

LAFARGE CANADA INC.

# AMBIENT AIR QUALITY MONTHLY REPORT

## JULY 2020

AUGUST 18, 2020



WSP



# AMBIENT AIR QUALITY MONTHLY REPORT

## JULY 2020

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-00  
DATE: AUGUST 18, 2020

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August 18, 2020

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

**Attention: Janet Brygger**

Dear Ms. Brygger

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

At the Lagoon station, the precipitation gauge, temperature sensor, and wind speed / wind direction analyzer recorded 100% uptime for the month of July. Further, the NO<sub>2</sub> and SO<sub>2</sub> analyzers both recorded 100% uptime for the month of July. The PM<sub>10</sub>, PM<sub>2.5</sub> and TSP analyzers recorded 99.7% uptime for the month of July due to two hours of power failure stemming from an electrical storm, which occurred on July 7th at 14:00 & 15:00.

There was no exceedance of the 24-hour TSP Alberta Ambient Air Quality Objective. Further, there was no exceedance of the 24-hour PM<sub>2.5</sub> AAAQOs, nor the 1-hour PM<sub>2.5</sub> AAAQG at the Lagoon monitoring location.

The Windridge station was taken out of operation beginning April 8<sup>th</sup>, 2019 as a result of construction work for flood mitigation along Exshaw Creek. The monitor at this station is expected to be re-installed sometime in 2020, after the completion of the construction and landscaping work.

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 all 3 monitors was as follows: 60.9% at the West GRIMM due 291 hours of power failure (due to work by Altalink replacing power poles in the area) from July 15<sup>th</sup> at 13:00 to July 27<sup>th</sup> at 15:00, 100% at the Entrance GRIMM, and 100% at the Berm GRIMM. The West GRIMM monitor recorded zero exceedances of the 24-hour TSP AAAQG, and zero exceedances of the 24-hour PM<sub>2.5</sub> AAAQG. The Berm GRIMM had 9 exceedances of the TSP guideline and zero exceedances of the PM<sub>2.5</sub> guideline. The Entrance GRIMM monitor recorded 10 and 0 exceedances for the 24-hour TSP AAAQG and 24-hour PM<sub>2.5</sub> AAAQG, 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.

Sincerely,

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WSP Canada Inc.

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Date

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August 18, 2020

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Tyler Abel, M.Sc.  
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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 July 1, 2020 and July 31, 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.

## 1.1 EXSHAW CREEK FLOOD MITIGATION

Due to flood mitigation construction at Exshaw creek (Figure 1-1), the Windridge monitor was taken out of operation and removed from the site on April 8, 2019. The monitoring station will be re-installed after the completion of construction and landscaping in 2020.



**Figure 1-1 Photo of Flood Mitigation Construction at Exshaw Creek**

# 2 JULY 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
NO <sub>2</sub> (ppb)	100.0	21.8	0	11.5	-
SO <sub>2</sub> (ppb)	100.0	18.0	0	5.5	0
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	99.7	45.3	0*	14.0	0
PM <sub>10</sub> (µg/m <sup>3</sup> )	99.7	179.4	-	52.3	-
TSP (µg/m <sup>3</sup> )	99.7	311.1	-	77.4	0
Temperature (°C)	100.0	31.8	-	22.9	-
Wind Speed (km/hr) /Direction (Degrees)	100.0	43.0/W	-	33.6/WSW	-
Precipitation (mm)	100.0	2.5*	-	12.25*	-

<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 no exceedances of the 24-hour PM<sub>2.5</sub> AAAQO.
- There was 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 precipitation gauge, temperature sensor, and wind speed / wind direction analyzer recorded 100% uptime for the month of July. Further, the NO<sub>2</sub> and SO<sub>2</sub> analyzers both recorded 100% uptime for the month of July. The PM<sub>10</sub>, PM<sub>2.5</sub> and TSP analyzers recorded 99.7% uptime for the month of July due to

two hours of power failure, which occurred on July 7<sup>th</sup> at 14:00 & 15:00.

## 2.2 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 2-2** 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> ( $\mu\text{g}/\text{m}^3$ )	60.9	22.8	0*	14.7	0
PM <sub>10</sub> ( $\mu\text{g}/\text{m}^3$ )	60.9	32.1	-	19.7	-
TSP ( $\mu\text{g}/\text{m}^3$ )	60.9	85.2	-	15.9	0

\* Any exceedances reported for 1-hour PM<sub>2.5</sub> are over the guideline level (AAAQG) of 80  $\mu\text{g}/\text{m}^3$ .

### 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 West GRIMM had 60.9% data completeness for the month of July due to 291 hours of power failure, stemming from AltaLink work surrounding the monitoring station, occurring on July 15<sup>th</sup> at 13:00 to July 27<sup>th</sup> at 15:00.

## 2.3 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 2-3** 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> ( $\mu\text{g}/\text{m}^3$ )	100.0	42.8	0*	15.2	0
PM <sub>10</sub> ( $\mu\text{g}/\text{m}^3$ )	100.0	271.6	-	98.0	-
TSP ( $\mu\text{g}/\text{m}^3$ )	100.0	799.4	-	289.3	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 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 9 days exceeding the 24-hour TSP AAAQG.

#### Calibration/Maintenance Notes:

- The Berm GRIMM had 100% data completeness for the month of July.

## 2.4 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 2-4      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> )	100.0	53.5	0*	20.4	0
PM <sub>10</sub> (µg/m <sup>3</sup> )	100.0	437.6	-	138.9	-
TSP (µg/m <sup>3</sup> )	100.0	951.8	-	234.0	10

\* 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 10 days exceeding the 24-hour TSP AAAQG.

#### Calibration/Maintenance Notes:

- The Entrance GRIMM had 100% data completeness for the month of July.

# 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 (Table 3-1), a data summary table (Table 3-2), site visit notes, a wind rose (Figure 3-2) and tables and graphs illustrating the monitoring results for July 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 Station**

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 July 2 <sup>nd</sup> , the monitor had 99.7% uptime in July due to two hours of power failure, which occurred on July 7th at 14:00 & 15:00.
<b>PM<sub>10</sub> Concentrations</b>	MetOne BAM-1020 Continuous Particulate Monitor	The PM <sub>10</sub> monitor was calibrated July 2 <sup>nd</sup> , the monitor had 99.7% uptime in July due to two hours of power failure, which occurred on July 7th at 14:00 & 15:00.
<b>TSP Concentrations</b>	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated July 2 <sup>nd</sup> , the monitor had 99.7% uptime in July due to two hours of power failure, which occurred on July 7th at 14:00 & 15:00.
<b>Oxides of Nitrogen</b>	TEI 42C	The NO <sub>x</sub> monitor was calibrated on July 21 <sup>st</sup> . The monitor had 100% uptime for the month of July.
<b>Sulphur Dioxide</b>	Teledyne API 102A	The SO <sub>2</sub> monitor was calibrated on July 21 <sup>st</sup> . The monitor had 100% uptime for the month of July.
<b>Precipitation</b>	MetOne 130 Rain/Snow Gauge	The monitor had 100% uptime in July
<b>Wind Speed</b>	MetOne Wind Sensor	The monitor had 100% uptime for the month of July.
<b>Wind Direction</b>		
<b>Ambient Temperature</b>	MetOne Ambient Temperature Sensor	The monitor had 100% uptime for the month of July.



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 the month of July 2020. The wind rose indicates that the winds predominantly came from the west direction, with lighter prevailing wind from the north-northwest, south-southwest, and east directions.

Table 3-2 summarizes the hourly, daily, and monthly concentrations recorded in July 2020.

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 July 2020 for the pollutants listed in Table 3-2. 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. Further, there were no exceedances of the 24-hour PM<sub>2.5</sub> (29 µg/m<sup>3</sup>) AAAQO, nor the 1-hour PM<sub>2.5</sub> AAAQG (80 µg/m<sup>3</sup>). The highest PM<sub>2.5</sub> concentrations recorded during the month were likely, based on wind direction and a corresponding rise in NOx emissions, not attributable to Lafarge operations and could be from industrial emissions to the east.

Historically in July, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM<sub>2.5</sub> AAAQO exceedances is zero, respectively.

**Table 3-2      Summary of July 2020 data at Lagoon**

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	-	0.2	6.2	21.8	28	23	3.6	252.2	11.5	28	100.0
<b>SO<sub>2</sub> (ppb)</b>	172	48	Lagoon	0	0	0.0	1.8	18.0	28	13	11.2	287.6	5.5	28	100.0
<b>PM<sub>2.5</sub> (µg/m<sup>3</sup>)</b>	80	29	Lagoon	0	0	0.0	4.7	45.3	2	8	28.1	263.2	14.0	30	99.7
<b>PM<sub>10</sub> (µg/m<sup>3</sup>)</b>	-	-	Lagoon	-	-	0.0	24.6	179.4	30	20	10.0	83.2	52.3	30	99.7
<b>TSP (µg/m<sup>3</sup>)</b>	-	100	Lagoon	-	0	0.0	36.1	311.1	30	20	10.0	83.2	77.4	30	99.7
<b>Temperature (°C)</b>	-	-	Lagoon	-	-	6.7	16.9	31.8	28	17	13.0	283.3	22.9	28	100.0
<b>Wind Speed (km/hr)/Direction (degrees)</b>	-	-	Lagoon	-	-	1.7	15.3	43.0/W	2	20	43.0	254.3	33.6/WSW	2	100.0
<b>Precipitation (mm)</b>	-	-	Lagoon	-	-	0.0	0.0	2.5	21	13	13.2	258.8	12.3	-	100.0

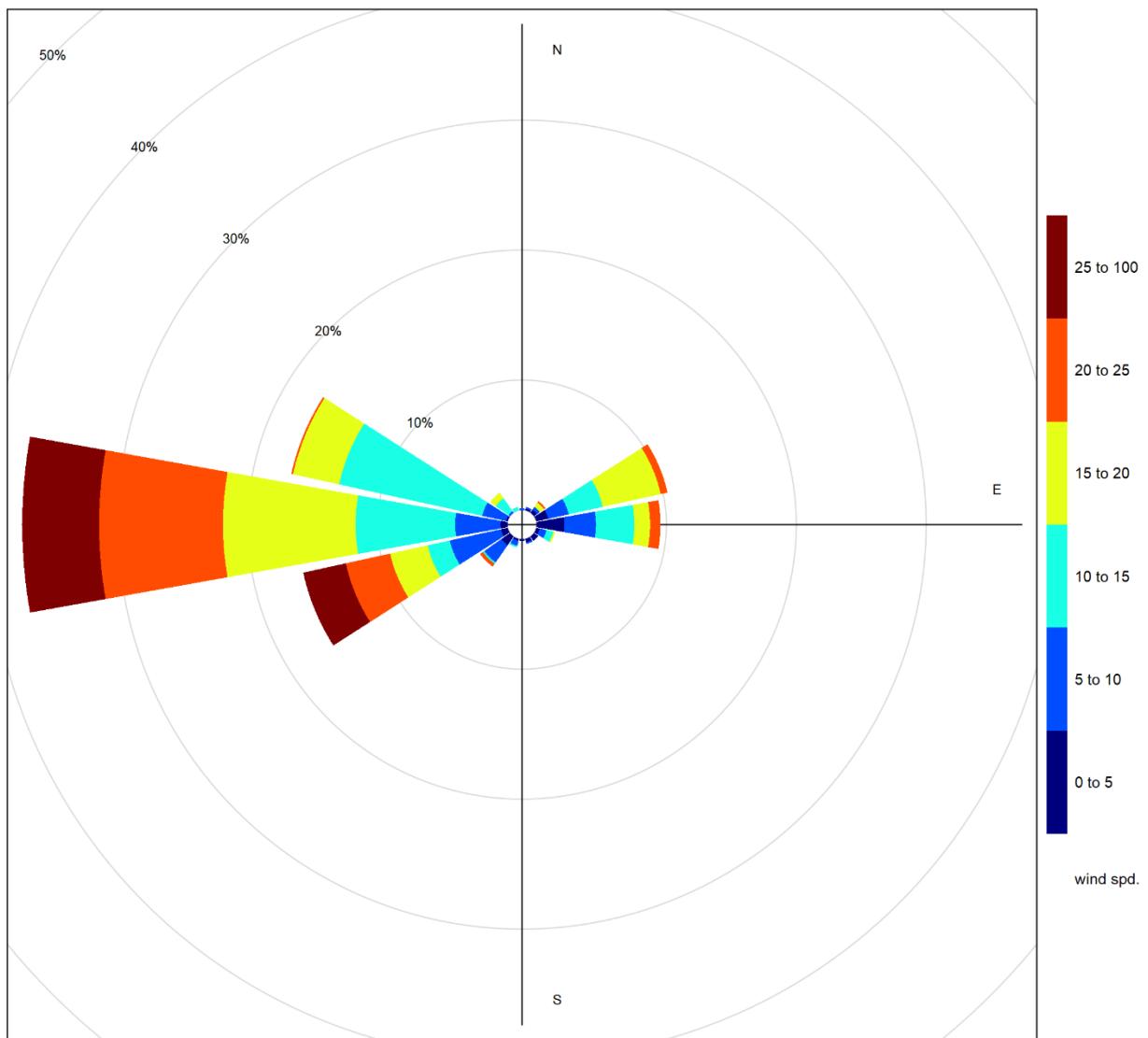
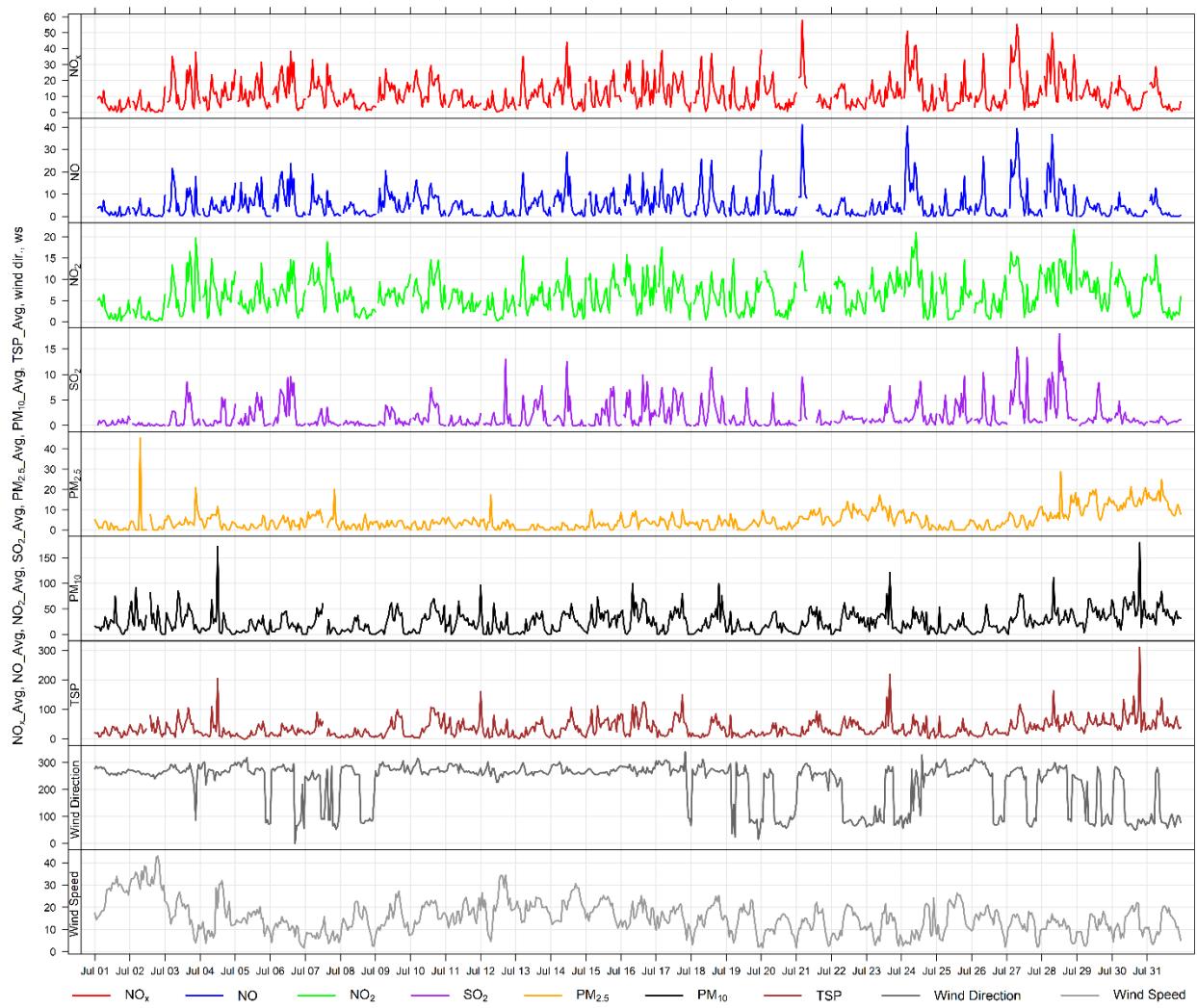


Figure 3-2      July 2020 wind rose from the Lagoon Station



**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**

### Histogram of Hourly NO<sub>2</sub> Readings

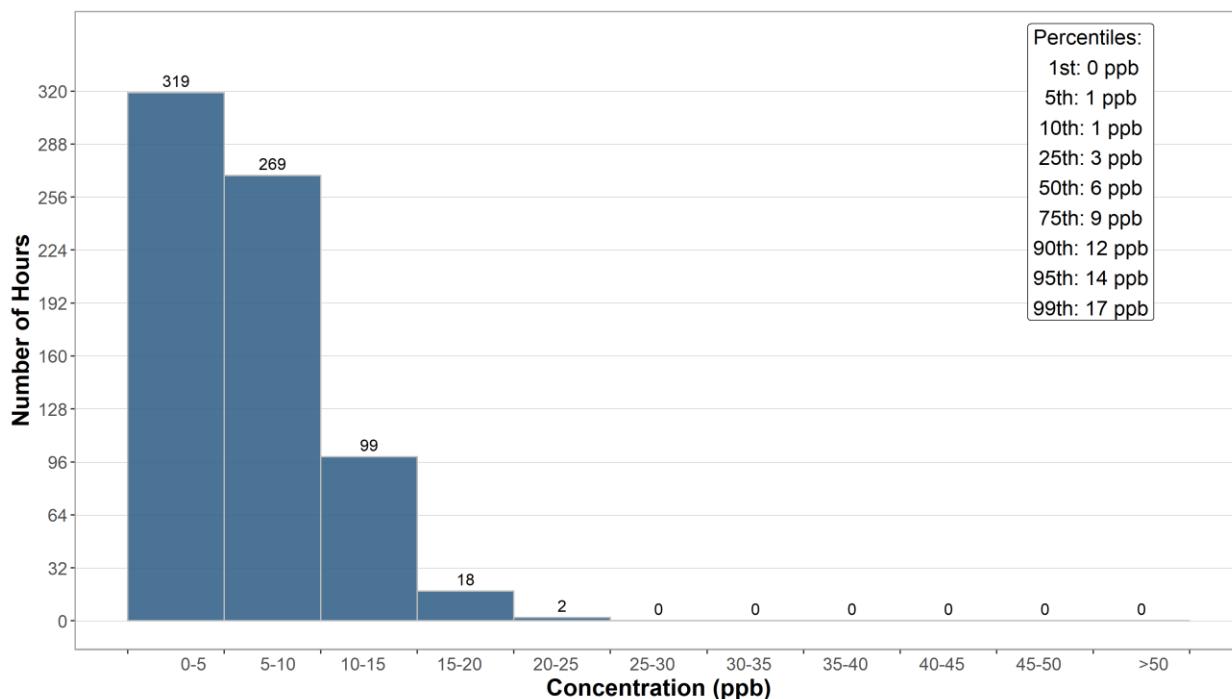


Figure 3-4      Histogram of hourly NO<sub>2</sub> concentrations at the Lagoon station

### Histogram of Hourly SO<sub>2</sub> Readings

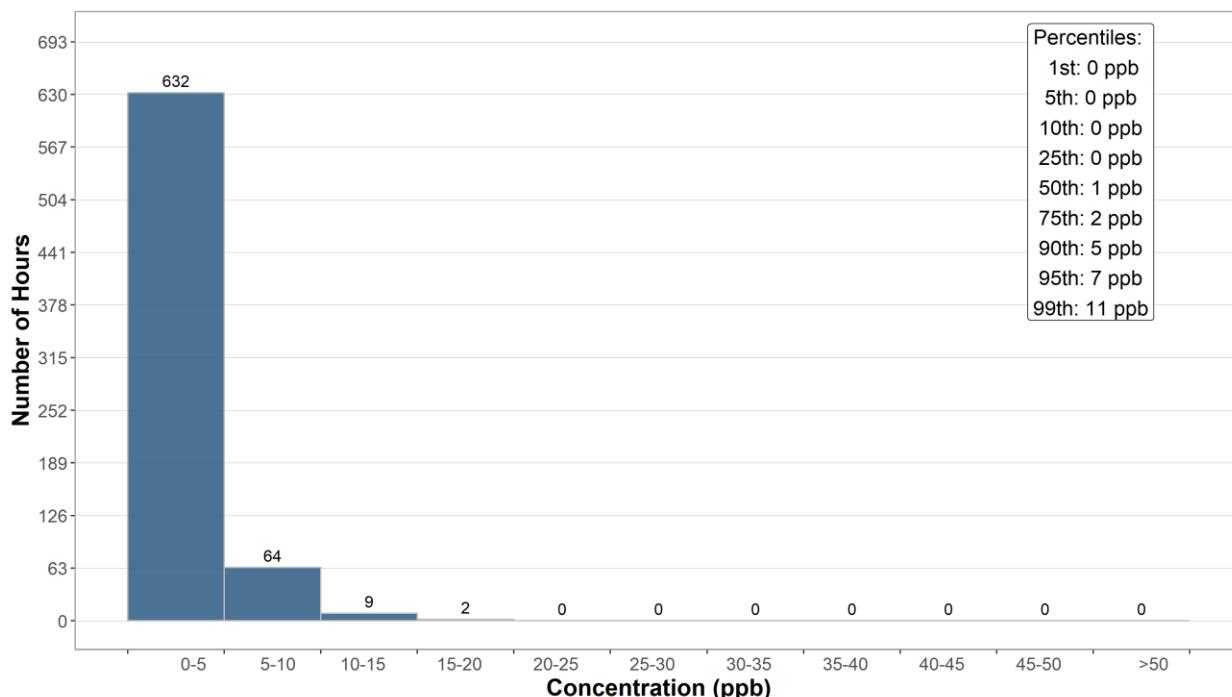


Figure 3-5      Histogram of hourly SO<sub>2</sub> concentrations at the Lagoon station

### Histogram of Hourly PM<sub>2.5</sub> Readings

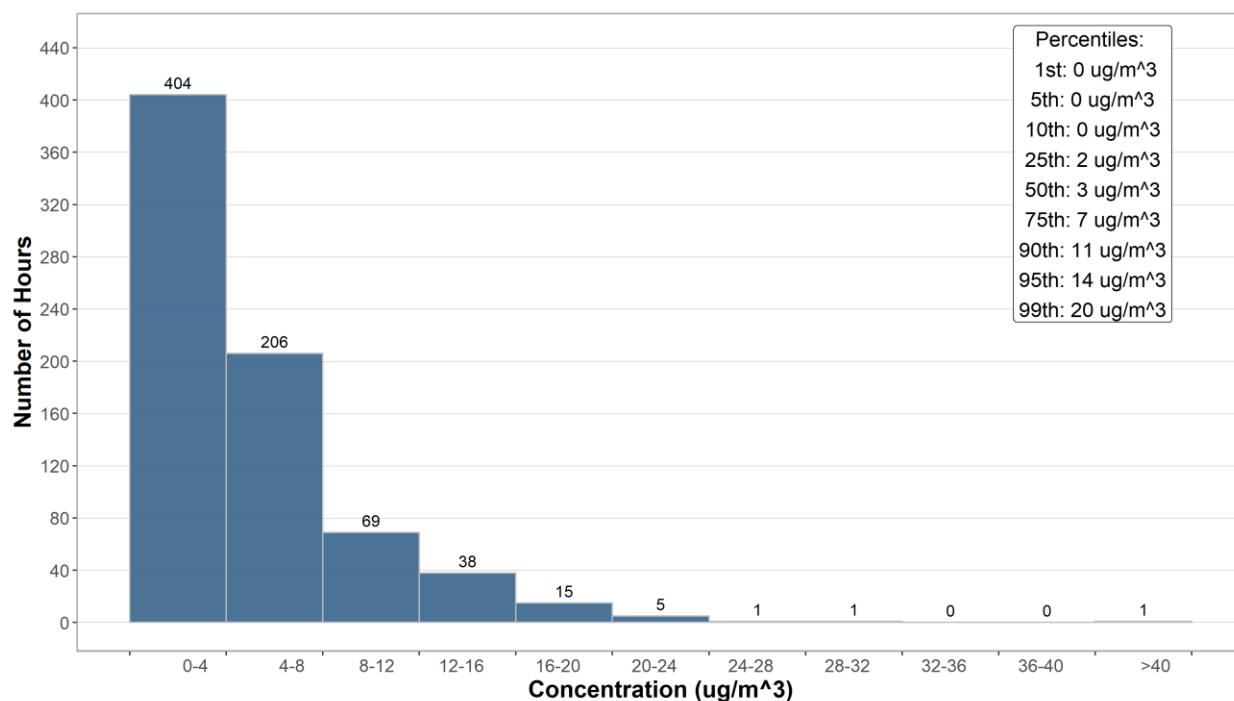


Figure 3-6 Histogram of hourly PM<sub>2.5</sub> concentrations at the Lagoon station

### Histogram of Hourly PM<sub>10</sub> Readings

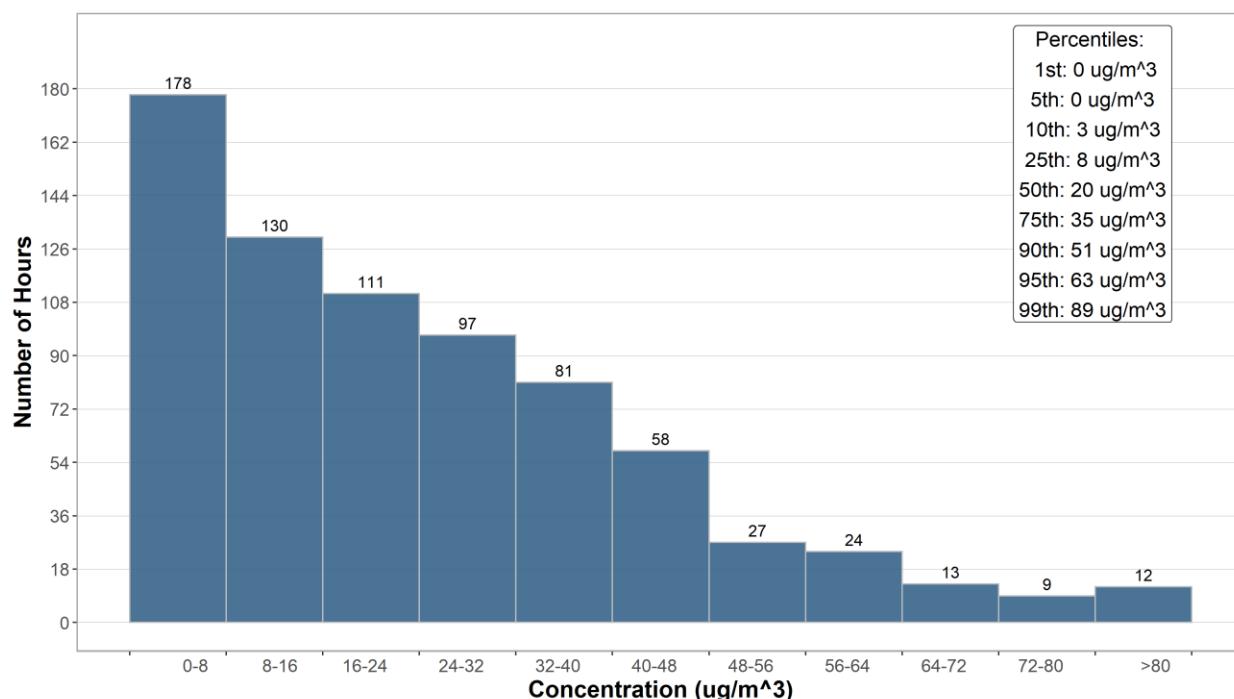


Figure 3-7 Histogram of hourly PM<sub>10</sub> concentrations at the Lagoon station

### Histogram of Hourly TSP Readings

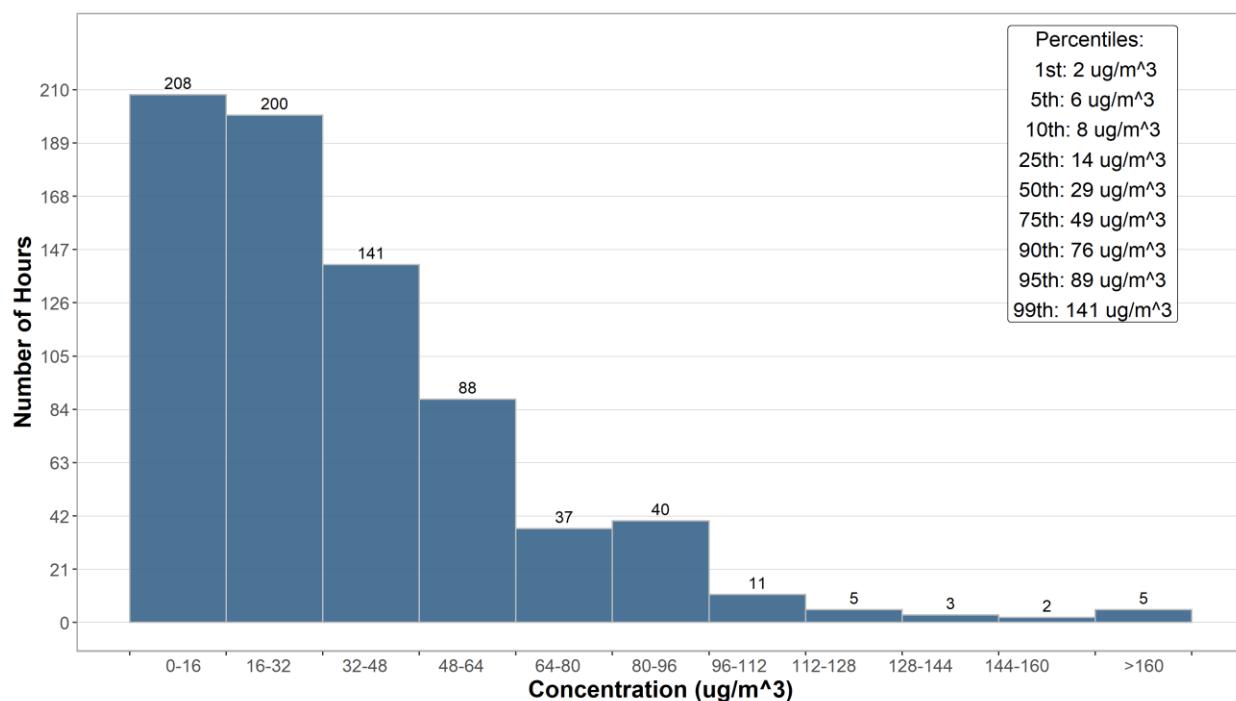
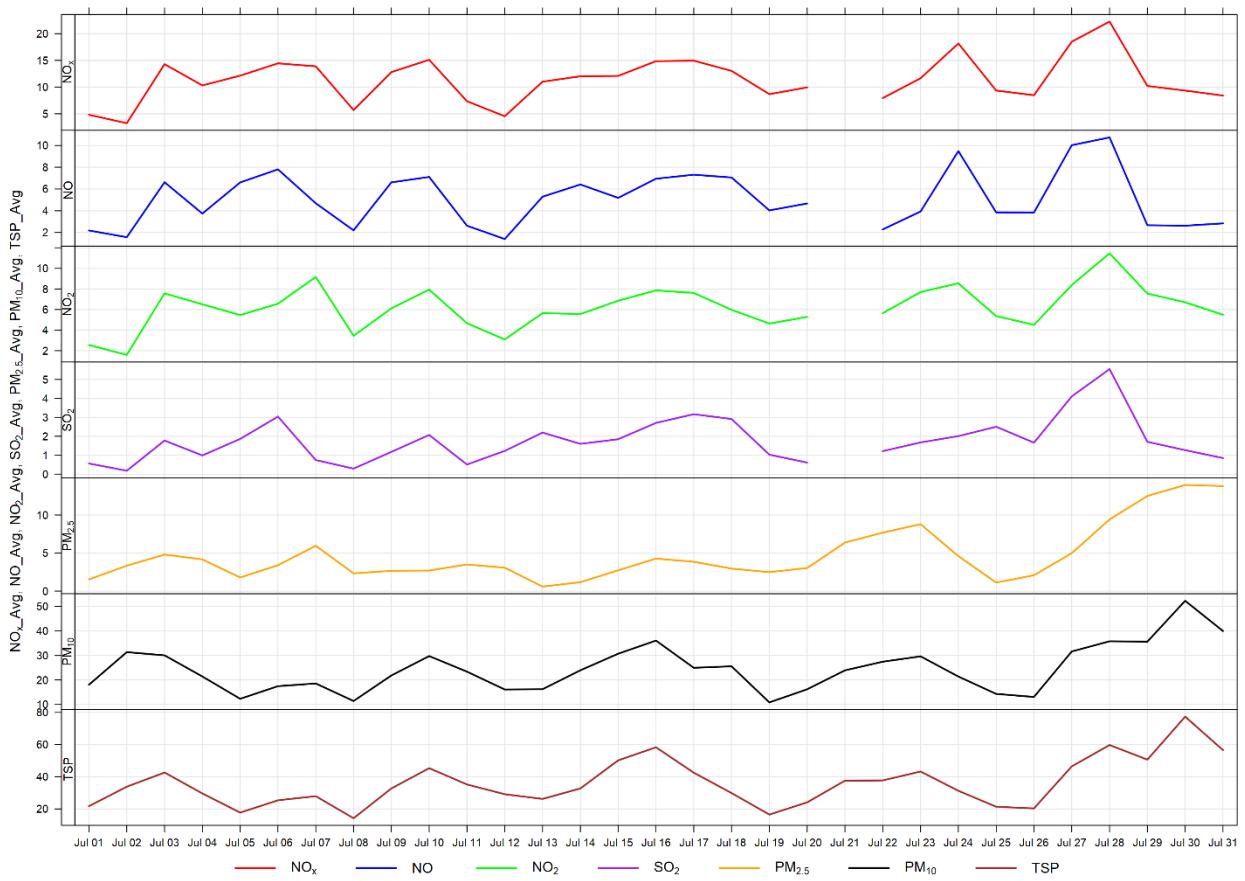


