

LAFARGE CANADA INC.

AMBIENT AIR QUALITY MONTHLY REPORT

MARCH 2023

APRIL 27, 2023



WSP



AMBIENT AIR QUALITY MONTHLY REPORT

MARCH 2023

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-05
DATE: APRIL 27, 2023

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April 27, 2023

LAFARGE CANADA INC.
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Attention: Nikolaos Veriotes P. Eng.

Dear Mr. Veriotes,

Subject: Ambient Air Quality Monthly Report – March 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 March 2023.

Lagoon	Data Completeness (%)	1-Hour Average	24-hour Average
		Exceedances of AAAQO or AAAQG	Exceedances of AAAQO
TSP	98.9%	-	0
PM _{2.5}	96.6%	0	0
PM ₁₀	98.9%	-	-
NO	98.7%	-	-
NO ₂	98.7%	0	-
NO _x	98.7%	-	-
SO ₂	98.7%	0	0
Temperature	98.7%	-	-
Wind Speed / Direction	98.7%	-	-
Pressure	98.7%	-	-
Relative Humidity	98.7%	-	-
Precipitation	92.2%	-	-

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WSP Canada Inc.

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

Windridge	Data Completeness (%)	1-Hour Average	24-hour Average	
		Exceedances of AAAQG	Exceedances of PM _{2.5} AAAQO	Exceedances of TSP AAAQO
TSP	99.9%	-	-	4
PM _{2.5}	99.9%	0	0	-
PM ₁₀	99.9%	-	-	-

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 March 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	98.9%	0	1	11
Entrance	71%	0	0	15

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



April 27, 2023

Tuonan Li, M.Sc.
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Date

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



April 27, 2023

Tyler Abel, M.Sc.
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Date

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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 March 1, 2023 and March 31, 2023.

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

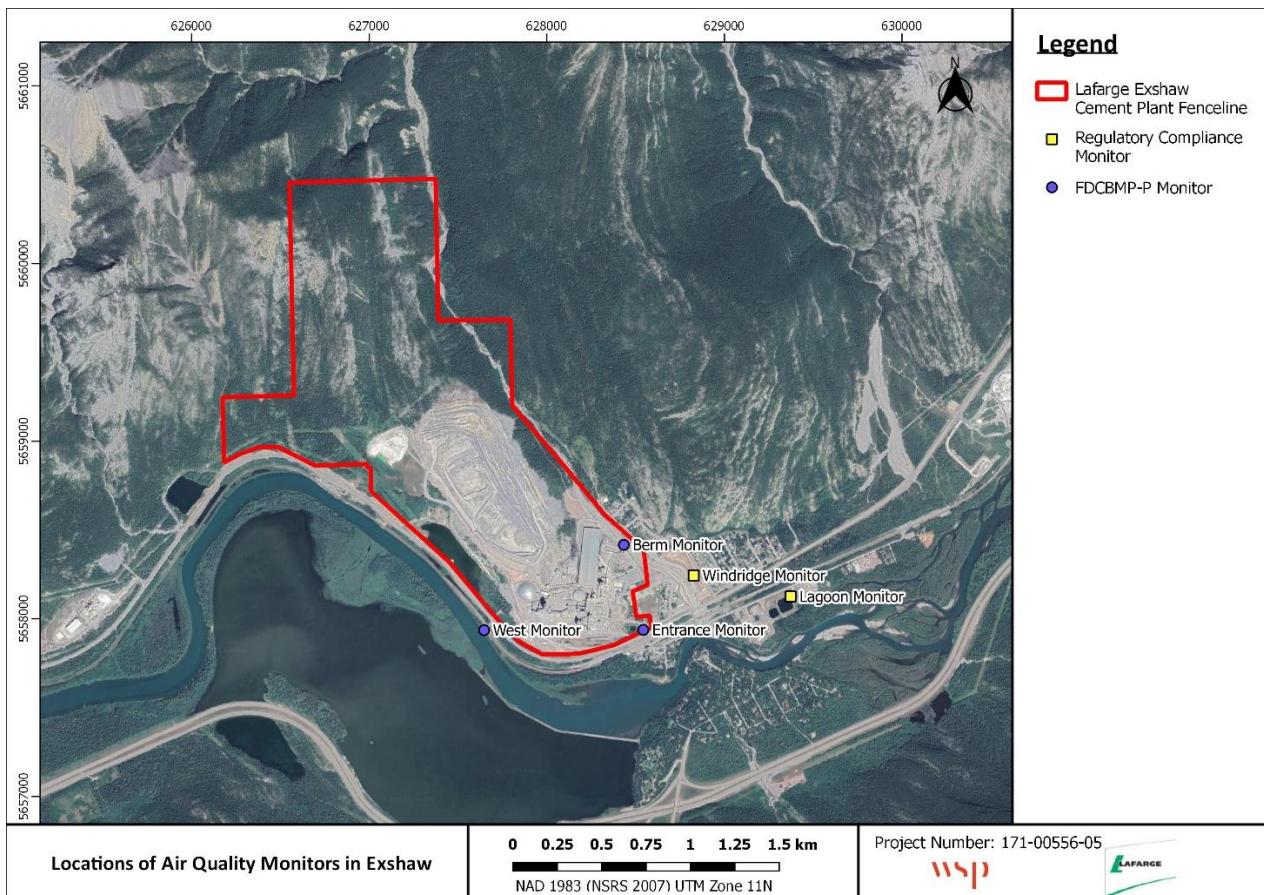


Figure 1-1 Locations of Air Quality Monitors in Exshaw

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 and is included in this report. 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 MARCH 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
NO ₂ (ppb)	98.7	42.6	0	21.0	-
SO ₂ (ppb)	98.7	7.8	0	1.6	0
PM _{2.5} (µg/m ³)	96.6	41.8	0 ¹	16.7	0
PM ₁₀ (µg/m ³)	98.9	172.4	-	48.2	-
TSP (µg/m ³)	98.9	309.8	-	85.3	0
Temperature (°C)	98.7	10.9	-	2.5	-
Wind Speed (km/hr) /Direction (Degrees)	98.7	45.9/W	-	25.6/WSW	-
Precipitation (mm)	92.2	0.5 ²	-	2.75 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 day exceeding the 24-hour PM_{2.5} AAAQO.
- There were zero exceedances of the 1-hour PM_{2.5} AAAQG.
- There were zero day exceeding the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- At the Lagoon station, PM₁₀ and TSP analyzers recorded 98.9% uptime for the month of March due to eight hours of equipment change occurring on March 9th at 13:00 – 20:00.
- NO₂ and SO₂ analyzers recorded 98.7% uptime for the month of March due to 10 hours of equipment change occurring on March 9th at 11:00 – 20:00.
- All meteorological analyzers except precipitation recorded 98.7% uptime for the month of March due to 10 hours of equipment change occurring on March 9th at 11:00 – 20:00.
- The PM_{2.5} analyzer recorded 96.6% uptime for the month of March due to eight hours of equipment change occurring on March 9th at 13:00 – 20:00. And further, 17 hours of equipment malfunction occurring on March 1st at 2:00, March 3rd at 2:00, March 6th at 2:00, March 10th at 2:00, March 16th at 2:00, March 17th at 2:00, March 18th at 2:00, March 19th at 2:00, March 20th at 2:00, March 21st at 2:00, March 22nd at 2:00, March 23rd at 2:00, March 24th at 2:00, March 25th at 2:00, March 27th at 2:00, March 28th at 2:00, March 31st at 2:00.
- The precipitation analyzer recorded 92.2% uptime for the month of March due to two hours of non-routine maintenance occurring on March 7th at 11:00 & 12:00; and 46 hours of out for replacement of the CR1000 logger occurring on March 7th 13:00 – March 9th 10:00. Further, 10 hours of equipment change occurring on March 9th at 11:00 – 20:00.

2.2 WINDRIDGE STATION

Table 2-2 Windridge station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQG	Maximum Concentration	Exceedances of AAAQO
PM _{2.5} ($\mu\text{g}/\text{m}^3$)	99.9	23.0	0*	12.0	0
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	99.9	485.0	-	161.1	-
TSP ($\mu\text{g}/\text{m}^3$)	99.9	661.0	-	224.5	4

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

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 four days exceeding the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- The PM_{2.5}, PM₁₀, and TSP monitors recorded 99.9% uptime during the month of March due to one hour of equipment malfunction occurring on March 1st at 14:00.

2.3 WEST GRIMM

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

Table 2-3 West station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} ($\mu\text{g}/\text{m}^3$)	100.0	30.7	0*	17.5	0
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	100.0	34.3	-	19.7	-
TSP ($\mu\text{g}/\text{m}^3$)	100.0	34.5	-	20.1	0

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

Data Quality Notes:

- There were zero exceedances of the 24-hour PM_{2.5} Guidelines.
- There were zero exceedances of the 1-hour PM_{2.5} Guidelines.
- There were zero exceedances of the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

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

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} ($\mu\text{g}/\text{m}^3$)	98.9	76.4	0*	32.2	1
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	98.9	678.1	-	236.7	-
TSP ($\mu\text{g}/\text{m}^3$)	98.9	2400.1	-	839.8	11

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

Data Quality Notes:

- There were one exceedance of the 24-hour PM_{2.5} Guidelines.
- There were zero exceedance of the 1-hour PM_{2.5} Guidelines.
- There were 11 exceedances of the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

- The PM_{2.5}, PM₁₀, and TSP monitors recorded 98.9% uptime during the month of March due to eight hours of equipment malfunction occurring on March 20th at 14:00 – 16:00, and March 21st at 11:00 – 15:00.

2.5 ENTRANCE GRIMM

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

Table 2-5 Entrance station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} ($\mu\text{g}/\text{m}^3$)	71.0	52.5	0*	24.4	0
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	71.0	563.7	-	211.2	-
TSP ($\mu\text{g}/\text{m}^3$)	71.0	1892.5	-	558.3	15

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

Data Quality Notes:

- There were zero exceedance of the 24-hour PM_{2.5} Guidelines.
- There were zero exceedance of the 1-hour PM_{2.5} Guidelines.
- There were 15 exceedances of the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

- The PM_{2.5}, PM₁₀, and TSP monitors recorded 71% uptime during the month of March due to 204 hours of electrical issues requiring factory replacement of the AC-DC board occurring on March 1st at 1:00 – March 9th at 12:00; and three hours of equipment change occurring on March 9th at 13:00 – 15:00. Further, nine hours of equipment malfunction occurring on March 10th at 8:00 & 11:00; March 26th at 2:00, 3:00, 8:00, 9:00; March 27th at 23:00; and March 28th at 21:00 & 23:00.

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 March 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 March 9 th . The monitor had 96.6% uptime for the month of March due to eight hours of equipment change (station datalogger) occurring on March 9 th at 13:00 – 20:00. And further, 17 hours of equipment malfunction occurring on March 1 st at 2:00, March 3 rd at 2:00, March 6 th at 2:00, March 10 th at 2:00, March 16 th at 2:00, March 17 th at 2:00, March 18 th at 2:00, March 19 th at 2:00, March 20 th at 2:00, March 21 st at 2:00, March 22 nd at 2:00, March 23 rd at 2:00, March 24 th at 2:00, March 25 th at 2:00, March 27 th at 2:00, March 28 th at 2:00, and March 31 st at 2:00.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on March 9 th . The monitor had 98.9% uptime for the month of March due to eight hours of equipment change (station datalogger) occurring on March 9 th at 13:00 – 20:00.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on March 9 th . The monitor had 98.9% uptime for the month of March due to eight hours of equipment change (station datalogger) occurring on March 9 th at 13:00 – 20:00.
Oxides of Nitrogen	TEI 42C	The NO _x monitor was calibrated on March 7 th . The monitor had 98.7% uptime for the month of March due to 10 hours of equipment change

		(station datalogger) occurring on March 9th at 11:00 – 20:00.
Sulphur Dioxide	Teledyne API 102A	The SO ₂ monitor was calibrated on March 7 th . The monitor had 98.7% uptime for the month of March due to 10 hours of equipment change (station datalogger) occurring on March 9th at 11:00 – 20:00.
Precipitation	MetOne 130 Rain/Snow Gauge	The monitor had 92.2% uptime for the month of March due to two hours of non-routine maintenance occurring on March 7th at 11:00 & 12:00; and 46 hours of out for replacement of the CR1000 logger occurring on March 7th 13:00 – March 9th 10:00. Further, 10 hours of equipment change (station datalogger) occurring on March 9th at 11:00 – 20:00.
Wind Speed		The monitor had 98.7% uptime for the month of March due to 10 hours of equipment change (station datalogger) occurring on March 9th at 11:00 – 20:00.
Wind Direction	MetOne Wind Sensor	
Ambient Temperature	MetOne Ambient Temperature Sensor	The monitor had 98.7% uptime for the month of March due to 10 hours of equipment change (station datalogger) occurring on March 9th at 11:00 – 20:00.

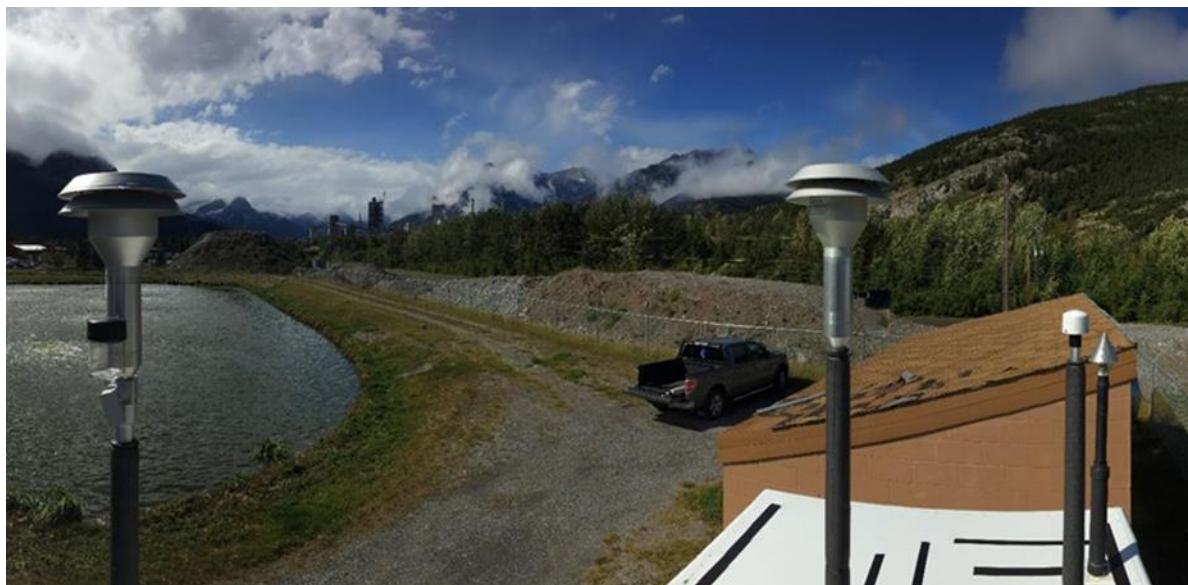


Figure 3-1 Inlets on the top of WSP's Lagoon monitor

3.2 MONITORING RESULTS AND TRENDS

Table 3-2 summarizes the hourly and daily concentrations recorded in March 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 March 2023 for the pollutants listed in Table 3-2. 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 were 0 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. Further, there were 0 exceedances of the 1-hour PM_{2.5} AAAQG (80 µg/m³).

Historically in March, 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 March was 1 day in 2015 and 2021.

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 March 2023 data at Lagoon

Parameter	Guideline / Objectives		Station	Exceedances		Monthly		1-hour				24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration/Meteorological Variable	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration/Meteorological Variable	Day	
NO ₂ (ppb)	159	-	Lagoon	0	-	1.7	11.3	42.6	11	1	10.4	55.5	21.0	10	98.7
SO ₂ (ppb)	172	48	Lagoon	0	0	0.0	0.6	7.8	13	12	27.4	260.5	1.6	4	98.7
PM _{2.5} (µg/m ³)	80	29	Lagoon	0	0	0.0	6.1	41.8	1	1	4.0	229.3	16.7	8	96.6
PM ₁₀ (µg/m ³)	-	-	Lagoon	-	-	0.0	25.5	172.4	23	10	16.1	261.1	48.2	7	98.9
TSP (µg/m ³)	-	100	Lagoon	-	0	1.2	40.4	309.8	1	17	30.9	250.4	85.3	23	98.9
Temperature (°C)	-	-	Lagoon	-	-	-21.7	-4.8	10.9	22	16	19.1	255.8	2.5	31	98.7
Wind Speed (km/hr)/Direction (degrees)	-	-	Lagoon	-	-	1.4	14.5	45.9/W	2	4	45.9	248.9	25.6/WSW	2	98.7
Precipitation (mm)	-	-	Lagoon	-	-	0.0	0.0	0.5 ¹	14	3	17.3	56.8	2.8 ²	-	92.2

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

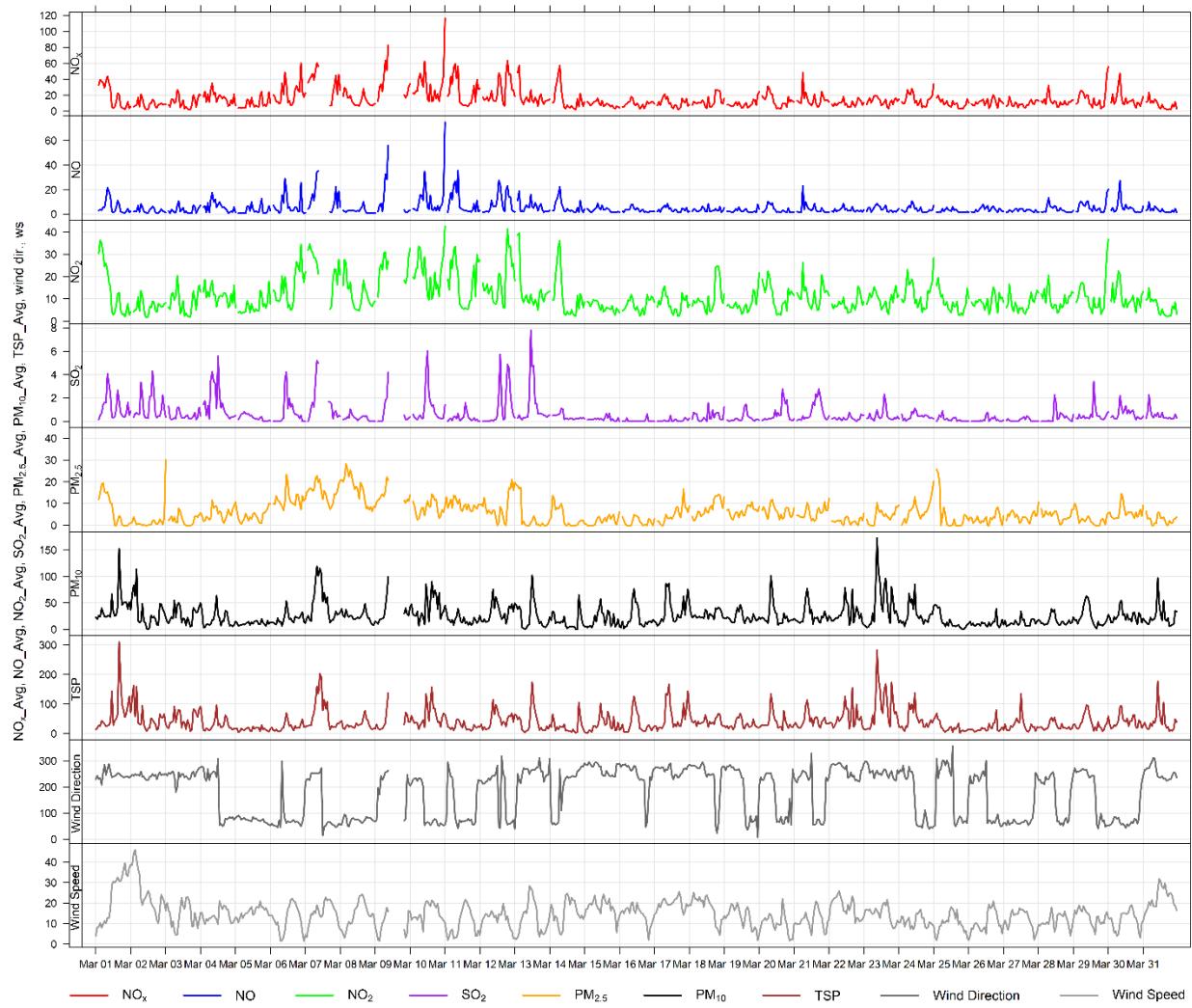


Figure 3-2 1-hour concentrations of NO_x, SO₂, particulate matter, wind direction and wind speed at the Lagoon station

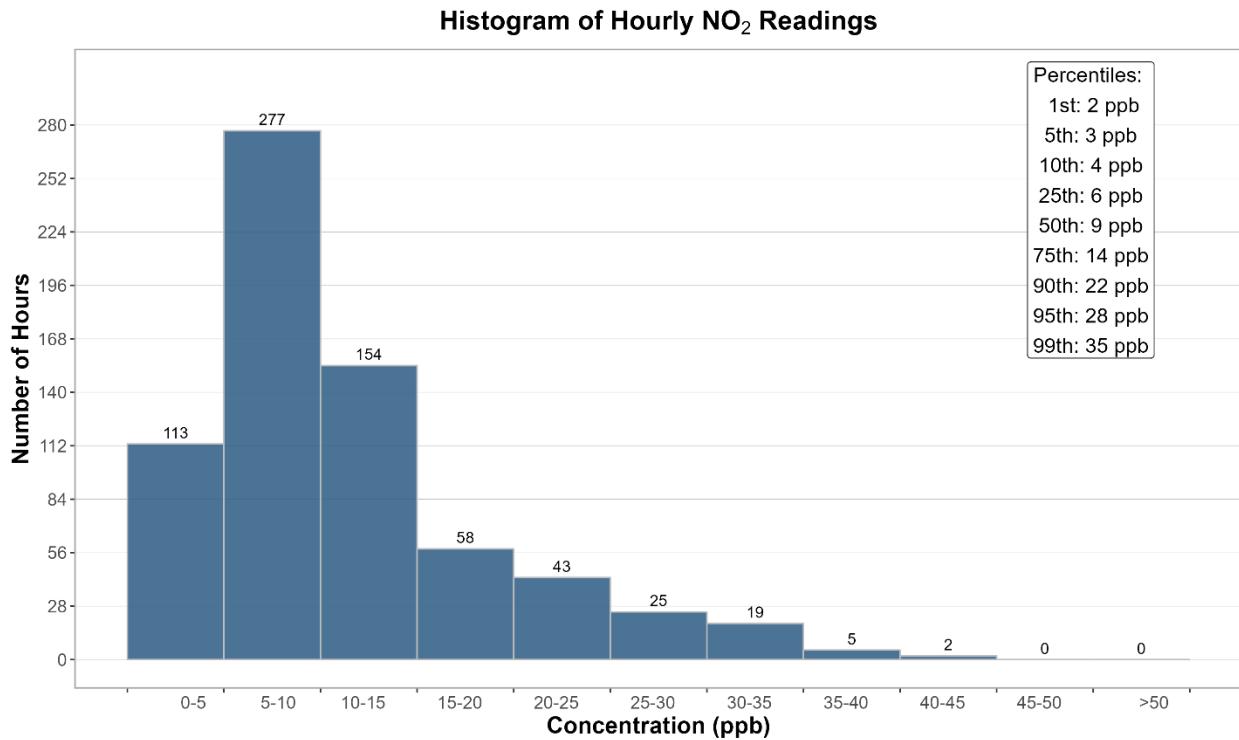


Figure 3-3 Histogram of hourly NO₂ concentrations at the Lagoon station

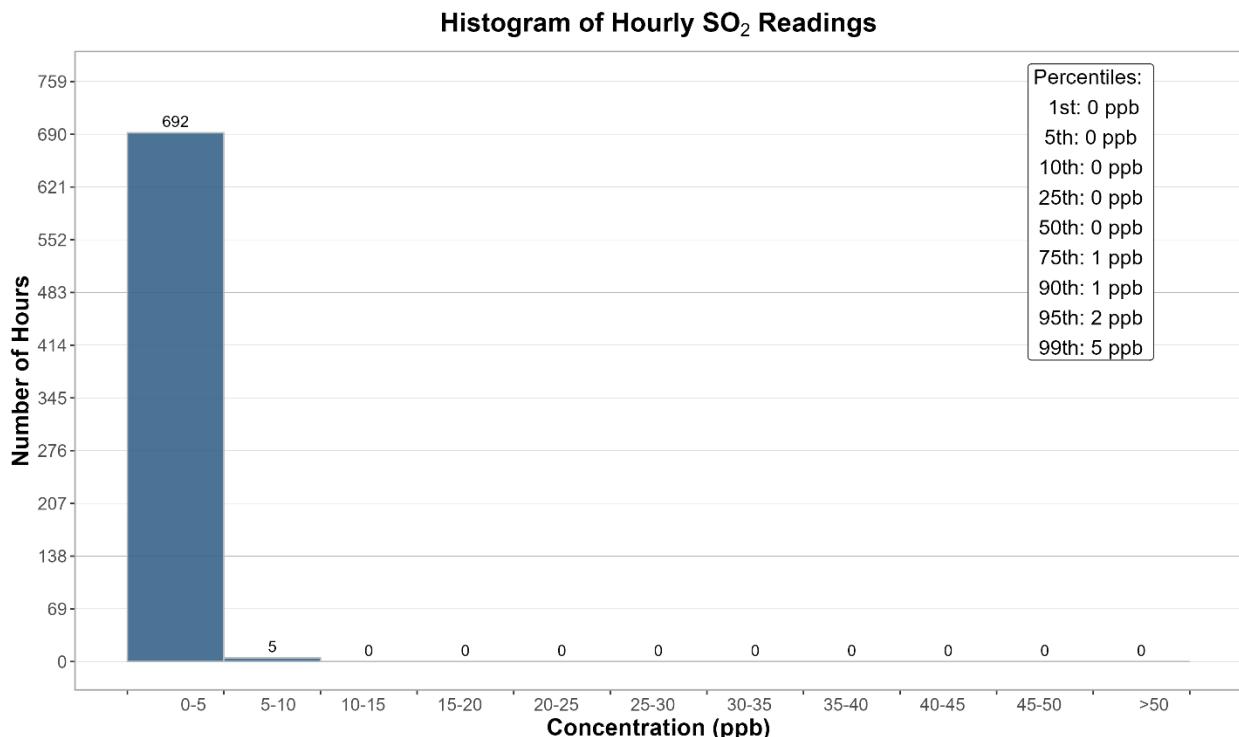


Figure 3-4 Histogram of hourly SO₂ concentrations at the Lagoon station

Histogram of Hourly PM_{2.5} Readings

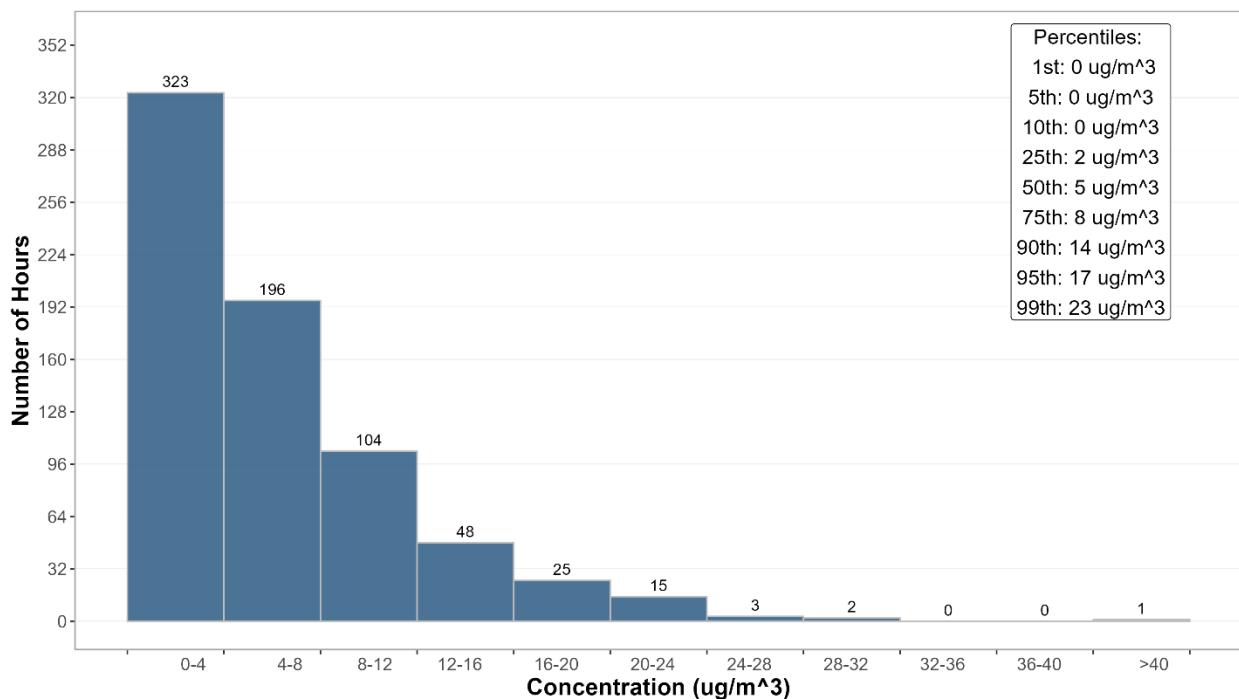


Figure 3-5 Histogram of hourly PM_{2.5} concentrations at the Lagoon station

Histogram of Hourly PM₁₀ Readings

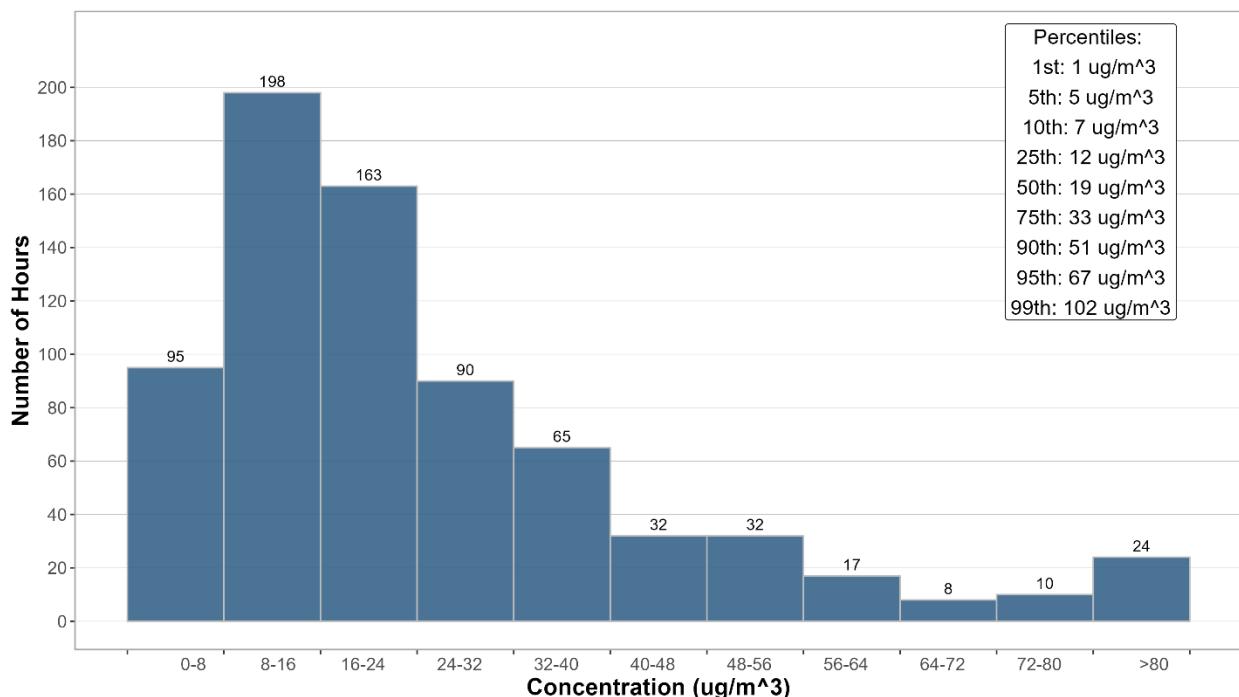


Figure 3-6 Histogram of hourly PM₁₀ concentrations at the Lagoon station

Histogram of Hourly TSP Readings

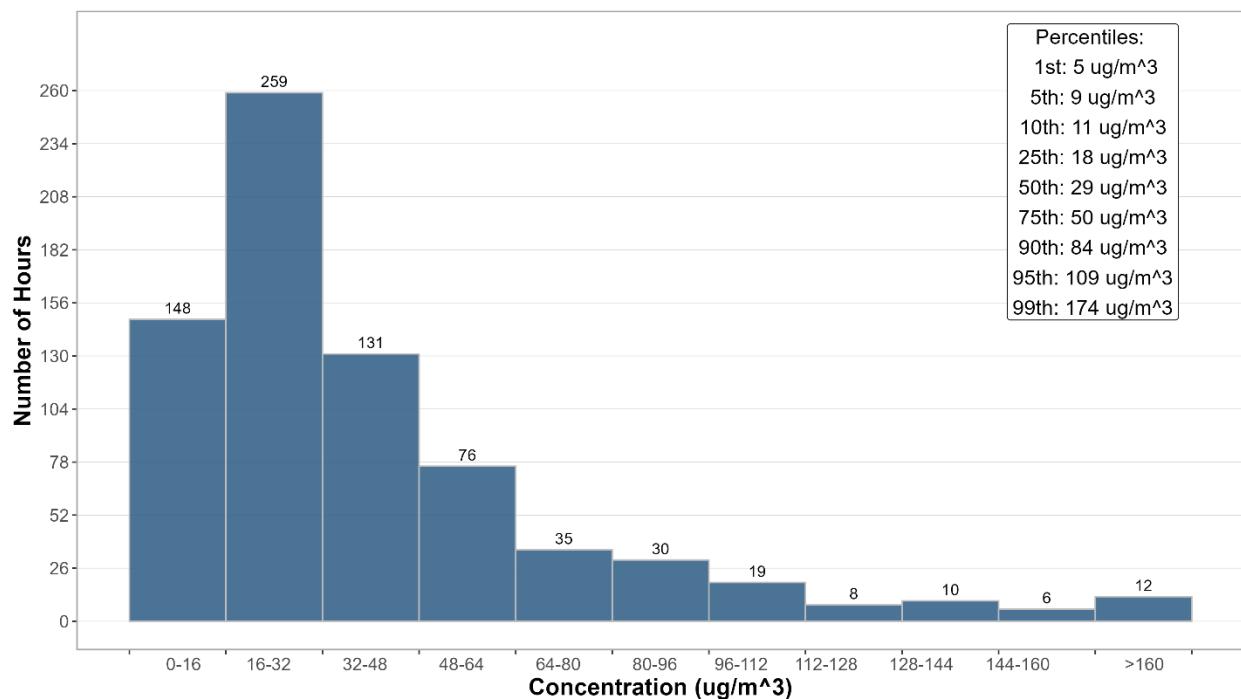


Figure 3-7 Histogram of hourly TSP concentrations at the Lagoon station

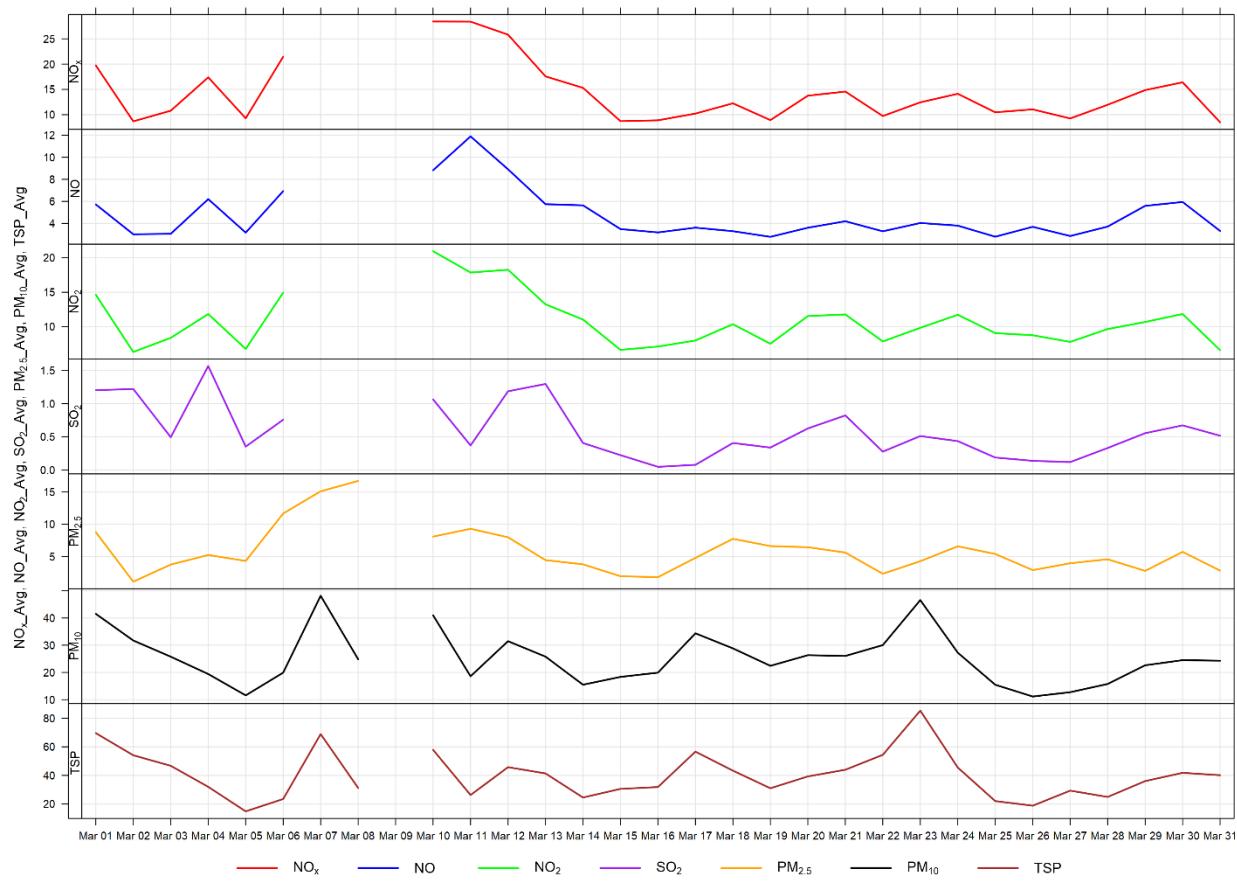


Figure 3-8 24-hour concentrations of NO_x, SO₂, and particulate matter at the Lagoon monitor

Figure 3-9 through Figure 3-11 show the variation in concentrations over various time averaging periods for PM, SO₂ and NO_x. The particulate matter plot in Figure 3-9 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 3-10 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 3-11 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.

