

LAFARGE CANADA INC.

AMBIENT AIR QUALITY MONTHLY REPORT

JANUARY 2021

FEBRUARY 22, 2021



WSP



AMBIENT AIR QUALITY MONTHLY REPORT JANUARY 2021

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-05
DATE: FEBRUARY 22, 2021

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

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



February 22, 2021

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

Attention: Nikolaos Veriotes P. Eng.

Dear Mr. Veriotes,

Subject: Ambient Air Quality Monthly Report – January 2021

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

Lagoon	Data Completeness (%)	1-Hour Average	24-hour Average
		Exceedances of AAAQO or AAAQG	Exceedances of AAAQO
TSP	100%	-	2
PM _{2.5}	100%	0	0
PM ₁₀	100%	-	-
NO	100%	-	-
NO ²	100%	0	-
NO _x	100%	-	-
SO ^{2*}	99.9%	0	0
Met Parameters	100%	-	-

*SO₂ recorded 99.9% uptime due to one hour of non-routine maintenance (NRM) due to pump failure on January 11th at 17:00.

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

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

WSP Canada Inc.

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

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

*At the Windridge Station, all analyzers had 99.9% uptime for the month of January, due to one hour of power failure (P), occurring on January 26th at 19:00.

The GRIMM monitors are considered Industrial Ambient Monitors and are meant for assessing the performance of Lafarge Exshaw's Fugitive Dust Control Best Management Practices – Program; the GRIMM monitors are not Air Monitoring Directive (AMD) compliant. This Program uses the AAAQOs as Guidelines. The following table summarizes the data completeness and reported exceedances of the Guidelines at the GRIMM Monitors for January 2021.

GRIMM Stations	Data Completeness (%)	1-Hour Average		24-hour Average	
		Exceedances of PM _{2.5} Guidelines	Exceedances of PM _{2.5} Guidelines	Exceedances of TSP Guidelines	
West	100%	-	1	0	
Berm	100%	1	3	21	
Entrance	100%	-	0	19	

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

Sincerely,

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

SIGNATURES

PREPARED BY



February 22, 2021

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

Date

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



February 22, 2021

Tyler Abel, M.Sc.
Team Leader, Environmental Management,
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
1.2	Fugitive Dust Contributions From Lac Des Arcs	2
2	JANUARY 2021 REPORT SUMMARY	3
2.1	Lagoon Station.....	3
2.2	Windridge Station	4
2.3	West Grimm	4
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.....	36
6.1	operational summary.....	36
6.2	Monitoring Results and Trends.....	36
7	ENTRANCE INDUSTRIAL GRIMM	44
7.1	operational summary.....	44
7.2	Monitoring Results and Trends.....	44

BIBLIOGRAPHY 52

TABLES

TABLE 2-1	LAGOON STATION DATA SUMMARY	52
TABLE 2-2	WINDRIDGE STATION DATA SUMMARY	53
TABLE 2-3	WEST STATION DATA SUMMARY ...	54
TABLE 2-4	BERM STATION DATA SUMMARY...	54
TABLE 2-5	ENTRANCE STATION DATA SUMMARY	55
TABLE 3-1	INSTRUMENTATION LIST AT THE LAGOON STATION.....	56
TABLE 3-2	SUMMARY OF JANUARY 2021 DATA AT LAGOON	57
TABLE 3-3	DAYS EXCEEDING THE TSP AAAQO OR PM _{2.5} AAAQO AT THE LAGOON STATION.....	58
TABLE 4-1	INSTRUMENTATION LIST AT THE WINDRIDGE MONITORING LOCATION.....	59
TABLE 4-2	SUMMARY OF JANUARY 2021 DATA AT THE WINDRIDGE STATION.....	60
TABLE 4-3	DAYS EXCEEDING THE TSP AAAQO OR PM _{2.5} AAAQO AT THE WINDRIDGE STATION	61
TABLE 5-1	INSTRUMENTATION LIST AT THE WEST MONITORING LOCATION ...	62
TABLE 5-2	SUMMARY OF JANUARY 2021 DATA AT THE WEST GRIMM	63
TABLE 5-3	DAYS EXCEEDING THE TSP AAAQO OR PM _{2.5} AAAQO AT THE WEST GRIMM STATION.....	64
TABLE 6-1	INSTRUMENTATION LIST AT THE BERM MONITORING LOCATION ...	65
TABLE 6-2	SUMMARY OF JANUARY 2021 DATA AT THE BERM GRIMM	66
TABLE 6-3	DAYS EXCEEDING THE GUIDELINE FOR TSP OR PM _{2.5} AT THE BERM MONITOR	67
TABLE 7-1	INSTRUMENTATION LIST AT THE ENTRANCE MONITORING LOCATION.....	68
TABLE 7-2	SUMMARY OF JANUARY 2021 DATA AT THE ENTRANCE GRIMM	69

TABLE 7-3	DAYS EXCEEDING THE GUIDELINE FOR TSP OR PM _{2.5} AT THE ENTRANCE MONITOR	46
-----------	---	----

FIGURES

FIGURE 1	PHOTO OF COMPLETED FLOOD MITIGATION WORK AT EXSHAW CREEK.....	1
FIGURE 2	PHOTO OF THE EXPOSED SILT ON LAC DES ARCS	2
FIGURE 3-1	INLETS ON THE TOP OF WSP'S LAGOON MONITOR	8
FIGURE 3-2	WIND ROSE FOR TSP EXCEEDANCE DAYS RECORDED AT THE LAGOON STATION.....	11
FIGURE 3-3	1-HOUR CONCENTRATIONS OF NO _x , SO ₂ , PARTICULATE MATTER, WIND DIRECTION AND WIND SPEED AT THE LAGOON STATION.....	12
FIGURE 3-4	HISTOGRAM OF HOURLY NO ₂ CONCENTRATIONS AT THE LAGOON STATION.....	13
FIGURE 3-5	HISTOGRAM OF HOURLY SO ₂ CONCENTRATIONS AT THE LAGOON STATION.....	13
FIGURE 3-6	HISTOGRAM OF HOURLY PM _{2.5} CONCENTRATIONS AT THE LAGOON STATION.....	14
FIGURE 3-7	HISTOGRAM OF HOURLY PM ₁₀ CONCENTRATIONS AT THE LAGOON STATION.....	14
FIGURE 3-8	HISTOGRAM OF HOURLY TSP CONCENTRATIONS AT THE LAGOON STATION.....	15
FIGURE 3-9	24-HOUR CONCENTRATIONS OF NO _x , SO ₂ , AND PARTICULATE MATTER AT THE LAGOON MONITOR	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	33
FIGURE 5-2	24-HOUR PARTICULATE MATTER CONCENTRATIONS AT THE WEST MONITOR	34
FIGURE 6-1	1-HOUR PARTICULATE MATTER CONCENTRATIONS RECORDED AT THE BERM MONITOR	40
FIGURE 6-2	24-HOUR PARTICULATE MATTER CONCENTRATIONS RECORDED AT THE BERM MONITOR	41
FIGURE 6-3	WIND ROSE FOR TSP EXCEEDANCE DAYS RECORDED AT THE BERM GRIMM.....	42
FIGURE 6-4	BERM PARTICULATE MATTER TIME VARIATION.....	43
FIGURE 7-1	1-HOUR PARTICULATE MATTER CONCENTRATIONS RECORDED AT THE ENTRANCE MONITOR	48
FIGURE 7-2	24-HOUR PARTICULATE MATTER CONCENTRATIONS AT THE ENTRANCE MONITOR	49
FIGURE 7-3	WIND ROSE FOR TSP EXCEEDANCE DAYS RECORDED AT THE ENTRANCE GRIMM.....	50



FIGURE 7-4 ENTRANCE PARTICULATE MATTER
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. 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 January 1, 2021 and January 31, 2021.

This monthly report was prepared by Dylan Weyell, Junior Air Quality Specialist with WSP, on behalf of Lafarge and was reviewed by Tyler Abel, Team Leader of Environmental Management in the Vancouver Region at WSP.

1.1 EXSHAW CREEK FLOOD MITIGATION

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



Figure 1 Photo of Completed Flood Mitigation Work at Exshaw Creek

1.2 FUGITIVE DUST CONTRIBUTIONS FROM LAC DES ARCS

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



Figure 2 Photo of the exposed silt on Lac Des Arcs

2 JANUARY 2021 REPORT SUMMARY

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

2.1 LAGOON STATION

Table 2-1 Lagoon station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQO or AAAQG	Maximum Concentration	Exceedances of AAAQO
NO ₂ (ppb)	100.0	33.0	0	18.7	-
SO ₂ (ppb)	99.9	10.3	0	2.4	0
PM _{2.5} (µg/m ³)	100.0	42.9	0 ¹	20.5	0
PM ₁₀ (µg/m ³)	100.0	485.1	-	159.7	-
TSP (µg/m ³)	100.0	970.5	-	216.4	2
Temperature (°C)	100.0	6.6	-	4.5	-
Wind Speed (km/hr) /Direction (Degrees)	100.0	54.2/W	-	40.5/WSW	-
Precipitation (mm)	100.0	2.5 ²	-	3 ³	-

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

² Maximum Daily Total Accumulation of Precipitation (mm)

³ Monthly Total Accumulation of Precipitation (mm)

Data Quality Notes:

- There were no exceedances of the 24-hour PM_{2.5} AAAQO.
- There were no exceedances of the 1-hour PM_{2.5} AAAQG.
- There were 2 exceedances of the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- At the Lagoon station, all analyzers and meteorological sensors had 100% uptime for the month of January. Excluding the SO₂ analyzer which had 99.9% data completeness for the month of January due to one-hour of non-routine maintenance due to pump failure occurring on January 11th at 17:00.
-

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)	99.9	92.0	1*	19.3	0
PM ₁₀ (µg/m ³)	99.9	485.0	-	261.8	-
TSP (µg/m ³)	99.9	985.0	-	443.2	10

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

Data Quality Notes:

- There were no exceedances of the 24-hour PM_{2.5} AAAQO.
- There was one exceedance of the 1-hour PM_{2.5} AAAQG.
- There were 10 days exceeding the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- At the Windridge Station the analyzers had 99.9% uptime for the month of January due to one hour of power failure occurring on January 26th 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} ($\mu\text{g}/\text{m}^3$)	100.0	36.2	0*	29.5	1
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	100.0	52.9	-	40.7	-
TSP ($\mu\text{g}/\text{m}^3$)	100.0	49.6	-	34.6	0

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

Data Quality Notes:

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

Calibration/Maintenance Notes:

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

2.4 BERM GRIMM

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

Table 2-4 Berm station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} ($\mu\text{g}/\text{m}^3$)	100.0	289.9	11*	77.4	3
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	100.0	2366.9	-	609.0	-
TSP ($\mu\text{g}/\text{m}^3$)	100.0	3697.5	-	1555.6	21

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

Data Quality Notes:

- There were 3 exceedances of the 24-hour PM_{2.5} Guidelines.
- There were 11 exceedances of the 1-hour PM_{2.5} Guidelines.

- There were 21 days exceeding the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

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

2.5 ENTRANCE GRIMM

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

Table 2-5 Entrance station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} ($\mu\text{g}/\text{m}^3$)	100.0	75.3	0*	28.7	0
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	100.0	619.8	-	162.6	-
TSP ($\mu\text{g}/\text{m}^3$)	100.0	2291.3	-	652.2	19

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

Data Quality Notes:

- There were no exceedances of the 24-hour PM_{2.5} Guidelines.
- There were no exceedances of the 1-hour PM_{2.5} Guidelines.
- There were 19 days exceeding the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

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

3 LAGOON STATION

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

This section provides a summary of the monitoring activities for the Lagoon ambient air quality station, including: a table of instrumentation (Table 3-1), a data summary table (Table 3-2), site visit notes, a wind rose (Figure 3-2) and tables and graphs illustrating the monitoring results for January 2021.

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

3.1 OPERATIONAL SUMMARY

A summary of the station operation for the month is provided in Table 3-1.

Table 3-1 Instrumentation List at the Lagoon Station

Parameter Measured	Equipment Description	Notes
PM_{2.5} Concentrations	MetOne BAM-1020 FRM Continuous Particulate Monitor	The PM _{2.5} monitor was calibrated on January 11 th . The monitor had 100% uptime in January.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on January 11 th . The monitor had 100% uptime in January.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on January 11 th . The monitor had 100% uptime in January.
Oxides of Nitrogen	TEI 42C	The NO _x monitor was calibrated on January 11 th . The monitor had 100% uptime in January
Sulphur Dioxide	Teledyne API 102A	The SO ₂ monitor was calibrated on January 11 th and 12 th . The monitor had 99.9% uptime for the month of January due to one hour of non-routine maintenance due to pump failure occurring on January 11 th at 17:00.
Precipitation	MetOne 130 Rain/Snow Gauge	The monitor had 100% uptime for the month of January.
Wind Speed	MetOne Wind Sensor	The monitor had 100% uptime for the month of January.
Wind Direction		
Ambient Temperature	MetOne Ambient Temperature Sensor	The monitor had 100% uptime for the month of January.



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

3.2 MONITORING RESULTS AND TRENDS

The following wind rose (Figure 3-2) illustrates the frequency of wind speed by wind direction for the 24-hour TSP exceedance days. The wind rose indicates that the winds predominantly came from the west direction.

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

Figure 3-3 graphically illustrates the time series for hourly concentrations as well as wind speed and direction, while Figure 3-9 shows daily average concentrations recorded during January 2021 for the pollutants listed in Table 3-2. Additionally, Figure 3-4 to Figure 3-8 show the histograms of the hourly concentrations of NO₂, SO₂, PM_{2.5}, PM₁₀, and TSP measured at the Lagoon station.

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

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

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

Table 3-2 Summary of January 2021 data at Lagoon

Parameter	Guideline / Objectives		Station	Exceedances		Monthly		1-hour				24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration/Meteorological Variable	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration/Meteorological Variable	Day	
NO ₂ (ppb)	159	-	Lagoon	0	-	0.9	9.3	33.0	21	22	13.3	243.2	18.7	29	100.0
SO ₂ (ppb)	172	48	Lagoon	0	0	0.0	0.7	10.3	8	13	24.7	287.7	2.4	19	99.9
PM _{2.5} (µg/m ³)	80	29	Lagoon	0	0	0.0	5.4	42.9	19	23	42.7	272.4	20.5	28	100.0
PM ₁₀ (µg/m ³)	-	-	Lagoon	-	-	0.0	34.1	485.1	19	22	50.5	271.5	159.7	19	100.0
TSP (µg/m ³)	-	100	Lagoon	-	2	0.0	49.7	970.5	19	23	42.7	272.4	216.4	19	100.0
Temperature (°C)	-	-	Lagoon	-	-	-18.8	-3.4	6.6	15	13	31.6	271.1	4.5	2	100.0
Wind Speed (km/hr)/Direction (degrees)	-	-	Lagoon	-	-	1.3	22.2	54.2/W	10	6	54.2	256.5	40.5/WSW	19	100.0
Precipitation (mm)	-	-	Lagoon	-	-	0.0	0.0	2.5	12	15	32.8	266.9	3.0	-	100.0

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

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Lagoon						
2021-01-12	102	-	271	26.5	55	High wind event
2021-01-19	216	-	270	40.5	40	High wind event
Total # of Exceedances	2	0				
Maximum # of Exceedances (January)	1 (2015, 2016, 2019)	0 (2010 - 2020)				
Average # of Exceedances (January)	0	0				
Minimum # of Exceedances (January)	0 (2010, 2011, 2012, 2013, 2014, 2017, 2018, 2020)	0 (2010 - 2020)				

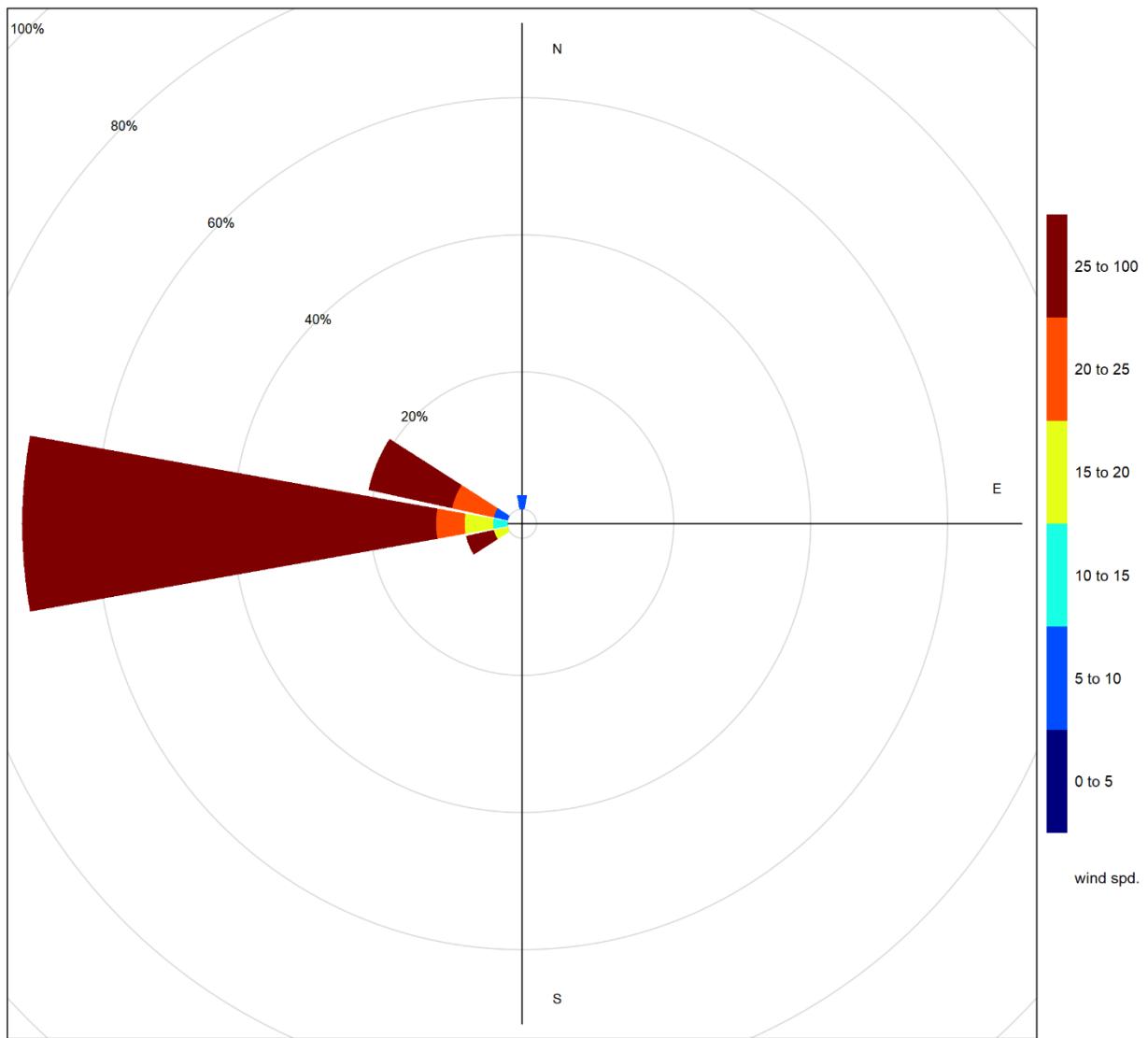


Figure 3-2 Wind rose for TSP exceedance days recorded at the Lagoon Station

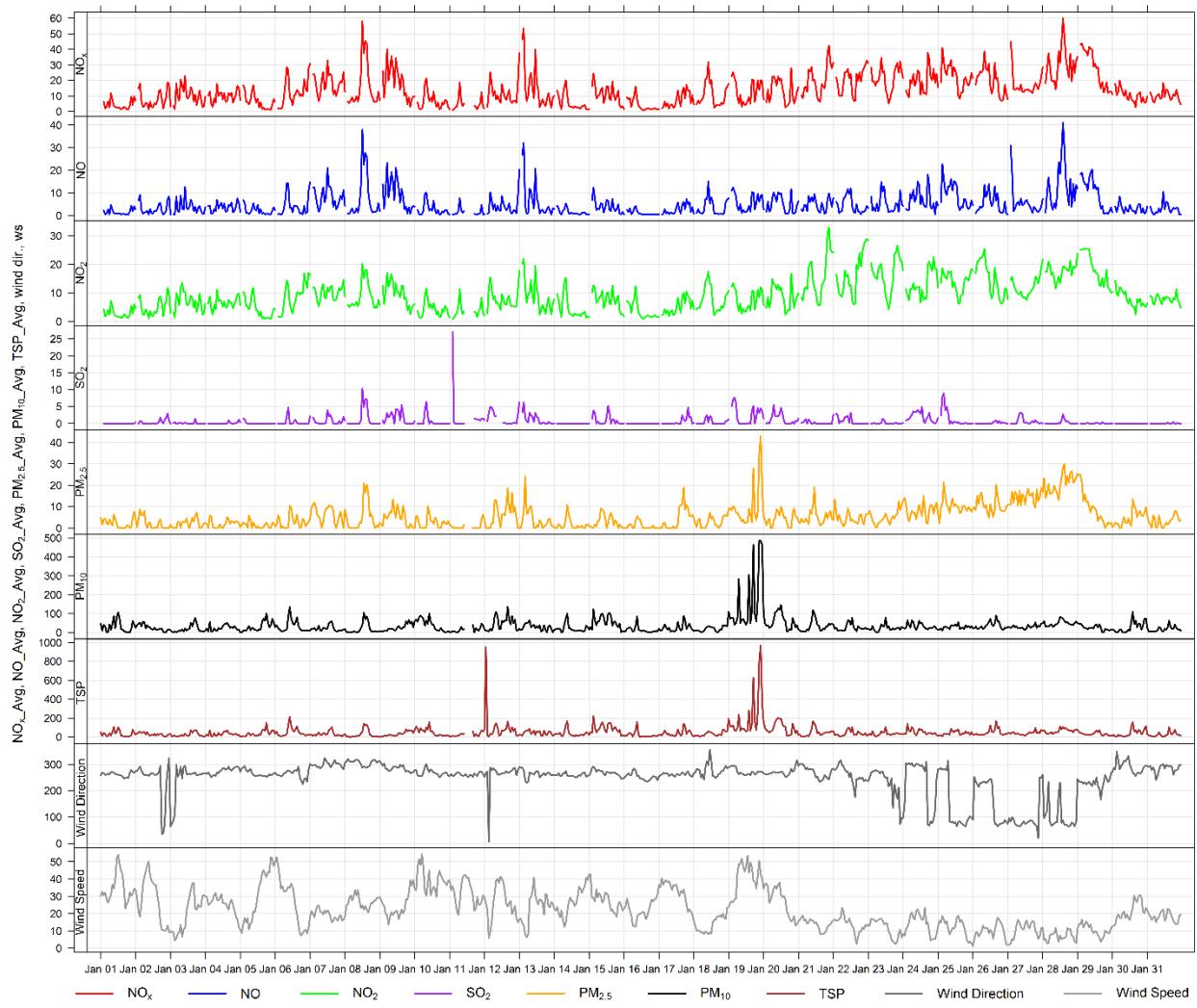


Figure 3-3 1-hour concentrations of NO_x, SO₂, particulate matter, wind direction and wind speed at the Lagoon station

Histogram of Hourly NO₂ Readings

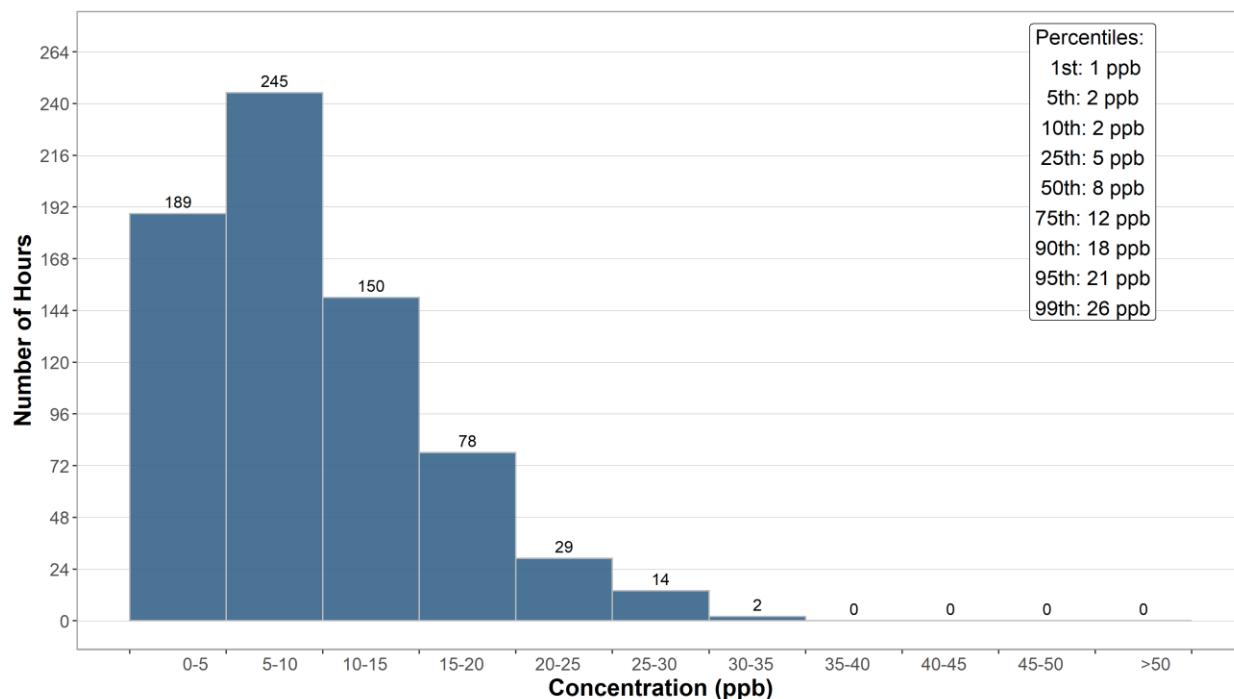


Figure 3-4 Histogram of hourly NO₂ concentrations at the Lagoon station

Histogram of Hourly SO₂ Readings

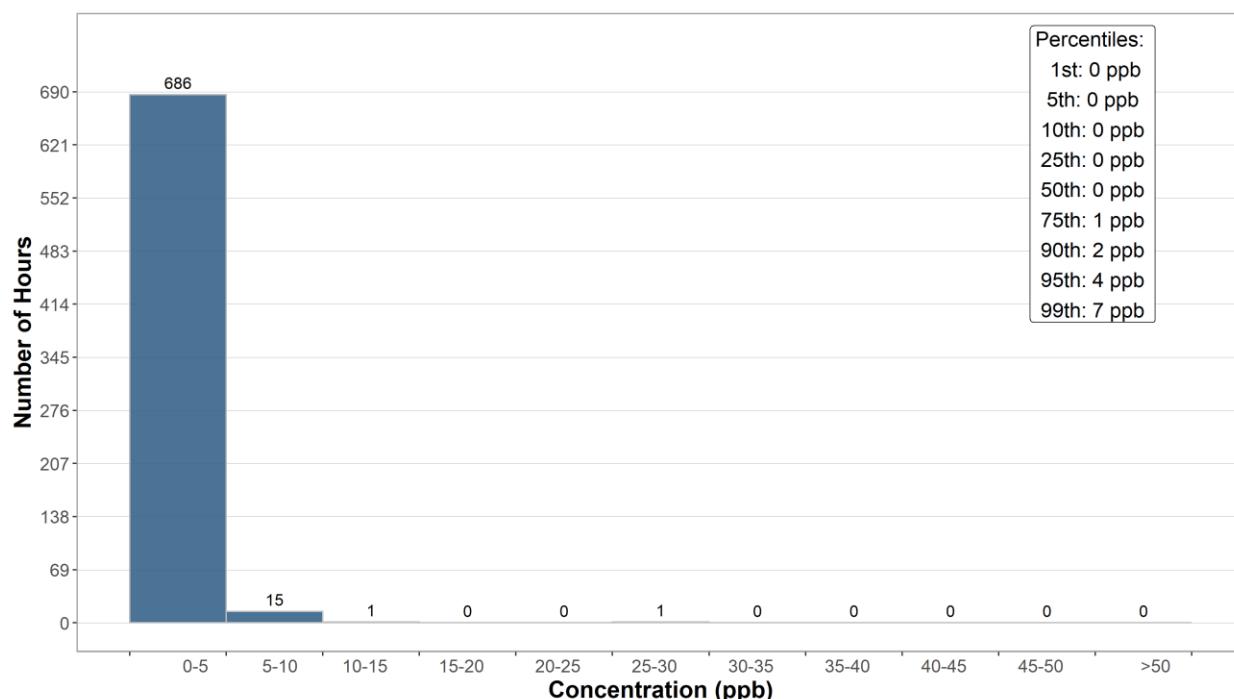


Figure 3-5 Histogram of hourly SO₂ concentrations at the Lagoon station

Histogram of Hourly PM_{2.5} Readings

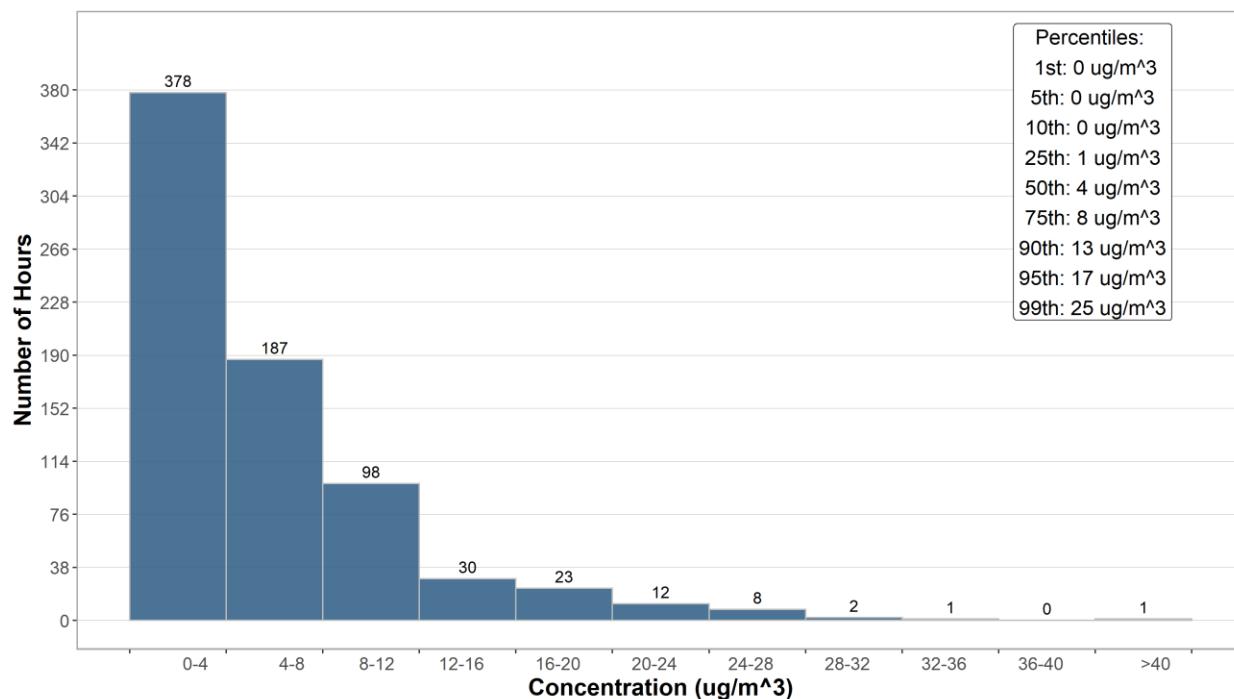


Figure 3-6 Histogram of hourly PM_{2.5} concentrations at the Lagoon station

Histogram of Hourly PM₁₀ Readings

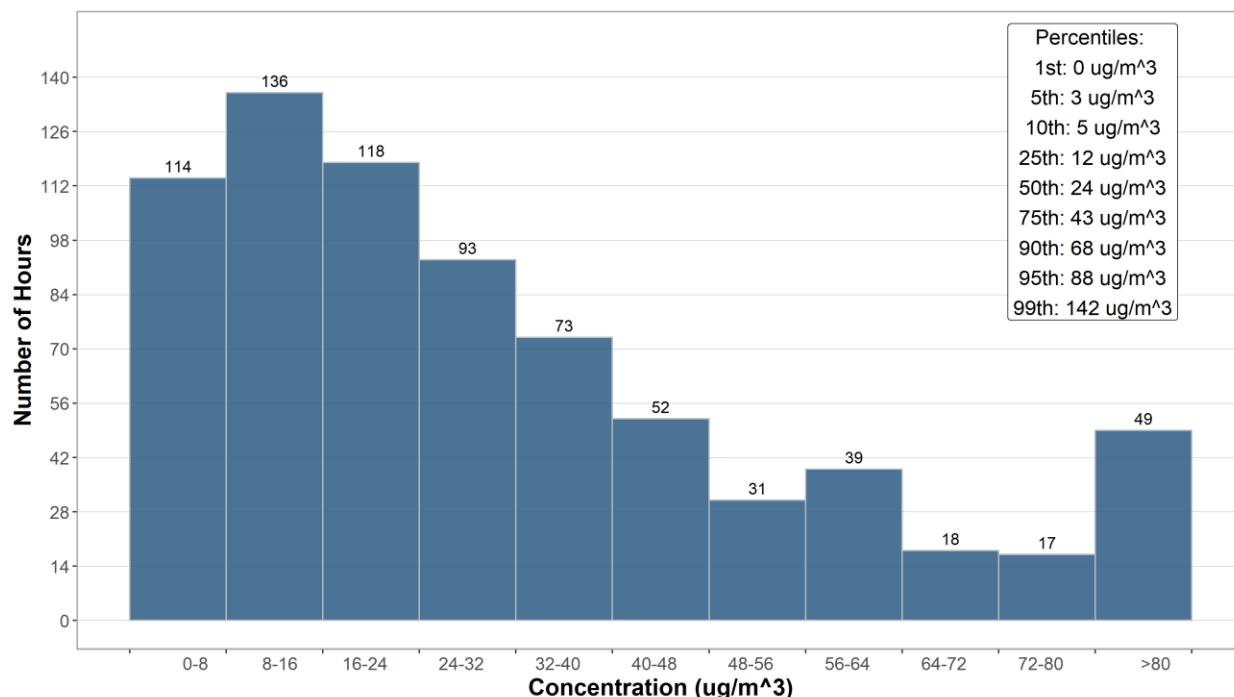


Figure 3-7 Histogram of hourly PM₁₀ concentrations at the Lagoon station

Histogram of Hourly TSP Readings

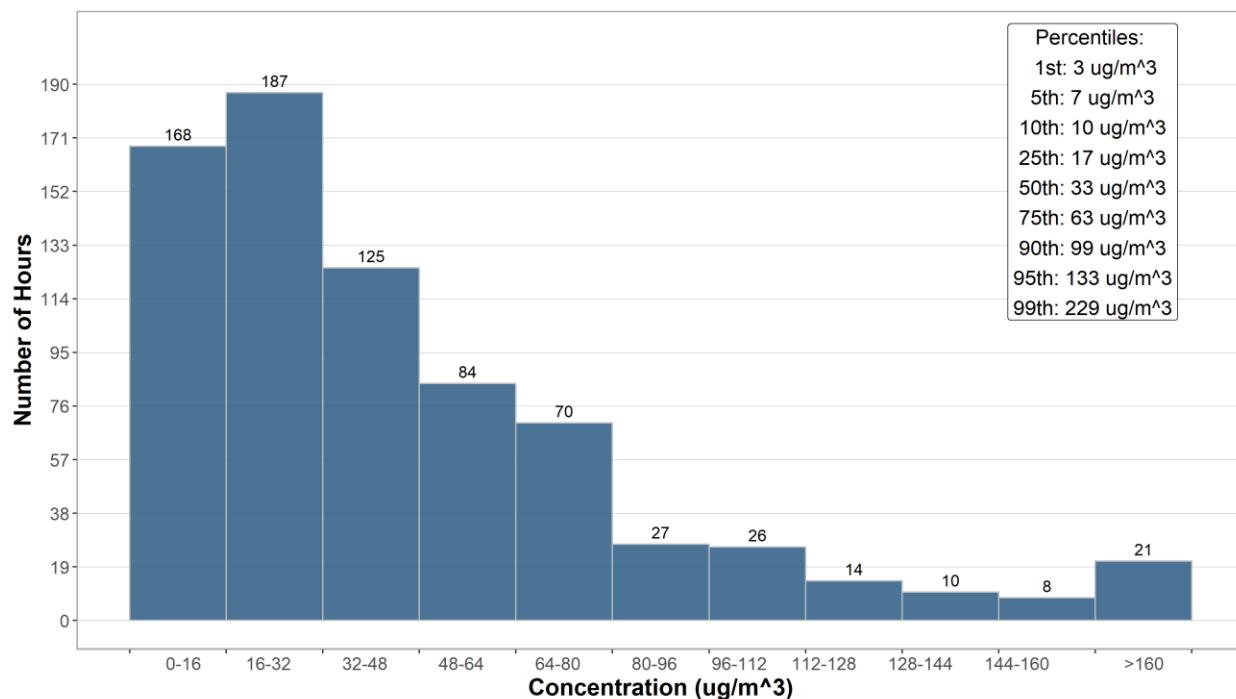


Figure 3-8 Histogram of hourly TSP concentrations at the Lagoon station

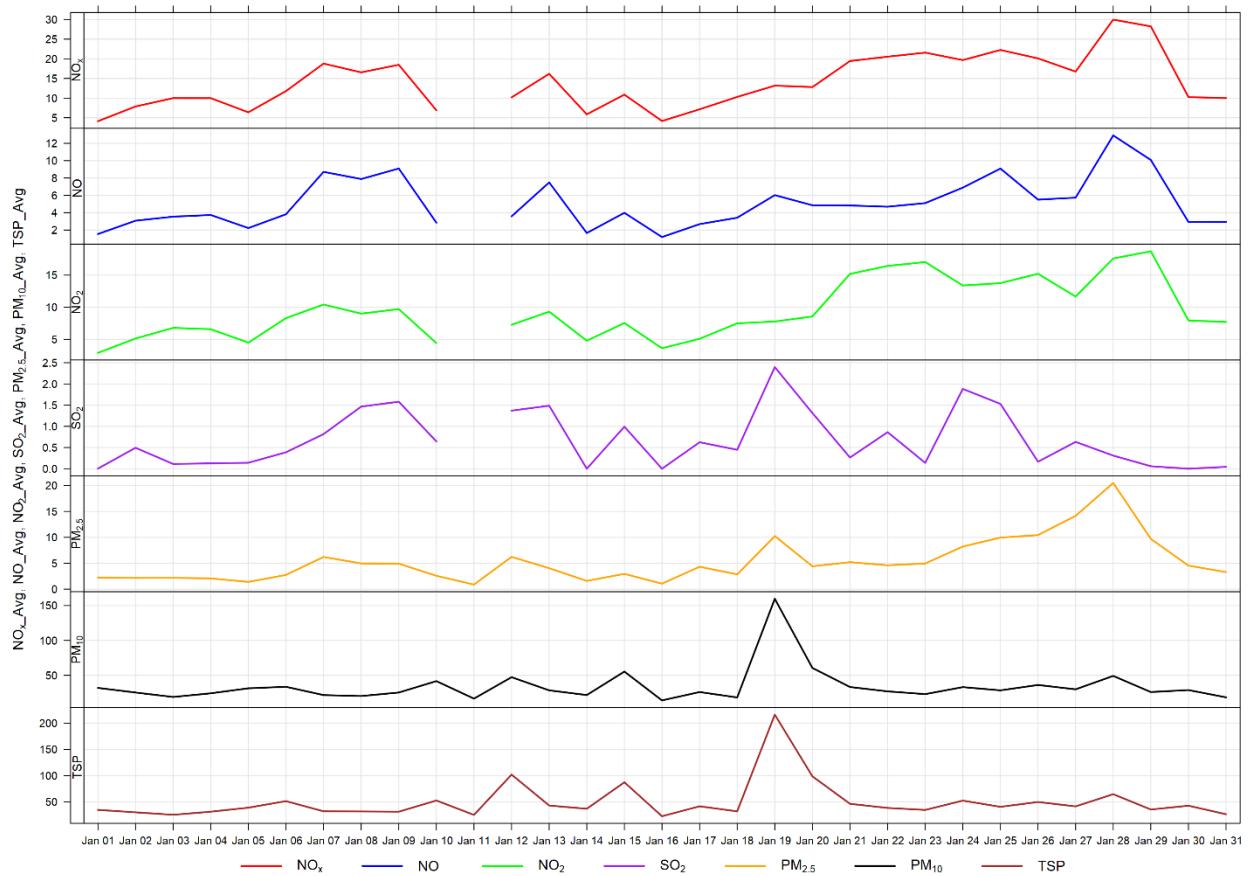


Figure 3-9 24-hour concentrations of NO_x, SO₂, and particulate matter at the Lagoon monitor

Figure 3-10 through Figure 3-12 show the variation in concentrations over various time averaging periods for PM, SO₂ and NO_x. The particulate matter plot in Figure 3-10 shows that PM₁₀ and TSP concentrations shows a diurnal pattern associated with Lafarge operations, daytime emissions from traffic and other activities. The diurnal patterns also follow the diurnal pattern of higher wind speeds during the daytime hours. In January, there were also higher PM concentrations associated with high winds at night, specifically on Tuesday, January 19th, which skews the typical diurnal distribution.

