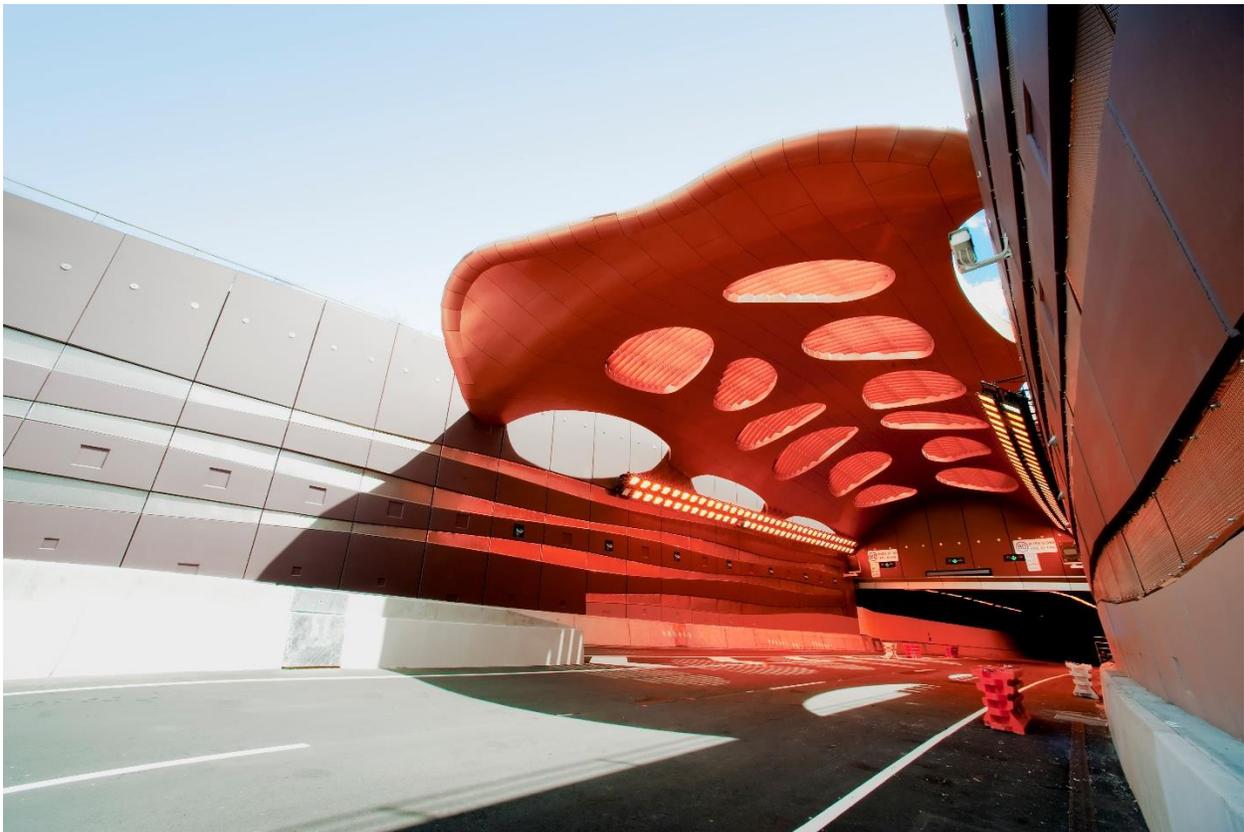


LAFARGE CANADA INC.

# AMBIENT AIR QUALITY MONTHLY REPORT SEPTEMBER 2020

OCTOBER 28, 2020



wsp



# AMBIENT AIR QUALITY MONTHLY REPORT

SEPTEMBER 2020

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-04  
DATE: OCTOBER 28, 2020

WSP  
SUITE 1000  
840 HOWE STREET  
VANCOUVER, BC, CANADA V6Z 2M1

T: +1 604 685-9381  
F: +1 604 683-8655  
WSP.COM



October 28, 2020

LAFARGE CANADA INC.  
Highway 1A  
Exshaw, AB T0L 2C0

**Attention: Janet Brygger**

Dear Ms. Brygger

**Subject: Ambient Air Quality Monthly Report – September 2020**

At the Lagoon station, the NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, and TSP all recorded 100% uptime for the month of September. The wind speed / wind direction analyzer and precipitation gauge recorded 100% uptime for the month of September. The temperature sensor recorded 99.4% uptime for the month of September due to four hours of non routine maintenance on September 1st from 10:00 – 13:00. PM<sub>2.5</sub> recorded 99.3% uptime for the month of September due to three hours of non routine maintenance on September 1st from 13:00 – 15:00, and two hours of equipment malfunction on September 2nd at 5:00 & 6:00. There were zero exceedances of the 24-hour TSP Alberta Ambient Air Quality Objectives (AAQOs), two exceedances of the 24-hour PM<sub>2.5</sub> AAQOs, and zero exceedances of the 1-hour PM<sub>2.5</sub> AAQG in September at the Lagoon monitoring location.

At the Windridge Station, PM<sub>10</sub> had 100% uptime for the month of September. PM<sub>2.5</sub> & TSP both recorded 99.9% uptime for the month of September due to one hour of equipment malfunction on September 5th at 2:00. There were 8 exceedances of the 24-hour TSP AAQO, 2 exceedances of the 24-hour PM<sub>2.5</sub> AAQO, and zero exceedances of the 1-hour PM<sub>2.5</sub> AAQG.

Data collected at all of the GRIMM monitors are considered Industrial Ambient Monitors and are meant for assessing the performance of Lafarge Exshaw's Fugitive Dust Control Best Management Practices – Program; the GRIMM monitors are not Air Monitoring Directive (AMD) compliant. The operational uptime at the 3 monitors was as follows: 90.3% at the West monitor due to 70 hours of collection error from September 17th at 7:00 to September 20th at 4:00; 93.3% at the Berm monitor due to 48 hours of collection error from September 17th at 7:00 to September 19th at 6:00; and 93.3% at the Entrance monitor due to 48 hours of collection error from September 17th at 7:00 to September 19th at 6:00 and further the Entrance GRIMM analyzer was removed from operation September 29th at 10:00 through to the end of the month to receive annual factory calibration and maintenance.

The West GRIMM monitor recorded zero exceedances of the 24-hour TSP AAQG and zero exceedances of 24-hour PM<sub>2.5</sub> AAQG. The Berm GRIMM had 12 exceedances of the TSP AAQG and 2 exceedances of the 24-hour PM<sub>2.5</sub> AAQG. The Entrance GRIMM monitor recorded 9 and 1 exceedances for the 24-hour TSP AAQG and 24-hour PM<sub>2.5</sub> AAQG, respectively.

I certify that I have reviewed and verified this report and that the information is complete, accurate and representative of the monitoring results, reporting timeframe and the specified analysis, summarization and reporting requirements.

SUITE 1000  
840 HOWE STREET  
VANCOUVER, BC, CANADA V6Z 2M1

T: +1 604 685-9381  
F: +1 604 683-8655  
wsp.com

Sincerely,

Tyler Abel, M.Sc.  
Team Leader, Environmental  
Management, Vancouver Office

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# SIGNATURES

## PREPARED BY



October 28, 2020

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Dylan Weyell, B.A.  
Junior Air Quality Specialist, Environment

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Date

## APPROVED<sup>1</sup> BY *(must be reviewed for technical accuracy prior to approval)*



October 28, 2020

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Tyler Abel, M.Sc.  
Team Leader, Environmental Management,  
Vancouver Region, Environment

---

Date

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### A DATA & CALIBRATION REPORTS

# 1 INTRODUCTION

This report summarizes the ambient air quality and meteorological data collected at the Lagoon, Windridge, and GRIMM monitors in Exshaw, AB. The stations are operated by WSP on behalf of Lafarge Canada Inc. (Lafarge) and are a requirement of Lafarge's Approval 1702-02-04. This report contains data collected between September 1, 2020 and September 30, 2020.

This monthly report was prepared by Dylan Weyell, Junior Air Quality Specialist with WSP, on behalf of Lafarge and was reviewed by Tyler Abel, Team Leader of Environmental Management in the Vancouver Region at WSP.

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## 1.1 EXSHAW CREEK FLOOD MITIGATION

Due to flood mitigation construction at Exshaw creek (Figure 1- 1), the Windridge monitoring station was taken out of operation and removed from the site on April 8, 2019. The flood mitigation work was completed in Summer 2020. The Windridge station was reinstalled for September 1, 2020 and is included in this report.



**Figure 1- 1 Photo of Completed Flood Mitigation Work at Exshaw Creek**

# 2 SEPTEMBER 2020 REPORT SUMMARY

This summary section provides the pertinent details on data collected and maintenance/calibration activities at each of the monitoring locations. The monitoring results for the stations are described in further detail in their corresponding sections. Maximum hourly concentrations are shown for all particulate matter size fractions, but there are no Alberta Ambient Air Quality Objectives (AAAQO) for 1-hour PM concentrations. The exceedances reported for 1-hour PM<sub>2.5</sub> are those above the 1-hour PM<sub>2.5</sub> Alberta Ambient Air Quality Guidelines (AAAQG).

## 2.1 LAGOON STATION

**Table 2-1 Lagoon station data summary**

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQO or AAAQG	Maximum Concentration	Exceedances of AAAQO
<b>NO<sub>2</sub> (ppb)</b>	100.0	21.2	0	13.1	-
<b>SO<sub>2</sub> (ppb)</b>	100.0	11.5	0	4.8	0
<b>PM<sub>2.5</sub> (µg/m<sup>3</sup>)</b>	99.3	64.7	0*	47.3	2
<b>PM<sub>10</sub> (µg/m<sup>3</sup>)</b>	100.0	263.4	-	72.4	-
<b>TSP (µg/m<sup>3</sup>)</b>	100.0	434.4	-	98.8	0
<b>Temperature (°C)</b>	99.4	27.6	-	19.1	-
<b>Wind Speed (km/hr) /Direction (Degrees)</b>	100.0	58.5/W	-	35.1/WSW	-
<b>Precipitation (mm)</b>	100.0	2.5*	-	25.25*	-

<sup>1</sup> Any exceedances reported for 1-hour PM<sub>2.5</sub> are over the guideline level (AAAQG) of 80 µg/m<sup>3</sup>.

<sup>2</sup> Maximum Daily Total Accumulation of Precipitation (mm)

<sup>3</sup> Monthly Total Accumulation of Precipitation (mm)

### Data Quality Notes:

- There were two exceedances of the 24-hour PM<sub>2.5</sub> AAAQO. These exceedances were due to wildfires in British Columbia and the western U.S. settling over Alberta on September 18<sup>th</sup> and 19<sup>th</sup> and polluting the Exshaw airshed.
- There were no exceedances of the 1-hour PM<sub>2.5</sub> AAAQG.
- There were no exceedances of the 24-hour TSP AAAQO.

### Calibration/Maintenance Notes:

- At the Lagoon station, the NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, TSP all recorded 100% uptime for the month of September. The wind speed / wind direction analyzer and precipitation gauge recorded 100% uptime for the month of September. The temperature sensor recorded 99.4% uptime for the month of September due to four hours of non routine maintenance on September 1<sup>st</sup> from 10:00 – 13:00. PM<sub>2.5</sub> recorded 99.3% uptime for the month of September due to three hours of non routine maintenance on September 1<sup>st</sup> from 13:00 – 15:00, and two hours of equipment malfunction on September 2<sup>nd</sup> at 5:00 & 6:00.

## 2.2 WINDRIDGE STATION

**Table 2-2 Windridge station data summary**

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQO or AAAQG	Maximum Concentration	Exceedances of AAAQO
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	99.9	57.0	0*	43.4	2
PM <sub>10</sub> (µg/m <sup>3</sup> )	100.0	484.0	-	159.3	-
TSP (µg/m <sup>3</sup> )	99.9	501.0	-	241.8	8

\* Any exceedances reported for 1-hour PM<sub>2.5</sub> are over the guideline level (AAAQG) of 80 µg/m<sup>3</sup>.

### Data Quality Notes:

- There were 2 exceedances of the 24-hour PM<sub>2.5</sub> AAAQO. These exceedances were due to wildfires in British Columbia and the western U.S. settling over Alberta on September 18<sup>th</sup> and 19<sup>th</sup> and polluting the Exshaw airshed.
- There was no exceedance of the 1-hour PM<sub>2.5</sub> AAAQG.
- There were 8 days exceeding the 24-hour TSP AAAQO.

### Calibration/Maintenance Notes:

- At the Windridge Station, PM<sub>10</sub> had 100% uptime for the month of September. PM<sub>2.5</sub> & TSP both recorded 99.9% uptime for the month of September due to one hour of equipment malfunction on September 5<sup>th</sup> at 2:00.

## 2.3 WEST GRIMM

The GRIMM monitors are Industrial Ambient Monitors meant to aid Lafarge in assessing the performance of their Fugitive Dust Control Best Management Practices – Program (FDCBMP-P). The AAAQO are used as Guidelines to evaluate the performance of the FDCBMP-P; however, these Industrial monitors are not Alberta Air Monitoring Directive (AMD) compliant and not required to show compliance with the AAAQO.

**Table 2-3 West station data summary**

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	90.3	42.6	0*	23.2	0
PM <sub>10</sub> (µg/m <sup>3</sup> )	90.3	58.7	-	29.9	-
TSP (µg/m <sup>3</sup> )	90.3	44.7	-	22.8	0

\* Any exceedances reported for 1-hour PM<sub>2.5</sub> are over the guideline level (AAAQG) of 80 µg/m<sup>3</sup>.

### Data Quality Notes:

- There were no exceedances of the 24-hour PM<sub>2.5</sub> AAAQG.
- There were no exceedances of the 1-hour PM<sub>2.5</sub> AAAQG.
- There were no exceedances of the 24-hour TSP AAAQG.

### Calibration/Maintenance Notes:

- The analyzer had 90.3% uptime for the month of September due to 70 hours of collection error from September 17<sup>th</sup> at 7:00 to September 20<sup>th</sup> at 4:00.

## 2.4 BERM GRIMM

The GRIMM monitors are Industrial Ambient Monitors meant to aid Lafarge in assessing the performance of their FDCBMP-P. The AAAQO are used as Guidelines to evaluate the performance of the FDCBMP-P; however, these Industrial monitors are not Alberta Air Monitoring Directive (AMD) compliant and not required to show compliance with the AAAQO.

**Table 2-4 Berm station data summary**

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	93.3	60.1	0*	30.1	2
PM <sub>10</sub> (µg/m <sup>3</sup> )	93.3	534.6	-	217.7	-
TSP (µg/m <sup>3</sup> )	93.3	2043.9	-	707.4	12

\* Any exceedances reported for 1-hour PM<sub>2.5</sub> are over the guideline level (AAAQG) of 80 µg/m<sup>3</sup>.

**Data Quality Notes:**

- There were 2 exceedances of the 24-hour PM<sub>2.5</sub> AAAQG. The exceedance on September 19<sup>th</sup> was due to wildfires in British Columbia and the western U.S. settling over Alberta and polluting the Exshaw airshed.
- There were no exceedances of the 1-hour PM<sub>2.5</sub> AAAQG.
- There were 12 days exceeding the 24-hour TSP AAAQG.

**Calibration/Maintenance Notes:**

- The analyzer had 93.3% uptime for the month of September due to 48 hours of collection error from September 17<sup>th</sup> at 7:00 to September 19<sup>th</sup> at 6:00.

## 2.5 ENTRANCE GRIMM

The GRIMM monitors are Industrial Ambient Monitors meant to aid Lafarge in assessing the performance of their FDCBMP-P. The AAAQO are used as Guidelines to evaluate the performance of the FDCBMP-P; however, these Industrial monitors are not Alberta Air Monitoring Directive (AMD) compliant and not required to show compliance with the AAAQO.

**Table 2-5 Entrance station data summary**

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	93.3	55.5	0*	35.6	1
PM <sub>10</sub> (µg/m <sup>3</sup> )	93.3	481.5	-	125.2	-
TSP (µg/m <sup>3</sup> )	93.3	1191.4	-	347.4	9

\* Any exceedances reported for 1-hour PM<sub>2.5</sub> are over the guideline level (AAAQG) of 80 µg/m<sup>3</sup>.

**Data Quality Notes:**

- There was 1 exceedance of the 24-hour PM<sub>2.5</sub> AAAQG. The exceedance on September 19<sup>th</sup> was due to wildfires in British Columbia and the western U.S. settling over Alberta and polluting the Exshaw airshed.
- There were no exceedances of the 1-hour PM<sub>2.5</sub> AAAQG.
- There were 9 days exceeding the 24-hour TSP AAAQG.

**Calibration/Maintenance Notes:**

- The analyzer had 93.3% uptime for the month of September due to 48 hours of collection error from September 17<sup>th</sup> at 7:00 to September 19<sup>th</sup> at 6:00.

- The Entrance GRIMM was removed from operation September 29<sup>th</sup> at 10:00 through to the end of the month to receive annual calibration and maintenance.

# 3 LAGOON STATION

The Lagoon trailer contains NO<sub>x</sub>, SO<sub>2</sub>, TSP, PM<sub>10</sub>, and PM<sub>2.5</sub> analyzers as well as meteorological sensors, and is shown in Figure 3-1. An ambient air quality station has been at this location since 2002, providing a long-term data record for air quality in the Exshaw area.

This section provides a summary of the monitoring activities for the Lagoon ambient air quality station, including: a table of instrumentation (**Error! Reference source not found.**), a data summary table (**Error! Reference source not found.**), site visit notes, a wind rose (Figure 3-2) and tables and graphs illustrating the monitoring results for September 2020.

All of the monitors comply with Alberta Environment and Parks Air Monitoring Directive (2016).

## 3.1 OPERATIONAL SUMMARY

A summary of the station operation for the month is provided in Table 3-1.

**Table 3-1 Instrumentation List at the Lagoon monitoring location**

Parameter Measured	Equipment Description	Notes
<b>PM<sub>2.5</sub> Concentrations</b>	MetOne BAM-1020 FRM Continuous Particulate Monitor	The PM <sub>2.5</sub> monitor was calibrated on September 4 <sup>th</sup> . The monitor had 99.3% uptime in September due to three hours of non routine maintenance on September 1st from 13:00 – 15:00, and two hours of equipment malfunction on September 2 <sup>nd</sup> at 5:00 & 6:00.
<b>PM<sub>10</sub> Concentrations</b>	MetOne BAM-1020 Continuous Particulate Monitor	The PM <sub>10</sub> monitor was calibrated on September 4 <sup>th</sup> . The monitor had 100% uptime in September.
<b>TSP Concentrations</b>	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on September 4 <sup>th</sup> . The monitor had 100% uptime in September.
<b>Oxides of Nitrogen</b>	TEI 42C	The NO <sub>x</sub> monitor was calibrated on September 2 <sup>nd</sup> & 14 <sup>th</sup> . The monitor had 100% uptime for the month of September.
<b>Sulphur Dioxide</b>	Teledyne API 102A	The SO <sub>2</sub> monitor was calibrated on September 2 <sup>nd</sup> & 14 <sup>th</sup> . The monitor had 100% uptime for the month of September.
<b>Precipitation</b>	MetOne 130 Rain/Snow Gauge	The monitor had 100% uptime for the month of September.

<b>Wind Speed</b>	MetOne Wind Sensor	The anemometer was calibrated September 1 <sup>st</sup> .
<b>Wind Direction</b>		The monitor had 100% uptime for the month of September.
<b>Ambient Temperature</b>	MetOne Ambient Temperature Sensor	The monitor had 99.4% uptime for the month of September due to four hours of non routine maintenance on September 1 <sup>st</sup> from 10:00 – 13:00.



**Figure 3-1** Inlets on the top of WSP's Lagoon monitor

## 3.2 MONITORING RESULTS AND TRENDS

The following wind rose (Figure 3-2) illustrates the frequency of wind speed by wind direction for two PM<sub>2.5</sub> exceedances recorded in September 2020. The wind rose indicates that the winds predominantly came from the west and west-southwest directions, which is typical for the airshed.

**Error! Reference source not found.** summarizes the hourly and daily concentrations recorded in September 2020. Table 3- 3 summarizes the recorded exceedances.

Figure 3-3 graphically illustrates the time series for hourly concentrations as well as wind speed and direction, while Figure 3-9 shows daily average concentrations recorded during September 2020 for the pollutants listed in **Error! Reference source not found.** Additionally, Figure 3-4 to Figure 3-8 show the histograms of the hourly concentrations of NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>, and TSP measured at the Lagoon station.

There were no exceedances of the 24-hour TSP (100 µg/m<sup>3</sup>) AAAQO. There was two exceedances of the 24-hour PM<sub>2.5</sub> (29 µg/m<sup>3</sup>) AAAQO that can be attributed to wildfires in British Columbia and the western U.S. settling over Alberta on September 18th & 19th and polluting the Exshaw airshed. There was no exceedance of the 1-hour PM<sub>2.5</sub> AAAQG (80 µg/m<sup>3</sup>).

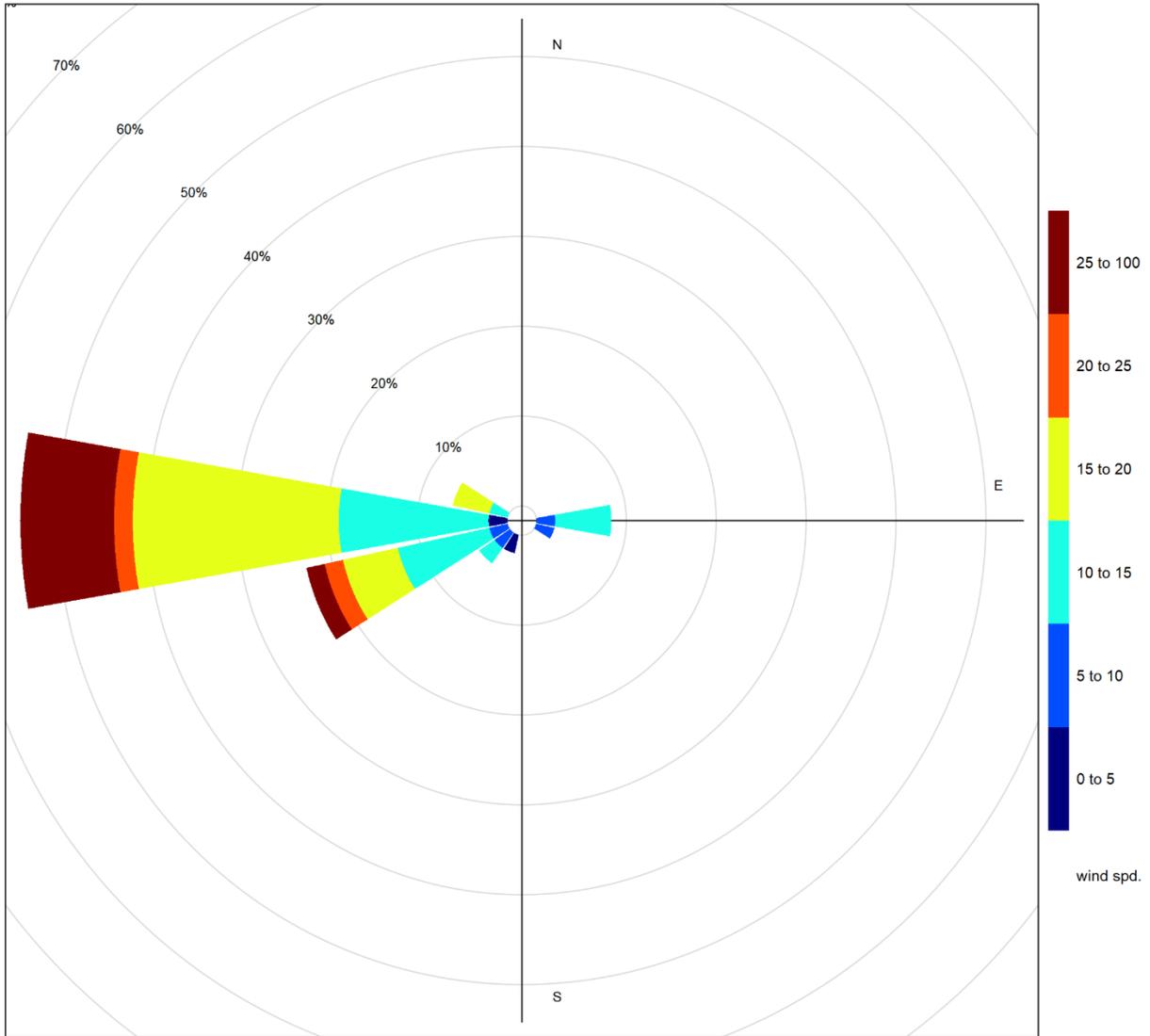
Historically in September, the average number of 24-hour TSP AAQO exceedances and 24-hour PM<sub>2.5</sub> AAAQO exceedances are both zero.

**Table 3- 2 Summary of September 2020 data at the Lagoon Station**

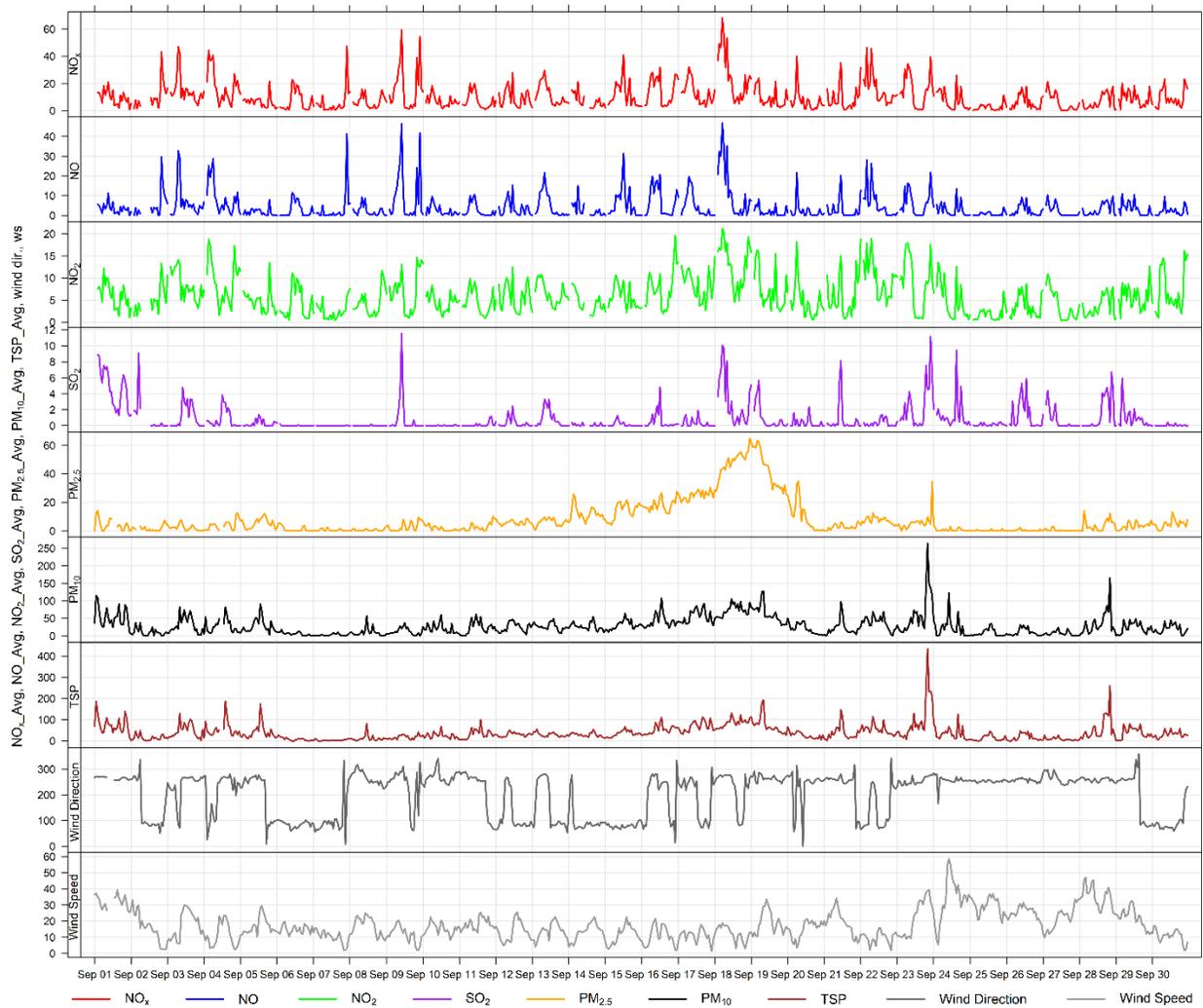
Parameter	Guideline / Objectives		Station	Exceedances		Monthly		1-hour					24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration/ Meteorological Variable	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration/ Meteorological Variable	Day	
<b>NO<sub>2</sub> (ppb)</b>	159	-	Lagoon	0	-	0.3	6.0	21.2	18	6	18.9	269.1	13.1	18	100.0
<b>SO<sub>2</sub> (ppb)</b>	172	48	Lagoon	0	0	0.0	0.8	11.5	9	11	14.7	288.2	4.8	1	100.0
<b>PM<sub>2.5</sub> (µg/m<sup>3</sup>)</b>	80	29	Lagoon	0	2	0.0	8.0	64.7	18	24	13.2	264.2	47.3	18	99.3
<b>PM<sub>10</sub> (µg/m<sup>3</sup>)</b>	-	-	Lagoon	-	-	0.0	27.9	263.4	23	21	38.9	271.6	72.4	18	100.0
<b>TSP (µg/m<sup>3</sup>)</b>	-	100	Lagoon	-	0	0.0	38.4	434.4	23	21	38.9	271.6	98.8	23	100.0
<b>Temperature (°C)</b>	-	-	Lagoon	-	-	0.9	13.0	27.6	5	14	28.0	265.2	19.1	5	99.4
<b>Wind Speed (km/hr)/Direction (degrees)</b>	-	-	Lagoon	-	-	1.4	17.6	58.5/W	24	11	58.5	255.9	35.1/WSW	28	100.0
<b>Precipitation (mm)</b>	-	-	Lagoon	-	-	0.0	0.0	2.5	4	13	17.9	266.9	25.3		100.0

**Table 3- 3 Days exceeding the TSP AAAQO or PM<sub>2.5</sub> AAAQO at the Lagoon Station**

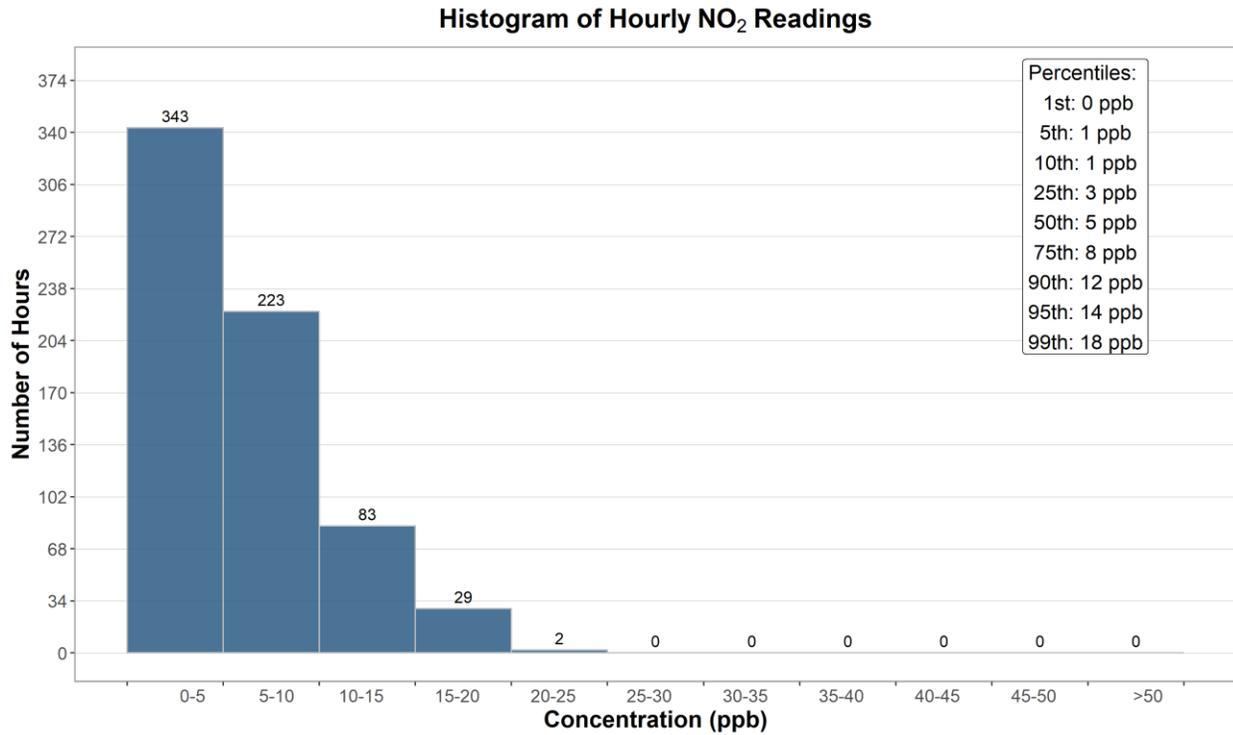
<b>Date</b>	<b>TSP (ug/m<sup>3</sup>)</b>	<b>PM<sub>2.5</sub> (ug/m<sup>3</sup>)</b>	<b>Average Wind Direction (degrees)</b>	<b>Average Wind Speed (km/hr)</b>	<b>Average RH (%)</b>	<b>Root Cause (Provided by Lafarge)</b>
<b>2020-09-18</b>	-	47.2	264.6	12.3	62.70	Winds predominately from the west; PM <sub>2.5</sub> exceedance due to B.C & U.S wildfires
<b>2020-09-19</b>	-	43.2	264.5	19.1	46.5	Winds predominately from the west; PM <sub>2.5</sub> exceedance due to B.C. & U.S wildfires
<b>Total # of Exceedances</b>	<b>0</b>	<b>2</b>				
<b>Maximum # of Exceedances (September)</b>	5 (2017)	5 (2017)				
<b>Average # of Exceedances (September)</b>	0	0				
<b>Minimum # of Exceedances (September)</b>	0 (2010 - 2016, 2018, 2019)	0 (2010 - 2016, 2018, 2019)				



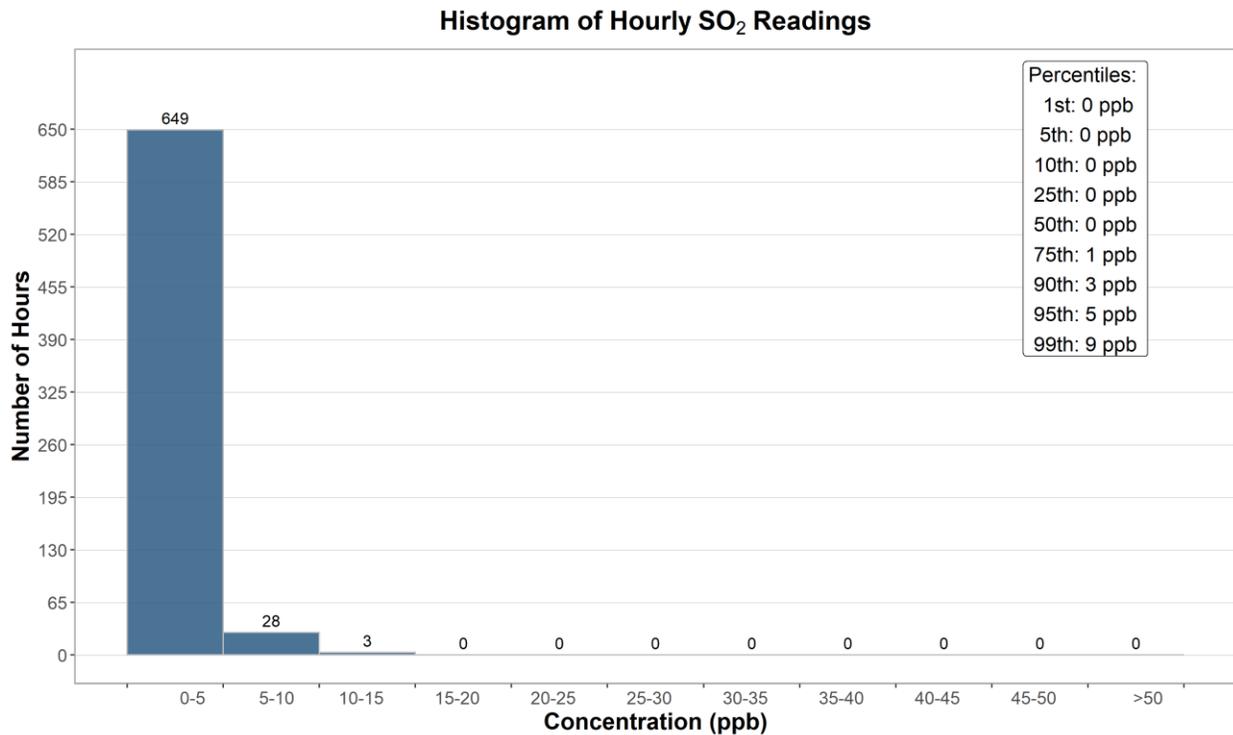
**Figure 3-2 Wind rose for PM<sub>2.5</sub> exceedance days recorded at the Lagoon Station**



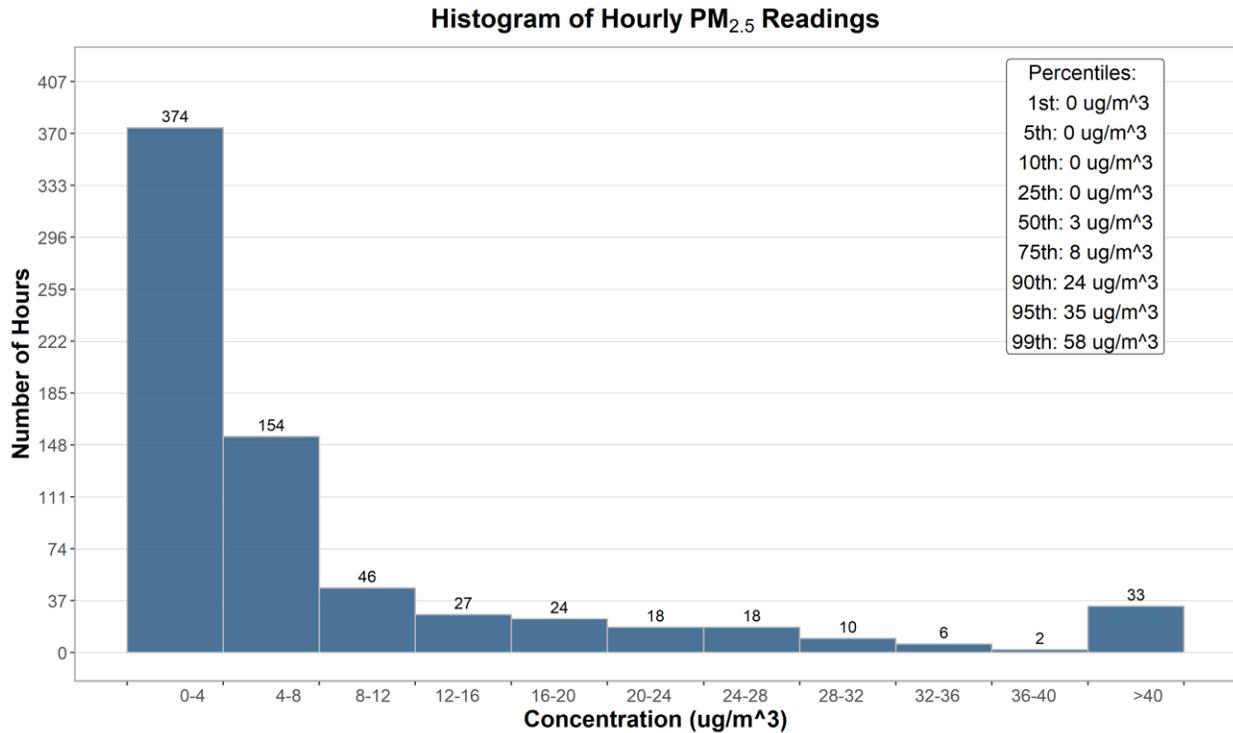
**Figure 3-3 1-hour concentrations of NO<sub>x</sub>, SO<sub>2</sub>, particulate matter, wind direction and wind speed at the Lagoon station**



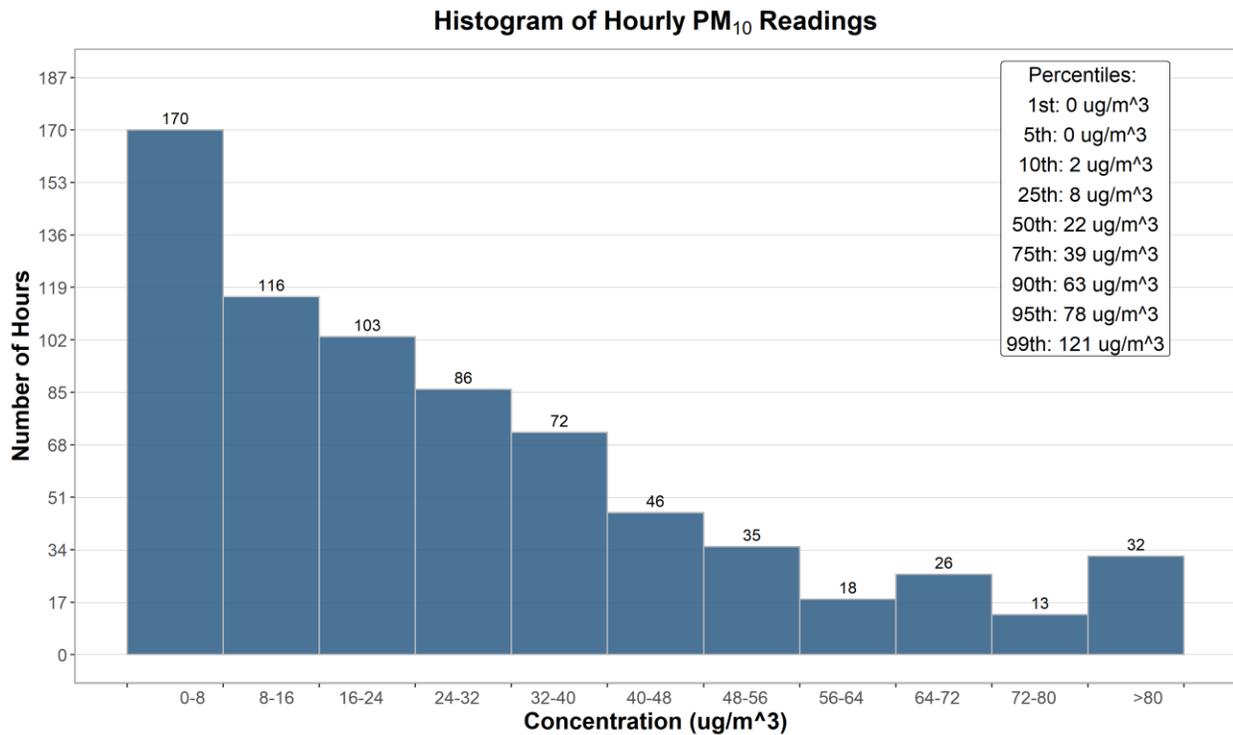
**Figure 3-4** Histogram of hourly NO<sub>2</sub> concentrations at the Lagoon station



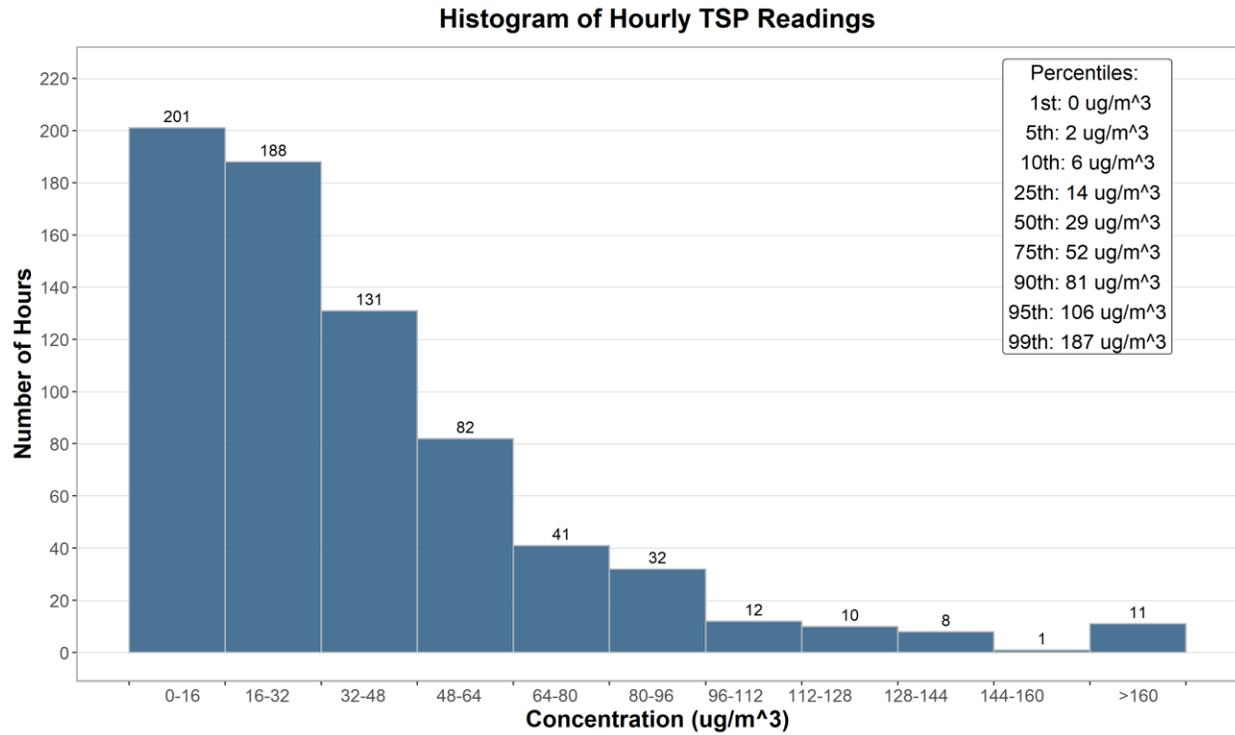
**Figure 3-5** Histogram of hourly SO<sub>2</sub> concentrations at the Lagoon station



