

LAFARGE CANADA INC.

AMBIENT AIR QUALITY MONTHLY REPORT

APRIL 2023

MAY 17, 2023



wsp



AMBIENT AIR QUALITY MONTHLY REPORT

APRIL 2023

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-05
DATE: MAY 17, 2023

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May 17, 2023

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

Attention: Nikolaos Veriotes P. Eng.

Dear Mr. Veriotes,

Subject: Ambient Air Quality Monthly Report – April 2023

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 April 2023.

Lagoon	Data Completeness (%)	1-Hour Average	24-hour Average
		Exceedances of AAAQO or AAAQG	Exceedances of AAAQO
TSP	100%	-	1
PM _{2.5}	96.8%	0	0
PM ₁₀	100%	-	-
NO	100%	-	-
NO ₂	100%	0	-
NO _x	100%	-	-
SO ₂	100%	0	0
Temperature	100%	-	-
Wind Speed / Direction	100%	-	-
Pressure	100%	-	-
Relative Humidity	100%	-	-
Precipitation	100%	-	-

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The following table summarizes the data completeness and reported exceedances of Alberta Ambient Air Quality Objectives (AAAOs) or Guidelines (AAAQG) at the Windridge Station for April 2023.

Windridge	Data Completeness (%)	1-Hour Average	24-hour Average	
		Exceedances of AAAQG	Exceedances of PM _{2.5} AAAQO	Exceedances of TSP AAAQO
TSP	100%	-	-	8
PM _{2.5}	100%	0	0	-
PM ₁₀	100%	-	-	-

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 exceedances of the Guidelines at the GRIMM Monitors for April 2023.

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%	5	1	15
Entrance	91.3%	0	0	18

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.
Senior Air Quality Specialist,
Vancouver Region

SIGNATURES

PREPARED BY



May 17, 2023

Rowena Seto, B.Sc.
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Date

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



May 17, 2023

Tyler Abel, M.Sc.
Senior Air Quality Specialist
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 (Figure 1-1). 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 April 1, 2023 and April 30, 2023.

This monthly report was prepared by Rowena Seto, Air Quality Specialist with WSP, on behalf of Lafarge and was reviewed by Tyler Abel, Senior Air Quality Specialist at WSP.

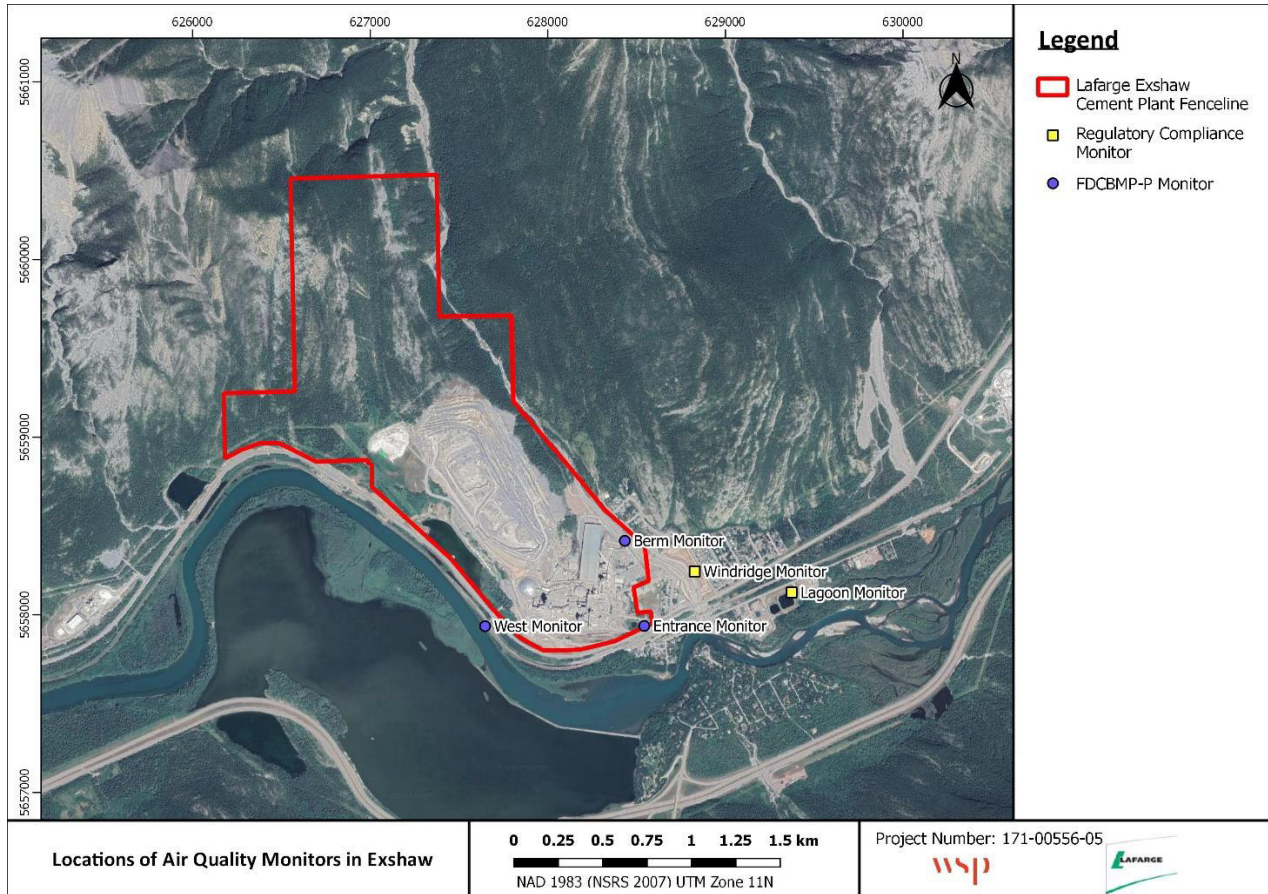


Figure 1-1 Locations of Air Quality Monitors in Exshaw

1.1 EXSHAW CREEK FLOOD MITIGATION

Due to flood mitigation construction at Exshaw creek (Figure 1-2), 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. The flood mitigation work has left an exposed creek bed area (see Figure below) that is a potential source of fugitive dust between Lafarge’s eastern fenceline and the Windridge station.



Figure 1-2 Photo of Completed Flood Mitigation Work at Exshaw Creek

2 APRIL 2023 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 each station 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
NO₂ (ppb)	100	28.5	0	11.4	-
SO₂ (ppb)	100	16.6	0	2.5	0
PM_{2.5} (µg/m³)	96.8	44.0	0 ¹	8.8	0
PM₁₀ (µg/m³)	100	334.2	-	62.8	-
TSP (µg/m³)	100	663.7	-	124.5	1
Temperature (°C)	100	23.7	-	14.1	-
Wind Speed (km/hr) /Direction (Degrees)	100	56.5/W	-	39.7/WSW	-
Precipitation (mm)	100	2.5 ²	-	15.25 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) – freezing temperatures can impact the precipitation totals in winter months

³ Monthly Total Accumulation of Precipitation (mm) - freezing temperatures can impact the precipitation totals in winter months

Data Quality Notes:

- There were zero days exceeding the 24-hour PM_{2.5} AAAQO.
- There were zero hours exceeding the 1-hour PM_{2.5} AAAQG.
- There was 1 day exceeding the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- At the Lagoon station, PM₁₀ and TSP analyzers recorded 100% uptime for the month of April.
- NO₂ and SO₂ analyzers recorded 100% uptime for the month of April.
- All meteorological analyzers recorded 100% uptime for the month of April.
- The PM_{2.5} analyzer recorded 96.8% uptime for the month of April due to 23 hours of equipment malfunction occurring at 2:00 on April 1st through April 9th, April 11th through April 13th, April 19th through April 25th, and April 27th through April 30th.

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)	100	31.0	0*	8.4	0
PM ₁₀ (µg/m ³)	100	485.0	-	169.4	-
TSP (µg/m ³)	100	939.0	-	265.7	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 zero days exceeding the 24-hour PM_{2.5} AAAQO.
- There were zero hours exceeding the 1-hour PM_{2.5} AAAQG.
- There were 8 days exceeding the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- The PM_{2.5}, PM₁₀, and TSP monitors recorded 100% uptime during the month of April.

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	1-Hour Average	24-hour Average
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	Data Completeness (%)	Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} (µg/m ³)	100	16.8	0*	11.7	0
PM ₁₀ (µg/m ³)	100	20.7	-	14.0	-
TSP (µg/m ³)	100	24.0	-	15.4	0

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

Data Quality Notes:

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

Calibration/Maintenance Notes:

- The analyzer recorded 100% uptime during the month of April.

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	114.7	5*	37.8	1
PM ₁₀ (µg/m ³)	100	960.9	-	287.9	-
TSP (µg/m ³)	100	2839.9	-	773.1	15

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

Data Quality Notes:

- There was 1 day exceeding the 24-hour PM_{2.5} Guidelines.
- There were 5 hours exceeding the 1-hour PM_{2.5} Guidelines.
- There were 15 days exceeding the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

- The analyzer recorded 100% uptime during the month of April.

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)	91.3	63.3	0*	24.4	0
PM ₁₀ (µg/m ³)	91.3	606.6	-	180.2	-
TSP (µg/m ³)	91.3	1759.5	-	440.3	18

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

Data Quality Notes:

- There were zero days exceeding the 24-hour PM_{2.5} Guidelines.
- There were zero hours exceeding the 1-hour PM_{2.5} Guidelines.
- There were 18 days exceeding the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

- The PM_{2.5}, PM₁₀, and TSP monitors recorded 91.3% uptime during the month of April due to 63 hours of collection error (i.e. communication error), which occurred on April 2nd from 20:00 to 24:00, April 3rd from 01:00 to 04:00 and 11:00, April 4th from 01:00 to 05:00, April 5th at 07:00 and 16:00 to 19:00, April 6th from 12:00 to 19:00, April 11th from 22:00 to 24:00, April 12th from 01:00 to 24:00, April 13th from 01:00 to 06:00, and April 21st at 14:00 and 17:00.

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 (**Error! Reference source not found.**) and tables and graphs illustrating the monitoring results for April 2023.

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 April 17 th . The monitor had 96.8% uptime for the month of April due to 23 hours of equipment malfunction occurring at 2:00 on April 1 st through April 9 th , April 11 th through April 13 th , April 19 th through April 25 th , and April 27 th through April 30 th .
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on April 17 th . The monitor had 100% uptime for the month of April.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on April 17 th . The monitor had 100% uptime for the month of April.
Oxides of Nitrogen	TEI 42C	The NO _x monitor was calibrated on April 26 th . The monitor had 100% uptime for the month of April.
Sulphur Dioxide	Teledyne API 102A	The SO ₂ monitor was calibrated on April 26 th . The monitor had 100% uptime for the month of April.
Precipitation	MetOne 130 Rain/Snow Gauge	The monitor had 100% uptime for the month of April.
Wind Speed	MetOne Wind Sensor	The monitor had 100% uptime for the month of April.
Wind Direction		

Ambient Temperature	MetOne Ambient Temperature Sensor	The monitor had 100% uptime for the month of April.
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Figure 3-1 Inlets on the top of WSP's Lagoon Station

3.2 MONITORING RESULTS AND TRENDS

Table 3-2 summarizes the hourly and daily concentrations recorded in April 2023. Figure 3-2 graphically illustrates the time series for hourly concentrations as well as wind speed and direction, while Figure 3-8 shows daily average concentrations recorded during April 2023 for the pollutants listed in Table 3-2. Table 3-3 summarizes the recorded exceedance. Additionally, Figure 3-3 to Figure 3-7 show the histograms of the hourly concentrations of NO₂, SO₂, PM_{2.5}, PM₁₀, and TSP measured at the Lagoon station.

There was 1 day exceeding the 24-hour TSP (100 µg/m³) AAAQO. There were 0 exceedances of the 24-hour PM_{2.5} (29 µg/m³) AAAQO. Furthermore, there were 0 exceedances of the 1-hour PM_{2.5} AAAQO (80 µg/m³).

Historically in April, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM_{2.5} AAAQO exceedances are 0. The maximum number of 24-hour TSP AAAQO exceedances recorded in April was 2 days in 2014.

At the Lagoon station strong wind gusting that typically occurs in the area contributes to increased particulate levels that may arise from multiple sources including the Lafarge Plant, Exshaw Creek, dry sections of the Bow River, highway and rail traffic moving past the station and fugitive emissions from open areas.

Table 3-2 Summary of April 2023 data at the Lagoon Station

Parameter	Guideline / Objectives		Station	Exceedances		Monthly		1-hour					24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration/ Meteorological Variable	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration/ Meteorological Variable	Day	
NO₂ (ppb)	159	-	Lagoon	0	-	0.4	7.5	28.5	27	10	4.2	135.7	11.4	12	100
SO₂ (ppb)	172	48	Lagoon	0	0	0.0	0.8	16.6	27	10	4.2	135.7	2.5	30	100
PM_{2.5} (µg/m³)	80	29	Lagoon	0	0	0.0	3.1	44.0	7	8	23.0	259.6	8.8	29	96.8
PM₁₀ (µg/m³)	-	-	Lagoon	-	-	0.0	22.1	334.2	25	12	32.3	247.4	62.8	25	100
TSP (µg/m³)	-	100	Lagoon	-	1	0.0	37.1	663.7	25	12	32.3	247.4	124.5	25	100
Temperature (°C)	-	-	Lagoon	-	-	-9.6	4.5	23.7	30	16	16.1	254.4	14.1	30	100
Wind Speed (km/hr)/Direction (degrees)	-	-	Lagoon	-	-	1.4	17.2	56.5/W	9	15	56.5	233.1	39.7/WSW	9	100
Precipitation (mm)	-	-	Lagoon	-	-	0.0	0.0	2.5 ¹	10	24	7.7	70.4	15.3 ²	-	100

¹ Maximum Daily Total Accumulation of Precipitation (mm) - freezing temperatures can impact the precipitation totals in winter months

² Monthly Total Accumulation of Precipitation (mm) - freezing temperatures can impact the precipitation totals in winter months

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

Date	TSP (ug/m³)	PM_{2.5} (ug/m³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Trailer						
2023-04-25	124.5	-	248.7	21.7	38.4	High wind event
Total # of Exceedances	1	0				
Maximum # of Exceedances (April)	2 (2014)	0 (2010 – 2022)				
Average # of Exceedances (April)	0	0				
Minimum # of Exceedances (April)	0 (2011 – 2013, 2015 – 2022)	0 (2010 – 2022)				

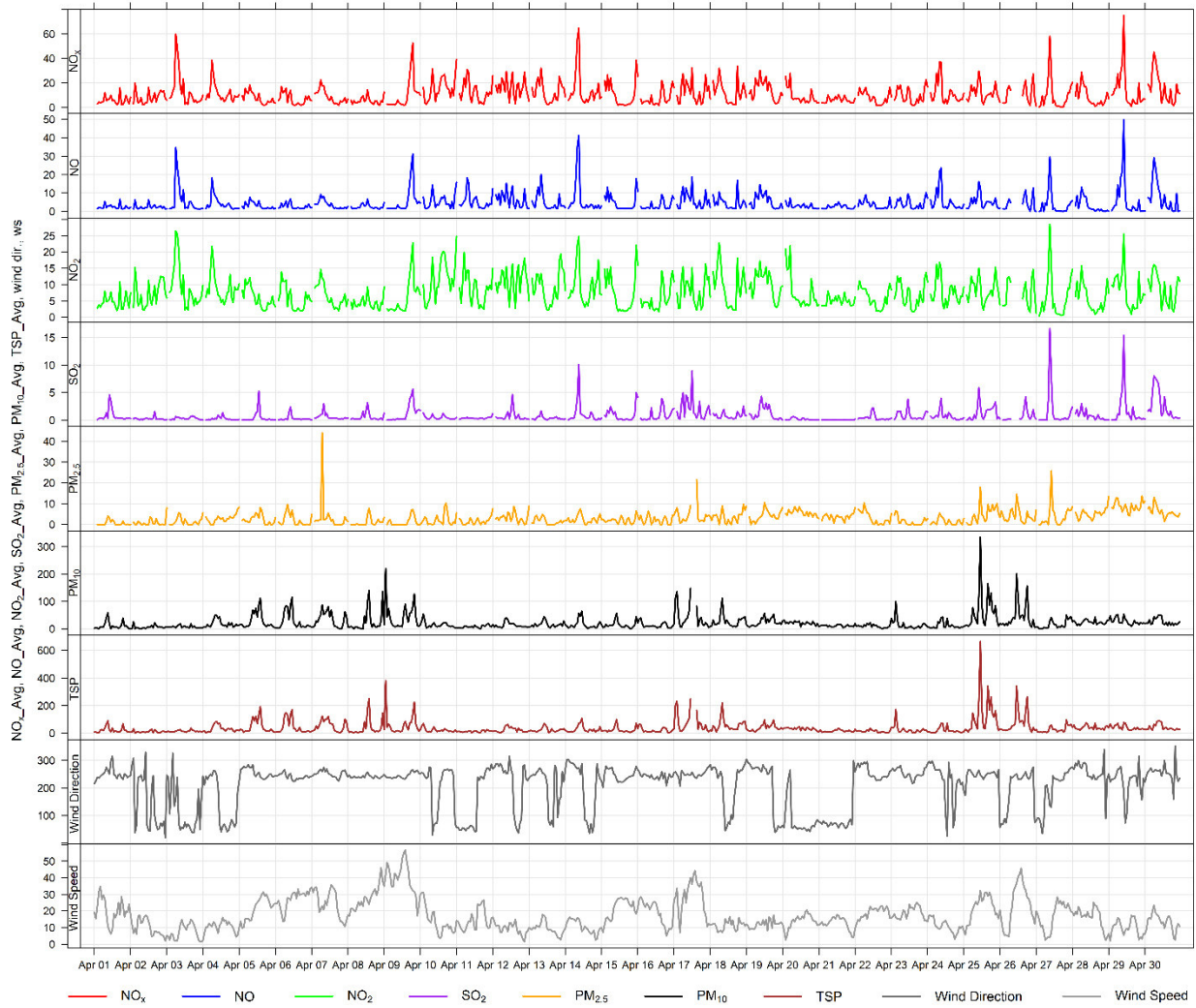


Figure 3-2 1-hour concentrations of NO_x, SO₂, particulate matter, wind direction and wind speed at the Lagoon station

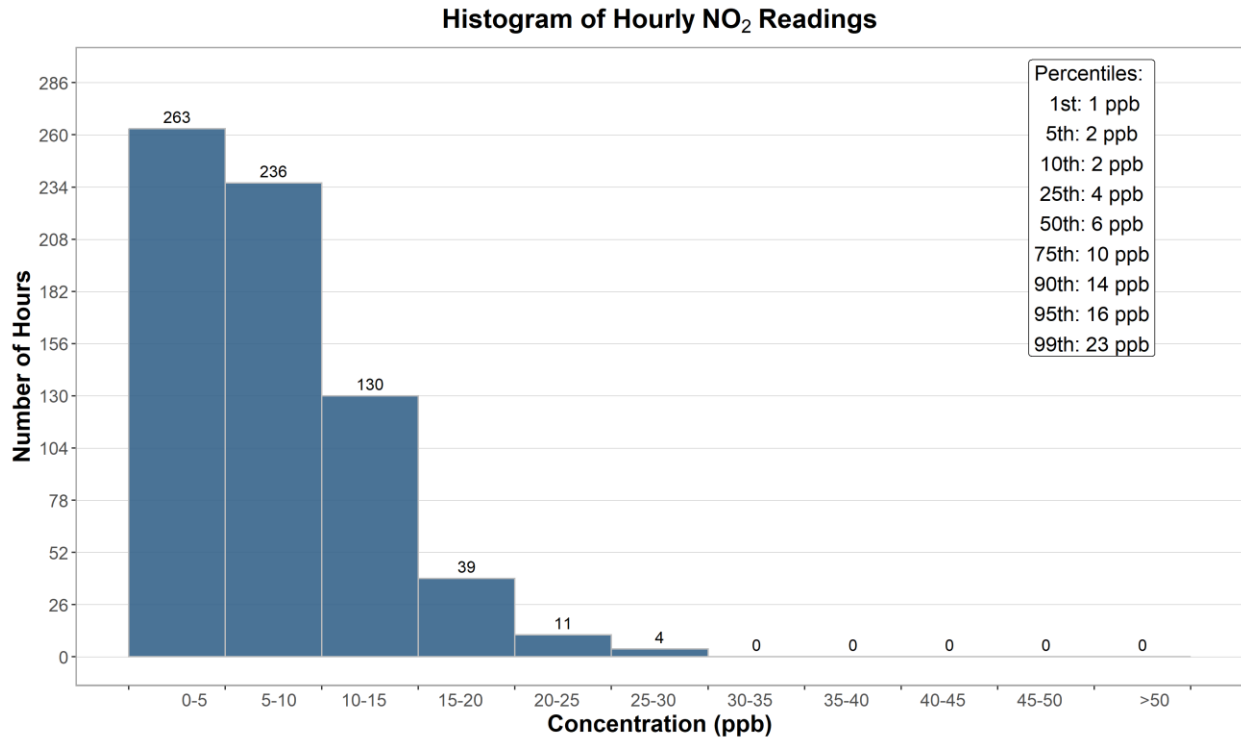


Figure 3-3 Histogram of hourly NO₂ concentrations at the Lagoon station

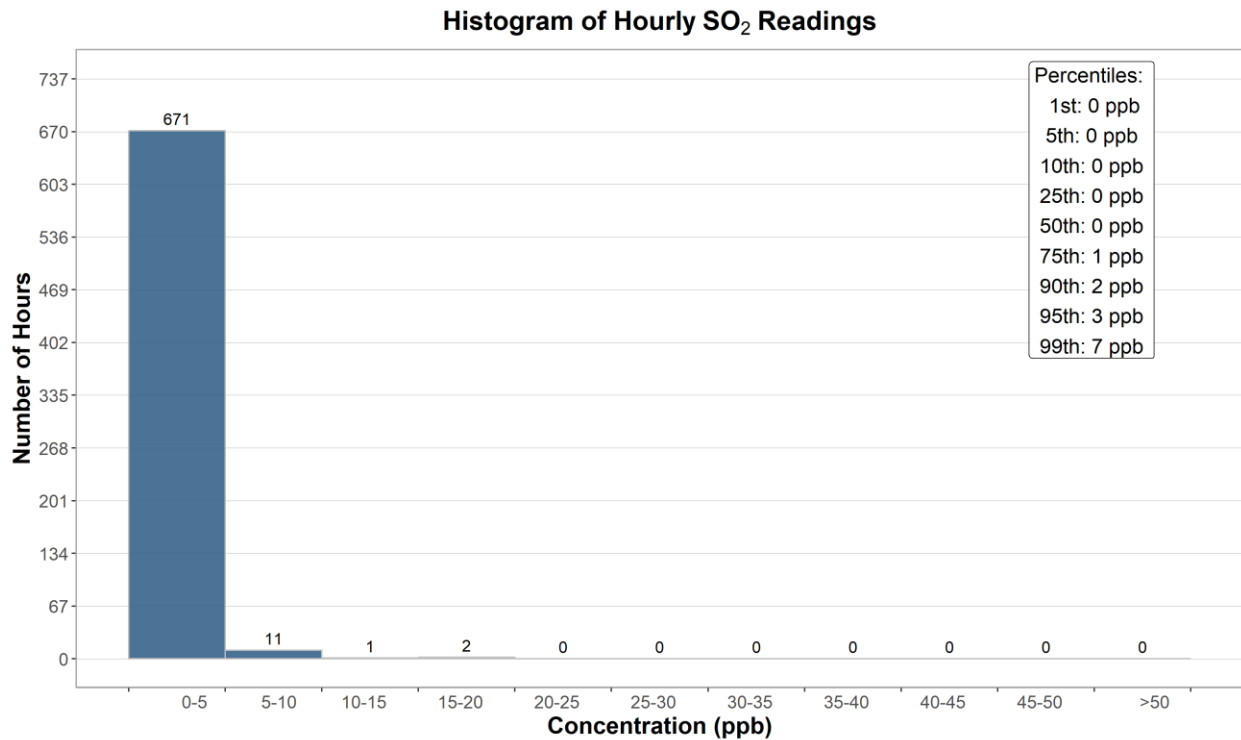


Figure 3-4 Histogram of hourly SO₂ concentrations at the Lagoon station

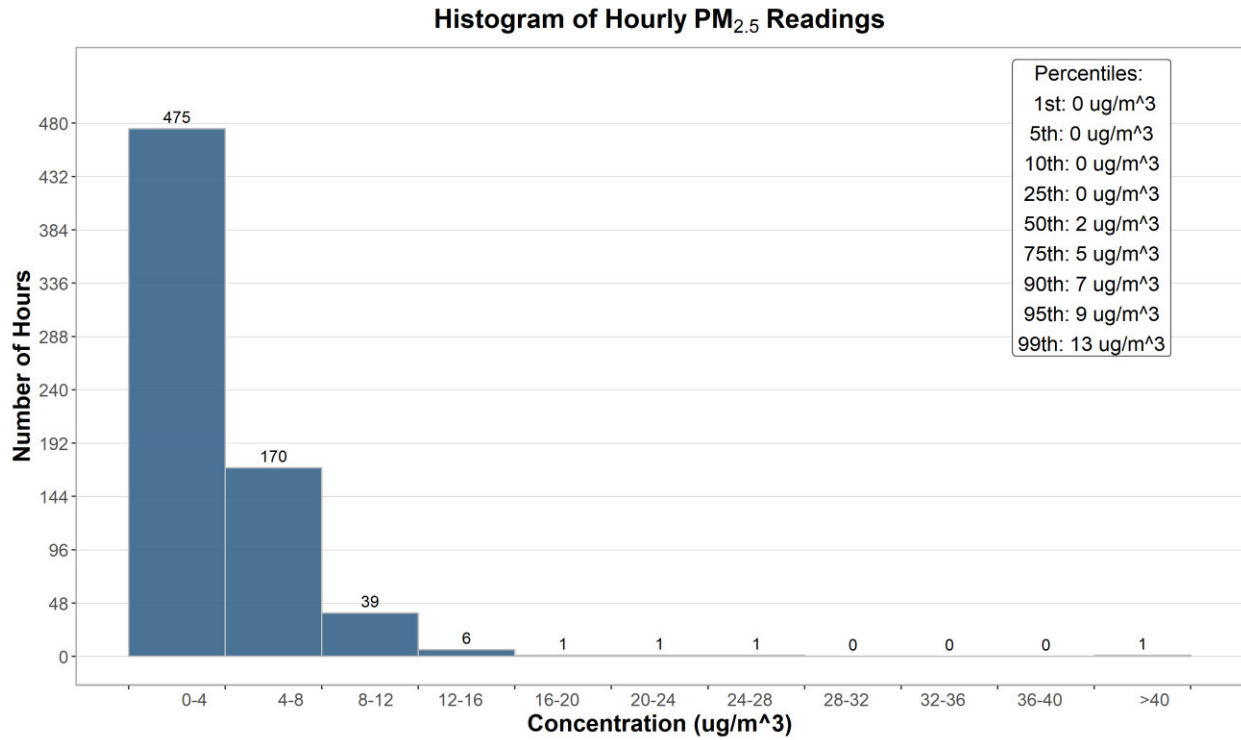


Figure 3-5 Histogram of hourly PM_{2.5} concentrations at the Lagoon station

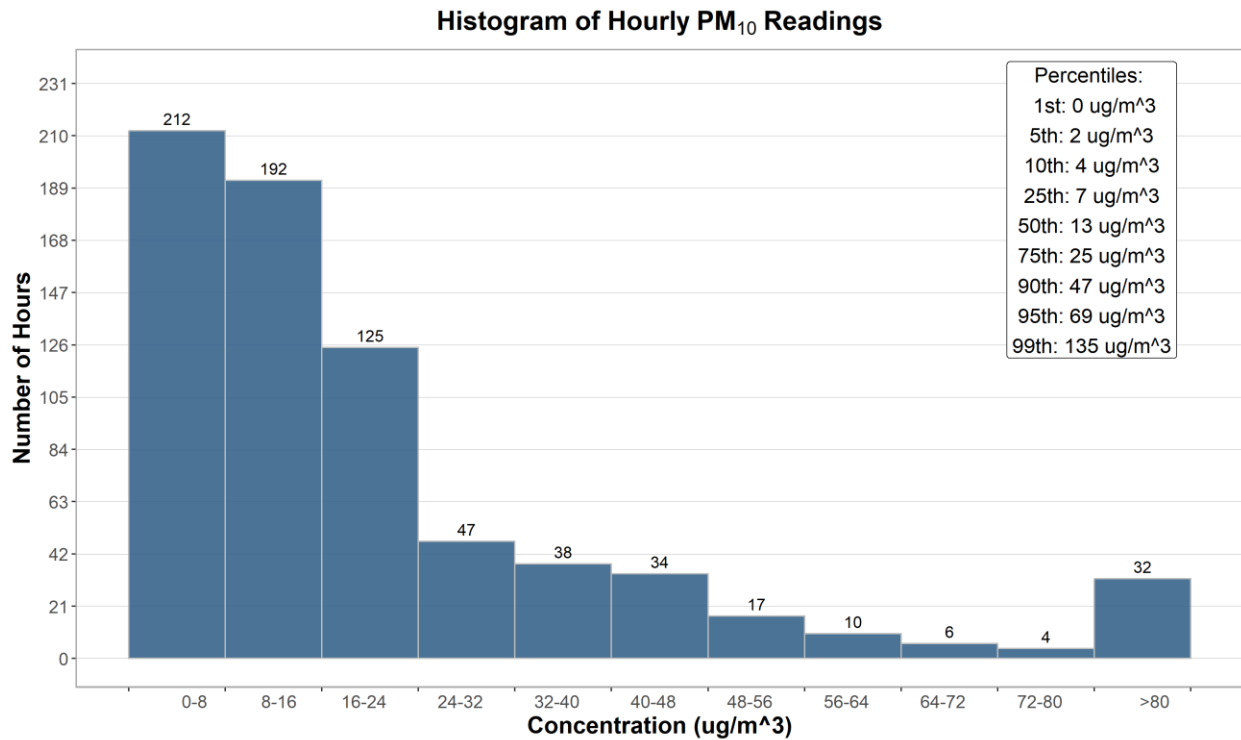


Figure 3-6 Histogram of hourly PM₁₀ concentrations at the Lagoon station

Histogram of Hourly TSP Readings

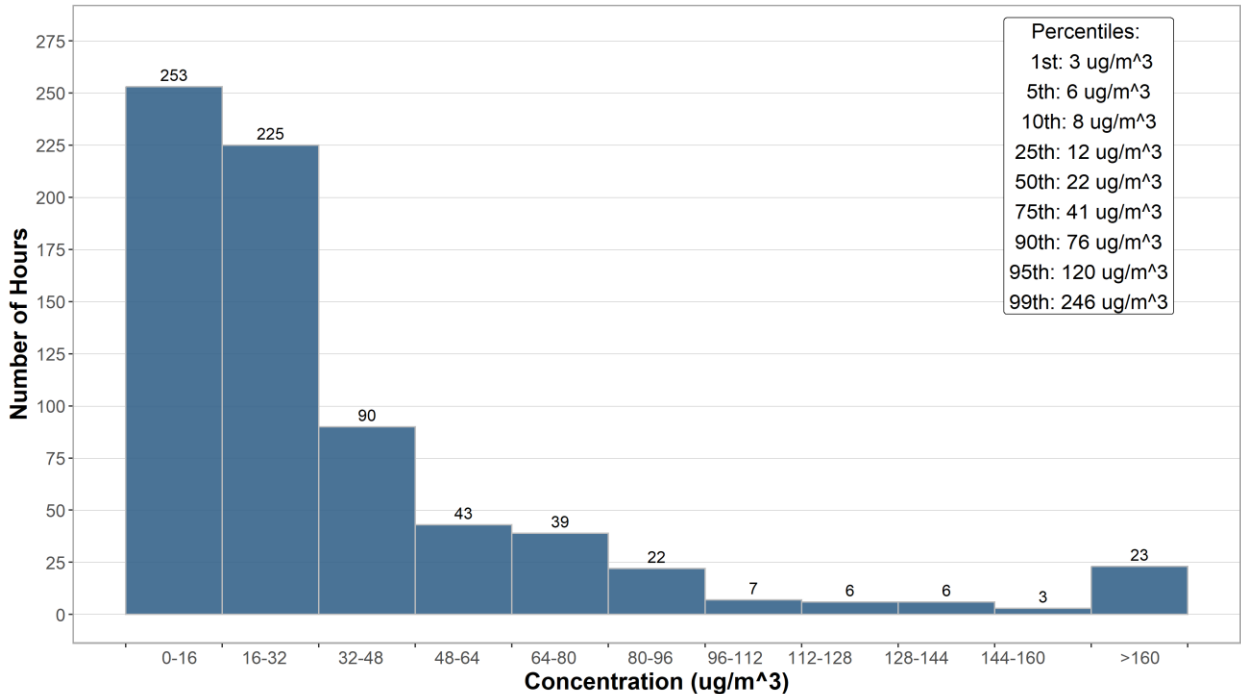


Figure 3-7 Histogram of hourly TSP concentrations at the Lagoon station

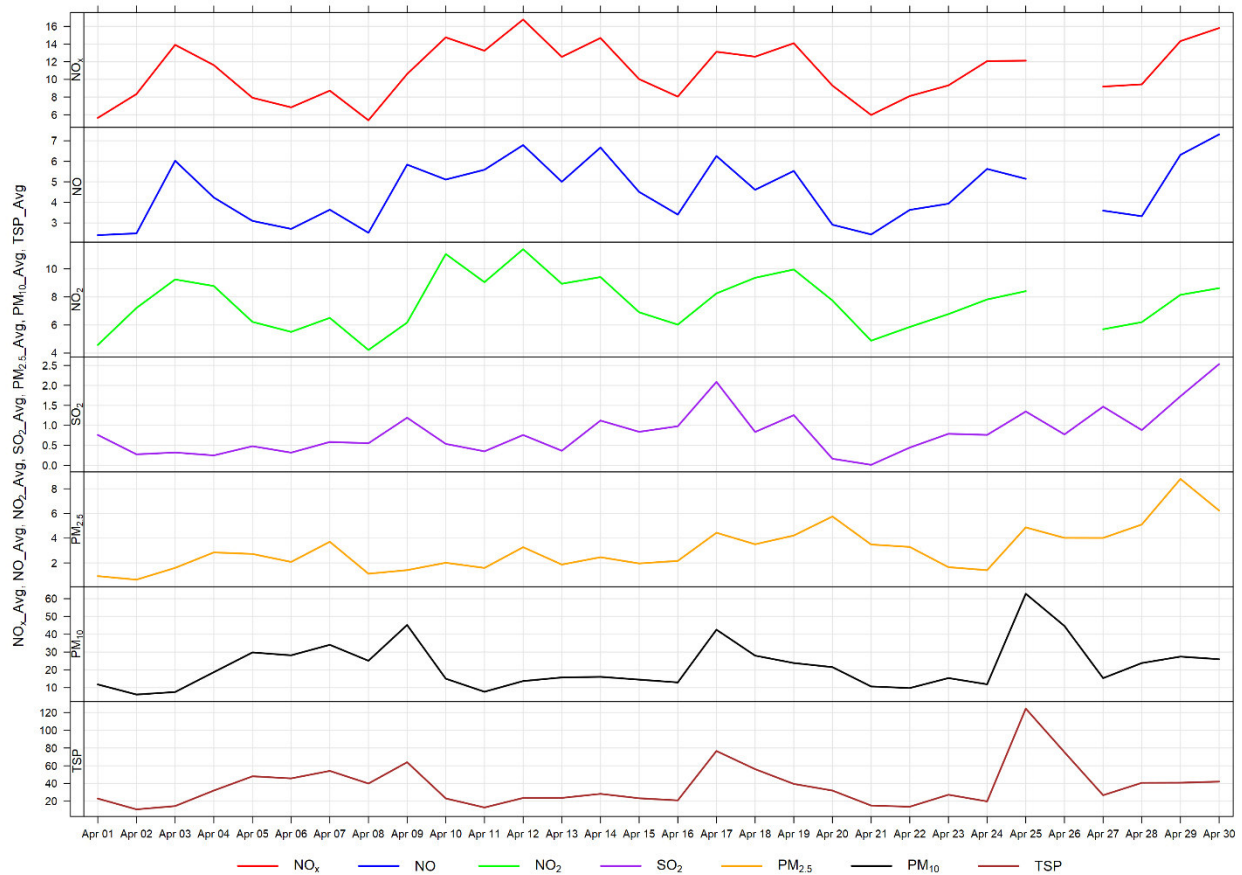


Figure 3-8 24-hour concentrations of NO_x, SO₂, and particulate matter at the Lagoon monitor

The following wind rose (Figure 3-9) shows the wind rose for the one day of TSP exceedance day. The wind rose shows that the winds predominately came from the west-southwest and were predominately over 20 km/hr.

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 typically shows that PM₁₀ and TSP concentrations have a diurnal pattern associated with Lafarge operations, daytime emissions from traffic and other airshed activities. The diurnal patterns also typically 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.