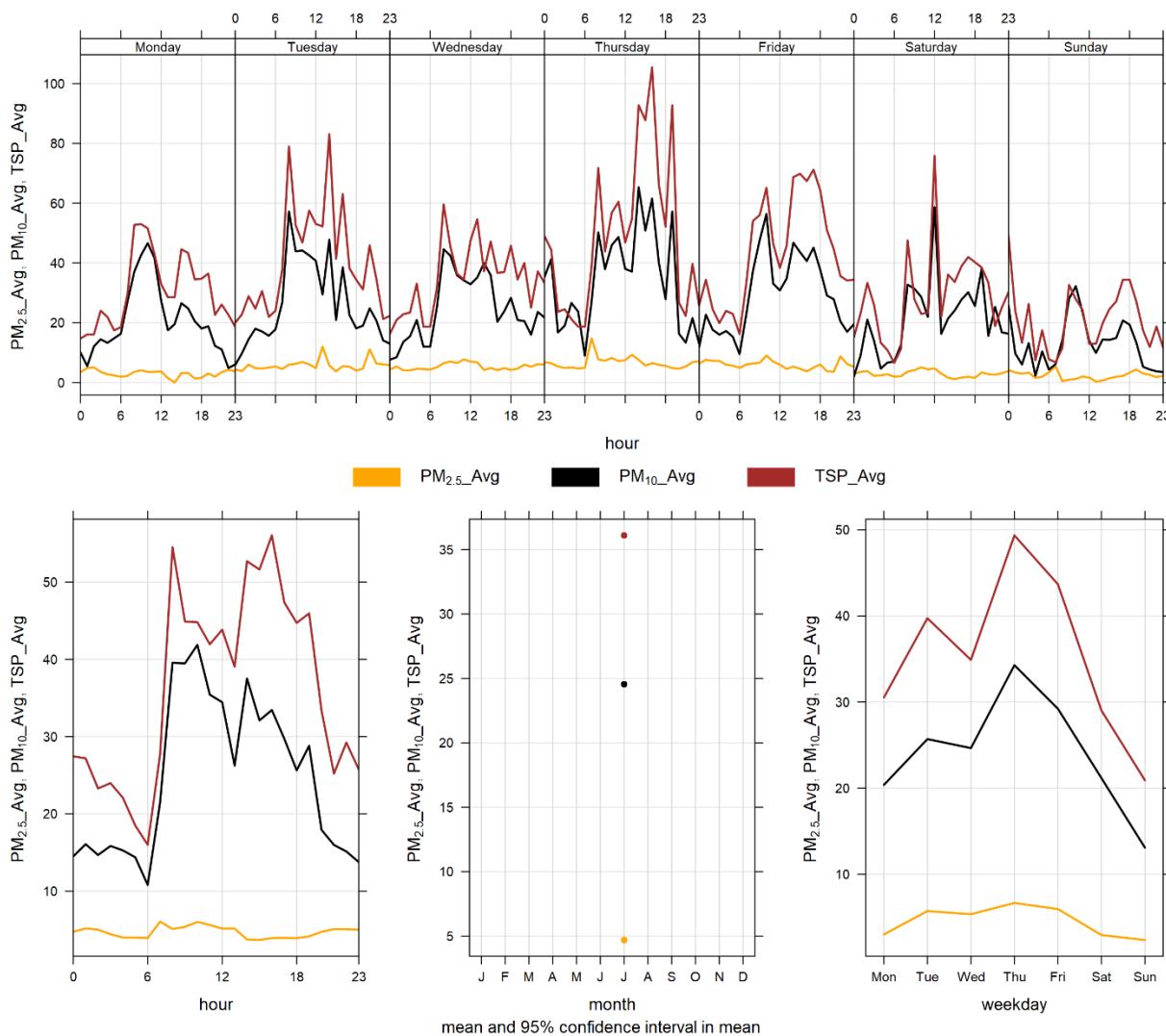
Figure 3-8     Histogram of hourly TSP concentrations at the Lagoon station



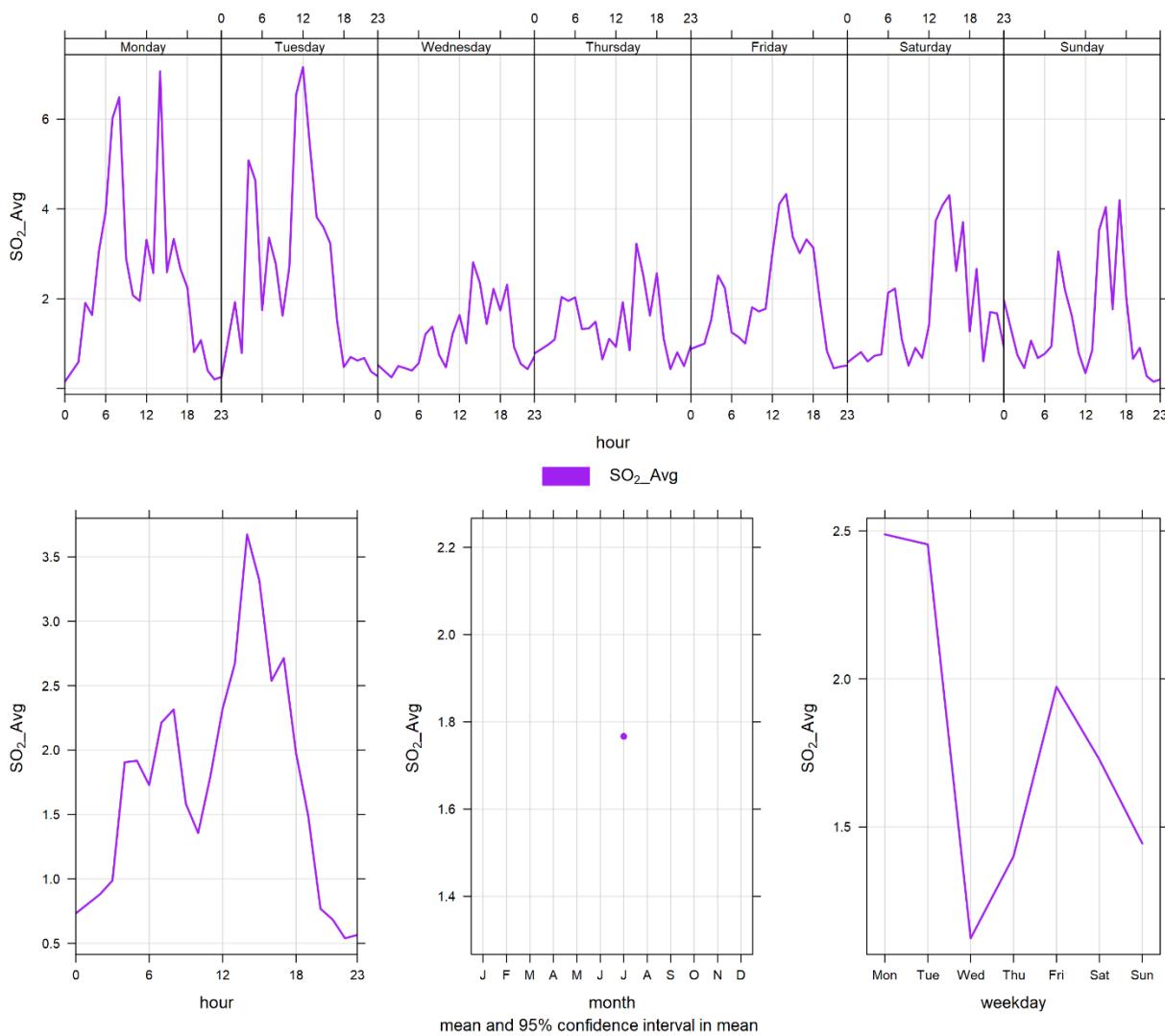
**Figure 3-9      24-hour concentrations of NO<sub>x</sub>, SO<sub>2</sub>, and particulate matter at the Lagoon monitor**

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.

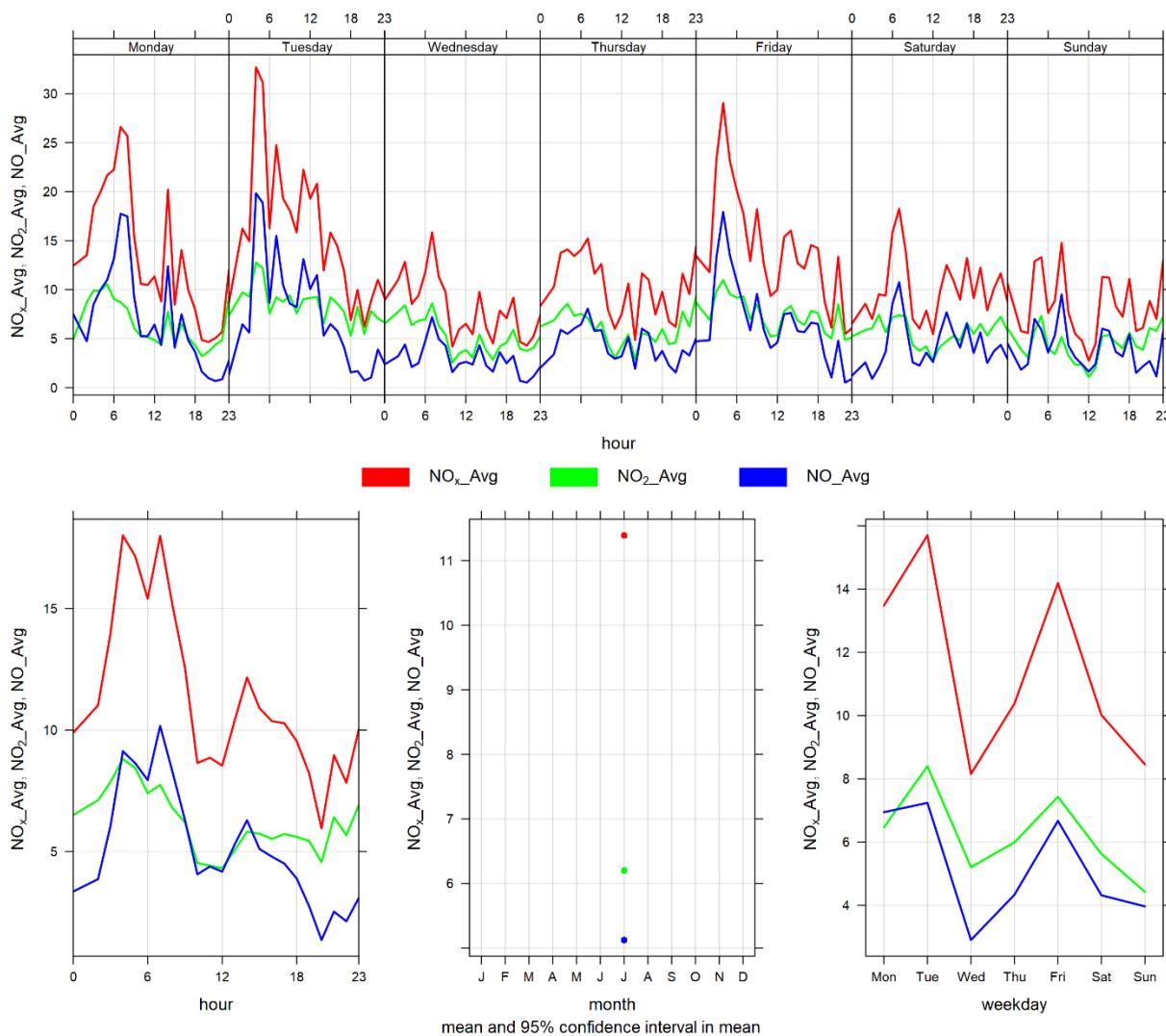
Figure 3-11 shows the variation of SO<sub>2</sub> over various time periods. SO<sub>2</sub> concentrations patterns are dependent on the timing of the highest SO<sub>2</sub> concentrations recorded in the month because in general SO<sub>2</sub> concentrations are very low. Figure 3-12 shows the variation 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  $\text{SO}_2$  time variation**



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

# 4 WEST INDUSTRIAL GRIMM

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## 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 West monitoring location**

Parameter Measured	Equipment Description	Notes
<b>PM<sub>2.5</sub>, PM<sub>10</sub>, TSP Concentrations</b>	GRIMM 365 Continuous Particulate Monitor	The West GRIMM monitor had 60.9% data completeness for the month of July 2020 due to 291 hours of power failure, stemming from AltaLink replacing power poles surrounding the monitoring station, occurring on July 15 <sup>th</sup> at 13:00 to July 27 <sup>th</sup> at 15:00.

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## 4.2 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 4-2 summarizes the monthly concentrations, and 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.

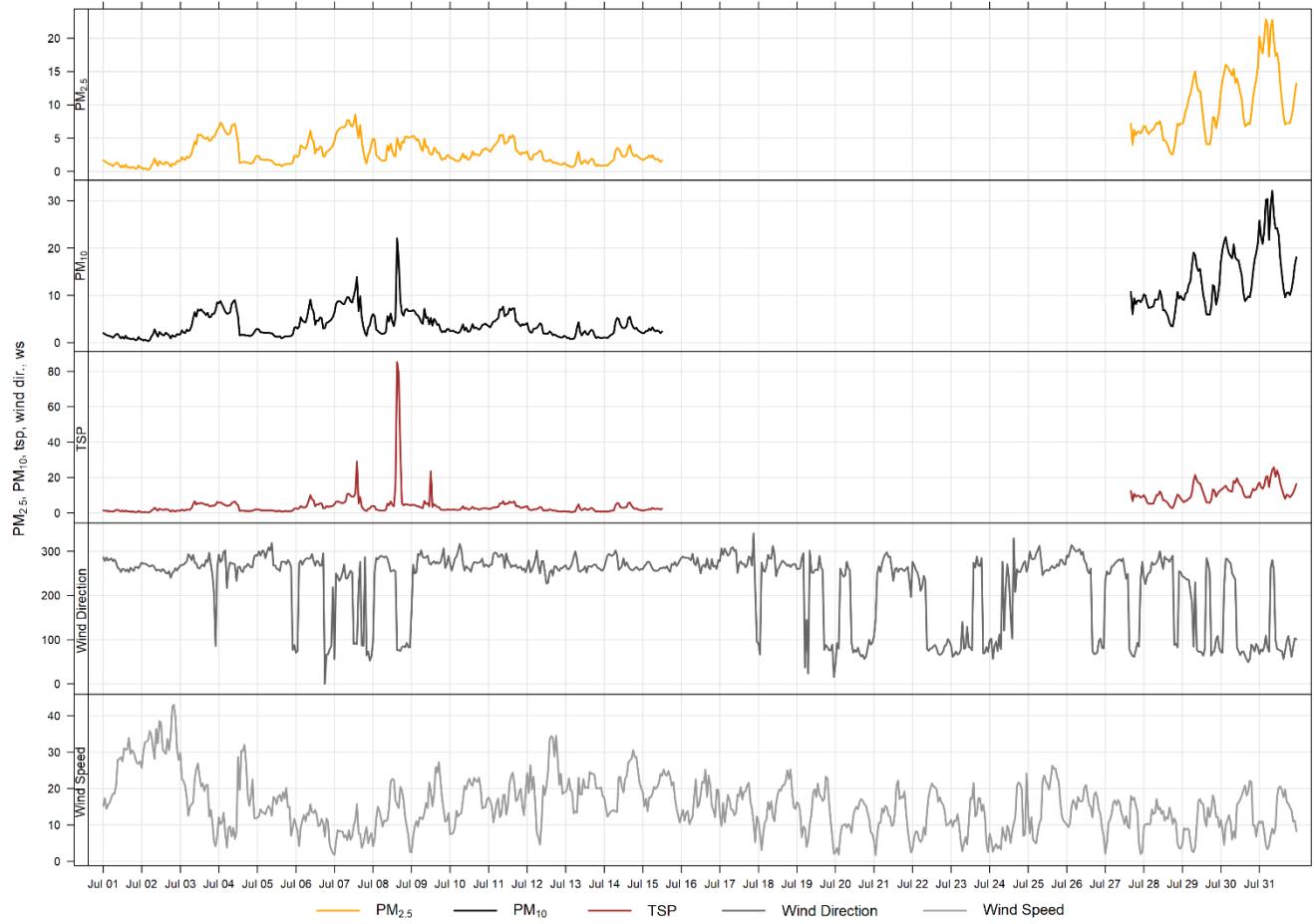
Figure 4-1 and Figure 4-2 show the hourly and daily PM<sub>2.5</sub>, PM<sub>10</sub> and TSP concentrations recorded over the month.

There were no exceedances of the 24-hour TSP guideline (100 µg/m<sup>3</sup>). Further, there was no exceedance of the 24-hour PM<sub>2.5</sub> guideline (29 µg/m<sup>3</sup>).

Historically in July, the average number of 24-hour TSP AAAQG exceedances and 24-hour PM<sub>2.5</sub> AAAQG exceedances are zero and one. The maximum number of 24-hour AAAQG exceedances was 1 day in 2010 and 2014 for TSP, and 7 days in 2017 for PM<sub>2.5</sub>.

**Table 4-2      Summary of July 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	
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	29	West	0	0	0.3	4.5	22.8	31	4	4.5	109.1	14.7	31	60.9
PM <sub>10</sub> (µg/m <sup>3</sup> )	-	-	West	-	-	0.3	6.0	32.1	31	8	9.0	280.2	19.7	31	60.9
TSP (µg/m <sup>3</sup> )	-	100	West	-	0	0.3	5.5	85.2	8	15	15.7	76.7	15.9	31	60.9

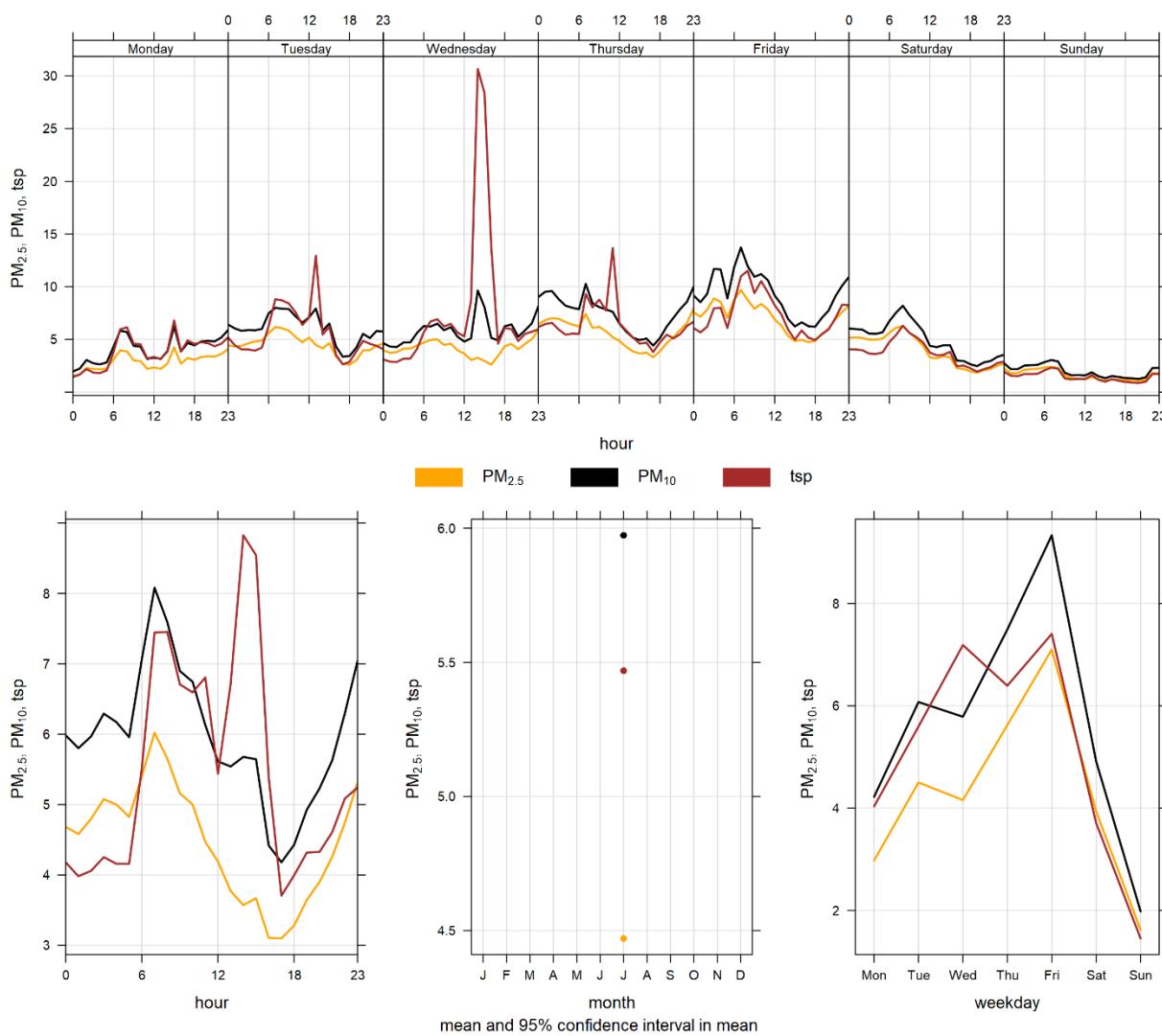


**Figure 4-1      1-hour particulate matter concentrations at the West monitor**



**Figure 4-2 24-hour particulate matter concentrations at the West monitor**

Figure 4-3 below 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 4-3 is based on data collected during July 2020. 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. July 2020 is limited to 60.9% completion percentage as AltaLink was completing pole work surrounding the West monitoring location.



**Figure 4-3**      **West particulate matter time variation**

# 5 BERM INDUSTRIAL GRIMM

## 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 Berm monitoring location**

Parameter Measured	Equipment Description	Notes
<b>PM<sub>2.5</sub>, PM<sub>10</sub>, TSP Concentrations</b>	GRIMM 365 Continuous Particulate Monitor	The Berm GRIMM monitor had 100% data completeness for the month of July.

## 5.2 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 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. Table 5-2 summarizes the monthly concentrations, and the maximum 1-hour and 24-hour PM concentrations recorded during the month, and Table 5-3 summarizes the 9 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 9 and 0 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.

Historically during the month of July, the Berm monitor records an average of 11 and 0 exceedances of the 24-hour TSP and PM<sub>2.5</sub> guidelines, respectively. The maximum number of TSP exceedances recorded during July occurred in 2010 where there were 22 days that exceeded the guideline. On the other hand, the maximum number of PM<sub>2.5</sub> exceedances in June was 6 day 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).

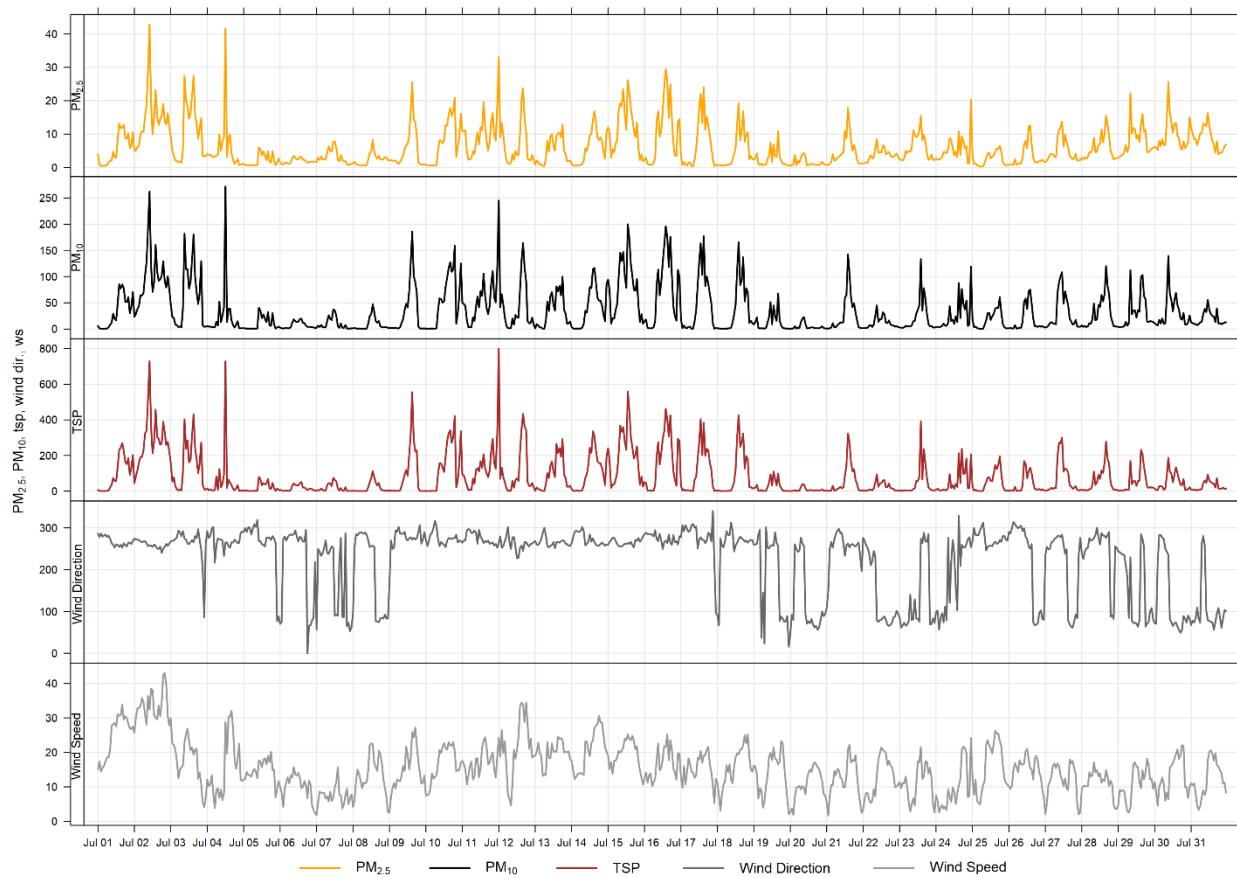
The Berm monitor is located along a ridge at the edge of the Lafarge property and is in an area where on-site trucks drive through site, which can create fugitive dust. Quarry blasting also has the potential to impact short term PM immediately following a blast.

**Table 5-2      Summary of July 2020 data at the Berm GRIMM**

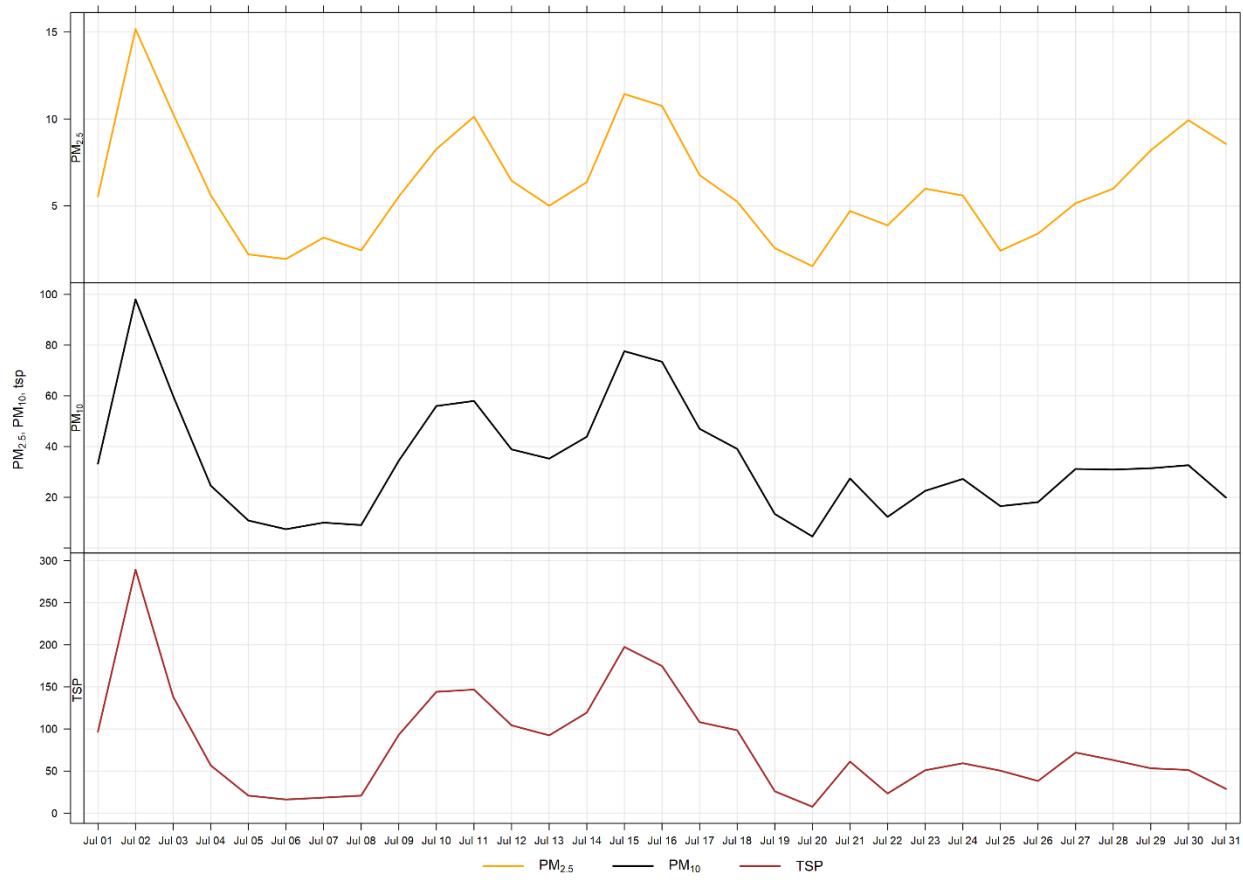
Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	29	Berm	0	0	0.2	6.1	42.8	2	10	32.4	258.4	15.2	2	100.0
PM <sub>10</sub> (µg/m <sup>3</sup> )	-	-	Berm	-	-	0.3	33.7	271.6	4	12	28.7	264.6	98.0	2	100.0
TSP (µg/m <sup>3</sup> )	-	100	Berm	-	9	0.2	81.3	799.4	11	24	24.2	264.2	289.3	2	100.0

**Table 5-3 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>Entrance</b>						
<b>2020-07-02</b>	289.3	-	259.6	33.6	44.6	High wind event
<b>2020-07-03</b>	138.3	-	273.1	17.1	41.9	Winds predominately from the west
<b>2020-07-10</b>	144.1	-	272.6	17.1	43.4	Winds predominately from the west
<b>2020-07-11</b>	146.8	-	272.7	17.2	32.6	Winds predominately from the west
<b>2020-07-12</b>	104.3	-	259.4	21.4	41.6	High wind event
<b>2020-07-14</b>	119.4	-	269.1	20.7	34.8	High wind event
<b>2020-07-15</b>	197.4	-	265.0	19.2	38.0	Winds predominately from the west
<b>2020-07-16</b>	174.8	-	272.6	16.7	40.4	Winds predominately from the west
<b>2020-07-17</b>	108.1	-	285.5	15.2	51.1	Winds predominately from the west
<b>Total # of Exceedances</b>	9	0				
<b>Maximum # of Exceedances (July)</b>	22 (2010)	6 (2017)				
<b>Average # of Exceedances (July)</b>	11	0				
<b>Minimum # of Exceedances (July)</b>	3 (2013)	0 (2010, 2011, 2012, 2013, 2015, 2016, 2018, 2019)				



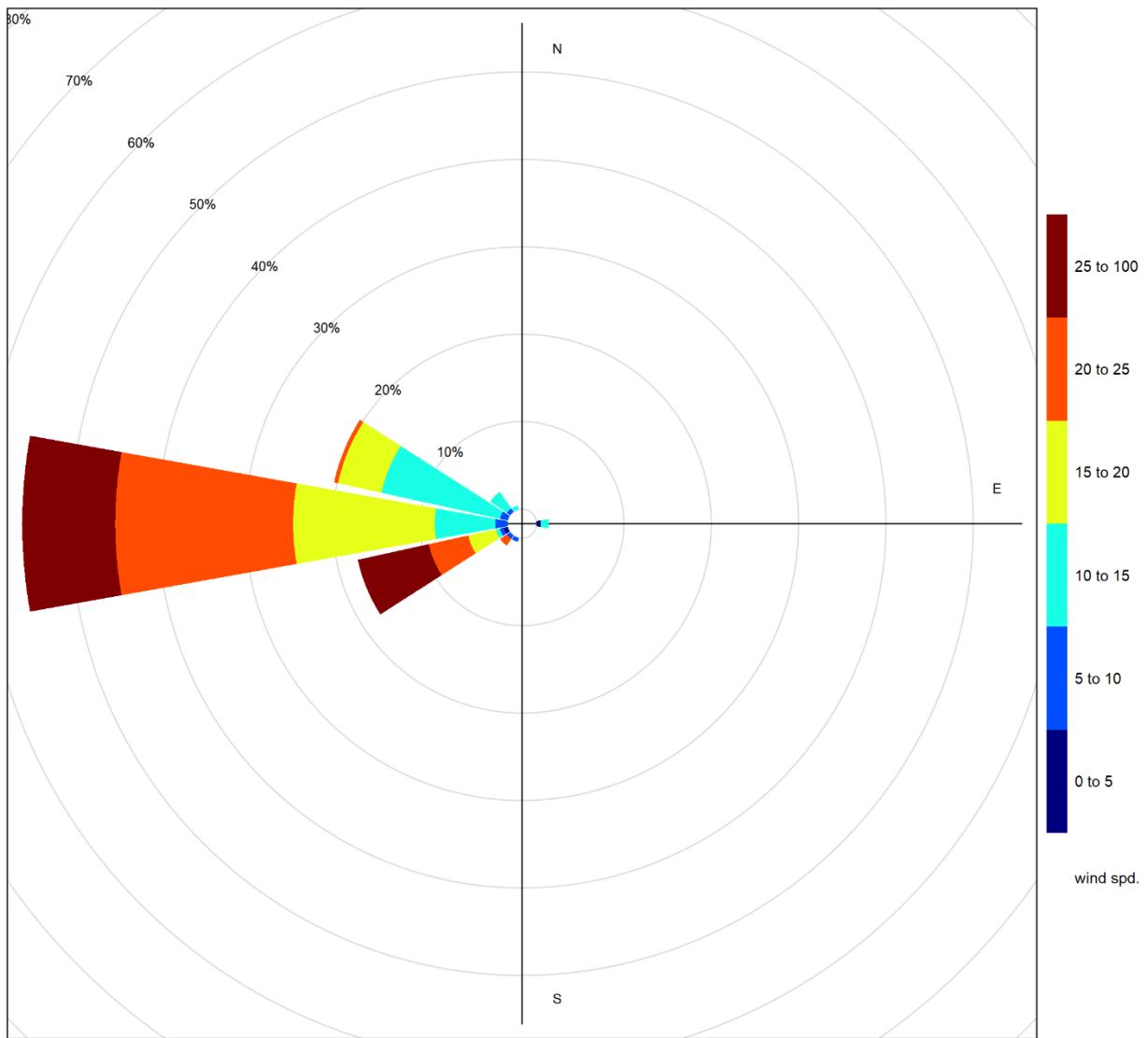
**Figure 5-1** 1-hour particulate matter concentrations recorded at the Berm monitor



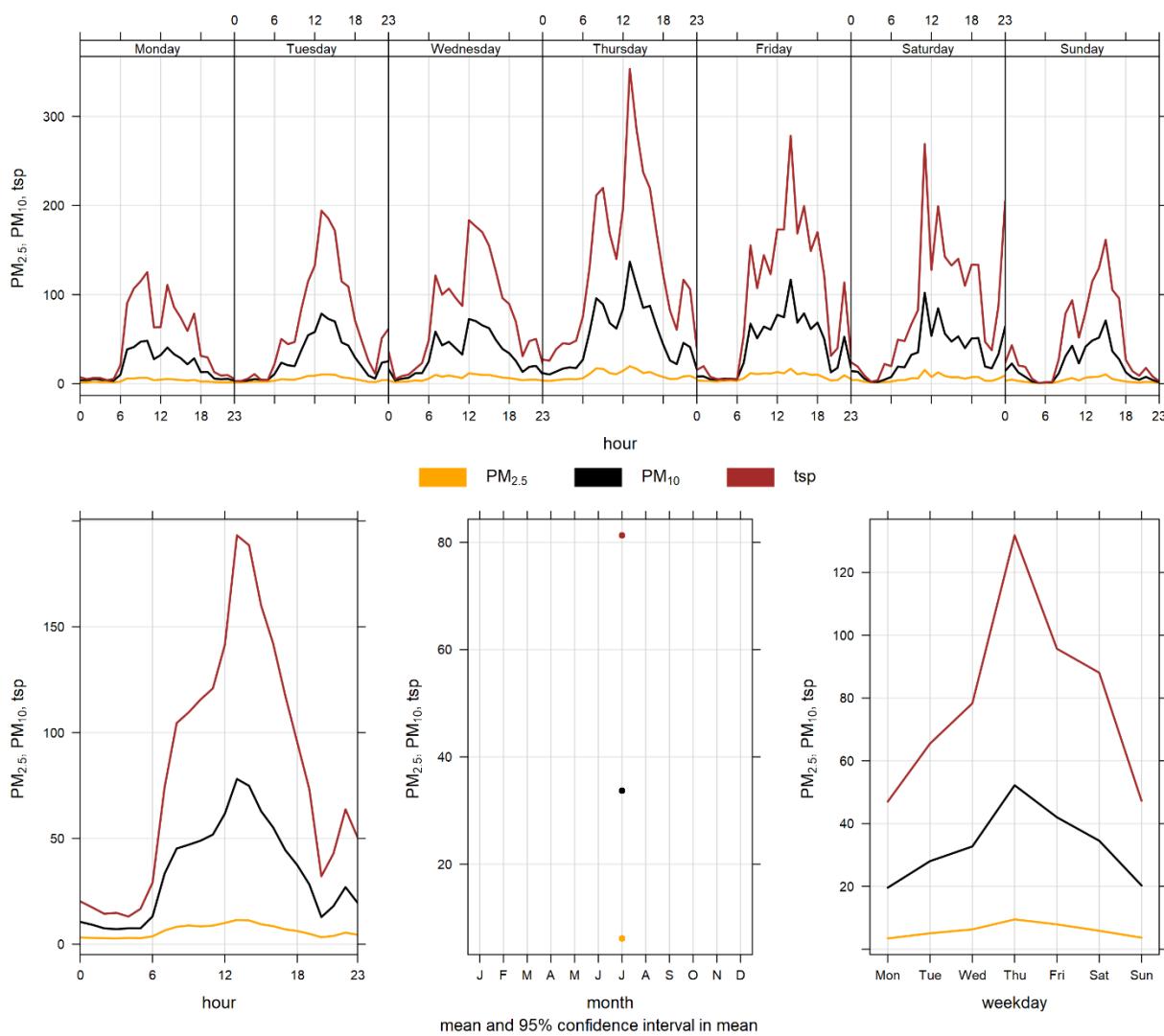
**Figure 5-2      24-hour particulate matter concentrations recorded at the Berm monitor**

Figure 5-3 shows the wind rose for the nine days of TSP exceedance recorded this month. The wind rose shows that the winds predominantly came from the west direction.