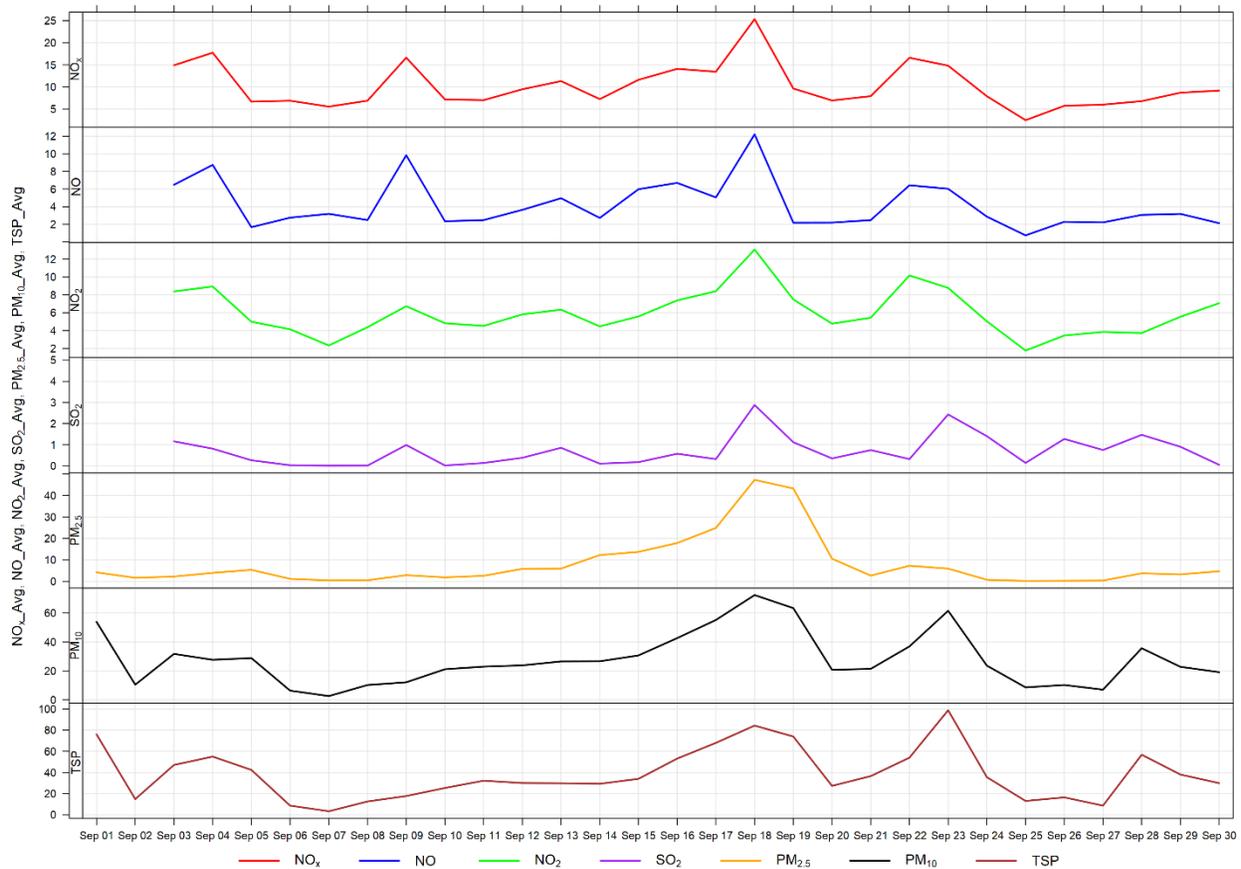
**Figure 3-6** Histogram of hourly PM<sub>2.5</sub> concentrations at the Lagoon station



**Figure 3-7** Histogram of hourly PM<sub>10</sub> concentrations at the Lagoon station



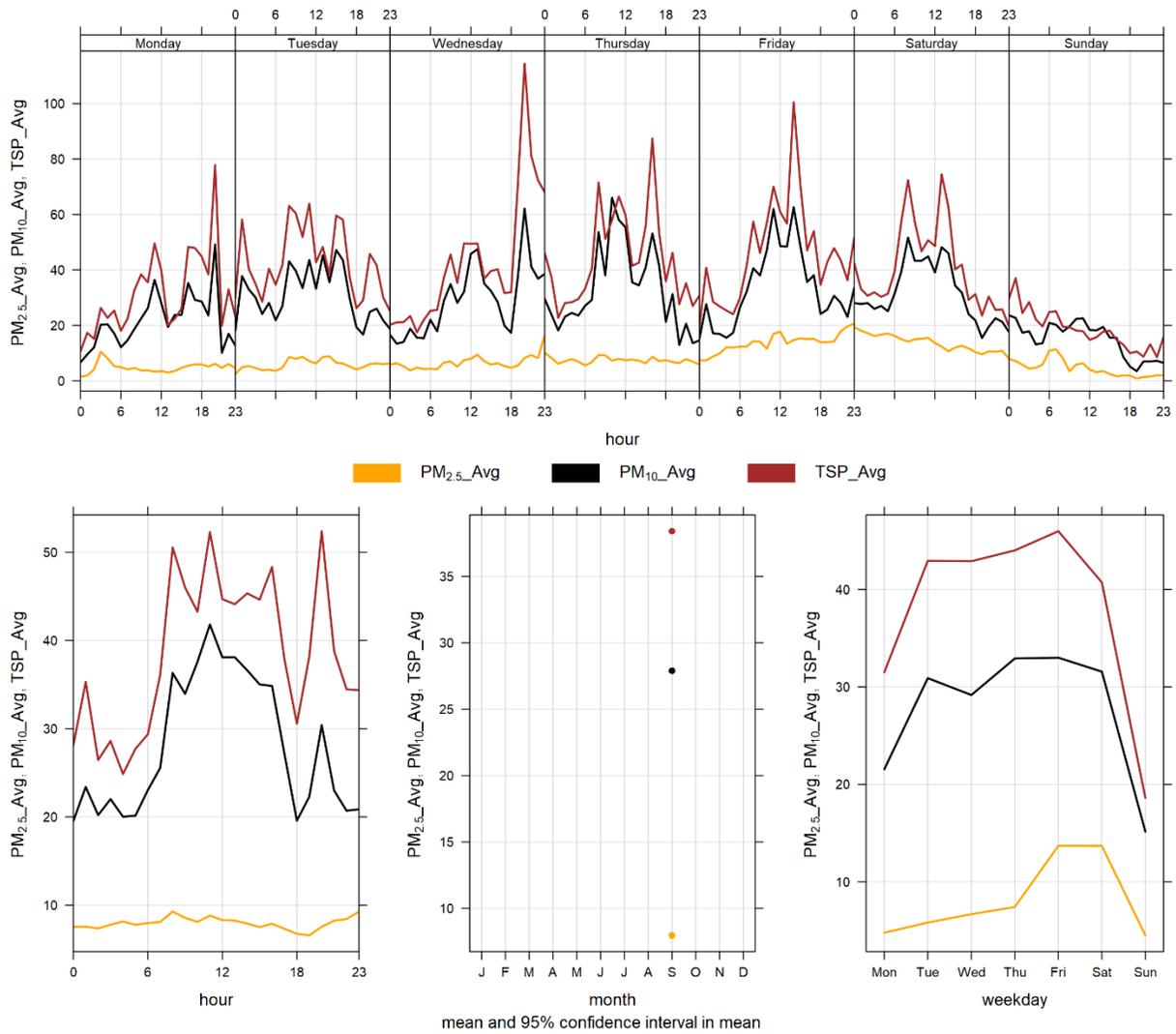
**Figure 3-8 Histogram of hourly TSP concentrations at the Lagoon station**



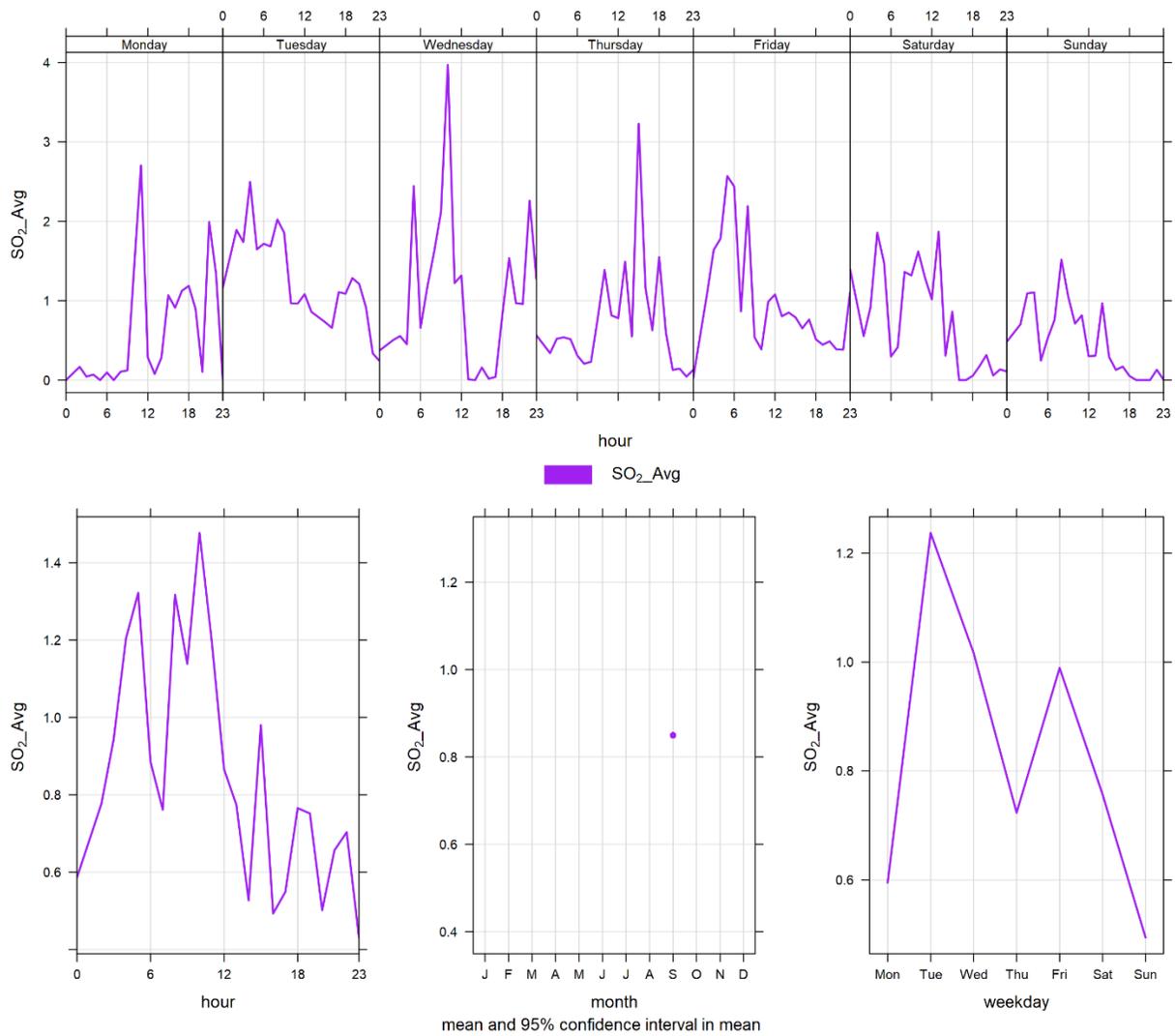
**Figure 3-9 24-hour concentrations of NO<sub>x</sub>, SO<sub>2</sub>, and particulate matter at the Lagoon monitor**

Figure 3-10 through Figure 3-12 show the variation in concentrations over various time averaging periods for PM, SO<sub>2</sub> and NO<sub>x</sub>. The particulate matter plot in Figure 3-10 shows that PM<sub>10</sub> and TSP concentrations shows a diurnal pattern associated with Lafarge operations, daytime emissions from traffic and other activities. The diurnal patterns also follow the diurnal pattern of higher wind speeds during the daytime hours.

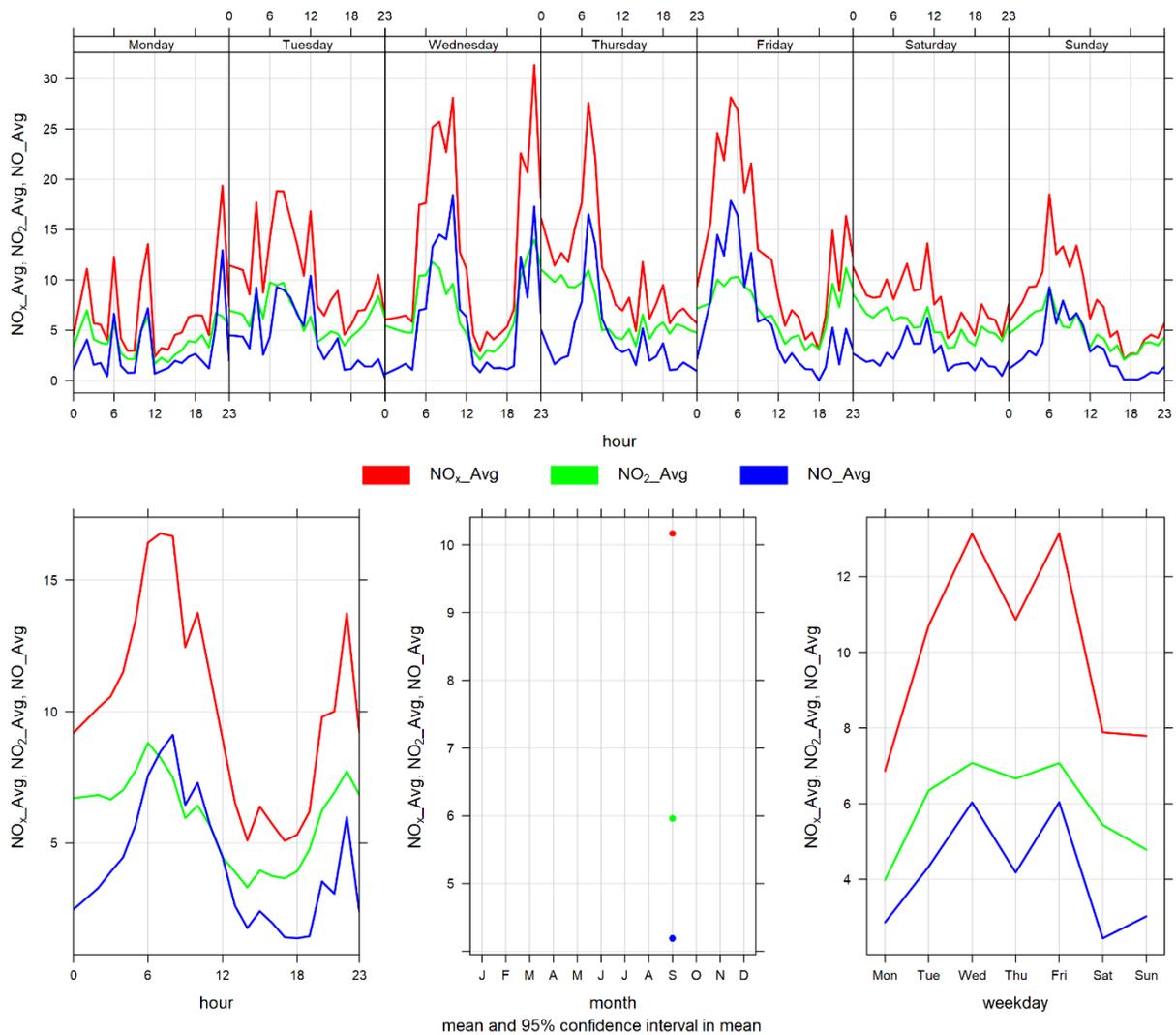
Figure 3-11 shows the variation of SO<sub>2</sub> over various time periods. SO<sub>2</sub> concentrations patterns are dependent on the timing of the highest SO<sub>2</sub> concentrations recorded in the month because in general SO<sub>2</sub> concentrations are very low. Figure 3-12 shows the variation of NO<sub>x</sub>, NO and NO<sub>2</sub>, with the peak of all three pollutants occurring in the early morning. This may be indicative of a peak in traffic.



**Figure 3-10 Lagoon monitor particulate matter time variation**



**Figure 3-11 Lagoon monitor SO<sub>2</sub> time variation**



**Figure 3-12 Lagoon monitor NO<sub>x</sub> time variation**

# 4 WINDRIDGE STATION

The Windridge station contains TSP, PM<sub>10</sub>, and PM<sub>2.5</sub> analyzers only. This section provides a summary of the monitoring activities for the Windridge ambient air quality station, including: a table of instrumentation (Table 4-1), a data summary table (Table 4-2), a table of recorded exceedances (Table 4-3), site visit notes, and graphs illustrating the monitoring results for September 2020.

All of the monitors comply with Alberta Environment and Parks Air Monitoring Directive (2016).

## 4.1 OPERATIONAL SUMMARY

A summary of the station operation for the month is provided in Table 4-1.

**Table 4-1 Instrumentation List at the Windridge monitoring location**

Parameter Measured	Equipment Description	Notes
<b>PM<sub>2.5</sub> Concentrations</b>	MetOne BAM-1020 FRM Continuous Particulate Monitor	The PM <sub>2.5</sub> monitor was calibrated on September 4 <sup>th</sup> . The monitor had 99.9% uptime in September due to one hour of equipment malfunction on September 5 <sup>th</sup> at 2:00.
<b>PM<sub>10</sub> Concentrations</b>	MetOne BAM-1020 Continuous Particulate Monitor	The PM <sub>10</sub> monitor was calibrated on September 4 <sup>th</sup> . The monitor had 100% uptime in September.
<b>TSP Concentrations</b>	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on September 4 <sup>th</sup> . The monitor had 99.9% uptime in September due to one hour of equipment malfunction on September 5 <sup>th</sup> at 2:00.

## 4.2 MONITORING RESULTS AND TRENDS

Table 4-2 summarizes the hourly and daily concentrations recorded in September 2020, and Table 4-3 summarizes the recorded exceedances. Figure 4-1 illustrates the time series for hourly PM, Figure 4-2 to Figure 4-4 illustrate the histograms for hourly PM, Figure 4-5 illustrates the time series for daily PM, Figure 4-6 displays the wind rose for the 24-hour TSP exceedance days, and Figure 4-7 illustrates the time series for hourly PM over different time periods.

There were two exceedances of the 24-hour PM<sub>2.5</sub> AAAQO, zero exceedances of the 1-hour PM<sub>2.5</sub> AAQ, and eight exceedances of the 24-hour TSP AAQO. The two PM<sub>2.5</sub> exceedances can be attributed to wildfires in British Columbia and the western U.S. settling over Alberta on September 18<sup>th</sup> & 19<sup>th</sup> and polluting the Exshaw airshed. Historically in September, the average number of 24-hour TSP AAQO exceedances and 24-hour PM<sub>2.5</sub> AAAQO exceedances are both zero.

Due to flood mitigation construction at Exshaw creek the Windridge monitoring station was taken out of operation and removed from the site on April 8, 2019. The flood mitigation work was completed in August 2020. The Windridge station was reinstalled for September 1<sup>st</sup>, 2020. As per the photo presented in section 1.1 the flood mitigation work has left an exposed creek bed area immediately west of the Windridge station. Based on the first month of reporting at this location fugitive dust from the exposed creek bed is likely contributing to high TSP concentrations and exceedances at the Windridge station.

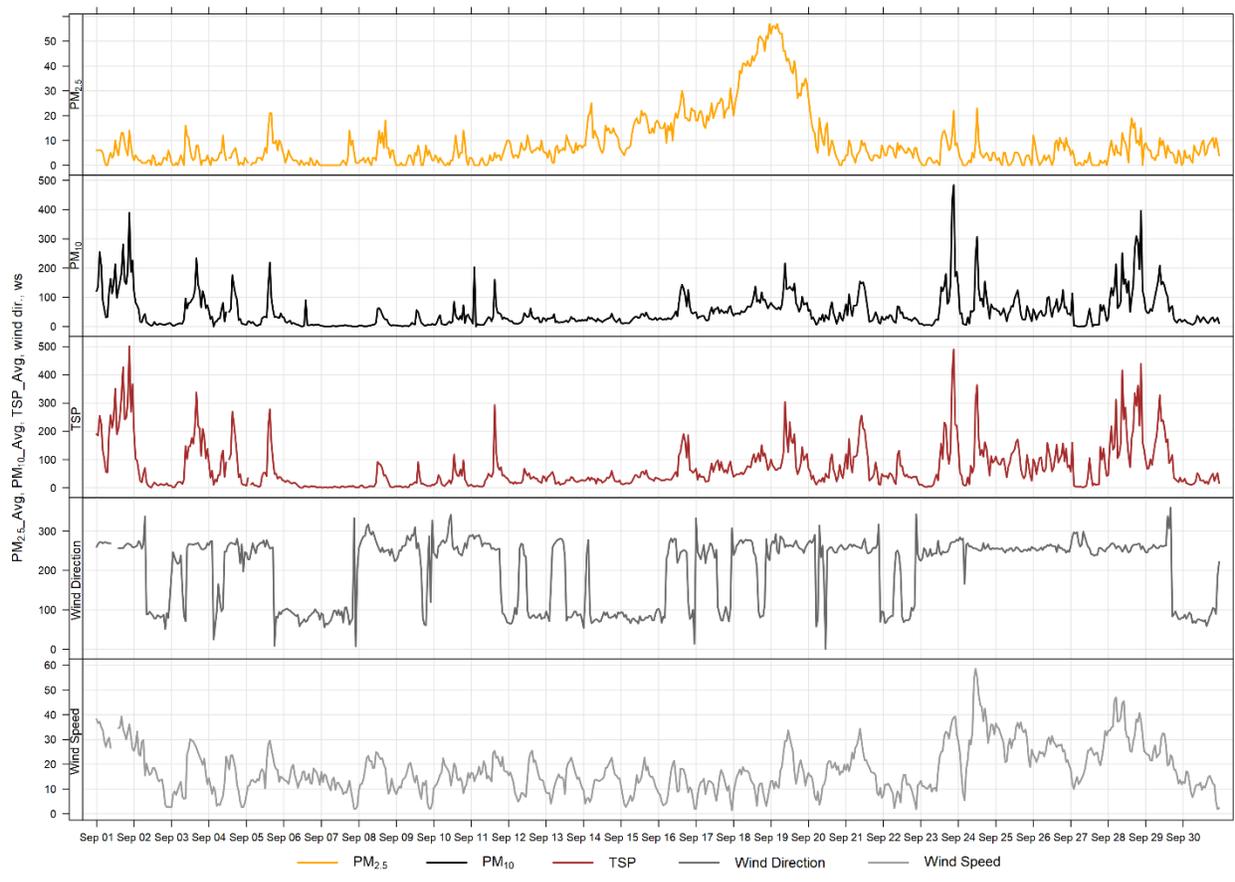
**Table 4-2 Summary of September 2020 data at the Windridge Station**

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration		Day
<b>PM<sub>2.5</sub></b> (µg/m <sup>3</sup> )	80	29	Windridge	0	2	0.0	8.8	57.0	18	23	10.4	225.9	43.4	18	99.9
<b>PM<sub>10</sub></b> (µg/m <sup>3</sup> )	-	-	Windridge	-	-	0.0	50.1	484.0	23	21	38.9	271.6	159.3	1	100.0
<b>TSP</b> (µg/m <sup>3</sup> )	-	100	Windridge	-	8	0.0	69.6	501.0	1	21	36.1	266.5	241.8	1	99.9

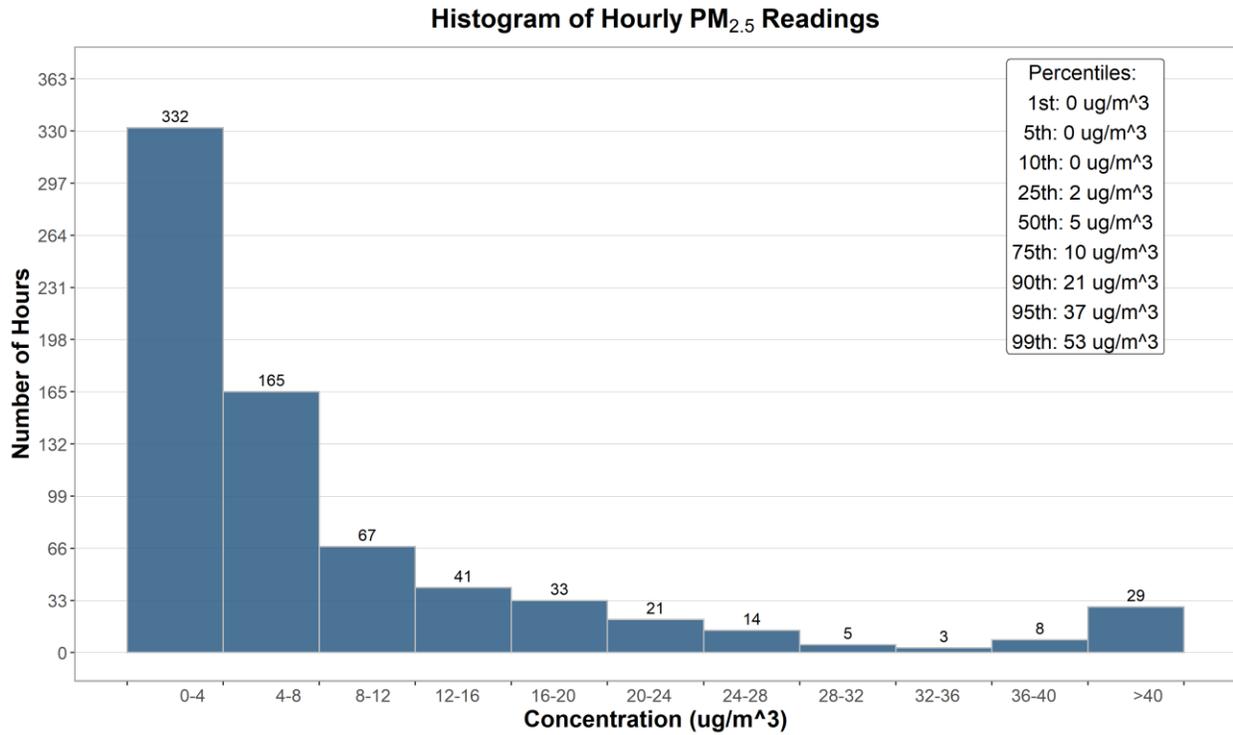
**Table 4-3 Days exceeding the TSP AAAQO or PM<sub>2.5</sub> AAAQO at the Windridge Station**

Date	TSP (ug/m <sup>3</sup> )	PM <sub>2.5</sub> (ug/m <sup>3</sup> )	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
<b>Windridge</b>						
<b>2020-09-01</b>	241.7	-	264.9	32.1	34.4	High wind event
<b>2020-09-03</b>	117	-	257.6	17.7	51.6	Winds predominately from the west
<b>2020-09-18</b>	-	43.3	264.6	12.3	62.7	Winds predominately from the west; PM <sub>2.5</sub> exceedance due to B.C & U.S wildfires
<b>2020-09-19</b>	116.8	41.6	264.5	19.1	46.5	Winds predominately from the west; PM <sub>2.5</sub> exceedance due to B.C & U.S wildfires
<b>2020-09-21</b>	101.8	-	259.8	19.3	40.1	Winds predominately from the west
<b>2020-09-23</b>	115.6	-	257.7	22.2	50.9	High wind event
<b>2020-09-24</b>	101.2	-	258	33.5	43.1	High wind event
<b>2020-09-28</b>	211	-	259.3	35.1	37.8	High wind event
<b>2020-09-29</b>	119.7	-	270.6	21.9	46.2	High wind event

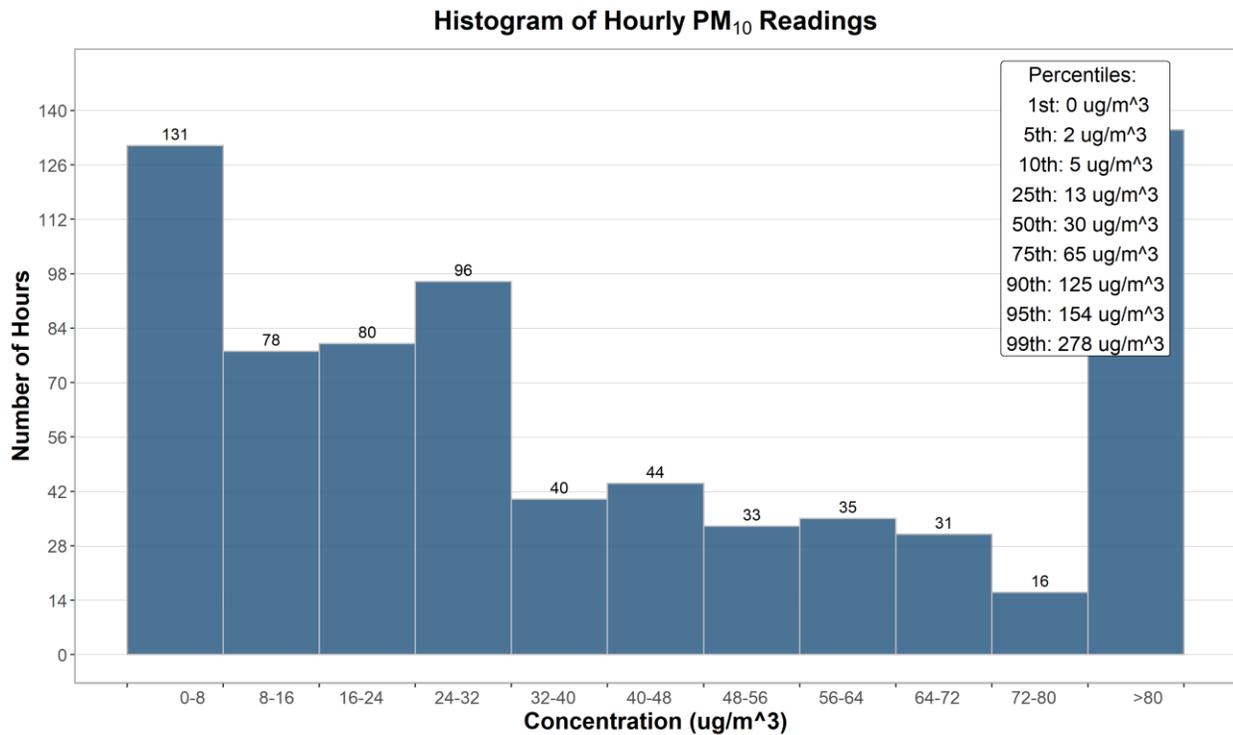
<b>Total # of Exceedances</b>	8	2				
<b>Maximum # of Exceedances (September)</b>	1 (2018)	1 (2018)				
<b>Average # of Exceedances (September)</b>	0	0				
<b>Minimum # of Exceedances (September)</b>	0 (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2019)	0 (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2019)				



**Figure 4-1 1-hour particulate matter concentrations recorded at the Windridge monitor**

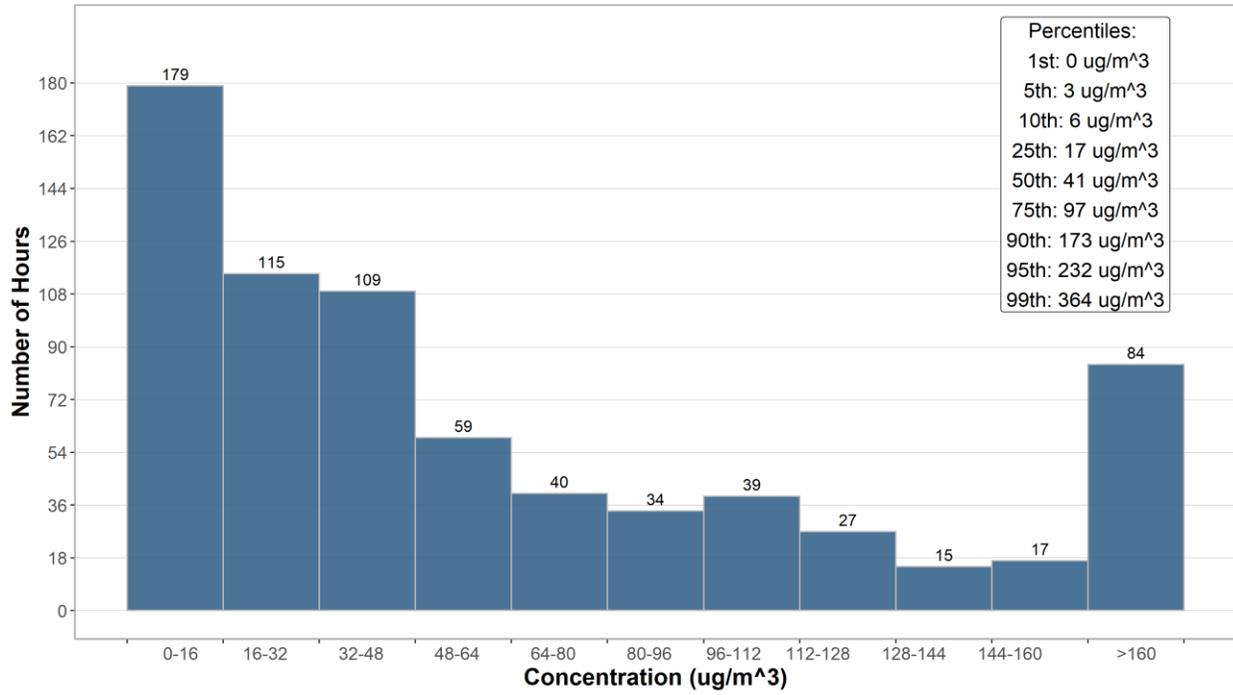


**Figure 4-2** Histogram of hourly PM<sub>2.5</sub> concentrations at the Windridge station

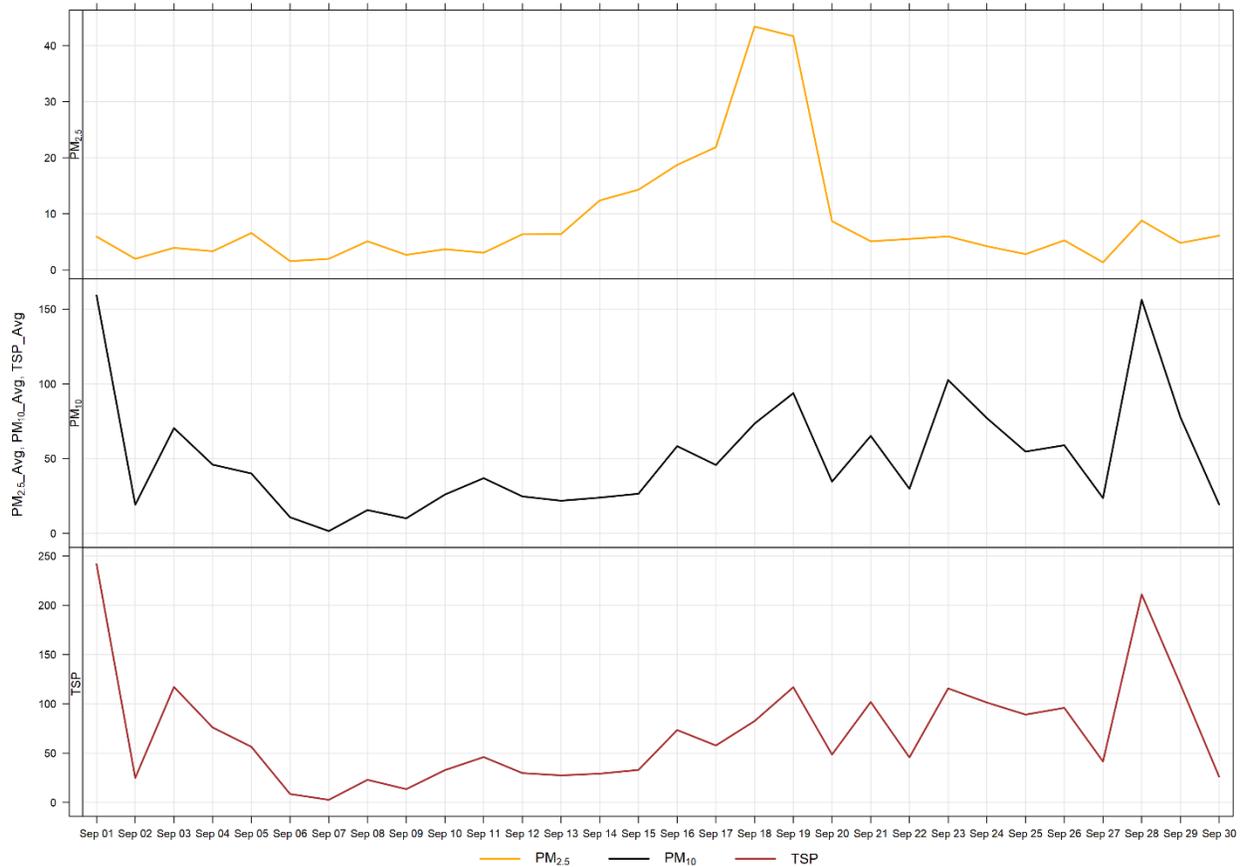


**Figure 4-3** Histogram of hourly PM<sub>10</sub> concentrations at the Windridge station

**Histogram of Hourly TSP Readings**



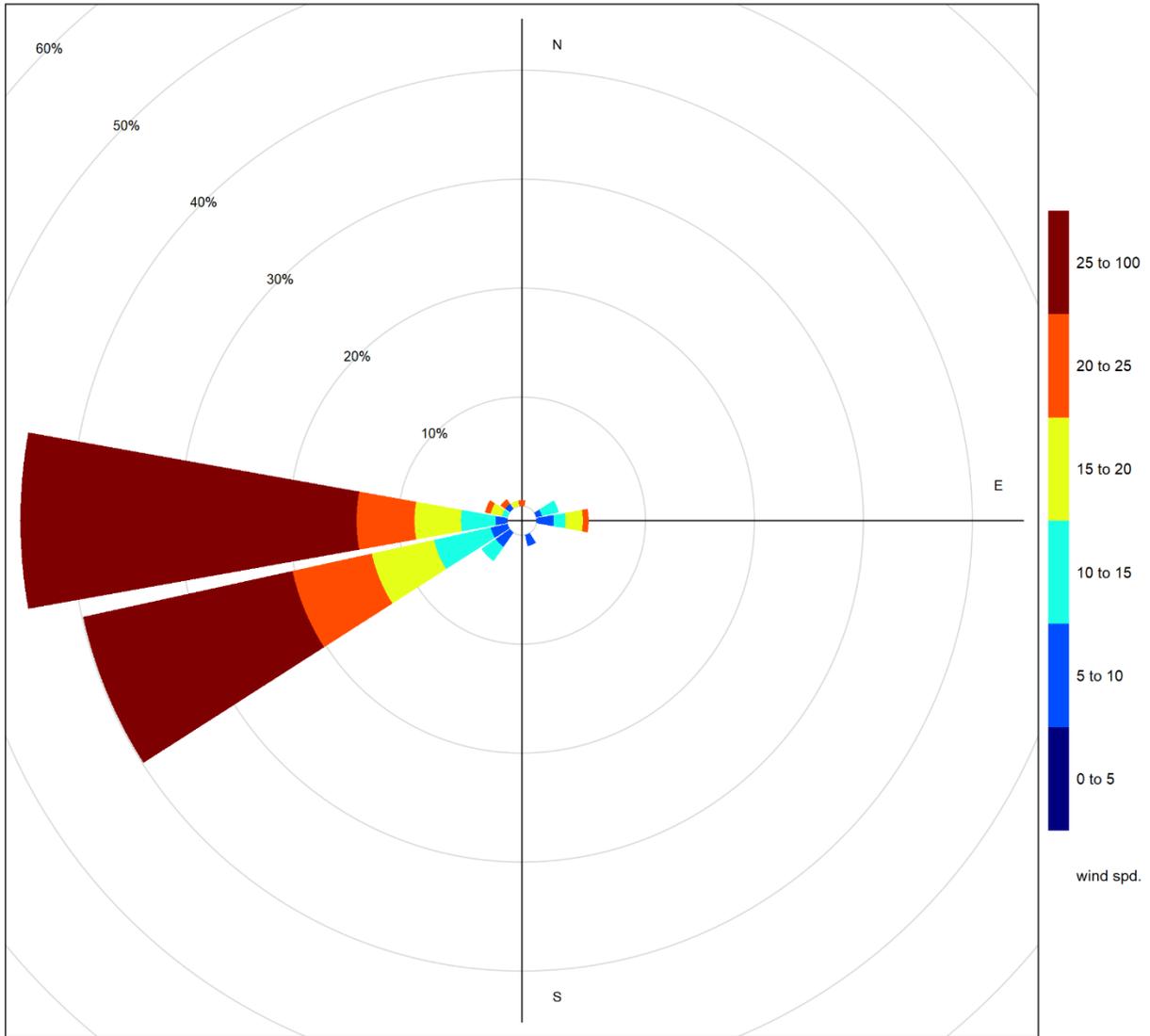
**Figure 4-4 Histogram of hourly TSP concentrations at the Windridge station**



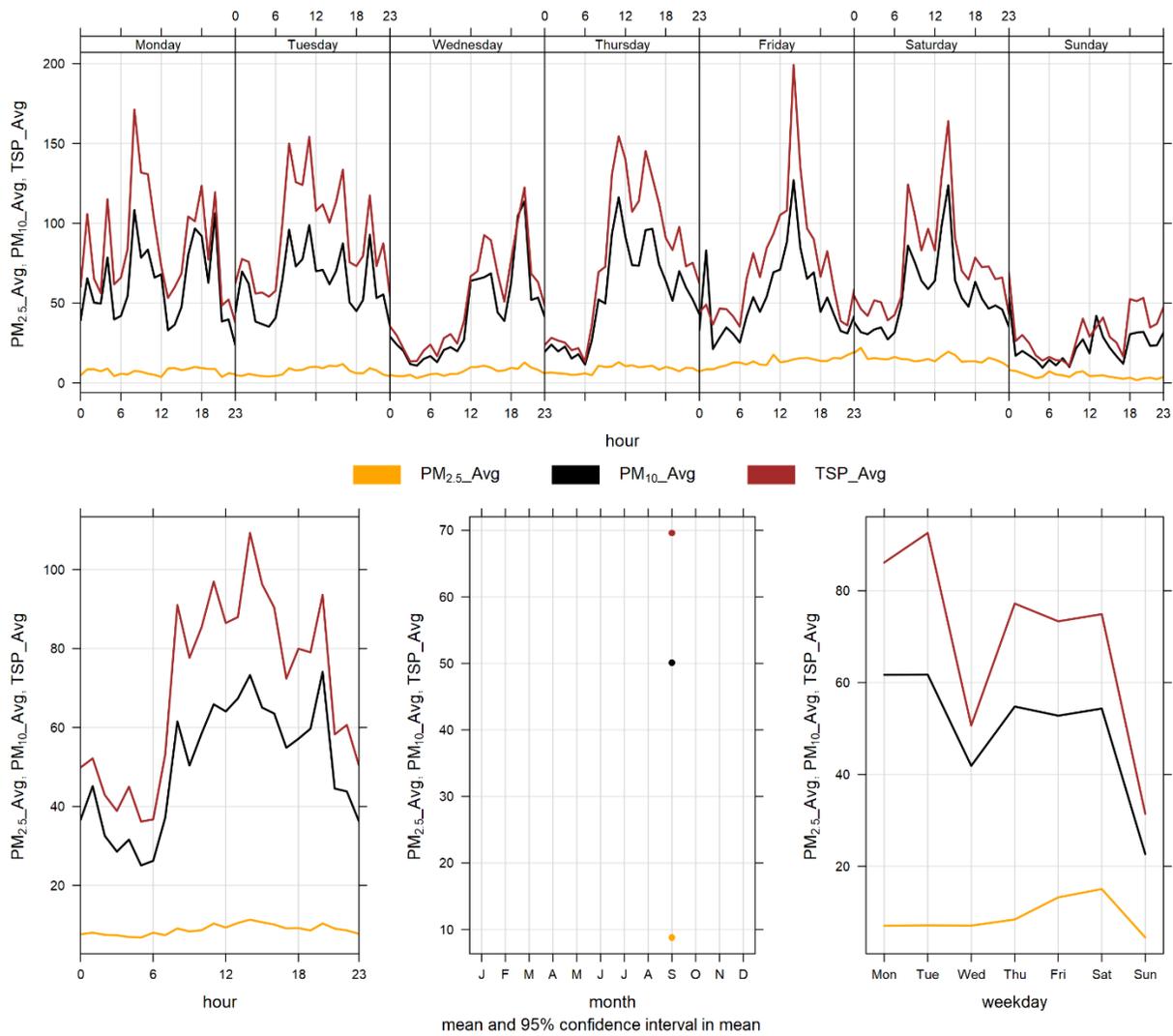
**Figure 4-5 24-hour particulate matter concentrations at the Windridge monitor**

Figure 4-6 shows the wind rose for the 8 days of TSP exceedances. The wind rose shows that the winds predominantly came from the west and west-southwest directions, and were predominately over 20 km/hr.