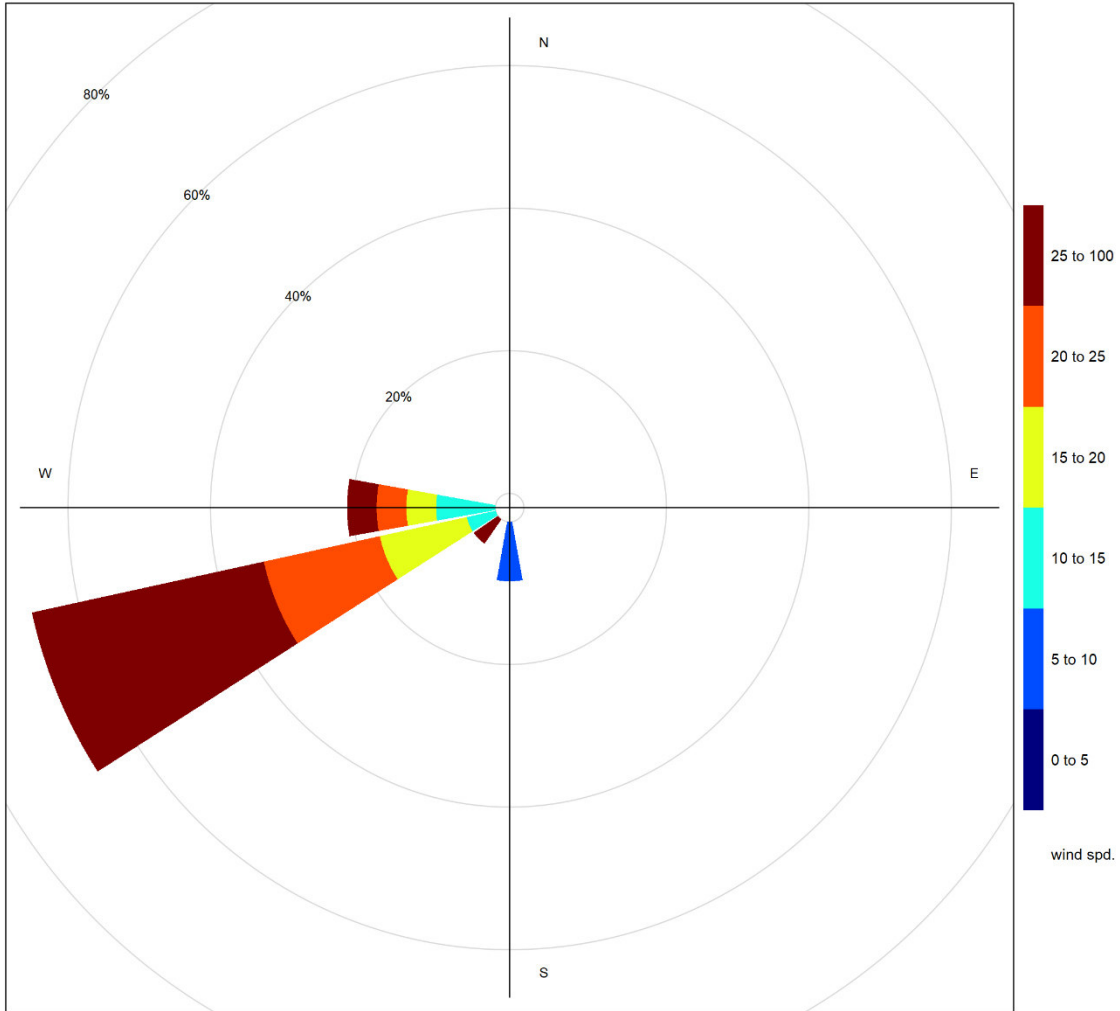


Figure 3-9 Wind rose for TSP exceedance day recorded at the Lagoon Station

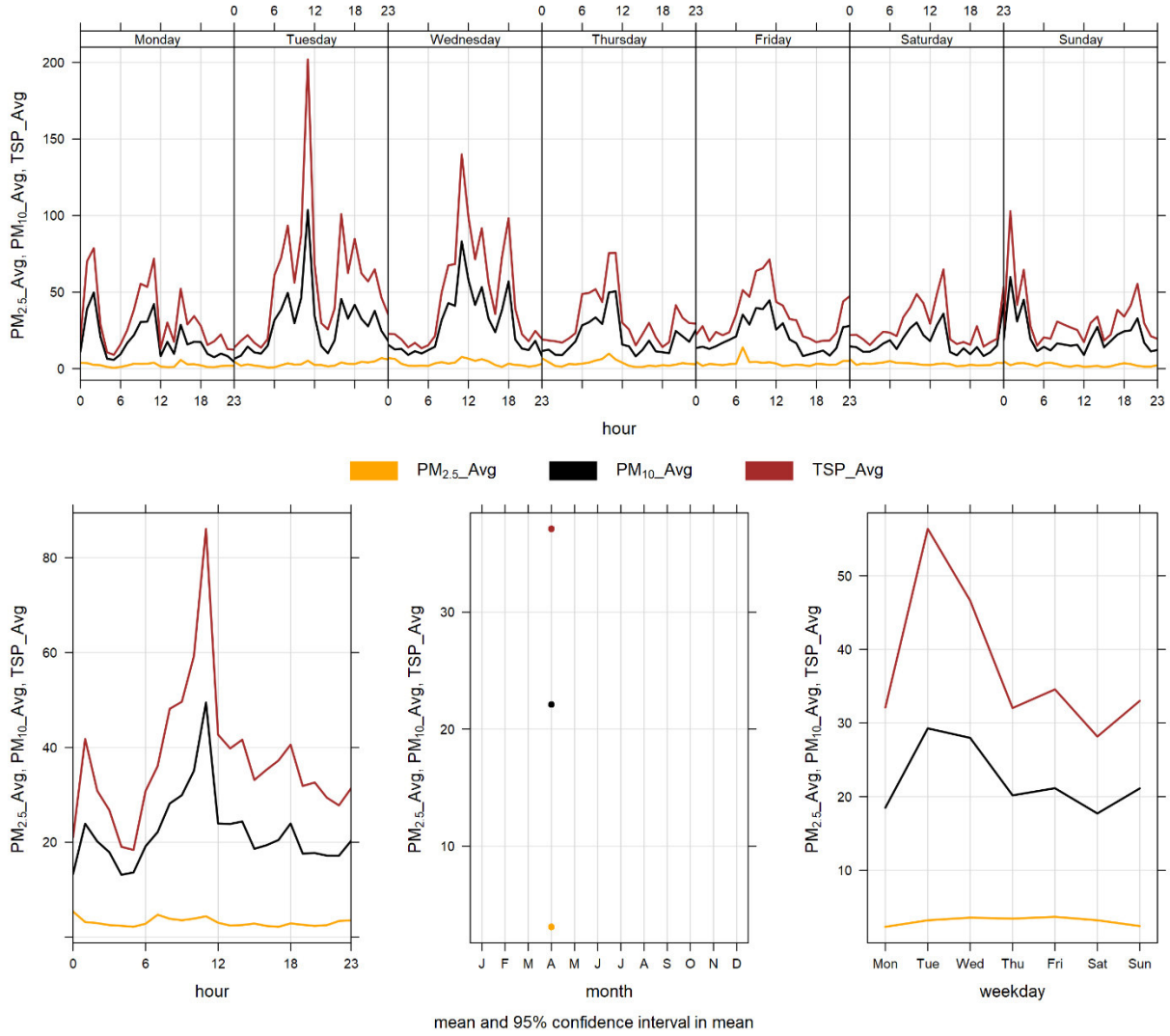


Figure 3-10 Lagoon monitor particulate matter time variation

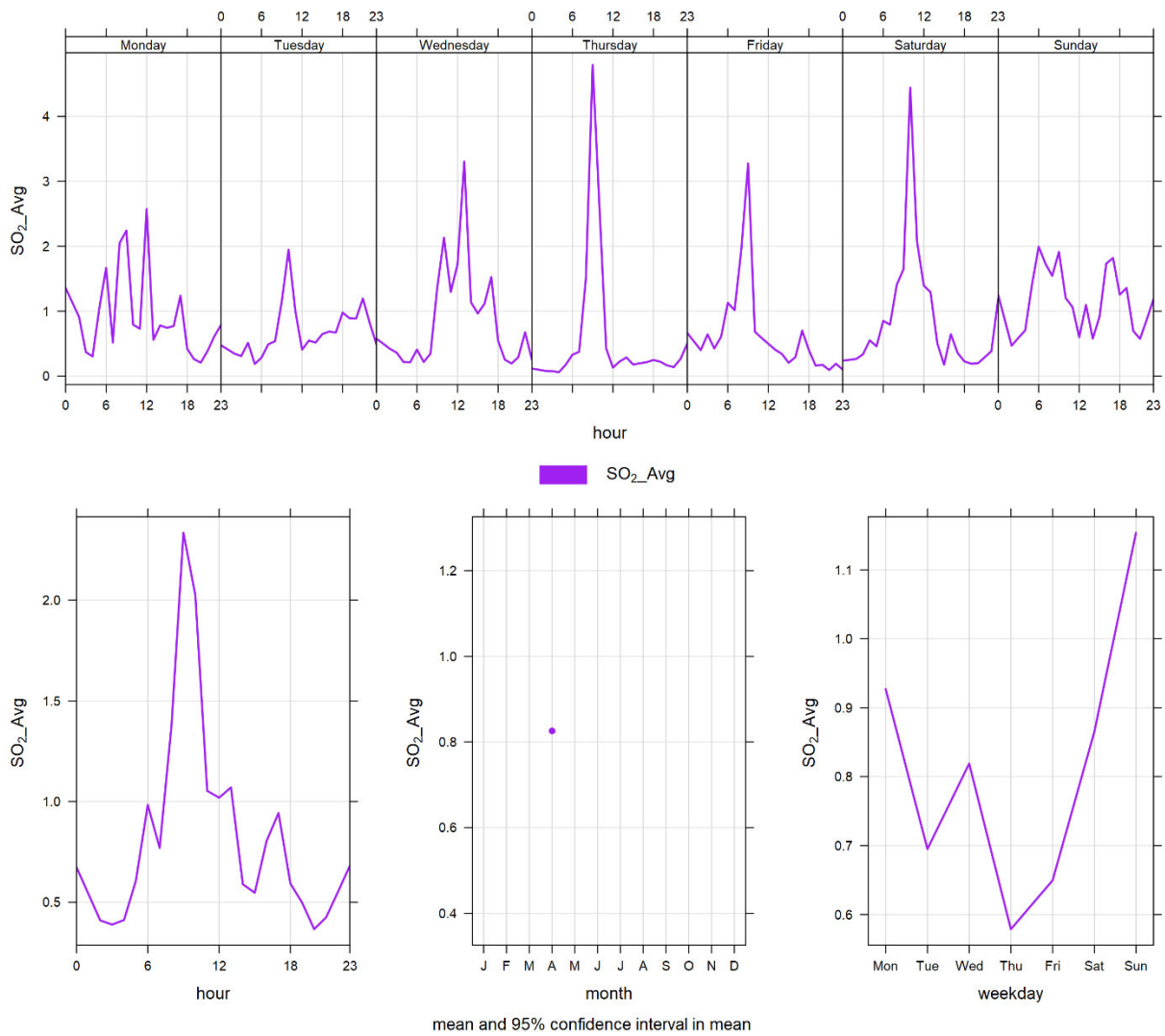


Figure 3-11 Lagoon monitor SO₂ time variation

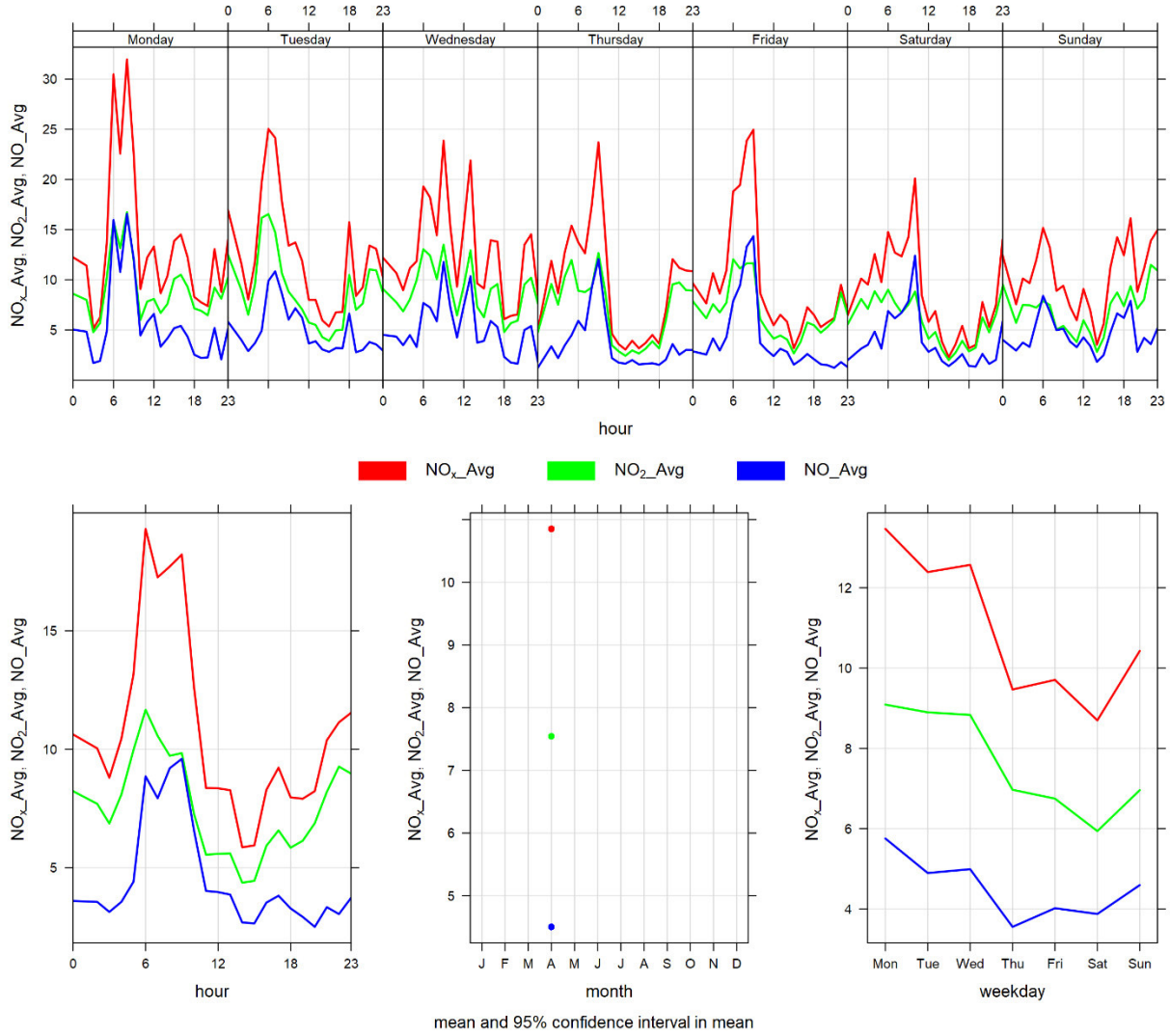


Figure 3-12 Lagoon monitor NO_x time variation

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 April 2023.

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 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 April 17 th . The monitor recorded 100% uptime during the month of April.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on April 17 th . The monitor recorded 100% uptime during the month of April.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on April 17 th . The monitor recorded 100% uptime during the month of April.

4.2 MONITORING RESULTS AND TRENDS

Table 4-2 summarizes the hourly and daily concentrations recorded in April 2023, 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 illustrates 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, and Figure 4-7 illustrates the time series for hourly PM over different time periods.

There were 0 exceedances of the 24-hour PM_{2.5} AAAQO, 0 exceedances of the 1-hour PM_{2.5} AAAQG, and 8 exceedances of the 24-hour TSP AAAQO.

Historically in April, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM_{2.5} AAAQO exceedances is 4 and 0, respectively. The maximum number of 24-hour TSP AAAQO exceedances recorded in April was also 8 days in 2022.

Due to flood mitigation construction at Exshaw creek the Windridge monitoring station was taken out of operation and removed from the site on April 8th, 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 contribute to an increase in TSP levels. Further, the strong wind gusting that occurred in April would have contributed to

increased particulate levels that may have arisen from multiple sources: Lafarge Plant, Exshaw Creek, dry sections of the Bow River, and open areas.

Table 4-2 Summary of April 2023 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/m ³)	80	29	Windridge	0	0	0.0	3.0	31.0	9	1	34.9	248.9	8.4	9	100
PM₁₀ (µg/m ³)	-	-	Windridge	-	-	0.0	48.2	485.0	8	23	46.1	239.9	169.4	9	100
TSP (µg/m ³)	-	100	Windridge	-	8	0.0	73.9	939.0	25	11	26.1	264.0	265.7	25	100

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						
2023-04-05	128.3	-	250.3	21.0	45.4	High wind event
2023-04-06	157.9	-	239.7	26.9	35.3	High wind event
2023-04-07	126.8	-	250.5	24.8	40.0	High wind event
2023-04-08	189.7	-	240.8	27.2	36.6	High wind event
2023-04-09	238.5	-	243.5	39.7	36.8	High wind event
2023-04-17	154.6	-	249.0	28.7	35.2	High wind event
2023-04-25	265.7	-	248.7	21.7	38.4	High wind event
2023-04-26	161.9	-	240.7	23.6	54.5	High wind event
Total # of Exceedances	8	0				
Maximum # of Exceedances (April)	8 (2022)	0 (2018, 2021, 2022)				
Average # of Exceedances (April)	4	0				
Minimum # of Exceedances (April)	0 (2018)	0 (2018, 2021, 2022)				

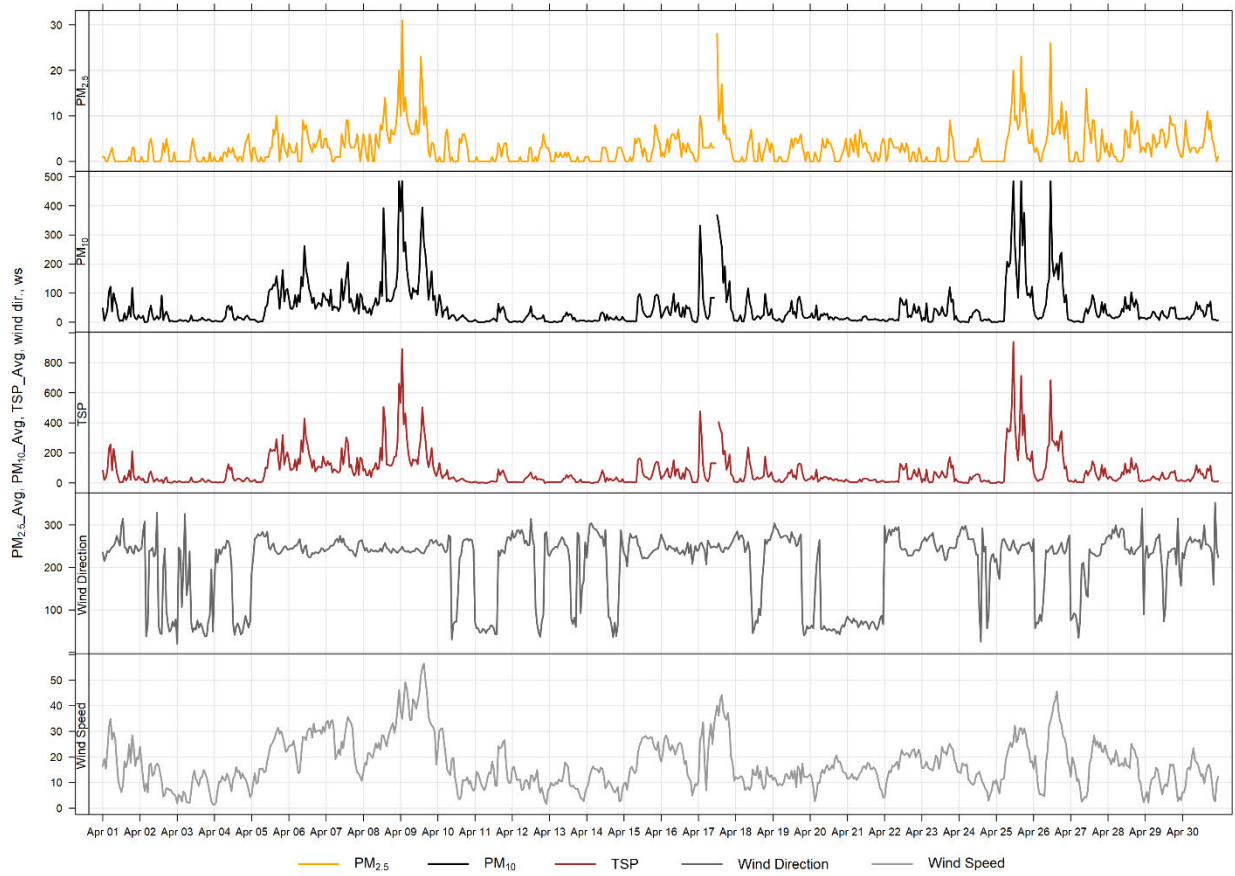


Figure 4-1 1-hour particulate matter concentrations recorded at the Windridge monitor

Histogram of Hourly PM_{2.5} Readings

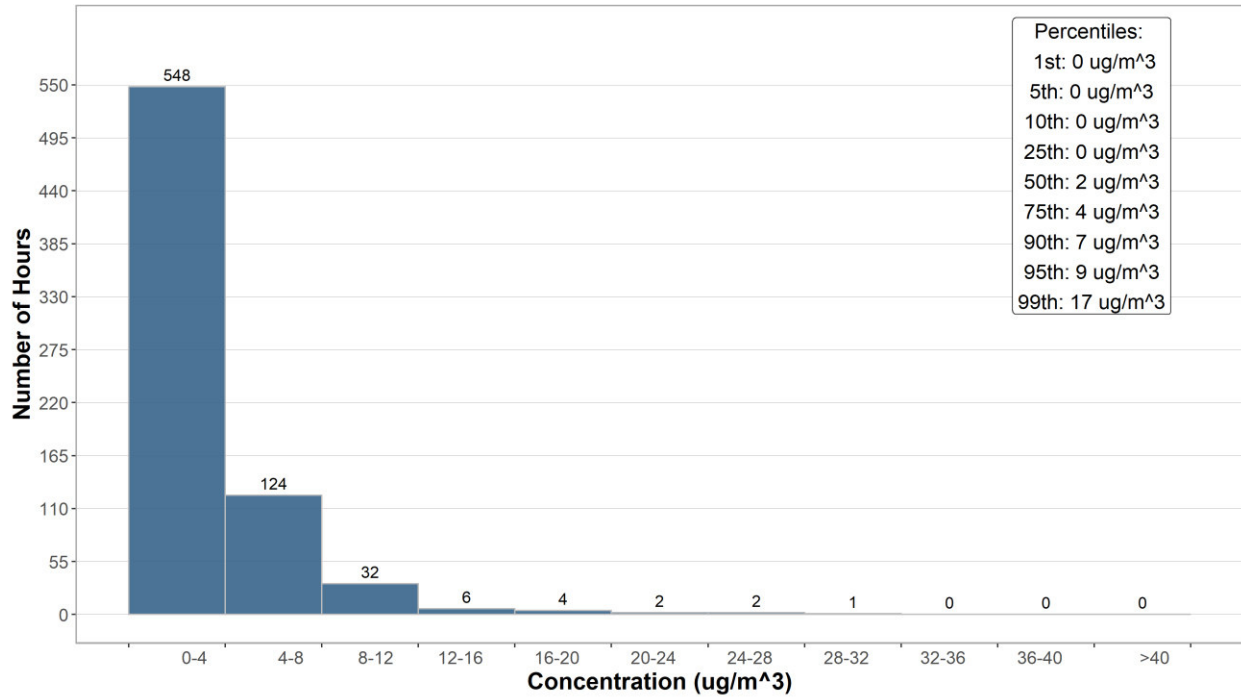


Figure 4-2 Histogram of hourly PM_{2.5} concentrations at the Windridge station

Histogram of Hourly PM₁₀ Readings

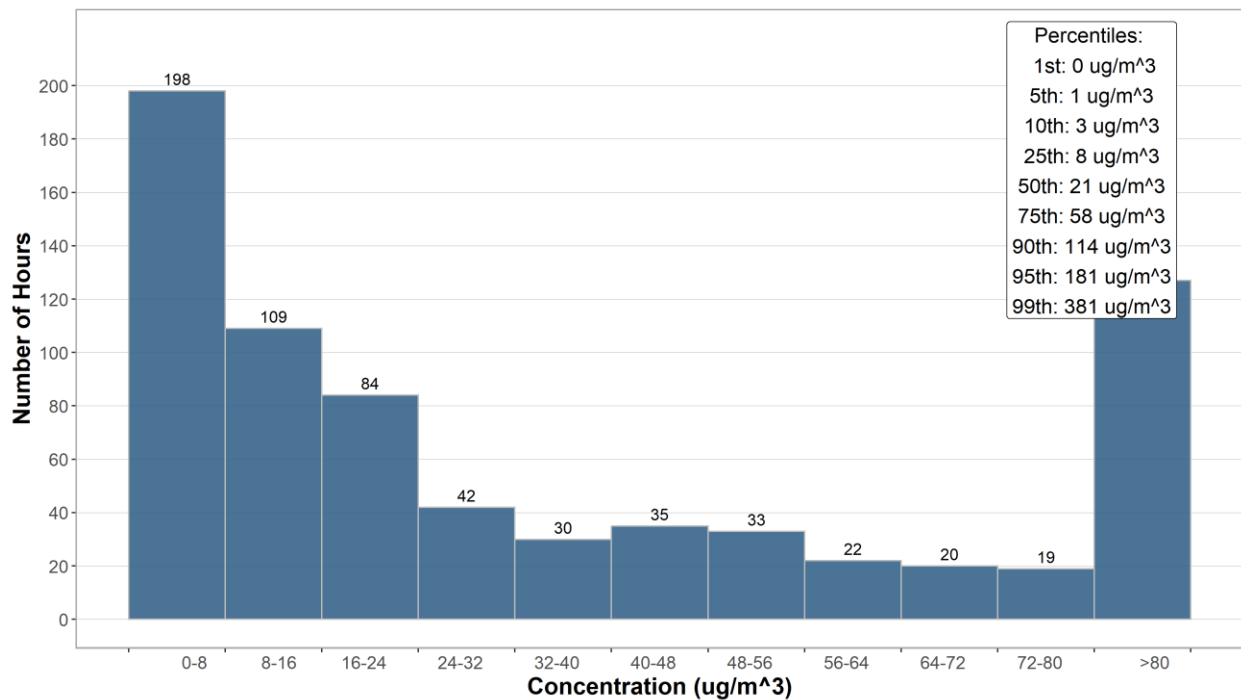


Figure 4-3 Histogram of hourly PM₁₀ concentrations at the Windridge station

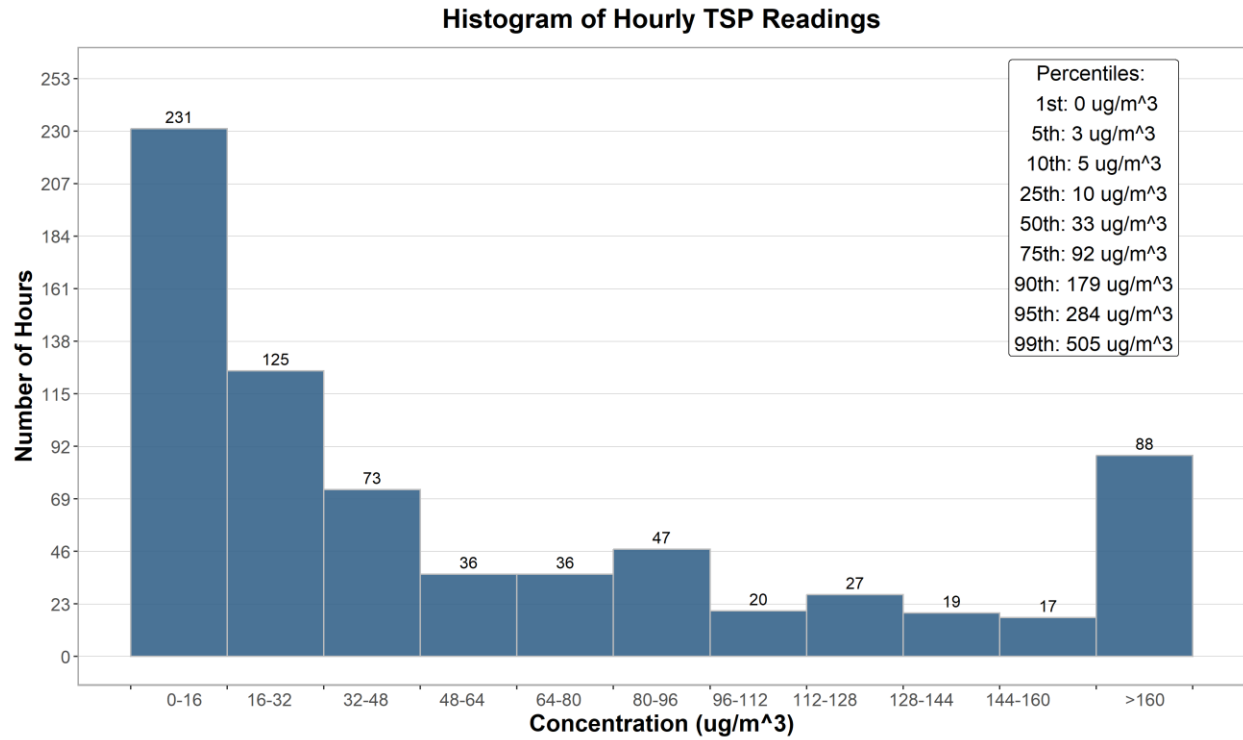


Figure 4-4 Histogram of hourly TSP concentrations at the Windridge station

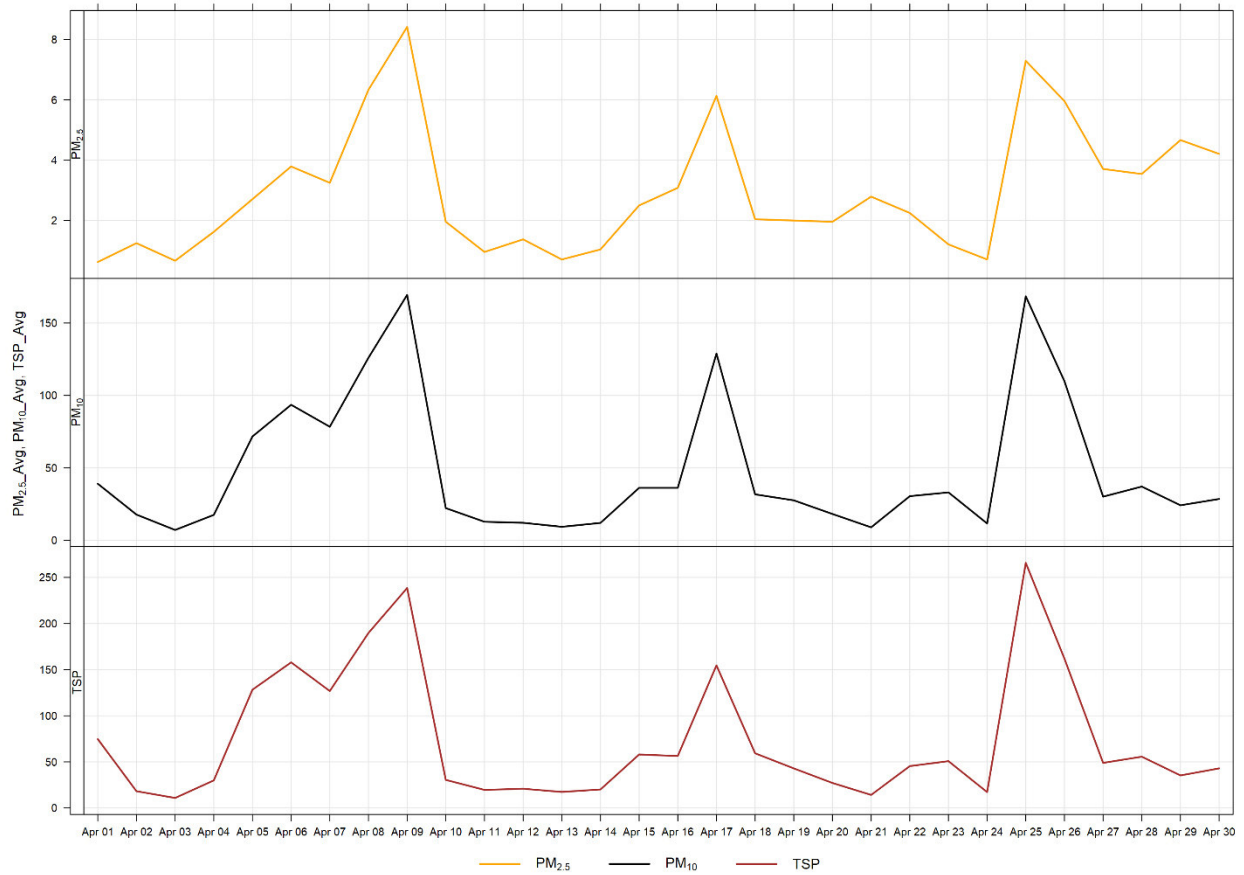


Figure 4-5 24-hour particulate matter concentrations at the Windridge monitor

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

Figure 4-7 illustrates the hourly PM concentrations recorded at the Windridge monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 4-7 is based on data collected during April 2023. Similar to the Lagoon station, typically PM concentrations show 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.

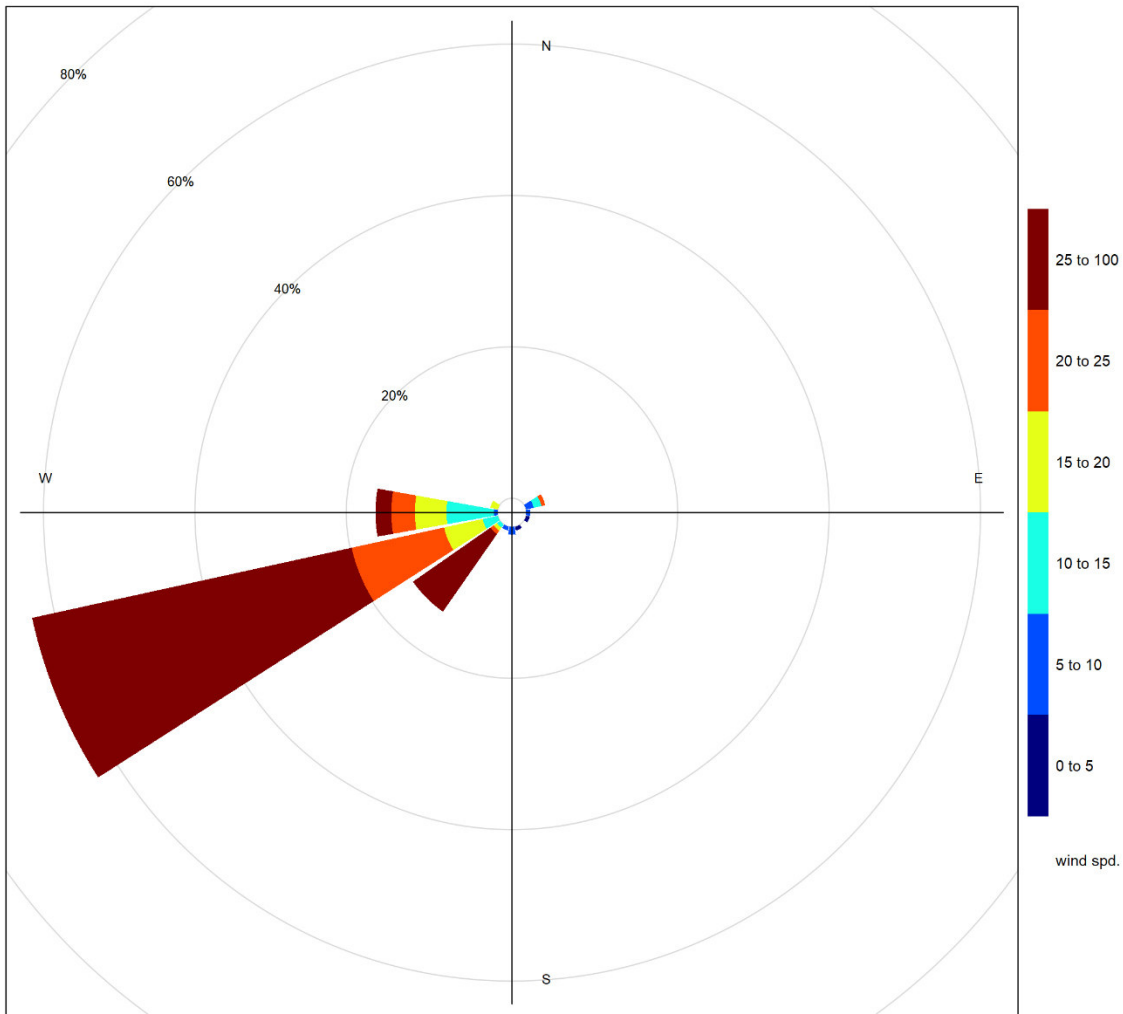


Figure 4-6 Wind rose for TSP exceedance days recorded at the Windridge Station

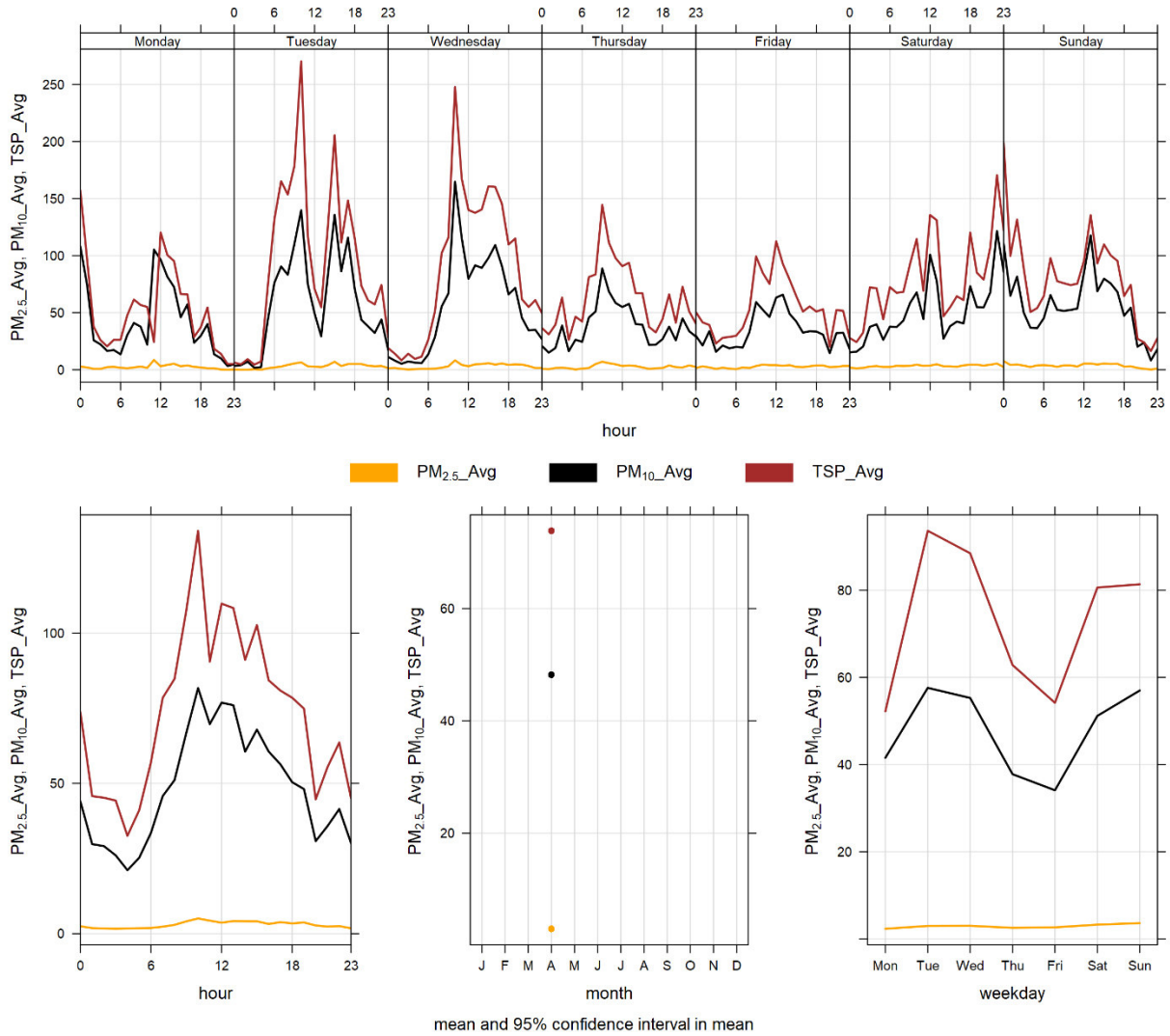


Figure 4-7 Windridge particulate matter time variation

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 during the month of April.

5.2 MONITORING RESULTS AND TRENDS

The West GRIMM was moved to 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. Further, there were zero hours exceeding the 1-hour PM_{2.5} Guideline.

Historically during the month of April, the West monitor records an average of 0 and 0 exceedances of the 24-hour TSP and PM_{2.5} guidelines. The maximum number of 24-hour TSP AAAQO exceedances recorded in April was 3 days in 2010.

Table 5-2 Summary of April 2023 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} ($\mu\text{g}/\text{m}^3$)	80	29	West	0	0	0.1	3.6	16.8	20	10	15.7	55.2	11.7	20	100
PM₁₀ ($\mu\text{g}/\text{m}^3$)	-	-	West	-	-	0.1	4.3	20.7	20	10	15.7	55.2	14.0	20	100
TSP ($\mu\text{g}/\text{m}^3$)	-	100	West	-	0	0.1	4.5	24.0	20	10	15.7	55.2	15.4	20	100

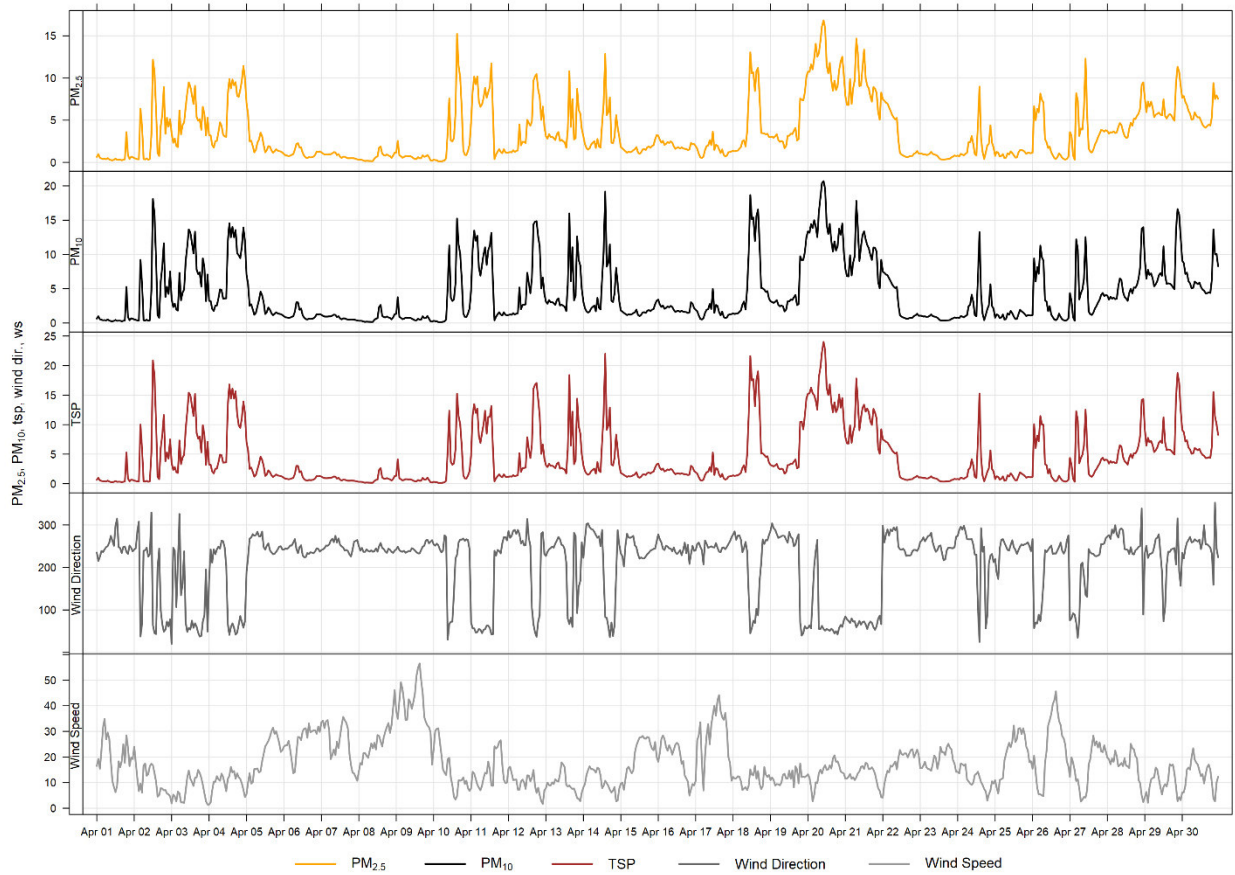


Figure 5-1 1-hour particulate matter concentrations at the West monitor

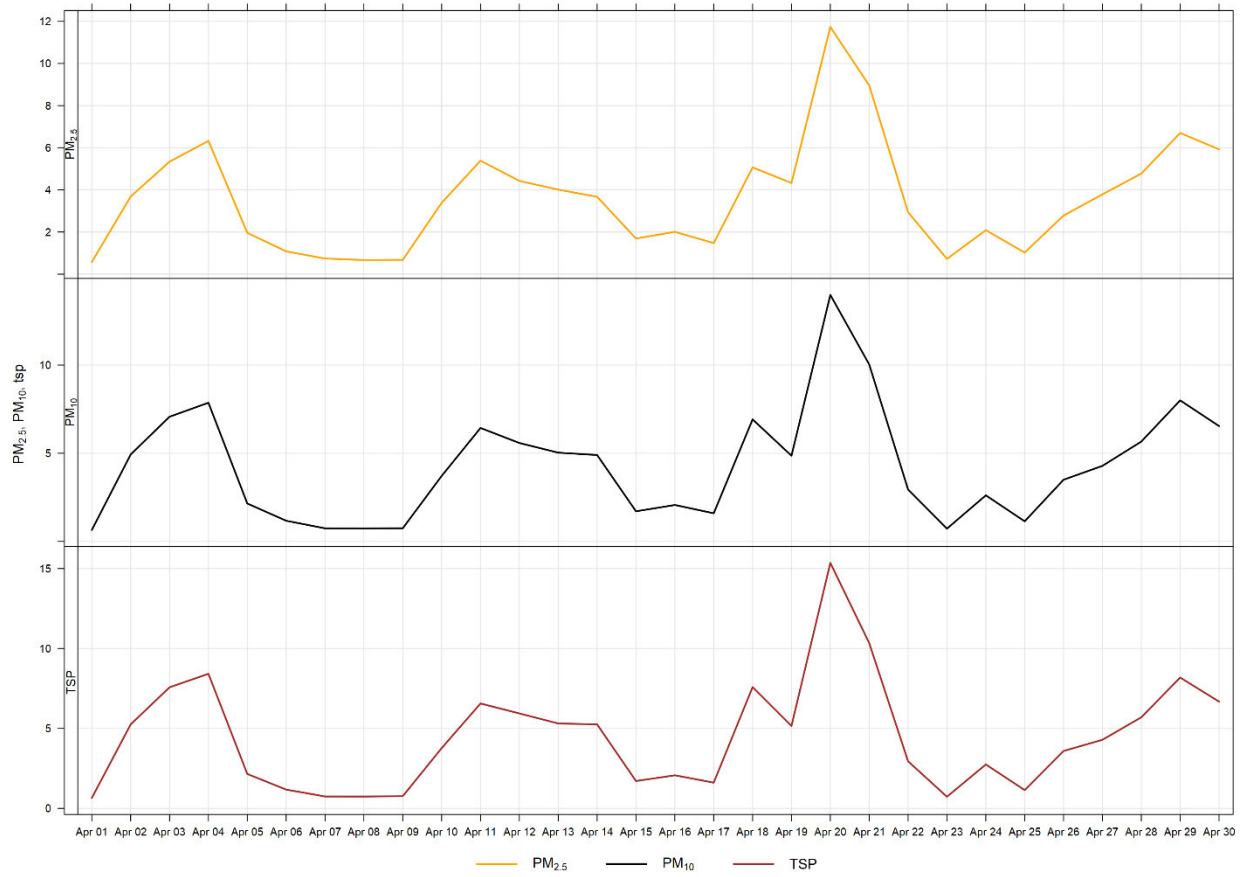


Figure 5-2 24-hour particulate matter concentrations at the West monitor

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 April 2023. The diurnal pattern is not significant due to the low PM concentrations recorded in April. Historically this monitor saw daily variations in PM that were more likely a result of higher traffic volume during daylight hours than specific Lafarge operations. The West monitor was moved to its current location (Figure 1-1) on December 1st, 2021, and will continue to be evaluated to better understand influences from background sources, Lafarge Exshaw, as well as highway and rail sources.

