation for several hours. If the thermometer's indicator needle does not stay in the active zone, even with a hot fire, over a period of regular use, the catalyst may need to be cleaned. If this persists it may be necessary to replace it.

If the combustor must be examined or replaced, follow this procedure:

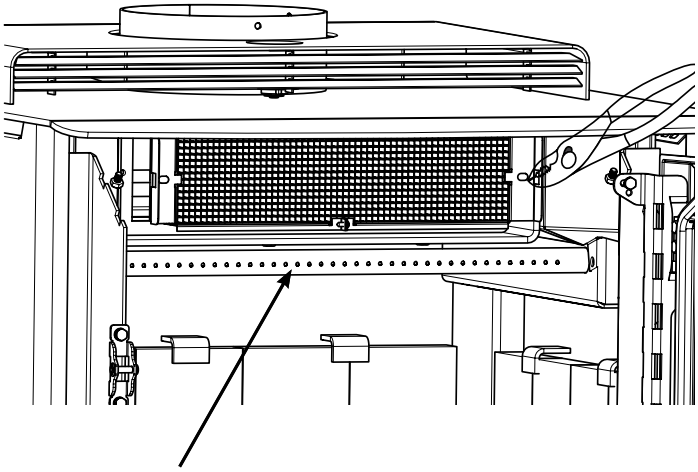
1. Allow the stove to burn out and cool down.

2. Open the door and loosen the two 7/16" bolts -see locations below.



3. Lift flame shield slightly upwards in keyhole slot and pull it forward and down.

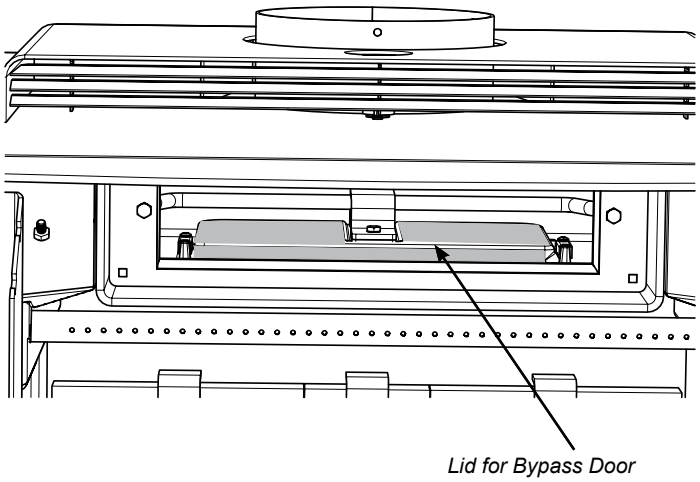
4. Use a pair of pliers and gently slide out the band at each end. The assembly will loosen enough that it can be pulled forward, lowered, and pulled out through the door.



F5200 Airtube

F5200 Airtube Replacement

NOTE: If also replacing the gasket in the bypass door (see next page), remove the lid of the bypass door while it is accessible and complete steps in Bypass Door Gasket Replacement.



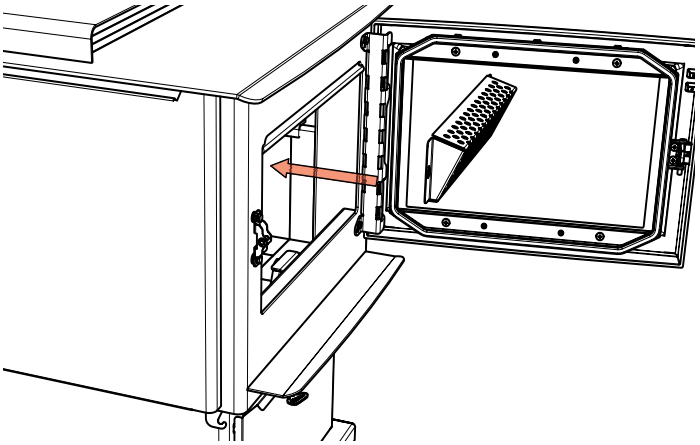
Lid for Bypass Door

TO REPLACE THE COMBUSTOR:

First clean the combustor area and the area around the by-pass,use a vacuum cleaner.

Lift the new combustor into position, with the stainless flanges on each end facing forward.
The combustor should slide easily into position, you may need to pinch down the top center with your finger to start, gently push as far to the back of the stove as possible.

Replace the flame shield in the orientation shown below.



Lift it into position, place the key slot opening over the bolt and push the flame shield down to seat. Tighten the bolt till its SNUG only, do not over tighten. The flame shield should rest at an angle (about 45 degrees) with the thin end at the bottom and the thick end near the top of the stove.

NOTE: Replacement combustors can be retrieved from Applied Ceramics or Contact your local Regency Dealer for details.

DO NOT OPERATE THE APPLIANCE IF COMBUSTOR BECOMES INACTIVE - DO NOT OPERATE WITHOUT COMBUSTOR.

BYPASS DOOR GASKET REPLACEMENT

1. Allow the stove to burn out and cool down, until cool to touch.

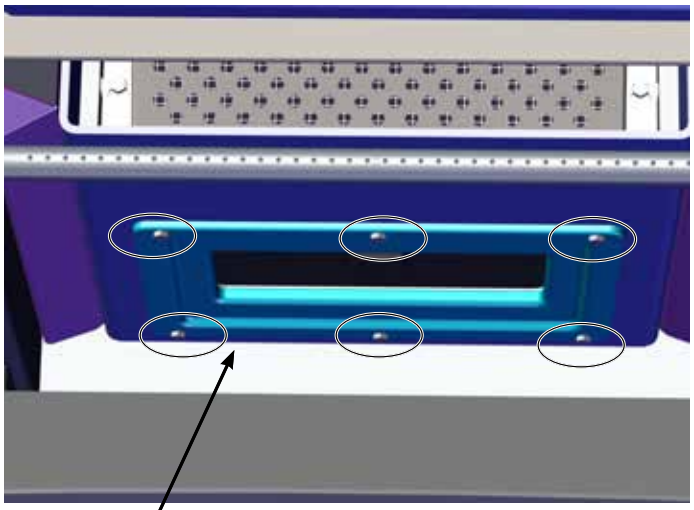
2. Open stove door to access bypass door.



3. Loosen the 3 rear nuts, then remove 3 front nuts. Support the Bypass Door from the front /back and slide forward to remove Bypass Door Assembly.

Note: if any of the bolts become damaged, the bolt bracket assemblies may be replaced—see next page.

Important: Bypass door is very heavy (>18 lbs) - use caution when servicing.



Loosen 3 rear nuts

F5200 Damper Assembly Draft

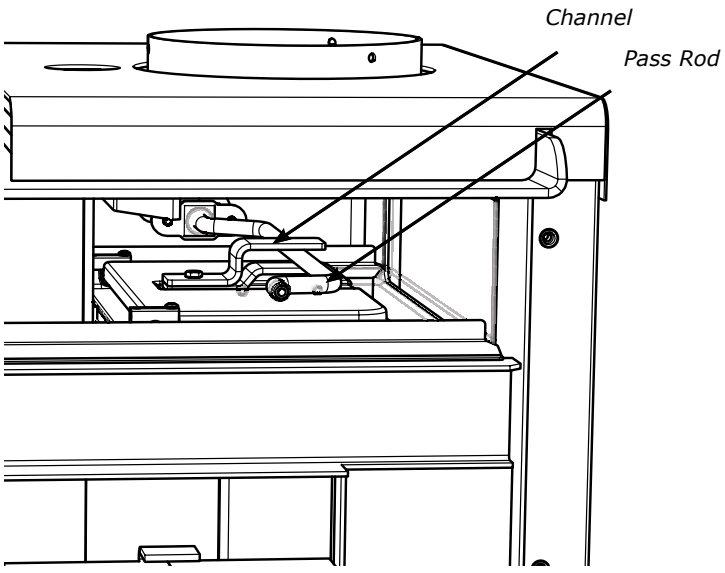
4. Slide bypass door assembly forward, lower complete assembly with care. Lift lid on bypass door assembly to reveal gasket.



5. Remove old gaskets and replace with new ones.



6. Reverse steps to reinstall - ensure the pass rod is seated with the channel on the pass door.
(Unit viewed as transparent to facilitate view)

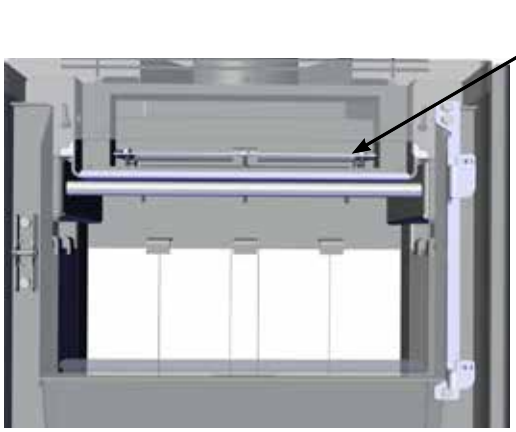


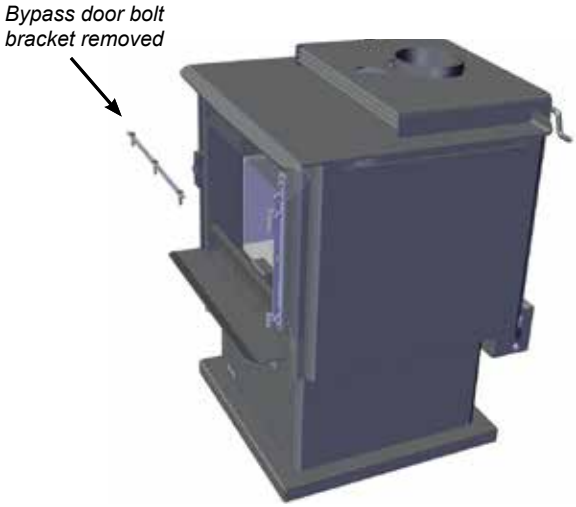
BYPASS DOOR BOLT BRACKET ASSEMBLY REPLACEMENT

If any of the bolts used to secure the bypass door become damaged - the bypass door bolt bracket assembly can be replaced.

1. Allow the stove to burn out and cool down, until cool to touch.
2. Remove bypass door before attempting to remove bolt bracket assembly—see detailed instructions on previous page.
3. Open stove door and remove stainless steel smoke deflector, flame shield and catalytic combustor to access bypass door—see detailed instructions in this manual.
4. Lift out (front or rear) bypass door bolt bracket assembly and replace with a new one.

Note: The rear nuts which are only loosened when removing the by pass door will need to be removed in order to remove the bolt bracket assembly.



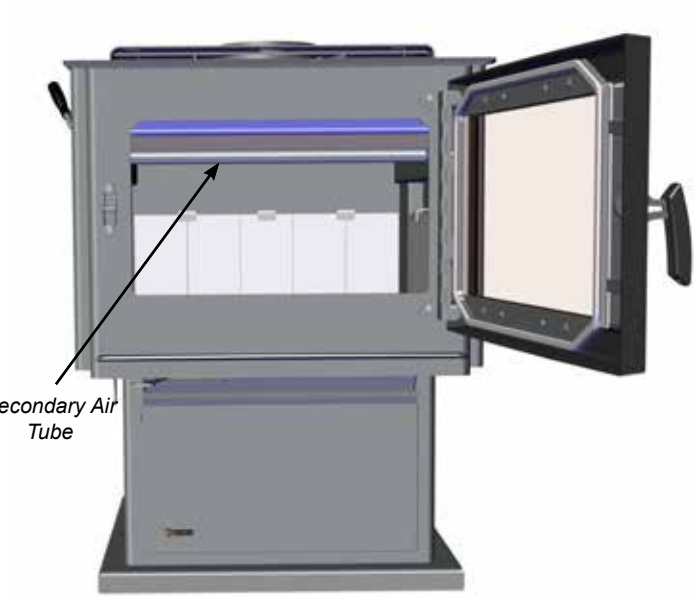


5. Reverse steps to reassemble stove.

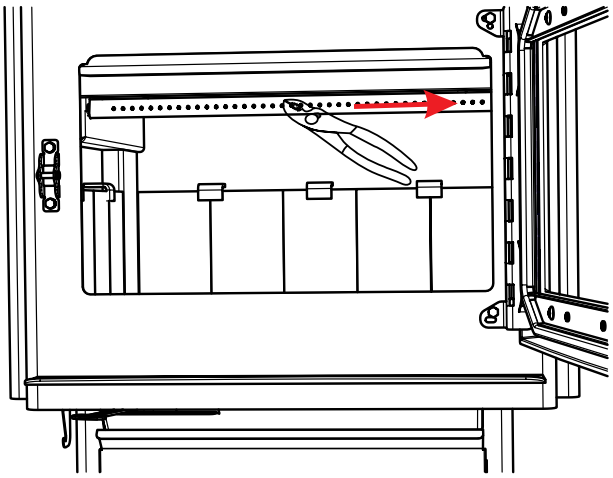
SECONDARY AIR TUBE REMOVAL / INSTALLATION

1. Allow the stove to burn out and cool down, until cool to touch.

2. Open stove door to access secondary air tube.



3. Grasp secondary air tube firmly with vise grips, using a hammer tap vise grips from right to left until air tube is released from grip. Remove.



4. To reinstall or replace, first slide left side of tube into hole on left side air channel. Align tab on right side air channel with notch on right hand end of air tube. Firmly grip center of air tube with vise grips, use hammer to tap vise grips from left to right until the tube bottoms out into the air channel on right.

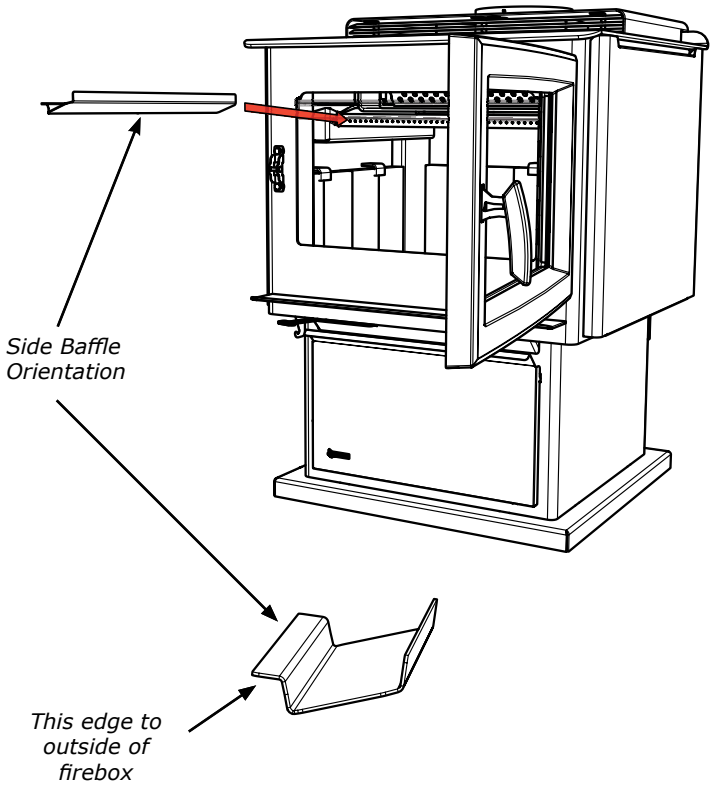
Note: If air tube is locked into place correctly there should be slight movement when moving the air tube back and forth.

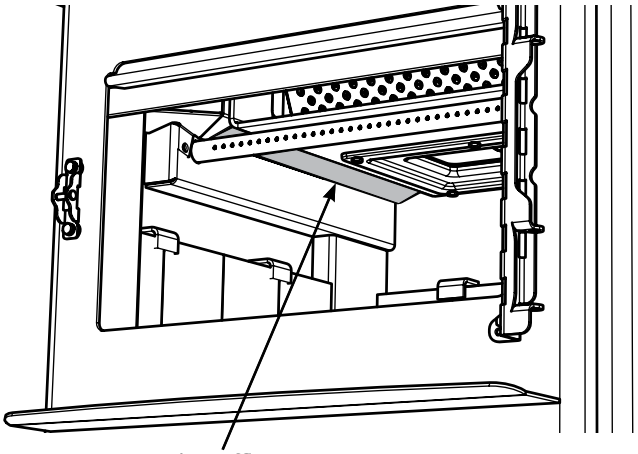
F5200 Airtube Replacement

SIDE BAFFLE INSTALLATION/REMOVAL

1. Allow the stove to burn out and cool down.

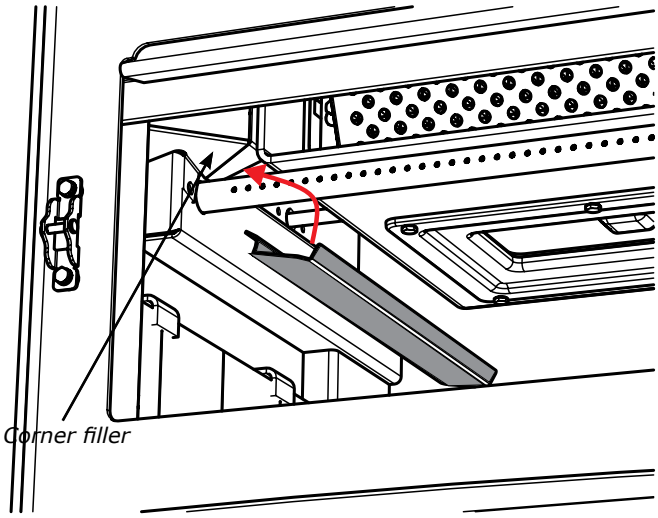
2. Open stove door and bring the side baffle into the stove in the orientation shown below.





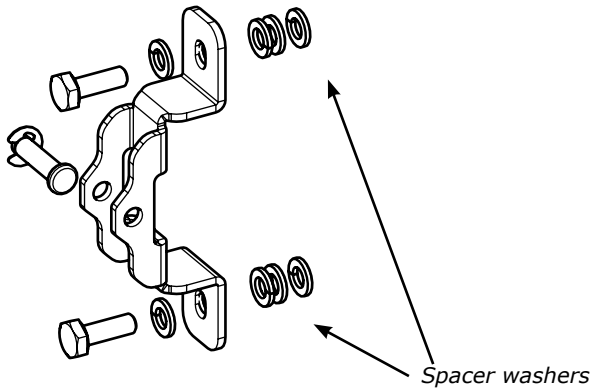
3. Manoeuvre the side baffle underneath the upper corner filler, then let the baffle rest on the side of the combustor housing.

4. Repeat process on other side.



DOOR CATCH ADJUSTMENT

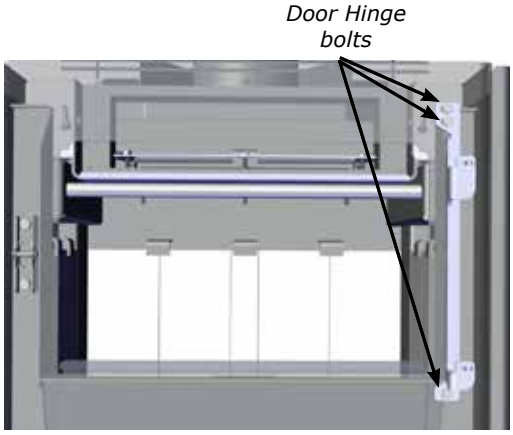
The door catch may require adjustment as the door gasket compresses after a few fires. The door catch compression may require adjustment to renew seal. Removal of the spacer washer, shown in the Diagram below, will allow the catch to be moved closer to the door frame, causing a tighter seal. Remove and replace the nuts, washer and spacer as shown



DOOR HINGE ADJUSTMENT

If the door hinge ever requires adjustement, ensure that the bolt is put on hand tight and tightened a further 1/2 turn using a wrench.
Do not overthighten as this can damage the bolt or nutsert.