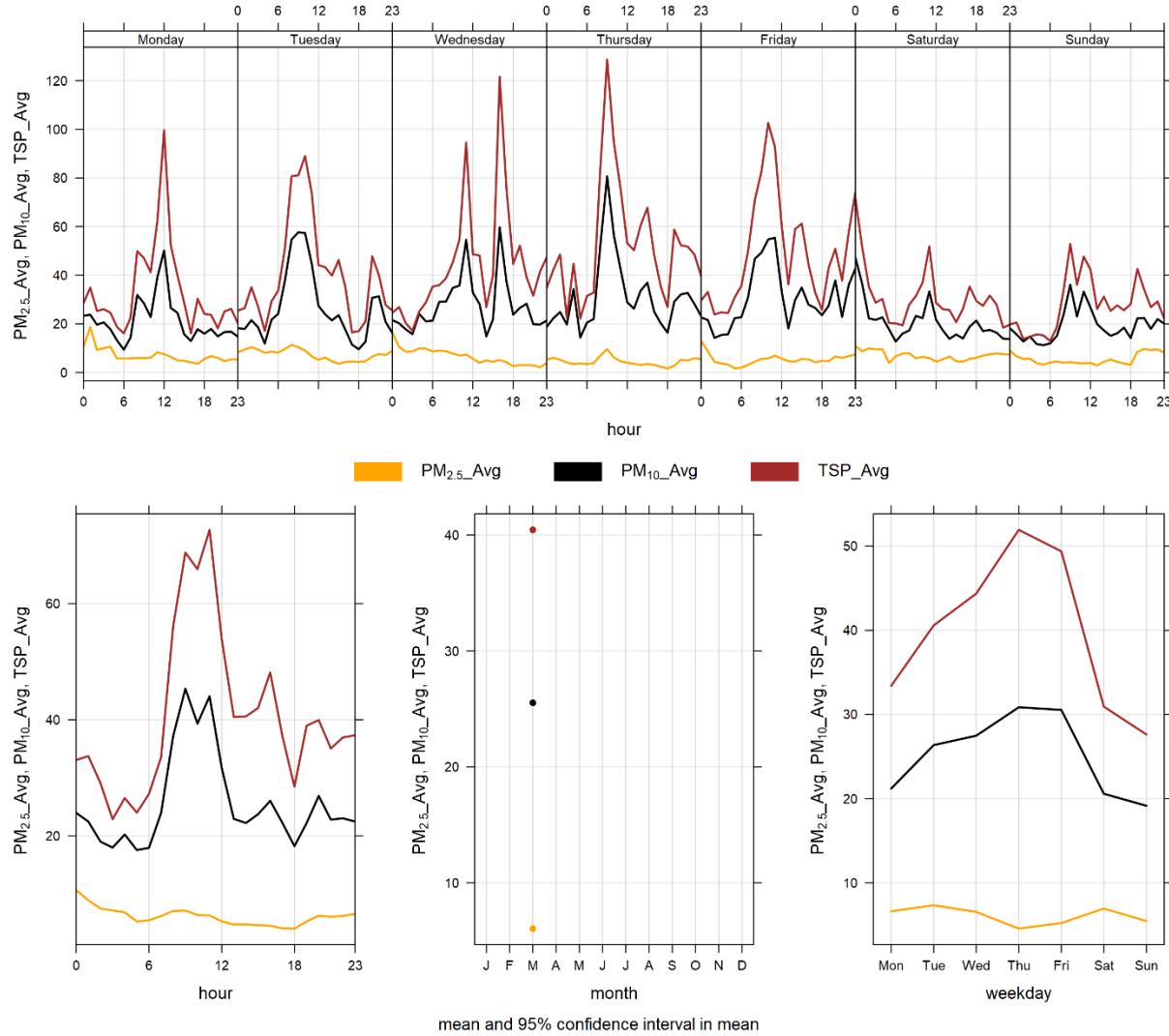


Figure 3-9 Lagoon monitor particulate matter time variation

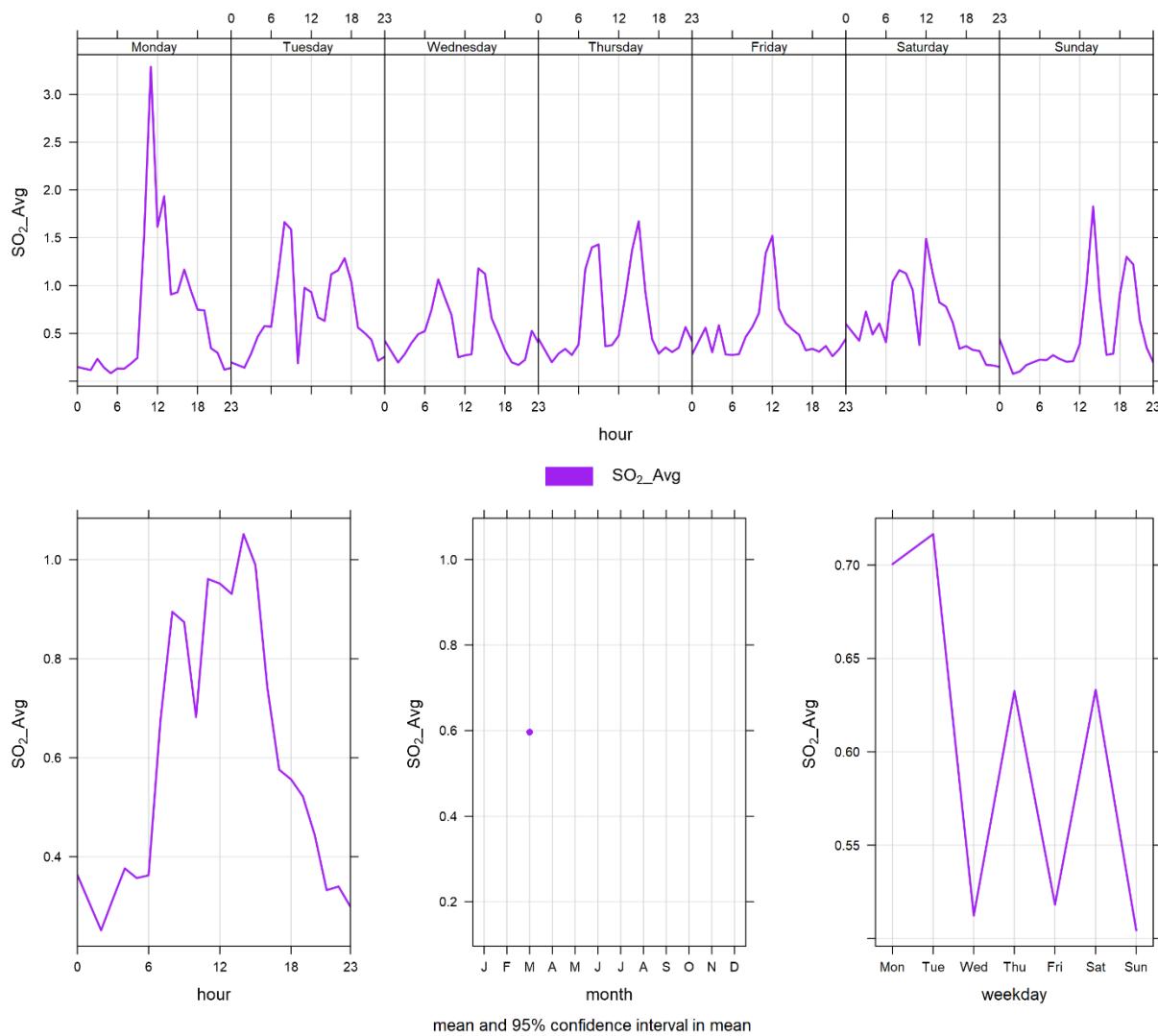


Figure 3-10 Lagoon monitor SO₂ time variation

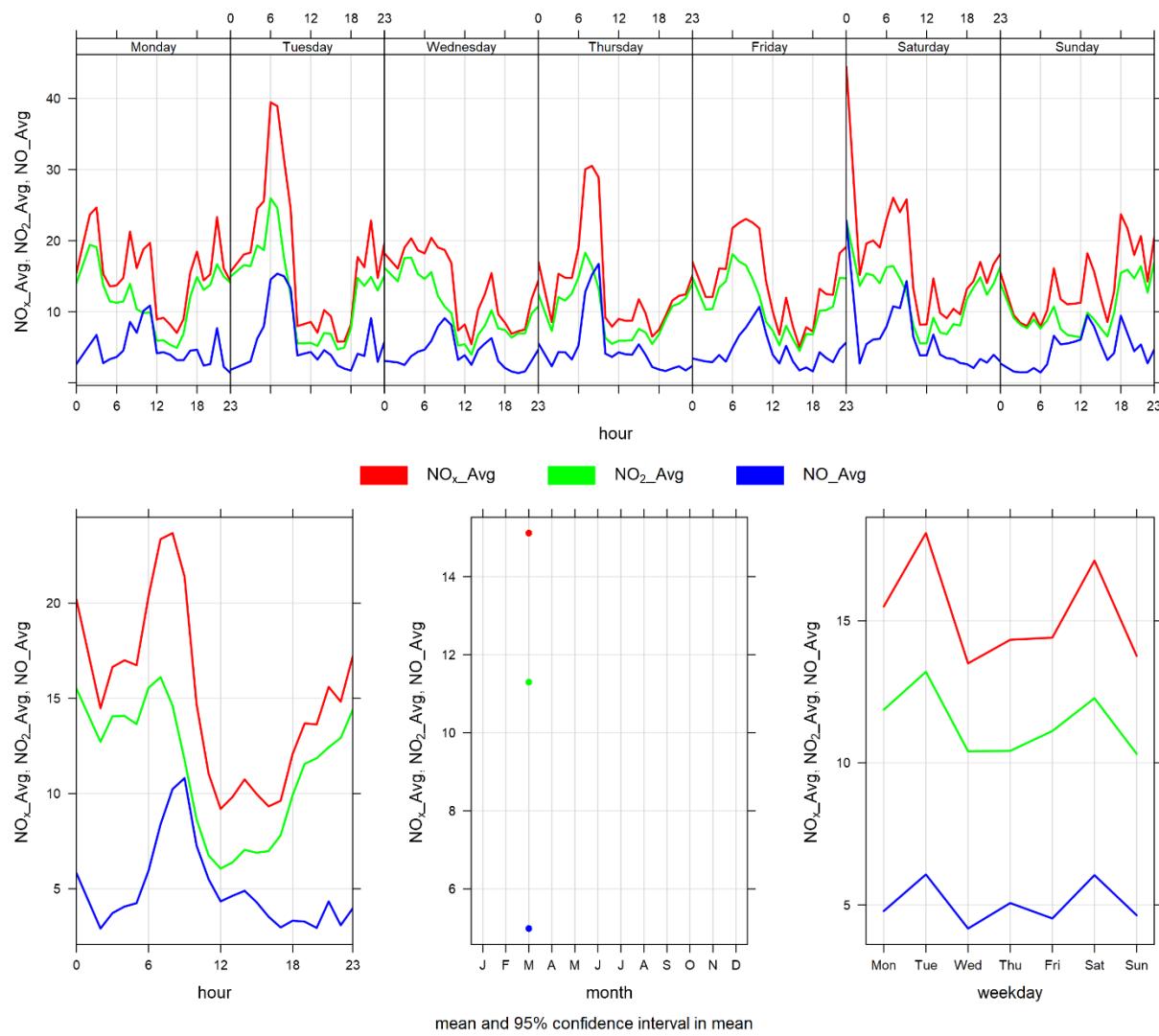


Figure 3-11 Lagoon monitor NO_x time variation

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 March 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 monitoring location

Parameter Measured	Equipment Description	Notes
PM_{2.5} Concentrations	MetOne BAM-1020 FRM Continuous Particulate Monitor	The PM _{2.5} monitor was calibrated on March 9 th . The monitor recorded 99.9% uptime during the month of March due to one hour of equipment malfunction occurring on March 1st at 14:00.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on March 9 th . The monitor recorded 99.9% uptime during the month of March due to one hour of equipment malfunction occurring on March 1st at 14:00.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on March 9 th . The monitor recorded 99.9% uptime during the month of March due to one hour of equipment malfunction occurring on March 1st at 14:00.

4.2 MONITORING RESULTS AND TRENDS

Table 4-2 summarizes the hourly and daily concentrations recorded in March 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 4 exceedances of the 24-hour TSP AAAQO.

Historically in March, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM_{2.5} AAAQO exceedances is 6 and 0, respectively. The maximum number of 24-hour TSP AAAQO exceedances recorded in March was 10 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 March 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 March 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	4.3	23.0	25	3	1.8	308.5	12.0	8	99.9
PM ₁₀ (µg/m ³)	-	-	Windridge	-	-	0.0	40.2	485.0	1	16	32.6	252.7	161.1	1	99.9
TSP (µg/m ³)	-	100	Windridge	-	4	0.0	60.8	661.0	2	1	38.7	239.6	224.5	1	99.9

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

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Windridge						
2023-03-01	224.5	-	243.7	22.5	55.4	high wind event
2023-03-02	202.1	-	242.5	25.6	43.2	high wind event
2023-03-23	118.6	-	258.1	14.9	30.4	Winds predominately from the southwest
2023-03-31	108.0	-	249.9	21.9	43.9	high wind event
Total # of Exceedances	4	0				
Maximum # of Exceedances (March)	10 (2022)	1 (2018)				
Average # of Exceedances (March)	6	0				
Minimum # of Exceedances (March)	2 (2018)	0 (2019, 2021, 2022)				

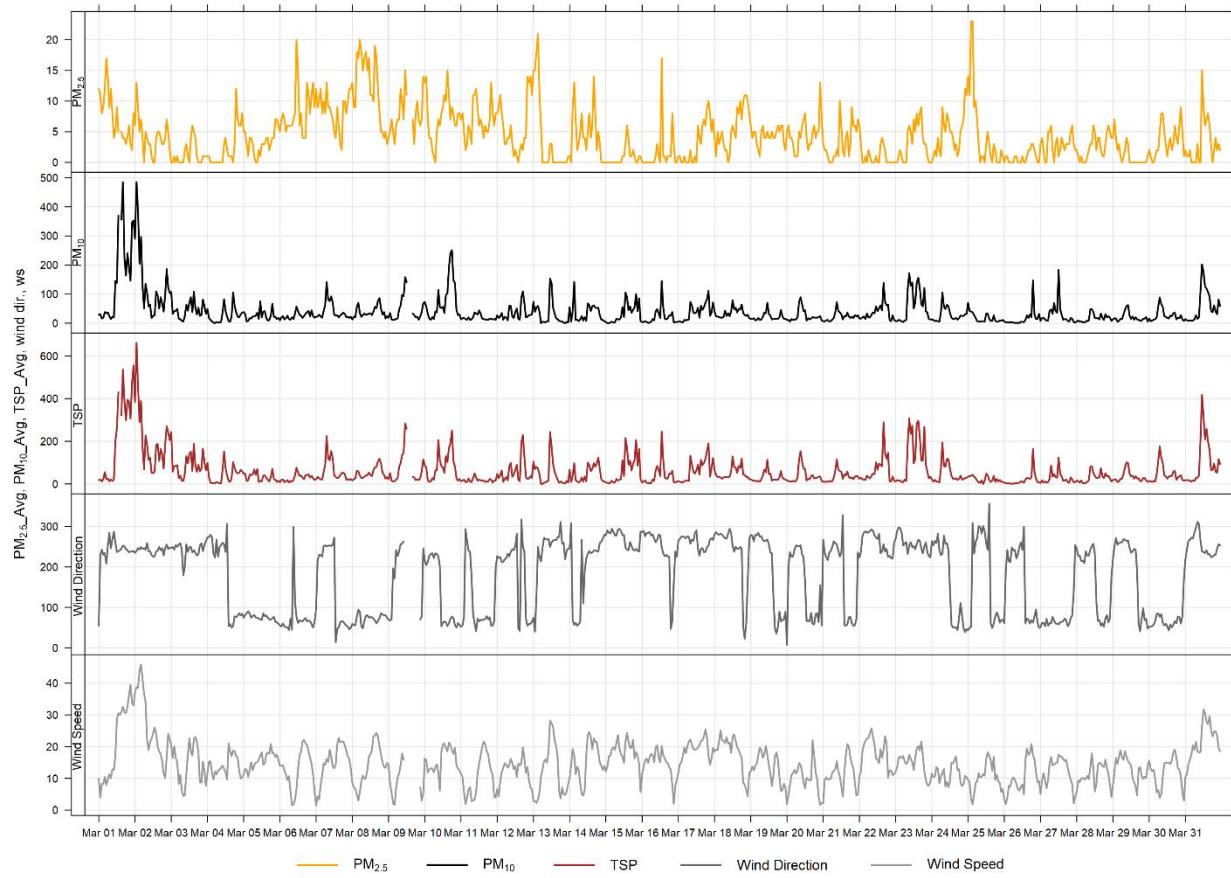


Figure 4-1 1-hour particulate matter concentrations recorded at the Windridge monitor

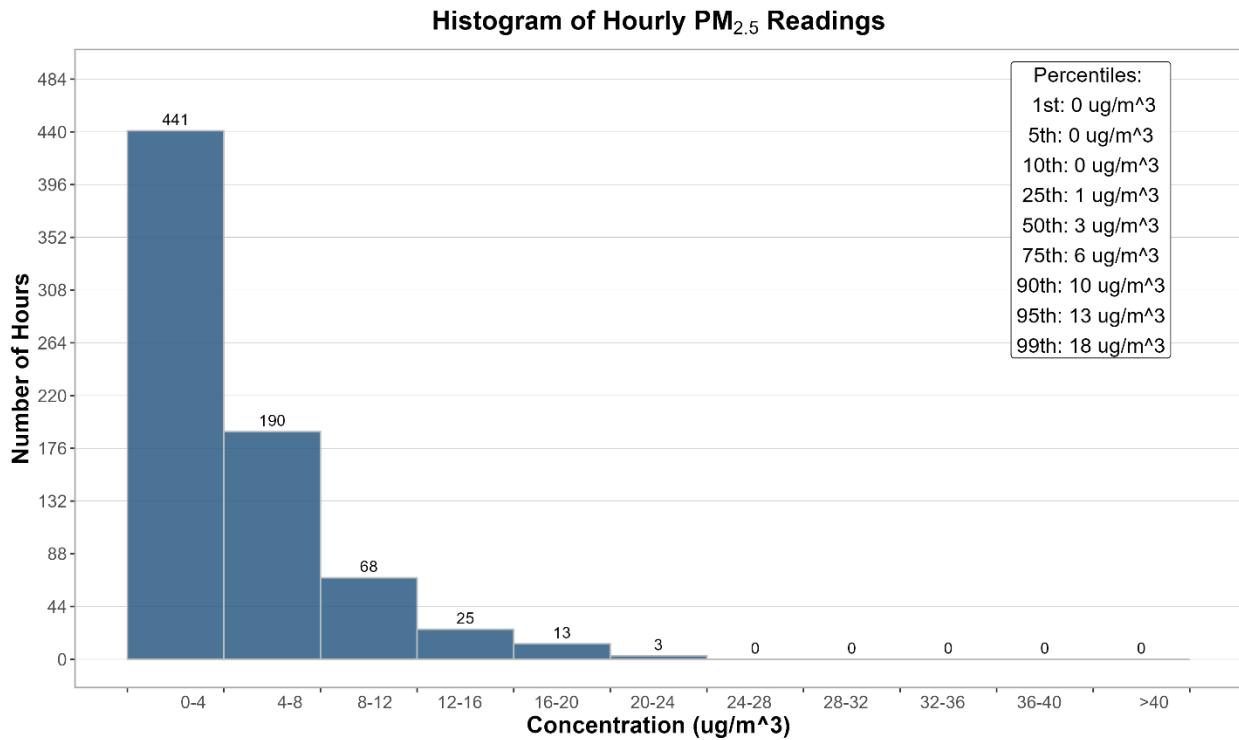


Figure 4-2 Histogram of hourly PM_{2.5} concentrations at the Windridge station

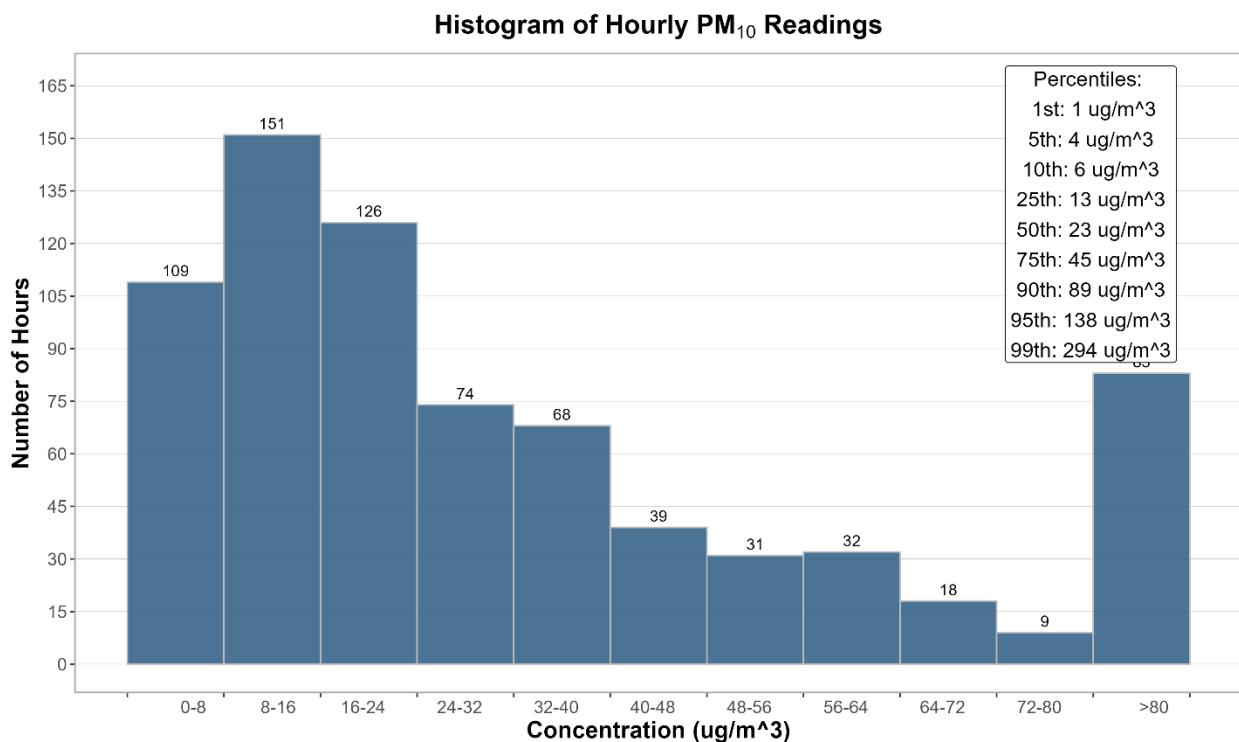


Figure 4-3 Histogram of hourly PM₁₀ concentrations at the Windridge station

Histogram of Hourly TSP Readings

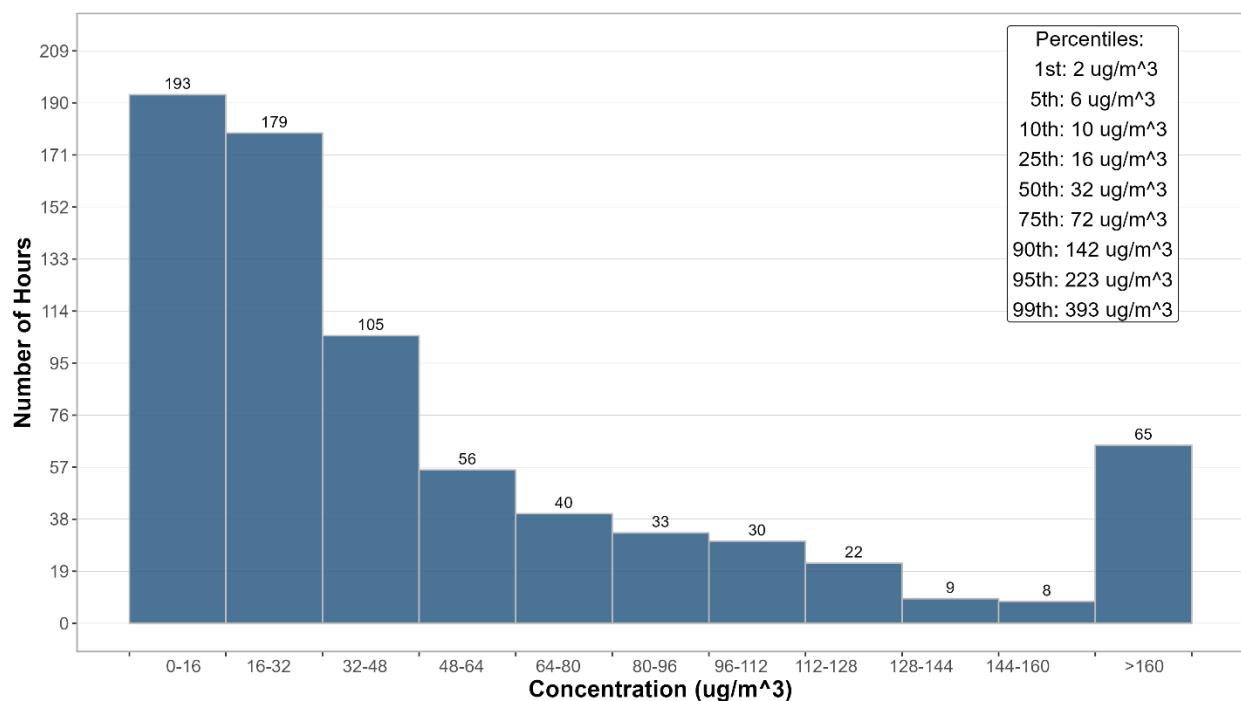


Figure 4-4 Histogram of hourly TSP concentrations at the Windridge station

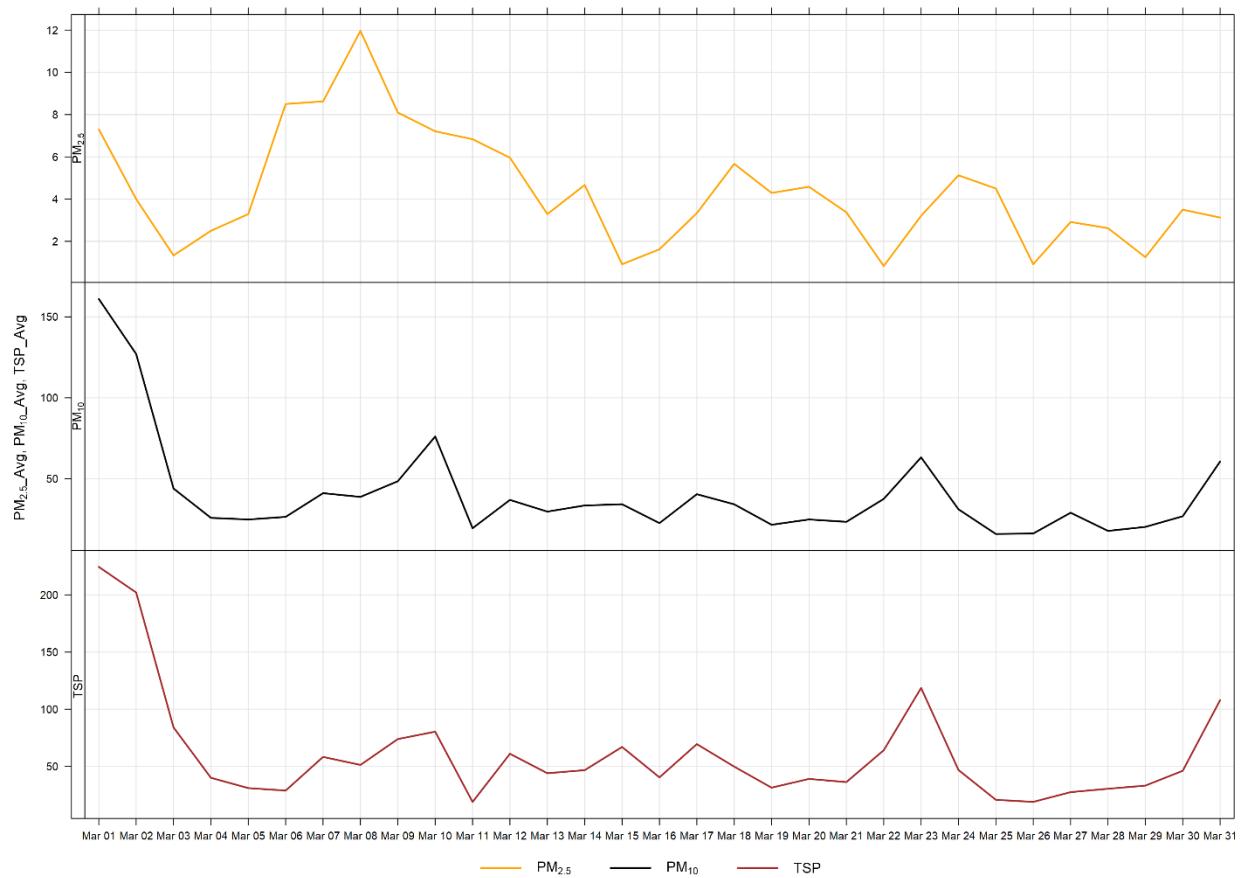


Figure 4-5 24-hour particulate matter concentrations at the Windridge monitor

Figure 4-6 shows the wind rose for the 4 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 March 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.

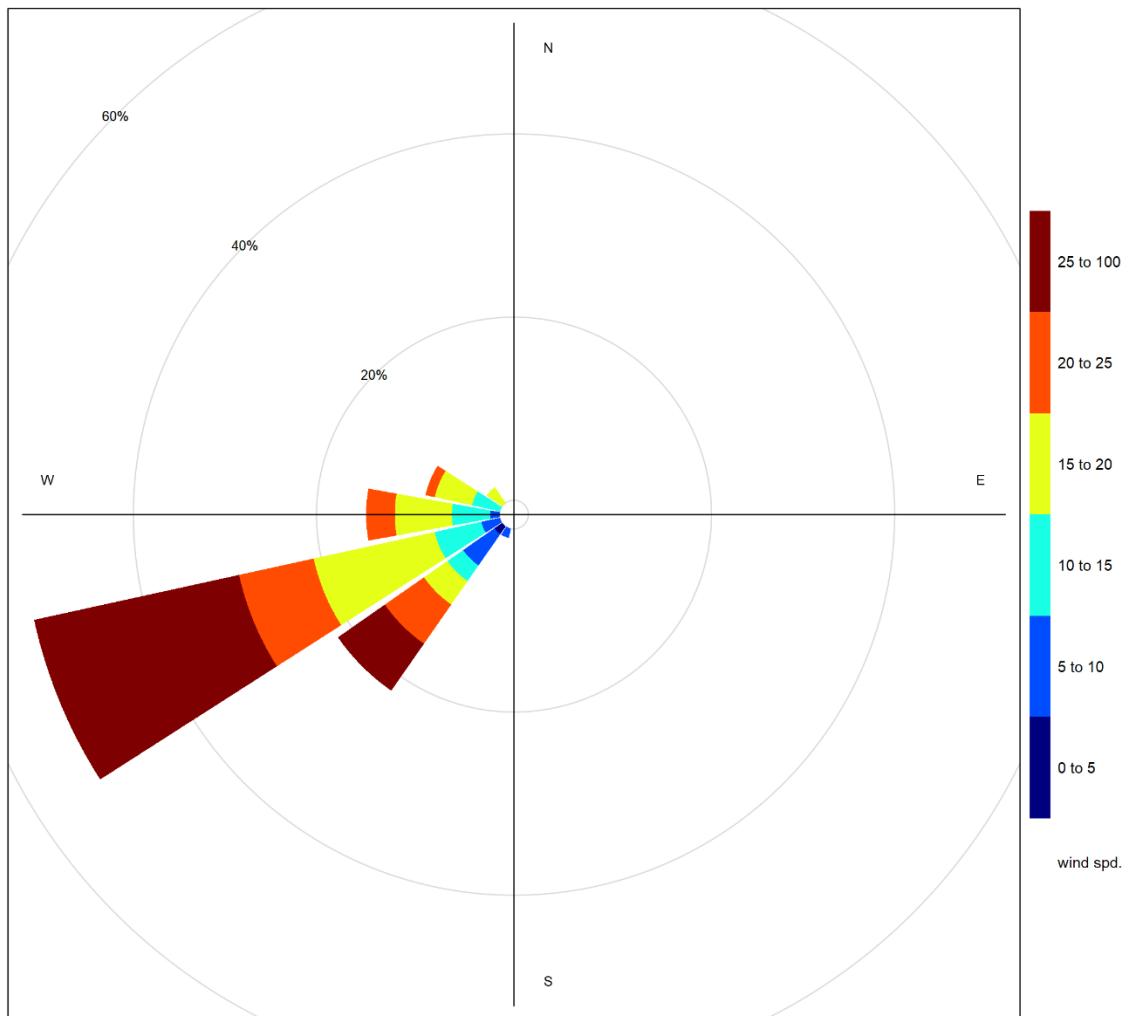


Figure 4-6 Wind rose for TSP exceedance days recorded at the Windridge Station

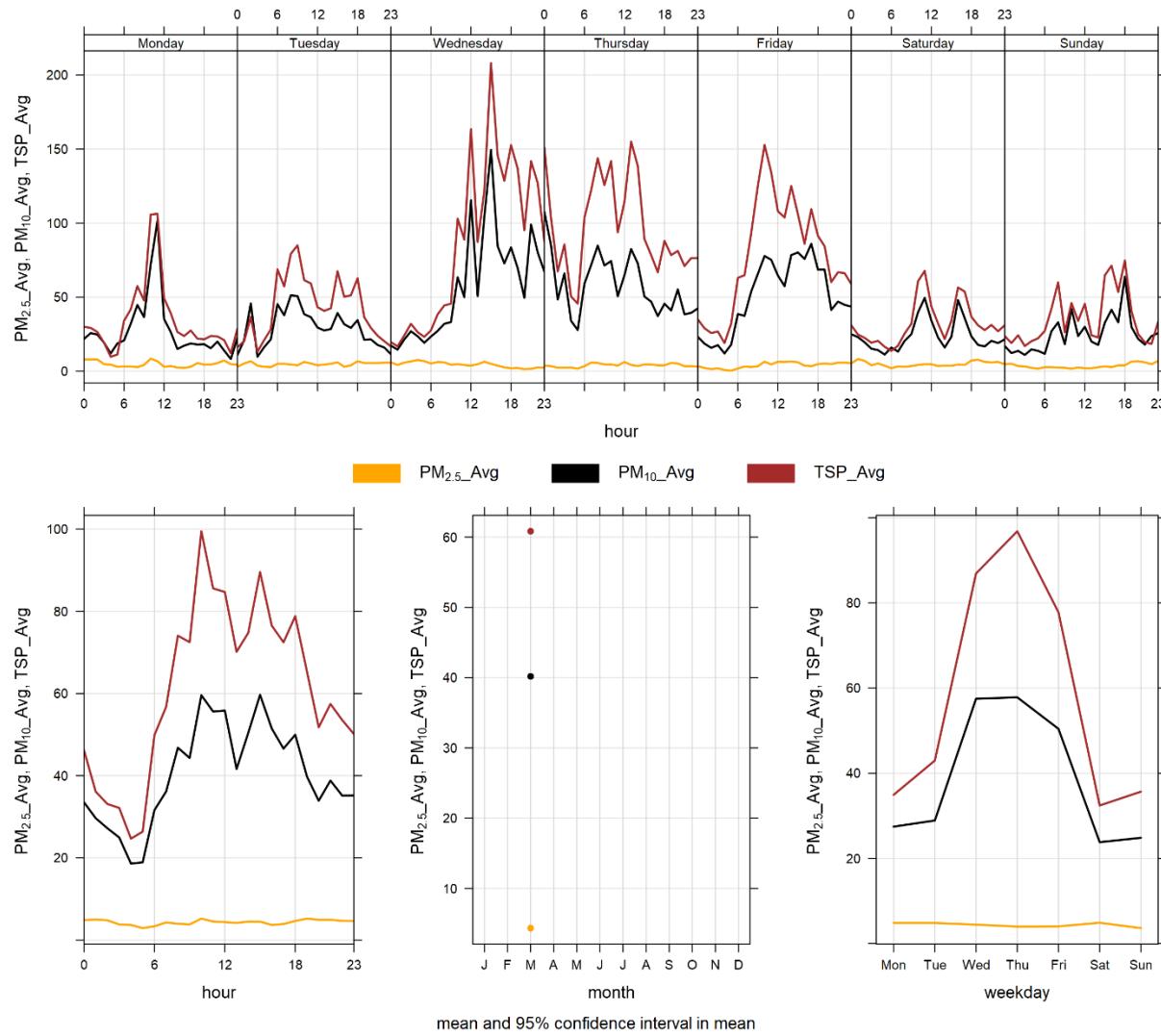


Figure 4-7 Windridge particulate matter time variation

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 March.

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 March, the West monitor records an average of 2 and 0 exceedances of the 24-hour TSP and PM_{2.5} guidelines. The maximum number of 24-hour TSP AAAQO exceedances recorded in March was 7 days in 2013.

Table 5-2 Summary of March 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} (µg/m ³)	80	29	West	0	0	0.3	7.3	30.7	24	24	9.6	43.2	17.5	8	100.0
PM ₁₀ (µg/m ³)	-	-	West	-	-	0.3	8.4	34.3	6	12	12.8	61.7	19.7	8	100.0
TSP (µg/m ³)	-	100	West	-	0	0.3	8.7	34.5	12	24	2.8	73.8	20.1	8	100.0

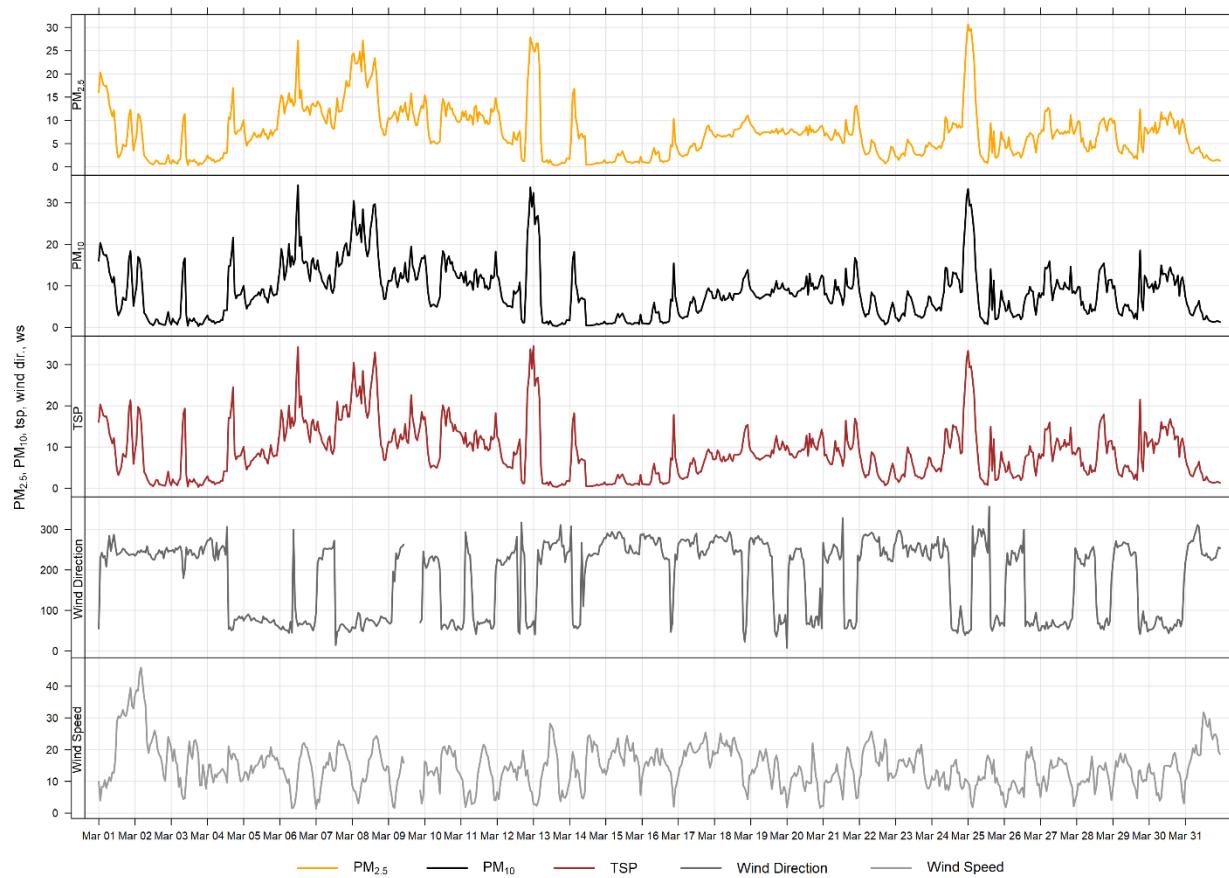


Figure 5-1 1-hour particulate matter concentrations at the West monitor

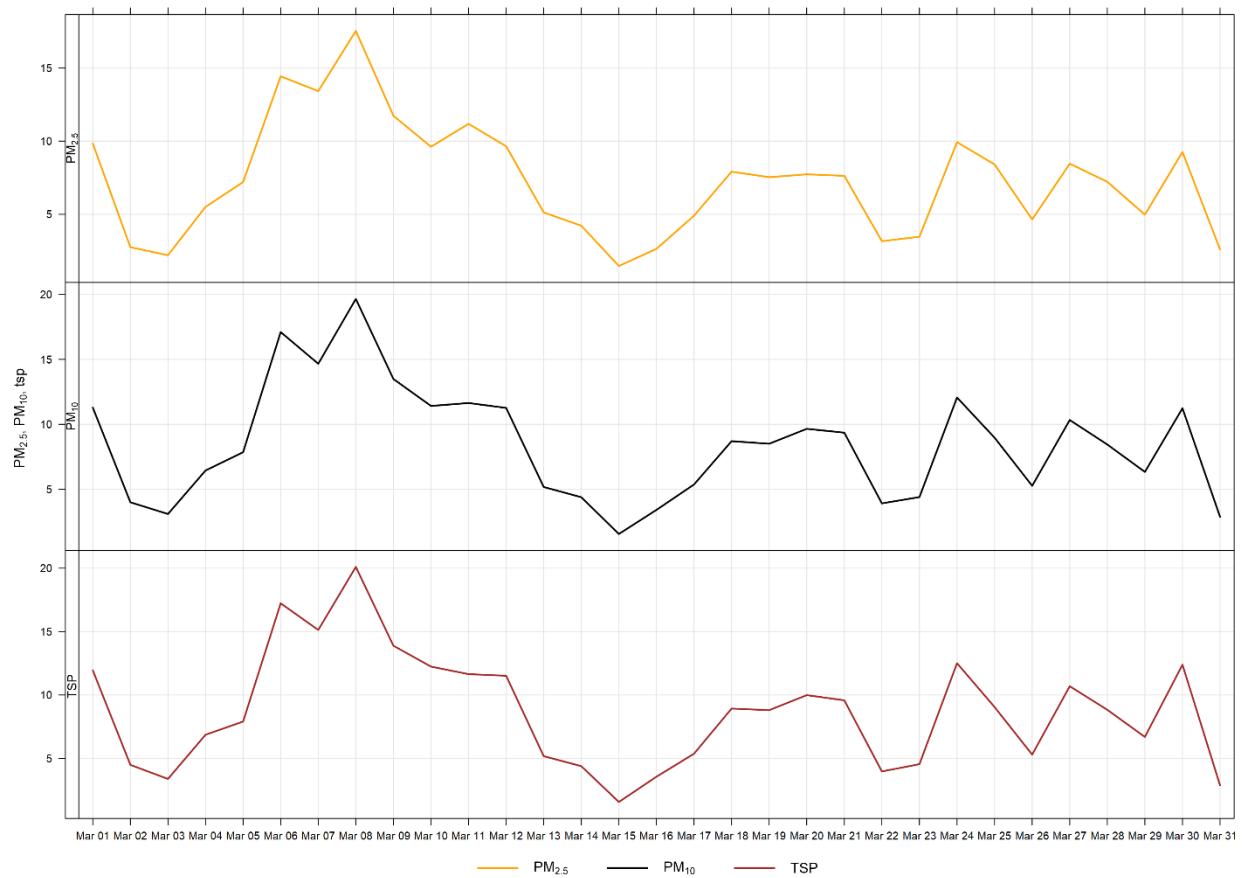


Figure 5-2 24-hour particulate matter concentrations at the West monitor

Figure 5-3 illustrates the hourly PM concentrations recorded at the West monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 5-3 is based on data collected during March 2023. The diurnal pattern is not significant due to the low PM concentrations recorded in March. 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.

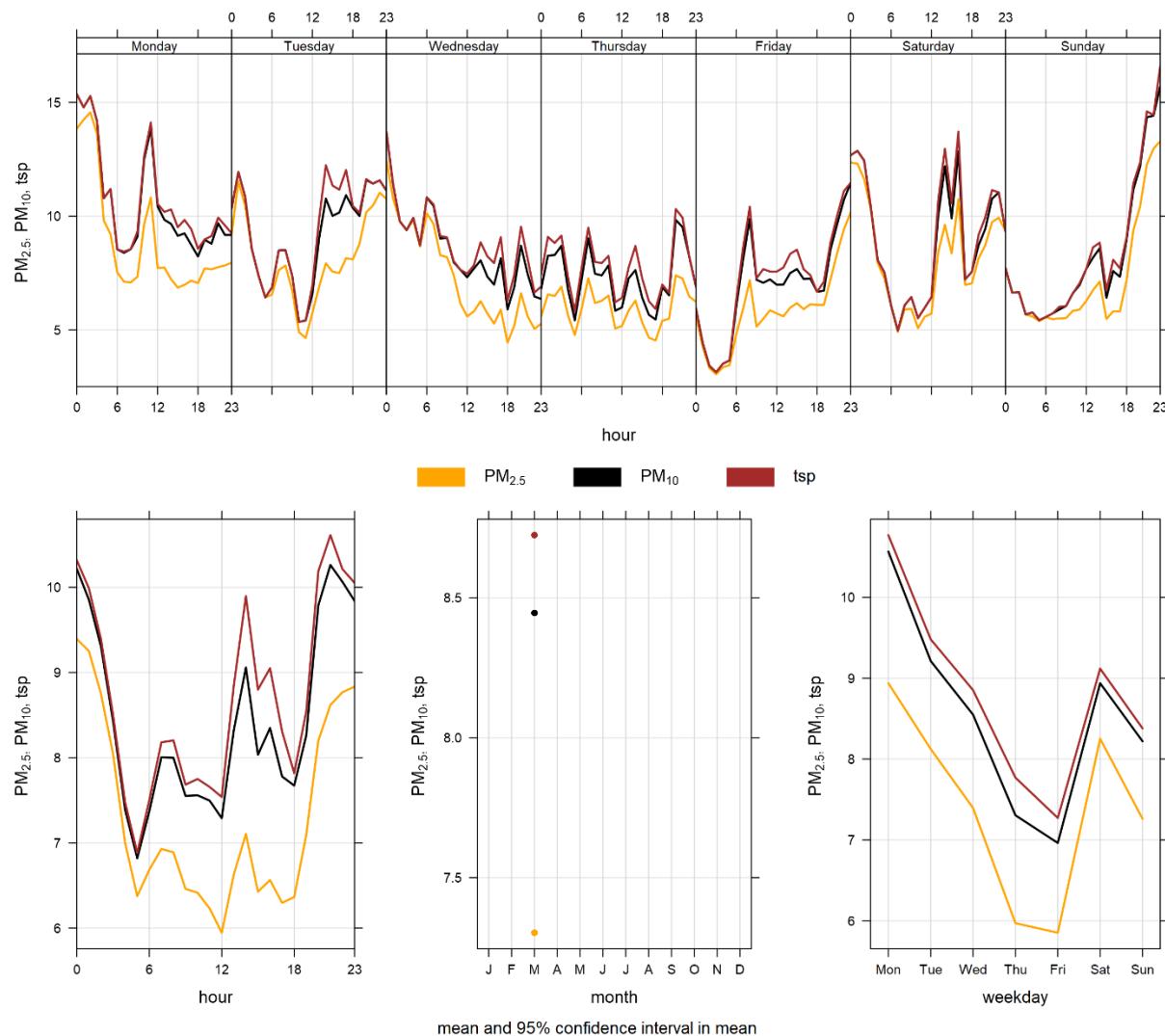


Figure 5-3 **West monitor particulate matter time variation**

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}, PM₁₀, TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 98.9% uptime during the month of March due to eight hours of equipment malfunction occurring on March 20th at 14:00 – 16:00, and March 21st at 11:00 – 15:00.

