

LAFARGE CANADA INC.

AMBIENT AIR QUALITY MONTHLY REPORT

SEPTEMBER 2022

OCTOBER 24, 2022





AMBIENT AIR QUALITY MONTHLY REPORT

SEPTEMBER 2022

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-05
DATE: OCTOBER 24, 2022

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October 24, 2022

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

Dear Mr. Veriotes,

Subject: Ambient Air Quality Monthly Report – September 2022

The following table summarizes the data completeness and reported exceedances of Alberta Ambient Air Quality Objectives (AAAQOs) or Guidelines (AAAQG) at the Lagoon Station for September 2022. PM_{2.5} exceedances recorded this month were influenced by wildfire smoke.

Lagoon	Data Completeness (%)	1-Hour Average	24-hour Average
		Exceedances of AAAQO or AAAQG	Exceedances of AAAQO
TSP	95.6%	-	1
PM _{2.5}	99.0%	0	4
PM ₁₀	96.5%	-	-
NO	100%	-	-
NO ₂	100%	0	-
NO _x	100%	-	-
SO ₂	100%	0	0
Temperature	100%	-	-
Wind Speed / Direction	100%	-	-
Pressure	100%	-	-
Relative Humidity	100%	-	-
Precipitation	100%	-	-

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The following table summarizes the data completeness and reported exceedances of Alberta Ambient Air Quality Objectives (AAAQOs) or Guidelines (AAAQG) at the Windridge Station for September 2022. PM_{2.5} exceedances recorded this month were influenced by wildfire smoke.

Windridge	Data Completeness (%)	1-Hour Average	24-hour Average	
		Exceedances of AAAQG	Exceedances of PM _{2.5} AAAQO	Exceedances of TSP AAAQO
TSP	100%	-	-	5
PM_{2.5}	100%	2	3	-
PM₁₀	100%	-	-	-

The GRIMM monitors are considered Industrial Ambient Monitors and are meant for assessing the performance of Lafarge Exshaw's Fugitive Dust Control Best Management Practices – Program; the GRIMM monitors are not Air Monitoring Directive (AMD) compliant. This Program uses the AAAQOs as Guidelines. The following table summarizes the data completeness and exceedances of the Guidelines at the GRIMM Monitors for September 2022. PM_{2.5} exceedances recorded this month were influenced by wildfire smoke.

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	4.9%	0	0	0
Berm	98.8%	3	3	10
Entrance	18.2%	0	1	3

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

Sincerely,



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

SIGNATURES

PREPARED BY



October 24, 2022

Dylan Weyell, B.A.
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Date

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



October 24, 2022

Tyler Abel, M.Sc.
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Date

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A DATA & CALIBRATION REPORTS

1 INTRODUCTION

This report summarizes the ambient air quality and meteorological data collected at the Lagoon, Windridge, and GRIMM monitors in Exshaw, AB (Figure 1-1). The stations are operated by WSP on behalf of Lafarge Canada Inc. (Lafarge) and are a requirement of Lafarge's Approval 1702-02-04. This report contains data collected between September 1, 2022 and September 30, 2022.

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

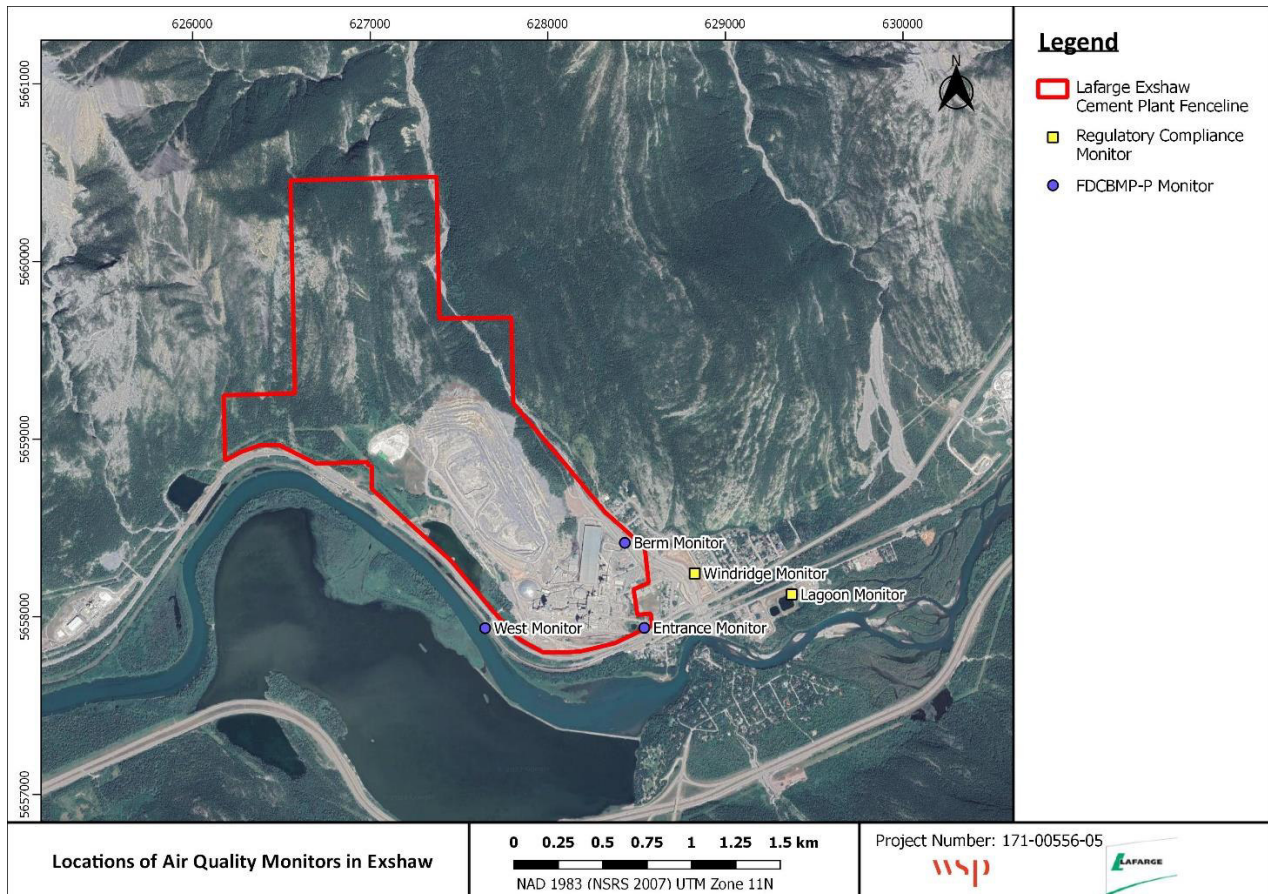


Figure 1-1 Locations of Air Quality Monitors in Exshaw

1.1 EXSHAW CREEK FLOOD MITIGATION

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

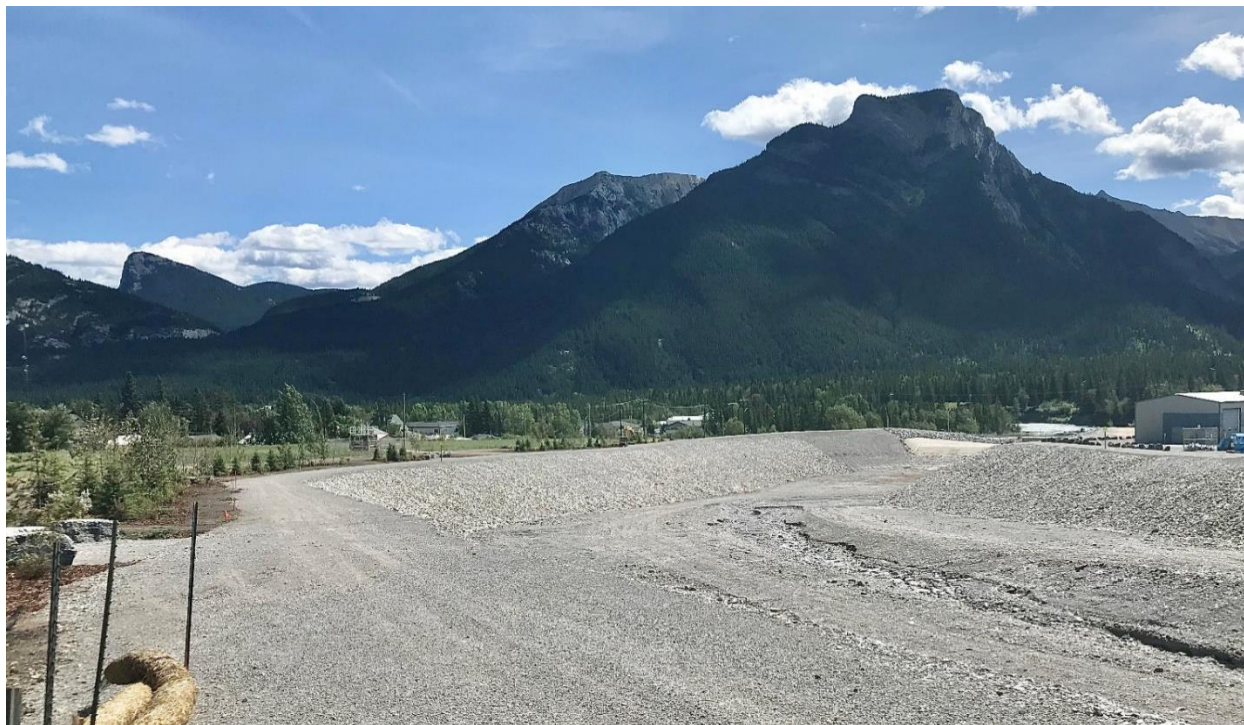


Figure 1-2 Photo of Completed Flood Mitigation Work at Exshaw Creek

1.2 WILDFIRE IMPACT ON BOW VALLEY AIRSHED

During the month of September regional wildfire activity, including smoke impacts from BC and Alberta, had an impact on air quality in the Bow Valley airshed. Wildfires produce a large amount of suspended particulate matter which can affect air quality and result in AAAQO and AAAQG exceedances. The majority of PM_{2.5} exceedances during the month can be attributed to smoke from wildfires, and not specific industrial operations from Lafarge Exshaw.

2 SEPTEMBER 2022 REPORT SUMMARY

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

2.1 LAGOON STATION

Table 2-1 Lagoon station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQO or AAAQG	Maximum Concentration	Exceedances of AAAQO
NO ₂ (ppb)	100.0	31.1	0	13.4	-
SO ₂ (ppb)	100.0	16.6	0	5.5	0
PM _{2.5} (µg/m ³)	99.0	73.8	0 ¹	36.2	4
PM ₁₀ (µg/m ³)	96.5	214.2	-	69.6	-
TSP (µg/m ³)	95.6	442.2	-	122.4	1
Temperature (°C)	100.0	32.8	-	23.7	-
Wind Speed (km/hr) /Direction (Degrees)	100.0	33.3/W	-	22.5/WSW	-
Precipitation (mm)	100.0	3.8 ²	-	23.8 ³	-

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

² Maximum Daily Total Accumulation of Precipitation (mm)

³ Monthly Total Accumulation of Precipitation (mm)

Data Quality Notes:

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

Calibration/Maintenance Notes:

- At the Lagoon station the SO₂, NO₂, and meteorological sensors recorded 100% uptime for the month of September
- The PM_{2.5} analyzer recorded 99% uptime for the month of September due to six hours of routine maintenance occurring on September 19th from 11:00 – 16:00. And additionally, one hour of equipment malfunction occurring on September 21st at 2:00.
- The PM₁₀ analyzer recorded 96.5% uptime for the month of September due to twenty-four hours of routine maintenance occurring on September 19th at 11:00 to September 20th at 10:00. And additionally, one hour of equipment malfunction occurring on September 21st at 2:00.
- The TSP analyzer recorded 95.6% uptime for the month of September due to seven hours of equipment malfunction occurring on September 19th at 4:00 – 10:00. Further, twenty-four hours of routine maintenance occurred from September 19th at 11:00 to September 20th at 10:00. And additionally, one hour of equipment malfunction occurring on September 21st at 2:00.

2.2 WINDRIDGE STATION

Table 2-2 Windridge station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQG	Maximum Concentration	Exceedances of AAAQO
PM _{2.5} (µg/m ³)	100.0	96.0	2*	34.6	3
PM ₁₀ (µg/m ³)	100.0	412.0	-	119.3	-
TSP (µg/m ³)	100.0	820.0	-	229.0	5

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

Data Quality Notes:

- There was three days exceeding the 24-hour PM_{2.5} AAAQO.
- There was two hours exceeding the 1-hour PM_{2.5} AAAQG.
- There was five days exceeding the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

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

2.3 WEST GRIMM

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

Table 2-3 West station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} (µg/m ³)	4.9	19.7	0*	10.2	0
PM ₁₀ (µg/m ³)	4.9	28.1	-	13.6	-
TSP (µg/m ³)	4.9	23.4	-	13.0	0

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

Data Quality Notes:

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

Calibration/Maintenance Notes:

- The analyzer had 4.9% uptime for the month of September due to 409 hours of communication error occurring from September 1st at 1:00 – September 5th at 17:00; September 6th 11:00 & 12:00; September 7th at 7:00 - September 19th at 14:00. Additionally, 274 hours of the instrument being removed for repair, occurring from September 19th at 15:00 – September 30th at 24:00.

2.4 BERM GRIMM

The GRIMM monitors are Industrial Ambient Monitors meant to aid Lafarge in assessing the performance of their FDCBMP-P. The AAQO 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 AAQO.

Table 2-4 Berm station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} (µg/m ³)	98.8	94.7	3*	30.6	3
PM ₁₀ (µg/m ³)	98.8	649.4	-	160.4	-
TSP (µg/m ³)	98.8	1753.6	-	388.5	10

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

Data Quality Notes:

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

- There were ten exceedances of the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

- The analyzer had 98.8% uptime for the month of September due to one hour of routine maintenance occurring on September 6th at 12:00. Additionally, eight hours of power failure occurred from September 30th at 17:00 – 24:00.

2.5 ENTRANCE GRIMM

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

Table 2-5 Entrance station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} (µg/m ³)	18.2	62.0	0*	38.8	1
PM ₁₀ (µg/m ³)	18.2	553.4	-	120.3	-
TSP (µg/m ³)	18.2	1027.9	-	237.5	3

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

Data Quality Notes:

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

Calibration/Maintenance Notes:

- The analyzer had 18.2% uptime for the month of September due to 589 hours of the instrument being removed for repair that occurred from September 6th at 12:00 to September 30th at 24:00.

3 LAGOON STATION

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

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

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

3.1 OPERATIONAL SUMMARY

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

Table 3-1 Instrumentation List at the Lagoon Station

Parameter Measured	Equipment Description	Notes
PM_{2.5} Concentrations	MetOne BAM-1020 FRM Continuous Particulate Monitor	The PM _{2.5} monitor was calibrated on September 20 th . The monitor had 99.0% uptime for the month of September due to six hours of routine maintenance occurring on September 19 th from 11:00 – 16:00. And additionally, one hour of equipment malfunction occurring on September 21 st at 2:00.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on September 20 th . The monitor had 96.5% uptime for the month of September due to twenty-four hours of routine maintenance occurring on September 19 th at 11:00 to September 20 th at 10:00. And additionally, one hour of equipment malfunction occurring on September 21 st at 2:00.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on September 20 th . The monitor had 95.6% uptime for the month of September due to seven hours of equipment malfunction occurring on September 19 th at 4:00 – 10:00. Further, twenty-four hours of routine maintenance occurred from September 19 th at 11:00 to September 20 th at 10:00. And additionally, one hour of equipment malfunction occurring on September 21 st at 2:00.

Oxides of Nitrogen	TEI 42C	The NO _x monitor was calibrated on September 8 th . The monitor had 100% uptime for the month of September.
Sulphur Dioxide	Teledyne API 102A	The SO ₂ monitor was calibrated on September 8 th . The monitor had 100% uptime for the month of September.
Precipitation	MetOne 130 Rain/Snow Gauge	The monitor had 100% uptime for the month of September.
Wind Speed	MetOne Wind Sensor	The monitor had 100% uptime for the month of September.
Wind Direction		
Ambient Temperature	MetOne Ambient Temperature Sensor	The monitor had 100% uptime for the month of September.



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

3.2 MONITORING RESULTS AND TRENDS

Table 3-2 summarizes the hourly and daily concentrations recorded in September 2022, and Table 3-3 summarizes the recorded exceedances. Figure 3-2 graphically illustrates the time series for hourly concentrations as well as wind speed and direction, while Figure 3-8 shows daily average concentrations recorded during September 2022 for the pollutants listed in Table 3-2. Additionally, Figure 3-3 to Figure 3-7 show the histograms of the hourly concentrations of NO₂, SO₂, PM_{2.5}, PM₁₀, and TSP measured at the Lagoon station.

There was one day exceeding the 24-hour TSP ($100 \mu\text{g}/\text{m}^3$) AAAQO. There was four exceedances of the 24-hour $\text{PM}_{2.5}$ ($29 \mu\text{g}/\text{m}^3$) AAAQO. These exceedances were influenced by wildfire smoke impacting the region. Further, there were zero exceedances of the 1-hour $\text{PM}_{2.5}$ AAAQG ($80 \mu\text{g}/\text{m}^3$).

Historically in September, the average number of 24-hour TSP AAAQO exceedances and 24-hour $\text{PM}_{2.5}$ AAAQO exceedances is 1 and 1, respectively.

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

Table 3-2 Summary of September 2022 data at Lagoon

Parameter	Guideline / Objectives		Station	Exceedances		Monthly		1-hour					24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration/ Meteorological Variable	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration/ Meteorological Variable	Day	
NO ₂ (ppb)	159	-	Lagoon	0	-	0.6	9.2	31.1	5	23	10.2	66.9	13.4	22	100.0
SO ₂ (ppb)	172	48	Lagoon	0	0	0.0	2.4	16.6	28	10	18.4	275.6	5.5	22	100.0
PM _{2.5} (µg/m ³)	80	29	Lagoon	0	4	0.0	11.9	73.8	11	24	18.9	264.7	36.2	3	99.0
PM ₁₀ (µg/m ³)	-	-	Lagoon	-	-	0.0	31.4	214.2	7	14	21.1	258.0	69.6	7	96.5
TSP (µg/m ³)	-	100	Lagoon	-	1	1.1	49.2	442.2	7	14	21.1	258.0	122.4	7	95.6
Temperature (°C)	-	-	Lagoon	-	-	0.5	14.1	32.8	3	17	15.0	269.0	23.7	4	100.0
Wind Speed (km/hr)/Direction (degrees)	-	-	Lagoon	-	-	1.6	13.4	33.3/W	11	19	33.3	253.8	22.5/WSW	11	100.0
Precipitation (mm)	-	-	Lagoon	-	-	0.0	0.0	3.8	13	23	11.2	275.1	23.8		100.0

¹ Maximum Daily Total Accumulation of Precipitation (mm)

² Monthly Total Accumulation of Precipitation (mm)

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						
2022-09-03	-	36.2	264.5	15.2	29.9	Wildfire smoke
2022-09-04	-	31.9	261.5	20.9	27.8	Wildfire smoke
2022-09-07	122.4	-	248.5	16.4	40.0	Winds predominately from the west
2022-09-11	-	30.5	271.6	22.5	30.0	Wildfire smoke
2022-09-13	-	34.2	280.5	10.1	68.3	Wildfire smoke
Total # of Exceedances	1	4				
Maximum # of Exceedances (September)	5 (2017)	5 (2017)				
Average # of Exceedances (September)	1	1				
Minimum # of Exceedances (September)	0 (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2018, 2019, 2020)	0 (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2019, 2021)				

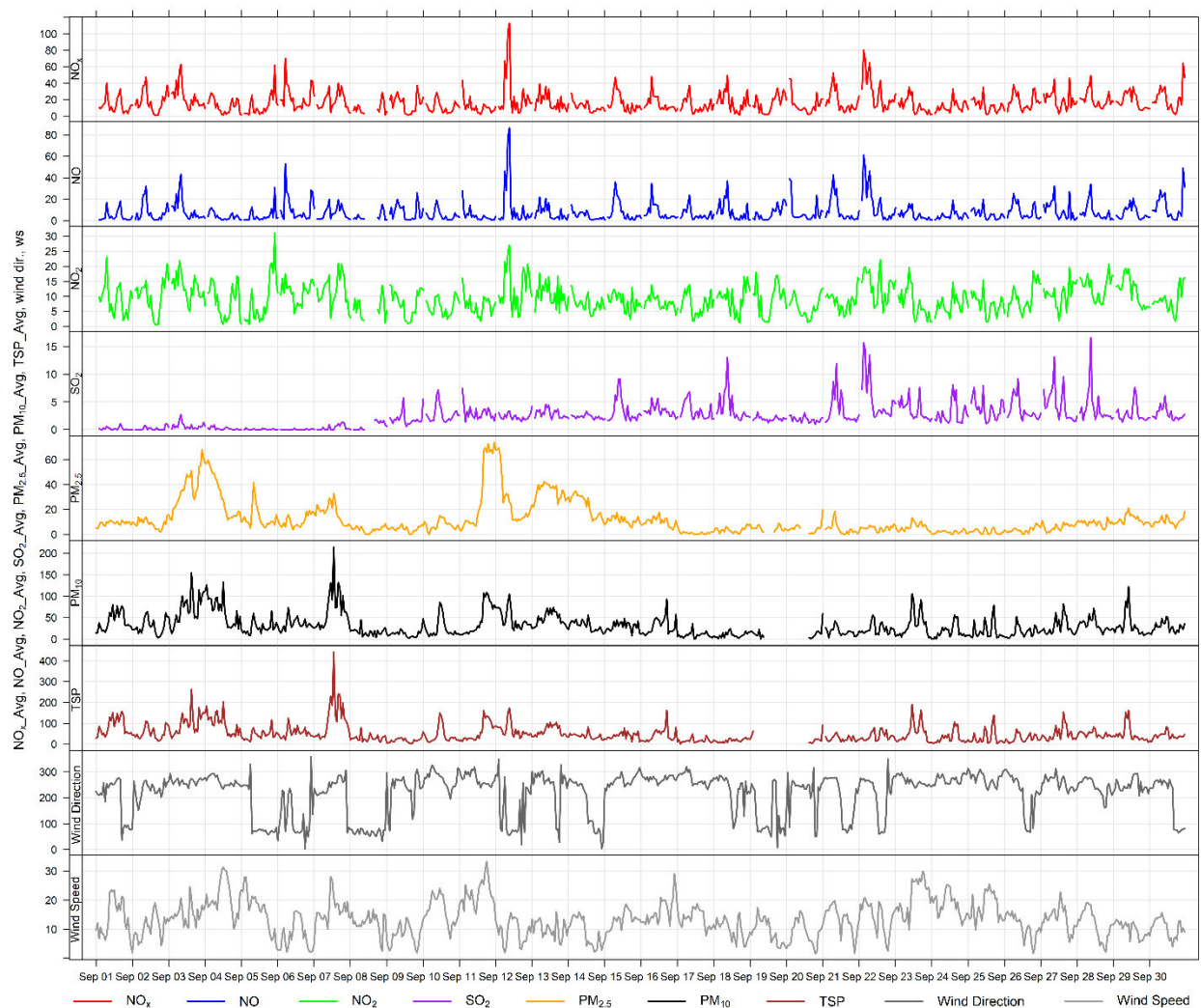


Figure 3-2 1-hour concentrations of NO_x, SO₂, particulate matter, wind direction and wind speed at the Lagoon station