Note: Some models may only have 1 bolt at the top. This version shows 2 top bolts.



Annual Maintenance	
Completely clean out entire unit	Annually
Inspect air tube, Catalytic Combustor and bricks	Replace any damaged parts.
Adjust door catch assembly	If unable to obtain a tight seal on the door - replace door gasket seal. Readjust door catch after new gasket installed.
Inspect condition and seal of: Glass Gasket Door Gasket Bypass Door Gasket	Perform paper test - replace gasket if required
Paper Test	Test the seal on the loading door and bypass door with a paper bill. Place a paper bill in the gasket area of the door on a cold stove. Close the door. Try to remove the paper by pulling. The paper should not pull out easily; if it does, try adjusting the door latch (loading door only). If that doesn't solve the problem, replace the door gasket, bypass gasket, or both.
Check and lubricate door hinge + latch	Use only high temperature anti seize lube. (ie. never seize)
Check glass for cracks	Replace if required.
Clean blower motor	Disconnect power supply. Remove and clean blower. ***DO NOT LUBRICATE***
Inspect and clean chimney	Annual professional chimney cleaning recommended.

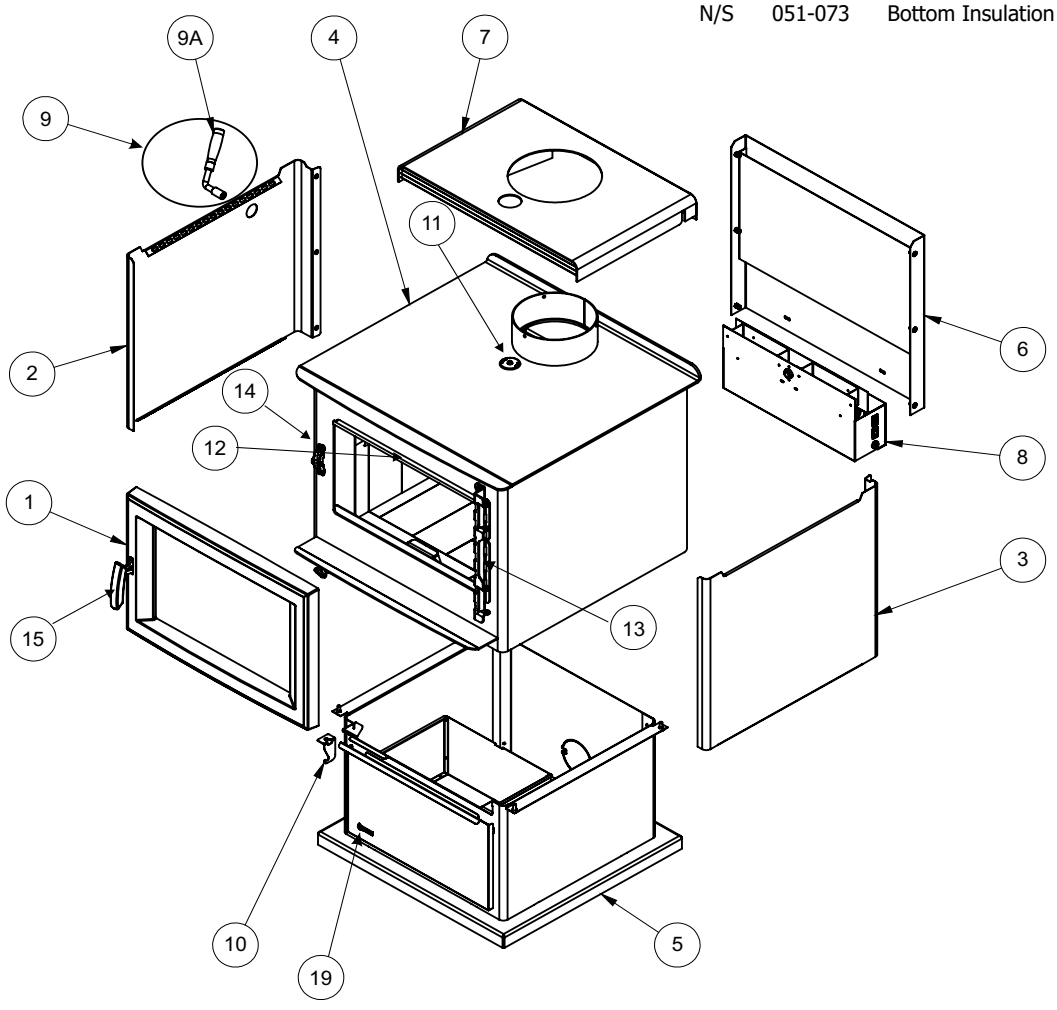
Chimney Cleaning
When cleaning the chimney system the catalyst should be removed so this can also be cleaned at the same time following the guide lines found in this manual. The bypass should be open so any creosote will fall onto the firebox floor when being cleaned and door closed. The monitor should also be removed when cleaning is being done to prevent damage to the monitor.
We highly recommend that the chimney cleaning be done by a professional as they will have the necessary tools such as a proper sized brush and special vacuum cleaner designed to deal with fine particles.

IMPORTANT: Before attempting to loosen or remove any screw, bolt from the interior of a wood stove, insert or factory built fireplace that has had a fire burned in it, we highly recommend to liberally spray the screw/bolt with a good-quality penetrating oil, one that does not have flammable properties contained within the penetrating oil being used. Allow it to set, then tap or vibrate the screw or bolt to help loosen it before attempting to remove it. For best results, follow the instructions that are provided with the penetrating oil.

F5200 STOVE MAIN ASSEMBLY

	Part #	Description
1	051-539	Cast Door Assembly
2	051-005	Side Heat Shield RH
3	051-004	Side Heat Shield LH
4		Firebox Assembly
5	051-513	Pedestal Assembly
6	051-515	Rear Heat Shield Assembly
7	051-912	Airmate 8"
8	846-515	Fan-Free Standing Stove
	910-157/P	Replacement Motor
	910-138	Auto/Manual Switch
	910-140	Hi/Off/Lo switch
	910-142	Fan Thermodisc
9	051-538	Removable Arm Assembly
9A	948-449	Wooden Handle
10	051-018	Handle Holder
	051-530	Catalytic Combustor Assembly (not shown)
	063-954	Airtube 1" x 23" long

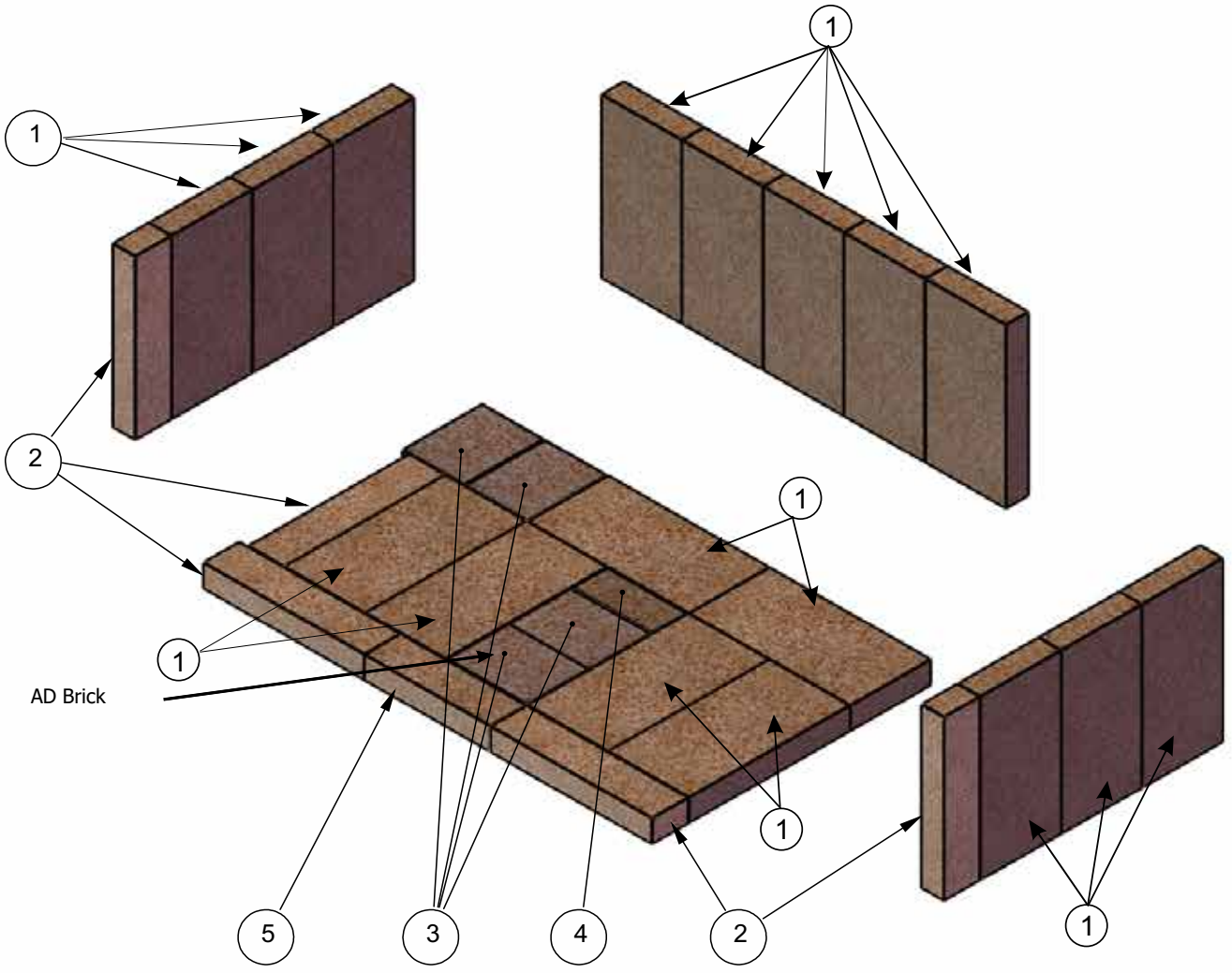
	Part #	Description
11	051-067	Thermometer
	051-221	Cast Bypass Door
	936-074	Gasket Bypass Door
12	051-003	Stainless Steel Smoke Deflector
13	051-509	Door Hinge Assembly
14	106-561	Door Catch assembly
15	156-241	Removable Cast Handle
	051-006	L/R stainless steel firebox filler
	051-085	Gasket Bypass Frame
	051-510	Bypass Frame 3 bolt assembly (ea)
19	948-223	Regency Logo Plate
	920-100	Manual
N/S	942-110	Cast Ash Drawer Plug
N/S	846-689	Graphite Md-500 Rope Gasket (6') (936-236)
N/S	820-249	Ash Drawer Handle
N/S	051-053	Flame Shield & Mixer
N/S	051-007	Left Stainless Steel Firebox Corner Filler
N/S	051-008	Right Stainless Steel Firebox Corner Filler
N/S	815-558	Rear Heat Deflector
N/S	051-073	Bottom Insulation Firebox Base



F5200 STOVE BRICK LAYOUT

051-960 Brick Set Complete

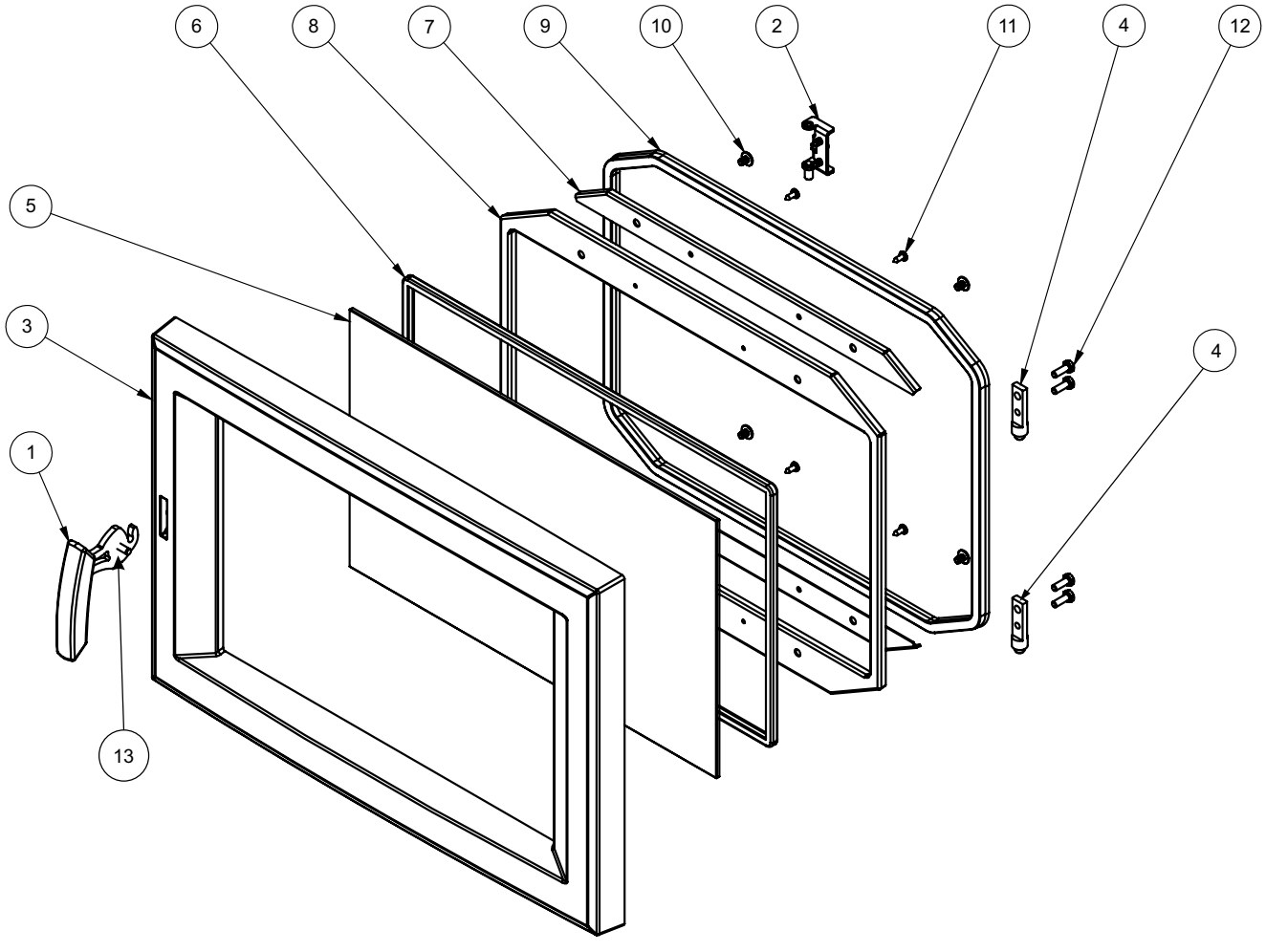
Fire bricks	
#	Size
1	4-1/2" x 9"
2	2" x 9"
3	3-1/2" x 4-1/2"
4	1-3/4" x 4-1/2"
5	2" x 7"



DOOR ASSEMBLY

	Part #	Description
1	156-241	REMOVABLE CAST HANDLE
2	156-515/P	ALIGNER ASSEMBLY
3	051-539	CAST DOOR METALLIC BLACK ASSEMBLY / NO GLASS
4	948-155	HINGE PIN
5	940-381/P	GLASS CERAMIC (Includes glass gasket)
6	846-682	7/8" Window Adhesive Gasket Tape (12') (936-243)

	Part #	Description
7	051-058	GASKET BRACKET TOP/BOTTOM
8	051-056	GLASS / GASKET FRAME
9	936-077	5/8 MEDIUM DENSITY
10	904-809	SCREW 1/4-20 x 3/8 TUSS HD PHIL ZINC PD (ea)
11	904-146	SCREW #10 x 1/2 SELF TAP PAN HD PHILIPS (ea)
12	904-513	HEX BOLT 1/4-20 x 3/4 LG. (ea)
	051-057	SIDE GASKET BRACKET (ea)
	846-551	DOOR/GLASS GASKET REPAIR KIT
13	156-532	CHROME LATCH/PIN ASSEMBLY



Limited Lifetime Warranty

FPI Fireplace Products International Ltd. (for Canadian customers) and Fireplace Products U.S., Inc. (for U.S. customers) (collectively referred to herein as "FPI") extends this Limited Lifetime Warranty to the original purchaser of this appliance provided the product remains in the original place of installation. The items covered by this limited warranty and the period of such coverage is set forth in the table below.

Some conditions apply (see below).

The policy is not transferable, amendable, or negotiable under any circumstances.

Wood Products	Component Coverage					Labor Coverage
Components Covered	Limited Lifetime	5 years	2 years	1 year	Warranty	(Years)
Welded Firebox Steel	✓					5
All Stainless Steel Components, Smoke Deflectors, Heat Shields etc.	✓					3
Air Tubes	✓					3
Airmate	✓					3
Door handle and latch assembly, all hardware	✓					3
Glass Thermal Breakage Only	✓					3
Steel Faceplates, Accessory Housings	✓					3
All Plating	✓					3
Ash Drawer, Heatshields, Pedestal	✓					
All Baffles, Steel, Ceramic, Vermiculite C-Baffles	✓					
All castings, firebox, surrounds, doors, panels etc.		✓				3
All Electrical, Blower, wiring, switches etc.			✓			2
Glass - Crazing				✓		1
Catalyst Combustor					*10 Years Prorated	
Venting/Chimney				✓		1
Screens				✓		1

*See specific warranty details in regards to the catalyst combustor in unit manual.

Conditions:

Warranty protects against defect in manufacture or FPI factory assembled components only, unless herein specified otherwise.

Any part(s) found to be defective during the warranty period as outlined above will be repaired or replaced at FPI's option through an accredited distributor, dealer or pre-approved and assigned agent provided that the defective part is returned to the distributor, dealer or agent for inspection if requested by FPI. Alternatively, FPI may at its own discretion fully discharge all of its obligations under the warranty by refunding the verified purchase price of the product to the original purchaser. The purchase price must be confirmed by the original Bill of Sale.

The authorized selling dealer, or an alternative authorized FPI dealer if pre-approved by FPI, is responsible for all in-field diagnosis and service work related to all warranty claims. FPI is not responsible for results or costs of workmanship of unauthorized FPI dealers or agents in the negligence of their service work.

At all times FPI reserves the right to inspect reported complaints on location in the field claimed to be defective prior to processing or authorizing of any claim. Failure to allow this upon request will void the warranty.

All warranty claims must be submitted by the dealer servicing the claim, including a copy of the Bill of Sale (proof of purchase by you). All claims must be complete and provide full details as requested by FPI to receive consideration for evaluation. Incomplete claims may be rejected.

Replacement units are limited to one per warranty term. Airtube and baffle replacements are limited to one replacement per term.

Unit must be installed according to all manufacturers' instructions as per the manual.

All Local and National required codes must be met.