Figure 4-7 illustrates the hourly PM concentrations recorded at the Windridge monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 4-7 is based on data collected during September 2020 and similar to the Lagoon station shows a diurnal pattern associated with Lafarge operations, daytime emissions from traffic and other activities. The diurnal patterns also follow the diurnal pattern of higher wind speeds during the daytime hours.



**Figure 4-6 Wind rose for TSP exceedance day recorded at the Windridge Station**



**Figure 4-7 Windridge particulate matter time variation**

# 5 WEST INDUSTRIAL GRIMM

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## 5.1 OPERATIONAL SUMMARY

A summary of the station operation for the month is provided in Table 5-1.

**Table 5-1 Instrumentation List at the West monitoring location**

Parameter Measured	Equipment Description	Notes
PM <sub>2.5</sub> , PM <sub>10</sub> , TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 90.3% uptime for the month of September due to 70 hours of collection error from September 17th at 7:00 to September 20th at 4:00.

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## 5.2 MONITORING RESULTS AND TRENDS

The West GRIMM was installed in its current location in order to monitor “background” PM concentrations since the predominant wind pattern is from west to east in the valley. Table 5-2 summarizes the maximum 1-hour and 24-hour concentrations recorded over the course of the month. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO.

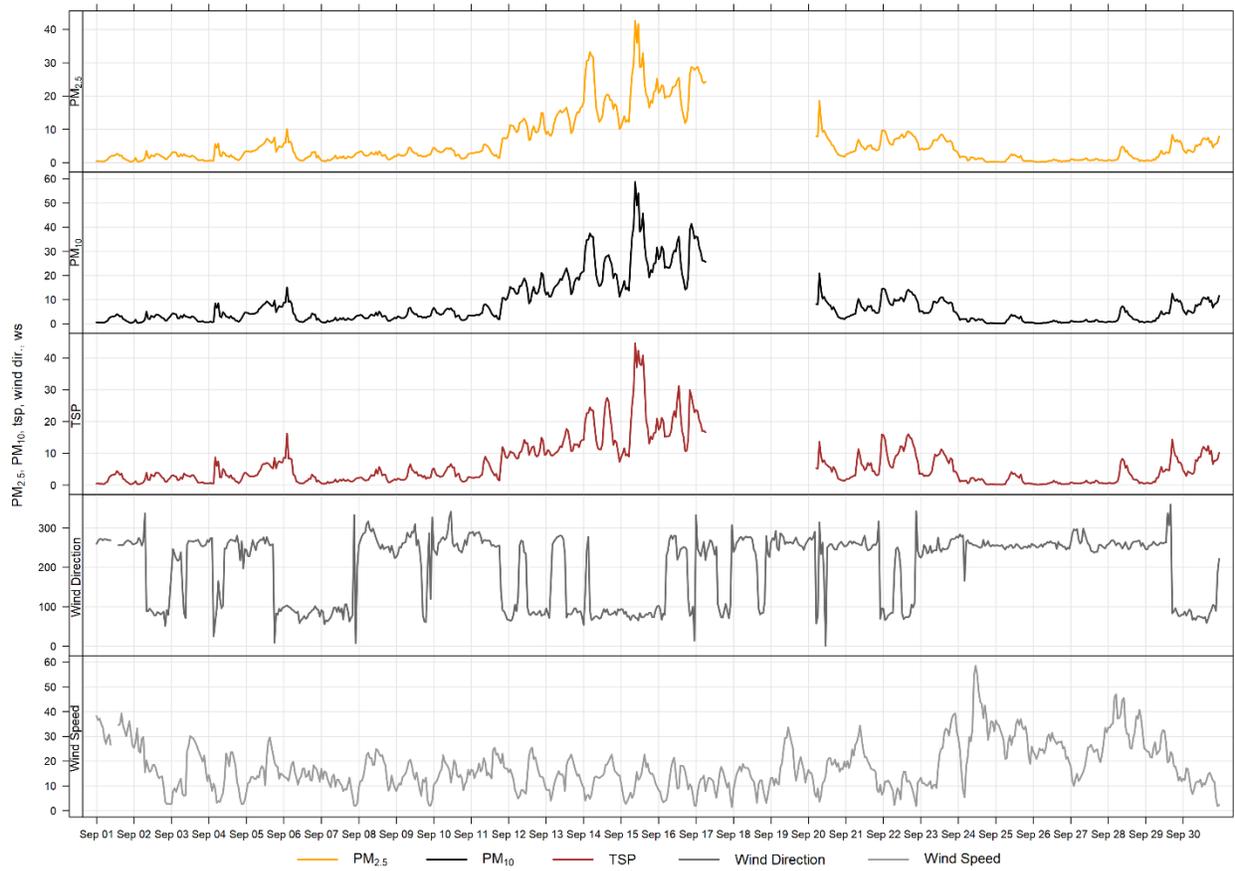
Figure 5-1 and Figure 5-2 show the hourly and daily PM<sub>2.5</sub>, PM<sub>10</sub> and TSP concentrations recorded over the month.

There were zero exceedances of the 24-hour TSP guideline (100 µg/m<sup>3</sup>) and zero exceedances of the PM<sub>2.5</sub> (29µg/m<sup>3</sup>) guideline.

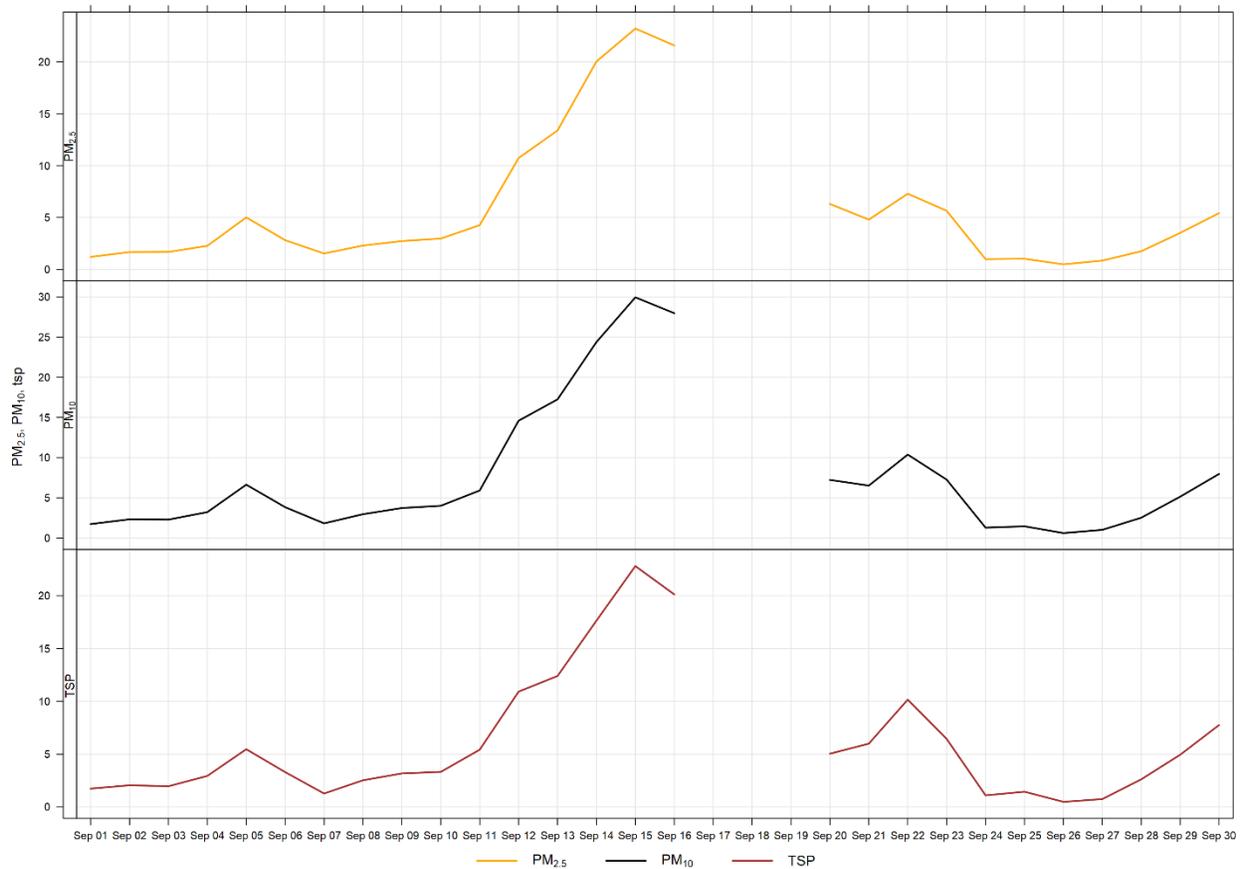
Historically in September, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM<sub>2.5</sub> AAAQO exceedances is zero, respectively. The maximum number of 24-hour TSP AAAQO exceedances was 1 day in 2017 for TSP, and 2 days in 2017 for PM<sub>2.5</sub>.

**Table 5-2 Summary of September 2020 data at the West GRIMM**

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration		Day
<b>PM<sub>2.5</sub></b> (µg/m <sup>3</sup> )	80	29	West	0	0	0.2	5.9	42.6	15	9	10.3	73.1	23.2	15	90.3
<b>PM<sub>10</sub></b> (µg/m <sup>3</sup> )	-	-	West	-	-	0.2	7.8	58.7	15	9	10.3	73.1	29.9	15	90.3
<b>TSP</b> (µg/m <sup>3</sup> )	-	100	West	-	0	0.1	6.2	44.7	15	9	10.3	73.1	22.8	15	90.3

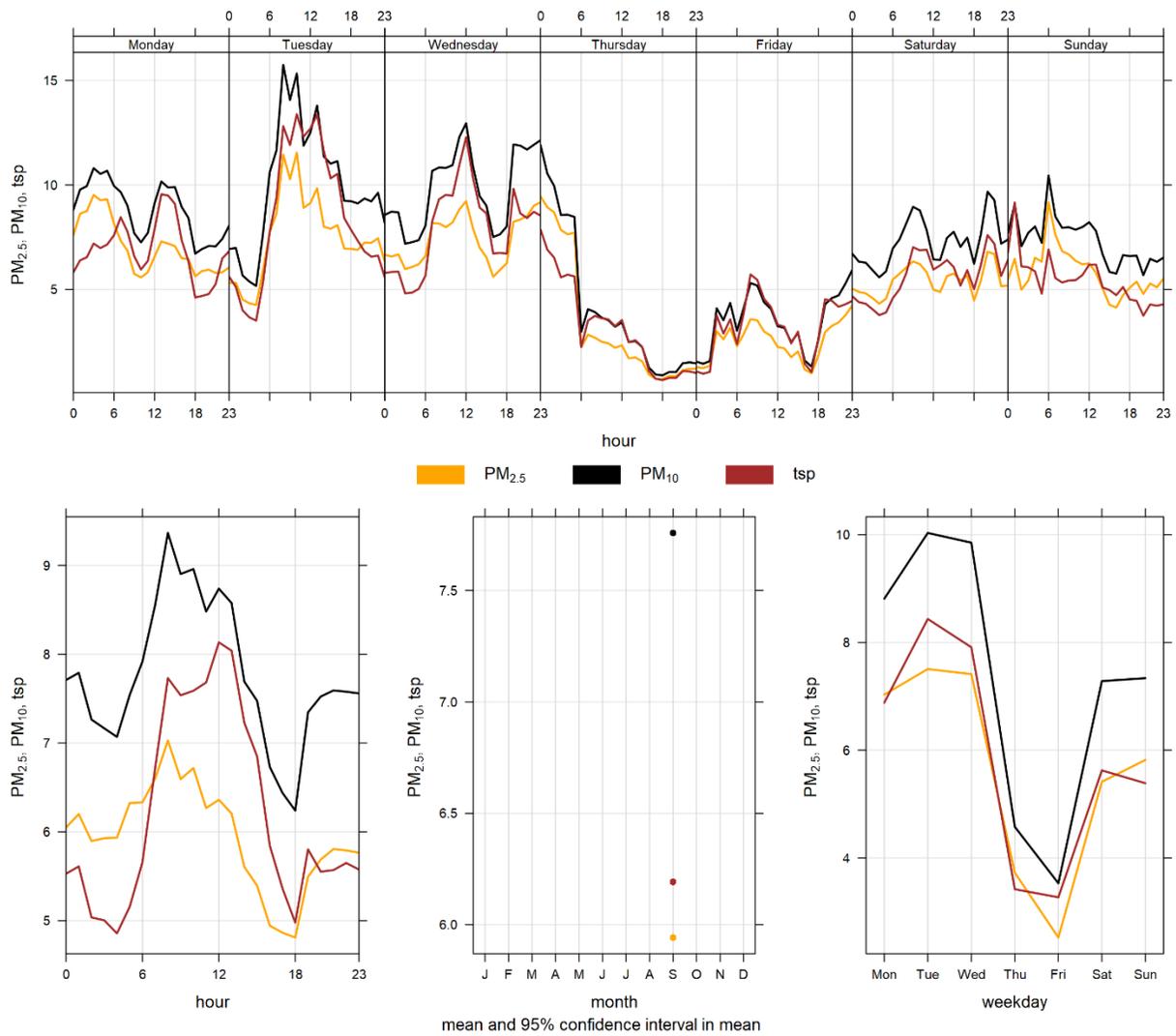


**Figure 5-1 1-hour particulate matter concentrations at the West monitor**



**Figure 5-2 24-hour particulate matter concentrations at the West monitor**

Figure 5- illustrates the hourly PM concentrations recorded at the West monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 5- is based on data collected during September 2020 and indicates a diurnal relationship that could be due to the proximity of the West monitor to the highway. As the monitor is generally ‘up-wind’ of the facility, the daily variations in PM are more likely a result of higher traffic volume during daylight hours than specific Lafarge operations.



**Figure 5-3 West particulate matter time variation**

# 6 BERM INDUSTRIAL GRIMM

## 6.1 OPERATIONAL SUMMARY

A summary of the station operation for the month is provided in Table 6-1.

**Table 6-1 Instrumentation List at the Berm monitoring location**

Parameter Measured	Equipment Description	Notes
PM <sub>2.5</sub> , PM <sub>10</sub> , TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 93.3% uptime for the month of September due to 48 hours of collection error from September 17th at 7:00 to September 19th at 6:00.

## 6.2 MONITORING RESULTS AND TRENDS

The Berm monitor was placed at its current location as a result of the dispersion modelling conducted for the facility in 2009. Figure 6-1 and Figure 6-2 show the hourly and daily PM<sub>2.5</sub>, PM<sub>10</sub> and TSP concentrations recorded over the month. Table 6-2 summarizes the maximum 1-hour and 24-hour PM concentrations recorded during the month, and Table 6-3 summarizes the recorded exceedances. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO.

There were 12 and 2 exceedances of the 24-hour TSP (100 µg/m<sup>3</sup>) and PM<sub>2.5</sub> (29 µg/m<sup>3</sup>) guidelines, respectively. There were zero hours exceeding the 1-hour PM<sub>2.5</sub> AAAQG. The PM<sub>2.5</sub> exceedance on September 19<sup>th</sup> occurred because wild fire smoke from British Columbia and the United States affected the region.

Historically during the month of September, the Berm monitor records an average of 11 and 1 exceedances of the 24-hour TSP and PM<sub>2.5</sub> guidelines, respectively. The maximum number of TSP exceedances recorded during September occurred in 2011 where there were 19 days that exceeded the guideline. On the other hand, the maximum number of PM<sub>2.5</sub> exceedances in September was 7 days in 2017.

It should also be noted that the GRIMM monitors become more conservative in the reported PM concentrations as the size fraction increases. The PM<sub>2.5</sub> size fraction has been shown to match other regulatory approved PM<sub>2.5</sub> monitors, but the TSP concentrations recorded by the GRIMM tend to be higher than regulatory approved monitors (Levelton, 2015).

The Berm monitor is located along a ridge at the edge of the Lafarge property and is in an area where on-site trucks drive through site, which can create fugitive dust. Quarry blasting also has the potential to impact short term PM immediately following a blast.

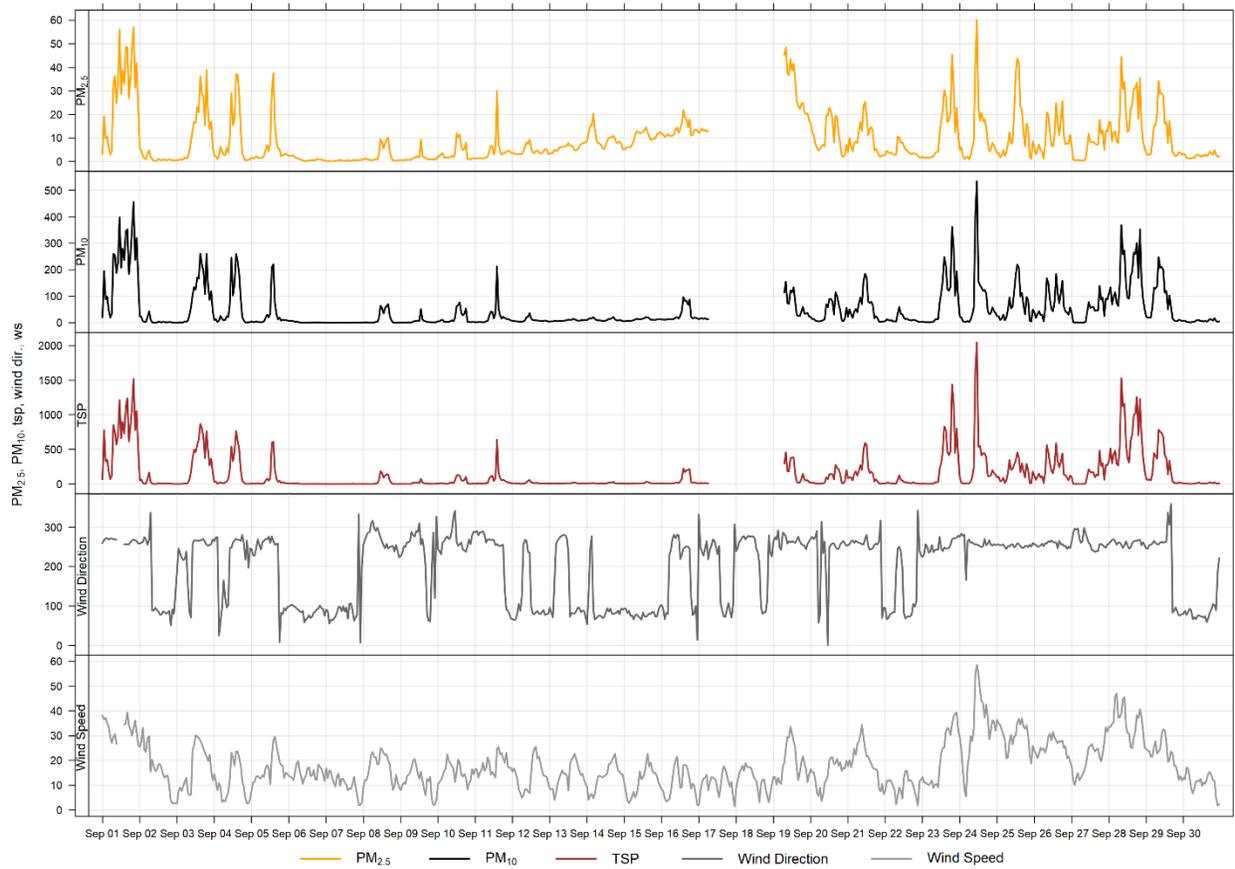
**Table 6-2 Summary of September 2020 data at the Berm GRIMM**

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour					Maximum 24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
<b>PM<sub>2.5</sub></b> (µg/m <sup>3</sup> )	80	29	Berm	0	2	0.0	9.2	60.1	24	11	58.5	255.9	30.1	19	93.3
<b>PM<sub>10</sub></b> (µg/m <sup>3</sup> )	-	-	Berm	-	-	0.0	47.8	534.6	24	11	58.5	255.9	217.7	1	93.3
<b>TSP</b> (µg/m <sup>3</sup> )	-	100	Berm	-	12	0.0	144.3	2043.9	24	11	58.5	255.9	707.4	1	93.3

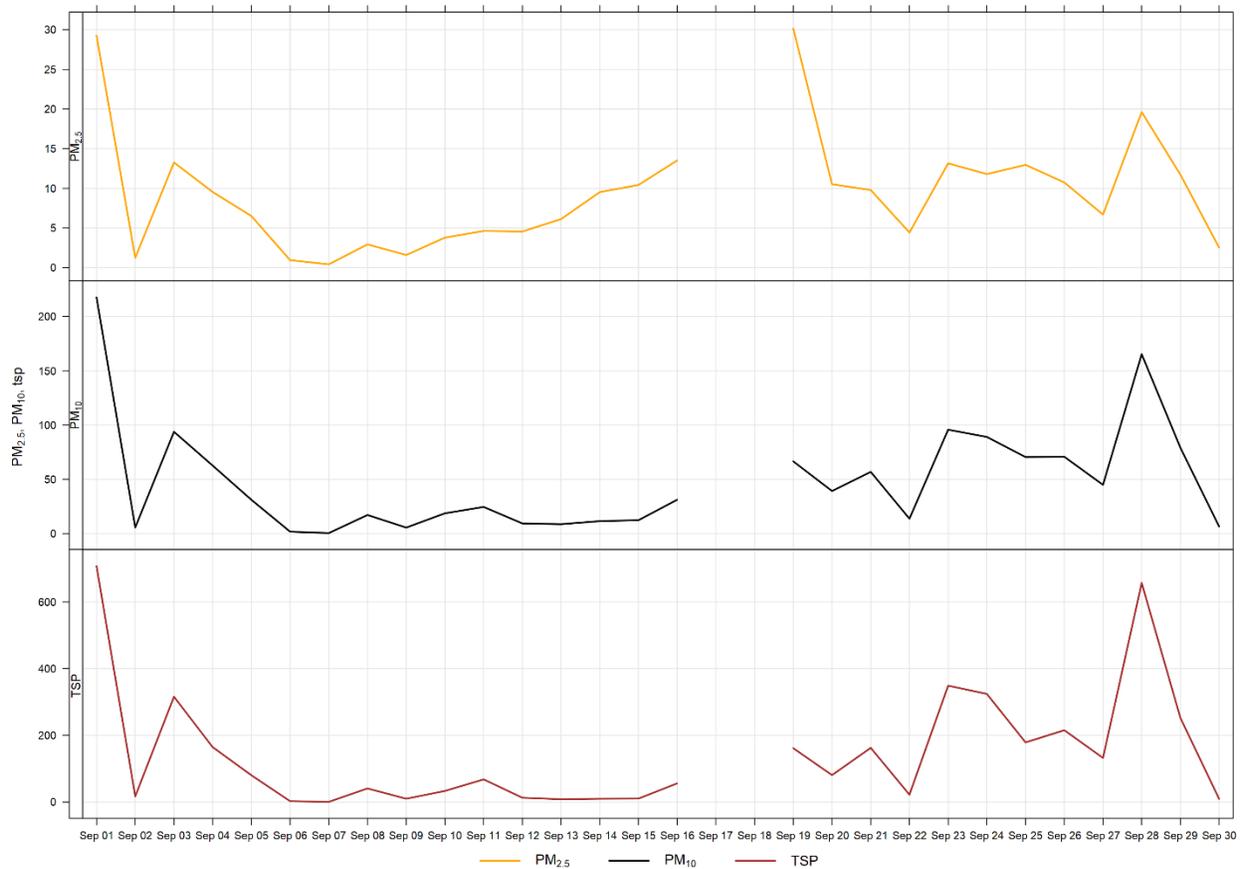
**Table 6-3 Days exceeding the Guideline for TSP or PM<sub>2.5</sub> at the Berm Monitor**

Date	TSP (ug/m <sup>3</sup> )	PM <sub>2.5</sub> (ug/m <sup>3</sup> )	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
<b>Berm</b>						
2020-09-01	707.4	29.3	265.0	32.2	34.5	High wind event
2020-09-03	315.6	-	257.7	17.7	51.6	Winds predominately from the west
2020-09-04	164.4	-	262.5	11.1	49.2	Winds predominately from the west
2020-09-19	161.2	30.1	264.5	19.1	46.5	Winds predominately from the west; PM <sub>2.5</sub> exceedance due to B.C & U.S wildfires
2020-09-21	162.3	-	259.9	19.4	40.1	Winds predominately from the west
2020-09-23	348.7	-	257.7	22.3	50.9	High wind event
2020-09-24	324.0	-	258.0	33.6	43.1	High wind event
2020-09-25	178.6	-	253.2	29.7	39.3	High wind event
2020-09-26	215.3	-	256.9	25.3	41.2	High wind event
2020-09-27	132.2	-	258.8	21.2	40.7	High wind event
2020-09-28	656.9	-	259.3	35.1	37.8	High wind event
2020-09-29	252.2	-	270.7	21.9	46.3	High wind event
<b>Total # of Exceedances</b>	12	2				
<b>Maximum # of Exceedances (September)</b>	19 (2011)	7 (2017)				

<b>Average # of Exceedances (September)</b>	11	1				
<b>Minimum # of Exceedances (September)</b>	7 (2013)	0 (2010, 2011, 2012 - 2015, 2019)				



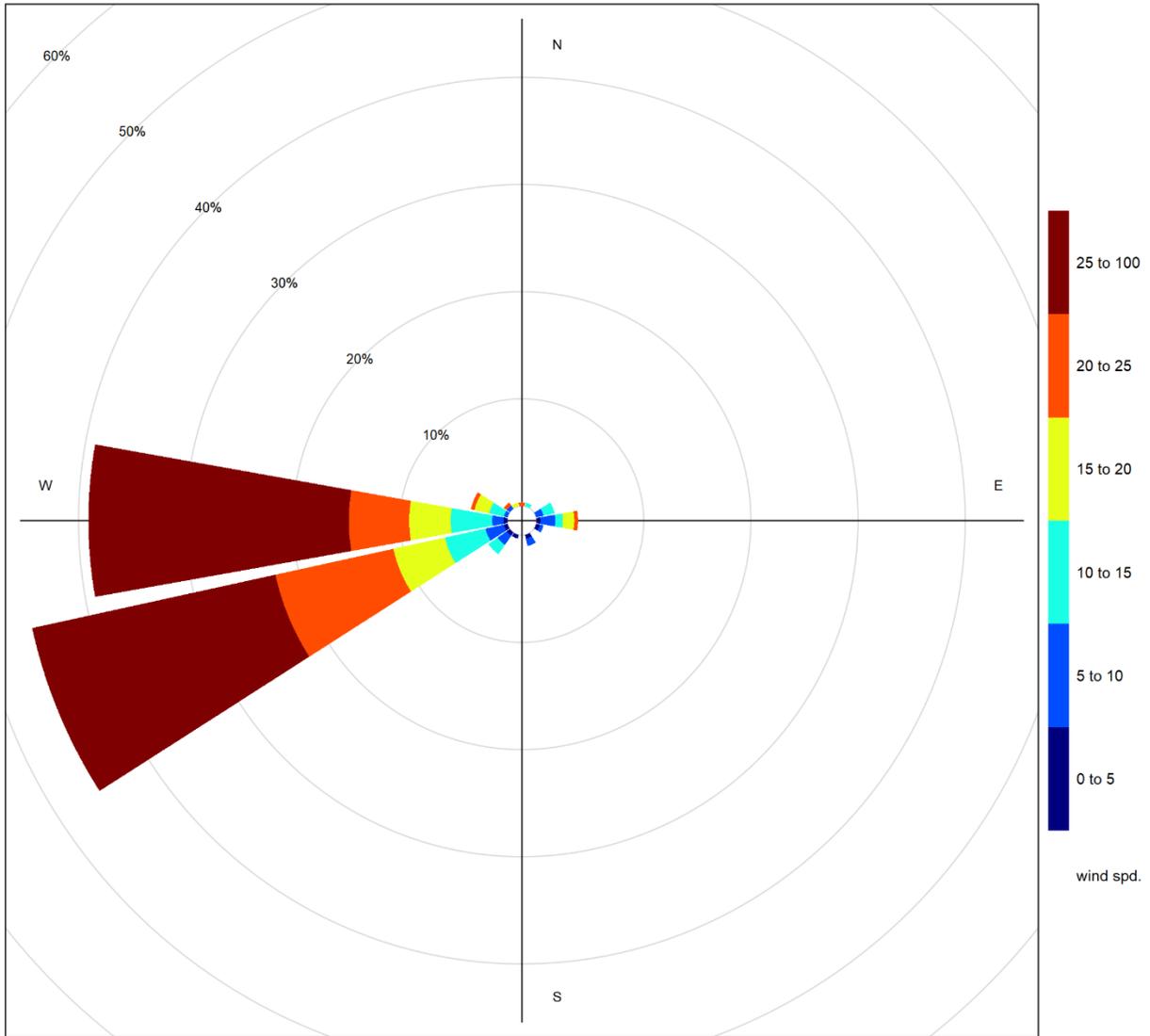
**Figure 6-1 1-hour particulate matter concentrations recorded at the Berm monitor**



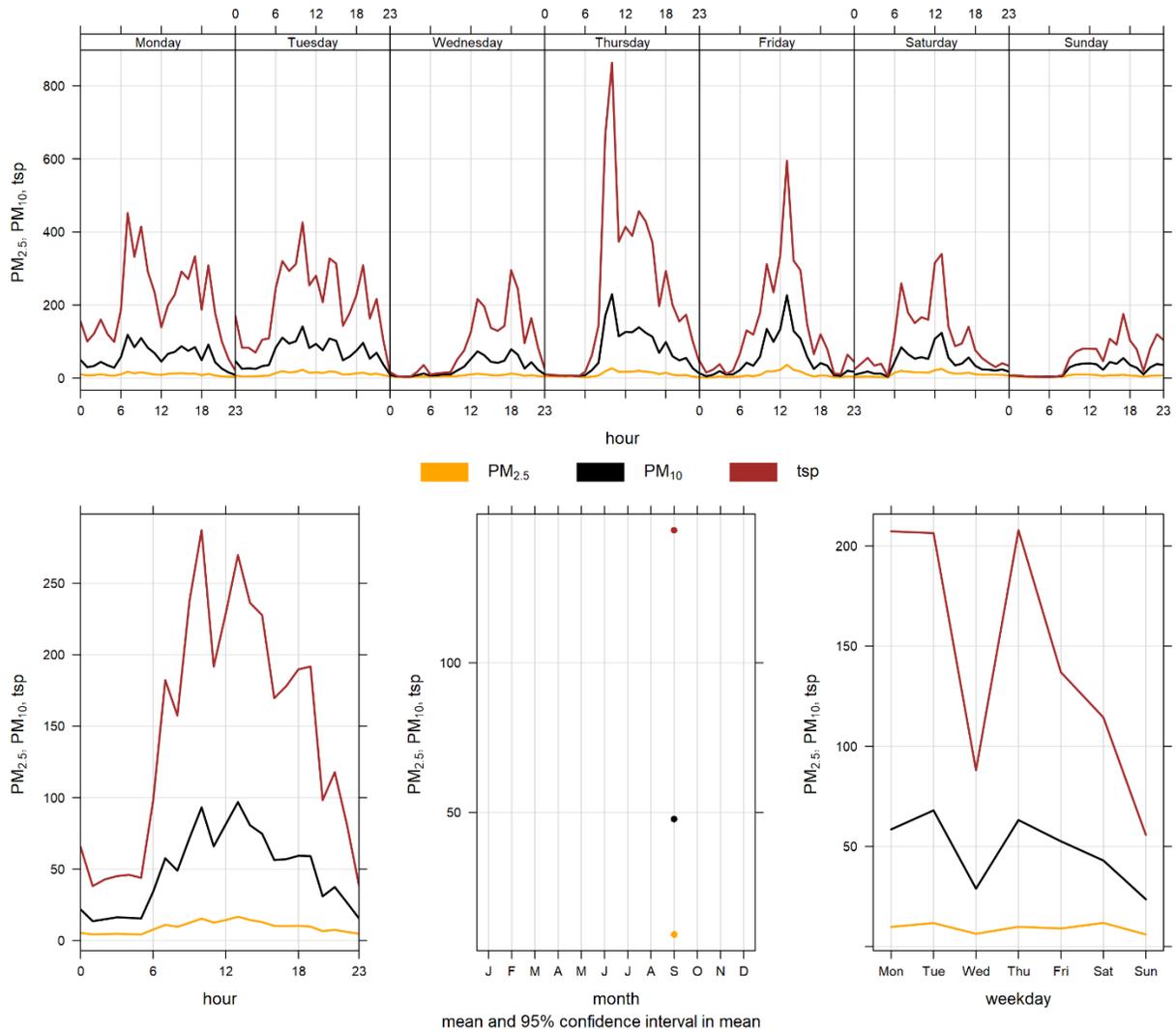
**Figure 6-2 24-hour particulate matter concentrations recorded at the Berm monitor**

Figure 6-3 shows the wind rose for the 12 days exceeding the TSP Guideline. The wind rose shows that the winds predominantly came from the west and west-southwest directions, and were predominately over 20 km/hr..

Figure 6-4 shows the variation of PM recorded at the Berm monitor over various time averaging periods. The Berm monitor diurnal pattern, similar to the Windridge and Lagoon stations, is associated with Lafarge operations, but also daytime emissions from other activities and sources in Exshaw.



**Figure 6-3 Wind rose for TSP exceedance days recorded at the Berm GRIMM**



**Figure 6-4** Berm particulate matter time variation

# 7 ENTRANCE INDUSTRIAL GRIMM

## 7.1 OPERATIONAL SUMMARY

A summary of the station operation for the month is provided in Table 7-1.

**Table 7-1 Instrumentation List at the Entrance monitoring location**

Parameter Measured	Equipment Description	Notes
PM <sub>2.5</sub> , PM <sub>10</sub> , TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 93.3% uptime for the month of September due to 48 hours of collection error from September 17th at 7:00 to September 19th at 6:00. Further, the GRIMM analyzer was removed from operation September 29th at 10:00 through to the end of the month to receive annual calibration and maintenance.

## 7.2 MONITORING RESULTS AND TRENDS

The Entrance monitor was placed at its current location as a result of dispersion modelling conducted in 2009. This area was indicated as being the area where the maximum PM concentrations were expected. Figure 7-1 and Figure 7-2 show the hourly and daily PM<sub>2.5</sub>, PM<sub>10</sub> and TSP concentrations recorded over the month. Table 7-2 summarizes the maximum 1-hour and 24-hour PM concentrations recorded during the month. Table 7-3 summarizes the recorded exceedances. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO. The Entrance GRIMM monitor was removed from operation on September 29<sup>th</sup> at 10:00 through to the end of the month to receive annual calibration and maintenance.

During September, there were 9 and 1 exceedances of the 24-hour TSP (100 µg/m<sup>3</sup>) and PM<sub>2.5</sub> (29 µg/m<sup>3</sup>) guidelines, respectively. The PM<sub>2.5</sub> exceedance on September 19<sup>th</sup> was on a day when smoke from British Columbia and the United States based wildfires affected the region.

Historically, the Entrance monitor records an average of 14 and 1 exceedances of the 24-hour TSP and PM<sub>2.5</sub> guidelines respectively, during the month of September. The maximum number of TSP exceedances recorded during September occurred in 2013, which had 22 days that exceeded the guideline. The minimum number of TSP exceedances recorded during September occurred in 2016, which had 9 days that exceeded the guideline. On the other hand, the maximum number of PM<sub>2.5</sub> exceedances recorded during the month of September was 7 days in 2017.

It should also be noted that the GRIMM monitors become more conservative in the reported PM concentrations as the size fraction increases. The PM<sub>2.5</sub> size fraction has been shown to match other regulatory approved PM<sub>2.5</sub> monitors, but the TSP concentrations recorded by the GRIMM tend to be higher than regulatory approved monitors (Levelton, 2015).

The Entrance monitor is impacted by fugitive dust from plant activities, and high wind events. Trucks also pass near to the Entrance monitor as they enter and exit the Lafarge facility for loading and deliveries. Additionally, the monitor is closely located to Highway 1A. Traffic, particularly large trucks, can create dust while crossing over the railway tracks. This can all lead to the monitor recording high TSP concentrations, which are typically associated with fugitive dust sources.

Figure 7-3 shows the wind rose for the 9 days that exceeded the TSP Guideline. The wind rose indicates that the winds predominantly came from the west and west-southwest directions, and were predominately over 20 km/hr..

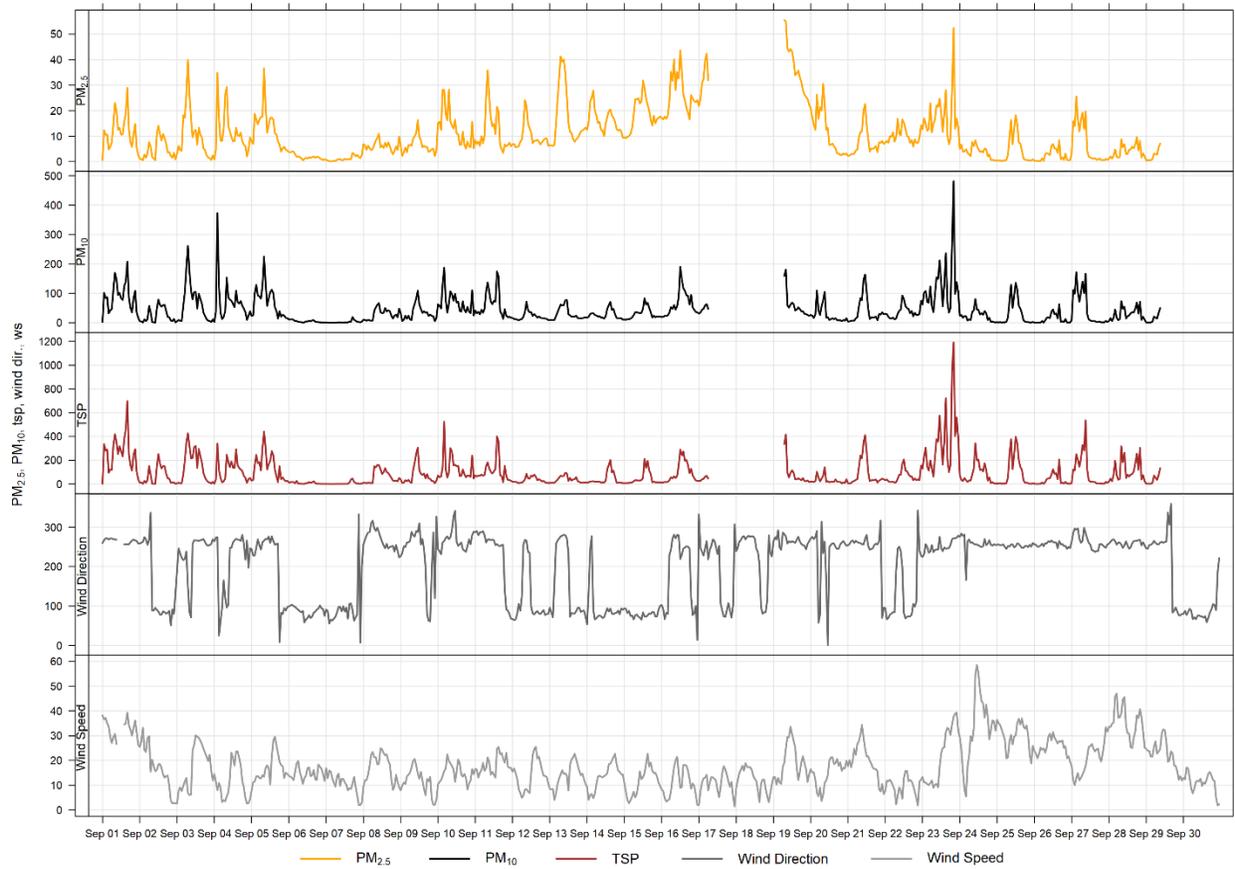
**Table 7-2 Summary of September 2020 data at the Entrance GRIMM**

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour					Maximum 24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
<b>PM<sub>2.5</sub></b> (µg/m <sup>3</sup> )	80	29	Entrance	0	1	0.1	10.9	55.5	19	7	19.1	282.7	35.6	19	93.3
<b>PM<sub>10</sub></b> (µg/m <sup>3</sup> )	-	-	Entrance	-	-	0.1	43.1	481.5	23	20	37.7	272.1	125.2	23	93.3
<b>TSP</b> (µg/m <sup>3</sup> )	-	100	Entrance	-	9	0.1	92.2	1191.4	23	20	37.7	272.1	347.4	23	93.3

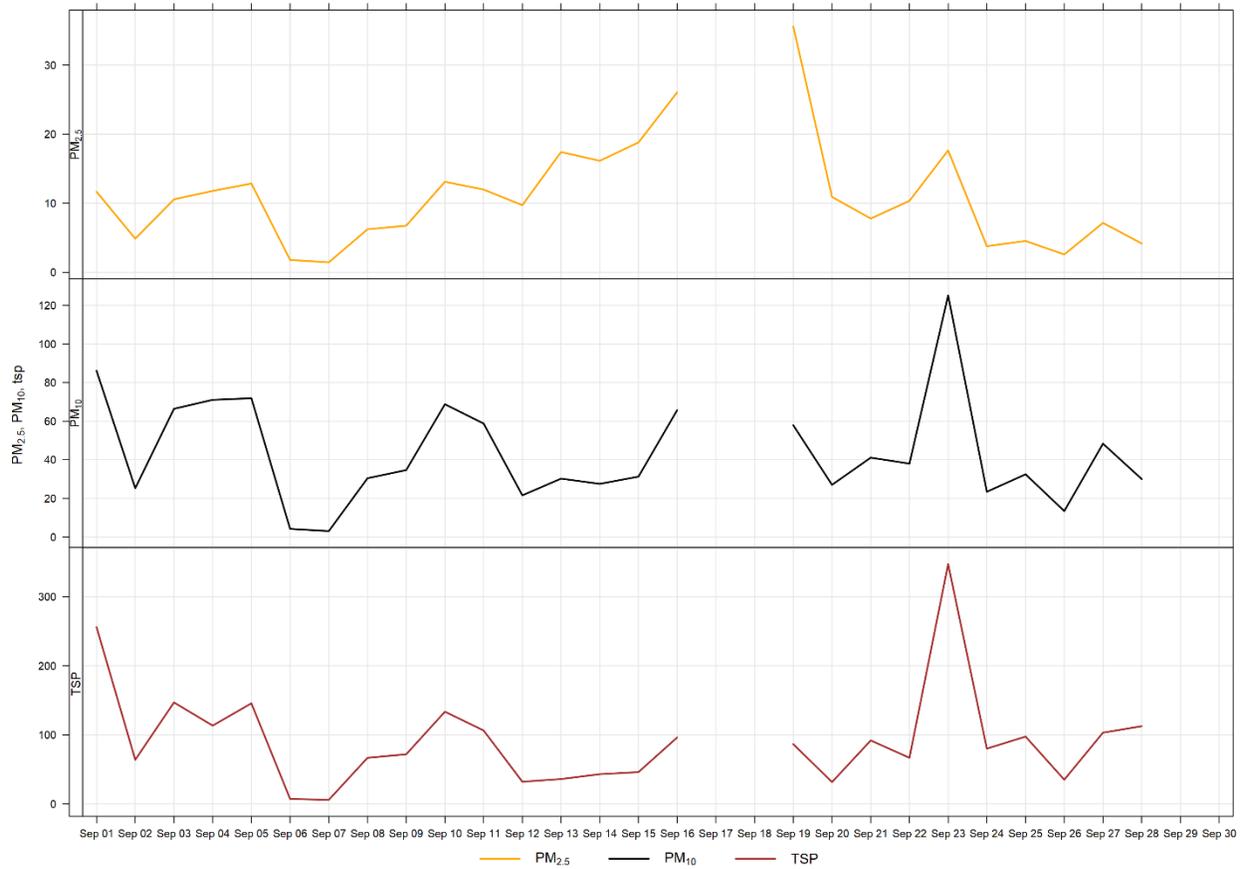
**Table 7-3 Days exceeding the Guideline for TSP or PM<sub>2.5</sub> at the Entrance Monitor**