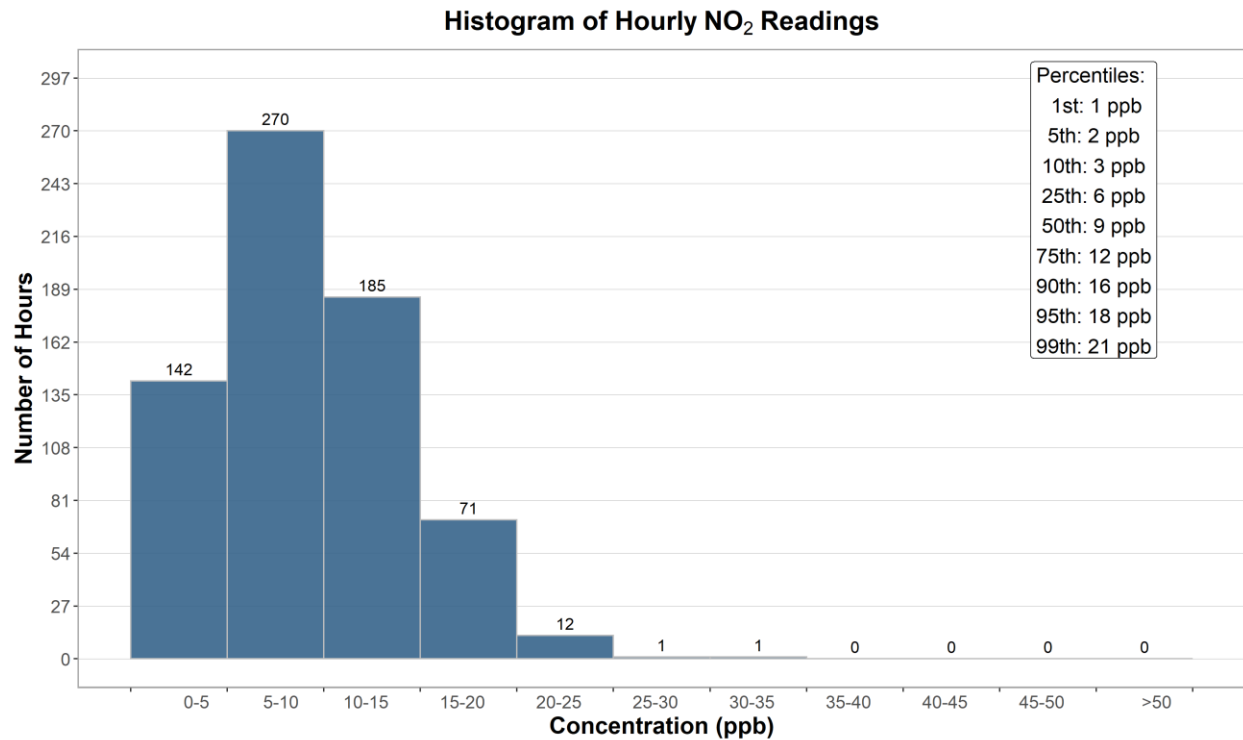


Figure 3-3 Histogram of hourly NO₂ concentrations at the Lagoon station

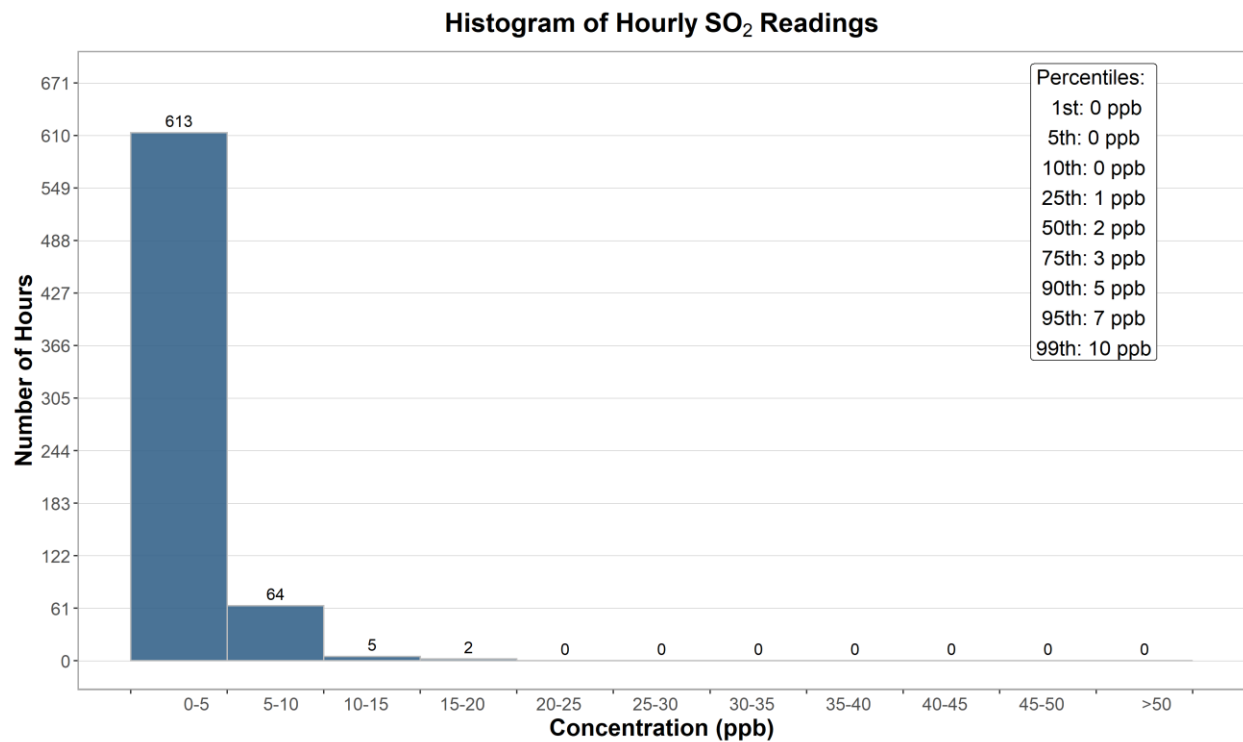


Figure 3-4 Histogram of hourly SO₂ concentrations at the Lagoon station

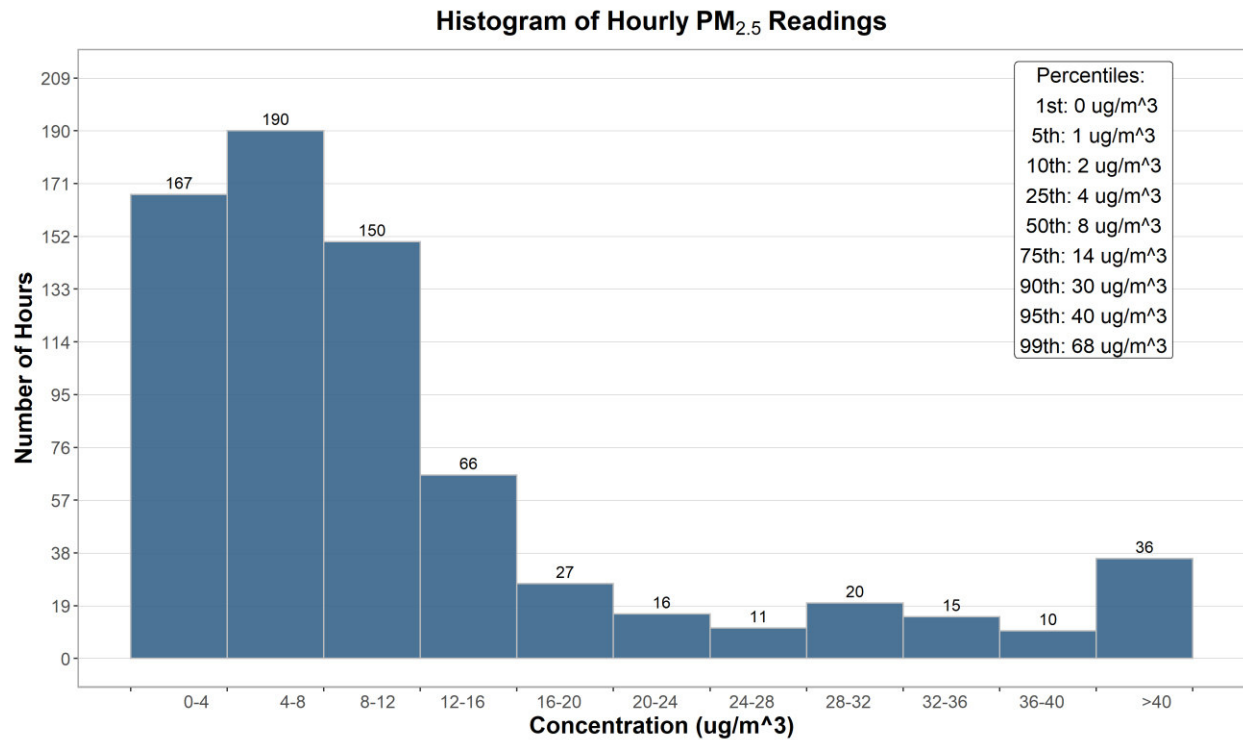


Figure 3-5 Histogram of hourly PM_{2.5} concentrations at the Lagoon station

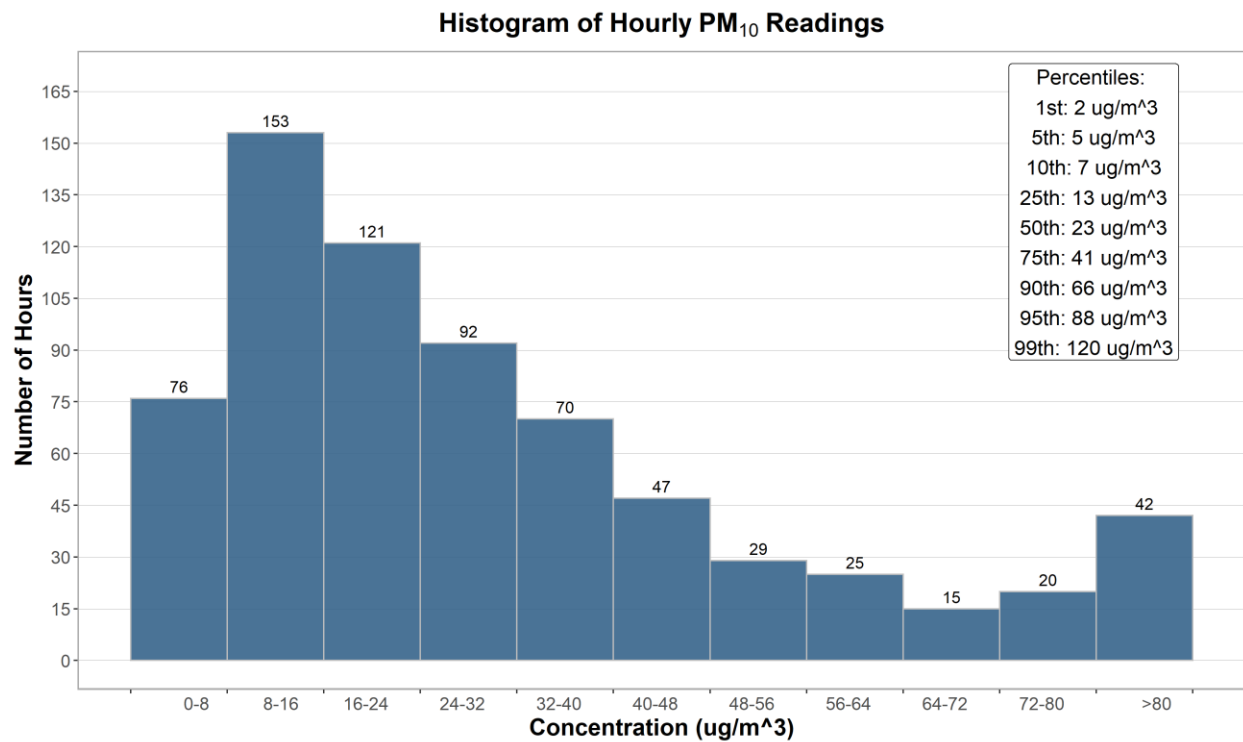


Figure 3-6 Histogram of hourly PM₁₀ concentrations at the Lagoon station

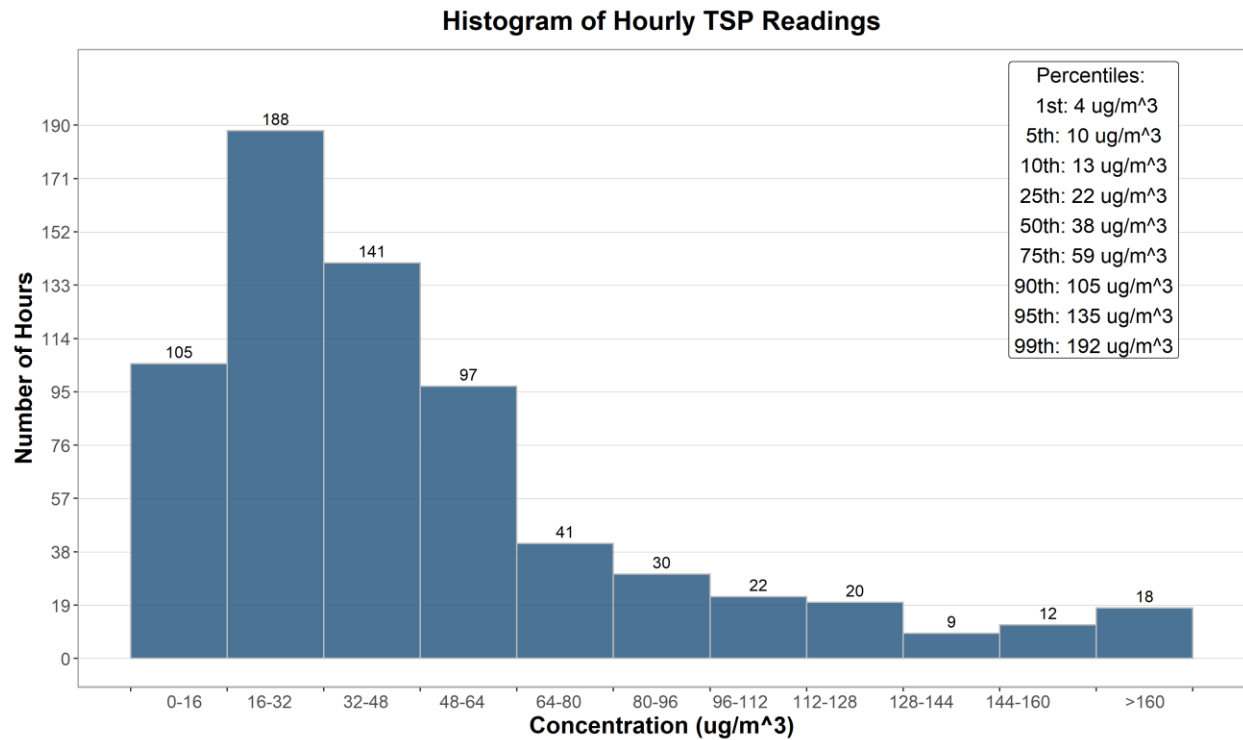


Figure 3-7 Histogram of hourly TSP concentrations at the Lagoon station

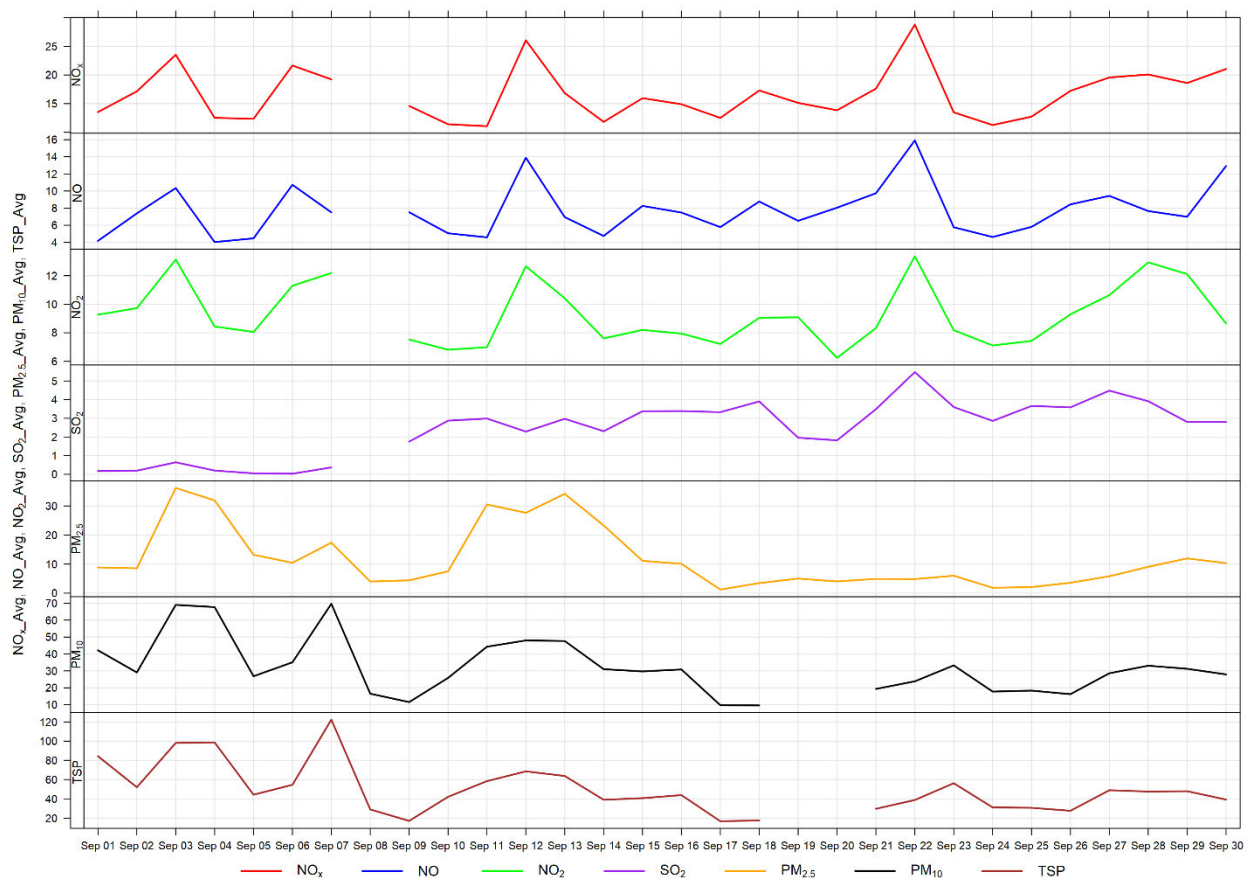


Figure 3-8 24-hour concentrations of NO_x, SO₂, and particulate matter at the Lagoon monitor

The following wind rose (Figure 3-9) shows the wind rose for the one day of TSP exceedance. Figure 3-10 displays the wind rose for the four days of PM_{2.5} exceedances. The wind roses shows that the winds predominately came from the west and west-southwest, with lighter winds prevailing from the east-northeast.

Figure 3-11 through Figure 3-13 show the variation in concentrations over various time averaging periods for PM, SO₂ and NO_x. The particulate matter plot in Figure 3-11 typically shows that PM₁₀ and TSP concentrations have a diurnal pattern associated with Lafarge operations, daytime emissions from traffic and other airshed activities. The diurnal patterns also typically follow the diurnal pattern of higher wind speeds during the daytime hours.

Figure 3-12 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 3-13 shows the variation of NO_x, NO and NO₂, with the peak of all three pollutants occurring in the early morning. This may be indicative of a peak in traffic.

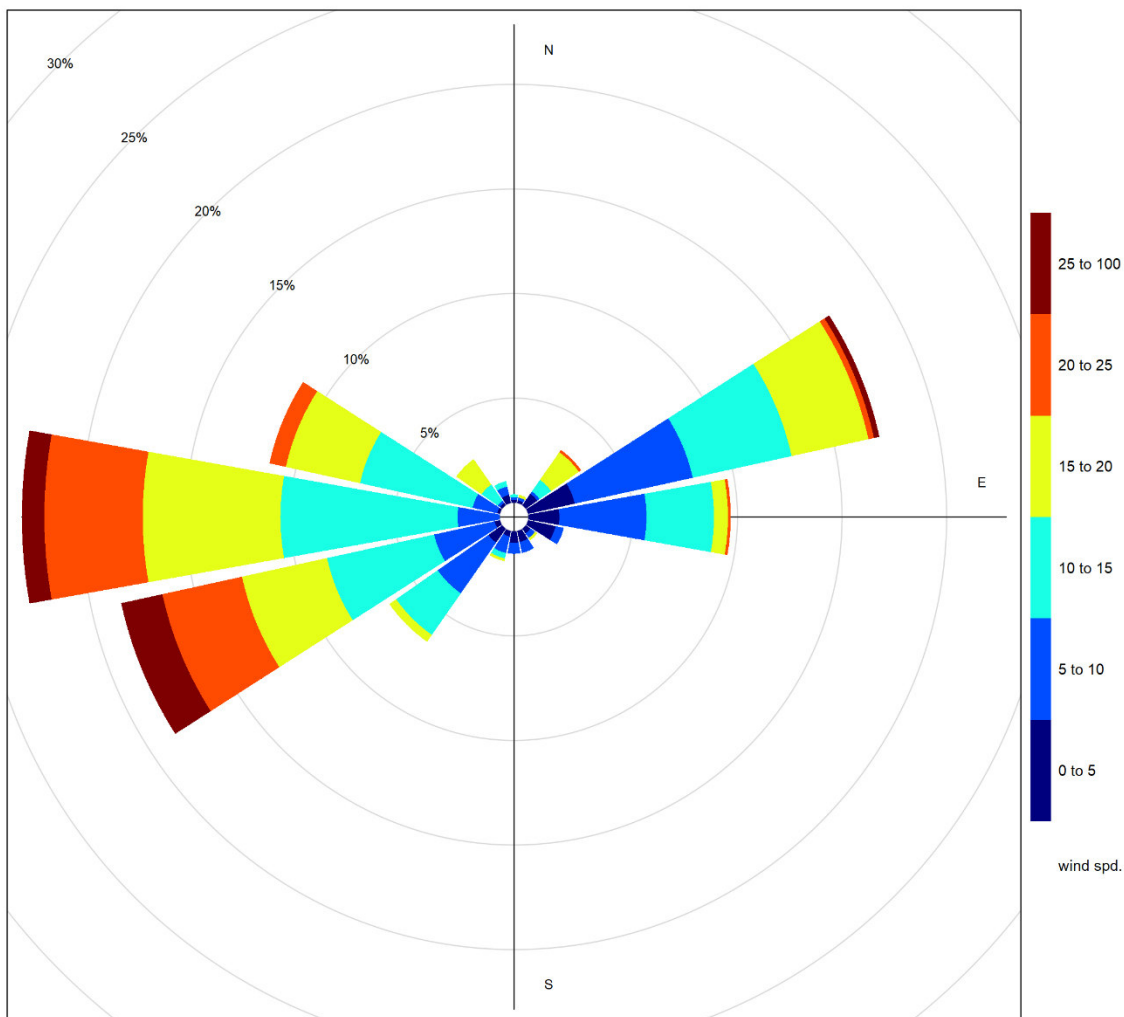


Figure 3-9 Wind rose for TSP exceedance day recorded at the Lagoon Station

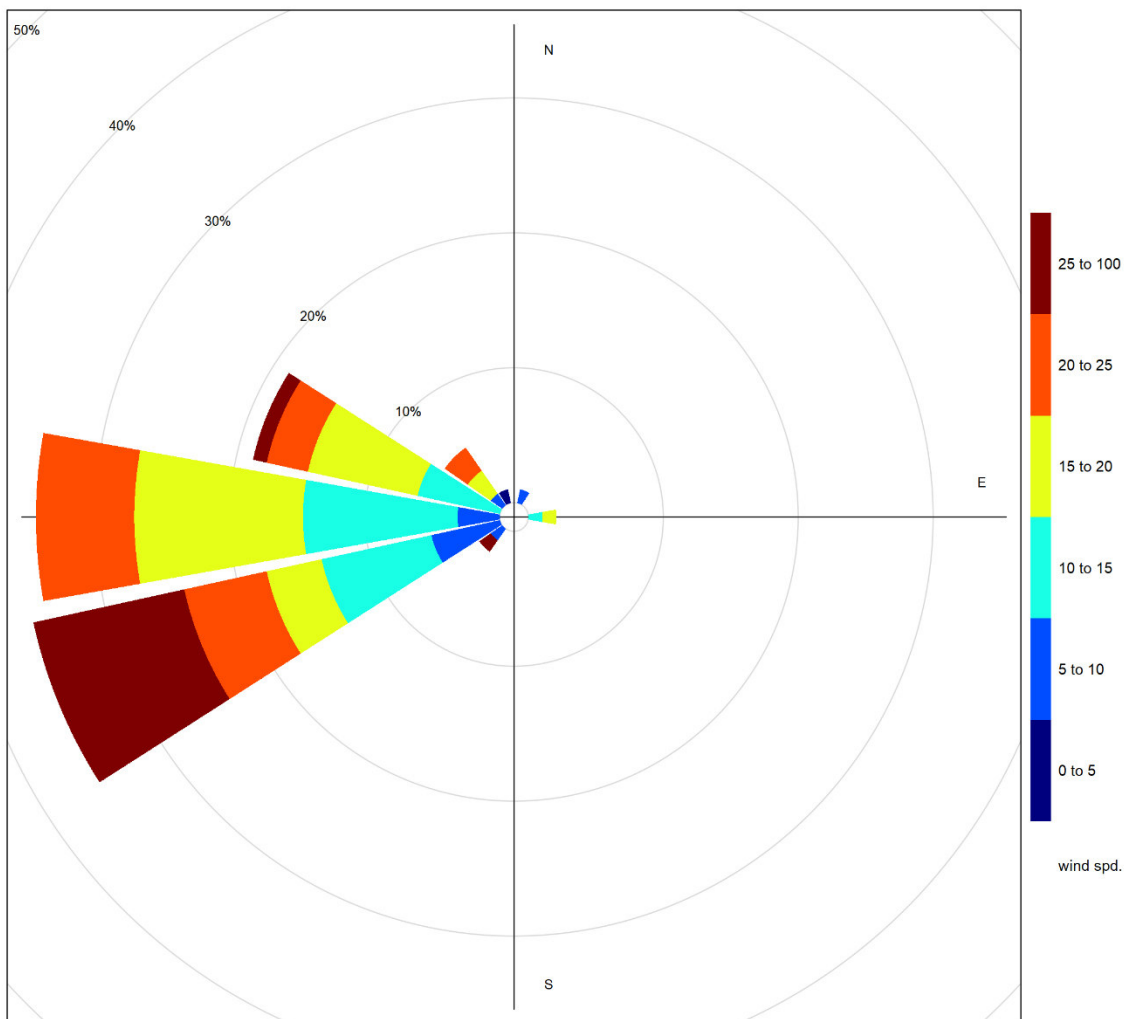


Figure 3-10 Wind rose for PM_{2.5} exceedance days recorded at the Lagoon Station

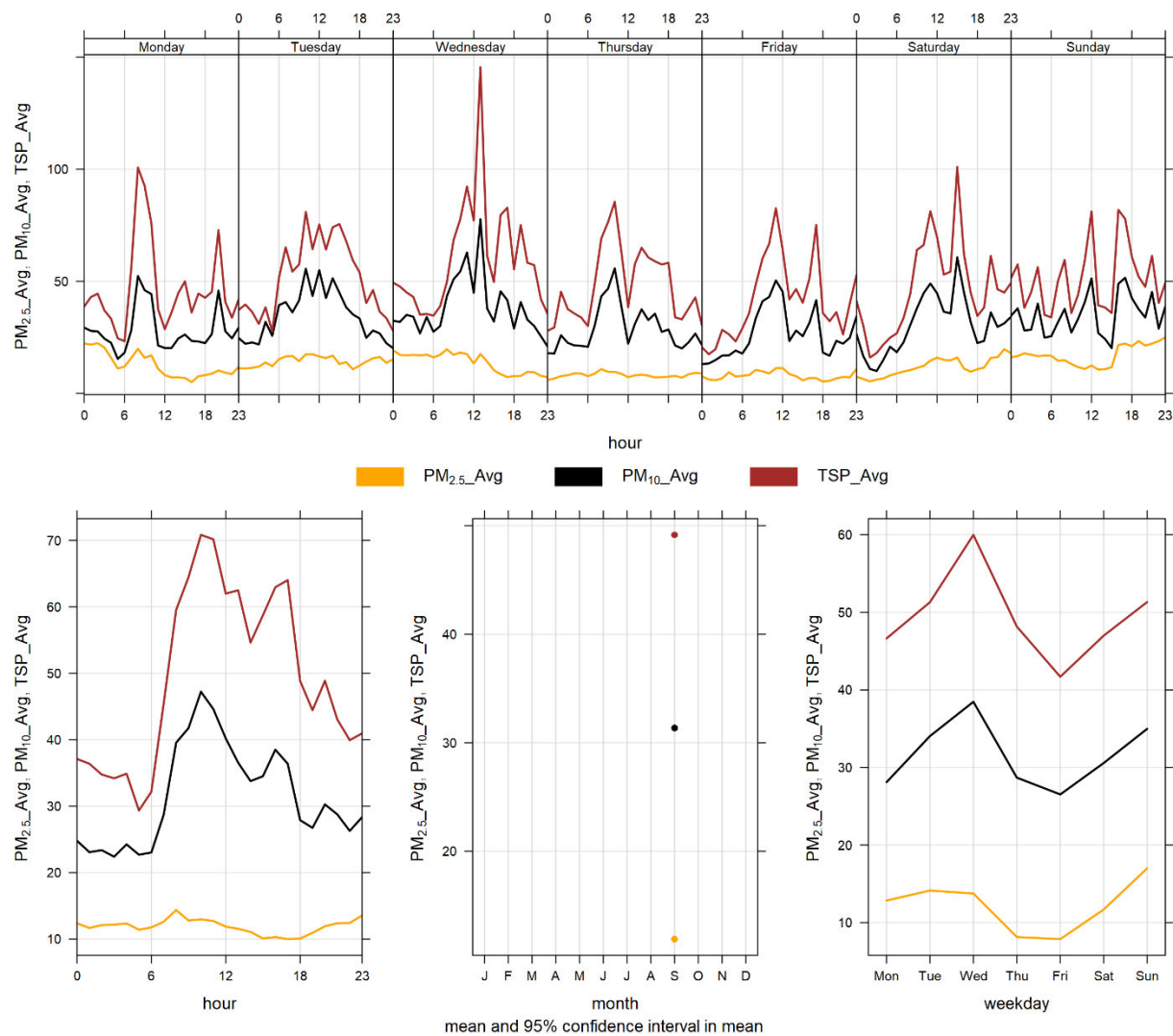


Figure 3-11 Lagoon monitor particulate matter time variation

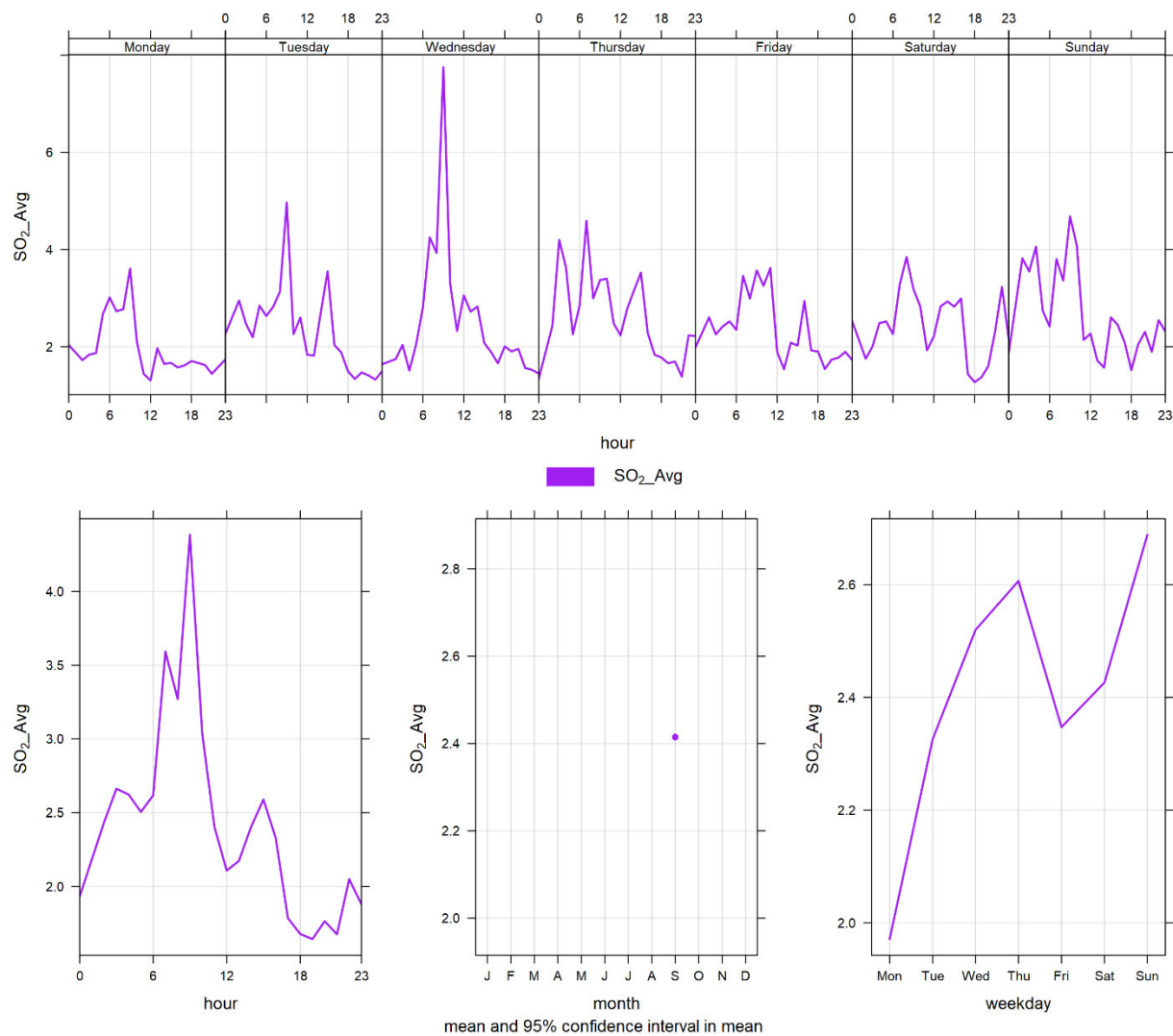


Figure 3-12 Lagoon monitor SO₂ time variation

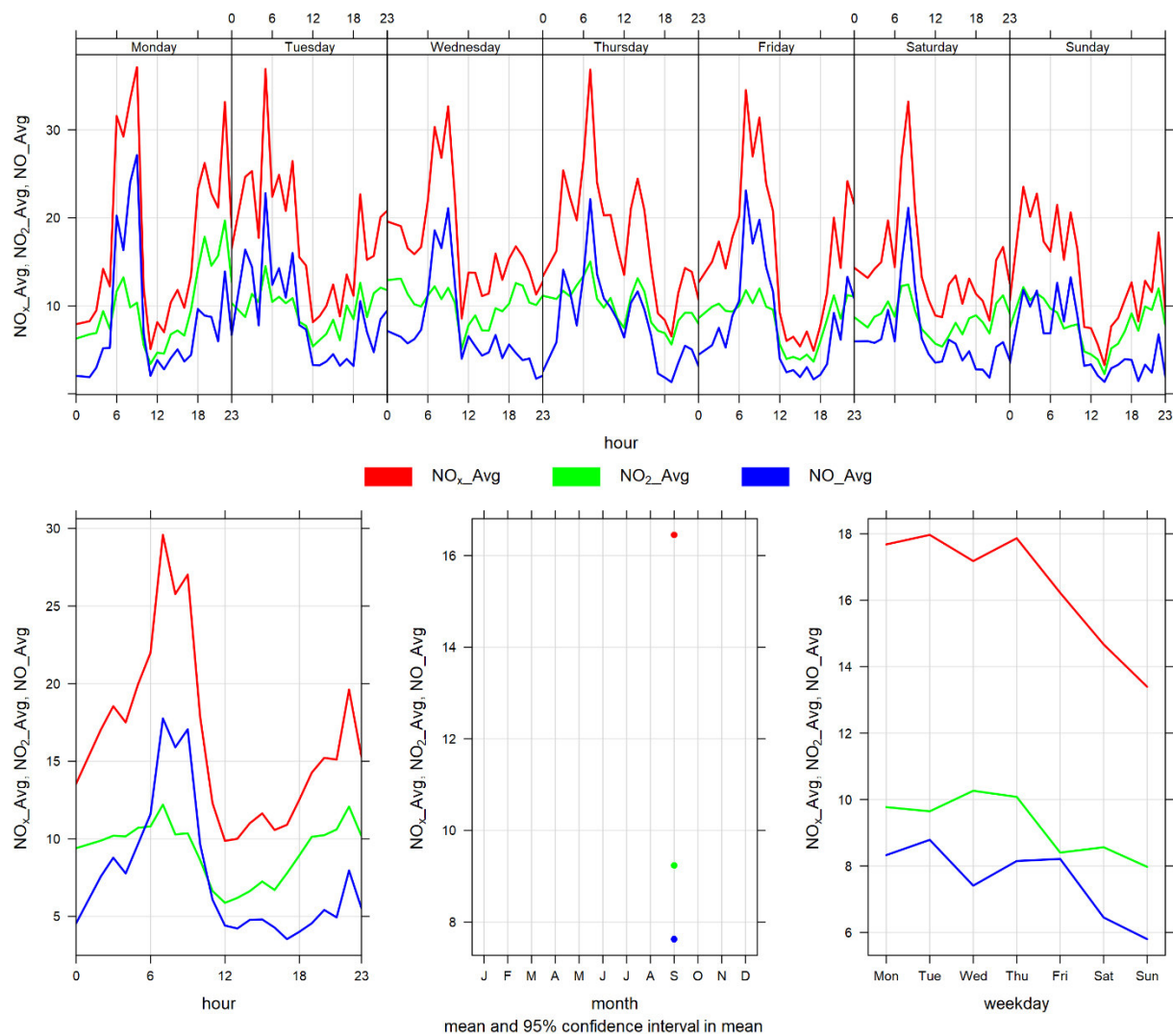


Figure 3-13 Lagoon monitor NO_x time variation

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 September 2022.

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

4.1 OPERATIONAL SUMMARY

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

Table 4-1 Instrumentation List at the Windridge monitoring location

Parameter Measured	Equipment Description	Notes
PM_{2.5} Concentrations	MetOne BAM-1020 FRM Continuous Particulate Monitor	The PM _{2.5} monitor was calibrated on September 20 th . The monitor recorded 100% uptime for the month of September.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on September 20 th . The monitor recorded 100% uptime for the month of September.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on September 20 th . The monitor recorded 100% uptime for the month of September.

4.2 MONITORING RESULTS AND TRENDS

Table 4-2 summarizes the hourly and daily concentrations recorded in September 2022, and Table 4-3 summarizes the recorded exceedance. Figure 4-1 illustrates the time series for hourly PM, Figure 4-2 to Figure 4-4 illustrates the histograms for hourly PM, Figure 4-5 illustrates the time series for daily PM, Figure 4-6 displays the wind rose for the 24-hour TSP, Figure 4-7 shows the wind rose for the 3 days of PM_{2.5} exceedances, and Figure 4-8 illustrates the time series for hourly PM over different time periods.

There was three exceedances of the 24-hour PM_{2.5} AAAQO, two exceedances of the 1-hour PM_{2.5} AAQ, and 5 exceedances of the 24-hour TSP AAAQO. The PM_{2.5} exceedances were influenced by wildfire smoke impacting the region.

Historically in September, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM_{2.5} AAAQO exceedances is 7 and 1. The maximum number of 24-hour TSP AAAQO exceedances recorded in September was previously 12 days in 2021.