The installer is responsible to ensure the unit is operating as designed at the time of installation.

The original purchaser is responsible for annual maintenance of the unit, as outlined in the owner's manual. As outlined below, the warranty may be voided due to problems caused by lack of maintenance.

Repair/replacement parts purchased by the consumer from FPI after the original coverage has expired on the unit will carry a 90 day warranty, valid with a receipt only. Any item shown to be defective will be repaired or replaced at our discretion. No labor coverage is included with these parts.

Exclusions:
This Limited Lifetime Warranty does not extend to rust or corrosion of any kind due to: a lack of maintenance or improper venting, lack of combustion air provision, or exposure to corrosive chemicals (i.e. chlorine, salt, air, etc.).

This Limited Lifetime Warranty also does not extend to: paint, firebricks (rear, sides, or bottom), door gasketing, glass gasketing (or any other additional factory fitted gasketing), vermiculite floor bricks, andiron assemblies, and flue damper rods.

Malfunction, damage or performance based issues as a result of environmental conditions, location, chemical damages, downdrafts, installation error, installation by an unqualified installer, incorrect chimney components (including but not limited to cap size or type), operator error, abuse, misuse, use of improper fuels (such as unseasoned cordwood, mill-ends, construction lumber or debris, off-cuts, treated or painted lumber, metal or foil, plastics, garbage, solvents, cardboard, coal or coal products, oil based products, waxed cartons, compressed pre-manufactured logs, kiln dried wood), lack of regular maintenance and upkeep, acts of God, weather related problems from hurricanes, tornados, earthquakes, floods, lightning strikes/bolts or acts of terrorism or war, which result in malfunction of the appliance are not covered under the terms of this Limited Lifetime Warranty.

FPI has no obligation to enhance or modify any unit once manufactured (i.e. as products evolve, field modifications or upgrades will not be performed on existing appliances).

This warranty does not cover dealer travel costs for diagnostic or service work. All labor rates paid to authorized dealers are subsidized, pre-determined rates. Dealers may charge homeowner for travel and additional time beyond their subsidy.

Any unit showing signs of neglect or misuse will not be covered under the terms of this warranty policy and may void this warranty. This includes units with rusted or corroded fireboxes which have not been reported as rusted or corroded within three (3) months of installation/purchase.

Units which show evidence of being operated while damaged, or with problems known to the purchaser and causing further damages will void this warranty.

Units where the serial no. has been altered, deleted, removed or made illegible will void this warranty.

Minor movement, expansion and contraction of the steel is normal and is not covered under the terms of this warranty.

FPI is not liable for the removal or replacement of facings or finishing in order to repair or replace any appliance in the field.

Freight damages for products or parts are not covered under the terms of the warranty.

Products made or provided by other manufacturers and used in conjunction with the FPI appliance without prior authorization from FPI may void this warranty.

Limitations of Liability:
The original purchaser's exclusive remedy under this warranty, and FPI's sole obligation under this warranty, express or implied, in contract or in tort, shall be limited to replacement, repair, or refund, as outlined above. IN NO EVENT WILL FPI BE LIABLE UNDER THIS WARRANTY FOR ANY INCIDENTAL OR CONSEQUENTIAL COMMERCIAL DAMAGES OR DAMAGES TO PROPERTY. TO THE EXTENT PERMITTED BY APPLICABLE LAW, FPI MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY SPECIFIED HEREIN. THE DURATION OF ANY IMPLIED WARRANTY IS LIMITED TO DURATION OF THE EXPRESSED WARRANTY SPECIFIED ABOVE. IF IMPLIED WARRANTIES CANNOT BE DISCLAIMED, THEN SUCH WARRANTIES ARE LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

Some U.S. states do not allow limitations on how long an implied warranty lasts, or allow exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

Customers located outside the U.S. should consult their local, provincial or national legal codes for additional terms which may be applicable to this warranty.

How to Obtain Warranty Service:
Customers should contact the authorized selling dealer to obtain all warranty and service. In the event the authorized selling dealer is unable to provide warranty / service, please contact FPI by mail at the address listed on the next page. Please include a brief description of the problem and your address, email and telephone contact information. A representative will contact you to make arrangements for an inspection and/or warranty service, by an alternative dealer.

Product Registration and Customer Support:
Thank you for choosing a Regency Fireplace. Regency strives to be a world leader in the design, manufacture, and marketing of hearth products. To provide the best support for your product, we request that you complete a product registration form at http://www.regency-fire.com/Customer-Care/Warranty-Registration.aspx within ninety (90) days of purchase.

REGENCY
FIREPLACE PRODUCTS

Product Registration and Customer Support:

Thank you for choosing a Regency Fireplace. Regency strives to be a world leader in the design, manufacture, and marketing of hearth products. To provide the best support for your product, we request that you complete a product registration form found on our Web Site under Customer Care within ninety (90) days of purchase.

For purchases made in **CANADA or the UNITED STATES**:
http://www.regency-fire.com/Customer-Care/Warranty-Registration.aspx

For purchases made in AUSTRALIA:
http://www.regency-fire.com.au/Customer-Care/Warranty-Registration.aspx

You may also complete the warranty registration form below to register your Regency Fireplace Product and mail and/or fax it back to us, and we will register the warranty for you. It is important you provide us with all the information below in order for us to serve you better.

Warranty Registration Form (or Register online immediately at the above Web Site):

Warranty Details	
Serial Number (required):	
Purchase Date (required) (mm/dd/yyyy):	
Product Details	
Product Model (required):	
Dealer Details	
Dealer Name (required):	
Dealer Address:	
Dealer Phone #:	
Installer:	
Date Installed (mm/dd/yyyy):	
Your Contact Details (required)	
Name:	
Address:	
Phone:	
Email:	

For purchases made in CANADA:

FPI Fireplace Products International Ltd.
6988 Venture St.
Delta, British Columbia
Canada, V4G 1H4

Phone: 604-946-5155
Fax: 1-866-393-2806

For purchases made in the UNITED STATES:

Fireplace Products US, Inc.
PO Box 2189 PMB 125
Blaine, WA
United States, 98231

Phone: 604-946-5155
Fax: 1-866-393-2806

For purchases made in AUSTRALIA:

Fireplace Products Australia Pty Ltd
99 Colemans Road
Dandenong South, Vic. 3175
Australia

Phone: +61 3 9799 7277
Fax: +61 3 9799 7822

For fireplace care and tips and answers to most common questions please visit our Customer Care section on our Web Site. Please feel free to contact your selling dealer if you have any questions about your Regency product.

CATALYTIC COMBUSTOR WARRANTY COVERAGE

IMPORTANT WARRANTY INFORMATION FOR CATALYTIC COMBUSTOR
Effective March 1 2019

Any and all claims for catalytic combustor must be filed **by the consumer** directly with their authorized Regency Dealer. FPI/Regency does not handle these claims directly with consumers.

Please follow the instructions below for your catalytic combustor under warranty. To learn more about the care and maintenance or the catalytic combustor, please visit our website: www.firecatcombustors.com.

Any warranty coverage before this date will be covered by the original warranty when the appliance was purchased.

(1) **10-year** coverage from Regency – not the supplier of the catalytic combustor.

(2) All claims must be made through the dealer where the appliance had been purchased.

(3) One no-charge replacement at any time within the **ten (10) year** period.

(4) Second replacement at 50% off retail* within the original **ten (10) years**.

(5) Subsequent replacements or if **ten (10)-year** coverage has expired at full retail* price.

(6) The catalytic combustor must not have been mechanically abused, nor must the wrong fuels have been used in the appliance.

(7) All claims must be accompanied by clear photos of the catalytic combustor showing all damage and also showing existing internal venting from the stove.

The consumer will be responsible for removal, any servicing. This warranty is REGENCY® exclusive warranty and REGENCY® disclaims any other express or implied warranty for the catalytic combustor, including any warranty or merchantability of fitness for a particular use.
NO LABOR WILL APPLY.

All warranty claims must be sent to: Regency Fireplace Products
By Authorized Regency Dealer

* Prices subject to change.
Regency reserves the right to reject any claim if it is determined the damage is a result of misuse, abuse or improper cleaning/ handling.

Installer: Please complete the following information

Dealer Name & Address: _____

_____

Installer: _____

Phone #: _____

Date Installed: _____

Serial #: _____

F5200 Video

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Printed in Canada

599

OMNI-Test Laboratories, Inc.
Report #

LISTED ROOM HEATER, SOLID FUEL TYPE, ALSO FOR USE IN MOBILE HOME INSTALLATION
APPAREIL DE CHAUFFAGE HOMOLOGUÉ POUR COMBUSTIBLE SOLIDE, À UTILISER ÉGALEMENT DANS UNE MAISON MOBILE

APPROVED FOR MOBILE HOMES IN THE US AND FOR TRANSPORTABLE BUILDINGS IN CANADA./ CET APPAREIL EST HOMOLOGUÉ POUR ÊTRE INSTALLÉ DANS UNE MAISON MOBILE AUX ÉTATS-UNIS ET POUR LES BÂTIMENTS TRANSPORTABLES AU CANADA

DO NOT REMOVE THIS LABEL/ NE PAS RETIRER CETTE ÉTIQUETTE

599

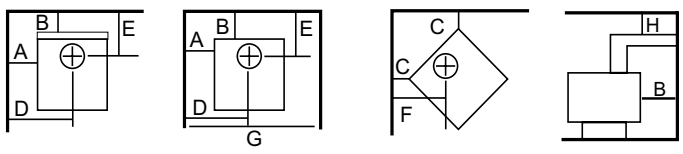
MODEL/MODÈLE : REGENCY FREESTANDING STOVE/POÊLE AUTOPORTANT - F5200

CERTIFIED TO/CERTIFIÉ : UL627-2023 / UL 1482-2022

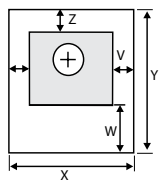
U.S. ENVIRONMENTAL PROTECTION AGENCY CERTIFIED TO COMPLY WITH 2020 PARTICULATE EMISSION STANDARDS USING CRIB WOOD. TESTED AND LISTED TO METHOD 28R, E2780-10,E2515-11, MODEL REGENCY F5200 - 0.84 G/HR. THIS WOOD HEATER NEEDS PERIODIC INSPECTION AND REPAIR FOR PROPER OPERATION. CONSULT THE OWNER'S MANUAL FOR FURTHER INFORMATION. IT IS AGAINST FEDERAL REGULATIONS TO OPERATE THIS WOOD HEATER IN A MANNER INCONSISTENT WITH THE OPERATING INSTRUCTIONS IN THE OWNER'S MANUAL.
CERTIFIÉ CONFORME AUX NORMES 2020 DU U.S. ENVIRONMENTAL PROTECTION AGENCY EN MATIÈRE D'ÉMISSION DE PARTICULES DE BOIS AVEC DU BOIS D'ESSAI NORMALISÉ (CRIB WOOD). TESTÉ ET HOMOLOGUÉSELON LA MÉTHODE 28R, E2780-10,E2515-11. MODÈLE REGENCY F5200 – 0,84 G/H. CET APPAREIL DE CHAUFFAGE AU BOIS DOIT ÊTRE INSPECTÉ PÉRIODIQUEMENT ET RÉPARÉ POUR FONCTIONNER CORRECTEMENT. CONSULTER LE MANUEL D'INSTALLATION POUR PLUS D'INFORMATION. LA RÉGLEMENTATION FÉDÉRALE INTERDIT DE FAIRE FONCTIONNER UN TEL APPAREIL SI LES CONSIGNES D'UTILISATION CONTENUES DANS LE PRÉSENT MANUEL NE SONT PAS RESPECTÉES.

INSTALL AND USE ONLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION AND OPERATING INSTRUCTIONS. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION IN YOUR AREA. USE 8"(203 MM) DIAMETER MINIMUM 24 MSG BLACK OR 26 MSG BLUED STEEL CONNECTOR WITH LISTED UL103 HT FACTORY-BUILT CHIMNEY SUITABLE FOR USE WITH SOLID FUELS OR MASONRY CHIMNEY. DOUBLE WALL CONNECTOR ONLY.
SEE LOCAL BUILDING CODE AND MANUFACTURER'S INSTRUCTIONS FOR PRECAUTIONS REQUIRED FOR PASSING A CHIMNEY THROUGH A COMBUSTIBLE WALL OR CEILING. DO NOT PASS CHIMNEY CONNECTOR THROUGH COMBUSTIBLE WALL OR CEILING. DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.
CAUTION: BURNING OF MATERIAL OTHER THAN THE SPECIFIED FUELS MAY MAKE THE CATALYST IN THE COMBUSTOR INACTIVE. THE COMBUSTOR IS FRAGILE, HANDLE CAREFULLY.
THE PERFORMANCE OF THE CATALYTIC DEVICE OR ITS' DURABILITY HAS NOT BEEN EVALUATED AS PART OF THE CERTIFICATION.
INSTALLER ET UTILISER SEULEMENT SELON LES INSTRUCTIONS D'INSTALLATION ET D'UTILISATION DU FABRICANT.
CONTACTER LES RESPONSABLES DU BÂTIMENT OU DU SERVICE-INCENDIE DE VOTRE RÉGION POUR CONNAÎTRE LES RESTRICTIONS ET EXIGENCES D'INSPECTION DANS VOTRE RÉGION. UTILISER UN CONNECTEUR D'UN DIAMÈTRE MINIMAL DE 203 MM (8 PO) 24 MSG EN ACIER NOIR OU 26 MSG EN ACIER BRONZÉ AVEC CHEMINÉE PRÉFABRIQUÉE HOMOLOGUÉE
CONÇUE POUR UTILISATION AVEC COMBUSTIBLES SOLIDES OU UNE CHEMINÉE DE MAÇONNERIE.
VOIR LE CODE DU BÂTIMENT LOCAL ET LES INSTRUCTIONS DU FABRICANT CONCERNANT LES PRÉCAUTIONS EXIGÉES POUR INSTALLER UNE CHEMINÉE TRAVERSANT UN MUR OU PLAFOND EN MATÉRIAUX COMBUSTIBLES. NE FAITES PAS TRAVERSER LE CONNECTEUR DE CHEMINÉE DANS UN MUR OU PLAFOND EN MATÉRIAUX COMBUSTIBLES. NE RACCORDEZ PAS CE POÊLE À BOIS À UN CONDUIT DE CHEMINÉE DESSERVANT UN AUTRE APPAREIL.
CERTIFICATION DU MAISON MOBILE, APPAREIL DE CHAUFFAGE AMBIANT HOMOLOGUÉ À COMBUSTIBLE SOLIDE, CONVENANT AUSSI POUR INSTALLATION DANS UNE MAISON MOBILE.

MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS	
INSTALLATION USING 8" LISTED DOUBLE WALL CONNECTOR ONLY: RESIDENTIAL, ALCOVE, MOBILE HOME	
To Top of stove: A) 279mm / 11"	To Flue Centre Line: E) 435mm / 17-1/8"
To Rear Shield: B) 254mm / 10"	To Flue Centre Line: F) 572mm / 22-1/2"
To Corner of Stove: C) 203mm / 8"	Alcove width: G) 1600mm / 63"
To Flue Centre Line: D) 648mm / 25-1/2"	To Top of Flue: H) 152mm / 6"



FLOOR PROTECTION*



In USA:
V 203 mm / 8"
W 406 mm / 16"
X 1143 mm / 45"
Y 1299 mm / 51-1/8"
Z 203 mm / 8"
In Canada:
V 203 mm / 8"
W 450 mm / 18"
X 1143 mm / 45"
Y 1349 mm / 53-1/8"
Z 203 mm / 8"

REGENCY FIREPLACE PRODUCTS

MANUFACTURED BY:
REGENCY FIREPLACE PRODUCTS
6988 VENTURE ST.
DELTA, BC V4G 1H4

MADE IN CANADA/
FABRIQUÉ AU CANADA

MINIMUM PARALLEL / ALCOVE CEILING HEIGHT: 2.1 M / 83"
HAUTEUR MINIMALE DU PLAFOND DE L'ALCÔVE : 2,1 M / 83 PO.

MAXIMUM ALCOVE DEPTH 1219 MM / 48 IN.
PROFONDEUR MAXIMALE DE L'ALCÔVE : 1219MM / 48 PO.