Date	TSP (ug/m <sup>3</sup> )	PM <sub>2.5</sub> (ug/m <sup>3</sup> )	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
<b>Entrance</b>						
2020-09-01	256.1	-	265.0	32.2	34.5	High wind event
2020-09-03	147.0	-	257.7	17.7	51.6	Winds predominantly from the west
2020-09-04	113.5	-	262.5	11.1	49.2	Winds predominantly from the west
2020-09-05	145.7	-	261.0	16.9	45.6	Winds predominantly from the west
2020-09-10	133.6	-	268.6	15.2	44.2	Winds predominantly from the west
2020-09-11	106.4	-	266.5	18.1	42.2	Winds predominantly from the west
2020-09-19	-	36	264.5	19.1	46.5	Winds predominately from the west; PM <sub>2.5</sub> exceedance due to B.C & U.S wildfires
2020-09-23	347.4	-	257.7	22.3	50.9	High wind event
2020-09-27	103.3	-	258.8	21.2	40.7	High wind event
2020-09-28	112.6	-	259.3	35.1	37.8	High wind event
<b>Total # of Exceedances</b>	9	1				
<b>Maximum # of Exceedances (September)</b>	22 (2013)	7 (2017)				

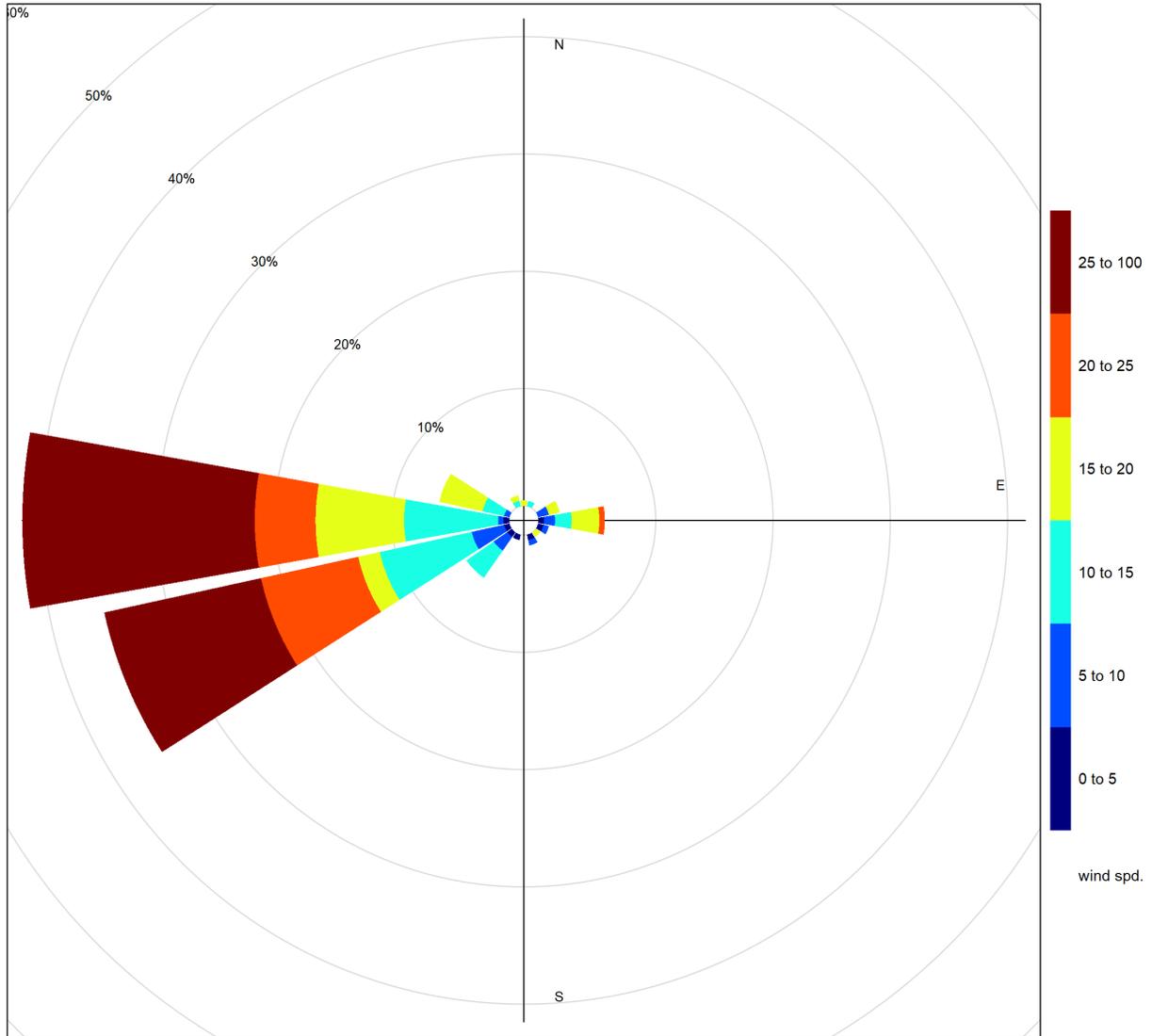
<b>Average # of Exceedances (September)</b>	14	1				
<b>Minimum # of Exceedances (September)</b>	9 (2016)	0 (2011, 2015, 2016, 2019)				



**Figure 7-1 1-hour particulate matter concentrations recorded at the Entrance monitor**

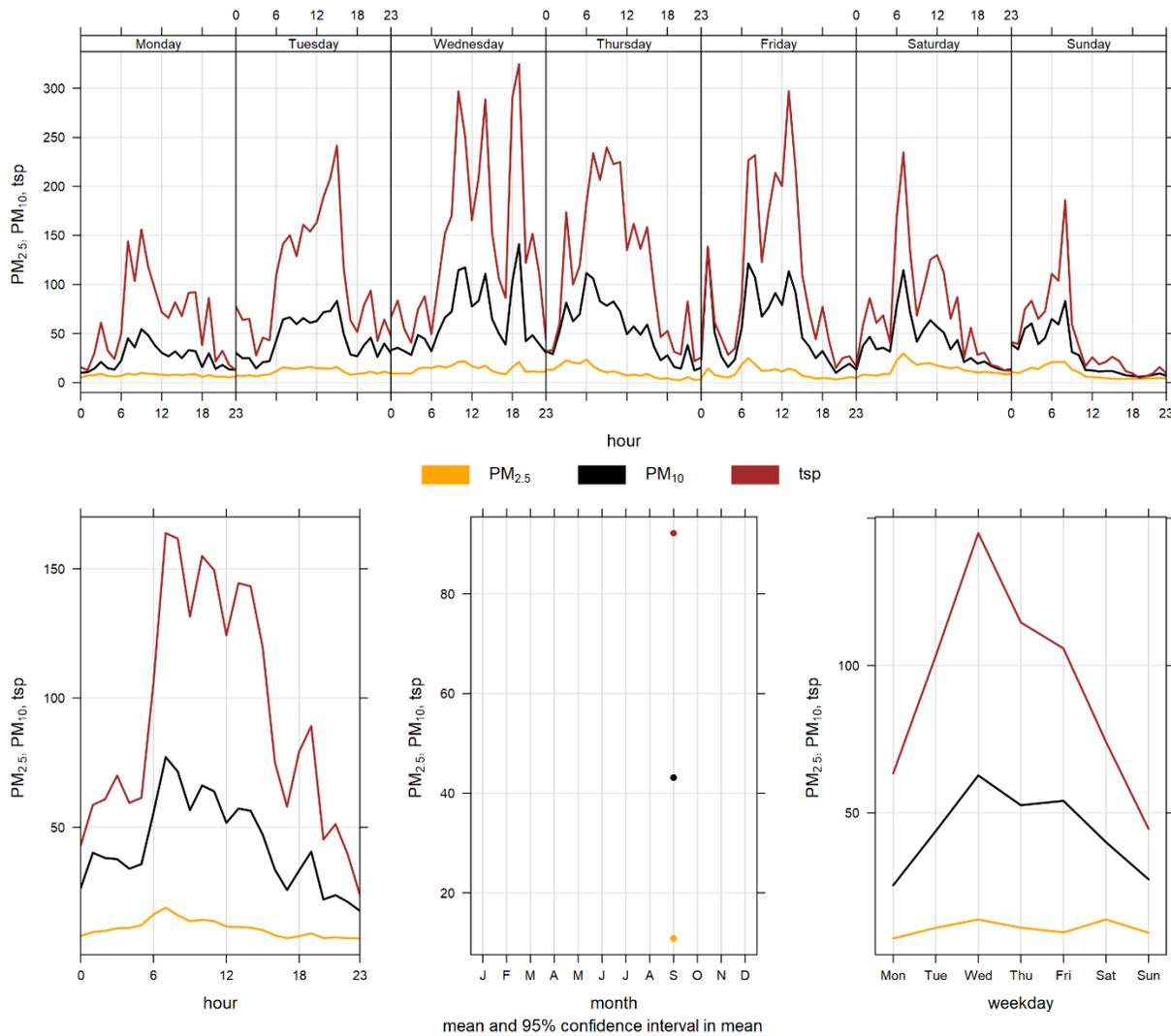


**Figure 7-2 24-hour particulate matter concentrations at the Entrance monitor**



**Figure 7-3 Wind rose for TSP exceedance days recorded at the Entrance GRIMM**

Figure 7-4 illustrates the hourly PM concentrations recorded at the Entrance monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 7-4 is based on data collected during September 2020. The diurnal pattern differs from the Windridge, Lagoon and Berm stations and are likely more influenced by daytime traffic emission (from vehicles serving Lafarge as well as regular highway traffic) given its location near the highway entrance to Lafarge.



**Figure 7-4** Entrance particulate matter time variation

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- Carslaw, D.C. and K. Ropkins, (2012). Openair — an R package for air quality data analysis. Environmental Modelling & Software. Volume 27–28, 52–61.
- Levelton Consultants Ltd. (2015, June 15). Comparison of GRIMM and E-BAM Data. Alberta, Can

# APPENDIX

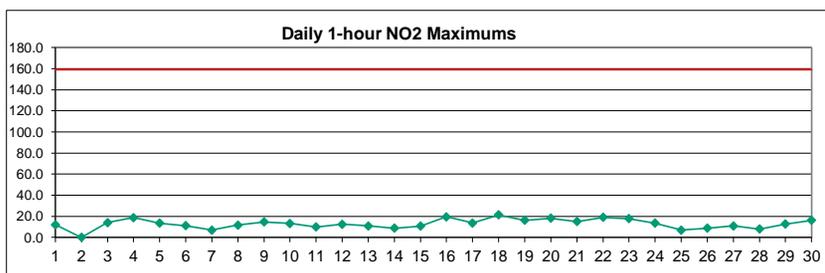
## A DATA & CALIBRATION REPORTS

# APPENDIX



# Lagoon NO<sub>2</sub> (ppb) – September 2020

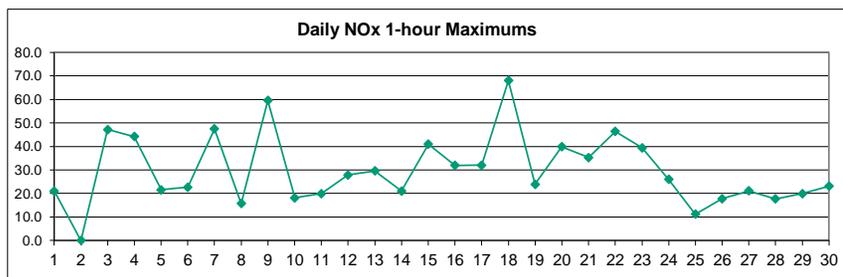
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	5.3	S	7.5	8.0	7.1	4.5	12.2	8.2	10.1	9.7	6.8	5.4	8.1	2.7	3.1	3.0	1.4	6.9	5.0	8.4	5.8	3.8	5.3	1.0	6.1	12.2
2	3.2	S	1.3	3.9	1.3	4.3	2.5	C	C	C	C	C	C	5.3	2.7	5.2	4.9	4.9	1.7	8.4	13.3	9.1	6.3	4.2	-	-
3	10.6	S	12.6	10.6	11.7	12.6	12.9	14.1	13.2	4.9	8.1	4.6	8.3	8.4	6.8	7.4	7.0	8.2	4.7	4.2	3.1	4.7	8.4	5.6	8.4	14.1
4	7.3	S	10.8	18.8	17.4	13.8	11.7	8.8	8.5	5.4	1.5	3.3	6.0	4.4	8.0	6.6	5.3	3.6	2.5	9.9	17.3	11.6	10.5	12.3	8.9	18.8
5	11.6	S	7.0	5.9	5.6	6.3	4.9	5.3	4.3	2.9	4.7	5.4	5.3	5.6	1.7	3.3	2.1	1.8	2.5	13.5	6.3	3.6	3.6	1.5	5.0	13.5
6	2.4	S	2.6	2.1	2.1	1.2	1.0	2.2	0.5	4.2	11.1	10.4	6.1	9.9	9.2	6.7	8.4	1.8	1.2	0.8	0.9	0.8	3.8	6.1	4.2	11.1
7	1.9	S	4.3	3.4	3.0	2.3	5.9	0.7	0.8	0.8	0.5	1.6	0.6	2.2	0.4	0.7	1.5	2.7	1.4	1.7	2.3	2.5	5.9	6.9	2.3	6.9
8	7.6	S	3.0	2.9	3.2	3.5	4.7	4.7	6.3	4.3	6.4	2.8	1.8	1.1	1.5	1.4	2.6	1.3	2.0	2.7	6.2	11.7	10.5	8.6	4.4	11.7
9	6.3	S	8.1	4.8	5.1	7.9	9.0	6.5	8.9	8.0	13.0	7.7	1.3	1.5	1.1	0.9	2.9	1.5	2.7	3.3	14.6	12.8	12.5	14.1	6.7	14.6
10	13.3	S	5.8	6.9	4.5	6.1	8.4	6.3	4.1	2.9	2.7	5.3	1.8	1.1	2.4	2.4	2.9	2.2	7.3	5.1	4.6	6.1	4.4	4.5	4.8	13.3
11	4.9	S	3.5	3.9	3.3	5.1	7.6	9.8	6.4	7.5	9.2	7.8	4.4	2.8	1.7	1.6	1.3	0.9	1.5	2.3	3.6	4.5	7.9	2.6	4.5	9.8
12	5.0	S	8.5	3.1	2.6	5.8	8.7	10.0	9.4	6.9	3.9	12.5	3.4	2.4	1.9	1.8	1.7	7.0	6.1	3.9	8.9	10.2	6.8	3.6	5.8	12.5
13	2.2	S	7.0	10.0	10.6	10.1	10.8	9.6	7.8	6.1	4.8	6.5	5.5	3.3	3.1	2.7	4.6	4.5	4.2	5.6	8.9	6.5	5.7	5.8	6.3	10.8
14	5.0	S	8.8	8.5	8.0	6.7	6.0	3.4	3.2	2.7	4.3	C	C	C	1.7	1.4	1.5	2.8	5.0	4.6	5.9	3.2	2.9	4.1	4.5	8.8
15	2.3	S	3.3	5.3	4.8	5.7	9.2	10.6	9.4	8.0	5.5	7.7	9.4	4.9	2.2	4.6	9.1	3.1	5.0	5.0	3.3	3.7	3.2	3.2	5.6	10.6
16	3.2	S	3.7	3.5	8.6	11.2	10.2	8.3	6.3	6.5	7.4	8.3	10.9	2.6	2.0	2.8	2.4	3.1	7.0	5.6	9.1	14.1	19.6	13.2	7.4	19.6
17	13.6	S	12.8	10.9	8.8	10.1	12.0	12.3	10.7	9.5	7.7	6.1	5.7	10.4	3.6	4.0	4.1	7.0	2.6	5.7	12.7	9.3	5.3	8.4	8.4	13.6
18	14.8	S	16.0	16.8	16.3	21.2	20.2	16.0	18.0	12.8	13.3	12.4	7.8	4.5	6.6	9.1	4.9	7.7	7.7	8.3	15.1	12.2	19.3	17.3	13.1	21.2
19	15.8	S	9.8	15.2	16.3	15.6	5.8	6.4	3.5	5.1	4.8	5.8	7.5	2.5	7.5	4.8	15.5	3.4	3.2	2.3	3.1	3.6	4.3	10.6	7.5	16.3
20	6.7	S	4.8	2.7	4.8	9.6	18.2	9.9	6.4	3.9	7.2	1.2	1.2	4.7	4.0	1.7	0.6	0.6	1.8	1.4	4.1	7.1	3.9	3.3	4.8	18.2
21	2.6	S	10.6	3.4	3.1	4.1	8.7	4.2	3.2	3.6	11.6	15.0	2.6	0.8	0.8	1.3	3.1	3.6	1.1	5.6	3.1	13.9	8.8	10.3	5.4	15.0
22	18.8	S	14.0	9.6	18.0	11.2	14.3	18.9	14.2	9.9	12.3	5.0	4.8	5.5	7.0	9.4	8.2	3.6	5.7	5.9	5.5	11.0	10.3	10.7	10.2	18.9
23	10.2	S	9.5	10.4	7.7	15.5	17.8	17.8	16.0	15.4	11.5	2.8	0.9	1.1	0.8	1.1	0.9	0.9	6.4	9.3	8.7	9.7	17.5	9.8	8.8	17.8
24	6.6	S	8.0	13.5	12.2	8.3	5.7	11.1	6.2	2.7	2.0	1.1	0.8	0.6	0.8	12.5	2.6	3.5	8.5	3.6	2.0	1.4	1.8	0.6	5.0	13.5
25	1.6	S	0.5	0.7	0.5	0.6	1.8	2.7	2.4	2.9	1.1	2.4	2.5	2.8	0.8	0.6	0.5	0.5	0.8	0.5	2.6	0.9	7.0	4.5	1.8	7.0
26	2.1	S	1.2	0.7	3.0	1.5	4.3	3.5	7.7	6.2	8.0	5.6	2.9	8.7	1.7	3.5	1.1	3.6	2.2	1.9	1.0	1.3	0.9	6.9	3.5	8.7
27	7.2	S	8.4	10.9	10.1	7.2	6.9	5.7	6.8	6.8	3.7	1.4	0.3	0.3	0.4	0.4	0.4	1.4	3.1	2.6	1.1	0.7	0.7	2.2	3.9	10.9
28	4.0	S	4.3	1.2	1.0	1.4	1.9	2.6	1.4	1.4	3.6	2.4	1.8	3.8	4.4	7.0	6.0	6.6	7.8	6.1	1.8	7.1	7.9	0.6	3.7	7.9
29	0.8	S	5.1	0.9	8.9	6.0	8.4	4.8	8.6	7.2	3.3	3.8	7.6	5.0	7.7	5.9	2.0	2.7	4.1	2.6	7.4	4.6	12.6	7.5	5.5	12.6
30	4.3	S	2.3	1.4	1.0	13.1	12.8	14.5	13.4	4.3	6.5	4.0	5.6	4.4	3.7	5.2	3.1	6.7	3.4	1.9	5.4	16.1	14.0	15.3	7.1	16.1
NO.	30	-	30	30	30	30	30	29	29	29	29	28	28	29	30	30	30	30	30	30	30	30	30	30	681	100%
MEAN	6.7	-	6.8	6.7	7.0	7.7	8.8	8.2	7.5	6.0	6.4	5.7	4.5	3.9	3.3	4.0	3.7	3.7	3.9	4.8	6.3	6.9	7.7	6.8		
MAX	18.8	-	16.0	18.8	18.0	21.2	20.2	18.9	18.0	15.4	13.3	15.0	10.9	10.4	9.2	12.5	15.5	9.7	8.5	13.5	17.3	16.1	19.6	17.3		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	681
Maximum 1-HR Average	21.2 PPB
Maximum 24-HR Average	13.1 PPB
Monthly Calibration	9
Standard Deviation	4.3
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	6.0 PPB

# Lagoon NOx (ppb) – September 2020

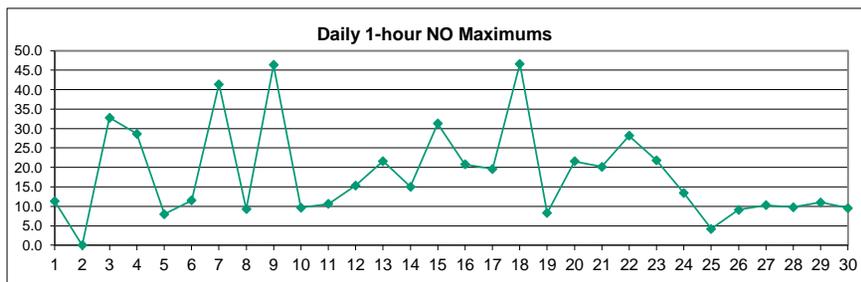
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	18	19	20	21	22	23	24			
1	9.0	S	13.2	13.0	10.4	5.6	18.1	11.6	14.9	21.0	10.6	8.1	15.1	3.7	4.5	4.9	1.8	11.4	7.0	13.1	9.0	6.5	9.4	0.8	9.7	21.0
2	5.1	S	1.5	7.8	1.5	7.0	3.4	C	C	C	C	C	9.3	4.1	9.1	8.3	9.0	1.7	9.1	43.1	24.4	16.6	12.4	-	-	-
3	16.7	S	13.3	10.8	12.1	15.8	22.2	47.2	42.5	9.3	16.4	8.2	16.2	15.7	11.1	12.7	11.0	14.0	7.0	5.7	3.6	9.7	12.5	9.0	14.9	47.2
4	14.1	S	21.2	44.2	36.8	37.8	40.6	18.8	16.4	9.5	2.4	7.0	11.4	7.3	17.1	12.0	9.4	4.9	2.5	12.8	27.0	17.9	22.2	14.5	17.7	44.2
5	12.2	S	7.6	8.5	5.8	8.0	5.1	8.7	7.7	4.5	7.9	8.2	8.7	8.6	2.3	4.6	2.6	1.9	2.7	21.5	7.3	3.8	4.0	1.4	6.7	21.5
6	2.3	S	2.5	1.9	2.1	1.1	0.8	2.6	0.4	7.0	22.7	21.0	12.5	18.7	17.7	11.5	12.5	1.8	1.2	0.8	0.7	0.7	5.0	10.9	6.9	22.7
7	3.1	S	5.4	4.8	3.2	2.4	11.1	0.5	0.7	0.8	0.6	2.3	0.5	3.6	0.5	1.1	2.4	4.5	1.6	1.7	3.0	13.9	47.4	12.6	5.6	47.4
8	13.6	S	6.3	4.5	4.4	3.6	8.3	8.6	15.7	8.5	15.1	4.3	2.8	1.5	2.2	1.9	4.4	1.5	2.2	3.8	9.8	15.3	11.5	8.6	6.9	15.7
9	6.4	S	11.2	5.4	6.2	16.4	20.0	21.4	30.8	36.0	59.5	20.3	2.0	2.1	1.4	1.2	4.2	1.8	4.5	3.3	39.0	18.7	54.5	16.0	16.6	59.5
10	13.9	S	5.8	11.2	5.3	11.3	18.1	13.5	8.7	5.6	4.7	10.5	2.6	1.4	3.3	3.5	4.1	2.7	10.8	5.0	5.0	8.1	5.7	4.8	7.2	18.1
11	6.2	S	4.2	4.1	3.9	6.2	10.9	19.9	12.9	16.7	19.9	13.9	6.4	4.4	2.5	2.1	1.7	0.9	1.5	2.2	3.5	4.5	10.3	2.7	7.0	19.9
12	7.3	S	13.0	3.2	2.4	6.8	14.8	18.2	21.6	13.7	5.4	27.9	5.7	4.4	2.4	2.1	1.7	12.6	9.5	4.2	13.7	15.3	8.2	3.9	9.5	27.9
13	2.2	S	7.8	11.6	15.7	22.0	23.4	24.1	29.5	20.0	14.8	16.8	10.6	4.7	4.2	3.5	6.3	4.9	4.1	5.7	9.9	6.5	6.4	5.9	11.3	29.5
14	5.4	S	15.1	13.0	14.6	7.4	21.1	6.4	4.3	3.9	10.4	C	C	C	2.1	1.6	1.7	3.3	7.6	6.0	9.2	3.5	3.2	5.3	7.2	21.1
15	2.1	S	4.2	6.4	7.3	7.8	11.6	21.1	18.7	18.6	13.6	25.3	40.9	15.2	3.8	11.8	24.0	3.6	8.2	9.3	3.5	3.9	3.2	3.0	11.6	40.9
16	3.0	S	3.7	3.6	10.8	18.5	26.4	28.1	17.5	23.2	25.3	21.4	31.9	3.6	2.8	4.1	3.1	3.8	7.4	5.7	9.2	18.2	26.7	26.2	14.1	31.9
17	22.9	S	13.1	14.3	13.2	18.3	23.3	32.0	27.7	26.1	15.0	10.0	8.1	15.2	4.4	5.1	5.0	7.8	2.6	6.3	15.9	9.3	5.1	8.4	13.4	32.0
18	15.0	S	37.0	49.5	46.4	68.0	53.9	31.7	53.4	22.0	26.2	23.6	11.0	5.3	7.5	10.3	5.0	12.8	7.6	10.6	26.1	12.3	21.8	25.4	25.3	68.0
19	23.3	S	12.1	20.7	20.8	23.9	6.0	8.0	3.7	5.8	5.8	6.9	10.5	2.6	9.6	5.1	21.6	3.3	3.2	2.1	3.1	3.7	4.4	15.6	9.6	23.9
20	7.9	S	7.3	2.6	4.7	10.7	39.9	14.0	8.3	5.1	10.4	1.3	1.3	8.6	7.3	2.2	0.5	0.5	2.2	1.2	4.6	10.5	5.0	3.6	6.9	39.9
21	3.7	S	16.0	3.7	3.5	5.0	14.5	5.5	4.8	5.2	23.0	35.3	4.2	0.9	0.9	1.2	3.3	3.8	1.1	6.0	3.1	17.2	9.1	11.3	7.9	35.3
22	31.6	S	22.7	17.9	46.4	15.8	19.7	45.5	28.1	18.2	22.9	7.8	7.1	8.5	10.1	13.4	12.4	3.7	5.9	5.8	5.4	11.3	10.9	10.7	16.6	46.4
23	11.6	S	12.4	14.2	9.6	30.5	23.6	34.2	31.5	26.0	18.4	3.9	1.2	1.1	0.8	1.1	0.9	0.8	9.7	15.8	15.1	19.0	39.5	19.7	14.8	39.5
24	10.9	S	13.5	14.4	16.5	15.2	6.9	17.7	9.6	3.9	2.9	1.4	0.9	0.7	1.0	26.0	4.4	6.0	17.7	5.8	2.5	1.5	2.1	0.5	7.9	26.0
25	1.9	S	0.3	0.7	0.5	0.5	2.1	4.4	3.6	3.8	1.5	3.7	4.3	4.8	0.9	0.8	0.3	0.4	0.7	0.4	3.0	0.9	11.2	6.7	2.5	11.2
26	2.5	S	1.2	0.6	4.2	1.5	6.4	4.6	13.4	11.6	17.2	11.6	5.4	17.7	2.5	7.8	1.2	5.0	2.6	2.5	0.8	1.4	0.9	9.5	5.7	17.7
27	10.5	S	13.6	21.1	15.0	9.2	10.0	9.5	15.0	13.0	5.8	2.3	0.2	0.1	0.1	0.2	0.3	1.4	3.2	2.9	1.0	0.5	0.6	2.6	6.0	21.1
28	5.8	S	7.9	1.2	1.0	1.5	2.4	4.4	2.0	1.9	6.0	3.1	2.4	5.3	8.9	14.2	11.7	13.7	15.7	12.2	2.7	14.3	17.7	0.5	6.8	17.7
29	0.8	S	8.5	0.9	19.9	10.8	13.1	7.3	16.6	14.3	5.5	6.6	18.2	8.1	11.7	8.1	1.9	2.7	4.3	2.6	7.5	4.7	17.5	8.4	8.7	19.9
30	4.2	S	2.7	1.4	1.0	14.8	14.7	16.9	23.0	5.5	9.1	5.6	9.3	6.7	5.4	8.7	3.9	8.0	3.5	1.8	6.5	23.1	19.5	16.0	9.2	23.1
NO.	30	-	30	30	30	30	30	29	29	29	29	28	28	29	30	30	30	30	30	30	30	30	30	30	681	100%
MEAN	9.2	-	10.1	10.6	11.5	13.5	16.4	16.8	16.7	12.4	13.8	11.4	9.0	6.5	5.1	6.4	5.7	5.1	5.3	6.2	9.8	10.0	13.7	9.2		
MAX	31.6	-	37.0	49.5	46.4	68.0	53.9	47.2	53.4	36.0	59.5	35.3	40.9	18.7	17.7	26.0	24.0	14.0	17.7	21.5	43.1	24.4	54.5	26.2		



Number of Non-Zero Readings	681		
Maximum 1-HR Average	68.0 PPB		
Maximum 24-HR Average	25.3 PPB		
Operational Time		720 HRS	
Monthly Calibration	9	Operational Uptime	100.0 %
Standard Deviation	9.876	Monthly Average	10.2 PPB

# Lagoon NO (ppb) – September 2020

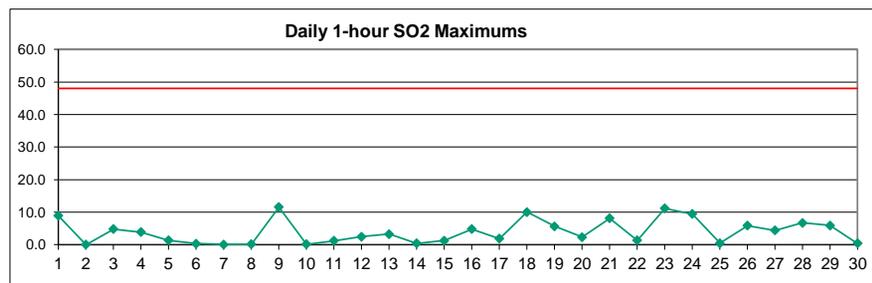
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	3.7	S	5.6	5.0	3.3	1.1	6.0	3.3	4.8	11.3	3.9	2.6	6.9	1.0	1.4	1.7	0.4	4.5	2.0	4.7	3.1	2.7	4.0	0.0	3.6	11.3
2	1.8	S	0.1	3.8	0.2	2.7	0.9	C	C	C	C	C	4.0	1.4	4.0	3.4	4.0	0.0	0.7	29.6	15.2	10.3	8.1	-	-	
3	6.0	S	0.7	0.3	0.4	3.1	9.2	32.8	29.1	4.3	8.3	3.6	7.9	7.3	4.3	5.3	4.0	5.8	2.2	1.4	0.5	5.1	4.1	3.4	6.5	32.8
4	6.8	S	10.3	25.2	19.2	23.7	28.7	10.0	7.9	4.1	0.8	3.6	5.4	2.8	9.0	5.3	4.1	1.3	0.1	3.0	9.6	6.3	11.6	2.1	8.7	28.7
5	0.6	S	0.6	2.6	0.2	1.7	0.2	3.3	3.3	1.5	3.2	2.7	3.3	2.9	0.5	1.3	0.5	0.1	0.1	8.0	1.0	0.2	0.3	0.0	1.7	8.0
6	0.0	S	0.0	0.0	0.0	0.0	0.0	0.4	0.0	2.8	11.5	10.5	6.3	8.7	8.4	4.7	4.0	0.0	0.0	0.0	0.0	0.0	1.1	4.7	2.7	11.5
7	1.1	S	1.1	1.4	0.1	0.0	5.2	0.0	0.0	0.0	0.0	0.7	0.0	1.3	0.1	0.4	0.9	1.7	0.1	0.0	0.6	11.2	41.4	5.7	3.2	41.4
8	6.1	S	3.3	1.6	1.3	0.1	3.4	3.9	9.3	4.1	8.6	1.4	1.0	0.4	0.6	0.5	1.7	0.2	0.2	1.1	3.5	3.6	1.0	0.1	2.5	9.3
9	0.1	S	3.1	0.6	1.0	8.5	11.0	14.8	21.9	27.9	46.4	12.5	0.5	0.3	0.3	1.3	0.2	1.8	0.0	24.2	5.8	41.8	1.8	9.8	46.4	
10	0.6	S	0.0	4.3	0.8	5.2	9.7	7.1	4.5	2.6	1.9	5.2	0.8	0.2	0.8	1.0	1.1	0.5	3.5	0.0	0.3	2.0	1.2	0.4	2.3	9.7
11	1.3	S	0.7	0.2	0.6	1.0	3.2	10.0	6.4	9.2	10.6	6.1	2.0	1.5	0.7	0.5	0.3	0.0	0.0	0.0	0.0	0.0	2.4	0.0	2.5	10.6
12	2.3	S	4.4	0.0	0.0	1.0	6.1	8.1	12.2	6.9	1.4	15.3	2.2	2.0	0.5	0.3	0.0	5.6	3.4	0.4	4.8	5.1	1.4	0.3	3.6	15.3
13	0.0	S	0.8	1.6	5.1	11.9	12.5	14.4	21.6	13.8	9.9	10.2	5.1	1.3	1.0	0.7	1.6	0.4	0.0	0.1	1.1	0.0	0.7	0.2	5.0	21.6
14	0.4	S	6.3	4.5	6.5	0.7	15.0	3.0	1.0	1.1	6.1	C	C	C	0.4	0.2	0.1	0.4	2.5	1.3	3.2	0.2	0.3	1.1	2.7	15.0
15	0.0	S	0.9	1.0	2.5	2.1	2.4	10.4	9.3	10.5	8.0	17.5	31.3	10.2	1.6	7.1	14.7	0.4	3.1	4.2	0.2	0.2	0.0	0.0	6.0	31.3
16	0.0	S	0.0	0.0	2.2	7.2	16.1	19.8	11.1	16.6	17.9	13.1	20.8	0.9	0.8	1.2	0.7	0.8	0.4	0.1	0.1	4.1	7.0	12.9	6.7	20.8
17	9.2	S	0.3	3.4	4.4	8.3	11.2	19.6	17.0	16.6	7.3	4.0	2.5	4.8	0.8	1.1	0.9	0.9	0.0	0.6	3.1	0.0	0.0	0.0	5.0	19.6
18	0.2	S	20.8	32.4	29.9	46.7	33.6	15.5	35.3	9.1	12.8	11.1	3.2	0.8	1.0	1.2	0.2	3.1	0.0	2.3	11.0	0.2	2.4	8.1	12.2	46.7
19	7.5	S	2.4	5.4	4.5	8.3	0.3	1.6	0.3	0.8	1.0	1.1	2.9	0.1	2.1	0.3	6.0	0.0	0.1	0.0	0.0	0.1	0.2	4.9	2.2	8.3
20	1.3	S	2.5	0.0	0.0	1.1	21.6	4.1	1.9	1.1	3.3	0.1	0.1	3.9	3.2	0.5	0.0	0.0	0.4	0.0	0.5	3.4	1.1	0.3	2.2	21.6
21	1.0	S	5.4	0.3	0.4	0.9	5.8	1.3	1.5	1.6	11.4	20.2	1.5	0.1	0.1	0.0	0.2	0.2	0.0	0.4	0.0	3.2	0.3	1.0	2.5	20.2
22	12.7	S	8.6	8.3	28.2	4.6	5.4	26.3	13.8	8.3	10.6	2.7	2.3	3.0	3.1	3.9	4.2	0.2	0.3	0.0	0.0	0.3	0.7	0.0	6.4	28.2
23	1.4	S	2.9	3.9	1.9	14.9	5.8	16.2	15.4	10.5	6.9	1.0	0.3	0.1	0.0	0.1	0.0	0.0	3.3	6.5	6.5	9.3	21.8	9.9	6.0	21.8
24	4.2	S	5.5	0.9	4.3	6.9	1.2	6.6	3.4	1.2	0.9	0.3	0.1	0.2	0.3	13.4	1.9	2.5	9.1	2.2	0.5	0.1	0.2	0.0	2.9	13.4
25	0.3	S	0.0	0.0	0.0	0.0	0.3	1.6	1.2	0.9	0.4	1.3	1.8	2.0	0.1	0.2	0.0	0.0	0.0	0.4	0.0	4.2	2.2	2.2	0.7	4.2
26	0.4	S	0.0	0.0	1.1	0.0	2.0	1.1	5.8	5.4	9.1	5.9	2.4	8.9	0.8	4.3	0.2	1.4	0.4	0.5	0.0	0.0	0.0	2.5	2.3	9.1
27	3.3	S	5.2	10.3	4.9	2.0	3.0	3.8	8.3	6.2	2.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.4	0.4	2.2	10.3
28	1.8	S	3.5	0.0	0.0	0.1	0.5	1.7	0.6	0.5	2.4	0.7	0.6	1.5	4.5	7.2	5.7	7.1	7.9	6.1	1.0	7.2	9.8	0.0	3.1	9.8
29	0.0	S	3.4	0.1	11.0	4.9	4.7	2.5	8.0	7.1	2.3	2.8	10.6	3.1	4.0	2.2	0.0	0.0	0.3	0.0	0.2	0.1	4.9	1.0	3.2	11.0
30	0.0	S	0.3	0.0	0.0	1.7	1.9	2.4	9.6	1.1	2.6	1.6	3.7	2.3	1.6	3.5	0.8	1.3	0.1	0.0	1.1	6.9	5.4	0.7	2.1	9.6
NO.	30	-	30	30	30	30	30	29	29	29	29	28	28	29	30	30	30	30	30	30	30	30	30	30	681	100%
MEAN	2.5	-	3.3	3.9	4.5	5.7	7.6	8.5	9.1	6.5	7.3	5.7	4.5	2.6	1.8	2.4	2.0	1.4	1.4	1.5	3.5	3.1	6.0	2.4		
MAX	12.7	-	20.8	32.4	29.9	46.7	33.6	32.8	35.3	27.9	46.4	20.2	31.3	10.2	9.0	13.4	14.7	7.1	9.1	8.0	29.6	15.2	41.8	12.9		



Number of Non-Zero Readings	594	Operational Time	720 HRS
Maximum 1-HR Average	46.7 PPB	Operational Uptime	100.0 %
Maximum 24-HR Average	12.2 PPB	Monthly Average	4.2 PPB
Monthly Calibration	9		
Standard Deviation	6.522		

# Lagoon SO<sub>2</sub> (ppb) – September 2020

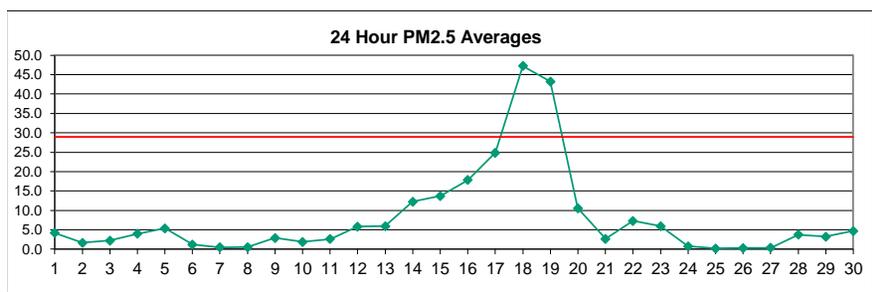
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	5.8	S	8.9	8.7	6.4	5.3	7.5	7.0	7.4	6.5	4.3	4.2	2.6	2.4	1.6	2.1	1.3	3.5	5.2	6.4	5.7	4.5	1.6	1.2	4.8	8.9
2	1.3	S	1.9	1.7	1.4	9.1	2.1	C	C	C	C	C	C	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	-	-
3	0.0	S	0.0	0.0	0.0	0.0	0.0	0.2	0.0	1.1	4.8	3.0	2.5	3.3	1.0	3.3	3.3	2.1	1.3	0.5	0.2	0.0	0.0	0.0	1.2	4.8
4	0.0	S	0.6	0.6	0.3	0.3	0.0	0.0	0.7	0.2	0.0	0.7	3.8	2.9	2.9	1.7	2.2	1.7	0.0	0.0	0.1	0.0	0.0	0.0	0.8	3.8
5	0.0	S	0.0	0.0	0.1	0.0	0.0	0.0	0.3	0.0	0.9	0.3	1.4	1.1	0.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.4	0.3	1.4
6	0.3	S	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
7	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
8	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
9	0.0	S	0.0	0.0	0.1	0.0	0.0	0.7	2.0	4.1	11.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	1.0	11.5
10	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1
11	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.3	1.0	1.2	0.1	0.0	0.1	1.2
12	0.5	S	0.1	0.0	0.0	0.0	0.0	0.4	1.8	1.1	0.3	2.5	0.9	0.5	0.0	0.0	0.0	0.0	0.2	0.0	0.4	0.2	0.0	0.0	0.4	2.5
13	0.0	S	0.0	0.0	0.3	0.1	0.7	1.7	3.3	2.8	2.2	3.3	1.2	0.8	1.5	0.6	0.5	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.9	3.3
14	0.0	S	0.4	0.1	0.3	0.0	0.1	0.0	0.0	0.4	0.0	C	C	C	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.4	0.0	0.4	0.1	0.4
15	0.0	S	0.0	0.0	0.0	0.0	0.4	0.8	1.3	0.5	0.2	0.3	0.5	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.3
16	0.0	S	0.0	0.0	0.0	0.3	0.4	1.4	0.2	1.3	2.5	1.4	4.8	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.2	4.8
17	0.2	S	0.0	0.0	1.0	1.4	0.0	0.0	0.0	1.1	0.4	0.3	0.2	1.9	0.5	0.2	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.3	1.9
18	0.0	S	3.6	6.0	6.8	10.0	9.7	3.1	8.1	1.6	1.5	3.0	0.5	0.0	0.5	1.2	0.1	1.2	2.0	1.1	0.3	0.2	1.3	4.3	2.9	10.0
19	5.1	S	1.9	3.7	4.3	5.7	1.2	1.0	0.7	0.2	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.1	0.7	0.7	0.0	0.0	0.0	1.1	5.7
20	0.2	S	0.0	0.0	1.6	0.1	0.8	0.0	0.0	0.8	0.6	0.0	0.0	0.5	2.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.3	2.3
21	0.0	S	0.3	0.1	0.0	0.0	0.2	0.0	0.2	0.1	5.7	8.1	0.8	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.8	0.6	0.0	0.7	8.1
22	0.0	S	0.4	0.0	0.2	0.0	0.0	0.3	0.0	0.5	0.4	0.0	0.2	1.2	1.4	0.5	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.4
23	0.5	S	0.6	1.0	0.8	2.9	0.7	2.6	4.2	3.0	1.4	0.0	0.3	0.1	0.0	0.3	0.0	0.2	3.3	7.5	4.5	4.6	11.2	6.2	2.4	11.2
24	2.0	S	1.3	2.1	1.2	0.7	1.2	0.6	0.9	1.0	0.3	0.0	0.4	0.7	0.6	9.4	1.3	0.5	4.9	1.5	0.3	0.4	0.1	0.5	1.4	9.4
25	0.1	S	0.0	0.0	0.0	0.0	0.1	0.4	0.0	0.4	0.1	0.0	0.0	0.1	0.0	0.3	0.3	0.1	0.0	0.4	0.5	0.2	0.2	0.0	0.1	0.5
26	0.0	S	0.2	0.0	3.1	0.2	0.0	0.3	2.7	4.0	5.3	2.4	1.8	5.9	1.0	2.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.3	5.9
27	1.4	S	2.6	4.4	2.5	0.8	0.6	1.3	2.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.7	4.4
28	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.2	1.1	4.1	3.6	4.1	4.7	3.6	0.4	6.7	4.7	0.0	1.5	6.7
29	0.0	S	0.2	0.0	5.9	2.9	0.7	0.3	1.5	1.8	0.0	0.3	2.1	0.6	0.8	1.1	0.7	0.9	0.2	0.1	0.4	0.0	0.1	0.0	0.9	5.9
30	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.1	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.4
NO.	30	-	30	30	30	30	30	29	29	29	29	28	28	29	30	30	30	30	30	30	30	30	30	30	681	100%
MEAN	0.6	-	0.8	0.9	1.2	1.3	0.9	0.8	1.3	1.1	1.5	1.2	0.9	0.8	0.5	1.0	0.5	0.5	0.8	0.8	0.5	0.7	0.7	0.4		
MAX	5.8	-	8.9	8.7	6.8	10.0	9.7	7.0	8.1	6.5	11.5	8.1	4.8	5.9	2.9	9.4	3.6	4.1	5.2	7.5	5.7	6.7	11.2	6.2		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	358
Maximum 1-HR Average	11.5 PPB
Maximum 24-HR Average	4.8 PPB
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Calibration	9
Standard Deviation	1.759
Monthly Average	0.8 PPB