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

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

Table 4-2 Summary of September 2022 data at the Windridge Station

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour					Maximum 24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM_{2.5} (µg/m ³)	80	29	Windridge	2	3	0.0	10.2	96.0	11	23	20.9	258.4	34.6	11	100.0
PM₁₀ (µg/m ³)	-	-	Windridge	-	-	0.0	40.8	412.0	7	13	26.7	260.0	119.3	7	100.0
TSP (µg/m ³)	-	100	Windridge	-	5	0.0	64.2	820.0	7	13	26.7	260.0	229.0	7	100.0

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

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Windridge						
2022-09-01	139.7	-	245.9	14.0	39.2	Winds predominately from the west
2022-09-03	-	33.0	264.5	15.2	29.9	Wildfire smoke
2022-09-04	136.1	-	261.5	20.9	27.8	High wind event
2022-09-07	229.0	-	248.5	16.4	40.0	Winds predominately from the west
2022-09-11	117.8	34.6	271.6	22.5	30.0	Wildfire Smoke
2022-09-13	-	30.7	280.5	10.1	68.3	Wildfire Smoke
2022-09-23	124.5	-	261.1	21.1	40.6	High wind event
Total # of Exceedances	5	3				
Maximum # of Exceedances (September)	12 (2021)	2 (2020)				
Average # of Exceedances (September)	7	1				
Minimum # of Exceedances (September)	1 (2018)	0 (2021)				

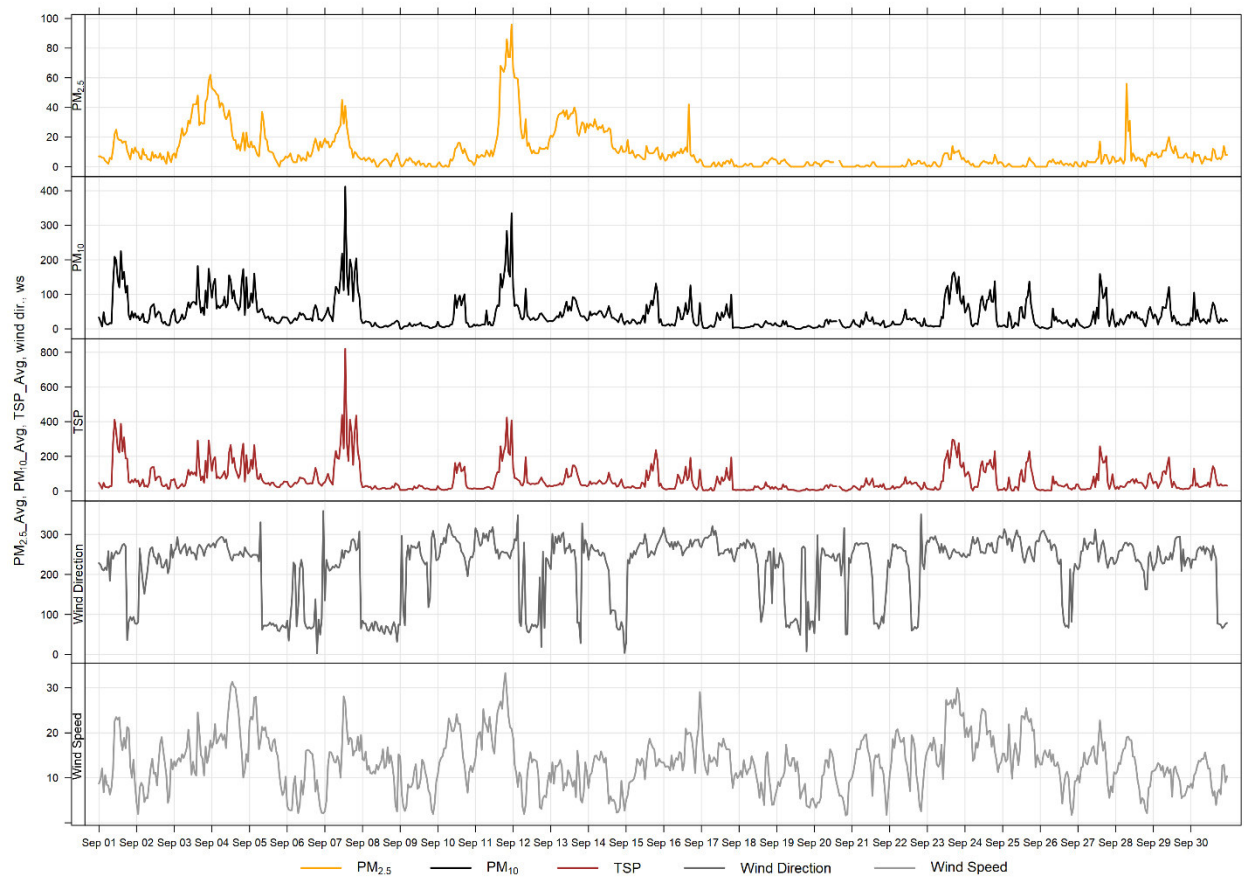


Figure 4-1 1-hour particulate matter concentrations recorded at the Windridge monitor

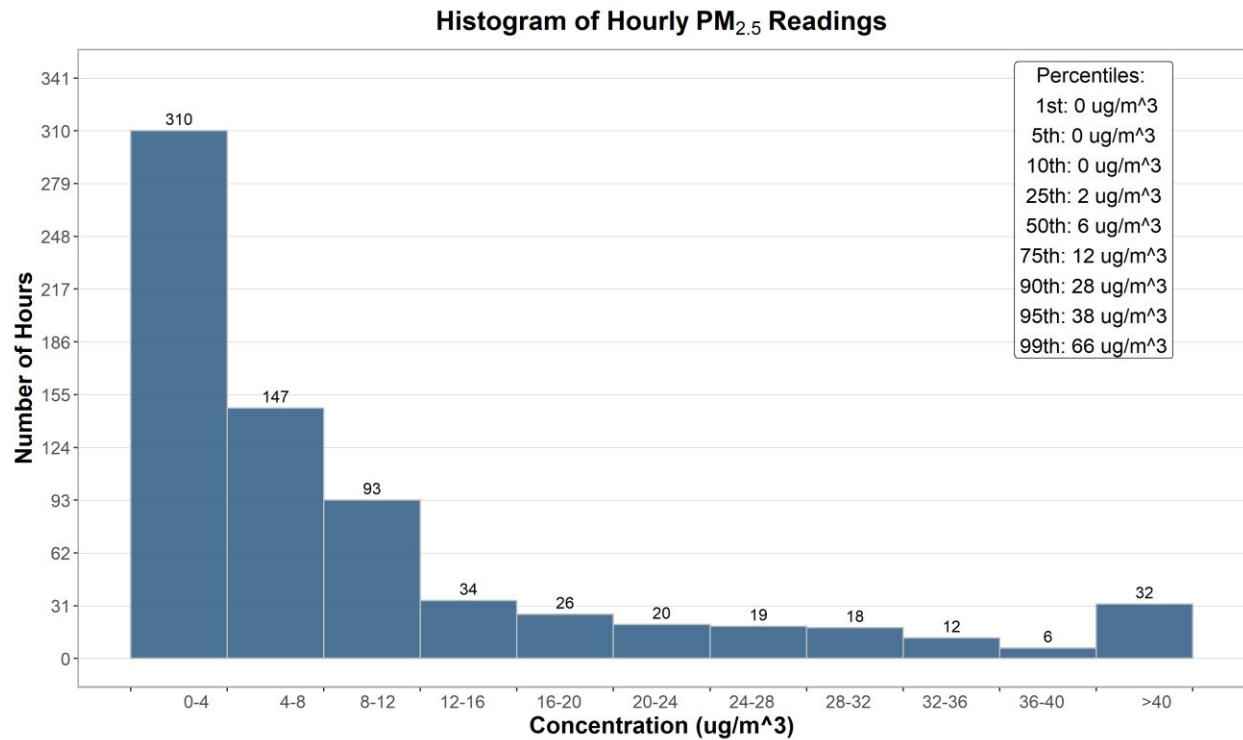


Figure 4-2 Histogram of hourly PM_{2.5} concentrations at the Windridge station

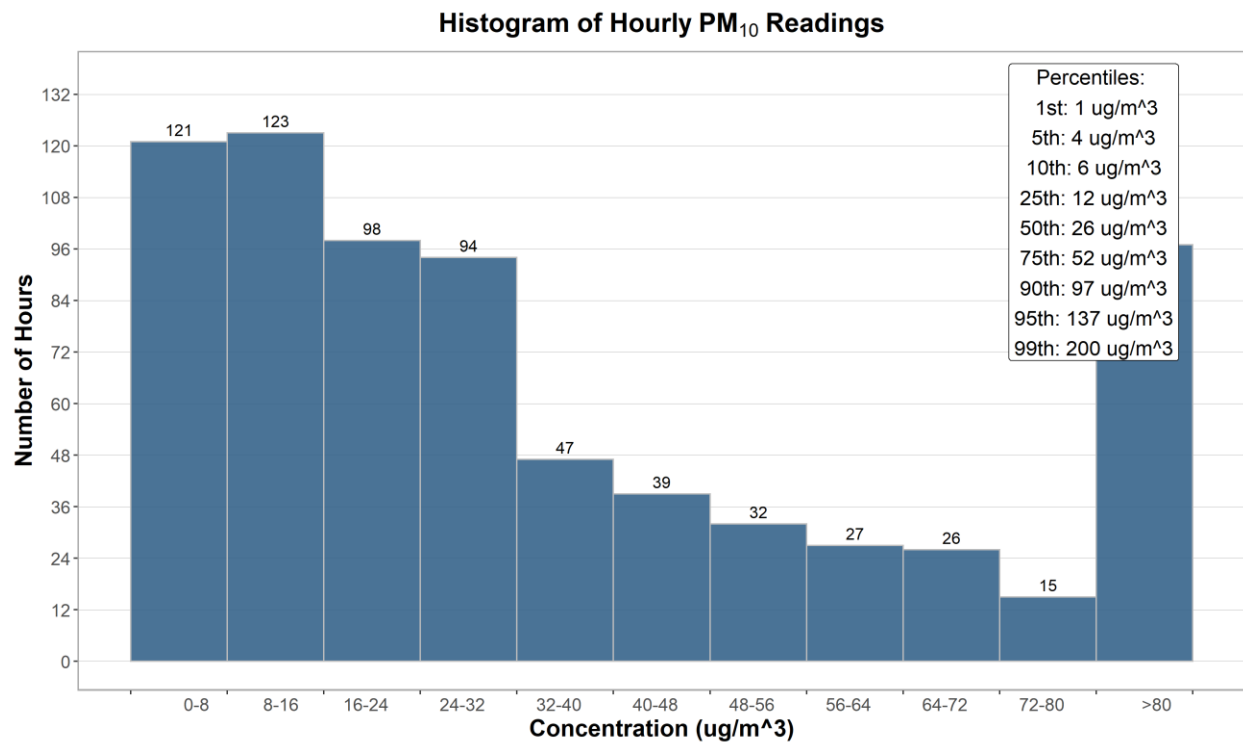


Figure 4-3 Histogram of hourly PM₁₀ concentrations at the Windridge station

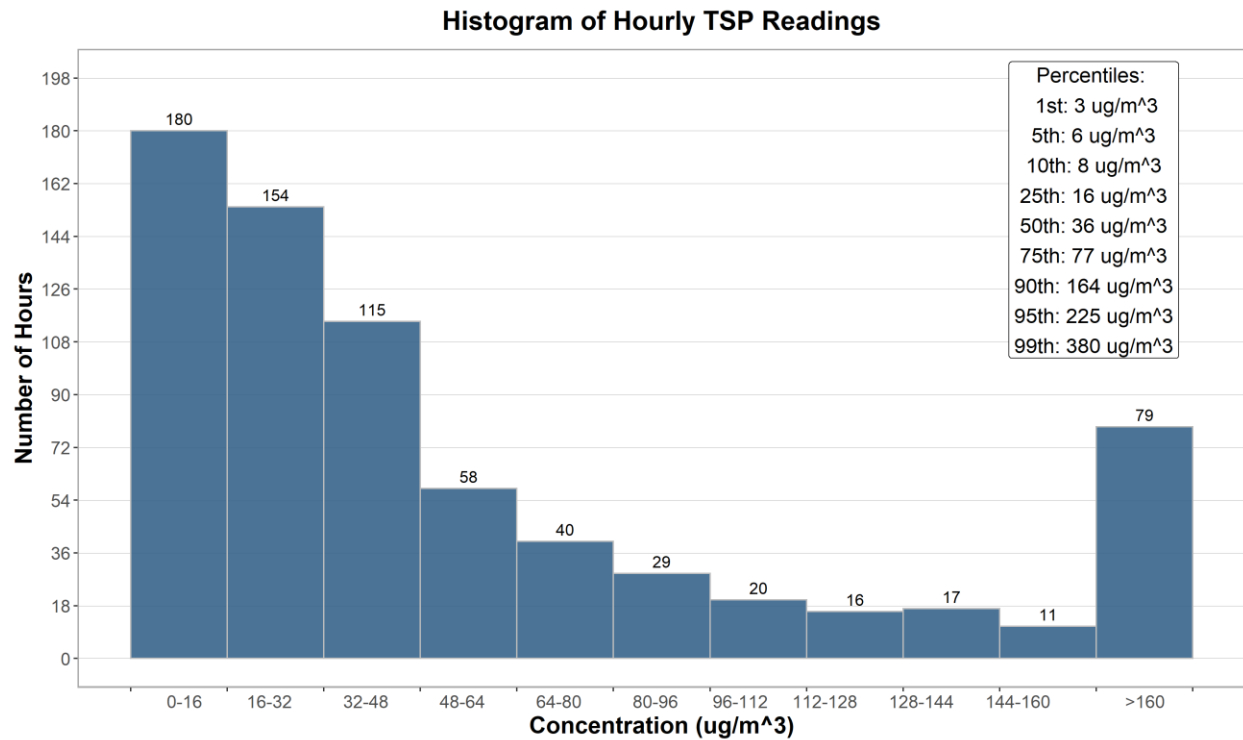


Figure 4-4 Histogram of hourly TSP concentrations at the Windridge station

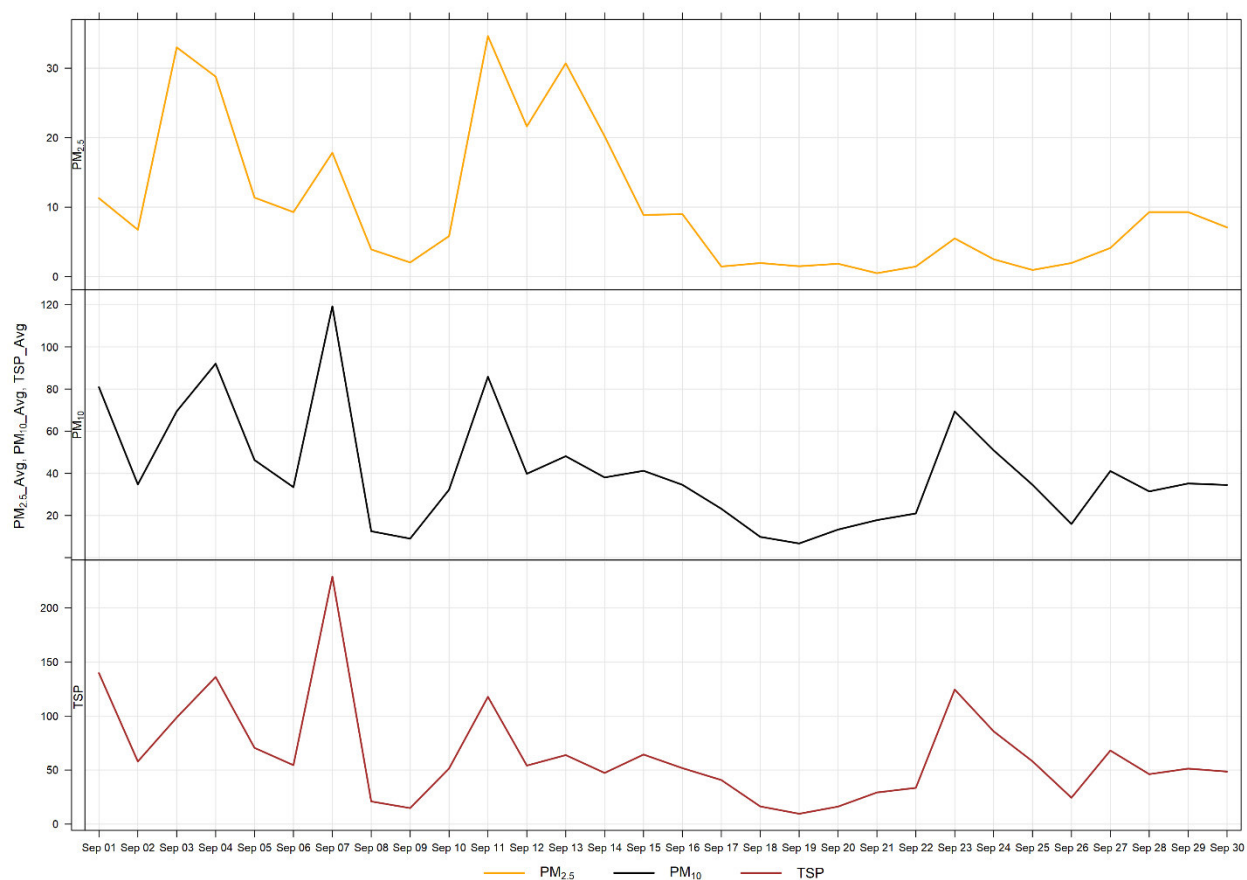


Figure 4-5 24-hour particulate matter concentrations at the Windridge monitor

Figure 4-6 shows the wind rose for the 5 days of TSP exceedances. Figure 4-7 shows the wind rose for the 3 days of PM_{2.5} exceedances. The wind roses shows that the winds predominantly came from the west direction.

Figure 4-8 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 4-8 is based on data collected during September 2022. Similar to the Lagoon station, typically PM concentrations shows a diurnal pattern associated with Lafarge operations, daytime emissions from traffic and other activities. The diurnal patterns also follow the diurnal pattern of higher wind speeds during the daytime hours.

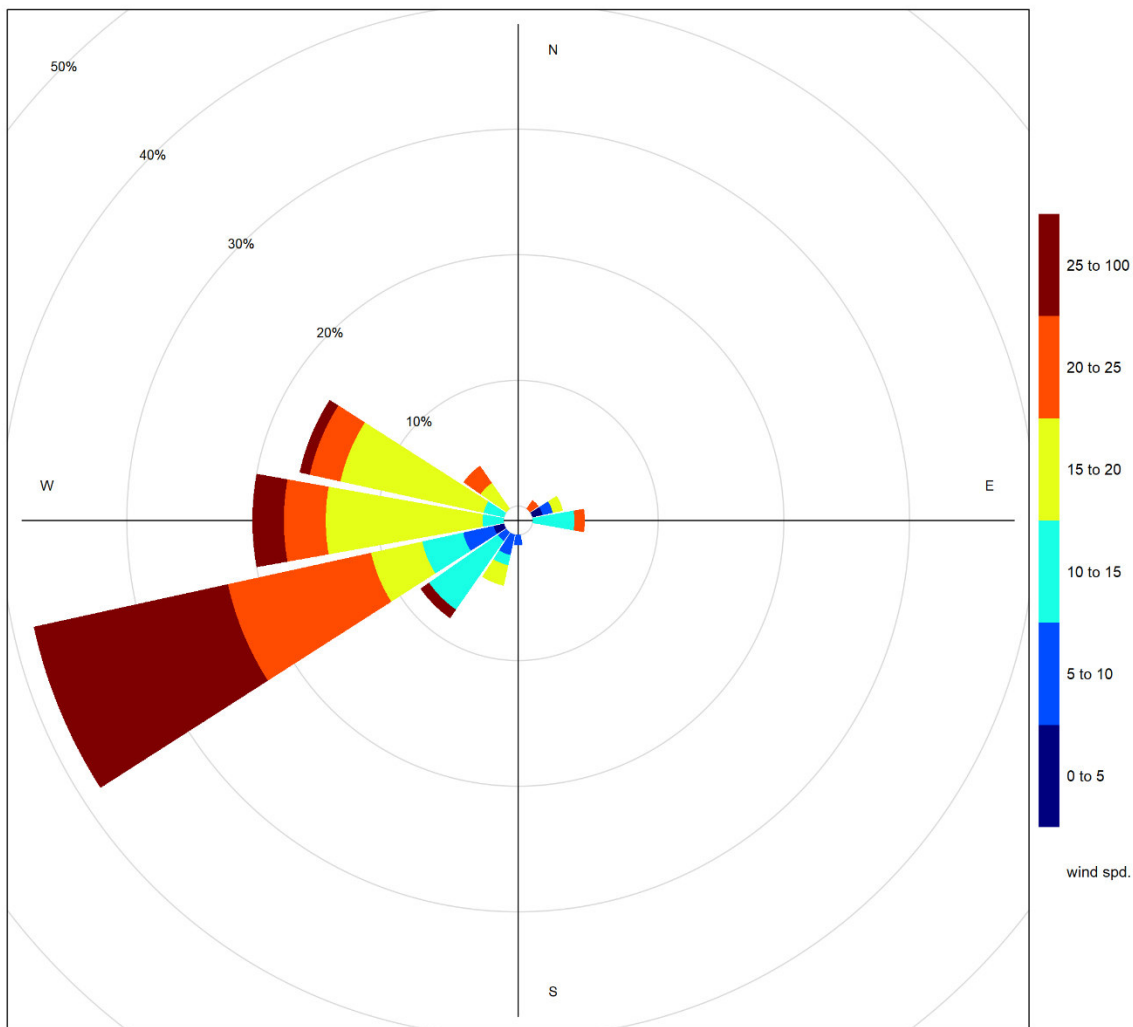


Figure 4-6 Wind rose for TSP exceedance days recorded at the Windridge Station

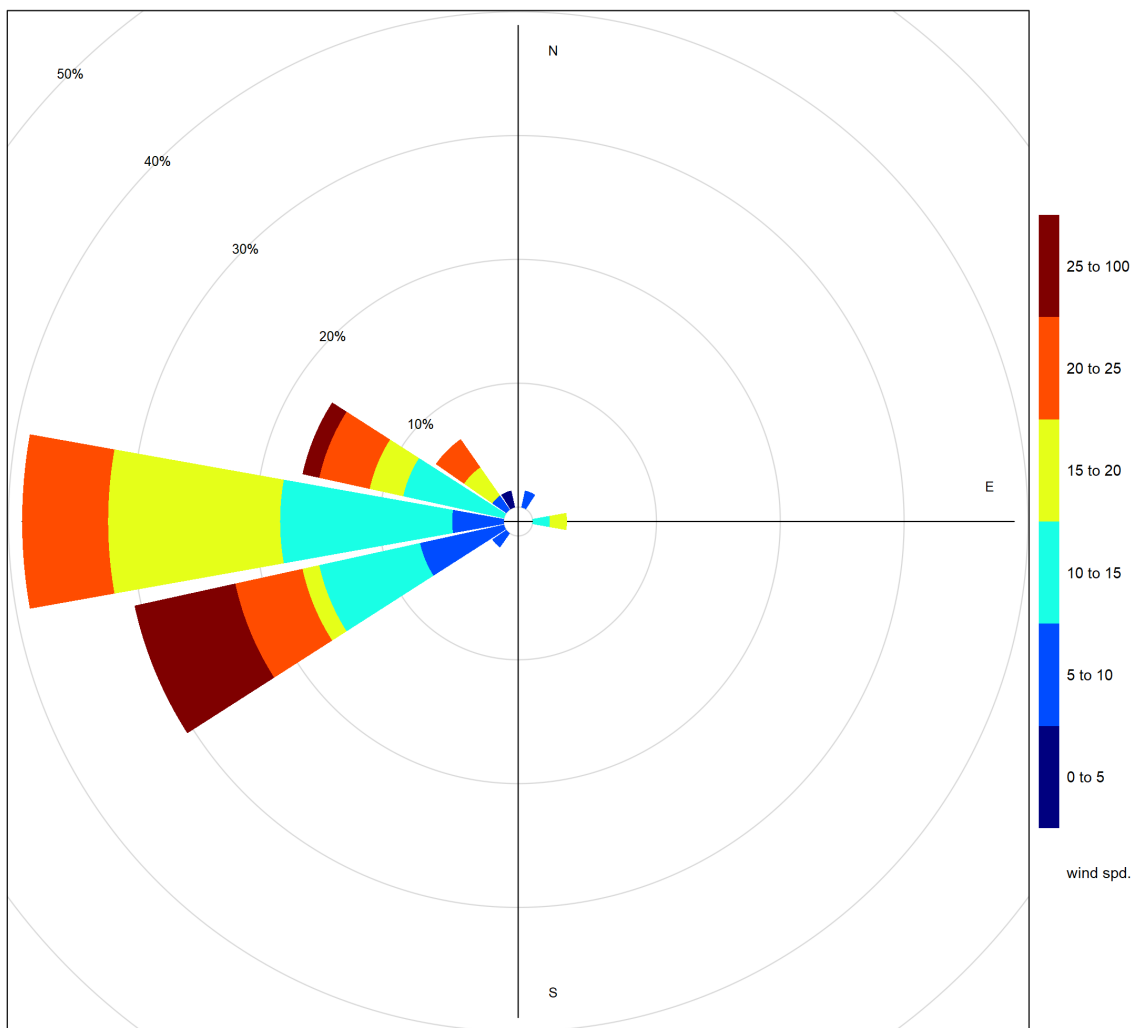


Figure 4-7 Wind rose for PM_{2.5} exceedance days recorded at the Windridge Station

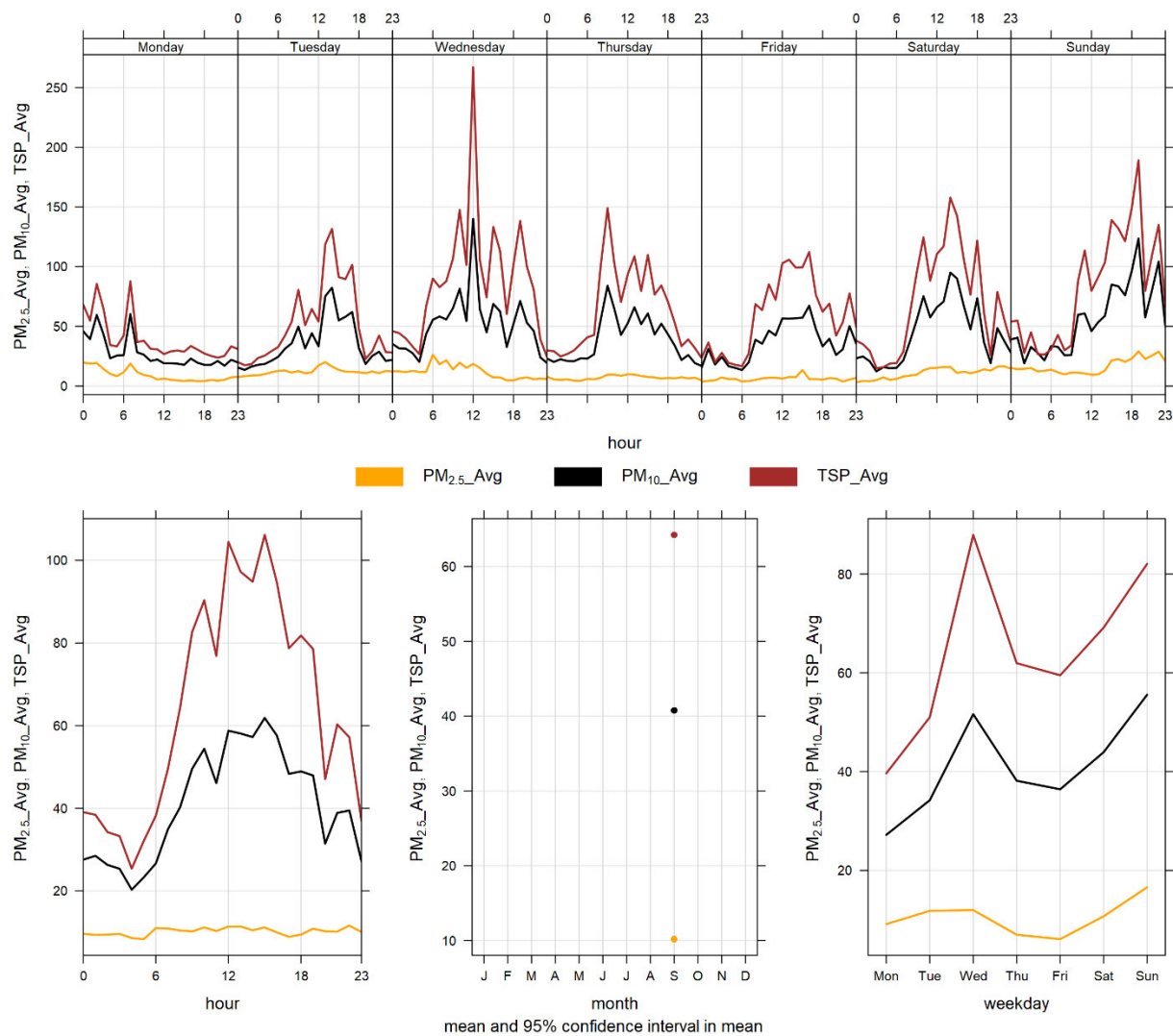


Figure 4-8 Windridge particulate matter time variation

5 WEST INDUSTRIAL GRIMM

5.1 OPERATIONAL SUMMARY

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

Table 5-1 Instrumentation List at the West monitoring location

Parameter Measured	Equipment Description	Notes
PM _{2.5} , PM ₁₀ , TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 4.9% uptime for the month of September due to 409 hours of communication error occurring from September 1 st at 1:00 – September 5 th at 17:00; September 6 th 11:00 & 12:00; September 7 th at 7:00 - September 19 th at 14:00. Additionally, 274 hours of the instrument being removed for repair, occurring from September 19 th at 15:00 – September 30 th at 24:00.

5.2 MONITORING RESULTS AND TRENDS

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

There were zero exceedances of the 24-hour TSP Guideline (100 µg/m³) and zero exceedances of the 24-hour PM_{2.5} (29µg/m³) Guideline. Further, there were zero hours exceeding the 1-hour PM_{2.5} Guideline. However, it should be noted that the monitor had low uptime this month. Due to low operational uptime for the month of September, only the short tabular summary in Table 5-2 is provided.

Historically during the month of September, the West monitor records an average of zero exceedances of the 24-hour TSP and PM_{2.5} guidelines, respectively. The maximum number of 24-hour TSP AAAQO exceedances recorded in September was previously one day in 2017.

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

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour					Maximum 24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM_{2.5} (µg/m ³)	80	29	West	0	0	5.3	11.5	19.7	6	23	2.1	358.7	10.2	6	4.9
PM₁₀ (µg/m ³)	-	-	West	-	-	7.1	15.3	28.1	6	23	2.1	358.7	13.6	6	4.9
TSP (µg/m ³)	-	100	West	-	0	5.3	13.6	23.4	6	22	2.2	90.0	13.0	6	4.9

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 98.8% uptime for the month of September due to one hour of routine maintenance occurring on September 6 th at 12:00. Additionally, eight hours of power failure occurred from September 30 th at 17:00 – 24:00.

6.2 MONITORING RESULTS AND TRENDS

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

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

There were 10 and 3 exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) Guidelines, respectively. There were three hour exceeding the 1-hour PM_{2.5} Guideline. The PM_{2.5} exceedances were influenced by wildfire smoke impacting the region.

Historically during the month of September, the Berm monitor records an average of 12 and 1 exceedances of the 24-hour TSP and PM_{2.5} guidelines, respectively. The maximum number of TSP exceedances recorded during September occurred in 2011 & 2021 where there were 19 days that exceeded the guideline. On the other hand, the maximum number of PM_{2.5} exceedances in September was 7 days in 2017, as a result of wildfire activity.