Figure 5-4 shows the variation of PM recorded at the Berm monitor over various time averaging periods. The Berm monitor diurnal pattern, similar to the Lagoon station, is associated with Lafarge operations, but also daytime emissions from traffic and other activities in Exshaw.



**Figure 5-3      Wind rose for TSP exceedance days recorded at the Berm GRIMM**



**Figure 5-4**      **Berm particulate matter time variation**

# 6 ENTRANCE 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 Entrance monitoring location**

Parameter Measured	Equipment Description	Notes
<b>PM<sub>2.5</sub>, PM<sub>10</sub>, TSP Concentrations</b>	GRIMM 365 Continuous Particulate Monitor	The Entrance GRIMM monitor had 100% uptime in July.

## 6.2 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 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 monthly concentrations, and the maximum 1-hour and 24-hour PM concentrations recorded during the month. 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.

During July, there were 10 and zero 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.

Historically, the Entrance monitor records an average of 17 and 2 exceedances of the 24-hour TSP and PM<sub>2.5</sub> guidelines respectively, during the month of July. The maximum number of TSP exceedances recorded during July occurred in 2014 (30 days), while the minimum, occurred in 2011 with 8 exceedances. The maximum number of PM<sub>2.5</sub> exceedances in June was 11 days, occurring in 2014.

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 6-3 shows the wind rose for the 10 days that exceeded the TSP guideline. The wind rose indicates that the winds predominantly came from the west direction.

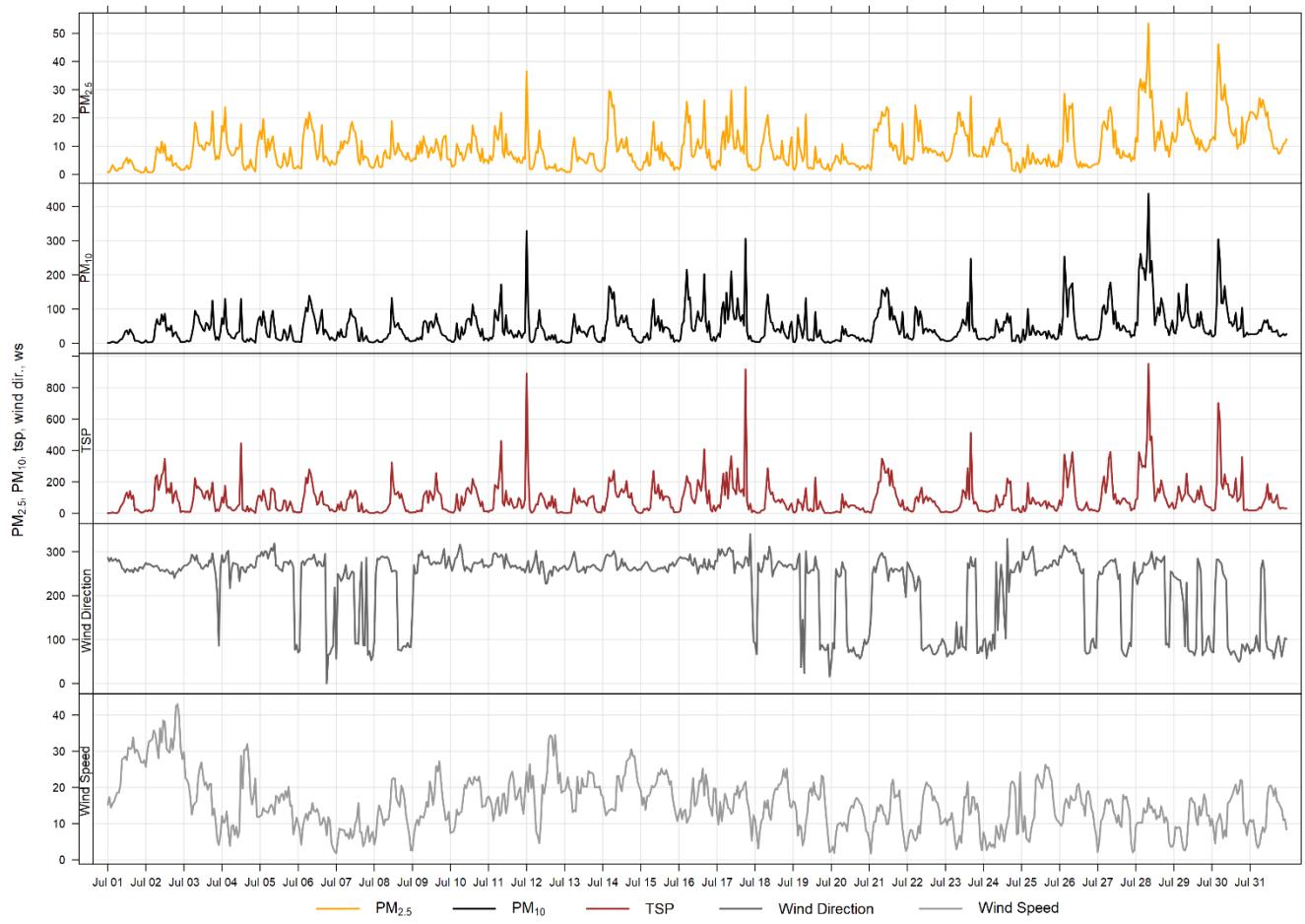
**Table 6-2      Summary of July 2020 data at the Entrance GRIMM**

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	
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	29	Entrance	0	0	0.6	9.2	53.5	28	8	17.1	275.4	20.4	28	100.0
PM <sub>10</sub> (µg/m <sup>3</sup> )	-	-	Entrance	-	-	1.0	46.5	437.6	28	8	17.1	275.4	138.9	28	100.0
TSP (µg/m <sup>3</sup> )	-	100	Entrance	-	10	0.7	89.6	951.8	28	8	17.1	275.4	234.0	28	100.0

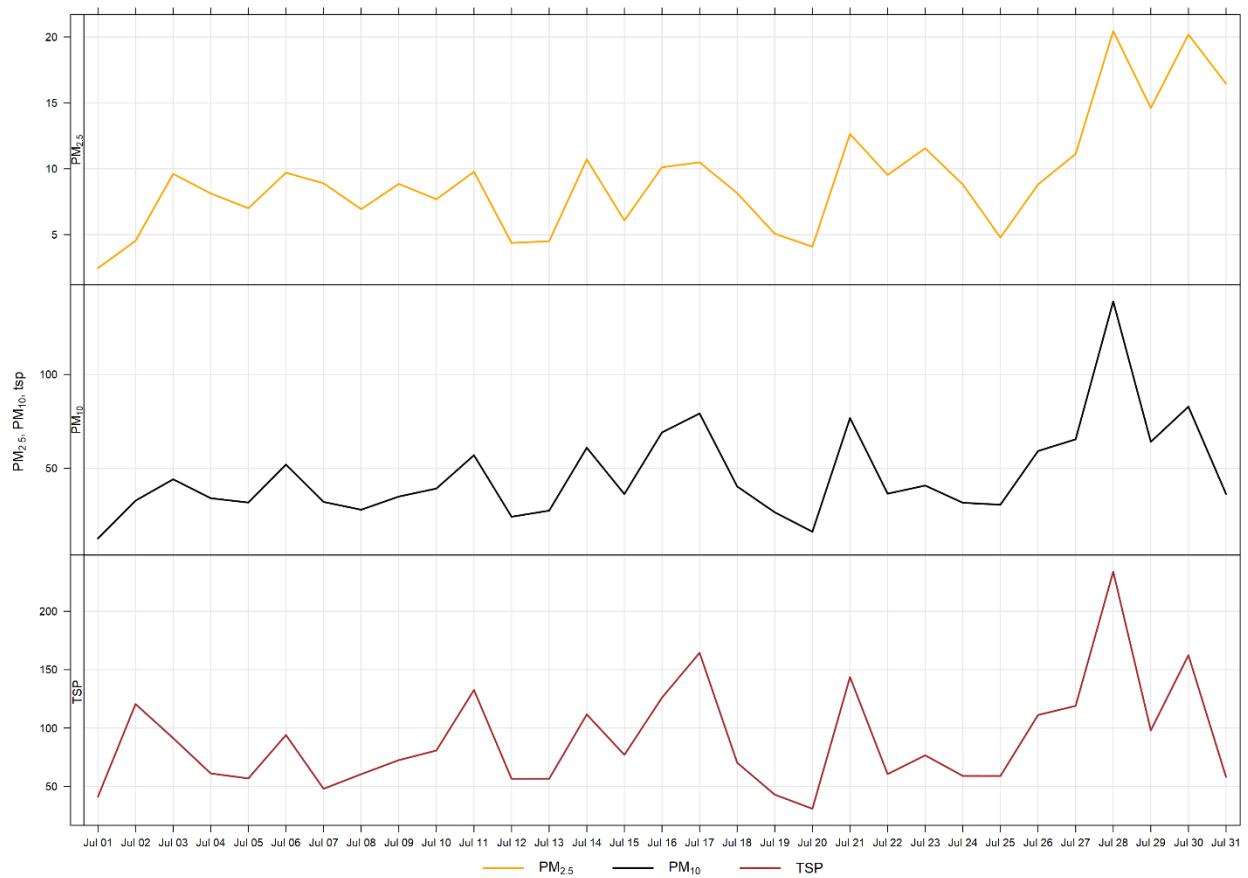
**Table 6-3 Days exceeding the Guideline for TSP or PM<sub>2.5</sub> at the Entrance Monitor**

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>						
<b>2020-07-02</b>	120.5	-	259.6	33.6	44.6	High wind event
<b>2020-07-11</b>	132.6	-	272.7	17.2	32.6	Winds predominately from the west
<b>2020-07-14</b>	111.6	-	269.1	20.7	34.8	High wind event
<b>2020-07-16</b>	126.1	-	272.6	16.7	40.4	Winds predominately from the west
<b>2020-07-17</b>	164.4	-	285.5	15.2	51.1	Winds predominately from the west
<b>2020-07-21</b>	143.7	-	264.9	12.2	47.9	Winds predominately from the west
<b>2020-07-26</b>	111.2	-	309.0	14.6	43.3	Winds predominately from the west
<b>2020-07-27</b>	119.0	-	277.3	12.0	47.7	Winds predominately from the west
<b>2020-07-28</b>	234.0	-	272.2	11.1	39.9	Winds predominately from the west
<b>2020-07-30</b>	162.4	-	64.7	13.1	60.8	Winds predominately from the west
<b>Total # of Exceedances</b>	<b>10</b>	<b>0</b>				
<b>Maximum # of Exceedances (April)</b>	30 (2014)	11 (2014)				

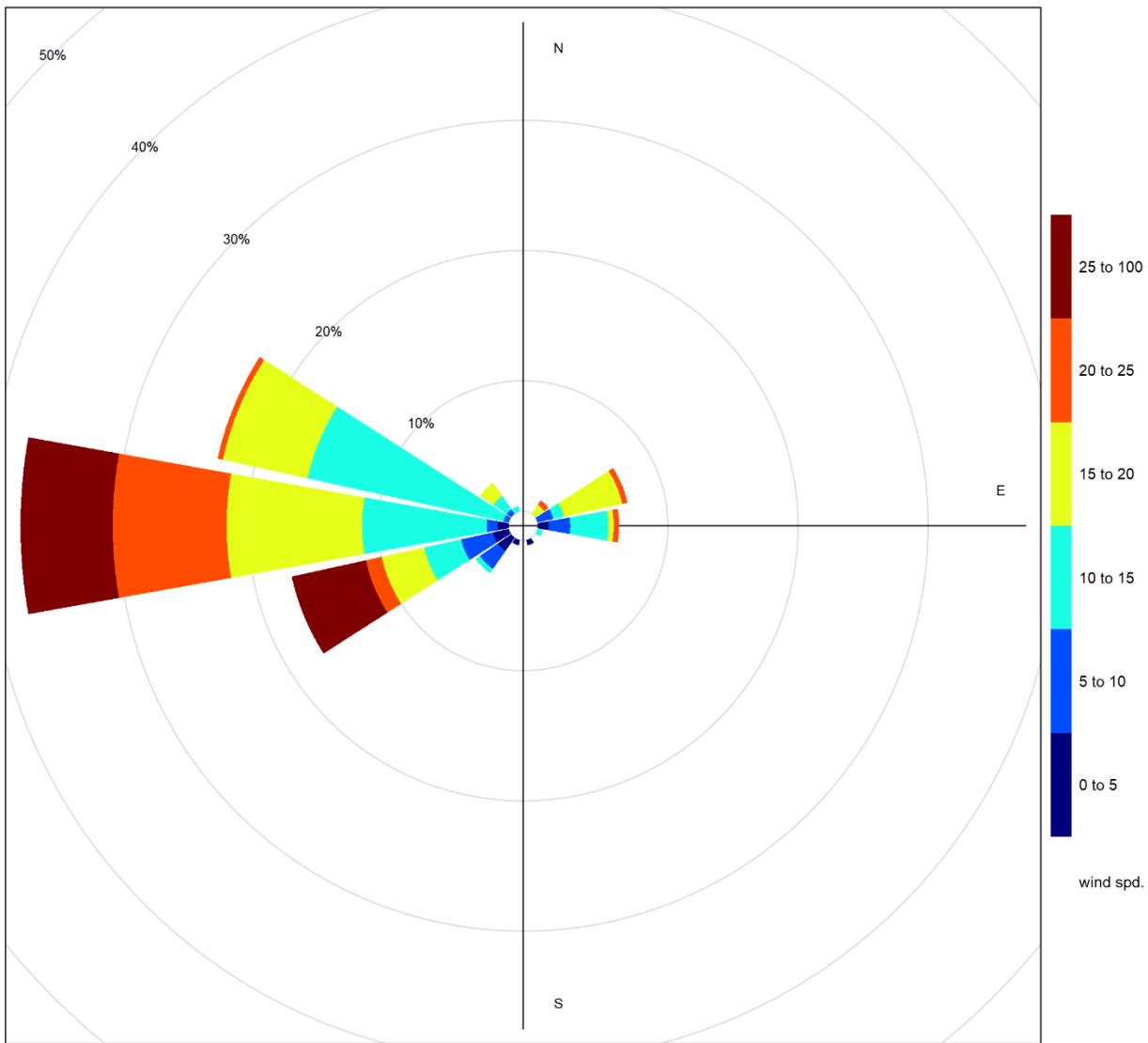
Average # of Exceedances (April)	17	2				
Minimum # of Exceedances (April)	8 (2011)	0 (2011, 2013, 2016, 2018, 2019)				



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

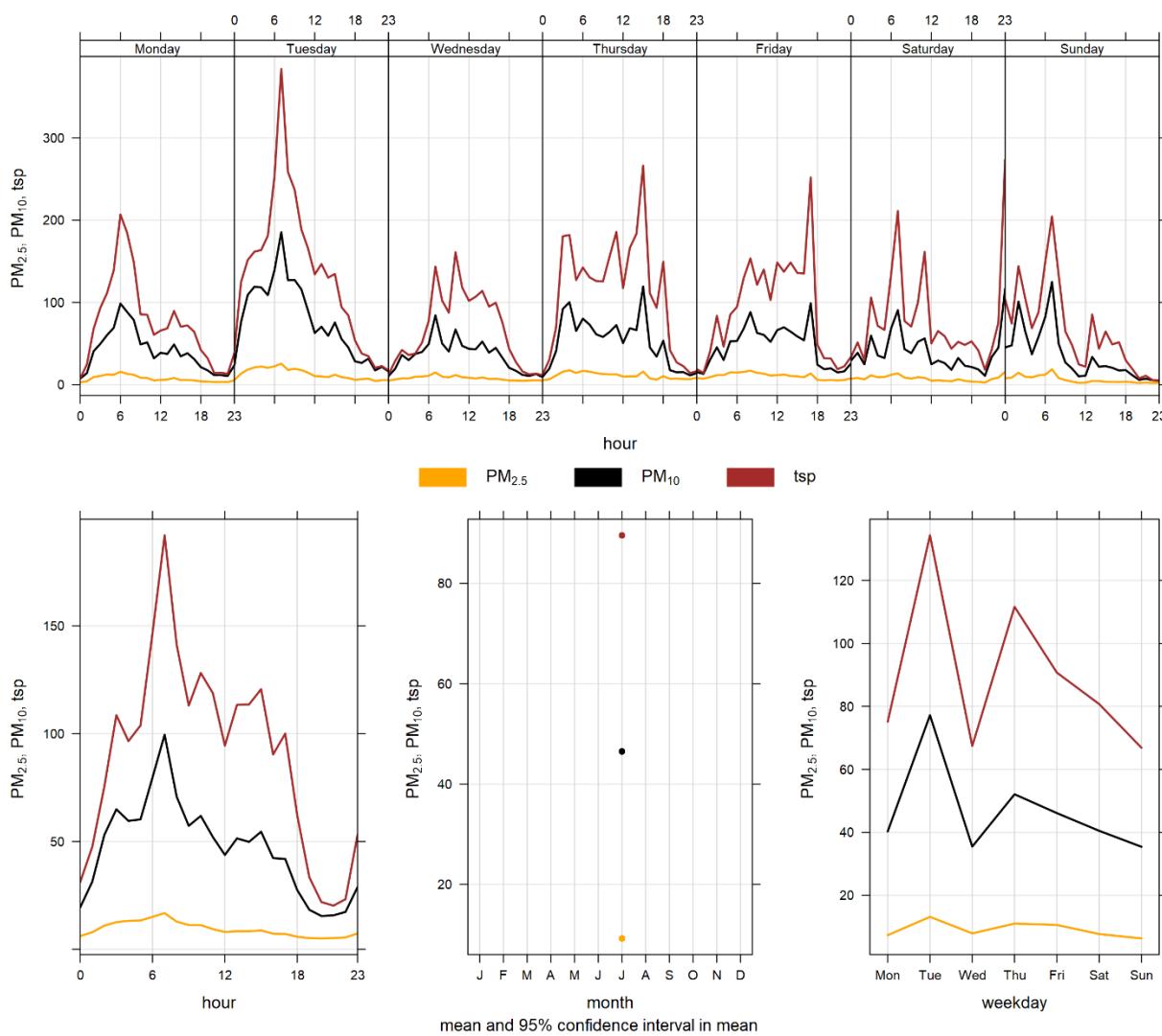


**Figure 6-2      24-hour particulate matter concentrations at the Entrance monitor**



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

Figure 6-4 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 6-4 is based on data collected during July 2020. The diurnal pattern is 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, but can as well by industry and rail sources.



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

# BIBLIOGRAPHY

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- Alberta Environment and Parks. (2016, February). Air Monitoring Directive. Alberta, Canada.
- 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, Canada.

# APPENDIX

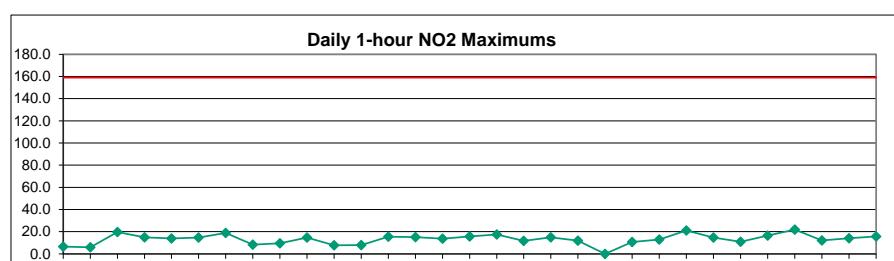
## A DATA & CALIBRATION REPORTS

# APPENDIX



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

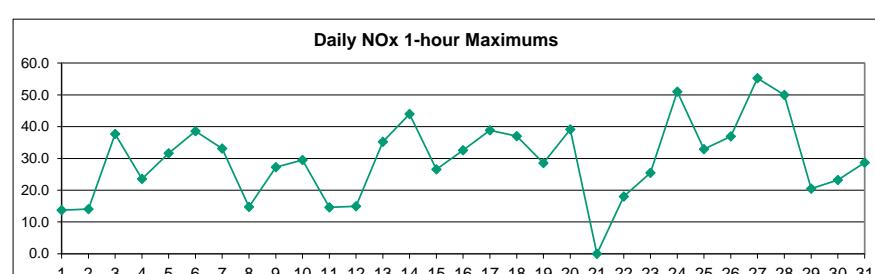
Day	Hour																									Mean	Max
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1		4.2	S	5.1	5.6	4.8	3.5	6.4	3.0	2.1	1.2	0.6	2.0	0.8	0.6	1.9	0.2	1.1	3.4	0.2	1.2	1.5	1.9	2.5	5.0	2.6	6.4
2		2.0	S	2.9	2.4	0.9	2.8	5.0	5.9	0.8	1.2	0.8	0.4	1.6	2.5	0.4	0.7	0.6	0.2	0.3	0.2	0.9	0.6	0.4	3.1	1.6	5.9
3		6.5	S	3.5	5.0	6.8	13.4	10.1	8.2	3.2	5.0	1.4	1.3	1.3	2.8	5.1	13.9	9.5	16.5	12.4	2.7	2.2	19.7	14.8	8.7	7.6	19.7
4		4.9	S	5.8	6.3	9.8	0.8	1.4	8.2	14.8	9.7	8.4	7.6	3.9	2.9	1.5	7.1	5.4	10.1	7.1	5.2	5.6	4.6	9.7	8.8	6.5	14.8
5		11.8	S	4.4	4.1	7.3	3.7	3.1	4.3	2.4	1.9	4.8	5.2	2.3	3.4	8.3	9.6	7.2	4.3	13.9	7.2	4.9	3.5	2.1	5.7	5.5	13.9
6		3.4	S	7.6	7.6	6.2	3.7	5.3	8.0	8.9	7.0	6.0	4.4	11.8	7.2	14.7	9.0	14.4	8.3	2.3	0.9	2.5	3.0	2.5	6.2	6.6	14.7
7		7.4	S	8.8	9.7	12.5	13.9	8.6	9.2	9.5	12.7	8.8	8.4	6.8	2.2	3.3	18.9	12.8	16.1	9.7	10.3	7.2	4.6	2.3	6.9	9.2	18.9
8		4.4	S	4.7	7.4	5.4	5.3	6.6	8.2	4.9	5.8	1.1	1.9	1.3	0.9	1.8	2.9	3.3	2.5	0.7	1.2	1.8	1.4	2.9	2.9	3.4	8.2
9		2.4	S	4.5	9.4	5.0	4.1	3.8	6.5	6.2	7.8	5.7	7.3	7.0	8.0	4.6	3.6	6.8	5.4	5.2	4.1	7.3	8.2	8.1	9.5	6.1	9.5
10		11.2	S	6.0	9.1	10.2	7.4	6.4	6.0	2.1	3.3	4.5	4.8	3.1	11.8	14.6	9.3	8.5	11.2	11.9	14.5	10.3	4.8	2.9	8.6	7.9	14.6
11		4.6	S	3.0	4.1	4.9	7.6	7.7	6.8	7.8	4.1	5.6	7.2	2.1	3.2	3.1	4.3	4.8	2.4	6.8	2.4	2.4	4.5	3.5	4.2	4.7	7.8
12		4.9	S	1.8	1.6	1.7	6.1	2.8	2.8	6.8	3.2	1.3	0.3	0.3	0.7	1.0	0.7	3.4	7.9	2.9	2.2	3.8	4.4	6.3	4.2	3.1	7.9
13		1.4	S	4.0	3.6	10.3	15.5	9.2	3.3	1.4	3.1	4.0	6.4	3.9	6.1	5.5	5.0	8.2	6.7	9.4	4.1	3.6	4.2	2.8	8.0	5.6	15.5
14		2.7	S	6.2	6.9	9.3	9.8	7.1	7.1	2.7	7.5	9.4	15.0	5.9	10.9	6.1	3.1	1.1	1.2	1.8	4.6	2.7	5.3	0.6	1.1	5.6	15.0
15		10.3	S	9.8	11.4	4.6	2.6	2.6	10.2	5.6	3.7	2.3	3.8	4.5	7.1	7.9	3.5	2.1	9.7	10.3	13.7	7.9	8.8	8.7	6.2	6.9	13.7
16		6.0	S	10.3	8.6	15.7	10.6	13.5	7.3	6.2	8.9	5.8	1.4	2.9	4.4	1.8	12.9	5.9	6.6	13.4	9.3	3.8	8.1	4.0	13.2	7.9	15.7
17		6.9	S	8.3	14.4	17.5	8.8	4.6	2.7	7.2	8.1	2.1	6.3	11.9	10.4	8.9	6.8	8.3	9.6	11.1	7.7	4.9	4.3	3.8	0.4	7.6	17.5
18		4.5	S	4.2	5.5	8.6	6.3	8.1	9.5	5.9	2.9	0.5	1.4	3.7	8.0	11.7	7.3	6.5	5.6	4.1	3.8	6.6	9.9	10.1	2.8	6.0	11.7
19		1.3	S	7.2	2.2	9.8	14.8	5.0	2.1	1.4	0.8	1.9	2.4	1.1	3.3	7.2	4.4	3.9	1.1	3.5	2.1	5.8	10.4	6.9	8.3	4.6	14.8
20		9.5	S	11.9	11.9	9.4	10.0	8.3	8.1	6.9	4.6	1.5	1.7	2.7	1.2	1.9	1.0	1.1	2.7	0.6	5.1	2.6	5.3	4.5	9.2	5.3	11.9
21		8.1	S	12.9	13.8	16.7	12.4	7.4	7.4	C	C	C	C	C	C	3.5	4.5	6.0	4.4	2.0	7.0	5.5	3.2	3.5	1.9	-	-
22		6.2	S	8.8	9.4	7.8	10.6	9.1	9.6	8.4	9.1	1.7	2.7	3.0	1.3	5.0	3.6	3.4	2.8	7.4	6.6	4.9	4.2	2.2	1.8	5.6	10.6
23		6.8	S	7.7	8.2	12.8	6.9	4.7	5.9	7.0	7.4	3.9	2.4	2.5	9.2	5.6	9.7	11.6	9.9	8.7	6.7	7.1	12.9	8.2	11.2	7.7	12.9
24		7.7	S	5.9	11.9	10.4	8.3	9.0	17.6	15.1	17.2	21.0	11.6	8.1	11.9	12.1	0.9	4.4	1.4	0.4	1.5	5.5	11.7	1.0	1.9	8.5	21.0
25		6.9	S	10.5	8.3	6.5	7.9	11.4	5.1	0.4	0.6	0.6	0.7	1.3	2.5	2.6	2.4	2.6	8.3	4.0	14.6	6.7	6.4	5.7	7.4	5.4	14.6
26		6.3	S	2.1	4.5	4.2	4.5	5.0	4.5	9.9	7.2	1.4	1.5	0.6	0.7	4.4	6.7	4.0	2.7	2.2	5.4	1.0	6.1	7.9	10.9	4.5	10.9
27		5.3	S	11.4	16.5	13.6	13.1	13.4	15.5	15.0	9.6	9.4	8.0	1.0	3.0	8.8	2.3	2.3	2.6	5.0	2.8	5.9	5.1	9.5	13.5	8.4	16.5
28		11.3	S	11.0	6.7	12.6	12.6	7.1	13.1	14.0	8.0	4.6	3.6	14.8	14.7	13.4	10.4	14.3	9.3	7.6	11.2	6.6	18.1	21.8	16.8	11.5	21.8
29		7.5	S	10.3	8.2	9.3	12.0	10.1	11.8	10.4	7.1	7.1	6.9	9.6	5.3	10.4	8.7	4.4	2.5	4.4	6.8	3.7	2.4	4.2	10.3	7.6	12.0
30		14.1	S	8.8	10.5	8.3	12.3	10.6	10.0	8.8	8.3	5.6	3.5	7.1	2.9	1.8	0.9	2.0	1.1	2.3	1.8	4.0	9.1	10.5	9.6	6.7	14.1
31		11.2	S	10.7	8.8	10.0	9.8	15.8	12.1	7.2	8.9	3.9	2.1	2.3	2.2	0.9	3.3	1.2	0.4	2.2	1.3	2.3	1.9	1.7	6.0	5.5	15.8
NO.		31	-	31	31	31	31	31	30	30	30	30	30	30	30	31	31	31	31	31	31	31	31	31	31	707	100.0%
MEAN		6.5	-	7.1	7.9	8.8	8.4	7.4	7.7	6.8	6.2	4.5	4.4	4.3	5.0	5.8	5.7	5.5	5.7	5.6	5.4	4.6	6.4	5.7	6.9		
MAX		14.1	-	12.9	16.5	17.5	15.5	15.8	17.6	15.1	17.2	21.0	15.0	14.8	14.7	14.7	18.9	14.4	16.5	13.9	14.6	10.3	19.7	21.8	16.8		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	707
Maximum 1-HR Average	21.8 PPB
Maximum 24-HR Average	11.5 PPB
Monthly Calibration Standard Deviation	4.1
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	6.2 PPB

# Lagoon NOx (ppb) – July 2020

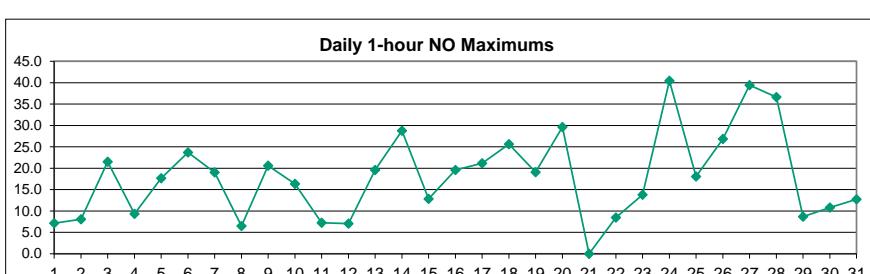
Day	HOUR																									MEAN	MAX	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1		5.2	S	8.9	10.0	9.4	5.9	13.7	5.9	4.4	2.6	1.0	4.0	1.7	1.2	4.1	0.4	1.9	7.9	0.2	2.2	2.2	2.9	5.6	9.4	4.8	13.7	
2		3.4	S	6.9	5.9	1.4	5.2	9.0	14.0	1.8	2.2	1.5	0.9	3.3	6.5	0.9	1.7	1.2	0.3	0.4	0.3	1.5	0.9	0.5	4.6	3.2	14.0	
3		16.1	S	6.5	7.2	13.4	35.1	27.9	20.9	5.6	11.0	2.2	2.0	1.8	4.1	8.3	26.6	18.3	29.4	21.3	4.2	2.4	37.7	16.8	9.9	14.3	37.7	
4		5.7	S	9.5	7.1	10.0	1.1	1.9	13.3	23.5	13.3	11.4	12.9	6.8	5.1	3.0	14.3	10.2	19.0	12.0	7.6	8.1	8.2	19.1	14.2	10.3	23.5	
5		26.7	S	7.0	7.8	22.6	7.7	8.5	14.3	6.3	3.6	13.4	12.2	7.5	8.5	19.5	24.5	16.8	8.8	31.6	10.8	8.7	4.3	2.2	6.0	12.1	31.6	
6		3.6	S	11.3	14.6	16.2	6.1	18.0	26.0	29.2	20.0	13.6	9.1	28.7	12.0	38.5	18.9	31.6	13.9	3.2	1.1	2.6	3.2	2.6	8.2	14.4	38.5	
7		8.1	S	9.8	10.5	18.0	33.1	15.2	16.1	14.8	22.5	16.5	16.3	10.9	2.6	4.3	30.7	17.0	23.0	13.2	12.8	7.6	5.4	3.6	7.6	13.9	33.1	
8		4.9	S	6.3	12.2	7.8	9.0	10.7	14.7	9.9	11.3	2.1	4.2	2.7	1.7	3.7	5.1	6.1	5.0	1.0	1.9	2.0	1.4	3.4	3.9	5.7	14.7	
9		3.5	S	6.3	22.0	7.5	11.2	8.1	27.2	18.9	18.5	13.5	14.4	16.9	8.4	5.6	14.3	8.3	7.3	6.2	11.4	14.6	18.8	13.0	12.8	27.2		
10		17.0	S	12.8	21.3	26.6	17.9	15.1	12.6	3.3	8.1	9.7	9.8	6.4	24.6	29.5	18.1	16.8	20.9	20.7	23.6	13.2	5.0	3.4	11.3	15.1	29.5	
11		5.1	S	3.3	5.6	7.5	13.1	13.9	14.0	14.0	7.5	11.0	14.6	3.0	4.8	4.0	6.1	7.0	4.2	10.3	3.1	2.9	5.3	3.9	4.9	7.4	14.6	
12		5.6	S	2.1	1.7	2.0	8.5	2.9	3.3	13.5	5.3	2.1	0.5	0.4	0.8	1.6	1.3	5.8	15.0	4.5	2.9	5.4	5.1	9.4	4.7	4.5	15.0	
13		1.7	S	4.6	4.2	20.7	35.3	17.7	5.9	2.3	7.6	7.4	12.5	9.7	14.5	12.6	9.7	17.0	15.6	21.1	6.7	6.2	5.4	3.2	12.2	11.0	35.3	
14		3.1	S	10.7	16.2	18.2	21.7	14.1	17.3	4.8	14.7	24.1	44.0	15.2	28.7	11.6	5.4	2.2	1.8	2.9	6.3	3.7	8.1	0.7	1.2	12.0	44.0	
15		17.9	S	19.7	22.6	6.8	3.2	3.3	20.1	10.4	5.9	4.2	7.3	8.9	15.1	16.7	5.9	3.4	20.1	19.6	26.6	10.0	10.1	10.5	10.1	12.1	26.6	
16		6.8	S	17.7	13.7	30.2	19.9	32.5	13.0	11.9	15.6	10.3	2.3	5.5	9.1	3.6	32.6	10.7	13.2	25.5	16.2	4.6	14.2	5.7	26.6	14.8	32.6	
17		12.3	S	12.6	28.7	38.9	16.7	8.9	4.7	17.3	17.7	3.5	12.3	25.0	23.7	19.5	12.3	16.7	19.8	25.9	12.5	6.1	4.5	4.0	0.4	15.0	38.9	
18		6.1	S	6.2	6.1	13.5	11.8	23.5	35.1	16.6	5.9	0.6	2.7	9.2	23.5	37.0	18.0	13.3	10.7	7.0	5.4	10.1	16.9	16.7	3.9	13.0	37.0	
19		1.3	S	10.9	2.4	20.3	28.5	7.6	3.9	2.4	1.4	3.9	4.2	2.1	7.4	15.9	8.5	5.0	1.4	5.5	2.7	9.2	19.9	7.8	27.4	8.7	28.5	
20		39.1	S	23.0	13.0	11.2	12.9	14.5	19.3	25.4	8.9	3.0	3.7	5.6	2.0	3.5	2.0	1.9	5.9	0.7	8.1	3.2	6.2	5.0	10.8	10.0	39.1	
21		12.2	S	21.8	22.7	57.9	35.0	17.6	15.6	C	C	C	C	C	C	C	6.4	7.0	11.4	7.4	2.8	8.5	6.5	3.4	3.6	2.0	-	-
22		9.2	S	9.8	11.1	8.6	14.9	15.2	18.0	15.2	17.5	2.4	4.3	4.6	1.5	8.2	4.7	4.3	3.2	8.8	7.0	5.4	4.5	2.5	1.9	7.9	18.0	
23		9.1	S	8.6	12.4	20.5	7.7	5.6	7.4	11.9	14.0	6.3	3.6	3.6	15.9	8.6	17.3	25.5	14.2	13.1	8.9	9.4	19.2	10.1	15.3	11.7	25.5	
24		8.8	S	9.1	40.3	51.0	29.5	20.2	32.7	27.1	41.6	42.2	19.6	13.2	20.6	21.3	1.4	7.2	2.0	0.6	2.0	6.6	17.5	1.2	2.1	18.2	51.0	
25		9.1	S	15.2	9.3	7.2	11.6	24.0	10.6	0.8	1.2	1.0	1.2	2.8	5.5	6.0	5.4	5.4	19.0	7.2	32.9	10.5	10.2	6.9	12.1	9.4	32.9	
26		9.0	S	3.1	10.4	6.7	8.5	11.5	14.1	37.0	20.3	2.6	2.3	0.9	1.2	8.3	10.6	5.6	3.8	2.7	6.8	1.1	6.1	8.6	14.1	8.5	37.0	
27		5.3	S	15.2	42.2	31.6	32.4	38.9	55.2	45.9	25.1	18.2	16.7	1.5	6.7	26.1	3.3	5.6	4.3	7.0	3.4	6.7	5.5	11.9	16.8	18.5	55.2	
28		11.3	S	22.5	10.4	36.7	34.8	18.1	50.0	38.3	17.0	6.9	6.4	31.8	31.2	25.6	20.2	27.2	15.6	8.7	12.2	7.0	18.5	36.0	25.7	22.3	50.0	
29		7.5	S	10.3	8.4	10.1	14.0	16.0	20.5	16.6	11.2	11.2	9.9	14.6	7.7	16.3	14.3	6.7	3.1	5.8	8.2	3.9	2.5	4.3	11.7	10.2	20.5	
30		18.9	S	11.9	14.8	10.9	23.2	15.0	14.4	13.7	12.6	7.9	4.7	10.8	4.7	2.7	1.1	3.2	1.3	2.6	2.0	4.1	9.3	12.6	12.5	9.3	23.2	
31		13.1	S	17.9	18.7	15.3	16.4	28.7	17.8	11.3	12.7	5.5	3.1	3.6	3.8	1.6	5.0	1.6	0.6	2.6	1.5	2.3	2.0	1.8	6.6	8.4	28.7	
NO.		31	-	31	31	31	31	31	30	30	30	30	30	30	31	31	31	31	31	31	31	31	31	31	31	707	100.0%	
MEAN		9.9	-	11.0	14.0	18.0	17.1	15.4	18.0	15.1	12.6	8.6	8.9	8.5	10.4	12.2	10.9	10.4	10.3	9.5	8.2	5.9	9.0	7.8	10.0			
MAX		39.1	-	23.0	42.2	57.9	35.3	38.9	55.2	45.9	41.6	42.2	44.0	31.8	31.2	38.5	32.6	31.6	29.4	31.6	32.9	13.2	37.7	36.0	27.4			