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

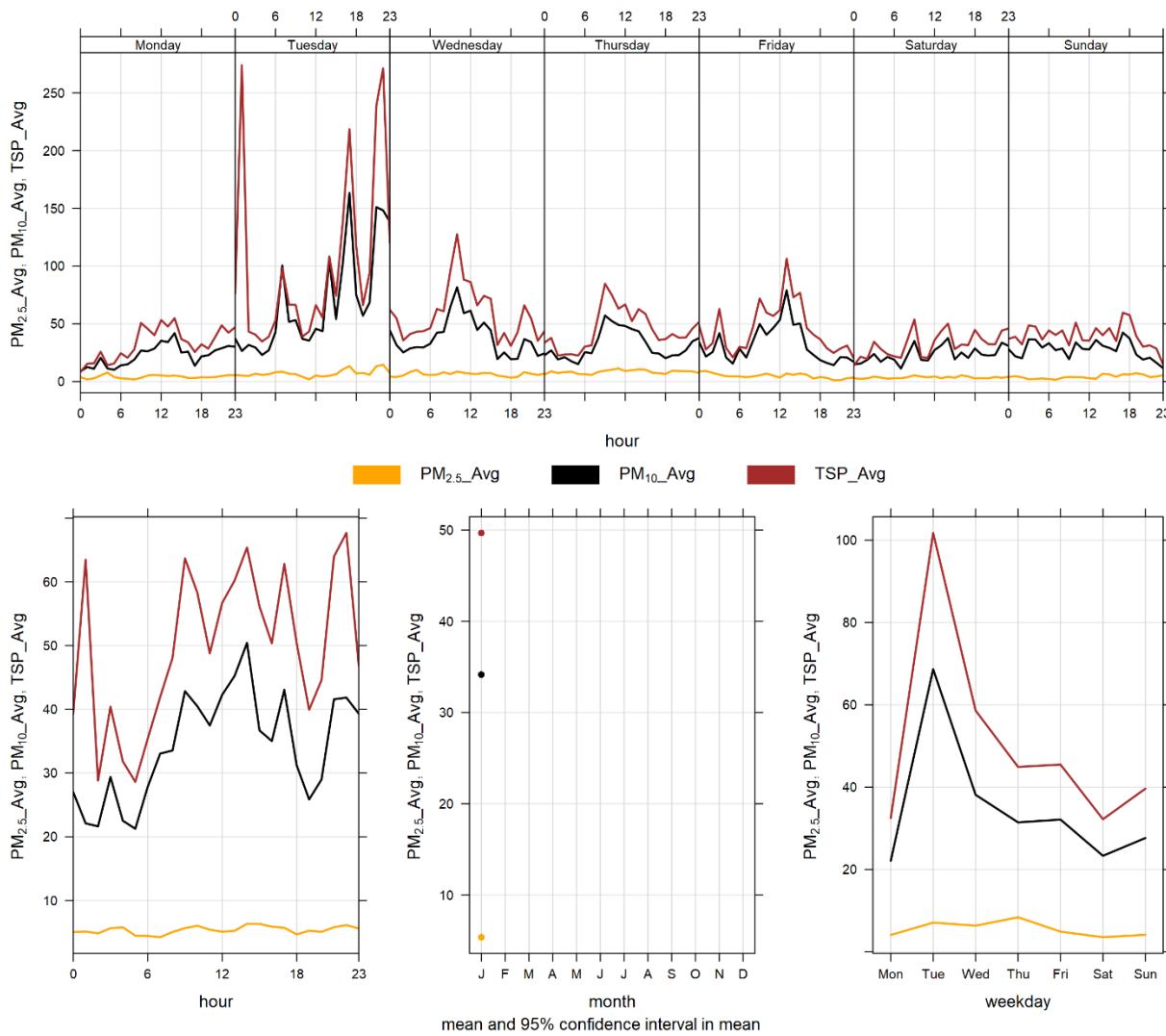


Figure 3-10 Lagoon monitor particulate matter time variation

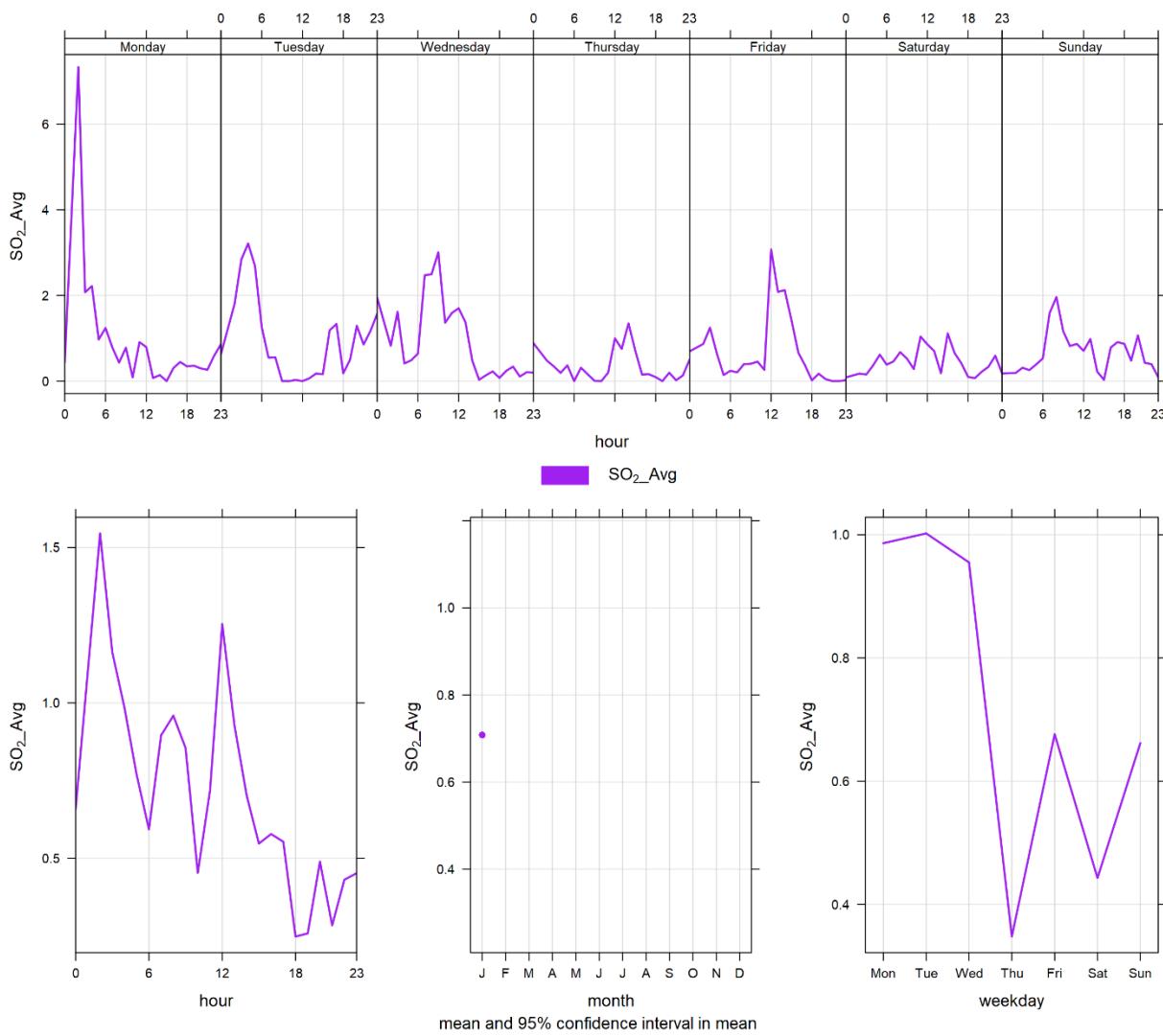


Figure 3-11 Lagoon monitor SO_2 time variation

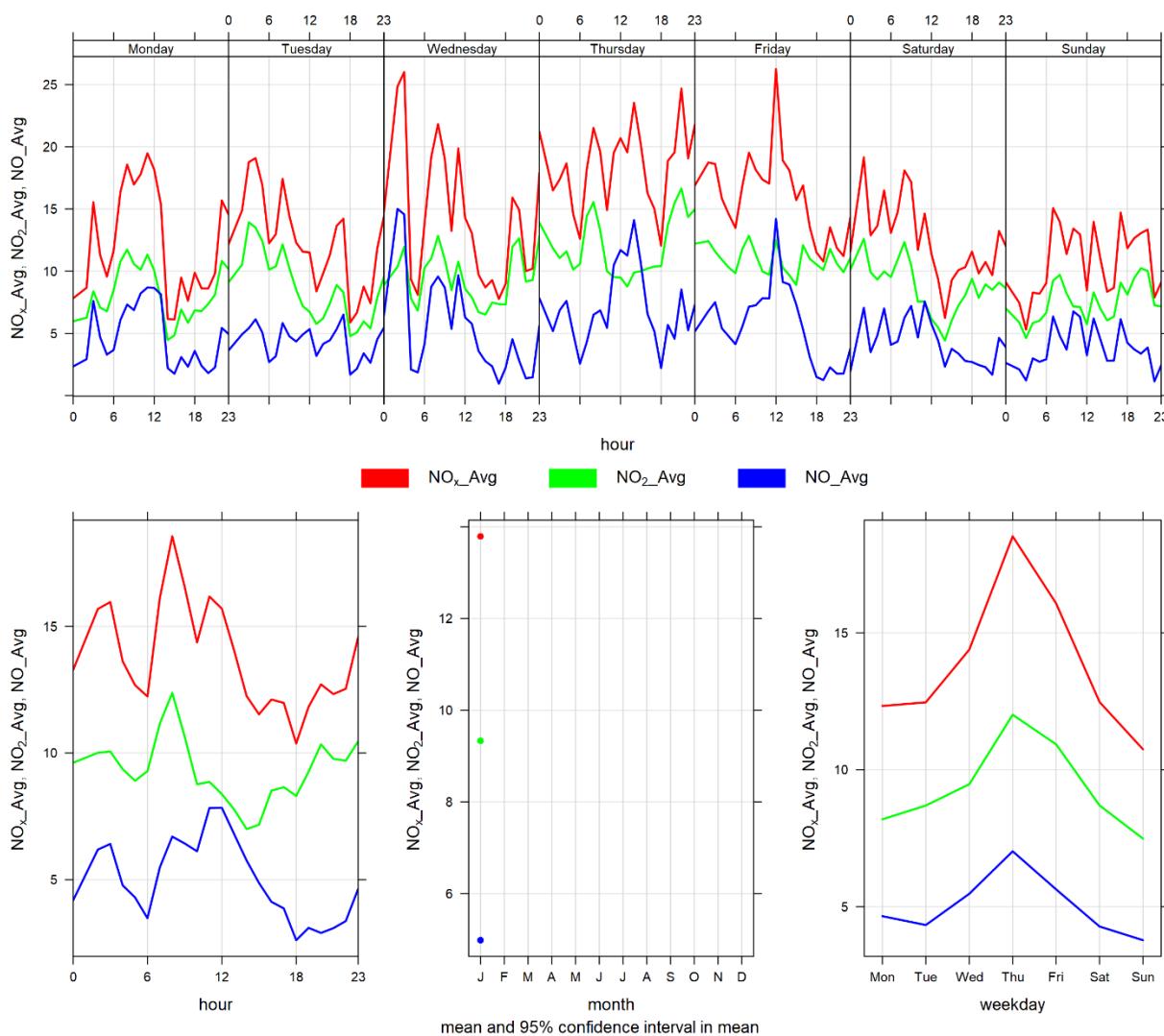


Figure 3-12 Lagoon monitor NO_x time variation

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 January 2021.

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

4.1 OPERATIONAL SUMMARY

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

Table 4-1 Instrumentation List at the Windridge monitoring location

Parameter Measured	Equipment Description	Notes
PM_{2.5} Concentrations	MetOne BAM-1020 FRM Continuous Particulate Monitor	The PM _{2.5} monitor was calibrated on January 12 th . The monitor had 99.9% uptime for the month of January due to one hour of power failure occurring on January 26 th at 19:00.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on January 12 th . The monitor had 99.9% uptime for the month of January due to one hour of power failure occurring on January 26 th at 19:00.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on January 12 th . The monitor had 99.9% uptime for the month of January due to one hour of power failure occurring on January 26 th at 19:00.

4.2 MONITORING RESULTS AND TRENDS

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

There were zero exceedances of the 24-hour PM_{2.5} AAAQO, one exceedance of the 1-hour PM_{2.5} AAAQG, and 10 exceedances of the 24-hour TSP AAAQO. TSP exceedances occurred primarily on days with high westerly wind speeds.

Historically in January, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM_{2.5} AAAQO exceedances is 1 and 0, respectively.

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

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

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM _{2.5} (µg/m ³)	80	29	Windridge	1	0	0.0	6.9	92.0	19	23	42.7	272.4	19.3	28	99.9
PM ₁₀ (µg/m ³)	-	-	Windridge	-	-	0.0	68.8	485.0	17	24	19.5	253.4	261.8	19	99.9
TSP (µg/m ³)	-	100	Windridge	-	10	0.0	101.0	985.0	19	23	42.7	272.4	443.2	19	99.9

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

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Windridge						
2021-01-01	150.6	-	262.0	34.6	50.4	High wind event
2021-01-05	107.1	-	262.0	29.4	45.8	High wind event
2021-01-10	111.0	-	267.0	39.3	52.7	High wind event
2021-01-11	117.0	-	260.3	31.7	41.3	High wind event
2021-01-14	120.0	-	258.9	26.4	37.7	High wind event
2021-01-15	214.9	-	268.6	28.0	42.6	High wind event
2021-01-17	244.5	-	261.6	32.7	44.9	High wind event
2021-01-19	443.2	-	270.2	40.5	40.0	High wind event
2021-01-20	236.2	-	268.0	27.6	30.5	High wind event
2021-01-30	155.3	-	286.6	21.1	62.7	High wind event
Total # of Exceedances	10	0				
Maximum # of Exceedances (January)	10 (2019)	0 (2010 - 2020)				
Average # of Exceedances (January)	1	0				
Minimum # of Exceedances (January)	0 (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2020)	0 (2010 - 2020)				

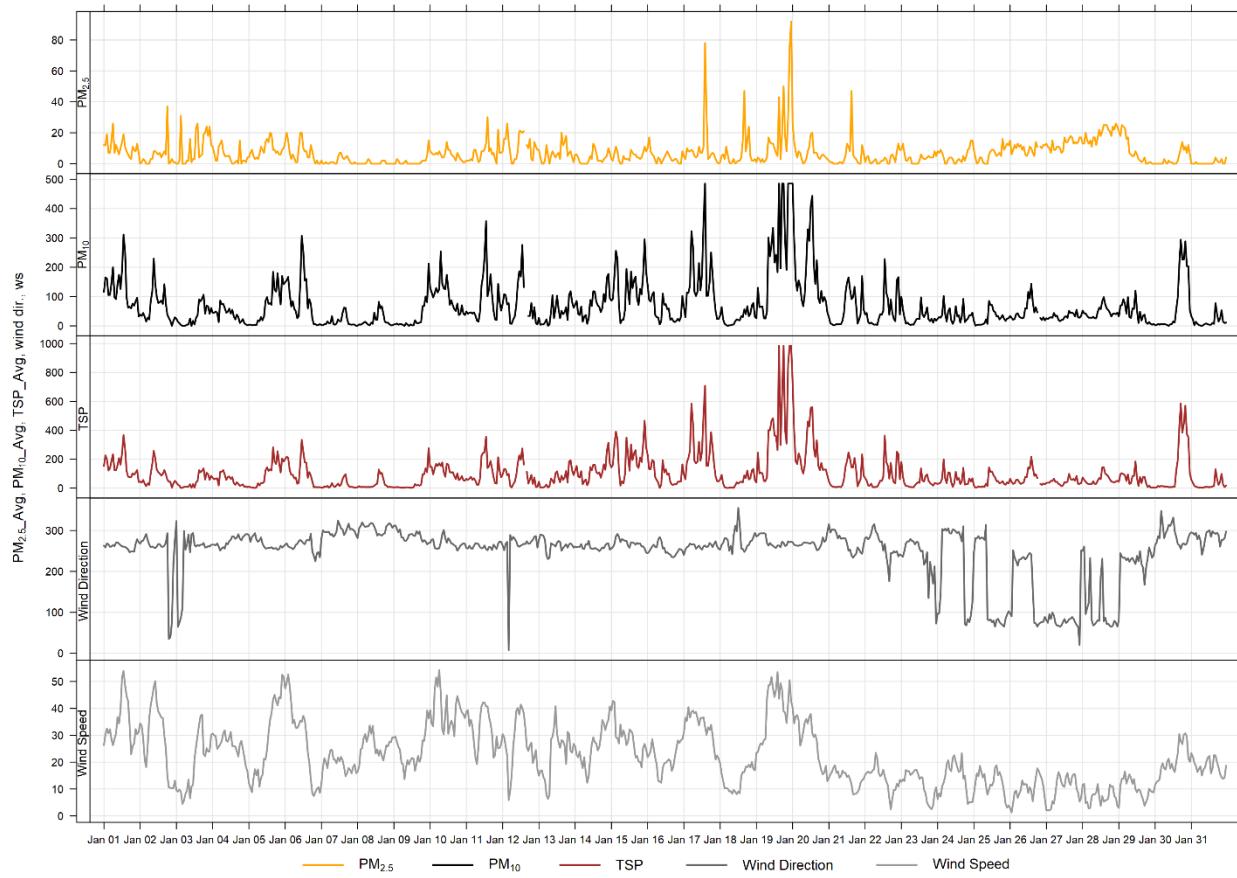


Figure 4-1 **1-hour particulate matter concentrations recorded at the Windridge monitor**

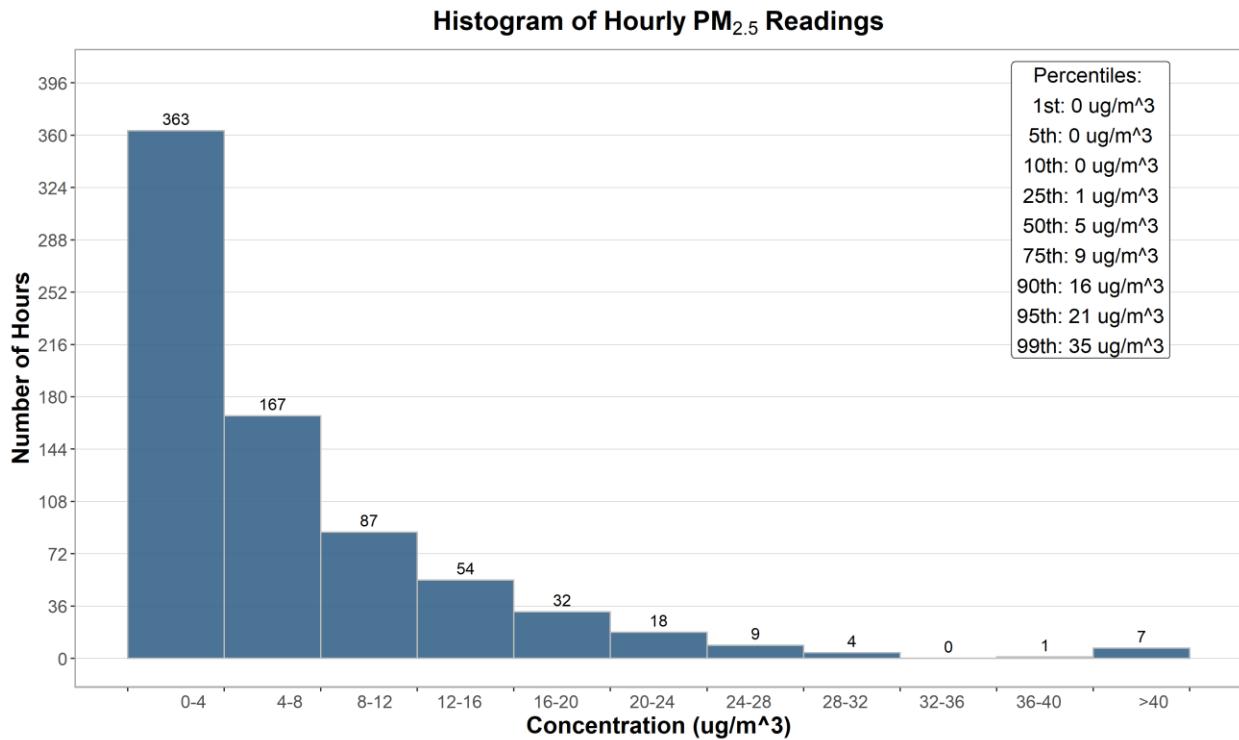


Figure 4-2 Histogram of hourly PM_{2.5} concentrations at the Windridge station

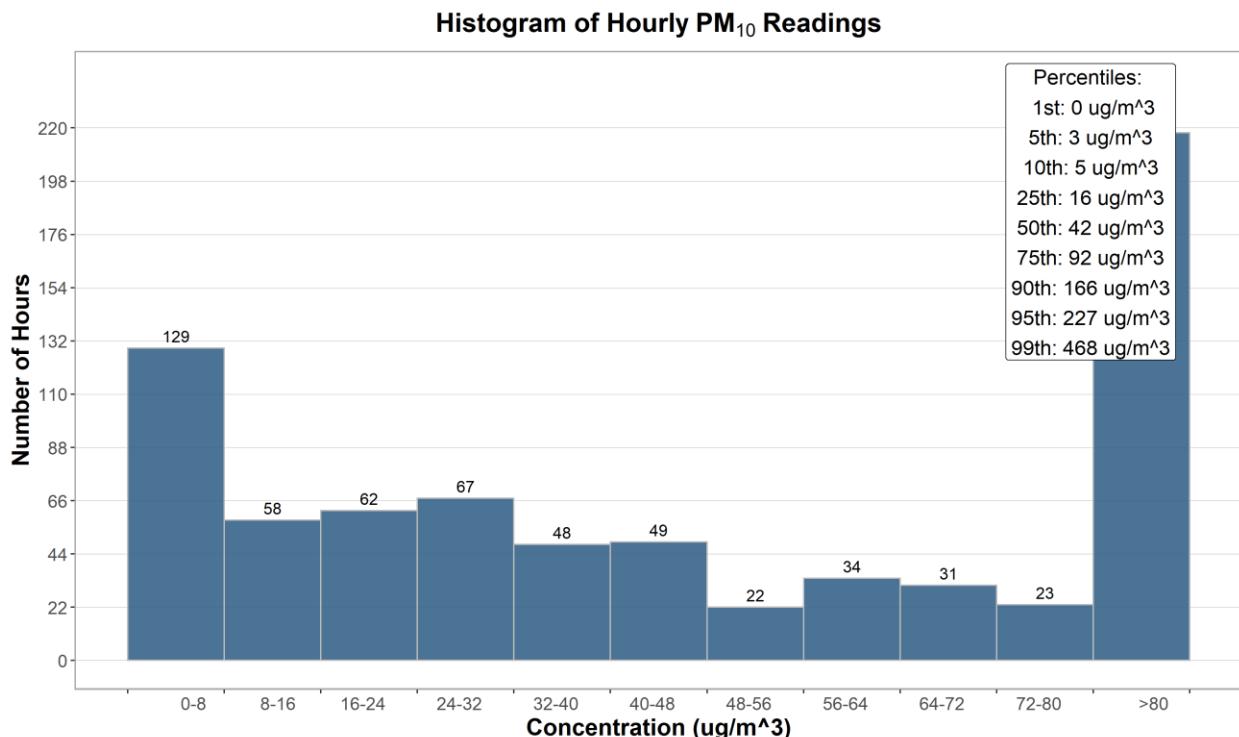


Figure 4-3 Histogram of hourly PM₁₀ concentrations at the Windridge station

Histogram of Hourly TSP Readings

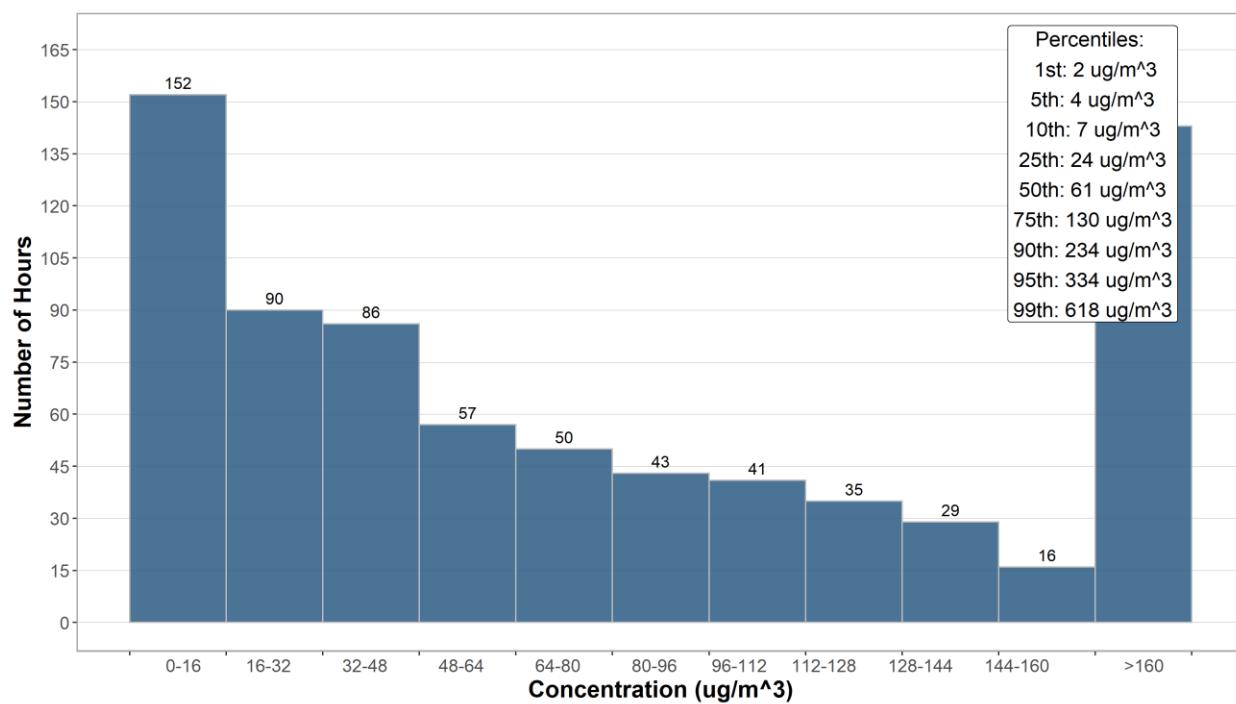


Figure 4-4 Histogram of hourly TSP concentrations at the Windridge station

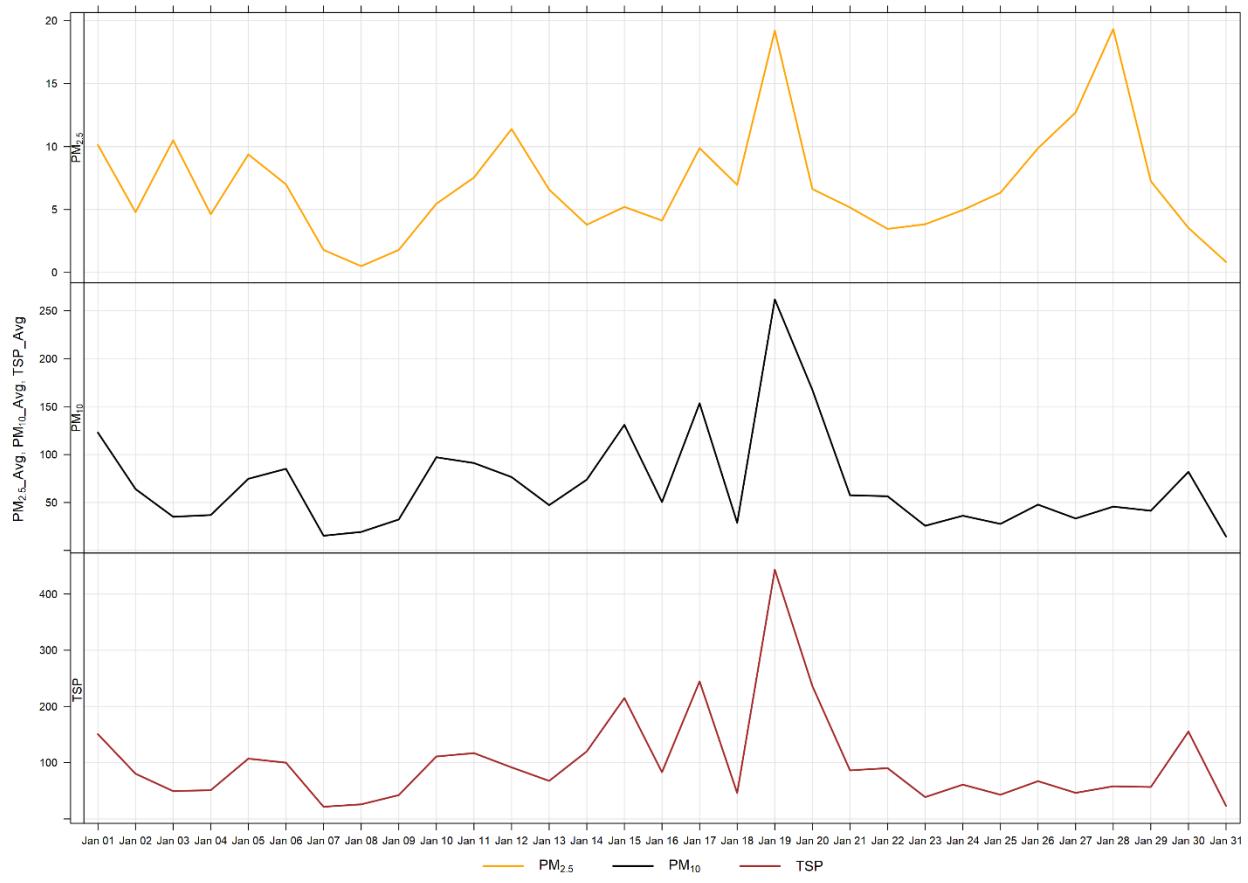


Figure 4-5 24-hour particulate matter concentrations at the Windridge monitor

Figure 4-6 shows the wind rose for the 10 days of TSP exceedances. The wind rose shows that the winds predominantly came from the west direction, and were predominately over 25 km/hr.

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

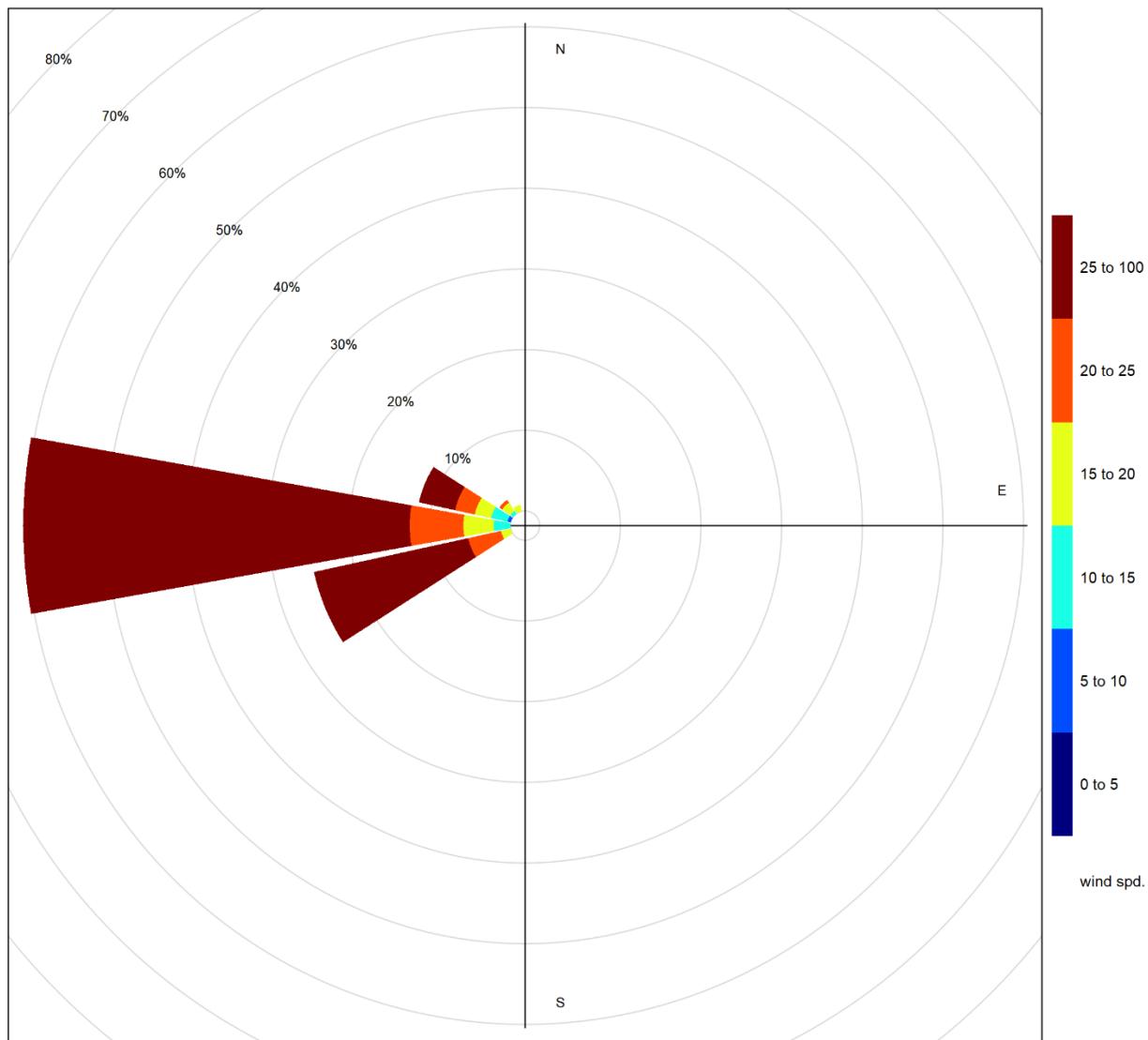


Figure 4-6 Wind rose for TSP exceedance days recorded at the Windridge Station

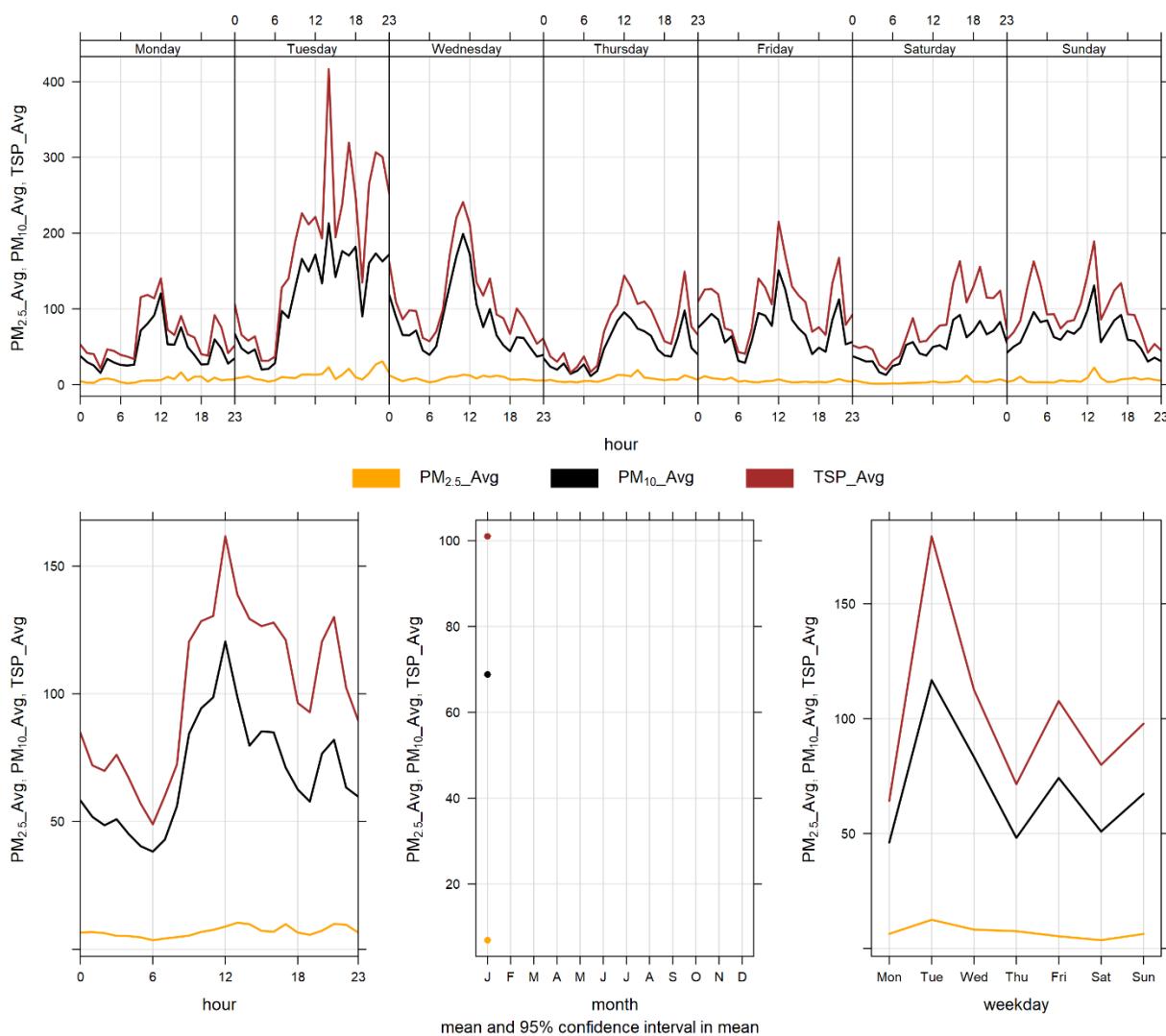


Figure 4-7 Windridge particulate matter time variation

5 WEST INDUSTRIAL GRIMM

5.1 OPERATIONAL SUMMARY

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

Table 5-1 Instrumentation List at the West monitoring location

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

5.2 MONITORING RESULTS AND TRENDS

The West GRIMM was installed in its current location in order to monitor “background” PM concentrations since the predominant wind pattern is from west to east in the valley. Table 5-2 summarizes the maximum 1-hour and 24-hour concentrations recorded over the course of the month. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO. Table 5-3 summarizes the recorded exceedances.

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 one exceedance of the 24-hour PM_{2.5} (29µg/m³) Guideline.

Historically in January, the average number of 24-hour TSP guideline exceedances and 24-hour PM_{2.5} guideline exceedances are 1 and 0, respectfully. The maximum number of 24-hour TSP guidelines exceedances was 7 days in 2013 for TSP, and 2 days in 2010 for PM_{2.5}.

Table 5-2 Summary of January 2021 data at the West GRIMM

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM _{2.5} (µg/m ³)	80	29	West	0	1	0.1	4.8	36.2	28	20	11.0	67.5	29.5	28	100.0
PM ₁₀ (µg/m ³)	-	-	West	-	-	0.1	6.5	52.9	28	20	11.0	67.5	40.7	28	100.0
TSP (µg/m ³)	-	100	West	-	0	0.1	6.1	49.6	28	17	6.5	72.1	34.6	28	100.0

Table 5-3 Days exceeding the TSP AAAQO or PM_{2.5} AAAQO at the West GRIMM Station

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Windridge						
2021-01-28	-	29.5	79.9	7.0	79.9	Winds predominantly from the east
Total # of Exceedances	10	0				
Maximum # of Exceedances (January)	7 (2013)	2 (2010)				
Average # of Exceedances (January)	1	0				
Minimum # of Exceedances (January)	0 (2015, 2016, 2017, 2019, 2020)	0 (2011, 2012, 2014, 2015, 2016, 2017, 2018, 2019, 2020)				

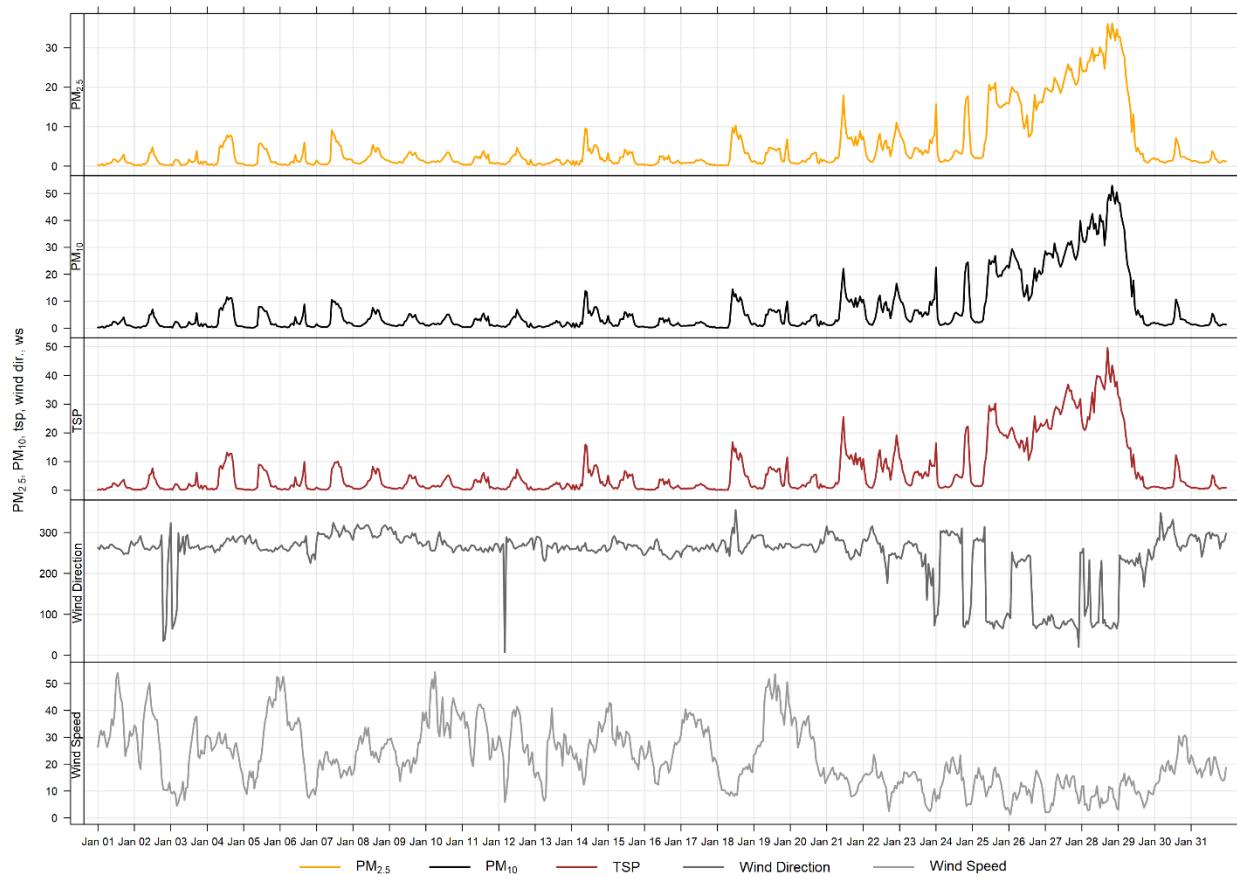


Figure 5-1 1-hour particulate matter concentrations at the West monitor

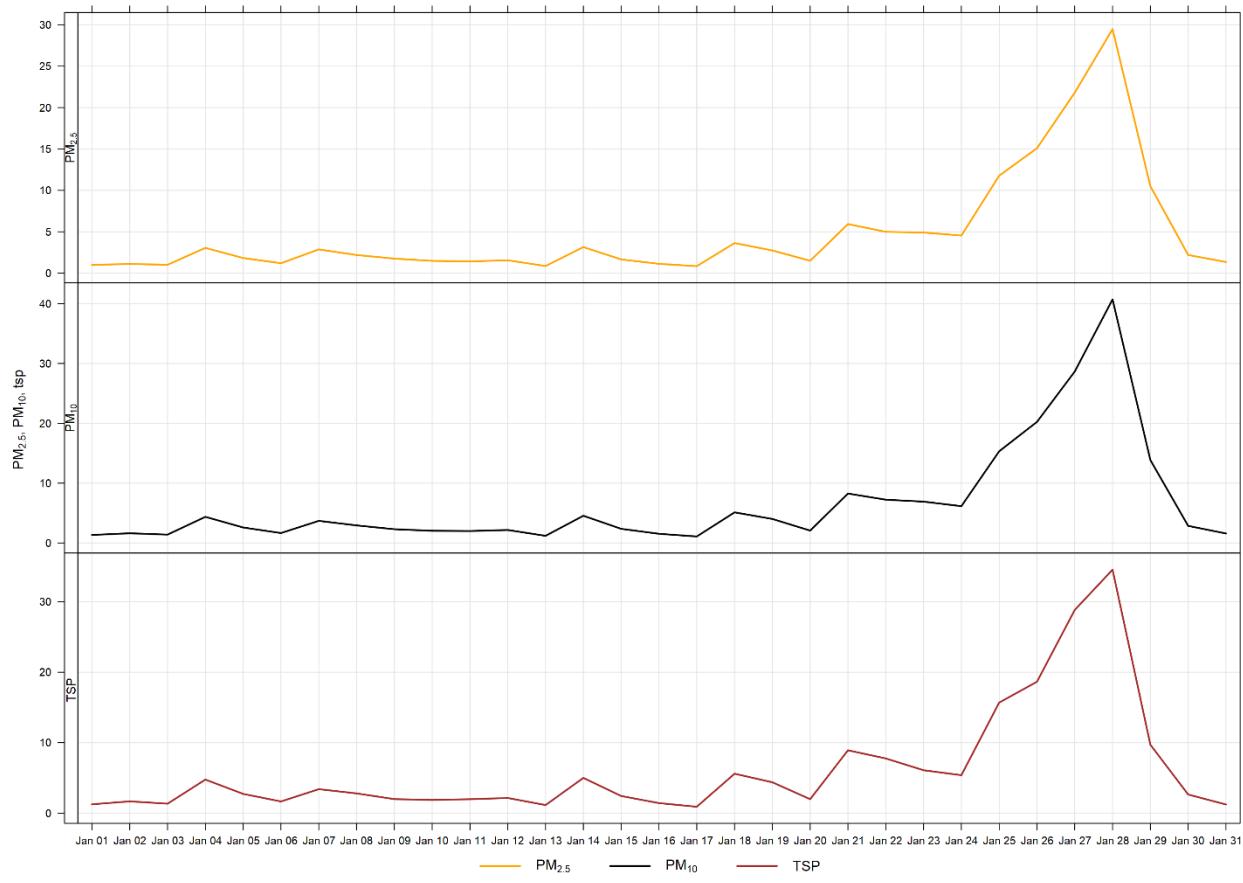


Figure 5-2 24-hour particulate matter concentrations at the West monitor

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 January 2021. As the monitor is generally ‘up-wind’ of the facility, the daily variations in PM are more likely a result of higher traffic volume during daylight hours than specific Lafarge operations.