THE SPACE BENEATH THE HEATER MUST NOT BE OBSTRUCTED. OPERATE ONLY WITH FIREBRICKS IN PLACE.
FOR USE WITH SOLID WOOD FUEL ONLY. USE OF OTHER FUELS MAY DAMAGE HEATER AND CREATE A HAZARDOUS CONDITION. DO NOT OBSTRUCT COMBUSTION AIR OPENINGS. OPERATE ONLY WITH FIREBRICKS IN PLACE. RISK OF SMOKE AND FLAME SPILLAGE, OPERATE ONLY WITH DOORS FULLY CLOSED. DO NOT USE GRATE OR ELEVATE FIRE. BUILD WOOD FIRE DIRECTLY ON HEARTH. DO NOT OVERFIRE - IF HEATER OR CHIMNEY CONNECTOR GLOWS YOU ARE OVERFIRING. INSPECT AND CLEAN CHIMNEY AND CONNECTOR FREQUENTLY. UNDER CERTAIN CONDITIONS OF USE CREOSOTE BUILDUP MAY OCCUR RAPIDLY. KEEP FURNISHINGS AND OTHER COMBUSTIBLE MATERIAL AWAY FROM HEATER. REPLACE GLASS ONLY WITH NEOCERAM GLASS. COMBUSTIBLE FLOOR MUST BE PROTECTED BY NON-COMBUSTIBLE MATERIAL EXTENDING BENEATH THE HEATER AND TO THE FRONT AND SIDES AS INDICATED OR TO THE NEAREST PERMITTED COMBUSTIBLE MATERIAL.
OPTIONAL COMPONENTS: FAN (846-515), ELECTRICAL RATING: VOLTS 115, 60 HZ, 2 AMPS., AIRMATE, OUTSIDE AIR KIT, ASH DRAWER, COMBUSTOR PART #051-530
THIS WOOD HEATER CONTAIN A CATALYTIC COMBUSTOR WHICH REQUIRES PERIODIC INSPECTION AND REPLACEMENT FOR PROPER OPERATION. IT IS AGAINST THE LAW TO OPERATE THIS WOOD HEATER IN A MANNER INCONSISTENT WITH OPERATING INSTRUCTIONS IN INSTRUCTION MANUAL, OR IF THE CATALYTIC ELEMENT IS DEACTIVATED OR REMOVED.
DANGER: RISK OF ELECTRIC SHOCK. DISCONNECT POWER BEFORE SERVICING UNIT. DO NOT ROUTE POWER CORD UNDER OR IN FRONT OF APPLIANCE.
CAUTION: MOVING PARTS MAY CAUSE INJURY. DO NOT OPERATE UNIT WITH FAN HOSING REMOVED.
CAUTION: HOT PARTS. DO NOT OPERATE UNIT WITH DOOR OR GLASS REMOVED.
COMPONENTS REQUIRED FOR MOBILE HOME INSTALLATION: OUTSIDE AIR KIT AND ONE OF THE FOLLOWING DOUBLE WALL CONNECTOR
IN CANADA: LISTED SECURITY MODEL DP, OR OLIVER MACLEOD PRO-VENT PV DOUBLE WALLED CONNECTOR WITH LISTED CHIMNEY SYSTEM: LISTED SECURITY MODEL SECURITY S2100+, ICC EXCEL 2100, SIMPSON DURA-PLUS HTC, SELKIRK SENTINAL CF.
IN USA: LISTED DOUBLE WALL CONNECTORS SECURITY MODEL DP, SELKIRK MODEL DS, OLIVER MACLEOD PRO VENT PV, SIMPSON DURA VENT MODEL DVL, METAL-FAB DOUBLE WALL. CONNECTED TO ONE OF THE FOLLOWING COMPATIBLE CHIMNEY SYSTEMS SELKIRK SURE-TEMP, PROJET Nova Temp, SECURITY SECURE TEMP ASH+, SECURITY SECURE TEMP S-2100+, METAL-FAB TEMP/GUARD 2100, AMERI-TEC HS, ICC EXCEL 2100 . USE CHIMNEY COMPONENTS AS SPECIFIED IN INSTALLATION INSTRUCTIONS.
TO BE INSTALLED AS A FREESTANDING ROOM HEATER WITH THE CLEARANCES IN THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. NOT TO BE INSTALLED IN ANY FIREPLACE.
L'ESPACE SOUS LE CHAUFFAGE NE DOIT PAS ÊTRE OBSTRUÉ. UTILISER SEULEMENT AVES DES BRIQUES RÉFRACTAIRES EN PLACE.
À UTILISER AVEC DU COMBUSTIBLE SOLIDE SEULEMENT. L'UTILISATION D'AUTRES COMBUSTIBLES PEUT ENDOMMAGER LE POÊLE ET CRÉER DES CONDITIONS DANGEREUSES. NE PAS OBSTRUER LES OUVERTURES DE L'AIR DE COMBUSTION. UTILISER SEULEMENT AVES DES BRIQUES RÉFRACTAIRES EN PLACE. RISQUE DE PROPAGATION DE LA FUMÉE ET DES FLAMMES, NE FAIRE FONCTIONNER L'APPAREIL QU'AVEC LES PORTES COMPLÈTEMENT FERMÉES. NE PAS UTILISER DE GRILLE NI SURÉLEVER LE FEU. FAIRE UN FEU DE BOIS DIRECTEMENT SUR L'ÂTRE. NE PAS SURCHAUFFER – SI LE POÊLE OU LE CONNECTEUR DE CHEMINÉE ROUGEOIT, L'APPAREIL SURCHAUFFE. INSPECTER ET NETTOYER FRÉQUEMMENT LA CHEMINÉE ET LE CONNECTEUR. SOUS CERTAINES CONDITIONS D'UTILISATION, UN DÉPÔT DE CRÉOSOTE PEUT SE FORMER RAPIDEMENT. GARDER LES MEUBLES ET AUTRES MATÉRIAUX COMBUSTIBLES À DISTANCE DU POÊLE. REMPLACER LA VITRE SEULEMENT PAR DE LA VITROCÉRAMIQUE. LE PLANCHER COMBUSTIBLE DOIT ÊTRE PROTÉGÉ PAR DES MATÉRIAUX NON COMBUSTIBLES DÉPASSANT AU-DESSOUS, DEVANT ET SUR LES CÔTÉS DU POÊLE, TEL QU'INDIQUÉ, OU JUSQU'AU MATÉRIAU COMBUSTIBLE AUTORISÉ LE PLUS PROCHE.
PIÈCES EN OPTION : VENTILATEUR (846-515), PUISSANCE ÉLECTRIQUE : 115 VOLTS, 60 HZ, 2 A, DIFFUSEUR AIRMATE, KIT DE PRISE D'AIR EXTÉRIEUR, TIROIR À CENDRES, CHAMBRE DE COMBUSTION PIÈCE Nº 051-530.
CET APPAREIL AU BOIS CONTIENT UN CATALYSEUR DE POSTCOMBUSTION QUI NÉCESSITE D'ÊTRE INSPECTÉ ET REMPLACÉ PÉRIODIQUEMENT POUR UN BON FONCTIONNEMENT OPTIMAL. LA RÉGLEMENTATION FÉDÉRALE INTERDIT DE FAIRE FONCTIONNER UN TEL APPAREIL SI LES CONSIGNES D'UTILISATION CONTENUES DANS LE MANUEL NE SONT PAS RESPECTÉES OU SI L'ÉLÉMENT CATALYTIQUE EST DÉSACTIVÉ OU RETIRÉ.
DANGER : RISQUE D'ÉLECTROCUTION. AVANT DE RÉALISER L'ENTRETIEN, DÉBRANCHER L'APPAREIL. NE PAS PLACER LE CORDON D'ALIMENTATION EN FACE OU EN DESSOUS DE L'APPAREIL.
ATTENTION : LE DÉPLACEMENT DE PIÈCES PEUT CAUSER DES BLESSURES. NE JAMAIS METTRE EN MARCHE L'APPAREIL LORSQUE LE LOGEMENT DU VENTILATEUR EST ENLEVÉ.
ATTENTION : PIÈCES CHAUDES. NE JAMAIS FAIRE FONCTIONNER L'APPAREIL SI LA PORTE VITRÉE N'EST PAS BIEN EN PLACE.
PIÈCES REQUISES POUR INSTALLATION DANS UNE MAISON MOBILE : KIT DE PRISE D'AIR EXTÉRIEUR ET UN DES CONNECTEURS DE CHEMINÉE À DOUBLE PAROI SUIVANTS :
AU CANADA: CONNECTEURS DE CHEMINÉE HOMOLOGUÉS À DOUBLE PAROI MODÈLE DP, OU CONNECTEUR OLIVER MACLEOD PRO-VENT PV À DOUBLE PAROI AVEC SYSTÈME DE CHEMINÉE HOMOLOGUÉ : MODÈLE DE SÉCURITÉ SECURITY S2100+, ICC EXCEL 2100, SIMPSON DURA-PLUS HTC, SELKIRK SENTINAL CF.
AUX ÉTATS-UNIS : CONNECTEURS DE CHEMINÉE HOMOLOGUÉS À DOUBLE PAROI: SECURITY MODEL DP, SELKIRK MODEL DS, OLIVER MACLEOD PRO VENT PV, SIMPSON DURA VENT MODEL DVL, METAL-FAB DOUBLE WALL. CONNECTÉ À L'UN DES SYSTÈMES DE CHEMINÉE COMPATIBLES SUIVANTS : SELKIRK SURE-TEMP, PROJET Nova Temp, SECURITY SECURE TEMP ASH+, SECURITY SECURE TEMP S-2100+, METAL-FAB TEMP/GUARD 2100, AMERI-TEC HS, ICC EXCEL 2100 .
UTILISER L'APPAREIL AUTOPORTANT AVEC LES DÉGAGEMENTS SPÉCIFIÉS DANS LES CONSIGNES D'INSTALLATION. NE PAS INSTALLER DANS UN FOYER.

DATE OF MANUFACTURE/DATE DE FABRICATION
JAN ☐ FEB ☐ MAR ☐ APR ☐ MAY ☐ JUN ☐ JUL ☐ AUG ☐ SEPT ☐ OCT ☐ NOV ☐ DEC ☐
2023 ◯ 2024 ◯ 2025 ◯ 2026 ◯ 2027 ◯

CAUTION

HOT WHILE IN OPERATION DO NOT TOUCH. KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS. READ NAMEPLATE AND INSTRUCTIONS.

ATTENTION

CHAUD EN COURS DE FONCTIONNEMENT. NE PAS TOUCHER. ÉLOIGNER LES ENFANTS, LES VÊTEMENTS ET LES MEUBLES DE L'APPAREIL. LE CONTACT AVEC L'APPAREIL PEUT OCCASIONNER DES BRÛLURES. LIRE CETTE ÉTIQUETTE ET LES CONSIGNES.

920-722

Part #: 920-722

Size: 11- 9/16" H x 5-3/4" W (File at 100%)
Color: Everything printed black on grey except what is indicated is printed red on grey.
Material: 2 ml silver matt polyester (DPM SMS)

July 20/23: Created draft.

Established 1974

QUALITY CONTROL SERVICES

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2340 SE 11TH Ave. Portland, Oregon 97214 • Box 14831 Portland, Oregon 97293

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A2LA ACCREDITED
CERTIFICATE #1550.01

PFS Teco
11785 SE Hwy 212 STE#305
Clackamas, OR 97015

Report Number: DIRI0182484A0912013i221214

A2LA ACCREDITED
CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Scale	Digiweigh	DWP12i 300kg x 0.	82484A0912013i	#050	Lab
Units	**Readability**	**SOP**	**Cal Date**	**Last Cal Date**	**Cal Due Date**
kg	0.01	QC033	12/14/22	1/27/22	12/2023

FUNCTIONAL CHECKS

SHIFT TEST	LINEARITY	REPEATABILITY	ENVIRONMENTAL CONDITIONS
Test Wt: 100 Tol: 0.05	Test Wt: HB44 Tol: HB44	Test Wt: 100 Tol: 0.01	☐ Good ☑ Fair ☐ Poor
As-Found: Pass:☑ Fail:☐	As-Found: Pass:☑ Fail:☐	As-Found: Pass:☑ Fail:☐	
As-Left: Pass:☑ Fail:☐	As-Left: Pass:☑ Fail:☐	As-Left: Pass:☑ Fail:☐	Temperature: 18.6°C

CALIBRATION DATA

Standard	As-Found	As-Left	Expanded Uncertainty
200	200.00	200.00	0.005
120	100.00	100.00	0.005
80	80.00	80.00	0.005
40	40.00	40.00	0.005
20	20.00	20.00	0.005
10	10.00	10.00	0.005

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.L./Troemner	10kg to 1mg	G782	4/14/22	4/2023	20220751
Weight Set	Rice Lake	.001 to 10lb	PW0990	1/19/21	1/2023	20202519

Permanent Information Concerning this Equipment:

Comments/Information Concerning this Calibration

12/22: RH-46.7%

Report prepared/reviewed by: KD **Date:** 12/14/22 **Technician:** Ke Dexter

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Dry Gas Meter Calibration

DUT	
Manufacturer:	APEX
Model:	XC-60
Lab ID #:	53
Serial #:	1902130
Calibration Date:	8/2/2023
Calibration Expiration:	2/2/2024
Barometric Pressure:	29.96 in. Hg

Equipment Used:	Ref. Std. DGM	Thermometer	Barometer	Manometer
Manufacturer:	Apex	Fluke	Aquatech	Dwyer
Model:	SK25DA	52 II	DBX2	475
Lab ID#:	47	196	202	174
Calibration Expiration Date:	4/17/2024	11/29/2023	5/23/2024	4/21/2024
Calibration γ Factor:	0.9988			

Use in accordance with EPA Method 5, sections 10.3 and 16.1. Use only calibrated, NIST traceable reference standard DGM. Caibrate over expected operating flow range of DUT.

Calibration Data	Run 1	Run 2	Run 3
Standard DGM Initial Volume (L)	0.000	0.000	0.000
Standard DGM Final Volume (L)	177.098	365.328	139.901
Standard DGM Temperature (°F)	75.0	78.0	78.0
Standard DGM Pressure (in H_2O)	0.00	0.00	0.0
DGM Initial Volume (ft^3)	0.000	0.000	0.000
DGM Final Volume (ft^3)	6.200	13.217	5.120
DGM Temperature (°F)	81.0	97.0	99.0
DGM Pressure (in H_2O)	3.09	2.25	1.9
Net Volume for Standard DGM (ft^3)	6.254	12.901	4.941
Net Volume for DGM (ft^3)	6.200	13.217	5.120

Dry Gas Meter γ Factor	1.011	1.004	0.997
γ Factor Deviation From Average	1.011	1.004	0.997

Average Gas Meter γ Factor: 1.004

Measurement Uncertainty: Total measurement uncertainty +/- 0.748% RD, K=2

Calculations:

1. Deviation = |Average value for all runs - current run value|
2. $\gamma = [V_{std} \times (\gamma_{Std}) \times (P_{bar}+P_{std}/13.6) \times (T_{DGM} + 460)] / [V_{DGM} \times (T_{std} + 460) \times (P_{bar} + P_{DGM}/ 13.6)]$

Report and Certificate of Calibration

CAL-CERT CALIBRATION CERTIFICATION

www.Cal-Cert.com

Toll Free 800-356-4662

Address 5777 SE International Way Milwaukie, OR 97222

Local 503-654-9620

A2LA ACCREDITED CERT #4986.01

Report #:	28140-203323-14	**Customer PO#:** 1090	
Customer Name:	PFS TECO		
Customer Address:	11785 SE Highway 212 Ste 305		
City:	Clackamas	**State:** OR	**Zip:** 97015
Contact:	Aaron Kravitz		
Service Address:	11785 SE Highway 212 Ste 305	Clackamas, OR 97015	

Calibration Standards

19-00269 | Thermo-Hygrometer | Comark | SN: 6237360167 | Cal: 09/14/2022 | Due: 08/31/2023 | Vendor: Cal-Cert | Range: 122 °F 95 %RH | Report #: 25699-30694-3486
LA-01776 | Pressure Transducer | Fluke | SN: 5956001 | Cal: 11/25/2022 | Due: 11/25/2023 | Range: 10 in H2O | Report #: EVL846346

Instrument Data

Calibration Date:	March 1, 2023	**Reference:**	ASME B40.100
Recommended Due Date:	March 1, 2024	**Cal-Cert Procedure:**	CP-003
Calibration Frequency:	12 Months	**Indicating System:**	Digital
Manufacturer:	Unknown	**Temperature:**	69 °F
Type:	Pressure Transducer	**Humidity:**	36% RH
Model Number:	Unknown	**Cal Factor:**	None
Serial #:	Unknown	**Asset #:**	53B
Capacity:	1 In H2O	**Service Location:**	Service Address
Tolerance:	± 1.00% of Span	**As Found:**	Pass
Gauge Class:	A	**As Left:**	Pass

Instrument Range: 1.00 **Range Resolution:** 0.01 **Mode Verified:** Pressure

UUT Reading In H2O	Standard As Found In H2O	Standard Verification Reading #1 In H2O	Error In H2O	Standard Verification Reading #2 In H2O	Error In H2O	Tolerance In H2O	Expanded Uncertainty ± In H2O
0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.005
0.10	0.10	0.10	0.00	0.10	0.00	0.01	0.005
0.25	0.25	0.25	0.00	0.25	0.00	0.01	0.005
0.50	0.50	0.50	0.00	0.50	0.00	0.01	0.005
0.75	0.75	0.75	0.00	0.75	0.00	0.01	0.005
1.00	1.00	1.00	0.00	1.00	0.00	0.01	0.005
0.75	0.75	0.75	0.00	0.75	0.00	0.01	0.005
0.50	0.50	0.50	0.00	0.50	0.00	0.01	0.005
0.25	0.25	0.25	0.00	0.25	0.00	0.01	0.005
0.10	0.10	0.10	0.00	0.10	0.00	0.01	0.005
0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.005

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Manufacturer: Unknown **Type:** Pressure Transducer **Serial #:** Unknown

Remarks:

We sincerely thank you for your business. Please call us at 503-654-9620 for all your sales and calibration needs.
Cleaning and preventative maintenance were performed as part of this service.

Cal-Cert is accredited by A2LA under Calibration Laboratory Code #4986.01.
A2LA is recognized under the ILAC mutual recognition agreement (MRA).

This certificate is hereby issued that the above instrument was tested for accuracy with calibrated standards traceable to the National Institute of Standards and Technology (NIST). The information provided on this form complies with the data gathering and reporting requirements of ISO/IEC 17025 and ANSI/NCSL Z540.1, and meets the requirements of all applicable references and Cal-Cert procedures listed above.
Any stated measurement uncertainty includes the uncertainty of the Calibration standards used, combined with the uncertainty of the measurement process using the RSS method with a k=2 for an approximate 95% level of confidence. The calibration process meets or exceeds a ratio of 4:1 unless otherwise stated.
All tolerances were derived from the applicable standards and pass/fail determination is based on those tolerances. The customer determined any recommended due dates indicated on the certificate.

This report shall not be reproduced except in full, without written approval from Cal-Cert.

Service Engineer: Jon Rau **Date:** March 1, 2023

Technical Manager: Marshall Doyle **Signature:** 

Report #: 28140-203323-14

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Report and Certificate of Calibration

CAL-CERT CALIBRATION CERTIFICATION

www.Cal-Cert.com

Toll Free 800-356-4662

Address 5777 SE International Way Milwaukie, OR 97222

Local 503-654-9620

A2LA ACCREDITED CERT #4986.01

Report #:	28140-203324-14	**Customer PO#:** 1090	
Customer Name:	PFS TECO		
Customer Address:	11785 SE Highway 212 Ste 305		
City:	Clackamas	**State:** OR	**Zip:** 97015
Contact:	Aaron Kravitz		
Service Address:	11785 SE Highway 212 Ste 305	Clackamas, OR 97015	

Calibration Standards

19-00269 | Thermo-Hygrometer | Comark | SN: 6237360167 | Cal: 09/14/2022 | Due: 08/31/2023 | Vendor: Cal-Cert | Range: 122 °F 95 %RH | Report #: 25699-30694-3486
LA-01776 | Pressure Transducer | Fluke | SN: 5956001 | Cal: 11/25/2022 | Due: 11/25/2023 | Range: 10 in H2O | Report #: EVL846346

Instrument Data

Calibration Date:	March 1, 2023	**Reference:**	ASME B40.100
Recommended Due Date:	March 1, 2024	**Cal-Cert Procedure:**	CP-003
Calibration Frequency:	12 Months	**Indicating System:**	Digital
Manufacturer:	Newport	**Temperature:**	73 °F
Type:	Pressure Transducer	**Humidity:**	30% RH
Model Number:	Unknown	**Cal Factor:**	None
Serial #:	Unknown	**Asset #:**	53C
Capacity:	5 In H2O	**Service Location:**	Service Address
Tolerance:	± 1.00% of Span	**As Found:**	Pass
Gauge Class:	A	**As Left:**	Pass

Instrument Range: 5.00 **Range Resolution:** 0.01 **Mode Verified:** Pressure

UUT Reading In H2O	Standard As Found In H2O	Standard Verification Reading #1 In H2O	Error In H2O	Standard Verification Reading #2 In H2O	Error In H2O	Tolerance In H2O	Expanded Uncertainty ± In H2O
0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.005
0.50	0.50	0.50	0.00	0.50	0.00	0.05	0.005
1.25	1.25	1.25	0.00	1.25	0.00	0.05	0.005
2.50	2.50	2.50	0.00	2.50	0.00	0.05	0.006
3.75	3.75	3.75	0.00	3.75	0.00	0.05	0.007
5.00	5.00	5.00	0.00	5.00	0.00	0.05	0.008
3.75	3.75	3.75	0.00	3.75	0.00	0.05	0.007
2.50	2.50	2.50	0.00	2.50	0.00	0.05	0.006
1.25	1.25	1.25	0.00	1.25	0.00	0.05	0.005
0.50	0.50	0.50	0.00	0.50	0.00	0.05	0.005
0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.005

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Manufacturer: Newport **Type:** Pressure Transducer **Serial #:** Unknown

Remarks:

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Service Engineer: Jon Rau **Date:** March 1, 2023

Technical Manager: Marshall Doyle **Signature:** 

Report #: 28140-203324-14

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A2LA ACCREDITED CERT #4986.01