Number of Non-Zero Readings	707
Maximum 1-HR Average	55.2 PPB
Maximum 24-HR Average	22.3 PPB
Monthly Calibration Standard Deviation	9.416
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	11.4 PPB

# Lagoon NO (ppb) – July 2020

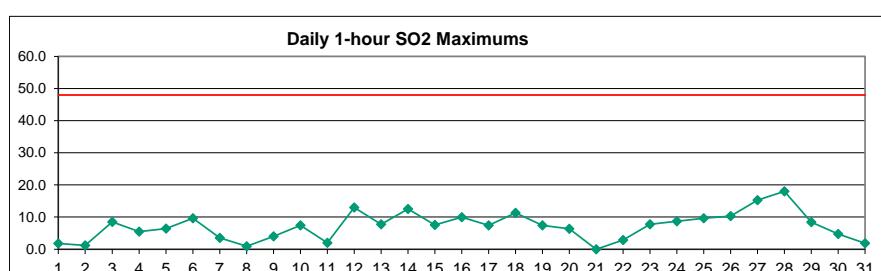
Day	Hour																									Mean	Max	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1		0.9	S	3.8	4.4	4.5	2.2	7.2	2.7	2.1	1.3	0.5	2.0	0.9	0.6	2.2	0.1	0.8	4.5	0.0	0.9	0.6	0.9	3.0	4.4	2.2	7.2	
2		1.3	S	3.8	3.4	0.5	2.3	3.8	8.1	1.0	1.0	0.7	0.4	1.5	3.9	0.4	0.9	0.6	0.1	0.1	0.6	0.2	0.1	1.4	1.6	8.1		
3		9.6	S	2.9	2.1	6.4	21.5	17.6	12.6	2.2	5.9	0.7	0.6	0.5	1.3	3.1	12.6	8.7	12.8	8.8	1.4	0.2	17.8	1.9	1.1	6.6	21.5	
4		0.7	S	3.5	0.7	0.2	0.2	0.4	5.0	8.6	3.6	3.1	5.2	2.8	2.2	1.4	7.1	4.8	8.8	4.8	2.3	2.5	3.5	9.3	5.4	3.7	9.3	
5		14.8	S	2.5	3.6	15.1	4.0	5.3	9.9	3.7	1.7	8.4	6.9	5.1	5.0	11.1	14.8	9.6	4.4	17.6	3.5	3.7	0.7	0.1	0.3	6.6	17.6	
6		0.2	S	3.7	6.8	9.9	2.3	12.5	17.9	20.1	12.9	7.5	4.6	16.8	4.7	23.7	9.9	17.1	5.5	0.8	0.3	0.1	0.2	0.1	1.9	7.8	23.7	
7		0.7	S	1.1	0.8	5.4	19.0	6.6	6.9	5.3	9.7	7.7	7.8	4.0	0.3	1.0	11.6	4.1	6.8	3.4	2.4	0.5	0.8	1.3	0.7	4.7	19.0	
8		0.4	S	1.5	4.7	2.4	3.7	4.0	6.5	5.0	5.4	0.9	2.2	1.5	0.8	1.9	2.2	2.8	2.4	0.3	0.6	0.1	0.0	0.5	0.9	2.2	6.5	
9		1.0	S	1.7	12.6	2.4	7.0	4.2	20.6	12.6	10.7	7.7	11.1	7.3	8.8	3.7	1.9	7.5	2.8	2.0	2.0	4.0	6.3	10.6	3.5	6.6	20.6	
10		5.8	S	6.7	12.1	16.4	10.4	8.6	6.6	1.1	4.7	5.1	4.9	3.2	12.7	14.8	8.7	8.2	9.6	8.7	9.0	2.8	0.5	0.5	2.6	7.1	16.4	
11		0.5	S	0.2	1.4	2.6	5.4	6.1	7.0	6.3	3.2	5.3	7.3	0.8	1.5	0.8	1.8	2.1	1.7	3.5	0.6	0.4	0.8	0.4	0.6	2.6	7.3	
12		0.7	S	0.3	0.1	0.2	2.3	0.1	0.4	6.6	2.0	0.9	0.2	0.1	0.2	0.5	0.5	0.5	2.4	7.0	1.5	0.6	1.6	0.7	3.1	0.5	1.4	7.0
13		0.2	S	0.5	0.5	10.3	19.6	8.4	2.5	0.7	4.3	3.3	6.0	5.7	8.3	7.1	4.6	8.7	8.8	11.6	2.5	2.4	1.1	0.3	4.1	5.3	19.6	
14		0.3	S	4.5	9.3	8.9	11.8	7.0	10.2	2.0	7.2	14.6	28.8	9.3	17.7	5.4	2.2	1.1	0.5	1.0	1.7	0.9	2.7	0.2	0.1	6.4	28.8	
15		7.6	S	9.8	11.1	2.1	0.5	0.6	9.8	4.7	2.2	1.8	3.4	4.3	8.0	8.6	2.3	1.3	10.2	9.2	12.8	2.0	1.2	1.8	3.9	5.2	12.8	
16		0.8	S	7.4	5.0	14.3	9.3	18.8	5.7	5.7	6.7	4.4	0.9	2.5	4.6	1.8	19.6	4.8	6.5	12.1	6.9	0.8	6.1	1.8	13.3	6.9	19.6	
17		5.4	S	4.3	14.1	21.2	7.8	4.2	2.0	10.0	9.5	1.3	6.0	13.0	13.3	10.6	5.5	8.4	10.2	14.7	4.8	1.1	0.3	0.2	0.0	7.3	21.2	
18		1.6	S	2.0	0.6	4.9	5.5	15.4	25.6	10.7	3.0	0.2	1.4	5.4	15.5	25.2	10.7	6.8	5.1	2.9	1.6	3.5	7.0	6.6	1.1	7.1	25.6	
19		0.1	S	3.8	0.3	10.4	13.6	2.6	1.7	0.9	0.6	2.0	1.8	1.0	4.0	8.7	4.1	1.2	0.3	2.1	0.6	3.3	9.5	0.9	19.1	4.0	19.1	
20		29.6	S	11.0	1.1	1.7	2.9	6.2	11.2	18.4	4.4	1.5	2.0	2.9	0.8	1.6	1.0	0.8	3.2	0.2	3.1	0.6	1.0	0.5	1.7	4.7	29.6	
21		4.1	S	8.8	8.8	41.1	22.5	10.1	8.2	C	C	C	C	C	C	2.8	2.4	5.3	3.0	0.7	1.5	1.0	0.1	0.1	0.0	-	-	-
22		2.9	S	1.0	1.6	0.8	4.2	6.0	8.3	6.8	8.4	0.7	1.5	1.5	0.1	3.1	1.1	0.9	0.4	1.4	0.4	0.5	0.3	0.3	0.1	2.3	8.4	
23		2.2	S	0.8	4.2	7.6	0.8	1.0	1.5	4.9	6.6	2.4	1.2	1.1	6.6	2.9	7.6	13.8	4.2	4.3	2.2	2.3	6.2	1.9	4.1	3.9	13.8	
24		1.1	S	3.1	28.2	40.4	21.1	11.2	14.9	11.8	24.1	20.9	8.0	5.0	8.7	9.0	0.4	2.7	0.5	0.1	0.4	1.0	5.6	0.0	0.0	9.5	40.4	
25		2.0	S	4.5	0.9	0.5	3.6	12.4	5.4	0.3	0.5	0.4	0.5	1.5	2.9	3.3	2.9	2.6	10.6	3.0	18.0	3.7	3.6	1.1	4.6	3.9	18.0	
26		2.5	S	0.8	5.6	2.3	3.7	6.3	9.4	26.8	12.9	1.1	0.7	0.3	0.4	3.7	3.7	1.5	0.9	0.5	1.3	0.0	0.0	0.6	3.1	3.8	26.8	
27		0.0	S	3.7	25.5	17.8	19.1	25.3	39.4	30.7	15.4	8.7	8.5	0.4	3.6	17.2	0.9	3.3	1.7	1.9	0.6	0.8	0.5	2.4	3.3	10.0	39.4	
28		0.1	S	11.5	3.7	23.9	22.1	10.9	36.6	24.1	8.9	2.3	2.7	16.9	16.4	12.0	9.7	12.7	6.2	1.0	1.1	0.5	0.5	14.1	8.9	10.7	36.6	
29		0.0	S	0.1	0.2	0.8	1.9	5.9	8.6	6.2	4.1	4.0	3.0	5.0	2.3	5.8	5.5	2.3	0.6	1.5	1.4	0.2	0.2	0.1	1.4	2.7	8.6	
30		4.8	S	3.2	4.3	2.7	10.8	4.4	4.5	4.9	4.3	2.3	1.2	3.6	1.8	0.7	0.2	1.1	0.1	0.2	0.1	0.1	2.1	2.8	2.6	10.8		
31		1.8	S	7.1	9.8	5.2	6.5	12.7	5.6	4.0	3.7	1.5	0.8	1.3	1.5	0.6	1.6	0.3	0.1	0.0	0.0	0.0	0.6	2.8	12.7			
NO.		31	-	31	31	31	31	31	31	30	30	30	30	30	30	31	31	31	31	31	31	31	31	31	707	100.0%		
MEAN		3.3	-	3.9	6.0	9.1	8.6	7.9	10.2	8.3	6.3	4.1	4.4	4.2	5.3	6.3	5.1	4.8	4.5	3.9	2.7	1.4	2.5	2.1	3.1			
MAX		29.6	-	11.5	28.2	41.1	22.5	25.3	39.4	30.7	24.1	20.9	28.8	16.9	17.7	25.2	19.6	17.1	12.8	17.6	18.0	4.0	17.8	14.1	19.1			



Number of Non-Zero Readings	703
Maximum 1-HR Average	40.4 PPB
Maximum 24-HR Average	10.7 PPB
Monthly Calibration Standard Deviation	6.112
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	5.1 PPB

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

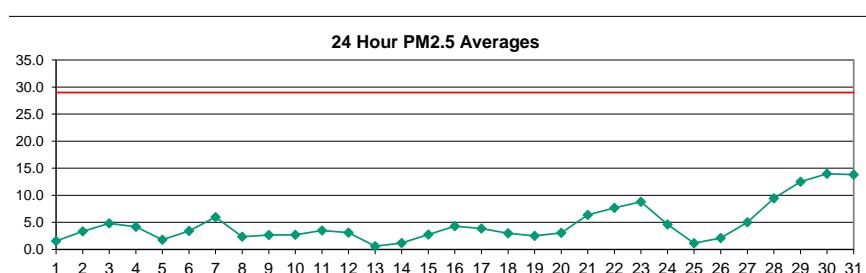
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.4	S	0.1	0.9	0.4	0.7	1.0	0.7	0.0	0.0	0.1	0.2	0.9	0.2	0.1	0.3	1.1	0.7	0.4	1.4	0.5	0.7	0.3	1.8	0.6	1.8
2	1.2	S	0.3	0.2	0.0	0.1	0.6	0.1	0.5	0.0	0.0	0.0	0.0	0.5	0.0	0.1	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.1	0.2	1.2
3	0.0	S	0.0	0.1	1.3	2.7	2.8	2.6	0.0	0.0	0.0	0.4	0.0	0.3	4.0	8.5	4.5	6.5	4.0	1.0	0.0	0.3	0.4	1.3	1.8	8.5
4	0.1	S	1.1	0.6	0.0	0.0	0.0	0.2	0.0	0.0	1.0	0.9	0.4	0.9	0.6	5.5	3.7	5.1	0.0	0.1	0.0	0.0	1.2	1.5	1.0	5.5
5	4.1	S	0.5	0.3	1.3	0.0	0.5	2.3	0.2	0.1	3.8	2.3	1.1	0.8	4.0	6.4	4.1	2.9	5.6	2.1	0.0	0.0	0.1	0.3	1.9	6.4
6	0.3	S	0.0	0.7	1.6	0.5	3.2	7.1	6.4	6.0	2.9	1.8	9.4	2.0	9.6	5.9	8.4	3.7	0.2	0.0	0.2	0.0	0.0	0.1	3.0	9.6
7	0.4	S	0.3	0.0	0.3	0.4	0.4	0.7	0.0	1.3	2.2	3.3	0.8	0.0	0.5	3.5	0.7	0.9	0.4	0.6	0.2	0.2	0.0	0.0	0.7	3.5
8	0.1	S	0.2	0.5	0.9	0.3	0.4	0.7	0.5	0.7	0.0	0.6	0.8	0.0	0.4	0.1	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.3	0.9
9	0.0	S	0.1	0.8	0.5	0.4	0.0	4.0	3.6	2.5	1.3	3.6	3.0	2.6	0.3	0.4	1.4	0.5	0.7	0.0	0.8	0.3	0.3	0.2	1.2	4.0
10	1.3	S	1.4	1.1	2.2	2.4	1.1	0.7	0.2	1.4	1.4	0.9	0.7	3.7	7.4	5.1	4.3	3.5	4.4	3.9	0.3	0.1	0.1	0.0	2.1	7.4
11	0.0	S	0.0	0.6	2.0	0.0	0.0	0.4	0.6	0.8	1.9	0.2	0.2	0.3	0.0	1.3	0.6	0.3	0.4	0.3	0.0	0.7	0.2	0.9	0.5	2.0
12	2.3	S	0.3	0.1	0.5	0.3	0.3	0.0	1.6	2.5	0.8	0.1	0.1	0.3	0.5	0.2	0.5	13.0	2.2	0.4	2.2	0.0	0.0	0.0	1.2	13.0
13	0.0	S	0.0	0.0	0.9	5.9	3.3	0.2	0.0	0.1	0.8	1.8	2.5	4.8	5.1	3.1	4.2	5.8	7.7	1.0	2.9	0.4	0.0	0.1	2.2	7.7
14	0.0	S	1.0	1.1	1.6	2.0	1.6	1.1	0.0	0.0	4.5	12.5	2.7	5.8	1.6	0.0	0.0	0.0	0.0	0.2	0.0	1.1	0.0	0.0	1.6	12.5
15	0.0	S	0.2	0.0	0.0	0.1	0.0	2.3	2.1	0.2	0.1	3.4	3.0	2.1	5.1	1.9	0.0	7.3	5.7	7.6	1.2	0.1	0.0	0.0	1.8	7.6
16	0.1	S	2.1	1.6	6.4	3.6	7.0	1.3	0.0	1.0	0.1	0.2	0.0	1.8	0.7	9.9	2.8	3.6	8.5	4.1	0.0	2.5	1.7	3.0	2.7	9.9
17	1.9	S	1.8	4.2	7.4	4.7	0.7	0.5	2.7	3.6	0.3	2.9	7.3	7.1	5.7	2.0	3.9	5.8	6.4	3.0	0.9	0.0	0.2	0.0	3.2	7.4
18	0.0	S	0.0	0.0	0.4	0.1	2.6	6.3	3.6	1.0	0.0	1.3	3.4	8.7	11.3	6.7	4.5	3.1	2.1	0.6	0.4	5.7	4.6	0.4	2.9	11.3
19	0.1	S	1.1	0.3	1.2	2.0	0.9	0.0	0.1	0.1	0.8	0.5	0.1	2.3	7.4	3.7	1.3	0.3	0.0	0.0	1.0	0.4	0.0	0.0	1.0	7.4
20	0.0	S	0.2	0.0	0.0	0.0	0.3	1.4	6.4	1.3	0.0	0.4	1.0	0.1	0.2	0.2	0.2	0.5	0.0	0.9	0.2	0.4	0.3	0.1	0.6	6.4
21	0.0	S	1.0	1.1	9.5	7.0	1.8	1.3	C	C	C	C	C	0.6	1.9	3.0	0.1	0.2	0.4	0.7	0.4	0.4	0.1	-	-	-
22	0.8	S	0.7	0.7	0.5	0.5	0.7	1.4	2.9	1.7	1.2	1.5	1.8	1.4	1.8	1.1	1.3	1.3	1.2	1.2	1.4	1.4	0.4	0.9	1.2	2.9
23	1.2	S	0.9	0.5	1.2	0.9	0.6	0.9	0.8	1.3	0.8	0.6	0.9	4.2	2.4	4.2	7.7	3.1	2.4	0.9	0.6	0.8	0.4	1.0	1.7	7.7
24	0.5	S	1.0	1.5	1.0	0.6	1.1	1.1	1.6	2.5	5.0	3.4	6.0	8.7	4.5	0.8	1.9	0.2	0.2	0.8	2.3	1.0	0.6	0.1	2.0	8.7
25	2.3	S	2.1	1.2	0.5	2.9	5.9	1.9	0.2	0.2	0.7	0.3	1.7	5.2	4.4	3.7	1.7	6.3	2.5	9.7	2.0	0.4	0.8	0.9	2.5	9.7
26	1.4	S	1.0	1.2	1.3	0.4	1.3	1.4	10.3	6.0	1.2	0.2	0.1	0.0	2.2	5.9	1.2	0.6	0.3	0.1	0.4	0.7	0.5	0.6	1.7	10.3
27	0.3	S	2.2	6.8	4.0	5.9	9.0	15.3	13.1	4.2	4.6	3.9	0.4	3.4	13.3	1.2	0.6	0.7	1.1	1.3	1.0	0.7	0.5	0.8	4.1	15.3
28	0.6	S	5.4	1.0	8.9	9.2	3.2	10.3	8.3	3.5	1.5	3.8	18.0	10.5	12.5	8.9	9.3	5.1	1.3	1.6	1.5	1.0	1.1	1.0	5.5	18.0
29	1.2	S	0.0	0.4	0.4	0.4	0.7	0.9	1.4	1.1	1.0	0.5	1.7	1.2	6.6	8.4	4.6	1.9	1.3	1.4	1.3	0.5	1.4	0.9	1.7	8.4
30	1.3	S	1.5	2.4	2.1	4.7	2.0	0.3	1.7	2.6	1.0	1.2	0.7	0.6	0.9	1.4	0.7	1.0	0.9	0.4	0.6	0.4	0.0	0.5	1.3	4.7
31	0.7	S	0.8	0.8	0.7	0.7	0.6	0.9	0.5	1.6	1.9	1.3	1.1	0.8	0.1	0.5	0.5	0.7	0.7	0.9	0.7	0.8	1.1	1.2	0.8	1.9
NO.	31	-	31	31	31	31	31	31	30	30	30	30	30	30	31	31	31	31	31	31	31	31	31	31	707	100.0%
MEAN	0.7	-	0.9	1.0	1.9	1.9	1.7	2.2	2.3	1.6	1.4	1.8	2.3	2.7	3.7	3.3	2.5	2.7	2.0	1.5	0.8	0.7	0.5	0.6		
MAX	4.1	-	5.4	6.8	9.5	9.2	9.0	15.3	13.1	6.0	5.0	12.5	18.0	10.5	13.3	9.9	9.3	13.0	8.5	9.7	2.9	5.7	4.6	3.0		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	610
Maximum 1-HR Average	18.0 PPB
Maximum 24-HR Average	5.5 PPB
Monthly Calibration Standard Deviation	6.2498
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	1.8 PPB

# Lagoon PM<sub>2.5</sub> ( $\mu\text{g}/\text{m}^3$ ) – July 2020

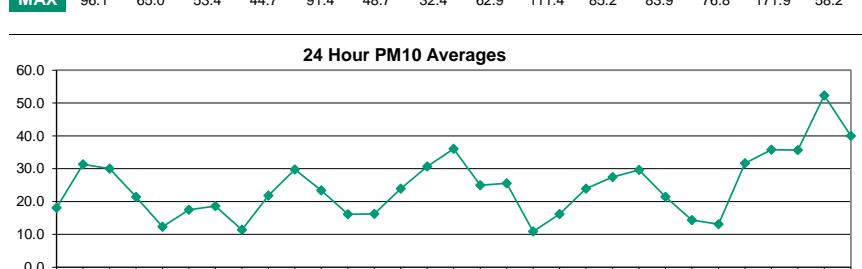
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	5.1	3.7	2.2	0.8	1.5	0.8	3.3	4.4	3.7	0.4	0.1	3.3	2.2	0.1	1.9	1.9	0.0	0.0	0.0	0.1	0.8	0.8	0.0	0.0	1.5	5.1	
2	3.0	4.4	4.0	1.9	0.0	0.0	0.0	45.3	0.0	0.0	0.0	0.0	C	C	7.6	2.9	0.0	0.0	0.0	0.0	1.5	1.5	0.4	0.8	3.3	45.3	
3	5.1	4.7	7.3	6.2	4.4	2.2	0.8	1.5	2.6	2.9	4.0	2.6	2.6	2.9	6.2	4.4	2.6	4.0	3.7	2.9	2.2	20.9	10.9	7.6	4.8	20.9	
4	5.1	5.5	3.3	0.8	2.2	5.8	5.8	5.5	7.6	7.3	7.6	7.1	11.6	6.9	1.9	0.1	3.0	2.6	1.2	0.8	0.8	1.9	2.6	2.2	7.3	4.2	11.6
5	3.0	1.9	1.2	1.5	0.8	0.8	2.6	0.8	0.0	0.1	0.4	3.0	2.6	1.2	0.8	0.8	1.9	2.6	2.2	7.3	6.2	1.2	0.0	0.4	1.8	7.3	
6	4.0	4.9	4.4	1.9	0.4	0.8	2.9	4.2	5.6	7.3	3.7	4.2	6.2	2.9	0.0	4.7	4.7	1.9	1.9	2.6	0.1	5.8	5.1	1.5	3.4	7.3	
7	1.2	3.7	8.7	5.4	6.5	7.6	7.3	6.9	9.4	7.6	10.1	6.5	3.7	P	P	1.2	3.6	4.7	6.2	5.1	20.2	3.3	2.2	0.0	6.0	20.2	
8	0.4	3.3	4.4	1.6	0.1	2.2	1.2	0.4	2.2	3.0	2.2	0.1	1.9	2.9	0.0	0.0	4.8	7.8	3.3	0.1	3.3	4.0	2.6	4.0	2.3	7.8	
9	3.7	4.4	2.2	0.4	3.3	2.6	1.2	1.5	4.7	1.6	2.6	4.7	2.9	1.9	1.5	3.7	4.4	4.7	4.7	3.0	0.8	0.8	1.9	0.8	2.7	4.7	
10	0.0	3.0	3.3	4.4	1.9	0.0	1.2	0.4	1.2	4.4	3.7	0.4	0.0	0.1	3.7	5.1	3.0	3.7	4.0	2.9	2.9	4.4	5.8	5.5	2.7	5.8	
11	2.9	5.1	6.2	4.4	3.3	2.2	1.2	0.8	1.9	3.3	3.7	2.2	4.0	5.1	4.7	4.4	3.7	2.9	2.6	6.2	5.1	4.4	2.2	1.5	3.5	6.2	
12	5.1	4.4	5.5	1.9	0.1	3.7	3.7	17.3	1.9	1.2	0.0	0.0	2.2	0.1	1.2	3.7	3.6	1.9	5.1	4.0	0.4	2.6	3.0	1.5	3.1	17.3	
13	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.8	2.6	2.6	0.0	0.0	2.9	1.9	1.2	1.5	0.9	0.0	0.0	0.0	0.0	0.6	2.9	
14	1.2	1.2	0.4	0.0	1.5	1.5	0.0	0.0	3.6	3.3	1.9	2.2	0.1	0.0	0.4	0.0	0.0	2.6	2.2	1.5	0.8	1.9	1.9	0.0	1.2	3.6	
15	0.0	1.9	1.2	7.6	10.1	5.1	0.8	1.5	2.6	3.7	2.6	1.9	3.3	2.2	2.6	3.3	1.2	0.0	0.1	0.4	2.6	1.9	4.7	4.4	2.7	10.1	
16	8.6	4.7	1.5	1.2	1.5	1.9	2.2	5.5	8.3	6.5	9.4	5.5	0.4	3.3	4.4	4.7	4.7	5.8	4.4	3.7	2.9	2.9	4.4	4.0	4.3	9.4	
17	2.6	1.9	2.6	6.5	4.8	5.6	4.4	2.2	0.1	4.4	5.1	8.7	6.2	2.6	1.9	1.9	0.8	1.9	10.1	6.2	2.9	3.3	1.9	4.0	3.9	10.1	
18	3.3	3.7	3.3	2.6	4.0	1.5	0.0	2.2	5.1	4.4	4.3	5.1	3.3	0.0	0.0	0.1	0.0	2.2	2.9	7.3	5.1	1.9	3.7	5.1	3.0	7.3	
19	4.4	2.6	1.9	8.1	4.7	0.8	5.5	3.7	0.1	0.8	0.0	0.0	0.0	0.0	0.8	1.2	2.2	2.6	3.7	5.1	3.6	3.0	1.5	3.7	2.5	8.1	
20	5.1	9.8	7.3	4.4	3.3	3.6	3.0	3.7	6.5	5.8	2.6	0.4	0.8	1.2	0.1	1.9	1.5	0.1	1.2	4.0	2.2	0.4	1.9	2.2	3.0	9.8	
21	3.7	3.3	6.5	6.5	5.5	5.5	5.1	6.9	9.8	7.3	10.1	7.3	7.6	8.1	10.8	7.2	2.6	3.3	6.2	6.5	6.5	4.7	6.4	10.8			
22	4.0	2.2	2.2	3.3	4.0	4.0	4.4	7.6	10.1	9.8	10.5	14.1	10.4	8.7	5.8	13.0	10.1	10.1	8.0	9.8	10.1	7.6	7.3	7.3	7.7	14.1	
23	5.5	4.4	6.9	8.7	11.2	9.3	9.1	11.6	12.3	17.3	14.1	9.8	11.6	10.8	8.6	4.4	11.9	7.6	4.4	1.9	5.1	6.9	8.7	9.4	8.8	17.3	
24	8.3	10.1	7.3	3.3	4.4	5.1	3.7	8.4	8.7	7.3	7.6	6.2	4.7	2.6	0.8	1.6	2.2	7.3	5.1	0.0	0.0	2.6	1.9	1.2	4.6	10.1	
25	0.1	0.1	2.6	1.2	0.0	1.5	0.8	0.0	0.0	1.6	4.7	3.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	5.1	
26	4.4	4.8	3.3	1.9	0.4	2.6	1.9	0.1	0.0	1.9	4.4	5.1	1.9	0.0	0.0	0.1	0.1	1.9	2.2	1.2	1.9	3.7	2.9	3.7	2.1	5.1	
27	4.7	4.8	8.7	8.0	7.3	5.1	1.9	1.2	2.2	3.3	7.2	7.2	5.1	1.9	0.0	3.1	4.7	2.2	1.9	4.7	5.6	7.6	10.1	11.2	5.0	11.2	
28	11.6	7.3	8.3	7.3	4.3	5.5	8.7	5.9	5.8	7.3	5.8	8.3	5.5	28.8	9.1	5.8	7.6	6.5	5.1	8.7	17.3	13.7	13.7	18.4	9.4	28.8	
29	11.9	15.9	10.5	7.3	7.3	10.5	12.3	11.6	13.7	18.4	17.3	19.5	17.3	20.1	10.8	6.2	4.7	6.2	9.8	13.0	13.0	12.3	16.2	14.4	12.5	20.1	
30	13.4	14.4	12.3	12.3	9.4	9.8	12.3	10.1	13.4	11.2	15.2	15.9	15.2	21.3	15.9	12.6	11.6	11.6	14.4	15.9	12.6	14.8	18.7	20.9	14.0	21.3	
31	15.5	18.4	15.9	15.9	14.4	15.5	14.4	17.7	19.5	14.0	24.8	17.1	16.2	14.6	14.1	10.1	8.2	7.3	6.9	9.8	12.6	10.5	8.0	13.8	24.8		
NO.	31	31	31	31	31	31	31	31	31	31	31	31	30	29	30	31	31	31	31	31	31	31	31	31	740	99.7%	
MEAN	4.7	5.2	5.0	4.4	4.0	4.0	3.9	6.0	5.1	5.4	6.0	5.6	5.2	5.2	3.7	3.7	3.9	3.9	3.9	4.1	4.7	5.1	5.1	5.0			
MAX	15.5	18.4	15.9	15.9	14.4	15.5	14.4	45.3	19.5	18.4	24.8	19.5	17.3	28.8	15.9	13.0	11.9	11.6	14.4	15.9	20.2	20.9	18.7	20.9			



Number of 24HR Exceedences	0
Number of Non-Zero Readings	665
Maximum 1-HR Average	45.3 UG/M3
Maximum 24-HR Average	14.0 UG/M3
Monthly Calibration Standard Deviation	4.754
Operational Time	742 HRS
Operational Uptime	99.7 %
Monthly Average	4.7 UG/M3