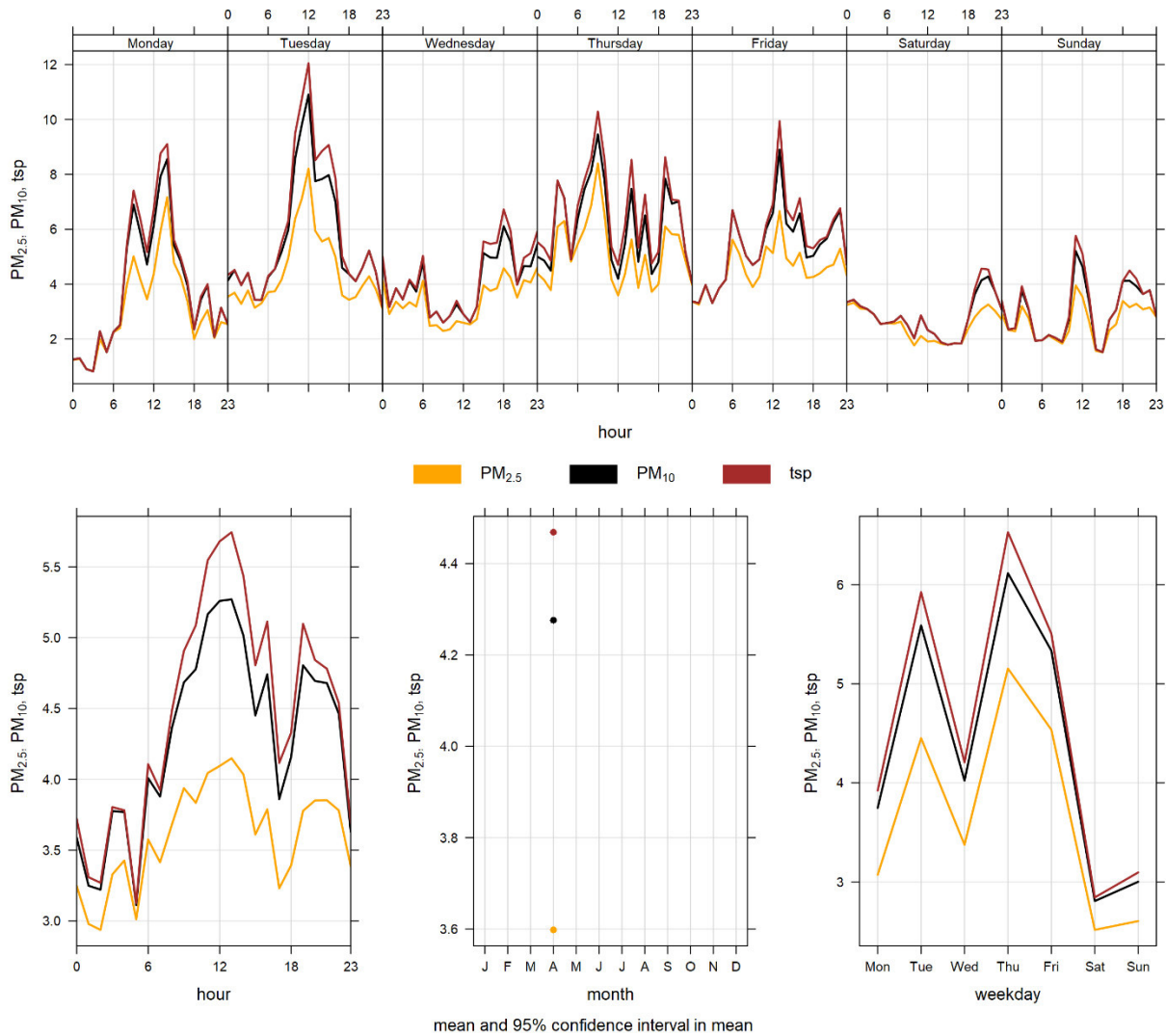


Figure 5-3 West monitor particulate matter time variation

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 during the month of April.

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. 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 15 and 1 exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) Guidelines, respectively. There were 5 hours exceeding the 1-hour PM_{2.5} Guideline.

Historically during the month of April, the Berm monitor records an average of 10 and 0 exceedances of the 24-hour TSP and PM_{2.5} guidelines, respectively. The maximum number of TSP exceedances recorded during April occurred in 2010 where there were 22 days that exceeded the guideline. On the other hand, the maximum number of PM_{2.5} exceedances in April was 2 days in 2022.

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 strong wind gusting that occurred in April would have also contributed to increased particulate levels that may have arisen from multiple sources: Lafarge Plant, Exshaw Creek, dry sections of the Bow River, and open areas.

Table 6-2 Summary of April 2023 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/m ³)	80	29	Berm	5	1	0.1	10.8	114.7	25	11	26.1	264.0	37.8	25	100
PM₁₀ (µg/m ³)	-	-	Berm	-	-	0.1	68.7	960.9	26	11	34.3	247.0	287.9	25	100
TSP (µg/m ³)	-	100	Berm	-	15	0.1	199.5	2839.9	26	11	34.3	247.0	773.1	25	100

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						
2023-04-01	188.4	-	245.4	20.3	45.9	High wind event
2023-04-05	331.4	-	250.3	21.0	45.4	High wind event
2023-04-06	518.5	-	239.7	26.9	35.3	High wind event
2023-04-07	351.2	-	250.5	24.8	40.0	High wind event
2023-04-08	508.8	-	240.8	27.2	36.6	High wind event
2023-04-09	712.2	-	243.5	39.7	36.8	High wind event
2023-04-12	100.3	-	278.1	9.5	73.6	
2023-04-15	198.4	-	241.7	21.0	45.7	High wind event
2023-04-16	112.0	-	243.6	18.8	43.0	
2023-04-17	641.2	-	249.0	28.7	35.2	High wind event
2023-04-22	112.2	-	252.5	18.7	47.3	
2023-04-25	773.1	37.8	248.7	21.7	38.4	High wind event
2023-04-26	566.5	-	240.7	23.6	54.5	High wind event
2023-04-27	125.3	-	232.5	16.8	47.8	
2023-04-28	117.0	-	261.2	16.5	34.3	
Total # of Exceedances	15	1				

Date	TSP (ug/m³)	PM_{2.5} (ug/m³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Berm						
Maximum # of Exceedances (April)	22 (2010)	2 (2022)				
Average # of Exceedances (April)	10	0				
Minimum # of Exceedances (April)	4 (2018)	0 (2010 – 2021)				

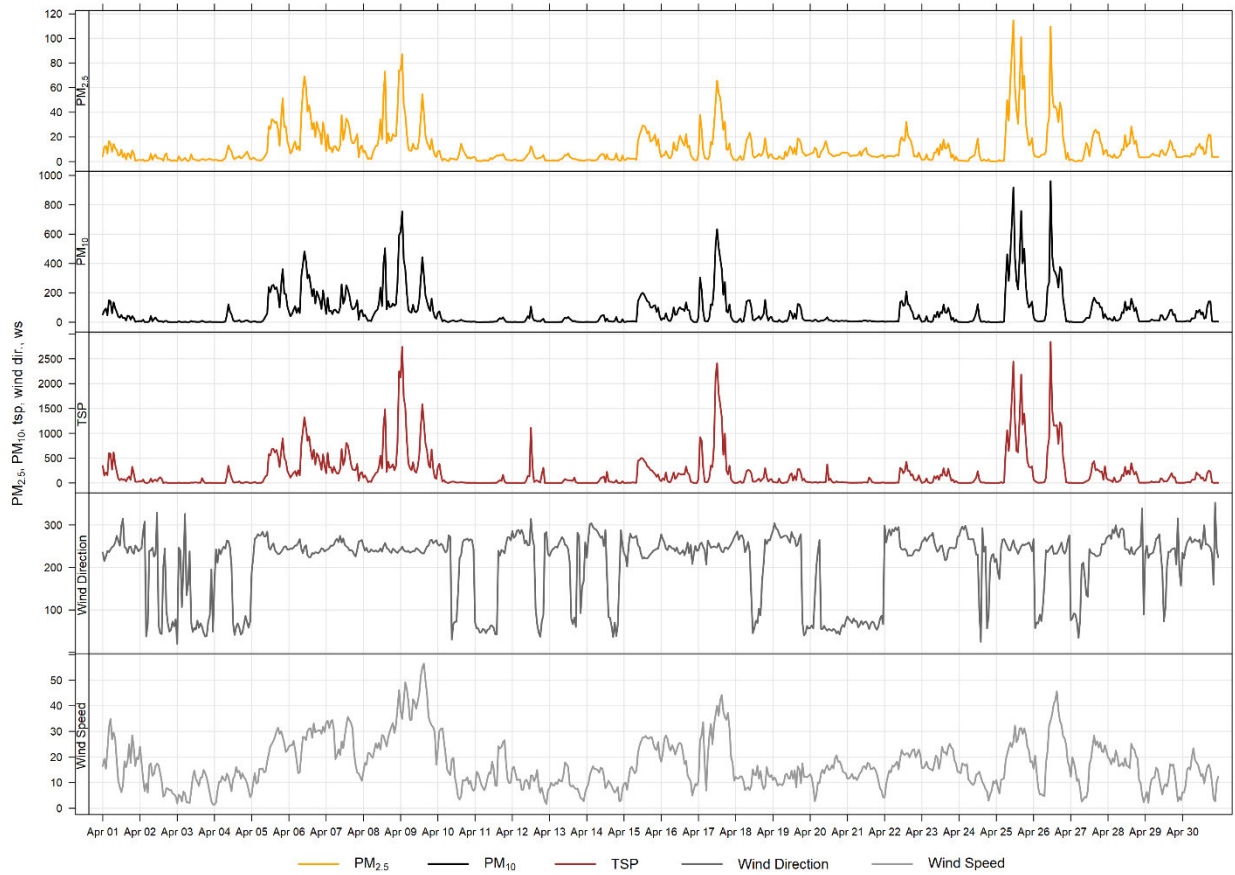


Figure 6-1 1-hour particulate matter concentrations recorded at the Berm monitor

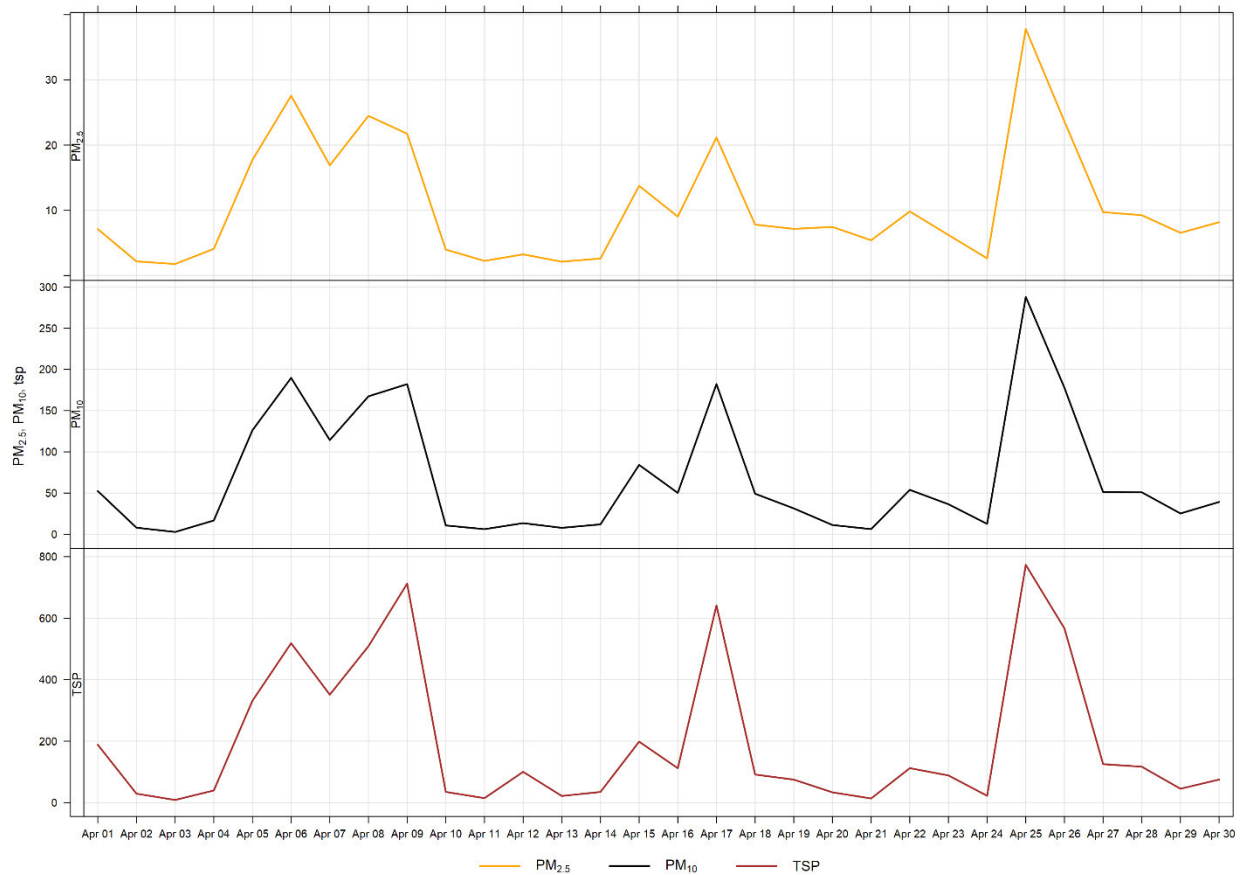


Figure 6-2 24-hour particulate matter concentrations recorded at the Berm monitor

Figure 6-3 shows the wind rose for the 15 days of TSP exceedances. Figure 6-4 shows the wind rose for 1 day of PM_{2.5} exceedances. The wind roses show that the wind predominately came from the west-southwest direction. This month many of the TSP exceedances were driven by windblown fugitive dust, and winds from the west which suggest impacts from the Lafarge Facility.

Figure 6-5 shows the variation of PM recorded at the Berm monitor over various time averaging periods. The Berm monitor diurnal pattern, similar to the Lagoon station, and is associated with Lafarge operations, but also daytime emissions from other activities and sources in Exshaw.

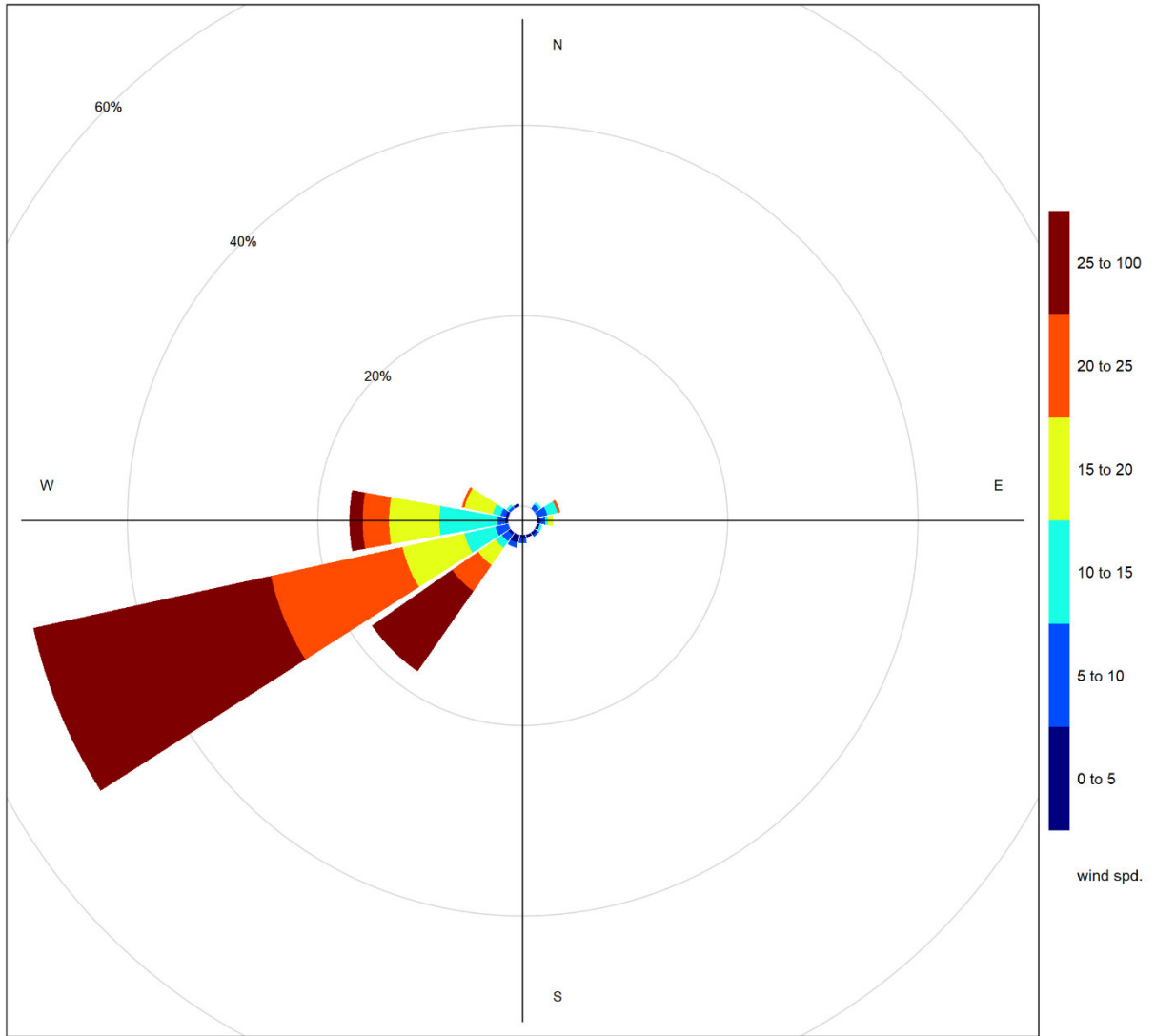


Figure 6-3 Windrose for TSP exceedance days recorded at the Berm GRIMM

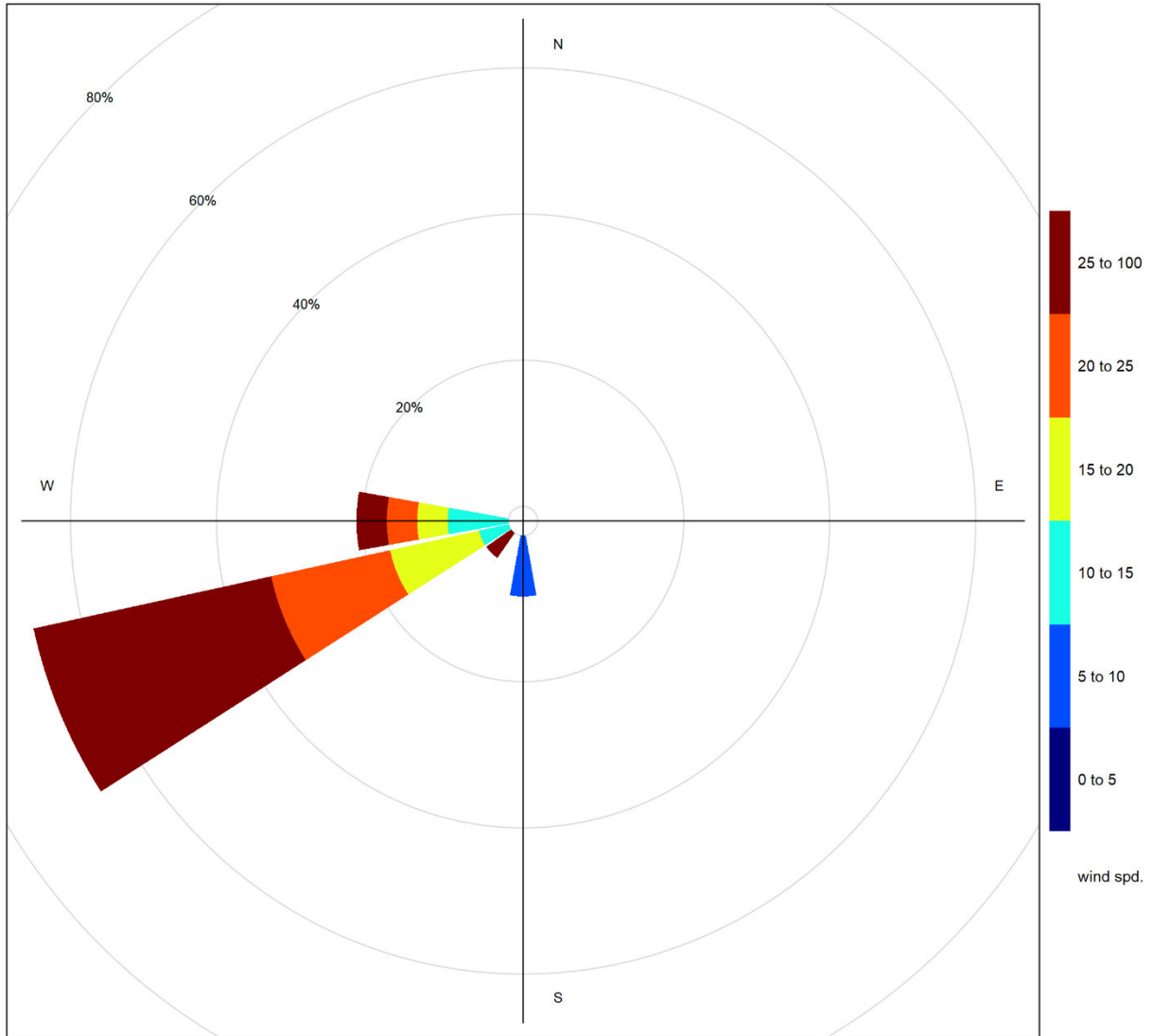


Figure 6-4 Windrose for PM_{2.5} exceedance days recorded at Berm GRIMM

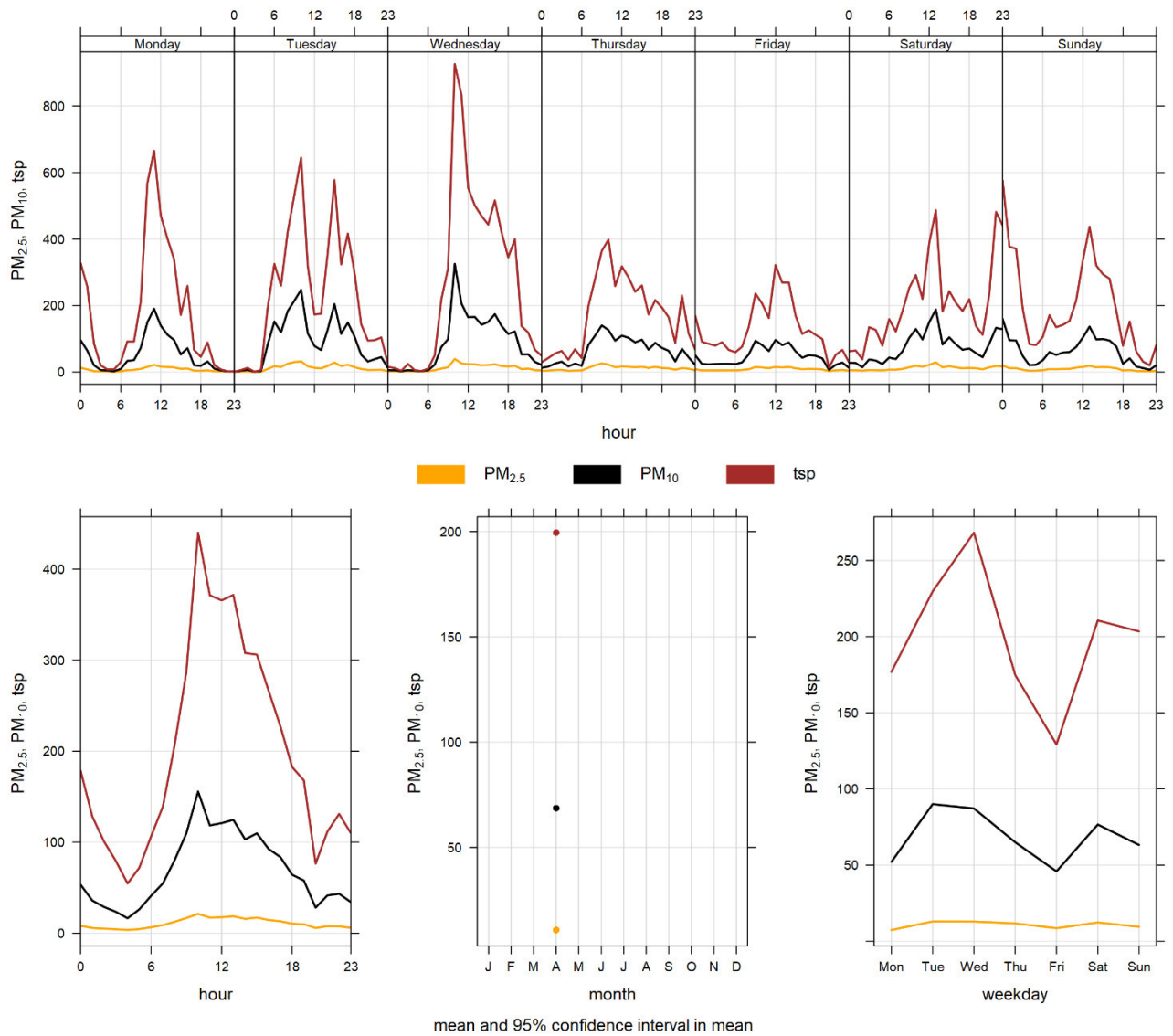


Figure 6-5 Berm particulate matter time variation

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 91.3% uptime during the month of April due to 63 hours of collection error (i.e. communication error), which occurred on April 2 nd from 20:00 to 24:00, April 3 rd from 01:00 to 04:00 and 11:00, April 4 th from 01:00 to 05:00, April 5 th at 07:00 and 16:00 to 19:00, April 6 th from 12:00 to 19:00, April 11 th from 22:00 to 24:00, April 12 th from 01:00 to 24:00, April 13 th from 01:00 to 06:00, and April 21 st at 14:00 and 17:00.

7.2 MONITORING RESULTS AND TRENDS

The Entrance monitor was placed at its current location as a result of the dispersion modelling conducted for the facility. 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 April, there were 18 and 0 exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) Guidelines, respectively. There was 0 hours exceeding the 1-hour PM_{2.5} Guideline.

Historically, the Entrance monitor records an average of 12 and 0 exceedances of the 24-hour TSP and PM_{2.5} guidelines respectively, during the month of April. The maximum number of TSP exceedances recorded during April occurred in 2022, which had 22 days that exceeded the guideline.

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.

Table 7-2 Summary of April 2023 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	0.2	11.3	63.3	30	7	23.4	260.3	24.4	4	91.3
PM₁₀ (µg/m ³)	-	-	Entrance	-	-	0.2	65.6	606.6	4	15	14.0	68.5	180.2	4	91.3
TSP (µg/m ³)	-	100	Entrance	-	18	0.2	167.5	1759.5	17	11	36.5	247.6	440.3	5	91.3

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						
2023-04-03	160.0	-	59.7	7.5	68.9	
2023-04-04	428.2	-	59.0	10.4	59.2	
2023-04-05	440.3	-	250.3	21.0	45.4	High wind event
2023-04-07	131.0	-	250.5	24.8	40.0	High wind event
2023-04-08	102.6	-	240.8	27.2	36.6	High wind event
2023-04-09	230.3	-	243.5	39.7	36.8	High wind event
2023-04-13	285.5	-	247.9	9.4	64.8	
2023-04-14	292.8	-	288.5	10.6	59.7	
2023-04-15	185.3	-	241.7	21.0	45.7	High wind event
2023-04-17	435.2	-	249.0	28.7	35.2	High wind event
2023-04-18	201.5	-	263.7	11.3	38.4	
2023-04-20	108.6	-	56.2	13.8	69.1	
2023-04-25	240.6	-	248.7	21.7	38.4	High wind event
2023-04-26	226.0	-	240.7	23.6	54.5	High wind event
2023-04-27	115.4	-	232.5	16.8	47.8	
2023-04-28	254.3	-	261.2	16.5	34.3	

2023-04-29	118.2	-	238.3	9.8	44.1	
2023-04-30	176.2	-	255.4	13.3	37.9	
Total # of Exceedances	18	0				
Maximum # of Exceedances (June)	22 (2022)	0 (2010 – 2022)				
Average # of Exceedances (April)	12	0				
Minimum # of Exceedances (April)	1 (2017)	0 ((2010 – 2022)				

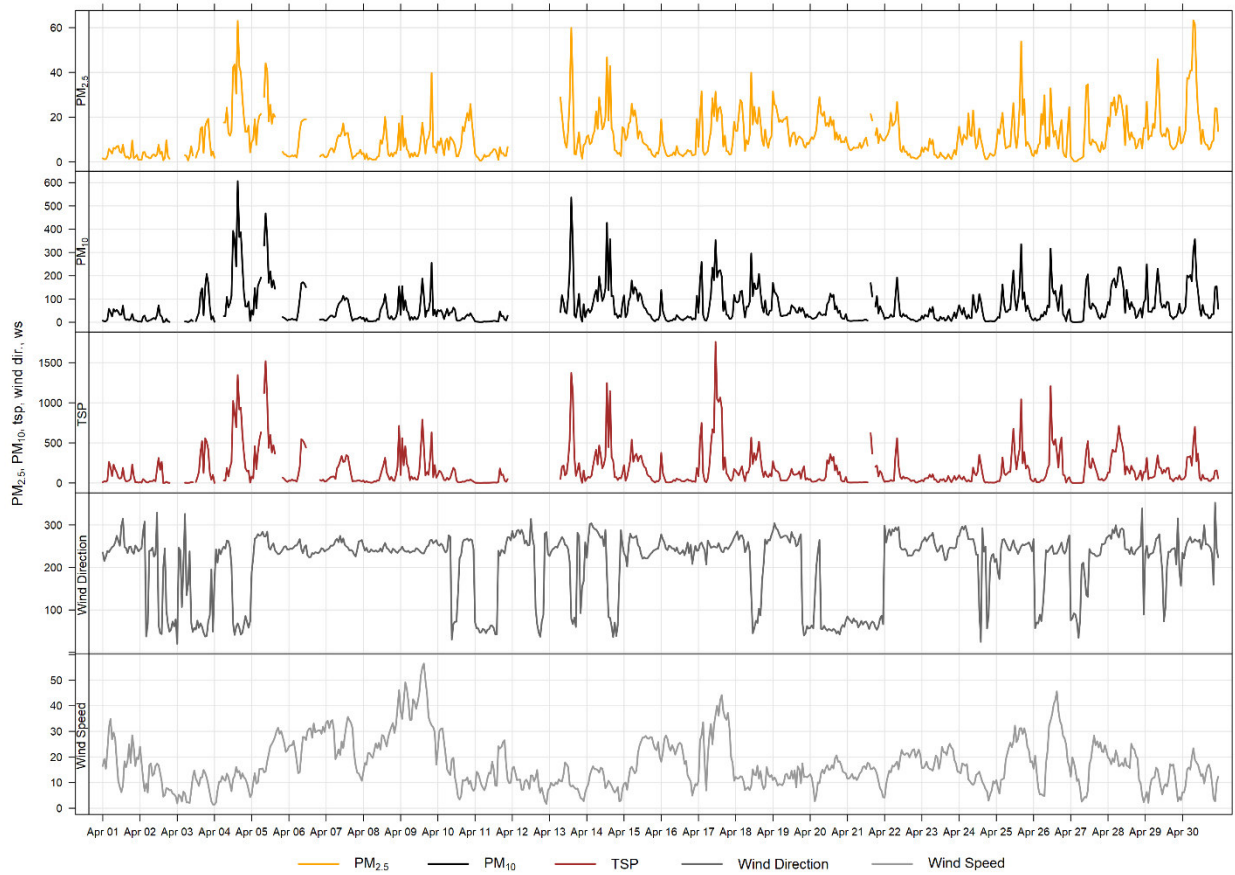


Figure 7-1 1-hour particulate matter concentrations recorded at the Entrance monitor

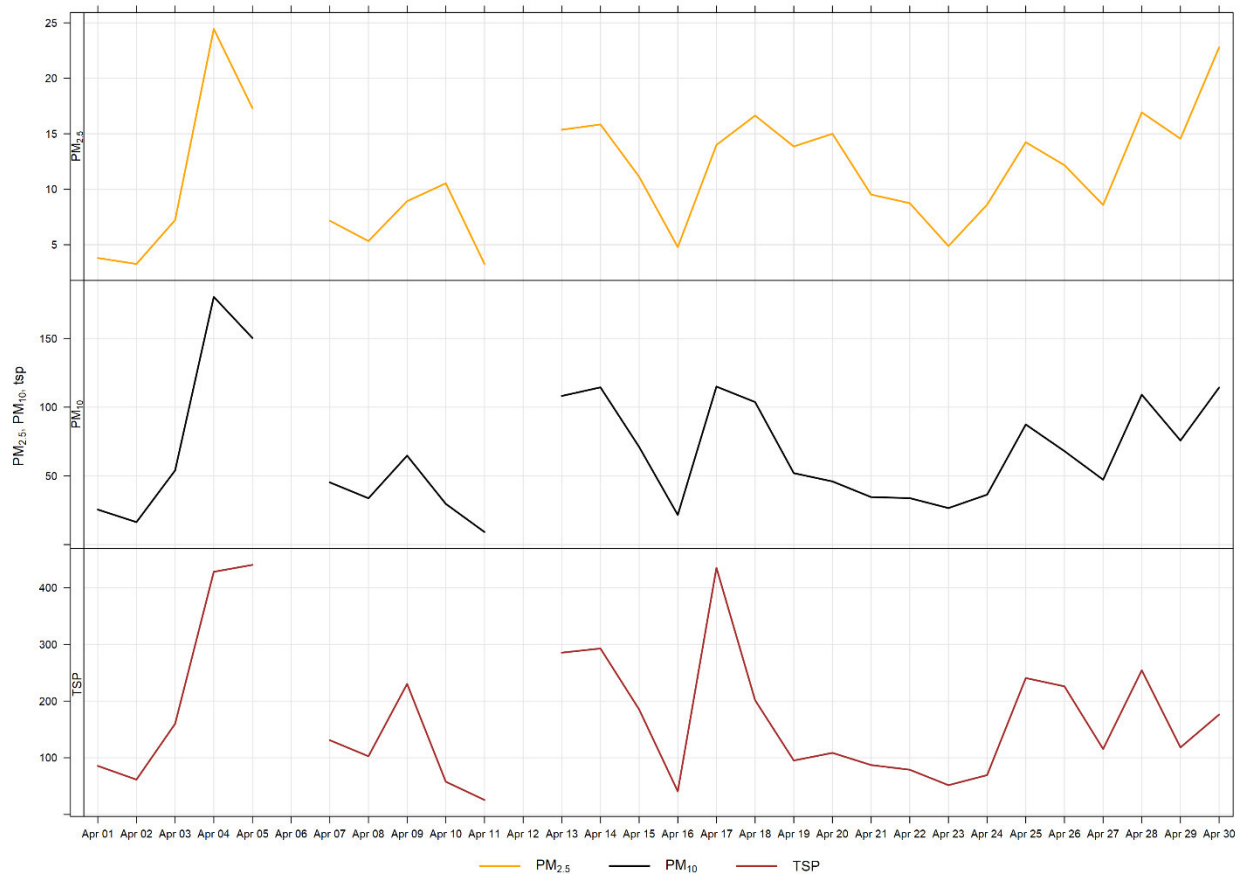


Figure 7-2 24-hour particulate matter concentrations recorded at the Entrance monitor

Figure 7-3 shows the wind rose for the 18 days of TSP exceedances. The wind rose shows that the wind predominately came from the west-southwest direction. This month many of the TSP exceedances were driven by windblown fugitive dust, and winds from the west which suggest impacts from the Lafarge Facility.

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 April 2023. 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.

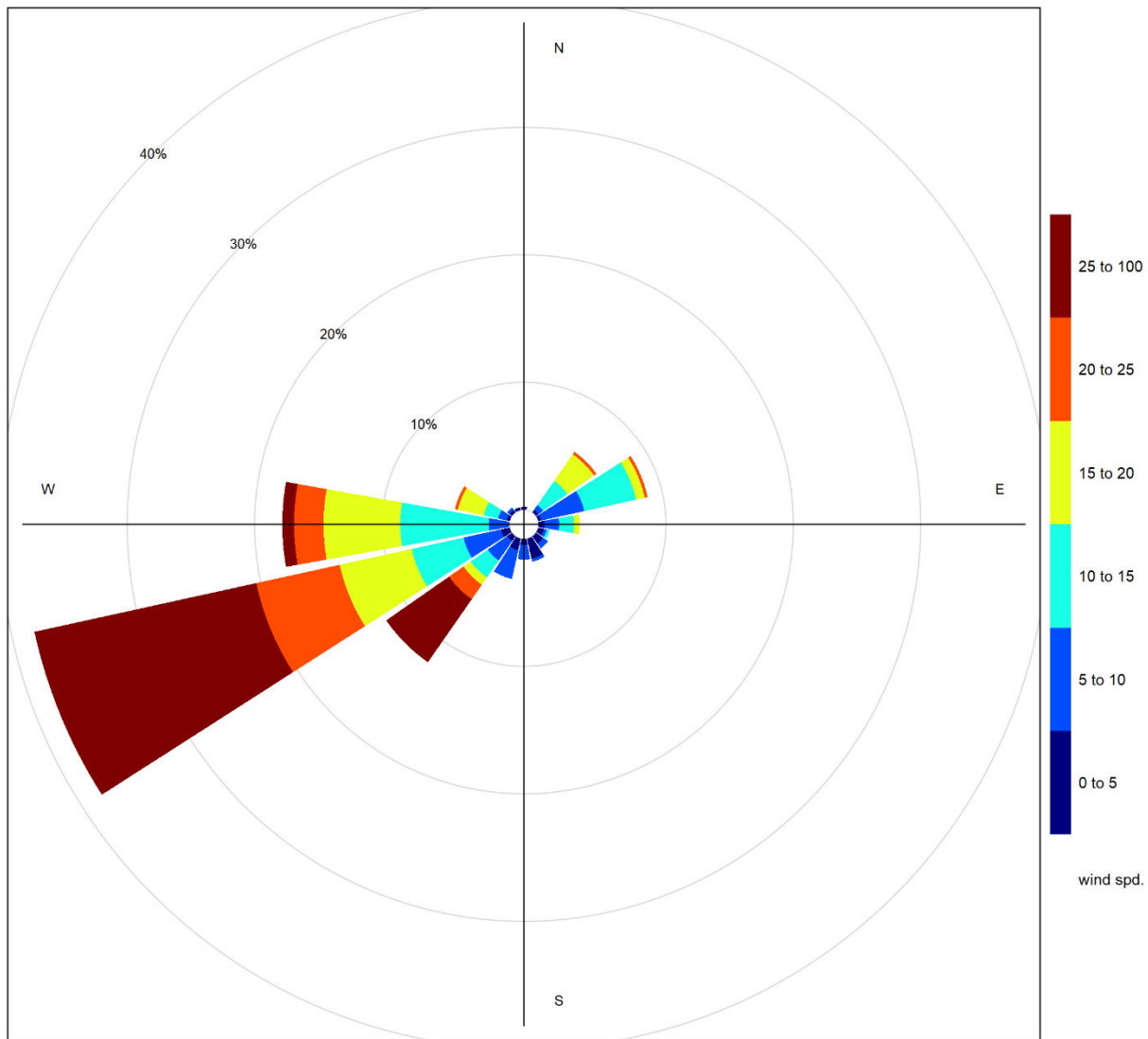


Figure 7-3 Wind rose for TSP exceedance days recorded at the Entrance GRIMM

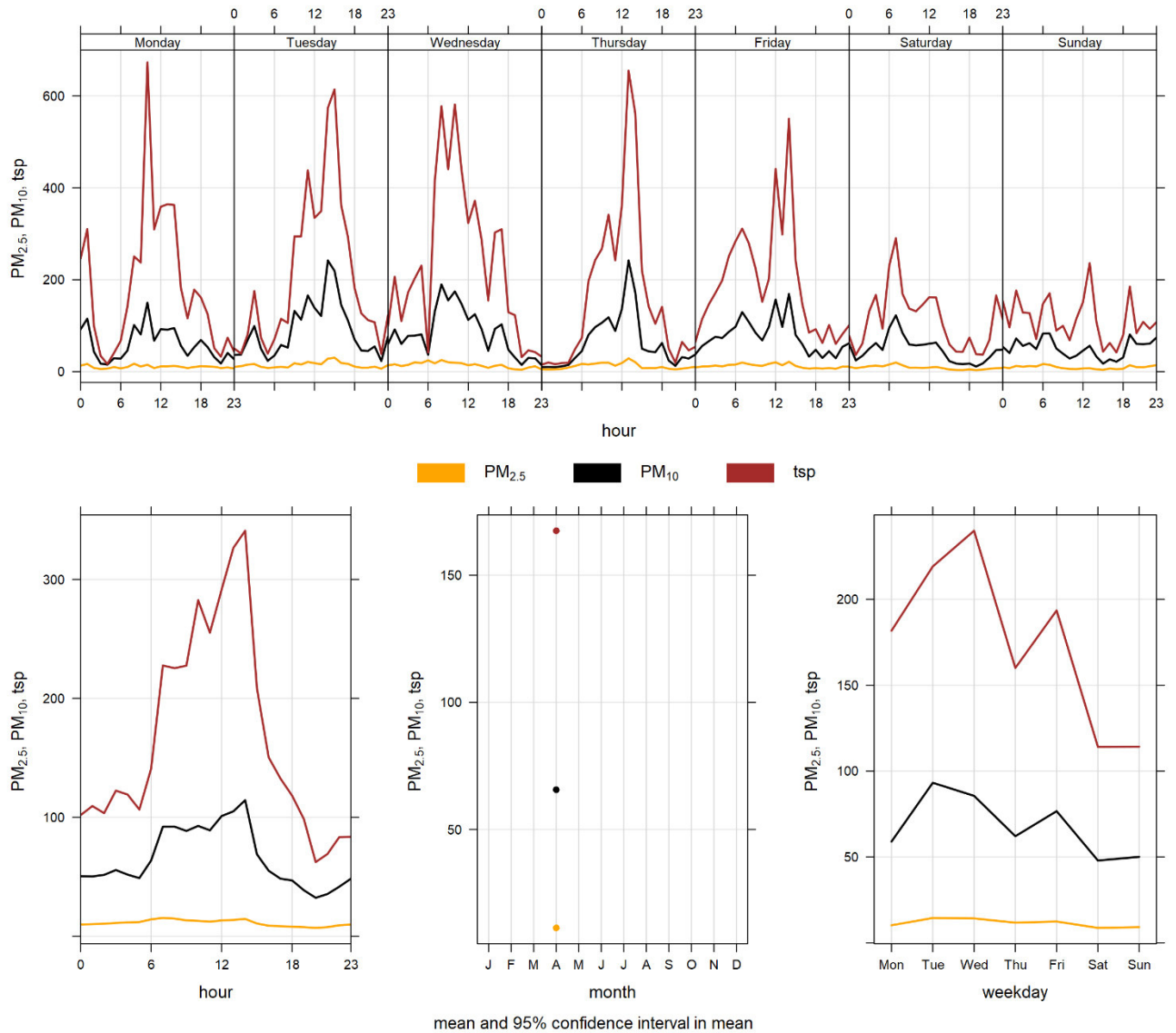


Figure 7-4 Entrance particulate mater time variation

BIBLIOGRAPHY

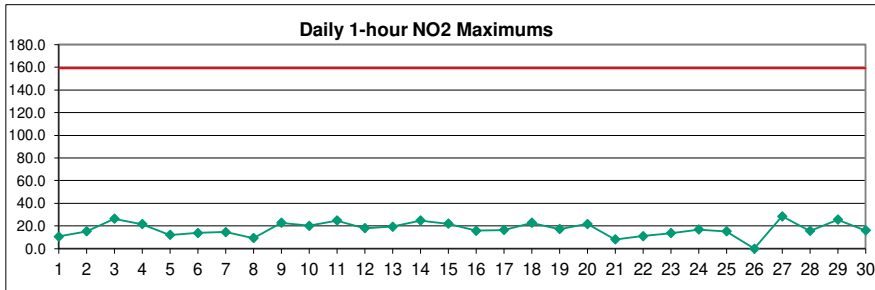
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APPENDIX