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

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

Table 6-2 Summary of September 2022 data at the Berm GRIMM

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour					Maximum 24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM_{2.5} (µg/m ³)	80	29	Berm	3	3	0.2	12.8	94.7	7	13	26.7	260.0	30.6	11	98.8
PM₁₀ (µg/m ³)	-	-	Berm	-	-	0.2	45.0	649.4	7	13	26.7	260.0	160.4	7	98.8
TSP (µg/m ³)	-	100	Berm	-	10	0.1	92.5	1753.6	7	13	26.7	260.0	388.5	23	98.8

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

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Berm						
2022-09-01	254.5	-	245.9	14.0	39.2	Winds predominantly from the west
2022-09-02	104.8	-	237.1	10.3	43.5	Winds predominantly from the west
2022-09-04	143.1	-	261.5	20.9	27.8	High wind event
2022-09-07	366.4	29.8	248.5	16.4	40.0	Wildfire Smoke
2022-09-11	120.7	30.6	271.6	22.5	30.0	Wildfire Smoke
2022-09-13	-	29.9	280.5	10.1	68.3	Wildfire Smoke
2022-09-15	109.5	-	267.1	13.0	64.2	Winds predominantly from the west
2022-09-23	388.5	-	261.1	21.1	40.6	High wind event
2022-09-24	186.8	-	267.9	18.4	39.4	Winds predominantly from the west
2022-09-25	147.5	-	271.0	17.8	42.3	Winds predominantly from the west
2022-09-27	108.7	-	261.4	13.5	44.8	Winds predominantly from the west
Total # of Exceedances	10	3				
Maximum # of Exceedances (September)	19 (2011, 2021)	7 (2017)				

Average # of Exceedances (September)	12	1				
Minimum # of Exceedances (September)	7 (2013)	0 (2010, 2011, 2012, 2013, 2014, 2015, 2019)				

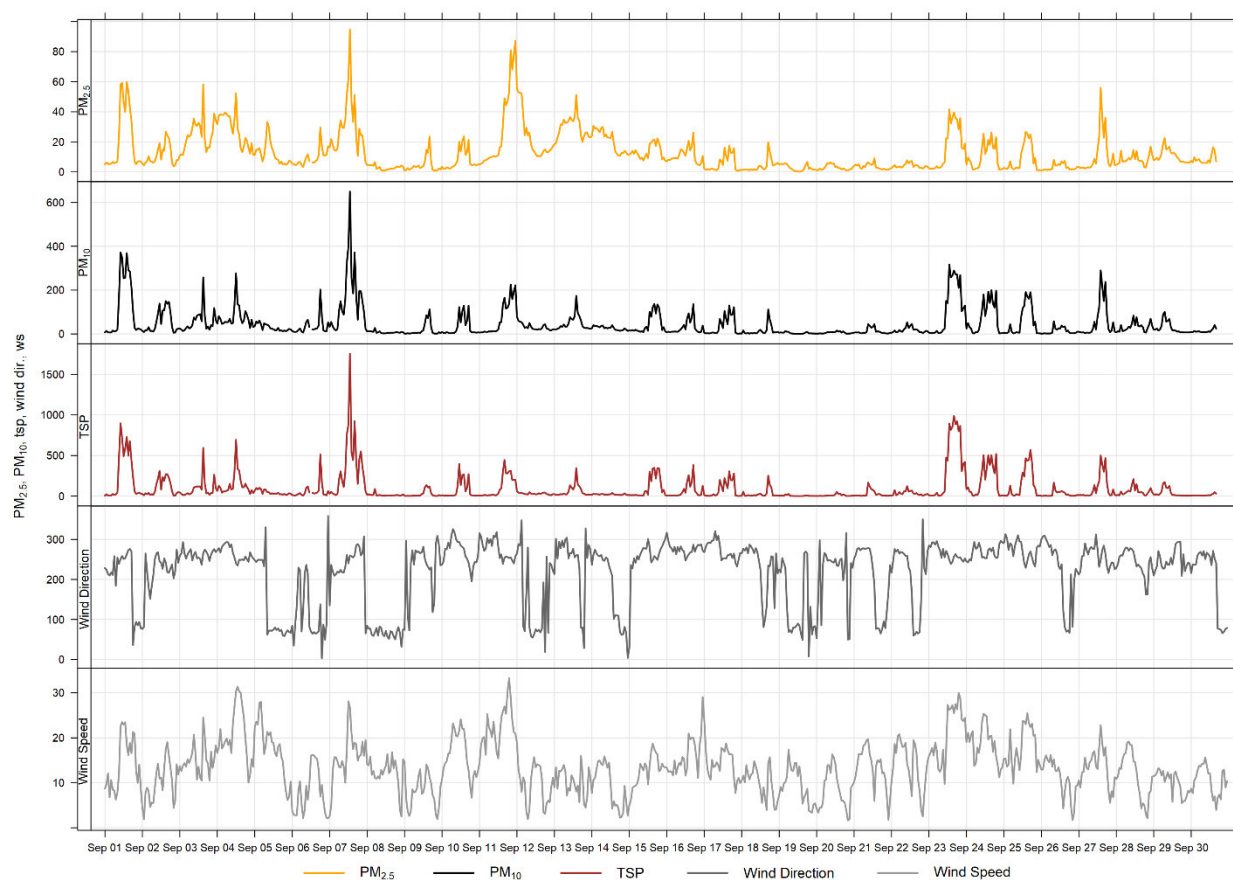


Figure 6-1 1-hour particulate matter concentrations recorded at the Berm monitor

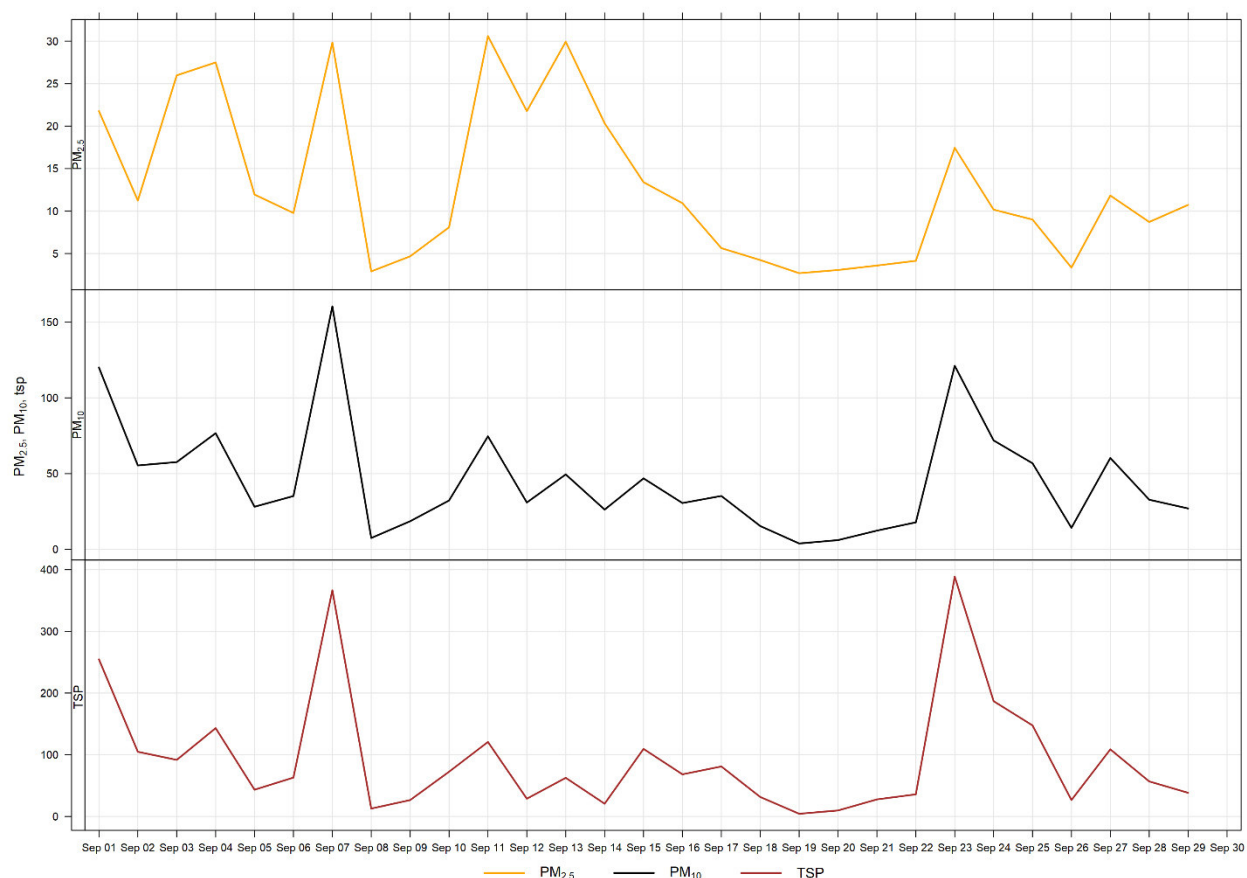


Figure 6-2 24-hour particulate matter concentrations recorded at the Berm monitor

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

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

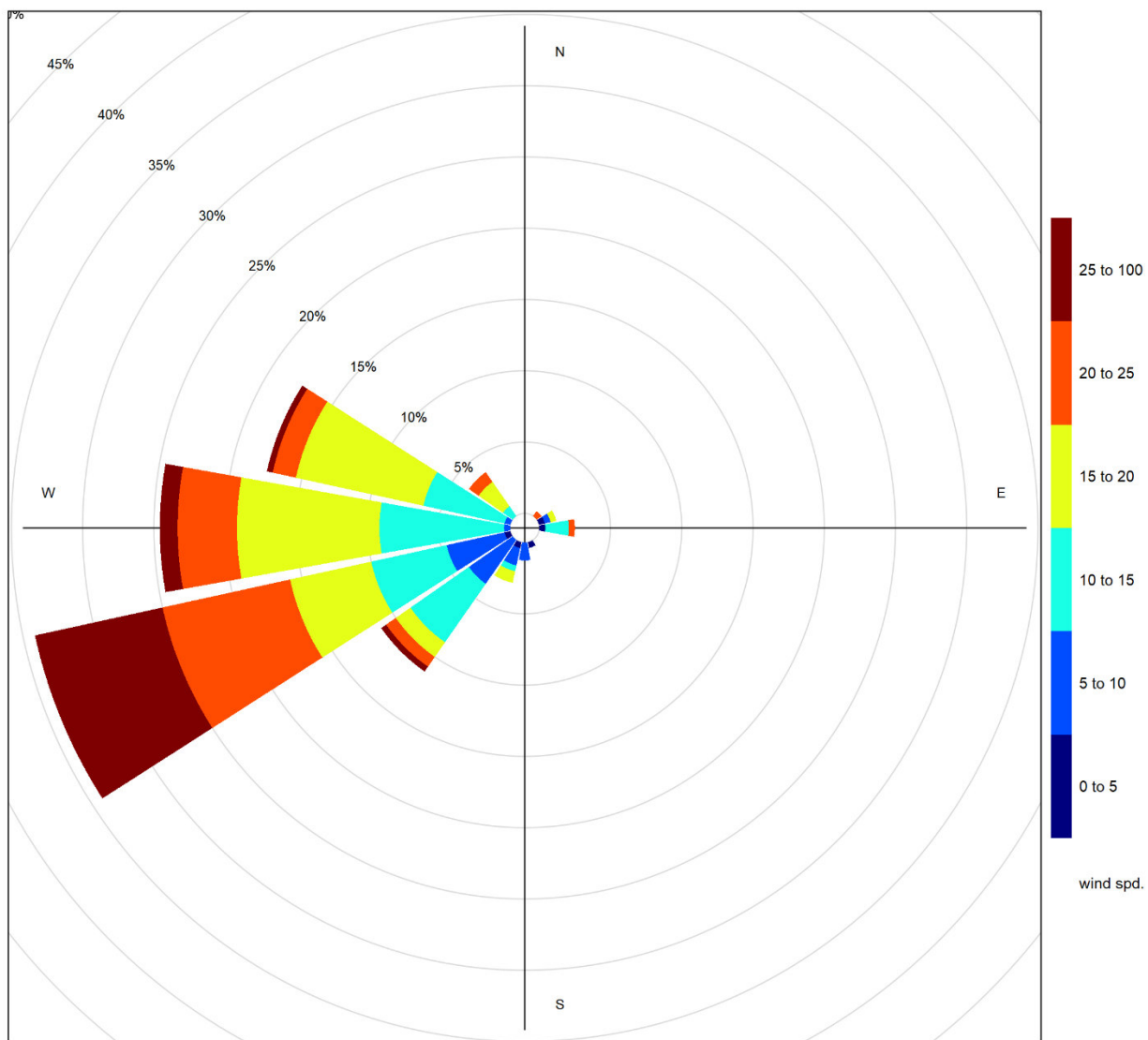


Figure 6-3 Wind rose for TSP exceedance days recorded at the Berm GRIMM

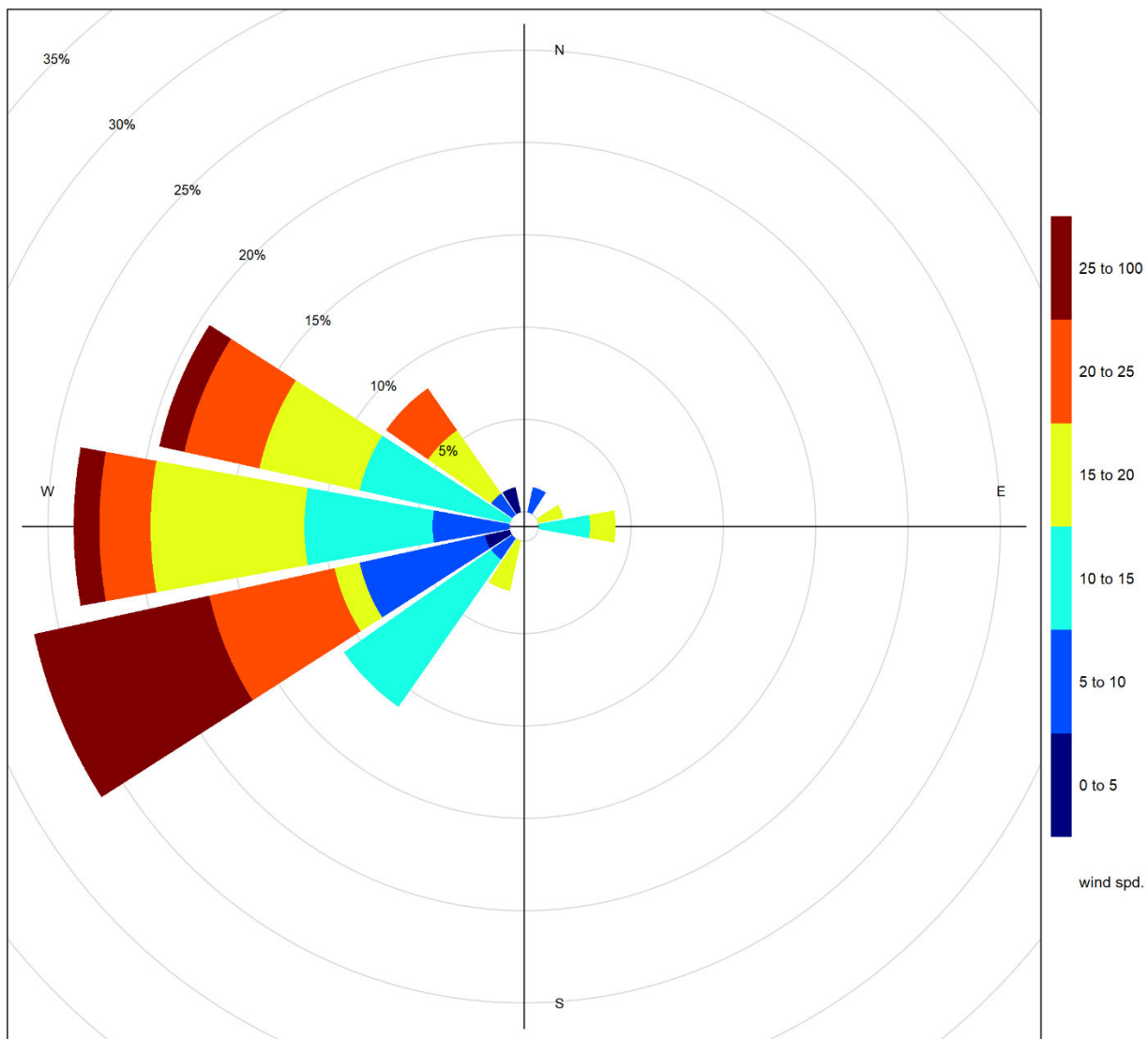


Figure 6-4 Wind rose for PM_{2.5} exceedance days recorded at the Berm GRIMM

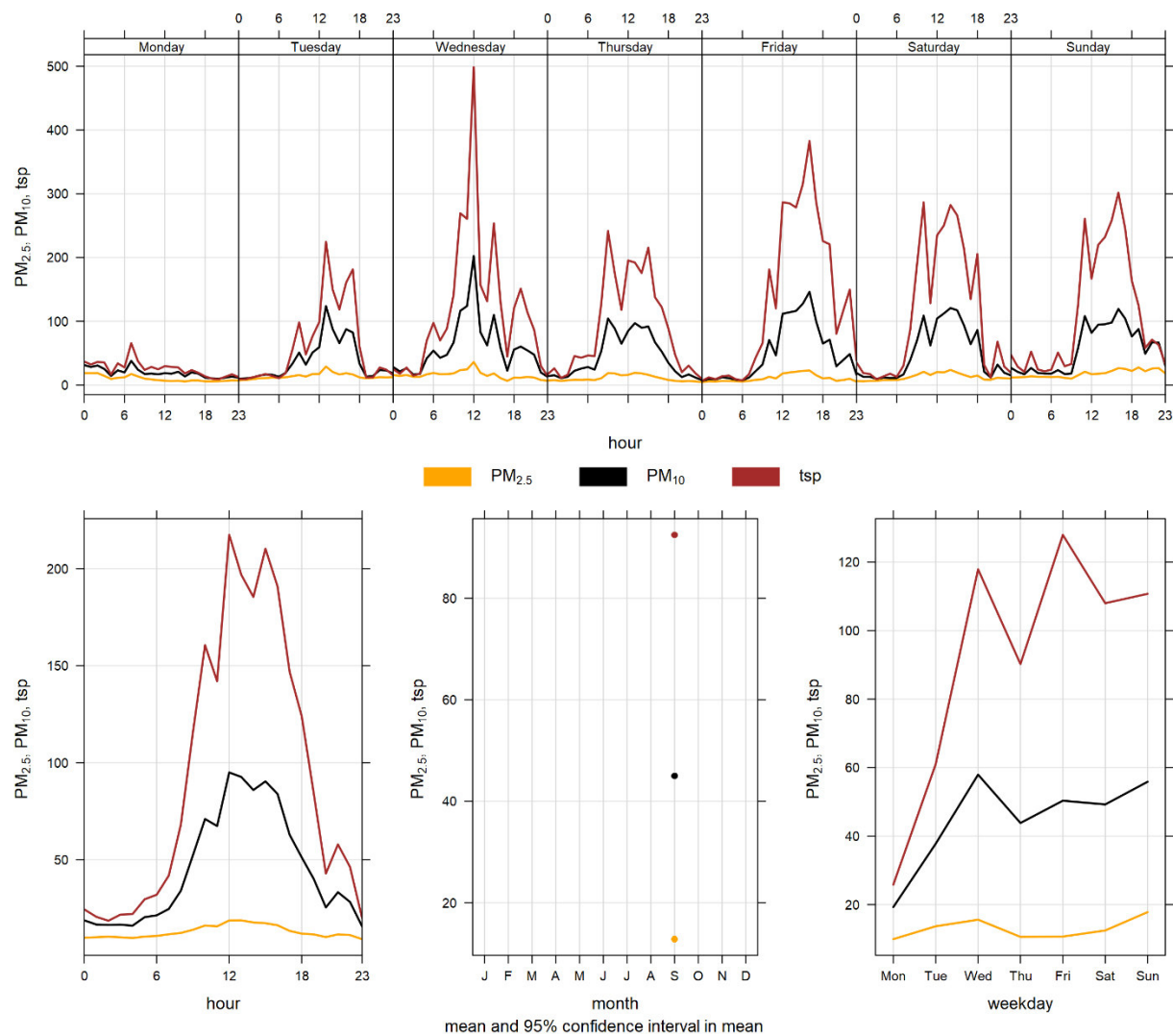


Figure 6-5 Berm particulate matter time variation

7 ENTRANCE INDUSTRIAL GRIMM

7.1 OPERATIONAL SUMMARY

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

Table 7-1 Instrumentation List at the Entrance monitoring location

Parameter Measured	Equipment Description	Notes
PM _{2.5} , PM ₁₀ , TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 18.2% uptime for the month of September due to 589 hours of the instrument being removed for repair that occurred from September 6 th at 12:00 to September 30 th at 24:00.

7.2 MONITORING RESULTS AND TRENDS

The Entrance monitor was placed at its current location as a result of the dispersion modelling conducted for the facility. 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 September, there were 3 and 1 exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) Guidelines, respectively. The PM_{2.5} exceedances were influenced by wildfire smoke impacting the region. There was zero hours exceeding the 1-hour PM_{2.5} Guideline. However, it should be noted that the monitor had low uptime this month. Due to low operational uptime for the month of September, only the short tabular summaries in Table 7-2 and 7-3 are provided.

Historically, the Entrance monitor records an average of 13 and 1 exceedances of the 24-hour TSP and PM_{2.5} guidelines respectively, during the month of September. The maximum number of TSP exceedances recorded during September occurred in 2013, which had 22 days that exceeded the guideline. The minimum number of TSP exceedances recorded during September occurred in 2016 & 2020, which had 9 days that exceeded the guideline. The maximum number of PM_{2.5} exceedances recorded during September is 7 days in 2017, as a result of wildfire activity.

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

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

Figure 7-1 shows the wind rose for the 3 days that exceeded the TSP Guideline. Figure 7-2 shows the wind rose for the one day that exceeded the PM_{2.5} Guideline. The wind roses show that the winds predominantly came from the westerly directions.

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

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour					Maximum 24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM_{2.5} (µg/m ³)	80	29	Entrance	0	1	6.3	23.7	62.0	3	7	15.4	275.6	38.8	3	18.2
PM₁₀ (µg/m ³)	-	-	Entrance	-	-	9.1	82.7	553.4	2	23	11.9	242.1	120.3	2	18.2
TSP (µg/m ³)	-	100	Entrance	-	3	8.2	145.5	1027.9	2	23	11.9	242.1	237.5	1	18.2

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

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Entrance						
2022-09-01	237.5	-	245.9	14.0	39.2	Winds predominately from the west
2022-09-02	215.0	-	237.1	10.3	43.5	Winds predominately from the west
2022-09-03	173.2	38.8	264.5	15.2	29.9	Winds predominately from the west
Total # of Exceedances	3	1				
Maximum # of Exceedances (September)	22 (2013)	7 (2017)				
Average # of Exceedances (September)	13	1				
Minimum # of Exceedances (September)	9 (2016, 2020)	0 (2011, 2015, 2016, 2019, 2021)				

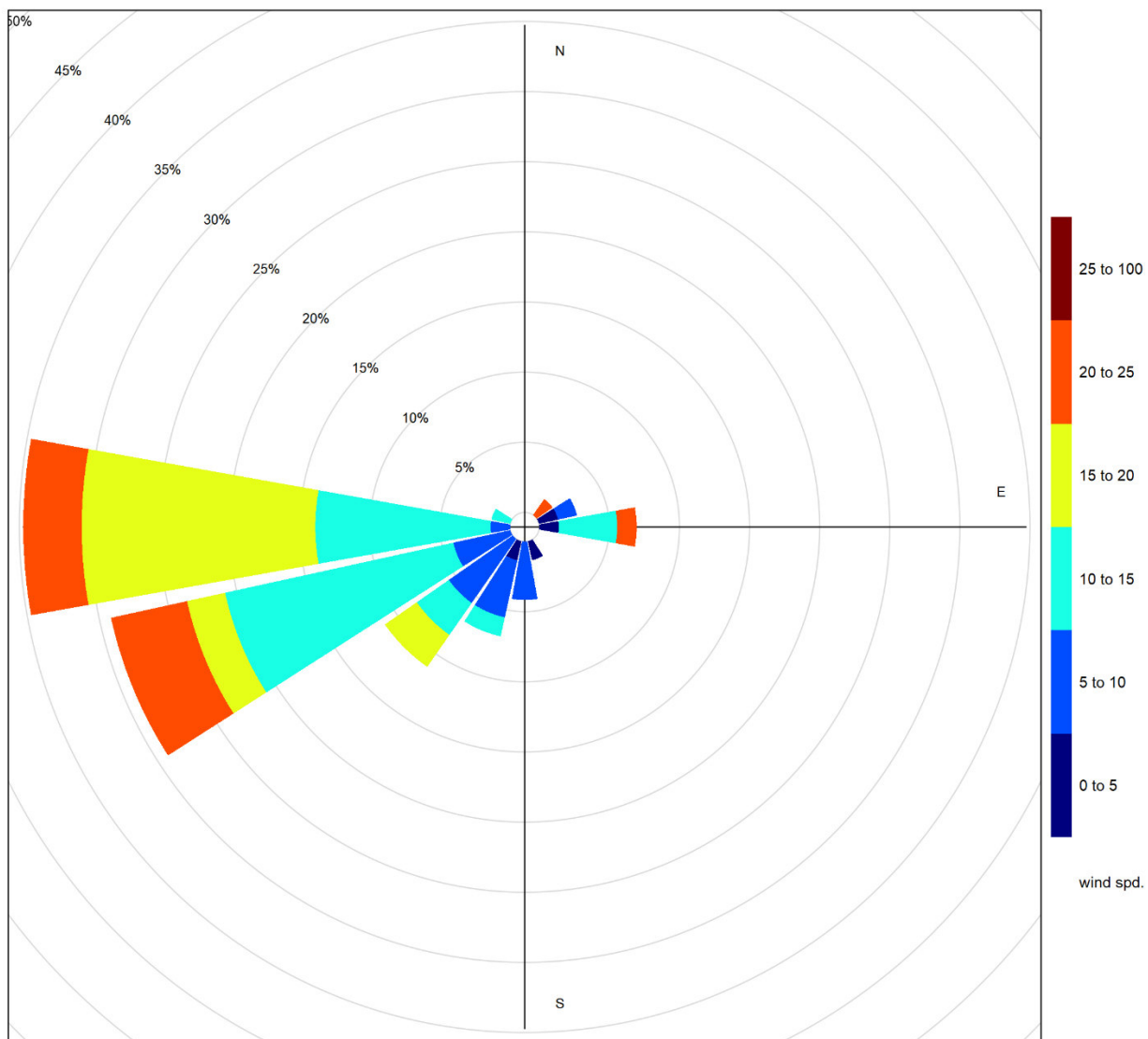


Figure 7-1 Wind rose for TSP exceedance days recorded at the Entrance GRIMM

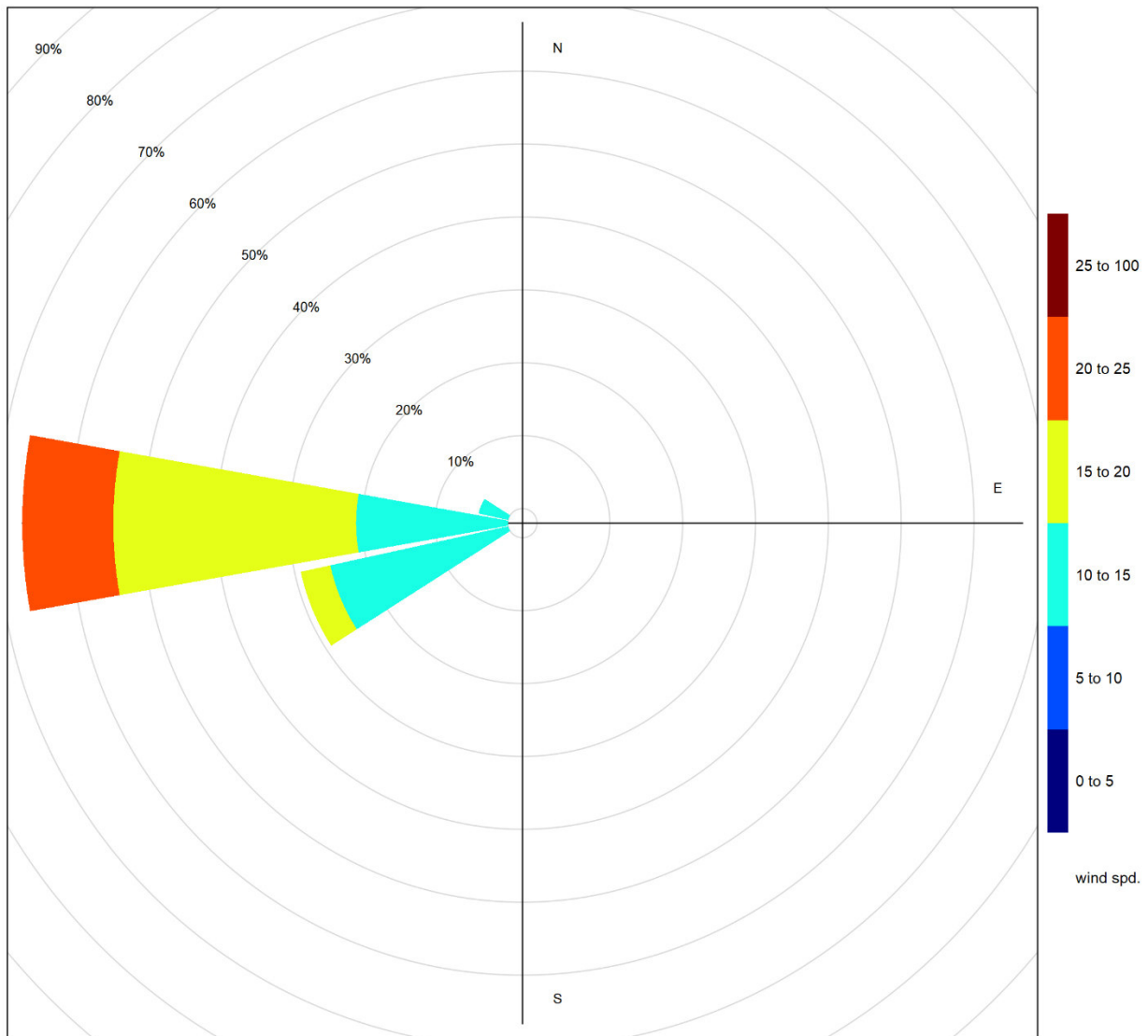


Figure 7-2 Wind rose for PM_{2.5} exceedance days recorded at the Entrance GRIMM

BIBLIOGRAPHY

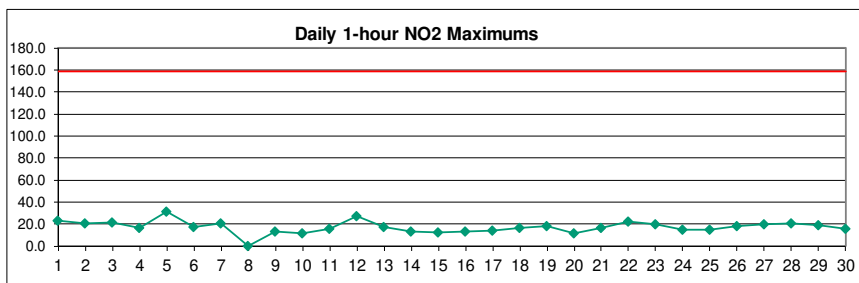
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APPENDIX

A DATA & CALIBRATION REPORTS

Lagoon NO₂ (ppb) – September 2022

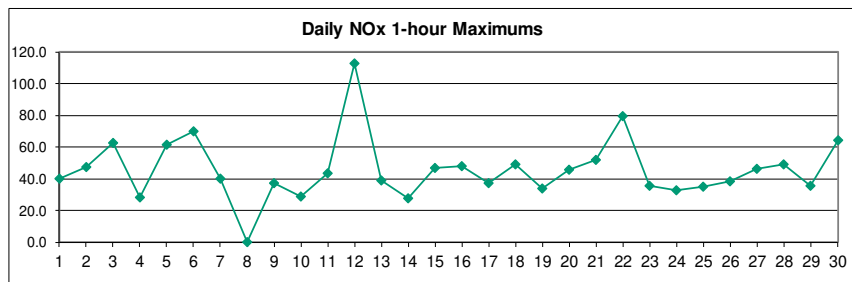
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	14.7	S	9.7	8.2	10.5	12.1	14.3	23.1	12.5	4.9	7.4	4.0	2.8	7.6	12.8	13.3	14.6	7.9	2.0	3.2	5.5	2.3	7.9	11.8	9.3	23.1
2	9.4	S	12.0	13.0	9.3	10.5	12.8	13.0	12.9	15.3	8.1	6.4	10.3	5.2	1.7	0.6	0.6	0.7	5.7	10.0	16.3	12.8	16.4	20.8	9.7	20.8
3	15.4	S	14.3	16.0	12.3	18.6	13.6	21.9	19.4	15.2	12.1	12.3	9.5	5.9	4.9	12.9	10.4	17.0	14.6	14.2	10.3	9.7	10.0	11.6	13.1	21.9
4	6.9	S	11.1	11.8	16.1	15.6	14.6	7.1	10.7	5.2	4.5	1.4	0.8	3.8	1.4	2.7	2.8	9.5	14.2	10.0	8.9	16.7	16.2	2.0	8.4	16.7
5	0.7	S	2.5	1.8	2.2	0.7	8.3	12.6	3.1	2.4	5.7	4.4	1.6	2.8	2.2	6.5	4.0	7.6	10.7	20.4	21.1	17.8	31.1	15.0	8.1	31.1
6	11.2	S	10.5	15.9	11.0	17.5	12.7	13.2	13.5	10.7	11.5	4.2	6.0	7.9	6.8	7.4	6.1	14.6	12.5	12.3	10.9	12.3	15.5	15.7	11.3	17.5
7	13.5	S	12.7	8.2	9.0	9.4	12.1	13.9	14.5	15.0	17.2	2.8	7.0	9.0	10.1	13.4	21.0	15.4	20.8	18.3	16.1	8.1	9.0	3.9	12.2	21.0
8	2.8	S	5.6	9.3	4.6	8.5	8.8	3.1	2.2	2.0	C	C	C	C	C	C	C	C	5.7	4.4	8.8	13.7	10.1	1.2	-	-
9	5.2	S	13.8	13.7	8.5	11.6	11.2	9.9	7.9	6.4	6.9	8.8	2.0	1.7	1.0	1.3	1.5	4.8	4.8	4.4	11.9	10.3	12.8	12.8	7.5	13.8
10	12.1	S	8.5	7.4	5.5	4.8	3.9	4.2	10.0	10.0	10.6	7.3	6.4	3.1	3.7	5.9	2.3	3.6	3.7	4.8	7.4	11.6	10.6	9.4	6.8	12.1
11	7.8	S	16.1	10.8	6.1	8.5	6.0	10.3	4.8	5.0	4.4	7.7	3.0	3.3	1.7	4.7	9.9	9.4	8.3	9.3	8.0	3.5	5.4	6.8	7.0	16.1
12	8.1	S	10.3	7.8	9.8	7.7	21.5	18.2	24.8	27.0	8.8	3.2	12.7	5.8	10.1	3.1	3.6	9.1	19.5	18.3	11.6	20.6	17.7	11.9	12.7	27.0
13	10.0	S	4.9	11.9	9.4	17.8	8.5	13.6	12.0	15.8	11.4	16.5	8.8	7.6	7.8	11.2	5.6	16.7	4.5	13.5	8.6	10.8	7.5	5.2	10.4	17.8
14	10.0	S	13.6	11.1	9.1	7.1	6.5	7.4	8.7	7.9	6.0	5.5	9.9	11.4	4.6	3.3	3.5	5.8	5.5	8.3	7.2	5.6	9.6	7.4	7.6	13.6
15	5.8	S	10.6	8.2	8.0	11.1	12.4	11.5	8.7	11.3	10.8	7.7	10.8	4.4	4.1	8.5	4.2	2.3	13.0	6.6	4.8	9.0	6.8	7.8	8.2	13.0
16	6.5	S	5.9	8.4	8.8	10.3	8.3	13.8	10.1	9.1	9.6	10.4	6.9	5.8	6.7	6.1	8.5	5.6	7.8	8.4	7.3	8.3	6.3	3.8	7.9	13.8
17	6.0	S	4.7	6.9	10.1	12.5	10.4	13.2	13.9	7.5	1.9	1.9	4.5	4.4	3.0	5.8	3.6	5.4	9.8	8.7	5.1	8.1	12.3	6.2	7.2	13.9
18	9.0	S	9.5	10.5	11.8	9.8	9.4	10.7	8.9	12.7	7.4	3.4	12.5	7.0	2.3	5.4	2.4	1.2	9.1	6.7	16.6	11.3	16.4	13.9	9.0	16.6
19	11.8	S	10.9	10.3	18.1	12.0	3.3	10.2	2.4	2.0	1.6	1.5	1.4	3.6	7.7	10.7	11.8	16.8	17.0	14.3	9.0	10.1	12.7	9.8	9.1	18.1
20	5.9	S	7.0	8.2	9.6	12.0	10.2	7.5	5.7	4.1	3.5	3.7	4.8	4.0	1.4	1.8	1.8	4.3	6.8	5.0	5.6	7.6	10.7	12.2	6.2	12.2
21	12.7	S	9.8	10.8	9.4	10.0	10.7	10.0	6.9	9.7	7.6	3.7	6.8	6.7	3.1	3.7	7.1	9.0	4.0	9.9	9.1	7.1	7.7	16.3	8.3	16.3
22	15.6	S	14.6	19.1	19.8	17.8	17.7	19.0	11.4	13.2	6.1	7.0	7.6	17.1	22.2	10.7	4.5	11.0	7.2	8.2	15.3	15.2	14.5	12.5	13.4	22.2
23	15.4	S	10.3	7.9	12.2	6.3	9.0	12.7	12.5	19.7	14.8	14.4	4.1	1.5	2.6	6.2	9.0	5.5	5.8	5.7	4.4	1.6	5.0	1.6	8.2	19.7
24	1.4	S	2.6	4.7	8.6	6.0	7.2	9.8	6.4	5.1	4.9	4.6	2.4	8.0	14.7	7.7	10.7	8.4	7.6	4.9	4.8	11.8	11.8	9.3	7.1	14.7
25	6.4	S	11.8	9.5	11.6	9.4	8.8	8.9	5.3	8.0	15.3	6.7	1.5	1.5	3.5	7.9	7.6	8.3	5.0	2.6	6.3	6.6	9.9	8.3	7.4	15.3
26	4.4	S	3.3	7.8	7.5	9.2	13.5	12.0	9.0	10.0	6.0	4.5	3.0	6.1	7.0	8.5	7.0	4.7	9.2	18.4	16.5	14.3	17.3	14.3	9.3	18.4
27	14.1	S	12.5	9.4	11.8	10.9	10.4	9.9	10.0	12.9	6.4	6.4	1.9	4.9	11.2	13.3	10.8	4.6	10.2	19.6	9.9	15.0	14.5	14.1	10.6	19.6
28	15.5	S	16.3	15.4	13.3	13.2	15.4	17.7	13.0	15.6	10.7	8.4	7.4	8.6	11.2	8.2	7.3	7.4	10.6	13.8	16.7	20.7	14.1	17.1	12.9	20.7
29	16.7	S	13.3	13.7	12.6	12.1	13.8	18.5	19.2	17.5	19.2	15.6	8.8	15.1	13.5	14.0	9.2	7.5	6.7	5.6	7.1	5.8	6.7	6.4	12.1	19.2
30	6.5	S	7.4	8.3	8.3	8.0	8.6	9.4	8.2	9.5	10.2	7.9	4.8	5.6	9.0	5.3	2.7	1.7	5.7	14.0	16.1	9.8	15.6	16.2	8.7	16.2
NO.	30	-	30	30	30	30	30	30	30	30	29	29	29	29	29	29	29	29	30	30	30	30	30	30	682	100%
MEAN	9.4	-	9.9	10.2	10.2	10.7	10.8	12.2	10.3	10.4	8.6	6.6	5.9	6.2	6.6	7.2	6.7	7.8	8.9	10.1	10.2	10.6	12.1	10.2		
MAX	16.7	-	16.3	19.1	19.8	18.6	21.5	23.1	24.8	27.0	19.2	16.5	12.7	17.1	22.2	14.0	21.0	17.0	20.8	20.4	21.1	20.7	31.1	20.8		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	682
Maximum 1-HR Average	31.1 PPB
Maximum 24-HR Average	13.4 PPB
Monthly Calibration	8
Standard Deviation	4.8
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	9.2 PPB

