

LAFARGE CANADA INC.

AMBIENT AIR QUALITY MONTHLY REPORT

FEBRUARY 2021

MARCH 29, 2021





AMBIENT AIR QUALITY MONTHLY REPORT

FEBRUARY 2021

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-05
DATE: MARCH 29, 2021

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March 29, 2021

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

Attention: Nikolaos Veriotes P. Eng.

Dear Mr. Veriotes,

Subject: Ambient Air Quality Monthly Report – February 2021

The following table summarizes the data completeness and reported exceedances of Alberta Ambient Air Quality Objectives (AAAQOs) or Guidelines (AAAQG) at the Lagoon Station for February 2021.

Lagoon	Data Completeness (%)	1-Hour Average	24-hour Average
		Exceedances of AAAQO or AAAQG	Exceedances of AAAQO
TSP	100%	-	1
PM _{2.5}	100%	0	0
PM ₁₀	100%	-	-
NO	100%	-	-
NO ²	100%	0	-
NO _x	100%	-	-
SO ²	100%	0	0
Met Parameters	100%	-	-

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The following table summarizes the data completeness and reported exceedances of Alberta Ambient Air Quality Objectives (AAAQOs) or Guidelines (AAAQG) at the Windridge Station for February 2021.

Windridge	Data Completeness (%)	1-Hour Average	24-hour Average	
		Exceedances of AAAQG	Exceedances of PM _{2.5} AAAQO	Exceedances of TSP AAAQO
TSP*	99.9%	-	-	8
PM _{2.5} *	99.9%	0	0	-
PM ₁₀ *	99.9%	-	-	-

*At the Windridge Station, all analyzers had 99.9% uptime for the month of February, due to one hour of power failure (P), occurring on February 9th at 13:00.

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. This Program uses the AAAQOs as Guidelines. The following table summarizes the data completeness and reported exceedances of the Guidelines at the GRIMM Monitors for February 2021.

GRIMM Stations	Data Completeness (%)	1-Hour Average	24-hour Average	
		Exceedances of PM _{2.5} Guidelines	Exceedances of PM _{2.5} Guidelines	Exceedances of TSP Guidelines
West	100%	0	0	0
Berm	100%	9	3	16
Entrance	100%	0	0	12

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,



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

SIGNATURES

PREPARED BY



March 29, 2021

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

Date

APPROVED¹ BY *(must be reviewed for technical accuracy prior to approval)*



March 29, 2021

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

Date

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A DATA & CALIBRATION REPORTS

1 INTRODUCTION

This report summarizes the ambient air quality and meteorological data collected at the Lagoon, Windridge, and GRIMM monitors in Exshaw, AB. The stations are operated by WSP on behalf of Lafarge Canada Inc. (Lafarge) and are a requirement of Lafarge's Approval 1702-02-04. This report contains data collected between February 1, 2021 and February 28, 2021.

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), the Windridge monitoring station was taken out of operation and removed from the site on April 8, 2019. The flood mitigation work was completed in Summer 2020. The Windridge station was reinstalled on September 1, 2020 and is included in this report.



Figure 1 Photo of Completed Flood Mitigation Work at Exshaw Creek

1.2 FUGITIVE DUST CONTRIBUTIONS FROM LAC DES ARCS

In February 2021, Lafarge environmental staff noted the potential contributions of fugitive dust in the airshed from the exposed lake bed of Lac Des Arcs, immediately southwest of the Lafarge plant site. Low water levels have left more of the lake shore/bed exposed this winter (Figure 2). During high wind events, the sediments from the exposed lake bed can be re-suspended, dispersed in air and become a significant source of fugitive dust impacting the community. This additional source of fugitive dust in the airshed would have an impact on ambient concentration of particulate matter at the monitor and exacerbate any dust originating from the plant site itself. Under high wind speeds (>20 km/hr) and paired with the exposed silt on Lac Des Arcs, fugitive dust from Lac Des Arcs was a potential contributor to ambient particulate matter concentrations and AAAQO exceedances in February 2021.



Figure 2 Photo of the exposed silt on Lac Des Arcs

2 FEBRUARY 2021 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_{2.5} are those above the 1-hour PM_{2.5} 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 ₂ (ppb)	100.0	34.4	0	18.3	-
SO ₂ (ppb)	100.0	12.6	0	3.1	0
PM _{2.5} (µg/m ³)	100.0	40.7	0 ¹	23.7	0
PM ₁₀ (µg/m ³)	100.0	461.1	-	97.6	-
TSP (µg/m ³)	100.0	952.7	-	151.8	1
Temperature (°C)	100.0	9.1	-	4.7	-
Wind Speed (km/hr) /Direction (Degrees)	100.0	58.8/W	-	43.2/WSW	-
Precipitation (mm)	100.0	2.5 ²	-	6.0 ³	-

¹ Any exceedances reported for 1-hour PM_{2.5} are over the guideline level (AAAQG) of 80 µg/m³.

² Maximum Daily Total Accumulation of Precipitation (mm)

³ Monthly Total Accumulation of Precipitation (mm)

Data Quality Notes:

- There were no exceedances of the 24-hour PM_{2.5} AAAQO.
- There were no exceedances of the 1-hour PM_{2.5} AAAQG.
- There was 1 exceedance of the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- At the Lagoon station, all analyzers and meteorological sensors had 100% uptime for the month of February.

2.2 WINDRIDGE STATION

Table 2-2 Windridge station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQG	Maximum Concentration	Exceedances of AAAQO
PM _{2.5} (µg/m ³)	99.9	40.0	0*	19.6	0
PM ₁₀ (µg/m ³)	99.9	485.0	-	239.5	-
TSP (µg/m ³)	99.9	985.0	-	344.3	8

* Any exceedances reported for 1-hour PM_{2.5} are over the guideline level (AAAQG) of 80 µg/m³.

Data Quality Notes:

- There were no exceedances of the 24-hour PM_{2.5} AAAQO.
- There were no exceedances of the 1-hour PM_{2.5} AAAQG.
- There were 8 days exceeding the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- At the Windridge Station the analyzers had 99.9% uptime for the month of February due to one hour of power failure occurring on February 9th at 13:00.

2.3 WEST GRIMM

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

Table 2-3 West station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} (µg/m ³)	100.0	43.6	0*	28.8	0
PM ₁₀ (µg/m ³)	100.0	47.4	-	31.7	-
TSP (µg/m ³)	100.0	47.6	-	23.2	0

* Any exceedances reported for 1-hour PM_{2.5} are over the guideline level (AAQG) of 80 µg/m³.

Data Quality Notes:

- There were no exceedance of the 24-hour PM_{2.5} Guidelines.
- There were no exceedances of the 1-hour PM_{2.5} Guidelines.
- There were no exceedances of the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

- The analyzer had 100% uptime for the month of February.

2.4 BERM GRIMM

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

Table 2-4 Berm station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} (µg/m ³)	100.0	109.4	9*	33.1	3
PM ₁₀ (µg/m ³)	100.0	980.4	-	303.8	-
TSP (µg/m ³)	100.0	3153.4	-	1031.7	16

* Any exceedances reported for 1-hour PM_{2.5} are over the guideline level (AAQG) of 80 µg/m³.

Data Quality Notes:

- There were 3 days exceeding the 24-hour PM_{2.5} Guidelines.
- There were 9 hours exceeding the 1-hour PM_{2.5} Guidelines.

- There were 16 days exceeding the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

- The analyzer had 100% uptime during the month of February.

2.5 ENTRANCE GRIMM

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

Table 2-5 Entrance station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} (µg/m ³)	100.0	48.5	0*	22.5	0
PM ₁₀ (µg/m ³)	100.0	494.1	-	167.2	-
TSP (µg/m ³)	100.0	2558.6	-	848.0	12

* Any exceedances reported for 1-hour PM_{2.5} are over the guideline level (AAAQG) of 80 µg/m³.

Data Quality Notes:

- There were no exceedances of the 24-hour PM_{2.5} Guidelines.
- There were no exceedances of the 1-hour PM_{2.5} Guidelines.
- There were 12 days exceeding the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

- The analyzer had 100% uptime for the month of February.

3 LAGOON STATION

The Lagoon trailer contains NO_x, SO₂, TSP, PM₁₀, and PM_{2.5} 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 February 2021.

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
PM_{2.5} Concentrations	MetOne BAM-1020 FRM Continuous Particulate Monitor	The PM _{2.5} monitor was calibrated on February 10 th . The monitor had 100% uptime in February.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on February 10 th . The monitor had 100% uptime in February.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on February 10 th . The monitor had 100% uptime in February.
Oxides of Nitrogen	TEI 42C	The NO _x monitor was calibrated on February 10 th . The monitor had 100% uptime in February.
Sulphur Dioxide	Teledyne API 102A	The SO ₂ monitor was calibrated on February 10 th . The monitor had 100% uptime for the month of February.
Precipitation	MetOne 130 Rain/Snow Gauge	The monitor had 100% uptime for the month of February.
Wind Speed	MetOne Wind Sensor	The monitor had 100% uptime for the month of February.
Wind Direction		
Ambient Temperature	MetOne Ambient Temperature Sensor	The monitor had 100% uptime for the month of February.



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 24-hour TSP exceedance day. The wind rose indicates that the winds predominantly came from the west direction.

Table 3-2 summarizes the hourly and daily concentrations recorded in February 2021. Table 3-3 details the day of exceedance.

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 February 2021 for the pollutants listed in Table 3-2. Additionally, Figure 3-4 to Figure 3-8 show the histograms of the hourly concentrations of NO₂, SO₂, PM_{2.5}, PM₁₀, and TSP measured at the Lagoon station.

There was one exceedance of the 24-hour TSP (100 µg/m³) AAAQO. There were no exceedances of the 24-hour PM_{2.5} (29 µg/m³) AAAQO. Further, there was no exceedance of the 1-hour PM_{2.5} AAAQG (80 µg/m³).

Historically in February, the average number of 24-hour TSP AAQO exceedances and 24-hour PM_{2.5} AAAQO exceedances are both zero.

Further, the low precipitation and strong wind gusting that occurred in February would have contributed to increased particulate levels that may have arisen from multiple sources: Lafarge Plant, Exshaw Creek, a section of exposed silt on Lac Des Arcs lake (Section 1.2), dry sections of the Bow River, roads (sanding from previous snowstorms) and open areas. The one TSP exceedance recorded was associated with a high wind event in February.

Table 3-2 Summary of February 2021 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/h r)	Wind Direction (degrees)	Maximum Concentration/ Meteorological Variable	Day	
NO ₂ (ppb)	159	-	Lagoon	0	-	0.0	9.6	34.4	13	3	10.2	256.5	18.3	9	100.0
SO ₂ (ppb)	172	48	Lagoon	0	0	0.0	1.2	12.6	25	17	28.4	273.6	3.1	21	100.0
PM _{2.5} (µg/m ³)	80	29	Lagoon	0	0	0.0	7.4	40.7	8	12	18.9	75.4	23.7	8	100.0
PM ₁₀ (µg/m ³)	-	-	Lagoon	-	-	0.0	35.9	461.1	23	4	14.2	280.4	97.6	21	100.0
TSP (µg/m ³)	-	100	Lagoon	-	1	0.6	49.9	952.7	11	2	11.4	79.9	151.8	21	100.0
Temperature (°C)	-	-	Lagoon	-	-	-33.0	-10.2	9.1	1	15	21.2	281.2	4.7	1	100.0
Wind Speed (km/hr)/Direction (degrees)	-	-	Lagoon	-	-	1.2	19.7	58.8/W	25	7	58.8	256.2	43.2/WSW	21	100.0
Precipitation (mm)	-	-	Lagoon	-	-	0.0	0.0	2.5	10	18	16.0	83.3	6.0	-	100.0

Table 3-3 Days exceeding the TSP AAAQO or PM_{2.5} AAAQO at the Lagoon Station

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Lagoon						
2021-02-21	151.8	-	263.4	43.2	37.5	High wind event
Total # of Exceedances	1	0				
Maximum # of Exceedances (February)	2 (2018)	0 (2010 - 2020)				
Average # of Exceedances (February)	0	0				
Minimum # of Exceedances (February)	0 (2010, 2011, 2012, 2013, 2014, 2015, 2017, 2019)	0 (2010 - 2020)				

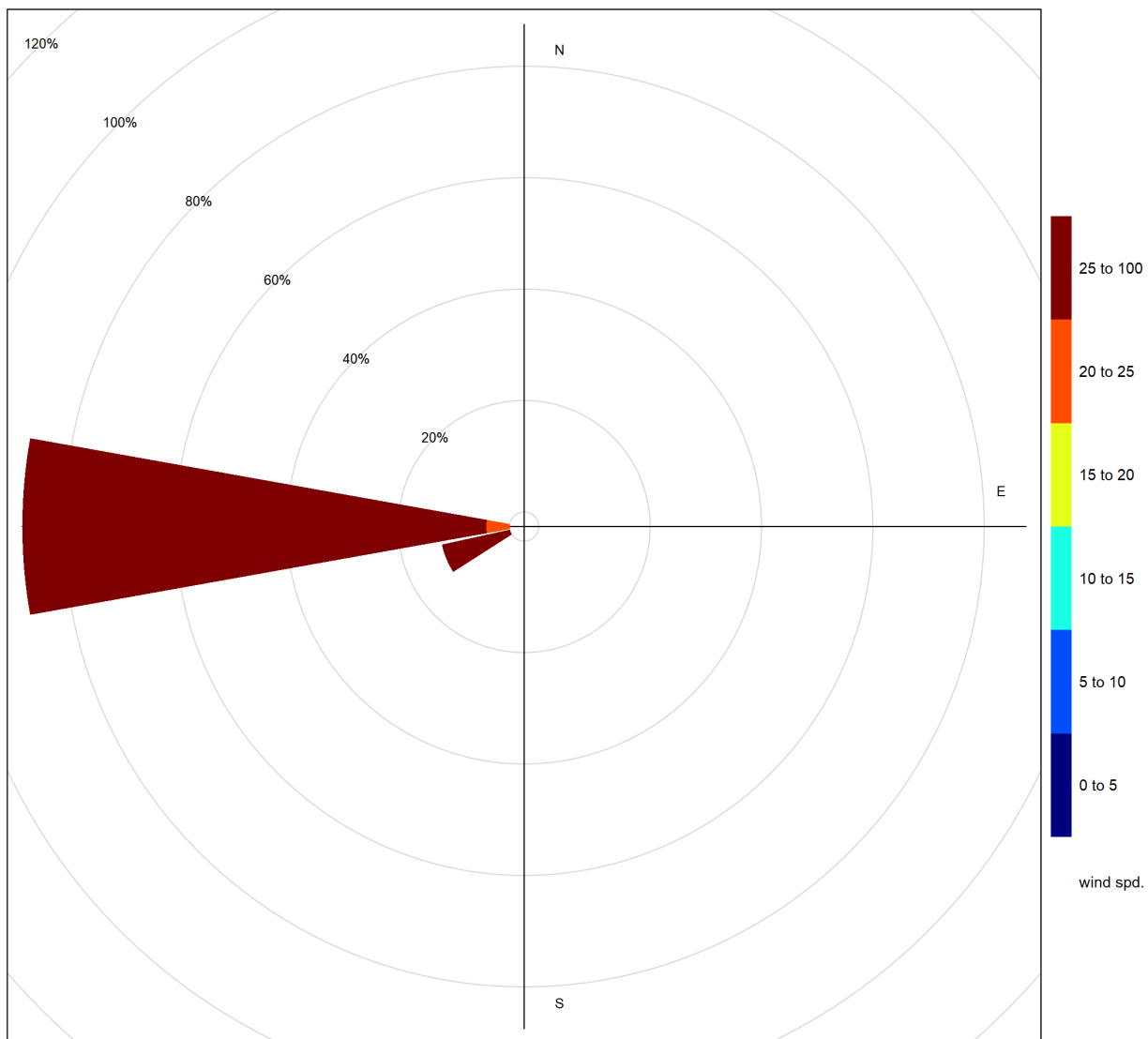


Figure 3-2 Wind rose for TSP exceedance day recorded at the Lagoon Station

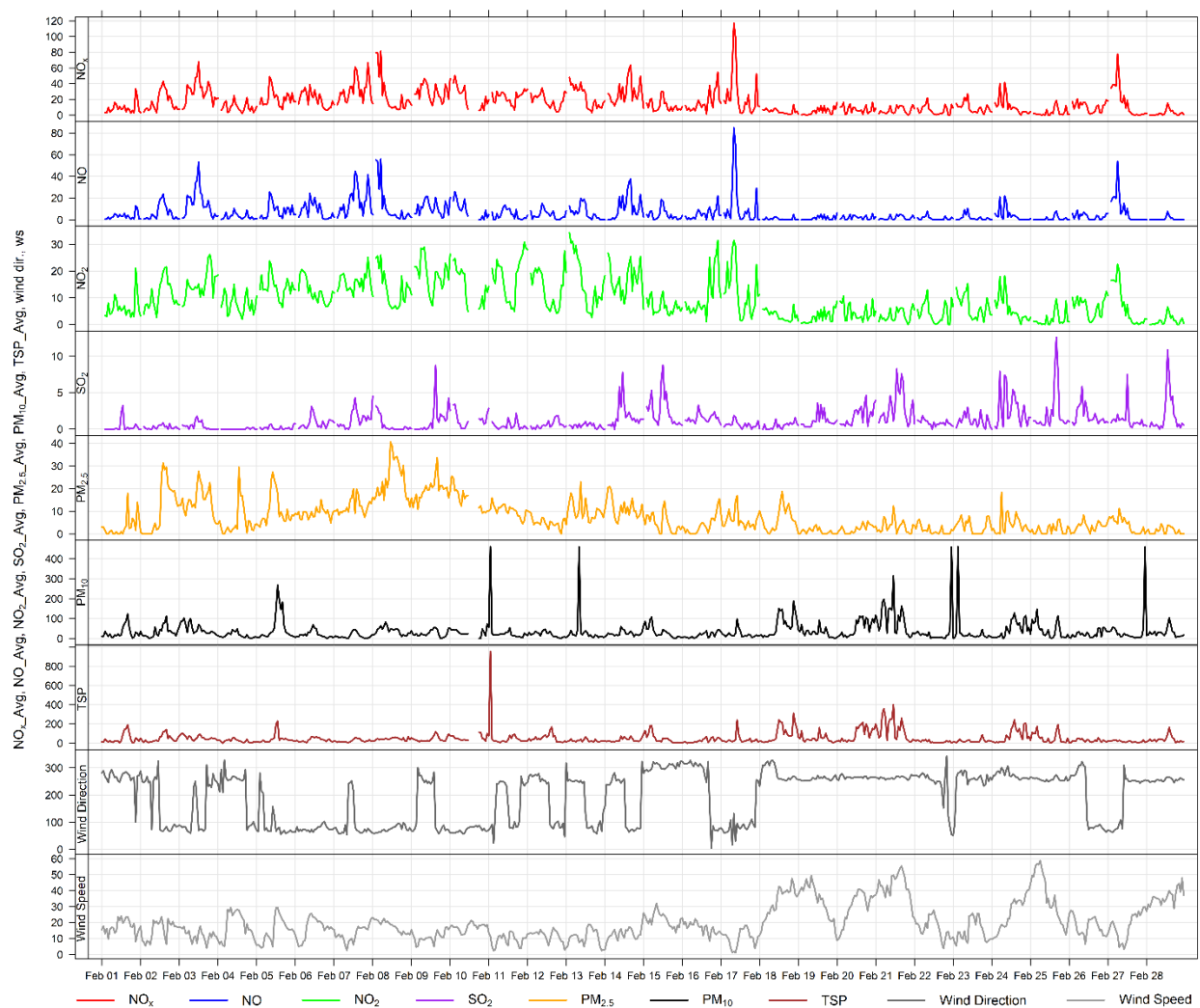


Figure 3-3 1-hour concentrations of NO_x, SO₂, particulate matter, wind direction and wind speed at the Lagoon station

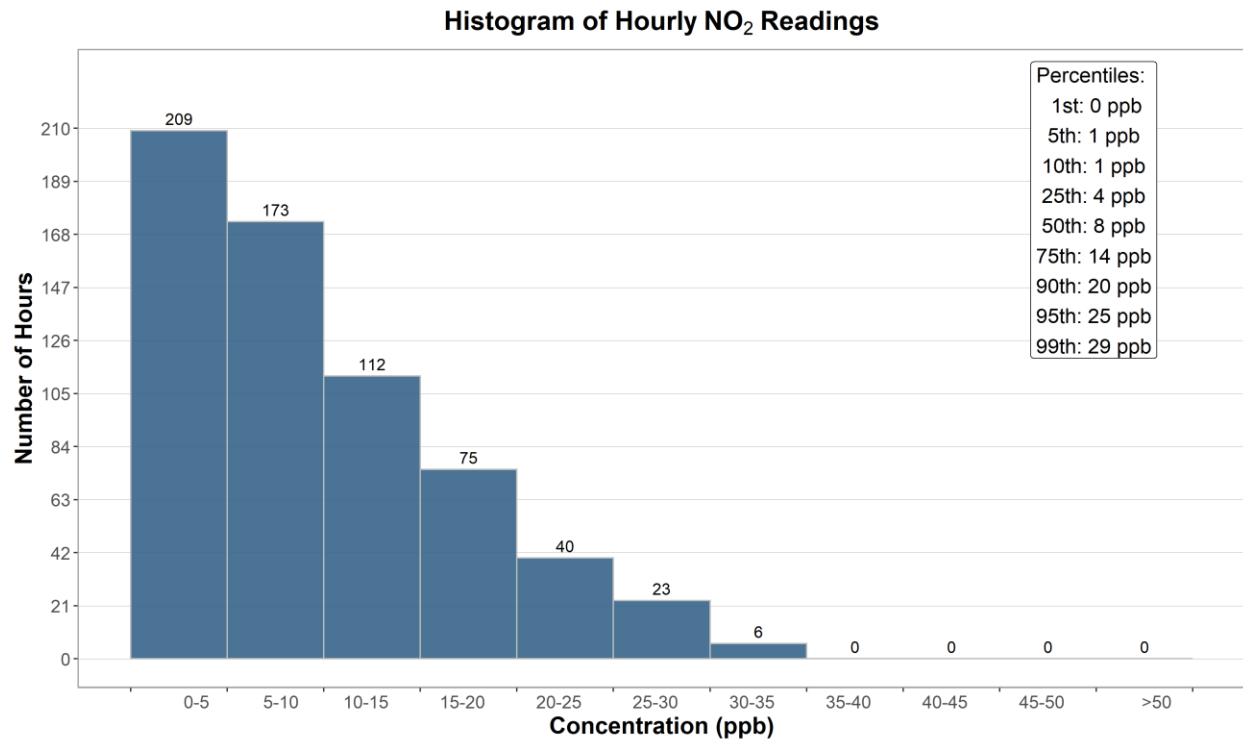


Figure 3-4 Histogram of hourly NO₂ concentrations at the Lagoon station

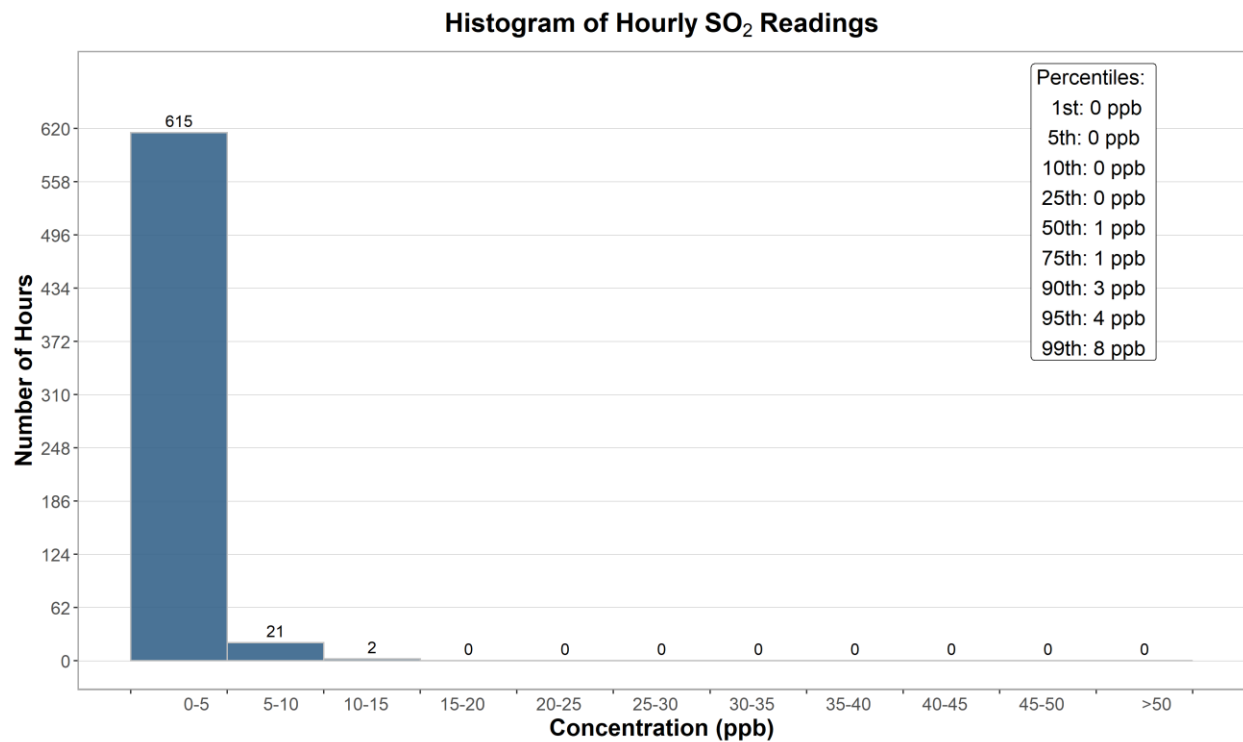


Figure 3-5 Histogram of hourly SO₂ concentrations at the Lagoon station

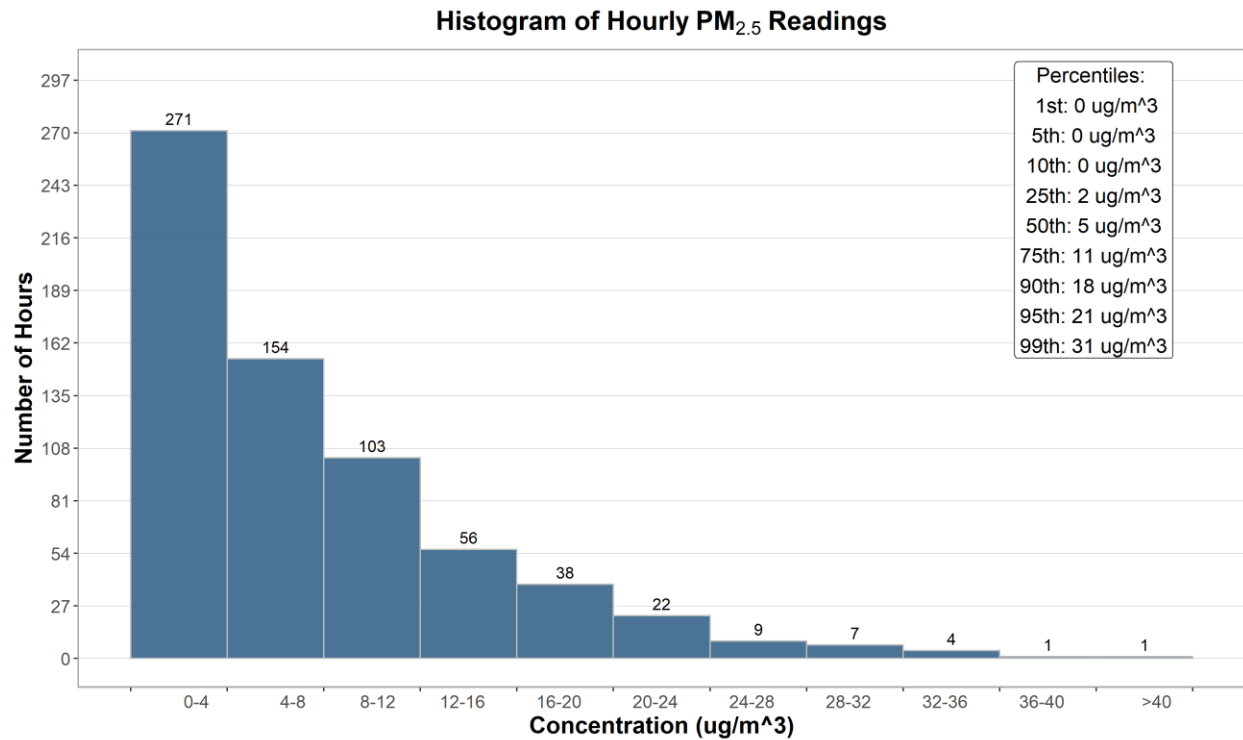


Figure 3-6 Histogram of hourly PM_{2.5} concentrations at the Lagoon station

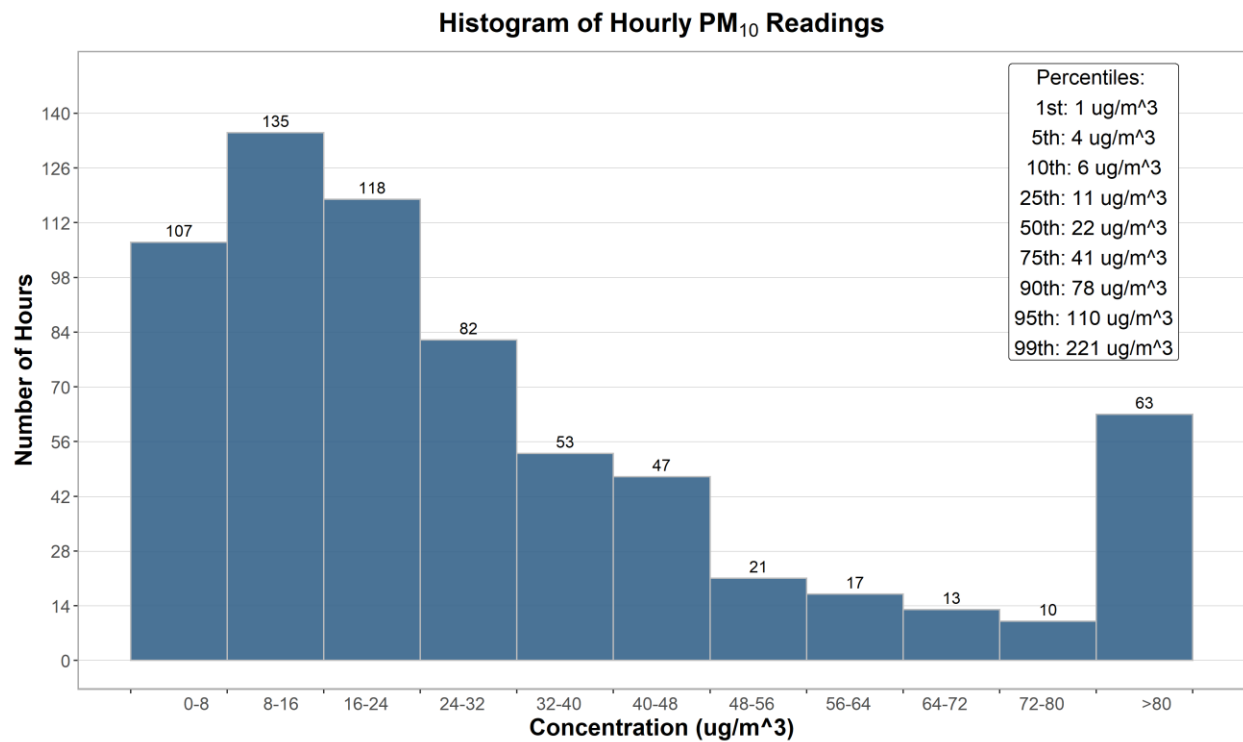


Figure 3-7 Histogram of hourly PM₁₀ concentrations at the Lagoon station

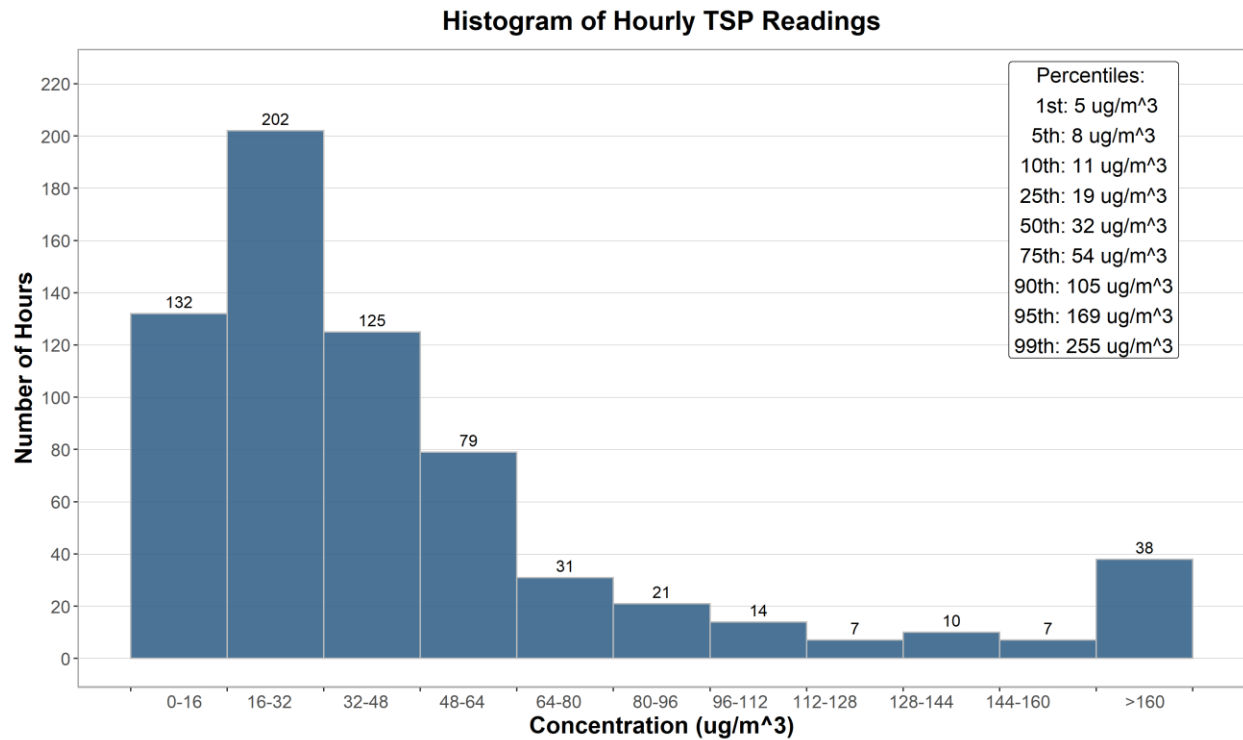


Figure 3-8 **Histogram of hourly TSP concentrations at the Lagoon station**

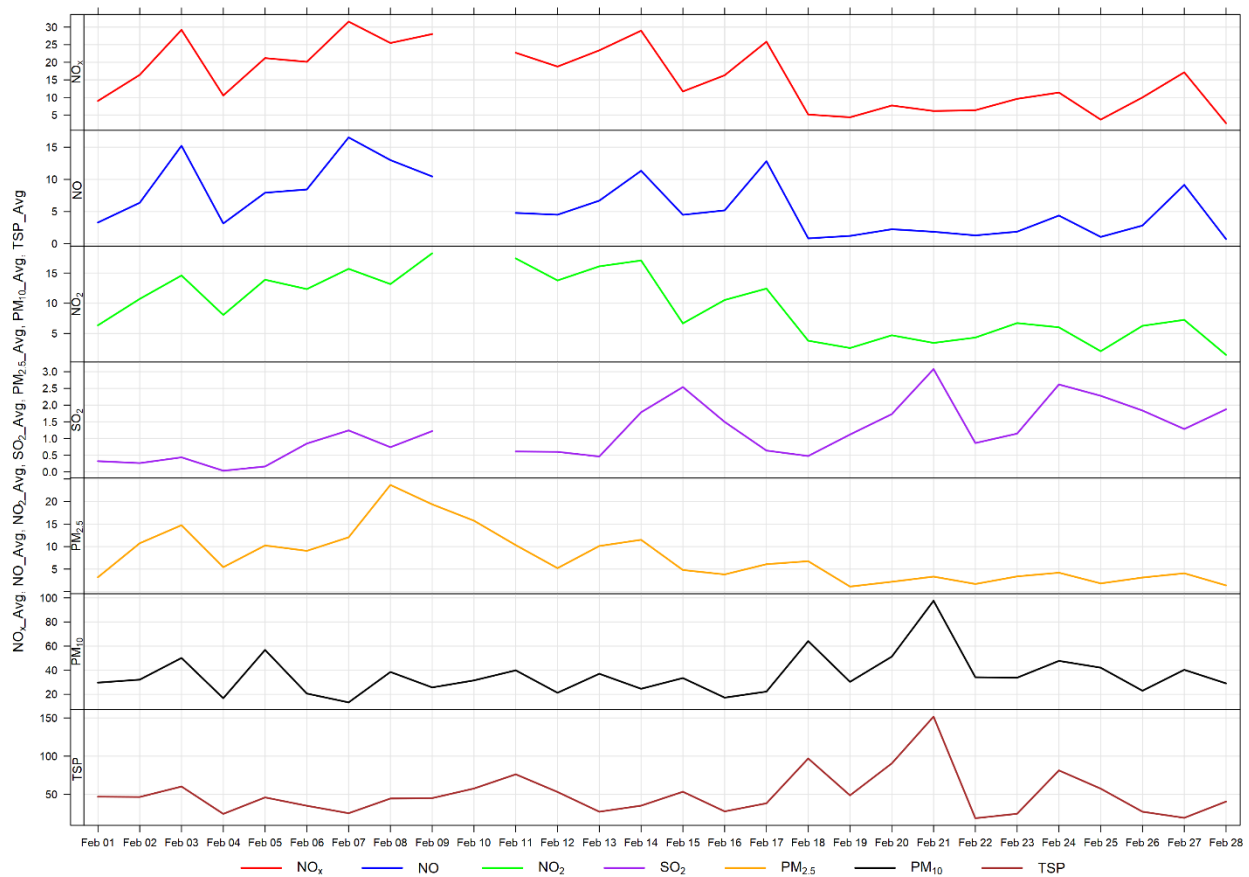


Figure 3-9 24-hour concentrations of NO_x, SO₂, and particulate matter at the Lagoon monitor

Figure 3-10 through Figure 3-12 show the variation in concentrations over various time averaging periods for PM, SO₂ and NO_x. The particulate matter plot in Figure 3-10 shows that PM₁₀ 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 SO₂ over various time periods. SO₂ concentrations patterns are dependent on the timing of the highest SO₂ concentrations recorded in the month because in general SO₂ concentrations are very low. Figure 3-12 shows the variation of NO_x, NO and NO₂, with the peak of all three pollutants occurring in the early morning. This may be indicative of a peak in traffic.