Report #: 26398-201253-5 **Customer PO#:** 1079
Customer Name: PFS TECO
Customer Address: 11785 SE Highway 212
City: Clackamas **State:** OR **Zip:** 97015
Contact: Ethan Frederick
Service Address: 5777 SE International Way Milwaukie, OR 97222

Calibration Standards

LP-00397 | Gage Block Set | Mitutoyo | SN: 509020 | Cal: 11/25/2020 | Due: 11/30/2022 | Vendor: BHD Test and Measurement | Report #: 112520A
LP-01346 | Thermo-Hygrometer | Comark | SN: 06210350198 | Cal: 02/07/2022 | Due: 02/28/2023 | Vendor: Cal-Cert | Range: 122 °F 95 %RH | Report #: 22748-67215-3486

Instrument Data

Calibration Date:	October 21, 2022	**Reference:**	ASME B89.1.14 2018
Calibration Due Date:	October 21, 2023	**Cal-Cert Procedure:**	CP-008
Calibration Frequency:	12 Months	**Indicating System:**	Digital
Manufacturer:	Mitutoyo	**Temperature:**	69 °F
Type:	Digital Caliper	**Humidity:**	38% RH
Model Number:	CD-P6"S	**Asset #:**	208
Serial #:	B22159310	**Service Location:**	Cal-Cert Lab
Capacity:	6 Inches	**As Found:**	PASS
Resolution:	0.0005 Inches	**As Left:**	PASS

Instrument Range: 6.0000 Inches **Range Resolution:** 0.0005 Inches

Outside Jaws / Linearity

Calibration Standard Inches	As Found Inches	As Left Reading 1 Inches	As Left Reading 2 Inches	Tolerance ± Inches
0.0000	0.0000	0.0000	0.0000	0.0000
0.0500	0.0500	0.0500	0.0500	0.0010
0.3000	0.3000	0.3000	0.3000	0.0010
0.6000	0.6005	0.6005	0.6005	0.0010
1.2000	1.2000	1.2000	1.2000	0.0010
2.4000	2.4005	2.4005	2.4005	0.0010
3.5000	3.5000	3.5000	3.5000	0.0010
5.0000	5.0005	5.0005	5.0005	0.0010
6.0000	6.0005	6.0005	6.0005	0.0010

Expanded Uncertainty ± 0.00036 Inches

Verifications (for information only)

	Target	Measured	Tolerance ±
Resolution Check	0.1005	0.10050	N/A
Depth	1.000	1.00000	N/A
Step	1.000	1.00000	N/A
Inside Jaws	1.000	1.00000	N/A

Inspections

Jaws Parallel	Acceptable

Remarks:

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Service Engineer: Cameron Walling **Date:** October 21, 2022

Technical Manager: Marshall Doyle **Signature:** Marshall Doyle

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Dry Gas Meter Calibration

DUT	
Manufacturer:	APEX
Model:	XC-60
Lab ID #:	54
Serial #:	1902133
Calibration Date:	8/2/2023
Calibration Expiration:	2/2/2024
Barometric Pressure:	29.88 in. Hg

Equipment Used:	Ref. Std. DGM	Thermometer	Barometer	Manometer
Manufacturer:	Apex	Fluke	Aquatech	Dwyer
Model:	SK25DA	52 II	DBX2	475
Lab ID#:	47	196	202	174
Calibration Expiration Date:	4/17/2024	11/29/2023	5/23/2024	4/21/2024
Calibration γ Factor:	0.9988			

Use in accordance with EPA Method 5, sections 10.3 and 16.1. Use only calibrated, NIST traceable reference standard DGM. Caibrate over expected operating flow range of DUT.

Calibration Data	Run 1	Run 2	Run 3
Standard DGM Initial Volume (L)	0.000	0.000	0.000
Standard DGM Final Volume (L)	359.264	410.313	150.574
Standard DGM Temperature (°F)	73.0	75.0	77.0
Standard DGM Pressure (in H_2O)	0.00	0.00	0.0
DGM Initial Volume (ft^3)	0.000	0.000	0.000
DGM Final Volume (ft^3)	12.737	14.948	5.485
DGM Temperature (°F)	85.0	93.0	101.0
DGM Pressure (in H_2O)	2.98	1.57	2.3
Net Volume for Standard DGM (ft^3)	12.687	14.490	5.317
Net Volume for DGM (ft^3)	12.737	14.948	5.485

Dry Gas Meter γ Factor	1.010	0.997	1.006
γ Factor Deviation From Average	1.010	0.997	1.006

Average Gas Meter γ Factor: 1.004

Measurement Uncertainty: Total measurement uncertainty +/- 0.748% RD, K=2

Calculations:

1. Deviation = |Average value for all runs - current run value|
2. $\gamma = [V_{std} \times (\gamma_{Std}) \times (P_{bar}+P_{std}/13.6) \times (T_{DGM} + 460)] / [V_{DGM} \times (T_{std} + 460) \times (P_{bar} + P_{DGM}/ 13.6)]$

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Local 503-654-9620

A2LA ACCREDITED CERT #4986.01

Report #:	28140-203325-14	**Customer PO#:** 1090	
Customer Name:	PFS TECO		
Customer Address:	11785 SE Highway 212 Ste 305		
City:	Clackamas	**State:** OR	**Zip:** 97015
Contact:	Aaron Kravitz		
Service Address:	11785 SE Highway 212 Ste 305	Clackamas, OR 97015	

Calibration Standards

19-00269 | Thermo-Hygrometer | Comark | SN: 6237360167 | Cal: 09/14/2022 | Due: 08/31/2023 | Vendor: Cal-Cert | Range: 122 °F 95 %RH | Report #: 25699-30694-3486
LA-01776 | Pressure Transducer | Fluke | SN: 5956001 | Cal: 11/25/2022 | Due: 11/25/2023 | Range: 10 in H2O | Report #: EVL846346

Instrument Data

Calibration Date:	March 1, 2023	**Reference:**	ASME B40.100
Recommended Due Date:	March 1, 2024	**Cal-Cert Procedure:**	CP-003
Calibration Frequency:	12 Months	**Indicating System:**	Digital
Manufacturer:	Newport	**Temperature:**	68 °F
Type:	Pressure Transducer	**Humidity:**	37% RH
Model Number:	Unknown	**Cal Factor:**	None
Serial #:	Unknown	**Asset #:**	54B
Capacity:	1 In H2O	**Service Location:**	Service Address
Tolerance:	± 1.00% of Span	**As Found:**	Pass
Gauge Class:	A	**As Left:**	Pass

Instrument Range: 1.00 **Range Resolution:** 0.01 **Mode Verified:** Pressure

UUT Reading In H2O	Standard As Found In H2O	Standard Verification Reading #1 In H2O	Error In H2O	Standard Verification Reading #2 In H2O	Error In H2O	Tolerance In H2O	Expanded Uncertainty ± In H2O
0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.005
0.10	0.10	0.10	0.00	0.10	0.00	0.01	0.005
0.25	0.25	0.25	0.00	0.25	0.00	0.01	0.005
0.50	0.50	0.50	0.00	0.50	0.00	0.01	0.005
0.75	0.75	0.75	0.00	0.75	0.00	0.01	0.005
1.00	0.99	0.99	-0.01	0.99	-0.01	0.01	0.005
0.75	0.75	0.75	0.00	0.75	0.00	0.01	0.005
0.50	0.50	0.50	0.00	0.50	0.00	0.01	0.005
0.25	0.25	0.25	0.00	0.25	0.00	0.01	0.005
0.10	0.10	0.10	0.00	0.10	0.00	0.01	0.005
0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.005

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Manufacturer: Newport **Type:** Pressure Transducer **Serial #:** Unknown

Remarks:

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Service Engineer: Jon Rau **Date:** March 1, 2023

Technical Manager: Marshall Doyle **Signature:** 

Report #: 28140-203325-14

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Dry Gas Meter Calibration

DUT	
Manufacturer:	APEX
Model:	XC-50-DIR
Lab ID #:	203
Serial #:	A2204292
Calibration Date:	8/2/2023
Calibration Expiration:	2/2/2024
Barometric Pressure:	29.95 in. Hg

Equipment Used:	Ref. Std. DGM	Thermometer	Barometer	Manometer
Manufacturer:	Apex	Fluke	Aquatech	Dwyer
Model:	SK25DA	52 II	DBX2	475
Lab ID#:	47	196	202	174
Calibration Expiration Date:	4/17/2024	11/29/2023	5/23/2024	4/21/2024
Calibration γ Factor:	0.9988			

Use in accordance with EPA Method 5, sections 10.3 and 16.1. Use only calibrated, NIST traceable reference standard DGM. Caibrate over expected operating flow range of DUT.

Calibration Data	Run 1	Run 2	Run 3
Standard DGM Initial Volume (L)	0.000	0.000	0.000
Standard DGM Final Volume (L)	145.280	144.545	148.847
Standard DGM Temperature (°F)	78.0	79.0	79.0
Standard DGM Pressure (in H_2O)	0.00	0.00	0.0
DGM Initial Volume (ft^3)	0.000	0.000	0.000
DGM Final Volume (ft^3)	5.087	5.161	5.355
DGM Temperature (°F)	85.0	93.0	96.0
DGM Pressure (in H_2O)	2.33	1.17	0.9
Net Volume for Standard DGM (ft^3)	5.131	5.105	5.256
Net Volume for DGM (ft^3)	5.087	5.161	5.355

Dry Gas Meter γ Factor	1.015	1.011	1.009
γ Factor Deviation From Average	1.015	1.011	1.009

Average Gas Meter γ Factor: 1.011

Measurement Uncertainty: Total measurement uncertainty +/- 0.748% RD, K=2

Calculations:

1. Deviation = |Average value for all runs - current run value|
2. $\gamma = [V_{std} \times (\gamma_{Std}) \times (P_{bar}+P_{std}/13.6) \times (T_{DGM} + 460)] / [V_{DGM} \times (T_{std} + 460) \times (P_{bar} + P_{DGM}/ 13.6)]$

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Local 503-654-9620

A2LA ACCREDITED CERT #4986.01

Report #:	28140-203319-14	**Customer PO#:** 1090	
Customer Name:	PFS TECO		
Customer Address:	11785 SE Highway 212 Ste 305		
City:	Clackamas	**State:** OR	**Zip:** 97015
Contact:	Aaron Kravitz		
Service Address:	11785 SE Highway 212 Ste 305	Clackamas, OR 97015	

Calibration Standards

19-00269 | Thermo-Hygrometer | Comark | SN: 6237360167 | Cal: 09/14/2022 | Due: 08/31/2023 | Vendor: Cal-Cert | Range: 122 °F 95 %RH | Report #: 25699-30694-3486
LA-01776 | Pressure Transducer | Fluke | SN: 5956001 | Cal: 11/25/2022 | Due: 11/25/2023 | Range: 10 in H2O | Report #: EVL846346

Instrument Data

Calibration Date:	March 1, 2023	**Reference:**	ASME B40.100
Recommended Due Date:	March 1, 2024	**Cal-Cert Procedure:**	CP-003
Calibration Frequency:	12 Months	**Indicating System:**	Digital
Manufacturer:	Red Lion	**Temperature:**	69 °F
Type:	Pressure Transducer	**Humidity:**	35% RH
Model Number:	Unknown	**Cal Factor:**	None
Serial #:	Unknown	**Asset #:**	203B
Capacity:	1 In H2O	**Service Location:**	Service Address
Tolerance:	± 1.00% of Span	**As Found:**	Pass
Gauge Class:	A	**As Left:**	Pass

Instrument Range: 1.00 **Range Resolution:** 0.001 **Mode Verified:** Pressure

UUT Reading In H2O	Standard As Found In H2O	Standard Verification Reading #1 In H2O	Error In H2O	Standard Verification Reading #2 In H2O	Error In H2O	Tolerance In H2O	Expanded Uncertainty ± In H2O
0.000	0.000	0.000	0.00	0.000	0.00	0.01	0.0005
0.100	0.100	0.100	0.00	0.100	0.00	0.01	0.0005
0.250	0.250	0.250	0.00	0.250	0.00	0.01	0.0006
0.500	0.500	0.500	0.00	0.500	0.00	0.01	0.0008
0.750	0.750	0.750	0.00	0.750	0.00	0.01	0.001
1.000	1.000	1.000	0.00	1.000	0.00	0.01	0.0012
0.750	0.750	0.750	0.00	0.750	0.00	0.01	0.001
0.500	0.500	0.500	0.00	0.500	0.00	0.01	0.0008
0.250	0.250	0.250	0.00	0.250	0.00	0.01	0.0006
0.100	0.100	0.100	0.00	0.100	0.00	0.01	0.0005
0.000	0.000	0.000	0.00	0.000	0.00	0.01	0.0005

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Manufacturer: Red Lion **Type:** Pressure Transducer **Serial #:** Unknown

Remarks:

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Technical Manager: Marshall Doyle **Signature:** 

Report #: 28140-203319-14

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A2LA ACCREDITED CERT #4986.01

Report #:	28140-203320-14	**Customer PO#:** 1090	
Customer Name:	PFS TECO		
Customer Address:	11785 SE Highway 212 Ste 305		
City:	Clackamas	**State:** OR	**Zip:** 97015
Contact:	Aaron Kravitz		
Service Address:	11785 SE Highway 212 Ste 305	Clackamas, OR 97015	

Calibration Standards

19-00269 | Thermo-Hygrometer | Comark | SN: 6237360167 | Cal: 09/14/2022 | Due: 08/31/2023 | Vendor: Cal-Cert | Range: 122 °F 95 %RH | Report #: 25699-30694-3486
LA-01776 | Pressure Transducer | Fluke | SN: 5956001 | Cal: 11/25/2022 | Due: 11/25/2023 | Range: 10 in H2O | Report #: EVL846346

Instrument Data

Calibration Date:	March 1, 2023	**Reference:**	ASME B40.100
Recommended Due Date:	March 1, 2024	**Cal-Cert Procedure:**	CP-003
Calibration Frequency:	12 Months	**Indicating System:**	Digital
Manufacturer:	Red Lion	**Temperature:**	73 °F
Type:	Pressure Transducer	**Humidity:**	30% RH
Model Number:	Unknown	**Cal Factor:**	None
Serial #:	Unknown	**Asset #:**	203C
Capacity:	5 In H2O	**Service Location:**	Service Address
Tolerance:	± 1.00% of Span	**As Found:**	Pass
Gauge Class:	A	**As Left:**	Pass

Instrument Range: 5.00 **Range Resolution:** 0.01 **Mode Verified:** Pressure

UUT Reading In H2O	Standard As Found In H2O	Standard Verification Reading #1 In H2O	Error In H2O	Standard Verification Reading #2 In H2O	Error In H2O	Tolerance In H2O	Expanded Uncertainty ± In H2O
0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.005
0.50	0.50	0.50	0.00	0.50	0.00	0.05	0.005
1.25	1.25	1.25	0.00	1.25	0.00	0.05	0.005
2.50	2.50	2.50	0.00	2.50	0.00	0.05	0.006
3.75	3.75	3.75	0.00	3.75	0.00	0.05	0.007
5.00	5.00	5.00	0.00	5.00	0.00	0.05	0.008
3.75	3.75	3.75	0.00	3.75	0.00	0.05	0.007
2.50	2.50	2.50	0.00	2.50	0.00	0.05	0.006
1.25	1.25	1.25	0.00	1.25	0.00	0.05	0.005
0.50	0.50	0.50	0.00	0.50	0.00	0.05	0.005
0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.005

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Manufacturer: Red Lion **Type:** Pressure Transducer **Serial #:** Unknown

Remarks:

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Service Engineer: Jon Rau **Date:** March 1, 2023

Technical Manager: Marshall Doyle **Signature:** 

Report #: 28140-203320-14

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A2LA ACCREDITED CERT #4986.01

Report #:	28140-203326-14	**Customer PO#:** 1090	
Customer Name:	PFS TECO		
Customer Address:	11785 SE Highway 212 Ste 305		
City:	Clackamas	**State:** OR	**Zip:** 97015
Contact:	Aaron Kravitz		
Service Address:	11785 SE Highway 212 Ste 305	Clackamas, OR 97015	

Calibration Standards

19-00269 | Thermo-Hygrometer | Comark | SN: 6237360167 | Cal: 09/14/2022 | Due: 08/31/2023 | Vendor: Cal-Cert | Range: 122 °F 95 %RH | Report #: 25699-30694-3486
LA-01776 | Pressure Transducer | Fluke | SN: 5956001 | Cal: 11/25/2022 | Due: 11/25/2023 | Range: 10 in H2O | Report #: EVL846346

Instrument Data

Calibration Date:	March 1, 2023	**Reference:**	ASME B40.100
Recommended Due Date:	March 1, 2024	**Cal-Cert Procedure:**	CP-003
Calibration Frequency:	12 Months	**Indicating System:**	Digital
Manufacturer:	Newport	**Temperature:**	73 °F
Type:	Pressure Transducer	**Humidity:**	30% RH
Model Number:	Unknown	**Cal Factor:**	None
Serial #:	Unknown	**Asset #:**	54C
Capacity:	5 In H2O	**Service Location:**	Service Address
Tolerance:	± 1.00% of Span	**As Found:**	Pass
Gauge Class:	A	**As Left:**	Pass

Instrument Range: 5.00 **Range Resolution:** 0.01 **Mode Verified:** Pressure

UUT Reading In H2O	Standard As Found In H2O	Standard Verification Reading #1 In H2O	Error In H2O	Standard Verification Reading #2 In H2O	Error In H2O	Tolerance In H2O	Expanded Uncertainty ± In H2O
0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.005
0.50	0.50	0.50	0.00	0.50	0.00	0.05	0.005
1.25	1.25	1.25	0.00	1.25	0.00	0.05	0.005
2.50	2.50	2.50	0.00	2.50	0.00	0.05	0.006
3.75	3.75	3.75	0.00	3.75	0.00	0.05	0.007
5.00	5.00	5.00	0.00	5.00	0.00	0.05	0.008
3.75	3.75	3.75	0.00	3.75	0.00	0.05	0.007
2.50	2.50	2.50	0.00	2.50	0.00	0.05	0.006
1.25	1.25	1.25	0.00	1.25	0.00	0.05	0.005
0.50	0.50	0.50	0.00	0.50	0.00	0.05	0.005
0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.005

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Manufacturer: Newport **Type:** Pressure Transducer **Serial #:** Unknown

Remarks:

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A2LA is recognized under the ILAC mutual recognition agreement (MRA).

This certificate is hereby issued that the above instrument was tested for accuracy with calibrated standards traceable to the National Institute of Standards and Technology (NIST). The information provided on this form complies with the data gathering and reporting requirements of ISO/IEC 17025 and ANSI/NCSL Z540.1, and meets the requirements of all applicable references and Cal-Cert procedures listed above.
Any stated measurement uncertainty includes the uncertainty of the Calibration standards used, combined with the uncertainty of the measurement process using the RSS method with a k=2 for an approximate 95% level of confidence. The calibration process meets or exceeds a ratio of 4:1 unless otherwise stated.
All tolerances were derived from the applicable standards and pass/fail determination is based on those tolerances. The customer determined any recommended due dates indicated on the certificate.

This report shall not be reproduced except in full, without written approval from Cal-Cert.