6.2 MONITORING RESULTS AND TRENDS

The Berm monitor was placed at its current location as a result of the dispersion modelling conducted for the facility. 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 11 and 1 exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) Guidelines, respectively. There were 0 hour exceeding the 1-hour PM_{2.5} Guideline.

Historically during the month of March, the Berm monitor records an average of 13 and 0 exceedances of the 24-hour TSP and PM_{2.5} guidelines, respectively. The maximum number of TSP exceedances recorded during March occurred in 2010 where there were 28 days that exceeded the guideline. On the other hand, the maximum number of PM_{2.5} exceedances in March was 1 days in 2012 and 2021.

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 March 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 March 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/m³)	80	29	Berm	0	1	0.3	10.4	76.4	1	23	33.0	239.3	32.2	1	98.9
PM₁₀ (µg/m³)	-	-	Berm	-	-	0.3	49.2	678.1	2	1	38.7	239.6	236.7	1	98.9
TSP (µg/m³)	-	100	Berm	-	11	0.3	142.2	2400.1	2	1	38.7	239.6	839.8	1	98.9

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						
2023-03-01	839.8	32.2	243.7	22.5	55.4	high wind event
2023-03-02	781.5	-	242.5	25.6	43.2	high wind event
2023-03-03	285.6	-	244.4	14.1	46.3	Winds predominately from the southwest
2023-03-04	127.8	-	16.8	13.9	66.5	Winds predominately from the north
2023-03-08	149.7	-	72.0	14.0	75.8	Winds predominately from the east
2023-03-09	134.3	-	-	-	-	
2023-03-15	134.5	-	267.6	18.0	52.5	Winds predominately from the west
2023-03-17	153.6	-	261.4	19.5	42.9	Winds predominately from the west
2023-03-22	126.9	-	265.6	17.9	31.3	Winds predominately from the west
2023-03-23	230.9	-	258.1	14.9	30.4	Winds predominately from the southwest
2023-03-31	340.0	-	249.9	21.9	43.9	high wind event
Total # of Exceedances	11	1				
Maximum # of Exceedances (March)	28 (2010)	1 (2012, 2021, 2022)				

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						
Average # of Exceedances (March)	13	0				
Minimum # of Exceedances (March)	4 (2018)	0 (2010, 2011, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020)				

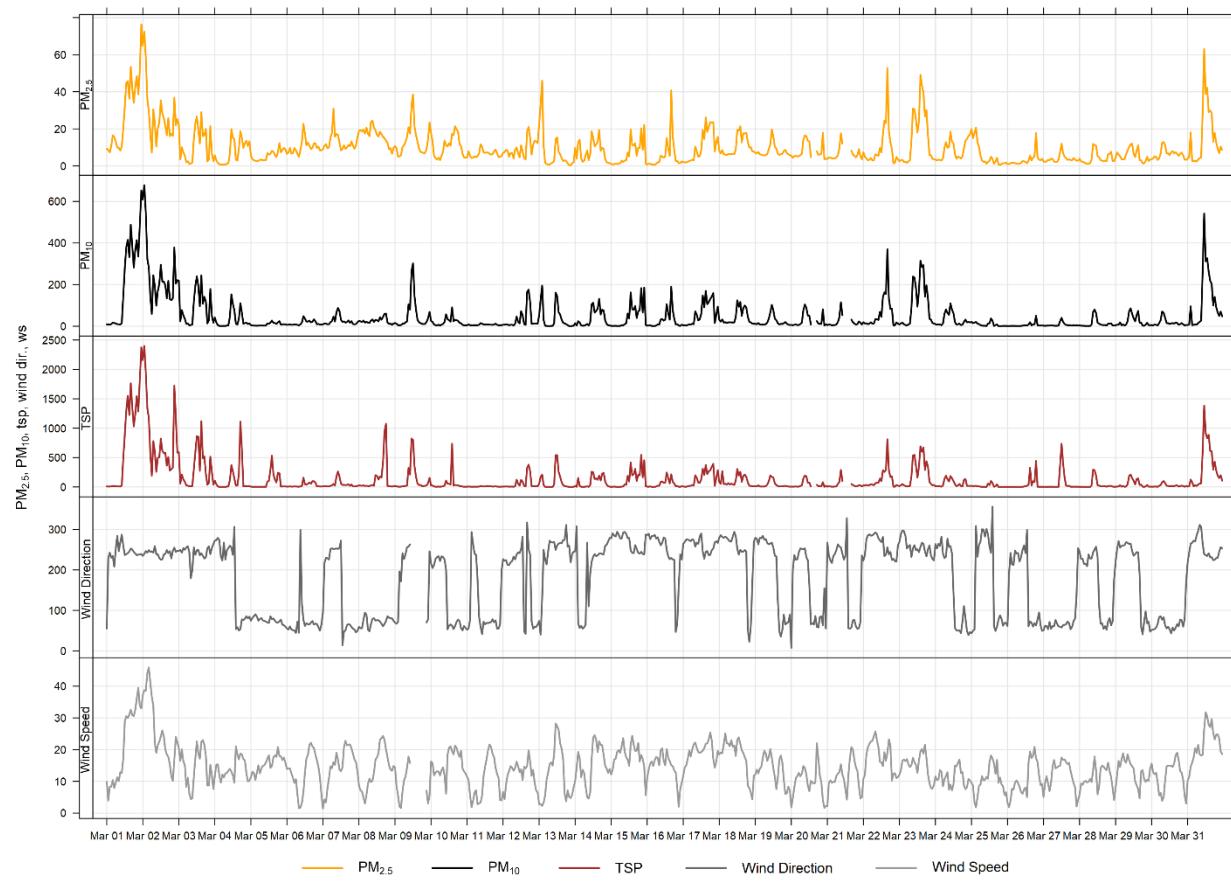


Figure 6-1 1-hour particulate matter concentrations recorded at the Berm monitor

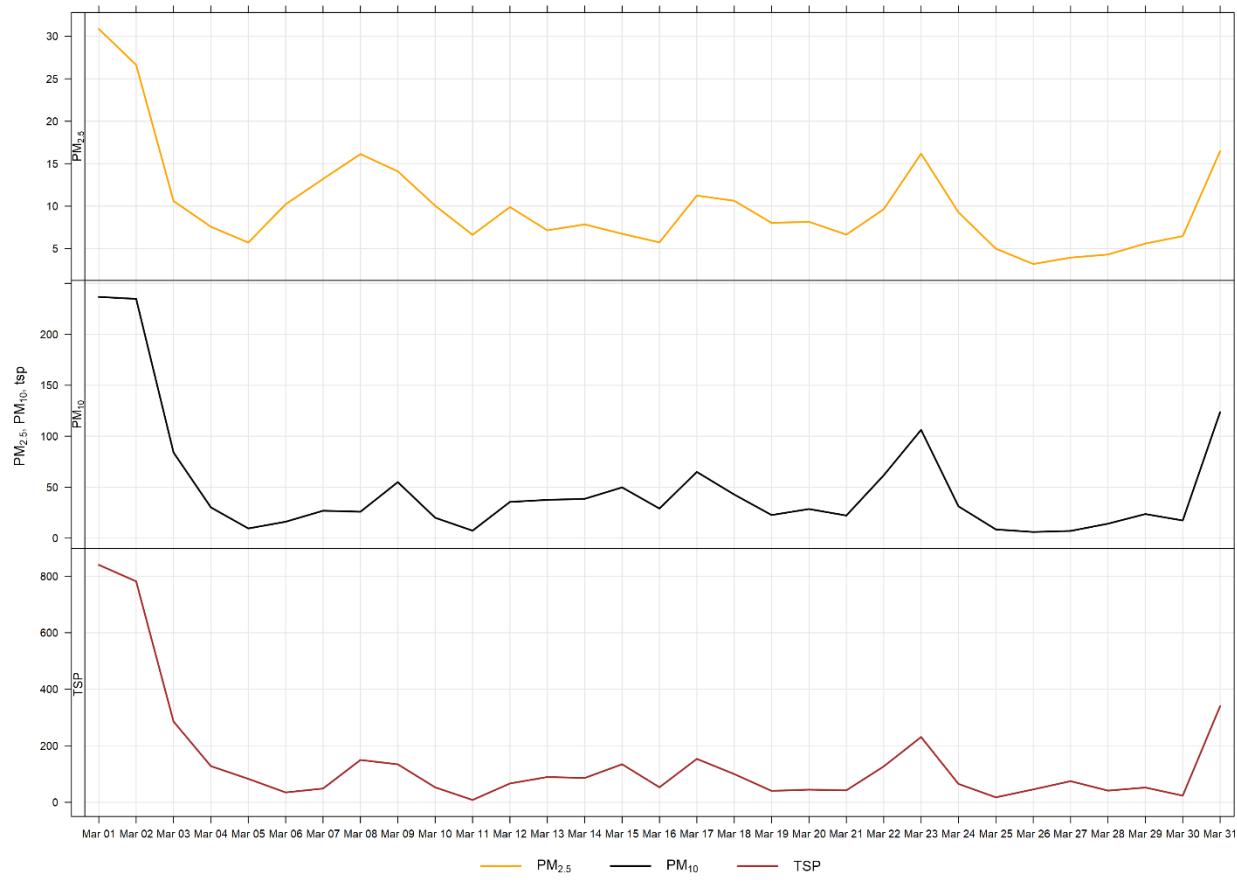


Figure 6-2 24-hour particulate matter concentrations recorded at the Berm monitor

Figure 6-3 shows the wind rose for the 11 days of TSP exceedances. Figure 6-4 shows the wind rose for 1 day of $\text{PM}_{2.5}$ 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.

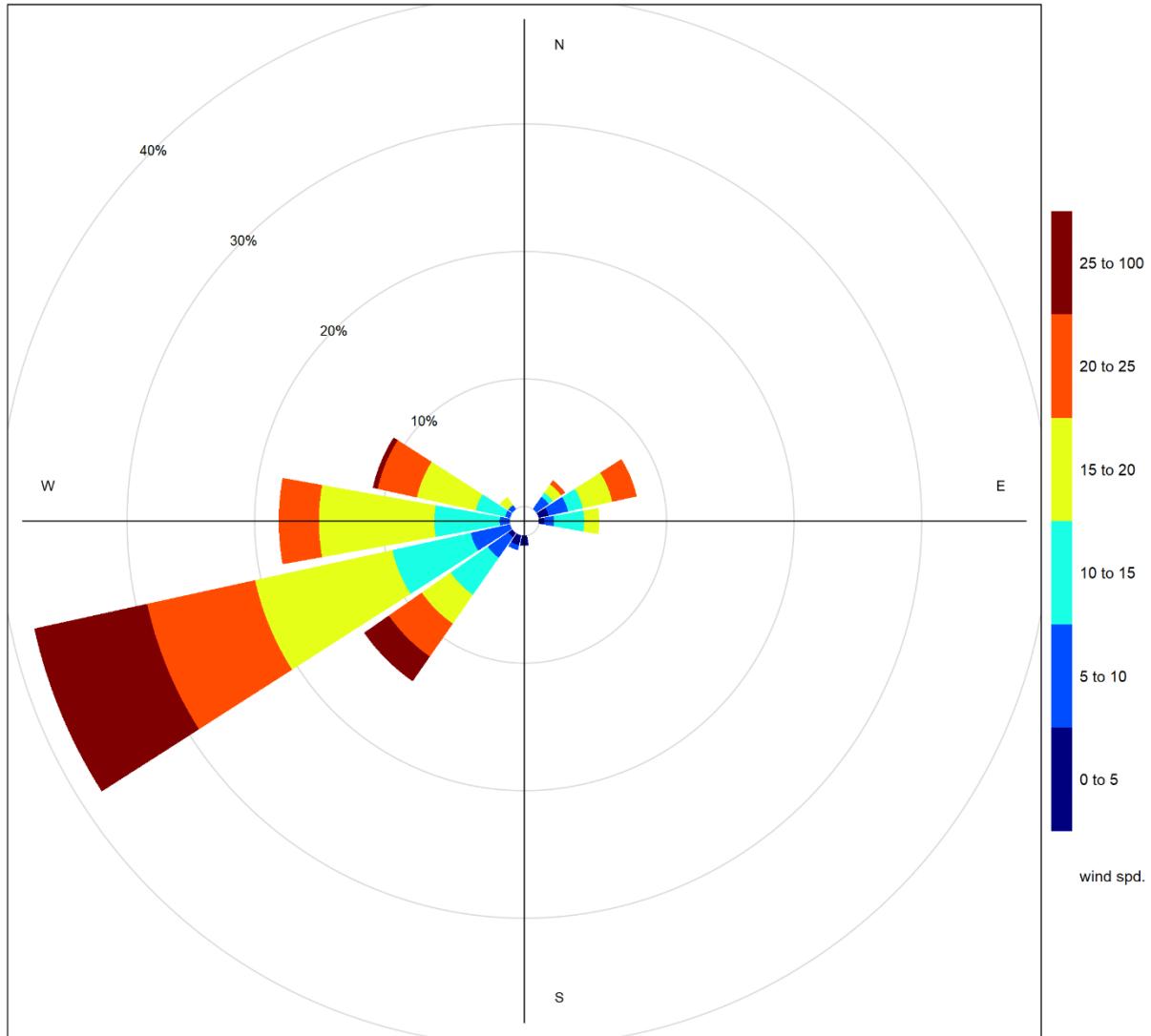


Figure 6-3 Windrose for TSP exceedance days recorded at the Berm GRIMM

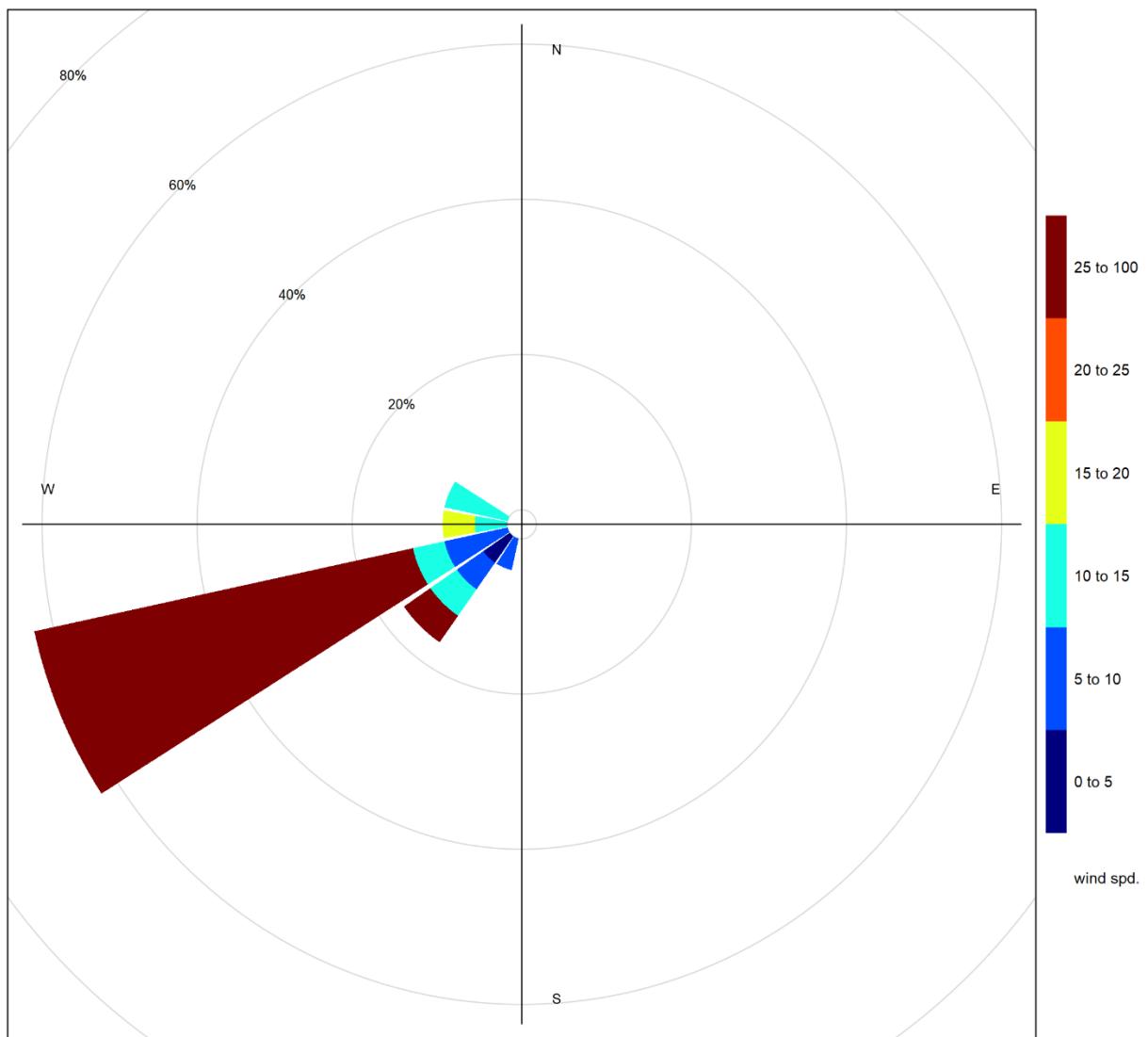


Figure 6-4 Windrose for PM_{2.5} exceedance days recorded at Berm GRIMM

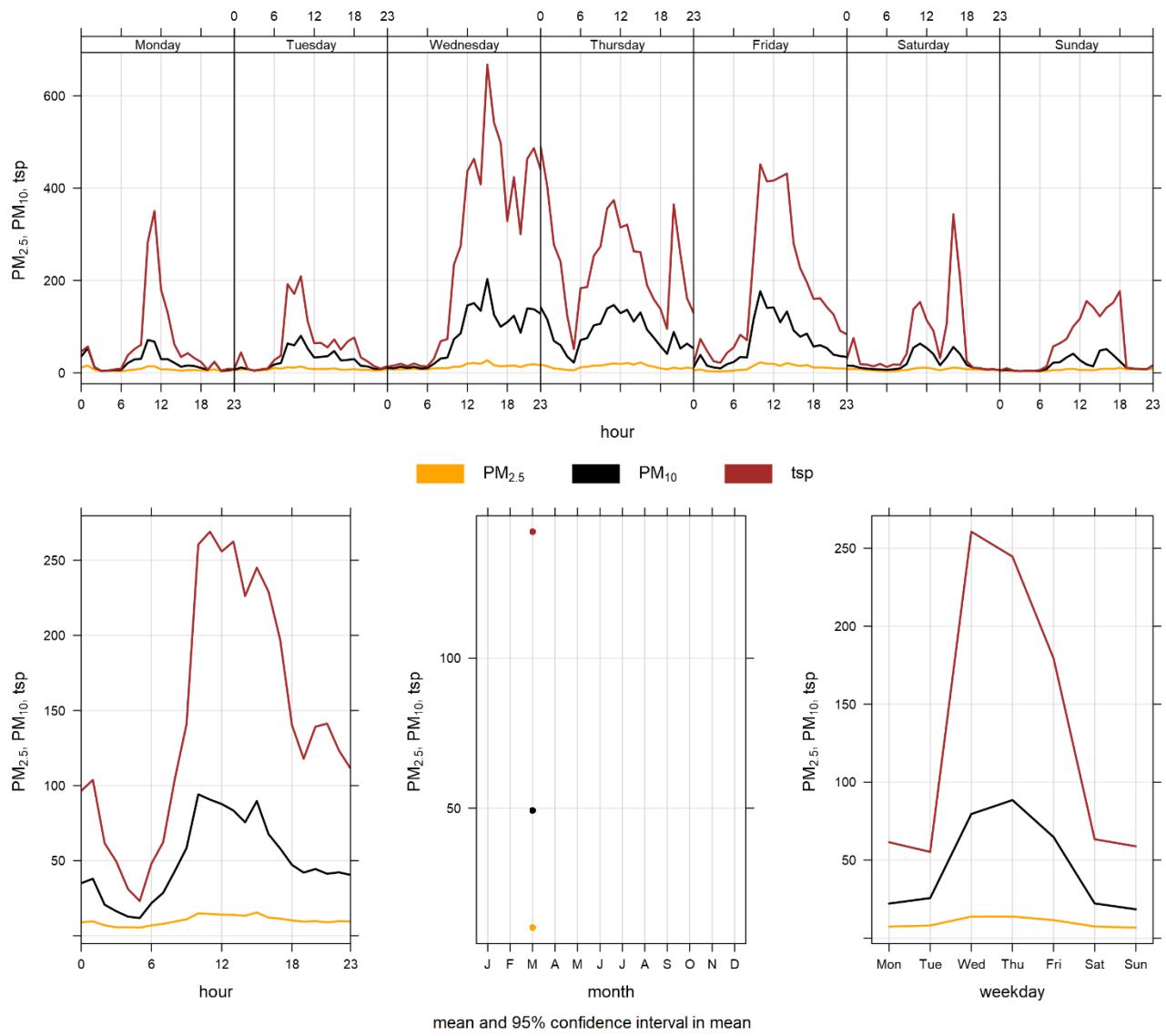


Figure 6-5 **Berm particulate matter time variation**

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}, PM₁₀, TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 71% uptime during the month of March due to 204 hours of electrical issues requiring factory replacement of the AC-DC board occurring on March 1st at 1:00 – March 9th at 12:00; and three hours of equipment change occurring on March 9th at 13:00 – 15:00. Further, nine hours of equipment malfunction occurring on March 10th at 8:00 & 11:00; March 26th at 2:00, 3:00, 8:00, 9:00; March 27th at 23:00; and March 28th at 21:00 & 23:00.

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 March, there were 15 and 0 exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) Guidelines, respectively. There was 0 hour 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 March. The maximum number of TSP exceedances recorded during March occurred in 2014, which had 28 days that exceeded the guideline. The maximum number of PM_{2.5} exceedances recorded during March is 1 day in 2018. When comparing historically, however, it is important to note the low data completeness (71%) recorded this month.

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.

Figure 7-3 shows the wind rose for the 15 days that exceeded the TSP Guideline. The wind rose shows that the winds predominantly came from the westerly directions.

Table 7-2 Summary of March 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/m³)	80	29	Entrance	0	0	1.0	13.4	52.5	22	6	22.8	285.4	24.4	22	71.0
PM₁₀ (µg/m³)	-	-	Entrance	-	-	1.0	74.5	563.7	22	6	22.8	285.4	211.2	22	71.0
TSP (µg/m³)	-	100	Entrance	-	15	1.0	204.3	1892.5	10	14	19.5	62.5	558.3	22	71.0

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

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Entrance						
2023-03-10	190.3	-	78.6	15.5	77.0	Winds predominately from the east
2023-03-12	126.6	-	241.3	12.3	64.2	Winds predominately from the southwest
2023-03-15	257.9	-	267.6	18.0	52.5	Winds predominately from the west
2023-03-16	372.9	-	262.7	14.5	48.0	Winds predominately from the west
2023-03-17	419.9	-	261.4	19.5	42.9	Winds predominately from the west
2023-03-18	416.4	-	269.6	17.8	40.2	Winds predominately from the west
2023-03-19	162.7	-	283.7	13.2	42.8	Winds predominately from the west
2023-03-20	115.2	-	188.7	9.9	50.6	Winds predominately from the south
2023-03-21	145.2	-	233.5	11.7	52.6	Winds predominately from the southwest
2023-03-22	558.3	-	265.6	17.9	31.3	Winds predominately from the west
2023-03-23	298.2	-	258.1	14.9	30.4	Winds predominately from the southwest

2023-03-24	229.8	-	15.1	11.1	58.0	Winds predominately from the north
2023-03-29	167.2	-	267.2	13.3	52.0	Winds predominately from the west
2023-03-30	232.3	-	62.9	11.6	63.1	Winds predominately from the northeast
2023-03-31	398.0	-	249.9	21.9	43.9	high wind event
Total # of Exceedances	15	0				
Maximum # of Exceedances (March)	28 (2014)	1 (2018)				
Average # of Exceedances (March)	12	0				
Minimum # of Exceedances (March)	0 (2011)	0 (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2019, 2020, 2021, 2022)				

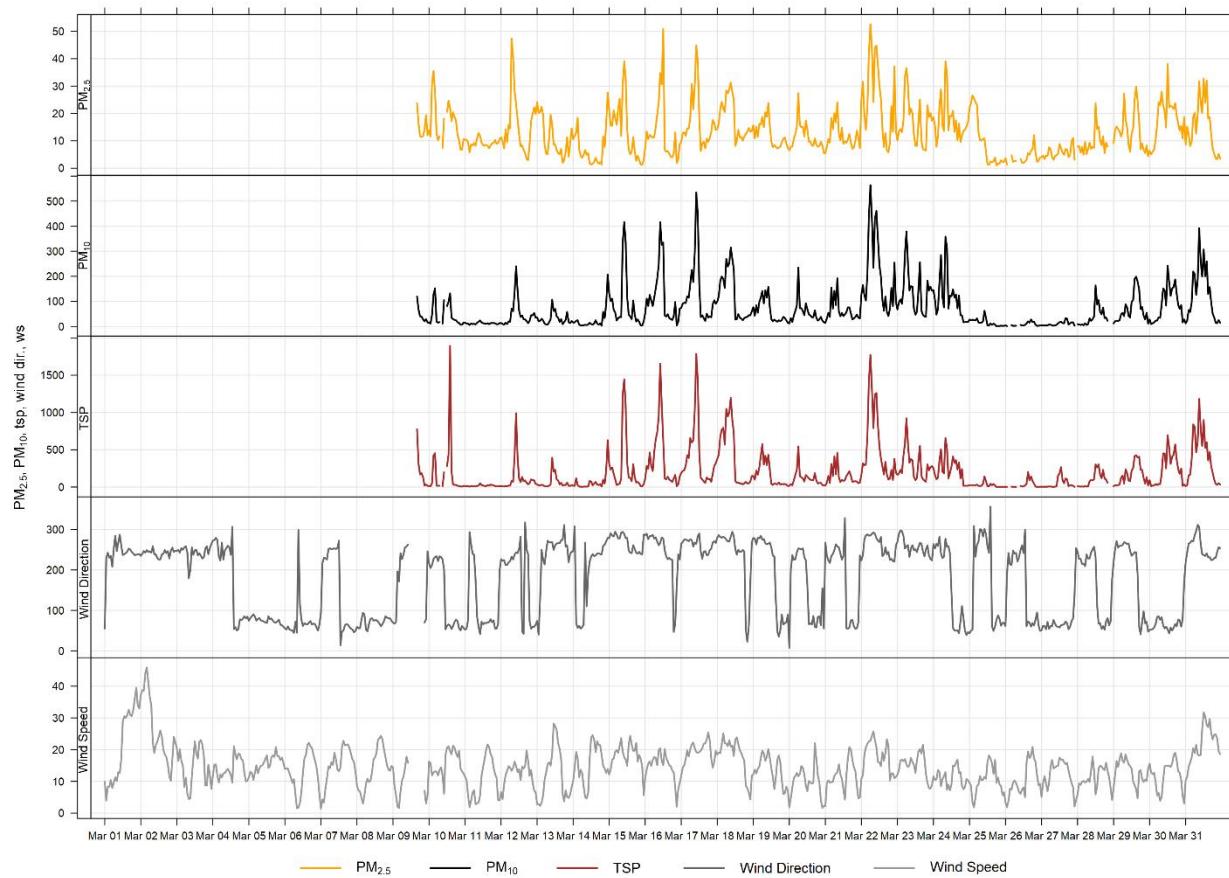


Figure 7-1 1-hour particulate matter concentrations recorded at the Entrance monitor

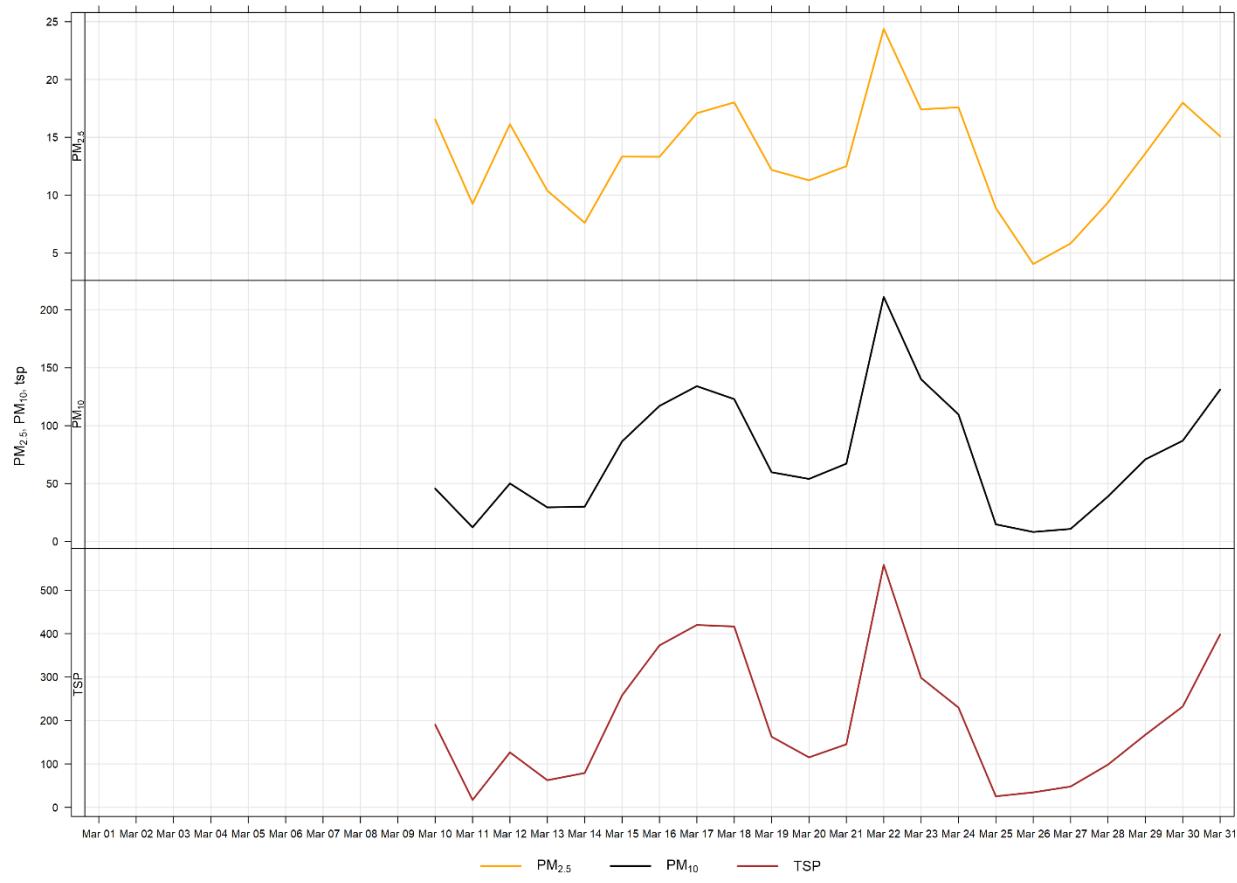


Figure 7-2 24-hour particulate matter concentrations recorded at the Entrance monitor

Figure 7-3 shows the wind rose for the 15 days of TSP exceedances. The wind rose shows that the wind predominately came from the west-southwest and west 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 March 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.

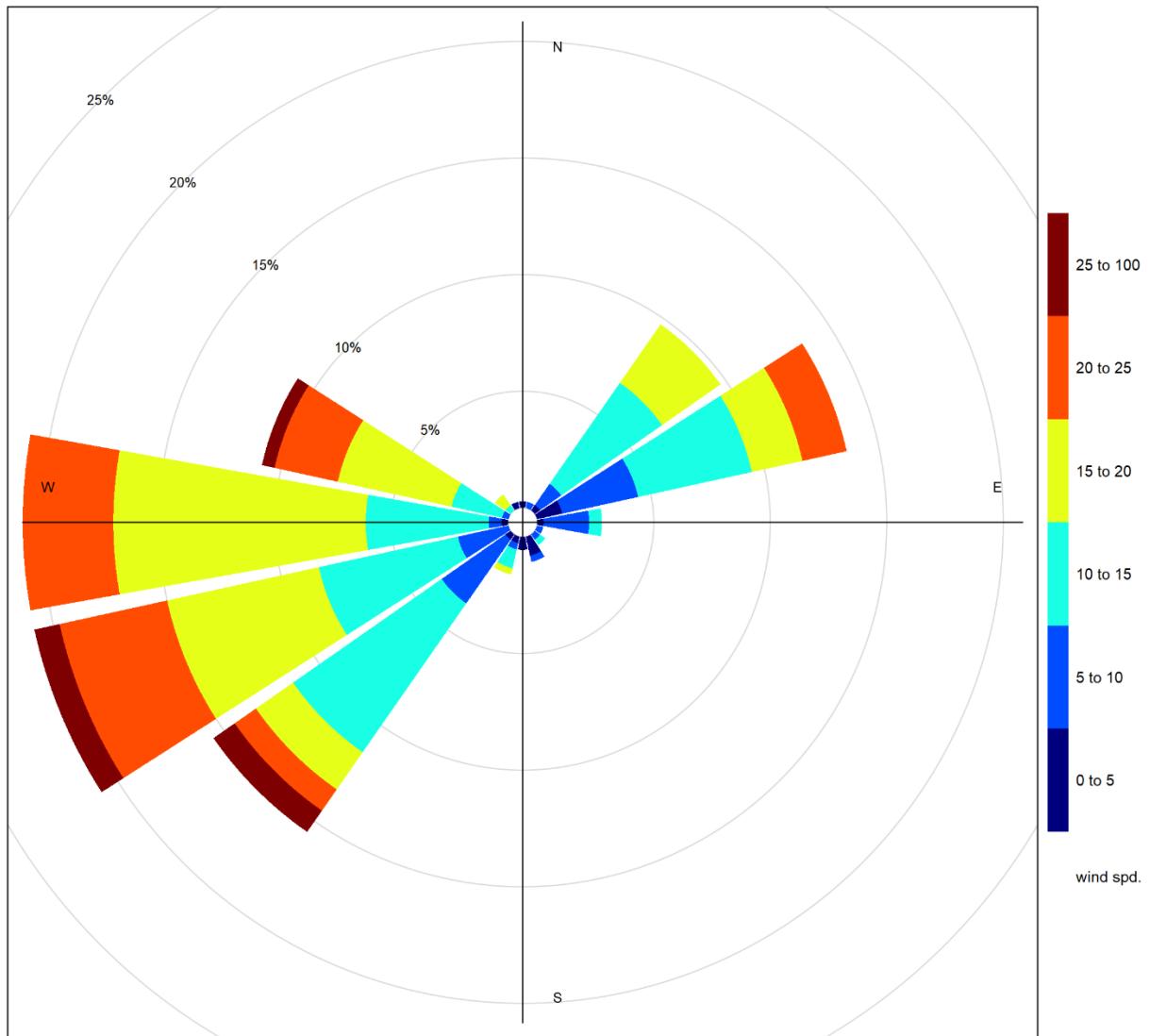


Figure 7-3 Wind rose for TSP exceedance days recorded at the Entrance GRIMM

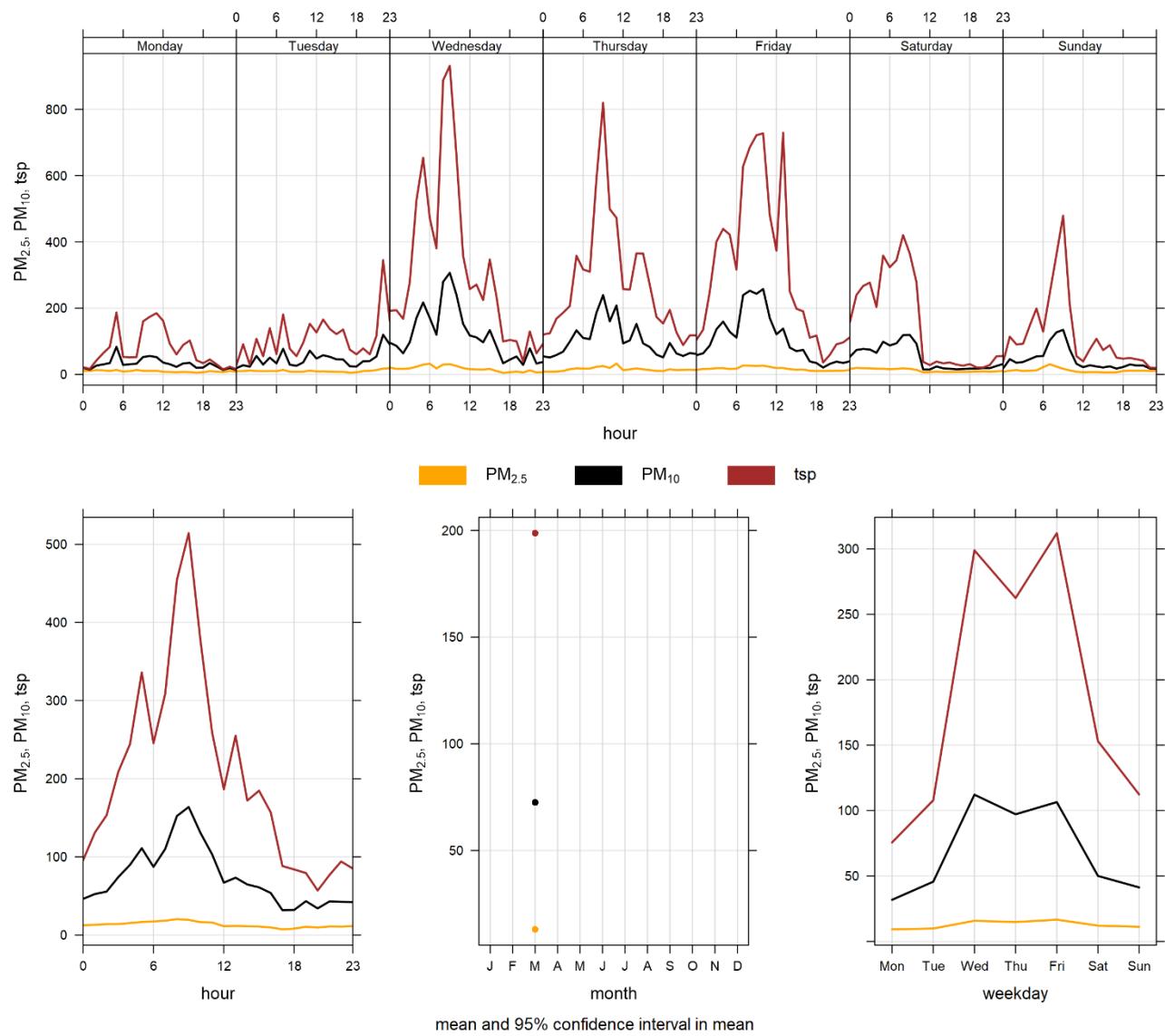


Figure 7-4 Entrance particulate matter time variation

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- Levelton Consultants Ltd. (2015, June 15). Comparison of GRIMM and E-BAM Data. Alberta, Can