A DATA & CALIBRATION REPORTS

Lagoon NO₂ (ppb) – April 2023

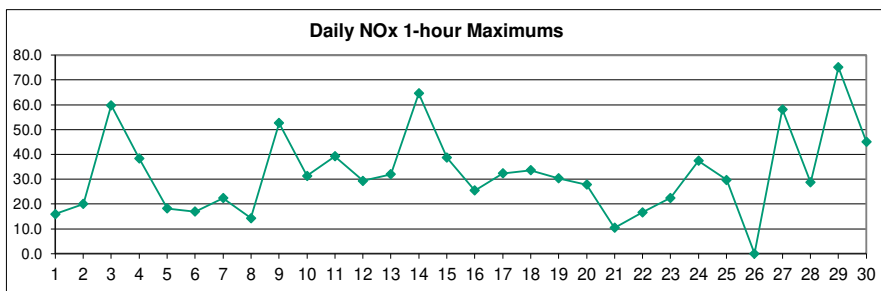
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.9	S	2.8	3.7	3.1	4.0	4.5	7.9	4.8	4.9	5.5	7.7	4.7	4.7	3.3	2.0	3.2	10.8	2.4	2.5	4.7	8.1	5.1	2.8	4.6	10.8
2	7.5	S	3.0	15.2	10.0	3.5	4.3	6.9	2.4	2.2	3.2	3.5	11.2	5.8	3.8	6.5	9.7	4.1	8.1	10.7	12.5	12.4	12.2	7.3	7.2	15.2
3	5.9	S	7.6	8.3	12.3	15.9	26.4	25.5	20.5	10.5	6.9	12.9	2.3	3.1	2.2	8.7	7.7	6.2	3.6	5.9	3.9	4.6	5.1	6.4	9.2	26.4
4	9.8	S	6.2	8.7	7.1	14.6	21.7	16.7	11.0	9.1	6.8	6.4	4.6	5.4	3.8	5.1	7.4	7.9	13.1	5.9	4.5	9.3	8.4	8.4	8.8	21.7
5	10.2	S	8.3	5.8	11.7	9.9	10.6	12.1	9.0	7.8	6.8	3.9	4.2	7.1	4.0	2.5	2.0	1.9	2.2	4.4	3.9	4.4	6.5	3.9	6.2	12.1
6	3.3	S	5.1	7.0	13.9	11.0	10.9	11.4	3.2	7.0	8.6	2.7	2.0	1.8	2.1	2.8	2.1	1.9	2.1	2.7	7.6	5.5	6.8	5.2	5.5	13.9
7	4.9	S	9.0	9.6	9.7	10.4	14.6	12.0	11.3	7.6	6.7	4.7	4.5	5.9	3.8	2.5	3.0	2.6	1.9	4.5	4.5	5.5	7.1	3.3	6.5	14.6
8	5.5	S	4.5	2.5	5.4	3.5	3.2	4.0	3.4	5.2	6.4	3.4	4.5	9.2	5.4	3.4	2.9	2.4	4.5	4.8	2.4	1.9	4.5	4.1	4.2	9.2
9	9.3	S	2.5	2.0	2.4	2.4	2.3	1.9	2.5	4.1	2.9	2.4	2.1	2.0	2.0	4.1	9.4	13.3	17.9	22.8	8.2	7.8	9.4	8.4	6.2	22.8
10	6.8	S	9.9	3.1	2.6	4.4	5.3	9.2	18.4	11.5	4.1	9.1	9.3	15.3	19.0	20.1	20.0	16.0	13.2	11.9	8.0	11.9	9.5	15.7	11.1	20.1
11	24.8	S	9.0	4.3	10.7	19.9	11.2	14.3	14.3	5.7	3.3	7.6	11.6	11.1	5.4	2.6	3.7	2.9	2.5	6.7	9.6	8.3	9.8	8.5	9.0	24.8
12	15.0	S	10.5	7.5	10.8	9.9	14.4	13.8	8.9	15.5	9.1	3.1	10.7	16.3	7.7	2.7	13.6	16.0	7.4	12.6	15.2	18.1	13.0	10.4	11.4	18.1
13	5.0	S	12.0	6.8	7.9	13.3	13.2	10.2	13.3	9.8	6.0	3.7	2.1	2.2	3.8	3.3	5.8	9.5	6.1	5.6	17.2	19.4	15.0	14.4	8.9	19.4
14	8.3	S	5.7	6.2	8.3	7.5	9.8	15.2	22.1	24.7	7.8	5.5	4.2	3.1	4.5	3.6	6.0	10.2	12.2	5.5	9.7	11.5	17.6	7.1	9.4	24.7
15	7.0	S	14.8	8.9	14.8	10.2	15.4	9.6	7.9	6.6	3.1	1.8	2.4	2.0	2.2	1.8	1.9	2.1	2.7	2.6	3.9	5.7	9.5	22.1	6.9	22.1
16	15.9	S	5.6	2.9	4.6	4.7	4.6	4.4	2.6	6.0	2.5	2.0	2.6	2.5	1.8	5.1	14.2	11.2	4.8	3.8	5.0	6.0	11.6	14.2	6.0	15.9
17	10.9	S	7.4	2.7	2.8	12.0	15.4	6.2	11.1	11.0	9.3	6.6	15.1	5.5	3.8	2.1	4.5	8.1	2.3	3.4	9.2	16.4	11.4	12.5	8.2	16.4
18	6.2	S	13.9	8.6	11.9	17.7	22.7	17.5	10.9	9.4	6.7	3.4	2.7	3.3	3.4	2.3	2.1	2.2	18.1	8.9	6.2	11.2	15.4	10.5	9.4	22.7
19	7.3	S	8.7	10.7	5.7	8.0	14.8	12.9	12.3	17.2	12.6	12.4	13.3	15.4	10.2	14.1	12.1	9.5	5.3	3.4	3.0	3.8	6.8	9.3	10.0	17.2
20	9.6	S	20.8	14.5	14.9	21.9	7.2	6.0	6.1	5.3	5.4	4.7	3.3	4.5	5.0	3.4	4.0	3.5	3.8	11.8	8.3	5.1	5.3	3.5	7.7	21.9
21	3.7	S	3.6	3.5	3.4	3.6	8.1	6.3	4.0	5.3	4.9	6.4	4.9	6.7	5.5	3.8	4.9	7.7	5.1	4.6	5.3	3.5	3.5	3.8	4.9	8.1
22	6.1	S	8.5	11.1	9.1	8.6	8.8	8.7	7.1	6.8	3.7	4.3	5.1	5.0	1.9	1.9	1.9	1.7	2.1	3.4	6.3	3.9	8.3	10.3	5.9	11.1
23	8.3	S	5.7	7.2	12.5	10.8	12.2	8.7	4.2	3.5	4.5	9.1	8.8	2.4	1.7	1.7	2.3	5.4	3.4	7.9	5.5	4.5	11.9	13.6	6.8	13.6
24	10.8	S	7.0	5.0	5.0	8.4	16.2	11.7	16.9	14.6	3.8	2.6	5.6	2.9	5.3	9.4	9.8	7.0	9.5	6.6	4.8	4.0	6.5	6.3	7.8	16.9
25	9.3	S	6.8	4.5	8.3	12.5	10.5	10.4	6.4	11.1	15.0	10.7	4.0	2.2	4.5	5.7	6.6	7.1	8.3	6.5	10.2	15.3	10.1	7.5	8.4	15.3
26	3.9	S	3.5	3.5	3.9	12.0	12.4	10.8	C	C	C	C	C	C	C	5.7	8.7	10.8	4.3	2.3	1.5	11.9	14.6	7.0	-	-
27	1.2	S	0.4	1.8	4.7	1.8	4.4	7.4	14.3	28.5	15.3	2.8	4.1	1.2	1.0	1.0	0.6	0.5	0.7	3.7	5.0	8.9	8.8	12.6	5.7	28.5
28	14.6	S	6.4	11.0	5.6	9.4	15.7	11.0	9.1	8.9	4.9	3.4	2.9	2.1	2.4	0.8	1.3	2.5	2.6	4.3	1.7	3.4	6.7	11.8	6.2	15.7
29	7.4	S	9.8	9.3	12.0	12.6	13.2	8.3	10.4	14.1	25.5	11.9	3.9	3.0	2.4	0.8	3.9	2.6	2.6	2.8	13.9	4.3	5.4	7.1	8.1	25.5
30	6.8	S	11.7	10.2	7.8	14.7	16.1	15.6	13.5	11.3	9.9	2.0	5.0	10.8	5.0	3.8	2.6	9.7	2.6	1.6	4.4	9.5	12.4	11.1	8.6	16.1
NO.	30	-	30	30	30	30	30	30	29	29	29	29	29	29	29	30	30	30	30	30	30	30	30	30	683	100%
MEAN	8.2	-	7.7	6.9	8.1	10.0	11.7	10.6	9.7	9.8	7.3	5.6	5.6	5.6	4.4	4.4	5.9	6.6	5.8	6.1	6.9	8.2	9.3	9.0		
MAX	24.8	-	20.8	15.2	14.9	21.9	26.4	25.5	22.1	28.5	25.5	12.9	15.1	16.3	19.0	20.1	20.0	16.0	18.1	22.8	17.2	19.4	17.6	22.1		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	683
Maximum 1-HR Average	28.5 PPB
Maximum 24-HR Average	11.4 PPB
Monthly Calibration	7
Standard Deviation	4.8
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	7.5 PPB

Lagoon NOx (ppb) – April 2023

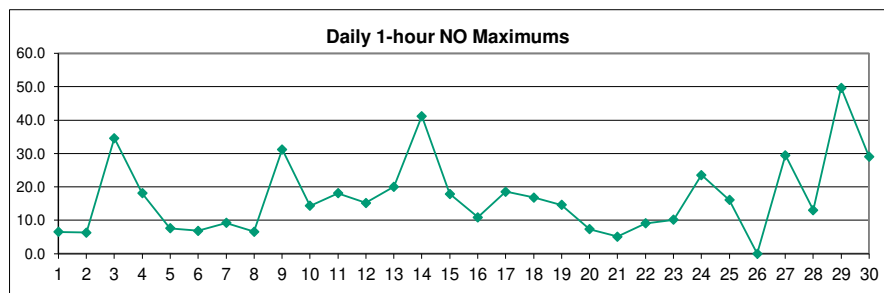
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	2.0	S	3.0	4.4	3.7	4.4	5.0	12.0	5.6	6.5	7.0	9.8	5.6	6.1	4.2	2.2	3.7	16.0	2.5	2.6	4.9	9.8	5.8	3.1	5.6	16.0
2	8.4	S	3.0	20.1	10.8	3.6	4.6	8.0	2.5	2.5	4.0	4.1	16.2	7.1	4.2	7.7	11.9	4.6	9.0	11.7	14.2	12.7	13.4	7.3	8.3	20.1
3	5.9	S	7.7	8.6	13.2	16.5	59.8	48.3	36.7	16.7	10.9	23.2	2.7	4.1	2.6	12.6	11.5	8.3	4.3	6.1	4.0	4.7	5.1	6.5	13.9	59.8
4	9.9	S	6.4	10.9	8.0	16.6	38.4	26.1	18.1	14.9	10.5	9.5	6.3	7.8	4.9	6.3	9.7	11.1	14.7	6.2	4.5	9.4	8.5	8.5	11.6	38.4
5	10.5	S	9.7	5.9	15.6	12.3	11.6	18.2	13.1	11.8	10.1	5.7	5.8	11.6	5.3	3.0	2.1	2.1	2.4	5.1	4.2	4.5	7.6	4.0	7.9	18.2
6	3.5	S	5.6	7.5	17.0	12.0	13.0	15.7	4.1	10.7	14.0	3.3	2.2	1.9	2.4	3.6	2.4	2.0	2.3	3.0	9.2	6.4	9.4	6.1	6.8	17.0
7	5.6	S	11.4	12.0	12.2	14.8	22.4	17.9	17.9	11.6	9.9	6.9	5.9	9.0	5.1	2.8	3.5	2.8	2.0	5.2	4.6	5.7	7.9	3.6	8.7	22.4
8	6.9	S	5.8	2.6	5.7	3.8	3.6	4.9	4.3	8.0	9.6	4.9	6.3	14.3	7.3	4.4	3.5	2.6	5.2	5.4	2.5	1.9	5.2	4.6	5.4	14.3
9	12.6	S	2.8	2.2	2.6	2.6	2.6	2.2	2.9	6.1	3.6	2.8	2.4	2.0	2.2	5.3	15.9	27.5	41.2	52.6	14.1	13.0	12.3	12.4	10.6	52.6
10	9.9	S	16.3	3.7	2.7	5.0	6.6	14.1	31.4	17.6	4.9	11.5	11.2	19.3	25.2	25.9	27.1	18.6	15.7	14.3	8.0	15.7	9.6	25.2	14.8	31.4
11	39.2	S	11.2	6.1	13.4	24.1	16.5	31.1	28.3	8.2	4.1	12.0	17.4	17.8	8.4	3.2	4.5	3.3	2.6	7.8	12.5	9.6	12.6	10.9	13.3	39.2
12	25.9	S	18.1	12.2	19.0	11.9	24.1	20.9	12.7	29.3	15.2	3.8	18.7	28.8	10.0	3.1	18.3	20.1	8.1	13.2	17.2	29.0	15.8	10.5	16.8	29.3
13	5.2	S	16.1	8.9	8.5	19.9	24.9	17.4	32.0	19.0	9.1	4.8	2.5	2.4	4.1	4.0	6.4	11.7	6.5	5.8	25.4	21.1	16.7	16.1	12.6	32.0
14	8.9	S	6.0	7.5	11.6	10.3	14.1	31.5	55.9	64.6	11.0	6.6	4.8	3.6	6.8	4.5	7.2	12.7	14.1	5.8	11.3	12.0	19.8	7.4	14.7	64.6
15	8.4	S	21.8	13.5	26.5	13.9	24.1	14.4	12.3	10.4	3.8	1.9	2.8	2.2	2.6	1.9	2.0	2.2	2.9	2.8	4.2	6.4	11.2	38.7	10.0	38.7
16	25.5	S	6.9	3.1	4.9	4.9	5.4	5.0	2.9	10.0	2.8	2.2	3.4	2.9	1.8	7.8	21.9	17.0	5.3	3.9	5.5	6.1	14.8	21.2	8.0	25.5
17	16.4	S	9.7	2.8	3.0	19.9	27.6	10.1	22.4	19.3	15.5	10.8	32.3	8.2	6.7	2.4	6.2	12.7	2.6	3.7	12.0	26.6	13.6	17.5	13.1	32.3
18	7.0	S	21.7	10.3	15.7	19.6	32.0	22.8	15.8	13.0	10.5	4.0	3.2	3.8	4.2	2.5	2.3	2.3	33.6	11.2	6.5	13.3	20.0	13.8	12.6	33.6
19	8.1	S	11.3	14.2	5.9	8.2	23.8	19.5	17.5	30.4	20.8	18.4	21.7	25.3	13.6	20.8	17.8	10.8	5.7	3.5	3.3	3.9	7.5	12.3	14.1	30.4
20	9.9	S	25.5	16.3	16.1	27.8	8.1	6.7	7.2	6.9	7.6	6.6	4.0	6.4	7.9	4.1	5.6	3.9	5.2	15.0	8.6	5.3	5.4	3.6	9.3	27.8
21	3.9	S	3.7	3.6	3.5	3.7	10.0	7.6	4.6	6.6	6.2	9.1	6.9	10.5	7.9	4.6	6.5	10.0	7.0	4.9	5.4	3.6	3.6	4.0	6.0	10.5
22	7.6	S	9.9	16.1	11.9	10.9	13.6	16.4	10.6	10.4	4.9	6.0	9.0	7.9	2.0	2.0	2.0	1.8	2.3	3.6	7.2	4.1	9.7	16.6	8.1	16.6
23	8.9	S	6.0	8.2	17.6	15.1	18.2	11.1	4.9	4.9	6.6	17.2	14.7	3.0	1.7	1.8	2.8	7.1	3.7	11.0	5.7	4.8	16.8	22.4	9.3	22.4
24	16.7	S	12.0	5.4	6.1	13.1	27.9	17.9	37.4	36.8	5.1	3.3	7.0	3.1	7.0	14.6	13.2	9.4	10.5	7.0	5.5	5.2	6.9	6.6	12.1	37.4
25	11.7	S	7.0	4.8	10.0	18.4	13.2	16.6	9.1	17.5	29.7	22.0	5.2	2.6	6.3	9.4	10.5	10.6	12.0	8.4	13.5	21.4	11.2	7.7	12.1	29.7
26	4.3	S	3.6	3.5	4.1	15.0	17.6	14.3	C	C	C	C	C	C	C	9.7	17.5	22.3	8.1	3.8	1.5	16.6	27.2	7.1	-	-
27	1.2	S	0.3	1.9	9.4	1.7	8.8	10.8	26.4	58.2	27.0	3.8	5.7	1.5	1.3	1.0	0.5	0.5	0.5	4.0	5.1	11.9	12.1	17.7	9.2	58.2
28	20.4	S	9.5	19.5	7.2	15.0	28.7	20.8	17.0	16.9	7.7	5.1	4.3	3.0	3.5	0.9	1.9	3.6	2.8	5.3	1.7	3.4	6.7	12.3	9.4	28.7
29	7.4	S	10.1	11.0	15.1	15.9	27.4	16.0	29.0	35.8	75.1	19.6	5.3	3.9	3.1	0.9	6.6	4.4	3.1	3.2	20.1	4.3	5.4	7.1	14.3	75.1
30	6.9	S	19.0	17.0	12.5	33.7	45.1	39.8	31.3	23.5	19.5	3.5	8.6	19.8	7.8	5.5	3.7	15.0	3.0	1.4	4.5	19.1	12.2	11.4	15.8	45.1
NO.	30	-	30	30	30	30	30	30	29	29	29	29	29	29	29	30	30	30	30	30	30	30	30	30	683	100%
MEAN	10.6	-	10.0	8.8	10.4	13.2	19.3	17.3	17.7	18.2	12.7	8.4	8.4	8.3	5.9	5.9	8.3	9.2	8.0	7.9	8.2	10.4	11.1	11.5		
MAX	39.2	-	25.5	20.1	26.5	33.7	59.8	48.3	55.9	64.6	75.1	23.2	32.3	28.8	25.2	25.9	27.1	27.5	41.2	52.6	25.4	29.0	27.2	38.7		



Number of Non-Zero Readings	683		
Maximum 1-HR Average	75.1 PPB		
Maximum 24-HR Average	16.8 PPB		
Monthly Calibration	7	Operational Time	720 HRS
Standard Deviation	9.33	Operational Uptime	100.0 %
		Monthly Average	10.9 PPB

Lagoon NO (ppb) – April 2023

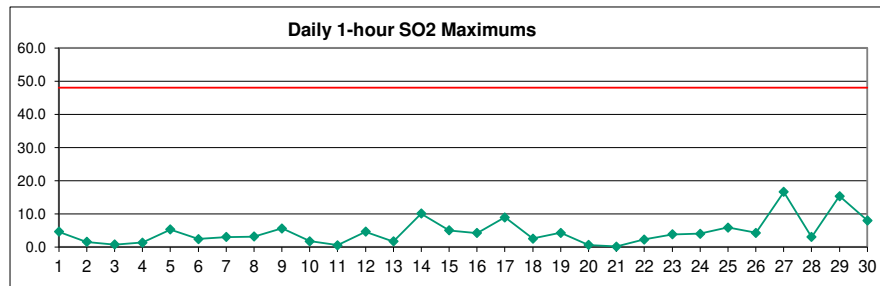
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.4	S	1.5	2.0	1.9	1.8	1.8	5.4	2.1	2.9	3.0	3.5	2.3	2.7	2.1	1.5	1.8	6.5	1.4	1.4	1.5	3.1	2.0	1.6	2.4	6.5
2	2.3	S	1.3	6.2	2.2	1.4	1.7	2.5	1.5	1.6	2.1	2.0	6.4	2.7	1.8	2.6	3.7	1.9	2.3	2.4	3.0	1.8	2.6	1.4	2.5	6.4
3	1.4	S	1.4	1.6	2.3	2.1	34.6	24.0	17.4	7.7	5.4	11.7	1.8	2.3	1.7	5.3	5.2	3.5	2.1	1.6	1.4	1.4	1.3	1.5	6.0	34.6
4	1.5	S	1.5	3.6	2.3	3.4	18.1	10.8	8.5	7.3	5.2	4.5	3.1	3.8	2.4	2.6	3.7	4.5	3.0	1.6	1.3	1.6	1.5	1.6	4.2	18.1
5	1.7	S	2.8	1.5	5.3	3.8	2.5	7.6	5.6	5.5	4.8	3.2	3.0	5.9	2.8	1.8	1.4	1.5	1.5	2.1	1.6	1.5	2.5	1.4	3.1	7.6
6	1.6	S	1.8	1.9	4.5	2.5	3.6	5.6	2.2	5.1	6.9	1.9	1.5	1.4	1.7	2.2	1.6	1.4	1.7	1.7	3.0	2.3	4.0	2.2	2.7	6.9
7	2.1	S	3.9	3.9	4.0	5.8	9.2	7.3	8.1	5.4	4.7	3.6	2.8	4.5	2.7	1.7	1.9	1.6	1.4	2.1	1.5	1.6	2.2	1.5	3.6	9.2
8	2.8	S	2.6	1.4	1.7	1.6	1.8	2.2	2.2	4.2	4.7	2.8	3.3	6.6	3.3	2.3	2.0	1.6	2.0	2.0	1.4	1.3	2.1	1.9	2.5	6.6
9	4.7	S	1.6	1.6	1.5	1.6	1.6	1.6	1.8	3.4	2.0	1.8	1.7	1.5	1.6	2.7	8.0	15.7	24.8	31.2	7.4	6.5	4.4	5.5	5.8	31.2
10	4.6	S	7.8	1.9	1.4	2.0	2.7	6.3	14.3	7.5	2.2	3.8	3.4	5.4	7.6	7.1	8.5	4.0	3.9	3.8	1.5	5.3	1.5	10.8	5.1	14.3
11	15.7	S	3.6	3.1	4.1	5.6	6.7	18.1	15.4	3.9	2.1	5.7	7.2	8.0	4.4	1.9	2.1	1.7	1.5	2.5	4.4	2.7	4.2	3.9	5.6	18.1
12	12.4	S	9.1	6.2	9.7	3.5	11.2	8.5	5.4	15.2	7.5	2.0	9.4	13.9	3.6	1.6	6.2	5.5	2.1	2.0	3.4	12.3	4.3	1.5	6.8	15.2
13	1.6	S	5.6	3.5	2.0	8.1	13.2	8.7	20.1	10.7	4.5	2.5	1.7	1.5	1.7	2.0	1.9	3.6	1.7	1.5	9.5	3.1	3.1	3.1	5.0	20.1
14	2.1	S	1.7	2.7	4.7	4.3	5.8	17.8	35.1	41.2	4.7	2.5	2.0	1.8	3.6	2.2	2.6	3.8	3.3	1.6	3.0	1.8	3.5	1.6	6.7	41.2
15	2.9	S	8.4	6.0	13.1	5.1	10.1	6.3	5.7	5.2	2.1	1.5	1.8	1.6	1.8	1.5	1.5	1.5	1.5	1.5	1.6	2.1	3.2	17.9	4.5	17.9
16	10.9	S	2.6	1.5	1.6	1.5	2.1	2.0	1.6	5.5	1.8	1.6	2.2	1.8	1.4	4.1	9.2	7.2	1.9	1.4	1.9	1.5	4.6	8.4	3.4	10.9
17	6.9	S	3.7	1.4	1.5	9.3	13.5	5.3	12.6	9.7	7.7	5.6	18.6	4.1	4.2	1.7	3.1	6.0	1.7	1.6	4.2	11.6	3.6	6.4	6.3	18.6
18	2.2	S	9.2	3.2	5.2	3.3	10.6	6.7	6.4	5.1	5.2	1.9	1.8	1.9	2.1	1.6	1.6	1.5	16.9	3.7	1.7	3.5	6.1	4.7	4.6	16.9
19	2.2	S	4.0	4.9	1.5	1.6	10.4	8.0	6.6	14.6	9.6	7.5	9.8	11.3	4.8	8.1	7.1	2.7	1.8	1.4	1.6	1.4	2.0	4.3	5.5	14.6
20	1.7	S	6.0	3.1	2.6	7.3	2.4	2.0	2.4	3.0	3.6	3.3	2.1	3.2	4.2	2.0	2.9	1.7	2.7	4.6	1.8	1.6	1.5	1.4	2.9	7.3
21	1.5	S	1.5	1.4	1.4	1.4	3.4	2.6	2.0	2.7	2.6	4.1	3.3	5.1	3.7	2.1	2.9	3.7	3.3	1.6	1.5	1.4	1.4	1.4	2.4	5.1
22	2.9	S	2.7	6.4	4.3	3.7	6.3	9.1	4.9	5.1	2.6	3.1	5.2	4.2	1.4	1.5	1.5	1.4	1.5	1.5	2.3	1.5	2.8	7.8	3.6	9.1
23	2.0	S	1.7	2.5	6.6	5.7	7.5	3.8	2.1	2.8	3.5	9.5	7.3	2.0	1.4	1.4	1.8	3.1	1.6	4.5	1.6	1.6	6.4	10.2	3.9	10.2
24	7.3	S	6.3	1.8	2.4	6.0	13.1	7.6	21.9	23.5	2.6	2.1	2.7	1.5	3.1	6.6	4.8	3.8	2.4	1.8	2.1	2.5	1.8	1.7	5.6	23.5
25	3.8	S	1.6	1.7	3.2	7.4	4.2	7.7	4.2	7.9	16.1	12.7	2.6	1.8	3.3	5.2	5.4	5.0	5.1	3.4	4.7	7.4	2.5	1.7	5.1	16.1
26	1.7	S	1.4	1.4	1.5	4.4	6.6	4.9	C	C	C	C	C	C	C	4.1	8.9	11.6	3.9	1.6	0.0	4.8	12.7	0.1	-	-
27	0.0	S	0.0	0.2	4.8	0.0	4.5	3.5	12.1	29.5	11.8	1.1	1.7	0.4	0.4	0.1	0.1	0.1	0.0	0.4	0.2	3.2	3.4	5.2	3.6	29.5
28	5.9	S	3.1	8.6	1.7	5.6	13.1	9.9	8.0	8.1	2.8	1.8	1.5	1.0	1.2	0.1	0.6	1.3	0.3	1.1	0.1	0.1	0.1	0.6	3.3	13.1
29	0.1	S	0.4	1.9	3.2	3.4	14.4	7.8	18.7	21.9	49.7	7.8	1.5	1.0	0.9	0.2	2.8	1.9	0.6	0.5	6.3	0.1	0.1	0.1	6.3	49.7
30	0.2	S	7.4	6.9	4.7	19.0	29.1	24.2	17.9	12.3	9.8	1.6	3.8	9.1	2.9	1.7	1.1	5.4	0.4	0.0	0.2	9.7	0.0	0.4	7.3	29.1
NO.	30	-	30	30	30	30	30	30	29	29	29	29	29	29	29	30	30	30	30	30	30	30	30	30	683	100%
MEAN	3.6	-	3.6	3.1	3.6	4.4	8.9	7.9	9.2	9.6	6.6	4.0	4.0	3.9	2.7	2.7	3.5	3.8	3.3	2.9	2.5	3.3	3.0	3.7		
MAX	15.7	-	9.2	8.6	13.1	19.0	34.6	24.2	35.1	41.2	49.7	12.7	18.6	13.9	7.6	8.1	9.2	15.7	24.8	31.2	9.5	12.3	12.7	17.9		



Number of Non-Zero Readings	678		
Maximum 1-HR Average	49.7 PPB		
Maximum 24-HR Average	7.3 PPB		
Monthly Calibration	7	Operational Time	720 HRS
Standard Deviation	5.13	Operational Uptime	100.0 %
		Monthly Average	4.5 PPB

Lagoon SO₂ (ppb) – April 2023

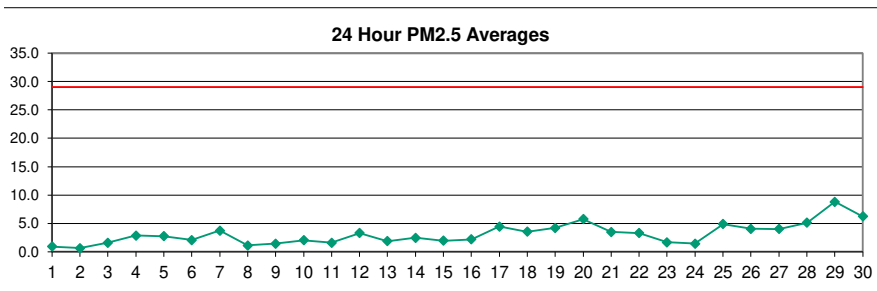
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.2	S	0.1	0.3	0.3	0.4	0.2	0.6	1.3	0.4	4.6	3.5	1.8	0.6	0.4	0.4	0.3	0.4	0.4	0.3	0.2	0.3	0.3	0.3	0.8	4.6
2	0.3	S	0.3	0.4	0.3	0.2	0.1	0.2	0.1	0.2	0.3	0.3	0.2	0.3	0.2	0.3	1.5	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.3	1.5
3	0.1	S	0.1	0.1	0.2	0.1	0.7	0.5	0.5	0.3	0.3	0.4	0.2	0.2	0.2	0.4	0.7	0.8	0.7	0.4	0.4	0.2	0.1	0.1	0.3	0.8
4	0.0	S	0.0	0.0	0.1	0.1	0.3	0.2	0.3	0.3	0.9	0.5	0.3	1.4	0.5	0.3	0.2	0.1	0.2	0.0	0.0	0.1	0.0	0.0	0.2	1.4
5	0.1	S	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.6	1.2	1.6	5.3	0.7	0.2	0.2	0.2	0.0	0.1	0.2	0.1	0.1	0.1	0.5	5.3
6	0.1	S	0.0	0.1	0.2	0.0	0.1	0.2	0.1	1.5	2.4	0.4	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.3	2.4
7	0.1	S	0.4	0.4	0.6	0.7	1.0	1.1	3.0	0.9	1.2	0.4	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.2	0.3	0.2	0.4	0.3	0.6	3.0
8	0.4	S	0.1	0.3	0.3	0.2	0.2	0.2	0.1	0.5	1.6	0.5	1.7	3.2	1.4	0.3	0.2	0.3	0.3	0.2	0.1	0.2	0.4	0.1	0.6	3.2
9	1.2	S	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.3	0.1	0.2	0.2	0.3	0.2	1.2	2.1	3.9	4.4	5.6	2.2	1.3	1.8	1.9	1.2	5.6
10	1.8	S	1.3	0.7	0.4	0.2	0.2	0.5	1.1	0.6	0.3	0.2	0.2	0.3	0.5	1.2	0.8	0.5	0.3	0.3	0.2	0.2	0.2	0.3	0.5	1.8
11	0.5	S	0.2	0.3	0.4	0.3	0.4	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.2	0.3	0.4	0.6	0.5	0.5	0.3	0.6
12	1.2	S	0.6	0.3	0.4	0.4	0.4	0.2	0.3	0.9	1.5	0.3	1.6	4.6	1.7	0.3	0.4	1.1	0.2	0.2	0.2	0.3	0.3	0.2	0.8	4.6
13	0.1	S	0.3	0.2	0.0	0.5	0.6	0.6	1.7	0.6	0.3	0.2	0.0	0.2	0.4	0.3	0.3	0.4	0.6	0.3	0.3	0.1	0.2	0.1	0.4	1.7
14	0.2	S	0.0	0.2	0.4	0.3	0.5	1.8	4.2	10.1	1.2	1.0	0.8	0.6	0.4	0.4	0.5	1.5	1.1	0.2	0.1	0.0	0.3	0.1	1.1	10.1
15	0.4	S	0.8	0.6	1.8	1.3	2.4	1.7	1.0	1.5	0.3	0.1	0.1	0.2	0.1	0.0	0.2	0.2	0.1	0.0	0.1	0.5	0.9	5.0	0.8	5.0
16	4.2	S	0.3	0.1	0.1	0.1	0.1	0.2	0.1	2.3	0.3	0.2	0.1	0.3	0.3	1.5	3.9	3.2	0.7	0.2	0.3	0.7	1.2	1.9	1.0	4.2
17	2.1	S	1.5	0.3	0.2	3.3	4.9	0.6	4.5	4.1	2.0	1.9	8.9	1.3	1.1	0.4	1.1	3.4	0.3	0.3	0.1	1.0	1.9	2.6	2.1	8.9
18	1.0	S	1.2	0.8	1.1	0.4	0.4	0.4	1.2	1.9	0.7	0.6	0.4	0.3	0.5	0.3	0.3	0.3	1.5	1.1	0.6	0.8	2.5	0.9	0.8	2.5
19	0.8	S	1.1	1.0	0.3	0.2	0.9	0.5	0.7	3.1	4.3	2.4	2.0	3.1	2.0	2.8	1.6	0.7	0.3	0.2	0.2	0.1	0.4	0.3	1.3	4.3
20	0.0	S	0.1	0.0	0.0	0.1	0.5	0.6	0.6	0.4	0.2	0.0	0.0	0.4	0.4	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.6
21	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
22	0.2	S	0.3	0.4	0.3	0.3	0.3	0.5	0.6	0.3	0.3	2.0	2.2	1.1	0.1	0.0	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.4	2.2
23	0.3	S	0.1	0.5	1.6	1.6	1.6	0.6	0.1	0.1	1.1	3.8	1.2	0.4	0.3	0.3	0.3	0.2	0.4	0.4	0.2	0.3	1.0	1.6	0.8	3.8
24	1.5	S	0.7	0.4	0.4	0.7	0.8	0.6	2.1	4.0	0.5	0.4	1.0	0.4	1.4	1.1	0.5	0.3	0.3	0.0	0.1	0.1	0.2	0.2	0.8	4.0
25	0.4	S	0.0	0.2	0.5	0.0	0.1	0.9	0.3	2.1	5.9	2.6	0.6	0.2	0.8	1.8	1.9	1.9	2.0	2.2	2.6	3.3	0.3	0.5	1.3	5.9
26	0.2	S	0.0	0.0	0.1	0.1	0.2	0.2	C	C	C	C	C	0.3	0.2	0.5	2.3	4.2	1.7	0.5	0.2	0.7	1.9	0.5	0.8	4.2
27	0.2	S	0.0	0.0	0.1	0.1	0.0	0.0	3.7	16.6	7.6	1.1	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.4	0.2	0.2	0.7	1.7	1.5	16.6
28	2.4	S	1.2	1.9	0.7	1.4	3.0	1.2	0.6	2.2	0.2	0.9	0.8	0.7	0.7	0.1	0.4	1.0	0.3	0.2	0.3	0.1	0.0	0.0	0.9	3.0
29	0.0	S	0.0	0.1	0.1	0.1	1.1	1.0	4.0	5.5	15.4	4.3	1.1	1.4	0.6	0.1	2.4	0.8	0.2	0.3	0.5	0.3	0.2	0.3	1.7	15.4
30	0.2	S	1.7	1.9	1.5	5.0	8.0	7.6	7.2	6.6	4.1	0.8	1.2	4.3	1.9	1.2	0.8	1.7	0.6	0.3	0.5	0.5	0.3	0.4	2.5	8.0
NO.	30	-	30	30	30	30	30	30	29	29	29	29	29	30	30	30	30	30	30	30	30	30	30	30	685	100%
MEAN	0.7	-	0.4	0.4	0.4	0.6	1.0	0.8	1.4	2.3	2.0	1.1	1.0	1.1	0.6	0.5	0.8	0.9	0.6	0.5	0.4	0.4	0.6	0.7		
MAX	4.2	-	1.7	1.9	1.8	5.0	8.0	7.6	7.2	16.6	15.4	4.3	8.9	5.3	2.0	2.8	3.9	4.2	4.4	5.6	2.6	3.3	2.5	5.0		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	653
Maximum 1-HR Average	16.6 PPB
Maximum 24-HR Average	2.5 PPB
Monthly Calibration	5
Standard Deviation	1.48
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	0.8 PPB

Lagoon PM_{2.5} (µg/m³) – April 2023

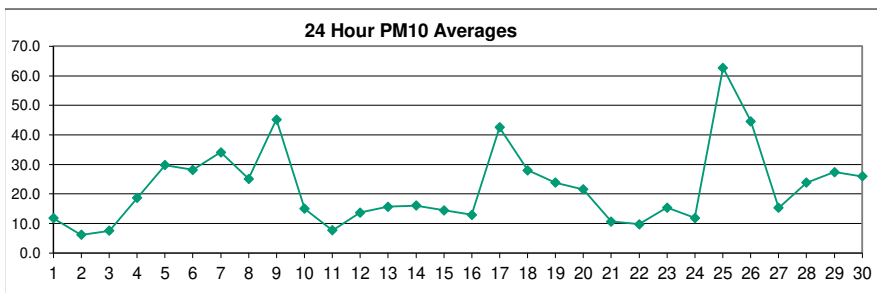
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	6.1	X	0.0	0.0	0.0	0.0	0.0	0.0	1.3	4.0	3.1	1.2	2.3	1.5	0.0	0.0	0.0	0.0	0.1	1.5	0.1	0.0	0.1	0.0	0.9	6.1
2	0.0	X	1.1	0.0	0.0	1.5	1.1	0.0	0.0	0.6	0.0	0.0	0.0	3.6	2.7	0.3	0.2	2.9	0.9	0.0	0.0	0.1	0.0	0.0	0.6	3.6
3	8.0	X	0.0	0.0	0.0	0.7	1.5	3.2	5.7	4.9	1.4	0.0	2.6	1.4	0.0	0.0	0.0	0.0	0.9	1.4	0.4	0.0	2.1	2.6	1.6	8.0
4	5.6	X	3.5	2.2	1.5	0.0	0.0	0.0	2.2	2.5	4.0	3.1	2.5	3.2	1.4	1.4	2.7	2.7	3.8	3.2	3.0	4.4	5.1	7.5	2.8	7.5
5	8.3	X	2.1	2.5	1.7	1.7	1.0	1.2	3.3	3.8	3.7	5.7	4.9	3.0	8.1	6.6	3.2	0.0	0.0	0.0	1.3	0.0	0.0	0.7	2.7	8.3
6	3.3	X	1.2	0.4	0.0	0.2	4.3	6.4	9.6	5.9	3.5	7.0	3.1	0.0	0.0	0.0	1.9	1.0	0.0	0.0	0.0	0.1	0.0	0.0	2.1	9.6
7	4.8	X	1.6	1.9	1.7	2.2	2.2	44.0	2.3	2.5	3.0	5.4	3.5	1.6	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.3	3.7	2.1	3.7	44.0
8	1.4	X	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	7.8	4.4	0.3	0.0	0.0	1.0	2.5	1.2	1.3	1.1	7.8
9	3.4	X	0.0	1.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.0	6.9	7.1	4.9	1.5	0.0	0.0	1.4	7.1
10	0.0	1.0	2.0	3.6	2.7	0.0	0.5	0.1	0.0	0.2	2.4	4.4	1.7	1.3	0.9	0.0	8.6	10.3	5.8	0.9	0.0	0.0	1.3	0.6	2.0	10.3
11	5.5	X	2.8	1.9	0.0	0.0	0.0	0.6	0.7	3.2	1.9	0.0	0.1	1.8	3.2	1.2	0.0	1.0	1.4	0.2	1.8	1.8	3.1	4.3	1.6	5.5
12	7.5	X	2.8	3.4	2.0	3.4	3.5	4.3	3.4	1.6	5.9	5.2	1.6	3.3	8.6	6.1	2.3	0.0	2.0	2.9	1.5	0.0	0.3	3.8	3.3	8.6
13	8.8	X	0.7	0.6	3.7	4.3	2.2	1.8	3.3	4.8	4.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.7	1.1	1.9	0.8	1.7	1.9	8.8
14	1.8	1.9	3.2	1.2	1.3	2.3	0.9	2.1	4.3	6.1	7.5	4.8	2.3	0.0	0.0	1.0	1.2	0.8	2.8	3.1	1.9	0.6	3.2	5.0	2.5	7.5
15	2.4	2.5	1.6	1.1	1.7	2.1	1.8	2.5	2.5	2.3	1.3	0.1	1.9	4.3	3.2	0.3	0.0	2.4	3.4	0.9	0.0	0.4	1.8	6.5	2.0	6.5
16	4.2	2.3	4.4	1.7	0.0	0.8	3.4	6.3	4.2	0.0	1.1	3.7	1.4	2.4	2.1	0.0	0.0	2.4	4.0	2.9	0.0	0.0	0.0	4.5	2.2	6.3
17	4.5	6.3	8.0	4.7	0.5	1.1	2.6	1.9	1.7	3.3	5.6	9.1	C	C	C	21.6	2.7	1.4	2.0	1.9	1.4	4.7	4.0	4.4	4.4	21.6
18	3.9	1.9	4.3	4.2	4.7	3.1	0.0	3.7	8.9	4.8	0.4	0.0	2.3	0.9	0.0	3.1	4.1	2.5	0.6	4.9	4.6	4.6	9.6	6.9	3.5	9.6
19	8.7	X	3.7	0.0	1.4	1.7	0.3	1.7	2.8	3.5	3.9	5.5	10.4	8.1	6.6	5.4	4.1	3.6	4.9	3.4	2.7	2.6	5.4	6.6	4.2	10.4
20	8.1	X	5.1	4.4	7.2	5.9	5.3	6.2	8.6	7.2	6.1	8.5	7.0	6.1	4.4	4.4	6.2	3.9	5.9	5.1	3.6	5.1	5.1	3.2	5.8	8.6
21	2.9	X	1.7	4.0	4.5	5.1	4.0	2.3	4.7	3.5	0.6	3.2	4.5	3.7	3.3	3.6	2.3	0.7	3.9	4.2	2.7	4.3	5.2	5.2	3.5	5.2
22	8.0	X	7.4	6.7	5.7	5.4	10.3	7.5	5.5	5.4	3.1	1.6	0.1	0.1	2.1	0.0	0.0	0.3	0.0	0.0	2.0	2.0	2.1	0.3	3.3	10.3
23	5.3	X	4.5	6.6	5.8	0.7	0.6	2.4	2.4	1.9	0.3	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.2	1.7	1.7	6.6
24	2.7	X	0.0	0.9	1.4	0.6	0.0	3.1	5.4	4.1	3.4	2.2	0.0	0.2	2.4	1.3	0.0	0.0	0.0	0.0	2.1	2.2	0.6	0.0	1.4	5.4
25	2.9	X	0.8	0.0	0.0	0.0	3.6	4.8	2.2	0.4	5.0	17.9	4.9	3.8	1.4	2.1	9.5	6.3	6.4	9.6	6.8	8.3	10.0	5.3	4.9	17.9
26	3.4	6.4	4.1	2.0	2.2	1.4	2.6	6.7	7.6	4.4	2.6	14.4	9.5	6.1	1.5	1.1	0.1	0.9	6.3	3.6	3.3	2.8	1.8	1.7	4.0	14.4
27	7.0	X	0.0	0.0	1.4	0.9	1.4	1.4	0.0	7.6	25.8	6.9	5.6	1.5	0.0	0.0	0.0	1.3	2.7	2.1	6.0	7.5	6.6	6.7	4.0	25.8
28	8.6	X	5.8	4.1	1.6	2.4	5.6	7.2	5.7	5.8	4.3	3.6	3.2	1.7	2.8	6.4	5.8	5.4	5.9	4.4	5.4	5.6	8.1	8.1	5.1	8.6
29	13.5	X	8.1	7.6	10.3	12.8	12.7	9.0	8.9	6.1	7.6	9.7	7.6	4.6	4.1	10.2	7.7	6.7	9.2	7.4	6.6	8.1	13.6	10.2	8.8	13.6
30	11.1	X	7.6	8.5	6.0	5.3	13.0	10.9	8.6	6.3	5.3	7.0	4.8	1.5	3.3	4.9	5.5	5.3	6.1	5.1	4.6	4.0	3.7	5.2	6.2	13.0
NO.	30	7	30	30	30	30	30	30	30	30	30	29	29	29	30	30	30	30	30	30	30	30	30	30	694	97%
MEAN	5.4	3.2	2.9	2.5	2.4	2.2	2.8	4.7	3.9	3.6	3.9	4.4	3.0	2.4	2.5	2.9	2.3	2.2	2.9	2.6	2.3	2.5	3.4	3.5		
MAX	13.5	6.4	8.1	8.5	10.3	12.8	13.0	44.0	9.6	7.6	25.8	17.9	10.4	8.1	8.6	21.6	9.5	10.3	9.2	9.6	6.8	8.3	13.6	10.2		



Number of 24HR Exceedences	0
Number of Non-Zero Readings	552
Maximum 1-HR Average	44.0 UG/M3
Maximum 24-HR Average	8.8 UG/M3
Monthly Calibration	3
Standard Deviation	3.45
Operational Time	697 HRS
Operational Uptime	96.8 %
Monthly Average	3.1 UG/M3

