

LAFARGE CANADA INC.

AMBIENT AIR QUALITY MONTHLY REPORT

OCTOBER 2024

NOVEMBER 28, 2024



wsp



AMBIENT AIR QUALITY MONTHLY REPORT

OCTOBER 2024

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-05
DATE: NOVEMBER 28, 2024

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November 28, 2024

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

Attention: Nikolaos Veriotes P. Eng.

Dear Mr. Veriotes,

Subject: Ambient Air Quality Monthly Report – October 2024

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 October 2024.

Lagoon	Data Completeness (%)	1-Hour Average	24-hour Average
		Exceedances of AAAQO or AAAQG	Exceedances of AAAQO
TSP	95.6%	-	1
PM _{2.5}	96.6%	0	0
PM ₁₀	96.6%	-	-
NO	99.9%	-	-
NO ₂	99.9%	0	-
NO _x	99.9%	-	-
SO ₂	99.9%	0	0
Temperature	100.0%	-	-
Wind Speed / Direction	100.0%	-	-
Pressure	100.0%	-	-
Relative Humidity	100.0%	-	-
Precipitation	100.0%	-	-

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The following table summarizes the data completeness and reported exceedances of Alberta Ambient Air Quality Objectives (AAAOs) or Guidelines (AAAQG) at the Windridge Station for October 2024.

Windridge	Data Completeness (%)	1-Hour Average	24-hour Average	
		Exceedances of AAAQG	Exceedances of PM _{2.5} AAAQO	Exceedances of TSP AAAQO
TSP	100%	-	-	12
PM _{2.5}	100%	1	0	-
PM ₁₀	100%	-	-	-

The GRIMM monitors are considered Industrial Ambient Monitors and are meant for assessing the performance of Lafarge Exshaw’s Fugitive Dust Control Best Management Practices – Program; the GRIMM monitors are not Air Monitoring Directive (AMD) compliant. This Program uses the AAAQOs as Guidelines. The following table summarizes the data completeness and exceedances of the Guidelines at the GRIMM Monitors for October 2024.

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	0%	0	0	0
Berm	100%	8	2	22
Entrance	0%	0	0	0

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



Nov 28, 2024

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Date

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



Nov 28, 2024

Tyler Abel, M.Sc.
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Vancouver Region, Environment

Date

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A DATA & CALIBRATION REPORTS

1 INTRODUCTION

This report summarizes the ambient air quality and meteorological data collected at the Lagoon, Windridge, and GRIMM monitors in Exshaw, AB (Figure 1-1). The stations are operated by WSP on behalf of Lafarge Canada Inc. (Lafarge) and are a requirement of Lafarge’s Approval 1702-02-04. This report contains data collected between October 1, 2024 and October 31, 2024.

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

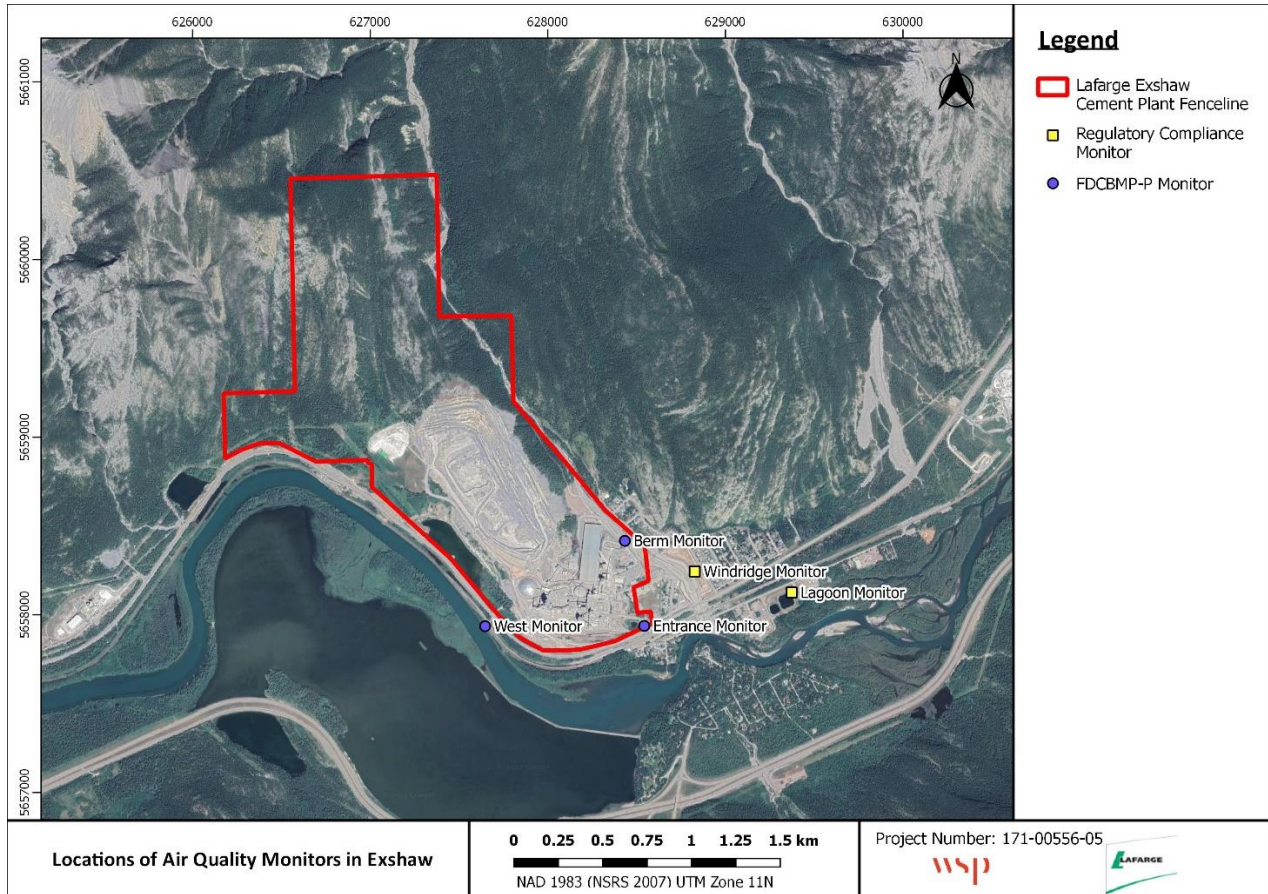


Figure 1-1 Locations of Air Quality Monitors in Exshaw

1.1 EXSHAW CREEK FLOOD MITIGATION

Due to flood mitigation construction at Exshaw creek (Figure 1-2), the Windridge monitoring station was taken out of operation and removed from the site on April 8, 2019. The flood mitigation work was completed in Summer 2020. The Windridge station was reinstalled on September 1, 2020. The flood mitigation work has left an exposed creek bed area (see Figure below) that is a potential source of fugitive dust between Lafarge’s eastern fenceline and the Windridge station.



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

2 OCTOBER 2024 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}, if any, are those above the 1-hour PM_{2.5} Alberta Ambient Air Quality Guidelines (AAAQG).

2.1 LAGOON STATION

Table 2-1 Lagoon station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQO or AAAQG	Maximum Concentration	Exceedances of AAAQO
NO₂ (ppb)	99.9	26.6	0	11.0	-
SO₂ (ppb)	99.9	14.5	0	3.8	0
PM_{2.5} (µg/m³)	96.6	27.3	0 ¹	5.9	0
PM₁₀ (µg/m³)	96.6	477.9	-	74.0	-
TSP (µg/m³)	95.6	996.6	-	103.6	1
Temperature (°C)	100.0	21.9	-	15.6	-
Wind Speed (km/hr) /Direction (Degrees)	100.0	60.9/W	-	32.9/WSW	-
Precipitation (mm)	100.0	4 ²	-	20.5 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 no exceedances of the 24-hour PM_{2.5} AAAQO.
- There were no exceedances of the 1-hour PM_{2.5} AAAQG.
- There was one day exceeding the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- At the Lagoon station, NO₂ and SO₂ analyzers recorded 99.9% uptime for the month of October due to an equipment change that took place at 09:00 on October 31st.
- The PM₁₀ and PM_{2.5} analyzer recorded 96.6% uptime for the month of October because 25 hours of equipment change occurred from 17:00 on October 17th to 17:00 on October 18th.
- The meteorological sensors recorded 100% uptime for the month of October.
- The TSP analyzer recorded 95.6% uptime for the month of October due to 9 hours of equipment malfunction occurring at 2:00 on October 3rd, 5th, 7th, 8th, 19th, 21st, 23rd, and 31st, an 1 hour of calibration occurring at 16:00 on October 17th and 25 hours of equipment change from 17:00 on October 17th to 17:00 on October 18th.

2.2 WINDRIDGE STATION

Table 2-2 Windridge station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQG	Maximum Concentration	Exceedances of AAAQO
PM _{2.5} (µg/m ³)	100.0	83.0	1*	13.6	0
PM ₁₀ (µg/m ³)	100.0	485.0	-	181.1	-
TSP (µg/m ³)	100.0	985.0	-	295.2	12

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

Data Quality Notes:

- There were no exceedances of the 24-hour PM_{2.5} AAAQO.
- There was one exceedance of the 1-hour PM_{2.5} AAAQG.
- There were 12 days exceeding the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- At the Windridge station, the TSP, PM₁₀ and PM_{2.5} analyzers recorded 100% uptime for the month of October.

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.

Calibration/Maintenance Notes:

- The analyzer had 0% uptime for the month of October due to an instrument error currently being resolved.

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 2-3 Berm station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} (µg/m ³)	100.0	210.1	8*	48.5	2
PM ₁₀ (µg/m ³)	100.0	1603.5	-	354.5	-
TSP (µg/m ³)	100.0	3907.6	-	1080.9	22

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

Data Quality Notes:

- There were 2 days exceeding of the 24-hour PM_{2.5} Guidelines.
- There were 8 hours exceeding of the 1-hour PM_{2.5} Guidelines.
- There were 22 days exceeding of the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

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

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.

Calibration/Maintenance Notes:

The analyzer had 0% uptime for the month of October due to an instrument error currently being resolved .

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), a table of recorded exceedances (Table 3-3), site visit notes and tables and graphs illustrating the monitoring results for October 2024.

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 October 17 th . The monitor had 96.6% uptime for the month of October because 25 hours of equipment change occurred from 17:00 on October 17 th to 17:00 on October 18 th .
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on October 17 th . The monitor had 96.6% uptime for the month of October because 25 hours of equipment change occurred from 17:00 on October 17 th to 17:00 on October 18 th .
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on October 17 th . The monitor had 95.6% uptime for the month of October due to 9 hours of equipment malfunction occurring at 2:00 on October 3 rd , 5 th , 7 th , 8 th , 19 th , 21 st , 23 rd , an 1 hour of calibration occurring at 16:00 on October 17 th and 25 hours of equipment change from 17:00 on October 17 th to 17:00 on October 18 th .
Oxides of Nitrogen	TEI 42C	The NO _x monitor was calibrated on October 15 th . The monitor had 99.9% uptime for the month of October because equipment change took place at 09:00 on October 31 st .
Sulphur Dioxide	Teledyne API 102A	The SO ₂ monitor was calibrated on October 15 th . The monitor had 99.9% uptime for the month of

		October because equipment change took place at 09:00 on October 31 st .
Precipitation	MetOne 130 Rain/Snow Gauge	The monitor had 100% uptime for the month of October.
Wind Speed	MetOne Wind Sensor	The monitor had 100% uptime for the month of October.
Wind Direction		
Ambient Temperature	MetOne Ambient Temperature Sensor	The monitor had 100% uptime for the month of October.



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 October 2024. 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 October 2024 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 was one exceedance of the 24-hour TSP AAAQO (100 µg/m³). There were no exceedances the 24-hour PM_{2.5} AAAQO (29 µg/m³). Further, there were no exceedances of the 1-hour PM_{2.5} AAAQG (80 µg/m³) at the station this month.

Historically in October, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM_{2.5} AAAQO exceedances are both zero. The maximum number of 24-hour TSP AAAQO exceedances recorded in October were 3 days in 2023. The maximum number of 24-hour PM_{2.5} AAAQO exceedances recorded in October were 4 days in 2023.

At the Lagoon station strong wind gusting that typically occurs in the area contributes to increased particulate levels that October 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 October 2024 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
NO₂ (ppb)	159	-	Lagoon	0	-	0.7	6.5	26.6	9	6	7.5	70.4	11.0	9	99.9
SO₂ (ppb)	172	48	Lagoon	0	0	0.0	1.5	14.5	27	6	23.1	270.3	3.8	4	99.9
PM_{2.5} (µg/m³)	80	29	Lagoon	0	0	0.0	2.5	27.3	16	15	26.5	247.7	5.9	4	96.6
PM₁₀ (µg/m³)	-	-	Lagoon	-	-	0.0	23.1	477.9	16	15	26.5	247.7	74.0	4	96.6
TSP (µg/m³)	-	100	Lagoon	-	1	0.0	35.3	996.6	4	11	35.4	252.4	103.6	4	95.6
Temperature (°C)	-	-	Lagoon	-	-	-4.1	7.2	21.9	13	16	24.5	244.0	15.6	14	100.0
Wind Speed (km/hr)/Direction (degrees)	-	-	Lagoon	-	-	0.2	19.0	60.9/W	18	23	60.9	228.3	32.9/WSW	30	100.0
Precipitation (mm)	-	-	Lagoon	-	-	0.0	0.0	4.0 ¹	16	17	17.3	243.9	20.5 ²	-	100.0

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

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

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

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Lagoon						
2024-10-04	103.6	-	249.2	27.1	46.8	High wind event
Total # of Exceedances	1	0				
Maximum # of Exceedances (October)	3 (2023)	4 (2023)				
Average # of Exceedances (October)	0	0				
Minimum # of Exceedances (October)	0 (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021)	0 (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2020, 2021, 2022)				

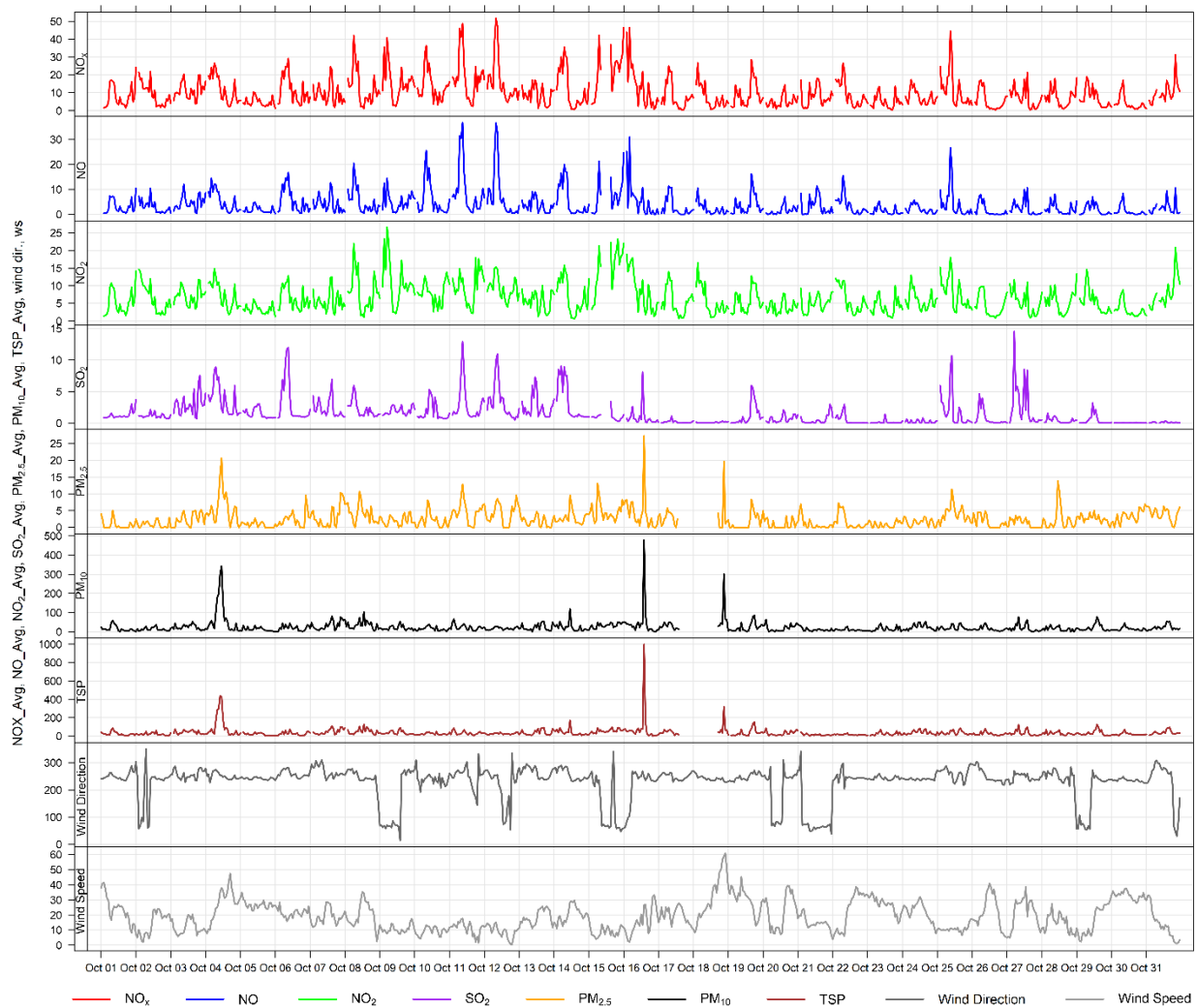


Figure 3-2 1-hour concentrations of NO_x, SO₂, particulate matter, wind direction and wind speed at the Lagoon station

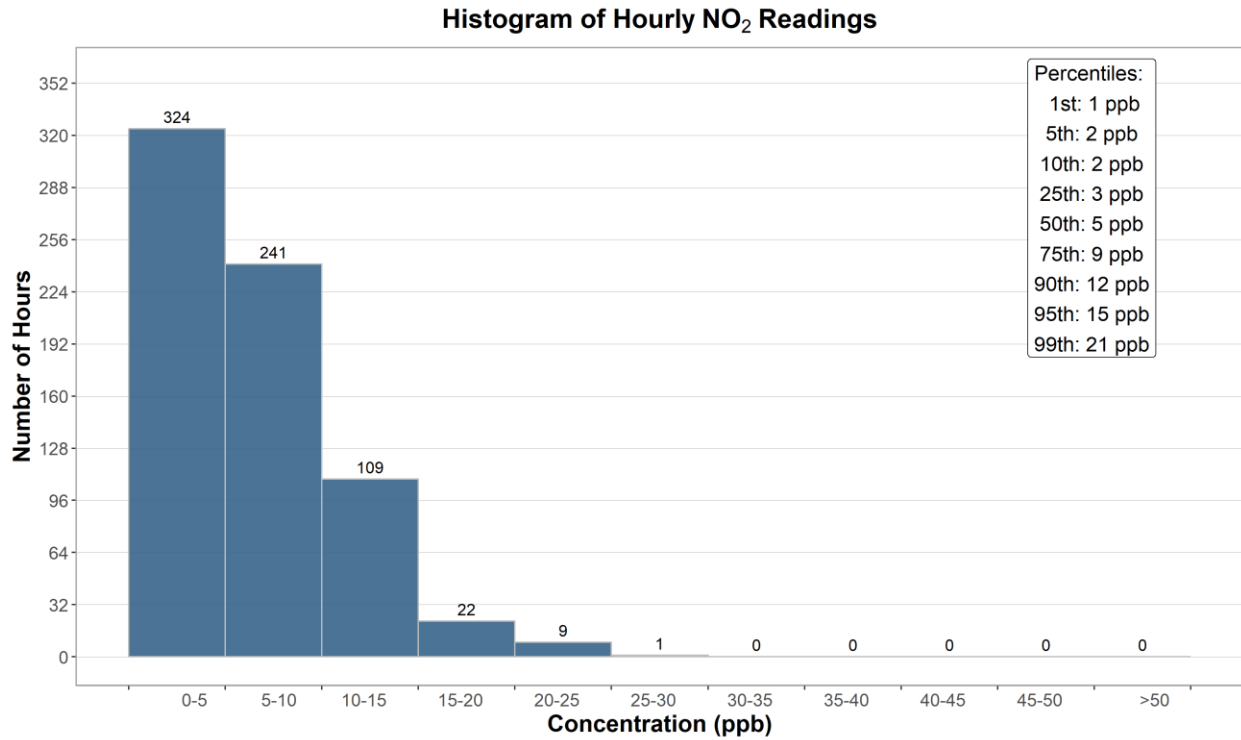


Figure 3-3 Histogram of hourly NO₂ concentrations at the Lagoon station

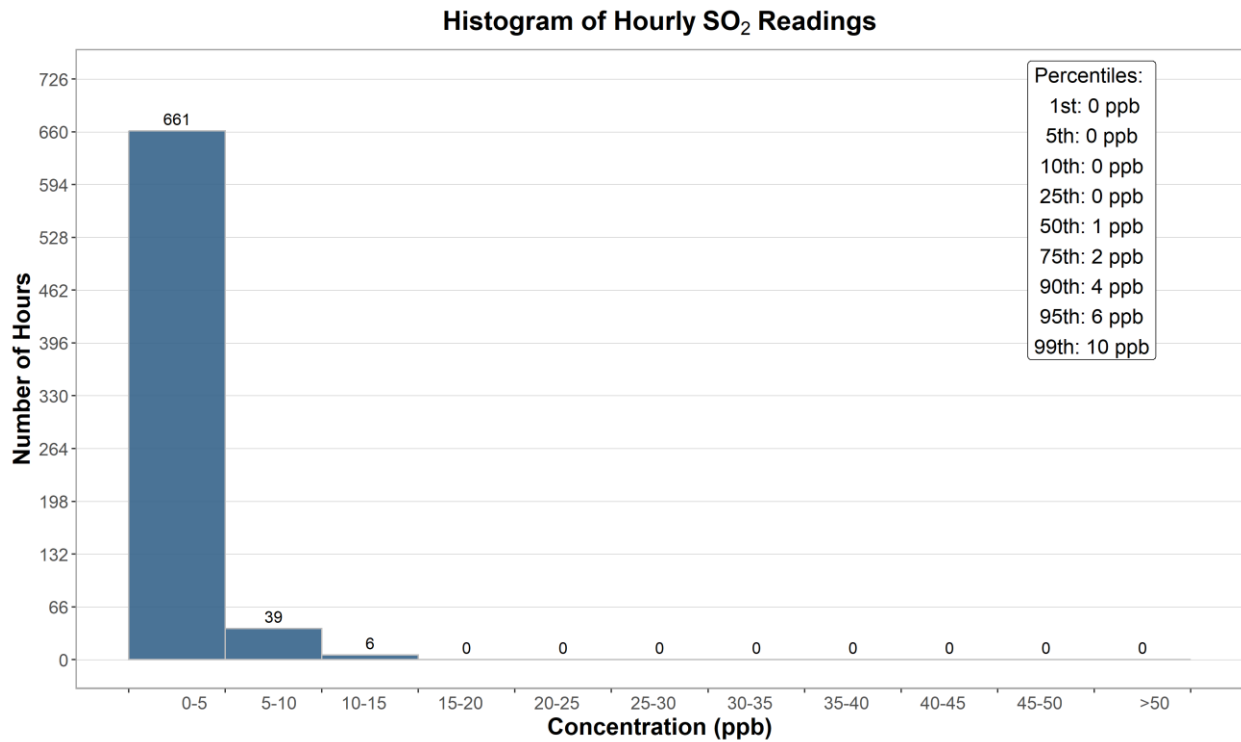


Figure 3-4 Histogram of hourly SO₂ concentrations at the Lagoon station

Histogram of Hourly PM_{2.5} Readings

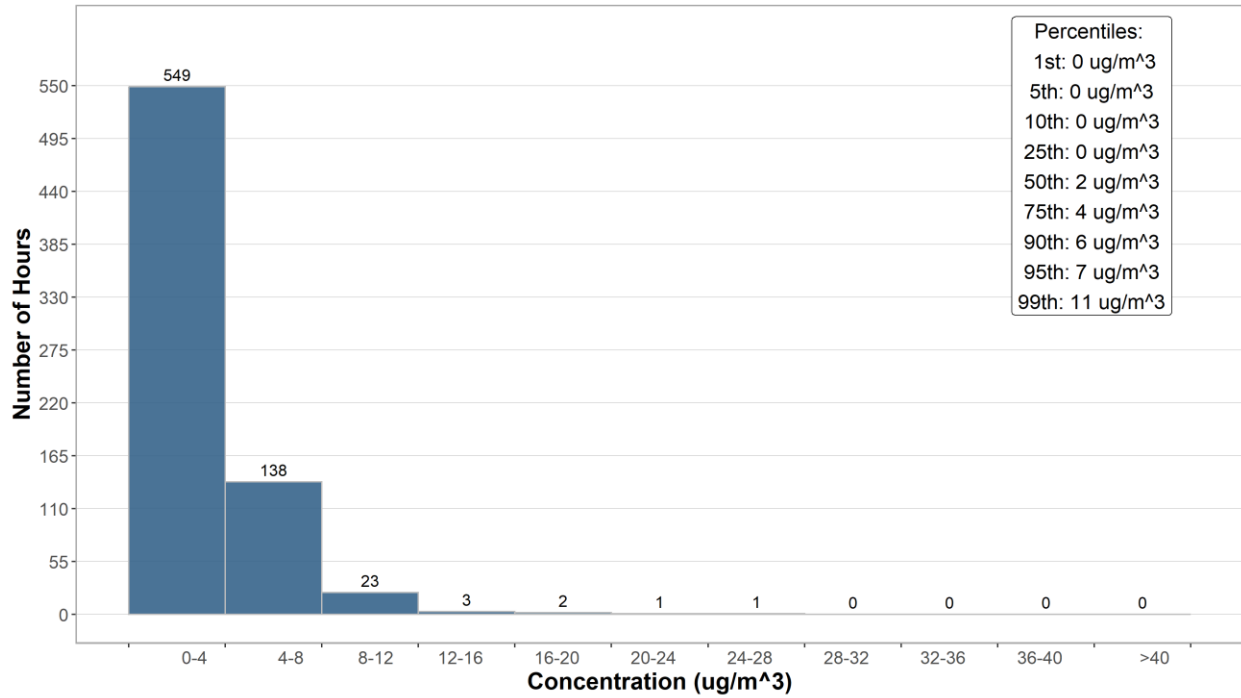


Figure 3-5 Histogram of hourly PM_{2.5} concentrations at the Lagoon station

Histogram of Hourly PM₁₀ Readings

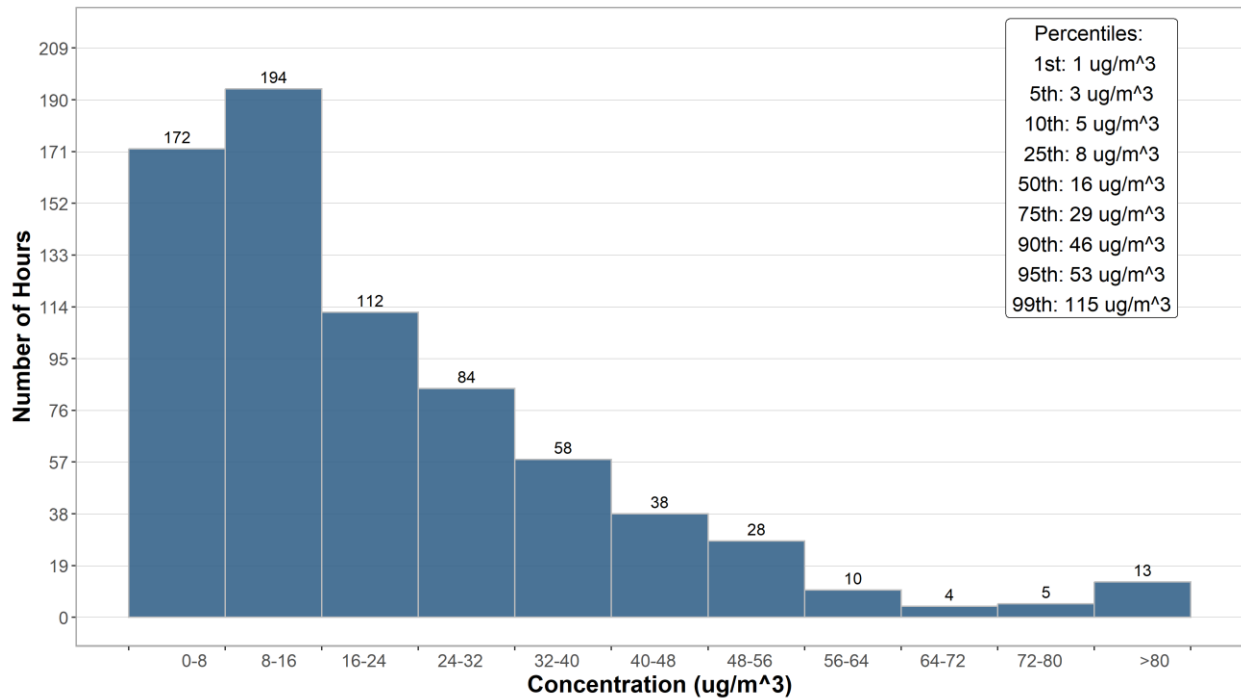


Figure 3-6 Histogram of hourly PM₁₀ concentrations at the Lagoon station

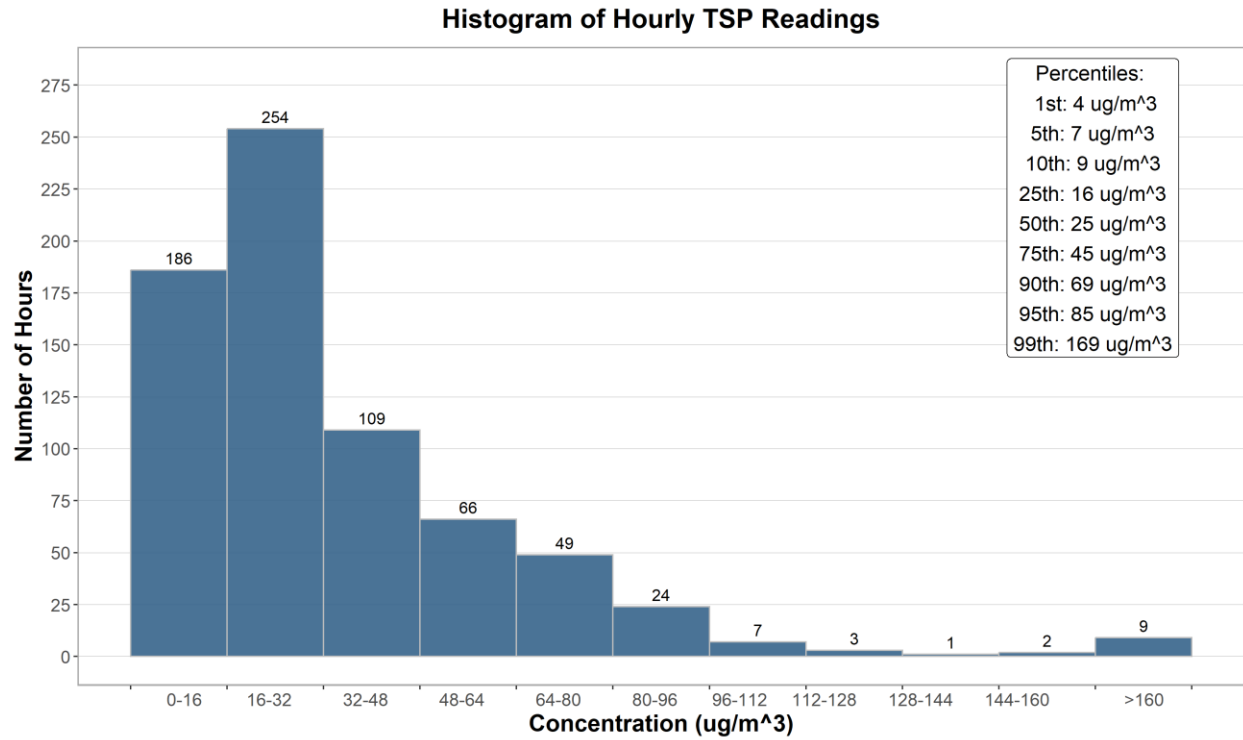


Figure 3-7 Histogram of hourly TSP concentrations at the Lagoon station

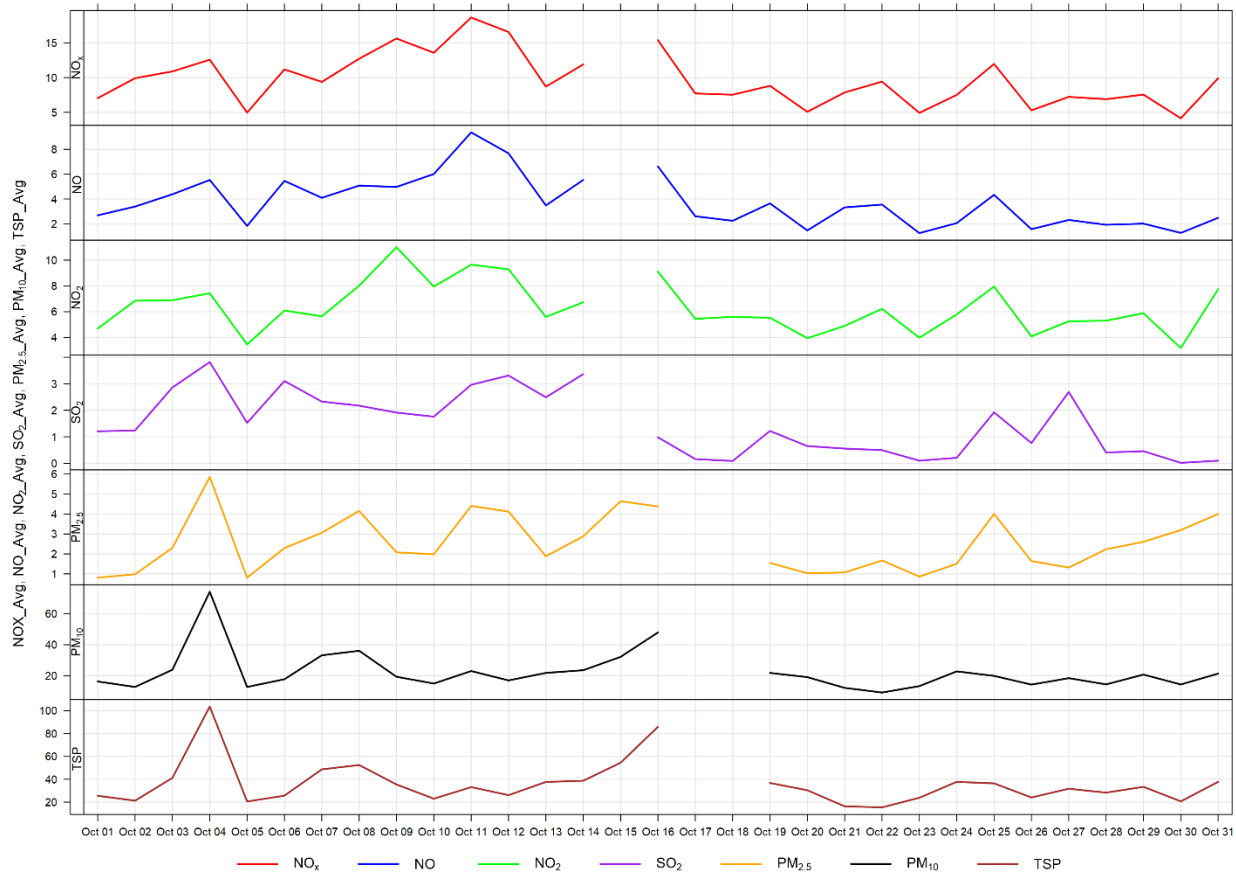


Figure 3-8 24-hour concentrations of NO_x, SO₂, and particulate matter at the Lagoon monitor

Figure 3-9 shows the wind rose for the 1 day of TSP exceedance. The wind rose shows that the winds predominately came from the west-southwest, in high wind speed conditions, suggesting impacts of windblown dust from the direction of the Lafarge Facility.