APPENDIX

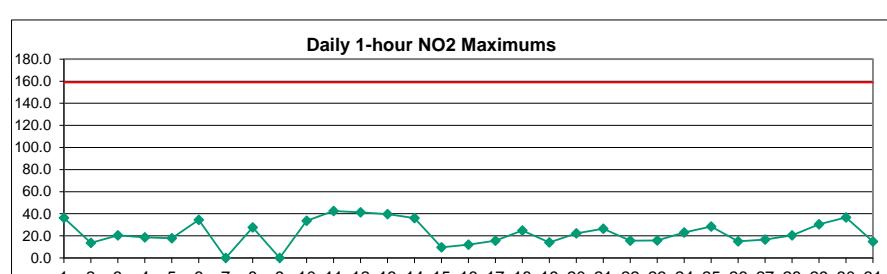
A DATA & CALIBRATION REPORTS

APPENDIX



Lagoon NO₂ (ppb) – March 2023

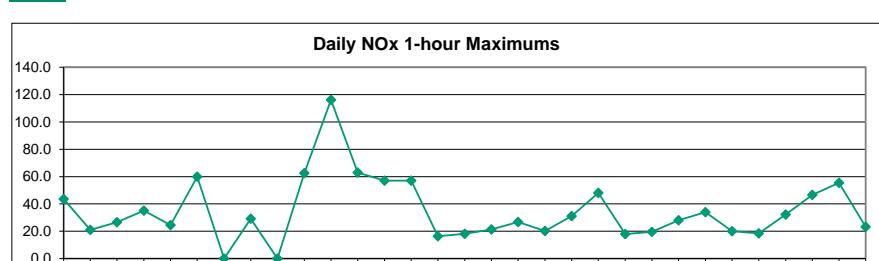
Day	Hour																									Mean	Max
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	27.3	S	30.4	36.3	34.9	30.4	24.5	25.7	22.8	17.6	15.4	4.2	2.9	3.8	7.1	12.1	12.8	5.1	3.1	3.2	2.0	4.5	7.9	2.7	14.6	36.3	
2	4.1	S	4.4	4.9	5.4	10.8	4.6	13.6	11.5	5.8	2.1	1.7	2.0	6.5	6.1	8.9	8.6	4.5	4.1	7.8	7.2	6.4	6.4	7.7	6.3	13.6	
3	8.2	S	6.2	5.3	12.0	12.8	9.5	11.5	20.4	13.0	3.3	4.5	9.1	2.4	3.5	2.4	1.9	1.8	7.6	13.5	10.1	5.0	12.3	16.1	8.4	20.4	
4	13.1	S	13.2	18.7	10.6	13.2	10.9	15.6	18.2	11.7	11.7	6.4	9.7	11.3	11.3	11.1	12.7	12.5	10.9	6.0	7.0	12.1	8.1	16.0	11.8	18.7	
5	6.1	S	3.8	4.5	3.5	3.8	4.0	4.3	9.1	7.4	3.8	7.8	5.5	4.2	5.4	4.8	4.5	13.7	12.7	6.5	7.9	5.9	8.4	17.8	6.8	17.8	
6	7.8	S	13.9	13.2	9.4	9.2	8.9	10.2	20.3	12.4	19.8	15.2	6.2	7.2	4.9	5.6	9.5	21.8	26.6	24.6	22.4	34.4	22.5	17.4	14.9	34.4	
7	22.1	S	31.9	34.5	32.0	30.6	28.5	28.2	25.7	21.2	C	C	C	C	C	C	C	5.5	6.6	18.7	23.4	23.1	16.5	27.6	-	-	
8	20.8	S	16.1	27.6	26.0	15.0	14.4	17.4	10.2	7.7	5.6	5.2	5.1	4.7	7.3	11.7	18.5	14.6	13.2	10.3	8.4	7.3	6.6	8.3	12.3	27.6	
9	9.0	S	10.8	23.4	25.5	23.0	30.4	31.0	23.3	26.9	EC	18.4	16.9	20.0	28.9	-	-										
10	32.6	S	19.8	19.0	23.2	23.8	33.6	32.8	24.4	20.5	28.8	20.3	11.5	9.7	19.7	9.8	11.9	22.0	14.4	16.3	10.9	21.1	26.2	29.8	21.0	33.6	
11	42.6	S	18.6	14.1	27.5	23.5	32.0	33.5	24.7	21.7	7.8	6.8	5.7	5.5	6.0	5.4	5.5	9.0	9.6	19.2	25.0	10.9	29.9	26.5	17.9	42.6	
12	27.3	S	17.1	13.6	14.3	16.7	12.2	14.0	15.7	8.8	8.0	7.7	9.8	21.5	20.8	13.4	6.3	5.9	28.8	41.3	33.1	33.7	24.6	25.7	18.3	41.3	
13	18.3	S	38.6	39.6	16.1	10.3	8.3	10.4	11.7	8.7	8.1	12.1	9.0	7.3	9.6	8.0	4.9	12.9	14.2	10.2	8.7	11.9	12.6	13.0	13.2	39.6	
14	13.4	S	9.4	9.7	20.9	26.0	33.7	36.1	19.4	9.5	3.4	2.6	4.3	3.3	3.1	5.0	3.2	2.5	2.3	11.6	5.5	12.3	10.5	6.0	11.0	36.1	
15	8.6	S	8.7	8.3	6.6	7.9	9.6	9.3	9.2	9.0	6.5	4.9	7.4	4.2	4.7	6.2	5.7	5.6	5.3	6.9	4.1	2.8	5.7	5.0	6.6	9.6	
16	3.7	S	4.6	5.2	5.9	7.3	9.5	9.1	12.0	10.2	6.2	4.9	6.5	4.8	2.3	3.7	5.8	2.8	6.2	12.0	9.5	9.4	11.1	10.3	7.1	12.0	
17	8.5	S	6.3	9.2	7.3	10.3	14.3	15.7	11.2	11.2	6.4	6.8	3.8	2.8	5.5	5.4	2.3	2.4	4.4	12.7	9.7	9.5	11.6	6.2	8.0	15.7	
18	7.4	S	6.7	9.2	8.2	8.5	10.2	9.1	8.7	8.8	7.4	4.3	3.1	11.3	4.5	4.2	6.1	8.0	23.9	24.8	24.5	20.7	10.5	8.0	10.4	24.8	
19	12.3	S	7.0	7.5	6.2	5.9	7.4	8.6	5.7	7.1	5.8	3.3	3.7	6.7	7.6	3.9	4.7	6.8	8.2	14.0	13.2	7.4	13.7	7.5	14.0		
20	21.6	S	18.9	16.0	12.9	15.6	22.3	20.7	15.3	13.6	7.8	6.5	2.8	3.4	3.1	2.9	7.8	8.1	9.1	4.6	14.7	11.9	13.4	12.3	11.5	22.3	
21	11.5	S	12.7	11.3	9.9	9.8	26.4	13.6	15.3	12.0	7.7	6.6	5.4	8.5	13.9	7.9	4.8	5.2	10.1	20.8	17.7	12.8	13.7	13.2	11.8	26.4	
22	11.5	S	7.6	5.6	7.2	6.4	7.1	8.9	7.6	8.1	10.7	5.6	6.2	3.7	4.0	4.2	7.9	6.6	5.1	8.2	15.6	14.4	10.9	7.2	7.8	15.6	
23	8.8	S	7.7	9.5	12.6	10.5	12.1	15.4	13.9	11.6	10.3	9.0	5.1	6.2	7.4	9.0	4.2	3.0	9.3	12.0	8.4	13.4	15.9	10.7	9.8	15.9	
24	11.7	S	9.8	8.4	9.6	15.8	23.1	16.5	16.9	18.8	16.3	8.0	9.6	6.1	8.1	10.6	4.0	6.0	5.2	5.8	13.7	12.6	15.1	18.0	11.7	23.1	
25	28.4	S	16.1	19.5	14.2	10.9	11.9	7.5	7.1	8.7	5.4	4.7	3.8	8.5	6.5	6.6	8.8	2.7	2.6	3.6	2.8	5.8	7.3	14.7	9.1	28.4	
26	10.4	S	8.6	7.1	6.7	9.1	8.4	9.5	9.6	8.4	8.0	5.0	7.0	10.1	2.9	5.0	11.4	15.2	13.6	7.6	3.7	12.8	10.3	10.6	8.7	15.2	
27	8.4	S	6.2	7.5	16.6	10.7	5.6	4.4	8.4	6.7	3.5	5.9	5.5	6.0	3.8	3.2	5.4	5.7	9.6	12.9	9.2	8.5	11.3	13.7	7.8	16.6	
28	12.8	S	12.2	10.1	14.5	8.2	15.2	20.5	9.8	6.5	5.6	7.4	7.2	3.7	4.1	7.8	6.1	6.7	11.7	7.9	8.0	11.3	11.2	13.2	9.6	20.5	
29	12.7	S	8.5	10.0	13.3	16.9	17.3	16.6	11.2	11.3	10.8	6.3	5.6	3.4	10.6	6.0	6.2	6.4	10.5	3.2	4.6	5.7	17.8	30.5	10.7	30.5	
30	36.7	S	8.9	17.3	8.4	11.1	17.6	22.3	21.2	11.7	6.7	6.3	10.0	6.1	8.2	8.8	9.7	11.5	7.6	3.9	10.4	9.5	6.1	12.0	11.8	36.7	
31	13.3	S	9.5	10.1	14.9	8.8	9.9	8.8	9.8	9.4	6.4	3.3	2.8	5.4	3.4	2.6	2.2	2.1	2.4	2.3	6.7	5.4	8.5	3.2	6.6	14.9	
NO.	31	-	31	31	31	31	31	31	31	31	29	29	29	29	29	29	29	30	30	31	31	31	31	696	98.7%		
MEAN	15.5	-	12.7	14.1	14.1	13.6	15.6	16.1	14.6	11.8	8.6	6.8	6.1	6.4	7.0	6.9	7.0	7.8	9.9	11.6	11.9	12.4	12.9	14.4			
MAX	42.6	-	38.6	39.6	34.9	30.6	33.7	36.1	25.7	26.9	28.8	20.3	11.5	21.5	20.8	13.4	18.5	22.0	28.8	41.3	33.1	34.4	29.9	30.5			



Number of 1HR Exceedences	0
Number of Non-Zero Readings	696
Maximum 1-HR Average	42.6 PPB
Maximum 24-HR Average	21.0 PPB
Monthly Calibration Standard Deviation	7.5
Operational Time	734 HRS
Operational Uptime	98.7 %
Monthly Average	11.3 PPB

Lagoon NOx (ppb) – March 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		27.9	S	32.7	39.5	37.4	35.2	29.2	37.5	43.6	35.3	29.3	5.6	3.7	5.2	11.7	22.4	20.3	6.6	3.8	3.6	2.2	6.3	11.7	3.4	19.7	43.6	
2		5.8	S	5.6	6.8	7.1	16.9	5.6	21.1	16.7	7.3	2.9	1.9	2.4	9.3	10.0	14.4	13.1	5.1	4.2	8.1	8.7	9.7	8.0	8.9	8.7	21.1	
3		8.7	S	7.9	5.4	14.9	14.6	10.0	12.0	26.7	22.9	4.6	7.0	13.6	3.0	5.0	2.9	2.1	2.1	7.8	20.2	15.4	5.0	15.1	21.0	10.8	26.7	
4		19.6	S	18.2	24.5	11.2	21.5	11.5	26.6	35.1	21.0	23.1	11.3	16.6	20.4	18.1	15.8	17.9	16.4	13.4	6.2	7.5	13.7	9.1	20.9	17.4	35.1	
5		6.9	S	3.9	4.4	3.6	4.0	4.0	4.5	14.7	13.1	5.7	17.0	9.1	5.3	7.1	5.9	5.3	19.8	24.6	6.5	8.1	6.2	10.1	23.8	9.3	24.6	
6		10.0	S	20.5	17.7	11.9	11.6	9.1	11.0	34.8	20.9	48.3	34.9	10.8	12.8	7.2	7.9	12.5	27.3	31.7	26.3	24.5	60.0	24.2	17.4	21.5	60.0	
7		22.7	S	35.8	40.2	43.3	46.8	39.2	50.4	60.3	56.1	C	C	C	C	C	C	C	6.8	7.3	23.0	32.5	44.8	20.9	45.7	-	-	
8		26.0	S	18.6	29.2	27.2	17.0	16.7	19.5	12.4	9.9	7.6	7.1	7.2	6.4	11.0	16.8	28.1	17.2	13.6	10.4	8.4	7.3	6.8	8.6	14.5	29.2	
9		9.2	S	12.4	30.1	33.5	24.7	43.4	63.2	51.0	82.4	EC	20.3	17.1	20.2	30.1	-	-										
10		34.4	S	22.7	21.6	25.0	25.3	41.0	47.3	38.1	30.4	62.5	39.4	15.4	12.1	33.6	12.1	13.6	26.0	15.8	21.7	12.2	25.9	32.6	45.0	28.4	62.5	
11		116.2	S	18.8	22.4	43.5	34.0	54.5	59.1	40.8	55.9	11.9	9.9	7.9	7.2	7.6	6.6	6.0	10.0	9.8	21.1	31.9	11.3	39.5	27.2	28.4	116.2	
12		28.8	S	17.4	13.9	14.8	17.6	12.5	16.5	25.4	13.6	12.7	12.5	21.1	47.6	43.6	24.6	9.0	6.6	47.0	63.0	45.6	46.5	26.9	26.5	25.8	63.0	
13		18.6	S	48.6	57.0	16.6	11.6	8.6	14.1	17.5	12.9	11.9	26.5	13.4	10.8	17.2	13.1	6.2	18.0	20.9	12.1	8.8	12.9	13.2	13.5	17.6	57.0	
14		15.1	S	10.7	11.2	29.4	36.9	48.8	57.1	27.0	14.1	4.4	3.3	7.2	5.1	4.1	6.8	3.9	2.6	2.3	15.4	5.7	21.8	12.9	6.1	15.3	57.1	
15		11.3	S	11.5	10.1	6.9	8.2	11.0	12.0	12.6	16.3	9.6	7.1	13.1	6.3	7.0	9.6	8.8	7.5	5.6	7.3	4.1	3.0	5.9	5.6	8.7	16.3	
16		3.8	S	5.5	5.4	8.0	9.4	11.5	11.5	18.2	16.6	9.1	7.1	10.0	7.5	2.7	5.0	8.2	3.1	6.8	12.2	9.5	10.3	11.6	11.3	8.9	18.2	
17		9.1	S	7.0	11.7	7.5	13.5	18.4	21.3	15.0	18.2	9.3	10.2	5.1	3.4	7.4	7.4	2.5	2.5	4.6	16.0	12.4	10.7	15.5	6.5	10.2	21.3	
18		8.0	S	7.4	11.8	10.7	9.4	10.9	10.4	10.7	13.6	10.9	5.1	3.6	18.1	5.4	4.9	4.9	7.6	9.3	26.8	26.1	25.8	25.3	10.7	9.2	12.2	26.8
19		16.0	S	7.9	8.0	6.8	6.4	6.0	8.6	11.4	7.3	11.3	7.6	3.9	4.5	8.4	10.5	4.4	4.9	7.0	8.3	14.5	13.8	7.4	20.3	8.9	20.3	
20		24.1	S	19.2	16.3	14.3	19.1	31.1	28.0	21.6	21.1	10.6	8.6	3.1	3.9	3.5	3.1	9.4	9.2	9.4	4.8	18.2	11.9	13.5	12.3	13.8	31.1	
21		11.7	S	13.2	11.6	10.1	10.0	48.2	15.9	23.7	16.9	10.4	8.8	6.8	11.2	21.0	9.9	5.5	5.7	10.6	24.4	18.9	13.1	14.0	13.4	14.6	48.2	
22		11.8	S	8.6	5.9	10.0	7.0	8.9	10.5	10.4	12.0	17.9	7.7	9.1	4.9	5.4	5.6	12.5	7.9	5.4	10.0	16.9	15.0	12.7	7.6	9.7	17.9	
23		10.7	S	8.6	13.3	16.4	10.7	13.9	19.3	19.5	18.9	15.5	14.0	7.2	8.5	11.1	14.7	4.9	3.2	10.8	13.3	8.4	14.4	16.2	12.4	12.4	19.5	
24		14.7	S	11.6	9.4	9.9	16.3	26.8	21.8	20.7	28.0	23.4	10.5	13.0	7.0	9.8	14.7	4.4	6.4	5.2	5.9	14.3	14.6	16.5	19.9	14.1	28.0	
25		34.1	S	16.3	19.7	14.6	11.2	15.0	8.2	9.4	12.6	7.3	6.4	4.8	13.1	8.2	9.1	10.1	2.8	2.7	3.7	2.8	5.8	7.5	15.3	10.5	34.1	
26		10.4	S	8.9	7.3	6.8	11.3	9.0	11.1	12.9	13.1	14.5	7.4	11.0	15.4	3.5	6.7	15.5	20.1	16.3	8.9	3.8	16.1	12.5	11.4	11.0	20.1	
27		9.3	S	6.4	7.6	18.4	11.9	5.9	5.9	11.1	9.7	4.4	8.8	8.4	9.0	4.9	3.9	7.9	7.5	11.8	14.4	9.8	8.5	13.4	14.0	9.2	18.4	
28		12.9	S	12.4	10.3	15.1	8.6	21.7	32.3	14.8	10.7	9.1	12.7	11.7	4.8	5.6	11.3	8.0	8.1	12.7	8.0	7.9	11.5	11.3	13.3	12.0	32.3	
29		14.1	S	8.9	10.4	20.0	25.7	25.2	22.3	16.2	19.8	19.8	9.4	8.0	4.3	16.3	7.9	7.5	9.0	13.9	3.2	4.8	5.9	22.2	46.7	14.9	46.7	
30		55.5	S	10.6	21.1	8.8	12.0	20.8	35.1	47.2	19.3	9.2	8.6	16.4	9.5	11.1	13.0	12.9	14.6	8.1	4.0	10.9	9.7	6.2	12.7	16.4	55.5	
31		18.2	S	11.1	12.2	23.2	10.4	12.8	10.2	14.7	13.2	8.9	4.3	3.1	8.1	4.1	2.8	2.5	2.1	2.7	2.4	8.1	5.6	11.5	3.3	8.5	23.2	
NO.		31	-	31	31	31	31	31	31	31	29	29	29	29	29	29	29	29	30	30	30	31	31	31	31	696	98.7%	
MEAN		20.2	-	14.5	16.6	17.0	16.7	20.4	23.4	23.7	21.4	14.7	11.1	9.2	9.8	10.7	10.0	9.3	9.6	12.1	13.7	13.6	15.6	14.8	17.2			
MAX		116.2	-	48.6	57.0	43.5	46.8	54.5	63.2	60.3	82.4	62.5	39.4	21.1	47.6	43.6	24.6	28.1	27.3	47.0	63.0	45.6	60.0	39.5	46.7			

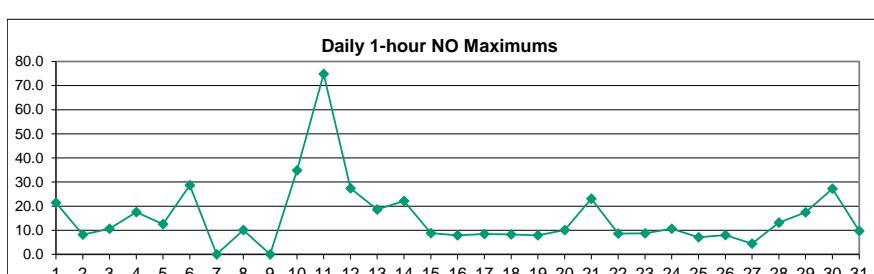


Number of Non-Zero Readings	696
Maximum 1-HR Average	116.2 PPB
Maximum 24-HR Average	28.4 PPB
Monthly Calibration Standard Deviation	12.26
Operational Time	734 HRS
Operational Uptime	98.7 %
Monthly Average	15.1 PPB

Lagoon NO (ppb) – March 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	S	2.8	3.8	3.1	5.4	5.3	12.4	21.4	18.3	14.5	2.1	1.4	2.0	5.3	10.9	8.1	2.2	1.3	1.1	0.8	2.4	4.5	1.3	5.7	21.4		
2	2.3	S	1.9	2.5	2.4	6.8	1.7	8.1	5.8	2.1	1.4	0.9	1.0	3.5	4.5	6.1	5.2	1.2	0.7	0.9	2.2	4.0	2.3	1.9	3.0	8.1		
3	1.2	S	2.4	0.8	3.5	2.5	1.2	1.2	7.0	10.6	1.9	3.1	5.2	1.2	2.2	1.0	0.8	0.9	0.8	7.3	5.9	0.7	3.4	5.5	3.1	10.6		
4	7.2	S	5.7	6.5	1.3	9.0	1.3	11.5	17.5	10.0	12.1	5.5	7.6	9.7	7.4	5.3	5.8	4.5	3.2	0.9	1.2	2.2	1.6	5.5	6.2	17.5		
5	1.5	S	0.7	0.7	0.7	0.9	0.7	0.8	6.3	6.3	2.4	9.8	4.3	1.7	2.4	1.7	1.3	6.7	12.5	0.6	0.9	0.9	2.4	6.6	3.2	12.5		
6	2.8	S	7.1	5.1	3.2	3.1	0.9	1.5	15.1	9.2	28.7	19.8	4.9	5.9	2.6	2.6	3.3	5.7	5.3	2.0	2.3	25.6	2.0	0.4	6.9	28.7		
7	0.9	S	4.1	5.8	11.4	16.4	10.9	22.4	34.7	35.0	C	C	C	C	C	C	C	C	1.8	1.2	4.8	9.6	22.2	4.9	18.4	-	-	
8	5.7	S	3.1	2.1	1.6	2.6	2.8	2.7	2.8	2.5	2.4	2.6	2.3	4.3	4.3	5.7	10.1	3.1	0.9	0.6	0.6	0.6	0.7	0.9	2.8	10.1		
9	0.8	S	2.1	7.2	8.6	2.2	13.4	32.6	28.1	55.8	EC	EC	EC	EC	EC	EC	3.3	1.5	1.5	2.5	-	-						
10	3.1	S	4.3	4.0	3.2	2.9	8.7	15.7	15.0	11.3	34.8	20.4	5.4	4.0	15.2	3.8	3.1	5.4	2.8	6.7	2.7	6.2	7.8	16.6	8.8	34.8		
11	74.8	S	1.5	9.7	17.3	11.7	23.8	26.7	17.4	35.5	5.6	4.6	3.7	3.1	3.1	2.6	1.9	2.5	1.7	3.3	8.3	1.8	10.9	2.1	11.9	74.8		
12	2.8	S	1.6	1.7	1.9	2.3	1.7	4.0	11.1	6.3	6.2	6.3	12.7	27.4	24.2	12.6	4.1	2.1	19.5	22.9	13.7	14.0	3.6	2.2	8.9	27.4		
13	1.7	S	11.2	18.6	1.9	2.7	1.8	5.1	7.2	5.7	5.2	15.9	5.9	5.0	9.1	6.5	2.7	6.6	8.1	3.4	1.5	2.4	2.0	2.0	5.7	18.6		
14	3.2	S	2.8	2.9	9.9	12.2	16.4	22.2	9.1	6.1	2.4	2.0	4.3	3.1	2.4	3.2	2.0	1.5	1.3	5.2	1.6	10.9	3.8	1.4	5.6	22.2		
15	4.0	S	4.2	3.2	1.6	1.7	2.9	4.2	4.9	8.8	4.6	3.6	7.2	3.4	3.7	4.8	4.4	3.3	1.7	1.7	1.3	1.4	1.5	2.0	3.5	8.8		
16	1.4	S	2.2	1.5	3.5	3.5	3.3	3.9	7.7	7.9	4.3	3.6	4.9	4.0	1.8	2.7	3.8	1.6	2.0	1.6	1.4	2.2	1.9	2.4	3.2	7.9		
17	2.0	S	2.0	3.8	1.5	4.5	5.5	7.1	5.3	8.4	4.4	4.9	2.6	1.9	3.4	3.3	1.5	1.4	1.5	4.6	4.0	2.6	5.2	1.6	3.6	8.4		
18	2.0	S	2.1	4.0	3.9	2.4	2.1	2.7	3.4	6.2	5.0	2.2	1.8	8.2	2.3	2.0	2.9	2.7	4.3	2.8	2.7	6.0	1.6	2.5	3.3	8.2		
19	5.2	S	2.3	1.9	1.9	1.6	1.4	2.6	4.2	2.9	5.5	3.2	1.9	2.1	3.2	4.3	1.9	1.6	1.6	1.5	1.8	2.1	1.4	7.9	2.8	7.9		
20	3.9	S	1.7	1.7	2.8	4.9	10.1	8.7	7.8	8.9	4.3	3.5	1.6	1.9	1.7	1.6	3.0	2.5	1.7	1.5	4.8	1.4	1.5	1.5	3.6	10.1		
21	1.6	S	1.9	1.7	1.6	1.5	23.0	3.7	9.8	6.3	4.2	3.6	2.8	4.2	8.6	3.5	2.0	1.9	1.9	5.0	2.7	1.7	1.7	1.6	4.2	23.0		
22	1.7	S	2.3	1.7	4.2	2.0	3.2	3.1	4.2	5.4	8.6	3.5	4.3	2.6	2.7	2.8	6.0	2.8	1.7	3.1	2.7	2.0	3.2	1.8	3.3	8.6		
23	3.3	S	2.4	5.2	5.3	1.7	3.2	5.3	7.1	8.7	6.8	6.4	3.4	3.7	5.1	7.1	2.1	1.6	2.9	2.8	1.4	2.4	1.7	3.1	4.0	8.7		
24	4.5	S	3.2	2.4	1.7	1.9	5.0	6.7	5.2	10.6	8.5	4.0	4.9	2.3	3.1	5.5	1.7	1.7	1.3	1.4	2.0	3.4	2.9	3.3	3.8	10.6		
25	7.0	S	1.6	1.6	1.8	1.7	4.5	2.1	3.8	5.4	3.3	3.0	2.4	6.0	3.1	3.9	2.7	1.4	1.4	1.4	1.3	1.3	1.6	1.9	2.8	7.0		
26	1.4	S	1.7	1.6	1.4	3.6	2.0	3.1	4.8	6.2	8.0	3.8	5.3	6.7	1.9	3.1	5.5	6.3	4.1	2.7	1.4	4.6	3.6	2.1	3.7	8.0		
27	2.2	S	1.6	1.5	3.3	2.6	1.7	2.8	4.1	4.4	2.2	4.3	4.3	4.4	2.5	2.1	3.8	3.2	3.5	2.9	1.9	1.4	3.5	1.6	2.9	4.4		
28	1.6	S	1.7	1.6	1.9	1.8	7.8	13.1	6.5	5.6	5.0	6.7	5.9	2.5	2.8	4.9	3.4	2.9	2.4	1.4	1.3	1.6	1.5	1.5	3.7	13.1		
29	2.8	S	1.9	1.8	8.1	10.2	9.2	7.2	6.5	10.0	10.4	4.5	3.9	2.3	7.1	3.3	2.8	4.0	4.8	1.4	1.5	1.6	5.7	17.5	5.6	17.5		
30	20.0	S	3.1	5.2	1.8	2.3	4.6	14.0	27.2	9.0	4.0	3.7	7.8	4.8	4.4	5.6	4.7	4.5	1.9	1.4	1.8	1.5	1.4	2.0	5.9	27.2		
31	6.3	S	3.0	3.5	9.7	3.0	4.3	2.8	6.3	5.2	3.8	2.3	1.8	4.2	2.1	1.7	1.6	1.4	1.6	1.5	2.8	1.6	4.3	1.4	3.3	9.7		

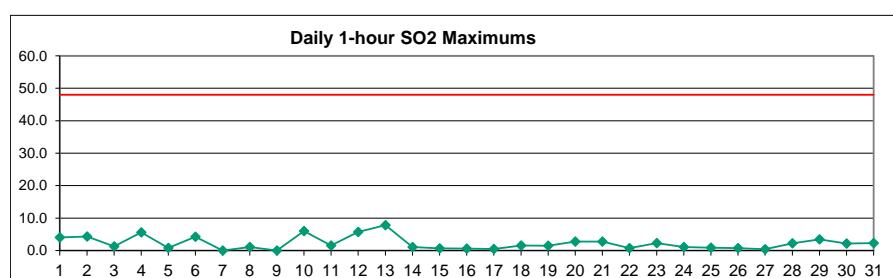
NO.	31	-	31	31	31	31	31	31	31	29	29	29	29	29	29	29	29	30	30	30	31	31	31	31	696	98.7%
MEAN	5.8	-	2.9	3.7	4.1	4.2	5.9	8.4	10.2	10.8	7.3	5.5	4.3	4.6	4.9	4.3	3.5	3.0	3.3	3.3	2.9	4.3	3.1	4.0		
MAX	74.8	-	11.2	18.6	17.3	16.4	23.8	32.6	34.7	55.8	34.8	20.4	12.7	27.4	24.2	12.6	10.1	6.7	19.5	22.9	13.7	25.6	10.9	18.4		



Number of Non-Zero Readings	696
Maximum 1-HR Average	74.8 PPB
Maximum 24-HR Average	11.9 PPB
Monthly Calibration Standard Deviation	6.121
Operational Time	734 HRS
Operational Uptime	98.7 %
Monthly Average	5.0 PPB

Lagoon SO₂ (ppb) – March 2023

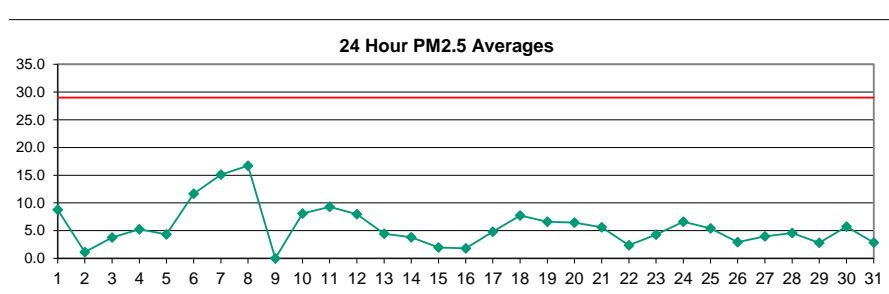
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0.4	S	0.2	0.5	0.7	1.4	1.6	1.6	4.1	3.2	2.3	0.4	0.3	0.4	1.1	2.7	1.8	0.8	0.5	0.4	0.4	0.8	1.6	0.5	1.2	4.1	
2	0.9	S	0.3	0.7	0.7	0.6	0.6	3.4	2.3	0.6	0.3	0.3	0.3	2.1	2.2	4.3	2.4	0.5	0.3	0.5	0.5	0.9	2.2	1.1	1.2	4.3	
3	0.4	S	1.3	0.3	0.1	0.2	0.3	0.3	1.2	1.2	0.7	0.3	0.3	0.3	0.5	0.5	0.2	0.2	0.3	0.4	0.8	0.2	0.3	1.2	0.5	1.3	
4	0.5	S	1.5	1.7	0.5	1.4	0.2	3.5	4.3	3.4	3.3	1.1	5.6	2.3	1.2	1.6	1.0	0.7	0.6	0.4	0.2	0.4	0.4	0.4	1.6	5.6	
5	0.5	S	0.2	0.4	0.6	0.7	0.8	0.7	0.6	0.6	0.5	0.5	0.3	0.3	0.2	0.2	0.1	0.3	0.4	0.0	0.1	0.0	0.0	0.1	0.4	0.8	
6	0.1	S	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	3.6	4.2	1.1	2.0	1.2	1.5	0.8	0.6	0.6	0.5	0.3	0.5	0.0	0.0	0.8	4.2	
7	0.0	S	0.0	0.5	1.2	1.6	1.2	3.4	5.2	5.0	C	C	C	C	C	C	1.7	1.7	1.5	0.2	0.7	0.9	0.4	0.5	-	-	
8	0.4	S	0.2	0.2	0.2	0.4	0.3	1.1	0.6	0.4	0.3	0.2	0.1	0.2	0.3	0.4	0.5	0.4	0.5	0.1	0.0	0.0	0.0	0.0	0.3	1.1	
9	0.0	S	0.0	0.0	0.0	0.0	0.8	1.8	2.0	4.2	EC	0.5	0.2	0.2	0.3	-	-										
10	0.4	S	0.6	0.4	0.3	0.1	0.4	0.5	0.3	0.3	1.5	4.4	6.0	2.3	1.7	1.3	1.4	0.7	0.5	0.4	0.3	0.3	0.2	0.3	1.1	6.0	
11	1.4	S	0.0	0.2	0.2	0.1	0.4	0.4	0.2	0.7	0.1	0.1	0.3	0.4	1.6	0.9	0.4	0.2	0.1	0.1	0.3	0.1	0.2	0.0	0.4	1.6	
12	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.5	2.5	5.7	1.6	0.1	0.2	2.5	4.9	4.6	2.4	1.2	0.5	1.2	5.7	
13	0.3	S	0.3	0.6	0.3	0.1	0.3	0.3	0.4	0.4	0.4	2.2	7.8	4.7	4.8	1.5	1.5	0.6	0.7	0.7	0.6	0.5	0.5	0.4	1.3	7.8	
14	0.6	S	0.5	0.5	0.5	0.6	0.6	0.7	1.1	1.1	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	1.1	
15	0.2	S	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.3	0.7	0.3	0.7	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.2	0.7	
16	0.0	S	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	0.6	
17	0.0	S	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.5	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.1	0.1	0.5	
18	0.3	S	0.2	0.8	0.7	0.6	0.1	0.0	0.0	0.1	0.3	0.2	0.0	1.6	0.2	0.2	1.0	0.3	0.7	0.8	0.7	0.2	0.1	0.2	0.4	1.6	
19	1.2	S	0.1	0.0	0.0	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.5	1.3	1.5	0.5	0.4	0.3	0.2	0.1	0.0	0.2	0.2	0.3	1.5	
20	0.1	S	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	1.0	0.4	0.7	0.5	0.6	2.8	2.1	1.5	1.8	0.6	0.2	0.1	0.1	0.6	2.8	
21	0.2	S	0.1	0.2	0.1	0.1	0.5	0.2	0.3	0.3	0.4	0.9	1.6	1.4	2.4	2.1	2.8	2.1	1.3	0.7	0.4	0.2	0.2	0.8	0.2	2.8	
22	0.5	S	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.1	0.3	0.1	0.1	0.3	0.8	0.4	0.2	0.2	0.1	0.0	0.2	0.2	0.6	0.5	0.3	0.8	
23	0.5	S	0.3	0.3	0.7	0.2	0.2	0.1	0.5	1.0	0.4	0.3	0.3	0.7	2.3	1.7	0.5	0.3	0.2	0.2	0.1	0.3	0.2	0.4	0.5	2.3	
24	0.2	S	0.6	0.1	0.3	0.0	0.2	0.2	0.3	0.8	0.7	1.1	0.9	0.5	0.5	0.4	0.5	0.4	0.5	0.5	0.5	0.3	0.3	0.3	0.4	1.1	
25	0.2	S	0.0	0.2	0.5	0.3	0.9	0.2	0.2	0.3	0.1	0.1	0.3	0.3	0.3	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9	
26	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.6	0.8	0.0	0.2	0.3	0.2	0.4	0.1	0.2	0.0	0.0	0.0	0.1	0.8	
27	0.1	S	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.2	0.4	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.4	
28	0.0	S	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	2.3	1.6	0.2	0.2	0.7	0.7	0.5	0.3	0.5	0.3	0.2	0.1	0.0	0.3	2.3
29	0.6	S	0.3	0.2	0.6	0.3	0.3	0.5	0.3	0.3	0.3	0.6	0.4	3.4	1.4	0.5	0.4	0.4	0.2	0.2	0.2	0.4	0.7	0.6	3.4	3.4	
30	0.8	S	0.4	0.5	0.3	0.2	0.3	0.6	2.2	1.4	0.7	0.9	1.3	0.7	1.0	0.7	0.9	1.0	0.5	0.1	0.4	0.3	0.2	0.3	0.7	2.2	
31	0.4	S	0.3	0.8	2.3	1.0	0.5	0.3	0.6	0.5	0.7	0.4	0.4	0.7	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.6	0.3	0.5	2.3	
NO.	31	-	31	31	31	31	31	31	31	31	29	29	29	29	29	29	30	30	30	30	31	31	31	31	697	98.7%	
MEAN	0.4	-	0.3	0.3	0.4	0.4	0.4	0.7	0.9	0.9	0.7	1.0	1.0	0.9	1.1	1.0	0.7	0.6	0.6	0.5	0.4	0.3	0.3	0.3	0.4	0.8	
MAX	1.4	-	1.5	1.7	2.3	1.6	3.5	5.2	5.0	3.6	7.8	6.0	4.8	5.7	4.3	2.8	2.8	2.5	4.9	4.6	2.4	2.2	1.2	-	-	-	



Number of 1HR Exceedences	0
Number of Non-Zero Readings	615
Maximum 1-HR Average	7.8 PPB
Maximum 24-HR Average	1.6 PPB
Monthly Calibration Standard Deviation	0.918
Operational Time	6 HRS
Operational Uptime	98.7 %
Monthly Average	0.6 PPB

Lagoon PM_{2.5} ($\mu\text{g}/\text{m}^3$) – March 2023

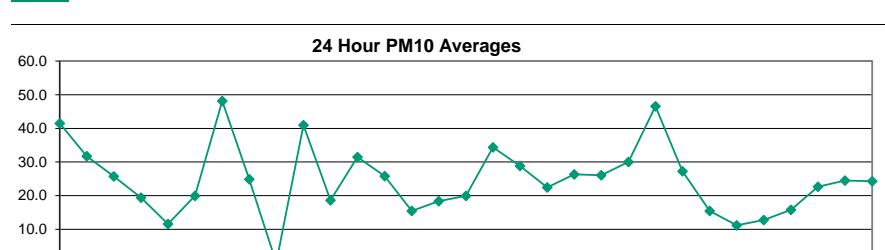
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	41.8	X	11.9	14.8	18.9	19.4	15.5	14.9	15.3	13.0	10.2	10.0	5.1	0.0	0.0	2.1	4.4	3.7	0.2	0.0	0.0	0.0	0.0	0.8	8.8	41.8	
2	1.0	1.5	3.8	2.0	0.3	0.8	0.8	0.4	0.0	0.3	0.0	0.1	0.4	0.4	0.4	2.0	2.4	1.1	0.5	1.0	2.8	1.7	0.4	3.4	1.1	3.8	
3	30.0	X	2.3	3.1	4.1	1.9	3.8	1.4	1.2	7.8	6.6	3.8	2.0	0.4	0.0	0.0	0.0	0.0	0.2	1.1	4.1	4.3	3.8	4.9	3.8	30.0	
4	5.7	4.4	1.9	2.1	4.0	3.6	2.6	3.3	11.5	8.1	8.7	8.6	5.3	6.5	5.8	2.4	1.0	2.7	4.4	7.4	5.5	4.4	7.4	8.8	5.3	11.5	
5	10.8	6.5	3.1	1.4	0.6	2.0	2.9	5.5	3.8	2.1	3.9	2.9	5.2	5.7	4.6	3.5	1.8	1.0	1.0	5.8	5.6	6.6	7.6	10.1	4.3	10.8	
6	9.8	X	10.0	9.7	13.5	11.5	11.1	9.8	8.8	6.9	10.9	23.3	19.7	12.5	10.8	10.1	10.0	9.2	14.1	14.1	10.4	7.3	13.5	11.3	11.7	23.3	
7	12.3	15.2	15.9	17.0	16.8	15.9	16.1	21.5	22.7	19.7	21.1	15.7	12.0	15.8	14.5	11.7	9.5	7.4	8.5	10.0	14.4	14.2	15.6	19.1	15.1	22.7	
8	20.6	20.8	20.0	22.1	28.1	25.5	22.4	25.3	22.3	18.8	16.5	17.7	16.7	12.1	19.7	18.2	15.9	11.2	7.7	8.5	7.1	8.4	6.5	8.6	16.7	28.1	
9	8.3	10.6	11.7	12.1	13.5	14.3	13.2	15.6	22.1	20.7	C	C	EC	11.4	10.3	11.9	11.1	-	-								
10	13.8	X	11.0	9.0	5.4	2.6	3.0	5.3	8.1	8.1	4.6	8.1	11.3	9.0	8.4	14.4	13.4	11.6	11.8	6.5	3.2	4.3	7.1	6.1	8.1	14.4	
11	8.7	13.0	7.9	9.9	11.8	8.0	13.7	13.4	11.4	9.8	11.9	6.9	6.6	8.9	9.6	7.2	9.6	7.4	6.3	6.7	9.3	8.2	7.5	9.5	9.3	13.7	
12	9.6	9.7	8.7	12.7	8.3	5.4	6.9	5.9	5.3	6.9	6.7	3.4	0.0	1.2	8.5	7.2	3.9	0.6	0.0	9.8	17.2	17.0	21.0	16.0	8.0	21.0	
13	19.7	18.6	18.1	16.9	17.4	0.6	1.9	0.3	0.0	0.0	0.0	1.3	2.3	4.3	2.8	0.3	0.5	0.0	0.0	1.0	0.0	0.0	0.0	1.0	4.5	19.7	
14	2.4	3.6	13.7	12.4	7.1	8.0	7.7	8.7	9.9	7.4	1.3	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.2	1.5	2.1	2.4	2.2	3.8	13.7	
15	0.7	0.6	0.0	0.0	0.0	0.0	0.0	0.2	2.1	3.5	4.0	2.2	0.9	2.4	3.5	1.7	3.9	4.9	2.8	4.1	5.0	1.2	0.3	3.1	2.0	5.0	
16	6.2	X	3.9	2.3	0.4	0.0	0.0	0.0	0.0	2.3	4.8	4.6	4.2	3.6	1.5	1.0	0.0	0.2	0.4	0.0	2.9	2.7	0.9	0.0	1.8	6.2	
17	3.0	X	2.0	1.9	0.6	0.0	0.0	2.4	5.0	3.3	3.1	3.7	2.8	4.2	5.6	8.2	8.5	5.1	3.6	8.4	16.7	8.5	7.8	6.0	4.8	16.7	
18	8.8	X	4.0	2.1	2.4	4.1	6.4	6.1	4.0	5.0	5.1	8.0	6.2	5.8	8.0	9.0	7.2	12.3	13.5	13.5	14.2	13.9	10.7	7.8	7.8	14.2	
19	13.1	X	7.0	7.3	4.9	3.1	2.5	4.6	6.0	5.9	3.6	5.8	6.7	4.6	4.5	7.0	9.3	9.2	8.4	10.8	7.7	7.1	7.1	6.4	6.6	13.1	
20	8.6	X	6.8	8.4	7.1	4.5	2.8	7.6	11.4	11.8	9.2	7.4	6.6	5.3	2.6	5.1	3.0	3.4	7.5	8.2	7.9	4.9	4.3	4.7	6.5	11.8	
21	8.0	X	4.5	4.6	3.9	3.9	3.5	3.8	6.7	10.3	8.6	4.4	2.2	3.0	2.0	2.6	7.0	7.9	5.8	5.7	6.7	10.8	6.8	6.8	5.6	10.8	
22	12.3	X	2.0	1.8	1.4	1.9	2.2	2.0	2.3	0.6	0.0	3.3	4.0	3.9	1.4	0.1	1.6	1.7	2.0	0.6	0.0	3.2	3.6	2.2	2.4	12.3	
23	5.5	X	2.7	0.6	0.1	0.0	0.0	4.3	10.3	7.0	6.0	7.0	4.9	4.1	5.2	4.0	3.4	2.5	3.9	5.2	4.8	8.6	8.4	4.3	10.3		
24	9.2	X	0.1	1.5	3.2	1.0	3.1	6.7	6.8	7.7	8.7	13.0	8.9	6.8	4.5	2.9	4.9	4.5	6.1	6.2	7.9	9.9	12.1	16.1	6.6	16.1	
25	20.2	X	25.7	24.0	20.2	0.0	3.9	8.2	4.9	0.4	0.0	0.0	0.2	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.8	4.6	3.4	5.4	25.7	
26	2.3	3.6	3.6	1.1	1.7	2.3	4.1	2.1	1.0	2.0	1.5	2.8	3.9	0.0	0.0	3.5	2.7	3.8	3.5	7.6	8.3	6.1	2.5	0.0	2.9	8.3	
27	4.4	X	2.2	5.1	4.3	6.2	7.0	5.8	3.7	4.9	4.0	1.1	1.5	3.6	3.7	3.8	3.2	1.7	0.7	3.6	5.7	6.6	4.3	4.0	7.0		
28	10.6	X	7.6	3.9	4.3	6.6	5.3	4.8	6.1	4.1	5.3	6.3	6.5	4.8	1.9	0.1	0.7	2.8	2.9	2.7	3.4	3.5	4.0	7.4	4.6	10.6	
29	7.2	10.1	8.3	4.6	0.9	2.1	3.2	2.5	1.7	2.9	4.3	3.5	1.6	1.4	0.3	0.0	0.0	0.0	0.0	2.3	3.2	1.9	0.3	4.8	2.8	10.1	
30	5.6	6.0	4.0	3.5	2.9	3.3	3.2	3.4	8.3	14.5	12.7	7.9	4.5	5.2	6.2	5.9	6.0	4.7	3.2	6.0	3.9	5.1	7.4	4.3	5.7	14.5	
31	9.2	X	6.4	3.0	3.2	3.2	0.0	0.0	1.1	0.9	5.9	5.9	3.4	3.2	3.7	2.2	0.2	0.0	2.1	1.2	0.9	2.8	2.9	3.9	2.8	9.2	
NO.	31	14	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	30	30	31	31	31	31	717	96.6%		
MEAN	10.6	8.9	7.4	7.1	6.8	5.2	5.4	6.2	7.0	7.1	6.3	6.3	5.2	4.7	4.7	4.6	4.5	4.0	4.0	5.2	6.2	6.0	6.2	6.5			
MAX	41.8	20.8	25.7	24.0	28.1	25.5	22.4	25.3	22.7	20.7	21.1	23.3	19.7	15.8	19.7	18.2	15.9	12.3	14.1	14.1	17.2	17.0	21.0	19.1			



Number of 24HR Exceedences	0
Number of Non-Zero Readings	650
Maximum 1-HR Average	41.8 UG/M3
Maximum 24-HR Average	16.7 UG/M3
Monthly Calibration Standard Deviation	5.553
Operational Time	719 HRS
Operational Uptime	96.6 %
Monthly Average	6.1 UG/M3