Service Engineer: Jon Rau **Date:** March 1, 2023

Technical Manager: Marshall Doyle **Signature:** 

Report #: 28140-203326-14

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Dry Gas Meter Calibration

DUT	
Manufacturer:	APEX
Model:	XC-60
Lab ID #:	55
Serial #:	1902130
Calibration Date:	8/4/2023
Calibration Expiration:	2/4/2024
Barometric Pressure:	30.02 in. Hg

Equipment Used:	Ref. Std. DGM	Thermometer	Barometer	Manometer
Manufacturer:	Apex	Fluke	Aquatech	Dwyer
Model:	SK25DA	52 II	DBX2	475
Lab ID#:	47	196	202	174
Calibration Expiration Date:	4/17/2024	11/29/2023	5/23/2024	4/21/2024
Calibration γ Factor:	0.9988			

Use in accordance with EPA Method 5, sections 10.3 and 16.1. Use only calibrated, NIST traceable reference standard DGM. Caibrate over expected operating flow range of DUT.

Calibration Data	Run 1	Run 2	Run 3
Standard DGM Initial Volume (L)	0.000	0.000	0.000
Standard DGM Final Volume (L)	234.129	172.446	304.050
Standard DGM Temperature (°F)	73.0	73.0	75.0
Standard DGM Pressure (in H_2O)	0.00	0.00	0.0
DGM Initial Volume (ft^3)	0.000	0.000	0.000
DGM Final Volume (ft^3)	8.380	6.176	10.856
DGM Temperature (°F)	83.0	82.0	83.0
DGM Pressure (in H_2O)	0.00	0.00	0.0
Net Volume for Standard DGM (ft^3)	8.268	6.090	10.737
Net Volume for DGM (ft^3)	8.380	6.176	10.856

Dry Gas Meter γ Factor	1.004	1.001	1.003
γ Factor Deviation From Average	1.004	1.001	1.003

Average Gas Meter γ Factor: 1.003

Measurement Uncertainty: Total measurement uncertainty +/- 0.748% RD, K=2

Calculations:

1. Deviation = |Average value for all runs - current run value|
2. $\gamma = [V_{std} \times (\gamma_{Std}) \times (P_{bar}+P_{std}/13.6) \times (T_{DGM} + 460)] / [V_{DGM} \times (T_{std} + 460) \times (P_{bar} + P_{DGM}/ 13.6)]$

Report and Certificate of Calibration

CAL-CERT
CALIBRATION CERTIFICATION

Portland Laboratory
5777 SE International Way
Milwaukie, OR 97222
800-356-4662
503-654-9620

Anaheim Laboratory
120 S. Chaparral Ct Suite 110
Anaheim Hills, CA 92808
888-700-4100
714-696-5300

www.Cal-Cert.com

Report #: 30452-28785-3646 **Customer PO#:** 1100
Customer Name: PFS TECO
Customer Address: 11785 SE Highway 212, Suite 305
City: Clackamas **State:** OR **Zip:** 97015
Contact: John Steinert
Service Address: 5777 SE International Way Milwaukie, OR 97222

Calibration Standards

LP-00051 | Electrical Meter | Fluke | SN: 9663004 | Cal: 01/10/2023 | Due: 01/10/2024 | Vendor: Fluke | Report #: EVL861119
LP-01333 | Electrical Meter | IET Labs, Inc. | SN: E3-1842499 | Cal: 01/19/2023 | Due: 01/31/2024 | Vendor: Transcat Calibration Lab | Report #: 5-G584Z-20-1
LP-01347 | Thermo-Hygrometer | Comark | SN: 06210350163 | Cal: 04/18/2023 | Due: 04/30/2024 | Vendor: Cal-Cert | Range: 122 °F 95 %RH | Report #: 28945-67214-3646

Instrument Data

Calibration Date: August 9, 2023
Recommended Due Date: August 9, 2024
Calibration Frequency: 12 Months
Manufacturer: Delmhorst
Type: Resistivity Meter
Model Number: MCS-1
Serial #: #094
Capacity: 120 Megaohms
Tolerance: 3.00 % of indication

Reference: Manufactures Tolerances
Cal-Cert Procedure: CP-080
Indicating System: Digital
Temperature: 74 °F
Humidity: 36% RH
Asset #: #094
Service Location: Cal-Cert Lab
As Found: Pass
As Left: Pass

Instrument Range: 120 Megaohms **Resolution:** 0.001 **Mode Verified:** Resistance

Standard Reading	UUT As Found	UUT Reading #1	Error	UUT Reading #2	Error
0.000	0.000	0.000	0.000	0.000	0.000
1.100	1.095	1.095	-0.005	1.095	-0.005
54.545	54.719	54.719	0.173	54.719	0.173
0.000	0.000	0.000	0.000	0.000	0.000

Expanded Uncertainty± **2.50 Megaohms**

Remarks:
100Mohm std Parallel with 120Mohm UUT= 54.545Mohms

We sincerely thank you for your business. Please call us at 503-654-9620 for all your sales and calibration needs.
Cleaning and preventative maintenance were performed as part of this service.

This certificate is hereby issued that the above instrument was tested for accuracy with calibrated standards traceable to the National Institute of Standards and Technology (NIST). The information provided on this form complies with the data gathering and reporting requirements of ANSI/NCSL Z540.1, and meets the requirements of all applicable references and Cal-Cert procedures listed above.
Any stated measurement uncertainty includes the uncertainty of the Calibration standards used, combined with the uncertainty of the measurement process using the RSS method with a k=2 for an approximate 95% level of confidence. The calibration process meets or exceeds a ratio of 4:1 unless otherwise stated.
All tolerances were derived from the applicable standards and pass/fail determination is based on those tolerances. The customer determined any recommended due dates indicated on the certificate.

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Service Engineer: Brent Enbysk **Date:** August 9, 2023

Technical Manager: Marshall Doyle **Signature:** 

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CERTIFICATE OF CALIBRATION

CUSTOMER:	**PFS-TECO :** CLACKAMAS, OR	**CALIBRATION DATE:**	05/03/2022
PO NUMBER:	1071	**CALIBRATION DUE:**	05/03/2023
INST. MANUFACTURER:	DWYER	**PROCEDURE:**	T.O.33K6-4-1769-1
INST. DESCRIPTION:	VELOMETER	**CALIBRATION FLUID:**	AIR @ 14.7 PSIA 70°F
MODEL NUMBER:	471	**RECEIVED CONDITION:**	WITHIN MFG. SPECS.
SERIAL NUMBER:	CP288559 ID# 095	**LEFT CONDITION:**	WITHIN MFG. SPECS.
RATED ACCURACY:	SEE NOTES BELOW.	**AMBIENT CONDITIONS:**	763mm HGA 51% RH 72°F
UNCERTAINTY GIVEN:	± 0.43% RD ; k=2	**CERTIFICATE FILE #:**	490265.2021

NOTES: ± 3% FS (0-500 / 0-1500) *** ± 4% F.S. (0-5000) ***± 5% F.S. (0-15000) *** ± 2 °F

Q.MANUAL IM 2.0 REV 2020.2 DATED 7-27-2020 ** DECISION RULE : NO PFA%**

UUT INDICATED FT/MIN	DM.STD. ACTUAL FT/MIN	UUT INDICATED DEG. F	DM STD. ACTUAL DEG. F
65	68	0 TO 200°F	0 TO 200°F
129	133	45.1	44.2
260	266	71.7	70.9
498	509	99.3	98.5
526	534		
1039	1058		
1484	1517		
523	534		
3076	3151		
4998	5127		
6752	6907		
14679	15068		

STANDARDS USED:		
A24: HART SCIENTIFIC TEMP. STANDARD | ± 0.024 F | TRACE# 1617259390	DUE	04/12/2023
A800: FLOW-DYNE SONIC NOZZLE SYSTEM | 0 – 1086 CFM ± 0.46% RD. | TRACE# 1329407628, 89576, 152043238	DUE	12/10/2022

All instruments used in the performance of the shown calibration have traceability to the National Institute of Standards and Technology (NIST). The uncertainty ratio between the calibration standards (DM.STD.) and the Unit Under Test (UUT) is a minimum of 4:1, unless otherwise noted. Calibration has been performed according to the shown procedure. The use of IAS/ILAC logo indicates calibrations are in accordance to ISO/IEC 17025:2017.

Dick Munns Company · 11133 Winners Circle, Los Alamitos, CA 90720
Phone: 714-827-1215 · www.dickmunns.com

This Calibration Certificate shall not be reproduced except, in full, without approval by Dick Munns Company. The data shown applies only to the instrument being calibrated and under the stated conditions of calibration.

Issuing Date: 05/03/2022 Approved By: Cal. Technician: D.C

Calibrated at: ✓ Lab
___ On-Site (Customer's)

Certificate of Calibration

Certificate Number: 743892

JJ Calibrations, Inc.
7724 SE Aspen Summit Drive
Portland, OR 97266-9217
Phone 503.786.3005
FAX 503.786.2994

PFS TECO
11785 SE Hwy 212
Suite 305
Clackamas, OR 97015

ACCREDITED
0723.01
Calibration

PO: 1033
Order Date: 03/08/2021
Authorized By: N/A

Property #: 097
User: N/A
Department: N/A
Make: Unknown
Model: 10 Lbs.
Serial #: 097
Description: Mass
Procedure: DCN 500901
Accuracy: Raw Data

Calibrated on: 03/18/2021
*Recommended Due: 03/18/2026
Environment: 19 °C 41 % RH
* As Received: Other - See Remarks
* As Returned: Other - See Remarks
Action Taken: Calibrated
Technician: 126

Remarks: * Many factors may cause the unit to drift out of calibration before the recommended due date. Any reported error is the absolute value between the reference and the unit. Uncertainties include the effects of the unit.

Data is provided for your determination of acceptability. Received/returned without accessories.

Standards Used

Std ID	Manufacturer	Model	Nomenclature	Due Date	Trace ID
484A	Rice Lake	1kg-10kg (Class ASTM 1)	Mass Set,	05/28/2021	699197
503A	Rice Lake	1mg-200g (Class 0)	Mass Set,	09/11/2021	729241
550A	And (A&D) Co.	HP-30K	Balance 30 Kg	12/31/2021	739307
723A	Rice Lake	1mg-200g (Class 0)	Mass Set,	06/09/2021	723431

Measurement Data

Parameter / Measurement Description	Range	Unit	Reference	Min	Max	*Error	UUT	Uncertainty
Before/After								Accredited = ü
Mass								
Raw Data		g	4535.92370000	0.0000000	0.0000000	0.1785299	4536.1022299 g	3.5E-01 ü

This instrument has been calibrated in accordance with the JJ Calibrations Quality Assurance Manual and is traceable to either the SI or to National Institute of Standards and Technology (NIST). The quality system and this certificate are in compliance with ANSI/NCSL Z540-1-1994, ISO/IEC 17025-2017, ISO 10012-1, the ISO 9000 family and QS 9000. The expanded uncertainties of measurements for this calibration are based upon 95% (2 sigma) confidence limits. Unless stated in the comments, certificates reflect the "Simple Acceptance Rule" as specified by JCGM 106:2012. Unless otherwise stated, a test accuracy ratio (TAR) of 4:1, if achievable, is maintained. The results reported herein apply only to the calibration of the item described above. This report may not be reproduced, except in full, without written approval of JJ Calibrations.

Reviewer

3 Issued 03/25/2021 Rev # 15

Inspector

Established 1974

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A2LA ACCREDITED
CERTIFICATE #1550.01

PFS Teco
11785 SE Hwy 212 STE#305
Clackamas, OR 97015

Report Number: DIRI0134307497221214

A2LA ACCREDITED
CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Sartorius	ENTRIS224-1S	34307497	#107	Lab
Units	**Readability**	**SOP**	**Cal Date**	**Last Cal Date**	**Cal Due Date**
g	0.0001	QC012	12/14/22	6/9/22	12/2023

FUNCTIONAL CHECKS

ECCENTRICITY
Test Wt: 100 Tol: 0.0003
As-Found: Pass: ☑ Fail: ☐
As-Left: Pass: ☑ Fail: ☐

LINEARITY
Test Wt: 50 x 4 Tol: 0.0002
As-Found: Pass: ☑ Fail: ☐
As-Left: Pass: ☑ Fail: ☐

STANDARD DEVIATION
Test Wt: 100 Tol: 0.0001

1.	100.0002	5.	1000.0003	9.	1000.0003
2.	1000.0001	6.	1000.0002	10.	1000.0002
3.	1000.0002	7.	1000.0002	**Result**	
4.	1000.0002	8.	1000.0003	284.60499	

ENVIRONMENTAL CONDITIONS
☐ Good ☑ Fair ☐ Poor
Temperature: 20.6°C

A2LA ACCREDITED SECTION OF REPORT

Standard	As-Found	As-Left	Expanded Uncertainty
200	200.0009	200.0004	569.20999
100	100.0005	100.0002	569.20999
50	50.0004	50.0001	569.20999
20	20.0003	20.0000	569.20999
1	1.0001	1.0000	569.20999
0.1	0.1001	0.1000	569.20999

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	3/1/22	3/2023	20220382

Permanent Information Concerning this Equipment:
6 month calibration cycle
1/22 Extra checkpoint to encapsulate user range 0.05g.
AF= 0.0500g A/L= 0.0500

Comments/Info Concerning this Calibration:
12/22 RH= 45%. Adjusted span.

Report prepared/reviewed by: JC **Date:** 12/14/22 **Technician:** J. Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Report and Certificate of Calibration

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www.Cal-Cert.com

Toll Free
800-356-4662

Address
5777 SE International Way
Milwaukie, OR 97222

Local
503-654-9620

A2LA ACCREDITED
CERT #4986.01

Report #:	31538-218157-14	**Customer PO#:**	
Customer Name:	PFS TECO		
Customer Address:	11785 SE Highway 212, Suite 305		
City:	Clackamas	**State:** OR	**Zip:** 97015
Contact:	Aaron Kravitz		
Service Address:	11785 SE Highway 212, Suite 305	Clackamas, OR 97015	

Calibration Standards

10-00209 | Weight | Rice Lake | SN: 43334 | Cal: 02/02/2022 | Due: 02/28/2024 | Vendor: Oregon Dept of Ag | Report #: 20220092
19-00269 | Thermo-Hygrometer | Comark | SN: 6237360167 | Cal: 08/14/2023 | Due: 08/31/2024 | Vendor: Cal-Cert | Range: 122 °F 95 %RH | Report #: 30530-30694-3646

Instrument Data

Calibration Date:	October 12, 2023	**Reference:**	ASTM E898-20, D4753-15
Calibration Due Date:	April 12, 2024	**Cal-Cert Procedure:**	CP-002
Calibration Frequency:	6 Months	**Indicating System:**	Digital
Manufacturer:	Sartorius	**Temperature:**	73 °F
Model Number:	ENTRIS224	**Humidity:**	52% RH
Type:	Digital Balance	**Asset #:**	107
Serial #:	34307497	**Service Location:**	Service Address
Scale Capacity:	200 grams	**As Found:**	PASS
		As Left:	PASS

Scale Linear Test

Instrument Range: 200.0000 grams **Resolution:** 0.0001 grams

Calibration Standard grams	As Found UUT grams	As Found Error grams	As Left UUT grams	As Left Error grams	As Left % of Error	Tolerance (As Left) Allowable Error		
						Error	Condition	Expanded Unc. (grams)
0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	PASS	0.00000
20.0000	19.9998	-0.0002	19.9998	-0.0002	0.00	0.0200	PASS	0.00463
40.0000	39.9997	-0.0003	40.0000	0.0000	0.00	0.0400	PASS	0.00924
60.0000	59.9996	-0.0004	60.0001	0.0001	0.00	0.0600	PASS	0.01386
80.0000	79.9995	-0.0005	80.0001	0.0001	0.00	0.0800	PASS	0.01848
100.0000	99.9994	-0.0006	99.9999	-0.0001	0.00	0.1000	PASS	0.02310
120.0000	119.9993	-0.0007	119.9999	-0.0001	0.00	0.1200	PASS	0.02771
140.0000	139.9991	-0.0009	140.0000	0.0000	0.00	0.1400	PASS	0.03233
160.0000	159.9990	-0.0010	160.0001	0.0001	0.00	0.1600	PASS	0.03695
180.0000	179.9990	-0.0010	180.0000	0.0000	0.00	0.1800	PASS	0.03926
200.0000	199.9989	-0.0011	200.0000	0.0000	0.00	0.2000	PASS	0.04619
100.0000	99.9994	-0.0006	99.9999	-0.0001	0.00	0.1000	PASS	0.02310
0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	PASS	0.00000

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Manufacturer: Sartorius **Type:** Digital Balance **Serial #:** 34307497

FUNCTIONAL CHECKS					
ECCENTRIC LOAD TEST:		**HYSTERESIS: Load Increments**		**REPEATABILITY:**	
Loading position	100.0000	Test Weight Applied. % of load	Readings	Test Weight Applied	100.0000
Right	99.9999	0%	0.0000	1st	99.9999
Left	99.9998	(R1) 50%	99.9999	2nd	100.0000
Front	99.9998	100%	200.0000	3rd	99.9999
Back	99.9999	(R2)50%	99.9999	4th	100.0000
Center	99.9999	0%	0.0000	5th	100.0000
As Left	PASS	As Left	PASS	As Left	PASS
Tolerance: The maximum error of the eccentric loading must be less than .1% of center load value.		Tolerance: The Difference of R1 and R2 must be within 0.1%		Tolerance: Deviation of lowest and highest reading within 0.1%	

Remarks:

The scale was adjusted prior to taking the As Left readings.

We sincerely thank you for your business. Please call us at 503-654-9620 for all your sales and calibration needs.
Cleaning and preventative maintenance were performed as part of this service.

Cal-Cert is accredited by A2LA under Calibration Laboratory Code #4986.01.
A2LA is recognized under the ILAC mutual recognition agreement (MRA).

This certificate is hereby issued that the above instrument was tested for accuracy with calibrated standards traceable to the National Institute of Standards and Technology (NIST). The information provided on this form complies with the data gathering and reporting requirements of ISO/IEC 17025 and ANSI/NCSL Z540.1, and meets the requirements of all applicable references and Cal-Cert procedures listed above.
Any stated measurement uncertainty includes the uncertainty of the Calibration standards used, combined with the uncertainty of the measurement process using the RSS method with a k=2 for an approximate 95% level of confidence. The calibration process meets or exceeds a ratio of 4:1 unless otherwise stated. All tolerances were derived from the applicable standards and pass/fail determination is based on those tolerances. The customer determined any recommended due dates indicated on the certificate.

This report shall not be reproduced except in full, without written approval from Cal-Cert.

Service Engineer: Jon Rau **Date:** October 12, 2023

Technical Manager: Marshall Doyle **Signature:** 

REPORT#: 31538-218157-14

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ACCREDITED
CERTIFICATE #1550.01

Report of Calibration

Firm: PFS-TECO
Address: 11785 SE Hwy 212, Ste 305
City/State/Zip: Clackamas, OR 97015

Test Completed: 05/09/22
Purchase Order: 1067
Traceable Number: 20220682

Test Item: 200 mg and 100 mg Individual Weights
Serial No.: Listed in Table

Manufacturer: Troemner
Customer ID: Listed in Table

Material	Assumed Density	Range	Tolerance Class
Stainless Steel	7.95 g/cm^3	200 mg & 100 mg	ASTM Class 1

Method and Traceability
The procedure used for this calibration is NIST IR 6969 SOP 4 Double Substitution Weighing Design. Standards used for comparison are traceable to the National Institute of Standards and Technology (reports on file) and are part of a comprehensive measurement assurance program for ensuring continued accuracy and traceability within the level of uncertainty reported. The Traceable Number listed above is Traceable to National Standards through an unbroken chain of comparison each having stated uncertainties.