Figure 3-10 through Figure 3-12 show the variation in concentrations over various time averaging periods for PM, SO₂ and NO_x. The particulate matter plot in Figure 3-10 typically shows that PM₁₀ and TSP concentrations have a diurnal pattern associated with Lafarge operations, daytime emissions from traffic and other airshed activities. The diurnal patterns also typically follow the diurnal pattern of higher wind speeds during the daytime hours.

Figure 3-11 shows the variation of SO₂ over various time periods. SO₂ concentrations patterns are dependent on the timing of the highest SO₂ concentrations recorded in the month because in general SO₂ concentrations are very low. Figure 3-12 shows the variation of NO_x, NO and NO₂, with the peak of all three pollutants occurring in the early morning. This October be indicative of a peak in traffic.

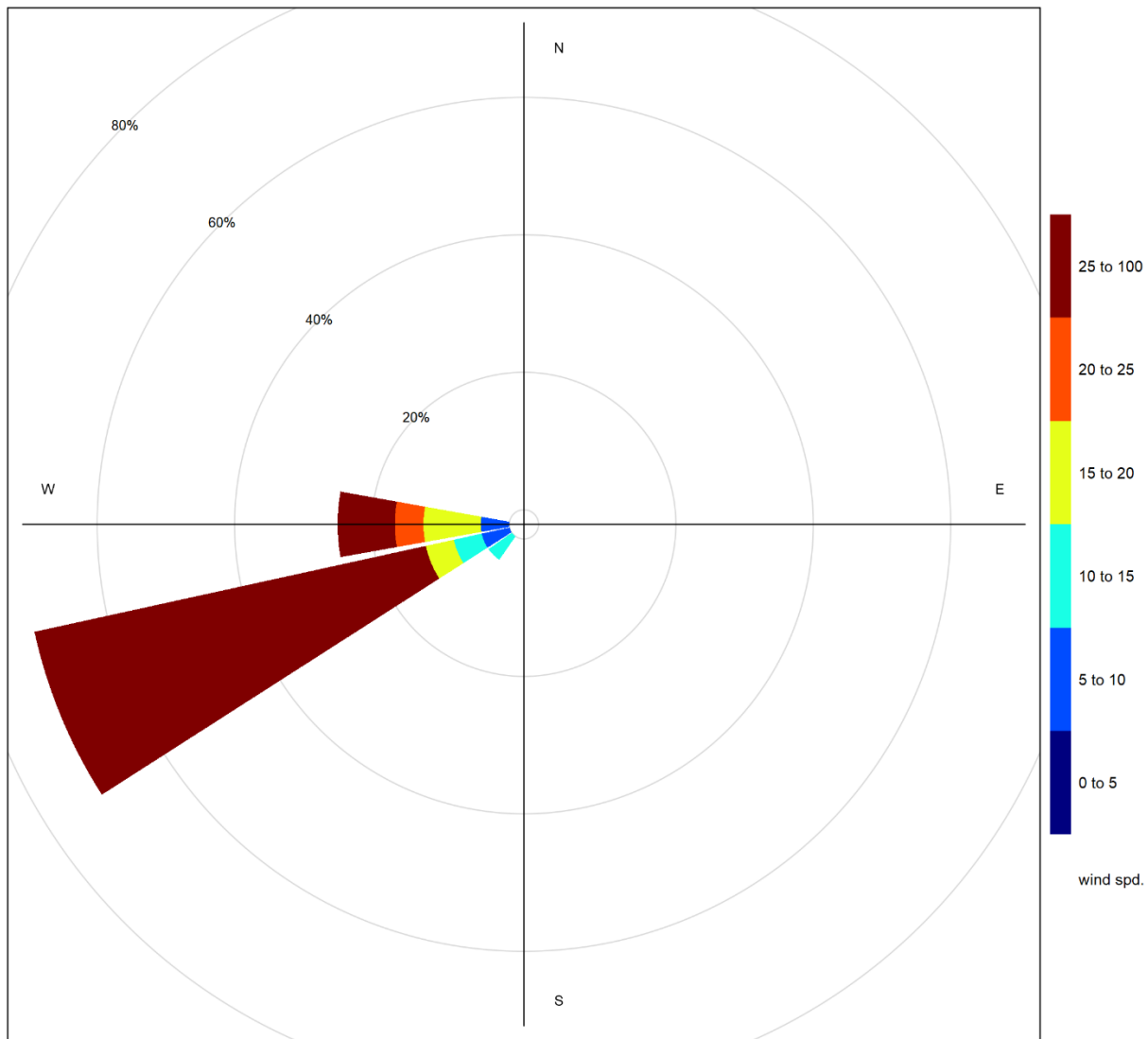


Figure 3-9 Wind rose for TSP exceedance days recorded at the Lagoon Station

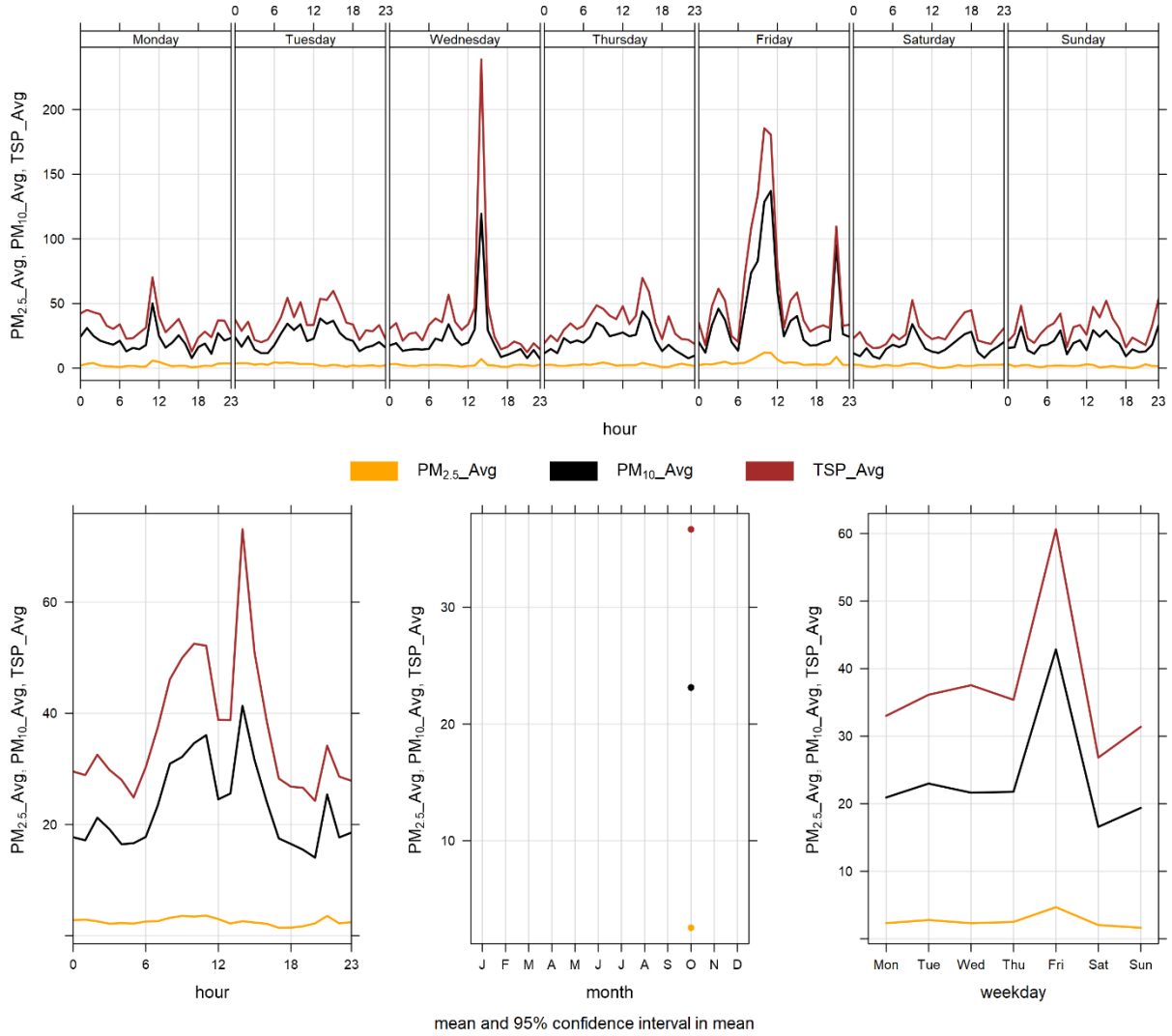


Figure 3-10 Lagoon monitor particulate matter time variation

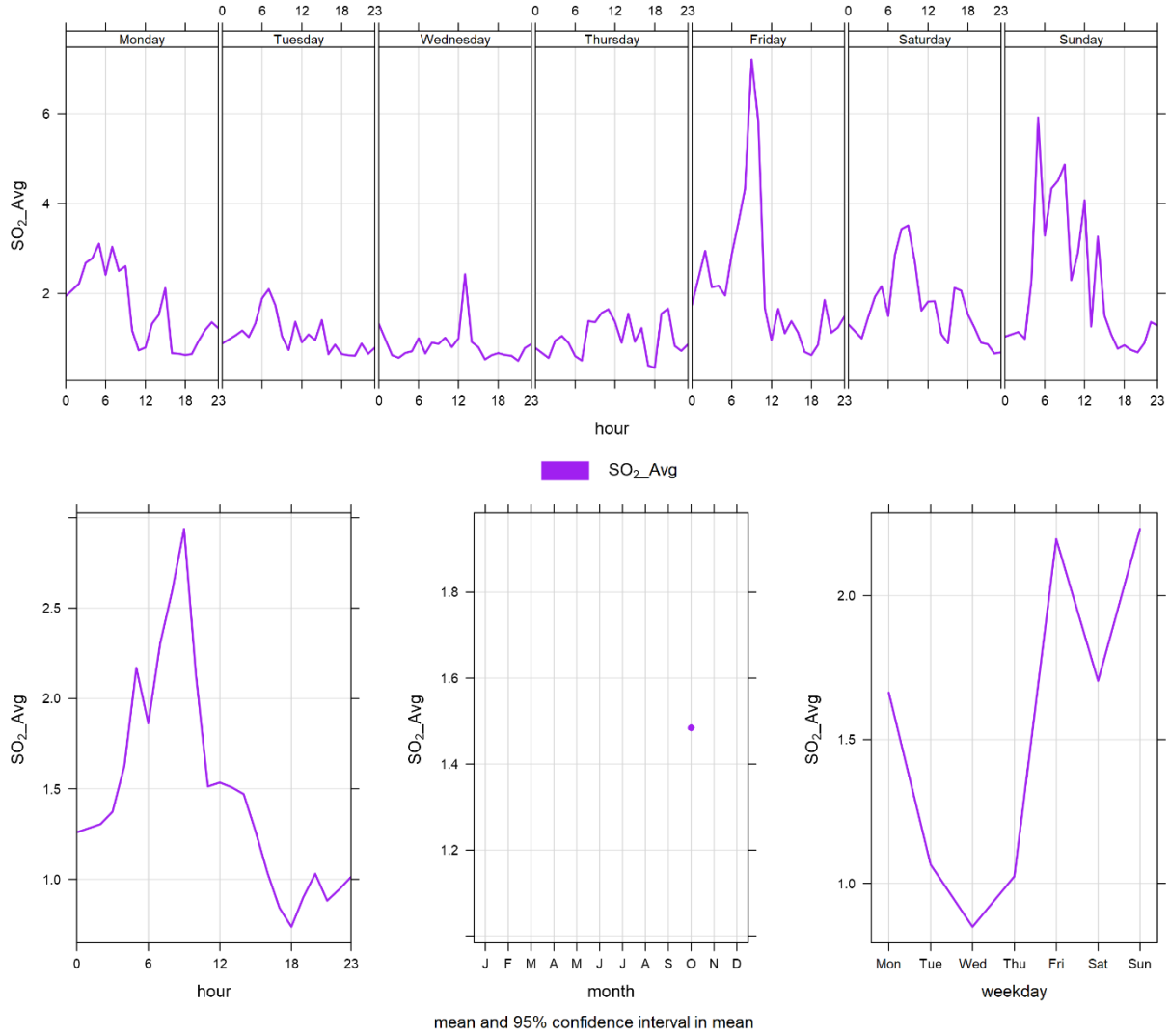


Figure 3-11 Lagoon monitor SO₂ time variation

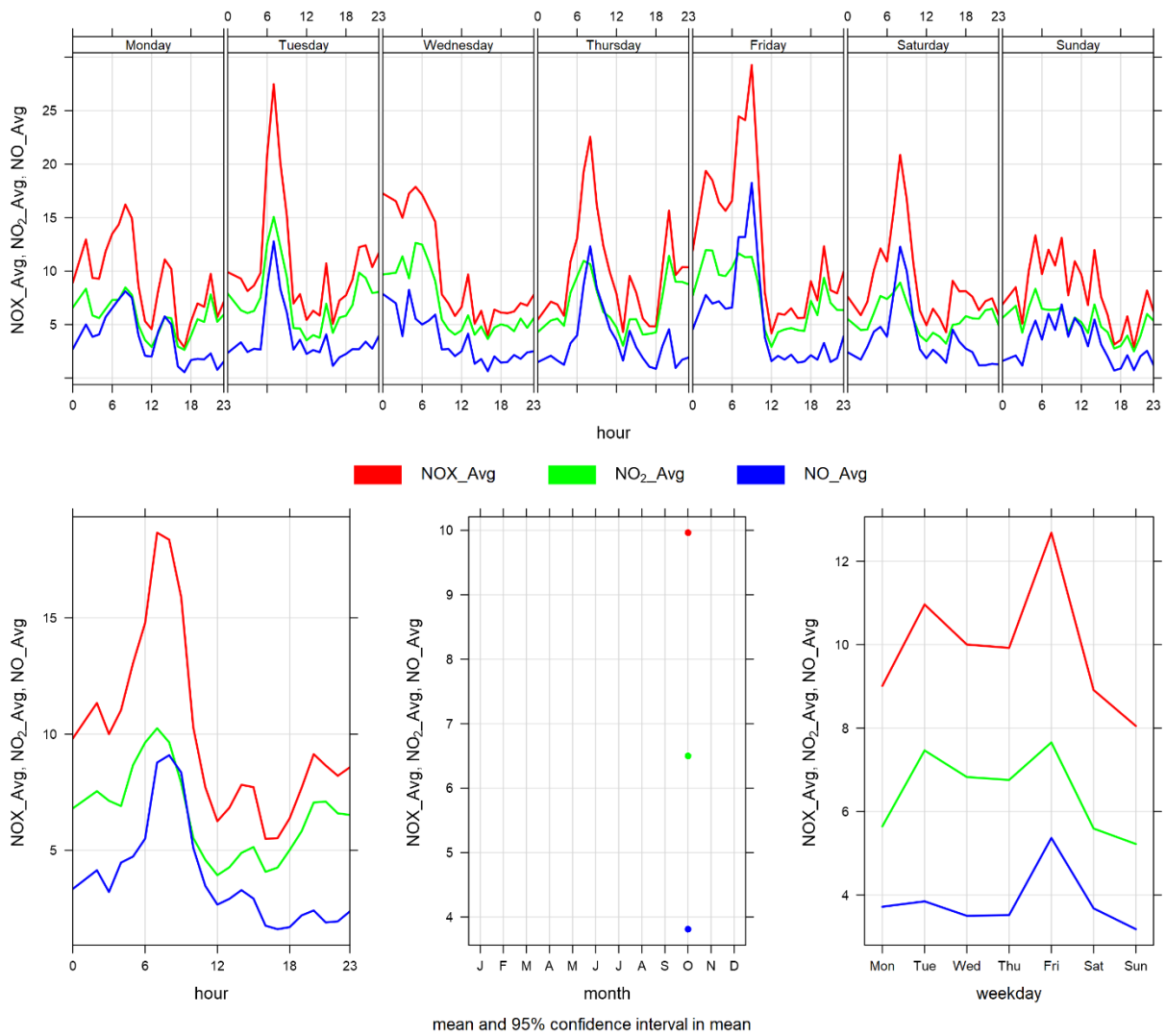


Figure 3-12 Lagoon monitor NO_x time variation

4 WINDRIDGE STATION

The Windridge station contains TSP, PM₁₀, and PM_{2.5} analyzers only. This section provides a summary of the monitoring activities for the Windridge ambient air quality station, including: a table of instrumentation (Table 4-1), a data summary table (Table 4-2), a table of recorded exceedances (Table 4-3), site visit notes, and graphs illustrating the monitoring results for October 2024.

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

4.2 MONITORING RESULTS AND TRENDS

Table 4-2 summarizes the hourly and daily concentrations recorded in October 2024, and Table 4-3 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 no exceedance of the 24-hour PM_{2.5} AAAQO. There was one exceedance of the 1-hour PM_{2.5} AAAQG, and 12 exceedances of the 24-hour TSP AAAQO.

Historically in October, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM_{2.5} AAAQO exceedances is 3 and 1, respectively. The maximum number of 24-hour TSP AAAQO exceedances recorded in October were 5 days in 2022 and 2023. The maximum number of 24-hour PM_{2.5} AAAQO exceedances recorded in October were 4 days in 2023.

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 May 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 October 2024 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	1	0	0.0	4.4	83.0	4	10	28.5	262.6	13.6	4	100.0
PM₁₀ (µg/m ³)	-	-	Windridge	-	-	0.0	60.7	485.0	4	22	27.2	240.6	181.1	18	100.0
TSP (µg/m ³)	-	100	Windridge	-	12	0.0	98.3	985.0	4	20	33.6	243.3	295.2	18	100.0

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						
2024-10-02	111.2	-	245.5	14.0	59.8	
2024-10-04	285.9	-	249.2	27.1	46.8	High wind event
2024-10-05	172.4	-	242.1	26.9	39.9	High wind event
2024-10-06	105.8	-	255.7	21.5	48.9	High wind event
2024-10-08	158.8	-	246.6	20.0	39.6	
2024-10-13	135.2	-	259.9	18.3	40.7	
2024-10-18	295.2	-	239.0	32.1	41.9	High wind event
2024-10-20	124.6	-	248.2	22.4	48.3	High wind event
2024-10-23	103.0	-	242.6	26.8	42.9	high wind event
2024-10-24	141.0	-	239.4	22.2	37.7	high wind event
2024-10-29	116.5	-	236.7	16.0	61.7	
2024-10-30	180.3	-	235.5	32.9	48.7	high wind event
Total # of Exceedances	12	0				
Maximum # of Exceedances (October)	5 (2022, 2023)	4 (2023)				
Average # of Exceedances (October)	3	1				
Minimum # of Exceedances (October)	1 (2018, 2021)	0 (2018, 2021, 2022)				

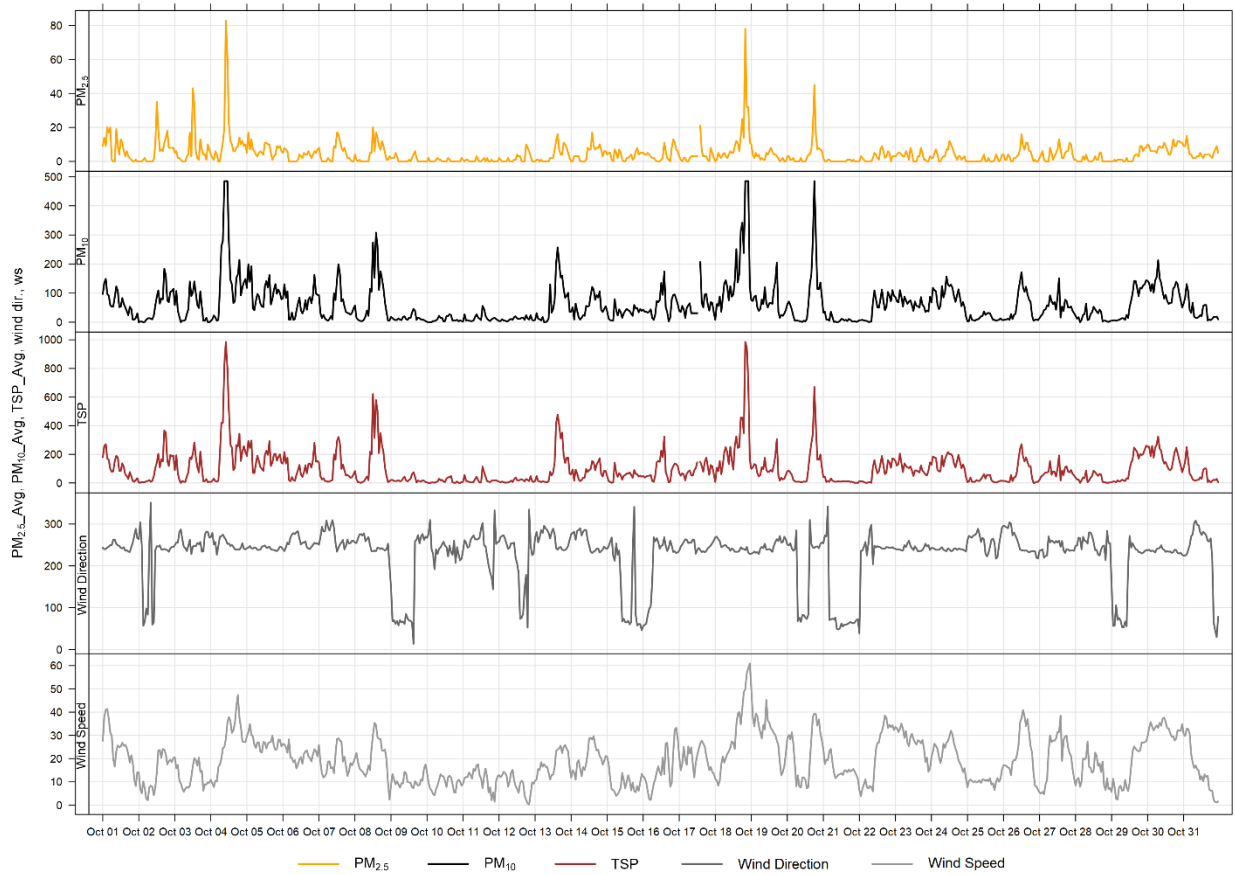


Figure 4-1 1-hour particulate matter concentrations recorded at the Windridge monitor

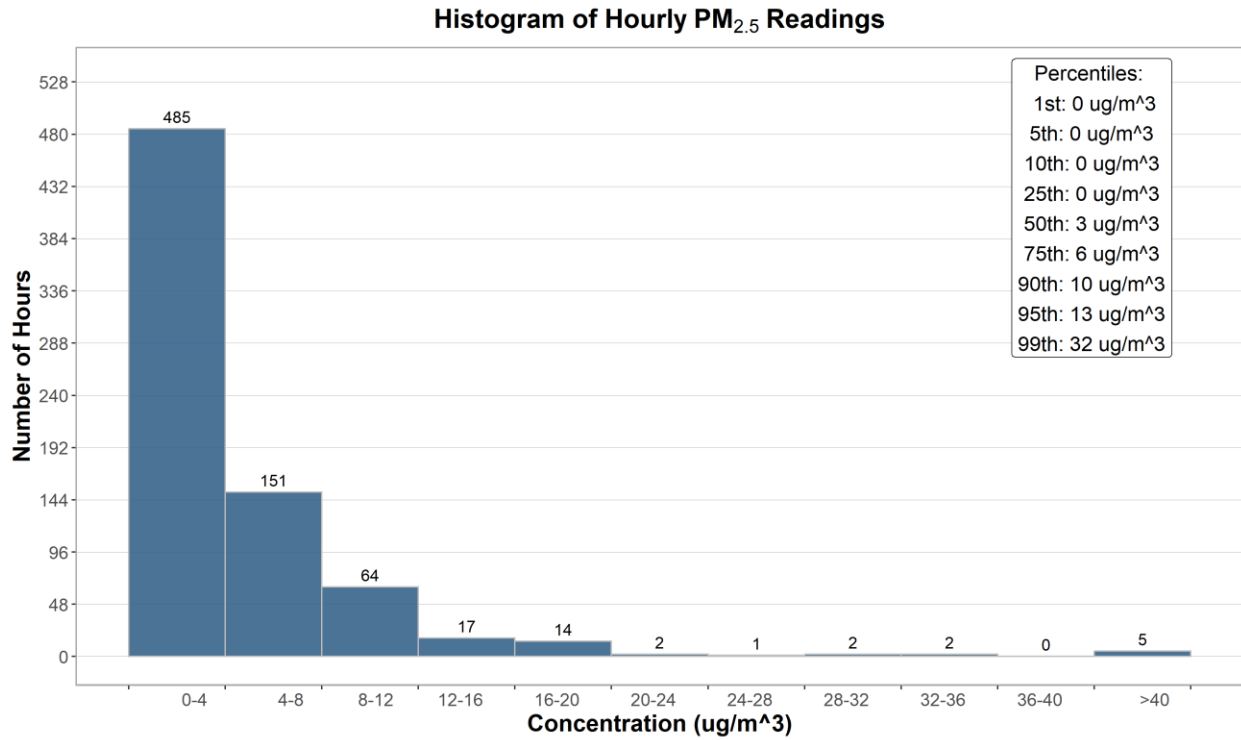


Figure 4-2 Histogram of hourly PM_{2.5} concentrations at the Windridge station

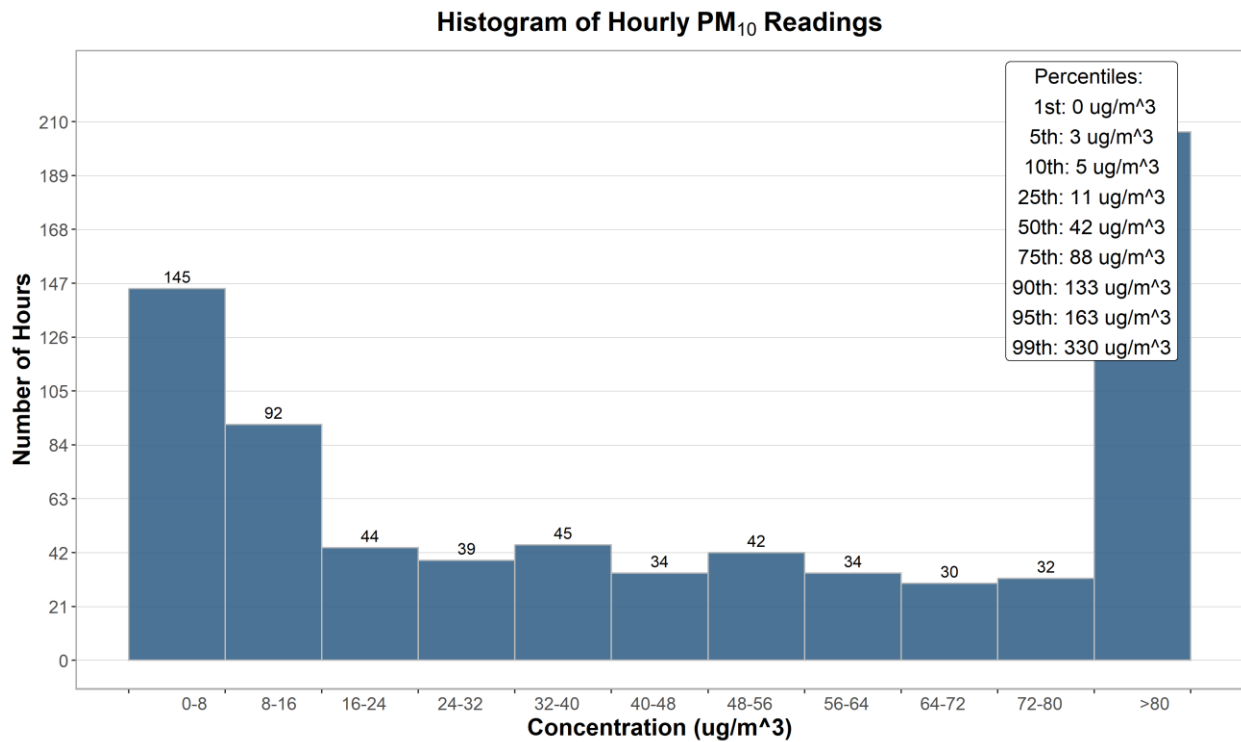


Figure 4-3 Histogram of hourly PM₁₀ concentrations at the Windridge station

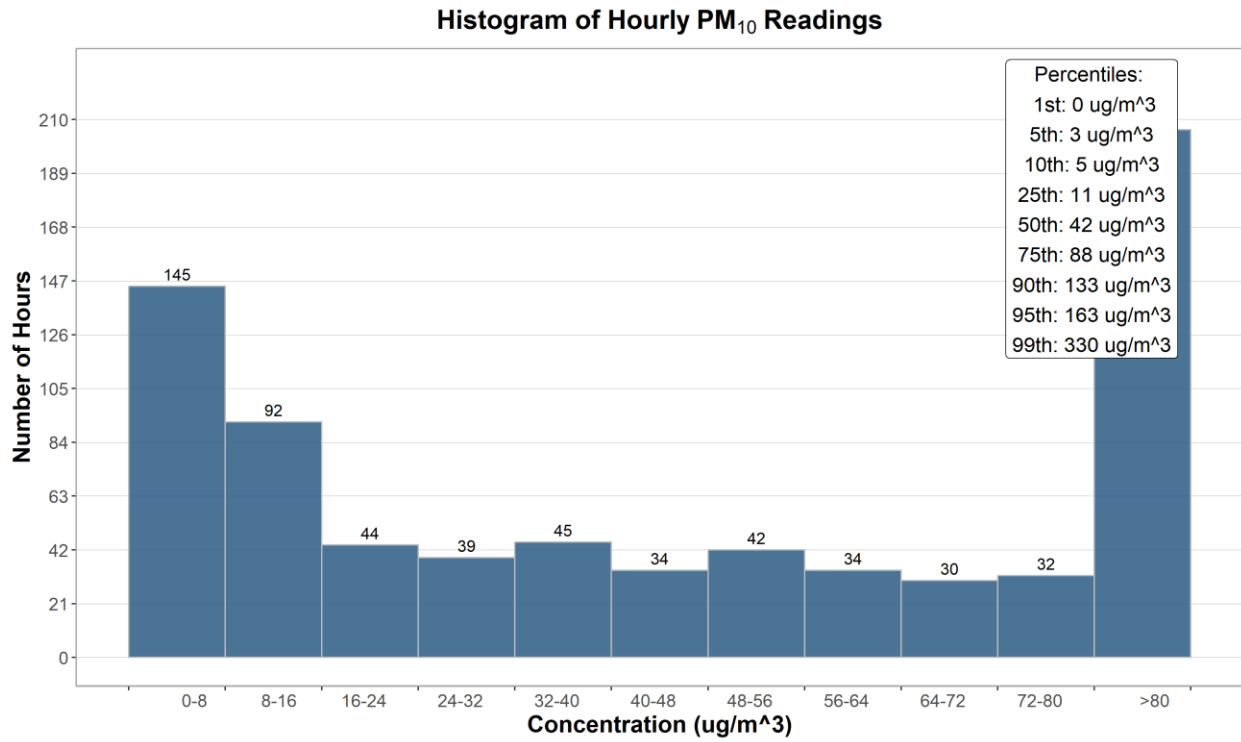


Figure 4-4 Histogram of hourly TSP concentrations at the Windridge station

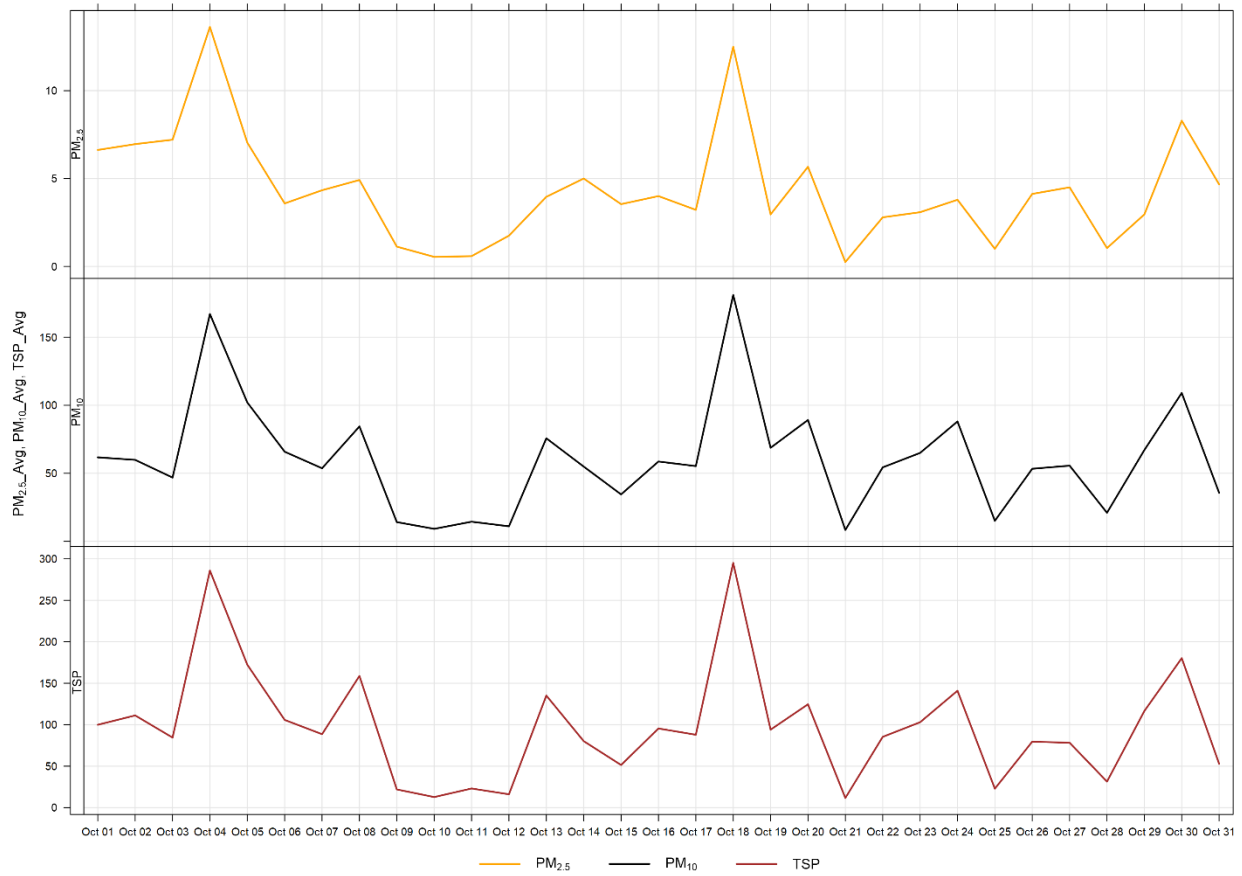


Figure 4-5 24-hour particulate matter concentrations at the Windridge monitor

Figure 4-6 shows the wind rose for the twelve days of TSP exceedance in October. The wind rose shows that the winds predominately came from the west-southwest, in high wind speed conditions (>20 km/h), suggesting impacts of windblown dust from the direction of the Lafarge Facility.