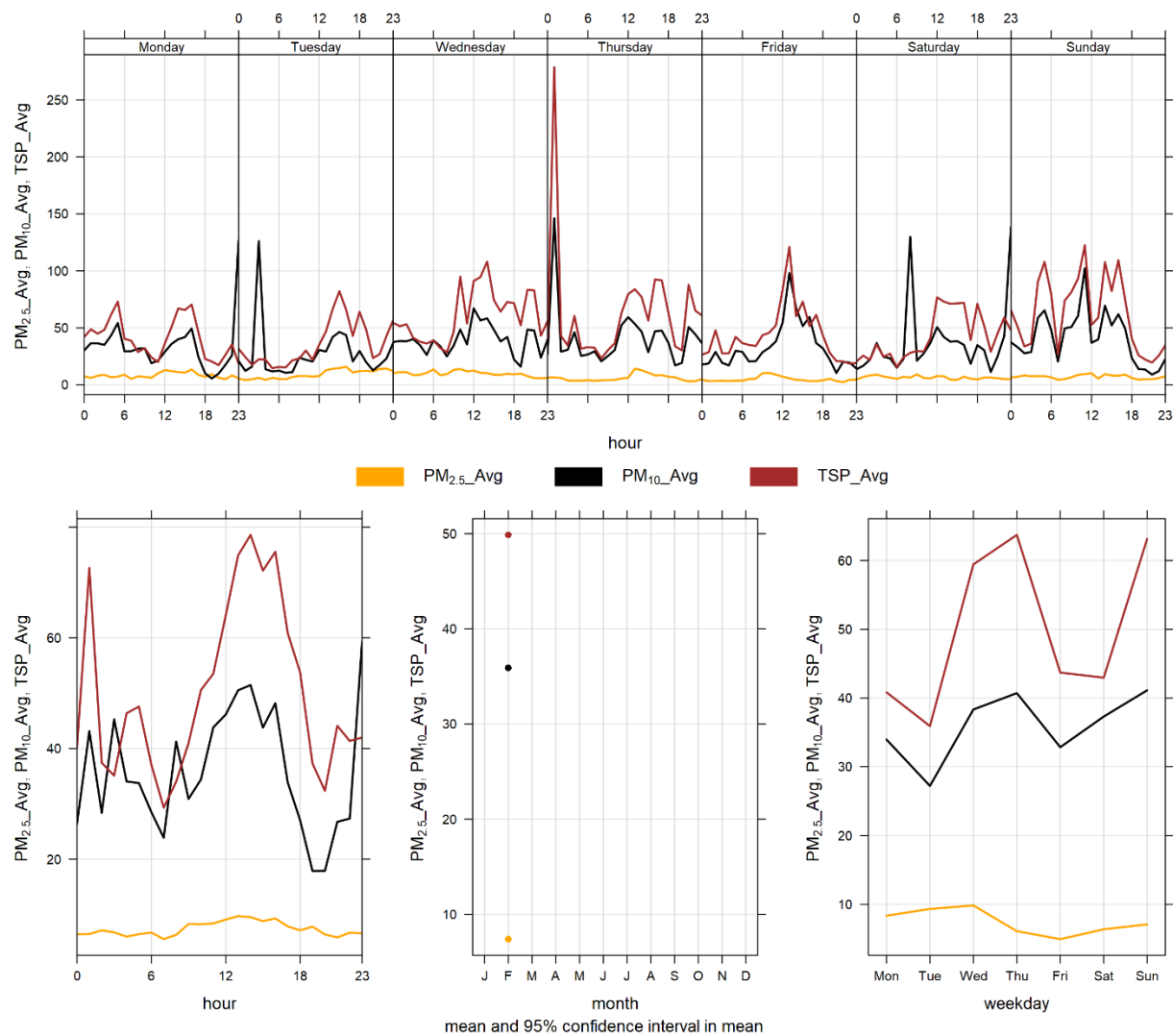


Figure 3-10 Lagoon monitor particulate matter time variation

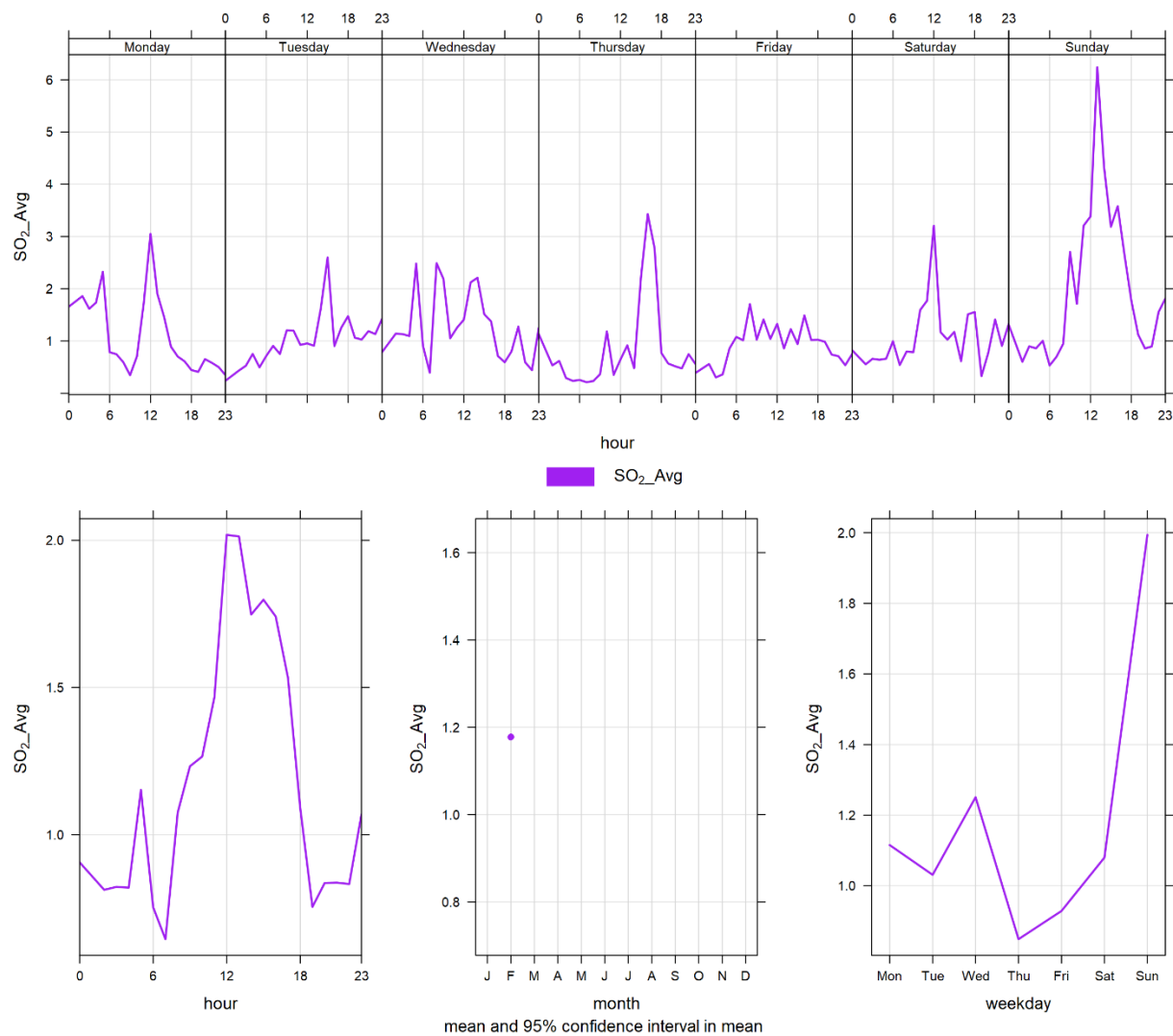


Figure 3-11 Lagoon monitor SO₂ time variation

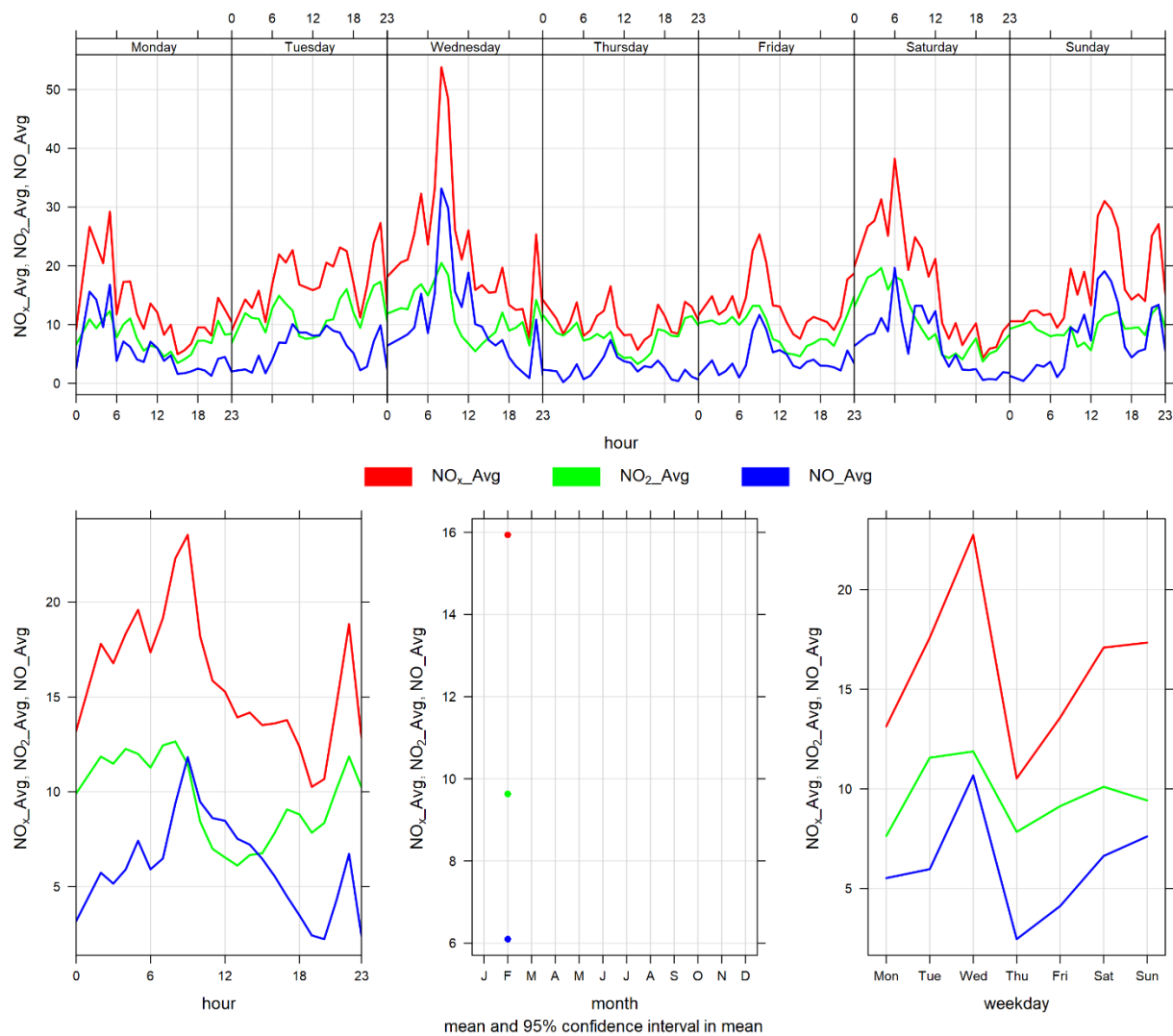


Figure 3-12 Lagoon monitor NO_x time variation

4 WINDRIDGE STATION

The Windridge station contains TSP, PM₁₀, and PM_{2.5} analyzers only. This section provides a summary of the monitoring activities for the Windridge ambient air quality station, including: a table of instrumentation (Table 4-1), a data summary table (Table 4-2), a table of recorded exceedances (Table 4-3), site visit notes, and graphs illustrating the monitoring results for February 2021.

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

4.1 OPERATIONAL SUMMARY

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

Table 4-1 Instrumentation List at the Windridge monitoring location

Parameter Measured	Equipment Description	Notes
PM_{2.5} Concentrations	MetOne BAM-1020 FRM Continuous Particulate Monitor	The PM _{2.5} monitor was calibrated on February 1 st . The monitor had 99.9% uptime for the month of February due to one hour of power failure occurring on February 9 th at 13:00.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on February 1 st . The monitor had 99.9% uptime for the month of February due to one hour of power failure occurring on February 9 th at 13:00.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on February 1 st . The monitor had 99.9% uptime for the month of February due to one hour of power failure occurring on February 9 th at 13:00.

4.2 MONITORING RESULTS AND TRENDS

Table 4-2 summarizes the hourly and daily concentrations recorded in February 2021, and Table 4-3 summarizes the recorded exceedances. Figure 4-1 illustrates the time series for hourly PM, Figure 4-2 to Figure 4-4 illustrate the histograms for hourly PM, Figure 4-5 illustrates the time series for daily PM, Figure 4-6 displays the wind rose for the 24-hour TSP exceedance days, and Figure 4-7 illustrates the time series for hourly PM over different time periods.

There were zero exceedances of the 24-hour PM_{2.5} AAAQO, zero exceedances of the 1-hour PM_{2.5} AAQ, and 8 exceedances of the 24-hour TSP AAAQO. TSP exceedances occurred primarily on days with high westerly wind speeds.

Historically in February, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM_{2.5} AAAQO exceedances is 6 and 0, respectively.

Due to flood mitigation construction at Exshaw creek the Windridge monitoring station was taken out of operation and removed from the site on April 8, 2019. The flood mitigation work was completed in August 2020. The Windridge station was reinstalled for September 1st, 2020. As per the photo presented in section 1.1 the flood mitigation work has left an exposed creek bed area immediately west of the Windridge monitor that may contributed to an increase in TSP levels. Further, the low precipitation and strong wind gusting that occurred in February would have contributed to increased particulate levels that may have arisen from multiple sources: Lafarge Plant, Exshaw Creek, a section of exposed silt on Lac des Arcs lake (Section 1.2), dry sections of the Bow River, roads (sanding from previous snowstorms) and open areas. All of the TSP exceedances recorded, excluding one, were associated with high wind events in February.

Table 4-2 Summary of February 2021 data at the Windridge Station

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour					Maximum 24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM_{2.5} (µg/m³)	80	29	Windridge	0	0	0.0	7.6	40.0	18	18	40.4	254.3	19.6	8	99.9
PM₁₀ (µg/m³)	-	-	Windridge	-	-	0.0	64.1	485.0	18	23	38.0	266.3	239.5	21	99.9
TSP (µg/m³)	-	100	Windridge	-	8	0.0	98.5	985.0	25	5	56.9	261.4	344.3	25	99.9

Table 4-3 Days exceeding the TSP AAAQO or PM_{2.5} AAAQO at the Windridge Station

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Windridge						
2021-02-18	240.5	-	275.7	32.6	50.7	High wind event
2021-02-19	203.8	-	258.5	34.7	41.0	High wind event
2021-02-20	163.9	-	265.3	29.4	37.3	High wind event
2021-02-21	329.6	-	263.4	43.2	37.5	High wind event
2021-02-24	172.4	-	270.1	25.2	48.3	High wind event
2021-02-25	344.3	-	258.1	36.4	35.6	High wind event
2021-02-27	101.5	-	251.7	17.7	62.6	Winds predominately from the west
2021-02-28	286.1	-	255.6	36.0	44.5	High wind event
Total # of Exceedances	8	0				
Maximum # of Exceedances (February)	9 (2018)	0 (2018, 2019)				
Average # of Exceedances (February)	6	0				
Minimum # of Exceedances (February)	3 (2019)	0 (2018, 2019)				

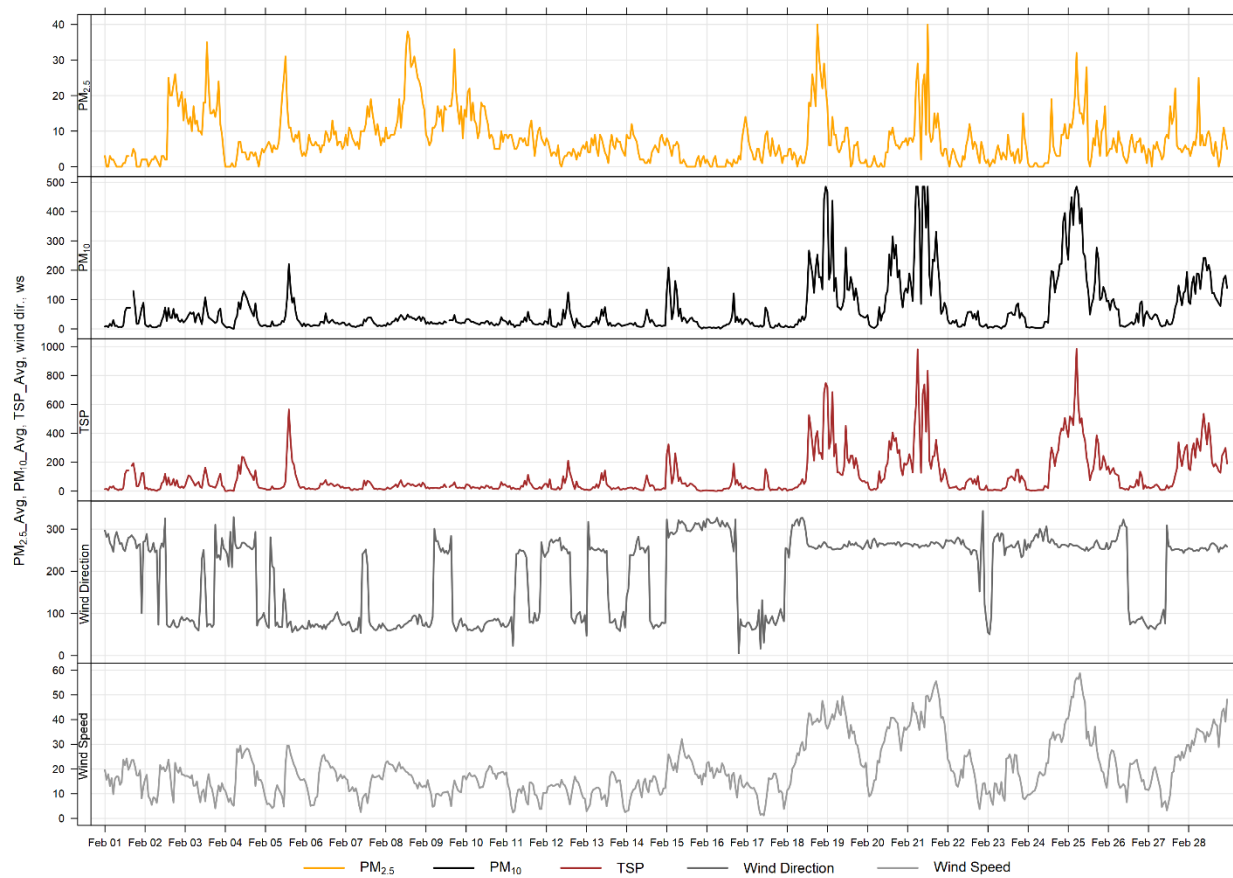


Figure 4-1 1-hour particulate matter concentrations recorded at the Windridge monitor

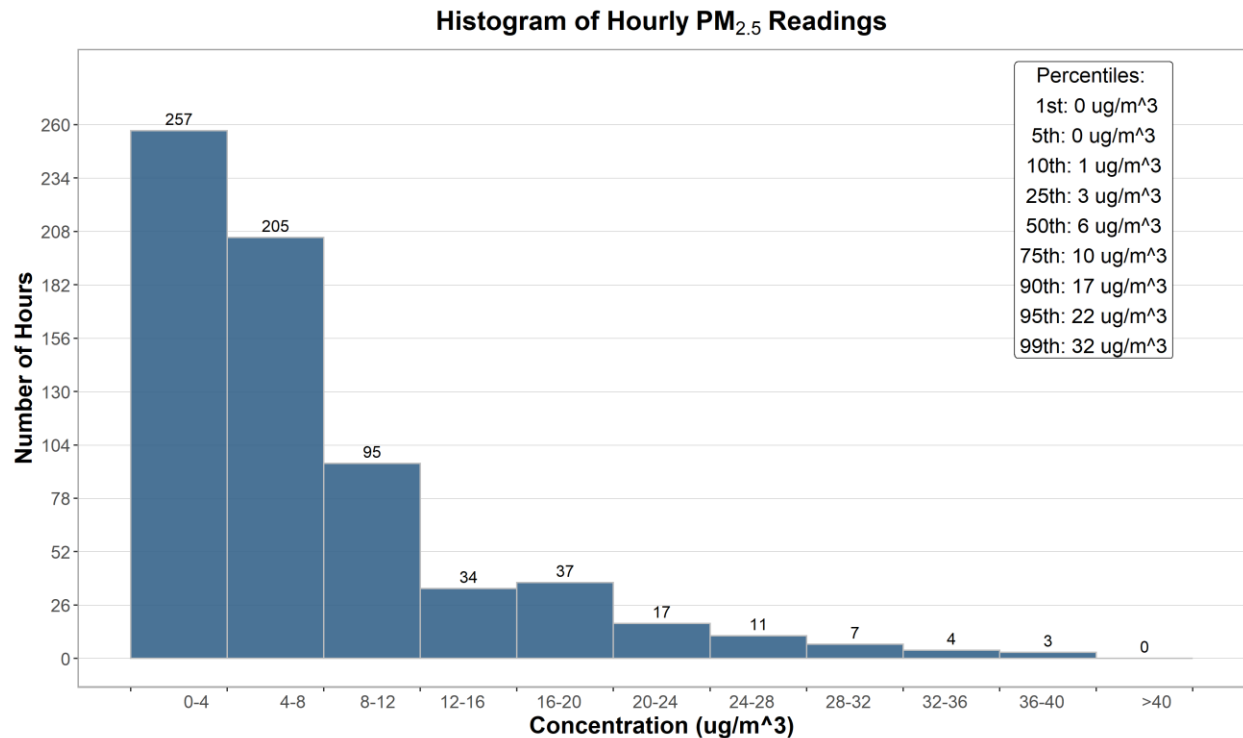


Figure 4-2 Histogram of hourly PM_{2.5} concentrations at the Windridge station

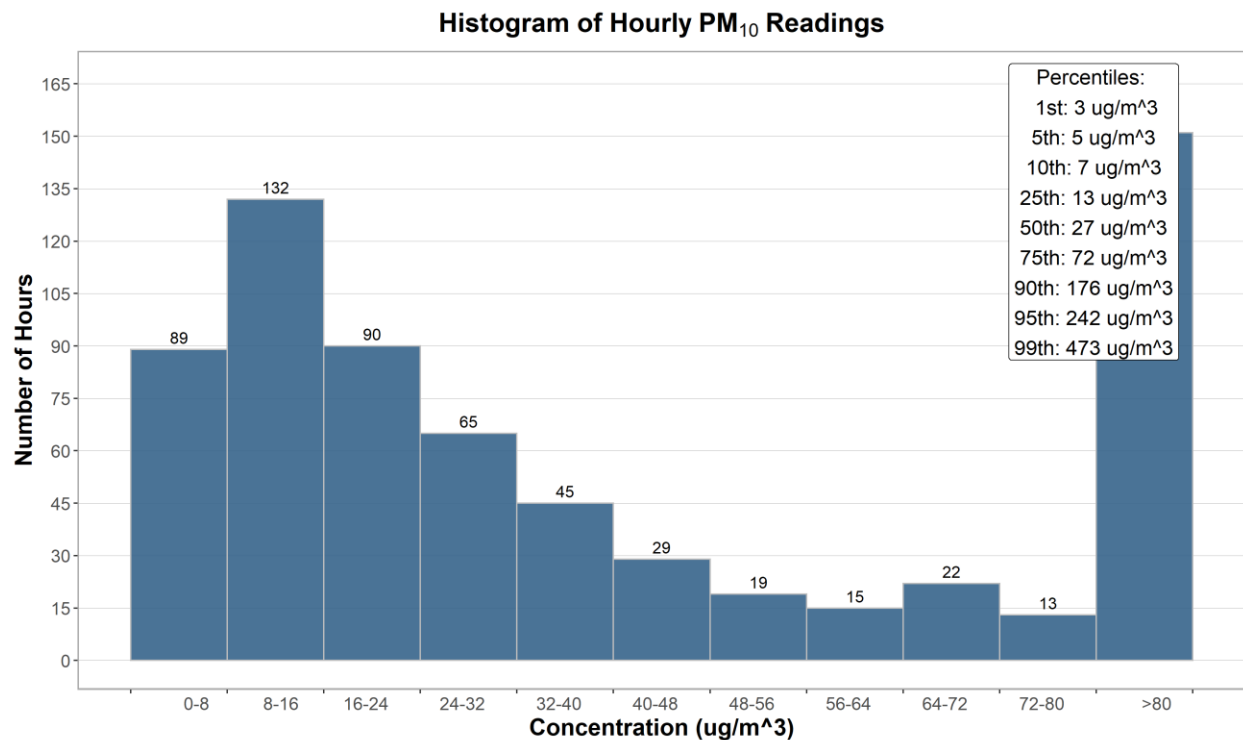


Figure 4-3 Histogram of hourly PM₁₀ concentrations at the Windridge station

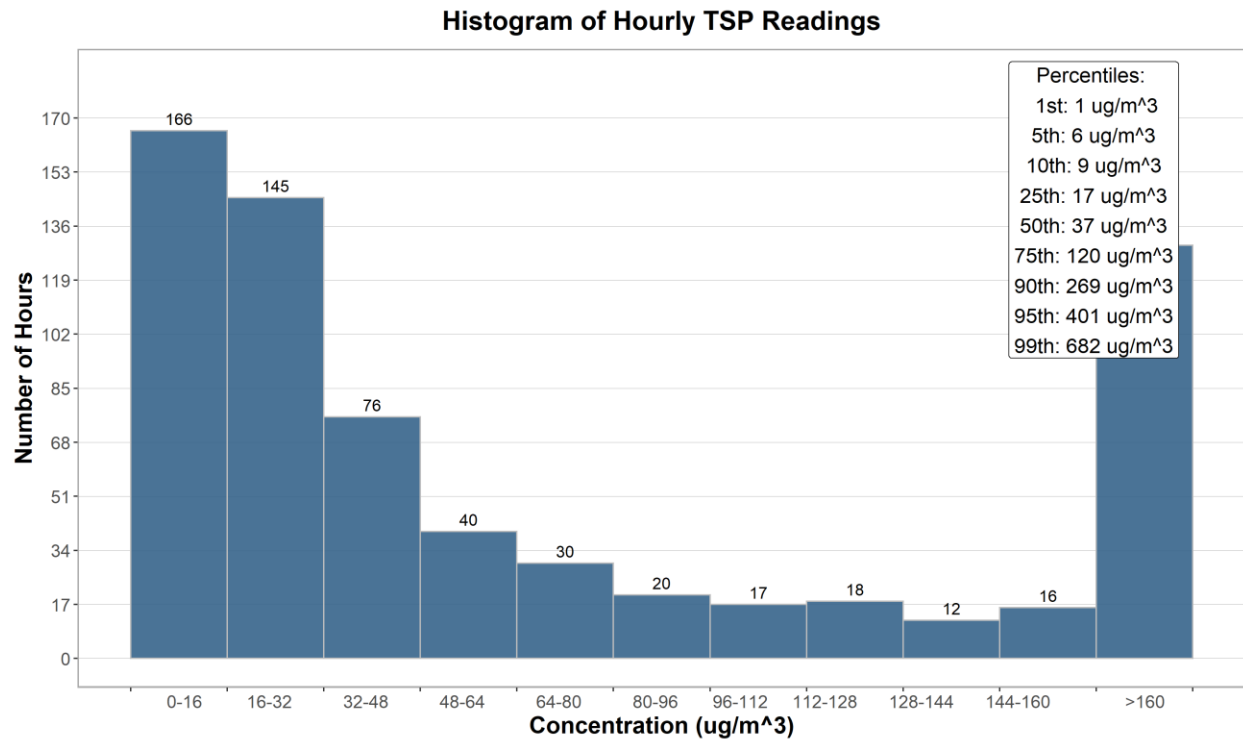


Figure 4-4 Histogram of hourly TSP concentrations at the Windridge station

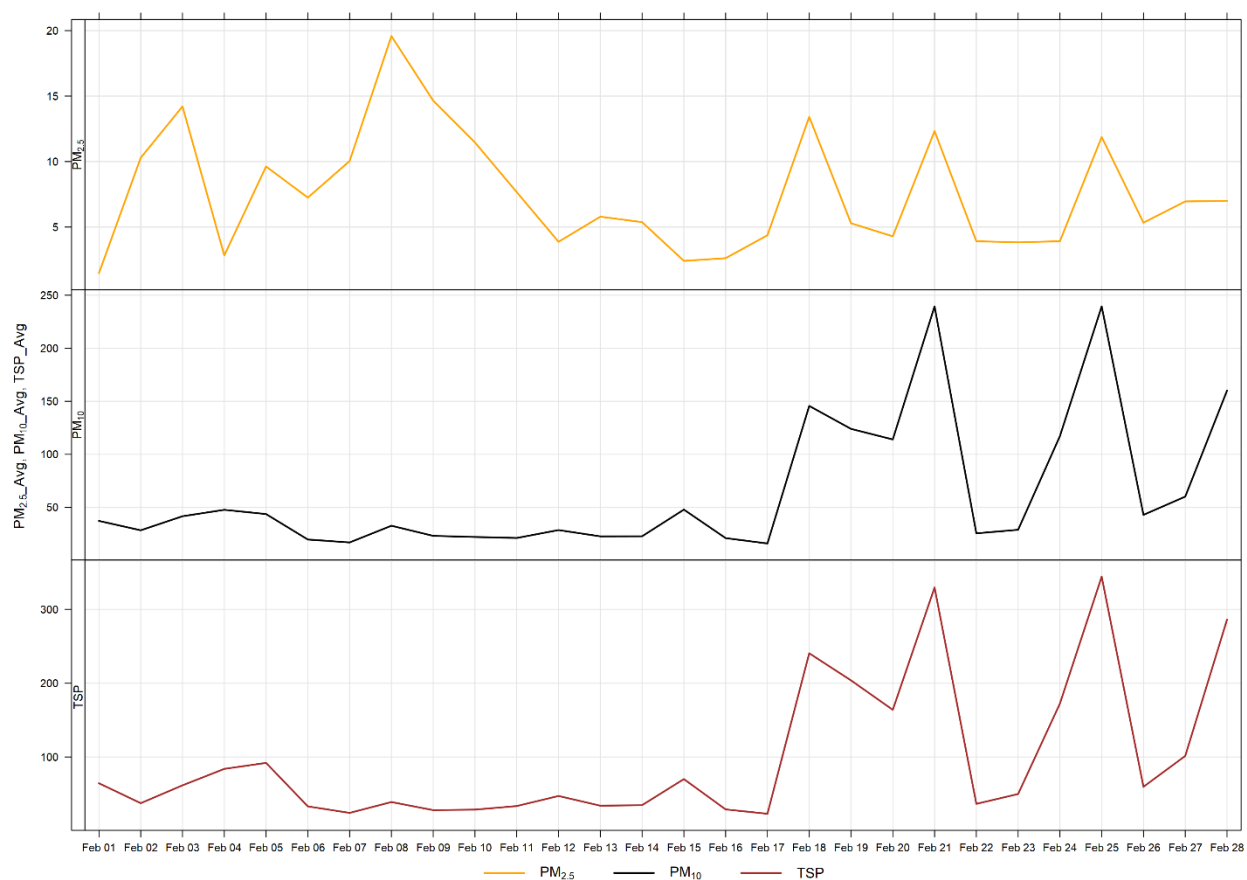


Figure 4-5 24-hour particulate matter concentrations at the Windridge monitor

Figure 4-6 shows the wind rose for the 8 days of TSP exceedances. The wind rose shows that the winds predominantly came from the west, and west-southwest directions, and were predominately over 25 km/hr.

Figure 4-7 illustrates the hourly PM concentrations recorded at the Windridge monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 4-7 is based on data collected during February 2021 and similar to the Lagoon station shows a diurnal pattern associated with Lafarge operations, daytime emissions from traffic and other activities. The diurnal patterns also follow the diurnal pattern of higher wind speeds during the daytime hours.

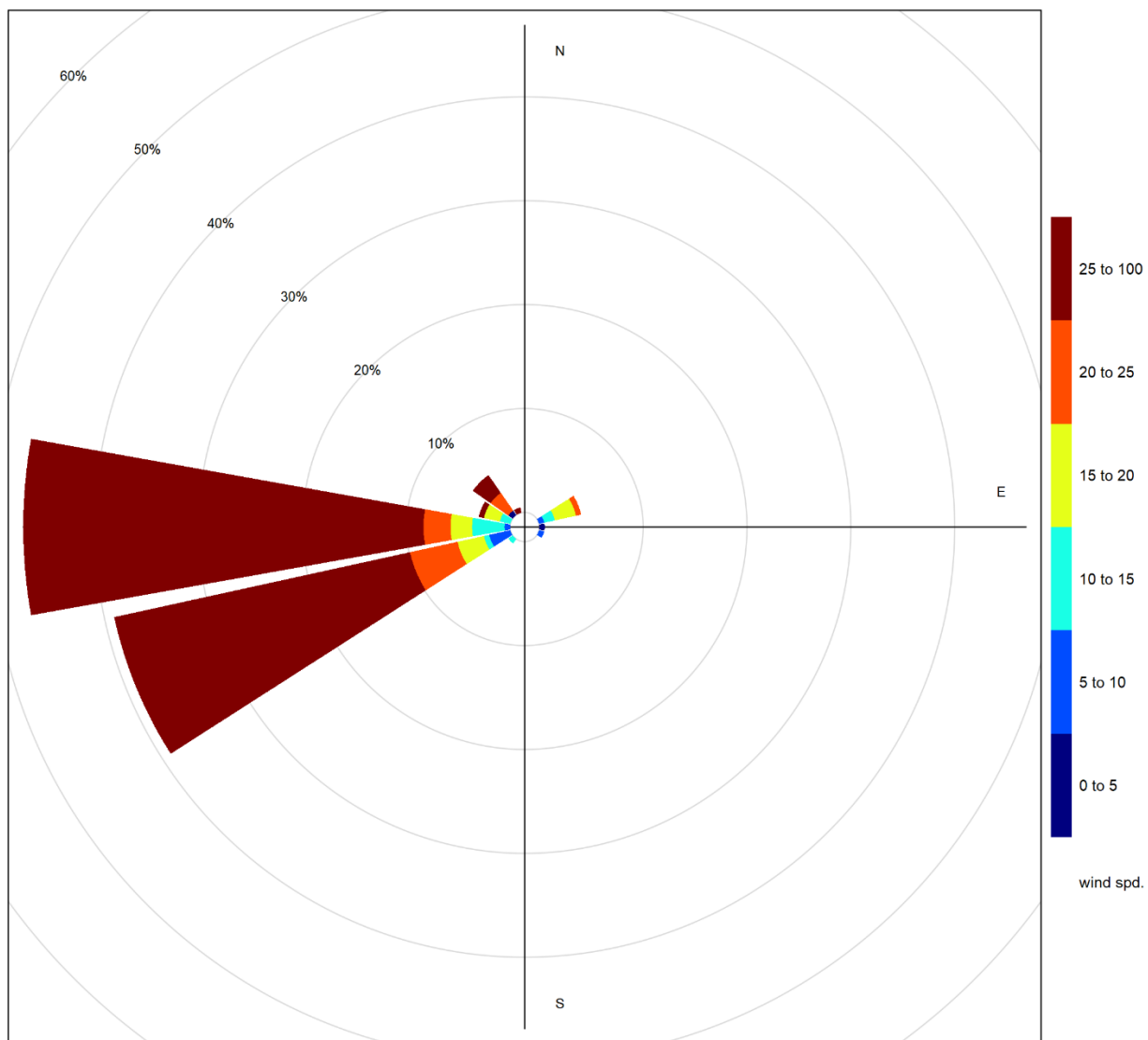


Figure 4-6 Wind rose for TSP exceedance days recorded at the Windridge Station

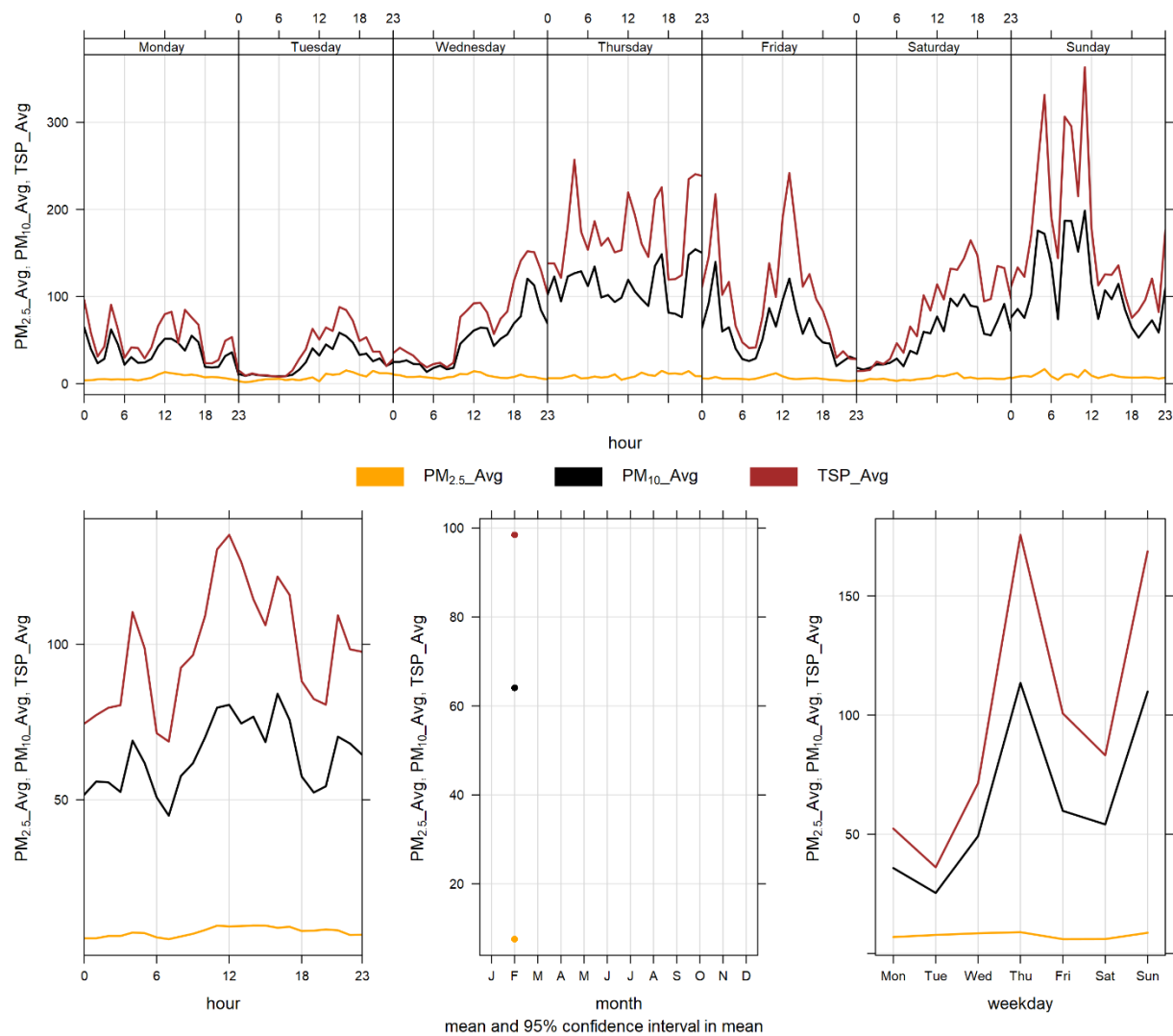


Figure 4-7 Windridge particulate matter time variation

5 WEST 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 West monitoring location

Parameter Measured	Equipment Description	Notes
PM_{2.5}, PM₁₀, TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 100% uptime for the month of February.

5.2 MONITORING RESULTS AND TRENDS

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

Figure 5-1 and Figure 5-2 show the hourly and daily PM_{2.5}, PM₁₀ and TSP concentrations recorded over the month. There were zero exceedances of the 24-hour TSP Guideline (100 µg/m³) and zero exceedances of the 24-hour PM_{2.5} (29µg/m³) Guideline.

Historically in February, the average number of 24-hour TSP guideline exceedances and 24-hour PM_{2.5} guideline exceedances are 2 and 0, respectfully. The maximum number of 24-hour TSP guidelines exceedances was 11 days in 2010 for TSP, and 2 days in 2015 for PM_{2.5}.

Table 5-2 Summary of February 2021 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_{2.5} (µg/m ³)	80	29	West	0	0	0.1	7.6	43.6	8	12	18.9	75.4	28.8	8	100.0
PM₁₀ (µg/m ³)	-	-	West	-	-	0.1	9.7	47.4	8	16	16.5	92.0	31.7	8	100.0
TSP (µg/m ³)	-	100	West	-	0	0.1	8.4	47.6	2	15	18.1	67.6	23.2	8	100.0

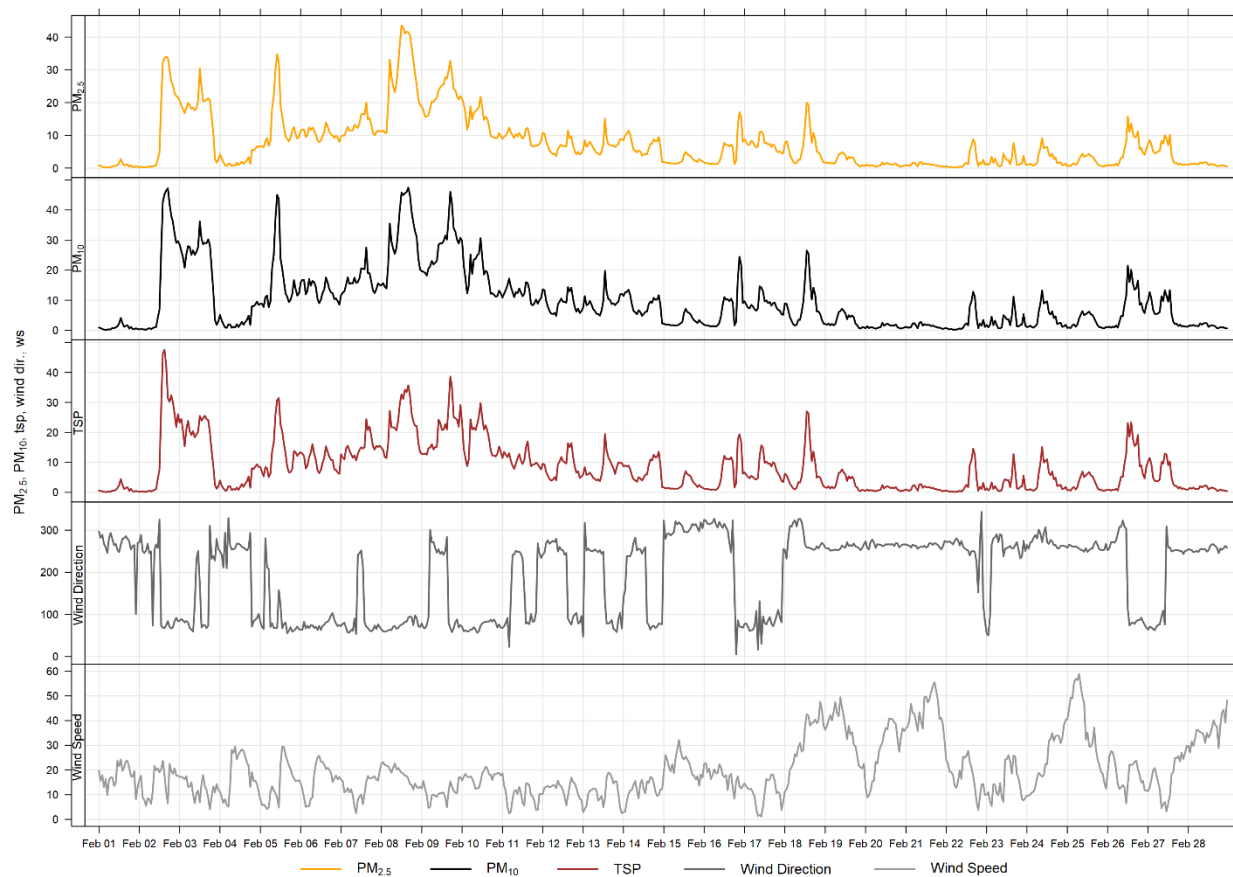


Figure 5-1 1-hour particulate matter concentrations at the West monitor

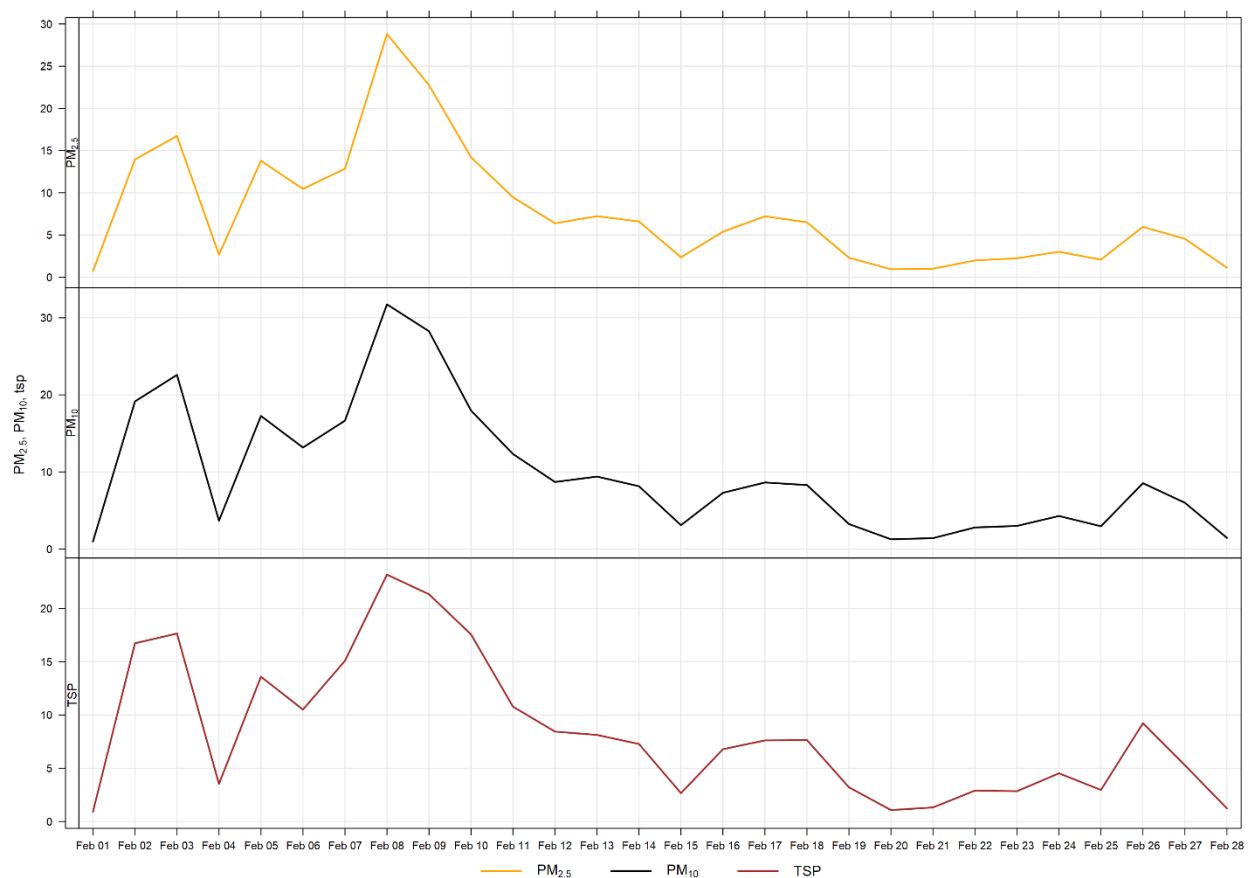


Figure 5-2 24-hour particulate matter concentrations at the West monitor

Figure 5-3 illustrates the hourly PM concentrations recorded at the West monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 5-3 is based on data collected during February 2021. As the monitor is generally ‘up-wind’ of the facility, the daily variations in PM are more likely a result of higher traffic volume during daylight hours than specific Lafarge operations.