# Lagoon PM<sub>10</sub> ( $\mu\text{g}/\text{m}^3$ ) – July 2020

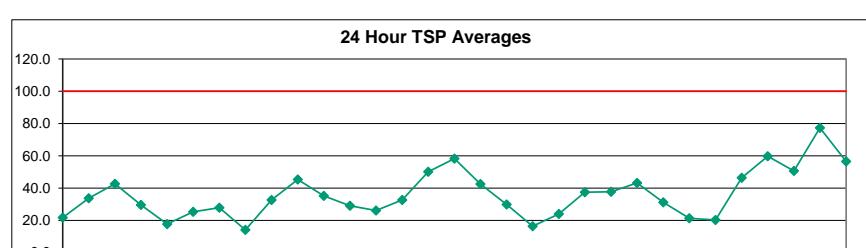
	HOUR																								MEAN	MAX
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	16.3	14.1	14.1	13.5	6.7	16.2	14.1	34.5	25.0	10.1	20.2	29.0	25.0	22.3	75.1	22.3	16.2	13.5	4.6	0.0	1.9	9.4	8.0	21.6	18.1	75.1
2	50.7	65.0	24.3	17.5	91.4	48.7	16.2	29.0	22.3	8.7	10.8	36.5	C	C	81.9	21.6	41.2	20.9	9.2	56.1	32.4	5.3	0.0	0.0	31.3	91.4
3	0.0	42.6	31.8	24.3	16.2	6.7	14.8	12.1	41.2	85.2	69.0	30.4	15.5	25.1	38.5	35.1	60.9	48.3	46.0	33.1	10.1	18.8	10.7	4.6	30.0	85.2
4	2.6	10.8	12.8	9.4	6.7	10.1	10.1	16.2	67.7	21.5	30.4	25.0	171.9	6.7	2.6	1.9	42.6	27.7	14.1	10.1	9.3	4.0	0.0	0.0	21.4	171.9
5	1.3	6.7	5.3	4.0	3.3	6.7	8.2	4.6	4.6	6.9	27.7	29.7	18.9	12.8	7.4	18.9	28.1	22.9	19.5	37.2	12.8	8.1	0.0	0.0	12.3	37.2
6	28.4	6.0	5.3	5.3	10.8	10.7	10.1	12.8	41.2	38.5	43.9	45.3	21.6	12.1	17.5	22.9	15.9	16.2	5.5	21.6	12.8	14.8	0.0	0.0	17.5	45.3
7	0.0	0.6	15.5	14.8	11.4	15.5	19.3	28.4	52.1	35.1	46.0	39.9	60.2	P	P	0.0	29.0	1.3	7.4	13.5	12.2	5.3	1.3	0.0	18.6	60.2
8	1.9	8.8	6.7	6.0	8.0	10.8	8.7	4.0	7.4	20.9	33.5	25.6	36.7	10.1	10.7	9.4	6.7	20.4	14.1	19.5	2.6	1.3	0.0	0.0	11.4	36.7
9	0.0	2.9	4.0	6.7	8.8	7.4	0.0	16.5	27.0	37.2	54.8	62.2	29.0	26.3	48.7	59.7	43.3	37.2	41.9	4.6	0.0	0.0	0.0	6.0	21.8	62.2
10	2.8	4.0	10.1	7.4	1.9	3.3	2.6	14.8	31.1	31.1	40.5	28.4	30.0	31.7	60.2	63.6	70.3	51.4	43.9	45.3	34.2	20.3	28.4	56.8	29.7	70.3
11	4.6	19.5	16.8	38.5	0.0	3.3	9.4	20.9	33.8	64.8	34.4	35.5	38.5	29.0	27.0	32.4	18.2	20.9	16.8	27.0	12.8	10.1	17.4	29.7	23.4	64.8
12	96.1	26.3	0.0	0.0	0.0	23.6	0.0	0.0	7.4	60.9	35.1	12.8	10.1	2.6	25.1	10.1	9.4	18.9	43.3	2.6	0.0	0.0	0.0	2.6	16.1	96.1
13	1.9	4.0	1.3	0.0	4.6	5.3	1.3	29.7	6.7	8.7	23.6	30.4	36.5	18.2	42.6	35.1	29.7	32.4	45.3	20.9	7.4	4.0	0.0	0.0	16.2	45.3
14	0.4	18.9	8.0	7.4	5.3	7.4	6.7	29.7	40.5	45.8	38.5	40.5	39.9	31.1	60.2	44.6	31.7	24.3	27.4	17.5	18.2	13.5	10.1	6.9	23.9	60.2
15	4.6	1.9	19.5	27.0	58.2	21.6	13.4	21.6	73.1	48.7	29.7	41.9	26.5	44.6	42.6	47.1	14.1	17.5	31.1	30.4	37.0	13.5	38.5	33.1	30.7	73.1
16	43.5	47.3	18.1	2.6	0.0	4.6	8.0	35.1	99.5	36.4	62.9	56.8	24.3	33.1	48.7	70.3	66.3	62.2	21.6	33.1	21.6	16.2	34.4	18.9	36.1	99.5
17	22.9	0.0	0.0	7.4	6.0	19.5	0.0	1.9	7.4	29.2	45.3	28.4	38.0	54.1	41.9	50.7	31.7	48.7	79.8	30.9	33.1	22.3	0.0	0.0	25.0	79.8
18	0.0	0.0	1.3	4.0	7.4	10.1	7.4	6.0	17.5	18.9	31.7	14.7	12.2	20.9	40.5	33.8	35.1	50.7	29.7	99.5	24.3	75.8	41.9	30.4	25.6	99.5
19	4.6	5.9	18.9	44.7	0.6	6.7	5.2	14.8	29.7	18.2	7.4	10.1	8.0	10.7	11.4	7.4	24.5	11.4	10.0	0.0	0.0	0.0	0.0	10.8	44.7	
20	6.0	12.1	14.8	18.9	14.8	13.5	21.6	28.4	41.6	43.3	45.3	14.1	12.8	22.3	3.3	21.8	15.5	10.6	8.7	5.2	6.0	4.0	1.3	3.3	16.2	45.3
21	0.0	0.0	2.6	11.4	26.6	18.2	15.5	18.9	25.0	51.4	54.8	38.5	44.6	34.4	54.1	10.7	46.0	28.4	14.8	10.8	18.2	17.5	10.7	20.9	23.9	54.8
22	0.0	0.0	4.6	10.1	8.7	8.3	7.4	32.3	48.0	62.2	38.5	30.4	30.4	44.7	38.5	54.1	37.2	33.1	41.9	21.6	33.6	23.6	33.8	16.1	27.5	62.2
23	14.8	31.7	6.0	33.1	18.2	29.1	12.1	29.0	35.5	33.8	40.5	39.9	37.2	30.8	79.8	19.5	121.1	41.9	11.4	12.8	14.1	8.3	7.4	3.3	29.6	121.1
24	2.8	26.3	16.8	11.4	21.6	16.8	11.4	22.3	54.1	30.4	43.3	33.8	21.9	26.5	44.6	31.5	8.7	43.6	0.0	1.9	16.8	10.1	12.1	4.6	21.4	54.1
25	0.6	6.0	53.4	4.0	4.6	3.3	1.3	7.4	12.1	20.4	18.2	12.8	12.2	8.7	15.5	28.4	15.1	21.5	41.9	15.5	16.1	11.4	8.0	5.3	14.3	53.4
26	1.3	0.0	0.0	4.0	5.3	4.6	4.0	5.3	14.9	26.3	58.8	41.6	16.9	16.2	14.6	16.8	14.8	16.8	3.3	4.0	8.3	9.4	15.1	11.4	13.1	58.8
27	4.0	0.0	27.0	33.8	22.9	29.7	32.4	37.8	58.8	79.8	73.7	76.8	38.5	17.5	14.8	26.3	38.2	22.9	12.8	27.7	22.9	21.6	18.2	20.9	31.6	79.8
28	22.9	19.5	31.7	38.5	25.0	21.6	29.7	30.4	111.4	43.4	37.4	51.4	18.2	22.9	29.0	28.4	47.4	36.5	23.0	34.4	50.7	46.6	34.3	24.3	35.8	111.4
29	15.5	17.5	23.0	20.9	22.9	3.3	16.4	33.8	69.7	70.3	57.5	43.9	46.0	54.1	33.0	46.7	27.7	34.4	50.0	33.1	27.7	32.4	37.8	37.8	35.6	70.3
30	67.6	59.5	31.5	35.1	14.8	29.0	8.7	26.3	67.0	73.7	60.9	48.0	61.7	58.2	67.6	83.2	35.8	38.5	55.4	179.4	13.6	37.2	66.0	36.5	52.3	179.4
31	31.1	40.5	29.7	29.7	40.5	30.4	18.9	62.9	53.4	62.6	83.9	44.6	48.7	36.5	48.8	37.2	31.7	33.8	18.9	34.4	45.3	30.9	33.8	31.4	40.0	83.9
NO.	31	31	31	31	31	31	31	31	31	31	31	30	29	30	31	31	31	31	31	31	31	31	31	31	740	99.7%
MEAN	14.5	16.1	14.7	15.8	15.3	14.4	10.8	21.5	39.6	39.5	41.9	35.4	34.4	26.3	37.5	32.1	33.4	29.7	25.6	28.8	17.9	16.0	15.1	13.8		
MAX	96.1	65.0	53.4	44.7	91.4	48.7	32.4	62.9	111.4	85.2	83.9	76.8	171.9	58.2	81.9	83.2	121.1	62.2	79.8	179.4	50.7	75.8	66.0	56.8		



Number of Non-Zero Readings	688
Maximum 1-HR Average	179.4 $\mu\text{g}/\text{m}^3$
Maximum 24-HR Average	52.3 $\mu\text{g}/\text{m}^3$
Operational Time	742 HRS
Monthly Calibration Standard Deviation	21.38
Operational Uptime	99.7 %
Monthly Average	24.6 $\mu\text{g}/\text{m}^3$

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

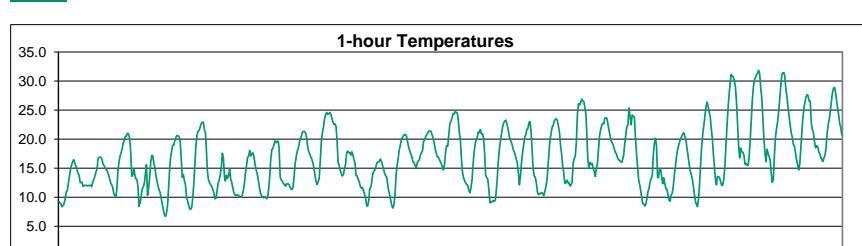
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	20.9	19.6	20.9	7.1	8.5	22.9	18.2	40.3	27.7	14.1	11.3	20.9	41.7	40.3	29.2	38.9	22.3	20.9	4.3	7.1	26.5	13.2	12.6	31.9	21.7	41.7
2	47.2	34.8	25.1	26.5	25.1	14.0	29.2	50.0	44.4	19.6	23.7	33.4	C	C	79.0	27.8	54.1	20.9	23.6	73.4	45.8	19.5	7.1	19.6	33.8	79.0
3	15.4	56.9	38.9	37.5	19.6	18.2	18.2	5.7	52.7	98.3	59.6	45.8	22.3	34.7	56.9	67.9	105.5	72.0	49.9	52.5	19.5	25.1	27.8	22.3	42.6	105.5
4	22.3	19.6	9.9	12.6	16.8	12.6	7.1	11.3	109.4	38.9	45.9	25.1	204.7	10.5	9.9	5.7	37.7	18.2	15.4	22.3	25.4	5.7	14.1	9.9	29.6	204.7
5	10.5	19.6	9.9	8.5	5.7	1.6	0.0	0.2	1.6	9.9	8.5	27.8	12.6	14.0	15.4	36.1	49.9	38.9	30.7	59.6	36.1	8.5	10.9	8.5	17.7	59.6
6	19.6	22.3	14.0	11.3	12.6	8.5	15.4	10.8	52.7	40.2	30.6	40.3	22.3	29.2	29.2	46.5	30.6	18.2	12.6	36.1	22.3	32.0	27.8	23.7	25.4	52.7
7	18.2	22.3	26.5	16.8	18.2	22.3	23.7	37.5	90.0	42.7	66.5	44.4	P	P	9.9	34.8	11.3	15.4	16.3	19.6	8.5	5.7	5.7	27.9	90.0	
8	4.4	9.9	5.7	5.7	14.0	13.2	5.7	7.1	8.5	12.6	37.5	14.0	30.6	16.8	8.5	8.5	23.7	34.7	22.3	23.7	11.3	8.5	8.2	5.7	14.2	37.5
9	9.9	7.1	9.9	14.0	18.2	1.6	4.4	16.6	26.5	37.5	43.0	74.8	34.7	33.4	79.0	98.3	77.6	73.4	77.6	16.8	8.5	7.1	8.5	7.1	32.7	98.3
10	7.1	12.6	7.1	3.2	5.7	4.4	3.0	16.8	36.1	22.3	33.4	41.7	43.0	47.2	106.6	103.8	103.8	80.3	83.1	90.0	51.3	34.7	63.8	87.2	45.3	106.6
11	18.2	40.3	37.5	73.7	15.4	15.4	5.7	15.4	51.3	61.0	25.1	48.6	69.3	32.0	32.0	33.1	30.6	36.1	29.2	45.8	33.4	17.1	32.0	47.2	35.2	73.7
12	160.5	54.1	18.2	5.7	14.0	37.5	3.1	7.1	8.3	80.3	40.3	20.9	11.3	14.0	32.0	18.9	15.4	34.7	66.5	5.8	7.1	9.8	29.2	4.4	29.1	160.5
13	9.9	4.4	0.2	4.3	19.6	8.5	5.7	38.9	12.6	19.6	30.2	40.0	41.7	25.1	56.9	52.7	49.9	49.0	74.8	40.3	20.9	11.3	8.5	4.4	26.2	74.8
14	12.6	31.7	15.4	1.6	5.7	8.5	5.7	36.1	36.1	37.5	30.6	44.4	65.2	58.2	106.6	71.0	48.6	32.0	45.8	22.3	33.4	16.8	11.3	8.5	32.7	106.6
15	4.3	25.1	38.9	48.6	99.7	23.7	14.0	23.7	112.1	59.6	38.9	52.8	52.7	63.8	63.8	72.0	30.6	29.2	55.5	58.2	66.5	24.6	81.7	64.8	50.2	112.1
16	83.9	83.1	23.7	8.5	15.4	16.8	7.1	45.8	116.3	38.9	109.3	85.9	32.0	59.6	81.7	123.2	124.5	106.6	36.1	44.4	27.8	22.3	62.4	44.4	58.3	124.5
17	40.3	5.5	29.2	14.0	11.3	12.6	8.5	9.9	14.0	32.0	33.4	24.5	63.8	90.0	81.7	83.1	56.9	80.3	149.4	55.5	54.1	41.7	8.5	20.9	42.5	149.4
18	7.1	19.6	9.8	10.5	11.3	9.9	5.5	5.7	18.2	7.1	12.6	11.2	16.8	36.1	74.8	55.5	63.8	85.9	47.2	59.6	38.9	30.6	43.0	36.1	29.9	85.9
19	8.5	8.5	15.4	80.3	4.3	21.0	19.6	9.9	18.2	7.1	5.9	5.8	9.9	8.5	18.2	20.9	13.9	30.6	22.3	23.3	8.5	8.3	15.4	12.6	16.5	80.3
20	16.8	23.7	9.9	15.4	18.2	16.8	19.6	26.5	54.2	34.7	54.1	7.1	19.0	36.2	9.9	43.0	37.5	37.5	19.5	18.2	16.8	12.6	16.8	14.0	24.1	54.2
21	13.1	10.6	11.3	8.5	43.1	16.8	15.4	30.5	26.5	62.4	45.8	61.0	65.1	55.5	94.2	40.3	84.5	48.6	26.5	22.3	37.8	33.4	18.2	30.6	37.6	94.2
22	14.0	20.9	18.2	16.8	12.6	15.4	12.6	37.5	59.6	76.2	38.9	36.1	54.1	73.4	41.7	65.1	59.6	45.8	58.2	32.0	38.9	29.2	32.0	16.8	37.7	76.2
23	15.4	15.4	16.8	26.5	16.8	16.9	22.3	29.2	37.5	36.1	41.7	58.2	37.5	37.5	142.5	44.4	219.9	74.8	30.6	18.2	27.8	15.4	30.6	26.5	43.3	219.9
24	32.0	51.2	15.4	9.9	19.6	25.1	18.2	37.5	83.1	45.8	61.0	55.5	16.8	11.3	25.1	52.8	20.9	77.6	4.4	1.6	22.3	25.3	35.8	3.0	31.3	83.1
25	12.6	13.1	76.2	7.1	9.9	5.3	8.0	12.6	11.3	4.3	8.5	8.5	12.6	9.9	27.8	40.3	23.6	27.8	69.3	26.5	36.1	22.3	11.3	27.8	21.4	76.2
26	16.8	14.0	9.9	10.6	5.7	9.9	8.5	9.9	18.2	33.4	56.9	43.0	18.2	15.4	14.0	22.3	29.2	33.4	18.2	20.9	18.2	20.9	19.5	20.9	20.3	56.9
27	12.6	14.0	40.3	65.2	37.4	36.1	33.4	43.0	91.4	117.6	91.4	84.5	48.6	23.6	18.2	36.1	55.5	33.4	32.0	51.3	30.6	48.6	37.5	32.6	46.5	117.6
28	36.1	26.5	62.4	72.1	55.5	40.3	51.3	47.2	163.3	67.9	44.4	80.3	23.7	43.0	48.6	44.4	84.5	61.0	49.9	63.8	80.3	49.9	44.4	59.7	163.3	
29	37.5	29.2	30.6	38.9	30.6	18.2	43.1	50.0	90.0	65.1	55.5	48.8	58.2	79.0	43.0	51.3	47.2	54.1	88.6	51.3	56.9	49.9	51.3	47.2	50.6	90.0
30	88.6	81.7	43.0	47.2	30.6	44.4	30.6	52.7	134.2	87.2	66.5	49.9	83.1	88.6	81.7	145.0	51.3	55.5	92.8	311.1	23.7	47.2	90.0	30.6	77.4	311.1
31	34.7	45.8	32.0	34.7	63.8	54.6	33.4	95.5	84.5	81.8	138.4	65.1	45.8	45.8	73.4	41.7	49.9	45.8	34.7	55.5	76.2	51.3	34.7	38.9	56.6	138.4
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	740	99.7%
MEAN	27.5	27.2	23.3	24.0	22.1	18.5	16.0	27.8	54.5	44.9	44.8	41.9	43.8	39.1	52.7	51.6	56.1	47.4	44.7	46.0	33.4	25.2	29.2	25.7		
MAX	160.5	83.1	76.2	80.3	99.7	54.6	51.3	95.5	163.3	117.6	138.4	85.9	204.7	90.0	142.5	145.0	219.9	106.6	149.4	311.1	92.8	80.3	90.0	87.2		



Number of 24HR Exceedences	0
Number of Non-Zero Readings	739
Maximum 1-HR Average	311.1 UG/M3
Maximum 24-HR Average	77.4 UG/M3
Monthly Calibration Standard Deviation	30.4
Operational Time	742 HRS
Operational Uptime	99.7 %
Monthly Average	36.1 UG/M3

# Lagoon Temperature (°C) – July 2020

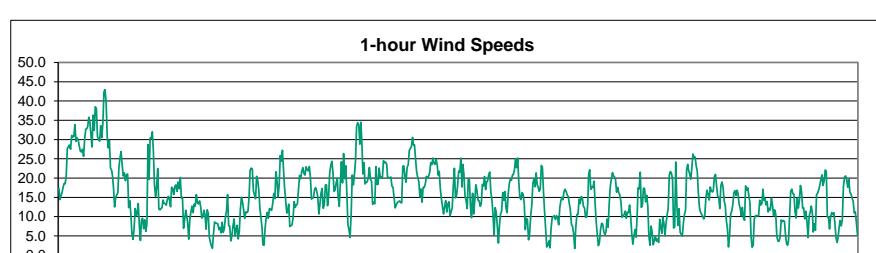
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	9.2	9.0	8.7	8.4	8.6	8.9	9.9	10.9	11.3	12.4	13.6	14.9	15.6	16.1	16.5	15.8	15.4	14.8	14.2	13.8	12.5	12.6	12.6	11.8	12.4	16.5	
2	12.1	12.0	12.1	12.0	12.0	12.1	12.1	11.8	12.6	13.1	13.6	14.3	14.8	16.7	16.9	16.9	16.9	16.4	15.6	15.4	14.9	14.8	14.4	13.9	14.1	16.9	
3	13.2	12.5	12.1	11.7	10.6	10.4	10.0	11.5	14.4	16.1	17.0	17.7	18.4	19.3	19.8	20.5	20.5	21.0	20.9	20.2	18.0	13.6	13.9	14.9	15.7	21.0	
4	14.0	13.2	13.1	11.9	8.4	9.1	10.1	11.5	11.8	12.4	14.1	15.6	11.6	13.5	16.0	17.2	17.2	16.0	15.2	14.0	12.8	12.0	11.3	13.0	13.0	17.2	
5	10.8	9.9	8.8	7.9	7.1	6.7	7.3	8.7	11.8	15.0	16.8	17.9	19.0	19.0	19.8	20.3	20.6	20.6	20.4	19.7	16.7	13.4	13.9	12.8	14.4	20.6	
6	12.1	9.9	9.4	8.8	8.1	7.9	8.2	9.8	12.3	15.6	18.9	20.7	21.4	21.5	22.1	22.7	22.9	22.9	21.6	21.0	17.5	14.4	13.0	12.5	15.6	22.9	
7	12.1	11.9	11.4	10.8	9.8	9.8	11.1	12.4	13.0	13.8	15.2	17.6	16.7	13.4	12.8	13.8	13.3	13.7	14.8	13.2	12.6	11.6	10.8	10.4	12.7	17.6	
8	10.3	10.4	10.4	10.2	10.1	10.1	10.4	11.1	12.2	14.2	15.4	16.8	17.1	18.0	17.1	17.5	17.7	17.0	15.7	14.8	14.1	13.1	11.8	10.8	13.6	18.0	
9	10.4	10.1	9.9	10.1	10.0	9.8	9.9	11.4	13.5	16.6	18.2	18.4	19.0	19.7	19.4	19.6	18.5	18.5	13.0	12.8	12.4	12.2	11.9	14.2	19.7		
10	12.3	12.3	12.3	11.9	11.5	11.3	11.7	13.4	15.7	16.9	17.8	18.4	19.1	20.0	20.4	21.2	21.3	21.3	21.1	20.3	18.8	17.9	17.4	16.9	16.7	21.3	
11	16.5	15.9	14.9	13.8	12.8	12.2	12.6	13.2	16.1	19.5	21.1	22.0	23.4	24.2	24.6	24.3	24.4	24.6	24.3	23.5	22.9	22.5	22.6	22.3	19.8	24.6	
12	19.6	15.9	15.5	14.6	14.0	13.7	14.0	14.9	15.8	17.6	18.0	17.6	17.7	17.3	17.8	17.4	16.5	15.9	13.8	13.7	13.1	12.7	11.8	11.6	15.4	19.6	
13	11.7	11.1	10.5	9.7	8.5	8.6	9.6	11.5	11.7	12.8	14.2	14.5	14.5	14.8	15.4	16.0	16.1	16.1	16.6	16.2	15.5	14.9	14.1	13.7	13.4	13.2	16.6
14	12.3	11.1	10.4	9.4	8.5	8.1	8.8	10.6	14.0	15.6	16.8	18.2	19.0	19.9	20.3	20.6	20.8	20.8	20.5	19.5	18.6	18.0	17.5	16.9	15.7	20.8	
15	16.1	15.9	15.5	15.1	15.9	16.3	16.5	17.3	17.7	18.0	19.5	19.8	20.4	20.7	21.0	21.4	21.4	21.4	20.8	20.3	19.4	18.4	17.6	17.0	18.5	21.4	
16	16.9	16.5	16.0	15.7	15.2	14.7	15.7	17.9	18.9	18.8	20.8	22.7	23.1	23.7	24.4	24.3	24.8	24.6	24.5	23.0	20.9	20.0	16.8	14.4	19.8	24.8	
17	13.3	12.9	12.4	12.2	12.0	11.2	10.8	11.7	13.0	15.8	17.9	19.3	19.9	20.4	21.2	21.1	21.7	20.9	20.9	20.2	17.6	13.7	13.4	13.1	16.1	21.7	
18	11.3	9.1	9.1	9.3	9.4	9.3	9.5	10.8	13.2	16.2	18.3	19.6	20.9	22.1	22.8	23.1	23.3	22.7	21.9	20.8	20.0	19.6	19.0	18.2	16.6	23.3	
19	17.8	17.4	16.6	15.9	14.3	12.1	13.8	16.0	17.7	19.0	20.3	20.7	21.7	21.9	22.8	23.0	21.1	18.7	15.1	13.7	13.5	12.6	11.1	10.4	17.0	23.0	
20	10.6	10.6	10.8	10.7	10.3	10.9	11.8	12.8	15.2	17.8	19.9	20.8	22.0	22.3	23.1	23.4	23.5	23.3	22.3	21.1	18.9	17.4	15.4	14.3	17.1	23.5	
21	12.4	12.5	12.9	12.5	12.5	12.0	12.1	12.5	15.8	16.6	17.1	19.3	24.3	26.1	25.8	26.2	26.9	26.6	26.5	25.5	24.2	21.0	16.5	14.9	18.9	26.9	
22	16.0	15.7	15.9	14.9	14.4	13.6	15.0	15.8	18.2	20.6	21.6	22.4	22.7	22.6	23.5	23.7	23.6	22.7	21.6	20.6	19.7	19.4	19.0	18.4	19.2	23.7	
23	17.7	17.5	16.9	16.5	16.4	16.1	16.0	16.5	17.2	19.2	20.7	22.2	22.5	25.4	23.9	22.5	24.2	23.9	23.9	20.5	17.7	15.4	13.1	12.2	19.1	25.4	
24	11.4	10.1	9.0	8.9	8.5	8.8	9.7	11.0	11.6	12.6	13.2	13.7	17.2	19.2	20.2	18.9	13.4	13.4	14.7	14.9	13.7	12.3	13.4	12.4	13.0	20.2	
25	11.5	11.3	10.4	9.5	9.3	10.4	10.7	12.0	14.0	15.4	16.9	18.0	18.8	19.5	20.1	20.5	20.9	21.1	20.5	19.8	18.4	17.2	15.7	14.6	15.7	21.1	
26	13.9	13.2	11.9	10.7	9.5	8.8	8.4	9.6	12.3	15.8	18.8	20.9	22.4	24.0	25.5	26.4	25.6	24.7	23.8	21.8	20.1	17.8	15.5	13.3	17.3	26.4	
27	12.1	13.6	13.5	13.3	12.6	12.0	12.1	13.3	15.5	19.2	22.5	25.5	28.0	29.8	31.1	30.9	30.7	30.0	29.1	26.5	22.8	18.9	16.8	18.5	20.8	31.1	
28	17.8	17.7	17.3	15.7	15.9	15.4	15.5	16.8	19.5	22.9	26.5	28.9	30.2	30.6	31.1	31.4	31.8	31.1	28.8	27.0	23.5	19.9	17.5	16.1	22.9	31.8	
29	18.2	17.6	17.0	16.4	14.2	12.5	13.1	17.2	20.4	21.9	23.0	24.8	27.0	29.2	31.1	31.4	31.4	30.7	28.5	27.3	25.3	23.9	22.4	21.1	22.7	31.4	
30	20.3	19.0	18.8	17.6	16.4	15.6	14.7	15.7	18.5	21.4	23.5	25.2	26.3	27.2	27.6	27.5	26.5	26.5	22.7	21.7	21.1	19.5	18.5	18.9	21.3	27.6	
31	18.7	17.9	17.4	16.9	16.5	16.1	16.7	17.2	18.4	20.9	22.4	23.4	24.7	26.5	27.9	28.7	28.9	27.9	26.6	25.3	24.0	22.7	21.1	20.7	22.0	28.9	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%
MEAN	14.0	13.3	12.9	12.4	11.7	11.4	11.9	13.1	14.9	16.9	18.5	19.7	20.6	21.4	21.9	22.2	22.0	21.7	20.7	19.6	18.1	16.6	15.5	14.8			
MAX	20.3	19.0	18.8	17.6	16.5	16.3	16.7	17.9	20.4	22.9	26.5	28.9	30.2	30.6	31.1	31.4	31.8	31.1	29.1	27.3	25.3	23.9	22.6	22.3			



Number of Non-Zero Readings	744
Maximum 1-HR Average	31.8 C
Maximum 24-HR Average	22.9 C
Monthly Calibration Standard Deviation	5.211
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	16.9 C

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

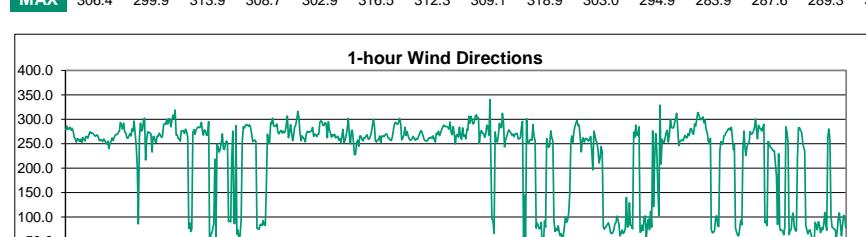
Day	HOUR																								MEAN	MAX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	17.3	14.4	15.5	16.1	17.5	18.6	18.5	20.7	27.7	28.1	28.6	27.5	31.0	30.6	30.8	33.9	29.5	30.5	30.0	28.3	27.0	26.8	27.5	25.7	25.1	33.9		
2	30.2	32.7	32.9	33.3	35.8	34.5	31.1	28.1	36.4	32.4	38.5	38.0	30.8	30.1	29.6	33.6	30.5	34.4	42.5	43.0	39.6	30.7	27.8	29.8	33.6	43.0	17.1	
3	22.6	22.1	20.7	17.5	12.5	15.0	15.7	16.2	22.8	25.4	26.9	23.3	20.6	21.4	19.3	20.9	21.0	12.3	14.2	10.7	5.5	4.1	6.9	12.1	15.5	32.0	26.9	
4	10.2	10.7	13.4	7.8	3.8	9.2	9.6	6.9	9.2	6.2	8.1	28.7	19.7	30.4	30.4	32.0	26.8	18.1	15.3	17.9	22.5	12.0	11.8	12.1	15.5	20.2	12.1	
5	12.4	14.3	13.5	13.3	12.9	14.4	15.2	14.4	12.5	17.7	17.3	15.7	17.8	18.2	16.5	19.0	17.2	20.2	14.9	15.0	7.0	9.2	11.6	10.0	14.6	20.2	9.8	
6	8.3	4.2	9.4	11.3	12.7	11.0	13.2	12.7	15.7	13.6	13.3	14.1	12.6	9.6	10.0	11.6	10.5	6.8	11.8	10.8	4.6	3.3	2.3	1.8	9.8	15.7	7.6	
7	5.5	8.6	8.3	8.2	8.2	6.6	7.2	5.8	8.6	5.9	6.9	9.9	11.4	15.7	7.7	7.5	3.7	4.9	7.6	9.4	5.0	6.7	7.8	4.2	7.6	15.7	2.5	
8	6.1	11.8	15.0	13.8	11.8	9.6	11.2	11.0	11.3	14.8	22.0	22.6	22.4	16.8	15.7	14.6	20.5	19.5	16.9	12.2	9.7	7.1	2.7	2.5	13.4	22.6	13.4	
9	6.9	9.6	11.1	9.5	12.1	11.9	11.6	13.3	16.0	14.6	21.7	19.3	15.1	18.3	25.9	24.4	27.2	22.2	17.4	14.1	10.9	11.3	13.3	7.4	15.2	27.2	15.2	
10	7.6	7.9	9.6	13.9	12.4	13.0	13.3	16.9	20.7	19.8	21.7	22.7	21.2	20.8	23.0	22.1	21.8	23.0	20.2	14.5	14.9	14.8	17.0	17.5	17.1	23.0	17.5	
11	16.6	15.1	10.7	13.2	16.1	17.3	12.2	13.0	18.2	18.3	12.8	15.3	21.4	23.4	24.4	21.5	16.6	16.9	18.9	19.9	15.2	12.7	18.7	24.2	17.2	24.4	17.2	
12	18.8	26.4	19.8	23.2	16.3	7.9	6.6	4.6	10.8	20.8	18.2	20.8	24.6	33.4	34.4	33.9	28.8	34.5	28.2	21.1	24.0	18.5	18.9	19.1	21.4	34.5	19.9	24.5
13	20.2	22.8	19.6	19.1	13.2	13.7	13.4	23.0	18.4	18.4	22.6	20.1	20.3	20.1	24.5	24.0	24.1	23.6	20.0	20.2	20.0	20.3	17.9	17.6	19.9	24.5	19.9	
14	14.8	12.3	13.0	13.7	13.9	14.1	13.7	13.6	23.1	23.2	20.4	18.9	22.8	23.4	27.1	27.7	28.2	30.5	28.7	28.7	24.9	21.6	20.2	19.1	20.7	30.5	20.7	
15	15.1	17.2	13.8	17.6	17.6	18.6	20.4	19.9	20.5	21.5	24.0	23.5	25.2	23.9	23.5	24.8	23.3	20.8	21.7	17.4	14.6	12.6	10.7	12.6	19.2	25.2	19.2	
16	14.1	11.2	13.3	13.9	10.2	11.3	12.3	17.9	22.6	14.8	15.5	18.2	21.9	21.5	25.2	17.7	23.5	20.9	15.3	14.1	12.1	19.7	19.6	12.7	16.7	25.2	12.7	
17	9.8	16.0	10.7	14.3	18.2	16.8	14.3	14.1	12.7	13.3	18.4	17.9	20.4	17.0	19.1	19.2	20.8	21.6	16.4	14.3	10.6	5.3	12.3	11.1	15.2	21.6	11.1	
18	7.5	3.1	7.8	10.7	11.5	16.3	14.3	16.5	12.2	11.0	15.8	18.5	19.7	19.4	20.8	20.9	22.2	25.0	22.7	25.2	19.0	14.9	14.4	16.2	16.1	25.2	13.3	
19	15.8	13.6	6.7	9.5	9.0	4.0	5.7	10.2	13.0	18.6	19.8	17.7	21.4	18.2	18.7	16.6	17.2	23.3	22.8	16.3	11.2	6.6	2.1	2.5	13.3	23.3	13.3	
20	3.7	1.9	7.1	9.7	10.0	10.3	9.3	10.3	9.7	7.9	12.3	14.2	15.0	14.4	16.3	17.1	16.6	15.7	15.2	13.4	11.6	7.9	7.5	5.5	10.9	17.1	10.9	
21	1.7	7.3	10.5	10.6	14.6	13.4	15.2	14.8	12.7	12.3	9.8	10.0	13.2	20.9	22.1	17.1	17.8	17.5	19.2	13.3	8.6	5.3	2.5	3.3	12.2	22.1	12.2	
22	6.6	8.3	8.1	6.1	5.3	6.0	9.3	7.2	13.5	17.9	19.8	21.4	20.6	20.4	19.7	16.4	17.6	16.2	15.7	13.8	9.9	10.1	10.6	11.4	13.0	21.4	11.0	
23	9.6	11.2	11.0	13.0	10.0	5.5	2.8	5.0	6.6	4.7	10.6	17.4	17.2	21.5	12.4	13.0	17.4	17.3	13.9	15.5	12.6	4.9	2.6	7.6	11.0	21.5	11.0	
24	6.0	2.7	3.8	4.8	3.6	4.2	3.3	9.3	7.2	5.6	9.8	8.4	5.1	8.2	10.4	12.2	20.7	21.7	21.3	19.7	7.0	7.4	24.1	12.9	10.0	24.1	10.0	
25	7.7	12.1	6.0	5.4	4.9	8.3	10.5	11.7	22.2	23.6	22.0	21.1	19.7	22.5	26.3	25.4	25.5	23.2	21.8	16.2	12.4	11.1	10.7	10.1	15.8	26.3	15.8	
26	9.4	10.4	15.1	16.8	15.8	14.3	17.7	16.6	16.4	18.6	20.3	21.0	18.0	15.4	15.0	12.1	18.1	19.0	17.6	14.2	12.9	9.1	6.9	2.1	14.6	21.0	14.6	
27	5.1	10.7	11.4	13.1	16.2	16.7	15.5	16.8	16.0	13.3	12.1	10.2	12.4	9.7	9.1	18.0	16.9	17.5	15.4	13.7	4.9	2.0	2.6	9.4	12.0	18.0	12.0	
28	10.2	10.3	10.2	10.2	14.2	13.0	13.4	17.1	14.2	14.8	13.1	13.9	11.2	12.2	11.7	14.8	13.0	10.3	11.8	10.6	4.9	3.6	3.6	4.7	11.1	17.1	11.1	
29	9.1	8.7	9.0	8.8	5.4	2.9	2.5	3.9	10.3	16.6	17.1	16.0	15.7	11.2	9.6	14.8	12.2	14.2	18.1	16.5	12.2	12.3	9.4	11.4	11.2	18.1	11.2	
30	8.7	4.5	10.1	11.2	12.7	10.8	6.0	8.2	6.5	15.7	16.1	17.0	18.1	19.5	20.8	18.1	19.2	22.1	21.8	10.0	9.9	6.8	10.0	11.0	13.1	22.1	13.1	
31	10.5	11.0	8.0	4.5	3.3	4.4	7.1	9.0	7.6	9.2	17.7	20.2	20.6	19.6	17.6	19.7	16.3	15.9	14.8	14.0	11.0	11.2	8.3	5.2	11.9	20.6	11.9	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%		
MEAN	11.2	12.0	12.1	12.7	12.3	12.0	12.0	13.2	15.3	16.0	17.8	18.8	18.9	19.6	19.9	20.2	20.2	20.0	19.1	16.9	13.4	11.3	11.7	11.4				
MAX	30.2	32.7	32.9	33.3	35.8	34.5	31.1	28.1	36.4	32.4	38.5	38.0	31.0	33.4	34.4	33.9	30.5	34.5	42.5	43.0	39.6	30.7	27.8	29.8				



Number of Non-Zero Readings	744
Maximum 1-HR Average	43.0 KM/HR
Maximum 24-HR Average	33.6 KM/HR
Monthly Calibration Standard Deviation	7.267
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	15.3 KM/HR

