

LAFARGE CANADA INC.

AMBIENT AIR QUALITY MONTHLY REPORT NOVEMBER 2022

DECEMBER 16, 2022





AMBIENT AIR QUALITY MONTHLY REPORT

NOVEMBER 2022

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-05
DATE: DECEMBER 16, 2022

WSP
SUITE 1000
840 HOWE STREET
VANCOUVER, BC, CANADA V6Z 2M1

T: +1 604 685-9381
F: +1 604 683-8655
WSP.COM



December 16, 2022

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

Attention: Nikolaos Veriotes P. Eng.

Dear Mr. Veriotes,

Subject: Ambient Air Quality Monthly Report – November 2022

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 November 2022.

Lagoon	Data Completeness (%)	1-Hour Average	24-hour Average
		Exceedances of AAAQO or AAAQG	Exceedances of AAAQO
TSP	99.4%	-	0
PM _{2.5}	99.3%	0	0
PM ₁₀	98.6%	-	-
NO	99.6%	-	-
NO ₂	99.6%	0	-
NO _x	99.6%	-	-
SO ₂	99.6%	0	0
Temperature	99.6%	-	-
Wind Speed / Direction	99.7%	-	-
Pressure	99.6%	-	-
Relative Humidity	99.6%	-	-
Precipitation	99.7%	-	-

SUITE 1000
840 HOWE STREET
VANCOUVER, BC, CANADA V6Z 2M1

T: +1 604 685-9381
F: +1 604 683-8655
wsp.com

The following table summarizes the data completeness and reported exceedances of Alberta Ambient Air Quality Objectives (AAAQOs) or Guidelines (AAAQG) at the Windridge Station for November 2022.

Windridge	Data Completeness (%)	1-Hour Average	24-hour Average	
		Exceedances of AAAQG	Exceedances of PM _{2.5} AAAQO	Exceedances of TSP AAAQO
TSP	99.7%	-	-	3
PM_{2.5}	99.7%	0	0	-
PM₁₀	99.7%	-	-	-

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 November 2022.

GRIMM Stations	Data Completeness (%)	1-Hour Average	24-hour Average	
		Exceedances of PM _{2.5} Guidelines	Exceedances of PM _{2.5} Guidelines	Exceedances of TSP Guidelines
West	100%	0	0	0
Berm	100%	6	1	10
Entrance	100%	0	2	15

I certify that I have reviewed and verified this report and that the information is complete, accurate and representative of the monitoring results, reporting timeframe and the specified analysis, summarization and reporting requirements.

Sincerely,



Tyler Abel, M.Sc.
Senior Air Quality Specialist,
Vancouver Region

SIGNATURES

PREPARED BY



December 16, 2022

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

Date

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



December 16, 2022

Tyler Abel, M.Sc.
Senior Air Quality Specialist
Vancouver Region, Environment

Date

WSP Canada Inc. (WSP) prepared this report solely for the use of the intended recipient, LAFARGE CANADA INC., in accordance with the professional services agreement. The intended recipient is solely responsible for the disclosure of any information contained in this report. The content and opinions contained in the present report are based on the observations and/or information available to WSP at the time of preparation. If a third party makes use of, relies on, or makes decisions in accordance with this report, said third party is solely responsible for such use, reliance or decisions. WSP does not accept responsibility for damages, if any, suffered by any third party as a result of decisions made or actions taken by said third party based on this report. This limitations statement is considered an integral part of this report.

The original of this digital file will be conserved by WSP for a period of not less than 10 years. As the digital file transmitted to the intended recipient is no longer under the control of WSP, its integrity cannot be assured. As such, WSP does not guarantee any modifications made to this digital file subsequent to its transmission to the intended recipient.

¹ Approval of this document is an administrative function indicating readiness for release and does not impart legal liability on to the Approver for any technical content contained herein. Technical accuracy and fit-for-purpose of this content is obtained through the review process. The Approver shall ensure the applicable review process has occurred prior to signing the document.



TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	Exshaw Creek Flood Mitigation.....	1
2	NOVEMBER 2022 REPORT SUMMARY	3
2.1	Lagoon Station.....	3
2.2	Windridge Station	4
2.3	West Grimm	5
2.4	Berm Grimm.....	5
2.5	Entrance Grimm.....	6
3	LAGOON STATION	7
3.1	Operational Summary.....	7
3.2	Monitoring Results and Trends.....	8
4	WINDRIDGE STATION.....	20
4.1	Operational Summary.....	20
4.2	Monitoring Results and Trends.....	20
5	WEST INDUSTRIAL GRIMM	30
5.1	Operational Summary.....	30
5.2	Monitoring Results and Trends.....	30
6	BERM INDUSTRIAL GRIMM.....	35
6.1	Operational Summary.....	35
6.2	Monitoring Results and Trends.....	35
7	ENTRANCE INDUSTRIAL GRIMM	43
7.1	Operational Summary.....	43
7.2	Monitoring Results and Trends.....	43

BIBLIOGRAPHY52

TABLES

TABLE 2-1	LAGOON STATION DATA SUMMARY	3
TABLE 2-2	WINDRIDGE STATION DATA SUMMARY	4
TABLE 2-3	WEST STATION DATA SUMMARY...	5
TABLE 2-4	BERM STATION DATA SUMMARY...	5
TABLE 2-5	ENTRANCE STATION DATA SUMMARY	6
TABLE 3-1	INSTRUMENTATION LIST AT THE LAGOON STATION.....	7
TABLE 3-2	SUMMARY OF NOVEMBER 2022 DATA AT LAGOON	10
TABLE 4-1	INSTRUMENTATION LIST AT THE WINDRIDGE MONITORING LOCATION.....	20
TABLE 4-2	SUMMARY OF NOVEMBER 2022 DATA AT THE WINDRIDGE STATION	22
TABLE 4-3	DAYS EXCEEDING THE TSP AAAQO OR PM _{2.5} AAAQO AT THE WINDRIDGE STATION	23
TABLE 5-1	INSTRUMENTATION LIST AT THE WEST MONITORING LOCATION ...	30
TABLE 5-2	SUMMARY OF NOVEMBER 2022 DATA AT THE WEST GRIMM	31
TABLE 6-1	INSTRUMENTATION LIST AT THE BERM MONITORING LOCATION ...	35
TABLE 6-2	SUMMARY OF NOVEMBER 2022 DATA AT THE BERM GRIMM	36
TABLE 6-3	DAYS EXCEEDING THE GUIDELINE FOR TSP OR PM _{2.5} AT THE BERM MONITOR	37
TABLE 7-1	INSTRUMENTATION LIST AT THE ENTRANCE MONITORING LOCATION.....	43
TABLE 7-2	SUMMARY OF NOVEMBER 2022 DATA AT THE ENTRANCE GRIMM	44
TABLE 7-3	DAYS EXCEEDING THE GUIDELINE FOR TSP OR PM _{2.5} AT THE ENTRANCE MONITOR	45

FIGURES

FIGURE 1-1	LOCATIONS OF AIR QUALITY MONITORS IN EXSHAW.....	1
FIGURE 1-2	PHOTO OF COMPLETED FLOOD MITIGATION WORK AT EXSHAW CREEK.....	2
FIGURE 3-1	INLETS ON THE TOP OF WSP'S LAGOON MONITOR	8
FIGURE 3-2	1-HOUR CONCENTRATIONS OF NO _x , SO ₂ , PARTICULATE MATTER, WIND DIRECTION AND WIND SPEED AT THE LAGOON STATION.....	11
FIGURE 3-3	HISTOGRAM OF HOURLY NO ₂ CONCENTRATIONS AT THE LAGOON STATION.....	12
FIGURE 3-4	HISTOGRAM OF HOURLY SO ₂ CONCENTRATIONS AT THE LAGOON STATION.....	12
FIGURE 3-5	HISTOGRAM OF HOURLY PM _{2.5} CONCENTRATIONS AT THE LAGOON STATION.....	13
FIGURE 3-6	HISTOGRAM OF HOURLY PM ₁₀ CONCENTRATIONS AT THE LAGOON STATION.....	13
FIGURE 3-7	HISTOGRAM OF HOURLY TSP CONCENTRATIONS AT THE LAGOON STATION.....	14
FIGURE 3-8	24-HOUR CONCENTRATIONS OF NO _x , SO ₂ , AND PARTICULATE MATTER AT THE LAGOON MONITOR	15
FIGURE 3-9	WIND ROSE FOR NOVEMBER 2022 AT THE LAGOON STATION.....	16
FIGURE 3-10	LAGOON MONITOR PARTICULATE MATTER TIME VARIATION	17
FIGURE 3-11	LAGOON MONITOR SO ₂ TIME VARIATION.....	18
FIGURE 3-12	LAGOON MONITOR NO _x TIME VARIATION.....	19
FIGURE 4-1	1-HOUR PARTICULATE MATTER CONCENTRATIONS RECORDED AT THE WINDRIDGE MONITOR	24
FIGURE 4-2	HISTOGRAM OF HOURLY PM _{2.5} CONCENTRATIONS AT THE WINDRIDGE STATION	25

FIGURE 4-3	HISTOGRAM OF HOURLY PM ₁₀ CONCENTRATIONS AT THE WINDRIDGE STATION	25
FIGURE 4-4	HISTOGRAM OF HOURLY TSP CONCENTRATIONS AT THE WINDRIDGE STATION	26
FIGURE 4-5	24-HOUR PARTICULATE MATTER CONCENTRATIONS AT THE WINDRIDGE MONITOR	27
FIGURE 4-6	WIND ROSE FOR TSP EXCEEDANCE DAYS RECORDED AT THE WINDRIDGE STATION.....	28
FIGURE 4-7	WINDRIDGE PARTICULATE MATTER TIME VARIATION.....	29
FIGURE 5-1	1-HOUR PARTICULATE MATTER CONCENTRATIONS AT THE WEST MONITOR	32
FIGURE 5-2	24-HOUR PARTICULATE MATTER CONCENTRATIONS AT THE WEST MONITOR	33
FIGURE 5-3	WEST MONITOR PARTICULATE MATTER TIME VARIATION	34
FIGURE 6-1	1-HOUR PARTICULATE MATTER CONCENTRATIONS RECORDED AT THE BERM MONITOR	38
FIGURE 6-2	24-HOUR PARTICULATE MATTER CONCENTRATIONS RECORDED AT THE BERM MONITOR	39
FIGURE 6-3	WINDROSE FOR TSP EXCEEDANCE DAYS RECORDED AT THE BERM GRIMM.....	40
FIGURE 6-4	WINDROSE FOR PM _{2.5} EXCEEDANCE DAY RECORDED AT THE BERM GRIMM.....	41
FIGURE 6-5	BERM PARTICULATE MATTER TIME VARIATION.....	42
FIGURE 7-1	1-HOUR PARTICULATE MATTER CONCENTRATIONS RECORDED AT THE ENTRANCE MONITOR	47
FIGURE 7-2	24-HOUR PARTICULATE MATTER CONCENTRATIONS RECORDED AT THE ENTRANCE MONITOR	48
FIGURE 7-3	WIND ROSE FOR TSP EXCEEDANCE DAYS RECORDED AT THE ENTRANCE GRIMM.....	49

FIGURE 7-4	WIND ROSE FOR PM _{2.5} EXCEEDANCE DAYS RECORDED AT THE ENTRANCE GRIMM.....	50
FIGURE 7-5	ENTRANCE PARTICULATE MATER TIME VARIATION.....	51

APPENDICES

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 November 1, 2022 and November 30, 2022.

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

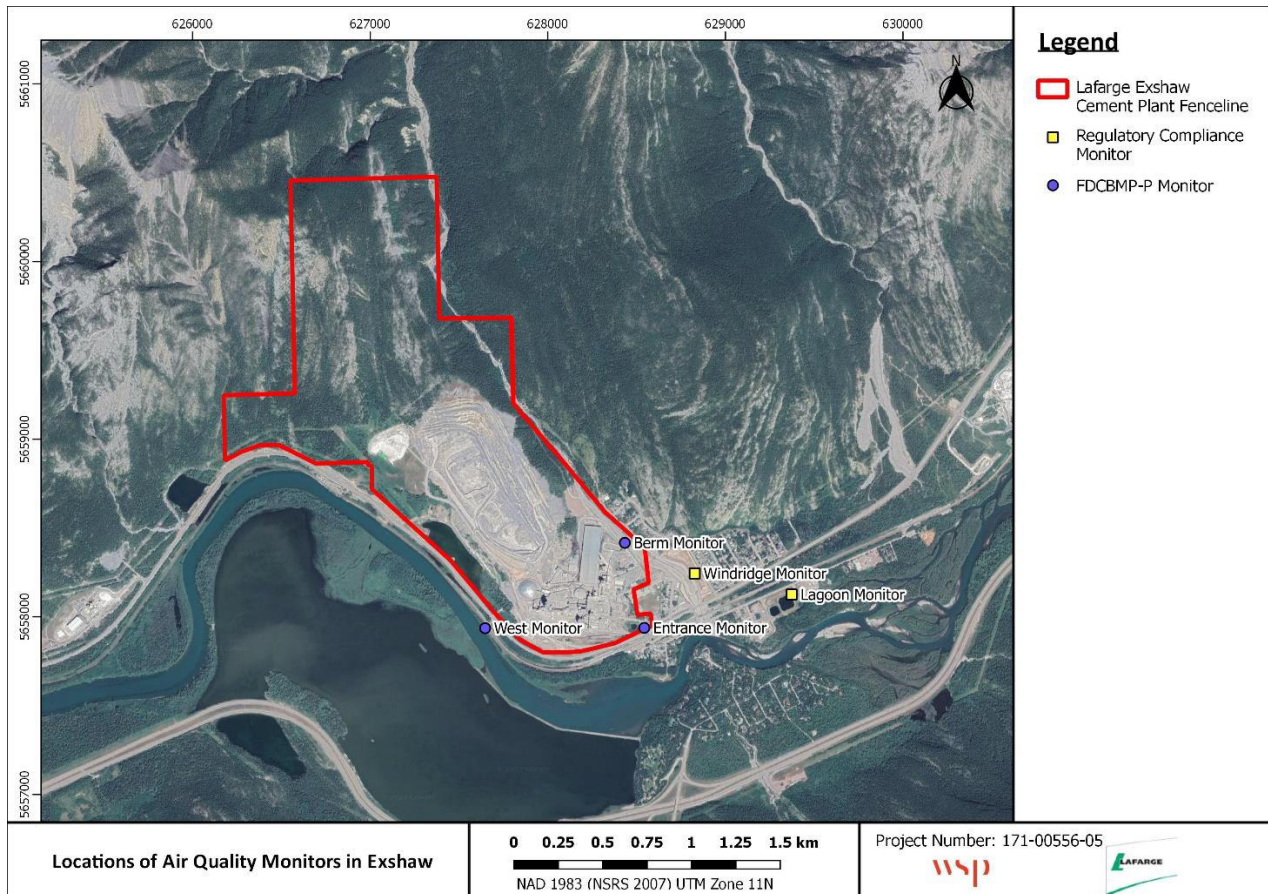


Figure 1-1 Locations of Air Quality Monitors in Exshaw

1.1 EXSHAW CREEK FLOOD MITIGATION

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



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

2 NOVEMBER 2022 REPORT SUMMARY

This summary section provides the pertinent details on data collected and maintenance/calibration activities at each of the monitoring locations. The monitoring results for each station are described in further detail in their corresponding sections. Maximum hourly concentrations are shown for all particulate matter size fractions, but there are no Alberta Ambient Air Quality Objectives (AAAQO) for 1-hour PM concentrations. The exceedances reported for 1-hour PM_{2.5} are those above the 1-hour PM_{2.5} Alberta Ambient Air Quality Guidelines (AAAQG).

2.1 LAGOON STATION

Table 2-1 Lagoon station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQO or AAAQG	Maximum Concentration	Exceedances of AAAQO
NO ₂ (ppb)	99.6	31.0	0	18.5	-
SO ₂ (ppb)	99.6	14.5	0	4.6	0
PM _{2.5} (µg/m ³)	99.3	46.6	0 ¹	12.6	0
PM ₁₀ (µg/m ³)	98.6	103.1	-	47.7	-
TSP (µg/m ³)	99.4	143.9	-	63.3	0
Temperature (°C)	99.6	11.3	-	6.0	-
Wind Speed (km/hr) /Direction (Degrees)	99.7	56.1/W	-	40.0/WSW	-
Precipitation (mm)	99.7	0.2 ²	-	0.8 ³	-

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

² Maximum Daily Total Accumulation of Precipitation (mm)

³ Monthly Total Accumulation of Precipitation (mm)

Data Quality Notes:

- There were zero days exceeding the 24-hour PM_{2.5} AAAQO.
- There were zero exceedances of the 1-hour PM_{2.5} AAAQG.
- There were zero days exceeding the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- At the Lagoon station the wind speed / direction and precipitation analyzers recorded 99.7% uptime for the month of November due to two hours of power failure occurring on November 2nd at 11:00 & 12:00.
- The NO₂ & SO₂ analyzer recorded 99.6% uptime for the month of November due to three hours of power failure occurring on November 2nd at 11:00 – 13:00.
- The temperature analyzer recorded 99.6% uptime for the month of November due to two hours of power failure occurring on November 2nd at 11:00 & 12:00. And further, one hour of collection error occurring on November 4th at 11:00.
- The TSP analyzer recorded 99.4% uptime for the month of November due to three hours of power failure occurring on November 2nd at 11:00 – 13:00. And further, one hour of equipment malfunction occurring on November 22nd at 2:00.
- The PM_{2.5} analyzer recorded 99.3% uptime for the month of November due to three hours of power failure occurring on November 2nd at 11:00 – 13:00. And further, two hours of equipment malfunction occurring on November 22nd at 2:00 and November 28th at 20:00.
- The PM₁₀ analyzer recorded 98.6% uptime for the month of November due to three hours of power failure occurring on November 2nd at 11:00 – 13:00. And further, six hours of equipment malfunction occurring on November 4th at 24:00, November 5th from 2:00 – 6:00, and November 22nd at 2:00.

2.2 WINDRIDGE STATION

Table 2-2 Windridge station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQG	Maximum Concentration	Exceedances of AAAQO
PM _{2.5} (µg/m ³)	99.7	20.0	0*	8.5	0
PM ₁₀ (µg/m ³)	99.7	485.0	-	207.9	-
TSP (µg/m ³)	99.7	985.0	-	349.3	3

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

Data Quality Notes:

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

Calibration/Maintenance Notes:

- The PM_{2.5}, PM₁₀, and TSP monitors recorded 99.7% uptime during the month of November due to one hour of power failure occurring on November 15th at 11:00. And further, one hour of equipment malfunction occurring on November 28th at 19:00.

2.3 WEST GRIMM

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

Table 2-3 West station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} (µg/m ³)	100.0	15.8	0*	10.2	0
PM ₁₀ (µg/m ³)	100.0	23.0	-	11.7	-
TSP (µg/m ³)	100.0	39.6	-	13.0	0

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

Data Quality Notes:

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

Calibration/Maintenance Notes:

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

2.4 BERM GRIMM

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

Table 2-4 Berm station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} (µg/m ³)	100.0	126.0	6*	39.4	1
PM ₁₀ (µg/m ³)	100.0	1485.3	-	418.4	-
TSP (µg/m ³)	100.0	4049.8	-	1454.3	10

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

Data Quality Notes:

- There was one exceedance of the 24-hour PM_{2.5} Guidelines.
- There were six exceedances of the 1-hour PM_{2.5} Guidelines.
- There were ten exceedances of the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

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

2.5 ENTRANCE GRIMM

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

Table 2-5 **Entrance station data summary**

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} (µg/m ³)	100.0	60.3	0*	32.6	2
PM ₁₀ (µg/m ³)	100.0	594.4	-	332.9	-
TSP (µg/m ³)	100.0	2293.8	-	1298.8	15

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

Data Quality Notes:

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

Calibration/Maintenance Notes:

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

3 LAGOON STATION

The Lagoon trailer contains NO_x, SO₂, TSP, PM₁₀, and PM_{2.5} analyzers as well as meteorological sensors, and is shown in Figure 3-1. An ambient air quality station has been at this location since 2002, providing a long-term data record for air quality in the Exshaw area.

This section provides a summary of the monitoring activities for the Lagoon ambient air quality station, including: a table of instrumentation (Table 3-1), a data summary table (Table 3-2), site visit notes, a wind rose (Figure 3-9) and tables and graphs illustrating the monitoring results for November 2022.

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 November 21 st . The monitor had 99.3% uptime for the month of November due to three hours of power failure occurring on November 2 nd at 11:00 – 13:00. And further, two hours of equipment malfunction occurring on November 22 nd at 2:00 and November 28 th at 20:00.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on November 21 st . The monitor had 98.6% uptime for the month of November due to three hours of power failure occurring on November 2 nd at 11:00 – 13:00. And further, six hours of equipment malfunction occurring on November 4 th at 24:00, November 5 th from 2:00 – 6:00, and November 22 nd at 2:00.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on November 21 st . The monitor had 99.4% uptime for the month of November due to three hours of power failure occurring on November 2 nd at 11:00 – 13:00. And further, one hour of equipment malfunction occurring on November 22 nd at 2:00.
Oxides of Nitrogen	TEI 42C	The NO _x monitor was calibrated on November 24 th . The monitor had 99.6% uptime for the month of November due to three hours of power failure occurring on November 2 nd at 11:00 – 13:00.

Sulphur Dioxide	Teledyne API 102A	The SO ₂ monitor was calibrated on November 24 th . The monitor had 99.6% uptime for the month of November due to three hours of power failure occurring on November 2 nd at 11:00 – 13:00
Precipitation	MetOne 130 Rain/Snow Gauge	The monitor had 99.7% uptime for the month of November due to two hours of power failure occurring on November 2 nd at 11:00 & 12:00.
Wind Speed	MetOne Wind Sensor	The monitor had 99.7% uptime for the month of November due to two hours of power failure occurring on November 2 nd at 11:00 & 12:00.
Wind Direction		
Ambient Temperature	MetOne Ambient Temperature Sensor	The monitor had 99.6% uptime for the month of November due to two hours of power failure occurring on November 2 nd at 11:00 & 12:00. And further, one hour of collection error on November 4 th at 11:00.



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

3.2 MONITORING RESULTS AND TRENDS

Table 3-2 summarizes the hourly and daily concentrations recorded in November 2022. 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 November 2022 for the pollutants listed in Table 3-2. Additionally, Figure 3-3 to Figure 3-7 show the histograms of the hourly concentrations of NO₂, SO₂, PM_{2.5}, PM₁₀, and TSP measured at the Lagoon station.

There were zero days exceeding the 24-hour TSP ($100 \mu\text{g}/\text{m}^3$) AAAQO. There were zero exceedances of the 24-hour $\text{PM}_{2.5}$ ($29 \mu\text{g}/\text{m}^3$) AAAQO. Further, there were zero exceedances of the 1-hour $\text{PM}_{2.5}$ AAAQG ($80 \mu\text{g}/\text{m}^3$).

Historically in November, the average number of 24-hour TSP AAAQO exceedances and 24-hour $\text{PM}_{2.5}$ AAAQO exceedances are zero.

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

Table 3-2 Summary of November 2022 data at Lagoon

Parameter	Guideline / Objectives		Station	Exceedances		Monthly		1-hour					24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration/ Meteorological Variable	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration/ Meteorological Variable	Day	
NO ₂ (ppb)	159	-	Lagoon	0	-	1.1	9.9	31.0	9	17	13.0	60.6	18.5	9	99.6
SO ₂ (ppb)	172	48	Lagoon	0	0	0.2	2.3	14.5	25	11	24.8	267.8	4.6	13	99.6
PM _{2.5} (µg/m ³)	80	29	Lagoon	0	0	0.0	4.9	46.6	28	19	11.9	76.8	12.6	11	99.3
PM ₁₀ (µg/m ³)	-	-	Lagoon	-	-	0.0	19.0	103.1	24	4	54.2	246.3	47.7	24	98.6
TSP (µg/m ³)	-	100	Lagoon	-	0	0.0	27.2	143.9	18	15	20.6	283.7	63.3	24	99.4
Temperature (°C)	-	-	Lagoon	-	-	-23.7	-6.6	11.3	25	4	38.4	243.4	6.0	24	99.6
Wind Speed (km/hr)/Direction (degrees)	-	-	Lagoon	-	-	1.2	19.0	56.1/W	24	3	56.1	244.1	40.0/WSW	24	99.7
Precipitation (mm)	-	-	Lagoon	-	-	0.0	0.0	0.2	1	18	14.3	100.8	0.8		99.7

¹ Maximum Daily Total Accumulation of Precipitation (mm)

² Monthly Total Accumulation of Precipitation (mm)

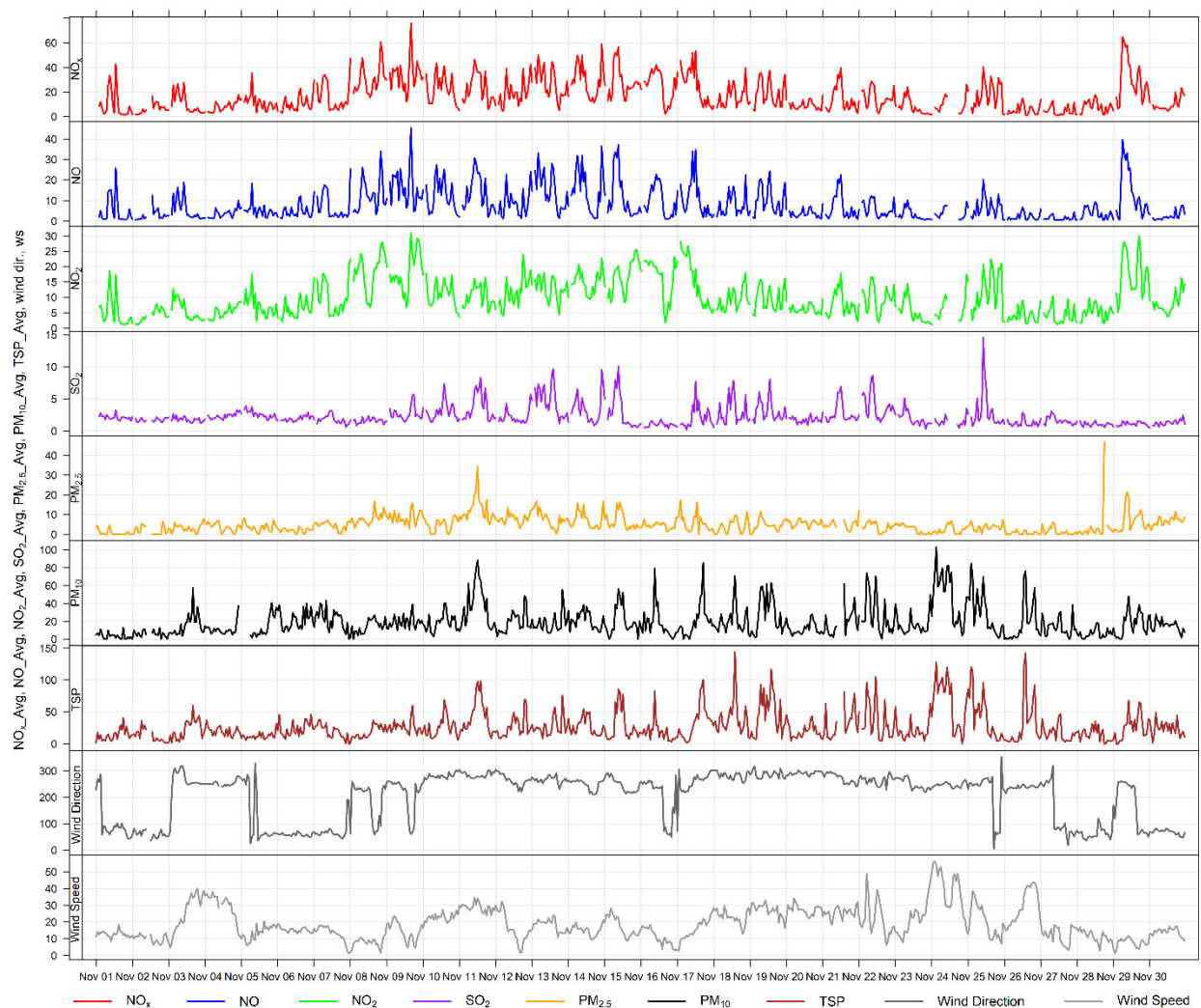


Figure 3-2 1-hour concentrations of NO_x, SO₂, particulate matter, wind direction and wind speed at the Lagoon station

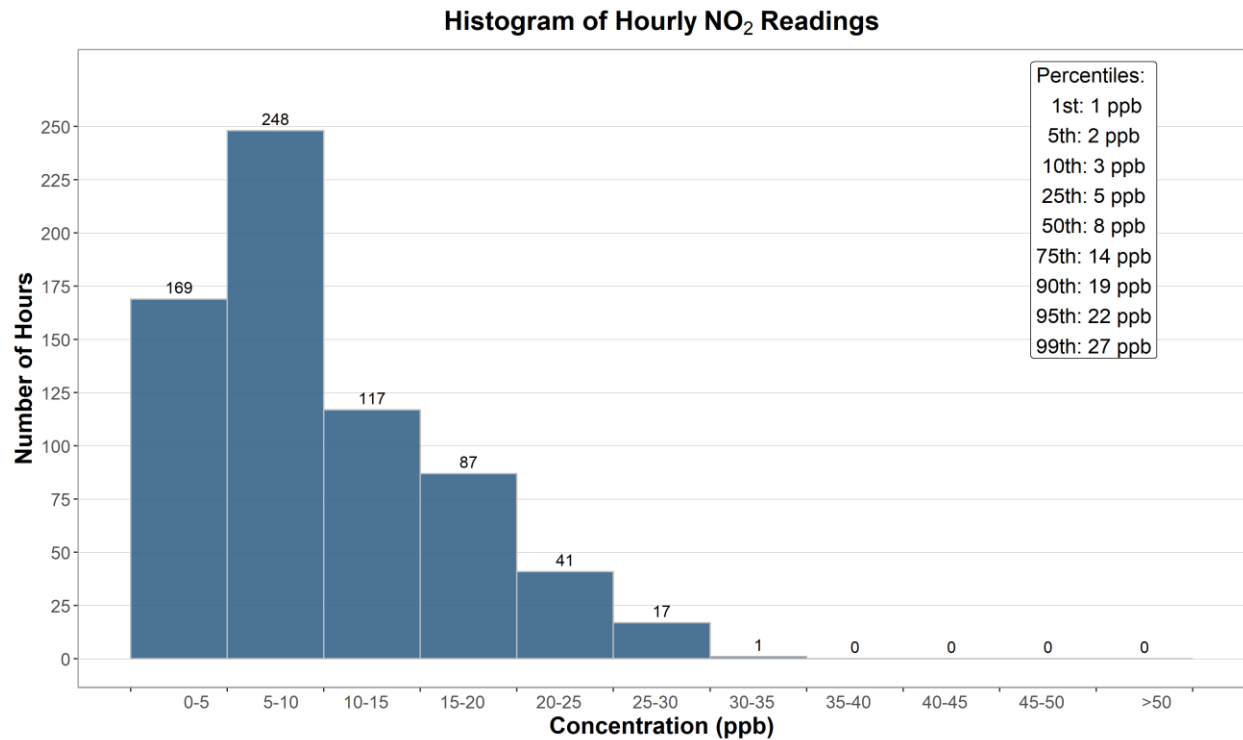


Figure 3-3 Histogram of hourly NO₂ concentrations at the Lagoon station

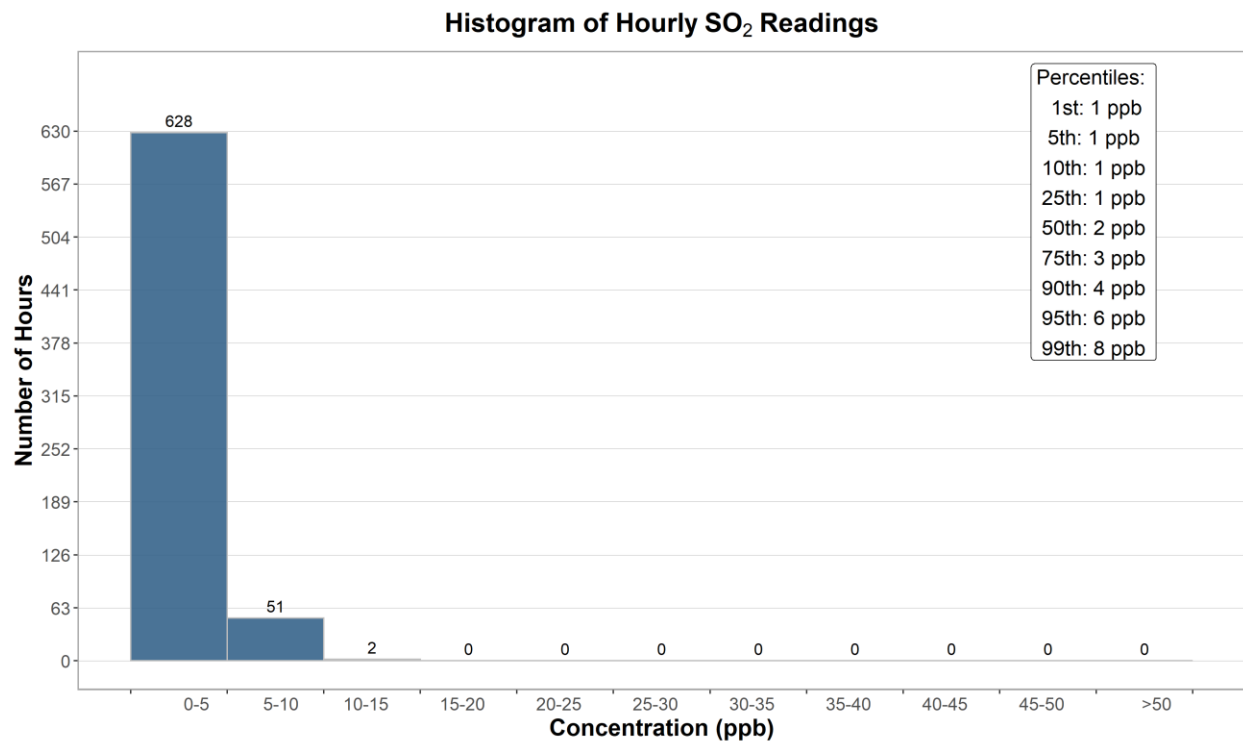


Figure 3-4 Histogram of hourly SO₂ concentrations at the Lagoon station

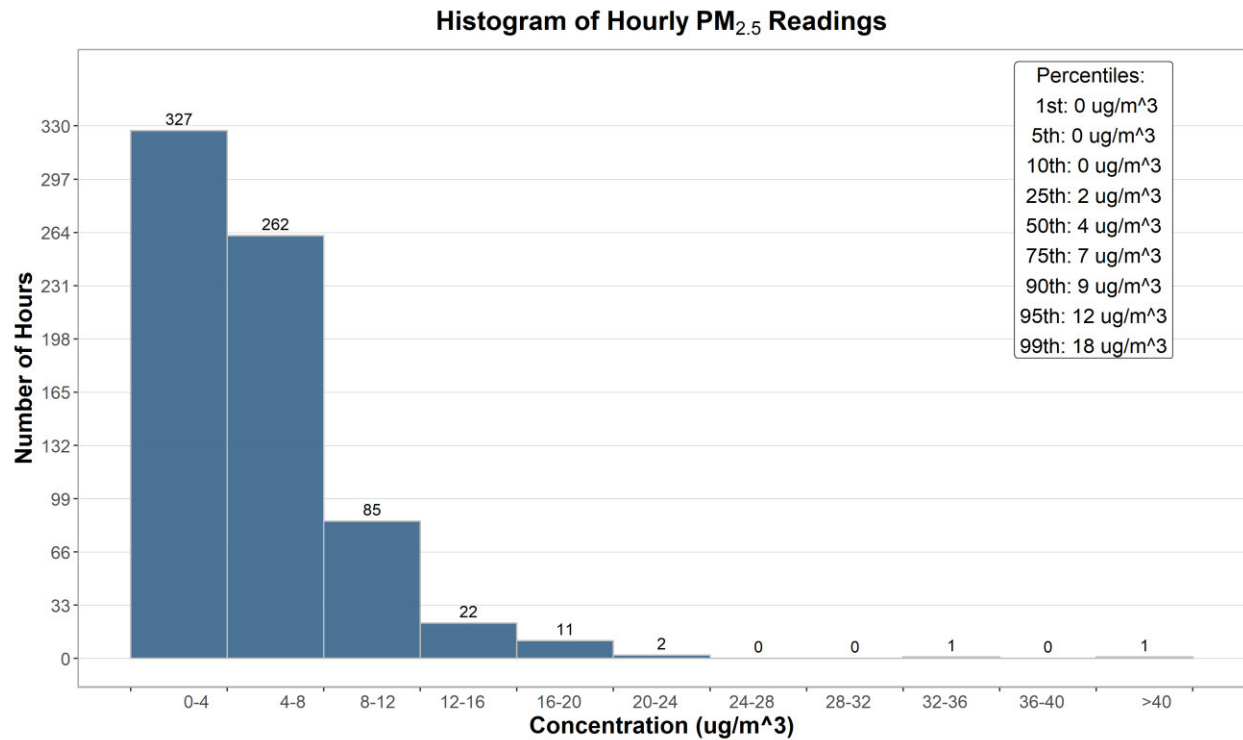


Figure 3-5 Histogram of hourly PM_{2.5} concentrations at the Lagoon station

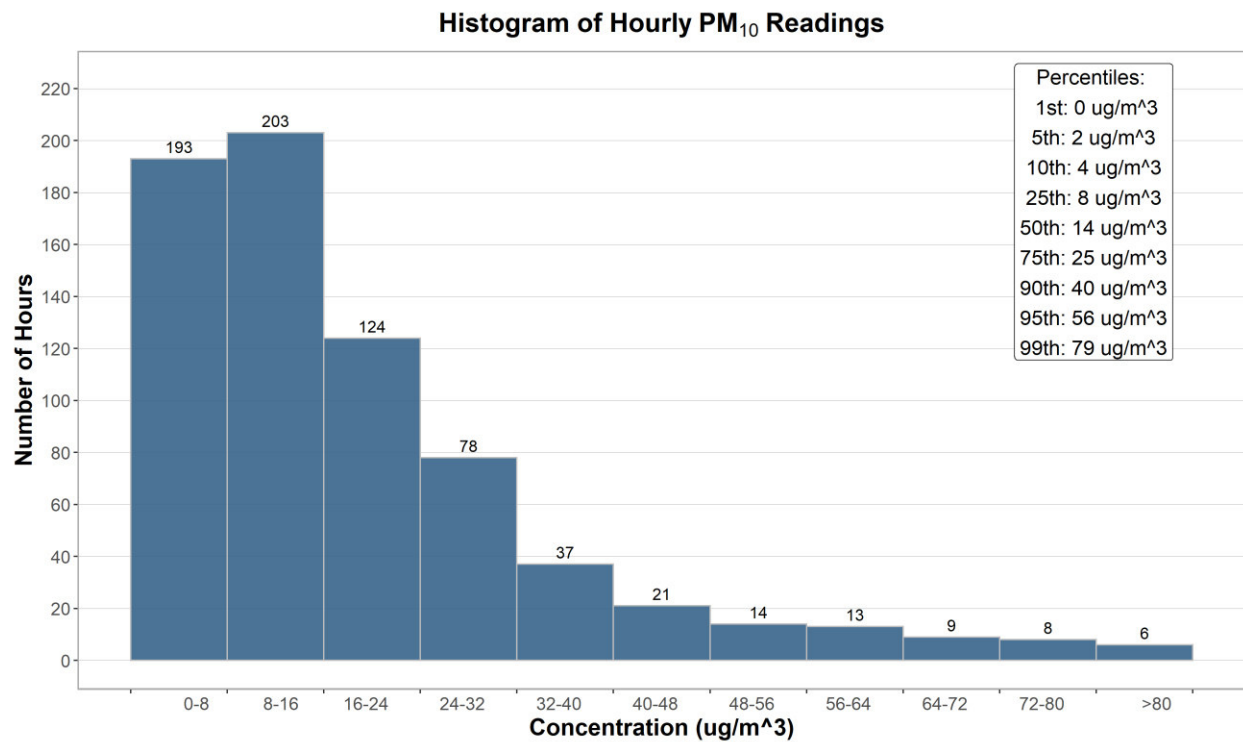


Figure 3-6 Histogram of hourly PM₁₀ concentrations at the Lagoon station

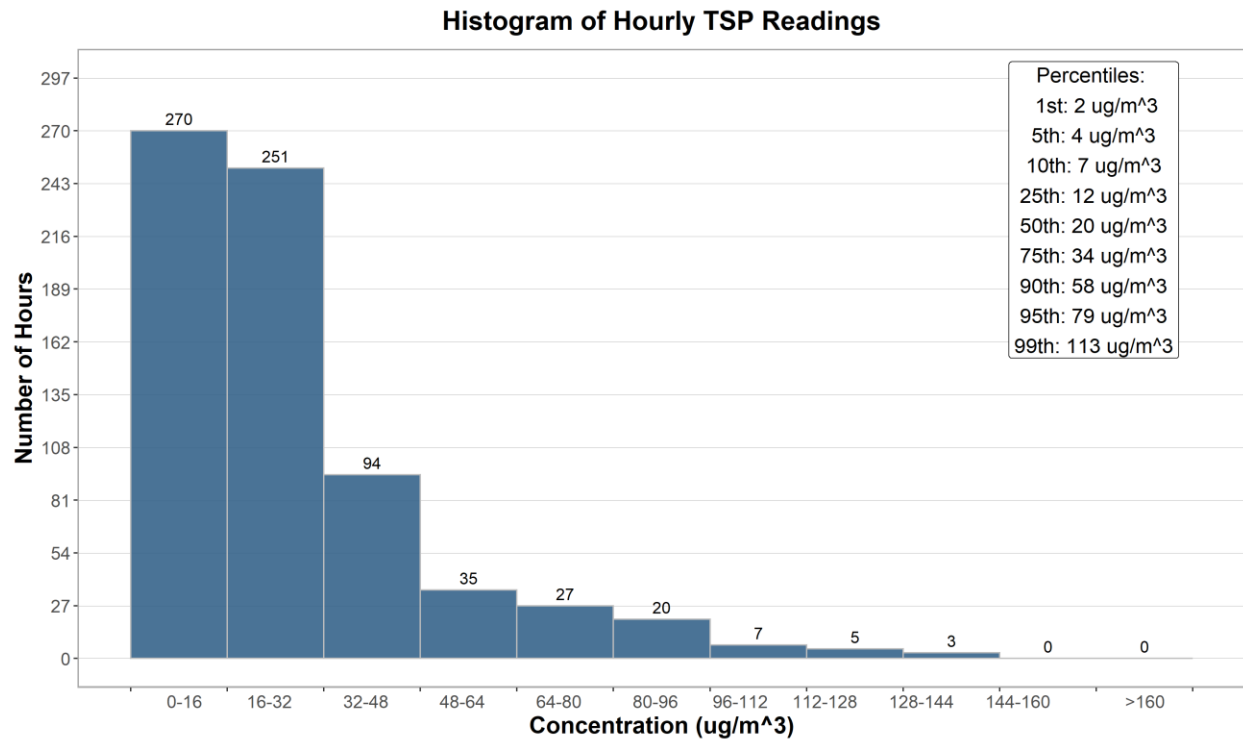


Figure 3-7 Histogram of hourly TSP concentrations at the Lagoon station

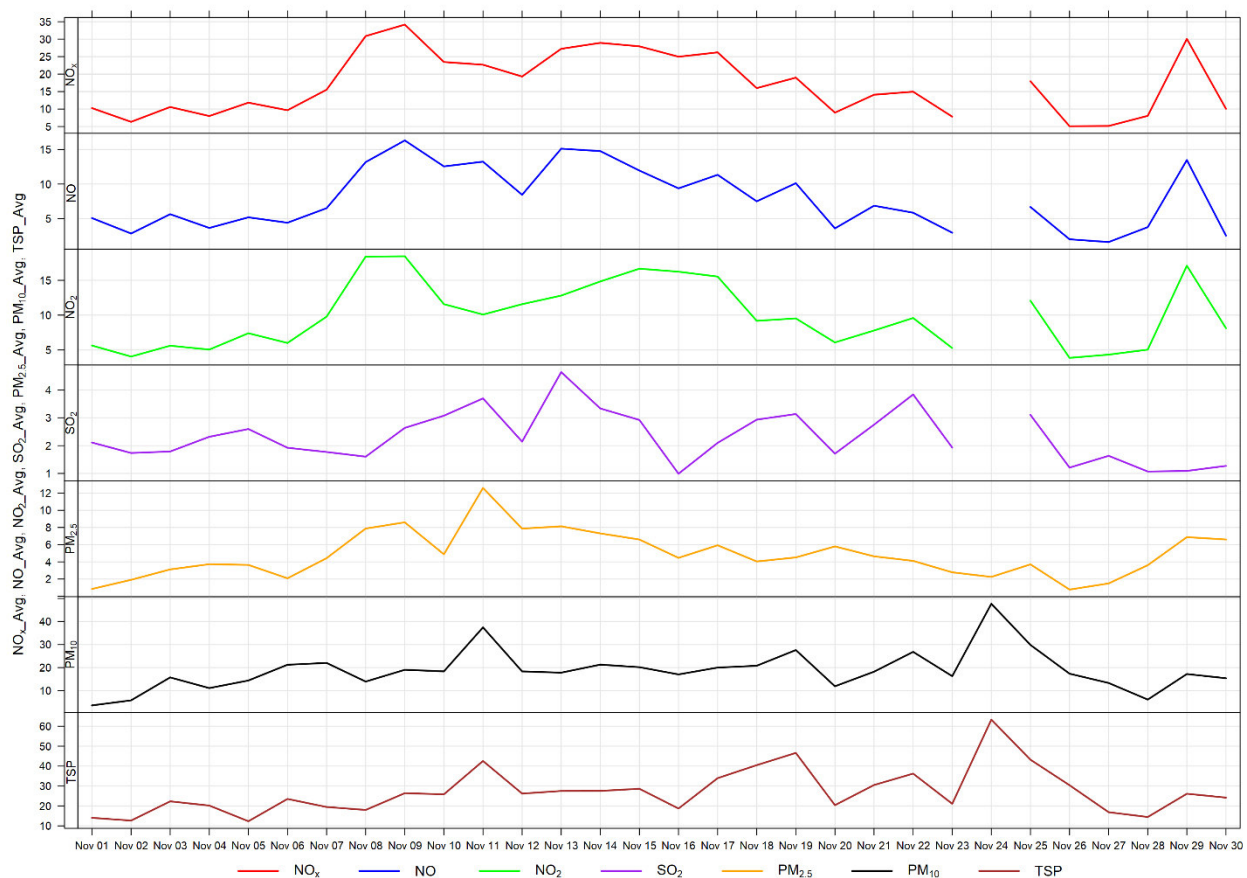


Figure 3-8 24-hour concentrations of NO_x, SO₂, and particulate matter at the Lagoon monitor

The following wind rose (Figure 3-9) shows the wind rose for the month of November. The wind roses shows that the winds predominately came from the west and west-southwest, with lighter winds prevailing from the east-northeast.