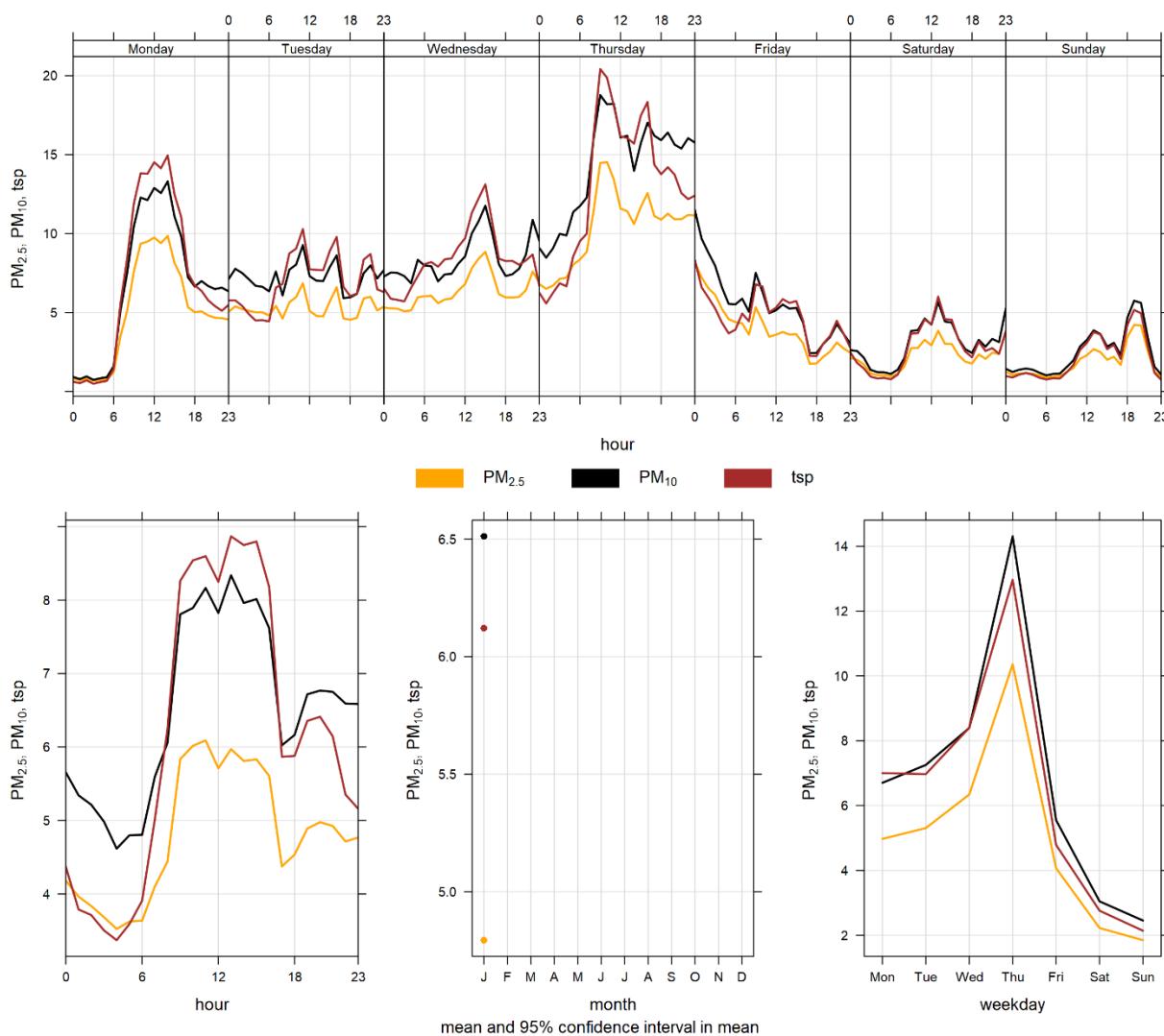


Figure 5-3 **West particulate matter time variation**

6 BERM INDUSTRIAL GRIMM

6.1 OPERATIONAL SUMMARY

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

Table 6-1 Instrumentation List at the Berm monitoring location

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

6.2 MONITORING RESULTS AND TRENDS

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

There were 21 and 3 exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) Guidelines, respectively. There were 11 hours exceeding the 1-hour PM_{2.5} Guideline.

Historically during the month of January, the Berm monitor records an average of 19 and 1 exceedances of the 24-hour TSP and PM_{2.5} guidelines, respectively. The maximum number of TSP exceedances recorded during January occurred in 2013 where there were 26 days that exceeded the guideline. On the other hand, the maximum number of PM_{2.5} exceedances in January was 3 days in 2015 & 2019.

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

The Berm monitor is located along a ridge at the edge of the Lafarge property and is in an area where on-site trucks drive through site, which can create fugitive dust. Quarry blasting also has the potential to impact short term PM immediately following a blast. The low precipitation and strong wind gusting that occurred in January would have contributed to increased particulate levels that may have arisen from multiple sources: Lafarge Plant, Exshaw Creek, a section of exposed silt on Lac des Arcs lake (Section 1.2), dry sections of the Bow River, roads (sanding from previous snowstorms) and open areas. Most of the TSP exceedances recorded were associated with high wind events in January.

Table 6-2 Summary of January 2021 data at the Berm GRIMM

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM_{2.5} (µg/m³)	80	29	Berm	11	3	0.2	14.6	289.9	19	22	50.5	271.5	77.4	19	100.0
PM₁₀ (µg/m³)	-	-	Berm	-	-	0.3	98.0	2366.9	19	22	50.5	271.5	609.0	19	100.0
TSP (µg/m³)	-	100	Berm	-	21	0.3	286.6	3697.5	19	22	50.5	271.5	1555.6	19	100.0

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

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Berm						
2021-01-01	282.2	-	262.0	34.6	50.4	High wind event
2021-01-02	300.5	-	268.3	28.1	47.7	High wind event
2021-01-03	187.5	-	266.3	19.3	59.7	Winds predominately from the west
2021-01-04	102.6	-	273.2	25.6	53.1	High wind event
2021-01-05	667.6	-	262.0	29.4	45.8	High wind event
2021-01-06	347.1	-	265.2	27.4	57.5	High wind event
2021-01-09	191.9	-	284.4	24.4	64.9	High wind event
2021-01-10	467.4	-	267.0	39.3	52.7	High wind event
2021-01-11	317.3	-	260.3	31.7	41.3	High wind event
2021-01-12	140.9	-	270.7	26.5	54.6	High wind event
2021-01-13	241.2	-	265.3	23.4	55.8	High wind event
2021-01-14	307.8	-	258.9	26.4	37.7	High wind event
2021-01-15	685.6	-	268.6	28.0	42.6	High wind event
2021-01-16	263.2	-	251.9	21.8	38.7	High wind event
2021-01-17	775.1	33.3	261.6	32.7	44.9	High wind event
2021-01-19	1555.6	77.4	270.2	40.5	40.0	High wind event

2021-01-20	792.0	33.2	268.0	27.6	30.5	High wind event
2021-01-21	174.7	-	273.5	13.8	63.7	Winds predominately from the west
2021-01-22	195.8	-	269.9	13.7	67.4	Winds predominately from the west
2021-01-24	107.1	-	301.6	13.9	63.5	Winds predominately from the west
2021-01-30	310.8	-	286.6	21.1	62.7	High wind event
Total # of Exceedances	21	3				
Maximum # of Exceedances (January)	26 (2013)	3 (2015, 2019)				
Average # of Exceedances (January)	19	1				
Minimum # of Exceedances (January)	13 (2016)	0 (2011, 2014, 2016, 2017, 2018)				

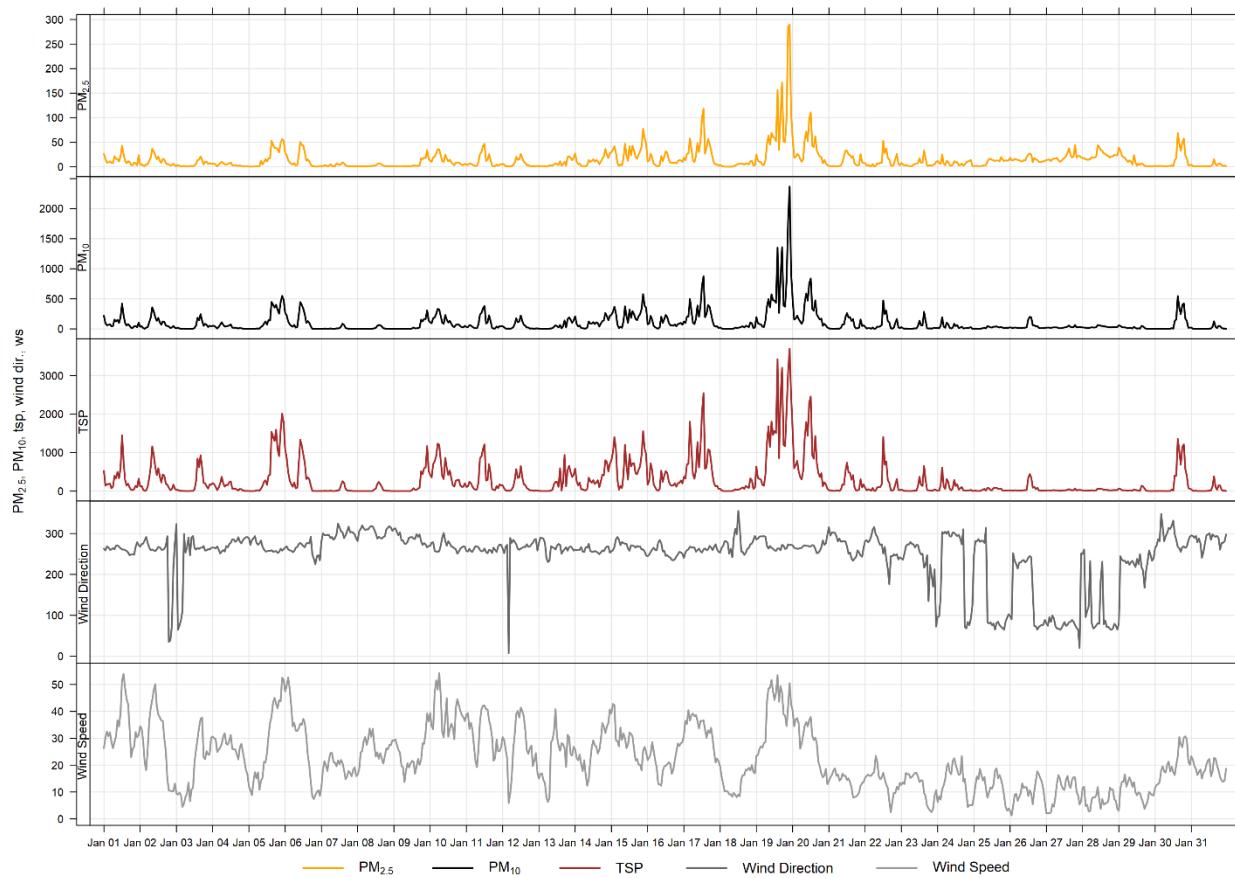


Figure 6-1 1-hour particulate matter concentrations recorded at the Berm monitor

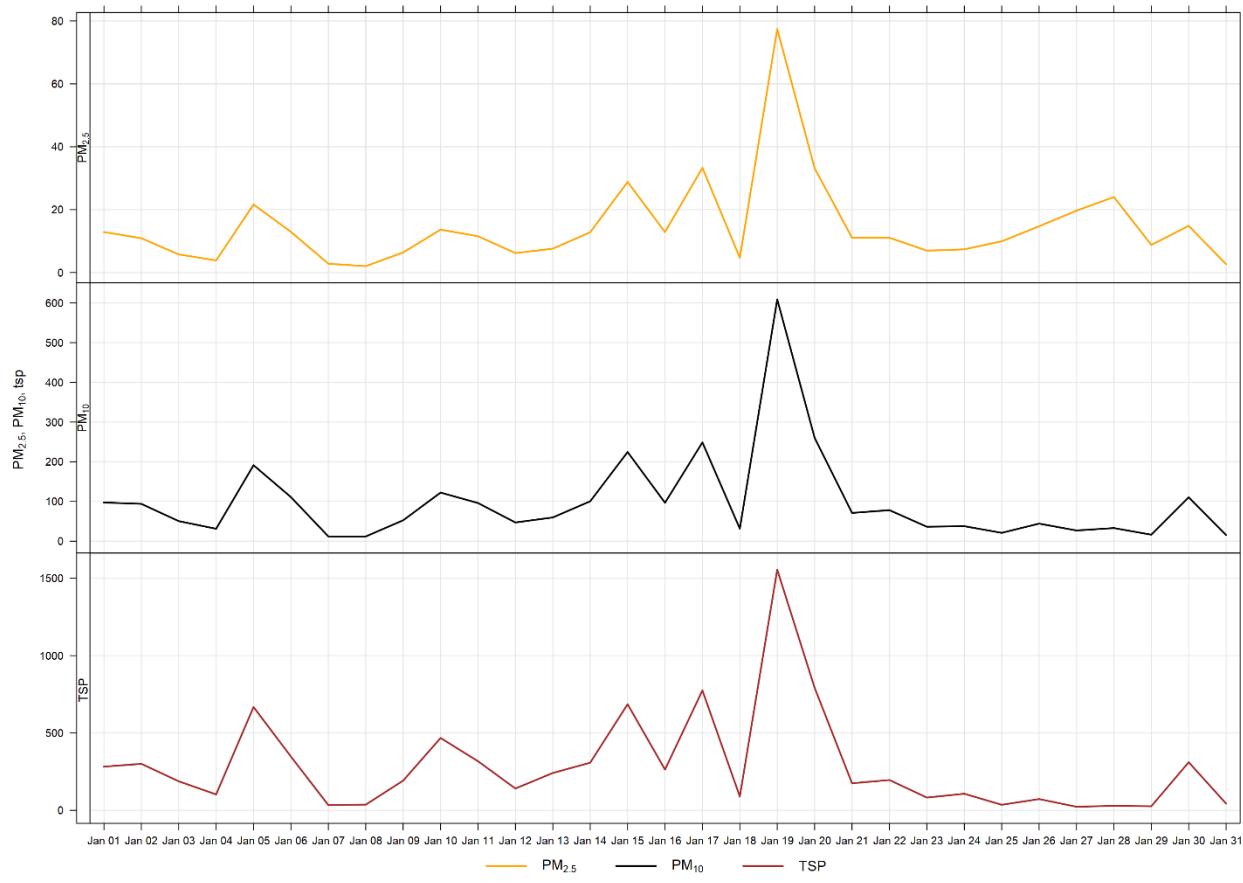


Figure 6-2 24-hour particulate matter concentrations recorded at the Berm monitor

Figure 6-3 shows the wind rose for the 21 days of TSP exceedances. The wind rose shows that the winds predominantly came from the west direction, and were predominately over 20 km/hr.

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

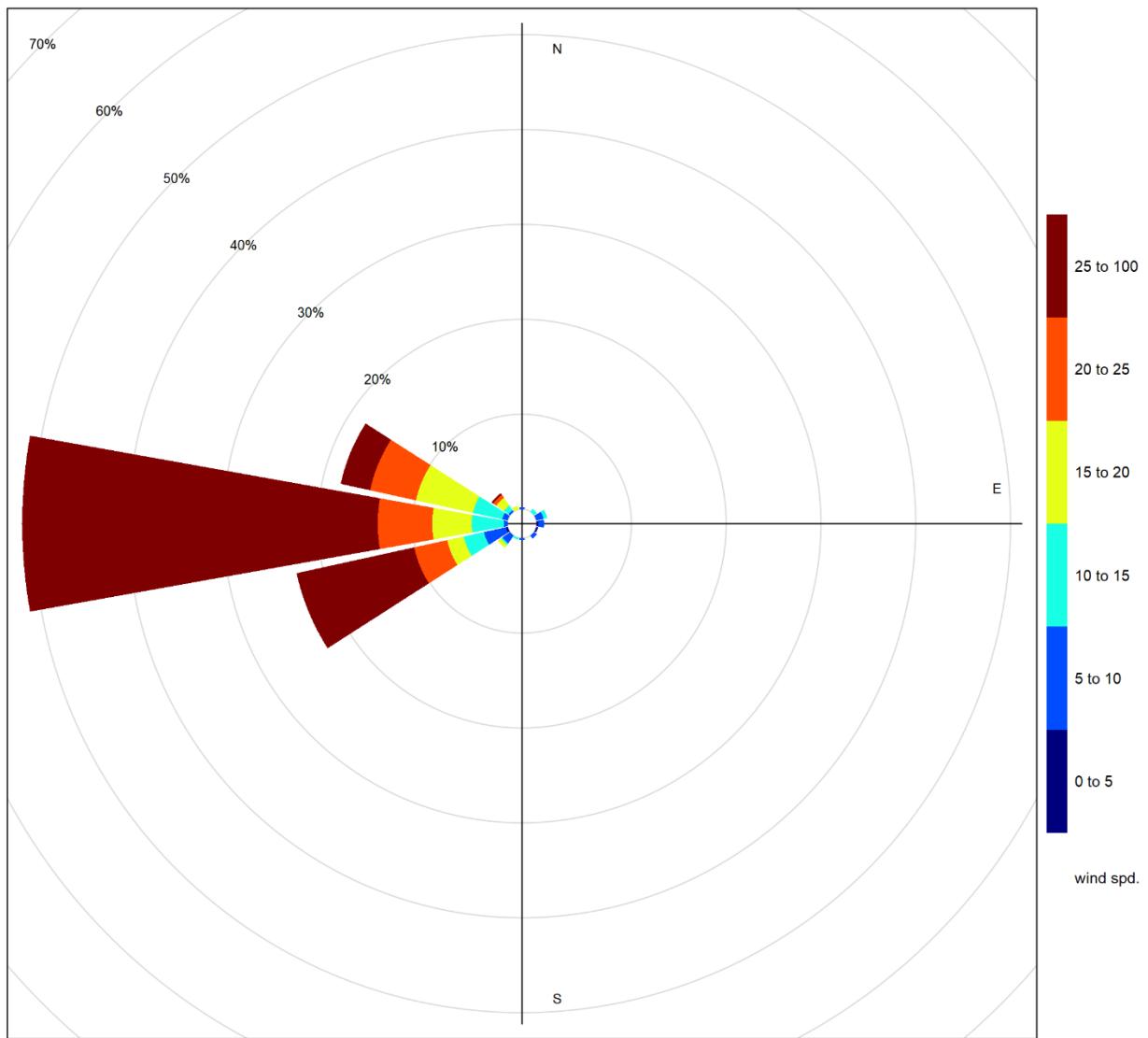


Figure 6-3 Wind rose for TSP exceedance days recorded at the Berm GRIMM

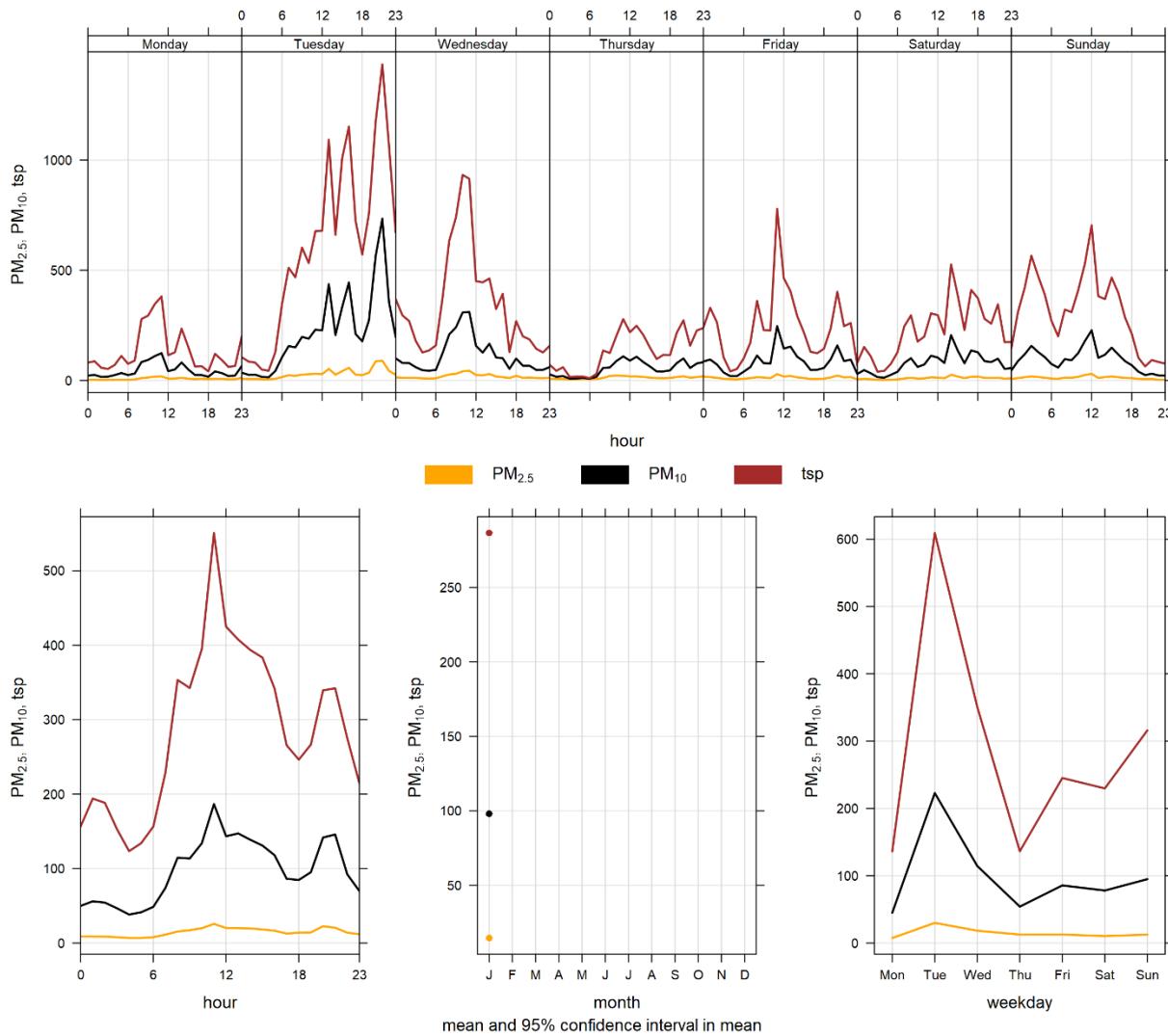


Figure 6-4 **Berm particulate matter time variation**

7 ENTRANCE INDUSTRIAL GRIMM

7.1 OPERATIONAL SUMMARY

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

Table 7-1 Instrumentation List at the Entrance monitoring location

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

7.2 MONITORING RESULTS AND TRENDS

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

During the month of January, there were 19 and zero exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) Guidelines, respectively.

Historically, the Entrance monitor records an average of 18 and zero exceedances of the 24-hour TSP and PM_{2.5} guidelines respectively, during the month of January. The maximum number of TSP exceedances recorded during January occurred in 2014, which had 29 days that exceeded the guideline. The minimum number of TSP exceedances recorded during January occurred in 2011 & 2018, which had 11 days that exceeded the guideline. On the other hand, the maximum number of PM_{2.5} exceedances recorded during the month of January was 5 days in 2013.

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

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

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

Figure 7-3 shows the wind rose for the 19 days that exceeded the TSP Guideline. The wind rose indicates that the winds predominantly came from the west direction, and were predominately over 20 km/hr.

Table 7-2 Summary of January 2021 data at the Entrance GRIMM

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM_{2.5} (µg/m³)	80	29	Entrance	0	0	0.5	12.7	75.3	19	21	41.8	273.5	28.7	7	100.0
PM₁₀ (µg/m³)	-	-	Entrance	-	-	0.7	55.3	619.8	19	21	41.8	273.5	162.6	19	100.0
TSP (µg/m³)	-	100	Entrance	-	19	0.5	156.3	2291.3	19	22	50.5	271.5	652.2	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						
2021-01-05	230.6	-	262.0	29.4	45.8	High wind event
2021-01-06	101.7	-	265.2	27.4	57.5	High wind event
2021-01-07	277.2	-	298.7	19.3	69.4	High wind event
2021-01-08	433.2	-	307.5	26.5	69.3	High wind event
2021-01-09	224.3	-	284.4	24.4	64.9	High wind event
2021-01-10	227.1	-	267.0	39.3	52.7	High wind event
2021-01-12	121.8	-	270.7	26.5	54.6	High wind event
2021-01-13	122.4	-	265.3	23.4	55.8	High wind event
2021-01-14	106.2	-	258.9	26.4	37.7	High wind event
2021-01-15	140.7	-	268.6	28.0	42.6	High wind event
2021-01-17	122.7	-	261.6	32.7	44.9	High wind event
2021-01-19	652.2	-	270.2	40.5	40.0	High wind event
2021-01-20	232.2	-	268.0	27.6	30.5	High wind event
2021-01-21	171.4	-	273.5	13.8	63.7	Winds predominantly from the west
2021-01-22	222.3	-	269.9	13.7	67.4	Winds predominantly from the west

2021-01-24	156.3	-	301.6	13.9	63.5	Winds predominantly from the west
2021-01-25	135.0	-	38.5	12.1	75.3	Winds predominantly from the west
2021-01-30	250.4	-	286.6	21.1	62.7	High wind event
2021-01-31	174.9	-	286.1	18.3	68.5	Winds predominantly from the west
Total # of Exceedances	19	0				
Maximum # of Exceedances (January)	29 (2014)	5 (2013)				
Average # of Exceedances (January)	18	0				
Minimum # of Exceedances (January)	11 (2011, 2018)	0 (2011, 2012, 2015, 2016, 2017, 2018, 2019, 2020)				

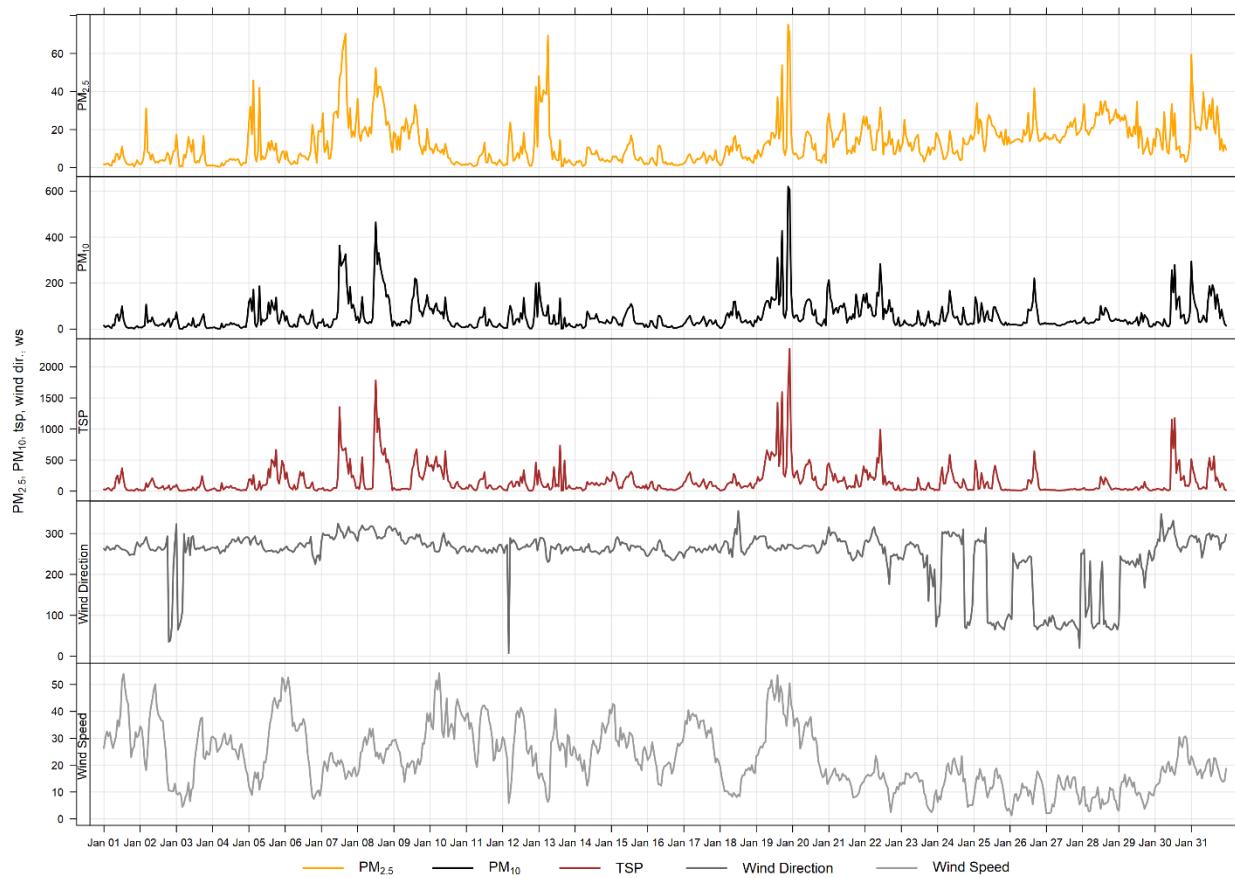


Figure 7-1 1-hour particulate matter concentrations recorded at the Entrance monitor

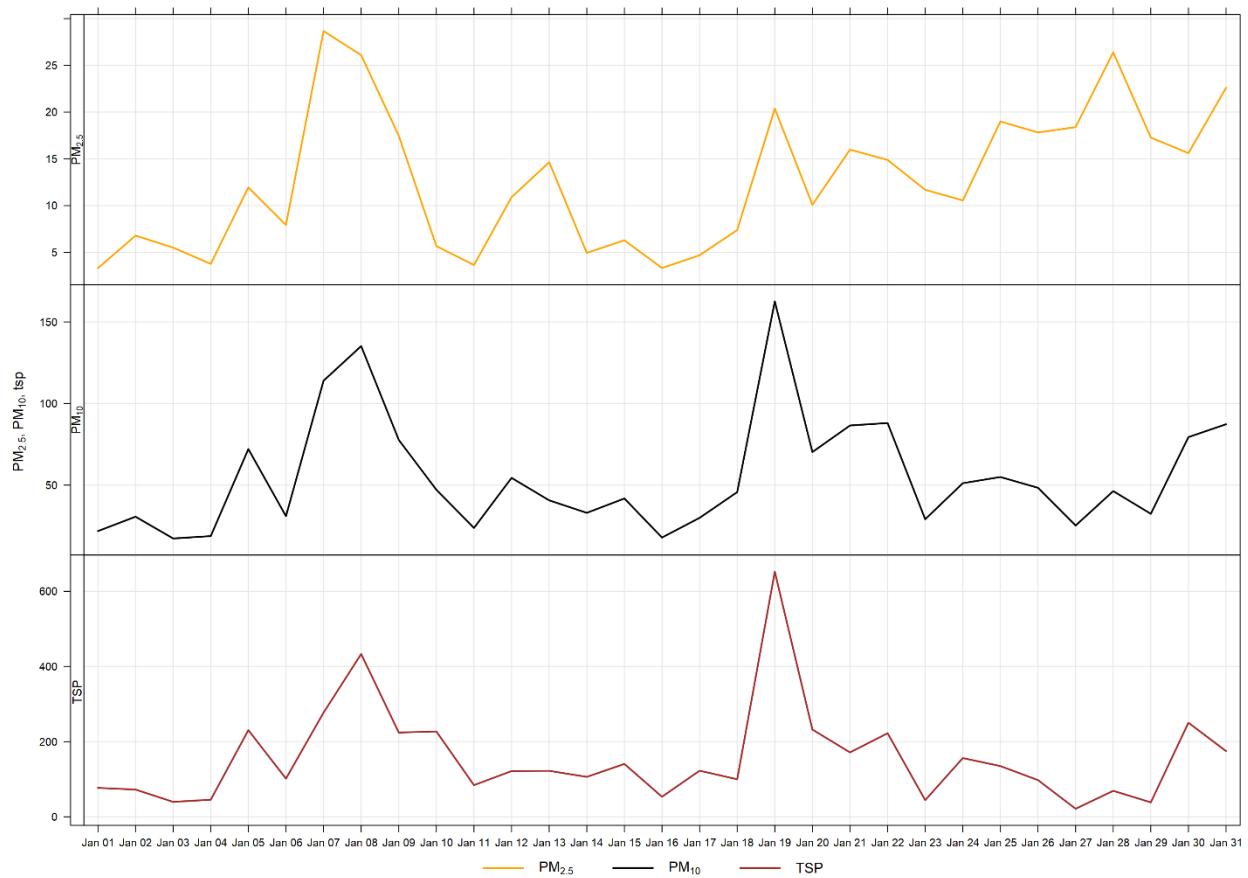


Figure 7-2 24-hour particulate matter concentrations at the Entrance monitor

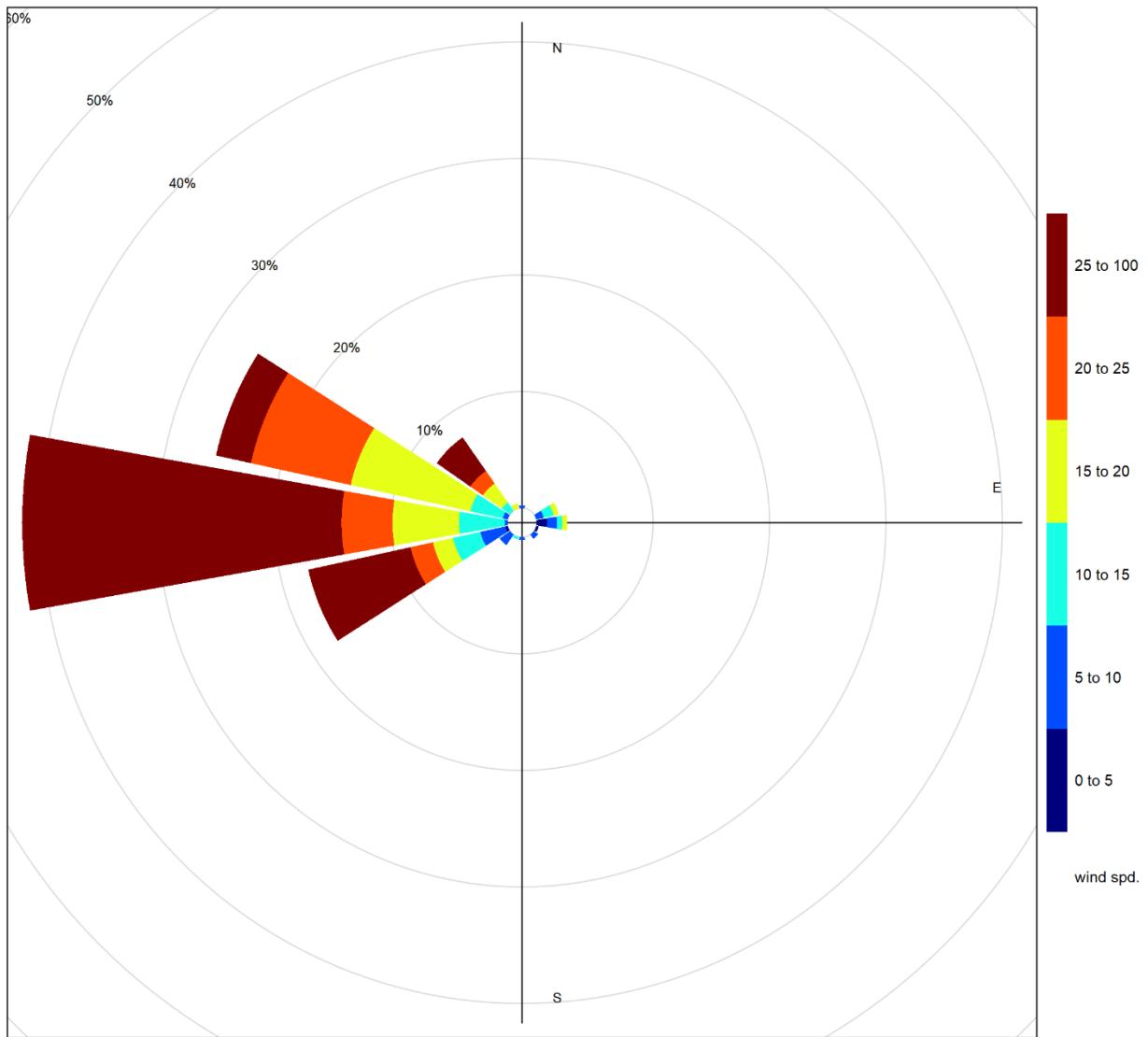


Figure 7-3 Wind rose for TSP exceedance days recorded at the Entrance GRIMM

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

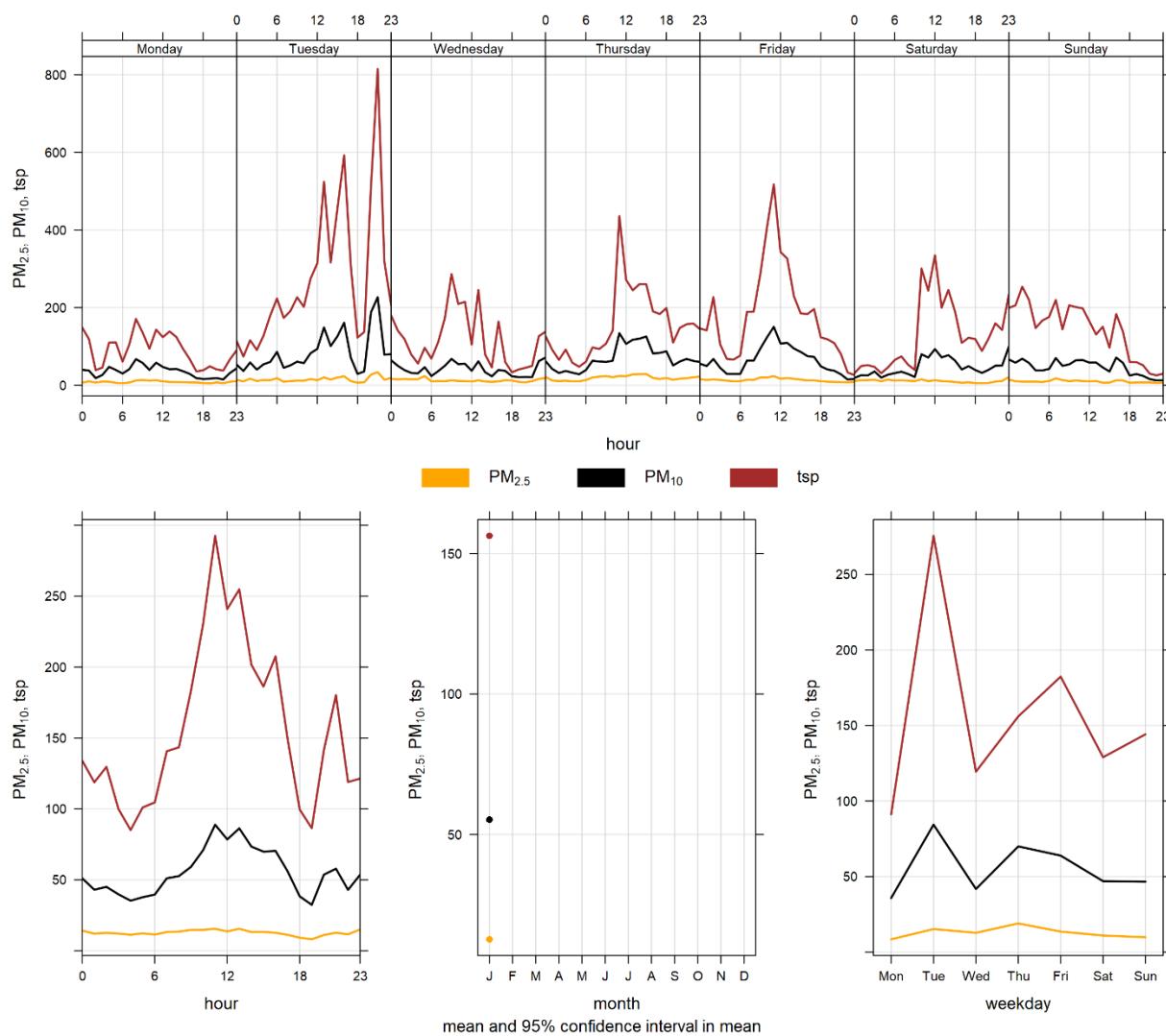


Figure 7-4 Entrance particulate matter time variation

BIBLIOGRAPHY

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

APPENDIX

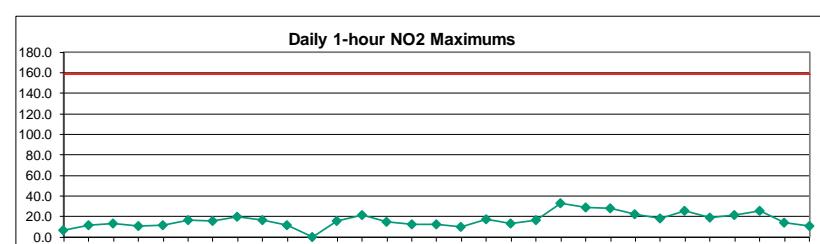
A DATA & CALIBRATION REPORTS

APPENDIX



Lagoon NO₂ (ppb) – January 2021

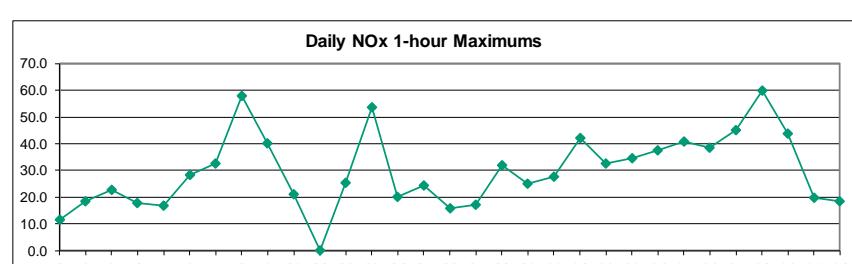
Day	Hour																									Mean	Max
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	2.7	S	4.4	1.8	2.3	4.1	2.3	7.2	5.3	2.7	2.2	1.8	1.7	1.7	1.2	1.5	2.5	2.1	1.5	1.3	2.5	5.5	2.7	6.1	2.9	7.2	
2	4.5	S	8.4	9.3	4.6	2.4	2.5	4.2	3.3	1.1	3.6	2.1	1.9	3.5	3.0	4.3	8.3	8.8	6.4	1.8	5.4	7.3	11.8	9.8	5.1	11.8	
3	3.1	S	3.3	1.4	9.9	8.2	5.7	12.1	13.5	10.5	10.5	6.1	5.7	6.9	9.1	8.2	4.8	7.4	3.4	5.4	9.8	6.3	2.3	2.9	6.8	13.5	
4	6.3	S	6.4	8.8	4.5	2.4	5.8	4.2	11.2	7.2	7.6	7.0	5.2	7.0	4.8	5.2	7.5	6.5	6.6	4.6	6.2	7.6	9.4	9.8	6.6	11.2	
5	5.8	S	10.4	9.6	5.5	5.3	4.2	5.7	10.5	11.8	6.7	3.9	3.7	1.9	3.5	1.1	1.6	0.9	1.2	1.2	1.1	0.9	2.5	4.6	4.5	11.8	
6	4.3	S	1.8	1.6	1.6	2.1	6.4	11.1	14.4	12.7	5.9	4.2	2.8	5.9	7.2	10.1	10.3	9.4	10.2	9.7	16.9	13.7	11.8	17.1	8.3	17.1	
7	16.2	S	11.8	11.9	10.1	7.1	5.3	7.6	11.5	13.2	8.6	8.0	12.0	10.5	11.9	12.6	7.4	7.4	7.6	9.8	11.8	10.9	11.9	14.5	10.4	16.2	
8	8.7	S	5.9	5.1	5.6	6.2	5.7	5.9	6.9	5.4	6.9	11.0	20.2	15.1	18.0	18.0	13.0	10.7	9.1	7.8	4.7	5.1	4.8	7.6	9.0	20.2	
9	5.7	S	12.6	6.1	10.6	17.1	12.2	14.0	16.7	13.9	8.9	13.4	10.4	9.9	8.4	12.4	12.4	7.8	8.4	3.9	5.6	2.6	4.9	5.6	9.7	17.1	
10	6.1	S	3.6	1.5	1.4	1.5	3.6	9.2	11.6	7.6	4.9	6.2	4.4	6.4	4.5	2.5	3.6	1.5	1.8	4.3	3.4	5.5	4.5	2.4	4.4	11.6	
11	1.4	S	0.9	1.3	2.4	2.8	5.5	11.4	4.7	2.6	3.5	C	C	C	C	3.5	3.2	1.6	3.5	4.6	8.3	2.8	-	-	-		
12	2.1	S	2.7	11.7	15.6	11.4	7.8	8.9	6.4	6.6	5.5	4.1	9.6	8.0	6.0	5.9	8.3	9.0	5.6	5.3	5.3	5.2	5.3	11.0	7.3	15.6	
13	17.7	S	20.3	22.0	11.9	6.5	9.3	10.0	14.5	9.2	6.2	19.5	11.2	8.9	2.4	3.6	5.8	4.6	2.7	5.6	8.5	4.9	2.4	6.5	9.3	22.0	
14	7.8	S	9.7	7.5	3.8	1.6	9.3	14.0	15.3	7.3	3.2	2.7	2.5	1.9	2.8	2.4	2.3	2.5	1.8	2.8	2.8	3.5	1.3	1.6	4.8	15.3	
15	1.5	S	10.2	12.7	11.8	6.5	7.1	8.5	8.8	10.8	4.7	5.8	9.8	10.2	6.5	6.1	12.6	8.5	6.1	7.8	9.0	3.8	2.4	2.5	7.6	12.7	
16	1.8	S	7.2	6.8	6.1	3.0	6.6	7.6	12.4	6.7	3.0	2.2	1.5	1.1	1.1	1.7	2.1	2.0	1.7	1.5	1.9	2.2	1.7	1.5	3.6	12.4	
17	1.5	S	2.3	2.5	4.3	2.9	4.0	1.8	3.5	4.0	2.2	2.6	4.5	8.3	5.3	2.9	8.7	10.0	6.2	10.5	8.9	8.4	4.5	7.3	5.1	10.5	
18	4.3	S	4.3	4.8	4.7	6.5	7.7	10.0	14.1	14.9	17.5	13.2	13.0	6.1	2.2	3.0	3.9	3.9	3.7	5.4	4.7	6.0	9.3	9.6	7.5	17.5	
19	10.8	S	12.2	13.4	11.7	10.8	6.2	3.7	6.2	2.7	4.4	3.5	3.5	5.1	5.6	3.8	10.6	10.7	4.1	7.3	11.2	8.5	12.0	11.1	7.8	13.4	
20	5.6	S	4.8	8.6	4.8	7.1	14.8	13.2	12.8	11.2	13.0	11.0	12.0	9.2	7.7	2.4	3.2	4.1	4.0	16.8	10.0	4.7	7.3	8.7	8.6	16.8	
21	9.9	S	8.4	7.3	11.3	12.0	11.3	18.8	20.5	21.0	14.3	11.7	10.1	6.2	5.6	5.8	12.5	13.5	14.5	20.9	31.2	33.0	25.3	24.3	15.2	33.0	
22	24.3	S	16.4	13.1	9.6	9.1	8.7	11.8	17.8	15.9	16.3	12.4	12.8	7.6	6.0	6.2	19.8	18.5	24.0	19.2	24.5	26.8	28.3	28.9	16.4	28.9	
23	28.3	S	20.5	17.7	16.3	15.4	14.8	18.1	19.7	20.1	14.9	13.8	8.9	6.9	4.3	6.8	10.8	13.9	23.4	24.1	26.6	23.9	21.5	21.1	17.0	28.3	
24	17.9	S	11.3	9.1	7.4	11.5	11.4	13.4	11.1	11.9	12.1	12.2	6.6	11.1	7.6	8.4	7.8	20.0	21.0	19.2	17.7	22.5	18.4	18.5	13.4	22.5	
25	11.9	S	13.5	18.7	16.7	15.5	14.9	17.6	17.1	17.6	12.0	13.8	12.1	10.1	6.4	6.4	9.3	9.5	13.9	15.6	15.1	14.3	16.3	18.5	13.8	18.7	
26	17.7	S	16.8	21.0	21.2	22.2	22.3	23.3	25.5	19.9	17.4	17.3	10.1	8.0	9.8	18.9	15.1	12.5	8.2	6.5	6.2	6.9	11.6	11.5	15.2	25.5	
27	7.9	S	14.5	15.7	13.0	11.6	10.5	9.8	9.6	10.6	8.7	8.3	8.5	7.6	9.5	9.9	10.6	11.3	12.2	15.6	15.2	13.3	15.6	19.0	11.7	19.0	
28	21.6	S	17.5	17.5	21.1	19.8	16.4	17.1	14.9	11.6	13.9	15.7	13.4	16.5	19.2	19.2	18.6	18.1	17.7	21.3	16.2	19.2	18.8	19.4	17.6	21.6	
29	23.9	S	25.2	25.2	25.3	25.7	25.4	25.4	25.4	22.0	19.8	17.6	17.9	16.9	16.6	12.7	12.5	15.2	12.1	14.4	18.1	11.9	11.4	10.1	18.7	25.7	
30	10.4	S	14.4	9.7	9.0	12.0	11.5	10.6	9.7	10.6	7.2	6.3	8.0	5.9	5.2	4.9	2.5	7.8	7.0	8.0	5.3	6.4	5.5	5.1	8.0	14.4	
31	6.4	S	9.0	8.6	6.2	6.0	8.7	9.7	8.8	7.1	6.0	8.6	7.4	8.8	8.4	8.2	6.9	6.6	8.2	7.8	11.3	7.4	6.5	4.7	7.7	11.3	
NO.	-	31	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	31	31	31	31	31	31	707	100.0%	
MEAN	9.6	-	10.0	10.1	9.4	8.9	9.3	11.2	12.4	10.7	8.8	8.9	8.4	7.8	7.0	7.2	8.5	8.7	8.3	9.3	10.3	9.8	9.7	10.5			
MAX	28.3	-	25.2	25.2	25.3	25.7	25.4	25.4	25.5	22.0	19.8	19.5	20.2	16.9	19.2	19.8	20.0	24.0	24.1	31.2	33.0	28.3	28.9				