# Lagoon Wind Direction (°) – July 2020

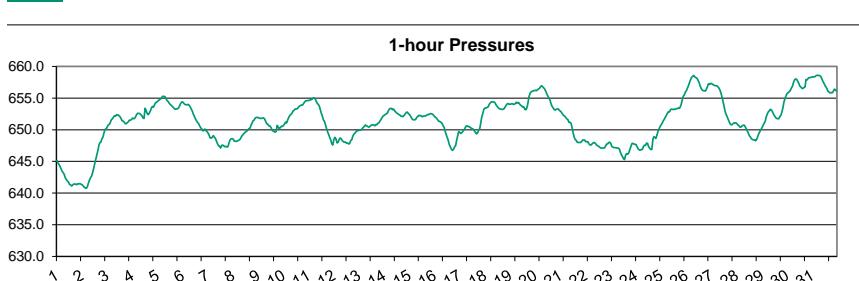
Day	HOUR																								MEAN	MAX			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1	278.0	286.2	279.2	281.6	283.8	277.8	281.4	274.3	262.8	260.0	253.0	260.4	259.0	254.7	259.1	252.8	262.9	258.7	255.5	264.8	264.3	261.3	268.7	274.5	265.0	286.2			
2	271.3	272.0	270.5	267.6	265.3	267.4	268.1	263.2	256.1	258.4	257.4	254.4	259.8	256.9	250.8	249.5	255.1	240.0	250.7	254.3	261.8	256.5	262.9	267.6	259.6	272.0			
3	269.1	269.5	273.3	277.3	293.4	288.8	280.1	292.0	274.1	272.2	262.5	270.4	274.2	265.9	280.4	275.6	296.6	270.9	247.4	203.3	85.7	262.6	292.3	273.1	296.6	273.1			
4	275.8	280.4	298.4	302.1	216.8	258.8	274.8	272.7	272.3	269.6	232.9	264.6	265.1	255.7	252.7	265.3	264.8	271.5	268.2	263.3	264.4	287.9	291.1	289.9	267.9	302.1			
5	299.9	290.4	301.1	300.5	284.5	297.7	308.6	302.1	318.9	268.0	268.2	260.7	259.2	255.3	276.4	276.7	276.5	270.9	280.0	274.7	264.1	76.7	87.8	70.1	283.6	318.9			
6	74.7	273.0	279.0	269.4	277.8	282.4	284.3	282.8	284.5	293.8	278.7	267.4	278.5	275.9	267.2	267.8	295.3	0.1	65.7	67.1	78.2	85.2	218.4	56.1	288.1	295.3			
7	249.5	243.2	233.0	239.0	252.2	270.1	239.3	238.0	247.7	255.5	252.1	90.2	92.0	89.9	220.0	275.9	87.2	86.2	286.7	64.6	73.3	52.3	62.5	94.9	218.2	286.7	218.2		
8	253.1	284.8	282.0	287.1	289.7	287.6	288.6	283.5	270.4	254.3	256.1	257.3	254.7	76.7	76.2	74.3	83.2	85.0	82.8	92.5	83.1	82.8	165.9	284.8	289.7	284.8	289.7		
9	269.5	249.9	252.1	293.6	290.6	302.2	286.7	285.4	286.4	290.2	273.3	270.1	274.8	277.4	272.1	276.0	272.4	274.8	289.0	306.7	262.3	271.9	289.2	271.8	278.5	306.7	278.5	306.7	
10	256.3	268.7	283.9	288.0	300.2	316.5	304.0	272.4	256.3	266.1	262.4	259.5	253.9	269.1	275.4	274.8	273.2	275.1	275.9	283.2	264.8	269.5	268.5	264.5	272.6	316.5	272.6	316.5	
11	269.5	269.9	293.9	297.1	295.3	287.4	288.2	293.5	288.7	262.2	294.9	279.4	272.9	263.8	268.3	265.9	269.2	261.9	263.4	265.2	257.6	261.1	252.5	264.2	272.7	297.1	272.7	297.1	
12	279.4	252.3	256.8	268.1	280.3	302.0	267.0	249.6	277.2	277.7	254.3	227.1	228.6	252.3	257.5	244.8	265.7	265.9	259.2	255.5	262.0	262.0	265.8	268.5	259.4	302.0	264.5	300.0	
13	259.8	259.3	264.8	273.2	287.7	300.0	282.4	255.8	253.5	257.3	258.5	265.7	251.6	265.8	265.9	264.5	268.1	270.2	268.7	261.9	261.2	257.3	256.5	263.5	277.8	301.3	269.1	301.9	
14	277.6	290.4	293.8	290.8	289.9	293.3	301.9	291.3	258.0	261.8	267.1	283.9	274.9	266.1	259.9	257.3	257.5	260.9	260.6	257.2	260.3	259.1	265.0	284.9	272.6	316.5	272.6	316.5	
15	266.1	270.5	276.6	275.8	268.9	260.8	256.5	255.8	257.4	258.1	262.3	263.8	261.6	266.4	258.3	253.3	271.4	269.0	275.7	266.9	271.8	279.4	284.9	265.0	284.9	272.6	294.2		
16	288.0	285.1	285.4	285.1	283.2	279.7	294.2	273.1	268.3	285.3	269.2	249.8	266.3	269.2	263.7	283.7	264.3	259.4	282.4	265.2	267.5	259.9	279.7	277.6	285.5	340.3	271.7	312.2	
17	306.4	292.1	306.1	297.7	290.3	294.0	306.5	309.1	300.5	303.0	251.1	271.7	277.2	271.1	271.2	263.3	269.7	288.1	285.5	267.7	340.3	216.4	96.2	91.0	277.8	301.3	277.8	301.3	
18	66.5	274.3	257.1	253.5	267.1	291.9	283.3	282.8	312.2	293.3	243.4	258.1	264.4	272.8	278.8	275.2	271.9	267.0	269.6	264.4	269.1	271.2	270.7	259.7	277.8	301.3	277.8	301.3	
19	260.1	261.8	284.1	295.6	37.0	144.8	23.5	301.3	252.4	250.7	270.5	258.8	257.1	289.3	263.5	257.1	77.0	87.7	83.2	75.7	76.2	89.0	15.6	45.1	277.8	301.3	277.8	301.3	
20	91.8	79.5	249.4	249.4	245.7	245.7	276.4	262.4	256.7	93.1	70.7	76.5	81.8	61.8	65.6	61.9	80.4	88.8	93.6	108.0	74.8	276.4							
21	147.6	249.4	265.9	253.3	272.6	285.2	292.9	297.5	287.2	288.0	262.1	233.3	258.8	262.3	253.5	260.1	260.9	257.8	255.3	260.2	264.7	233.6	196.6	276.0	264.9	297.5			
22	268.8	257.8	251.8	238.1	210.6	220.7	244.2	232.9	79.3	74.8	79.3	80.6	85.0	87.9	79.9	68.0	65.5	68.0	73.2	86.0	88.0	101.4	95.4	85.3	84.7	268.8	277.8		
23	61.3	66.1	73.1	66.2	68.6	77.0	140.0	79.5	81.8	129.0	83.4	82.0	75.8	273.7	263.0	288.2	267.6	266.8	284.6	68.9	69.8	83.3	72.8	98.9	56.2	288.2	312.3	56.2	288.2
24	102.1	56.7	85.1	95.5	74.1	111.5	78.7	276.4	120.8	217.1	270.7	238.6	158.1	102.5	329.1	208.2	259.2	253.2	252.9	261.2	272.7	277.4	253.7	268.0	250.8	329.1	272.2	300.3	
25	299.8	283.4	282.0	283.3	294.4	303.5	312.3	280.5	246.0	254.3	256.9	257.4	256.1	263.0	267.0	261.8	263.1	270.9	266.6	280.6	280.6	271.9	269.4	290.4	268.8	312.3	268.8	312.3	
26	286.6	299.9	313.9	308.7	302.9	299.1	301.9	304.8	292.5	298.8	278.7	273.1	255.7	250.1	260.9	74.5	67.6	68.2	71.3	96.2	102.4	81.9	80.1	234.6	309.0	313.9	309.0	313.9	
27	254.5	248.6	249.9	265.7	267.3	272.9	276.0	280.0	281.4	277.5	283.7	259.7	237.9	248.5	78.4	69.4	63.1	61.4	76.6	92.7	84.1	235.8	276.0	240.3	277.3	283.7	277.3	283.7	
28	225.7	243.3	250.8	252.5	275.2	269.8	270.8	275.4	283.0	300.3	277.4	260.3	287.6	281.5	281.1	276.1	283.3	289.9	88.1	91.1	82.2	255.0	252.2	243.5	272.2	300.3	272.2	300.3	
29	241.6	238.3	235.9	235.4	208.8	183.1	84.5	229.6	78.3	72.1	73.1	70.9	63.7	79.1	284.5	273.1	254.1	63.8	71.3	74.8	100.7	108.1	80.7	72.0	82.9	284.5	282.9	282.9	
30	70.9	218.0	282.9	282.6	277.0	273.1	250.1	243.2	235.4	81.9	74.0	65.1	72.2	73.6	64.1	55.6	49.1	56.1	89.0	83.2	73.4	90.1	83.4	67.6	64.7	282.9	282.9	282.9	
31	77.7	73.7	83.9	109.1	83.1	72.8	262.6	280.2	257.1	100.5	78.9	77.6	74.8	73.9	56.3	74.6	96.2	108.1	86.2	61.2	83.0	103.1	101.1	78.3	80.9	280.2	80.9	280.2	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%			
MEAN	222.5	241.6	255.1	257.5	246.2	255.4	255.1	268.6	248.7	236.8	227.1	218.6	216.5	224.5	229.2	220.6	210.6	197.0	201.5	188.4	190.1	187.3	191.2	197.5					
MAX	306.4	299.9	313.9	308.7	302.9	316.5	312.3	309.1	318.9	303.0	294.9	283.9	287.6	289.3	329.1	288.2	295.3	296.6	289.0	306.7	340.3	287.9	291.1	292.3					



Number of Non-Zero Readings	744
Maximum 1-HR Average	340 degrees
Maximum 24-HR Average	309 degrees
Operational Time	744 HRS
Monthly Calibration	0
Standard Deviation	82.62
Operational Uptime	100.0 %
Monthly Average	224.5 degrees

# Lagoon Pressure (mmHg) – July 2020

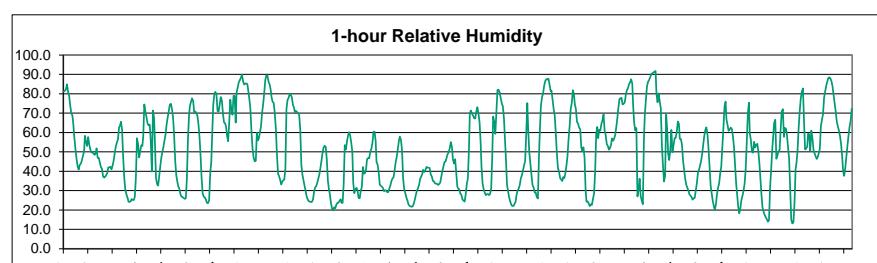
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	645.1	644.8	644.5	644.2	643.8	643.4	643.2	642.9	642.4	642.2	641.9	641.7	641.4	641.3	641.1	641.2	641.4	641.4	641.3	641.5	641.5	641.5	641.4	642.4	645.1	
2	641.3	641.1	640.9	640.8	640.7	641.0	641.5	641.8	642.0	642.4	642.6	643.1	643.9	644.6	645.3	646.0	646.7	647.6	648.0	648.1	648.6	648.9	649.5	650.1	650.1	
3	650.5	650.8	650.9	651.2	651.6	651.8	652.0	652.2	652.4	652.6	652.3	652.1	651.8	651.4	651.3	651.0	650.9	651.1	651.2	651.5	651.5	651.6	651.5	651.5	652.4	
4	651.8	651.7	651.8	652.0	652.4	652.6	652.6	652.4	652.2	651.9	651.8	653.4	653.1	652.6	652.4	652.6	652.9	653.4	653.7	653.6	653.9	654.3	654.4	652.8	654.4	
5	654.5	654.6	654.8	654.9	655.1	655.3	655.3	655.2	654.9	654.6	654.5	654.2	654.0	653.9	653.7	653.5	653.3	653.3	653.5	653.8	654.2	654.4	654.2	655.3	654.4	
6	654.4	654.2	654.0	654.0	653.9	654.0	653.9	653.6	653.3	652.9	652.5	652.2	651.8	651.5	651.2	651.0	650.6	650.3	650.1	649.9	649.8	650.1	649.9	649.8	652.0	654.4
7	649.5	649.2	648.7	648.7	648.8	649.1	648.8	648.6	648.3	647.8	647.5	647.4	647.1	647.5	647.6	647.4	647.3	647.3	647.8	648.4	648.6	648.6	648.6	648.1	649.5	649.5
8	648.5	648.2	648.2	648.2	648.3	648.4	648.6	648.9	649.1	649.3	649.6	649.7	649.8	650.0	650.2	650.7	651.0	651.5	651.8	651.9	651.9	652.0	652.0	649.7	652.0	652.0
9	651.9	651.8	651.8	651.8	651.9	651.7	651.4	651.0	650.9	650.6	650.6	650.4	650.0	649.8	649.7	649.6	649.8	650.7	650.4	650.2	650.3	650.6	650.5	650.8	651.9	651.9
10	650.7	650.9	651.2	651.1	651.6	651.9	652.2	652.4	652.6	653.0	653.1	653.3	653.3	653.5	653.7	653.8	653.9	653.9	654.1	654.4	654.5	654.6	654.6	653.0	654.6	654.6
11	654.6	654.7	654.8	654.8	655.0	655.1	654.9	654.5	654.2	654.0	653.7	653.3	652.7	652.2	651.6	651.4	650.8	650.2	649.6	649.3	648.8	648.3	647.8	647.6	652.2	655.1
12	648.4	648.8	648.5	647.9	648.0	648.5	648.7	648.5	648.3	648.1	648.0	648.1	647.9	647.9	647.8	647.8	648.3	648.4	649.0	649.3	649.5	649.8	649.9	648.5	649.9	649.9
13	649.9	649.9	649.9	650.2	650.4	650.5	650.8	650.6	650.6	650.4	650.5	650.7	650.7	650.8	650.7	650.6	650.8	651.1	651.4	651.7	652.0	652.0	650.8	652.2	652.2	
14	652.3	652.4	652.5	652.7	653.1	653.3	653.4	653.2	653.3	653.0	652.8	652.6	652.5	652.5	652.4	652.2	652.1	652.1	652.2	652.2	652.5	652.8	652.5	652.7	653.4	652.7
15	652.4	652.2	651.9	651.6	651.6	651.7	651.9	652.1	652.3	652.2	652.2	652.1	652.1	652.2	652.2	652.4	652.4	652.5	652.5	652.5	652.5	652.5	652.1	652.1	652.6	652.6
16	652.0	652.0	651.8	651.6	651.3	651.3	651.2	651.0	650.7	650.4	649.7	649.2	648.8	648.4	647.7	647.3	646.9	646.7	646.9	647.3	647.5	648.4	649.1	649.7	649.5	652.0
17	649.6	649.4	649.6	649.7	650.0	650.3	650.6	650.6	650.5	650.5	650.4	650.3	650.2	650.1	649.8	649.6	649.3	649.6	649.9	650.2	651.2	652.0	652.6	653.2	650.4	653.2
18	653.4	653.4	653.5	653.6	654.0	654.2	654.4	654.4	654.4	654.2	654.2	653.8	653.6	653.4	653.3	653.3	653.2	653.2	653.5	653.5	653.8	654.0	654.2	653.8	654.4	654.4
19	654.0	654.1	654.1	654.0	654.0	654.1	654.4	654.4	654.2	654.3	654.1	653.9	653.8	653.6	653.6	653.2	653.2	653.6	654.2	655.7	656.0	656.1	656.2	654.4	656.2	
20	656.2	656.2	656.3	656.4	656.6	656.8	657.0	656.8	656.6	656.4	656.1	655.6	655.7	655.0	654.6	654.2	653.7	653.5	653.2	653.2	653.3	653.3	653.0	655.1	657.0	
21	652.9	652.7	652.5	652.2	652.0	651.7	651.6	651.2	651.0	650.3	649.5	648.9	648.5	648.3	648.0	648.0	648.0	648.1	648.4	648.4	648.4	648.4	650.1	652.9		
22	648.1	648.1	648.1	647.8	647.6	647.6	647.7	647.9	648.0	647.9	647.7	647.5	647.4	647.3	647.2	647.1	647.1	647.1	647.4	647.7	647.8	648.0	647.6	648.1	648.1	
23	647.8	647.3	647.3	647.2	647.2	647.1	647.1	647.0	646.5	646.1	645.8	645.4	645.4	645.3	645.9	646.2	646.1	646.4	646.9	647.4	647.8	647.8	646.8	647.9	650.5	
24	647.7	647.3	647.0	646.8	646.8	646.9	646.9	647.4	647.5	647.5	647.9	647.8	647.3	647.1	646.9	646.9	648.5	648.8	648.6	649.2	649.8	650.2	647.9	650.5	650.5	
25	650.8	651.1	651.4	651.7	652.0	652.4	652.6	652.6	652.8	653.2	653.3	653.2	653.2	653.4	653.4	653.5	654.0	654.7	655.7	655.5	655.5	655.9	653.2	653.2	655.9	
26	656.2	656.6	657.0	657.5	657.9	658.3	658.5	658.6	658.3	658.2	658.1	657.8	657.5	656.9	656.5	656.3	656.2	656.1	656.4	656.8	657.3	657.3	657.2	658.6	658.6	
27	657.3	657.2	657.1	657.0	657.0	657.0	656.8	656.6	656.3	655.7	655.1	654.3	653.5	652.9	652.4	652.0	651.6	651.2	650.8	650.8	650.9	651.1	651.1	654.0	657.3	
28	651.0	650.8	650.6	650.4	650.4	650.6	650.7	650.5	650.5	650.2	649.8	649.5	649.1	648.9	648.6	648.5	648.4	648.3	648.5	649.0	649.4	649.7	650.0	649.7	651.0	
29	650.3	650.7	651.0	651.3	652.0	652.5	652.8	653.0	653.3	653.1	652.9	652.5	652.2	651.9	651.8	651.7	652.1	652.3	652.9	653.4	654.3	655.0	652.5	655.4		
30	655.7	655.9	656.0	656.2	656.6	656.9	657.5	657.8	658.0	658.0	657.7	657.4	656.9	656.7	656.5	656.5	656.7	656.8	658.0	657.9	658.1	658.2	658.3	657.2	658.3	
31	658.4	658.4	658.4	658.5	658.6	658.6	658.6	658.6	658.4	658.1	657.7	657.4	657.0	656.8	656.4	656.1	656.0	655.8	655.9	656.1	656.4	656.3	656.1	657.3	658.6	



Number of Non-Zero Readings	744
Maximum 1-HR Average	659 MMHg
Maximum 24-HR Average	657 MMHg
Monthly Calibration Standard Deviation	3.664
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	651.4 MMHg

# Lagoon Relative Humidity (%) – July 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	81.2	81.6	82.3	84.9	81.0	78.9	73.9	70.0	68.8	64.7	57.6	51.7	46.5	42.6	40.9	43.3	43.9	45.7	48.0	50.1	58.3	55.2	53.0	57.7	60.9	84.9
2	53.8	51.3	49.7	49.8	49.1	48.5	49.3	51.8	46.9	46.9	44.6	42.2	41.3	37.2	36.8	37.2	38.2	39.2	42.0	42.0	42.3	41.0	42.9	45.5	44.6	53.8
3	49.2	52.9	54.9	56.4	62.5	63.5	65.5	61.3	47.3	36.8	30.4	28.1	26.4	24.2	24.4	25.7	25.3	26.8	37.0	57.1	54.1	47.1	41.9	65.5	41.9	65.5
4	50.3	53.3	53.0	58.1	74.5	70.7	68.0	64.7	63.7	64.1	55.4	39.9	71.4	67.7	55.3	36.8	33.4	32.6	37.5	42.6	47.3	50.1	52.9	56.3	54.2	74.5
5	59.4	64.0	67.6	70.9	74.4	74.8	72.1	67.8	58.7	45.3	37.9	34.5	32.2	31.0	28.2	26.9	26.7	26.3	25.8	26.0	36.0	56.2	68.9	73.6	49.4	74.8
6	75.8	77.6	76.3	70.4	70.8	70.1	68.5	63.9	56.8	46.7	36.8	28.7	26.8	26.5	25.3	23.7	23.5	25.0	38.7	44.9	61.2	74.1	79.6	81.0	53.0	81.0
7	79.6	71.0	70.9	74.5	78.3	76.6	69.8	65.2	64.9	63.4	58.3	55.5	65.2	76.9	71.9	69.2	79.0	78.9	65.1	80.4	83.2	85.8	87.0	88.3	73.3	88.3
8	89.9	86.6	84.8	85.2	85.3	85.1	81.8	77.6	72.3	60.7	51.8	47.0	45.1	45.3	59.9	56.0	57.2	60.1	63.0	69.9	74.5	80.3	87.1	89.5	70.7	89.9
9	89.3	86.2	84.9	82.1	78.3	75.9	75.3	69.9	61.8	48.5	38.7	37.4	35.5	33.1	34.7	35.3	35.7	41.2	72.2	76.8	77.8	80.0	79.5	78.2	62.9	89.3
10	74.3	72.8	70.5	71.2	70.6	70.1	69.0	61.2	43.1	38.2	35.3	32.3	29.8	27.2	25.6	24.6	24.3	24.1	24.3	25.4	29.6	31.6	32.3	34.2	43.4	74.3
11	35.9	38.2	41.5	45.3	49.3	52.2	53.1	52.5	45.7	34.9	30.3	28.1	23.6	20.7	19.7	21.4	20.8	22.7	23.6	23.7	24.8	25.6	23.7	23.6	32.6	53.1
12	33.5	53.5	51.2	55.2	58.4	60.2	58.4	54.7	50.0	34.4	28.7	30.5	31.5	30.2	26.2	26.0	30.0	31.6	42.2	38.8	39.0	40.5	46.2	46.8	41.6	60.2
13	46.7	50.0	51.6	54.4	60.3	60.4	55.6	44.7	43.4	39.4	33.1	32.4	32.1	31.3	29.6	30.1	30.1	29.1	29.2	30.9	32.6	34.9	36.3	37.0	39.8	60.4
14	40.9	44.9	47.7	51.8	56.0	57.8	56.2	51.0	36.5	30.9	28.8	26.6	24.9	22.8	22.1	21.8	21.6	21.9	23.0	25.2	27.8	29.9	31.3	33.0	34.8	57.8
15	36.1	37.3	38.7	40.7	39.6	40.6	42.2	41.9	41.6	38.3	37.3	35.0	34.7	33.9	33.6	33.5	33.0	33.4	34.2	37.3	40.2	42.6	44.9	38.0	44.9	
16	45.1	46.8	48.8	49.7	51.9	55.1	52.6	46.0	44.0	46.3	39.3	32.1	31.0	30.7	28.5	27.7	25.3	24.9	24.4	28.1	33.5	36.4	51.9	70.1	40.4	70.1
17	71.4	69.7	68.9	67.4	67.2	71.0	73.1	69.8	65.4	54.7	42.3	33.6	30.8	28.9	27.6	28.1	28.3	27.7	28.4	31.5	48.8	68.2	65.6	59.3	51.1	73.1
18	70.8	82.0	82.1	80.8	77.7	75.0	73.5	67.1	57.7	46.7	33.3	29.6	26.5	24.4	22.6	22.0	22.1	23.1	24.3	27.6	29.9	31.0	32.8	36.3	45.8	82.1
19	38.0	40.4	43.0	45.4	59.1	75.2	62.1	50.2	44.2	38.3	33.0	31.7	29.0	29.1	26.6	25.9	47.6	60.6	73.7	78.2	80.1	84.1	86.6	87.6	52.9	87.6
20	87.4	87.8	84.6	81.5	81.6	77.0	72.2	68.8	59.4	49.1	41.4	39.8	36.5	35.7	34.9	36.9	36.3	38.8	42.7	47.7	56.5	63.4	72.1	75.3	58.6	87.8
21	81.9	79.6	74.6	72.2	65.5	64.6	62.6	61.6	52.3	50.5	52.3	47.1	30.2	24.3	24.4	23.5	22.0	22.9	22.7	25.7	28.5	39.6	59.3	62.9	47.9	81.9
22	57.1	61.4	61.0	64.4	66.3	69.3	60.9	58.7	53.9	53.0	51.2	51.8	53.3	57.0	55.7	56.8	58.7	62.8	67.6	73.1	77.4	77.7	78.0	74.5	62.6	78.0
23	74.9	75.5	79.3	81.9	82.9	85.1	85.9	87.5	85.2	73.8	64.7	61.1	62.3	27.0	30.3	36.2	27.2	24.7	23.0	56.5	69.1	76.8	83.8	86.2	64.2	87.5
24	87.2	88.6	90.1	90.6	91.0	91.5	91.7	80.0	75.6	80.2	76.1	72.7	53.6	43.1	34.7	37.5	69.3	60.9	49.2	45.8	50.8	61.3	49.9	53.4	67.7	91.7
25	57.1	57.2	60.5	65.6	64.4	56.8	56.6	53.8	45.5	40.8	36.2	33.1	31.3	30.1	28.0	27.4	26.7	25.4	26.0	26.2	30.0	33.8	39.2	40.8	41.4	65.6
26	43.1	45.5	49.3	53.2	58.0	61.2	62.7	59.1	51.7	42.0	32.4	28.3	24.5	21.9	20.2	22.6	28.0	31.5	33.6	38.8	42.4	52.7	62.6	73.4	43.3	73.4
27	76.0	66.8	64.0	60.9	61.5	62.5	61.8	57.9	52.4	43.0	33.6	27.3	22.2	18.3	20.4	25.2	27.2	29.8	33.6	41.0	54.8	69.7	75.4	59.6	47.7	76.0
28	56.2	50.2	49.6	55.2	52.3	53.7	54.1	49.8	43.4	34.8	28.0	21.2	19.1	17.3	16.3	15.2	14.0	14.8	31.6	40.8	51.4	57.4	65.1	66.5	39.9	66.5
29	46.5	48.3	50.2	51.0	61.9	70.8	72.0	57.7	62.3	62.1	58.8	52.5	46.7	31.3	15.0	13.1	13.6	23.5	40.9	44.1	50.4	62.0	70.8	77.5	49.3	77.5
30	81.1	82.8	66.3	51.2	51.7	52.8	59.4	59.1	50.6	61.0	57.2	50.9	49.3	47.7	46.3	47.5	49.6	51.4	63.0	66.6	69.4	77.9	81.2	84.2	60.8	84.2
31	86.4	88.3	88.5	87.7	86.6	83.8	79.4	74.9	70.7	65.4	63.1	60.9	57.9	53.6	47.0	40.2	37.7	41.6	47.3	53.1	58.3	63.0	66.0	72.2	65.6	88.5
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%
MEAN	63.1	64.3	64.1	64.8	66.7	67.4	65.8	61.3	55.4	49.6	43.5	39.6	37.8	34.6	32.7	32.1	34.1	35.5	39.5	44.0	49.7	56.0	59.9	61.8		
MAX	89.9	88.6	90.1	90.6	91.0	91.5	91.7	87.5	85.2	80.2	76.1	72.7	71.4	76.9	71.9	69.2	79.0	78.9	73.7	80.4	83.2	85.8	87.1	89.5		

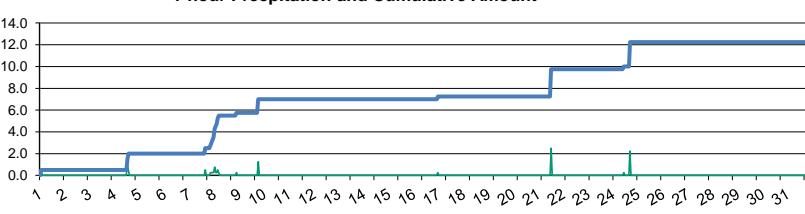


Number of Non-Zero Readings	744
Maximum 1-HR Average	91.7 %
Maximum 24-HR Average	73.3 %
Monthly Calibration Standard Deviation	19.39
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	51.0 %

# Lagoon Precipitation (mm) – July 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	0.5	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	0.0	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	0.0	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	
3	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	0.0	0.0	0.0	0.0	0.0	0.0	
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	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	
5	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	0.0	0.0	0.0	0.0	0.0	0.0	
6	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	0.0	0.0	0.0	0.0	0.0	0.0	
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	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.3	
8	0.8	0.3	0.3	0.5	0.3	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	0.3	0.0	0.0	0.0	0.0	
9	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	0.0	0.0	0.0	0.0	0.0	0.0	
10	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	0.0	0.0	0.0	0.0	0.0	0.0	
11	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	0.0	0.0	0.0	0.0	0.0	0.0	
12	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	0.0	0.0	0.0	0.0	0.0	0.0	
13	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	0.0	0.0	0.0	0.0	0.0	0.0	
14	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	0.0	0.0	0.0	0.0	0.0	0.0	
15	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	0.0	0.0	0.0	0.0	0.0	0.0	
16	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	0.0	0.0	0.0	0.0	0.0	0.3	
17	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	0.0	0.0	0.0	0.0	0.0	0.0	
18	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	0.0	0.0	0.0	0.0	0.0	0.0	
19	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	0.0	0.0	0.0	0.0	0.0	0.0	
20	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	0.0	0.0	0.0	0.0	0.0	0.0	
21	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	0.0	0.0	0.0	0.0	0.0	0.0	
22	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	0.0	0.0	0.0	0.0	0.0	0.0	
23	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	0.0	0.0	0.0	0.0	0.0	0.0	
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
25	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	0.0	0.0	0.0	0.0	0.0	0.0	
26	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	0.0	0.0	0.0	0.0	0.0	0.0	
27	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	0.0	0.0	0.0	0.0	0.0	0.0	
28	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	0.0	0.0	0.0	0.0	0.0	0.0	
29	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	0.0	0.0	0.0	0.0	0.0	0.0	
30	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	0.0	0.0	0.0	0.0	0.0	0.0	
31	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	0.0	0.0	0.0	0.0	0.0	0.0	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
MEAN	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	0.0	0.0	0.0	0.0	
MAX	0.8	0.5	0.3	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0	2.5	0.5	0.0	0.5	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

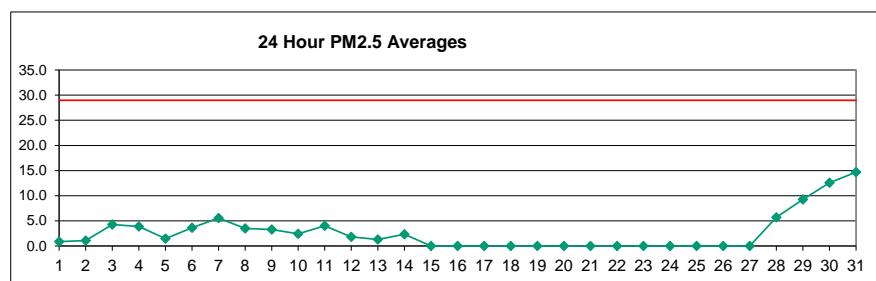
1-hour Precipitation and Cumulative Amount



Number of Non-Zero Readings	19
Maximum 1-HR Average	2.5 MM
Maximum 24-HR Average	0.1 MM
Monthly Calibration Standard Deviation	0.146
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	0.02 MM

# West PM<sub>2.5</sub> ( $\mu\text{g}/\text{m}^3$ ) – July 2020

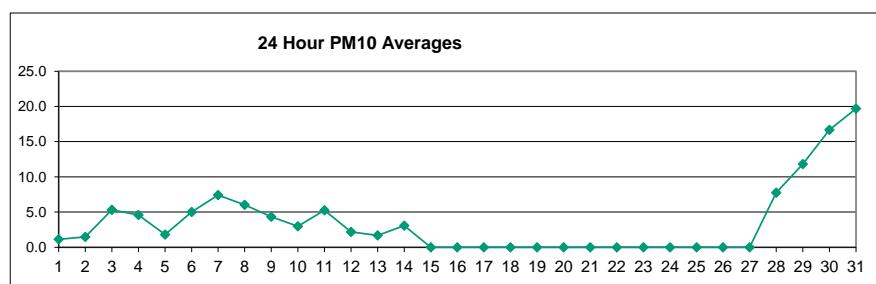
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	1.5	1.3	1.2	1.1	1.0	0.8	1.0	1.2	1.3	0.9	0.6	0.9	0.6	1.0	0.6	0.7	0.5	0.6	0.6	0.4	0.5	0.9	0.6	0.5	0.9	1.5	
2	0.4	0.5	0.3	0.3	0.4	0.9	1.2	1.9	1.3	0.9	1.5	1.3	1.1	1.1	1.5	1.3	1.1	0.7	1.1	1.0	1.1	1.6	1.5	1.6	1.1	1.9	
3	2.1	1.8	1.7	2.2	2.0	2.2	2.7	3.6	4.5	4.1	5.5	5.4	5.5	5.2	5.0	4.9	5.2	4.6	4.6	5.1	5.2	5.6	6.3	6.6	4.2	6.6	
4	7.3	7.0	6.5	6.0	5.6	5.6	5.7	6.8	7.0	7.1	5.8	4.3	1.3	1.3	1.4	1.5	1.3	1.3	1.2	1.2	1.3	1.7	2.2	2.4	3.9	7.3	
5	2.2	1.8	1.8	1.7	1.7	1.8	1.6	1.6	1.3	1.0	1.0	1.0	1.0	1.0	0.8	0.9	1.0	1.1	1.1	1.1	1.2	1.3	2.3	2.4	1.4	2.4	
6	2.2	2.5	3.9	3.7	3.6	3.4	4.0	5.0	6.1	4.9	4.5	2.7	3.4	3.2	3.7	3.6	2.2	2.3	2.9	3.0	3.3	3.5	3.9	4.5	3.6	6.1	
7	5.6	6.1	6.4	6.6	6.6	6.6	6.9	7.7	7.0	6.7	7.3	8.5	6.5	5.0	7.0	4.6	3.0	1.8	1.2	2.5	2.9	4.2	4.9	5.6	8.5		
8	4.8	2.4	2.2	1.9	1.7	1.6	1.6	1.7	3.9	3.1	4.2	3.1	2.4	2.2	5.0	4.1	3.2	4.5	4.3	5.2	5.2	5.1	5.1	5.2	3.5	5.2	
9	5.4	5.2	4.7	4.8	4.2	3.4	3.1	4.9	3.6	3.7	2.8	2.5	2.6	3.6	3.3	2.8	2.8	2.1	1.7	1.9	1.9	2.4	2.4	2.0	3.2	5.4	
10	2.0	1.9	1.7	1.6	1.5	1.6	2.1	2.7	2.0	2.3	1.8	1.8	2.2	3.0	2.5	2.6	2.5	2.4	2.6	3.2	3.3	3.5	3.3	3.2	2.4	3.5	
11	3.0	3.3	3.8	4.0	4.3	4.6	5.5	5.4	5.5	4.1	4.3	4.5	5.3	5.1	5.4	5.1	3.2	3.0	2.7	2.5	2.9	2.7	2.8	3.0	4.0	5.5	
12	2.2	1.8	1.8	2.5	2.6	2.7	2.9	3.1	3.0	1.8	1.6	1.5	1.6	1.8	1.6	1.3	1.3	1.3	1.1	1.1	1.0	1.0	1.3	1.1	1.8	3.1	
13	0.9	0.9	0.6	0.7	0.7	1.1	2.2	2.9	1.6	1.1	1.4	1.7	1.3	1.2	1.7	1.9	1.8	1.1	0.8	1.0	0.9	0.8	0.9	0.9	1.3	2.9	
14	0.9	0.9	1.1	1.4	1.5	1.7	3.1	3.5	3.4	2.9	2.3	2.3	2.2	2.5	3.5	4.0	2.9	2.4	2.3	2.5	2.2	2.1	1.9	1.7	2.3	4.0	
15	1.8	2.0	2.1	2.4	2.1	2.4	2.0	1.8	1.9	1.7	1.4	1.7	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
16	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
17	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
18	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
19	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
20	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
21	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
22	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
24	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
25	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
26	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
27	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
28	6.7	6.0	5.6	5.9	6.2	6.3	6.9	7.3	7.1	7.6	6.6	4.7	4.7	4.4	3.9	3.0	2.6	2.6	3.7	5.4	7.2	6.9	7.2	7.1	5.7	7.6	
29	7.8	9.1	9.7	11.0	11.6	12.8	14.1	15.0	13.0	12.1	12.1	10.2	7.9	5.9	4.1	4.1	4.0	5.2	8.1	8.1	6.5	7.8	9.3	12.0	9.2	15.0	
30	13.6	14.8	16.0	15.8	15.3	14.9	14.4	15.4	13.3	14.0	13.0	11.8	10.9	8.2	6.8	6.9	7.3	7.1	8.7	11.0	12.5	13.7	15.6	20.3	12.6	20.3	
31	18.5	17.7	20.0	22.8	22.1	17.3	21.6	22.7	19.8	17.4	17.8	16.3	12.9	10.6	8.4	7.0	7.2	7.3	8.2	9.6	11.6	13.2	14.7	14.7	22.8		
NO.	19	19	19	19	19	19	19	19	19	19	19	19	18	18	18	19	19	19	19	19	19	19	19	19	453	61%	
MEAN	4.7	4.6	4.8	5.1	5.0	4.8	5.4	6.0	5.7	5.2	5.0	4.5	4.2	3.8	3.6	3.7	3.1	3.1	3.3	3.6	3.9	4.3	4.7	5.3			
MAX	18.5	17.7	20.0	22.8	22.1	17.3	21.6	22.7	19.8	17.4	17.8	16.3	12.9	10.6	8.4	7.2	7.3	7.2	8.7	11.0	12.5	13.7	15.6	20.3			