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 October 2024. The data shows a diurnal pattern potentially associated with Lafarge daytime operations, daytime emissions from traffic and other airshed activities. The PM concentrations also follow the diurnal pattern of higher wind speeds during the daytime hours.

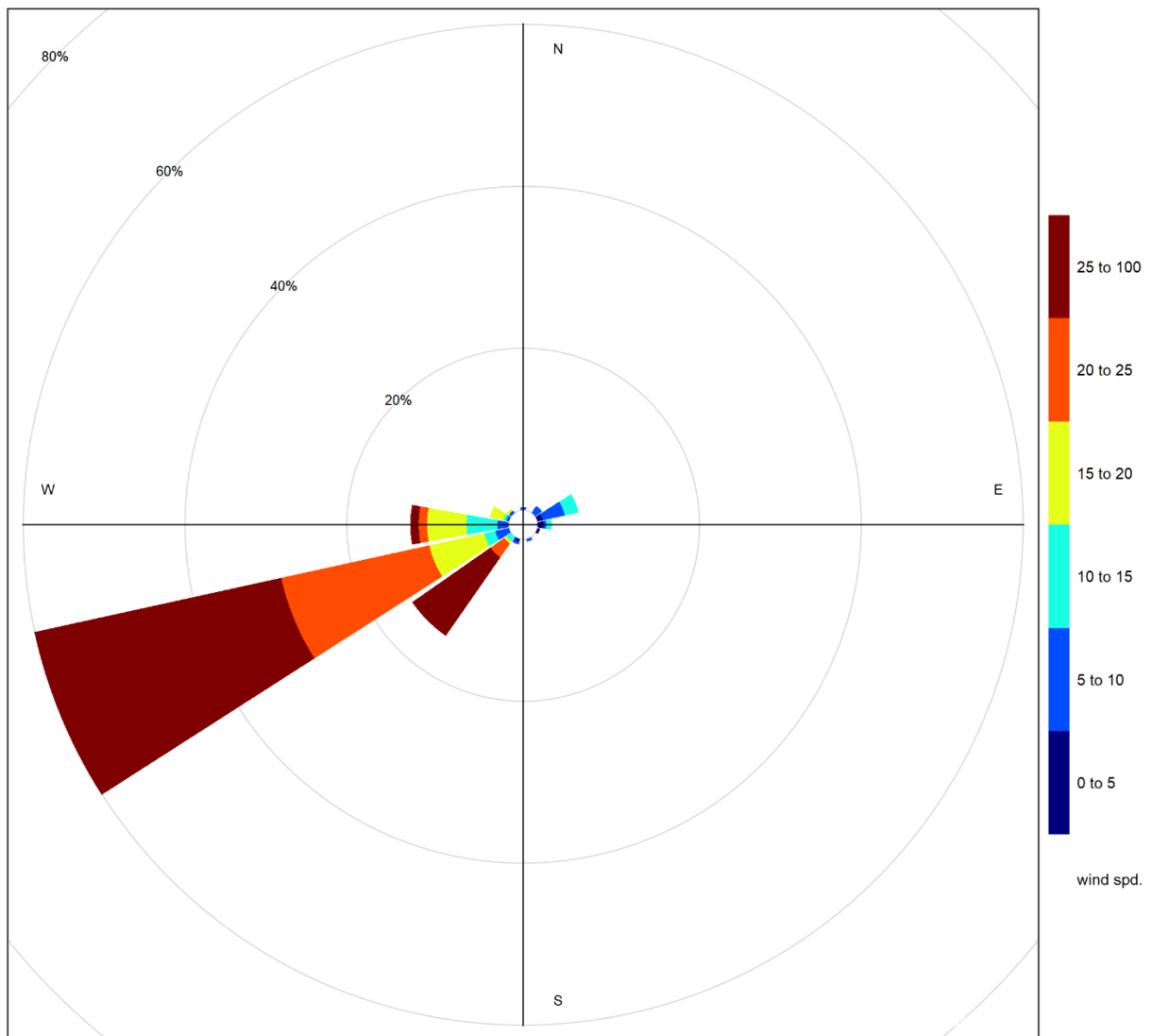


Figure 4-6 Wind rose for TSP exceedance days recorded at the Windridge Station

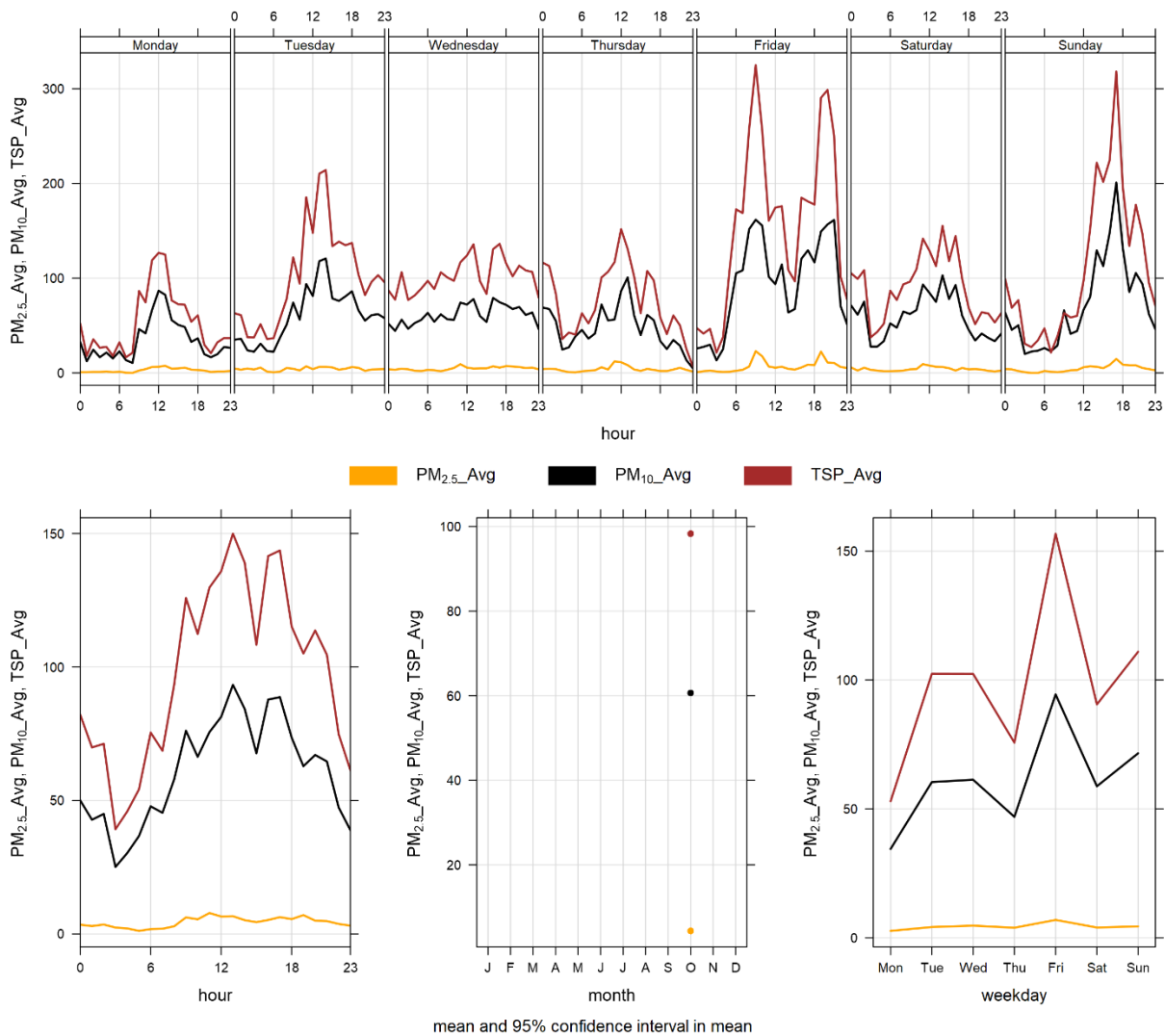


Figure 4-7 Windridge particulate matter time variation

5 BERM INDUSTRIAL GRIMM

5.1 OPERATIONAL SUMMARY

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

Table 5-1 Instrumentation List at the West monitoring location

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

5.2 MONITORING RESULTS AND TRENDS

The Berm monitor was placed at its current location as a result of the dispersion modelling conducted for the facility. Figure 5-1 and Figure 5-2 show the hourly and daily PM_{2.5}, PM₁₀, and TSP concentrations recorded over the month. Table 5-2 summarizes the maximum 1-hour and 24-hour PM concentrations recorded during the month, and Table 5-3 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 22 exceedances of the 24-hour TSP Guideline (100 µg/m³). There were 2 exceedances of the 24-hour PM_{2.5} (29µg/m³) and 8 hours exceeding the 1-hour PM_{2.5} Guideline.

Historically during the month of October, the Berm monitor records an average of 8 and 0 exceedances of the 24-hour TSP and PM_{2.5} guidelines, respectively. The maximum number of TSP exceedances recorded during October occurred in 2010, 2012 and 2022 where there were 16 days that exceeded the guideline. On the other hand, the maximum number of PM_{2.5} exceedances in October was 4 days in 2023.

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 July 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 5-2 Summary of October 2024 data at the Berm GRIMM

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration		Day
PM_{2.5} (µg/m ³)	80	29	Berm	8	2	0.1	14.0	210.1	4	11	35.4	252.4	48.5	18	100.0
PM₁₀ (µg/m ³)	-	-	Berm	-	-	0.1	78.8	1603.5	18	21	56.8	245.0	354.5	18	100.0
TSP (µg/m ³)	-	100	Berm	-	22	0.1	258.1	3907.6	18	22	58.9	231.6	1080.9	18	100.0

Table 5-3 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						
2024-10-01	256.2	-	247.1	24.3	63.8	high wind event
2024-10-02	302.9	-	245.5	14.0	59.8	
2024-10-03	252.1	-	255.2	11.9	47.8	
2024-10-04	941.3	43.0	249.2	27.1	46.8	high wind event
2024-10-05	459.8	-	242.1	26.9	39.9	high wind event
2024-10-06	180.9	-	255.7	21.5	48.9	high wind event
2024-10-07	205.5	-	264.7	18.5	42.0	
2024-10-08	405.9	-	246.6	20.0	39.6	
2024-10-13	379.4	-	259.9	18.3	40.7	
2024-10-14	156.3	-	252.9	20.2	35.4	high wind event
2024-10-16	179.3	-	241.9	15.7	66.9	
2024-10-17	220.6	-	247.4	19.9	48.5	
2024-10-18	1080.9	48.5	239.0	32.1	41.9	high wind event
2024-10-19	272.1	-	244.1	30.1	54.8	high wind event
2024-10-20	452.4	-	248.2	22.4	48.3	high wind event

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						
2024-10-23	200.8	-	242.6	26.8	42.9	high wind event
2024-10-24	475.7	-	239.4	22.2	37.7	high wind event
2024-10-26	115.7	-	249.9	22.0	48.8	high wind event
2024-10-27	115.7	-	247.8	21.3	49.6	high wind event
2024-10-29	308.4	-	236.7	16.0	61.7	
2024-10-30	590.9	-	235.5	32.9	48.7	high wind event
2024-10-31	132.2	-	262.0	13.7	60.7	
Total # of Exceedances	22	2				
Maximum # of Exceedances (October)	16 (2010, 2012, 2022)	4 (2023)				
Average # of Exceedances (October)	8	0				
Minimum # of Exceedances (October)	2 (2014, 2019, 2020)	0 (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2020, 2021)				

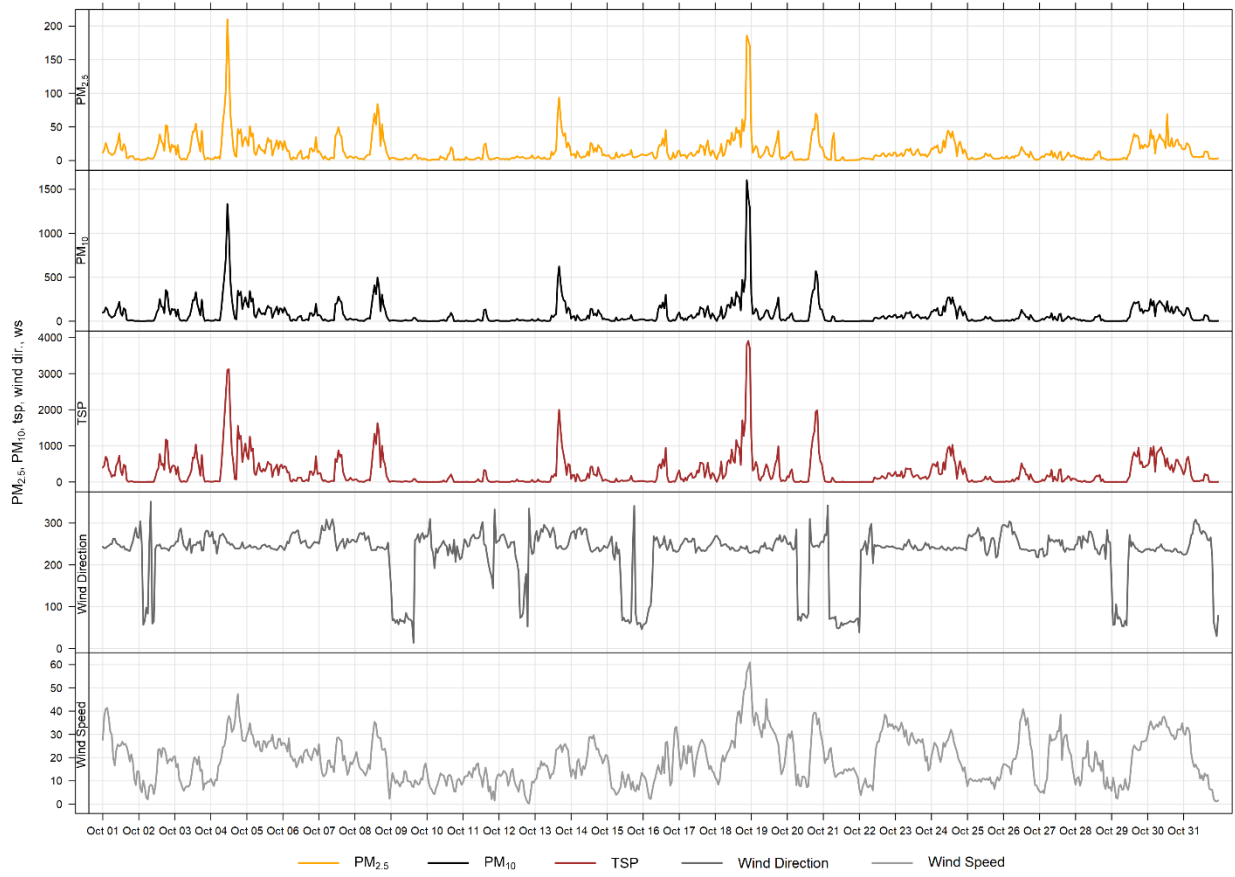


Figure 5-1 1-hour particulate matter concentrations at the Berm monitor

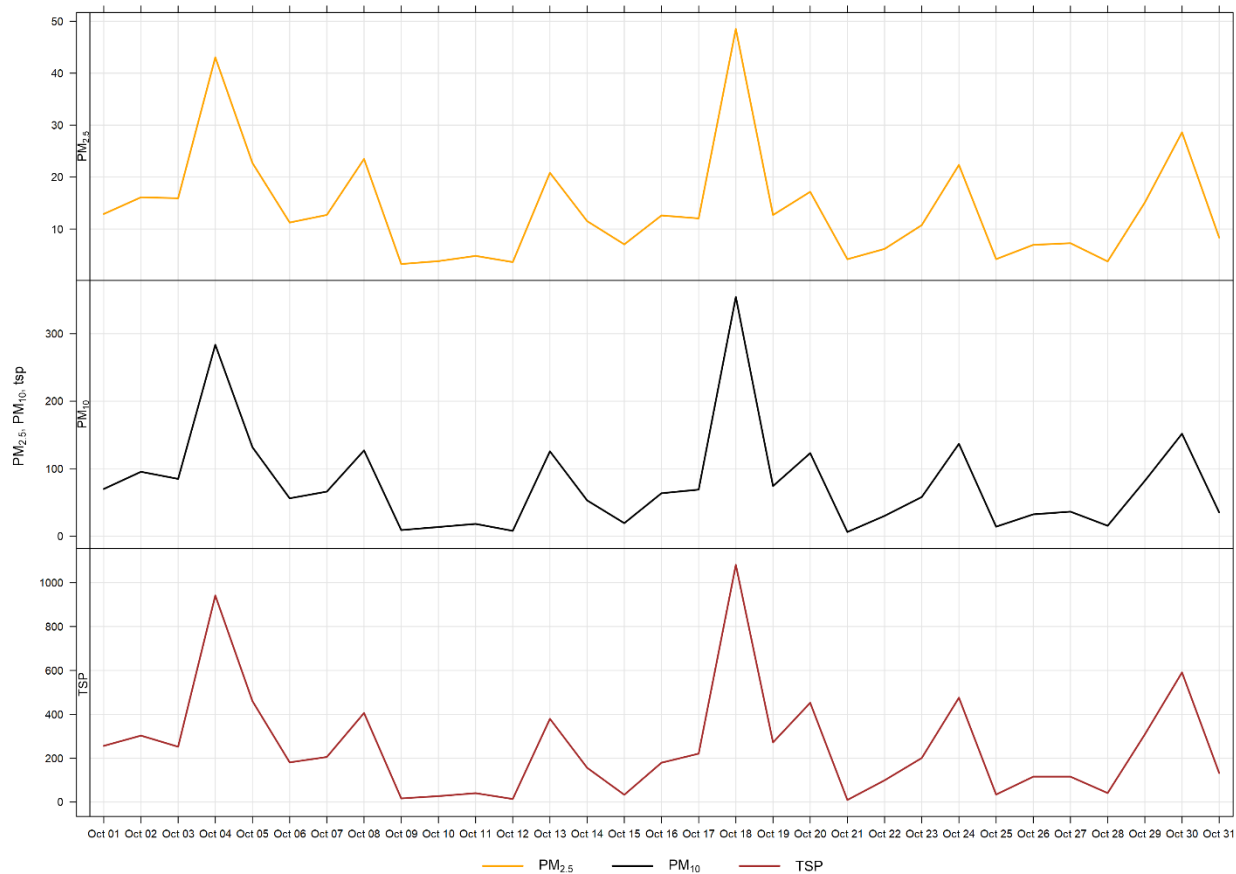


Figure 5-2 24-hour particulate matter concentrations at the Berm monitor

Figure 5-3 shows the wind rose for the 22 days of TSP exceedances. Figure 5-4 shows the wind rose for the 2 days of PM_{2.5} exceedances. The wind rose shows that the wind predominately came from the west-southwest direction, in high wind speed (>20 km/h), suggesting impacts of windblown dust from the direction of the Lafarge Facility.

Figure 5-5 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.

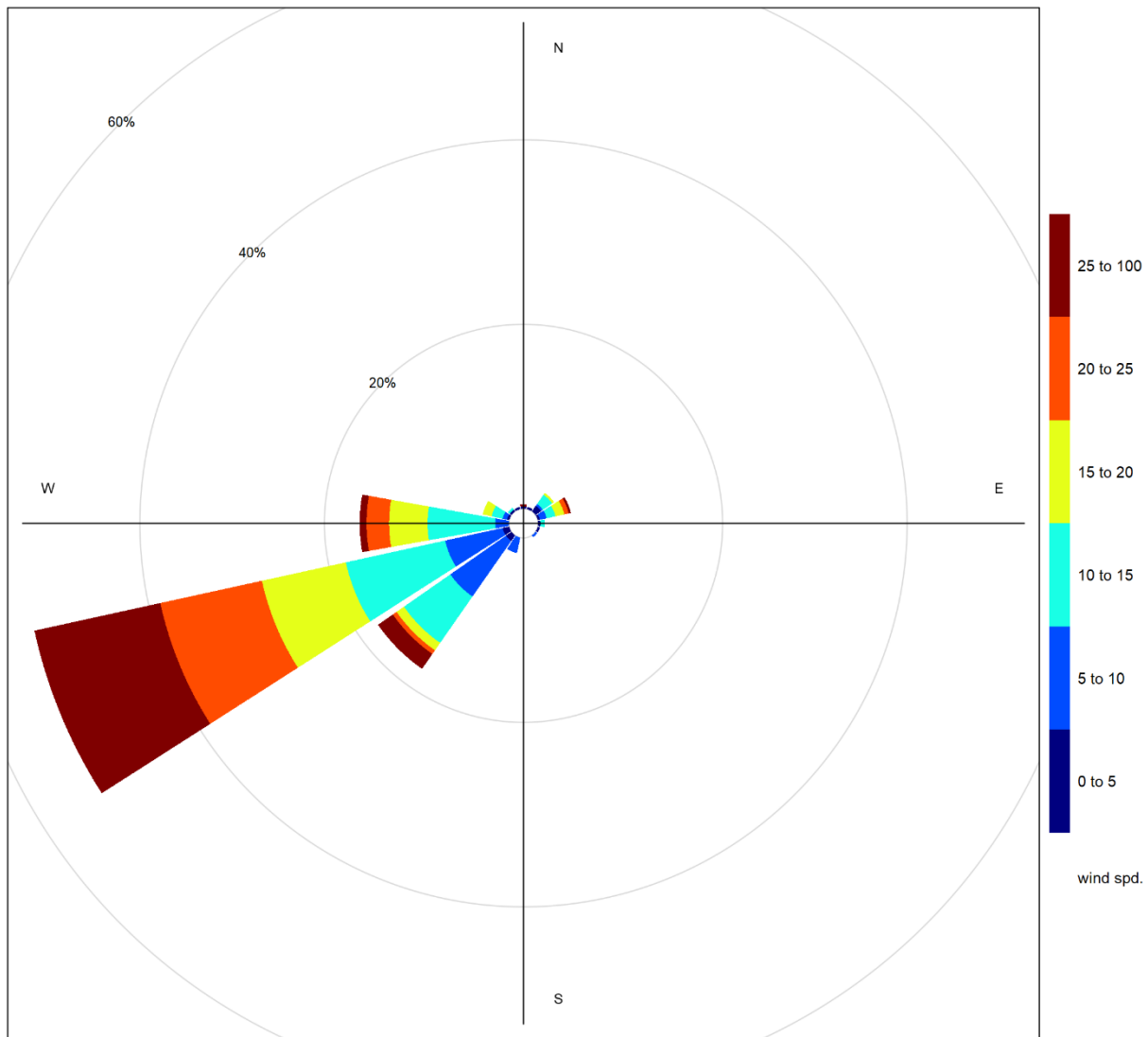


Figure 5-3 Windrose for TSP exceedance days recorded at the Berm GRIMM

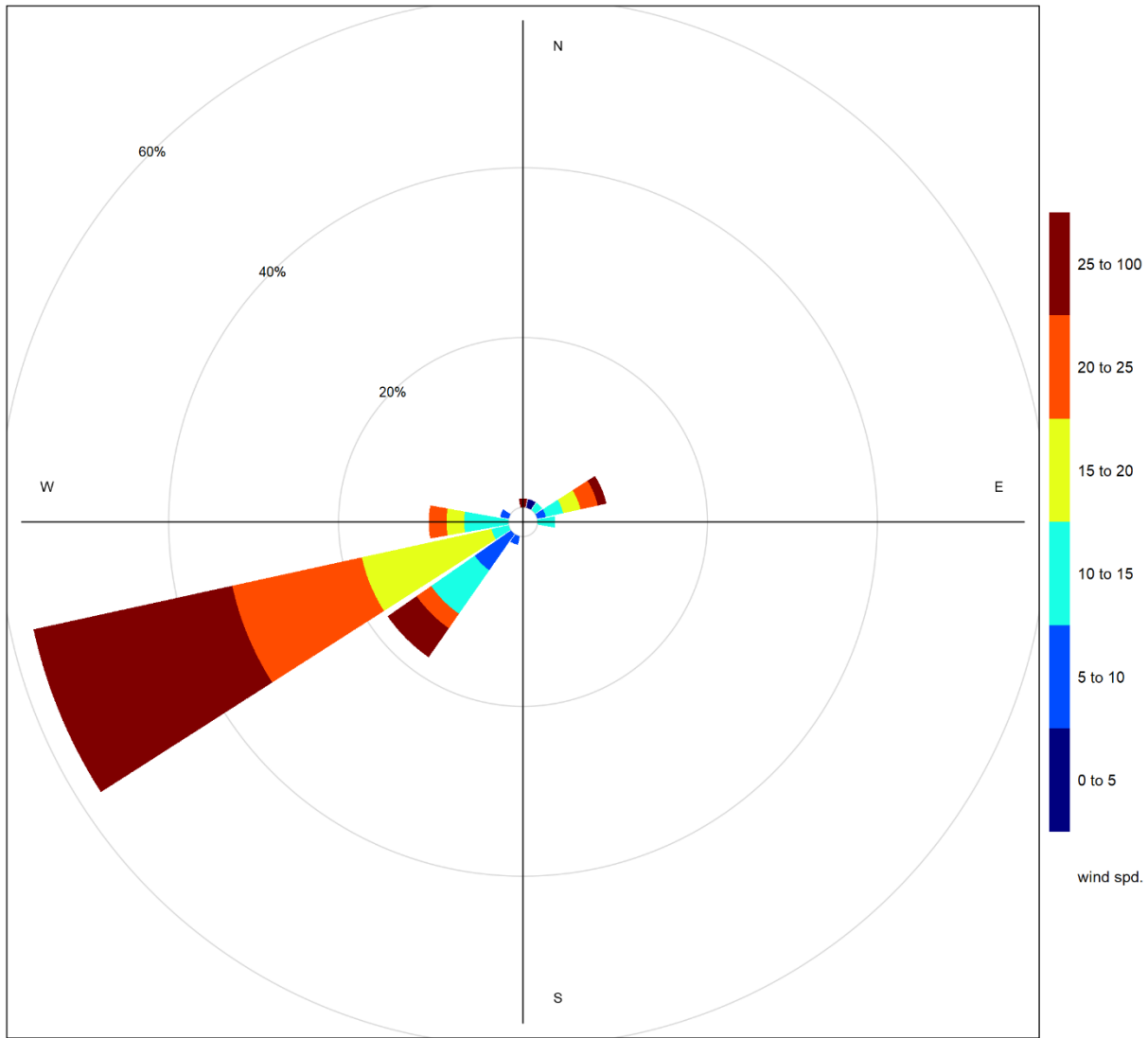


Figure 5-4 Windrose for PM_{2.5} exceedance days recorded at the Berm GRIMM

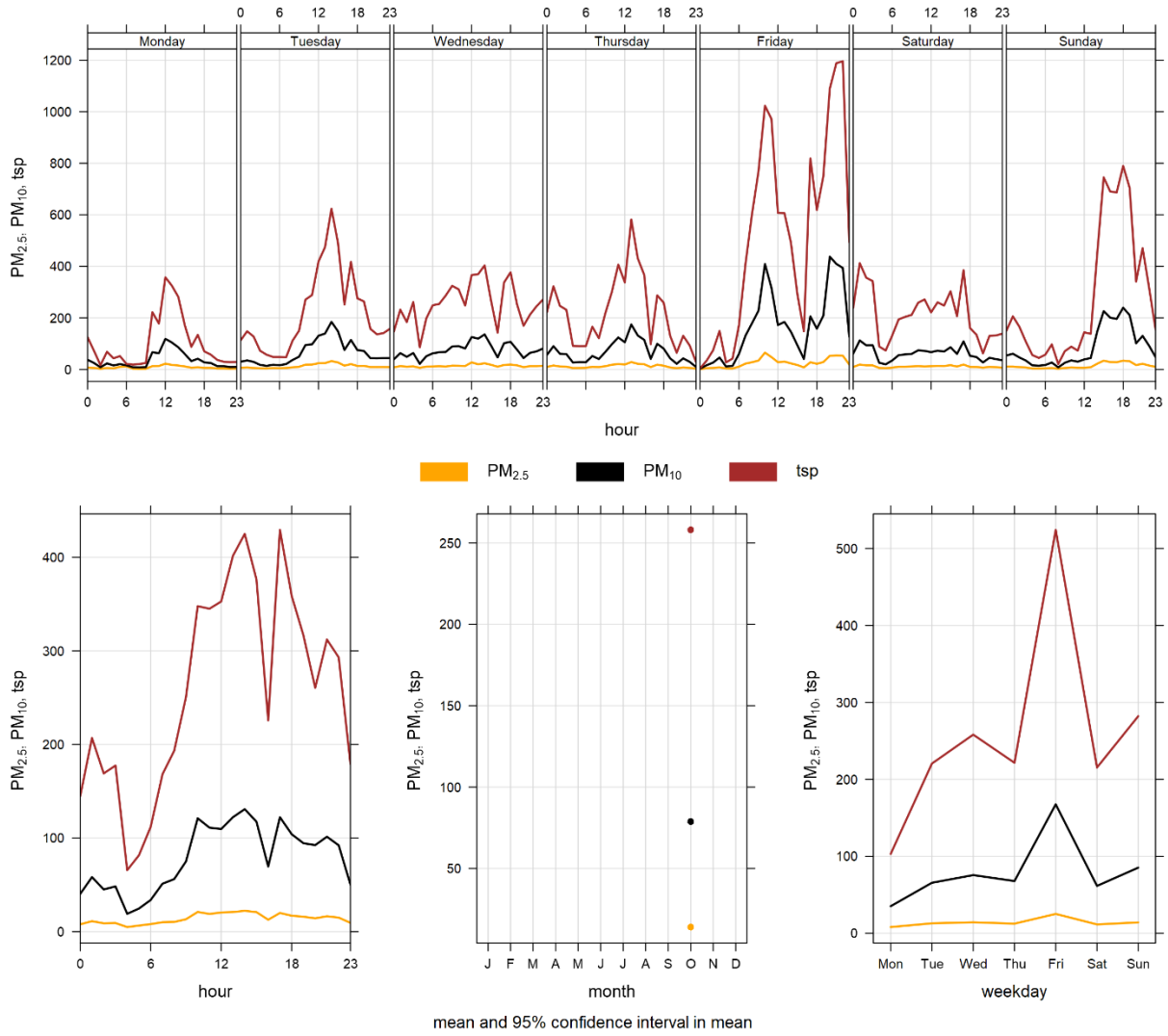


Figure 5-5 Berm monitor particulate matter time variation

6 BIBLIOGRAPHY

- Alberta Environment and Parks. (2016, June). Alberta Ambient Air Quality Objectives and Guidelines Summary. Alberta, Canada.
- Alberta Environment and Parks. (2016, April). Air Monitoring Directive. Alberta, Canada.
- Carslaw, D.C. and K. Ropkins, (2012). Openair — an R package for air quality data analysis. Environmental Modelling & Software. Volume 27–28, 52–61.
- Levelton Consultants Ltd. (2015, June 15). Comparison of GRIMM and E-BAM Data. Alberta, Can