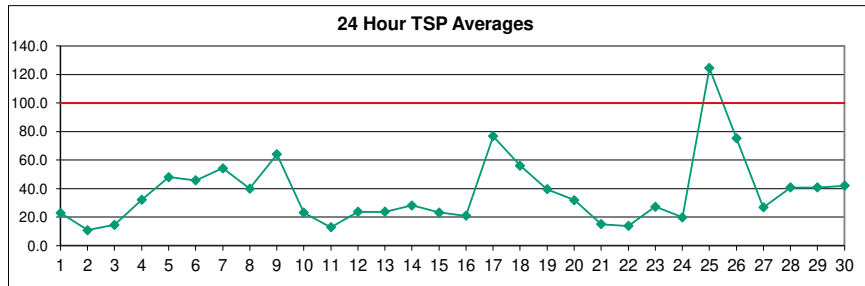
Lagoon PM₁₀ (µg/m³) – April 2023

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	4.5	2.2	0.0	6.7	7.5	6.2	19.1	41.0	58.1	18.0	0.0	10.5	6.6	6.9	6.1	1.9	5.2	13.7	39.1	10.6	11.5	5.9	0.0	11.8	58.1
2	0.0	1.3	25.3	0.7	5.2	3.6	0.4	0.0	2.7	3.6	0.7	5.9	5.2	7.0	12.0	4.3	21.5	12.6	6.5	8.0	6.6	5.3	3.2	5.5	6.1	25.3
3	5.9	7.1	6.6	5.8	9.1	7.4	4.3	10.2	14.6	18.5	4.2	8.2	9.8	5.4	5.6	3.7	18.1	4.7	10.3	5.2	2.4	4.4	4.6	4.5	7.5	18.5
4	4.6	7.9	7.4	15.2	8.8	7.8	19.3	33.5	49.9	48.8	38.3	43.3	17.2	13.7	11.1	13.0	7.0	22.2	13.8	21.3	6.8	8.9	17.3	11.4	18.7	49.9
5	13.3	16.9	14.7	5.8	6.6	10.2	8.8	16.3	38.8	68.4	54.7	75.1	43.5	89.6	111.5	42.2	19.7	12.6	8.1	14.7	11.8	16.3	9.5	5.7	29.8	111.5
6	4.1	2.8	2.1	4.3	15.0	29.8	74.1	83.3	81.8	33.6	88.0	114.9	21.9	15.0	6.8	11.9	25.4	5.8	8.7	7.9	6.1	12.2	11.3	9.2	28.2	114.9
7	6.0	6.9	11.3	28.8	24.6	40.5	51.6	87.0	52.4	57.1	66.8	80.6	44.1	67.7	35.4	8.8	8.6	5.5	1.4	0.0	1.3	22.3	61.9	47.2	34.1	87.0
8	7.1	5.2	9.2	4.9	0.5	8.0	6.5	2.7	2.0	0.7	0.0	46.7	20.9	98.2	139.1	26.0	6.4	18.1	8.0	6.3	11.0	8.8	31.0	135.4	25.1	139.1
9	14.9	219.9	43.0	73.4	38.5	18.6	11.8	7.8	8.4	12.3	9.6	9.0	8.0	59.9	89.3	46.3	24.1	56.5	59.7	82.0	126.9	43.4	12.1	9.4	45.2	219.9
10	14.4	30.0	54.2	29.5	3.1	6.3	11.0	6.5	16.0	21.7	11.7	7.4	9.5	8.4	14.4	20.5	21.9	23.0	12.3	10.2	7.9	9.4	7.8	3.2	15.0	54.2
11	3.2	4.5	4.6	2.3	2.2	8.2	10.6	7.4	5.2	7.0	8.5	4.5	12.3	8.2	5.5	1.8	0.0	13.9	11.3	9.6	15.6	20.0	11.0	7.0	7.7	20.0
12	15.1	7.1	12.4	7.8	6.3	5.8	3.8	9.7	36.0	40.4	32.7	18.9	17.5	18.6	18.2	13.3	8.0	10.0	10.0	8.1	8.0	8.1	8.2	5.2	13.7	40.4
13	7.2	8.1	13.1	7.4	19.2	10.4	11.0	16.9	17.8	29.3	44.5	35.0	19.0	6.0	4.4	11.4	16.0	6.1	9.5	12.4	15.7	18.4	10.0	28.1	15.7	44.5
14	13.9	9.7	4.1	5.6	12.8	9.1	4.8	16.6	21.2	56.9	47.3	64.2	18.9	12.1	6.3	1.4	4.4	7.1	7.6	8.7	4.5	4.9	17.5	25.8	16.1	64.2
15	15.5	4.8	5.9	16.2	10.1	11.0	13.7	11.8	16.1	38.3	57.3	21.1	13.1	8.0	6.0	5.2	13.1	10.5	5.2	0.1	1.2	7.1	12.4	44.5	14.5	57.3
16	20.9	35.3	39.6	19.1	6.3	8.3	9.5	8.4	8.4	9.4	11.5	10.1	7.4	3.6	6.7	5.8	17.4	22.4	24.9	18.5	3.4	2.3	2.2	9.2	12.9	39.6
17	16.8	113.9	135.5	44.2	8.0	6.4	20.6	24.7	35.5	40.8	64.1	147.3	C	C	C	82.5	8.7	31.8	42.1	15.9	12.7	22.9	15.0	4.7	42.6	147.3
18	8.8	10.5	32.0	16.5	14.7	20.4	20.1	66.0	110.9	43.8	19.8	32.4	22.6	14.2	12.0	7.6	9.6	7.6	11.3	36.2	32.6	37.8	40.4	43.9	28.0	110.9
19	15.6	9.7	5.9	10.3	13.4	11.2	10.1	11.7	18.2	20.8	40.0	38.0	57.2	20.5	35.7	24.8	36.6	42.1	53.2	21.0	19.6	17.6	21.9	16.5	23.8	57.2
20	28.4	31.9	19.9	23.7	18.7	25.9	23.8	18.8	29.6	24.4	25.3	27.4	7.5	22.1	17.5	17.1	25.0	21.6	18.1	14.5	27.1	19.1	9.6	19.5	21.5	31.9
21	8.0	10.9	12.9	12.1	12.7	14.2	7.5	11.7	7.7	7.7	7.9	9.9	15.0	15.7	16.4	13.7	4.6	5.7	9.8	14.9	9.7	10.0	9.3	7.8	10.6	16.4
22	18.6	8.7	12.2	9.5	9.2	5.7	14.7	9.4	19.8	14.4	21.5	6.5	16.9	11.4	13.2	7.1	6.2	2.9	0.0	2.7	3.9	3.0	6.3	10.6	9.8	21.5
23	37.9	22.4	25.8	99.2	30.6	7.2	5.6	6.8	22.3	3.8	3.0	4.9	5.9	9.1	4.6	1.0	2.9	5.9	9.8	3.4	7.3	18.3	19.1	12.3	15.4	99.2
24	7.3	5.3	2.6	3.8	5.7	3.2	2.0	25.6	21.3	40.8	43.0	5.5	5.2	38.8	9.0	8.1	14.5	10.7	4.7	7.5	7.1	2.8	5.5	5.2	11.9	43.0
25	9.3	11.3	13.8	8.6	13.8	23.5	76.6	47.0	32.3	18.9	117.8	334.2	86.6	23.3	11.6	51.5	165.4	87.0	130.2	63.2	55.6	84.2	30.1	10.3	62.8	334.2
26	18.6	16.7	18.5	12.1	19.6	12.5	25.9	19.7	34.2	41.7	36.7	200.3	113.2	37.9	47.6	50.6	31.1	87.5	156.4	32.5	13.2	6.7	33.2	5.0	44.6	200.3
27	6.5	6.9	1.1	0.0	0.0	5.2	4.5	2.1	4.6	29.3	41.2	24.9	14.6	15.2	3.5	8.4	6.9	11.9	6.8	5.6	49.6	35.0	39.5	44.7	15.3	49.6
28	25.9	29.9	23.5	12.1	17.5	11.6	20.3	26.0	34.0	36.8	33.8	23.9	24.2	23.2	18.3	42.7	15.4	19.5	23.5	23.8	18.7	16.4	19.7	30.9	23.8	42.7
29	30.2	46.7	25.7	25.1	38.8	49.9	51.8	21.2	22.1	20.4	54.0	35.1	28.7	16.9	14.5	10.0	16.2	30.0	20.6	22.1	14.9	23.1	19.8	20.8	27.4	54.0
30	20.0	20.6	20.4	32.9	16.7	19.4	44.0	36.6	40.8	49.8	50.3	48.1	18.5	16.0	23.7	12.3	24.4	13.8	21.0	13.4	20.0	15.4	19.8	24.9	26.0	50.3
NO.	30	30	30	30	30	30	30	30	30	30	30	30	29	29	29	30	30	30	30	30	30	30	30	30	717	100%
MEAN	13.3	23.9	20.2	17.9	13.2	13.6	19.2	22.2	28.2	29.9	35.1	49.4	24.0	23.9	24.4	18.6	19.4	20.5	24.0	17.6	17.7	17.2	17.2	20.3		
MAX	37.9	219.9	135.5	99.2	38.8	49.9	76.6	87.0	110.9	68.4	117.8	334.2	113.2	98.2	139.1	82.5	165.4	87.5	156.4	82.0	126.9	84.2	61.9	135.4		



Lagoon TSP ($\mu\text{g}/\text{m}^3$) – April 2023

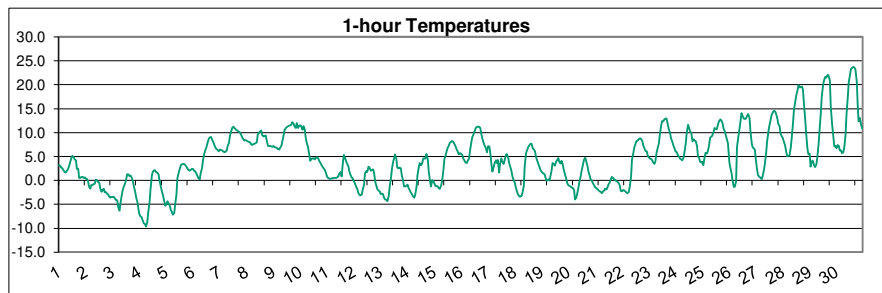
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	7.0	7.4	4.4	1.9	21.5	25.7	19.0	37.7	66.2	88.8	21.0	9.1	37.0	9.5	16.9	11.2	10.9	10.1	21.3	68.0	20.0	20.0	9.8	7.4	23.0	88.8
2	6.7	7.4	31.2	0.0	7.2	10.1	5.2	5.8	8.5	6.9	5.8	11.4	9.1	21.1	28.4	2.6	24.7	16.4	4.7	3.8	5.6	13.2	13.3	9.6	10.8	31.2
3	9.3	14.6	7.9	8.8	8.7	9.8	15.0	19.1	22.7	25.9	12.7	12.6	11.1	5.9	15.2	12.8	37.2	20.9	18.6	10.9	13.6	11.2	13.1	10.7	14.5	37.2
4	12.3	17.8	1.9	8.5	12.3	8.6	36.4	60.9	78.9	84.6	66.9	72.2	33.2	35.5	26.4	16.0	30.6	31.9	29.1	35.1	16.4	9.9	22.9	20.2	32.0	84.6
5	18.2	28.2	21.8	6.1	15.0	17.1	13.2	20.1	70.4	119.5	90.1	122.9	68.7	136.1	191.7	62.0	29.5	22.8	14.0	17.9	12.7	29.4	19.3	6.9	48.1	191.7
6	6.5	8.0	11.9	9.0	21.1	43.2	134.1	147.6	130.8	53.4	136.7	169.8	35.6	31.0	14.5	19.2	42.0	14.4	9.2	11.8	9.2	14.4	14.6	9.7	45.7	169.8
7	13.3	18.3	23.1	50.7	33.3	56.0	83.6	122.7	83.9	99.0	102.7	120.1	72.3	67.8	64.2	22.3	13.6	8.6	5.2	4.2	13.1	37.3	100.0	85.6	54.2	122.7
8	21.0	5.9	11.6	5.9	1.9	10.3	6.2	4.5	8.6	8.5	11.4	81.1	31.5	176.0	249.6	49.8	21.7	19.8	8.8	16.7	10.8	18.0	34.6	144.1	39.9	249.6
9	27.0	380.6	42.6	67.3	48.3	18.4	13.3	8.3	16.8	18.4	13.6	10.3	17.4	63.4	85.5	45.6	24.5	74.4	78.4	139.1	225.1	66.8	34.4	15.9	64.0	380.6
10	26.0	52.3	69.4	39.3	12.9	10.9	12.3	9.2	26.9	44.6	24.9	11.3	16.7	15.1	21.6	14.5	31.9	25.0	18.9	11.9	14.4	11.4	10.6	22.7	23.1	69.4
11	11.7	12.4	12.6	8.5	6.2	7.8	12.9	10.2	15.3	16.8	2.7	11.3	16.6	16.2	7.6	4.3	5.7	22.2	22.9	8.4	25.3	21.9	13.5	16.7	12.9	25.3
12	12.5	15.7	15.2	9.8	5.7	1.2	10.4	13.0	47.9	58.9	62.6	36.9	46.4	37.4	31.6	32.6	10.1	37.0	21.0	24.6	10.1	7.7	8.5	11.3	23.7	62.6
13	15.3	19.7	16.5	12.7	13.8	7.3	16.0	19.8	25.9	43.1	68.9	57.5	40.8	3.8	9.0	31.5	17.6	9.4	12.5	17.1	22.2	30.2	26.4	31.8	23.7	68.9
14	21.6	13.3	9.6	7.5	12.6	9.2	14.2	29.1	43.4	70.4	76.1	106.1	41.1	18.4	14.4	9.7	25.1	24.5	14.0	27.5	7.6	19.0	18.2	46.0	28.3	106.1
15	16.6	17.8	18.5	18.5	7.6	19.9	12.8	19.2	26.9	63.0	98.8	30.5	13.2	14.2	12.9	10.5	13.9	13.6	8.1	5.5	9.3	16.6	19.6	71.9	23.3	98.8
16	32.3	63.8	61.8	30.6	8.8	15.9	11.1	9.2	8.9	10.8	19.4	13.3	8.9	7.7	9.9	8.3	28.8	43.2	38.5	32.5	4.2	4.3	8.7	21.9	20.9	63.8
17	30.8	204.4	232.2	63.8	16.9	12.6	24.6	41.8	61.9	82.3	105.4	247.6	C	C	C	165.6	29.2	77.8	66.7	25.2	28.9	59.2	22.0	10.6	76.6	247.6
18	22.0	15.1	52.8	40.9	8.5	29.4	49.8	123.8	218.6	92.6	44.3	60.4	45.2	28.2	35.6	30.2	25.8	26.1	25.6	68.1	69.6	66.4	82.3	86.5	56.2	218.6
19	30.0	19.3	16.6	15.5	27.6	12.8	8.9	21.6	28.5	35.6	55.3	58.2	94.6	33.4	56.8	40.4	50.6	68.3	94.3	44.2	39.3	28.9	29.2	38.1	39.5	94.6
20	29.2	37.2	36.7	38.7	38.0	33.0	36.0	25.1	38.6	28.0	39.1	47.5	17.9	42.7	28.9	20.1	41.7	35.3	26.5	22.0	38.9	31.8	22.3	12.4	32.0	47.5
21	10.6	22.2	6.2	7.3	12.6	9.4	8.5	8.5	8.7	11.8	18.4	25.1	22.3	35.8	26.1	22.6	17.6	9.0	17.7	12.3	20.1	14.6	8.1	6.8	15.1	35.8
22	26.6	12.7	17.8	18.0	13.4	8.9	9.2	11.1	23.5	14.8	36.7	21.2	18.0	16.9	24.1	3.3	6.4	5.6	11.9	8.4	4.2	3.2	1.7	13.2	13.8	36.7
23	43.4	37.3	46.2	171.8	43.4	7.9	9.6	21.7	36.4	17.7	9.2	10.4	23.6	22.9	3.8	6.4	2.8	21.6	17.6	6.7	19.0	31.6	21.8	22.0	27.3	171.8
24	10.9	9.4	5.2	3.8	4.2	2.9	11.5	30.4	42.2	68.9	70.7	15.7	11.9	69.5	16.0	16.0	17.2	13.6	7.6	14.0	14.6	7.7	5.3	5.8	19.8	70.7
25	9.2	27.5	20.4	9.9	27.9	31.9	144.7	94.0	60.9	30.6	235.2	663.7	178.9	38.9	33.0	106.6	341.6	169.6	261.3	137.6	116.6	161.3	66.9	18.7	124.5	663.7
26	30.5	26.8	22.7	24.3	19.1	22.2	28.9	30.9	52.6	56.1	65.0	341.6	186.2	79.0	86.7	89.6	52.8	162.2	263.5	70.1	28.1	5.8	41.7	21.3	75.3	341.6
27	25.4	8.9	6.5	7.6	6.0	9.4	9.1	5.1	12.4	49.4	57.4	27.8	25.6	24.9	8.3	18.5	18.4	23.0	8.3	18.6	95.4	56.5	55.7	63.8	26.8	95.4
28	42.5	57.0	32.9	30.5	28.7	20.7	34.6	44.8	51.8	74.0	65.1	33.8	38.6	42.7	25.1	72.0	28.2	36.7	32.2	29.1	32.8	23.1	49.1	51.1	40.7	74.0
29	38.5	67.0	43.7	33.1	56.3	56.0	70.5	34.1	43.0	24.1	75.7	72.3	47.2	25.3	20.5	21.1	27.8	37.9	28.0	40.1	27.9	28.2	31.7	30.2	40.8	75.7
30	25.6	25.4	26.2	53.0	31.8	23.0	62.9	52.9	83.3	90.1	86.6	81.0	27.7	34.4	42.8	29.1	30.4	36.4	31.0	24.6	23.1	32.7	27.9	27.9	42.1	90.1
NO.	30	30	30	30	30	30	30	30	30	30	30	30	29	29	29	30	30	30	30	30	30	30	30	30	717	100%
MEAN	21.1	41.8	30.9	26.8	19.0	18.4	30.8	36.1	48.1	49.6	59.3	86.1	42.7	39.8	41.6	33.1	35.3	37.2	40.6	31.9	32.6	29.4	27.8	31.4		
MAX	43.4	380.6	232.2	171.8	56.3	56.0	144.7	147.6	218.6	119.5	235.2	663.7	186.2	176.0	249.6	165.6	341.6	169.6	263.5	139.1	225.1	161.3	100.0	144.1		



Number of 24HR Exceedences	1	Operational Time	720 HRS
Number of Non-Zero Readings	716	Operational Uptime	100.0 %
Maximum 1-HR Average	663.7 UG/M3	Monthly Average	37.1 UG/M3
Maximum 24-HR Average	124.5 UG/M3		
Monthly Calibration	3		
Standard Deviation	49.7		

Lagoon Temperature (°C) – April 2023

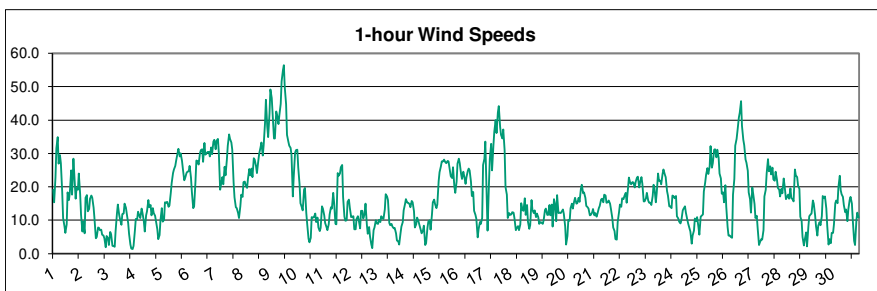
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	3.2	3.0	2.7	2.5	2.1	1.8	1.7	2.1	2.3	3.0	3.9	4.8	5.2	4.8	4.4	4.2	2.5	2.4	0.5	0.5	0.7	0.8	0.5	0.6	2.5	5.2
2	0.4	0.3	-0.1	-1.3	-1.7	-1.0	-1.0	-0.8	-0.7	0.2	0.0	-0.3	-0.5	-1.6	-2.3	-2.0	-1.8	-2.4	-2.5	-2.7	-2.9	-3.4	-3.6	-3.4	-1.5	0.4
3	-3.5	-3.4	-3.8	-4.1	-4.2	-5.4	-6.3	-4.8	-3.1	-2.1	-1.2	-0.8	0.2	1.2	1.2	0.9	1.0	0.6	-0.3	-1.2	-2.4	-3.5	-4.5	-5.8	-2.3	1.2
4	-7.0	-7.5	-7.6	-8.4	-9.0	-9.1	-9.6	-8.6	-6.7	-4.5	-2.0	0.9	1.8	2.1	2.1	1.7	1.7	1.3	0.0	-1.3	-2.1	-3.1	-4.1	-5.3	-3.5	2.1
5	-5.1	-4.4	-4.8	-5.3	-6.0	-6.7	-7.2	-6.8	-5.1	-2.8	0.4	1.7	2.4	3.3	3.4	3.5	3.4	3.2	2.8	2.4	2.2	2.0	2.2	2.4	-0.8	3.5
6	2.4	2.0	1.8	1.4	0.9	0.4	0.2	1.6	2.6	4.2	5.6	6.3	7.1	7.8	8.7	9.0	9.1	8.6	8.1	7.5	6.8	6.5	6.3	6.1	5.0	9.1
7	6.4	6.4	6.3	6.0	5.9	6.0	6.3	7.2	7.8	9.3	10.3	10.9	11.2	10.9	10.7	10.5	10.3	10.2	10.0	9.6	9.1	8.6	8.4	8.4	8.6	11.2
8	8.4	8.1	8.1	7.9	7.6	7.4	7.6	7.7	7.9	9.6	10.0	10.2	10.4	9.5	9.2	9.2	9.4	8.3	7.2	7.2	7.2	7.1	7.0	8.3	8.3	10.4
9	7.2	6.9	6.9	6.7	6.5	6.5	6.8	7.3	8.2	9.6	10.5	11.0	11.2	11.3	11.4	11.5	11.7	12.2	11.8	11.4	11.0	12.0	11.0	11.4	9.7	12.2
10	11.6	11.3	10.6	11.3	10.6	8.9	7.6	7.1	5.3	4.1	4.6	4.6	4.7	4.4	4.8	4.8	4.6	4.1	3.6	3.2	2.7	2.5	2.1	1.6	5.9	11.6
11	0.7	0.5	0.4	0.3	0.4	0.4	0.5	0.5	0.5	0.6	0.9	1.5	1.7	0.8	3.9	5.3	4.8	4.0	3.6	2.9	2.0	1.1	0.7	0.3	1.6	5.3
12	-0.2	-0.7	-1.2	-1.9	-2.5	-3.0	-3.2	-2.9	-1.9	-0.9	1.4	2.0	1.7	2.8	2.7	2.0	2.1	2.4	1.7	-0.3	-1.0	-1.9	-2.1	-2.3	-0.3	2.8
13	-2.8	-2.7	-2.8	-3.7	-3.9	-4.1	-4.3	-3.2	-1.3	0.5	2.3	4.0	4.5	5.5	4.5	2.7	2.5	2.7	2.5	1.1	0.0	-1.3	-1.3	-1.2	0.0	5.5
14	-0.9	-1.5	-2.1	-2.5	-2.9	-3.4	-3.6	-2.9	-1.4	1.1	2.8	3.6	3.2	3.5	4.6	4.6	4.5	5.5	4.4	1.9	-0.2	-1.2	0.1	-0.1	0.7	5.5
15	-0.7	-1.1	-1.2	-1.2	-1.7	-1.7	-1.0	0.0	2.3	4.5	5.4	6.1	6.7	7.3	7.8	8.0	8.3	8.0	7.6	7.1	6.5	6.0	5.4	5.7	3.9	8.3
16	5.6	5.3	4.6	4.1	3.7	3.7	4.1	4.6	6.1	7.9	9.0	9.6	10.2	10.9	11.2	11.3	11.3	10.9	9.8	8.7	7.9	7.2	6.8	5.9	7.5	11.3
17	7.2	7.1	6.0	3.1	1.9	2.9	3.6	4.2	3.7	4.3	1.7	3.5	4.6	3.9	3.4	4.1	5.3	5.5	4.8	3.7	2.8	2.2	0.7	0.2	3.8	7.2
18	-0.5	-1.5	-2.4	-2.9	-3.3	-3.4	-3.3	-2.6	-1.1	3.0	5.7	6.3	7.0	7.3	7.7	7.7	6.7	6.5	6.1	4.9	4.1	3.6	2.8	2.2	2.5	7.7
19	1.8	1.6	1.4	1.1	0.0	0.0	0.2	0.0	0.7	2.1	3.6	3.4	3.0	3.9	4.2	4.7	3.8	3.6	4.1	3.2	2.3	1.2	0.5	-0.6	2.1	4.7
20	-0.9	-1.1	-1.2	-1.5	-1.5	-2.0	-4.0	-3.6	-2.7	-1.4	-0.2	1.0	2.1	3.4	4.3	4.7	4.0	2.9	1.9	0.9	0.2	-0.2	-0.6	-1.1	0.1	4.7
21	-1.5	-1.6	-1.8	-2.1	-2.3	-2.4	-2.6	-2.4	-2.1	-1.8	-1.9	-1.6	-0.8	-0.5	0.3	0.8	0.5	0.3	0.1	-0.2	-0.4	-0.5	-1.1	-2.2	-1.2	0.8
22	-2.3	-2.0	-2.1	-2.3	-2.6	-2.7	-2.4	-1.4	0.8	4.2	5.7	6.8	7.7	8.3	8.4	8.6	8.8	8.7	8.2	7.4	6.6	6.2	6.1	5.3	3.7	8.8
23	4.7	4.5	4.5	4.2	3.8	3.4	3.9	5.9	6.6	7.7	9.4	11.5	12.4	12.4	12.7	12.9	12.9	11.6	10.8	9.9	8.8	8.1	7.4	6.6	8.2	12.9
24	6.0	5.9	5.3	4.9	4.6	4.4	4.2	4.8	5.9	7.9	9.9	11.6	11.0	10.1	10.1	8.1	8.6	8.3	8.2	7.2	5.2	4.5	3.9	3.8	6.9	11.6
25	3.9	3.2	4.9	5.8	5.6	6.1	7.4	8.9	9.1	9.3	10.2	10.9	10.8	10.7	11.8	12.4	12.7	12.6	11.9	10.8	10.2	9.5	8.5	7.7	9.0	12.7
26	3.8	2.8	1.4	0.0	-1.4	-1.4	-0.2	6.9	9.1	10.3	12.4	14.1	13.4	13.0	12.9	12.9	13.6	13.9	13.1	10.3	7.7	6.9	6.6	6.4	7.9	14.1
27	4.4	2.1	1.1	0.7	0.6	0.3	0.9	2.1	3.4	5.7	8.1	10.1	11.4	12.6	13.6	14.3	14.5	14.4	14.0	12.9	11.8	11.3	9.9	9.2	7.9	14.5
28	8.9	8.0	7.4	5.8	5.0	5.2	5.3	6.9	8.9	12.1	14.8	16.5	17.7	18.8	19.9	19.5	19.5	19.6	19.0	15.1	12.9	10.0	6.6	5.5	12.0	19.9
29	5.6	2.9	4.0	4.1	3.2	2.8	3.3	4.8	7.7	10.4	14.3	17.7	20.0	20.9	21.7	21.5	22.1	21.9	20.9	15.5	11.7	9.8	7.1	7.2	11.7	22.1
30	6.7	7.4	7.2	6.3	6.2	5.7	5.9	6.8	9.5	13.6	17.5	20.5	22.2	23.3	23.6	23.7	23.6	23.2	20.6	15.9	12.4	13.0	11.9	10.8	14.1	23.7
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	2.4	2.1	1.8	1.3	0.9	0.6	0.7	1.6	2.7	4.3	5.8	6.9	7.5	7.8	8.1	8.1	8.1	7.9	7.2	5.9	4.8	4.2	3.5	3.1		
MAX	11.6	11.3	10.6	11.3	10.6	8.9	7.6	8.9	9.5	13.6	17.5	20.5	22.2	23.3	23.6	23.7	23.6	23.2	20.9	15.9	12.9	13.0	11.9	11.4		



Number of Non-Zero Readings	720	Operational Time	720 HRS
Maximum 1-HR Average	23.7 C	Operational Uptime	100.0 %
Maximum 24-HR Average	14.1 C	Monthly Average	4.5 C
Monthly Calibration	0		
Standard Deviation	5.81		

Lagoon Wind Speed (km/hr) – April 2023

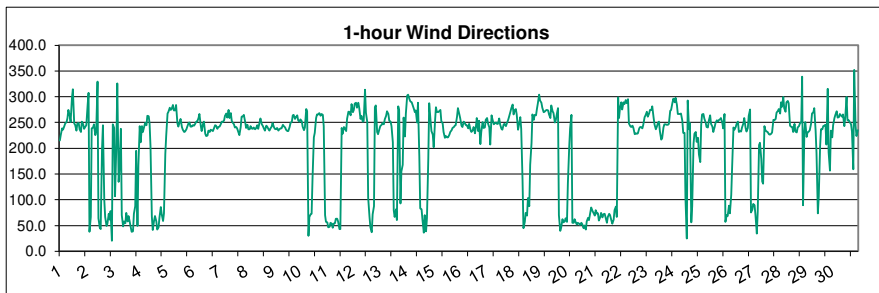
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	19.2	15.4	22.7	31.6	34.9	26.9	29.6	27.1	18.5	10.7	8.2	6.3	8.7	18.3	16.0	18.4	25.0	17.7	28.5	23.6	16.5	19.8	19.2	24.0	20.3	34.9
2	17.8	11.6	6.7	9.6	6.1	16.7	17.5	12.7	13.4	16.4	17.4	16.8	13.7	10.4	4.6	5.1	7.8	7.6	7.0	7.1	5.7	5.4	4.6	1.9	10.2	17.8
3	5.3	4.6	2.6	6.5	5.8	2.3	2.3	2.1	6.8	12.0	14.7	11.6	10.3	8.7	11.9	12.1	14.9	13.8	11.9	9.1	5.9	2.7	1.5	1.4	7.5	14.9
4	2.3	6.9	10.4	10.3	12.5	11.3	10.7	13.5	12.2	9.5	6.7	11.4	12.6	16.1	14.0	14.5	11.5	13.6	12.1	11.4	9.7	7.2	4.4	5.5	10.4	16.1
5	10.0	13.7	9.6	10.2	15.3	15.2	15.5	14.0	14.4	18.3	21.2	24.1	25.1	26.3	27.9	30.1	31.4	29.1	30.1	27.8	25.4	22.0	22.7	24.1	21.0	31.4
6	24.5	24.6	26.3	22.8	18.5	13.7	14.1	21.5	27.8	27.7	26.6	30.1	31.1	31.2	27.5	33.1	29.6	30.0	30.4	30.5	29.1	31.9	29.8	33.5	26.9	33.5
7	34.2	31.2	33.9	34.4	30.4	19.2	20.8	23.0	20.8	26.1	23.5	28.1	32.4	35.7	34.4	33.3	31.1	21.4	16.8	13.9	13.6	12.2	10.7	14.2	24.8	35.7
8	17.6	17.0	21.5	21.6	20.5	19.7	22.4	25.3	23.4	25.5	22.9	28.6	28.2	26.1	24.1	27.7	29.9	31.8	33.3	29.4	32.5	39.1	46.1	38.0	27.2	46.1
9	34.9	41.9	49.2	46.6	41.7	34.5	34.6	42.5	41.5	38.8	41.5	44.8	51.7	54.9	56.5	49.8	44.8	35.6	33.6	32.4	31.6	29.7	17.1	23.1	39.7	56.5
10	30.2	31.0	31.2	25.9	20.8	15.1	13.9	13.0	19.2	19.6	12.1	8.9	4.4	3.4	4.8	10.9	10.7	11.0	12.1	9.5	10.8	7.8	6.8	7.7	14.2	31.2
11	14.2	13.6	11.4	9.2	8.0	7.0	8.8	11.8	13.9	13.5	18.2	15.2	8.9	8.7	24.2	23.3	24.0	25.8	26.5	17.1	11.1	9.8	10.0	15.6	14.6	26.5
12	16.2	13.7	11.0	11.1	11.2	7.2	7.2	10.4	11.2	10.0	7.5	12.8	12.8	10.5	11.9	14.9	8.7	6.0	8.0	5.1	2.7	1.7	7.0	7.9	9.5	16.2
13	10.0	9.0	8.9	10.1	9.4	11.3	10.6	10.4	13.2	17.9	17.1	16.1	9.2	8.5	8.9	8.0	7.5	7.7	6.0	4.0	3.7	2.8	6.2	8.1	9.4	17.9
14	9.4	13.0	14.9	16.4	15.3	15.2	14.9	13.9	15.8	15.4	12.7	7.8	8.8	10.8	9.8	8.7	7.2	6.1	6.9	8.3	2.6	3.1	7.7	9.6	10.6	16.4
15	10.0	7.2	11.6	15.4	16.2	14.9	13.6	14.7	21.6	24.4	26.1	27.6	27.7	28.2	27.3	27.1	27.8	27.6	24.9	23.2	22.7	25.9	20.0	18.2	21.0	28.2
16	21.5	27.0	28.4	27.1	23.9	22.4	24.6	23.2	20.9	22.9	24.9	25.5	24.9	21.5	17.3	18.4	12.8	11.6	10.4	4.9	7.3	9.5	9.0	10.7	18.8	28.4
17	26.6	28.5	33.6	17.5	6.9	20.5	28.3	32.9	25.0	32.4	36.5	40.0	36.1	42.3	44.2	37.9	35.6	34.5	37.2	31.0	20.0	17.7	10.7	12.2	28.7	44.2
18	11.6	11.7	12.5	12.3	10.6	7.1	7.7	8.2	7.1	8.8	15.2	13.1	12.9	16.6	11.6	14.5	9.6	7.5	8.6	16.1	13.1	12.2	12.9	11.0	11.3	16.6
19	12.0	11.0	8.9	9.5	9.3	9.0	10.0	13.1	13.4	11.6	11.6	14.6	11.5	14.8	8.1	16.3	15.1	9.7	17.5	12.2	12.3	12.1	12.6	13.3	12.1	17.5
20	11.9	8.2	2.7	5.3	10.1	9.8	13.7	15.0	13.5	15.7	16.8	15.0	15.2	16.7	15.5	19.4	20.7	18.1	18.3	16.7	14.4	13.9	13.5	11.5	13.8	20.7
21	11.6	12.3	13.4	11.5	12.1	11.0	12.0	13.6	14.4	16.1	16.4	15.3	17.7	17.4	15.3	15.4	16.0	15.0	13.4	10.7	7.8	6.8	4.3	4.2	12.7	17.7
22	9.5	12.4	14.7	14.0	16.6	16.3	17.2	18.2	15.2	19.6	22.7	21.2	20.8	21.4	21.4	19.8	21.4	22.7	23.0	19.9	21.3	22.9	20.9	15.7	18.7	23.0
23	15.6	16.6	18.2	16.0	15.3	15.2	14.6	17.2	20.6	19.6	15.4	18.3	24.0	21.9	21.9	20.7	23.9	25.2	23.7	23.0	18.8	17.4	14.2	14.2	18.8	25.2
24	13.6	17.5	17.2	16.6	17.2	11.3	10.5	9.6	9.1	10.0	13.0	13.5	14.2	12.2	10.2	9.1	7.5	6.6	3.0	5.4	7.0	10.5	9.7	10.9	11.1	17.5
25	8.0	5.7	11.0	11.4	11.7	18.7	21.3	23.6	25.6	23.8	26.1	32.3	25.8	27.1	31.1	31.3	28.9	31.2	28.8	24.0	22.5	17.9	18.3	15.4	21.7	32.3
26	20.5	14.0	8.0	5.4	5.5	5.0	4.7	17.7	22.4	32.3	34.3	36.8	40.7	42.2	45.6	38.2	34.1	32.5	28.2	27.3	24.8	18.3	16.3	12.3	23.6	45.6
27	19.9	17.9	14.8	10.6	11.3	7.6	2.6	3.4	4.4	4.2	7.0	17.1	19.2	24.0	28.3	24.6	26.1	23.7	25.7	22.2	21.9	24.6	22.2	19.8	16.8	28.3
28	19.1	17.2	19.4	18.1	22.5	20.4	16.3	16.9	17.7	16.5	19.6	16.6	16.4	15.7	25.2	23.4	23.0	20.4	19.4	11.0	9.8	5.0	2.4	4.3	16.5	25.2
29	6.3	2.2	8.1	11.2	11.8	12.1	15.9	15.0	11.5	8.2	5.4	8.3	9.4	8.5	11.2	17.2	16.6	17.1	13.6	8.4	2.8	4.3	3.2	6.3	9.8	17.2
30	6.2	8.9	15.1	15.9	15.1	20.0	23.4	19.0	17.8	17.0	14.6	12.5	13.3	9.7	13.3	16.1	17.0	15.0	10.0	3.8	2.6	10.0	12.3	10.9	13.3	23.4
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	15.7	15.5	16.6	16.1	15.6	14.5	15.3	16.8	17.1	18.2	18.5	19.7	19.6	20.3	20.8	21.3	20.7	19.2	19.0	16.3	14.3	14.1	13.2	13.5		
MAX	34.9	41.9	49.2	46.6	41.7	34.5	34.6	42.5	41.5	38.8	41.5	44.8	51.7	54.9	56.5	49.8	44.8	35.6	37.2	32.4	32.5	39.1	46.1	38.0		



Number of Non-Zero Readings	720
Maximum 1-HR Average	56.5 KM/HR
Maximum 24-HR Average	39.7 KM/HR
Monthly Calibration	0
Standard Deviation	9.56
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	17.2 KM/HR

Lagoon Wind Direction (°) – April 2023

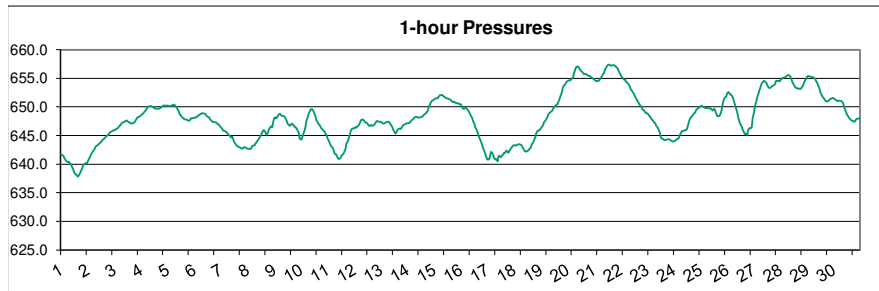
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	215.4	225.2	238.7	236.2	242.6	247.8	250.5	258.5	274.4	263.0	251.0	298.1	314.9	248.3	245.5	233.8	248.1	249.4	236.8	232.0	251.5	246.4	238.0	242.2	245.4	314.9
2	245.1	285.3	307.9	37.7	66.6	239.0	240.2	246.5	225.5	231.4	329.3	63.8	45.5	43.2	198.7	244.6	99.7	66.6	48.9	53.7	72.6	61.4	77.8	20.4	304.9	329.3
3	246.4	239.5	106.9	208.5	325.9	134.4	160.6	237.8	70.3	48.1	57.7	54.0	74.8	58.0	68.5	60.5	46.5	37.5	39.0	72.8	87.3	195.3	49.2	167.2	59.7	325.9
4	242.7	211.5	242.7	231.2	242.4	249.3	244.5	263.1	261.8	247.1	203.6	67.6	41.3	59.7	68.5	58.2	41.9	46.5	65.8	85.6	71.7	58.3	73.2	188.7	59.0	263.1
5	224.7	267.6	270.6	278.4	274.5	276.3	284.1	273.5	273.5	284.3	248.1	242.0	251.1	256.7	240.8	235.6	231.3	232.2	236.8	242.4	249.2	249.8	242.1	241.9	250.3	284.3
6	245.0	243.6	246.7	251.5	251.7	258.6	266.8	243.5	233.5	247.6	252.1	228.4	224.0	224.5	233.9	231.9	235.7	234.8	233.4	237.9	245.1	243.6	237.5	240.8	239.7	266.8
7	242.5	245.4	251.5	251.0	254.0	263.1	267.4	259.6	274.4	258.7	268.3	253.4	249.6	246.8	240.1	241.2	238.7	230.5	225.9	241.6	260.9	262.4	264.5	250.5	250.5	274.4
8	239.5	246.0	236.7	236.7	242.6	239.0	237.5	240.2	236.9	238.2	245.0	237.3	250.0	257.7	246.1	243.5	237.7	234.4	244.0	241.7	236.8	234.3	239.9	242.5	240.8	257.7
9	248.9	241.0	237.9	236.9	239.1	234.6	236.6	238.8	238.2	245.3	243.4	240.0	235.8	233.2	233.1	241.4	249.0	251.3	263.7	265.1	256.9	260.4	264.2	254.1	243.5	265.1
10	251.4	256.0	252.2	242.1	235.3	240.2	275.8	271.5	30.2	66.8	72.1	72.6	140.1	221.4	229.7	259.1	265.5	265.6	268.1	262.7	266.4	264.4	242.8	70.4	257.8	275.8
11	56.7	56.5	46.9	47.8	55.3	53.3	45.5	53.3	54.7	62.9	62.9	57.5	42.8	42.7	239.2	228.0	241.3	238.7	233.1	256.8	271.2	271.2	263.8	285.7	306.7	285.7
12	269.8	274.1	286.3	288.4	279.0	288.5	278.4	256.6	262.9	251.9	252.6	314.1	269.5	250.8	104.5	66.4	46.9	36.9	72.2	87.9	279.5	283.0	231.6	227.0	278.1	314.1
13	236.8	242.7	245.5	249.2	246.7	256.4	263.4	271.7	266.2	253.3	251.6	242.6	211.8	79.3	66.6	81.8	60.1	281.7	273.7	92.7	154.5	167.9	259.2	222.7	247.9	281.7
14	267.1	302.2	303.7	295.0	290.6	289.2	283.9	276.5	270.0	273.3	250.2	288.4	184.7	83.3	81.3	61.2	36.0	70.4	38.6	65.1	180.5	287.6	253.6	233.1	288.5	303.7
15	226.5	202.2	252.6	279.3	270.6	269.6	271.6	274.4	252.4	247.8	231.2	220.7	223.6	221.0	221.1	226.0	231.3	234.9	239.6	241.5	243.6	244.4	260.9	277.9	241.7	279.3
16	266.4	258.8	244.2	241.0	251.3	249.3	244.9	244.5	238.2	247.0	235.8	231.8	235.2	240.8	228.7	241.1	258.4	233.4	253.3	208.2	231.7	251.0	239.1	240.6	243.6	266.4
17	255.3	258.5	248.5	240.6	207.2	263.5	255.7	246.7	247.8	249.8	247.6	247.2	257.5	246.3	237.4	235.9	246.3	247.2	243.0	248.5	255.1	261.6	271.1	277.7	249.0	277.7
18	284.7	265.3	274.8	275.8	265.9	235.9	245.4	260.0	238.1	137.2	45.1	57.0	74.6	69.0	103.0	87.2	168.3	209.4	265.9	255.4	264.6	263.8	276.1	286.6	263.7	286.6
19	303.9	292.4	288.8	278.6	269.7	271.2	273.8	274.8	273.9	265.6	258.3	283.4	271.9	268.6	249.8	254.0	269.4	278.1	70.5	39.8	45.2	62.1	56.2	57.6	291.9	303.9
20	63.6	56.7	131.7	203.2	238.8	264.7	55.5	55.1	62.6	55.2	51.4	55.3	53.1	50.9	55.6	52.3	44.8	49.9	42.5	57.6	64.6	60.1	75.4	84.7	56.2	264.7
21	78.0	74.5	69.2	80.0	72.7	73.2	59.2	65.4	74.1	65.5	71.4	72.7	66.0	55.3	66.8	72.7	69.7	59.2	53.4	61.5	79.3	86.4	66.5	298.5	67.8	298.5
22	259.1	277.3	289.4	275.3	289.4	285.4	294.0	287.8	295.1	248.4	242.9	241.5	243.9	239.9	227.0	228.9	228.0	229.1	238.2	241.5	241.1	239.0	245.4	260.1	252.5	295.1
23	263.5	270.7	261.6	267.6	274.0	274.7	281.6	259.5	246.5	236.9	240.9	250.3	251.7	233.2	216.9	219.3	240.0	246.5	246.3	245.6	245.2	247.7	272.4	274.3	250.7	281.6
24	288.0	296.0	289.3	297.9	284.4	266.7	266.3	266.3	267.0	253.8	230.3	230.3	103.2	24.8	292.5	237.1	249.2	56.5	87.2	209.2	227.9	231.6	212.5	220.1	264.3	297.9
25	188.1	173.0	245.0	265.3	266.7	258.0	249.6	241.2	240.1	253.3	264.0	247.4	241.7	231.8	241.1	249.5	254.2	252.1	254.8	255.9	259.1	250.3	238.5	266.7	248.7	266.7
26	57.1	70.5	68.2	88.8	73.8	109.1	163.4	240.7	236.3	241.5	247.0	251.6	231.7	233.1	232.8	240.4	248.3	258.5	239.7	232.7	239.9	263.1	275.5	75.3	240.7	275.5
27	80.6	91.8	89.1	70.1	34.6	76.2	206.4	211.0	178.6	135.7	131.0	243.4	235.5	232.8	231.8	227.1	226.6	228.0	230.6	254.8	254.6	256.8	269.1	272.9	232.5	272.9
28	276.2	267.2	289.2	280.6	299.3	278.2	270.5	289.1	291.9	287.6	243.5	242.2	241.4	231.7	247.7	232.3	230.6	240.3	243.3	248.3	250.5	338.8	89.3	233.3	261.2	338.8
29	251.2	222.4	231.1	232.8	234.7	247.9	267.5	270.1	278.1	234.2	190.3	73.2	105.9	203.3	237.2	236.5	242.8	244.0	245.6	207.3	315.5	192.5	156.8	234.3	238.3	315.5
30	221.1	244.9	258.7	264.8	271.9	259.2	260.3	266.3	262.8	261.2	265.5	243.1	259.8	299.5	254.4	254.4	250.9	246.6	232.3	159.3	352.4	244.6	224.0	234.8	255.4	352.4
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	219.8	222.0	226.9	224.4	228.4	231.8	233.4	238.1	221.9	213.1	206.1	195.0	187.8	179.6	194.7	192.7	191.2	193.0	188.9	186.8	215.1	219.3	205.5	216.1		
MAX	303.9	302.2	307.9	297.9	325.9	289.2	294.0	289.1	295.1	287.6	329.3	314.1	314.9	299.5	292.5	259.1	269.4	281.7	273.7	265.1	352.4	338.8	276.1	298.5		