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

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

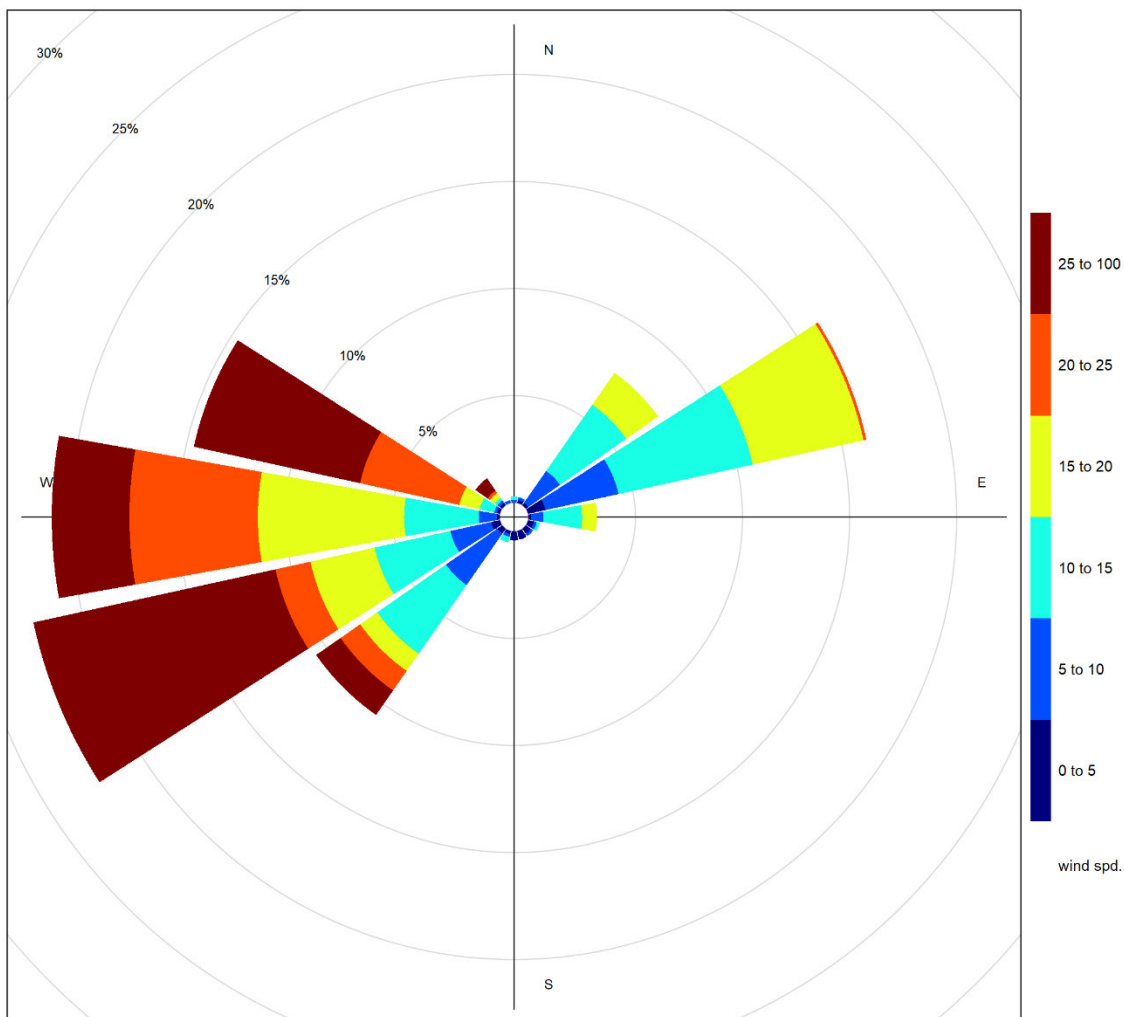


Figure 3-9 Wind rose for November 2022 at the Lagoon Station

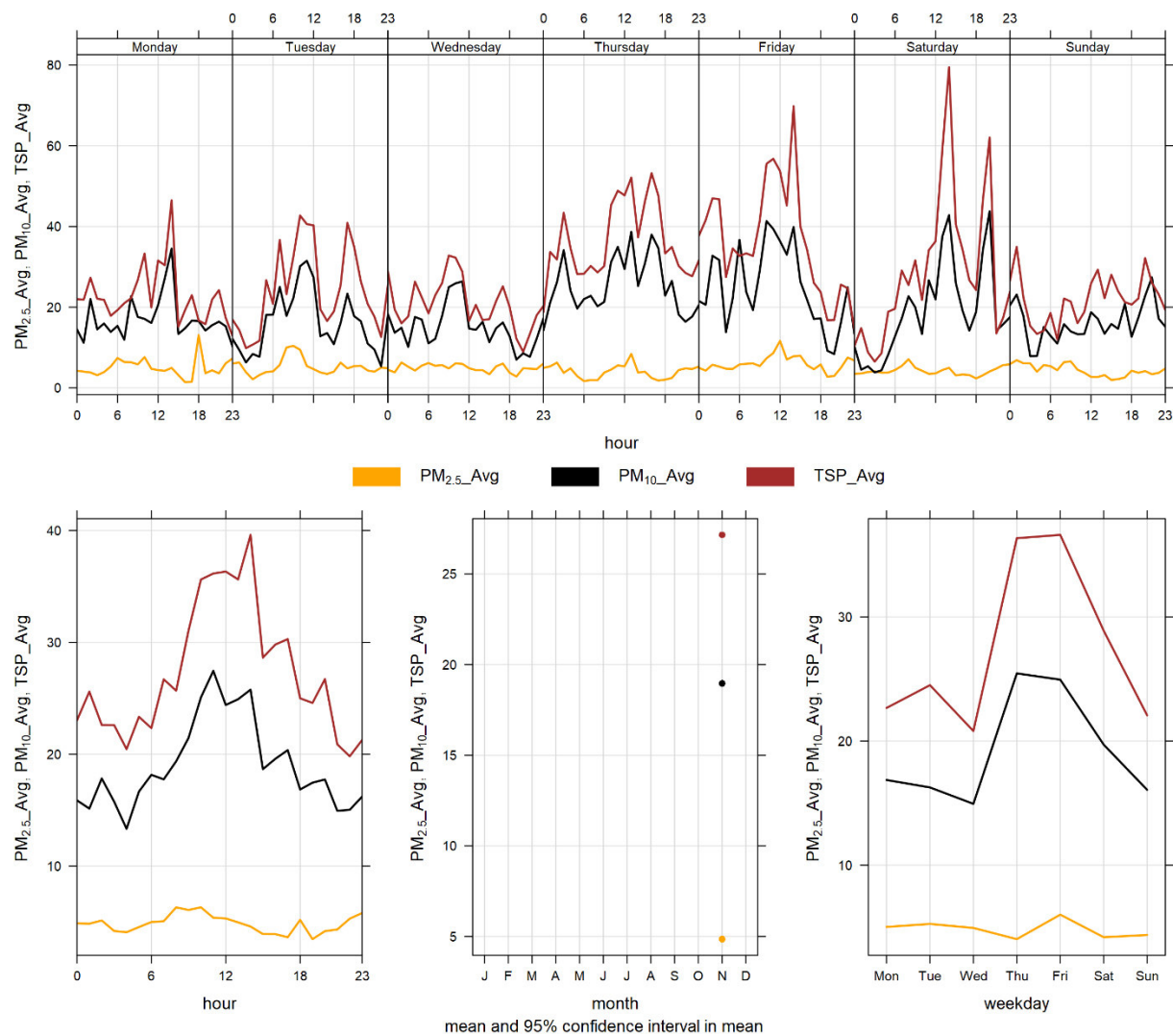


Figure 3-10 Lagoon monitor particulate matter time variation

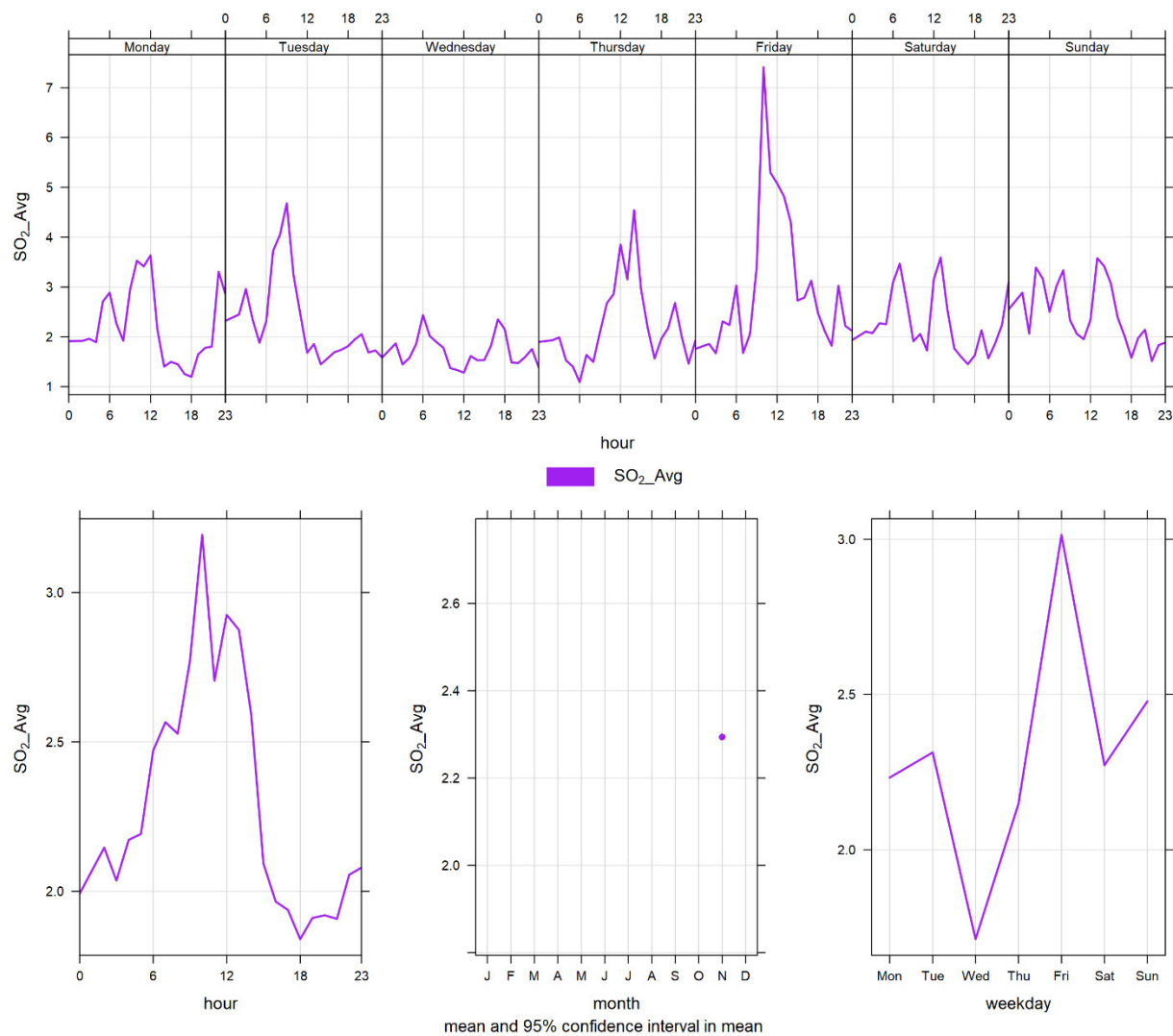


Figure 3-11 Lagoon monitor SO₂ time variation

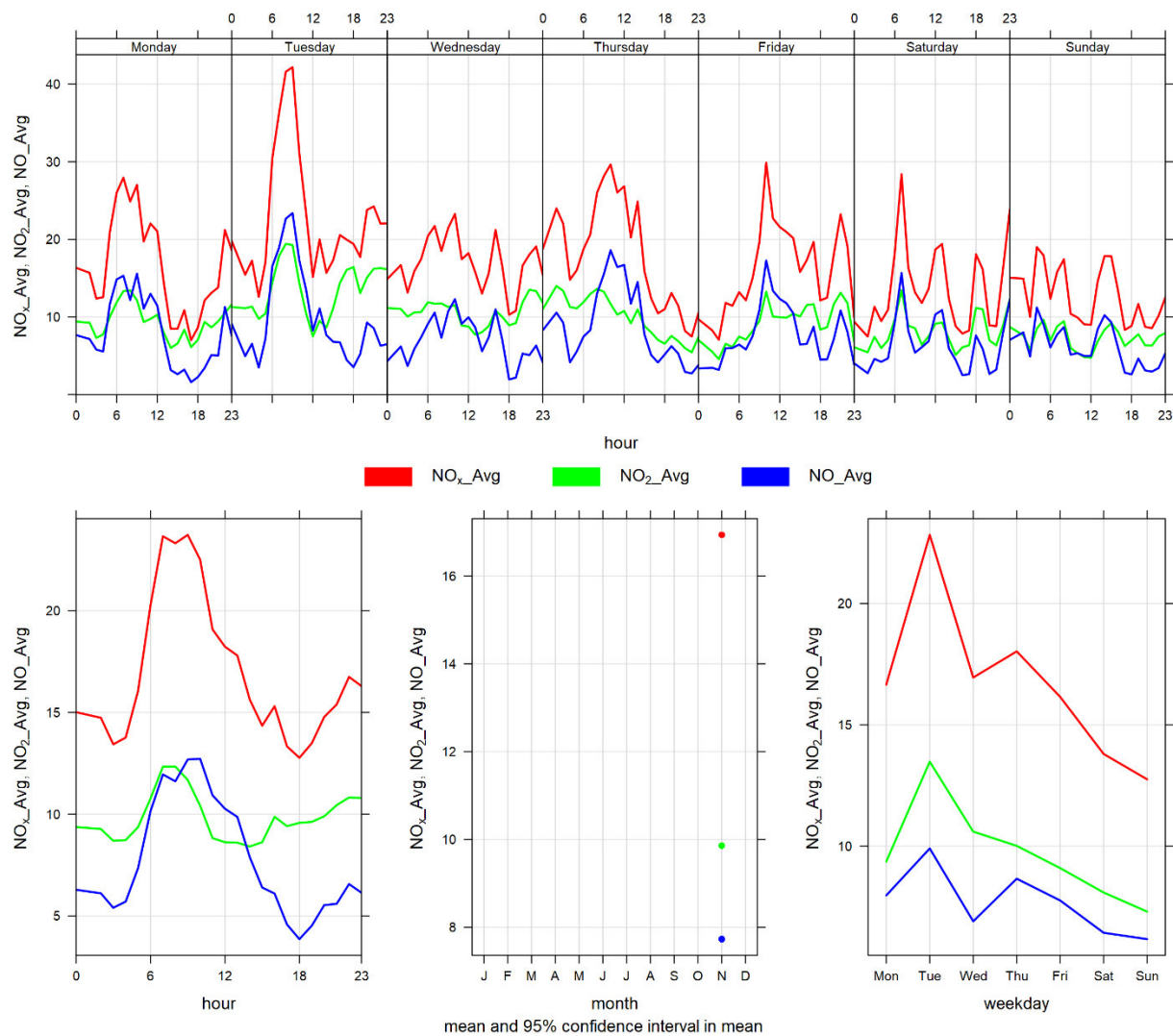


Figure 3-12 Lagoon monitor NO_x time variation

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 November 2022.

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 November 21 st . The monitor recorded 99.7% uptime during the month of November due to one hour of power failure occurring on November 15 th at 11:00. And further, one hour of equipment malfunction occurring on November 28 th at 19:00.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on November 21 st . The monitor recorded 99.7% uptime during the month of November due to one hour of power failure occurring on November 15 th at 11:00. And further, one hour of equipment malfunction occurring on November 28 th at 19:00.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on November 21 st . The monitor recorded 99.7% uptime during the month of November due to one hour of power failure occurring on November 15 th at 11:00. And further, one hour of equipment malfunction occurring on November 28 th at 19:00.

4.2 MONITORING RESULTS AND TRENDS

Table 4-2 summarizes the hourly and daily concentrations recorded in November 2022, and Table 4-3 summarizes the recorded exceedances. Figure 4-1 illustrates the time series for hourly PM, Figure 4-2 to Figure 4-4 illustrates the histograms for hourly PM, Figure 4-5 illustrates the time series for daily PM, Figure 4-6 displays the wind rose for the 24-hour TSP, and Figure 4-7 illustrates the time series for hourly PM over different time periods.

There were zero exceedances of the 24-hour PM_{2.5} AAAQO, zero exceedances of the 1-hour PM_{2.5} AAAQG, and 3 exceedances of the 24-hour TSP AAAQO.

Historically in November, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM_{2.5} AAAQO exceedances is 10 and 0, respectively. The maximum number of 24-hour TSP AAAQO exceedances recorded in November was 15 days in 2021.

Due to flood mitigation construction at Exshaw creek the Windridge monitoring station was taken out of operation and removed from the site on April 8, 2019. The flood mitigation work was completed in August 2020. The Windridge station was reinstalled for September 1st, 2020. As per the photo presented in section 1.1 the flood mitigation work has left an exposed creek bed area immediately west of the Windridge monitor that may contribute to an increase in TSP levels. Further, the strong wind gusting that occurred in November 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 November 2022 data at the Windridge Station

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour					Maximum 24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM_{2.5} (µg/m ³)	80	29	Windridge	0	0	0.0	3.5	20.0	24	2	55.5	240.2	8.5	7	99.7
PM₁₀ (µg/m ³)	-	-	Windridge	-	-	0.0	39.5	485.0	24	6	51.4	245.0	207.9	24	99.7
TSP (µg/m ³)	-	100	Windridge	-	3	0.0	58.1	985.0	24	3	56.1	244.1	349.3	24	99.7

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						
2022-11-23	124.6	-	243.2	21.4	47.8	High wind event
2022-11-24	349.3	-	245.2	40.0	39.9	High wind event
2022-11-26	214.1	-	238.7	29.5	41.8	High wind event
Total # of Exceedances	3	0				
Maximum # of Exceedances (November)	15 (2021)	0 (2017, 2018, 2020, 2021)				
Average # of Exceedances (November)	10	0				
Minimum # of Exceedances (November)	6 (2017)	0 (2017, 2018, 2020, 2021)				

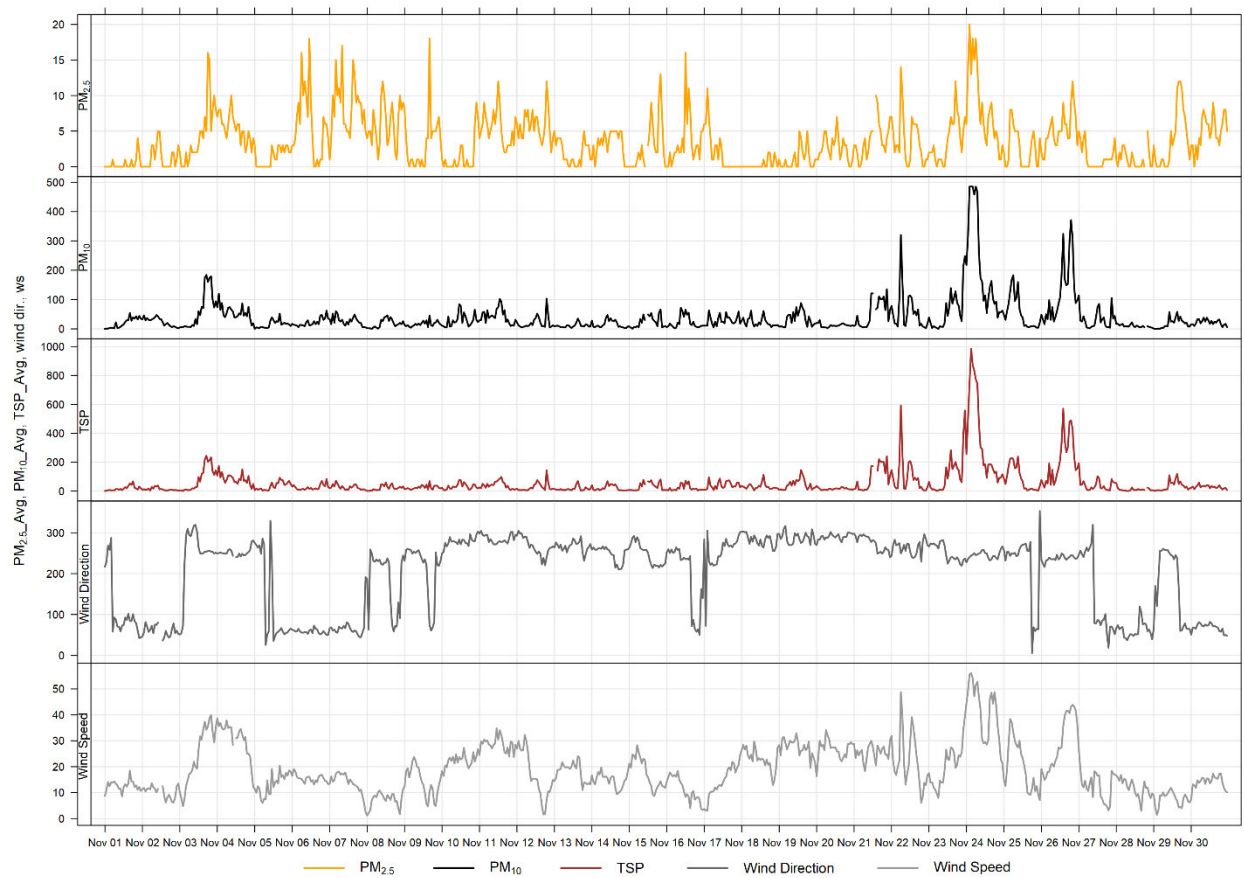


Figure 4-1 1-hour particulate matter concentrations recorded at the Windridge monitor

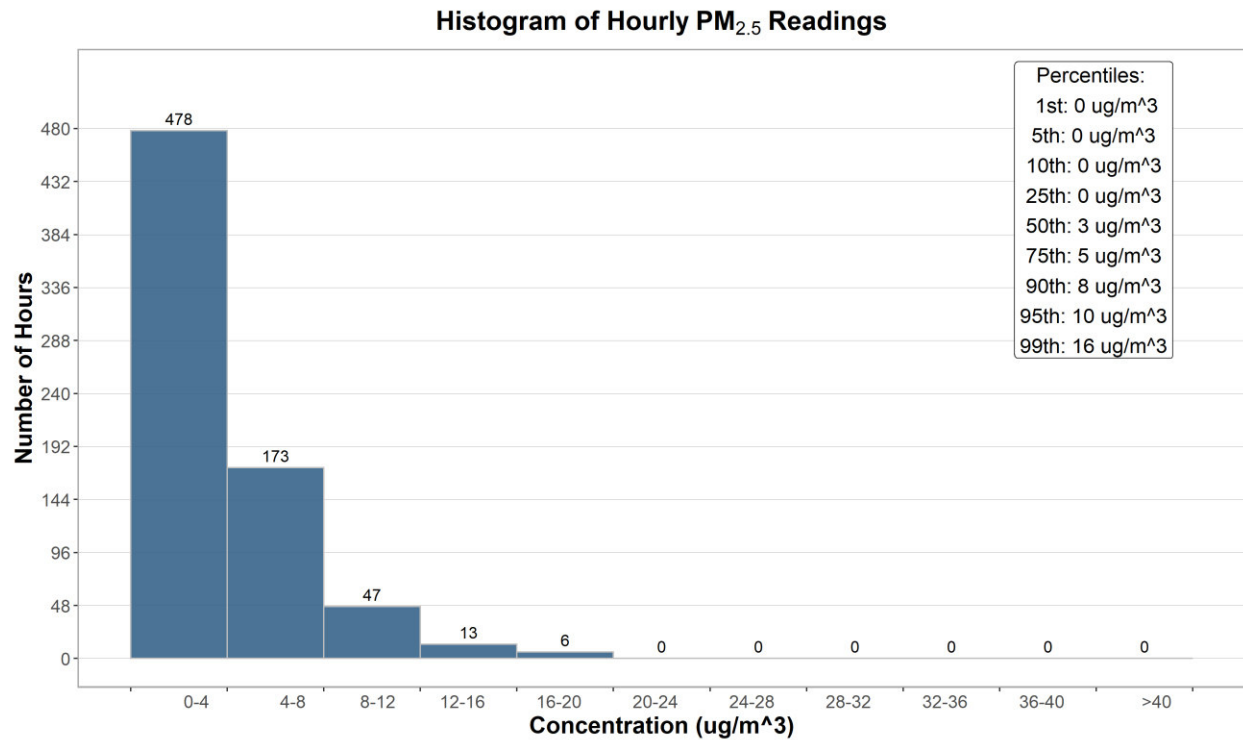


Figure 4-2 Histogram of hourly PM_{2.5} concentrations at the Windridge station

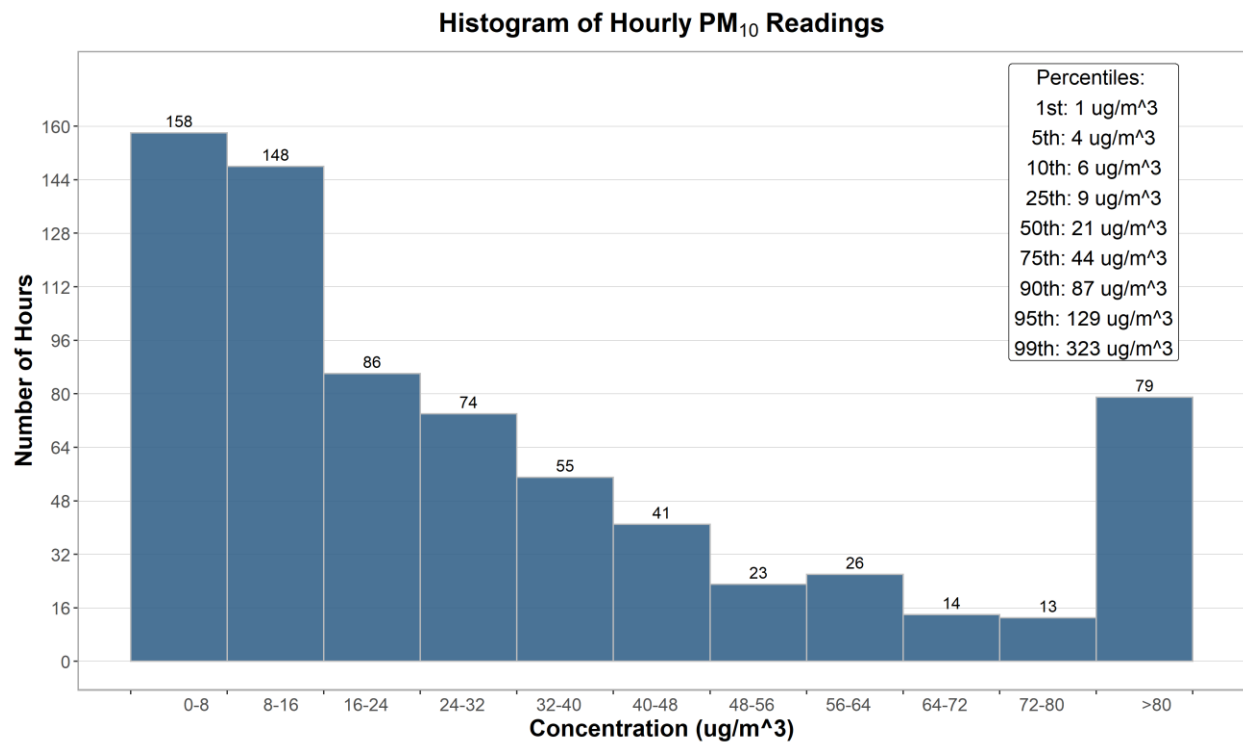


Figure 4-3 Histogram of hourly PM₁₀ concentrations at the Windridge station

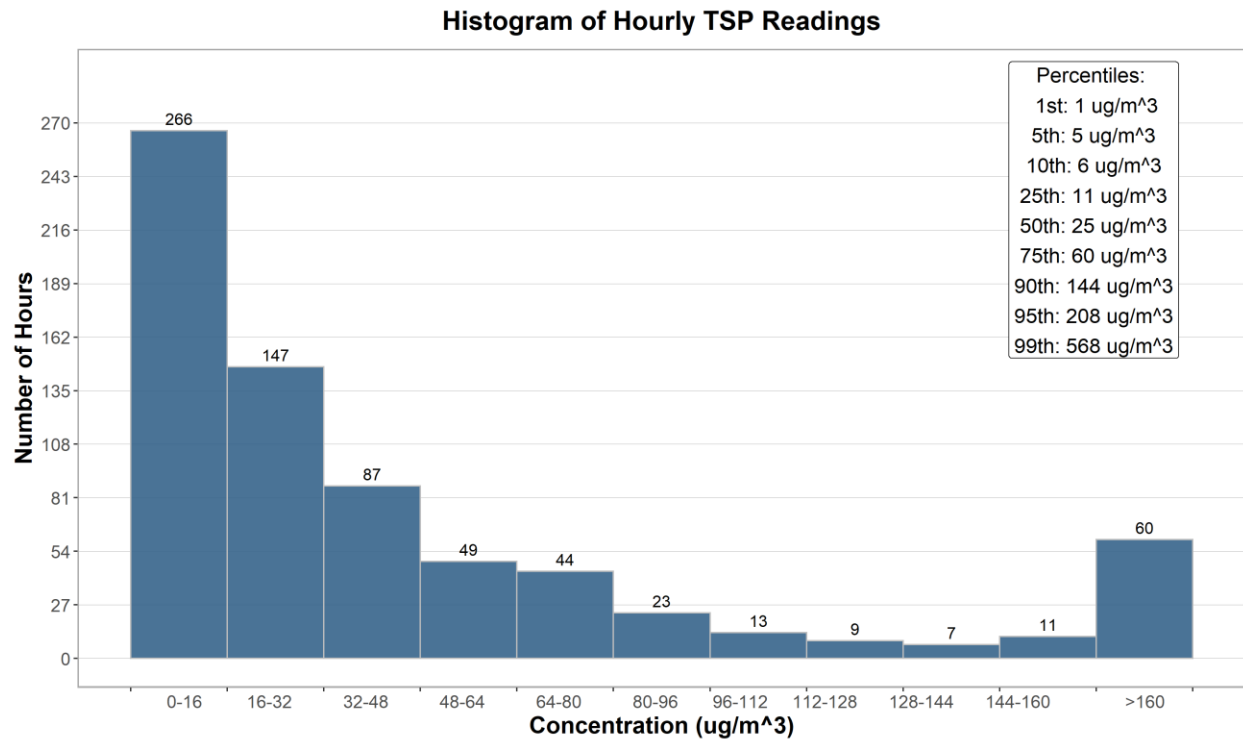


Figure 4-4 Histogram of hourly TSP concentrations at the Windridge station

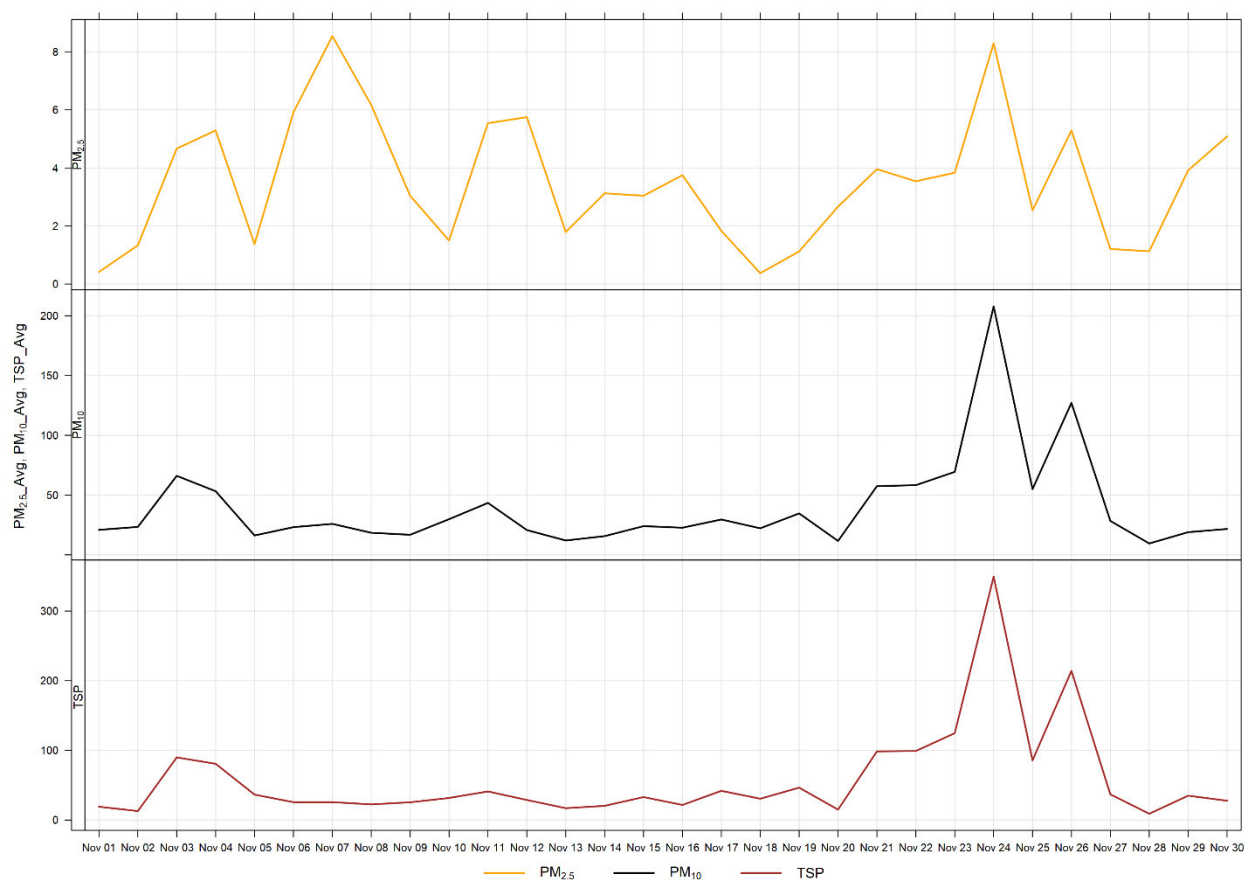


Figure 4-5 24-hour particulate matter concentrations at the Windridge monitor

Figure 4-6 shows the wind rose for the 3 days of TSP exceedances. The wind roses shows that the winds predominantly came from the west direction.

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 November 2022. Similar to the Lagoon station, typically PM concentrations shows a diurnal pattern associated with Lafarge operations, daytime emissions from traffic and other activities. The diurnal patterns also follow the diurnal pattern of higher wind speeds during the daytime hours.

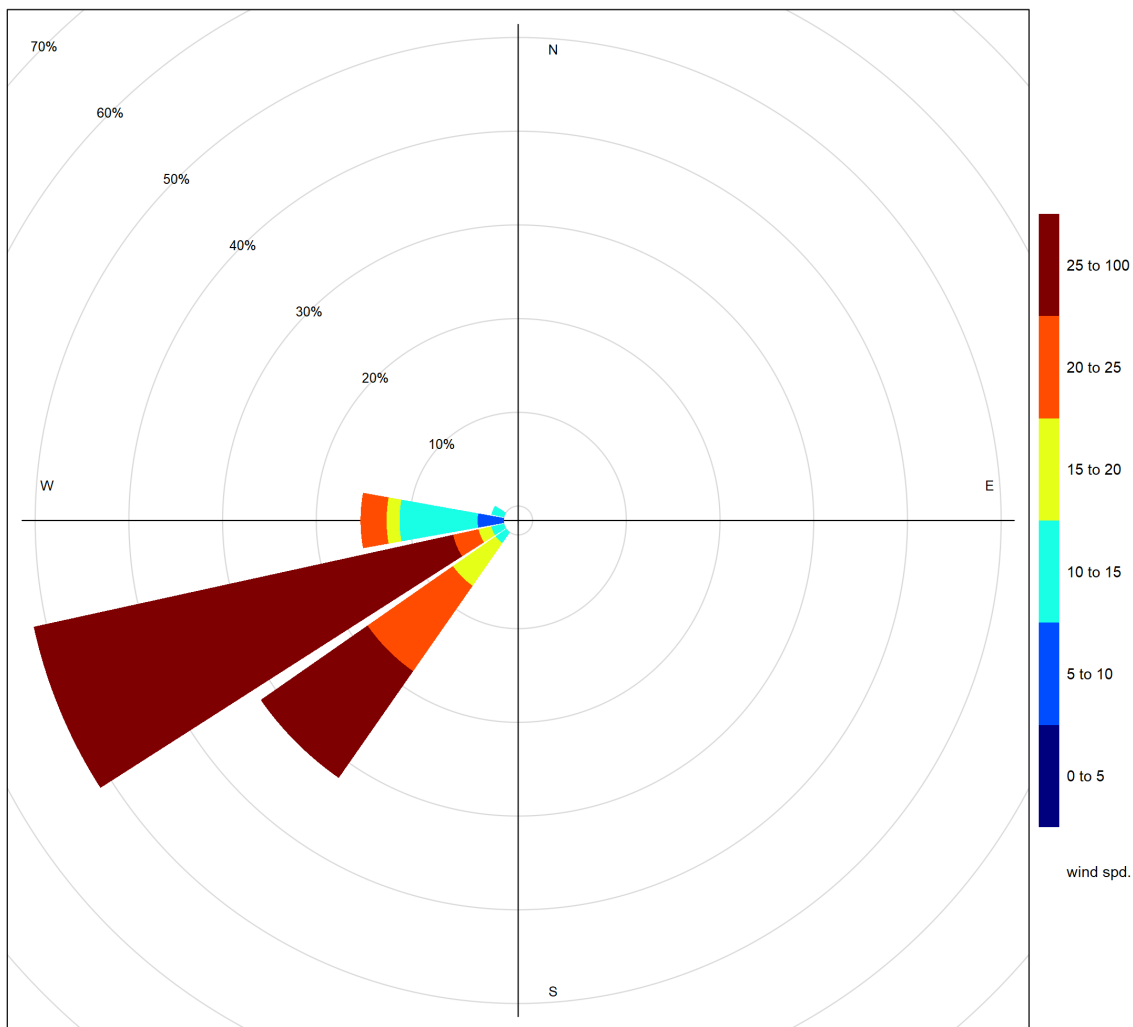


Figure 4-6 Wind rose for TSP exceedance days recorded at the Windridge Station

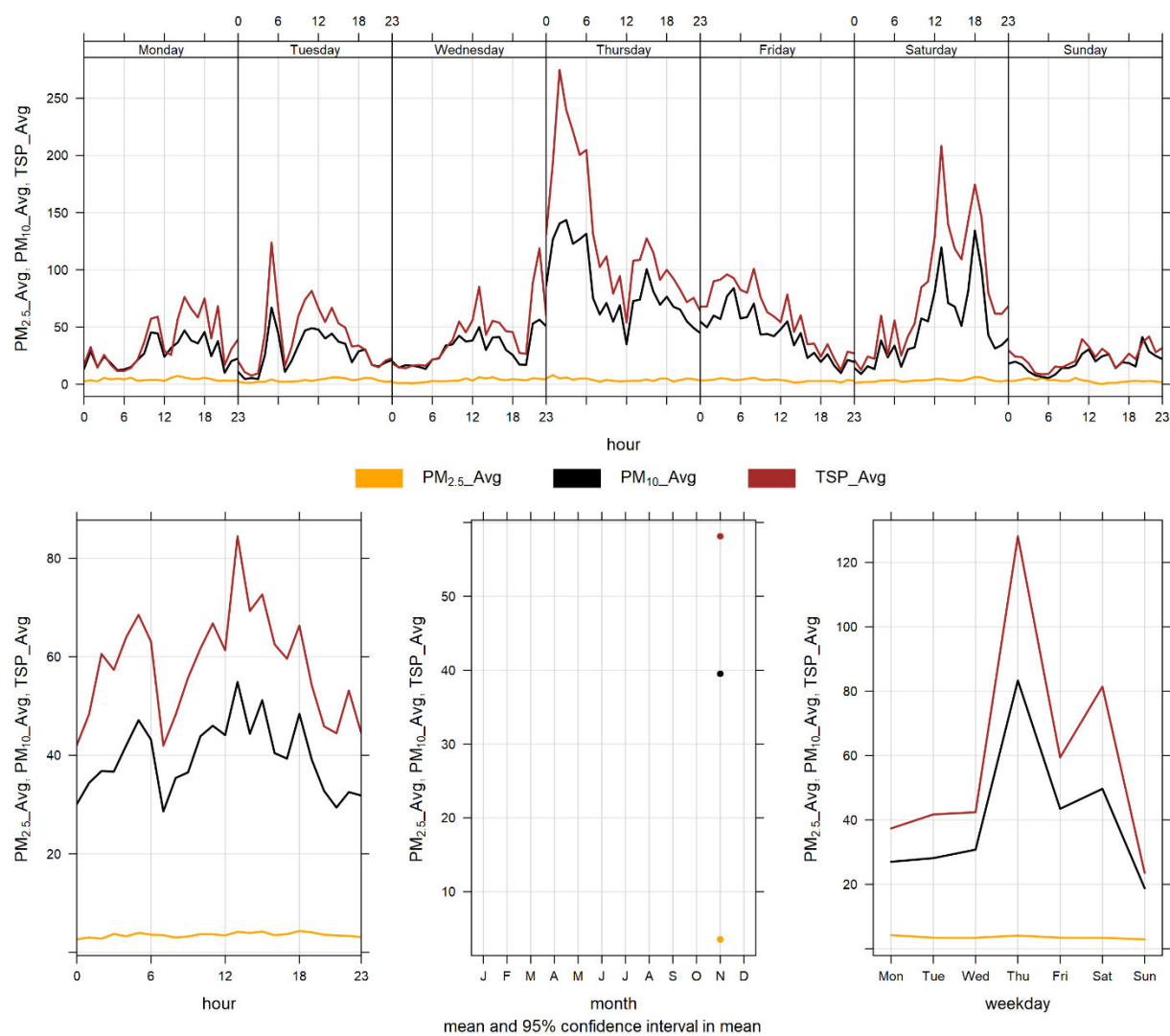


Figure 4-7 Windridge particulate matter time variation

5 WEST INDUSTRIAL GRIMM

5.1 OPERATIONAL SUMMARY

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

Table 5-1 Instrumentation List at the West monitoring location

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

5.2 MONITORING RESULTS AND TRENDS

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

Figure 5-1 and Figure 5-2 show the hourly and daily PM_{2.5}, PM₁₀ and TSP concentrations recorded over the month.

There were zero exceedances of the 24-hour TSP Guideline (100 µg/m³) and zero exceedances of the 24-hour PM_{2.5} (29µg/m³) Guideline. Further, there were zero hours exceeding the 1-hour PM_{2.5} Guideline.

Historically during the month of November, the West monitor records an average of one and zero exceedances of the 24-hour TSP and PM_{2.5} guidelines. The maximum number of 24-hour TSP AAAQO exceedances recorded in November was five day in 2012.