Lagoon NOx (ppb) – September 2022

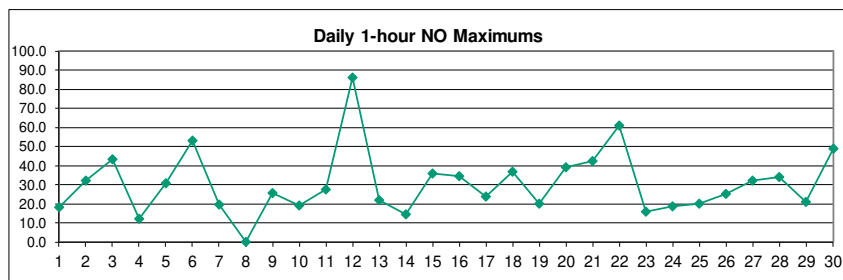
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	15.6	S	10.6	9.0	12.0	14.0	16.8	40.1	18.9	7.2	11.8	6.1	4.8	10.7	22.0	26.0	33.1	12.1	3.4	5.0	6.7	3.2	8.8	13.2	13.5	40.1
2	13.5	S	13.2	20.2	10.0	12.5	19.9	37.2	37.5	47.4	15.8	11.1	17.9	7.9	2.8	1.2	1.1	1.4	8.7	10.9	23.6	18.3	24.6	37.5	17.1	47.4
3	23.8	S	28.0	29.3	21.3	43.6	25.6	54.8	62.7	33.6	20.2	18.7	13.5	7.5	6.7	19.9	13.5	26.8	18.0	19.2	12.6	13.0	12.8	15.8	23.5	62.7
4	9.3	S	15.2	21.5	28.3	26.0	22.9	9.7	15.5	7.9	6.9	2.1	1.4	5.7	2.4	4.2	4.7	15.0	21.4	11.4	12.2	22.0	19.7	2.7	12.5	28.3
5	1.3	S	3.6	2.8	3.0	1.3	16.9	25.3	4.6	3.8	9.5	6.7	2.4	4.5	3.3	9.6	5.5	10.4	13.3	25.6	31.9	19.9	61.7	16.7	12.3	61.7
6	13.4	S	19.6	19.7	11.8	70.2	38.8	37.3	25.5	18.0	22.1	6.1	8.7	11.5	11.1	12.4	8.7	21.5	15.8	13.6	12.5	13.9	43.5	42.1	21.6	70.2
7	24.4	S	13.7	8.9	10.3	10.2	14.2	20.8	24.2	27.0	36.6	4.1	12.9	15.0	16.8	24.4	40.0	24.1	36.6	28.6	22.7	10.7	11.2	4.8	19.2	40.0
8	3.7	S	6.7	11.6	5.5	13.9	11.2	4.5	3.7	3.3	C	C	C	C	C	C	C	C	8.1	5.2	16.2	28.4	20.4	1.5	-	-
9	5.6	S	19.3	25.5	9.7	19.3	24.0	29.4	22.5	17.5	18.4	21.7	2.8	2.6	1.3	1.8	2.2	6.4	5.6	6.2	37.2	26.4	14.5	15.7	14.6	37.2
10	22.7	S	15.0	11.5	6.7	6.3	4.6	7.4	22.6	28.6	22.7	13.7	10.4	4.0	5.1	9.7	2.8	4.3	4.3	5.0	9.0	18.2	14.4	13.2	11.4	28.6
11	10.3	S	43.4	17.8	8.0	14.3	10.5	24.2	7.5	9.6	6.9	12.2	3.8	4.2	1.9	6.0	14.3	12.4	10.1	10.8	9.3	3.7	6.0	7.1	11.1	43.4
12	11.6	S	11.8	8.0	12.3	8.4	67.2	45.8	102.1	112.8	20.6	4.1	23.8	7.7	16.6	3.7	4.0	11.0	33.0	21.7	11.9	26.2	19.8	15.0	26.0	112.8
13	16.3	S	6.7	20.6	17.7	39.2	15.0	24.5	20.1	35.9	20.2	32.7	11.4	9.2	9.0	12.5	8.1	19.8	5.0	24.1	9.4	14.9	9.5	5.5	16.8	39.2
14	15.1	S	27.8	17.8	16.3	10.3	9.2	13.2	16.0	15.3	12.6	9.3	19.0	17.3	5.4	4.0	4.0	6.5	6.3	9.6	8.1	7.6	10.7	10.2	11.8	27.8
15	6.2	S	13.3	10.0	11.1	19.0	34.7	47.0	32.6	32.5	28.8	15.0	19.3	6.2	5.3	14.1	5.3	2.7	15.7	6.9	5.5	13.2	10.0	12.5	15.9	47.0
16	8.1	S	10.1	12.3	14.2	22.0	15.0	48.0	24.3	24.0	23.8	23.9	11.1	7.8	10.6	8.0	13.7	7.0	9.9	10.4	10.9	11.5	9.9	5.8	14.9	48.0
17	9.0	S	6.5	10.4	19.8	22.2	17.4	28.6	37.2	14.6	2.5	2.8	7.9	7.7	4.9	10.6	5.6	8.4	14.4	10.2	6.3	12.5	20.9	7.3	12.5	37.2
18	14.4	S	15.5	21.2	31.7	15.6	15.5	33.3	29.4	49.2	17.0	5.3	22.6	10.6	2.9	7.0	2.9	1.5	13.5	7.6	22.5	12.0	31.9	14.4	17.3	49.2
19	12.1	S	12.3	10.6	25.7	18.0	4.0	14.5	3.2	2.5	2.2	1.9	2.0	5.7	11.4	21.3	20.4	25.3	34.0	24.7	13.7	21.8	32.4	28.3	15.1	34.0
20	19.6	S	45.6	44.6	13.5	15.0	12.6	10.0	8.6	7.2	7.2	9.1	10.0	7.3	2.2	2.6	2.6	7.4	11.6	6.7	28.6	12.5	12.6	21.0	13.8	45.6
21	21.0	S	12.6	19.4	16.2	29.5	39.3	52.2	30.7	39.3	19.5	6.8	12.3	10.5	4.4	5.3	10.7	12.4	4.9	14.1	10.1	7.7	8.8	17.4	17.6	52.2
22	24.2	S	32.9	79.8	69.1	38.7	53.7	64.8	33.7	31.1	9.8	11.4	12.5	31.7	43.1	17.7	5.2	13.4	7.7	8.5	19.5	16.4	20.0	17.1	28.8	79.8
23	26.9	S	16.0	11.4	21.3	8.8	15.3	20.5	21.2	35.4	25.7	29.4	6.6	2.0	3.3	9.7	15.2	7.5	8.3	7.8	5.8	1.9	7.8	2.0	13.5	35.4
24	1.8	S	3.2	5.6	12.0	6.7	10.1	16.1	10.4	8.0	7.5	7.7	3.8	15.6	33.0	13.6	19.1	13.0	8.7	7.7	5.3	17.2	18.6	14.1	11.3	33.0
25	8.5	S	20.1	20.1	23.0	13.4	15.8	18.7	8.5	15.8	34.8	10.8	2.0	2.0	5.8	13.6	12.5	13.9	5.6	3.2	7.4	8.4	15.8	13.0	12.7	34.8
26	6.6	S	5.4	16.6	15.8	21.0	38.2	31.4	24.0	29.4	15.6	7.7	4.4	10.2	10.4	12.6	9.2	7.1	12.7	33.0	33.6	16.8	18.8	15.7	17.2	38.2
27	17.0	S	26.8	16.4	27.9	23.3	23.2	27.7	29.0	44.7	12.6	10.4	2.5	7.3	17.6	22.3	15.9	5.6	12.2	46.2	10.4	21.5	14.7	14.7	19.6	46.2
28	17.9	S	22.0	20.2	20.7	16.8	25.3	35.2	36.4	49.1	20.2	14.1	10.9	12.3	17.9	11.9	9.0	8.9	13.6	14.8	21.6	29.6	14.5	18.6	20.1	49.1
29	17.2	S	17.6	16.6	14.1	13.0	16.3	27.9	31.2	27.5	30.9	34.0	17.5	35.6	27.4	25.6	13.9	8.3	7.1	7.0	9.3	10.3	10.0	9.3	18.6	35.6
30	9.1	S	16.4	17.2	16.0	26.3	26.5	37.5	29.4	32.6	35.6	17.9	7.8	9.8	14.4	6.3	3.2	2.2	6.2	22.1	22.6	13.5	64.2	47.0	21.0	64.2
NO.	30	-	30	30	30	30	30	30	30	30	29	29	29	29	29	29	29	29	30	30	30	30	30	30	682	100%
MEAN	13.5	-	17.0	18.5	17.5	20.0	22.0	29.6	25.8	27.0	17.9	12.3	9.9	10.0	11.0	11.6	10.6	10.9	12.5	14.3	15.2	15.1	19.6	15.3		
MAX	26.9	-	45.6	79.8	69.1	70.2	67.2	64.8	102.1	112.8	36.6	34.0	23.8	35.6	43.1	26.0	40.0	26.8	36.6	46.2	37.2	29.6	64.2	47.0		



Number of Non-Zero Readings	682
Maximum 1-HR Average	112.8 PPB
Maximum 24-HR Average	28.8 PPB
Monthly Calibration	8
Standard Deviation	12.77
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	16.5 PPB

Lagoon NO (ppb) – September 2022

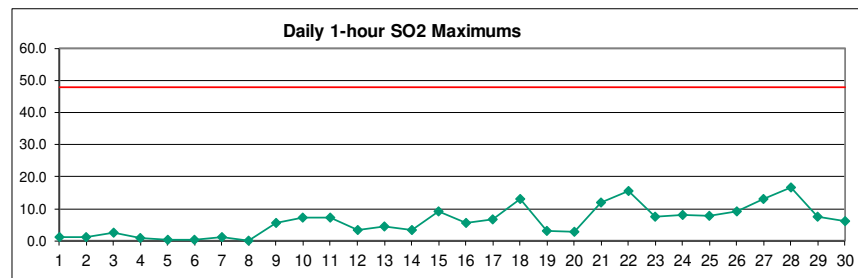
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.7	S	0.9	0.8	1.4	1.8	2.4	16.9	6.4	2.2	4.3	2.0	1.9	3.0	9.1	12.5	18.4	4.1	1.2	1.7	1.1	0.9	0.8	1.3	4.2	18.4
2	4.0	S	1.1	7.1	0.7	1.9	7.1	24.0	24.5	32.1	7.8	4.7	7.5	2.7	1.0	0.6	0.7	0.7	3.0	0.9	7.3	5.5	8.2	16.6	7.4	32.1
3	8.4	S	13.7	13.3	9.0	24.9	11.9	32.7	43.2	18.4	8.1	6.3	4.0	1.6	1.7	7.0	3.0	9.7	3.4	4.9	2.4	3.3	2.8	4.1	10.3	43.2
4	2.3	S	4.1	9.6	12.1	10.3	8.3	2.7	4.9	2.6	2.3	0.7	0.6	1.9	0.9	1.4	1.8	5.4	7.1	1.3	3.3	5.2	3.4	0.7	4.0	12.1
5	0.7	S	1.0	0.9	0.8	0.7	8.6	12.6	1.4	1.3	3.8	2.3	0.8	1.7	1.1	3.4	2.0	3.4	3.3	6.0	11.3	2.7	30.9	2.2	4.5	30.9
6	2.5	S	9.5	4.1	1.2	52.9	26.3	24.4	12.3	7.6	10.9	2.2	3.2	4.2	4.8	5.4	3.0	7.3	3.8	1.8	2.1	2.0	28.3	26.7	10.7	52.9
7	11.3	S	1.6	1.2	1.8	1.4	2.5	7.4	10.2	12.5	19.8	1.8	6.4	6.5	7.1	11.4	19.4	9.1	16.2	10.6	7.0	3.2	2.7	1.3	7.5	19.8
8	1.3	S	1.6	2.8	1.4	5.7	3.0	1.7	2.0	1.7	C	C	C	C	C	C	C	C	2.9	1.3	7.8	15.1	10.7	0.7	-	-
9	0.9	S	6.0	12.3	1.7	8.3	13.2	19.9	15.1	11.7	12.0	13.3	1.2	1.2	0.8	0.9	1.1	2.1	1.2	2.3	25.7	16.6	2.2	3.3	7.5	25.7
10	11.2	S	7.0	4.6	1.7	1.9	1.0	3.6	13.1	19.2	12.7	6.9	4.5	1.3	1.8	4.1	0.9	1.1	1.0	0.7	2.2	7.2	4.3	4.3	5.1	19.2
11	3.1	S	27.8	7.6	2.4	6.3	5.1	14.5	3.2	5.1	3.0	5.0	1.2	1.3	0.6	1.7	4.9	3.6	2.4	2.0	1.9	0.8	1.1	0.8	4.6	27.8
12	4.0	S	1.9	0.7	3.0	1.3	46.1	28.0	77.8	86.3	12.3	1.3	11.6	2.4	7.0	1.1	0.9	2.5	14.0	3.9	0.9	6.1	2.6	3.7	13.9	86.3
13	6.9	S	2.3	9.2	8.8	21.9	7.1	11.4	8.6	20.6	9.4	16.6	3.1	2.2	1.8	1.8	3.0	3.7	1.0	11.1	1.4	4.6	2.6	0.8	7.0	21.9
14	5.6	S	14.8	7.2	7.8	3.7	3.3	6.3	8.0	8.0	7.3	4.3	9.7	6.5	1.3	1.1	0.9	1.2	1.3	1.9	1.4	2.5	1.6	3.3	4.7	14.8
15	0.9	S	3.2	2.4	3.6	8.5	22.8	35.9	24.3	21.7	18.5	7.8	9.0	2.3	1.7	6.2	1.6	0.8	3.2	0.8	1.2	4.7	3.8	5.1	8.3	35.9
16	2.1	S	4.6	4.5	6.0	12.2	7.3	34.7	14.8	15.4	14.8	14.0	4.8	2.6	4.4	2.5	5.7	2.0	2.6	2.6	4.1	3.8	4.0	2.5	7.5	34.7
17	3.4	S	2.3	4.0	10.2	10.2	7.6	15.9	23.8	7.7	1.1	1.3	3.9	3.8	2.3	5.2	2.5	3.5	5.1	2.0	1.7	5.0	9.0	1.5	5.8	23.8
18	5.9	S	6.5	11.3	20.5	6.3	6.6	23.1	21.0	36.9	10.1	2.4	10.6	4.1	1.1	2.2	1.1	0.8	4.9	1.5	6.5	1.3	16.0	1.0	8.8	36.9
19	0.9	S	2.0	0.9	8.1	6.6	1.3	4.9	1.3	1.0	1.1	0.8	1.0	2.5	4.2	11.0	9.1	8.9	17.4	10.8	5.1	12.0	20.1	19.0	6.5	20.1
20	14.0	S	39.1	36.9	4.5	3.5	2.9	3.0	3.3	3.6	4.1	5.8	5.8	3.8	1.2	1.3	1.1	3.5	5.3	2.1	23.4	5.4	2.3	9.3	8.1	39.1
21	8.8	S	3.4	9.1	7.3	19.9	28.9	42.6	24.1	30.0	12.4	3.6	6.0	4.4	1.7	2.1	4.1	4.0	1.4	4.7	1.5	1.0	1.6	1.6	9.7	42.6
22	9.1	S	18.8	61.1	49.8	21.4	36.3	46.2	22.9	18.3	4.4	5.0	5.5	15.1	21.4	7.5	1.2	2.9	1.0	0.9	4.7	1.6	6.0	5.1	15.9	61.1
23	12.0	S	6.3	4.1	9.6	3.0	6.8	8.3	9.2	16.1	11.4	15.6	2.9	0.9	1.2	3.9	6.7	2.5	2.9	2.6	1.8	0.8	3.2	0.8	5.8	16.1
24	0.8	S	1.0	1.3	3.9	1.2	3.4	6.9	4.5	3.3	3.1	3.5	1.8	8.1	18.7	6.4	8.9	5.0	1.6	3.3	1.0	5.8	7.3	5.3	4.6	18.7
25	2.5	S	8.8	11.2	11.9	4.6	7.6	10.3	3.8	8.4	19.9	4.6	0.9	1.0	2.8	6.3	5.4	6.0	1.1	1.0	1.6	2.3	6.4	5.2	5.8	19.9
26	2.6	S	2.6	9.4	8.8	12.3	25.0	19.9	15.6	19.9	10.2	3.8	1.9	4.5	3.9	4.7	2.7	2.9	3.9	15.0	17.6	3.0	2.0	1.9	8.4	25.0
27	3.4	S	14.8	7.5	16.6	13.0	13.4	18.3	19.5	32.2	6.8	4.6	1.0	2.8	6.9	9.5	5.7	1.4	2.6	27.1	1.1	7.0	0.7	1.1	9.4	32.2
28	2.9	S	6.2	5.4	7.9	4.2	10.5	18.0	24.0	34.0	10.1	6.3	4.1	4.3	7.2	4.2	2.3	1.9	3.5	1.4	5.4	9.3	0.9	2.1	7.7	34.0
29	0.9	S	4.9	3.5	2.0	1.4	3.0	9.9	12.4	10.4	12.1	18.9	9.3	20.9	14.4	12.1	5.3	1.4	1.0	1.9	2.7	5.1	3.9	3.4	7.0	20.9
30	3.2	S	9.6	9.5	8.3	18.9	18.4	28.7	21.8	23.6	25.9	10.6	3.6	4.8	6.1	1.5	0.9	0.9	1.0	8.6	7.0	4.1	49.0	31.1	12.9	49.0
NO.	30	-	30	30	30	30	30	30	30	30	29	29	29	29	29	29	29	29	30	30	30	30	30	30	682	100%
MEAN	4.5	-	7.6	8.8	7.8	9.7	11.6	17.8	15.9	17.1	9.6	6.1	4.4	4.2	4.8	4.8	4.3	3.5	4.0	4.6	5.4	4.9	8.0	5.5		
MAX	14.0	-	39.1	61.1	49.8	52.9	46.1	46.2	77.8	86.3	25.9	18.9	11.6	20.9	21.4	12.5	19.4	9.7	17.4	27.1	25.7	16.6	49.0	31.1		



Number of Non-Zero Readings	682		
Maximum 1-HR Average	86.3 PPB		
Maximum 24-HR Average	15.9 PPB		
Monthly Calibration	8	Operational Time	720 HRS
Standard Deviation	9.414	Operational Uptime	100.0 %
		Monthly Average	7.6 PPB

Lagoon SO₂ (ppb) – September 2022

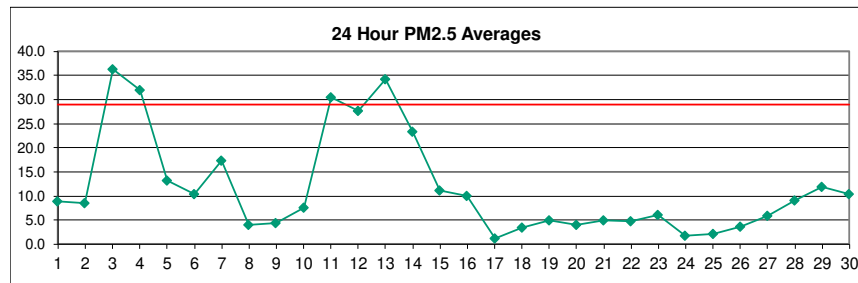
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.0	S	0.2	0.0	0.0	0.4	0.1	0.5	0.3	0.3	0.0	0.0	0.1	0.1	0.0	0.4	1.1	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.2	1.1
2	0.0	S	0.0	0.0	0.0	0.0	0.0	0.1	0.7	0.6	0.0	0.4	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	1.1	1.0	0.2	1.1
3	0.4	S	0.1	0.9	0.3	0.7	0.4	1.7	2.7	1.1	0.9	0.1	0.5	0.4	0.1	0.9	0.1	0.3	0.2	0.1	0.6	0.5	0.6	1.3	0.6	2.7
4	0.6	S	0.3	0.0	0.7	0.5	0.8	0.0	0.2	0.2	0.0	0.0	0.0	0.2	0.4	0.3	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.8
5	0.0	S	0.0	0.3	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.1	0.3
6	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	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.2	0.0	0.2
7	0.0	S	0.0	0.0	0.0	0.0	0.4	0.0	0.1	0.0	0.9	0.0	0.0	0.0	0.6	0.7	1.1	0.6	1.2	1.3	1.1	0.1	0.2	0.2	0.4	1.3
8	0.0	S	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	C	C	C	C	C	C	1.6	1.8	1.5	1.2	1.6	1.3	1.6	0.9	-	-
9	0.5	S	2.1	1.7	1.1	1.8	1.7	2.3	1.7	2.3	3.1	5.7	1.3	0.5	1.1	1.0	1.2	1.6	1.7	1.5	1.8	1.6	1.4	1.5	1.7	5.7
10	5.4	S	2.8	2.4	1.9	1.5	1.7	1.6	3.6	6.3	7.2	4.5	3.7	1.9	1.4	1.4	1.6	2.0	1.7	2.1	2.6	3.1	3.4	2.6	2.9	7.2
11	2.6	S	7.4	4.3	1.4	3.3	2.3	4.2	2.8	2.4	2.0	3.8	1.9	2.3	2.1	2.9	3.6	3.7	2.6	3.9	3.4	2.1	2.4	1.6	3.0	7.4
12	2.8	S	3.0	2.3	1.9	1.9	2.7	2.1	3.2	3.4	2.3	1.7	2.4	2.6	1.9	2.1	1.7	1.4	2.2	1.8	1.9	1.9	2.4	2.9	2.3	3.4
13	4.2	S	2.1	3.5	3.2	3.6	2.3	3.1	2.8	4.6	3.9	4.4	2.6	1.8	2.7	3.5	3.1	3.7	2.1	2.0	2.1	2.5	2.3	2.3	3.0	4.6
14	2.0	S	2.6	2.4	2.4	1.9	2.4	2.3	2.3	2.5	2.1	2.7	3.3	2.7	2.6	2.5	2.1	1.7	2.3	2.0	2.4	1.9	2.1	1.7	2.3	3.3
15	1.9	S	1.6	1.7	1.9	2.3	3.1	6.2	5.3	9.1	9.1	5.5	3.9	2.6	1.6	4.3	2.2	1.5	2.4	2.1	2.2	1.6	2.6	2.9	3.4	9.1
16	2.5	S	3.4	3.3	3.0	3.4	2.7	5.7	4.4	3.4	4.4	5.6	3.4	2.6	3.7	3.5	3.8	3.1	3.2	2.4	2.4	3.3	2.7	1.9	3.4	5.7
17	2.3	S	2.3	3.2	4.5	5.5	5.7	6.4	6.8	3.6	1.9	3.1	3.3	2.1	3.8	3.1	2.2	1.9	2.0	2.0	2.4	4.6	1.9	1.9	3.3	6.8
18	1.9	S	2.9	3.6	6.6	2.8	3.0	6.9	7.6	13.0	6.4	2.5	6.2	3.1	2.1	2.7	2.1	1.7	1.7	2.6	3.1	2.5	2.4	2.4	3.9	13.0
19	2.2	S	1.7	2.0	2.1	3.2	2.1	2.3	1.7	1.9	1.7	1.9	1.2	1.8	1.6	1.6	1.9	2.6	2.2	1.8	1.9	1.5	2.1	1.9	2.0	3.2
20	1.9	S	2.5	2.6	1.5	2.3	1.9	1.5	1.6	2.2	1.2	2.1	3.0	2.1	1.9	1.2	1.4	1.8	1.8	1.0	1.7	1.4	1.4	2.0	1.8	3.0
21	2.1	S	1.4	1.7	2.0	3.2	4.8	8.6	5.5	11.9	5.0	2.8	7.1	5.5	2.0	2.1	1.8	2.0	1.8	1.8	1.8	1.9	1.4	2.0	3.5	11.9
22	2.6	S	7.2	15.7	14.4	6.7	9.7	13.5	6.5	4.1	2.2	2.3	2.9	3.5	3.4	2.9	3.7	3.4	2.8	2.9	2.7	2.3	5.2	5.2	5.5	15.7
23	4.7	S	5.1	4.0	6.1	3.9	4.1	4.5	4.6	7.5	2.7	2.7	2.0	2.3	2.2	3.9	7.6	2.7	2.4	2.1	2.3	2.0	1.9	1.5	3.6	7.6
24	2.0	S	1.8	1.5	3.2	2.5	1.2	3.4	2.3	1.8	1.5	1.2	1.5	5.8	8.0	5.2	7.2	1.3	1.3	1.3	1.2	3.3	4.4	2.9	2.9	8.0
25	2.3	S	4.8	6.3	7.6	4.4	3.6	4.2	2.8	3.2	7.9	2.3	1.1	1.3	1.6	4.5	4.0	2.9	1.8	1.6	2.7	2.9	5.4	5.3	3.7	7.9
26	3.1	S	2.2	2.7	3.4	5.6	7.3	6.5	6.0	9.2	4.4	2.1	1.6	3.5	2.9	2.8	2.5	2.5	2.4	3.0	2.7	2.1	1.8	2.1	3.6	9.2
27	3.0	S	7.2	3.8	4.1	5.4	6.3	6.7	8.2	13.1	3.9	3.6	1.8	3.3	6.2	9.5	3.6	2.0	2.1	2.2	2.1	1.7	1.5	1.5	4.5	13.1
28	2.4	S	3.0	4.0	1.7	3.0	3.7	6.1	7.9	16.6	5.1	3.8	1.8	2.6	6.0	3.0	2.6	2.2	2.7	2.5	2.6	2.3	2.5	1.9	3.9	16.6
29	2.1	S	3.1	3.6	1.9	1.9	1.4	2.3	2.9	3.4	2.3	2.1	2.0	5.0	7.6	6.5	2.8	2.0	2.1	2.1	1.9	1.7	1.7	2.2	2.8	7.6
30	2.2	S	2.4	2.2	1.9	3.4	3.3	4.8	3.5	4.0	6.1	3.7	2.5	2.2	3.4	1.7	1.7	2.2	2.2	1.7	2.2	2.0	2.4	2.8	2.8	6.1
NO.	30	-	30	30	30	30	30	30	30	30	29	29	29	29	29	29	30	30	30	30	30	30	30	30	684	100%
MEAN	1.9	-	2.4	2.7	2.6	2.5	2.6	3.6	3.3	4.4	3.0	2.4	2.1	2.2	2.4	2.6	2.3	1.8	1.7	1.6	1.8	1.7	2.0	1.9		
MAX	5.4	-	7.4	15.7	14.4	6.7	9.7	13.5	8.2	16.6	9.1	5.7	7.1	5.8	8.0	9.5	7.6	3.7	3.2	3.9	3.4	3.3	5.4	5.3		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	602
Maximum 1-HR Average	16.6 PPB
Maximum 24-HR Average	5.5 PPB
Monthly Calibration	6
Standard Deviation	2.212
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	2.4 PPB