Number of Non-Zero Readings	720
Maximum 1-HR Average	352 degrees
Maximum 24-HR Average	307 degrees
Monthly Calibration	0
Standard Deviation	79.6
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	209.7 degrees

Lagoon Pressure (mmHg) – April 2023

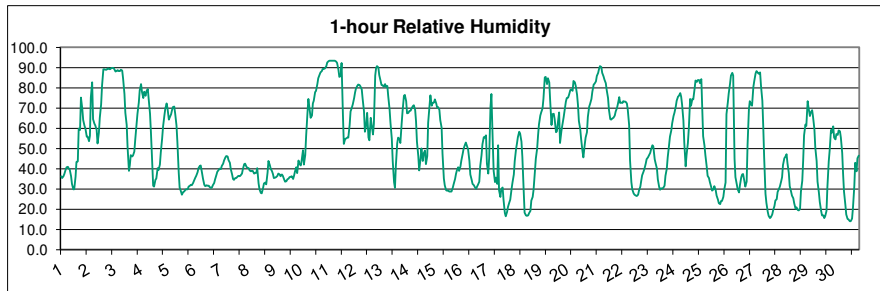
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	641.7	641.6	641.5	641.0	640.6	640.5	640.3	640.4	640.2	639.9	639.5	639.0	638.5	638.2	638.1	637.8	638.1	638.4	638.8	639.4	639.8	640.0	640.2	640.1	639.7	641.7
2	640.5	641.0	641.3	641.7	642.1	642.3	642.6	643.0	643.3	643.3	643.5	643.7	643.8	644.2	644.4	644.5	644.7	644.9	645.0	645.3	645.6	645.7	645.8	645.9	645.9	645.9
3	645.9	646.1	646.2	646.3	646.5	646.7	647.0	647.2	647.3	647.4	647.6	647.6	647.5	647.4	647.2	647.2	647.1	647.1	647.3	647.6	648.0	648.2	648.2	648.4	647.2	648.4
4	648.6	648.7	648.9	649.1	649.4	649.7	650.0	650.1	650.1	650.2	650.1	649.9	649.8	649.7	649.7	649.7	649.7	649.8	649.9	650.0	650.2	650.3	650.2	650.2	649.7	650.3
5	650.2	650.2	650.2	650.3	650.2	650.4	650.4	650.2	649.9	649.6	649.1	648.7	648.4	648.2	648.0	647.9	647.8	647.8	647.7	647.6	647.7	648.0	648.0	648.0	648.9	650.4
6	648.1	648.1	648.2	648.4	648.6	648.7	648.8	648.9	648.9	648.8	648.7	648.4	648.3	648.2	647.9	647.6	647.4	647.4	647.3	647.3	647.3	647.0	646.9	646.7	648.0	648.9
7	646.4	646.2	645.8	645.8	645.7	645.6	645.3	645.1	644.9	644.6	644.8	644.4	643.9	643.5	643.3	643.1	643.0	643.0	642.8	642.7	642.9	643.0	642.9	642.8	644.2	646.4
8	642.7	642.7	642.6	642.8	643.1	643.2	643.2	643.6	643.9	644.1	644.4	644.7	645.0	645.5	645.9	645.9	645.5	645.1	645.4	646.0	646.4	646.6	646.5	647.3	644.7	647.3
9	648.0	648.2	648.1	648.3	648.7	648.8	648.6	648.4	648.5	648.4	648.0	647.6	647.1	646.9	646.7	647.0	647.1	646.9	646.5	646.5	646.2	645.9	645.5	644.5	647.3	648.8
10	644.2	644.5	645.3	645.7	646.5	647.6	648.3	648.8	649.3	649.6	649.6	649.4	649.0	648.4	647.7	647.3	647.0	646.8	646.4	646.1	645.9	645.8	645.4	645.0	647.1	649.6
11	644.5	644.1	643.6	643.2	643.0	642.6	642.1	641.7	641.7	641.2	640.9	641.0	641.2	641.6	641.8	642.1	642.6	643.6	644.0	644.4	645.2	645.9	646.3	646.2	643.1	646.3
12	646.3	646.4	646.4	646.6	646.8	647.1	647.6	647.8	647.8	647.6	647.3	647.3	647.1	646.7	646.7	646.9	646.7	646.7	646.9	647.3	647.5	647.6	647.4	647.4	647.1	647.8
13	647.4	647.3	647.1	647.1	647.2	647.4	647.4	647.2	646.9	646.5	646.1	645.7	645.7	645.3	645.4	646.0	646.2	646.3	646.2	646.4	646.8	647.0	647.0	647.1	646.7	647.4
14	647.2	647.2	647.3	647.5	647.7	647.9	648.1	648.3	648.3	648.2	648.1	648.2	648.2	648.3	648.4	648.6	648.9	649.0	649.3	649.8	650.4	650.8	651.1	651.2	648.7	651.2
15	651.3	651.5	651.5	651.5	651.8	652.0	652.1	652.1	652.0	651.8	651.6	651.5	651.5	651.4	651.3	651.2	651.0	650.9	650.9	650.7	650.7	650.6	650.6	650.4	651.3	652.1
16	650.5	650.2	649.7	649.7	649.8	649.8	649.5	649.3	648.9	648.5	648.1	647.6	647.1	646.5	646.0	645.6	645.0	644.5	644.1	643.5	642.9	642.4	641.9	641.2	646.8	650.5
17	640.8	640.8	641.0	642.1	642.1	641.6	641.1	640.8	640.9	640.5	641.4	641.5	641.2	641.4	641.7	642.0	642.0	642.3	642.3	642.0	642.5	642.7	643.0	643.2	641.7	643.2
18	643.3	643.3	643.3	643.4	643.5	643.5	643.4	643.2	642.9	642.5	642.2	642.2	642.3	642.5	642.7	642.9	643.5	643.8	644.2	644.7	645.5	645.9	645.9	646.0	643.6	646.0
19	646.2	646.5	646.8	647.3	647.6	647.8	648.2	648.8	649.0	649.1	649.3	649.6	650.0	650.1	650.4	650.5	651.0	651.4	652.0	652.5	653.3	653.8	653.9	654.3	650.0	654.3
20	654.5	654.6	654.6	654.7	654.9	655.2	655.9	656.6	656.9	657.0	657.0	656.7	656.4	656.2	655.9	655.7	655.8	655.7	655.6	655.4	655.3	655.1	655.0	654.9	655.7	657.0
21	654.8	654.6	654.4	654.5	654.6	654.8	655.0	655.3	655.7	656.0	656.5	656.9	657.2	657.3	657.4	657.2	657.2	657.3	657.3	657.1	657.0	656.8	656.4	655.9	656.1	657.4
22	655.6	655.3	655.0	654.8	654.8	654.4	654.2	654.0	653.7	653.2	652.8	652.6	652.2	651.8	651.4	651.1	650.7	650.4	650.1	649.9	649.5	649.4	649.2	648.9	652.3	655.6
23	648.9	648.7	648.4	648.1	647.8	647.6	647.4	647.2	646.7	646.5	646.1	645.6	644.8	644.5	644.4	644.2	644.2	644.3	644.3	644.3	644.3	644.2	644.1	644.0	645.9	648.9
24	644.1	644.1	644.2	644.4	644.5	644.9	645.4	645.6	645.8	645.9	645.9	646.0	646.2	647.1	647.6	648.2	648.3	648.6	648.8	649.0	649.5	649.7	649.8	649.9	646.8	649.9
25	650.2	650.2	650.0	650.0	649.8	649.8	649.9	649.8	649.7	649.7	649.5	649.4	649.7	649.4	648.8	648.4	648.4	648.4	648.9	649.6	650.5	651.3	651.6	651.8	649.8	651.8
26	652.4	652.6	652.4	652.1	652.0	651.7	651.0	650.3	649.7	648.9	648.1	647.4	646.9	646.4	646.0	645.7	645.2	645.4	645.2	646.0	646.3	646.2	646.5	648.0	648.4	652.6
27	649.1	650.1	650.9	651.7	652.3	652.9	653.6	654.1	654.4	654.5	654.5	654.3	653.9	653.4	653.3	653.4	653.5	653.7	653.7	654.0	654.6	654.5	654.6	654.5	653.3	654.6
28	654.7	654.9	655.1	655.1	655.2	655.2	655.5	655.6	655.5	655.3	654.7	654.2	653.9	653.5	653.3	653.3	653.1	653.2	653.1	653.4	653.7	654.2	654.5	654.9	654.4	655.6
29	655.3	655.4	655.3	655.2	655.3	655.2	655.1	654.9	654.5	654.1	653.7	653.1	652.5	652.0	651.7	651.5	651.2	651.0	650.9	651.1	651.3	651.4	651.5	651.6	653.1	655.4
30	651.5	651.3	651.1	651.0	651.1	651.1	651.1	651.0	650.7	650.2	649.7	649.1	648.7	648.3	648.1	647.8	647.6	647.5	647.4	647.5	647.8	648.0	648.0	648.0	649.3	651.5
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	648.2	648.2	648.2	648.3	648.4	648.5	648.6	648.7	648.6	648.4	648.3	648.1	647.9	647.8	647.7	647.7	647.7	647.7	647.9	648.2	648.3	648.3	648.3	648.3	648.2	648.3
MAX	655.6	655.4	655.3	655.2	655.3	655.2	655.9	656.6	656.9	657.0	657.0	656.9	657.2	657.3	657.4	657.2	657.2	657.3	657.3	657.1	657.0	656.8	656.4	655.9	656.1	657.4



Number of Non-Zero Readings	720	Operational Time	720 HRS
Maximum 1-HR Average	657 MMHg	Operational Uptime	100.0 %
Maximum 24-HR Average	656 MMHg	Monthly Average	648.2 MMHg
Monthly Calibration	0		
Standard Deviation	4.22		

Lagoon Relative Humidity (%) – April 2023

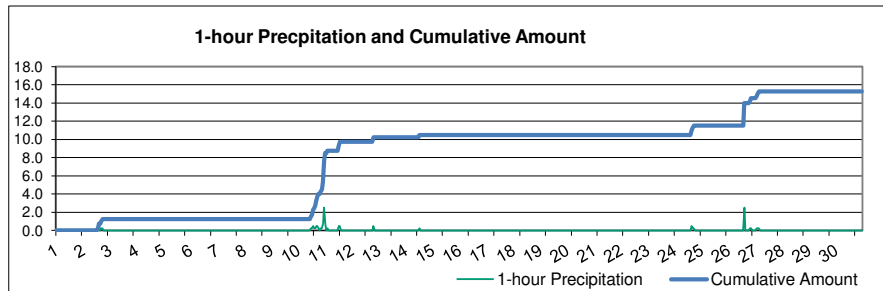
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	36.2	35.4	36.4	37.4	39.6	40.7	41.1	40.0	39.5	36.3	32.5	29.7	29.8	36.0	43.3	43.7	59.9	59.1	75.3	69.6	64.0	61.3	59.9	55.8	45.9	75.3
2	55.9	53.5	56.3	75.3	82.7	64.6	62.3	61.5	59.3	52.6	57.9	65.2	72.0	81.0	89.2	89.3	89.0	89.0	89.7	89.4	89.3	89.6	89.9	89.8	74.8	89.9
3	89.4	88.1	88.3	88.8	88.4	88.3	89.0	88.6	84.6	77.0	67.7	61.6	50.5	38.9	41.8	46.8	46.0	46.5	48.5	54.4	62.0	67.2	72.7	78.8	68.9	89.4
4	82.0	78.2	74.9	78.2	76.1	78.4	79.5	74.5	67.2	58.0	47.7	31.6	31.2	34.6	35.2	40.3	39.5	42.0	48.2	55.1	60.8	66.4	69.5	72.3	59.2	82.0
5	69.8	64.2	65.5	67.1	69.0	70.5	70.7	67.4	61.4	53.1	38.1	30.7	28.7	27.3	28.4	28.7	29.6	29.8	29.8	31.2	31.7	32.0	31.9	32.9	45.4	70.7
6	34.1	35.5	36.4	38.3	40.3	41.3	41.7	37.9	35.3	32.2	31.5	31.9	31.6	31.5	31.0	30.6	30.7	31.9	33.0	34.6	37.0	38.4	39.3	40.2	35.3	41.7
7	39.9	41.4	42.5	44.1	45.6	46.2	46.0	44.3	43.0	39.8	37.1	35.0	34.6	35.4	35.5	36.0	36.5	36.3	36.7	37.5	39.9	42.4	42.6	41.0	40.0	46.2
8	40.5	40.3	39.3	38.8	39.0	39.0	37.6	37.8	38.1	40.4	32.8	29.8	28.1	27.9	30.4	32.7	33.3	32.3	38.0	43.9	41.8	40.1	38.8	37.4	36.6	43.9
9	35.3	35.7	35.9	36.4	37.6	37.3	36.3	37.2	36.6	34.8	33.5	33.9	34.7	35.1	35.8	36.2	36.2	34.9	36.5	38.5	40.7	37.8	44.1	42.5	36.8	44.1
10	41.7	44.1	49.2	42.0	46.7	56.4	67.7	74.6	68.9	65.2	66.3	72.2	73.7	78.0	78.5	81.9	84.7	86.5	87.7	88.2	89.3	89.5	89.8	90.9	71.4	90.9
11	92.5	93.1	93.4	93.4	93.5	93.5	93.5	93.4	93.1	92.3	89.1	85.5	85.8	92.3	66.7	52.4	54.8	54.9	55.5	55.4	61.7	68.3	70.2	71.9	79.0	93.5
12	75.0	77.7	79.7	80.9	81.6	81.4	80.9	79.3	74.5	68.2	58.4	61.9	67.6	55.4	54.1	65.1	61.8	57.0	62.2	86.1	89.8	90.7	90.1	86.3	73.6	90.7
13	83.4	81.4	81.2	80.5	81.8	80.5	80.9	75.9	69.3	62.8	54.8	43.9	33.4	30.5	41.4	52.5	55.5	54.8	52.7	62.6	68.5	76.1	76.6	73.4	64.8	83.4
14	67.5	67.7	68.5	68.8	69.9	71.1	71.4	69.1	63.4	53.5	46.2	39.1	45.0	50.0	43.9	47.7	48.9	42.2	46.4	62.7	71.1	76.3	71.1	72.4	59.7	76.3
15	72.7	74.3	72.4	70.4	70.6	69.1	64.2	60.4	47.5	35.1	31.8	29.4	29.2	29.3	28.6	28.8	28.8	30.8	32.6	35.1	37.5	39.1	40.7	38.9	45.7	74.3
16	41.2	44.0	47.5	49.9	51.8	52.9	50.9	49.6	43.8	37.2	34.4	32.6	31.8	30.9	30.2	31.1	32.0	33.6	41.2	46.8	52.1	55.6	55.3	56.5	43.0	56.5
17	42.5	37.6	45.3	70.7	76.9	53.2	39.0	33.4	35.7	32.5	51.7	29.4	26.1	29.9	30.7	24.8	18.1	16.5	18.7	21.2	23.4	24.8	30.1	33.3	35.2	76.9
18	37.1	43.9	49.9	52.6	55.5	58.3	57.4	53.4	45.8	29.0	18.3	16.9	16.7	17.0	18.1	19.1	24.3	26.1	29.7	38.8	45.0	50.0	56.5	61.9	38.4	61.9
19	66.3	67.9	69.9	74.6	85.3	85.4	81.9	84.8	82.7	73.6	61.6	67.1	67.2	64.6	58.0	58.5	64.3	68.0	52.8	58.5	61.5	65.4	68.6	73.1	69.2	85.4
20	75.0	75.3	76.5	79.0	79.1	78.5	83.4	82.8	81.0	76.5	71.5	63.6	59.7	54.8	48.8	45.7	51.9	55.5	58.1	65.6	70.8	72.2	74.5	78.1	69.1	83.4
21	81.6	82.2	83.3	85.8	87.4	89.4	90.8	90.2	87.5	85.7	84.1	82.4	78.9	75.0	69.2	64.5	64.2	64.9	65.3	66.3	68.3	70.0	72.0	75.4	77.7	90.8
22	72.5	72.7	72.5	73.5	73.2	73.3	72.4	69.2	61.6	44.3	33.5	30.0	27.9	27.2	26.8	26.6	27.2	29.3	31.3	34.0	36.7	38.5	39.8	42.4	47.3	73.5
23	44.7	45.6	46.6	47.8	49.6	51.7	51.1	44.7	42.8	40.1	34.7	31.0	29.7	30.2	30.3	30.6	31.7	36.5	40.2	45.7	51.6	55.8	59.0	62.5	43.1	62.5
24	66.0	67.5	70.7	73.7	75.6	76.2	77.5	75.6	71.8	63.9	52.7	41.2	46.8	52.8	59.7	74.6	71.1	74.6	74.4	79.7	83.7	82.9	83.8	83.9	70.0	83.9
25	82.2	84.3	69.9	56.1	51.4	46.8	40.9	36.5	35.5	33.3	30.9	29.2	29.8	31.3	29.5	26.8	24.8	23.0	22.6	24.1	24.0	26.2	29.6	33.2	38.4	84.3
26	66.9	72.7	77.2	82.2	86.1	87.5	86.1	44.9	35.9	32.2	29.9	28.3	31.9	35.8	37.1	37.4	33.8	31.1	33.7	51.5	69.1	73.5	71.6	71.1	54.5	87.5
27	80.5	83.4	87.2	88.4	87.4	87.0	87.6	81.0	73.7	60.9	46.0	27.7	23.1	18.6	16.8	15.6	16.1	17.5	19.3	21.6	24.4	25.0	28.5	30.1	47.8	88.4
28	31.2	33.9	35.9	41.9	45.1	45.9	47.2	42.7	37.8	31.3	28.7	26.7	25.4	23.0	20.3	20.9	19.6	19.3	20.2	28.8	34.1	44.0	56.6	61.8	34.3	61.8
29	61.3	73.4	70.1	66.1	67.8	68.9	65.6	59.6	50.6	43.9	33.5	28.3	23.6	19.2	17.0	16.9	15.7	16.5	19.2	31.0	43.6	49.0	59.1	57.8	44.1	73.4
30	61.0	55.4	54.5	57.2	56.9	59.1	58.5	55.5	47.8	37.4	28.8	22.3	17.3	15.2	14.9	14.2	14.0	15.5	20.7	31.5	42.9	38.6	45.1	46.4	37.9	61.0
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	60.9	61.7	62.6	64.7	66.4	65.7	65.1	61.5	57.2	50.8	45.5	41.3	40.4	40.3	39.7	40.7	41.5	41.9	44.0	49.6	53.9	56.2	58.6	59.7		
MAX	92.5	93.1	93.4	93.4	93.5	93.5	93.5	93.4	93.1	92.3	89.1	85.5	85.8	92.3	89.2	89.3	89.0	89.0	89.7	89.4	89.8	90.7	90.1	90.9		



Number of Non-Zero Readings	720
Maximum 1-HR Average	93.5 %
Maximum 24-HR Average	79.0 %
Monthly Calibration	0
Standard Deviation	21.1
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	52.9 %

Lagoon Precipitation (mm) – April 2023

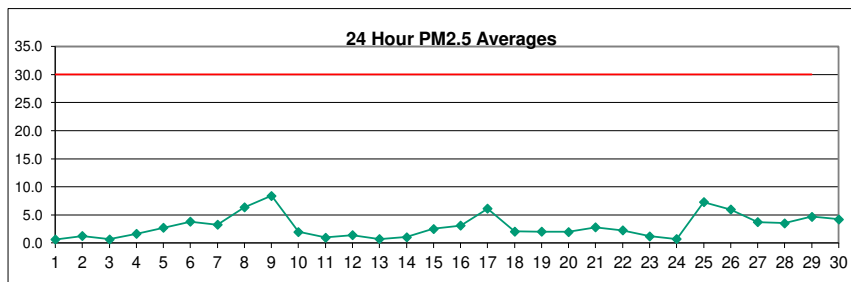
Day	HOURLY																								MEAN	MAX											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24													
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.0	0.3	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	0.1	0.5
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	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	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	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	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	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	0.3	0.3	0.5	0.3	0.3	0.5	0.5	0.3	0.0	0.3	0.3	0.8	2.5												0.3	2.5
11	0.8	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	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	0.1	0.8	
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	0.5	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	0.5	
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	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	0.3	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	0.3
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	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	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	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	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	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	0.5
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	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	2.5	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.5	
27	0.0	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	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	0.1	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	0.1	0.0	0.0	
MAX	0.8	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.5	2.5	0.5	0.5	0.5	0.3	0.5	0.3	0.3	0.8	2.5												0.0	0.0



Number of Non-Zero Readings	31		
Maximum 1-HR Total	0.3 MM		
Maximum 24-HR Total	2.5 MM		
Monthly Calibration	0	Operational Time	720 HRS
Standard Deviation	0.15	Operational Uptime	100.0 %
		Monthly Average	0.02 MM

Windridge PM_{2.5} (µg/m³) – April 2023

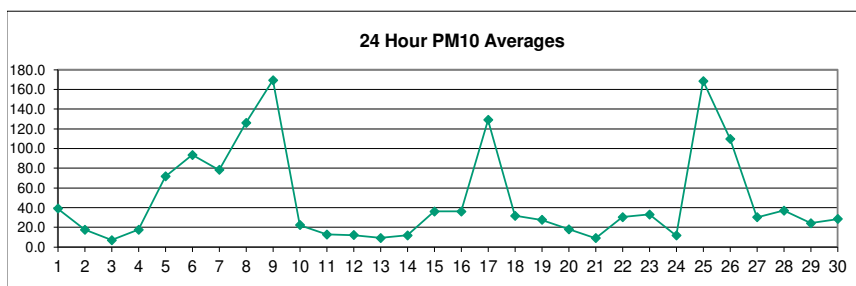
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.0	0.0	0.0	1.0	2.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	3.0	3.0	0.0	0.0	0.0	0.0	0.6	3.0
2	1.0	0.0	0.0	0.0	0.0	4.0	5.0	3.0	0.0	0.0	0.0	0.0	0.0	1.0	4.0	2.0	5.0	3.0	0.0	0.0	0.0	2.0	0.0	0.0	1.3	5.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	5.0	3.0	1.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	2.0	0.0	0.0	1.0	0.7	5.0
4	0.0	0.0	0.0	1.0	0.0	2.0	2.0	1.0	3.0	2.0	2.0	3.0	1.0	1.0	0.0	1.0	1.0	0.0	2.0	4.0	5.0	6.0	2.0	0.0	1.6	6.0
5	3.0	3.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0	1.0	3.0	3.0	7.0	6.0	10.0	6.0	0.0	3.0	6.0	3.0	2.0	1.0	4.0	2.7	10.0
6	3.0	2.0	2.0	2.0	4.0	0.0	0.0	0.0	9.0	7.0	8.0	6.0	4.0	3.0	2.0	4.0	3.0	4.0	5.0	7.0	3.0	3.0	5.0	5.0	3.8	9.0
7	3.0	3.0	2.0	0.0	0.0	1.0	1.0	1.0	1.0	6.0	4.0	3.0	9.0	9.0	4.0	3.0	3.0	3.0	4.0	6.0	3.0	0.0	3.0	6.0	3.3	9.0
8	4.0	1.0	0.0	6.0	4.0	0.0	0.0	6.0	4.0	3.0	8.0	7.0	10.0	14.0	7.0	5.0	4.0	7.0	6.0	6.0	8.0	12.0	20.0	10.0	6.3	20.0
9	31.0	11.0	14.0	10.0	8.0	7.0	6.0	6.0	6.0	9.0	6.0	7.0	23.0	17.0	8.0	12.0	8.0	2.0	1.0	4.0	4.0	2.0	0.0	0.0	8.4	31.0
10	1.0	0.0	0.0	0.0	6.0	7.0	3.0	0.0	1.0	0.0	0.0	0.0	0.0	5.0	4.0	6.0	6.0	5.0	3.0	0.0	0.0	0.0	0.0	0.0	2.0	7.0
11	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	4.0	3.0	1.0	3.0	4.0	4.0	1.0	0.0	0.0	0.0	1.0	4.0
12	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	1.0	0.0	1.0	3.0	3.0	6.0	4.0	3.0	3.0	2.0	1.4	6.0
13	0.0	0.0	0.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	2.0	1.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.7	2.0
14	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	2.0	0.0	0.0	0.0	0.0	0.0	1.0	3.0	3.0	3.0	2.0	1.0	1.0	3.0
15	0.0	0.0	0.0	1.0	0.0	1.0	5.0	4.0	5.0	5.0	3.0	1.0	3.0	2.0	0.0	0.0	0.0	2.0	3.0	8.0	7.0	5.0	4.0	1.0	2.5	8.0
16	2.0	1.0	3.0	5.0	2.0	5.0	6.0	6.0	5.0	5.0	7.0	4.0	1.0	4.0	3.0	2.0	4.0	3.0	2.0	2.0	1.0	0.0	0.0	1.0	3.1	7.0
17	10.0	8.0	3.0	3.0	3.0	3.0	3.0	4.0	3.0	3.0	28.0	9.0	11.0	17.0	8.0	6.0	8.0	5.0	5.0	5.0	3.0	1.0	0.0	0.0	6.1	28.0
18	0.0	0.0	0.0	1.0	0.0	0.0	1.0	4.0	5.0	7.0	3.0	0.0	0.0	0.0	4.0	1.0	0.0	2.0	3.0	5.0	4.0	2.0	4.0	3.0	2.0	7.0
19	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	1.0	3.0	5.0	3.0	5.0	5.0	4.0	5.0	6.0	3.0	2.0	0.0	2.0	2.0	0.0	2.0	6.0
20	0.0	0.0	2.0	1.0	0.0	0.0	2.0	5.0	3.0	3.0	5.0	4.0	4.0	3.0	2.0	0.0	0.0	0.0	0.0	1.0	2.0	3.0	5.0	2.0	2.0	5.0
21	1.0	5.0	4.0	2.0	6.0	3.0	1.0	7.0	5.0	3.0	4.0	4.0	2.0	1.0	2.0	0.0	0.0	2.0	1.0	0.0	1.0	4.0	5.0	4.0	2.8	7.0
22	0.0	1.0	5.0	5.0	4.0	3.0	3.0	3.0	3.0	2.0	4.0	3.0	2.0	4.0	3.0	0.0	0.0	2.0	2.0	0.0	0.0	3.0	2.0	0.0	2.3	5.0
23	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	1.0	9.0	6.0	5.0	1.0	0.0	0.0	0.0	1.2	9.0
24	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	3.0	2.0	5.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	5.0
25	0.0	0.0	0.0	0.0	0.0	3.0	5.0	6.0	9.0	13.0	20.0	9.0	10.0	7.0	8.0	23.0	11.0	15.0	11.0	7.0	4.0	4.0	7.0	3.0	7.3	23.0
26	2.0	3.0	2.0	0.0	0.0	2.0	3.0	4.0	6.0	10.0	26.0	6.0	6.0	7.0	8.0	9.0	6.0	13.0	8.0	5.0	11.0	6.0	0.0	0.0	6.0	26.0
27	0.0	0.0	2.0	2.0	0.0	0.0	0.0	0.0	7.0	16.0	9.0	7.0	4.0	9.0	9.0	4.0	0.0	0.0	1.0	7.0	4.0	2.0	4.0	2.0	3.7	16.0
28	1.0	4.0	2.0	1.0	1.0	0.0	0.0	0.0	1.0	7.0	6.0	3.0	3.0	11.0	7.0	6.0	7.0	9.0	6.0	2.0	3.0	3.0	2.0	3.5	11.0	
29	4.0	4.0	3.0	1.0	6.0	5.0	3.0	4.0	4.0	7.0	7.0	6.0	3.0	4.0	5.0	10.0	8.0	8.0	8.0	5.0	3.0	2.0	1.0	1.0	4.7	10.0
30	4.0	9.0	5.0	3.0	2.0	3.0	3.0	3.0	2.0	2.0	3.0	3.0	3.0	5.0	8.0	11.0	7.0	9.0	5.0	4.0	2.0	0.0	1.0	4.0	4.2	11.0
NO.	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	719	100.0%
MEAN	2.4	1.8	1.7	1.6	1.7	1.8	1.9	2.3	2.9	4.1	5.0	4.3	3.6	4.2	4.1	4.1	3.2	3.8	3.4	3.7	2.7	2.3	2.5	1.8	7.5	
MAX	31.0	11.0	14.0	10.0	8.0	7.0	6.0	7.0	9.0	16.0	26.0	28.0	23.0	17.0	23.0	11.0	15.0	11.0	8.0	11.0	12.0	20.0	10.0	17.4	70.0	



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	486	
Maximum 1-HR Average	31.0 UG/M3	
Maximum 24-HR Average	8.4 UG/M3	
Monthly Calibration	1	Operational Time
Standard Deviation	3.7	Operational Uptime
		Monthly Average
		720 HRS
		100.0 %
		3.0 UG/M3

Windridge PM₁₀ (µg/m³) – April 2023

Day	HOUR																								MEAN	MAX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	5.0	21.0	41.0	105.0	122.0	37.0	100.0	75.0	57.0	17.0	4.0	7.0	4.0	31.0	9.0	21.0	54.0	19.0	118.0	27.0	13.0	10.0	24.0	16.0	39.0	122.0		
2	14.0	22.0	0.0	0.0	3.0	36.0	57.0	24.0	8.0	12.0	21.0	10.0	17.0	92.0	7.0	25.0	36.0	23.0	3.0	5.0	4.0	2.0	2.0	3.0	17.8	92.0		
3	6.0	8.0	5.0	4.0	7.0	5.0	1.0	6.0	23.0	6.0	6.0	7.0	4.0	8.0	8.0	16.0	10.0	7.0	6.0	10.0	8.0	4.0	2.0	4.0	7.1	23.0		
4	5.0	3.0	2.0	2.0	3.0	10.0	16.0	52.0	57.0	42.0	54.0	18.0	7.0	9.0	20.0	14.0	15.0	10.0	8.0	18.0	23.0	16.0	8.0	9.0	17.5	57.0		
5	9.0	8.0	4.0	0.0	2.0	2.0	3.0	22.0	52.0	58.0	104.0	113.0	113.0	129.0	126.0	158.0	109.0	46.0	107.0	179.0	71.0	109.0	114.0	82.0	71.7	179.0		
6	48.0	45.0	54.0	93.0	53.0	93.0	69.0	156.0	124.0	262.0	181.0	155.0	114.0	97.0	66.0	84.0	46.0	55.0	66.0	64.0	55.0	100.0	89.0	76.0	93.5	262.0		
7	78.0	56.0	112.0	41.0	55.0	50.0	51.0	38.0	52.0	149.0	75.0	114.0	160.0	206.0	67.0	81.0	58.0	37.0	47.0	96.0	29.0	98.0	87.0	44.0	78.4	206.0		
8	54.0	34.0	32.0	47.0	25.0	50.0	61.0	83.0	58.0	65.0	139.0	90.0	392.0	245.0	72.0	78.0	71.0	73.0	83.0	110.0	120.0	175.0	485.0	382.0	126.0	485.0		
9	485.0	243.0	275.0	184.0	138.0	99.0	80.0	117.0	104.0	109.0	95.0	165.0	297.0	394.0	272.0	234.0	164.0	77.0	120.0	175.0	76.0	90.0	24.0	48.0	169.4	485.0		
10	94.0	65.0	18.0	41.0	41.0	53.0	11.0	15.0	24.0	25.0	17.0	6.0	8.0	15.0	18.0	25.0	17.0	13.0	7.0	3.0	2.0	2.0	5.0	8.0	22.2	94.0		
11	4.0	0.0	0.0	0.0	0.0	0.0	3.0	4.0	2.0	6.0	9.0	13.0	8.0	3.0	63.0	33.0	46.0	53.0	39.0	12.0	7.0	1.0	0.0	1.0	12.8	63.0		
12	3.0	3.0	1.0	2.0	3.0	0.0	2.0	9.0	18.0	24.0	32.0	55.0	19.0	22.0	15.0	10.0	13.0	13.0	14.0	24.0	3.0	3.0	2.0	0.0	12.1	55.0		
13	0.0	0.0	3.0	1.0	0.0	2.0	2.0	4.0	19.0	21.0	34.0	22.0	28.0	26.0	9.0	16.0	4.0	4.0	7.0	6.0	6.0	4.0	2.0	2.0	9.3	34.0		
14	5.0	4.0	3.0	3.0	6.0	5.0	4.0	6.0	29.0	34.0	28.0	5.0	26.0	8.0	17.0	12.0	10.0	10.0	20.0	9.0	7.0	9.0	19.0	9.0	12.0	34.0		
15	5.0	3.0	4.0	3.0	4.0	4.0	2.0	5.0	87.0	97.0	81.0	41.0	29.0	22.0	17.0	20.0	19.0	32.0	51.0	89.0	95.0	90.0	55.0	14.0	36.2	97.0		
16	25.0	38.0	50.0	54.0	31.0	23.0	58.0	98.0	36.0	55.0	66.0	23.0	18.0	51.0	18.0	57.0	47.0	50.0	32.0	6.0	3.0	0.0	1.0	29.0	36.2	98.0		
17	332.0	222.0	78.0	43.0	17.0	11.0	24.0	84.0	84.0	84.0	C	368.0	340.0	297.0	260.0	192.0	192.0	69.0	95.0	141.0	44.0	33.0	5.0	7.0	128.9	368.0		
18	3.0	10.0	24.0	3.0	2.0	23.0	78.0	116.0	67.0	48.0	11.0	8.0	14.0	21.0	19.0	11.0	20.0	24.0	97.0	52.0	23.0	27.0	46.0	14.0	31.7	116.0		
19	10.0	6.0	6.0	12.0	7.0	0.0	6.0	23.0	27.0	37.0	38.0	74.0	28.0	36.0	15.0	77.0	88.0	66.0	27.0	16.0	14.0	14.0	17.0	18.0	27.6	88.0		
20	31.0	14.0	17.0	58.0	8.0	9.0	27.0	22.0	30.0	25.0	29.0	10.0	18.0	15.0	8.0	17.0	16.0	13.0	9.0	11.0	9.0	11.0	13.0	16.0	18.2	58.0		
21	10.0	7.0	6.0	6.0	7.0	4.0	6.0	8.0	5.0	18.0	20.0	20.0	10.0	18.0	8.0	9.0	10.0	11.0	8.0	8.0	5.0	6.0	9.0	5.0	9.0	20.0	5.0	
22	2.0	6.0	11.0	10.0	11.0	7.0	6.0	8.0	6.0	83.0	76.0	61.0	59.0	77.0	17.0	23.0	17.0	33.0	62.0	34.0	32.0	54.0	32.0	4.0	30.5	83.0		
23	16.0	8.0	65.0	2.0	1.0	1.0	4.0	47.0	45.0	37.0	23.0	30.0	53.0	32.0	21.0	23.0	78.0	120.0	70.0	78.0	9.0	21.0	7.0	3.0	33.1	120.0		
24	0.0	2.0	2.0	1.0	1.0	0.0	18.0	16.0	33.0	36.0	43.0	40.0	34.0	6.0	4.0	8.0	10.0	6.0	11.0	6.0	0.0	1.0	1.0	0.0	11.6	43.0		
25	1.0	3.0	2.0	2.0	4.0	139.0	208.0	190.0	207.0	346.0	485.0	260.0	169.0	84.0	231.0	485.0	264.0	376.0	140.0	93.0	99.0	85.0	122.0	46.0	168.4	485.0		
26	23.0	15.0	10.0	15.0	13.0	21.0	43.0	61.0	125.0	148.0	485.0	220.0	159.0	179.0	201.0	147.0	227.0	239.0	116.0	68.0	94.0	12.0	7.0	7.0	109.8	485.0		
27	4.0	1.0	2.0	3.0	4.0	1.0	0.0	1.0	31.0	47.0	30.0	47.0	60.0	93.0	77.0	41.0	21.0	16.0	28.0	69.0	33.0	63.0	29.0	22.0	30.1	93.0		
28	26.0	18.0	14.0	13.0	17.0	16.0	19.0	26.0	46.0	36.0	87.0	46.0	57.0	41.0	103.0	67.0	52.0	77.0	59.0	10.0	17.0	15.0	15.0	13.0	37.1	103.0		
29	10.0	15.0	14.0	23.0	37.0	33.0	20.0	16.0	7.0	30.0	39.0	23.0	20.0	13.0	21.0	49.0	50.0	46.0	52.0	14.0	13.0	10.0	12.0	13.0	24.2	52.0		
30	12.0	13.0	18.0	10.0	11.0	23.0	27.0	41.0	69.0	45.0	57.0	40.0	40.0	19.0	26.0	60.0	53.0	71.0	12.0	8.0	9.0	6.0	7.0	8.0	28.5	71.0		
NO.	30	30	30	30	30	30	30	30	30	30	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	719	100.0%	
MEAN	44.0	29.8	29.1	26.0	21.1	25.2	33.5	45.8	51.1	66.7	81.7	69.7	76.8	76.0	60.5	67.9	60.6	56.3	50.4	48.1	30.8	35.8	41.4	30.1	42.0			
MAX	485.0	243.0	275.0	184.0	138.0	139.0	208.0	190.0	207.0	346.0	485.0	368.0	392.0	394.0	272.0	485.0	264.0	376.0	140.0	179.0	120.0	175.0	485.0	382.0	91.1	433.3		

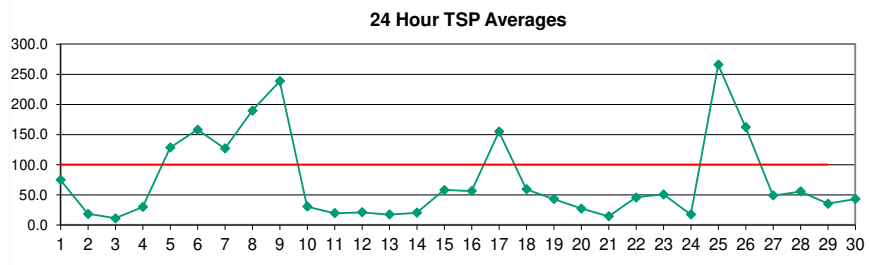


Number of Non-Zero Readings	698
Maximum 1-HR Average	485.0 UG/M3
Maximum 24-HR Average	169.4 UG/M3
Monthly Calibration	1
Standard Deviation	71.9
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	48.2 UG/M3