Table 5-2 Summary of November 2022 data at the West GRIMM

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour					Maximum 24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM_{2.5} (µg/m ³)	80	29	West	0	0	0.3	4.9	15.8	30	17	15.4	68.5	10.2	12	100.0
PM₁₀ (µg/m ³)	-	-	West	-	-	0.4	6.2	23.0	2	1	11.8	56.4	11.7	6	100.0
TSP (µg/m ³)	-	100	West	-	0	0.2	5.4	39.6	28	19	11.9	76.8	13.0	6	100.0

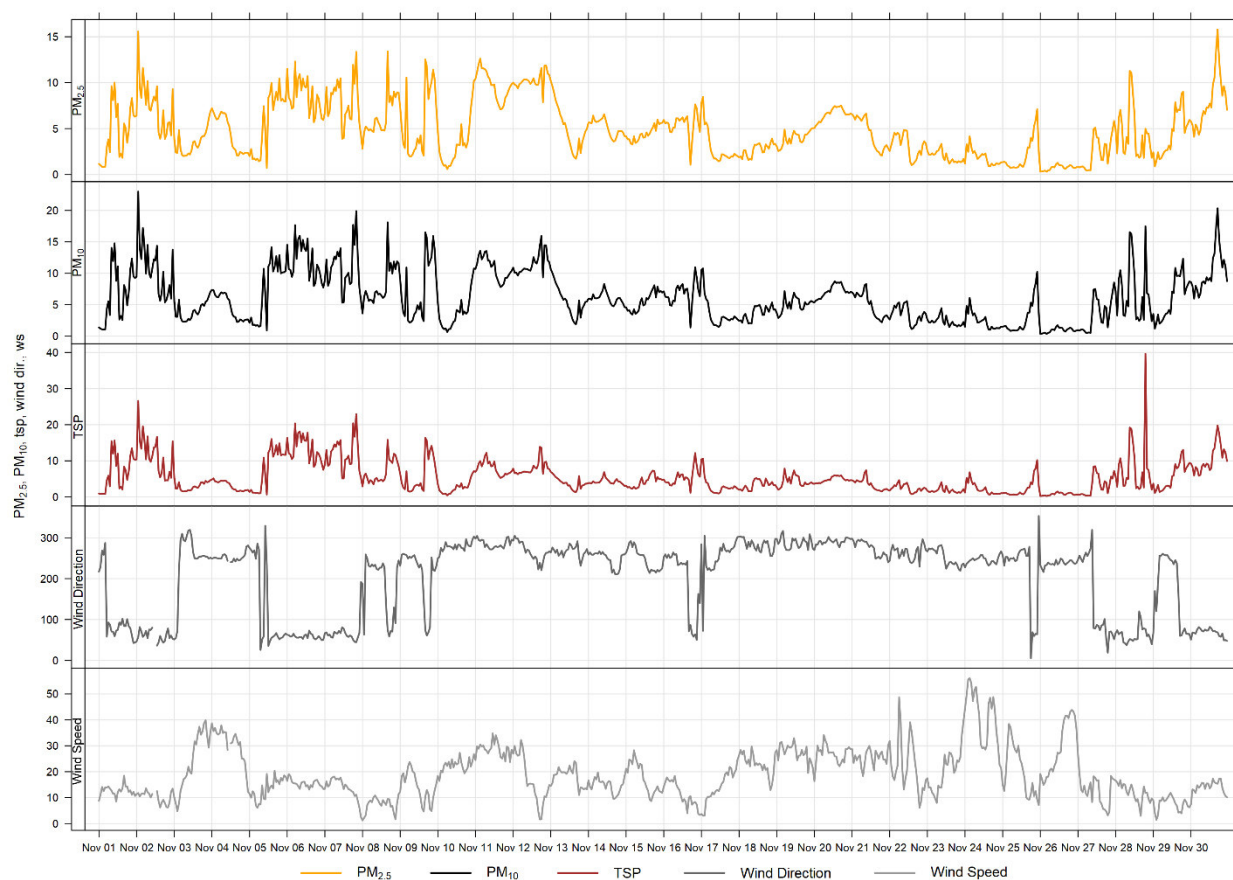


Figure 5-1 1-hour particulate matter concentrations at the West monitor

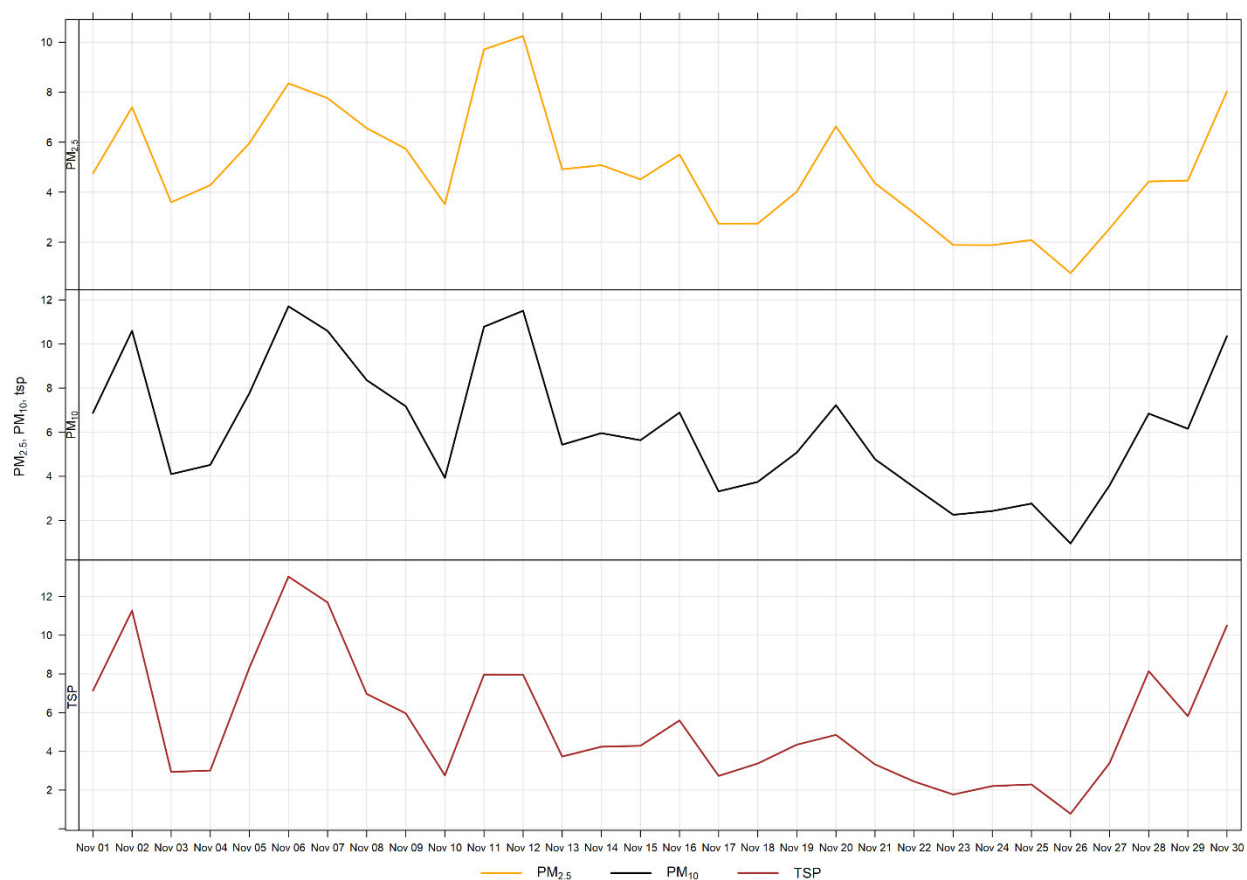


Figure 5-2 24-hour particulate matter concentrations at the West monitor

Figure 5-3 illustrates the hourly PM concentrations recorded at the West monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 5-3 is based on data collected during November 2022. Historically this monitor saw daily variations in PM that were more likely a result of higher traffic volume during daylight hours than specific Lafarge operations. The West monitor was moved to its current location (Figure 1-1) on December 1, 2021, and will continue to be evaluated to better understand influences from background sources, Lafarge Exshaw, as well as highway and rail sources.

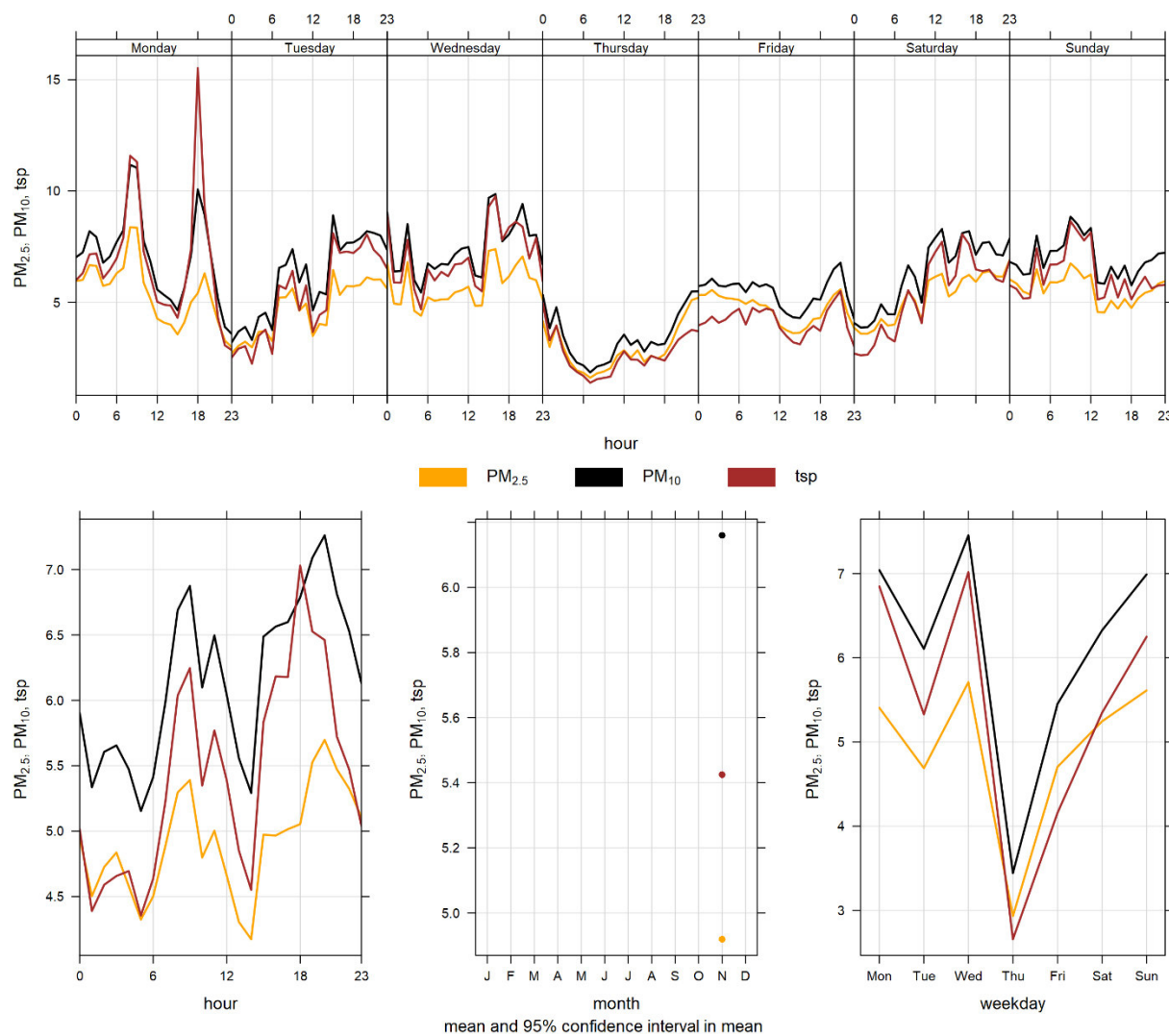


Figure 5-3 West monitor particulate matter time variation

6 BERM INDUSTRIAL GRIMM

6.1 OPERATIONAL SUMMARY

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

Table 6-1 Instrumentation List at the Berm monitoring location

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

6.2 MONITORING RESULTS AND TRENDS

The Berm monitor was placed at its current location as a result of the dispersion modelling conducted for the facility. Figure 6-1 and Figure 6-2 show the hourly and daily PM_{2.5}, PM₁₀, and TSP concentrations recorded over the month. Table 6-2 summarizes the maximum 1-hour and 24-hour PM concentrations recorded during the month, and

Table 6-3 summarizes the recorded exceedances. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO.

There were 10 and 1 exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) Guidelines, respectively. There were six hours exceeding the 1-hour PM_{2.5} Guideline.

Historically during the month of November, the Berm monitor records an average of 16 and 1 exceedances of the 24-hour TSP and PM_{2.5} guidelines, respectively. The maximum number of TSP exceedances recorded during November occurred in 2011 & 2020 where there were 23 days that exceeded the guideline. On the other hand, the maximum number of PM_{2.5} exceedances in November was 4 days in 2020.

It should also be noted that the GRIMM monitors become more conservative in the reported PM concentrations as the size fraction increases. The PM_{2.5} size fraction has been shown to match other regulatory approved PM_{2.5} monitors, but the TSP concentrations recorded by the GRIMM tend to be higher than regulatory approved monitors (Levelton, 2015).

The Berm monitor is located along a ridge at the edge of the Lafarge property and is in an area where on-site trucks drive through site, which can create fugitive dust. Quarry blasting also has the potential to impact short term PM immediately following a blast. The strong wind gusting that occurred in November would have also contributed to increased particulate levels that may have arisen from multiple sources: Lafarge Plant, Exshaw Creek, dry sections of the Bow River, and open areas.

Table 6-2 Summary of November 2022 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	6	1	0.2	9.4	126.0	24	6	51.4	245.0	39.4	24	100.0
PM₁₀ (µg/m ³)	-	-	Berm	-	-	0.3	56.6	1485.3	24	6	51.4	245.0	418.4	24	100.0
TSP (µg/m ³)	-	100	Berm	-	10	0.2	196.3	4049.8	24	6	51.4	245.0	1454.3	24	100.0

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

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Berm						
2022-11-03	587.7	-	264.7	25.3	60.7	High wind event
2022-11-04	294.1	-	251.2	29.9	56.6	High wind event
2022-11-11	163.5	-	285.0	28.8	65.1	High wind event
2022-11-19	141.5	-	287.3	27.0	51.2	High wind event
2022-11-21	312.3	-	271.3	25.7	50.7	High wind event
2022-11-22	392.2	-	260.6	22.0	57.5	High wind event
2022-11-23	608.5	-	243.2	21.4	47.8	High wind event
2022-11-24	1454.3	39.4	245.2	40.0	39.9	High wind event
2022-11-25	231.7	-	257.3	20.2	56.9	High wind event
2022-11-26	959.9	-	238.7	29.5	41.8	High wind event
Total # of Exceedances	10	1				
Maximum # of Exceedances (November)	23 (2011, 2020)	4 (2020)				
Average # of Exceedances (November)	16	1				
Minimum # of Exceedances (November)	8 (2021)	0 (2010, 2013, 2016, 2019)				

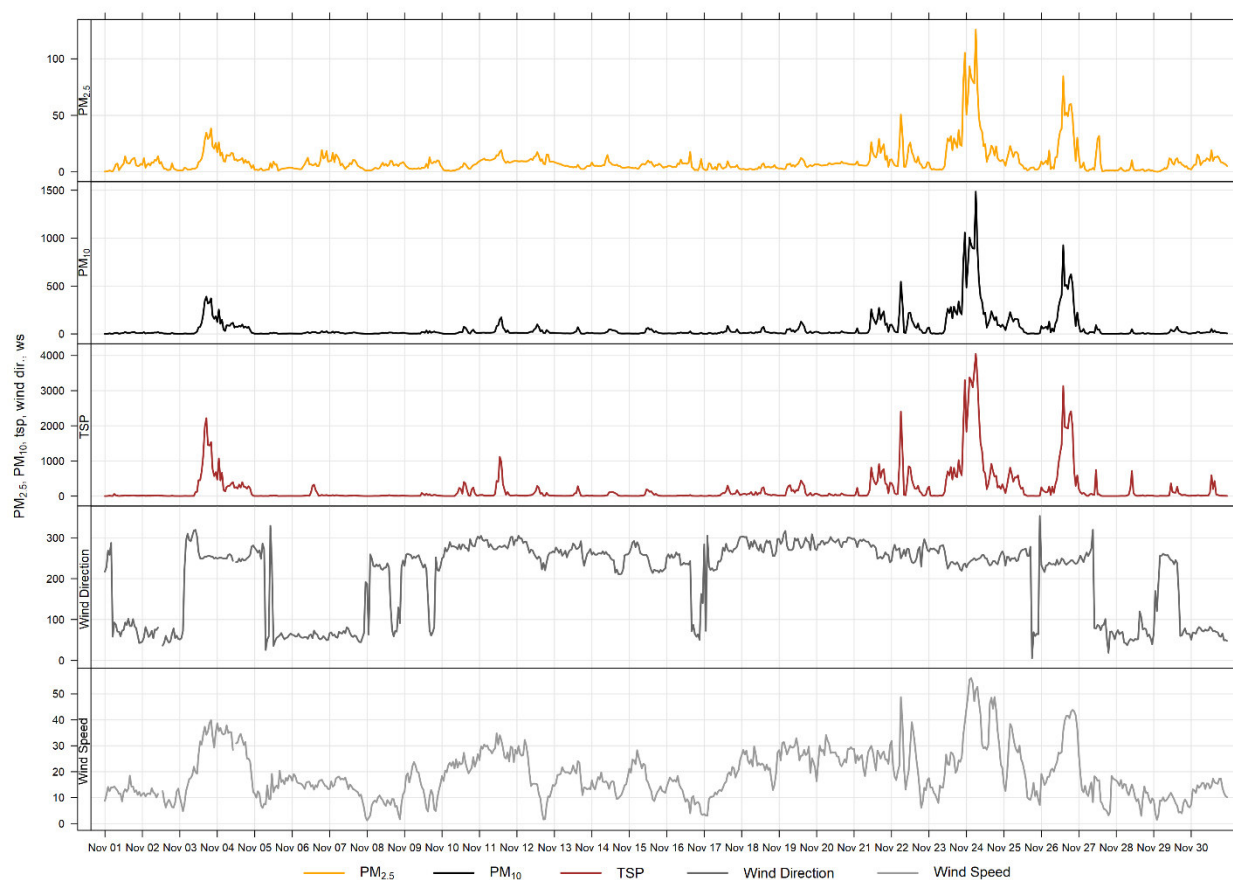


Figure 6-1 1-hour particulate matter concentrations recorded at the Berm monitor

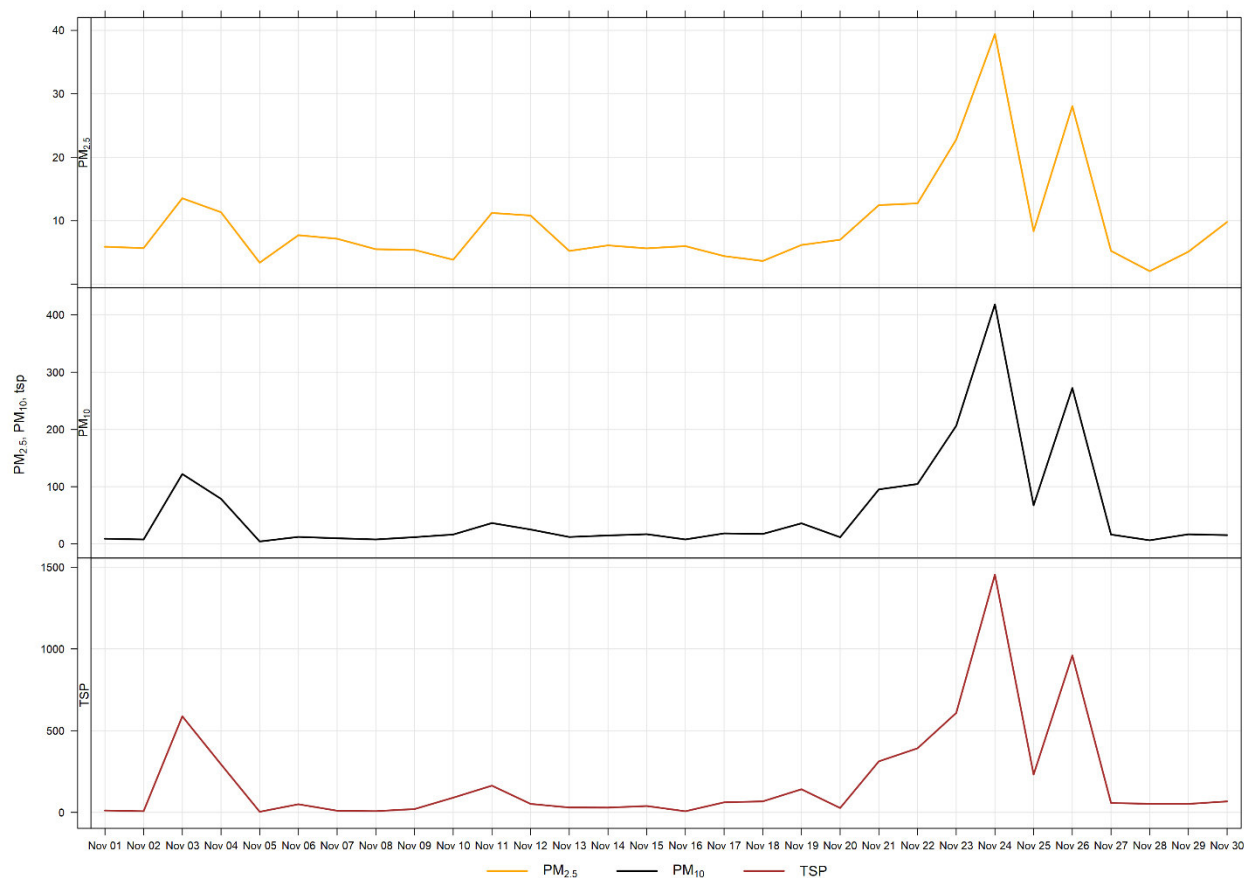


Figure 6-2 24-hour particulate matter concentrations recorded at the Berm monitor

Figure 6-3 shows the wind rose for the 10 days of TSP exceedances. Figure 6-4 shows the wind rose for the 1 day of PM_{2.5} exceedances. The wind roses show that the wind predominately came from the westerly direction. This month many of the TSP exceedances were driven by windblown fugitive dust, and winds from the west which suggest impacts from the Lafarge Facility.

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

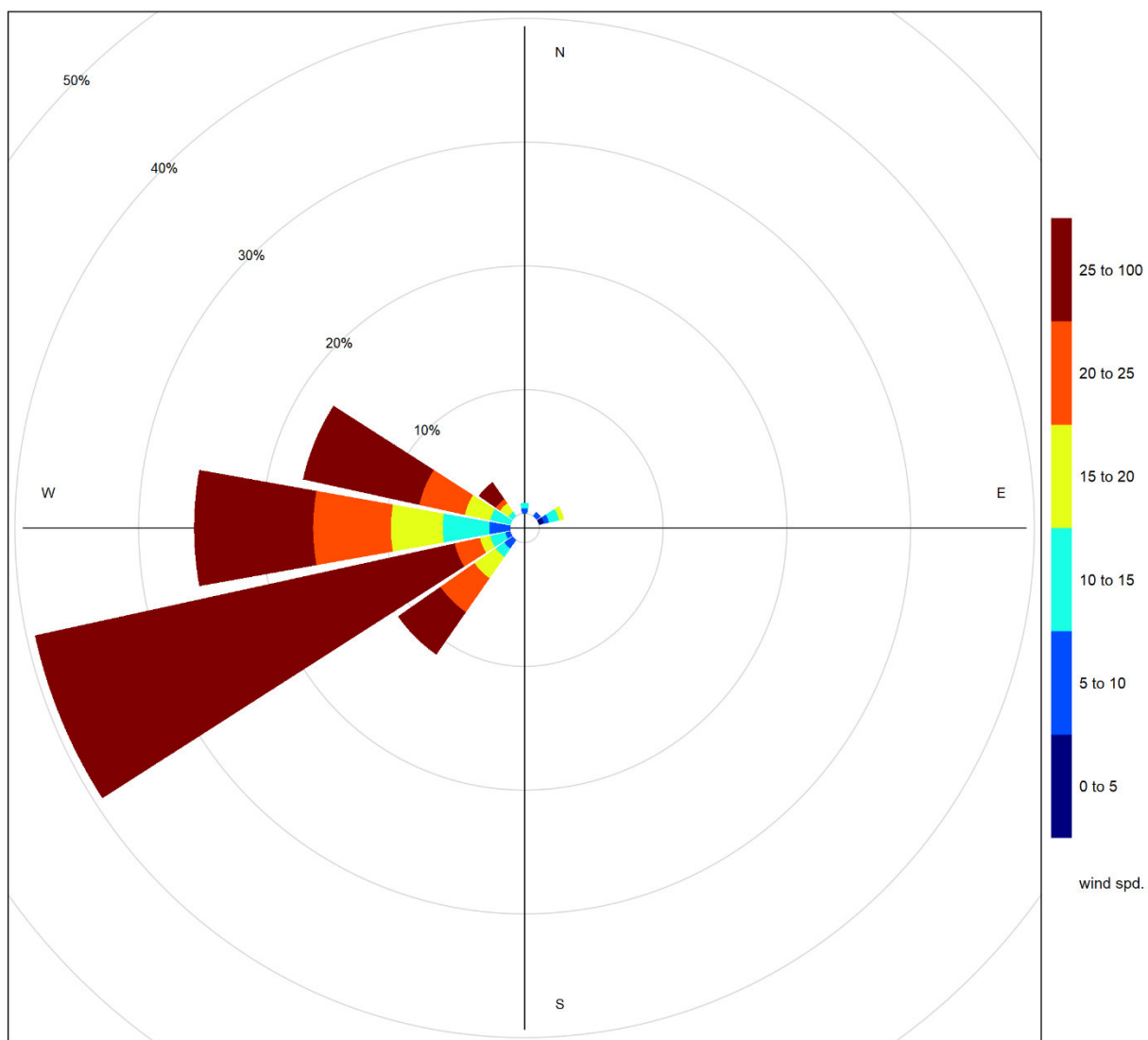


Figure 6-3 Windrose for TSP exceedance days recorded at the Berm GRIMM

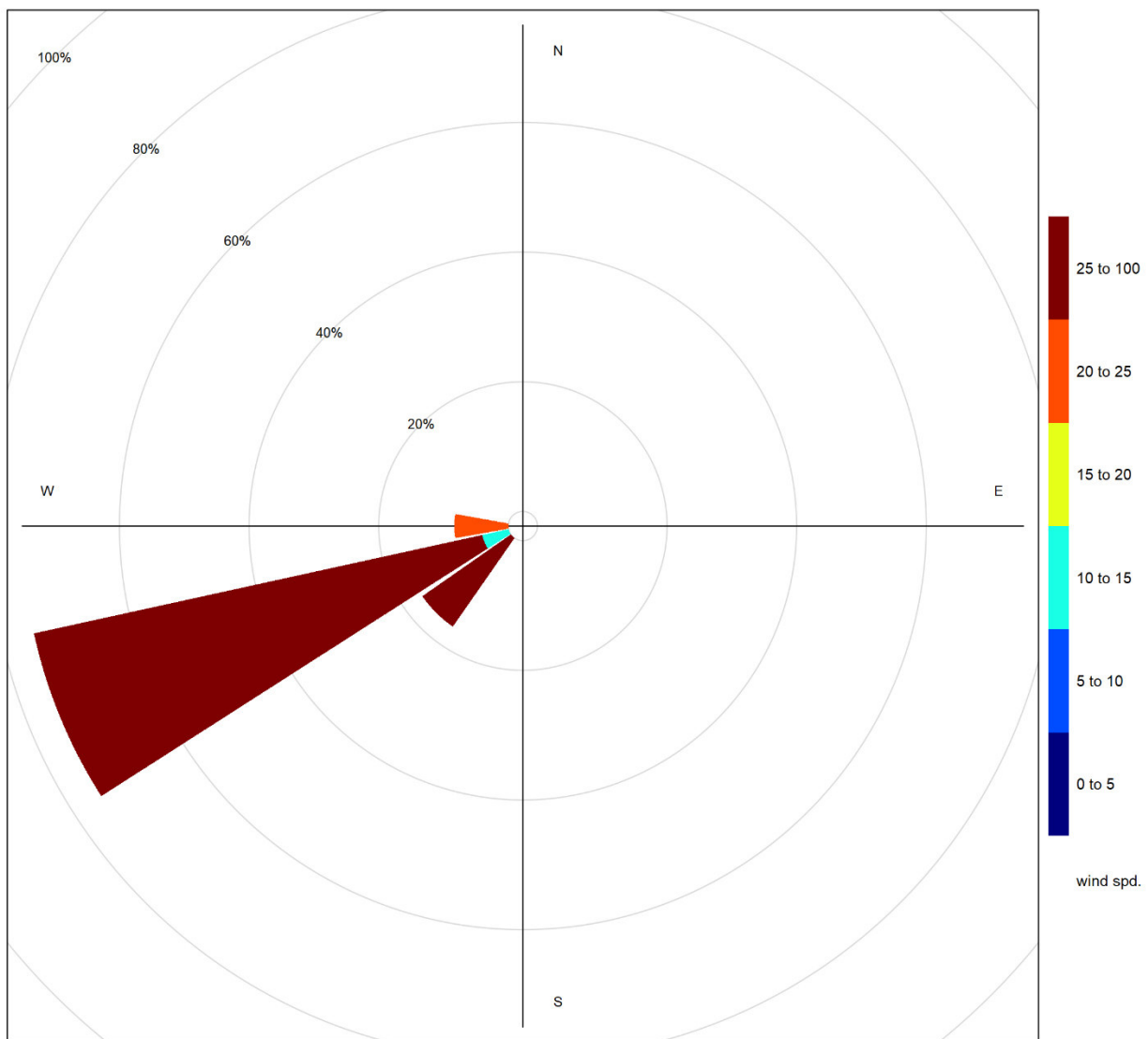


Figure 6-4 Windrose for PM_{2.5} exceedance day recorded at the Berm GRIMM

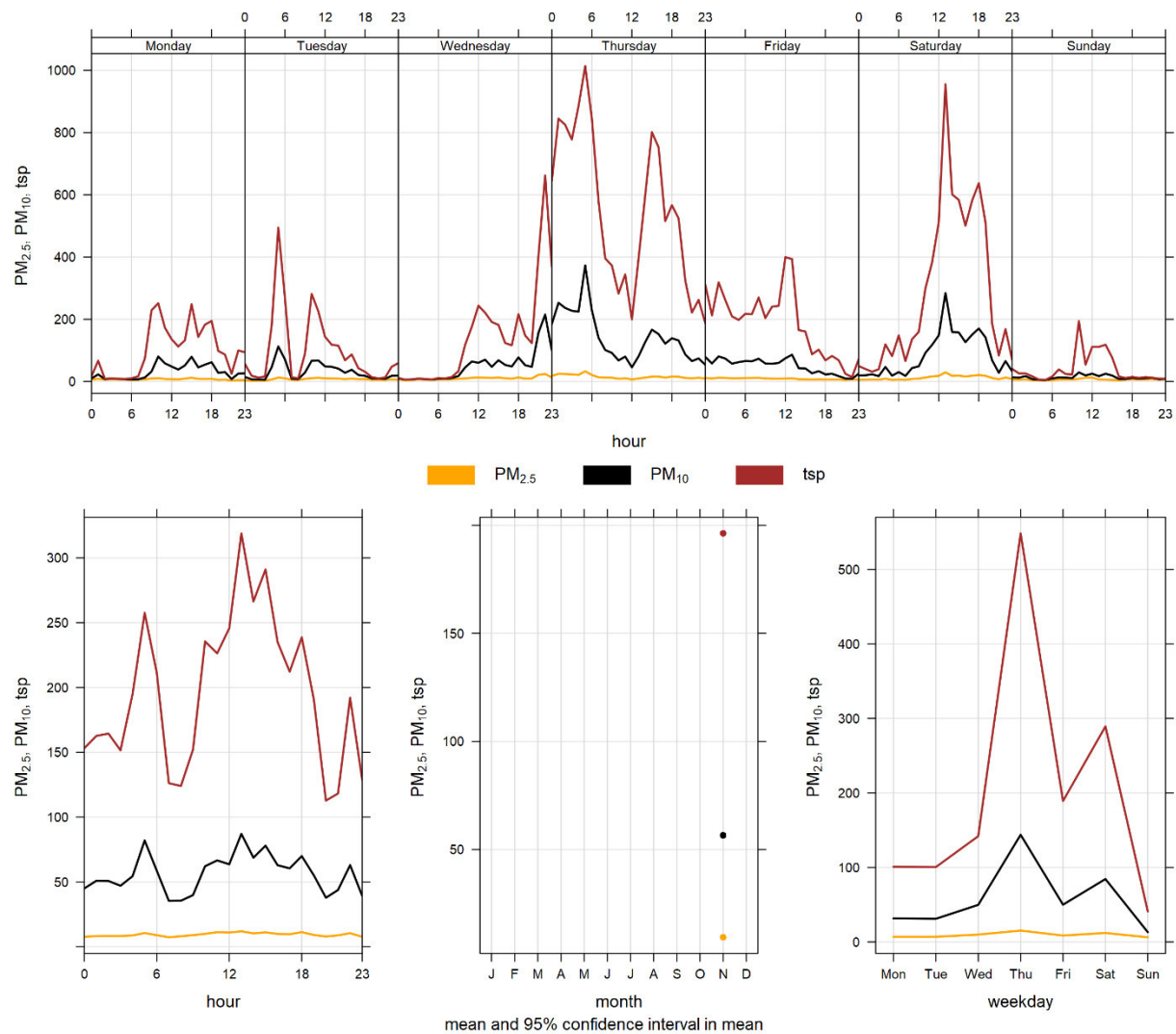


Figure 6-5 Berm particulate matter time variation

7 ENTRANCE INDUSTRIAL GRIMM

7.1 OPERATIONAL SUMMARY

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

Table 7-1 Instrumentation List at the Entrance monitoring location

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

7.2 MONITORING RESULTS AND TRENDS

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

During the month of November, there were 15 and 2 exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) Guidelines, respectively. There was zero hours exceeding the 1-hour PM_{2.5} Guideline.

Historically, the Entrance monitor records an average of 16 and 0 exceedances of the 24-hour TSP and PM_{2.5} guidelines respectively, during the month of November. The maximum number of TSP exceedances recorded during November occurred in 2014, which had 25 days that exceeded the guideline. The minimum number of TSP exceedances recorded during November occurred in 2012, which had one day that exceeded the guideline. The maximum number of PM_{2.5} exceedances recorded during November is 2 days in 2013 and 2014.

It should also be noted that the GRIMM monitors become more conservative in the reported PM concentrations as the size fraction increases. The PM_{2.5} size fraction has been shown to match other regulatory approved PM_{2.5} monitors, but the TSP concentrations recorded by the GRIMM tend to be higher than regulatory approved monitors (Levelton, 2015).

The Entrance monitor is impacted by fugitive dust from plant activities, and high wind events. Trucks also pass near to the Entrance monitor as they enter and exit the Lafarge facility for loading and deliveries. Additionally, the monitor is closely located to Highway 1A. Traffic, particularly large trucks, can create dust while crossing over the railway tracks. This can all lead to the monitor recording high TSP concentrations, which are typically associated with fugitive dust sources.

Figure 7-3 shows the wind rose for the 15 days that exceeded the TSP Guideline. Figure 7-4 shows the wind rose for the two days that exceeded the PM_{2.5} Guideline. The wind roses show that the winds predominantly came from the westerly directions.

Table 7-2 Summary of November 2022 data at the Entrance GRIMM

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour					Maximum 24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM_{2.5} (µg/m ³)	80	29	Entrance	0	2	0.2	13.0	60.3	29	9	9.8	257.4	32.6	19	100.0
PM₁₀ (µg/m ³)	-	-	Entrance	-	-	0.3	68.9	594.4	19	5	26.7	280.8	332.9	19	100.0
TSP (µg/m ³)	-	100	Entrance	-	15	0.9	240.0	2293.8	19	5	26.7	280.8	1298.8	19	100.0

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

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Entrance						
2022-11-03	171.3	-	264.7	25.3	60.7	High wind event
2022-11-10	392.7	-	280.5	22.6	65.0	High wind event
2022-11-11	679.3	29.1	285.0	28.8	65.1	High wind event
2022-11-12	115.3	-	275.6	16.3	67.6	Winds predominately from the west
2022-11-13	253.2	-	267.4	18.1	66.9	Winds predominately from the west
2022-11-17	402.6	-	266.7	15.1	63.0	Winds predominately from the west
2022-11-18	705.1	-	284.4	23.1	50.3	High wind event
2022-11-19	1298.8	32.6	287.3	27.0	51.2	High wind event
2022-11-20	747.2	-	291.5	27.3	53.6	High wind event
2022-11-21	362.8	-	271.3	25.7	50.7	High wind event
2022-11-22	235.2	-	260.6	22.0	57.5	High wind event
2022-11-23	329.5	-	243.2	21.4	47.8	High wind event
2022-11-24	617.3	-	245.2	40.0	39.9	High wind event
2022-11-25	112.0	-	257.3	20.2	56.9	High wind event
2022-11-26	242.0	-	238.7	29.5	41.8	High wind event

Total # of Exceedances	15	2				
Maximum # of Exceedances (November)	25 (2014)	2 (2013, 2014)				
Average # of Exceedances (November)	16	0				
Minimum # of Exceedances (November)	1 (2012)	0 (2010, 2011, 2015, 2016, 2017, 2018, 2019, 2020, 2021)				

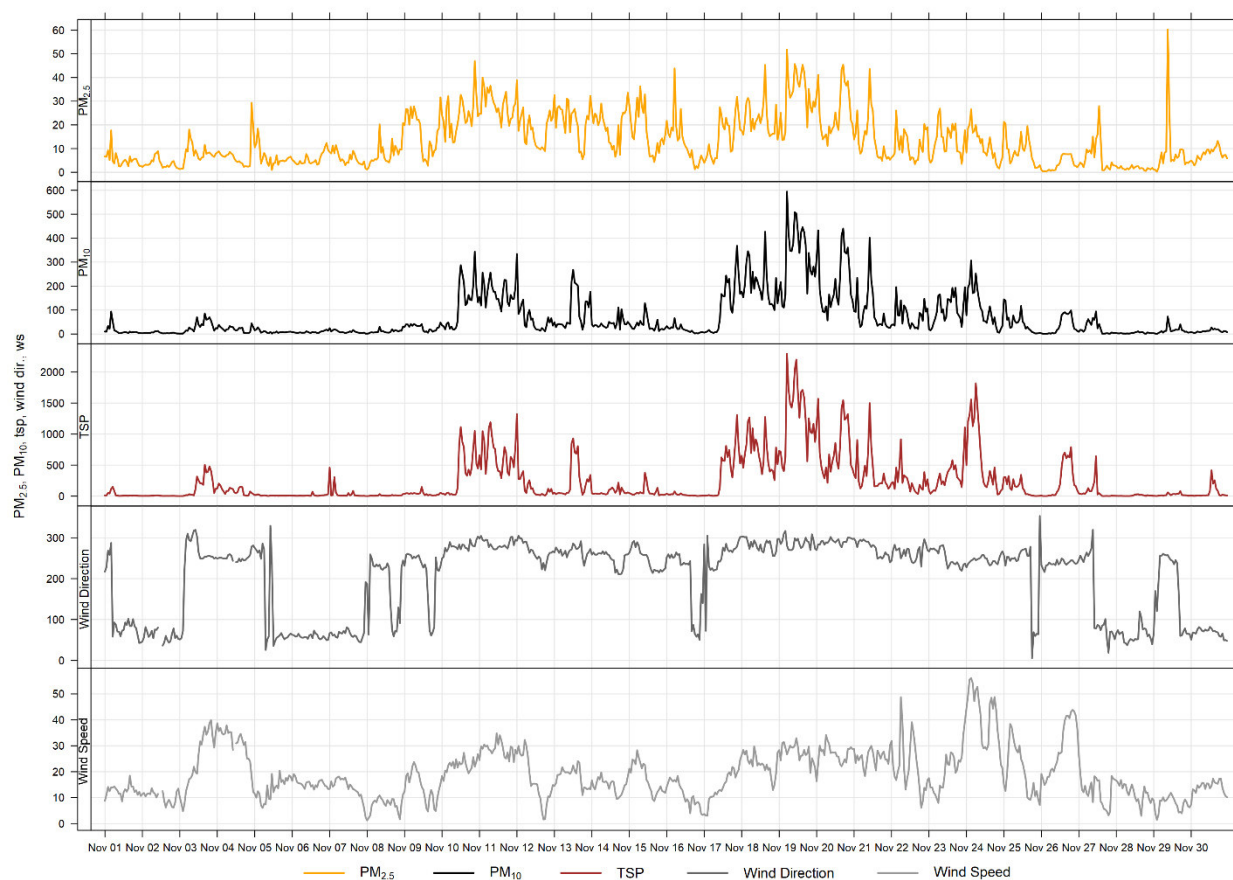


Figure 7-1 1-hour particulate matter concentrations recorded at the Entrance monitor

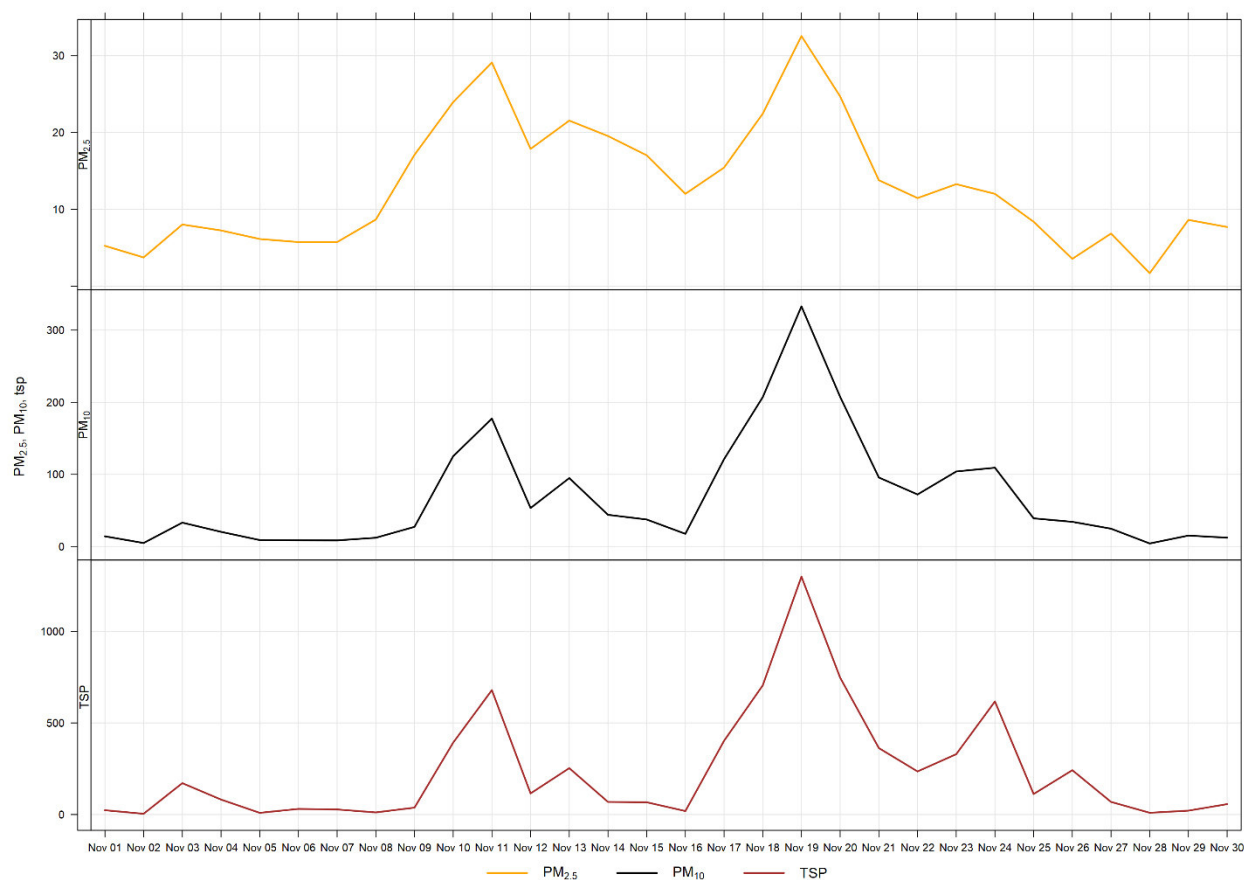


Figure 7-2 24-hour particulate matter concentrations recorded at the Entrance monitor

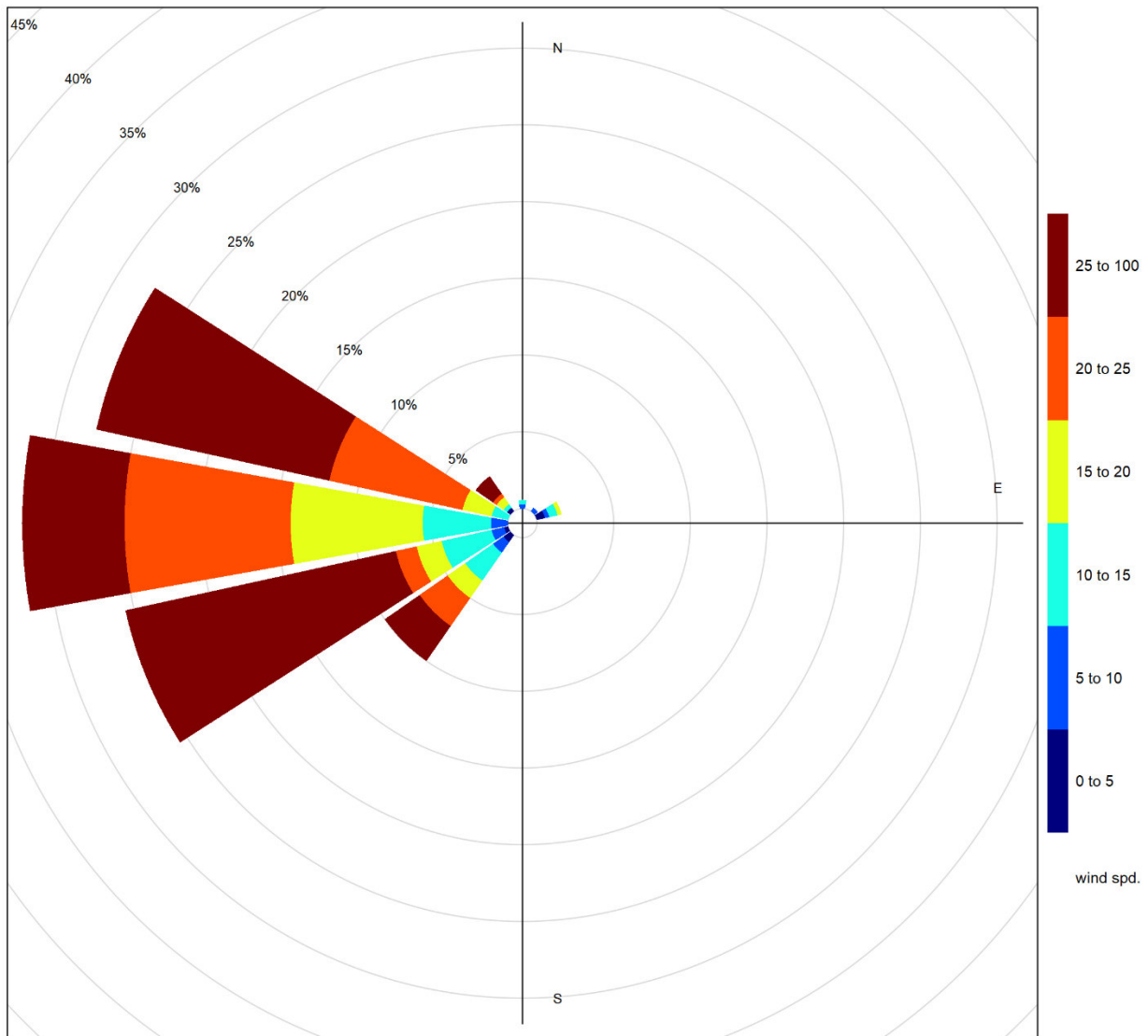


Figure 7-3 Wind rose for TSP exceedance days recorded at the Entrance GRIMM

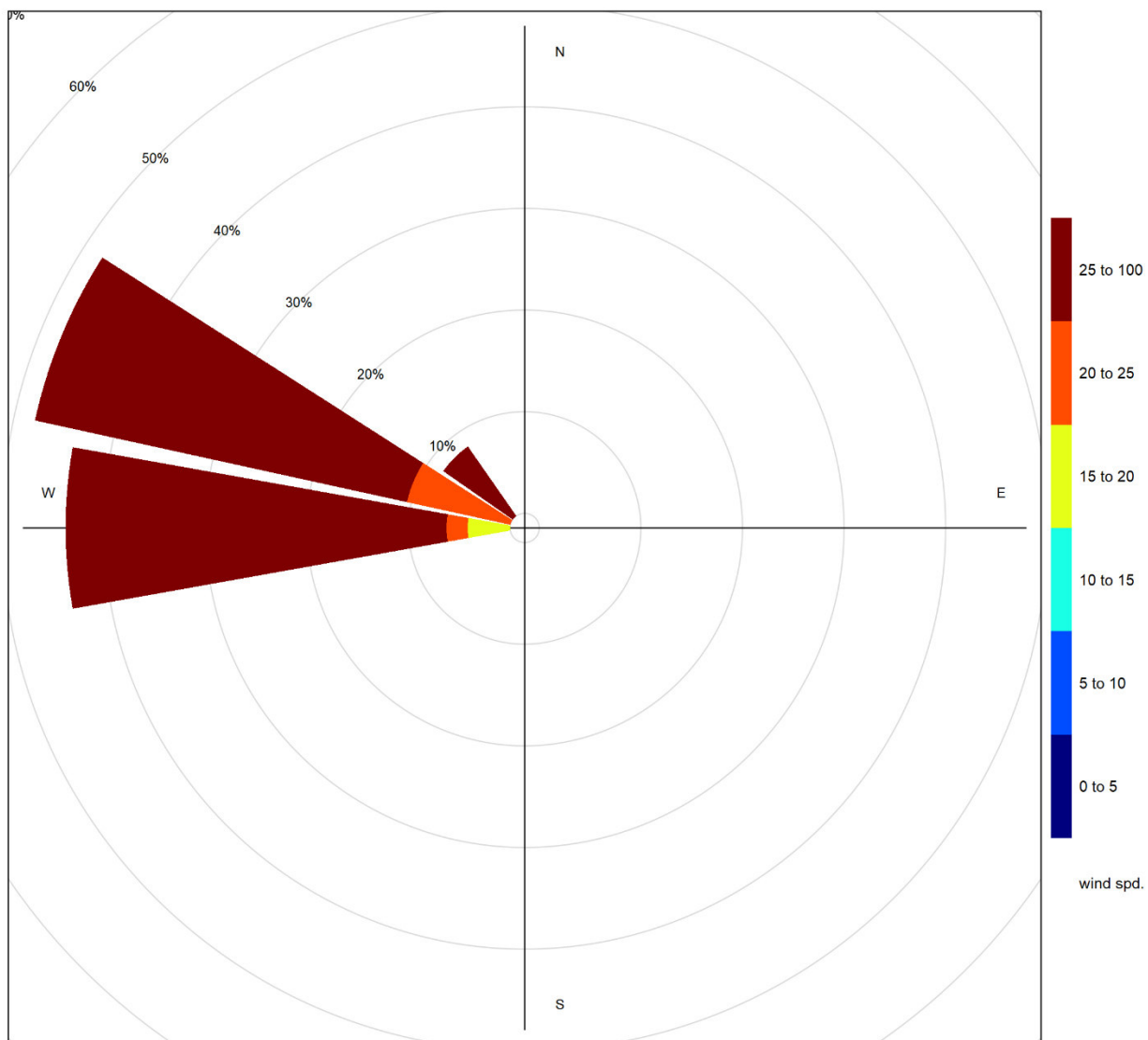


Figure 7-4 Wind rose for PM_{2.5} exceedance days recorded at the Entrance GRIMM

Figure 7-5 illustrates the hourly PM concentrations recorded at the Entrance monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month, and weekday, respectively. Figure 7-5 is based on data collected during November 2022. The diurnal pattern differs from the Windridge, Lagoon and Berm stations and are likely more influenced by daytime traffic emission (from vehicles serving Lafarge as well as regular highway traffic) given its location near the highway entrance to Lafarge.