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

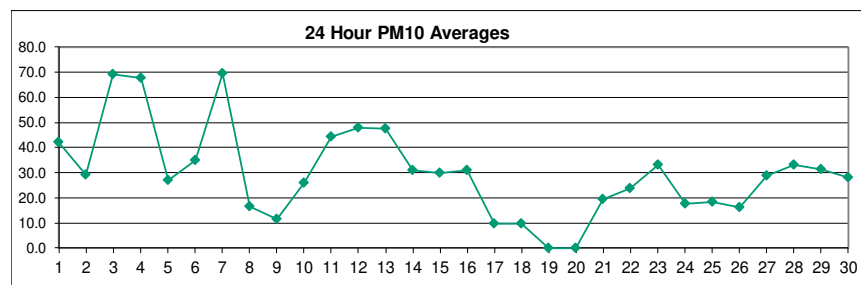
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	5.1	4.8	7.0	9.8	9.7	7.2	6.7	10.0	9.1	11.2	10.8	10.1	8.7	9.1	10.4	8.3	7.4	11.3	9.7	8.4	10.4	9.1	10.0	7.7	8.8	11.3
2	9.4	9.3	7.2	6.9	13.9	9.9	12.5	9.2	12.3	13.9	10.0	8.1	9.7	8.3	7.5	4.4	4.4	4.3	2.2	2.4	5.7	10.4	8.3	15.2	8.6	15.2
3	15.7	12.1	11.6	20.9	21.4	24.1	26.8	29.7	34.3	35.9	35.2	42.0	48.1	46.0	45.9	51.1	31.2	28.0	33.9	36.8	54.3	54.9	68.0	61.3	36.2	68.0
4	57.0	57.2	59.4	55.9	52.0	48.9	48.7	44.9	42.6	37.3	35.3	28.4	28.1	21.1	16.7	11.6	13.0	13.4	13.6	15.1	14.5	15.3	18.7	17.6	31.9	59.4
5	9.5	11.7	14.0	10.5	9.7	8.8	5.1	20.8	41.4	32.3	23.2	18.5	13.2	9.0	7.9	5.8	5.6	8.7	8.4	9.1	10.5	10.0	7.6	15.7	13.2	41.4
6	11.8	8.3	6.5	6.2	9.3	6.2	13.1	15.7	12.4	7.1	3.8	6.3	7.3	7.6	6.5	5.6	8.7	9.2	11.9	18.6	15.0	19.0	16.3	18.3	10.4	19.0
7	17.2	14.9	23.7	21.1	18.4	18.8	19.7	16.7	19.2	20.9	29.1	27.4	21.2	32.8	26.6	15.8	14.0	12.5	10.4	7.6	6.9	6.9	7.0	8.3	17.4	32.8
8	6.8	4.4	4.4	4.5	6.9	5.7	3.1	6.5	4.6	1.8	0.3	0.0	0.0	0.8	2.0	4.3	2.8	4.4	4.3	3.3	4.1	6.5	6.0	8.6	4.0	8.6
9	5.4	4.1	4.8	5.1	5.7	3.6	3.1	5.1	4.8	6.6	8.5	4.4	3.8	6.1	3.4	0.0	0.0	1.4	2.9	2.7	4.1	6.5	5.9	7.6	4.4	8.5
10	7.1	10.1	8.1	1.8	0.0	4.1	5.5	5.8	4.1	5.0	10.7	15.1	13.7	13.7	12.8	9.0	8.3	8.7	8.2	6.8	5.1	3.9	5.6	7.4	7.5	15.1
11	4.3	2.7	4.9	7.8	10.9	10.8	10.4	8.7	8.9	9.3	7.5	6.5	15.7	20.0	23.7	32.2	67.3	69.5	65.7	72.6	66.2	67.8	65.1	73.8	30.5	73.8
12	67.9	68.0	69.5	63.6	47.2	25.4	30.7	32.4	31.8	25.9	24.3	11.9	11.2	12.2	10.6	12.2	11.6	12.3	13.7	13.5	16.8	14.2	16.1	20.7	27.7	69.5
13	23.7	22.0	27.6	33.8	39.7	35.8	39.5	38.7	42.4	41.0	40.3	40.2	37.7	36.9	38.7	36.5	39.2	24.0	28.8	29.4	35.5	33.5	27.2	28.2	34.2	42.4
14	30.0	25.8	30.3	31.6	34.2	34.4	31.0	30.9	30.6	30.9	28.8	27.8	22.0	29.4	20.0	15.3	10.6	12.3	12.3	13.8	16.3	17.5	13.6	10.0	23.3	34.4
15	7.7	9.2	12.9	11.2	10.7	15.2	14.7	12.2	17.4	11.8	9.2	14.6	10.3	13.9	9.8	10.1	8.6	6.1	5.4	11.1	9.5	11.0	14.3	10.0	11.1	17.4
16	7.6	7.7	8.9	8.8	11.9	11.2	11.4	8.6	14.8	13.6	11.7	14.6	17.6	8.8	11.5	9.2	12.7	12.7	6.8	5.5	5.4	3.4	6.5	11.0	10.1	17.6
17	6.4	3.2	0.8	0.6	2.2	1.5	1.5	0.8	0.5	1.5	1.0	0.0	0.0	0.0	0.0	0.8	1.8	0.7	0.0	0.0	1.5	0.8	1.6	2.2	1.2	6.4
18	2.0	4.8	5.0	3.2	0.6	3.3	3.6	2.1	6.2	5.4	3.3	2.9	1.5	0.9	2.6	1.9	0.8	0.2	2.7	5.1	4.1	5.6	8.3	7.3	3.5	8.3
19	8.1	4.8	4.8	5.1	4.5	7.3	7.5	5.0	2.2	2.2	Y	Y	Y	Y	Y	Y	2.0	4.1	5.3	9.0	7.1	3.6	2.7	4.7	5.0	9.0
20	3.6	3.0	3.9	4.4	5.1	4.1	6.6	7.6	7.2	5.1	C	C	C	C	C	0.6	0.4	1.2	0.8	1.9	4.4	5.5	4.5	6.6	4.0	7.6
21	19.5	X	4.1	5.2	6.0	4.8	5.2	14.3	18.3	7.9	5.4	3.2	1.1	0.7	0.0	0.0	2.5	0.2	4.0	3.9	1.6	2.6	1.8	0.5	4.9	19.5
22	2.1	5.8	5.1	5.1	5.1	4.4	5.2	7.2	5.8	6.1	6.4	3.7	1.2	1.3	5.4	4.4	1.9	3.4	6.5	6.0	3.1	6.5	5.6	8.3	4.8	8.3
23	6.8	3.6	1.9	3.1	5.4	3.3	2.4	5.8	5.4	4.4	5.5	13.3	11.1	9.6	6.9	6.0	9.1	10.6	6.2	7.6	7.1	4.0	2.9	2.2	6.0	13.3
24	0.4	0.1	0.8	1.2	2.9	2.2	1.9	2.6	2.6	2.9	1.8	1.2	1.8	0.0	0.0	3.0	2.9	1.1	0.9	2.2	2.3	4.7	3.6	0.8	1.8	4.7
25	0.8	1.9	2.0	2.1	3.0	4.4	4.3	2.5	1.3	0.1	0.7	5.8	4.2	0.4	0.0	1.0	5.1	5.6	1.8	0.4	0.4	0.0	1.2	1.2	2.1	5.8
26	3.3	2.5	1.2	2.6	2.1	2.7	4.4	4.7	4.0	3.0	3.3	2.5	0.0	0.0	2.9	2.5	0.7	5.4	5.0	3.5	6.3	9.0	7.9	6.2	3.6	9.0
27	5.5	11.1	7.4	3.2	0.9	2.2	1.6	3.7	4.7	4.2	8.2	5.8	4.3	2.7	5.3	9.7	7.3	8.7	7.9	6.6	7.6	6.9	6.2	7.7	5.8	11.1
28	10.2	10.8	9.8	10.8	9.1	11.1	8.3	6.8	10.4	9.1	9.5	11.5	9.0	7.0	10.2	10.0	7.1	4.0	4.0	5.5	13.6	10.7	8.8	10.0	9.1	13.6
29	8.0	8.7	9.1	9.9	12.3	11.4	8.6	8.0	17.0	17.1	21.0	15.0	15.8	14.9	14.0	12.4	14.6	10.9	11.2	10.0	7.7	9.4	9.8	9.7	11.9	21.0
30	8.6	6.2	6.4	9.5	10.1	9.4	9.9	11.7	15.0	10.4	8.7	15.8	14.3	10.1	9.0	9.4	7.8	4.9	7.7	9.8	10.9	12.2	11.9	18.2	10.3	18.2
NO.	30	29	30	30	30	30	30	30	30	30	28	28	28	28	28	29	30	30	30	30	30	30	30	30	708	99%
MEAN	12.4	11.7	12.1	12.2	12.4	11.4	11.8	12.6	14.4	12.8	13.0	12.7	11.9	11.6	11.1	10.1	10.3	10.0	10.1	10.9	11.9	12.4	12.4	13.6		
MAX	67.9	68.0	69.5	63.6	52.0	48.9	48.7	44.9	42.6	41.0	40.3	42.0	48.1	46.0	45.9	51.1	67.3	69.5	65.7	72.6	66.2	67.8	68.0	73.8		



Number of 24HR Exceedences	4
Number of Non-Zero Readings	690
Maximum 1-HR Average	73.8 UG/M3
Maximum 24-HR Average	36.2 UG/M3
Monthly Calibration	5
Standard Deviation	13.28
Operational Time	713 HRS
Operational Uptime	99.0 %
Monthly Average	11.9 UG/M3

Lagoon PM₁₀ (µg/m³) – September 2022

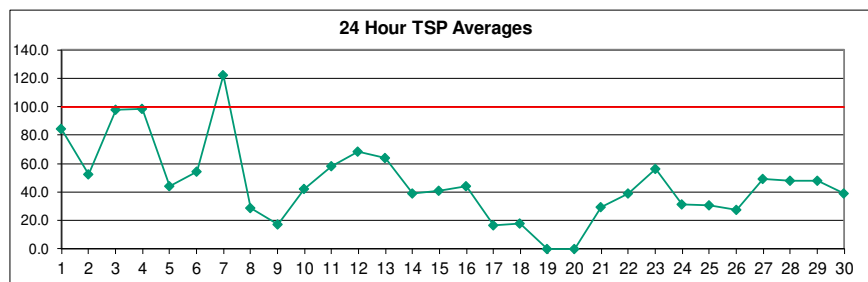
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	14.2	15.2	37.4	27.3	19.0	20.7	15.9	24.2	37.1	62.5	54.0	80.2	43.1	56.5	77.3	52.1	67.5	76.9	71.3	33.1	31.9	33.7	31.7	29.4	42.2	80.2
2	21.7	23.0	23.2	27.9	13.3	22.5	14.8	29.4	50.6	60.5	64.2	34.8	28.5	31.7	44.1	18.4	7.2	3.5	5.5	10.4	18.1	31.8	61.1	51.5	29.1	64.2
3	52.2	25.7	13.2	20.7	37.3	56.0	39.8	40.3	78.9	100.4	75.0	87.6	91.4	60.2	63.2	154.7	102.4	48.9	52.4	47.8	114.5	80.2	102.6	111.0	69.0	154.7
4	112.0	125.8	92.9	95.4	93.4	66.3	68.8	95.6	97.4	66.4	81.6	66.1	132.9	64.7	43.9	27.1	28.5	25.9	30.0	35.5	30.8	66.3	24.4	52.9	67.7	132.9
5	21.9	15.0	18.5	13.1	18.6	9.4	8.8	40.8	59.4	40.1	28.7	22.5	27.0	13.2	36.0	24.9	22.2	21.0	23.7	27.6	65.6	21.7	25.6	38.8	26.8	65.6
6	30.6	20.0	14.5	20.8	31.1	18.1	45.4	73.0	48.0	27.3	32.9	44.1	47.0	54.0	36.9	30.4	30.0	35.0	47.1	27.3	32.6	36.3	31.6	27.6	35.1	73.0
7	26.4	27.8	31.4	37.9	22.8	32.8	25.9	32.2	41.4	75.1	104.2	131.2	91.9	214.2	73.1	74.4	131.6	120.1	55.6	101.2	64.2	63.9	54.7	37.7	69.6	214.2
8	19.0	20.9	20.2	22.2	20.1	15.3	12.4	44.9	5.6	10.9	14.5	8.0	7.3	19.4	15.7	6.9	19.5	3.9	19.9	12.1	11.3	17.1	22.4	27.0	16.5	44.9
9	11.9	7.5	10.2	12.4	15.4	11.5	14.3	16.1	11.3	23.6	21.3	13.0	14.9	6.6	3.3	2.8	5.5	7.3	4.7	4.1	6.0	18.0	13.9	22.1	11.6	23.6
10	47.3	30.9	20.5	12.5	5.8	13.3	9.0	14.6	8.8	11.5	46.4	85.7	79.8	63.8	37.2	22.7	15.4	12.9	15.4	12.7	10.4	18.5	11.5	13.3	25.8	85.7
11	10.1	11.3	9.6	13.5	13.6	16.1	12.4	17.6	18.8	17.6	20.3	22.5	30.2	27.0	41.1	39.6	107.2	98.6	108.5	102.9	89.2	85.8	70.1	79.5	44.3	108.5
12	73.0	72.4	73.4	70.4	55.7	32.4	34.1	56.2	87.5	104.3	73.0	26.1	20.6	42.5	25.5	34.8	26.2	22.9	37.4	41.9	39.6	33.8	33.8	34.1	48.0	104.3
13	25.1	25.8	28.4	30.7	53.7	44.2	49.5	37.5	44.7	60.8	72.3	56.5	72.3	57.0	74.0	63.7	64.3	49.1	58.5	36.6	40.6	38.3	33.5	26.8	47.7	74.0
14	22.8	35.4	42.0	42.5	38.3	46.1	33.2	33.0	31.1	45.8	41.5	33.4	27.7	56.1	37.5	16.9	17.5	17.7	22.2	19.7	23.8	28.6	19.2	12.3	31.0	56.1
15	14.4	21.1	25.0	22.2	19.0	23.1	41.2	29.2	44.6	30.7	37.3	40.6	27.3	48.3	25.6	39.1	37.5	26.1	8.5	34.5	35.4	25.8	42.0	14.0	29.7	48.3
16	11.6	14.7	10.9	8.3	13.1	17.5	16.2	18.2	33.7	46.9	49.9	45.9	43.8	30.8	38.2	43.1	56.7	93.1	12.4	18.3	18.2	19.0	22.6	57.2	30.8	93.1
17	5.6	9.9	4.8	6.5	2.8	6.2	10.7	8.7	14.1	13.2	35.6	0.6	1.7	10.0	8.7	9.6	13.4	13.3	11.8	19.2	11.3	7.3	4.7	3.5	9.7	35.6
18	7.2	4.8	5.2	1.0	8.5	3.2	14.3	3.3	15.9	10.6	21.1	23.7	9.5	9.9	6.1	6.6	3.3	3.3	6.8	8.8	10.4	18.6	12.3	16.2	9.6	23.7
19	16.9	18.7	15.4	12.1	9.4	8.8	22.0	1.1	9.8	4.6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	-	-
20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	C	C	C	C	C	3.3	1.4	2.6	6.8	10.1	17.0	18.8	14.1	12.3	-	-
21	59.0	X	26.7	18.2	3.4	18.4	22.9	21.9	41.8	37.5	28.4	14.6	9.0	13.4	11.4	10.9	13.7	18.8	18.1	16.9	17.0	6.1	6.9	9.8	19.3	59.0
22	18.8	16.0	19.3	13.6	15.7	19.0	19.5	20.4	41.3	56.1	51.0	10.2	13.3	9.9	35.5	40.1	28.0	17.9	29.5	10.2	12.7	26.9	24.2	22.9	23.8	56.1
23	6.8	10.0	8.9	13.1	5.1	15.4	13.8	20.4	24.2	37.3	43.0	105.5	90.7	32.3	29.2	34.1	70.8	91.5	48.1	34.8	40.7	13.7	3.4	5.1	33.2	105.5
24	0.5	0.0	5.1	0.0	13.9	7.6	14.0	27.3	19.9	26.8	21.6	22.2	5.6	11.7	33.5	55.9	49.0	52.2	10.1	13.9	8.3	12.5	6.1	8.7	17.8	55.9
25	8.8	9.7	4.6	3.6	44.6	13.8	6.2	10.5	18.7	13.9	9.9	50.6	32.6	6.0	6.0	7.5	56.6	78.5	24.7	3.3	4.9	10.1	8.6	6.6	18.3	78.5
26	5.4	5.3	3.3	2.1	6.3	10.8	7.7	14.0	52.6	35.0	31.1	15.4	13.1	5.0	11.8	18.9	21.8	25.4	6.1	9.8	32.2	27.8	14.2	15.0	16.3	52.6
27	18.3	20.5	25.2	14.0	10.9	14.6	23.2	11.6	15.7	36.4	61.5	29.7	45.4	16.5	43.1	82.1	58.1	54.1	21.2	25.0	21.9	13.3	10.3	13.8	28.6	82.1
28	21.4	32.3	39.9	38.1	42.5	39.0	27.9	32.9	58.9	45.2	43.4	72.2	51.0	27.1	29.5	26.0	19.1	9.9	19.8	25.1	26.2	21.6	21.1	23.8	33.1	72.2
29	23.3	15.4	27.6	27.3	32.9	27.8	14.6	31.7	87.9	73.2	121.9	54.0	19.6	20.9	33.4	25.2	25.1	12.1	13.0	16.6	8.8	10.3	12.9	13.9	31.2	121.9
30	13.4	11.2	21.0	22.4	37.7	28.4	29.6	27.3	47.6	37.1	36.5	52.7	48.8	15.3	25.2	29.2	17.3	12.5	20.1	16.3	34.0	28.2	22.9	35.5	27.9	52.7
NO.	29	28	29	29	29	29	29	29	29	29	28	28	28	28	28	29	29	29	29	29	29	29	29	29	690	97%
MEAN	24.8	23.1	23.4	22.4	24.3	22.7	23.0	28.7	39.6	41.8	47.2	44.6	40.2	36.6	33.8	34.5	38.5	36.4	27.9	26.7	30.3	28.8	26.3	28.4		
MAX	112.0	125.8	92.9	95.4	93.4	66.3	68.8	95.6	97.4	104.3	121.9	131.2	132.9	214.2	77.3	154.7	131.6	120.1	108.5	102.9	114.5	85.8	102.6	111.0		



Number of Non-Zero Readings	688		
Maximum 1-HR Average	214.2 UG/M3		
Maximum 24-HR Average	69.6 UG/M3		
Monthly Calibration	5	Operational Time	695 HRS
Standard Deviation	26.25	Operational Uptime	96.5 %
		Monthly Average	31.4 UG/M3

Lagoon TSP (µg/m³) – September 2022

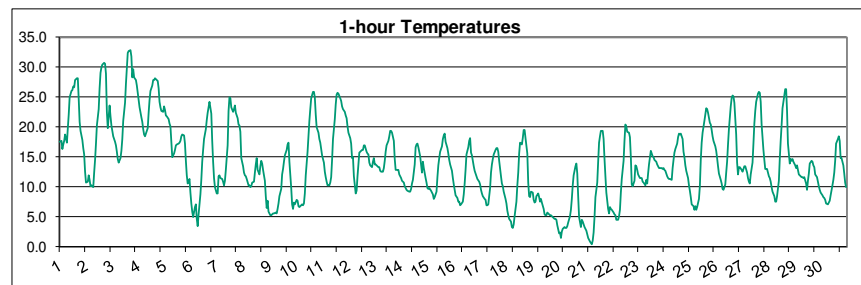
Day	HOURLY																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	29.3	34.4	85.2	68.2	45.8	53.2	34.0	48.5	78.6	129.3	114.0	151.7	84.3	111.1	147.4	106.4	133.9	157.2	142.5	51.7	59.3	53.9	50.2	54.9	84.4	157.2
2	43.1	43.9	34.0	46.5	31.8	25.7	39.3	49.8	76.4	110.6	106.2	66.5	38.5	60.5	78.1	30.2	25.9	14.1	16.4	23.3	45.5	43.1	103.5	96.6	52.1	110.6
3	87.2	50.3	28.4	40.7	49.3	64.5	51.3	52.5	108.6	148.5	100.6	120.7	118.8	80.4	90.0	261.9	124.0	54.9	72.6	59.7	175.7	118.8	144.3	152.0	98.1	261.9
4	148.4	182.2	116.7	126.1	129.8	92.5	89.0	155.3	160.4	100.4	114.1	101.8	202.8	101.3	73.3	40.7	49.2	34.0	48.4	50.4	36.2	94.5	44.3	75.7	98.6	202.8
5	35.7	26.1	19.8	26.3	23.0	16.5	12.3	64.5	79.0	51.3	49.4	37.7	38.3	26.9	66.2	57.4	39.1	44.2	47.6	60.8	115.2	33.5	37.0	55.3	44.3	115.2
6	52.2	40.7	26.6	29.7	39.4	21.0	56.0	124.1	81.4	42.2	53.8	75.0	48.0	90.0	59.1	48.9	55.9	59.3	79.8	40.0	59.2	49.5	40.2	38.7	54.6	124.1
7	34.9	38.8	38.1	50.1	24.1	33.6	37.3	33.0	58.0	114.6	170.8	229.7	186.7	442.2	142.0	107.3	240.7	237.9	122.6	197.1	121.4	112.8	95.7	67.2	122.4	442.2
8	21.2	27.8	28.0	31.6	35.5	20.7	18.4	78.6	11.9	24.9	20.5	11.8	25.1	54.6	34.3	22.7	25.2	27.2	43.1	15.1	9.5	31.2	36.4	40.1	29.0	78.6
9	5.7	5.8	7.6	19.3	12.7	12.9	22.6	26.8	28.0	30.6	30.0	17.3	28.6	15.1	9.6	4.2	1.6	3.8	20.7	16.7	14.3	21.0	22.7	31.9	17.1	31.9
10	59.1	46.3	27.2	13.8	8.7	12.8	16.9	20.1	26.8	36.0	84.7	148.8	135.7	105.3	44.8	22.2	18.0	16.0	29.4	33.1	28.1	32.8	21.0	22.0	42.1	148.8
11	15.6	19.9	13.4	29.5	30.1	19.9	27.0	27.9	29.0	24.8	18.4	23.2	42.3	27.8	57.9	56.2	160.2	125.0	135.4	131.2	121.1	105.2	75.3	86.0	58.4	160.2
12	87.0	83.0	80.4	81.5	68.3	47.0	44.2	72.8	150.6	172.1	121.3	49.2	33.7	71.0	49.3	64.8	28.1	34.6	61.8	50.1	55.0	45.7	43.4	50.6	68.6	172.1
13	34.9	35.3	43.9	34.5	57.8	48.0	61.6	46.3	56.8	78.5	98.7	78.8	104.0	79.6	94.1	92.0	103.9	76.9	90.7	45.5	39.3	48.5	46.6	34.2	63.8	104.0
14	34.2	51.0	44.4	45.9	48.4	44.3	41.7	38.7	34.8	47.1	43.8	28.3	39.6	82.9	47.7	29.0	25.0	23.9	29.3	30.8	35.4	48.7	22.3	19.9	39.0	82.9
15	26.3	22.9	33.3	31.7	26.6	31.3	45.5	37.9	45.5	39.4	51.7	60.0	40.6	76.5	25.4	62.7	47.3	41.6	11.8	52.6	49.6	42.7	62.8	11.6	40.7	76.5
16	18.0	15.3	14.0	13.0	20.6	13.0	21.1	25.9	43.7	58.8	70.0	55.8	63.1	49.1	60.5	60.3	80.3	162.7	30.5	28.8	19.5	19.8	28.9	80.0	43.9	162.7
17	11.7	20.1	1.1	11.2	10.0	12.8	15.6	17.9	13.4	30.2	49.4	7.2	9.9	10.1	15.3	14.3	20.6	12.7	12.6	42.4	28.7	16.4	7.2	10.0	16.7	49.4
18	19.4	15.3	12.2	6.0	11.0	6.0	11.0	6.3	19.0	8.0	26.6	28.8	14.4	22.0	15.9	25.9	14.0	14.0	13.0	22.5	26.7	31.7	25.1	26.3	17.5	31.7
19	24.4	39.4	62.8	X	X	X	X	X	X	X	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	-	-
20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	C	C	C	C	C	7.1	7.1	4.4	12.6	25.1	25.1	23.7	19.6	15.5	-	-
21	92.7	X	35.4	17.9	12.8	17.2	26.9	37.2	46.4	57.5	41.0	28.4	10.5	24.5	13.0	20.8	19.3	42.6	31.2	15.2	39.5	21.9	10.0	19.7	29.6	92.7
22	22.4	26.7	30.7	19.4	17.0	22.4	24.1	33.1	57.2	64.6	78.8	14.1	15.6	23.3	76.4	77.9	53.4	40.3	68.5	21.2	27.1	40.4	41.4	35.4	38.8	78.8
23	19.2	11.6	18.4	22.3	21.6	34.3	21.3	29.9	44.7	52.4	80.0	190.5	116.4	59.3	52.9	59.4	118.5	163.4	84.2	57.2	62.9	12.5	8.5	8.4	56.2	190.5
24	7.0	4.5	7.1	6.3	19.1	9.1	23.3	43.7	28.5	41.1	30.1	48.4	14.0	16.2	66.9	105.6	85.9	96.4	23.5	17.9	12.9	17.7	7.4	13.1	31.1	105.6
25	22.0	12.6	10.3	18.5	54.1	21.6	8.6	10.8	29.7	10.1	17.1	83.8	65.2	5.7	6.2	20.5	103.9	138.4	46.6	4.4	6.1	14.1	16.5	9.6	30.7	138.4
26	7.8	23.3	14.9	3.2	8.6	10.0	13.3	29.8	72.6	54.3	56.9	25.9	13.8	10.2	18.5	27.7	41.0	54.7	18.4	24.8	48.4	43.4	20.9	19.7	27.6	72.6
27	24.5	42.9	38.5	28.8	17.9	13.6	37.0	25.0	24.8	51.8	90.4	39.2	73.9	22.8	69.1	154.1	105.0	96.8	32.7	50.5	60.7	23.9	27.6	23.0	48.9	154.1
28	35.7	53.1	62.2	58.1	55.1	46.6	32.6	46.4	59.4	54.1	55.4	82.7	71.7	32.5	43.0	41.6	33.1	26.9	38.1	57.2	36.5	45.6	40.0	35.0	47.6	82.7
29	40.0	35.2	49.3	36.9	52.9	41.6	28.4	44.6	152.2	123.7	162.3	76.7	26.3	23.1	41.3	33.5	34.7	21.1	25.3	28.8	19.6	21.0	23.0	8.9	47.9	162.3
30	16.5	10.5	24.4	40.5	45.1	29.9	40.5	46.0	49.9	48.5	47.4	82.8	74.1	25.3	31.4	47.8	30.7	31.7	26.8	34.9	38.7	34.8	36.6	46.7	39.2	82.8
NO.	29	28	29	28	28	28	28	28	28	28	28	28	28	28	28	29	29	29	29	29	29	29	29	29	683	96%
MEAN	37.1	36.4	34.8	34.2	34.9	29.4	32.2	45.5	59.5	64.5	70.8	70.2	62.0	62.5	54.6	58.7	62.9	64.0	48.8	44.4	48.9	43.1	39.9	41.0		
MAX	148.4	182.2	116.7	126.1	129.8	92.5	89.0	155.3	160.4	172.1	170.8	229.7	202.8	442.2	147.4	261.9	240.7	237.9	142.5	197.1	175.7	118.8	144.3	152.0		



Number of 24HR Exceedences	1
Number of Non-Zero Readings	683
Maximum 1-HR Average	442.2 UG/M3
Maximum 24-HR Average	122.4 UG/M3
Monthly Calibration	5
Standard Deviation	42.6
Operational Time	688 HRS
Operational Uptime	95.6 %
Monthly Average	49.2 UG/M3

Lagoon Temperature (°C) – September 2022

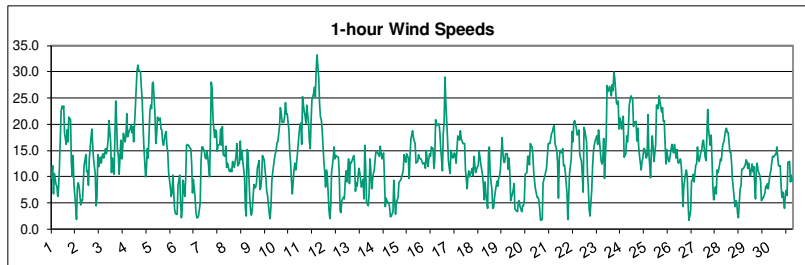
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	17.6	17.7	16.4	17.0	17.7	18.7	17.4	19.8	22.1	25.0	26.0	26.2	26.8	26.6	27.8	28.2	28.2	24.6	20.8	19.3	17.8	16.4	15.4	12.5	21.1	28.2
2	10.7	10.9	12.0	11.2	10.2	10.2	10.0	12.3	14.6	17.2	20.3	23.0	26.4	29.1	29.9	30.4	30.6	30.5	29.0	22.5	19.8	23.6	21.8	20.3	19.9	30.6
3	19.4	18.4	17.5	16.9	15.9	14.6	14.1	14.8	16.0	18.0	21.0	24.0	27.3	29.8	32.3	32.6	32.8	31.7	28.3	29.7	28.3	27.8	26.9	25.7	23.5	32.8
4	24.6	23.2	21.6	20.8	19.7	18.7	18.5	19.3	19.9	22.4	24.5	25.9	26.9	27.8	27.8	28.1	28.0	27.6	26.4	24.2	23.3	22.8	22.5	23.4	23.7	28.1
5	22.8	21.9	21.7	21.3	20.5	20.1	17.6	14.9	15.6	16.2	16.9	17.2	17.2	17.4	17.7	18.4	18.7	18.6	17.2	14.4	11.9	10.6	11.4	9.0	17.1	22.8
6	7.3	5.8	5.0	6.6	7.1	4.7	3.5	5.4	8.7	11.2	14.3	16.2	18.0	19.6	21.1	22.3	23.3	24.2	22.3	17.7	14.2	11.5	10.0	8.9	12.9	24.2
7	8.9	11.8	11.9	11.4	11.3	10.8	10.2	10.9	12.9	17.0	22.6	24.9	24.9	23.2	22.5	23.1	23.5	22.4	21.4	20.4	20.2	19.1	14.8	13.4	17.2	24.9
8	12.5	11.9	11.8	11.4	10.3	10.3	9.9	10.2	10.7	10.9	12.4	13.7	14.9	12.8	12.0	13.5	14.3	13.9	12.8	11.0	8.4	6.4	7.6	5.9	11.2	14.9
9	5.3	5.3	5.4	5.6	5.6	5.7	5.5	6.3	7.2	8.4	9.7	12.0	13.0	14.2	15.2	16.2	17.0	17.4	14.2	9.9	7.1	6.3	7.3	7.1	9.5	17.4
10	7.8	7.7	6.7	6.6	6.8	7.1	6.9	7.3	8.9	12.0	15.9	18.5	21.0	23.0	24.7	25.8	25.8	25.0	22.1	20.0	19.0	18.1	17.4	16.3	15.4	25.8
11	15.3	14.0	12.6	11.7	10.9	10.3	10.2	10.8	11.7	14.5	18.0	21.4	23.7	25.5	25.6	25.6	24.9	24.3	23.5	23.0	22.5	22.0	21.4	20.1	18.5	25.6
12	19.0	18.1	17.2	14.7	14.9	11.8	8.9	9.3	11.8	13.7	15.8	16.0	16.1	16.1	16.9	16.9	15.8	15.6	15.4	14.1	13.7	13.3	14.1	14.9	14.8	19.0
13	13.8	13.8	13.4	13.3	13.3	12.7	12.5	12.6	13.2	14.4	15.8	17.0	17.7	18.4	19.3	19.3	19.0	17.7	14.6	12.8	12.8	12.9	12.1	11.7	14.8	19.3
14	11.5	11.1	10.7	10.1	9.8	9.5	9.4	9.2	9.3	9.7	10.6	11.2	13.8	16.6	17.1	17.2	16.6	15.1	13.7	12.3	14.2	13.1	11.5	10.8	12.2	17.2
15	9.9	9.6	9.8	9.4	9.1	8.7	8.0	8.4	9.1	11.6	13.7	14.9	15.8	16.7	18.1	18.6	18.8	17.6	16.4	15.5	14.6	13.8	12.6	11.5	13.0	18.8
16	10.5	9.5	8.7	8.1	7.6	7.5	6.9	7.1	7.5	8.8	10.6	12.9	15.4	16.6	17.7	18.2	15.7	15.2	13.4	12.7	12.3	11.8	11.3	10.9	11.5	18.2
17	10.5	9.5	8.8	8.4	8.0	7.9	6.9	6.9	7.0	9.8	12.4	13.7	14.6	15.5	16.2	16.5	16.5	15.9	14.4	11.8	10.6	10.1	9.3	8.0	11.2	16.5
18	7.2	6.0	5.2	4.6	4.2	3.4	3.1	3.8	5.1	7.6	10.3	12.4	15.6	17.3	17.1	18.1	19.6	19.6	18.1	15.6	10.7	8.4	8.4	9.3	10.4	19.6
19	9.0	7.8	7.4	7.6	8.4	9.0	8.3	7.5	7.9	7.4	6.3	5.5	5.3	5.3	5.7	5.4	5.2	5.2	5.2	5.0	4.7	4.6	4.6	3.6	6.3	9.0
20	2.3	2.4	1.5	2.6	3.0	3.3	3.2	3.2	3.5	4.1	5.0	6.2	8.0	10.3	12.0	13.5	13.9	12.3	8.5	5.0	3.3	4.4	4.2	3.8	5.8	13.9
21	3.4	2.7	2.1	1.5	1.2	0.9	0.5	1.0	2.4	5.0	8.2	10.7	14.2	17.4	18.4	19.4	19.4	18.0	14.7	11.7	9.1	6.3	5.6	6.7	8.4	19.4
22	6.3	6.2	5.7	5.4	5.3	4.6	4.5	5.1	6.2	9.1	11.3	14.3	17.7	20.4	20.1	19.2	19.0	18.3	14.9	10.5	10.1	11.1	13.6	13.4	11.3	20.4
23	12.9	12.1	11.5	11.5	11.4	10.8	10.7	10.3	11.2	10.6	12.2	13.7	16.1	15.6	15.1	15.0	14.6	14.2	13.8	13.5	13.1	13.2	13.1	13.0	12.9	16.1
24	13.2	12.8	12.7	11.8	11.4	11.3	11.3	11.2	13.1	14.6	15.7	16.4	17.2	18.3	18.8	18.8	18.9	18.0	15.8	15.0	13.6	12.7	11.5	10.2	14.3	18.9
25	9.4	8.2	7.1	6.7	6.2	6.7	6.1	6.6	7.9	10.1	14.5	17.4	19.1	21.1	22.1	23.1	23.0	22.4	20.7	20.4	19.4	18.5	17.7	16.8	14.6	23.1
26	16.0	14.8	13.5	12.2	11.2	10.5	9.7	9.5	10.4	12.3	14.3	17.0	19.6	23.4	24.7	25.3	25.1	24.0	18.8	14.1	12.0	13.3	13.3	12.9	15.7	25.3
27	12.5	13.0	13.4	13.4	12.4	11.5	10.8	10.6	12.0	14.0	17.2	20.6	22.7	24.2	25.6	25.9	25.7	24.1	20.4	16.1	14.5	12.9	13.1	13.1	16.7	25.9
28	11.8	11.5	10.8	10.0	9.2	8.5	7.6	7.6	8.5	11.1	14.7	17.7	20.3	23.1	25.2	26.2	26.3	22.7	17.2	13.9	14.6	14.4	14.7	14.2	15.1	26.3
29	13.5	13.2	13.6	12.8	12.2	11.8	11.6	11.6	11.5	11.7	10.5	9.4	11.0	12.3	13.9	14.4	14.2	13.6	13.2	12.1	11.6	10.8	10.1	9.5	12.1	14.4
30	9.1	8.6	8.3	8.1	7.8	7.3	7.1	7.4	7.8	8.7	10.2	11.2	12.3	14.3	17.3	18.0	18.5	17.7	14.8	14.9	13.5	12.3	10.7	9.9	11.5	18.5
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	11.8	11.3	10.8	10.4	10.1	9.6	9.0	9.4	10.5	12.2	14.4	16.0	17.8	19.1	19.9	20.4	20.4	19.6	17.4	15.3	14.0	13.4	12.9	12.2		
MAX	24.6	23.2	21.7	21.3	20.5	20.1	18.5	19.8	22.1	25.0	26.0	26.2	27.3	29.8	32.3	32.6	32.8	31.7	29.0	29.7	28.3	27.8	26.9	25.7		



Number of Non-Zero Readings	720
Maximum 1-HR Average	32.8 C
Maximum 24-HR Average	23.7 C
Monthly Calibration	0
Standard Deviation	6.359
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	14.1 C