APPENDIX

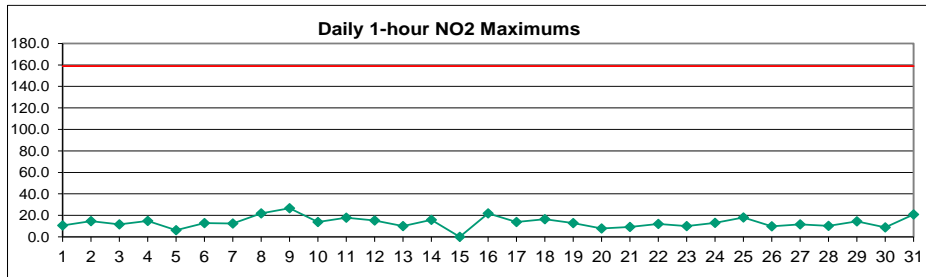
A DATA & CALIBRATION REPORTS

APPENDIX



Lagoon NO₂ (ppb) – October 2024

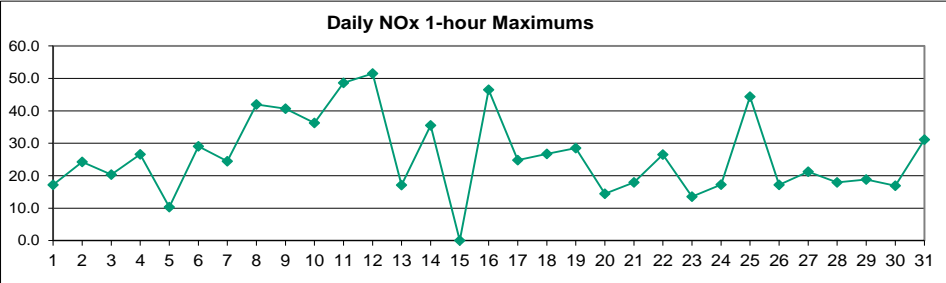
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	1.8	S	1.4	1.6	2.0	3.1	9.4	10.7	9.7	9.2	5.2	3.1	2.4	4.8	2.7	2.9	2.8	1.6	2.9	5.4	5.8	9.6	4.2	5.6	4.7	10.7	
2	14.2	S	14.6	14.1	11.5	10.1	9.9	8.9	8.5	7.7	12.0	5.0	4.5	6.8	2.0	2.0	2.3	1.7	2.8	1.9	1.7	5.3	3.9	6.2	6.9	14.6	
3	3.9	S	4.6	6.9	7.1	7.8	7.1	10.9	10.2	8.8	7.2	4.6	3.8	3.7	7.3	5.2	6.7	3.4	4.2	11.7	11.6	6.7	7.6	7.5	6.9	11.7	
4	8.2	S	10.8	11.2	10.1	9.4	14.8	12.8	10.2	11.0	8.0	4.6	4.2	8.8	6.1	3.1	1.8	2.4	4.1	5.5	10.4	5.5	3.5	4.3	7.4	14.8	
5	4.2	S	3.3	2.8	4.8	3.2	3.3	2.1	3.1	6.2	5.5	4.4	3.4	3.8	3.0	2.2	2.2	1.9	2.6	2.1	4.1	2.9	5.7	3.0	3.5	6.2	
6	1.2	S	3.2	3.1	8.8	10.7	9.3	10.7	11.1	12.8	5.1	6.7	3.0	5.9	6.4	3.9	3.5	2.6	2.9	9.9	3.9	4.9	6.8	3.6	6.1	12.8	
7	5.7	S	9.0	4.2	3.5	5.8	6.8	5.2	4.8	3.7	5.5	2.1	3.6	6.4	12.3	12.5	2.3	1.7	6.2	8.5	4.3	7.4	3.3	5.1	5.6	12.5	
8	4.2	S	8.4	7.9	8.2	9.7	21.9	17.4	13.0	16.5	5.0	1.6	1.8	1.1	4.1	4.5	3.9	6.9	2.7	3.8	14.1	11.7	7.9	8.1	8.0	21.9	
9	6.4	S	9.8	23.3	14.5	26.6	22.6	16.3	9.5	2.5	2.5	2.1	3.6	6.3	10.2	17.2	10.3	9.2	10.7	8.4	9.9	10.9	10.4	10.0	11.0	26.6	
10	7.4	S	8.1	7.4	7.5	6.9	9.9	12.8	11.2	8.3	8.3	7.8	7.3	2.7	7.5	5.0	2.8	7.0	3.6	3.5	10.3	11.7	13.8	12.0	7.9	13.8	
11	10.4	S	12.2	10.1	7.5	8.9	8.5	14.7	11.0	12.2	8.7	6.5	3.7	5.0	3.9	2.3	2.2	6.9	17.8	8.9	17.6	14.2	15.6	12.9	9.6	17.8	
12	11.2	S	8.4	9.9	10.8	10.1	8.7	14.9	15.2	14.7	10.9	7.0	6.4	9.8	6.5	4.7	4.0	6.3	8.0	7.7	8.7	12.3	11.5	5.8	9.3	15.2	
13	7.9	S	9.1	4.6	6.4	5.3	4.6	6.2	3.7	8.2	6.2	8.7	7.8	1.3	2.3	5.8	10.0	5.0	2.2	1.5	1.9	2.7	8.8	8.6	5.6	10.0	
14	7.5	S	8.4	12.2	10.8	13.9	10.8	15.8	13.9	12.9	4.1	2.9	0.9	0.8	0.7	1.3	4.5	3.9	2.6	4.1	5.1	9.7	4.8	3.3	6.7	15.8	
15	12.0	S	3.4	4.2	4.6	10.4	12.2	21.2	15.5	C	C	C	C	C	C	22.2	9.0	13.5	18.6	20.1	23.2	16.0	18.2	18.8	-	-	
16	21.9	S	18.9	14.0	15.9	17.1	17.9	13.2	9.9	8.4	2.5	9.0	7.7	11.6	4.3	1.8	3.2	10.3	7.7	2.0	3.7	1.3	2.0	5.3	9.1	21.9	
17	5.3	S	3.6	5.5	3.3	10.5	10.5	13.9	11.5	11.5	3.0	3.5	3.5	2.2	0.7	1.7	0.8	0.9	1.8	5.6	5.3	6.5	6.7	7.6	5.5	13.9	
18	5.6	S	9.7	16.5	10.7	11.5	10.5	7.3	11.3	4.1	3.6	2.9	1.0	1.0	1.2	1.6	5.1	3.4	2.5	4.1	5.7	2.3	2.7	4.3	5.6	16.5	
19	3.5	S	2.2	1.8	2.2	8.1	7.9	5.2	7.6	2.7	3.9	2.3	2.5	1.9	4.7	4.7	12.8	10.6	10.8	10.7	6.7	6.6	3.7	4.3	5.5	12.8	
20	5.2	S	4.2	2.4	3.1	5.7	5.8	2.2	4.9	1.4	2.1	2.6	2.1	5.5	7.8	7.7	2.7	2.1	3.4	3.1	2.8	5.9	4.5	3.7	3.9	7.8	
21	5.1	S	9.2	2.8	1.6	2.0	1.6	2.0	8.0	4.4	4.5	4.1	5.4	7.0	8.4	7.3	3.1	2.6	3.8	4.8	5.3	6.0	5.4	8.1	4.9	9.2	
22	8.2	S	12.1	11.2	11.6	9.9	9.3	11.4	11.3	5.9	2.7	5.1	5.3	3.3	1.7	1.5	2.1	4.1	2.5	2.5	4.1	7.1	5.5	4.7	6.2	12.1	
23	3.6	S	3.0	2.2	1.7	5.7	5.1	8.0	8.5	4.4	2.9	2.2	4.4	2.9	1.3	1.5	1.1	0.9	2.5	10.0	4.4	6.8	3.8	4.6	4.0	10.0	
24	3.3	S	6.1	4.7	3.5	9.1	13.0	9.2	9.7	6.4	6.8	5.8	3.3	2.6	4.2	5.1	2.9	3.1	4.5	6.3	9.1	4.2	4.0	6.2	5.8	13.0	
25	6.5	S	15.2	9.9	10.3	8.3	7.5	11.7	12.7	18.0	14.8	3.8	2.6	2.3	7.0	11.7	8.8	4.9	4.5	5.0	3.7	6.1	3.7	4.0	8.0	18.0	
26	3.2	S	4.0	3.6	6.4	9.3	9.7	9.8	9.9	4.7	1.9	2.1	1.5	1.4	1.3	1.4	0.9	1.5	1.6	1.8	2.7	3.5	5.1	6.7	4.1	9.9	
27	8.2	S	10.6	6.9	8.1	11.7	6.2	6.5	5.7	4.0	3.5	4.7	8.0	4.2	11.0	1.8	1.0	1.3	3.5	1.4	1.4	2.1	3.9	5.5	5.3	11.7	
28	8.1	S	6.8	4.2	6.6	4.2	10.0	6.2	7.2	10.2	5.6	5.1	1.7	2.5	1.4	1.2	1.8	2.3	3.2	4.7	6.3	8.1	7.5	7.2	5.3	10.2	
29	13.3	S	6.5	5.4	5.0	4.6	10.2	14.5	11.8	6.1	5.7	8.8	4.7	6.9	6.5	3.5	3.4	2.3	2.5	2.4	2.0	2.4	4.0	2.9	5.9	14.5	
30	2.2	S	2.9	3.4	3.0	3.7	6.8	8.0	8.9	4.3	2.9	2.0	2.2	1.7	2.4	1.8	1.3	1.5	1.4	2.0	2.2	3.5	3.3	1.9	3.2	8.9	
31	1.6	S	4.5	3.3	3.1	5.6	6.9	7.9	EC	5.7	5.5	6.7	5.7	3.9	7.7	10.4	7.1	6.2	7.2	11.2	20.9	16.0	12.8	10.5	7.7	20.9	
NO.	31	-	31	31	31	31	31	31	30	30	30	30	30	30	30	31	31	31	31	31	31	31	31	31	31	706	99.9%
MEAN	6.8	-	7.5	7.1	6.9	8.7	9.6	10.3	9.6	7.9	5.5	4.6	3.9	4.3	4.9	5.1	4.1	4.3	5.0	5.8	7.1	7.1	6.6	6.5			
MAX	21.9	-	18.9	23.3	15.9	26.6	22.6	21.2	15.5	18.0	14.8	9.0	8.0	11.6	12.3	22.2	12.8	13.5	18.6	20.1	23.2	16.0	18.2	18.8			



Number of 1HR Exceedences	0		
Number of Non-Zero Readings	706		
Maximum 1-HR Average	26.6 PPB		
Maximum 24-HR Average	11.0 PPB		
Monthly Calibration	6	Operational Time	743 HRS
Standard Deviation	4.3	Operational Uptime	99.9 %
		Monthly Average	6.5 PPB

Lagoon NOx (ppb) – October 2024

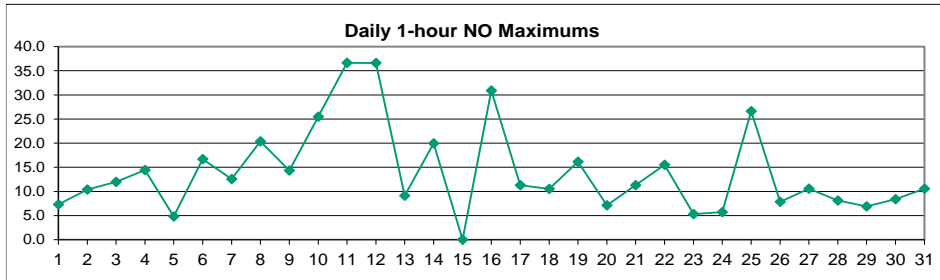
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	2.3	S	1.6	1.9	2.4	4.5	16.3	17.2	16.5	15.6	7.4	4.2	3.4	7.6	3.9	3.6	3.5	1.6	3.9	8.4	8.4	16.1	4.9	6.9	7.0	17.2	
2	24.2	S	21.4	17.2	18.0	12.1	12.2	12.8	12.7	10.3	21.9	8.0	7.1	11.5	2.4	2.6	3.1	1.9	3.6	2.4	1.9	6.5	5.5	8.8	9.9	24.2	
3	4.2	S	5.7	9.6	10.2	9.8	9.0	15.6	17.2	20.3	13.1	7.6	6.8	6.5	12.4	9.1	11.4	3.8	4.2	19.7	20.0	9.1	13.5	11.7	10.9	20.3	
4	16.5	S	19.5	17.5	24.1	17.9	26.6	24.3	18.8	19.6	12.6	6.5	6.2	13.5	8.6	3.9	2.1	2.6	5.1	8.5	17.4	7.5	4.3	5.7	12.6	26.6	
5	5.7	S	4.3	3.5	7.4	3.8	4.0	2.7	4.0	10.3	10.0	7.6	5.0	6.8	4.4	3.1	2.8	2.4	3.2	2.6	4.7	3.2	8.7	4.1	5.0	10.3	
6	1.2	S	3.8	4.1	16.0	22.4	17.7	24.7	24.3	29.1	12.4	15.4	4.1	10.6	11.2	5.3	4.7	2.7	3.0	16.3	4.9	8.8	10.5	4.3	11.2	29.1	
7	7.7	S	14.6	5.9	5.9	11.0	15.6	10.6	8.4	5.9	11.4	3.0	5.4	10.6	24.5	22.8	3.2	1.9	8.8	14.3	4.5	9.7	3.6	6.6	9.4	24.5	
8	4.9	S	18.0	13.2	13.9	15.0	41.9	32.6	22.2	27.7	7.5	2.3	2.4	1.2	7.3	7.1	5.0	9.6	3.6	5.4	19.8	12.9	7.8	11.4	12.7	41.9	
9	9.4	S	11.2	35.5	17.1	40.6	30.3	21.5	13.6	3.0	3.1	2.5	4.7	9.4	13.1	24.2	11.9	12.9	15.0	10.6	17.4	16.7	19.4	16.6	15.6	40.6	
10	13.3	S	12.6	7.9	8.9	7.9	15.1	31.8	36.3	21.4	26.5	18.3	14.7	3.6	12.0	8.2	3.2	10.2	5.1	4.8	10.9	12.1	14.2	13.5	13.6	36.3	
11	16.1	S	18.8	17.6	13.4	19.1	16.8	45.8	41.2	48.7	25.5	16.1	6.7	7.4	5.3	2.8	2.5	10.7	24.4	10.6	19.4	16.0	21.3	22.8	18.7	48.7	
12	17.4	S	12.2	20.0	20.2	13.9	12.2	38.6	51.5	47.1	25.5	12.7	10.6	15.8	9.2	5.8	4.7	6.6	9.8	7.8	9.0	12.5	12.2	5.9	16.6	51.5	
13	11.1	S	14.1	6.7	9.9	7.9	5.9	11.5	4.7	16.9	11.8	17.1	14.8	1.4	3.8	9.0	15.3	6.7	2.3	1.6	2.0	3.0	11.9	10.8	8.7	17.1	
14	11.4	S	11.7	23.9	21.6	30.0	20.6	35.5	30.6	29.3	6.1	4.0	0.9	0.9	0.7	1.6	5.8	4.8	3.0	4.4	5.4	12.4	5.2	3.7	11.9	35.5	
15	15.6	S	3.6	4.3	4.5	11.0	18.9	42.1	23.0	C	C	C	C	C	C	36.8	10.8	17.8	27.0	28.0	26.5	21.7	27.4	31.0	-	-	
16	46.4	S	43.8	16.2	46.5	23.9	26.1	20.2	16.3	13.7	2.5	13.7	12.1	21.9	5.8	1.4	3.1	15.6	8.5	1.8	5.0	0.8	1.7	7.1	15.4	46.5	
17	5.1	S	3.6	7.8	3.4	17.3	15.2	24.8	21.8	21.8	3.6	4.6	4.9	3.1	0.9	1.3	0.4	0.4	1.5	7.9	5.4	6.4	7.4	8.9	7.7	24.8	
18	7.2	S	14.5	26.7	13.7	15.4	14.0	8.9	16.8	4.5	4.6	4.0	0.7	0.8	1.3	2.1	7.5	4.3	2.4	5.3	8.4	2.0	2.6	5.5	7.5	26.7	
19	4.3	S	2.4	1.7	2.3	14.3	10.2	7.4	12.2	2.9	5.7	2.6	3.1	2.1	7.8	7.2	28.5	22.2	18.2	18.7	9.4	9.7	4.1	5.7	8.8	28.5	
20	7.3	S	4.4	2.0	2.9	5.7	6.7	1.8	5.0	1.1	2.7	2.8	2.2	8.4	11.6	14.4	3.1	2.2	4.9	4.1	3.7	9.0	6.6	4.5	5.1	14.4	
21	8.2	S	17.2	2.5	1.2	1.8	1.3	1.9	15.7	6.6	9.4	7.5	10.0	17.9	17.8	15.3	4.1	2.6	6.1	4.8	6.0	7.0	5.4	10.7	7.9	17.9	
22	8.5	S	17.3	16.2	17.5	13.6	14.4	26.5	22.6	9.9	4.1	9.7	9.3	4.8	1.9	1.5	2.2	5.3	2.2	2.2	4.8	9.1	7.1	6.0	9.4	26.5	
23	4.2	S	3.0	2.3	1.3	8.4	5.9	11.8	13.4	6.1	3.8	2.8	6.6	3.9	1.3	1.4	0.7	0.4	2.6	13.6	4.7	6.8	3.7	4.8	4.9	13.6	
24	3.4	S	8.1	5.7	3.6	11.7	17.3	12.6	15.0	9.9	11.0	9.0	4.8	3.3	5.5	6.7	3.1	3.1	5.5	8.0	10.8	4.1	3.9	6.7	7.5	17.3	
25	7.8	S	24.6	12.1	14.5	10.1	8.9	18.8	19.6	44.4	33.2	5.3	3.1	2.5	8.4	17.3	10.3	4.9	4.2	4.6	4.0	7.3	3.4	5.8	12.0	44.4	
26	3.1	S	4.6	3.2	10.4	16.4	17.2	13.6	15.6	6.5	2.0	2.3	1.0	1.3	1.0	1.0	0.4	1.2	1.2	1.4	2.2	3.3	4.8	7.8	5.3	17.2	
27	8.0	S	11.6	7.4	11.4	17.4	8.5	10.1	8.1	5.4	4.1	8.4	17.5	6.9	21.2	1.7	0.5	1.0	4.0	1.1	1.0	1.8	3.8	5.4	7.2	21.2	
28	8.5	S	8.3	5.1	8.5	4.6	16.4	9.4	10.2	17.9	7.5	6.7	2.0	3.2	1.4	1.0	1.7	2.2	3.3	4.4	10.7	9.7	8.4	7.4	6.9	17.9	
29	18.3	S	6.0	5.1	5.0	5.0	12.9	18.9	16.6	7.4	8.8	15.2	6.7	11.7	10.3	4.6	3.9	2.0	2.0	2.0	1.7	2.3	4.6	3.1	7.6	18.9	
30	2.1	S	3.2	3.7	3.3	4.4	11.1	13.1	16.9	6.0	3.5	2.1	2.8	1.8	2.7	1.8	1.0	1.2	1.0	1.9	2.2	4.3	3.7	1.7	4.1	16.9	
31	1.2	S	5.8	3.4	3.0	7.8	8.9	11.6	EC	7.3	7.6	9.8	8.2	5.1	16.8	14.7	9.7	6.6	7.9	11.3	31.1	16.4	12.8	10.9	9.9	31.1	
NO.	31	-	31	31	31	31	31	31	30	30	30	30	30	30	30	31	31	31	31	31	31	31	31	31	31	706	99.9%
MEAN	9.8	-	11.3	10.0	11.0	13.1	14.8	18.7	18.4	15.9	10.3	7.7	6.3	6.8	7.8	7.7	5.5	5.5	6.4	7.7	9.1	8.7	8.2	8.6			
MAX	46.4	-	43.8	35.5	46.5	40.6	41.9	45.8	51.5	48.7	33.2	18.3	17.5	21.9	24.5	36.8	28.5	22.2	27.0	28.0	31.1	21.7	27.4	31.0			



Number of Non-Zero Readings	706	Operational Time	743 HRS
Maximum 1-HR Average	51.5 PPB	Operational Uptime	99.9 %
Maximum 24-HR Average	18.7 PPB	Monthly Average	10.0 PPB
Monthly Calibration	6		
Standard Deviation	8.592		

Lagoon NO (ppb) – October 2024

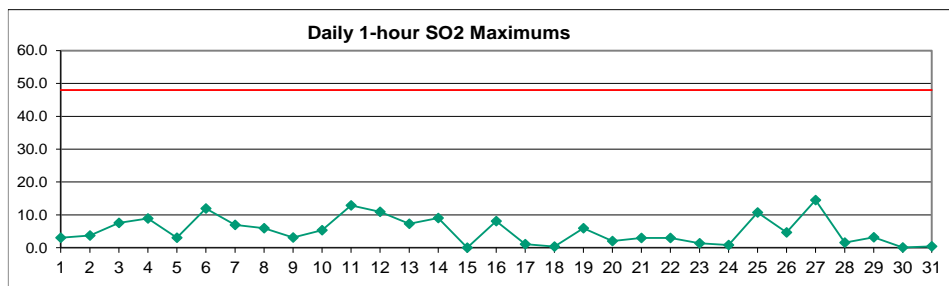
Day	HOURLY																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.8	S	0.4	0.6	0.7	1.7	7.3	6.9	7.2	6.8	2.6	1.4	1.3	3.2	1.5	0.9	1.0	0.4	1.4	3.3	2.9	6.9	1.0	1.6	2.7	7.3
2	10.4	S	7.2	3.5	6.8	2.4	2.7	4.2	4.6	2.9	10.4	3.3	2.9	5.0	0.7	0.9	1.0	0.5	1.1	0.8	0.4	1.5	1.9	2.9	3.4	10.4
3	0.6	S	1.3	3.1	3.4	2.3	2.2	5.1	7.4	12.0	6.3	3.4	3.3	3.2	5.6	4.2	5.2	0.8	0.4	8.4	8.9	2.9	6.3	4.7	4.4	12.0
4	8.6	S	9.1	6.8	14.4	8.9	12.1	11.9	9.1	9.0	5.0	2.2	2.3	5.1	2.9	1.1	0.6	0.6	1.4	3.3	7.4	2.4	1.0	1.7	5.5	14.4
5	1.8	S	1.3	1.0	2.9	0.9	1.0	0.9	1.2	4.5	4.8	3.5	2.0	3.4	1.7	1.2	0.9	0.8	0.9	0.8	1.0	0.6	3.4	1.4	1.8	4.8
6	0.3	S	1.0	1.4	7.7	12.2	8.9	14.4	13.7	16.7	7.6	9.0	1.4	5.0	5.2	1.7	1.5	0.4	0.5	6.7	1.3	4.2	3.9	1.0	5.5	16.7
7	2.3	S	6.0	2.1	2.7	5.5	9.2	5.8	3.9	2.6	6.2	1.2	2.1	4.6	12.6	10.8	1.2	0.5	2.9	6.1	0.6	2.7	0.6	1.9	4.1	12.6
8	1.0	S	10.0	5.7	6.1	5.8	20.4	15.6	9.7	11.6	2.9	1.1	1.0	0.4	3.6	3.0	1.5	3.1	1.2	1.9	6.1	1.5	0.3	3.6	5.1	20.4
9	3.3	S	1.7	12.5	3.0	14.3	8.1	5.6	4.5	0.8	0.9	0.6	1.4	3.5	3.2	7.4	2.0	4.0	4.6	2.6	7.9	6.1	9.3	6.9	5.0	14.3
10	6.3	S	4.8	0.8	1.8	1.4	5.6	19.4	25.5	13.6	18.6	11.0	7.9	1.3	4.9	3.6	0.8	3.6	1.7	1.6	1.0	0.8	0.7	1.9	6.0	25.5
11	6.1	S	7.1	8.0	6.3	10.5	8.7	31.4	30.5	36.7	17.2	9.9	3.2	2.7	1.8	0.9	0.6	4.1	6.9	2.1	2.1	2.3	6.1	10.3	9.4	36.7
12	6.6	S	4.2	10.5	9.7	4.3	3.9	24.0	36.6	32.8	14.9	6.1	4.5	6.5	3.1	1.5	1.0	0.7	2.2	0.4	0.7	0.5	1.1	0.5	7.7	36.6
13	3.5	S	5.5	2.4	3.9	2.9	1.6	5.6	1.2	9.1	6.1	8.9	7.5	0.5	1.9	3.5	5.7	2.0	0.5	0.4	0.4	0.5	3.6	2.6	3.5	9.1
14	4.3	S	3.8	12.2	11.3	16.5	10.1	20.0	17.0	16.8	2.3	1.5	0.4	0.4	0.3	0.6	1.6	1.2	0.8	0.7	0.7	3.1	0.8	0.8	5.5	20.0
15	4.0	S	0.6	0.4	0.3	1.0	7.0	21.2	7.9	C	C	C	C	C	C	14.9	2.1	4.7	8.7	8.2	3.6	6.1	9.5	12.5	-	-
16	24.7	S	25.2	2.6	30.9	7.1	8.6	7.4	6.8	5.6	0.3	5.1	4.8	10.7	1.8	0.0	0.2	5.6	1.1	0.1	1.6	0.0	0.0	2.1	6.6	30.9
17	0.1	S	0.3	2.5	0.4	7.2	5.1	11.3	10.7	10.8	0.8	1.5	1.7	1.2	0.5	0.0	0.0	0.0	0.0	2.6	0.4	0.3	1.1	1.6	2.6	11.3
18	1.9	S	5.1	10.5	3.4	4.3	3.8	1.9	5.9	0.6	1.4	1.3	0.0	0.1	0.5	0.7	2.7	1.2	0.2	1.4	3.0	0.0	0.3	1.5	2.2	10.5
19	1.0	S	0.5	0.2	0.4	6.6	2.7	2.5	5.1	0.5	2.2	0.6	0.9	0.5	3.5	2.9	16.2	12.1	7.8	8.5	3.1	3.5	0.8	1.8	3.6	16.2
20	2.3	S	0.5	0.0	0.0	0.3	1.2	0.0	0.4	0.0	0.9	0.5	0.4	3.3	4.3	7.1	0.7	0.4	1.8	1.3	1.2	3.5	2.5	1.1	1.5	7.1
21	3.5	S	8.3	0.0	0.0	0.1	0.0	0.2	8.1	2.5	5.2	3.7	5.0	11.3	9.8	8.4	1.3	0.3	2.6	0.4	0.9	1.4	0.4	3.0	3.3	11.3
22	0.7	S	5.7	5.5	6.4	4.2	5.5	15.5	11.7	4.4	1.7	4.9	4.4	1.8	0.4	0.2	0.3	1.5	0.0	0.0	1.0	2.3	1.9	1.6	3.6	15.5
23	0.8	S	0.3	0.3	0.0	2.9	1.1	4.2	5.3	2.0	1.1	0.8	2.5	1.2	0.3	0.3	0.0	0.0	0.4	3.8	0.6	0.3	0.1	0.5	1.3	5.3
24	0.5	S	2.4	1.4	0.4	2.9	4.7	3.8	5.7	4.0	4.7	3.6	1.8	1.0	1.7	1.8	0.5	0.3	1.2	2.0	2.0	0.2	0.2	0.8	2.1	5.7
25	1.7	S	9.8	2.5	4.6	2.2	1.8	7.5	7.3	26.6	18.7	1.8	0.8	0.4	1.7	6.0	1.9	0.3	0.0	0.0	0.6	1.4	0.0	2.1	4.3	26.6
26	0.2	S	0.9	0.0	4.3	7.4	7.9	4.2	6.2	2.2	0.4	0.5	0.0	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.4	1.6	7.9
27	0.2	S	1.3	0.8	3.6	6.1	2.7	4.0	2.7	1.7	0.9	4.1	9.9	3.1	10.6	0.3	0.0	0.0	0.9	0.0	0.0	0.0	0.2	0.2	2.3	10.6
28	0.7	S	1.9	1.2	2.2	0.7	6.8	3.5	3.4	8.1	2.2	2.0	0.6	1.0	0.3	0.2	0.3	0.2	0.4	0.0	4.8	2.0	1.3	0.6	1.9	8.1
29	5.4	S	0.0	0.0	0.2	0.7	3.0	4.7	5.2	1.6	3.4	6.9	2.3	5.1	4.1	1.4	0.7	0.0	0.0	0.0	0.0	0.2	1.0	0.4	2.0	6.9
30	0.1	S	0.6	0.6	0.6	1.0	4.6	5.5	8.4	2.0	0.9	0.5	0.9	0.3	0.6	0.3	0.0	0.0	0.0	0.2	0.3	1.1	0.7	0.0	1.3	8.4
31	0.0	S	1.6	0.4	0.2	2.5	2.4	4.1	EC	1.9	2.4	3.4	2.8	1.5	9.4	4.7	3.0	0.7	1.0	0.4	10.6	0.7	0.4	0.7	2.5	10.6
NO.	31	-	31	31	31	31	31	31	30	30	30	30	30	30	30	31	31	31	31	31	31	31	31	31	706	99.9%
MEAN	3.3	-	4.1	3.2	4.5	4.7	5.5	8.8	9.1	8.3	5.1	3.5	2.7	2.9	3.3	2.9	1.8	1.6	1.7	2.2	2.4	1.9	1.9	2.4		
MAX	24.7	-	25.2	12.5	30.9	16.5	20.4	31.4	36.6	36.7	18.7	11.0	9.9	11.3	12.6	14.9	16.2	12.1	8.7	8.5	10.6	6.9	9.5	12.5		



Number of Non-Zero Readings	670	Operational Time	743 HRS
Maximum 1-HR Average	36.7 PPB	Operational Uptime	99.9 %
Maximum 24-HR Average	9.4 PPB	Monthly Average	3.8 PPB
Monthly Calibration	6		
Standard Deviation	5.009		

Lagoon SO₂ (ppb) – October 2024

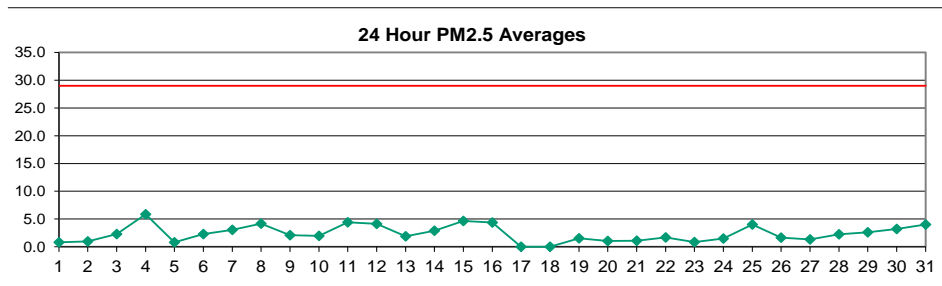
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.1	S	0.9	0.8	0.9	1.0	1.1	1.6	1.2	0.8	1.0	1.0	1.0	1.1	1.0	1.0	1.1	1.0	1.0	1.1	1.8	3.0	1.5	1.7	1.2	3.0
2	3.7	S	1.2	1.2	1.1	0.9	1.0	1.1	1.1	1.2	2.1	1.1	1.3	2.0	0.8	1.0	1.0	0.8	1.5	1.3	0.8	0.8	0.8	0.8	1.2	3.7
3	1.3	S	1.5	3.2	3.8	3.2	1.3	1.2	2.8	4.3	1.7	2.4	2.2	3.0	2.7	1.4	5.4	0.8	0.7	6.3	7.5	3.4	2.7	2.8	2.9	7.5
4	4.7	S	4.4	3.4	4.1	4.7	8.4	8.9	6.8	7.3	4.3	2.2	1.6	5.2	3.3	1.9	1.3	1.4	1.3	1.5	5.9	2.1	1.2	1.6	3.8	8.9
5	1.6	S	1.9	1.6	2.2	1.3	1.1	1.0	1.0	2.2	2.6	2.6	3.0	3.1	1.7	1.0	1.1	0.9	0.7	0.9	0.9	0.9	0.8	0.8	1.5	3.1
6	0.9	S	0.8	1.0	4.1	6.9	5.2	9.9	11.8	12.0	4.5	1.4	1.1	1.2	1.2	1.1	1.1	1.0	1.0	0.9	1.0	1.1	1.2	1.2	3.1	12.0
7	2.2	S	4.3	1.9	1.7	2.7	4.1	3.0	1.4	1.7	1.9	1.2	1.8	3.7	4.6	6.9	1.6	1.1	1.3	1.1	1.2	1.8	1.2	1.0	2.3	6.9
8	1.0	S	2.7	2.7	2.7	4.2	5.9	5.2	2.8	2.0	1.1	1.2	1.2	1.1	1.9	2.5	1.2	2.5	1.7	1.6	1.0	1.1	1.1	1.4	2.2	5.9
9	1.4	S	1.2	1.4	1.6	1.6	1.4	1.5	2.6	2.9	2.7	1.8	1.7	1.8	2.3	2.9	1.5	1.5	1.1	1.5	2.1	1.6	2.9	3.1	1.9	3.1
10	2.2	S	1.0	0.9	1.1	0.9	0.9	1.0	2.3	1.5	5.3	4.9	4.2	1.0	4.1	2.9	0.7	1.0	0.8	0.8	0.7	0.7	0.7	0.9	1.8	5.3
11	1.5	S	1.3	1.8	1.4	1.5	2.1	4.0	8.3	12.9	8.3	4.2	2.2	1.4	1.1	1.0	1.1	1.2	1.0	1.7	1.1	1.8	3.2	4.0	3.0	12.9
12	3.3	S	2.1	4.1	4.2	2.6	2.4	6.4	9.9	10.9	6.9	3.3	4.1	3.9	2.0	1.6	1.4	1.7	1.3	0.9	0.9	0.5	1.1	0.9	3.3	10.9
13	2.3	S	3.5	1.5	2.5	1.3	1.8	1.5	1.1	5.9	4.0	7.3	6.4	1.0	1.5	2.1	2.9	1.5	1.0	1.0	1.0	2.4	2.8	2.8	2.5	7.3
14	3.8	S	3.5	8.5	7.7	9.0	4.9	8.9	7.5	7.5	1.7	1.4	1.2	1.0	1.0	1.1	1.0	1.4	1.2	1.0	1.1	1.0	1.0	1.0	3.4	9.0
15	1.0	S	1.0	1.0	0.9	0.8	1.1	1.3	1.3	C	C	C	C	C	C	3.4	0.9	0.8	0.5	0.4	0.3	0.3	0.7	0.8	-	-
16	1.3	S	0.8	0.3	0.7	1.1	2.6	0.7	0.6	0.2	0.2	1.1	0.6	8.1	1.5	0.2	0.1	0.6	0.7	0.3	0.1	0.2	0.2	0.5	1.0	8.1
17	0.1	S	0.0	0.0	0.2	0.2	0.2	0.4	0.4	1.1	0.1	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.2	1.1
18	0.3	S	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.1	0.2	0.3	0.2	0.3	0.2	0.2	0.1	0.3
19	0.2	S	0.0	0.0	0.0	0.1	0.1	0.1	0.4	0.1	1.0	0.3	0.0	0.2	0.5	1.0	6.0	5.6	4.1	3.2	1.6	2.0	0.6	0.9	1.2	6.0
20	0.9	S	0.3	0.1	0.0	0.9	1.0	0.2	0.3	0.1	0.2	0.2	0.3	0.8	2.0	1.7	0.1	0.2	0.6	0.7	0.6	1.4	1.5	0.7	0.6	2.0
21	1.3	S	1.0	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.5	0.5	0.3	0.0	0.1	0.0	0.4	1.3	1.2	3.0	2.5	0.6	3.0
22	0.9	S	0.8	1.3	0.6	0.7	1.3	2.3	3.0	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	3.0
23	0.0	S	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	1.4	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.4
24	0.3	S	0.2	0.6	0.0	0.0	0.5	0.0	0.0	0.0	0.6	0.5	0.0	0.0	0.8	0.3	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.3	0.2	0.8
25	0.4	S	5.9	3.3	3.2	1.6	1.0	1.4	2.2	8.7	10.7	0.3	0.0	0.0	0.0	2.5	1.9	0.2	0.0	0.0	0.1	0.5	0.3	0.2	1.9	10.7
26	0.1	S	0.0	0.2	1.3	4.6	2.3	3.9	2.4	0.8	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.1	0.2	0.2	0.2	0.8	4.6
27	0.0	S	0.0	1.3	2.6	14.5	5.1	5.8	4.9	1.5	0.6	2.7	8.5	2.1	8.3	1.1	0.2	0.3	0.8	0.3	0.2	0.1	0.5	0.4	2.7	14.5
28	0.5	S	0.1	0.1	1.6	0.6	0.6	0.3	1.0	1.1	0.9	0.3	0.2	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.8	0.3	0.4	0.4	1.6
29	0.4	S	0.0	0.0	0.0	0.1	0.0	0.2	0.4	0.8	0.8	3.2	1.3	2.1	1.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	3.2
30	0.1	S	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
31	0.0	S	0.0	0.0	0.1	0.2	0.1	0.0	EC	0.0	0.1	0.2	0.1	0.4	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
NO.	31	-	31	31	31	31	31	31	30	30	30	30	30	30	30	31	31	31	31	31	31	31	31	31	706	99.9%
MEAN	1.3	-	1.3	1.4	1.6	2.2	1.9	2.3	2.6	2.9	2.1	1.5	1.5	1.5	1.5	1.3	1.0	0.8	0.7	0.9	1.0	0.9	0.9	1.0		
MAX	4.7	-	5.9	8.5	7.7	14.5	8.4	9.9	11.8	12.9	10.7	7.3	8.5	8.1	8.3	6.9	6.0	5.6	4.1	6.3	7.5	3.4	3.2	4.0		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	613
Maximum 1-HR Average	14.5 PPB
Maximum 24-HR Average	3.8 PPB
Monthly Calibration	6
Standard Deviation	2.045
Operational Time	743 HRS
Operational Uptime	99.9 %
Monthly Average	1.5 PPB