# Lagoon PM<sub>2.5</sub> (µg/m<sup>3</sup>) – September 2020

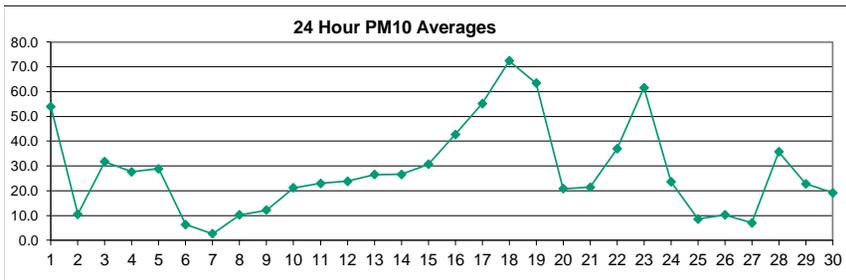
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.0	12.7	14.0	8.3	3.5	0.1	0.0	1.9	3.7	3.7	9.1	8.3	NRM	NRM	NRM	2.8	4.4	3.3	0.1	0.0	3.3	5.4	3.3	0.0	4.2	14.0
2	0.1	2.6	1.9	1.2	X	X	3.2	1.2	1.2	2.9	0.4	0.0	1.1	0.0	0.7	0.1	0.0	0.4	0.1	0.1	2.3	4.4	7.2	5.2	1.6	7.2
3	4.0	2.6	1.5	2.6	2.6	2.6	1.2	3.3	6.6	7.6	4.4	1.8	0.0	0.0	1.5	1.5	4.0	3.4	1.5	0.8	0.0	0.0	0.0	0.0	2.2	7.6
4	0.8	0.8	0.7	0.5	4.7	4.0	4.6	4.7	3.3	1.1	0.4	C	C	3.0	5.1	6.2	6.2	5.1	1.4	0.0	0.9	11.2	12.6	9.4	3.9	12.6
5	6.9	7.6	4.7	1.5	0.5	1.5	1.5	1.5	2.6	4.4	6.9	8.4	5.8	8.3	9.1	10.9	11.9	9.0	5.5	4.4	3.7	7.2	4.0	0.8	5.4	11.9
6	2.3	5.3	5.5	4.4	3.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	3.0	3.6	0.0	0.0	0.0	0.0	0.0	1.2	5.5
7	0.0	0.0	0.0	0.0	0.8	1.9	1.9	0.0	0.0	2.6	1.1	0.0	0.0	0.0	0.0	0.0	0.4	1.4	1.1	0.1	0.0	0.0	0.0	0.0	0.5	2.6
8	0.1	0.0	1.5	1.5	0.0	0.0	0.4	0.0	0.0	0.1	1.2	1.4	0.1	0.0	0.0	0.0	1.2	1.5	0.7	0.0	0.0	0.0	0.5	2.3	0.5	2.3
9	3.3	3.7	1.1	0.0	0.0	0.4	0.0	0.0	0.0	1.5	0.9	8.0	5.3	0.4	0.5	2.2	7.2	5.8	1.1	0.0	2.6	9.4	7.6	8.0	2.9	9.4
10	6.5	4.4	3.3	4.0	5.4	2.2	0.0	3.3	3.3	2.6	1.2	0.8	2.9	1.5	0.0	0.0	0.0	0.0	0.0	0.8	1.1	0.4	0.4	0.4	1.8	6.5
11	0.0	1.2	1.5	1.9	0.0	0.0	0.1	1.9	5.8	4.4	1.2	2.9	2.6	1.2	0.8	2.2	0.0	0.0	1.5	4.4	6.2	4.1	10.2	8.3	2.6	10.2
12	8.3	6.2	5.1	4.7	3.0	4.6	4.8	6.2	6.2	6.5	7.6	7.6	6.2	4.4	4.7	3.7	6.2	6.9	4.4	4.4	8.3	8.3	6.2	5.5	5.8	8.3
13	4.4	1.9	0.5	3.0	5.8	6.2	7.7	8.0	9.8	7.3	8.3	9.8	8.0	7.3	9.4	6.9	3.3	3.3	4.0	3.0	4.7	6.2	7.6	6.7	5.9	9.8
14	5.8	7.7	16.3	25.6	23.7	15.6	12.3	9.1	12.6	10.5	7.7	4.8	9.1	9.4	12.7	16.6	15.9	14.8	10.9	12.3	10.8	10.1	11.5	8.0	12.2	25.6
15	7.6	5.3	5.5	5.5	4.0	6.9	7.7	16.3	19.3	20.2	20.5	14.8	17.3	18.4	21.6	19.1	12.6	10.8	9.8	14.8	17.3	16.6	19.5	18.0	13.7	21.6
16	17.7	16.6	16.7	16.1	15.9	13.0	17.3	14.8	21.6	18.7	14.8	18.8	24.1	26.6	17.3	15.5	12.6	12.3	12.0	17.3	20.5	21.3	19.2	27.4	17.8	27.4
17	26.0	23.8	19.8	21.6	23.4	22.7	19.8	20.2	26.3	26.6	23.4	26.3	26.7	29.1	27.7	23.8	28.4	22.7	27.7	25.6	24.9	30.2	27.1	23.1	24.9	30.2
18	28.8	27.7	32.8	37.1	42.8	43.2	44.6	42.8	48.2	51.1	44.6	47.9	50.7	49.3	51.4	52.8	53.9	55.3	52.8	51.4	49.6	54.7	55.8	64.7	47.3	64.7
19	62.2	58.6	59.0	58.3	63.3	62.2	58.2	51.7	46.4	46.7	46.0	46.0	41.7	36.7	28.8	33.5	32.4	31.0	31.7	29.5	30.6	26.3	32.0	25.6	43.3	63.3
20	24.8	20.2	15.8	10.2	9.8	16.7	32.8	34.9	23.0	6.6	15.2	15.0	8.3	5.1	4.7	2.9	3.3	1.5	0.0	0.4	0.8	0.0	0.4	0.8	10.5	34.9
21	0.0	0.0	0.0	2.2	0.4	1.9	3.3	5.1	4.6	1.9	2.2	6.2	5.1	2.6	1.5	2.2	1.9	1.5	2.9	1.9	1.5	2.7	6.9	5.5	2.7	6.9
22	4.0	6.5	5.5	7.3	9.8	10.1	6.9	5.1	12.6	9.4	9.4	9.8	5.8	8.3	7.6	8.7	9.4	6.9	7.3	6.2	5.5	4.7	3.5	4.0	7.3	12.6
23	3.7	4.7	2.2	0.0	3.3	3.4	0.8	1.9	4.0	5.8	5.8	5.8	6.2	6.9	6.9	4.6	7.3	5.5	3.3	4.8	9.8	6.5	4.5	34.5	5.9	34.5
24	4.0	2.2	0.0	0.0	0.0	0.1	1.2	0.1	1.2	0.0	0.1	2.9	0.1	0.0	0.0	0.0	2.2	2.2	0.8	0.7	0.1	0.0	0.0	0.0	0.7	4.0
25	0.0	0.0	0.0	0.0	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.1	0.0	0.1	0.0	0.0	0.0	1.5	0.1	0.0	0.2	1.5
26	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.4	1.4	2.2	0.1	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.1	0.3	2.2
27	0.0	1.2	1.5	0.0	0.0	0.1	3.0	2.6	0.1	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.0
28	0.0	0.0	0.0	14.1	7.6	1.9	2.2	2.3	1.5	0.1	4.0	2.2	0.0	0.0	0.0	0.0	3.7	6.2	8.7	6.4	12.3	5.8	5.8	5.1	3.7	14.1
29	0.4	0.0	0.0	0.8	1.9	2.9	2.9	0.4	7.3	6.4	2.9	1.2	1.9	7.6	6.2	2.2	3.7	3.3	2.6	3.7	4.1	4.7	3.3	7.3	3.2	7.6
30	4.7	4.0	4.4	1.5	0.0	0.0	0.4	3.0	6.2	5.8	3.7	4.7	3.0	13.4	10.1	6.9	4.7	2.6	7.3	5.3	6.2	4.8	2.6	7.6	4.7	13.4
NO.	30	30	30	30	29	29	30	30	30	30	30	29	28	29	29	30	30	30	30	30	30	30	30	30	713	99%
MEAN	7.6	7.6	7.4	7.8	8.2	7.8	8.0	8.1	9.3	8.6	8.1	8.8	8.3	8.3	7.9	7.5	7.9	7.3	6.8	6.6	7.6	8.2	8.4	9.3		
MAX	62.2	58.6	59.0	58.3	63.3	62.2	58.2	51.7	48.2	51.1	46.0	47.9	50.7	49.3	51.4	52.8	53.9	55.3	52.8	51.4	49.6	54.7	55.8	64.7		



Number of 24HR Exceedences	2	Operational Time	715 HRS
Number of Non-Zero Readings	565	Operational Uptime	99.3 %
Maximum 1-HR Average	64.7 UG/M3	Monthly Average	8.0 UG/M3
Maximum 24-HR Average	47.3 UG/M3		
Monthly Calibration	2		
Standard Deviation	12.3		

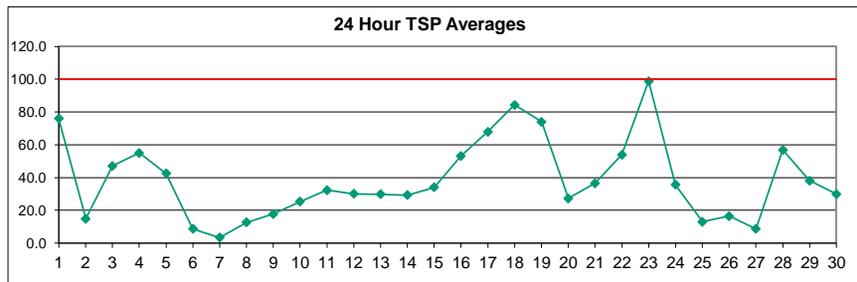
# Lagoon PM<sub>10</sub> (µg/m<sup>3</sup>) – September 2020

Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	36.5	114.9	108.6	72.1	40.4	26.3	25.9	55.7	79.6	53.3	35.9	45.1	24.4	50.7	54.8	56.4	90.8	35.8	31.6	31.5	88.1	80.8	43.6	10.6	53.9	114.9
2	5.3	4.0	10.8	37.8	21.4	11.7	37.8	10.9	2.2	0.0	0.0	0.0	9.8	12.7	24.6	0.0	17.6	9.6	9.4	8.7	0.0	0.0	6.3	10.6	10.5	37.8
3	6.8	8.7	16.6	19.5	17.6	23.5	28.2	19.9	82.2	37.1	51.0	73.9	53.3	38.9	59.6	71.4	52.6	34.3	14.6	20.1	3.4	3.9	3.4	21.1	31.7	82.2
4	5.1	53.4	14.6	10.8	7.5	9.3	24.6	26.3	34.2	32.5	48.9	C	C	34.7	81.8	62.1	36.8	43.1	13.3	9.4	19.5	20.2	10.1	10.1	27.6	81.8
5	8.4	16.2	24.3	15.5	12.8	15.1	12.8	16.9	27.7	42.6	52.0	47.9	34.0	91.2	70.2	37.1	25.6	16.8	20.8	3.0	42.5	27.0	18.8	12.8	28.8	91.2
6	10.7	10.1	11.1	17.5	8.0	6.0	6.7	8.7	7.3	4.0	4.0	6.0	5.3	8.7	12.1	12.1	6.0	0.0	0.0	0.0	1.9	4.6	1.3	0.0	6.3	17.5
7	0.0	1.3	1.3	0.0	0.7	2.6	2.6	0.6	0.0	0.0	0.6	2.6	4.7	9.4	5.3	5.3	10.7	4.6	0.6	1.9	0.0	0.0	1.9	4.7	2.6	10.7
8	9.4	10.1	6.0	3.3	2.6	3.3	4.0	8.1	15.5	4.0	16.3	56.7	18.2	6.7	8.8	33.7	12.1	8.7	8.0	8.2	0.0	0.0	0.0	1.7	10.2	56.7
9	5.3	5.3	6.7	8.7	8.0	9.4	12.1	10.1	19.6	27.7	20.9	26.3	37.1	20.9	24.3	13.4	10.7	4.6	1.3	0.0	2.6	8.0	0.0	7.4	12.1	37.1
10	26.3	16.8	17.6	37.1	26.3	12.1	11.5	41.9	26.3	16.9	24.3	41.3	60.1	18.9	14.1	20.2	7.4	10.7	8.1	35.1	7.8	8.2	10.1	7.9	21.1	60.1
11	4.6	0.6	0.0	0.0	0.0	6.0	8.1	33.1	52.7	26.3	41.9	60.8	40.5	29.7	54.7	24.3	15.5	10.7	8.3	25.0	29.0	32.4	19.4	26.3	22.9	60.8
12	14.8	14.1	8.7	7.4	14.8	12.8	18.2	12.1	35.8	44.6	43.7	47.3	41.9	29.0	33.8	34.4	24.0	20.2	12.1	9.4	3.3	29.7	35.1	24.1	23.8	47.3
13	31.1	39.2	32.4	29.0	26.2	25.0	27.0	22.3	21.6	21.6	18.2	36.5	43.2	41.7	48.8	27.6	27.7	12.8	8.0	7.4	22.0	19.5	24.3	23.6	26.5	48.8
14	22.3	29.7	35.1	41.9	29.7	27.0	25.7	23.6	29.7	21.6	22.3	22.9	19.5	14.1	42.6	38.5	54.8	37.2	15.1	11.4	21.6	22.3	20.9	9.4	26.6	54.8
15	16.8	16.8	11.0	18.9	15.5	22.0	19.6	23.6	33.1	37.2	39.9	35.8	45.3	63.6	46.0	47.3	33.1	48.7	20.9	20.9	29.0	27.0	30.4	33.8	30.7	63.6
16	30.4	27.0	21.6	26.3	30.3	27.7	37.2	28.4	46.6	71.0	62.9	38.0	71.5	106.9	65.0	50.4	33.8	37.1	22.3	33.5	44.6	43.9	28.4	39.2	42.7	106.9
17	41.2	39.3	38.5	35.8	51.6	33.6	35.1	38.4	71.5	67.1	66.3	78.8	85.4	70.7	53.2	61.9	83.3	91.8	59.7	41.7	40.6	70.2	39.4	29.4	55.2	91.8
18	50.1	54.0	53.4	52.9	51.4	50.1	67.8	65.7	69.6	77.8	78.5	105.5	90.4	95.9	79.6	90.4	71.6	98.0	74.4	68.5	74.3	59.9	62.8	95.2	72.4	105.5
19	83.0	77.3	74.5	78.4	80.5	68.7	89.4	125.6	127.2	54.8	55.6	53.5	57.4	53.5	51.4	59.3	67.6	49.1	46.0	42.7	30.1	33.0	31.1	31.7	63.4	127.2
20	50.2	35.5	18.0	22.1	16.3	18.8	40.0	37.3	31.9	36.3	43.1	41.3	17.5	17.0	13.5	18.1	7.2	8.7	5.6	6.6	4.0	3.9	3.3	1.6	20.7	50.2
21	3.9	0.0	3.2	18.5	8.6	17.3	15.1	26.0	29.6	29.1	34.3	97.2	69.6	28.2	19.7	13.0	10.8	9.4	12.7	12.8	10.1	4.1	20.4	19.6	21.4	97.2
22	26.8	43.3	38.0	53.7	54.1	42.9	28.8	30.3	69.3	57.2	41.7	43.9	41.3	57.0	41.7	68.9	39.4	31.9	21.9	14.3	3.1	0.0	17.0	19.5	36.9	69.3
23	30.1	20.5	13.0	10.8	10.8	22.6	15.0	22.7	34.1	52.9	35.2	73.3	65.1	68.2	28.1	58.6	57.5	30.5	21.1	143.4	263.4	148.1	136.2	115.6	61.5	263.4
24	43.9	30.7	0.0	0.0	2.5	25.0	33.5	16.7	34.6	31.2	122.5	38.3	22.7	13.6	10.8	10.1	69.3	29.5	2.7	28.3	0.0	0.0	1.5	0.0	23.6	122.5
25	1.2	2.6	0.7	3.9	3.3	3.9	5.3	3.3	5.9	15.2	18.8	19.5	14.9	33.2	34.4	17.3	18.8	0.4	0.6	0.0	0.0	0.0	0.0	2.4	8.6	34.4
26	5.9	3.4	4.6	2.7	0.0	3.8	5.3	3.0	15.8	31.3	21.9	30.8	23.2	19.0	28.8	6.6	10.0	10.1	8.4	6.7	2.1	0.7	0.0	1.9	10.2	31.3
27	2.6	5.9	8.0	2.8	2.0	4.6	9.9	12.7	10.1	16.7	24.1	6.5	7.3	5.4	3.3	4.6	21.1	13.0	6.8	0.0	0.0	0.0	0.6	7.0	24.1	
28	0.6	7.2	8.7	20.6	42.6	21.5	5.1	8.6	15.3	39.2	47.8	23.0	18.3	26.1	27.5	38.2	64.8	65.6	86.0	68.2	165.0	13.9	24.5	17.1	35.6	165.0
29	0.4	3.9	1.3	2.6	7.8	46.2	30.9	17.2	18.2	46.5	33.5	36.4	37.0	48.3	26.6	29.6	42.2	23.7	14.4	8.6	4.1	22.4	17.7	28.1	22.8	48.3
30	11.9	10.1	18.0	10.3	7.4	5.4	7.9	17.3	41.9	22.8	21.6	23.1	45.3	28.8	33.5	39.7	22.4	17.6	32.6	1.5	0.0	5.8	13.2	20.0	19.1	45.3
NO.	30	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	718	100%
MEAN	19.5	23.4	20.2	22.0	20.0	20.1	23.0	25.6	36.3	33.9	37.6	41.8	38.1	38.1	36.6	35.0	34.8	27.1	19.6	22.3	30.4	23.0	20.7	20.9		
MAX	83.0	114.9	108.6	78.4	80.5	68.7	89.4	125.6	127.2	77.8	122.5	105.5	90.4	106.9	81.8	90.4	90.8	98.0	86.0	143.4	263.4	148.1	136.2	115.6		



# Lagoon TSP ( $\mu\text{g}/\text{m}^3$ ) – September 2020

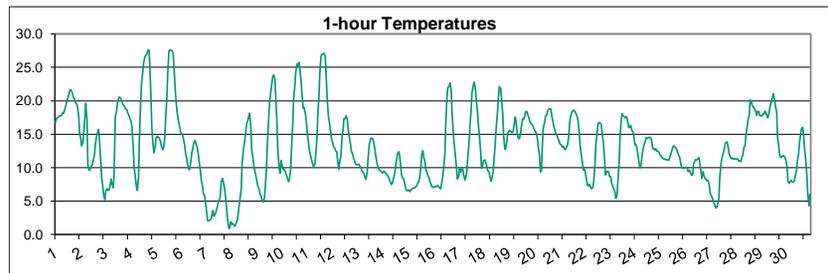
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	70.3	186.0	132.4	90.1	57.4	39.2	40.2	79.6	108.8	80.8	74.9	76.1	39.5	60.6	54.2	65.1	105.9	55.0	39.2	49.7	138.3	109.8	55.1	16.1	76.0	186.0
2	3.2	5.7	13.8	46.3	24.3	14.3	49.0	17.4	7.4	3.1	0.3	1.5	1.6	5.5	21.9	11.5	16.7	10.1	7.2	7.1	27.0	31.9	13.3	16.7	14.9	49.0
3	11.4	20.7	16.9	24.9	23.7	33.1	37.4	40.2	129.1	57.5	52.8	85.7	69.7	49.1	86.2	102.0	93.1	60.5	31.4	22.5	11.5	15.3	3.3	52.7	47.1	129.1
4	13.7	92.2	44.4	39.0	29.5	27.9	31.9	52.2	62.1	40.9	51.0	C	C	56.1	187.2	129.2	72.0	65.9	27.8	23.6	43.1	45.6	29.5	45.4	55.0	187.2
5	20.9	19.6	31.8	25.3	15.7	10.6	24.7	18.4	41.0	51.6	52.7	66.2	45.0	174.8	118.0	62.5	35.4	17.3	37.1	21.4	56.0	32.6	23.9	15.6	42.4	174.8
6	18.1	27.6	19.8	16.9	16.8	7.4	16.5	10.1	7.9	1.8	0.0	0.0	4.2	7.0	9.8	8.5	9.8	11.2	5.9	1.7	0.9	0.2	1.6	4.3	8.7	27.6
7	1.7	11.0	7.2	0.4	0.0	0.2	1.6	2.9	2.9	3.0	0.3	1.6	1.6	1.6	2.9	1.6	3.1	1.6	4.3	1.7	5.6	5.1	8.4	9.8	3.3	11.0
8	11.2	10.3	7.2	5.8	0.4	1.5	7.0	9.7	8.5	15.2	23.6	81.5	22.6	3.7	7.0	25.9	4.9	1.7	5.6	13.3	6.0	4.4	13.8	11.3	12.6	81.5
9	11.3	8.0	12.5	8.0	8.5	13.9	15.4	6.0	24.6	26.4	27.8	31.8	27.9	19.2	24.9	8.9	4.5	13.8	5.9	21.8	21.0	41.1	21.5	20.9	17.7	41.1
10	27.7	14.4	23.4	38.5	25.4	10.2	12.6	46.3	36.4	30.8	21.2	31.7	68.3	23.6	23.7	25.0	18.3	15.5	7.3	34.0	30.7	10.4	20.6	12.9	25.4	68.3
11	5.9	7.1	7.1	8.5	5.4	8.4	16.6	35.6	63.0	30.2	57.4	54.2	46.3	36.4	100.6	43.3	18.8	23.5	19.7	51.8	47.3	35.1	22.6	29.0	32.2	100.6
12	29.2	27.9	18.6	20.9	15.6	20.8	19.6	22.2	39.8	51.0	41.9	34.9	44.1	35.0	34.7	36.1	30.7	27.9	31.9	18.5	22.2	31.7	34.7	30.7	30.0	51.0
13	30.6	44.1	43.1	53.9	35.3	30.7	23.9	22.4	18.3	22.7	19.6	37.0	34.8	38.8	41.6	32.2	29.3	22.5	17.0	24.9	22.4	19.6	22.2	29.0	29.8	53.9
14	22.5	33.1	38.8	40.2	32.2	34.7	28.1	26.5	31.9	23.9	23.7	25.0	21.0	18.2	39.4	36.2	53.6	43.4	26.9	18.4	24.9	27.8	18.4	14.1	29.3	53.6
15	12.7	18.0	15.5	13.0	14.0	20.7	26.3	25.1	39.9	38.9	41.6	48.4	52.6	66.7	43.7	52.5	42.0	52.4	28.5	27.9	33.2	32.0	37.4	33.5	34.0	66.7
16	26.6	29.2	31.9	30.6	32.0	37.4	34.8	34.8	44.2	86.1	73.8	47.9	91.6	110.2	50.3	55.3	54.1	42.0	37.6	57.7	71.7	69.4	62.6	63.7	53.1	110.2
17	62.4	49.0	33.8	32.2	53.5	46.0	43.1	39.0	73.9	80.2	91.1	95.4	78.1	65.7	51.7	82.2	112.7	102.7	86.4	57.6	56.9	107.9	81.2	49.2	68.0	112.7
18	52.6	58.1	58.2	58.3	65.0	59.5	70.4	74.7	89.6	90.0	91.4	132.0	110.0	89.2	73.8	92.3	79.3	122.0	88.2	91.8	98.1	86.4	85.9	107.4	84.3	132.0
19	113.3	83.9	72.4	81.4	84.4	77.8	112.5	182.1	192.1	79.4	54.7	62.2	65.1	58.4	52.9	52.7	64.8	61.1	43.4	44.4	36.4	34.8	37.4	28.1	74.0	192.1
20	65.4	49.1	25.7	37.1	30.8	33.3	47.8	47.2	41.8	39.0	25.4	23.7	12.9	14.0	18.0	23.5	14.3	11.3	11.3	13.9	10.0	27.3	6.0	27.2	27.3	65.4
21	11.7	5.9	3.0	29.9	14.5	44.9	28.4	37.3	64.4	63.8	46.3	146.5	114.5	38.3	24.0	18.3	10.1	16.6	19.5	15.5	20.8	15.6	49.0	39.2	36.6	146.5
22	53.7	75.2	45.3	64.6	65.2	61.1	39.5	57.7	115.6	86.4	56.3	56.8	42.1	51.1	39.2	99.4	58.1	43.4	35.0	34.7	33.4	29.3	21.2	31.7	54.0	115.6
23	42.7	44.4	21.3	23.6	15.6	27.5	7.7	42.1	52.5	71.5	50.6	129.2	65.6	79.8	54.8	82.3	92.5	56.5	51.4	247.4	434.4	231.4	234.8	212.3	98.8	434.4
24	82.6	65.5	16.8	16.8	10.7	28.7	40.0	36.3	46.9	36.4	67.0	53.1	23.1	27.7	9.0	13.9	125.4	34.7	18.5	70.6	11.6	7.2	3.1	8.3	35.6	125.4
25	5.8	5.7	4.4	1.7	1.6	0.2	0.2	2.9	15.1	23.5	27.7	23.9	26.4	45.3	40.4	17.4	18.1	4.7	3.0	4.3	3.0	7.0	7.1	24.6	13.1	45.3
26	6.3	1.1	0.0	0.2	5.6	16.5	0.7	6.9	16.5	47.7	37.8	39.7	40.3	29.5	45.4	9.5	36.7	10.6	12.5	9.9	7.2	3.2	7.0	4.4	16.5	47.7
27	4.4	27.2	9.0	5.8	5.7	7.1	11.1	20.7	10.1	13.9	27.5	10.8	7.2	3.1	1.6	8.0	5.6	7.1	5.8	1.7	1.6	5.6	4.4	3.0	8.7	27.5
28	7.0	19.2	11.5	34.8	44.2	21.6	14.2	23.4	31.5	62.9	71.8	25.0	22.3	22.3	23.3	47.8	126.5	130.1	128.7	117.9	260.0	31.1	56.0	30.0	56.8	260.0
29	1.0	1.4	1.6	1.6	5.7	79.6	60.3	36.8	42.8	80.6	63.0	57.0	56.9	59.5	47.5	55.2	79.6	34.7	22.6	19.6	18.2	32.9	22.6	33.1	38.1	80.6
30	17.3	18.3	26.2	8.2	7.1	16.5	19.5	27.6	57.4	40.8	24.2	37.1	60.3	32.8	32.3	40.1	33.6	36.0	57.6	19.3	18.2	31.7	29.3	26.5	29.9	60.3
NO.	30	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	718	100%
MEAN	28.1	35.3	26.5	28.6	24.9	27.7	29.4	36.1	50.5	46.0	43.2	52.3	44.7	44.1	45.3	44.6	48.3	37.9	30.6	38.2	52.4	38.8	34.5	34.4		
MAX	113.3	186.0	132.4	90.1	84.4	79.6	112.5	182.1	192.1	90.0	91.4	146.5	114.5	174.8	187.2	129.2	126.5	130.1	128.7	247.4	434.4	231.4	234.8	212.3		



Number of 24HR Exceedences	0
Number of Non-Zero Readings	714
Maximum 1-HR Average	434.4 UG/M3
Maximum 24-HR Average	98.8 UG/M3
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Calibration	2
Standard Deviation	38.3
Monthly Average	38.4 UG/M3

# Lagoon Temperature (°C) – September 2020

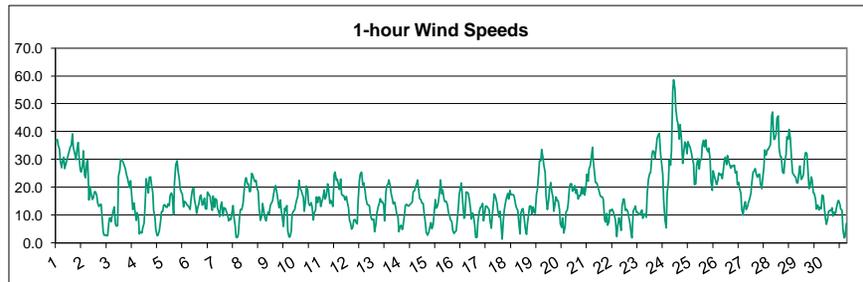
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	16.8	17.4	17.4	17.6	17.8	17.7	17.9	18.3	18.2	NRM	NRM	NRM	NRM	21.1	21.7	21.5	21.1	20.6	20.3	19.8	19.5	19.2	17.7	15.2	18.8	21.7
2	14.3	13.2	13.7	15.1	17.5	19.6	17.1	10.4	9.6	9.7	10.3	10.4	11.1	12.0	13.5	14.6	15.2	15.7	14.1	11.0	8.7	7.1	6.0	5.3	12.3	19.6
3	6.5	6.8	6.6	6.6	7.2	8.3	7.6	7.0	8.8	17.6	18.4	19.6	20.4	20.6	20.4	20.1	19.5	19.3	19.1	18.8	18.7	18.2	17.8	17.4	14.6	20.6
4	16.9	16.2	13.1	10.3	8.7	7.1	6.6	8.7	14.2	19.7	22.5	24.3	25.6	26.5	26.8	27.0	27.5	27.6	25.4	20.2	15.9	13.3	12.2	13.2	17.9	27.6
5	14.5	14.7	14.5	14.4	13.9	13.2	12.7	12.9	14.4	17.2	20.3	23.9	27.4	27.6	27.5	27.5	27.1	25.4	21.8	20.1	18.2	17.3	16.4	15.3	19.1	27.6
6	15.0	14.9	14.3	13.3	12.2	11.3	10.4	9.7	9.8	11.2	12.2	13.0	13.8	14.1	13.7	13.1	12.3	10.8	9.3	8.1	7.1	6.1	5.8	4.7	11.1	15.0
7	3.3	2.1	2.0	2.2	2.3	2.8	3.6	2.7	3.0	3.4	4.1	4.6	5.2	5.4	7.9	8.4	7.9	6.8	5.8	3.8	2.3	0.9	1.0	1.9	3.9	8.4
8	1.5	1.6	1.4	1.3	1.7	2.1	2.7	4.3	5.4	6.8	10.7	12.5	13.9	14.9	16.6	16.9	17.6	18.2	16.3	12.8	11.6	10.4	9.4	8.8	9.1	18.2
9	7.8	7.2	6.8	6.1	5.7	5.1	4.8	5.5	7.3	10.3	13.8	17.3	19.6	21.3	22.3	23.7	23.9	23.2	20.7	16.7	12.7	10.1	9.1	11.1	13.0	23.9
10	10.4	9.7	9.8	9.4	8.9	8.4	7.9	8.3	9.8	12.9	16.6	20.3	22.3	24.2	25.5	25.2	25.7	24.8	23.0	21.1	18.9	19.0	18.2	16.7	16.5	25.7
11	15.1	13.6	12.6	11.7	11.2	10.5	10.1	10.4	11.6	14.3	17.5	20.8	24.2	26.6	26.9	27.1	27.1	26.7	24.1	19.9	17.5	16.7	15.5	14.4	17.8	27.1
12	13.7	13.2	12.9	12.5	12.4	11.0	9.8	10.8	12.0	14.3	15.7	17.3	17.3	17.7	17.3	15.9	14.5	13.4	12.5	12.0	11.5	11.0	10.5	10.4	13.3	17.7
13	10.5	10.5	10.3	10.0	9.5	9.4	9.2	8.4	8.3	9.3	11.3	13.4	14.3	14.4	14.4	14.0	13.0	11.9	11.0	10.3	9.9	9.6	9.5	9.3	10.9	14.4
14	9.2	9.4	9.4	9.1	8.9	8.8	8.3	7.9	7.4	7.7	8.3	9.1	10.1	11.3	12.1	12.4	11.8	10.0	8.8	8.4	8.3	7.4	6.8	6.5	9.1	12.4
15	6.6	6.6	6.4	6.7	6.9	6.9	6.9	7.1	7.3	7.6	7.9	8.5	10.0	11.9	12.5	11.5	10.9	9.7	9.3	8.8	8.4	7.9	7.5	7.1	8.4	12.5
16	7.0	7.1	7.2	7.2	7.3	7.2	7.0	6.8	7.6	8.8	10.0	12.1	16.7	20.8	22.0	22.1	22.7	21.7	18.3	15.4	13.7	11.9	9.9	8.3	12.4	22.7
17	8.6	9.8	9.4	9.8	9.8	9.0	8.1	8.5	9.6	11.6	13.7	16.0	18.6	21.2	22.2	22.8	22.1	20.4	18.5	16.1	14.7	12.4	9.9	10.5	13.9	22.8
18	11.1	11.2	10.9	10.2	9.5	9.4	8.7	8.0	8.4	9.4	11.3	13.5	15.7	17.9	20.7	22.1	21.8	20.5	18.1	15.0	12.7	12.7	14.0	15.1	13.7	22.1
19	15.4	15.6	15.4	15.3	15.4	16.2	17.6	16.9	15.1	14.5	14.3	15.0	16.2	17.3	17.2	17.7	18.4	18.4	18.0	17.4	16.9	16.6	16.5	16.1	16.4	18.4
20	15.8	15.5	15.3	14.6	13.3	12.1	9.3	9.5	14.4	16.0	16.8	17.7	17.9	18.4	18.7	18.8	18.8	17.7	16.8	16.1	15.5	15.0	14.7	14.4	15.5	18.8
21	13.9	13.5	13.4	13.0	13.2	12.7	12.7	13.1	13.5	14.8	16.7	17.9	18.3	18.5	18.6	18.4	18.1	17.6	17.2	15.3	13.4	12.0	11.0	9.6	14.8	18.6
22	9.8	9.1	8.0	7.3	7.3	7.6	7.0	6.8	7.1	8.1	10.5	13.5	15.1	16.5	16.8	16.7	16.4	15.3	13.8	11.3	8.9	9.3	9.4	9.3	10.9	16.8
23	8.6	8.6	7.7	7.2	6.9	6.4	5.4	5.8	8.0	10.7	14.3	17.1	18.0	17.7	17.6	17.4	17.6	17.1	16.0	16.0	16.3	15.7	15.3	14.9	12.8	18.0
24	13.4	13.5	12.9	12.0	10.7	10.0	10.5	11.7	12.9	13.4	14.0	14.5	14.4	14.5	14.5	14.5	14.1	12.9	12.8	12.7	12.8	12.5	12.4	12.3	12.9	14.5
25	11.9	11.7	11.6	11.3	11.4	11.3	11.2	11.2	11.1	11.3	12.0	12.4	13.0	13.3	13.1	13.0	12.7	12.2	11.8	11.5	10.4	10.0	9.9	9.9	11.6	13.3
26	10.0	10.1	9.9	9.4	9.6	9.3	8.8	9.0	10.5	10.9	11.2	11.2	11.3	11.5	10.7	9.4	8.4	9.4	8.8	8.3	8.3	8.0	8.1	7.3	9.6	11.5
27	6.1	5.8	5.3	4.9	4.4	4.0	4.0	4.5	5.4	8.4	10.5	11.4	12.0	12.5	13.6	13.8	13.8	13.1	12.0	11.6	11.3	11.4	11.3	11.3	9.3	13.8
28	11.3	11.3	11.3	11.0	11.0	10.9	11.4	11.9	13.0	13.3	14.9	16.1	17.0	17.9	20.1	20.0	19.3	19.1	18.7	18.6	17.8	18.5	18.4	17.8	15.4	20.1
29	17.7	17.7	18.0	17.9	18.5	18.3	17.6	17.4	18.3	19.1	19.8	20.4	21.1	20.1	19.2	18.4	14.6	13.3	11.9	11.5	11.5	11.8	11.8	11.5	16.6	21.1
30	11.1	10.2	8.0	7.7	7.9	8.1	7.8	7.8	8.0	8.8	9.7	11.0	12.2	13.8	15.1	15.9	16.0	14.6	12.3	11.2	8.5	5.9	4.3	6.0	10.1	16.0
NO.	30	30	30	30	30	30	30	30	30	29	29	29	29	30	30	30	30	30	30	30	30	30	30	30	716	99%
MEAN	11.1	10.9	10.5	10.2	10.0	9.8	9.4	9.4	10.3	11.8	13.4	15.0	16.3	17.4	18.0	18.0	17.7	16.9	15.5	14.0	12.7	11.9	11.3	11.1		
MAX	17.7	17.7	18.0	17.9	18.5	19.6	17.9	18.3	18.3	19.7	22.5	24.3	27.4	27.6	27.5	27.5	27.5	27.6	25.4	21.1	19.5	19.2	18.4	17.8		



Number of Non-Zero Readings	716
Maximum 1-HR Average	27.6 C
Maximum 24-HR Average	19.1 C
Monthly Calibration	0
Standard Deviation	5.314
Operational Time	716 HRS
Operational Uptime	99.4 %
Monthly Average	13.0 C

# Lagoon Wind Speed (km/hr) – September 2020

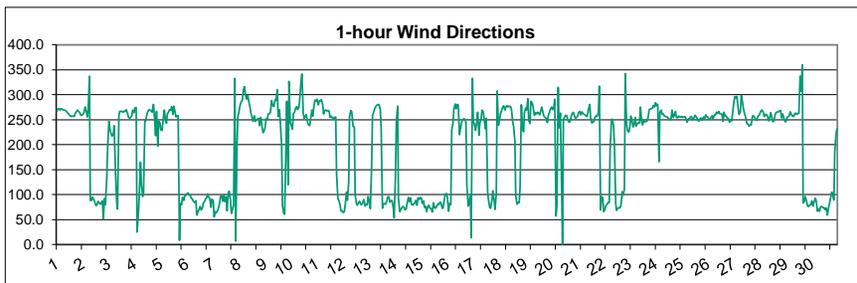
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	36.6	37.2	35.1	33.7	29.4	27.0	29.4	30.7	26.7		C	C	C	C	34.6	34.9	39.3	34.2	32.4	30.0	33.0	36.1	31.3	26.3	25.4	32.2	39.3
2	27.7	33.2	24.2	23.4	29.0	29.7	15.5	20.3	17.6	15.7	16.3	18.4	18.5	17.1	14.4	13.1	13.7	13.8	9.6	3.6	2.7	2.9	2.6	2.7	16.1	33.2	
3	7.8	9.1	7.7	9.6	11.6	12.9	6.9	6.0	6.3	24.1	26.2	30.1	29.6	29.2	28.0	26.6	24.8	23.1	21.6	19.8	22.3	15.9	12.0	14.4	17.7	30.1	
4	11.4	8.0	10.9	9.0	3.2	4.0	3.5	5.5	7.2	12.6	23.1	21.0	17.9	23.6	23.7	21.1	18.1	11.7	9.2	4.8	2.6	2.8	4.3	7.8	11.1	23.7	
5	11.2	11.4	13.5	13.7	12.9	12.7	14.0	13.4	16.9	18.0	16.8	10.3	21.6	28.0	29.6	26.2	22.9	19.5	18.1	17.7	12.9	15.0	14.5	13.9	16.9	29.6	
6	13.4	13.0	12.0	15.4	18.8	19.8	15.5	13.3	10.5	12.9	13.8	16.9	17.2	13.6	14.0	16.1	12.4	12.1	18.3	17.4	16.6	14.5	11.7	16.9	14.8	19.8	
7	12.8	15.9	15.4	12.7	11.0	9.5	13.7	14.6	9.8	12.6	12.5	11.1	10.2	7.9	8.8	8.5	10.6	13.3	9.3	5.9	2.0	2.0	3.0	9.4	10.1	15.9	
8	12.0	12.1	14.2	17.9	22.4	23.4	21.2	21.3	18.4	18.6	24.9	24.5	23.0	22.1	22.5	19.8	18.5	12.4	8.1	9.6	14.2	11.4	9.2	8.0	17.1	24.9	
9	9.8	11.1	10.5	13.6	14.2	15.1	17.2	19.9	20.6	18.0	14.7	12.6	15.4	11.9	8.5	6.0	12.5	11.6	13.4	4.4	2.1	2.1	4.2	10.3	11.7	20.6	
10	11.3	12.0	13.8	15.7	16.7	22.5	19.8	18.8	17.8	16.4	11.3	15.3	20.4	18.9	14.3	13.4	14.5	13.0	8.3	10.8	11.9	16.5	14.4	16.6	15.2	22.5	
11	16.3	13.1	15.1	16.1	19.0	15.8	17.0	21.2	19.4	14.2	15.3	14.2	13.1	24.6	25.4	22.5	23.0	20.7	19.1	23.0	17.6	17.0	17.0	15.5	18.1	25.4	
12	16.7	14.9	12.6	8.4	6.9	5.0	5.8	8.3	8.4	7.5	6.9	14.9	22.3	24.6	25.5	20.8	21.6	18.9	16.0	13.8	13.7	13.4	10.7	8.6	13.6	25.5	
13	8.3	8.5	4.1	6.7	10.5	12.7	14.4	16.0	14.6	14.8	13.8	7.9	18.1	20.4	21.2	22.7	20.6	18.0	15.8	14.1	14.7	12.4	10.5	9.4	13.8	22.7	
14	4.1	6.0	6.5	4.8	6.5	10.3	13.5	13.8	13.4	13.2	13.7	14.1	14.8	18.4	18.7	20.0	21.4	22.7	18.6	15.9	15.4	14.4	14.3	11.0	13.6	22.7	
15	7.3	4.0	2.7	3.9	5.4	7.3	5.2	6.5	10.3	15.6	12.4	13.2	14.8	18.7	22.7	17.6	19.1	15.8	14.9	14.9	13.5	11.1	9.7	8.3	11.5	22.7	
16	7.7	4.7	3.4	3.9	4.3	7.5	12.6	17.3	20.1	21.5	15.0	8.9	9.2	18.2	18.2	17.8	15.8	12.4	8.6	10.7	9.7	6.1	2.1	2.0	10.7	21.5	
17	7.5	11.1	12.7	13.1	14.2	7.9	11.0	13.2	13.1	12.6	11.9	8.1	5.2	9.4	14.8	17.7	16.4	14.2	11.5	9.4	11.3	5.4	1.4	8.7	10.9	17.7	
18	11.9	14.9	16.2	17.8	15.8	18.9	17.4	17.3	17.3	16.4	13.8	12.6	11.7	7.9	3.2	10.6	12.2	12.3	8.5	5.5	3.1	6.7	10.4	13.2	12.3	18.9	
19	13.2	10.2	12.9	11.1	10.5	17.4	19.1	24.9	29.5	29.5	33.6	30.6	27.9	25.3	17.0	12.1	15.3	19.4	21.7	18.8	16.4	11.3	14.4	16.5	19.1	33.6	
20	15.2	15.2	12.0	6.9	5.6	9.0	3.6	5.9	11.0	11.9	14.1	20.0	21.2	21.2	18.5	19.0	20.6	17.8	19.2	15.8	17.0	16.8	19.9	17.6	14.8	21.2	
21	20.1	17.2	19.9	24.7	22.2	26.6	27.8	30.4	34.3	29.4	24.8	21.7	21.6	20.0	18.7	17.0	16.6	16.5	15.5	8.4	7.4	10.5	6.4	7.7	19.4	34.3	
22	11.9	11.6	12.2	11.3	9.7	8.2	2.2	5.8	9.1	7.7	4.5	12.9	15.8	15.8	11.6	12.1	11.5	9.7	7.5	4.9	1.8	11.5	12.2	13.3	9.8	15.8	
23	11.1	11.1	10.5	10.1	10.9	11.9	8.9	10.2	10.5	9.2	17.4	23.0	25.0	25.4	31.5	33.1	32.6	30.3	34.5	37.7	38.9	39.3	31.9	29.3	22.3	39.3	
24	24.5	15.5	8.3	5.4	17.8	22.0	29.8	27.9	32.9	54.6	58.5	55.2	48.2	44.0	43.0	37.3	42.5	37.5	28.6	32.1	36.2	35.7	32.0	36.4	33.6	58.5	
25	35.0	34.3	32.3	30.5	28.4	20.9	21.2	27.8	30.3	26.5	29.7	30.0	35.1	36.8	34.5	37.0	33.7	32.8	34.1	30.1	22.2	18.8	25.9	23.9	29.7	37.0	
26	22.7	20.9	22.6	25.2	24.4	24.8	23.2	25.4	29.6	30.8	28.1	31.5	29.2	28.1	26.8	27.8	27.5	28.0	25.1	25.7	21.0	21.6	19.5	17.8	25.3	31.5	
27	12.1	10.0	12.9	14.9	12.0	13.0	14.3	15.7	17.8	21.4	25.5	25.7	26.6	24.9	23.6	24.5	24.7	21.2	19.5	22.8	27.2	33.4	31.6	33.5	21.2	33.5	
28	33.5	34.7	35.3	45.8	47.0	37.2	37.4	39.1	44.6	45.5	34.0	31.0	30.9	25.5	25.0	29.3	31.7	38.2	37.2	40.7	37.5	31.8	25.2	24.7	35.1	47.0	
29	23.9	23.8	21.6	21.5	25.6	27.7	22.8	23.6	24.6	30.8	32.5	32.2	27.3	19.5	20.0	23.7	22.7	18.0	17.8	15.7	12.2	13.6	11.9	13.0	21.9	32.5	
30	12.4	17.1	16.8	12.9	8.6	6.7	8.7	11.3	11.8	11.6	12.6	9.6	11.1	10.6	12.5	14.6	15.3	14.0	12.2	11.7	5.0	1.9	2.3	7.1	10.8	17.1	
NO.	30	30	30	30	30	30	30	30	30	29	29	29	29	30	30	30	30	30	30	30	30	30	30	30	716	100%	
MEAN	15.6	15.4	14.9	15.3	15.8	16.2	15.8	17.5	18.5	19.8	19.9	19.9	20.8	21.5	21.0	20.9	20.9	19.4	17.7	16.6	15.5	14.9	13.7	14.8			
MAX	36.6	37.2	35.3	45.8	47.0	37.2	37.4	39.1	44.6	54.6	58.5	55.2	48.2	44.0	43.0	39.3	42.5	38.2	37.2	40.7	38.9	39.3	32.0	36.4			