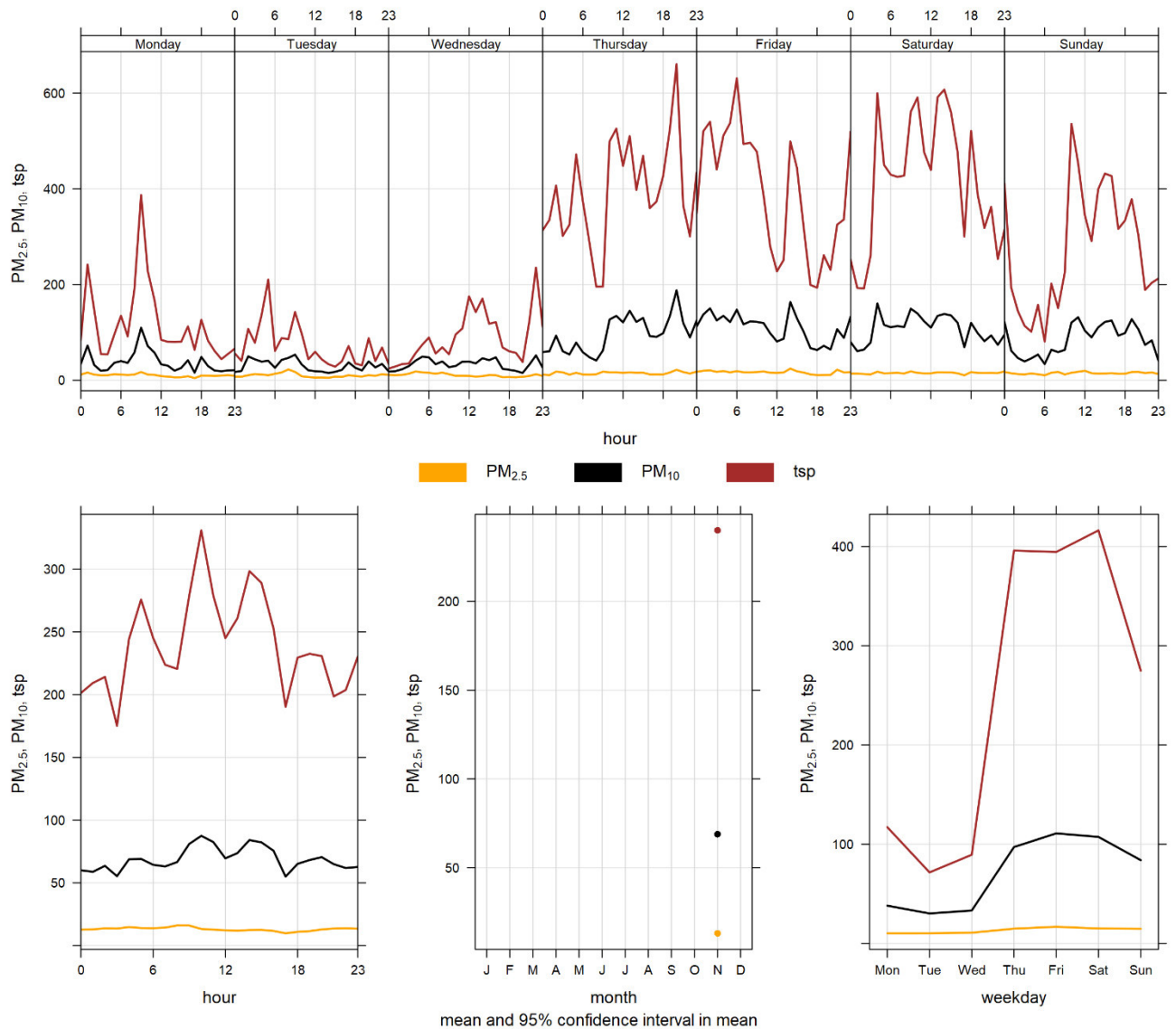


Figure 7-5 Entrance particle matter time variation

BIBLIOGRAPHY

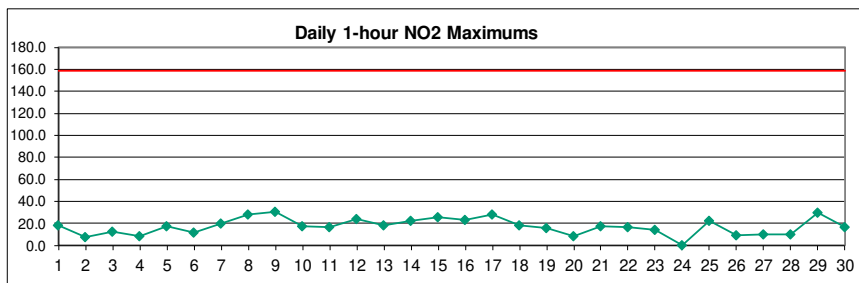
- Alberta Environment and Parks. (2016, June). Alberta Ambient Air Quality Objectives and Guidelines Summary. Alberta, Canada.
- Alberta Environment and Parks. (2016, April). Air Monitoring Directive. Alberta, Canada.
- Carslaw, D.C. and K. Ropkins, (2012). Openair — an R package for air quality data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

APPENDIX

A DATA & CALIBRATION REPORTS

Lagoon NO₂ (ppb) – November 2022

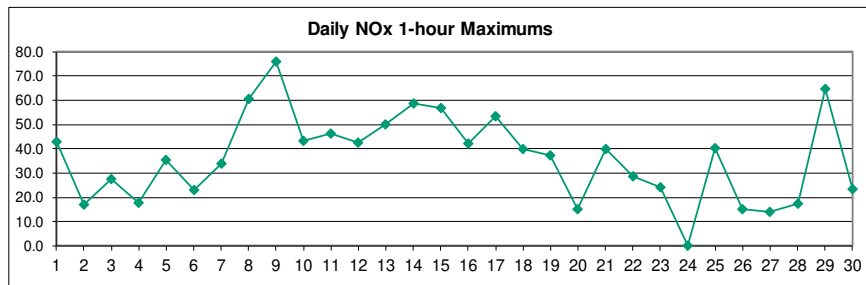
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	7.9	S	7.0	7.4	5.8	2.1	2.4	4.5	12.0	18.6	10.5	5.8	1.9	17.4	8.8	2.6	1.9	1.3	1.2	1.1	1.5	1.4	3.0	3.6	5.6	18.6
2	1.6	S	1.3	1.2	1.3	1.8	2.3	3.6	2.9	3.9	P	P	P	5.1	4.2	6.8	7.9	6.0	4.9	7.1	6.3	5.5	3.8	3.5	4.0	7.9
3	3.7	S	5.9	12.7	8.7	10.7	10.8	9.4	7.4	6.5	9.4	6.1	3.2	3.7	2.7	2.6	2.8	4.0	3.5	4.3	3.3	2.7	2.4	2.6	5.6	12.7
4	2.8	S	3.0	2.6	2.5	2.2	2.9	6.7	6.5	5.4	3.1	3.6	3.7	5.4	4.7	5.8	8.1	5.3	4.8	6.7	6.6	6.9	8.5	8.4	5.1	8.5
5	8.7	S	7.6	12.7	7.4	9.3	11.1	17.6	6.5	11.4	2.3	8.2	8.3	6.1	4.6	5.8	3.1	3.2	6.7	6.8	6.5	4.0	4.5	7.8	7.4	17.6
6	3.3	S	3.2	2.1	5.5	10.4	5.3	6.9	3.8	5.5	4.3	3.3	3.4	3.1	9.2	11.4	6.7	5.8	7.4	10.7	6.8	5.1	4.9	9.9	6.0	11.4
7	16.3	S	15.8	8.8	8.0	12.5	17.8	17.1	15.4	14.3	3.8	4.1	4.1	4.1	6.9	5.0	4.1	7.1	7.8	5.2	8.3	9.7	8.6	20.3	9.8	20.3
8	22.5	S	15.1	19.4	17.4	19.4	21.2	24.2	22.2	16.0	12.2	7.7	8.0	6.7	9.0	16.2	19.5	19.3	21.4	21.3	27.2	27.9	25.7	23.7	18.4	27.9
9	19.9	S	17.4	14.8	17.0	15.3	17.1	16.6	14.2	16.6	13.8	9.5	11.5	6.7	8.4	21.8	31.0	24.1	20.5	24.0	29.1	28.8	26.0	20.3	18.5	31.0
10	17.4	S	17.7	11.1	8.0	7.2	7.5	9.3	14.6	16.6	9.5	11.5	9.9	13.6	16.4	14.0	12.9	10.6	12.2	17.3	11.0	8.0	5.1	4.9	11.6	17.7
11	3.6	S	7.2	6.3	7.3	10.9	8.1	9.9	12.4	12.5	16.2	13.0	13.1	13.3	14.9	6.9	10.3	16.5	13.0	4.8	5.7	8.5	8.8	8.5	10.1	16.5
12	6.1	S	7.5	9.3	4.6	3.9	8.4	16.7	11.7	8.7	13.3	9.3	7.5	11.0	12.3	6.5	12.8	11.7	23.9	19.6	13.2	13.6	15.8	18.9	11.6	23.9
13	14.0	S	15.7	12.3	17.5	17.1	11.9	15.4	18.1	10.2	9.7	7.2	9.2	17.0	16.9	15.5	11.2	7.3	4.3	12.6	11.6	12.4	12.3	15.3	12.8	18.1
14	10.0	S	14.2	14.5	14.6	17.3	18.2	20.7	15.8	18.2	14.5	14.0	10.3	10.0	9.4	9.8	13.5	10.8	13.9	18.3	16.7	15.5	22.8	18.3	14.8	22.8
15	13.5	S	9.6	12.7	8.2	9.7	17.4	19.1	19.4	20.2	16.4	14.8	12.5	8.3	9.1	15.8	16.9	21.3	21.9	22.1	25.0	25.5	23.1	21.0	16.7	25.5
16	18.5	S	21.8	22.0	21.5	20.4	21.7	21.7	20.8	19.8	19.9	18.0	17.7	17.5	17.9	5.8	1.7	4.0	8.4	5.8	11.2	14.8	23.2	19.5	16.2	23.2
17	21.8	S	28.2	25.4	24.5	23.8	23.4	26.7	23.6	18.9	18.5	13.2	19.2	10.2	13.8	9.9	8.4	6.5	8.0	6.3	9.5	7.0	5.9	4.8	15.5	28.2
18	6.3	S	5.9	6.8	9.8	5.6	7.2	5.0	5.5	9.1	13.0	7.6	10.2	13.2	11.7	5.2	7.1	8.2	9.4	14.3	15.0	17.9	9.0	8.1	9.2	17.9
19	7.7	S	4.6	4.0	9.3	11.9	14.9	15.8	14.6	6.4	7.1	6.3	11.6	13.8	10.1	6.7	5.8	5.4	8.4	13.2	6.1	6.0	13.3	16.2	9.5	16.2
20	8.7	S	6.8	5.1	7.6	5.9	5.1	5.0	5.5	6.0	5.8	7.5	4.9	5.1	5.6	8.4	8.5	7.7	6.7	4.9	4.4	5.5	4.8	4.3	6.1	8.7
21	9.5	S	5.1	4.1	3.1	4.4	7.5	10.1	12.7	10.6	14.5	13.1	17.6	9.9	3.9	5.9	8.6	4.8	8.4	7.0	7.5	3.7	2.2	2.2	7.8	17.6
22	7.8	S	12.6	11.8	9.6	4.8	5.5	13.3	16.7	16.4	13.9	7.9	2.7	2.0	3.9	7.7	7.8	8.5	13.6	11.4	10.4	8.8	9.6	14.1	9.6	16.7
23	6.9	S	6.1	6.2	4.7	8.1	11.8	10.2	14.4	10.2	7.1	3.4	2.2	4.9	3.5	3.2	4.7	2.6	2.0	1.9	1.7	2.0	2.0	1.4	5.3	14.4
24	1.2	S	4.2	4.2	3.9	2.8	6.0	6.4	8.9	11.0	9.3	C	C	C	C	C	C	C	2.6	2.4	3.8	6.2	8.5	17.4	-	-
25	15.4	S	6.0	2.5	6.5	5.8	11.7	6.7	8.5	10.9	20.7	15.9	12.8	7.8	10.3	22.3	20.7	16.6	6.2	8.8	19.4	19.1	20.9	2.2	12.1	22.3
26	2.0	S	2.0	3.8	2.7	2.9	4.3	3.6	2.6	7.8	3.0	6.2	9.1	6.2	1.5	1.4	2.7	5.1	5.7	4.4	2.2	1.7	2.0	6.2	3.9	9.1
27	8.8	S	4.8	3.7	3.4	5.1	5.6	7.9	10.5	2.3	1.6	1.3	1.4	2.3	1.7	1.6	6.0	4.3	9.5	2.8	2.6	2.3	7.9	2.2	4.3	10.5
28	1.8	S	1.9	1.8	5.3	5.8	4.0	5.5	9.8	5.5	4.6	7.7	9.0	7.7	3.8	5.6	7.2	1.7	1.6	5.5	2.5	5.0	7.0	5.7	5.0	9.8
29	4.7	S	11.3	5.4	7.7	16.3	25.5	28.2	26.8	25.2	18.8	16.0	12.5	13.1	12.5	13.2	25.8	30.0	24.1	9.5	11.2	17.4	20.0	18.2	17.1	30.0
30	8.9	S	8.5	6.0	8.6	7.5	6.4	6.4	6.4	5.9	5.3	4.6	3.7	4.4	6.1	6.6	8.8	13.3	8.9	7.3	11.1	16.4	11.7	14.3	8.1	16.4
NO.	30	-	30	30	30	30	30	30	30	30	29	28	28	29	29	29	29	29	30	30	30	30	30	30	680	100%
MEAN	9.4	-	9.3	8.7	8.7	9.4	10.8	12.3	12.3	11.7	10.4	8.8	8.6	8.6	8.4	8.6	9.9	9.4	9.6	9.6	9.9	10.4	10.8	10.8		
MAX	22.5	-	28.2	25.4	24.5	23.8	25.5	28.2	26.8	25.2	20.7	18.0	19.2	17.5	17.9	22.3	31.0	30.0	24.1	24.0	29.1	28.8	26.0	23.7		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	680
Maximum 1-HR Average	31.0 PPB
Maximum 24-HR Average	18.5 PPB
Monthly Calibration	7
Standard Deviation	6.4
Operational Time	717 HRS
Operational Uptime	99.6 %
Monthly Average	9.9 PPB

Lagoon NOx (ppb) – November 2022

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	8.7	S	8.5	11.9	6.8	2.6	2.9	5.2	25.6	33.4	25.1	10.5	3.0	42.8	19.7	3.3	2.7	1.8	1.6	1.5	2.0	2.6	8.4	5.5	10.3	42.8
2	2.0	S	1.7	1.7	1.7	2.7	2.9	6.3	3.7	5.3	P	P	P	16.9	6.9	10.7	12.4	11.6	5.6	8.2	7.1	8.2	5.5	5.5	6.3	16.9
3	5.6	S	8.3	25.6	12.5	21.9	26.6	17.2	12.0	15.4	27.6	14.9	5.4	6.2	4.3	3.7	3.8	6.0	5.1	7.1	4.4	3.3	3.1	3.4	10.6	27.6
4	3.7	S	4.1	3.5	3.4	2.8	3.7	12.4	10.4	8.5	4.1	5.2	5.9	8.6	8.0	9.6	12.4	7.7	5.4	10.0	12.0	11.4	17.7	13.5	8.0	17.7
5	14.6	S	12.0	17.1	10.9	14.6	16.5	35.3	9.0	17.2	3.2	12.5	14.4	10.0	6.3	12.9	4.1	4.0	9.8	11.9	10.8	5.8	7.8	11.1	11.8	35.3
6	4.7	S	4.1	2.9	10.8	16.5	7.4	9.7	5.5	11.5	7.2	5.2	6.1	4.5	19.4	22.9	11.5	8.5	10.0	17.1	10.0	6.4	5.9	14.3	9.7	22.9
7	29.7	S	27.2	12.2	11.5	21.9	32.8	33.9	31.3	29.1	5.1	5.7	5.9	5.7	10.1	7.0	5.2	9.2	11.6	6.4	10.6	12.0	9.8	23.4	15.5	33.9
8	47.3	S	18.9	24.2	20.8	22.7	27.1	39.5	47.7	35.6	29.5	18.9	18.8	15.7	18.9	29.4	32.3	21.9	26.2	37.9	60.6	52.0	33.6	30.7	30.9	60.6
9	30.2	S	35.9	21.8	38.9	36.7	37.7	40.3	23.4	41.5	31.6	21.1	26.9	12.4	15.9	47.3	75.8	43.2	24.4	28.9	45.0	39.5	37.1	30.1	34.2	75.8
10	31.8	S	34.8	19.3	10.5	10.9	10.6	18.0	36.6	43.4	23.0	31.6	21.8	33.3	41.0	28.1	21.2	17.8	22.1	35.2	20.6	13.3	7.8	6.9	23.5	43.4
11	5.0	S	14.4	11.1	14.2	27.3	16.5	20.6	29.9	34.7	46.3	40.8	35.9	36.2	35.4	13.6	18.4	36.8	24.1	6.2	8.5	15.4	16.2	14.0	22.7	46.3
12	9.1	S	10.2	18.4	5.8	4.6	17.8	38.8	21.3	14.3	26.1	17.8	14.9	19.9	19.9	8.6	14.7	12.4	39.0	25.1	14.6	19.8	28.6	42.4	19.3	42.4
13	27.9	S	39.7	27.1	50.0	42.0	28.1	37.3	43.7	19.5	21.9	15.9	21.5	44.4	42.2	32.4	19.3	9.2	5.0	18.7	16.8	17.6	17.4	28.9	27.2	50.0
14	16.6	S	25.9	29.9	27.4	42.5	49.6	45.0	29.7	49.6	33.0	37.4	20.9	18.1	13.3	12.6	15.6	11.4	14.5	19.3	30.3	24.2	58.8	39.9	28.9	58.8
15	25.4	S	13.0	22.2	12.9	18.3	48.0	52.1	49.7	56.7	32.3	33.8	23.4	13.1	12.8	24.9	22.4	23.0	23.7	24.7	28.1	28.4	26.5	27.2	27.9	56.7
16	22.1	S	28.7	27.6	24.9	28.8	34.8	38.8	34.7	37.9	42.1	37.5	38.1	35.7	29.4	8.1	2.2	4.6	8.8	6.5	13.6	16.2	31.5	22.0	25.0	42.1
17	36.0	S	45.5	36.6	30.6	27.5	28.4	37.9	40.2	35.6	51.8	31.6	53.3	21.2	29.3	15.9	12.1	7.6	14.0	7.8	16.6	9.1	8.5	5.9	26.2	53.3
18	8.9	S	7.2	10.8	18.8	7.9	11.1	7.0	7.9	17.9	29.1	15.9	22.4	29.4	24.2	7.0	11.7	12.8	12.3	20.6	20.3	39.8	14.7	10.0	16.0	39.8
19	11.9	S	5.7	4.7	18.6	21.2	33.9	35.8	32.2	10.6	14.4	14.3	30.4	37.5	21.6	12.5	9.1	8.1	15.3	22.3	7.9	8.0	26.2	34.3	19.0	37.5
20	13.7	S	11.1	6.2	11.6	8.0	6.6	5.9	7.3	8.4	9.2	13.9	6.9	7.2	8.2	14.4	15.2	11.0	9.8	8.1	5.3	7.7	5.7	4.8	9.0	15.2
21	17.4	S	7.7	5.5	3.7	7.0	11.6	20.5	24.4	21.7	34.3	31.0	39.8	18.0	5.4	7.6	12.5	5.8	6.8	14.8	8.8	12.2	5.1	2.8	14.1	39.8
22	12.9	S	21.1	21.5	14.7	6.6	9.2	23.4	28.6	27.2	25.3	12.1	4.1	2.8	5.7	11.0	9.9	11.8	15.2	14.5	14.4	13.2	13.6	25.2	15.0	28.6
23	8.6	S	7.7	8.9	5.7	11.2	19.9	16.3	24.2	15.5	12.8	4.9	3.3	7.9	5.0	4.3	6.0	3.3	2.5	2.4	2.2	2.9	2.6	1.9	7.8	24.2
24	1.8	S	7.4	6.6	5.6	3.8	9.4	9.4	15.2	18.3	16.2	C	C	C	C	C	C	C	2.8	2.2	4.1	7.1	10.5	26.1	-	-
25	21.2	S	7.4	2.8	10.8	7.8	21.4	8.6	12.1	17.5	40.2	28.9	22.2	9.6	13.1	33.0	26.8	21.3	6.7	13.2	31.6	26.4	28.0	2.2	17.9	40.2
26	1.9	S	2.0	5.0	2.6	3.4	4.7	3.8	2.9	10.5	3.4	9.9	15.0	10.3	1.6	1.2	3.4	8.5	8.2	5.3	2.3	1.7	2.1	7.5	5.1	15.0
27	14.0	S	4.9	3.9	3.7	5.2	7.3	10.4	13.2	2.2	1.4	1.2	1.3	2.3	1.6	1.6	7.6	4.5	10.5	2.7	2.8	2.5	11.7	2.2	5.2	14.0
28	1.7	S	2.0	1.9	7.6	12.6	10.1	12.4	14.1	7.6	6.6	14.1	17.6	15.0	5.2	6.7	10.3	1.6	1.6	8.0	2.7	6.8	11.2	8.2	8.1	17.6
29	4.7	S	15.8	6.4	7.8	35.3	64.7	61.2	56.3	58.0	43.2	41.4	26.4	25.6	21.3	17.9	35.6	41.3	30.4	10.0	14.0	25.1	27.9	21.6	30.1	64.7
30	11.5	S	9.5	5.8	8.4	7.8	6.9	6.9	6.5	7.1	6.6	6.2	4.5	5.9	8.0	7.9	9.7	19.7	10.0	8.1	15.3	23.4	18.7	17.3	10.1	23.4
NO.	30	-	30	30	30	30	30	30	30	30	29	28	28	29	29	29	29	29	30	30	30	30	30	30	680	100%
MEAN	15.0	-	14.7	13.4	13.8	16.1	20.3	23.7	23.3	23.7	22.5	19.1	18.2	17.8	15.6	14.3	15.3	13.3	12.8	13.5	14.8	15.4	16.7	16.3		
MAX	47.3	-	45.5	36.6	50.0	42.5	64.7	61.2	56.3	58.0	51.8	41.4	53.3	44.4	42.2	47.3	75.8	43.2	39.0	37.9	60.6	52.0	58.8	42.4		



Number of Non-Zero Readings 680

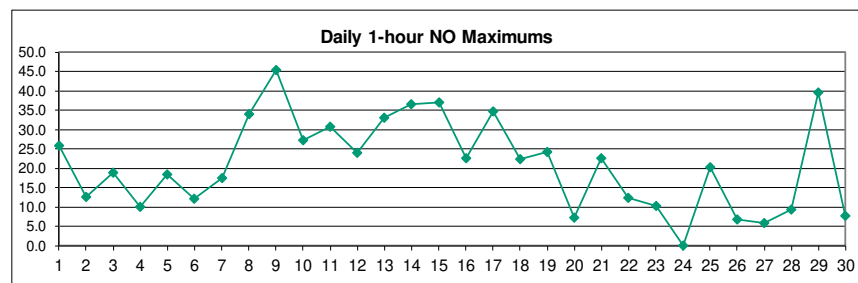
Maximum 1-HR Average 75.8 PPB

Maximum 24-HR Average 34.2 PPB

Monthly Calibration	7	Operational Time	717 HRS
Standard Deviation	13	Operational Uptime	99.6 %
		Monthly Average	16.9 PPB

Lagoon NO (ppb) – November 2022

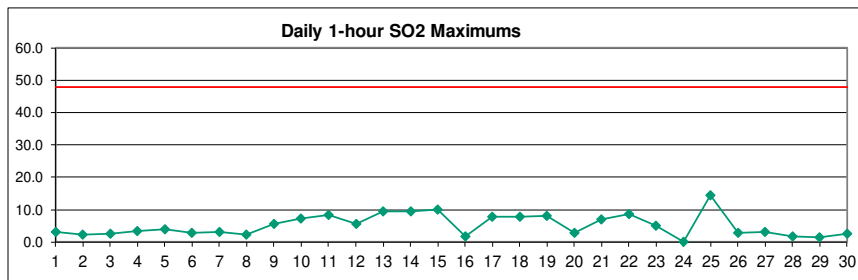
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.3	S	2.0	5.0	1.5	0.9	0.9	1.2	14.1	15.3	15.1	5.1	1.5	25.9	11.4	1.2	1.1	0.9	0.8	0.8	0.8	1.6	5.8	2.4	5.1	25.9
2	0.9	S	0.8	0.8	0.8	1.3	0.9	3.1	1.2	1.8	P	P	P	12.5	3.3	4.7	5.3	6.3	1.3	1.8	1.5	3.3	2.3	2.6	2.8	12.5
3	2.5	S	3.1	13.5	4.5	12.0	16.5	8.5	5.4	9.6	18.9	9.5	2.9	3.1	2.2	1.8	1.7	2.7	2.2	3.5	1.8	1.2	1.3	1.3	5.6	18.9
4	1.6	S	1.7	1.5	1.5	1.2	1.4	6.4	4.6	3.8	1.6	2.2	2.8	4.0	4.0	4.5	5.1	3.1	1.4	4.0	6.2	5.3	10.0	5.8	3.6	10.0
5	6.7	S	5.2	5.2	4.3	6.1	6.2	18.4	3.3	6.6	1.6	5.1	6.9	4.7	2.4	7.8	1.8	1.6	3.9	5.8	5.1	2.5	4.0	4.1	5.2	18.4
6	2.1	S	1.5	1.5	6.0	6.9	2.8	3.5	2.4	6.7	3.6	2.6	3.4	2.1	10.9	12.3	5.5	3.5	3.4	7.2	4.0	2.1	1.8	5.2	4.4	12.3
7	14.2	S	12.1	4.2	4.3	10.2	15.6	17.6	16.7	15.5	2.1	2.3	2.6	2.4	3.9	2.7	1.8	2.9	4.6	1.9	3.0	3.1	1.9	3.9	6.5	17.6
8	25.4	S	4.5	5.6	4.2	4.1	6.6	15.9	26.0	20.2	18.0	12.0	11.6	9.7	10.8	13.9	13.5	3.3	5.6	17.3	33.9	24.7	8.6	7.8	13.2	33.9
9	11.0	S	19.1	7.7	22.5	22.0	21.2	24.3	10.0	25.5	18.5	12.4	16.1	6.4	8.1	25.9	45.3	19.6	4.6	5.5	16.3	11.2	11.7	10.5	16.3	45.3
10	15.0	S	17.6	8.9	3.2	4.4	3.8	9.4	22.7	27.4	14.2	20.7	12.6	20.3	25.2	14.7	9.1	8.0	10.7	18.5	10.4	6.0	3.4	2.6	12.6	27.4
11	2.0	S	7.8	5.5	7.6	17.0	9.1	11.4	18.1	22.8	30.6	28.4	23.4	23.6	21.1	7.4	8.8	20.9	11.7	2.0	3.5	7.6	8.1	6.2	13.2	30.6
12	3.7	S	3.3	9.8	1.9	1.2	10.1	22.7	10.3	6.5	13.5	9.3	8.3	9.6	8.4	2.8	2.7	1.4	15.7	6.2	2.2	6.9	13.5	24.1	8.4	24.1
13	14.5	S	24.6	15.5	33.1	25.5	16.8	22.6	26.3	10.0	13.0	9.5	13.1	28.0	25.9	17.6	8.8	2.7	1.4	6.8	6.0	6.0	5.9	14.3	15.1	33.1
14	7.3	S	12.4	16.1	13.5	25.8	32.0	24.9	14.6	32.0	19.1	24.0	11.3	8.9	4.7	3.6	2.8	1.3	1.3	1.7	14.3	9.4	36.5	22.3	14.8	36.5
15	12.6	S	4.1	10.2	5.4	9.4	31.3	33.6	30.9	37.1	16.6	19.7	11.6	5.6	4.5	9.8	6.2	2.5	2.5	3.3	3.7	3.5	4.1	6.8	12.0	37.1
16	4.3	S	7.5	6.3	4.1	9.1	13.7	17.7	14.5	18.6	22.7	20.0	20.9	18.8	12.1	3.0	1.1	1.2	1.1	1.4	3.1	2.0	9.0	3.1	9.4	22.7
17	14.8	S	17.9	11.8	6.8	4.3	5.8	11.7	17.2	17.3	33.9	19.0	34.7	11.7	16.2	6.8	4.4	1.8	6.8	2.3	7.8	2.9	3.3	1.8	11.3	34.7
18	3.3	S	2.1	4.7	9.7	3.0	4.7	2.7	3.1	9.5	16.7	9.0	12.8	16.9	13.1	2.5	5.3	5.3	3.6	6.9	6.0	22.5	6.4	2.6	7.5	22.5
19	5.0	S	1.8	1.4	10.0	10.1	19.6	20.6	18.2	5.0	8.0	8.6	19.4	24.3	12.2	6.5	4.0	3.4	7.6	9.8	2.4	2.7	13.6	18.7	10.1	24.3
20	5.7	S	5.0	1.7	4.7	2.7	2.1	1.6	2.6	3.2	4.1	7.1	2.7	2.8	3.4	6.7	7.4	4.0	3.8	3.9	1.5	2.9	1.5	1.2	3.6	7.4
21	8.5	S	3.3	2.0	1.2	3.2	4.8	11.1	12.4	11.8	20.4	18.4	22.5	8.6	1.9	2.3	4.4	1.4	2.4	6.9	2.3	5.1	1.9	1.1	6.9	22.5
22	5.6	S	9.0	10.3	5.7	2.3	4.2	10.5	12.3	11.3	11.9	4.8	1.9	1.2	2.2	3.8	2.6	3.8	2.0	3.6	4.6	4.8	4.5	11.6	5.8	12.3
23	2.1	S	2.0	3.1	1.4	3.5	8.5	6.6	10.2	5.9	6.1	1.9	1.4	3.4	1.8	1.4	1.7	1.0	0.9	0.8	0.8	1.2	1.0	0.8	2.9	10.2
24	0.8	S	3.6	2.8	2.2	1.5	3.8	3.6	6.8	7.8	7.4	C	C	C	C	C	C	C	0.9	0.7	1.2	1.6	2.8	9.5	-	-
25	6.5	S	2.2	1.0	5.1	2.8	10.5	2.7	4.4	7.5	20.2	13.8	10.3	2.6	3.7	11.4	7.0	5.6	1.3	5.2	13.0	8.0	7.9	0.8	6.7	20.2
26	0.7	S	0.7	2.0	0.7	1.3	1.2	1.0	1.0	3.5	1.2	4.4	6.7	4.9	0.8	0.7	1.5	4.1	3.2	1.7	0.9	0.7	0.8	2.0	2.0	6.7
27	5.9	S	0.9	0.9	1.0	0.9	2.5	3.3	3.5	0.7	0.7	0.7	0.7	0.8	0.7	0.7	2.4	1.0	1.7	0.7	0.8	0.9	4.5	0.7	1.6	5.9
28	0.7	S	0.8	0.9	3.1	7.5	6.9	7.7	5.0	3.0	2.7	7.2	9.4	8.0	2.1	1.8	3.9	0.7	0.7	3.1	0.8	2.4	4.8	3.1	3.8	9.4
29	0.7	S	5.1	1.7	0.7	19.5	39.6	33.3	29.9	33.1	24.8	25.9	14.6	13.0	9.4	5.3	10.3	11.7	6.7	1.1	3.3	8.1	8.3	3.9	13.5	39.6
30	3.2	S	1.6	0.6	0.5	1.0	1.1	1.1	0.7	1.7	1.9	2.1	1.4	2.0	2.5	1.8	1.4	6.9	1.7	1.4	4.7	7.6	7.6	3.5	2.5	7.6
NO.	30	-	30	30	30	30	30	30	30	30	29	28	28	29	29	29	29	29	30	30	30	30	30	30	680	100%
MEAN	6.3	-	6.1	5.4	5.7	7.4	10.1	12.0	11.6	12.7	12.7	10.9	10.3	9.9	7.9	6.4	6.1	4.6	3.9	4.5	5.5	5.6	6.6	6.1		
MAX	25.4	-	24.6	16.1	33.1	25.8	39.6	33.6	30.9	37.1	33.9	28.4	34.7	28.0	25.9	25.9	45.3	20.9	15.7	18.5	33.9	24.7	36.5	24.1		



Number of Non-Zero Readings	680		
Maximum 1-HR Average	45.3 PPB		
Maximum 24-HR Average	16.3 PPB		
Monthly Calibration	7	Operational Time	717 HRS
Standard Deviation	7.734	Operational Uptime	99.6 %
		Monthly Average	7.7 PPB

Lagoon SO₂ (ppb) – November 2022

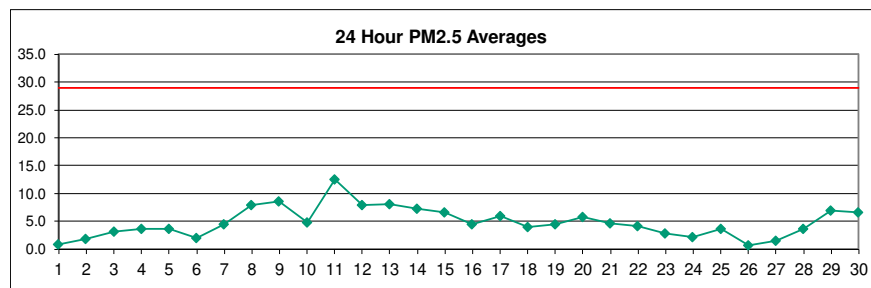
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.8	S	2.3	2.8	2.3	2.3	1.8	2.5	2.2	1.9	1.8	2.0	2.1	3.3	1.9	1.7	1.6	2.2	2.2	2.1	2.1	1.9	2.1	1.6	2.1	3.3
2	2.2	S	2.0	1.4	1.4	1.8	2.1	1.6	1.4	1.6	P	P	P	1.7	1.4	1.6	2.2	1.9	1.8	1.4	1.4	2.0	2.1	2.0	1.7	2.2
3	2.1	S	1.6	2.6	1.8	2.5	1.4	1.9	2.0	1.7	2.3	2.2	1.4	1.7	1.5	1.2	1.3	2.0	1.8	1.7	2.0	1.2	1.3	1.6	1.8	2.6
4	1.8	S	2.4	2.1	1.7	2.0	2.0	2.0	2.5	2.3	2.0	1.9	1.7	2.6	2.0	2.6	2.5	2.6	2.2	2.7	2.3	3.3	2.9	3.2	2.3	3.3
5	2.7	S	3.4	3.9	2.9	3.1	3.0	3.8	2.2	2.8	2.7	2.1	2.7	2.5	2.6	2.2	2.4	1.7	1.8	2.5	2.1	2.3	2.7	1.8	2.6	3.9
6	1.6	S	1.7	1.7	1.7	1.9	1.4	1.7	2.0	1.8	1.4	1.5	1.5	1.8	1.9	2.4	1.8	2.4	2.5	2.2	2.9	1.9	2.2	2.4	1.9	2.9
7	1.8	S	1.1	1.9	1.5	1.8	2.0	2.0	2.3	2.2	3.0	3.2	3.0	1.8	1.5	1.3	1.7	1.2	1.2	1.9	1.6	0.6	1.0	1.1	1.8	3.2
8	1.6	S	1.6	1.8	0.9	1.2	1.3	1.2	2.2	1.3	1.7	1.7	2.4	1.5	1.8	2.2	1.9	1.3	1.5	1.8	1.7	1.7	1.0	1.5	1.6	2.4
9	1.5	S	3.4	2.2	2.1	3.2	3.1	2.4	2.2	2.5	2.0	1.7	1.4	1.7	2.2	2.4	4.0	5.5	5.7	2.3	2.6	2.4	2.1	1.9	2.6	5.7
10	3.6	S	3.2	2.7	2.1	1.5	1.4	2.0	2.2	3.3	2.5	3.5	2.4	4.7	7.3	5.1	3.7	2.3	3.0	4.2	4.1	2.3	2.2	1.5	3.1	7.3
11	1.9	S	1.7	2.0	1.8	2.9	2.9	2.0	2.9	3.8	6.4	7.1	6.0	6.8	8.3	4.1	3.4	6.7	4.7	1.5	1.5	2.0	2.6	1.9	3.7	8.3
12	2.0	S	1.5	2.2	1.5	1.5	2.3	4.3	2.8	2.4	2.4	1.7	2.0	1.3	1.8	1.5	1.6	1.2	1.7	1.3	1.3	2.1	3.3	5.7	2.1	5.7
13	4.7	S	6.7	3.9	7.3	6.7	4.6	6.4	7.2	3.6	4.1	3.2	5.0	8.8	9.6	6.3	3.4	2.6	1.2	2.2	2.3	1.9	2.3	2.8	4.6	9.6
14	1.4	S	2.7	3.7	4.0	5.3	6.5	3.4	2.5	5.2	4.0	3.2	3.0	1.4	1.5	2.0	1.5	0.8	1.1	1.3	2.0	3.2	9.5	7.4	3.3	9.5
15	5.0	S	1.8	3.6	2.4	2.6	4.9	7.9	6.7	10.0	5.9	4.7	1.2	1.2	1.1	1.4	1.3	0.9	0.6	0.8	0.9	0.7	0.6	1.1	2.9	10.0
16	1.2	S	0.5	0.6	0.7	0.5	1.3	1.6	1.3	1.0	0.9	0.9	1.2	1.8	1.3	1.1	0.6	1.0	0.4	1.1	1.1	0.9	0.9	0.7	1.0	1.8
17	0.7	S	1.0	1.2	0.9	0.8	0.2	1.1	0.8	0.8	4.1	2.9	7.7	3.1	4.8	2.6	1.5	1.0	2.6	1.6	3.6	2.9	1.4	1.1	2.1	7.7
18	0.6	S	1.1	1.9	4.4	1.9	2.1	1.1	0.9	4.0	6.7	3.4	6.0	7.8	5.1	1.1	1.8	1.7	1.7	2.9	2.0	5.7	2.0	1.5	2.9	7.8
19	1.9	S	1.8	1.2	3.5	3.7	6.1	4.6	4.4	1.7	2.2	2.4	5.0	8.0	4.6	2.5	1.6	2.0	2.3	3.1	1.9	1.7	2.3	3.7	3.1	8.0
20	2.0	S	2.0	1.9	2.3	1.7	2.1	0.9	1.4	1.4	1.1	1.8	1.3	2.0	0.9	2.0	2.8	1.4	1.5	1.9	2.2	1.5	1.7	1.3	1.7	2.8
21	2.9	S	2.2	1.4	1.4	2.2	2.0	2.3	2.1	3.8	6.0	6.0	6.9	4.3	1.9	1.7	1.7	2.0	1.9	2.4	2.2	2.2	1.7	1.9	2.8	6.9
22	2.5	S	5.6	6.0	5.4	2.5	2.1	5.6	8.2	8.6	5.7	2.7	1.8	2.1	1.4	1.8	2.1	2.7	3.3	3.8	4.2	3.1	4.0	3.2	3.8	8.6
23	2.6	S	2.5	2.2	2.3	2.6	5.1	3.1	3.5	2.8	1.7	1.2	1.0	1.4	1.5	1.5	0.8	1.6	1.8	1.3	0.3	1.1	1.2	1.2	1.9	5.1
24	1.2	S	1.9	1.4	1.2	0.8	1.3	1.6	1.0	2.6	1.8	C	C	C	C	C	C	1.0	0.5	1.2	1.0	1.6	0.9	3.5	-	-
25	2.7	S	2.2	0.8	1.3	2.1	5.1	1.5	1.9	3.6	14.5	8.8	6.6	2.1	1.8	3.1	3.4	1.5	1.2	1.3	1.5	1.1	1.4	1.8	3.1	14.5
26	1.1	S	1.8	1.1	1.1	0.7	1.0	1.2	1.5	0.7	1.0	0.8	2.9	2.5	1.2	0.9	0.8	0.9	0.8	1.6	1.0	1.4	0.7	1.2	1.2	2.9
27	1.9	S	1.1	0.8	2.3	2.3	1.9	3.1	2.7	2.4	1.6	1.3	1.5	1.7	1.2	1.6	1.6	1.6	1.2	1.5	1.2	0.8	1.1	1.0	1.6	3.1
28	1.6	S	1.6	0.9	0.6	1.5	1.0	1.3	0.8	0.6	1.0	1.2	1.6	1.1	0.8	1.0	0.9	1.0	0.5	0.9	1.3	1.2	1.1	1.0	1.1	1.6
29	0.7	S	0.9	0.7	0.8	0.8	1.5	1.4	0.9	1.5	1.1	1.1	1.0	1.2	1.1	0.8	1.5	1.6	1.4	1.2	1.4	1.1	1.0	0.6	1.1	1.6
30	0.5	S	0.9	0.8	1.5	1.2	0.6	1.4	1.1	0.9	0.9	1.5	1.5	1.4	1.2	1.1	1.5	1.7	1.0	1.3	1.9	1.6	2.5	1.1	1.3	2.5
NO.	30	-	30	30	30	30	30	30	30	30	29	28	28	29	29	29	29	30	30	30	30	30	30	30	681	100%
MEAN	2.0	-	2.1	2.0	2.2	2.2	2.5	2.6	2.5	2.8	3.2	2.7	2.9	2.9	2.6	2.1	2.0	1.9	1.8	1.9	1.9	1.9	2.1	2.1		
MAX	5.0	-	6.7	6.0	7.3	6.7	6.5	7.9	8.2	10.0	14.5	8.8	7.7	8.8	9.6	6.3	4.0	6.7	5.7	4.2	4.2	5.7	9.5	7.4		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	681
Maximum 1-HR Average	14.5 PPB
Maximum 24-HR Average	4.6 PPB
Monthly Calibration	6
Standard Deviation	1.632
Operational Time	717 HRS
Operational Uptime	99.6 %
Monthly Average	2.3 PPB