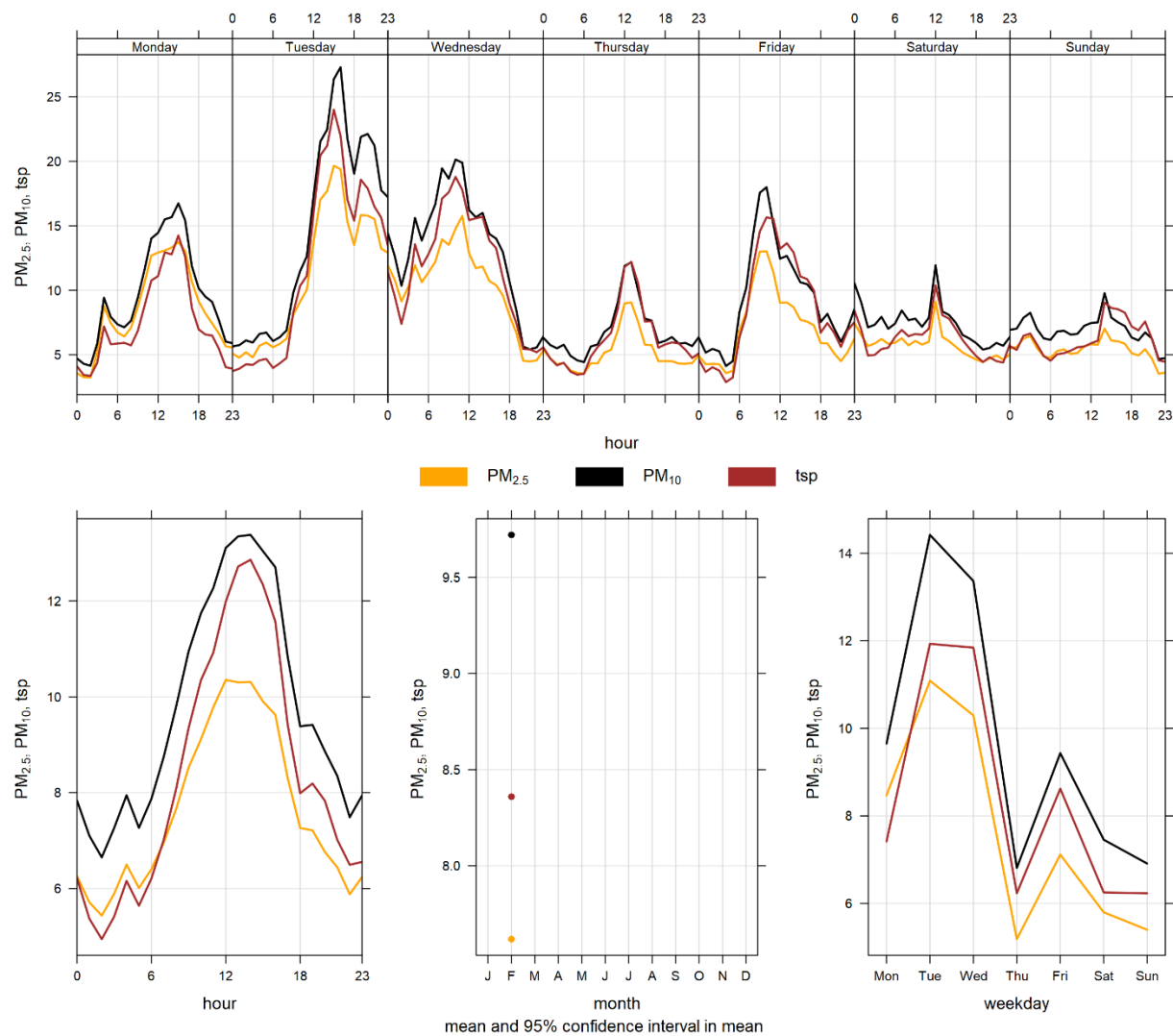


Figure 5-3 West particulate matter time variation

6 BERM INDUSTRIAL GRIMM

6.1 OPERATIONAL SUMMARY

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

Table 6-1 Instrumentation List at the Berm monitoring location

Parameter Measured	Equipment Description	Notes
PM _{2.5} , PM ₁₀ , TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 100% uptime for the month of February.

6.2 MONITORING RESULTS AND TRENDS

The Berm monitor was placed at its current location as a result of the dispersion modelling conducted for the facility in 2009. Figure 6-1 and Figure 6-2 show the hourly and daily PM_{2.5}, PM₁₀ and TSP concentrations recorded over the month. Table 6-2 summarizes the maximum 1-hour and 24-hour PM concentrations recorded during the month, and Table 6-3 summarizes the recorded exceedances. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO.

There were 16 and 3 exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) Guidelines, respectively. There were 9 hours exceeding the 1-hour PM_{2.5} Guideline.

Historically during the month of February, the Berm monitor records an average of 16 and 0 exceedances of the 24-hour TSP and PM_{2.5} guidelines, respectively. The maximum number of TSP exceedances recorded during February occurred in 2013 where there were 24 days that exceeded the guideline. On the other hand, the maximum number of PM_{2.5} exceedances in February was 1 day in 2011, 2015, 2016, 2018 & 2020.

It should also be noted that the GRIMM monitors become more conservative in the reported PM concentrations as the size fraction increases. The PM_{2.5} size fraction has been shown to match other regulatory approved PM_{2.5} 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. The low precipitation and strong wind gusting that occurred in February would have contributed to increased particulate levels that may have arisen from multiple sources: Lafarge Plant, Exshaw Creek, a section of exposed silt on Lac des Arcs lake (Section 1.2), dry sections of the Bow River, roads (sanding from previous snowstorms) and open areas.

Table 6-2 Summary of February 2021 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_{2.5} (µg/m³)	80	29	Berm	9	3	0.2	14.2	109.4	18	21	47.6	263.5	33.1	25	100.0
PM₁₀ (µg/m³)	-	-	Berm	-	-	0.2	80.7	980.4	25	4	55.4	260.8	303.8	25	100.0
TSP (µg/m³)	-	100	Berm	-	16	0.1	269.5	3153.4	25	4	55.4	260.8	1031.7	21	100.0

Table 6-3 Days exceeding the Guideline for TSP or PM_{2.5} at the Berm Monitor

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Berm						
2021-02-01	185.8	-	270.5	17.5	56.5	Winds predominately from the west
2021-02-02	122.9	-	59.4	15.4	72.2	Winds predominately from the east
2021-02-04	325.4	-	258.5	18.1	65.2	Winds predominately from the west
2021-02-10	131.0	-	72.5	17.3	66.4	Winds predominately from the east
2021-02-11	112.6	-	165.0	9.2	65.8	Winds predominately from the south
2021-02-15	153.1	-	304.1	22.0	55.9	High wind event
2021-02-18	960.9	33	275.7	32.6	50.7	High wind event
2021-02-19	676.4	-	258.5	34.7	41.0	High wind event
2021-02-20	504.3	-	265.3	29.4	37.3	High wind event
2021-02-21	1031.7	32	263.4	43.2	37.5	High wind event
2021-02-23	105.9	-	264.0	14.7	54.7	Winds predominately from the west
2021-02-24	696.9	-	270.1	25.2	48.3	High wind event
2021-02-25	1006.3	33	258.1	36.4	35.6	High wind event

2021-02-26	193.0	-	31.1	17.9	68.1	Winds predominately from the east
2021-02-27	183.8	-	251.7	17.7	62.6	Winds predominately from the west
2021-02-28	650.2	-	255.6	36.0	44.5	High wind event
Total # of Exceedances	16	3				
Maximum # of Exceedances (February)	24 (2013)	1 (2011, 2015, 2016, 2018, 2020)				
Average # of Exceedances (February)	16	0				
Minimum # of Exceedances (February)	7 (2019)	0 (2010, 2012, 2013, 2014, 2017, 2019)				

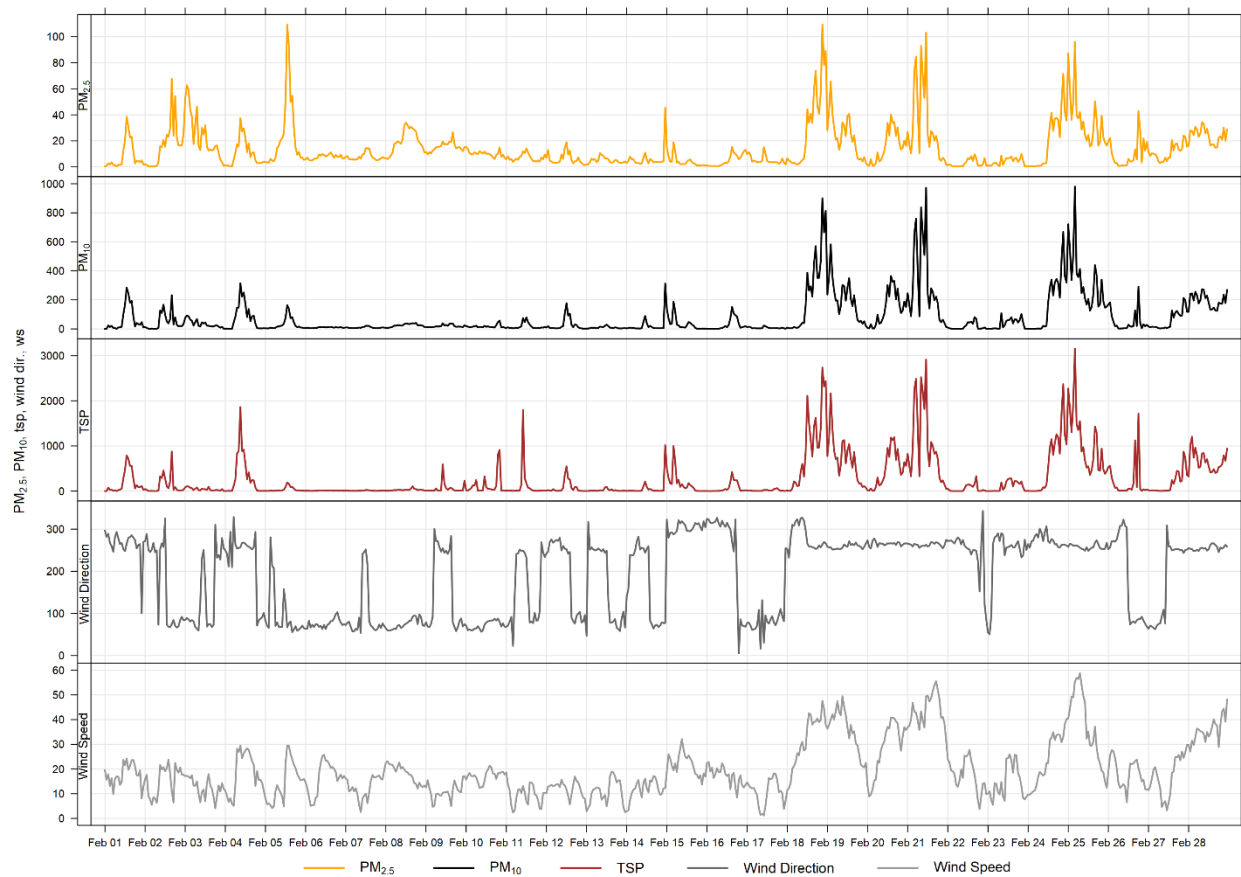


Figure 6-1 1-hour particulate matter concentrations recorded at the Berm monitor

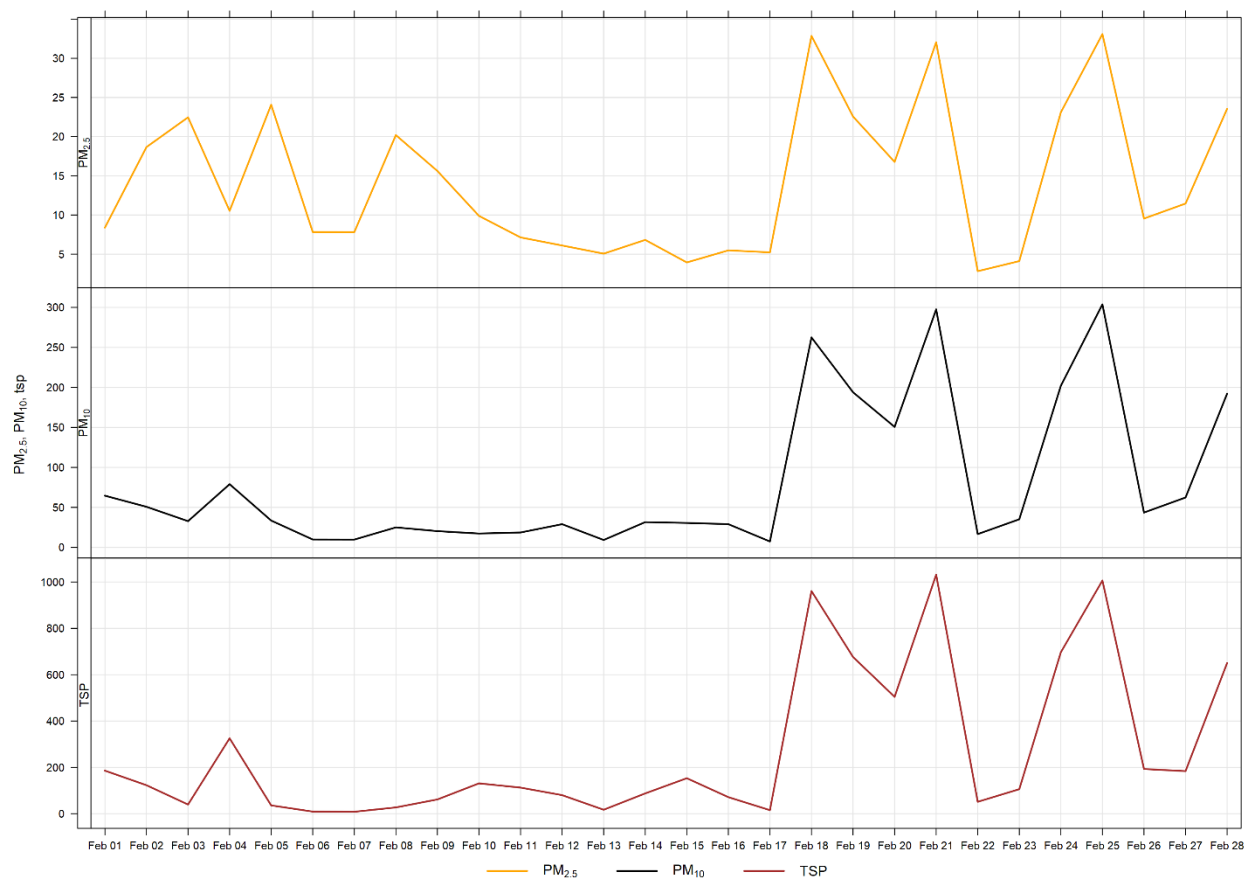


Figure 6-2 24-hour particulate matter concentrations recorded at the Berm monitor

Figure 6-3 shows the wind rose for the 16 days of TSP exceedances. The wind rose shows that the winds predominantly came from the west, and west-southwest directions, and were predominately over 20 km/hr.

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

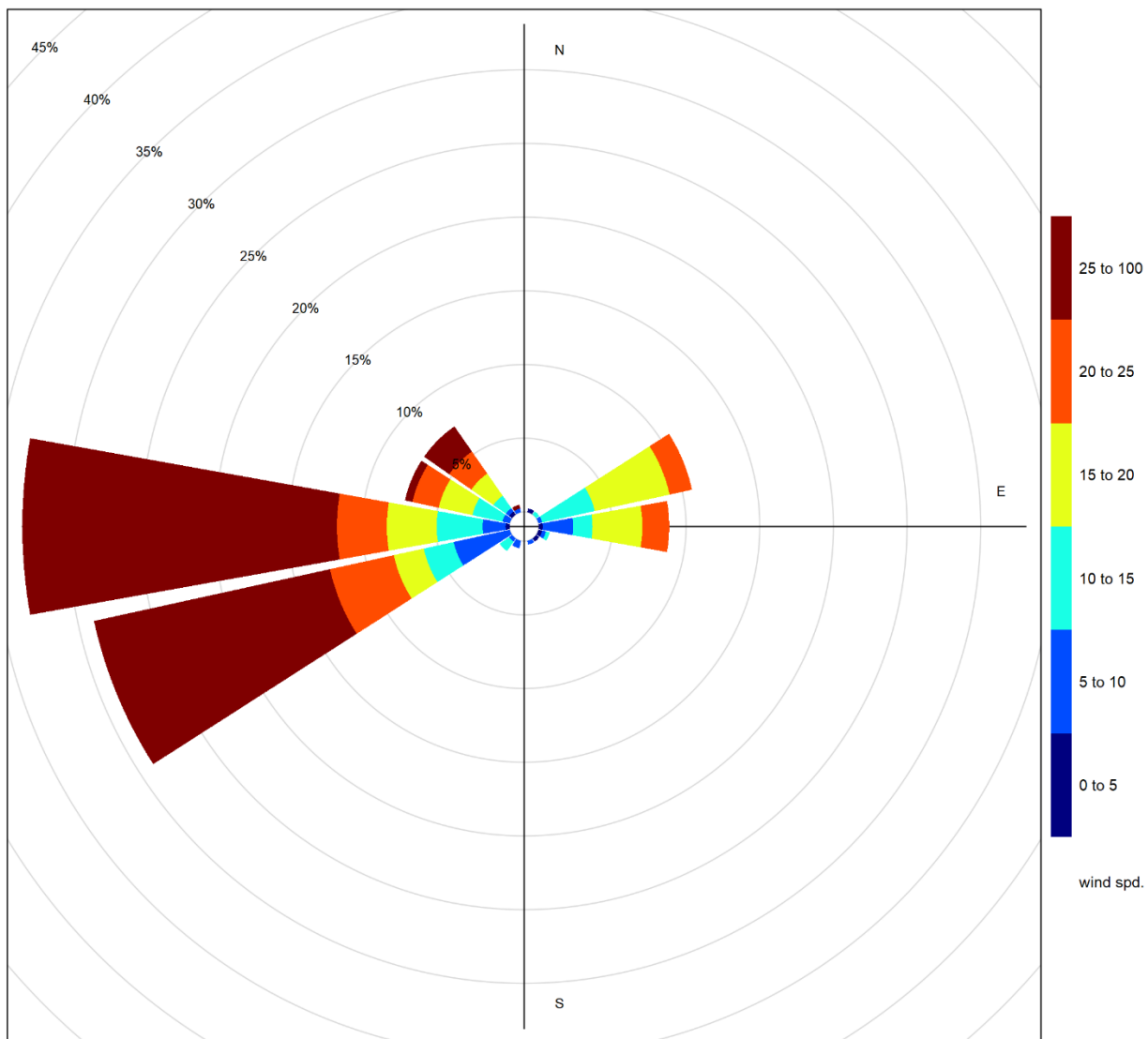


Figure 6-3 Wind rose for TSP exceedance days recorded at the Berm GRIMM

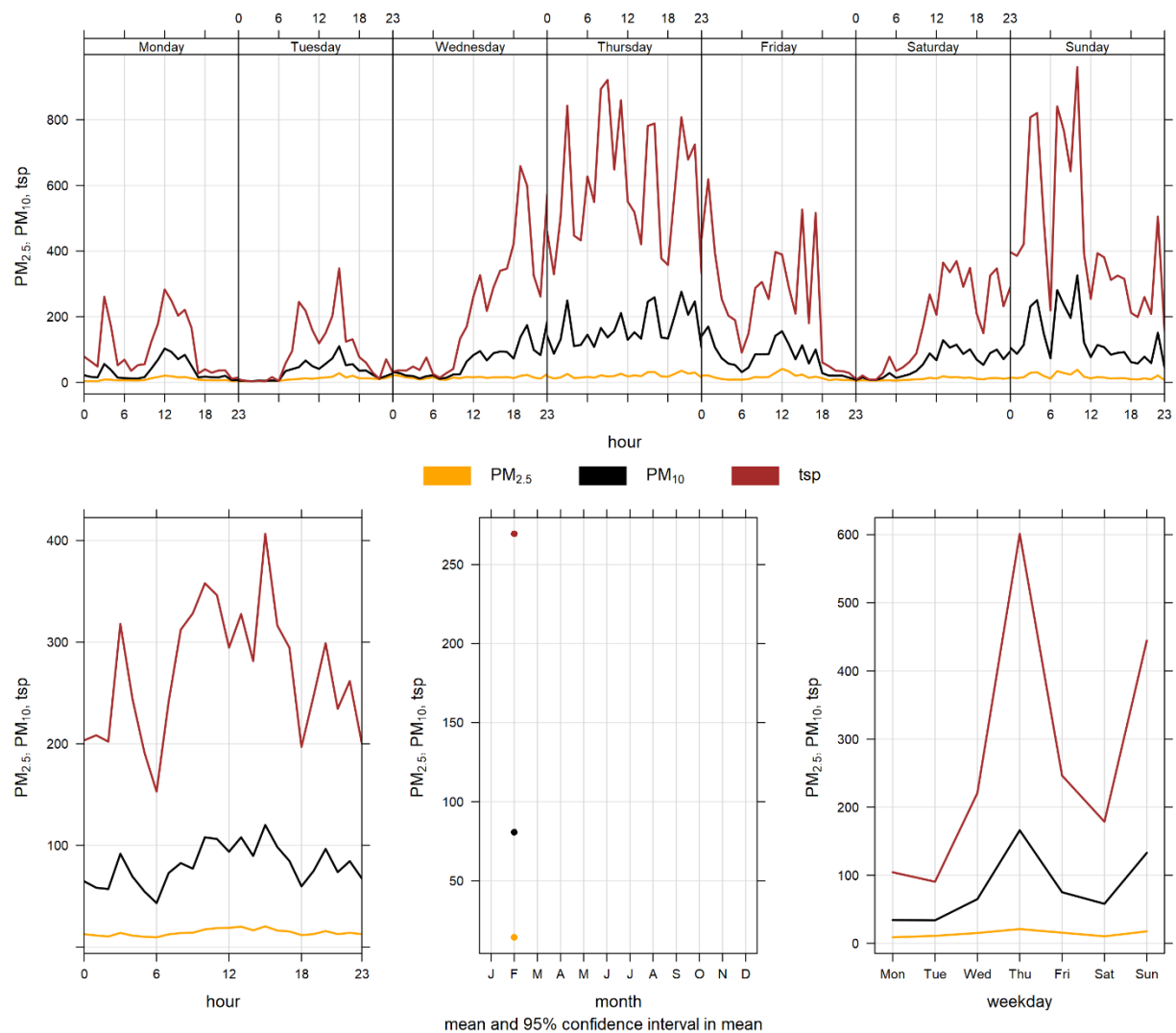


Figure 6-4 Berm particulate matter time variation

7 ENTRANCE INDUSTRIAL GRIMM

7.1 OPERATIONAL SUMMARY

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

Table 7-1 Instrumentation List at the Entrance monitoring location

Parameter Measured	Equipment Description	Notes
PM _{2.5} , PM ₁₀ , TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 100% uptime for the month of February.

7.2 MONITORING RESULTS AND TRENDS

The Entrance monitor was placed at its current location as a result of dispersion modelling conducted in 2009. This area was indicated as being the area where the maximum PM concentrations were expected. Figure 7-1 and Figure 7-2 show the hourly and daily PM_{2.5}, PM₁₀ and TSP concentrations recorded over the month. Table 7-2 summarizes the maximum 1-hour and 24-hour PM concentrations recorded during the month. Table 7-3 summarizes the recorded exceedances. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO.

During the month of February, there were 12 and zero exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) Guidelines, respectively.

Historically, the Entrance monitor records an average of 15 and zero exceedances of the 24-hour TSP and PM_{2.5} guidelines respectively, during the month of February. The maximum number of TSP exceedances recorded during February occurred in 2014, which had 25 days that exceeded the guideline. The minimum number of TSP exceedances recorded during February occurred in 2011, which had 6 days that exceeded the guideline. On the other hand, the maximum number of PM_{2.5} exceedances recorded during the month of February was 2 days in 2015.

It should also be noted that the GRIMM monitors become more conservative in the reported PM concentrations as the size fraction increases. The PM_{2.5} size fraction has been shown to match other regulatory approved PM_{2.5} 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.

The low precipitation and strong wind gusting that occurred in February would have contributed to increased particulate levels that may have arisen from multiple sources: Lafarge Plant, Exshaw Creek, a section of exposed silt on Lac des Arcs lake (Section 1.2), dry sections of the Bow River, roads (sanding from previous snowstorms) and open areas. Most of the TSP exceedances recorded were associated with high wind events in February.

Figure 7-3 shows the wind rose for the 12 days that exceeded the TSP Guideline. The wind rose indicates that the winds predominantly came from the west and west-southwest directions, and were predominately over 20 km/hr.

Table 7-2 Summary of February 2021 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_{2.5} (µg/m ³)	80	29	Entrance	0	0	0.7	10.9	48.5	16	13	17.9	306.4	22.5	8	100.0
PM₁₀ (µg/m ³)	-	-	Entrance	-	-	1.7	44.7	494.1	18	11	28.1	297.2	167.2	18	100.0
TSP (µg/m ³)	-	100	Entrance	-	12	1.2	163.9	2558.6	18	12	37.7	265.4	848.0	18	100.0

Table 7-3 Days exceeding the Guideline for TSP or PM_{2.5} at the Entrance Monitor

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Entrance						
2021-02-10	149.6	-	72.5	17.3	66.4	Winds predominately from the west
2021-02-12	137.5	-	253.5	12.0	66.9	Winds predominately from the west
2021-02-15	410.9	-	304.1	22.0	55.9	High wind event
2021-02-16	242.7	-	323.3	16.9	64.4	Winds predominately from the west
2021-02-18	848.0	-	275.7	32.6	50.7	High wind event
2021-02-19	244.2	-	258.5	34.7	41.0	High wind event
2021-02-20	360.5	-	265.3	29.4	37.3	High wind event
2021-02-21	540.9	-	263.4	43.2	37.5	High wind event
2021-02-24	345.9	-	270.1	25.2	48.3	High wind event
2021-02-25	311.0	-	258.1	36.4	35.6	High wind event
2021-02-26	189.7	-	31.1	17.9	68.1	Winds predominately from the west
2021-02-28	149.5	-	255.6	36.0	44.5	High wind event
Total # of Exceedances	12	0				

Maximum # of Exceedances (February)	25 (2014)	2 (2015)				
Average # of Exceedances (February)	15	0				
Minimum # of Exceedances (February)	6 (2011)	0 (2010, 2011, 2013, 2016, 2017, 2018, 2019, 2020)				

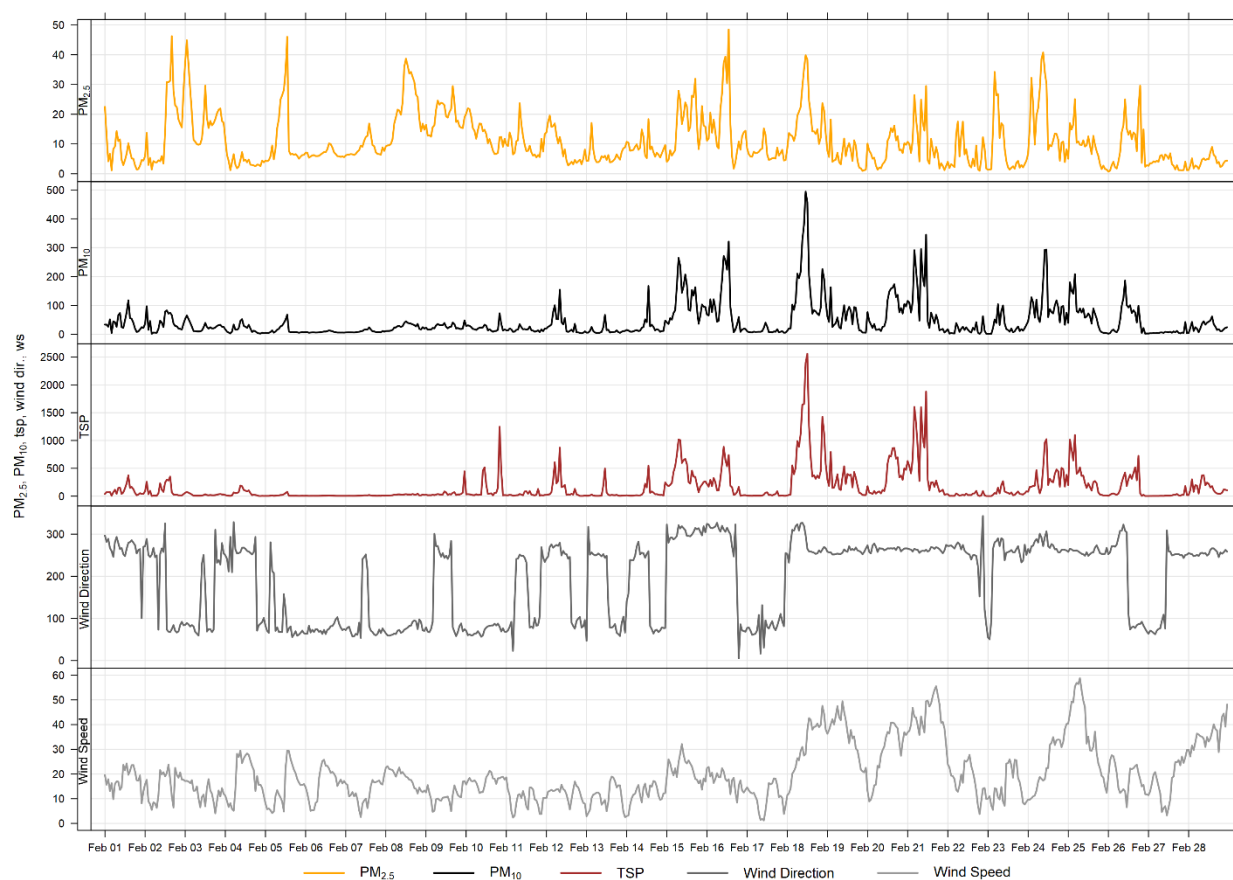


Figure 7-1 1-hour particulate matter concentrations recorded at the Entrance monitor

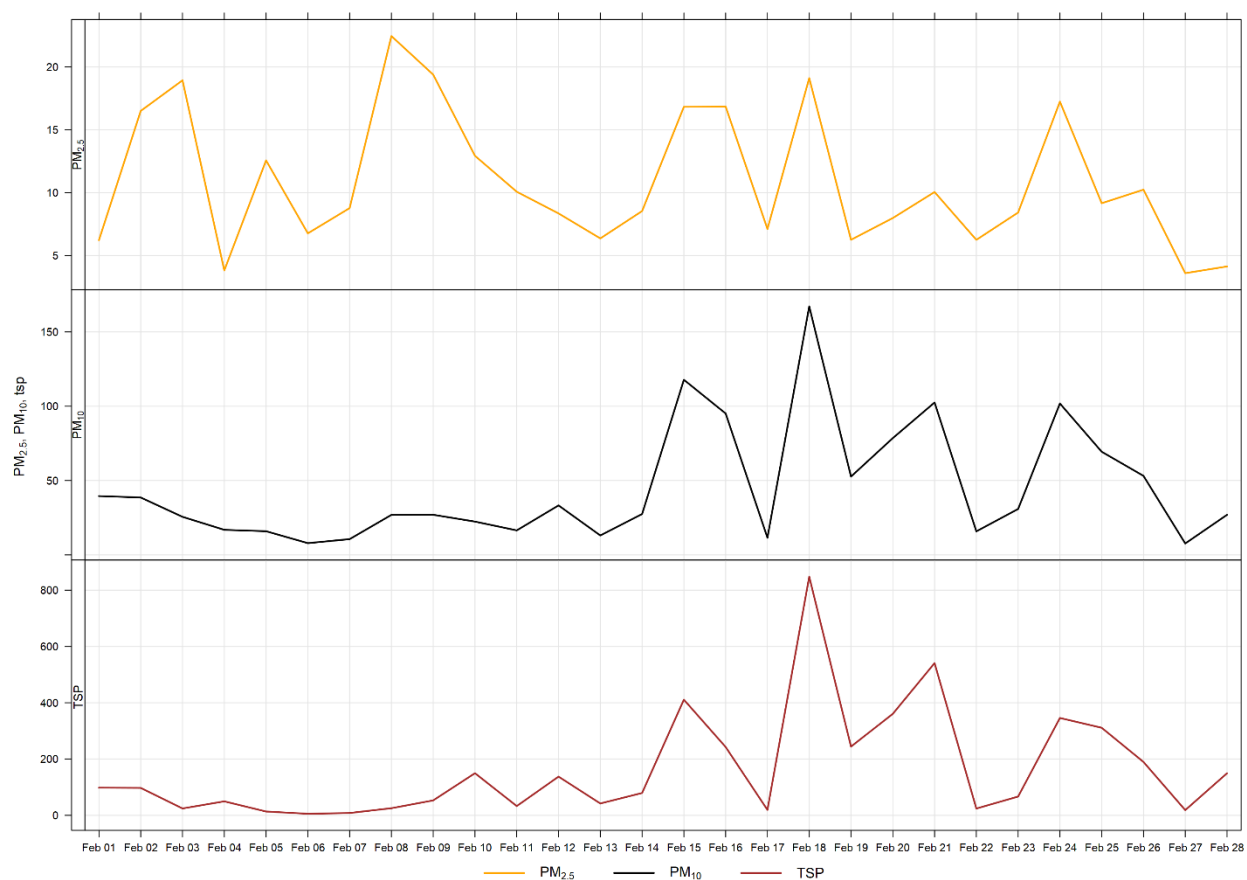


Figure 7-2 24-hour particulate matter concentrations at the Entrance monitor

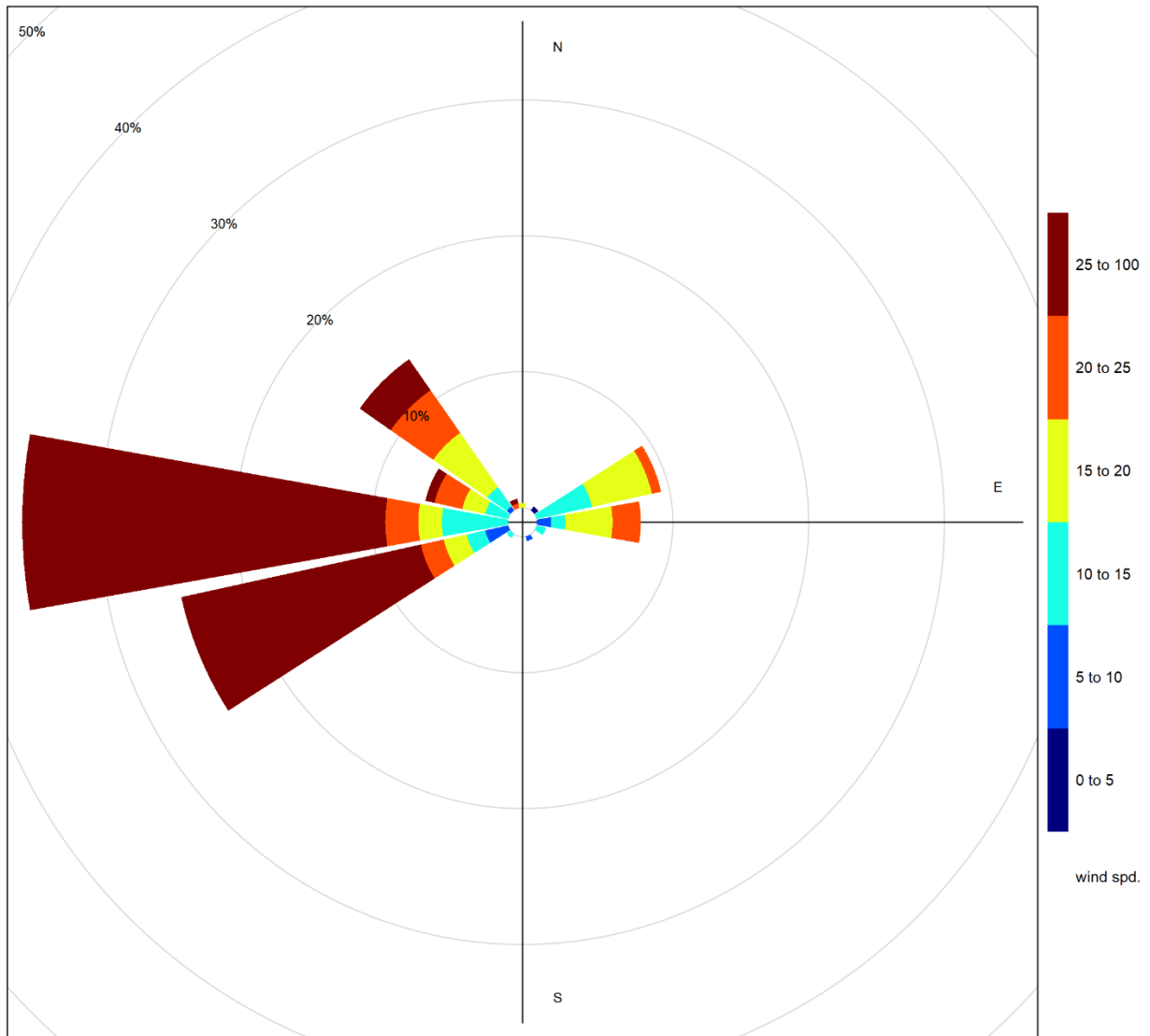


Figure 7-3 Wind rose for TSP exceedance days recorded at the Entrance GRIMM

Figure 7-4 illustrates the hourly PM concentrations recorded at the Entrance monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 7-4 is based on data collected during February 2021. The diurnal pattern differs from the Windridge, Lagoon and Berm stations and are likely more influenced by daytime traffic emission (from vehicles serving Lafarge as well as regular highway traffic) given its location near the highway entrance to Lafarge.