Lagoon PM_{2.5} (µg/m³) – October 2024

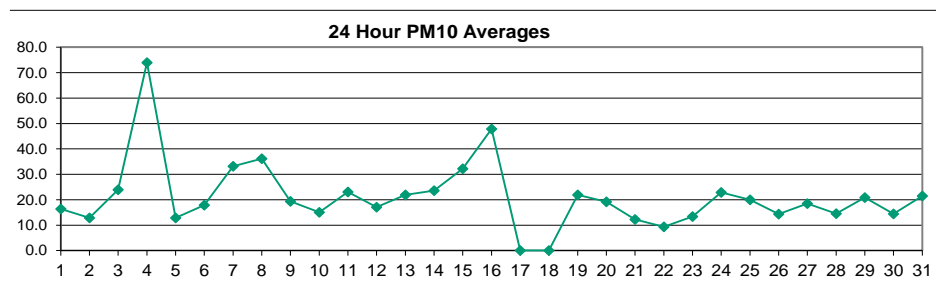
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	4.0	2.5	0.0	0.0	0.0	0.0	0.0	1.2	5.1	2.9	0.3	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.9	0.0	0.7	0.8	5.1		
2	2.4	1.2	0.0	0.0	0.8	1.8	0.9	1.6	1.9	1.0	0.4	0.5	0.0	1.0	2.6	2.8	1.3	0.0	0.0	0.3	0.0	0.0	2.9	1.0	2.9		
3	0.0	0.0	0.0	0.0	2.7	2.0	1.6	1.7	4.1	5.0	2.8	1.0	0.7	0.0	0.0	4.7	4.8	5.1	2.8	1.6	4.7	5.2	4.0	0.9	2.3	5.2	
4	3.9	4.2	3.5	4.2	6.5	4.8	1.5	1.5	5.0	9.3	16.1	20.6	10.4	8.4	10.4	8.0	2.5	0.0	2.2	3.9	6.2	6.1	1.1	0.0	5.9	20.6	
5	0.7	1.6	1.3	1.0	0.8	1.5	0.0	0.6	1.5	1.1	2.7	1.6	0.0	0.7	1.3	1.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.7	
6	1.0	0.3	0.7	1.7	0.8	0.9	2.5	3.2	3.1	2.3	3.4	3.6	5.2	3.1	0.6	2.2	1.6	0.0	0.1	0.0	0.0	9.5	6.4	3.0	2.3	9.5	
7	2.8	4.4	5.0	2.3	2.2	1.3	0.3	2.6	1.0	0.1	0.2	0.0	1.2	0.0	0.1	6.2	6.0	0.5	0.0	4.2	3.7	10.3	10.0	9.0	3.1	10.3	
8	6.9	7.0	7.4	4.3	4.5	3.5	0.8	0.0	2.8	5.7	10.7	9.1	4.8	3.9	3.0	5.2	4.3	1.3	6.3	2.6	1.4	1.8	1.5	1.1	4.2	10.7	
9	3.3	3.0	1.6	1.2	0.3	0.1	1.5	3.7	3.2	2.6	1.7	2.0	1.8	0.0	0.6	0.2	3.5	4.4	1.9	1.2	4.5	4.7	1.4	1.4	2.1	4.7	
10	1.5	0.0	0.0	1.4	2.1	3.3	2.0	0.2	3.1	8.1	6.9	3.3	2.4	2.2	1.9	3.2	1.3	0.0	0.0	0.0	0.9	3.0	0.7	0.0	2.0	8.1	
11	1.9	2.8	4.8	5.3	4.8	2.9	4.0	5.3	9.3	12.9	8.6	6.5	4.1	0.4	0.5	0.1	0.0	0.0	4.6	4.8	4.6	5.7	5.2	6.7	4.4	12.9	
12	6.9	3.9	2.1	2.1	1.7	3.9	3.0	4.8	7.6	8.5	7.3	7.0	4.1	0.0	0.0	0.0	0.0	0.0	2.4	6.3	4.7	5.8	9.6	7.2	4.1	9.6	
13	6.0	3.2	1.8	3.0	2.4	1.0	0.4	0.4	1.8	1.9	1.6	3.0	4.6	4.1	0.3	0.0	1.4	3.7	2.4	0.0	0.3	0.0	0.0	2.0	1.9	6.0	
14	3.5	1.7	1.7	1.9	2.7	2.2	1.8	2.9	3.7	2.4	1.8	9.5	7.1	4.5	3.3	1.3	1.4	1.3	1.1	0.8	1.3	3.3	3.9	3.9	2.9	9.5	
15	3.8	4.8	7.2	3.5	1.2	1.9	13.1	10.0	7.0	4.4	2.2	4.3	4.3	2.4	3.2	3.9	3.4	3.0	1.4	2.7	4.8	6.0	4.7	8.2	4.6	13.1	
16	6.7	7.9	8.2	5.5	2.9	7.6	7.6	4.6	1.8	1.5	2.4	0.5	3.2	4.7	27.3	4.7	2.9	0.0	1.0	2.8	0.3	0.0	0.0	0.9	4.4	27.3	
17	3.4	3.9	0.4	1.0	2.6	2.9	5.7	4.6	4.4	4.1	3.2	0.8	0.0	2.5	C	C	EC	EC	EC	EC	EC	EC	EC	EC	-	-	
18	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	4.2	0.0	0.0	0.0	19.6	1.0	1.8	-	-
19	2.2	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	8.3	6.4	4.2	2.8	4.3	3.2	0.2	2.3	1.5	8.3	
20	4.9	1.8	2.8	2.9	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.1	3.4	2.4	0.0	1.3	1.0	4.9	
21	1.6	4.8	6.9	3.8	0.5	1.6	0.0	0.0	2.4	1.3	0.0	0.0	0.0	0.7	0.1	0.1	0.0	0.2	0.3	0.0	0.0	0.0	0.6	0.8	1.1	6.9	
22	0.0	1.6	1.7	1.2	7.3	6.0	6.0	6.2	4.5	1.9	0.0	0.0	0.6	0.4	0.0	0.0	0.0	0.5	0.8	0.0	0.0	0.0	0.4	1.0	1.7	7.3	
23	1.0	2.1	1.6	0.0	0.0	1.8	0.8	0.0	0.0	1.6	0.2	0.0	1.0	1.2	0.4	0.0	0.0	0.0	0.0	1.6	2.7	1.5	2.0	1.3	0.9	2.7	
24	1.2	3.1	3.1	1.7	0.6	0.0	0.0	0.7	2.4	2.1	1.2	0.9	1.5	2.0	1.7	3.3	3.0	1.3	0.0	2.1	2.7	1.6	0.0	0.0	1.5	3.3	
25	1.5	2.2	0.3	2.4	3.6	2.2	5.5	5.4	4.8	5.3	11.4	8.4	5.2	3.1	2.5	4.5	4.8	6.6	4.6	1.6	2.4	3.5	2.8	1.5	4.0	11.4	
26	1.2	4.3	2.1	0.3	4.6	4.5	4.4	1.4	2.5	4.9	3.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.3	0.6	1.6	1.6	1.6	4.9	
27	0.3	0.2	3.0	2.3	2.4	0.8	3.6	2.2	3.1	3.1	1.4	1.3	2.1	2.9	1.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	3.6	
28	0.0	2.7	2.0	0.0	0.0	0.0	1.2	0.8	0.0	1.0	3.0	13.9	11.0	6.9	2.4	0.0	0.0	0.3	3.1	2.8	1.6	0.2	0.0	0.8	2.2	13.9	
29	3.1	3.3	2.4	4.3	3.4	1.4	2.6	2.5	2.4	4.5	2.9	2.8	5.0	2.5	2.3	3.8	2.1	1.0	2.3	2.7	2.2	2.1	0.7	0.0	2.6	5.0	
30	1.4	1.7	0.0	2.1	3.9	1.3	0.1	3.1	4.5	4.3	3.9	2.7	2.4	3.4	4.5	3.1	2.5	1.3	1.9	6.0	5.8	4.9	4.7	6.9	3.2	6.9	
31	6.3	6.3	6.0	4.5	3.0	4.2	5.7	5.2	3.1	2.6	2.8	3.8	6.3	4.9	5.5	5.3	2.6	1.7	0.2	0.0	1.2	4.0	4.9	6.1	4.0	6.3	
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	29	29	29	30	30	30	30	30	30	30	30	717	96.6%	
MEAN	2.8	2.9	2.6	2.2	2.3	2.2	2.6	2.6	3.2	3.5	3.4	3.6	3.0	2.2	2.6	2.4	2.1	1.4	1.5	1.7	2.2	3.6	2.2	2.4			
MAX	6.9	7.9	8.2	5.5	7.3	7.6	13.1	10.0	9.3	12.9	16.1	20.6	11.0	8.4	27.3	8.0	8.3	6.6	6.3	6.3	6.2	19.6	10.0	9.0			



Number of 24HR Exceedences	0
Number of Non-Zero Readings	563
Maximum 1-HR Average	27.3 UG/M3
Maximum 24-HR Average	5.9 UG/M3
Monthly Calibration	2
Standard Deviation	2.827
Operational Time	719 HRS
Operational Uptime	96.6 %
Monthly Average	2.5 UG/M3

Lagoon PM₁₀ (µg/m³) – October 2024

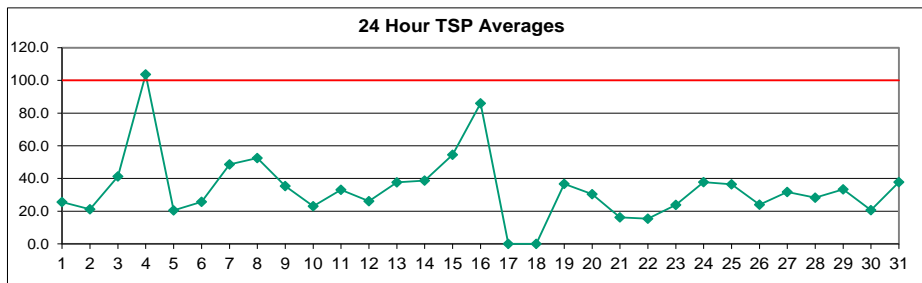
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	24.8	12.0	13.6	13.6	8.8	11.0	10.5	46.4	58.7	43.7	37.8	24.9	4.6	0.8	14.0	9.6	6.3	6.1	5.8	3.4	12.5	12.9	8.1	3.5	16.4	58.7	
2	1.4	15.4	3.1	5.5	12.6	9.1	19.1	27.0	8.4	11.0	10.4	24.0	22.9	28.7	35.3	8.2	8.2	10.0	8.9	15.7	8.2	6.6	4.8	4.4	12.9	35.3	
3	18.0	23.1	13.8	43.4	18.7	15.6	17.0	14.7	24.5	37.9	28.1	31.0	22.3	36.6	33.3	52.1	38.8	36.1	13.4	20.9	9.6	6.4	11.1	8.0	23.9	52.1	
4	16.0	11.7	29.7	44.3	57.2	35.9	16.2	98.9	178.2	197.6	302.5	342.4	154.8	55.6	71.8	56.0	14.9	8.2	13.8	6.9	8.0	43.2	8.7	3.9	74.0	342.4	
5	7.4	4.8	33.3	13.4	8.3	26.7	8.4	7.9	7.8	13.6	33.4	15.6	20.3	19.5	26.6	17.7	11.3	7.2	6.8	4.3	6.1	3.5	3.3	1.7	12.9	33.4	
6	0.2	0.0	1.7	18.7	14.0	43.5	16.0	38.2	23.5	16.5	43.5	28.0	13.6	16.6	21.5	30.0	4.5	4.0	3.1	1.8	5.7	16.3	34.4	33.2	17.9	43.5	
7	16.4	47.6	26.6	18.6	12.3	10.3	6.7	15.4	19.0	14.6	15.4	43.3	25.6	36.9	52.5	80.1	58.6	6.6	13.1	44.1	28.6	76.2	69.6	59.0	33.2	80.1	
8	62.5	25.3	50.8	19.6	19.0	18.3	14.4	31.5	36.4	38.1	73.3	30.9	31.0	102.6	32.6	60.0	45.9	37.6	50.8	18.1	4.6	7.9	41.1	14.7	36.1	102.6	
9	19.8	15.9	10.7	14.4	12.7	14.7	6.9	27.6	29.6	33.4	12.2	13.2	11.3	35.8	52.7	24.0	38.7	13.7	6.4	13.7	18.9	13.8	19.6	6.2	19.4	52.7	
10	15.4	6.7	4.3	17.4	10.9	15.1	15.4	18.5	28.0	33.1	38.5	23.8	19.8	16.8	5.9	31.0	5.4	3.1	8.7	7.9	14.9	7.6	2.1	11.7	15.1	38.5	
11	19.1	13.9	50.1	65.5	36.4	15.1	12.5	18.6	28.6	33.2	40.7	28.3	10.9	8.6	30.3	23.2	5.1	5.2	3.0	13.5	24.2	28.9	19.7	19.8	23.1	65.5	
12	24.3	8.7	8.8	7.4	8.8	13.9	15.8	24.3	28.8	28.0	19.6	22.8	17.8	7.3	13.2	16.7	20.9	12.2	16.8	13.3	9.6	20.1	25.2	25.9	17.1	28.8	
13	14.7	19.6	44.0	16.0	12.3	13.0	8.1	8.0	14.6	0.7	19.5	35.8	21.0	44.3	10.0	44.6	52.6	53.0	17.6	7.6	9.1	4.6	5.9	49.2	21.9	53.0	
14	34.1	27.0	35.7	16.8	53.0	34.1	18.6	7.1	25.8	24.3	28.6	118.0	29.0	14.8	5.9	5.0	5.2	8.8	32.2	5.4	4.7	12.2	12.7	8.2	23.6	118.0	
15	7.6	23.6	34.4	16.3	12.8	12.4	47.8	30.9	43.8	28.0	24.7	25.0	33.5	34.6	35.6	47.6	46.3	22.8	27.9	29.7	50.8	49.8	39.0	48.1	32.2	50.8	
16	51.2	50.3	39.2	39.9	34.5	37.7	23.8	27.0	7.2	37.5	50.2	22.8	43.0	41.4	477.9	91.7	24.6	4.9	14.7	15.7	3.8	1.9	0.0	8.6	47.9	477.9	
17	10.1	26.3	21.8	30.8	49.1	36.4	25.9	47.3	49.9	42.1	20.7	7.7	17.0	16.7	12.4	C	EC	EC	EC	EC	EC	EC	EC	EC	-	-	
18	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	28.9	31.3	46.6	38.4	300.1	64.8	62.6	-	-
19	3.8	11.2	7.3	5.3	3.5	4.4	14.6	19.5	3.3	47.4	10.5	8.3	3.3	1.7	5.5	31.6	49.4	78.9	85.6	29.6	12.8	23.4	27.5	37.1	21.9	85.6	
20	30.7	33.6	63.6	17.2	0.0	4.6	9.2	5.5	1.1	7.7	6.5	3.8	3.1	5.4	5.0	30.7	28.4	18.0	15.2	45.6	25.7	25.2	30.0	44.7	19.2	63.6	
21	37.9	33.2	30.2	20.1	4.4	5.2	21.9	11.2	5.2	2.8	2.1	11.1	10.2	6.2	14.3	13.8	7.7	9.4	3.4	8.1	11.2	5.0	3.2	17.0	12.3	37.9	
22	5.4	5.4	13.6	11.8	10.3	7.6	7.1	8.5	8.8	22.5	26.9	5.8	7.4	8.5	11.6	6.6	5.2	9.8	9.4	7.1	7.3	4.9	5.9	6.2	9.3	26.9	
23	4.9	4.9	3.3	1.2	5.7	3.8	17.9	12.3	33.4	43.5	19.1	6.7	6.8	27.2	16.6	8.5	9.6	6.1	6.1	9.6	36.4	9.9	27.5	1.3	13.4	43.5	
24	7.4	11.8	7.1	16.4	5.1	18.7	14.4	26.9	46.6	26.7	21.4	50.5	49.6	24.9	24.3	41.7	52.1	20.0	21.1	25.0	16.0	12.3	6.3	3.1	22.9	52.1	
25	25.2	10.3	19.7	28.2	18.2	9.5	11.9	15.9	15.0	17.5	42.3	40.2	13.0	9.5	7.1	41.6	45.2	27.6	22.8	13.6	15.1	8.1	12.0	10.4	20.0	45.2	
26	10.4	12.3	12.4	10.5	8.8	14.2	33.4	13.4	34.2	47.0	32.4	13.6	9.8	18.6	11.5	6.7	7.7	6.8	3.4	2.3	3.5	6.4	9.9	16.1	14.4	47.0	
27	17.1	11.2	19.0	3.4	18.4	8.5	39.3	32.4	77.1	17.9	7.8	18.9	18.2	51.2	60.8	11.0	6.4	0.8	0.8	3.1	9.4	5.6	1.4	5.3	18.5	77.1	
28	8.7	16.4	6.9	29.6	8.6	22.9	37.6	18.3	12.5	17.0	25.2	27.5	34.3	5.7	6.0	2.7	3.9	6.1	16.3	18.5	0.0	15.1	0.0	9.1	14.5	37.6	
29	19.6	16.4	10.3	11.0	6.8	8.7	9.2	15.6	24.2	15.3	6.7	18.0	37.7	45.6	77.9	59.6	32.4	37.3	11.6	7.2	4.8	10.8	6.6	6.6	20.8	77.9	
30	10.7	9.8	10.4	10.4	7.8	6.5	7.1	20.4	27.2	44.4	23.7	22.8	15.0	16.7	14.2	13.3	10.4	8.2	15.4	7.2	6.9	6.5	18.4	14.1	14.5	44.4	
31	6.3	6.3	10.8	8.0	14.5	21.2	25.9	14.0	26.6	21.2	14.8	17.1	29.1	28.2	53.4	50.6	53.4	27.2	9.7	18.4	14.4	16.6	10.9	16.3	21.4	53.4	
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	718	96.6%
MEAN	17.7	17.2	21.2	19.1	16.5	16.6	17.8	23.4	30.9	32.1	34.6	36.1	24.5	25.6	41.3	31.6	24.1	17.5	16.5	15.5	14.0	25.4	17.7	18.5			
MAX	62.5	50.3	63.6	65.5	57.2	43.5	47.8	98.9	178.2	197.6	302.5	342.4	154.8	102.6	477.9	91.7	58.6	78.9	85.6	46.6	50.8	300.1	69.6	62.6			



Number of Non-Zero Readings	713		
Maximum 1-HR Average	477.9 UG/M3		
Maximum 24-HR Average	74.0 UG/M3		
Monthly Calibration	1	Operational Time	719 HRS
Standard Deviation	32.14	Operational Uptime	96.6 %
		Monthly Average	23.1 UG/M3

Lagoon TSP ($\mu\text{g}/\text{m}^3$) – October 2024

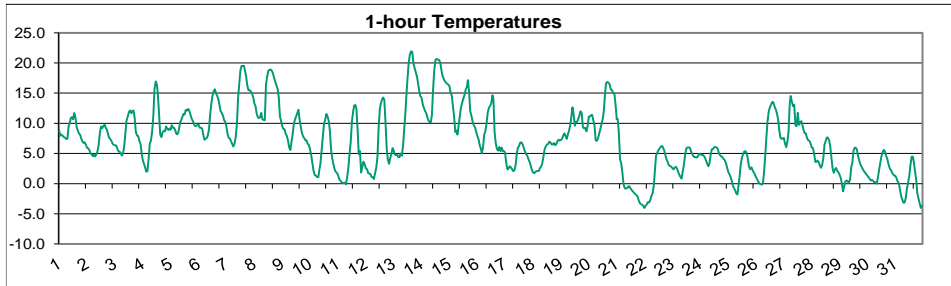
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	40.4	30.7	23.2	21.6	13.3	18.5	15.2	65.5	87.2	52.2	44.3	40.2	13.9	10.8	21.9	12.4	8.2	5.3	6.5	7.4	20.1	21.1	25.7	8.0	25.6	87.2	
2	24.1	19.5	12.1	19.8	22.6	11.9	26.5	48.6	9.7	20.1	21.3	40.8	40.8	23.7	58.4	9.8	16.0	16.4	19.5	19.9	6.5	8.6	6.0	7.2	21.2	58.4	
3	33.5	X	29.3	74.4	36.0	12.0	29.4	28.4	40.5	69.2	53.3	47.8	43.4	52.1	60.8	72.3	45.4	47.5	18.3	64.4	29.4	18.4	23.9	18.4	41.2	74.4	
4	20.7	20.1	44.6	48.3	77.5	40.3	24.0	161.8	282.4	298.5	437.3	425.0	184.7	70.5	91.5	77.6	16.2	11.4	25.3	14.1	24.5	60.1	17.9	12.3	103.6	437.3	
5	32.5	X	41.8	23.6	18.0	29.7	16.7	10.2	12.9	21.0	42.5	22.4	31.0	35.1	37.5	29.8	22.7	5.8	8.2	7.8	8.4	4.7	4.1	6.0	20.5	42.5	
6	7.5	6.8	6.9	20.7	21.6	51.7	17.8	61.2	27.1	22.3	74.3	38.4	20.1	21.7	21.9	33.5	10.7	6.3	6.5	8.7	8.7	24.5	48.6	49.0	25.7	74.3	
7	35.6	X	41.0	31.2	20.3	22.4	14.4	21.7	35.1	21.1	26.0	53.9	40.1	67.1	78.3	110.1	81.3	15.1	24.5	68.0	45.0	100.2	99.4	67.8	48.7	110.1	
8	87.8	X	66.4	23.2	22.8	27.4	16.6	39.9	50.8	52.2	104.4	52.1	36.3	127.2	48.9	101.3	82.3	48.1	68.6	36.6	11.0	9.8	61.3	31.9	52.5	127.2	
9	36.7	26.4	26.7	26.2	28.4	29.6	27.2	54.1	57.9	57.5	22.2	20.0	17.4	67.7	90.9	47.2	59.1	31.6	18.4	17.9	18.4	22.1	22.8	24.0	35.4	90.9	
10	11.2	10.6	15.3	14.5	18.4	22.4	17.4	18.6	39.1	37.4	46.6	28.3	35.9	26.2	11.0	49.5	19.0	15.6	16.4	18.1	24.4	20.2	15.5	20.3	23.0	49.5	
11	39.0	17.6	68.1	85.6	47.7	16.4	19.0	18.4	25.3	42.1	66.4	43.0	20.5	14.0	37.7	25.3	9.7	7.9	18.1	23.4	40.9	47.6	27.7	33.5	33.1	85.6	
12	32.0	25.5	14.5	14.1	22.2	21.5	18.5	32.8	29.6	35.9	21.7	41.6	28.7	15.6	25.6	23.5	27.1	22.4	13.6	23.5	24.5	30.7	40.5	40.5	26.1	41.6	
13	15.7	33.4	66.5	28.4	27.0	14.3	17.3	15.2	9.0	9.7	26.8	62.2	44.5	81.9	24.1	83.0	87.1	91.7	25.0	13.8	17.7	9.7	22.7	77.2	37.7	91.7	
14	57.0	53.3	71.3	36.9	88.4	59.2	35.7	22.6	36.6	41.8	42.7	169.6	35.3	15.3	16.0	11.7	12.3	20.6	29.1	6.9	16.3	16.7	23.1	10.3	38.7	169.6	
15	16.5	34.0	51.1	26.7	32.5	26.6	86.8	52.5	66.9	47.9	53.4	38.0	48.1	46.2	57.8	78.4	97.2	46.9	55.5	46.5	91.9	86.4	60.8	58.8	54.5	97.2	
16	72.4	75.7	52.6	50.9	61.6	57.6	56.4	35.3	20.8	65.8	83.2	39.0	75.8	75.4	996.6	154.6	25.3	6.0	10.1	26.9	0.1	3.3	8.2	8.6	85.9	996.6	
17	16.8	33.0	30.6	32.1	69.7	52.8	45.9	63.4	69.1	55.2	39.0	8.4	28.1	23.6	14.3	C	EC	EC	EC	EC	EC	EC	EC	EC	EC	-	-
18	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	44.9	37.3	68.8	35.2	317.3	63.6	65.4	-	-
19	11.2	X	6.7	9.7	8.9	7.1	17.1	28.3	17.3	73.5	19.0	15.7	7.7	6.9	5.7	57.3	82.5	136.1	150.4	46.6	31.1	28.7	34.4	44.2	36.8	150.4	
20	35.0	40.4	84.2	27.9	2.9	18.1	21.2	10.5	10.2	7.5	9.7	11.7	13.2	7.0	15.9	61.7	46.8	19.4	24.2	60.1	49.0	30.7	50.0	72.3	30.4	84.2	
21	57.4	X	41.2	31.1	7.6	18.1	30.1	15.6	0.0	11.4	14.7	8.6	19.7	14.3	14.3	20.6	6.4	5.8	8.0	9.2	11.0	12.4	8.7	8.5	16.3	57.4	
22	12.3	20.0	16.7	20.2	17.8	17.3	17.3	11.3	23.1	19.2	33.3	12.2	10.0	14.9	9.9	9.9	10.9	7.6	17.5	15.0	15.8	15.7	13.4	8.5	15.4	33.3	
23	8.1	X	5.4	17.0	10.2	6.4	33.1	25.5	45.7	69.5	24.4	15.8	15.2	38.7	32.4	13.7	10.4	6.1	17.6	24.4	56.2	15.7	42.1	14.5	23.8	69.5	
24	16.1	32.4	19.5	14.6	28.6	25.4	23.0	55.4	66.4	45.5	39.3	69.0	82.5	34.7	33.8	69.4	77.5	22.8	28.3	51.1	28.1	19.4	18.7	4.4	37.7	82.5	
25	45.5	15.6	30.8	50.4	31.7	18.0	18.2	33.4	18.4	61.1	53.0	73.8	29.4	9.3	27.3	72.5	84.7	49.0	44.6	26.1	23.4	13.0	21.5	23.6	36.4	84.7	
26	16.4	30.4	14.0	14.8	14.5	16.1	52.2	17.3	44.1	80.0	46.1	24.9	22.6	37.6	19.9	8.2	14.7	8.5	6.8	7.8	15.4	10.6	21.1	33.2	24.0	80.0	
27	24.5	25.0	35.9	15.1	26.6	22.6	71.2	51.7	122.4	26.3	16.0	21.1	25.6	78.6	95.1	30.2	8.9	5.5	8.5	11.9	7.5	6.5	9.2	15.5	31.7	122.4	
28	18.9	36.7	19.2	67.7	15.0	21.8	55.4	31.2	20.7	34.8	41.8	48.9	65.1	14.3	22.2	9.9	8.2	9.6	32.8	28.9	23.2	18.0	15.5	19.4	28.3	67.7	
29	31.1	30.6	22.1	17.0	13.8	20.5	13.5	26.7	43.9	25.6	19.8	24.1	59.2	69.1	124.9	96.6	44.1	68.1	20.7	3.5	7.7	9.4	5.0	4.1	33.4	124.9	
30	11.2	17.7	9.5	18.5	14.9	1.4	23.5	28.4	43.4	71.1	28.1	31.9	20.8	29.3	15.3	18.0	11.4	12.7	17.0	13.7	11.9	11.7	17.0	17.5	20.7	71.1	
31	18.2	X	9.4	12.3	20.1	38.6	48.2	38.2	27.8	22.2	24.7	36.1	49.4	33.7	82.5	87.7	94.2	53.7	26.8	26.8	24.5	31.8	29.8	31.3	37.7	94.2	
NO.	30	22	30	30	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	710	95.6%
MEAN	29.5	28.9	32.5	29.8	28.0	24.9	30.3	37.5	46.1	49.9	52.5	52.1	38.8	38.8	73.1	50.9	38.6	28.3	26.8	26.6	24.3	34.2	28.6	27.9			
MAX	87.8	75.7	84.2	85.6	88.4	59.2	86.8	161.8	282.4	298.5	437.3	425.0	184.7	127.2	996.6	154.6	97.2	136.1	150.4	68.8	91.9	317.3	99.4	77.2			



Number of 24HR Exceedences	1
Number of Non-Zero Readings	709
Maximum 1-HR Average	996.6 UG/M3
Maximum 24-HR Average	103.6 UG/M3
Monthly Calibration	1
Standard Deviation	51.9
Operational time	711 HRS
Operational Uptime	95.6 %
Monthly Average	36.7 UG/M3