Lagoon PM_{2.5} (µg/m³) – November 2022

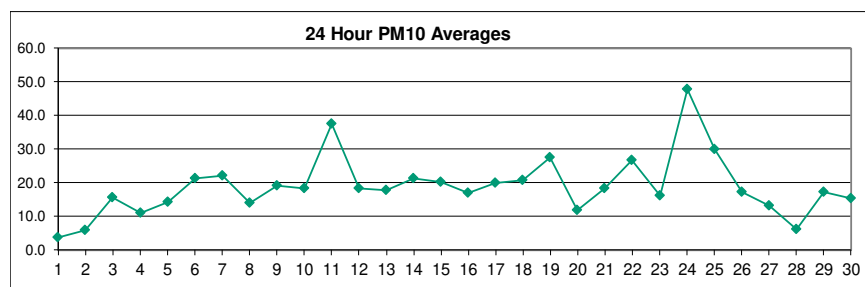
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	3.4	4.3	1.8	0.0	0.4	0.3	0.0	0.0	2.7	4.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.5	0.1	0.0	0.8	4.6
2	0.0	0.2	3.7	3.6	1.1	0.7	5.5	5.1	4.0	4.2	P	P	P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	4.2	0.5	0.9	1.9	6.5
3	2.9	2.5	0.5	1.7	6.1	4.0	3.7	4.4	4.7	3.6	1.6	2.6	2.0	4.0	2.6	1.6	2.9	2.1	0.0	0.2	3.4	4.8	5.2	7.9	3.1	7.9
4	6.1	4.9	6.5	5.1	4.0	4.1	5.5	5.5	6.9	6.8	2.9	0.0	1.2	2.3	3.7	4.0	3.3	2.6	1.4	0.0	0.6	3.4	4.7	4.0	3.7	6.9
5	2.8	7.0	8.2	5.1	3.7	4.0	2.6	2.2	4.0	2.9	1.1	0.1	0.6	4.1	4.6	2.4	5.4	4.7	2.5	1.2	1.4	7.2	5.8	4.0	3.6	8.2
6	2.9	2.2	0.9	2.6	3.0	2.9	2.1	1.2	2.6	2.2	2.2	1.8	0.0	0.6	4.0	2.9	2.5	0.4	0.2	3.0	2.9	2.2	2.2	2.3	2.1	4.0
7	5.2	6.2	5.4	4.1	4.8	5.5	5.5	6.2	6.2	7.2	5.8	4.7	4.0	3.1	5.8	3.8	0.5	0.8	0.2	3.0	3.9	1.7	6.2	6.5	4.4	7.2
8	5.9	8.2	5.7	3.1	5.8	6.3	8.3	7.3	8.3	7.2	6.2	5.4	4.1	5.8	6.3	9.0	16.7	10.1	8.3	7.4	10.7	8.2	13.6	10.8	7.9	16.7
9	9.0	7.8	10.7	8.2	5.8	12.2	8.6	6.0	10.7	6.6	7.3	7.5	4.5	7.9	6.4	3.1	14.2	15.6	8.8	3.8	7.4	9.9	12.3	12.1	8.6	15.6
10	8.3	7.9	5.5	5.1	4.2	0.1	0.0	0.0	0.7	7.3	7.5	4.4	5.5	6.6	7.9	4.9	0.4	0.0	2.0	4.9	9.1	9.7	8.6	6.3	4.9	9.7
11	9.0	7.4	9.5	10.1	10.0	7.1	12.3	11.3	13.8	14.7	19.9	22.5	34.2	16.2	15.5	14.9	9.0	8.0	17.6	6.5	4.9	7.9	10.8	9.4	12.6	34.2
12	7.6	7.2	6.3	8.0	8.3	6.1	4.8	7.2	13.5	8.8	10.8	9.1	9.7	7.3	8.6	5.7	3.0	4.8	5.6	9.7	8.6	6.7	9.2	12.0	7.9	13.5
13	12.7	13.4	14.9	16.6	9.2	13.6	11.4	7.3	8.8	10.4	9.0	7.1	4.7	3.0	3.6	2.2	0.5	1.9	9.6	5.5	7.9	6.6	7.0	8.3	8.1	16.6
14	7.2	5.1	3.7	4.5	6.6	9.0	15.7	11.9	11.8	8.3	14.9	8.4	8.6	6.6	4.0	3.0	3.0	3.0	4.4	4.6	2.6	3.2	8.7	16.6	7.3	16.6
15	7.7	10.1	6.4	3.4	4.8	5.1	3.7	5.9	15.7	12.5	16.2	12.9	10.7	7.4	2.9	2.0	4.0	2.7	4.4	4.7	2.7	5.1	3.7	3.7	6.6	16.2
16	3.4	4.5	7.5	4.8	3.7	4.7	3.3	3.7	4.8	4.8	6.2	5.8	5.1	4.8	5.8	5.5	5.4	1.5	1.6	2.6	2.9	3.5	2.8	8.4	4.5	8.4
17	8.4	9.8	17.3	7.3	8.6	5.0	2.2	2.2	1.2	1.6	3.9	9.1	8.7	16.3	0.1	9.0	6.4	5.1	5.4	4.7	2.9	1.9	2.3	2.9	5.9	17.3
18	0.7	0.0	0.2	1.6	3.4	5.8	4.3	2.9	0.4	0.0	3.1	7.2	5.9	6.7	9.5	9.6	5.7	2.8	0.1	0.5	2.4	6.4	11.4	6.3	4.0	11.4
19	0.1	0.0	1.3	3.3	3.0	4.2	8.8	11.5	8.3	7.2	5.1	4.7	4.1	4.4	4.4	4.3	4.8	2.9	1.2	1.7	4.7	4.1	6.9	7.3	4.5	11.5
20	7.9	6.5	7.1	5.0	2.7	4.0	4.1	5.9	8.0	8.3	5.9	6.2	6.2	6.8	4.0	2.3	4.8	6.2	7.3	6.5	5.8	4.8	5.2	7.5	5.8	8.3
21	4.7	3.4	4.7	4.0	4.1	5.2	6.6	7.5	5.1	3.7	C	C	C	C	7.2	5.1	2.3	1.5	1.2	3.3	6.1	6.2	6.9	4.1	4.6	7.5
22	11.8	X	3.3	3.0	3.8	5.9	6.6	7.2	5.2	6.2	5.5	6.8	4.2	0.0	0.0	0.0	1.2	1.5	1.7	5.7	3.6	2.7	4.4	4.4	4.1	11.8
23	5.8	4.8	5.1	4.2	5.8	5.5	4.4	3.6	4.0	4.0	3.7	3.7	4.0	4.0	1.1	0.0	0.0	1.5	0.4	0.0	0.0	0.0	1.1	0.1	2.8	5.8
24	0.1	1.2	1.8	0.8	0.5	2.5	0.8	1.2	1.0	2.7	5.2	6.1	5.2	6.8	4.6	0.7	0.0	0.1	0.7	0.0	2.3	2.9	2.7	4.0	2.2	6.8
25	4.1	4.8	6.8	4.3	1.5	1.8	1.1	4.2	3.2	0.2	3.4	4.8	5.4	2.9	2.6	3.4	4.4	5.1	4.0	4.0	4.0	2.2	3.1	7.5	3.7	7.5
26	3.5	0.1	0.0	0.0	0.1	0.8	1.5	0.9	2.5	1.1	0.0	0.0	0.0	1.9	2.3	0.0	0.0	0.4	0.0	0.0	1.5	1.1	0.7	0.0	0.8	3.5
27	0.0	5.3	1.4	0.0	1.2	2.0	4.0	3.1	6.2	5.3	1.0	0.0	0.0	0.5	1.1	0.5	0.8	1.8	0.0	0.0	0.0	0.0	0.5	1.1	1.5	6.2
28	0.0	1.5	1.4	0.0	0.1	1.5	1.8	0.0	2.3	4.1	2.2	1.1	0.5	3.0	2.9	0.7	0.0	0.8	46.6	X	4.7	3.3	2.6	1.9	3.6	46.6
29	1.2	2.6	2.2	1.2	1.2	2.2	1.8	8.0	18.2	21.6	18.7	2.0	4.2	5.9	8.0	9.1	9.4	9.9	12.5	9.6	4.0	2.6	3.4	5.4	6.9	21.6
30	4.3	2.0	4.4	5.5	5.1	4.6	9.1	8.9	4.7	4.5	7.2	6.8	5.8	5.3	8.7	8.3	7.1	11.6	8.0	7.6	7.6	6.2	6.6	8.6	6.6	11.6
NO.	30	29	30	30	30	30	30	30	30	30	28	28	28	29	30	30	30	30	30	29	30	30	30	30	711	99%
MEAN	4.9	4.9	5.1	4.2	4.1	4.6	5.0	5.1	6.3	6.1	6.3	5.4	5.3	5.0	4.6	3.9	3.9	3.6	5.2	3.5	4.2	4.3	5.3	5.8		
MAX	12.7	13.4	17.3	16.6	10.0	13.6	15.7	11.9	18.2	21.6	19.9	22.5	34.2	16.3	15.5	14.9	16.7	15.6	46.6	9.7	10.7	9.9	13.6	16.6		



Number of 24HR Exceedences	0
Number of Non-Zero Readings	652
Maximum 1-HR Average	46.6 UG/M3
Maximum 24-HR Average	12.6 UG/M3
Monthly Calibration	4
Standard Deviation	4.258
Operational Time	715 HRS
Operational Uptime	99.3 %
Monthly Average	4.9 UG/M3

Lagoon PM₁₀ (µg/m³) – November 2022

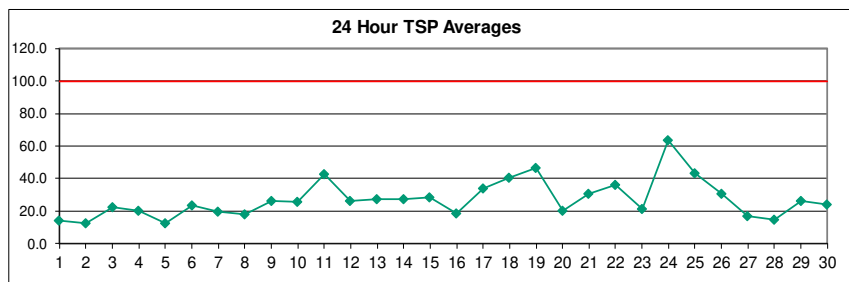
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	4.7	6.6	4.3	11.1	5.2	0.6	0.0	0.0	9.9	3.4	4.3	4.7	4.5	1.4	4.6	2.4	0.0	0.0	12.9	0.0	0.0	2.5	0.7	2.6	3.6	12.9
2	0.1	9.9	6.5	3.5	7.3	4.0	2.3	10.8	11.2	5.3	P	P	P	6.7	11.2	5.3	5.3	4.4	12.7	0.0	7.3	5.2	2.5	0.2	5.8	12.7
3	6.7	7.5	6.0	6.8	9.9	4.7	6.0	5.9	16.9	3.5	9.3	17.7	18.8	29.3	19.1	23.1	57.5	19.4	19.1	36.1	25.2	13.3	8.1	8.0	15.7	57.5
4	14.8	12.8	13.4	11.9	6.1	7.6	12.0	8.9	12.1	11.4	8.7	6.8	6.0	5.6	9.4	8.8	10.8	9.9	4.9	8.0	7.3	21.5	37.1	X	11.1	37.1
5	25.1	X	X	X	X	X	4.3	1.6	7.3	6.5	2.1	6.0	5.0	11.4	5.5	7.3	5.4	7.9	21.3	30.2	40.6	26.2	24.2	35.8	14.4	40.6
6	32.1	38.1	26.4	9.3	7.7	13.5	14.6	8.9	12.3	15.5	29.5	25.0	25.3	15.3	11.6	15.4	11.2	36.3	16.5	39.9	23.0	24.6	36.6	21.2	21.2	39.9
7	13.4	26.3	30.8	23.7	40.5	38.6	23.4	19.4	43.4	13.9	7.4	20.5	12.3	32.9	27.2	30.2	25.7	27.1	25.8	13.3	9.2	5.3	18.4	0.0	22.0	43.4
8	1.8	14.8	0.0	9.0	9.2	4.3	12.5	5.4	6.5	5.6	10.9	15.9	24.2	21.5	21.6	24.4	26.8	19.6	18.7	13.6	17.3	11.0	14.8	25.1	13.9	26.8
9	12.1	11.7	18.0	13.7	17.3	27.6	20.5	10.1	25.3	16.1	14.8	29.0	11.9	23.6	22.4	10.2	28.3	39.0	15.3	10.4	19.0	22.2	17.7	20.8	19.0	39.0
10	16.9	14.6	8.2	12.8	27.6	8.0	5.3	2.8	10.6	20.3	21.4	18.4	22.8	22.3	39.9	40.0	24.0	16.0	13.3	26.2	21.8	26.3	9.6	12.0	18.4	40.0
11	8.9	12.5	21.6	36.3	15.0	21.2	62.4	32.5	32.9	43.5	64.9	79.3	88.6	69.2	65.8	51.3	46.7	31.1	45.4	16.0	12.0	10.2	13.0	18.7	37.5	88.6
12	13.1	2.9	10.1	8.2	8.7	6.8	6.7	6.1	22.9	21.6	20.1	32.3	29.5	24.4	26.4	27.0	11.5	13.4	12.9	48.5	46.7	14.1	14.2	12.6	18.4	48.5
13	22.3	12.2	13.4	12.3	17.2	23.9	13.3	10.0	24.2	21.7	8.6	6.7	6.9	10.4	18.0	29.8	14.7	9.5	11.4	11.9	55.5	38.9	15.0	19.5	17.8	55.5
14	32.1	8.0	22.2	20.8	18.1	13.5	29.5	23.3	31.1	31.5	38.5	20.9	36.3	30.5	31.2	17.3	10.3	14.1	13.5	12.0	8.1	7.6	14.7	26.3	21.3	38.5
15	15.4	12.4	5.7	0.1	3.7	11.3	9.9	39.0	34.1	56.5	48.2	37.8	52.3	23.2	13.3	10.2	11.7	14.1	13.7	18.9	18.7	14.1	0.0	19.9	20.2	56.5
16	12.5	7.0	30.2	9.3	23.6	23.0	7.1	18.2	19.6	79.4	37.4	41.6	16.8	15.7	15.2	7.0	11.6	10.0	7.3	4.6	1.9	0.0	2.8	7.4	17.1	79.4
17	7.6	11.6	14.8	13.8	0.0	4.7	4.7	3.1	0.0	7.5	11.9	21.3	12.8	28.3	24.0	46.3	50.3	85.6	27.9	26.8	21.6	18.4	22.6	14.9	20.0	85.6
18	15.4	13.4	11.2	7.8	19.3	27.9	16.2	15.8	7.1	17.7	21.9	28.5	16.0	45.1	70.9	33.6	11.8	16.1	11.3	8.3	12.9	30.0	35.9	5.4	20.8	70.9
19	3.0	9.4	6.0	2.7	1.9	17.9	36.7	58.3	59.2	48.8	21.3	61.7	30.9	42.1	63.1	51.2	42.1	14.8	12.2	14.3	30.1	5.7	13.5	15.8	27.6	63.1
20	23.6	13.5	11.9	6.6	3.6	7.4	6.9	8.2	8.7	6.7	5.4	7.7	14.4	11.9	16.6	10.1	25.9	28.1	20.2	17.8	8.0	8.0	6.1	8.6	11.9	28.1
21	6.0	6.9	27.1	12.4	5.2	3.4	5.2	1.8	12.2	14.4	C	C	C	C	62.0	4.0	22.3	20.2	25.0	28.5	32.4	46.6	18.9	10.1	18.2	62.0
22	26.4	X	20.2	19.4	20.5	74.1	66.0	55.9	17.3	13.7	39.2	70.6	41.4	11.2	5.1	0.5	13.5	44.7	13.9	21.0	7.5	11.9	6.4	16.7	26.8	74.1
23	39.5	27.7	11.0	15.4	12.0	8.6	5.3	7.7	7.5	9.8	34.5	17.4	13.4	11.6	16.9	17.4	12.5	7.0	13.4	8.8	8.8	9.4	26.0	49.6	16.3	49.6
24	26.0	51.0	75.6	103.1	58.9	61.3	72.1	79.4	53.4	53.9	82.0	89.4	63.5	74.8	18.0	13.7	20.2	17.4	31.2	17.0	4.1	7.6	30.4	47.3	47.7	103.1
25	47.1	43.7	84.8	70.8	14.9	32.1	56.1	37.9	25.0	43.8	69.9	42.0	34.8	12.2	13.4	11.8	18.0	11.3	7.3	4.5	1.3	2.9	13.6	16.2	29.8	84.8
26	0.0	1.3	0.0	0.7	2.5	0.2	3.3	2.7	1.4	2.9	9.9	6.6	22.3	72.0	76.1	18.2	17.4	20.6	29.0	43.9	57.6	10.9	11.2	5.9	17.4	76.1
27	3.7	28.8	19.6	3.3	3.2	15.5	16.9	16.9	18.0	12.0	9.7	14.0	28.5	30.8	7.5	8.0	6.9	9.2	2.6	0.0	4.7	38.1	10.8	11.2	13.3	38.1
28	6.6	3.5	7.9	1.1	0.0	0.0	3.3	3.3	4.2	10.6	5.5	6.8	12.9	18.2	17.6	1.9	0.8	5.2	2.0	3.1	12.5	6.2	9.2	4.8	6.1	18.2
29	12.4	3.9	1.3	2.5	0.0	0.0	2.2	24.8	21.4	31.8	48.0	28.6	14.5	6.7	23.3	16.6	28.4	38.3	29.7	29.0	11.3	7.9	4.8	25.5	17.2	48.0
30	27.1	12.0	8.7	8.9	27.7	21.5	20.0	14.0	25.2	14.2	16.9	17.6	16.7	14.2	16.2	16.8	16.4	20.7	15.3	11.2	5.8	1.8	12.0	8.2	15.4	27.7
NO.	30	28	29	29	29	29	30	30	30	30	28	28	28	29	30	30	30	30	30	30	30	30	30	29	706	99%
MEAN	15.9	15.1	17.8	15.8	13.3	16.7	18.2	17.8	19.4	21.5	25.1	27.5	24.4	24.9	25.8	18.7	19.6	20.4	16.9	17.5	17.7	14.9	15.0	16.2		
MAX	47.1	51.0	84.8	103.1	58.9	74.1	72.1	79.4	59.2	79.4	82.0	82.4	88.6	74.8	76.1	51.3	57.5	85.6	45.4	48.5	57.6	46.6	37.1	49.6		



Number of Non-Zero Readings	686		
Maximum 1-HR Average	103.1 UG/M3		
Maximum 24-HR Average	47.7 UG/M3		
Monthly Calibration	4	Operational Time	710 HRS
Standard Deviation	16.79	Operational Uptime	98.6 %
		Monthly Average	19.0 UG/M3

Lagoon TSP (µg/m³) – November 2022

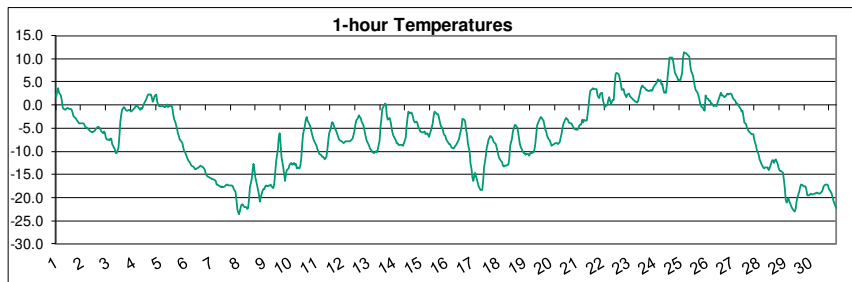
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	2.3	17.7	7.4	13.7	4.7	6.9	4.6	11.4	15.1	8.3	4.5	7.5	16.9	17.7	7.6	18.4	28.9	21.8	40.5	14.6	27.5	17.8	8.7	12.7	14.1	40.5
2	14.1	15.2	11.6	19.6	19.0	8.3	36.1	22.6	29.0	22.6	P	P	P	18.9	4.4	4.8	9.4	7.0	4.5	7.1	5.6	2.9	1.6	1.6	12.7	36.1
3	2.1	13.5	2.3	18.2	17.3	4.5	7.0	3.6	17.7	7.2	9.5	33.5	36.1	34.5	29.3	31.9	59.9	34.7	33.6	39.1	44.0	31.0	8.8	15.8	22.3	59.9
4	23.0	37.1	26.6	22.3	21.9	12.9	19.3	13.2	25.1	26.6	28.8	18.1	16.6	11.8	23.2	11.9	26.3	11.1	8.8	15.5	18.6	27.6	20.8	17.8	20.2	37.1
5	8.7	13.9	11.0	6.0	11.2	9.9	11.2	10.0	12.4	7.3	11.3	11.6	19.2	10.3	17.7	7.2	8.6	10.1	15.3	12.9	17.9	11.2	9.5	31.5	12.3	31.5
6	20.9	46.0	16.7	15.3	11.1	7.5	23.3	14.0	12.5	19.0	37.9	18.1	16.0	28.6	11.9	26.0	15.5	16.4	38.9	38.6	31.8	27.3	46.3	25.0	23.5	46.3
7	22.6	27.9	28.2	36.6	38.5	26.4	25.1	25.4	32.5	11.4	13.9	9.8	9.2	26.4	23.7	23.7	22.1	16.6	11.3	11.1	6.8	1.0	17.3	0.0	19.5	38.5
8	2.0	11.3	11.2	9.2	14.1	14.9	7.3	9.9	8.8	15.1	9.9	10.0	12.8	15.6	20.3	37.3	30.9	32.0	30.3	22.7	31.8	26.1	18.7	30.1	18.0	37.3
9	18.4	24.0	30.1	18.4	24.3	38.0	22.7	31.8	27.9	29.0	22.9	36.0	23.7	22.1	16.6	13.9	44.8	59.8	29.0	21.9	13.2	25.1	24.7	15.6	26.4	59.8
10	20.0	28.6	12.7	14.8	32.4	9.8	8.6	10.0	11.4	15.9	27.7	25.7	38.6	32.2	68.9	57.8	45.0	26.0	15.9	28.2	36.0	32.7	15.0	6.1	25.8	68.9
11	14.4	22.3	20.1	33.0	23.7	22.8	34.5	29.8	43.5	52.8	54.1	86.4	97.7	82.5	98.3	64.8	54.8	39.6	57.0	26.0	15.1	8.9	19.6	19.8	42.6	98.3
12	18.1	20.5	9.9	8.6	11.4	14.0	12.5	10.6	26.8	27.6	21.7	40.7	49.2	32.4	41.5	35.3	14.3	19.4	17.6	69.4	68.5	15.6	19.7	24.0	26.2	69.4
13	30.2	19.7	22.5	26.4	23.8	24.9	19.1	8.1	32.0	29.8	11.4	14.0	14.3	22.0	47.6	57.5	38.1	19.6	19.3	16.6	76.4	44.7	17.1	25.7	27.5	76.4
14	39.6	22.0	14.6	28.8	18.1	15.9	29.4	33.4	34.0	42.2	54.5	31.4	50.1	47.4	50.0	16.7	14.3	20.7	15.3	12.7	12.7	12.8	16.0	29.0	27.6	54.5
15	23.2	11.1	7.0	7.0	8.6	11.2	10.8	65.7	47.4	85.7	80.5	49.8	77.4	37.8	12.7	13.8	7.5	16.7	14.6	29.0	22.1	19.2	10.2	18.1	28.6	85.7
16	16.7	15.7	23.3	12.9	20.0	29.9	6.5	23.5	22.2	82.4	29.1	28.5	10.3	19.8	20.4	7.5	15.9	25.6	4.4	5.6	3.2	8.5	7.3	9.9	18.7	82.4
17	10.4	23.4	16.6	12.5	9.7	5.6	1.6	3.0	4.8	15.7	24.1	33.6	39.1	46.8	38.5	83.4	89.2	100.6	54.0	49.6	40.3	40.2	37.4	34.5	33.9	100.6
18	28.2	35.5	20.8	17.8	42.0	49.1	27.8	26.3	21.3	31.1	43.7	57.7	45.3	68.4	143.9	73.1	28.1	34.0	15.6	21.2	29.2	59.7	41.8	9.9	40.5	143.9
19	8.9	19.2	9.8	8.4	7.1	40.6	49.1	92.8	59.8	87.9	36.5	76.6	52.0	68.6	116.5	87.2	77.8	36.7	17.3	30.9	69.2	8.0	26.6	31.2	46.6	116.5
20	45.4	34.5	26.9	4.6	11.3	11.2	9.8	8.9	17.8	15.2	9.6	14.6	28.8	19.6	21.0	23.0	39.1	43.5	20.0	28.8	15.4	15.5	16.5	8.5	20.4	45.4
21	7.5	17.4	63.0	10.0	9.7	5.9	10.0	14.0	13.5	34.6	C	C	C	C	81.5	16.8	23.7	32.0	40.3	39.0	62.5	78.8	31.9	18.0	30.5	81.5
22	49.7	X	23.7	23.7	26.6	96.1	74.7	68.5	15.6	20.7	50.9	104.6	58.9	7.3	4.4	4.8	17.6	68.9	26.7	30.3	10.0	11.2	10.5	27.8	36.2	104.6
23	58.2	23.3	12.9	20.9	19.1	7.0	4.7	12.6	15.2	11.4	46.3	16.6	12.5	10.6	26.5	26.0	14.1	16.8	17.6	4.7	14.0	14.9	37.2	62.8	21.1	62.8
24	42.7	69.2	95.6	128.1	79.1	92.9	96.0	104.2	80.5	82.0	119.8	102.7	77.1	94.9	12.6	11.5	18.6	29.3	29.8	22.8	0.5	10.1	49.4	70.1	63.3	128.1
25	85.2	71.4	120.3	113.9	22.2	53.4	49.2	64.2	40.8	55.4	95.7	64.8	55.3	18.0	13.9	10.3	27.5	19.3	13.6	4.4	4.4	6.2	16.6	11.0	43.2	120.3
26	5.7	5.7	4.5	3.0	4.6	11.0	5.6	3.0	3.0	3.6	17.8	7.7	25.0	124.1	142.2	32.2	36.3	40.5	46.8	73.0	92.6	19.3	13.8	8.5	30.4	142.2
27	9.8	39.6	23.4	15.1	7.3	13.0	22.0	17.2	26.3	21.5	5.3	28.5	44.5	47.0	8.4	5.6	3.1	5.7	4.4	4.6	5.1	16.6	12.9	17.9	16.9	47.0
28	18.3	20.2	3.4	13.0	21.1	23.3	12.6	11.2	8.9	18.7	31.5	18.6	35.4	17.4	30.9	3.5	17.1	22.6	0.0	0.4	5.7	4.4	4.4	4.6	14.4	35.4
29	7.6	17.4	0.0	0.0	4.4	4.4	6.6	27.9	29.2	32.1	67.8	31.0	35.4	19.0	38.0	20.4	42.1	65.1	62.7	35.2	12.7	14.0	15.0	38.9	26.1	67.8
30	36.8	18.9	2.1	16.7	49.2	29.0	22.4	24.2	35.4	18.7	30.8	34.2	20.1	31.3	16.1	33.0	23.4	16.7	44.9	21.5	8.8	15.6	19.2	11.6	24.2	49.2
NO.	30	29	30	30	30	30	30	30	30	30	28	28	28	29	30	30	30	30	30	30	30	30	30	30	712	99%
MEAN	23.0	25.6	22.6	22.6	20.5	23.3	22.3	26.7	25.7	31.1	35.6	36.2	36.3	35.6	39.6	28.6	29.8	30.3	25.0	24.6	26.7	20.9	19.8	21.3		
MAX	85.2	71.4	120.3	128.1	79.1	96.1	96.0	104.2	80.5	87.9	119.8	104.6	97.7	124.1	143.9	87.2	89.2	100.6	62.7	73.0	92.6	78.8	49.4	70.1		



Number of 24HR Exceedences	0
Number of Non-Zero Readings	708
Maximum 1-HR Average	143.9 UG/M3
Maximum 24-HR Average	63.3 UG/M3
Monthly Calibration	4
Standard Deviation	23.2
Operational Time	716 HRS
Operational Uptime	99.4 %
Monthly Average	27.2 UG/M3

Lagoon Temperature (°C) – November 2022

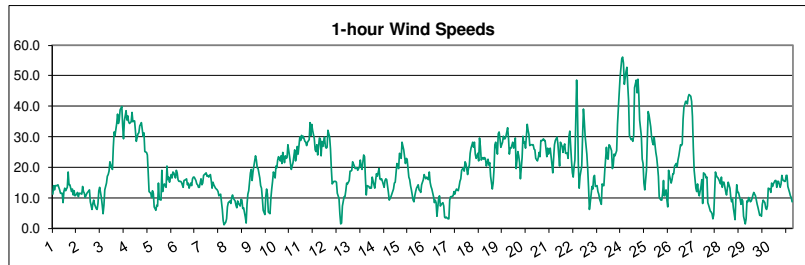
HOUR																										MEAN	MAX
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	1.9	3.0	3.6	2.6	2.1	1.0	-0.4	-0.9	-0.9	-0.8	-0.6	-0.6	-0.9	-0.8	-1.1	-1.7	-2.4	-2.5	-3.0	-3.4	-3.6	-3.9	-4.0	-4.0	-0.9	3.6	
2	-4.0	-4.0	-4.1	-4.7	-4.9	-5.2	-5.4	-5.4	-5.7	-5.9	P	P	-5.6	-5.1	-4.8	-4.7	-4.9	-5.3	-5.8	-6.2	-5.7	-6.1	-7.0	-7.4	-5.4	-4.0	
3	-7.5	-7.6	-7.2	-7.3	-8.4	-9.2	-9.6	-10.3	-10.3	-9.2	-6.9	-3.9	-2.2	-1.0	-0.5	-0.6	-1.0	-1.2	-1.1	-1.1	-1.2	-1.4	-1.2	-1.0	-4.6	-0.5	
4	-0.6	-0.3	-0.1	-0.2	-0.5	-1.0	-0.7	-0.8	-0.5	0.2	K	1.4	1.9	2.3	2.3	2.3	1.7	0.7	1.1	1.9	2.2	0.8	0.2	-0.2	0.6	2.3	
5	-0.2	-0.3	-0.2	-0.2	-0.5	-0.4	0.1	-0.5	-0.2	-0.2	0.0	-0.9	-2.2	-3.2	-3.5	-5.0	-6.0	-6.7	-7.4	-7.7	-8.2	-9.3	-10.0	-10.2	-3.5	0.1	
6	-10.8	-11.7	-12.1	-12.3	-12.7	-13.0	-13.3	-13.5	-13.9	-13.9	-13.6	-13.4	-13.4	-13.1	-13.3	-13.3	-13.7	-14.2	-14.8	-15.3	-15.5	-15.6	-15.8	-15.9	-13.7	-10.8	
7	-16.1	-16.1	-16.2	-16.5	-17.1	-17.3	-17.5	-17.7	-17.7	-17.6	-17.7	-17.5	-17.4	-17.2	-17.1	-17.3	-17.4	-17.4	-17.4	-17.6	-18.1	-18.8	-20.5	-22.4	-17.6	-16.1	
8	-23.2	-23.7	-21.9	-21.6	-21.5	-21.9	-22.2	-22.1	-22.5	-22.3	-20.4	-17.8	-16.0	-14.0	-12.7	-14.1	-15.6	-17.4	-18.3	-19.4	-20.9	-19.9	-18.5	-18.2	-19.4	-12.7	
9	-18.2	-17.7	-17.4	-17.7	-17.3	-17.4	-17.3	-17.7	-18.0	-17.0	-14.9	-12.3	-9.7	-7.1	-6.1	-8.3	-11.1	-13.4	-14.9	-16.4	-14.8	-14.0	-13.6	-13.0	-14.4	-6.1	
10	-12.6	-12.5	-12.8	-12.5	-13.0	-12.7	-13.6	-13.5	-13.6	-13.1	-11.5	-8.6	-6.2	-4.5	-3.1	-2.7	-3.4	-3.8	-4.6	-5.5	-6.2	-7.1	-7.6	-8.4	-8.9	-2.7	
11	-8.9	-9.5	-9.9	-10.5	-10.8	-11.1	-11.2	-11.4	-11.7	-11.1	-9.6	-7.8	-6.2	-4.9	-3.8	-3.8	-4.4	-5.0	-5.8	-6.2	-6.8	-7.4	-7.6	-7.9	-8.1	-3.8	
12	-8.1	-8.2	-8.1	-7.9	-7.8	-7.8	-7.9	-7.8	-7.6	-7.3	-6.6	-5.7	-4.3	-3.5	-2.7	-2.2	-2.6	-2.9	-3.5	-4.4	-5.2	-6.2	-7.3	-7.9	-6.0	-2.2	
13	-8.6	-9.2	-9.6	-9.8	-10.1	-10.5	-10.1	-10.0	-10.1	-9.5	-7.7	-4.8	-2.9	-0.9	0.0	0.4	0.2	-2.3	-3.1	-2.9	-3.3	-4.6	-5.6	-6.4	-5.9	0.4	
14	-7.3	-7.7	-8.2	-8.3	-8.5	-8.7	-8.7	-8.6	-8.8	-8.1	-7.0	-4.6	-2.7	-1.3	-1.7	-1.7	-1.9	-2.7	-3.4	-3.8	-3.5	-4.0	-4.7	-5.1	-5.5	-1.3	
15	-5.7	-5.8	-5.9	-5.9	-5.8	-6.3	-6.2	-6.6	-6.9	-6.1	-5.5	-3.9	-2.5	-1.4	-1.6	-2.1	-2.0	-2.7	-3.8	-4.5	-5.2	-6.0	-6.5	-6.6	-4.8	-1.4	
16	-7.4	-8.0	-8.4	-8.5	-8.9	-9.2	-9.3	-9.3	-8.8	-8.6	-8.1	-7.4	-6.5	-5.7	-4.8	-3.0	-3.1	-3.6	-5.4	-6.3	-8.3	-10.2	-12.7	-13.8	-7.7	-3.0	
17	-15.6	-16.3	-14.7	-15.4	-16.1	-16.8	-17.5	-18.4	-18.3	-18.4	-16.5	-13.4	-10.9	-9.2	-8.4	-7.6	-6.8	-7.0	-7.2	-7.6	-8.0	-8.3	-9.2	-10.0	-12.4	-6.8	
18	-11.0	-11.6	-12.2	-12.4	-13.2	-13.3	-13.1	-13.1	-12.8	-12.8	-11.5	-8.9	-7.2	-5.7	-5.0	-4.4	-4.4	-4.9	-6.0	-7.5	-8.6	-9.1	-10.0	-10.4	-9.5	-4.4	
19	-10.5	-10.8	-10.6	-10.6	-10.9	-10.6	-10.2	-10.3	-10.2	-9.6	-8.3	-6.3	-4.3	-3.3	-2.9	-2.6	-2.8	-3.4	-4.3	-5.4	-5.7	-6.7	-7.4	-7.8	-7.3	-2.6	
20	-8.3	-8.8	-8.5	-8.4	-8.3	-8.3	-8.3	-8.5	-8.0	-7.1	-6.3	-5.1	-4.1	-3.1	-2.8	-3.0	-3.2	-3.8	-4.0	-4.0	-4.3	-4.7	-5.2	-5.4	-5.9	-2.8	
21	-5.4	-5.2	-4.9	-4.3	-4.1	-3.1	-3.8	-3.2	-3.4	-3.5	-2.0	-0.2	1.6	3.1	3.4	3.7	3.4	3.4	3.4	3.4	2.2	1.7	1.5	2.4	2.7	-0.4	3.7
22	1.2	0.3	-0.5	-0.2	0.1	1.1	1.8	1.0	0.4	1.2	1.2	4.3	6.5	7.0	6.8	6.4	5.3	4.4	3.2	3.5	2.5	2.0	1.6	2.2	2.6	7.0	
23	2.4	2.0	1.6	1.5	1.2	0.9	0.8	0.8	0.5	0.9	2.5	3.5	4.1	4.3	3.9	3.6	3.2	3.2	3.1	3.0	3.2	3.0	3.2	3.7	2.5	4.3	
24	4.4	4.7	5.0	5.5	5.1	5.5	4.5	4.5	3.5	2.7	2.6	4.2	6.5	8.3	10.2	10.3	10.2	9.4	8.2	6.9	6.2	5.7	5.1	5.4	6.0	10.3	
25	5.5	6.9	10.2	11.3	11.2	11.3	10.8	10.7	10.4	8.4	7.4	6.3	5.3	4.0	3.3	2.7	2.0	1.3	0.3	-0.4	-0.6	-1.0	-1.2	2.1	5.3	11.3	
26	1.5	1.3	0.9	0.8	0.3	0.3	-0.3	-0.1	-0.1	-0.3	0.4	1.5	2.2	2.6	2.1	2.1	1.7	2.0	2.2	2.5	2.3	2.5	2.4	2.2	1.4	2.6	
27	1.6	1.3	0.9	0.4	0.3	0.1	-0.2	-0.9	-1.4	-1.2	-2.4	-3.7	-4.1	-4.9	-5.3	-5.7	-6.1	-6.2	-6.3	-6.4	-7.4	-8.9	-9.8	-10.1	-3.6	1.6	
28	-10.8	-11.7	-12.7	-13.0	-13.6	-13.8	-13.6	-13.4	-13.5	-14.0	-13.8	-13.2	-11.9	-12.0	-12.5	-12.0	-11.8	-12.7	-13.5	-14.1	-14.2	-14.3	-14.6	-16.2	-13.2	-10.8	
29	-17.9	-20.5	-21.2	-20.2	-20.8	-21.3	-21.8	-22.3	-22.9	-23.1	-22.4	-20.9	-19.8	-18.8	-17.9	-17.1	-17.2	-17.5	-17.6	-17.6	-18.4	-19.6	-19.6	-19.3	-19.8	-17.1	
30	-19.2	-19.3	-19.3	-19.1	-19.1	-18.9	-19.0	-19.2	-19.1	-18.9	-18.8	-18.4	-17.7	-17.2	-17.1	-17.3	-17.4	-18.1	-18.8	-19.1	-19.8	-20.6	-21.2	-22.3	-19.0	-17.1	
NO. MEAN MAX	30	30	30	30	30	30	30	30	30	30	28	29	30	30	30	30	30	30	30	30	30	30	30	30	717	100%	
	-7.3	-7.6	-7.5	-7.5	-7.8	-7.9	-8.1	-8.3	-8.4	-8.2	-7.8	-6.1	-5.0	-4.2	-3.9	-4.0	-4.4	-5.0	-5.6	-6.1	-6.5	-7.1	-7.5	-7.7			
	5.5	6.9	10.2	11.3	11.2	11.3	10.8	10.7	10.4	8.4	7.4	6.3	5.3	4.0	3.3	2.7	2.0	1.3	0.3	-0.4	-0.6	-1.0	-1.2	2.1			



Number of Non-Zero Readings	717
Maximum 1-HR Average	11.3 C
Maximum 24-HR Average	6.0 C
Monthly Calibration	0
Standard Deviation	7.604
Operational Time	717 HRS
Operational Uptime	99.6 %
Monthly Average	-6.6 C

Lagoon Wind Speed (km/hr) – November 2022

Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	11.2	14.1	12.5	14.0	13.9	14.3	13.5	12.8	11.5	11.5	8.5	12.1	13.2	12.3	13.5	18.5	14.3	14.3	12.2	12.8	11.1	12.2	10.7	11.4	12.8	18.5
2	11.8	10.4	11.4	11.6	11.3	13.6	12.1	11.5	10.1	11.4	P	P	12.5	8.7	6.2	8.1	9.2	8.0	6.4	6.2	8.1	12.4	13.5	10.1	10.2	13.6
3	7.7	4.8	7.7	12.6	14.8	17.1	17.6	18.8	21.9	19.9	19.2	26.6	31.7	30.5	34.4	37.4	34.3	35.5	38.8	39.9	33.5	29.3	35.2	38.7	25.3	39.9
4	35.6	36.9	34.9	34.3	34.8	37.9	34.9	35.3	35.1	28.4	C	30.9	31.2	33.5	34.6	32.4	30.3	31.4	25.1	25.0	24.0	18.1	12.2	11.5	29.9	37.9
5	10.0	12.5	11.6	7.1	6.0	7.6	7.4	14.7	9.6	9.4	19.2	12.1	13.9	14.7	13.6	20.4	16.0	16.8	15.2	17.6	16.6	18.5	18.1	16.4	13.5	20.4
6	19.1	18.3	16.1	15.5	15.5	15.3	14.4	13.4	15.8	16.1	16.1	14.3	14.8	13.1	14.8	14.0	16.2	16.7	16.9	15.7	14.6	14.4	13.3	13.4	15.3	19.1
7	16.3	14.3	14.8	17.4	17.9	18.1	17.0	17.4	17.0	17.7	15.7	13.3	15.1	14.4	13.3	13.1	12.5	12.1	10.6	11.1	8.7	6.1	2.5	1.2	13.2	18.1
8	2.2	3.2	7.1	8.3	8.9	8.3	10.1	10.8	9.8	9.0	7.6	6.9	9.0	8.2	7.2	9.5	9.4	6.5	6.8	3.8	1.7	7.8	11.3	12.3	7.7	12.3
9	18.3	19.4	15.8	18.4	22.1	23.7	22.4	20.0	19.6	16.5	14.1	13.1	9.9	5.9	4.7	10.4	13.0	11.4	5.5	4.9	9.9	12.9	15.3	18.4	14.4	23.7
10	16.4	20.5	19.8	22.5	23.5	22.2	23.9	21.3	24.8	21.6	23.7	22.8	23.2	27.3	23.5	21.2	19.4	20.4	21.5	25.6	22.0	23.9	26.8	24.5	22.6	27.3
11	29.8	28.9	30.5	29.8	30.1	28.5	28.2	27.0	28.3	29.1	34.8	30.5	34.0	32.1	29.3	25.6	25.1	27.4	24.0	29.7	29.3	23.7	28.5	26.9	28.8	34.8
12	30.0	27.0	26.2	26.5	32.3	30.0	26.0	19.7	14.5	15.3	15.4	15.3	15.1	11.4	9.8	4.8	1.6	1.7	7.3	10.5	10.3	12.3	14.9	14.5	16.3	32.3
13	15.6	18.8	18.8	19.2	21.8	20.4	19.7	19.8	19.8	19.2	20.2	22.4	20.3	19.4	24.1	23.4	16.5	11.0	13.9	13.8	13.2	13.6	13.2	16.7	18.1	24.1
14	14.2	13.2	15.7	17.9	17.0	19.7	16.2	16.0	16.3	15.5	13.4	15.6	16.4	16.1	11.9	9.4	9.8	10.5	11.2	12.8	14.7	15.2	18.2	21.2	14.9	21.2
15	19.6	24.7	24.3	22.9	28.3	25.6	23.6	21.3	23.1	22.6	16.9	15.9	14.0	12.6	9.3	8.7	10.7	12.2	13.1	14.4	12.6	12.2	11.9	14.2	17.3	28.3
16	16.0	17.8	16.9	16.3	16.8	16.1	18.4	15.0	13.7	12.9	10.5	8.4	9.4	8.4	4.0	10.0	10.6	7.3	8.0	8.3	7.4	3.7	3.3	3.7	11.0	18.4
17	3.1	3.0	9.4	10.3	10.3	10.6	12.0	11.2	12.5	13.0	12.5	13.9	15.5	16.1	18.9	19.8	18.7	21.8	21.3	17.8	19.5	20.7	24.6	26.4	15.1	26.4
18	28.4	26.7	28.2	24.3	23.1	24.6	22.1	29.8	26.8	22.4	23.3	22.6	23.2	22.6	20.6	22.7	20.7	21.4	17.0	12.9	15.0	19.3	27.4	28.3	23.1	29.8
19	24.4	31.0	31.5	29.3	26.7	28.3	30.1	29.3	29.3	30.1	32.9	29.7	24.4	26.2	26.3	28.4	26.4	27.0	29.7	19.5	25.2	23.7	21.5	16.3	27.0	32.9
20	23.3	30.1	27.9	28.4	26.4	34.2	32.1	30.7	27.2	27.5	27.4	27.5	26.0	25.8	23.0	22.1	23.3	24.8	23.5	28.8	28.7	29.4	28.7	28.8	27.3	34.2
21	23.4	26.3	24.4	25.6	26.4	21.1	18.3	22.9	27.5	28.8	30.0	27.8	23.9	20.5	28.2	26.8	25.0	26.9	27.8	24.7	24.7	23.0	30.2	31.8	25.7	31.8
22	22.2	18.1	16.8	20.0	22.3	48.7	39.1	21.3	13.1	17.2	20.4	30.3	39.1	35.3	30.1	24.4	19.6	13.4	6.1	8.5	13.8	12.9	16.8	17.5	22.0	48.7
23	13.8	14.0	12.0	11.2	9.6	8.0	14.7	13.9	13.9	18.7	26.6	22.9	22.6	27.4	27.1	25.5	19.6	20.7	24.4	23.8	25.6	34.2	39.3	44.4	21.4	44.4
24	49.5	55.5	56.1	54.2	47.3	51.4	52.7	46.8	42.1	30.5	29.0	29.4	28.5	30.4	46.2	48.5	44.3	48.8	43.9	35.6	30.3	22.7	21.4	14.9	40.0	56.1
25	12.6	18.9	29.1	38.4	37.1	33.3	30.0	28.3	27.4	30.0	24.8	23.3	20.5	17.2	10.1	9.4	9.3	11.5	15.7	10.6	12.5	9.3	7.1	19.2	20.2	38.4
26	17.3	14.9	15.9	18.0	18.1	20.6	21.2	20.1	22.3	23.7	27.3	27.1	27.6	35.7	39.8	41.5	41.6	40.7	43.1	43.8	43.3	41.7	36.6	26.7	29.5	43.8
27	19.1	13.1	12.1	14.6	11.7	10.6	13.7	15.9	8.3	18.2	17.7	16.5	16.7	8.6	7.6	5.7	5.4	4.7	3.2	4.5	18.4	17.4	16.9	16.6	12.4	19.1
28	15.9	14.6	16.8	13.6	15.2	15.1	12.2	11.0	13.2	15.1	13.1	10.2	8.6	9.5	6.7	3.0	9.9	14.3	11.9	11.9	9.4	8.0	9.7	8.9	11.6	16.8
29	4.1	1.4	3.3	8.9	8.8	10.1	8.6	9.0	9.8	10.9	11.9	10.7	9.4	7.8	6.9	4.3	4.5	3.9	7.8	9.3	8.3	6.6	6.3	7.4	7.5	11.9
30	13.2	12.8	11.8	14.8	13.8	14.5	15.7	15.6	13.4	15.4	15.4	13.6	14.5	17.3	15.9	15.6	15.4	17.3	17.4	13.8	11.8	10.6	10.1	8.9	14.1	17.4
NO.	30	30	30	30	30	30	30	30	30	30	28	29	30	30	30	30	30	30	30	30	30	30	30	30	717	100%
MEAN	18.1	18.8	19.3	20.2	20.4	21.7	20.9	20.0	19.3	19.3	19.6	19.5	19.5	19.0	18.7	18.8	17.7	18.0	17.6	17.3	17.5	17.2	18.2	18.4		
MAX	49.5	55.5	56.1	54.2	47.3	51.4	52.7	46.8	42.1	30.5	34.8	30.9	39.1	35.7	46.2	48.5	44.3	48.8	43.9	43.8	43.3	41.7	39.3	44.4		



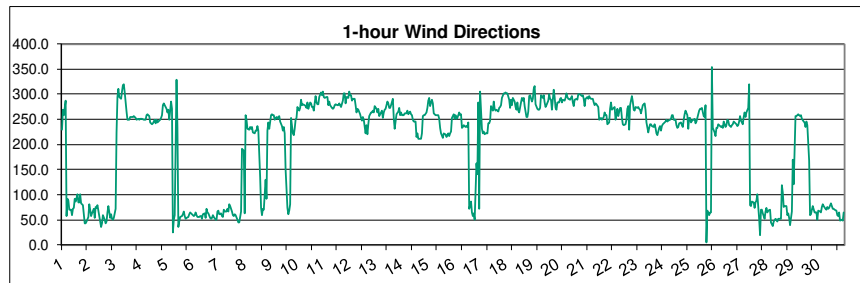
Number of Non-Zero Readings 717

Maximum 1-HR Average 56.1 KM/HR
Maximum 24-HR Average 40.0 KM/HR

Monthly Calibration	1	Operational Time	718 HRS
Standard Deviation	9.677	Operational Uptime	99.7 %
		Monthly Average	19.0 KM/HR