Standards Used:
100 g to 1 mg Working Standards Were Calibrated: 07/02/21 Due: 07/31/22 Standards ID: 723318
Mass Comparators Used: MET-05 **Tested by:** D. Thompson

Conventional Mass: "The conventional value of the result of weighing a body in air is equal to the mass of a standard, of conventionally chosen density, at a conventionally chosen temperature, which balances this body at this reference temperature in air of conventionally chosen density. International Recommendation 33 (OIML IR 33 1973, 1979). "Conventional Value of the Result of Weighing in Air" **(Previously known as "Apparent Mass vs. 8.0 g/cm^3).**

Uncertainty Statement: The uncertainty conforms to the ISO Guide to the Expressions of Uncertainty in Measurement. Uncertainty as reported is based on a coverage factor k=2 for an approximate 95 percent level of uncertainty. Uncertainty components include the standard deviation of the process, the uncertainty of the standard used, an uncertainty component associated with the potential drift of the standard used, and the estimated uncertainty related to measuring and determining the air buoyancy effect.

Conventional Mass Values are listed on page 2 of this report.

Quality Control Services, Inc.
Metrology Laboratory Manager
E-mail dthompson@qc-services.com

Date: 05/09/22

Signature David S. Thompson

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ACCREDITED
CERTIFICATE #1550.01

Report of Calibration

Firm: PFS-TECO
Address: 11785 SE Hwy 212, Ste 305
City/State/Zip: Clackamas, OR 97015

Test Completed: 05/09/22
Purchase Order: 1067
Traceable Number: 20220682

Test Item: 200 mg and 100 mg Individual Weights
Serial No.: Listed in Table

Manufacturer: Troemner
Customer ID: Listed in Table

Laboratory Environment at time of test

Temperature °C	Pressure mmHg	Humidity %RH
21.93 to 21.94	760.7 to 760.8	47.8 to 47.9

Conventional Mass Value

Nominal Value	As Found Value (g)	As Found Correction* (mg)	As Left Value (g)	As Left Correction* (mg)	Uncertainty (mg)	Tolerance (mg)
200 mg, 1000101395, #109-B	0.2000082	0.0082	0.2000082	0.0082	0.0014	0.010
100 mg, 1000126267, #109-A	0.1000065	0.0065	0.1000065	0.0065	0.0014	0.010

*Correction is the difference between the conventional mass value of a weight and its nominal value.

Comments: These weights were received in good condition and were within ASTM Class 1 tolerances As Found.

Recalibration Due: The customer has requested a 5-year calibration cycle. The calibration due date for these weights is 05/09/27. The values listed above were found at the time of calibration. Any number of factors may cause these items to drift out of calibration before the calibration interval has expired.

Accredited by the American Association for Laboratory Accreditation (A2LA) under Calibration Laboratory Code 115953 and Certificate Number 1550.01. This laboratory meets the requirements of ISO/IEC 17025:2017 *General Requirements for the Competence of Testing and Calibration Laboratories.* This laboratory also meets the requirements of ANSI/NCSL Z540-1-1994 and any additional program requirements in the field of calibration.

Quality Control Services, Inc.
Metrology Laboratory Manager
E-mail dthompson@qc-services.com

Date: 05/09/22

Signature David S. Thompson

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Model 1430 Microtector® Electronic Point Gage

Installation and Operating Instructions



Model 1430 Microtector® Portable Electronic Point Gage combines modern, solid-state integrated circuit electronics with a time-proven point gage manometer to provide fast, accurate pressure measurements.

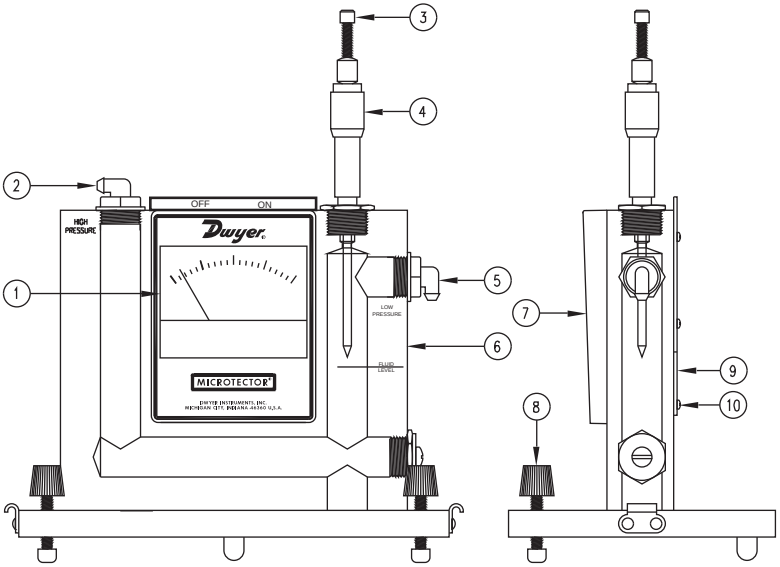
SPECIFICATIONS AND FEATURES

- Accurate and repeatable to ± .00025 inches water column
- Pressure range: 0 - 2″ w.c., positive, negative, or differential pressures
- Non-toxic and inexpensive gage fluid consists of distilled water mixed with a small amount of fluorescein green color concentrate
- Convenient, portable, lightweight and self-contained, the unit requires no external power connections and is operated by a 1.5 volt penlight cell
- A.C. detector current eliminates point plating, fouling and erosion
- Micrometers are manufactured in accordance with ASME B89.1.13-2001, and are traceable to a standard at the National Institute of Standards and Technology
- Three-point mounting, dual leveling adjustment, and circular level vial assure rapid setup
- Durablock® precision-machined acrylic plastic gage body
- Sensitive 0 - 50 microamp D.C. meter acts as a detector and also indicates battery and probe condition
- Heavy 2″ thick steel base plate provides steady mounting
- Top-quality glass epoxy circuit board and solid-state, integrated circuit electronics
- Electronic enclosure of tough, molded styrene acrylonitrile provides maximum protection to components yet allows easy access to battery compartment
- Rugged sheet steel cover and carrying case protects the entire unit when not in use
- Accessories included are (2) 3-foot lengths Tygon® tubing, (2) 1/8″ pipe thread adapters and 3/4 oz. bottle of fluorescein green color concentrate with wetting agent

Maximum pressure: 100 psig with optional pipe thread connections.

Tygon® is a registered trademark of Saint-Gobain Corporation

DWYER INSTRUMENTS, INC.
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Microtector® Gage

Precision Pressure Measurement

The Microtector® Gage combines the time-proven principles of the Hook Gage type manometer and modern solid-state integrated circuit electronics. It provides an inexpensive means of achieving accuracy and repeatability within ± .00025 inches water column throughout its 0 to 2 inches w.c. range. It is truly a new standard in precision measuring devices.

Principles of Operation

A pressure to be measured is applied to the manometer fluid which is displaced in each leg of the manometer by an amount equal to 1/2 the applied pressure. A micrometer mounted point is then lowered until it contacts the manometer gage fluid. The instant of contact is detected by completion of a low-power A.C. circuit. Current for this circuit is supplied by a 1.5 volt penlight cell feeding two semiconductor amplifiers which act as a free-running multivibrator operating at a frequency of approximately two kilohertz. Completion of the A.C. circuit activates a bridge rectifier which provides the signal for indication on a sensitive (0 to 50 microamps) D.C. microammeter.

On indication of contact, the operator stops lowering the point and reads the micrometer which indicates one half the applied pressure. By interpolating eight divisions (each being .000125″ w.c.) between .001 micrometer graduations, a total accuracy of .00025 can easily be achieved. The micrometer complies with Federal Specification GGG-C-105A and is traceable to a master at the NIST.

Locating and Opening

Stand the Microtector® Gage and case on a firm flat level surface. Remove cover by releasing the latches and lifting it straight up. If it is necessary to move the gage without case, handle only the base plate or clear acrylic block. (**CAUTION:** Do not handle gage by grasping meter-electronic package housing Item 7 on drawing.)

Fluid Level

Level the gage by adjusting the two front leveling screws (Item 8 on drawing) until the bubble in the spirit level is centered in the small circle. After leveling the gage, open both rapid shut-off valve tube connectors (Items 2 and 5). Back off the micrometer (Item 4), if necessary, to make sure that the point is not immersed in the gage fluid. The fluid level in the gage should now coincide with the mark on the right hand bore (Item 6) plus or minus approximately 1/32 inch. If the level of fluid is too high, fluid can be removed with an eye dropper pipette or carefully poured out of the right connection (Item 5).

If the level is too low, remove the top left rapid shut-off valve tube connector (Item 2) and add distilled water pre-mixed with the proper amount of green concentrate. (See maintenance instructions for proportions. After correcting the fluid level, re-install the rapid shut-off connectors and, with these in the open position, re-level the Microtector® Gage. The gage is now ready to be zeroed.

Zeroing

Turn the Micrometer barrel (Item 4) until its lower end just coincides with the zero mark on the scale and the zero on the barrel scale coincides with the vertical line on the internal scale. Note that the internal scale is graduated every .025″ from 0 to 1.00 inch and the barrel scale is graduated in one thousandths from 0 to .025″. Turn the meter circuit switch at the top of gage to the “on” position. While holding the barrel at the zero position (and with gage level), raise or lower the point by turning the knurled knob (Item 3) until the point is above, but near, the fluid.

Check to be sure that the meter registers zero. Watch the meter, hold the barrel, and lower the point slowly by turning the top knurled knob. As the knob is turned, the point will contact the fluid and the meter pointer will move from zero to some upscale position.

After making contact, turn the point out of the fluid by turning the micrometer barrel counterclockwise to a reading of .010 or more. Again, watch the meter and, this time, lower the point by turning the micrometer barrel. The point position where the meter pointer begins to move up scale is the zero position. This position should correspond to the zero reading on the micrometer. Adjust the point in relation to the micrometer barrel by turning the top knob while holding the barrel steady. Repeat lowering the point, watching the meter for contact, and adjusting the point until the zero position and zero reading exactly coincide. The gage is now zeroed and should not be moved.

An alternative method of zeroing and reading can be used wherein, instead of zeroing the gage completely, a zero correction reading is taken and recorded, then subtracted from the final reading. Comparable results can be obtained with either method.

Positive Pressure Measurement

With the fluid at its proper level, a pressure of 2.0″ water column maximum can be measured. Positive pressure should be applied to the top left connection (Item 2) with the micrometer zeroed as described above. This will permit a simple direct reading to be taken.

After an unknown pressure has been applied at the top left connection, the fluid level will drop in the left bore and rise over the point in the right bore. Note that the indicating meter point has moved upscale because the point is immersed in the fluid. Turn the micrometer counter-clockwise until the point leaves the fluid as indicated by the meter pointer dropping to zero on its scale. Then slowly turn the micrometer down until its point just touches the fluid surface, causing movement of the meter pointer. Withdraw the point and repeat several times, noting each time the micrometer reading where the meter pointer begins. The average of these readings multiplied by two is the pressure applied to the gage. (Avg. reading x 2 = pressure applied in inches w.c. The degree of uncertainty for the operator is indicated by the difference in these readings.

When the readings are complete, the pressure should be removed and the zero setting of Microtector® Gage rechecked. Any change in the zero position will indicate inaccurate readings. Should this happen, the zero-set and pressure measurement procedure should be repeated.

Negative Pressure or Vacuum Measurement

Zero the gage. Connect the source of vacuum or negative pressure to the right-side gage connection (Item 5) and proceed as described under Positive Pressure Measurement section. Remember that the pressure measured in this way is negative.

Differential Pressure Measurement

Differential pressures may be measured by connecting the higher (more positive) pressure to the left connection (Item 2) and the lower pressure to the right connection (Item 5).

Storage

Turn meter circuit switch to "off" position and withdraw the point well clear of fluid (by turning micrometer clockwise) when gage is not in use. This will conserve the batteries and minimize build-up of oxides, etc., on the point. Keep the unit covered and in an area free of strong solvent fumes.

Maintenance

When the meter reading becomes reduced or the pointer movement gets sluggish (with the circuit on and the point in fluid), the following should be done:

(1) Remove the point (by unscrewing) and clean the tip lightly using fine crocus cloth. Wipe off all grit and dirt with a clean rag; reassemble and recheck meter operation.

(2) If the meter operation continues to be sluggish, replace the size AA, 1.5 volt battery. (Replace the battery at least once a year to avoid deterioration of battery and damage to gage. Leakproof alkaline battery is recommended.)

To replace the battery, remove center screw (Item 10) located in the back of the electronic enclosure. Cover (Item 9) will come off, exposing the battery. Pull the old battery out and push a new battery into the battery holder with the positive (center) terminal to the right (to the end marked with + on the holder).

If the fluid becomes contaminated and requires replacement: empty old fluid from gage; flush out with clear water and replace with distilled water and A-126 fluorescein green color concentrate mixed with 3/4 oz. concentrate to each quart of water.

CAUTION:

1. Do not substitute other gage fluids, as proper gage operation depends on use of the specified gage fluid to provide proper surface tension, wetting ability and electrolyte capability with unity specific gravity.

If the gage bore is very dirty, a mild soap solution may be used to aid in cleaning prior to flushing with clear water.

2. Do not clean with liquid soaps, special solvent, de-greasers, aromatic hydrocarbons, etc. Such cleaners and solvents may contain chlorine, fluorine, acetone and related compounds that will permanently damage the gage and prevent proper operation.

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DWYER INSTRUMENTS, INC.
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J-2000

owner's manual



DELMHORST®
INSTRUMENT CO.

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A2LA ACCREDITED
CERTIFICATE #1550.01

PFS Teco
11785 SE Hwy 212 STE#305
Clackamas, OR 97015

Report Number: DIRI01C101887027221214

A2LA ACCREDITED
CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Scale	Mettler	IND570 - 1000lbx0	C101887027	#189	Lab
Units	**Readability**	**SOP**	**Cal Date**	**Last Cal Date**	**Cal Due Date**
lbs	0.02	QC033	12/14/22	1/27/22	12/2023

FUNCTIONAL CHECKS

SHIFT TEST	LINEARITY	REPEATABILITY	ENVIRONMENTAL CONDITIONS
Test Wt: 400 Tol: 0.10	Test Wt: HB44 Tol: HB44	Test Wt: 200 Tol: 0.04	☐ Good ☑ Fair ☐ Poor
As-Found: Pass:☑ Fail:☐	As-Found: Pass:☑ Fail:☐	As-Found: Pass:☑ Fail:☐	Temperature: 16.7°C
As-Left: Pass:☑ Fail:☐	As-Left: Pass:☑ Fail:☐	As-Left: Pass:☑ Fail:☐	

CALIBRATION DATA

Standard	As-Found	As-Left	Expanded Uncertainty
1000	1000.84	1000.02	0.012
600	600.32	600.00	0.011
400	400.10	400.00	0.011
200	200.00	199.98	0.011
100	100.00	99.98	0.011
50	50.00	50.00	0.011

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Avoirdupois Cast W	Rice Lake	25 and 50lb	PWO990-CA	7/18/22	7/2024	20221688

Permanent Information Concerning this Equipment:

Comments/Information Concerning this Calibration

12/14 As-Found Failed Linearity. Performed 3 point Linearity adjustment. As-Left Passed Linearity. Adjusted span.

Report prepared/reviewed by: JC **Date:** 12/14/22 **Technician:** J. Colacchio **Signature:**

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

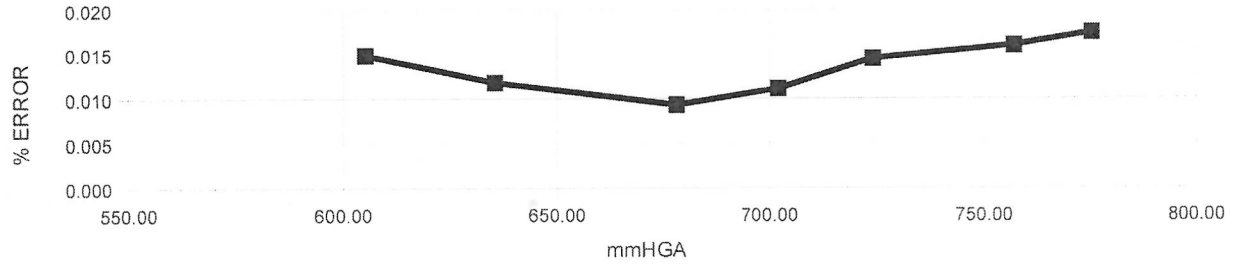
The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy.

CERTIFICATE OF CALIBRATION

CUSTOMER:	PFS-TECO; CLACKAMAS, OR	**CALIBRATION DATE:**	05/23/2023
PO NUMBER:	1096	**CALIBRATION DUE:**	05/23/2024
INST. MANUFACTURER:	AQUATECH SCIENTIFIC INSTRUMENTS	**PROCEDURE:**	NAVAIR-17-20MP-03
INST. DESCRIPTION:	DIGITAL BAROMETER	**CALIBRATION FLUID:**	AIR @ 70F
MODEL NUMBER:	DBX2	**STANDARD(S) USED:**	A321, A22 DUE 3-2024
SERIAL NUMBER:	118222	**NIST TRACE #' S:**	1236086968,1583142077
RATED ACCURACY:	+/- .18 mmHGA	**AMBIENT CONDITIONS:**	757 mmHGA, 60% RH, 68F
UNCERTAINTY GIVEN:	+/- ..03mmHGA.;k=2	**CERTIFICATE FILE #:**	533813

NOTES: AS REC./AS LEFT WITHIN SPECS. ** DECISION RULE: PFA NOT USED TO DETERMINE CONFORMITY **

TEST POINT NUMBER	UUT INDICATED mmHGA	DM.STD. ACTUAL mmHGA	% RD. ERROR
1	605.24	605.330	0.015
2	635.45	635.525	0.012
3	678.24	678.303	0.009
4	702.18	702.258	0.011
5	724.19	724.295	0.014
6	757.11	757.231	0.016
7	775.39	775.525	0.017



All instruments used in the performance of the shown calibration have traceability to the National Institute of Standards and Technology (NIST). The uncertainty ratio between the calibration standards (DM.STD.) and the Unit Under Test (UUT) is a minimum of 4:1, unless otherwise noted. Calibration has been performed according to the shown procedure. The use of IAS/ILAC logo indicates calibrations are in accordance to ISO/IEC 17025:2017.

Dick Munns Company · 11133 Winners Circle, Los Alamitos, CA 90720
Phone: 714-827-1215 · www.dickmunns.com

This Calibration Certificate shall not be reproduced except, in full, without approval by Dick Munns Company. The data shown applies only to the instrument being calibrated and under the stated conditions of calibration.