Windridge TSP ($\mu\text{g}/\text{m}^3$) – April 2023

Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	20.0	36.0	81.0	230.0	257.0	83.0	227.0	155.0	73.0	33.0	3.0	4.0	7.0	48.0	17.0	35.0	84.0	22.0	211.0	48.0	20.0	21.0	44.0	33.0	74.7	257.0
2	18.0	30.0	5.0	3.0	4.0	60.0	77.0	38.0	7.0	19.0	29.0	13.0	13.0	22.0	0.0	25.0	38.0	4.0	3.0	2.0	3.0	12.0	8.0	4.0	18.2	77.0
3	13.0	10.0	5.0	3.0	7.0	8.0	5.0	10.0	37.0	10.0	7.0	6.0	7.0	11.0	13.0	30.0	18.0	7.0	8.0	20.0	12.0	7.0	3.0	4.0	10.9	37.0
4	6.0	2.0	4.0	5.0	3.0	6.0	21.0	83.0	125.0	86.0	102.0	33.0	16.0	20.0	30.0	27.0	22.0	10.0	11.0	26.0	35.0	27.0	9.0	9.0	29.9	125.0
5	16.0	21.0	6.0	6.0	7.0	6.0	10.0	43.0	103.0	97.0	188.0	226.0	212.0	219.0	214.0	292.0	176.0	88.0	177.0	318.0	123.0	176.0	203.0	151.0	128.3	318.0
6	86.0	89.0	98.0	155.0	85.0	161.0	125.0	284.0	206.0	428.0	304.0	257.0	192.0	156.0	100.0	153.0	77.0	92.0	110.0	106.0	101.0	177.0	133.0	114.0	157.9	428.0
7	146.0	120.0	132.0	69.0	91.0	86.0	75.0	69.0	83.0	232.0	123.0	198.0	303.0	269.0	105.0	122.0	77.0	49.0	65.0	169.0	53.0	169.0	156.0	82.0	126.8	303.0
8	93.0	52.0	51.0	85.0	39.0	90.0	96.0	134.0	90.0	98.0	233.0	149.0	506.0	411.0	123.0	121.0	116.0	114.0	135.0	176.0	177.0	271.0	661.0	532.0	189.7	661.0
9	892.0	390.0	463.0	304.0	197.0	142.0	113.0	158.0	148.0	154.0	125.0	224.0	297.0	503.0	370.0	287.0	166.0	105.0	151.0	232.0	109.0	68.0	46.0	79.0	238.5	892.0
10	132.0	61.0	31.0	51.0	54.0	86.0	25.0	28.0	35.0	38.0	25.0	9.0	15.0	20.0	27.0	28.0	18.0	12.0	9.0	7.0	4.0	2.0	6.0	8.0	30.5	132.0
11	6.0	1.0	1.0	3.0	3.0	1.0	0.0	2.0	3.0	10.0	12.0	9.0	8.0	10.0	90.0	51.0	70.0	84.0	55.0	28.0	7.0	6.0	5.0	6.0	19.6	90.0
12	7.0	7.0	6.0	4.0	4.0	4.0	4.0	26.0	35.0	42.0	56.0	70.0	34.0	29.0	44.0	21.0	27.0	25.0	22.0	20.0	0.0	4.0	5.0	5.0	20.9	70.0
13	6.0	6.0	6.0	5.0	6.0	4.0	5.0	11.0	28.0	30.0	54.0	35.0	49.0	51.0	31.0	27.0	6.0	5.0	9.0	23.0	4.0	7.0	6.0	4.0	17.4	54.0
14	5.0	3.0	0.0	0.0	3.0	4.0	4.0	19.0	48.0	84.0	56.0	7.0	34.0	17.0	29.0	20.0	17.0	22.0	38.0	21.0	9.0	9.0	27.0	6.0	20.1	84.0
15	4.0	6.0	6.0	8.0	6.0	4.0	5.0	8.0	155.0	164.0	150.0	70.0	45.0	39.0	36.0	24.0	25.0	49.0	86.0	125.0	142.0	135.0	74.0	26.0	58.0	164.0
16	44.0	53.0	80.0	98.0	41.0	35.0	85.0	151.0	47.0	91.0	90.0	32.0	26.0	67.0	26.0	102.0	89.0	81.0	54.0	7.0	5.0	3.0	5.0	41.0	56.4	151.0
17	476.0	312.0	114.0	47.0	20.0	10.0	36.0	131.0	131.0	131.0	C	405.0	361.0	332.0	190.0	214.0	88.0	116.0	190.0	57.0	47.0	10.0	7.0	7.0	154.6	476.0
18	5.0	10.0	31.0	8.0	11.0	45.0	143.0	236.0	137.0	93.0	28.0	23.0	26.0	38.0	28.0	31.0	37.0	46.0	176.0	80.0	39.0	52.0	72.0	28.0	59.3	236.0
19	13.0	8.0	9.0	24.0	6.0	5.0	13.0	30.0	38.0	69.0	63.0	89.0	38.0	51.0	25.0	116.0	130.0	124.0	66.0	27.0	15.0	18.0	26.0	27.0	42.9	130.0
20	45.0	23.0	33.0	89.0	9.0	15.0	36.0	27.0	42.0	38.0	37.0	23.0	34.0	24.0	17.0	24.0	27.0	15.0	16.0	15.0	14.0	8.0	23.0	17.0	27.1	89.0
21	8.0	6.0	5.0	5.0	6.0	5.0	10.0	24.0	8.0	26.0	30.0	30.0	26.0	18.0	16.0	17.0	21.0	24.0	5.0	7.0	8.0	14.0	14.0	7.0	14.2	30.0
22	5.0	7.0	7.0	8.0	9.0	7.0	9.0	10.0	6.0	126.0	116.0	88.0	95.0	128.0	24.0	29.0	24.0	52.0	88.0	55.0	42.0	97.0	53.0	5.0	45.4	128.0
23	28.0	14.0	89.0	16.0	2.0	6.0	7.0	74.0	68.0	46.0	35.0	50.0	79.0	55.0	36.0	39.0	129.0	172.0	100.0	118.0	11.0	27.0	11.0	7.0	50.8	172.0
24	7.0	4.0	0.0	3.0	1.0	1.0	39.0	21.0	43.0	48.0	57.0	58.0	54.0	10.0	9.0	17.0	14.0	8.0	16.0	1.0	0.0	0.0	1.0	1.0	17.2	71.0
25	8.0	6.0	1.0	2.0	12.0	237.0	364.0	340.0	349.0	526.0	939.0	401.0	234.0	151.0	357.0	713.0	317.0	453.0	219.0	160.0	162.0	144.0	211.0	71.0	265.7	939.0
26	40.0	20.0	12.0	22.0	21.0	31.0	78.0	106.0	233.0	255.0	684.0	285.0	276.0	251.0	279.0	214.0	308.0	345.0	174.0	95.0	109.0	22.0	10.0	15.0	161.9	684.0
27	9.0	6.0	21.0	4.0	5.0	6.0	3.0	3.0	58.0	82.0	50.0	76.0	88.0	144.0	120.0	64.0	40.0	19.0	42.0	120.0	46.0	99.0	42.0	27.0	48.9	144.0
28	43.0	37.0	20.0	18.0	12.0	20.0	30.0	35.0	71.0	55.0	130.0	66.0	87.0	67.0	166.0	99.0	89.0	127.0	96.0	15.0	11.0	17.0	10.0	14.0	55.6	166.0
29	17.0	20.0	18.0	30.0	46.0	37.0	25.0	30.0	17.0	42.0	71.0	35.0	25.0	29.0	34.0	65.0	73.0	68.0	81.0	21.0	14.0	13.0	21.0	15.0	35.3	81.0
30	12.0	12.0	21.0	23.0	9.0	27.0	41.0	68.0	118.0	69.0	92.0	58.0	62.0	30.0	34.0	96.0	79.0	115.0	15.0	13.0	8.0	9.0	12.0	8.0	43.0	118.0

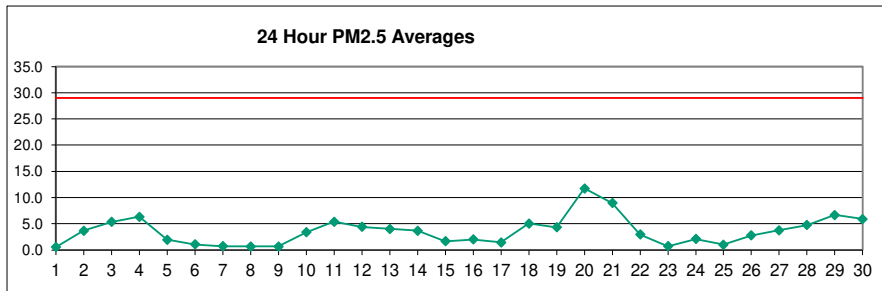
NO.	30	30	30	30	30	30	30	30	30	30	30	29	30	30	30	30	30	30	30	30	30	30	30	30	719	100.0%
MEAN	73.7	45.7	45.2	44.3	32.5	41.1	57.0	78.5	84.7	107.4	134.0	90.5	109.8	108.3	91.1	102.6	84.3	80.8	78.5	74.8	44.7	55.4	63.6	45.1		
MAX	892.0	390.0	463.0	304.0	257.0	237.0	364.0	340.0	349.0	526.0	939.0	401.0	506.0	503.0	370.0	713.0	317.0	453.0	219.0	318.0	177.0	271.0	661.0	532.0		



Number of 24HR Exceedences	8	Proposed Guideline
Number of Non-Zero Readings	711	
Maximum 1-HR Average	939.0 UG/M3	
Maximum 24-HR Average	265.7 UG/M3	
IZS Calibration Time		Operational Time 720 HRS
Down Time	0	Operational Uptime 100.0 %
Standard Deviation	107.4	Monthly Average 73.9 UG/M3

West PM_{2.5} (µg/m³) – April 2023

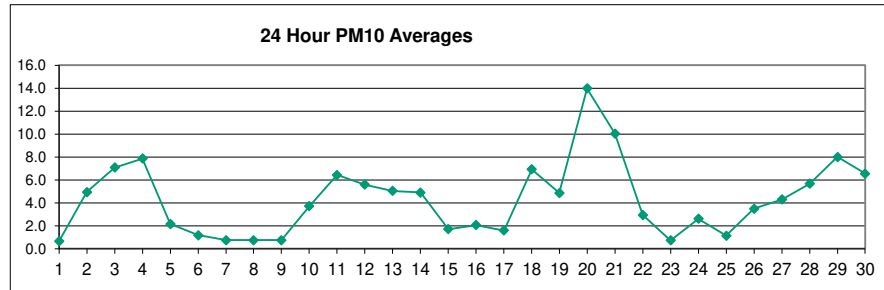
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.0	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.3	0.2	0.3	0.4	0.3	0.3	0.3	0.4	3.6	0.8	0.4	0.7	0.6	0.5	0.6	3.6		
2	0.4	0.4	0.4	6.4	4.3	0.4	0.3	0.5	0.3	0.4	3.3	12.2	10.7	6.3	1.1	0.8	4.3	5.7	8.9	3.4	5.3	4.2	5.1	3.4		
3	2.3	2.8	1.9	1.8	6.2	3.3	4.4	4.7	6.6	8.2	9.5	9.0	8.0	6.9	9.1	5.4	4.9	5.1	3.9	6.6	5.7	3.2	5.3	3.2		
4	3.2	2.1	1.8	2.5	2.6	3.6	4.7	4.3	3.3	3.1	3.0	8.1	9.9	8.8	9.8	9.1	9.5	7.9	7.8	8.6	9.7	11.4	10.0	7.1		
5	5.6	2.5	2.6	1.9	1.2	1.5	2.3	2.7	3.5	3.1	2.1	1.2	1.4	1.9	1.4	1.1	1.3	1.6	1.4	1.3	1.3	1.2	1.0	1.0		
6	0.8	0.8	0.7	0.8	0.9	1.0	1.5	2.2	2.3	1.8	1.8	1.1	0.8	0.6	0.5	0.6	0.6	0.6	0.7	0.9	1.3	1.2	1.3	1.2		
7	1.0	0.9	0.9	0.9	1.0	1.0	1.1	1.2	1.2	0.9	1.0	0.7	0.5	0.7	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3		
8	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.6	0.7	1.7	1.9	1.0	0.9	0.8	0.9	0.8	0.7	0.5	0.8	1.1	1.2		
9	2.5	0.8	0.7	0.6	0.6	0.8	0.7	0.7	0.7	0.6	0.5	0.4	0.4	0.6	0.5	0.5	0.8	0.7	0.7	0.9	0.6	0.2	0.2	0.3		
10	0.3	0.3	0.1	0.1	0.1	0.2	0.2	0.5	3.6	7.6	2.6	2.5	2.9	5.8	15.2	11.4	10.1	6.4	1.4	0.9	0.9	1.4	2.1	4.8		
11	8.4	10.2	9.3	10.2	7.2	6.6	6.9	7.7	8.8	7.7	8.3	8.9	11.7	5.9	0.4	0.9	1.3	1.6	1.2	1.1	1.6	1.2	1.1	1.2		
12	1.2	1.2	1.4	1.2	1.4	1.4	4.5	2.0	2.4	2.4	2.3	5.0	4.7	4.4	4.8	9.7	10.2	10.5	8.6	7.7	5.0	6.6	4.2	3.1		
13	2.8	3.4	3.0	3.0	2.9	2.6	3.4	3.6	2.6	2.7	2.5	2.4	1.7	3.9	10.8	4.2	7.5	2.7	2.9	8.7	6.2	5.8	4.0	3.1		
14	2.2	1.7	1.5	1.7	2.1	2.3	2.5	1.7	2.8	1.9	1.8	4.5	7.0	12.9	5.6	6.0	7.7	2.3	2.3	3.1	5.6	4.1	3.0	1.8		
15	1.7	1.5	1.3	1.1	1.3	1.2	1.3	1.4	1.6	1.8	1.2	1.0	1.2	1.5	1.6	1.5	1.8	1.9	1.7	1.9	2.0	2.7	3.2	3.2		
16	2.7	2.3	2.5	2.1	2.2	2.4	2.3	2.5	2.3	1.9	1.6	1.7	1.8	1.6	1.8	1.7	1.6	1.5	1.5	2.3	2.2	2.2	2.2	1.9		
17	1.6	1.0	0.6	0.5	0.7	1.5	1.9	2.0	2.6	2.0	3.6	1.5	2.1	2.0	1.6	1.1	1.5	0.9	0.7	0.8	1.2	1.2	1.3	1.4		
18	1.3	1.4	1.4	1.6	1.8	2.5	2.6	1.9	3.6	7.8	13.0	10.6	10.7	8.5	10.8	11.2	7.7	3.5	3.5	3.4	3.3	3.4	3.0	3.0		
19	3.1	2.9	3.1	3.3	2.7	2.4	2.5	2.4	1.7	1.9	3.1	3.2	3.4	3.4	3.8	4.1	2.6	2.8	7.6	7.4	7.3	8.3	10.2	10.7		
20	10.7	11.6	11.0	12.3	14.1	12.5	12.9	14.4	16.2	16.8	16.0	11.5	10.6	11.8	9.7	8.5	9.7	8.6	9.0	11.0	12.0	12.5	10.4	7.9		
21	6.8	6.8	9.9	6.9	8.8	9.8	14.7	12.9	9.0	9.1	11.2	13.4	10.0	9.1	8.8	7.8	7.2	8.9	8.7	8.2	6.0	5.1	8.3	7.5		
22	7.3	7.1	7.0	6.5	6.1	5.6	5.3	5.1	5.3	2.6	1.1	0.9	0.8	0.7	0.6	0.6	0.7	0.8	0.8	1.0	1.1	1.3	1.1	1.1		
23	1.0	0.9	1.0	0.9	0.9	1.0	1.2	1.0	0.9	0.9	0.8	0.5	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.6	0.7	0.8	0.7	0.8		
24	0.7	1.0	0.9	0.8	1.0	1.1	2.4	2.4	3.1	2.2	1.0	0.8	4.6	9.0	2.8	1.2	0.4	1.2	2.0	2.2	4.4	2.3	1.8	0.8		
25	1.2	1.1	0.7	0.8	1.0	0.5	0.6	1.1	0.9	1.3	1.1	0.9	0.6	0.6	1.2	1.5	1.4	1.4	1.2	1.0	1.1	1.1	1.1	1.2		
26	6.7	5.0	6.4	5.9	8.2	7.4	7.1	2.8	2.4	1.7	1.9	1.2	0.8	0.5	0.4	0.6	1.1	0.9	0.5	0.4	0.3	0.4	0.7	3.6		
27	3.2	0.8	0.3	8.2	7.4	3.1	4.0	3.9	6.5	12.3	5.8	1.6	1.3	1.2	1.5	2.1	2.5	3.0	3.4	3.8	3.8	3.7	3.8	3.7		
28	3.4	3.6	3.5	3.7	3.5	3.6	4.2	4.7	4.4	3.7	3.1	2.9	3.0	4.0	4.7	4.3	5.2	5.1	5.5	5.8	6.4	9.2	9.5	7.6		
29	6.0	7.2	6.6	7.2	6.5	5.4	5.7	5.8	5.9	5.7	5.6	7.5	5.5	5.2	5.6	5.7	5.6	5.2	4.9	9.4	11.3	10.7	9.1	7.6		
30	7.9	7.2	6.8	6.1	5.8	5.1	5.1	5.9	5.5	5.3	5.4	4.9	4.5	4.2	4.1	4.3	4.5	4.4	5.4	9.4	7.5	7.9	7.5	7.5		
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
MEAN	3.2	3.0	2.9	3.3	3.4	3.0	3.6	3.4	3.7	3.9	3.8	4.0	4.1	4.1	4.0	3.6	3.8	3.2	3.4	3.8	3.9	3.9	3.8	3.4		
MAX	10.7	11.6	11.0	12.3	14.1	12.5	14.7	14.4	16.2	16.8	16.0	13.4	11.7	12.9	15.2	11.4	10.2	10.5	9.0	11.0	12.0	12.5	10.4	10.7		



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	720	
Maximum 1-HR Average	16.8 UG/M3	
Maximum 24-HR Average	11.7 UG/M3	
IZS Calibration Time		Operational Time 720 HRS
Down Time	0	Operational Uptime 100.0 %
Standard Deviation	3.39	Monthly Average 3.6 UG/M3

West PM₁₀ (µg/m³) – April 2023

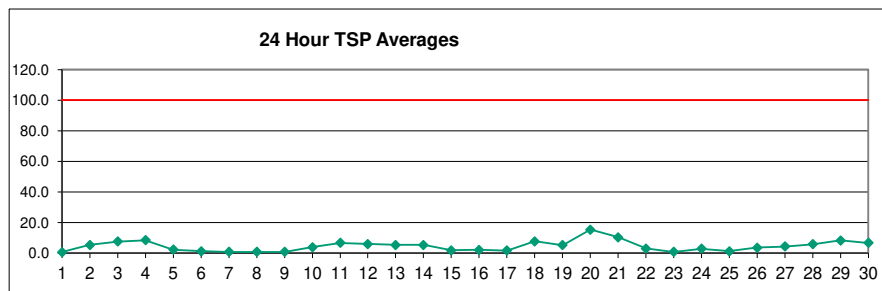
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	1.0	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.3	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.4	5.3	0.9	0.4	0.7	0.6	0.5	0.6	5.3	
2	0.4	0.4	0.4	9.2	5.8	0.4	0.3	0.5	0.3	0.4	4.7	18.1	15.8	9.4	1.2	0.8	6.0	8.2	11.6	3.8	5.3	4.2	7.5	3.5	4.9	18.1	
3	2.3	2.8	1.9	1.8	7.3	3.3	4.4	4.9	9.1	11.2	13.6	13.2	11.7	10.1	13.3	7.8	7.1	7.4	5.3	9.4	8.2	3.2	7.1	3.2	7.1	13.6	
4	3.2	2.1	1.8	2.5	2.6	3.6	4.9	4.8	3.6	3.6	11.9	14.5	12.5	14.0	12.5	13.6	10.2	9.9	9.5	11.1	13.9	12.0	7.1	7.9	14.5		
5	5.6	2.5	2.7	2.0	1.2	1.5	2.4	3.4	4.6	4.0	3.0	1.3	1.6	2.3	1.9	1.4	1.1	1.3	1.6	1.4	1.3	1.3	1.2	1.0	2.1	5.6	
6	0.8	0.8	0.7	0.8	0.9	1.0	1.6	3.0	3.0	1.9	2.1	1.1	0.8	0.6	0.5	0.6	0.6	0.6	0.7	0.9	1.3	1.2	1.3	1.2	1.2	3.0	
7	1.0	0.9	0.9	0.9	1.0	1.0	1.1	1.2	1.2	0.9	1.0	0.7	0.5	0.7	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.7	1.2	
8	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.6	0.7	2.3	2.6	1.0	0.9	0.8	0.9	0.8	0.7	0.5	0.8	1.3	1.3	0.7	2.6	
9	3.8	0.9	0.7	0.6	0.6	0.8	0.7	0.7	0.7	0.6	0.5	0.4	0.4	0.6	0.5	0.5	1.0	0.7	0.7	1.0	0.6	0.2	0.2	0.3	0.7	3.8	
10	0.3	0.3	0.1	0.1	0.1	0.2	0.2	0.5	5.3	11.3	3.7	3.2	3.4	5.8	15.2	11.4	10.1	6.4	1.4	0.9	0.9	1.4	2.1	4.8	3.7	15.2	
11	10.7	13.5	12.0	12.7	8.1	6.9	8.4	10.0	11.0	8.5	10.6	11.3	13.1	5.9	0.4	0.9	1.3	1.6	1.2	1.1	1.6	1.2	1.1	1.2	6.4	13.5	
12	1.2	1.2	1.4	1.2	1.4	1.4	5.2	2.0	2.6	2.7	2.7	7.3	5.8	4.4	6.6	14.4	14.8	14.8	12.6	11.2	5.0	6.6	4.2	3.1	5.6	14.8	
13	2.8	3.4	3.0	3.0	2.9	2.6	3.4	3.6	2.6	2.7	2.5	2.4	1.7	5.5	16.0	6.1	11.0	3.3	4.0	12.6	9.2	8.4	4.9	3.1	5.0	16.0	
14	2.2	1.7	1.5	1.7	2.1	2.4	2.5	1.7	3.7	2.2	2.0	6.4	10.4	19.2	8.2	8.8	11.5	3.2	3.1	4.4	8.1	5.7	3.2	1.8	4.9	19.2	
15	1.7	1.5	1.3	1.1	1.3	1.2	1.3	1.4	1.6	1.9	1.2	1.0	1.2	1.5	1.6	1.5	1.8	1.9	1.7	1.9	2.0	2.7	3.3	3.4	1.7	3.4	
16	2.7	2.3	2.5	2.1	2.2	2.4	2.3	2.5	2.3	1.9	1.6	1.7	1.8	1.6	1.8	1.7	1.6	1.6	1.5	1.5	3.0	2.8	2.2	1.9	2.1	3.0	
17	1.7	1.1	0.6	0.5	0.7	1.5	1.9	2.0	2.8	2.0	5.0	1.5	2.6	2.5	1.6	1.1	1.7	0.9	0.7	0.8	1.2	1.2	1.3	1.4	1.6	5.0	
18	1.3	1.4	1.4	1.6	1.8	2.7	3.1	2.0	4.9	10.1	18.7	15.1	15.4	12.0	15.6	16.6	11.5	5.1	5.0	4.9	4.5	4.6	3.6	3.2	6.9	18.7	
19	3.1	2.9	3.1	3.3	2.7	2.4	2.5	2.4	1.7	1.9	3.1	3.2	3.4	3.4	3.8	4.1	2.6	2.8	9.7	9.2	9.2	10.3	12.5	13.4	4.9	13.4	
20	13.2	14.4	13.9	15.0	14.1	12.5	16.2	18.3	20.4	20.7	19.6	14.4	13.0	14.5	11.9	10.4	11.9	10.6	11.2	13.7	12.9	14.5	10.4	7.9	14.0	20.7	
21	6.8	6.8	9.9	6.9	8.8	9.8	17.8	13.8	9.0	11.1	12.8	13.4	12.2	11.4	10.9	9.9	9.2	11.0	11.0	10.4	6.0	5.1	9.2	7.5	10.0	17.8	
22	7.3	7.1	7.0	6.5	6.1	5.6	5.3	5.1	5.3	2.6	1.1	0.9	0.8	0.7	0.6	0.6	0.7	0.8	0.8	1.0	1.1	1.3	1.1	1.1	2.9	7.3	
23	1.0	0.9	1.0	0.9	0.9	1.0	1.2	1.0	0.9	0.9	0.8	0.5	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.6	0.7	0.8	0.7	0.8	0.7	1.2	
24	0.7	1.0	0.9	0.8	1.0	1.1	2.4	2.7	4.1	3.1	1.1	1.0	6.8	13.2	4.1	1.3	0.4	1.2	2.0	2.6	5.6	2.5	2.1	0.8	2.6	13.2	
25	1.2	1.1	0.7	0.8	1.2	0.5	0.6	1.4	1.2	1.8	1.4	0.9	0.6	0.6	1.3	1.9	1.7	1.5	1.3	1.0	1.1	1.1	1.1	1.2	1.1	1.9	
26	9.4	6.0	8.2	7.2	11.3	9.6	9.1	3.3	3.1	1.7	2.5	1.2	0.8	0.5	0.4	0.6	1.4	0.9	0.5	0.4	0.3	0.4	0.7	4.4	3.5	11.3	
27	3.2	0.8	0.3	12.2	10.7	3.4	4.4	4.9	6.5	12.5	6.8	1.7	1.3	1.2	1.5	2.1	2.5	3.0	3.4	4.1	4.4	3.9	4.1	4.0	4.3	12.5	
28	3.4	3.8	3.6	3.7	3.5	3.6	5.4	6.5	6.3	4.6	3.8	3.6	3.2	4.4	5.0	4.3	5.2	5.1	5.6	6.5	8.1	13.8	14.0	9.2	5.7	14.0	
29	6.5	7.8	7.0	7.2	6.5	5.4	5.7	6.1	6.9	7.3	6.9	11.2	7.0	5.7	5.8	5.7	5.6	5.2	4.9	13.6	16.6	15.8	12.5	9.1	8.0	16.6	
30	8.7	7.2	7.3	6.1	5.8	5.1	5.1	6.0	5.9	5.7	5.9	5.3	4.9	4.7	4.3	4.4	4.5	4.4	6.3	13.6	10.0	10.1	8.3	7.5	6.5	13.6	
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%	
MEAN	3.6	3.2	3.2	3.8	3.8	3.1	4.0	3.9	4.4	4.7	4.8	5.2	5.3	5.0	4.5	4.7	3.9	4.2	4.8	4.7	4.7	4.5	3.6				
MAX	13.2	14.4	13.9	15.0	14.1	12.5	17.8	18.3	20.4	20.7	19.6	18.1	15.8	19.2	16.0	16.6	14.8	14.8	12.6	13.7	16.6	15.8	14.0	13.4			



Number of Non-Zero Readings	720		
Maximum 1-HR Average	20.7 UG/M3		
Maximum 24-HR Average	14.0 UG/M3		
IZS Calibration Time		Operational Time	720 HRS
Down Time	0	Operational Uptime	100.0 %
Standard Deviation	4.4	Monthly Average	4.3 UG/M3

West TSP ($\mu\text{g}/\text{m}^3$) – April 2023

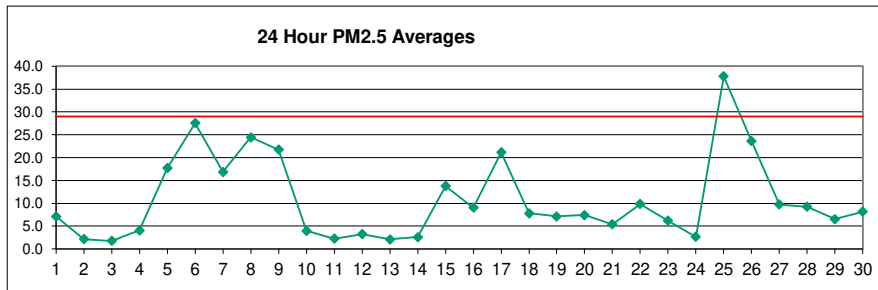
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	1.0	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.3	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.4	5.3	0.9	0.4	0.7	0.6	0.5	0.6	5.3	
2	0.4	0.4	0.4	10.0	6.0	0.4	0.3	0.5	0.3	0.4	5.3	20.9	18.1	10.4	1.2	0.8	6.0	8.2	11.6	3.8	5.3	4.2	7.5	3.5	5.3	20.9	
3	2.3	2.8	1.9	1.8	7.3	3.3	4.4	4.9	9.3	12.2	15.4	15.0	13.2	11.5	15.2	8.6	7.6	8.0	5.3	9.9	8.3	3.2	7.1	3.2	7.6	15.4	
4	3.2	2.1	1.8	2.5	2.6	3.6	4.9	4.8	3.6	3.6	3.6	13.3	16.8	14.4	16.1	14.4	15.6	11.8	9.9	9.5	11.1	13.9	12.0	7.1	8.4	16.8	
5	5.6	2.5	2.7	2.0	1.2	1.5	2.4	3.4	4.6	4.0	3.0	1.3	1.6	2.3	1.9	1.4	1.1	1.3	1.6	1.4	1.3	1.3	1.2	1.0	2.1	5.6	
6	0.8	0.8	0.7	0.8	0.9	1.0	1.6	3.0	3.0	1.9	2.1	1.1	0.8	0.6	0.5	0.6	0.6	0.6	0.7	0.9	1.3	1.2	1.3	1.2	1.2	3.0	
7	1.0	0.9	0.9	0.9	1.0	1.0	1.1	1.2	1.2	0.9	1.0	0.7	0.5	0.7	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.7	1.2	
8	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.6	0.7	2.3	2.6	1.0	0.9	0.8	0.9	0.8	0.7	0.5	0.8	1.3	1.3	0.7	2.6	
9	4.1	0.9	0.7	0.6	0.6	0.8	0.7	0.7	0.7	0.6	0.5	0.4	0.4	0.6	0.5	0.5	1.0	0.7	0.7	1.0	0.6	0.2	0.2	0.3	0.8	4.1	
10	0.3	0.3	0.1	0.1	0.1	0.2	0.2	0.5	5.5	12.4	3.7	3.2	3.4	5.8	15.2	11.4	10.1	6.4	1.4	0.9	0.9	1.4	2.1	4.8	3.8	15.2	
11	11.6	13.5	12.0	12.7	8.1	6.9	8.6	10.1	12.3	8.5	11.3	11.3	13.1	5.9	0.4	0.9	1.3	1.6	1.2	1.1	1.6	1.2	1.1	1.2	6.6	13.5	
12	1.2	1.2	1.4	1.2	1.4	1.4	5.2	2.0	2.6	2.7	2.7	7.9	5.8	4.4	6.6	16.1	16.8	17.1	14.3	11.5	5.0	6.6	4.2	3.1	5.9	17.1	
13	2.8	3.4	3.0	3.0	2.9	2.6	3.4	3.6	2.6	2.7	2.5	2.4	1.7	5.8	18.4	6.5	12.2	3.3	4.0	14.4	9.8	8.5	4.9	3.1	5.3	18.4	
14	2.2	1.7	1.5	1.7	2.1	2.4	2.5	1.7	3.7	2.2	2.0	7.0	11.8	22.0	9.1	9.8	12.9	3.2	3.1	4.4	8.3	5.7	3.2	1.8	5.3	22.0	
15	1.7	1.5	1.3	1.1	1.3	1.2	1.3	1.4	1.6	1.9	1.2	1.0	1.2	1.5	1.6	1.5	1.8	1.9	1.7	1.9	2.0	2.7	3.3	3.4	1.7	3.4	
16	2.7	2.3	2.5	2.1	2.2	2.4	2.3	2.5	2.3	1.9	1.6	1.7	1.8	1.6	1.8	1.7	1.6	1.6	1.5	1.5	3.0	2.8	2.2	1.9	2.1	3.0	
17	1.7	1.1	0.6	0.5	0.7	1.5	1.9	2.0	2.8	2.0	5.3	1.5	2.6	2.5	1.6	1.1	1.7	0.9	0.7	0.8	1.2	1.2	1.3	1.4	1.6	5.3	
18	1.3	1.4	1.4	1.6	1.8	2.7	3.1	2.0	4.9	11.4	21.6	17.5	17.7	13.1	17.6	19.0	12.8	5.1	5.1	4.9	4.5	4.6	3.6	3.2	7.6	21.6	
19	3.1	2.9	3.1	3.3	2.7	2.4	2.5	2.4	1.7	1.9	3.1	3.2	3.4	3.4	3.8	4.1	2.6	2.8	10.4	10.5	9.2	11.5	14.4	15.2	5.2	15.2	
20	15.3	16.3	15.3	15.0	14.1	12.5	18.1	19.7	22.3	24.0	22.7	16.3	15.0	16.8	13.7	12.1	13.8	12.1	12.7	15.1	12.9	14.5	10.4	7.9	15.4	24.0	
21	6.8	6.8	9.9	6.9	8.8	9.8	17.8	13.8	9.0	11.1	12.8	13.4	12.2	12.7	12.1	10.6	10.0	12.7	12.0	11.0	6.0	5.1	9.2	7.5	10.3	17.8	
22	7.3	7.1	7.0	6.5	6.1	5.6	5.3	5.1	5.3	2.6	1.1	0.9	0.8	0.7	0.6	0.6	0.7	0.8	0.8	1.0	1.1	1.3	1.1	1.1	2.9	7.3	
23	1.0	0.9	1.0	0.9	0.9	1.0	1.2	1.0	0.9	0.9	0.8	0.5	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.6	0.7	0.8	0.7	0.8	0.7	1.2	
24	0.7	1.0	0.9	0.8	1.0	1.1	2.4	2.7	4.1	3.1	1.1	1.0	7.6	15.3	4.4	1.3	0.4	1.2	2.0	2.6	5.6	2.5	2.1	0.8	2.7	15.3	
25	1.2	1.1	0.7	0.8	1.2	0.5	0.6	1.4	1.2	1.8	1.4	0.9	0.6	0.6	1.3	1.9	1.7	1.5	1.3	1.0	1.1	1.1	1.1	1.2	1.1	1.9	
26	10.1	6.0	8.2	7.2	11.4	10.0	10.0	3.3	3.1	1.7	2.5	1.2	0.8	0.5	0.4	0.6	1.4	0.9	0.5	0.4	0.3	0.4	0.7	4.4	3.6	11.4	
27	3.2	0.8	0.3	12.3	10.7	3.4	4.4	4.9	6.5	12.5	6.8	1.7	1.3	1.2	1.5	2.1	2.5	3.0	3.4	4.1	4.4	3.9	4.1	4.0	4.3	12.5	
28	3.4	3.8	3.6	3.7	3.5	3.6	5.4	6.5	6.3	4.6	3.8	3.6	3.2	4.4	5.0	4.3	5.2	5.1	5.6	6.5	8.1	14.2	14.3	9.2	5.7	14.3	
29	6.5	7.8	7.0	7.2	6.5	5.4	5.7	6.1	6.9	7.3	6.9	11.2	7.0	5.7	5.8	5.7	5.6	5.2	4.9	14.5	18.7	17.1	12.5	9.1	8.2	18.7	
30	8.7	7.2	7.3	6.1	5.8	5.1	5.1	6.0	5.9	5.7	5.9	5.3	4.9	4.7	4.3	4.4	4.5	4.4	6.3	15.5	11.4	10.1	8.3	7.5	6.7	15.5	
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	3.7	3.3	3.3	3.8	3.8	3.1	4.1	3.9	4.5	4.9	5.1	5.5	5.7	5.7	5.4	4.8	5.1	4.1	4.3	5.1	4.8	4.8	4.5	3.7			
MAX	15.3	16.3	15.3	15.0	14.1	12.5	18.1	19.7	22.3	24.0	22.7	20.9	18.1	22.0	18.4	19.0	16.8	17.1	14.3	15.5	18.7	17.1	14.4	15.2			



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	720	
Maximum 1-HR Average	24.0 UG/M3	
Maximum 24-HR Average	15.4 UG/M3	
IZS Calibration Time		Operational Time
Down Time	0	Operational Uptime
Standard Deviation	4.79	Monthly Average
		720 HRS
		100.0 %
		4.5 UG/M3

Berm PM_{2.5} (µg/m³) – April 2023

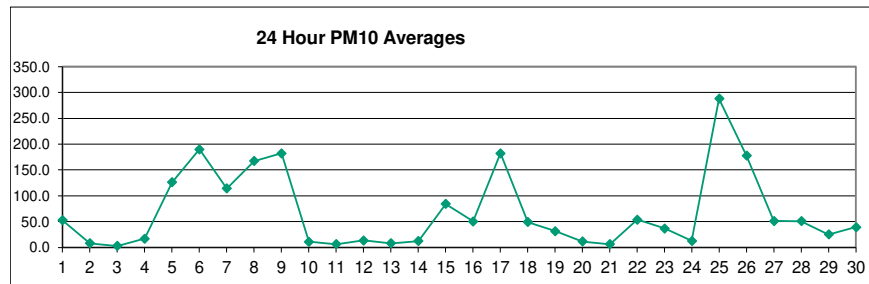
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	11.8	12.7	6.5	16.6	14.3	8.0	14.2	10.9	9.3	4.9	5.3	9.7	3.7	6.5	1.7	6.7	6.1	2.5	9.0	6.4	0.8	1.0	1.3	1.2	7.1	16.6
2	1.1	1.6	0.3	0.7	0.7	1.6	6.3	1.2	4.0	5.7	2.9	2.6	2.4	2.2	0.4	5.0	6.7	1.1	1.7	0.7	0.5	1.2	0.7	0.5	2.2	6.7
3	4.2	1.7	0.8	1.6	2.9	1.2	0.3	1.3	5.9	2.0	1.8	1.2	1.0	0.9	1.3	2.0	1.8	1.2	1.3	1.9	2.1	1.6	1.2	1.1	1.8	5.9
4	1.5	1.0	0.9	0.8	0.6	1.9	2.8	7.7	13.1	10.0	8.1	3.3	1.8	3.2	3.3	4.5	2.6	3.1	4.8	6.3	8.0	5.1	1.8	2.1	4.1	13.1
5	3.1	2.5	1.3	1.1	1.1	1.0	1.7	3.4	5.4	7.9	28.4	26.6	34.5	33.3	31.4	32.3	26.1	12.9	35.4	51.3	28.0	28.4	16.4	12.0	17.7	51.3
6	6.6	8.5	13.4	16.2	9.8	12.4	9.0	38.4	57.0	69.1	60.9	40.7	45.6	37.2	26.3	31.5	19.9	32.1	26.4	23.2	14.1	31.9	22.7	8.6	27.6	69.1
7	21.9	10.6	11.3	7.5	12.1	12.5	9.7	8.7	13.3	37.6	17.4	23.9	34.7	32.7	27.4	18.4	14.9	15.2	18.1	22.3	3.5	11.4	13.0	7.5	16.9	37.6
8	8.7	5.1	2.0	2.8	1.8	6.5	9.9	12.6	13.0	19.9	34.1	18.0	54.8	73.1	15.0	23.0	16.8	16.9	22.2	20.8	20.7	41.4	74.0	74.2	24.5	74.2
9	87.2	46.3	38.5	22.9	10.3	8.8	8.8	14.5	10.6	10.2	10.5	18.7	35.9	54.6	39.6	21.1	15.6	12.8	9.7	18.3	9.8	5.3	3.7	8.1	21.7	87.2
10	8.9	3.6	0.8	2.4	1.6	0.8	0.4	2.7	2.2	2.4	1.7	1.3	2.9	7.8	14.4	10.0	7.5	5.4	2.7	3.5	2.4	3.1	3.7	3.4	4.0	14.4
11	0.7	0.4	0.4	0.3	1.0	1.1	1.0	1.0	1.0	2.9	1.8	3.1	3.8	4.9	4.7	5.3	4.9	6.3	3.5	1.4	1.2	1.2	1.0	0.8	2.2	6.3
12	1.5	1.9	0.8	0.7	0.8	1.0	1.1	2.7	3.9	6.0	7.2	12.4	9.6	4.8	2.7	2.3	3.0	2.9	3.7	5.3	1.0	1.2	0.7	0.7	3.2	12.4
13	0.7	1.0	1.0	0.7	1.0	1.0	1.8	2.1	3.7	5.3	5.2	6.7	3.8	3.1	2.2	2.4	1.7	1.6	1.0	1.2	0.8	0.5	0.9	1.3	2.1	6.7
14	1.2	1.3	1.0	1.0	1.1	1.1	1.8	4.1	5.5	6.1	5.9	1.7	5.8	1.9	1.9	1.5	1.5	2.3	6.5	1.8	0.9	0.6	4.9	1.2	2.6	6.5
15	1.2	2.5	2.8	2.2	2.3	2.4	2.0	1.5	16.6	21.6	25.2	29.2	29.0	27.1	22.6	24.6	16.3	17.1	18.8	21.9	13.0	18.3	8.5	3.5	13.8	29.2
16	4.8	5.2	8.4	5.6	2.8	2.7	5.9	15.5	10.0	8.8	15.2	20.9	18.2	14.8	12.9	22.2	11.5	13.1	5.4	3.3	1.4	1.1	1.1	6.0	9.0	22.2
17	37.9	26.4	9.4	2.8	2.6	1.7	4.3	15.9	13.9	29.1	47.5	65.8	55.4	52.0	39.4	25.7	32.2	10.1	9.6	14.7	5.9	3.2	1.4	1.2	21.2	65.8
18	1.0	2.9	4.5	1.3	1.8	9.3	17.6	19.6	23.4	18.2	5.2	3.1	3.9	4.7	6.3	4.5	5.6	9.6	18.9	8.4	3.1	5.6	5.8	3.1	7.8	23.4
19	2.4	2.1	2.1	4.3	3.1	2.1	2.2	8.1	4.4	7.9	12.4	10.6	6.1	11.2	5.6	18.8	18.0	14.6	7.5	6.5	4.6	5.0	5.6	6.3	7.2	18.8
20	6.8	7.0	11.2	9.8	3.4	3.7	8.0	9.4	12.3	16.5	12.2	6.9	6.2	5.1	4.2	4.4	5.4	5.2	5.5	6.7	7.5	7.1	7.3	7.1	7.4	16.5
21	5.9	4.3	4.7	4.8	4.8	5.0	5.5	8.2	4.6	8.3	9.7	11.1	6.1	5.4	4.7	4.0	4.1	3.9	3.7	3.8	4.4	5.0	5.4	2.7	5.4	11.1
22	4.0	4.4	4.4	4.7	4.2	3.9	5.1	5.4	4.8	17.0	19.9	17.1	16.9	32.1	20.9	18.8	16.4	11.2	4.1	4.2	3.8	7.4	4.0	1.2	9.8	32.1
23	1.5	1.9	5.8	1.8	1.4	1.1	1.8	7.3	7.3	10.8	5.3	14.0	9.4	17.8	10.6	10.9	14.6	9.8	3.2	5.6	1.0	4.1	1.2	0.9	6.2	17.8
24	0.7	0.6	0.6	0.5	0.4	0.4	3.2	3.4	4.5	4.9	12.2	18.6	6.0	1.0	0.6	1.6	0.8	0.5	1.9	0.2	0.2	0.1	0.1	0.1	2.6	18.6
25	0.4	1.2	0.5	0.3	1.0	24.7	49.9	33.2	64.2	88.6	114.7	59.6	42.0	30.8	60.8	101.1	58.8	69.5	31.4	21.6	13.1	14.5	19.1	6.4	37.8	114.7
26	4.1	4.1	3.4	3.9	5.3	5.7	5.8	8.0	28.7	35.7	109.7	55.8	44.3	44.8	41.5	32.0	48.0	42.2	19.4	12.4	2.2	7.0	1.0	1.6	23.6	109.7
27	1.3	0.6	0.1	0.3	0.7	0.5	0.4	2.3	8.7	15.0	12.2	4.4	11.7	19.5	24.2	25.9	23.0	24.0	16.6	13.5	5.6	8.7	9.4	4.6	9.7	25.9
28	5.1	4.0	3.1	5.8	3.2	3.0	4.1	5.1	10.0	9.3	21.5	11.9	14.2	14.8	28.3	21.3	14.3	17.0	9.2	3.5	3.3	3.5	3.3	3.4	9.2	28.3
29	3.4	3.3	4.0	5.4	6.5	5.0	5.1	4.8	4.0	8.8	9.1	6.0	5.0	7.7	11.1	17.0	14.5	9.3	9.3	3.7	3.5	3.5	3.4	3.8	6.5	17.0
30	4.5	4.3	4.7	4.1	3.8	6.7	5.4	6.3	11.4	11.7	14.4	10.3	11.8	6.0	6.6	17.6	21.9	21.3	3.9	3.8	3.7	3.9	3.7	4.3	8.2	21.9
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	8.1	5.8	5.0	4.4	3.5	4.6	6.5	8.8	12.6	16.7	21.2	17.2	17.5	18.7	15.8	17.2	14.5	13.1	10.5	9.9	5.7	7.7	7.5	6.0		
MAX	87.2	46.3	38.5	22.9	14.3	24.7	49.9	38.4	64.2	88.6	114.7	65.8	55.4	73.1	60.8	101.1	58.8	69.5	35.4	51.3	28.0	41.4	74.0	74.2		



Number of 24HR Exceedences	1	Proposed Guideline
Number of Non-Zero Readings	720	
Maximum 1-HR Average	114.7 UG/M3	
Maximum 24-HR Average	37.8 UG/M3	
Monthly Calibration	0	Operational Time
Standard Deviation	14.7	Operational Uptime
		Monthly Average
		720 HRS
		100.0 %
		10.8 UG/M3