Lagoon Wind Direction (°) – November 2022

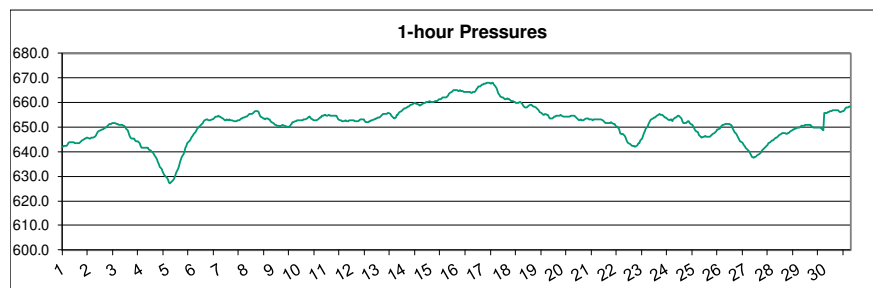
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	228.6	268.6	258.1	287.3	58.2	92.6	87.5	70.6	70.2	59.1	72.7	74.6	92.5	86.7	101.8	84.2	83.8	100.8	83.5	78.9	61.0	42.5	43.7	46.4	74.3	287.3
2	56.4	81.5	71.0	57.5	62.3	72.3	54.1	75.5	74.6	80.1	P	P	36.2	43.7	59.9	49.7	43.4	47.1	65.3	78.1	54.5	60.5	52.7	51.2	60.4	81.5
3	54.4	72.1	223.8	293.9	309.8	294.3	291.4	304.6	317.6	319.3	303.4	264.8	249.7	248.5	249.8	253.8	253.9	255.3	255.8	254.0	253.7	249.2	251.2	249.1	264.7	319.3
4	250.6	251.3	250.4	249.4	249.8	249.0	257.9	259.7	256.3	243.6	C	240.4	241.1	249.0	242.0	248.6	244.6	245.7	249.8	252.9	257.4	278.5	281.1	275.1	251.2	281.1
5	270.3	263.7	269.2	248.4	285.7	271.5	25.6	51.0	58.8	329.1	232.4	35.5	46.9	55.3	57.8	61.1	66.8	58.2	51.6	54.8	56.2	61.9	65.5	62.5	44.2	329.1
6	61.8	58.4	58.7	65.0	58.6	55.8	55.4	57.1	52.7	61.4	63.2	54.4	72.8	65.5	63.4	54.1	51.6	53.9	59.4	55.0	49.5	50.3	66.5	66.5	58.3	72.8
7	68.5	60.7	63.2	56.9	55.5	70.0	66.8	65.9	72.2	66.5	80.9	77.5	66.9	59.8	57.4	60.9	58.8	50.4	45.3	44.5	55.8	67.2	191.6	187.0	63.6	191.6
8	63.2	259.1	249.1	231.4	229.1	234.6	230.5	233.9	223.7	221.7	226.8	226.9	237.4	227.4	135.9	74.5	58.6	72.2	70.4	129.3	91.2	227.5	244.3	231.4	220.6	259.1
9	258.5	260.7	259.0	257.7	249.3	253.8	250.7	254.7	257.3	246.3	236.1	226.9	235.0	221.7	149.9	73.9	60.6	68.4	81.2	252.0	221.4	218.9	230.3	249.5	245.8	260.7
10	253.0	275.2	266.7	273.3	289.3	278.5	279.6	278.2	276.7	271.9	283.4	271.7	283.2	282.4	275.2	274.3	267.6	296.5	283.6	279.7	279.1	295.2	302.8	298.0	280.5	302.8
11	304.5	294.7	292.3	295.0	294.3	277.3	284.5	278.3	272.2	271.4	272.4	277.5	279.2	277.3	278.4	281.4	277.3	273.7	286.7	301.3	302.4	281.9	295.0	292.9	285.0	304.5
12	304.8	298.0	298.1	287.0	290.5	290.1	277.4	263.1	270.7	269.1	260.3	253.6	248.1	254.1	248.9	222.6	238.3	220.4	239.9	256.7	263.1	263.3	266.7	264.1	275.6	304.8
13	276.2	270.4	262.9	270.7	256.0	260.6	268.2	252.1	263.6	269.4	271.5	286.0	281.6	272.4	273.5	278.0	291.5	252.5	231.5	246.4	260.4	264.9	272.1	258.8	267.4	291.5
14	263.9	258.7	258.3	261.5	262.0	261.0	266.8	260.0	265.4	259.3	257.7	249.7	246.1	245.1	214.5	222.5	211.1	210.6	212.1	222.6	256.6	258.9	259.1	263.4	251.2	266.8
15	273.5	287.8	291.9	277.2	289.0	281.1	262.6	259.5	257.8	257.6	257.8	250.3	233.2	221.4	213.8	222.2	219.4	219.5	214.9	221.2	217.5	221.2	225.1	252.6	255.4	291.9
16	259.3	250.5	259.0	250.7	253.1	264.0	258.1	260.1	233.0	234.9	238.9	235.2	236.8	234.2	242.9	71.4	86.6	64.5	58.0	63.7	50.3	162.5	140.1	284.1	248.8	284.1
17	72.4	304.9	230.8	221.3	225.4	219.5	221.6	222.6	242.4	241.5	248.2	275.9	267.5	285.1	271.2	266.8	268.8	264.6	272.1	273.8	278.6	292.7	301.7	302.5	266.7	304.9
18	303.0	301.3	302.0	288.1	272.8	289.9	278.1	293.5	286.2	274.2	268.9	283.6	267.2	263.9	283.7	293.4	287.5	292.4	275.9	255.2	255.3	265.5	297.1	297.4	284.4	303.0
19	284.7	291.5	310.0	316.6	280.8	270.6	269.8	269.8	273.6	298.5	293.1	297.6	284.2	274.8	277.8	287.8	300.1	291.6	289.4	270.0	308.4	294.6	273.2	269.9	287.3	316.6
20	283.8	282.9	291.4	291.8	283.3	288.7	287.5	292.6	301.8	294.8	291.2	288.5	292.9	296.2	283.2	276.7	289.0	290.3	289.1	300.2	300.0	299.1	296.9	297.9	291.5	301.8
21	291.7	276.8	291.1	295.0	291.7	296.0	292.5	290.4	290.8	284.2	277.4	282.1	279.8	274.4	248.6	251.3	253.5	248.6	254.3	264.4	259.1	257.9	239.8	243.8	271.3	296.0
22	270.1	282.8	269.3	271.5	274.4	249.6	257.7	270.3	255.8	273.4	272.2	252.5	240.8	238.0	241.0	249.3	270.3	277.2	229.3	278.3	296.3	285.0	269.6	266.5	260.6	296.3
23	273.8	271.9	273.9	270.5	268.4	261.3	278.8	280.7	282.0	268.3	244.2	224.4	232.1	239.8	241.0	236.7	235.0	239.9	233.5	222.8	219.3	233.6	237.1	227.4	243.2	282.0
24	236.2	240.2	244.1	246.3	250.0	245.0	247.2	249.0	251.4	257.5	258.0	250.0	249.7	238.4	232.1	235.0	242.6	243.3	238.2	235.0	249.6	260.3	266.7	257.6	245.2	266.7
25	231.9	253.3	252.9	243.4	249.6	248.5	250.8	242.8	244.8	260.1	267.8	270.7	271.7	273.3	255.9	255.5	278.1	5.3	68.9	59.7	64.8	63.9	353.3	233.1	257.3	353.3
26	224.1	216.2	232.2	233.4	239.3	235.7	235.0	236.0	233.1	246.1	234.9	238.5	249.2	246.7	238.3	233.9	237.7	240.7	244.9	244.3	239.4	236.1	238.1	246.3	238.7	249.2
27	256.4	247.9	240.5	253.9	263.7	255.1	263.3	273.6	319.3	78.9	78.1	86.7	84.5	73.9	85.2	87.4	101.1	52.6	18.8	69.8	70.9	63.3	51.7	66.7	58.8	319.3
28	73.9	64.0	67.6	69.4	44.0	42.0	37.1	46.0	51.9	51.0	47.3	52.4	51.3	52.1	119.8	105.0	75.9	78.0	76.8	59.2	63.1	54.0	39.6	66.1	59.5	119.8
29	169.6	120.5	188.5	256.3	256.2	260.7	258.1	257.0	257.4	250.5	245.4	243.4	235.1	245.3	237.7	167.0	60.0	61.0	70.5	78.1	65.6	64.7	64.4	50.8	243.2	260.7
30	68.0	67.3	65.4	75.7	81.4	77.9	72.2	70.9	75.4	72.9	73.4	82.0	78.1	71.3	72.3	69.6	68.5	59.7	57.9	65.5	49.0	49.8	47.6	65.5	68.8	82.0
NO.	30	30	30	30	30	30	30	30	30	30	28	29	30	30	30	30	30	30	30	30	30	30	30	30	717	100%
MEAN	209.6	224.4	229.7	233.2	225.8	224.9	215.6	217.3	219.8	220.1	219.9	212.5	205.1	204.2	198.5	185.3	182.8	171.1	170.1	182.4	181.8	190.8	204.9	207.5		
MAX	304.8	304.9	310.0	316.6	309.8	296.0	292.5	304.6	319.3	329.1	303.4	297.6	292.9	296.2	283.7	293.4	300.1	296.5	289.4	301.3	308.4	299.1	353.3	302.5		



Number of Non-Zero Readings	717
Maximum 1-HR Average	353 degrees
Maximum 24-HR Average	291 degrees
Monthly Calibration	1
Standard Deviation	91.36
Operational Time	718 HRS
Operational Uptime	99.7 %
Monthly Average	205.7 degrees

Lagoon Pressure (mmHg) – November 2022

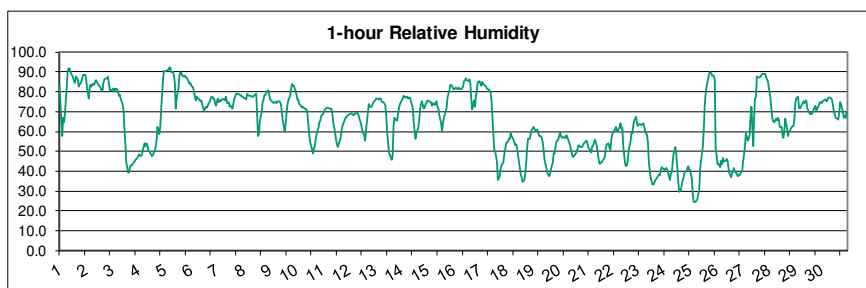
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	642.1	642.2	642.2	642.3	642.7	643.3	643.6	643.8	643.9	643.8	643.7	643.4	643.3	643.3	643.3	643.5	643.9	644.1	644.6	644.8	645.1	645.4	645.5	645.7	643.7	645.7
2	645.4	645.2	645.5	645.6	645.7	646.1	646.4	647.0	647.8	648.1	P	P	648.9	649.0	649.2	649.7	650.1	650.5	650.9	651.1	651.3	651.5	651.6	651.6	648.6	651.6
3	651.5	651.4	651.1	650.9	651.0	650.9	650.7	650.6	650.5	650.1	649.3	648.5	647.5	646.5	645.8	645.4	645.4	645.2	644.7	644.3	644.3	644.2	643.3	642.3	647.7	651.5
4	641.7	641.5	641.5	641.5	641.6	641.6	641.4	641.0	640.5	640.2	K	639.5	638.8	637.6	636.7	635.8	634.9	633.8	632.9	631.9	631.3	630.4	630.1	629.3	637.2	641.7
5	628.4	627.4	626.9	627.4	628.1	628.7	629.1	630.3	631.6	632.8	634.1	635.5	636.7	637.8	638.9	640.2	641.4	642.5	643.2	643.9	644.7	645.4	646.0	646.5	636.2	646.5
6	647.2	647.7	648.5	649.2	649.7	650.2	650.8	651.3	651.8	652.3	652.7	653.0	653.0	652.8	652.8	652.9	653.1	653.3	653.5	653.9	654.1	654.3	654.5	654.2	651.9	654.5
7	654.0	653.7	653.4	653.1	652.9	652.8	653.0	652.9	653.1	652.9	652.8	652.9	652.4	652.2	652.4	652.4	652.6	652.8	653.0	653.4	653.6	653.7	653.9	654.0	653.1	654.0
8	654.3	654.7	655.0	655.2	655.1	655.3	655.7	655.9	656.5	656.6	656.3	656.0	655.0	654.2	653.7	653.6	653.4	653.3	653.4	653.5	653.2	653.0	652.5	652.1	654.5	656.6
9	651.7	651.2	650.9	650.8	650.5	650.4	650.3	650.4	650.6	650.7	650.7	650.6	650.2	649.9	650.1	650.2	650.7	651.3	651.8	652.1	652.3	652.5	652.6	652.7	651.0	652.7
10	652.8	652.8	652.8	652.8	652.9	653.1	653.2	653.5	654.0	654.2	654.1	653.6	653.1	652.8	652.7	652.7	652.9	653.1	653.4	653.7	654.0	654.4	654.7	654.9	653.4	654.9
11	654.8	654.7	654.8	654.9	654.7	654.7	654.6	654.4	654.5	654.7	654.4	653.9	653.3	652.8	652.7	652.5	652.4	652.5	652.6	652.5	652.4	652.4	652.6	652.7	653.6	654.9
12	652.7	652.8	652.6	652.3	652.2	652.2	652.3	652.7	653.0	653.2	653.2	652.9	652.5	652.1	651.9	651.9	652.3	652.4	652.6	652.8	652.9	653.1	653.6	653.7	652.7	653.7
13	653.7	654.0	654.3	654.7	655.0	655.3	655.3	655.4	655.5	655.7	655.5	655.3	654.7	654.2	653.8	653.6	653.8	654.8	655.1	655.5	655.9	656.4	656.8	657.0	655.1	657.0
14	657.5	657.7	658.0	658.2	658.4	658.8	659.0	659.0	659.3	659.7	659.7	659.6	659.4	658.9	658.7	658.9	659.2	659.5	659.8	659.9	660.1	660.3	660.3	660.4	659.2	660.4
15	660.2	660.2	660.2	660.2	660.4	660.5	660.7	661.0	661.4	661.3	661.6	661.9	662.0	662.1	662.1	662.5	662.9	663.4	663.9	664.3	664.7	665.0	665.1	664.9	662.2	665.1
16	665.0	664.8	664.7	664.9	664.6	664.5	664.3	664.2	664.3	664.3	664.3	664.4	664.3	664.0	663.9	664.1	664.4	664.8	665.3	665.8	666.3	666.5	666.8	667.1	664.9	667.1
17	667.2	667.4	667.7	667.8	667.9	667.9	667.9	667.8	667.9	668.0	667.3	666.7	666.7	664.7	663.6	663.0	662.4	662.0	661.9	661.7	661.3	661.2	661.5	661.3	665.1	668.0
18	661.1	660.9	660.7	660.4	660.3	660.1	659.7	659.8	660.0	660.3	660.0	659.8	659.4	658.7	658.1	658.1	658.1	658.2	658.7	659.0	659.1	658.7	658.3	658.1	659.4	661.1
19	658.0	657.5	657.3	656.9	656.2	655.6	655.2	655.1	655.0	655.2	655.0	654.8	654.3	653.6	653.4	653.3	653.8	654.2	654.1	654.4	654.6	654.7	654.7	654.9	655.1	658.0
20	654.8	654.3	654.4	654.4	654.4	654.1	654.3	654.2	654.5	654.6	654.6	654.4	654.2	654.0	653.6	653.1	652.9	652.9	652.8	652.8	652.9	653.1	653.5	653.4	653.8	654.8
21	653.4	652.9	653.0	653.1	652.8	653.0	653.2	653.1	653.2	653.2	653.2	653.0	653.0	652.6	652.3	652.1	651.8	651.6	651.7	651.7	651.7	652.0	651.7	651.3	652.5	653.4
22	651.3	650.7	650.3	650.0	649.0	647.4	647.3	647.3	647.1	646.4	645.5	644.6	643.8	643.5	643.2	642.7	642.2	642.2	642.1	642.1	642.2	642.8	643.3	643.6	645.4	651.3
23	644.7	645.4	646.4	647.5	648.3	649.3	650.2	651.1	651.9	652.7	653.2	653.5	653.7	653.7	654.1	654.4	655.0	655.3	655.0	655.0	654.9	654.4	654.0	653.8	652.0	655.3
24	653.4	653.1	652.8	652.9	653.2	652.5	653.2	653.8	653.9	654.3	654.6	654.5	654.0	653.3	652.4	651.7	651.6	651.5	651.8	652.2	652.3	651.7	651.2	650.7	652.8	654.6
25	650.2	649.2	648.7	648.2	647.8	646.9	646.5	645.9	645.9	645.9	646.2	646.1	646.3	646.2	646.1	646.3	646.8	647.3	647.5	647.8	648.3	648.9	649.2	649.2	647.2	650.6
26	649.5	650.1	650.5	650.8	650.9	651.1	651.2	651.3	651.3	651.1	650.9	650.5	649.4	648.6	647.9	647.2	646.5	645.7	644.9	644.2	643.7	643.3	642.8	642.2	648.2	651.3
27	641.6	641.1	640.6	639.9	639.2	638.6	638.0	637.6	637.8	638.0	638.4	638.6	638.9	639.3	639.7	640.3	641.0	641.5	641.9	642.2	642.6	643.3	643.7	644.1	640.3	644.1
28	644.5	644.7	645.0	645.7	645.8	646.0	646.3	646.6	647.1	647.4	647.6	647.6	647.3	647.2	647.3	647.5	647.8	648.4	648.7	648.9	649.2	649.3	649.4	649.6	647.3	649.6
29	649.7	649.9	650.1	650.4	650.5	650.7	650.8	650.8	651.0	651.0	651.0	650.7	650.3	650.0	649.8	649.7	649.7	649.8	649.9	649.7	649.7	649.3	649.1	648.8	650.1	651.0
30	655.7	655.7	655.8	655.9	656.1	656.3	656.6	656.7	656.7	656.9	657.0	657.0	656.8	656.4	656.2	656.2	656.3	656.4	656.8	657.5	657.8	658.0	658.2	658.2	656.7	658.2
NO.	30	30	30	30	30	30	30	30	30	30	28	29	30	30	30	30	30	30	30	30	30	30	30	30	717	100%
MEAN	651.6	651.5	651.5	651.6	651.6	651.6	651.7	651.8	652.0	652.2	652.7	652.2	651.7	651.4	651.2	651.2	651.3	651.5	651.6	651.7	651.9	652.0	652.0	651.9		
MAX	667.2	667.4	667.7	667.8	667.9	667.9	667.9	667.8	667.9	668.0	667.3	666.7	665.7	664.7	663.9	664.1	664.4	664.8	665.3	665.8	666.3	666.5	666.8	667.1		



Number of Non-Zero Readings	717
Maximum 1-HR Average	668 MMHg
Maximum 24-HR Average	665 MMHg
Monthly Calibration	0
Standard Deviation	7.201
Operational Time	717 HRS
Operational Uptime	99.6 %
Monthly Average	651.7 MMHg

Lagoon Relative Humidity (%) – November 2022

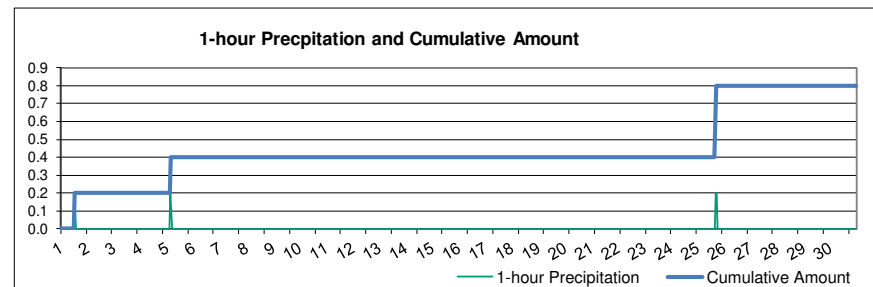
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	83.0	65.3	57.6	67.1	64.6	69.3	83.2	90.2	91.7	91.6	89.8	88.0	86.9	85.4	84.6	87.7	86.4	82.7	83.5	84.5	85.1	88.3	88.7	88.3	82.2	91.7
2	86.9	81.9	76.6	82.3	83.5	82.8	83.8	83.6	85.4	85.7	P	P	83.2	82.0	80.4	80.5	84.2	86.4	86.8	86.9	87.7	83.9	80.7	80.7	83.4	87.7
3	81.3	81.6	80.3	81.9	81.3	79.9	77.8	78.3	76.0	74.0	70.6	61.2	53.5	44.6	39.4	39.3	42.0	42.9	43.2	44.1	44.9	45.9	46.0	46.8	60.7	81.9
4	48.5	48.2	47.6	48.2	50.2	53.9	52.8	53.9	53.2	50.8	K	48.6	47.4	48.0	49.4	49.9	54.8	62.5	60.5	58.5	62.0	78.1	85.2	90.3	56.6	90.3
5	90.3	90.4	90.8	90.8	92.3	92.1	90.1	90.0	87.9	84.8	71.3	76.5	81.5	88.2	90.0	89.5	88.1	87.8	88.0	87.3	87.3	86.3	83.9	84.4	87.1	92.3
6	83.2	82.7	82.1	77.4	75.4	77.7	76.7	76.7	75.3	75.4	73.3	71.8	70.8	72.4	72.0	73.1	74.0	74.9	77.7	77.5	76.7	76.4	74.3	73.0	75.9	83.2
7	76.8	74.9	75.7	75.3	75.9	76.3	76.4	75.4	77.3	74.2	74.9	72.2	72.9	72.5	71.4	76.5	77.6	79.0	78.9	78.9	78.5	78.3	77.5	77.3	76.0	79.0
8	77.0	76.5	76.3	78.8	78.5	78.0	77.8	77.7	77.3	77.4	78.6	78.8	67.7	57.6	59.1	65.3	69.8	74.9	76.2	78.6	78.5	80.3	80.5	78.9	75.0	80.5
9	76.6	75.6	75.0	74.4	74.8	74.5	74.5	75.1	75.0	74.7	73.6	69.8	65.5	60.1	63.2	68.5	73.2	75.5	78.0	81.3	83.9	83.2	83.1	80.1	74.6	83.9
10	78.4	76.1	75.9	73.8	73.0	71.8	72.3	72.0	71.4	70.8	68.8	63.0	57.7	54.3	50.8	49.0	51.6	52.8	56.7	60.3	61.9	64.8	65.7	67.8	65.0	78.4
11	68.8	70.0	70.8	71.6	72.1	72.0	71.3	71.3	71.7	69.7	65.1	60.1	56.2	53.8	52.2	53.5	56.5	59.7	62.7	63.8	65.2	67.4	67.6	68.1	65.1	72.1
12	68.4	68.9	69.0	68.9	68.5	68.1	69.0	69.4	69.3	67.9	66.0	64.5	60.3	59.2	58.3	55.2	60.8	69.9	73.7	72.3	72.5	72.4	74.6	75.0	67.6	75.0
13	75.8	76.5	76.6	76.1	76.5	76.6	75.1	75.0	74.9	73.4	68.5	59.7	54.8	49.4	47.0	45.8	47.7	62.6	67.0	65.7	65.7	69.3	71.9	73.8	66.9	76.6
14	75.8	76.6	77.8	77.5	77.2	77.5	76.8	77.1	77.1	75.1	72.1	65.2	60.2	56.4	59.3	62.0	65.6	70.9	73.9	75.1	71.5	72.1	73.7	74.0	71.7	77.8
15	75.5	75.2	74.8	74.6	73.0	74.4	73.5	74.4	75.1	72.6	71.7	68.3	64.1	59.8	64.2	67.2	68.2	72.2	77.0	79.1	80.6	83.5	82.9	81.7	73.5	83.5
16	81.3	81.5	82.2	81.4	81.9	81.8	81.2	81.3	82.4	85.2	85.6	86.6	85.7	85.2	86.4	84.0	76.0	71.2	75.8	72.6	77.4	80.8	84.7	85.1	81.5	86.6
17	83.9	82.9	84.7	83.7	83.1	82.4	81.8	81.0	81.0	79.9	75.7	67.9	60.2	50.8	50.3	44.8	35.6	36.7	37.6	41.6	43.9	44.5	48.3	50.7	63.0	84.7
18	54.1	55.1	56.2	56.2	59.1	57.8	56.1	54.4	53.1	53.5	51.8	44.6	41.4	38.5	37.0	34.6	35.6	38.7	44.9	51.9	56.1	56.5	58.9	61.0	50.3	61.0
19	61.4	62.4	60.3	59.8	61.0	59.5	57.6	57.8	56.8	54.7	50.9	45.8	41.4	39.3	38.5	37.4	38.3	41.1	44.4	48.9	48.7	52.3	54.9	56.0	51.2	62.4
20	57.8	59.7	57.9	56.9	57.2	56.7	56.9	58.2	56.8	54.6	52.7	50.4	48.7	47.1	47.9	49.1	49.5	51.3	53.1	52.4	52.1	52.4	53.2	54.1	53.6	59.7
21	55.1	55.6	53.7	51.9	51.1	49.6	52.8	52.7	54.3	56.0	53.2	49.4	46.1	43.7	44.0	44.7	45.8	46.4	47.4	51.9	53.7	54.2	51.7	50.6	50.7	56.0
22	56.0	58.5	60.6	60.9	62.1	60.7	60.0	62.2	64.0	61.4	61.9	52.8	44.1	42.3	43.0	45.6	50.9	54.7	59.6	59.0	63.3	65.7	67.4	64.1	57.5	67.4
23	62.7	63.9	63.9	63.3	63.5	64.2	62.5	60.2	58.2	54.1	44.2	40.2	36.4	33.4	33.4	34.3	35.5	36.2	37.4	38.5	37.9	40.3	41.8	41.4	47.8	64.2
24	40.9	41.0	41.7	40.5	39.5	35.5	39.0	39.1	44.4	49.0	52.0	48.2	41.8	35.4	29.8	30.4	33.2	35.4	37.1	39.3	40.4	41.2	42.4	40.7	39.9	52.0
25	40.6	36.1	28.3	24.5	24.5	24.4	25.9	28.9	30.5	40.6	45.2	52.6	61.1	73.0	78.8	82.8	87.3	89.3	90.0	89.6	88.1	88.3	85.6	50.6	56.9	90.0
26	48.5	43.4	43.9	42.1	45.3	43.3	46.7	45.0	45.1	46.3	45.1	41.6	38.7	37.1	39.4	39.7	41.6	39.5	38.7	37.2	38.3	38.1	38.8	40.3	41.8	48.5
27	45.1	48.3	52.7	58.9	55.4	56.2	58.3	66.3	72.5	52.8	67.8	76.6	77.4	87.6	87.0	87.3	87.5	88.7	88.8	89.0	88.8	87.4	86.4	85.2	73.0	89.0
28	79.3	76.3	70.5	66.6	65.2	64.5	66.2	65.7	67.0	66.1	62.4	62.4	58.1	57.0	60.5	66.3	61.3	57.6	59.9	60.1	61.2	62.7	62.9	66.6	64.4	79.3
29	74.2	76.6	77.3	71.9	71.4	72.3	73.5	75.3	74.4	75.2	75.8	71.9	69.5	68.8	69.1	68.8	69.8	72.3	73.1	70.8	71.5	72.6	74.7	74.9	72.7	77.3
30	74.1	75.2	75.7	75.9	75.1	75.5	76.8	76.8	77.0	76.3	73.6	70.7	68.6	66.8	66.4	66.2	69.8	74.7	73.6	69.8	67.1	67.8	67.1	70.3	72.1	77.0
NO.	30	30	30	30	30	30	30	30	30	30	28	29	30	30	30	30	30	30	30	30	30	30	30	30	717	100%
MEAN	68.7	67.9	67.2	67.1	67.1	67.0	67.6	68.2	68.5	67.5	65.8	62.4	60.1	58.3	58.4	59.3	60.6	63.0	64.8	65.5	66.4	67.8	68.5	67.7		
MAX	90.3	90.4	90.8	90.8	92.3	92.1	90.1	90.2	91.7	91.6	89.8	88.0	86.9	88.2	90.0	89.5	88.1	89.3	90.0	89.6	88.8	88.3	88.7	90.3		



Number of Non-Zero Readings	717
Maximum 1-HR Average	92.3 %
Maximum 24-HR Average	87.1 %
Monthly Calibration	0
Standard Deviation	15.52
Operational Time	717 HRS
Operational Uptime	99.6 %
Monthly Average	65.2 %

Lagoon Precipitation (mm) – November 2022

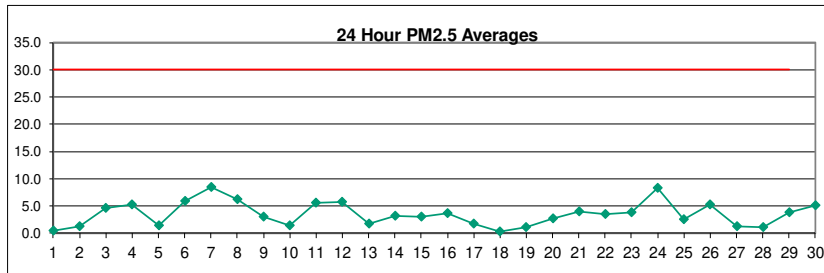
Day	HOURLY																								Hourly Max	24-HR Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	P	P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO.	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	30	718	100%
MEAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Number of Non-Zero Readings	4		
Maximum 1-HR Total	0.2 MM		
Maximum 24-HR Total	0.4 MM		
Monthly Calibration	0	Operational Time	718 HRS
Standard Deviation	0.015	Operational Uptime	99.7 %
		Monthly Average	0.00 MM

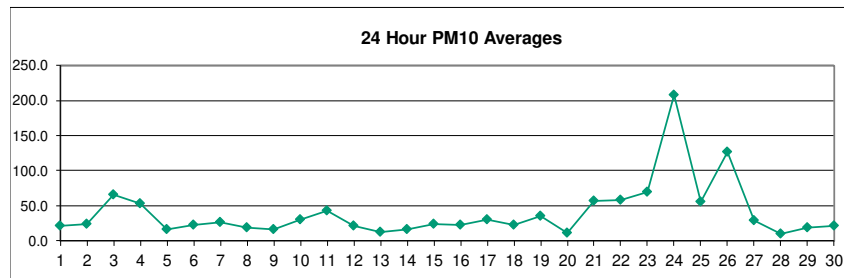
Windridge PM_{2.5} (µg/m³) – November 2022

Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	4.0	2.0	0.0	0.0	0.4	4.0
2	0.0	0.0	0.0	0.0	0.0	3.0	3.0	1.0	3.0	5.0	5.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	1.0	3.0	2.0	1.3	5.0
3	0.0	0.0	0.0	2.0	0.0	1.0	3.0	2.0	2.0	2.0	2.0	3.0	5.0	5.0	4.0	7.0	5.0	16.0	15.0	5.0	8.0	10.0	8.0	7.0	4.7	16.0
4	8.0	8.0	6.0	6.0	5.0	4.0	6.0	8.0	10.0	7.0	6.0	5.0	6.0	6.0	3.0	5.0	5.0	2.0	3.0	5.0	4.0	2.0	4.0	3.0	5.3	10.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	2.0	1.0	1.0	3.0	3.0	2.0	3.0	2.0	3.0	2.0	2.0	3.0	1.4	3.0
6	3.0	4.0	7.0	9.0	6.0	16.0	10.0	12.0	10.0	7.0	18.0	9.0	4.0	0.0	0.0	1.0	0.0	1.0	1.0	7.0	6.0	6.0	4.0	1.0	5.9	18.0
7	4.0	10.0	7.0	15.0	10.0	11.0	9.0	17.0	6.0	6.0	5.0	5.0	4.0	8.0	15.0	13.0	9.0	10.0	9.0	9.0	6.0	8.0	5.0	4.0	8.5	17.0
8	5.0	5.0	3.0	8.0	6.0	4.0	1.0	3.0	10.0	12.0	10.0	7.0	3.0	4.0	7.0	9.0	6.0	2.0	1.0	7.0	10.0	8.0	9.0	8.0	6.2	12.0
9	4.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	1.0	0.0	0.0	4.0	4.0	18.0	4.0	5.0	5.0	5.0	6.0	7.0	4.0	1.0	3.0	18.0
10	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	3.0	3.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	6.0	9.0	7.0	4.0	1.5	9.0
11	5.0	6.0	9.0	7.0	6.0	4.0	5.0	6.0	8.0	6.0	8.0	12.0	9.0	5.0	3.0	2.0	2.0	3.0	3.0	3.0	5.0	3.0	7.0	6.0	5.5	12.0
12	4.0	6.0	4.0	4.0	8.0	7.0	8.0	5.0	6.0	8.0	5.0	7.0	7.0	5.0	4.0	3.0	4.0	6.0	12.0	9.0	5.0	2.0	4.0	5.0	5.8	12.0
13	3.0	4.0	4.0	4.0	3.0	1.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0	3.0	5.0	3.0	3.0	3.0	1.0	1.0	1.8	5.0
14	3.0	0.0	2.0	4.0	3.0	4.0	3.0	5.0	4.0	2.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	2.0	0.0	0.0	0.0	0.0	3.1	5.0
15	0.0	0.0	0.0	0.0	1.0	2.0	1.0	3.0	1.0	0.0	P	3.0	5.0	9.0	6.0	3.0	2.0	2.0	10.0	13.0	7.0	2.0	0.0	0.0	3.0	13.0
16	0.0	2.0	0.0	1.0	2.0	2.0	3.0	2.0	2.0	4.0	2.0	16.0	6.0	11.0	8.0	3.0	1.0	2.0	3.0	3.0	1.0	5.0	5.0	6.0	3.8	16.0
17	6.0	11.0	7.0	4.0	1.0	1.0	3.0	3.0	1.0	4.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	11.0
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	1.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	1.0	0.0	1.0	0.4	2.0
19	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0	2.0	0.0	0.0	5.0	4.0	2.0	1.0	2.0	5.0	2.0	0.0	0.0	0.0	1.0	1.0	1.1	5.0
20	1.0	2.0	2.0	3.0	5.0	5.0	3.0	2.0	1.0	4.0	3.0	4.0	7.0	4.0	1.0	2.0	4.0	3.0	3.0	1.0	0.0	0.0	1.0	3.0	2.7	7.0
21	3.0	2.0	0.0	0.0	1.0	3.0	4.0	1.0	2.0	4.0	5.0	5.0	C	10.0	9.0	6.0	5.0	3.0	3.0	2.0	4.0	5.0	7.0	7.0	4.0	10.0
22	5.0	2.0	3.0	3.0	2.0	14.0	10.0	5.0	1.0	0.0	0.0	1.0	7.0	6.0	6.0	6.0	5.0	3.0	2.0	0.0	0.0	1.0	1.0	2.0	3.5	14.0
23	2.0	2.0	3.0	1.0	0.0	1.0	1.0	1.0	0.0	0.0	2.0	4.0	5.0	7.0	6.0	6.0	12.0	8.0	7.0	4.0	2.0	5.0	7.0	6.0	3.8	12.0
24	14.0	20.0	13.0	18.0	15.0	18.0	14.0	9.0	6.0	9.0	6.0	4.0	3.0	7.0	8.0	9.0	6.0	4.0	5.0	4.0	1.0	1.0	3.0	2.0	8.3	20.0
25	0.0	0.0	1.0	8.0	8.0	6.0	5.0	5.0	5.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.0	5.0	3.0	0.0	0.0	4.0	2.0	2.5	8.0
26	1.0	1.0	4.0	4.0	5.0	6.0	7.0	4.0	3.0	3.0	5.0	5.0	5.0	9.0	6.0	6.0	4.0	4.0	9.0	12.0	9.0	7.0	3.0	5.0	5.3	12.0
27	4.0	2.0	4.0	5.0	1.0	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	1.0	1.0	1.0	2.0	4.0	1.0	1.2	5.0
28	0.0	2.0	1.0	3.0	3.0	2.0	1.0	0.0	0.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	X	5.0	2.0	0.0	0.0	3.0	1.1	5.0
29	1.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	5.0	3.0	4.0	5.0	11.0	12.0	12.0	11.0	8.0	7.0	5.0	3.0	1.0	3.0	3.9	12.0
30	3.0	0.0	3.0	1.0	4.0	3.0	7.0	8.0	7.0	6.0	6.0	4.0	5.0	9.0	7.0	4.0	4.0	3.0	5.0	6.0	8.0	8.0	5.0	6.0	5.1	9.0
NO.	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	717	99.7%
MEAN	2.6	3.0	2.8	3.7	3.3	4.0	3.6	3.5	3.0	3.2	3.7	3.7	3.4	4.2	3.9	4.2	3.5	3.7	4.3	4.1	3.6	3.4	3.3	3.1	7.5	
MAX	14.0	20.0	13.0	18.0	15.0	18.0	14.0	17.0	10.0	12.0	18.0	16.0	9.0	11.0	15.0	18.0	12.0	16.0	15.0	13.0	10.0	10.0	9.0	8.0	17.4	70.0



Windridge PM₁₀ (µg/m³) – November 2022

Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.0	1.0	3.0	4.0	3.0	2.0	22.0	3.0	4.0	7.0	12.0	15.0	24.0	29.0	30.0	54.0	28.0	39.0	35.0	43.0	32.0	44.0	35.0	32.0	20.9	54.0
2	46.0	29.0	37.0	31.0	29.0	32.0	35.0	39.0	47.0	43.0	34.0	33.0	23.0	11.0	16.0	20.0	14.0	9.0	6.0	9.0	7.0	4.0	2.0	5.0	23.4	47.0
3	6.0	6.0	9.0	8.0	7.0	7.0	6.0	13.0	10.0	33.0	16.0	60.0	47.0	75.0	71.0	174.0	184.0	160.0	174.0	179.0	100.0	73.0	94.0	74.0	66.1	184.0
4	120.0	65.0	88.0	46.0	40.0	54.0	72.0	74.0	65.0	59.0	39.0	40.0	43.0	53.0	49.0	87.0	45.0	54.0	43.0	75.0	36.0	12.0	19.0	0.0	53.3	120.0
5	5.0	4.0	3.0	7.0	6.0	4.0	4.0	3.0	5.0	28.0	39.0	30.0	20.0	26.0	24.0	52.0	14.0	17.0	21.0	17.0	18.0	15.0	10.0	17.0	16.2	52.0
6	14.0	13.0	11.0	6.0	14.0	13.0	12.0	9.0	23.0	29.0	12.0	13.0	16.0	26.0	16.0	24.0	16.0	46.0	47.0	31.0	35.0	62.0	35.0	33.0	23.2	62.0
7	16.0	52.0	21.0	60.0	53.0	29.0	25.0	31.0	17.0	11.0	24.0	15.0	33.0	25.0	38.0	49.0	35.0	27.0	21.0	20.0	6.0	6.0	5.0	3.0	25.9	60.0
8	2.0	2.0	0.0	5.0	8.0	4.0	1.0	6.0	31.0	26.0	39.0	42.0	46.0	27.0	40.0	32.0	19.0	9.0	13.0	16.0	20.0	16.0	26.0	13.0	18.5	46.0
9	9.0	13.0	7.0	4.0	9.0	12.0	17.0	13.0	18.0	13.0	20.0	28.0	18.0	29.0	6.0	45.0	12.0	10.0	20.0	22.0	31.0	21.0	15.0	11.0	16.8	45.0
10	9.0	5.0	5.0	42.0	8.0	10.0	29.0	22.0	23.0	35.0	84.0	78.0	20.0	56.0	44.0	26.0	8.0	13.0	20.0	31.0	65.0	31.0	23.0	29.0	29.8	84.0
11	30.0	56.0	58.0	20.0	64.0	37.0	42.0	46.0	41.0	37.0	69.0	74.0	102.0	93.0	49.0	64.0	23.0	32.0	19.0	10.0	13.0	11.0	31.0	22.0	43.5	102.0
12	12.0	8.0	5.0	7.0	8.0	11.0	9.0	13.0	20.0	13.0	31.0	37.0	52.0	40.0	21.0	9.0	10.0	7.0	103.0	48.0	5.0	8.0	12.0	9.0	20.8	103.0
13	10.0	11.0	9.0	6.0	7.0	5.0	5.0	12.0	12.0	7.0	3.0	8.0	11.0	21.0	35.0	25.0	10.0	10.0	8.0	15.0	14.0	8.0	8.0	28.0	12.0	35.0
14	7.0	6.0	10.0	11.0	6.0	6.0	12.0	15.0	38.0	47.0	26.0	36.0	28.0	26.0	31.0	22.0	7.0	9.0	6.0	5.0	3.0	3.0	8.0	8.0	15.7	47.0
15	4.0	1.0	6.0	6.0	9.0	6.0	34.0	21.0	49.0	30.0	P	49.0	43.0	54.0	33.0	27.0	22.0	9.0	55.0	66.0	5.0	8.0	9.0	6.0	24.0	66.0
16	9.0	18.0	12.0	7.0	2.0	4.0	21.0	16.0	72.0	60.0	41.0	65.0	48.0	55.0	17.0	13.0	24.0	10.0	7.0	5.0	7.0	10.0	11.0	11.0	22.7	72.0
17	11.0	11.0	63.0	39.0	18.0	5.0	25.0	9.0	38.0	55.0	23.0	24.0	19.0	57.0	38.0	39.0	30.0	20.0	19.0	23.0	39.0	59.0	18.0	28.0	29.6	63.0
18	38.0	18.0	8.0	34.0	36.0	62.0	21.0	8.0	16.0	10.0	22.0	15.0	37.0	61.0	31.0	22.0	16.0	15.0	6.0	12.0	12.0	12.0	13.0	8.0	22.2	62.0
19	8.0	8.0	5.0	6.0	41.0	48.0	48.0	20.0	57.0	27.0	74.0	45.0	63.0	88.0	71.0	61.0	26.0	7.0	42.0	28.0	7.0	14.0	18.0	20.0	34.7	88.0
20	20.0	30.0	6.0	6.0	5.0	5.0	3.0	6.0	13.0	10.0	11.0	10.0	10.0	11.0	14.0	17.0	19.0	15.0	13.0	12.0	11.0	10.0	12.0	10.0	11.6	30.0
21	14.0	45.0	15.0	9.0	7.0	5.0	7.0	6.0	15.0	28.0	121.0	121.0	C	67.0	72.0	111.0	101.0	101.0	110.0	64.0	135.0	26.0	64.0	78.0	57.5	135.0
22	48.0	19.0	17.0	8.0	103.0	320.0	157.0	14.0	10.0	50.0	112.0	113.0	105.0	51.0	60.0	46.0	66.0	11.0	17.0	8.0	6.0	2.0	17.0	39.0	58.3	320.0
23	20.0	3.0	9.0	6.0	3.0	0.0	9.0	7.0	7.0	20.0	88.0	44.0	75.0	139.0	86.0	105.0	128.0	89.0	79.0	44.0	26.0	213.0	248.0	218.0	69.4	248.0
24	319.0	485.0	485.0	485.0	458.0	485.0	466.0	257.0	173.0	161.0	96.0	114.0	54.0	103.0	143.0	163.0	102.0	85.0	93.0	38.0	57.0	57.0	62.0	48.0	207.9	485.0
25	31.0	60.0	86.0	128.0	168.0	183.0	95.0	107.0	160.0	68.0	46.0	39.0	10.0	13.0	7.0	6.0	8.0	9.0	10.0	8.0	4.0	4.0	22.0	48.0	55.0	183.0
26	32.0	16.0	50.0	33.0	98.0	31.0	74.0	25.0	40.0	61.0	86.0	108.0	188.0	324.0	168.0	149.0	154.0	295.0	371.0	307.0	142.0	88.0	97.0	114.0	127.1	371.0
27	28.0	25.0	43.0	27.0	5.0	3.0	2.0	7.0	9.0	11.0	40.0	75.0	85.0	22.0	33.0	39.0	11.0	6.0	6.0	4.0	105.0	35.0	44.0	17.0	28.4	105.0
28	17.0	12.0	14.0	17.0	8.0	9.0	8.0	8.0	15.0	22.0	10.0	6.0	11.0	9.0	5.0	6.0	10.0	6.0	X	9.0	7.0	5.0	4.0	1.0	9.5	22.0
29	0.0	0.0	1.0	0.0	4.0	3.0	9.0	10.0	9.0	57.0	25.0	26.0	21.0	39.0	58.0	27.0	42.0	28.0	24.0	19.0	21.0	8.0	8.0	16.0	19.0	58.0
30	16.0	10.0	18.0	33.0	33.0	19.0	26.0	38.0	25.0	38.0	29.0	17.0	27.0	16.0	25.0	21.0	29.0	32.0	16.0	6.0	14.0	17.0	6.0	9.0	21.7	38.0
NO.	30	30	30	30	30	30	30	30	30	30	29	30	29	30	30	30	30	30	29	30	30	30	30	30	717	99.7%
MEAN	30.1	34.4	36.8	36.7	42.0	47.1	43.2	28.6	35.4	36.5	43.9	46.0	44.1	54.9	44.4	51.2	40.4	39.3	48.4	39.1	32.8	29.4	32.5	31.8	42.0	
MAX	319.0	485.0	485.0	485.0	458.0	485.0	466.0	257.0	173.0	161.0	121.0	121.0	188.0	324.0	168.0	174.0	184.0	295.0	371.0	307.0	142.0	213.0	248.0	218.0	91.1	433.3



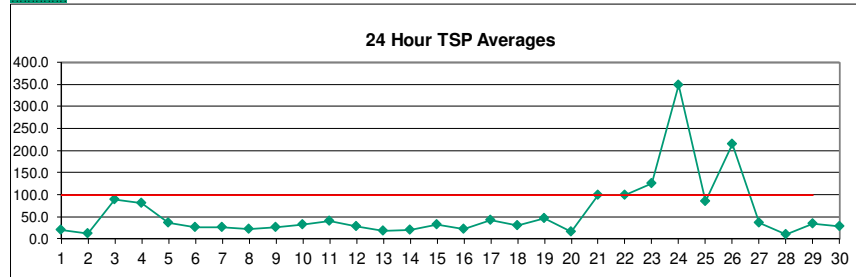
Number of Non-Zero Readings	711
Maximum 1-HR Average	485.0 UG/M3
Maximum 24-HR Average	207.9 UG/M3
Monthly Calibration	1
Standard Deviation	60.86
Operational Time	718 HRS
Operational Uptime	99.7 %
Monthly Average	39.5 UG/M3