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	453	
Maximum 1-HR Average	22.8 UG/M3	
Maximum 24-HR Average	14.7 UG/M3	
Izs Calibration Time		
Down Time	0	
Standard Deviation	4.225	
Opperational Time		
Opperational Uptime		
Monthly Average		
		453 HRS
		60.9 %
		4.5 UG/M3

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

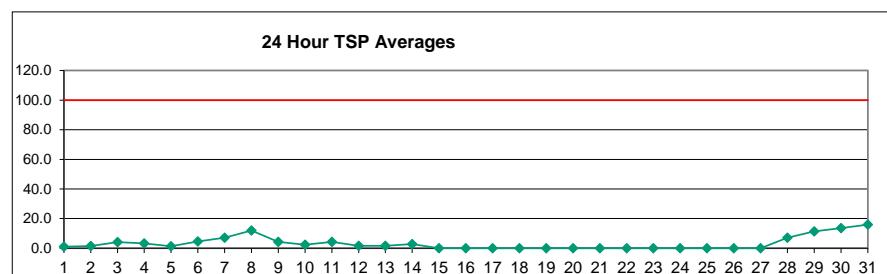
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.8	1.6	1.5	1.4	1.3	1.0	1.4	1.8	1.9	1.4	0.9	1.3	0.9	1.5	0.9	0.9	0.7	0.8	0.8	0.5	0.6	1.2	0.7	0.7	1.1	1.9
2	0.5	0.6	0.5	0.3	0.5	1.3	1.8	2.8	2.0	1.3	2.3	1.9	1.6	1.6	2.1	1.8	1.6	0.9	1.6	1.3	1.3	1.8	1.7	1.8	1.5	2.8
3	2.6	2.2	2.0	2.7	2.5	2.7	3.5	5.2	6.5	5.5	7.0	6.8	7.1	6.6	6.3	5.8	6.3	5.4	5.4	6.1	6.1	6.9	8.5	8.3	5.3	8.5
4	8.8	8.1	7.3	6.6	6.1	6.2	6.4	8.1	8.7	9.0	7.2	5.5	1.6	1.6	1.7	1.5	1.5	1.4	1.4	1.7	2.2	2.8	2.9	4.6	9.0	
5	2.7	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	1.7	1.3	1.3	1.2	1.4	0.9	1.1	1.3	1.3	1.3	1.4	1.4	1.7	3.1	3.3	1.8	3.3
6	3.0	3.4	5.4	4.7	4.4	4.3	5.4	7.3	9.1	7.2	6.5	3.8	4.7	4.6	5.3	5.2	3.0	3.1	4.2	4.3	4.6	4.9	5.4	6.4	5.0	9.1
7	8.2	8.8	8.8	8.6	8.2	8.1	8.9	9.6	9.6	8.7	8.5	9.8	11.3	13.9	6.7	9.8	5.3	3.3	2.1	1.4	3.2	3.7	5.4	6.0	7.4	13.9
8	5.6	2.8	2.5	2.2	1.9	1.8	2.0	2.2	5.6	4.5	6.1	4.5	3.5	5.3	22.1	17.2	8.8	6.3	5.7	6.9	7.1	6.7	6.7	6.7	6.0	22.1
9	6.9	6.6	5.9	5.8	5.1	4.4	4.0	7.2	5.2	5.4	3.9	5.2	3.6	5.0	4.6	3.8	3.9	2.7	2.2	2.4	2.3	2.8	2.9	2.4	4.3	7.2
10	2.5	2.5	2.3	2.2	2.1	2.2	2.9	3.9	2.6	3.2	2.3	2.3	2.8	3.9	3.0	3.2	3.0	2.7	3.1	3.7	3.8	4.0	3.7	3.5	3.0	4.0
11	3.2	3.9	4.5	4.5	4.9	5.2	7.0	6.9	7.7	5.6	5.9	6.1	7.2	6.9	7.3	7.2	4.5	4.4	3.8	3.5	3.9	3.7	3.9	4.2	5.2	7.7
12	2.7	2.2	2.1	2.9	3.0	3.1	3.5	4.1	3.8	2.0	1.9	1.9	1.9	2.4	2.1	1.6	1.7	1.5	1.3	1.2	1.1	1.1	1.4	1.3	2.2	4.1
13	0.9	1.0	0.7	0.8	0.8	1.3	3.1	4.3	2.3	1.5	2.1	2.5	1.8	1.7	2.4	2.7	2.5	1.5	1.0	1.2	1.0	1.0	1.0	1.1	1.7	4.3
14	1.1	1.0	1.3	1.6	1.8	2.1	4.4	5.2	5.0	3.8	3.2	3.1	3.1	3.6	5.2	5.5	4.1	3.3	2.9	3.2	2.6	2.4	2.2	2.0	3.1	5.5
15	2.1	2.5	2.4	3.0	2.6	3.3	2.7	2.4	2.6	2.4	2.0	2.4	P	P	P	P	P	P	P	P	P	P	P	-	-	
16	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-	
17	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-	
18	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-	
19	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-	
20	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-	
21	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-	
22	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-	
23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-	
24	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-	
25	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-	
26	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-	
27	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-	
28	10.0	8.4	7.3	7.4	7.5	7.7	9.1	9.1	9.2	11.0	9.8	6.9	6.9	6.3	5.6	4.2	3.5	3.4	5.2	8.1	10.7	9.3	9.9	9.2	7.7	11.0
29	9.0	10.4	10.7	12.3	13.0	16.3	19.0	18.5	15.9	15.2	15.6	12.9	10.0	8.5	6.0	6.0	5.9	7.6	12.2	11.8	8.0	9.6	12.1	17.1	11.8	19.0
30	19.7	21.3	22.3	20.3	18.9	18.3	17.8	20.8	18.1	17.5	17.4	15.7	14.2	10.6	8.8	9.2	9.8	9.6	11.6	14.9	17.5	19.0	21.0	25.8	16.7	25.8
31	22.4	20.9	23.6	30.2	30.4	21.7	29.1	32.1	26.8	24.1	24.2	22.7	17.6	14.4	11.4	9.6	10.5	10.7	10.1	11.3	13.3	16.3	18.0	20.9	19.7	32.1
NO.	19	19	19	19	19	19	19	19	19	19	19	19	18	18	18	19	19	19	19	19	19	19	19	19	453	61%
MEAN	6.0	5.8	6.0	6.3	6.2	6.0	7.1	8.1	7.6	6.9	6.7	6.1	5.6	5.5	5.7	5.6	4.4	4.2	4.4	4.9	5.2	5.6	6.3	7.0		
MAX	22.4	21.3	23.6	30.2	30.4	21.7	29.1	32.1	26.8	24.1	24.2	22.7	17.6	14.4	22.1	17.2	10.5	10.7	12.2	14.9	17.5	19.0	21.0	25.8		



Number of Non-Zero Readings	453
Maximum 1-HR Average	32.1 UG/M3
Maximum 24-HR Average	19.7 UG/M3
Izs Calibration Time	
Down Time	0
OpperatioEl Time	
Standard Deviation	5.7
OpperatioEl Uptime	
Monthly Average	
	453 HRS
	60.9 %
	6.0 UG/M3

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

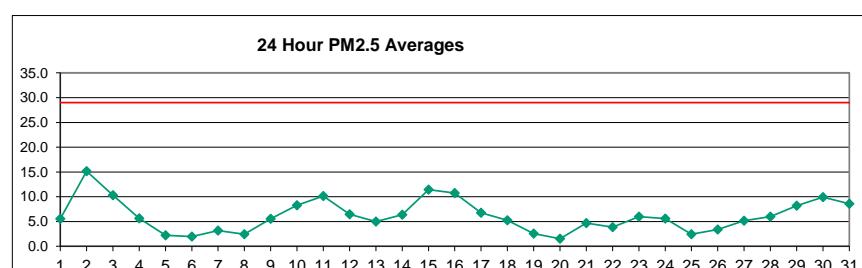
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.2	1.1	1.0	1.0	0.9	0.8	1.1	1.6	1.7	1.3	0.8	1.2	0.8	1.3	0.8	0.8	0.6	0.7	0.7	0.4	0.4	1.1	0.5	0.5	0.9	1.7
2	0.3	0.6	0.4	0.3	0.5	1.3	1.8	3.0	2.0	1.2	2.4	2.0	1.7	1.6	2.2	1.7	1.5	0.7	1.4	1.0	0.9	1.2	1.2	1.2	1.3	3.0
3	1.8	1.5	1.4	1.9	1.7	1.9	2.7	4.9	6.5	4.8	5.5	5.2	5.6	5.3	5.0	4.4	4.8	3.8	3.9	4.1	4.0	4.7	6.1	5.8	4.0	6.5
4	6.0	5.3	4.8	4.3	4.0	4.1	4.2	5.6	6.0	6.5	5.1	4.3	1.1	1.2	1.2	1.1	1.0	1.1	1.0	1.0	1.3	1.6	2.0	2.0	3.2	6.5
5	1.8	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.2	1.0	1.0	1.0	1.2	0.6	0.8	1.0	1.0	0.9	1.0	1.0	1.2	2.4	2.6	1.3	2.6
6	2.2	2.6	3.9	3.2	3.0	3.1	4.3	7.1	10.0	7.7	7.0	3.8	4.8	4.6	5.5	5.3	2.6	2.6	3.8	3.5	3.6	3.7	4.0	4.8	4.4	10.0
7	6.3	6.5	6.2	5.8	5.4	5.8	6.7	10.7	10.8	9.8	9.1	9.2	11.0	29.0	5.4	8.9	3.5	2.2	1.4	1.0	2.2	2.5	3.6	4.0	7.0	29.0
8	3.7	1.8	1.6	1.4	1.3	1.2	1.3	1.7	5.2	4.4	6.5	4.7	3.7	15.7	85.2	78.3	35.0	5.6	4.2	4.9	4.9	4.5	4.4	4.4	11.9	85.2
9	4.6	4.4	4.0	3.8	3.4	3.0	2.8	6.8	5.1	5.5	3.7	23.4	3.4	4.8	4.2	3.4	3.4	2.0	1.6	1.7	1.6	1.9	1.9	1.7	4.2	23.4
10	1.8	1.9	1.8	1.7	1.6	1.7	2.5	3.7	2.2	2.8	2.0	1.9	2.5	3.4	2.4	2.5	2.3	1.9	2.1	2.5	2.5	2.7	2.5	2.3	2.3	3.7
11	2.1	2.7	3.1	3.0	3.2	3.4	5.3	5.3	6.6	4.7	5.3	5.1	6.4	5.8	5.9	6.5	3.9	4.0	3.5	2.8	3.1	3.1	3.5	3.8	4.3	6.6
12	2.0	1.6	1.5	2.0	2.0	2.1	2.7	3.3	3.0	1.4	1.4	1.5	1.4	2.0	1.7	1.2	1.4	1.1	1.0	0.8	0.7	0.7	1.0	0.9	1.6	3.3
13	0.6	0.7	0.5	0.5	0.6	1.0	3.2	4.8	2.3	1.5	2.0	2.6	1.8	1.7	2.3	2.7	2.3	1.3	0.7	0.9	0.8	0.7	0.7	0.7	1.5	4.8
14	0.7	0.7	0.9	1.1	1.2	1.5	4.3	5.5	5.3	3.2	3.0	2.9	3.1	3.4	5.6	5.8	4.1	2.9	2.3	2.5	1.9	1.6	1.5	1.4	2.8	5.8
15	1.4	1.7	1.7	2.2	1.9	2.9	2.3	2.1	2.4	2.3	1.9	2.4	P	P	P	P	P	P	P	P	P	P	P	P	-	-
16	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
17	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
18	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
19	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
20	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
21	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
22	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
23	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
24	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
25	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
26	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
27	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-
28	8.5	6.1	5.1	5.2	5.1	5.3	7.7	10.1	10.0	12.2	10.5	7.0	7.1	6.4	5.4	3.9	3.0	2.8	4.9	8.0	10.4	9.6	8.0	6.8	7.1	12.2
29	6.0	6.9	7.0	8.1	8.6	11.6	18.0	21.4	18.4	17.0	16.7	14.3	11.3	8.9	5.9	5.9	5.7	7.5	13.3	12.6	9.3	11.0	12.2	12.9	11.3	21.4
30	13.6	14.4	15.3	13.8	12.5	12.4	12.0	18.1	17.0	19.6	17.2	15.7	14.5	11.1	9.1	8.7	9.2	8.7	11.1	13.6	12.8	13.3	15.7	17.2	13.6	19.6
31	14.6	13.6	15.5	20.2	20.7	14.7	20.5	24.4	25.7	20.5	24.0	21.2	16.6	13.4	10.3	7.9	10.4	9.8	8.9	9.8	11.3	13.7	16.3	16.6	15.9	25.7
NO.	19	19	19	19	19	19	19	19	19	19	19	19	18	18	18	19	19	19	19	19	19	19	19	19	453	61%
MEAN	4.2	4.0	4.1	4.3	4.2	5.5	7.4	7.5	6.7	6.6	6.8	5.4	6.7	8.8	8.5	5.4	3.7	4.0	4.3	4.3	4.6	5.1	5.2			
MAX	14.6	14.4	15.5	20.2	20.7	14.7	20.5	24.4	25.7	20.5	24.0	23.4	16.6	29.0	85.2	78.3	35.0	10.8	13.3	13.6	12.8	13.7	16.3	17.2		



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	453	
Maximum 1-HR Average	85.2 UG/M3	
Maximum 24-HR Average	15.9 UG/M3	
Izs Calibration Time		
Down Time	0	Operational Time
Standard Deviation	7.278	Monthly Average
		453 HRS
		60.9 %
		5.5 UG/M3

# Berm PM<sub>2.5</sub> ( $\mu\text{g}/\text{m}^3$ ) – July 2020

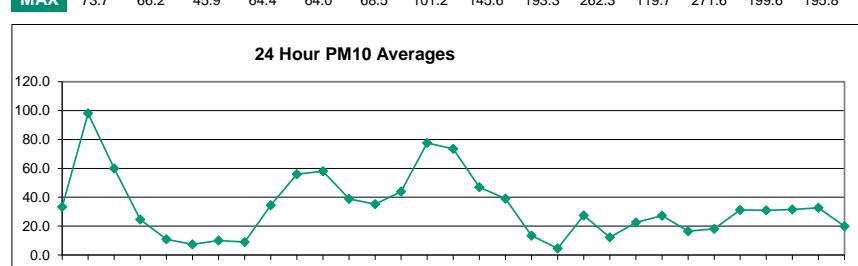
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.9	0.4	0.5	0.4	0.6	0.7	1.6	2.0	2.1	4.7	3.1	3.0	8.3	13.1	11.8	12.0	12.8	8.7	8.5	10.3	5.8	6.6	10.5	4.9	5.6	13.1
2	5.1	6.1	6.4	10.1	10.8	10.6	15.3	18.8	29.3	42.8	19.4	9.9	15.1	23.3	15.2	12.8	14.3	15.6	19.0	13.7	12.9	16.3	12.0	9.2	15.2	42.8
3	5.0	3.5	2.1	2.0	1.6	1.9	1.4	5.5	27.5	20.1	18.3	14.6	16.4	21.6	27.4	15.8	13.1	8.6	11.7	14.8	3.4	3.4	3.5	4.0	10.3	27.5
4	3.8	3.8	3.4	3.1	3.1	3.6	3.8	9.8	4.9	7.7	9.2	41.6	3.2	8.7	9.7	4.2	2.2	1.1	1.7	2.6	0.8	0.9	1.1	1.1	5.6	41.6
5	0.8	0.7	0.6	0.7	0.7	0.7	0.6	0.6	0.7	6.0	5.5	3.7	4.8	3.6	2.2	4.8	1.7	1.5	4.8	2.0	0.7	1.5	2.7	1.5	2.2	6.0
6	1.0	0.9	1.3	1.5	1.2	1.1	1.5	2.8	3.4	2.8	2.4	2.4	3.1	3.1	2.4	2.2	1.8	1.4	1.6	1.7	1.7	1.8	1.6	1.7	1.9	3.4
7	2.9	2.3	3.3	2.3	2.4	2.4	4.4	6.3	5.0	4.8	7.7	7.8	5.9	2.3	1.9	3.7	2.2	2.0	1.9	0.9	0.7	0.9	1.1	1.2	3.2	7.8
8	1.7	1.0	0.8	0.7	0.7	0.6	0.6	0.6	0.7	2.4	4.3	4.7	8.2	4.7	3.3	2.7	3.5	2.4	2.4	2.4	3.1	3.1	2.1	2.1	2.4	8.2
9	2.1	2.0	2.0	2.1	1.5	1.1	1.7	2.5	3.6	5.5	6.6	7.1	9.4	16.7	25.5	14.2	13.6	9.6	1.6	1.1	0.8	0.9	0.9	0.8	5.5	25.5
10	0.6	0.6	0.6	0.6	0.5	0.6	0.7	5.2	8.1	8.1	7.2	8.3	12.7	12.5	15.8	17.8	15.4	16.8	20.8	3.1	6.3	9.0	16.1	10.9	8.3	20.8
11	10.9	11.1	4.8	2.4	2.4	2.8	4.9	4.0	7.5	10.5	6.9	12.0	11.2	19.6	12.6	7.9	5.0	7.4	13.8	16.3	9.6	8.1	18.5	33.0	10.1	33.0
12	9.1	13.3	9.6	5.3	2.2	1.2	1.3	1.2	4.0	2.3	4.9	3.8	3.8	10.1	20.0	23.7	14.7	10.5	2.7	2.3	2.1	3.7	2.4	0.8	6.4	23.7
13	2.1	1.7	0.9	0.9	0.4	0.4	2.5	8.0	4.8	9.2	10.0	6.5	5.1	9.4	10.2	10.3	9.0	12.8	5.0	4.0	1.9	1.9	2.1	1.1	5.0	12.8
14	0.6	0.5	0.6	0.6	0.7	0.7	1.1	2.0	5.8	4.9	6.9	9.7	10.1	14.2	16.8	13.3	9.0	8.2	9.0	7.9	4.6	2.7	10.8	12.0	6.4	16.8
15	10.3	3.0	5.5	4.6	7.2	8.2	17.3	19.2	18.3	23.5	15.8	11.3	26.1	22.5	17.6	14.6	10.9	9.1	13.5	5.8	2.2	3.9	1.9	2.2	11.4	26.1
16	2.9	1.0	0.8	0.8	0.8	1.4	2.8	14.0	16.8	9.2	10.9	16.9	24.3	29.4	25.7	14.8	24.9	15.0	7.2	3.5	3.4	13.8	14.5	3.3	10.8	29.4
17	0.7	1.6	0.9	0.5	1.4	1.4	0.3	0.5	2.3	5.8	10.8	17.9	22.0	13.4	24.0	11.2	15.2	12.5	9.3	6.3	2.3	0.4	0.8	0.7	6.8	24.0
18	0.7	0.7	0.5	0.6	0.7	0.7	0.8	1.0	1.1	2.4	3.8	6.0	13.0	19.2	8.1	11.1	16.9	7.8	9.5	10.6	2.4	3.5	2.5	2.4	5.2	19.2
19	2.8	4.2	1.1	0.7	1.1	0.7	0.9	0.9	2.5	3.5	7.4	1.7	6.9	3.5	3.1	10.8	3.2	2.0	1.2	0.8	0.8	0.5	0.5	2.6	10.8	
20	0.8	0.9	3.7	0.6	2.1	1.3	3.0	4.0	4.3	3.2	0.6	0.7	0.9	1.1	1.0	0.8	0.8	0.7	0.8	1.0	1.7	1.0	0.9	0.8	1.5	4.3
21	0.7	1.0	1.8	3.9	2.1	2.2	2.9	3.2	3.6	4.2	4.4	11.0	8.8	17.9	13.1	8.1	5.0	6.7	5.0	2.3	1.2	1.2	1.2	1.2	4.7	17.9
22	1.3	1.5	2.9	3.6	2.7	3.0	5.8	8.4	4.4	4.7	4.4	6.6	6.2	3.9	4.3	4.6	3.5	3.1	3.2	3.6	4.2	3.2	2.4	3.9	8.4	
23	2.3	2.1	2.7	4.9	4.4	4.9	4.7	5.8	11.1	9.7	9.1	9.5	11.1	15.5	8.2	9.8	7.8	4.3	2.3	2.5	3.8	2.3	2.2	2.6	6.0	15.5
24	2.4	2.4	2.7	3.1	4.7	4.6	4.2	5.7	8.9	8.1	5.8	3.6	4.7	3.1	10.8	3.7	9.3	8.0	5.8	6.3	1.1	1.4	20.3	3.7	5.6	20.3
25	1.1	1.2	0.7	0.5	0.3	0.2	0.3	1.3	2.8	4.2	4.4	2.7	3.2	3.6	4.6	5.7	5.5	6.5	4.7	1.5	1.0	0.7	0.7	0.8	2.4	6.5
26	0.9	0.8	0.8	2.4	0.8	1.0	1.3	1.2	2.9	6.8	7.9	5.8	12.3	12.6	6.9	3.0	1.7	1.5	1.5	1.9	2.0	2.3	1.8	1.6	3.4	12.6
27	2.1	2.8	3.8	4.1	3.8	3.4	2.9	9.2	11.2	12.0	13.7	6.2	9.8	7.6	6.1	3.5	3.0	2.4	2.7	4.1	2.1	2.1	2.2	2.9	5.2	13.7
28	2.5	3.1	2.6	3.2	4.6	4.4	5.4	5.8	4.6	4.7	6.8	7.1	11.4	7.5	10.1	15.5	12.9	9.4	4.8	3.8	2.4	2.6	2.8	2.9	6.0	15.5
29	3.2	3.6	3.8	4.7	6.7	4.6	6.0	22.2	10.2	11.8	11.3	8.7	9.6	7.6	13.1	16.0	10.7	11.1	4.6	4.6	5.1	5.6	5.9	6.1	8.2	22.2
30	5.9	5.2	7.9	6.4	8.5	6.7	6.8	14.3	25.6	16.5	13.5	10.5	13.1	13.3	9.5	9.0	5.8	5.3	7.8	5.8	6.4	7.5	15.0	11.8	9.9	25.6
31	10.3	8.5	8.5	6.7	8.3	10.2	10.4	13.1	12.9	12.3	16.3	12.6	10.0	8.0	6.6	4.4	7.9	4.0	4.3	4.4	5.1	6.3	6.9	7.4	8.6	16.3
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	3.1	2.9	2.8	2.7	2.9	2.8	3.7	6.4	8.2	8.8	8.4	8.8	10.0	11.4	11.2	9.4	8.5	7.0	6.2	4.9	3.3	3.9	5.4	4.4		
MAX	10.9	13.3	9.6	10.1	10.8	10.6	17.3	22.2	29.3	42.8	19.4	41.6	26.1	29.4	23.7	24.9	16.8	20.8	16.3	12.9	16.3	20.3	33.0			



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	744	
Maximum 1-HR Average	42.8 UG/M3	
Maximum 24-HR Average	15.2 UG/M3	
Monthly Calibration Standard Deviation	6.0	Operational Time Operational Uptime Monthly Average
		744 HRS 100.0 % 6.1 UG/M3

# Berm PM<sub>10</sub> ( $\mu\text{g}/\text{m}^3$ ) – July 2020

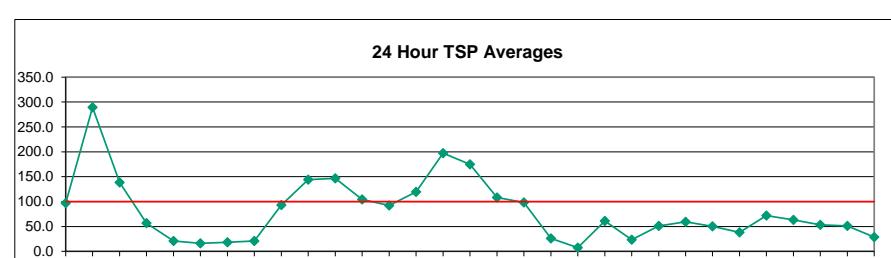
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.2	0.5	0.7	0.5	0.8	0.9	3.3	8.1	11.5	29.4	19.4	16.4	48.5	85.4	77.4	84.9	78.1	52.1	51.4	60.8	30.0	43.1	70.3	23.4	33.3	85.4
2	28.7	38.1	44.1	64.4	64.0	68.5	101.2	127.4	193.3	262.3	119.7	70.8	89.6	160.6	109.7	92.2	94.8	101.3	129.2	91.1	79.3	100.2	76.2	46.0	98.0	262.3
3	22.7	21.1	8.1	7.4	3.8	4.7	3.5	39.9	181.9	114.4	113.8	76.8	89.9	133.4	180.3	99.5	70.1	47.8	68.7	129.5	7.0	4.2	4.6	5.6	60.0	181.9
4	4.5	4.7	3.7	3.4	3.5	13.8	6.7	52.1	12.9	25.5	41.4	271.6	13.3	38.6	38.8	16.4	7.3	2.8	8.2	14.8	1.5	1.4	1.6	1.7	24.6	271.6
5	1.1	1.0	0.7	0.9	0.8	0.8	0.7	1.1	40.7	34.8	21.0	27.8	19.2	12.9	32.4	7.2	6.0	30.1	9.0	1.0	2.9	4.5	2.6	10.8	40.7	
6	1.5	1.0	1.6	2.2	1.5	1.5	3.4	12.3	18.6	14.8	13.2	14.3	19.3	19.7	11.8	11.2	6.6	4.0	4.3	3.8	3.4	3.0	2.2	2.3	7.4	19.7
7	6.3	3.8	7.7	3.7	3.2	2.9	15.3	26.1	19.1	17.3	37.5	35.5	25.5	5.3	2.3	10.4	2.5	2.3	7.6	1.2	0.8	1.0	1.2	1.3	10.0	37.5
8	1.9	1.1	0.9	0.7	0.8	0.7	0.7	0.7	0.9	9.9	24.6	28.4	47.2	32.2	15.0	12.1	15.4	5.3	3.6	3.0	3.5	3.5	2.3	2.3	9.0	47.2
9	2.3	2.2	2.2	2.2	1.6	1.2	3.3	11.7	19.1	36.2	48.0	41.2	72.0	126.5	185.8	100.9	89.3	69.2	5.2	1.3	0.9	1.1	1.1	0.9	34.4	185.8
10	0.7	0.7	0.7	0.9	0.7	0.7	1.5	36.6	58.4	56.9	50.5	53.1	80.7	97.8	116.2	127.3	109.2	113.5	158.9	10.2	29.9	63.4	125.0	50.1	56.0	158.9
11	47.5	44.2	16.5	3.5	3.3	3.7	22.3	15.5	42.7	62.0	41.3	72.6	63.4	105.6	63.9	40.1	28.6	44.0	86.5	110.5	60.8	50.9	117.7	244.9	58.0	244.9
12	41.4	66.2	45.9	21.9	6.8	1.4	1.6	1.5	20.0	8.2	26.6	22.6	21.7	75.5	129.8	163.9	117.0	92.3	15.1	11.0	11.5	21.6	8.3	1.2	38.9	163.9
13	9.4	7.0	3.4	2.7	0.6	0.6	15.6	52.7	34.3	62.6	70.4	46.2	35.2	81.3	72.1	82.3	64.2	99.8	36.4	29.5	10.1	11.0	14.5	3.7	35.2	99.8
14	1.1	0.7	0.8	0.9	0.9	1.0	2.7	10.3	34.6	31.3	54.3	80.0	77.9	114.1	116.4	89.0	59.9	54.2	54.2	45.1	27.3	15.0	87.1	94.1	43.9	116.4
15	73.7	10.2	20.3	20.1	36.6	47.9	100.6	145.6	130.0	146.6	101.4	78.8	199.6	172.9	123.5	100.3	74.4	73.1	95.3	44.2	13.3	28.4	10.1	14.9	77.6	199.6
16	18.0	2.4	1.4	1.5	1.5	3.6	14.7	83.7	113.3	64.4	88.7	127.1	159.6	195.8	174.7	118.3	103.6	43.1	24.2	16.1	112.8	99.6	18.5	73.4	195.8	
17	1.7	6.4	2.4	1.8	4.2	4.4	0.4	1.0	14.9	36.2	83.3	127.9	163.6	103.6	177.0	81.9	100.1	86.3	67.0	48.8	10.9	0.7	2.0	1.4	47.0	177.0
18	1.2	0.8	0.6	0.6	0.8	0.7	1.1	1.5	2.5	12.4	27.8	46.4	114.2	165.5	83.9	92.3	136.9	52.7	77.5	70.7	11.6	15.5	11.5	8.7	39.1	165.5
19	13.2	22.4	2.2	1.0	1.7	0.9	1.2	1.6	12.2	22.7	51.3	9.2	44.8	24.3	15.6	67.5	16.1	6.8	2.2	1.5	0.9	1.0	0.6	0.6	13.4	67.5
20	1.0	1.0	5.4	0.8	3.0	1.7	13.1	20.2	22.7	10.0	1.3	1.6	2.5	3.1	3.0	1.6	1.8	1.6	1.5	2.9	5.2	1.8	1.2	1.0	4.5	22.7
21	0.8	1.5	2.8	11.1	3.3	3.3	7.3	9.8	12.5	12.3	13.2	60.2	64.3	142.4	106.1	60.1	41.6	48.5	31.2	16.3	3.4	2.2	1.7	1.6	27.4	142.4
22	1.7	2.6	2.4	6.9	7.4	4.0	9.0	25.9	45.1	13.8	18.9	18.4	31.6	28.0	11.9	11.5	16.3	9.0	6.9	6.7	4.6	5.3	3.8	2.8	12.3	45.1
23	2.7	2.4	3.0	6.1	4.9	5.3	5.1	6.8	14.7	15.5	29.6	36.8	45.6	133.3	35.1	77.8	57.3	28.8	9.8	5.1	5.9	3.0	2.7	3.7	22.5	133.3
24	4.3	3.8	4.2	6.0	10.3	6.5	6.1	11.9	43.5	15.2	18.0	9.6	24.0	13.4	87.7	20.8	76.3	48.6	37.5	54.1	5.9	8.9	119.1	17.5	27.2	119.1
25	3.6	4.6	1.8	1.1	0.4	0.3	0.6	8.1	16.0	30.1	30.6	17.4	24.1	29.0	38.7	40.8	39.8	60.7	31.1	9.4	3.7	1.3	1.5	1.2	16.5	60.7
26	2.3	1.1	1.1	7.3	0.9	1.4	2.4	2.5	13.6	51.8	58.1	38.4	72.2	75.2	48.5	20.1	5.7	4.9	4.2	5.7	4.6	5.4	3.7	2.7	18.1	75.2
27	4.0	6.6	11.2	13.2	10.8	10.4	8.8	69.2	89.1	101.0	108.3	48.5	71.9	58.4	45.9	19.7	14.6	8.7	9.9	17.4	4.8	4.3	4.4	7.0	31.2	108.3
28	4.2	5.7	3.8	5.1	11.2	9.9	18.6	48.4	16.6	18.3	46.0	42.2	64.8	52.8	66.6	119.9	81.7	66.6	25.0	15.1	5.4	4.9	4.6	4.2	30.9	119.9
29	3.6	4.1	4.3	5.2	13.6	6.3	11.3	112.1	28.4	35.8	35.6	22.0	36.1	33.2	99.8	103.0	62.6	56.1	14.1	13.4	15.0	14.5	13.7	10.9	31.4	112.1
30	8.3	6.9	17.5	10.5	19.9	9.8	10.9	61.9	139.5	67.0	54.8	33.9	54.2	68.8	46.2	36.9	19.7	17.9	30.9	8.9	8.3	12.2	25.9	12.7	32.6	139.5
31	11.3	9.6	9.4	7.4	9.3	12.6	13.9	28.8	38.3	32.5	55.3	36.5	28.6	25.0	23.4	13.1	39.4	10.8	11.2	9.1	10.6	12.4	13.0	15.4	19.9	55.3
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	10.5	9.2	7.5	7.1	7.5	7.5	13.1	33.4	45.2	47.0	49.0	51.8	61.7	78.1	74.8	62.9	55.2	44.5	37.4	28.2	12.8	18.0	27.0	19.5		
MAX	73.7	66.2	45.9	64.4	64.0	68.5	101.2	145.6	193.3	262.3	119.7	271.6	199.6	195.8	185.8	163.9	175.8	113.5	158.9	129.5	79.3	112.8	125.0	244.9		



Number of Non-Zero Readings	744
Maximum 1-HR Average	271.6 UG/M3
Maximum 24-HR Average	98.0 UG/M3
Monthly Calibration Standard Deviation	43
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	33.7 UG/M3