Lagoon PM₁₀ ($\mu\text{g}/\text{m}^3$) – March 2023

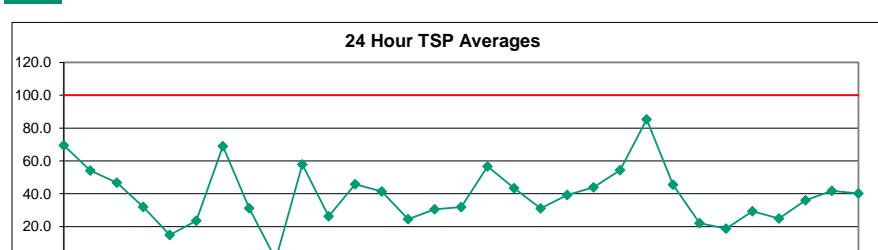
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	22.3	19.1	25.8	23.6	39.7	31.4	24.2	23.2	25.1	25.4	23.2	66.5	32.8	25.1	26.5	42.5	152.4	79.9	45.9	50.1	50.9	51.0	38.3	51.4	41.5	152.4	
2	37.1	66.7	82.7	63.0	113.8	16.4	12.5	14.6	48.2	15.3	12.2	1.1	0.0	3.9	26.3	22.0	23.9	19.1	8.7	8.1	48.5	47.1	38.1	32.2	31.7	113.8	
3	22.7	14.4	11.4	17.6	23.4	20.2	54.8	22.3	45.4	50.4	43.5	12.5	20.9	18.7	7.2	22.0	14.4	5.1	6.8	40.9	36.4	31.8	32.8	42.9	25.8	54.8	
4	50.0	35.6	4.0	3.9	8.9	9.9	8.1	9.6	17.5	18.5	35.6	63.4	27.1	20.6	7.2	15.9	15.3	34.7	34.2	18.3	6.9	7.8	5.5	7.6	19.4	63.4	
5	15.2	12.1	6.8	7.4	8.2	9.4	8.9	10.4	13.1	14.1	8.1	13.7	10.6	14.9	15.6	15.5	9.3	9.4	19.5	12.6	9.8	6.5	16.1	10.4	11.6	19.5	
6	12.9	12.8	12.6	10.4	8.9	20.7	13.7	14.5	6.4	16.0	29.4	53.5	35.2	19.1	20.3	15.1	12.8	24.2	22.2	21.5	21.5	27.3	32.5	14.4	19.9	53.5	
7	11.8	20.9	25.5	18.1	15.5	50.1	59.5	90.9	118.9	101.3	115.4	105.8	52.4	69.3	50.3	60.7	28.5	12.6	16.9	17.4	23.6	33.8	27.8	28.7	48.2	118.9	
8	32.1	38.5	25.8	22.8	37.4	26.6	23.3	25.7	25.0	19.5	19.1	20.6	22.7	20.5	23.4	27.5	33.7	48.3	31.9	21.6	20.8	13.1	9.1	7.6	24.9	48.3	
9	15.3	13.1	10.3	17.7	19.6	20.3	22.2	40.8	65.7	99.3	C	C	EC	EC	EC	EC	EC	EC	EC	EC	29.9	39.6	28.5	26.2	-	-	
10	42.3	47.4	28.1	26.3	25.6	33.7	7.1	20.0	31.0	23.9	9.1	85.5	54.7	14.7	52.9	90.3	61.1	74.0	65.9	38.5	69.2	19.3	29.5	33.9	41.0	90.3	
11	45.0	33.6	18.2	17.5	13.0	18.1	8.2	19.0	24.3	39.1	26.2	13.7	13.4	23.3	11.6	14.4	8.4	13.7	7.6	10.6	22.0	17.4	11.8	16.0	18.6	45.0	
12	26.1	15.5	14.0	19.1	13.6	14.6	15.8	26.1	46.4	75.6	39.3	61.3	50.8	40.6	40.6	28.8	19.6	22.1	29.7	10.4	21.6	43.8	39.6	47.5	33.5	31.5	75.6
13	49.3	45.6	38.2	43.4	37.3	3.5	1.7	0.4	2.6	7.7	9.6	60.5	102.1	61.9	47.8	28.8	20.2	10.7	14.3	6.6	4.8	3.8	6.8	11.7	25.8	102.1	
14	23.4	16.8	33.8	31.5	11.7	13.2	13.8	11.8	15.3	13.4	24.4	6.4	2.2	3.9	4.9	4.7	4.4	4.3	0.0	0.0	64.9	40.1	19.0	7.9	15.5	64.9	
15	5.1	5.1	3.7	5.4	6.6	3.4	10.0	26.3	14.5	32.1	39.1	57.4	31.3	29.7	7.6	17.6	35.7	32.7	5.6	10.0	28.8	5.1	8.6	19.2	18.4	57.4	
16	5.2	3.5	15.1	1.3	5.4	5.9	14.3	13.7	21.8	61.8	76.2	50.6	50.7	39.3	8.8	9.3	5.9	4.8	13.6	10.0	15.0	15.4	12.7	17.8	19.9	76.2	
17	14.9	13.0	6.9	8.5	13.5	19.6	15.0	25.8	86.1	81.4	86.4	45.7	34.9	15.8	14.6	17.0	28.2	22.0	21.9	34.9	62.0	27.2	53.9	75.8	34.4	86.4	
18	49.8	30.0	22.2	24.7	26.7	21.6	22.6	24.3	21.8	22.8	20.8	37.5	33.8	19.4	29.6	26.8	25.3	18.6	39.6	37.9	41.2	39.2	33.7	22.1	28.8	49.8	
19	21.0	20.2	22.4	21.6	18.3	13.7	12.7	13.5	28.8	41.0	33.2	46.5	39.0	19.3	11.3	18.8	22.8	20.1	12.8	16.0	28.6	22.0	16.3	18.1	22.4	46.5	
20	22.3	19.7	22.0	21.2	16.8	16.2	11.5	33.5	101.4	77.5	43.9	32.6	29.6	7.9	11.1	11.9	11.8	30.2	21.1	24.9	13.8	16.7	17.2	17.3	26.3	101.4	
21	20.0	17.5	15.8	13.8	11.9	14.1	14.2	32.9	60.1	77.3	56.5	29.7	36.9	10.1	22.1	20.4	23.3	14.8	12.2	24.5	22.6	34.3	24.8	15.5	26.0	77.3	
22	25.1	21.8	15.6	16.3	19.2	21.8	21.3	25.7	25.4	33.7	37.4	78.6	51.6	48.4	7.5	17.3	75.6	12.5	27.7	42.7	33.8	20.7	29.8	11.1	30.0	78.6	
23	8.3	6.1	3.8	4.5	9.2	10.5	30.1	14.0	76.5	172.4	110.8	89.9	47.3	33.1	81.4	96.4	55.8	25.7	11.6	80.4	57.7	30.1	34.8	27.5	46.6	172.4	
24	12.9	16.9	11.5	14.8	5.5	16.0	20.0	68.1	50.4	57.2	37.8	84.7	28.7	24.6	20.1	25.9	20.0	10.0	17.4	15.8	13.1	25.3	29.3	28.3	27.3	84.7	
25	43.7	46.8	44.6	40.3	42.0	21.4	11.9	11.0	5.5	12.7	6.7	18.5	12.6	6.3	6.8	5.4	6.9	8.1	3.9	1.3	0.0	1.1	4.5	9.2	15.5	46.8	
26	10.5	14.7	7.8	10.9	6.6	7.3	10.4	10.2	6.7	13.6	11.5	11.3	6.6	4.9	13.6	6.3	10.2	14.5	13.9	38.9	7.4	3.6	7.8	18.4	11.1	38.9	
27	8.8	16.8	5.7	7.5	8.4	12.1	10.7	9.0	17.1	12.6	8.1	10.3	33.8	17.3	18.7	6.9	7.0	6.1	6.2	18.5	19.3	18.7	10.5	15.5	12.7	33.8	
28	17.9	16.2	11.0	11.0	8.4	9.4	9.1	15.3	24.6	38.6	33.0	36.5	18.3	12.3	8.4	8.5	14.2	14.0	9.2	8.7	11.8	17.2	11.6	12.8	15.8	38.6	
29	23.1	16.8	17.9	10.5	17.7	22.0	27.5	44.4	55.8	63.1	59.8	49.7	25.6	16.9	9.2	4.5	1.1	14.5	7.9	8.4	6.9	9.6	12.7	17.5	22.6	63.1	
30	28.0	22.2	12.5	12.3	23.5	18.7	23.4	26.8	50.9	54.5	26.8	28.5	17.5	28.7	18.3	20.0	14.6	31.2	31.6	18.0	9.5	31.3	26.9	12.4	24.5	54.5	
31	20.2	16.2	13.2	9.9	10.3	22.0	16.8	18.6	20.9	33.7	96.8	48.6	27.9	16.8	54.0	19.5	15.8	21.5	5.8	7.0	8.6	10.7	34.8	33.3	24.3	96.8	
NO.	31	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	30	30	31	31	31	31	734	98.9%		
MEAN	23.9	22.4	19.0	18.0	20.2	17.5	17.9	23.9	37.2	45.3	39.3	44.0	31.7	22.9	22.2	23.7	26.0	22.2	18.2	22.2	26.9	22.8	23.0	22.5			
MAX	50.0	66.7	82.7	63.0	113.8	50.1	59.5	90.9	118.9	172.4	115.4	105.8	102.1	69.3	81.4	96.4	152.4	79.9	65.9	80.4	69.2	51.0	53.9	75.8			



Number of Non-Zero Readings	731
Maximum 1-HR Average	172.4 ug/m ₃
Maximum 24-HR Average	48.2 ug/m ₃
Monthly Calibration Standard Deviation	21.28
Operational Time	736 HRS
Operational Uptime	98.9 %
Monthly Average	25.5 ug/m ₃

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

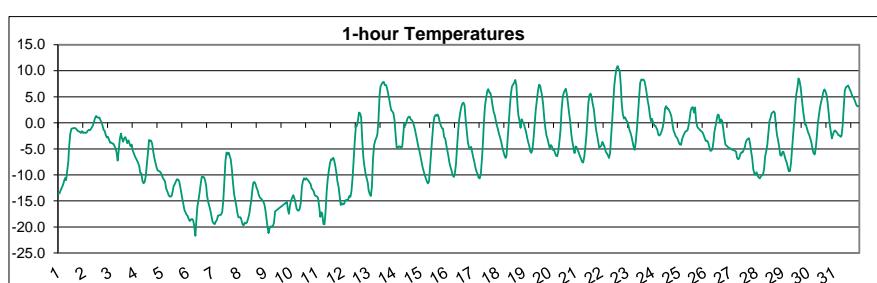
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	14.5	19.2	27.4	25.9	43.7	37.1	32.4	24.0	26.8	28.7	39.2	143.8	28.4	45.3	49.6	65.6	309.8	183.8	99.2	80.1	55.4	69.1	94.6	125.9	69.6	309.8	
2	71.7	121.4	161.7	58.1	158.5	37.1	32.2	30.7	93.7	30.5	17.0	8.3	17.8	19.4	52.1	46.3	38.3	31.2	12.5	17.3	66.6	55.2	54.5	65.6	54.1	161.7	
3	32.2	21.6	17.7	36.9	38.6	41.6	91.6	37.9	65.6	80.8	77.5	20.4	40.1	36.0	15.1	45.9	32.0	8.1	12.6	81.8	80.5	67.6	55.8	83.4	46.7	91.6	
4	92.3	48.3	11.0	9.5	17.9	14.8	10.3	15.1	24.2	29.9	53.2	95.7	27.4	33.3	20.9	21.5	30.3	61.8	54.2	29.6	18.4	19.0	13.1	16.7	32.0	95.7	
5	15.9	17.9	4.5	7.1	17.7	13.6	10.5	15.7	18.6	21.0	9.4	7.8	24.1	16.0	20.9	19.2	19.2	7.1	28.9	14.5	17.3	12.1	9.4	6.8	14.9	28.9	
6	16.2	21.2	11.0	9.1	13.4	8.3	6.8	8.2	16.9	20.2	40.3	69.8	47.5	25.7	29.6	19.6	10.5	25.8	18.5	20.7	19.8	35.3	48.3	22.2	23.5	69.8	
7	21.5	26.4	26.6	27.6	28.2	55.4	70.3	107.8	159.6	135.3	202.3	190.9	78.3	115.0	84.1	107.5	41.0	14.1	25.9	21.2	23.4	22.4	34.6	34.0	68.9	202.3	
8	39.7	42.9	17.4	15.1	24.5	29.9	22.5	26.3	23.4	20.7	20.1	35.4	29.3	29.4	30.8	34.5	58.0	77.3	50.9	45.1	27.0	19.0	14.3	16.5	31.2	77.3	
9	15.9	30.5	17.6	12.9	15.4	16.4	25.5	34.8	87.5	137.6	C	C	EC	EC	EC	EC	EC	EC	EC	EC	EC	30.9	70.9	64.3	38.6	-	-
10	39.3	61.0	45.5	35.5	38.2	34.6	15.2	28.4	36.4	45.8	21.2	133.7	95.2	42.7	106.3	156.6	84.4	84.7	59.8	39.3	40.8	22.2	53.9	68.4	57.9	156.6	
11	63.8	47.5	23.1	19.8	14.5	20.8	11.5	20.4	46.7	48.8	40.7	27.4	20.6	43.8	21.9	12.6	14.1	13.8	9.2	13.7	29.9	21.4	20.5	24.5	26.3	63.8	
12	21.8	30.7	12.3	22.0	14.7	15.4	16.6	25.2	60.5	114.7	64.6	97.6	81.8	59.7	53.3	29.2	40.4	37.2	23.6	50.1	60.3	58.0	68.8	39.9	45.8	114.7	
13	64.7	62.0	48.6	55.8	45.6	12.6	7.1	3.8	8.9	11.5	21.7	99.0	174.0	106.2	75.5	54.0	34.1	12.0	19.9	12.4	11.4	11.9	24.7	15.9	41.4	174.0	
14	28.7	21.7	65.4	44.1	9.6	21.9	14.3	24.8	22.1	21.9	31.6	9.7	10.2	9.4	8.6	4.9	13.8	7.1	2.8	5.7	105.0	61.2	28.8	16.1	24.5	105.0	
15	4.4	3.4	1.2	10.1	10.3	5.5	24.8	25.5	20.0	25.0	48.2	101.7	56.4	52.4	29.1	32.0	74.1	56.7	19.2	16.6	56.5	11.1	12.3	37.6	30.6	101.7	
16	12.2	16.3	30.8	6.1	5.8	5.2	6.2	22.0	40.7	99.6	126.1	98.3	72.9	61.5	16.7	14.9	9.7	7.9	9.4	23.7	29.1	20.3	10.0	19.8	31.9	126.1	
17	25.3	25.5	8.9	20.9	20.9	17.6	24.3	37.4	135.0	130.5	166.9	88.4	61.7	22.8	31.4	24.2	39.0	26.1	25.5	47.6	102.0	48.4	84.9	143.6	56.6	166.9	
18	81.9	54.5	38.7	37.8	42.7	24.4	41.0	33.5	35.2	37.1	41.6	63.0	45.1	22.5	40.1	33.3	37.4	31.6	52.6	57.2	67.6	64.3	31.6	25.6	43.3	81.9	
19	26.5	20.6	25.4	17.1	23.6	24.9	14.1	21.3	44.7	55.7	53.6	67.8	54.1	18.7	17.2	30.3	34.1	22.9	23.5	26.2	48.4	29.4	23.8	20.7	31.0	67.8	
20	21.0	24.2	29.1	28.3	27.8	28.3	28.2	48.7	135.0	104.0	62.6	44.2	41.8	19.0	21.5	23.2	11.0	77.3	44.4	30.1	18.4	30.4	23.6	21.1	39.3	135.0	
21	30.6	36.5	26.7	19.9	18.6	24.0	33.6	46.2	94.5	113.1	80.5	40.0	52.9	26.2	49.9	56.5	53.0	25.0	19.6	39.5	44.6	54.7	33.5	35.1	44.0	113.1	
22	33.5	38.0	34.9	18.8	27.0	38.3	57.0	41.6	48.6	56.0	71.9	126.1	84.0	84.0	15.7	46.1	154.9	23.0	31.3	98.6	49.7	45.7	58.2	22.5	54.4	154.9	
23	15.4	12.7	15.4	16.0	15.1	27.4	61.5	30.6	111.1	281.5	185.7	153.4	81.7	69.2	148.9	167.3	104.4	40.1	23.3	172.7	116.1	67.9	73.8	55.7	85.3	281.5	
24	23.6	20.8	24.6	14.9	8.9	25.5	21.8	103.8	81.7	98.9	71.0	138.1	61.8	49.2	36.6	46.0	47.5	22.9	22.7	34.0	21.6	33.7	46.0	36.9	45.5	138.1	
25	47.6	56.0	68.2	47.7	45.8	21.4	17.9	8.6	5.5	9.9	12.3	21.2	21.8	4.7	19.6	15.4	22.6	34.1	1.8	9.2	10.6	7.4	8.5	11.7	22.1	68.2	
26	14.9	12.9	12.8	6.6	7.0	10.6	12.6	11.3	19.9	16.6	17.4	9.7	10.0	33.2	20.8	16.9	35.0	36.7	79.5	10.3	8.0	14.8	21.3	18.8	79.5		
27	12.2	32.1	12.6	10.9	11.4	25.5	22.3	29.2	38.7	52.6	40.4	36.9	135.2	58.4	32.9	17.6	8.8	6.1	13.7	31.6	23.1	22.9	8.1	21.7	29.4	135.2	
28	20.9	21.2	21.6	16.9	12.0	15.7	16.4	25.7	46.8	54.0	41.4	54.4	35.3	22.5	17.0	16.0	32.9	19.7	19.7	17.5	18.1	22.0	14.2	16.8	24.9	54.4	
29	30.6	31.1	20.6	15.7	19.7	33.3	39.8	62.2	75.0	95.8	93.9	65.7	45.0	29.5	9.1	22.0	11.2	39.2	22.4	20.2	7.5	13.1	28.0	34.1	36.0	95.8	
30	58.6	30.8	17.0	19.6	28.8	25.0	31.9	46.2	90.1	94.4	50.4	42.9	40.4	51.0	24.4	42.7	41.8	61.8	62.3	21.2	18.7	44.6	40.1	18.9	41.8	94.4	
31	27.7	36.5	22.5	15.5	15.5	35.0	25.1	42.4	36.0	58.1	176.7	83.5	43.6	30.6	105.3	33.5	19.4	22.4	8.2	12.1	9.3	17.3	48.6	39.2	40.2	176.7	
NO.	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	30	30	30	30	31	31	31	31	734	98.9%	
MEAN	33.1	33.7	29.1	22.9	26.5	24.0	27.2	33.6	56.2	68.8	65.9	72.7	53.9	40.5	40.6	42.0	48.2	37.2	28.5	39.0	39.9	35.0	37.0	37.3			
MAX	92.3	121.4	161.7	58.1	158.5	55.4	91.6	107.8	159.6	281.5	202.3	190.9	174.0	115.0	148.9	167.3	309.8	183.8	99.2	172.7	116.1	70.9	94.6	143.6			



Number of 24HR Exceedences	0
Number of Non-Zero Readings	734
Maximum 1-HR Average	309.8 UG/M3
Maximum 24-HR Average	85.3 UG/M3
Monthly Calibration Standard Deviation	36.0
Operational time	736 HRS
Operational Uptime	98.9 %
Monthly Average	40.4 UG/M3

Lagoon Temperature (°C) – March 2023

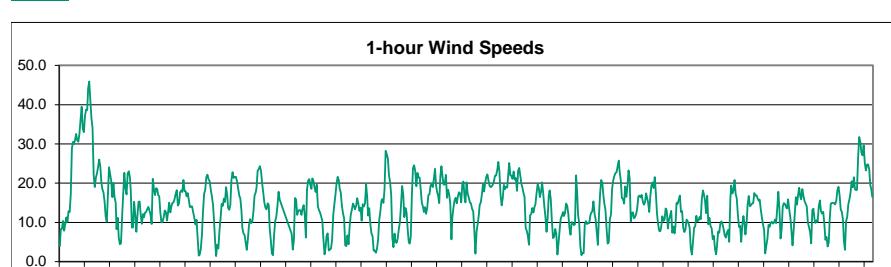
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	-13.6	-13.5	-13.0	-12.5	-12.0	-11.3	-10.7	-11.0	-9.3	-7.5	-4.6	-2.2	-1.2	-1.1	-1.0	-1.0	-1.1	-1.3	-1.6	-1.7	-1.8	-1.9	-1.6	-1.9	-5.8	-1.0
2	-1.9	-1.9	-1.9	-1.6	-1.4	-1.4	-1.2	-0.9	-0.5	0.2	0.9	1.3	1.1	1.0	1.0	0.5	0.0	-0.7	-1.4	-1.6	-2.4	-2.8	-2.7	-3.3	-0.9	1.3
3	-3.8	-3.8	-4.0	-4.0	-4.5	-4.9	-5.7	-7.3	-5.3	-3.1	-2.1	-3.1	-3.6	-3.0	-2.7	-3.2	-3.9	-3.4	-4.0	-4.5	-4.2	-5.4	-5.9	-6.5	-4.2	-2.1
4	-6.9	-7.3	-7.7	-8.3	-9.6	-9.7	-11.2	-11.6	-11.3	-10.2	-8.0	-5.7	-3.3	-3.5	-3.4	-4.0	-5.5	-6.7	-7.6	-8.5	-9.1	-9.2	-9.4	-9.6	-7.8	-3.3
5	-10.0	-10.6	-10.9	-11.3	-12.6	-13.1	-13.8	-14.1	-14.2	-14.0	-13.3	-12.2	-11.8	-11.3	-10.9	-10.9	-11.2	-12.3	-13.5	-14.7	-15.8	-16.7	-17.2	-17.7	-13.1	-10.0
6	-17.9	-18.5	-18.9	-18.6	-18.4	-18.7	-19.8	-21.7	-19.0	-16.1	-14.8	-13.4	-11.8	-10.4	-10.3	-10.5	-11.0	-12.0	-13.9	-15.1	-15.9	-16.8	-17.8	-18.9	-15.9	-10.3
7	-19.3	-19.5	-19.0	-18.6	-17.8	-17.8	-17.7	-17.6	-17.1	-15.0	-11.2	-7.3	-5.7	-6.1	-5.7	-6.4	-7.0	-8.9	-11.4	-13.6	-14.8	-15.8	-17.2	-18.1	-13.7	-5.7
8	-18.2	-18.2	-18.7	-19.5	-19.7	-19.2	-19.3	-19.1	-18.4	-17.6	-16.2	-14.7	-12.6	-11.5	-11.4	-11.8	-12.5	-13.1	-13.9	-14.3	-14.6	-14.8	-15.1	-15.6	-15.8	-11.4
9	-16.5	-18.1	-19.8	-21.2	-20.2	-19.9	-19.9	-19.8	-19.1	-17.0	EC	-	-													
10	-14.9	-14.3	-13.9	-14.5	-15.3	-16.5	-16.8	-16.8	-16.5	-15.4	-12.3	-11.1	-10.6	-10.9	-10.6	-10.9	-11.1	-11.5	-11.8	-12.5	-12.8	-13.2	-13.9	-14.1	-13.4	-10.6
11	-14.1	-14.5	-16.2	-18.1	-17.2	-17.5	-19.4	-19.5	-17.0	-13.2	-10.7	-9.1	-7.8	-7.0	-7.1	-6.7	-7.2	-8.2	-9.5	-11.3	-12.2	-14.1	-15.8	-15.5	-12.9	-6.7
12	-15.7	-15.6	-15.0	-14.8	-14.9	-14.7	-14.0	-14.2	-13.1	-10.5	-7.1	-3.5	-0.6	-0.6	0.3	2.0	1.8	1.0	-3.2	-6.6	-8.4	-9.8	-10.6	-11.5	-8.3	2.0
13	-12.9	-13.7	-14.0	-12.3	-6.9	-4.3	-3.4	-2.9	-2.2	0.7	5.3	6.9	7.4	7.8	7.9	7.2	7.3	6.7	5.6	4.5	3.2	2.4	2.2	1.8	0.2	7.9
14	0.5	-2.3	-4.8	-4.8	-4.5	-4.5	-4.9	-4.6	-2.7	-0.1	-0.5	0.1	0.8	1.2	1.2	0.6	0.5	0.2	-0.6	-1.3	-2.3	-3.4	-4.5	-5.3	-1.9	1.2
15	-6.4	-7.5	-8.5	-9.3	-10.0	-10.7	-11.2	-11.6	-11.3	-8.4	-5.5	-2.8	-0.1	1.2	1.5	1.4	1.6	1.2	0.1	-0.5	-1.0	-1.1	-2.7	-3.0	-4.4	1.6
16	-4.3	-5.4	-6.5	-7.6	-8.5	-9.2	-10.1	-10.4	-9.7	-7.9	-4.6	-1.5	0.7	2.1	3.0	3.7	3.9	3.4	0.6	-1.6	-3.7	-4.7	-5.0	-4.6	-3.7	3.9
17	-5.5	-6.5	-7.4	-8.5	-9.3	-9.8	-10.5	-10.7	-9.9	-7.0	-3.6	0.0	3.3	4.7	6.0	6.5	5.8	5.7	4.6	3.2	2.0	1.4	0.5	-0.5	-1.9	6.5
18	-1.2	-2.1	-2.8	-3.7	-4.7	-5.5	-6.3	-6.8	-6.3	-3.3	-0.3	2.9	5.6	5.6	7.0	7.3	7.7	8.2	7.2	3.5	1.5	0.5	-1.0	0.7	0.2	8.2
19	-0.2	-1.0	-1.7	-2.9	-3.7	-4.5	-5.4	-5.8	-5.1	-3.1	-0.3	2.4	4.2	6.0	7.3	7.2	6.3	5.3	3.5	0.9	-1.0	-2.4	-3.1	-4.1	-0.1	7.3
20	-4.8	-4.3	-4.6	-5.2	-5.2	-5.8	-6.4	-6.4	-5.4	-3.6	-1.4	2.6	4.9	5.8	6.2	6.6	5.4	3.7	1.9	0.3	-2.1	-3.6	-4.8	-5.8	-1.3	6.6
21	-4.5	-4.7	-5.2	-5.7	-6.4	-6.9	-7.5	-7.6	-6.6	-4.7	-2.4	0.5	3.8	5.3	5.6	4.8	3.6	2.5	0.5	-1.3	-2.5	-3.7	-4.8	-4.6	-2.2	5.6
22	-4.4	-3.7	-4.1	-4.7	-5.5	-5.9	-6.2	-6.7	-5.8	-2.9	0.1	3.7	7.1	9.0	10.4	10.9	10.4	9.8	7.0	3.5	1.6	0.8	1.0	0.6	1.1	10.9
23	0.2	-0.4	-1.4	-1.9	-2.8	-3.8	-4.6	-5.2	-3.5	-1.2	1.7	4.9	7.7	8.3	8.3	8.3	7.9	7.1	5.8	4.3	3.2	1.5	0.3	0.8	1.9	8.3
24	-0.1	-0.6	-0.5	-0.9	-1.4	-2.3	-2.4	-2.1	-1.6	-0.8	0.4	2.7	3.2	2.7	2.4	1.9	1.2	-0.3	-1.5	-2.0	-2.6	-2.8	-3.3	-0.3	3.2	
25	-3.9	-4.2	-4.2	-3.1	-2.5	-2.1	-1.6	-1.6	-1.4	-0.4	1.0	2.3	2.9	3.0	1.9	2.9	0.3	-0.7	-1.1	-1.3	-1.5	-1.7	-1.9	-2.4	-0.9	3.0
26	-3.0	-3.5	-3.4	-3.7	-4.5	-5.3	-5.4	-5.0	-3.5	-1.7	-0.7	0.5	1.5	1.5	0.0	0.7	0.4	-1.1	-2.8	-4.1	-4.4	-4.5	-4.8	-4.9	-2.6	1.5
27	-5.0	-5.1	-5.2	-5.3	-5.4	-5.6	-6.7	-7.0	-6.8	-6.0	-5.7	-5.3	-4.8	-3.7	-3.2	-3.1	-2.9	-3.9	-5.4	-6.8	-8.9	-9.8	-10.0	-5.7	-2.9	
28	-9.5	-10.2	-10.5	-10.7	-10.2	-10.1	-9.9	-9.8	-9.5	-6.5	-4.2	-1.9	0.4	1.0	1.8	2.0	2.2	1.9	-0.5	-2.3	-3.4	-4.7	-6.2	-6.3	-4.7	2.2
29	-5.6	-5.5	-6.2	-7.1	-7.6	-8.5	-9.3	-9.2	-7.6	-4.8	-2.1	0.6	3.4	5.5	6.7	8.5	8.0	6.7	4.7	2.6	1.0	-0.4	-1.2	-1.2	-1.2	8.5
30	-1.9	-2.3	-3.1	-3.9	-5.1	-5.9	-6.1	-4.7	-2.4	-0.1	1.4	2.9	4.0	4.8	6.0	6.4	6.0	5.3	3.8	1.7	-0.3	-1.6	-3.0	-3.0	0.0	6.4
31	-1.7	-1.5	-1.7	-2.0	-2.4	-2.5	-2.7	-2.5	-0.5	3.0	6.2	6.9	7.0	7.2	6.7	6.2	5.7	5.1	4.9	4.4	3.8	3.3	3.2	3.2	2.5	7.2
NO.	31	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	30	30	30	31	31	31	31	734	98.7%
MEAN	-7.3	-7.8	-8.2	-8.6	-8.7	-9.0	-9.4	-9.5	-8.4	-6.4	-3.8	-1.8	-0.2	0.5	0.8	0.9	0.5	-0.3	-1.8	-3.2	-4.6	-5.6	-6.1	-6.5		
MAX	0.5	-0.4	-0.5	-0.9	-1.4	-1.2	-0.9	-0.5	-0.3	3.0	6.2	6.9	7.7	9.0	10.4	10.9	10.4	9.8	7.0	4.5	3.8	3.3	3.2	3.2	2.5	7.2



Number of Non-Zero Readings	734
Maximum 1-HR Average	10.9 C
Maximum 24-HR Average	2.5 C
Monthly Calibration Standard Deviation	7.05
Operational Time	734 HRS
Operational Uptime	98.7 %
Monthly Average	-4.8 C

Lagoon Wind Speed (km/hr) – March 2023

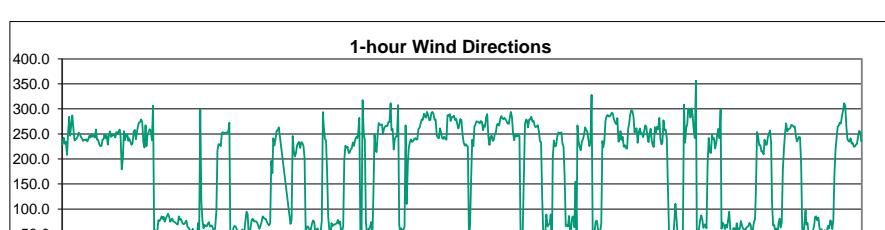
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	4.0	8.3	8.3	10.4	7.9	9.6	11.3	10.1	12.9	12.7	17.2	28.8	30.5	30.0	31.0	32.6	30.9	30.6	32.6	36.2	39.5	33.9	33.0	37.2	22.5	39.5	
2	38.7	38.6	44.1	45.9	41.2	36.6	34.0	22.0	19.0	21.5	22.5	24.2	26.0	24.2	20.0	18.5	17.7	15.4	11.5	10.2	16.9	24.0	22.4	20.5	25.6	45.9	
3	16.4	20.1	16.4	15.1	8.3	11.2	6.1	4.4	4.7	11.5	17.3	22.6	18.7	17.2	22.5	23.0	21.5	18.1	8.7	8.7	15.3	12.1	7.6	11.7	14.1	23.0	
4	15.3	15.3	11.8	9.6	12.2	11.3	12.5	12.7	13.4	14.0	13.1	11.9	9.6	21.1	18.6	16.9	18.7	18.6	17.0	16.7	12.6	10.0	10.2	11.3	13.9	21.1	
5	13.0	12.6	10.5	12.7	15.1	12.6	14.1	14.9	15.1	15.9	17.2	18.2	14.3	14.8	17.6	18.2	17.7	20.8	18.0	17.9	16.7	17.5	15.8	13.9	15.6	20.8	
6	14.1	14.1	12.5	11.2	9.5	10.7	6.0	1.5	1.7	3.2	6.7	12.8	17.3	18.3	21.6	22.2	21.0	20.5	18.4	16.6	14.6	11.1	5.7	1.4	12.2	22.2	
7	4.3	3.4	7.8	11.0	14.7	14.2	16.1	15.2	19.0	16.8	13.7	13.2	14.4	20.8	22.8	21.4	21.6	21.6	20.5	18.7	16.9	16.1	13.0	8.6	15.2	22.8	
8	7.2	6.8	4.9	3.0	5.7	9.3	10.9	9.8	10.2	12.8	16.9	17.6	18.9	23.2	23.6	24.3	23.1	20.1	17.6	15.1	13.7	13.3	14.8	14.4	14.0	24.3	
9	8.5	5.6	2.0	1.6	6.9	10.3	11.5	14.3	17.8	15.8	EC	7.1	3.0	5.5	16.2	-	-										
10	15.8	11.9	12.8	13.2	13.1	11.9	13.5	14.4	11.9	6.1	18.4	20.6	21.0	19.5	18.5	21.2	20.6	18.9	17.7	19.6	14.1	13.1	12.5	11.5	15.5	21.2	
11	10.4	5.6	1.9	3.9	6.5	7.2	2.8	3.1	3.3	5.6	11.7	14.6	17.0	19.9	21.6	20.8	18.6	17.6	14.3	12.3	11.1	4.1	4.0	6.7	10.2	21.6	
12	4.4	9.1	12.0	13.3	14.8	14.3	13.3	14.2	16.2	14.8	12.9	13.8	10.4	14.6	14.1	14.8	19.7	16.4	11.8	13.6	9.6	7.2	6.5	2.8	12.3	19.7	
13	2.8	2.3	3.3	5.6	10.6	12.8	15.4	16.0	15.0	18.6	28.2	27.4	26.2	22.0	20.3	17.0	6.1	3.7	7.1	5.1	4.8	5.8	8.2	10.1	12.3	28.2	
14	14.3	19.3	17.3	11.3	13.6	12.6	8.3	5.0	4.6	6.4	17.1	23.8	24.6	23.1	19.2	22.6	21.5	21.4	18.2	14.9	14.0	12.7	13.9	12.2	15.5	24.6	
15	13.7	16.9	17.2	19.3	19.9	19.0	21.2	23.6	19.3	17.6	16.8	14.9	21.6	24.3	21.6	19.6	19.7	22.1	16.3	18.3	17.1	14.7	5.7	11.2	18.0	24.3	
16	13.7	15.6	16.3	14.9	16.7	17.7	17.4	15.1	19.8	20.4	16.4	15.1	20.2	17.3	16.4	15.1	14.8	13.5	12.8	8.0	2.0	7.6	9.6	11.8	14.5	20.4	
17	14.4	15.1	17.1	19.8	17.9	20.1	21.7	22.2	20.5	19.3	19.0	19.2	19.7	20.4	21.9	21.9	23.3	25.4	22.9	17.1	14.3	16.2	19.6	18.5	19.5	25.4	
18	19.1	18.9	21.7	25.1	22.0	21.9	21.1	23.0	20.9	21.3	18.0	23.1	23.9	21.8	19.8	18.9	17.6	16.5	8.6	7.9	6.5	4.3	11.8	12.2	17.8	25.1	
19	13.7	12.5	14.0	14.6	17.4	19.7	18.8	16.4	17.8	20.2	17.4	14.1	11.4	7.6	11.2	16.8	18.2	15.9	10.5	6.0	6.3	8.3	7.0	1.8	13.2	20.2	
20	4.8	8.1	11.1	11.7	12.7	11.6	12.4	14.8	14.2	12.1	8.6	6.9	10.1	9.7	9.3	9.6	22.0	17.2	11.9	9.7	4.1	1.7	2.3	2.2	9.9	22.0	
21	9.5	10.3	9.6	9.8	9.8	11.7	12.4	12.9	15.4	12.2	10.7	7.5	4.2	11.9	17.3	20.8	20.0	16.7	14.5	13.3	8.6	4.6	5.0	10.8	11.7	20.8	
22	12.0	18.6	20.7	21.9	22.6	22.8	24.3	25.8	23.0	20.8	16.2	16.0	14.8	19.2	16.5	19.1	23.3	21.2	10.3	12.5	12.5	11.1	11.4	12.1	17.9	25.8	
23	13.6	16.5	16.9	16.4	17.0	15.3	14.5	15.1	17.4	16.1	15.2	12.7	16.6	19.4	20.2	18.8	21.6	17.4	12.3	9.5	7.8	7.8	8.9	11.6	14.9	21.6	
24	10.4	10.6	13.6	13.0	8.5	10.7	11.7	12.9	7.4	9.0	7.2	9.0	15.0	14.7	15.8	16.9	12.6	12.9	8.7	7.6	8.2	10.7	10.3	9.6	11.1	16.9	
25	8.7	3.3	1.8	5.0	8.6	9.0	11.7	10.3	10.5	11.4	10.9	16.1	18.2	17.2	15.6	12.4	16.8	9.5	11.2	9.1	8.5	5.7	6.6	3.3	10.1	18.2	
26	1.9	3.9	7.7	7.4	9.6	10.3	9.5	8.3	6.6	6.1	7.4	8.1	5.0	15.8	19.4	17.4	18.1	20.8	17.3	16.1	12.0	8.8	9.2	5.1	10.5	20.8	
27	9.4	11.6	9.4	6.9	9.6	14.6	16.7	14.1	14.4	14.8	14.9	17.5	16.8	16.9	16.1	15.5	15.9	13.4	11.3	9.5	8.1	2.1	4.1	5.8	12.1	17.5	
28	9.3	8.9	9.9	10.1	9.7	9.9	10.7	9.8	13.5	17.8	13.3	5.9	8.2	14.1	14.9	14.7	13.9	13.6	15.9	13.3	11.4	7.9	4.1	8.0	11.2	17.8	
29	12.1	16.4	14.5	17.0	18.9	16.5	15.9	18.5	16.8	15.4	14.8	14.1	10.0	8.8	7.6	4.7	13.2	13.5	10.7	9.8	10.5	10.1	14.1	15.6	13.3	18.9	
30	12.8	12.3	12.7	9.8	5.6	6.3	3.9	5.0	10.5	14.7	15.0	15.0	14.9	14.6	15.6	18.3	19.0	16.8	13.2	12.7	10.5	5.4	3.0	10.3	11.6	19.0	
31	11.4	14.6	15.9	17.6	20.5	18.9	21.5	18.5	18.2	18.3	26.5	31.8	30.5	27.8	27.1	29.6	25.3	23.2	24.7	24.8	23.5	19.5	18.6	16.5	21.9	31.8	
NO.	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	30	30	30	31	31	31	31	31	734	98.7%	
MEAN	11.6	12.5	12.8	13.2	13.8	14.2	14.2	13.7	13.9	14.3	15.4	16.5	17.0	18.3	18.6	18.8	19.1	17.8	14.9	13.7	12.2	10.7	10.5	11.1			
MAX	38.7	38.6	44.1	45.9	41.2	36.6	34.0	25.8	23.0	21.5	28.2	31.8	30.5	30.0	31.0	32.6	30.9	30.6	32.6	36.2	39.5	33.9	33.0	37.2			



Number of Non-Zero Readings	734
Maximum 1-HR Average	45.9 KM/HR
Maximum 24-HR Average	25.6 KM/HR
Monthly Calibration Standard Deviation	6.666
Operational Time	734 HRS
Operational Uptime	98.7 %
Monthly Average	14.5 KM/HR

Lagoon Wind Direction (°) – March 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	229.3	242.5	230.4	234.5	208.0	252.8	284.2	246.2	268.1	287.1	259.8	237.0	239.0	241.5	245.4	252.7	250.4	244.2	240.7	236.4	237.8	238.1	239.3	234.8	243.7	287.1				
2	239.6	246.6	242.8	248.9	244.5	246.0	242.8	258.8	239.0	238.4	229.4	225.5	226.2	238.2	239.9	249.0	241.5	246.3	228.5	247.2	255.1	244.3	247.8	246.9	242.5	258.8				
3	249.4	242.8	253.8	249.9	255.6	258.6	243.2	179.5	200.4	255.8	237.5	248.7	249.2	236.1	241.2	235.0	228.3	231.2	253.3	258.2	239.1	254.2	263.7	272.7	244.4	272.7				
4	273.8	279.1	273.5	233.4	223.0	267.6	225.8	248.2	253.9	259.8	255.9	237.4	306.5	53.8	58.5	50.3	53.7	77.9	76.0	79.6	85.4	80.3	74.6	16.8	306.5	-				
5	81.4	85.8	90.4	84.7	74.6	78.7	81.0	75.2	74.2	72.4	70.1	69.2	85.3	78.6	80.1	74.4	70.5	69.8	72.9	76.9	64.7	63.2	59.7	55.3	73.9	90.4				
6	52.9	60.5	53.0	51.2	50.4	44.4	72.0	44.8	298.7	114.6	76.6	61.7	68.4	66.0	65.4	70.1	73.7	65.0	67.3	66.3	58.3	49.9	65.3	94.8	63.0	298.7				
7	217.4	229.7	229.1	225.7	251.5	253.4	251.4	252.2	253.1	251.9	254.3	272.2	14.1	47.1	50.8	63.4	64.5	59.2	54.8	52.8	45.9	49.5	59.2	23.9	272.2	-				
8	56.1	55.9	77.3	94.4	89.4	52.3	48.6	66.7	79.2	80.5	75.0	75.8	75.6	72.4	67.0	60.8	66.7	73.7	84.5	82.4	80.3	80.3	74.4	70.0	72.0	94.4				
9	67.1	71.6	196.1	171.8	241.5	226.8	238.6	256.2	257.5	263.1	EC	215.9	-	-																
10	204.7	212.2	227.2	231.9	233.8	222.0	233.6	231.9	225.9	201.0	53.3	62.3	65.3	62.5	53.9	61.0	71.8	77.2	73.5	55.8	50.7	61.5	56.4	52.3	78.6	233.8	-			
11	55.5	76.4	293.4	264.0	240.0	237.4	175.9	84.3	59.7	41.3	71.9	65.7	69.1	68.5	70.4	71.1	78.2	70.7	75.3	55.1	55.1	66.1	198.6	226.7	70.4	293.4				
12	222.6	224.2	211.8	212.2	219.1	221.7	232.9	226.1	237.9	243.5	241.5	252.3	282.2	48.1	42.2	317.4	250.5	238.5	73.1	54.9	59.2	59.4	64.9	73.8	241.3	317.4	-			
13	40.2	128.9	249.4	225.3	213.6	245.9	272.1	268.2	267.8	268.8	249.5	260.5	265.0	266.6	265.9	273.7	274.1	311.1	257.6	260.1	219.2	239.9	245.2	246.1	259.2	311.1	-	-		
14	307.7	68.0	56.8	61.6	55.2	58.5	65.0	267.2	110.2	190.8	220.5	233.0	234.2	235.8	240.2	241.3	239.1	238.8	259.7	262.4	270.5	279.2	278.3	248.4	307.7	-	-			
15	290.4	284.7	282.7	294.2	287.3	277.8	277.8	292.2	293.9	289.3	278.6	278.9	248.0	242.3	241.5	261.3	251.8	242.5	240.2	244.6	239.6	238.5	287.4	286.3	267.6	294.2	-	-		
16	289.4	276.0	283.4	283.9	286.5	277.6	280.5	270.0	260.9	267.1	280.1	277.7	248.8	233.3	226.5	229.6	226.1	224.9	46.9	66.4	160.8	238.5	225.7	264.7	262.7	289.4	-	-		
17	269.2	275.0	275.2	273.2	271.1	275.7	273.7	257.6	267.7	264.6	283.3	289.8	245.5	227.8	244.8	246.6	236.4	237.4	248.9	252.8	268.2	270.6	266.8	280.1	261.4	289.8	-	-		
18	285.7	281.5	279.6	282.1	279.5	275.0	270.6	270.4	282.5	294.1	283.3	251.9	237.7	249.7	245.1	245.4	249.4	245.1	53.2	22.7	60.4	164.1	269.1	279.1	269.6	294.1	-	-		
19	277.4	263.2	279.1	278.4	284.2	274.7	276.3	266.1	263.5	265.1	267.1	255.5	235.4	233.3	125.5	48.0	35.4	51.3	89.5	65.3	68.5	71.1	89.1	7.7	283.7	284.2	-	-		
20	201.6	236.5	225.3	226.4	243.3	253.0	252.3	231.2	223.8	162.3	65.8	68.5	64.9	86.3	59.4	57.8	83.6	85.2	63.5	154.6	154.6	55.5	267.3	188.7	267.3	233.5	328.0	-	-	
21	235.6	223.7	217.3	234.7	239.4	249.2	263.3	258.0	255.8	240.5	225.7	234.5	328.0	56.1	54.9	57.9	75.4	76.5	60.7	54.5	56.1	71.1	235.7	223.5	233.5	328.0	-	-		
22	236.6	276.2	285.5	287.9	284.6	285.4	289.1	292.6	289.4	278.2	272.9	269.1	281.5	234.3	237.8	255.8	238.3	244.1	224.5	227.3	221.8	220.9	260.8	269.7	265.6	292.6	-	-		
23	288.9	297.7	295.8	284.3	253.0	257.8	261.4	232.1	253.4	261.1	248.8	251.1	243.9	256.9	267.1	264.6	245.7	233.6	250.5	260.5	235.9	227.1	223.8	263.7	258.1	297.7	-	-		
24	253.1	264.3	259.1	282.0	240.8	229.3	232.7	277.1	257.1	258.8	240.7	144.9	56.6	50.7	49.7	50.9	48.3	73.0	110.5	80.6	48.9	39.1	46.6	43.2	15.1	282.0	-	-		
25	49.7	52.5	308.5	232.7	261.8	270.0	300.5	299.6	282.4	301.1	287.9	257.9	242.1	356.2	60.4	49.3	59.9	77.4	87.6	79.2	62.3	69.2	68.9	61.3	354.1	356.2	-	-	-	-
26	191.2	241.9	213.8	212.0	248.0	240.6	242.0	221.1	231.3	249.4	260.4	241.6	299.2	60.8	73.0	69.4	60.1	68.5	62.7	77.8	94.8	63.6	49.4	50.9	78.3	299.2	-	-	-	-
27	62.0	61.5	53.6	71.6	54.7	60.9	60.8	76.2	67.1	60.4	59.9	57.8	63.4	64.4	65.5	72.4	68.4	53.5	59.2	73.7	80.1	138.9	253.8	64.1	253.8	-	-			
28	227.3	227.4	214.6	215.4	209.3	238.2	228.5	228.2	243.1	251.0	257.1	232.0	113.0	67.1	68.2	54.4	60.9	52.4	73.0	81.0	63.1	73.1	176.9	220.2	165.1	257.1	-	-		
29	251.4	271.1	255.2	259.5	259.7	261.7	268.6	267.0	264.0	265.1	247.0	235.1	238.6	244.0	243.3	189.0	59.4	40.9	71.5	97.8	68.4	71.9	47.6	51.9	267.2	271.1	-	-	-	-
30	52.3	53.9	57.5	66.4	83.8	85.2	77.2	82.9	62.7	55.7	59.8	53.1	43.2	57.4	50.6	56.9	66.3	60.9	77.3	75.7	60.0	78.6	170.8	218.8	62.9	218.8	-	-	-	-
31	243.1	264.9	267.1	272.2	270.6	285.5	296.7	311.2	306.2	264.4	238.8	236.8	234.4	241.0	231.1	231.6	224.2	225.0	229.3	229.9	244.8	256.2	253.3	235.1	249.9	311.2	-	-	-	-
NO.	31	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	30	30	30	31	31	31	31	734	98.7%	-	-	-	-
MEAN	193.6	196.0	217.4	214.4	214.8	218.2	220.0	221.2	224.5	221.5	210.4	187.0	155.2	142.2	149.6	140.9	142.5	129.0	128.7	125.4	138.0	166.3	176.5	-	-	-	-	-	-	
MAX	307.7	297.7	308.5	294.2	287.3	285.5	300.5	311.2	306.2	301.1	287.9	289.8	328.0	356.2	267.1	317.4	274.1	311.1	257.6	260.5	268.2	270.6	287.4	286.3	-	-	-	-	-	-