Windridge TSP ($\mu\text{g}/\text{m}^3$) – November 2022

HOUR																								
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	3.0	5.0	7.0	5.0	5.0	5.0	14.0	14.0	9.0	15.0	7.0	16.0	27.0	19.0	36.0	52.0	43.0	67.0	23.0	17.0	11.0	31.0	18.0	9.0
2	13.0	9.0	11.0	18.0	3.0	28.0	17.0	36.0	31.0	38.0	12.0	15.0	11.0	7.0	4.0	3.0	7.0	9.0	9.0	6.0	7.0	6.0	3.0	4.0
3	4.0	0.0	9.0	11.0	7.0	6.0	9.0	19.0	17.0	26.0	28.0	97.0	66.0	119.0	127.0	219.0	244.0	203.0	213.0	233.0	137.0	112.0	142.0	108.0
4	174.0	95.0	131.0	86.0	57.0	78.0	108.0	108.0	102.0	91.0	63.0	64.0	49.0	85.0	75.0	150.0	71.0	75.0	56.0	104.0	44.0	15.0	49.0	6.0
5	17.0	10.0	13.0	18.0	3.0	8.0	6.0	5.0	4.0	34.0	59.0	27.0	21.0	56.0	54.0	92.0	78.0	74.0	43.0	45.0	57.0	70.0	49.0	31.0
6	41.0	27.0	13.0	10.0	10.0	12.0	15.0	9.0	16.0	27.0	14.0	21.0	11.0	14.0	19.0	12.0	16.0	49.0	70.0	43.0	34.0	83.0	29.0	19.0
7	24.0	48.0	31.0	71.0	52.0	29.0	16.0	34.0	22.0	8.0	13.0	8.0	33.0	24.0	32.0	47.0	44.0	20.0	18.0	10.0	12.0	12.0	6.0	1.0
8	1.0	2.0	2.0	13.0	9.0	6.0	8.0	7.0	47.0	45.0	34.0	59.0	28.0	15.0	41.0	53.0	20.0	13.0	16.0	21.0	30.0	22.0	32.0	13.0
9	16.0	20.0	15.0	9.0	13.0	18.0	22.0	19.0	30.0	22.0	43.0	36.0	21.0	44.0	11.0	69.0	18.0	10.0	37.0	37.0	21.0	18.0	24.0	
10	7.0	6.0	10.0	38.0	18.0	16.0	31.0	29.0	28.0	44.0	77.0	75.0	31.0	62.0	50.0	35.0	12.0	11.0	21.0	46.0	44.0	25.0	18.0	25.0
11	19.0	50.0	40.0	23.0	50.0	30.0	41.0	44.0	41.0	65.0	66.0	76.0	86.0	98.0	61.0	55.0	24.0	37.0	16.0	7.0	16.0	11.0	12.0	16.0
12	7.0	7.0	6.0	9.0	7.0	6.0	6.0	15.0	24.0	17.0	43.0	49.0	75.0	61.0	45.0	27.0	18.0	7.0	143.0	60.0	14.0	12.0	18.0	14.0
13	11.0	9.0	8.0	14.0	7.0	8.0	6.0	12.0	14.0	8.0	6.0	17.0	15.0	48.0	69.0	31.0	3.0	5.0	8.0	26.0	17.0	11.0	13.0	41.0
14	8.0	6.0	11.0	16.0	6.0	10.0	20.0	14.0	39.0	68.0	35.0	48.0	47.0	39.0	47.0	29.0	7.0	6.0	6.0	4.0	4.0	5.0	6.0	7.0
15	7.0	6.0	5.0	6.0	5.0	9.0	55.0	31.0	77.0	46.0	P	67.0	63.0	75.0	47.0	37.0	29.0	21.0	63.0	80.0	7.0	7.0	7.0	7.0
16	6.0	21.0	3.0	7.0	9.0	5.0	23.0	16.0	57.0	55.0	15.0	71.0	48.0	67.0	18.0	10.0	17.0	13.0	16.0	4.0	9.0	10.0	9.0	9.0
17	10.0	16.0	95.0	38.0	26.0	7.0	35.0	14.0	62.0	86.0	33.0	21.0	28.0	68.0	72.0	74.0	52.0	26.0	32.0	31.0	59.0	58.0	26.0	36.0
18	30.0	24.0	16.0	33.0	48.0	43.0	23.0	5.0	22.0	23.0	37.0	30.0	65.0	112.0	42.0	28.0	30.0	14.0	15.0	20.0	24.0	20.0	19.0	9.0
19	12.0	9.0	7.0	9.0	38.0	43.0	64.0	38.0	71.0	42.0	78.0	69.0	78.0	146.0	115.0	86.0	37.0	11.0	22.0	51.0	10.0	20.0	24.0	35.0
20	25.0	16.0	6.0	8.0	10.0	9.0	7.0	16.0	15.0	9.0	14.0	18.0	19.0	14.0	17.0	29.0	25.0	17.0	22.0	14.0	12.0	12.0	11.0	13.0
21	17.0	66.0	9.0	10.0	7.0	4.0	11.0	8.0	20.0	47.0	173.0	173.0	C	C	141.0	220.0	202.0	20.0	201.0	122.0	240.0	45.0	105.0	145.0
22	89.0	34.0	18.0	19.0	198.0	592.0	243.0	17.0	16.0	83.0	201.0	207.0	170.0	77.0	92.0	75.0	90.0	20.0	29.0	9.0	5.0	4.0	27.0	63.0
23	25.0	11.0	13.0	7.0	1.0	4.0	11.0	7.0	9.0	36.0	164.0	86.0	164.0	282.0	152.0	175.0	201.0	160.0	144.0	79.0	61.0	385.0	557.0	256.0
24	504.0	753.0	985.0	872.0	833.0	773.0	744.0	463.0	303.0	291.0	179.0	185.0	91.0	183.0	186.0	182.0	152.0	125.0	134.0	59.0	91.0	92.0	116.0	87.0
25	49.0	103.0	173.0	224.0	229.0	220.0	158.0	163.0	239.0	126.0	86.0	67.0	17.0	19.0	5.0	8.0	15.0	16.0	9.0	9.0	6.0	3.0	34.0	77.0
26	49.0	24.0	71.0	53.0	192.0	44.0	147.0	42.0	68.0	119.0	159.0	214.0	340.0	570.0	345.0	269.0	304.0	479.0	490.0	427.0	239.0	145.0	155.0	193.0
27	42.0	45.0	68.0	42.0	12.0	6.0	8.0	25.0	14.0	26.0	47.0	102.0	87.0	19.0	19.0	34.0	13.0	8.0	7.0	5.0	82.0	61.0	59.0	54.0
28	19.0	10.0	7.0	6.0	3.0	3.0	0.0	1.0	5.0	25.0	8.0	7.0	7.0	14.0	8.0	9.0	11.0	7.0	X	24.0	17.0	5.0	6.0	4.0
29	1.0	6.0	6.0	5.0	3.0	7.0	11.0	11.0	14.0	109.0	54.0	59.0	45.0	86.0	118.0	49.0	66.0	44.0	38.0	23.0	31.0	10.0	19.0	22.0
30	31.0	13.0	28.0	40.0	58.0	26.0	34.0	37.0	31.0	41.0	40.0	19.0	35.0	26.0	31.0	20.0	26.0	40.0	22.0	11.0	19.0	21.0	7.0	8.0

MEAN	MAX
19.1	67.0
12.8	38.0
89.8	244.0
80.7	174.0
36.4	92.0
25.6	83.0
25.6	71.0
22.4	59.0
25.4	69.0
31.6	77.0
41.0	98.0
28.8	143.0
17.0	69.0
20.3	68.0
32.9	80.0
21.6	71.0
41.9	95.0
30.5	112.0
46.5	146.0
14.9	29.0
98.5	240.0
99.1	592.0
124.6	557.0
349.3	77.0
85.6	239.0
214.1	570.0
36.9	102.0
9.0	25.0
34.9	118.0
27.7	58.0
716	99.7%

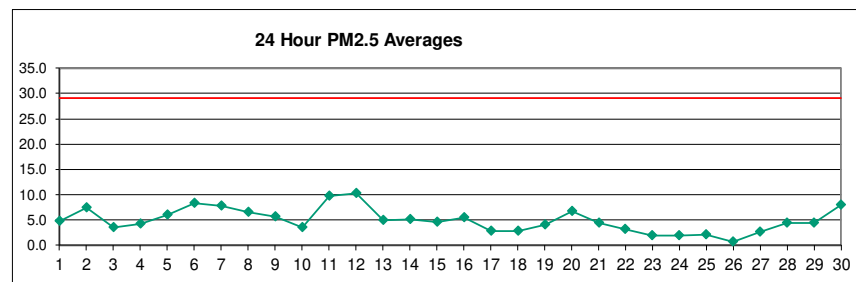
NO.	30	30	30	30	30	30	30	30	30	30	30	29	30	29	29	30	30	30	29	30	30	30	30	30
MEAN	42.0	48.4	60.6	57.3	64.0	68.5	63.1	42.0	48.2	55.7	61.7	66.8	61.3	84.4	69.3	72.6	62.5	59.6	66.3	54.2	45.9	44.5	53.1	44.5
MAX	504.0	753.0	985.0	872.0	833.0	773.0	744.0	463.0	303.0	291.0	201.0	214.0	340.0	570.0	345.0	269.0	304.0	479.0	490.0	427.0	240.0	385.0	557.0	256.0



Number of 24HR Exceedences	3	Proposed Guideline
Number of Non-Zero Readings	714	
Maximum 1-HR Average	592.0 UG/M3	
Maximum 24-HR Average	349.3 UG/M3	
IZS Calibration Time		Operational Time
Down Time	0	Operational Uptime
Standard Deviation	103.7	Monthly Average
		718 HRS
		99.7 %
		58.1 UG/M3

West PM_{2.5} (µg/m³) – November 2022

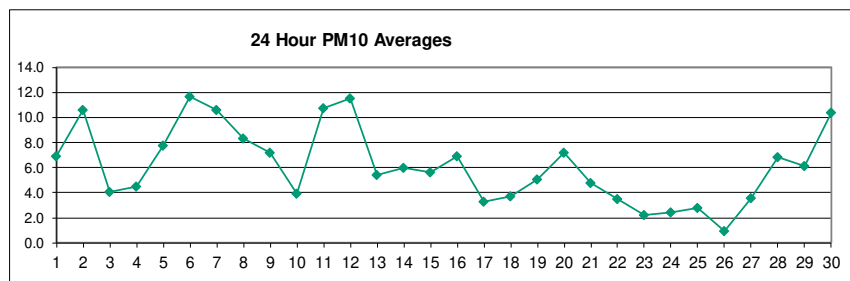
HOUR																											
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		MEAN	MAX
1	1.0	0.8	0.8	0.9	3.0	3.8	2.4	9.6	8.1	10.0	6.3	7.7	1.9	2.3	1.8	5.6	5.1	3.5	4.7	7.3	8.3	6.4	6.3	6.4		4.7	10.0
2	15.6	9.5	8.3	11.6	9.7	7.6	10.2	7.1	7.0	7.8	8.5	8.1	9.6	4.6	3.9	4.7	7.0	3.9	4.3	5.6	5.7	4.3	9.3	3.9		7.4	15.6
3	2.4	2.4	4.8	2.7	2.1	2.0	2.0	2.1	2.3	2.2	2.6	3.5	3.6	3.1	2.9	3.3	4.0	4.2	4.2	4.5	5.1	6.1	6.8	7.2		3.6	7.2
4	6.8	6.3	6.0	6.1	6.5	6.9	6.7	6.7	6.5	5.7	5.3	4.3	3.1	2.8	2.7	2.1	2.1	2.5	2.4	2.2	2.4	2.4	2.3	2.0		4.3	6.9
5	2.8	1.7	1.7	1.6	1.7	1.4	1.6	4.2	7.4	4.8	0.7	8.4	8.8	10.0	7.0	8.0	9.0	8.1	10.5	8.0	8.2	8.0	7.9	11.5		6.0	11.5
6	8.4	8.0	7.2	7.4	12.3	8.4	10.5	10.9	9.2	10.5	9.6	9.5	10.7	6.1	7.4	9.6	5.7	6.2	8.7	8.3	7.2	6.1	5.9	6.7		8.4	12.3
7	9.5	6.4	6.8	8.9	8.7	9.5	9.1	10.3	9.5	10.5	3.9	4.0	6.6	6.9	7.5	6.1	6.0	11.9	9.9	13.4	8.4	5.6	4.3	2.8		7.8	13.4
8	4.6	5.2	5.0	4.8	5.0	4.8	4.6	6.1	6.2	5.7	5.4	4.8	4.8	4.8	5.7	13.4	7.9	8.6	7.5	9.0	8.4	8.9	8.9	7.3		6.6	13.4
9	5.0	3.3	2.9	10.6	2.3	2.0	2.0	2.2	2.7	2.9	3.9	3.4	4.3	2.5	2.1	12.5	11.8	8.2	9.4	10.1	11.4	10.3	7.3	4.7		5.7	12.5
10	2.5	1.7	1.2	0.9	1.0	0.6	0.9	0.9	1.3	1.7	1.9	3.3	3.2	3.2	5.5	3.2	3.4	2.9	3.5	5.1	7.2	8.6	10.2	10.4		3.5	10.4
11	11.2	12.0	12.6	11.6	11.6	11.5	11.2	10.7	10.4	9.7	9.7	9.8	8.5	7.9	7.4	7.1	7.2	7.5	8.4	8.6	9.1	9.6	9.8	10.0		9.7	12.6
12	9.8	9.7	9.4	9.8	10.0	10.2	10.3	10.3	10.3	10.2	9.9	10.1	10.5	9.9	9.7	9.8	10.8	11.6	7.9	11.8	11.9	11.0	10.8	10.2		10.2	11.9
13	9.6	9.0	8.1	7.6	7.2	6.5	6.1	5.5	5.6	5.0	4.2	3.5	2.8	2.2	1.9	1.7	2.3	3.9	2.3	3.5	4.1	4.7	5.0	5.6		4.9	9.6
14	5.7	5.6	6.4	5.9	5.7	5.8	5.9	6.0	6.1	6.6	5.9	5.3	4.7	4.1	3.8	3.6	3.7	4.1	4.7	4.7	4.8	4.6	4.2	4.2		5.1	6.6
15	3.8	3.8	3.4	3.3	4.2	3.4	3.6	3.8	4.4	4.5	4.0	4.0	4.6	4.2	4.4	4.8	5.1	5.6	4.8	6.0	5.5	5.6	5.6	5.9		4.5	6.0
16	5.6	5.7	5.6	4.7	4.6	5.1	5.1	6.1	6.1	5.9	6.0	6.2	5.7	6.1	6.3	4.2	1.1	3.5	5.5	7.6	7.2	5.7	4.7	7.8		5.5	7.8
17	8.4	5.5	5.7	5.3	3.8	2.6	2.1	1.7	1.7	1.6	1.4	1.5	2.2	2.2	2.1	2.0	1.8	1.8	2.0	1.9	2.2	2.1	2.0	1.9		2.7	8.4
18	2.0	1.7	2.6	2.6	2.0	1.6	1.7	1.6	2.7	3.2	3.2	3.3	3.4	3.0	2.4	2.4	3.3	3.1	2.8	3.5	3.9	3.3	3.3	3.1		2.7	3.9
19	2.6	2.6	2.8	3.3	4.9	3.7	3.3	3.9	3.4	4.2	4.8	4.4	4.4	4.3	3.6	3.5	3.7	4.3	4.3	4.5	4.7	5.0	5.1	5.1		4.0	5.1
20	5.3	5.5	5.7	5.7	6.0	6.2	6.6	6.7	6.7	6.6	7.0	7.3	7.5	7.3	7.4	7.4	7.5	7.1	6.8	6.5	6.5	6.5	6.6	6.6		6.6	7.5
21	6.3	6.0	6.4	6.3	6.1	5.8	6.2	6.5	6.6	5.3	4.8	4.8	3.8	3.2	2.8	2.5	2.5	2.1	2.1	2.7	3.1	3.2	2.9	2.6		4.4	6.6
22	3.2	3.9	4.5	4.3	4.5	4.4	3.2	3.9	4.9	4.8	4.8	3.2	1.4	1.0	1.1	1.4	1.6	2.3	2.6	2.1	3.2	3.6	3.4	2.6		3.2	4.9
23	2.2	2.1	2.3	2.1	2.2	2.5	2.6	3.0	3.3	1.9	1.5	2.3	1.6	1.2	1.4	1.7	1.3	1.4	1.3	1.5	1.4	1.4	1.7	1.2		1.9	3.3
24	3.3	2.5	4.2	3.0	2.3	2.6	2.2	1.7	1.9	2.0	2.2	2.1	2.3	1.6	0.9	0.9	1.2	1.0	1.0	1.2	1.2	1.2	1.3	1.3		1.9	4.2
25	1.4	1.3	1.0	0.9	0.7	0.8	0.8	0.8	0.8	0.8	1.1	1.0	0.8	1.2	1.9	3.0	2.9	4.0	3.7	5.2	5.9	7.1	2.6	0.3		2.1	7.1
26	0.3	0.4	0.4	0.3	0.4	0.5	0.8	0.8	0.8	1.1	1.3	1.0	1.0	1.0	0.7	0.6	0.8	0.9	1.0	0.9	0.7	0.7	0.8	0.8		0.8	1.3
27	0.8	0.9	0.9	0.7	0.5	0.4	0.5	0.5	2.5	5.0	5.1	4.0	4.0	2.6	1.6	1.5	3.3	3.3	1.2	2.5	3.9	4.8	5.8	4.9		2.5	5.8
28	2.3	6.2	7.0	5.5	2.4	2.2	4.1	3.3	11.3	11.1	8.9	6.5	2.0	2.2	1.8	2.0	4.3	1.8	5.0	4.5	4.5	3.1	1.8	2.4		4.4	11.3
29	0.9	1.5	2.4	1.7	1.8	2.1	2.5	2.6	2.7	3.2	2.7	5.0	4.7	7.9	6.8	7.1	7.0	8.8	9.0	4.5	5.2	5.5	5.9	5.8		4.5	9.0
30	5.4	4.1	5.4	5.1	4.3	4.8	6.2	6.9	6.6	7.3	7.3	7.7	7.3	9.8	10.5	13.5	15.8	12.3	10.3	8.6	9.6	8.8	7.0	8.0		8.0	15.8
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30		720	100%
MEAN	5.0	4.5	4.7	4.8	4.6	4.3	4.5	4.9	5.3	5.4	4.8	5.0	4.7	4.3	4.2	5.0	5.0	5.0	5.1	5.5	5.7	5.5	5.3	5.1			
MAX	15.6	12.0	12.6	11.6	12.3	11.5	11.2	10.9	11.3	11.1	9.9	10.1	10.7	10.0	10.5	13.5	15.8	12.3	10.5	13.4	11.9	11.0	10.8	11.5			



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	720	
Maximum 1-HR Average	15.8 UG/M3	
Maximum 24-HR Average	10.2 UG/M3	
IZS Calibration Time		Operational Time
Down Time	0	Operational Uptime
Standard Deviation	3.064	Monthly Average
		720 HRS
		100.0 %
		4.9 UG/M3

West PM₁₀ (µg/m³) – November 2022

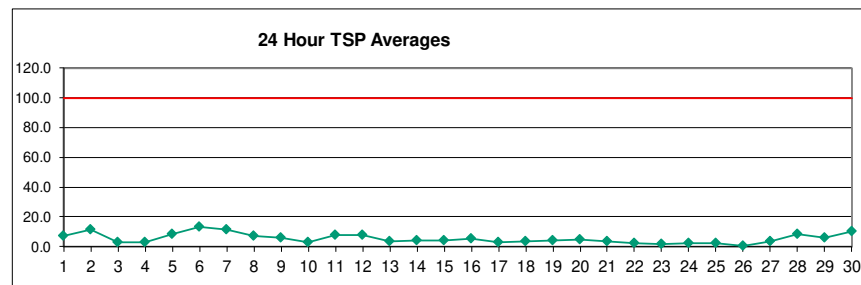
Hour																										
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	Max
1	1.2	1.1	1.1	1.1	4.3	5.5	3.4	14.0	11.9	14.8	8.8	11.1	2.6	3.2	2.6	8.1	7.4	4.9	6.9	10.6	12.3	9.5	9.2	9.5	6.9	14.8
2	23.0	13.9	12.2	17.2	14.3	10.0	14.5	10.0	9.3	10.7	12.2	12.0	14.4	6.7	5.6	6.9	10.2	5.4	5.7	6.7	8.1	6.0	13.8	5.5	10.6	23.0
3	3.1	3.1	5.8	3.0	2.4	2.3	2.3	2.4	2.7	2.6	2.9	4.0	4.2	3.7	3.4	3.9	4.9	5.1	4.8	5.5	5.7	6.3	7.0	7.4	4.1	7.4
4	7.3	6.6	6.2	6.2	6.6	7.0	6.8	6.9	6.8	6.0	5.8	4.6	3.5	3.1	3.0	2.2	2.3	2.6	2.5	2.3	2.6	2.6	2.1	4.5	7.3	
5	2.9	1.8	1.8	1.6	1.8	1.5	1.6	5.7	10.7	6.8	0.9	11.1	11.6	14.2	10.3	11.0	12.7	10.3	12.9	10.0	10.1	10.2	10.4	14.5	7.8	14.5
6	10.7	10.5	9.4	10.4	17.7	12.3	15.4	16.0	13.5	15.3	14.0	13.5	15.5	8.8	10.5	14.0	8.0	8.5	11.4	10.9	9.8	8.4	7.7	8.9	11.7	17.7
7	12.2	8.0	8.7	11.0	11.4	12.7	12.2	13.4	12.7	14.0	5.3	5.4	9.3	9.6	10.1	8.3	8.5	17.7	14.5	19.9	12.5	7.7	5.7	3.6	10.6	19.9
8	6.2	7.2	6.5	5.6	5.8	5.7	5.3	7.0	7.2	6.6	6.7	6.5	6.1	6.3	7.0	18.1	10.4	11.7	10.0	11.9	10.6	11.9	11.6	9.0	8.4	18.1
9	5.7	3.7	3.2	10.9	2.5	2.2	2.2	2.6	3.5	3.8	4.9	4.3	5.4	3.0	2.4	16.5	15.6	11.2	11.9	12.6	15.9	13.7	9.1	5.3	7.2	16.5
10	2.7	1.9	1.3	1.1	1.2	0.7	1.1	1.1	1.7	2.3	2.5	4.2	4.0	3.7	5.8	3.5	3.9	3.6	3.8	5.5	7.9	9.4	10.7	10.7	3.9	10.7
11	11.5	12.9	13.6	12.2	12.7	13.4	13.5	12.0	12.0	11.0	11.3	12.0	9.7	9.0	8.4	7.8	8.0	8.3	9.3	9.2	9.7	10.0	10.4	10.9	10.8	13.6
12	10.1	10.1	9.6	10.2	10.5	10.7	10.7	10.7	10.5	10.4	11.2	12.6	11.8	11.6	12.4	14.4	15.9	9.3	14.5	14.4	12.1	11.8	10.6	11.5	15.9	
13	10.1	9.4	8.6	8.0	7.5	6.8	6.3	5.8	6.0	5.7	4.7	4.3	3.3	2.6	2.1	1.9	2.9	5.7	2.9	4.4	4.8	5.4	5.5	5.9	5.4	10.1
14	6.0	5.8	6.7	6.0	6.0	6.1	6.2	6.7	7.2	8.3	7.4	6.7	6.0	5.3	4.9	4.7	5.1	5.8	6.1	6.1	5.6	5.2	4.6	4.6	6.0	8.3
15	4.0	4.1	3.6	3.4	4.3	3.6	3.7	4.1	5.4	6.0	4.9	5.0	6.1	5.8	6.3	7.0	7.5	8.1	6.2	7.9	7.0	7.2	6.9	7.1	5.6	8.1
16	6.3	6.2	6.2	4.9	4.8	5.7	5.5	7.6	8.0	7.3	8.0	8.3	6.7	7.5	7.5	5.6	1.4	5.1	8.2	10.9	9.3	7.4	6.4	10.5	6.9	10.9
17	10.8	6.8	5.9	5.6	4.0	2.6	2.2	1.8	1.8	1.6	1.5	1.8	3.0	3.1	2.9	2.8	2.6	2.5	2.7	2.7	3.1	2.9	2.7	2.4	3.3	10.8
18	2.5	2.1	3.2	3.5	2.7	2.0	2.1	2.0	4.0	4.8	4.7	4.8	5.0	4.4	3.4	3.4	4.8	4.4	3.9	4.6	5.4	4.2	4.3	3.7	3.7	5.4
19	2.9	3.1	3.5	4.5	7.2	5.3	4.4	5.4	4.3	5.9	6.9	6.3	6.1	5.9	4.4	4.2	4.3	5.4	5.0	5.0	5.4	5.6	5.4	5.4	5.1	7.2
20	5.7	5.8	6.0	5.9	6.3	6.6	6.9	7.0	7.2	7.0	7.9	8.3	8.7	8.5	8.5	8.5	8.6	7.9	7.4	6.9	7.1	6.8	7.0	7.0	7.2	8.7
21	6.7	6.2	6.9	6.6	6.4	6.3	6.8	8.1	8.3	5.6	5.1	5.6	4.3	3.5	3.1	2.8	2.7	2.4	2.2	2.9	3.2	3.3	2.9	2.6	4.8	8.3
22	3.4	4.0	4.9	4.5	5.1	5.4	3.3	4.1	5.3	5.4	5.6	3.8	1.6	1.1	1.3	1.7	1.9	2.8	3.2	2.4	3.4	3.9	3.5	2.6	3.5	5.6
23	2.2	2.2	2.5	2.2	2.3	2.6	2.9	3.7	4.5	2.3	1.8	3.3	2.2	1.4	1.9	2.3	1.8	1.8	1.5	1.8	1.6	1.8	2.2	1.5	2.3	4.5
24	4.8	3.5	6.1	4.3	3.3	3.6	3.1	2.2	2.2	2.3	2.5	2.6	3.0	1.8	1.1	1.0	1.5	1.2	1.2	1.3	1.3	1.3	1.5	1.5	2.4	6.1
25	1.6	1.6	1.2	1.1	0.8	0.9	0.9	0.9	0.9	1.0	1.5	1.2	1.0	1.5	2.6	3.7	3.7	5.3	4.8	7.4	8.4	10.2	3.7	0.4	2.8	10.2
26	0.4	0.5	0.5	0.4	0.5	0.6	1.0	1.1	1.0	1.5	1.7	1.3	1.3	1.3	0.9	0.7	1.0	1.2	1.3	1.2	0.8	0.8	0.9	1.0	1.0	1.7
27	0.9	1.0	1.1	0.9	0.5	0.5	0.6	0.5	3.5	7.4	7.5	5.9	5.8	3.7	2.2	2.1	4.8	4.5	1.4	3.4	5.4	6.9	8.5	7.1	3.6	8.5
28	3.3	9.0	10.5	8.1	3.3	3.2	5.6	4.7	16.5	16.3	13.3	9.7	2.7	3.0	2.4	2.8	6.2	2.6	17.5	6.8	6.6	4.4	2.4	3.5	6.8	17.5
29	1.2	2.0	3.4	2.0	2.2	2.6	3.1	3.5	3.6	4.2	3.5	7.1	6.8	10.9	9.6	9.6	9.5	10.9	12.3	6.7	7.6	8.2	8.7	8.6	6.2	12.3
30	8.0	6.0	8.0	7.3	6.1	6.7	8.5	8.7	8.3	9.4	8.9	9.2	8.7	12.4	13.1	17.2	20.3	15.3	12.9	10.9	12.1	11.1	8.7	10.6	10.4	20.3
No. Mean Max	30	5.9	5.3	5.6	5.7	5.5	5.2	5.4	6.0	6.7	6.9	6.1	6.5	6.0	5.3	6.5	6.6	6.6	6.8	7.1	7.3	6.8	6.5	6.1	720	100%
	23.0	13.9	13.6	17.2	17.7	13.4	15.4	16.0	16.5	16.3	14.0	13.5	15.5	14.2	13.1	18.1	20.3	17.7	17.5	19.9	15.9	13.7	13.8	14.5		



Number of Non-Zero Readings	720		
Maximum 1-HR Average	23.0 UG/M3		
Maximum 24-HR Average	11.7 UG/M3		
IZS Calibration Time		Operational Time	720 HRS
Down Time	0	Operational Uptime	100.0 %
Standard Deviation	4.0	Monthly Average	6.2 UG/M3

West TSP (µg/m³) – November 2022

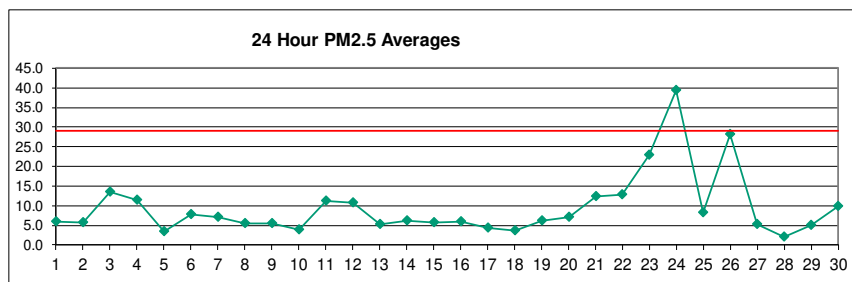
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.8	0.9	0.9	0.8	4.6	5.9	2.9	15.5	12.0	15.6	8.6	12.0	2.4	2.8	2.1	8.4	7.4	4.7	7.0	11.4	13.5	10.6	10.3	10.4	7.1	15.6
2	26.6	15.5	13.3	19.5	15.7	10.4	16.8	10.5	9.7	11.3	13.7	13.9	16.6	7.2	5.4	6.6	10.9	4.5	4.6	4.6	7.0	5.3	15.4	5.3	11.3	26.6
3	2.3	2.4	4.1	2.0	1.6	1.5	1.6	1.6	1.9	1.8	2.0	2.7	2.9	2.7	2.5	3.1	4.0	4.1	3.6	4.4	4.1	4.2	4.6	4.8	2.9	4.8
4	5.1	4.3	4.2	4.0	4.3	4.5	4.4	4.5	4.4	3.9	3.8	3.0	2.4	2.1	2.1	1.5	1.5	1.8	1.6	1.5	1.8	1.9	1.9	1.4	3.0	5.1
5	2.0	1.2	1.2	1.1	1.1	1.0	1.1	4.8	10.9	6.1	0.6	12.3	13.2	16.0	11.1	12.2	14.3	11.7	14.8	11.5	11.8	11.7	11.6	16.3	8.3	16.3
6	12.1	11.7	10.5	11.2	20.4	14.0	17.7	18.1	15.1	17.6	15.7	15.5	17.8	9.3	11.5	15.9	8.3	9.0	12.4	12.0	11.0	9.3	7.5	9.0	13.0	20.4
7	13.0	8.6	9.0	12.6	13.2	14.5	13.9	15.3	14.5	15.7	5.1	5.1	10.4	10.5	11.4	9.1	9.2	20.4	16.7	23.0	14.2	7.1	5.3	2.9	11.7	23.0
8	5.7	6.5	5.3	3.8	4.6	4.3	3.5	5.0	5.3	4.4	4.6	4.8	4.3	4.8	6.4	15.8	10.3	10.0	9.4	12.0	11.6	10.1	8.5	6.4	7.0	15.8
9	3.8	2.5	2.1	7.1	1.7	1.5	1.5	1.9	2.9	3.2	3.4	3.1	3.8	2.1	1.7	16.4	15.5	10.4	12.9	14.1	12.0	9.5	6.3	3.5	6.0	16.4
10	1.8	1.3	0.9	0.8	0.9	0.4	0.8	0.9	1.5	1.9	2.0	3.3	3.0	2.7	3.8	2.3	2.8	2.6	2.6	3.7	5.4	6.5	7.1	7.0	2.8	7.1
11	7.6	9.2	9.9	8.5	9.5	11.3	12.2	9.2	9.8	8.5	8.6	9.8	7.3	6.6	5.8	5.2	5.5	5.7	6.5	6.2	6.5	6.7	7.1	7.8	8.0	12.2
12	6.6	6.7	6.3	6.7	6.6	6.9	7.0	6.9	6.9	6.8	6.8	7.4	8.7	8.1	7.9	9.0	13.9	13.6	6.4	9.5	9.7	7.9	7.7	6.9	8.0	13.9
13	6.6	6.1	5.6	5.2	4.9	4.4	4.1	3.8	3.9	3.9	3.1	3.2	2.3	1.8	1.5	1.3	2.2	5.8	2.3	3.1	3.3	3.6	3.7	3.9	3.7	6.6
14	3.9	3.8	4.3	3.9	3.9	3.9	4.0	4.6	5.3	6.9	5.3	4.8	4.4	3.9	3.7	3.7	4.4	4.9	4.3	4.2	3.8	3.5	3.1	3.1	4.2	6.9
15	2.6	2.8	2.4	2.3	2.8	2.3	2.4	2.7	4.2	5.4	3.6	3.6	4.6	4.7	6.0	6.7	7.3	7.2	4.3	5.5	4.9	5.0	4.7	4.8	4.3	7.3
16	4.1	4.1	4.0	3.2	3.1	3.8	3.6	5.3	6.8	5.4	6.2	6.2	4.7	5.4	5.2	4.7	1.1	5.3	8.8	12.1	8.7	6.3	5.6	10.4	5.6	12.1
17	10.5	5.6	4.0	3.8	2.6	1.7	1.4	1.1	1.1	0.9	1.3	2.6	2.9	2.7	2.6	2.4	2.3	2.5	2.4	3.0	2.7	2.3	2.0	2.0	2.7	10.5
18	2.0	1.7	2.4	3.1	2.5	1.6	1.6	1.6	4.2	5.0	5.2	4.9	5.0	4.3	3.1	3.1	5.1	4.2	3.2	3.6	4.1	3.3	3.3	2.7	3.4	5.2
19	2.0	2.3	2.7	4.3	7.8	5.4	4.1	5.5	3.7	5.8	7.3	6.1	5.9	5.7	3.4	3.0	3.1	4.0	3.5	3.5	3.8	4.0	3.7	3.6	4.3	7.8
20	3.8	3.8	3.9	3.8	4.1	4.3	4.5	4.6	4.8	4.6	5.5	5.8	6.0	5.8	5.9	5.8	5.9	5.3	4.9	4.6	4.8	4.5	4.6	4.6	4.8	6.0
21	4.4	4.0	4.6	4.4	4.2	4.2	4.7	6.7	7.4	3.8	3.3	3.9	2.9	2.4	2.1	1.9	1.9	1.7	1.5	1.9	2.1	2.2	1.9	1.7	3.3	7.4
22	2.3	2.6	3.2	3.0	3.9	4.6	2.2	2.7	3.5	3.6	3.9	2.8	1.1	0.8	0.9	1.3	1.3	2.1	2.3	1.7	2.2	2.5	2.3	1.7	2.4	4.6
23	1.4	1.4	1.7	1.4	1.5	1.7	2.1	3.0	4.1	1.7	1.3	3.1	1.9	1.1	1.7	2.0	1.5	1.3	1.1	1.4	1.1	1.5	2.1	1.2	1.8	4.1
24	5.3	3.8	6.8	4.6	3.5	3.9	3.0	1.9	1.7	1.7	2.1	2.7	1.3	0.7	0.7	1.3	0.9	0.8	0.8	0.8	0.8	1.0	1.0	1.0	2.2	6.8
25	1.1	1.1	0.9	0.7	0.6	0.6	0.7	0.6	0.6	0.8	1.2	0.9	0.7	1.0	1.9	2.6	2.6	4.0	3.6	7.2	7.9	10.2	3.1	0.2	2.3	10.2
26	0.3	0.4	0.4	0.2	0.4	0.4	0.8	0.9	0.7	1.2	1.5	1.1	1.2	1.1	0.7	0.6	0.9	1.1	1.2	1.0	0.6	0.6	0.6	0.7	0.8	1.5
27	0.6	0.8	0.8	0.6	0.4	0.4	0.4	0.4	3.6	8.4	8.5	6.6	6.4	3.6	2.0	2.0	4.4	4.0	1.0	3.1	5.6	5.1	7.2	5.7	3.4	8.5
28	2.8	8.9	10.7	7.8	3.0	3.1	5.3	5.0	19.2	18.9	15.3	10.9	2.4	2.8	2.2	2.6	6.8	2.6	39.6	7.9	7.4	4.3	2.0	3.7	8.1	39.6
29	1.1	1.9	3.3	1.4	1.6	1.8	2.4	3.0	3.1	3.1	2.5	5.7	6.0	9.1	7.9	8.3	9.8	12.4	13.0	6.9	8.0	8.6	9.4	9.2	5.8	13.0
30	8.3	5.9	8.3	7.8	5.9	6.1	8.5	9.1	8.3	9.2	9.0	7.4	8.0	12.8	13.5	16.8	19.8	17.5	14.4	10.9	13.2	12.3	9.9	9.2	10.5	19.8
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	5.0	4.4	4.6	4.7	4.7	4.4	4.6	5.2	6.0	6.2	5.3	5.8	5.4	4.9	4.6	5.8	6.2	6.2	7.0	6.5	6.5	5.7	5.5	5.0		
MAX	26.6	15.5	13.3	19.5	20.4	14.5	17.7	18.1	19.2	18.9	15.7	15.5	17.8	16.0	13.5	16.8	19.8	20.4	39.6	23.0	14.2	12.3	15.4	16.3		



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	720	
Maximum 1-HR Average	39.6 UG/M3	
Maximum 24-HR Average	13.0 UG/M3	
IZS Calibration Time		Operational Time
Down Time	0	Operational Uptime
Standard Deviation	4.486	Monthly Average
		720 HRS
		100.0 %
		5.4 UG/M3

Berm PM_{2.5} (µg/m³) – November 2022

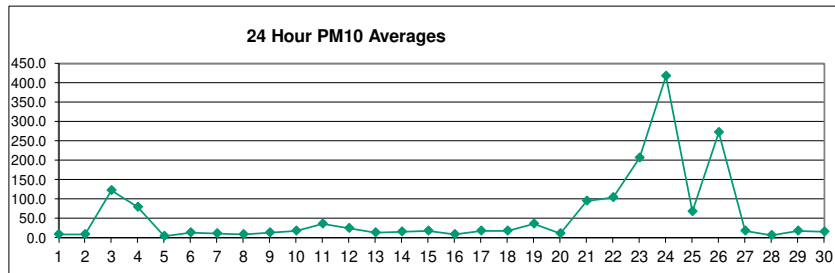
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.4	0.8	1.2	0.8	0.6	3.1	6.7	7.4	1.6	3.7	5.7	7.4	13.8	8.1	7.7	7.7	10.5	11.8	12.4	5.9	5.3	5.5	7.2	6.3	5.9	13.8
2	12.1	3.7	6.3	7.5	5.6	8.6	8.0	10.7	10.1	13.9	7.4	8.8	5.1	2.9	2.8	1.7	1.7	2.2	7.5	3.2	2.2	1.6	1.3	1.4	5.7	13.9
3	1.4	1.5	3.7	3.2	2.0	2.2	2.1	2.9	2.6	3.2	4.2	8.6	9.6	11.8	17.8	28.4	34.7	29.3	31.3	38.4	22.5	20.6	25.7	17.3	13.5	38.4
4	26.1	14.5	17.1	9.8	9.1	15.0	14.5	14.3	16.7	16.5	10.6	11.2	9.7	10.7	10.9	12.3	7.8	10.5	8.0	9.2	6.5	3.5	5.9	1.8	11.3	26.1
5	2.1	1.6	2.0	3.3	1.6	1.5	1.8	2.2	2.2	7.6	3.8	9.1	6.4	6.6	1.2	1.8	2.6	2.9	3.2	3.3	3.5	4.0	3.8	3.6	3.4	9.1
6	3.2	3.1	2.9	2.5	2.5	2.6	4.8	6.8	9.7	12.6	6.7	6.9	5.8	6.3	7.5	5.1	5.4	9.7	19.3	12.0	13.0	18.4	9.2	9.5	7.7	19.3
7	10.0	16.9	8.7	15.4	13.7	11.3	5.8	7.3	4.8	2.6	4.5	5.1	7.9	6.8	10.5	10.4	8.5	5.5	4.7	3.6	3.3	2.0	1.3	1.2	7.2	16.9
8	1.4	1.4	1.6	2.4	3.5	3.3	2.7	3.5	5.9	8.1	5.6	7.1	5.3	6.4	9.7	9.5	5.6	6.4	6.5	5.2	7.2	7.8	8.8	7.1	5.5	9.7
9	5.0	4.1	2.9	2.9	2.5	3.0	2.6	2.8	3.4	2.6	3.7	3.5	3.9	7.1	3.7	12.9	7.9	7.8	9.0	8.5	10.3	9.7	5.8	3.9	5.4	12.9
10	1.7	1.3	1.1	1.3	1.0	0.9	1.2	1.2	1.8	2.4	2.6	4.3	4.3	7.8	6.9	4.8	2.9	2.6	4.4	6.1	6.5	7.2	8.5	9.5	3.8	9.5
11	10.4	10.9	11.8	10.5	10.8	10.3	10.3	10.8	11.3	12.1	14.8	14.6	17.7	19.1	12.3	9.6	8.0	9.4	8.3	8.5	9.0	9.6	9.7	9.7	11.2	19.1
12	9.3	9.4	9.6	9.4	9.3	9.4	9.6	10.7	11.6	10.5	13.4	14.0	17.5	14.3	9.6	11.4	7.3	6.8	15.4	15.2	9.0	9.1	9.2	8.7	10.8	17.5
13	8.0	7.7	7.1	7.0	6.1	5.6	5.4	5.6	5.0	4.5	4.5	4.0	4.4	4.1	6.3	4.2	2.7	2.6	2.6	3.9	5.2	5.3	5.4	8.4	5.2	8.4
14	5.9	5.3	5.6	5.2	5.0	5.3	5.8	5.9	11.4	14.9	9.0	8.1	6.5	6.3	5.9	6.4	5.2	5.2	4.1	3.6	3.7	4.0	4.1	4.1	6.1	14.9
15	3.7	3.5	3.3	3.5	3.0	3.1	5.1	6.7	7.1	6.5	8.1	10.1	8.4	8.9	6.5	4.7	6.1	6.0	7.3	6.3	4.7	3.7	4.5	4.4	5.6	10.1
16	5.5	5.5	4.8	4.2	4.5	4.3	7.4	6.9	11.0	7.4	7.6	7.2	8.2	17.7	4.5	3.1	1.7	1.9	1.5	4.7	11.4	3.4	2.2	2.2	6.0	17.7
17	1.6	2.0	7.7	6.9	3.0	2.6	4.5	1.9	7.0	7.1	4.1	2.8	3.8	4.2	9.5	5.8	4.0	4.4	4.3	4.6	5.9	3.4	2.6	2.4	4.4	9.5
18	2.7	2.4	2.0	2.3	2.7	2.7	2.1	2.2	2.7	2.5	4.4	3.2	6.6	7.6	4.0	4.1	4.8	4.0	4.1	4.5	6.1	3.8	3.3	3.1	3.7	7.6
19	3.3	2.8	2.4	2.8	6.6	6.6	7.4	4.9	6.2	4.7	6.2	7.0	9.4	12.3	11.2	9.4	5.5	4.1	5.2	6.1	5.0	5.9	6.8	6.5	6.2	12.3
20	6.7	6.2	5.6	5.7	5.9	6.2	6.2	7.8	7.1	6.9	7.1	7.6	7.8	7.6	7.5	9.1	7.9	7.8	7.7	7.1	7.0	6.7	6.5	6.5	7.0	9.1
21	7.1	9.3	6.0	5.8	5.8	5.6	5.6	5.6	7.1	10.2	26.3	17.1	14.0	12.7	17.7	29.2	16.8	21.0	24.4	10.8	14.3	4.6	10.8	11.2	12.5	29.2
22	8.4	5.9	5.3	5.2	22.4	50.7	33.4	4.7	4.7	11.4	22.7	26.0	17.6	14.3	9.2	8.4	13.5	7.6	6.6	3.3	3.6	4.3	8.7	8.0	12.7	50.7
23	3.4	2.0	2.8	2.0	2.0	2.5	1.9	2.9	5.0	18.4	29.6	27.3	31.6	19.2	29.7	25.4	21.6	37.1	24.0	23.1	77.9	105.3	50.6	50.6	22.8	105.3
24	67.2	93.3	83.7	80.4	78.3	126.0	75.7	47.8	38.8	35.6	22.8	24.4	8.9	14.0	16.2	23.3	20.8	14.6	22.5	12.1	10.1	9.5	10.8	9.0	39.4	126.0
25	5.5	11.5	16.8	22.9	18.4	13.2	17.2	17.6	15.9	7.7	6.4	5.7	2.9	3.4	1.4	1.9	3.5	3.9	4.0	2.0	2.0	2.6	4.8	9.3	8.3	22.9
26	6.8	8.1	10.0	6.7	18.9	2.5	4.3	2.9	12.8	13.2	27.5	35.7	38.4	84.7	50.2	52.3	49.3	59.5	60.1	48.4	27.1	9.7	30.3	14.2	28.1	84.7
27	3.8	4.3	8.2	2.5	1.0	0.9	2.3	2.1	3.5	1.8	15.3	29.0	31.8	7.0	0.7	0.8	1.2	1.5	1.2	1.5	1.3	1.6	1.0	1.5	5.2	31.8
28	1.4	2.3	3.7	1.9	1.0	0.7	1.7	1.4	3.4	10.3	2.5	1.5	1.3	1.7	1.5	1.9	2.4	0.8	0.9	1.7	2.0	1.1	1.4	0.7	2.0	10.3
29	0.3	0.2	0.3	0.6	1.5	2.1	3.4	2.7	4.9	12.0	11.3	7.7	6.5	10.7	12.1	8.0	8.6	6.7	5.8	4.5	5.2	2.9	2.7	2.3	5.1	12.1
30	4.3	6.3	6.4	15.3	13.3	6.1	8.1	9.7	9.8	12.0	11.3	9.7	19.1	9.8	12.9	13.0	13.9	11.8	8.6	8.4	7.4	6.7	5.3	5.8	9.8	19.1
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	7.6	8.3	8.3	8.3	8.7	10.6	8.9	7.3	8.1	9.0	9.9	11.2	11.0	11.9	10.3	11.1	9.9	9.7	11.3	9.1	7.9	8.8	10.5	7.7		
MAX	67.2	93.3	83.7	80.4	78.3	126.0	75.7	47.8	38.8	35.6	27.5	35.7	38.4	84.7	50.2	52.3	49.3	59.5	60.1	48.4	27.1	77.9	105.3	50.6		