Number of Non-Zero Readings	716
Maximum 1-HR Average	58.5 KM/HR
Maximum 24-HR Average	35.1 KM/HR
Monthly Calibration	4
Standard Deviation	9.384
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	17.6 KM/HR

# Lagoon Wind Direction (°) – September 2020

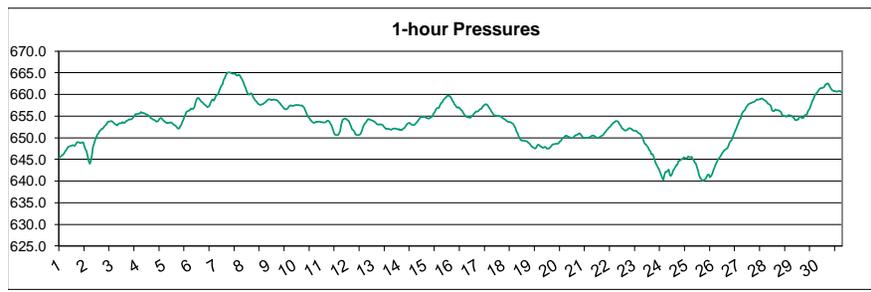
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	267.0	271.8	271.8	268.8	271.6	271.2	269.6	268.9	268.7	C	C	C	C	256.3	256.8	256.8	256.4	261.9	266.0	268.8	266.5	265.1	258.7	258.8	265.0	271.8
2	260.7	262.8	274.9	269.1	255.4	267.6	337.2	88.3	88.8	95.2	90.5	85.9	78.2	78.5	86.4	84.5	80.6	83.1	87.7	50.7	91.5	79.5	132.9	191.7	65.6	337.2
3	246.6	233.7	222.5	216.7	219.5	238.3	149.6	84.9	71.2	257.8	267.0	266.5	266.5	265.0	267.0	267.7	270.1	262.7	255.3	253.1	254.8	257.5	269.2	264.3	257.7	270.1
4	273.7	274.2	24.9	60.6	95.3	165.3	121.5	96.1	103.4	248.1	247.8	261.2	266.9	270.5	268.6	268.3	265.2	280.5	258.3	217.9	266.6	197.5	246.7	244.2	262.5	280.5
5	228.8	228.6	247.5	269.1	254.8	243.5	261.6	265.9	270.4	269.3	276.1	260.1	276.7	265.2	255.5	257.6	258.2	8.3	82.5	79.5	94.7	88.7	96.9	99.1	261.0	276.7
6	101.3	103.4	99.7	98.1	93.5	91.0	86.8	84.2	87.7	58.5	65.9	69.8	76.7	69.6	73.2	82.9	85.7	90.9	93.5	101.5	94.3	92.3	74.9	91.1	86.5	103.4
7	87.6	55.5	65.8	63.3	67.9	73.1	83.8	97.5	97.5	86.9	99.4	86.0	95.8	67.7	105.2	106.4	89.3	62.7	71.2	78.8	332.9	7.1	202.2	256.3	81.0	332.9
8	268.2	279.2	286.5	287.3	310.5	316.4	297.3	290.8	298.8	287.2	274.0	263.4	253.8	246.7	257.9	246.2	249.9	251.0	252.8	238.2	254.8	240.1	223.6	226.3	270.9	316.4
9	234.4	251.5	249.9	261.3	262.0	264.7	288.4	279.8	276.2	290.2	288.2	309.8	256.0	269.8	245.2	199.5	78.2	62.6	61.0	191.2	286.7	119.7	326.8	244.7	272.3	326.8
10	238.9	231.4	261.5	264.8	273.0	276.3	269.7	274.4	292.8	327.3	341.5	262.9	252.7	256.7	260.8	244.2	240.8	237.5	252.2	269.2	257.1	279.9	288.8	287.1	268.6	341.5
11	290.5	279.7	287.1	287.1	289.7	279.8	261.2	268.7	269.1	267.3	268.6	266.9	254.8	257.0	253.5	252.0	254.7	255.4	142.1	91.5	88.3	79.8	67.8	67.3	266.5	290.5
12	64.3	66.1	79.7	105.2	88.1	124.0	255.8	268.0	265.7	237.3	235.3	98.5	81.1	78.8	84.3	87.1	80.9	79.6	85.2	89.9	77.1	79.5	80.1	95.9	84.3	268.0
13	83.9	71.5	159.0	257.9	266.1	271.4	276.6	278.9	280.6	279.6	271.3	234.0	72.4	81.9	81.2	80.9	87.1	95.4	95.4	85.1	87.7	88.5	73.8	53.7	75.5	280.6
14	135.7	244.4	277.4	90.9	65.8	68.9	74.0	76.1	74.1	69.6	71.6	83.1	94.4	86.0	93.4	81.0	79.2	81.9	83.1	88.3	79.0	93.6	90.5	94.2	83.0	277.4
15	92.9	82.0	87.8	74.7	76.0	66.0	76.3	78.6	73.1	70.7	65.4	83.8	73.8	72.7	76.2	81.4	79.6	85.0	84.2	73.0	73.2	90.4	100.5	102.6	79.1	102.6
16	93.4	67.0	82.7	79.8	229.4	242.8	271.3	281.1	271.8	280.5	279.7	219.4	230.1	245.7	248.6	251.6	250.7	245.3	120.1	77.0	81.9	100.3	13.9	332.7	255.7	332.7
17	247.1	237.8	228.4	246.5	264.6	218.4	242.7	252.4	268.9	266.1	250.2	231.8	252.9	105.8	88.9	73.4	72.4	89.3	107.4	89.3	70.6	101.2	307.3	239.1	211.8	307.3
18	247.4	263.4	267.5	275.1	277.5	269.1	275.2	278.3	275.7	277.3	276.2	271.0	245.1	237.2	206.4	97.0	80.6	83.9	84.4	114.5	279.6	234.4	225.9	264.2	264.7	279.6
19	273.9	269.1	292.2	248.6	242.6	286.5	282.7	276.4	258.7	264.2	261.6	264.5	262.8	260.0	268.3	275.7	263.9	257.1	254.7	252.9	244.1	257.7	264.6	271.3	264.5	292.2
20	275.6	269.9	275.4	290.6	57.3	78.0	314.0	233.8	263.0	165.6	0.6	249.9	255.0	259.2	258.2	249.8	244.7	245.4	256.3	261.2	264.9	258.6	253.0	254.2	259.0	314.0
21	257.2	264.1	266.5	259.9	265.3	262.6	260.2	259.9	256.7	256.0	270.8	280.4	253.1	243.2	244.6	247.0	255.2	258.3	256.4	264.9	317.2	69.6	95.7	94.7	259.9	317.2
22	66.0	69.8	77.9	81.0	84.4	84.2	188.8	245.4	250.7	238.4	199.1	81.9	68.6	72.9	74.0	73.6	78.2	105.4	98.5	110.5	342.6	241.0	228.1	224.5	93.5	342.6
23	231.8	256.7	250.6	235.4	238.4	254.5	237.0	242.1	243.4	243.5	275.5	247.0	239.3	248.4	245.8	246.5	247.0	255.0	269.3	272.1	271.6	273.7	278.4	275.5	257.7	278.4
24	283.9	277.8	280.9	166.2	264.5	269.0	260.5	261.8	257.9	256.3	255.9	254.2	251.2	250.3	251.5	269.6	254.8	258.3	266.9	255.4	253.2	256.8	254.9	255.7	258.0	283.9
25	256.0	254.6	255.0	256.3	249.9	245.2	252.1	250.9	256.2	256.2	249.0	251.7	258.9	257.4	252.5	248.0	247.7	252.5	252.6	249.4	255.4	250.8	260.0	256.3	253.2	260.0
26	255.6	250.9	250.8	254.1	258.2	251.7	259.7	259.2	264.5	262.2	266.5	262.2	261.6	261.6	246.7	265.0	257.2	257.3	252.3	253.1	244.8	249.9	247.1	262.8	256.9	266.5
27	285.7	296.5	293.7	297.0	271.0	260.4	265.9	298.6	285.1	271.8	260.2	255.9	241.9	240.5	237.4	239.9	239.5	256.9	257.5	254.2	250.7	248.0	256.1	258.5	258.8	298.6
28	262.4	268.1	269.1	264.8	255.8	260.9	260.7	255.8	247.6	254.4	264.2	253.4	245.7	248.7	259.5	264.7	264.9	265.6	267.1	268.1	253.8	261.8	253.9	246.2	259.3	269.1
29	245.7	254.7	255.7	258.2	265.3	260.4	256.8	256.2	261.2	262.8	260.7	262.6	263.3	337.4	306.4	359.6	83.4	88.0	96.5	85.8	76.8	76.3	79.9	79.8	270.7	359.6
30	87.8	77.4	85.2	93.0	88.3	66.9	71.3	66.5	75.0	76.3	74.1	73.4	70.5	74.0	58.9	69.9	83.2	91.2	104.6	102.6	89.4	185.2	221.6	230.7	81.8	230.7
NO.	30	30	30	30	30	30	30	30	30	29	29	29	29	30	30	30	30	30	30	30	30	30	30	30	716	100%
MEAN	208.1	210.5	210.9	206.0	206.7	210.9	226.9	217.3	218.5	223.3	217.5	210.0	200.0	198.8	197.1	194.3	179.3	173.6	170.5	169.6	196.7	170.8	192.5	204.1		
MAX	290.5	296.5	293.7	297.0	310.5	316.4	337.2	298.6	298.8	327.3	341.5	309.8	276.7	337.4	306.4	359.6	270.1	280.5	269.3	272.1	342.6	279.9	326.8	332.7		



Number of Non-Zero Readings	716
Maximum 1-HR Average	360 degrees
Maximum 24-HR Average	272 degrees
Operational Time	720 HRS
Monthly Calibration	4
Operational Uptime	100.0 %
Standard Deviation	86.05
Monthly Average	200.5 degrees

# Lagoon Pressure (mmHg) – September 2020

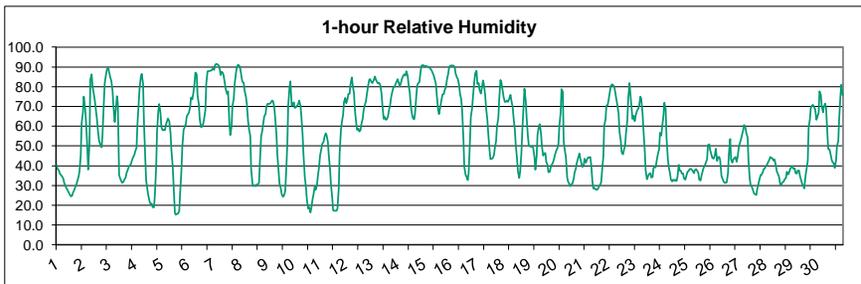
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	645.4	645.6	645.9	646.0	646.3	646.7	647.1	647.4	647.9	NRM	NRM	NRM	NRM	648.3	648.1	648.4	648.9	649.0	648.9	648.8	648.8	648.9	648.9	648.1	647.7	649.0
2	647.3	647.0	645.7	644.7	644.0	644.5	646.1	647.8	648.7	649.4	650.1	650.7	651.1	651.5	651.7	652.0	652.1	652.5	652.8	652.9	653.5	653.7	653.8	653.8	649.9	653.8
3	653.8	653.6	653.4	653.1	653.0	652.8	653.1	653.3	653.4	653.3	653.6	653.4	653.4	653.7	653.9	654.1	654.2	654.2	654.2	654.4	654.7	655.0	655.4	655.4	653.8	655.4
4	655.5	655.6	655.6	655.9	655.7	655.7	655.6	655.6	655.3	655.3	655.0	654.9	654.6	654.4	654.3	654.1	654.0	653.7	653.7	654.0	654.3	654.5	654.5	654.1	654.8	655.9
5	653.9	653.8	653.5	653.3	653.4	653.4	653.5	653.5	653.3	653.1	652.9	652.7	652.3	652.1	652.2	652.6	653.0	653.6	654.3	654.9	655.5	656.0	656.2	656.2	653.7	656.2
6	656.4	656.7	656.6	656.6	657.1	658.0	658.8	659.1	659.2	658.8	658.5	658.3	658.1	657.8	657.5	657.3	657.0	657.1	657.5	658.0	658.6	658.8	658.6	659.0	657.9	659.2
7	659.7	659.9	660.2	660.7	661.5	661.9	662.3	663.2	663.7	664.4	664.9	665.1	665.1	665.1	664.9	664.8	664.8	664.8	664.6	664.4	664.4	664.6	664.4	663.9	663.5	665.1
8	663.5	662.8	662.2	661.4	660.9	660.1	659.9	660.0	660.3	660.1	659.4	659.0	658.6	658.3	658.0	657.8	657.6	657.6	657.7	657.8	657.9	658.1	658.3	658.7	659.4	663.5
9	658.8	658.9	658.8	658.7	658.8	658.8	658.8	658.7	658.7	658.4	658.1	657.8	657.5	657.2	656.9	656.6	656.5	656.6	656.8	657.2	657.4	657.3	657.3	657.3	657.8	658.9
10	657.5	657.5	657.6	657.5	657.5	657.4	657.4	657.5	657.2	656.9	656.5	655.7	655.1	654.7	654.3	654.1	653.8	653.5	653.4	653.6	653.7	653.6	653.7	653.7	655.6	657.6
11	653.6	653.6	653.5	653.5	653.5	653.6	654.0	654.0	653.8	653.3	652.8	652.2	651.3	650.8	650.6	650.6	650.7	650.9	651.6	652.3	653.0	653.6	654.1	654.0	652.8	654.4
12	654.2	654.1	653.9	653.3	652.6	652.0	651.7	651.5	650.9	650.6	650.6	650.6	650.7	650.9	651.6	652.3	653.0	653.3	653.6	654.1	654.3	654.3	654.1	654.0	652.6	654.3
13	653.9	653.8	653.6	653.4	653.2	653.0	653.0	653.1	653.0	652.9	652.6	652.3	652.1	652.1	652.0	652.0	651.9	651.9	652.0	652.1	652.1	652.1	652.1	652.0	651.9	653.9
14	652.0	651.8	651.8	651.8	652.1	652.2	652.5	653.0	653.3	653.5	653.4	653.2	653.0	652.9	652.9	653.1	653.4	653.7	654.0	654.4	654.7	654.8	654.8	654.8	653.2	654.8
15	654.9	654.6	654.5	654.4	654.4	654.6	654.8	655.0	655.5	656.0	656.5	656.8	656.8	656.9	657.6	658.0	658.2	658.7	659.0	659.3	659.6	659.7	659.7	659.6	656.9	659.7
16	659.2	658.7	658.3	657.8	657.4	657.1	657.0	657.0	656.7	656.5	656.2	655.9	655.4	655.1	654.8	654.8	654.7	654.6	654.7	655.1	655.3	655.6	655.8	656.1	656.2	659.2
17	656.1	656.1	656.4	656.6	656.7	657.2	657.5	657.6	657.7	657.6	657.3	656.9	656.6	656.1	655.8	655.4	655.1	655.1	655.0	654.9	654.9	654.8	654.8	654.6	656.1	657.7
18	654.4	654.3	654.1	653.9	653.7	653.7	653.6	653.5	653.3	653.1	652.8	652.2	651.5	651.0	650.4	649.8	649.5	649.3	649.4	649.3	649.1	649.2	649.1	648.8	651.6	654.4
19	648.7	648.3	648.0	647.8	647.7	647.5	647.6	648.2	648.4	648.3	648.0	647.9	647.7	647.7	647.9	647.8	647.5	647.5	647.5	647.8	648.0	648.4	648.5	648.5	648.0	648.7
20	648.6	648.6	648.6	648.8	649.1	649.3	649.7	650.0	650.1	650.4	650.5	650.3	650.2	650.1	650.0	650.0	650.0	650.3	650.5	650.6	650.7	650.9	651.0	650.8	650.0	651.0
21	650.4	650.1	649.9	649.9	650.0	649.9	650.0	650.1	650.2	650.4	650.5	650.5	650.3	650.1	650.0	649.9	650.1	650.2	650.4	650.5	650.7	651.1	651.4	651.7	650.4	651.7
22	652.0	652.3	652.6	652.8	653.1	653.4	653.5	653.8	653.9	653.8	653.6	653.1	652.8	652.2	652.0	651.8	651.6	651.7	651.9	652.1	652.2	652.1	652.0	651.7	652.6	653.9
23	651.6	651.6	651.6	651.4	651.1	651.0	650.8	650.5	650.0	649.3	648.6	648.4	648.0	647.7	647.2	646.9	646.2	646.2	645.8	644.8	644.2	643.6	643.1	642.7	648.0	651.6
24	642.0	641.3	640.7	640.3	641.4	642.1	642.1	642.4	642.7	641.4	641.2	641.6	642.3	642.8	643.2	643.6	640.4	640.1	640.2	640.4	640.5	641.0	641.5	641.5	642.9	645.4
25	645.2	645.4	645.7	645.5	645.5	645.5	645.2	644.8	644.3	643.9	643.3	642.4	641.3	640.7	640.4	640.1	640.2	640.4	640.5	641.0	641.5	641.5	640.8	641.1	642.8	645.7
26	641.7	642.4	643.2	643.8	644.4	644.9	645.3	645.5	646.0	646.4	646.8	647.1	647.3	647.4	647.6	648.2	649.0	649.2	649.6	650.2	651.0	651.6	652.1	652.7	647.2	652.7
27	653.4	654.0	654.4	655.3	655.9	656.1	656.4	656.9	657.3	657.7	657.8	657.9	658.0	658.2	658.2	658.3	658.6	658.9	658.7	658.8	658.9	659.0	659.0	658.8	657.4	659.0
28	658.7	658.6	658.3	658.0	657.8	657.6	657.3	656.3	656.1	656.1	656.5	656.4	656.3	656.3	656.2	655.9	655.4	655.0	655.1	654.9	654.9	655.0	655.2	655.2	656.4	658.7
29	655.1	655.1	654.8	654.6	654.2	654.0	654.2	654.3	654.8	654.8	654.7	654.5	654.6	655.2	655.1	655.5	656.1	656.6	657.0	657.9	658.4	659.0	659.6	660.0	655.8	660.0
30	660.4	660.7	661.1	661.3	661.4	661.5	661.5	661.8	662.3	662.4	662.6	662.4	661.9	661.3	661.0	660.8	660.7	660.7	660.6	660.6	660.8	660.7	660.7	660.5	661.2	662.6
NO.	30	30	30	30	30	30	30	30	30	29	29	29	29	30	30	30	30	30	30	30	30	30	30	716	99%	
MEAN	653.3	653.2	653.1	653.1	653.1	653.2	653.3	653.5	653.6	653.7	653.6	653.4	653.2	653.0	652.9	652.9	652.9	653.0	653.2	653.4	653.6	653.8	653.8	653.8	653.8	653.8
MAX	663.5	662.8	662.2	661.4	661.5	661.9	662.3	663.2	663.7	664.4	664.9	665.1	665.1	665.1	664.9	664.8	664.8	664.8	664.6	664.4	664.4	664.6	664.4	663.9	663.9	663.9



Number of Non-Zero Readings	716
Maximum 1-HR Average	665 MMHg
Maximum 24-HR Average	663 MMHg
Operational Time	716 HRS
Monthly Calibration	0
Operational Uptime	99.4 %
Standard Deviation	5.062
Monthly Average	653.3 MMHg

# Lagoon Relative Humidity (%) – September 2020

Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	40.3	38.2	37.6	35.9	35.1	34.7	33.3	31.3	29.7	NRM	NRM	NRM	NRM	24.6	24.8	26.2	27.5	29.0	30.4	32.1	34.5	37.0	45.4	61.5	34.5	61.5
2	66.9	75.0	69.0	62.3	49.7	38.1	51.3	83.7	86.2	80.2	76.2	73.5	67.7	63.9	56.6	52.6	50.7	49.4	56.2	72.0	81.9	86.2	88.6	89.8	67.8	89.8
3	87.3	84.5	83.1	77.8	70.1	62.1	67.7	75.1	71.9	35.3	33.9	32.3	31.5	31.9	32.9	34.1	36.3	37.9	39.3	40.3	40.9	43.1	44.1	45.5	51.6	87.3
4	47.2	49.0	60.7	71.8	79.2	85.2	86.5	81.5	62.2	43.7	32.7	27.8	24.9	21.9	20.8	20.7	19.0	19.0	24.9	39.2	57.2	67.8	71.3	66.6	49.2	86.5
5	59.5	57.9	58.1	58.0	60.4	62.6	63.9	62.6	56.6	48.0	39.6	30.5	16.2	15.2	15.8	15.6	17.3	26.1	37.9	49.6	58.1	59.4	61.1	64.8	45.6	64.8
6	66.1	66.7	69.7	74.4	73.7	76.2	81.5	87.0	86.3	75.7	71.1	63.8	59.4	59.7	61.2	63.7	68.3	81.7	87.8	87.7	88.0	88.1	88.5	89.3	75.6	89.3
7	88.4	90.8	91.5	91.4	91.0	90.0	85.9	87.5	86.9	85.4	81.1	78.3	76.3	77.7	61.7	55.5	59.7	70.1	73.9	81.2	86.7	89.7	91.1	90.6	81.8	91.5
8	89.0	84.7	82.6	81.7	77.8	75.0	71.3	62.4	58.7	55.0	38.1	30.9	29.6	30.3	29.7	30.6	30.5	31.4	41.8	55.2	57.1	61.9	65.1	66.0	55.7	89.0
9	69.8	71.5	71.2	71.5	71.9	73.0	72.7	69.9	64.3	55.7	45.8	37.0	31.0	28.5	25.7	24.4	24.7	26.9	35.4	51.2	70.4	79.7	82.6	70.3	55.2	82.6
10	70.9	72.1	69.2	69.6	70.3	71.1	72.9	70.6	65.4	55.7	45.7	34.4	28.3	22.2	18.3	18.9	16.3	18.5	23.2	25.5	29.5	27.9	30.3	34.8	44.2	72.9
11	39.8	45.1	48.3	51.0	52.1	54.3	56.3	55.6	51.9	45.6	38.0	30.8	23.8	17.5	17.2	17.2	17.3	18.4	28.6	46.7	58.3	61.9	65.9	72.4	42.2	72.4
12	74.3	71.6	73.5	76.3	76.6	81.3	84.7	80.8	76.5	68.2	61.8	58.2	58.8	57.3	58.2	61.3	63.9	68.0	71.1	72.3	77.0	80.1	83.7	83.8	71.6	84.7
13	82.4	81.9	83.1	85.2	83.5	82.3	81.6	81.8	80.9	76.7	71.1	63.8	64.9	63.3	63.4	65.0	67.9	70.9	74.6	77.7	79.3	80.0	81.1	82.8	76.0	85.2
14	83.8	81.7	80.0	82.2	84.2	85.6	86.2	85.6	87.8	85.6	81.4	76.7	71.0	66.1	64.1	63.4	66.7	75.6	80.8	82.0	82.4	88.1	90.6	90.8	80.1	90.8
15	90.6	90.0	90.4	90.3	89.9	89.6	89.0	88.2	87.1	85.5	83.9	81.1	75.4	68.2	66.1	69.8	72.6	76.0	76.3	78.2	79.9	83.4	86.6	89.7	82.4	90.6
16	90.6	90.7	90.7	90.7	90.0	86.6	84.8	84.0	81.0	76.6	73.3	68.1	53.4	39.4	35.3	34.5	32.8	36.4	52.5	64.7	69.1	75.1	82.8	86.7	69.6	90.7
17	88.1	81.4	81.8	78.2	76.4	78.9	83.2	81.1	75.3	69.3	63.1	56.1	47.8	43.2	43.6	43.7	45.2	48.9	52.6	60.1	63.9	73.1	83.3	82.3	66.7	88.1
18	78.2	75.0	72.4	72.3	73.1	72.2	73.8	75.9	73.1	69.6	64.4	58.1	50.7	43.5	37.1	33.8	36.8	46.4	57.4	70.3	79.0	72.7	64.5	54.6	62.7	79.0
19	50.3	49.7	49.6	50.0	49.2	44.5	38.1	44.9	55.8	59.7	60.9	56.3	49.9	45.2	46.2	46.3	42.0	40.2	36.6	36.9	38.9	40.6	41.3	43.6	46.5	60.9
20	45.4	47.7	48.4	51.0	59.8	66.8	78.7	77.5	52.2	47.4	44.7	34.3	32.2	30.6	29.5	30.7	30.9	33.4	36.5	38.6	41.2	43.7	46.2	43.8	45.5	78.7
21	40.8	39.4	40.4	43.5	41.6	43.0	44.3	44.0	44.3	40.8	31.9	28.6	28.6	28.1	27.9	28.1	29.4	30.1	31.6	37.1	44.8	60.3	63.5	70.4	40.1	70.4
22	70.7	73.2	77.4	80.2	81.1	80.9	79.7	77.7	73.3	70.9	66.3	57.4	52.7	46.9	45.7	47.8	50.6	56.7	62.7	73.7	81.7	76.4	68.6	63.7	67.3	81.7
23	65.2	62.6	66.1	67.6	68.8	70.1	74.9	73.8	66.4	58.1	47.8	37.8	33.2	35.0	35.9	36.3	34.0	34.2	39.0	39.6	39.1	43.2	45.7	48.5	50.9	74.9
24	56.6	55.4	60.0	65.5	71.8	68.5	54.0	43.7	39.4	36.0	32.9	32.1	32.8	32.4	33.0	32.2	34.4	40.6	37.5	37.3	36.0	36.1	33.7	32.9	43.1	71.8
25	34.4	36.9	37.1	38.1	38.6	38.0	37.3	36.3	37.8	38.3	37.6	36.2	32.8	32.6	34.8	37.4	38.9	40.3	41.3	43.3	50.5	50.9	47.9	45.5	39.3	50.9
26	44.0	43.6	45.6	48.7	42.5	44.2	44.5	43.0	34.9	33.5	32.0	31.3	31.4	31.6	36.2	45.9	53.5	43.1	41.5	43.4	43.8	44.4	42.0	44.5	41.2	53.5
27	49.5	51.3	53.5	55.5	58.2	60.7	59.3	56.6	54.4	42.6	33.2	30.4	29.1	27.8	25.8	25.6	25.2	28.0	31.0	33.0	35.4	35.3	37.0	38.2	40.7	60.7
28	38.9	39.9	40.8	41.7	43.2	44.4	43.8	43.8	42.4	43.1	39.7	37.1	35.6	34.4	30.3	30.2	31.7	32.1	33.2	33.9	36.8	35.6	36.5	38.5	37.8	44.4
29	39.2	39.7	38.5	38.6	36.2	36.1	37.5	37.5	35.0	32.6	31.0	29.6	28.4	35.1	38.0	42.5	59.2	63.8	69.5	70.5	70.7	69.5	68.5	63.2	46.3	70.7
30	64.6	66.7	77.5	75.9	70.3	66.9	70.0	71.5	69.3	56.3	48.4	48.1	46.2	42.9	41.9	41.1	39.0	43.0	50.1	52.5	63.5	75.4	81.0	75.7	59.9	81.0
NO.	30	30	30	30	30	30	30	30	30	29	29	29	29	30	30	30	30	30	30	30	30	30	30	30	716	99%
MEAN	63.8	63.8	64.9	65.9	65.5	65.4	66.3	66.5	62.9	57.6	52.0	46.9	42.9	39.9	38.6	39.2	40.7	43.9	48.5	54.2	59.2	62.2	63.9	64.4		
MAX	90.6	90.8	91.5	91.4	91.0	90.0	89.0	88.2	87.8	85.6	83.9	81.1	76.3	77.7	66.1	69.8	72.6	81.7	87.8	87.7	88.0	89.7	91.1	90.8		

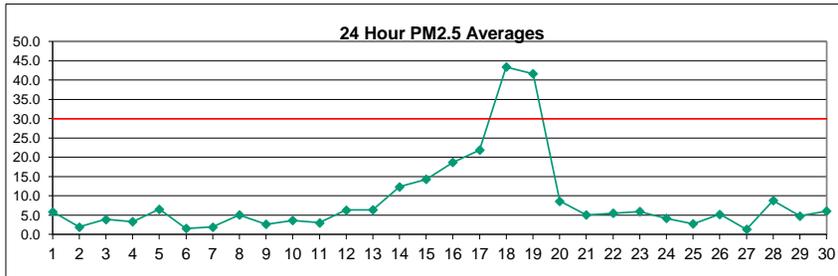


Number of Non-Zero Readings	716	Operational Time	716 HRS
Maximum 1-HR Average	91.5 %	Operational Uptime	99.4 %
Maximum 24-HR Average	82.4 %	Monthly Average	55.8 %
Monthly Calibration	0		
Standard Deviation	20.23		



# Windridge PM<sub>2.5</sub> (µg/m<sup>3</sup>) – September 2020

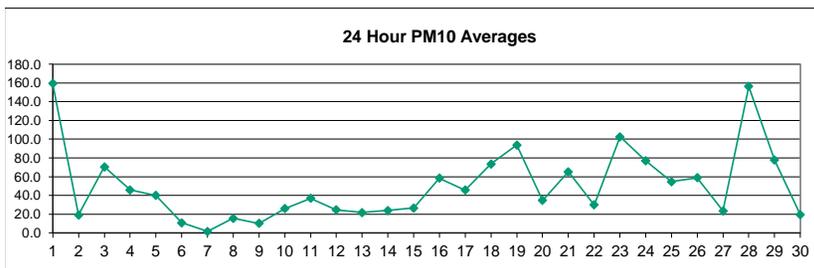
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	6.0	6.0	6.0	5.0	2.0	0.0	0.0	3.0	5.0	3.0	4.0	10.0	6.0	4.0	9.0	13.0	13.0	9.0	6.0	4.0	14.0	8.0	4.0	2.0	5.9	14.0
2	4.0	3.0	2.0	2.0	1.0	1.0	1.0	1.0	2.0	2.0	0.0	4.0	3.0	0.0	0.0	1.0	0.0	1.0	3.0	3.0	2.0	6.0	4.0	1.0	2.0	6.0
3	0.0	0.0	1.0	0.0	2.0	4.0	2.0	0.0	16.0	12.0	11.0	6.0	3.0	2.0	3.0	8.0	8.0	4.0	0.0	2.0	2.0	2.0	4.0	2.0	3.9	16.0
4	0.0	3.0	2.0	2.0	2.0	3.0	5.0	5.0	12.0	5.0	2.0	C	3.0	3.0	5.0	6.0	7.0	4.0	0.0	1.0	1.0	0.0	3.0	2.0	3.3	12.0
5	1.0	X	0.0	1.0	1.0	1.0	3.0	3.0	3.0	2.0	4.0	7.0	5.0	15.0	21.0	21.0	9.0	10.0	6.0	10.0	9.0	6.0	4.0	4.0	6.6	21.0
6	1.0	3.0	6.0	4.0	3.0	2.0	2.0	2.0	1.0	0.0	2.0	1.0	0.0	1.0	1.0	0.0	3.0	2.0	0.0	0.0	2.0	1.0	0.0	0.0	1.5	6.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	1.0	0.0	3.0	14.0	8.0	10.0	5.0	1.0	1.0	1.0	2.0	14.0
8	2.0	2.0	3.0	1.0	2.0	3.0	1.0	0.0	3.0	3.0	2.0	8.0	14.0	9.0	13.0	7.0	18.0	7.0	7.0	3.0	6.0	6.0	2.0	0.0	5.1	18.0
9	0.0	0.0	1.0	0.0	0.0	0.0	2.0	4.0	4.0	2.0	0.0	5.0	4.0	8.0	5.0	0.0	0.0	3.0	8.0	4.0	6.0	4.0	2.0	2.0	2.7	8.0
10	4.0	3.0	1.0	3.0	2.0	1.0	0.0	0.0	1.0	0.0	2.0	2.0	6.0	12.0	7.0	3.0	5.0	5.0	14.0	9.0	2.0	0.0	3.0	3.0	3.7	14.0
11	2.0	0.0	0.0	0.0	0.0	2.0	3.0	1.0	0.0	0.0	1.0	4.0	2.0	2.0	5.0	3.0	4.0	4.0	2.0	4.0	6.0	8.0	10.0	10.0	3.0	10.0
12	9.0	5.0	3.0	4.0	4.0	3.0	5.0	9.0	7.0	6.0	7.0	12.0	9.0	6.0	5.0	6.0	6.0	7.0	7.0	6.0	10.0	6.0	5.0	5.0	6.3	12.0
13	3.0	6.0	4.0	1.0	1.0	7.0	8.0	5.0	6.0	6.0	7.0	6.0	12.0	10.0	8.0	7.0	5.0	9.0	6.0	8.0	8.0	7.0	8.0	8.0	6.4	12.0
14	8.0	14.0	20.0	21.0	25.0	11.0	14.0	12.0	11.0	8.0	6.0	5.0	7.0	16.0	14.0	15.0	13.0	13.0	15.0	13.0	12.0	11.0	7.0	6.0	12.4	25.0
15	5.0	4.0	6.0	7.0	7.0	8.0	13.0	16.0	18.0	19.0	17.0	17.0	22.0	20.0	21.0	20.0	17.0	13.0	13.0	15.0	13.0	17.0	18.0	17.0	14.3	22.0
16	15.0	15.0	15.0	17.0	9.0	16.0	14.0	17.0	10.0	18.0	21.0	19.0	22.0	25.0	30.0	27.0	19.0	19.0	18.0	18.0	23.0	22.0	22.0	18.0	18.7	30.0
17	18.0	21.0	22.0	20.0	16.0	15.0	20.0	18.0	21.0	25.0	19.0	21.0	23.0	25.0	27.0	26.0	19.0	22.0	23.0	23.0	31.0	25.0	20.0	20.0	21.9	31.0
18	25.0	28.0	31.0	38.0	37.0	41.0	41.0	40.0	42.0	40.0	40.0	44.0	42.0	44.0	45.0	51.0	52.0	51.0	50.0	46.0	52.0	51.0	57.0	53.0	43.4	57.0
19	56.0	56.0	55.0	57.0	54.0	53.0	53.0	46.0	46.0	42.0	43.0	41.0	38.0	37.0	42.0	37.0	27.0	29.0	28.0	33.0	32.0	35.0	33.0	27.0	41.7	57.0
20	22.0	17.0	14.0	13.0	7.0	5.0	19.0	14.0	10.0	8.0	15.0	17.0	4.0	7.0	10.0	8.0	5.0	3.0	2.0	0.0	0.0	2.0	2.0	4.0	8.7	22.0
21	4.0	10.0	8.0	4.0	3.0	1.0	4.0	5.0	6.0	10.0	8.0	9.0	6.0	5.0	3.0	2.0	2.0	4.0	4.0	4.0	3.0	3.0	8.0	6.0	5.1	10.0
22	4.0	4.0	7.0	8.0	7.0	7.0	4.0	3.0	9.0	6.0	8.0	7.0	6.0	5.0	5.0	7.0	6.0	5.0	3.0	7.0	7.0	4.0	2.0	1.0	5.5	9.0
23	0.0	0.0	0.0	2.0	3.0	3.0	2.0	1.0	1.0	2.0	1.0	0.0	10.0	13.0	14.0	12.0	9.0	6.0	7.0	12.0	22.0	8.0	9.0	6.0	6.0	22.0
24	3.0	2.0	0.0	0.0	0.0	1.0	2.0	1.0	5.0	3.0	9.0	23.0	10.0	5.0	4.0	3.0	4.0	5.0	4.0	2.0	2.0	5.0	5.0	3.0	4.2	23.0
25	2.0	3.0	1.0	0.0	5.0	5.0	2.0	0.0	0.0	1.0	2.0	5.0	5.0	5.0	4.0	2.0	0.0	0.0	3.0	4.0	4.0	2.0	0.0	12.0	2.8	12.0
26	9.0	5.0	2.0	0.0	1.0	2.0	4.0	2.0	3.0	4.0	2.0	0.0	2.0	9.0	10.0	6.0	11.0	9.0	9.0	6.0	11.0	8.0	7.0	4.0	5.3	11.0
27	6.0	4.0	0.0	0.0	1.0	1.0	0.0	0.0	2.0	1.0	2.0	5.0	1.0	0.0	0.0	0.0	0.0	0.0	2.0	1.0	1.0	2.0	0.0	3.0	1.3	6.0
28	7.0	10.0	6.0	4.0	8.0	5.0	5.0	4.0	13.0	10.0	9.0	6.0	1.0	13.0	19.0	15.0	17.0	9.0	10.0	8.0	15.0	0.0	8.0	9.0	8.8	19.0
29	7.0	6.0	6.0	3.0	3.0	2.0	4.0	4.0	11.0	8.0	10.0	7.0	3.0	8.0	6.0	5.0	5.0	4.0	1.0	1.0	6.0	4.0	0.0	1.0	4.8	11.0
30	6.0	3.0	3.0	4.0	2.0	1.0	8.0	6.0	5.0	4.0	6.0	9.0	10.0	4.0	5.0	8.0	9.0	10.0	11.0	7.0	11.0	8.0	4.0	2.0	6.1	11.0
NO.	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	718	100%
MEAN	7.6	8.0	7.5	7.4	6.9	6.8	8.0	7.4	9.1	8.3	8.7	10.3	9.3	10.5	11.3	10.7	10.1	9.1	9.2	8.6	10.4	9.1	8.6	7.7	7.5	
MAX	56.0	56.0	55.0	57.0	54.0	53.0	53.0	46.0	46.0	42.0	43.0	44.0	42.0	44.0	45.0	51.0	52.0	51.0	50.0	46.0	52.0	51.0	57.0	53.0	17.4	70.0



Number of 24HR Exceedences	2	Proposed Guideline
Number of Non-Zero Readings	634	
Maximum 1-HR Average	57.0 UG/M3	
Maximum 24-HR Average	43.4 UG/M3	
Monthly Calibration	1	Operational Time
Standard Deviation	11.1	Operational Uptime
		Monthly Average
		719 HRS
		99.9 %
		8.8 UG/M3

# Windridge PM<sub>10</sub> (µg/m<sup>3</sup>) – September 2020

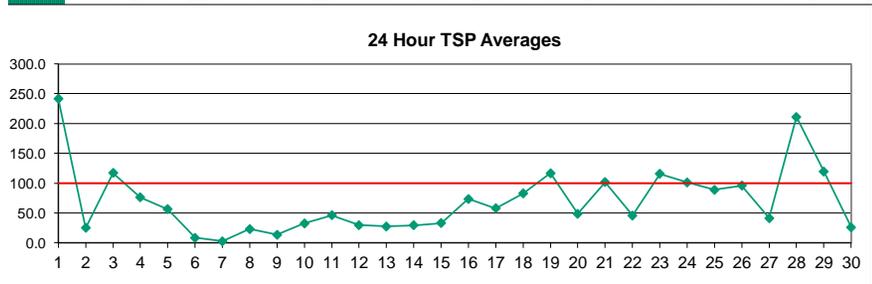
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	137.0	255.0	209.0	88.0	59.0	31.0	33.0	119.0	163.0	113.0	148.0	213.0	98.0	126.0	152.0	185.0	281.0	155.0	145.0	189.0	389.0	187.0	226.0	121.0	159.3	389.0
2	82.0	72.0	58.0	16.0	15.0	33.0	43.0	14.0	10.0	6.0	2.0	5.0	16.0	8.0	5.0	9.0	9.0	7.0	6.0	5.0	9.0	10.0	12.0	7.0	19.1	82.0
3	2.0	3.0	7.0	8.0	11.0	10.0	10.0	24.0	96.0	61.0	80.0	82.0	91.0	100.0	125.0	234.0	144.0	123.0	65.0	121.0	103.0	63.0	73.0	53.0	70.4	234.0
4	25.0	34.0	0.0	16.0	18.0	27.0	28.0	59.0	81.0	17.0	49.0	C	50.0	60.0	176.0	137.0	109.0	91.0	22.0	26.0	10.0	8.0	7.0	6.0	45.9	176.0
5	17.0	17.0	11.0	16.0	9.0	4.0	2.0	6.0	7.0	28.0	32.0	34.0	31.0	139.0	219.0	97.0	58.0	32.0	33.0	31.0	29.0	45.0	32.0	31.0	40.0	219.0
6	16.0	13.0	17.0	20.0	9.0	12.0	10.0	7.0	6.0	3.0	1.0	0.0	4.0	90.0	5.0	4.0	5.0	7.0	4.0	6.0	5.0	7.0	4.0	2.0	10.7	90.0
7	2.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	1.0	1.0	2.0	2.0	3.0	2.0	5.0	4.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	3.0	1.5	5.0
8	3.0	3.0	1.0	1.0	1.0	2.0	3.0	4.0	6.0	7.0	13.0	61.0	63.0	55.0	41.0	29.0	24.0	24.0	11.0	5.0	3.0	5.0	4.0	4.0	15.5	63.0
9	3.0	2.0	2.0	1.0	2.0	2.0	2.0	1.0	5.0	13.0	8.0	7.0	56.0	49.0	29.0	13.0	8.0	3.0	3.0	6.0	5.0	5.0	9.0	6.0	10.0	56.0
10	5.0	14.0	29.0	39.0	9.0	7.0	6.0	6.0	12.0	17.0	12.0	17.0	85.0	40.0	28.0	24.0	36.0	24.0	73.0	12.0	37.0	41.0	28.0	21.0	25.9	85.0
11	10.0	203.0	0.0	8.0	6.0	5.0	6.0	14.0	23.0	32.0	30.0	18.0	32.0	160.0	69.0	46.0	46.0	41.0	25.0	31.0	27.0	27.0	21.0	36.9	203.0	
12	18.0	19.0	11.0	10.0	10.0	9.0	12.0	14.0	23.0	46.0	38.0	32.0	35.0	62.0	35.0	29.0	25.0	29.0	31.0	14.0	15.0	29.0	27.0	19.0	24.7	62.0
13	28.0	26.0	29.0	29.0	42.0	14.0	18.0	13.0	14.0	15.0	15.0	18.0	20.0	15.0	21.0	33.0	26.0	26.0	18.0	18.0	22.0	19.0	23.0	20.0	21.8	42.0
14	23.0	20.0	32.0	26.0	30.0	25.0	22.0	17.0	27.0	21.0	19.0	15.0	20.0	23.0	26.0	28.0	31.0	44.0	29.0	20.0	15.0	21.0	27.0	12.0	23.9	44.0
15	10.0	11.0	12.0	11.0	11.0	16.0	23.0	29.0	33.0	34.0	29.0	31.0	43.0	43.0	35.0	48.0	37.0	27.0	26.0	23.0	25.0	30.0	22.0	26.0	26.5	48.0
16	29.0	25.0	23.0	26.0	24.0	29.0	26.0	25.0	32.0	39.0	52.0	35.0	81.0	122.0	143.0	130.0	106.0	69.0	125.0	69.0	48.0	44.0	48.0	49.0	58.3	143.0
17	28.0	33.0	34.0	37.0	36.0	24.0	20.0	23.0	50.0	65.0	44.0	59.0	60.0	66.0	46.0	57.0	52.0	46.0	52.0	46.0	64.0	70.0	48.0	37.0	45.7	70.0
18	44.0	43.0	46.0	42.0	53.0	49.0	50.0	58.0	68.0	68.0	67.0	82.0	106.0	137.0	85.0	91.0	81.0	117.0	90.0	93.0	77.0	62.0	72.0	81.0	73.4	137.0
19	72.0	67.0	61.0	60.0	66.0	58.0	76.0	129.0	216.0	128.0	130.0	136.0	129.0	123.0	147.0	80.0	69.0	51.0	64.0	102.0	75.0	77.0	81.0	53.0	93.8	216.0
20	57.0	26.0	31.0	19.0	6.0	12.0	29.0	23.0	41.0	17.0	39.0	30.0	24.0	63.0	83.0	46.0	30.0	9.0	25.0	48.0	28.0	20.0	48.0	76.0	34.6	83.0
21	38.0	110.0	63.0	36.0	71.0	71.0	74.0	114.0	154.0	147.0	151.0	131.0	94.0	57.0	16.0	18.0	21.0	32.0	49.0	35.0	14.0	10.0	34.0	24.0	65.2	154.0
22	23.0	34.0	28.0	39.0	37.0	23.0	15.0	13.0	69.0	67.0	45.0	49.0	30.0	28.0	30.0	24.0	25.0	19.0	25.0	30.0	25.0	19.0	9.0	9.0	29.8	69.0
23	8.0	4.0	5.0	5.0	5.0	5.0	3.0	8.0	19.0	25.0	22.0	63.0	135.0	122.0	138.0	180.0	78.0	87.0	148.0	426.0	484.0	171.0	187.0	134.0	102.6	484.0
24	43.0	46.0	9.0	7.0	5.0	31.0	10.0	53.0	51.0	56.0	238.0	307.0	130.0	89.0	95.0	68.0	154.0	104.0	65.0	27.0	76.0	65.0	60.0	61.0	77.1	307.0
25	54.0	52.0	39.0	47.0	62.0	42.0	18.0	43.0	52.0	70.0	68.0	96.0	110.0	124.0	87.0	42.0	25.0	23.0	25.0	70.0	53.0	33.0	18.0	59.0	54.7	124.0
26	45.0	24.0	39.0	48.0	54.0	38.0	36.0	45.0	98.0	101.0	56.0	33.0	61.0	70.0	94.0	51.0	61.0	79.0	125.0	64.0	67.0	43.0	44.0	38.0	58.9	125.0
27	113.0	3.0	3.0	1.0	0.0	0.0	1.0	1.0	1.0	5.0	32.0	61.0	26.0	0.0	6.0	5.0	6.0	6.0	75.0	54.0	73.0	47.0	19.0	28.0	23.6	113.0
28	94.0	132.0	106.0	137.0	213.0	63.0	70.0	85.0	251.0	145.0	162.0	116.0	155.0	50.0	99.0	140.0	267.0	309.0	288.0	196.0	396.0	123.0	98.0	56.0	156.3	396.0
29	47.0	46.0	60.0	53.0	76.0	104.0	130.0	158.0	209.0	144.0	153.0	140.0	116.0	102.0	51.0	65.0	70.0	27.0	18.0	13.0	22.0	25.0	16.0	19.0	77.7	209.0
30	23.0	17.0	12.0	11.0	8.0	6.0	10.0	17.0	37.0	29.0	15.0	25.0	32.0	24.0	16.0	11.0	20.0	28.0	31.0	17.0	23.0	30.0	11.0	11.0	19.3	37.0
NO.	30	30	30	30	30	30	30	30	30	30	29	30	30	30	30	30	30	30	30	30	30	30	30	30	719	100%
MEAN	36.6	45.1	32.6	28.6	31.6	25.1	26.2	37.2	61.5	50.4	58.5	65.9	64.1	67.4	73.3	65.0	63.5	54.9	57.1	59.7	74.1	44.5	43.8	36.2	42.0	42.0
MAX	137.0	255.0	209.0	137.0	213.0	104.0	130.0	158.0	251.0	147.0	238.0	307.0	155.0	139.0	219.0	234.0	281.0	309.0	288.0	426.0	484.0	187.0	226.0	134.0	91.1	433.3