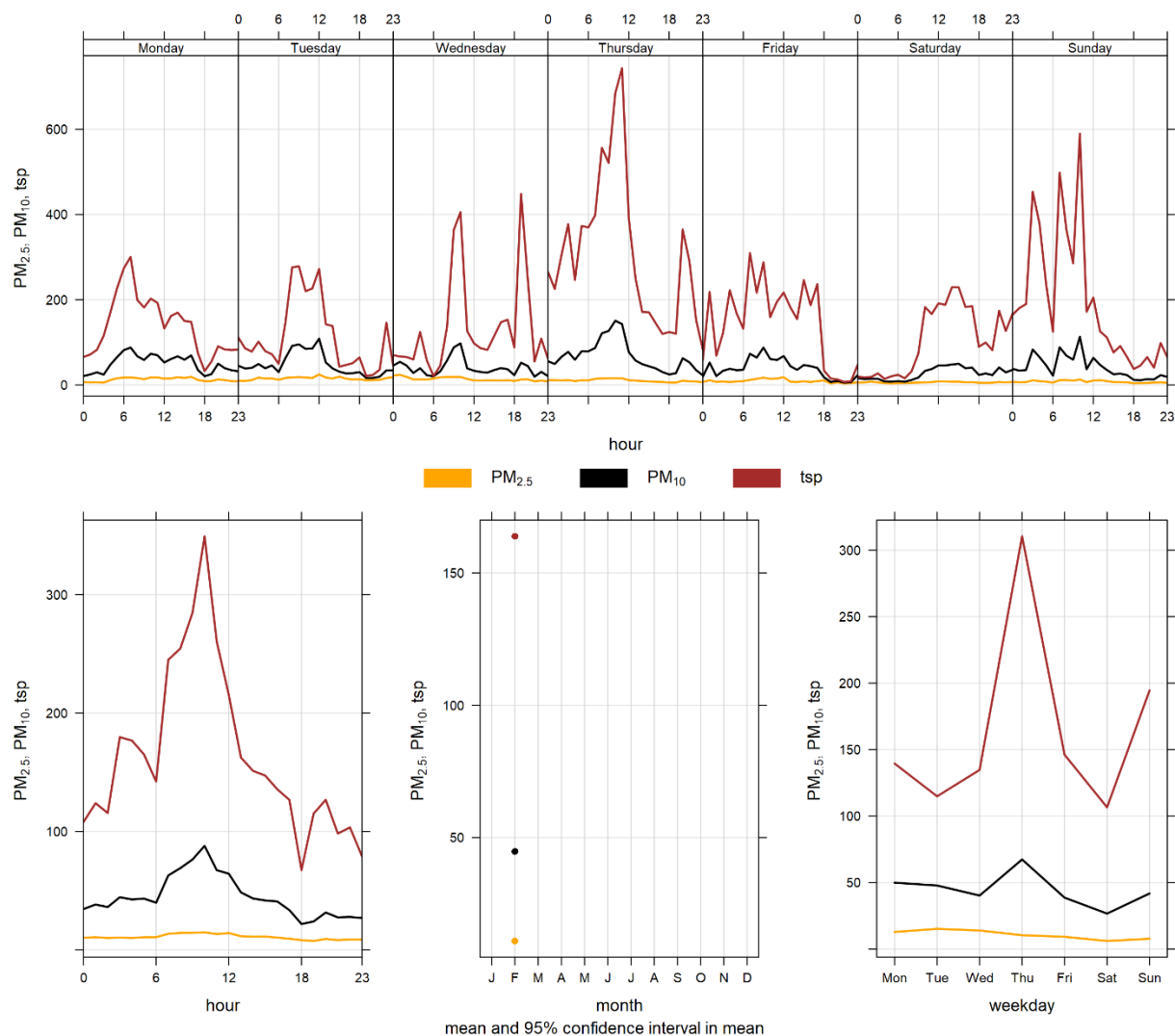


Figure 7-4 Entrance particulate matter time variation

BIBLIOGRAPHY

- Alberta Environment and Parks. (2016, June). Alberta Ambient Air Quality Objectives and Guidelines Summary. Alberta, Canada.
- Alberta Environment and Parks. (2016, April). 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, Can

APPENDIX

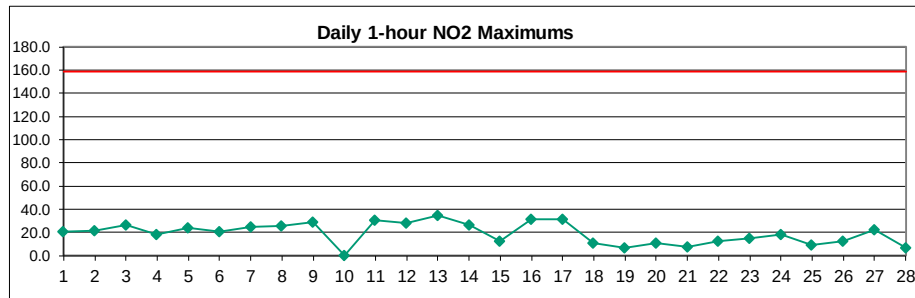
A DATA & CALIBRATION REPORTS

APPENDIX



Lagoon NO₂ (ppb) – February 2021

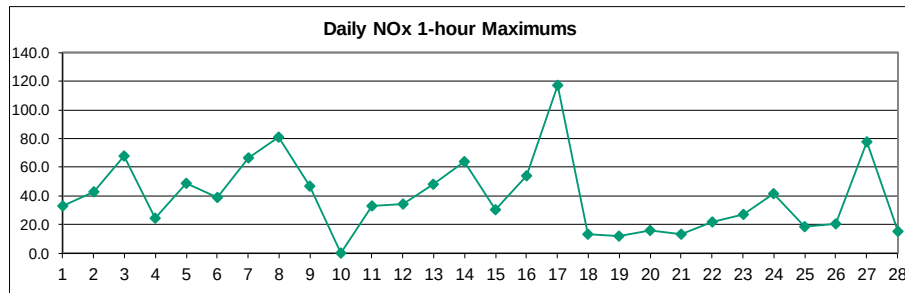
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	4.5	S	3.3	3.0	7.9	3.8	4.2	5.9	11.2	9.6	5.3	6.7	5.2	5.7	7.0	3.5	5.1	5.5	2.8	4.5	2.9	21.1	12.4	5.2	6.4	21.1
2	3.2	S	3.8	7.3	7.6	6.0	7.7	13.3	8.3	5.7	2.6	9.5	14.8	16.4	19.8	21.2	21.5	14.9	15.4	13.6	9.6	7.7	9.1	7.6	10.7	21.5
3	7.5	S	6.7	7.2	10.5	16.8	14.7	13.7	13.1	13.2	14.1	13.5	15.2	10.3	13.4	10.8	15.0	19.4	25.2	26.2	23.2	10.0	18.0	18.0	14.6	26.2
4	18.5	S	6.5	8.9	13.5	11.7	3.0	3.8	8.2	9.7	15.0	8.6	7.0	4.9	4.0	1.9	4.8	10.8	13.7	7.2	5.1	9.0	3.6	5.9	8.1	18.5
5	10.7	S	13.0	18.6	12.9	13.2	12.9	12.5	23.7	22.3	17.5	14.2	14.8	11.7	8.2	8.0	6.3	12.8	13.8	17.2	15.1	11.4	15.6	13.2	13.9	23.7
6	13.0	S	12.6	19.3	20.5	19.9	19.3	17.5	11.7	14.8	10.8	9.5	11.9	9.4	8.2	12.4	12.5	10.2	7.9	6.8	6.7	7.9	8.7	12.4	12.3	20.5
7	11.8	S	12.4	14.0	18.3	18.7	19.1	16.4	12.7	13.2	13.7	12.8	10.3	16.8	16.9	15.9	13.9	17.3	12.4	19.0	17.6	25.1	19.4	13.6	15.7	25.1
8	10.5	S	24.9	25.6	20.9	25.9	15.4	20.0	15.6	12.2	7.8	6.8	6.0	6.3	7.0	5.8	6.3	7.4	18.1	9.2	8.3	15.6	14.0	13.4	13.2	25.9
9	11.2	S	21.6	21.7	20.2	17.2	28.5	28.2	29.0	22.3	16.8	11.1	8.7	7.0	12.9	19.7	19.6	17.6	17.1	13.4	15.1	22.9	21.5	16.7	18.3	29.0
10	26.3	S	24.0	24.7	20.2	19.2	18.6	20.8	19.2	19.0	8.7	4.9	C	C	C	C	C	C	5.8	6.8	10.7	5.7	14.6	12.0	-	-
11	14.2	S	21.0	16.9	15.4	24.3	22.0	21.7	21.3	16.2	11.7	8.2	8.3	8.6	5.8	6.2	4.9	19.3	20.2	23.4	24.9	26.5	30.8	28.6	17.4	30.8
12	28.0	S	19.2	14.8	19.4	21.0	19.4	21.4	20.0	18.8	14.0	8.8	6.6	5.9	4.9	7.1	9.4	6.2	4.2	4.5	6.6	14.7	14.5	27.5	13.8	28.0
13	19.5	S	34.4	30.5	31.1	26.6	29.4	25.1	23.6	21.3	13.1	12.6	11.7	4.8	4.3	4.3	2.6	9.5	14.3	6.5	10.5	10.0	9.2	15.6	16.1	34.4
14	18.3	S	26.7	24.4	15.9	13.5	11.0	14.2	15.4	17.9	9.1	12.9	7.7	10.9	19.3	22.8	25.3	12.5	21.2	17.8	15.2	19.8	25.5	15.6	17.1	26.7
15	5.7	S	9.8	6.6	11.2	12.2	3.7	4.7	4.4	4.6	5.4	10.3	12.4	6.1	7.2	3.8	3.2	5.1	3.9	6.5	8.9	6.0	6.7	5.0	6.7	12.4
16	6.3	S	8.4	5.4	6.8	4.3	4.9	6.1	4.4	6.2	8.8	6.8	5.7	6.9	7.2	1.1	11.1	25.0	11.3	9.9	24.6	26.0	31.5	13.8	10.5	31.5
17	10.1	S	11.4	12.3	23.4	13.5	16.7	28.1	31.4	29.4	15.0	6.7	1.6	1.4	2.5	8.0	7.5	14.8	4.8	2.0	5.0	7.0	22.4	10.6	12.4	31.4
18	11.2	S	5.7	5.6	6.2	5.0	3.6	4.8	3.8	4.8	4.8	3.6	2.0	2.1	2.3	1.7	1.5	1.5	1.2	0.9	1.5	7.6	2.5	3.5	3.8	11.2
19	1.3	S	0.5	0.7	0.7	0.4	0.4	0.9	0.7	3.1	2.9	1.0	4.9	2.1	5.6	1.4	6.5	2.1	4.3	5.0	1.2	1.1	6.8	6.2	2.6	6.8
20	8.7	S	8.6	7.9	10.6	1.3	1.4	7.5	8.3	1.9	4.6	4.3	2.5	2.5	2.5	2.9	0.9	3.8	7.6	1.5	2.8	3.3	9.6	3.1	4.7	10.6
21	5.0	S	1.1	3.6	2.1	2.3	1.4	1.8	3.0	6.2	2.0	1.4	1.8	6.6	4.6	6.0	6.2	6.0	2.5	1.4	0.0	1.1	5.5	7.7	3.4	7.7
22	5.5	S	5.6	2.2	3.8	7.3	8.0	9.6	12.9	4.2	3.7	1.9	0.6	0.0	0.3	0.7	1.6	1.5	4.1	8.9	7.2	0.0	0.0	10.1	4.3	12.9
23	6.8	S	13.9	10.1	9.3	7.0	10.0	12.0	12.4	15.3	3.7	2.9	1.7	2.1	2.7	1.5	5.5	6.5	4.3	0.8	5.2	10.0	7.0	3.8	6.7	15.3
24	3.5	S	9.0	6.1	9.2	17.9	9.8	7.9	18.2	12.1	3.8	6.8	3.5	4.7	4.2	4.4	3.7	1.8	0.0	2.8	2.8	3.1	1.8	1.4	6.0	18.2
25	2.6	S	1.2	1.1	1.0	0.3	0.5	0.0	0.2	0.0	3.4	0.0	0.0	2.0	1.1	6.3	9.5	5.2	0.5	0.8	0.6	1.3	8.9	1.2	2.1	9.5
26	1.0	S	10.1	6.1	8.0	10.6	7.1	10.1	8.2	8.5	9.3	6.1	1.8	0.7	1.0	1.9	3.1	6.3	7.9	3.1	2.6	8.5	9.7	12.4	6.3	12.4
27	10.8	S	16.5	16.7	16.4	16.0	22.5	20.1	11.5	6.7	8.4	3.4	7.6	2.4	2.3	0.7	0.2	0.3	0.7	0.0	0.2	0.9	0.5	2.1	7.3	22.5
28	2.0	S	0.0	0.0	0.2	0.0	0.5	0.5	1.6	1.4	0.1	0.5	2.8	6.6	4.8	2.4	3.2	1.4	1.4	0.0	0.0	1.4	2.3	0.5	1.5	6.6
NO.	28	-	28	28	28	28	28	28	28	28	28	28	27	27	27	27	27	27	28	28	28	28	28	28	638	100.0%
MEAN	9.9	-	11.9	11.5	12.3	12.0	11.3	12.4	12.7	11.4	8.4	7.0	6.5	6.1	6.7	6.8	7.8	9.1	8.8	7.8	8.4	10.2	11.9	10.2		
MAX	28.0	-	34.4	30.5	31.1	26.6	29.4	28.2	31.4	29.4	17.5	14.2	15.2	16.8	19.8	22.8	25.3	25.0	25.2	26.2	24.9	26.5	31.5	28.6		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	624
Maximum 1-HR Average	34.4 PPB
Maximum 24-HR Average	18.3 PPB
Monthly Calibration	6
Standard Deviation	7.4
Operational Time	672 HRS
Operational Uptime	100.0 %
Monthly Average	9.6 PPB

Lagoon NOx (ppb) – February 2021

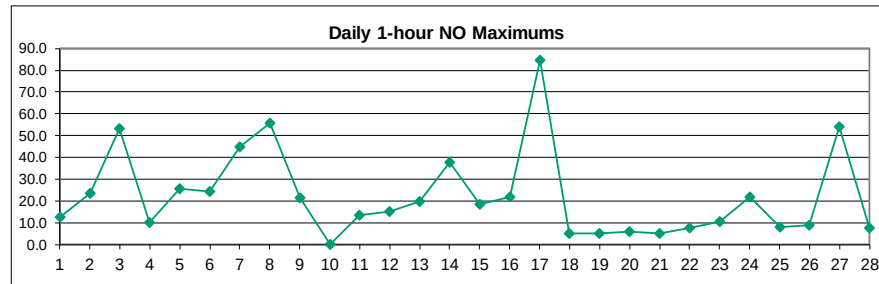
HOUR																										
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	5.2	S	3.3	3.1	9.7	3.8	5.7	8.0	16.2	13.4	7.3	10.8	7.7	8.0	12.4	4.2	8.6	7.2	2.7	5.9	2.8	33.3	22.8	5.3	9.0	33.3
2	3.2	S	3.7	7.6	9.0	5.9	7.6	17.6	11.7	7.5	2.8	21.6	32.8	35.9	42.8	35.7	32.2	18.7	24.4	20.2	10.3	7.6	11.2	7.4	16.4	42.8
3	7.5	S	7.4	8.6	14.5	38.7	34.8	34.0	26.3	26.8	47.5	49.2	68.1	34.9	36.0	21.5	26.2	30.8	42.5	37.0	26.1	10.2	22.8	20.5	29.2	68.1
4	21.6	S	6.2	8.9	15.5	17.9	3.4	4.5	11.4	12.8	24.7	14.0	11.0	7.1	5.4	2.1	6.1	13.3	22.1	8.5	5.5	11.2	3.4	6.0	10.6	24.7
5	11.1	S	14.0	22.2	13.0	14.3	13.4	15.9	48.9	44.9	33.8	21.9	25.6	23.3	10.8	11.0	7.0	23.1	18.4	28.0	25.2	15.5	28.5	17.6	21.2	48.9
6	17.1	S	14.3	23.3	30.7	30.3	35.2	27.2	13.2	38.7	26.3	22.0	32.0	22.0	13.9	26.9	21.1	10.9	7.8	6.6	6.7	8.8	9.8	17.8	20.1	38.7
7	13.3	S	13.2	18.4	29.0	26.8	32.6	17.4	15.5	24.0	36.1	36.3	27.0	61.1	57.4	43.3	23.9	32.5	15.2	34.8	35.5	66.3	46.8	19.7	31.6	66.3
8	14.5	S	79.5	79.1	48.6	81.3	25.0	41.4	25.7	19.0	12.0	10.4	9.0	9.7	11.1	7.2	7.0	7.6	26.0	9.1	8.2	18.7	19.4	16.3	25.5	81.3
9	12.8	S	26.6	26.7	34.0	20.4	39.9	38.8	46.7	43.4	37.9	24.4	17.1	12.2	21.6	39.6	31.4	23.8	22.3	14.1	16.7	39.3	34.2	20.3	28.0	46.7
10	46.3	S	40.9	50.2	40.6	31.5	27.4	28.3	30.7	37.6	15.2	7.7	C	C	C	C	C	C	5.8	6.8	14.7	5.8	23.8	14.4	-	-
11	19.3	S	28.7	16.9	15.4	30.4	24.3	24.8	29.0	28.5	26.0	18.4	18.6	19.3	11.4	11.4	6.5	29.3	22.0	24.7	25.9	27.6	33.3	30.5	22.7	33.3
12	32.8	S	28.1	15.9	23.4	24.4	22.2	24.7	27.0	34.6	27.2	17.2	13.7	12.1	8.7	13.5	18.0	7.9	4.0	4.3	7.2	16.6	17.6	30.5	18.8	34.6
13	28.4	S	47.9	38.4	39.8	31.7	38.5	31.3	31.9	42.0	31.0	32.4	27.8	8.7	7.1	6.6	3.2	15.5	19.5	8.7	12.8	9.9	9.0	16.0	23.4	47.9
14	18.2	S	27.3	24.9	16.9	15.9	12.0	17.3	21.8	40.0	20.4	36.0	16.6	24.8	48.1	58.6	63.8	18.1	34.7	23.8	20.5	30.1	49.5	27.2	29.0	63.8
15	8.8	S	15.1	9.3	19.4	21.0	4.7	5.7	5.7	7.2	11.5	29.6	30.2	14.6	15.8	7.1	5.0	10.4	5.3	9.6	12.2	6.2	8.0	6.6	11.7	30.2
16	10.8	S	12.2	6.4	9.2	5.3	6.7	9.0	5.6	12.7	18.9	14.4	9.9	13.3	13.4	1.5	20.4	37.4	16.8	9.7	32.9	35.8	54.4	18.5	16.3	54.4
17	15.0	S	18.3	14.7	33.6	18.8	18.6	60.3	116.9	99.2	34.5	13.1	2.8	2.6	4.7	16.3	13.8	25.6	5.0	2.0	5.4	9.8	52.3	11.3	25.8	116.9
18	11.2	S	6.8	6.2	9.1	6.1	3.9	6.7	4.7	8.1	8.3	6.1	3.0	3.1	3.6	2.6	1.8	1.8	1.1	0.9	1.8	13.3	3.4	4.9	5.1	13.3
19	1.5	S	0.4	0.8	0.6	0.2	0.4	1.2	1.3	5.3	5.9	2.1	9.6	4.9	11.8	2.8	12.1	2.9	8.6	6.4	1.2	1.2	11.6	7.5	4.4	12.1
20	15.7	S	10.1	10.8	15.9	1.4	1.6	9.6	14.3	2.9	9.8	9.3	6.1	5.2	5.6	6.2	1.3	7.1	12.8	1.9	4.0	5.0	16.1	4.8	7.7	16.1
21	8.5	S	1.8	5.8	3.6	3.7	2.1	2.6	4.7	12.0	3.5	2.4	3.5	12.7	8.8	11.9	11.7	10.9	5.0	2.1	0.0	1.9	8.8	13.2	6.1	13.2
22	8.1	S	8.6	2.6	4.2	10.8	11.6	14.0	21.9	7.4	6.3	3.5	1.3	0.6	0.6	1.2	1.9	1.6	4.1	13.5	9.3	0.0	0.0	13.5	6.4	21.9
23	9.1	S	14.6	10.5	10.9	9.9	13.4	22.3	18.2	27.1	7.6	4.9	3.6	4.0	4.3	2.7	8.5	10.1	4.9	0.7	6.2	12.8	9.4	5.1	9.6	27.1
24	3.8	S	15.7	10.7	13.1	40.2	13.6	9.5	41.4	29.9	7.4	14.3	7.2	10.2	9.5	8.5	6.6	2.6	0.0	4.2	4.3	4.7	2.5	2.0	11.4	41.4
25	4.7	S	2.2	1.6	1.3	0.7	0.7	0.0	0.9	0.0	7.1	0.0	0.1	3.7	2.3	13.5	18.6	9.2	0.6	0.8	0.5	3.3	11.9	1.2	3.7	18.6
26	1.0	S	16.9	7.9	13.2	20.5	8.5	16.4	13.2	16.4	15.7	11.7	3.4	1.4	2.2	3.1	4.7	11.2	12.5	3.0	2.6	12.1	13.2	19.2	10.0	20.5
27	17.9	S	34.6	38.2	39.0	37.0	77.7	47.5	17.8	15.9	24.8	9.0	18.9	5.2	3.7	1.2	0.4	0.3	0.8	0.0	0.1	1.0	0.7	2.5	17.1	77.7
28	2.3	S	0.0	0.0	0.2	0.0	0.6	0.5	2.3	2.0	0.2	1.3	6.0	15.4	9.7	4.8	5.9	2.3	2.1	0.0	0.0	2.2	3.2	0.6	2.7	15.4
NO.	28	-	28	28	28	28	28	28	28	28	28	28	27	27	27	27	27	27	28	28	28	28	28	28	638	100.0%
MEAN	13.2	-	17.8	16.8	18.3	19.6	17.4	19.2	22.3	23.5	18.2	15.9	15.3	13.9	14.2	13.5	13.6	13.8	12.4	10.3	10.7	14.6	18.8	12.9		
MAX	46.3	-	79.5	79.1	48.6	81.3	77.7	60.3	116.9	99.2	47.5	49.2	68.1	61.1	57.4	58.6	63.8	37.4	42.5	37.0	35.5	66.3	54.4	30.5		



Number of Non-Zero Readings	625
Maximum 1-HR Average	116.9 PPB
Maximum 24-HR Average	31.6 PPB
Monthly Calibration Standard Deviation	6 14.88
Operational Time	672 HRS
Operational Uptime	100.0 %
Monthly Average	15.9 PPB

Lagoon NO (ppb) – February 2021

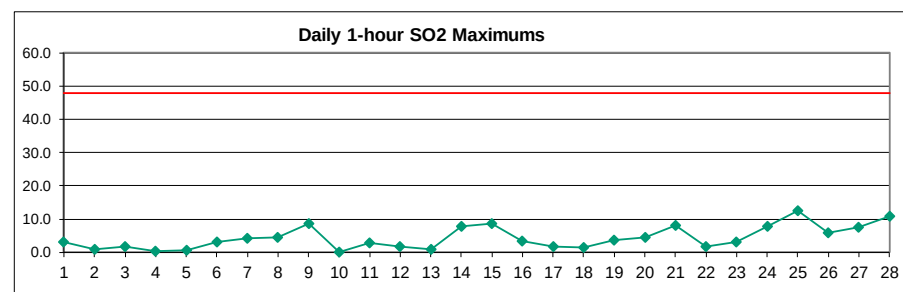
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.4	S	0.6	0.7	2.4	0.6	2.1	2.7	5.6	4.5	2.6	4.6	3.0	3.0	6.1	1.4	4.2	2.4	0.6	2.1	0.6	12.8	11.1	0.9	3.3	12.8
2	0.7	S	0.6	1.1	2.1	0.6	0.7	5.0	4.1	2.4	0.8	12.8	18.7	20.0	23.6	15.1	11.3	4.4	9.6	7.3	1.4	0.6	2.8	0.6	6.4	23.6
3	0.8	S	1.4	2.1	4.7	22.5	20.7	20.9	13.8	14.2	33.9	36.2	53.4	25.2	23.2	11.4	11.9	12.0	17.8	11.3	3.5	0.9	5.4	3.1	15.2	53.4
4	3.6	S	0.5	0.8	2.7	6.9	1.0	1.3	3.8	3.8	10.3	6.2	4.7	2.8	2.1	0.7	1.8	3.2	9.0	2.0	1.1	2.9	0.5	0.8	3.1	10.3
5	1.1	S	1.6	4.2	0.8	1.8	1.1	4.1	25.6	23.1	16.9	8.4	11.5	12.3	3.2	3.7	1.3	11.0	5.3	11.5	10.7	4.7	13.5	5.0	7.9	25.6
6	4.9	S	2.3	4.6	10.7	11.0	16.5	10.2	2.2	24.5	16.1	13.2	20.7	13.3	6.5	15.2	9.3	1.3	0.6	0.6	0.7	1.7	1.8	6.2	8.4	24.5
7	2.3	S	1.5	5.2	11.3	8.8	14.1	1.6	3.5	11.5	23.0	24.2	17.6	44.8	41.0	28.0	10.7	15.8	3.6	16.4	18.5	41.7	27.9	6.8	16.5	44.8
8	4.7	S	55.2	54.0	28.3	55.9	10.2	22.0	10.7	7.6	5.0	4.4	3.9	4.3	4.8	2.3	1.4	0.9	8.5	0.7	0.7	3.8	6.1	3.6	13.0	55.9
9	2.2	S	5.7	5.6	14.4	3.9	12.0	11.2	18.1	21.5	21.6	13.9	9.3	6.1	9.6	20.7	12.7	7.1	6.0	1.5	2.3	17.1	13.4	4.4	10.5	21.6
10	20.5	S	17.5	26.0	21.0	12.9	9.5	8.3	12.1	19.2	7.4	3.6	C	C	C	C	C	C	0.0	0.0	3.6	0.0	8.7	1.9	-	-
11	4.6	S	7.2	0.0	0.0	5.5	1.8	2.5	7.1	11.8	13.7	9.8	9.9	10.2	5.1	4.6	1.0	9.4	1.3	0.7	0.4	0.5	1.8	1.3	4.8	13.7
12	4.2	S	8.3	0.5	3.4	2.8	2.3	2.8	6.3	15.1	12.5	7.9	6.7	5.8	3.3	5.9	8.1	1.2	0.0	0.0	0.1	1.4	2.5	2.3	4.5	15.1
13	8.3	S	12.7	7.1	8.0	4.5	8.2	5.5	7.6	19.9	17.1	18.9	15.4	3.3	2.2	1.7	0.0	5.3	4.6	1.7	1.9	0.0	0.0	0.0	6.7	19.9
14	0.0	S	0.1	0.0	0.5	1.9	0.5	2.6	5.8	21.5	10.8	22.4	8.5	13.4	28.1	35.0	37.7	5.1	12.8	5.4	4.7	9.6	23.3	11.0	11.3	37.7
15	2.5	S	4.7	2.2	7.6	8.3	0.5	0.5	0.8	2.1	5.5	18.7	17.2	8.0	8.1	2.8	1.2	4.8	0.9	2.5	2.7	0.0	0.8	1.0	4.5	18.7
16	3.9	S	3.2	0.5	1.9	0.4	1.2	2.3	0.7	5.9	9.4	7.0	3.6	5.8	5.7	0.0	8.6	11.6	4.9	0.0	7.6	9.1	22.0	4.1	5.2	22.0
17	4.3	S	6.2	1.7	9.5	4.6	1.2	31.3	84.7	69.0	18.7	5.7	0.6	0.6	1.6	7.7	5.7	10.1	0.0	0.0	0.0	2.3	29.2	0.2	12.8	84.7
18	0.0	S	0.5	0.0	2.3	0.6	0.0	1.3	0.3	2.6	2.9	1.8	0.4	0.3	0.6	0.1	0.0	0.0	0.0	0.0	0.0	5.0	0.1	0.5	0.8	5.0
19	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.1	0.3	3.8	1.9	5.3	0.6	4.7	0.0	3.3	0.5	0.0	0.0	3.9	0.4	1.2	5.3
20	6.2	S	0.6	2.0	4.4	0.0	0.0	1.3	5.1	0.2	4.3	4.1	2.8	1.9	2.2	2.4	0.0	2.4	4.3	0.0	0.3	0.8	5.7	0.9	2.3	6.2
21	2.7	S	0.0	1.4	0.7	0.6	0.0	0.0	1.0	5.1	0.8	0.2	0.8	5.2	3.3	4.9	4.5	3.8	1.2	0.0	0.0	0.0	2.2	4.2	1.9	5.2
22	1.4	S	1.9	0.0	0.0	2.3	2.5	3.3	7.7	2.1	1.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	1.0	0.0	0.0	2.3	1.3	7.7
23	1.3	S	0.0	0.0	0.5	1.8	2.2	9.2	4.5	10.5	2.8	0.9	0.7	0.8	0.5	0.0	1.9	2.4	0.0	0.0	0.0	1.7	1.3	0.2	1.9	10.5
24	0.0	S	5.5	3.5	2.8	21.0	2.8	0.6	22.0	16.7	2.5	6.4	2.6	4.4	4.1	3.0	1.8	0.0	0.0	0.3	0.4	0.4	0.0	0.0	4.4	22.0
25	1.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.6	0.2	6.1	8.0	2.9	0.0	0.0	0.0	1.0	2.0	0.0	1.1	8.0
26	0.0	S	5.7	0.8	4.1	8.8	0.5	5.2	4.0	6.9	5.3	4.5	0.6	0.0	0.1	0.1	0.5	3.8	3.5	0.0	0.0	2.6	2.4	5.8	2.8	8.8
27	6.0	S	16.9	20.4	21.4	19.8	53.9	26.1	5.3	8.1	15.3	4.6	10.3	1.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	53.9
28	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	7.7	3.9	1.4	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	7.7
NO.	28	-	28	28	28	28	28	28	28	28	28	28	27	27	27	27	27	27	28	28	28	28	28	28	638	100.0%
MEAN	3.2	-	5.7	5.2	5.9	7.4	5.9	6.5	9.4	11.8	9.5	8.6	8.5	7.5	7.2	6.5	5.6	4.5	3.5	2.4	2.2	4.3	6.7	2.4		
MAX	20.5	-	55.2	54.0	28.3	55.9	53.9	31.3	84.7	69.0	33.9	36.2	53.4	44.8	41.0	35.0	37.7	15.8	17.8	16.4	18.5	41.7	29.2	11.0		



Number of Non-Zero Readings	527		
Maximum 1-HR Average	84.7 PPB		
Maximum 24-HR Average	16.5 PPB		
Monthly Calibration	6	Operational Time	672 HRS
Standard Deviation	9.324	Operational Uptime	100.0 %
		Monthly Average	6.1 PPB

Lagoon SO₂ (ppb) – February 2021

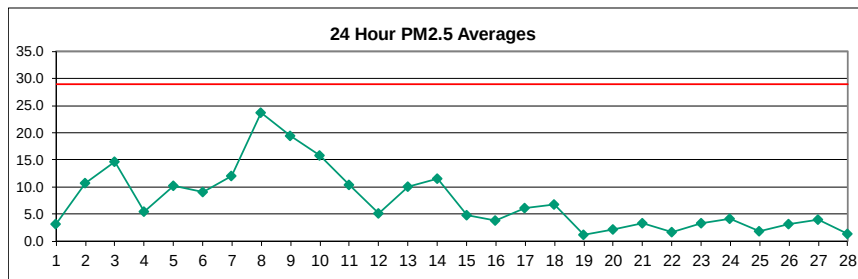
Day	HOURLY																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	2.3	3.2	0.0	0.0	0.3	0.0	0.1	0.1	0.2	0.7	0.3	0.0	0.3	3.2
2	0.0	S	0.3	0.1	0.0	0.1	0.0	0.0	0.5	0.2	0.0	0.4	0.6	0.6	0.9	0.3	0.4	0.0	0.7	0.2	0.0	0.2	0.3	0.1	0.3	0.9
3	0.0	S	0.5	0.4	0.4	0.4	0.0	0.5	0.6	0.1	1.4	1.8	1.0	1.0	1.2	0.3	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.4	1.8
4	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.2	0.3	0.0	0.0	0.3
5	0.0	S	0.2	0.0	0.0	0.2	0.3	0.0	0.6	0.7	0.2	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.3	0.0	0.0	0.7	0.2	0.7
6	0.7	S	0.1	0.3	0.5	0.6	0.2	0.1	0.5	1.0	3.1	2.6	1.7	1.0	0.3	0.4	0.2	1.1	0.6	0.1	0.6	1.3	1.2	1.2	0.8	3.1
7	0.9	S	0.6	0.3	0.7	0.4	0.6	0.0	0.1	0.0	0.4	2.4	2.7	4.3	2.6	1.6	0.6	1.0	1.9	1.7	1.1	1.8	1.4	1.4	1.2	4.3
8	4.5	S	3.2	2.9	2.3	2.1	0.2	0.6	0.2	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.2	0.7	4.5
9	0.1	S	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.4	0.8	0.1	2.9	8.7	1.5	0.9	2.1	1.8	1.7	1.1	1.4	4.2	1.2	8.7
10	2.6	S	3.3	3.4	2.2	0.8	0.8	0.1	0.1	0.0	0.5	1.0	C	C	C	C	C	C	1.4	1.3	1.5	0.7	0.8	2.2	-	-
11	2.8	S	1.0	0.7	0.4	0.2	0.0	0.2	0.4	0.4	0.3	0.1	1.6	0.9	0.1	0.3	0.5	2.2	1.0	0.0	0.2	0.1	0.4	0.2	0.6	2.8
12	0.0	S	0.4	0.0	0.2	0.0	0.5	0.2	0.0	0.4	0.6	0.5	0.6	1.2	0.3	0.5	0.9	1.7	1.8	1.9	0.6	0.6	0.6	0.3	0.6	1.9
13	0.4	S	0.5	0.5	0.1	0.6	0.6	0.2	0.7	0.2	0.5	0.7	1.1	0.4	0.7	0.9	0.5	0.8	0.1	0.0	0.2	0.6	0.2	0.0	0.5	1.1
14	0.0	S	0.5	0.6	0.4	0.9	0.0	1.4	1.1	5.8	3.0	7.8	3.4	1.6	1.9	2.3	1.7	1.2	1.5	1.0	1.3	0.8	1.3	1.3	1.8	7.8
15	1.4	S	3.1	2.5	3.8	5.3	1.6	1.2	1.1	0.5	2.2	6.8	8.8	4.0	5.1	2.9	1.7	1.6	0.8	1.0	0.7	0.6	0.9	0.7	2.5	8.8
16	0.5	S	1.2	1.1	1.6	1.0	1.3	1.2	0.7	1.6	3.3	2.3	1.8	1.6	1.4	1.1	1.0	1.4	1.9	2.0	2.4	1.5	1.6	1.0	1.5	3.3
17	0.6	S	0.3	0.6	0.6	0.7	0.5	0.6	1.9	1.7	0.9	0.7	0.3	0.0	0.4	0.8	0.3	0.8	0.5	0.0	0.4	0.3	0.5	1.2	0.6	1.9
18	0.1	S	0.0	0.7	0.0	0.0	0.0	0.1	0.0	0.5	1.4	0.2	0.6	0.1	0.0	0.5	0.7	0.8	0.6	0.9	0.7	0.8	1.6	0.8	0.5	1.6
19	0.5	S	0.7	0.7	0.3	0.3	0.3	0.3	0.4	1.2	1.1	1.0	3.6	1.1	3.3	1.5	2.9	1.0	1.4	0.9	0.9	0.8	0.7	1.0	1.1	3.6
20	1.2	S	0.7	0.6	0.7	0.4	1.2	0.7	0.6	0.4	1.5	2.5	2.7	2.1	2.8	3.1	0.9	3.4	4.6	0.4	1.6	2.4	1.8	3.5	1.7	4.6
21	3.9	S	0.9	1.7	1.9	2.2	0.9	0.9	2.5	4.6	3.2	1.1	2.9	8.2	5.3	4.8	7.5	6.5	2.3	1.4	0.3	0.8	2.8	4.0	3.1	8.2
22	0.7	S	1.2	1.1	0.9	1.9	1.4	1.1	1.1	0.7	0.6	0.0	1.0	0.3	0.7	0.6	0.9	0.8	0.9	0.5	1.3	0.8	0.8	0.5	0.9	1.9
23	0.4	S	0.2	0.8	1.5	0.9	1.5	2.5	1.6	3.0	1.5	0.6	0.6	1.3	1.3	0.3	0.8	2.6	1.2	0.3	0.0	2.0	1.2	0.3	1.1	3.0
24	0.0	S	0.4	0.1	1.2	7.9	2.3	0.3	7.4	7.0	1.4	1.6	2.9	5.4	5.0	3.5	3.6	1.3	0.3	1.9	3.3	1.4	0.4	1.6	2.6	7.9
25	1.6	S	1.1	1.1	0.8	0.7	1.0	0.6	0.6	0.6	3.0	1.0	0.4	2.6	1.8	8.0	12.6	8.2	1.3	1.2	1.2	0.8	0.7	1.2	2.3	12.6
26	1.0	S	1.0	0.6	0.9	2.9	3.2	3.5	5.8	1.8	3.9	2.7	1.1	1.2	1.3	1.4	2.1	1.5	0.7	1.2	1.3	1.4	0.9	1.0	1.8	5.8
27	0.9	S	0.9	1.3	1.3	1.0	2.0	1.2	1.3	1.5	1.2	1.2	7.4	1.2	0.3	0.2	0.9	0.8	0.9	0.8	0.6	1.3	0.5	0.6	1.3	7.4
28	0.4	S	0.3	1.0	0.5	0.4	0.6	0.4	0.0	0.5	0.2	1.6	4.5	10.9	7.5	4.0	4.5	1.9	1.5	0.3	0.7	0.2	0.8	0.6	1.9	10.9
NO.	28	-	28	28	28	28	28	28	28	28	28	28	27	27	27	27	27	27	28	28	28	28	28	28	638	100.0%
MEAN	0.9	-	0.8	0.8	0.8	1.2	0.8	0.6	1.1	1.2	1.3	1.5	2.0	2.0	1.7	1.8	1.7	1.5	1.1	0.8	0.8	0.8	0.8	1.1		
MAX	4.5	-	3.3	3.4	3.8	7.9	3.2	3.5	7.4	7.0	3.9	7.8	8.8	10.9	7.5	8.7	12.6	8.2	4.6	2.0	3.3	2.4	2.8	4.2		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	549
Maximum 1-HR Average	12.6 PPB
Maximum 24-HR Average	3.1 PPB
Monthly Calibration	6
Standard Deviation	1.567
Operational Time	672 HRS
Operational Uptime	100.0 %
Monthly Average	1.2 PPB

Lagoon PM_{2.5} (µg/m³) – February 2021

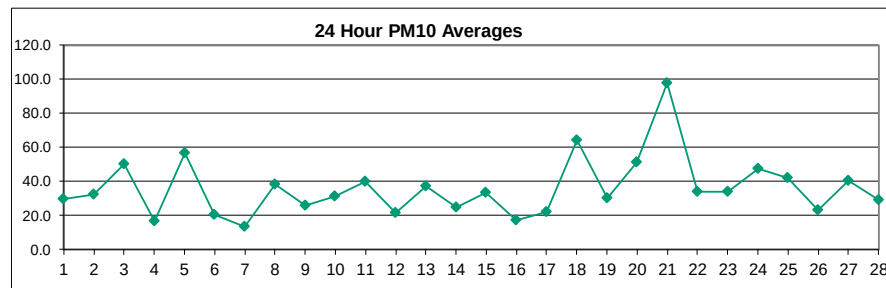
HOUR																											
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX	
1	3.0	2.9	1.5	0.0	0.0	1.2	1.5	0.0	0.0	0.9	0.0	0.0	1.0	0.1	2.2	3.4	17.9	2.4	2.6	6.9	5.8	1.6	14.0	7.6	3.2	17.9	
2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.6	4.7	1.9	2.3	3.9	26.0	31.3	28.5	29.5	21.6	19.8	19.5	18.8	19.1	15.1	12.3	10.7	31.3	
3	12.7	12.7	15.8	10.1	8.0	12.7	15.2	14.8	11.9	13.0	11.6	21.3	27.7	23.8	21.6	15.2	15.2	17.3	18.8	22.6	14.0	8.0	5.5	4.4	14.7	27.7	
4	4.4	5.8	2.6	0.0	0.0	1.5	2.9	1.5	0.8	1.9	2.5	3.7	2.1	29.4	17.0	16.9	11.9	6.2	0.5	5.8	5.4	1.9	1.5	4.0	5.4	29.4	
5	4.4	3.7	3.0	5.8	6.9	6.5	3.7	9.1	11.7	23.8	27.4	23.8	21.6	18.0	7.6	9.8	8.0	5.8	5.5	10.8	6.9	5.9	8.3	8.0	10.2	27.4	
6	9.1	8.6	9.8	6.5	6.2	9.8	9.8	9.4	6.2	7.6	9.8	7.6	7.7	11.9	9.8	9.5	15.1	11.2	10.1	9.1	10.5	8.0	4.9	9.1	9.1	15.1	
7	10.1	10.1	10.8	8.4	9.8	9.4	10.1	10.2	11.6	9.8	15.2	15.9	19.9	9.1	19.8	17.6	12.3	12.3	9.8	7.3	9.8	12.3	14.3	13.4	12.1	19.9	
8	16.2	15.2	16.6	20.5	17.0	17.5	23.0	14.9	24.5	20.6	24.3	40.7	38.8	32.8	33.8	34.2	31.7	28.1	25.6	30.2	19.4	15.2	15.7	12.0	23.7	40.7	
9	15.9	11.7	15.2	17.5	10.9	16.2	15.9	18.4	19.1	21.3	19.5	19.5	22.4	20.6	21.3	27.8	33.8	19.1	21.3	21.3	19.8	20.2	20.5	15.9	19.4	33.8	
10	18.8	25.6	24.6	19.1	19.5	18.4	14.1	12.4	19.1	15.5	17.0	17.0	C	C	C	C	C	C	11.6	12.3	9.2	9.8	9.4	10.1	15.7	25.6	
11	10.1	10.9	15.9	12.7	11.2	9.1	11.6	11.6	12.3	13.0	13.0	9.8	9.1	11.9	11.2	11.2	10.5	10.1	8.0	8.0	5.8	4.4	5.9	10.5	10.3	15.9	
12	10.1	9.8	9.4	6.5	4.0	4.9	5.1	4.8	4.1	7.3	6.9	4.8	3.6	1.9	5.5	5.1	4.0	3.7	4.4	4.7	1.2	0.1	6.2	6.9	5.2	10.1	
13	4.1	10.2	14.5	18.1	15.8	10.1	6.9	8.0	10.9	23.0	6.9	8.7	15.9	10.4	5.1	4.9	7.3	6.9	6.9	11.2	10.9	10.1	9.1	7.3	10.1	23.0	
14	10.9	15.2	20.6	20.9	19.1	13.4	7.6	5.1	4.4	8.4	12.6	9.4	14.1	9.1	11.9	8.4	12.3	15.9	10.1	10.1	6.9	7.6	9.1	13.0	11.5	20.9	
15	7.3	4.1	8.3	8.1	5.5	9.1	9.6	4.4	4.0	2.6	0.0	0.0	11.6	14.4	8.7	5.1	3.3	0.8	0.0	0.1	0.0	3.0	3.3	1.9	4.8	14.4	
16	3.3	2.6	0.4	1.9	0.8	0.0	0.1	0.0	0.0	0.4	1.9	3.7	4.7	4.7	3.7	2.6	0.5	2.6	6.9	6.9	5.8	9.1	13.4	15.5	3.8	15.5	
17	8.7	3.7	3.3	5.1	7.6	10.8	6.5	5.5	5.9	14.5	16.9	3.7	5.8	5.1	4.4	1.9	4.0	5.6	3.0	3.7	4.3	1.9	6.2	8.0	6.1	16.9	
18	10.1	7.6	5.8	2.6	1.9	0.4	0.0	1.2	2.6	1.5	1.9	5.5	9.8	15.2	18.7	12.7	9.1	11.6	13.4	9.8	6.5	5.8	5.5	3.0	6.8	18.7	
19	0.1	0.0	1.2	1.9	1.2	0.1	1.5	2.6	1.5	1.2	3.3	4.0	1.5	3.0	1.1	0.0	0.0	0.0	0.2	0.8	1.5	0.2	0.1	0.0	1.1	4.0	
20	0.0	1.2	1.9	3.3	1.9	0.1	0.0	0.0	0.0	1.2	0.4	0.8	3.1	2.2	1.9	3.0	5.5	3.7	1.7	5.7	4.4	4.0	3.7	3.0	2.2	5.7	
21	3.3	1.2	1.8	0.8	1.5	7.6	6.5	1.5	2.6	4.0	4.0	12.3	6.5	0.0	2.2	3.7	4.4	6.2	4.0	0.8	0.8	0.0	0.0	4.0	3.3	12.3	
22	3.7	2.2	5.5	6.5	4.0	1.2	1.6	1.5	1.2	4.0	0.4	0.0	0.4	0.8	0.4	0.0	1.2	3.7	0.1	0.0	0.1	0.1	0.1	1.9	1.7	6.5	
23	1.5	3.0	4.0	5.1	6.2	8.3	4.8	1.2	5.7	4.8	8.0	3.3	0.0	0.1	0.0	0.0	0.0	0.0	0.2	1.9	2.6	7.6	8.0	4.9	3.4	8.3	
24	1.6	2.2	0.4	0.0	0.4	0.0	18.4	1.6	0.4	9.4	10.1	5.5	4.0	3.0	4.8	9.8	7.3	6.2	3.3	1.2	3.3	4.0	2.2	1.5	4.2	18.4	
25	0.8	1.9	0.1	0.0	1.5	3.7	1.5	0.0	0.1	0.0	0.0	3.3	4.0	0.0	4.4	1.9	1.5	6.2	6.6	2.9	0.0	0.0	0.0	3.3	1.8	6.6	
26	2.6	0.1	0.4	0.4	1.9	3.3	4.4	3.7	4.8	8.3	4.8	3.3	1.9	0.1	3.7	1.6	1.2	3.6	5.8	5.1	3.7	3.3	3.3	3.7	3.1	8.3	
27	5.8	7.6	6.9	8.0	5.6	5.5	4.4	11.2	8.0	5.1	7.2	5.5	4.4	5.5	1.5	0.4	0.8	0.0	0.0	0.0	1.2	3.0	0.1	4.1	11.2		
28	1.2	1.9	0.0	0.0	0.0	0.0	2.2	1.2	1.5	4.4	3.3	0.0	0.0	3.7	3.7	3.1	3.0	1.9	0.1	0.3	1.8	0.0	0.0	0.0	1.4	4.4	
NO.	28	28	28	28	28	28	28	28	28	28	28	28	27	27	27	27	27	27	28	28	28	28	28	28	666	100.0%	
MEAN	6.4	6.5	7.2	6.8	6.0	6.5	6.8	5.6	6.3	8.3	8.2	8.4	9.1	9.7	9.5	8.8	9.3	7.9	7.2	7.8	6.4	5.9	6.7	6.6			
MAX	18.8	25.6	24.6	20.9	19.5	18.4	23.0	18.4	24.5	23.8	27.4	40.7	38.8	32.8	33.8	34.2	33.8	28.1	25.6	30.2	19.8	20.2	20.5	15.9			