Number of 24HR Exceedences	1	Proposed Guideline	
Number of Non-Zero Readings	720		
Maximum 1-HR Average	126.0 UG/M3		
Maximum 24-HR Average	39.4 UG/M3		
		Operational Time	720 HRS
Monthly Calibration	0	Operational Uptime	100.0 %
Standard Deviation	12.5	Monthly Average	9.4 UG/M3

Berm PM₁₀ (µg/m³) – November 2022

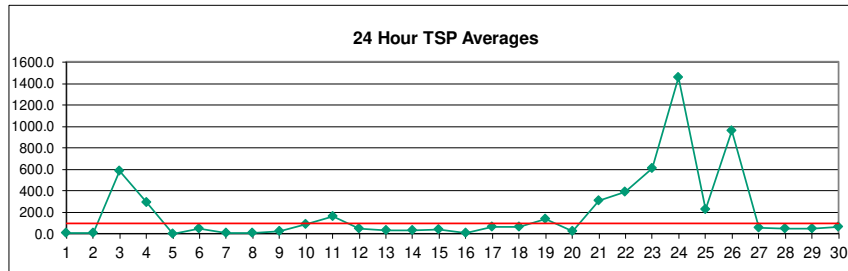
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.5	2.0	6.3	2.1	1.3	8.3	10.8	10.9	2.0	5.3	8.1	10.7	20.0	12.0	11.4	11.4	15.5	17.4	18.2	8.3	7.4	7.9	10.5	9.2	9.1	20.0
2	17.9	5.0	8.7	10.5	7.6	12.1	11.2	15.3	13.2	19.4	10.4	12.9	7.2	3.9	3.9	2.1	2.7	10.5	4.1	2.5	1.8	1.5	1.5	7.8	19.4	
3	1.6	1.7	4.8	4.3	2.3	2.7	2.5	3.8	3.4	11.1	25.0	67.4	74.4	116.6	206.2	343.7	388.4	317.7	327.9	370.7	189.1	158.1	183.3	122.1	388.4	
4	253.5	106.2	146.7	45.8	31.5	90.2	87.4	85.2	107.5	115.6	66.8	77.9	70.7	85.3	76.3	97.9	65.7	77.6	63.1	74.4	42.2	12.7	8.3	2.0	78.8	253.5
5	2.6	1.9	2.5	4.6	1.9	1.8	2.4	2.4	2.4	10.7	5.5	13.2	9.2	9.5	1.2	2.0	3.0	3.2	3.4	3.5	3.8	4.5	4.5	4.1	4.3	13.2
6	3.6	3.5	3.2	2.9	2.8	3.0	6.3	9.4	13.9	18.2	9.3	12.5	20.2	20.0	17.2	10.7	7.4	13.8	28.2	17.2	18.8	26.8	12.8	13.0	12.3	28.2
7	13.6	24.2	11.3	21.9	19.7	16.2	7.9	10.1	6.4	3.0	5.9	6.8	11.1	9.6	15.0	15.1	12.1	7.6	6.4	4.8	3.8	2.1	1.3	1.3	9.9	24.2
8	1.5	1.5	1.9	3.1	4.6	4.1	3.4	4.6	8.6	12.0	8.1	10.6	8.2	14.7	14.4	13.5	7.6	8.7	8.8	6.7	9.1	10.7	12.6	9.3	7.8	14.7
9	6.4	5.6	3.6	3.6	3.3	4.1	3.5	3.7	4.9	3.5	21.6	18.8	12.2	35.0	9.6	30.3	12.2	19.1	24.9	16.1	14.9	13.4	7.8	5.3	11.8	35.0
10	2.1	1.5	1.3	1.8	1.3	1.1	1.6	1.7	4.7	9.3	17.6	19.9	17.2	73.9	64.3	39.6	8.5	4.3	30.2	43.9	19.2	9.9	9.6	10.8	16.5	73.9
11	11.7	13.3	13.6	11.2	12.6	12.1	12.1	13.5	15.0	27.6	80.2	89.9	151.1	171.9	68.5	46.9	17.5	37.7	12.9	9.2	10.1	11.8	12.4	12.2	36.5	171.9
12	9.8	9.8	10.3	10.1	9.5	9.6	10.3	17.6	23.6	20.9	46.3	59.2	98.9	74.2	27.0	39.2	10.0	7.2	40.5	26.3	11.0	10.8	12.3	9.7	25.2	98.9
13	8.4	8.3	7.5	7.9	6.4	5.9	5.5	6.6	5.6	4.8	6.3	7.9	19.2	26.1	69.9	37.3	5.1	2.7	2.7	6.5	13.2	9.5	6.7	11.5	12.1	69.9
14	6.8	5.9	6.4	6.0	5.4	6.0	7.1	7.5	16.6	22.2	46.5	46.5	39.3	35.4	32.7	24.6	7.8	6.0	4.3	4.1	4.2	4.8	4.9	4.8	14.8	46.5
15	4.1	3.8	3.6	4.1	3.2	3.2	6.8	9.4	10.4	14.7	55.2	62.2	45.0	51.6	33.9	16.8	28.1	16.8	9.2	7.7	5.2	4.2	5.2	4.8	17.1	62.2
16	6.4	6.2	5.2	4.5	5.0	4.7	10.5	9.6	15.4	10.4	10.9	11.0	10.4	12.0	26.4	6.2	4.5	2.1	2.5	1.8	5.0	11.7	3.5	2.3	7.8	26.4
17	1.6	2.4	11.0	9.5	3.6	2.9	6.2	2.3	10.3	10.5	21.7	12.3	24.1	25.2	83.7	47.2	23.8	20.7	20.9	21.3	47.4	20.5	7.0	6.4	18.4	83.7
18	10.3	10.2	7.0	11.1	13.7	16.3	7.4	6.6	17.5	12.9	21.0	18.7	59.7	72.9	24.2	20.8	17.1	12.5	9.6	12.9	14.0	10.3	6.1	5.9	17.4	72.9
19	8.0	5.4	4.2	5.0	47.3	46.9	54.0	26.6	38.0	19.1	37.3	44.9	78.5	127.5	105.0	78.6	24.0	7.6	14.5	25.1	8.3	13.8	21.9	22.8	36.0	127.5
20	19.1	10.5	6.5	6.3	7.1	7.4	7.4	17.3	11.6	9.2	10.2	14.0	13.2	12.1	12.0	27.3	18.7	13.3	14.4	10.7	9.8	8.2	8.1	7.7	11.7	27.3
21	16.6	58.7	7.4	6.7	6.4	7.2	6.6	7.6	16.5	52.8	257.7	175.6	139.5	103.3	154.7	271.8	149.6	200.4	234.2	93.6	108.0	21.5	93.1	96.6	95.3	271.8
22	65.4	27.2	17.8	16.2	216.5	544.5	327.9	14.1	10.7	93.4	217.4	222.6	143.5	110.4	73.4	61.1	108.0	44.9	39.3	11.2	9.6	13.7	59.1	65.9	104.7	544.5
23	11.1	2.9	7.1	3.3	2.8	2.5	7.1	2.8	8.4	37.3	166.4	262.1	219.1	280.5	161.5	285.1	229.1	201.9	338.3	229.5	204.0	748.4	1056.5	484.5	206.4	1056.5
24	735.8	1005.8	928.1	893.4	889.8	1485.3	905.7	553.6	386.0	336.1	206.1	220.1	66.5	107.7	152.7	235.3	188.3	143.5	176.9	90.9	91.6	73.5	96.4	73.5	418.4	1485.3
25	40.0	102.0	154.8	226.4	171.5	130.0	156.2	154.7	152.8	75.2	60.5	51.8	16.0	14.0	1.8	2.7	4.9	5.1	5.3	2.6	2.7	3.6	7.0	80.4	67.6	226.4
26	57.6	62.5	75.3	49.3	128.2	16.4	54.5	25.1	109.3	144.2	280.0	353.5	406.0	926.0	502.3	510.1	468.3	584.4	622.0	512.4	248.1	82.5	223.6	94.2	272.3	926.0
27	22.7	25.8	51.8	14.0	4.8	2.5	19.5	18.6	18.2	10.9	91.0	43.3	47.6	10.1	0.8	0.9	1.3	1.5	1.2	1.6	1.5	1.7	1.2	1.7	16.4	91.0
28	1.6	2.7	4.8	2.8	1.3	1.5	3.3	3.2	11.9	50.1	11.0	4.1	2.8	4.9	4.1	6.1	11.8	2.0	2.4	8.0	5.7	2.5	2.4	2.9	6.4	50.1
29	0.6	0.3	0.4	0.9	2.4	2.7	4.9	3.5	6.3	17.9	44.4	32.5	26.2	46.9	73.6	37.3	29.0	16.6	15.3	16.1	14.7	4.4	3.8	4.6	16.9	73.6
30	8.4	9.3	9.3	22.6	19.5	8.5	11.4	13.8	13.7	16.9	15.5	15.7	51.5	19.3	33.9	17.9	18.0	15.5	10.3	10.2	9.1	8.0	5.6	6.0	15.4	51.5
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	45.0	50.9	50.7	47.1	54.4	82.0	58.7	35.4	35.5	39.8	62.1	66.6	63.6	87.1	68.7	78.0	62.9	60.5	69.9	55.0	37.8	43.8	63.0	39.3		
MAX	735.8	1005.8	928.1	893.4	889.8	1485.3	905.7	553.6	386.0	336.1	280.0	353.5	406.0	926.0	502.3	510.1	468.3	584.4	622.0	512.4	248.1	748.4	1056.5	484.5		



Number of Non-Zero Readings	720
Maximum 1-HR Average	1485.3 UG/M3
Maximum 24-HR Average	418.4 UG/M3
Monthly Calibration	0
Standard Deviation	138.8
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	56.6 UG/M3

Berm TSP (µg/m³) – November 2022

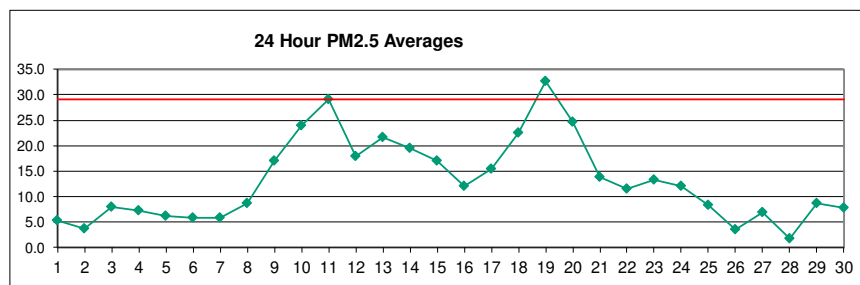
HOUR																										
DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	0.4	3.3	8.6	3.7	0.9	60.4	17.7	9.5	1.5	5.2	7.1	10.6	20.3	12.3	11.2	11.9	16.7	19.4	18.4	8.0	6.8	7.2	10.4	7.8	11.6	60.4
2	17.7	4.4	7.6	9.8	6.9	12.0	11.5	16.2	12.5	20.8	10.0	13.3	6.9	3.3	3.7	1.5	1.6	2.0	8.2	2.9	1.7	1.2	0.9	1.0	7.4	20.8
3	1.0	1.2	3.7	3.5	1.6	2.2	2.0	3.5	2.9	109.0	121.5	451.1	450.7	704.2	1152.4	1967.3	2215.9	1455.5	1439.3	1535.3	765.3	568.7	678.5	469.2	587.7	2215.9
4	1069.5	447.5	659.2	175.2	133.8	259.9	289.0	295.5	355.9	396.6	236.9	253.5	218.0	328.5	244.3	395.5	267.7	256.9	212.2	278.7	222.9	51.6	8.4	1.4	294.1	1069.5
5	2.1	1.5	2.0	4.6	1.3	1.3	2.2	1.7	1.7	11.4	6.2	14.8	10.0	10.1	0.8	1.3	1.9	2.1	2.2	2.3	2.5	3.0	3.0	2.7	3.9	14.8
6	2.4	2.3	2.1	1.9	2.0	2.2	5.1	7.9	14.4	19.6	7.9	95.2	294.0	324.6	170.9	94.0	5.9	15.0	31.6	19.2	20.4	29.4	12.7	13.2	49.8	324.6
7	14.1	26.7	11.0	24.5	22.3	16.5	8.1	10.2	6.1	2.4	5.2	6.2	11.9	10.0	16.1	17.2	13.6	7.9	5.9	4.5	2.8	1.4	0.9	0.8	10.3	26.7
8	1.0	1.0	1.3	2.5	3.8	3.1	2.8	4.0	8.9	12.7	8.3	11.5	8.9	26.9	15.7	12.6	6.5	7.5	7.0	5.0	6.5	9.1	12.1	7.6	7.8	26.9
9	5.3	5.6	2.9	3.0	2.9	3.9	3.4	3.5	5.2	3.2	86.4	53.7	23.5	66.7	26.1	52.8	14.9	20.8	38.2	27.5	13.1	10.3	6.7	4.9	20.2	86.4
10	1.6	1.1	1.0	1.7	1.1	0.9	1.4	1.4	48.2	94.9	232.2	199.9	67.9	400.6	354.7	163.5	18.2	5.0	183.7	243.5	79.1	21.0	10.4	28.6	90.1	400.6
11	29.5	31.7	10.7	7.9	10.0	9.5	9.6	11.5	14.0	61.7	429.0	409.8	1114.3	965.7	346.5	183.3	38.4	113.3	36.9	10.5	15.6	17.8	23.7	24.2	163.5	1114.3
12	11.3	10.3	10.2	10.5	7.1	7.3	13.5	23.6	26.8	43.6	84.7	142.1	286.9	233.2	67.4	87.6	10.8	5.7	91.2	31.1	12.1	9.7	14.3	6.6	52.0	286.9
13	5.7	5.7	4.9	5.9	4.3	4.0	3.6	5.5	4.3	6.3	9.8	22.4	78.3	82.6	279.2	134.2	9.9	1.7	1.8	7.0	15.2	6.5	5.0	11.5	29.8	279.2
14	5.2	4.2	4.7	4.2	3.7	4.3	5.9	6.5	18.0	25.0	103.9	110.9	118.6	103.8	80.9	57.5	12.3	4.7	2.8	3.3	5.3	5.5	3.6	3.6	29.1	118.6
15	2.8	2.6	2.5	3.1	2.2	2.2	6.4	9.8	11.3	43.5	188.0	171.3	122.6	135.5	78.9	34.3	62.6	29.0	8.4	5.7	3.5	2.9	3.5	3.2	39.0	188.0
16	4.6	4.4	3.5	3.1	3.6	3.1	10.6	9.1	15.1	9.4	9.9	10.9	9.6	11.3	29.2	5.5	4.0	1.6	2.0	1.3	3.4	7.6	2.2	1.5	6.9	29.2
17	1.1	1.9	11.4	9.2	2.7	2.0	5.7	1.6	11.5	11.8	58.7	84.3	81.9	142.5	297.9	159.7	63.4	50.4	66.2	73.4	169.2	93.3	28.7	46.4	61.5	297.9
18	59.2	66.2	43.5	58.9	64.9	112.9	41.2	32.7	119.0	37.8	84.5	72.7	223.3	250.5	68.3	60.8	39.0	34.8	19.0	36.9	32.3	26.7	17.6	12.2	67.3	250.5
19	20.6	19.5	9.8	20.8	197.6	286.4	308.2	144.0	174.5	96.2	175.0	154.6	284.7	443.0	367.5	299.8	67.7	12.5	42.1	87.8	21.0	28.0	66.6	67.4	141.5	443.0
20	47.7	30.4	5.4	4.9	9.7	11.9	8.5	74.4	37.4	27.4	14.2	49.0	19.7	26.5	21.7	77.3	48.3	26.8	25.5	18.3	20.9	10.9	18.5	8.6	26.8	77.3
21	46.5	233.5	15.0	6.9	5.9	7.9	9.4	8.4	50.5	176.5	808.7	543.8	406.6	330.9	424.7	910.8	520.9	714.2	765.9	360.3	325.6	76.7	378.3	366.3	312.3	910.8
22	275.1	85.5	50.6	62.5	881.6	2402.1	1308.7	38.7	24.1	365.7	843.9	814.0	469.4	321.0	207.2	205.4	291.4	134.4	90.3	19.4	12.0	35.9	206.5	268.1	392.2	2402.1
23	14.6	2.6	9.0	4.9	4.8	3.4	19.1	5.6	25.5	114.9	465.4	703.2	588.9	823.8	470.4	801.2	565.9	540.3	1023.6	699.1	591.7	1994.0	3297.6	1833.9	608.5	3297.6
24	2579.8	3374.6	3283.6	3096.1	3536.6	4049.8	3373.5	2312.5	1519.3	1275.3	717.8	641.1	197.4	334.6	587.5	915.3	711.1	551.3	576.3	244.4	283.6	202.7	331.8	206.9	1454.3	4049.8
25	87.8	303.9	561.1	805.7	629.2	408.6	530.1	527.0	589.9	319.7	209.8	236.9	42.1	29.4	1.5	2.3	4.6	3.8	4.6	1.9	2.1	2.9	7.0	248.5	231.7	805.7
26	164.5	129.3	103.7	121.5	270.3	31.0	267.4	94.4	341.0	486.7	932.3	1219.5	1464.2	3134.6	1969.3	1945.4	1922.3	2306.4	2413.3	1926.7	706.7	293.0	589.2	204.3	959.9	3134.6
27	105.7	65.8	91.1	54.3	8.6	2.6	46.4	67.5	40.2	37.9	743.7	49.4	53.5	11.5	0.5	0.6	0.8	1.0	0.8	1.0	1.0	1.1	0.8	1.1	57.8	743.7
28	1.1	1.9	3.5	4.1	2.6	3.5	17.4	41.4	220.9	711.2	88.9	30.2	7.2	5.0	7.5	7.8	25.3	3.0	3.7	23.8	12.7	15.0	15.2	4.4	52.4	711.2
29	1.5	0.2	0.7	6.2	5.6	4.2	4.7	2.7	6.0	20.8	360.1	117.9	98.4	94.6	262.5	77.1	57.6	22.8	31.5	32.4	21.0	7.5	4.7	9.4	52.1	360.1
30	14.5	10.5	9.4	25.4	21.2	8.3	10.9	14.8	13.7	17.5	15.6	97.2	589.5	199.8	426.2	47.8	32.3	16.1	8.7	8.1	6.8	5.8	3.6	3.9	67.0	589.5
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	153.1	162.6	164.5	151.5	195.0	257.6	211.5	126.2	124.0	152.1	235.5	226.4	245.6	318.9	266.4	291.0	235.0	212.2	238.7	190.6	112.8	118.2	192.1	129.0		
MAX	2579.8	3374.6	3283.6	3096.1	3536.6	4049.8	3373.5	2312.5	1519.3	1275.3	932.3	1219.5	1464.2	3134.6	1969.3	1967.3	2215.9	2306.4	2413.3	1926.7	765.3	1994.0	3297.6	1833.9		



Number of 24HR Exceedences	10	Proposed Guideline
Number of Non-Zero Readings	720	
Maximum 1-HR Average	4049.8 UG/M3	
Maximum 24-HR Average	1454.3 UG/M3	
IZS Calibration Time		Operational Time 720 HRS
Monthly Calibration	0	Operational Uptime 100.0 %
Standard Deviation	495.5	Monthly Average 196.3 UG/M3

Entrance PM_{2.5} (µg/m³) – November 2022

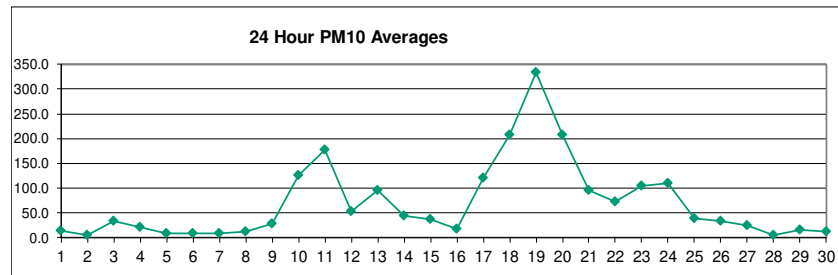
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	6.5	9.2	5.1	17.6	4.7	3.8	8.1	5.9	2.5	2.5	3.7	4.7	5.3	4.4	2.5	6.7	4.4	5.2	5.7	5.7	4.1	2.7	2.7	2.3	5.3	17.6
2	2.8	3.2	3.1	3.2	3.6	5.1	4.6	7.7	8.1	8.9	4.7	3.6	1.9	2.3	2.2	2.9	2.2	3.0	4.3	4.7	2.8	1.8	1.7	1.3	3.7	8.9
3	1.5	1.5	5.3	9.8	8.7	18.0	14.2	12.7	7.0	9.4	7.9	5.7	5.2	6.2	6.4	11.6	7.8	8.2	8.4	7.7	7.0	6.5	7.8	8.3	8.0	18.0
4	8.8	7.7	7.0	6.7	6.5	7.3	7.4	8.6	7.9	7.4	5.7	4.8	4.3	4.7	4.0	3.7	2.3	2.6	2.5	2.4	2.6	29.4	19.5	10.5	7.3	29.4
5	12.1	18.4	12.6	3.6	5.6	8.2	6.8	4.0	2.7	6.3	1.0	3.8	4.0	7.2	3.1	4.7	4.8	5.0	4.6	4.9	5.8	6.3	6.6	5.3	6.1	18.4
6	4.7	3.9	3.3	3.5	4.8	3.7	3.9	4.0	7.7	6.4	4.1	3.7	4.2	4.4	5.2	3.2	3.5	6.3	7.9	8.6	10.7	12.4	9.4	8.5	5.7	12.4
7	7.9	11.3	8.0	11.4	9.2	6.5	4.7	5.5	4.8	3.0	4.1	3.9	7.5	5.4	9.1	7.7	5.6	4.4	3.7	3.5	3.2	4.6	1.5	1.2	5.7	11.4
8	2.0	4.3	5.1	4.8	5.5	5.3	6.2	20.2	8.3	10.6	6.2	4.8	4.7	4.1	6.2	14.2	7.2	11.2	9.9	7.5	9.7	9.5	20.8	19.8	8.7	20.8
9	26.8	26.5	20.1	27.7	22.9	27.8	25.2	22.1	22.2	20.4	9.7	4.6	5.5	4.6	2.8	13.0	11.6	6.7	8.9	9.7	17.5	18.5	31.6	24.0	17.1	31.6
10	21.4	12.8	28.2	32.2	14.7	20.5	12.5	12.8	17.3	20.5	25.2	32.7	30.7	26.2	20.8	21.5	25.8	23.6	19.4	28.3	46.9	32.7	23.7	24.7	24.0	46.9
11	24.7	40.0	36.2	27.7	35.7	33.5	36.2	22.5	28.1	25.3	27.1	23.9	18.9	28.6	31.3	34.0	24.8	19.6	22.5	23.0	27.8	29.0	38.8		29.1	40.0
12	17.5	22.0	24.6	27.4	12.8	11.8	20.1	24.0	18.1	18.8	13.9	11.4	10.5	10.1	9.6	10.6	9.9	9.0	20.5	22.8	26.1	21.7	23.3	32.6	17.9	32.6
13	18.8	27.2	27.9	26.7	26.4	21.4	16.6	31.1	30.4	16.9	24.8	25.5	26.8	22.2	19.5	8.3	8.8	5.5	7.5	20.4	23.8	22.3	32.2	26.4	21.6	32.2
14	20.7	24.8	23.8	19.8	21.7	29.0	23.0	20.3	17.4	18.8	12.7	12.2	9.6	11.3	6.5	9.0	19.9	7.4	22.9	25.2	24.9	26.4	33.6	28.2	19.5	33.6
15	21.3	14.9	13.9	22.1	31.5	23.4	36.2	27.9	25.0	32.9	17.4	12.5	6.8	6.7	7.1	4.3	7.6	12.4	8.1	13.2	14.3	11.9	15.8	21.7	17.0	36.2
16	16.4	14.8	18.8	17.5	43.8	19.6	13.4	14.3	26.8	15.2	12.4	10.9	9.9	7.9	6.2	9.3	4.4	1.3	2.6	1.7	4.5	7.1	5.6	3.9	12.0	43.8
17	5.5	7.4	11.8	7.2	5.3	3.5	6.0	5.9	12.9	27.4	24.4	19.6	18.1	23.0	19.9	19.6	8.7	9.2	16.8	26.3	31.9	24.8	18.0	17.6	15.4	31.9
18	15.9	21.2	29.5	31.3	29.7	17.3	22.6	18.2	21.3	22.6	24.6	20.7	23.4	29.7	45.3	25.3	17.3	15.2	15.8	16.3	16.2	28.5	13.8	17.0	22.5	45.3
19	25.1	13.6	13.7	17.0	51.8	36.8	31.5	32.7	34.4	45.7	43.5	37.9	36.0	41.1	45.4	42.4	35.2	19.0	35.2	27.8	25.3	29.9	27.6	32.7	32.6	51.8
20	41.1	23.3	17.5	13.9	14.9	16.0	11.1	19.4	16.4	18.3	19.4	25.3	20.1	17.9	29.1	43.4	45.4	38.1	36.6	38.5	30.9	21.9	20.3	13.8	24.7	45.4
21	16.4	26.1	12.0	7.9	8.9	13.7	17.5	16.0	23.2	43.6	28.7	26.1	14.4	10.8	6.6	6.0	6.5	4.9	11.0	7.3	5.7	6.5	5.3	6.2	13.8	43.6
22	6.8	8.1	26.1	14.7	9.5	15.3	8.3	18.2	16.7	15.2	9.3	5.2	6.3	6.0	3.5	5.0	5.1	13.8	10.3	8.6	20.4	18.1	19.0	5.9	11.5	26.1
23	4.0	5.0	9.0	12.5	14.9	24.7	26.9	15.0	14.8	8.7	8.9	18.8	17.2	14.5	20.5	17.8	20.6	8.9	8.8	8.2	3.5	9.6	17.7	8.3	13.3	26.9
24	18.6	20.1	26.6	16.7	17.4	20.0	15.1	15.4	12.3	14.1	8.5	8.2	7.1	10.5	14.7	10.2	6.0	8.1	3.5	2.1	1.6	4.3	6.2	21.3	12.0	26.6
25	20.5	10.1	9.6	3.7	4.8	7.3	9.1	7.3	7.0	10.3	17.1	10.1	9.0	11.6	19.5	14.0	10.3	5.8	4.3	1.8	1.9	2.2	3.0	1.0	8.4	20.5
26	0.4	0.4	0.4	0.7	1.1	0.6	1.0	0.8	1.0	2.9	3.1	4.2	7.1	7.8	7.7	7.7	7.6	7.6	7.7	5.1	2.9	2.6	2.1	3.1	3.6	7.8
27	4.1	3.5	2.1	4.8	9.7	8.5	9.2	7.9	15.0	6.3	14.1	15.9	27.9	14.2	0.9	0.8	1.5	2.8	1.6	1.2	4.2	2.9	2.8	2.6	6.9	27.9
28	1.8	1.7	2.7	1.5	1.4	1.1	1.7	1.2	1.9	3.1	1.6	2.2	2.5	2.6	1.6	1.8	1.7	0.7	0.6	1.8	1.5	1.3	1.8	1.1	1.7	3.1
29	1.0	0.2	1.7	4.9	8.4	3.8	8.3	8.7	60.3	25.4	4.6	5.3	4.8	7.5	6.1	6.7	9.6	9.7	9.3	3.3	4.2	3.9	4.5	4.9	8.6	60.3
30	4.2	2.9	4.0	6.9	6.0	5.3	7.2	8.4	7.5	9.5	9.6	7.9	9.6	8.7	10.2	11.0	13.2	11.3	8.0	6.2	7.2	7.3	5.9	7.0	7.7	13.2
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	12.6	12.9	13.7	13.5	14.7	14.0	13.8	14.3	16.0	16.0	13.2	12.6	12.1	11.8	12.3	12.5	11.6	9.7	10.9	11.4	12.8	13.5	13.8	13.3		
MAX	41.1	40.0	36.2	32.2	51.8	36.8	36.5	32.7	60.3	45.7	43.5	37.9	36.0	41.1	45.4	43.4	45.4	38.1	36.6	38.5	46.9	32.7	33.6	38.8		



Number of 24HR Exceedences	2	Proposed Guideline
Number of Non-Zero Readings	720	
Maximum 1-HR Average	60.3 UG/M3	
Maximum 24-HR Average	32.6 UG/M3	
Monthly Calibration	0	
Standard Deviation	10.36	
Operational Time	720 HRS	
Operational Uptime	100.0 %	
Monthly Average	13.0 UG/M3	

Entrance PM₁₀ (µg/m³) – November 2022

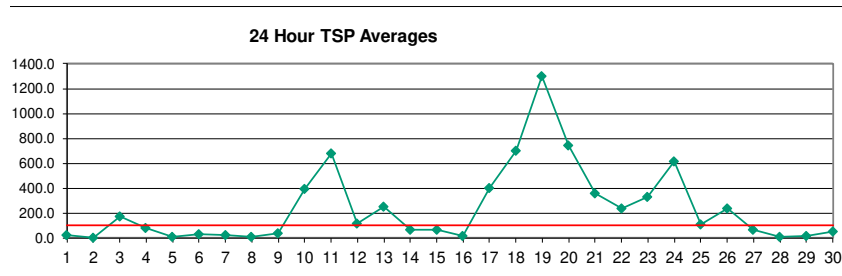
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	9.8	33.2	21.9	93.4	51.7	15.5	11.9	8.5	3.4	3.3	5.2	6.6	7.8	6.5	3.6	9.8	6.4	7.7	8.3	8.3	5.6	3.8	3.8	3.1	14.1	93.4
2	3.8	4.3	4.0	4.0	4.5	6.6	5.8	10.8	11.0	12.4	6.3	4.8	2.4	2.9	2.8	3.8	2.7	3.8	4.9	5.3	3.4	2.1	1.9	1.4	4.8	12.4
3	1.7	1.7	7.3	14.6	13.1	27.0	21.3	19.0	10.5	35.5	69.6	38.5	29.5	41.0	36.6	85.2	60.1	61.6	69.0	55.3	35.0	13.6	24.3	22.9	33.1	85.2
4	37.9	29.5	23.7	17.7	11.6	19.7	20.1	32.9	29.1	28.7	17.8	15.1	16.7	25.0	23.9	26.5	4.5	4.1	3.5	3.5	7.5	43.8	29.2	15.6	20.3	43.8
5	18.0	27.6	18.9	5.1	8.2	12.0	9.8	4.8	3.0	8.4	1.6	6.3	5.5	10.3	4.3	7.0	7.0	7.4	6.7	7.0	8.5	9.2	9.5	7.7	8.9	27.6
6	6.8	5.4	4.6	4.8	6.8	5.1	5.1	5.2	10.8	8.9	5.4	4.7	8.4	6.3	7.0	4.0	4.6	8.9	11.2	12.1	15.4	18.0	13.7	23.9	8.6	23.9
7	10.5	15.9	19.2	17.3	13.3	9.1	6.2	7.4	6.3	3.8	5.5	7.2	10.6	7.8	16.3	10.9	8.0	6.1	4.6	4.3	3.8	5.5	1.6	1.3	8.4	19.2
8	2.4	6.0	6.9	5.7	6.8	6.9	8.1	30.1	11.2	12.4	8.8	6.3	5.9	5.4	8.6	20.0	10.6	15.9	14.1	10.5	13.9	13.4	31.2	29.7	12.1	31.2
9	40.2	39.7	30.2	41.5	34.3	41.7	37.8	33.2	33.2	33.7	41.0	13.5	8.5	10.4	5.1	19.8	16.9	9.4	13.0	14.0	25.8	27.5	47.4	36.0	27.2	47.4
10	32.2	19.2	42.3	48.2	22.1	30.7	18.8	19.1	25.9	54.5	217.3	287.0	251.5	215.2	120.0	128.1	162.7	142.6	141.2	203.6	343.4	191.7	132.6	154.6	125.2	343.4
11	118.9	255.7	209.9	110.8	172.0	217.9	256.4	199.3	176.6	175.6	144.9	147.0	121.6	93.8	174.3	225.6	224.4	132.9	117.2	162.9	146.7	145.9	192.7	333.7	177.3	333.7
12	83.7	99.2	126.5	143.1	35.8	28.0	80.4	100.4	60.0	64.4	31.6	21.1	17.8	17.2	13.6	24.6	18.8	11.2	36.0	68.8	48.4	65.4	34.9	48.9	53.3	143.1
13	28.2	40.7	41.9	40.0	39.5	32.0	24.8	46.6	45.6	41.9	219.2	268.1	213.9	208.6	201.5	71.4	52.6	17.6	44.8	136.1	135.0	111.3	175.7	39.6	94.9	268.1
14	31.1	37.1	35.7	29.7	32.5	43.5	34.5	30.4	26.1	28.7	50.4	45.3	44.5	46.1	23.6	43.7	110.4	18.5	103.5	65.3	41.3	39.6	50.4	42.4	43.9	110.4
15	31.9	22.4	20.8	33.1	47.3	35.1	54.4	41.8	37.5	128.6	95.2	54.2	20.8	23.5	21.6	13.5	30.5	59.3	12.0	19.7	21.2	17.4	23.7	32.6	37.4	128.6
16	24.7	22.3	28.2	26.2	65.7	29.3	20.1	21.5	40.0	22.5	18.3	16.0	14.1	11.0	8.0	13.5	6.5	2.2	3.5	2.2	5.3	7.4	7.1	5.5	17.6	65.7
17	7.8	10.6	16.5	9.4	6.4	4.3	7.9	8.1	19.1	62.6	166.7	158.9	156.8	243.7	215.2	230.0	104.6	88.8	154.3	270.5	368.1	252.2	167.5	176.9	121.1	368.1
18	153.3	204.7	299.2	345.2	326.6	171.6	259.6	188.8	237.3	222.7	198.2	177.7	142.5	205.9	426.6	243.3	159.0	123.0	126.1	119.2	99.8	233.6	127.7	178.2	207.1	426.6
19	216.5	115.8	110.2	166.0	594.4	421.4	347.8	345.7	377.6	508.4	502.7	425.5	338.3	423.7	445.6	425.1	371.3	168.8	338.5	265.6	247.3	280.8	239.3	314.3	332.9	594.4
20	432.7	184.6	129.4	93.8	90.5	115.4	56.5	164.9	111.9	143.4	163.8	229.9	150.6	122.3	232.4	410.8	439.9	342.6	336.4	360.8	269.4	162.1	139.8	95.7	207.5	439.9
21	92.2	234.6	67.9	29.2	38.2	91.6	117.2	105.6	196.1	401.4	225.2	171.3	69.1	56.3	34.1	40.0	41.1	36.3	85.2	42.1	30.9	26.9	25.7	37.5	95.7	401.4
22	39.7	35.0	195.6	78.7	76.1	140.2	42.9	119.0	108.5	86.2	44.2	22.7	45.6	36.4	23.9	26.9	20.7	87.8	81.8	54.8	146.8	93.5	105.4	19.4	72.2	195.6
23	15.0	24.5	46.8	64.9	91.1	160.8	165.3	89.8	102.0	54.7	69.6	145.8	143.5	132.9	192.4	153.3	192.9	89.0	78.1	68.0	28.9	113.7	195.2	78.0	104.0	195.2
24	194.1	210.0	306.2	170.2	173.6	252.8	186.1	145.1	109.0	96.4	54.1	53.3	46.3	80.2	115.4	77.8	41.4	68.8	29.1	7.4	5.3	20.5	33.8	144.2	109.2	306.2
25	139.2	59.6	68.1	26.3	28.1	76.8	53.8	46.3	48.5	61.0	116.8	51.8	42.8	22.2	29.2	21.0	15.4	8.1	5.9	2.4	2.4	3.1	4.3	2.8	39.0	139.2
26	0.8	0.6	0.7	1.3	3.3	1.3	4.6	2.4	3.9	16.6	22.0	39.2	78.5	86.7	90.6	85.1	83.0	87.9	98.4	51.3	21.9	18.8	12.6	9.2	34.2	98.4
27	17.5	16.0	9.5	18.4	46.2	61.8	48.9	38.2	66.8	59.5	93.8	23.7	41.7	21.0	1.2	1.1	2.0	3.4	1.8	1.5	6.2	4.2	4.2	3.8	24.7	93.8
28	2.6	2.4	3.8	2.0	1.8	1.4	2.2	1.4	2.5	4.5	4.3	6.5	8.5	10.7	5.8	8.2	7.5	2.1	1.0	6.6	4.4	3.5	3.7	3.4	4.2	10.7
29	1.7	0.3	3.9	7.3	12.4	5.5	12.2	13.0	72.5	36.2	10.8	13.1	14.3	18.2	17.1	17.8	39.8	16.2	13.8	8.9	9.7	5.5	6.5	7.3	15.2	72.5
30	6.0	3.9	5.7	10.0	8.4	7.3	9.9	11.7	10.2	13.0	12.9	13.9	26.9	18.7	21.6	19.3	20.1	15.1	9.8	7.6	12.2	11.7	7.5	9.8	12.2	26.9
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	60.0	58.7	63.5	55.3	68.7	69.1	64.4	63.0	66.5	81.0	87.4	82.5	69.5	73.7	84.1	82.2	75.5	54.9	65.1	68.2	70.4	64.9	61.8	62.6		
MAX	432.7	255.7	306.2	345.2	594.4	421.4	347.8	345.7	377.6	508.4	502.7	425.5	338.3	423.7	445.6	425.1	371.3	168.8	338.5	265.6	247.3	280.8	239.3	333.7		



Number of Non-Zero Readings	720
Maximum 1-HR Average	594.4 UG/M3
Maximum 24-HR Average	332.9 UG/M3
Monthly Calibration	0
Standard Deviation	94.12
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	68.9 UG/M3

Entrance TSP ($\mu\text{g}/\text{m}^3$) – November 2022

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	10.6	53.3	41.6	116.5	148.1	84.6	10.4	7.9	2.7	3.0	4.6	5.8	7.2	6.4	3.6	10.1	6.3	7.9	8.1	7.5	4.8	3.4	3.4	2.8	23.4	148.1
2	3.0	3.6	3.1	3.2	3.8	6.0	5.0	10.5	11.0	12.7	5.6	4.3	1.9	2.5	2.2	3.0	2.1	2.9	3.3	3.6	2.4	1.5	1.2	0.9	4.1	12.7
3	1.1	1.2	6.7	16.1	14.8	30.9	24.4	21.9	12.0	110.2	314.9	253.3	208.9	204.8	182.5	505.7	382.0	392.8	477.6	404.7	251.4	49.9	118.1	124.3	171.3	505.7
4	201.9	171.4	114.8	76.6	34.7	84.5	83.5	133.5	124.0	112.5	59.6	46.7	65.5	138.9	151.4	143.9	17.0	11.1	5.7	10.3	73.8	50.7	32.7	16.8	81.7	201.9
5	19.5	29.2	19.9	4.5	8.3	12.2	9.8	3.2	2.0	8.1	8.7	8.7	5.3	11.3	3.9	7.0	7.1	7.5	6.6	6.5	7.7	8.5	8.3	6.9	9.2	29.2
6	6.3	4.7	4.0	4.3	6.4	4.5	4.8	4.5	10.9	9.2	4.6	3.8	69.8	15.9	6.8	3.2	4.2	9.7	12.7	13.4	17.4	20.7	32.6	459.1	30.6	459.1
7	10.3	17.7	305.8	58.9	15.2	9.8	6.2	7.5	6.3	7.7	5.2	48.5	11.4	23.1	83.9	12.0	8.7	6.2	3.9	3.5	3.0	4.3	1.1	0.9	27.5	305.8
8	1.8	5.8	6.2	3.9	5.6	5.9	7.1	32.7	10.6	9.1	8.2	5.1	4.6	4.4	8.4	18.3	11.0	13.7	12.1	9.0	12.3	10.7	34.4	34.3	11.5	34.4
9	46.4	45.9	34.8	47.8	39.6	48.4	43.9	38.3	38.3	47.5	146.2	48.9	15.9	33.1	11.9	22.1	16.0	8.1	13.4	11.7	23.3	26.5	54.0	40.4	37.6	146.2
10	36.9	21.7	48.8	56.0	25.6	35.5	21.7	22.1	30.0	134.7	839.0	1111.9	871.9	788.3	371.5	329.1	425.5	337.4	463.3	776.6	1049.1	523.4	446.0	658.1	392.7	1111.9
11	430.8	1045.9	894.0	357.9	646.8	1099.8	1189.2	963.2	785.8	759.2	492.1	403.1	398.2	288.9	537.6	789.8	701.5	382.7	337.5	630.9	590.5	464.8	792.6	1321.2	679.3	1321.2
12	275.7	274.7	345.0	400.8	87.2	48.7	196.6	255.2	115.7	127.8	52.0	27.3	23.6	20.2	15.4	36.2	21.6	8.6	36.1	118.2	70.4	115.6	38.6	56.3	115.3	400.8
13	30.8	46.0	48.3	45.7	45.0	36.6	27.9	54.0	52.9	102.3	851.0	928.4	706.1	683.6	805.6	307.4	154.6	21.8	61.8	177.1	271.4	234.3	339.9	44.9	253.2	928.4
14	35.2	42.4	40.7	33.4	36.7	50.1	38.9	33.5	27.9	36.6	100.6	110.5	140.3	107.0	53.3	89.7	216.6	28.3	136.4	90.2	48.6	45.8	58.6	49.2	68.8	216.6
15	37.0	25.8	23.6	38.4	54.8	40.6	63.2	48.4	43.4	377.7	265.4	104.4	42.0	41.5	36.2	24.9	67.3	133.3	12.4	21.5	23.1	18.7	26.3	37.5	67.0	377.7
16	27.3	24.3	31.6	28.5	75.3	33.6	22.0	23.8	44.2	24.5	18.5	17.0	13.0	10.0	6.4	12.6	5.6	10.1	3.0	1.7	3.8	4.9	6.4	5.3	18.9	75.3
17	7.3	9.3	16.7	7.3	5.0	3.0	5.9	5.8	18.7	142.8	623.3	574.9	567.4	808.2	630.6	741.2	447.5	300.3	569.0	892.6	1305.8	801.7	526.7	650.3	402.6	1305.8
18	457.8	673.2	827.7	1201.1	1265.9	694.1	1091.5	730.6	915.5	837.7	651.3	536.1	353.6	547.7	1274.3	816.1	539.5	395.6	425.5	402.3	256.6	782.3	515.2	732.0	705.1	1274.3
19	711.9	466.4	401.9	637.7	2293.8	1732.7	1491.1	1426.5	1575.4	2043.7	2198.7	1673.5	1264.6	1677.4	1710.3	1588.3	1223.2	561.6	1252.9	1033.7	1015.5	1163.9	873.1	1153.0	1298.8	2293.8
20	1567.8	691.8	479.5	367.4	285.7	460.1	214.3	671.6	394.0	548.1	647.0	854.9	556.9	440.4	783.7	1416.5	1546.2	1231.4	1259.9	1321.7	916.8	495.9	438.0	342.9	747.2	1567.8
21	291.0	904.8	235.7	124.6	163.1	321.1	492.6	323.8	723.7	1499.0	794.9	485.4	158.1	160.3	164.4	197.7	208.4	209.1	363.5	220.7	183.4	117.7	155.1	210.1	362.8	1499.0
22	227.0	116.0	458.6	225.3	457.8	915.6	212.7	336.2	313.1	288.4	194.1	72.6	208.5	136.2	78.2	50.6	33.5	183.2	128.1	102.6	386.7	163.2	271.2	85.6	235.2	915.6
23	39.4	66.1	93.2	83.9	154.2	274.8	364.9	193.4	239.7	172.5	294.3	386.4	430.9	465.6	578.0	429.9	498.3	305.2	274.8	245.5	144.3	567.6	1105.3	499.0	329.5	1105.3
24	1207.7	1307.9	1555.5	1127.2	1255.2	1818.6	1444.3	1097.5	721.8	395.2	220.6	163.5	144.2	239.5	406.6	300.5	184.2	463.0	199.1	25.4	36.3	86.1	111.6	303.9	617.3	1818.6
25	305.1	191.5	324.4	126.2	98.5	271.9	161.4	147.8	160.6	200.3	342.3	130.3	93.0	29.9	33.2	23.8	16.7	7.3	5.0	1.7	1.8	2.8	4.0	7.4	112.0	342.3
26	1.0	1.2	0.9	2.6	10.3	6.4	20.9	14.9	17.3	65.9	105.0	194.4	465.0	657.8	700.6	609.7	653.6	623.2	788.7	390.8	179.2	161.6	93.3	42.6	242.0	788.7
27	36.0	30.9	45.3	36.8	68.7	129.3	77.0	77.6	145.0	240.3	641.0	27.4	46.8	23.6	1.0	0.9	1.7	2.6	1.3	1.2	5.7	4.2	4.2	3.5	68.8	641.0
28	2.4	2.2	3.6	1.7	1.6	1.2	1.5	1.1	2.3	4.6	12.0	25.8	27.5	31.1	18.5	22.6	16.1	10.7	1.5	15.6	8.3	8.3	5.3	3.8	9.6	31.1
29	2.9	1.4	6.4	8.0	13.7	5.3	13.4	14.4	59.0	33.9	15.1	31.2	35.3	28.9	40.7	37.0	80.2	18.6	14.0	14.3	12.0	5.2	6.2	7.7	21.0	80.2
30	6.0	3.5	5.5	11.2	8.9	7.1	10.1	12.6	10.5	13.7	13.6	84.2	414.1	200.7	254.3	122.1	85.5	15.9	8.1	23.3	16.7	13.3	9.5	11.7	56.8	414.1
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	201.3	209.3	214.1	175.1	244.3	275.8	245.2	223.8	220.5	279.0	331.0	278.9	245.1	260.9	298.5	289.1	252.7	190.3	229.5	232.6	230.7	198.6	203.8	230.4		
MAX	1567.8	1307.9	1555.5	1201.1	2293.8	1818.6	1491.1	1426.5	1575.4	2043.7	2198.7	1673.5	1264.6	1677.4	1710.3	1588.3	1546.2	1231.4	1259.9	1321.7	1305.8	1163.9	1105.3	1321.2		



Number of 24HR Exceedences	15	Proposed Guideline
Number of Non-Zero Readings	720	
Maximum 1-HR Average	2293.8	UG/M3
Maximum 24-HR Average	1298.8	UG/M3
Monthly Calibration	0	
Standard Deviation	378.6	
Operational Time	720	HRS
Operational Uptime	100.0	%
Monthly Average	240.0	UG/M3