Berm PM₁₀ (µg/m³) – April 2023

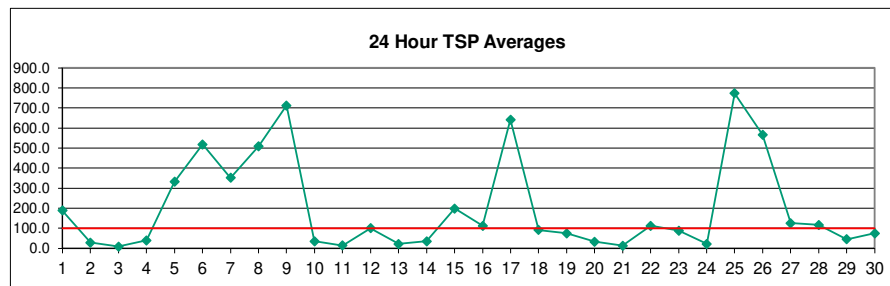
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	79.8	93.1	47.6	150.4	141.5	61.3	135.5	96.5	69.6	37.9	31.2	49.8	28.0	31.7	11.7	44.0	41.2	17.0	41.7	27.7	2.6	4.3	6.5	8.3	52.5	150.4
2	6.4	16.2	1.5	1.3	0.7	5.8	42.0	6.7	21.5	32.4	14.7	6.5	6.7	6.4	0.4	7.3	9.4	1.2	1.7	0.7	0.5	1.2	0.7	0.5	8.0	42.0
3	6.0	2.2	0.8	1.6	2.9	1.2	0.3	1.3	8.5	3.0	4.3	2.0	1.8	1.7	3.3	10.0	4.4	1.4	1.3	1.9	3.4	1.7	1.2	1.1	2.8	10.0
4	1.6	1.0	0.9	0.8	0.6	2.1	3.9	48.3	121.1	73.5	52.9	14.1	4.8	8.3	7.9	14.5	2.6	3.1	5.0	11.1	13.8	6.7	1.8	2.1	16.8	121.1
5	5.1	6.3	1.8	1.5	1.9	1.6	6.5	21.2	41.1	58.4	237.9	204.4	248.0	253.8	225.8	237.1	191.8	100.5	258.2	361.2	194.4	192.0	108.1	70.6	126.2	361.2
6	40.9	56.1	85.1	109.7	63.2	95.3	62.0	311.6	392.9	481.2	415.9	299.3	324.2	252.4	178.1	226.2	127.0	209.0	180.3	145.7	90.4	216.6	133.6	56.5	189.7	481.2
7	166.2	74.7	78.5	55.2	84.3	85.0	68.9	62.9	100.6	257.1	126.3	155.4	251.1	221.1	181.4	116.7	86.2	93.6	109.8	150.5	17.0	76.1	82.7	40.3	114.2	257.1
8	50.5	28.1	8.1	11.4	7.4	35.6	58.0	76.1	84.2	126.5	235.2	109.4	400.7	503.7	87.9	142.7	102.9	105.8	127.2	112.0	123.2	271.5	591.6	616.7	167.4	616.7
9	754.3	425.9	363.0	203.0	83.8	69.5	65.8	118.3	73.4	67.5	82.8	149.0	294.4	442.7	318.9	182.1	141.6	100.6	77.2	160.3	74.2	35.2	24.7	63.2	182.1	754.3
10	73.8	32.5	6.2	14.8	7.6	2.4	1.1	6.9	9.6	13.2	7.1	3.9	8.3	9.6	16.6	10.0	7.5	5.4	3.3	4.6	2.6	3.4	4.0	3.4	10.7	73.8
11	0.7	0.4	0.4	0.3	1.0	1.1	1.0	1.0	1.0	2.9	1.8	3.1	3.8	5.1	18.4	27.4	22.7	33.5	15.5	2.8	1.9	1.4	1.6	0.8	6.2	33.5
12	1.5	2.3	0.8	0.7	0.8	1.0	1.1	3.5	20.5	41.4	25.7	106.1	32.8	12.6	11.1	6.9	8.7	5.9	14.8	23.0	1.0	1.2	0.7	0.7	13.5	106.1
13	0.7	1.0	1.0	0.7	1.0	1.0	1.8	2.4	18.5	30.8	26.3	35.8	23.1	14.7	6.2	9.2	3.2	2.4	1.8	1.3	1.0	0.5	1.6	2.2	7.8	35.8
14	1.7	1.3	1.0	1.1	1.2	1.5	4.6	19.6	39.7	46.9	47.4	5.9	24.7	6.8	6.6	4.3	3.5	8.4	35.0	3.7	1.1	0.6	20.3	1.9	12.0	47.4
15	1.6	5.3	4.5	5.3	6.1	7.8	4.6	3.3	143.6	166.1	189.6	200.0	187.7	164.9	142.1	137.3	102.5	98.8	110.1	115.9	69.7	98.6	39.9	14.2	84.1	200.0
16	27.3	23.6	60.7	23.4	8.3	8.8	37.5	100.1	49.4	54.0	87.3	101.1	90.2	89.2	75.8	134.6	83.2	80.3	22.4	9.7	1.4	1.4	1.3	33.8	50.2	134.6
17	302.9	224.1	75.4	8.6	7.1	6.1	31.0	121.2	116.2	242.7	520.5	633.2	510.1	434.2	363.1	186.3	272.9	74.5	66.4	120.9	35.9	14.3	3.3	2.4	182.2	633.2
18	1.1	13.2	24.2	2.5	5.7	63.7	140.7	147.4	150.6	105.2	17.7	12.1	23.1	28.2	41.5	19.3	34.6	58.5	151.6	49.9	11.7	31.3	37.0	9.9	49.2	151.6
19	5.6	3.9	3.5	15.6	5.5	2.1	2.4	10.7	6.5	26.9	77.7	59.6	23.9	58.7	24.8	123.4	121.0	94.0	27.2	15.4	10.8	11.2	12.4	11.3	31.4	123.4
20	7.8	8.1	16.3	14.6	3.9	5.5	12.3	9.4	14.9	20.9	33.8	14.1	14.0	9.5	6.4	8.4	11.1	7.0	7.9	9.5	9.5	7.9	10.1	7.3	11.3	33.8
21	5.9	4.3	4.7	4.8	4.8	5.0	5.5	8.2	4.6	10.0	11.4	11.3	6.1	10.3	8.4	6.5	7.2	4.4	4.3	3.8	4.6	5.3	6.9	2.7	6.3	11.4
22	4.0	4.4	4.4	4.7	4.2	3.9	5.1	7.2	5.7	134.8	145.4	112.3	116.6	209.2	121.4	116.0	85.1	66.0	21.9	24.0	22.7	50.7	21.5	2.6	53.9	209.2
23	4.6	8.3	40.8	6.0	4.2	1.6	7.2	48.0	34.7	72.6	32.6	68.6	61.7	120.3	67.3	63.0	98.0	64.2	15.3	30.9	3.4	16.7	3.4	1.5	36.5	120.3
24	1.2	0.6	0.7	0.5	0.4	0.4	4.5	5.0	10.2	32.2	66.5	122.7	38.1	4.2	2.5	5.8	2.1	0.7	4.0	0.2	0.2	0.1	0.1	0.1	12.6	122.7
25	0.4	1.4	2.3	0.4	5.0	263.3	461.8	281.6	461.3	677.3	917.5	437.3	282.7	223.5	447.4	757.3	400.1	499.8	254.7	143.6	99.8	115.6	140.1	35.6	287.9	917.5
26	12.0	9.0	4.0	5.7	7.3	7.3	10.8	53.4	234.6	269.5	960.9	454.4	356.0	338.4	307.9	235.8	375.3	354.0	159.1	89.9	5.8	8.8	1.3	3.7	177.7	960.9
27	1.3	0.6	0.1	0.3	0.7	0.5	0.4	2.6	13.0	28.2	30.1	29.1	77.4	135.2	166.6	145.6	129.2	133.1	101.2	99.5	27.1	56.0	31.3	18.5	51.2	166.6
28	27.2	16.9	9.2	35.6	10.9	9.5	16.4	26.6	68.7	62.1	140.0	80.4	104.4	86.2	160.0	122.6	75.1	98.8	46.2	6.5	4.3	5.2	4.6	5.3	50.9	160.0
29	5.8	5.8	7.9	17.6	14.8	11.5	14.1	12.6	9.4	48.6	45.5	19.6	16.7	30.2	52.5	82.1	85.6	48.0	54.2	6.2	5.1	4.8	4.2	3.8	25.3	85.6
30	4.9	6.3	9.1	7.7	5.8	26.2	25.8	27.9	77.9	66.9	84.7	52.9	67.3	25.1	30.2	110.5	141.8	140.2	8.8	4.4	3.7	4.9	3.7	4.5	39.2	141.8
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	53.4	35.9	28.8	23.5	16.4	26.3	41.1	54.7	80.1	109.7	155.7	118.4	121.0	124.6	103.1	109.8	92.6	83.7	64.3	57.9	28.1	41.5	43.3	34.2		
MAX	754.3	425.9	363.0	203.0	141.5	263.3	461.8	311.6	461.3	677.3	960.9	633.2	510.1	503.7	447.4	757.3	400.1	499.8	258.2	361.2	194.4	271.5	591.6	616.7		



Number of Non-Zero Readings	720	Operational Time	720 HRS
Maximum 1-HR Average	960.9 UG/M3	Operational Uptime	100.0 %
Maximum 24-HR Average	287.9 UG/M3	Monthly Average	68.7 UG/M3
Monthly Calibration	0		
Standard Deviation	119		

Berm TSP ($\mu\text{g}/\text{m}^3$) – April 2023

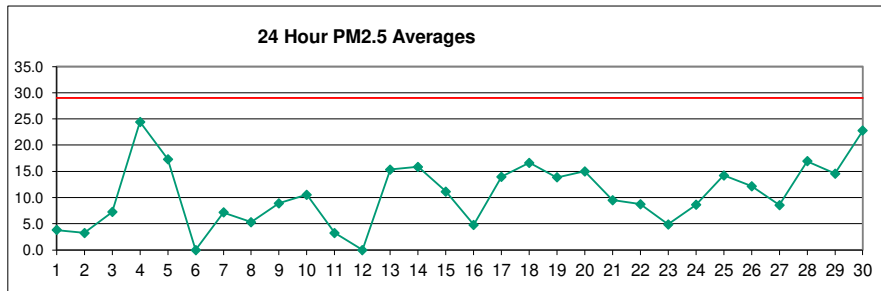
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	149.9	213.9	158.2	600.3	585.3	270.1	616.1	376.1	229.7	87.7	54.8	85.3	61.1	76.9	34.2	94.4	131.5	62.3	325.8	195.3	25.5	23.9	26.3	36.3	188.4	616.1
2	29.3	69.0	10.0	1.3	0.7	22.5	85.5	20.7	56.0	65.3	36.3	84.3	114.4	82.1	0.4	7.8	9.4	1.2	1.7	0.7	0.5	1.2	0.7	0.5	29.2	114.4
3	6.0	2.2	0.8	1.6	2.9	1.2	0.3	1.3	8.9	5.1	9.2	11.7	6.8	5.7	4.5	97.0	33.4	1.5	1.3	1.9	5.4	1.7	1.2	1.1	8.9	97.0
4	2.1	1.0	0.9	0.8	0.6	2.1	3.9	136.8	344.6	205.5	105.8	22.5	5.4	16.1	13.0	35.7	2.6	3.1	5.0	16.0	18.3	6.7	1.8	2.1	39.7	344.6
5	9.0	20.0	1.9	1.5	4.1	2.6	17.2	80.8	135.4	155.6	574.1	555.1	680.9	685.0	612.9	662.2	530.0	321.7	636.8	895.1	508.1	444.2	246.5	174.0	331.4	895.1
6	108.7	159.4	206.6	237.8	143.3	255.9	154.0	778.6	1051.8	1320.6	1110.7	848.6	938.0	675.7	480.7	668.1	371.6	594.1	543.1	412.7	265.6	576.5	346.1	195.9	518.5	1320.6
7	605.9	311.4	315.5	201.5	327.1	240.4	191.3	194.2	279.1	682.4	357.2	460.2	805.0	754.2	584.5	380.0	272.5	263.2	258.2	381.6	44.6	193.3	218.0	106.5	351.2	805.0
8	152.8	92.0	17.3	33.3	21.5	97.8	145.5	200.0	217.2	315.4	548.8	292.4	1151.6	1485.0	221.0	428.2	302.5	321.7	377.8	254.6	343.2	818.6	2246.6	2125.7	508.8	2246.6
9	2739.9	1725.1	1527.4	870.6	393.5	300.8	254.9	416.7	241.7	207.1	318.9	553.7	1140.2	1581.8	1218.0	797.1	652.2	368.8	307.4	674.1	288.0	110.3	84.8	319.0	712.2	2739.9
10	384.5	175.3	29.8	55.3	14.7	6.8	2.2	14.5	25.2	27.9	18.6	7.5	8.3	9.6	16.6	10.0	7.5	5.4	3.3	4.6	2.6	3.4	4.0	3.4	35.0	384.5
11	0.7	0.4	0.4	0.3	1.0	1.1	1.0	1.0	1.0	2.9	1.8	3.1	3.8	5.1	30.2	57.6	41.5	162.8	28.5	2.8	1.9	1.4	2.2	0.8	14.7	162.8
12	1.5	2.3	0.8	0.7	0.8	1.0	1.1	3.5	51.9	144.4	129.8	1109.7	325.6	21.0	42.8	48.1	30.8	8.0	173.1	306.9	1.0	1.2	0.7	0.7	100.3	1109.7
13	0.7	1.0	1.0	0.7	1.0	1.0	1.8	2.4	41.9	79.6	61.1	53.5	52.5	45.4	44.2	109.1	13.8	3.3	1.9	1.3	1.0	0.5	2.4	2.9	21.8	109.1
14	1.7	1.3	1.0	1.1	1.2	2.2	6.1	45.5	97.5	112.9	130.1	8.9	223.7	39.7	22.6	25.5	7.0	10.8	58.3	4.9	1.1	0.6	31.5	2.3	34.9	223.7
15	1.6	5.3	4.5	5.3	7.7	11.8	4.6	6.5	448.2	460.4	501.1	496.7	445.9	411.4	335.3	314.8	260.5	252.3	211.6	179.5	125.5	170.2	65.5	36.3	198.4	501.1
16	93.7	58.3	210.2	47.4	13.6	22.1	105.1	211.2	80.4	120.5	192.7	182.5	167.4	179.9	172.0	328.8	206.3	169.6	29.8	10.4	1.4	1.4	1.3	82.7	112.0	328.8
17	921.1	851.9	312.1	25.0	12.9	22.7	112.1	348.0	319.9	755.7	2137.8	2407.3	1798.8	1579.2	1327.3	570.5	993.6	258.7	174.6	348.1	77.3	26.3	3.4	4.8	641.2	2407.3
18	1.1	21.2	32.0	2.8	9.7	116.7	234.5	260.7	251.6	200.7	30.9	23.5	34.7	62.0	85.5	34.8	74.8	104.0	297.6	116.6	30.7	65.8	80.5	21.3	91.4	297.6
19	15.1	9.4	8.5	90.0	10.0	2.1	2.4	10.7	7.1	58.1	162.9	193.5	47.2	148.7	58.6	275.0	282.4	196.1	52.2	83.7	31.2	20.4	18.9	15.1	75.0	282.4
20	7.8	8.1	16.3	14.6	3.9	16.7	12.3	9.4	14.9	20.9	374.7	53.3	86.6	30.2	6.4	10.0	32.4	14.8	12.6	13.4	19.4	8.9	11.8	7.3	33.6	374.7
21	5.9	4.3	4.7	4.8	4.8	5.0	5.5	8.2	4.6	10.0	11.4	11.3	6.1	109.2	73.0	14.3	8.0	4.4	4.8	3.8	5.1	5.3	12.2	2.7	13.7	109.2
22	4.0	4.4	4.4	4.7	4.2	3.9	5.1	8.5	5.7	305.5	276.9	195.8	240.3	424.9	239.7	243.3	148.5	171.5	63.1	56.9	60.8	152.9	66.0	2.6	112.2	424.9
23	10.2	26.1	92.7	11.4	4.9	2.3	13.4	134.1	88.7	145.7	63.0	166.6	147.0	297.1	159.6	138.4	286.7	157.2	45.6	69.0	12.9	40.0	9.8	1.5	88.5	297.1
24	1.2	0.6	0.7	0.5	0.4	0.4	4.8	5.3	14.4	57.9	106.4	236.8	70.8	11.6	7.6	10.3	2.1	0.8	4.4	0.2	0.2	0.1	0.1	0.1	22.4	236.8
25	0.4	1.4	16.6	1.0	12.0	653.1	1062.0	641.1	1090.2	1724.3	2441.4	1231.8	648.4	618.7	1313.6	2182.3	1176.6	1396.4	865.9	438.1	328.1	310.3	331.6	69.6	773.1	2441.4
26	36.2	16.4	4.0	5.7	7.3	7.3	19.2	105.5	683.1	891.4	2839.9	1476.1	1162.0	1150.0	1164.5	790.0	1221.3	1156.7	518.0	312.6	12.3	8.8	1.3	6.0	566.5	2839.9
27	1.3	0.6	0.1	0.3	0.7	0.5	0.4	2.6	14.5	36.6	46.3	78.7	194.9	388.7	435.5	254.1	275.5	253.4	219.1	233.4	66.9	337.2	103.7	62.3	125.3	435.5
28	60.6	46.4	18.9	111.5	26.3	18.8	36.1	57.8	161.7	138.9	325.4	170.3	252.3	173.8	396.8	259.3	171.8	224.0	126.5	8.3	4.3	7.3	4.9	5.4	117.0	396.8
29	6.7	8.5	7.9	31.3	14.8	13.7	24.7	19.2	16.2	94.7	77.7	29.1	39.2	35.5	81.9	136.8	198.0	109.5	117.1	6.2	5.5	4.8	4.2	3.8	45.3	198.0
30	4.9	8.5	13.6	21.2	8.1	58.9	70.6	71.8	208.3	171.0	158.1	88.8	111.7	45.4	53.8	198.9	249.1	227.6	13.4	4.4	3.7	4.9	3.7	4.5	75.2	249.1
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	178.8	128.2	100.6	79.5	54.6	72.1	106.5	139.1	206.4	286.8	440.1	371.3	365.7	371.7	307.9	306.1	266.5	227.5	182.6	167.9	76.4	111.6	131.1	109.9		
MAX	2739.9	1725.1	1527.4	870.6	585.3	653.1	1062.0	778.6	1090.2	1724.3	2839.9	2407.3	1798.8	1581.8	1327.3	2182.3	1221.3	1396.4	865.9	895.1	508.1	818.6	2246.6	2125.7		



Number of 24HR Exceedences	15	Proposed Guideline
Number of Non-Zero Readings	720	
Maximum 1-HR Average	2839.9 UG/M3	
Maximum 24-HR Average	773.1 UG/M3	
IZS Calibration Time		Operational Time 720 HRS
Monthly Calibration	0	Operational Uptime 100.0 %
Standard Deviation	377.5	Monthly Average 199.5 UG/M3

Entrance PM_{2.5} (µg/m³) – April 2023

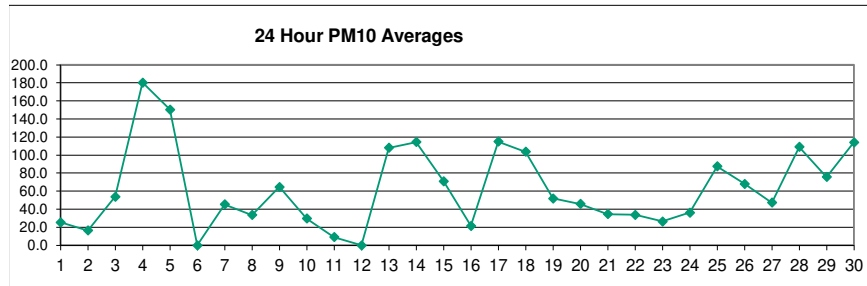
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	1.2	1.2	2.4	5.8	4.8	3.7	6.3	5.9	6.9	7.1	4.6	4.1	7.6	3.2	1.9	2.4	1.4	2.2	9.5	1.6	2.2	3.2	0.9	0.9	3.8	9.5	
2	0.9	4.3	4.4	2.4	2.3	1.6	1.8	3.1	3.3	2.5	3.4	7.6	3.6	4.6	0.8	1.7	9.7	2.5	1.5	K	K	K	K	K	3.3	9.7	
3	K	K	K	K	3.0	2.6	0.6	2.9	7.0	2.9	K	1.9	4.2	5.9	14.8	15.6	4.1	15.8	17.9	19.3	9.3	2.9	4.6	1.9	7.2	19.3	
4	K	K	K	K	K	17.6	17.6	24.3	13.0	11.7	14.0	42.3	43.5	30.5	63.0	42.6	39.9	28.5	19.7	13.4	13.4	16.1	4.3	8.9	24.4	63.0	
5	10.0	19.0	7.7	17.5	20.6	21.5	K	29.0	44.1	40.8	18.2	25.5	17.1	21.5	20.2	K	K	K	K	4.5	3.4	3.3	2.6	2.4	17.3	44.1	
6	2.4	2.9	2.6	3.0	2.0	6.9	14.2	17.9	18.6	19.0	19.1	K	K	K	K	K	K	K	K	2.4	3.0	3.2	2.2	2.0	-	-	
7	2.8	4.8	6.0	6.0	4.3	6.6	10.1	11.8	11.5	13.2	17.2	11.8	12.9	12.9	8.0	4.9	1.4	2.5	2.8	3.9	3.9	5.4	3.4	3.9	7.2	17.2	
8	1.3	3.6	1.0	1.7	1.3	0.9	1.2	1.0	2.3	2.5	9.7	8.2	12.0	20.1	11.8	3.4	2.6	4.0	2.4	4.2	3.8	6.5	17.2	5.3	5.3	20.1	
9	20.5	6.9	10.6	5.7	4.6	2.0	3.8	2.4	4.2	2.6	2.5	4.5	10.1	17.5	11.2	3.8	9.7	10.8	14.4	39.7	6.7	6.9	4.1	9.1	8.9	39.7	
10	7.4	10.6	6.8	3.0	9.2	10.4	5.5	11.1	10.2	9.1	7.2	2.4	2.5	4.8	7.0	15.7	13.7	18.3	21.9	18.5	25.9	17.4	10.7	3.7	10.5	25.9	
11	2.4	1.8	0.7	0.6	1.5	3.2	2.3	2.7	2.7	4.0	4.5	5.7	5.5	3.9	0.9	6.6	3.8	4.0	2.7	2.7	6.6	K	K	K	3.3	6.6	
12	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-	
13	K	K	K	K	K	K	28.8	21.1	13.7	8.4	6.3	14.1	28.4	59.9	34.0	3.6	3.4	8.2	13.2	5.1	1.5	7.4	8.2	11.2	15.4	59.9	
14	11.8	7.9	8.7	11.9	13.9	22.5	14.8	28.9	22.1	14.6	15.9	20.0	46.7	18.6	42.8	15.0	13.2	5.4	4.9	3.6	4.1	2.6	15.5	14.8	15.8	46.7	
15	9.7	11.3	17.0	18.1	26.0	20.6	23.1	18.8	10.5	13.8	12.9	9.0	8.1	7.7	7.2	5.4	5.6	3.5	2.7	2.2	4.2	3.6	7.2	19.1	11.1	26.0	
16	9.0	6.2	3.6	2.6	2.5	3.1	3.1	4.3	3.1	7.1	4.2	3.3	3.1	2.4	3.5	3.8	5.3	4.7	4.9	2.9	3.1	3.3	19.2	6.7	4.8	19.2	
17	20.9	31.5	4.6	3.1	4.0	4.8	10.0	13.8	28.5	20.4	31.4	18.3	23.8	24.6	21.0	6.9	11.8	4.9	4.7	3.2	3.5	8.3	17.9	13.9	14.0	31.5	
18	13.8	21.0	27.7	26.5	17.2	5.0	9.7	7.9	12.2	39.9	16.8	24.6	18.3	17.1	24.3	17.7	9.9	7.2	14.5	8.9	6.3	10.1	11.3	31.5	16.6	39.9	
19	25.7	25.1	21.4	17.9	18.7	17.8	19.1	19.2	20.3	13.1	7.0	11.4	13.0	13.0	7.8	10.4	11.4	10.7	10.0	7.2	6.3	8.6	7.9	9.7	13.9	25.7	
20	11.1	10.1	11.8	14.4	23.2	29.0	21.7	20.6	22.4	16.1	17.5	15.9	20.1	16.4	18.7	10.0	13.1	9.9	12.0	8.7	9.1	8.8	11.1	8.3	15.0	29.0	
21	6.1	5.2	5.5	6.4	6.2	6.3	6.3	8.5	6.2	7.4	9.6	10.8	7.3	K	21.3	18.5	K	12.0	15.1	8.4	12.4	10.6	9.6	9.6	9.5	21.3	
22	11.2	12.2	14.5	22.0	16.1	16.8	18.5	26.8	18.4	5.6	4.4	7.1	4.5	4.7	3.0	3.6	1.9	2.1	1.8	1.5	1.5	2.4	2.8	6.4	8.7	26.8	
23	4.5	6.5	5.7	5.0	10.3	7.9	9.8	3.2	3.1	1.8	2.1	4.1	2.8	2.4	1.4	1.9	3.5	2.2	1.3	3.2	5.3	3.3	10.0	15.7	4.9	15.7	
24	10.9	7.7	12.2	10.9	10.1	21.6	12.2	11.5	23.0	11.9	6.1	8.0	14.9	10.0	7.1	3.4	1.3	1.2	2.3	3.8	3.3	2.7	3.2	7.3	8.6	23.0	
25	14.6	12.5	17.3	21.9	12.2	6.1	6.4	7.1	7.0	17.2	26.3	11.6	6.2	12.2	24.6	53.8	21.0	28.1	7.2	8.9	7.6	6.1	3.2	2.6	14.2	53.8	
26	5.1	3.8	7.5	8.2	21.5	16.6	29.8	5.9	11.0	7.0	32.9	18.1	11.3	14.0	9.8	5.9	14.1	18.7	4.6	2.7	2.1	14.8	24.4	2.4	12.2	32.9	
27	1.3	0.4	0.2	0.3	1.1	1.4	1.8	2.3	15.1	34.0	34.6	8.7	7.5	10.0	8.9	8.7	7.2	5.1	4.4	8.8	5.7	6.3	12.0	19.9	8.6	34.6	
28	16.0	26.6	25.1	28.9	20.9	24.0	29.9	29.3	24.8	19.8	7.5	25.2	13.9	10.0	13.2	10.9	10.5	6.0	7.2	10.0	10.4	6.0	15.0	15.1	16.9	29.9	
29	26.9	10.0	11.7	11.6	17.0	15.2	27.9	45.8	30.4	13.2	11.3	12.6	11.3	15.2	13.9	7.7	6.5	5.6	6.1	7.1	9.6	15.6	8.3	8.8	14.6	45.8	
30	11.5	14.2	37.6	37.2	40.7	40.9	63.3	61.5	36.6	22.4	17.3	8.0	14.4	9.3	7.9	7.5	5.5	6.3	8.8	9.8	24.0	23.9	13.8	24.9	22.8	63.3	
NO.	26	26	26	26	27	28	28	29	29	29	28	28	28	27	28	27	26	27	27	28	28	27	27	27	27	657	91%
MEAN	10.0	10.3	10.6	11.3	11.7	12.0	14.3	15.5	14.9	13.4	13.0	12.3	13.4	13.8	14.6	10.8	8.9	8.5	8.1	7.7	7.1	7.8	9.3	9.9			
MAX	26.9	31.5	37.6	37.2	40.7	40.9	63.3	61.5	44.1	40.8	34.6	42.3	46.7	59.9	63.0	53.8	39.9	28.5	21.9	39.7	25.9	23.9	24.4	31.5			



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	657	
Maximum 1-HR Average	63.3 UG/M3	
Maximum 24-HR Average	24.4 UG/M3	
Monthly Calibration	0	Operational Time
Standard Deviation	9.87	Operational Uptime
		Monthly Average
		657 HRS
		91.3 %
		11.3 UG/M3

Entrance PM₁₀ (µg/m³) – April 2023

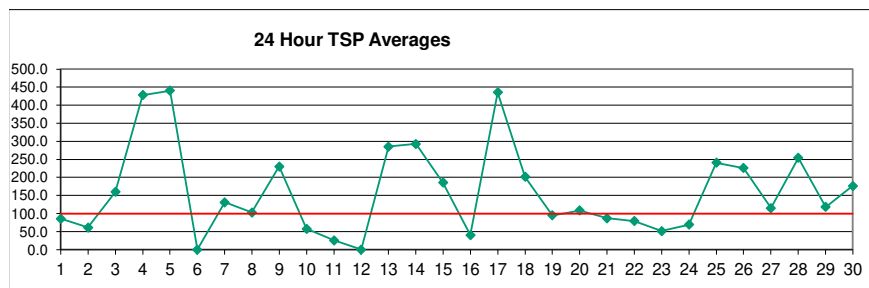
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	4.0	4.3	11.0	58.1	41.9	25.2	56.3	46.2	53.0	44.3	31.5	33.1	70.7	19.3	10.0	13.1	8.9	14.1	35.3	9.3	9.2	5.9	2.6	3.4	25.4	70.7	
2	2.0	23.2	28.3	7.1	3.9	8.4	9.9	15.3	18.1	12.8	32.2	72.6	29.8	24.1	0.8	2.3	14.2	3.6	1.5	K	K	K	K	K	16.3	72.6	
3	K	K	K	K	3.1	2.7	0.6	3.6	10.3	5.0	K	4.7	23.6	42.2	123.2	145.7	30.3	150.3	207.8	166.0	67.0	12.6	25.1	1.9	54.0	207.8	
4	K	K	K	K	K	26.4	26.4	108.4	64.4	81.0	113.9	392.7	355.6	240.4	606.6	366.6	386.5	247.9	125.4	67.9	67.6	88.7	5.6	51.6	180.2	606.6	
5	32.0	146.2	60.1	155.9	174.6	191.8	K	329.8	467.9	361.8	169.9	218.0	149.7	179.4	144.4	K	K	K	K	K	22.1	18.5	13.6	8.0	11.5	150.3	467.9
6	11.5	15.1	11.5	12.2	7.8	45.1	100.7	166.4	171.9	165.3	150.7	K	K	K	K	K	K	K	K	10.8	12.1	12.6	8.0	7.4	-	-	
7	14.6	22.2	28.4	28.3	21.3	25.5	58.0	77.5	86.8	93.8	113.7	94.9	104.4	97.8	65.4	29.5	5.7	13.1	14.1	14.0	19.4	22.7	14.3	20.2	45.2	113.7	
8	4.4	17.0	3.7	4.6	3.6	3.9	6.0	5.2	14.2	12.0	52.3	66.9	81.8	120.4	68.2	21.6	14.5	26.3	12.6	13.4	23.1	47.8	153.5	31.6	33.7	153.5	
9	155.3	53.1	94.4	51.1	40.2	9.1	22.6	11.7	23.5	13.0	15.4	34.8	99.6	187.6	110.6	23.0	50.0	50.4	90.7	255.1	30.0	54.1	25.2	52.5	64.7	255.1	
10	47.3	52.0	37.1	13.7	35.9	58.0	28.5	43.0	42.8	62.7	54.1	9.7	5.9	7.1	10.5	18.1	14.1	25.3	32.8	27.7	38.8	26.0	15.7	3.7	29.6	62.7	
11	2.4	1.8	0.7	0.6	1.5	3.2	2.3	2.7	2.7	4.0	4.6	6.0	5.7	3.9	2.8	46.7	26.2	27.1	12.0	7.8	27.6	K	K	K	9.2	46.7	
12	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-	
13	K	K	K	K	K	K	43.2	115.9	85.6	44.9	38.5	109.2	229.9	536.3	328.1	31.1	20.1	65.6	121.9	27.5	2.4	77.4	21.1	47.4	108.1	536.3	
14	56.6	41.7	52.2	81.4	115.1	138.1	90.1	197.4	144.4	91.4	107.7	145.4	427.1	137.3	356.9	111.6	113.1	32.8	36.4	18.7	29.8	23.0	81.4	115.5	114.4	427.1	
15	21.7	36.3	90.4	108.7	179.1	122.2	150.3	139.0	91.5	125.5	115.8	81.4	62.9	58.0	41.2	33.6	31.4	14.9	8.4	3.9	12.4	10.5	27.9	138.6	71.1	179.1	
16	49.5	26.7	9.2	4.9	4.1	7.5	7.5	14.5	11.0	30.6	22.6	14.7	11.4	8.2	14.5	17.6	25.4	19.8	22.0	10.9	16.8	12.9	113.6	41.1	21.5	113.6	
17	177.5	259.1	30.4	9.6	6.5	23.8	65.5	118.8	234.4	180.9	353.3	193.3	219.9	223.8	196.8	48.3	89.6	33.0	30.2	14.6	15.2	28.0	116.7	89.5	114.9	353.3	
18	84.8	90.3	131.3	134.9	69.9	20.4	66.7	66.1	87.3	295.7	111.6	167.5	142.2	145.5	207.2	127.7	67.6	42.4	93.4	36.1	30.8	49.7	50.8	168.9	103.7	295.7	
19	130.3	122.2	109.1	65.3	28.0	26.7	28.7	28.8	30.4	39.3	37.2	73.3	65.4	60.3	43.2	40.9	63.6	45.7	61.0	45.2	20.7	34.6	23.1	24.1	52.0	130.3	
20	16.5	15.1	17.7	21.6	34.8	43.5	32.5	30.7	33.4	30.7	78.3	88.8	122.7	108.4	118.2	55.2	69.7	39.8	50.2	21.6	14.8	14.9	35.0	8.4	45.9	122.7	
21	6.1	5.2	5.5	6.4	6.2	6.3	6.3	8.5	6.2	8.1	10.6	10.8	7.5	K	168.1	110.7	K	67.0	112.5	38.2	68.8	50.9	36.5	13.3	34.5	168.1	
22	20.7	18.1	21.5	32.9	23.9	25.1	114.2	192.1	97.5	29.0	23.2	36.0	26.1	29.5	18.3	16.4	9.7	11.4	8.6	4.4	3.7	10.1	10.2	27.5	33.8	192.1	
23	15.6	32.1	27.4	24.1	58.6	43.9	65.9	16.9	14.4	6.8	8.1	23.8	13.7	19.9	6.3	11.3	27.0	14.6	5.1	22.3	42.2	18.0	46.2	72.9	26.5	72.9	
24	51.2	34.3	61.5	29.2	15.2	32.5	17.9	17.3	118.1	75.0	42.8	60.8	120.2	91.8	48.7	14.5	3.3	3.5	4.1	5.6	4.9	4.0	4.7	10.9	36.3	120.2	
25	21.9	18.7	74.9	162.0	76.9	43.7	44.4	54.4	54.7	147.5	222.1	96.8	51.2	94.5	151.1	335.5	98.8	127.7	47.7	71.9	53.7	25.9	12.7	8.2	87.4	335.5	
26	17.6	6.7	11.1	12.2	32.2	24.8	44.7	33.8	71.1	63.9	316.3	151.0	122.8	135.0	90.0	49.5	122.5	159.8	34.6	24.4	4.7	41.2	55.7	6.0	68.0	316.3	
27	1.3	0.4	0.2	0.3	1.1	1.4	1.8	6.8	96.6	184.0	205.4	67.6	57.1	81.1	70.3	63.0	42.0	22.0	15.0	37.0	21.0	21.3	49.7	86.6	47.2	205.4	
28	73.7	153.9	178.1	187.7	149.5	175.9	236.2	234.8	193.7	144.3	39.9	139.0	88.1	56.7	86.4	66.8	59.5	17.6	26.5	47.9	59.4	20.2	83.6	97.6	109.0	236.2	
29	249.2	45.9	46.3	43.5	62.5	59.0	149.4	230.3	162.9	84.0	62.7	74.3	62.2	88.0	84.0	29.4	23.5	13.5	23.2	24.3	40.5	79.7	40.3	38.8	75.7	249.2	
30	47.8	67.2	201.0	192.8	202.5	176.5	308.8	357.1	185.1	131.6	64.6	27.2	74.0	41.1	31.9	32.7	16.6	19.5	34.6	35.0	152.1	153.9	58.1	130.2	114.2	357.1	
NO.	26	26	26	26	27	28	28	29	29	29	28	28	28	27	28	27	26	27	27	28	28	27	27	27	27	657	91%
MEAN	50.6	50.3	51.7	55.7	51.9	48.9	63.8	92.2	92.2	88.6	92.8	89.1	101.1	105.1	114.4	69.0	55.1	48.5	46.9	38.7	32.4	35.6	41.7	48.5			
MAX	249.2	259.1	201.0	192.8	202.5	191.8	308.8	357.1	467.9	361.8	353.3	392.7	427.1	536.3	606.6	366.6	386.5	247.9	207.8	255.1	152.1	153.9	153.5	168.9			



Number of Non-Zero Readings	657	Operational Time	657 HRS
Maximum 1-HR Average	606.6 UG/M3	Operational Uptime	91.3 %
Maximum 24-HR Average	180.2 UG/M3	Monthly Average	65.6 UG/M3
Monthly Calibration	0		
Standard Deviation	78.3		

Entrance TSP ($\mu\text{g}/\text{m}^3$) – April 2023

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	21.6	16.1	31.8	262.2	193.6	86.0	228.3	171.7	131.8	68.6	54.8	66.2	187.7	55.0	20.2	23.8	31.5	52.9	230.1	85.1	10.4	11.5	4.3	10.2	85.6	262.2	
2	4.6	48.7	30.1	10.8	5.6	17.8	24.1	22.6	40.0	22.7	175.3	311.5	165.2	264.2	0.8	2.3	15.6	3.6	1.5	K	K	K	K	K	61.4	311.5	
3	K	K	K	K	3.1	2.7	0.6	3.6	10.8	9.5	K	13.3	68.1	140.9	382.9	521.2	125.5	556.9	513.2	416.0	127.6	41.9	100.8	1.9	160.0	556.9	
4	K	K	K	K	K	30.4	30.4	187.6	81.5	194.2	262.3	1022.6	875.8	696.4	1346.2	918.8	940.9	606.9	371.1	184.4	145.9	153.9	5.6	80.6	428.2	1346.2	
5	58.5	458.6	173.5	386.1	540.0	632.9	K	1121.3	1518.9	1035.8	438.4	598.9	379.2	469.5	365.4	K	K	K	K	67.8	50.4	27.9	13.9	29.2	440.3	1518.9	
6	27.1	44.1	29.8	31.8	17.3	96.5	206.1	546.1	528.1	491.8	442.3	K	K	K	K	K	K	K	K	37.4	28.0	42.2	18.4	22.0	-	-	
7	42.6	55.6	74.2	79.8	81.8	50.1	183.7	214.4	274.6	336.0	263.0	267.9	346.6	332.1	220.1	110.6	20.7	25.4	24.3	27.9	34.1	26.6	20.3	30.9	131.0	346.6	
8	7.1	22.4	9.4	7.4	3.6	5.7	21.6	15.6	33.8	30.2	93.9	164.8	229.9	313.9	132.7	85.7	39.6	77.3	35.3	26.4	95.8	199.6	712.0	99.9	102.6	712.0	
9	558.9	220.8	459.5	240.0	185.6	36.0	80.8	47.7	69.2	40.1	45.1	143.0	430.1	790.2	451.4	94.9	137.0	102.6	300.1	630.3	70.8	223.4	66.9	103.4	230.3	790.2	
10	152.5	135.5	92.6	37.4	36.1	66.2	40.5	64.8	130.3	189.3	163.4	34.2	6.8	7.6	10.6	18.1	14.1	25.3	36.0	30.5	43.8	29.2	17.2	3.7	57.7	189.3	
11	2.4	1.8	0.7	0.6	1.5	3.2	2.3	2.7	2.7	4.0	4.6	6.0	5.7	3.9	12.9	180.9	99.5	104.9	31.8	14.9	49.1	K	K	K	25.5	180.9	
12	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-	
13	K	K	K	K	K	K	50.1	201.5	217.3	95.7	119.5	285.2	543.9	1373.5	1115.2	323.6	88.8	161.2	246.8	77.7	2.9	155.8	24.7	54.8	285.5	1373.5	
14	77.9	66.2	90.1	208.0	314.1	412.3	231.1	467.7	342.5	185.1	229.5	321.3	1246.0	447.1	1144.3	320.2	277.2	72.7	72.5	37.2	66.1	57.8	118.7	221.8	292.8	1246.0	
15	29.2	78.0	175.4	284.0	539.8	264.5	335.2	363.8	272.1	323.1	341.9	254.1	202.8	185.8	108.1	85.5	75.0	34.6	21.2	5.7	25.7	20.1	46.0	376.0	185.3	539.8	
16	127.0	63.3	11.2	7.0	6.5	11.1	15.1	36.9	24.8	56.1	40.5	41.3	24.1	22.1	20.5	35.5	46.8	30.1	32.6	15.0	24.4	13.9	186.5	82.6	40.6	186.5	
17	526.8	748.7	123.6	25.5	9.9	56.1	206.9	476.0	670.0	629.2	1759.5	1046.6	1010.6	1066.0	935.1	165.2	319.1	122.0	92.4	48.2	27.0	54.4	172.2	152.7	435.2	1759.5	
18	122.7	94.8	154.9	208.1	93.6	22.8	130.2	130.2	201.8	564.7	235.7	369.8	286.6	380.4	515.5	314.5	160.9	75.5	144.6	90.5	72.2	115.2	81.8	269.9	201.5	564.7	
19	183.4	151.8	144.7	117.5	31.8	30.9	31.4	31.3	34.7	62.5	98.0	177.0	112.4	101.0	107.1	115.9	144.0	54.3	155.7	207.2	39.3	60.4	41.5	50.1	95.2	207.2	
20	16.9	15.1	18.2	23.1	39.6	50.0	34.8	32.5	35.2	73.8	284.0	241.0	358.1	282.6	325.9	156.9	218.9	108.9	137.8	33.1	18.3	19.6	73.9	8.4	108.6	358.1	
21	6.1	5.2	5.5	6.4	6.2	6.3	6.3	8.5	6.2	8.1	10.6	10.8	7.5	K	623.2	365.6	K	202.1	216.6	81.0	148.8	121.3	51.5	13.3	87.1	623.2	
22	21.1	18.2	23.0	37.7	25.5	28.5	356.0	557.4	212.6	80.3	49.6	81.4	56.8	66.2	57.2	46.2	22.9	30.0	30.0	6.2	5.7	19.6	22.5	37.1	78.8	557.4	
23	20.9	57.7	60.0	60.5	103.8	71.7	108.6	44.0	41.3	13.4	12.3	45.5	34.9	50.1	17.0	29.7	86.4	46.1	10.6	43.2	86.3	38.0	60.5	96.1	51.6	108.6	
24	58.9	46.0	79.8	39.7	17.2	37.6	20.1	19.8	192.0	121.6	96.4	143.5	350.1	242.7	122.2	26.7	4.6	9.4	4.1	6.1	5.2	4.2	5.1	12.1	69.4	350.1	
25	25.1	21.5	87.5	317.3	125.9	99.4	118.8	138.6	137.9	414.6	675.2	353.3	170.1	316.2	421.5	1043.0	245.2	385.7	180.1	217.8	181.2	53.1	28.3	17.9	240.6	1043.0	
26	56.8	8.9	11.7	13.2	36.6	28.1	51.9	89.9	179.0	222.7	1207.9	543.0	478.5	544.7	388.6	193.6	461.6	565.4	102.9	93.2	4.7	51.0	71.9	17.9	226.0	1207.9	
27	1.3	0.4	0.2	0.3	1.1	1.4	1.8	8.1	190.1	407.5	520.8	200.6	185.1	308.5	244.7	178.4	118.1	42.8	38.2	51.8	29.0	40.6	67.3	131.5	115.4	520.8	
28	132.5	329.8	415.1	391.3	391.0	535.1	713.1	554.2	492.5	368.8	105.2	207.9	165.2	116.5	214.2	166.1	142.6	40.0	55.3	103.1	155.9	35.3	135.8	137.1	254.3	713.1	
29	312.2	46.8	68.3	64.1	72.0	82.2	209.1	343.9	194.0	183.7	115.8	162.1	132.8	187.1	189.1	55.3	48.4	20.6	53.3	66.2	46.1	93.9	43.9	46.3	118.2	343.9	
30	54.8	91.5	321.8	324.4	334.7	217.9	508.6	700.1	270.8	365.8	68.0	33.2	102.4	54.0	53.4	54.9	25.9	25.7	51.6	51.9	153.2	157.4	58.1	149.1	176.2	700.1	
NO.	26	26	26	26	27	28	28	29	29	29	28	28	28	27	28	27	26	27	27	28	28	27	27	27	27	657	91%
MEAN	101.9	109.5	103.6	122.5	119.2	106.5	141.0	227.7	225.4	227.6	282.6	255.2	291.5	326.6	340.9	208.6	150.4	132.7	118.1	98.4	62.4	69.2	83.3	83.6			
MAX	558.9	748.7	459.5	391.3	540.0	632.9	713.1	1121.3	1518.9	1035.8	1759.5	1046.6	1246.0	1373.5	1346.2	1043.0	940.9	606.9	513.2	630.3	181.2	223.4	712.0	376.0			



Number of 24HR Exceedences	18	Proposed Guideline
Number of Non-Zero Readings	657	
Maximum 1-HR Average	1759.5 UG/M3	
Maximum 24-HR Average	440.3 UG/M3	
Monthly Calibration	0	Operational Time
Standard Deviation	232.6	Operational Uptime
		Monthly Average
		657 HRS
		91.3 %
		167.5 UG/M3