Number of Non-Zero Readings	734
Maximum 1-HR Average	356 degrees
Maximum 24-HR Average	354 degrees
Monthly Calibration Standard Deviation	92.44
Operational Time	734 HRS
Operational Uptime	98.7 %
Monthly Average	180.9 degrees

Lagoon Pressure (mmHg) – March 2023

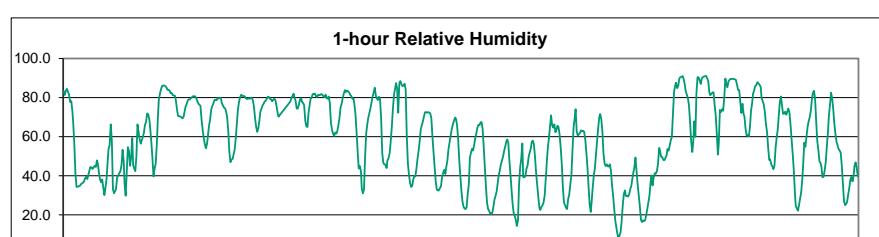
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	643.6	643.6	643.5	643.4	643.5	643.5	643.5	643.3	642.8	642.5	641.7	641.2	641.0	640.7	640.5	640.2	640.2	640.2	640.2	640.1	640.3	640.1	639.9	641.6	643.6	
2	639.0	638.8	638.7	638.1	637.3	638.8	636.7	636.4	636.4	636.1	635.9	635.8	635.8	635.8	635.8	636.0	636.4	636.9	637.4	637.8	638.4	639.2	639.9	640.4	637.3	640.4
3	640.4	640.4	640.5	640.4	640.6	640.7	640.8	641.1	641.1	641.0	640.7	640.9	640.9	640.7	640.4	640.6	640.9	641.1	641.4	641.7	641.9	642.1	642.2	642.4	641.0	642.4
4	642.6	642.8	643.2	643.4	643.6	644.0	644.4	644.7	644.8	644.6	644.2	644.0	643.9	643.9	644.2	644.6	645.1	645.6	646.4	647.1	647.4	647.8	648.1	644.8	648.1	
5	648.5	648.9	649.2	649.3	649.7	650.2	650.6	650.8	651.3	651.7	651.9	651.8	651.7	651.5	651.5	651.6	652.0	652.3	652.4	652.4	652.3	652.2	651.1	652.4		
6	652.3	652.4	652.5	652.5	652.5	652.6	652.7	652.8	652.7	652.6	652.3	652.2	651.9	651.9	652.2	652.5	652.7	653.0	653.2	653.4	653.6	653.5	652.7	653.6		
7	653.3	653.2	653.2	653.0	652.9	652.9	652.8	652.9	652.9	652.7	652.2	651.8	651.6	651.4	651.4	651.7	651.9	652.3	652.9	653.4	653.7	653.9	654.1	654.1		
8	654.2	654.2	654.3	654.3	654.5	654.6	654.9	655.3	655.4	655.4	655.2	655.1	654.9	655.0	655.0	655.2	655.7	656.0	656.3	656.7	656.8	656.6	656.5	655.4	656.8	
9	656.3	656.2	656.0	655.6	655.3	655.0	654.6	654.2	653.8	653.2	EC	648.3	647.8	647.4	-	-										
10	646.6	646.1	645.4	644.6	644.2	643.9	643.4	643.3	642.6	642.2	641.6	641.5	641.3	641.4	641.6	642.0	642.9	643.9	644.9	645.5	646.0	646.6	647.0	643.7	647.0	
11	647.4	647.8	648.2	648.5	648.8	649.1	649.5	650.0	650.3	650.4	650.3	650.1	649.9	649.7	649.8	649.9	650.1	650.3	650.5	650.9	651.0	651.2	651.2	649.8	651.2	
12	651.1	651.1	651.0	651.0	651.0	651.0	651.0	651.0	651.0	650.6	650.1	649.3	648.6	648.1	647.7	647.4	647.0	646.9	646.9	647.0	646.9	646.7	646.2	645.7	648.9	651.1
13	645.1	644.6	644.1	643.3	642.6	642.1	641.5	641.1	640.5	639.8	638.9	638.5	638.3	637.9	637.7	637.6	637.2	636.9	636.6	636.5	636.2	635.9	635.7	639.4	645.1	
14	635.8	637.0	638.5	638.8	639.5	640.3	641.2	642.0	642.4	642.7	642.8	642.8	642.6	642.5	642.5	642.6	642.4	642.3	642.2	642.1	642.2	642.4	642.6	641.4	642.8	
15	642.9	643.2	643.3	643.5	644.1	644.7	645.2	645.6	646.0	646.3	646.4	646.5	646.8	647.1	647.6	648.0	648.6	649.3	650.0	651.0	651.8	652.4	652.9	647.1	652.9	
16	653.4	654.1	654.8	655.3	655.9	656.4	656.9	657.3	657.5	657.5	657.3	656.9	656.4	656.2	655.9	655.8	655.9	656.3	656.8	657.0	657.2	657.2	656.3	657.5		
17	657.3	657.3	657.3	657.2	657.3	657.1	657.1	657.0	656.6	656.1	655.5	654.9	654.2	653.8	653.8	653.6	653.2	653.1	653.3	653.4	653.5	653.7	655.3	657.3		
18	653.6	653.6	653.6	653.5	653.6	653.7	653.8	653.8	653.7	653.4	652.9	652.3	651.7	651.3	650.9	650.7	650.4	650.5	650.5	650.6	650.7	650.7	652.1	653.8		
19	650.9	651.0	651.0	650.9	651.0	651.1	651.1	651.1	651.0	650.9	650.7	650.2	649.6	648.9	648.3	647.9	647.6	647.4	647.0	647.2	647.3	647.4	649.2	651.1		
20	647.2	647.1	647.0	646.9	646.8	646.8	646.9	647.0	647.0	646.9	646.8	646.2	645.9	645.9	645.3	645.2	645.0	645.2	645.4	645.9	646.2	646.4	646.3	647.2		
21	646.4	646.6	646.8	647.0	647.0	647.2	647.3	647.5	647.6	647.5	647.2	646.8	646.3	645.7	645.5	645.7	645.9	646.1	646.4	646.6	646.8	646.6	646.6	647.6		
22	646.5	646.6	646.6	646.6	646.8	646.9	647.0	647.0	647.1	646.9	646.6	646.1	645.6	645.1	644.9	644.7	644.6	644.8	644.8	645.0	645.1	645.8	647.1			
23	644.9	644.9	644.9	644.8	644.9	645.0	645.2	645.4	645.4	645.1	644.7	644.4	643.9	643.6	643.5	643.3	643.2	643.3	643.4	643.7	644.1	644.4	644.3	645.4		
24	644.7	644.9	645.0	645.1	645.5	645.8	645.9	646.2	646.5	646.8	646.9	646.6	646.6	646.6	646.8	647.4	647.7	647.9	648.2	648.3	648.3	648.2	646.7	648.3		
25	648.3	648.4	648.3	648.2	648.3	648.5	648.7	649.1	649.1	649.2	649.1	649.0	648.8	648.8	648.8	649.4	649.8	650.1	651.3	651.5	651.6	649.4	651.6			
26	651.6	651.7	651.8	651.9	652.1	652.5	652.7	652.9	653.1	653.3	653.2	653.1	653.0	653.2	653.2	653.1	653.5	654.0	654.8	655.2	655.5	655.5	653.3	655.6		
27	655.6	655.8	655.8	655.7	655.7	655.9	656.3	656.6	656.7	656.7	656.6	656.3	655.9	655.4	655.0	654.8	654.7	654.7	654.7	655.0	655.1	655.2	655.7			
28	655.1	654.9	654.7	654.5	654.3	654.4	654.4	654.5	654.3	654.1	653.9	653.5	652.9	652.5	652.3	651.9	651.5	651.5	651.5	652.0	651.8	651.5	653.1	655.1		
29	651.3	651.0	650.9	650.7	650.4	650.5	650.0	649.9	649.7	649.2	648.6	648.0	647.3	646.5	646.0	645.3	644.9	644.8	644.8	645.0	645.5	645.7	647.8	651.3		
30	645.9	645.8	645.6	645.6	645.4	645.3	645.2	645.1	644.8	644.4	644.0	643.6	643.1	642.6	642.1	641.8	641.7	641.5	641.5	641.8	642.2	642.5	643.6	645.9		
31	642.4	642.4	642.4	642.4	642.5	642.7	642.8	643.0	643.0	642.7	642.5	642.5	642.6	642.6	642.4	642.3	642.3	642.1	641.8	642.2	642.0	641.9	642.4	643.0		
NO.	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	30	30	30	31	31	31	31	734	98.7%	
MEAN	648.2	648.3	648.3	648.3	648.4	648.5	648.6	648.6	648.5	648.1	647.8	647.5	647.2	647.0	647.0	647.2	647.4	647.7	647.9	648.1	648.2	648.2				
MAX	657.3	657.3	657.3	657.2	657.3	657.1	657.3	657.5	657.5	657.3	656.9	656.4	656.2	655.9	655.8	655.9	656.0	656.3	656.8	657.2	657.2	657.2				



Number of Non-Zero Readings	734
Maximum 1-HR Average	657 MMHg
Maximum 24-HR Average	656 MMHg
Monthly Calibration Standard Deviation	5.365
Operational Time	734 HRS
Operational Uptime	98.7 %
Monthly Average	647.9 MMHg

Lagoon Relative Humidity (%) – March 2023

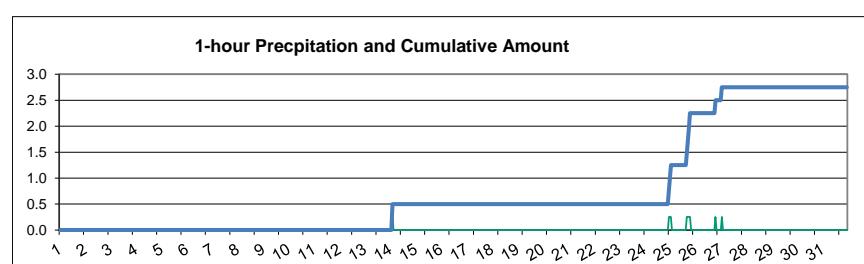
Day	HOUR																								MEAN	MAX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	83.3	81.3	83.4	84.5	83.1	81.4	77.8	78.2	73.1	66.8	55.7	40.8	34.3	34.4	34.6	34.9	35.7	36.0	36.4	37.1	38.7	39.5	38.3	40.5	55.4	84.5		
2	42.8	44.5	44.2	43.5	44.3	45.1	44.5	47.9	45.8	41.6	38.3	36.7	38.1	34.0	30.1	34.0	38.6	45.7	53.8	55.7	66.3	57.6	33.1	31.0	43.2	66.3		
3	32.3	33.1	39.2	40.2	41.4	42.3	45.4	53.3	47.7	35.9	29.8	42.0	54.6	52.7	45.0	49.4	59.4	45.5	43.7	42.3	50.0	66.2	62.3	58.5	46.3	66.2		
4	56.5	57.9	59.8	61.9	65.9	67.5	71.9	71.3	68.9	64.1	57.3	49.2	39.7	43.7	46.2	56.0	70.0	78.6	81.8	84.2	85.9	86.2	85.8	66.5	86.2			
5	85.2	84.1	83.9	83.7	82.3	82.3	81.3	81.2	81.0	78.5	74.1	70.5	70.4	70.0	69.3	70.1	72.3	75.3	76.7	78.4	79.1	79.1	79.8	77.4	85.2			
6	80.3	80.7	80.7	80.6	79.7	78.2	76.8	76.3	75.8	68.9	63.6	59.5	56.2	54.1	56.3	61.2	65.5	68.6	73.7	75.8	76.9	78.8	78.9	78.6	71.9	80.7		
7	79.6	79.6	80.0	79.7	77.1	75.8	74.8	74.4	72.9	69.7	62.9	52.0	47.0	48.4	48.7	51.3	53.2	59.0	66.4	73.9	77.8	80.2	81.5	80.9	68.6	81.5		
8	80.8	80.7	80.1	79.3	79.3	79.6	79.4	79.8	80.0	78.6	75.3	69.6	65.1	62.5	64.2	68.4	72.6	74.2	75.8	76.8	78.0	79.5	79.6	80.4	75.8	80.8		
9	80.3	79.3	79.1	78.1	78.9	79.4	78.7	75.6	72.8	70.2	EC	78.0	79.8	80.9	82.0	-	-											
10	80.0	78.3	74.4	74.3	76.4	79.0	79.6	77.6	77.3	76.1	68.3	65.2	65.0	72.2	76.2	79.8	79.9	81.8	81.9	82.0	80.5	80.3	81.5	81.2	77.0	82.0		
11	81.3	81.8	81.4	80.7	80.3	81.5	79.6	79.4	80.6	77.4	67.3	63.6	61.4	60.5	62.1	61.5	62.8	65.7	69.5	74.9	76.8	79.7	82.1	83.8	74.0	83.8		
12	82.8	83.6	83.3	82.5	81.5	80.8	79.5	79.5	76.7	71.5	62.5	52.4	43.7	45.0	42.3	33.3	31.0	33.1	50.0	61.7	66.5	70.0	72.4	74.4	64.2	83.6		
13	77.4	80.6	82.6	85.1	81.1	79.4	78.8	80.4	79.2	69.6	51.8	46.6	45.8	45.6	44.0	48.0	49.0	51.5	57.9	65.3	74.6	81.7	84.6	87.4	67.8	87.4		
14	84.9	72.3	87.1	88.4	86.7	85.8	86.1	87.1	84.1	60.5	46.6	40.7	36.3	34.3	34.8	37.9	39.8	39.6	43.6	48.7	52.7	57.8	63.9	65.5	61.1	88.4		
15	67.6	70.1	72.5	72.6	72.2	72.5	72.3	71.9	69.6	60.1	52.1	44.8	37.1	32.9	32.5	32.5	33.6	34.6	39.5	41.5	43.0	40.9	45.1	47.5	52.5	72.6		
16	53.4	57.0	60.4	63.7	66.2	68.0	69.8	69.3	66.3	59.4	48.7	40.3	32.8	26.9	24.1	23.2	22.9	24.0	30.8	35.7	49.5	52.0	53.8	52.9	48.0	69.8		
17	55.5	59.1	61.6	64.6	66.0	65.9	67.4	67.4	64.0	54.7	44.4	34.6	26.3	23.0	22.0	20.6	20.7	20.9	24.1	27.7	29.8	32.1	36.4	40.1	42.9	67.4		
18	42.5	45.7	47.7	49.8	52.7	55.0	57.5	58.6	57.0	47.7	40.6	32.5	25.3	20.7	19.7	17.5	14.3	17.0	35.4	44.2	48.7	52.7	57.8	63.9	39.4	39.3	40.2	58.6
19	39.9	43.5	45.3	49.8	52.0	54.2	57.3	58.0	56.0	49.5	41.2	35.1	29.0	23.5	22.5	24.1	24.8	26.4	30.0	38.6	47.8	55.1	58.9	64.8	42.8	64.8		
20	70.9	65.9	64.7	66.3	62.3	63.6	65.6	64.9	61.0	54.5	46.0	33.8	26.3	24.9	23.7	22.9	28.1	30.4	35.7	40.8	53.7	65.2	68.8	74.1	50.6	74.1		
21	62.6	60.6	61.2	61.9	63.2	62.8	63.0	62.4	58.6	52.1	44.3	34.6	25.3	21.4	26.6	34.0	40.2	43.9	51.1	57.9	64.3	70.1	71.6	69.1	52.6	71.6		
22	63.1	51.6	46.4	44.9	45.8	44.8	44.7	45.8	42.7	35.2	29.8	23.3	16.9	13.5	10.6	8.4	9.2	11.2	16.8	25.0	30.6	32.5	29.7	29.7	31.3	63.1		
23	29.3	30.5	33.0	34.9	38.5	42.1	44.4	49.3	42.3	35.5	29.9	24.3	17.5	16.3	17.2	16.9	17.3	19.9	23.0	26.5	30.0	36.8	40.1	35.1	30.4	49.3		
24	39.1	41.2	41.1	42.4	46.3	54.2	52.8	49.8	49.5	48.1	47.9	49.2	50.4	53.7	52.8	55.4	58.1	59.9	71.7	82.9	86.2	87.6	84.9	86.0	58.0	87.6		
25	89.8	90.5	90.7	91.0	89.4	87.2	83.3	81.6	79.8	75.9	67.5	57.7	52.1	56.5	67.9	59.9	82.1	90.5	90.3	88.7	87.0	89.7	90.4	90.8	80.4	91.0		
26	90.9	91.2	89.9	88.5	82.6	81.3	81.9	82.6	82.7	76.3	70.9	61.2	50.7	56.7	73.7	72.5	74.0	73.3	80.1	89.8	86.5	85.3	88.2	89.1	79.2	91.2		
27	89.5	89.6	89.7	89.4	89.4	89.1	86.6	83.9	83.8	77.8	72.2	76.9	71.7	70.4	64.0	60.5	60.9	60.1	65.0	73.3	77.0	81.9	83.6	85.9	78.0	89.7		
28	86.5	87.9	87.2	86.5	85.5	80.0	78.2	76.6	72.8	66.4	62.4	54.5	48.1	48.5	46.0	44.8	43.4	45.3	54.2	59.6	64.0	70.0	77.2	80.6	66.9	87.9		
29	76.3	71.7	71.8	72.8	71.2	74.4	72.4	66.4	58.7	51.3	43.1	31.6	24.6	23.3	22.1	25.0	28.4	31.8	38.5	48.3	57.0	54.8	60.2	52.0	76.3			
30	65.0	68.0	70.0	73.6	79.5	82.4	83.4	79.6	68.2	57.9	53.2	47.4	46.6	44.6	39.2	39.6	42.8	47.2	55.4	62.5	70.6	76.2	82.5	79.7	63.1	83.4		
31	74.0	66.5	61.3	57.3	55.8	53.8	52.9	51.8	45.1	36.0	27.1	24.9	25.5	26.5	30.4	33.6	38.1	39.4	37.1	40.1	45.2	46.8	44.0	39.6	43.9	74.0		
NO.	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	30	30	30	31	31	31	31	31	734	98.7%		
MEAN	68.5	68.0	68.8	69.4	69.6	69.9	70.0	69.9	67.1	60.5	52.8	46.9	42.4	41.4	41.7	42.4	45.4	47.5	52.7	57.6	62.7	66.2	66.3	66.9				
MAX	90.9	91.2	90.7	91.0	89.4	89.1	86.6	87.1	84.1	78.6	75.3	76.9	71.7	72.2	76.2	79.8	82.1	90.5	90.3	89.8	87.0	89.7	90.4	90.8				



Number of Non-Zero Readings	734
Maximum 1-HR Average	91.2 %
Maximum 24-HR Average	80.4 %
Monthly Calibration Standard Deviation	20.1
Operational Time	734 HRS
Operational Uptime	98.7 %
Monthly Average	59.1 %

Lagoon Precipitation (mm) – March 2023

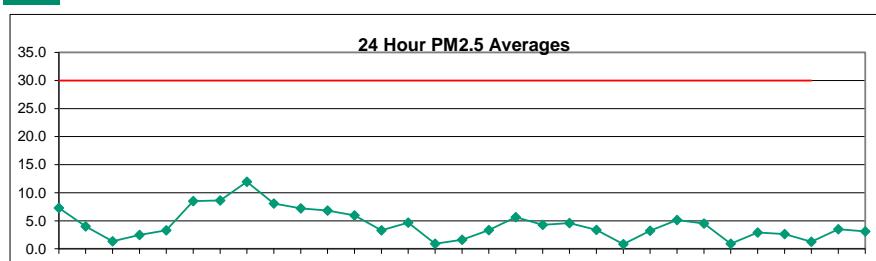
Day	HOUR																								DAILY MAX	24-HOUR TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NRK	NRK	G	G	G	G	G	G	G	G	G	G	G	G	0.0	-
8	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
9	G	G	G	G	G	G	G	G	G	EC	0.0	-														
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.5	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	0.5	0.5
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3
25	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	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.3	1.5
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
27	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	0.3	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
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO.	29	29	29	29	29	29	29	29	29	29	28	28	28	28	28	28	28	28	28	29	29	29	29	29	686	92%
MEAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	0.3	0.3	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	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.3



Number of Non-Zero Readings	10
Maximum 1-HR Average	1.5 MM
Maximum 24-HR Average	0.5 MM
Monthly Calibration Standard Deviation	0.034
Operational Time	686 HRS
Operational Uptime	92.2 %
Monthly Average	0.00 MM

Windridge PM_{2.5} ($\mu\text{g}/\text{m}^3$) – March 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	11.0	8.0	9.0	12.0	14.0	9.0	12.0	8.0	4.0	5.0	9.0	5.0	X	5.0	4.0	4.0	3.0	4.0	6.0	3.0	2.0	8.0	6.0	7.3	17.0		
2	13.0	9.0	5.0	7.0	4.0	0.0	5.0	4.0	3.0	3.0	1.0	0.0	0.0	4.0	5.0	5.0	4.0	3.0	3.0	4.0	7.0	5.0	2.0	0.0	4.0	13.0	
3	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	2.0	3.0	1.0	0.0	4.0	6.0	5.0	5.0	4.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	1.3	6.0	
4	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	4.0	2.0	1.0	1.0	1.0	1.0	0.0	3.0	12.0	7.0	6.0	6.0	8.0	5.0	2.5	12.0	
5	5.0	3.0	1.0	4.0	4.0	3.0	1.0	0.0	0.0	2.0	1.0	3.0	3.0	3.0	4.0	4.0	2.0	3.0	4.0	4.0	7.0	7.0	6.0	5.0	3.3	7.0	
6	7.0	8.0	7.0	5.0	6.0	6.0	6.0	7.0	8.0	20.0	15.0	6.0	8.0	4.0	4.0	4.0	4.0	13.0	11.0	8.0	11.0	13.0	9.0	12.0	8.5	20.0	
7	9.0	10.0	12.0	8.0	10.0	8.0	13.0	9.0	9.0	8.0	7.0	5.0	4.0	9.0	6.0	3.0	2.0	10.0	10.0	8.0	10.0	12.0	12.0	13.0	8.6	13.0	
8	9.0	9.0	18.0	17.0	20.0	18.0	15.0	17.0	18.0	15.0	17.0	11.0	11.0	10.0	19.0	17.0	12.0	8.0	5.0	5.0	4.0	5.0	3.0	4.0	12.0	20.0	
9	5.0	7.0	5.0	3.0	6.0	7.0	7.0	12.0	10.0	7.0	15.0	11.0	C	C	C	7.0	3.0	8.0	10.0	7.0	6.0	7.0	14.0	13.0	8.1	15.0	
10	14.0	7.0	4.0	4.0	2.0	1.0	0.0	5.0	7.0	6.0	8.0	9.0	11.0	10.0	15.0	11.0	7.0	9.0	8.0	6.0	6.0	8.0	8.0	7.0	7.2	15.0	
11	8.0	5.0	2.0	3.0	6.0	5.0	3.0	11.0	11.0	12.0	9.0	6.0	7.0	6.0	4.0	6.0	5.0	5.0	7.0	13.0	8.0	6.0	8.0	8.0	6.8	13.0	
12	9.0	11.0	8.0	6.0	3.0	3.0	4.0	4.0	6.0	3.0	1.0	2.0	1.0	0.0	2.0	3.0	2.0	4.0	4.0	14.0	13.0	14.0	11.0	15.0	6.0	15.0	
13	15.0	18.0	21.0	11.0	6.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	3.3	21.0
14	0.0	9.0	13.0	7.0	2.0	3.0	5.0	8.0	4.0	4.0	2.0	5.0	8.0	4.0	6.0	14.0	8.0	2.0	5.0	3.0	0.0	0.0	0.0	0.0	0.0	4.7	14.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	3.0	6.0	4.0	1.0	1.0	2.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	0.9	6.0	
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.0	1.0	0.0	17.0	1.0	1.0	0.0	1.0	1.0	8.0	3.0	0.0	0.0	1.0	1.0	1.6	17.0	
17	1.0	0.0	0.0	1.0	0.0	0.0	0.0	2.0	0.0	0.0	1.0	0.0	6.0	4.0	3.0	6.0	7.0	6.0	9.0	10.0	8.0	5.0	7.0	4.0	3.3	10.0	
18	1.0	5.0	3.0	4.0	5.0	3.0	2.0	2.0	0.0	1.0	5.0	6.0	5.0	4.0	9.0	8.0	10.0	7.0	10.0	11.0	10.0	8.0	6.0	5.7	11.0		
19	4.0	5.0	5.0	3.0	2.0	1.0	5.0	6.0	4.0	4.0	5.0	4.0	4.0	5.0	4.0	5.0	6.0	5.0	6.0	6.0	3.0	2.0	5.0	4.3	6.0		
20	6.0	4.0	4.0	3.0	1.0	1.0	1.0	5.0	4.0	6.0	7.0	8.0	4.0	2.0	3.0	3.0	5.0	6.0	4.0	5.0	5.0	13.0	7.0	3.0	4.6	13.0	
21	2.0	2.0	1.0	0.0	0.0	0.0	1.0	1.0	2.0	1.0	10.0	6.0	2.0	1.0	4.0	5.0	1.0	3.0	9.0	6.0	6.0	5.0	7.0	6.0	3.4	10.0	
22	3.0	0.0	0.0	1.0	0.0	2.0	1.0	0.0	0.0	1.0	0.0	0.0	3.0	4.0	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	4.0	
23	0.0	1.0	2.0	1.0	0.0	0.0	0.0	5.0	6.0	5.0	3.0	7.0	5.0	8.0	8.0	6.0	8.0	9.0	4.0	3.0	3.0	1.0	0.0	0.0	3.2	9.0	
24	1.0	2.0	1.0	4.0	2.0	1.0	9.0	6.0	5.0	8.0	7.0	5.0	5.0	4.0	2.0	3.0	1.0	2.0	5.0	6.0	7.0	12.0	11.0	14.0	5.1	14.0	
25	11.0	23.0	23.0	9.0	10.0	7.0	3.0	0.0	1.0	1.0	0.0	3.0	5.0	3.0	1.0	0.0	3.0	2.0	0.0	0.0	0.0	2.0	1.0	0.0	4.5	23.0	
26	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	2.0	2.0	3.0	3.0	2.0	1.0	0.0	0.0	3.0	0.9	3.0	
27	4.0	2.0	0.0	0.0	5.0	5.0	6.0	2.0	0.0	3.0	4.0	1.0	2.0	4.0	3.0	2.0	3.0	3.0	5.0	6.0	3.0	2.0	2.0	2.0	2.9	6.0	
28	1.0	0.0	1.0	0.0	0.0	0.0	1.0	2.0	3.0	3.0	6.0	5.0	2.0	4.0	4.0	2.0	1.0	1.0	3.0	5.0	6.0	5.0	4.0	4.0	2.6	6.0	
29	7.0	4.0	2.0	3.0	1.0	0.0	1.0	2.0	4.0	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	2.0	1.3	7.0	
30	1.0	0.0	0.0	1.0	2.0	2.0	5.0	8.0	8.0	5.0	3.0	1.0	3.0	4.0	2.0	3.0	6.0	4.0	3.0	6.0	9.0	5.0	1.0	2.0	3.5	9.0	
31	1.0	1.0	2.0	0.0	0.0	0.0	3.0	0.0	0.0	15.0	9.0	6.0	7.0	8.0	6.0	3.0	0.0	2.0	4.0	2.0	3.0	2.0	1.0	3.1	15.0		
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	740	99.9%		
MEAN	4.8	5.0	4.8	3.8	3.7	2.9	3.4	4.3	4.0	3.8	5.2	4.5	4.4	4.2	4.5	4.5	3.7	3.9	4.6	5.2	4.9	4.9	4.7	4.6	7.5	7.5	
MAX	15.0	23.0	23.0	17.0	20.0	18.0	15.0	17.0	18.0	15.0	20.0	15.0	17.0	10.0	19.0	17.0	12.0	13.0	12.0	14.0	13.0	14.0	15.0	17.4	70.0		

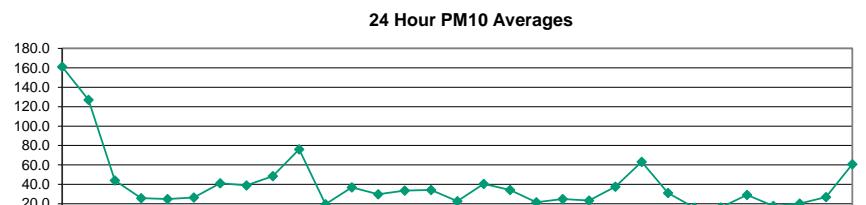


Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	586	
Maximum 1-HR Average	23.0 UG/M3	
Maximum 24-HR Average	12.0 UG/M3	
Monthly Calibration	3	Operational Time
Standard Deviation	4.3	Operational Uptime
		743 HRS
		99.9 %
		4.3 UG/M3

Windridge PM₁₀ ($\mu\text{g}/\text{m}^3$) – March 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	31.0	16.0	19.0	38.0	34.0	37.0	24.0	14.0	22.0	20.0	145.0	139.0	370.0	X	356.0	485.0	223.0	164.0	240.0	193.0	146.0	346.0	353.0	290.0	161.1	485.0
2	485.0	385.0	205.0	297.0	128.0	51.0	135.0	104.0	58.0	63.0	18.0	25.0	27.0	109.0	95.0	51.0	89.0	68.0	40.0	97.0	186.0	122.0	104.0	107.0	127.0	485.0
3	32.0	41.0	43.0	49.0	15.0	14.0	8.0	6.0	24.0	63.0	43.0	71.0	89.0	38.0	108.0	53.0	30.0	53.0	25.0	29.0	81.0	59.0	32.0	48.0	43.9	108.0
4	18.0	11.0	6.0	2.0	0.0	4.0	2.0	3.0	4.0	36.0	82.0	42.0	23.0	7.0	5.0	23.0	106.0	60.0	38.0	23.0	20.0	30.0	36.0	38.0	25.8	106.0
5	32.0	6.0	8.0	17.0	16.0	23.0	23.0	26.0	36.0	15.0	75.0	20.0	40.0	41.0	18.0	9.0	11.0	26.0	67.0	22.0	22.0	14.0	18.0	10.0	24.8	75.0
6	20.0	24.0	13.0	17.0	26.0	14.0	12.0	20.0	14.0	33.0	57.0	42.0	29.0	18.0	25.0	32.0	38.0	42.0	23.0	44.0	24.0	19.0	22.0	26.4	57.0	
7	23.0	29.0	24.0	19.0	42.0	63.0	141.0	81.0	76.0	92.0	71.0	29.0	26.0	27.0	20.0	27.0	31.0	36.0	32.0	21.0	22.0	18.0	22.0	13.0	41.0	141.0
8	22.0	21.0	57.0	70.0	34.0	22.0	28.0	33.0	29.0	30.0	33.0	34.0	28.0	40.0	56.0	52.0	78.0	86.0	50.0	30.0	38.0	16.0	24.0	19.0	38.8	86.0
9	35.0	13.0	11.0	12.0	15.0	16.0	47.0	61.0	97.0	93.0	158.0	141.0	C	C	C	33.0	28.0	20.0	22.0	12.0	23.0	39.0	68.0	73.0	48.4	158.0
10	57.0	32.0	16.0	12.0	21.0	14.0	40.0	37.0	114.0	55.0	52.0	56.0	35.0	97.0	102.0	192.0	241.0	251.0	148.0	138.0	45.0	28.0	30.0	13.0	76.1	251.0
11	17.0	18.0	14.0	12.0	20.0	12.0	13.0	20.0	37.0	33.0	30.0	44.0	33.0	16.0	14.0	13.0	12.0	11.0	16.0	15.0	13.0	14.0	12.0	27.0	19.4	44.0
12	18.0	23.0	35.0	12.0	22.0	19.0	10.0	60.0	59.0	23.0	18.0	39.0	50.0	15.0	12.0	89.0	109.0	70.0	20.0	22.0	28.0	28.0	30.0	74.0	36.9	109.0
13	39.0	54.0	59.0	40.0	0.0	5.0	4.0	3.0	7.0	7.0	153.0	137.0	54.0	34.0	17.0	14.0	8.0	7.0	6.0	2.0	0.0	4.0	3.0	55.0	29.7	153.0
14	6.0	40.0	142.0	11.0	12.0	7.0	13.0	24.0	9.0	21.0	8.0	68.0	62.0	42.0	58.0	61.0	54.0	52.0	53.0	26.0	12.0	11.0	7.0	4.0	33.5	142.0
15	0.0	0.0	3.0	5.0	2.0	3.0	15.0	13.0	13.0	20.0	55.0	21.0	105.0	90.0	45.0	58.0	36.0	45.0	55.0	100.0	41.0	85.0	7.0	4.0	34.2	105.0
16	4.0	7.0	4.0	1.0	2.0	5.0	14.0	10.0	41.0	48.0	34.0	18.0	145.0	55.0	16.0	13.0	17.0	27.0	26.0	38.0	3.0	4.0	4.0	5.0	22.5	145.0
17	6.0	4.0	3.0	11.0	10.0	11.0	13.0	73.0	61.0	36.0	34.0	38.0	53.0	19.0	60.0	46.0	55.0	71.0	83.0	111.0	25.0	36.0	71.0	40.0	40.4	111.0
18	23.0	23.0	21.0	19.0	19.0	22.0	43.0	25.0	34.0	24.0	41.0	79.0	48.0	53.0	37.0	49.0	47.0	64.0	35.0	28.0	25.0	29.0	17.0	15.0	34.2	79.0
19	15.0	17.0	10.0	11.0	18.0	11.0	13.0	21.0	36.0	34.0	70.0	32.0	26.0	13.0	14.0	15.0	16.0	15.0	21.0	45.0	23.0	15.0	15.0	11.0	21.5	70.0
20	11.0	6.0	14.0	11.0	13.0	13.0	20.0	73.0	89.0	65.0	42.0	44.0	9.0	17.0	13.0	16.0	21.0	19.0	19.0	21.0	24.0	9.0	7.0	7.0	24.8	89.0
21	6.0	10.0	11.0	6.0	7.0	12.0	18.0	37.0	72.0	42.0	37.0	31.0	13.0	24.0	23.0	36.0	23.0	18.0	22.0	18.0	28.0	23.0	27.0	16.0	23.3	72.0
22	16.0	20.0	23.0	14.0	33.0	20.0	20.0	29.0	37.0	34.0	58.0	41.0	51.0	61.0	44.0	139.0	73.0	61.0	64.0	10.0	7.0	27.0	11.0	7.0	37.5	139.0
23	7.0	11.0	10.0	6.0	4.0	9.0	11.0	117.0	172.0	129.0	140.0	51.0	71.0	140.0	156.0	121.0	65.0	58.0	121.0	41.0	36.0	14.0	13.0	13.0	63.2	172.0
24	11.0	7.0	8.0	7.0	5.0	38.0	105.0	56.0	49.0	63.0	58.0	35.0	19.0	14.0	15.0	18.0	12.0	17.0	26.0	25.0	25.0	31.0	32.0	70.0	31.1	105.0
25	42.0	40.0	37.0	28.0	18.0	7.0	6.0	5.0	7.0	6.0	33.0	33.0	15.0	8.0	8.0	27.0	8.0	5.0	5.0	9.0	9.0	11.0	6.0	15.8	42.0	
26	3.0	3.0	2.0	4.0	3.0	2.0	1.0	1.0	1.0	5.0	4.0	4.0	11.0	27.0	18.0	30.0	21.0	147.0	30.0	14.0	15.0	32.0	8.0	16.1	147.0	
27	17.0	19.0	13.0	9.0	9.0	43.0	47.0	32.0	69.0	41.0	36.0	183.0	49.0	29.0	12.0	14.0	14.0	8.0	6.0	18.0	15.0	4.0	2.0	6.0	29.0	183.0
28	9.0	5.0	6.0	3.0	4.0	4.0	9.0	9.0	48.0	48.0	38.0	18.0	17.0	13.0	33.0	19.0	11.0	31.0	20.0	24.0	19.0	8.0	13.0	17.8	48.0	
29	17.0	16.0	5.0	8.0	15.0	14.0	30.0	47.0	59.0	62.0	26.0	15.0	23.0	12.0	20.0	13.0	12.0	8.0	9.0	15.0	16.0	21.0	6.0	16.0	20.2	62.0
30	7.0	9.0	12.0	14.0	21.0	58.0	88.0	66.0	56.0	24.0	22.0	18.0	16.0	26.0	24.0	34.0	36.0	13.0	19.0	17.0	28.0	13.0	8.0	14.0	26.8	88.0
31	10.0	9.0	9.0	9.0	9.0	13.0	27.0	15.0	21.0	112.0	202.0	176.0	127.0	119.0	107.0	92.0	41.0	38.0	61.0	40.0	31.0	81.0	59.0	47.0	60.6	202.0
NO.	31	31	31	31	31	31	31	31	31	31	31	31	30	29	30	31	31	31	31	31	31	31	31	31	740	99.9%
MEAN	33.5	29.6	27.2	25.0	18.6	18.9	31.6	36.2	46.8	44.3	59.6	55.6	55.8	41.6	50.4	59.7	51.5	46.6	50.0	39.8	33.9	38.8	35.2	35.2	42.0	
MAX	485.0	385.0	205.0	297.0	128.0	63.0	141.0	117.0	172.0	129.0	202.0	183.0	370.0	140.0	356.0	485.0	241.0	251.0	240.0	193.0	186.0	346.0	353.0	290.0	91.1	433.3

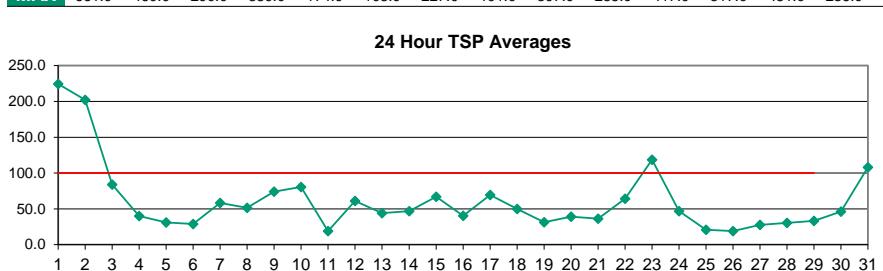
24 Hour PM10 Averages



Number of Non-Zero Readings	735
Maximum 1-HR Average	485.0 $\mu\text{g}/\text{m}^3$
Maximum 24-HR Average	161.1 $\mu\text{g}/\text{m}^3$
Monthly Calibration Standard Deviation	53.5
Operational Time	743 HRS
Operational Uptime	99.9 %
Monthly Average	40.2 $\mu\text{g}/\text{m}^3$