Lagoon Temperature (°C) – October 2024

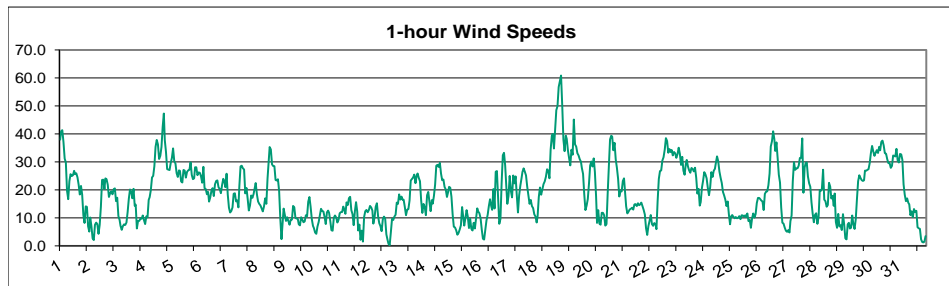
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	8.8	7.9	8.2	7.9	7.7	7.6	7.4	7.4	9.5	10.1	10.9	11.0	10.7	11.7	10.9	9.4	8.8	8.3	8.1	7.4	6.9	6.8	6.9	6.5	8.6	11.7
2	5.9	5.9	5.5	5.0	4.8	4.5	4.9	4.5	4.8	5.4	6.4	8.4	9.5	9.2	9.6	9.8	9.2	8.9	8.3	7.6	7.4	7.1	6.6	6.4	6.9	9.8
3	6.3	6.3	5.8	5.3	5.3	5.1	4.6	5.0	6.2	8.4	10.5	11.1	11.9	12.1	11.7	12.0	12.2	11.0	8.6	8.0	7.9	7.1	6.6	4.8	8.1	12.2
4	3.8	3.2	2.7	2.0	2.0	4.1	6.6	7.1	8.6	11.2	15.7	16.9	16.5	14.9	11.7	8.1	7.7	8.5	8.7	8.7	9.5	9.1	8.9	9.1	8.6	16.9
5	8.9	9.7	9.3	9.2	8.8	8.2	8.2	8.9	10.1	10.6	11.0	11.5	11.4	12.2	12.1	12.4	12.1	11.4	10.8	10.4	9.8	9.5	9.6	9.7	10.2	12.4
6	9.8	9.3	9.3	9.1	8.1	7.3	7.4	7.5	8.0	8.9	11.4	13.2	14.6	15.3	15.6	15.0	14.6	13.9	13.2	12.0	11.7	11.3	10.5	10.3	11.1	15.6
7	9.4	8.2	7.6	7.5	7.0	6.6	6.2	6.6	7.7	9.8	14.1	16.5	18.8	19.5	19.5	19.5	18.8	17.8	16.3	15.5	15.5	15.3	15.0	14.3	13.0	19.5
8	13.3	12.8	11.7	11.1	10.8	11.0	11.7	10.7	10.6	10.5	16.4	17.7	18.7	18.8	18.9	18.7	18.3	17.6	16.9	16.3	15.8	14.3	11.1	10.3	14.3	18.9
9	9.6	9.1	9.0	8.3	7.9	7.2	6.0	5.6	7.0	8.3	9.7	10.6	11.1	11.6	12.3	10.6	9.4	8.4	7.8	7.5	7.1	7.2	6.6	6.5	8.5	12.3
10	5.7	4.7	3.4	2.1	1.4	1.3	1.1	1.1	2.1	3.3	5.4	7.7	9.8	10.6	11.6	11.2	10.4	8.8	5.7	4.4	3.4	2.5	2.0	1.8	5.1	11.6
11	1.5	0.8	0.5	0.3	0.1	0.1	0.2	-0.1	1.1	2.6	4.9	6.9	10.3	11.9	13.0	13.0	12.4	9.0	4.9	5.4	1.8	2.8	3.6	3.2	4.6	13.0
12	2.5	2.4	1.7	1.7	1.6	1.1	1.0	0.8	1.7	2.6	4.4	9.3	12.4	13.3	13.9	14.3	13.9	10.2	5.9	4.0	3.3	4.2	5.0	5.9	5.7	14.3
13	5.5	4.8	4.7	4.9	4.4	4.4	5.0	4.6	6.2	9.0	11.7	14.4	17.4	20.0	21.4	21.9	21.9	19.9	19.2	18.5	17.7	16.8	15.5	14.5	12.7	21.9
14	14.3	13.2	12.6	12.0	11.7	11.0	10.4	10.2	10.1	11.3	15.6	18.7	20.5	20.7	20.6	20.5	20.1	18.9	17.9	17.4	17.0	16.8	16.6	16.4	15.6	20.7
15	16.2	15.1	14.6	12.8	11.1	8.6	8.8	8.1	9.6	11.2	12.7	13.4	14.1	14.7	15.6	16.0	17.2	15.4	12.0	11.2	10.3	9.6	9.4	8.6	12.3	17.2
16	7.9	7.4	6.4	5.9	5.1	6.1	8.1	8.7	10.0	11.8	12.6	12.9	13.3	14.6	14.0	8.5	6.6	5.7	5.5	6.1	5.4	6.0	5.4	5.4	8.3	14.6
17	5.2	3.5	2.3	2.5	2.9	2.7	2.4	2.1	2.2	3.1	5.0	5.9	6.2	6.8	6.9	6.5	6.0	5.3	4.9	4.7	4.0	3.6	3.0	2.4	4.2	6.9
18	1.9	1.7	1.9	2.1	2.1	2.1	2.6	2.9	3.3	4.4	5.7	6.2	6.5	6.5	7.0	6.8	6.5	6.5	6.8	6.4	6.5	7.0	7.3	7.1	4.9	7.3
19	7.2	7.4	8.0	8.3	7.9	7.4	8.1	8.7	9.5	11.0	12.6	11.4	9.6	10.2	10.3	10.8	11.3	12.0	11.7	9.4	9.1	9.2	8.7	9.5	9.6	12.6
20	11.1	11.1	11.4	11.4	10.5	9.7	7.2	7.1	7.5	8.3	9.1	9.9	10.8	12.2	14.7	16.6	16.9	16.7	16.5	15.6	15.5	15.0	15.0	13.1	12.2	16.9
21	10.7	10.7	8.4	4.0	3.4	1.8	-0.1	-0.8	-0.8	-0.8	-0.5	-0.4	-0.8	-1.0	-1.3	-1.5	-1.7	-1.9	-2.1	-2.8	-3.3	-3.4	-3.5	-3.7	0.4	10.7
22	-4.0	-3.6	-3.4	-3.0	-3.1	-2.7	-2.0	-1.6	-0.2	2.0	4.6	5.1	5.5	5.8	6.1	6.3	6.0	5.5	4.6	4.1	3.6	3.1	2.9	2.8	1.8	6.3
23	2.6	2.4	2.7	2.8	2.5	1.9	1.5	1.1	0.8	2.0	3.2	4.8	5.8	6.0	6.0	6.0	5.3	5.0	4.6	4.4	4.4	4.3	4.5	4.9	3.7	6.0
24	4.9	4.7	4.8	4.6	4.4	3.9	3.3	2.9	3.4	4.8	5.7	5.7	6.1	6.1	6.0	5.9	5.2	4.7	4.5	4.4	4.1	3.9	3.5	2.7	4.6	6.1
25	2.0	1.7	1.3	0.6	-0.2	-0.7	-1.1	-1.6	-1.8	-0.2	1.5	3.1	4.3	4.9	5.3	5.4	5.1	4.1	2.8	2.4	2.7	2.3	1.9	1.6	2.0	5.4
26	1.1	0.7	0.3	0.0	-0.1	-0.2	0.1	2.1	4.9	7.5	10.2	11.9	12.6	13.1	13.5	13.5	12.8	12.3	11.6	10.6	9.1	7.7	7.4	7.5	7.1	13.5
27	7.6	6.6	6.0	6.9	8.5	13.2	14.5	13.6	12.8	13.1	9.7	9.5	11.7	9.7	10.1	10.4	9.6	8.9	8.4	8.3	7.6	7.2	7.1	6.7	9.5	14.5
28	6.0	5.9	5.0	3.6	3.6	3.8	3.6	3.0	2.6	3.1	4.3	6.5	7.1	7.7	7.6	7.2	6.3	4.4	2.6	1.8	2.4	2.6	2.1	1.9	4.4	7.7
29	1.4	1.0	0.1	-1.3	-0.5	0.4	0.5	0.4	0.2	0.7	2.8	3.5	5.4	5.9	6.0	5.6	4.5	3.8	3.1	2.8	2.4	2.1	1.8	1.6	2.3	6.0
30	1.3	1.1	0.8	0.5	0.6	0.4	0.2	0.3	0.0	0.9	2.1	3.3	4.5	5.2	5.6	5.3	4.6	4.1	3.3	2.6	2.3	2.0	1.6	1.3	2.2	5.6
31	1.3	0.9	0.3	0.1	-1.0	-2.1	-2.7	-3.2	-3.2	-2.4	-0.9	0.2	1.2	3.1	4.5	4.5	3.4	2.1	0.8	-1.6	-2.4	-3.3	-4.1	-3.7	-0.3	4.5
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%
MEAN	6.1	5.7	5.3	4.8	4.5	4.4	4.4	4.3	5.0	6.2	8.0	9.3	10.2	10.8	11.0	10.6	10.2	9.3	8.2	7.5	7.1	6.8	6.4	6.1		
MAX	16.2	15.1	14.6	12.8	11.7	13.2	14.5	13.6	12.8	13.1	16.4	18.7	20.5	20.7	21.4	21.9	21.9	19.9	19.2	18.5	17.7	16.8	16.6	16.4		



Number of Non-Zero Readings	744
Maximum 1-HR Average	21.9 C
Maximum 24-HR Average	15.6 C
Operational Time	744 HRS
Monthly Calibration	0
Operational Uptime	100.0 %
Standard Deviation	5.265
Monthly Average	7.2 C

Lagoon Wind Speed (km/hr) – October 2024

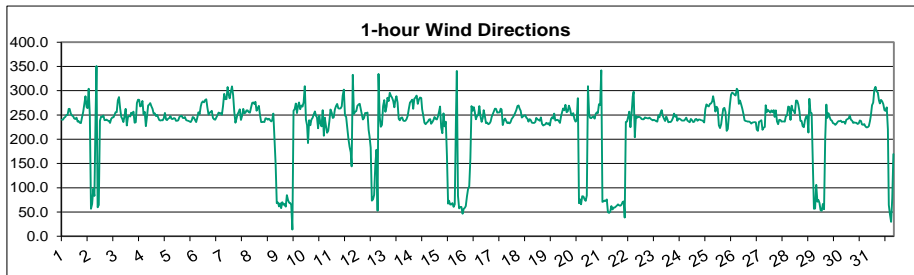
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	37.9	41.0	41.3	37.0	31.2	29.8	19.7	16.7	23.2	25.6	24.9	25.3	26.8	25.5	25.9	24.5	21.9	18.4	21.4	18.3	11.0	8.2	14.1	14.0	24.3	41.3	
2	7.0	5.1	10.1	7.1	2.7	2.1	7.5	8.3	7.8	4.3	7.5	14.0	23.5	23.7	20.3	24.1	23.8	21.9	17.5	18.8	19.5	18.5	20.3	20.6	14.0	24.1	
3	16.0	17.3	10.6	9.3	7.2	5.7	7.1	7.7	7.5	8.4	12.1	16.9	20.2	19.3	17.0	20.4	14.3	14.8	6.2	8.9	8.9	9.8	9.7	10.9	11.9	20.4	
4	9.2	7.8	10.5	10.2	16.4	17.4	19.9	24.5	25.0	28.5	35.4	37.9	36.3	31.0	32.2	35.3	42.5	47.3	37.8	33.6	27.4	27.2	27.1	29.6	27.1	47.3	
5	31.4	34.9	30.2	29.4	25.9	24.6	27.0	26.8	23.0	22.6	27.2	26.9	24.4	26.4	27.0	27.2	29.8	25.3	23.8	24.1	28.1	28.1	25.3	26.3	26.9	34.9	
6	26.1	24.9	22.6	28.3	20.6	20.3	18.4	19.3	15.8	17.3	19.7	20.7	17.8	22.0	23.2	23.4	21.0	20.3	18.8	21.7	24.0	23.2	21.0	25.8	21.5	28.3	
7	18.4	13.6	11.9	12.5	13.7	18.7	18.8	15.9	16.3	13.7	21.5	28.4	28.7	27.7	27.3	18.7	20.8	16.9	12.6	14.5	18.0	17.1	18.5	20.3	18.5	28.7	
8	22.5	18.5	15.9	15.0	14.5	13.5	12.3	14.1	17.0	15.0	24.1	30.4	35.4	34.5	29.2	28.5	28.5	23.5	23.3	23.8	19.6	9.7	2.4	8.5	20.0	35.4	
9	13.4	11.1	8.9	10.2	8.9	7.5	9.4	9.4	14.3	13.8	10.0	9.8	9.6	7.7	7.3	10.3	9.4	8.4	8.7	11.0	10.6	15.8	17.5	14.0	10.7	17.5	
10	9.6	7.2	6.3	4.8	4.3	6.9	8.5	10.8	13.2	12.5	12.3	10.4	7.8	12.0	12.6	11.8	9.0	5.6	5.4	10.0	10.9	10.2	8.4	9.3	9.2	13.2	
11	11.7	12.0	12.1	14.0	13.0	11.4	15.5	14.6	17.1	17.6	12.8	11.4	7.4	12.3	15.7	12.3	5.5	7.6	2.1	5.5	1.5	10.3	12.4	12.9	11.2	17.6	
12	12.0	12.8	14.3	13.8	12.7	7.9	10.1	14.0	15.2	10.7	8.1	7.1	5.2	9.4	10.5	9.8	4.2	2.1	0.7	0.2	4.9	9.7	9.2	10.5	9.0	15.2	
13	11.1	15.5	15.0	18.4	16.5	17.6	16.5	16.5	13.9	11.0	12.9	13.1	16.2	23.3	23.9	24.5	25.5	22.4	25.0	25.9	24.3	23.1	16.3	11.8	18.3	25.9	
14	15.0	13.9	10.9	18.1	19.3	15.7	12.4	16.3	15.1	17.8	21.9	28.7	28.9	28.2	29.7	25.8	23.4	23.8	21.1	20.2	17.5	18.9	21.1	20.8	20.2	29.7	
15	17.6	11.3	6.8	6.6	5.6	4.0	4.6	5.9	7.4	13.9	10.9	7.2	10.0	12.8	10.5	6.3	9.7	6.2	5.5	8.2	6.2	9.8	13.4	12.3	8.9	17.6	
16	11.7	9.9	5.9	2.6	2.2	5.7	9.2	11.2	14.2	16.7	14.2	12.8	20.3	13.3	26.5	26.8	17.3	7.9	9.6	22.5	32.4	33.2	28.7	20.8	15.7	33.2	
17	15.0	17.8	25.0	19.7	17.3	25.2	22.3	24.8	18.1	11.9	18.1	21.5	24.2	26.5	27.7	26.5	25.2	21.2	18.1	15.0	16.5	14.2	13.5	11.3	19.9	27.7	
18	10.5	8.4	10.6	17.5	20.9	18.3	20.2	22.1	23.0	24.7	27.4	26.8	24.2	34.4	39.3	40.0	34.8	41.6	48.5	50.0	56.8	58.9	60.9	50.2	32.1	60.9	
19	38.0	33.8	39.4	38.3	34.2	31.3	28.7	34.4	32.6	45.2	36.3	35.5	33.1	32.3	31.0	30.1	27.8	25.8	18.5	12.8	14.4	16.8	22.3	28.8	30.1	45.2	
20	30.1	28.3	31.3	26.4	17.7	8.2	12.8	7.9	7.6	11.8	11.8	11.0	7.2	7.8	18.7	28.5	38.0	39.4	39.1	34.2	36.9	30.9	27.9	24.0	22.4	39.4	
21	17.6	19.6	19.4	23.2	24.2	18.6	14.2	11.6	12.2	13.0	13.3	13.7	13.0	14.9	14.9	14.2	15.2	14.5	14.9	15.5	14.2	12.9	11.2	6.4	15.1	24.2	
22	3.9	7.0	9.0	11.0	7.8	7.2	8.2	7.7	5.9	16.0	23.9	26.7	26.9	30.5	31.7	34.4	38.5	37.5	33.2	34.6	33.5	34.3	32.3	33.6	22.3	38.5	
23	33.1	31.4	32.8	35.1	32.9	28.9	31.8	26.9	25.4	29.2	30.7	28.4	27.0	26.1	27.9	27.5	26.6	28.0	24.4	18.6	20.4	14.4	15.6	20.7	26.8	35.1	
24	23.3	26.4	25.6	24.2	20.7	18.1	20.9	26.4	24.6	26.8	27.6	29.6	32.0	30.3	26.6	24.4	22.4	19.3	18.0	16.6	14.2	15.8	11.3	7.7	22.2	32.0	
25	10.4	11.0	10.4	9.9	10.3	9.8	10.0	10.6	9.5	11.0	10.9	10.4	10.9	10.2	11.6	8.8	9.4	6.5	9.9	11.6	10.1	11.4	15.4	17.1	10.7	17.1	
26	17.1	16.7	16.2	15.9	12.8	18.6	19.4	19.5	10.6	9.7	25.9	35.5	37.4	40.9	38.2	33.9	37.0	31.3	25.4	22.7	13.7	8.3	8.0	6.5	5.4	22.0	40.9
27	5.0	5.7	4.7	8.9	10.9	23.1	29.9	27.1	27.7	27.7	28.7	31.4	31.4	38.4	19.0	27.9	29.5	29.8	24.8	22.4	21.1	15.6	11.5	8.4	21.3	38.4	
28	11.1	11.7	7.9	10.4	20.0	19.6	20.4	27.3	16.5	16.0	13.9	14.6	22.6	21.2	16.9	17.9	14.3	18.7	8.5	6.5	11.5	6.9	7.4	5.7	14.5	27.3	
29	11.3	7.7	2.7	2.3	7.7	8.3	6.2	6.4	10.9	7.7	6.1	9.6	16.7	23.1	25.2	24.3	23.5	23.2	23.4	26.9	26.8	27.1	27.4	29.6	16.0	29.6	
30	33.2	35.7	33.8	32.2	33.3	34.3	33.2	35.4	34.1	37.2	37.6	35.9	33.1	33.0	31.0	29.5	29.6	27.8	28.6	32.3	32.1	31.9	34.7	30.5	32.9	37.6	
31	29.8	32.8	32.7	30.7	22.0	18.3	16.0	17.0	15.4	14.8	11.0	12.4	10.2	13.2	12.1	12.5	6.7	6.3	6.1	2.3	1.3	1.2	1.5	3.5	13.7	32.8	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%
MEAN	18.1	17.8	17.3	17.5	16.4	16.0	16.5	17.3	17.1	18.3	19.6	20.8	21.7	22.9	22.8	23.0	21.9	20.6	18.7	18.7	18.8	18.5	18.2	17.8			
MAX	38.0	41.0	41.3	38.3	34.2	34.3	33.2	35.4	34.1	45.2	37.6	37.9	40.9	38.4	39.3	40.0	42.5	47.3	48.5	50.0	56.8	58.9	60.9	50.2			



Number of Non-Zero Readings	744	Operational Time	744 HRS
Maximum 1-HR Average	60.9 KM/HR	Operational Uptime	100.0 %
Maximum 24-HR Average	32.9 KM/HR	Monthly Average	19.0 KM/HR
Monthly Calibration	0		
Standard Deviation	10.01		

Lagoon Wind Direction (°) – October 2024

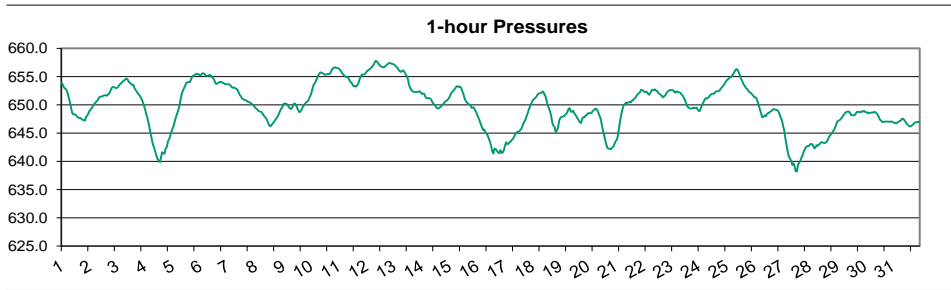
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	240.0	240.3	244.0	245.8	249.7	249.8	262.7	262.5	252.8	249.2	247.8	242.9	241.6	244.7	236.2	237.4	234.0	233.3	244.9	255.9	272.2	288.5	266.4	264.2	247.1	288.5
2	304.1	248.8	56.8	67.0	97.9	83.3	247.2	350.9	59.7	64.7	237.9	246.9	246.1	248.9	239.4	239.3	240.5	238.6	237.9	233.7	241.9	245.0	249.5	245.5	350.9	
3	255.7	255.6	280.5	287.0	263.5	245.7	242.4	235.3	247.7	262.6	228.3	246.1	248.2	246.9	254.6	252.0	257.0	234.0	235.0	274.8	281.8	281.4	267.5	268.9	255.2	287.0
4	278.8	251.3	256.7	226.8	247.4	269.6	270.9	274.6	267.9	262.6	252.4	253.4	247.5	250.2	245.5	239.8	238.4	239.3	238.8	243.3	254.1	240.6	239.5	242.2	249.2	278.8
5	243.5	247.5	242.1	241.5	243.8	242.9	238.1	238.1	238.8	245.7	247.7	248.6	243.5	243.9	245.9	239.7	238.3	238.0	236.5	235.4	239.3	245.9	244.5	239.8	242.1	248.6
6	235.5	244.4	255.7	251.6	267.6	275.0	278.2	275.9	280.6	282.7	265.1	250.8	255.1	255.5	258.7	244.3	241.1	240.4	245.1	250.1	255.0	252.9	254.0	250.5	255.7	282.7
7	268.5	293.4	282.4	282.5	307.9	293.0	284.4	297.5	309.1	291.0	256.5	234.0	243.3	251.3	255.9	261.8	239.6	248.1	262.6	253.4	254.6	259.8	259.6	255.5	264.7	309.1
8	254.7	265.5	274.9	275.9	272.3	277.4	258.9	264.2	268.9	249.8	235.3	235.4	236.1	235.2	243.4	242.7	240.3	242.3	239.2	236.7	239.1	253.1	201.5	148.8	246.6	277.4
9	68.0	70.0	61.6	68.1	57.9	70.4	65.2	66.7	61.0	85.0	74.7	69.2	69.0	64.4	13.9	258.7	262.4	273.7	253.9	269.9	276.0	261.9	269.6	266.9	29.5	276.0
10	276.5	309.6	240.5	228.5	192.0	239.3	228.7	240.5	244.0	251.3	257.5	248.1	244.9	222.7	248.6	232.8	226.4	259.9	207.3	244.6	228.3	213.1	217.2	237.2	240.0	309.6
11	261.2	255.3	243.8	245.0	261.4	268.2	272.7	263.6	263.3	263.6	268.0	289.8	302.4	249.1	246.4	223.4	201.1	184.5	173.0	144.0	332.7	252.3	256.6	257.8	255.1	332.7
12	268.9	271.5	273.3	263.9	252.1	240.6	243.7	254.4	253.7	255.3	218.8	205.8	182.4	73.4	76.0	85.5	146.1	178.4	52.8	334.6	248.2	225.5	229.6	268.4	246.1	334.6
13	280.7	256.5	267.3	285.5	278.4	295.7	289.8	285.7	278.8	265.7	280.1	288.8	275.4	242.0	238.8	244.0	245.2	238.6	237.7	238.1	241.3	248.1	262.8	275.5	259.9	295.7
14	278.7	281.5	262.5	283.4	285.9	289.9	272.8	282.0	286.2	285.2	261.9	248.6	233.9	230.9	234.1	236.0	240.7	241.6	231.8	235.1	239.1	246.0	242.1	240.6	252.9	289.9
15	247.3	257.8	267.6	224.5	212.3	253.4	226.7	236.3	165.3	67.1	73.5	65.5	65.3	68.7	60.4	65.9	236.6	340.9	83.4	57.7	60.8	60.8	46.3	56.5	64.5	340.9
16	59.0	62.2	81.9	97.5	103.1	160.3	268.2	258.7	266.0	256.8	241.1	248.0	249.6	268.3	247.7	235.6	243.9	260.2	248.3	233.3	234.4	230.9	232.1	236.4	241.9	268.3
17	246.2	251.1	257.1	263.3	262.5	254.8	255.4	255.3	263.2	261.5	229.1	238.4	242.7	237.7	233.1	234.9	232.7	235.5	241.9	245.0	248.8	254.2	260.2	268.2	247.4	268.2
18	269.6	263.7	258.9	244.7	246.7	248.9	249.6	244.3	242.9	236.1	241.6	239.3	233.9	233.7	233.6	235.9	244.2	240.5	240.3	237.8	245.0	231.6	228.3	229.4	239.0	269.6
19	230.6	234.2	231.3	233.0	228.2	241.4	245.4	242.5	252.9	238.5	239.6	240.3	237.6	233.6	247.7	257.1	263.6	259.4	271.2	255.6	257.3	269.4	262.8	250.8	244.1	271.2
20	249.1	253.9	241.6	236.2	239.6	284.6	68.3	75.9	66.1	82.8	82.1	76.4	73.1	83.9	309.6	252.1	244.1	243.4	245.9	246.6	242.3	252.4	255.7	254.0	248.2	309.6
21	272.4	270.6	342.1	70.7	71.9	73.7	72.5	76.2	49.4	48.1	50.6	62.3	55.3	59.3	59.5	60.9	63.3	66.1	63.9	62.8	65.2	70.6	72.2	38.6	56.2	342.1
22	235.7	236.4	245.9	256.9	224.9	253.1	288.2	297.8	204.0	248.1	244.0	246.9	245.7	244.4	241.6	241.2	241.1	245.0	244.3	243.3	243.0	244.7	242.0	240.7	244.4	297.8
23	239.0	240.1	239.0	236.9	236.4	249.3	244.9	254.1	260.1	248.2	242.2	237.7	246.8	241.1	234.7	235.7	235.4	238.2	243.6	253.0	246.4	249.5	237.9	242.9	242.6	260.1
24	242.5	240.7	238.2	238.5	238.2	241.3	244.6	238.4	236.6	235.1	241.8	239.4	235.4	236.0	241.2	242.0	238.1	240.7	240.5	239.3	238.9	236.9	234.5	261.6	243.6	261.6
25	271.8	268.9	267.5	272.8	273.7	278.3	288.5	275.5	257.0	267.0	263.2	228.6	222.8	230.9	246.0	262.8	264.8	255.9	217.2	221.4	250.6	271.0	291.8	296.0	261.8	296.0
26	294.5	291.9	290.1	304.0	300.3	273.0	279.8	272.0	263.3	252.3	238.9	237.6	237.1	236.2	236.8	235.3	232.2	234.3	234.8	235.5	234.7	219.7	217.4	236.4	249.9	304.0
27	237.3	239.4	219.6	223.8	225.0	270.3	256.0	260.6	257.9	254.6	259.5	255.8	260.1	245.9	259.4	237.2	231.0	240.1	239.8	236.0	236.8	236.7	236.1	248.0	247.8	270.3
28	248.9	267.4	266.1	239.6	269.3	260.5	258.7	253.2	280.0	279.6	271.7	256.9	237.9	238.1	227.1	224.9	239.3	246.6	248.6	213.9	283.5	254.7	253.7	153.9	252.1	283.5
29	56.5	57.3	106.0	71.1	75.3	69.0	53.6	52.8	66.8	55.7	199.9	271.6	243.8	253.7	246.4	239.8	238.5	233.2	232.4	229.7	231.5	235.0	237.6	237.3	236.7	271.6
30	238.6	235.0	236.3	235.6	231.8	240.2	241.3	242.9	249.1	240.3	238.3	233.5	235.0	233.8	234.2	231.2	232.5	238.7	237.5	230.5	229.6	231.5	226.5	224.3	235.5	249.1
31	224.7	229.6	237.7	249.5	270.4	275.3	302.2	308.1	298.3	296.5	280.4	273.7	281.4	278.1	272.5	259.9	258.3	265.6	220.3	64.4	45.2	29.9	78.4	169.5	262.0	308.1
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%
MEAN	238.0	238.3	234.5	224.2	225.4	234.5	235.5	239.9	225.5	222.0	224.8	224.5	221.7	215.6	221.6	225.5	232.0	237.9	221.0	224.4	232.2	228.8	228.0	229.4		
MAX	304.1	309.6	342.1	304.0	307.9	295.7	302.2	350.9	309.1	296.5	280.4	289.8	302.4	278.1	309.6	262.8	264.8	340.9	271.2	334.6	332.7	288.5	291.8	296.0		



Number of Non-Zero Readings	744		
Maximum 1-HR Average	351 degrees		
Maximum 24-HR Average	265 degrees		
		Operational Time	744 HRS
Monthly Calibration	0	Operational Uptime	100.0 %
Standard Deviation	62.64	Monthly Average	228.5 degrees

Lagoon Pressure (mmHg) – October 2024

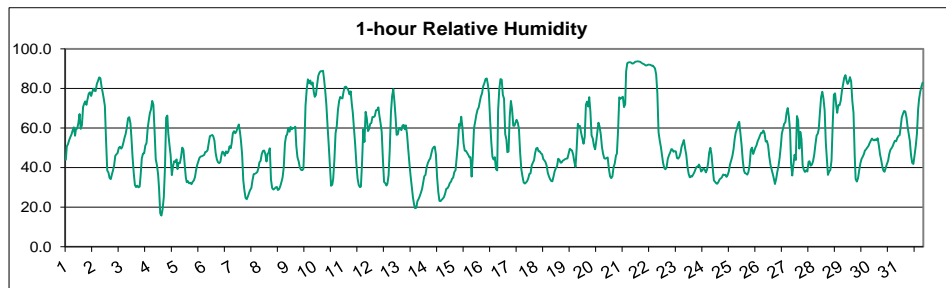
Day	HOUR																								MEAN	MAX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	653.9	653.5	653.0	652.9	652.6	652.1	651.2	650.6	649.6	648.6	648.3	648.4	648.2	648.0	647.8	647.7	647.7	647.5	647.4	647.3	647.3	647.9	648.2	648.5	649.5	653.9		
2	648.9	649.2	649.5	649.9	650.2	650.4	650.7	650.8	651.2	651.5	651.5	651.5	651.6	651.7	651.7	651.6	651.8	652.0	652.4	653.0	653.2	653.2	653.2	653.1	653.0	651.4	653.2	
3	653.0	653.3	653.6	653.8	654.0	654.2	654.3	654.6	654.7	654.5	654.1	654.0	653.7	653.5	653.5	653.0	652.6	652.4	652.0	651.8	651.5	651.1	650.6	650.1	653.1	654.7	654.7	
4	649.4	648.5	647.8	647.0	645.8	644.8	643.8	643.0	642.5	641.7	641.0	640.4	640.1	639.9	640.9	641.6	641.4	641.4	642.3	642.6	643.6	644.0	644.7	645.2	643.5	649.4	649.4	
5	645.8	646.4	647.2	648.0	648.5	649.2	650.0	651.0	652.0	652.5	653.0	653.5	654.0	654.1	654.0	654.0	654.5	655.0	655.2	655.4	655.4	655.4	655.4	655.4	655.4	655.4	655.5	655.5
6	655.2	655.4	655.6	655.6	655.4	655.1	655.2	655.2	655.3	655.2	654.9	654.7	654.4	653.9	653.7	653.8	654.0	654.1	654.1	654.0	653.9	653.7	653.7	653.7	653.7	654.6	655.6	655.6
7	653.7	653.7	653.5	653.2	653.0	653.1	653.1	652.8	652.8	652.4	651.8	651.5	651.2	651.0	650.9	650.9	650.8	650.6	650.6	650.4	650.3	650.1	650.0	649.7	651.7	653.7	653.7	
8	649.4	649.3	649.0	648.9	648.8	648.5	648.2	647.9	647.7	647.2	646.7	646.2	646.3	646.2	646.3	646.5	646.8	647.0	647.4	647.7	647.9	648.4	648.9	649.3	648.0	649.5	649.5	
9	650.1	650.3	650.2	650.1	649.9	649.5	649.3	649.3	649.7	650.2	650.3	649.9	649.4	648.9	648.7	648.9	649.2	649.7	649.9	650.3	650.5	650.6	651.0	651.4	649.9	651.4	651.4	
10	651.9	652.7	653.5	653.8	654.2	654.7	655.1	655.5	655.8	655.7	655.6	655.5	655.4	655.4	655.5	655.5	655.5	655.7	656.2	656.5	656.6	656.7	656.6	656.5	655.3	656.7	656.7	
11	656.4	656.3	656.0	655.6	655.3	655.1	655.0	654.9	654.9	654.5	654.1	653.9	653.6	653.3	653.4	653.2	653.5	653.9	654.5	655.0	655.4	655.4	655.4	655.5	654.8	656.4	656.4	
12	655.9	656.1	656.2	656.4	656.6	656.9	657.0	657.5	657.8	657.7	657.4	657.1	656.8	656.8	656.7	656.7	656.7	656.7	657.0	657.2	657.4	657.4	657.3	657.2	657.0	657.8	657.8	
13	657.2	656.9	656.8	656.5	656.1	656.0	655.8	656.1	656.1	655.8	655.4	655.1	654.4	653.5	653.0	652.6	652.4	652.3	652.3	652.2	652.3	652.4	652.4	652.3	654.4	657.2	657.2	
14	652.0	652.0	652.0	651.4	651.2	651.2	651.2	651.1	651.0	650.5	650.2	650.0	649.7	649.4	649.3	649.4	649.6	649.8	650.1	650.3	650.6	650.7	650.8	651.1	650.6	652.0	652.0	
15	651.4	651.9	652.2	652.5	652.7	653.0	653.3	653.2	653.2	653.3	653.0	652.5	651.9	651.2	650.7	650.5	650.3	650.1	650.0	649.5	649.5	649.6	649.1	648.8	651.4	653.3	653.3	
16	648.3	647.8	647.2	646.6	646.1	645.6	645.7	645.3	644.9	644.6	644.0	643.4	642.7	641.9	641.4	642.3	642.2	641.9	641.6	641.5	642.0	641.5	641.5	642.0	643.8	648.3	648.3	
17	642.8	643.4	643.1	643.2	643.4	643.6	643.8	644.0	644.4	644.9	645.1	645.2	645.4	645.4	645.5	645.7	646.2	646.8	647.1	647.6	648.2	648.8	649.3	649.9	645.7	650.3	650.3	
18	650.8	651.1	651.2	651.4	651.8	652.0	652.1	652.2	652.2	652.4	652.0	651.6	650.9	650.0	649.6	648.9	648.1	646.9	646.3	646.1	645.2	645.4	645.9	647.2	649.6	652.4	652.4	
19	647.7	647.9	647.9	648.0	648.2	648.3	648.7	649.2	649.5	648.8	648.8	649.0	648.6	648.3	648.0	647.6	647.3	646.9	646.8	647.7	647.8	647.8	648.2	648.2	648.1	649.5	649.5	
20	648.5	648.6	648.5	648.6	648.9	649.1	649.3	649.4	649.1	648.6	648.0	647.5	646.5	645.5	644.6	643.7	642.9	642.3	642.2	642.2	642.5	642.6	642.6	643.2	646.0	649.4	649.4	
21	643.6	643.9	644.7	646.2	647.3	648.4	649.3	650.0	650.2	650.5	650.3	650.4	650.6	650.5	650.7	650.9	651.1	651.3	651.6	651.9	652.1	652.2	652.7	652.6	649.7	652.7	652.7	
22	652.5	652.3	652.4	652.3	652.0	651.8	652.1	652.6	652.7	652.6	652.7	652.5	652.5	652.1	652.0	651.8	651.6	651.3	651.6	651.7	652.1	652.4	652.5	652.6	652.2	652.7	652.7	
23	652.6	652.7	652.6	652.2	652.3	652.5	652.3	652.3	652.2	651.8	651.7	651.3	650.9	650.4	649.8	649.5	649.3	649.3	649.4	649.5	649.4	649.5	649.5	649.6	650.9	652.7	652.7	
24	648.9	649.0	649.6	650.1	650.5	650.8	651.2	651.1	651.3	651.5	651.8	651.9	652.0	652.0	652.2	652.4	652.5	652.4	652.6	652.9	653.1	653.3	653.7	653.9	651.7	653.9	653.9	
25	654.3	654.5	654.7	654.9	654.9	655.2	655.5	655.9	656.3	656.4	656.0	655.6	655.0	654.5	654.1	653.6	653.3	653.0	652.8	652.5	652.3	652.2	651.9	651.7	654.2	656.4	656.4	
26	651.4	651.4	651.1	650.6	650.0	649.2	648.5	647.9	648.2	648.0	648.0	648.3	648.6	648.6	648.8	649.0	649.2	649.3	649.2	649.1	649.1	648.9	648.4	647.8	649.1	651.4	651.4	
27	647.3	646.3	645.4	644.2	643.0	641.8	640.9	640.5	640.1	639.4	639.6	639.2	638.3	638.2	639.4	639.8	640.1	640.8	641.2	641.7	642.2	642.6	642.7	642.7	641.6	647.3	647.3	
28	642.9	643.1	643.1	642.9	642.4	642.4	642.9	642.8	643.0	643.2	643.4	643.4	643.3	643.2	643.4	643.5	643.9	644.5	644.7	645.0	645.2	645.6	645.9	646.5	643.7	646.5	646.5	
29	647.1	647.3	647.3	647.5	647.7	648.1	648.4	648.6	648.8	648.8	648.8	648.8	648.6	648.2	648.2	648.2	648.5	648.8	648.8	648.8	648.8	648.8	648.8	649.0	648.3	649.0	649.0	
30	648.8	648.6	648.7	648.5	648.6	648.6	648.7	648.6	648.8	648.7	648.5	648.3	647.9	647.4	647.2	647.0	647.0	647.0	647.1	647.1	647.1	647.0	647.0	647.1	647.9	648.8	648.8	
31	647.0	646.9	646.8	646.7	646.9	647.1	647.1	647.2	647.5	647.5	647.4	647.1	646.8	646.5	646.3	646.2	646.3	646.5	646.6	646.9	646.9	647.0	647.1	646.9	646.9	647.5	647.5	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%		
MEAN	650.3	650.3	650.3	650.3	650.3	650.3	650.3	650.4	650.4	650.3	650.1	649.9	649.6	649.3	649.3	649.2	649.3	649.3	649.4	649.4	649.6	649.7	649.8	649.9	650.0			
MAX	657.2	656.9	656.8	656.5	656.6	656.9	657.0	657.5	657.8	657.7	657.4	657.1	656.8	656.8	656.7	656.7	656.8	657.0	657.2	657.4	657.4	657.4	657.3	657.2				