Number of 1HR Exceedences		0
Number of Non-Zero Readings		707
Maximum 1-HR Average		33.0 PPB
Maximum 24-HR Average		18.7 PPB
Monthly Calibration Standard Deviation		6.1
Operational Time		744 HRS
Operational Uptime		100.0 %
Monthly Average		9.3 PPB

Lagoon NOx (ppb) – January 2021

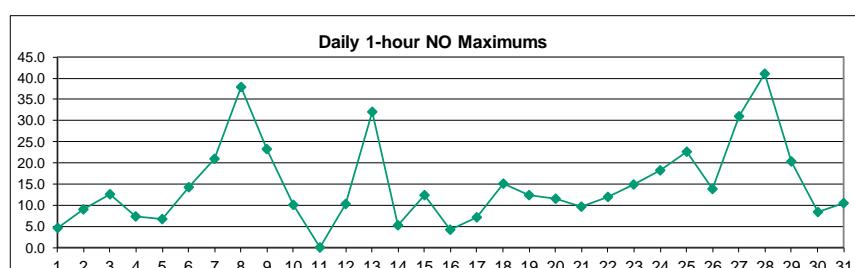
Day	Hour																									Mean	Max
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1		3.7	S	6.3	2.1	2.8	6.4	2.6	11.6	7.5	3.5	2.8	2.5	2.3	2.4	1.5	1.9	2.9	2.2	1.5	1.3	3.9	9.4	4.2	9.8	4.1	11.6
2		6.9	S	14.8	18.0	6.7	2.9	3.4	5.5	5.0	1.2	6.2	2.9	2.6	5.3	4.6	7.0	13.0	14.0	7.7	1.9	6.0	9.1	18.6	17.9	7.9	18.6
3		3.3	S	3.4	1.5	18.0	9.7	6.9	20.6	16.4	12.7	22.8	9.2	8.2	10.4	15.7	13.0	6.5	10.9	4.2	8.4	13.6	8.1	2.7	3.5	10.0	22.8
4		9.7	S	10.3	12.8	5.0	2.9	8.3	5.7	17.7	10.0	11.8	12.2	7.9	11.9	6.0	6.8	11.8	10.6	12.0	5.7	8.0	11.1	16.5	15.1	10.0	17.7
5		7.2	S	16.8	15.0	6.2	6.1	4.5	6.7	12.9	16.8	9.2	5.7	8.2	2.7	5.9	1.6	2.4	1.2	1.6	1.6	1.3	1.1	4.2	7.8	6.4	16.8
6		6.3	S	2.1	2.0	1.7	2.7	8.9	17.8	28.4	26.5	9.1	7.5	3.9	10.0	11.1	13.8	12.9	9.8	11.0	9.8	20.7	14.3	13.0	27.7	11.8	28.4
7		30.7	S	23.9	23.9	17.9	11.1	6.7	10.5	20.3	25.3	14.1	15.8	32.7	23.1	24.3	22.6	10.9	13.6	10.0	13.4	17.7	19.3	18.8	25.4	18.8	32.7
8		12.6	S	6.3	5.4	7.2	9.0	6.4	6.9	9.7	6.4	11.4	24.0	58.0	37.3	45.3	43.7	23.2	15.9	11.5	8.7	6.0	6.4	6.5	12.7	16.6	58.0
9		7.1	S	26.0	8.8	21.0	40.1	19.8	26.2	35.5	28.4	15.3	34.3	26.8	21.6	13.7	23.9	20.3	10.2	11.9	4.5	8.9	3.0	8.1	9.5	18.5	40.1
10		9.7	S	5.8	1.8	1.6	1.8	5.5	18.6	21.2	12.5	6.7	8.7	6.2	12.7	6.6	3.1	5.7	1.5	2.0	5.7	4.4	7.7	6.6	2.8	6.9	21.2
11		1.5	S	0.9	1.4	2.8	3.1	7.0	18.6	6.5	3.5	5.1	C	C	C	C	C	3.5	3.1	1.3	3.6	4.9	12.3	2.7	-	-	
12		2.0	S	2.8	12.3	25.2	17.3	9.9	13.2	7.7	10.2	7.3	5.6	17.5	12.8	8.9	7.5	10.8	13.8	6.1	5.5	6.9	6.8	5.6	18.7	10.2	25.2
13		37.5	S	46.5	53.5	15.4	6.6	9.7	21.2	24.9	15.5	8.6	39.7	18.0	13.6	2.8	5.0	7.8	5.1	3.4	7.9	11.8	6.4	2.3	9.2	16.2	53.5
14		10.0	S	13.4	9.9	4.2	1.5	10.9	16.2	20.1	10.4	3.5	3.1	3.2	2.2	3.3	2.8	2.5	2.5	1.7	3.3	3.4	4.3	1.2	1.5	5.9	20.1
15		1.5	S	16.3	24.4	18.6	8.3	9.7	10.6	13.6	15.2	5.4	8.6	16.0	16.1	8.2	7.4	19.2	10.9	7.3	9.9	13.3	3.9	2.5	3.4	10.9	24.4
16		1.6	S	9.1	7.7	8.6	3.0	7.2	10.1	16.0	8.0	3.5	2.5	1.5	0.9	1.0	1.5	2.0	1.9	1.6	1.4	1.7	2.2	1.6	1.3	4.2	16.0
17		1.4	S	2.2	2.5	6.4	3.2	5.0	1.8	4.3	4.4	2.4	3.2	7.4	13.4	7.2	3.2	12.8	15.3	8.4	17.0	13.2	13.6	5.4	10.4	7.2	17.0
18		4.5	S	4.7	7.1	5.3	6.9	7.9	11.3	20.8	21.4	31.9	17.8	20.4	11.8	2.5	3.4	4.3	4.0	3.8	5.5	4.7	6.6	14.8	15.8	10.3	31.9
19		17.9	S	22.6	25.2	21.7	18.7	9.3	5.3	10.6	3.1	6.2	4.3	4.4	6.7	9.2	5.0	20.3	20.2	6.2	12.3	20.1	13.9	20.1	19.6	13.2	25.2
20		7.7	S	5.9	14.2	5.9	9.1	21.9	22.8	20.5	16.7	22.6	19.8	21.1	15.0	10.8	2.5	3.5	4.3	6.1	27.8	10.5	5.0	8.1	12.6	12.8	27.8
21		15.7	S	10.4	8.6	15.2	15.9	12.6	26.9	25.9	28.5	19.8	20.5	15.6	8.7	6.7	6.4	17.6	16.5	14.7	21.7	37.8	42.3	31.5	27.8	19.4	42.3
22		31.5	S	21.9	17.4	9.9	10.1	10.2	18.8	25.4	25.1	27.4	21.2	24.2	11.0	7.0	6.8	24.2	19.9	25.0	19.2	25.7	27.8	30.2	32.7	20.5	32.7
23		31.0	S	28.2	19.3	19.3	16.7	19.5	19.5	24.1	34.4	24.9	26.1	14.0	10.9	5.3	7.7	12.4	14.9	25.3	28.9	31.1	25.0	32.2	25.6	21.6	34.4
24		21.5	S	13.6	10.8	9.2	20.3	18.3	24.0	16.4	19.1	26.4	25.2	10.8	19.1	11.9	11.8	10.9	37.7	33.7	22.1	20.1	27.3	18.4	24.1	19.7	37.7
25		15.6	S	18.7	40.9	32.1	25.5	23.4	29.9	29.3	33.1	22.4	28.4	26.3	22.4	10.0	8.1	12.4	12.4	20.5	22.0	18.1	16.6	19.2	24.6	22.2	40.9
26		21.6	S	17.3	22.6	23.2	25.6	25.2	26.8	38.5	27.6	26.4	30.6	15.9	11.4	15.3	31.2	21.1	21.6	9.7	7.2	6.7	7.9	17.2	11.6	20.1	38.5
27		7.7	S	44.9	34.3	14.3	14.0	14.8	15.0	13.6	17.4	12.6	12.4	14.1	13.7	14.2	13.4	12.9	11.8	15.3	18.1	16.8	14.3	17.4	22.2	16.7	44.9
28		28.4	S	18.3	27.1	37.3	29.9	20.3	19.1	19.8	14.2	22.2	38.7	31.3	44.3	59.8	49.0	34.1	27.5	21.8	37.1	19.4	32.8	24.7	32.4	30.0	59.8
29		35.3	S	43.0	43.7	40.5	39.1	38.6	35.9	41.4	40.5	39.8	28.9	30.8	27.8	28.5	18.7	14.9	18.9	12.2	14.7	18.7	11.9	12.7	12.9	28.2	43.7
30		11.1	S	17.7	10.6	12.6	19.8	15.5	12.4	10.0	13.7	8.7	7.4	12.1	8.2	6.7	6.3	2.8	10.5	11.3	12.4	6.0	9.0	5.7	5.9	10.3	19.8
31		9.7	S	12.3	9.9	6.2	5.9	9.5	10.2	11.4	8.1	8.8	18.4	9.6	14.2	13.5	10.7	7.4	8.2	11.0	10.0	14.0	10.1	6.3	4.7	10.0	18.4
NO.		31	-	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	707	100.0%
MEAN		13.3	-	15.7	16.0	13.6	12.7	12.2	16.1	18.6	16.6	14.4	16.2	15.7	14.0	12.2	11.5	12.1	12.0	10.4	11.8	12.7	12.3	12.5	14.6		
MAX		37.5	-	46.5	53.5	40.5	40.1	38.6	35.9	41.4	40.5	39.8	39.7	58.0	44.3	59.8	49.0	34.1	37.7	33.7	37.1	37.8	42.3	32.2	32.7		



Number of Non-Zero Readings	707
Maximum 1-HR Average	59.8 PPB
Maximum 24-HR Average	30.0 PPB
Monthly Calibration Standard Deviation	10.22
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	13.8 PPB

Lagoon NO (ppb) – January 2021

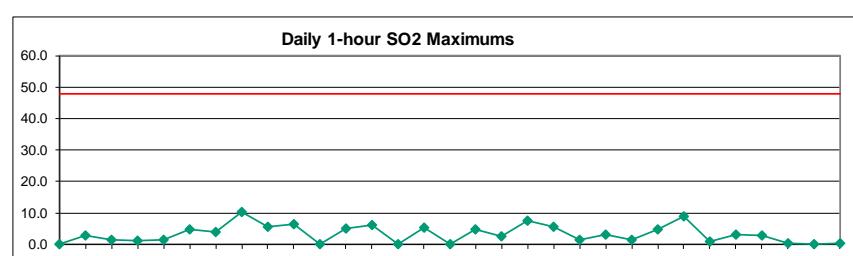
Day	Hour																									Mean	Max	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1		1.3	S	2.2	0.6	0.8	2.6	0.5	4.7	2.5	1.1	0.9	0.9	0.8	0.9	0.6	0.7	0.8	0.5	0.4	0.5	1.8	4.3	1.8	4.1	1.5	4.7	
2		2.7	S	6.7	9.1	2.5	0.8	1.2	1.6	2.0	0.5	2.9	1.0	1.0	2.1	1.9	3.0	5.1	5.6	1.7	0.5	1.0	2.2	7.2	8.5	3.1	9.1	
3		0.5	S	0.6	0.5	8.5	1.9	1.6	8.9	3.3	2.6	12.6	3.5	2.8	3.9	7.0	5.2	2.0	3.8	1.1	4.1	2.2	0.7	0.9			3.5	12.6
4		3.7	S	4.3	4.3	0.8	0.8	2.9	1.9	6.9	3.1	4.6	5.6	3.1	5.3	1.5	2.0	4.6	4.3	5.7	1.4	2.1	3.9	7.5	5.6	3.7	7.5	
5		1.7	S	6.8	5.8	1.1	1.1	0.7	1.4	2.8	5.4	2.8	2.2	4.8	1.0	2.7	0.8	1.2	0.6	0.7	0.8	0.6	0.6	2.1	3.6	2.2	6.8	
6		2.3	S	0.6	0.8	0.5	0.9	2.8	7.0	14.3	14.1	3.5	3.6	1.4	4.4	4.3	4.1	3.0	0.8	1.2	0.5	4.2	1.0	1.6	10.9		3.8	14.3
7		14.7	S	12.4	12.3	8.1	4.4	1.6	3.3	9.1	12.4	5.8	8.2	21.0	12.9	12.7	10.4	3.9	6.5	2.8	3.9	6.2	8.8	7.3	11.2		8.7	21.0
8		4.2	S	0.8	0.7	2.0	3.1	1.1	1.4	3.2	1.4	4.9	13.3	38.0	22.6	27.6	26.0	10.6	5.6	2.7	1.3	1.7	1.6	2.1	5.5		7.9	38.0
9		1.8	S	13.8	3.0	10.8	23.3	8.0	12.5	19.1	14.9	6.7	21.2	16.7	12.0	5.7	11.9	8.3	2.8	3.9	0.9	3.6	0.7	3.4	4.1		9.1	23.3
10		4.0	S	2.5	0.6	0.6	0.7	2.2	9.8	10.1	5.4	2.1	3.0	2.1	6.6	2.5	0.9	2.5	0.5	0.6	1.8	1.4	2.6	2.4	0.7		2.8	10.1
11		0.5	S	0.5	0.6	0.8	0.7	1.9	7.7	2.3	1.2	2.0	C	C	C	C	C	0.7	0.6	0.4	0.8	1.0	4.6	0.6	-	-	-	
12		0.5	S	0.8	1.3	10.3	6.6	2.8	4.9	1.9	4.3	2.4	2.1	8.6	5.4	3.5	2.3	3.2	5.5	1.2	0.9	2.3	2.2	1.0	8.3		3.6	10.3
13		20.3	S	26.7	32.1	4.2	0.8	1.1	11.9	11.0	7.0	3.0	20.8	7.5	5.3	1.0	2.0	2.6	1.1	1.3	2.9	3.9	2.0	0.5	3.2		7.5	32.1
14		2.9	S	4.3	3.1	1.0	0.5	2.2	2.8	5.3	3.7	0.9	0.9	1.2	0.8	1.1	0.8	0.7	0.6	0.5	1.2	1.1	1.5	0.5	0.5		1.7	5.3
15		0.6	S	6.8	12.3	7.5	2.4	3.2	2.8	5.4	5.1	1.3	3.4	6.8	6.6	2.4	2.0	7.2	3.1	1.9	2.8	4.9	0.7	0.7	1.5		4.0	12.3
16		0.5	S	2.6	1.6	3.2	0.7	1.2	3.2	4.2	2.0	1.0	0.9	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.6	0.5	0.5		1.2	4.2
17		0.5	S	0.5	0.7	2.8	1.0	1.6	0.6	1.4	1.0	0.7	1.2	3.5	5.8	2.5	0.9	4.8	5.9	2.8	7.2	5.0	5.9	1.5	3.7		2.7	7.2
18		0.8	S	1.1	2.9	1.2	1.1	0.8	1.9	7.3	7.1	15.1	5.3	8.1	6.2	0.9	0.9	0.9	0.7	0.7	0.7	0.7	1.3	6.2	6.9		3.4	15.1
19		7.8	S	11.1	12.4	10.6	8.6	3.7	2.3	5.0	1.0	2.5	1.5	1.5	2.2	4.2	1.8	10.4	10.1	2.7	5.6	9.6	6.1	8.8	9.1		6.0	12.4
20		2.6	S	1.7	6.2	1.7	2.6	7.7	10.1	8.3	6.1	10.2	9.5	9.9	6.5	3.7	0.8	0.8	0.8	2.7	11.7	1.1	0.9	1.4	4.6		4.9	11.7
21		6.3	S	2.6	1.9	4.6	4.5	1.9	8.6	6.0	8.0	6.1	9.4	6.2	3.2	1.7	1.2	5.6	3.6	0.8	1.3	7.1	9.7	6.7	3.9		4.8	9.7
22		7.7	S	6.0	4.9	1.0	1.7	2.1	7.6	8.1	9.8	11.6	9.5	11.9	4.1	1.6	1.2	5.0	1.9	1.6	0.7	1.8	1.5	2.3	4.2		4.7	11.9
23		3.3	S	8.3	2.2	3.5	1.8	5.3	1.9	4.9	14.8	10.6	12.9	5.8	4.6	1.5	1.5	2.2	1.7	2.4	5.4	5.1	1.6	11.2	5.0		5.1	14.8
24		4.2	S	2.9	2.3	2.4	9.5	7.6	11.3	6.0	7.8	14.9	13.5	4.9	8.6	4.9	4.0	3.7	18.2	13.2	3.4	3.0	5.3	0.6	6.2		6.9	18.2
25		4.4	S	5.8	22.7	16.0	10.6	9.1	12.8	12.7	16.0	11.1	15.2	14.8	12.9	4.3	2.4	3.8	3.5	7.3	7.0	3.6	2.9	3.5	6.7		9.1	22.7
26		4.5	S	1.0	2.2	2.6	4.0	3.5	4.1	13.6	8.3	9.6	13.9	6.6	4.1	6.1	12.9	6.6	9.7	2.1	1.3	1.1	1.6	6.2	0.8		5.5	13.9
27		0.6	S	30.9	19.2	2.0	3.1	5.0	6.0	4.7	7.5	4.7	4.8	6.3	6.8	5.4	4.2	3.0	1.1	3.8	3.0	2.1	1.6	2.4	3.8		5.7	30.9
28		7.3	S	1.4	10.1	16.8	10.6	4.5	2.5	5.5	3.3	8.9	23.4	18.4	28.1	41.0	30.2	15.9	10.0	4.7	16.3	3.8	14.1	6.5	13.5		12.9	41.0
29		11.9	S	18.2	18.9	15.7	14.0	13.7	11.1	16.5	19.0	20.4	11.9	13.5	11.5	12.4	6.7	3.1	4.3	0.8	1.0	1.2	0.7	2.0	3.5		10.1	20.4
30		1.4	S	3.9	1.6	4.2	8.4	4.7	2.5	0.9	3.7	2.1	1.8	4.7	2.9	2.0	2.0	0.8	3.3	5.0	5.0	1.2	3.2	0.8	1.4		2.9	8.4
31		4.0	S	4.0	1.9	0.6	0.6	1.5	1.1	3.2	1.6	3.4	10.5	2.8	6.0	5.7	3.1	1.1	2.3	3.4	2.9	3.4	3.3	0.5	0.6		2.9	10.5
NO		31	-	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	31	31	31	31	31	31	31	707	100.0%	
MEAN		4.2	-	6.2	6.4	4.8	4.3	3.5	5.5	6.7	6.4	6.1	7.8	7.8	6.8	5.8	4.9	4.1	3.9	2.6	3.1	2.9	3.1	3.4	4.6			
MAX		20.3	-	30.9	32.1	16.8	23.3	13.7	12.8	19.1	19.0	20.4	23.4	38.0	28.1	41.0	30.2	15.9	18.2	13.2	16.3	9.6	14.1	11.2	13.5			



Number of Non-Zero Readings	707
Maximum 1-HR Average	41.0 PPB
Maximum 24-HR Average	12.9 PPB
Monthly Calibration Standard Deviation	6.588
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	5.0 PPB

Lagoon SO₂ (ppb) – January 2021

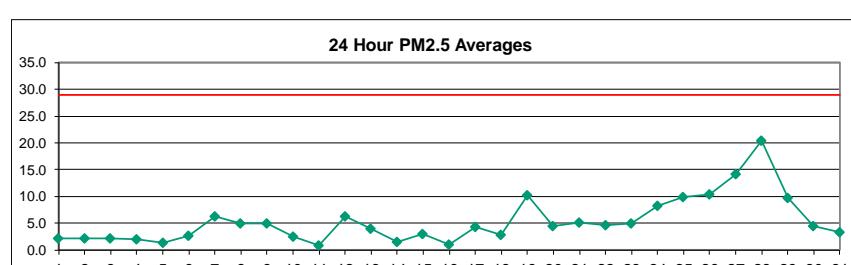
Day	HOUR																								MEAN	MAX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0		
2	0.4	S	0.0	0.8	0.6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.5	1.8	0.5	0.0	1.1	1.7	3.0	0.8	0.5	3.0		
3	0.0	S	0.1	0.4	0.0	0.0	0.2	0.2	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.4		
4	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.3	0.0	0.0	0.0	0.2	0.3	1.1	0.1	1.1	
5	0.3	S	1.4	1.3	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	0.1	1.4	0.1	
6	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	4.8	0.0	0.0	0.0	0.6	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	4.8	
7	2.1	S	1.8	0.9	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.3	4.0	2.1	2.6	1.4	0.0	0.0	0.0	0.0	0.8	0.0	0.5	1.9	0.8	4.0	0.8	4.0
8	0.8	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	10.3	4.9	7.3	7.1	2.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	10.3
9	0.0	S	0.9	0.0	1.1	3.1	1.8	2.3	3.4	2.4	0.0	4.2	4.2	3.5	0.9	5.5	2.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	5.5
10	0.8	S	0.0	0.0	0.0	0.0	0.0	4.1	6.4	2.3	0.0	0.8	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	0.6	6.4	
11	0.0	S	27.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	NRM	1.5	1.3	1.2	1.2	0.8	1.4	1.5	-	-	-	-	-	
12	0.9	S	0.7	3.1	5.0	4.7	3.9	2.2	2.2	C	C	C	C	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	2.7	1.4	5.0	
13	6.3	S	3.3	6.2	1.6	0.7	0.3	3.1	2.5	1.9	0.5	3.1	2.0	1.5	0.0	0.0	0.2	0.1	0.0	0.0	0.4	0.2	0.0	0.0	1.5	6.3		
14	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15	0.0	S	1.4	3.8	3.2	0.0	0.6	0.0	0.0	0.0	0.0	0.1	1.8	5.3	3.2	0.0	1.2	1.2	0.0	0.9	0.2	0.0	0.0	0.0	1.0	5.3		
16	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
17	0.0	S	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	2.4	1.3	0.7	1.3	4.7	1.8	2.0	0.0	0.6	4.7		
18	0.2	S	0.0	0.0	0.0	0.0	0.0	0.0	1.7	2.5	0.3	2.2	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.5		
19	1.3	S	5.1	7.0	7.7	6.1	1.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	3.8	5.1	0.0	1.9	4.6	3.2	4.5	3.6	2.4	7.7			
20	1.5	S	0.0	0.2	0.0	1.2	2.2	5.5	2.2	2.2	2.1	2.8	4.6	3.0	0.8	0.0	0.0	0.0	0.0	0.5	0.0	0.8	0.6	1.3	5.5			
21	1.4	S	0.1	0.4	0.6	1.3	0.0	1.3	0.6	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	0.3	1.4			
22	2.6	S	2.9	2.4	0.1	0.7	0.6	0.9	2.0	2.0	2.3	0.2	3.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	3.1		
23	0.0	S	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	1.4	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.1	0.1	1.4		
24	0.1	S	0.9	1.2	1.3	1.9	2.5	3.6	3.4	3.5	3.9	3.5	2.9	4.9	0.8	0.1	1.4	1.9	3.1	1.1	0.7	0.2	0.0	0.4	1.9	4.9		
25	1.6	S	2.3	7.9	8.9	3.9	5.0	3.2	0.0	0.6	0.1	0.5	0.5	0.2	0.4	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	1.5	8.9		
26	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.4	0.6	0.9	0.2	0.7	0.1	0.4	0.1	0.2	0.0	0.2	0.0	0.9		
27	0.0	S	0.0	0.0	0.0	0.0	0.0	1.3	3.0	3.2	2.9	0.4	0.2	0.4	0.0	0.0	0.3	0.8	0.3	1.0	0.5	0.2	0.0	0.2	0.6	3.2		
28	0.0	S	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.9	2.8	1.4	0.6	0.6	0.4	0.0	0.0	0.1	0.0	0.1	0.3	0.2	2.8		
29	0.0	S	0.1	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.1	0.3	0.1	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4		
30	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0		
31	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.5		
NO	31	-	31	31	31	31	31	31	31	30	30	29	29	30	30	30	30	31	31	31	31	31	31	31	703	99.9%		
MEAN	0.7	-	1.5	1.2	1.0	0.8	0.6	0.9	1.0	0.9	0.5	0.7	1.3	0.9	0.7	0.5	0.6	0.6	0.2	0.3	0.5	0.3	0.4	0.5	-	-		
MAX	6.3	-	27.0	7.9	8.9	6.1	5.0	5.5	6.4	4.8	3.9	4.2	10.3	5.3	7.3	7.1	3.8	5.1	3.1	1.9	4.7	3.2	4.5	3.6	-	-		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	299
Maximum 1-HR Average	10.3 PPB
Maximum 24-HR Average	2.4 PPB
Monthly Calibration Standard Deviation	1.716
Operational Time	743 HRS
Operational Uptime	99.9 %
Monthly Average	0.7 PPB

Lagoon PM_{2.5} ($\mu\text{g}/\text{m}^3$) – January 2021

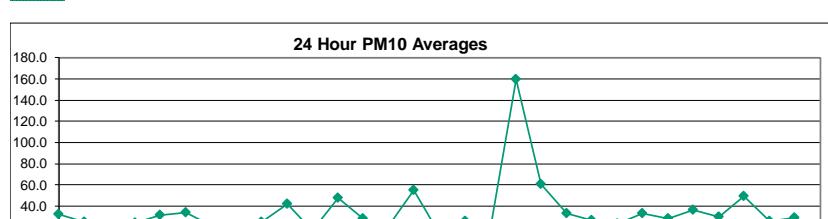
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	4.7	1.5	4.0	4.4	2.6	1.5	4.0	2.2	1.2	6.2	4.4	1.9	0.1	0.0	0.0	0.0	0.0	0.0	1.2	1.2	0.0	0.5	4.8	7.6	2.2	7.6	
2	4.0	0.5	4.3	8.7	6.2	5.8	7.9	1.9	0.0	2.2	2.6	0.0	0.0	0.0	0.4	0.1	3.0	4.0	0.4	0.0	0.0	0.0	0.0	0.0	2.2	8.7	
3	1.5	0.4	0.0	0.0	0.0	3.0	2.6	0.2	3.0	2.9	2.9	4.4	1.5	0.0	2.6	4.7	3.0	5.8	7.3	3.7	0.0	0.0	0.8	2.2	2.2	7.3	
4	2.2	1.9	0.1	5.8	5.5	0.8	0.0	0.0	0.5	1.7	0.1	0.0	1.2	2.3	5.1	4.0	1.9	3.3	2.9	2.2	3.3	3.0	2.2	2.1	5.8		
5	0.4	1.5	2.6	1.9	1.9	0.1	5.8	4.0	0.0	2.6	1.2	0.1	0.8	0.0	0.0	0.0	0.5	1.5	2.6	1.1	0.0	0.1	2.6	2.2	1.4	5.8	
6	0.8	1.2	5.9	4.4	0.0	0.8	0.1	0.0	0.0	0.5	10.5	9.4	5.1	1.9	2.6	6.2	2.6	0.0	0.8	4.4	3.3	0.8	1.9	3.0	2.8	10.5	
7	4.1	9.8	10.9	11.9	9.8	5.8	5.5	3.6	0.0	2.4	7.3	9.1	9.2	10.5	10.1	10.1	7.8	1.9	0.0	2.9	5.5	7.6	3.3	0.0	6.2	11.9	
8	8.7	5.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.2	4.8	20.8	16.6	20.2	16.6	5.5	6.5	4.7	1.2	0.0	1.2	0.5	5.0	20.8	
9	2.6	1.9	0.8	6.5	5.1	4.4	5.8	7.6	7.2	13.4	8.0	4.8	11.2	8.5	4.4	4.1	10.5	7.3	1.5	0.0	0.0	1.9	0.8	0.0	4.9	13.4	
10	0.0	5.5	5.5	1.9	0.0	0.0	0.1	0.0	0.5	10.1	7.6	3.3	3.3	1.9	4.8	4.0	0.4	0.0	0.1	2.6	3.3	1.9	1.9	3.3	2.6	10.1	
11	1.5	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1.5	C	C	2.6	C	C	0.0	0.0	0.1	0.1	0.0	0.0	4.4	6.2	0.9	6.2		
12	4.0	0.1	0.0	0.0	0.0	2.2	2.4	13.0	13.0	9.0	4.0	0.2	6.2	6.5	5.9	10.3	18.6	9.0	7.1	16.5	7.3	9.7	4.7	0.0	6.2	18.6	
13	0.0	0.0	3.0	7.9	24.2	6.6	6.9	9.4	10.4	6.1	0.1	0.0	1.2	0.5	3.7	2.5	0.0	0.8	1.2	2.3	4.0	4.3	1.2	0.8	4.0	24.2	
14	0.4	0.0	0.0	1.9	1.1	0.0	0.0	0.9	4.8	10.8	6.5	4.0	1.1	0.0	0.0	0.0	1.2	0.4	0.5	1.1	0.0	0.0	1.8	1.8	1.6	10.8	
15	0.8	0.8	0.0	0.3	1.5	0.8	3.3	3.4	9.1	8.6	7.9	4.7	0.0	1.9	5.5	7.2	4.9	1.2	3.7	2.9	0.0	1.5	0.8	0.1	3.0	9.1	
16	0.0	0.0	0.0	1.2	1.9	1.5	0.0	0.0	3.7	5.5	4.4	4.0	1.8	0.0	0.0	0.0	0.0	0.1	0.1	0.3	1.1	0.0	0.0	0.0	1.1	5.5	
17	0.0	0.1	0.0	2.2	2.6	0.0	0.1	0.0	0.0	0.8	0.0	0.0	1.6	9.8	10.9	11.0	19.0	8.6	10.8	9.4	5.5	5.5	6.2	4.3	19.0		
18	4.7	2.2	0.5	3.7	4.3	0.0	0.0	0.0	0.0	1.5	3.7	7.1	4.4	5.1	3.6	1.2	1.1	0.1	0.8	1.9	5.1	5.8	5.8	5.5	2.9	7.1	
19	9.1	9.2	8.4	10.1	9.6	7.3	7.2	5.8	4.7	3.0	4.0	2.2	2.6	2.7	9.0	6.1	2.6	27.8	6.9	3.7	8.0	35.1	42.9	17.9	10.2	42.9	
20	5.4	3.6	1.2	3.7	4.3	0.0	0.0	3.7	4.5	8.7	8.0	5.9	9.8	7.9	4.8	5.1	2.6	0.0	0.0	6.9	9.2	5.5	5.1	4.4	9.8		
21	3.0	2.3	4.4	3.0	2.6	4.4	3.3	1.7	8.3	6.6	11.0	19.0	6.5	5.4	3.3	1.2	1.9	2.3	4.4	7.2	4.4	6.6	7.9	4.4	5.2	19.0	
22	3.8	13.3	6.9	3.4	6.2	3.7	2.2	0.8	1.9	4.8	9.0	7.2	3.3	4.0	3.3	2.6	2.6	1.9	5.8	6.5	3.3	1.6	5.8	6.6	4.6	13.3	
23	6.6	8.0	5.8	3.3	2.2	0.5	0.2	2.3	3.0	3.3	4.1	5.1	6.9	4.7	2.6	1.6	4.4	5.5	4.4	6.2	6.6	12.5	8.4	10.9	5.0	12.5	
24	12.7	14.1	11.2	5.8	3.0	5.5	8.0	6.9	7.2	4.1	7.7	10.8	8.0	5.6	15.1	8.6	2.6	2.0	8.7	10.9	10.5	6.6	10.2	11.9	8.2	15.1	
25	6.9	2.3	9.8	11.3	21.2	14.8	10.9	9.7	7.0	10.9	13.8	10.2	11.2	10.5	9.7	6.9	7.3	10.3	10.5	9.1	8.0	9.8	9.0	7.6	9.9	21.2	
26	9.1	9.6	8.4	15.1	11.3	15.5	16.6	11.2	9.4	10.8	7.3	4.8	11.2	8.0	5.1	8.5	20.1	15.1	11.2	8.3	8.0	8.0	8.0	9.8	10.4	20.1	
27	10.9	10.9	16.9	11.6	17.0	15.8	10.6	17.3	10.6	15.9	14.8	10.9	15.9	18.4	15.2	15.2	16.6	11.2	9.5	18.0	12.7	14.1	18.7	14.1	18.7		
28	16.7	23.3	14.1	15.9	20.5	15.9	16.3	16.6	19.8	17.7	16.2	13.1	19.5	23.1	28.5	29.8	19.9	24.1	21.3	26.0	26.6	21.3	22.0	23.4	20.5	29.8	
29	25.2	24.9	24.9	21.5	12.7	15.9	12.3	12.5	9.8	7.3	10.4	9.8	9.1	7.9	3.3	4.8	5.4	4.0	2.6	0.1	1.2	2.6	1.9	2.6	9.7	25.2	
30	0.5	1.2	2.6	1.9	1.8	0.0	0.0	2.6	5.1	2.6	2.3	4.4	2.2	0.9	13.3	10.5	9.0	5.1	6.9	8.0	5.9	5.6	6.9	9.7	4.5	13.3	
31	5.8	2.6	1.9	0.0	5.8	4.7	0.1	0.5	5.8	3.0	0.0	0.0	1.2	2.6	1.5	2.5	3.6	4.0	5.5	8.0	7.6	5.5	3.3	3.7	3.3	8.0	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	30	30	31	30	30	31	31	31	31	31	31	740	100.0%
MEAN	5.0	5.1	4.8	5.6	5.8	4.5	4.4	4.2	5.0	5.7	6.0	5.4	5.1	5.2	6.3	6.3	5.9	5.7	4.7	5.3	5.1	5.8	6.1	5.6	5.0	12.5	
MAX	25.2	24.9	24.9	21.5	24.2	17.0	16.6	16.6	19.8	17.7	16.2	19.0	19.5	23.1	28.5	29.8	20.1	27.8	21.3	26.0	26.6	35.1	42.9	23.4	20.5	29.8	



Number of 24HR Exceedences	0
Number of Non-Zero Readings	625
Maximum 1-HR Average	42.9 UG/M3
Maximum 24-HR Average	20.5 UG/M3
Monthly Calibration Standard Deviation	5.83
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	5.4 UG/M3

Lagoon PM₁₀ ($\mu\text{g}/\text{m}^3$) – January 2021

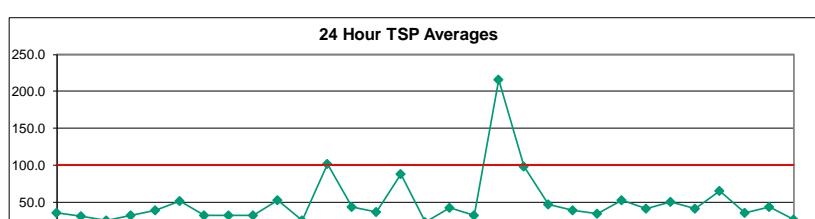
Day	HOUR																								MEAN	MAX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	45.2	10.5	39.7	33.7	0.0	2.4	42.8	13.2	45.3	86.7	22.2	79.5	106.5	72.0	18.7	15.0	7.2	4.4	0.0	0.0	0.0	18.7	61.8	41.6	32.0	106.5		
2	25.8	39.7	47.7	52.2	31.9	57.4	54.2	21.9	38.6	28.9	26.6	17.9	14.2	26.3	14.0	13.6	17.1	21.0	19.9	3.8	1.3	2.0	15.5	16.0	25.3	57.4		
3	12.3	4.5	1.5	5.2	2.3	5.6	9.9	7.9	17.4	5.0	21.6	9.8	16.9	18.8	51.6	32.4	56.4	77.1	51.0	20.9	8.1	8.5	5.3	4.9	19.0	77.1		
4	10.1	21.1	5.3	55.9	4.7	5.7	22.3	11.8	8.3	23.2	17.6	19.1	34.4	44.0	45.7	51.0	37.6	25.2	29.4	24.2	32.6	23.1	13.6	15.0	24.2	55.9		
5	0.0	1.1	10.3	12.6	10.0	21.8	34.5	12.1	23.6	21.8	14.1	12.5	8.6	17.3	15.9	58.4	72.6	62.6	100.9	52.6	27.5	37.2	71.5	54.0	31.4	100.9		
6	28.3	38.4	24.5	15.1	8.6	6.8	8.9	12.1	16.0	85.6	134.2	76.4	51.0	40.0	54.4	80.0	35.0	21.0	10.8	12.1	12.1	11.4	12.0	10.7	33.6	134.2		
7	10.8	20.7	19.8	23.0	11.7	17.3	35.8	11.3	9.7	25.6	24.5	17.1	23.8	49.8	56.4	58.5	28.4	10.6	7.3	6.9	11.4	12.1	11.6	15.7	21.7	58.5		
8	18.0	2.6	2.5	1.1	0.0	1.5	5.3	3.9	2.6	2.2	7.6	24.2	38.5	105.6	69.9	84.2	63.3	21.5	7.2	4.7	5.4	6.5	4.0	4.7	20.3	105.6		
9	4.7	4.8	6.8	8.7	8.7	8.7	20.8	20.3	20.8	17.9	12.1	12.2	26.2	34.5	23.2	18.8	28.3	28.8	58.6	44.6	66.5	47.4	57.6	26.9	25.3	66.5		
10	60.1	68.3	56.9	81.1	89.3	82.7	70.9	35.5	63.7	46.0	101.1	57.9	41.9	40.1	19.2	13.3	10.1	11.5	23.6	11.3	6.3	0.0	2.9	7.1	41.7	101.1		
11	2.6	2.4	7.4	7.2	3.8	0.7	3.8	13.2	30.3	16.2	17.3	C	C	31.8	C	40.1	0.0	22.5	14.5	9.4	23.0	47.5	38.0	16.6	47.5			
12	17.1	8.7	8.6	6.8	20.3	10.3	28.4	88.6	109.2	85.6	19.9	17.4	61.8	54.1	64.8	62.7	136.3	66.8	43.3	87.7	49.2	67.1	10.1	10.6	47.3	136.3		
13	19.2	12.9	15.8	33.5	48.2	51.4	52.6	66.1	27.6	37.4	40.2	22.3	33.9	24.4	38.0	6.2	10.4	38.5	13.9	0.0	34.0	36.3	18.9	0.7	28.4	66.1		
14	14.9	17.0	20.2	20.3	19.5	0.0	4.9	44.9	74.1	99.3	23.0	22.4	12.8	13.2	8.8	8.1	9.4	8.8	10.7	9.1	4.2	9.6	36.2	29.6	21.7	99.3		
15	15.6	28.5	14.5	122.6	62.8	38.4	60.1	60.7	93.2	100.0	82.4	43.7	42.4	98.0	103.1	90.8	35.0	56.9	57.7	37.3	28.9	47.5	2.8	5.4	55.4	122.6		
16	6.7	7.4	19.1	23.8	27.8	20.6	4.2	10.1	37.4	84.7	14.7	11.4	7.5	10.0	9.2	5.2	3.3	2.6	2.0	2.7	4.7	5.5	8.6	7.4	14.0	84.7		
17	19.1	11.4	12.1	24.7	43.1	27.0	14.9	25.9	6.2	8.7	7.9	6.1	12.7	56.1	25.5	11.5	16.3	88.3	65.6	18.4	33.9	46.8	25.8	16.4	26.0	88.3		
18	8.2	10.8	10.7	9.3	7.7	2.7	3.5	8.7	20.7	28.6	32.4	31.5	27.6	26.3	25.2	5.8	2.6	3.4	16.8	13.5	37.7	34.6	36.7	32.9	18.3	37.7		
19	110.3	73.9	76.0	77.8	41.6	49.0	77.0	283.9	50.4	68.5	70.9	55.3	40.8	60.3	304.9	48.3	110.3	464.2	97.6	58.1	180.1	485.1	485.1	464.3	159.7	485.1		
20	99.3	47.4	35.4	38.4	24.0	30.8	36.8	67.9	106.5	111.3	125.7	121.5	145.9	90.9	70.3	60.5	6.7	8.0	18.4	13.1	76.0	53.6	27.1	38.6	60.6	145.9		
21	15.8	9.9	6.1	7.3	6.5	4.7	17.2	11.9	32.5	59.6	118.3	100.7	73.2	39.8	37.0	9.4	9.4	21.3	17.0	31.2	47.0	41.6	47.1	33.2	118.3			
22	41.4	19.9	24.8	10.8	12.1	12.1	11.3	9.4	10.2	37.4	64.3	62.9	40.8	77.0	26.5	17.5	7.4	32.1	26.0	20.2	20.0	19.2	24.6	18.4	27.0	77.0		
23	20.5	13.5	15.2	34.6	13.0	4.3	0.0	3.4	18.4	44.1	34.3	33.9	79.4	24.9	34.0	14.0	13.3	22.6	15.9	20.4	23.8	25.6	14.3	29.5	23.0	79.4		
24	24.5	20.9	23.3	64.3	39.6	25.8	63.2	55.2	26.8	13.0	30.3	62.1	48.2	49.8	32.7	25.9	18.7	16.7	25.6	23.6	22.7	31.1	31.1	18.6	33.1	64.3		
25	14.2	15.8	20.9	9.8	29.2	31.5	26.3	25.8	16.8	39.1	37.7	35.0	44.0	34.4	54.8	18.5	23.1	25.9	18.7	38.6	28.1	34.6	25.5	34.4	28.4	54.8		
26	21.6	22.2	31.8	20.8	20.0	27.3	31.6	17.5	23.7	36.8	42.9	56.4	71.5	42.8	34.4	47.2	89.7	59.5	58.0	29.9	17.0	14.8	26.2	24.0	36.1	89.7		
27	30.3	27.5	25.1	27.7	38.7	29.3	32.6	22.9	21.7	24.5	26.5	16.7	14.6	23.3	41.3	30.8	25.4	33.1	34.3	53.5	24.9	35.5	30.7	47.4	29.9	53.5		
28	49.4	60.2	30.6	33.7	32.1	38.2	43.8	29.9	34.3	43.9	43.9	55.6	82.4	78.8	71.9	62.3	52.3	56.3	45.8	43.3	43.0	39.1	49.9	58.4	49.1	82.4		
29	50.5	46.6	46.4	41.3	29.3	22.5	22.6	16.6	24.8	22.5	26.0	21.2	38.8	42.2	27.3	43.7	26.1	0.0	1.5	18.1	16.7	13.9	10.3	14.9	26.0	50.5		
30	16.6	12.4	5.0	0.0	4.0	15.5	15.3	0.5	0.0	0.0	6.4	15.1	8.8	61.1	108.0	44.5	63.5	27.4	46.7	45.0	15.8	34.6	72.0	74.4	28.9	108.0		
31	24.5	4.1	6.7	7.4	7.3	6.0	6.9	11.1	28.8	24.1	8.5	5.5	19.3	15.3	25.8	62.5	29.7	18.3	20.8	42.3	23.9	16.8	15.9	10.8	18.4	62.5		
NO.	31	31	31	31	31	31	31	31	31	31	30	30	30	31	30	30	31	31	31	31	31	31	31	31	31	31	740	100.0%
MEAN	27.0	22.1	21.6	29.4	22.5	21.3	27.8	33.0	33.5	42.8	40.5	37.5	42.3	45.2	50.4	36.7	35.0	43.0	31.2	25.9	29.0	41.6	41.8	39.3				
MAX	110.3	73.9	76.0	122.6	89.3	82.7	77.0	283.9	109.2	111.3	134.2	121.5	145.9	105.6	304.9	90.8	136.3	464.2	100.9	87.7	180.1	485.1	485.1	464.3				