Lagoon Wind Speed (km/hr) – September 2022

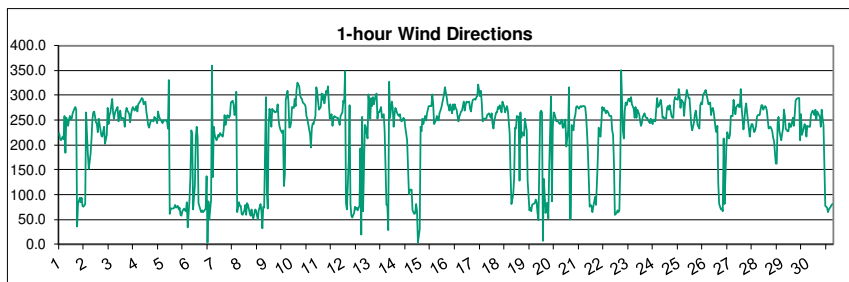
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	9.7	12.1	6.8	10.6	8.5	8.3	6.3	7.9	11.9	22.6	23.5	22.9	23.4	18.3	16.2	18.9	16.6	21.3	20.9	12.5	10.0	14.0	8.6	4.4	14.0	23.5
2	1.9	7.8	8.9	8.2	4.6	5.6	5.5	9.0	12.3	14.2	10.9	11.1	8.3	13.3	17.5	19.0	16.0	13.4	10.4	4.4	6.1	14.1	11.9	13.7	10.3	19.0
3	12.6	13.9	14.4	13.6	15.3	14.4	15.4	16.7	20.7	16.6	10.7	13.6	11.2	10.5	24.5	20.4	15.0	14.3	10.5	16.9	13.3	15.1	18.3	16.7	15.2	24.5
4	17.9	21.9	17.6	18.3	19.2	19.9	18.4	19.6	16.6	23.1	26.9	30.4	31.4	30.3	30.0	27.1	24.5	19.9	15.7	10.0	11.7	15.3	13.6	22.4	20.9	31.4
5	23.6	23.0	27.8	28.0	21.9	16.4	18.2	21.3	20.6	21.2	19.1	18.8	16.6	15.9	18.1	18.6	15.9	14.8	10.8	8.0	6.2	6.9	10.2	3.8	16.9	28.0
6	2.9	2.8	2.8	8.4	10.4	5.3	2.2	4.0	9.3	6.3	9.6	16.0	16.2	16.1	15.6	15.3	12.7	6.9	9.5	6.1	3.4	2.2	2.1	2.6	7.9	16.2
7	4.9	12.8	15.7	15.6	14.8	13.5	13.4	14.8	13.6	10.0	17.5	28.1	26.7	21.1	17.5	18.9	18.6	14.9	16.0	16.1	19.2	16.0	19.5	14.1	16.4	28.1
8	13.9	15.8	11.8	12.7	11.1	10.9	11.4	10.9	12.9	11.8	12.9	13.8	16.4	12.1	12.6	16.8	13.3	15.0	12.8	9.9	4.0	2.5	15.2	14.7	12.3	16.8
9	6.5	3.7	2.6	3.7	8.5	7.9	8.0	8.9	11.6	13.0	7.5	7.9	9.7	14.0	13.3	11.2	9.8	7.2	6.4	3.0	2.0	4.4	9.2	10.8	8.0	14.0
10	13.4	14.4	14.8	16.5	16.6	19.5	23.2	22.1	20.4	20.3	21.6	24.1	22.0	22.0	19.0	14.6	12.8	9.3	6.7	11.3	12.6	11.3	12.6	14.3	16.5	24.1
11	18.5	19.9	20.2	16.2	25.3	22.4	21.5	20.2	23.6	20.2	16.8	15.4	20.6	24.6	25.9	27.0	25.3	30.5	33.3	28.9	23.8	21.3	20.9	18.9	22.5	33.3
12	12.8	11.0	8.0	11.2	10.2	3.6	1.9	4.1	10.8	13.5	15.7	13.5	14.1	13.9	13.6	10.8	3.5	3.1	5.5	6.0	5.7	9.1	11.1	9.0	9.2	15.7
13	13.4	8.7	12.7	12.5	13.0	14.0	12.7	7.2	8.8	8.3	11.7	10.9	9.6	8.1	9.4	5.7	16.0	12.0	5.1	4.5	6.8	13.4	11.2	7.7	10.1	16.0
14	10.6	11.1	13.1	14.8	14.9	14.2	13.9	15.9	14.7	13.4	14.5	9.9	4.3	5.9	4.9	5.1	4.4	2.3	2.4	3.3	9.3	5.7	2.7	5.1	9.0	15.9
15	6.1	8.9	9.2	9.3	9.8	11.2	14.2	13.5	12.8	14.3	13.6	9.6	13.8	17.1	18.7	17.5	16.7	16.3	12.6	12.9	14.3	13.6	13.4	13.4	13.0	18.7
16	12.4	12.6	12.5	11.6	15.0	11.9	13.5	14.4	13.9	15.7	15.4	11.6	13.2	20.9	19.7	20.0	20.0	18.4	15.4	11.1	18.3	20.6	29.1	24.1	16.3	29.1
17	17.2	13.1	11.6	10.7	15.1	13.5	13.7	14.6	14.0	12.6	17.7	17.5	16.9	18.7	17.2	16.4	16.4	16.2	11.3	7.7	10.3	11.1	10.0	10.5	13.9	18.7
18	11.6	10.1	13.9	12.0	10.8	11.9	12.1	14.8	13.7	12.4	10.4	8.5	5.5	9.0	6.5	4.0	14.4	15.7	10.4	7.6	4.0	4.1	5.9	7.3	9.9	15.7
19	9.1	8.1	9.9	10.2	11.4	17.4	14.3	12.8	12.7	14.4	14.4	11.5	13.6	10.7	5.4	6.7	7.5	8.7	3.8	3.6	3.4	5.2	5.4	4.3	9.3	17.4
20	3.4	4.5	4.4	5.5	10.4	10.7	13.9	13.9	12.2	16.3	15.6	14.2	10.9	9.2	7.6	6.0	6.0	5.6	3.9	1.6	1.9	8.9	9.5	10.1	8.6	16.3
21	11.6	13.8	16.4	16.4	16.4	18.3	18.5	19.5	19.7	16.3	15.0	12.7	6.0	13.6	15.0	14.6	15.3	12.1	12.3	11.0	6.9	1.8	6.0	10.6	13.3	19.7
22	13.3	18.6	16.7	20.4	20.8	19.2	18.0	18.1	18.9	14.1	12.9	10.2	7.0	19.5	18.7	16.7	10.6	8.1	3.9	2.5	7.5	11.7	14.7	16.0	14.1	20.8
23	16.7	17.7	16.1	19.0	17.2	13.1	12.5	13.3	17.4	9.7	17.5	27.3	26.2	26.5	27.3	25.5	27.5	26.3	30.0	28.8	24.1	23.8	24.4	19.0	21.1	30.0
24	21.1	19.1	20.7	21.5	13.8	14.3	17.8	16.7	18.9	23.6	25.4	25.0	24.7	19.6	20.3	20.5	16.9	19.3	15.9	14.0	11.2	13.0	13.5	15.4	18.4	25.4
25	15.3	13.6	14.1	21.9	14.6	9.8	15.1	17.7	15.7	12.8	16.1	23.7	23.7	23.0	25.5	23.2	22.4	23.1	20.5	20.7	12.4	15.1	13.9	12.9	17.8	25.5
26	13.0	15.2	16.1	15.1	14.6	16.2	13.6	15.3	12.7	12.6	13.4	12.0	9.0	4.3	8.1	10.6	11.3	10.1	4.7	1.7	3.5	9.2	9.4	10.5	10.9	16.2
27	9.0	12.3	12.4	15.6	13.4	13.0	14.6	15.1	16.6	17.0	13.6	13.1	17.8	22.8	18.9	16.0	17.9	13.5	8.3	5.6	8.1	6.8	11.2	10.9	13.5	22.8
28	11.4	13.3	13.1	15.2	16.4	16.6	19.0	19.2	18.4	18.4	14.7	14.6	12.5	9.5	7.6	4.3	5.5	5.0	2.9	2.1	7.7	8.1	11.4	11.5	11.6	19.2
29	11.7	12.3	13.3	12.9	11.6	12.6	10.2	11.3	12.4	11.0	11.9	5.8	11.8	12.5	11.2	10.3	9.1	5.5	5.9	6.0	6.9	8.2	7.9	8.7	10.0	13.3
30	7.7	10.5	11.1	12.6	13.8	13.6	14.2	14.2	15.6	13.8	12.1	12.2	8.3	6.1	7.0	4.0	6.7	7.4	6.3	12.7	12.9	9.0	10.3	9.1	10.5	15.6
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	11.8	12.8	13.0	14.0	14.0	13.3	13.6	14.2	15.1	15.0	15.3	15.5	15.1	15.6	15.8	14.9	14.3	13.2	11.1	9.7	9.6	10.7	12.1	11.7		
MAX	23.6	23.0	27.8	28.0	25.3	22.4	23.2	22.1	23.6	23.6	26.9	30.4	31.4	30.3	30.0	27.1	27.5	30.5	33.3	28.9	24.1	23.8	29.1	24.1		



Number of Non-Zero Readings	720
Maximum 1-HR Average	33.3 KM/HR
Maximum 24-HR Average	22.5 KM/HR
Monthly Calibration	0
Standard Deviation	5.961
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	13.4 KM/HR

Lagoon Wind Direction (°) – September 2022

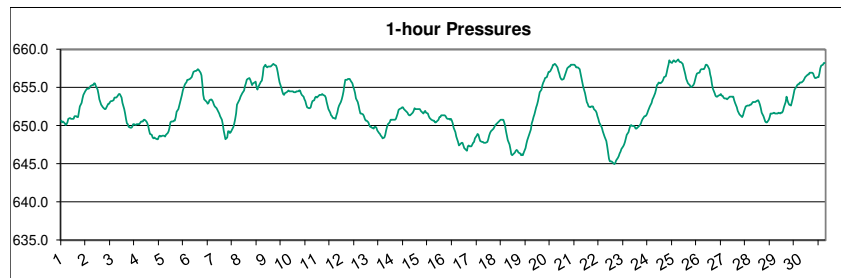
HOUR																										
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	224.3	213.4	209.9	217.4	211.2	258.2	184.2	254.5	239.0	251.1	258.4	251.2	253.0	263.0	273.5	276.2	270.1	36.1	81.6	93.9	85.5	93.8	77.9	76.2	245.9	276.2
2	81.1	265.0	220.4	180.7	151.8	183.2	210.9	250.4	264.9	268.2	245.6	241.6	226.5	252.4	242.3	218.2	216.8	227.2	237.3	202.9	219.7	274.9	242.1	259.7	237.1	274.9
3	265.0	293.3	264.6	252.1	262.9	269.6	275.6	247.7	261.8	268.8	252.7	254.8	251.5	236.7	265.9	274.6	269.0	261.3	246.2	261.9	270.8	275.7	268.5	272.6	264.5	293.3
4	278.2	267.5	281.8	286.6	290.9	293.9	292.4	280.9	287.4	266.6	254.8	240.2	234.9	249.3	248.6	250.0	248.2	257.3	250.3	244.1	268.0	258.0	253.1	247.9	261.5	293.9
5	243.5	248.9	249.2	248.9	248.8	232.8	330.4	62.0	72.0	72.2	71.7	74.4	79.7	73.9	77.3	70.7	74.1	60.2	58.4	66.9	72.8	68.6	66.9	84.3	67.2	330.4
6	34.7	90.8	136.4	229.7	222.9	70.1	119.5	214.5	236.5	214.2	82.0	69.8	64.5	68.4	64.6	66.4	71.2	137.9	3.1	87.1	49.5	90.0	358.7	135.2	79.5	358.7
7	236.4	219.5	209.3	212.8	219.7	216.9	223.8	217.9	217.3	231.1	260.8	240.4	260.0	258.0	255.0	260.1	285.2	288.6	282.2	260.1	265.8	307.3	65.2	84.3	248.5	307.3
8	77.5	76.8	61.4	58.9	67.6	78.7	59.6	82.5	78.6	62.4	58.4	71.1	56.7	51.5	70.6	68.5	57.4	50.3	69.0	80.9	66.6	31.9	74.9	74.1	67.1	82.5
9	296.1	108.5	72.7	240.0	272.6	237.3	272.8	268.2	269.5	265.7	267.7	281.8	251.8	238.7	231.4	224.7	230.1	118.1	141.0	290.0	308.8	286.9	235.6	237.1	249.2	308.8
10	246.0	276.8	275.4	292.1	278.8	310.0	325.8	317.7	300.6	293.7	293.5	284.5	281.3	277.3	257.6	252.0	242.0	221.2	195.5	232.9	244.1	242.6	257.7	315.5	279.4	325.8
11	307.5	286.5	271.3	276.8	303.4	290.9	301.0	283.8	309.2	306.0	318.5	281.9	253.5	262.3	239.0	253.6	257.4	255.6	253.8	254.7	247.1	240.0	258.4	264.7	271.6	318.5
12	288.5	284.6	347.9	83.3	70.6	166.3	279.8	80.8	58.3	54.7	62.9	75.2	70.4	74.1	67.6	76.6	192.5	18.8	257.0	66.4	241.0	236.5	222.2	213.5	64.3	347.9
13	301.6	252.2	294.0	278.1	297.0	280.9	299.9	304.2	252.8	266.0	265.8	276.5	255.3	260.3	261.2	227.8	78.9	79.7	28.5	327.6	253.8	286.3	275.1	236.5	280.5	327.6
14	261.9	274.3	264.5	259.8	257.9	261.2	248.9	246.7	254.8	251.8	234.2	221.3	209.2	101.0	110.5	110.0	109.2	68.4	61.7	62.7	81.2	66.5	3.9	30.2	249.6	274.3
15	236.2	227.4	252.7	241.9	258.5	250.0	262.6	271.2	278.9	277.3	277.4	301.1	281.0	242.6	248.4	258.4	254.1	249.1	263.7	275.4	282.7	292.3	300.8	316.9	267.1	316.9
16	296.8	281.5	278.3	269.2	281.5	263.0	281.4	270.2	282.3	273.7	270.2	247.3	256.1	262.4	267.6	268.5	286.9	269.4	280.0	286.6	285.8	287.4	272.1	268.0	274.3	296.8
17	281.8	290.4	292.5	291.1	296.7	298.4	320.9	298.5	309.0	285.5	247.7	252.7	253.4	252.1	260.5	261.5	264.0	253.9	264.5	241.9	232.4	249.2	266.3	264.8	271.6	320.9
18	276.6	272.5	279.9	265.5	287.0	282.3	275.6	265.7	278.2	268.8	247.6	224.3	142.0	80.9	101.0	133.0	234.9	233.1	257.8	256.0	128.2	265.1	214.9	225.0	256.3	287.0
19	217.6	253.6	240.6	228.8	128.7	68.8	73.1	66.9	79.7	80.2	83.7	89.8	84.3	63.6	48.8	265.3	270.0	265.3	7.6	131.7	62.6	82.1	83.3	52.7	84.8	270.0
20	152.8	297.9	85.7	236.6	266.2	261.6	246.8	248.7	247.1	243.7	242.1	251.6	234.4	234.0	249.1	251.9	197.3	229.5	315.9	50.0	50.7	240.9	229.2	252.4	245.4	315.9
21	260.7	276.5	278.7	272.9	276.8	277.8	276.7	277.3	278.6	277.2	258.9	228.0	187.5	76.3	78.4	76.8	64.9	76.1	95.1	78.4	120.9	169.5	235.6	217.3	271.5	278.7
22	245.1	275.8	269.4	274.9	264.5	268.6	267.7	263.9	259.0	259.0	229.3	220.5	164.4	59.7	62.2	69.2	64.9	68.7	151.1	350.3	226.9	213.3	269.9	284.6	264.4	350.3
23	280.8	292.6	292.8	287.1	295.6	282.1	273.1	253.9	276.1	255.2	271.3	262.0	248.9	238.7	244.0	257.2	263.3	256.3	254.5	255.4	248.7	244.3	252.4	245.1	261.1	295.6
24	242.7	250.3	247.3	271.7	293.7	276.7	279.0	291.7	278.7	254.8	256.5	253.0	253.4	274.4	277.6	270.4	279.5	258.5	253.8	255.0	288.3	296.3	292.6	290.8	267.9	296.3
25	313.0	302.4	273.9	290.3	285.8	258.1	282.8	297.0	310.5	294.9	294.4	267.1	240.9	229.3	245.8	262.5	269.8	255.0	239.9	232.3	279.4	284.5	282.2	300.5	271.0	313.0
26	307.4	309.9	300.8	292.1	281.3	286.1	260.4	272.5	275.3	265.9	233.6	226.1	237.8	121.8	80.8	69.5	72.4	66.7	212.7	81.9	196.4	226.6	219.3	212.4	268.8	309.9
27	219.7	257.8	258.6	290.2	273.6	262.6	277.2	281.2	276.4	276.9	312.4	275.3	231.5	248.4	273.3	284.4	264.8	233.3	216.1	232.2	242.1	242.1	225.7	228.8	261.4	312.4
28	237.7	256.7	260.6	259.6	271.7	279.2	279.5	271.7	278.0	275.6	270.0	250.5	232.8	237.1	232.4	228.0	215.0	207.8	162.5	162.8	243.0	255.7	227.8	209.8	255.2	279.5
29	222.7	232.3	270.9	257.6	233.7	227.0	228.4	244.5	236.6	236.8	254.0	237.8	260.9	288.4	293.1	293.7	294.3	208.9	262.7	220.8	233.7	242.0	239.0	216.0	248.7	294.3
30	237.7	236.4	237.2	259.4	266.1	268.7	259.6	270.7	251.0	267.0	263.0	256.7	235.9	271.5	252.6	240.4	77.2	76.0	74.3	65.6	69.4	76.3	78.7	81.4	258.2	271.5
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	239.1	249.1	242.6	246.9	247.3	242.0	252.3	241.9	243.3	238.8	231.3	223.6	209.8	194.9	196.0	204.0	199.2	176.3	182.6	190.3	195.5	214.2	211.7	206.6		
MAX	313.0	309.9	347.9	292.1	303.4	310.0	330.4	317.7	310.5	306.0	318.5	301.1	281.3	288.4	293.1	293.7	294.3	288.6	315.9	350.3	308.8	307.3	358.7	316.9		



Number of Non-Zero Readings	720
Maximum 1-HR Average	359 degrees
Maximum 24-HR Average	280 degrees
Monthly Calibration	0
Standard Deviation	79.97
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	220.0 degrees

Lagoon Pressure (mmHg) – September 2022

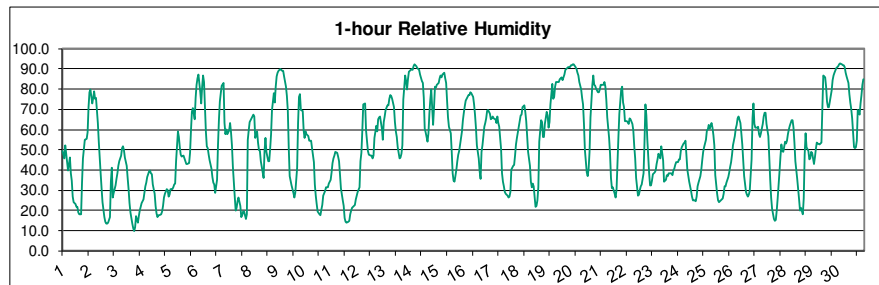
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	650.6	650.5	650.5	650.3	650.1	650.2	650.4	650.9	651.0	650.9	650.9	650.9	650.9	651.2	651.2	651.1	651.1	651.9	652.6	653.0	653.5	654.0	654.2	654.5	651.5	654.5
2	654.8	654.8	654.8	655.0	655.2	655.3	655.4	655.5	655.5	655.2	654.7	654.1	653.5	653.1	652.7	652.4	652.3	652.2	652.1	652.4	652.8	652.9	653.1	653.3	653.9	655.5
3	653.2	653.4	653.7	653.7	653.7	653.8	654.1	654.1	653.9	653.7	652.9	652.2	651.6	650.9	650.3	650.2	649.9	649.8	649.8	649.9	650.2	650.2	650.1	650.2	651.9	654.1
4	650.2	650.2	650.2	650.5	650.6	650.5	650.8	650.8	650.6	650.3	650.0	649.4	648.9	648.8	648.5	648.3	648.4	648.4	648.2	648.3	648.6	648.7	648.6	648.7	649.4	650.8
5	648.7	648.7	648.6	648.8	649.0	649.3	649.7	650.5	650.6	650.5	650.6	650.6	651.1	651.9	652.2	652.6	653.1	653.5	654.0	654.6	655.3	655.5	655.6	656.0	651.7	656.0
6	656.1	656.2	656.2	656.4	656.7	657.1	657.2	657.2	657.3	657.4	657.3	657.0	656.6	655.4	654.1	653.5	653.2	653.1	652.9	653.0	653.3	653.4	653.3	653.1	655.3	657.4
7	652.7	652.5	652.3	652.0	651.9	651.6	651.3	650.8	650.2	649.4	648.8	648.3	648.5	649.2	649.3	649.0	649.1	649.6	649.9	650.3	650.9	651.6	652.8	653.2	650.6	653.2
8	653.5	653.9	654.0	654.2	654.6	655.2	655.6	656.0	656.1	656.3	656.0	655.6	655.3	655.5	655.7	655.8	655.0	654.7	655.1	655.5	655.8	655.9	656.5	657.6	655.4	657.6
9	657.9	657.8	657.7	657.7	657.8	657.8	657.9	658.0	658.1	658.0	657.9	657.5	656.9	656.2	655.7	655.0	654.5	654.1	654.2	654.4	654.4	654.6	654.6	654.5	656.4	658.1
10	654.5	654.5	654.5	654.4	654.4	654.4	654.5	654.5	654.6	654.6	654.3	654.1	653.8	653.5	653.2	652.8	652.5	652.3	652.3	652.4	652.9	653.2	653.3	653.6	653.7	654.6
11	653.7	653.7	653.8	654.1	654.1	654.0	654.1	653.9	653.7	653.1	652.7	652.2	651.7	651.4	651.3	651.0	651.0	650.9	651.4	651.8	652.3	652.7	653.1	653.1	652.7	654.1
12	653.5	653.9	654.5	655.4	656.0	656.0	656.1	656.1	655.9	655.5	655.1	654.7	654.2	653.6	653.1	652.6	652.1	651.6	651.6	651.5	651.2	650.8	650.7	650.7	653.8	656.1
13	650.7	650.4	650.1	649.9	649.9	649.7	649.6	649.9	649.8	649.7	649.4	649.1	648.9	648.7	648.5	648.4	648.4	648.8	649.4	649.8	650.2	650.4	650.7	650.8	649.6	650.8
14	650.8	650.8	650.8	650.9	651.3	651.6	652.0	652.1	652.3	652.4	652.4	652.2	652.1	651.8	651.7	651.5	651.4	651.3	651.5	651.7	652.0	652.2	652.1	652.1	651.7	652.4
15	652.1	652.2	652.1	652.0	651.7	651.6	651.8	651.9	651.7	651.6	651.3	651.1	650.9	650.8	650.6	650.6	650.4	650.4	650.5	650.8	651.1	651.2	651.4	651.4	651.3	652.2
16	651.4	651.3	651.3	651.0	650.9	650.9	650.8	650.7	650.7	650.3	649.8	649.1	648.6	648.2	647.9	647.4	647.7	647.7	647.8	647.4	647.1	646.8	646.7	647.3	649.1	651.4
17	647.5	647.3	647.3	647.5	647.8	647.9	648.3	648.7	648.9	648.8	648.4	648.0	647.9	647.8	647.7	647.7	647.8	647.9	648.2	648.7	649.0	649.3	649.5	649.6	648.2	649.6
18	649.8	650.1	650.2	650.4	650.5	650.7	650.8	650.8	650.4	650.0	649.2	648.7	648.1	647.5	646.9	646.3	646.1	646.2	646.4	646.7	646.8	646.7	646.5	646.5	648.6	650.8
19	646.4	646.1	646.2	646.1	646.5	647.1	647.7	648.1	648.5	648.9	649.5	650.3	650.7	651.1	651.5	652.4	652.8	653.2	653.8	654.3	654.8	655.3	655.6	655.9	650.5	655.9
20	656.2	656.4	656.8	657.0	657.1	657.2	657.6	657.9	658.0	658.1	658.0	657.6	657.2	656.8	656.4	656.1	656.0	656.2	656.5	656.9	657.2	657.6	657.7	657.8	657.1	658.1
21	658.0	658.0	658.0	658.0	657.8	657.6	657.6	657.7	657.4	656.9	656.2	655.6	655.1	654.2	653.7	653.2	652.8	652.5	652.5	652.6	652.5	652.5	652.2	651.9	655.2	658.0
22	651.7	651.3	650.9	650.4	650.0	649.7	649.3	648.9	648.5	648.0	647.2	646.5	645.7	645.3	645.2	645.1	644.9	645.1	645.5	645.8	646.1	646.3	646.6	647.5	647.5	651.7
23	647.0	647.3	647.5	647.9	648.4	648.8	649.1	649.7	650.0	650.1	649.9	649.9	649.9	649.6	649.6	649.7	649.9	650.1	650.4	650.7	650.9	651.2	651.4	651.4	649.6	651.4
24	651.6	652.0	652.6	652.7	652.9	653.5	653.7	654.3	654.8	655.3	655.5	655.6	655.6	655.6	655.8	656.0	656.3	656.5	656.9	657.5	658.0	658.5	658.4	658.3	655.3	658.5
25	658.4	658.6	658.5	658.3	658.5	658.7	658.4	658.4	658.3	658.1	657.6	657.2	656.7	656.1	655.6	655.5	655.3	655.1	655.1	655.3	655.6	656.0	656.4	656.8	657.0	658.7
26	656.9	657.0	657.3	657.4	657.4	657.5	657.7	658.0	658.0	657.9	657.4	656.8	656.2	655.5	654.8	654.3	654.0	653.8	653.8	654.0	654.1	654.1	654.0	653.9	655.9	658.0
27	653.7	653.5	653.5	653.5	653.6	653.7	653.7	653.8	653.8	653.8	653.4	653.0	652.4	651.9	651.7	651.5	651.3	651.1	651.4	651.8	652.2	652.5	652.6	652.7	652.8	653.8
28	652.7	652.7	652.8	653.1	653.1	653.1	653.1	653.2	653.4	653.1	652.8	652.3	651.7	651.3	650.8	650.5	650.4	650.5	650.7	651.1	651.5	651.6	651.7	651.7	652.0	653.4
29	651.6	651.6	651.6	651.6	651.7	651.6	651.7	651.7	652.0	652.4	653.1	653.8	653.4	653.0	652.7	652.7	653.1	653.6	654.1	654.8	655.1	655.3	655.4	655.4	653.0	655.4
30	655.7	655.7	655.8	655.9	656.1	656.3	656.6	656.7	656.7	656.9	657.0	656.8	656.4	656.2	656.2	656.2	656.3	656.4	656.8	657.5	657.8	658.0	658.2	658.2	656.7	658.2
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	652.7	652.7	652.8	652.9	653.0	653.1	653.2	653.4	653.4	653.3	653.0	652.7	652.4	652.1	651.9	651.7	651.6	651.6	651.8	652.1	652.4	652.6	652.8	652.9		
MAX	658.4	658.6	658.5	658.3	658.5	658.7	658.4	658.4	658.3	658.1	658.0	657.6	657.2	656.8	656.4	656.2	656.3	656.5	656.9	657.5	658.0	658.5	658.4	658.3		



Number of Non-Zero Readings	720		
Maximum 1-HR Average	659 MMHg		
Maximum 24-HR Average	657 MMHg		
Monthly Calibration	0	Operational Time	720 HRS
Standard Deviation	3.169	Operational Uptime	100.0 %
		Monthly Average	652.6 MMHg

Lagoon Relative Humidity (%) – September 2022

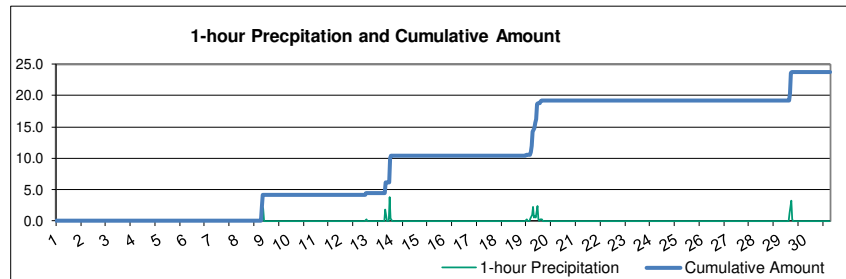
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	49.5	45.7	52.0	48.1	43.9	39.6	46.1	38.2	34.5	27.0	24.0	23.4	21.9	21.6	19.2	18.3	18.3	33.8	45.9	50.2	54.8	55.6	58.6	71.1	39.2	71.1
2	78.4	79.6	73.0	75.5	79.1	75.2	75.6	63.1	54.1	46.2	38.5	31.1	23.9	16.9	14.4	13.5	13.3	14.0	16.8	34.1	41.0	26.3	28.5	32.6	43.5	79.6
3	35.4	38.5	42.2	44.2	47.1	50.7	51.8	50.1	46.2	41.9	35.8	30.4	23.5	19.1	13.7	11.0	9.9	11.7	17.3	14.2	17.1	20.1	21.8	23.5	29.9	51.8
4	25.5	28.7	31.9	33.5	36.4	39.1	39.9	38.3	37.9	32.9	28.2	22.1	18.7	16.8	17.8	17.5	17.9	19.5	22.1	26.6	28.0	30.5	30.2	26.8	27.8	39.9
5	27.9	30.3	30.5	31.4	33.1	33.3	44.2	59.1	56.3	51.3	47.5	46.6	46.9	45.9	44.4	43.1	43.1	43.5	48.5	59.6	68.5	70.6	65.3	75.8	47.8	75.8
6	82.0	85.2	87.4	78.3	72.9	81.1	86.6	83.4	59.0	51.6	50.8	47.8	44.6	40.5	36.7	33.8	32.9	28.9	35.1	52.2	64.5	73.7	77.9	81.5	61.2	87.4
7	83.1	63.4	57.6	59.8	57.9	59.7	63.1	58.7	52.2	41.8	26.8	20.1	21.2	24.5	26.2	22.2	16.7	17.7	19.6	19.4	15.7	18.3	54.9	59.6	40.0	83.1
8	63.5	65.6	66.4	67.4	66.6	55.6	59.3	53.8	49.7	49.4	44.4	39.0	36.2	49.4	55.8	48.8	44.5	44.2	50.5	57.7	69.5	78.0	73.1	81.0	57.1	81.0
9	86.2	87.9	89.0	89.8	89.4	89.1	89.0	86.0	81.4	76.5	69.0	51.0	37.2	32.5	30.6	28.7	26.4	28.9	41.1	63.4	76.1	77.4	69.5	69.3	65.2	89.8
10	59.6	55.8	59.1	57.8	56.6	54.6	54.7	54.4	51.0	43.8	32.9	27.4	23.0	19.5	18.3	17.9	20.4	22.5	27.2	29.6	31.5	31.5	31.4	33.1	38.1	59.6
11	34.9	38.8	43.3	45.8	47.2	48.9	48.5	46.8	44.6	38.1	31.2	25.0	22.3	16.4	14.5	14.1	14.4	15.0	18.0	19.8	21.2	22.0	22.8	25.5	30.0	48.9
12	27.3	29.0	31.3	44.5	48.3	59.6	72.4	73.0	59.7	54.4	49.5	47.6	46.9	47.0	45.6	47.3	55.7	61.9	59.2	64.9	65.9	66.5	60.3	54.8	53.0	73.0
13	63.7	66.5	69.9	71.9	71.8	75.0	77.0	76.7	75.4	71.0	63.8	59.0	56.3	51.3	45.6	46.3	47.8	52.2	74.9	86.7	84.1	79.7	84.8	88.7	68.3	88.7
14	89.4	89.8	89.4	91.3	92.1	91.3	90.4	90.1	89.6	87.3	83.7	83.0	75.8	60.6	58.6	54.1	58.4	67.8	74.7	79.9	62.3	71.1	81.1	80.8	78.9	92.1
15	82.2	83.2	85.4	86.5	85.8	87.2	88.0	85.5	82.8	74.2	65.9	61.3	58.3	49.1	38.5	34.5	34.4	40.2	44.2	47.5	49.6	52.5	58.9	64.4	64.2	88.0
16	68.2	71.5	74.3	75.9	77.2	76.9	78.6	77.8	76.1	72.5	67.4	60.9	52.2	45.6	39.2	35.8	48.9	52.1	61.4	63.2	65.7	69.4	69.7	67.7	64.5	78.6
17	64.9	65.7	66.6	65.7	65.0	63.3	66.3	63.4	61.6	50.2	38.5	34.1	31.8	29.0	28.4	27.2	26.4	26.9	29.2	40.0	42.0	42.7	47.2	52.8	47.0	66.6
18	55.6	61.4	64.0	67.1	67.6	71.0	71.9	69.0	64.1	56.7	48.8	42.2	34.1	31.2	33.4	31.9	21.7	22.1	25.2	31.6	53.8	64.7	63.8	56.5	50.4	71.9
19	56.2	63.0	68.7	66.9	60.7	63.5	72.6	82.4	75.1	76.1	81.3	83.5	83.7	83.4	84.8	85.5	85.8	84.4	87.2	89.4	90.1	90.4	90.7	91.0	79.0	91.0
20	92.0	92.0	92.3	92.4	91.0	89.7	88.3	86.6	83.3	79.8	75.7	72.5	62.8	49.7	38.7	36.8	40.6	49.2	66.0	81.9	86.6	82.1	81.8	80.4	74.7	92.4
21	78.5	78.4	80.0	81.9	82.3	82.3	83.4	81.0	74.7	66.2	55.7	48.2	36.2	30.9	31.2	28.0	26.3	30.4	43.3	56.5	67.9	79.9	81.1	73.5	61.6	83.4
22	71.0	64.0	64.2	63.6	63.0	65.6	65.1	62.7	59.6	51.5	45.9	36.2	27.5	27.8	30.2	31.8	32.8	38.2	53.8	72.7	67.0	55.4	38.4	32.5	50.9	72.7
23	32.4	34.8	37.9	38.8	39.8	43.1	45.2	48.0	45.9	51.8	48.4	44.7	34.2	35.1	37.5	37.1	38.3	38.6	38.5	37.6	39.5	40.6	42.3	44.1	40.6	51.8
24	43.8	45.2	45.4	49.4	51.2	53.1	53.6	54.4	47.7	40.3	34.2	31.8	29.4	26.7	25.1	25.1	24.3	27.0	31.9	33.9	36.8	40.4	44.7	49.0	39.4	54.4
25	51.1	55.0	59.4	60.2	62.3	60.5	63.1	61.0	57.1	52.1	37.7	28.2	24.9	24.1	24.7	25.0	26.0	28.2	31.8	31.8	33.9	36.5	38.8	41.7	42.3	63.1
26	43.8	47.7	52.0	56.7	60.2	62.5	65.6	66.3	63.5	58.0	52.9	44.9	36.9	29.3	27.7	26.9	27.8	29.5	45.5	65.7	72.8	62.6	61.1	60.9	50.9	72.8
27	61.3	57.8	56.3	58.1	62.8	66.4	68.1	68.3	62.6	56.8	46.0	35.2	26.3	21.0	15.8	15.0	15.5	19.9	26.0	39.2	46.5	52.7	49.4	48.8	44.8	68.3
28	54.0	52.9	54.3	57.6	60.0	61.7	64.8	64.5	60.9	53.5	44.2	35.7	30.4	25.3	20.1	21.2	18.2	25.9	47.5	58.3	51.2	49.3	45.1	45.8	45.9	64.8
29	49.0	48.5	43.0	46.1	50.1	53.7	53.2	52.8	53.0	53.5	70.6	86.9	85.6	81.3	73.9	71.1	71.2	76.6	79.4	84.6	86.8	88.0	90.2	91.0	68.3	91.0
30	91.4	92.3	92.6	92.1	91.7	91.6	90.9	88.3	86.4	83.1	77.7	73.4	70.0	65.5	51.4	51.0	51.1	54.6	69.5	67.5	72.7	77.0	82.3	85.0	77.0	92.6
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	60.1	60.6	62.0	63.3	63.8	64.8	67.3	66.1	61.5	56.3	50.6	45.8	40.8	37.2	34.7	33.4	33.6	36.8	44.4	52.0	55.4	56.9	58.2	59.6		
MAX	92.0	92.3	92.6	92.4	92.1	91.6	90.9	90.1	89.6	87.3	83.7	86.9	85.6	83.4	84.8	85.5	85.8	84.4	87.2	89.4	90.1	90.4	90.7	91.0		