Number of Non-Zero Readings	744
Maximum 1-HR Average	658 MMHg
Maximum 24-HR Average	657 MMHg
Operational Time	744 HRS
Monthly Calibration	0
Operational Uptime	100.0 %
Standard Deviation	4.105
Monthly Average	649.9 MMHg

Lagoon Relative Humidity (%) – October 2024

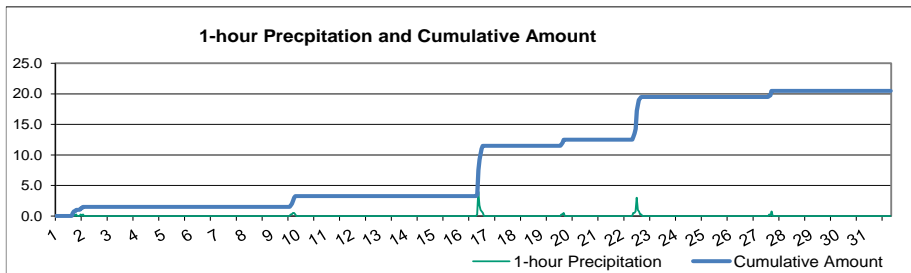
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	44.0	50.7	51.8	53.8	55.4	56.8	58.8	60.3	56.1	59.6	59.7	62.4	67.1	59.5	61.5	70.7	72.5	73.5	71.7	74.7	77.4	78.1	76.2	78.3	63.8	78.3
2	79.9	78.7	78.6	82.3	83.8	85.6	85.1	80.9	77.8	75.0	71.2	53.7	38.5	37.6	34.7	34.1	36.6	38.4	41.1	46.0	46.8	47.4	50.0	50.6	59.8	85.6
3	49.6	50.2	52.4	55.1	57.1	60.5	65.0	65.5	62.4	55.6	45.4	37.3	31.1	30.1	30.9	30.0	30.3	36.0	44.5	47.1	47.2	51.1	52.4	59.8	47.8	65.5
4	64.3	67.5	69.4	73.7	71.8	58.7	44.3	41.3	36.5	29.5	16.8	15.8	19.0	24.9	39.9	65.3	66.3	57.4	51.5	46.1	36.2	40.7	43.2	42.7	46.8	73.7
5	44.1	39.3	42.5	42.3	45.5	50.1	49.0	42.1	35.2	32.6	33.2	32.0	32.3	31.6	32.8	33.5	35.3	38.4	41.2	43.2	44.9	45.6	45.8	46.1	39.9	50.1
6	46.4	47.9	47.9	48.7	52.4	56.0	56.1	56.5	55.8	53.6	47.6	44.3	42.7	42.3	42.8	46.4	48.0	47.6	46.0	48.2	47.2	48.1	50.7	49.7	48.9	56.5
7	52.4	57.5	58.4	57.3	58.4	60.1	61.8	58.0	53.7	46.8	33.5	28.2	24.5	24.0	25.6	27.4	28.7	29.7	33.6	36.8	36.8	37.2	37.8	39.7	42.0	61.8
8	42.6	43.4	46.7	48.4	48.7	47.0	43.1	47.0	47.5	49.7	33.9	29.7	28.9	29.3	30.0	30.2	28.6	29.0	30.5	32.6	35.0	40.1	52.3	56.0	39.6	56.0
9	56.6	60.0	58.1	60.6	59.3	60.0	60.0	60.7	51.0	45.2	43.2	40.0	38.9	38.7	39.3	54.5	71.3	79.4	84.6	82.6	84.0	81.9	83.1	78.2	61.3	84.6
10	75.7	76.7	81.9	86.4	88.0	88.7	88.6	89.0	85.0	79.2	71.9	61.4	51.6	41.1	30.8	31.3	34.4	44.0	57.5	60.9	69.1	73.6	75.8	75.1	67.4	89.0
11	75.0	78.6	80.8	80.9	80.0	79.1	76.9	78.5	73.0	67.5	59.5	51.5	41.8	34.5	31.1	30.1	30.3	42.6	59.4	52.9	68.2	64.9	58.4	59.6	60.6	80.9
12	62.0	62.5	65.6	65.5	66.0	69.0	69.1	70.4	66.4	62.6	58.1	44.3	32.8	32.2	31.0	31.8	36.1	49.2	67.8	76.2	79.7	73.1	64.8	56.5	58.0	79.7
13	56.7	59.9	60.1	58.9	61.3	61.5	59.3	61.3	57.0	49.4	42.3	35.9	30.4	25.0	21.2	19.5	19.7	23.1	24.2	25.6	27.4	29.5	32.9	35.7	40.7	61.5
14	36.3	40.2	42.3	43.7	44.7	47.1	49.5	50.2	50.7	46.8	35.2	27.7	23.2	23.0	23.9	24.3	25.1	26.9	29.3	29.5	30.6	32.2	33.0	34.2	35.4	50.7
15	35.0	37.8	38.7	45.2	52.1	62.0	61.0	65.7	60.5	52.1	48.5	48.5	47.4	46.4	45.2	45.3	35.4	45.5	59.9	63.1	66.8	69.2	70.4	72.9	53.1	72.9
16	75.8	77.5	81.1	82.7	84.8	85.1	81.7	77.5	64.2	53.0	45.4	44.1	45.3	39.2	38.5	69.1	79.7	84.7	84.5	76.7	74.8	56.9	54.3	47.7	66.9	85.1
17	48.1	65.8	73.7	69.5	61.1	61.2	63.0	64.2	62.7	59.6	47.5	39.3	35.5	32.5	31.9	32.4	33.1	34.4	36.8	37.1	41.2	42.5	43.8	47.1	48.5	73.7
18	49.7	50.0	48.2	48.2	47.2	46.8	44.3	43.8	42.8	41.0	37.3	35.5	34.0	33.1	33.0	35.4	38.2	39.7	40.6	44.5	43.9	42.5	42.4	43.5	41.9	50.0
19	43.8	44.3	44.6	44.6	47.1	49.5	49.1	48.6	46.7	42.9	40.4	49.6	62.1	60.4	61.1	57.4	54.8	52.0	55.5	71.8	73.4	70.8	75.6	68.3	54.8	75.6
20	56.2	54.7	51.0	49.2	53.6	58.7	62.7	60.5	56.6	50.2	46.7	44.6	44.5	44.8	45.1	39.4	35.6	34.6	35.6	40.2	42.1	46.1	47.1	58.9	48.3	62.7
21	75.5	74.7	75.3	75.8	70.6	72.1	88.6	92.8	93.1	93.3	93.2	92.6	92.5	93.2	93.5	93.6	93.7	93.6	93.5	93.0	92.6	92.4	92.0	91.5	88.0	93.7
22	91.6	92.1	92.0	92.0	91.4	91.6	90.9	90.1	87.0	77.5	57.9	53.7	50.4	45.9	42.5	39.9	39.1	40.2	44.4	46.2	47.5	49.3	49.3	48.0	64.6	92.1
23	48.3	48.2	44.9	44.5	45.4	47.5	50.4	52.1	53.9	49.9	46.6	40.7	36.9	35.1	35.7	35.4	36.4	37.6	39.1	40.5	40.4	41.6	40.5	37.9	42.9	53.9
24	38.7	39.5	38.9	37.5	38.9	42.7	47.5	50.0	46.5	39.7	33.5	32.8	32.0	31.8	32.7	34.0	34.5	35.2	36.5	36.2	36.5	35.2	36.2	38.1	37.7	50.0
25	41.5	43.6	45.8	49.4	54.7	57.6	59.5	62.0	63.1	57.3	51.4	43.6	38.5	37.1	37.0	36.4	37.9	41.4	49.0	50.1	46.9	48.3	50.0	51.2	48.1	63.1
26	53.4	54.7	56.3	57.7	57.5	58.8	57.3	53.1	53.4	51.1	45.6	41.5	39.0	37.0	34.6	31.7	34.2	37.9	40.8	45.2	51.1	57.1	59.7	62.2	48.8	62.2
27	62.9	67.7	70.1	65.5	58.5	42.3	35.9	41.6	46.5	43.8	66.1	63.9	49.6	58.1	54.5	41.1	38.8	37.8	38.6	38.0	42.9	43.3	40.9	41.5	49.6	70.1
28	43.3	46.5	51.6	56.2	57.1	59.3	67.9	75.5	78.4	74.9	68.9	52.4	43.4	36.3	37.9	38.7	43.6	61.6	76.9	77.6	71.4	67.6	71.6	71.4	59.6	78.4
29	73.9	78.8	82.1	85.5	86.7	84.2	82.2	83.4	85.7	83.5	73.6	67.6	46.2	34.1	32.9	34.6	38.5	42.1	44.4	45.5	46.9	48.6	49.3	50.1	61.7	86.7
30	51.0	52.4	53.6	54.7	53.9	53.7	54.3	53.8	54.8	51.3	46.8	43.8	40.5	38.6	37.9	39.7	41.8	43.4	46.8	49.0	49.6	50.7	52.3	53.6	48.7	54.8
31	53.3	54.9	56.0	56.4	60.4	65.3	67.2	68.6	68.3	65.2	60.2	56.5	53.5	46.4	42.3	41.8	46.2	50.9	57.1	69.3	74.6	78.3	80.9	82.9	60.7	82.9
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%
MEAN	55.7	57.9	59.4	60.4	61.1	61.9	62.3	62.7	60.4	56.1	50.3	45.6	41.7	39.5	39.1	41.1	42.7	46.1	50.4	52.5	54.0	54.3	55.2	55.8		
MAX	91.6	92.1	92.0	92.0	91.4	91.6	90.9	92.8	93.1	93.3	93.2	92.6	92.5	93.2	93.5	93.6	93.7	93.6	93.5	93.0	92.6	92.4	92.0	91.5		



Number of Non-Zero Readings	744		
Maximum 1-HR Average	93.7 %		
Maximum 24-HR Average	88.0 %		
Monthly Calibration	0	Operational Time	744 HRS
Standard Deviation	16.96	Operational Uptime	100.0 %
		Monthly Average	52.8 %

Lagoon Precipitation (mm) – October 2024

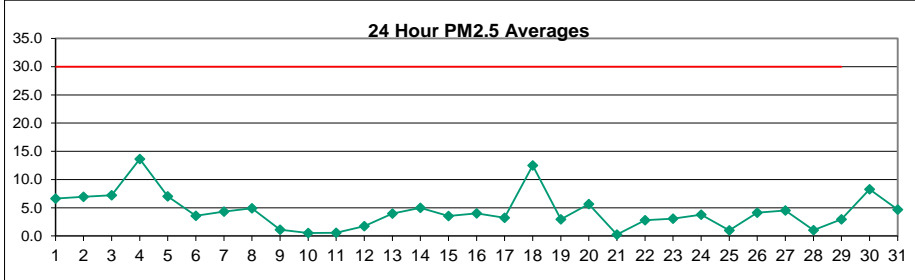
Day	HOURLY																								DAILY MAX 24-HOUR TOTAL		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.5	1.3	
2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.5	0.5	0.3	0.0	0.0	0.5	1.8	
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	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	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	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	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.3	4.0	1.8	1.0	0.8	0.5	0.0	0.0	0.0	4.0	8.3	
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	0.3	0.3	0.5	0.0	0.0	0.0	0.5	1.0	
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.8	3.0	1.0	0.8	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.0	7.0	
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.0	
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	0.0
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
MEAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.8	3.0	1.0	0.8	4.0	1.8	1.0	0.8	0.5	0.3	0.3	0.0	4.0	8.3	



Number of Non-Zero Readings	29
Maximum 1-HR Average	8.3 MM
Maximum 24-HR Average	4.0 MM
Monthly Calibration	0
Standard Deviation	0.215
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	0.03 MM

Windridge PM_{2.5} (µg/m³) – October 2024

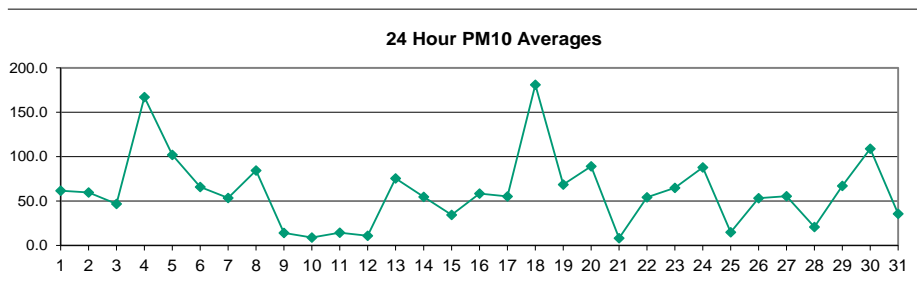
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	14.0	9.0	20.0	17.0	20.0	1.0	0.0	0.0	19.0	9.0	4.0	13.0	11.0	6.0	3.0	6.0	3.0	2.0	1.0	0.0	0.0	1.0	0.0	0.0	6.6	20.0
2	0.0	0.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	1.0	10.0	35.0	19.0	6.0	7.0	6.0	11.0	14.0	18.0	8.0	8.0	8.0	8.0	5.0	7.0	35.0
3	6.0	2.0	2.0	1.0	0.0	0.0	0.0	3.0	4.0	17.0	3.0	43.0	33.0	6.0	2.0	1.0	13.0	7.0	4.0	4.0	1.0	10.0	7.0	4.0	7.2	43.0
4	2.0	1.0	6.0	4.0	0.0	0.0	6.0	11.0	20.0	83.0	61.0	22.0	12.0	10.0	6.0	6.0	8.0	9.0	14.0	10.0	12.0	9.0	10.0	5.0	13.6	83.0
5	17.0	7.0	13.0	7.0	6.0	4.0	3.0	5.0	6.0	5.0	4.0	11.0	11.0	10.0	10.0	5.0	1.0	3.0	4.0	9.0	8.0	9.0	6.0	5.0	7.0	17.0
6	8.0	7.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	4.0	3.0	2.0	5.0	4.0	4.0	6.0	4.0	2.0	4.0	6.0	5.0	7.0	8.0	3.6	8.0
7	3.0	0.0	0.0	0.0	0.0	2.0	1.0	0.0	0.0	9.0	8.0	17.0	16.0	12.0	8.0	6.0	8.0	5.0	2.0	2.0	1.0	0.0	0.0	4.0	4.3	17.0
8	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	20.0	6.0	17.0	14.0	9.0	7.0	12.0	9.0	5.0	1.0	1.0	3.0	2.0	4.9	20.0
9	2.0	2.0	5.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	2.0	4.0	6.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	6.0
10	2.0	0.0	0.0	0.0	0.0	1.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.0	0.5	2.0
11	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0	0.0	0.0	1.0	2.0	0.0	2.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	2.0	0.6	3.0
12	1.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	1.0	1.0	4.0	3.0	3.0	0.0	0.0	0.0	10.0	8.0	6.0	3.0	0.0	0.0	0.0	1.8	10.0
13	1.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	7.0	12.0	16.0	7.0	4.0	4.0	11.0	10.0	8.0	5.0	2.0	0.0	4.0	16.0
14	0.0	3.0	3.0	3.0	3.0	0.0	0.0	0.0	0.0	1.0	8.0	7.0	7.0	17.0	9.0	7.0	8.0	8.0	10.0	7.0	3.0	6.0	6.0	4.0	5.0	17.0
15	5.0	5.0	1.0	0.0	7.0	5.0	2.0	7.0	5.0	1.0	0.0	0.0	2.0	2.0	3.0	4.0	1.0	2.0	6.0	8.0	4.0	5.0	5.0	5.0	3.5	8.0
16	4.0	4.0	5.0	4.0	3.0	2.0	2.0	1.0	0.0	0.0	0.0	1.0	2.0	11.0	6.0	2.0	1.0	0.0	8.0	13.0	11.0	7.0	6.0	3.0	4.0	13.0
17	1.0	0.0	2.0	2.0	0.0	0.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	C 21.0	6.0	3.0	3.0	3.0	1.0	0.0	8.0	5.0	2.0	0.0	3.2	21.0
18	1.0	5.0	3.0	2.0	4.0	5.0	3.0	2.0	4.0	6.0	5.0	5.0	9.0	12.0	11.0	6.0	15.0	25.0	14.0	78.0	32.0	32.0	11.0	10.0	12.5	78.0
19	4.0	2.0	5.0	3.0	4.0	1.0	2.0	1.0	1.0	5.0	4.0	6.0	8.0	6.0	4.0	4.0	3.0	2.0	0.0	1.0	2.0	0.0	0.0	3.0	3.0	8.0
20	3.0	1.0	1.0	2.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	4.0	4.0	7.0	19.0	45.0	16.0	7.0	8.0	7.0	6.0	2.0	5.7	45.0
21	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.3	1.0
22	3.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	2.0	5.0	4.0	2.0	1.0	7.0	9.0	6.0	2.0	3.0	6.0	5.0	0.0	3.0	3.0	3.0	2.8	9.0
23	4.0	5.0	5.0	4.0	3.0	3.0	6.0	4.0	1.0	8.0	5.0	0.0	0.0	0.0	3.0	3.0	8.0	5.0	1.0	1.0	0.0	0.0	3.0	2.0	3.1	8.0
24	2.0	5.0	7.0	4.0	0.0	0.0	2.0	3.0	3.0	7.0	7.0	12.0	10.0	8.0	5.0	3.0	1.0	3.0	3.0	1.0	2.0	3.0	0.0	0.0	3.8	12.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.0	0.0	0.0	2.0	0.0	0.0	0.0	1.0	4.0	2.0	0.0	1.0	4.0	4.0	1.0	4.0
26	1.0	1.0	4.0	3.0	0.0	0.0	2.0	2.0	3.0	4.0	7.0	16.0	9.0	7.0	11.0	11.0	6.0	6.0	3.0	0.0	1.0	0.0	0.0	2.0	4.1	16.0
27	4.0	6.0	1.0	0.0	0.0	0.0	8.0	5.0	1.0	3.0	5.0	7.0	13.0	7.0	2.0	2.0	5.0	6.0	6.0	11.0	10.0	4.0	1.0	1.0	4.5	13.0
28	0.0	0.0	0.0	0.0	3.0	1.0	4.0	1.0	0.0	0.0	0.0	1.0	3.0	1.0	1.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	5.0
29	0.0	1.0	0.0	1.0	1.0	1.0	1.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	3.0	4.0	4.0	3.0	9.0	9.0	6.0	8.0	8.0	10.0	3.0	10.0
30	9.0	6.0	6.0	6.0	6.0	5.0	8.0	9.0	8.0	8.0	11.0	9.0	7.0	4.0	4.0	7.0	13.0	9.0	9.0	12.0	12.0	11.0	11.0	9.0	8.3	13.0
31	9.0	15.0	9.0	4.0	4.0	2.0	2.0	2.0	3.0	3.0	5.0	3.0	2.0	4.0	4.0	4.0	4.0	3.0	2.0	5.0	7.0	9.0	5.0	2.0	4.7	15.0
NO.	31	31	31	31	31	31	31	31	31	31	31	31	30	31	31	31	31	31	31	31	31	31	31	31	743	100.0%
MEAN	3.5	2.9	3.5	2.4	2.1	1.1	1.8	1.9	2.9	6.2	5.5	7.8	6.5	6.6	5.2	4.4	5.2	6.3	5.5	7.1	5.0	4.8	3.7	3.1	7.5	
MAX	17.0	15.0	20.0	17.0	20.0	5.0	8.0	11.0	20.0	83.0	61.0	43.0	33.0	21.0	16.0	11.0	19.0	45.0	18.0	78.0	32.0	32.0	11.0	10.0	17.4	70.0



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	534	
Maximum 1-HR Average	83.0 UG/M3	
Maximum 24-HR Average	13.6 UG/M3	
Monthly Calibration	1	Operational Time
Standard Deviation	6.9	Operational Uptime
		Monthly Average
		744 HRS
		100.0 %
		4.4 UG/M3

Windridge PM₁₀ (µg/m³) – October 2024

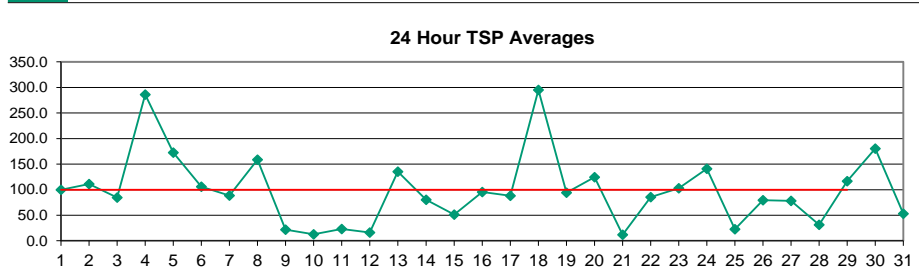
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	135.0	149.0	97.0	91.0	59.0	53.0	54.0	87.0	123.0	108.0	52.0	53.0	83.0	63.0	51.0	38.0	24.0	53.0	45.0	9.0	9.0	15.0	30.0	0.0	61.7	149.0
2	2.0	2.0	0.0	1.0	9.0	13.0	14.0	12.0	10.0	23.0	57.0	88.0	109.0	64.0	81.0	79.0	184.0	160.0	74.0	69.0	104.0	107.0	115.0	59.0	59.8	184.0
3	107.0	40.0	19.0	0.0	5.0	5.0	8.0	28.0	44.0	140.0	90.0	102.0	140.0	99.0	59.0	49.0	106.0	54.0	5.0	5.0	15.0	0.0	0.0	4.0	46.8	140.0
4	10.0	23.0	16.0	5.0	8.0	114.0	261.0	280.0	485.0	485.0	485.0	279.0	146.0	130.0	66.0	72.0	153.0	164.0	214.0	92.0	119.0	137.0	148.0	118.0	167.1	485.0
5	199.0	139.0	192.0	47.0	41.0	73.0	97.0	89.0	64.0	54.0	52.0	123.0	142.0	120.0	162.0	61.0	80.0	111.0	131.0	98.0	112.0	101.0	79.0	82.0	102.0	199.0
6	130.0	83.0	106.0	9.0	9.0	33.0	8.0	11.0	39.0	64.0	84.0	41.0	30.0	43.0	76.0	43.0	78.0	86.0	65.0	93.0	163.0	99.0	94.0	93.0	65.8	163.0
7	31.0	14.0	25.0	13.0	8.0	5.0	11.0	21.0	10.0	100.0	76.0	145.0	199.0	166.0	72.0	79.0	54.0	35.0	32.0	30.0	26.0	32.0	47.0	57.0	53.7	199.0
8	15.0	9.0	5.0	4.0	4.0	9.0	20.0	40.0	22.0	114.0	105.0	274.0	153.0	308.0	262.0	111.0	175.0	149.0	116.0	67.0	35.0	5.0	6.0	18.0	84.4	308.0
9	14.0	9.0	7.0	8.0	13.0	9.0	7.0	18.0	20.0	11.0	8.0	15.0	14.0	33.0	46.0	39.0	8.0	15.0	14.0	9.0	9.0	7.0	4.0	1.0	14.1	46.0
10	0.0	0.0	0.0	4.0	4.0	6.0	11.0	22.0	15.0	15.0	3.0	4.0	21.0	21.0	28.0	24.0	5.0	7.0	6.0	8.0	3.0	6.0	4.0	2.0	9.1	28.0
11	27.0	6.0	7.0	5.0	4.0	4.0	6.0	18.0	27.0	16.0	12.0	7.0	56.0	45.0	22.0	12.0	7.0	4.0	10.0	13.0	15.0	11.0	7.0	4.0	14.4	56.0
12	4.0	10.0	6.0	5.0	3.0	4.0	9.0	11.0	8.0	17.0	20.0	13.0	11.0	12.0	15.0	16.0	8.0	24.0	13.0	9.0	24.0	8.0	6.0	8.0	11.0	24.0
13	31.0	12.0	10.0	6.0	18.0	0.0	0.0	3.0	13.0	130.0	33.0	45.0	75.0	203.0	257.0	205.0	154.0	160.0	114.0	84.0	91.0	101.0	36.0	36.0	75.7	257.0
14	51.0	9.0	64.0	40.0	17.0	9.0	15.0	24.0	22.0	56.0	53.0	57.0	93.0	121.0	112.0	77.0	93.0	85.0	106.0	42.0	35.0	45.0	55.0	37.0	54.9	121.0
15	12.0	7.0	6.0	5.0	79.0	41.0	23.0	44.0	34.0	15.0	30.0	39.0	46.0	41.0	38.0	29.0	22.0	59.0	48.0	48.0	34.0	45.0	39.0	43.0	34.5	79.0
16	36.0	36.0	33.0	36.0	44.0	15.0	8.0	26.0	73.0	69.0	76.0	135.0	94.0	174.0	52.0	34.0	3.0	16.0	78.0	94.0	95.0	79.0	62.0	39.0	58.6	174.0
17	35.0	56.0	44.0	15.0	49.0	58.0	65.0	31.0	31.0	31.0	31.0	31.0	C	207.0	66.0	51.0	95.0	97.0	61.0	40.0	69.0	66.0	34.0	8.0	55.3	207.0
18	62.0	56.0	88.0	36.0	83.0	133.0	144.0	121.0	75.0	124.0	88.0	95.0	143.0	251.0	137.0	167.0	314.0	342.0	238.0	485.0	485.0	485.0	119.0	76.0	181.1	485.0
19	73.0	88.0	91.0	51.0	39.0	46.0	78.0	62.0	120.0	66.0	51.0	65.0	66.0	63.0	113.0	140.0	205.0	37.0	15.0	25.0	22.0	30.0	42.0	62.0	68.8	205.0
20	71.0	59.0	43.0	21.0	5.0	6.0	5.0	4.0	2.0	1.0	5.0	3.0	11.0	59.0	131.0	164.0	284.0	485.0	297.0	114.0	114.0	136.0	87.0	33.0	89.2	485.0
21	36.0	9.0	9.0	5.0	36.0	19.0	1.0	2.0	0.0	1.0	4.0	11.0	10.0	6.0	8.0	4.0	11.0	8.0	3.0	2.0	3.0	1.0	3.0	7.0	8.3	36.0
22	7.0	8.0	6.0	5.0	4.0	1.0	1.0	3.0	68.0	109.0	80.0	51.0	50.0	79.0	112.0	73.0	41.0	53.0	104.0	90.0	72.0	110.0	91.0	86.0	54.3	112.0
23	72.0	68.0	110.0	87.0	54.0	88.0	75.0	63.0	71.0	75.0	58.0	39.0	71.0	56.0	55.0	50.0	86.0	60.0	54.0	35.0	40.0	37.0	87.0	68.0	65.0	110.0
24	118.0	110.0	106.0	61.0	45.0	57.0	124.0	85.0	103.0	157.0	129.0	124.0	129.0	118.0	90.0	70.0	91.0	113.0	85.0	55.0	69.0	53.0	19.0	3.0	88.1	157.0
25	4.0	25.0	8.0	7.0	5.0	9.0	10.0	14.0	20.0	22.0	37.0	25.0	30.0	32.0	30.0	19.0	8.0	8.0	5.0	7.0	8.0	13.0	8.0	7.0	15.0	37.0
26	9.0	9.0	12.0	8.0	28.0	11.0	25.0	29.0	67.0	112.0	142.0	172.0	119.0	105.0	122.0	95.0	78.0	70.0	23.0	5.0	8.0	9.0	7.0	14.0	53.3	172.0
27	22.0	28.0	42.0	44.0	58.0	55.0	92.0	73.0	62.0	69.0	43.0	88.0	151.0	16.0	54.0	39.0	77.0	73.0	51.0	51.0	54.0	39.0	31.0	22.0	55.6	151.0
28	12.0	17.0	0.0	8.0	25.0	28.0	64.0	7.0	10.0	28.0	34.0	53.0	45.0	37.0	31.0	43.0	36.0	3.0	5.0	5.0	2.0	1.0	4.0	5.0	21.0	64.0
29	6.0	7.0	5.0	7.0	8.0	11.0	14.0	13.0	8.0	25.0	14.0	52.0	74.0	99.0	141.0	142.0	118.0	90.0	118.0	116.0	126.0	130.0	144.0	142.0	67.1	144.0
30	135.0	107.0	131.0	101.0	143.0	155.0	213.0	151.0	135.0	105.0	81.0	94.0	73.0	63.0	66.0	67.0	115.0	122.0	139.0	130.0	100.0	76.0	51.0	64.0	109.0	213.0
31	85.0	131.0	106.0	43.0	32.0	67.0	19.0	15.0	15.0	18.0	24.0	21.0	56.0	59.0	59.0	6.0	9.0	7.0	11.0	18.0	18.0	19.0	10.0	7.0	35.6	131.0
NO.	31	31	31	31	31	31	31	31	31	31	31	31	30	31	31	31	31	31	31	31	31	31	31	31	743	100.0%
MEAN	50.0	42.8	45.0	25.1	30.3	36.7	47.8	45.4	57.9	76.1	66.4	75.6	81.3	93.3	84.3	67.7	87.8	88.7	73.5	62.8	67.1	64.6	47.4	38.9	42.0	
MAX	199.0	149.0	192.0	101.0	143.0	155.0	261.0	280.0	485.0	485.0	485.0	279.0	199.0	308.0	262.0	205.0	314.0	485.0	297.0	485.0	485.0	485.0	148.0	142.0	91.1	433.3



Number of Non-Zero Readings	731	Operational Time	744 HRS
Maximum 1-HR Average	485.0 UG/M3	Operational Uptime	100.0 %
Maximum 24-HR Average	181.1 UG/M3	Monthly Average	60.7 UG/M3
Monthly Calibration	1		
Standard Deviation	69.31		