Number of Non-Zero Readings	725
Maximum 1-HR Average	485.1 UG/M3
Maximum 24-HR Average	159.7 UG/M3
Monthly Calibration Standard Deviation	43.87
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	34.1 UG/M3

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

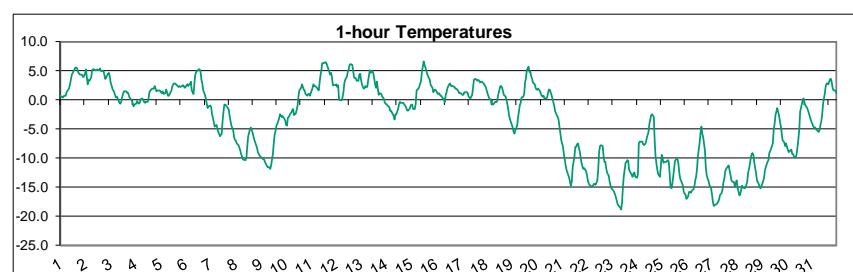
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	48.6	10.4	42.4	30.7	8.6	11.7	40.1	15.9	50.7	106.7	37.0	54.3	102.4	74.2	15.2	11.0	7.1	7.0	4.2	2.0	8.9	18.9	77.2	46.0	34.6	106.7	
2	25.7	37.0	51.7	56.0	40.9	51.7	55.1	26.8	53.8	23.3	14.5	22.6	19.0	32.4	16.3	30.2	24.2	33.4	32.2	11.0	7.0	5.3	22.6	28.1	30.0	56.0	
3	30.5	6.0	11.4	12.5	5.7	4.7	11.2	10.6	21.6	11.4	36.5	17.8	11.4	17.4	73.1	44.1	63.0	73.3	67.4	32.3	14.2	16.3	8.4	7.2	25.3	73.3	
4	9.4	24.2	13.5	71.2	8.4	9.0	40.0	11.3	44.8	25.9	16.6	38.9	61.9	54.7	71.3	41.1	31.0	36.8	24.0	29.5	32.6	19.6	19.9	31.2	71.3		
5	7.2	8.6	9.9	9.7	8.8	37.7	41.6	17.4	28.2	32.3	13.2	17.9	14.0	30.1	23.7	70.5	77.9	64.8	147.2	57.4	26.2	46.0	72.2	70.9	38.9	147.2	
6	33.5	56.3	21.8	12.4	8.6	10.8	15.6	19.8	29.1	127.6	214.6	119.1	69.7	54.4	85.0	113.0	54.8	42.2	28.2	33.1	26.9	11.0	24.9	20.9	51.4	214.6	
7	19.8	22.2	13.4	25.6	12.3	30.4	48.5	23.4	19.3	38.9	38.1	24.1	33.0	73.9	83.1	102.3	48.1	15.2	11.9	22.1	18.1	16.3	7.7	19.0	31.9	102.3	
8	31.9	5.8	6.8	0.7	0.0	7.1	7.0	6.0	11.2	10.0	15.3	38.2	55.1	141.5	123.6	128.8	101.0	26.8	16.1	3.2	5.7	5.9	8.3	4.1	31.7	141.5	
9	0.4	3.0	3.5	12.7	11.4	14.4	20.3	19.6	19.5	17.8	11.2	10.5	22.0	40.3	39.6	28.2	44.0	82.0	61.9	72.9	64.3	70.4	43.4	31.2	82.0		
10	74.2	109.7	88.8	45.4	94.4	73.3	68.2	51.7	103.6	79.6	154.9	57.3	63.8	39.1	18.0	13.9	11.8	21.0	21.7	11.3	12.5	10.4	19.5	17.5	52.6	154.9	
11	3.2	7.3	11.2	9.9	9.9	10.1	14.5	23.2	37.0	28.2	33.2	C	27.8	C	C	58.0	7.6	30.3	13.9	7.7	40.9	70.5	57.7	25.1	70.5		
12	80.3	950.7	17.3	4.7	34.3	27.4	47.0	116.7	144.7	104.1	13.0	22.3	69.1	65.8	76.9	90.4	163.3	89.1	51.2	101.5	62.6	85.9	13.0	15.8	102.0	950.7	
13	22.2	20.6	15.6	44.1	62.7	67.8	65.7	87.9	28.6	43.3	67.2	22.0	63.0	50.9	63.5	11.3	14.4	65.9	29.9	18.8	54.7	62.4	36.2	13.5	43.0	87.9	
14	23.0	34.4	29.2	30.2	43.9	11.0	9.8	59.3	127.4	167.3	43.7	29.8	15.6	17.6	7.8	19.2	13.0	14.4	21.1	23.3	17.6	31.7	49.7	43.2	36.8	167.3	
15	23.9	50.4	45.3	220.1	99.3	49.7	69.4	85.4	124.2	156.0	122.6	62.6	48.5	143.0	149.4	143.6	66.8	94.8	103.7	75.0	54.1	74.2	14.3	19.1	87.3	220.1	
16	11.2	10.7	16.5	35.3	43.8	30.5	6.7	34.1	76.1	160.9	20.7	0.0	7.1	7.0	5.6	3.1	5.8	7.1	7.0	6.2	13.9	11.2	9.9	10.5	22.5	160.9	
17	20.9	23.3	16.7	40.5	66.7	43.4	25.6	33.6	14.5	21.8	12.4	9.0	20.3	79.5	38.9	14.6	31.5	141.3	113.1	33.6	59.1	72.3	48.2	16.2	41.5	141.3	
18	6.3	15.6	18.0	14.9	5.9	8.9	15.3	13.9	35.1	42.6	58.9	53.9	49.3	37.1	28.4	13.8	10.6	23.9	27.2	18.7	76.2	73.8	55.4	60.5	31.8	76.2	
19	191.2	113.4	110.2	121.7	70.3	65.2	97.2	235.1	67.9	91.3	86.8	77.9	58.0	66.7	280.8	66.3	140.3	626.3	161.8	71.7	262.1	801.3	970.5	359.2	216.4	970.5	
20	155.8	95.6	70.3	62.8	46.7	61.3	67.3	106.7	157.8	187.8	203.3	192.8	197.1	132.9	109.7	109.2	17.8	11.7	19.3	22.4	141.5	93.8	39.2	65.6	98.7	203.3	
21	25.0	22.6	3.0	2.9	2.0	10.0	12.3	8.7	38.4	82.6	167.5	142.3	108.1	37.1	52.5	23.7	24.4	35.6	43.3	47.4	51.4	52.7	52.0	63.8	46.2	167.5	
22	61.4	20.0	27.6	23.0	9.7	7.3	11.3	11.9	24.4	61.6	95.8	96.9	50.5	103.6	26.5	27.1	24.5	61.3	41.2	32.9	23.8	25.9	38.9	14.4	38.4	103.6	
23	21.6	32.6	20.7	61.6	22.9	7.7	10.4	16.3	28.4	60.2	46.0	52.1	107.5	26.9	33.9	19.7	23.0	34.0	27.7	37.7	40.0	34.8	30.8	33.1	34.6	107.5	
24	27.7	36.7	28.8	137.2	67.1	55.7	105.6	83.1	32.4	17.2	45.7	89.6	73.6	74.7	47.7	55.2	25.7	36.4	41.8	43.7	30.8	34.1	44.5	20.6	52.3	137.2	
25	14.0	14.4	20.1	7.2	32.2	34.4	28.2	34.1	25.9	87.4	64.3	49.9	71.6	63.6	81.3	25.1	25.9	39.9	34.7	57.2	39.4	47.2	23.9	50.0	40.5	87.4	
26	26.3	23.1	35.6	26.4	25.1	25.2	26.2	22.5	25.8	37.8	42.2	55.4	123.6	58.5	52.0	69.8	168.7	93.8	108.0	33.8	26.3	22.7	29.5	34.8	49.7	168.7	
27	36.8	46.5	34.8	45.0	54.4	34.8	36.2	37.0	27.6	23.8	24.8	19.3	14.6	25.8	38.4	39.4	48.3	46.1	96.5	41.0	52.0	40.8	74.4	41.3	96.5		
28	66.9	71.9	43.9	34.8	36.2	38.3	50.4	33.9	43.4	50.0	50.6	55.9	110.4	80.6	107.6	89.1	96.0	78.6	70.8	71.7	64.4	51.7	73.9	80.3	64.6	110.4	
29	76.3	52.3	44.4	39.6	27.9	28.9	22.5	25.1	25.1	25.2	28.0	31.7	52.4	69.5	50.1	73.4	32.3	12.9	17.5	30.7	31.3	18.1	16.8	16.4	35.3	76.3	
30	10.7	24.0	5.7	6.6	21.9	14.2	16.2	5.7	5.7	6.1	12.9	16.9	23.1	112.2	155.1	59.1	71.5	39.4	74.6	67.1	28.2	45.4	87.1	114.6	42.7	155.1	
31	31.3	18.0	15.0	7.0	4.4	4.7	10.5	22.5	48.8	26.7	5.7	4.5	7.9	20.4	22.9	103.3	43.4	26.0	43.6	75.3	34.2	23.7	21.7	11.5	26.4	103.3	
NO.	31	31	31	31	31	31	31	31	31	31	30	30	30	31	31	31	30	30	31	31	31	31	31	31	31	740	100.0%
MEAN	39.3	63.5	28.8	40.4	31.8	28.6	35.4	41.9	48.1	63.7	58.3	48.8	56.7	60.2	65.4	56.1	50.3	62.8	50.4	39.9	44.6	64.0	67.7	46.8	31.2	82.0	
MAX	191.2	950.7	110.2	220.1	99.3	73.3	105.6	235.1	157.8	187.8	214.6	192.8	197.1	143.0	280.8	143.6	168.7	626.3	161.8	101.5	262.1	801.3	970.5	359.2	216.4	970.5	



Number of 24HR Exceedences		2
Number of Non-Zero Readings		738
Maximum 1-HR Average		970.5 UG/M3
Maximum 24-HR Average		216.4 UG/M3
Monthly Calibration Standard Deviation		72.0
Operational Time		744 HRS
Operational Uptime		100.0 %
Monthly Average		49.7 UG/M3

Lagoon Temperature (°C) – January 2021

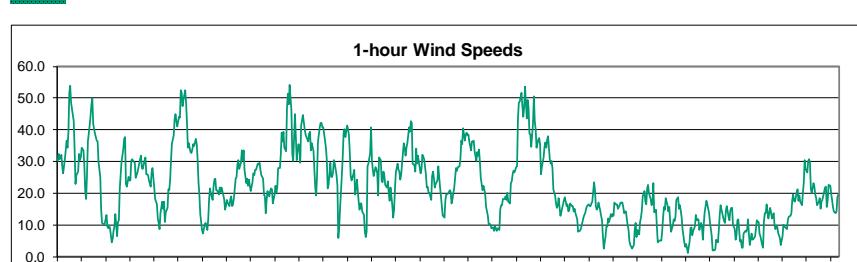
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.7	0.5	0.4	0.7	0.7	0.8	1.2	1.8	2.0	2.6	3.6	4.4	4.7	5.3	5.6	5.5	5.4	4.8	4.3	4.4	4.3	4.1	3.9	4.5	3.2	5.6
2	5.2	3.9	2.7	3.4	3.2	4.0	5.0	5.3	5.3	5.1	5.2	5.2	5.1	5.1	5.4	5.0	4.9	4.9	4.2	3.6	3.9	4.5	4.7	4.1	4.5	5.4
3	3.0	2.5	1.9	1.3	0.8	0.4	0.5	0.3	-0.4	-0.6	-0.4	0.3	1.0	1.4	1.4	1.4	1.2	1.2	0.5	0.1	-0.1	-0.6	-1.1	-0.8	0.6	3.0
4	-0.6	-0.2	-0.5	-0.6	-0.5	0.1	0.3	0.0	-0.4	-0.5	-0.4	-0.4	0.3	1.2	1.6	1.8	1.8	1.9	2.4	1.9	1.5	1.6	1.5	1.7	0.7	2.4
5	1.4	1.1	1.4	1.0	1.2	1.8	1.3	0.7	0.8	1.3	1.6	2.4	2.7	2.8	2.8	2.6	2.4	2.3	2.2	2.4	2.5	2.4	2.1	1.9	2.8	
6	2.3	2.7	2.4	2.7	2.6	3.1	1.7	1.0	2.8	4.4	4.9	4.9	5.3	5.2	4.8	3.4	2.9	1.6	0.9	0.2	-0.7	-1.4	-1.1	-1.0	2.3	5.3
7	-1.3	-2.4	-3.1	-3.9	-4.5	-4.3	-4.8	-5.5	-5.8	-6.2	-5.8	-3.6	-2.0	-0.8	-0.8	-1.0	-1.4	-1.7	-2.8	-3.7	-4.4	-5.2	-6.4	-6.8	-3.7	-0.8
8	-7.1	-7.5	-7.7	-8.2	-8.7	-9.3	-9.8	-10.3	-10.3	-10.3	-10.0	-8.0	-6.2	-5.0	-4.8	-5.1	-5.7	-6.2	-6.8	-7.8	-8.2	-8.9	-9.3	-9.6	-8.0	-4.8
9	-9.9	-10.0	-10.2	-10.2	-10.7	-11.0	-11.6	-11.6	-11.6	-11.8	-11.3	-9.2	-7.5	-6.0	-5.4	-4.4	-4.1	-3.2	-2.4	-2.6	-2.9	-2.8	-3.3	-3.5	-7.4	-2.4
10	-4.3	-4.4	-3.0	-3.0	-2.4	-2.2	-1.7	-1.5	-2.6	-2.4	-1.7	-0.9	0.5	1.6	2.0	2.6	2.2	1.8	1.6	1.0	0.7	0.9	1.1	0.8	-0.5	2.6
11	1.2	2.1	2.7	2.4	2.4	2.2	2.1	1.6	3.0	4.3	5.1	6.3	6.3	6.4	6.4	6.1	5.8	5.3	4.3	4.6	3.9	2.5	2.5	2.5	3.8	6.4
12	2.6	2.3	2.5	0.1	-0.1	-0.1	0.4	1.3	2.9	3.4	4.1	4.9	5.3	5.9	6.1	6.0	5.0	3.9	3.8	3.7	3.3	3.3	4.3	4.5	3.3	6.1
13	3.4	2.7	1.9	2.1	2.4	2.3	2.3	3.3	5.2	4.6	5.0	4.9	4.5	2.6	2.0	3.1	1.9	0.9	1.2	0.9	0.5	0.4	0.0	-0.5	2.4	5.2
14	-0.9	-1.0	-1.1	-1.3	-1.9	-1.8	-2.5	-2.8	-3.4	-2.5	-2.5	-1.5	-0.8	-0.4	-0.5	-0.5	-0.6	-0.8	-1.0	-1.3	-1.7	-1.8	-1.6	-1.2	-1.5	-0.4
15	-0.9	-0.9	-1.5	-1.5	-0.6	1.5	1.7	1.9	2.3	3.2	4.8	5.7	6.6	6.0	5.1	4.5	4.1	3.8	3.4	2.6	2.1	1.3	1.6	1.8	2.4	6.6
16	1.7	1.0	1.2	0.9	0.7	0.7	0.5	0.0	-0.3	0.9	1.3	2.0	2.6	2.8	2.4	2.3	2.2	1.9	1.9	1.8	1.6	1.2	1.2	1.5	2.8	
17	1.1	0.8	0.8	1.3	1.4	1.3	1.2	0.5	0.4	0.3	0.9	2.1	3.4	3.5	3.6	3.3	3.4	3.3	2.9	3.1	3.1	2.9	2.5	2.3	2.1	3.6
18	2.0	1.3	0.3	0.1	0.1	-0.8	-0.7	-0.9	-0.4	-0.4	-0.4	0.4	1.1	2.3	2.3	2.1	1.5	0.8	0.6	-0.1	-0.8	-1.7	-2.8	-3.3	0.1	2.3
19	-4.3	-4.8	-5.5	-5.8	-5.3	-4.4	-3.0	-2.0	-1.0	-0.6	-0.4	0.5	1.0	2.9	3.7	5.1	5.7	4.8	4.7	4.1	3.5	3.0	2.6	2.0	0.3	5.7
20	1.7	1.8	1.9	1.5	1.0	0.7	0.5	0.7	0.3	0.2	0.5	1.2	1.7	1.7	0.9	0.2	-0.4	-1.0	-1.8	-2.4	-2.9	-3.4	-4.7	-5.6	-0.2	1.9
21	-6.8	-8.1	-9.2	-10.2	-11.2	-12.0	-12.8	-13.4	-14.1	-14.1	-14.8	-14.0	-11.6	-9.7	-8.1	-8.0	-7.7	-7.5	-8.8	-9.8	-10.8	-11.5	-11.8	-11.7	-12.2	-6.8
22	-12.8	-13.7	-14.3	-14.6	-14.9	-14.9	-14.7	-14.4	-14.4	-14.6	-13.9	-11.9	-9.0	-7.9	-7.8	-7.9	-9.6	-10.6	-10.6	-11.7	-12.5	-13.0	-14.1	-14.7	-12.4	-7.8
23	-15.2	-15.3	-15.7	-16.2	-16.8	-17.3	-17.9	-18.4	-18.6	-18.8	-17.6	-14.9	-13.0	-10.8	-10.6	-10.4	-10.5	-12.1	-12.6	-12.9	-13.3	-12.6	-12.4	-13.2	-14.5	-10.4
24	-13.4	-12.8	-7.5	-7.1	-7.1	-7.2	-7.6	-7.8	-7.6	-7.3	-6.6	-5.6	-4.2	-3.5	-2.6	-2.5	-2.9	-7.1	-9.7	-11.0	-12.0	-12.7	-13.2	-11.2	-7.9	-2.5
25	-9.5	-10.1	-10.7	-10.7	-10.6	-10.5	-10.3	-10.7	-14.9	-15.2	-14.5	-13.2	-11.8	-10.6	-10.0	-10.1	-11.1	-12.6	-13.5	-14.2	-14.8	-15.8	-16.1	-16.3	-12.4	-9.5
26	-17.1	-16.6	-15.8	-15.8	-15.9	-15.7	-15.3	-14.8	-13.9	-13.3	-11.9	-9.7	-7.3	-5.7	-4.5	-5.8	-6.3	-8.7	-11.5	-13.0	-13.5	-13.9	-14.5	-15.1	-12.3	-4.5
27	-16.3	-17.4	-18.3	-18.1	-17.9	-17.8	-17.5	-17.2	-16.4	-15.9	-15.3	-14.2	-13.5	-12.3	-11.9	-11.4	-11.3	-12.1	-13.0	-13.8	-14.1	-14.1	-14.9	-14.3	-15.0	-11.3
28	-13.8	-15.0	-16.4	-16.2	-15.5	-14.8	-15.0	-15.2	-15.0	-14.7	-14.0	-12.5	-11.8	-10.1	-9.4	-9.1	-9.4	-10.8	-12.7	-13.8	-14.1	-14.4	-14.8	-15.2	-13.5	-9.1
29	-14.5	-14.0	-13.3	-12.2	-11.5	-10.7	-10.4	-9.2	-8.9	-8.4	-7.4	-5.0	-4.1	-2.6	-2.0	-1.4	-2.6	-3.7	-4.5	-5.6	-6.9	-7.3	-8.0	-7.4	-7.6	-1.4
30	-8.1	-8.6	-9.1	-8.6	-8.5	-9.2	-9.3	-9.8	-9.8	-9.3	-8.1	-6.7	-5.0	-2.1	-0.7	0.1	0.2	-0.4	-1.0	-1.3	-1.8	-2.3	-2.9	-3.4	-5.2	0.2
31	-3.9	-4.6	-4.7	-4.8	-5.0	-5.2	-5.5	-5.3	-4.3	-3.6	-2.4	-0.7	1.2	2.3	2.8	2.8	2.6	3.5	3.6	2.8	2.0	1.7	1.5	1.1	-0.9	3.6
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%
MEAN	-4.3	-4.7	-4.8	-4.9	-4.9	-4.8	-4.9	-4.8	-4.8	-4.5	-3.9	-2.7	-1.7	-0.9	-0.6	-0.6	-1.0	-1.7	-2.3	-2.9	-3.3	-3.7	-4.0	-4.1		
MAX	5.2	3.9	2.7	3.4	3.2	4.0	5.0	5.3	5.3	5.1	5.2	6.3	6.6	6.4	6.4	6.1	5.8	5.3	4.7	4.6	4.3	4.5	4.7	4.5		



Number of Non-Zero Readings	744
Maximum 1-HR Average	6.6 C
Maximum 24-HR Average	4.5 C
Operational Time	744 HRS
Monthly Calibration Standard Deviation	6,662
Operational Uptime	100.0 %
Monthly Average	-3.4 C

Lagoon Wind Speed (km/hr) – January 2021

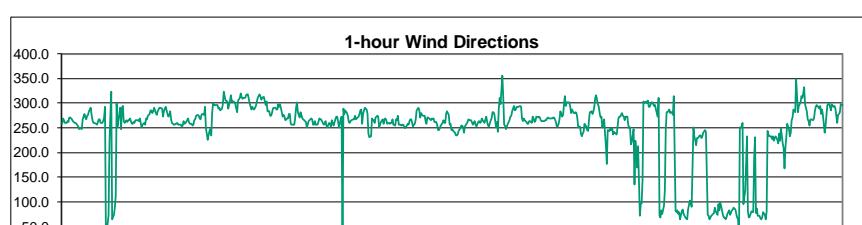
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	30.2	32.5	30.7	32.2	28.5	26.3	28.6	30.6	36.7	34.4	39.4	51.6	53.9	48.7	44.6	42.7	33.9	22.9	25.9	26.9	32.3	30.4	31.3	34.5	34.6	53.9
2	33.6	28.9	20.9	18.2	26.1	36.3	41.3	44.3	47.9	50.1	41.9	38.9	37.8	36.6	36.4	29.9	25.1	14.9	10.6	10.5	10.2	10.4	13.1	9.4	28.1	50.1
3	9.1	9.8	8.9	4.5	5.7	8.2	9.4	13.5	6.6	10.9	11.5	21.4	25.8	29.8	33.9	37.2	37.7	23.0	22.2	25.2	24.0	23.9	30.2	30.6	19.3	37.7
4	30.0	29.7	24.9	25.7	26.6	27.8	30.7	31.8	28.0	27.6	29.2	31.2	26.0	25.9	25.8	24.0	22.1	26.6	27.9	24.9	21.8	18.3	16.6	12.1	25.6	31.8
5	10.6	8.8	13.8	17.3	15.1	17.3	10.9	14.2	15.3	21.3	20.9	24.7	30.9	35.8	38.2	43.3	45.0	42.8	41.2	44.2	43.7	52.5	51.8	47.4	29.4	52.5
6	49.5	52.6	48.4	42.1	34.5	35.8	32.9	32.7	33.7	35.4	35.0	37.2	35.6	30.6	23.6	19.7	13.5	8.3	7.4	8.8	10.0	10.6	8.6	11.8	27.4	52.6
7	18.2	21.4	20.0	17.8	22.1	24.5	24.5	21.1	20.9	19.6	21.7	20.3	21.9	20.7	18.1	14.8	15.9	17.8	17.1	15.9	18.2	19.2	15.9	16.5	19.3	24.5
8	18.4	24.7	25.3	29.0	30.5	27.6	29.8	33.6	30.6	33.5	27.5	23.2	24.7	22.4	24.4	22.3	20.6	23.4	26.2	25.9	27.5	27.4	29.3	29.1	26.5	33.6
9	29.5	27.5	25.7	24.6	19.7	19.1	13.7	18.0	20.7	19.1	20.6	21.6	21.2	16.8	19.6	22.3	20.1	21.9	28.1	27.9	32.0	39.2	36.2	39.3	24.4	39.3
10	34.4	33.4	47.1	51.5	48.1	54.2	46.0	32.3	30.3	37.5	44.9	30.6	33.4	35.4	34.0	29.6	41.3	44.6	42.3	40.2	38.6	37.8	36.4	38.8	39.3	54.2
11	39.3	33.5	35.7	33.3	27.2	21.5	19.3	26.0	36.3	40.8	42.2	42.1	40.7	40.7	36.7	34.4	30.4	21.7	22.6	29.5	25.2	25.3	26.7	30.4	31.7	42.2
12	29.3	25.8	22.5	5.9	9.4	15.3	25.8	31.5	39.0	40.1	37.7	41.4	40.2	38.2	32.8	25.6	24.2	26.2	27.3	19.7	21.7	24.5	17.3	15.0	26.5	41.4
13	16.7	17.0	14.4	13.3	7.9	6.3	7.9	28.4	29.4	32.7	40.8	30.6	27.4	25.4	25.0	28.1	27.8	26.2	19.3	31.3	30.4	24.1	23.5	26.8	25.8	
14	22.7	21.8	23.9	20.3	17.8	21.8	16.2	12.3	14.8	21.3	26.6	29.2	27.4	26.9	24.4	25.6	29.4	35.7	34.3	31.9	34.3	35.7	40.7	39.3	26.4	40.7
15	42.8	42.3	29.3	28.9	27.0	34.0	29.3	31.8	30.0	26.4	27.6	32.2	31.6	30.7	25.9	21.8	22.3	20.2	20.1	18.1	25.3	26.8	24.8	21.8	28.0	42.8
16	22.8	24.2	28.5	25.3	21.7	19.1	13.0	12.8	12.3	17.9	19.5	19.8	20.3	21.0	20.4	16.8	18.2	21.9	24.9	28.1	27.2	28.1	28.6	30.9	21.8	30.9
17	36.5	35.4	40.4	36.6	38.7	39.1	38.2	38.7	36.4	33.7	36.4	36.4	36.7	33.2	30.2	32.9	32.0	33.9	30.0	24.9	21.0	22.4	21.3	19.5	32.7	40.4
18	15.6	13.0	10.2	10.3	10.2	9.1	9.2	8.3	9.6	8.9	8.1	9.0	8.4	14.9	16.3	16.3	18.3	18.2	19.0	18.1	20.0	17.4	16.9	23.4	13.7	23.4
19	23.8	25.9	27.0	26.5	28.3	28.6	43.5	48.6	48.8	51.7	47.4	44.2	46.9	53.5	43.6	49.3	46.9	38.9	38.4	34.6	41.8	50.5	42.7	40.3	40.5	53.5
20	34.4	36.9	37.5	35.6	26.1	28.1	31.3	34.7	36.0	34.4	36.8	37.9	30.9	29.3	30.3	28.0	21.4	19.3	16.9	15.4	16.2	18.6	12.9	14.1	27.6	37.9
21	15.4	16.4	17.9	18.8	16.1	16.6	14.2	14.8	16.8	16.0	16.0	14.4	15.0	13.7	11.7	8.0	8.1	8.3	8.8	9.9	12.3	13.3	13.8	15.3	13.8	18.8
22	16.1	16.5	16.0	16.1	16.9	17.4	23.5	21.3	16.0	14.7	15.3	17.2	14.7	12.8	11.4	6.6	2.5	6.4	9.7	9.6	11.9	10.9	13.4	12.7	13.7	23.5
23	13.6	13.0	17.1	16.6	16.7	15.3	15.6	16.4	17.0	17.1	15.7	13.7	14.4	14.2	9.7	8.4	4.9	3.8	3.1	2.5	3.8	8.6	10.7	6.2	11.6	17.1
24	8.4	7.2	11.0	12.4	14.7	19.2	20.7	17.5	16.6	21.5	22.6	20.2	18.1	16.3	16.7	23.3	14.0	14.9	9.6	4.4	5.1	5.1	5.1	8.2	13.9	23.3
25	12.4	15.8	14.8	18.6	16.3	14.3	15.6	11.2	7.9	9.7	11.7	11.3	12.8	17.9	18.8	15.2	16.3	14.7	12.2	8.7	4.5	3.1	3.9	2.8	12.1	18.8
26	1.3	4.9	9.0	9.3	6.8	8.2	9.5	13.2	11.6	11.8	8.5	10.6	9.3	5.4	10.3	14.2	17.7	16.6	15.1	13.7	11.0	6.4	2.1	9.9	17.7	
27	2.1	2.0	2.4	5.4	4.6	8.3	13.3	16.3	14.9	12.4	11.1	10.8	14.6	16.0	12.7	11.5	14.5	15.6	15.4	10.1	8.7	5.3	6.7	11.5	10.3	16.3
28	11.9	4.8	5.3	2.8	3.0	7.3	8.1	7.9	8.7	11.8	7.2	3.7	7.4	5.4	5.7	6.0	6.5	11.6	10.8	11.0	7.3	6.6	3.8	3.0	7.0	11.9
29	11.4	13.8	13.8	16.5	12.0	13.7	15.4	14.1	12.0	13.7	9.9	8.8	9.9	9.4	7.6	6.0	3.7	5.2	6.5	10.1	9.4	8.9	8.8	11.6	10.5	16.5
30	12.7	13.0	13.7	18.0	19.5	17.7	17.3	20.2	21.3	17.6	19.4	17.3	16.3	20.2	23.2	30.4	27.8	26.7	30.3	30.7	29.5	21.4	20.1	23.3	21.1	30.7
31	22.0	19.7	18.6	16.3	17.5	18.4	15.0	17.3	17.9	20.3	21.8	22.3	15.8	17.6	22.6	22.4	19.9	18.0	15.6	14.3	13.8	14.3	18.7	19.6	18.3	22.6
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%
MEAN	21.8	21.7	21.8	21.0	19.8	21.2	21.6	23.1	23.4	24.6	25.1	24.9	24.9	24.8	23.6	23.0	21.8	20.8	21.0	20.2	20.5	21.0	20.6	20.8	40.5	53.5
MAX	49.5	52.6	48.4	51.5	48.1	54.2	46.0	48.6	48.8	51.7	47.4	51.6	53.9	53.5	44.6	49.3	46.9	44.6	42.3	44.2	43.7	52.5	51.8	47.4		



Number of Non-Zero Readings	744
Maximum 1-HR Average	54.2 KM/HR
Maximum 24-HR Average	40.5 KM/HR
Monthly Calibration Standard Deviation	11.47
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	22.2 KM/HR

Lagoon Wind Direction (°) – January 2021

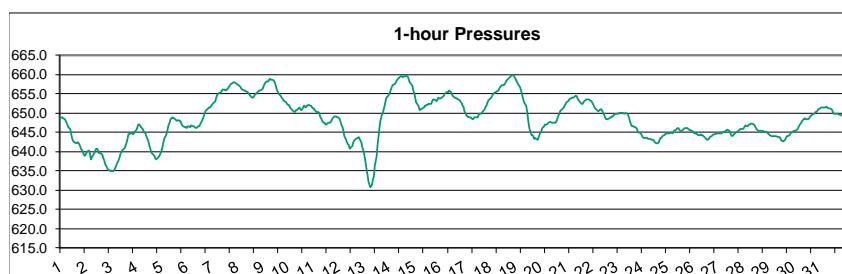
Day	HOUR																								MEAN	MAX										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24												
1	258.8	268.4	266.3	260.3	260.9	264.5	261.8	270.3	271.0	267.9	264.3	261.1	260.7	259.8	257.4	253.7	246.9	248.7	249.0	248.3	267.5	278.7	271.4	268.0	262.0	278.7										
2	274.4	275.5	283.5	291.4	276.6	265.6	259.3	260.9	258.9	256.8	261.2	267.1	266.7	260.6	260.2	262.9	270.4	293.4	34.9	39.1	73.9	220.6	277.2	323.1	268.3	323.1	266.3									
3	64.4	74.7	87.7	111.1	299.1	253.3	265.4	290.2	246.9	290.3	293.8	260.8	264.5	260.7	264.7	262.6	265.4	269.6	258.4	258.9	261.9	260.8	265.2	265.3	273.2	291.3	266.3	299.1								
4	265.4	263.9	268.4	260.7	251.1	256.4	259.3	256.1	269.3	266.5	274.2	277.5	286.0	285.1	279.8	282.8	290.9	280.1	276.0	284.0	287.7	291.1	291.3	288.7	273.2	291.3	265.2	265.3								
5	272.5	284.2	288.1	293.5	277.6	272.6	275.9	283.0	267.9	260.8	256.2	256.5	257.7	259.2	255.8	256.4	257.0	252.7	254.9	262.8	258.2	261.6	265.4	262.0	293.5	265.2	291.9	262.0								
6	268.6	261.4	258.9	258.3	254.5	256.8	265.2	267.2	274.1	277.1	273.9	269.5	266.6	275.5	277.3	275.8	291.9	248.7	238.0	225.1	244.2	247.2	234.5	280.0	265.2	291.9	298.7	324.0								
7	300.3	296.3	295.9	296.7	296.4	289.1	291.4	284.8	289.1	297.7	324.0	315.2	305.2	302.9	288.9	295.4	305.9	316.6	303.3	304.0	302.1	298.2	288.3	281.7	307.5	319.8	284.4	312.5	307.5							
8	305.7	310.9	319.8	312.8	308.9	310.2	310.2	315.8	318.3	317.3	309.6	300.3	287.7	291.8	289.3	287.6	291.3	293.6	310.1	314.5	318.0	314.5	306.5	311.7	267.0	301.4	267.0	301.4	267.0							
9	312.5	303.6	295.5	303.0	283.2	282.9	275.3	274.8	279.5	289.7	290.9	291.4	287.5	286.7	298.2	292.2	297.5	281.4	272.2	276.4	273.2	266.2	269.6	269.9	284.4	312.5	284.4	284.4	284.4	284.4						
10	277.8	278.6	255.6	256.1	256.5	270.5	290.4	301.4	281.8	270.2	281.1	276.2	268.3	263.9	261.4	250.7	255.9	263.2	266.0	268.7	267.5	257.1	277.8	257.1	267.0	267.0	301.4	267.0	267.0	267.0	267.0					
11	256.2	262.8	256.5	256.6	262.7	269.1	268.0	267.0	259.3	256.5	257.5	263.3	254.6	251.9	260.1	258.9	252.4	265.5	260.4	254.8	267.7	273.3	272.1	263.5	260.3	273.3	270.7	288.9	260.3	273.3	270.7					
12	251.9	267.6	272.1	7.3	288.9	277.3	284.5	279.6	273.7	262.7	260.3	263.1	265.3	267.4	266.9	273.7	267.7	268.4	273.2	277.4	284.9	286.5	258.3	277.3	270.7	288.9	265.3	290.0	265.3	290.0	265.3					
13	290.0	289.0	287.1	277.3	239.2	230.3	233.5	268.9	266.3	264.7	260.9	270.3	274.3	272.4	250.7	256.8	262.0	266.4	258.1	266.4	268.5	264.7	258.2	260.7	259.1	274.6	258.9	274.6	258.9	274.6	258.9					
14	259.1	260.4	259.8	267.0	256.1	254.8	266.5	265.6	274.6	257.2	255.6	254.9	257.2	255.7	253.1	249.7	253.8	258.8	256.5	264.1	268.0	268.2	253.2	256.6	259.0	291.4	291.4	291.4	291.4	291.4						
15	259.0	267.3	285.9	291.4	284.8	271.6	279.3	276.8	275.0	274.5	263.3	258.0	271.1	270.2	269.3	269.5	267.4	268.5	261.2	261.0	256.2	246.2	244.7	259.0	268.6	291.4	268.6	291.4	268.6	291.4						
16	248.5	254.9	260.8	265.3	259.8	259.2	278.2	283.9	276.5	256.3	257.5	245.5	246.8	243.4	240.9	235.5	234.8	237.0	243.5	249.1	255.0	253.9	250.6	240.0	271.9	283.9	261.6	273.6	273.8	355.2						
17	253.6	259.1	261.4	268.0	265.9	266.0	265.6	255.9	259.6	263.1	256.6	253.6	261.2	263.4	259.4	261.0	269.5	266.3	259.5	273.6	261.3	255.3	253.4	261.6	273.6	261.6	273.6	261.6	273.6	261.6						
18	265.2	269.9	281.1	281.0	277.3	250.5	262.4	242.0	288.5	311.4	298.2	355.2	313.4	256.0	254.9	247.9	253.2	262.7	264.9	273.6	275.3	283.7	294.1	285.7	270.2	293.6	270.2	293.6	270.2	293.6	270.2					
19	287.6	292.4	293.3	292.9	293.6	292.1	269.7	263.0	269.4	265.1	262.7	259.0	257.8	263.4	263.4	259.2	272.5	269.8	262.4	263.9	273.5	271.5	272.4	271.3	268.0	301.6	310.2	301.6	310.2	301.6	310.2	301.6				
20	265.3	263.7	262.9	262.8	264.6	264.8	269.4	271.3	269.7	270.0	268.3	268.7	271.8	270.6	262.6	252.0	252.7	258.1	266.5	283.1	272.3	276.3	297.0	315.2	273.5	302.3	273.5	302.3	273.5	302.3	273.5					
21	295.1	302.3	301.6	293.4	280.8	287.3	280.1	280.6	281.4	280.4	268.5	250.5	253.7	239.0	233.6	238.8	242.7	258.9	253.3	246.3	243.2	265.8	282.0	273.6	302.3	268.9	315.7	268.9	315.7	268.9	315.7	268.9				
22	283.6	278.4	283.0	293.0	309.8	315.7	298.0	292.4	279.8	271.8	273.6	251.0	267.3	238.3	213.6	176.0	244.8	244.2	249.2	246.5	249.3	236.7	241.7	239.1	256.7	279.3	256.7	279.3	256.7	279.3	256.7	279.3	256.7			
23	236.1	250.3	268.5	273.5	273.4	279.3	274.6	273.5	266.2	272.0	271.9	255.9	249.1	250.5	216.8	222.9	247.0	134.9	223.2	198.3	170.1	212.3	72.6	96.3	260.8	299.9	260.8	299.9	260.8	299.9	260.8	299.9	260.8			
24	98.0	145.1	303.5	300.3	304.3	299.1	305.5	293.3	292.7	302.3	301.6	297.7	293.8	296.6	287.3	273.5	310.2	71.2	68.2	83.6	76.3	91.7	124.1	245.3	301.6	310.2	301.6	310.2	301.6	310.2	301.6	310.2	301.6			
25	281.2	281.1	286.4	279.7	282.6	281.9	277.2	314.0	83.1	80.1	82.6	76.2	79.7	65.1	81.2	84.1	76.1	71.9	68.4	65.1	84.7	94.1	102.6	98.3	38.5	314.0	38.5	314.0	38.5	314.0	38.5	314.0	38.5	314.0		
26	90.1	251.8	233.4	225.4	214.2	228.9	229.2	234.0	235.1	229.2	233.2	240.5	245.0	241.5	157.9	74.1	72.8	65.2	71.5	74.4	76.4	76.9	88.8	80.8	172.5	251.8	251.8	251.8	251.8	251.8	251.8	251.8	251.8	251.8		
27	74.4	95.4	83.6	99.3	92.0	73.6	67.7	67.5	64.7	64.7	76.3	83.5	74.1	76.9	83.0	84.1	88.5	84.2	76.1	69.1	64.7	19.9	251.0	250.2	75.8	251.0	250.2	75.8	251.0	250.2	75.8	251.0	250.2			
28	260.8	95.8	110.2	122.3	232.8	81.8	68.0	70.5	75.2	80.4	79.2	187.8	231.1	78.3	86.5	71.2	72.1	66.8	64.5	67.5	79.3	74.7	65.3	81.1	79.9	260.8	79.9	260.8	79.9	260.8	79.9	260.8	79.9	260.8	79.9	
29	244.4	235.9	233.2	233.3	227.5	232.1	223.7	229.9	233.1	225.2	218.1	237.9	224.8	249.4	218.0	209.3	167.3	208.6	230.5	258.8	247.1	233.4	239.5	265.1	232.9	265.1	232.9	265.1	232.9	265.1	232.9	265.1	232.9	265.1		
30	270.6	286.4	281.4	347.9	316.8	281.3	293.6	301.3	313.6	311.6	319.9	331.5	297.9	284.4	267.2	264.2	255.3	267.0	268.1	265.1	268.3	283.0	292.3	295.5	286.6	347.9	286.6	347.9	286.6	347.9	286.6	347.9	286.6	347.9	286.6	
31	293.8	289.8	294.2	278.6	287.8	275.7	240.9	254.8	276.4	295.5	297.9	300.7	284.5	298.0	294.2	292.0	294.4	289.1	260.7	276.6	277.4	281.1	297.5	296.6	286.1	300.7	286.1	300.7	286.1	300.7	286.1	300.7	286.1	300.7	286.1	300.7