Number of 24HR Exceedences	0
Number of Non-Zero Readings	601
Maximum 1-HR Average	40.7 UG/M3
Maximum 24-HR Average	23.7 UG/M3
Monthly Calibration	6
Standard Deviation	7.236
Operational Time	672 HRS
Operational Uptime	100.0 %
Monthly Average	7.4 UG/M3

Lagoon PM₁₀ (µg/m³) – February 2021

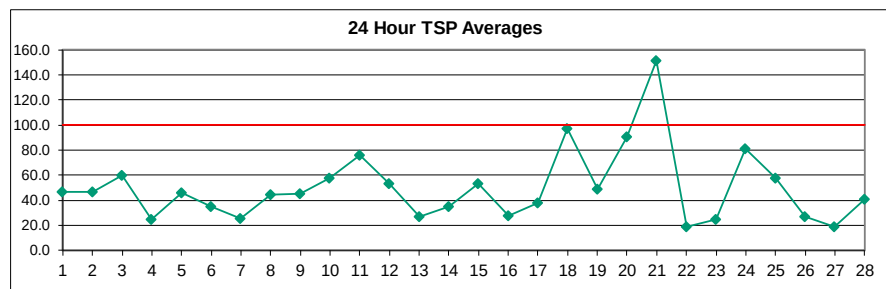
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	11.6	11.5	35.1	22.3	11.4	22.1	6.7	6.7	17.9	13.4	21.8	14.2	17.6	56.4	74.0	87.5	123.0	56.9	21.8	2.2	8.0	31.5	25.6	13.4	29.7	123.0
2	35.4	16.6	12.2	13.4	11.0	2.6	2.2	6.7	9.6	58.2	21.7	13.3	44.8	39.9	75.9	79.9	112.2	35.5	40.8	33.5	27.6	25.6	13.5	39.6	32.1	112.2
3	59.3	84.7	88.0	101.8	69.4	30.7	84.3	99.7	53.6	26.7	33.3	37.6	69.2	59.6	36.2	41.6	34.7	26.3	25.1	28.1	35.6	32.1	26.6	19.2	50.1	101.8
4	13.4	11.3	8.6	6.8	9.1	16.1	26.4	26.6	20.3	44.9	37.6	34.6	47.7	18.1	16.4	9.3	7.2	5.5	19.2	4.5	2.6	2.1	4.9	8.7	16.7	47.7
5	7.3	6.7	7.3	17.2	17.3	12.7	11.3	10.9	23.9	30.7	35.9	54.3	147.9	267.8	195.6	146.7	182.4	65.3	34.7	26.8	21.9	16.0	13.3	9.9	56.8	267.8
6	6.9	10.0	9.3	19.9	17.4	15.8	21.8	13.8	32.3	29.9	46.6	68.2	53.2	49.0	17.2	17.4	14.6	10.3	9.8	3.8	1.0	8.3	11.8	6.7	20.6	68.2
7	7.7	12.7	10.1	5.4	6.8	8.6	5.9	4.5	1.9	2.7	16.4	32.4	44.1	45.5	36.5	23.7	12.6	9.1	4.5	2.0	3.3	2.8	6.4	13.2	13.3	45.5
8	20.2	19.9	27.4	46.9	51.5	63.3	46.9	63.3	81.8	65.2	33.2	46.6	47.1	42.2	46.8	48.5	43.4	21.6	10.6	19.2	13.4	12.3	27.0	26.4	38.5	81.8
9	38.2	20.7	16.7	24.2	13.5	14.1	26.0	20.2	18.7	15.3	23.8	28.0	45.2	43.3	54.8	45.5	47.8	19.1	0.7	2.6	5.5	9.9	21.3	52.7	25.7	54.8
10	51.6	42.1	44.5	42.0	43.4	34.0	26.2	23.0	23.6	22.9	21.7	24.2	C	C	C	C	C	C	0.0	1.9	47.1	32.8	13.8	72.6	31.5	72.6
11	56.6	460.7	25.2	17.0	18.9	18.9	18.4	22.3	22.8	21.1	25.4	32.4	33.1	54.2	17.9	12.9	15.1	8.7	8.1	9.3	6.6	5.3	26.1	20.6	39.9	460.7
12	15.2	30.4	18.4	22.4	25.0	37.0	29.1	28.1	12.6	33.7	44.1	46.3	27.1	27.5	36.3	19.7	10.8	12.0	9.1	3.9	3.2	2.2	7.4	8.6	21.3	46.3
13	6.3	10.6	21.4	40.1	19.5	18.5	12.2	43.5	460.7	25.3	18.9	31.5	39.4	30.0	11.8	17.7	7.9	6.6	17.4	15.0	6.2	10.2	11.2	6.8	37.0	460.7
14	8.4	16.1	26.8	22.3	22.8	20.5	13.7	18.7	15.5	18.1	59.5	46.6	44.9	24.8	21.2	26.3	37.4	27.3	10.7	20.8	19.3	15.8	20.7	31.6	24.6	59.5
15	65.6	85.8	47.2	46.6	94.3	106.9	43.8	27.6	14.3	17.4	18.8	19.0	45.1	39.6	34.1	27.6	24.3	11.9	7.0	0.0	1.7	8.7	8.9	7.3	33.5	106.9
16	6.8	8.0	7.9	5.8	1.4	4.9	9.1	3.3	3.5	7.9	16.7	26.5	18.6	25.2	29.7	38.6	3.6	10.0	32.3	29.2	8.6	29.8	42.7	44.0	17.3	44.0
17	32.6	22.6	16.5	10.4	17.5	29.2	19.2	13.4	13.3	26.3	97.2	55.3	37.6	9.1	11.5	13.4	11.9	20.9	19.6	7.4	7.6	11.8	17.2	12.3	22.2	97.2
18	15.6	17.6	7.1	14.5	9.4	9.2	18.3	20.2	18.9	20.1	33.9	99.0	151.0	139.5	147.5	73.2	86.6	62.3	62.4	47.0	60.1	188.5	141.2	96.0	64.1	188.5
19	44.0	35.0	69.5	28.3	15.4	38.1	41.6	23.4	20.3	34.6	35.8	22.0	21.0	92.3	34.3	31.4	26.2	58.1	31.0	6.1	8.0	7.2	3.2	1.5	30.3	92.3
20	6.3	12.4	17.6	30.5	7.9	16.9	6.3	10.5	18.2	17.6	19.3	30.5	92.6	76.4	110.9	108.6	111.0	53.7	105.4	97.3	33.1	70.0	97.8	79.4	51.3	111.0
21	117.5	84.2	40.3	66.5	179.8	196.5	156.4	27.8	151.1	152.0	143.1	314.8	31.1	24.8	116.6	87.6	163.5	129.7	71.8	24.1	20.1	5.4	8.5	28.8	97.6	314.8
22	23.9	28.8	35.9	24.5	16.0	24.7	20.3	20.6	12.6	32.8	2.1	5.4	6.0	5.3	5.3	4.1	6.8	7.7	1.2	0.7	16.2	16.9	42.0	459.9	34.1	459.9
23	2.7	3.9	27.7	461.1	28.9	25.6	12.8	12.1	12.8	14.1	25.7	14.2	13.9	8.6	7.6	12.7	11.0	17.8	45.0	13.9	9.1	4.5	14.6	10.5	33.8	461.1
24	6.6	4.6	4.1	6.2	8.8	11.0	26.8	0.0	9.6	61.0	42.1	24.7	94.4	101.1	127.4	90.1	67.7	78.9	44.1	26.5	103.2	114.2	37.6	54.9	47.7	127.4
25	23.0	95.0	75.5	85.0	147.4	57.4	43.6	48.5	20.6	15.3	25.4	43.3	5.8	2.0	4.6	19.4	79.2	113.6	57.5	7.4	8.0	7.2	4.9	20.7	42.1	147.4
26	4.6	3.2	20.3	9.4	10.6	31.9	33.7	19.3	26.4	15.6	14.3	30.0	22.6	4.7	4.8	8.6	19.0	11.1	53.5	52.6	8.6	55.2	54.2	37.1	23.0	55.2
27	35.1	34.1	40.1	56.7	53.6	41.9	19.8	22.8	8.2	12.2	25.2	16.9	17.3	12.7	11.4	9.9	6.5	3.5	6.7	5.9	4.9	11.0	50.9	460.7	40.3	460.7
28	15.6	19.1	33.8	21.1	25.4	36.0	15.7	31.0	29.8	30.3	23.8	15.4	27.6	64.5	103.3	71.1	34.4	31.7	6.8	8.8	10.8	12.1	12.4	17.1	29.1	103.3
NO.	28	28	28	28	28	28	28	28	28	28	28	28	27	27	27	27	27	27	28	28	28	28	28	28	666	90.3%
MEAN	26.4	43.1	28.4	45.3	34.1	33.8	28.5	23.9	41.2	30.9	34.4	43.8	46.1	50.5	51.5	43.8	48.2	33.9	27.0	17.9	17.9	26.8	27.3	59.3		
MAX	117.5	460.7	88.0	461.1	179.8	196.5	156.4	99.7	460.7	152.0	143.1	314.8	151.0	267.8	195.6	146.7	182.4	129.7	105.4	97.3	103.2	188.5	141.2	460.7		



Number of Non-Zero Readings	663
Maximum 1-HR Average	461.1 UG/M3
Maximum 24-HR Average	97.6 UG/M3
Monthly Calibration	6
Standard Deviation	51.18
Operational Time	672 HRS
Operational Uptime	90.3 %
Monthly Average	35.9 UG/M3

Lagoon TSP (µg/m³) – February 2021

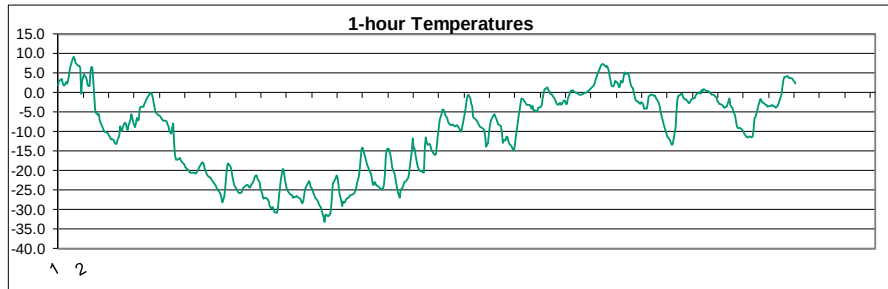
Day	HOURLY																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	15.2	13.1	44.8	25.8	13.8	27.0	12.5	10.6	23.9	26.3	22.7	5.4	27.2	91.6	142.9	151.1	189.3	108.0	38.0	4.5	9.7	54.8	42.0	24.0	46.8	189.3
2	52.7	26.8	9.8	32.3	13.7	8.3	14.2	16.4	22.6	28.0	30.0	20.8	65.4	72.0	119.3	123.2	141.4	48.9	77.9	57.1	35.6	24.9	22.1	52.2	46.5	141.4
3	77.2	94.8	104.3	86.6	71.8	43.5	74.7	70.1	34.6	26.1	43.5	53.4	88.9	91.2	62.3	58.7	41.5	37.5	38.0	47.7	56.5	50.2	53.3	38.5	60.2	104.3
4	30.7	31.1	14.6	1.4	22.7	29.5	35.1	39.3	22.6	52.0	61.2	39.9	33.0	26.2	21.8	12.3	6.3	16.9	41.4	11.1	7.4	3.6	13.9	11.4	24.4	61.2
5	12.7	12.5	10.5	16.4	32.6	18.0	14.2	16.8	18.0	39.2	44.8	58.6	198.9	229.6	30.8	52.5	48.2	42.1	49.3	37.4	34.5	29.4	31.6	23.6	45.9	229.6
6	22.8	29.8	15.5	16.9	19.6	20.7	14.8	5.8	32.5	41.7	66.6	64.8	58.8	67.4	58.3	58.5	38.8	37.5	35.2	18.8	34.0	43.3	22.0	15.8	35.0	67.4
7	23.6	20.4	10.4	19.4	14.0	14.0	14.2	16.4	9.8	8.8	14.6	26.0	42.4	55.5	55.1	47.3	47.5	27.6	23.1	13.2	23.5	20.6	37.9	19.9	25.2	55.5
8	25.0	24.4	36.9	49.2	36.6	44.5	44.3	42.1	49.7	44.2	40.7	47.7	56.9	58.0	63.1	59.3	52.2	42.6	36.0	56.6	26.2	23.6	69.0	38.6	44.5	69.0
9	56.3	45.4	37.9	33.0	24.6	16.2	28.8	21.1	23.6	21.9	28.9	23.1	38.5	56.8	81.2	119.5	100.1	55.6	33.2	30.3	24.9	24.2	59.0	96.1	45.0	119.5
10	80.1	75.1	77.5	51.4	51.1	46.9	39.9	30.9	36.2	37.3	33.3	32.0	C	C	C	C	C	C	115.0	112.6	48.6	45.5	23.6	99.9	57.6	115.0
11	78.6	952.7	40.8	25.2	27.4	19.4	16.1	5.2	19.8	23.4	18.0	15.2	38.7	81.4	51.9	86.3	92.4	58.9	45.5	37.9	20.0	25.1	25.0	23.7	76.2	952.7
12	25.1	48.7	25.9	40.2	40.4	65.3	42.1	48.0	38.5	56.3	71.6	86.0	63.1	78.2	139.1	168.7	68.7	78.3	16.8	16.6	12.6	11.1	9.3	23.2	53.1	168.7
13	14.4	21.3	28.0	45.8	20.4	24.5	14.8	29.1	27.8	41.6	16.6	39.2	67.0	47.0	18.3	19.8	23.0	11.6	40.5	20.7	15.6	18.5	25.0	22.5	27.2	67.0
14	24.7	18.5	23.7	23.3	15.7	19.8	15.8	23.7	23.6	25.2	73.5	44.5	68.5	50.7	39.1	43.3	73.7	51.2	23.9	27.6	22.1	18.7	32.1	60.2	35.1	73.7
15	96.4	131.7	62.6	94.8	179.2	185.0	77.8	62.9	22.4	21.3	27.1	14.8	53.7	46.3	53.8	47.9	34.3	24.2	8.5	7.5	6.0	9.7	5.8	7.0	53.4	185.0
16	4.8	12.9	14.6	0.6	8.4	7.0	4.6	9.1	19.1	10.7	25.4	30.0	19.5	43.4	49.9	69.4	9.4	28.1	57.5	65.3	19.3	40.1	60.7	53.5	27.6	69.4
17	40.9	21.2	24.5	13.1	20.5	36.4	23.3	17.2	23.9	38.1	239.5	90.0	38.9	14.3	19.6	21.0	33.1	29.2	50.5	10.6	26.5	27.4	43.0	14.4	38.2	239.5
18	20.9	20.4	11.2	10.3	16.5	11.1	28.9	23.0	32.1	33.9	48.2	146.6	242.3	221.5	215.8	92.9	141.6	97.4	78.7	73.2	81.1	311.4	211.7	155.5	96.9	311.4
19	62.8	49.1	127.4	31.1	16.6	37.7	39.3	34.5	31.0	52.7	51.4	26.6	35.2	161.0	60.6	52.8	56.9	103.8	50.0	25.2	25.6	9.7	7.7	18.3	48.6	161.0
20	21.4	28.9	17.4	51.2	24.1	30.4	12.4	31.8	27.7	24.8	20.8	49.7	167.9	151.4	186.1	197.8	214.2	92.0	200.3	162.8	55.5	106.8	153.0	143.1	90.5	214.2
21	199.0	138.2	58.7	78.9	302.8	359.1	270.2	31.2	216.6	252.5	247.6	399.8	52.9	38.2	172.1	137.1	258.4	175.1	109.9	42.6	32.4	14.0	15.4	39.9	151.8	399.8
22	31.7	25.7	35.5	23.3	16.5	35.6	27.2	39.1	19.3	37.2	6.1	12.3	7.1	7.2	8.3	4.4	6.0	9.8	8.7	13.5	27.2	16.0	25.3	4.8	18.7	39.1
23	12.7	12.4	8.0	23.8	41.6	27.2	15.3	14.4	21.1	31.0	36.3	14.2	18.0	15.4	15.5	16.5	12.6	39.0	87.6	40.2	14.2	18.7	29.0	24.8	24.6	87.6
24	19.3	14.9	6.2	13.7	8.1	18.1	17.8	11.5	19.1	83.5	63.6	40.5	145.6	178.3	242.4	143.9	118.3	151.5	82.9	38.2	201.6	208.6	52.5	71.1	81.3	242.4
25	32.2	110.5	104.9	101.4	175.3	67.1	52.1	62.7	18.1	12.9	18.7	50.2	4.4	6.4	18.7	34.3	129.8	193.6	86.1	12.7	12.8	11.1	9.6	52.9	57.4	193.6
26	5.6	4.3	27.6	22.6	21.0	47.4	50.8	40.8	48.8	25.8	15.3	37.5	36.4	15.6	10.2	17.7	32.7	21.6	57.1	33.9	11.0	31.7	25.7	11.9	27.2	57.1
27	23.6	22.5	26.6	28.2	34.8	33.7	20.1	30.3	24.4	11.3	12.5	10.0	13.4	26.3	21.7	10.0	11.6	16.4	8.4	6.0	11.2	11.3	36.1	10.1	19.2	36.1
28	14.6	26.0	42.0	23.0	28.5	39.1	17.1	36.7	45.5	38.9	37.8	19.5	46.7	91.5	164.2	101.5	57.7	45.0	5.2	20.4	10.7	24.8	16.9	19.0	40.5	164.2
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	27	27	27	27	27	27	28	28	28	28	28	666	90.3%
MEAN	40.2	72.6	37.4	35.1	46.4	47.6	37.1	29.3	34.0	41.0	50.6	53.5	64.1	74.9	78.6	72.1	75.5	60.9	53.8	37.3	32.4	44.1	41.4	42.0		
MAX	199.0	952.7	127.4	101.4	302.8	359.1	270.2	70.1	216.6	252.5	247.6	399.8	242.3	229.6	242.4	197.8	258.4	193.6	200.3	162.8	201.6	311.4	211.7	155.5		



Number of 24HR Exceedences	1
Number of Non-Zero Readings	666
Maximum 1-HR Average	952.7 UG/M3
Maximum 24-HR Average	151.8 UG/M3
Monthly Calibration	6
Standard Deviation	62.7
Operational Time	672 HRS
Operational Uptime	90.3 %
Monthly Average	49.9 UG/M3

Lagoon Temperature (°C) – February 2021

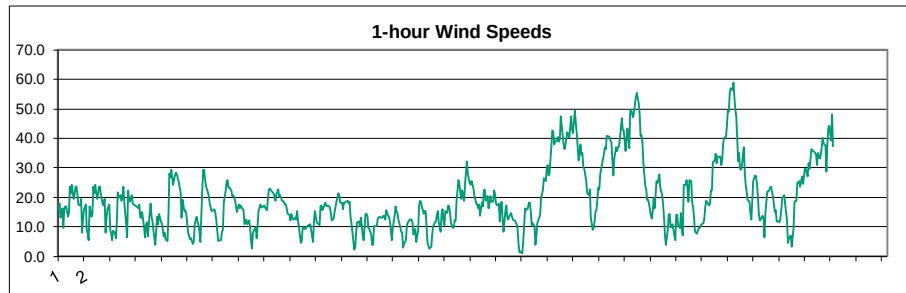
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.8	2.9	3.3	3.4	2.4	1.9	1.9	2.8	2.2	3.1	4.7	6.2	8.0	8.8	9.1	8.4	7.6	7.3	6.9	6.8	6.4	-0.3	3.0	4.7	4.7	9.1
2	4.3	4.0	3.3	1.7	2.7	2.5	2.1	1.5	5.5	6.6	6.3	3.1	-4.4	-5.3	-5.4	-5.7	-5.7	-7.3	-8.5	-9.0	-9.6	-10.0	-10.0	-10.2	-2.0	6.6
3	-10.6	-11.1	-11.6	-12.0	-12.0	-12.1	-12.9	-13.2	-13.2	-12.1	-11.0	-8.5	-9.8	-9.7	-8.6	-7.8	-8.0	-9.0	-9.6	-8.3	-7.0	-5.5	-6.6	-7.7	-9.9	-5.5
4	-8.3	-8.9	-6.6	-7.2	-6.9	-4.1	-3.7	-3.6	-3.6	-3.0	-2.4	-1.8	-1.0	-0.5	-0.4	-0.2	-0.2	-1.2	-4.0	-5.0	-5.4	-5.5	-5.7	-5.9	-4.0	-0.2
5	-6.4	-6.8	-7.3	-7.3	-7.2	-7.4	-8.2	-8.7	-10.0	-10.5	-8.9	-7.9	-13.0	-16.1	-17.3	-17.1	-16.9	-16.8	-17.1	-17.8	-18.2	-18.3	-19.0	-19.5	-12.7	-6.4
6	-19.6	-20.1	-20.6	-20.6	-20.6	-20.6	-20.7	-20.5	-20.2	-19.8	-19.1	-18.5	-18.0	-18.0	-18.5	-19.6	-20.7	-21.3	-21.6	-21.7	-21.8	-22.2	-22.9	-22.9	-20.3	-18.0
7	-23.2	-23.6	-23.8	-24.5	-25.2	-25.6	-26.0	-27.0	-28.2	-26.8	-24.5	-21.8	-19.1	-18.3	-18.4	-19.0	-20.3	-21.7	-23.0	-23.8	-24.6	-25.0	-25.5	-25.9	-23.5	-18.3
8	-25.7	-25.4	-24.7	-24.4	-24.2	-23.9	-23.7	-23.9	-24.3	-24.5	-23.7	-23.3	-22.5	-21.6	-21.2	-21.2	-22.1	-23.0	-24.6	-25.4	-26.0	-27.1	-27.0	-26.9	-24.2	-21.2
9	-27.2	-27.4	-27.9	-29.0	-29.8	-29.4	-29.7	-30.5	-30.8	-30.7	-29.1	-26.5	-24.4	-22.2	-19.5	-19.8	-21.6	-23.1	-24.3	-25.0	-25.8	-26.1	-26.3	-26.2	-26.3	-19.5
10	-26.9	-26.7	-26.6	-26.4	-26.6	-26.9	-27.1	-27.8	-28.5	-27.9	-26.4	-24.8	-23.6	-23.3	-22.7	-22.8	-24.2	-24.9	-25.9	-26.3	-26.9	-27.3	-27.8	-28.7	-26.1	-22.7
11	-29.1	-29.4	-30.2	-32.0	-33.0	-31.3	-31.4	-31.5	-31.7	-31.3	-29.7	-26.5	-23.2	-23.0	-22.1	-21.3	-21.7	-23.6	-25.8	-27.7	-29.2	-28.0	-28.1	-28.0	-27.9	-21.3
12	-27.5	-27.0	-26.9	-26.5	-26.3	-26.2	-26.0	-25.9	-25.4	-24.7	-23.2	-21.4	-19.3	-16.8	-14.3	-14.1	-15.0	-16.6	-17.8	-18.5	-19.0	-19.7	-20.9	-22.1	-21.7	-14.1
13	-23.5	-23.6	-23.0	-23.8	-23.9	-24.1	-24.4	-24.7	-24.7	-24.6	-23.7	-21.0	-16.3	-14.7	-14.4	-15.4	-16.0	-17.7	-19.3	-20.5	-21.5	-22.9	-24.4	-25.6	-21.4	-14.4
14	-26.9	-24.9	-24.7	-24.4	-23.7	-22.9	-22.6	-22.2	-21.9	-20.9	-18.5	-15.0	-11.8	-14.2	-14.4	-16.1	-18.6	-19.4	-20.0	-20.0	-20.1	-20.3	-20.6	-14.2	-19.9	-11.8
15	-11.5	-12.8	-13.3	-13.3	-13.7	-14.6	-15.1	-15.6	-16.0	-15.7	-13.3	-11.0	-9.0	-7.0	-5.6	-4.5	-4.3	-4.8	-5.7	-6.5	-7.5	-7.9	-8.2	-8.3	-10.2	-4.3
16	-8.2	-8.3	-8.6	-8.6	-8.4	-8.5	-9.0	-9.9	-10.1	-9.2	-7.9	-5.3	-3.9	-2.0	-0.9	-0.5	-1.6	-2.9	-3.4	-6.3	-6.6	-6.9	-7.2	-7.8	-6.3	-0.5
17	-8.2	-8.5	-8.9	-9.1	-9.3	-9.6	-11.2	-13.8	-13.0	-10.6	-8.6	-7.3	-6.8	-5.8	-5.6	-6.1	-6.8	-7.4	-8.1	-8.4	-8.7	-10.2	-12.8	-12.1	-9.0	-5.6
18	-12.2	-11.2	-11.6	-12.5	-13.1	-13.6	-14.1	-14.8	-14.9	-13.4	-11.3	-7.9	-6.0	-4.7	-2.8	-1.6	-1.8	-2.2	-2.5	-2.9	-3.3	-3.2	-3.1	-3.5	-7.8	-1.6
19	-4.1	-3.5	-4.6	-4.6	-4.8	-4.7	-3.9	-3.9	-3.7	-3.1	-1.4	0.0	0.8	1.0	1.3	0.5	0.3	-0.4	-0.6	-0.9	-1.3	-1.7	-2.3	-2.9	-2.0	1.3
20	-3.3	-2.7	-2.7	-3.3	-2.7	-2.0	-2.3	-2.9	-2.9	-1.6	-0.3	0.3	0.4	0.7	0.5	0.2	0.0	-0.1	-0.3	-0.6	-0.5	-0.5	-0.4	-0.3	-1.1	0.7
21	-0.2	0.0	0.3	0.5	0.6	0.9	1.0	1.3	1.8	2.6	3.4	4.0	5.0	6.0	6.7	7.0	7.2	7.2	6.7	6.7	6.7	6.3	5.6	4.3	3.8	7.2
22	1.8	1.7	1.5	2.1	2.9	2.4	2.3	1.3	1.6	3.0	2.6	3.9	5.0	4.7	4.9	5.0	4.3	2.7	1.7	1.2	1.2	-1.0	-2.0	-2.1	2.2	5.0
23	-2.2	-2.4	-2.9	-2.5	-2.7	-3.0	-4.0	-4.0	-4.2	-2.8	-1.1	-0.8	-0.5	-0.5	-0.7	-0.9	-0.8	-1.5	-2.2	-2.7	-3.7	-5.1	-6.0	-7.9	-2.7	-0.5
24	-8.8	-9.7	-10.4	-11.2	-11.6	-12.3	-13.0	-13.5	-13.2	-11.7	-9.0	-4.8	-1.7	-0.9	-0.7	-0.3	-0.4	-0.9	-1.5	-1.7	-1.8	-2.3	-2.8	-2.6	-6.1	-0.3
25	-2.2	-1.9	-1.5	-1.4	-1.3	-0.6	-0.2	0.0	0.1	-0.2	0.6	0.5	0.8	0.7	0.4	0.4	0.4	0.1	-0.4	-0.5	-0.6	-0.7	-0.8	-1.4	-0.4	0.8
26	-2.1	-2.5	-2.9	-2.9	-3.1	-3.4	-3.9	-3.9	-3.8	-3.6	-2.1	-1.4	-3.3	-3.5	-3.9	-5.4	-5.7	-7.3	-8.7	-9.0	-9.0	-9.1	-9.3	-9.6	-5.0	-1.4
27	-10.0	-10.5	-11.1	-11.4	-11.5	-11.2	-11.2	-11.4	-11.3	-9.5	-6.6	-6.3	-4.6	-3.4	-2.8	-1.8	-1.8	-2.5	-2.8	-2.8	-3.3	-3.3	-3.6	-3.5	-6.6	-1.8
28	-3.5	-3.4	-3.3	-3.4	-3.7	-3.9	-3.6	-3.3	-2.7	-2.1	-0.7	1.4	3.0	4.0	4.0	4.3	4.3	3.7	3.8	3.8	3.6	3.1	2.9	2.4	0.5	4.3
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100.0%
MEAN	-11.6	-11.6	-11.7	-12.0	-12.0	-11.9	-12.2	-12.5	-12.4	-11.6	-10.2	-8.7	-7.8	-7.3	-6.9	-6.9	-7.5	-8.4	-9.2	-9.7	-10.1	-10.7	-11.1	-11.2		
MAX	4.3	4.0	3.3	3.4	2.9	2.5	2.3	2.8	5.5	6.6	6.3	6.2	8.0	8.8	9.1	8.4	7.6	7.3	6.9	6.8	6.7	6.3	5.6	4.7		



Number of Non-Zero Readings	672		
Maximum 1-HR Average	9.1 C		
Maximum 24-HR Average	4.7 C		
Monthly Calibration	0	Operational Time	672 HRS
Standard Deviation	10.58	Operational Uptime	100.0 %
		Monthly Average	-10.2 C

Lagoon Wind Speed (km/hr) – February 2021

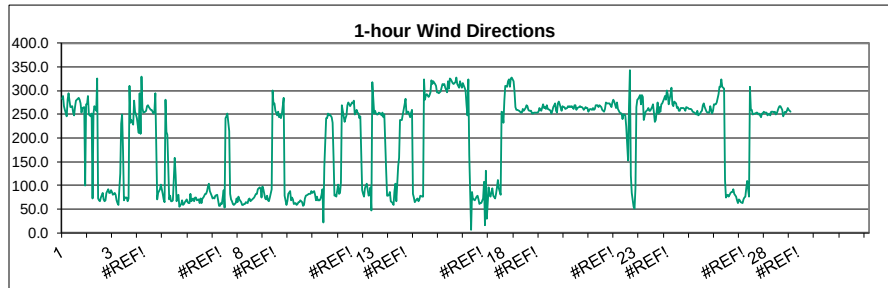
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	15.6	17.9	13.1	16.3	9.8	15.9	17.0	16.9	13.6	14.6	23.7	21.5	24.2	19.7	21.2	23.6	23.6	21.0	17.5	17.3	19.4	8.1	12.9	15.9	17.5	24.2
2	17.6	8.9	7.8	5.5	8.5	8.1	6.2	11.4	21.6	19.9	20.7	19.0	20.3	23.7	18.1	11.0	6.4	22.5	19.6	18.5	20.6	17.8	17.6	17.1	15.4	23.7
3	17.2	16.9	16.3	17.5	13.2	13.2	15.0	10.0	6.5	10.7	11.6	6.9	14.4	17.9	13.3	12.0	8.6	4.1	9.0	13.3	10.9	14.3	12.0	11.2	12.3	17.9
4	9.0	6.6	8.2	5.8	5.1	13.6	28.2	26.8	29.4	24.3	26.3	27.5	28.3	27.7	25.4	23.2	21.6	13.1	19.1	15.5	15.7	14.4	11.2	8.1	18.1	29.4
5	5.7	6.0	5.3	4.1	4.8	11.1	13.4	11.7	10.5	8.8	4.8	22.1	29.5	29.3	26.1	23.9	21.7	20.3	17.9	16.5	15.5	15.6	15.9	14.6	14.8	29.5
6	12.2	8.8	5.1	5.4	5.4	8.3	8.9	18.1	22.4	25.1	25.8	23.4	23.3	22.2	20.5	20.9	20.1	18.9	15.1	16.5	17.7	16.2	17.2	16.1	16.4	25.8
7	15.5	10.9	11.5	12.7	10.9	12.2	9.7	5.3	2.6	8.0	9.2	10.0	6.2	10.5	15.2	17.6	16.5	16.7	17.0	17.4	16.1	15.7	19.6	22.6	12.9	22.6
8	23.1	22.0	21.8	21.6	20.3	18.9	20.9	22.6	20.2	20.8	19.8	18.9	18.6	17.6	17.6	16.5	14.3	14.0	12.1	14.5	13.2	12.6	13.3	12.5	17.8	23.1
9	15.5	12.3	9.9	4.7	5.1	9.8	10.1	9.4	9.2	10.4	10.5	10.7	10.8	8.9	4.9	11.6	15.4	13.3	11.5	10.8	10.6	16.9	17.1	15.7	11.0	17.1
10	17.2	18.4	17.2	17.0	17.4	16.6	14.7	12.3	12.6	12.7	15.2	18.7	19.7	21.3	20.7	18.2	18.1	16.0	18.3	18.3	18.7	18.8	17.8	18.6	17.3	21.3
11	13.6	11.4	5.1	2.4	3.1	8.2	11.5	11.8	10.3	13.1	10.7	6.8	5.6	14.5	14.5	13.7	9.7	9.3	7.4	3.8	3.8	10.2	10.3	10.3	9.2	14.5
12	12.8	13.1	13.6	13.1	13.3	13.8	13.9	12.6	15.6	13.9	13.4	11.7	9.0	5.6	9.6	13.6	16.9	15.2	14.6	12.6	10.1	8.3	7.9	2.9	12.0	16.9
13	4.2	5.5	10.2	11.6	11.9	12.5	12.5	11.7	7.6	8.5	9.4	4.9	8.7	17.1	18.9	18.6	17.1	14.6	15.4	15.4	10.1	4.7	2.5	3.0	10.7	18.9
14	3.1	7.5	10.2	11.6	12.0	14.1	15.5	11.4	8.5	14.3	16.1	12.2	10.5	15.4	14.8	17.2	16.9	14.8	11.3	9.5	9.9	12.1	12.2	19.0	12.5	19.0
15	25.9	24.3	21.3	19.4	22.3	18.8	24.7	28.3	32.1	27.8	25.0	24.3	25.5	24.3	23.0	20.6	18.0	17.7	16.2	17.5	13.7	18.2	16.9	22.4	22.0	32.1
16	22.8	19.0	20.5	16.4	18.0	20.3	18.7	18.7	22.3	21.0	18.0	17.1	17.9	11.8	17.4	18.4	12.7	8.4	15.3	17.4	13.4	12.5	13.5	14.6	16.9	22.8
17	13.4	12.5	12.2	12.3	10.8	9.2	4.2	1.4	1.8	1.2	5.2	10.7	16.3	15.8	16.2	18.2	18.1	15.5	10.6	11.2	10.2	3.8	7.1	11.3	10.4	18.2
18	12.2	14.2	20.1	21.2	22.7	26.4	25.6	29.3	31.0	27.4	28.1	37.7	42.6	41.9	38.0	39.0	39.2	40.4	39.0	39.8	47.6	44.4	38.0	36.3	32.6	47.6
19	37.8	40.1	42.1	40.0	43.5	47.4	43.0	41.8	49.4	45.2	41.8	36.9	32.4	37.8	34.4	35.2	30.3	29.6	25.9	21.8	21.1	20.7	22.5	13.1	34.7	49.4
20	8.9	9.6	11.8	15.4	15.7	23.3	22.6	27.6	29.7	31.1	34.8	37.0	36.4	40.8	40.8	40.5	39.3	38.5	32.6	27.4	33.0	36.9	35.8	36.9	29.4	40.8
21	37.4	40.0	46.8	43.1	42.9	39.6	35.8	43.3	39.7	36.8	49.4	49.7	47.3	48.6	51.6	54.0	55.5	52.0	48.3	40.7	41.0	38.5	31.6	23.9	43.2	55.5
22	22.6	19.3	19.1	17.9	13.6	12.8	15.3	19.8	16.4	25.4	25.0	25.7	27.7	23.3	20.9	17.6	13.2	7.2	3.8	9.1	14.1	14.3	9.8	10.0	16.8	27.7
23	11.0	7.2	5.5	14.2	14.0	10.5	9.7	14.7	8.8	7.1	24.2	24.4	25.9	23.5	18.5	25.8	25.5	18.3	16.7	13.0	8.3	7.7	8.7	9.6	14.7	25.9
24	9.6	10.2	10.9	11.3	13.2	16.8	18.8	18.1	17.3	17.9	22.4	22.4	31.7	32.6	34.9	31.7	33.7	33.9	33.8	30.8	32.9	38.2	40.2	40.4	25.2	40.4
25	44.4	49.3	49.0	55.4	56.9	56.4	58.8	53.9	49.7	47.1	32.3	35.1	29.6	29.4	31.0	37.1	28.4	24.2	22.2	19.2	18.6	14.9	12.4	19.0	36.4	58.8
26	25.5	27.6	27.2	24.5	20.3	14.3	12.3	13.0	13.9	13.0	6.5	14.6	22.2	21.9	22.3	23.2	23.8	20.4	17.8	14.9	15.6	11.8	11.7	11.4	17.9	27.6
27	13.0	16.1	19.8	20.7	17.9	15.0	12.1	4.6	6.1	6.9	3.2	6.4	9.7	18.4	19.0	24.8	24.8	25.6	23.5	27.1	24.5	26.7	29.7	29.7	17.7	29.7
28	27.1	31.5	29.7	32.8	36.4	36.0	35.3	35.1	34.3	30.9	35.0	33.1	34.4	37.1	40.1	38.2	37.5	28.9	38.0	43.2	44.4	39.2	48.1	37.3	36.0	48.1
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100.0%
MEAN	17.6	17.4	17.5	17.6	17.5	18.7	19.1	19.3	19.4	19.4	20.3	21.1	22.5	23.5	23.2	23.8	22.4	20.5	19.6	19.0	19.0	18.3	18.3	18.0		
MAX	44.4	49.3	49.0	55.4	56.9	56.4	58.8	53.9	49.7	47.1	49.4	49.7	47.3	48.6	51.6	54.0	55.5	52.0	48.3	43.2	47.6	44.4	48.1	40.4		



Number of Non-Zero Readings	672
Maximum 1-HR Average	58.8 KM/HR
Maximum 24-HR Average	43.2 KM/HR
Monthly Calibration	0
Standard Deviation	11.3
Operational Time	672 HRS
Operational Uptime	100.0 %
Monthly Average	19.7 KM/HR

Lagoon Wind Direction (°) – February 2021

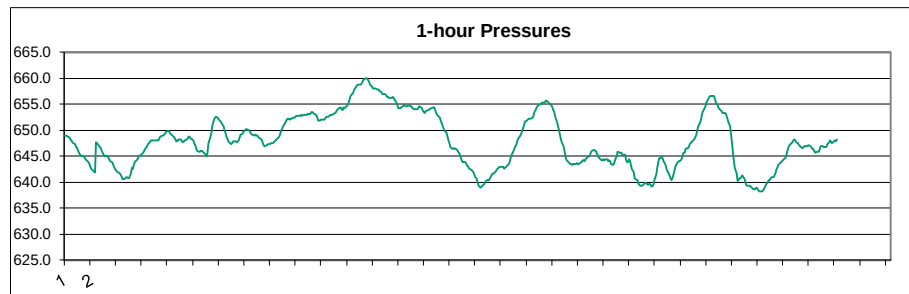
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	281.7	289.0	267.1	259.5	246.2	280.9	293.3	278.6	264.5	267.0	252.7	247.6	265.3	279.2	281.2	285.4	279.8	273.8	254.0	262.2	264.4	100.4	270.0	271.1	270.5	293.3
2	288.6	250.4	245.6	251.3	267.5	245.3	249.6	73.2	252.4	266.1	257.8	325.2	73.4	68.6	67.6	74.6	84.0	70.5	66.5	69.2	84.5	91.9	83.7	84.7	59.4	325.2
3	89.2	85.8	80.8	84.1	80.9	67.9	63.8	59.3	124.4	230.7	250.3	172.9	68.8	74.8	74.6	67.4	73.2	310.3	232.2	238.5	228.0	278.8	254.7	249.7	88.8	310.3
4	241.3	211.5	293.6	209.6	328.5	264.1	254.0	254.9	257.1	267.6	268.1	265.2	260.1	258.7	255.3	251.9	257.3	293.4	71.1	83.8	87.5	91.3	101.1	82.6	258.5	328.5
5	70.5	65.6	280.5	212.5	207.4	70.4	78.8	67.6	67.6	68.0	157.6	121.3	66.9	76.4	80.9	55.5	61.8	69.4	58.9	61.5	65.6	71.0	64.9	63.6	72.4	280.5
6	63.8	82.7	66.6	73.0	67.6	74.4	74.0	68.1	70.7	63.2	72.7	62.9	72.8	75.2	81.5	81.9	87.7	97.9	102.8	87.4	78.1	72.5	74.4	72.5	76.1	102.8
7	77.9	80.2	67.9	57.2	57.3	63.3	61.0	89.9	53.7	240.8	245.3	251.7	214.3	81.5	71.1	67.7	61.8	59.9	63.2	73.5	65.1	76.1	70.2	64.4	68.9	251.7
8	59.8	58.9	60.3	61.5	63.9	62.9	70.8	72.5	66.0	67.8	73.2	75.4	78.2	82.2	82.8	92.0	95.2	93.2	74.6	97.5	91.5	71.8	70.2	78.7	73.4	97.5
9	68.7	67.1	74.9	92.1	300.7	271.4	271.9	257.4	246.8	254.7	243.6	248.9	241.1	250.4	283.9	78.9	67.9	58.0	67.3	81.5	88.1	69.2	74.4	71.0	64.8	300.7
10	60.1	62.1	59.7	60.3	63.9	64.5	69.5	64.0	56.5	59.9	73.3	78.3	81.3	82.3	83.2	83.2	87.4	83.3	87.7	80.3	69.0	76.3	68.5	68.0	72.5	87.7
11	71.8	79.9	91.7	22.9	139.2	241.1	242.0	251.4	248.4	249.0	243.8	232.7	159.6	78.3	80.7	76.9	101.2	82.7	84.0	105.1	268.9	245.0	234.0	241.9	165.0	268.9
12	246.8	269.6	275.7	267.8	271.5	274.3	272.2	279.4	249.4	260.2	253.6	252.4	241.5	245.8	89.9	81.8	75.7	93.9	99.8	103.2	78.6	81.3	96.1	46.9	253.5	279.4
13	317.5	251.4	256.5	252.2	249.7	250.4	254.0	251.0	247.3	252.5	243.8	248.6	130.1	78.2	78.0	80.9	86.6	66.1	62.7	58.2	89.1	104.0	66.4	140.4	102.1	317.5
14	157.9	238.7	238.2	238.3	248.7	270.7	282.0	251.8	255.9	254.7	243.9	252.9	259.5	81.8	74.2	64.1	71.5	73.1	67.5	71.2	78.5	77.2	77.1	322.7	304.9	322.7
15	279.7	291.0	292.3	287.3	290.9	295.5	321.1	313.6	318.6	314.1	309.4	295.7	295.6	294.8	298.9	305.3	314.6	311.7	314.0	305.4	297.0	318.6	304.5	324.5	304.1	324.5
16	322.6	315.4	313.9	315.7	318.1	326.8	313.7	305.9	319.7	311.0	305.6	315.2	306.4	299.8	270.4	247.1	322.8	164.6	5.5	86.0	71.5	69.9	68.4	77.3	323.3	326.8
17	78.4	71.3	60.8	62.2	63.8	71.8	108.3	16.3	131.3	30.5	95.5	79.9	76.1	85.5	93.5	78.2	72.2	82.2	95.9	110.6	93.0	81.3	255.1	253.0	80.8	255.1
18	232.4	278.7	310.2	307.9	318.9	323.3	308.7	325.6	327.1	319.8	297.2	265.4	258.9	258.7	257.3	255.8	253.2	254.3	261.5	256.9	263.5	269.6	266.3	258.4	275.7	327.1
19	256.7	256.9	251.7	251.7	252.6	253.8	252.8	253.0	255.9	263.7	260.0	258.1	271.2	262.2	264.7	261.9	268.3	261.5	259.9	257.4	252.1	257.8	266.0	273.4	258.5	273.4
20	257.8	254.1	272.7	277.5	270.2	257.8	266.6	265.8	265.5	261.7	263.2	266.4	265.9	266.5	265.7	267.0	262.1	269.1	268.4	259.1	262.8	265.8	266.2	265.8	265.3	277.5
21	264.2	263.4	258.9	265.1	263.3	262.7	255.5	259.4	260.6	259.9	262.9	258.7	261.2	269.2	268.2	265.2	268.9	267.5	264.5	259.7	254.6	261.3	274.4	271.9	263.4	274.4
22	272.2	273.0	269.7	265.9	274.7	280.3	276.1	263.6	274.3	261.1	256.4	253.5	251.4	239.7	249.8	250.3	248.2	224.0	152.2	267.4	343.1	121.8	84.8	54.9	261.3	343.1
23	50.4	94.7	265.3	280.4	283.5	290.0	271.7	290.4	287.1	238.0	255.7	257.4	259.0	262.3	249.8	256.9	264.5	271.4	253.6	233.0	237.4	274.8	250.6	264.4	264.0	290.4
24	255.8	270.8	272.7	282.9	288.2	280.1	300.9	291.8	271.6	292.9	306.7	271.4	267.5	276.6	273.2	264.0	264.6	257.1	256.8	262.4	263.5	262.5	261.3	257.9	270.1	306.7
25	265.0	263.8	260.9	260.8	261.4	259.2	256.2	253.4	252.2	248.7	257.1	248.5	252.4	255.8	256.7	268.0	273.6	264.3	254.6	253.1	252.9	253.4	267.3	252.2	258.1	273.6
26	256.7	271.1	271.8	270.2	275.4	291.4	307.9	307.8	322.6	308.2	303.8	110.9	73.7	78.9	80.8	77.4	83.7	86.5	86.7	92.0	82.9	75.6	68.6	63.5	31.1	322.6
27	70.9	69.1	65.4	62.5	71.0	74.9	76.4	94.3	108.8	76.0	308.7	259.3	258.6	249.6	250.7	252.4	252.7	252.7	250.0	250.8	243.3	250.6	251.4	254.8	251.7	308.7
28	253.4	252.5	247.6	248.6	250.7	248.1	254.6	255.8	253.6	255.1	249.0	252.2	262.7	266.4	266.1	262.3	258.3	245.4	256.3	253.6	257.0	262.5	258.4	255.4	255.6	266.4
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100.0%
MEAN	186.1	190.0	206.2	199.3	217.0	214.9	218.1	207.7	218.2	223.0	236.1	222.5	199.1	185.0	179.9	169.8	175.0	176.4	156.2	165.0	171.8	161.9	169.6	178.1		
MAX	322.6	315.4	313.9	315.7	328.5	326.8	321.1	325.6	327.1	319.8	309.4	325.2	306.4	299.8	298.9	305.3	322.8	311.7	314.0	305.4	343.1	318.6	304.5	324.5		