Number of Non-Zero Readings	704		
Maximum 1-HR Average	484.0 UG/M3		
Maximum 24-HR Average	159.3 UG/M3		
Monthly Calibration	1	Operational Time	720 HRS
Standard Deviation	58.32	Operational Uptime	100.0 %
		Monthly Average	50.1 UG/M3

# Windridge TSP ( $\mu\text{g}/\text{m}^3$ ) – September 2020

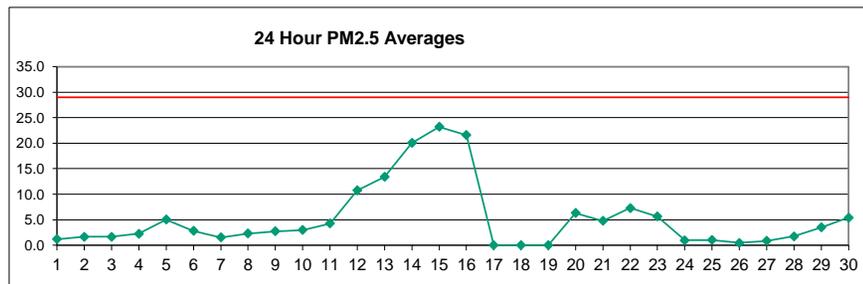
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	185.0	255.0	226.0	131.0	100.0	56.0	55.0	197.0	257.0	212.0	248.0	351.0	189.0	209.0	252.0	327.0	427.0	242.0	247.0	301.0	501.0	269.0	367.0	199.0	241.8	501.0
2	102.0	96.0	58.0	24.0	19.0	50.0	70.0	20.0	8.0	4.0	0.0	10.0	19.0	14.0	9.0	9.0	13.0	12.0	9.0	11.0	16.0	8.0	9.0	6.0	24.8	102.0
3	1.0	2.0	11.0	19.0	21.0	20.0	13.0	30.0	148.0	102.0	145.0	147.0	176.0	156.0	216.0	338.0	220.0	210.0	113.0	209.0	183.0	104.0	138.0	88.0	117.1	338.0
4	36.0	60.0	10.0	29.0	22.0	45.0	46.0	112.0	132.0	38.0	90.0	C	101.0	118.0	270.0	225.0	173.0	112.0	37.0	49.0	15.0	10.0	10.0	7.0	76.0	270.0
5	34.0	X	12.0	17.0	9.0	8.0	6.0	3.0	7.0	41.0	53.0	53.0	41.0	218.0	278.0	161.0	97.0	49.0	50.0	32.0	38.0	37.0	27.0	25.0	56.3	278.0
6	20.0	25.0	24.0	18.0	15.0	17.0	18.0	13.0	7.0	2.0	0.0	0.0	6.0	6.0	4.0	2.0	5.0	6.0	4.0	5.0	1.0	1.0	3.0	1.0	8.5	25.0
7	0.0	2.0	2.0	0.0	1.0	2.0	0.0	4.0	4.0	2.0	1.0	0.0	5.0	5.0	2.0	3.0	4.0	6.0	4.0	7.0	4.0	1.0	1.0	1.0	2.5	7.0
8	7.0	9.0	3.0	0.0	1.0	3.0	6.0	6.0	4.0	6.0	18.0	92.0	85.0	81.0	69.0	43.0	45.0	33.0	19.0	5.0	2.0	2.0	4.0	6.0	22.9	92.0
9	5.0	6.0	5.0	1.0	3.0	5.0	1.0	3.0	12.0	11.0	15.0	20.0	17.0	91.0	38.0	14.0	15.0	11.0	9.0	6.0	7.0	6.0	11.0	9.0	13.4	91.0
10	14.0	18.0	45.0	35.0	14.0	8.0	6.0	13.0	19.0	27.0	15.0	32.0	118.0	60.0	44.0	41.0	65.0	42.0	97.0	29.0	18.0	6.0	8.0	11.0	32.7	118.0
11	6.0	5.0	6.0	7.0	5.0	4.0	4.0	7.0	26.0	33.0	50.0	43.0	39.0	53.0	293.0	125.0	76.0	64.0	73.0	43.0	44.0	37.0	34.0	26.0	46.0	293.0
12	18.0	19.0	14.0	21.0	15.0	17.0	16.0	17.0	27.0	68.0	52.0	43.0	52.0	31.0	35.0	39.0	33.0	33.0	23.0	21.0	17.0	41.0	38.0	23.0	29.7	68.0
13	38.0	42.0	49.0	56.0	40.0	14.0	16.0	21.0	10.0	14.0	14.0	17.0	28.0	27.0	26.0	38.0	36.0	26.0	22.0	20.0	24.0	25.0	28.0	25.0	27.3	56.0
14	25.0	30.0	37.0	26.0	36.0	30.0	31.0	15.0	33.0	27.0	27.0	18.0	22.0	26.0	36.0	34.0	41.0	60.0	38.0	24.0	22.0	21.0	26.0	14.0	29.1	60.0
15	12.0	13.0	16.0	16.0	15.0	16.0	23.0	34.0	45.0	44.0	37.0	37.0	55.0	57.0	47.0	62.0	42.0	33.0	31.0	29.0	24.0	36.0	34.0	32.0	32.9	62.0
16	29.0	25.0	27.0	27.0	31.0	30.0	28.0	28.0	37.0	47.0	56.0	40.0	115.0	127.0	163.0	190.0	164.0	107.0	186.0	64.0	60.0	53.0	59.0	68.0	73.4	190.0
17	28.0	49.0	38.0	39.0	38.0	22.0	22.0	24.0	58.0	86.0	56.0	75.0	90.0	97.0	62.0	92.0	69.0	55.0	63.0	52.0	78.0	93.0	60.0	39.0	57.7	97.0
18	43.0	48.0	47.0	49.0	54.0	47.0	54.0	66.0	77.0	74.0	72.0	101.0	119.0	90.0	105.0	122.0	94.0	151.0	112.0	122.0	95.0	63.0	75.0	100.0	82.5	151.0
19	80.0	72.0	63.0	64.0	70.0	69.0	91.0	126.0	304.0	185.0	126.0	232.0	167.0	158.0	190.0	74.0	48.0	62.0	84.0	144.0	98.0	109.0	120.0	68.0	116.8	304.0
20	59.0	30.0	43.0	22.0	11.0	21.0	28.0	22.0	35.0	20.0	50.0	39.0	35.0	98.0	119.0	65.0	48.0	22.0	39.0	81.0	49.0	34.0	75.0	119.0	48.5	119.0
21	67.0	173.0	87.0	54.0	111.0	110.0	115.0	161.0	232.0	256.0	211.0	204.0	151.0	109.0	25.0	31.0	37.0	49.0	90.0	58.0	13.0	10.0	49.0	41.0	101.8	256.0
22	40.0	42.0	33.0	52.0	48.0	38.0	21.0	13.0	116.0	131.0	77.0	77.0	48.0	40.0	47.0	37.0	38.0	34.0	39.0	38.0	40.0	23.0	10.0	12.0	45.6	131.0
23	9.0	5.0	3.0	3.0	6.0	4.0	6.0	10.0	31.0	47.0	26.0	99.0	157.0	102.0	231.0	27.0	121.0	85.0	131.0	401.0	490.0	223.0	220.0	144.0	115.6	490.0
24	52.0	44.0	12.0	8.0	9.0	37.0	12.0	78.0	53.0	76.0	307.0	364.0	176.0	116.0	134.0	110.0	161.0	142.0	90.0	43.0	112.0	89.0	95.0	111.0	101.3	101.0
25	92.0	83.0	83.0	101.0	104.0	71.0	37.0	75.0	90.0	120.0	126.0	136.0	162.0	171.0	129.0	68.0	44.0	33.0	44.0	116.0	81.0	45.0	25.0	101.0	89.0	171.0
26	86.0	48.0	79.0	105.0	108.0	63.0	57.0	70.0	159.0	128.0	101.0	58.0	72.0	110.0	153.0	89.0	103.0	115.0	157.0	93.0	139.0	73.0	79.0	57.0	95.9	159.0
27	160.0	8.0	4.0	4.0	3.0	4.0	3.0	1.0	4.0	7.0	39.0	105.0	47.0	8.0	15.0	10.0	12.0	12.0	145.0	99.0	139.0	79.0	42.0	45.0	41.5	160.0
28	149.0	218.0	135.0	145.0	312.0	105.0	118.0	156.0	416.0	242.0	284.0	179.0	114.0	73.0	177.0	206.0	335.0	290.0	362.0	220.0	439.0	162.0	133.0	95.0	211.0	439.0
29	67.0	69.0	101.0	81.0	119.0	157.0	184.0	249.0	328.0	236.0	240.0	214.0	162.0	172.0	87.0	99.0	116.0	36.0	30.0	25.0	20.0	36.0	22.0	23.0	119.7	328.0
30	32.0	17.0	14.0	12.0	10.0	12.0	15.0	23.0	52.0	44.0	26.0	25.0	26.0	16.0	22.0	13.0	29.0	40.0	50.0	24.0	39.0	52.0	17.0	15.0	26.0	52.0
NO.	30	29	30	30	30	30	30	30	30	30	30	29	30	30	30	30	30	30	30	30	30	30	30	30	718	100%
MEAN	49.9	52.2	42.9	38.9	45.0	36.2	36.7	53.2	91.0	77.7	85.4	96.9	86.5	88.0	109.3	96.3	90.4	72.4	79.9	79.0	93.6	58.3	60.6	50.4		
MAX	185.0	255.0	226.0	145.0	312.0	157.0	184.0	249.0	416.0	256.0	307.0	364.0	189.0	218.0	293.0	338.0	427.0	290.0	362.0	401.0	501.0	269.0	367.0	199.0		



Number of 24HR Exceedences	8	Proposed Guideline
Number of Non-Zero Readings	710	
Maximum 1-HR Average	501.0 UG/M3	
Maximum 24-HR Average	241.8 UG/M3	
IZS Calibration Time		Operational Time 719 HRS
Down Time	0	Operational Uptime 99.9 %
Standard Deviation	78.8	Monthly Average 69.6 UG/M3

# West PM<sub>2.5</sub> (µg/m<sup>3</sup>) – September 2020

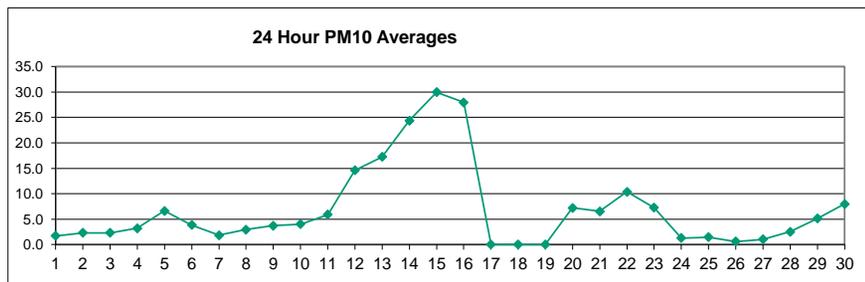
Day	HOUR																								MEAN		MAX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1	0.5	0.4	0.4	0.4	0.4	0.7	0.9	1.6	1.9	2.0	2.1	2.2	2.7	2.5	2.0	2.2	1.3	1.2	0.9	0.7	0.4	0.3	0.4	0.6	1.2	2.7			
2	1.5	0.5	0.3	0.5	0.5	0.8	1.3	3.6	1.7	1.3	2.3	2.0	1.9	2.6	2.6	2.5	2.1	1.8	1.7	1.1	1.1	1.7	2.1	2.8	1.7	3.6			
3	3.2	3.1	3.1	2.0	1.9	2.6	2.0	2.6	2.1	2.0	1.9	1.7	2.1	2.0	1.6	1.2	0.7	0.7	0.7	0.9	0.6	0.6	0.6	0.6	1.7	3.2			
4	0.7	0.6	0.7	5.6	4.5	5.7	2.3	1.9	3.2	2.8	2.1	2.0	1.7	2.3	1.7	1.6	1.1	1.0	0.7	1.2	1.8	2.6	3.3	3.4	2.3	5.7			
5	3.5	3.3	3.3	3.5	3.5	3.8	4.1	4.7	5.0	5.3	5.7	6.2	7.2	6.9	6.5	5.9	6.4	7.6	3.2	4.2	4.9	4.7	4.8	5.9	5.0	7.6			
6	6.0	10.1	6.1	6.4	5.7	3.3	2.7	1.4	1.2	0.7	0.7	0.6	0.8	1.4	1.5	1.9	2.0	3.1	3.2	3.3	1.5	2.1	1.2	0.7	2.8	10.1			
7	0.6	0.5	0.4	0.9	0.6	0.8	1.1	1.5	2.2	1.3	1.4	1.8	1.5	2.0	1.3	1.3	1.9	1.7	1.6	1.7	2.1	2.7	3.0	3.1	1.5	3.1			
8	3.4	3.3	2.6	2.1	2.1	2.2	2.6	3.1	2.6	2.4	3.2	2.4	3.5	2.9	2.0	2.3	2.3	1.4	0.9	1.0	1.3	1.6	2.0	1.9	2.3	3.5			
9	2.5	2.4	2.1	2.1	2.1	2.4	3.1	4.5	4.5	3.5	3.1	2.8	2.8	2.1	2.1	2.1	1.8	2.0	1.9	2.3	2.3	2.6	3.9	4.6	2.7	4.6			
10	4.2	3.6	3.5	3.2	3.2	3.4	4.0	4.3	4.4	4.1	4.4	3.8	3.5	2.0	2.3	2.5	1.5	1.2	1.2	1.5	1.7	2.6	2.8	2.8	3.0	4.4			
11	2.9	2.9	3.1	3.2	3.1	3.5	3.6	5.4	5.5	5.1	4.7	4.0	3.0	2.4	2.0	2.4	1.6	1.4	4.3	7.2	7.5	7.2	7.4	8.9	4.3	8.9			
12	11.3	11.1	11.0	10.0	9.1	9.5	12.0	12.2	12.8	13.2	12.3	10.6	6.7	7.0	9.6	10.9	9.3	9.0	9.7	11.5	15.0	14.8	10.2	8.6	10.7	15.0			
13	9.4	8.4	8.1	9.1	11.7	13.4	14.5	15.1	15.7	15.0	15.4	15.9	16.6	14.6	12.6	8.8	9.5	11.9	14.0	15.2	15.0	16.4	16.9	18.2	13.4	18.2			
14	26.3	30.6	30.8	33.3	32.2	31.8	23.9	16.6	14.4	12.3	13.0	14.0	18.1	19.9	20.5	20.3	18.8	18.7	16.1	17.6	17.0	14.1	10.2	10.8	20.0	33.3			
15	12.4	14.0	12.2	12.8	12.3	20.4	26.5	29.6	42.6	36.0	41.6	28.6	28.9	32.9	23.9	20.6	19.5	16.5	18.6	18.0	21.2	21.7	25.2	21.0	23.2	42.6			
16	21.7	23.3	23.0	19.4	20.0	20.0	19.9	20.9	22.7	22.9	23.3	24.7	25.5	19.6	16.0	13.9	11.9	12.9	16.7	26.5	28.7	28.5	27.8	28.4	21.6	28.7			
17	28.8	27.2	26.5	24.4	23.9	24.3	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-			
18	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-		
19	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-		
20	K	K	K	K	8.0	7.8	18.6	13.1	9.2	9.6	8.6	7.6	6.9	6.4	5.3	5.1	3.9	3.1	2.5	2.3	2.0	2.0	1.7	2.4	6.3	18.6			
21	2.7	2.8	3.1	3.2	3.4	3.5	5.4	7.0	6.0	4.9	4.7	4.0	4.1	5.1	5.0	5.4	4.1	4.2	3.8	3.7	4.0	5.8	9.6	9.7	4.8	9.7			
22	9.5	8.2	6.7	5.8	5.4	5.4	7.0	7.2	7.4	7.3	8.1	8.6	7.5	7.9	9.1	9.5	8.9	8.8	8.0	7.9	6.9	6.1	3.8	4.0	7.3	9.5			
23	4.3	3.9	4.1	4.1	4.2	4.7	5.4	6.7	6.8	6.7	7.1	7.9	8.5	8.3	7.4	6.7	6.2	6.5	6.5	6.0	3.9	3.7	3.3	2.7	5.6	8.5			
24	1.5	1.9	1.8	1.8	1.6	0.6	0.8	1.6	1.6	1.4	0.9	1.1	1.4	1.1	1.3	1.0	0.5	0.2	0.2	0.2	0.3	0.2	0.2	0.2	1.0	1.9			
25	0.2	0.2	0.2	0.2	0.2	0.3	1.0	1.3	2.0	2.6	2.2	2.4	2.0	1.8	1.5	2.1	0.9	0.6	0.4	0.5	0.5	0.5	0.5	0.4	1.0	2.6			
26	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.4	0.5	0.6	0.7	1.0	0.8	0.8	0.4	0.6	0.3	0.5	0.4	0.5	0.5	1.0	0.5	1.0				
27	1.1	0.9	0.8	0.7	0.7	0.8	0.9	0.9	1.2	1.4	0.8	0.7	0.9	0.8	1.2	1.1	0.7	0.8	0.7	0.7	0.6	0.6	0.8	0.9	1.4				
28	0.8	0.6	0.7	0.7	0.9	1.1	2.1	4.3	4.9	4.6	3.3	3.6	2.6	2.2	1.9	1.3	1.2	1.2	1.1	0.5	0.7	0.6	0.5	0.6	1.8	4.9			
29	0.8	0.7	0.6	0.6	1.0	0.8	1.7	1.7	2.7	3.6	2.7	2.7	3.1	3.1	2.9	5.0	8.3	6.8	6.3	6.9	6.3	6.6	5.7	4.0	3.5	8.3			
30	3.3	2.9	3.9	3.7	3.5	3.2	3.4	5.2	5.0	5.5	5.3	6.7	7.4	7.2	6.9	7.5	6.1	6.5	4.6	5.4	5.7	6.1	7.9	7.5	5.4	7.9			
NO.	27	27	27	27	28	28	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	650	90%			
MEAN	6.0	6.2	5.9	5.9	5.9	6.3	6.3	6.6	7.0	6.6	6.7	6.3	6.4	6.2	5.6	5.4	4.9	4.9	4.8	5.5	5.7	5.8	5.8	5.8					
MAX	28.8	30.6	30.8	33.3	32.2	31.8	26.5	29.6	42.6	36.0	41.6	28.6	28.9	32.9	23.9	20.6	19.5	18.7	18.6	26.5	28.7	28.5	27.8	28.4					



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	650	
Maximum 1-HR Average	42.6 UG/M3	
Maximum 24-HR Average	23.2 UG/M3	
IZS Calibration Time		Operational Time
Down Time	0	Operational Uptime
Standard Deviation	7.194	Monthly Average
		650 HRS
		90.3 %
		5.9 UG/M3

# West PM<sub>10</sub> (µg/m<sup>3</sup>) – September 2020

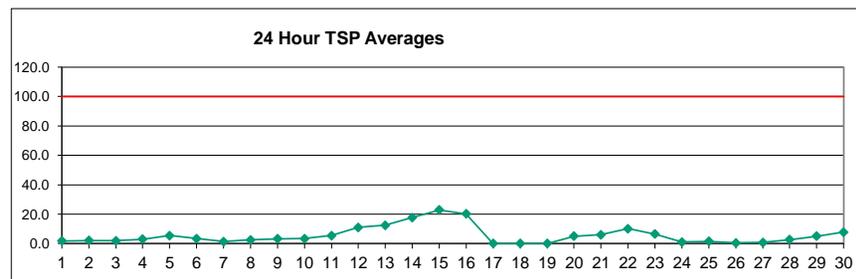
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.6	0.5	0.6	0.5	0.5	0.9	1.3	2.3	2.8	3.0	3.1	3.3	4.0	3.7	3.0	3.3	2.0	1.8	1.2	1.0	0.6	0.4	0.6	0.8	1.7	4.0
2	1.8	0.5	0.3	0.6	0.7	1.0	1.9	5.1	2.3	1.9	3.3	3.0	2.8	3.7	3.8	3.6	3.0	2.5	2.3	1.4	1.4	2.3	2.9	3.8	2.3	5.1
3	4.4	4.1	3.9	2.3	2.3	3.3	2.6	3.8	3.1	2.9	2.8	2.5	3.0	3.0	2.4	1.7	1.0	1.0	1.0	1.2	0.7	0.7	0.7	0.7	2.3	4.4
4	0.9	0.7	0.8	8.4	6.7	8.5	3.2	2.7	4.8	4.2	3.0	2.9	2.4	3.3	2.3	2.3	1.4	1.3	0.8	1.4	2.4	3.6	4.7	4.7	3.2	8.5
5	4.5	4.0	4.0	4.2	4.1	4.5	4.8	6.1	6.6	7.4	8.1	8.4	9.4	8.8	8.2	7.5	9.6	4.8	6.4	7.4	7.0	7.1	8.9	8.9	6.6	9.6
6	8.9	15.1	9.1	9.4	8.3	4.4	3.7	1.7	1.4	0.8	0.8	0.7	1.0	1.7	1.8	2.5	2.5	4.3	4.0	3.9	1.6	2.2	1.4	0.8	3.8	15.1
7	0.6	0.7	0.6	1.3	0.9	1.1	1.3	1.6	2.6	1.4	1.7	2.3	1.8	2.5	1.7	1.7	2.3	1.9	1.7	1.8	2.3	3.0	3.4	3.4	1.8	3.4
8	3.7	3.5	2.7	2.3	2.3	2.4	3.3	3.9	3.5	3.4	4.7	3.5	5.1	4.3	2.9	3.3	3.3	1.9	1.2	1.3	1.7	2.0	2.6	2.3	3.0	5.1
9	3.1	2.9	2.4	2.4	2.5	2.9	3.9	6.5	6.6	5.1	4.5	3.9	4.1	2.9	3.1	3.0	2.5	2.8	2.5	3.1	3.0	3.4	5.6	6.7	3.7	6.7
10	5.7	4.5	4.4	3.8	3.9	4.1	5.3	6.0	6.4	6.0	6.5	5.5	5.2	2.8	3.3	3.5	2.1	1.5	1.5	1.7	2.1	3.4	3.5	3.4	4.0	6.5
11	3.4	3.4	3.7	3.7	3.6	4.2	4.5	7.8	8.1	7.6	6.9	5.8	4.4	3.6	2.9	3.5	2.1	1.8	6.3	10.8	10.7	9.9	10.5	12.7	5.9	12.7
12	15.3	14.7	14.6	13.3	12.3	12.7	15.6	15.7	17.3	18.8	17.4	14.2	8.5	9.4	13.1	15.3	12.8	12.4	13.3	16.1	21.1	20.2	13.9	12.1	14.6	21.1
13	13.0	11.3	11.2	12.9	14.8	15.6	16.2	17.0	18.6	18.1	19.9	21.5	23.0	20.7	17.9	12.2	13.4	17.1	18.6	19.1	18.2	20.7	21.3	21.8	17.3	23.0
14	30.7	34.7	34.8	37.4	36.1	36.0	27.7	20.2	17.4	15.6	16.0	17.7	25.1	27.6	28.0	28.5	26.2	24.5	19.0	20.8	20.3	16.2	11.2	13.4	24.4	37.4
15	15.2	17.8	14.3	14.9	13.8	26.0	35.9	40.1	58.7	49.0	54.0	38.1	39.5	45.7	33.1	27.0	24.6	19.1	22.2	21.3	24.9	25.1	31.6	26.7	29.9	58.7
16	28.1	32.0	30.6	23.2	23.7	23.2	23.2	24.9	28.6	30.3	29.9	34.1	36.0	26.3	20.7	18.1	14.2	14.7	19.6	38.7	41.3	38.7	35.3	36.1	28.0	41.3
17	35.8	31.6	29.6	26.2	26.1	25.6	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
18	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
19	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
20	K	K	K	K	8.2	8.1	20.9	14.2	10.5	11.2	9.7	8.9	8.0	7.6	6.0	7.0	5.6	4.3	2.9	2.6	2.2	2.2	1.9	2.6	7.2	20.9
21	2.9	3.0	3.5	3.6	4.0	4.1	7.8	10.4	8.8	7.0	6.5	5.4	5.7	7.3	7.1	7.5	5.4	5.5	4.6	4.5	4.7	8.1	14.4	14.6	6.5	14.6
22	14.2	12.3	10.0	8.4	7.9	7.8	10.2	9.6	9.8	9.7	10.9	10.6	9.3	10.9	13.5	14.1	13.3	13.2	12.0	11.9	10.4	9.0	5.0	5.2	10.4	14.2
23	5.2	4.3	4.6	4.4	4.6	5.2	6.4	9.2	9.3	8.6	9.1	10.5	11.0	11.0	9.6	9.2	8.7	8.5	9.0	8.4	5.2	4.9	4.3	3.2	7.3	11.0
24	1.6	2.0	1.9	2.0	2.0	0.8	1.1	2.3	2.3	2.1	1.3	1.6	2.0	1.7	1.9	1.5	0.7	0.3	0.2	0.3	0.4	0.3	0.3	0.3	1.3	2.3
25	0.3	0.2	0.2	0.2	0.3	0.3	1.5	1.9	3.0	3.8	3.2	3.5	3.0	2.6	2.2	3.0	1.3	0.8	0.5	0.7	0.6	0.6	0.6	0.5	1.5	3.8
26	0.3	0.3	0.2	0.2	0.3	0.4	0.5	0.4	0.6	0.7	0.9	0.9	1.4	1.0	1.1	0.5	0.8	0.4	0.5	0.5	0.6	0.6	0.5	1.2	0.6	1.4
27	1.1	0.9	0.9	0.8	0.8	0.8	1.0	1.0	1.4	1.8	1.0	0.9	0.8	1.2	1.0	1.6	1.5	0.9	0.9	0.9	0.8	0.7	1.0	1.0	1.0	1.8
28	1.0	0.8	0.8	0.9	1.1	1.5	3.1	6.4	7.3	6.8	4.9	5.4	3.8	3.3	2.8	1.9	1.8	1.7	1.5	0.7	1.0	0.8	0.6	0.7	2.5	7.3
29	0.9	0.8	0.7	0.8	1.4	1.1	2.3	2.4	3.9	5.2	4.0	4.0	4.6	4.5	4.3	7.4	12.5	10.2	9.5	10.2	9.2	9.5	8.3	5.7	5.1	12.5
30	4.7	3.9	5.5	5.3	4.9	4.5	4.8	7.8	7.4	8.2	7.9	10.0	10.9	10.6	10.2	11.1	9.1	9.6	6.7	8.1	8.5	9.1	11.6	10.9	8.0	11.6
NO.	27	27	27	27	28	28	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	650	90%
MEAN	7.7	7.8	7.3	7.2	7.1	7.5	7.9	8.6	9.4	8.9	9.0	8.5	8.7	8.6	7.7	7.5	6.7	6.4	6.2	7.3	7.5	7.6	7.6	7.6		
MAX	35.8	34.7	34.8	37.4	36.1	36.0	35.9	40.1	58.7	49.0	54.0	38.1	39.5	45.7	33.1	28.5	26.2	24.5	22.2	38.7	41.3	38.7	35.3	36.1		



Number of Non-Zero Readings	650		
Maximum 1-HR Average	58.7 UG/M3		
Maximum 24-HR Average	29.9 UG/M3		
IZS Calibration Time		OperatioEI Time	650 HRS
Down Time	0	OperatioEI Uptime	90.3 %
Standard Deviation	9.2	Monthly Average	7.8 UG/M3

# West TSP ( $\mu\text{g}/\text{m}^3$ ) – September 2020

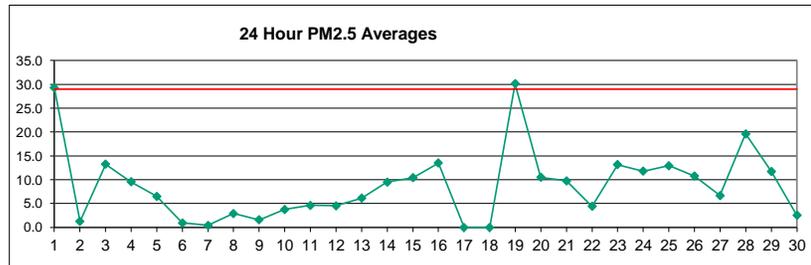
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.5	0.4	0.5	0.3	0.4	0.8	1.1	2.3	2.9	3.2	3.3	3.4	4.4	3.9	3.2	3.6	2.0	1.8	1.1	0.9	0.4	0.3	0.4	0.7	1.7	4.4
2	1.2	0.4	0.2	0.4	0.5	0.9	1.7	3.9	1.6	1.5	3.3	2.9	2.8	3.9	3.9	3.7	3.0	2.4	2.1	1.0	1.0	1.8	2.2	2.9	2.1	3.9
3	3.1	2.8	2.7	1.5	1.6	2.5	2.0	3.7	3.2	3.0	2.8	2.6	3.1	3.1	2.5	1.6	0.8	0.7	0.8	0.9	0.6	0.5	0.5	0.5	2.0	3.7
4	0.7	0.4	0.5	8.7	6.0	7.5	2.5	5.1	4.4	3.1	2.9	2.3	3.1	2.0	2.1	1.2	1.1	0.6	1.1	1.9	3.2	3.9	3.7	2.9	8.7	
5	3.2	2.8	2.7	2.8	2.7	3.1	3.2	4.2	4.8	6.3	6.7	6.7	7.0	6.8	6.3	5.6	5.2	8.5	5.3	6.9	7.5	7.2	7.1	8.7	5.5	8.7
6	8.5	16.2	8.3	8.4	8.0	3.3	2.9	1.1	0.9	0.5	0.6	0.5	0.7	1.2	1.3	2.0	1.9	3.3	2.7	2.6	1.1	1.4	1.0	0.5	3.3	16.2
7	0.4	0.5	0.5	1.0	0.6	0.9	0.9	1.1	1.8	0.9	1.2	1.7	1.3	1.9	1.4	1.3	1.7	1.3	1.1	1.2	1.5	2.0	2.2	2.2	1.3	2.2
8	2.4	2.3	1.8	1.5	1.5	1.6	2.4	3.2	2.9	3.1	4.9	3.6	5.7	4.7	3.0	3.3	3.3	1.7	0.9	0.9	1.2	1.5	1.8	1.5	2.5	5.7
9	2.1	1.9	1.6	1.6	1.6	1.9	2.7	5.4	6.5	4.9	4.4	3.8	4.1	2.9	3.2	3.1	2.4	2.9	2.0	2.4	2.2	2.5	4.7	5.3	3.2	6.5
10	4.0	3.0	3.0	2.6	2.7	2.9	3.9	4.7	5.7	5.8	6.6	5.5	5.6	2.7	3.3	3.7	1.9	1.2	1.0	1.2	1.5	2.5	2.5	2.3	3.3	6.6
11	2.3	2.3	2.5	2.4	2.4	3.0	3.3	7.3	9.0	7.8	7.2	5.9	4.6	3.8	3.0	3.5	1.9	1.5	7.0	12.0	10.9	8.8	8.5	9.3	5.4	12.0
12	10.6	10.2	10.1	9.2	8.4	8.4	10.3	10.5	12.1	14.2	13.1	13.2	9.5	10.8	11.9	12.2	9.6	8.9	9.4	11.3	14.9	14.0	9.5	9.7	10.9	14.9
13	11.0	10.7	9.4	9.3	9.6	10.1	10.4	11.1	12.2	11.9	13.8	15.3	17.7	17.0	14.2	10.7	10.8	12.9	12.7	12.8	11.9	13.7	14.1	14.2	12.4	17.7
14	20.1	22.6	22.7	24.5	23.5	23.5	18.6	14.1	11.8	11.2	11.2	12.9	20.8	25.9	27.5	26.3	21.7	17.9	12.6	14.0	13.4	10.5	7.3	8.8	17.6	27.5
15	10.0	11.6	9.3	9.7	9.0	17.8	25.1	29.9	44.7	37.0	42.3	38.2	37.7	40.8	32.0	20.4	18.1	13.0	15.3	14.5	16.3	16.5	21.0	17.4	22.8	44.7
16	18.3	21.2	20.2	15.2	15.4	15.3	15.5	17.0	21.3	23.2	21.4	27.2	31.2	22.8	17.1	15.1	10.7	10.8	14.5	29.9	28.0	25.4	22.9	23.6	20.1	31.2
17	23.2	20.4	19.3	16.9	17.1	16.6	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
18	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
19	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
20	K	K	K	K	5.3	5.2	13.6	9.2	7.2	7.8	6.6	6.3	5.7	5.5	4.1	5.7	4.9	3.6	2.0	1.8	1.5	1.5	1.3	1.7	5.0	13.6
21	2.0	2.0	2.4	2.6	2.9	3.0	7.7	11.3	9.2	6.5	6.0	4.7	5.3	7.0	6.2	6.9	4.4	4.5	3.3	3.1	3.4	7.8	16.0	15.7	6.0	16.0
22	14.4	10.7	8.0	6.2	5.6	5.5	8.0	9.2	9.5	10.5	12.3	12.1	10.7	12.5	15.3	16.0	15.0	14.7	12.8	11.6	8.9	7.4	3.5	3.6	10.2	16.0
23	3.5	2.8	3.0	2.9	3.0	3.5	4.3	7.1	9.6	9.1	9.5	9.9	11.3	10.7	9.7	9.0	7.7	6.8	8.4	8.0	4.2	4.3	3.7	2.5	6.4	11.3
24	1.1	1.4	1.2	1.3	1.4	0.5	0.9	2.2	2.3	2.1	1.3	1.6	1.9	1.7	2.0	1.5	0.6	0.3	0.1	0.2	0.3	0.2	0.2	0.2	1.1	2.3
25	0.2	0.2	0.2	0.1	0.3	0.2	1.4	1.9	3.1	4.1	3.4	3.7	3.0	2.7	2.3	3.3	1.3	0.6	0.4	0.5	0.5	0.5	0.4	0.3	1.4	4.1
26	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.6	0.8	0.8	1.4	0.9	1.0	0.4	0.7	0.3	0.4	0.3	0.4	0.4	0.4	0.8	0.5	1.4
27	0.7	0.6	0.6	0.5	0.5	0.5	0.7	0.7	0.9	1.4	0.8	0.7	0.6	0.9	0.8	1.4	1.3	0.7	0.7	0.7	0.5	0.5	0.5	0.6	0.7	1.4
28	0.7	0.5	0.6	0.6	0.9	1.2	3.1	7.3	8.3	7.7	5.5	6.1	4.1	3.5	2.9	1.8	1.7	1.7	1.4	0.5	0.8	0.6	0.4	0.6	2.6	8.3
29	0.7	0.6	0.5	0.6	1.1	0.9	2.2	2.3	4.1	5.7	4.2	4.3	5.0	4.8	4.6	8.3	14.4	10.9	9.2	8.8	7.1	7.2	6.4	4.6	4.9	14.4
30	3.8	2.9	4.3	4.0	3.7	3.5	4.0	7.9	7.6	8.8	8.8	11.0	12.1	11.4	10.8	12.3	9.7	10.8	6.6	7.7	7.7	8.1	10.1	8.4	7.8	12.3
NO.	27	27	27	27	28	28	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	650	90%
MEAN	5.5	5.6	5.0	5.0	4.9	5.2	5.7	6.7	7.7	7.5	7.6	7.7	8.1	8.0	7.2	6.9	5.8	5.4	5.0	5.8	5.6	5.6	5.6	5.6		
MAX	23.2	22.6	22.7	24.5	23.5	23.5	25.1	29.9	44.7	37.0	42.3	38.2	37.7	40.8	32.0	26.3	21.7	17.9	15.3	29.9	28.0	25.4	22.9	23.6		



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	650	
Maximum 1-HR Average	44.7 UG/M3	
Maximum 24-HR Average	22.8 UG/M3	
IZS Calibration Time		Operational Time
Down Time	0	Operational Uptime
Standard Deviation	6.948	Monthly Average
		650 HRS
		90.3 %
		6.2 UG/M3

# Berm PM<sub>2.5</sub> (µg/m<sup>3</sup>) – September 2020

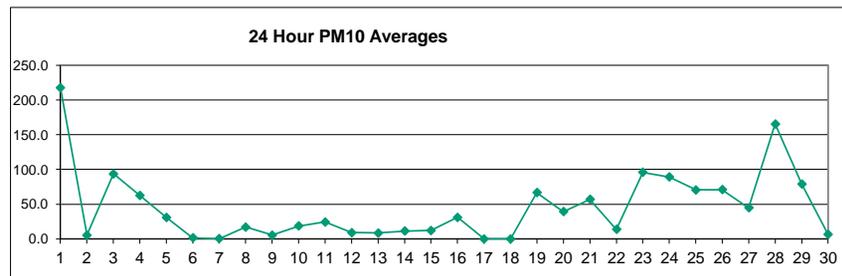
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	19.2	9.8	10.5	6.0	2.8	4.6	32.8	36.3	24.8	33.4	56.1	28.6	38.8	32.9	48.8	48.4	26.8	34.7	48.2	57.1	31.3	42.0	22.2	5.9	29.3	57.1
2	4.5	2.3	1.3	1.0	3.4	4.7	2.1	1.0	0.3	0.2	0.4	1.1	0.7	0.5	0.9	0.7	0.7	1.0	0.8	0.5	0.4	0.4	0.5	1.2	4.7	
3	0.7	0.9	0.8	0.9	1.7	1.4	1.8	4.5	8.7	13.4	16.8	16.4	23.1	20.9	36.1	29.2	27.5	15.5	38.8	20.3	13.6	17.0	5.7	2.3	13.3	38.8
4	2.3	1.0	2.3	6.4	4.3	2.9	2.7	5.7	3.7	10.4	29.0	15.5	17.9	37.1	36.8	28.4	13.2	3.4	1.6	0.6	0.5	0.8	1.0	1.7	9.5	37.1
5	1.3	1.6	2.2	1.7	1.5	1.5	1.6	2.5	4.9	7.0	4.4	7.4	29.4	37.5	16.0	8.3	5.6	5.3	2.2	2.8	2.9	3.3	2.8	2.4	6.5	37.5
6	2.6	2.5	2.5	1.8	1.6	1.2	0.9	0.7	0.4	0.2	0.3	0.3	0.5	0.4	0.5	0.6	0.5	1.0	1.0	0.9	0.8	0.6	0.4	0.3	0.9	2.6
7	0.2	0.1	0.0	0.1	0.1	0.2	0.4	0.5	0.7	0.4	0.3	0.4	0.4	0.5	0.3	0.3	0.5	0.5	0.5	0.6	0.6	0.7	0.8	0.9	0.4	0.9
8	1.3	1.0	0.9	0.7	0.6	0.7	0.8	0.9	0.9	3.0	9.4	8.4	5.5	7.9	9.4	10.3	4.0	1.7	0.4	0.4	0.4	0.4	0.7	0.6	2.9	10.3
9	0.6	0.7	0.7	0.7	0.8	0.7	0.9	1.3	1.7	2.0	2.2	1.7	9.3	2.5	1.7	1.6	0.9	0.9	0.9	0.9	1.0	1.0	1.1	2.3	1.6	9.3
10	2.2	3.2	3.6	1.7	1.6	1.7	1.5	2.0	2.4	1.8	3.3	12.0	10.3	11.5	6.5	4.9	5.2	8.1	1.1	1.1	1.0	1.3	1.4	1.2	3.8	12.0
11	1.4	1.4	1.6	1.3	1.4	1.5	1.8	2.1	4.4	6.7	6.4	3.0	5.9	30.1	7.7	4.3	2.8	3.4	3.6	4.1	4.5	4.5	3.7	3.6	4.6	30.1
12	3.7	3.1	3.2	3.0	3.1	3.1	4.3	6.3	8.1	7.4	9.3	6.0	3.9	3.5	4.4	4.8	3.8	3.4	3.5	4.3	5.3	5.1	3.3	3.3	4.6	9.3
13	3.6	3.4	4.9	4.5	4.7	5.7	6.0	6.3	6.3	6.5	6.8	7.9	6.6	6.7	6.2	4.8	4.8	5.1	6.2	7.4	7.6	8.0	8.1	8.8	6.1	8.8
14	12.3	15.1	15.4	20.3	13.7	9.4	7.9	7.7	7.0	5.7	5.2	6.9	8.7	10.0	10.1	10.6	10.9	9.4	8.0	8.0	8.5	7.6	5.3	5.0	9.5	20.3
15	5.8	6.0	6.0	6.1	7.2	8.8	11.3	12.9	12.5	12.0	12.2	12.5	13.3	14.5	12.3	10.7	9.1	9.5	9.9	9.8	11.4	11.9	12.5	11.8	10.4	14.5
16	11.5	10.5	10.8	11.5	11.0	10.8	11.0	11.5	13.9	14.4	12.2	14.0	16.2	21.8	18.7	17.8	14.6	17.9	11.0	11.3	13.2	13.6	13.1	12.1	13.5	21.8
17	13.0	14.1	13.1	13.4	12.7	13.0	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
18	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
19	K	K	K	K	K	K	45.3	48.5	37.5	36.8	43.5	38.7	41.5	34.9	25.9	23.4	22.3	24.4	24.9	20.8	20.2	20.4	17.4	16.0	30.1	48.5
20	12.6	11.0	7.4	5.9	4.7	5.4	6.3	7.1	6.3	19.5	19.8	22.8	21.4	17.8	8.1	19.5	18.8	11.8	7.6	2.5	2.0	3.1	7.2	3.9	10.5	22.8
21	10.0	6.5	4.3	7.8	8.4	7.8	13.0	16.8	13.0	23.6	25.3	19.3	11.1	13.7	14.7	12.7	4.6	5.4	4.3	2.3	2.1	2.6	2.5	2.9	9.8	25.3
22	4.6	4.0	3.5	3.8	3.2	2.9	2.8	10.5	10.2	7.9	8.1	6.5	5.1	4.7	4.0	3.5	3.1	3.5	3.4	3.2	2.5	1.8	1.6	2.0	4.4	10.5
23	1.6	1.5	1.6	1.6	1.7	1.9	2.2	3.3	4.1	4.1	11.7	17.4	21.3	30.3	27.5	16.8	17.6	20.6	45.4	32.5	12.4	22.8	10.6	4.9	13.1	45.4
24	6.1	2.2	1.1	1.5	2.2	0.9	2.3	5.9	8.8	40.9	60.1	22.9	17.3	20.7	17.1	17.9	14.6	8.2	4.2	4.9	7.9	6.8	5.0	3.6	11.8	60.1
25	3.7	1.8	2.7	4.9	2.4	4.0	7.4	12.5	7.5	8.2	21.0	37.2	43.8	41.8	23.0	22.0	12.8	6.5	16.1	14.1	2.2	1.2	8.5	6.0	13.0	43.8
26	3.0	5.0	7.2	4.8	4.3	1.1	7.5	20.9	19.5	12.7	6.8	6.5	11.5	24.8	16.1	11.1	17.5	25.7	10.9	7.3	7.8	7.5	11.4	6.8	10.7	25.7
27	0.9	0.6	0.6	0.6	0.5	0.4	0.5	0.6	1.0	6.0	11.8	8.4	8.1	8.5	7.7	7.2	7.1	17.7	12.0	13.1	5.0	13.1	12.7	16.6	6.7	17.7
28	16.7	8.5	12.3	12.8	8.7	7.7	20.1	44.4	30.9	33.6	19.8	12.6	13.4	22.3	24.0	31.0	31.0	33.5	18.1	35.4	15.6	8.8	5.6	3.9	19.6	44.4
29	2.7	3.0	3.3	8.6	15.2	15.5	20.2	34.1	28.9	29.0	28.0	16.0	16.8	7.9	17.1	10.0	4.1	2.9	2.2	2.7	3.9	3.6	2.8	3.2	11.7	34.1
30	3.0	1.5	1.4	1.2	1.3	1.7	1.5	2.5	2.8	2.8	2.0	2.5	2.3	3.0	2.4	2.9	4.2	3.3	2.9	4.8	2.9	2.0	2.3	3.2	2.5	4.8
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	93%
MEAN	5.4	4.4	4.5	4.8	4.5	4.3	7.7	11.0	9.7	12.5	15.4	12.6	14.4	16.7	14.4	13.0	10.3	10.1	10.4	9.8	6.7	7.6	6.1	4.9		
MAX	19.2	15.1	15.4	20.3	15.2	15.5	45.3	48.5	37.5	40.9	60.1	38.7	43.8	41.8	48.8	48.4	31.0	34.7	48.2	57.1	31.3	42.0	22.2	16.6		