Number of Non-Zero Readings	744	100.0%
Maximum 1-HR Average	355 degrees	
Maximum 24-HR Average	308 degrees	
Monthly Calibration Standard Deviation	65.24	
Opperational Time	744 HRS	
Opperational Uptime	100.0 %	
Monthly Average	246.9 degrees	

Lagoon Pressure (mmHg) – January 2021

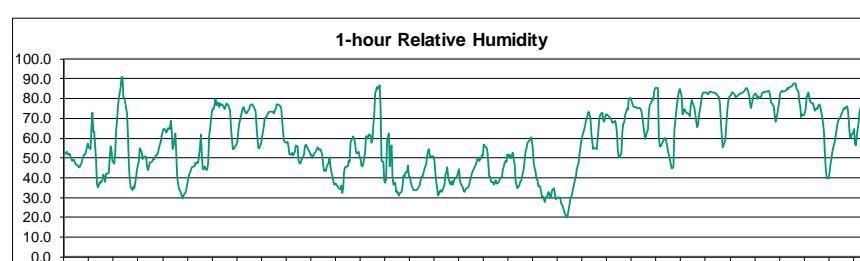
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	648.8	648.8	649.0	648.7	648.5	647.9	647.6	646.9	646.2	645.7	644.8	643.6	642.8	642.5	642.4	642.3	642.3	642.0	641.5	640.7	640.1	639.5	639.0	644.3	649.0	
2	639.1	639.6	640.0	640.2	639.7	638.1	638.3	638.8	639.5	640.2	640.8	640.3	639.6	639.5	639.1	638.3	637.7	636.8	636.0	635.4	635.1	635.1	635.1	638.6	640.8	
3	635.0	635.0	635.0	635.1	635.7	636.2	636.8	637.6	638.4	639.3	639.8	640.2	640.6	640.9	641.6	642.4	643.2	644.4	644.8	645.0	644.6	644.7	645.1	640.2	645.1	
4	645.6	646.3	646.9	647.0	646.7	646.2	645.8	645.1	644.8	644.6	643.9	643.0	641.9	641.0	640.2	639.6	639.3	638.8	638.1	637.9	638.1	638.7	639.5	642.4	647.0	
5	640.3	641.2	642.3	643.2	644.2	645.0	646.1	647.0	647.6	648.4	648.8	648.6	648.5	648.2	648.0	648.1	647.2	646.7	646.5	646.3	646.3	646.3	646.3	646.4	648.8	
6	646.2	646.5	646.6	646.3	646.7	646.6	646.3	646.2	646.4	646.6	647.0	647.6	648.4	649.1	649.9	650.4	650.8	651.1	651.5	651.5	651.7	651.7	648.0	651.7		
7	652.1	652.5	652.7	653.2	653.9	654.6	654.9	655.1	655.5	656.0	656.2	656.0	655.8	656.0	656.3	656.7	657.0	657.5	657.8	658.0	657.9	657.9	657.8	655.7	658.0	
8	657.5	657.2	657.1	656.9	656.4	656.2	655.9	655.7	655.7	655.5	655.2	654.4	654.2	654.0	654.1	654.3	654.6	655.1	655.3	655.5	655.8	655.9	656.2	655.6	657.5	
9	656.4	656.9	657.5	658.1	658.2	658.6	658.8	658.6	658.7	658.2	658.6	657.5	656.5	655.8	655.3	655.0	654.6	654.1	653.7	653.4	653.0	653.0	652.8	656.8		
10	652.2	652.2	651.7	651.2	650.8	650.5	650.2	650.2	650.7	650.8	651.1	651.4	650.8	651.0	651.8	651.6	651.4	651.8	652.1	652.1	651.8	651.9	651.4	651.4	651.3	652.2
11	651.3	651.1	650.7	650.3	650.1	650.3	650.0	649.1	648.1	647.7	647.5	647.4	647.1	647.5	647.4	647.4	647.8	648.2	648.7	649.1	649.2	649.1	648.8	648.8	651.3	
12	648.8	648.5	647.6	646.7	646.4	645.4	644.0	643.0	642.3	642.0	641.7	640.8	641.0	641.5	642.3	642.9	643.0	643.3	643.5	643.8	643.3	642.8	642.3	641.3		
13	639.6	638.2	636.7	635.2	633.8	632.2	630.7	631.1	631.5	632.9	633.5	636.4	638.6	641.4	643.6	645.6	647.8	649.5	650.1	651.0	652.0	653.1	653.9	654.5		
14	655.0	655.4	656.1	656.8	657.2	657.5	657.8	658.2	658.6	658.9	659.3	659.6	659.5	659.4	659.2	659.5	659.6	659.5	659.4	658.7	658.0	657.7	657.0	655.9		
15	655.0	654.3	652.9	652.1	651.7	650.7	650.7	651.1	651.1	651.4	651.9	651.0	651.8	651.4	652.1	652.5	652.5	653.0	653.5	653.3	653.0	653.6	654.0			
16	653.8	653.7	654.0	654.3	654.5	654.9	655.2	655.3	655.5	655.8	655.6	655.4	654.9	654.4	654.1	654.0	653.8	653.8	653.5	653.3	652.8	652.6	651.9	651.6		
17	650.6	649.6	649.1	649.0	648.9	648.8	648.5	648.5	648.5	648.9	648.8	648.8	648.9	649.5	649.9	649.8	649.9	650.2	650.7	651.2	651.7	652.2	652.8	653.3		
18	653.7	654.1	654.5	655.0	655.3	655.4	655.6	655.7	655.9	656.4	656.8	657.3	657.3	657.3	657.5	657.8	658.3	658.9	659.2	659.4	659.7	659.8	659.4	657.1	659.8	
19	658.9	658.5	657.9	657.4	656.9	656.0	655.2	654.2	653.4	652.5	651.8	650.6	648.7	646.8	645.7	644.3	644.1	643.4	643.5	643.3	643.3	643.1	643.8	644.5		
20	644.9	645.4	646.1	646.6	647.1	647.0	647.1	647.3	647.5	647.6	647.4	647.4	647.4	647.4	647.9	648.7	649.3	649.9	650.5	650.9	651.1	651.5	652.0			
21	652.4	652.7	653.0	653.4	653.7	653.8	654.0	654.1	654.3	654.6	654.1	653.5	652.9	652.5	652.3	652.4	652.7	653.1	653.4	653.6	653.6	653.3	653.4	654.6		
22	653.0	652.6	652.2	651.8	651.1	650.9	650.5	650.6	650.8	650.9	651.0	650.4	649.6	648.9	648.4	648.4	648.6	648.8	648.8	649.1	649.2	649.5	649.7			
23	649.9	649.8	649.8	650.1	650.1	650.1	650.0	649.9	649.8	650.0	649.9	649.3	648.6	647.8	647.1	646.6	646.6	646.3	646.0	645.6	645.0	644.9	644.7			
24	644.2	643.8	643.6	643.6	643.5	643.5	643.4	643.4	643.3	643.1	643.1	642.7	642.3	642.2	642.1	642.4	643.0	643.5	643.6	643.9	644.2	644.4	644.6			
25	644.7	644.8	644.8	644.8	644.9	644.8	645.0	645.4	645.4	645.7	646.0	646.2	646.2	645.7	645.4	645.7	645.8	646.1	646.2	646.1	645.9	645.7	645.5			
26	645.3	644.9	644.8	644.6	644.6	644.5	644.3	644.3	644.4	644.3	644.0	643.6	643.6	643.0	643.1	643.4	643.7	644.1	644.3	644.4	644.4	644.7				
27	644.7	644.6	644.8	644.7	644.8	645.1	645.1	645.2	645.4	645.6	645.6	645.3	644.8	644.3	644.0	644.6	645.6	645.2	645.4	645.7	645.7	645.8	645.9			
28	646.0	646.1	646.6	646.8	646.7	646.9	647.0	647.1	647.2	647.2	647.1	646.8	646.2	645.8	645.6	645.3	645.4	645.4	645.3	645.3	645.2	645.1	646.1	647.2		
29	644.8	644.4	644.2	644.0	643.9	644.0	643.9	643.9	643.9	643.8	643.8	643.3	642.9	642.7	642.9	643.1	643.6	644.0	644.1	644.3	644.6	644.8	645.1			
30	645.2	645.3	645.4	645.6	645.9	646.4	646.9	647.4	647.9	648.3	648.5	648.7	648.5	648.4	648.4	648.7	649.2	649.4	649.6	649.7	649.9	650.2	650.6			
31	651.0	651.2	651.4	651.5	651.5	651.6	651.4	651.2	651.2	651.1	651.1	651.0	650.4	649.8	649.8	649.8	649.8	649.8	649.8	649.7	649.5	649.6	649.0			
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%
MEAN	648.6	648.6	648.5	648.5	648.5	648.4	648.3	648.3	648.4	648.5	648.6	648.5	648.5	648.2	647.9	647.9	648.0	648.2	648.5	648.6	648.6	648.6	648.6	648.6		
MAX	658.9	658.5	657.9	658.1	658.2	658.6	658.6	658.6	658.9	659.3	659.6	659.5	659.4	659.4	659.2	659.5	659.6	659.4	659.4	659.7	659.8	659.8	659.4	650.6	651.6	



Number of Non-Zero Readings	744
Maximum 1-HR Average	660 MMHg
Maximum 24-HR Average	658 MMHg
Operational Time	744 HRS
Monthly Calibration Standard Deviation	5.681
Operational Uptime	100.0 %
Monthly Average	648.4 MMHg

Lagoon Relative Humidity (%) – January 2021

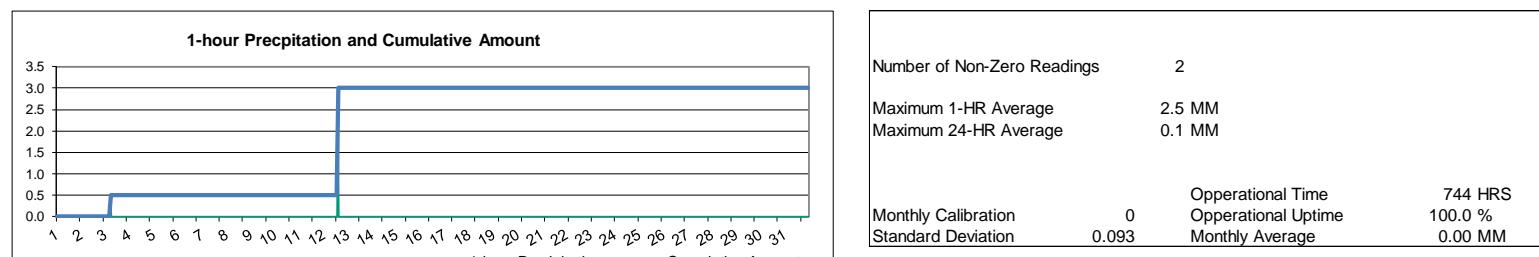
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	51.7	52.4	53.0	51.5	51.9	52.3	50.9	48.5	49.1	48.8	47.4	46.6	46.4	45.0	45.3	46.8	47.3	49.5	51.6	51.8	53.2	55.2	57.2	55.5	50.4	57.2	
2	54.7	65.7	73.1	63.1	63.1	49.4	36.9	35.0	35.9	37.9	37.6	38.6	41.4	40.3	38.1	41.9	42.0	42.5	49.7	55.8	53.4	48.3	47.2	52.3	47.7	73.1	
3	63.9	68.7	75.5	80.0	85.7	91.0	90.7	80.9	80.2	77.9	72.3	61.8	46.5	38.8	35.3	33.9	35.6	34.8	37.5	40.6	44.3	48.6	54.7	53.9	59.7	91.0	
4	53.0	49.4	50.4	51.0	50.2	45.5	43.7	45.6	47.4	48.0	48.3	49.8	49.6	50.6	51.6	52.7	54.8	56.9	58.3	61.6	64.5	64.7	62.8	64.1	53.1	64.7	
5	63.6	64.9	64.5	68.7	63.6	54.3	56.5	62.4	51.9	40.3	37.0	34.2	33.9	31.0	29.6	31.1	31.9	32.4	34.4	39.2	41.7	42.5	43.7	45.4	45.8	68.7	
6	45.5	45.7	47.4	46.9	48.3	47.6	55.6	61.7	51.4	44.5	44.4	45.6	43.8	44.5	47.9	61.1	64.5	73.1	74.7	75.0	76.9	79.9	76.5	77.8	57.5	79.9	
7	75.6	77.4	76.8	77.2	76.7	74.8	76.1	77.6	77.2	76.6	73.9	65.2	59.4	54.5	54.7	55.4	56.7	58.1	63.5	67.6	69.4	71.3	75.1	75.6	69.4	77.6	
8	73.6	72.9	72.3	73.4	74.7	76.6	77.2	77.0	76.6	74.8	73.4	66.0	59.3	55.1	55.0	57.2	60.3	63.2	66.1	69.9	70.0	72.2	72.7	73.2	69.3	77.2	
9	73.3	73.3	73.6	72.5	73.9	74.5	76.9	76.8	76.5	76.3	75.1	69.3	63.8	58.7	57.9	57.5	58.3	55.7	51.6	51.8	52.6	51.3	52.3	53.2	64.9	76.9	
10	56.3	55.8	48.3	47.6	47.3	48.9	49.2	51.7	55.9	56.8	55.7	55.0	53.3	51.9	51.6	50.0	50.8	52.2	53.0	54.6	55.6	54.7	54.0	54.5	52.7	56.8	
11	51.7	46.5	43.6	43.8	43.6	45.9	47.7	50.3	45.9	42.8	41.1	36.4	36.8	37.0	36.1	35.4	34.9	34.0	36.2	32.6	35.0	43.6	45.1	45.6	41.3	51.7	
12	45.9	48.7	47.9	57.7	60.1	60.8	59.6	57.1	53.0	52.1	53.0	50.4	49.5	46.4	45.6	46.9	53.2	60.8	60.8	60.2	62.0	61.2	57.7	58.9	54.6	62.0	
13	66.4	72.0	82.7	85.8	84.7	86.0	86.7	74.5	48.5	48.1	38.2	37.4	39.2	58.0	62.4	45.9	53.7	56.3	40.6	36.6	37.3	33.0	33.3	31.9	55.8	86.7	
14	30.9	32.2	32.9	35.5	41.1	40.0	42.5	42.9	46.1	40.8	40.7	38.1	36.3	34.0	33.9	33.8	33.9	34.1	34.9	36.6	39.1	40.6	40.5	42.5	37.7	46.1	
15	44.6	47.1	51.2	53.7	54.5	51.0	50.9	50.8	50.7	48.3	42.3	37.8	31.1	31.8	33.1	33.7	32.9	33.9	36.6	41.8	42.7	45.5	40.5	36.8	42.6	54.5	
16	36.6	38.3	36.5	38.1	39.2	40.0	41.0	42.8	44.2	38.2	37.1	35.3	33.2	32.8	34.3	34.8	35.3	36.5	38.2	40.1	41.9	43.5	45.4	46.3	38.7	46.3	
17	47.7	49.2	50.2	48.5	49.7	51.1	51.1	56.6	56.0	55.6	53.5	47.4	40.8	40.5	37.7	38.0	36.7	36.9	39.0	37.6	37.1	38.4	39.6	39.7	44.9	56.6	
18	40.9	43.7	47.6	48.3	48.2	51.5	50.4	51.5	50.0	51.7	52.6	48.9	46.4	38.4	34.6	35.7	36.1	38.1	38.3	40.4	44.7	49.2	53.8	55.0	45.7	55.0	
19	57.6	58.7	60.1	60.6	58.1	53.5	46.7	42.4	39.4	38.7	35.7	36.1	34.9	30.1	30.6	28.9	27.6	30.1	31.2	33.0	32.1	29.5	30.8	33.8	40.0	60.6	
20	34.9	31.7	29.3	29.5	30.0	30.0	29.6	26.7	26.2	25.0	23.2	20.9	19.8	21.0	23.7	26.4	29.2	31.9	34.8	36.6	38.6	40.4	44.6	47.5	30.5	47.5	
21	51.6	55.6	58.8	61.0	64.0	66.0	68.7	69.5	71.9	73.2	70.0	62.8	58.1	54.3	54.7	54.9	54.3	60.1	65.5	70.6	71.9	72.8	69.1	68.5	63.7	73.2	
22	70.5	72.1	72.0	70.9	70.4	70.0	69.0	67.8	68.0	68.6	67.1	63.3	54.2	50.7	50.5	52.7	63.3	67.2	67.8	71.5	74.8	74.2	79.6	80.2	67.4	80.2	
23	80.1	78.7	76.1	75.5	75.8	75.6	75.4	75.0	74.5	73.4	70.1	66.5	59.7	61.2	63.3	64.3	72.8	76.7	78.6	80.5	79.4	83.9	85.5	74.1	85.5		
24	85.5	85.3	60.5	56.0	56.6	58.7	60.0	59.9	58.6	56.4	53.5	49.4	47.2	44.8	44.6	45.7	63.6	73.6	77.3	81.0	83.3	84.8	81.2	63.5	85.5		
25	72.1	73.5	75.0	74.0	72.9	72.2	71.8	71.1	76.6	79.2	78.1	75.2	72.0	68.4	65.7	66.9	71.5	76.9	80.8	82.5	83.1	82.9	82.7	75.3	83.1		
26	82.0	82.9	83.6	83.5	83.2	83.1	82.6	82.4	81.9	80.6	77.1	68.4	61.6	55.2	57.9	59.8	66.7	73.8	78.5	80.8	81.7	83.0	83.2	76.5	83.6		
27	82.4	82.0	80.9	81.3	81.8	82.2	82.7	82.7	83.2	83.5	84.0	84.8	85.2	84.7	81.5	77.6	75.1	77.5	79.6	81.8	82.6	81.5	79.9	81.3	81.7	85.2	
28	80.1	80.7	82.4	82.9	83.0	83.3	83.4	83.3	83.8	83.3	81.7	77.9	77.5	75.9	71.3	68.2	70.8	72.5	79.1	82.5	83.6	83.8	83.7	83.4	79.9	83.8	
29	84.0	84.5	85.3	84.9	85.6	85.7	86.2	87.2	87.6	87.5	87.5	84.8	84.3	78.3	76.0	70.6	72.1	71.7	72.8	74.7	81.3	81.0	82.9	78.6	81.4	87.6	
30	78.1	77.6	77.3	75.5	73.9	75.1	74.9	76.6	77.1	75.5	71.3	67.4	63.2	52.4	44.3	39.6	39.7	42.1	46.1	48.8	52.5	54.9	58.8	61.8	62.7	78.1	
31	64.5	67.9	69.2	70.4	72.1	72.8	74.4	75.0	74.5	75.9	75.0	70.1	63.1	59.9	61.3	62.6	64.7	57.2	56.5	61.2	67.8	73.1	75.2	78.9	68.5	78.9	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%
MEAN	61.3	62.4	62.5	62.9	63.3	62.8	62.9	62.7	61.4	60.2	58.3	55.1	51.8	49.5	48.6	48.6	50.2	52.9	54.9	57.1	59.1	60.1	61.1	61.5			
MAX	85.5	85.3	85.3	85.8	85.7	91.0	90.7	87.2	87.6	87.5	87.5	84.8	85.2	84.7	81.5	77.6	75.1	77.5	80.8	82.5	83.6	83.8	84.8	85.5			



Number of Non-Zero Readings	744
Maximum 1-HR Average	91.0 %
Maximum 24-HR Average	81.7 %
Operational Time	744 HRS
Monthly Calibration Standard Deviation	16.86
Operational Uptime	100.0 %
Monthly Average	58.0 %

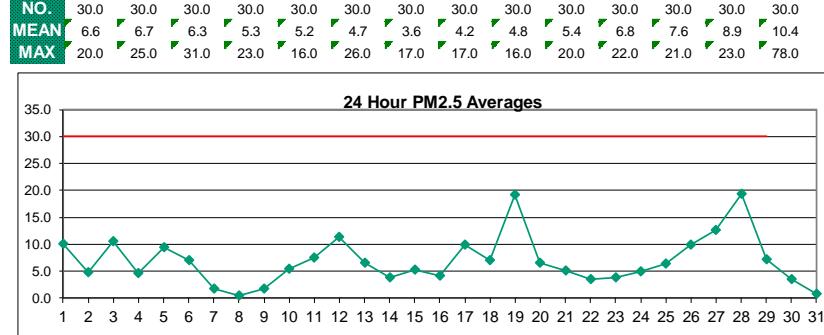
Lagoon Precipitation (mm) – January 2021

Day	HOUR																								MEAN	MAX			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
3	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	2.5	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
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			
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	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	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			



Windridge PM_{2.5} ($\mu\text{g}/\text{m}^3$) – January 2021

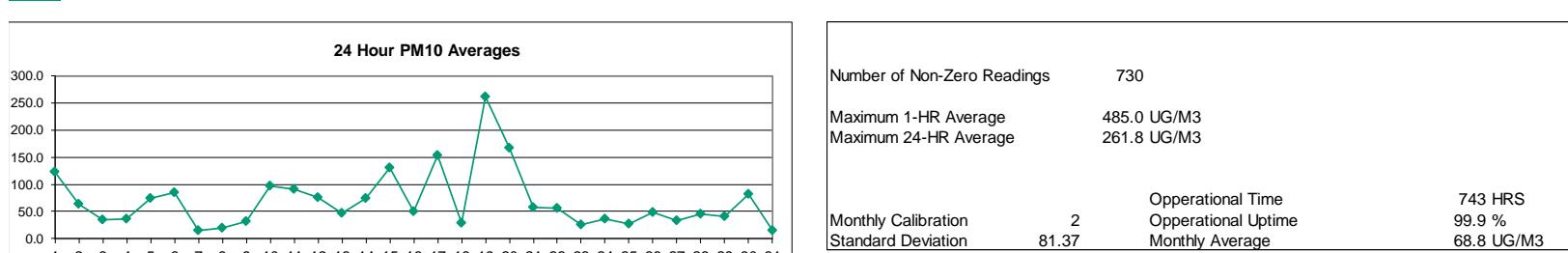
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	12.0	19.0	7.0	7.0	15.0	26.0	7.0	12.0	9.0	6.0	10.0	14.0	19.0	11.0	8.0	6.0	4.0	3.0	11.0	9.0	8.0	13.0	7.0	0.0	10.1	26.0	
2	1.0	3.0	2.0	0.0	0.0	0.0	3.0	3.0	8.0	8.0	7.0	6.0	7.0	4.0	6.0	8.0	6.0	37.0	0.0	1.0	3.0	1.0	1.0	0.0	4.8	37.0	
3	0.0	2.0	31.0	0.0	0.0	0.0	2.0	2.0	16.0	1.0	3.0	3.0	23.0	26.0	4.0	5.0	6.0	19.0	20.0	24.0	18.0	24.0	12.0	11.0	10.5	31.0	
4	7.0	2.0	2.0	11.0	13.0	15.0	8.0	5.0	5.0	5.0	2.0	0.0	0.0	1.0	2.0	0.0	15.0	0.0	2.0	2.0	1.0	4.0	4.0	4.0	4.6	15.0	
5	7.0	9.0	5.0	3.0	4.0	3.0	6.0	11.0	9.0	7.0	14.0	16.0	14.0	20.0	19.0	9.0	9.0	7.0	8.0	6.0	6.0	9.0	10.0	14.0	9.4	20.0	
6	20.0	15.0	7.0	3.0	6.0	4.0	1.0	1.0	10.0	20.0	20.0	10.0	8.0	8.0	4.0	4.0	12.0	8.0	3.0	0.0	2.0	0.0	0.0	2.0	7.0	20.0	
7	0.0	0.0	1.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	4.0	7.0	7.0	4.0	3.0	4.0	5.0	3.0	1.0	0.0	0.0	1.0	0.0	0.0	1.8	7.0	
8	0.0	0.0	0.0	0.0	0.0	1.0	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.5	3.0	
9	0.0	3.0	2.0	0.0	0.0	0.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	2.0	2.0	5.0	15.0	8.0	1.8	15.0	
10	7.0	6.0	6.0	7.0	6.0	8.0	6.0	4.0	4.0	7.0	14.0	9.0	9.0	6.0	5.0	4.0	2.0	7.0	5.0	3.0	2.0	1.0	2.0	2.0	5.5	14.0	
11	2.0	2.0	3.0	2.0	9.0	9.0	5.0	1.0	2.0	8.0	8.0	9.0	13.0	30.0	8.0	10.0	6.0	7.0	3.0	0.0	22.0	7.0	7.0	8.0	7.5	30.0	
12	16.0	16.0	26.0	14.0	7.0	0.0	0.0	3.0	3.0	8.0	21.0	21.0	20.0	21.0	C	12.0	10.0	16.0	3.0	2.0	14.0	11.0	9.0	9.0	11.4	26.0	
13	4.0	0.0	0.0	2.0	12.0	6.0	0.0	5.0	8.0	6.0	4.0	6.0	7.0	3.0	20.0	12.0	14.0	18.0	5.0	7.0	8.0	4.0	1.0	6.0	6.6	20.0	
14	6.0	4.0	1.0	0.0	0.0	0.0	0.0	2.0	5.0	3.0	13.0	11.0	7.0	2.0	2.0	1.0	3.0	4.0	5.0	10.0	7.0	3.0	3.0	3.8	13.0		
15	2.0	7.0	11.0	8.0	2.0	0.0	0.0	5.0	3.0	3.0	2.0	9.0	7.0	6.0	6.0	4.0	4.0	3.0	4.0	7.0	11.0	8.0	10.0	5.2	11.0		
16	17.0	8.0	6.0	5.0	2.0	0.0	4.0	3.0	0.0	2.0	4.0	6.0	8.0	6.0	4.0	2.0	2.0	3.0	3.0	1.0	0.0	0.0	8.0	5.0	17.0		
17	3.0	10.0	8.0	8.0	9.0	8.0	5.0	4.0	5.0	11.0	7.0	7.0	11.0	78.0	32.0	3.0	4.0	6.0	7.0	6.0	3.0	1.0	0.0	1.0	9.9	78.0	
18	5.0	6.0	3.0	11.0	6.0	1.0	0.0	1.0	3.0	0.0	1.0	2.0	2.0	4.0	15.0	47.0	8.0	15.0	24.0	5.0	2.0	2.0	3.0	1.0	7.0	47.0	
19	4.0	3.0	1.0	3.0	1.0	2.0	4.0	17.0	14.0	13.0	13.0	10.0	7.0	5.0	43.0	3.0	19.0	50.0	18.0	8.0	30.0	75.0	92.0	26.0	19.2	92.0	
20	14.0	8.0	4.0	8.0	7.0	3.0	0.0	1.0	3.0	8.0	11.0	19.0	20.0	7.0	7.0	4.0	3.0	5.0	6.0	5.0	4.0	3.0	2.0	6.6	20.0		
21	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	2.0	5.0	13.0	11.0	8.0	47.0	6.0	4.0	3.0	1.0	0.0	0.0	12.0	7.0	1.0	5.2	47.0	
22	4.0	5.0	1.0	0.0	1.0	2.0	3.0	0.0	0.0	1.0	2.0	2.0	4.0	3.0	0.0	0.0	5.0	6.0	4.0	1.0	8.0	13.0	9.0	9.0	3.5	13.0	
23	13.0	7.0	2.0	2.0	4.0	4.0	0.0	0.0	0.0	0.0	2.0	6.0	4.0	3.0	3.0	4.0	5.0	4.0	4.0	4.0	8.0	5.0	8.0	3.8	13.0		
24	7.0	9.0	7.0	4.0	0.0	0.0	3.0	4.0	4.0	3.0	0.0	2.0	3.0	2.0	1.0	5.0	2.0	5.0	9.0	10.0	15.0	15.0	9.0	5.0	15.0		
25	4.0	0.0	1.0	4.0	4.0	1.0	0.0	0.0	0.0	6.0	8.0	9.0	9.0	7.0	5.0	6.0	7.0	5.0	16.0	11.0	13.0	12.0	15.0	6.3	16.0		
26	6.0	9.0	12.0	10.0	13.0	11.0	12.0	9.0	11.0	6.0	5.0	7.0	11.0	10.0	7.0	5.0	14.0	11.0	P	11.0	10.0	12.0	12.0	13.0	9.9	14.0	
27	11.0	10.0	7.0	15.0	9.0	9.0	11.0	11.0	10.0	7.0	8.0	17.0	14.0	14.0	16.0	18.0	17.0	13.0	14.0	13.0	14.0	17.0	17.0	13.0	12.7	18.0	
28	13.0	20.0	15.0	13.0	15.0	11.0	17.0	17.0	12.0	17.0	22.0	18.0	21.0	25.0	25.0	22.0	21.0	18.0	24.0	22.0	26.0	24.0	21.0	19.3	26.0		
29	18.0	25.0	24.0	23.0	16.0	17.0	7.0	6.0	5.0	5.0	8.0	6.0	3.0	2.0	1.0	2.0	6.0	10.0	14.0	9.0	11.0	7.0	12.0	6.0	0.0	7.3	25.0
30	0.0	0.0	0.0	0.0	0.0	3.0	1.0	0.0	2.0	1.0	1.0	0.0	0.0	0.0	2.0	6.0	10.0	14.0	9.0	11.0	7.0	12.0	6.0	0.0	3.5	14.0	
31	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	4.0	2.0	1.0	3.0	0.0	0.0	4.0	3.0	0.8	4.0		



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	608	
Maximum 1-HR Average	92.0 UG/M3	
Maximum 24-HR Average	19.3 UG/M3	
Monthly Calibration Standard Deviation	1 8.5	Operational Time Operational Uptime Monthly Average
		743 HRS 99.9 % 6.9 UG/M3

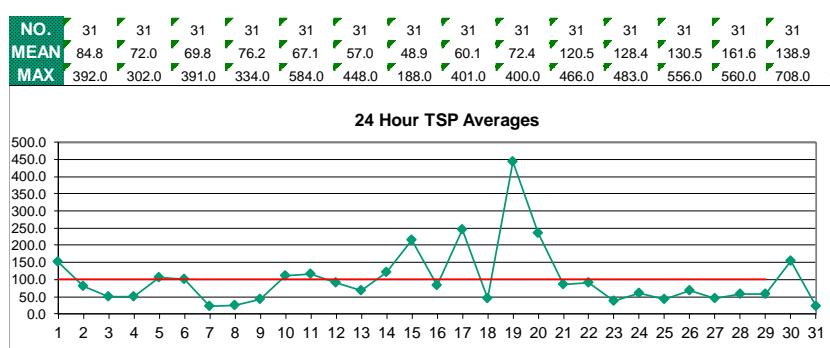
Windridge PM₁₀ (µg/m³) – January 2021

Day	HOUR																								MEAN	MAX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	165.0	161.0	105.0	106.0	146.0	200.0	98.0	91.0	141.0	174.0	126.0	189.0	311.0	254.0	99.0	62.0	65.0	60.0	76.0	69.0	84.0	96.0	32.0	38.0	122.8	311.0		
2	34.0	44.0	31.0	15.0	28.0	22.0	85.0	116.0	229.0	143.0	99.0	78.0	81.0	86.0	75.0	142.0	76.0	38.0	27.0	17.0	0.0	17.0	29.0	24.0	64.0	229.0		
3	14.0	9.0	3.0	0.0	0.0	1.0	4.0	5.0	25.0	0.0	17.0	5.0	27.0	36.0	90.0	84.0	106.0	42.0	69.0	66.0	41.0	61.0	45.0	35.1	106.0			
4	45.0	49.0	44.0	13.0	86.0	74.0	75.0	61.0	45.0	48.0	59.0	42.0	55.0	32.0	22.0	38.0	30.0	10.0	15.0	23.0	9.0	5.0	2.0	4.0	36.9	86.0		
5	4.0	2.0	3.0	3.0	3.0	19.0	16.0	30.0	19.0	32.0	85.0	98.0	75.0	77.0	72.0	184.0	123.0	117.0	180.0	117.0	73.0	170.0	142.0	149.0	74.7	184.0		
6	155.0	167.0	108.0	66.0	84.0	59.0	50.0	26.0	33.0	146.0	307.0	253.0	155.0	160.0	59.0	91.0	75.0	24.0	5.0	6.0	2.0	3.0	6.0	3.0	85.1	307.0		
7	2.0	6.0	6.0	15.0	9.0	10.0	33.0	6.0	4.0	8.0	22.0	16.0	16.0	44.0	62.0	61.0	24.0	6.0	5.0	4.0	5.0	4.0	0.0	1.0	15.4	62.0		
8	5.0	4.0	7.0	11.0	14.0	9.0	4.0	2.0	11.0	7.0	45.0	21.0	21.0	82.0	60.0	67.0	42.0	14.0	11.0	11.0	6.0	2.0	2.0	5.0	19.3	82.0		
9	5.0	8.0	4.0	6.0	6.0	3.0	0.0	9.0	5.0	0.0	5.0	2.0	2.0	19.0	10.0	9.0	11.0	13.0	6.7.0	68.0	100.0	81.0	212.0	130.0	32.3	212.0		
10	114.0	97.0	111.0	129.0	114.0	125.0	254.0	144.0	128.0	125.0	174.0	127.0	72.0	87.0	70.0	57.0	51.0	76.0	37.0	41.0	70.0	42.0	37.0	49.0	97.1	254.0		
11	41.0	45.0	46.0	42.0	46.0	35.0	18.0	14.0	48.0	137.0	170.0	233.0	357.0	101.0	126.0	176.0	106.0	51.0	22.0	20.0	143.0	83.0	52.0	75.0	91.1	357.0		
12	108.0	105.0	73.0	77.0	8.0	7.0	22.0	32.0	69.0	144.0	186.0	168.0	276.0	132.0	C	C	34.0	34.0	78.0	25.0	64.0	9.0	5.0	27.0	76.5	276.0		
13	4.0	5.0	5.0	11.0	22.0	0.0	5.0	47.0	104.0	26.0	58.0	103.0	58.0	26.0	51.0	40.0	46.0	64.0	20.0	106.0	118.0	81.0	62.0	72.0	47.3	118.0		
14	85.0	41.0	37.0	66.0	14.0	31.0	37.0	7.0	26.0	88.0	68.0	118.0	117.0	82.0	70.0	64.0	47.0	61.0	109.0	82.0	165.0	177.0	94.0	86.0	73.8	177.0		
15	92.0	171.0	256.0	227.0	69.0	9.0	20.0	21.0	54.0	194.0	127.0	74.0	185.0	129.0	156.0	168.0	93.0	71.0	126.0	108.0	174.0	295.0	186.0	138.0	131.0	295.0		
16	89.0	83.0	106.0	115.0	37.0	30.0	28.0	5.0	15.0	110.0	72.0	74.0	57.0	59.0	21.0	26.0	16.0	13.0	17.0	24.0	17.0	30.0	102.0	65.0	50.5	115.0		
17	30.0	114.0	113.0	137.0	323.0	271.0	116.0	102.0	117.0	214.0	121.0	176.0	354.0	485.0	102.0	103.0	148.0	250.0	173.0	101.0	50.0	23.0	24.0	35.0	153.4	485.0		
18	64.0	22.0	7.0	3.0	0.0	2.0	2.0	4.0	5.0	16.0	22.0	20.0	19.0	33.0	30.0	56.0	40.0	67.0	33.0	41.0	70.0	78.0	31.0	26.0	28.8	78.0		
19	130.0	64.0	65.0	66.0	26.0	25.0	48.0	301.0	237.0	276.0	334.0	216.0	242.0	183.0	485.0	196.0	485.0	485.0	288.0	191.0	485.0	485.0	485.0	485.0	167.4	443.0		
20	293.0	160.0	120.0	155.0	136.0	89.0	67.0	108.0	208.0	329.0	290.0	410.0	443.0	211.0	143.0	224.0	94.0	78.0	119.0	83.0	98.0	84.0	46.0	30.0	57.6	170.0		
21	9.0	6.0	2.0	3.0	6.0	5.0	6.0	6.0	17.0	45.0	112.0	147.0	165.0	125.0	91.0	98.0	133.0	73.0	8.0	21.0	39.0	170.0	56.0	39.0	56.5	228.0		
22	44.0	13.0	8.0	11.0	7.0	4.0	5.0	3.0	24.0	40.0	38.0	51.0	228.0	113.0	95.0	38.0	90.0	44.0	24.0	16.0	156.0	166.0	39.0	99.0	25.7	97.0		
23	57.0	29.0	8.0	11.0	6.0	3.0	5.0	4.0	13.0	23.0	24.0	23.0	97.0	39.0	30.0	42.0	63.0	22.0	16.0	24.0	11.0	25.0	18.0	24.0	36.2	102.0		
24	30.0	28.0	37.0	102.0	40.0	15.0	50.0	60.0	19.0	7.0	19.0	67.0	33.0	36.0	11.0	32.0	92.0	13.0	19.0	25.0	36.0	36.0	45.0	27.7	85.0			
25	1.0	3.0	4.0	4.0	4.0	6.0	9.0	22.0	7.0	7.0	85.0	71.0	71.0	51.0	47.0	33.0	33.0	22.0	28.0	37.0	24.0	17.0	25.0	26.0	34.0	47.8	143.0	
26	27.0	21.0	24.0	40.0	43.0	32.0	28.0	26.0	28.0	60.0	59.0	116.0	94.0	143.0	82.0	46.0	63.0	46.0	P	27.0	20.0	29.0	19.0	26.0	33.3	55.0	45.7	98.0
27	23.0	28.0	29.0	28.0	44.0	33.0	35.0	21.0	16.0	20.0	21.0	30.0	33.0	27.0	51.0	44.0	45.0	42.0	32.0	55.0	29.0	28.0	34.0	52.0	33.3	55.0		
28	43.0	42.0	34.0	28.0	28.0	27.0	31.0	26.0	26.0	48.0	62.0	57.0	84.0	98.0	73.0	59.0	54.0	45.0	32.0	41.0	42.0	40.0	45.0	32.0	41.4	120.0		
29	69.0	71.0	91.0	75.0	42.0	98.0	30.0	27.0	59.0	58.0	120.0	53.0	10.0	48.0	18.0	35.0	38.0	12.0	7.0	13.0	7.0	4.0	7.0	2.0	82.0	294.0		
30	3.0	7.0	4.0	7.0	5.0	6.0	5.0	3.0	0.0	5.0	6.0	15.0	12.0	57.0	97.0	208.0	294.0	226.0	226.0	288.0	204.0	203.0	53.0	33.0	82.0	294.0		
31	22.0	2.0	14.0	7.0	3.0	1.0	0.0	3.0	7.0	8.0	5.0	4.0	4.0	10.0	7.0	77.0	40.0	15.0	25.0	53.0	14.0	10.0	11.0	8.0	14.6	77.0		
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	30	30	31	31	30	31	31	31	31	31	741	99.9%
MEAN	58.3	51.8	48.5	50.9	45.1	40.4	38.3	43.0	56.1	84.4	94.3	98.6	120.5	98.7	79.7	85.3	84.9	71.1	62.5	57.8	76.6	82.0	63.3	59.8	42.0	433.3		
MAX	293.0	171.0	256.0	227.0	323.0	271.0	254.0	301.0	237.0	329.0	334.0	410.0	443.0	485.0	485.0	224.0	485.0	485.0	288.0	288.0	485.0	485.0	485.0	485.0	14.6	77.0		



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

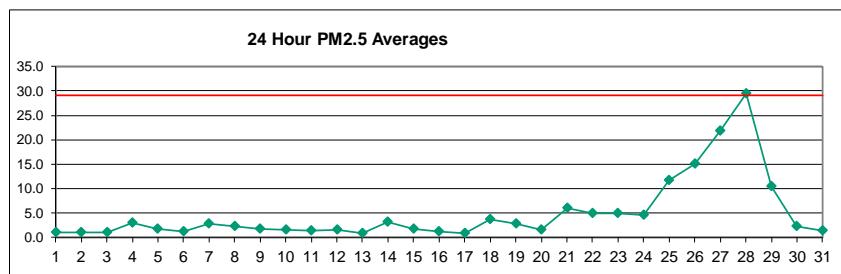
Day	HOUR																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	226.0	198.0	122.0	136.0	188.0	234.0	124.0	123.0	156.0	207.0	162.0	240.0	367.0	272.0	120.0	79.0	75.0	75.0	102.0	92.0	107.0	124.0	42.0	44.0	
2	38.0	56.0	30.0	13.0	32.0	22.0	102.0	165.0	257.0	205.0	127.0	110.0	100.0	86.0	97.0	125.0	96.0	58.0	44.0	43.0	2.0	31.0	50.0	38.0	
3	23.0	17.0	0.0	2.0	8.0	9.0	9.0	10.0	26.0	2.0	27.0	3.0	39.0	50.0	123.0	109.0	120.0	136.0	59.0	106.0	95.0	56.0	85.0	71.0	
4	61.0	66.0	66.0	18.0	112.0	114.0	124.0	92.0	56.0	76.0	80.0	63.0	75.0	33.0	23.0	40.0	29.0	16.0	20.0	25.0	9.0	12.0	6.0	10.0	
5	6.0	3.0	2.0	0.0	4.0	33.0	18.0	35.0	34.0	42.0	122.0	143.0	119.0	129.0	122.0	282.0	185.0	167.0	255.0	174.0	108.0	204.0	184.0	200.0	
6	217.0	209.0	124.0	92.0	92.0	67.0	73.0	30.0	36.0	174.0	334.0	252.0	179.0	175.0	71.0	110.0	86.0	45.0	5.0	8.0	5.0	6.0	6.0	3.0	
7	2.0	11.0	8.0	15.0	3.0	11.0	34.0	13.0	8.0	19.0	31.0	14.0	24.0	61.0	84.0	95.0	35.0	15.0	7.0	9.0	6.0	3.0	3.0	7.0	
8	13.0	7.0	7.0	8.0	7.0	6.0	8.0	6.0	8.0	10.0	16.0	25.0	31.0	128.0	98.0	105.0	64.0	23.0	18.0	6.0	9.0	7.0	6.0	5.0	5.0
9	5.0	7.0	6.0	4.0	2.0	2.0	2.0	5.0	5.0	4.0	1.0	3.0	5.0	28.0	18.0	21.0	17.0	23.0	9.50	96.0	136.0	109.0	275.0	146.0	
10	146.0	95.0	135.0	167.0	153.0	171.0	154.0	177.0	111.0	78.0	169.0	162.0	110.0	108.0	110.0	84.0	62.0	102.0	55.0	64.0	82.0	54.0	51.0	64.0	
11	56.0	65.0	78.0	57.0	67.0	50.0	23.0	23.0	65.0	224.0	243.0	248.0	356.0	139.0	152.0	187.0	134.0	74.0	34.0	31.0	213.0	120.0	74.0	94.0	
12	132.0	130.0	89.0	98.0	15.0	4.0	27.0	43.0	87.0	171.0	226.0	196.0	274.0	163.0	C	113.0	31.0	57.0	91.0	29.0	72.0	7.0	8.0	44.0	
13	3.0	5.0	4.0	11.0	24.0	4.0	12.0	66.0	51.0	33.0	102.0	116.0	71.0	40.0	85.0	57.0	73.0	118.0	38.0	184.0	192.0	121.0	90.0	122.0	
14	153.0	81.0	73.0	117.0	26.0	46.0	60.0	19.0	42.0	146.0	123.0	161.0	162.0	110.0	100.0	108.0	72.0	108.0	164.0	127.0	258.0	314.0	168.0	143.0	
15	161.0	302.0	391.0	334.0	120.0	17.0	47.0	33.0	96.0	349.0	230.0	120.0	301.0	194.0	240.0	262.0	154.0	139.0	212.0	180.0	297.0	467.0	283.0	229.0	
16	131.0	132.0	194.0	185.0	75.0	56.0	37.0	1.0	24.0	192.0	108.0	130.0	93.0	101.0	42.0	25.0	22.0	28.0	26.0	43.0	44.0	46.0	163.0	94.0	
17	61.0	180.0	208.0	259.0	584.0	448.0	188.0	171.0	183.0	320.0	189.0	254.0	508.0	708.0	154.0	153.0	237.0	386.0	278.0	165.0	80.0	48.0	47.0	60.0	
18	91.0	31.0	6.0	2.0	0.0	2.0	2.0	3.0	1.0	19.0	39.0	31.0	41.0	44.0	39.0	88.0	70.0	121.0	59.0	68.0	122.0	132.0	54.0	39.0	
19	245.0	101.0	107.0	101.0	49.0	48.0	74.0	401.0	400.0	466.0	483.0	364.0	359.0	263.0	985.0	298.0	641.0	985.0	400.0	308.0	858.0	985.0	985.0	731.0	
20	392.0	186.0	167.0	240.0	209.0	133.0	101.0	155.0	286.0	460.0	427.0	556.0	560.0	281.0	216.0	331.0	155.0	124.0	174.0	126.0	128.0	128.0	86.0	47.0	
21	24.0	13.0	8.0	8.0	5.0	10.0	8.0	6.0	21.0	63.0	148.0	187.0	246.0	201.0	143.0	144.0	208.0	129.0	12.0	37.0	62.0	234.0	86.0	69.0	
22	52.0	18.0	16.0	30.0	7.0	6.0	7.0	9.0	28.0	51.0	49.0	77.0	363.0	180.0	155.0	65.0	174.0	77.0	40.0	33.0	251.0	236.0	61.0	181.0	
23	81.0	32.0	14.0	14.0	10.0	7.0	6.0	6.0	19.0	31.0	40.0	36.0	136.0	51.0	45.0	45.0	84.0	94.0	51.0	35.0	26.0	17.0	34.0	29.0	
24	32.0	38.0	68.0	199.0	67.0	34.0	108.0	106.0	42.0	9.0	33.0	112.0	56.0	69.0	27.0	46.0	140.0	24.0	28.0	27.0	66.0	46.0	67.0	18.0	
25	3.0	5.0	11.0	9.0	7.0	12.0	8.0	30.0	13.0	143.0	112.0	114.0	89.0	74.0	48.0	48.0	32.0	38.0	48.0	29.0	23.0	39.0	32.0	64.0	
26	42.0	29.0	34.0	56.0	58.0	41.0	29.0	33.0	39.0	77.0	74.0	143.0	134.0	217.0	143.0	85.0	96.0	69.0	P	29.0	22.0	31.0	26.0	36.0	
27	37.0	37.0	50.0	49.0	64.0	43.0	43.0	29.0	24.0	13.0	18.0	40.0	38.0	45.0	98.0	63.0	56.0	64.0	51.0	84.0	28.0	30.0	34.0	73.0	
28	57.0	44.0	32.0	27.0	29.0	27.0	47.0	29.0	30.0	52.0	70.0	62.0	144.0	144.0	99.0	92.0	80.0	61.0	46.0	42.0	39.0	46.0	50.0	43.0	
29	97.0	103.0	96.0	89.0	49.0	94.0	29.0	33.0	83.0	84.0	184.0	68.0	14.0	76.0	35.0	77.0	78.0	35.0	7.0	17.0	4.0	3.0	3.0	3.0	
30	5.0	15.0	9.0	15.0	12.0	12.0	10.0	10.0	6.0	7.0	6.0	10.0	9.0	124.0	193.0	415.0	586.0	383.0	445.0	570.0	375.0	352.0	100.0	57.0	
31	36.0	15.0	10.0	6.0	2.0	3.0	3.0	2.0	8.0	7.0	8.0	5.0	8.0	11.0	15.0	130.0	62.0	22.0	44.0	98.0	24.0	7.0	18.0	13.0	