Windridge TSP ($\mu\text{g}/\text{m}^3$) – October 2024

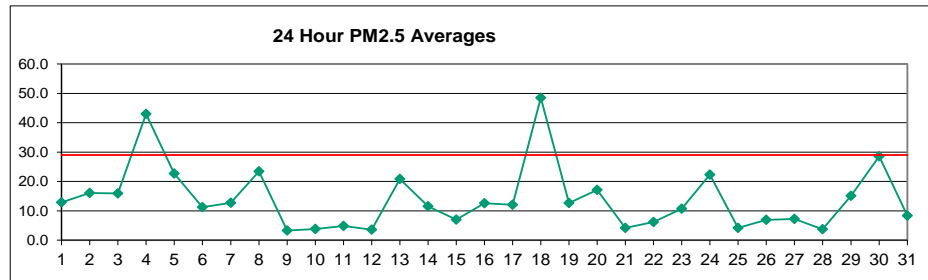
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	257.0	271.0	171.0	161.0	98.0	78.0	82.0	154.0	190.0	178.0	85.0	85.0	137.0	111.0	59.0	49.0	29.0	76.0	48.0	14.0	8.0	21.0	33.0	3.0	99.9	271.0
2	2.0	6.0	5.0	6.0	12.0	14.0	20.0	8.0	15.0	48.0	106.0	143.0	204.0	109.0	165.0	152.0	366.0	353.0	153.0	119.0	196.0	186.0	191.0	90.0	111.2	366.0
3	193.0	67.0	21.0	0.0	15.0	8.0	8.0	46.0	74.0	178.0	166.0	204.0	282.0	179.0	111.0	74.0	219.0	110.0	12.0	13.0	27.0	5.0	9.0	7.0	84.5	282.0
4	16.0	30.0	13.0	9.0	16.0	197.0	419.0	421.0	828.0	985.0	802.0	514.0	268.0	248.0	90.0	105.0	265.0	257.0	344.0	154.0	219.0	257.0	217.0	188.0	285.9	985.0
5	294.0	245.0	296.0	71.0	69.0	134.0	190.0	153.0	111.0	98.0	85.0	196.0	225.0	197.0	292.0	119.0	144.0	199.0	204.0	157.0	181.0	200.0	141.0	136.0	172.4	296.0
6	216.0	136.0	175.0	22.0	12.0	41.0	20.0	15.0	57.0	90.0	126.0	59.0	42.0	73.0	124.0	68.0	133.0	136.0	107.0	160.0	280.0	149.0	154.0	144.0	105.8	280.0
7	47.0	25.0	33.0	14.0	13.0	8.0	11.0	16.0	21.0	200.0	162.0	291.0	321.0	274.0	99.0	128.0	88.0	52.0	56.0	47.0	37.0	40.0	60.0	83.0	88.6	321.0
8	25.0	6.0	4.0	1.0	6.0	12.0	29.0	45.0	20.0	217.0	200.0	621.0	314.0	579.0	504.0	208.0	348.0	265.0	213.0	107.0	49.0	6.0	12.0	21.0	158.8	621.0
9	21.0	14.0	14.0	14.0	19.0	12.0	15.0	32.0	43.0	18.0	11.0	20.0	29.0	62.0	75.0	44.0	3.0	16.0	13.0	9.0	18.0	15.0	7.0	3.0	22.0	75.0
10	1.0	0.0	3.0	4.0	2.0	7.0	10.0	29.0	19.0	22.0	9.0	7.0	32.0	38.0	42.0	48.0	4.0	2.0	1.0	10.0	1.0	0.0	7.0	8.0	12.8	48.0
11	56.0	14.0	12.0	7.0	4.0	4.0	7.0	27.0	43.0	20.0	3.0	4.0	114.0	76.0	43.0	13.0	9.0	6.0	16.0	17.0	18.0	19.0	13.0	9.0	23.1	114.0
12	5.0	10.0	6.0	2.0	3.0	3.0	8.0	16.0	7.0	26.0	38.0	20.0	17.0	23.0	26.0	20.0	11.0	28.0	22.0	13.0	48.0	13.0	7.0	14.0	16.1	48.0
13	49.0	14.0	12.0	6.0	12.0	9.0	6.0	4.0	13.0	78.0	53.0	73.0	142.0	418.0	476.0	406.0	312.0	351.0	193.0	140.0	176.0	177.0	64.0	60.0	135.2	476.0
14	94.0	16.0	93.0	66.0	26.0	13.0	21.0	37.0	37.0	98.0	78.0	90.0	97.0	153.0	144.0	88.0	129.0	149.0	173.0	63.0	45.0	85.0	83.0	47.0	80.2	173.0
15	13.0	6.0	2.0	4.0	142.0	71.0	43.0	69.0	55.0	23.0	50.0	56.0	66.0	65.0	73.0	56.0	37.0	90.0	64.0	61.0	45.0	51.0	44.0	48.0	51.4	142.0
16	38.0	45.0	50.0	51.0	56.0	14.0	8.0	53.0	144.0	155.0	148.0	226.0	180.0	324.0	75.0	46.0	4.0	10.0	93.0	117.0	136.0	131.0	117.0	70.0	95.5	324.0
17	51.0	68.0	59.0	19.0	65.0	79.0	88.0	53.0	52.0	88.0	104.0	144.0	C	148.0	118.0	78.0	148.0	176.0	116.0	57.0	125.0	116.0	63.0	7.0	87.9	176.0
18	106.0	84.0	153.0	62.0	123.0	215.0	250.0	213.0	131.0	252.0	158.0	94.0	259.0	325.0	245.0	251.0	457.0	456.0	348.0	985.0	946.0	711.0	161.0	99.0	295.2	985.0
19	108.0	132.0	125.0	70.0	45.0	57.0	111.0	97.0	175.0	92.0	76.0	80.0	90.0	80.0	124.0	188.0	307.0	54.0	16.0	36.0	25.0	30.0	57.0	82.0	94.0	307.0
20	86.0	73.0	57.0	21.0	12.0	8.0	9.0	9.0	5.0	7.0	10.0	8.0	14.0	100.0	201.0	277.0	345.0	670.0	405.0	162.0	164.0	198.0	109.0	41.0	124.6	670.0
21	44.0	7.0	15.0	8.0	32.0	17.0	11.0	8.0	10.0	11.0	9.0	10.0	13.0	11.0	13.0	11.0	13.0	7.0	9.0	5.0	1.0	2.0	0.0	13.0	11.7	44.0
22	10.0	12.0	6.0	2.0	1.0	4.0	6.0	2.0	113.0	159.0	106.0	68.0	81.0	134.0	188.0	124.0	62.0	73.0	159.0	142.0	106.0	171.0	167.0	153.0	85.4	188.0
23	121.0	134.0	205.0	137.0	76.0	137.0	119.0	109.0	104.0	116.0	86.0	49.0	87.0	88.0	80.0	74.0	122.0	86.0	74.0	58.0	54.0	86.0	143.0	127.0	103.0	205.0
24	185.0	178.0	174.0	91.0	81.0	82.0	191.0	116.0	165.0	193.0	216.0	201.0	202.0	188.0	136.0	109.0	150.0	196.0	148.0	103.0	130.0	102.0	41.0	6.0	141.0	14.0
25	11.0	38.0	8.0	8.0	8.0	20.0	15.0	14.0	27.0	43.0	61.0	31.0	57.0	55.0	56.0	18.0	9.0	5.0	3.0	6.0	12.0	15.0	15.0	14.0	22.9	61.0
26	14.0	10.0	7.0	7.0	56.0	13.0	38.0	42.0	81.0	169.0	238.0	271.0	184.0	151.0	179.0	145.0	116.0	117.0	33.0	0.0	2.0	8.0	8.0	21.0	79.6	271.0
27	45.0	52.0	63.0	74.0	73.0	80.0	153.0	58.0	80.0	78.0	45.0	101.0	192.0	18.0	87.0	56.0	109.0	116.0	80.0	74.0	90.0	63.0	53.0	38.0	78.3	192.0
28	23.0	24.0	1.0	18.0	39.0	34.0	86.0	5.0	17.0	37.0	49.0	85.0	76.0	62.0	50.0	63.0	58.0	8.0	5.0	4.0	0.0	2.0	4.0	4.0	31.4	86.0
29	10.0	10.0	5.0	19.0	10.0	14.0	23.0	18.0	13.0	33.0	30.0	97.0	141.0	163.0	247.0	232.0	217.0	170.0	202.0	195.0	203.0	232.0	260.0	253.0	116.5	260.0
30	253.0	188.0	258.0	177.0	246.0	268.0	324.0	241.0	225.0	167.0	135.0	146.0	120.0	96.0	89.0	101.0	158.0	216.0	245.0	207.0	162.0	123.0	75.0	107.0	180.3	324.0
31	152.0	251.0	162.0	65.0	50.0	26.0	18.0	17.0	21.0	23.0	39.0	29.0	91.0	101.0	101.0	7.0	17.0	4.0	15.0	22.0	20.0	28.0	5.0	5.0	52.9	251.0
NO.	31	31	31	31	31	31	31	31	31	31	31	31	30	31	31	31	31	31	31	31	31	31	31	31	743	100.0%
MEAN	82.1	69.9	71.2	39.2	45.9	54.2	75.5	68.6	93.4	125.9	112.4	129.8	135.9	150.0	139.1	108.3	141.6	143.7	115.2	105.1	113.7	104.6	74.8	61.3		
MAX	294.0	271.0	296.0	177.0	246.0	268.0	419.0	421.0	828.0	985.0	802.0	621.0	321.0	579.0	504.0	406.0	457.0	670.0	405.0	985.0	946.0	711.0	260.0	253.0		



Number of 24HR Exceedences	12	Proposed Guideline
Number of Non-Zero Readings	737	
Maximum 1-HR Average	985.0 UG/M3	
Maximum 24-HR Average	295.2 UG/M3	
IZS Calibration Time		Operational Time 744 HRS
Down Time	0	Operational Uptime 100.0 %
Standard Deviation	120.1	Monthly Average 98.3 UG/M3

Berm PM_{2.5} (µg/m³) – October 2024

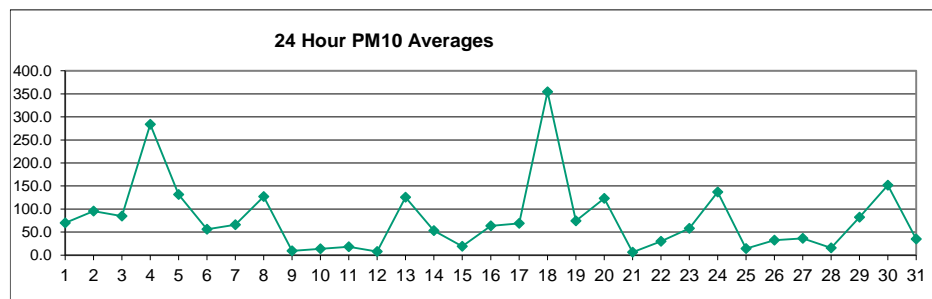
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	16.2	26.0	19.0	11.5	10.5	8.2	9.0	11.4	20.3	26.4	40.4	16.8	14.9	24.4	19.8	3.7	3.3	6.3	6.1	6.5	2.8	1.2	2.5	2.3	12.9	40.4
2	0.7	0.6	1.3	1.1	2.5	3.8	3.5	2.6	2.2	4.3	9.6	16.4	24.1	38.8	28.5	25.5	14.2	52.5	51.0	25.3	12.5	23.7	19.9	22.0	16.1	52.5
3	8.7	23.0	5.8	2.0	1.7	3.1	1.5	2.1	9.5	12.9	28.7	42.9	43.6	55.0	35.3	24.2	13.2	44.4	11.1	1.8	2.6	4.3	2.7	2.0	15.9	55.0
4	2.1	2.3	5.4	3.4	5.3	2.8	22.6	55.8	75.7	105.2	210.1	149.9	69.7	43.7	18.5	7.5	5.6	46.6	40.1	46.4	21.0	30.4	34.8	28.3	43.0	210.1
5	21.8	51.2	35.8	40.1	11.8	8.1	15.8	23.3	18.1	15.1	14.6	10.4	23.8	33.5	27.9	29.8	7.2	16.2	22.3	30.2	17.3	28.8	25.9	16.0	22.7	51.2
6	29.0	20.2	13.8	14.4	2.3	1.2	5.0	3.4	2.6	8.4	12.3	14.9	2.2	3.0	4.3	6.4	2.6	17.0	18.3	13.3	14.9	34.7	12.2	13.9	11.3	34.7
7	10.6	6.3	2.2	6.4	3.0	1.8	1.5	4.5	3.8	3.2	36.4	41.3	49.5	38.9	35.7	14.5	11.3	5.3	3.4	5.6	6.3	5.0	3.5	5.2	12.7	49.5
8	5.1	3.1	2.1	2.6	2.3	1.7	5.3	7.7	8.5	8.7	31.0	52.7	69.8	53.2	84.0	70.0	21.5	54.1	31.3	24.2	12.4	7.2	1.8	3.2	23.5	84.0
9	4.2	3.8	2.9	1.9	1.9	1.5	1.5	1.9	3.1	3.8	2.2	2.1	2.5	3.7	8.3	8.9	7.6	2.0	4.2	3.0	1.4	2.9	2.0	1.1	3.3	8.9
10	0.5	0.5	1.0	1.6	1.4	1.1	1.8	1.5	6.4	3.9	4.1	1.7	1.9	8.6	10.1	19.7	16.5	1.1	0.9	1.2	2.4	0.5	1.5	1.7	3.8	19.7
11	1.1	5.2	2.4	2.1	1.6	1.1	1.3	2.3	3.4	4.5	3.8	1.8	2.3	22.9	25.4	11.3	3.3	1.6	1.9	2.5	2.7	4.1	4.4	3.0	4.8	25.4
12	1.9	2.2	2.5	1.7	2.6	1.7	1.9	3.3	3.8	3.2	4.7	6.4	4.8	4.2	5.0	5.0	3.4	3.0	3.4	3.4	4.3	7.9	3.6	3.2	3.6	7.9
13	3.6	6.2	3.9	2.9	2.6	4.7	2.3	2.3	2.1	2.6	12.9	8.2	11.9	15.7	68.3	93.5	61.5	42.5	36.6	40.5	19.3	26.4	21.3	7.9	20.8	93.5
14	8.7	10.0	3.8	13.8	9.1	5.0	3.7	5.9	5.5	7.0	13.0	7.0	26.4	23.9	12.3	18.5	12.9	23.0	19.2	17.4	7.5	8.8	6.9	7.1	11.5	26.4
15	7.8	4.4	2.7	3.6	3.2	12.0	5.1	4.6	7.1	9.4	6.2	7.7	8.2	9.5	9.1	15.6	5.3	4.5	5.1	5.7	6.6	7.8	9.1	8.6	7.0	15.6
16	8.1	7.8	8.6	9.3	10.7	12.2	5.1	2.7	4.3	18.1	23.3	22.6	32.6	21.7	45.4	11.7	4.8	1.7	2.9	11.6	3.6	6.1	13.1	14.8	12.6	45.4
17	6.3	8.3	7.6	8.0	3.1	8.0	9.8	11.7	7.0	7.1	9.5	14.0	11.7	23.2	20.1	20.9	7.9	21.7	29.7	13.6	7.1	15.3	12.0	5.5	12.0	29.7
18	1.8	9.7	12.4	24.6	6.7	8.5	17.1	30.2	29.5	23.2	41.4	29.3	31.6	49.1	41.4	44.7	19.8	60.9	43.7	63.0	186.0	178.3	170.3	41.2	48.5	186.0
19	11.5	16.2	21.7	18.5	6.0	3.8	6.9	8.8	13.8	20.7	19.5	9.2	6.5	5.6	12.0	22.5	30.7	44.1	6.6	1.7	4.9	2.7	4.2	6.6	12.7	44.1
20	6.8	11.9	13.4	4.2	0.8	0.6	1.8	1.6	2.4	1.0	0.7	1.1	1.7	2.1	16.2	35.6	46.5	46.0	69.8	65.0	28.5	20.1	20.1	14.1	17.2	69.8
21	4.5	4.7	1.0	1.3	0.9	31.6	40.6	0.2	0.3	0.1	0.3	2.8	5.3	0.5	0.4	0.3	0.4	0.7	0.5	0.6	0.7	0.7	0.8	1.1	4.2	40.6
22	2.3	3.7	3.5	2.7	2.3	2.6	2.4	1.8	1.5	6.5	8.1	7.1	6.2	6.3	9.6	11.2	6.7	5.7	8.7	10.5	7.3	7.2	12.2	11.9	6.2	12.2
23	6.0	7.5	8.3	11.2	6.2	9.1	16.0	16.6	14.1	18.0	9.9	7.7	9.5	14.3	16.8	10.9	7.2	9.3	7.4	9.1	5.3	8.2	11.7	17.7	10.7	18.0
24	16.8	20.5	19.1	22.7	11.6	11.1	14.6	29.7	19.0	34.6	44.4	40.8	34.0	43.2	31.7	24.0	6.1	23.1	28.2	20.1	10.1	16.4	11.3	3.2	22.3	44.4
25	1.5	2.5	4.5	2.3	2.0	1.9	3.2	2.7	3.4	4.8	5.4	10.9	9.0	6.5	9.1	5.6	3.3	2.7	2.3	2.6	2.8	3.4	4.8	3.4	4.2	10.9
26	3.4	6.9	3.4	3.2	3.8	6.3	3.6	7.3	7.0	7.7	12.8	20.3	15.4	12.4	8.8	9.4	4.5	13.1	8.0	3.6	1.4	0.9	1.5	2.2	7.0	20.3
27	5.0	6.5	5.0	9.4	9.5	8.8	7.8	14.7	4.8	11.5	5.3	2.9	10.9	13.2	0.7	1.1	4.5	6.8	12.1	8.6	5.6	7.2	7.7	4.9	7.3	14.7
28	5.6	3.0	4.3	1.1	4.0	2.5	0.8	2.6	1.3	1.4	2.0	2.8	8.8	7.7	12.9	13.9	2.8	4.2	2.5	2.3	0.8	0.7	1.3	1.0	3.8	13.9
29	1.9	1.6	2.1	1.0	2.0	2.0	2.0	4.3	3.3	1.6	7.7	10.6	22.4	29.8	39.5	35.6	37.3	33.8	17.4	22.9	18.2	23.8	21.8	19.7	15.1	39.5
30	22.9	45.4	32.7	36.7	10.5	28.8	31.5	39.0	32.7	30.7	27.6	18.5	68.9	22.5	21.3	33.5	20.3	22.2	30.0	31.0	22.9	23.2	17.3	16.5	28.6	68.9
31	17.0	25.7	24.2	20.0	9.7	6.1	4.9	5.9	5.1	4.9	5.1	6.0	5.2	13.3	12.9	12.7	2.8	3.1	2.9	1.9	2.9	2.2	3.5	2.4	8.3	25.7
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	7.8	11.2	8.9	9.2	4.9	6.5	8.1	10.1	10.4	13.3	21.1	18.9	20.5	21.0	22.3	20.9	12.7	20.0	17.0	16.0	14.3	16.5	15.0	9.4		
MAX	29.0	51.2	35.8	40.1	11.8	31.6	40.6	55.8	75.7	105.2	210.1	149.9	69.8	55.0	84.0	93.5	61.5	60.9	69.8	65.0	186.0	178.3	170.3	41.2		



Number of 24HR Exceedences	2	Proposed Guideline
Number of Non-Zero Readings	744	
Maximum 1-HR Average	210.1 UG/M3	
Maximum 24-HR Average	48.5 UG/M3	
Monthly Calibration	0	Operational Time
Standard Deviation	19.9	Operational Uptime
		Monthly Average
		744 HRS
		100.0 %
		14.0 UG/M3

Berm PM₁₀ (µg/m³) – October 2024

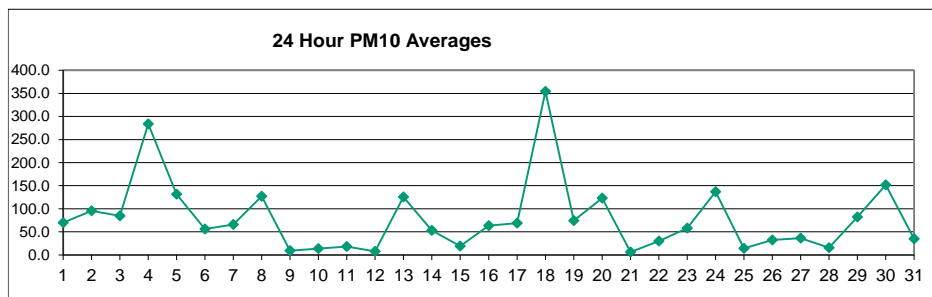
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	105.6	155.5	133.8	75.3	58.2	41.2	52.0	64.0	123.9	153.0	220.6	91.5	61.4	146.8	129.6	16.6	6.1	9.5	12.2	9.5	4.1	1.4	3.5	3.1	69.9	220.6
2	0.8	0.7	1.4	1.1	2.5	4.5	4.3	3.3	3.9	5.6	42.2	101.8	133.0	252.4	168.2	159.6	91.0	353.3	328.5	152.4	74.7	140.0	129.5	135.2	95.4	353.3
3	54.8	132.4	27.6	7.2	4.5	12.5	4.1	6.5	42.5	65.3	136.2	240.2	239.1	330.7	197.0	132.6	66.0	244.3	56.6	3.6	7.4	14.8	6.5	4.6	84.9	330.7
4	5.0	5.9	17.5	12.8	10.7	7.5	140.2	332.8	510.3	720.8	1331.1	1025.9	468.9	248.1	120.8	31.5	21.1	346.6	294.3	334.7	138.9	213.1	272.5	195.4	283.6	1331.1
5	157.0	342.7	222.9	255.4	64.2	41.9	93.3	145.0	100.4	80.5	91.3	74.3	132.9	174.4	152.6	151.9	37.2	89.0	127.8	165.5	78.7	146.0	139.8	95.2	131.7	342.7
6	154.4	117.0	72.0	73.6	8.9	3.0	21.6	12.1	9.5	42.3	53.7	61.8	6.9	7.7	14.9	23.4	8.9	92.0	92.8	59.2	79.4	196.5	64.5	70.1	56.1	196.5
7	62.3	24.8	7.0	23.2	6.7	3.2	2.8	12.8	14.0	9.7	196.8	203.8	280.6	235.3	218.2	83.5	58.3	21.2	13.4	24.2	28.6	20.4	14.1	20.3	66.0	280.6
8	22.6	8.9	4.3	5.6	4.7	2.7	16.3	27.1	34.3	28.4	166.9	294.4	407.2	305.9	495.7	395.2	112.7	302.8	184.3	134.3	58.1	26.2	3.0	6.6	127.0	495.7
9	10.5	10.2	8.0	4.5	5.0	3.2	3.4	4.6	9.2	15.2	6.4	6.1	7.1	12.7	35.6	37.9	18.1	2.0	4.9	3.9	1.5	3.9	2.5	1.2	9.1	37.9
10	0.5	0.5	1.1	2.0	1.6	1.1	2.0	1.6	8.9	6.8	16.7	4.5	4.7	44.0	56.1	94.7	62.4	2.0	1.0	3.6	4.9	0.5	2.6	2.0	13.6	94.7
11	1.1	7.6	2.9	2.3	1.6	1.1	1.3	2.5	11.7	22.4	12.1	3.8	7.2	127.9	133.4	49.1	12.3	2.6	2.5	3.6	3.5	9.3	9.3	4.7	18.2	133.4
12	1.9	2.4	2.8	1.7	2.9	1.7	1.9	6.8	10.7	5.3	11.6	26.5	12.8	9.7	13.7	14.1	7.6	5.3	4.8	5.4	7.9	22.0	5.1	4.7	7.9	26.5
13	7.4	26.1	7.4	5.7	2.7	10.3	3.2	2.7	2.7	5.4	64.4	45.7	68.9	80.3	464.9	622.2	427.2	294.5	239.7	225.5	93.7	155.8	130.9	28.7	125.7	622.2
14	52.8	57.5	7.6	67.1	40.9	14.1	7.4	17.2	16.0	24.1	64.3	30.8	140.9	136.6	67.9	85.5	60.3	125.9	92.0	72.8	21.8	28.0	22.0	18.2	53.0	140.9
15	17.4	5.7	2.7	4.4	3.2	43.3	10.5	7.1	19.9	29.0	15.1	21.3	22.5	29.9	30.7	70.1	17.9	9.1	11.7	12.9	15.1	19.3	24.0	20.2	19.3	70.1
16	16.7	9.1	10.2	12.8	15.1	15.9	5.1	2.7	24.7	133.1	181.2	150.6	213.3	144.7	300.1	53.5	6.4	1.8	3.9	17.4	5.9	28.5	74.4	99.6	63.6	300.1
17	31.9	39.2	11.3	33.0	13.5	45.9	54.1	70.5	33.7	40.1	53.1	88.3	72.8	158.1	146.6	137.7	45.0	116.7	171.8	81.6	31.9	88.7	63.8	25.3	68.9	171.8
18	3.1	45.6	66.9	163.9	30.0	44.2	93.6	183.2	185.3	150.9	269.4	184.4	179.4	332.6	284.1	270.2	122.3	470.1	332.4	492.1	1603.5	1410.3	1286.9	302.8	354.5	1603.5
19	81.8	93.2	143.8	114.1	30.4	13.4	37.6	46.0	90.6	125.4	121.0	59.5	28.4	26.2	63.8	131.7	179.6	270.1	37.5	6.4	20.2	12.1	12.2	37.2	74.3	270.1
20	37.1	73.8	88.9	20.3	2.6	1.6	2.8	1.8	5.7	1.6	1.4	2.4	3.1	4.8	107.0	256.6	344.0	365.8	570.2	513.1	209.3	135.9	133.9	69.2	123.0	570.2
21	11.6	6.8	1.7	1.3	2.0	56.2	52.2	0.2	0.3	0.1	0.3	3.3	6.1	0.5	0.4	0.3	0.4	0.7	0.5	0.6	0.7	0.7	0.8	1.1	6.2	56.2
22	2.3	3.7	3.5	2.7	2.3	2.6	2.4	1.8	2.2	35.3	41.2	33.8	31.3	35.8	51.8	57.8	30.9	29.0	51.2	62.7	49.5	45.5	68.1	74.4	30.1	74.4
23	36.3	48.7	48.2	70.4	31.1	48.4	95.9	92.5	91.8	107.2	53.0	37.1	49.3	71.2	73.0	47.0	30.3	43.6	36.8	47.4	23.5	36.2	64.9	108.4	58.0	108.4
24	111.6	130.8	117.8	149.6	73.1	64.4	71.3	171.3	107.3	220.0	270.0	272.0	198.0	270.8	195.2	147.2	29.4	131.4	170.9	123.9	63.6	109.2	70.7	14.6	136.8	272.0
25	2.7	6.9	19.4	5.8	3.5	3.2	7.5	5.7	9.5	17.9	23.9	54.7	34.3	29.2	47.4	24.8	8.3	4.2	3.2	4.3	3.7	5.7	6.7	5.2	14.1	54.7
26	4.9	12.4	4.9	4.5	6.6	22.9	6.2	24.1	31.6	30.2	72.6	128.1	94.5	81.0	47.9	47.0	17.4	71.1	41.7	15.2	1.9	0.9	3.0	5.9	32.4	128.1
27	17.2	27.3	18.3	38.4	49.9	43.6	41.5	91.7	14.6	54.2	21.1	10.3	77.0	84.5	1.8	4.0	24.1	31.9	55.8	45.9	22.9	33.4	37.8	24.0	36.3	91.7
28	23.2	11.9	17.8	3.0	12.9	9.6	1.9	3.8	1.6	1.9	5.8	14.3	47.7	46.4	57.1	70.7	9.8	19.1	3.7	3.1	0.8	1.2	1.9	1.1	15.4	70.7
29	1.9	1.6	2.4	1.0	2.0	2.0	2.0	4.6	3.6	1.6	31.2	45.9	131.5	177.2	215.5	202.0	210.7	222.3	115.6	140.0	92.0	123.4	121.9	116.3	82.0	222.3
30	131.4	248.3	177.4	230.2	56.4	184.2	204.2	231.0	211.0	184.3	168.9	111.4	226.5	117.0	102.6	163.8	87.8	109.4	162.4	162.2	116.5	113.4	79.6	61.7	151.7	248.3
31	83.7	148.8	146.8	106.0	42.1	17.2	8.5	11.4	10.0	8.0	12.3	16.1	12.8	69.3	64.5	61.2	3.5	4.1	3.0	1.9	2.9	2.2	3.9	2.4	35.1	148.8
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	40.4	58.3	45.1	48.3	19.1	24.7	33.9	51.2	56.2	75.0	121.1	111.1	109.7	122.3	130.9	117.5	69.6	122.3	104.1	94.5	92.5	101.4	92.3	50.3		
MAX	157.0	342.7	222.9	255.4	73.1	184.2	204.2	332.8	510.3	720.8	1331.1	1025.9	468.9	332.6	495.7	622.2	427.2	470.1	570.2	513.1	1603.5	1410.3	1286.9	302.8		



Number of Non-Zero Readings	744		
Maximum 1-HR Average	1603.5 UG/M3		
Maximum 24-HR Average	354.5 UG/M3		
Monthly Calibration	0	Operational Time	744 HRS
Standard Deviation	142.3	Operational Uptime	100.0 %
		Monthly Average	78.8 UG/M3

Berm TSP ($\mu\text{g}/\text{m}^3$) – October 2024

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	105.6	155.5	133.8	75.3	58.2	41.2	52.0	64.0	123.9	153.0	220.6	91.5	61.4	146.8	129.6	16.6	6.1	9.5	12.2	9.5	4.1	1.4	3.5	3.1	69.9	220.6
2	0.8	0.7	1.4	1.1	2.5	4.5	4.3	3.3	3.9	5.6	42.2	101.8	133.0	252.4	168.2	159.6	91.0	353.3	328.5	152.4	74.7	140.0	129.5	135.2	95.4	353.3
3	54.8	132.4	27.6	7.2	4.5	12.5	4.1	6.5	42.5	65.3	136.2	240.2	239.1	330.7	197.0	132.6	66.0	244.3	56.6	3.6	7.4	14.8	6.5	4.6	84.9	330.7
4	5.0	5.9	17.5	12.8	10.7	7.5	140.2	332.8	510.3	720.8	1331.1	1025.9	468.9	248.1	120.8	31.5	21.1	346.6	294.3	334.7	138.9	213.1	272.5	195.4	283.6	1331.1
5	157.0	342.7	222.9	255.4	64.2	41.9	93.3	145.0	100.4	80.5	91.3	74.3	132.9	174.4	152.6	151.9	37.2	89.0	127.8	165.5	78.7	146.0	139.8	95.2	131.7	342.7
6	154.4	117.0	72.0	73.6	8.9	3.0	21.6	12.1	9.5	42.3	53.7	61.8	6.9	7.7	14.9	23.4	8.9	92.0	92.8	59.2	79.4	196.5	64.5	70.1	56.1	196.5
7	62.3	24.8	7.0	23.2	6.7	3.2	2.8	12.8	14.0	9.7	196.8	203.8	280.6	235.3	218.2	83.5	58.3	21.2	13.4	24.2	28.6	20.4	14.1	20.3	66.0	280.6
8	22.6	8.9	4.3	5.6	4.7	2.7	16.3	27.1	34.3	28.4	166.9	294.4	407.2	305.9	495.7	395.2	112.7	302.8	184.3	134.3	58.1	26.2	3.0	6.6	127.0	495.7
9	10.5	10.2	8.0	4.5	5.0	3.2	3.4	4.6	9.2	15.2	6.4	6.1	7.1	12.7	35.6	37.9	18.1	2.0	4.9	3.9	1.5	3.9	2.5	1.2	9.1	37.9
10	0.5	0.5	1.1	2.0	1.6	1.1	2.0	1.6	8.9	6.8	16.7	4.5	4.7	44.0	56.1	94.7	62.4	2.0	1.0	3.6	4.9	0.5	2.6	2.0	13.6	94.7
11	1.1	7.6	2.9	2.3	1.6	1.1	1.3	2.5	11.7	22.4	12.1	3.8	7.2	127.9	133.4	49.1	12.3	2.6	2.5	3.6	3.5	9.3	9.3	4.7	18.2	133.4
12	1.9	2.4	2.8	1.7	2.9	1.7	1.9	6.8	10.7	5.3	11.6	26.5	12.8	9.7	13.7	14.1	7.6	5.3	4.8	5.4	7.9	22.0	5.1	4.7	7.9	26.5
13	7.4	26.1	7.4	5.7	2.7	10.3	3.2	2.7	2.7	5.4	64.4	45.7	68.9	80.3	464.9	622.2	427.2	294.5	239.7	225.5	93.7	155.8	130.9	28.7	125.7	622.2
14	52.8	57.5	7.6	67.1	40.9	14.1	7.4	17.2	16.0	24.1	64.3	30.8	140.9	136.6	67.9	85.5	60.3	125.9	92.0	72.8	21.8	28.0	22.0	18.2	53.0	140.9
15	17.4	5.7	2.7	4.4	3.2	43.3	10.5	7.1	19.9	29.0	15.1	21.3	22.5	29.9	30.7	70.1	17.9	9.1	11.7	12.9	15.1	19.3	24.0	20.2	19.3	70.1
16	16.7	9.1	10.2	12.8	15.1	15.9	5.1	2.7	24.7	133.1	181.2	150.6	213.3	144.7	300.1	53.5	6.4	1.8	3.9	17.4	5.9	28.5	74.4	99.6	63.6	300.1
17	31.9	39.2	11.3	33.0	13.5	45.9	54.1	70.5	33.7	40.1	53.1	88.3	72.8	158.1	146.6	137.7	45.0	116.7	171.8	81.6	31.9	88.7	63.8	25.3	68.9	171.8
18	3.1	45.6	66.9	163.9	30.0	44.2	93.6	183.2	185.3	150.9	269.4	184.4	179.4	332.6	284.1	270.2	122.3	470.1	332.4	492.1	1603.5	1410.3	1286.9	302.8	354.5	1603.5
19	81.8	93.2	143.8	114.1	30.4	13.4	37.6	46.0	90.6	125.4	121.0	59.5	28.4	26.2	63.8	131.7	179.6	270.1	37.5	6.4	20.2	12.1	12.2	37.2	74.3	270.1
20	37.1	73.8	88.9	20.3	2.6	1.6	2.8	1.8	5.7	1.6	1.4	2.4	3.1	4.8	107.0	256.6	344.0	365.8	570.2	513.1	209.3	135.9	133.9	69.2	123.0	570.2
21	11.6	6.8	1.7	1.3	2.0	56.2	52.2	0.2	0.3	0.1	0.3	3.3	6.1	0.5	0.4	0.3	0.4	0.7	0.5	0.6	0.7	0.7	0.8	1.1	6.2	56.2
22	2.3	3.7	3.5	2.7	2.3	2.6	2.4	1.8	2.2	35.3	41.2	33.8	31.3	35.8	51.8	57.8	30.9	29.0	51.2	62.7	49.5	45.5	68.1	74.4	30.1	74.4
23	36.3	48.7	48.2	70.4	31.1	48.4	95.9	92.5	91.8	107.2	53.0	37.1	49.3	71.2	73.0	47.0	30.3	43.6	36.8	47.4	23.5	36.2	64.9	108.4	58.0	108.4
24	111.6	130.8	117.8	149.6	73.1	64.4	71.3	171.3	107.3	220.0	270.0	272.0	198.0	270.8	195.2	147.2	29.4	131.4	170.9	123.9	63.6	109.2	70.7	14.6	136.8	272.0
25	2.7	6.9	19.4	5.8	3.5	3.2	7.5	5.7	9.5	17.9	23.9	54.7	34.3	29.2	47.4	24.8	8.3	4.2	3.2	4.3	3.7	5.7	6.7	5.2	14.1	54.7
26	4.9	12.4	4.9	4.5	6.6	22.9	6.2	24.1	31.6	30.2	72.6	128.1	94.5	81.0	47.9	47.0	17.4	71.1	41.7	15.2	1.9	0.9	3.0	5.9	32.4	128.1
27	17.2	27.3	18.3	38.4	49.9	43.6	41.5	91.7	14.6	54.2	21.1	10.3	77.0	84.5	1.8	4.0	24.1	31.9	55.8	45.9	22.9	33.4	37.8	24.0	36.3	91.7
28	23.2	11.9	17.8	3.0	12.9	9.6	1.9	3.8	1.6	1.9	5.8	14.3	47.7	46.4	57.1	70.7	9.8	19.1	3.7	3.1	0.8	1.2	1.9	1.1	15.4	70.7
29	1.9	1.6	2.4	1.0	2.0	2.0	2.0	4.6	3.6	1.6	31.2	45.9	131.5	177.2	215.5	202.0	210.7	222.3	115.6	140.0	92.0	123.4	121.9	116.3	82.0	222.3
30	131.4	248.3	177.4	230.2	56.4	184.2	204.2	231.0	211.0	184.3	168.9	111.4	226.5	117.0	102.6	163.8	87.8	109.4	162.4	162.2	116.5	113.4	79.6	61.7	151.7	248.3
31	83.7	148.8	146.8	106.0	42.1	17.2	8.5	11.4	10.0	8.0	12.3	16.1	12.8	69.3	64.5	61.2	3.5	4.1	3.0	1.9	2.9	2.2	3.9	2.4	35.1	148.8
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	40.4	58.3	45.1	48.3	19.1	24.7	33.9	51.2	56.2	75.0	121.1	111.1	109.7	122.3	130.9	117.5	69.6	122.3	104.1	94.5	92.5	101.4	92.3	50.3		
MAX	157.0	342.7	222.9	255.4	73.1	184.2	204.2	332.8	510.3	720.8	1331.1	1025.9	468.9	332.6	495.7	622.2	427.2	470.1	570.2	513.1	1603.5	1410.3	1286.9	302.8		



Number of Non-Zero Readings	744		
Maximum 1-HR Average	1603.5 UG/M3		
Maximum 24-HR Average	354.5 UG/M3		
Monthly Calibration	0	Operational Time	744 HRS
Standard Deviation	142.3	Operational Uptime	100.0 %
		Monthly Average	78.8 UG/M3