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

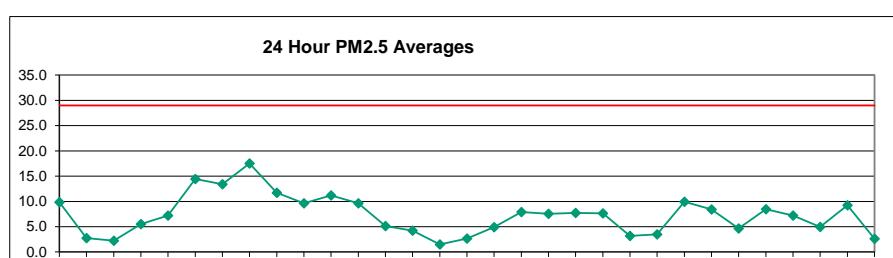
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	X	15	16	17	18	19	20	21	22	23	24	
1	20.0	12.0	23.0	55.0	23.0	25.0	13.0	22.0	14.0	20.0	201.0	261.0	431.0	X	322.0	536.0	390.0	299.0	395.0	387.0	306.0	469.0	555.0	384.0	224.5	555.0
2	661.0	460.0	290.0	389.0	174.0	69.0	227.0	184.0	113.0	122.0	52.0	51.0	58.0	182.0	188.0	108.0	164.0	138.0	72.0	187.0	270.0	242.0	206.0	243.0	202.1	661.0
3	58.0	83.0	85.0	88.0	27.0	39.0	16.0	4.0	47.0	130.0	98.0	142.0	151.0	61.0	188.0	86.0	57.0	89.0	59.0	72.0	165.0	101.0	64.0	99.0	84.1	188.0
4	32.0	7.0	4.0	3.0	4.0	9.0	6.0	4.0	3.0	64.0	152.0	74.0	40.0	15.0	10.0	27.0	102.0	75.0	56.0	50.0	52.0	66.0	59.0	48.0	40.1	152.0
5	48.0	14.0	17.0	44.0	42.0	44.0	68.0	43.0	70.0	10.0	14.0	13.0	39.0	40.0	29.0	19.0	12.0	33.0	71.0	23.0	20.0	10.0	15.0	8.0	31.1	71.0
6	19.0	21.0	9.0	12.0	18.0	7.0	14.0	11.0	18.0	41.0	76.0	55.0	38.0	39.0	30.0	22.0	41.0	42.0	45.0	30.0	38.0	27.0	19.0	22.0	28.9	76.0
7	33.0	27.0	22.0	21.0	55.0	88.0	224.0	120.0	111.0	154.0	121.0	41.0	32.0	28.0	30.0	41.0	51.0	52.0	47.0	20.0	23.0	19.0	23.0	17.0	58.3	224.0
8	22.0	27.0	62.0	59.0	39.0	28.0	29.0	34.0	40.0	41.0	53.0	43.0	37.0	65.0	78.0	80.0	107.0	118.0	96.0	52.0	43.0	25.0	32.0	22.0	51.3	118.0
9	51.0	15.0	12.0	13.0	20.0	27.0	80.0	98.0	136.0	147.0	283.0	259.0	C	C	C	33.0	31.0	18.0	22.0	18.0	28.0	60.0	115.0	87.0	74.0	283.0
10	77.0	17.0	10.0	12.0	27.0	20.0	63.0	64.0	206.0	111.0	84.0	77.0	52.0	131.0	103.0	169.0	191.0	250.0	107.0	81.0	27.0	15.0	23.0	13.0	80.4	250.0
11	16.0	20.0	9.0	10.0	26.0	11.0	9.0	27.0	50.0	30.0	16.0	20.0	16.0	18.0	15.0	10.0	11.0	12.0	23.0	20.0	7.0	15.0	17.0	47.0	19.0	50.0
12	27.0	42.0	63.0	10.0	23.0	32.0	17.0	82.0	98.0	34.0	45.0	66.0	89.0	20.0	13.0	194.0	229.0	130.0	33.0	23.0	26.0	36.0	29.0	105.0	61.1	229.0
13	70.0	79.0	73.0	45.0	0.0	0.0	6.0	7.0	13.0	15.0	244.0	177.0	94.0	59.0	39.0	20.0	6.0	11.0	7.0	4.0	2.0	14.0	7.0	66.0	44.1	244.0
14	10.0	37.0	97.0	17.0	12.0	7.0	12.0	30.0	12.0	35.0	13.0	100.0	89.0	60.0	70.0	97.0	81.0	98.0	123.0	68.0	21.0	14.0	11.0	8.0	46.8	123.0
15	5.0	2.0	7.0	15.0	6.0	7.0	23.0	17.0	19.0	24.0	111.0	37.0	215.0	169.0	91.0	109.0	63.0	93.0	112.0	206.0	86.0	164.0	22.0	6.0	67.0	215.0
16	13.0	16.0	5.0	5.0	3.0	4.0	21.0	15.0	64.0	84.0	65.0	37.0	245.0	115.0	32.0	25.0	26.0	48.0	47.0	61.0	9.0	7.0	11.0	13.0	40.5	245.0
17	11.0	8.0	7.0	13.0	15.0	16.0	14.0	132.0	92.0	57.0	49.0	64.0	89.0	44.0	113.0	88.0	99.0	118.0	156.0	190.0	34.0	74.0	121.0	65.0	69.5	190.0
18	41.0	33.0	34.0	30.0	25.0	31.0	32.0	33.0	32.0	34.0	59.0	129.0	79.0	77.0	52.0	84.0	75.0	118.0	45.0	42.0	33.0	34.0	22.0	22.0	49.8	129.0
19	17.0	17.0	14.0	13.0	14.0	12.0	21.0	40.0	67.0	55.0	113.0	46.0	48.0	16.0	21.0	19.0	21.0	20.0	31.0	60.0	30.0	23.0	21.0	16.0	31.5	113.0
20	14.0	11.0	12.0	14.0	12.0	14.0	30.0	114.0	153.0	104.0	73.0	69.0	16.0	24.0	22.0	37.0	42.0	26.0	28.0	30.0	34.0	35.0	14.0	11.0	39.1	153.0
21	10.0	10.0	11.0	11.0	14.0	13.0	29.0	62.0	114.0	68.0	60.0	58.0	24.0	45.0	40.0	58.0	33.0	27.0	31.0	22.0	35.0	38.0	35.0	24.0	36.3	114.0
22	29.0	23.0	20.0	19.0	39.0	31.0	26.0	39.0	48.0	46.0	101.0	67.0	95.0	90.0	83.0	289.0	142.0	119.0	146.0	12.0	13.0	35.0	16.0	12.0	64.2	289.0
23	18.0	16.0	16.0	9.0	9.0	20.0	14.0	191.0	307.0	235.0	273.0	97.0	119.0	286.0	296.0	223.0	110.0	110.0	268.0	90.0	58.0	27.0	34.0	21.0	118.6	307.0
24	11.0	19.0	12.0	10.0	8.0	72.0	194.0	84.0	82.0	117.0	116.0	71.0	39.0	25.0	23.0	27.0	19.0	23.0	39.0	21.0	22.0	28.0	29.0	35.0	46.9	7.0
25	35.0	39.0	43.0	34.0	27.0	15.0	8.0	5.0	17.0	0.0	16.0	48.0	40.0	19.0	10.0	15.0	38.0	10.0	23.0	12.0	19.0	10.0	10.0	7.0	20.8	48.0
26	3.0	3.0	3.0	1.0	2.0	1.0	3.0	4.0	5.0	6.0	12.0	11.0	6.0	21.0	28.0	27.0	23.0	31.0	164.0	56.0	24.0	9.0	9.0	5.0	19.0	164.0
27	17.0	6.0	12.0	6.0	9.0	24.0	86.0	35.0	46.0	31.0	30.0	124.0	49.0	35.0	15.0	16.0	21.0	9.0	6.0	31.0	20.0	8.0	9.0	16.0	27.5	124.0
28	12.0	7.0	16.0	4.0	3.0	5.0	10.0	17.0	80.0	83.0	52.0	38.0	28.0	30.0	30.0	74.0	36.0	28.0	50.0	36.0	38.0	25.0	12.0	18.0	30.5	83.0
29	22.0	20.0	9.0	12.0	25.0	25.0	47.0	80.0	80.0	101.0	97.0	49.0	36.0	39.0	25.0	36.0	26.0	26.0	14.0	27.0	28.0	16.0	10.0	14.0	33.3	101.0
30	12.0	10.0	14.0	12.0	46.0	108.0	176.0	122.0	99.0	40.0	36.0	25.0	35.0	37.0	38.0	57.0	61.0	20.0	31.0	36.0	41.0	19.0	16.0	18.0	46.2	176.0
31	18.0	18.0	15.0	11.0	18.0	14.0	28.0	30.0	39.0	212.0	417.0	317.0	209.0	258.0	198.0	160.0	64.0	67.0	96.0	58.0	53.0	116.0	94.0	82.0	108.0	417.0
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	30	29	30	31	31	31	31	31	31	31	31	740	99.9%
MEAN	46.2	36.1	33.1	32.2	24.7	26.4	49.9	56.8	74.1	72.5	99.5	85.6	84.7	70.1	74.8	89.5	76.5	72.5	78.8	65.3	51.8	57.5	53.5	50.1	46.9	7.0
MAX	661.0	460.0	290.0	389.0	174.0	108.0	227.0	191.0	307.0	235.0	417.0	317.0	431.0	286.0	322.0	536.0	390.0	299.0	395.0	387.0	306.0	469.0	555.0	384.0	108.0	417.0



Number of 24HR Exceedences			4 Proposed Guideline
Number of Non-Zero Readings			737
Maximum 1-HR Average			661.0 UG/M3
Maximum 24-HR Average			224.5 UG/M3
IZS Calibration Time			743 HRS
Down Time			99.9 %
Operational Time			60.8 UG/M3
Standard Deviation			78.9
Monthly Average			

West PM_{2.5} ($\mu\text{g}/\text{m}^3$) – March 2023

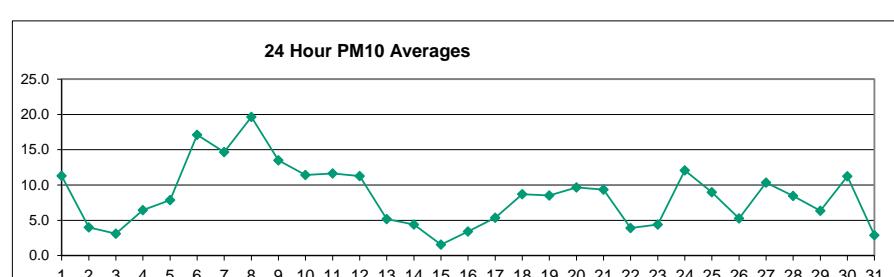
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	20.3	19.1	17.7	17.4	17.4	16.0	13.4	12.1	10.8	12.2	8.3	3.4	2.0	2.5	3.1	4.8	4.5	4.4	6.8	11.1	12.3	7.8	3.5	5.2	9.8	20.3	
2	6.5	11.4	11.0	9.5	6.0	2.4	2.1	1.6	1.1	0.8	0.6	0.5	0.9	1.4	1.3	0.7	0.7	0.6	0.6	1.5	2.5	1.0	0.7	2.8	11.4	2.2	
3	1.5	1.0	0.9	0.7	1.4	1.6	6.3	10.5	11.3	2.0	0.4	1.5	1.2	1.1	1.5	1.1	1.0	0.3	0.8	0.6	0.8	1.2	1.7	2.5	2.2	11.3	
4	1.8	1.9	1.3	1.6	0.9	1.2	1.4	1.3	1.8	3.1	2.9	3.0	10.7	10.3	13.0	17.0	7.6	7.0	7.8	7.8	8.0	9.1	10.0	5.5	17.0		
5	6.4	4.5	5.3	5.5	5.9	6.7	7.4	6.7	6.3	6.9	6.4	7.4	8.2	6.9	7.0	5.9	6.6	7.9	6.7	7.5	8.0	8.0	11.3	13.7	7.2	13.7	
6	15.4	14.8	11.5	13.1	13.9	15.9	13.9	14.6	13.1	13.9	21.4	27.2	14.7	16.5	12.6	11.9	12.2	13.0	12.5	11.1	13.4	13.7	13.0	13.1	14.4	27.2	
7	14.1	13.6	12.9	11.2	10.7	9.8	9.3	12.0	12.6	9.1	8.3	8.2	11.2	14.8	11.8	11.9	12.1	14.3	15.9	18.5	17.3	17.4	21.0	24.1	13.4	24.1	
8	24.4	22.2	22.7	24.8	20.5	27.2	22.9	18.8	17.1	18.5	19.2	19.8	21.9	23.4	19.7	14.6	10.9	8.5	8.0	6.8	6.9	9.2	10.6	17.5	27.2		
9	10.3	10.6	11.1	11.9	11.1	9.6	11.4	13.1	11.8	12.2	13.9	11.4	10.1	12.6	15.8	11.9	10.7	9.0	9.0	10.9	12.1	13.2	12.6	15.4	11.7	15.8	
10	14.1	9.0	6.3	5.0	5.4	5.5	5.2	4.9	5.2	5.5	11.8	14.6	13.7	10.8	13.2	13.8	12.4	12.6	11.3	10.9	10.0	9.7	9.6	10.2	9.6	14.6	
11	11.9	10.8	12.0	10.0	10.1	11.2	10.7	9.0	12.9	13.2	9.8	11.8	11.2	11.1	10.6	9.3	10.0	9.2	9.5	12.6	11.8	12.4	14.9	12.5	11.2	14.9	
12	11.8	9.5	7.2	6.1	5.9	5.6	5.1	5.2	5.1	4.8	7.5	6.1	5.7	7.1	7.7	1.9	1.2	1.2	7.6	17.4	22.4	27.9	26.6	25.1	9.7	27.9	
13	24.8	26.5	26.5	21.7	5.3	1.2	1.1	1.1	1.5	0.8	1.5	0.8	0.4	0.4	0.3	0.4	0.5	0.6	0.6	0.9	0.7	1.0	1.7	1.7	5.1	26.5	
14	6.2	15.6	16.8	10.6	8.8	6.0	6.9	7.1	6.3	6.7	0.5	0.5	0.4	0.5	0.5	0.6	0.6	0.9	0.7	0.8	0.9	1.0	1.5	0.9	4.2	16.8	
15	0.8	1.0	0.9	1.1	1.1	2.1	2.9	2.4	2.7	3.4	2.4	1.6	1.0	1.0	1.1	0.8	0.8	1.1	1.0	1.1	0.8	2.2	1.0	1.5	3.4		
16	1.0	1.0	0.9	0.8	0.9	1.7	3.1	4.0	2.6	3.0	3.3	1.2	1.3	1.0	1.2	1.1	1.3	1.5	4.6	4.4	10.3	5.1	4.3	3.3	2.6	10.3	
17	2.7	2.4	2.2	2.5	2.6	2.6	3.5	4.5	4.3	5.0	5.0	3.5	3.5	4.0	4.0	5.2	6.4	7.4	8.6	8.9	7.8	7.8	7.0	6.6	4.9	8.9	
18	6.4	6.9	6.8	6.6	6.4	6.7	6.6	6.7	6.8	7.0	6.5	6.5	7.9	8.1	8.1	8.1	8.4	9.2	9.7	9.9	10.6	11.1	9.9	9.1	7.9	11.1	
19	8.8	8.3	7.6	7.2	7.2	6.9	7.1	7.3	7.5	7.4	7.5	7.5	7.2	7.8	7.4	7.5	8.2	7.1	7.7	7.6	8.3	7.5	7.0	7.1	7.5	8.8	
20	7.3	7.9	8.1	7.8	7.4	7.5	7.1	6.8	6.9	7.2	7.6	7.8	8.6	6.8	8.9	7.5	8.1	7.4	7.4	7.7	8.1	8.6	8.9	7.7	8.9		
21	6.6	7.2	6.8	6.3	5.8	5.9	6.9	8.0	6.8	7.3	6.5	5.8	5.1	5.4	10.1	8.0	7.1	6.9	6.8	8.1	12.7	13.2	11.3	8.6	7.6	13.2	
22	6.8	4.8	3.5	2.6	2.8	2.9	3.4	5.8	5.3	5.1	3.7	2.8	2.2	1.8	1.5	1.3	0.7	1.0	1.4	2.7	4.4	4.2	3.3	2.1	3.2	6.8	
23	2.2	1.5	2.0	2.7	2.9	2.4	4.3	5.9	5.2	4.9	4.3	3.3	2.6	2.6	2.6	2.7	2.3	2.5	2.9	4.6	4.3	5.2	5.1	4.5	3.5	5.9	
24	4.4	4.1	3.8	4.2	4.5	4.0	5.1	5.8	10.7	10.1	7.3	7.8	8.2	9.5	9.2	9.2	8.3	9.0	8.4	8.7	16.0	21.8	27.6	30.7	9.9	30.7	
25	29.3	29.6	26.4	22.9	14.3	10.0	5.6	2.6	2.1	1.7	1.0	1.1	0.8	3.8	9.4	3.0	7.7	2.0	2.0	2.4	4.7	7.5	5.9	5.7	8.4	29.6	
26	3.9	4.2	6.4	3.9	3.3	2.4	2.7	2.7	3.1	3.0	1.9	2.6	4.0	5.1	6.5	6.5	7.3	7.0	6.7	5.0	3.0	5.8	7.1	7.2	4.7	7.3	
27	8.0	7.7	12.1	12.0	12.7	12.2	8.1	6.0	6.9	7.5	8.1	7.5	7.1	7.3	7.0	7.7	7.2	7.6	7.3	11.2	8.3	7.0	7.7	8.9	8.5	12.7	
28	9.9	9.7	5.4	6.2	4.3	4.1	3.3	3.4	5.6	3.9	4.3	4.1	6.3	7.0	9.3	9.7	10.2	10.5	9.0	7.7	9.7	10.4	10.3	9.4	7.2	10.5	
29	10.0	6.8	4.5	3.3	3.1	2.8	4.6	4.7	4.1	3.9	3.2	3.0	2.5	1.9	2.4	1.7	5.9	12.4	4.4	3.1	8.5	8.2	7.1	7.5	5.0	12.4	
30	8.0	8.5	7.4	9.6	7.2	7.7	8.7	11.7	10.2	10.5	10.4	9.0	10.9	11.8	10.5	10.3	8.3	8.9	9.9	7.0	8.7	10.3	9.3	7.4	9.3	11.8	
31	5.7	4.8	3.4	3.0	2.9	3.6	4.0	3.9	4.4	3.1	2.9	1.9	2.0	2.5	2.0	1.6	1.5	1.3	1.3	1.4	1.5	1.5	1.3	0.9	2.6	5.7	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%	
MEAN	9.4	9.2	8.7	8.0	7.0	6.4	6.7	6.9	6.9	6.5	6.4	6.2	5.9	6.6	7.1	6.4	6.6	6.3	6.4	7.1	8.2	8.6	8.8	8.8			
MAX	29.3	29.6	26.5	22.9	24.8	20.5	27.2	22.9	18.8	17.1	21.4	27.2	19.8	21.9	23.4	19.7	17.0	14.3	15.9	18.5	22.4	27.9	27.6	30.7			



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	744	
Maximum 1-HR Average	30.7 UG/M3	
Maximum 24-HR Average	17.5 UG/M3	
Izs Calibration Time		
Down Time	0	
Standard Deviation	5.534	
Operational Time		
Operational Uptime		
Monthly Average		
744 HRS		
100.0 %		
7.3 UG/M3		

West PM₁₀ ($\mu\text{g}/\text{m}^3$) – March 2023

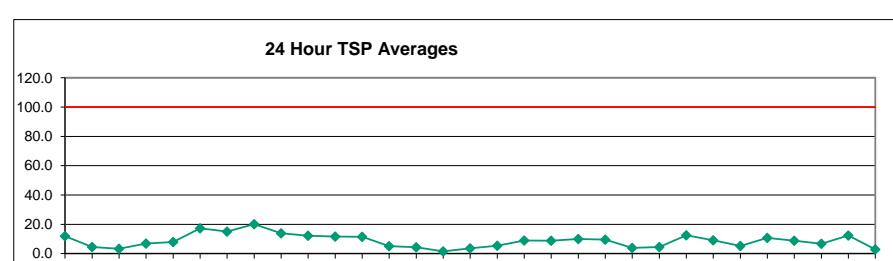
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	20.3	19.1	17.7	17.4	17.4	16.0	13.4	12.1	10.8	12.2	8.5	4.5	2.9	3.7	4.6	7.2	6.7	6.6	10.3	16.6	18.4	11.7	5.2	7.7	11.3	20.3	
2	9.8	17.0	16.5	14.2	9.0	3.6	3.0	2.3	1.5	1.0	0.8	0.5	1.1	2.0	1.8	0.9	0.9	0.8	0.6	0.6	2.1	3.7	1.5	0.7	4.0	17.0	
3	2.1	1.4	1.2	0.7	1.8	2.3	9.3	15.5	16.7	2.9	0.4	2.1	1.6	1.5	2.2	1.4	1.2	0.3	1.0	0.7	0.9	1.8	2.3	2.9	3.1	16.7	
4	1.8	1.9	1.3	1.6	0.9	1.2	1.4	1.3	1.8	1.8	4.2	4.1	4.2	14.7	14.8	17.8	21.6	8.5	7.0	7.8	7.8	8.0	9.1	10.0	6.4	21.6	
5	6.4	4.5	5.3	5.5	6.6	6.8	7.4	7.7	7.8	8.5	7.7	9.2	9.2	7.3	7.1	5.9	8.1	10.0	8.2	7.7	8.0	8.0	11.3	14.3	7.9	14.3	
6	18.9	16.7	11.5	13.1	15.8	20.1	14.6	17.2	15.1	16.3	27.6	34.3	19.6	21.9	16.1	15.4	15.9	15.6	13.0	11.1	15.9	16.7	14.2	14.0	17.1	34.3	
7	16.2	13.6	12.9	11.2	10.7	9.8	9.3	12.0	12.6	9.1	8.3	9.7	14.2	18.1	14.7	15.1	15.5	18.0	19.7	20.3	17.3	17.4	21.0	25.5	14.7	25.5	
8	30.5	25.3	22.2	22.7	24.8	20.5	28.4	22.9	18.8	17.1	18.5	23.7	26.0	29.4	29.7	24.8	18.1	13.9	10.4	9.6	6.8	6.9	9.6	11.3	19.7	30.5	
9	11.1	11.4	13.5	14.4	11.1	9.6	11.4	13.1	11.8	12.2	15.6	11.5	10.9	15.9	19.5	14.7	13.7	11.5	11.6	13.4	15.3	16.7	16.6	17.3	13.5	19.5	
10	14.1	9.0	6.3	5.0	5.4	5.5	5.2	4.9	6.1	7.3	14.7	18.4	17.5	13.4	16.3	17.1	15.3	15.8	13.9	13.4	12.4	11.9	11.8	13.2	11.4	18.4	
11	12.3	10.8	13.4	10.0	10.5	11.2	10.7	9.0	13.3	14.0	9.8	12.1	12.7	11.9	11.8	9.5	10.1	9.2	9.5	12.6	11.8	12.4	18.2	12.5	11.6	18.2	
12	11.8	9.5	7.2	6.1	5.9	5.6	5.1	5.2	5.1	4.8	8.8	8.1	8.6	9.0	10.9	2.0	1.2	1.2	9.7	22.4	27.0	33.7	29.0	32.4	11.3	33.7	
13	24.8	26.6	26.9	21.7	5.3	1.2	1.1	1.1	1.5	0.8	1.6	0.9	0.4	0.4	0.4	0.4	0.4	0.6	0.7	1.1	0.8	0.9	1.8	1.7	1.7	5.2	26.9
14	7.4	16.3	18.2	10.6	8.8	6.0	6.9	7.1	6.8	6.7	0.5	0.5	0.4	0.5	0.5	0.6	0.6	0.9	0.7	0.8	0.9	1.0	1.5	0.9	4.4	18.2	
15	0.8	1.0	1.0	0.9	1.1	1.1	2.4	3.3	2.4	3.0	3.4	2.5	1.6	1.0	1.0	1.1	0.8	0.8	1.1	1.0	1.1	0.8	3.1	1.0	1.6	3.4	
16	1.0	1.0	0.9	0.8	0.9	1.7	4.4	6.0	3.6	3.5	3.8	1.4	1.4	1.0	1.2	1.1	1.3	1.5	6.8	6.4	15.4	7.5	5.6	3.5	3.4	15.4	
17	2.7	2.4	2.2	2.5	2.6	2.6	4.2	6.2	5.8	7.4	6.5	3.9	3.5	4.0	4.0	5.2	6.4	7.4	8.8	9.5	8.7	8.6	7.0	7.0	5.4	9.5	
18	7.3	9.2	8.6	6.9	6.5	7.7	6.6	6.9	7.1	8.3	7.2	6.5	8.1	8.1	8.1	8.4	9.2	11.7	12.2	13.1	13.9	10.3	9.1	8.7	13.9		
19	8.8	8.3	7.6	7.2	7.2	6.9	7.1	7.3	7.6	7.9	8.0	7.9	7.5	9.2	8.4	9.6	11.2	9.3	9.3	9.6	10.7	9.3	9.1	9.0	8.5	11.2	
20	9.4	8.1	8.3	7.8	7.4	7.5	8.5	8.8	8.9	9.5	9.3	9.9	12.4	7.8	13.0	10.0	10.7	9.1	9.7	9.3	10.1	11.6	12.6	12.1	9.7	13.0	
21	7.9	8.2	7.0	6.3	5.8	5.9	8.1	11.5	8.9	9.8	8.3	7.4	5.4	7.4	14.2	10.0	9.6	9.4	9.3	10.5	16.7	15.9	12.3	8.7	9.4	16.7	
22	6.9	4.8	3.5	2.6	3.3	3.2	5.0	8.4	7.8	7.5	5.4	3.5	2.7	2.1	1.7	1.7	0.7	1.0	1.4	3.1	4.7	6.0	4.5	2.3	3.9	8.4	
23	2.2	1.5	2.0	3.0	3.4	2.8	6.4	8.8	7.7	7.4	6.2	4.8	3.1	3.0	2.7	2.7	2.3	2.5	2.9	4.6	5.3	7.5	7.2	5.6	4.4	8.8	
24	5.2	4.7	4.0	4.6	4.9	4.0	6.7	8.5	14.4	14.2	10.3	9.8	10.3	13.3	13.0	13.1	11.9	11.5	8.4	8.7	19.1	24.6	31.2	33.4	12.1	33.4	
25	29.3	29.6	26.4	22.9	14.3	10.0	5.6	2.6	2.1	1.7	1.0	1.1	0.8	5.4	14.1	4.2	11.3	2.0	2.0	2.4	5.1	8.9	6.6	5.7	9.0	29.6	
26	3.9	4.2	6.4	3.9	3.3	2.4	2.7	2.7	3.1	3.0	1.9	2.6	5.5	7.2	8.0	8.1	9.8	8.8	8.7	5.0	3.0	6.4	8.3	7.2	5.3	9.8	
27	8.3	7.8	14.4	14.2	14.7	16.0	10.0	6.5	8.7	9.8	11.5	10.3	9.3	9.3	9.2	10.8	9.8	9.5	9.1	14.6	8.3	8.7	8.1	8.9	10.3		
28	9.9	9.7	5.4	6.2	4.3	4.1	3.3	3.4	5.6	3.9	4.3	4.1	6.3	10.0	13.7	14.3	14.9	15.4	11.8	8.4	11.3	11.4	11.5	9.4	8.4	15.4	
29	10.0	6.8	4.5	3.3	3.1	2.8	4.8	5.5	5.2	5.5	4.0	4.0	3.4	2.2	3.4	2.0	8.7	18.5	6.4	4.1	12.4	11.8	10.0	9.5	6.3	18.5	
30	9.9	10.5	8.5	11.1	9.3	9.4	10.7	15.0	12.7	13.0	12.8	11.1	13.5	14.5	12.9	12.6	10.2	11.1	12.5	7.6	11.1	12.1	10.2	7.4	11.2	15.0	
31	5.7	4.8	3.4	3.0	2.9	3.9	4.9	5.3	6.4	4.2	3.5	1.9	2.0	2.8	2.0	1.6	1.5	1.3	1.3	1.4	1.5	1.5	1.3	0.9	2.9	6.4	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%	
MEAN	10.2	9.9	9.3	8.4	7.4	6.8	7.4	8.0	8.0	7.6	7.6	7.5	7.3	8.3	9.1	8.0	8.3	7.8	7.7	8.3	9.8	10.1	9.8				
MAX	30.5	29.6	26.9	22.9	24.8	20.5	28.4	22.9	18.8	17.1	27.6	34.3	26.0	29.4	29.7	24.8	21.6	18.5	19.7	22.4	27.0	33.7	31.2	33.4			



Number of Non-Zero Readings	744
Maximum 1-HR Average	34.3 UG/M3
Maximum 24-HR Average	19.7 UG/M3
I2S Calibration Time	
Down Time	0
OperatioEl Time	
Standard Deviation	6.3
OperatioEl Uptime	
Monthly Average	
	744 HRS
	100.0 %
	8.4 UG/M3

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

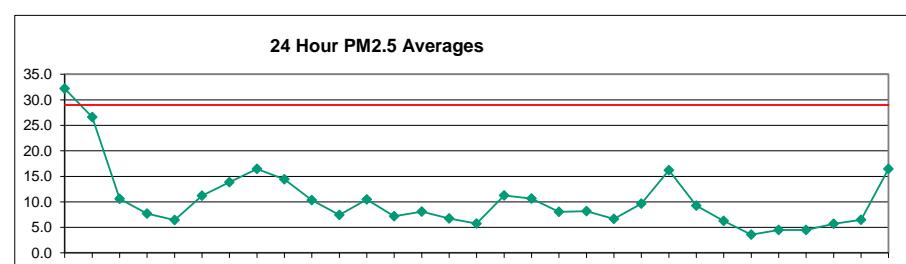
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	20.3	19.1	17.7	17.4	17.4	16.0	13.4	12.1	10.8	12.2	8.5	4.5	3.2	4.2	5.3	8.3	7.8	7.6	11.9	19.2	21.4	13.6	5.9	8.9	11.9	21.4
2	11.4	19.7	19.2	16.4	10.4	4.0	3.4	2.4	1.5	1.0	0.8	0.5	1.1	2.0	1.9	0.9	0.9	0.8	0.6	0.6	2.1	4.0	1.5	0.7	4.5	19.7
3	2.2	1.4	1.2	0.7	1.8	2.4	10.7	18.0	19.3	3.1	0.4	2.1	1.6	1.5	2.2	1.4	1.2	0.3	1.0	0.7	0.9	1.8	2.3	2.9	3.4	19.3
4	1.8	1.9	1.3	1.6	0.9	1.2	1.4	1.3	1.8	1.8	4.2	4.1	4.2	17.1	17.0	20.4	24.5	8.5	7.0	7.8	7.8	8.0	9.1	10.0	6.9	24.5
5	6.4	4.5	5.3	5.5	6.6	6.8	7.4	7.7	8.3	8.5	7.7	9.5	9.2	7.3	7.1	5.9	8.1	10.5	8.2	7.7	8.0	8.0	11.3	14.3	7.9	14.3
6	18.9	16.7	11.5	13.1	15.8	20.1	14.6	17.2	15.1	16.3	27.6	34.3	19.6	22.3	17.4	15.9	16.6	15.6	13.0	11.1	15.9	16.7	14.2	14.0	17.2	34.3
7	16.2	13.6	12.9	11.2	10.7	9.8	9.3	12.0	12.6	9.1	8.3	9.7	15.7	21.0	16.7	16.6	16.6	19.9	19.7	20.3	17.3	17.4	21.0	25.5	15.1	25.5
8	30.5	25.3	22.2	22.7	24.8	20.5	28.4	22.9	18.8	17.1	18.5	23.7	26.5	29.7	33.0	28.1	20.7	14.5	10.4	9.6	6.8	6.9	9.6	11.3	20.1	33.0
9	11.1	11.4	13.5	14.4	11.1	9.6	11.4	13.1	11.8	12.2	15.6	11.5	10.9	16.0	22.6	16.9	15.0	12.3	11.6	13.4	15.3	18.5	16.6	17.3	13.9	22.6
10	14.1	9.0	6.3	5.0	5.4	5.5	5.2	4.9	6.1	7.3	16.9	20.1	18.8	15.1	18.6	19.6	16.1	15.8	13.9	15.4	14.0	13.7	13.7	13.2	12.2	20.1
11	12.3	10.8	13.4	10.0	10.5	11.2	10.7	9.0	13.3	14.0	9.8	12.1	12.7	11.9	11.8	9.5	10.1	9.2	9.5	12.6	11.8	12.4	18.2	12.5	11.6	18.2
12	11.8	9.5	7.2	6.1	5.9	5.6	5.1	5.2	5.1	4.8	8.8	8.1	8.6	10.4	11.9	2.0	1.2	1.2	10.1	23.5	27.0	33.7	29.0	34.5	11.5	34.5
13	24.8	26.6	26.9	21.7	5.3	1.2	1.1	1.1	1.5	0.8	1.6	0.9	0.4	0.4	0.4	0.4	0.6	0.7	1.1	0.8	0.9	1.8	1.7	1.7	5.2	26.9
14	7.4	16.3	18.2	10.6	8.8	6.0	6.9	7.1	6.8	6.7	0.5	0.5	0.4	0.5	0.5	0.6	0.6	0.9	0.7	0.8	0.9	1.0	1.5	0.9	4.4	18.2
15	0.8	1.0	1.0	0.9	1.1	1.1	2.4	3.3	2.4	3.0	3.4	2.5	1.6	1.0	1.0	1.1	0.8	0.8	1.1	1.0	1.1	0.8	3.3	1.0	1.6	3.4
16	1.0	1.0	0.9	0.8	0.9	1.7	4.4	6.0	3.6	3.5	3.8	1.4	1.4	1.0	1.2	1.1	1.3	1.5	7.3	6.9	17.8	7.5	5.6	3.5	3.6	17.8
17	2.7	2.4	2.2	2.5	2.6	2.6	4.2	6.2	5.8	7.4	6.5	3.9	3.5	4.0	4.0	5.2	6.4	7.4	8.8	9.5	8.7	8.6	7.0	7.0	5.4	9.5
18	7.3	9.2	8.6	6.9	6.5	7.7	6.6	6.9	7.1	8.3	7.2	6.5	8.1	8.1	8.1	8.4	9.2	11.7	14.0	15.1	15.4	10.3	9.1	8.9	15.4	
19	8.8	8.3	7.6	7.2	7.2	6.9	7.1	7.3	7.6	7.9	8.0	7.9	7.5	9.2	8.4	10.9	12.7	10.4	9.3	9.6	11.4	10.4	9.2	10.4	8.8	12.7
20	9.5	8.1	8.3	7.8	7.4	7.5	8.5	9.0	8.9	9.5	9.3	9.9	12.8	7.8	13.2	10.0	12.1	10.5	9.7	9.3	11.4	12.6	14.2	12.4	10.0	14.2
21	7.9	8.2	7.0	6.3	5.8	5.9	8.1	11.5	8.9	9.8	8.3	7.4	5.4	7.4	16.4	11.6	10.2	9.4	9.6	11.1	16.9	15.9	12.3	8.7	9.6	16.9
22	6.9	4.8	3.5	2.6	3.3	3.2	5.1	8.8	8.4	7.7	5.7	3.5	2.7	2.1	1.7	1.7	0.7	1.0	1.4	3.1	4.7	6.0	4.5	2.3	4.0	8.8
23	2.2	1.5	2.0	3.0	3.4	2.8	7.0	9.9	8.6	8.1	6.2	4.9	3.1	3.0	2.7	2.7	2.3	2.5	2.9	4.6	5.3	7.5	7.2	5.6	4.5	9.9
24	5.2	4.7	4.0	4.6	4.9	4.0	6.7	8.7	14.4	14.4	11.1	9.8	11.9	15.3	14.8	14.9	13.3	12.2	8.4	8.7	19.1	24.6	31.2	33.4	12.5	33.4
25	29.3	29.6	26.4	22.9	14.3	10.0	5.6	2.6	2.1	1.7	1.0	1.1	0.8	5.7	14.9	4.2	11.9	2.0	2.0	2.4	5.1	8.9	6.6	5.7	9.0	29.6
26	3.9	4.2	6.4	3.9	3.3	2.4	2.7	2.7	3.1	3.0	1.9	2.6	5.5	7.6	8.0	8.1	10.3	8.8	8.7	5.0	3.0	6.4	8.3	7.2	5.3	10.3
27	8.3	7.8	14.4	14.2	14.7	16.0	10.0	6.5	8.7	10.7	12.1	11.4	9.3	10.2	10.2	11.8	10.1	10.9	10.5	14.7	8.3	8.7	8.1	8.9	10.7	16.0
28	9.9	9.7	5.4	6.2	4.3	4.1	3.3	3.4	5.6	3.9	4.3	4.1	6.3	10.6	15.3	16.6	17.3	17.9	11.8	8.4	11.3	11.4	11.5	9.4	8.8	17.9
29	10.0	6.8	4.5	3.3	3.1	2.8	4.8	5.5	5.2	5.5	4.0	4.0	3.4	2.2	3.4	2.0	9.8	21.5	6.7	4.1	13.7	13.2	10.0	11.0	6.7	21.5
30	11.4	11.9	8.5	11.1	10.6	11.0	12.5	16.1	14.4	14.9	14.9	12.8	15.6	16.8	15.0	14.6	11.8	12.5	12.5	7.6	11.1	12.1	10.2	7.4	12.4	16.8
31	5.7	4.8	3.4	3.0	2.9	3.9	4.9	5.3	6.4	4.2	3.5	1.9	2.0	2.8	2.0	1.6	1.5	1.3	1.3	1.4	1.5	1.5	1.3	0.9	2.9	6.4
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	10.3	10.0	9.4	8.5	7.5	6.9	7.5	8.2	8.2	7.7	7.8	7.7	7.5	8.8	9.9	8.8	9.1	8.3	7.8	8.5	10.2	10.6	10.2	10.1		
MAX	30.5	29.6	26.9	22.9	24.8	20.5	28.4	22.9	19.3	17.1	27.6	34.3	26.5	29.7	33.0	28.1	24.5	21.5	19.7	23.5	27.0	33.7	31.2	34.5		



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	744	
Maximum 1-HR Average	34.5 UG/M3	
Maximum 24-HR Average	20.1 UG/M3	
Izs Calibration Time		
Down Time	0	
Standard Deviation	6.597	
Operational Time		
Operational Uptime		
Monthly Average		
744 HRS		
100.0 %		
8.7 UG/M3		

Berm PM_{2.5} ($\mu\text{g}/\text{m}^3$) – March 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	12.9	10.7	13.6	16.5	20.0	17.9	14.9	13.8	11.2	10.6	20.2	32.0	44.7	45.7	36.3	53.4	41.7	34.0	43.0	48.4	38.7	51.1	76.4	65.0	32.2	76.4		
2	72.4	58.8	36.3	29.5	17.5	7.2	30.6	23.2	10.5	20.3	23.4	35.4	28.3	25.8	21.7	16.5	25.8	16.1	17.3	16.2	36.9	22.0	25.1	22.3	26.6	72.4		
3	3.5	10.0	7.3	5.5	2.0	2.5	1.0	1.3	1.8	14.6	23.0	26.6	19.3	12.1	29.0	16.0	16.7	19.9	2.4	3.5	21.4	6.7	2.6	5.7	10.6	29.0		
4	2.9	1.6	0.9	0.8	0.7	0.8	0.8	1.3	1.4	6.6	19.8	15.2	14.4	3.4	2.9	9.2	18.7	15.2	9.7	12.3	13.5	10.8	13.8	8.4	7.7	19.8		
5	5.5	4.5	4.2	3.8	4.0	4.8	5.2	4.5	4.5	4.3	6.9	6.1	6.6	8.1	7.6	5.8	4.8	7.5	12.3	7.4	8.5	9.7	9.4	9.2	6.5	12.3		
6	9.4	10.3	9.5	9.9	10.6	10.6	9.2	7.4	9.2	13.1	22.7	17.3	11.2	12.6	10.9	9.1	9.8	12.2	12.2	10.0	10.4	10.1	10.1	11.0	11.2	22.7		
7	10.8	11.7	11.3	12.5	15.2	17.7	30.8	15.8	17.2	16.7	12.7	8.4	9.2	11.1	9.3	9.9	11.3	10.6	13.2	13.0	13.6	15.4	15.7	18.9	13.8	30.8		
8	19.2	18.6	19.5	17.5	20.6	19.8	21.2	23.7	24.4	20.8	19.2	16.7	15.9	18.5	18.5	17.1	15.7	14.8	13.6	12.5	9.1	9.5	6.9	9.7	10.7	16.5	24.4	
9	9.5	7.3	7.8	8.1	10.2	11.2	12.9	15.7	20.8	17.5	32.8	38.4	21.2	16.5	13.1	9.4	7.6	7.3	7.0	7.0	9.0	14.2	23.3	17.8	14.4	38.4		
10	13.3	5.3	4.2	3.4	4.4	3.3	5.5	7.6	13.6	11.2	10.5	12.3	10.9	17.2	16.6	21.4	19.8	18.5	11.7	10.7	7.4	6.3	6.6	6.7	10.3	21.4		
11	7.9	6.8	6.3	6.2	6.3	6.3	6.3	8.0	11.6	10.4	7.3	7.0	7.3	7.2	6.5	6.1	6.8	7.9	8.8	8.3	7.1	7.2	6.7	8.2	7.4	11.6		
12	9.3	10.1	8.4	6.5	7.2	7.0	5.6	8.7	9.9	6.8	4.6	11.1	7.8	4.3	3.5	18.5	21.0	15.2	6.1	11.4	14.0	16.0	15.9	22.3	10.5	22.3		
13	33.2	46.0	11.1	1.6	1.1	1.0	1.0	1.4	1.8	2.6	14.4	15.4	7.6	6.3	4.1	2.6	3.0	2.7	1.4	0.5	0.3	1.5	2.0	9.7	7.2	46.0		
14	4.5	12.8	14.1	6.2	3.5	4.2	5.7	8.3	3.3	6.2	18.6	15.2	10.6	11.5	13.0	19.4	8.1	9.8	9.2	3.8	2.0	1.6	1.5	1.0	8.1	19.4		
15	0.9	0.9	1.2	1.1	1.4	1.3	2.9	2.1	2.9	3.0	7.2	5.1	19.7	11.3	11.1	12.3	5.5	9.7	9.6	20.3	8.6	22.1	1.2	0.7	6.8	22.1		
16	1.2	1.2	0.8	0.8	0.7	1.1	1.9	2.0	5.5	5.2	4.4	5.1	15.0	9.2	5.4	40.8	16.0	8.6	2.6	2.8	1.4	1.5	2.4	2.1	5.7	40.8		
17	1.9	1.9	2.2	2.8	2.9	3.4	3.0	10.4	7.9	5.0	5.3	8.7	19.4	14.6	26.1	18.4	21.0	23.6	23.3	23.6	7.8	12.9	15.6	8.2	11.2	26.1		
18	6.7	8.5	6.2	6.2	5.7	6.5	6.3	6.3	6.5	6.4	8.8	19.4	19.0	21.3	12.7	17.5	17.5	17.8	12.9	9.9	10.1	7.9	7.7	7.2	10.6	21.3		
19	6.7	7.6	6.2	6.1	5.8	5.7	5.8	6.5	9.0	11.7	19.6	16.0	10.3	9.3	6.6	5.9	6.3	6.5	8.0	8.6	7.0	6.3	6.0	5.4	8.0	19.6		
20	4.4	5.2	5.4	5.1	5.2	5.8	6.6	14.0	16.5	16.0	13.5	13.2	4.7	X	X	X	X	7.8	6.0	6.2	6.6	17.8	3.8	3.9	8.2	17.8		
21	4.4	4.5	4.1	4.0	4.0	4.7	5.6	9.6	17.6	12.1	X	X	X	X	8.2	6.1	5.5	4.6	5.8	9.1	5.3	3.6	7.4	6.6	17.6			
22	4.9	4.0	3.0	3.3	4.3	2.9	3.1	6.2	5.9	5.5	9.6	7.3	17.0	24.4	23.0	52.8	18.3	12.9	9.0	1.3	1.7	4.8	3.6	2.5	9.6	52.8		
23	3.3	3.2	2.1	2.3	1.6	2.4	3.1	13.7	30.9	30.5	25.1	18.0	24.1	49.1	43.2	39.8	26.6	30.1	16.9	5.9	5.8	3.9	3.6	3.4	16.2	49.1		
24	3.0	3.4	3.3	2.9	4.1	9.8	12.8	9.8	10.1	18.5	12.9	12.2	6.2	3.9	5.0	4.6	4.0	5.2	9.6	13.7	14.5	16.1	17.1	19.9	9.3	19.9		
25	19.8	23.9	24.9	16.3	13.0	8.5	4.4	3.0	2.5	1.8	2.1	2.8	4.9	3.6	1.2	2.4	4.4	1.2	0.8	1.4	1.8	2.1	2.2	1.3	6.3	24.9		
26	1.3	2.0	2.7	2.4	2.3	1.8	1.7	1.6	2.4	2.9	2.5	2.1	1.4	2.8	5.5	2.9	4.3	5.2	17.7	4.5	4.2	3.4	4.2	3.5	3.6	17.7		
27	3.4	3.6	5.0	4.8	5.7	5.3	3.6	3.2	3.2	3.9	7.4	12.0	7.0	4.9	4.3	3.3	3.5	3.2	3.0	4.2	3.5	2.8	2.9	3.8	4.5	12.0		
28	2.8	2.8	2.5	1.9	1.9	1.7	2.0	3.4	11.8	11.2	10.9	5.2	4.7	3.1	2.8	2.7	2.8	2.5	6.2	6.5	7.7	2.7	2.6	4.5	4.5	11.8		
29	8.8	6.1	5.3	3.6	3.6	4.1	6.3	8.3	10.2	11.6	12.0	6.5	4.8	8.1	11.1	3.1	3.0	1.3	1.4	2.6	4.9	2.7	3.4	3.6	5.7	12.0		
30	4.1	5.2	4.9	3.2	4.1	6.7	12.4	12.9	11.1	6.7	6.8	5.9	7.4	8.0	6.8	7.4	6.4	5.5	6.6	7.2	5.7	3.4	3.3	6.5	12.9			
31	4.8	18.0	2.8	2.6	2.8	2.4	3.4	4.2	4.5	29.4	63.1	38.9	42.1	29.0	29.9	28.7	13.0	17.7	12.7	9.3	6.9	10.4	8.6	9.8	16.5	63.1		
NO.	31	31	31	31	31	31	31	31	31	31	30	30	30	29	29	30	31	31	31	31	31	31	31	31	736	99%		
MEAN	9.6	10.2	7.6	6.4	6.2	6.1	7.6	8.3	9.7	11.1	14.9	14.5	14.1	13.9	13.3	15.5	12.1	11.4	10.3	9.5	10.0	9.4	10.0	9.9				
MAX	72.4	58.8	36.3	29.5	20.6	19.8	30.8	23.7	30.9	30.5	63.1	38.9	44.7	49.1	43.2	53.4	41.7	34.0	43.0	48.4	38.7	51.1	76.4	65.0				