Number of 24HR Exceedences	10	Proposed Guideline
Number of Non-Zero Readings	739	
Maximum 1-HR Average	985.0	UG/M3
Maximum 24-HR Average	443.2	UG/M3
Izs Calibration Time		
Down Time	0	Operational Time
Standard Deviation	128.7	Operational Uptime
		Monthly Average
		743 HRS
		99.9 %
		101.0 UG/M3

West PM_{2.5} ($\mu\text{g}/\text{m}^3$) – January 2021

Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.2	0.4	0.5	0.2	0.4	0.7	0.6	0.8	0.9	1.7	1.7	1.5	1.0	1.3	1.7	2.2	2.9	1.3	0.9	0.8	0.8	0.7	0.4	0.3	1.0	2.9
2	0.2	0.2	0.4	0.1	0.4	0.6	0.5	0.8	1.5	3.3	3.5	4.8	2.8	2.4	1.5	1.0	0.5	0.6	0.4	0.3	0.3	0.3	0.3	0.4	1.1	4.8
3	0.1	0.9	1.7	1.6	1.4	0.7	0.2	0.3	0.3	0.4	0.8	1.7	1.2	0.9	1.1	1.3	3.9	0.9	0.6	1.2	0.5	1.1	1.1	0.4	1.0	3.9
4	0.4	0.3	0.5	0.2	0.4	0.4	1.1	4.7	5.2	4.7	6.1	6.5	7.8	7.3	7.8	7.6	5.8	2.3	1.1	0.7	0.7	0.6	0.6	0.5	3.1	7.8
5	0.3	0.3	0.3	0.3	0.1	0.1	0.2	0.4	0.7	5.5	5.8	5.4	4.8	4.3	4.4	3.2	2.2	1.0	1.1	0.9	1.1	0.5	0.5	0.5	1.8	5.8
6	0.3	0.4	0.5	0.3	0.2	0.4	1.0	1.2	0.8	2.8	1.4	1.1	1.0	1.9	3.3	6.0	1.4	0.6	0.7	0.5	0.4	0.3	0.7	1.5	1.2	6.0
7	0.9	0.7	0.5	0.5	0.5	0.4	0.4	0.8	1.4	9.2	8.3	7.6	6.1	6.3	5.4	5.1	3.1	2.1	2.0	1.6	1.8	1.7	1.7	1.0	2.9	9.2
8	0.8	0.8	0.7	0.6	0.7	1.0	1.2	1.4	1.8	2.4	2.5	3.2	5.4	4.4	3.6	4.6	4.4	3.0	2.2	2.1	1.7	1.5	1.4	1.3	2.2	5.4
9	1.0	0.9	0.9	0.8	0.7	1.1	1.1	0.9	1.0	1.9	2.1	2.9	3.6	3.5	2.8	3.0	3.4	2.3	1.9	1.6	1.4	1.5	1.2	0.9	1.8	3.6
10	0.9	0.8	1.0	1.2	1.2	1.1	1.1	1.3	1.1	1.3	1.9	2.3	2.8	3.5	3.5	2.7	1.7	1.2	1.0	1.2	1.1	0.9	0.6	0.4	1.5	3.5
11	0.4	0.3	0.4	0.4	0.3	0.5	1.1	2.3	2.5	2.1	2.4	1.9	3.2	3.8	2.5	1.9	3.0	0.7	0.9	0.7	0.7	0.9	0.7	0.7	1.4	3.8
12	0.6	0.5	0.6	0.5	0.6	1.0	1.1	2.0	2.4	2.9	2.8	4.7	3.7	3.1	2.3	2.0	1.6	1.6	0.5	0.3	1.7	0.6	0.2	0.2	1.6	4.7
13	0.4	0.7	0.6	0.6	0.3	0.4	0.5	0.6	0.6	1.0	1.0	1.3	1.3	1.9	1.5	1.6	0.7	0.3	0.6	0.8	1.5	1.4	0.9	0.4	0.9	1.9
14	1.4	0.2	1.2	0.5	0.4	1.4	1.1	5.5	9.6	9.2	3.8	4.4	3.2	3.9	5.4	5.3	4.8	3.1	1.7	2.1	1.3	1.2	1.6	3.3	3.2	9.6
15	1.5	1.3	0.7	0.6	0.9	0.6	1.0	2.3	2.4	2.2	4.2	3.8	2.8	3.7	3.2	3.6	1.7	0.7	0.6	0.4	0.5	0.5	0.5	0.3	1.7	4.2
16	0.3	0.3	0.2	0.3	0.2	0.3	0.4	0.7	0.8	2.6	2.3	2.6	1.5	2.2	1.8	2.6	1.2	0.9	0.7	1.0	1.1	1.5	1.0	0.7	1.1	2.6
17	0.7	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.5	1.4	1.5	1.7	1.5	1.3	1.0	0.6	0.6	0.3	0.4	0.2	0.4	0.1	0.1	0.8	1.7	
18	0.2	0.2	0.2	0.1	0.2	0.2	0.2	1.3	5.8	9.7	8.3	10.3	8.0	6.8	8.0	6.9	4.9	3.3	3.2	3.4	2.4	1.4	1.0	1.3	3.6	10.3
19	1.2	0.7	0.6	0.9	0.5	0.7	1.2	3.4	3.3	4.7	4.7	4.3	4.5	4.1	3.9	4.5	4.5	1.7	1.1	1.2	4.5	6.8	1.8	1.0	2.7	6.8
20	0.8	0.8	0.7	0.6	0.6	0.7	0.9	1.4	1.2	1.0	1.6	1.8	2.0	3.0	3.0	3.4	3.4	1.0	0.7	1.9	1.1	1.6	1.3	1.1	1.5	3.4
21	1.0	1.0	1.0	1.1	1.4	2.2	1.9	2.4	6.3	11.4	17.9	11.5	8.1	7.0	7.0	7.3	6.3	5.2	7.5	5.3	6.5	6.8	7.5	5.9	17.9	
22	5.5	2.8	2.0	1.4	1.2	1.0	1.7	2.6	4.4	7.2	8.2	5.1	4.0	6.1	6.5	4.5	4.9	2.5	4.4	6.8	8.2	11.0	9.4	8.5	5.0	11.0
23	7.5	6.8	5.7	3.5	2.7	2.3	1.9	2.2	3.4	3.4	4.6	4.5	4.6	3.6	4.0	2.9	3.6	4.1	3.3	3.5	6.6	5.7	7.3	7.8	4.9	15.7
24	3.2	1.5	1.0	1.1	1.2	1.6	1.3	1.4	1.5	1.9	2.4	3.6	4.0	3.7	3.5	3.2	3.2	4.8	14.6	17.2	17.8	9.3	3.3	2.7	4.5	17.8
25	2.3	1.9	2.2	1.9	2.1	2.1	2.5	5.6	7.0	14.1	20.6	19.3	20.0	19.7	21.2	16.1	15.3	14.9	14.9	15.4	15.5	16.0	16.1	11.8	21.2	
26	18.1	20.1	19.4	18.8	18.8	19.5	22.4	21.7	21.0	19.7	18.5	19.5	21.3	22.9	24.4	25.8	24.4	24.8	22.7	21.9	20.6	20.9	22.4	27.4	21.8	27.4
27	19.8	19.2	19.1	18.8	19.5	22.4	21.7	21.0	21.9	19.7	18.5	19.5	21.3	22.9	24.4	25.8	24.4	24.8	22.7	21.9	20.6	20.9	22.4	27.4	21.8	27.4
28	23.9	24.2	24.1	26.5	26.6	28.1	30.0	26.6	28.3	28.1	28.0	30.2	28.9	28.5	24.7	29.0	36.1	34.0	32.3	36.2	34.0	31.8	34.6	32.8	29.5	36.2
29	32.9	30.8	28.8	27.8	23.0	19.6	17.5	14.4	8.7	13.2	5.7	3.8	4.7	3.5	2.9	3.2	1.4	1.2	0.9	1.0	1.4	1.8	1.9	1.9	10.5	32.9
30	1.6	1.8	1.4	1.1	1.2	0.9	0.9	1.1	1.3	1.3	1.3	1.6	3.0	7.1	6.2	4.9	2.3	2.3	2.4	2.3	1.9	1.8	1.7	1.3	2.2	7.1
31	1.2	1.3	1.3	1.1	1.0	0.8	0.8	0.8	0.9	1.1	0.9	1.2	1.8	3.8	3.1	1.8	1.6	1.0	0.8	1.1	1.3	1.2	0.9	1.4	3.8	

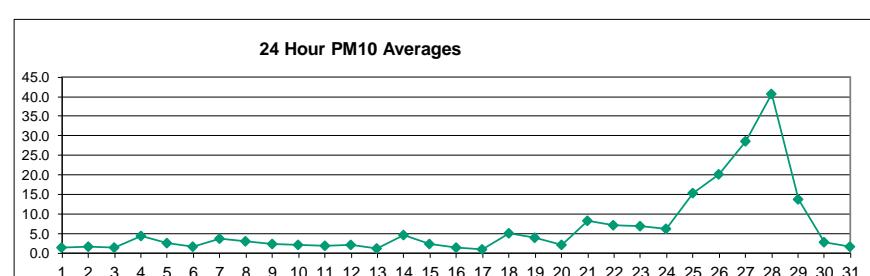


Number of 24HR Exceedences	1	Proposed Guideline
Number of Non-Zero Readings	744	
Maximum 1-HR Average	36.2 UG/M3	
Maximum 24-HR Average	29.5 UG/M3	
Izs Calibration Time		
Down Time	0	
Standard Deviation	7.217	
Opperational Time		
Opperational Uptime		
Monthly Average		
	744 HRS	
	100.0 %	
	4.8 UG/M3	

West PM₁₀ ($\mu\text{g}/\text{m}^3$) – January 2021

Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.3	0.4	0.7	0.2	0.4	0.9	0.8	1.2	1.2	2.4	2.3	2.1	1.5	1.8	2.5	3.2	4.0	1.8	1.1	1.0	1.0	0.7	0.5	0.3	1.3	4.0
2	0.2	0.3	0.4	0.1	0.5	0.8	0.7	1.1	2.2	5.0	5.2	6.9	4.2	3.5	2.1	1.4	0.7	0.8	0.5	0.4	0.4	0.4	0.4	0.6	1.6	6.9
3	0.2	1.3	2.4	2.3	1.9	0.7	0.2	0.4	0.3	0.6	1.0	2.4	1.7	1.3	1.6	1.8	5.6	1.3	0.8	1.7	0.6	1.5	1.5	0.5	1.4	5.6
4	0.5	0.4	0.7	0.3	0.5	0.5	1.6	6.8	7.6	6.7	8.7	9.4	11.6	10.6	11.2	11.2	8.6	3.4	1.2	0.7	0.8	0.7	0.7	0.5	4.4	11.6
5	0.3	0.3	0.3	0.3	0.1	0.1	0.3	0.6	1.0	7.9	8.0	7.8	6.9	6.3	6.3	4.8	3.2	1.4	1.5	1.3	1.6	0.7	0.6	0.6	2.6	8.0
6	0.4	0.5	0.7	0.4	0.3	0.5	1.4	1.7	1.2	4.2	2.1	1.7	1.5	2.8	4.8	8.8	2.0	0.7	0.8	0.5	0.4	0.3	0.8	1.6	1.7	8.8
7	1.0	0.7	0.5	0.5	0.5	0.4	0.5	0.9	1.8	10.5	9.9	9.9	8.8	9.1	7.7	7.4	4.5	2.8	2.5	1.8	2.2	1.9	1.8	1.1	3.7	10.5
8	0.9	0.9	0.7	0.7	0.8	1.1	1.5	1.8	2.3	3.4	3.5	4.6	7.6	6.4	5.2	6.8	6.5	4.4	2.9	2.4	1.8	1.6	1.5	1.3	2.9	7.6
9	1.1	0.9	1.0	0.8	0.7	1.2	1.2	1.0	1.1	2.4	2.8	3.9	5.2	5.2	4.0	4.3	5.0	3.2	2.4	1.9	1.6	1.9	1.4	1.0	2.3	5.2
10	1.0	0.9	1.2	1.6	1.7	1.4	1.5	1.8	1.4	1.7	2.7	3.3	4.1	5.1	5.1	4.0	2.4	1.6	1.3	1.4	1.3	1.1	0.7	0.5	2.0	5.1
11	0.4	0.3	0.5	0.5	0.3	0.7	1.5	3.3	3.6	2.9	3.4	2.7	4.6	5.5	3.7	2.8	4.4	1.0	1.3	1.0	0.8	0.8	1.1	0.8	2.0	5.5
12	0.7	0.5	0.7	0.5	0.6	1.3	1.4	2.9	3.6	4.3	4.1	6.9	5.4	4.5	3.4	2.9	2.4	2.3	0.7	0.4	1.8	0.6	0.2	0.3	2.2	6.9
13	0.4	0.8	0.7	0.6	0.3	0.4	0.7	0.8	0.8	1.4	1.4	1.9	1.9	2.8	2.1	2.3	1.0	0.5	0.8	1.2	2.2	1.9	1.3	0.5	1.2	2.8
14	1.9	0.3	1.7	0.6	0.5	2.1	1.5	7.9	13.8	13.3	5.6	6.4	4.7	5.7	7.7	8.0	7.0	4.6	2.4	3.0	1.9	1.6	2.3	4.6	4.6	13.8
15	2.1	1.9	1.0	0.8	1.2	0.8	1.4	3.3	3.4	3.3	6.1	5.6	4.1	5.3	4.7	5.2	2.4	1.0	0.7	0.4	0.6	0.6	0.7	0.4	2.4	6.1
16	0.4	0.4	0.3	0.3	0.4	0.4	0.9	1.1	3.7	3.3	3.7	2.1	3.1	2.5	3.6	1.6	1.2	0.9	1.2	1.4	2.0	1.2	0.8	1.5	3.7	3.7
17	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.2	2.0	1.9	2.0	2.4	2.1	1.8	1.5	0.8	0.8	0.4	0.6	0.3	0.6	0.2	0.2	1.1	2.4
18	0.2	0.3	0.3	0.2	0.2	0.2	0.2	1.9	8.5	14.5	11.7	12.7	10.4	9.8	11.5	10.2	7.3	4.9	4.7	5.0	3.4	1.8	1.3	1.7	5.1	14.5
19	1.6	0.9	0.8	1.2	0.7	0.9	1.7	5.0	4.9	7.0	7.1	6.4	6.6	6.1	5.8	6.7	6.7	2.5	1.6	1.7	6.6	10.0	2.5	1.4	4.0	10.0
20	1.1	1.1	1.0	0.8	0.7	1.0	1.3	2.0	1.7	1.4	2.4	2.6	2.8	4.4	4.4	5.1	5.0	1.4	0.9	2.6	1.4	2.0	1.6	1.3	2.1	5.1
21	1.2	1.1	1.1	1.3	1.8	3.0	2.5	3.4	9.5	16.5	22.0	14.6	11.4	10.3	9.7	10.7	9.5	7.8	11.2	7.9	9.7	11.8	9.6	10.6	8.3	22.0
22	7.8	3.5	2.4	1.6	1.4	1.2	2.2	3.8	6.6	10.8	12.1	7.6	5.9	9.0	9.8	6.6	7.1	3.6	6.5	10.2	12.4	16.5	13.7	11.2	7.2	16.5
23	9.7	9.3	7.5	4.3	3.3	2.8	2.3	2.7	4.9	6.7	6.6	6.7	5.3	5.9	4.3	5.3	6.1	4.9	5.2	9.9	8.5	10.3	10.8	22.5	6.9	22.5
24	3.8	1.7	1.1	1.3	1.4	1.9	1.5	1.5	1.7	2.3	3.3	5.2	5.8	5.4	5.1	4.6	4.6	6.8	20.1	23.9	24.5	12.8	4.1	3.2	6.2	24.5
25	2.5	2.1	2.4	2.0	2.3	2.3	3.1	8.3	10.4	17.8	25.3	23.7	24.9	24.4	26.8	20.2	19.0	19.6	19.3	21.2	21.7	22.6	23.2	22.3	15.3	26.8
26	25.9	29.3	28.3	26.5	25.4	24.3	22.0	21.9	14.8	11.7	13.0	16.0	10.2	11.3	12.4	17.2	22.2	17.4	20.1	21.4	20.0	20.6	25.3	28.6	20.2	29.3
27	27.2	27.8	27.7	27.4	26.1	31.5	28.5	27.3	24.2	22.8	24.0	26.2	28.1	30.1	31.7	30.9	32.3	29.7	26.9	25.4	27.1	30.3	39.9	34.8	28.7	39.9
28	32.3	31.9	32.9	37.4	36.8	39.9	42.4	36.9	38.8	34.8	35.2	42.0	39.5	39.7	30.7	36.8	47.0	49.6	47.5	52.9	48.9	46.2	50.4	46.8	40.7	52.9
29	46.4	41.7	39.2	36.6	29.2	23.7	21.7	19.4	11.7	17.7	7.6	4.9	6.7	5.0	4.0	4.7	1.8	1.4	1.0	1.0	1.5	1.9	1.9	2.0	13.9	46.4
30	1.7	1.9	1.5	1.3	1.3	1.0	0.9	1.1	1.3	1.4	1.5	1.8	4.3	10.7	9.2	7.2	3.3	3.3	3.2	3.0	2.2	2.1	1.8	1.4	2.9	10.7
31	1.3	1.4	1.4	1.2	1.0	0.9	0.9	0.9	1.0	1.1	1.0	1.4	2.4	5.4	4.5	2.3	2.0	1.1	0.9	1.2	1.4	1.4	1.3	1.0	1.6	5.4

NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
MEAN	5.7	5.3	5.2	5.0	4.6	4.8	4.8	5.6	6.1	7.8	7.9	8.2	7.8	8.3	8.0	8.0	7.6	6.0	6.2	6.7	6.8	6.8	6.6	6.6	6.6	744
MAX	46.4	41.7	39.2	37.4	36.8	39.9	42.4	36.9	38.8	34.8	35.2	42.0	39.5	39.7	31.7	36.8	47.0	49.6	47.5	52.9	48.9	46.2	50.4	46.8	100%	

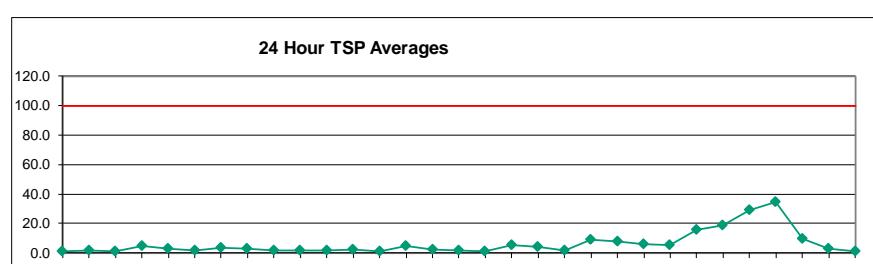


Number of Non-Zero Readings	744
Maximum 1-HR Average	52.9 $\mu\text{g}/\text{m}^3$
Maximum 24-HR Average	40.7 $\mu\text{g}/\text{m}^3$
Izs Calibration Time	
Down Time	0
OperratioEl Time	
Standard Deviation	9.8
OperratioEl Uptime	
Monthly Average	6.5 $\mu\text{g}/\text{m}^3$
	744 HRS
	100.0 %
	6.5 $\mu\text{g}/\text{m}^3$

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

Day	HOUR																								MEAN	MAX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	0.2	0.3	0.5	0.1	0.3	0.8	0.8	1.2	1.1	2.5	2.3	2.0	1.4	1.7	2.6	3.2	3.7	1.6	0.9	0.9	0.9	0.8	0.5	0.3	0.2	1.2	3.7	
2	0.1	0.2	0.3	0.1	0.3	0.7	0.6	1.1	2.4	5.4	5.7	7.7	4.4	3.7	2.1	1.4	0.7	0.8	0.5	0.3	0.3	0.3	0.3	0.5	1.7	7.7		
3	0.1	1.1	2.2	2.1	1.4	0.5	0.1	0.3	0.2	0.4	0.9	2.3	1.7	1.3	1.7	1.8	6.2	1.3	0.7	1.7	0.5	1.5	1.5	0.4	1.3	6.2		
4	0.4	0.4	0.7	0.2	0.5	0.5	1.6	7.7	8.6	7.4	9.2	10.3	13.1	11.9	12.7	12.7	9.6	3.4	0.9	0.5	0.6	0.4	0.4	0.3	4.8	13.1		
5	0.2	0.2	0.2	0.2	0.1	0.1	0.3	0.5	1.0	8.9	8.9	8.3	7.4	6.9	6.7	5.2	3.4	1.3	1.4	1.2	1.5	0.6	0.5	0.4	2.7	8.9		
6	0.2	0.3	0.6	0.4	0.2	0.5	1.5	1.8	1.2	4.5	2.1	1.7	1.4	2.9	5.2	9.9	1.9	0.4	0.5	0.3	0.3	0.2	0.5	1.0	1.7	9.9		
7	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.7	1.5	7.3	8.2	9.7	9.6	10.0	8.3	8.0	4.9	2.4	2.0	1.3	1.7	1.3	1.2	0.7	3.4	10.0		
8	0.6	0.6	0.4	0.5	0.5	0.8	1.1	1.5	2.0	3.3	3.5	4.6	8.2	7.0	5.7	7.6	7.2	4.3	2.1	1.6	1.2	1.1	1.0	0.9	2.8	8.2		
9	0.7	0.6	0.6	0.5	0.5	0.8	0.8	0.6	0.7	1.9	2.2	3.4	5.3	5.2	4.1	4.2	4.8	2.8	1.9	1.4	1.2	1.5	1.0	0.7	2.0	5.3		
10	0.7	0.6	0.9	1.4	1.6	1.3	1.3	1.7	1.2	1.5	2.6	3.4	4.0	5.0	5.2	4.1	2.1	1.3	1.0	1.1	0.9	0.8	0.5	0.3	1.9	5.2		
11	0.3	0.2	0.4	0.3	0.3	0.6	1.4	3.5	3.8	2.8	3.3	2.7	5.0	6.0	3.9	2.8	4.6	0.8	1.2	0.8	0.6	0.6	0.9	0.7	2.0	6.0		
12	0.5	0.4	0.5	0.3	0.4	1.1	1.2	2.8	3.7	4.7	4.1	7.3	5.7	4.8	3.6	3.1	2.5	2.3	0.6	0.3	1.2	0.4	0.1	0.2	2.1	7.3		
13	0.3	0.5	0.4	0.4	0.2	0.3	0.5	0.5	0.7	1.3	1.4	2.0	2.0	2.8	2.1	2.5	0.9	0.4	0.7	1.2	2.4	2.0	1.3	0.4	1.1	2.8		
14	1.9	0.2	1.8	0.6	0.4	2.2	1.6	9.0	15.9	15.3	6.1	7.1	5.0	6.2	8.6	8.8	7.9	4.9	2.5	3.1	1.7	1.5	2.4	5.1	5.0	15.9		
15	2.3	1.8	0.9	0.6	1.0	0.6	1.3	3.3	3.7	3.6	6.7	6.1	4.3	5.6	5.0	5.6	2.4	0.9	0.6	0.3	0.5	0.5	0.6	0.3	2.4	6.7		
16	0.3	0.3	0.2	0.2	0.2	0.3	0.9	0.9	3.8	3.4	3.9	1.9	3.0	2.3	3.8	1.4	1.0	0.6	1.0	1.2	1.7	0.9	0.6	1.4	3.9	9.0		
17	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.9	1.7	1.6	1.9	2.3	1.9	1.7	1.3	0.7	0.7	0.3	0.5	0.2	0.5	0.1	0.1	0.9	0.9	2.3		
18	0.1	0.2	0.2	0.1	0.1	0.2	2.0	9.7	16.7	13.5	14.6	11.5	10.6	12.9	11.6	8.2	5.5	4.8	4.8	2.9	1.4	1.0	1.4	5.6	16.7	16.7		
19	1.3	0.7	0.6	0.9	0.5	0.8	1.6	5.6	5.5	7.9	8.1	7.2	7.5	6.8	6.4	7.4	7.5	2.7	1.4	1.7	7.5	11.5	2.7	1.3	4.4	11.5		
20	1.0	0.9	0.8	0.7	0.6	0.8	1.2	2.0	1.6	1.2	2.3	2.6	2.8	4.7	4.7	5.5	5.4	1.2	0.7	2.2	1.0	1.5	1.1	0.9	2.0	5.5		
21	0.8	0.7	0.8	0.9	1.4	2.6	2.2	3.2	10.9	19.2	25.5	16.1	12.4	11.8	10.9	12.3	10.9	9.0	12.9	9.0	10.9	11.4	7.3	10.9	8.9	25.5		
22	6.6	2.4	1.7	1.1	0.9	0.8	1.9	3.9	7.3	12.2	14.0	8.3	6.4	10.1	11.1	7.5	7.8	3.7	7.0	11.7	14.2	19.1	15.2	11.2	7.8	19.1	19.1	
23	10.2	6.7	5.2	3.0	2.2	1.9	1.6	2.0	4.8	6.3	6.2	6.6	5.2	5.8	4.1	5.4	6.4	5.0	5.0	10.5	8.5	8.6	8.4	16.4	6.1	16.4	6.1	16.4
24	2.6	1.2	0.7	0.9	1.0	1.4	1.1	1.0	1.2	1.7	2.7	4.7	5.4	5.4	4.8	4.5	4.4	6.2	18.6	21.8	22.2	10.8	2.9	2.1	5.4	22.2	22.2	
25	1.6	1.4	1.5	1.3	1.5	1.6	2.5	8.9	11.7	20.7	29.4	27.5	28.4	28.0	30.2	22.8	21.7	20.3	20.0	19.4	19.0	19.2	18.1	19.5	15.7	30.2	18.6	25.7
26	21.1	21.8	20.5	18.2	17.0	16.2	14.7	17.4	17.1	13.4	15.1	18.3	10.4	12.4	14.0	20.0	25.7	20.2	20.8	21.7	23.3	22.3	22.6	23.3	28.8	36.8		
27	24.6	21.8	21.3	21.4	25.2	27.6	29.1	28.5	28.1	26.4	27.8	30.4	32.6	34.9	36.8	34.6	34.8	31.6	31.2	29.4	28.5	29.4	31.8	24.4	34.6	49.6	34.6	49.6
28	21.6	20.9	22.1	25.5	24.6	29.2	34.0	27.1	36.4	39.9	39.6	39.5	37.7	36.2	35.1	40.7	49.6	41.1	37.7	43.5	40.6	36.1	37.8	32.8	9.7	32.0	9.7	32.0
29	32.0	27.9	26.1	24.1	19.1	15.4	14.5	14.8	8.1	12.4	6.7	4.0	6.2	4.9	3.7	4.8	1.3	0.9	0.6	0.7	1.0	1.2	1.2	1.3	2.6	12.2	12.2	
30	1.1	1.3	1.0	0.9	0.9	0.6	0.6	0.7	0.9	0.9	1.0	1.2	4.4	12.2	10.3	7.9	3.3	3.1	2.9	2.7	1.7	1.5	1.2	0.9	1.2	0.9	1.2	5.3
31	0.8	0.9	0.9	0.8	0.6	0.6	0.6	0.6	0.6	0.7	0.6	1.0	1.9	5.3	4.7	1.8	1.5	0.7	0.6	0.8	0.9	0.9	0.9	0.7	1.2	5.3	5.3	

NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	4.4	3.8	3.7	3.5	3.4	3.6	3.9	5.0	6.2	8.3	8.5	8.6	8.9	8.7	8.8	8.2	5.9	5.9	6.4	6.4	6.1	5.4	5.2			
MAX	32.0	27.9	26.1	25.5	25.2	29.2	34.0	28.5	36.4	39.9	39.6	39.5	37.7	36.2	36.8	40.7	49.6	41.1	37.7	43.5	40.6	36.1	37.8	32.8		

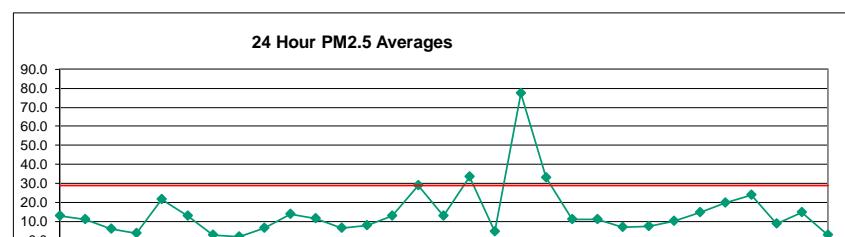


Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	744	
Maximum 1-HR Average	49.6 UG/M3	
Maximum 24-HR Average	34.6 UG/M3	
Izs Calibration Time		
Down Time	0	
Standard Deviation	8.957	
Operational Time		
Opperational Uptime		
Monthly Average		
	744 HRS	
	100.0 %	
	6.1 UG/M3	

Berm PM_{2.5} ($\mu\text{g}/\text{m}^3$) – January 2021

DAY	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	16.4	8.6	9.0	11.1	8.0	7.9	21.4	16.1	15.9	10.8	21.1	43.0	26.0	12.0	7.2	11.3	9.7	3.8	3.4	8.5	7.2	3.1	23.6	4.2	12.9	43.0	
2	5.1	2.1	1.8	5.1	5.1	12.1	18.8	36.3	31.3	22.9	15.5	20.5	12.4	8.2	16.1	14.4	7.5	5.2	5.0	2.7	3.9	6.0	2.6	1.4	10.9	36.3	
3	3.6	1.8	1.0	1.3	1.9	1.1	0.6	0.7	1.4	2.0	0.9	2.9	6.1	13.6	14.6	20.8	14.0	4.8	10.1	10.0	5.5	7.4	5.9	6.2	5.8	20.8	
4	6.2	4.2	1.1	4.3	7.9	10.1	7.7	4.9	4.3	5.8	6.8	8.7	3.1	2.9	3.3	2.6	1.5	2.7	1.6	1.2	0.7	0.4	0.6	0.4	3.9	10.1	
5	0.3	0.2	0.6	0.4	1.0	0.9	1.0	12.6	4.9	9.7	15.7	10.7	17.2	17.7	53.0	44.6	38.4	39.0	35.4	29.4	48.7	56.3	53.1	28.3	21.6	56.3	
6	23.9	13.4	8.7	6.4	4.4	7.4	2.5	3.8	24.2	50.5	44.5	43.2	29.4	12.5	15.3	10.6	4.7	0.9	1.1	0.3	0.3	0.6	0.6	1.3	12.9	50.5	
7	1.5	2.7	2.9	1.1	1.8	5.3	1.8	0.7	1.4	6.8	4.9	3.9	5.0	8.9	7.1	2.7	1.7	1.1	1.5	1.0	1.0	0.9	1.1	0.9	2.8	8.9	
8	0.9	0.6	0.8	1.3	0.9	0.9	0.8	1.0	1.0	2.3	2.0	2.7	5.6	6.9	6.1	4.5	2.1	1.6	1.0	1.3	1.4	1.1	0.9	0.9	2.0	6.9	
9	0.8	0.7	0.7	0.5	0.6	0.8	1.1	0.7	0.9	0.8	1.6	2.9	2.0	2.0	1.9	2.8	17.2	15.5	19.4	17.7	34.0	16.1	12.2	6.4	34.0		
10	10.3	19.2	20.5	27.5	35.8	35.2	23.7	11.5	9.8	24.5	16.7	10.8	14.4	9.4	5.6	3.4	8.2	8.8	8.4	6.2	3.7	3.7	5.9	4.1	13.6	35.8	
11	3.8	6.8	6.3	4.5	2.5	1.8	2.0	10.2	26.4	30.1	42.4	46.6	11.9	14.5	25.4	13.9	2.9	1.1	1.5	4.5	2.4	4.7	4.9	5.9	11.5	46.6	
12	4.6	1.3	0.8	1.4	0.6	1.6	3.4	8.2	20.2	14.3	15.2	26.2	17.5	10.3	7.4	3.2	3.7	1.4	1.3	0.8	1.3	1.8	1.2	6.2	26.2		
13	0.7	0.6	0.7	1.5	0.9	0.6	2.7	2.5	2.4	4.7	7.1	4.9	3.8	11.2	2.3	5.4	10.0	2.6	19.7	21.5	18.3	13.4	17.9	27.0	7.6	27.0	
14	10.6	5.3	6.4	1.6	1.7	1.1	1.0	3.2	13.6	10.1	12.0	15.2	10.6	14.2	11.1	5.2	10.7	16.3	21.3	36.2	24.5	17.8	27.7	29.9	12.8	36.2	
15	34.4	41.7	28.6	8.0	1.7	4.5	3.0	17.4	46.8	23.0	12.2	42.0	23.2	42.8	32.8	20.6	16.4	24.9	31.1	41.6	77.3	58.8	47.8	10.7	28.8	77.3	
16	12.7	26.7	18.7	5.9	4.0	1.9	0.8	3.6	21.8	11.3	20.6	31.5	28.3	13.9	8.5	8.4	7.4	8.9	6.9	11.6	13.7	12.8	10.0	18.9	12.9	31.5	
17	13.5	26.0	27.4	57.7	36.1	13.4	9.6	22.4	48.5	30.2	52.2	100.8	118.2	27.0	37.7	56.5	47.2	33.9	18.0	6.8	5.1	4.9	2.2	4.0	33.3	118.2	
18	1.2	0.7	0.2	0.2	0.2	0.2	1.1	2.9	4.0	5.7	6.3	6.4	6.3	4.2	7.1	6.3	4.7	11.2	12.3	2.7	3.3	25.0	4.7	25.0	7.6	27.0	
19	12.5	9.8	9.5	3.9	3.6	14.0	46.2	63.3	45.3	69.0	61.0	59.2	52.5	156.7	34.2	103.3	171.8	51.5	50.1	100.3	285.0	289.9	106.9	58.2	77.4	289.9	
20	18.7	19.7	26.5	23.2	16.0	10.2	15.7	55.0	71.6	52.7	97.7	110.7	42.8	40.4	61.9	33.1	26.1	20.5	19.7	7.1	14.1	6.9	3.6	1.8	33.2	110.7	
21	1.4	0.8	0.8	0.9	1.1	1.1	1.8	2.9	9.6	21.8	32.8	32.5	25.3	23.9	18.8	21.4	7.0	3.9	2.9	3.8	25.9	9.4	8.1	7.1	11.0	32.8	
22	2.8	3.0	2.4	1.1	5.5	0.9	1.7	7.3	5.8	8.2	8.2	53.0	28.0	36.8	18.2	14.6	2.9	1.6	4.5	15.9	25.9	6.3	3.0	7.9	11.1	53.0	
23	4.5	2.8	3.6	2.6	1.5	1.4	1.5	4.2	5.7	6.0	7.7	17.1	8.3	8.5	33.2	17.7	2.4	2.2	3.5	2.3	3.8	5.1	9.7	12.0	7.0	33.2	
24	7.6	5.4	25.2	5.8	3.4	11.9	9.4	3.2	2.4	3.7	11.3	8.9	9.2	3.1	3.7	6.6	2.1	4.9	9.3	10.5	12.2	14.0	1.7	1.6	7.4	25.2	
25	1.8	1.9	1.4	1.6	1.7	2.2	3.2	3.3	10.8	15.9	16.3	14.0	13.4	11.6	12.8	12.7	10.9	19.7	14.8	11.5	13.2	12.3	13.2	18.3	9.9	19.7	
26	13.5	13.0	15.9	15.0	13.9	13.2	11.3	10.8	13.3	12.6	20.0	24.8	26.9	24.8	9.2	17.9	15.6	13.4	10.3	9.8	10.5	10.9	12.1	14.2	14.7	26.9	
27	14.1	14.7	11.6	15.3	16.9	16.8	18.1	13.6	10.3	11.7	15.8	18.1	22.0	28.5	37.5	23.3	19.1	20.9	44.1	19.0	21.9	21.9	19.3	17.7	19.7	44.1	
28	17.6	15.5	14.3	14.5	15.5	19.6	18.8	18.8	18.2	21.0	43.6	40.5	33.9	32.7	26.8	26.6	23.1	22.3	18.7	20.9	21.3	24.0	23.5	23.3	39.3	24.0	43.6
29	33.0	22.6	19.4	18.1	13.9	9.8	12.9	10.6	4.7	23.5	8.5	2.3	6.4	4.1	6.9	4.9	2.4	1.0	0.7	0.8	0.6	1.0	1.1	1.8	8.8	33.0	
30	1.8	1.2	2.0	1.6	1.2	1.5	0.8	0.8	1.7	1.9	2.5	1.6	13.2	17.7	68.6	47.4	32.5	50.0	57.4	23.6	17.2	2.9	3.3	4.1	14.9	68.6	
31	1.3	1.1	0.7	0.6	0.6	0.6	0.7	1.0	1.8	0.9	1.1	1.1	1.7	4.2	15.3	5.0	2.6	6.1	6.7	3.2	1.6	2.3	1.6	1.6	2.6	15.3	

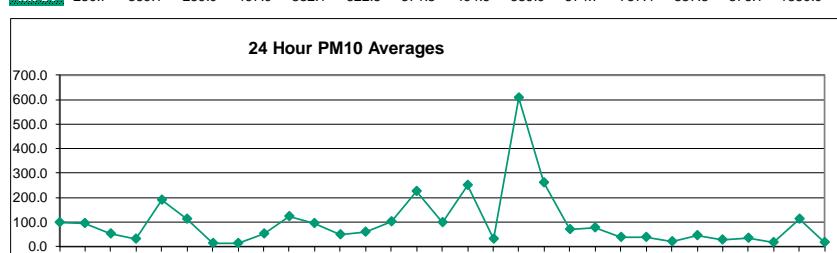
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	9.1	8.9	8.7	7.9	6.8	6.8	7.9	11.3	15.5	17.2	19.9	25.7	20.1	20.0	19.6	18.2	16.6	12.7	14.0	14.3	22.6	20.5	14.0	11.9		
MAX	34.4	41.7	28.6	57.7	36.1	35.2	46.2	63.3	71.6	69.0	97.7	110.7	118.2	156.7	68.6	103.3	171.8	51.5	57.4	100.3	285.0	289.9	106.9	58.2		



Number of 24HR Exceedances	3	Proposed Guideline
Number of Non-Zero Readings	744	
Maximum 1-HR Average	289.9 UG/M3	
Maximum 24-HR Average	77.4 UG/M3	
Monthly Calibration Standard Deviation	23.1	Operational Time Operational Uptime Monthly Average
		744 HRS 100.0 % 14.6 UG/M3