Number of Non-Zero Readings	672		
Maximum 1-HR Average	343 degrees		
Maximum 24-HR Average	323 degrees		
Monthly Calibration	0	Operational Time	672 HRS
Standard Deviation	95.03	Operational Uptime	100.0 %
		Monthly Average	192.8 degrees

Lagoon Pressure (mmHg) – February 2021

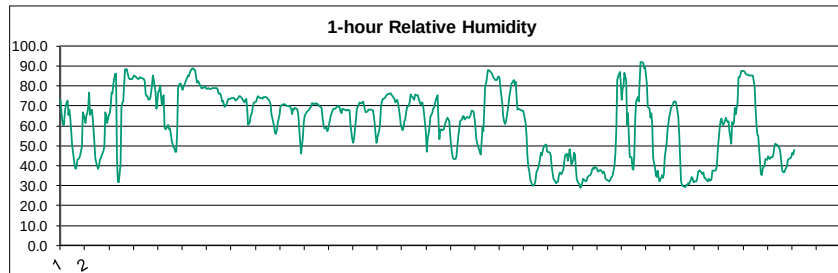
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	648.9	648.9	649.0	648.8	648.6	648.3	648.1	647.6	647.6	647.3	646.8	646.6	646.0	645.6	645.3	645.0	645.1	645.0	644.8	644.4	644.0	643.8	643.5	643.0	646.3	649.0
2	642.6	642.3	642.1	641.9	641.7	641.4	641.1	640.6	640.6	640.8	640.9	641.0	640.9	640.8	641.7	642.8	642.6	643.3	643.8	644.0	644.5	644.9	645.1	645.1	642.4	645.1
3	645.3	645.7	646.1	646.5	646.6	646.9	647.4	647.6	648.0	648.0	648.1	648.0	648.0	648.0	648.1	648.1	648.4	648.7	648.9	649.0	649.1	649.3	649.6	649.9	647.9	649.9
4	649.9	649.6	649.4	649.2	649.0	648.7	648.1	647.9	647.9	648.2	648.3	648.2	647.8	647.6	647.9	648.0	648.1	648.4	648.8	648.7	648.4	648.3	648.0	647.5	648.4	649.9
5	647.1	646.6	646.1	645.9	645.8	646.0	646.1	645.9	645.6	645.3	644.9	645.6	647.5	648.0	649.4	650.7	651.5	652.1	652.4	652.5	652.3	652.1	651.9	651.7	648.5	652.5
6	651.3	650.7	650.1	649.5	648.8	648.4	647.8	647.5	647.4	647.5	647.8	647.9	647.8	647.6	647.9	648.1	648.5	649.1	649.4	649.6	649.8	650.0	650.2	650.0	648.9	651.3
7	650.0	649.6	649.4	649.2	649.0	649.0	649.2	649.0	648.9	648.5	648.4	648.2	647.8	647.3	647.0	647.0	647.1	647.3	647.4	647.3	647.5	647.5	647.7	647.9	648.2	650.0
8	648.0	648.2	648.4	648.8	649.4	650.0	650.3	650.7	651.2	651.7	652.0	652.2	652.2	652.1	652.3	652.3	652.4	652.4	652.6	652.8	652.8	652.8	652.8	652.9	651.3	652.9
9	652.8	653.0	653.0	653.0	652.9	653.1	653.2	653.2	653.4	653.5	653.3	653.2	653.0	652.5	651.9	651.8	651.8	652.0	652.1	652.0	652.1	652.3	652.5	652.6	652.7	653.5
10	652.8	652.9	652.9	653.0	653.2	653.3	653.4	653.8	654.1	654.3	654.3	654.1	653.8	654.3	654.3	654.4	654.8	655.2	655.7	656.5	656.8	657.2	657.6	658.0	656.6	658.0
11	658.2	658.6	658.7	658.7	658.8	659.0	659.4	659.6	659.9	660.0	659.9	659.6	659.3	658.8	658.4	658.1	658.1	658.1	657.9	657.8	657.6	657.5	657.5	657.4	658.6	660.0
12	657.0	656.9	657.0	656.7	656.4	656.4	656.3	656.3	656.3	656.4	656.2	655.9	655.4	654.7	654.3	654.2	654.3	654.3	654.6	655.0	654.8	654.5	654.6	654.8	655.5	657.0
13	654.7	654.5	654.5	654.2	654.0	654.1	654.1	654.0	654.3	654.6	654.5	654.2	653.8	653.4	653.3	653.6	653.8	653.9	654.1	654.2	654.2	654.3	654.3	653.9	654.1	654.7
14	653.4	652.9	652.8	652.4	651.7	651.3	650.8	650.3	649.8	649.5	648.8	648.1	647.5	646.9	646.4	646.3	646.5	646.4	646.4	646.2	645.8	645.2	644.7	644.3	648.5	653.4
15	643.9	643.9	643.9	643.5	643.1	642.9	642.6	642.4	642.3	642.1	641.6	641.2	640.6	639.8	639.3	639.1	639.0	639.2	639.4	639.7	640.0	640.2	640.4	640.4	641.3	643.9
16	640.7	641.2	641.5	641.7	641.7	642.0	642.3	642.5	642.8	643.0	643.0	643.0	643.0	642.6	642.7	643.0	643.3	643.5	644.1	644.8	645.3	646.0	646.6	647.0	643.2	647.0
17	647.4	648.0	648.5	648.9	649.3	649.8	650.3	651.0	651.6	651.9	652.1	652.3	652.2	652.2	652.4	652.9	653.4	653.8	654.2	654.7	654.9	655.0	655.1	655.3	652.0	655.3
18	655.3	655.4	655.6	655.7	655.5	655.4	655.1	654.7	654.4	653.9	653.4	652.6	651.6	650.7	650.0	649.1	648.3	647.7	646.8	645.9	644.7	644.2	644.1	643.8	651.0	655.7
19	643.5	643.4	643.4	643.6	643.5	643.5	643.6	643.6	643.6	643.6	643.9	644.2	644.2	644.0	644.3	644.5	645.0	645.0	645.4	645.9	646.1	646.2	646.1	646.0	644.4	646.2
20	645.5	645.1	644.8	644.5	644.3	644.2	644.3	644.3	644.3	644.3	644.1	644.3	644.1	643.4	643.2	643.6	644.0	644.6	645.0	645.8	646.1	645.6	645.6	645.3	644.6	645.8
21	645.2	645.4	644.3	643.9	643.9	644.4	644.2	642.6	642.2	642.1	640.7	640.6	640.5	639.8	639.6	639.3	639.4	639.4	639.6	639.9	639.8	639.6	639.5	639.6	641.5	645.4
22	639.6	639.1	639.4	639.6	640.4	641.5	642.8	643.9	644.6	644.7	645.0	644.4	643.8	643.7	643.2	642.4	641.7	641.3	640.7	640.4	640.8	642.0	643.0	643.2	642.1	645.0
23	643.6	643.9	644.1	644.1	644.7	645.3	645.7	645.7	646.3	646.6	646.6	647.1	647.5	647.7	648.1	648.2	648.6	649.0	649.6	650.5	651.3	651.9	652.7	653.4	647.6	653.4
24	653.9	654.6	655.3	655.8	656.1	656.3	656.6	656.6	656.6	656.5	656.0	655.2	654.7	654.2	654.0	653.8	653.7	653.4	653.3	653.3	652.9	652.4	651.7	650.8	654.5	656.6
25	649.4	647.6	645.9	644.2	642.8	641.7	640.3	640.3	640.8	640.7	641.3	641.0	640.8	640.2	639.6	639.3	639.3	639.2	639.1	639.0	638.7	638.6	638.7	639.0	641.2	649.4
26	638.7	638.4	638.2	638.2	638.2	638.5	638.8	639.2	639.5	640.0	640.4	640.4	640.7	640.9	641.0	641.2	641.6	642.3	642.8	643.4	643.7	643.8	644.0	644.2	640.8	644.2
27	644.4	644.8	645.5	646.2	646.7	647.2	647.4	647.8	648.1	648.3	648.0	647.7	647.5	647.2	647.0	646.8	646.7	646.7	646.9	646.9	647.0	646.9	647.2	647.0	646.9	648.3
28	646.7	646.5	646.4	646.0	645.8	645.8	645.9	645.9	646.4	647.0	646.9	646.8	646.8	646.7	646.7	647.2	647.7	648.0	647.7	647.5	647.7	648.1	647.8	648.2	646.9	648.2
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100.0%
MEAN	648.2	648.1	648.1	648.0	647.9	648.0	648.0	648.0	648.2	648.2	648.1	648.0	647.8	647.5	647.5	647.5	647.7	647.8	648.0	648.1	648.2	648.2	648.3	648.3	648.3	
MAX	658.2	658.6	658.7	658.7	658.8	659.0	659.4	659.6	659.9	660.0	659.9	659.6	659.3	658.8	658.4	658.1	658.1	658.1	658.1	657.9	657.8	657.6	657.6	658.0		



Number of Non-Zero Readings	672		
Maximum 1-HR Average	660 MMHg		
Maximum 24-HR Average	659 MMHg		
Monthly Calibration	0	Operational Time	672 HRS
Standard Deviation	5.189	Operational Uptime	100.0 %
		Monthly Average	648.0 MMHg

Lagoon Relative Humidity (%) – February 2021

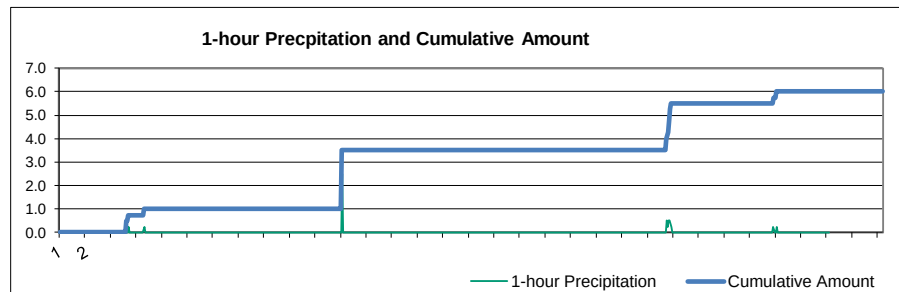
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	73.0	63.3	60.7	60.6	66.6	70.3	72.4	65.4	68.2	63.9	57.6	50.7	43.1	39.6	38.6	39.6	42.8	43.7	45.3	47.4	49.7	67.0	65.5	61.3	56.5	73.0
2	65.2	66.4	69.6	76.9	76.3	81.1	86.1	86.1	43.7	32.2	31.8	40.8	69.4	71.8	72.3	80.7	88.4	88.2	86.2	84.4	83.5	83.6	83.3	84.2	72.2	88.4
3	85.0	84.9	84.7	83.9	83.4	84.3	84.2	83.9	83.8	83.6	82.2	75.8	75.0	74.7	73.0	73.5	76.6	80.1	85.3	83.0	76.5	68.8	72.3	77.1	79.8	85.3
4	77.6	80.1	70.2	73.8	75.4	58.9	58.3	58.5	60.5	58.2	58.5	56.2	52.5	49.1	48.9	46.8	47.0	56.1	78.9	81.2	81.0	79.3	77.8	79.5	65.2	81.2
5	81.4	82.9	84.1	85.1	84.9	86.4	88.4	88.9	88.6	88.0	87.9	81.7	82.3	81.8	80.1	80.3	79.0	78.7	79.6	79.6	79.0	78.2	78.7	78.6	82.7	88.9
6	78.6	78.6	78.8	79.0	79.0	79.0	79.1	78.2	76.1	76.1	75.0	72.4	72.5	70.9	69.5	70.8	72.1	73.5	73.6	73.7	74.0	73.9	73.9	73.5	75.1	79.1
7	72.8	73.1	73.9	74.9	74.7	74.4	73.9	72.8	71.8	73.0	73.5	68.5	60.3	61.9	65.2	65.8	68.3	71.1	71.8	72.3	73.9	74.9	74.6	74.2	71.3	74.9
8	73.9	73.6	74.4	74.3	74.2	74.6	73.4	73.1	72.0	71.0	65.7	62.0	59.5	56.3	55.9	57.9	61.2	65.4	69.3	70.4	70.2	70.8	70.8	70.3	68.3	74.6
9	70.0	70.1	69.7	70.0	68.8	65.9	68.5	68.2	68.8	68.7	68.1	64.9	58.2	52.1	45.9	54.2	61.6	65.0	65.7	66.6	67.7	68.0	68.9	69.3	65.2	70.1
10	71.1	71.4	71.0	71.5	71.4	70.8	70.7	70.0	69.7	68.4	63.7	60.4	58.8	59.1	57.5	57.6	60.4	62.5	65.2	67.5	68.5	68.4	68.8	69.0	66.4	71.5
11	69.7	69.7	69.1	67.3	66.3	68.5	68.0	67.9	67.7	67.8	68.2	67.8	61.0	56.7	53.4	51.4	53.9	62.9	68.0	69.6	70.2	71.7	71.4	71.5	65.8	71.7
12	72.0	70.3	68.3	67.0	67.3	68.1	68.1	68.0	68.2	67.7	64.9	60.9	55.7	51.6	54.2	57.8	61.5	70.0	72.1	73.3	73.3	74.4	75.1	75.9	66.9	75.9
13	75.6	76.0	76.3	75.4	74.8	73.8	73.4	71.9	72.9	71.4	68.2	64.8	60.4	57.8	59.1	62.3	63.2	66.9	69.3	70.1	72.1	75.5	75.0	74.3	70.0	76.3
14	73.2	75.6	75.4	75.5	75.3	73.4	71.0	71.5	71.8	69.4	65.8	56.5	46.9	53.8	55.8	59.5	64.6	66.2	68.4	69.2	70.6	73.1	75.3	62.2	67.5	75.6
15	53.1	57.7	58.4	57.7	58.0	60.6	61.6	63.3	63.9	62.2	55.7	50.6	46.7	44.0	43.3	43.4	44.8	49.5	54.8	58.0	62.5	63.1	64.3	64.7	55.9	64.7
16	63.2	63.5	64.7	64.1	63.9	64.4	65.6	67.5	67.4	64.3	60.7	53.7	51.4	48.4	47.0	45.8	51.5	59.2	57.2	80.1	81.1	84.3	88.1	87.8	64.4	88.1
17	87.0	86.5	85.7	84.1	84.1	83.1	82.8	84.1	84.8	83.8	78.9	71.1	65.0	62.4	60.9	61.9	64.6	70.8	75.3	77.6	80.5	81.5	83.0	80.7	77.5	87.0
18	82.1	73.9	67.9	68.5	68.1	67.7	67.5	67.8	66.1	61.4	55.7	45.2	39.4	37.5	33.5	30.7	29.9	30.5	30.5	32.7	36.4	38.9	40.9	43.5	50.7	82.1
19	46.7	45.1	49.4	49.8	50.7	50.4	47.0	46.8	46.4	45.3	39.9	36.6	33.4	31.9	31.0	31.4	31.9	34.9	36.4	35.7	36.9	38.1	42.2	45.4	41.0	50.7
20	46.2	42.6	44.6	48.2	45.2	40.4	43.0	46.3	45.5	38.2	33.2	31.2	30.6	29.1	29.7	31.3	33.3	32.5	32.1	32.8	34.1	34.8	35.1	36.3	37.3	48.2
21	37.8	39.0	38.5	39.4	38.6	37.5	36.9	37.5	37.7	36.9	36.4	37.1	35.8	33.7	32.9	32.7	31.9	32.4	34.0	34.5	35.4	40.1	46.6	58.0	37.5	58.0
22	82.8	84.6	86.9	81.0	73.0	78.5	80.0	86.4	82.3	60.3	66.2	54.2	44.2	44.4	38.5	37.9	45.1	62.7	72.2	74.6	72.2	82.7	91.9	92.2	69.8	92.2
23	91.3	88.9	89.5	85.3	81.0	69.6	68.4	63.9	66.3	60.3	43.9	39.1	35.0	34.3	37.3	34.2	32.2	33.9	35.1	33.9	36.0	44.5	50.9	57.9	54.7	91.3
24	61.4	64.7	66.9	68.9	70.9	72.1	72.1	72.0	70.5	64.7	56.1	44.1	32.5	30.4	29.9	29.4	29.6	30.4	30.5	31.1	30.7	32.8	34.4	33.3	48.3	72.1
25	31.8	32.2	31.9	33.6	36.5	37.4	37.5	36.9	35.5	36.5	34.0	34.1	33.1	32.0	33.6	32.6	32.4	33.5	37.4	37.6	37.7	38.1	40.2	48.4	35.6	48.4
26	58.9	62.1	63.7	61.2	60.6	61.2	64.1	62.5	62.0	62.4	57.1	51.1	61.9	60.5	61.7	69.0	65.9	71.8	84.4	84.3	85.1	87.4	87.3	87.4	68.1	87.4
27	87.0	86.2	85.6	85.5	85.4	85.1	85.1	85.0	85.1	80.0	69.1	60.9	55.4	55.2	48.1	35.8	35.3	38.5	39.8	39.8	43.2	43.0	44.7	43.7	62.6	87.0
28	43.4	44.1	44.3	46.2	49.6	51.0	50.7	50.5	49.1	48.3	45.3	40.4	37.2	36.5	38.0	38.7	39.8	43.0	43.4	43.7	44.8	46.4	45.7	47.8	44.5	51.0
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100.0%
MEAN	68.3	68.1	68.0	68.2	68.0	67.5	67.8	67.7	65.9	63.0	59.4	54.8	52.0	50.6	49.8	50.5	52.5	56.2	59.4	60.9	61.7	63.7	65.2	66.0		
MAX	91.3	88.9	89.5	85.5	85.4	86.4	88.4	88.9	88.6	88.0	87.9	81.7	82.3	81.8	80.1	80.7	88.4	88.2	86.2	84.4	85.1	87.4	91.9	92.2		



Number of Non-Zero Readings	672
Maximum 1-HR Average	92.2 %
Maximum 24-HR Average	82.7 %
Monthly Calibration	0
Standard Deviation	16.82
Operational Time	672 HRS
Operational Uptime	100.0 %
Monthly Average	61.5 %

Lagoon Precipitation (mm) – February 2021

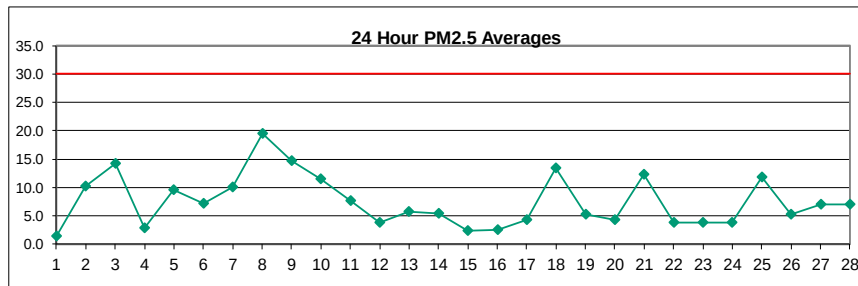
HOURLY																										
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
3	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	0.3
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
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	0.0
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	0.5	0.3	0.5	0.1	0.5
23	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.3	0.0	0.0	0.0	0.3
27	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	0.3
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
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100%
MEAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	0.5	0.3	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	0.5	0.0	2.5	0.0	0.0	0.0	0.5	0.3	0.5	0.0	0.0



Number of Non-Zero Readings	11		
Maximum 1-HR Average	2.5 MM		
Maximum 24-HR Average	0.1 MM		
Monthly Calibration	0	Operational Time	672 HRS
Standard Deviation	0.106	Operational Uptime	100.0 %
		Monthly Average	0.01 MM

Windridge PM_{2.5} (µg/m³) – February 2021

HOUR																											
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	MEAN	MAX	
1	0.0	0.0	3.0	2.0	2.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	3.0	3.0	C	3.0	5.0	4.0	0.0	0.0	0.0	2.0	2.0	2.0	1.5	5.0	
2	2.0	0.0	1.0	2.0	2.0	3.0	2.0	1.0	0.0	3.0	3.0	2.0	2.0	25.0	20.0	20.0	23.0	26.0	21.0	17.0	19.0	21.0	13.0	19.0	10.3	26.0	
3	14.0	12.0	14.0	10.0	17.0	12.0	13.0	10.0	10.0	9.0	18.0	18.0	35.0	23.0	15.0	15.0	16.0	14.0	17.0	24.0	12.0	9.0	4.0	0.0	14.2	35.0	
4	0.0	0.0	0.0	1.0	0.0	0.0	3.0	7.0	7.0	4.0	4.0	4.0	2.0	2.0	4.0	4.0	3.0	4.0	2.0	0.0	3.0	5.0	4.0	5.0	2.8	7.0	
5	6.0	7.0	6.0	4.0	6.0	5.0	5.0	7.0	13.0	20.0	25.0	31.0	17.0	11.0	11.0	8.0	7.0	9.0	8.0	10.0	5.0	3.0	4.0	3.0	9.6	31.0	
6	5.0	9.0	7.0	6.0	6.0	7.0	6.0	6.0	4.0	6.0	6.0	10.0	9.0	7.0	8.0	13.0	9.0	10.0	6.0	7.0	7.0	5.0	6.0	9.0	7.3	13.0	
7	6.0	11.0	10.0	8.0	7.0	6.0	7.0	5.0	10.0	10.0	10.0	12.0	17.0	14.0	19.0	15.0	12.0	9.0	12.0	9.0	6.0	8.0	7.0	11.0	10.0	19.0	
8	8.0	8.0	9.0	9.0	9.0	11.0	13.0	19.0	11.0	17.0	19.0	33.0	38.0	36.0	28.0	29.0	31.0	28.0	25.0	24.0	22.0	18.0	16.0	9.0	19.6	38.0	
9	8.0	6.0	7.0	11.0	11.0	12.0	17.0	14.0	16.0	10.0	17.0	16.0	P	17.0	17.0	21.0	33.0	21.0	16.0	12.0	17.0	8.0	16.0	14.0	14.7	33.0	
10	21.0	22.0	13.0	18.0	13.0	12.0	8.0	10.0	18.0	17.0	17.0	14.0	12.0	8.0	9.0	8.0	5.0	5.0	5.0	5.0	10.0	7.0	9.0	9.0	11.5	22.0	
11	8.0	9.0	9.0	7.0	5.0	5.0	6.0	8.0	8.0	7.0	8.0	6.0	6.0	11.0	13.0	8.0	3.0	7.0	10.0	11.0	8.0	7.0	6.0	8.0	7.7	13.0	
12	7.0	5.0	3.0	4.0	4.0	3.0	6.0	1.0	0.0	2.0	3.0	3.0	4.0	4.0	3.0	5.0	4.0	2.0	4.0	3.0	5.0	6.0	5.0	7.0	3.9	7.0	
13	4.0	4.0	8.0	6.0	9.0	5.0	3.0	9.0	8.0	6.0	4.0	3.0	1.0	6.0	9.0	6.0	5.0	8.0	7.0	7.0	5.0	4.0	3.0	9.0	5.8	9.0	
14	8.0	8.0	12.0	9.0	8.0	7.0	4.0	2.0	2.0	2.0	1.0	1.0	2.0	1.0	4.0	5.0	6.0	5.0	4.0	8.0	9.0	7.0	6.0	8.0	5.4	12.0	
15	7.0	5.0	3.0	6.0	6.0	7.0	6.0	1.0	1.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.0	0.0	2.0	3.0	1.0	2.0	2.4	7.0	
16	1.0	0.0	0.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.0	1.0	0.0	2.0	1.0	1.0	3.0	2.0	8.0	11.0	14.0	11.0	2.6	14.0	
17	7.0	5.0	4.0	2.0	2.0	5.0	5.0	2.0	1.0	5.0	9.0	10.0	5.0	3.0	8.0	5.0	3.0	4.0	6.0	4.0	1.0	3.0	3.0	3.0	4.4	10.0	
18	5.0	5.0	2.0	4.0	3.0	0.0	2.0	3.0	1.0	1.0	3.0	6.0	18.0	17.0	26.0	22.0	17.0	40.0	31.0	26.0	22.0	29.0	22.0	17.0	13.4	40.0	
19	6.0	6.0	14.0	9.0	9.0	5.0	4.0	5.0	7.0	7.0	11.0	11.0	6.0	0.0	1.0	6.0	6.0	7.0	2.0	1.0	1.0	1.0	2.0	0.0	5.3	14.0	
20	0.0	0.0	1.0	3.0	1.0	0.0	0.0	1.0	0.0	0.0	4.0	4.0	10.0	9.0	11.0	8.0	6.0	6.0	5.0	6.0	7.0	7.0	8.0	6.0	4.3	11.0	
21	8.0	8.0	7.0	9.0	23.0	29.0	17.0	2.0	23.0	26.0	9.0	40.0	10.0	7.0	8.0	15.0	11.0	15.0	10.0	4.0	3.0	5.0	5.0	2.0	12.3	40.0	
22	0.0	3.0	5.0	4.0	2.0	1.0	0.0	0.0	3.0	2.0	6.0	8.0	12.0	9.0	5.0	7.0	6.0	3.0	1.0	7.0	5.0	2.0	1.0	2.0	3.9	12.0	
23	0.0	1.0	2.0	1.0	4.0	6.0	4.0	2.0	4.0	3.0	2.0	9.0	5.0	3.0	4.0	1.0	4.0	5.0	1.0	2.0	15.0	8.0	5.0	1.0	3.8	15.0	
24	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	5.0	19.0	6.0	4.0	3.0	3.0	3.0	9.0	9.0	12.0	8.0	8.0	3.9	19.0	
25	12.0	11.0	14.0	20.0	32.0	19.0	15.0	15.0	12.0	19.0	28.0	2.0	0.0	3.0	8.0	6.0	13.0	8.0	3.0	10.0	11.0	17.0	3.0	4.0	11.9	32.0	
26	5.0	5.0	8.0	6.0	4.0	10.0	7.0	6.0	3.0	2.0	1.0	3.0	7.0	9.0	6.0	4.0	7.0	7.0	8.0	4.0	6.0	4.0	1.0	5.0	5.3	10.0	
27	4.0	0.0	6.0	5.0	7.0	5.0	4.0	2.0	3.0	8.0	9.0	8.0	17.0	12.0	14.0	22.0	6.0	5.0	5.0	4.0	5.0	6.0	5.0	5.0	7.0	22.0	
28	3.0	5.0	7.0	6.0	10.0	25.0	6.0	9.0	6.0	6.0	9.0	10.0	8.0	4.0	3.0	7.0	4.0	0.0	2.0	7.0	11.0	8.0	5.0	7.0	7.0	7.0	25.0
NO.	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	670	99.9%	
MEAN	5.5	5.5	6.3	6.3	7.4	7.2	5.8	5.3	6.1	7.0	8.2	9.6	9.3	9.4	9.6	9.6	8.9	9.2	7.9	8.0	8.4	8.1	6.6	6.6	7.5		
MAX	21.0	22.0	14.0	20.0	32.0	29.0	17.0	19.0	23.0	26.0	28.0	40.0	38.0	36.0	28.0	29.0	33.0	40.0	31.0	26.0	22.0	29.0	22.0	19.0	17.4	70.0	

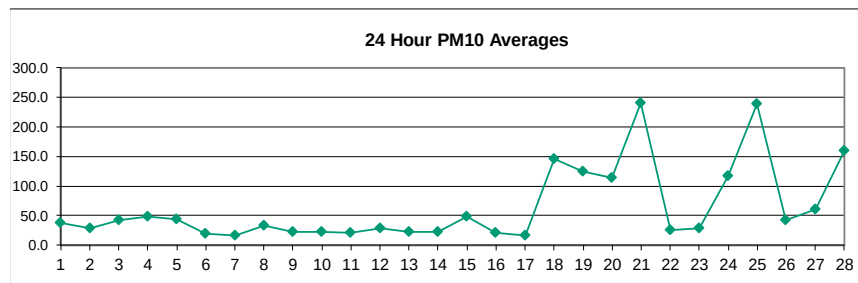


Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	612	
Maximum 1-HR Average	40.0 UG/M3	
Maximum 24-HR Average	19.6 UG/M3	
Monthly Calibration	1	Operational Time
Standard Deviation	7.0	Operational Uptime
		Monthly Average
		671 HRS
		99.9 %
		7.6 UG/M3

Windridge PM₁₀ (µg/m³) – February 2021

Day	HOUR																							
	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	10.0	6.0	17.0	10.0	30.0	10.0	11.0	6.0	7.0	6.0	11.0	59.0	72.0	72.0	72.0	C	129.0	76.0	17.0	18.0	42.0	71.0	89.0	16.0
2	10.0	7.0	13.0	7.0	5.0	5.0	6.0	11.0	10.0	29.0	43.0	73.0	27.0	71.0	38.0	37.0	68.0	37.0	50.0	29.0	24.0	32.0	22.0	28.0
3	36.0	47.0	56.0	51.0	56.0	22.0	45.0	53.0	33.0	16.0	66.0	107.0	65.0	39.0	35.0	30.0	25.0	20.0	25.0	60.0	69.0	22.0	14.0	8.0
4	4.0	7.0	5.0	2.0	0.0	31.0	44.0	91.0	68.0	107.0	128.0	116.0	103.0	84.0	69.0	55.0	43.0	87.0	37.0	19.0	11.0	9.0	12.0	13.0
5	8.0	9.0	8.0	26.0	11.0	11.0	11.0	15.0	16.0	27.0	24.0	45.0	109.0	221.0	138.0	90.0	106.0	60.0	33.0	26.0	18.0	9.0	19.0	9.0
6	16.0	14.0	9.0	10.0	13.0	12.0	11.0	11.0	24.0	24.0	19.0	53.0	27.0	20.0	27.0	31.0	23.0	19.0	21.0	16.0	17.0	22.0	21.0	13.0
7	13.0	18.0	11.0	8.0	8.0	6.0	10.0	10.0	14.0	11.0	32.0	25.0	37.0	39.0	39.0	28.0	19.0	15.0	9.0	12.0	10.0	10.0	13.0	10.0
8	20.0	14.0	17.0	25.0	26.0	36.0	26.0	39.0	47.0	41.0	31.0	35.0	49.0	40.0	41.0	36.0	35.0	30.0	36.0	42.0	27.0	40.0	35.0	17.0
9	23.0	17.0	24.0	18.0	19.0	17.0	17.0	22.0	18.0	17.0	26.0	22.0	P	29.0	30.0	29.0	47.0	24.0	22.0	20.0	19.0	21.0	20.0	32.0
10	34.0	31.0	24.0	25.0	21.0	19.0	17.0	14.0	21.0	21.0	19.0	26.0	26.0	15.0	22.0	15.0	11.0	17.0	13.0	19.0	40.0	29.0	28.0	24.0
11	15.0	28.0	14.0	16.0	6.0	12.0	13.0	11.0	26.0	23.0	39.0	25.0	58.0	31.0	28.0	18.0	16.0	14.0	15.0	19.0	16.0	14.0	26.0	25.0
12	17.0	67.0	12.0	9.0	7.0	7.0	20.0	13.0	15.0	65.0	35.0	69.0	124.0	62.0	39.0	18.0	4.0	35.0	18.0	19.0	10.0	7.0	6.0	9.0
13	8.0	9.0	16.0	25.0	22.0	39.0	16.0	33.0	66.0	44.0	74.0	31.0	12.0	21.0	10.0	12.0	10.0	15.0	19.0	15.0	10.0	11.0	13.0	14.0
14	16.0	19.0	18.0	13.0	21.0	10.0	8.0	7.0	7.0	9.0	30.0	66.0	41.0	22.0	31.0	22.0	11.0	9.0	12.0	12.0	9.0	11.0	11.0	132.0
15	209.0	121.0	33.0	59.0	163.0	128.0	43.0	69.0	26.0	39.0	34.0	20.0	27.0	36.0	38.0	27.0	25.0	24.0	10.0	5.0	1.0	5.0	4.0	4.0
16	5.0	5.0	3.0	5.0	3.0	4.0	6.0	1.0	5.0	10.0	11.0	16.0	16.0	24.0	43.0	121.0	23.0	41.0	23.0	34.0	16.0	24.0	34.0	32.0
17	26.0	16.0	22.0	11.0	9.0	10.0	7.0	12.0	7.0	12.0	73.0	60.0	26.0	6.0	4.0	4.0	12.0	9.0	18.0	8.0	7.0	6.0	11.0	8.0
18	5.0	8.0	5.0	6.0	16.0	14.0	32.0	25.0	43.0	30.0	42.0	127.0	267.0	224.0	188.0	123.0	205.0	253.0	176.0	177.0	135.0	442.0	485.0	467.0
19	168.0	200.0	437.0	129.0	174.0	76.0	72.0	65.0	77.0	105.0	277.0	134.0	132.0	177.0	147.0	99.0	138.0	104.0	52.0	45.0	43.0	39.0	39.0	47.0
20	14.0	8.0	5.0	3.0	7.0	14.0	74.0	28.0	50.0	58.0	115.0	131.0	254.0	182.0	315.0	240.0	286.0	176.0	200.0	118.0	73.0	125.0	138.0	123.0
21	189.0	152.0	95.0	267.0	485.0	485.0	399.0	85.0	485.0	485.0	345.0	485.0	187.0	114.0	236.0	231.0	331.0	228.0	158.0	51.0	62.0	89.0	72.0	31.0
22	19.0	18.0	27.0	20.0	30.0	8.0	7.0	8.0	16.0	11.0	38.0	57.0	58.0	58.0	36.0	51.0	31.0	61.0	14.0	9.0	7.0	11.0	16.0	2.0
23	7.0	7.0	4.0	9.0	10.0	8.0	5.0	1.0	8.0	8.0	18.0	51.0	54.0	56.0	48.0	47.0	80.0	87.0	37.0	55.0	44.0	39.0	6.0	5.0
24	4.0	6.0	5.0	4.0	3.0	3.0	3.0	4.0	5.0	24.0	25.0	21.0	127.0	197.0	194.0	124.0	158.0	180.0	221.0	222.0	366.0	395.0	285.0	236.0
25	385.0	449.0	354.0	468.0	485.0	459.0	359.0	411.0	259.0	247.0	166.0	127.0	49.0	84.0	103.0	161.0	277.0	240.0	98.0	106.0	143.0	126.0	94.0	96.0
26	64.0	95.0	102.0	76.0	67.0	67.0	10.0	11.0	8.0	7.0	11.0	14.0	19.0	23.0	15.0	22.0	53.0	22.0	86.0	94.0	10.0	48.0	60.0	47.0
27	36.0	33.0	43.0	50.0	46.0	31.0	14.0	8.0	11.0	11.0	30.0	16.0	15.0	18.0	39.0	73.0	91.0	148.0	112.0	80.0	122.0	130.0	194.0	93.0
28	85.0	154.0	178.0	119.0	189.0	187.0	136.0	194.0	242.0	242.0	199.0	218.0	193.0	122.0	123.0	107.0	97.0	87.0	78.0	136.0	171.0	181.0	139.0	265.0

NO.	28	28	28	28	28	28	28	28	28	28	28	28	27	28	28	27	28	28	28	28	28	28	28	28
MEAN	51.6	55.9	55.6	52.5	69.0	61.8	50.8	44.9	57.6	61.8	70.0	79.6	80.5	74.5	76.7	68.6	84.1	75.6	57.5	52.4	54.4	70.3	68.1	64.5
MAX	385.0	449.0	437.0	468.0	485.0	485.0	399.0	411.0	485.0	485.0	345.0	485.0	267.0	224.0	315.0	240.0	331.0	253.0	221.0	222.0	366.0	442.0	485.0	467.0



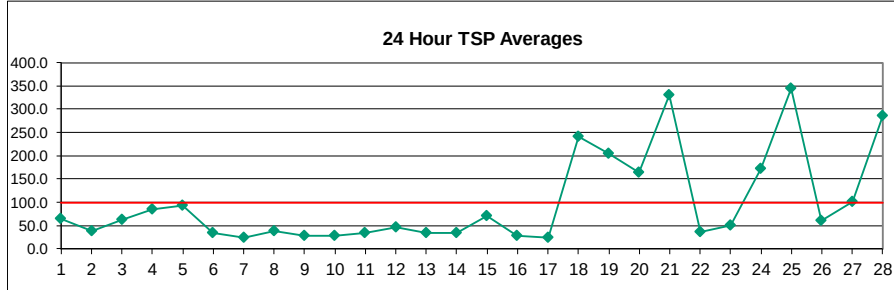
Number of Non-Zero Readings	669		
Maximum 1-HR Average	485.0 UG/M3		
Maximum 24-HR Average	239.5 UG/M3		
Monthly Calibration	1	Operational Time	671 HRS
Standard Deviation	90.77	Operational Uptime	99.9 %
		Monthly Average	64.1 UG/M3