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

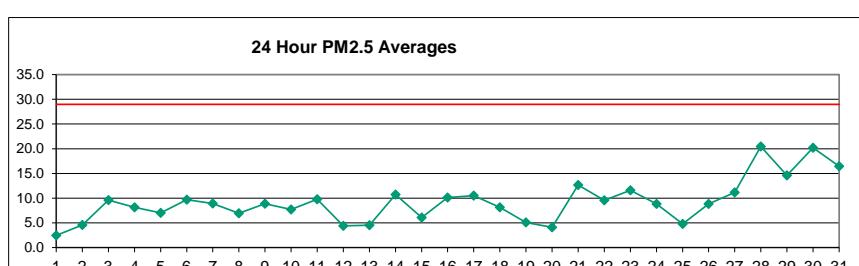
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.0	0.4	0.5	0.3	0.7	0.7	3.4	20.2	33.8	73.6	57.8	56.0	133.1	231.9	243.8	269.9	226.4	163.3	151.5	185.4	90.9	132.1	202.0	44.2	96.8	269.9
2	82.1	116.7	159.8	190.8	192.3	227.3	324.1	338.4	524.1	729.5	359.1	212.3	275.8	457.7	304.5	293.9	260.7	266.4	389.9	328.0	258.8	275.7	221.3	153.8	289.3	729.5
3	53.7	76.8	26.8	10.2	4.3	9.2	3.9	109.1	402.6	238.1	284.3	161.0	175.4	315.9	430.3	239.1	179.0	101.9	155.1	273.4	35.8	9.7	9.4	14.5	138.3	430.3
4	4.7	9.4	5.0	3.4	7.0	81.9	6.8	123.3	20.9	40.1	92.3	729.0	17.8	64.3	48.2	32.5	12.6	4.2	15.5	33.1	1.4	1.9	1.2	3.1	56.7	729.0
5	1.8	2.8	0.6	0.8	0.6	0.5	0.9	2.0	1.8	79.7	66.1	32.8	44.9	38.1	41.4	68.5	14.8	11.7	45.4	15.0	1.4	14.6	6.3	5.9	20.8	79.7
6	4.9	0.7	1.2	3.0	1.0	1.4	5.3	29.9	43.4	34.3	32.3	32.4	43.8	50.7	20.1	20.6	12.5	5.9	11.7	12.5	10.8	5.8	2.2	1.8	16.2	50.7
7	5.4	5.2	13.2	7.8	2.3	2.0	34.9	44.7	43.7	28.9	74.5	62.1	54.6	15.0	2.9	16.5	1.7	1.6	21.4	0.8	0.5	0.6	0.8	0.9	18.4	74.5
8	1.3	0.7	0.6	0.5	0.5	0.5	0.5	0.6	21.5	49.5	74.5	111.9	78.4	47.4	31.9	45.8	14.3	5.2	4.1	2.4	2.3	1.5	1.5	20.7	111.9	
9	1.5	1.4	1.6	1.5	1.0	0.8	3.4	28.5	59.9	93.0	117.8	86.1	201.6	321.0	555.5	284.3	222.9	227.4	18.0	0.9	0.6	0.7	0.7	0.6	93.0	555.5
10	0.5	0.4	0.5	1.2	0.4	0.5	2.4	97.2	156.1	155.0	131.1	107.6	194.1	280.6	324.2	341.2	271.3	304.5	421.2	21.7	58.8	159.4	336.3	92.6	144.1	421.2
11	87.2	59.9	30.1	4.6	8.6	6.3	69.9	41.9	118.6	128.8	110.7	167.8	130.2	206.9	129.0	99.4	78.6	114.8	224.6	293.6	157.3	125.6	329.6	799.4	146.8	799.4
12	69.3	130.3	78.4	50.0	16.4	1.0	1.8	1.0	57.0	19.6	63.1	70.6	57.2	222.2	346.7	433.8	362.5	344.5	50.3	29.0	29.1	45.8	22.4	1.4	104.3	433.8
13	20.0	12.2	8.2	4.1	0.6	0.6	37.5	100.3	73.4	143.0	165.4	109.5	78.9	265.1	214.3	241.0	193.1	291.6	92.8	74.1	25.2	24.3	30.3	11.3	92.4	291.6
14	1.6	0.4	1.8	1.7	0.7	0.7	5.3	31.2	74.9	94.2	150.1	242.9	215.2	335.5	308.4	231.6	168.5	157.0	156.6	129.0	89.7	33.5	194.8	240.5	119.4	335.5
15	173.6	18.4	35.8	37.7	64.4	103.1	216.5	368.1	333.1	358.8	276.5	231.8	558.9	451.9	305.1	244.4	183.8	204.3	251.2	127.5	35.9	81.5	25.6	49.9	197.4	558.9
16	44.3	2.8	2.9	1.5	1.5	2.8	32.1	194.5	274.8	150.0	212.3	295.9	335.8	462.0	400.4	306.6	425.4	242.3	110.4	62.5	30.1	293.6	282.3	29.1	174.8	462.0
17	3.4	9.4	2.0	4.8	4.1	3.1	0.3	1.3	63.6	79.4	180.7	274.0	404.3	202.4	383.7	198.4	237.3	228.4	160.4	120.3	27.3	0.6	2.6	2.1	108.1	404.3
18	2.0	0.5	0.4	0.4	0.5	0.5	0.9	1.3	2.9	22.7	51.0	121.6	307.8	425.4	247.7	275.4	323.0	126.8	196.7	178.4	22.8	21.9	15.2	16.0	98.4	425.4
19	19.0	35.3	2.3	0.7	5.7	0.7	0.9	1.2	20.3	47.4	93.7	30.6	109.7	67.3	32.3	98.4	32.3	17.3	3.2	1.1	0.6	0.9	0.4	0.4	25.9	109.7
20	0.7	0.7	5.3	0.5	2.8	1.2	24.4	38.6	38.0	15.1	3.0	2.8	6.2	5.0	4.1	1.8	5.0	4.1	3.0	4.7	9.0	2.5	1.3	1.2	7.5	38.6
21	1.5	1.0	2.4	29.6	3.3	4.0	12.9	16.4	24.2	15.1	21.0	86.1	144.1	323.4	271.6	161.1	111.1	123.5	61.7	39.8	6.3	3.1	2.9	2.2	61.2	323.4
22	1.9	2.8	3.4	8.2	8.7	4.1	14.6	49.0	93.3	24.5	41.3	45.1	58.1	62.4	21.5	22.7	42.1	17.6	14.9	12.5	3.4	3.8	2.6	1.9	23.4	93.3
23	1.8	2.0	2.1	5.0	3.2	3.6	3.3	4.6	11.1	15.5	56.8	55.8	82.2	392.2	65.3	235.7	153.1	74.7	21.6	11.1	6.1	3.7	4.1	7.1	50.9	392.2
24	13.0	5.5	3.6	5.3	8.8	5.6	5.4	18.7	94.7	17.5	33.4	13.0	40.7	23.2	212.0	44.2	237.1	95.8	99.8	182.0	15.6	17.1	206.7	23.3	59.3	237.1
25	3.0	7.2	1.6	0.7	0.2	0.2	1.2	31.6	49.3	75.5	76.7	58.0	55.4	100.0	145.8	123.3	146.8	194.4	97.8	28.9	7.2	1.3	3.1	0.8	50.4	194.4
26	3.4	4.6	0.9	24.4	0.6	1.2	2.2	2.9	30.7	168.3	152.0	73.0	110.5	131.8	98.9	45.6	11.9	9.9	9.0	11.6	5.2	10.0	3.7	3.5	38.2	168.3
27	3.7	7.2	11.6	18.1	11.8	18.9	16.4	193.4	272.4	267.5	300.2	108.6	125.9	122.8	105.7	33.4	26.4	12.9	17.4	27.1	7.2	4.4	5.2	7.8	71.9	300.2
28	4.6	6.2	5.1	4.2	10.8	11.4	36.2	109.0	34.9	49.5	90.7	69.1	116.3	102.7	159.9	277.6	177.9	154.4	44.5	22.5	7.1	8.4	6.4	2.8	63.0	277.6
29	2.6	4.3	3.1	4.9	9.8	7.6	8.6	169.6	39.2	55.7	56.9	29.2	55.7	58.6	232.3	205.4	134.8	81.4	24.9	18.0	22.3	19.3	20.0	13.5	53.2	232.3
30	6.1	6.5	27.2	28.1	25.2	7.4	14.3	87.7	187.2	110.7	96.1	49.8	91.8	133.4	101.7	65.2	35.0	33.4	67.3	7.7	7.2	10.4	21.6	8.4	51.2	187.2
31	7.5	6.4	6.3	4.9	6.1	8.7	11.1	46.0	59.2	45.8	92.0	59.0	51.5	43.2	41.0	20.0	72.2	14.2	14.5	12.9	19.2	13.5	13.4	21.6	28.8	92.0
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	20.2	17.4	14.3	14.8	13.0	16.7	29.1	74.3	104.5	109.6	115.8	120.9	141.6	193.3	188.6	160.1	142.1	117.6	95.4	73.2	32.1	42.8	63.7	50.4		
MAX	173.6	130.3	159.8	190.8	192.3	227.3	324.1	368.1	524.1	729.5	359.1	729.0	558.9	462.0	555.5	433.8	425.4	344.5	421.2	328.0	258.8	293.6	336.3	799.4		



Number of 24HR Exceedences	9	Proposed Guideline
Number of Non-Zero Readings	744	
Maximum 1-HR Average	799.4 UG/M3	
Maximum 24-HR Average	289.3 UG/M3	
I2S Calibration Time		
Monthly Calibration	0	Operational Time
Standard Deviation	114.6	Operational Uptime
		744 HRS
		100.0 %
		81.3 UG/M3

# Entrance PM<sub>2.5</sub> ( $\mu\text{g}/\text{m}^3$ ) – July 2020

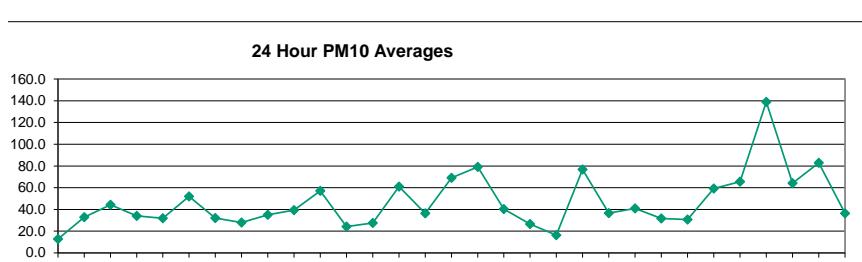
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0.8	1.8	3.3	2.4	1.3	1.2	2.1	2.1	2.1	4.0	4.7	6.0	3.9	5.3	4.4	3.2	1.7	1.6	1.2	1.1	0.6	0.6	0.9	2.5	2.5	6.0	
2	0.8	0.7	0.7	0.8	1.4	5.4	9.6	8.8	7.6	11.6	7.7	10.7	5.0	5.9	4.8	6.8	3.0	3.5	4.0	2.6	2.5	1.5	1.7	1.6	4.5	11.6	
3	2.2	3.2	1.9	2.5	6.0	10.6	18.5	16.5	11.3	10.0	10.3	8.8	8.6	11.4	11.1	10.3	11.9	22.3	9.9	5.2	6.4	5.4	9.1	17.2	9.6	22.3	
4	15.1	23.8	11.6	8.8	7.9	6.8	6.7	7.3	9.5	8.9	9.8	17.8	3.7	1.8	1.5	3.0	2.3	5.3	2.7	2.0	1.0	9.2	12.9	15.4	8.1	23.8	
5	12.5	19.6	11.8	6.1	12.5	8.5	11.7	13.5	8.8	6.1	3.3	2.9	2.3	3.1	7.5	5.4	2.9	4.3	9.6	6.1	2.2	2.0	2.4	3.0	7.0	19.6	
6	2.2	2.1	12.5	16.6	19.7	16.2	21.9	19.4	16.1	14.9	8.9	5.2	6.8	12.1	17.5	4.5	6.5	5.9	4.5	3.1	4.8	4.1	3.4	3.9	9.7	21.9	
7	8.0	7.4	11.6	9.0	11.9	11.4	10.9	12.4	16.8	18.6	15.7	14.9	11.0	4.7	3.4	11.9	5.1	6.5	6.1	5.6	3.1	2.5	2.2	2.7	8.9	18.6	
8	4.8	6.7	2.9	2.5	2.9	7.5	8.5	5.8	6.0	5.5	18.9	10.4	6.9	7.9	11.1	8.6	8.3	6.6	6.3	5.2	7.7	5.7	4.7	4.8	6.9	18.9	
9	5.7	5.3	10.3	7.1	11.8	7.5	13.4	10.6	9.7	5.9	8.4	9.5	7.6	8.4	12.5	10.6	7.8	5.0	11.9	13.4	13.7	5.6	5.1	5.4	8.9	13.7	
10	2.7	2.9	3.4	10.8	9.3	7.0	7.7	4.8	5.9	8.4	10.7	10.7	7.7	17.4	13.8	13.5	8.6	7.1	4.7	9.2	4.1	5.2	5.0	3.8	7.7	17.4	
11	6.6	5.0	6.8	17.1	13.9	12.2	16.0	21.8	7.8	6.0	14.3	7.4	6.9	8.1	6.8	5.3	6.0	4.3	6.0	4.2	4.0	6.1	5.5	36.5	9.8	36.5	
12	13.0	2.0	1.7	2.3	4.3	8.2	7.7	15.6	9.2	8.5	5.9	2.1	1.8	2.9	2.3	2.5	2.1	3.7	1.2	1.3	1.6	2.1	1.3	1.4	4.4	15.6	
13	0.8	0.9	0.8	1.3	9.0	13.1	8.4	4.5	6.2	5.5	5.3	4.9	4.0	3.9	6.2	7.6	7.0	7.4	3.5	2.1	1.4	1.2	1.0	2.0	4.5	13.1	
14	2.1	9.6	12.6	29.5	29.0	23.9	24.5	14.6	8.0	8.7	11.2	12.6	9.4	9.5	13.1	7.7	6.6	7.4	4.5	4.5	2.7	2.2	1.6	1.5	10.7	29.5	
15	2.0	4.5	4.3	7.8	3.0	3.5	11.6	18.7	8.5	8.5	10.3	5.3	11.4	4.8	7.8	6.9	6.0	5.6	3.0	4.4	1.5	2.4	2.4	1.7	6.1	18.7	
16	2.8	10.0	10.7	17.7	25.7	18.4	20.7	6.7	6.1	7.1	10.2	12.5	9.3	9.3	11.0	26.3	9.1	5.7	8.8	3.4	2.2	3.1	1.5	4.5	10.1	26.3	
17	4.8	3.2	12.6	15.2	8.9	20.6	11.2	14.1	29.7	13.8	9.0	9.2	15.7	11.7	8.1	10.0	7.2	30.9	5.2	2.7	3.4	1.5	1.6	1.4	10.5	30.9	
18	1.7	2.2	2.8	9.8	11.2	15.1	18.3	21.0	14.1	9.7	8.2	5.1	5.2	6.6	5.7	5.7	12.0	5.3	4.5	3.3	3.2	9.8	13.2	2.0	8.1	21.0	
19	1.6	3.6	16.6	9.6	7.7	4.6	6.6	21.3	2.7	2.1	2.5	1.9	2.1	9.8	4.2	4.2	5.5	2.7	2.3	1.9	1.9	3.7	1.3	1.6	5.1	21.3	
20	3.9	4.2	6.7	6.3	4.6	3.7	10.8	5.2	6.3	4.5	3.6	3.7	3.9	3.7	3.6	2.7	3.1	1.6	2.5	2.9	2.2	2.2	3.4	2.7	4.1	10.8	
21	1.6	7.6	15.9	16.0	15.2	18.3	17.7	22.1	20.6	20.8	23.9	22.9	9.8	11.2	8.4	10.4	10.0	6.4	5.0	7.3	18.1	3.9	3.7	6.5	12.6	23.9	
22	5.5	5.7	5.0	6.5	24.5	19.6	11.8	19.2	14.6	7.6	9.2	9.7	7.7	9.3	8.6	7.7	7.5	8.5	8.1	6.8	7.1	6.4	8.0	6.9	4.9	9.5	24.5
23	4.7	5.1	6.0	7.6	11.0	14.4	14.4	21.9	21.8	17.0	18.7	15.7	13.7	13.9	6.5	27.6	8.3	6.5	7.1	6.2	6.6	6.4	6.1	9.9	11.6	27.6	
24	9.1	6.2	7.7	10.2	12.9	10.3	13.1	16.4	15.0	19.8	15.6	11.3	11.0	10.5	11.1	8.1	9.1	1.7	1.3	1.1	4.2	3.5	0.6	1.5	8.8	19.8	
25	5.8	2.2	5.1	10.4	3.6	3.9	7.7	5.4	5.6	3.6	4.3	5.4	5.5	2.9	6.9	4.3	2.6	4.6	2.6	2.9	3.0	3.6	8.6	4.8	10.4		
26	4.3	10.0	28.6	21.2	11.6	24.3	23.4	25.0	12.0	6.0	3.7	2.5	4.5	2.4	3.8	2.8	3.6	2.5	2.4	2.8	3.2	3.5	3.6	3.6	8.8	28.6	
27	4.7	10.1	17.4	18.8	16.9	15.8	22.3	23.8	20.0	9.5	15.6	7.1	9.2	6.0	5.7	8.2	6.6	6.6	6.1	7.5	4.6	6.1	5.3	13.0	11.1	23.8	
28	11.5	30.1	33.8	29.9	32.7	29.0	36.5	53.5	27.1	29.7	20.8	8.4	11.8	15.1	12.2	19.1	15.7	12.4	8.5	10.1	6.1	10.0	14.9	11.9	20.4	53.5	
29	11.5	14.0	23.4	19.5	17.3	18.2	21.1	28.9	19.0	19.2	16.1	14.6	13.3	10.7	12.9	8.7	12.1	10.1	8.9	8.1	8.8	9.5	12.2	12.4	14.6	28.9	
30	13.4	12.2	28.6	46.1	38.4	26.5	26.4	31.9	25.6	24.1	17.9	15.3	14.3	13.6	16.2	9.0	10.6	10.5	20.3	11.0	12.7	18.5	19.3	22.0	20.2	46.1	
31	22.1	21.7	21.0	19.5	21.8	27.1	23.7	26.4	24.0	20.6	22.0	16.1	15.4	11.5	9.2	9.2	9.3	7.2	7.8	9.0	10.8	11.1	12.5	16.1	16.5	27.1	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%	
MEAN	6.1	7.9	10.9	12.5	13.2	13.3	15.0	16.8	12.8	11.2	11.2	9.3	8.0	8.3	8.3	8.7	7.2	7.1	5.8	5.1	5.0	5.1	5.4	7.3			
MAX	22.1	30.1	33.8	46.1	38.4	29.0	36.5	53.5	29.7	29.7	23.9	22.9	15.7	17.4	17.5	27.6	15.7	30.9	20.3	13.4	18.1	18.5	19.3	36.5			



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	744	
Maximum 1-HR Average	53.5 UG/M3	
Maximum 24-HR Average	20.4 UG/M3	
Monthly Calibration Standard Deviation	7.186	Operational Time Operational Uptime Monthly Average
		744 HRS 100.0 % 9.2 UG/M3

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

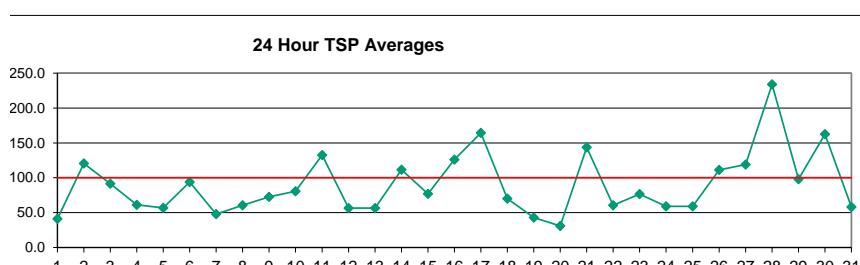
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.0	2.6	4.8	3.5	1.9	1.7	6.1	10.7	12.5	21.8	33.9	37.5	26.0	40.7	32.3	25.0	7.7	7.1	7.1	4.1	1.7	1.4	3.5	8.4	12.6	40.7
2	2.7	2.7	3.3	3.4	11.3	50.9	70.5	55.8	55.1	84.2	63.9	85.9	35.5	45.2	38.6	51.8	20.0	29.4	32.8	19.0	13.8	3.2	4.2	3.3	32.8	85.9
3	5.0	8.0	5.0	7.1	26.1	49.7	95.0	84.0	79.2	59.7	51.0	39.6	35.4	59.6	55.0	39.0	51.7	124.5	40.7	10.5	18.2	9.5	32.5	73.4	44.1	124.5
4	55.9	129.8	45.0	26.8	24.9	16.4	15.3	14.0	27.7	31.5	34.2	129.4	11.5	5.1	4.1	12.3	5.9	14.6	9.7	6.5	1.7	47.3	70.3	77.8	34.1	129.8
5	52.0	93.5	64.6	31.1	18.8	17.6	75.0	95.2	51.7	15.0	12.2	9.4	8.1	12.8	40.3	31.2	9.4	19.5	52.4	30.5	7.3	4.7	4.7	5.0	31.8	95.2
6	4.1	4.4	48.9	74.9	104.1	93.0	138.8	121.8	97.3	81.3	60.1	28.1	42.3	70.4	98.1	25.6	40.0	32.5	22.6	10.4	17.5	13.0	7.9	10.6	52.0	138.8
7	33.0	19.2	40.8	20.0	17.7	19.2	57.0	66.1	100.4	80.4	77.2	73.3	44.6	7.1	6.4	45.6	7.1	13.3	21.9	7.8	3.7	2.9	2.5	3.0	32.1	100.4
8	6.6	9.9	4.0	3.4	4.1	11.2	12.7	15.5	26.9	29.6	132.8	73.0	47.2	52.1	59.6	42.5	41.0	29.3	22.6	11.2	16.3	7.3	5.6	6.1	27.9	132.8
9	7.9	7.5	15.3	10.6	17.6	11.2	61.2	65.7	58.5	31.3	61.4	63.9	45.4	57.3	86.2	60.7	50.1	31.6	24.2	22.2	20.5	11.8	8.4	8.0	34.9	86.2
10	3.9	4.3	12.4	58.2	18.1	11.7	47.7	24.8	31.6	64.8	71.3	72.1	52.8	113.7	81.6	78.8	51.1	36.2	19.9	42.6	9.0	13.9	13.7	7.3	39.2	113.7
11	16.7	12.5	22.8	96.9	76.4	65.8	110.0	171.9	33.2	24.1	81.7	33.9	28.1	38.1	27.2	16.2	25.3	18.5	36.6	28.0	15.6	27.6	31.7	328.1	57.0	328.1
12	101.4	8.1	2.7	4.5	14.5	43.0	44.5	97.0	50.9	43.7	34.7	11.0	9.6	20.6	11.4	23.9	11.2	24.9	2.4	2.4	4.1	8.2	3.1	3.2	24.2	101.4
13	1.1	2.3	2.2	3.5	45.5	85.4	50.2	28.7	50.4	35.8	31.9	34.5	28.5	19.3	37.3	46.3	49.6	50.8	18.2	9.3	4.6	3.8	2.7	16.8	27.5	85.4
14	6.7	49.7	72.7	166.4	158.4	129.8	149.4	81.7	51.1	50.7	71.7	82.0	60.5	63.8	80.8	46.5	40.6	42.2	20.0	19.5	8.6	5.4	2.3	2.1	61.0	166.4
15	3.3	19.5	17.2	29.8	9.6	14.4	82.8	128.7	51.2	56.9	79.3	37.0	67.1	32.5	46.6	46.7	44.3	39.8	14.6	23.4	4.1	8.4	8.7	4.8	36.3	128.7
16	11.9	55.2	63.7	132.8	215.0	127.8	133.8	44.9	35.4	36.9	66.9	93.4	70.2	64.3	81.9	202.0	62.1	32.6	64.3	12.1	7.3	18.6	6.2	19.2	69.1	215.0
17	28.2	17.9	97.9	120.6	57.6	148.0	68.8	110.4	210.5	98.2	69.7	71.1	131.7	82.9	64.8	81.9	50.9	305.7	33.1	12.2	22.0	6.2	6.5	4.1	79.2	305.7
18	4.1	3.2	4.0	14.7	16.8	22.6	97.5	142.7	88.5	62.1	58.8	37.5	34.4	41.8	40.2	30.6	62.9	35.2	24.9	15.4	13.9	48.3	63.0	4.6	40.3	142.7
19	2.9	13.6	83.3	58.3	37.3	15.0	44.8	132.0	12.4	8.0	12.2	7.8	8.9	91.5	17.5	20.3	38.4	12.7	6.9	2.4	2.3	5.1	1.5	1.9	26.5	132.0
20	5.3	5.8	10.0	9.4	6.8	5.3	49.8	25.4	41.6	23.3	20.3	23.2	24.5	22.7	20.9	14.8	17.5	7.1	11.7	14.9	6.8	5.3	10.0	7.0	16.2	49.8
21	2.5	21.2	62.5	71.4	77.4	102.0	104.4	156.1	150.4	137.5	162.0	151.2	69.1	106.4	68.7	78.9	62.2	43.3	25.8	37.0	91.6	17.3	15.9	27.7	76.8	162.0
22	13.3	13.1	9.8	17.4	106.5	96.6	52.1	94.0	75.3	28.1	40.9	43.2	33.1	40.6	37.6	30.8	39.1	27.5	22.4	17.4	9.2	11.3	9.3	7.1	36.5	106.5
23	6.2	6.7	7.3	9.5	14.3	19.7	19.4	32.0	35.9	50.1	69.4	57.0	52.9	118.6	36.7	246.8	52.4	34.0	42.7	16.4	11.9	12.2	13.0	14.0	40.8	246.8
24	13.3	9.4	11.0	14.8	19.1	15.3	19.6	69.0	53.6	31.9	43.1	36.3	63.0	59.5	87.4	60.4	78.3	6.0	8.3	6.1	23.3	22.6	1.9	31.6	87.4	
25	40.6	9.7	27.7	100.6	24.4	25.4	52.0	33.8	24.0	36.0	34.1	24.5	28.8	33.6	14.0	36.1	24.0	15.2	25.1	12.8	11.7	14.9	55.6	30.6	100.6	
26	25.4	76.5	253.8	166.2	77.5	158.3	165.8	175.5	83.9	41.6	19.4	12.6	18.0	10.6	18.5	15.3	23.5	12.4	9.6	10.9	10.3	11.7	12.5	11.2	59.2	253.8
27	19.1	44.4	102.1	111.3	85.0	92.9	155.8	178.0	125.4	56.0	93.8	42.7	60.3	37.4	39.5	51.6	46.5	34.5	33.2	35.9	17.7	24.7	22.4	60.3	65.4	178.0
28	52.2	215.2	261.3	218.8	219.4	184.6	247.1	437.6	206.4	240.5	152.9	53.0	77.5	104.8	82.0	131.5	112.3	82.8	46.3	41.9	23.3	44.3	66.4	32.4	138.9	437.6
29	28.4	52.5	146.1	96.0	65.3	75.7	93.6	173.0	85.2	65.8	48.9	45.7	45.3	49.9	86.5	50.1	92.3	60.1	36.7	29.2	28.6	25.4	38.0	20.3	64.1	173.0
30	20.0	26.1	114.3	304.1	243.7	117.5	116.6	166.9	121.7	88.2	59.8	62.6	49.6	58.2	88.6	36.0	42.6	43.5	103.6	19.0	22.1	31.1	25.3	26.7	82.8	304.1
31	26.8	26.7	27.0	27.0	30.2	39.9	35.1	52.7	66.7	60.2	68.1	41.6	49.0	33.6	33.9	33.6	38.2	22.8	19.8	23.8	27.5	22.8	38.1	36.3	68.1	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	19.4	31.3	53.0	64.9	59.5	60.2	79.8	99.5	70.8	57.3	61.9	52.1	43.7	51.4	49.8	54.5	42.3	41.9	27.4	18.3	15.4	15.7	17.3	28.8		
MAX	101.4	215.2	261.3	304.1	243.7	184.6	247.1	437.6	210.5	240.5	162.0	151.2	131.7	118.6	98.1	246.8	112.3	305.7	103.6	42.6	91.6	48.3	70.3	328.1		



Number of Non-Zero Readings	744
Maximum 1-HR Average	437.6 UG/M3
Maximum 24-HR Average	138.9 UG/M3
Monthly Calibration Standard Deviation	49.63
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	46.5 UG/M3

# Entrance TSP ( $\mu\text{g}/\text{m}^3$ ) – July 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	0.7	2.3	4.8	3.0	1.5	1.4	12.8	39.9	54.9	70.8	109.0	131.8	96.1	141.4	90.9	113.2	17.3	25.6	21.5	11.0	3.9	4.9	10.5	17.8	41.1	141.4
2	12.4	20.9	13.9	16.6	50.8	225.6	242.7	147.8	185.1	243.8	261.0	346.8	129.4	157.3	129.9	193.7	64.6	121.1	142.4	87.3	68.7	6.7	13.1	10.7	120.5	346.8
3	8.8	9.7	8.8	9.3	43.6	98.2	223.5	159.9	169.3	154.6	144.5	111.3	91.6	137.2	142.5	85.3	124.5	196.1	78.0	11.3	25.2	13.8	43.7	101.7	91.4	223.5
4	65.8	174.7	52.2	34.3	38.4	23.6	16.6	20.1	29.7	46.0	57.0	445.4	23.0	18.0	11.2	45.8	10.2	30.9	17.3	12.7	1.5	68.8	111.9	111.5	61.1	445.4
5	79.2	146.5	108.4	51.8	21.7	27.3	157.6	155.2	138.7	31.8	22.2	15.1	16.3	25.4	81.9	79.1	15.2	39.8	75.6	45.9	8.5	10.5	5.6	4.8	56.8	157.6
6	5.2	8.5	77.2	125.1	227.3	192.3	279.1	250.3	189.6	127.8	108.4	53.6	66.1	119.4	139.1	56.2	54.0	50.4	46.4	15.9	25.5	15.7	9.8	13.9	94.0	279.1
7	56.1	23.5	71.7	20.8	18.2	21.1	85.3	95.6	142.7	95.5	114.2	144.7	119.8	11.2	15.3	63.6	5.4	10.3	20.9	7.0	2.7	2.0	1.6	2.0	48.0	144.7
8	5.7	9.3	3.0	2.5	3.3	11.1	13.6	25.3	44.8	65.0	323.2	181.0	119.4	123.3	137.3	95.5	124.1	79.7	40.6	12.7	17.1	5.3	3.7	4.6	60.5	323.2
9	6.6	6.3	16.2	10.6	19.8	12.0	108.9	129.0	141.9	65.3	142.0	119.5	81.7	122.6	256.0	142.5	127.8	117.5	29.2	26.9	23.3	17.0	9.5	8.5	72.5	256.0
10	3.9	4.3	24.0	122.5	31.7	14.9	107.9	50.7	73.8	149.8	163.1	141.1	124.0	219.3	177.3	161.9	119.9	82.1	43.5	74.7	13.4	12.8	14.4	6.7	80.7	219.3
11	18.3	16.0	29.7	179.8	169.1	156.5	269.8	460.1	64.9	47.4	142.2	71.3	52.9	94.7	59.7	32.4	38.0	43.2	97.8	84.6	31.3	41.2	91.6	890.0	132.6	890.0
12	282.9	26.6	3.1	8.6	25.5	57.0	54.1	114.1	129.3	108.1	90.0	48.3	29.5	72.3	45.0	109.9	34.5	89.6	5.4	2.4	4.7	9.3	2.5	3.4	56.5	282.9
13	1.0	2.7	3.7	3.8	82.2	157.6	77.4	61.8	107.9	75.0	70.7	79.3	66.0	47.3	93.5	97.8	106.9	111.8	35.0	14.3	5.6	6.4	3.5	46.4	56.6	157.6
14	13.7	62.7	111.9	228.2	201.9	210.3	272.4	139.5	105.9	102.9	135.5	155.3	131.4	144.0	206.0	104.8	98.4	128.5	54.2	45.1	15.6	8.1	1.7	1.5	111.6	272.4
15	3.7	28.3	22.7	32.2	17.2	34.1	164.7	270.3	126.6	128.7	183.1	94.0	145.4	82.0	106.9	107.8	104.5	94.9	35.2	37.2	5.9	7.0	7.8	8.1	77.0	270.3
16	17.0	91.4	121.4	166.0	236.5	194.3	191.7	98.6	79.0	62.9	114.1	212.2	181.7	142.1	220.7	407.8	148.0	62.3	145.7	23.6	9.8	48.9	14.2	35.5	126.1	407.8
17	52.1	32.9	144.1	253.6	115.0	261.3	91.9	265.1	363.1	161.3	149.2	120.8	285.6	148.5	134.3	152.9	108.8	916.9	72.1	24.3	61.0	5.6	16.2	9.9	164.4	916.9
18	3.0	3.1	3.9	16.7	19.1	26.0	152.3	286.4	157.7	120.6	133.2	83.1	71.1	78.6	86.0	66.4	90.4	71.1	54.8	26.1	21.0	45.9	62.9	7.9	70.3	286.4
19	3.9	14.9	89.4	64.6	63.0	19.5	83.7	160.5	24.1	15.1	29.3	11.3	16.6	227.9	24.4	30.2	76.5	44.8	20.4	1.7	1.6	4.1	1.1	1.4	42.9	227.9
20	4.2	4.6	10.5	9.9	6.7	4.9	121.8	35.8	75.8	51.8	36.9	49.3	49.9	47.5	33.1	34.9	20.8	23.5	32.8	9.6	7.1	12.0	7.3	30.9	121.8	
21	2.2	24.6	79.5	104.0	130.3	200.2	201.7	347.9	318.9	259.5	258.1	285.4	176.0	273.2	170.0	160.5	110.3	87.4	51.2	41.9	84.7	22.3	19.8	38.4	143.7	347.9
22	17.3	14.0	9.4	18.2	91.1	105.1	73.3	129.0	164.1	63.6	92.5	108.5	78.6	98.2	89.3	71.0	78.6	49.0	41.7	28.2	7.0	8.5	7.0	10.3	60.6	164.1
23	8.8	8.1	5.1	6.8	10.5	16.5	15.4	28.1	38.7	69.7	147.6	133.8	95.0	286.7	87.6	512.7	127.7	59.2	72.2	51.4	15.1	14.8	16.6	10.5	76.6	512.7
24	12.2	7.7	9.8	13.4	17.7	13.7	19.4	116.4	82.9	36.9	57.5	55.2	113.4	110.3	222.2	192.2	204.8	19.9	21.0	16.1	26.8	32.6	6.8	6.5	59.0	222.2
25	46.4	12.0	34.0	193.0	59.7	60.7	99.7	78.0	57.3	69.1	68.0	46.3	53.9	70.0	78.8	30.8	70.2	48.6	40.9	44.1	20.0	14.2	34.9	83.6	58.9	193.0
26	50.2	109.8	375.0	295.8	165.1	249.3	302.6	388.2	240.5	104.1	50.5	24.3	25.6	16.0	23.9	39.5	70.2	32.6	17.7	26.5	16.8	20.0	13.8	10.1	111.2	388.2
27	20.4	83.0	181.0	235.1	129.2	200.3	349.0	390.5	222.6	88.2	124.1	60.7	81.5	57.5	78.4	95.4	92.7	74.9	64.5	66.5	16.6	29.8	27.7	85.7	119.0	390.5
28	94.0	388.5	343.5	293.5	304.5	292.7	455.6	951.8	466.2	489.7	247.3	76.4	109.4	158.2	129.5	209.8	162.8	111.2	89.4	58.1	36.2	50.1	67.6	28.7	234.0	951.8
29	34.6	91.6	171.9	125.1	77.1	104.2	123.6	253.1	121.4	110.0	97.1	75.4	70.6	89.8	145.9	87.5	174.1	128.8	79.5	49.5	47.2	37.5	39.0	17.5	98.0	253.1
30	17.7	25.5	190.8	702.1	592.3	188.2	153.5	249.3	185.4	186.0	116.5	116.2	98.9	122.0	223.4	74.5	88.3	107.7	357.8	20.9	19.1	25.2	17.8	18.1	162.4	702.1
31	18.0	17.4	18.0	19.8	23.6	38.5	30.5	56.4	78.3	105.0	185.8	86.2	128.0	71.5	66.3	87.3	117.8	44.7	28.5	34.2	33.4	30.0	31.0	44.3	58.1	185.8
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	31.2	47.5	75.4	108.6	96.6	103.8	146.9	192.1	141.3	113.1	128.2	118.8	94.5	113.4	113.6	120.7	90.4	100.0	62.1	33.4	21.9	20.2	23.2	53.1		
MAX	282.9	388.5	375.0	702.1	592.3	292.7	455.6	951.8	466.2	489.7	323.2	445.4	285.6	286.7	256.0	512.7	204.8	916.9	357.8	87.3	84.7	68.8	111.9	890.0		



Number of 24HR Exceedences	10	Proposed Guideline
Number of Non-Zero Readings	744	
Maximum 1-HR Average	951.8 $\mu\text{g}/\text{m}^3$	
Maximum 24-HR Average	234.0 $\mu\text{g}/\text{m}^3$	
Monthly Calibration Standard Deviation	0	Operational Time
	104.6	Operational Uptime
		Monthly Average
		744 HRS
		100.0 %
		89.6 $\mu\text{g}/\text{m}^3$