Berm PM₁₀ ($\mu\text{g}/\text{m}^3$) – January 2021

DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	93.2	61.5	66.4	78.6	43.6	47.9	154.2	124.5	148.9	99.1	192.1	418.8	230.8	100.0	54.8	79.9	52.9	18.5	16.5	40.8	47.9	27.1	103.4	35.7	97.4	418.8
2	45.4	14.1	2.8	20.7	30.9	110.5	189.3	357.7	291.7	194.0	135.4	182.6	110.2	69.3	123.9	117.5	57.3	47.6	38.4	15.6	23.1	48.8	19.2	9.6	94.0	357.7
3	21.1	6.8	2.9	1.9	2.8	1.4	0.9	1.0	2.0	3.0	1.3	16.8	57.3	184.2	146.1	245.0	136.4	51.5	83.1	67.1	31.5	52.0	44.5	51.4	50.5	245.0
4	49.6	31.8	6.7	32.3	72.7	108.8	67.2	39.4	43.1	48.3	57.9	73.9	20.7	18.8	19.6	15.2	6.4	17.3	10.0	4.5	2.4	0.8	1.6	0.8	31.2	108.8
5	0.7	0.5	2.1	1.4	5.4	6.6	4.9	33.4	48.4	87.4	124.9	73.3	145.5	140.7	448.0	401.8	355.1	315.6	253.6	441.7	548.7	481.7	268.4	191.3	548.7	
6	224.5	123.1	77.6	51.2	37.4	66.6	21.1	30.5	224.5	446.3	398.3	336.9	242.1	102.1	129.8	99.8	41.6	1.5	1.8	0.4	0.7	1.6	0.9	1.7	110.9	446.3
7	2.1	4.0	4.3	1.6	2.5	7.9	2.5	0.8	1.9	8.7	7.5	13.3	39.6	86.2	66.4	16.6	6.6	2.2	3.4	1.7	2.2	1.0	1.3	1.1	11.9	86.2
8	1.2	0.8	1.0	1.8	1.2	1.2	1.0	1.3	1.3	3.3	9.8	17.3	51.4	65.7	60.3	40.1	10.1	6.9	1.8	2.1	2.1	1.3	0.9	1.0	11.9	65.7
9	0.9	0.8	0.5	0.7	1.1	1.5	0.9	1.1	0.9	1.0	7.8	23.0	8.9	9.8	14.4	23.1	152.5	124.9	166.7	164.4	309.3	139.0	109.0	52.6	309.3	
10	94.2	178.5	189.5	248.1	332.1	322.5	214.0	102.3	84.4	228.8	152.2	106.8	135.1	84.9	42.3	30.2	65.5	75.6	70.8	44.8	27.3	25.7	49.6	31.5	122.4	332.1
11	29.7	62.2	56.0	34.5	18.2	12.4	11.2	77.2	238.9	266.7	342.8	380.2	88.7	109.5	225.9	128.7	17.7	5.8	7.0	38.9	19.6	45.1	45.6	43.9	96.1	380.2
12	26.3	6.1	2.7	6.0	1.4	10.5	27.3	81.5	175.4	109.8	124.0	222.2	131.0	68.4	51.0	23.0	23.1	5.6	7.6	6.0	2.5	7.2	8.1	3.9	47.1	222.2
13	2.2	1.2	1.0	2.1	1.2	0.9	4.0	6.7	12.9	34.2	58.4	45.8	24.9	65.3	9.2	45.7	139.3	24.9	159.7	191.3	153.6	101.2	140.5	207.8	59.8	207.8
14	81.8	41.4	56.6	13.0	11.5	6.5	5.7	22.8	123.5	89.9	89.7	111.4	80.2	109.0	95.1	39.5	88.8	127.6	142.4	265.0	211.1	146.0	217.0	235.6	100.5	265.0
15	280.7	369.1	259.0	71.7	11.5	35.7	18.8	124.6	373.5	210.4	102.3	319.0	185.4	294.3	244.2	165.4	145.7	210.3	243.2	333.3	577.2	383.9	353.6	76.6	224.6	577.2
16	89.5	216.0	151.4	48.7	28.7	12.4	3.9	28.9	201.8	100.5	163.3	230.2	195.1	100.5	62.2	59.1	53.0	74.1	44.4	77.5	90.0	98.5	68.8	123.5	96.8	230.2
17	97.0	201.8	207.1	497.0	292.2	102.5	79.3	168.4	388.1	204.4	379.4	720.5	876.1	195.3	248.7	397.2	365.8	249.2	128.7	51.3	39.0	41.2	15.5	24.6	248.8	876.1
18	6.1	2.4	0.3	0.5	0.7	0.8	0.3	0.6	6.1	20.7	17.4	19.4	23.6	35.8	41.3	23.6	52.6	41.4	30.5	105.3	93.1	15.8	22.7	194.9	31.5	194.9
19	94.3	79.1	77.7	36.9	32.0	135.8	371.3	494.6	357.7	574.7	478.7	469.3	432.6	1350.0	266.7	849.4	1358.9	390.6	370.1	818.2	1799.4	2366.9	916.5	493.7	609.0	2366.9
20	154.7	171.7	219.5	163.9	122.1	84.9	141.2	441.0	589.0	470.8	757.4	837.3	334.0	299.8	473.6	239.4	195.4	155.2	170.6	52.2	83.3	56.7	23.5	8.8	260.3	837.3
21	4.7	2.5	1.4	1.5	3.4	4.4	2.4	19.7	74.1	74.1	197.0	261.4	191.1	196.1	132.4	162.9	37.9	8.2	11.4	20.2	155.8	49.0	58.0	38.0	71.2	261.4
22	6.4	12.5	12.8	2.9	23.5	2.3	6.0	36.9	34.6	43.3	65.5	472.0	245.8	302.9	129.9	108.4	10.2	4.2	21.0	100.2	165.9	26.3	12.9	28.8	78.1	472.0
23	10.7	3.5	4.9	3.3	1.8	1.7	1.9	6.1	8.5	8.9	49.6	136.4	60.8	60.4	284.0	138.4	10.2	6.7	8.8	4.4	12.6	17.7	14.9	16.1	36.3	284.0
24	10.3	50.6	193.5	37.0	18.9	102.8	76.8	18.9	7.5	21.1	84.8	47.2	61.4	14.2	22.1	36.7	7.3	11.7	14.4	17.9	19.1	28.0	2.0	2.5	37.8	193.5
25	3.8	3.2	1.6	2.2	6.0	12.6	19.4	8.2	45.6	38.0	24.4	21.8	36.3	36.0	39.9	31.6	22.7	33.2	20.3	15.7	18.7	17.8	19.4	24.9	21.0	45.6
26	18.7	17.0	22.7	20.6	18.0	16.9	15.5	14.4	20.0	18.9	29.9	157.3	200.3	189.0	58.6	60.0	40.7	46.0	17.1	13.0	13.8	14.4	17.1	21.1	44.2	200.3
27	21.0	21.6	17.1	22.6	25.0	24.5	24.9	15.1	10.7	12.3	19.2	23.6	27.4	38.6	54.7	33.4	26.3	28.7	64.7	24.2	29.8	31.5	27.2	23.6	27.0	64.7
28	22.3	19.2	17.2	17.4	19.7	26.4	22.5	22.5	27.5	63.4	59.5	50.9	49.0	40.1	39.7	34.0	30.9	24.9	26.6	27.6	30.9	30.0	31.7	58.8	33.0	63.4
29	49.1	30.7	24.3	25.2	18.8	12.1	18.1	15.6	6.9	35.2	14.4	5.8	9.5	6.0	49.2	40.1	18.4	3.0	1.7	1.3	0.9	1.3	1.4	2.3	16.3	49.2
30	2.4	1.5	2.8	2.2	1.7	2.0	1.0	0.9	2.1	2.5	13.2	4.3	130.8	157.6	546.5	347.4	246.3	400.1	422.8	173.1	128.4	19.6	21.0	22.1	110.5	546.5
31	3.5	2.8	0.9	0.8	0.8	0.9	1.4	2.5	1.2	3.0	3.7	7.2	34.5	125.5	35.5	12.2	49.2	48.2	17.9	5.3	2.2	2.3	15.3	2.2	125.5	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	49.9	56.1	54.3	46.7	38.3	41.4	48.7	74.1	114.7	113.6	134.0	186.7	143.5	147.2	138.8	131.0	118.0	86.3	84.8	95.2	141.7	145.8	92.3	69.8		
MAX	280.7	369.1	259.0	497.0	332.1	322.5	371.3	494.6	589.0	574.7	757.4	837.3	876.1	1350.0	546.5	849.4	1358.9	401.5	422.8	818.2	1799.4	2366.9	916.5	493.7		

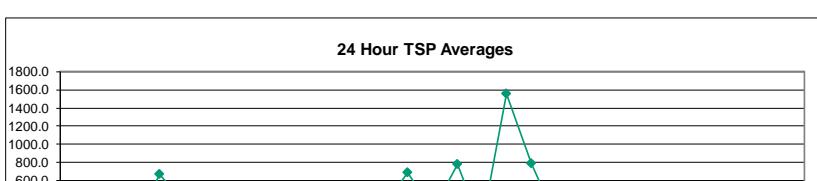


Number of Non-Zero Readings	744
Maximum 1-HR Average	2366.9 $\mu\text{g}/\text{m}^3$
Maximum 24-HR Average	609.0 $\mu\text{g}/\text{m}^3$
Monthly Calibration Standard Deviation	181.9
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	98.0 $\mu\text{g}/\text{m}^3$

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

DAY	HOUR																								MEAN	MAX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	139.2	179.3	176.2	194.0	71.6	116.3	393.7	334.9	495.3	335.3	589.8	1446.7	793.1	290.9	144.3	189.9	95.7	31.2	28.0	50.2	138.5	98.8	321.0	118.9	282.2	1446.7		
2	132.0	35.3	4.1	21.2	116.5	343.7	630.5	1161.2	935.5	629.9	415.7	592.7	378.7	222.5	429.6	397.7	188.0	165.6	83.2	25.1	49.9	165.4	59.6	27.8	300.5	1161.2		
3	29.0	6.9	6.2	1.7	2.6	1.3	0.8	0.9	2.0	3.0	2.7	45.5	257.8	841.8	625.0	929.0	602.3	212.9	200.1	124.0	65.0	169.5	162.3	207.0	187.5	929.0		
4	180.5	105.4	24.1	92.4	203.2	369.8	200.8	117.1	160.8	155.8	230.9	249.3	62.2	63.3	60.8	39.0	46.1	15.2	7.8	0.9	3.4	1.0	1.0	1.0	102.6	369.8		
5	0.5	0.3	1.5	2.3	17.0	22.2	8.7	61.0	133.3	242.1	280.1	161.8	404.1	419.6	1539.2	1410.2	1301.0	1592.2	1077.9	907.5	1574.9	2009.1	1773.9	1083.0	667.6	2009.1		
6	863.4	490.9	279.2	181.7	113.7	223.2	70.5	87.1	695.6	1330.1	1178.4	953.1	737.4	314.5	354.8	306.3	135.5	3.9	2.2	1.6	0.7	2.2	2.2	1.6	347.1	1330.1		
7	1.9	4.2	4.5	1.5	2.5	8.9	2.5	0.7	1.6	7.4	11.7	36.6	158.4	255.7	216.1	54.4	18.0	3.6	10.7	3.1	1.7	0.8	1.0	1.0	33.7	255.7		
8	0.9	0.5	0.8	1.8	1.1	0.9	0.8	1.1	1.1	31.0	44.1	59.5	183.0	235.5	176.9	111.3	23.2	16.2	3.7	5.5	4.6	0.9	0.6	0.7	36.6	235.5		
9	0.6	0.6	0.5	0.3	0.5	0.9	1.3	0.7	0.9	0.6	0.8	26.5	74.0	32.0	33.6	63.2	89.2	515.4	443.1	591.4	614.3	1169.5	521.8	424.3	191.9	1169.5		
10	355.0	700.1	773.9	908.7	1232.2	1201.8	792.0	394.3	312.2	863.3	602.0	419.6	532.1	332.0	151.1	116.5	268.9	287.3	296.3	145.5	111.4	113.7	200.5	108.2	467.4	1232.2		
11	120.5	238.1	203.6	113.8	60.0	35.5	45.0	228.5	858.6	902.6	1094.7	1212.3	271.4	291.5	699.6	456.0	50.6	34.7	23.5	129.7	71.0	174.9	149.3	150.0	317.3	1212.3		
12	68.2	15.7	5.7	14.9	5.5	41.3	107.2	289.3	570.4	341.0	358.1	647.7	360.6	175.8	157.3	76.8	51.9	17.7	22.5	13.0	4.5	20.7	11.8	3.1	140.9	647.7		
13	3.5	1.3	0.9	2.0	1.0	0.7	4.3	11.2	38.1	179.6	239.2	233.0	111.7	591.5	15.6	229.8	939.7	121.0	545.1	657.2	490.0	365.5	420.6	585.7	241.2	939.7		
14	255.5	147.9	220.2	47.0	46.8	23.3	19.2	59.4	346.8	264.2	219.3	283.0	184.5	223.8	279.5	98.9	252.4	427.3	409.3	801.4	757.6	511.0	710.4	799.0	307.8	801.4		
15	1000.8	1398.2	1090.4	297.5	37.1	131.6	76.8	410.8	1199.4	656.5	297.3	959.1	639.9	722.3	718.9	458.0	440.7	550.9	645.9	944.9	1554.3	1098.7	958.7	165.9	685.6	1554.3		
16	259.5	720.2	534.7	174.1	96.2	29.3	9.1	58.6	529.4	239.3	401.3	519.4	468.2	250.3	160.8	139.3	149.6	203.2	115.5	205.0	210.9	273.7	201.5	367.1	263.2	720.2		
17	324.6	692.9	707.6	1802.3	1077.8	435.1	321.8	545.3	1273.2	614.7	1147.9	2043.9	2545.1	579.6	612.8	1080.1	1058.5	764.8	407.3	193.9	121.5	139.8	52.8	59.2	775.1	2545.1		
18	12.8	2.6	0.7	0.3	0.8	1.4	0.3	2.2	14.6	46.1	35.9	40.3	48.0	73.6	94.1	55.4	134.5	104.2	80.4	326.8	279.2	56.7	91.0	634.9	89.0	634.9		
19	338.7	315.7	296.6	162.0	140.1	433.8	1249.3	1682.1	1146.7	1806.9	1458.3	1558.9	1509.3	3425.2	856.9	2437.9	3204.5	1199.8	1166.1	2096.7	3107.3	3697.5	2461.1	1583.1	1555.6	3697.5		
20	592.0	672.0	783.8	512.1	369.7	303.2	542.7	1385.5	1794.2	1442.6	2300.7	2455.7	931.8	842.0	1431.4	732.0	475.9	366.2	462.9	125.0	225.8	177.4	61.0	22.9	792.0	2455.7		
21	12.9	9.5	3.5	3.7	7.9	16.7	2.7	44.1	174.1	161.0	106.2	175.6	1406.1	693.5	770.0	285.0	210.0	23.6	10.2	39.5	173.5	314.0	31.5	22.0	195.8	1406.1		
22	18.3	45.5	35.4	8.5	79.6	3.6	11.8	95.0	101.2	106.2	173.6	1406.1	693.5	770.0	30.7	17.8	16.0	5.4	15.4	42.5	24.6	12.4	82.3	653.1	107.1	606.2		
23	18.0	2.6	4.0	2.7	1.3	1.3	1.5	6.3	9.1	9.3	137.8	370.1	159.7	134.4	653.1	298.5	30.7	17.8	16.0	5.4	15.4	42.5	24.6	12.4	82.3	653.1	107.1	606.2
24	12.1	153.4	606.2	117.7	56.8	310.7	239.5	59.1	19.2	68.2	288.6	132.4	170.7	39.9	75.4	102.0	19.4	18.2	12.2	17.4	14.7	30.7	1.3	5.4	174.7	737.6		
25	9.6	3.1	1.1	2.8	17.3	38.9	56.1	13.4	81.2	72.6	25.7	22.8	75.2	82.8	85.9	58.3	53.4	62.2	16.0	11.3	14.0	13.8	18.4	18.9	35.6	85.9		
26	13.5	11.6	20.5	17.9	13.1	12.8	12.1	12.6	22.4	21.3	34.5	341.8	441.0	350.7	90.5	50.3	87.7	19.8	11.2	9.5	9.8	12.6	17.6	72.7	441.0			
27	17.3	17.9	14.3	20.5	23.6	18.9	18.9	10.5	7.2	8.2	13.7	18.5	21.6	33.6	49.2	28.2	22.0	23.4	65.4	18.0	27.0	29.8	24.4	18.1	22.9	65.4		
28	16.1	13.3	11.4	11.6	13.5	21.6	16.4	15.7	20.9	65.6	57.9	56.8	49.5	38.0	35.4	29.5	23.8	18.5	19.0	21.7	26.2	23.1	27.8	66.8	29.2	66.8		
29	51.8	24.6	17.7	20.6	15.8	8.9	15.8	15.7	7.5	40.4	26.5	22.4	10.5	6.2	137.4	119.5	65.8	10.4	3.0	1.5	0.6	1.1	1.0	1.7	26.1	137.4		
30	1.7	1.2	2.7	1.9	1.4	1.5	0.8	0.6	1.6	2.2	40.9	12.6	402.0	403.7	1355.9	1030.8	685.9	1152.0	1211.3	570.7	397.5	75.4	61.1	42.6	310.8	1355.9		
31	5.5	4.6	7.5	1.0	1.6	0.6	0.7	1.2	1.8	0.9	5.9	9.0	14.7	117.6	382.1	106.7	32.6	143.0	144.6	33.0	6.2	8.8	1.9	2.3	43.1	382.1		

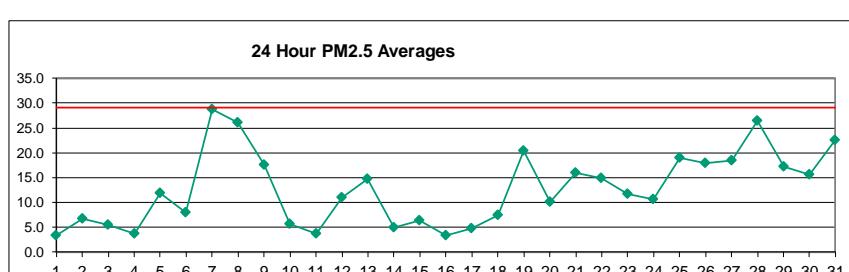
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	156.6	194.0	188.4	152.9	123.5	134.2	156.6	229.2	353.4	342.6	394.9	550.8	424.9	407.6	393.6	383.5	341.9	265.6	246.3	266.6	339.4	342.2	275.1	214.7			
MAX	1000.8	1398.2	1090.4	1802.3	1232.2	1201.8	1249.3	1682.1	1794.2	1806.9	2300.7	2455.7	2545.1	3425.2	3204.5	1592.2	2437.9	3204.5	1211.3	2096.7	3107.3	3697.5	2461.1	1583.1			



Number of 24HR Exceedences		21 Proposed Guideline
Number of Non-Zero Readings		744
Maximum 1-HR Average	3697.5 UG/M3	
Maximum 24-HR Average	1555.6 UG/M3	
Izs Calibration Time		
Monthly Calibration	0	
Standard Deviation	478.3	
Operational Time		744 HRS
Operational Uptime		100.0 %
Monthly Average		286.6 UG/M3

Entrance PM_{2.5} ($\mu\text{g}/\text{m}^3$) – January 2021

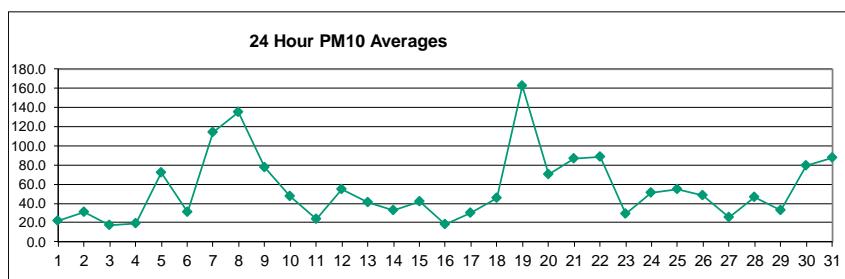
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.6	2.2	2.1	1.1	1.0	4.0	2.9	7.2	7.2	4.3	6.2	11.1	5.9	3.6	2.1	1.7	1.4	1.6	2.1	0.5	2.0	3.9	2.2	1.8	3.3	11.1
2	2.2	4.3	10.0	31.2	8.0	7.9	4.1	7.0	4.5	2.6	3.1	2.6	3.8	3.7	4.1	3.5	4.6	7.9	6.5	1.8	5.0	8.5	9.0	17.4	6.8	31.2
3	7.6	0.5	1.0	0.6	6.8	5.2	9.1	16.2	11.9	8.3	14.7	3.2	2.4	3.6	2.8	5.6	7.1	16.7	3.7	1.1	1.1	1.1	1.1	1.1	5.5	16.7
4	1.2	0.8	0.7	0.5	0.5	2.5	1.0	1.8	3.4	3.3	4.2	4.6	4.0	4.5	3.9	4.3	4.4	2.3	1.0	2.3	2.7	2.3	10.7	23.6	3.8	23.6
5	31.9	17.5	45.8	6.6	3.2	8.5	41.9	4.1	6.1	4.4	5.3	8.6	13.4	9.2	14.2	10.1	9.1	12.8	4.3	2.6	5.7	8.3	8.7	4.3	11.9	45.8
6	8.5	4.0	2.8	1.8	2.0	3.5	2.2	2.2	6.5	7.4	6.1	6.1	6.0	4.8	4.0	6.0	9.2	22.6	17.1	8.2	2.5	19.3	19.2	18.7	7.9	22.6
7	28.6	8.1	9.7	14.0	4.6	5.0	12.0	27.8	29.2	29.5	26.2	47.1	50.1	61.4	66.2	70.4	32.9	20.7	31.3	16.0	19.1	16.2	25.5	36.2	28.7	70.4
8	17.7	13.9	19.0	19.7	21.5	18.2	16.4	21.3	17.9	33.0	38.9	52.4	37.1	42.7	42.4	40.0	35.4	30.5	22.3	24.2	22.0	13.2	7.9	18.7	26.1	52.4
9	17.5	9.5	16.5	9.3	21.0	21.6	19.0	25.9	22.5	15.0	19.8	23.1	23.3	33.1	29.3	20.3	12.3	9.9	6.9	11.3	8.9	20.4	13.4	9.5	17.5	33.1
10	10.1	7.6	10.0	12.5	9.0	8.8	7.8	9.7	6.8	12.5	8.8	5.1	5.0	2.8	2.1	1.4	2.8	2.9	2.3	1.9	1.3	1.6	1.4	1.9	5.7	12.5
11	1.5	2.3	2.2	1.1	0.7	1.1	1.2	4.6	6.3	6.8	8.0	13.1	2.7	2.7	7.4	5.6	2.8	2.4	2.5	1.4	2.8	4.2	2.7	1.6	3.7	13.1
12	1.0	1.8	1.6	14.5	23.7	16.6	3.6	4.1	5.8	7.8	4.9	11.1	7.2	18.4	8.5	7.5	2.7	0.9	0.9	3.8	13.6	42.4	10.9	48.1	10.9	48.1
13	35.0	34.5	40.7	39.2	38.8	69.4	16.7	13.9	4.4	8.6	4.9	3.9	3.8	14.5	0.6	0.8	4.9	2.3	3.2	4.1	2.7	1.8	1.2	1.5	14.6	69.4
14	3.3	2.7	3.8	2.9	0.8	1.1	2.3	10.5	10.7	9.5	7.0	7.1	6.9	9.0	7.0	4.4	3.7	4.7	3.8	3.2	4.1	3.6	3.0	3.8	4.9	10.7
15	6.0	5.6	6.0	4.6	3.6	4.3	2.5	6.6	8.3	9.8	12.3	12.5	17.0	13.9	7.0	4.5	4.0	3.7	5.5	4.6	3.0	1.6	2.3	1.8	6.3	17.0
16	2.2	4.7	5.2	3.4	2.0	1.1	11.5	11.5	9.3	3.2	2.3	3.0	1.6	2.2	1.7	2.6	1.4	1.4	1.3	1.2	1.4	1.7	1.7	2.3	3.3	11.5
17	2.9	4.6	6.5	7.1	4.7	2.8	2.4	3.8	4.8	4.2	5.1	5.6	8.3	6.3	2.2	4.4	6.3	5.6	3.8	4.8	9.2	3.4	2.6	1.1	4.7	9.2
18	1.6	3.8	6.3	11.2	11.3	6.7	11.0	8.6	15.4	16.7	9.0	11.6	11.8	6.5	4.8	5.2	5.7	3.9	5.4	4.0	3.1	2.4	6.6	4.8	7.4	16.7
19	9.2	7.2	5.6	8.3	11.9	12.7	13.4	14.3	11.9	18.3	18.1	15.5	17.7	37.1	15.2	20.4	53.9	9.5	6.5	10.7	75.3	69.4	18.6	8.3	20.4	75.3
20	6.9	7.5	6.4	4.5	5.1	5.3	6.1	13.3	18.5	19.0	17.6	16.7	10.6	9.5	12.6	4.3	3.9	4.0	2.5	5.8	7.0	2.5	24.4	28.4	10.1	28.4
21	21.3	18.3	10.7	13.1	15.4	14.5	17.7	19.4	19.7	28.6	22.0	7.2	9.0	9.0	7.4	11.4	8.2	16.0	15.2	12.2	16.6	22.1	26.8	22.1	16.0	28.6
22	26.7	20.4	22.4	15.6	9.2	9.3	9.4	19.5	19.7	31.6	23.8	6.9	13.2	11.7	12.8	19.4	12.1	15.1	7.1	10.2	14.5	8.6	11.0	14.9	31.6	
23	13.2	25.1	17.1	14.4	11.3	13.1	8.7	10.0	14.7	16.3	17.3	8.3	6.5	6.2	3.1	5.1	7.6	10.9	6.7	10.1	10.6	9.2	18.2	17.0	11.7	25.1
24	14.6	11.8	8.1	4.3	4.7	5.9	9.0	19.3	15.3	7.9	7.2	8.0	9.0	5.5	3.8	4.2	15.5	12.5	12.3	12.4	14.4	17.1	14.7	10.6	19.3	
25	21.7	34.0	18.0	25.4	23.6	14.4	8.5	12.3	24.6	27.7	25.9	22.2	21.7	20.5	17.3	16.6	15.6	18.9	14.3	12.0	20.1	12.1	16.1	12.6	19.0	34.0
26	13.4	13.6	14.4	14.7	14.9	14.2	13.3	19.8	16.9	18.4	28.9	13.9	16.5	20.5	41.7	26.7	19.3	13.9	13.9	15.3	15.0	18.2	15.4	17.8	41.7	
27	16.3	14.7	15.5	15.2	17.4	16.9	14.5	14.3	12.9	15.0	16.2	16.3	18.5	21.8	21.1	24.0	21.4	24.0	26.0	17.0	17.9	19.0	20.3	25.3	18.4	26.0
28	33.4	19.4	19.4	17.2	19.2	21.0	20.8	23.1	29.0	27.7	27.5	34.9	27.9	32.6	35.0	29.8	30.7	23.0	25.0	24.9	27.5	30.6	26.1	28.0	26.4	35.0
29	24.5	26.4	24.9	27.6	24.0	15.7	21.3	16.8	16.4	21.7	17.6	34.7	10.4	21.6	18.2	7.2	9.3	11.4	15.6	8.8	6.8	7.5	15.1	11.1	17.3	34.7
30	20.6	20.1	18.4	12.7	9.3	29.3	16.9	8.5	7.3	17.4	33.5	16.6	28.6	9.3	10.3	11.2	5.4	6.7	6.8	3.0	3.7	6.8	13.2	59.4	15.6	59.4
31	37.1	27.2	20.2	21.6	21.0	19.5	25.9	39.6	27.9	20.3	25.6	32.9	25.5	36.4	21.0	17.9	32.2	24.1	9.4	15.1	8.7	12.0	9.5	11.9	22.6	39.6
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	14.2	12.1	12.6	12.1	11.3	12.3	11.4	13.2	13.5	14.7	14.8	15.5	13.6	15.5	13.2	13.3	12.7	11.2	9.2	8.1	11.1	12.7	11.6	15.0		
MAX	37.1	34.5	45.8	39.2	38.8	69.4	41.9	39.6	29.2	33.0	38.9	52.4	50.1	61.4	66.2	70.4	53.9	30.5	31.3	24.9	75.3	69.4	26.8	59.4		



Number of 24HR Exceedences		0 Proposed Guideline
Number of Non-Zero Readings		744
Maximum 1-HR Average		75.3 UG/M3
Maximum 24-HR Average		28.7 UG/M3
Monthly Calibration Standard Deviation		11.18
Operational Time		744 HRS
Operational Uptime		100.0 %
Monthly Average		12.7 UG/M3

Entrance PM₁₀ ($\mu\text{g}/\text{m}^3$) – January 2021

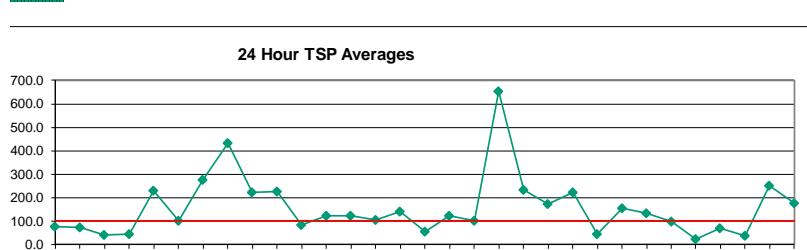
Day	Hourly Data Summary																								Mean	Max	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	8.2	12.2	14.2	8.6	3.4	19.5	16.2	60.0	64.4	34.8	57.1	99.0	41.8	19.3	7.8	5.2	4.6	6.4	4.9	1.4	8.2	13.3	6.3	7.4	21.8	99.0	
2	5.9	11.1	14.9	106.3	28.0	37.0	32.5	51.2	30.8	17.3	17.7	13.2	18.1	18.9	25.1	12.7	24.8	33.1	45.2	8.8	25.7	43.2	41.8	72.3	30.7	106.3	
3	32.4	2.3	1.6	0.7	10.2	7.7	13.6	24.1	17.8	14.3	48.0	12.5	7.8	19.1	16.2	31.5	49.6	65.1	16.1	3.6	3.4	5.7	6.1	5.9	17.3	65.1	
4	7.8	4.6	2.1	1.9	2.3	23.8	6.4	10.5	20.9	17.7	18.5	27.3	20.7	23.7	19.9	16.3	18.2	8.4	3.8	7.8	10.8	8.0	51.4	117.4	18.8	117.4	
5	133.0	77.7	171.4	24.7	9.6	32.0	186.2	18.0	41.7	33.8	40.9	46.7	116.7	66.1	124.9	95.7	82.2	136.9	39.4	22.5	45.9	79.6	70.3	34.8	72.1	186.2	
6	56.6	28.1	12.6	10.5	9.3	21.6	9.9	10.5	45.6	63.7	50.1	55.8	35.0	23.9	20.6	25.2	53.7	83.0	25.6	12.3	3.6	28.9	28.8	28.1	31.0	83.0	
7	42.9	12.2	14.6	21.0	6.8	7.4	17.9	41.7	43.8	44.3	83.9	363.5	274.8	287.6	301.1	325.6	182.5	110.3	182.9	91.2	105.9	81.3	38.3	54.3	114.0	363.5	
8	26.5	58.1	139.8	53.9	32.2	27.4	24.6	31.9	26.9	49.5	258.1	464.5	282.7	330.7	274.0	240.2	209.8	194.7	140.1	148.2	127.0	58.1	12.0	33.9	135.2	464.5	
9	26.2	14.2	24.7	14.9	31.5	32.4	28.5	38.7	33.8	22.6	32.4	125.7	143.4	220.1	212.4	128.9	78.5	74.8	55.3	85.4	105.6	148.2	102.3	85.2	77.7	220.1	
10	89.2	66.9	96.5	112.3	80.2	78.2	66.0	74.9	44.8	137.0	72.5	37.2	29.3	14.9	11.2	8.9	22.9	25.9	16.5	12.6	7.4	7.2	7.4	11.5	47.1	137.0	
11	9.0	19.0	18.3	8.7	4.7	6.3	7.3	35.1	51.1	50.1	53.6	94.3	14.6	15.0	42.9	33.5	17.6	10.4	10.2	7.4	15.3	23.4	13.6	9.1	23.8	94.3	
12	4.2	5.7	5.4	63.8	101.5	79.6	18.3	22.7	42.3	45.1	29.3	70.6	44.0	135.9	55.0	35.8	11.6	2.8	2.1	13.1	63.8	199.4	52.6	201.8	54.4	201.8	
13	128.5	90.7	61.1	58.8	58.1	104.1	25.0	21.9	22.9	62.4	17.9	24.7	23.2	133.7	1.3	3.1	50.2	10.1	15.4	24.1	13.8	11.1	6.8	7.1	40.7	133.7	
14	19.7	14.6	19.5	19.0	3.5	6.5	13.9	76.6	64.0	43.5	45.7	44.9	45.5	65.7	44.4	29.1	31.5	29.1	26.9	24.8	39.8	31.1	24.8	28.0	33.0	76.6	
15	53.2	49.6	43.0	27.4	17.1	23.6	12.2	42.6	57.7	74.7	89.0	94.6	109.4	95.8	38.1	25.1	23.6	22.3	22.9	23.1	21.9	8.7	19.6	8.2	41.8	109.4	
16	11.4	36.2	33.8	15.7	8.3	3.2	56.7	57.1	47.3	16.8	12.7	14.6	7.7	8.2	8.3	13.7	4.9	4.9	5.2	6.7	9.5	11.0	13.2	22.1	17.9	57.1	
17	28.0	41.2	49.4	58.2	36.1	19.2	15.9	24.7	27.6	23.2	29.6	40.2	54.8	35.6	12.3	27.0	39.0	37.3	21.5	25.4	38.3	17.1	13.1	3.8	29.9	58.2	
18	4.4	15.5	25.9	57.8	69.2	51.0	75.3	59.0	118.6	120.3	47.0	76.7	58.9	29.8	28.7	33.1	38.8	25.9	29.6	34.9	18.1	11.2	37.8	29.6	45.7	120.3	
19	56.2	44.6	37.8	53.7	87.1	111.6	123.0	121.0	91.3	138.8	130.0	126.2	132.7	311.2	105.7	151.9	427.8	64.6	48.0	86.7	619.8	606.1	164.8	61.9	162.6	619.8	
20	48.0	59.9	59.7	36.2	32.2	38.9	44.1	96.7	117.9	127.7	129.6	120.1	66.1	59.5	83.3	30.0	23.5	20.2	13.3	24.3	42.4	16.6	183.6	213.0	70.3	213.0	
21	136.0	114.2	65.4	84.4	92.2	70.5	96.5	101.3	93.9	112.2	82.8	27.2	42.7	54.0	41.5	65.3	47.4	151.3	105.6	53.5	60.3	114.0	149.5	115.4	86.5	151.3	
22	155.5	91.1	107.9	94.6	59.6	54.9	61.6	158.9	143.9	282.5	180.3	42.2	88.4	67.5	82.2	127.1	76.6	90.1	32.5	17.1	19.8	50.1	12.7	16.3	88.1	282.5	
23	19.7	37.6	25.6	21.6	16.9	19.7	13.0	15.0	22.1	24.4	80.0	44.1	17.3	26.1	13.4	20.5	47.4	76.5	27.9	34.2	32.8	13.8	26.1	22.5	29.1	80.0	
24	19.8	59.9	97.8	36.0	33.1	56.4	75.5	167.1	118.1	63.7	50.4	48.4	54.8	31.1	19.5	21.3	93.8	48.0	24.3	17.9	21.3	25.3	21.3	23.8	51.2	167.1	
25	139.0	111.5	26.9	38.1	113.5	76.2	31.8	60.9	78.9	41.5	38.8	34.4	94.4	96.6	76.8	61.9	42.7	28.3	21.1	17.3	29.6	17.2	23.8	18.3	55.0	139.0	
26	19.0	19.4	19.9	18.7	17.7	17.1	16.6	17.9	29.8	25.4	27.6	86.3	80.8	82.4	118.1	220.7	122.3	78.7	27.3	20.0	22.8	22.0	27.2	22.5	48.3	220.7	
27	24.2	21.7	22.6	21.5	23.8	22.0	16.0	15.6	14.2	17.7	20.5	20.9	24.9	30.2	29.2	34.1	30.5	34.5	37.2	23.5	25.8	27.9	29.9	37.4	25.2	37.4	
28	50.1	27.1	27.0	23.1	26.7	29.0	27.3	33.1	43.2	40.0	40.7	100.9	63.2	62.4	93.1	82.4	67.2	42.2	34.5	34.5	38.7	44.9	38.7	41.8	46.3	100.9	
29	34.4	36.6	33.7	40.5	34.3	20.7	31.3	23.7	24.2	32.4	34.7	52.0	15.4	32.4	70.8	31.7	61.3	51.3	43.4	13.1	9.8	11.0	22.7	16.6	32.4	70.8	
30	30.9	30.1	27.5	19.1	13.9	44.0	25.4	12.7	10.9	26.1	256.6	159.1	279.3	85.7	128.3	141.4	47.4	56.8	63.0	23.9	25.8	35.0	69.9	293.6	79.4	293.6	
31	162.7	120.4	96.6	81.2	31.4	29.3	38.8	59.4	41.8	30.5	122.0	186.7	144.9	192.0	169.9	88.0	150.8	112.1	46.7	84.6	50.3	23.2	14.2	17.9	87.3	192.0	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	51.1	43.0	45.1	39.8	35.3	37.8	39.6	51.1	52.7	59.2	70.9	88.9	78.5	86.3	73.4	69.9	70.4	56.0	38.3	32.4	53.7	57.9	42.9	53.6	55.0	100%	
MAX	162.7	120.4	171.4	112.3	113.5	111.6	186.2	167.1	143.9	282.5	258.1	464.5	282.7	330.7	301.1	325.6	427.8	194.7	182.9	148.2	619.8	606.1	183.6	293.6	324.4	192.0	



Number of Non-Zero Readings	744
Maximum 1-HR Average	619.8 UG/M3
Maximum 24-HR Average	162.6 UG/M3
Monthly Calibration	0
Standard Deviation	64.97
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	55.3 UG/M3

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

Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	23.8	40.3	50.9	27.2	6.2	44.8	44.1	203.1	251.5	123.2	229.7	369.4	191.6	63.2	23.9	13.6	9.7	16.9	11.8	3.0	27.4	38.5	12.3	22.4	77.0	369.4
2	7.3	15.1	15.5	129.0	61.9	112.6	160.1	208.8	145.5	70.0	63.1	42.2	46.7	59.0	84.0	26.2	45.2	49.5	92.9	19.0	41.0	73.7	69.4	102.2	72.5	208.8
3	48.8	6.9	7.2	0.5	10.5	7.9	15.2	27.2	20.3	16.3	58.9	21.0	15.2	59.9	56.9	112.5	242.1	107.6	30.0	7.5	4.5	18.2	26.2	32.5	39.8	242.1
4	46.3	30.0	2.7	7.9	4.5	131.0	25.6	40.1	72.4	61.6	54.3	86.7	51.0	53.5	48.2	24.9	28.5	16.8	10.4	16.1	18.8	13.8	63.2	185.3	45.6	185.3
5	192.9	103.2	258.0	41.5	16.9	40.2	158.1	25.7	89.1	97.8	96.6	125.2	356.9	214.9	506.7	476.5	393.3	664.3	193.7	117.3	271.1	488.0	414.4	191.6	230.6	664.3
6	300.3	144.3	62.4	43.9	26.2	101.2	27.1	39.4	185.5	314.7	244.8	300.9	127.1	53.0	51.8	45.3	83.4	143.4	29.7	14.1	3.6	33.2	33.4	32.5	101.7	314.7
7	49.5	12.8	16.0	24.0	6.9	7.7	20.1	48.1	50.8	51.1	250.4	1353.0	741.2	655.4	666.9	692.6	464.2	277.0	520.6	221.6	247.6	168.9	44.4	63.0	277.2	1353.0
8	30.5	183.2	547.0	138.7	37.3	30.7	28.4	36.9	31.0	57.4	1027.7	1784.1	947.8	1168.1	795.4	624.1	583.4	689.3	464.4	509.3	401.9	217.8	13.1	48.7	433.2	1784.1
9	30.0	16.0	28.3	17.1	36.0	36.7	32.2	42.3	37.9	25.8	39.3	347.3	412.9	588.1	674.1	367.2	235.5	216.3	181.1	266.8	381.4	564.0	411.6	396.4	224.3	674.1
10	422.7	325.6	457.3	557.3	391.1	420.3	390.9	286.3	190.3	644.1	330.7	164.1	137.5	62.1	47.0	49.2	116.7	150.7	79.2	65.4	33.2	34.4	31.8	61.8	227.1	644.1
11	39.5	100.5	93.4	53.0	26.1	11.8	27.8	130.6	184.5	197.1	191.9	303.6	54.7	41.3	92.0	91.2	43.5	27.7	32.7	32.2	60.3	80.8	69.7	36.3	84.3	303.6
12	19.3	14.6	11.6	103.0	132.6	158.2	69.0	77.0	148.8	147.5	80.9	229.3	132.1	336.9	136.8	78.4	19.9	5.1	3.8	16.5	108.7	460.4	100.5	332.1	121.8	460.4
13	182.1	107.3	67.3	63.7	65.9	119.2	27.6	28.0	67.1	387.1	71.6	107.6	72.7	733.8	6.4	12.4	494.8	31.5	46.0	90.3	44.7	41.6	33.7	34.3	122.4	733.8
14	60.6	46.8	57.3	47.7	7.6	22.0	39.6	149.7	110.1	109.3	140.0	122.6	97.8	134.2	101.6	87.4	122.7	119.0	106.6	121.0	226.1	191.2	156.9	171.8	106.2	226.1
15	308.4	274.8	222.4	106.9	36.9	63.1	42.5	147.2	188.2	231.6	223.9	265.1	313.5	265.3	117.8	82.5	58.4	72.6	52.8	47.4	83.4	43.2	101.7	27.3	140.7	313.5
16	59.7	138.2	154.5	43.7	22.5	7.2	90.2	89.9	44.4	42.4	30.2	37.8	15.7	23.7	28.2	29.0	15.0	14.6	26.1	34.5	48.7	68.8	79.2	137.0	53.4	154.5
17	154.5	221.0	271.7	303.3	175.3	118.9	106.5	132.2	96.5	68.1	91.8	141.0	190.1	100.2	36.9	96.8	145.3	151.3	80.2	84.7	85.9	48.4	36.3	7.8	122.7	303.3
18	13.4	18.1	28.5	77.3	117.8	130.6	145.4	127.5	278.0	235.0	86.4	141.8	102.5	49.2	63.3	77.9	79.0	69.1	91.6	131.5	54.4	43.5	111.5	124.6	99.9	278.0
19	228.4	164.1	180.5	206.3	350.1	509.9	655.9	578.7	494.8	632.0	598.9	561.9	595.5	1422.6	401.2	620.0	1596.0	275.8	232.4	398.2	1646.5	2291.3	728.6	283.9	652.2	2291.3
20	214.6	292.8	327.1	193.1	113.9	150.0	208.7	364.6	428.9	432.2	507.7	436.5	201.3	170.5	233.7	94.5	49.4	32.7	18.2	38.2	107.1	98.4	409.7	448.1	232.2	507.7
21	343.0	285.0	165.8	278.0	198.2	137.3	160.9	159.5	165.5	227.4	130.4	34.2	74.2	84.1	57.2	82.3	57.0	261.0	140.8	69.1	78.8	22.4	399.3	302.2	171.4	399.3
22	343.3	181.8	290.6	219.3	227.4	177.7	235.0	535.1	452.8	989.0	498.3	108.0	246.1	97.7	128.8	155.9	115.3	139.3	42.2	17.1	20.2	90.0	10.8	13.9	222.3	989.0
23	20.7	43.4	29.1	24.6	19.0	22.2	14.2	16.2	24.8	27.7	217.2	103.9	22.4	39.7	21.2	21.3	76.7	135.7	50.6	39.2	40.7	13.6	23.0	16.7	44.3	217.2
24	17.3	212.2	382.2	116.9	123.8	254.2	323.5	584.8	365.0	265.6	165.8	131.4	83.1	52.2	61.2	194.3	132.1	50.3	14.6	19.9	22.2	17.3	27.2	156.3	584.8	
25	493.7	325.9	31.2	44.0	291.5	168.4	44.9	121.3	148.4	47.7	44.1	41.1	287.1	410.4	294.6	181.7	119.0	28.9	19.3	15.1	30.0	13.6	23.2	14.9	135.0	493.7
26	14.3	14.3	13.9	12.3	11.5	11.1	11.0	12.8	32.2	29.0	31.7	181.5	171.2	123.1	219.8	642.3	360.2	283.1	61.5	17.1	22.0	19.7	29.0	18.6	97.6	642.3
27	22.6	17.9	18.5	16.4	17.2	15.7	11.2	10.5	9.3	11.7	13.9	14.2	18.2	24.7	25.8	31.7	28.4	31.5	39.2	20.2	24.3	26.1	29.1	36.6	21.5	39.2
28	53.4	21.0	23.0	17.5	18.9	23.5	21.7	32.5	47.0	40.1	42.9	232.8	173.1	104.8	217.1	177.9	117.9	76.6	27.5	28.5	38.6	45.9	36.5	41.3	69.2	232.8
29	25.2	27.3	23.5	37.1	31.9	14.4	32.3	22.8	25.5	36.1	61.2	60.3	16.8	37.5	80.3	49.9	149.4	64.0	46.0	14.9	10.2	11.9	25.9	18.9	38.5	149.4
30	35.3	34.4	31.6	21.9	15.8	50.8	28.6	14.2	12.0	30.1	1153.1	687.5	1175.2	288.9	420.2	502.3	173.4	195.7	244.3	83.1	90.9	77.4	129.5	513.3	250.4	1175.2
31	352.0	263.7	150.6	123.0	36.1	32.5	43.9	68.2	48.6	35.2	359.1	533.6	346.8	349.4	560.8	165.4	218.2	149.0	60.0	126.0	113.1	25.4	16.1	20.6	174.9	560.8



Number of 24HR Exceedences	19	Proposed Guideline
Number of Non-Zero Readings	744	
Maximum 1-HR Average	2291.3 $\mu\text{g}/\text{m}^3$	
Maximum 24-HR Average	652.2 $\mu\text{g}/\text{m}^3$	
Monthly Calibration Standard Deviation	225.5	Operational Time 0 HRS
		Operational Uptime 100.0 %
		Monthly Average 156.3 $\mu\text{g}/\text{m}^3$