Windridge TSP ($\mu\text{g}/\text{m}^3$) – February 2021

Day	HOUR																							
	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	15.0	6.0	30.0	23.0	34.0	15.0	13.0	6.0	13.0	10.0	20.0	119.0	143.0	143.0	C	175.0	193.0	125.0	32.0	35.0	68.0	123.0	125.0	16.0
2	24.0	11.0	15.0	7.0	10.0	5.0	1.0	10.0	13.0	54.0	66.0	119.0	43.0	93.0	42.0	47.0	84.0	37.0	75.0	30.0	23.0	32.0	21.0	37.0
3	74.0	108.0	101.0	79.0	59.0	37.0	52.0	63.0	29.0	22.0	103.0	162.0	108.0	44.0	33.0	32.0	27.0	23.0	48.0	88.0	120.0	39.0	28.0	0.0
4	0.0	4.0	6.0	3.0	1.0	52.0	85.0	180.0	119.0	237.0	232.0	195.0	165.0	146.0	120.0	104.0	75.0	143.0	53.0	24.0	20.0	19.0	17.0	14.0
5	8.0	10.0	11.0	33.0	15.0	17.0	14.0	17.0	18.0	25.0	31.0	67.0	323.0	565.0	350.0	206.0	183.0	113.0	77.0	38.0	21.0	27.0	27.0	13.0
6	15.0	21.0	13.0	15.0	13.0	12.0	16.0	21.0	52.0	46.0	58.0	76.0	44.0	42.0	53.0	47.0	34.0	37.0	45.0	40.0	23.0	31.0	20.0	21.0
7	23.0	24.0	8.0	6.0	15.0	12.0	9.0	14.0	14.0	13.0	73.0	40.0	71.0	65.0	52.0	34.0	15.0	17.0	12.0	16.0	14.0	12.0	11.0	13.0
8	25.0	17.0	17.0	27.0	34.0	46.0	27.0	54.0	75.0	42.0	30.0	40.0	53.0	50.0	40.0	46.0	37.0	33.0	40.0	49.0	31.0	58.0	46.0	19.0
9	26.0	17.0	23.0	20.0	22.0	23.0	20.0	19.0	27.0	27.0	46.0	27.0	P	28.0	37.0	42.0	61.0	27.0	21.0	25.0	22.0	24.0	17.0	44.0
10	44.0	38.0	18.0	29.0	24.0	23.0	24.0	14.0	31.0	26.0	21.0	38.0	35.0	21.0	29.0	14.0	16.0	18.0	13.0	26.0	62.0	41.0	47.0	37.0
11	28.0	36.0	13.0	24.0	17.0	13.0	16.0	12.0	36.0	30.0	71.0	42.0	112.0	59.0	46.0	26.0	16.0	15.0	18.0	28.0	15.0	34.0	49.0	50.0
12	26.0	81.0	15.0	13.0	12.0	12.0	27.0	11.0	21.0	103.0	55.0	96.0	210.0	129.0	91.0	47.0	13.0	66.0	30.0	27.0	16.0	13.0	8.0	11.0
13	7.0	7.0	14.0	28.0	22.0	48.0	23.0	57.0	124.0	75.0	142.0	47.0	34.0	27.0	11.0	20.0	17.0	19.0	27.0	11.0	11.0	16.0	12.0	18.0
14	22.0	24.0	24.0	15.0	24.0	16.0	13.0	7.0	6.0	6.0	54.0	109.0	61.0	33.0	42.0	34.0	6.0	12.0	12.0	8.0	13.0	20.0	16.0	258.0
15	323.0	187.0	53.0	95.0	261.0	176.0	69.0	94.0	53.0	51.0	55.0	32.0	38.0	52.0	48.0	37.0	29.0	9.0	5.0	0.0	1.0	4.0	5.0	5.0
16	4.0	3.0	3.0	2.0	0.0	0.0	5.0	2.0	2.0	15.0	16.0	19.0	17.0	34.0	71.0	190.0	47.0	76.0	40.0	53.0	18.0	23.0	33.0	23.0
17	17.0	17.0	22.0	18.0	9.0	8.0	7.0	12.0	8.0	13.0	152.0	116.0	27.0	5.0	12.0	9.0	9.0	10.0	25.0	16.0	6.0	18.0	17.0	2.0
18	8.0	10.0	11.0	17.0	25.0	25.0	43.0	50.0	83.0	49.0	69.0	198.0	526.0	444.0	326.0	211.0	370.0	414.0	260.0	265.0	221.0	680.0	748.0	719.0
19	292.0	350.0	685.0	241.0	326.0	129.0	129.0	115.0	110.0	168.0	452.0	227.0	194.0	245.0	244.0	159.0	228.0	172.0	93.0	76.0	67.0	70.0	58.0	61.0
20	17.0	7.0	8.0	16.0	11.0	23.0	137.0	57.0	77.0	85.0	167.0	195.0	346.0	287.0	405.0	346.0	368.0	264.0	285.0	155.0	109.0	193.0	181.0	195.0
21	255.0	206.0	129.0	428.0	603.0	981.0	467.0	127.0	672.0	738.0	411.0	833.0	211.0	155.0	239.0	243.0	354.0	236.0	151.0	66.0	90.0	153.0	111.0	52.0
22	21.0	23.0	25.0	26.0	33.0	15.0	10.0	12.0	23.0	13.0	61.0	74.0	85.0	85.0	52.0	81.0	45.0	104.0	17.0	9.0	9.0	12.0	38.0	4.0
23	7.0	6.0	6.0	11.0	7.0	7.0	6.0	3.0	19.0	17.0	30.0	87.0	92.0	103.0	92.0	73.0	146.0	149.0	60.0	105.0	84.0	68.0	10.0	9.0
24	5.0	2.0	5.0	3.0	5.0	7.0	7.0	7.0	7.0	36.0	30.0	20.0	199.0	301.0	253.0	173.0	246.0	280.0	387.0	434.0	420.0	506.0	430.0	374.0
25	516.0	502.0	456.0	679.0	985.0	607.0	471.0	504.0	396.0	353.0	231.0	178.0	75.0	125.0	150.0	241.0	386.0	330.0	147.0	163.0	243.0	206.0	148.0	171.0
26	119.0	142.0	159.0	121.0	114.0	107.0	20.0	21.0	17.0	11.0	15.0	8.0	35.0	28.0	24.0	34.0	79.0	37.0	134.0	103.0	15.0	39.0	22.0	28.0
27	19.0	24.0	28.0	42.0	44.0	31.0	10.0	7.0	9.0	12.0	39.0	18.0	32.0	31.0	59.0	110.0	156.0	338.0	233.0	172.0	246.0	300.0	318.0	157.0
28	145.0	280.0	330.0	230.0	364.0	317.0	278.0	428.0	534.0	424.0	323.0	471.0	369.0	198.0	169.0	189.0	168.0	139.0	127.0	245.0	268.0	298.0	191.0	381.0

MEAN	MAX
64.4	193.0
37.5	119.0
61.6	162.0
83.9	237.0
92.0	565.0
33.1	76.0
24.3	73.0
39.0	75.0
28.0	61.0
28.7	62.0
33.6	112.0
47.2	210.0
34.0	142.0
34.8	258.0
70.1	323.0
29.0	190.0
23.1	152.0
240.5	748.0
203.8	685.0
163.9	405.0
329.6	981.0
36.5	104.0
49.9	149.0
172.4	171.0
344.3	985.0
59.7	159.0
101.5	338.0
286.1	534.0

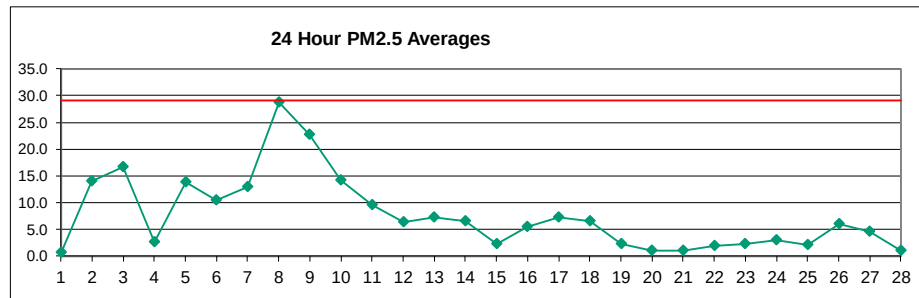
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	27	28	27	28	28	28	28	28	28	28	28
MEAN	74.5	77.3	79.6	80.4	110.3	98.7	71.4	68.7	92.4	96.5	109.0	130.5	135.1	126.4	114.4	106.1	121.7	115.8	88.1	82.4	80.6	109.3	98.4	97.6
MAX	516.0	502.0	685.0	679.0	985.0	981.0	471.0	504.0	672.0	738.0	452.0	833.0	526.0	565.0	405.0	346.0	386.0	414.0	387.0	434.0	420.0	680.0	748.0	719.0



Number of 24HR Exceedences	8	Proposed Guideline
Number of Non-Zero Readings	665	
Maximum 1-HR Average	985.0 UG/M3	
Maximum 24-HR Average	344.3 UG/M3	
IZS Calibration Time		Operational Time
Down Time	0	Operational Uptime
Standard Deviation	142.1	Monthly Average
		671 HRS
		99.9 %
		98.5 UG/M3

West PM_{2.5} (µg/m³) – February 2021

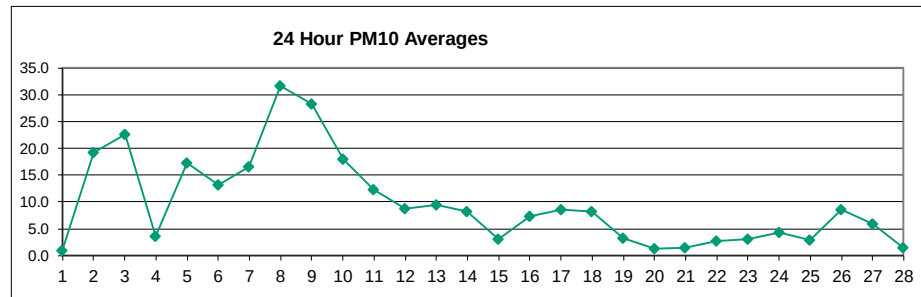
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.7	0.4	0.2	0.1	0.2	0.3	0.3	0.6	0.6	0.7	0.9	1.5	2.8	1.6	0.8	1.0	1.2	0.4	0.8	0.4	0.3	0.6	0.4	0.3	0.7	2.8
2	0.4	0.3	0.2	0.2	0.4	0.5	0.4	0.5	0.7	0.8	2.8	4.7	19.9	32.2	33.6	33.9	33.8	30.2	26.6	25.2	22.9	21.9	21.7	20.6	13.9	33.9
3	19.2	18.0	16.8	18.3	19.9	19.2	18.2	18.5	17.7	18.2	20.5	30.5	24.7	20.4	20.6	20.8	21.4	20.7	15.8	11.0	2.9	1.7	2.5	4.2	16.7	30.5
4	3.0	1.8	0.8	0.7	1.4	1.4	0.7	0.8	0.7	1.7	0.9	1.4	2.0	1.3	1.9	2.4	3.3	1.3	5.6	5.5	5.8	6.7	6.5	6.7	2.7	6.7
5	6.6	6.4	8.1	9.2	6.8	8.3	18.3	22.2	30.0	34.7	32.5	19.4	15.8	12.5	9.6	8.9	8.2	9.4	11.4	12.6	10.3	9.0	9.6	11.4	13.8	34.7
6	11.7	11.8	9.5	9.9	12.4	11.7	12.4	11.5	10.2	8.5	7.9	8.4	9.7	11.0	14.0	12.8	11.2	10.3	9.9	9.2	9.9	9.3	8.0	9.7	10.5	14.0
7	10.0	9.9	11.3	12.6	11.5	11.5	11.6	13.2	12.7	12.3	13.7	16.4	16.6	16.3	20.0	14.9	15.2	13.2	10.8	10.0	10.9	11.5	11.2	11.2	12.9	20.0
8	11.5	10.8	10.7	19.3	33.1	28.0	24.9	23.2	25.9	31.5	38.0	43.6	42.8	41.1	41.6	41.5	40.5	37.0	33.0	28.9	25.3	21.1	19.2	18.9	28.8	43.6
9	17.6	15.7	15.8	16.2	18.2	20.4	20.2	20.9	21.5	23.7	24.7	25.3	25.5	27.8	27.4	29.9	32.8	29.0	24.2	23.8	21.9	20.9	22.0	21.3	22.8	32.8
10	19.5	16.9	11.7	13.6	18.8	14.9	16.9	17.4	17.9	18.6	21.8	18.4	14.7	15.7	15.0	12.9	9.9	9.6	9.3	9.1	9.4	10.7	9.8	8.9	14.2	21.8
11	9.6	10.0	10.9	12.4	10.9	10.0	9.2	10.4	9.7	10.7	9.8	9.0	9.6	11.9	12.3	10.2	7.0	6.6	6.6	7.0	7.0	7.4	8.3	10.8	9.5	12.4
12	10.5	8.3	6.7	5.4	4.8	4.3	4.3	3.7	5.9	6.5	7.2	6.7	6.7	6.6	11.4	9.1	9.6	7.0	5.2	4.2	4.9	4.1	4.5	5.6	6.4	11.4
13	8.5	6.5	7.1	8.1	7.2	6.2	5.5	4.6	4.4	4.0	5.0	7.2	15.1	9.3	7.1	7.1	6.9	6.8	6.4	6.9	7.4	8.9	8.8	8.5	7.2	15.1
14	10.0	10.5	11.4	10.4	7.7	5.6	5.3	4.8	5.4	5.1	3.9	4.1	4.3	4.3	6.0	7.4	7.5	8.8	8.2	8.3	9.5	6.4	1.9	1.9	6.6	11.4
15	1.7	1.6	1.6	1.4	1.4	1.4	1.4	1.4	1.6	1.9	2.1	4.1	4.9	4.2	4.0	3.6	2.8	2.3	2.2	1.9	2.8	2.4	2.0	1.7	2.4	4.9
16	1.5	1.5	1.3	1.3	1.3	1.3	1.2	1.4	1.9	3.4	5.7	7.7	7.1	7.0	6.6	7.2	6.4	1.2	2.3	13.0	17.0	15.5	8.0	8.8	5.4	17.0
17	7.9	7.1	7.2	8.4	7.9	6.9	6.3	6.8	11.0	11.2	10.5	7.6	7.8	7.2	7.4	6.5	7.2	6.7	5.3	4.9	5.0	4.5	4.6	7.6	7.2	11.2
18	8.3	6.5	4.2	3.0	1.9	1.4	1.6	2.6	2.5	4.8	7.1	13.2	20.0	19.3	12.6	7.8	10.8	8.9	5.0	4.8	4.0	2.6	1.7	1.7	6.5	20.0
19	1.5	1.7	1.4	1.6	1.3	1.6	2.8	4.1	4.4	4.9	4.5	3.9	2.5	3.4	3.0	3.4	3.0	1.6	1.3	0.6	0.5	0.8	0.8	0.6	2.3	4.9
20	1.1	0.7	0.9	0.9	0.6	0.4	0.6	0.7	0.8	1.8	1.1	1.4	1.5	1.3	1.0	1.2	1.1	1.4	0.8	0.6	0.5	0.6	0.7	0.9	0.9	1.8
21	0.8	0.8	0.9	1.6	1.7	1.1	0.5	1.7	1.9	1.1	1.4	1.2	1.2	1.2	1.0	1.1	0.9	0.8	0.6	0.7	0.5	0.4	0.5	0.5	1.0	1.9
22	0.4	0.2	0.4	0.2	0.2	0.2	0.3	0.5	0.4	0.6	1.3	1.6	1.2	5.5	6.8	8.8	7.7	2.9	0.6	1.7	1.3	2.5	1.0	1.4	2.0	8.8
23	0.9	1.6	3.4	1.6	2.9	1.6	0.6	0.6	0.9	4.4	3.2	2.5	2.5	1.2	3.2	7.7	4.7	1.0	0.9	1.3	1.3	3.7	1.3	0.9	2.2	7.7
24	1.1	1.3	0.9	0.8	1.2	1.6	4.3	6.2	9.2	6.1	6.3	6.5	4.2	3.6	4.4	2.8	3.2	1.5	1.7	1.8	0.9	1.0	1.4	0.6	3.0	9.2
25	0.7	0.6	1.2	1.4	1.0	1.5	2.7	3.6	4.4	3.5	3.7	4.0	4.3	3.7	3.4	2.8	2.0	1.2	0.8	0.7	0.5	0.5	0.9	0.8	2.1	4.4
26	1.0	0.8	1.0	0.8	1.4	0.8	2.0	3.2	3.2	5.8	8.0	15.7	11.1	13.6	10.7	9.4	9.6	11.2	5.8	6.1	4.7	4.1	5.9	7.4	6.0	15.7
27	8.5	7.2	5.2	4.6	4.6	5.1	5.3	8.3	7.5	10.0	9.1	7.0	10.1	3.9	2.1	1.5	1.6	1.1	1.4	1.0	1.1	1.0	1.0	1.0	4.5	10.1
28	1.3	1.2	1.4	1.2	1.2	1.1	1.7	1.5	1.7	1.8	1.7	0.9	1.1	1.2	1.1	1.0	0.5	0.6	0.8	0.8	0.8	0.6	0.6	0.9	1.1	1.8
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100%
MEAN	6.3	5.7	5.4	5.9	6.5	6.0	6.4	7.0	7.7	8.5	9.1	9.8	10.4	10.3	10.3	9.9	9.6	8.3	7.3	7.2	6.8	6.4	5.9	6.2		
MAX	19.5	18.0	16.8	19.3	33.1	28.0	24.9	23.2	30.0	34.7	38.0	43.6	42.8	41.1	41.6	41.5	40.5	37.0	33.0	28.9	25.3	21.9	22.0	21.3		



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	672	
Maximum 1-HR Average	43.6 UG/M3	
Maximum 24-HR Average	28.8 UG/M3	
IZS Calibration Time		Operational Time
Down Time	0	Operational Uptime
Standard Deviation	8.216	Monthly Average
		672 HRS
		100.0 %
		7.6 UG/M3

West PM₁₀ (µg/m³) – February 2021

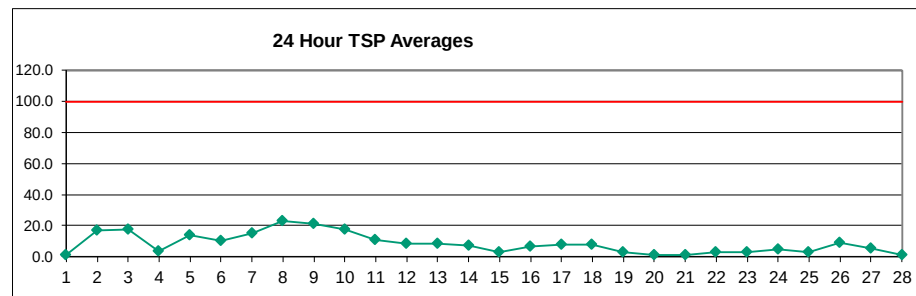
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.8	0.4	0.3	0.1	0.3	0.3	0.3	0.8	0.7	1.0	1.3	2.3	4.1	2.4	1.2	1.5	1.7	0.6	1.1	0.5	0.4	0.7	0.5	0.3	1.0	4.1
2	0.5	0.4	0.3	0.2	0.5	0.7	0.4	0.7	1.0	1.1	4.1	6.9	25.7	42.7	45.2	46.5	47.2	42.0	38.2	36.0	32.1	29.0	29.6	28.5	19.1	47.2
3	26.3	24.3	20.8	25.3	28.0	27.7	25.1	26.5	25.1	26.0	27.7	36.1	30.4	28.6	29.1	29.0	30.2	28.3	20.9	13.2	3.4	1.8	2.9	5.1	22.6	36.1
4	3.4	2.0	1.0	0.8	2.0	1.9	0.9	1.1	1.0	2.0	1.1	1.9	2.8	1.9	2.7	3.5	4.8	1.8	8.0	8.0	8.6	9.5	8.5	8.8	3.7	9.5
5	8.8	7.8	11.0	11.5	7.7	9.6	20.7	25.2	37.3	45.0	43.6	23.9	20.6	16.4	12.3	11.1	9.4	10.1	12.1	16.7	13.7	11.5	12.3	15.9	17.3	45.0
6	16.8	16.7	11.9	13.1	17.1	14.8	16.4	16.0	14.4	10.5	9.0	10.1	12.4	13.5	17.6	16.0	13.7	12.7	12.3	10.4	10.6	9.7	8.5	11.7	13.2	17.6
7	12.5	13.0	15.1	17.6	15.4	15.7	15.6	17.5	15.8	16.1	17.4	20.6	20.4	20.3	27.5	19.0	18.9	16.2	13.2	12.4	13.6	15.6	15.1	15.0	16.6	27.5
8	15.7	14.6	13.9	21.5	35.5	29.5	27.1	25.4	27.5	33.4	40.4	45.8	45.0	45.6	46.0	47.4	44.9	39.3	35.8	32.9	31.1	23.8	20.2	19.6	31.7	47.4
9	19.5	19.1	18.2	20.5	21.3	23.0	21.9	22.5	23.0	28.4	28.9	28.9	29.6	31.4	30.1	37.4	46.0	42.0	33.9	32.8	30.2	28.8	30.8	29.7	28.3	46.0
10	21.5	17.3	12.3	14.9	25.2	18.7	23.5	23.8	24.9	25.4	30.6	24.2	18.5	19.7	19.3	16.2	12.2	12.3	11.8	11.2	11.4	13.2	12.3	10.9	18.0	30.6
11	12.2	13.4	15.0	17.2	14.5	12.8	11.0	12.7	12.3	13.9	12.6	11.3	12.1	16.0	15.7	13.5	8.8	8.3	9.0	10.2	8.8	10.0	10.8	13.6	12.3	17.2
12	13.3	9.8	7.9	6.4	5.6	5.4	5.8	4.8	8.6	9.6	10.6	9.5	9.5	9.2	14.3	13.0	14.2	10.4	7.8	6.2	7.2	5.8	6.3	7.5	8.7	14.3
13	11.4	8.3	8.7	9.7	8.5	7.1	6.4	5.5	5.4	4.9	6.6	9.8	19.8	12.6	10.4	10.1	8.7	9.0	8.4	9.1	9.5	12.0	12.1	11.4	9.4	19.8
14	12.6	12.8	13.5	11.7	8.6	6.4	6.0	5.3	6.6	6.1	4.8	5.5	6.1	6.2	8.7	9.6	9.1	10.8	10.2	10.2	11.7	8.2	2.3	2.3	8.1	13.5
15	1.9	1.9	1.9	1.7	1.8	1.6	1.7	1.7	1.9	2.4	2.8	5.8	7.2	6.1	5.8	5.3	4.1	3.3	2.9	2.4	3.4	2.8	2.3	1.9	3.1	7.2
16	1.6	1.7	1.4	1.4	1.4	1.3	1.6	2.5	4.7	8.4	11.1	10.2	10.3	9.7	10.5	9.3	1.7	2.8	17.1	24.4	21.7	9.0	9.6	9.6	7.3	24.4
17	8.6	7.6	7.3	8.5	7.9	7.0	6.5	7.3	14.6	14.2	13.0	9.6	10.0	9.1	9.4	8.2	9.0	9.2	7.5	6.8	6.5	5.3	5.2	8.9	8.6	14.6
18	8.8	6.8	4.4	3.1	2.0	1.6	1.9	3.5	3.5	6.1	9.7	17.2	26.5	25.5	16.4	10.2	14.1	11.9	6.3	6.2	5.4	3.5	2.3	2.1	8.3	26.5
19	1.9	2.2	1.7	2.1	1.7	2.1	4.0	6.0	6.4	7.1	6.4	5.7	3.7	5.0	4.4	4.9	4.3	2.2	1.7	0.8	0.6	1.0	1.0	0.7	3.2	7.1
20	1.4	0.8	1.0	1.0	0.7	0.5	0.8	0.9	1.1	2.5	1.5	1.9	2.2	1.8	1.5	1.7	1.5	2.0	1.1	0.8	0.6	0.8	0.9	1.2	1.3	2.5
21	0.9	0.9	1.0	2.2	2.4	1.6	0.7	2.5	2.8	1.6	2.0	1.8	1.8	1.8	1.4	1.6	1.2	1.1	0.9	0.9	0.6	0.5	0.6	0.8	1.4	2.8
22	0.5	0.3	0.5	0.2	0.2	0.3	0.4	0.6	0.4	0.9	1.9	2.3	1.7	8.1	9.7	12.8	11.1	4.3	0.7	2.2	1.6	3.5	1.1	1.8	2.8	12.8
23	1.0	1.8	4.5	1.7	3.2	1.7	0.7	0.6	1.0	5.0	4.4	3.7	3.7	1.7	4.7	11.2	6.7	1.4	1.3	1.8	1.9	5.4	1.6	1.1	3.0	11.2
24	1.2	1.5	1.0	0.9	1.4	2.0	6.2	9.0	13.2	9.0	9.3	9.6	6.0	5.2	6.3	4.1	4.6	2.1	2.4	2.5	1.2	1.4	1.8	0.8	4.3	13.2
25	0.9	0.8	1.7	2.0	1.2	2.0	3.9	5.2	6.4	5.0	5.4	5.8	6.2	5.3	5.1	4.0	2.8	1.7	1.0	1.0	0.7	0.6	1.1	1.0	2.9	6.4
26	1.2	0.9	1.2	1.0	1.6	0.9	2.8	4.8	4.7	8.5	11.4	21.5	16.1	20.1	15.6	13.5	14.0	16.5	8.5	9.0	6.7	5.7	8.6	10.0	8.5	21.5
27	12.7	10.5	6.8	5.5	5.4	5.6	6.1	11.3	9.8	13.3	11.5	9.6	13.4	5.4	2.9	2.1	2.2	1.4	1.9	1.4	1.5	1.3	1.2	1.3	6.0	13.4
28	1.7	1.5	1.8	1.4	1.5	1.4	2.3	1.9	2.3	2.4	2.3	1.2	1.5	1.7	1.5	1.4	0.7	0.7	1.1	0.9	1.0	0.7	0.6	1.0	1.4	2.4
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100%
MEAN	7.8	7.1	6.7	7.3	7.9	7.3	7.9	8.7	9.8	10.9	11.7	12.3	13.1	13.3	13.4	13.0	12.7	10.8	9.4	9.4	8.9	8.3	7.5	7.9		
MAX	26.3	24.3	20.8	25.3	35.5	29.5	27.1	26.5	37.3	45.0	43.6	45.8	45.0	45.6	46.0	47.4	47.2	42.0	38.2	36.0	32.1	29.0	30.8	29.7		



Number of Non-Zero Readings	672		
Maximum 1-HR Average	47.4 UG/M3		
Maximum 24-HR Average	31.7 UG/M3		
IZS Calibration Time	OperatioEI Time		672 HRS
Down Time	OperatioEI Uptime		100.0 %
Standard Deviation	10.1	Monthly Average	9.7 UG/M3

West TSP ($\mu\text{g}/\text{m}^3$) – February 2021

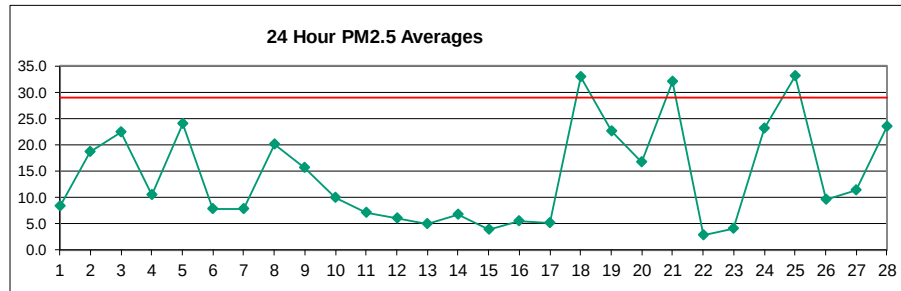
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.5	0.3	0.2	0.1	0.2	0.2	0.2	0.6	0.5	0.9	1.4	2.4	4.4	2.4	1.1	1.5	1.7	0.5	1.2	0.4	0.3	0.5	0.3	0.2	0.9	4.4
2	0.3	0.2	0.2	0.1	0.3	0.6	0.3	0.5	0.9	1.0	4.5	7.5	27.9	46.2	47.6	42.3	31.4	30.2	32.3	30.0	26.0	21.8	26.0	23.3	16.7	47.6
3	24.5	20.5	15.4	21.0	23.8	20.4	19.1	20.4	18.4	19.4	20.2	25.5	23.9	24.8	25.5	24.4	24.1	20.0	14.0	8.9	2.5	1.2	2.0	4.0	17.7	25.5
4	2.2	1.3	0.6	0.7	2.1	2.1	0.8	1.1	0.9	1.6	0.8	1.8	2.8	1.8	2.9	3.7	5.3	1.5	8.0	7.8	8.6	9.3	8.5	8.5	3.5	9.3
5	6.8	5.3	8.4	8.0	5.1	6.3	13.6	16.6	26.0	30.8	31.4	22.7	20.4	16.3	13.0	8.5	6.7	6.8	7.9	13.8	13.3	12.1	13.0	13.4	13.6	31.4
6	12.9	12.1	8.0	8.9	11.7	13.3	16.1	12.9	10.9	7.4	6.4	7.4	9.8	11.5	15.4	13.6	11.9	10.9	10.7	7.7	7.5	6.6	6.2	12.7	10.5	16.1
7	11.6	11.0	14.7	15.6	13.9	12.7	11.5	12.4	10.7	12.8	14.2	15.0	14.7	15.0	24.4	20.8	21.8	18.8	15.3	14.3	15.5	15.1	15.5	14.9	15.1	24.4
8	14.2	11.8	11.5	16.0	27.2	21.7	21.7	21.4	20.7	24.0	29.7	32.7	31.2	34.2	33.4	35.7	32.3	26.2	23.7	22.3	22.2	16.4	13.5	12.8	23.2	35.7
9	12.8	12.9	12.6	14.7	14.9	16.0	14.3	15.1	15.2	24.2	23.2	20.8	21.0	22.7	21.0	29.2	38.6	35.0	25.1	24.7	24.3	21.9	29.1	23.1	21.4	38.6
10	14.5	11.5	8.7	11.0	24.4	21.0	21.6	20.8	22.7	25.4	29.7	24.8	21.0	22.4	20.6	18.0	14.1	12.3	12.3	12.0	12.9	15.3	13.5	11.5	17.6	29.7
11	13.5	12.5	11.8	13.1	10.5	8.9	7.9	9.5	11.3	12.7	10.7	9.5	10.7	15.0	17.0	12.1	8.7	9.2	9.3	9.9	9.4	8.5	7.7	9.6	10.8	17.0
12	9.3	6.8	5.6	4.4	3.9	4.2	5.0	4.0	9.4	10.3	11.8	10.4	10.0	9.6	16.3	15.0	16.4	12.0	8.6	6.5	7.0	4.8	5.3	5.9	8.4	16.4
13	8.4	5.8	6.1	6.6	5.8	4.8	4.5	4.0	4.3	3.7	5.9	9.7	19.5	14.0	11.7	10.6	9.2	8.0	6.2	8.3	10.0	9.8	9.8	8.7	8.1	19.5
14	8.9	8.6	8.9	7.7	5.7	4.4	4.0	3.5	5.0	4.6	4.0	4.8	5.9	6.0	9.0	11.0	10.6	12.6	11.7	11.8	13.5	8.9	1.8	1.6	7.3	13.5
15	1.3	1.3	1.5	1.2	1.3	1.2	1.2	1.2	1.4	1.8	2.4	5.4	7.1	6.0	5.8	5.3	3.9	3.1	2.5	1.8	2.4	1.9	1.5	1.2	2.7	7.1
16	1.1	1.2	1.0	0.9	1.0	1.0	0.9	1.3	2.2	4.5	9.3	12.2	11.1	11.2	11.0	11.7	10.4	1.6	3.0	17.7	19.3	16.7	6.2	6.7	6.8	19.3
17	5.9	5.2	4.7	5.5	5.1	4.5	4.3	4.9	12.3	15.7	14.8	9.9	10.3	9.5	9.7	8.7	10.0	9.5	7.3	6.3	5.3	3.9	3.4	6.2	7.6	15.7
18	5.7	4.4	2.9	2.0	1.3	1.0	1.6	3.4	3.2	5.2	9.6	16.8	27.0	26.4	16.9	10.4	13.6	10.0	4.9	5.3	5.0	3.3	2.0	1.7	7.6	27.0
19	1.5	2.0	1.3	1.9	1.4	1.8	3.9	6.4	6.8	7.7	6.6	6.0	3.8	5.3	4.6	5.2	4.3	2.0	1.6	0.6	0.4	0.8	0.7	0.5	3.2	7.7
20	1.0	0.5	0.8	0.7	0.5	0.4	0.6	0.7	0.9	2.4	1.3	1.8	2.0	1.8	1.4	1.6	1.3	1.8	0.9	0.6	0.4	0.6	0.7	1.0	1.1	2.4
21	0.7	0.6	0.7	2.2	2.4	1.5	0.5	2.6	2.8	1.5	2.1	1.7	1.6	1.7	1.4	1.6	1.1	1.1	0.8	0.8	0.6	0.4	0.5	0.6	1.3	2.8
22	0.4	0.2	0.3	0.2	0.2	0.2	0.3	0.5	0.3	0.7	1.7	2.5	1.7	9.1	10.8	14.6	12.6	4.7	0.5	1.8	1.1	3.1	0.8	1.4	2.9	14.6
23	0.7	1.3	3.3	1.1	2.1	1.1	0.4	0.4	0.7	3.5	4.4	4.0	4.1	1.7	5.3	12.8	7.4	1.4	1.2	1.9	1.9	5.6	1.2	0.7	2.8	12.8
24	0.8	1.1	0.7	0.6	0.9	1.5	6.3	9.8	15.1	10.0	10.5	11.0	6.6	5.7	6.9	4.3	4.9	2.1	2.3	2.5	1.1	1.3	1.8	0.7	4.5	15.1
25	0.8	0.6	1.4	1.8	1.0	1.8	3.9	5.5	6.9	5.1	5.7	6.2	6.8	5.6	5.4	4.1	2.8	1.4	0.9	0.9	0.6	0.5	0.8	0.7	3.0	6.9
26	0.9	0.6	0.9	0.8	1.1	0.6	2.9	5.2	5.2	9.6	12.8	23.1	18.6	23.4	17.9	15.5	16.0	19.1	8.7	9.0	6.0	4.7	8.6	10.3	9.2	23.4
27	11.5	9.4	5.0	3.8	3.8	3.7	4.3	10.1	9.6	12.9	12.6	9.1	10.3	5.0	2.8	2.1	2.1	1.3	1.8	1.2	1.3	1.0	0.9	1.0	5.3	12.9
28	1.5	1.2	1.6	1.1	1.2	1.0	2.1	1.6	2.1	2.3	2.1	1.0	1.4	1.6	1.4	1.2	0.6	0.6	1.0	0.7	0.7	0.5	0.4	0.7	1.2	2.3
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100%
MEAN	6.2	5.4	4.9	5.4	6.2	5.6	6.2	7.0	8.1	9.3	10.3	10.9	12.0	12.7	12.9	12.3	11.6	9.4	8.0	8.2	7.8	7.0	6.5	6.6		
MAX	24.5	20.5	15.4	21.0	27.2	21.7	21.7	21.4	26.0	30.8	31.4	32.7	31.2	46.2	47.6	42.3	38.6	35.0	32.3	30.0	26.0	21.9	29.1	23.3		



Number of 24HR Exceedences	0	Proposed Guideline	
Number of Non-Zero Readings	672		
Maximum 1-HR Average	47.6 UG/M3		
Maximum 24-HR Average	23.2 UG/M3		
IZS Calibration Time		Operational Time	672 HRS
Down Time	0	Operational Uptime	100.0 %
Standard Deviation	8.348	Monthly Average	8.4 UG/M3

Berm PM_{2.5} (µg/m³) – February 2021

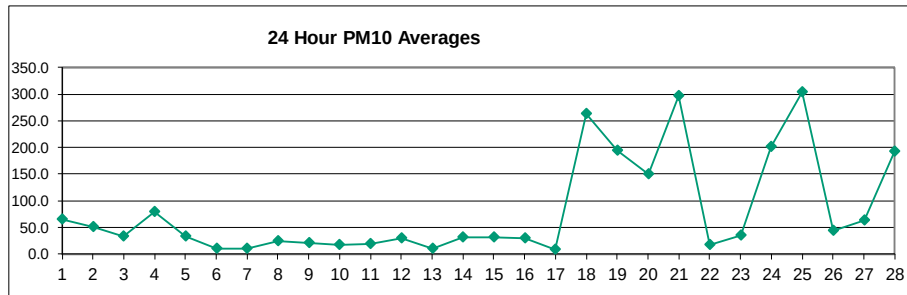
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.9	2.8	1.9	3.5	1.6	1.3	0.4	1.6	1.5	2.0	12.5	20.1	38.5	30.9	22.4	23.2	11.5	2.7	4.7	4.7	3.6	5.0	1.9	2.1	8.4	38.5
2	1.5	0.5	0.2	0.6	0.2	0.6	0.8	3.6	15.8	15.2	20.7	15.4	24.6	23.3	29.5	67.6	23.8	54.4	22.6	16.6	16.6	16.4	25.1	52.5	18.7	67.6
3	62.8	59.1	43.9	38.8	17.5	32.6	46.4	16.5	13.0	29.9	24.9	31.9	15.4	12.6	13.5	12.7	13.4	16.0	16.4	10.6	5.7	3.6	0.9	1.2	22.5	62.8
4	1.2	0.8	0.4	0.3	5.5	10.9	17.4	15.7	37.3	27.4	29.6	22.2	11.3	18.0	7.6	10.8	11.2	5.1	2.9	2.9	3.0	3.3	4.0	3.8	10.5	37.3
5	3.4	3.4	6.2	4.8	4.4	7.0	14.7	16.3	20.5	21.9	25.8	51.4	109.1	92.5	50.0	54.7	30.3	14.8	9.3	11.4	7.2	7.1	5.5	5.9	24.1	109.1
6	7.2	5.4	4.9	5.0	6.1	6.5	6.8	9.6	8.6	9.9	9.2	8.1	8.6	9.9	11.1	9.3	6.9	9.2	7.7	7.7	9.5	6.5	6.6	7.5	7.8	11.1
7	8.3	5.9	5.9	5.7	5.6	5.6	6.1	7.8	6.6	9.6	10.1	14.4	14.2	14.2	9.7	7.2	6.6	5.4	5.0	5.8	6.5	7.6	6.8	6.8	7.8	14.4
8	6.0	7.2	8.7	11.0	17.7	18.3	19.6	18.9	17.7	21.3	31.9	33.9	32.1	29.4	30.9	29.5	28.4	27.3	20.9	18.9	17.2	15.3	11.2	11.5	20.2	33.9
9	9.7	11.3	10.4	12.7	13.5	15.0	15.2	15.6	16.2	19.5	17.1	17.7	17.3	19.5	19.1	26.6	17.7	14.2	14.8	15.4	13.6	12.1	15.2	15.3	15.6	26.6
10	13.8	10.9	9.6	9.7	11.2	10.4	9.8	12.0	11.1	10.2	11.8	10.0	10.3	9.8	9.0	7.2	6.1	9.1	10.3	14.9	7.8	9.4	7.0	5.9	9.9	14.9
11	8.0	5.5	6.1	3.8	5.2	6.3	5.5	7.7	8.5	11.9	10.7	14.2	11.0	8.5	6.4	4.4	4.5	4.1	5.0	4.1	7.3	5.9	9.5	7.1	7.1	14.2
12	12.9	4.8	4.1	3.3	3.2	3.1	3.4	3.9	9.6	6.2	14.8	18.9	9.3	12.5	5.2	2.8	4.3	4.6	7.2	4.4	3.1	1.6	1.5	1.7	6.1	18.9
13	2.1	3.8	6.3	5.4	6.1	3.7	4.8	10.6	9.4	8.5	6.5	6.6	6.0	3.6	3.3	3.7	5.3	5.2	3.6	3.3	3.0	3.5	4.2	3.0	5.1	10.6
14	4.7	7.8	5.9	6.0	3.5	3.0	2.9	2.5	2.7	7.1	10.9	5.7	2.7	6.0	5.2	3.4	3.8	3.8	3.8	3.7	4.1	4.2	45.6	14.7	6.8	45.6
15	8.4	3.9	4.0	18.9	12.0	3.4	4.0	2.1	2.3	2.2	2.2	4.0	5.2	5.7	3.6	2.8	2.2	0.9	1.4	0.9	1.4	1.3	1.2	0.9	3.9	18.9
16	0.8	0.8	0.7	0.7	0.7	0.7	0.6	1.3	1.6	2.6	3.2	3.0	4.4	8.1	15.4	10.9	10.1	8.5	5.9	7.2	9.5	12.0	13.2	9.8	5.5	15.4
17	11.3	9.5	4.0	4.8	4.4	3.6	3.7	3.7	4.6	15.2	10.3	4.5	3.8	3.7	3.5	3.8	3.5	3.5	2.4	3.5	6.4	3.4	1.8	6.7	5.2	15.2
18	5.0	4.1	2.8	3.2	2.4	1.8	2.5	3.7	5.3	6.4	16.7	44.2	33.9	40.8	33.8	59.6	73.8	46.4	40.8	56.6	109.4	78.2	89.2	28.1	32.9	109.4
19	43.7	65.5	41.1	30.2	20.9	21.9	13.0	18.4	34.2	31.8	23.6	39.2	40.7	25.7	19.1	24.0	14.0	6.7	5.5	6.4	4.2	7.5	3.1	1.2	22.6	65.5
20	1.0	5.9	0.9	0.9	3.1	11.1	4.2	5.2	8.6	12.0	19.4	33.8	24.1	40.2	33.8	34.4	23.8	30.3	18.6	13.4	14.6	20.2	16.2	27.0	16.8	40.2
21	17.0	10.4	25.9	73.8	84.7	45.5	10.7	93.0	70.3	53.0	103.2	24.8	15.4	27.5	25.9	20.1	23.8	17.9	5.9	4.7	7.0	5.7	1.8	1.2	32.1	103.2
22	1.9	1.2	0.3	0.2	0.6	0.3	0.5	0.5	0.5	2.6	3.7	6.7	6.0	8.2	4.6	9.6	6.8	0.9	0.9	1.0	2.0	6.8	0.9	1.0	2.8	9.6
23	1.0	0.8	2.4	3.2	2.9	1.2	0.7	8.7	1.5	4.4	6.9	6.5	7.0	8.0	4.3	6.6	6.9	3.9	5.5	9.9	5.1	0.6	0.5	0.4	4.1	9.9
24	0.4	0.4	0.5	0.4	0.6	0.9	0.8	1.1	2.7	2.7	3.2	20.1	32.1	41.6	27.7	37.1	37.8	36.1	22.8	49.2	71.6	42.3	35.5	87.1	23.1	87.1
25	59.8	36.2	50.4	96.0	39.3	37.5	42.1	28.7	34.8	24.8	20.2	24.5	15.7	17.1	27.7	50.4	36.7	16.4	19.5	39.2	22.7	18.6	16.3	19.7	33.1	96.0
26	22.3	10.6	6.3	2.8	3.1	0.7	0.8	1.0	1.1	1.2	1.3	6.1	4.3	4.2	5.2	13.4	5.7	42.9	27.8	3.4	21.8	12.5	19.1	11.6	9.5	42.9
27	8.4	10.5	10.0	9.8	7.9	4.1	3.0	3.9	4.0	7.0	4.4	7.2	7.3	20.5	12.7	17.6	18.1	13.6	12.4	13.6	24.1	23.0	15.5	16.6	11.5	24.1
28	27.9	27.6	24.4	30.8	28.8	23.1	25.7	34.3	33.2	25.7	29.2	23.6	16.4	17.4	17.2	14.7	15.0	22.5	23.5	20.9	30.1	20.1	29.0	4.2	23.6	34.3
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100%
MEAN	12.5	11.3	10.3	13.8	11.2	10.0	9.5	12.4	13.7	14.0	17.3	18.5	18.8	20.0	16.3	20.3	16.1	15.2	11.7	12.6	15.6	12.6	13.9	12.7		
MAX	62.8	65.5	50.4	96.0	84.7	45.5	46.4	93.0	70.3	53.0	103.2	51.4	109.1	92.5	50.0	67.6	73.8	54.4	40.8	56.6	109.4	78.2	89.2	87.1		



Number of 24HR Exceedences	3	Proposed Guideline
Number of Non-Zero Readings	672	
Maximum 1-HR Average	109.4 UG/M3	
Maximum 24-HR Average	33.1 UG/M3	
Monthly Calibration	0	Operational Time
Standard Deviation	16.5	Operational Uptime
		Monthly Average
		672 HRS
		100.0 %
		14.2 UG/M3