Number of 24HR Exceedences	2	Proposed Guideline
Number of Non-Zero Readings	672	
Maximum 1-HR Average	60.1 UG/M3	
Maximum 24-HR Average	30.1 UG/M3	
Monthly Calibration	0	Operational Time
Standard Deviation	10.4	Operational Uptime
		Monthly Average
		672 HRS
		93.3 %
		9.2 UG/M3

# Berm PM<sub>10</sub> (µg/m<sup>3</sup>) – September 2020

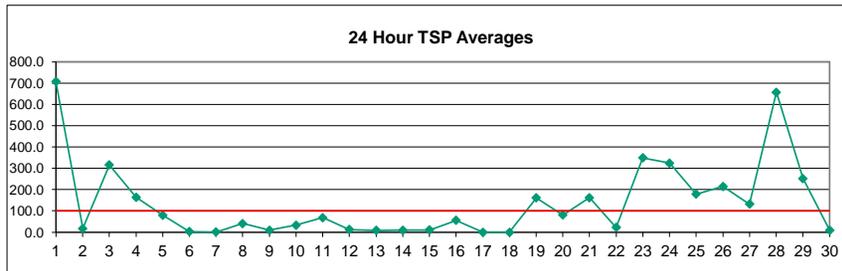
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	195.1	88.3	98.8	47.5	19.1	34.7	260.5	254.8	188.2	230.5	398.0	207.8	280.7	236.7	344.3	352.8	184.0	253.1	348.4	456.0	237.5	320.7	162.6	24.7	217.7	456.0
2	21.9	5.7	3.3	2.9	20.9	42.8	12.5	1.3	0.3	0.3	0.5	4.0	2.6	1.0	3.4	1.8	1.6	1.6	2.4	2.1	0.8	0.5	0.5	0.6	5.6	42.8
3	0.8	1.2	0.9	1.4	4.8	3.7	7.7	29.5	58.6	103.8	134.7	125.1	170.3	166.9	261.1	221.1	194.6	108.5	259.8	140.2	85.7	118.6	42.4	10.0	93.8	261.1
4	13.2	2.3	7.6	25.3	15.4	8.9	10.4	24.4	21.5	72.4	245.3	102.6	145.7	259.3	232.4	184.8	92.3	20.9	8.4	1.2	0.8	1.8	1.7	5.1	62.7	259.3
5	1.9	2.5	5.1	2.7	2.0	1.8	2.3	5.2	17.8	30.5	20.2	34.3	209.6	220.3	75.3	32.1	12.5	18.9	7.7	11.0	9.3	9.8	8.2	6.1	31.1	220.3
6	7.2	6.2	5.8	3.1	4.5	2.3	1.2	0.8	0.5	0.3	0.3	0.4	1.1	0.5	0.7	1.1	0.8	1.2	1.1	0.9	0.9	0.6	0.5	0.3	1.8	7.2
7	0.2	0.1	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.4	0.3	0.4	0.4	0.6	0.4	0.4	0.7	0.6	0.5	0.7	0.7	0.7	0.8	1.0	0.5	1.0
8	1.4	1.1	1.0	0.7	0.7	0.7	1.0	2.8	2.7	17.2	64.0	55.1	35.0	55.4	63.6	70.2	24.8	9.9	0.8	0.5	0.4	0.5	0.9	0.7	17.1	70.2
9	0.7	0.8	0.8	0.8	1.1	0.8	1.1	3.9	5.8	6.5	7.9	6.9	51.5	12.7	6.7	5.3	2.4	2.4	1.9	1.4	1.6	1.3	2.3	5.6	5.5	51.5
10	4.7	10.2	10.7	3.3	3.0	3.0	3.4	5.5	9.3	5.3	18.7	62.1	66.5	76.8	36.0	27.6	33.6	54.1	3.1	2.9	1.8	2.7	2.5	1.7	18.7	76.8
11	2.1	2.1	2.9	1.7	2.1	1.9	5.2	6.5	25.8	41.6	40.4	16.0	35.9	212.4	54.4	27.2	15.5	22.1	17.9	14.7	13.6	11.6	8.3	7.3	24.5	212.4
12	6.1	5.2	5.0	4.1	3.9	3.8	5.1	8.6	20.8	22.3	36.2	16.1	10.0	9.1	8.7	8.4	7.7	6.1	5.9	7.1	8.2	6.7	4.3	4.7	9.3	36.2
13	5.1	4.9	7.3	6.4	5.5	6.5	6.7	7.2	7.2	8.2	9.7	11.4	10.8	11.1	14.3	12.8	9.7	7.6	7.7	8.8	8.9	9.9	9.7	10.0	8.6	14.3
14	13.9	17.3	16.1	20.7	14.9	10.2	8.3	8.9	7.9	6.4	5.9	7.8	10.3	14.6	14.1	17.7	21.6	12.3	8.7	8.5	9.4	8.5	5.5	5.1	11.5	21.6
15	6.0	6.4	6.4	6.8	7.9	9.3	12.4	14.5	13.6	12.8	13.8	15.5	17.6	21.4	19.6	17.2	11.3	11.5	10.9	10.6	12.5	12.5	13.1	12.1	12.3	21.4
16	11.8	11.3	11.9	13.4	13.0	12.8	13.3	14.7	19.6	20.8	15.3	26.3	43.9	96.6	82.8	81.9	68.3	87.2	20.5	16.4	18.8	18.5	16.2	13.7	31.2	96.6
17	15.8	16.5	14.6	16.7	13.5	13.2	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
18	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
19	K	K	K	K	K	K	114.0	155.4	74.2	71.0	121.3	115.4	133.7	80.8	29.6	25.0	25.6	42.0	59.6	34.3	34.6	36.2	23.4	21.4	66.5	155.4
20	14.4	14.3	7.6	6.0	4.8	5.6	6.8	9.5	13.3	69.0	58.9	89.4	90.4	79.6	31.0	114.6	99.1	70.7	47.0	8.6	5.4	15.7	56.5	23.3	39.2	114.6
21	50.5	32.5	18.3	41.4	51.4	39.9	73.4	94.9	70.0	158.1	184.9	170.4	79.6	74.8	79.2	64.8	16.7	24.7	17.9	4.0	2.8	4.8	4.2	5.8	56.9	184.9
22	12.8	10.1	8.2	9.1	4.5	5.3	4.2	34.3	59.0	33.2	31.3	19.0	13.8	15.4	10.8	9.6	8.0	11.1	9.6	7.8	4.2	2.6	2.4	3.4	13.7	59.0
23	2.2	1.9	2.0	1.8	1.9	2.2	3.4	11.2	14.4	12.9	74.6	111.4	157.8	247.7	216.2	126.8	121.1	135.4	362.2	282.9	102.0	194.1	88.9	22.7	95.7	362.2
24	20.2	5.6	3.0	3.8	6.0	2.1	12.1	30.2	58.0	402.1	534.6	155.6	141.7	132.8	120.1	123.6	111.2	44.5	32.0	35.7	57.7	43.9	36.3	25.0	89.1	534.6
25	24.1	10.4	16.0	30.2	9.3	20.4	50.2	95.2	54.0	61.7	118.0	179.1	219.5	207.8	99.4	112.9	67.5	31.6	96.8	86.0	7.9	4.4	49.6	39.8	70.5	219.5
26	18.2	32.2	43.7	29.4	29.9	5.0	55.4	167.6	149.0	88.9	51.2	43.7	78.2	184.4	110.3	73.6	112.3	158.2	61.2	42.5	38.7	30.2	58.0	38.2	70.8	184.4
27	2.0	0.9	1.2	1.2	0.8	0.5	0.7	0.8	3.4	40.6	77.8	56.7	58.6	60.2	44.6	47.7	46.5	138.9	87.6	94.1	25.8	91.0	87.6	109.1	44.9	138.9
28	133.7	69.0	98.5	114.8	74.0	63.6	148.9	369.0	258.9	272.2	140.4	94.1	90.7	175.7	193.1	265.3	259.2	300.8	169.0	352.5	160.9	89.5	50.6	23.1	165.3	369.0
29	18.9	19.5	19.7	60.4	131.5	129.2	137.5	247.2	208.0	210.1	199.2	113.5	119.8	50.7	103.1	59.6	16.0	8.8	5.5	6.1	10.8	9.7	6.0	7.6	79.1	247.2
30	7.2	2.9	2.1	1.4	1.6	3.0	2.8	8.2	9.0	9.8	5.8	6.3	4.4	7.4	4.0	7.1	14.0	11.7	7.5	17.0	6.9	2.8	5.3	8.1	6.5	17.0
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	93%
MEAN	21.9	13.6	14.9	16.3	16.0	15.5	34.3	57.6	49.0	71.7	93.2	65.9	81.4	96.9	80.7	74.7	56.4	57.0	59.3	59.1	31.0	37.5	26.7	15.6		
MAX	195.1	88.3	98.8	114.8	131.5	129.2	260.5	369.0	258.9	402.1	534.6	207.8	280.7	259.3	344.3	352.8	259.2	300.8	362.2	456.0	237.5	320.7	162.6	109.1		



Number of Non-Zero Readings	672		
Maximum 1-HR Average	534.6 UG/M3		
Maximum 24-HR Average	217.7 UG/M3		
Monthly Calibration	0	Operational Time	672 HRS
Standard Deviation	75.86	Operational Uptime	93.3 %
		Monthly Average	47.8 UG/M3

# Berm TSP ( $\mu\text{g}/\text{m}^3$ ) – September 2020

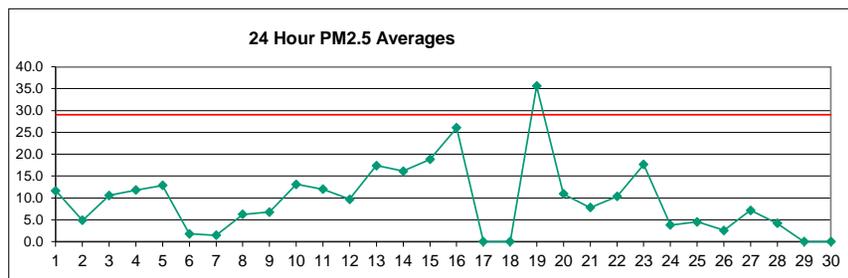
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	774.8	326.5	348.0	185.7	70.3	121.8	851.4	744.3	569.2	697.7	1211.2	660.9	896.2	726.3	1116.2	1235.7	613.1	825.1	1101.4	1519.1	779.3	1057.1	495.1	52.1	707.4	1519.1
2	63.1	13.4	4.5	3.0	70.2	164.9	30.3	2.9	0.2	0.2	0.4	11.8	6.1	1.1	8.9	3.6	3.4	7.1	3.1	5.9	0.8	0.4	0.3	0.4	16.9	164.9
3	0.6	0.9	0.6	3.4	3.8	4.1	14.1	66.2	176.6	371.1	493.8	460.9	563.9	639.8	867.9	802.2	672.2	375.2	761.2	472.3	266.1	364.5	164.5	29.4	315.6	867.9
4	34.1	2.1	12.5	23.2	13.4	9.5	22.1	33.7	73.8	212.0	539.2	327.7	465.0	763.6	629.0	504.3	203.3	43.9	21.0	1.7	0.8	2.2	1.4	6.6	164.4	763.6
5	1.7	2.7	9.6	5.9	4.8	1.3	3.4	9.6	47.7	78.3	47.3	80.7	589.9	609.8	199.3	75.5	27.4	44.3	14.8	23.1	15.8	10.7	11.5	8.4	80.1	609.8
6	10.0	7.3	7.6	4.7	12.9	4.2	0.8	0.5	0.4	0.2	0.2	0.3	1.7	0.5	0.9	1.0	1.4	1.0	0.7	0.6	0.6	0.4	0.3	0.2	2.4	12.9
7	0.1	0.1	0.0	0.0	0.1	0.2	0.3	0.3	0.5	0.3	0.2	0.3	0.3	0.4	0.3	0.3	3.0	0.4	0.4	0.4	0.4	0.4	0.5	0.7	0.4	3.0
8	0.9	0.7	0.6	0.5	0.5	0.5	0.6	7.2	9.5	58.8	184.4	157.8	91.4	120.5	141.9	130.4	49.8	16.1	0.6	0.3	0.3	0.4	0.6	0.5	40.6	184.4
9	0.7	0.7	0.5	0.7	0.8	0.6	2.0	19.0	15.6	17.2	21.0	14.1	73.9	21.3	11.1	9.7	2.7	3.0	2.5	1.6	2.5	0.8	4.9	5.9	9.7	73.9
10	5.3	11.9	10.4	2.5	3.3	2.2	4.8	20.3	22.7	8.7	52.8	122.0	129.4	116.2	59.7	42.4	58.1	101.9	6.4	2.8	1.6	3.7	3.1	2.2	33.1	129.4
11	4.1	4.7	8.2	1.8	4.3	2.4	15.1	11.2	81.2	105.4	118.2	41.4	86.3	640.4	162.2	85.2	52.5	59.4	47.9	30.4	24.8	17.3	12.7	10.2	67.8	640.4
12	9.4	8.1	7.4	3.9	2.7	2.6	3.6	7.3	24.4	44.6	57.5	22.5	19.2	12.2	12.4	14.6	9.7	6.4	6.8	9.2	8.0	5.2	3.2	4.0	12.7	57.5
13	4.4	4.2	6.8	5.1	3.8	4.3	4.4	4.8	4.8	7.8	11.6	9.0	10.8	12.7	20.9	20.7	14.4	7.2	5.6	6.1	6.0	6.8	6.6	6.7	8.2	20.9
14	9.2	11.6	10.5	13.4	9.8	6.7	5.5	6.2	5.3	4.2	4.0	5.3	11.2	19.6	18.7	19.8	30.2	10.9	5.8	5.6	6.4	5.6	3.6	3.3	9.7	30.2
15	3.9	4.1	4.2	4.5	5.2	6.0	8.2	9.8	9.4	8.7	9.5	11.6	13.1	30.5	28.1	22.3	9.0	8.4	7.5	7.0	8.2	8.1	8.5	7.8	10.1	30.5
16	7.6	7.4	7.7	8.9	8.8	8.6	9.9	11.4	18.1	19.6	12.7	35.2	77.8	221.9	173.0	197.7	201.8	214.5	26.9	15.9	18.0	15.9	11.6	9.3	55.8	221.9
17	14.4	11.5	9.7	13.4	9.5	8.6	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
18	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
19	K	K	K	K	K	K	293.4	457.4	186.6	183.0	374.6	379.6	381.8	147.7	27.8	18.5	22.7	72.2	144.6	61.2	50.1	52.1	26.5	21.6	161.2	457.4
20	12.3	17.9	5.1	4.0	3.1	3.7	4.6	8.7	17.2	96.1	67.3	139.2	141.0	138.6	64.6	275.1	230.0	212.6	141.5	13.5	10.3	43.1	200.3	84.1	80.6	275.1
21	97.4	91.5	52.3	147.4	180.3	121.4	192.3	271.1	203.4	495.1	591.4	563.7	237.7	159.0	177.4	153.2	35.7	65.5	39.3	4.0	1.9	3.4	6.5	5.3	162.3	591.4
22	17.2	17.1	9.2	9.4	3.8	5.9	3.5	58.4	124.7	60.9	49.2	26.2	24.6	22.0	14.9	14.2	7.9	25.2	11.2	9.3	4.0	2.2	1.9	4.2	22.0	124.7
23	2.3	2.3	1.9	1.2	2.4	1.4	4.3	20.9	26.0	26.6	213.7	303.2	461.9	829.5	780.9	462.9	415.1	472.6	1436.5	1172.7	448.6	801.2	390.1	91.1	348.7	1436.5
24	18.6	7.0	4.7	7.9	10.2	3.9	32.6	100.7	234.6	1619.4	2043.9	537.3	548.7	412.0	442.9	442.0	383.9	114.0	110.9	124.3	197.6	152.1	133.1	94.2	324.0	2043.9
25	104.1	38.6	48.5	88.4	15.1	53.2	161.3	346.6	201.8	218.3	278.8	334.8	455.1	381.0	171.9	297.3	186.1	92.6	290.2	204.0	12.4	12.2	178.2	116.6	178.6	455.1
26	60.0	106.3	149.1	92.7	109.7	12.6	164.8	561.2	457.4	296.3	186.6	156.2	272.2	588.9	326.7	240.8	318.6	439.5	137.7	125.3	91.8	52.7	121.0	99.3	215.3	588.9
27	1.8	0.6	1.0	0.8	0.6	0.3	1.3	0.6	10.1	112.9	212.8	173.2	167.1	166.6	98.8	133.1	120.5	481.4	263.2	294.9	60.7	273.4	272.9	323.0	132.2	481.4
28	511.7	298.3	423.8	479.7	292.4	268.0	549.4	1528.3	1119.4	1157.5	569.4	368.8	307.1	618.7	716.4	993.0	1016.2	1255.8	703.5	1224.2	703.2	389.7	197.3	73.2	656.9	1528.3
29	56.9	66.9	51.6	149.1	445.9	408.6	364.6	782.1	753.7	734.5	677.0	413.2	376.5	138.8	336.0	164.8	36.3	14.5	13.5	8.5	22.9	15.2	13.5	7.5	252.2	782.1
30	8.1	4.3	2.0	0.9	1.1	2.5	2.4	10.0	12.8	20.2	7.3	10.5	4.4	8.1	5.5	13.2	23.5	16.6	8.1	24.0	8.1	2.3	9.7	15.4	9.2	24.0
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	93%
MEAN	65.5	38.2	42.8	45.1	46.0	43.9	98.3	182.2	157.4	237.7	287.0	191.7	229.1	269.6	236.2	227.6	169.6	178.1	189.7	191.7	98.3	117.8	81.4	38.7		
MAX	774.8	326.5	423.8	479.7	445.9	408.6	851.4	1528.3	1119.4	1619.4	2043.9	660.9	896.2	829.5	1116.2	1235.7	1016.2	1255.8	1436.5	1519.1	779.3	1057.1	495.1	323.0		



Number of 24HR Exceedences	12	Proposed Guideline
Number of Non-Zero Readings	672	
Maximum 1-HR Average	2043.9 UG/M3	
Maximum 24-HR Average	707.4 UG/M3	
IZS Calibration Time		Operational Time
Monthly Calibration	0	Operational Uptime
Standard Deviation	267.0	Monthly Average
		672 HRS
		93.3 %
		144.3 UG/M3

# Entrance PM<sub>2.5</sub> (µg/m<sup>3</sup>) – September 2020

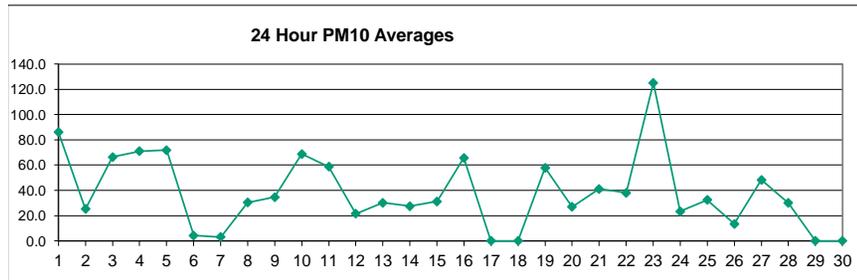
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	12.4	10.6	10.6	4.8	5.9	7.6	14.5	23.0	19.8	12.6	13.2	10.6	10.7	15.7	18.8	28.9	12.4	7.6	5.8	10.7	14.8	5.5	2.5	1.1	11.7	28.9
2	1.0	0.6	2.8	1.6	3.3	7.7	5.9	1.9	1.3	0.6	10.9	14.1	10.9	8.3	10.8	9.3	7.1	3.7	3.8	2.2	1.6	3.5	1.0	3.3	4.9	14.1
3	6.2	4.6	4.3	18.2	17.3	26.5	39.9	26.3	17.2	9.6	11.8	12.5	6.6	13.4	10.6	9.5	5.2	4.5	2.6	1.7	1.3	0.7	2.5	0.9	10.6	39.9
4	4.7	34.8	17.1	8.3	8.2	12.9	26.2	29.2	14.1	11.9	9.7	8.0	8.1	13.3	10.4	10.0	11.4	7.9	6.6	6.1	2.1	4.7	9.4	8.0	11.8	34.8
5	7.0	18.8	16.6	14.6	16.5	17.5	17.7	36.6	22.4	11.3	14.3	17.1	17.3	16.5	11.1	10.7	8.0	6.7	4.0	5.3	5.9	4.8	4.3	3.8	12.9	36.6
6	3.8	3.9	3.9	3.0	2.0	1.9	1.8	1.4	0.6	1.1	1.5	1.2	1.7	1.5	1.8	2.0	1.5	2.0	1.8	1.3	1.0	0.7	0.9	0.8	1.8	3.9
7	0.4	0.3	0.1	0.2	0.4	0.3	0.8	1.0	1.1	0.6	0.7	1.1	0.9	0.9	1.1	1.0	3.5	3.0	2.1	2.7	1.9	1.4	2.6	6.9	1.5	6.9
8	6.5	4.6	6.3	5.3	4.5	5.1	6.7	8.4	9.3	11.0	5.6	6.3	5.4	7.4	5.8	7.6	6.3	4.1	2.9	4.2	6.0	4.6	9.9	6.2	6.2	11.0
9	2.3	3.7	5.5	3.7	6.5	6.6	6.2	9.0	9.9	11.3	16.3	9.7	8.4	5.7	6.2	5.8	5.7	3.8	4.2	4.9	5.0	2.2	4.5	15.1	6.8	16.3
10	15.7	12.4	28.2	28.1	18.7	16.3	28.3	15.7	14.2	13.0	16.5	11.0	10.8	6.6	6.6	11.8	6.7	5.1	7.9	6.1	5.7	15.6	5.3	8.4	13.1	28.3
11	6.9	7.9	6.2	10.0	7.3	10.2	25.6	35.8	25.6	17.1	13.9	14.9	10.9	21.4	19.6	6.6	4.8	3.5	6.7	6.0	6.6	7.4	6.1	6.8	12.0	35.8
12	6.9	5.6	5.8	6.1	7.8	8.6	13.7	24.1	21.6	14.9	13.1	11.5	7.3	8.1	8.3	8.5	7.8	6.8	7.7	8.5	9.1	9.2	6.3	6.3	9.7	24.1
13	6.4	6.2	6.6	15.0	24.0	32.8	41.2	39.3	40.0	34.9	25.3	15.2	11.7	11.2	9.0	7.9	8.8	9.2	10.6	11.9	12.2	12.7	13.4	12.6	17.4	41.2
14	15.4	23.6	25.1	27.8	20.0	18.1	15.2	15.6	12.4	12.2	10.0	15.0	17.5	19.8	20.4	18.1	17.3	15.7	12.9	12.1	12.7	11.9	9.4	9.5	16.1	27.8
15	9.3	9.8	10.0	10.9	13.2	18.2	24.4	24.5	24.9	22.8	23.5	31.8	28.8	24.7	22.3	20.0	16.4	14.2	18.0	15.1	16.6	17.1	17.7	17.1	18.8	31.8
16	16.6	17.6	16.8	18.2	23.6	35.2	31.7	40.0	28.1	35.1	32.7	43.6	35.4	26.2	24.1	21.1	19.0	16.6	26.1	24.7	23.7	23.4	24.1	21.8	26.1	43.6
17	24.6	30.8	32.5	39.6	42.3	31.9	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
18	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
19	K	K	K	K	K	K	55.5	54.8	44.3	43.2	44.1	43.1	39.5	33.9	34.5	35.7	33.1	31.2	28.0	26.2	25.4	24.6	22.4	20.9	35.6	55.5
20	17.4	14.4	12.5	26.3	16.8	21.4	20.0	30.6	22.3	12.5	13.2	6.6	6.7	7.0	6.1	5.1	3.2	3.2	2.6	2.6	3.2	2.8	3.2	2.2	10.9	30.6
21	2.5	2.9	3.1	3.1	4.3	4.8	9.5	11.6	11.9	20.0	22.6	14.5	9.1	4.0	5.1	5.1	5.3	6.1	3.8	7.6	7.4	8.2	7.0	7.5	7.8	22.6
22	8.1	7.4	10.0	9.8	11.5	7.9	9.5	16.8	11.1	10.3	16.6	15.3	12.9	10.1	9.6	7.4	8.4	5.9	8.7	7.5	7.3	9.4	14.2	12.7	10.4	16.8
23	17.0	14.9	12.1	12.9	22.9	11.5	14.9	16.5	22.1	21.5	24.7	19.1	11.7	18.6	28.1	10.5	6.8	9.1	28.3	52.4	12.9	16.9	13.4	5.1	17.7	52.4
24	6.7	4.0	4.0	4.9	3.5	2.8	2.2	7.7	6.1	8.4	6.3	4.9	3.8	4.2	3.6	5.2	4.9	2.1	2.8	0.7	0.8	0.5	0.4	0.5	3.8	8.4
25	0.4	0.5	0.2	0.5	0.4	0.7	2.7	9.8	16.4	6.9	13.1	18.2	14.6	7.6	7.1	4.3	1.3	0.8	0.7	0.6	0.4	0.5	0.9	0.4	4.5	18.2
26	0.3	0.3	0.3	0.3	1.3	0.4	3.1	3.3	3.2	2.6	6.2	6.9	5.2	5.2	3.4	8.4	0.9	1.7	0.7	3.2	0.7	0.7	0.7	3.2	2.6	8.4
27	15.8	14.0	25.5	16.5	11.9	16.4	19.2	12.8	19.7	4.4	2.1	1.7	1.4	1.1	1.4	0.8	0.8	1.3	0.7	0.8	0.6	1.1	0.7	1.2	7.2	25.5
28	2.0	1.2	2.3	4.8	2.0	1.5	2.0	8.8	5.7	6.8	2.9	3.1	4.6	4.9	5.9	5.3	6.9	9.6	4.5	8.1	1.7	3.2	2.1	0.5	4.2	9.6
29	0.5	0.6	0.6	1.0	3.2	3.0	2.8	5.6	7.2	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	-	-
30	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	-	-
NO.	27	27	27	27	27	27	27	27	27	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	633	93%
MEAN	8.0	9.5	10.0	10.9	11.1	12.1	16.3	18.9	16.0	13.7	14.3	13.7	11.6	11.4	11.2	10.2	8.2	7.1	7.9	9.0	7.2	7.4	7.1	7.0		
MAX	24.6	34.8	32.5	39.6	42.3	35.2	55.5	54.8	44.3	43.2	44.1	43.6	39.5	33.9	34.5	35.7	33.1	31.2	28.3	52.4	25.4	24.6	24.1	21.8		



Number of 24HR Exceedences	1	Proposed Guideline	
Number of Non-Zero Readings	633		
Maximum 1-HR Average	55.5 UG/M3		
Maximum 24-HR Average	35.6 UG/M3		
Monthly Calibration	39	Operational Time	672 HRS
Standard Deviation	9.858	Operational Uptime	93.3 %
		Monthly Average	10.9 UG/M3

# Entrance PM<sub>10</sub> (µg/m<sup>3</sup>) – September 2020

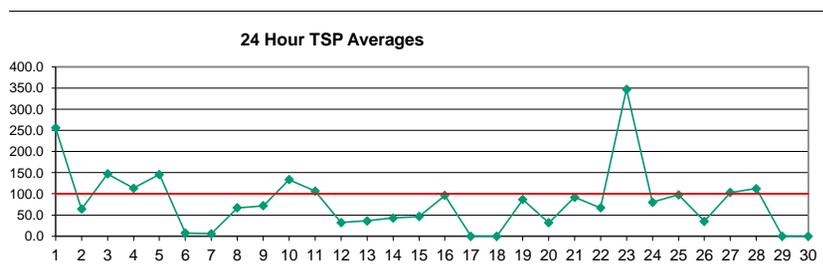
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	101.9	84.1	87.0	31.9	41.8	47.0	110.2	170.1	146.8	94.4	100.8	83.0	77.8	125.1	139.1	207.9	83.7	50.6	35.3	83.2	108.5	34.9	16.6	5.0	86.1	207.9	
2	4.2	0.9	11.4	5.3	12.7	57.1	35.4	2.4	1.5	0.8	49.4	78.7	60.5	55.0	60.0	60.8	40.0	19.9	18.6	7.4	5.6	12.9	1.2	4.8	25.3	78.7	
3	9.2	6.7	6.2	57.0	102.8	186.2	261.6	174.1	109.0	79.6	104.3	104.8	48.4	98.7	81.8	64.8	34.6	23.2	12.5	7.0	5.9	2.1	11.0	2.3	66.4	261.6	
4	36.9	372.9	124.1	34.5	12.6	19.4	39.3	153.3	85.6	78.9	74.5	64.1	53.4	108.9	70.2	65.5	73.6	57.9	48.2	36.1	9.8	24.4	38.5	22.7	71.1	372.9	
5	25.2	100.5	128.8	92.9	89.6	81.8	125.1	224.7	139.4	57.5	82.5	104.4	112.1	100.5	52.6	39.9	13.7	39.1	20.9	26.9	24.0	16.5	15.7	10.9	71.9	224.7	
6	11.2	11.3	10.2	5.0	5.8	2.8	2.4	1.8	0.7	1.2	4.7	4.1	6.8	4.6	8.0	8.1	3.8	2.3	1.9	1.4	1.1	0.7	0.9	0.8	4.2	11.3	
7	0.5	0.3	0.1	0.2	0.5	0.3	0.8	1.1	1.1	0.6	0.7	1.2	1.0	1.1	3.5	3.5	19.3	10.5	6.7	3.2	2.2	1.5	3.5	10.2	3.1	19.3	
8	9.6	6.7	9.4	8.0	6.7	7.5	41.0	52.3	61.5	66.9	36.0	32.6	33.9	50.0	38.4	42.1	39.3	24.0	14.2	23.7	27.4	18.9	47.9	32.5	30.4	66.9	
9	6.0	10.1	23.7	13.6	23.6	11.3	9.2	47.5	64.1	83.1	109.0	62.4	46.9	33.6	38.9	34.2	35.4	23.0	27.5	23.4	21.3	5.1	16.7	62.4	34.7	109.0	
10	58.1	48.6	131.8	187.8	76.7	34.3	63.6	106.7	97.3	74.8	98.3	68.9	71.4	40.8	37.9	73.0	43.9	35.3	53.7	37.9	32.9	110.7	24.7	41.5	68.8	187.8	
11	31.8	36.9	28.4	43.9	33.8	47.6	107.4	136.9	106.3	72.0	63.3	74.3	71.8	174.2	157.4	39.6	29.4	13.1	46.2	23.5	19.1	20.1	17.0	16.3	58.8	174.2	
12	13.1	11.9	10.5	8.4	11.2	12.4	20.4	36.4	71.2	42.1	35.8	36.2	23.2	29.1	23.4	17.5	21.1	16.9	15.9	15.7	13.9	13.2	9.1	9.4	21.6	71.2	
13	9.5	9.3	9.8	22.5	36.0	49.1	61.9	58.9	60.0	76.0	77.6	29.1	25.2	20.5	20.8	20.9	23.6	15.8	15.6	15.3	15.6	16.9	18.6	17.0	30.2	77.6	
14	20.1	29.8	31.9	32.1	26.3	24.7	21.2	22.2	17.1	17.2	13.8	22.2	47.5	60.4	70.7	43.5	46.5	29.1	16.4	15.4	16.1	14.9	10.7	10.8	27.5	70.7	
15	10.2	11.6	12.1	14.0	17.8	25.8	35.4	35.3	34.3	32.0	33.7	47.4	82.6	62.3	67.5	50.6	35.8	18.0	23.7	18.7	21.2	20.4	20.7	19.5	31.3	82.6	
16	20.1	23.3	22.6	25.2	34.5	52.8	47.5	60.0	44.8	56.2	87.6	190.2	147.2	117.4	108.4	93.6	91.0	61.7	94.5	52.2	43.8	36.9	35.0	31.1	65.7	190.2	
17	34.7	44.0	47.6	59.0	63.5	47.0	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-	
18	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
19	K	K	K	K	K	K	158.9	180.8	58.6	51.3	61.7	68.3	63.0	42.0	44.5	52.5	46.3	39.1	38.6	30.7	29.1	26.3	23.6	26.3	57.9	180.8	
20	24.1	16.3	28.2	109.4	43.2	26.1	55.5	76.0	104.9	17.3	18.7	9.6	12.2	14.9	12.4	15.0	8.6	7.8	8.3	5.3	8.8	7.2	15.0	3.9	27.0	109.4	
21	4.4	6.2	7.5	6.9	14.4	18.9	55.3	83.6	77.4	146.0	163.9	106.6	48.3	13.0	17.4	17.7	18.4	20.5	8.7	29.5	27.6	35.2	29.2	29.9	41.1	163.9	
22	29.2	20.3	15.0	14.8	17.2	11.7	14.1	30.7	40.4	45.1	92.5	80.8	56.9	49.8	46.6	32.3	39.8	21.8	34.1	26.6	25.6	30.6	73.9	62.4	38.0	92.5	
23	102.2	107.6	70.5	68.7	123.2	56.8	36.1	94.0	154.6	149.2	211.8	138.3	55.9	127.5	236.1	70.8	34.3	50.2	271.3	481.5	98.1	138.1	103.6	23.5	125.2	481.5	
24	26.0	17.1	22.5	22.1	7.4	11.5	9.5	37.2	42.3	80.5	45.3	43.5	28.0	32.4	26.9	39.5	32.3	9.6	16.9	2.9	4.0	1.9	1.2	1.9	23.4	80.5	
25	1.1	2.2	0.4	1.7	1.1	3.5	18.3	73.9	129.4	50.7	91.8	135.5	111.9	57.3	47.8	31.6	8.2	3.7	2.1	2.3	0.9	0.9	2.5	0.6	32.5	135.5	
26	0.4	0.4	0.7	0.6	5.6	0.6	8.4	16.8	17.8	15.8	37.5	45.3	28.9	31.9	15.1	63.2	3.0	4.9	2.0	12.6	0.9	0.8	1.0	8.3	13.4	63.2	
27	111.3	98.9	171.7	104.2	71.6	103.7	139.6	100.5	166.9	30.1	11.4	7.9	5.4	5.1	5.3	2.5	2.1	3.7	1.3	1.6	1.1	6.2	2.5	5.6	48.3	171.7	
28	15.4	5.6	17.1	44.8	17.4	8.9	12.3	73.3	48.2	53.7	14.4	21.7	25.0	32.3	35.6	35.1	48.0	68.5	31.2	71.2	9.9	20.0	10.2	0.9	30.0	73.3	
29	0.9	1.0	1.0	3.5	20.7	17.0	14.3	33.5	50.1	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	-	-	
30	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	-	-
NO.	27	27	27	27	27	27	27	27	27	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	633	93%	
MEAN	26.6	40.2	38.2	37.7	34.0	35.8	55.7	77.2	71.5	56.7	66.2	63.9	51.7	57.2	56.4	47.1	33.7	25.8	33.3	40.6	22.1	23.7	21.2	17.7			
MAX	111.3	372.9	171.7	187.8	123.2	186.2	261.6	224.7	166.9	149.2	211.8	190.2	147.2	174.2	236.1	207.9	91.0	68.5	271.3	481.5	108.5	138.1	103.6	62.4			



Number of Non-Zero Readings	633
Maximum 1-HR Average	481.5 UG/M3
Maximum 24-HR Average	125.2 UG/M3
Operational Time	672 HRS
Monthly Calibration	39
Operational Uptime	93.3 %
Standard Deviation	48.54
Monthly Average	43.1 UG/M3

# Entrance TSP ( $\mu\text{g}/\text{m}^3$ ) – September 2020

Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	333.9	281.4	289.3	94.6	120.3	119.2	320.9	418.4	350.5	250.9	316.9	277.0	232.3	381.4	457.5	697.3	245.4	157.6	111.3	245.7	292.5	104.0	38.4	10.2	256.1	697.3
2	12.2	0.9	24.9	9.4	34.2	149.8	78.5	1.7	1.0	0.7	148.8	251.3	173.6	131.4	149.2	149.0	86.1	47.5	44.8	9.5	13.1	12.2	0.9	5.0	64.0	251.3
3	9.7	6.6	6.3	77.8	193.6	347.4	426.3	321.4	215.8	218.7	307.9	320.3	134.9	294.8	236.7	180.1	93.2	54.4	31.1	16.5	11.8	3.6	17.0	2.3	147.0	426.3
4	37.3	339.6	116.9	51.9	13.7	21.4	44.9	245.1	187.4	140.7	188.2	138.0	134.1	291.7	157.6	135.2	121.8	108.9	68.6	51.6	9.3	41.3	50.2	27.8	113.5	339.6
5	32.8	157.3	244.0	175.0	183.5	112.3	302.5	441.0	310.5	122.2	168.0	193.2	276.8	240.1	120.7	63.4	14.7	148.9	40.8	55.5	34.6	22.2	25.6	12.2	145.7	441.0
6	15.0	16.5	15.3	5.8	25.4	2.6	1.8	1.4	0.5	0.9	6.8	7.1	15.0	11.2	13.5	22.9	6.9	1.6	1.3	0.9	0.7	0.5	0.6	0.5	7.3	25.4
7	0.5	0.2	0.1	0.1	0.4	0.2	0.5	0.7	0.7	0.4	0.5	0.8	0.7	0.9	10.9	38.0	45.6	16.7	8.0	2.4	1.7	1.0	2.8	9.4	6.0	45.6
8	9.2	6.7	10.0	8.7	7.2	8.2	148.3	139.8	160.3	158.5	124.5	83.8	98.9	132.7	101.1	90.8	72.1	50.6	29.0	24.4	28.9	21.5	50.6	37.6	66.8	160.3
9	8.2	11.1	31.2	22.6	34.4	15.9	9.8	115.8	179.2	256.3	305.6	115.1	85.5	75.4	87.9	47.9	81.9	46.1	43.0	25.4	23.1	6.7	27.5	71.4	72.0	305.6
10	57.4	63.4	140.9	523.9	121.6	54.1	95.0	301.4	273.6	157.8	162.0	149.1	152.8	66.9	66.9	121.6	83.1	56.4	71.2	70.1	59.5	239.6	45.9	72.0	133.6	523.9
11	64.0	69.1	67.8	79.5	69.6	75.8	150.8	181.6	131.0	102.8	88.0	105.5	126.2	400.1	355.0	74.1	65.3	14.4	153.0	66.4	34.5	33.3	25.8	19.7	106.4	400.1
12	16.6	17.8	13.1	6.6	9.7	11.0	20.3	39.1	84.5	47.8	44.2	69.9	63.8	76.9	61.5	30.9	40.2	31.6	20.8	25.3	13.3	10.6	7.5	8.9	32.2	84.5
13	9.7	9.4	10.2	23.1	35.7	53.7	69.1	65.2	67.2	94.7	88.6	25.9	51.8	28.6	37.7	39.7	57.8	22.8	17.3	10.8	10.9	11.9	13.5	11.6	36.1	94.7
14	13.5	20.3	21.6	22.8	19.9	19.3	18.1	18.5	12.8	14.0	11.4	27.5	124.9	160.8	201.5	97.0	111.5	60.6	12.2	11.1	11.5	10.0	7.0	7.1	43.1	201.5
15	6.7	7.7	8.3	10.6	13.2	22.3	31.5	30.0	29.3	28.2	32.3	49.6	210.0	135.7	193.3	113.9	83.9	13.9	19.7	13.4	14.5	13.6	13.6	12.6	46.2	210.0
16	13.0	16.9	15.0	17.9	31.2	55.7	47.5	64.8	50.6	66.5	157.7	288.2	240.5	273.2	195.3	201.2	157.2	90.3	126.2	72.1	50.0	29.0	27.2	24.1	96.3	288.2
17	25.9	38.6	43.4	61.0	68.6	45.0	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
18	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
19	K	K	K	K	K	K	335.9	416.5	92.8	54.9	93.8	114.7	93.8	39.3	37.9	47.8	39.5	31.6	49.1	24.5	22.4	29.2	15.7	19.2	86.6	416.5
20	19.7	15.7	23.6	102.9	54.0	21.3	44.7	69.0	140.8	17.5	23.0	14.5	17.8	17.9	17.3	38.3	17.9	17.0	16.8	4.6	13.0	8.0	39.3	5.8	31.7	140.8
21	3.8	7.9	20.7	24.6	33.9	41.2	138.0	239.2	218.0	347.1	410.9	274.2	99.8	24.3	30.4	31.0	32.1	37.9	12.9	28.0	35.5	45.1	38.9	31.7	92.0	410.9
22	37.6	22.5	16.3	16.1	18.5	12.0	14.7	43.8	78.1	77.9	170.2	205.8	111.9	108.1	80.6	64.4	63.6	31.4	46.3	32.2	38.5	31.5	154.4	129.2	66.9	205.8
23	232.2	305.4	146.4	112.7	197.5	130.0	61.7	221.2	376.2	357.4	575.2	350.2	162.3	355.1	722.5	211.8	100.4	161.5	947.8	1191.4	401.8	558.9	386.6	71.1	347.4	1191.4
24	34.3	24.7	49.3	31.9	16.6	29.9	29.1	78.8	130.1	342.8	198.5	204.9	117.5	123.5	105.2	173.4	117.6	28.2	55.6	7.3	14.5	4.5	2.5	2.5	80.1	342.8
25	2.7	7.1	0.4	3.5	1.6	7.3	53.5	253.1	376.9	125.0	246.2	397.5	340.1	200.0	142.5	119.5	30.8	9.3	10.3	6.5	1.2	0.8	4.3	1.9	97.6	397.5
26	0.3	0.3	0.9	0.8	12.0	0.5	15.5	42.3	45.9	48.9	78.2	124.0	85.3	90.9	40.8	206.0	6.4	10.7	3.1	17.2	2.1	2.4	0.6	8.2	35.1	206.0
27	120.8	115.2	249.9	202.3	144.6	213.0	327.8	279.9	535.6	123.8	31.0	19.3	18.4	16.6	15.7	4.3	4.6	4.3	2.1	2.2	1.1	17.3	9.7	19.2	103.3	535.6
28	45.0	21.9	75.4	196.5	75.5	35.9	43.6	317.2	183.1	262.1	49.8	77.6	62.2	77.8	84.5	105.3	176.4	253.8	119.4	303.5	37.4	73.8	22.9	1.9	112.6	317.2
29	1.7	0.9	1.3	7.9	69.7	53.5	34.9	75.2	132.8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	-	-
30	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	-	-
NO.	27	27	27	27	27	27	27	27	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	633	93%
MEAN	43.1	58.7	60.8	70.0	59.5	61.4	106.1	163.8	161.7	131.5	154.9	149.4	124.3	144.4	143.2	119.4	75.2	58.0	79.3	89.2	45.3	51.2	39.6	24.0		
MAX	333.9	339.6	289.3	523.9	197.5	347.4	426.3	441.0	535.6	357.4	575.2	397.5	340.1	400.1	722.5	697.3	245.4	253.8	947.8	1191.4	401.8	558.9	386.6	129.2		



Number of 24HR Exceedences	9	Proposed Guideline
Number of Non-Zero Readings	633	
Maximum 1-HR Average	1191.4 UG/M3	
Maximum 24-HR Average	347.4 UG/M3	
Monthly Calibration	39	Operational Time
Standard Deviation	123.3	Operational Uptime
		Monthly Average
		672 HRS
		93.3 %
		92.2 UG/M3