Issuing Date: 5-23-2023

Approved By:

Cal. Technician:

Calibrated at: ✓ Lab
___ On-Site (Customer's)

Report and Certificate of Calibration

CAL-CERT CALIBRATION CERTIFICATION

www.Cal-Cert.com

Toll Free 800-356-4662

Address 5777 SE International Way Milwaukie, OR 97222

Local 503-654-9620

A2LA ACCREDITED CERT #4986.01

Revision to Report #: 26398-201251-5 to correct serial number. Date: 2/20/23

Report #: 26398-201251-5-01 **Customer PO#:** 1079

Customer Name: PFS TECO

Customer Address: 11785 SE Highway 212

City: Clackamas **State:** OR **Zip:** 97015

Contact: Ethan Frederick

Service Address: 5777 SE International Way Milwaukie, OR 97222

Calibration Standards

10-00515 | Steel Rule | SPI | SN: 00515 | Cal: 06/01/2022 | Due: 05/31/2023 | Vendor: Cal-Cert | Range: 24 Inches | Report #: 24589-30769-3616
LP-01346 | Thermo-Hygrometer | Comark | SN: 06210350198 | Cal: 02/07/2022 | Due: 02/28/2023 | Vendor: Cal-Cert | Range: 122 °F 95 %RH | Report #: 22748-67215-3486

Instrument Data

Calibration Date:	October 21, 2022	**Reference:**	Manufacturer's Spec
Calibration Due Date:	October 21, 2023	**Cal-Cert Procedure:**	CP-115
Calibration Frequency:	12 Months	**Indicating System:**	Scaling
Manufacturer:	Starrett	**Temperature:**	69 °F
Type:	Tape Measure	**Humidity:**	3% RH
Model Number:	Exact	**Asset #:**	207
Serial #:	138054-2203-00002249	**Service Location:**	Cal-Cert Lab
Capacity:	192.00 Inches	**As Found:**	Pass
		As Left:	Pass

Instrument Range: 192.000 Inches **Range Resolution:** 0.031 Inches

Calibration Standard	As Found Reading	Verification Reading #1	Verification Reading #2
24.000	24.000	24.000	24.000
48.000	48.000	48.000	48.000
96.000	96.000	96.000	96.000
120.000	120.000	120.000	120.000
144.000	144.000	144.000	144.000
168.000	168.000	168.000	168.000
192.000	192.000	192.000	192.000

Expanded Uncertainty ± 0.03580 Inches

Remarks:

We sincerely thank you for your business. Please call us at 503-654-9620 for all your sales and calibration needs.
Cleaning and preventative maintenance were performed as part of this service.

Cal-Cert is accredited by A2LA under Calibration Laboratory Code #4986.01.
A2LA is recognized under the ILAC mutual recognition agreement (MRA).

This certificate is hereby issued that the above instrument was tested for accuracy with calibrated standards traceable to the National Institute of Standards and Technology (NIST). The information provided on this form complies with the data gathering and reporting requirements of ISO/IEC 17025 and ANSI/NCSL Z540.1, and meets the requirements of all applicable references and Cal-Cert procedures listed above. Any stated measurement uncertainty includes the uncertainty of the Calibration standards used, combined with the uncertainty of the measurement process using the RSS method with a k=2 for an approximate 95% level of confidence. The calibration process meets or exceeds a ratio of 4:1 unless otherwise stated.
All tolerances were derived from the applicable standards and pass/fail determination is based on those tolerances. The customer determined any recommended due dates indicated on the certificate.

This report shall not be reproduced except in full, without written approval from Cal-Cert.

Service Engineer: Cameron Walling **Date:** October 21, 2022

Technical Manager: Marshall Doyle **Signature:** 

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Report and Certificate of Calibration

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Milwaukie, OR 97222

Local
503-654-9620

ACCREDITED
CERT #4986.01

Report #:	28134-206391-14	**Customer PO#:**	1090		
Customer Name:	PFS TECO				
Customer Address:	11785 SE Highway 212 Ste 305				
City:	Clackamas	**State:**	OR	**Zip:**	97015
Contact:	Aaron Kravitz				
Service Address:	11785 SE Highway 212 Ste 305	Clackamas, OR 97015			

Calibration Standards

19-00269 | Thermo-Hygrometer | Comark | SN: 6237360167 | Cal: 09/14/2022 | Due: 08/31/2023 | Vendor: Cal-Cert | Range: 122 °F 95 %RH | Report #: 25699-30694-3486
19-01135 | Thermocouple Meter | Tegam | SN: T-312250 | Cal: 08/01/2022 | Due: 08/31/2023 | Vendor: Cal-Cert | Range: 2,450 °F | Report #: 25315-30977-3646

Instrument Data

Calibration Date:	February 28, 2023		**Reference:**	NAVAIR 17-20.ST-95	
Recommended Due Date:	February 28, 2024		**Cal-Cert Procedure:**	CP-013	
Calibration Frequency:	12 Months		**Indicating System:**	Digital	
Manufacturer:	National Instruments		**Temperature:**	70	°F
Type:	Data Logger		**Humidity:**	31%	RH
Model Number:	NI 9213		**Asset #:**	215 Booth 1	
Serial #:	1B182FB		**Service Location:**	Service Address	
Resolution:	0.1	°F	**As Found:**	Pass	
Capacity:	2500	°F	**As Left:**	Pass	
Tolerance:	± 3.0	°F			
Additional Error	± -	°F			

Type K Thermocouple
METER FUNCTION

Channel	Calibration Standard	UUT As Found	UUT As Left Reading 1	UUT As Left Reading 2	As Left Error	Expanded Uncertainty±
Tunnel	0.00	0.20	0.20	0.20	0.20	0.346
	500.00	500.30	500.30	500.30	0.30	
	1000.00	1000.40	1000.40	1000.40	0.40	
	1500.00	1500.40	1500.40	1500.40	0.40	
	2000.00	2000.50	2000.50	2000.50	0.50	
	2400.00	2400.70	2400.70	2400.70	0.70	

Type K Thermocouple
METER FUNCTION

Channel	Calibration Standard	UUT As Found	UUT As Left Reading 1	UUT As Left Reading 2	As Left Error	Expanded Uncertainty±
Flue	0.00	0.10	0.10	0.10	0.10	0.346
	500.00	500.30	500.30	500.30	0.30	
	1000.00	1000.30	1000.30	1000.30	0.30	
	1500.00	1500.30	1500.30	1500.30	0.30	
	2000.00	2000.50	2000.50	2000.50	0.50	
	2400.00	2400.60	2400.60	2400.60	0.60	

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Manufacturer: National Instruments **Type:** Data Logger **Serial #:** 1B182FB

	Type K Thermocouple METER FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Filter A	0.00	0.10	0.10	0.10	0.10	0.346
	500.00	500.10	500.10	500.10	0.10	
	1000.00	1000.20	1000.20	1000.20	0.20	
	1500.00	1500.30	1500.30	1500.30	0.30	
	2000.00	2000.30	2000.30	2000.30	0.30	
	2400.00	2400.40	2400.40	2400.40	0.40	

	Type K Thermocouple METER FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Back	0.00	0.10	0.10	0.10	0.10	0.346
	500.00	500.00	500.00	500.00	0.00	
	1000.00	1000.20	1000.20	1000.20	0.20	
	1500.00	1500.50	1500.50	1500.50	0.50	
	2000.00	2000.60	2000.60	2000.60	0.60	
	2400.00	2400.70	2400.70	2400.70	0.70	

	Type K Thermocouple METER FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Catgalyst	0.00	-0.30	-0.30	-0.30	-0.30	0.346
	500.00	499.90	499.90	499.90	-0.10	
	1000.00	1000.10	1000.10	1000.10	0.10	
	1500.00	1500.10	1500.10	1500.10	0.10	
	2000.00	2000.10	2000.10	2000.10	0.10	
	2400.00	2400.20	2400.20	2400.20	0.20	

	Type K Thermocouple METER FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Meter A	0.00	-0.50	-0.50	-0.50	-0.50	0.346
	500.00	499.70	499.70	499.70	-0.30	
	1000.00	999.90	999.90	999.90	-0.10	
	1500.00	1500.00	1500.00	1500.00	0.00	
	2000.00	2000.00	2000.00	2000.00	0.00	
	2400.00	2400.00	2400.00	2400.00	0.00	

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	Type K Thermocouple METER FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Left	0.00	-0.50	-0.50	-0.50	-0.50	0.346
	500.00	499.70	499.70	499.70	-0.30	
	1000.00	999.70	999.70	999.70	-0.30	
	1500.00	1500.00	1500.00	1500.00	0.00	
	2000.00	2000.10	2000.10	2000.10	0.10	
	2400.00	2400.20	2400.20	2400.20	0.20	

	Type K Thermocouple METER FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Right	0.00	-0.60	-0.60	-0.60	-0.60	0.346
	500.00	499.70	499.70	499.70	-0.30	
	1000.00	999.80	999.80	999.80	-0.20	
	1500.00	1499.80	1499.80	1499.80	-0.20	
	2000.00	1999.90	1999.90	1999.90	-0.10	
	2400.00	2400.00	2400.00	2400.00	0.00	

	Type K Thermocouple METER FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Filter B	0.00	0.00	0.00	0.00	0.00	0.346
	500.00	500.80	500.80	500.80	0.80	
	1000.00	1000.60	1000.60	1000.60	0.60	
	1500.00	1500.20	1500.20	1500.20	0.20	
	2000.00	2000.00	2000.00	2000.00	0.00	
	2400.00	2399.70	2399.70	2399.70	-0.30	

	Type K Thermocouple METER FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Top	0.00	-0.80	-0.80	-0.80	-0.80	0.346
	500.00	499.30	499.30	499.30	-0.70	
	1000.00	999.50	999.50	999.50	-0.50	
	1500.00	1499.60	1499.60	1499.60	-0.40	
	2000.00	1999.60	1999.60	1999.60	-0.40	
	2400.00	2399.70	2399.70	2399.70	-0.30	

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	Type K Thermocouple METER FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Bottom	0.00	-1.00	-1.00	-1.00	-1.00	0.346
	500.00	499.20	499.20	499.20	-0.80	
	1000.00	999.50	999.50	999.50	-0.50	
	1500.00	1499.50	1499.50	1499.50	-0.50	
	2000.00	1999.60	1999.60	1999.60	-0.40	
	2400.00	2399.60	2399.60	2399.60	-0.40	

	Type K Thermocouple METER FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Meter B	0.00	-0.80	-0.80	-0.80	-0.80	0.346
	500.00	499.30	499.30	499.30	-0.70	
	1000.00	999.50	999.50	999.50	-0.50	
	1500.00	1499.50	1499.50	1499.50	-0.50	
	2000.00	1999.60	1999.60	1999.60	-0.40	
	2400.00	2399.50	2399.50	2399.50	-0.50	

	Type K Thermocouple METER FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Meter C	0.00	-1.20	-1.20	-1.20	-1.20	0.346
	500.00	499.00	499.00	499.00	-1.00	
	1000.00	999.20	999.20	999.20	-0.80	
	1500.00	1499.30	1499.30	1499.30	-0.70	
	2000.00	1999.30	1999.30	1999.30	-0.70	
	2400.00	2399.30	2399.30	2399.30	-0.70	

	Type K Thermocouple METER FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Filter C	0.00	-1.00	-1.00	-1.00	-1.00	0.346
	500.00	499.20	499.20	499.20	-0.80	
	1000.00	999.40	999.40	999.40	-0.60	
	1500.00	1499.50	1499.50	1499.50	-0.50	
	2000.00	1999.50	1999.50	1999.50	-0.50	
	2400.00	2399.50	2399.50	2399.50	-0.50	

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Manufacturer: National Instruments **Type:** Data Logger **Serial #:** 1B182FB

	Type T Thermocouple METER FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Ambient	0.00	0.00	0.00	0.00	0.00	0.346
	20.00	17.70	17.70	17.70	-2.30	
	40.00	37.80	37.80	37.80	-2.20	
	60.00	57.70	57.70	57.70	-2.30	
	80.00	77.90	77.90	77.90	-2.10	
	100.00	97.90	97.90	97.90	-2.10	

Remarks:

15 Channels tested. Ambient is Type T, tested from 0 to 100 °F per customer request.

We sincerely thank you for your business. Please call us at 503-654-9620 for all your sales and calibration needs.
Cleaning and preventative maintenance were performed as part of this service.

Cal-Cert is accredited by A2LA under Calibration Laboratory Code #4986.01.
A2LA is recognized under the ILAC mutual recognition agreement (MRA).

This certificate is hereby issued that the above instrument was tested for accuracy with calibrated standards traceable to the National Institute of Standards and Technology (NIST). The information provided on this form complies with the data gathering and reporting requirements of ISO/IEC 17025 and ANSI/NCSL Z540.1, and meets the requirements of all applicable references and Cal-Cert procedures listed above.
Any stated measurement uncertainty includes the uncertainty of the Calibration standards used, combined with the uncertainty of the measurement process using the RSS method with a k=2 for an approximate 95% level of confidence. The calibration process meets or exceeds a ratio of 4:1 unless otherwise stated. All tolerances were derived from the applicable standards and pass/fail determination is based on those tolerances. The customer determined any recommended due dates indicated on the certificate.

This report shall not be reproduced except in full, without written approval from Cal-Cert.

Service Engineer: Jon Rau **Date:** February 28, 2023

Technical Manager Marshall Doyle **Signature:** 

Report #: 28134-206391-14

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Airgas
an Air Liquide company

Airgas Specialty Gases
Airgas USA LLC
11711 S. Alameda Street
Los Angeles, CA 90059
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: EPA PROTOCOL STANDARD

Part Number:	E04NI61E15A0574	Reference Number:	48-402546580-1
Cylinder Number:	CC121798	Cylinder Volume:	143.7 CF
Laboratory:	124 - Los Angeles (SAP) - CA	Cylinder Pressure:	2016 PSIG
PGVP Number:	B32022	Valve Outlet:	590
Gas Code:	CO,CO2,O2,BALN	Certification Date:	Sep 23, 2022

Expiration Date: Sep 23, 2030

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a mole/mole basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
CARBON MONOXIDE	4.250 %	4.306 %	G1	+/- 0.6% NIST Traceable	09/23/2022
CARBON DIOXIDE	17.00 %	17.01 %	G1	+/- 0.6% NIST Traceable	09/23/2022
OXYGEN	17.00 %	17.11 %	G1	+/- 0.7% NIST Traceable	09/23/2022
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	12061520	CC354777	19.87 % CARBON DIOXIDE/NITROGEN	+/- 0.6%	Jan 11, 2024
NTRM	98051002	SG9150866BAL	12.05 % OXYGEN/NITROGEN	+/- 0.7%	Dec 14, 2023
NTRM	08061402	CC267714	1.959 %W CARBON MONOXIDE/NITROGEN	+/- 0.6%	Jul 02, 2024

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
SIEMENS 6E CO2	NDIR	Sep 16, 2022
SIEMENS 6E CO HIGH	NDIR	Sep 06, 2022
SIEMENS OXYMAT 6	PARAMAGNETIC	Sep 12, 2022

Triad Data Available Upon Request

Approved for Release

PRAXAIR
Making our planet more productive

DocNumber: 271687

Praxair Distribution, Inc.
5700 S. Alameda Street
Los Angeles CA 90058
Tel: 323-585-2154
Fax: 714-542-6689
PGVP ID: F22019

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information

PXPKG TUALATIN OR H
10450 SW TUALATIN SHERWOOD ROAD
TUALATIN OR 97062-9547

Certificate Issuance Date: 10/16/2019
Praxair Order Number: 71120745
Part Number: NI CD10CO33E-AS
Customer PO Number: 79106732

Fill Date: 10/08/2019
Lot Number: 70086928102
Cylinder Style & Outlet: AS CGA 590
Cylinder Pressure and Volume: 2000 psig 140 ft3

Certified Concentration

ProSpec EZ Cert

Expiration Date: 10/16/2027		NIST Traceable
Cylinder Number: CC139173		Expanded Uncertainty
10.09 %	Carbon dioxide	± 0.4 %
2.53 %	Carbon monoxide	± 0.6 %
10.48 %	Oxygen	± 0.4 %
Balance	Nitrogen	

Certification Information:

Certification Date: 10/16/2019 *Term:* 96 Months *Expiration Date:* 10/16/2027

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1.
Do Not Use this Standard if Pressure is less than 100 PSIG.
CO2 responses have been corrected for Oxygen IR Broadening effect. O2 responses have been corrected for CO2 interference.

Analytical Data:

(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)

1. ***Component:*** **Carbon dioxide**

Requested Concentration: 10 %
Certified Concentration: 10.09 %
Instrument Used: Horiba VIA-510 S/N 20C194WK
Analytical Method: NDIR
Last Multipoint Calibration: 09/18/2019

First Analysis Data:						Date	10/16/2019
Z:	0	R:	14	C:	10.09	Conc:	10.09
R:	14	Z:	0	C:	10.1	Conc:	10.1
Z:	0	C:	10.1	R:	14.01	Conc:	10.1
UOM:	%				Mean Test Assay:		10.09 %

Reference Standard: Type / Cylinder #: GMIS / CC164230
Concentration / Uncertainty: 14.00 % ±0.265%
Expiration Date: 04/16/2027
Traceable to: SRM # / Sample # / Cylinder #: SRM 1675b / 6-F-51 / CAL014538
SRM Concentration / Uncertainty: 13.963% / ±0.034%
SRM Expiration Date: 05/16/2022

Second Analysis Data:						Date	
Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0
UOM:	%				Mean Test Assay:		%

2. ***Component:*** **Carbon monoxide**

Requested Concentration: 2.5 %
Certified Concentration: 2.53 %
Instrument Used: Horiba VIA-510 S/N UB9UCSYX
Analytical Method: NDIR
Last Multipoint Calibration: 09/19/2019

First Analysis Data:						Date	10/16/2019
Z:	0	R:	5	C:	2.53	Conc:	2.53
R:	5	Z:	0	C:	2.53	Conc:	2.53
Z:	0	C:	2.54	R:	5.01	Conc:	2.54
UOM:	%				Mean Test Assay:		2.53 %

Reference Standard: Type / Cylinder #: GMIS / CC242633
Concentration / Uncertainty: 5.00 % ±0.543%
Expiration Date: 04/03/2025
Traceable to: SRM # / Sample # / Cylinder #: SRM 2642a / 51-D-23 / FF23106
SRM Concentration / Uncertainty: 7.859% / ±0.039%
SRM Expiration Date: 07/15/2019

Second Analysis Data:						Date	
Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0
UOM:	%				Mean Test Assay:		%

3. ***Component:*** **Oxygen**

Requested Concentration: 10.5 %
Certified Concentration: 10.48 %
Instrument Used: OXYMAT 5E
Analytical Method: Paramagnetic
Last Multipoint Calibration: 09/18/2019

First Analysis Data:						Date	10/16/2019
Z:	0	R:	9.88	C:	10.49	Conc:	10.48
R:	9.88	Z:	0	C:	10.49	Conc:	10.48
Z:	0	C:	10.5	R:	9.89	Conc:	10.49
UOM:	%				Mean Test Assay:		10.48 %

Reference Standard: Type / Cylinder #: NTRM / DT0010384
Concentration / Uncertainty: 9.875 % ±0.4%
Expiration Date: 11/18/2022
Traceable to: SRM # / Sample # / Cylinder #: NTRM / 170701 / NTRM DT0010384
SRM Concentration / Uncertainty: 9.875% / ±0.040%
SRM Expiration Date: 11/18/2022

Second Analysis Data:						Date	
Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0
UOM:	%				Mean Test Assay:		%

Analyzed By: Jose Vasquez

Certified By: Jenna Lockman

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