Berm PM₁₀ (µg/m³) – February 2021

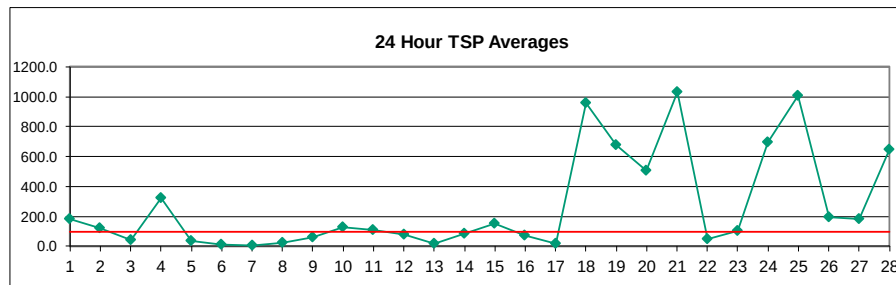
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.2	23.5	13.0	21.0	6.7	5.9	0.5	9.9	10.5	14.4	99.6	166.8	283.9	245.8	181.4	192.5	86.8	16.9	40.6	33.2	27.8	46.5	10.1	12.8	64.6	283.9
2	7.3	1.9	0.2	2.2	0.3	0.8	1.2	7.0	126.6	109.9	166.7	98.4	51.4	38.5	67.7	232.1	30.4	79.4	28.6	18.1	20.3	18.7	33.8	76.2	50.7	232.1
3	92.4	87.2	63.9	56.1	22.6	46.6	67.8	21.9	16.9	44.9	36.9	44.6	22.2	21.7	18.2	17.2	16.8	22.7	24.3	15.6	8.4	15.2	1.9	1.5	32.8	92.4
4	1.6	1.6	0.6	0.6	44.5	83.4	146.3	147.0	313.8	222.5	250.7	172.7	81.5	136.5	53.3	87.3	89.8	36.1	5.9	3.8	3.8	3.8	4.8	4.2	79.0	313.8
5	3.8	3.8	8.8	6.3	5.4	8.1	16.0	16.5	21.0	23.0	36.1	76.2	162.9	137.9	74.4	81.2	44.5	20.3	11.9	16.3	9.3	9.0	6.2	6.4	33.6	162.9
6	8.2	6.3	5.2	5.3	6.6	7.0	7.9	13.2	11.6	13.6	12.8	10.8	11.3	13.1	14.1	11.3	8.3	12.2	9.7	9.7	12.8	7.9	8.2	9.6	9.9	14.1
7	10.5	6.3	6.2	5.8	5.8	5.8	6.7	9.4	7.3	13.6	13.7	21.5	21.1	20.1	12.3	8.2	6.8	5.5	5.4	6.7	8.3	10.4	8.6	8.1	9.8	21.5
8	6.8	8.5	10.8	14.4	22.5	21.6	26.0	25.3	22.5	22.9	33.7	37.4	35.7	32.7	36.5	39.0	37.2	41.2	25.3	25.8	25.0	22.2	13.4	14.1	25.0	41.2
9	11.2	13.8	11.6	13.3	13.8	17.8	15.9	17.2	18.5	38.9	24.1	27.4	21.4	34.5	35.9	36.8	18.8	14.5	15.5	15.8	14.7	12.5	24.9	18.8	20.3	38.9
10	15.7	11.9	12.7	15.7	17.8	22.1	11.2	14.5	13.3	11.7	20.9	14.6	17.3	13.7	13.2	11.4	9.3	25.6	47.2	57.2	10.2	13.4	8.9	7.1	17.4	57.2
11	10.8	6.1	8.0	4.1	6.4	8.0	7.0	11.1	18.7	74.8	46.7	79.4	47.0	29.6	17.4	6.4	6.7	5.1	7.1	5.2	10.2	8.5	13.6	9.4	18.6	79.4
12	19.0	6.3	5.8	6.0	4.8	4.1	4.7	5.6	14.4	19.8	108.5	176.9	91.4	105.3	28.7	11.7	30.6	27.2	10.8	5.8	3.8	1.7	1.7	2.1	29.0	176.9
13	2.7	5.3	8.7	6.8	8.4	4.6	6.7	15.8	14.0	12.7	21.4	29.3	19.4	8.5	7.7	5.6	10.6	9.0	3.9	3.5	3.5	5.1	5.6	3.7	9.3	29.3
14	6.2	9.0	6.3	7.4	3.9	3.4	3.4	2.8	5.2	48.4	89.1	39.5	12.7	21.0	13.2	6.0	5.1	5.1	4.9	4.6	5.7	5.5	312.5	137.5	31.6	312.5
15	73.6	32.7	36.3	188.4	120.5	29.1	24.5	10.9	12.6	10.5	8.7	25.7	47.2	42.4	30.2	22.3	6.9	1.5	1.8	1.1	2.0	1.7	1.7	1.2	30.6	188.4
16	0.9	1.0	0.8	0.8	0.9	0.9	0.6	4.7	5.6	11.9	19.3	11.4	27.7	74.3	151.6	105.5	93.9	84.1	35.6	8.0	11.3	15.3	17.7	12.8	29.0	151.6
17	15.2	12.7	4.1	5.1	4.7	3.7	4.1	3.7	5.2	22.6	19.0	12.0	6.7	5.9	4.9	5.8	5.0	6.1	3.6	4.4	8.9	4.2	1.8	8.7	7.4	22.6
18	5.4	4.5	5.9	12.4	9.3	7.2	13.7	26.6	42.0	39.9	162.3	386.8	263.8	292.9	222.4	450.7	570.2	351.8	352.1	463.2	900.1	665.3	813.2	237.3	262.5	900.1
19	358.0	582.2	362.2	263.8	195.6	195.8	101.6	155.8	303.3	294.9	194.3	285.1	350.7	206.0	158.2	231.7	133.9	61.8	47.9	55.2	35.7	52.4	20.4	6.7	193.9	582.2
20	4.1	32.5	3.3	3.3	28.1	96.5	36.1	42.2	68.0	102.8	178.2	301.7	223.8	364.9	324.1	329.9	203.4	277.4	173.0	109.6	126.3	188.6	151.1	245.6	150.6	364.9
21	164.6	87.4	247.4	655.3	759.3	408.7	86.7	838.1	661.2	509.5	971.7	243.1	141.1	279.5	255.9	197.1	222.5	177.2	61.9	45.6	63.1	40.5	13.8	8.8	297.5	971.7
22	4.4	1.8	0.5	0.3	0.9	0.4	0.7	0.7	0.7	15.8	24.4	46.0	44.7	50.0	34.5	80.9	69.7	1.8	1.3	2.5	4.9	9.9	1.1	1.2	16.6	80.9
23	1.2	1.0	3.2	3.8	3.5	1.4	1.3	108.3	10.8	24.2	55.3	60.7	63.3	80.1	37.7	65.6	65.2	44.0	61.3	102.5	45.2	1.7	1.4	1.1	35.2	108.3
24	0.6	0.7	0.9	0.5	1.4	2.9	1.8	2.7	21.3	16.0	21.5	182.6	285.3	339.5	231.3	320.7	344.1	316.0	214.8	472.8	668.8	362.2	319.5	720.9	202.0	720.9
25	547.5	336.4	509.3	980.4	380.8	357.5	413.2	246.6	288.2	210.9	167.5	205.6	126.1	151.2	238.9	439.3	368.9	153.8	169.4	339.8	189.9	146.6	153.3	169.0	303.8	980.4
26	182.3	88.2	50.4	18.4	23.0	2.9	2.7	3.2	4.1	5.1	4.7	28.8	17.7	15.0	20.0	127.8	20.1	290.1	41.2	4.3	32.2	18.3	28.1	16.8	43.6	290.1
27	12.0	15.0	14.4	14.0	11.0	5.1	3.3	4.8	4.8	10.0	5.6	10.6	15.6	126.5	77.5	111.8	123.6	104.1	91.1	90.0	213.1	197.2	118.1	118.1	62.4	213.1
28	242.7	244.4	195.8	256.1	231.7	175.3	197.3	273.5	269.6	212.9	228.8	180.1	132.5	134.7	147.0	126.0	124.2	180.6	174.4	173.2	235.9	178.1	268.8	27.3	192.1	273.5
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100%
MEAN	64.6	58.3	57.0	91.7	69.3	54.5	43.2	72.8	82.6	77.1	107.9	106.3	93.8	107.9	89.6	120.1	98.3	84.7	59.7	74.8	96.5	73.7	84.4	67.4		
MAX	547.5	582.2	509.3	980.4	759.3	408.7	413.2	838.1	661.2	509.5	971.7	386.8	350.7	364.9	324.1	450.7	570.2	351.8	352.1	472.8	900.1	665.3	813.2	720.9		



Number of Non-Zero Readings	672
Maximum 1-HR Average	980.4 UG/M3
Maximum 24-HR Average	303.8 UG/M3
Monthly Calibration	0
Standard Deviation	138.6
Operational Time	672 HRS
Operational Uptime	100.0 %
Monthly Average	80.7 UG/M3

Berm TSP (µg/m³) – February 2021

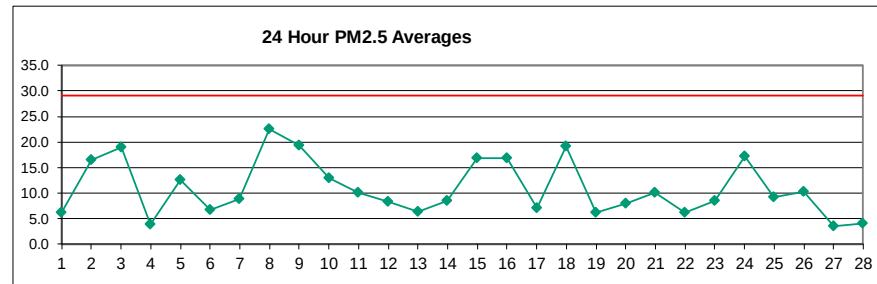
HOUR																											
DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX	
1	1.0	75.9	26.1	29.9	6.9	17.9	0.4	19.6	34.0	48.8	277.9	471.0	787.2	719.1	559.0	557.7	274.9	58.8	133.0	86.3	89.3	110.7	29.1	44.3	185.8	787.2	
2	25.7	4.5	0.1	4.2	0.2	0.8	1.1	11.2	326.5	289.2	452.0	281.8	101.6	60.5	217.5	875.6	24.1	88.9	27.3	12.9	16.3	13.2	32.5	83.1	122.9	875.6	
3	105.4	101.0	73.7	63.8	21.2	52.2	77.8	21.7	16.1	51.1	40.6	41.7	25.3	94.8	18.9	16.2	13.0	21.0	23.6	16.2	8.7	43.4	2.3	1.1	39.6	105.4	
4	1.2	5.5	2.1	2.1	114.6	258.2	831.4	885.9	1860.4	884.7	915.4	606.1	260.7	414.3	180.5	250.1	234.0	77.2	9.8	3.0	3.0	2.6	3.6	3.0	325.4	1860.4	
5	2.5	2.7	8.4	5.2	4.1	5.8	11.4	10.8	13.9	15.3	32.5	87.0	189.4	160.3	86.5	94.4	51.2	21.8	11.8	18.2	9.1	8.2	4.9	4.8	35.8	189.4	
6	6.6	4.4	3.4	3.5	4.8	4.9	6.2	13.9	12.3	14.8	13.7	10.7	11.2	12.9	13.4	9.9	7.0	11.7	8.4	9.0	13.3	6.8	7.4	8.9	9.1	14.8	
7	9.6	4.3	4.3	3.8	3.9	3.9	4.6	6.7	5.0	14.3	13.2	22.9	21.8	17.2	10.6	7.8	4.5	3.6	3.7	5.2	7.3	9.6	7.3	6.6	8.4	22.9	
8	5.3	7.0	10.0	14.5	22.1	18.5	27.5	27.3	22.9	17.0	24.3	26.8	25.9	24.3	54.3	104.6	46.3	44.6	21.5	27.5	28.9	25.4	11.7	12.4	27.1	104.6	
9	9.4	12.6	8.5	9.0	9.0	58.7	11.0	13.4	14.4	590.1	159.4	63.8	28.6	60.1	70.3	42.0	13.9	10.7	10.0	10.2	12.2	12.3	229.5	17.8	61.5	590.1	
10	13.4	33.5	65.2	125.1	125.2	244.5	11.5	13.4	12.2	15.0	325.1	87.5	46.3	48.5	37.9	31.4	34.7	112.4	811.5	910.0	9.9	15.2	8.5	6.2	131.0	910.0	
11	11.4	4.5	7.6	2.7	5.6	6.9	6.1	11.8	142.8	1797.3	291.3	172.0	75.9	61.9	31.3	8.2	7.7	3.6	5.6	6.5	10.4	8.7	14.6	8.8	112.6	1797.3	
12	20.6	8.9	6.7	41.8	16.7	3.6	4.0	5.5	16.2	68.5	362.6	547.3	274.8	256.5	63.6	21.5	88.7	90.5	12.2	4.9	3.0	1.1	1.2	1.4	80.1	547.3	
13	2.3	5.2	7.5	5.0	7.3	3.5	6.2	18.0	15.9	14.3	80.2	93.9	31.0	18.4	37.6	7.1	19.6	13.3	2.7	3.1	3.0	7.0	5.1	2.7	17.1	93.9	
14	5.1	6.5	4.2	5.7	2.7	2.5	2.5	1.9	10.2	105.8	210.9	91.3	33.8	47.1	23.4	8.8	4.8	6.0	3.9	3.6	5.4	6.1	1016.7	493.7	87.6	1016.7	
15	291.4	170.1	156.4	998.4	654.9	172.0	247.4	93.8	152.5	96.7	59.2	77.7	176.6	130.3	104.8	69.2	12.3	1.1	3.4	0.9	1.4	1.8	1.8	1.4	153.1	998.4	
16	0.6	0.8	0.5	1.7	1.2	3.3	0.4	12.5	10.3	26.4	45.1	29.0	64.2	205.7	421.7	248.5	237.1	237.3	111.7	5.5	8.2	13.1	17.6	12.2	71.4	421.7	
17	12.6	11.9	2.8	3.4	3.1	2.4	2.8	2.4	3.6	25.9	21.6	26.0	11.6	14.3	12.1	42.7	53.3	64.1	25.2	3.5	8.0	3.5	1.2	8.4	15.3	64.1	
18	3.7	3.7	54.5	212.9	186.1	110.1	120.5	421.8	599.3	321.4	865.7	2112.6	1506.2	1138.2	764.3	1437.1	1621.2	962.4	964.5	1381.2	2739.6	2319.9	2439.6	775.3	960.9	2739.6	
19	1175.5	2164.2	1385.4	898.1	713.1	738.0	338.4	573.6	1107.3	1128.7	613.7	898.8	1044.9	710.8	517.0	865.0	495.1	234.5	170.8	169.4	92.0	106.7	75.7	16.7	676.4	2164.2	
20	8.6	57.3	5.3	7.9	88.3	299.0	124.2	147.5	219.0	311.9	580.9	955.0	757.2	1185.3	1132.3	1192.0	689.8	933.1	614.8	359.7	411.0	640.1	560.4	822.5	504.3	1192.0	
21	559.9	326.6	934.4	2259.0	2487.9	1455.9	329.1	2523.0	2206.5	1818.9	2913.9	906.7	550.2	1087.1	1004.4	828.1	872.4	718.4	295.4	195.8	235.1	147.7	52.8	52.0	1031.7	2913.9	
22	15.2	1.4	0.4	0.2	0.8	0.3	0.5	0.5	0.5	58.1	132.0	138.3	141.9	121.7	94.9	152.7	330.4	3.1	1.3	2.7	23.8	9.7	0.7	0.8	51.3	330.4	
23	0.8	0.7	2.5	2.6	2.4	1.0	4.1	191.4	32.0	74.4	214.9	263.2	280.3	277.7	101.2	221.7	220.8	188.1	158.7	211.3	83.0	3.3	1.6	3.8	105.9	280.3	
24	0.7	1.0	0.8	0.4	1.0	3.9	8.7	19.6	81.3	71.2	143.0	523.3	960.2	1148.6	801.1	1067.2	1259.2	1188.1	828.5	1704.7	2370.6	1238.0	1032.6	2271.8	696.9	2370.6	
25	1819.0	1303.8	1954.0	3153.4	1481.3	1354.7	1550.9	877.2	972.0	680.9	520.3	545.9	359.9	458.5	706.9	1429.5	1290.9	468.2	450.6	940.3	477.2	384.0	439.4	533.5	1006.3	3153.4	
26	560.2	297.1	177.5	71.5	78.8	9.9	9.1	6.7	11.7	10.9	5.9	55.2	47.9	33.6	169.4	1124.4	84.9	1717.2	47.5	3.4	37.0	20.9	32.2	19.2	193.0	1717.2	
27	13.5	15.6	15.8	14.9	11.3	4.2	2.3	3.4	3.3	9.5	4.2	11.6	24.0	242.0	158.6	269.0	447.9	435.7	212.1	227.0	872.6	734.2	354.6	323.2	183.8	872.6	
28	1012.7	1203.8	739.9	961.7	786.8	514.2	540.5	831.1	841.7	633.3	704.0	546.1	410.7	422.3	484.7	403.2	419.1	532.9	545.2	590.7	792.0	670.7	943.8	74.0	650.2	1203.8	
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100%	
MEAN	203.4	208.4	202.1	317.9	244.3	191.1	152.9	241.6	312.3	328.4	358.0	346.2	294.6	327.6	281.4	406.6	316.4	294.6	197.0	246.9	299.0	234.4	261.7	200.3			
MAX	1819.0	2164.2	1954.0	3153.4	2487.9	1455.9	1550.9	2523.0	2206.5	1818.9	2913.9	2112.6	1506.2	1185.3	1132.3	1437.1	1621.2	1717.2	964.5	1704.7	2739.6	2319.9	2439.6	2271.8			



Number of 24HR Exceedences	16	Proposed Guideline
Number of Non-Zero Readings	672	
Maximum 1-HR Average	3153.4 UG/M3	
Maximum 24-HR Average	1031.7 UG/M3	
IZS Calibration Time		Operational Time
Monthly Calibration	0	Operational Uptime
Standard Deviation	485.4	Monthly Average
		672 HRS
		100.0 %
		269.5 UG/M3

Entrance PM_{2.5} (µg/m³) – February 2021

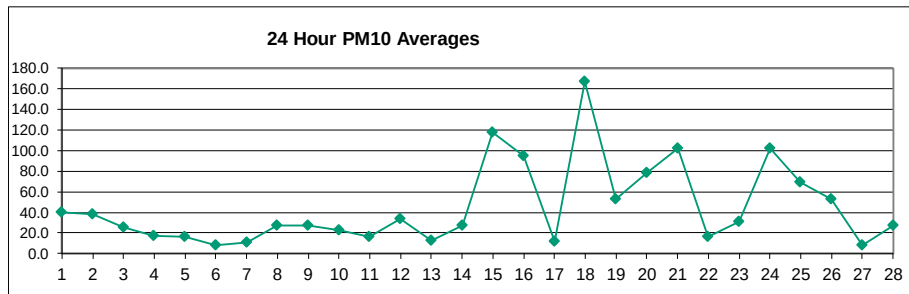
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	12.8	4.2	6.7	1.1	8.3	9.1	14.3	11.0	11.5	4.7	2.9	4.6	6.8	10.2	7.5	5.1	5.0	2.9	1.4	1.6	2.8	4.6	4.5	5.9	6.2	14.3
2	13.7	2.9	5.3	1.4	4.2	3.9	3.8	4.5	4.2	5.9	3.4	14.1	30.8	30.8	31.2	46.2	27.9	23.0	22.3	18.3	16.8	15.6	27.9	37.7	16.5	46.2
3	44.8	36.4	28.2	20.3	11.4	10.8	9.9	9.8	10.0	11.8	18.1	29.6	18.7	15.4	17.8	16.3	17.0	18.3	20.3	21.5	21.9	17.7	17.1	11.4	18.9	44.8
4	6.3	4.2	1.2	3.9	6.6	3.1	1.8	2.4	4.5	7.3	4.4	4.7	3.8	4.8	3.0	2.9	2.8	2.5	3.0	3.0	2.6	4.4	3.8	4.4	3.8	7.3
5	4.2	4.5	5.9	9.5	4.9	8.4	15.4	18.5	24.9	26.4	28.2	34.5	46.0	7.7	6.5	6.7	6.4	6.6	6.0	5.1	5.8	6.3	6.3	7.1	12.6	46.0
6	7.1	5.4	5.8	6.2	6.3	5.9	5.9	6.0	6.5	6.9	7.3	7.2	8.2	10.2	10.0	8.8	7.2	6.6	5.9	5.9	5.6	5.9	5.6	6.2	6.8	10.2
7	6.4	6.4	6.6	6.5	6.3	6.7	7.4	7.9	9.5	9.1	11.0	12.4	12.7	16.9	13.2	9.6	9.3	7.2	6.7	6.6	6.4	8.9	7.7	9.2	8.8	16.9
8	9.5	9.6	10.0	11.7	16.9	19.0	21.5	21.2	19.8	24.1	36.0	38.7	36.4	33.7	34.2	32.6	30.9	26.6	25.8	18.4	14.2	16.8	14.8	16.4	22.5	38.7
9	12.8	12.9	12.5	15.7	16.3	21.5	24.6	23.2	23.9	23.7	23.0	19.3	18.9	20.7	21.8	29.5	23.9	17.4	17.9	15.9	15.5	15.3	19.0	20.2	19.4	29.5
10	22.0	21.8	19.2	15.4	14.4	11.8	14.7	16.9	16.8	14.3	14.8	13.3	10.3	11.6	9.8	7.8	6.6	6.7	7.0	12.3	12.4	9.1	11.7	9.9	12.9	22.0
11	9.3	13.9	12.0	6.5	7.0	10.9	11.2	23.7	16.7	12.7	9.7	7.6	7.7	9.4	7.2	6.1	6.5	5.5	6.3	5.6	11.7	7.4	13.3	13.9	10.1	23.7
12	17.5	19.6	15.8	16.0	16.9	12.8	10.2	12.3	9.7	5.8	8.2	4.4	2.8	3.4	4.0	3.2	4.6	3.6	4.2	4.7	3.2	4.9	8.1	4.4	8.4	19.6
13	4.3	8.1	17.1	8.3	5.1	3.9	3.9	4.4	5.9	5.4	6.0	4.6	6.3	3.8	4.0	4.4	5.1	6.5	5.5	4.7	7.3	8.5	8.9	10.7	6.4	17.1
14	10.5	7.7	7.8	8.0	9.1	9.9	8.0	8.8	14.9	12.5	6.1	5.3	18.3	8.2	9.2	7.2	5.7	7.1	6.4	5.5	6.8	8.3	9.6	4.0	8.5	18.3
15	4.7	7.9	6.1	7.1	7.9	18.2	27.9	24.7	16.7	19.4	23.9	22.6	14.3	15.7	26.2	25.8	31.9	16.4	8.3	12.3	22.7	16.2	15.8	11.1	16.8	31.9
16	11.8	20.6	13.8	18.2	14.0	9.2	8.5	21.6	27.1	37.4	39.3	30.4	48.5	16.5	5.8	1.7	3.8	7.6	10.8	8.1	12.6	13.9	14.4	8.5	16.8	48.5
17	6.6	5.8	5.7	7.4	6.9	7.0	7.4	8.1	8.4	15.2	13.1	6.4	4.6	4.9	5.2	5.3	5.1	8.7	6.1	7.0	8.0	4.5	4.6	8.5	7.1	15.2
18	13.7	13.0	12.7	11.0	13.2	19.5	20.8	22.4	29.0	35.1	39.8	38.4	24.6	20.3	14.2	14.2	13.4	14.9	10.0	12.1	23.7	21.3	13.5	7.7	19.1	39.8
19	5.6	18.2	4.0	4.5	4.7	7.1	3.9	3.2	7.4	11.8	5.9	8.8	10.3	7.9	4.3	11.2	9.4	4.4	2.1	1.8	0.9	1.2	1.4	10.1	6.3	18.2
20	7.8	6.8	5.1	5.4	2.8	1.4	2.1	1.8	3.2	3.8	4.9	11.1	12.3	15.3	14.0	16.2	11.2	12.6	8.0	8.1	7.0	10.2	9.8	10.7	8.0	16.2
21	10.0	7.0	11.3	26.4	18.5	13.1	4.1	24.9	17.2	14.5	29.5	4.5	3.3	11.8	8.1	5.4	9.0	6.8	1.8	3.6	2.6	1.2	2.6	4.0	10.1	29.5
22	1.9	3.2	2.8	2.2	13.3	17.5	5.8	12.9	17.5	6.5	8.2	4.9	2.7	2.1	5.1	2.6	9.5	1.5	1.0	4.8	12.3	8.5	1.7	1.3	6.3	17.5
23	1.4	1.5	14.6	34.2	26.4	26.8	12.0	17.0	16.2	8.5	4.3	2.1	1.4	2.0	2.5	1.7	3.7	4.3	2.1	2.9	2.2	3.3	4.4	6.7	8.4	34.2
24	15.8	32.2	23.1	9.8	19.5	22.0	28.4	38.5	40.8	34.2	30.2	8.0	9.6	9.2	11.2	13.5	13.4	11.5	4.3	10.4	10.8	3.9	8.2	5.1	17.2	40.8
25	17.0	14.9	16.5	25.1	10.5	10.9	9.8	9.6	11.2	9.2	9.6	12.5	9.5	6.6	12.7	9.7	7.6	5.9	3.2	1.6	2.7	1.6	1.4	0.7	9.2	25.1
26	1.0	2.9	4.0	2.2	1.8	4.1	7.2	14.0	16.3	25.0	15.2	13.1	14.4	11.6	13.9	13.3	7.6	22.3	29.6	3.6	14.9	2.4	2.8	2.7	10.2	29.6
27	3.5	3.6	4.2	3.9	4.4	4.0	6.0	6.3	4.6	6.5	6.0	5.0	6.9	3.2	2.7	1.5	2.8	1.2	1.2	1.2	1.2	4.1	1.2	1.2	3.6	6.9
28	2.7	5.2	1.8	2.8	2.5	1.6	3.0	4.7	5.1	4.6	4.9	4.9	7.2	9.0	6.3	5.8	3.5	4.0	2.3	2.6	3.7	4.3	4.4	2.5	4.1	9.0
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100%
MEAN	10.2	10.7	10.0	10.4	10.0	10.7	10.7	13.6	14.3	14.4	14.8	13.3	14.2	11.5	11.1	11.2	10.4	9.4	8.2	7.5	9.2	8.2	8.7	8.6		
MAX	44.8	36.4	28.2	34.2	26.4	26.8	28.4	38.5	40.8	37.4	39.8	38.7	48.5	33.7	34.2	46.2	31.9	26.6	29.6	21.5	23.7	21.3	27.9	37.7		



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	672	
Maximum 1-HR Average	48.5 UG/M3	
Maximum 24-HR Average	22.5 UG/M3	
Monthly Calibration	0	Operational Time
Standard Deviation	8.568	Operational Uptime
		Monthly Average
		672 HRS
		100.0 %
		10.9 UG/M3

Entrance PM₁₀ (µg/m³) – February 2021

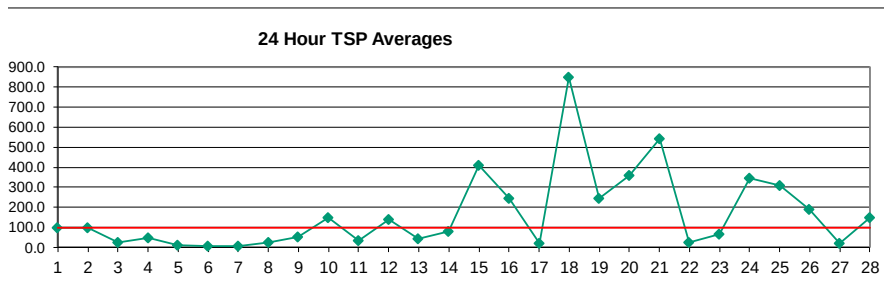
Day	HOUR																								MEAN	MAX
1	33.6	26.5	51.6	4.7	44.9	41.9	26.0	66.3	73.9	25.1	22.6	48.2	76.8	117.9	56.5	53.6	40.1	20.1	8.3	10.3	17.4	24.9	22.2	36.1	39.6	117.9
2	97.2	15.5	46.3	2.0	6.3	5.7	5.6	19.0	47.6	40.6	24.8	78.7	82.9	72.0	74.7	66.5	37.5	29.0	27.8	20.1	19.0	16.7	36.9	53.9	38.6	97.2
3	65.3	52.9	40.4	26.8	11.6	11.0	10.2	10.0	10.4	13.3	24.3	39.7	25.5	19.9	24.5	20.6	21.0	23.7	29.0	31.9	32.9	26.5	25.7	17.1	25.6	65.3
4	9.4	6.2	3.1	9.8	33.9	16.5	15.8	21.3	46.6	52.6	29.6	26.4	22.4	33.0	20.0	8.1	12.5	10.4	5.7	3.6	2.9	5.4	4.3	5.0	16.9	52.6
5	4.6	5.2	8.0	13.8	5.9	10.0	16.2	19.2	27.8	30.4	39.6	50.6	67.8	9.7	7.6	8.2	7.6	8.0	7.1	5.7	6.8	7.6	7.0	7.7	15.9	67.8
6	7.6	5.6	6.3	6.8	6.8	6.3	6.5	6.9	7.5	8.5	9.7	9.6	11.1	13.6	12.3	10.8	8.4	7.2	6.3	6.3	6.2	6.3	6.1	6.6	7.9	13.6
7	6.9	6.9	6.9	6.8	6.5	7.1	8.2	8.9	10.5	11.8	15.8	17.2	16.9	24.1	16.7	10.6	10.1	7.9	7.4	7.7	6.9	11.7	9.2	11.4	10.6	24.1
8	11.7	11.9	12.9	15.6	23.5	24.1	28.4	28.8	26.0	28.5	39.5	45.1	40.1	38.1	37.1	34.3	32.2	27.5	36.3	19.2	17.0	24.8	20.0	23.1	26.9	45.1
9	16.3	16.9	16.4	22.4	20.8	30.8	36.0	32.6	31.8	32.2	39.4	26.0	20.9	25.3	26.2	40.9	35.3	20.2	22.1	19.1	18.3	20.4	48.3	28.9	27.0	48.3
10	30.9	29.7	25.5	18.8	17.8	15.2	19.6	23.4	23.5	24.0	33.3	30.0	13.6	17.9	12.8	9.0	11.4	12.1	15.5	72.7	36.4	13.0	17.0	14.3	22.4	72.7
11	13.3	20.4	17.4	8.7	9.7	15.6	16.5	35.0	24.7	17.5	18.5	16.5	17.6	27.3	14.3	12.9	9.2	10.7	13.9	8.0	16.8	11.0	19.6	20.4	16.5	35.0
12	26.2	29.3	34.1	76.9	100.6	53.3	52.2	154.6	42.6	34.3	56.8	10.6	8.5	11.8	16.2	9.1	36.7	7.1	6.7	5.2	3.8	5.6	10.2	5.9	33.3	154.6
13	6.0	11.7	25.6	11.5	6.4	4.9	4.7	5.7	8.5	24.8	67.3	14.8	15.9	6.2	8.2	8.1	8.7	13.8	7.8	5.2	9.1	11.3	12.0	15.4	13.1	67.3
14	13.5	9.5	8.9	10.4	13.1	14.6	11.7	12.7	22.3	25.7	51.9	42.4	167.4	27.6	33.1	25.7	13.9	18.2	15.5	8.9	11.5	12.1	47.8	41.2	27.5	167.4
15	35.9	56.2	51.1	73.8	83.5	169.7	264.4	237.5	144.0	166.3	207.2	169.5	85.2	81.8	153.3	134.2	163.2	87.5	36.6	64.3	103.4	95.5	94.6	68.1	117.8	264.4
16	65.6	121.3	76.9	121.3	90.6	43.3	47.4	120.4	188.3	271.5	256.3	223.8	321.1	94.6	47.5	7.5	16.2	34.7	60.1	8.8	16.6	19.2	18.7	10.7	95.1	321.1
17	7.6	7.1	6.6	9.4	8.3	8.7	8.9	8.8	11.2	22.8	40.4	26.9	7.4	8.1	6.8	9.8	9.0	18.1	6.9	9.1	10.8	5.7	6.1	12.4	11.5	40.4
18	20.5	20.6	102.8	84.8	113.0	210.0	194.5	216.1	324.7	379.2	494.1	456.6	205.5	132.3	72.0	83.6	79.4	71.6	66.3	91.9	226.1	192.0	112.1	62.4	167.2	494.1
19	42.8	163.0	25.6	33.0	38.7	58.3	24.7	20.2	61.9	100.7	47.3	80.3	95.1	81.5	35.3	94.5	91.9	46.8	14.3	13.0	6.3	6.2	5.9	76.9	52.7	163.0
20	46.5	34.2	22.1	35.7	15.3	15.9	18.6	11.6	26.0	27.9	47.7	118.7	148.1	158.2	161.8	173.5	129.1	136.6	76.6	91.0	72.2	104.8	96.8	115.8	78.5	173.5
21	109.9	75.6	113.6	291.3	223.2	155.1	47.4	295.3	197.7	166.8	344.6	44.8	22.6	75.5	56.7	38.4	67.5	49.0	14.3	16.6	18.8	6.3	11.2	18.1	102.5	344.6
22	2.7	4.7	3.7	3.2	39.2	26.3	8.6	19.3	26.1	15.2	24.2	16.2	9.8	6.2	22.6	15.2	42.0	5.9	1.7	8.4	62.5	12.5	2.2	1.7	15.8	62.5
23	1.7	1.8	21.4	51.3	39.5	104.4	32.6	81.1	99.8	37.5	18.4	14.9	9.4	19.8	7.4	10.5	20.0	27.2	11.5	18.1	12.7	22.0	33.2	44.9	30.9	104.4
24	78.3	128.0	110.0	57.9	119.9	57.4	42.7	85.9	184.7	292.6	293.3	59.8	87.6	76.8	72.6	100.9	117.8	94.5	41.6	95.5	98.2	33.2	74.8	39.7	101.8	293.3
25	180.0	150.4	140.9	208.2	80.7	75.4	89.9	75.6	89.2	57.9	61.4	72.5	62.8	37.3	89.5	71.3	54.9	29.3	13.3	7.3	5.4	5.1	4.3	2.4	69.4	208.2
26	4.2	12.7	16.6	10.1	7.3	18.0	49.7	99.1	125.3	186.1	100.9	93.2	100.5	73.8	83.3	76.0	41.1	98.9	43.6	4.7	21.6	2.6	3.1	2.9	53.1	186.1
27	4.0	3.9	4.7	4.3	4.8	4.3	6.4	6.7	5.2	8.9	8.3	7.2	9.1	5.7	9.9	7.4	11.9	5.3	3.5	6.1	5.4	42.6	4.0	4.9	7.7	42.6
28	22.0	42.9	11.9	24.7	19.6	7.1	20.7	37.0	45.3	33.6	40.4	44.0	48.1	61.9	35.2	26.5	15.1	18.1	11.0	11.8	17.8	22.6	24.5	5.4	27.0	61.9
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100%
MEAN	34.4	38.2	36.1	44.4	42.6	43.2	39.8	62.8	69.0	76.3	87.8	67.3	64.3	48.5	43.4	41.7	40.9	33.6	21.8	23.9	31.5	27.4	27.8	26.9		
MAX	180.0	163.0	140.9	291.3	223.2	210.0	264.4	295.3	324.7	379.2	494.1	456.6	321.1	158.2	161.8	173.5	163.2	136.6	76.6	95.5	226.1	192.0	112.1	115.8		



Number of Non-Zero Readings	672
Maximum 1-HR Average	494.1 UG/M3
Maximum 24-HR Average	167.2 UG/M3
Monthly Calibration	0
Standard Deviation	60.16
Operational Time	672 HRS
Operational Uptime	100.0 %
Monthly Average	44.7 UG/M3

Entrance TSP (µg/m³) – February 2021

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	71.2	70.6	74.5	7.2	68.9	114.1	39.9	146.5	151.2	39.4	65.8	141.0	229.8	373.5	148.1	164.1	126.2	57.6	15.8	28.6	53.0	38.2	39.8	87.9	98.0	373.5
2	257.3	33.3	96.3	1.9	7.1	6.3	5.8	49.3	231.1	115.1	77.2	244.6	293.4	281.9	350.8	67.6	30.0	26.2	25.1	14.4	14.1	12.1	35.7	59.9	97.4	350.8
3	74.8	61.1	46.1	27.4	7.6	7.1	6.6	6.4	6.8	8.7	19.3	32.9	19.4	14.6	19.9	15.6	15.0	18.1	26.3	33.3	37.8	30.5	29.5	19.5	24.3	74.8
4	10.2	6.5	3.3	12.3	65.9	54.6	56.8	71.0	189.0	178.1	111.0	98.3	84.9	102.4	54.1	17.5	25.6	20.2	13.8	2.7	1.9	4.2	3.0	3.4	49.6	189.0
5	3.1	3.7	6.7	13.3	4.1	7.2	11.1	12.5	19.6	20.9	33.3	54.4	77.2	6.4	5.1	5.4	5.1	5.5	4.9	3.8	4.6	5.2	4.8	5.1	13.5	77.2
6	5.0	3.6	4.2	4.5	4.5	4.1	4.3	4.6	5.2	6.2	7.2	7.5	8.7	10.7	8.8	7.8	5.8	4.8	4.2	4.2	4.2	4.2	4.1	4.4	5.5	10.7
7	4.5	4.5	4.5	4.4	4.2	4.7	5.8	6.5	7.1	10.1	14.4	14.4	13.6	19.8	12.1	7.2	6.7	5.5	5.2	6.3	4.9	12.0	8.2	10.6	8.2	19.8
8	10.1	10.4	12.7	16.6	26.3	23.6	30.8	32.0	27.4	25.2	30.4	35.2	29.4	30.0	27.6	37.2	27.8	24.9	44.3	13.3	14.3	28.4	21.7	26.0	25.2	44.3
9	16.3	17.2	16.1	25.1	18.1	27.4	37.3	30.1	27.6	29.0	83.9	67.1	20.5	37.2	29.6	59.4	70.2	20.0	30.7	29.6	38.1	63.9	446.2	32.0	53.0	446.2
10	35.1	32.7	27.2	18.2	17.2	34.0	20.9	26.5	26.2	458.8	517.1	206.8	37.7	46.5	49.7	13.4	58.8	60.6	153.7	1246.3	454.3	14.3	19.1	16.3	149.6	1246.3
11	15.2	23.6	19.9	7.3	9.9	15.9	17.4	38.0	26.5	15.5	82.7	86.8	43.0	92.0	26.1	20.1	13.4	24.4	128.7	8.3	17.8	11.9	21.6	22.4	32.8	128.7
12	29.0	33.7	72.6	287.2	611.7	231.6	274.1	870.8	163.0	171.6	200.9	22.6	31.6	24.9	41.8	27.6	130.6	30.9	19.3	3.6	2.7	3.9	8.7	5.7	137.5	870.8
13	5.8	12.4	28.5	10.7	4.9	3.7	3.7	5.3	9.2	190.6	496.7	64.1	23.1	14.9	22.4	17.7	15.7	24.0	7.9	4.1	7.6	10.3	11.1	15.1	42.1	496.7
14	10.0	6.6	6.1	8.5	13.7	16.0	12.3	13.7	25.6	64.5	222.5	157.3	546.6	58.3	82.9	63.0	33.5	36.0	24.9	19.7	22.0	11.6	246.5	203.2	79.4	546.6
15	179.5	200.6	240.0	434.5	538.2	744.1	1015.8	1007.1	595.4	648.7	670.0	575.5	252.4	225.9	457.4	350.7	345.2	201.2	69.4	167.9	206.0	254.1	265.1	217.4	410.9	1015.8
16	170.7	292.8	179.3	325.4	250.0	102.5	105.4	307.9	577.8	886.5	652.4	535.7	736.9	185.5	157.7	22.8	33.9	76.2	164.6	6.0	12.4	16.9	16.8	8.7	242.7	886.5
17	5.6	5.5	4.7	7.0	6.0	6.7	6.4	5.9	9.4	26.2	61.8	66.6	19.6	22.2	11.1	28.2	37.2	87.5	4.9	7.3	10.7	4.6	4.9	12.2	19.3	87.5
18	21.7	30.0	552.3	393.3	509.0	989.9	886.5	1119.6	1643.7	1656.0	2399.0	2558.6	1270.2	706.5	351.7	374.0	311.6	368.2	326.1	448.0	1427.9	1134.4	574.8	299.6	848.0	2558.6
19	180.2	793.8	147.0	154.6	248.1	392.0	129.5	110.3	339.8	534.9	220.1	398.0	374.5	385.7	157.1	434.1	329.1	185.9	61.2	49.4	21.0	18.3	19.2	177.4	244.2	793.8
20	64.5	54.3	40.0	91.1	45.1	71.6	84.2	48.6	111.0	90.7	219.4	587.2	727.2	713.3	862.5	866.8	673.6	696.3	339.1	368.4	293.0	500.6	472.9	630.9	360.5	866.8
21	534.9	408.6	671.1	1603.2	1312.3	873.9	272.0	1599.5	1051.0	873.9	1878.6	294.4	104.3	244.9	250.6	168.8	278.6	177.7	78.5	94.6	114.3	26.5	34.1	35.0	540.9	1878.6
22	2.3	4.6	3.2	3.3	48.6	28.6	9.2	16.5	23.2	14.7	44.7	18.6	19.1	18.5	46.4	49.0	94.4	14.8	1.4	9.9	90.6	12.6	1.6	1.2	24.0	94.4
23	1.2	1.2	22.3	54.4	43.0	152.4	49.6	199.3	268.1	83.9	66.9	59.1	38.5	65.7	15.9	22.1	54.1	83.2	38.0	34.5	30.5	51.1	86.2	79.7	66.7	268.1
24	164.7	168.2	184.5	187.8	466.1	182.2	49.6	143.7	503.0	961.6	1023.9	199.9	314.7	262.2	248.9	401.7	478.0	446.8	168.2	506.4	486.0	172.0	382.0	198.5	345.9	1023.9
25	1014.2	842.2	642.6	1097.0	401.5	432.4	517.9	363.4	367.1	235.3	146.5	229.5	163.7	99.2	253.5	270.4	228.6	66.6	28.7	22.6	11.8	11.8	11.8	6.0	311.0	1097.0
26	22.7	42.1	48.9	34.1	25.3	44.4	113.6	245.3	344.0	423.9	182.2	305.8	384.2	311.9	414.3	517.5	284.3	724.0	50.5	3.8	23.7	1.7	2.0	1.9	189.7	724.0
27	2.6	2.6	3.1	2.8	3.1	2.8	4.1	4.3	3.4	7.0	7.7	7.4	7.1	13.6	23.6	24.6	38.2	14.2	7.9	22.5	22.6	181.8	19.1	18.5	18.5	181.8
28	109.5	301.8	78.1	196.8	187.9	45.8	210.8	373.5	375.9	193.8	243.0	221.2	155.8	179.4	101.7	66.9	46.9	43.7	42.4	62.5	120.2	113.6	104.9	11.7	149.5	375.9
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100%
MEAN	107.9	123.9	115.6	179.6	176.7	165.0	142.2	244.9	254.6	284.7	349.2	260.4	215.3	162.4	151.1	147.2	135.6	126.6	67.3	115.1	126.7	98.2	103.4	78.9		
MAX	1014.2	842.2	671.1	1603.2	1312.3	989.9	1015.8	1599.5	1643.7	1656.0	2399.0	2558.6	1270.2	713.3	862.5	866.8	673.6	724.0	339.1	1246.3	1427.9	1134.4	574.8	630.9		



Number of 24HR Exceedences	12	Proposed Guideline
Number of Non-Zero Readings	672	
Maximum 1-HR Average	2558.6 UG/M3	
Maximum 24-HR Average	848.0 UG/M3	
Monthly Calibration	0	Operational Time
Standard Deviation	294.0	Operational Uptime
		Monthly Average
		672 HRS
		100.0 %
		163.9 UG/M3