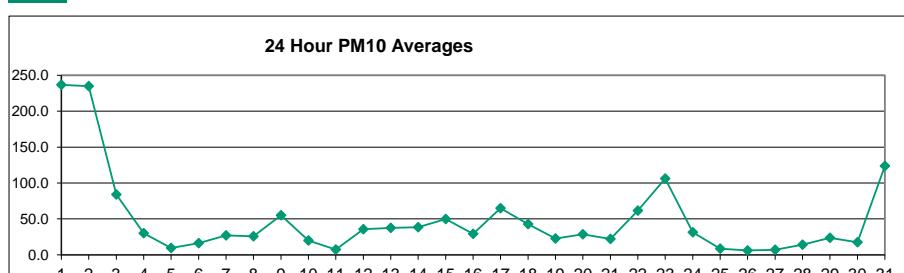


Number of 24HR Exceedences 1 Proposed Guideline

Number of Non-Zero Readings	736
Maximum 1-HR Average	76.4 UG/M3
Maximum 24-HR Average	32.2 UG/M3
Monthly Calibration Standard Deviation	10.0
Operational Time	736 HRS
Operational Uptime	98.9 %
Monthly Average	10.4 UG/M3

Berm PM₁₀ ($\mu\text{g}/\text{m}^3$) – March 2023

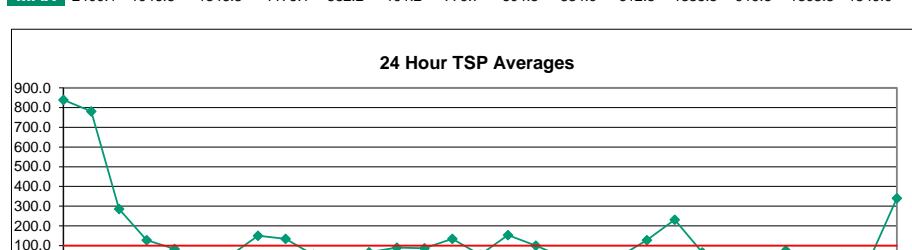
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	8.5	7.3	10.7	17.3	15.5	13.0	9.9	9.8	8.3	14.9	146.3	278.5	380.0	415.0	332.3	487.4	384.4	282.3	367.9	413.7	335.5	482.2	652.2	608.6	236.7	652.2
2	678.1	546.1	323.9	282.5	146.6	58.8	244.8	194.5	98.9	169.6	203.5	295.7	214.5	214.0	197.0	134.3	217.9	130.6	125.3	135.0	378.7	205.4	221.5	218.4	234.8	678.1
3	23.9	77.9	52.6	35.7	11.3	12.7	4.8	6.0	8.6	118.8	194.5	239.7	192.2	95.9	243.5	108.2	141.3	119.3	13.9	28.1	178.9	50.3	17.4	41.3	84.0	243.5
4	17.7	5.1	1.5	1.5	1.0	1.9	1.0	3.6	4.5	45.0	153.0	107.4	75.9	12.1	8.0	35.7	110.6	65.2	12.0	15.3	16.6	10.8	13.2	5.6	30.2	153.0
5	3.6	3.0	2.8	2.5	2.8	3.2	3.4	3.0	3.2	3.1	13.1	12.2	17.4	27.3	16.6	15.3	11.1	18.7	24.5	7.6	8.8	10.4	8.9	6.5	9.5	27.3
6	7.1	9.7	6.7	6.9	9.6	8.5	6.4	4.9	8.6	18.1	48.4	36.8	22.7	22.5	27.1	18.7	21.2	33.1	23.8	9.6	10.9	8.4	8.5	9.1	16.1	48.4
7	13.4	13.2	9.5	10.0	19.4	25.4	46.0	22.7	67.0	87.9	73.1	31.0	21.4	23.0	17.8	20.0	27.6	16.6	24.3	10.9	9.3	11.0	19.0	26.3	26.9	87.9
8	23.4	20.6	27.3	17.5	21.4	17.4	16.0	27.4	32.4	20.6	30.6	28.9	23.5	43.4	31.6	44.4	59.3	60.8	17.4	11.4	12.3	6.5	12.8	15.5	25.9	60.8
9	12.3	5.0	5.2	5.8	11.8	12.3	18.5	23.0	105.2	80.0	265.9	301.8	144.4	78.8	30.7	19.1	15.0	11.4	10.3	11.0	20.2	37.8	68.5	26.0	55.0	301.8
10	20.5	8.5	5.1	3.7	7.4	3.1	8.0	10.8	20.5	57.1	34.0	29.2	22.1	90.7	23.7	30.8	28.6	26.3	16.2	14.3	6.5	4.6	4.5	4.4	20.0	90.7
11	8.8	5.4	4.3	4.4	5.2	4.7	5.4	6.7	14.8	12.5	8.3	7.8	9.0	8.8	7.3	7.0	6.4	8.8	11.9	6.8	4.7	4.9	5.4	7.0	7.3	14.8
12	7.5	8.6	8.2	5.0	6.9	6.9	4.0	12.0	46.3	21.2	14.1	72.1	53.3	10.1	6.9	164.9	175.3	116.5	11.8	12.0	13.6	13.2	12.3	51.1	35.6	175.3
13	127.8	195.3	29.8	2.5	1.6	0.7	0.7	1.5	2.1	12.9	161.6	144.3	67.7	56.0	31.7	16.7	13.5	9.9	5.4	0.8	0.3	1.9	2.4	14.4	37.6	195.3
14	3.9	24.2	18.1	4.0	2.2	2.9	5.9	11.0	3.1	18.3	104.8	112.6	65.7	73.7	84.0	132.0	56.8	79.1	75.4	27.6	10.5	5.0	3.6	1.8	38.6	132.0
15	1.7	1.5	2.2	1.0	1.5	1.5	5.2	4.1	9.6	14.8	61.1	38.1	82.2	79.6	97.0	39.5	70.8	78.1	183.1	66.2	185.6	6.5	2.6	49.8	185.6	
16	3.5	4.5	1.1	1.5	0.7	3.8	8.6	8.4	32.5	34.9	27.1	31.9	105.9	61.3	31.9	190.1	76.9	36.5	9.2	10.3	3.0	1.7	7.4	5.0	29.1	190.1
17	4.6	3.7	6.3	9.2	8.3	12.0	9.9	71.2	55.3	28.1	33.5	60.3	148.1	91.4	169.6	105.8	116.2	131.4	142.6	159.1	15.5	52.8	94.2	30.5	65.0	169.6
18	22.3	32.5	18.0	19.5	15.7	18.8	19.0	18.9	18.0	18.6	44.6	124.2	93.0	116.4	50.2	87.4	99.6	89.5	45.8	21.7	18.0	12.8	11.6	11.4	42.8	124.2
19	9.6	15.2	8.8	7.1	8.2	7.1	10.5	17.4	36.9	66.2	102.8	77.8	36.1	29.1	14.5	8.6	11.4	10.4	14.7	20.1	12.1	7.6	5.9	6.6	22.7	102.8
20	5.1	7.1	8.5	5.6	6.1	10.7	17.5	77.1	104.3	88.3	51.2	50.1	8.4	X	X	24.5	12.7	11.3	11.2	81.5	3.6	10.0	5.3	28.6	104.3	
21	8.2	7.2	4.5	5.7	5.7	8.4	20.0	43.6	115.2	53.6	X	X	X	X	X	32.0	19.2	13.1	8.2	10.3	23.1	16.5	8.6	19.1	22.2	115.2
22	13.4	13.9	10.0	12.5	18.8	12.2	13.5	34.2	33.7	30.5	68.5	45.0	140.8	162.3	155.7	370.0	130.6	83.2	83.9	3.8	4.6	17.9	12.5	8.8	61.7	370.0
23	13.7	17.2	9.4	5.8	3.9	8.3	12.8	86.3	238.7	233.6	185.3	94.5	168.3	314.4	284.0	293.4	141.7	196.6	136.3	35.9	31.8	15.6	13.4	9.9	106.3	314.4
24	7.2	9.6	8.6	5.0	13.2	59.9	80.2	64.3	54.7	109.6	79.9	62.7	19.4	8.3	9.8	12.2	5.7	7.4	21.3	31.9	18.6	20.6	18.4	20.9	31.2	109.6
25	15.0	17.7	20.6	12.7	10.3	5.6	2.9	2.3	2.3	1.2	12.9	14.5	37.7	26.2	1.6	5.8	8.5	0.8	0.5	1.0	1.4	1.5	1.7	1.0	8.6	37.7
26	1.0	1.4	1.8	1.6	1.5	1.2	1.1	1.1	1.6	2.6	4.4	4.4	4.2	7.7	19.2	4.8	8.5	9.7	50.1	5.1	3.4	3.0	3.8	2.4	6.1	50.1
27	2.2	2.4	3.3	3.1	3.8	3.8	2.4	2.2	2.2	3.4	24.0	40.2	21.1	11.3	6.6	5.2	5.2	3.8	3.2	5.3	3.5	4.9	2.8	4.5	7.1	40.2
28	2.5	2.2	2.0	1.3	1.3	1.2	1.5	8.4	69.0	79.7	63.0	16.6	12.9	7.8	6.4	5.6	6.2	3.9	12.0	12.6	13.9	3.6	3.4	4.4	14.2	79.7
29	7.3	7.5	18.0	4.9	8.7	3.7	8.1	24.6	72.3	85.7	59.7	38.5	23.8	52.2	73.4	17.0	17.0	3.0	2.3	7.3	16.4	5.5	5.7	5.5	23.7	85.7
30	4.8	7.7	6.9	3.6	15.2	29.2	70.6	64.9	39.9	15.0	14.7	10.9	13.4	15.1	12.6	17.4	16.2	7.0	10.5	15.0	9.2	4.0	6.3	6.1	17.3	70.6
31	7.4	95.4	5.7	6.4	9.3	6.9	15.2	20.9	27.4	267.9	541.3	312.2	326.5	261.6	218.7	203.4	100.3	140.9	92.1	66.4	49.4	70.1	47.6	76.1	123.7	541.3
NO.	31	31	31	31	31	31	31	31	31	30	30	30	29	29	30	31	31	31	31	31	31	31	31	31	736	99%
MEAN	35.0	38.0	20.7	16.3	12.7	11.8	21.7	28.6	43.1	58.5	94.2	90.7	87.7	83.4	75.6	89.7	67.6	58.0	47.2	42.1	44.5	41.3	42.2	40.5		
MAX	678.1	546.1	323.9	282.5	146.6	59.9	244.8	238.7	267.9	541.3	312.2	380.0	415.0	332.3	487.4	384.4	282.3	367.9	413.7	378.7	482.2	652.2	608.6			



Number of Non-Zero Readings	736
Maximum 1-HR Average	678.1 UG/M3
Maximum 24-HR Average	236.7 UG/M3
Monthly Calibration Standard Deviation	87.25
Operational Time	0 HRS
Operational Uptime	98.9 %
Monthly Average	49.2 UG/M3

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

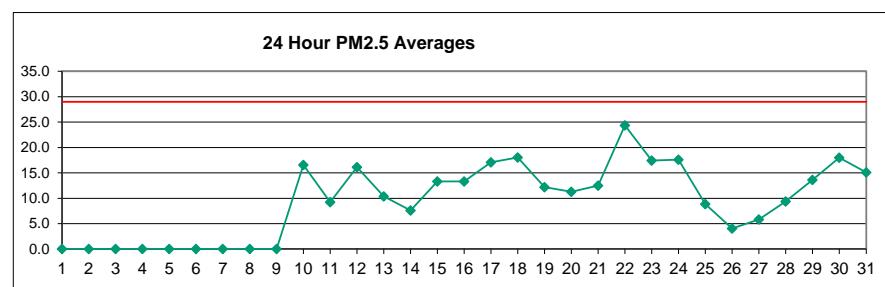
DAY	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	8.5	7.3	10.7	17.3	15.5	13.0	9.9	9.8	8.3	22.9	493.1	886.5	1308.3	1549.9	1224.3	1763.6	1351.6	1030.4	1242.9	1545.8	1285.2	1815.8	2375.5	2158.6	839.8	2375.5	
2	2400.1	1946.5	1346.8	1176.1	582.2	191.2	779.7	604.8	257.8	494.9	504.9	823.3	616.3	575.7	581.8	363.2	510.9	279.5	300.9	330.3	1726.3	1186.5	585.6	590.5	781.5	2400.1	
3	58.0	212.2	131.1	86.3	28.1	22.4	10.7	13.0	16.9	302.8	597.9	864.3	852.7	274.9	1118.8	489.8	520.1	227.5	38.9	70.4	515.1	258.1	40.2	105.0	285.6	1118.8	
4	45.8	9.7	1.5	1.5	1.1	1.9	1.0	7.1	9.3	116.9	371.8	265.6	144.9	23.7	25.3	213.5	1111.0	642.3	12.0	15.3	16.6	10.8	13.2	5.6	127.8	1111.0	
5	3.6	3.0	2.8	2.5	2.8	3.2	3.4	3.0	3.2	3.1	90.8	105.3	293.3	532.7	215.4	127.0	77.5	241.7	233.1	7.6	8.8	10.4	8.9	6.5	82.9	532.7	
6	7.1	9.7	6.7	6.9	9.6	8.5	6.4	4.9	8.6	18.1	158.6	48.0	39.9	55.1	78.1	55.4	98.5	97.5	73.3	9.6	10.9	8.4	8.5	9.1	34.9	158.6	
7	13.4	13.2	9.5	10.0	19.4	26.2	51.8	23.4	180.0	263.2	177.1	59.9	34.9	36.0	32.5	35.7	45.2	20.4	40.9	10.9	9.3	11.0	19.0	26.3	48.7	263.2	
8	23.4	20.6	27.3	17.5	21.4	17.4	16.0	27.4	33.3	20.6	200.9	186.4	127.0	177.3	163.0	417.5	940.6	1076.4	18.6	11.4	12.3	6.5	12.8	16.4	149.7	1076.4	
9	12.3	5.0	5.2	5.8	11.8	12.3	19.0	23.8	322.6	211.1	824.0	799.7	352.6	171.0	57.2	32.8	34.7	15.2	16.2	20.6	24.2	65.7	154.5	26.0	134.3	824.0	
10	24.3	8.7	5.3	3.7	8.4	3.1	8.2	11.4	23.5	108.5	56.3	54.2	41.4	736.5	26.3	35.2	32.2	29.6	16.5	14.4	6.5	4.6	4.5	4.4	52.8	736.5	
11	8.8	5.4	4.3	4.4	5.2	4.7	5.4	6.7	14.8	9.2	8.9	14.7	15.4	10.5	11.6	6.4	8.8	12.1	6.8	4.7	4.9	5.4	7.0	8.3	15.4		
12	7.5	8.6	8.2	5.0	6.9	6.9	4.0	12.1	124.6	54.2	23.6	121.5	92.8	18.4	11.9	326.2	378.9	269.7	15.2	12.0	13.6	13.2	12.3	51.1	66.6	378.9	
13	171.3	209.5	34.2	2.5	1.6	0.7	0.7	1.5	2.1	41.7	541.1	541.9	258.2	173.2	81.0	31.9	15.0	9.9	5.7	1.8	0.3	1.9	2.4	15.8	89.4	541.9	
14	3.9	153.2	18.5	4.0	2.2	2.9	5.9	11.0	3.1	31.8	259.2	249.2	133.6	147.1	122.0	191.8	109.8	225.4	239.5	90.5	39.5	13.6	5.0	2.6	86.1	259.2	
15	3.9	6.7	4.1	1.0	1.5	1.5	6.7	8.3	41.0	38.5	188.6	93.2	418.0	198.5	217.1	308.6	100.5	208.2	197.6	546.3	163.6	454.4	14.6	5.6	134.5	546.3	
16	4.1	10.8	1.1	2.0	0.7	9.2	22.0	20.4	87.0	94.2	69.9	75.2	245.7	149.9	61.9	215.3	87.0	58.3	14.2	17.0	5.2	1.7	14.1	8.1	53.1	245.7	
17	4.8	4.1	11.4	20.6	18.5	35.1	23.3	198.6	155.0	75.8	68.9	133.9	310.0	206.7	373.5	218.4	268.4	284.3	343.0	393.8	19.4	150.0	285.1	83.5	153.6	393.8	
18	52.2	269.1	50.2	53.9	40.7	66.5	42.3	57.7	43.2	36.0	112.4	306.6	194.0	257.7	87.7	187.5	211.5	174.2	77.9	21.7	18.0	12.8	11.6	12.3	99.9	306.6	
19	9.8	28.1	9.1	7.1	8.9	7.1	16.3	40.1	100.2	197.3	171.9	161.1	61.8	33.6	15.4	8.6	11.4	10.4	15.7	20.6	13.0	7.6	5.9	6.6	40.3	197.3	
20	5.1	7.1	8.7	5.6	6.1	18.0	27.3	144.1	193.7	180.8	71.6	74.8	8.4	X	X	X	X	36.3	15.9	12.6	11.9	81.5	3.6	21.7	5.3	44.8	193.7
21	13.8	8.8	4.5	5.7	8.0	9.2	51.8	86.8	290.7	103.3	X	X	X	X	51.2	32.5	20.4	9.2	13.3	32.6	27.8	9.8	25.8	42.4	290.7		
22	25.4	36.3	27.1	30.9	47.1	38.5	31.1	63.9	73.6	72.8	141.1	97.8	285.6	256.5	290.9	810.7	280.2	169.8	180.9	5.8	6.0	34.0	22.9	16.3	126.9	810.7	
23	28.7	50.4	27.2	17.4	8.3	12.6	17.9	179.5	534.0	546.7	363.2	158.0	343.9	690.7	598.8	672.4	288.8	437.3	348.3	85.1	52.9	28.9	36.1	13.8	230.9	690.7	
24	11.2	15.4	10.6	5.8	24.8	138.4	190.5	132.7	94.6	186.0	148.5	100.5	47.1	15.4	25.0	50.2	16.6	11.0	122.5	135.8	18.6	20.6	18.4	20.9	65.1	190.5	
25	15.0	17.7	20.6	12.7	10.3	5.6	2.9	2.3	2.3	1.2	57.4	32.8	102.5	68.0	4.5	12.9	44.9	0.8	0.5	1.0	1.4	1.5	1.7	1.0	102.5		
26	1.0	1.4	1.8	1.6	1.5	1.2	1.1	1.1	1.6	2.6	7.9	14.5	20.9	37.6	326.5	28.0	96.8	85.9	443.5	5.1	3.4	3.0	3.8	2.4	45.6	443.5	
27	2.2	2.4	3.3	3.1	3.8	3.8	2.4	2.2	3.4	359.5	736.6	413.8	161.9	25.1	16.3	21.2	5.0	3.4	5.6	3.5	5.7	2.8	4.5	74.7	736.6		
28	2.5	2.2	2.0	1.3	1.3	1.2	1.5	29.0	294.2	285.6	191.4	30.3	24.6	12.3	11.3	11.1	13.7	4.8	17.1	19.4	18.8	6.8	4.0	4.4	41.3	294.2	
29	7.3	9.1	30.4	5.8	16.8	3.7	8.1	47.0	188.2	210.9	151.5	107.8	43.8	133.8	144.9	35.3	38.1	6.1	2.3	9.3	34.7	6.1	5.7	5.5	52.2	210.9	
30	4.8	7.7	6.9	3.6	19.4	33.4	79.0	100.4	66.7	21.2	18.8	14.2	15.4	16.9	15.1	23.5	26.8	7.0	14.2	23.6	15.8	4.0	17.5	6.8	23.4	100.4	
31	12.1	126.9	80.8	10.0	30.8	17.4	42.8	57.5	64.6	612.3	1385.5	919.8	830.2	885.4	613.8	607.6	295.1	429.4	280.6	192.7	152.7	199.5	107.5	204.3	340.0	1385.5	
NO.	31	31	31	31	31	31	31	31	31	30	30	30	29	29	30	31	31	31	31	31	31	31	31	31	736	99%	
MEAN	96.5	103.8	61.7	49.4	31.1	23.1	48.0	62.3	104.5	141.0	260.6	269.1	255.9	262.5	226.2	245.1	229.1	196.9	140.3	117.9	139.2	141.3	123.6	111.4			
MAX	2400.1	1946.5	1346.8	1176.1	582.2	191.2	779.7	604.8	534.0	612.3	1385.5	919.8	1308.3	1549.9	1224.3	1763.6	1351.6	1076.4	1242.9	1545.8	1285.2	1815.8	2375.5	2158.6			



Number of 24HR Exceedences	11	Proposed Guideline
Number of Non-Zero Readings	736	
Maximum 1-HR Average	2400.1 UG/M3	
Maximum 24-HR Average	839.8 UG/M3	
Izs Calibration Time		
Monthly Calibration	0	Operational Time
Standard Deviation	300.8	Operational Uptime
		736 HRS
		98.9 %
		142.2 UG/M3

Entrance PM_{2.5} ($\mu\text{g}/\text{m}^3$) – March 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	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
2	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
3	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
4	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
5	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
6	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
7	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
8	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
9	G	G	G	G	G	G	G	G	G	G	G	G	EC	EC	23.8	16.5	11.7	11.5	11.7	14.1	19.4	12.0	13.9	-	-	-	-
10	11.6	31.2	35.5	27.9	12.7	10.2	11.6	X	7.4	18.1	X	20.6	24.6	22.0	17.2	20.4	18.7	17.3	12.0	10.4	6.8	6.8	10.6	10.4	16.5	35.5	
11	10.4	9.4	5.8	8.6	8.3	9.2	8.2	10.9	12.8	11.8	9.3	8.4	8.2	8.5	8.1	7.3	8.3	9.0	9.2	10.3	8.9	9.1	10.6	11.3	9.2	12.8	
12	9.8	7.2	14.1	9.5	15.8	14.5	47.4	40.6	28.0	23.4	17.8	12.3	7.9	8.3	6.7	5.4	3.3	3.0	8.7	17.4	19.7	22.2	19.8	24.2	16.1	47.4	
13	20.1	20.6	22.4	19.3	8.4	5.3	5.1	11.0	19.5	15.9	8.6	8.6	6.6	5.5	5.1	7.0	1.9	2.8	5.9	11.3	4.2	8.9	14.5	10.6	10.4	22.4	
14	11.8	12.9	18.4	6.7	4.6	3.8	5.0	6.6	4.9	5.5	1.7	1.3	1.6	2.3	3.8	2.4	1.6	2.1	1.3	11.5	7.7	16.0	27.6	21.3	7.6	27.6	
15	15.6	15.5	21.1	18.4	15.8	21.8	25.4	11.7	30.2	39.0	32.5	14.0	6.8	5.1	5.9	11.4	6.4	2.7	4.5	3.0	1.4	1.2	2.9	7.7	13.3	39.0	
16	13.4	10.6	12.1	11.6	11.1	11.4	15.1	19.6	24.0	34.8	30.6	50.9	6.7	6.0	6.3	5.3	4.2	3.9	5.5	13.1	1.8	3.3	8.8	9.5	13.3	50.9	
17	12.9	13.1	11.9	14.5	14.5	18.5	30.7	21.5	30.4	44.8	39.3	18.8	6.2	9.1	9.6	7.2	10.8	9.7	11.0	13.4	17.5	16.5	13.9	14.3	17.1	44.8	
18	16.3	21.7	24.2	21.8	20.5	28.4	27.3	28.7	31.3	27.8	25.2	8.2	9.9	13.9	11.2	11.4	10.1	11.6	12.5	13.2	14.7	13.4	13.6	15.7	18.0	31.3	
19	10.9	15.2	11.5	16.2	15.9	18.7	14.9	20.5	18.8	23.8	15.7	9.7	7.6	8.4	7.8	7.2	7.5	7.9	9.4	10.8	11.2	9.0	7.3	6.5	12.2	23.8	
20	7.9	7.9	10.8	12.4	15.1	27.4	15.7	14.9	15.1	11.6	17.4	14.3	9.7	9.7	8.3	8.2	10.8	8.5	7.8	8.2	9.6	8.4	5.5	5.5	11.3	27.4	
21	7.7	10.7	9.3	18.2	14.2	20.1	16.8	24.1	12.3	10.2	14.8	8.9	9.8	9.3	10.4	12.5	9.3	7.1	7.6	9.9	13.7	10.9	7.3	25.0	12.5	25.0	
22	31.6	19.4	14.0	22.5	42.0	52.5	43.6	24.1	44.0	44.8	37.6	30.2	25.3	14.6	7.8	12.8	6.5	5.8	9.1	22.7	13.3	37.1	13.5	10.1	24.4	52.5	
23	13.5	14.3	13.1	17.3	33.4	36.5	30.6	19.5	21.7	20.0	12.3	8.2	8.2	16.5	25.0	10.0	6.9	6.8	6.4	23.0	18.7	20.1	17.3	18.6	17.4	36.5	
24	15.6	7.8	11.6	22.6	28.8	15.5	13.6	39.1	34.6	13.8	19.1	18.9	20.9	13.2	17.4	10.2	16.3	9.5	11.8	13.6	14.0	15.2	16.8	22.1	17.6	39.1	
25	23.8	26.5	25.5	24.2	23.0	13.2	10.2	10.1	10.7	10.8	5.9	1.5	1.2	2.4	2.2	2.5	3.8	1.0	1.7	1.6	2.8	2.2	2.4	3.7	8.9	26.5	
26	1.4	X	X	4.7	2.3	2.6	2.7	X	X	3.4	2.0	1.9	2.4	3.1	5.5	4.9	6.4	7.0	12.1	5.5	2.4	2.7	3.8	4.0	4.0	12.1	
27	4.5	3.3	4.7	4.4	7.6	7.0	4.1	3.1	4.4	4.8	5.1	8.8	7.2	5.7	4.9	7.0	6.7	4.0	4.7	9.8	11.0	3.1	X	7.9	5.8	11.0	
28	8.0	5.7	7.7	5.0	9.5	5.2	7.0	9.3	7.0	7.8	7.4	23.7	14.3	15.2	10.1	8.3	11.6	5.5	9.3	7.9	X	11.4	X	9.1	9.4	23.7	
29	13.9	15.2	14.2	13.4	11.6	13.5	27.2	17.8	14.8	8.6	6.0	12.5	14.5	24.8	29.8	24.6	17.0	6.9	9.0	6.7	5.5	8.3	4.3	6.3	13.6	29.8	
30	5.1	5.9	6.9	10.6	15.9	24.1	22.9	27.9	23.0	20.9	14.8	38.0	22.2	22.8	22.5	21.6	23.8	19.2	16.3	13.8	15.4	10.9	18.6	8.6	18.0	38.0	
31	15.1	12.4	8.1	9.6	18.7	20.2	12.6	19.5	31.8	24.1	20.2	32.7	23.9	32.0	18.2	18.7	12.4	7.0	5.3	3.5	3.3	5.2	3.4	4.2	15.1	32.7	

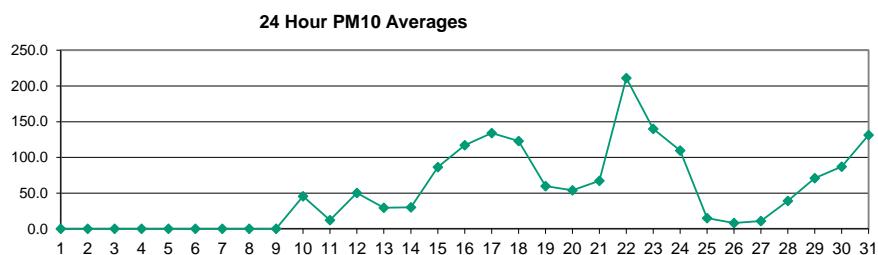


Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	528	
Maximum 1-HR Average	52.5 UG/M3	
Maximum 24-HR Average	24.4 UG/M3	
Monthly Calibration	0	Operational Time
Standard Deviation	9.007	Operational Uptime
		528 HRS
		71.0 %
		13.4 UG/M3

Entrance PM₁₀ (µg/m³) – March 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	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-			
2	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-			
3	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-			
4	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-			
5	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-			
6	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-			
7	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-			
8	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-			
9	G	G	G	G	G	G	G	G	G	G	EC	EC	EC	119.7	67.5	40.4	39.6	28.5	20.4	28.9	16.3	15.1	-	-	-	-		
10	11.6	46.7	128.0	151.9	19.0	15.2	17.3	X	11.0	105.1	X	81.5	98.5	131.9	34.4	29.1	26.1	24.3	16.5	13.9	6.8	6.8	15.2	14.7	45.7	151.9		
11	11.6	10.7	5.8	11.9	9.2	10.4	8.2	14.2	19.1	23.7	15.8	13.2	11.2	10.7	12.6	9.0	13.0	13.6	14.0	12.3	8.9	9.1	13.1	13.5	12.3	23.7		
12	9.8	7.2	14.7	9.5	19.9	18.8	71.0	60.9	138.2	239.7	142.4	62.6	37.8	43.6	29.0	27.9	20.9	13.1	22.2	44.5	44.7	53.6	35.1	36.1	50.1	239.7		
13	20.8	22.2	30.8	23.7	11.1	7.9	7.6	16.5	29.3	106.5	61.6	69.8	40.1	34.5	18.3	29.2	9.1	17.3	26.2	57.9	17.4	13.3	21.7	15.6	29.5	106.5		
14	16.3	22.6	24.4	6.7	4.6	3.8	5.0	6.6	5.4	7.8	14.4	9.9	6.8	12.4	24.4	11.6	7.2	11.8	3.4	58.2	33.1	89.1	206.8	131.2	30.1	206.8		
15	101.2	110.7	65.7	55.9	23.8	32.8	38.0	37.1	331.2	416.4	333.1	114.9	47.1	39.7	29.4	103.3	48.1	19.5	27.8	18.2	4.1	3.4	20.3	53.1	86.4	416.4		
16	111.0	82.0	125.7	103.7	81.4	114.9	151.5	190.5	246.4	415.5	325.5	334.5	43.7	39.6	48.8	33.2	29.2	25.8	40.8	97.5	3.9	18.6	70.5	74.6	117.1	415.5		
17	90.6	94.5	93.2	120.7	114.7	170.7	225.0	177.0	293.8	534.3	451.6	169.9	37.4	44.5	32.6	21.9	50.9	35.8	40.2	36.6	89.4	104.0	90.7	99.0	134.1	534.3		
18	120.8	183.1	198.9	189.0	153.7	269.1	239.1	251.9	315.7	270.8	228.0	27.3	28.9	49.2	35.4	31.1	24.6	33.1	36.5	38.4	44.6	44.5	60.3	76.7	122.9	315.7		
19	42.8	84.4	54.9	97.4	114.9	141.3	92.0	144.5	115.3	157.6	78.1	29.0	20.6	27.3	22.4	18.9	24.2	21.4	25.6	38.1	33.7	24.5	14.3	12.3	59.8	157.6		
20	33.4	17.8	43.8	61.9	83.4	234.6	72.8	72.6	61.7	44.8	92.2	69.7	48.2	43.7	36.9	37.0	64.4	34.0	23.5	27.8	38.1	23.8	16.4	15.0	54.1	234.6		
21	32.1	54.3	37.7	154.8	71.5	142.1	85.3	191.8	59.7	40.8	53.9	41.0	48.3	56.5	76.1	76.1	52.0	28.0	32.3	38.0	47.2	34.8	32.3	126.8	67.2	191.8		
22	164.6	124.2	103.7	210.4	439.5	563.7	431.8	234.4	431.1	460.8	351.0	244.1	198.8	106.0	62.2	118.9	56.8	41.4	70.2	153.5	80.7	254.5	97.7	67.6	211.2	563.7		
23	96.5	107.6	90.4	146.6	288.6	379.1	252.3	143.2	160.8	158.5	71.1	47.2	59.0	145.2	256.2	63.2	45.6	40.2	38.2	182.6	143.2	158.3	142.4	145.0	140.0	379.1		
24	106.5	47.5	69.0	176.7	284.6	117.6	75.8	358.5	313.0	71.5	122.4	120.7	147.7	115.9	127.2	72.0	123.0	44.5	44.1	16.6	17.1	17.8	17.0	27.2	109.7	358.5		
25	25.2	26.5	25.5	24.2	32.0	15.9	14.6	15.0	20.4	62.4	34.0	4.2	3.7	11.6	6.8	10.8	7.7	1.0	1.7	1.6	2.9	2.2	2.4	4.2	14.9	62.4		
26	1.4	X	5.3	2.3	2.6	2.7	X	X	6.2	3.7	3.8	6.3	11.5	20.3	15.4	27.9	17.7	18.9	6.6	2.4	2.7	3.8	4.0	8.3	27.9			
27	4.5	3.3	4.7	4.4	7.6	7.0	4.1	3.1	4.4	6.1	12.1	16.9	18.4	13.7	12.5	32.8	30.8	7.4	12.3	16.6	16.3	3.1	X	9.3	10.9	32.8		
28	8.0	5.7	7.7	5.0	12.2	5.8	9.3	32.8	22.4	28.9	39.9	163.6	87.8	104.5	58.3	48.1	75.4	33.7	35.2	22.5	X	38.1	X	12.4	39.0	163.6		
29	20.8	22.8	21.3	25.1	48.5	54.3	40.8	87.9	75.9	42.2	36.0	97.2	105.8	189.0	198.4	178.5	147.9	69.8	76.9	42.2	27.8	54.7	11.0	27.9	70.9	198.4		
30	9.5	12.5	16.3	22.9	23.8	36.1	34.4	87.3	151.4	143.7	83.0	242.3	177.8	122.6	151.4	157.6	187.4	131.6	86.5	70.0	85.2	16.0	27.8	12.4	87.1	242.3		
31	22.7	65.4	58.1	95.5	218.9	209.0	126.0	182.0	391.8	261.3	198.5	306.9	200.3	259.8	128.7	156.7	95.9	51.1	35.9	15.2	13.1	25.1	14.5	16.3	131.2	391.8		
NO.	22	21	21	22	22	22	20	21	22	21	22	22	22	22	23	23	23	23	22	23	21	23	528	71%				
MEAN	48.3	54.8	58.1	77.4	93.9	116.0	91.1	115.4	152.3	163.8	130.9	103.2	67.0	73.3	64.6	61.0	53.7	32.9	33.4	45.1	35.5	44.7	44.3	43.9				
MAX	164.6	183.1	198.9	210.4	439.5	563.7	431.8	358.5	431.1	534.3	451.6	334.5	200.3	259.8	256.2	178.5	187.4	131.6	86.5	182.6	143.2	254.5	206.8	145.0				

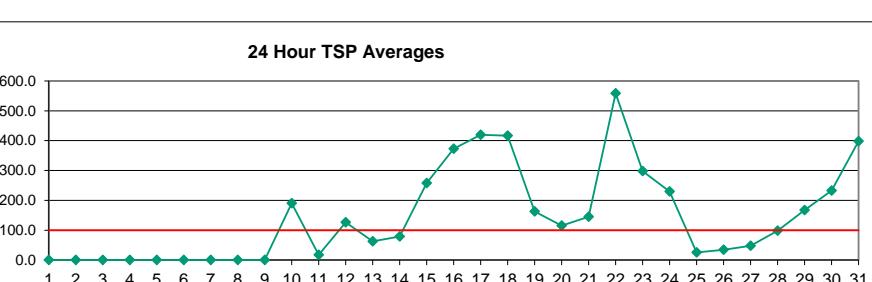
24 Hour PM₁₀ Averages



Number of Non-Zero Readings	528
Maximum 1-HR Average	563.7 UG/M3
Maximum 24-HR Average	211.2 UG/M3
Monthly Calibration Standard Deviation	90.24
Operational Time	528 HRS
Operational Uptime	71.0 %
Monthly Average	74.5 UG/M3

Entrance TSP ($\mu\text{g}/\text{m}^3$) – March 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	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
2	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
3	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
4	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
5	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
6	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
7	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
8	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
9	G	G	G	G	G	G	G	G	G	G	G	G	G	EC	EC	EC	776.8	315.6	168.5	186.1	133.5	21.0	32.4	16.3	15.1	-	-
10	11.6	52.1	423.2	452.8	20.2	16.0	18.3	X	11.7	197.9	X	282.2	433.8	1892.5	209.1	33.0	29.4	27.4	17.4	14.4	6.8	6.8	15.3	14.8	190.3	1892.5	
11	11.6	10.7	5.8	11.9	9.2	10.4	8.2	14.2	20.3	50.7	25.7	20.8	14.7	11.7	27.1	18.2	31.6	27.3	23.6	12.3	8.9	9.1	13.1	13.5	17.1	50.7	
12	9.8	7.2	14.7	9.5	19.9	18.8	82.0	70.8	427.9	989.7	387.0	114.0	66.3	135.7	80.2	88.9	58.4	36.9	54.7	102.6	93.0	90.7	42.3	36.9	126.6	989.7	
13	20.8	22.2	30.8	23.7	11.1	8.6	8.5	19.1	33.8	393.0	208.1	229.8	103.5	88.1	35.8	56.5	19.4	29.6	26.2	58.8	17.4	14.9	24.6	17.4	62.6	393.0	
14	16.8	117.2	26.1	6.7	4.6	3.8	5.0	6.6	5.4	8.0	81.3	73.4	23.5	46.8	67.6	33.6	26.1	39.1	7.3	99.4	48.0	218.0	628.6	307.0	79.2	628.6	
15	235.2	262.3	176.0	103.3	27.6	38.1	44.2	111.7	1234.8	1445.0	1071.5	313.5	129.8	123.3	79.3	307.1	135.5	61.7	67.3	49.9	11.3	9.1	38.7	114.0	257.9	1445.0	
16	284.3	246.1	462.6	284.6	214.5	467.0	639.2	736.4	946.3	1653.1	1110.2	629.7	115.3	104.2	138.7	100.7	86.6	67.7	115.4	163.3	12.2	38.6	142.7	190.4	372.9	1653.1	
17	216.1	225.7	288.3	427.5	389.9	656.3	599.1	623.5	1028.6	1784.6	1441.4	466.7	122.7	100.7	76.5	54.8	128.3	106.0	108.6	69.9	180.1	286.7	319.7	376.7	419.9	1784.6	
18	432.8	681.5	768.9	794.6	568.8	1048.7	947.3	1001.8	1197.2	900.7	732.4	81.9	56.9	61.0	48.4	48.4	35.8	50.2	67.5	49.6	50.7	73.4	147.6	148.5	416.4	1197.2	
19	99.3	220.1	165.7	262.9	419.7	575.2	302.4	419.4	295.0	431.7	233.8	44.0	28.2	48.6	40.7	38.8	62.3	33.6	40.9	39.0	41.3	31.5	14.6	16.0	162.7	575.2	
20	39.0	24.5	91.0	162.9	230.1	544.8	145.8	131.0	117.6	74.4	160.9	141.0	115.8	98.8	93.5	94.8	185.2	87.2	47.8	53.7	56.8	27.5	21.4	19.6	115.2	544.8	
21	59.4	149.0	52.6	309.4	146.7	408.6	169.5	457.6	130.4	68.1	97.6	81.1	93.2	146.5	179.1	211.3	149.9	70.9	75.4	79.1	73.1	51.0	60.8	164.6	145.2	457.6	
22	317.8	292.6	301.7	695.6	1423.1	1770.9	1323.2	790.6	1244.3	1261.2	832.5	541.8	388.1	275.7	168.5	337.2	163.4	101.0	115.7	228.9	95.4	376.2	189.8	163.2	558.3	1770.9	
23	182.7	230.0	188.1	419.0	581.7	921.7	586.5	324.5	373.4	357.1	135.4	93.0	121.0	353.3	551.7	147.5	105.4	86.4	71.6	302.5	224.4	266.4	280.4	253.2	298.2	921.7	
24	162.5	105.5	124.1	356.1	506.9	205.8	182.9	658.9	519.1	118.2	190.1	273.4	409.4	323.6	360.0	236.4	328.1	118.5	240.8	16.6	17.1	17.8	17.0	27.2	229.8	658.9	
25	25.2	26.5	25.5	24.2	32.0	15.9	14.6	16.8	43.7	141.5	77.4	11.1	12.1	43.3	24.6	40.4	21.3	1.0	1.7	1.6	2.9	2.2	2.4	4.2	25.5	141.5	
26	1.4	X	X	5.3	2.3	2.6	2.7	X	X	15.5	7.9	7.0	23.0	41.8	200.8	92.2	142.5	81.2	45.7	6.6	2.4	2.7	3.8	4.0	34.6	200.8	
27	4.5	3.3	4.7	4.4	7.6	7.0	4.1	3.1	4.4	12.9	152.6	183.0	265.9	89.7	51.3	114.7	101.9	11.0	26.9	22.1	17.7	3.1	X	9.3	48.0	265.9	
28	8.0	5.7	7.7	5.0	12.2	5.8	9.3	77.5	96.0	88.4	105.4	303.6	262.7	303.1	164.5	119.2	229.8	114.0	99.0	56.3	X	79.9	X	12.4	98.4	303.6	
29	22.7	25.5	24.7	37.0	126.3	152.6	47.3	238.8	184.2	87.6	79.6	217.7	253.9	413.8	425.1	396.4	406.4	231.9	229.5	119.8	47.1	130.6	22.6	92.1	167.2	425.1	
30	13.3	18.8	21.1	39.9	27.0	41.8	39.5	174.0	451.0	449.2	250.0	695.0	535.8	310.5	405.5	432.4	571.2	370.9	240.9	178.3	249.7	16.3	31.8	12.4	232.3	695.0	
31	26.1	155.7	166.2	366.8	839.3	807.7	465.5	602.7	1182.2	786.9	550.8	898.5	526.6	600.3	356.5	468.1	274.8	191.2	101.0	42.2	31.1	51.4	33.4	27.5	398.0	1182.2	
NO.	22	21	21	22	22	22	20	21	22	21	22	22	22	22	23	23	23	23	23	22	23	21	23	528	71%		
MEAN	100.0	137.2	160.5	218.3	255.5	351.3	256.6	324.0	454.6	514.3	377.7	259.2	186.5	255.1	172.0	184.7	156.9	91.9	87.4	82.6	59.5	79.8	98.4	88.7			
MAX	432.8	681.5	768.9	794.6	1423.1	1770.9	1323.2	1001.8	1244.3	1784.6	1441.4	898.5	535.8	1892.5	551.7	776.8	571.2	370.9	240.9	302.5	249.7	376.2	628.6	376.7			



Number of 24HR Exceedences	15	Proposed Guideline
Number of Non-Zero Readings	528	
Maximum 1-HR Average	1892.5 UG/M3	
Maximum 24-HR Average	558.3 UG/M3	
Monthly Calibration Standard Deviation	294.4	Operational Time 0 HRS
		Operational Uptime 71.0 %
		Monthly Average 204.3 UG/M3