Number of Non-Zero Readings	720
Maximum 1-HR Average	92.6 %
Maximum 24-HR Average	79.0 %
Monthly Calibration	0
Standard Deviation	21.38
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	52.7 %

Lagoon Precipitation (mm) – September 2022

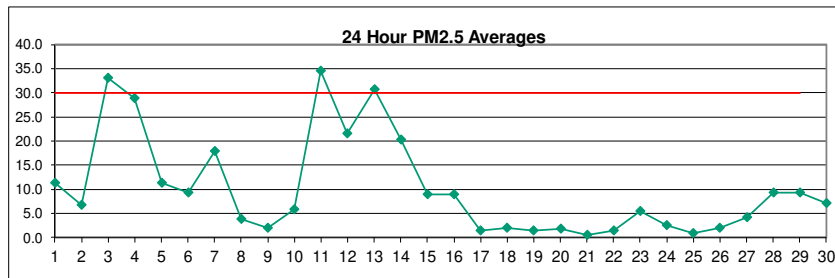
Day	HOURLY																								Hourly Max	24-HR Total		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	2.2	2.2	2.2	2.2
9	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	2.0	2.0
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	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	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	1.8	0.0	0.0	0.0	3.8	0.4	3.8	6.2	6.2	6.2
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.4	1.0	2.2	0.6	0.8	0.6	2.4	0.2	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.4	8.8
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	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	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	1.2	3.2	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	3.2	4.6	4.6
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%	100%
MEAN	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1			
MAX	2.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.4	1.2	3.2	0.6	0.8	0.6	2.4	0.2	0.0	1.8	0.2	0.0	0.0	3.8	2.2				



Number of Non-Zero Readings	20		
Maximum 1-HR Total	3.8 MM		
Maximum 24-HR Total	8.8 MM		
Monthly Calibration	0	Operational Time	720 HRS
Standard Deviation	0.266	Operational Uptime	100.0 %
		Monthly Average	0.03 MM

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

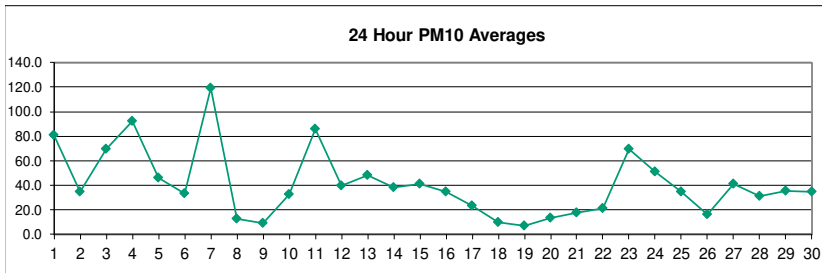
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	7.0	6.0	6.0	4.0	3.0	2.0	6.0	5.0	12.0	22.0	25.0	19.0	18.0	18.0	16.0	17.0	17.0	11.0	8.0	5.0	12.0	9.0	13.0	10.0	11.3	25.0	
2	10.0	6.0	5.0	12.0	8.0	8.0	5.0	5.0	4.0	10.0	6.0	8.0	6.0	6.0	9.0	5.0	7.0	4.0	2.0	10.0	6.0	3.0	8.0	9.0	6.8	12.0	
3	6.0	12.0	14.0	19.0	26.0	21.0	22.0	24.0	31.0	29.0	35.0	42.0	42.0	42.0	48.0	28.0	30.0	29.0	29.0	44.0	46.0	58.0	62.0	53.0	33.0	62.0	
4	52.0	51.0	49.0	48.0	40.0	43.0	42.0	35.0	32.0	34.0	38.0	31.0	21.0	18.0	18.0	12.0	15.0	11.0	17.0	23.0	11.0	23.0	14.0	13.0	28.8	52.0	
5	17.0	13.0	14.0	11.0	8.0	7.0	21.0	37.0	30.0	19.0	18.0	11.0	10.0	10.0	9.0	6.0	4.0	2.0	0.0	4.0	4.0	5.0	7.0	6.0	11.4	37.0	
6	7.0	9.0	5.0	3.0	3.0	3.0	8.0	7.0	4.0	6.0	5.0	4.0	10.0	7.0	7.0	10.0	15.0	19.0	15.0	11.0	17.0	13.0	16.0	19.0	9.3	19.0	
7	16.0	17.0	13.0	14.0	17.0	17.0	22.0	23.0	26.0	28.0	45.0	29.0	41.0	27.0	20.0	13.0	12.0	6.0	10.0	9.0	7.0	6.0	5.0	5.0	17.8	45.0	
8	6.0	4.0	5.0	6.0	5.0	3.0	5.0	3.0	0.0	0.0	2.0	3.0	4.0	5.0	5.0	4.0	2.0	0.0	4.0	4.0	7.0	9.0	6.0	2.0	3.9	9.0	
9	0.0	1.0	3.0	5.0	4.0	6.0	5.0	3.0	3.0	1.0	3.0	4.0	1.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	6.0	
10	3.0	1.0	0.0	0.0	1.0	0.0	0.0	5.0	4.0	6.0	12.0	13.0	16.0	16.0	12.0	9.0	12.0	9.0	6.0	4.0	4.0	3.0	1.0	3.0	5.8	16.0	
11	8.0	6.0	7.0	8.0	7.0	7.0	11.0	9.0	7.0	11.0	7.0	11.0	16.0	21.0	33.0	68.0	66.0	64.0	68.0	86.0	74.0	74.0	96.0	66.0	34.6	96.0	
12	60.0	60.0	59.0	42.0	25.0	19.0	20.0	32.0	14.0	16.0	12.0	9.0	11.0	9.0	9.0	9.0	13.0	12.0	12.0	12.0	13.0	12.0	18.0	21.0	21.6	60.0	
13	20.0	22.0	25.0	32.0	35.0	36.0	36.0	38.0	34.0	38.0	32.0	34.0	36.0	36.0	40.0	36.0	23.0	21.0	26.0	30.0	29.0	23.0	29.0	26.0	30.7	40.0	
14	29.0	28.0	27.0	32.0	28.0	25.0	27.0	26.0	28.0	23.0	24.0	24.0	26.0	25.0	14.0	12.0	12.0	10.0	9.0	11.0	14.0	10.0	10.0	11.0	20.2	32.0	
15	18.0	9.0	9.0	11.0	8.0	6.0	8.0	8.0	7.0	6.0	5.0	5.0	14.0	10.0	9.0	9.0	9.0	10.0	12.0	13.0	7.0	5.0	9.0	6.0	8.9	18.0	
16	4.0	5.0	8.0	8.0	6.0	10.0	7.0	9.0	10.0	9.0	12.0	9.0	11.0	13.0	10.0	42.0	8.0	7.0	8.0	5.0	3.0	3.0	5.0	4.0	9.0	42.0	
17	1.0	0.0	0.0	0.0	0.0	0.0	2.0	3.0	0.0	1.0	3.0	1.0	0.0	3.0	2.0	4.0	4.0	2.0	5.0	3.0	0.0	1.0	0.0	0.0	1.5	5.0	
18	0.0	0.0	1.0	2.0	1.0	1.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.0	3.0	2.0	4.0	5.0	6.0	5.0	5.0	4.0	2.0	6.0	
19	2.0	2.0	4.0	4.0	5.0	3.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.0	3.0	1.0	1.0	1.0	3.0	1.5	5.0	
20	3.0	2.0	2.0	0.0	2.0	3.0	4.0	4.0	4.0	3.0	3.0	C	C	C	C	4.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	4.0	
21	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	1.0	3.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	3.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	2.0	5.0	4.0	1.0	2.0	2.0	2.0	4.0	4.0	2.0	2.0	3.0	1.0	0.0	1.5	5.0	
23	1.0	0.0	1.0	3.0	3.0	1.0	0.0	0.0	2.0	7.0	9.0	9.0	9.0	5.0	5.0	14.0	9.0	10.0	10.0	11.0	8.0	5.0	6.0	4.0	5.5	14.0	
24	3.0	4.0	2.0	1.0	2.0	0.0	0.0	0.0	0.0	2.0	3.0	4.0	3.0	3.0	2.0	3.0	2.0	3.0	8.0	5.0	2.0	3.0	3.0	2.0	2.5	8.0	
25	0.0	0.0	1.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	3.0	6.0	4.0	3.0	2.0	0.0	0.0	0.0	0.0	1.0	6.0	
26	0.0	0.0	0.0	0.0	3.0	4.0	3.0	5.0	3.0	2.0	3.0	2.0	4.0	2.0	1.0	2.0	2.0	1.0	2.0	1.0	0.0	3.0	3.0	1.0	2.0	5.0	
27	0.0	0.0	3.0	1.0	0.0	4.0	3.0	3.0	3.0	3.0	3.0	5.0	6.0	17.0	2.0	4.0	8.0	8.0	5.0	2.0	3.0	7.0	6.0	3.0	4.1	17.0	
28	4.0	4.0	6.0	4.0	2.0	5.0	56.0	24.0	31.0	4.0	9.0	7.0	4.0	6.0	6.0	4.0	5.0	3.0	0.0	6.0	8.0	7.0	10.0	8.0	9.3	56.0	
29	8.0	9.0	6.0	7.0	7.0	11.0	11.0	11.0	16.0	20.0	14.0	11.0	9.0	14.0	10.0	6.0	6.0	6.0	6.0	8.0	9.0	6.0	6.0	6.0	9.3	20.0	
30	3.0	10.0	7.0	8.0	8.0	5.0	2.0	4.0	7.0	5.0	5.0	5.0	4.0	12.0	11.0	6.0	5.0	6.0	5.0	7.0	14.0	8.0	8.0	15.0	7.1	15.0	
NO.	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	717	100.0%	
MEAN	9.6	9.4	9.4	9.6	8.6	8.3	11.0	10.9	10.4	10.2	11.2	10.3	11.4	11.4	10.5	11.2	10.0	8.9	9.4	10.9	10.2	10.2	11.6	10.1	7.5		
MAX	60.0	60.0	59.0	48.0	40.0	43.0	56.0	38.0	34.0	38.0	45.0	42.0	42.0	42.0	48.0	68.0	66.0	64.0	68.0	86.0	74.0	74.0	96.0	66.0	17.4	70.0	



Number of 24HR Exceedences	3	Proposed Guideline
Number of Non-Zero Readings	610	
Maximum 1-HR Average	96.0 UG/M3	
Maximum 24-HR Average	34.6 UG/M3	
Monthly Calibration	3	Operational Time
Standard Deviation	13.4	Operational Uptime
		Monthly Average
		720 HRS
		100.0 %
		10.2 UG/M3

Windridge PM₁₀ (µg/m³) – September 2022

HOUR																								
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	21.0	7.0	48.0	18.0	13.0	13.0	17.0	16.0	128.0	209.0	198.0	142.0	120.0	225.0	144.0	165.0	105.0	125.0	40.0	27.0	50.0	33.0	45.0	32.0
2	37.0	25.0	32.0	44.0	20.0	21.0	17.0	28.0	62.0	68.0	72.0	34.0	42.0	50.0	46.0	22.0	16.0	21.0	12.0	11.0	11.0	36.0	50.0	57.0
3	23.0	17.0	21.0	28.0	42.0	28.0	32.0	55.0	77.0	61.0	74.0	78.0	77.0	70.0	182.0	89.0	47.0	62.0	40.0	111.0	61.0	174.0	128.0	90.0
4	130.0	145.0	59.0	67.0	60.0	67.0	69.0	93.0	62.0	71.0	155.0	140.0	88.0	111.0	77.0	70.0	54.0	65.0	138.0	173.0	40.0	149.0	60.0	66.0
5	103.0	76.0	160.0	97.0	49.0	49.0	56.0	58.0	44.0	31.0	33.0	36.0	23.0	34.0	31.0	20.0	19.0	16.0	18.0	25.0	34.0	34.0	33.0	32.0
6	24.0	16.0	18.0	25.0	31.0	25.0	33.0	47.0	40.0	44.0	38.0	28.0	28.0	28.0	30.0	23.0	55.0	69.0	56.0	27.0	28.0	23.0	29.0	37.0
7	47.0	62.0	41.0	34.0	22.0	81.0	122.0	114.0	103.0	150.0	218.0	112.0	412.0	165.0	99.0	201.0	179.0	80.0	165.0	204.0	112.0	93.0	29.0	17.0
8	17.0	22.0	21.0	20.0	17.0	7.0	9.0	18.0	10.0	7.0	4.0	4.0	5.0	8.0	9.0	6.0	9.0	11.0	15.0	16.0	21.0	24.0	19.0	1.0
9	0.0	5.0	8.0	8.0	9.0	17.0	9.0	8.0	13.0	10.0	13.0	14.0	18.0	9.0	10.0	7.0	8.0	6.0	2.0	2.0	5.0	6.0	8.0	21.0
10	9.0	7.0	5.0	4.0	7.0	8.0	7.0	12.0	13.0	31.0	98.0	61.0	85.0	96.0	68.0	86.0	100.0	18.0	17.0	6.0	6.0	7.0	13.0	9.0
11	12.0	9.0	10.0	12.0	13.0	12.0	53.0	12.0	20.0	10.0	10.0	26.0	54.0	68.0	66.0	159.0	120.0	149.0	187.0	284.0	168.0	151.0	335.0	120.0
12	66.0	70.0	67.0	51.0	31.0	27.0	35.0	116.0	38.0	33.0	26.0	28.0	32.0	26.0	27.0	31.0	43.0	45.0	38.0	32.0	26.0	21.0	23.0	23.0
13	22.0	25.0	31.0	37.0	33.0	49.0	34.0	40.0	62.0	79.0	52.0	65.0	53.0	92.0	90.0	82.0	64.0	51.0	38.0	36.0	37.0	31.0	24.0	28.0
14	50.0	39.0	43.0	45.0	41.0	46.0	52.0	51.0	41.0	33.0	38.0	51.0	66.0	47.0	32.0	32.0	28.0	25.0	19.0	33.0	44.0	23.0	13.0	21.0
15	23.0	16.0	17.0	27.0	26.0	20.0	14.0	19.0	16.0	27.0	39.0	18.0	70.0	44.0	62.0	82.0	68.0	97.0	131.0	106.0	18.0	28.0	11.0	10.0
16	9.0	12.0	14.0	9.0	14.0	11.0	9.0	27.0	63.0	53.0	28.0	28.0	46.0	75.0	43.0	58.0	126.0	52.0	19.0	12.0	9.0	12.0	75.0	25.0
17	4.0	2.0	2.0	3.0	7.0	10.0	6.0	6.0	19.0	47.0	34.0	25.0	48.0	34.0	44.0	72.0	43.0	32.0	99.0	3.0	4.0	4.0	4.0	4.0
18	3.0	2.0	2.0	4.0	4.0	5.0	6.0	8.0	7.0	14.0	13.0	13.0	9.0	4.0	6.0	15.0	23.0	17.0	15.0	16.0	11.0	11.0	17.0	11.0
19	9.0	7.0	9.0	24.0	12.0	22.0	7.0	8.0	7.0	6.0	4.0	0.0	0.0	0.0	0.0	2.0	5.0	5.0	6.0	9.0	8.0	5.0	3.0	3.0
20	4.0	4.0	10.0	6.0	6.0	6.0	24.0	27.0	14.0	26.0	21.0	22.0	22.0	22.0	C	26.0	16.0	8.0	5.0	3.0	5.0	4.0	8.0	17.0
21	26.0	14.0	12.0	9.0	5.0	25.0	13.0	27.0	48.0	28.0	23.0	23.0	34.0	14.0	17.0	16.0	15.0	10.0	17.0	24.0	4.0	6.0	8.0	9.0
22	12.0	22.0	13.0	12.0	13.0	12.0	14.0	20.0	34.0	56.0	28.0	28.0	30.0	25.0	30.0	31.0	22.0	17.0	18.0	8.0	9.0	30.0	10.0	9.0
23	8.0	9.0	8.0	6.0	8.0	8.0	8.0	7.0	35.0	31.0	92.0	115.0	125.0	72.0	118.0	157.0	164.0	142.0	103.0	151.0	83.0	72.0	95.0	47.0
24	57.0	73.0	55.0	14.0	7.0	14.0	16.0	13.0	41.0	82.0	95.0	66.0	54.0	83.0	86.0	113.0	79.0	78.0	138.0	27.0	6.0	9.0	7.0	9.0
25	11.0	6.0	5.0	48.0	34.0	2.0	6.0	18.0	14.0	9.0	61.0	64.0	33.0	31.0	86.0	96.0	137.0	73.0	46.0	21.0	11.0	10.0	5.0	2.0
26	5.0	4.0	2.0	1.0	1.0	4.0	5.0	59.0	24.0	35.0	21.0	25.0	21.0	16.0	17.0	18.0	25.0	12.0	9.0	5.0	16.0	8.0	29.0	21.0
27	12.0	9.0	6.0	3.0	4.0	5.0	7.0	11.0	27.0	50.0	15.0	62.0	30.0	159.0	127.0	89.0	97.0	120.0	28.0	8.0	31.0	57.0	23.0	6.0
28	18.0	11.0	29.0	22.0	13.0	22.0	35.0	41.0	31.0	50.0	47.0	32.0	48.0	31.0	32.0	26.0	28.0	16.0	7.0	24.0	52.0	63.0	46.0	30.0
29	42.0	34.0	13.0	28.0	35.0	64.0	61.0	60.0	93.0	121.0	55.0	22.0	38.0	28.0	14.0	20.0	12.0	11.0	12.0	12.0	11.0	15.0	11.0	32.0
30	23.0	105.0	28.0	55.0	32.0	19.0	24.0	29.0	21.0	15.0	27.0	21.0	52.0	76.0	67.0	42.0	22.0	17.0	30.0	22.0	22.0	28.0	23.0	27.0
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	30	30	30	30	30	30	30	30
MEAN	27.6	28.5	26.3	25.4	20.3	23.3	26.7	34.9	40.2	49.6	54.4	46.1	58.8	58.1	57.2	61.9	57.6	48.3	48.9	47.9	31.4	38.9	39.5	27.2
MAX	130.0	145.0	160.0	97.0	60.0	81.0	122.0	116.0	128.0	209.0	218.0	142.0	412.0	225.0	182.0	201.0	179.0	149.0	187.0	284.0	168.0	174.0	335.0	120.0



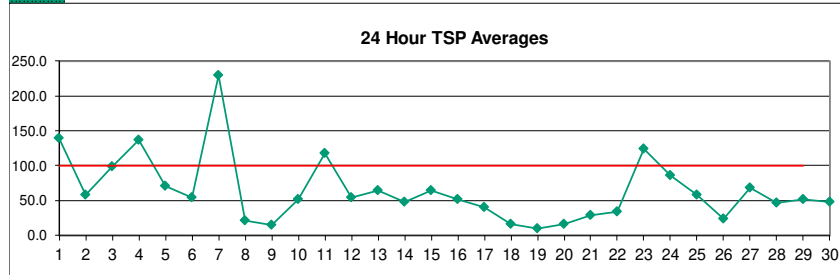
Number of Non-Zero Readings	714		
Maximum 1-HR Average	412.0 UG/M3		
Maximum 24-HR Average	119.3 UG/M3		
Monthly Calibration	1	Operational Time	720 HRS
Standard Deviation	45	Operational Uptime	100.0 %
		Monthly Average	40.8 UG/M3

Windridge TSP (µg/m³) – September 2022

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	33.0	14.0	47.0	24.0	23.0	20.0	28.0	29.0	277.0	411.0	341.0	245.0	222.0	388.0	229.0	309.0	190.0	186.0	53.0	48.0	63.0	51.0	70.0	52.0
2	61.0	26.0	42.0	67.0	26.0	32.0	24.0	47.0	130.0	138.0	138.0	61.0	77.0	84.0	81.0	36.0	27.0	30.0	39.0	13.0	14.0	64.0	63.0	70.0
3	36.0	15.0	20.0	31.0	42.0	26.0	34.0	74.0	122.0	91.0	111.0	96.0	107.0	88.0	291.0	136.0	62.0	84.0	48.0	175.0	76.0	292.0	194.0	116.0
4	180.0	196.0	75.0	82.0	73.0	79.0	94.0	114.0	71.0	90.0	225.0	265.0	161.0	191.0	127.0	103.0	75.0	100.0	216.0	273.0	55.0	207.0	101.0	114.0
5	181.0	127.0	264.0	157.0	72.0	69.0	99.0	64.0	50.0	44.0	42.0	47.0	34.0	49.0	49.0	33.0	26.0	22.0	38.0	41.0	55.0	54.0	53.0	
6	33.0	24.0	26.0	38.0	49.0	44.0	54.0	78.0	75.0	73.0	68.0	47.0	41.0	43.0	46.0	43.0	81.0	133.0	101.0	47.0	39.0	30.0	45.0	50.0
7	73.0	100.0	66.0	50.0	37.0	161.0	231.0	190.0	186.0	278.0	439.0	245.0	820.0	281.0	174.0	411.0	342.0	151.0	340.0	435.0	227.0	180.0	56.0	22.0
8	24.0	30.0	29.0	22.0	25.0	10.0	18.0	30.0	16.0	11.0	11.0	15.0	18.0	19.0	12.0	15.0	15.0	15.0	27.0	20.0	45.0	38.0	31.0	6.0
9	6.0	6.0	6.0	7.0	12.0	12.0	12.0	9.0	27.0	16.0	19.0	34.0	29.0	28.0	17.0	13.0	16.0	14.0	9.0	8.0	9.0	9.0	8.0	29.0
10	15.0	10.0	7.0	6.0	9.0	8.0	15.0	13.0	17.0	59.0	162.0	104.0	148.0	163.0	114.0	120.0	141.0	34.0	17.0	15.0	15.0	11.0	16.0	15.0
11	13.0	14.0	13.0	14.0	12.0	18.0	21.0	24.0	21.0	13.0	13.0	40.0	85.0	109.0	108.0	258.0	173.0	224.0	258.0	424.0	222.0	209.0	408.0	132.0
12	75.0	73.0	65.0	59.0	37.0	31.0	56.0	195.0	48.0	46.0	39.0	42.0	42.0	40.0	45.0	45.0	62.0	78.0	57.0	47.0	32.0	25.0	32.0	28.0
13	27.0	32.0	31.0	35.0	37.0	47.0	36.0	44.0	81.0	129.0	78.0	85.0	87.0	147.0	147.0	132.0	94.0	66.0	38.0	32.0	33.0	33.0	28.0	33.0
14	56.0	40.0	46.0	46.0	41.0	51.0	62.0	53.0	41.0	43.0	48.0	64.0	106.0	67.0	48.0	42.0	46.0	25.0	29.0	46.0	67.0	31.0	18.0	20.0
15	22.0	21.0	19.0	29.0	24.0	18.0	16.0	18.0	18.0	48.0	45.0	24.0	119.0	62.0	97.0	157.0	116.0	175.0	236.0	174.0	29.0	43.0	20.0	14.0
16	10.0	10.0	12.0	14.0	12.0	12.0	13.0	40.0	95.0	77.0	45.0	46.0	83.0	141.0	63.0	81.0	192.0	61.0	29.0	17.0	8.0	25.0	123.0	33.0
17	5.0	4.0	6.0	4.0	9.0	18.0	3.0	5.0	36.0	85.0	53.0	39.0	80.0	58.0	71.0	133.0	79.0	62.0	193.0	9.0	8.0	5.0	7.0	6.0
18	6.0	6.0	9.0	6.0	4.0	6.0	5.0	8.0	6.0	28.0	23.0	27.0	17.0	10.0	15.0	21.0	51.0	27.0	28.0	12.0	24.0	12.0	24.0	17.0
19	9.0	13.0	11.0	38.0	23.0	29.0	10.0	7.0	8.0	7.0	6.0	3.0	0.0	0.0	0.0	4.0	6.0	6.0	15.0	8.0	5.0	7.0	8.0	6.0
20	4.0	5.0	6.0	11.0	7.0	13.0	30.0	33.0	17.0	36.0	35.0	27.0	27.0	27.0	C	26.0	17.0	6.0	6.0	0.0	2.0	9.0	10.0	18.0
21	30.0	25.0	18.0	10.0	6.0	29.0	24.0	35.0	74.0	43.0	35.0	52.0	72.0	24.0	27.0	30.0	22.0	36.0	23.0	41.0	13.0	10.0	12.0	11.0
22	18.0	30.0	12.0	21.0	22.0	20.0	26.0	39.0	43.0	81.0	42.0	46.0	56.0	40.0	44.0	48.0	48.0	32.0	26.0	9.0	15.0	50.0	23.0	13.0
23	11.0	10.0	10.0	7.0	22.0	10.0	9.0	12.0	56.0	57.0	174.0	196.0	233.0	133.0	210.0	297.0	292.0	245.0	194.0	276.0	149.0	136.0	163.0	85.0
24	96.0	111.0	85.0	19.0	3.0	23.0	25.0	23.0	69.0	145.0	172.0	114.0	107.0	159.0	155.0	181.0	143.0	126.0	229.0	48.0	4.0	7.0	8.0	8.0
25	17.0	3.0	14.0	78.0	18.0	2.0	3.0	25.0	22.0	5.0	91.0	122.0	56.0	55.0	164.0	174.0	229.0	134.0	95.0	47.0	18.0	10.0	7.0	4.0
26	7.0	6.0	2.0	5.0	5.0	4.0	4.0	85.0	41.0	55.0	38.0	31.0	31.0	27.0	25.0	33.0	40.0	16.0	15.0	8.0	17.0	14.0	39.0	37.0
27	16.0	9.0	10.0	10.0	9.0	13.0	11.0	14.0	42.0	84.0	23.0	99.0	61.0	258.0	202.0	164.0	166.0	201.0	47.0	12.0	43.0	97.0	31.0	11.0
28	25.0	12.0	29.0	26.0	23.0	26.0	43.0	53.0	50.0	63.0	68.0	45.0	70.0	50.0	48.0	50.0	43.0	29.0	14.0	31.0	93.0	103.0	70.0	44.0
29	52.0	51.0	17.0	38.0	55.0	109.0	116.0	98.0	155.0	194.0	76.0	22.0	53.0	34.0	16.0	20.0	14.0	13.0	10.0	13.0	15.0	13.0	15.0	32.0
30	31.0	130.0	30.0	44.0	25.0	23.0	25.0	28.0	35.0	30.0	50.0	24.0	92.0	143.0	125.0	70.0	34.0	31.0	40.0	31.0	31.0	33.0	31.0	30.0

MEAN	MAX
139.7	411.0
57.9	138.0
98.6	292.0
136.1	273.0
70.5	264.0
54.5	133.0
229.0	820.0
20.9	45.0
14.8	34.0
51.4	163.0
117.8	424.0
54.1	195.0
63.8	147.0
47.3	106.0
64.3	236.0
51.8	192.0
40.8	193.0
16.3	51.0
9.5	38.0
16.2	36.0
29.3	74.0
33.5	81.0
124.5	297.0
85.8	4.0
58.0	229.0
24.4	85.0
68.0	258.0
46.2	103.0
51.3	194.0
48.6	143.0

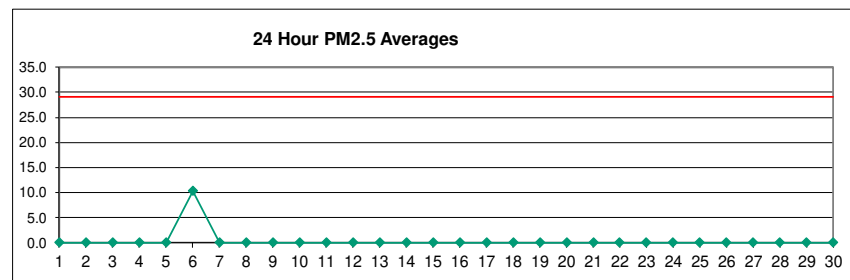
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
MEAN	39.1	38.4	34.2	33.3	25.4	32.1	38.2	49.6	64.3	82.7	90.3	76.9	104.5	97.3	94.8	106.2	94.7	78.7	81.8	78.6	47.1	60.3	57.2	37.0
MAX	181.0	196.0	264.0	157.0	73.0	161.0	231.0	195.0	277.0	411.0	439.0	265.0	820.0	388.0	291.0	411.0	342.0	245.0	340.0	435.0	227.0	292.0	408.0	132.0



Number of 24HR Exceedences	5	Proposed Guideline
Number of Non-Zero Readings	715	
Maximum 1-HR Average	820.0 UG/M3	
Maximum 24-HR Average	229.0 UG/M3	
IZS Calibration Time		Operational Time
Down Time	0	Operational Uptime
Standard Deviation	78.7	Monthly Average
		720 HRS
		100.0 %
		64.2 UG/M3

West PM_{2.5} (µg/m³) – September 2022

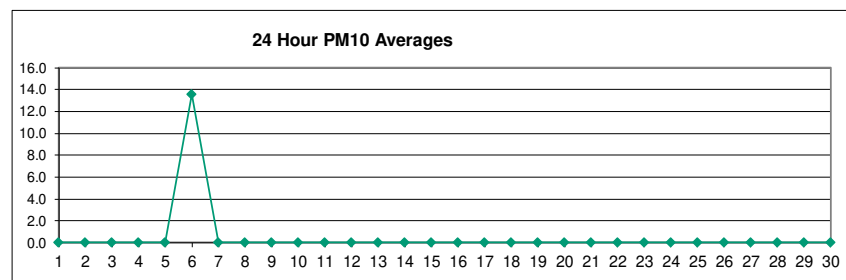
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
2	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
3	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
4	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
5	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	7.1	7.0	6.8	8.2	7.6	7.4	7.4	-	-
6	8.4	6.9	6.7	6.5	6.8	8.7	9.0	8.5	5.3	6.3	K	K	8.8	9.0	7.1	7.2	8.8	11.8	12.2	14.2	16.5	17.2	19.7	19.6	10.2	19.7
7	20.5	22.0	21.9	20.9	21.1	20.9	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
8	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
9	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
10	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
11	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
12	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
13	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
14	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
15	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
16	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
17	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
18	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
19	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
20	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
21	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
22	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
23	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
24	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
25	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
26	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
27	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
28	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
29	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
30	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
NO.	2	2	2	2	2	2	1	1	1	1	0	0	1	1	1	1	1	2	2	2	2	2	2	2	35	5%
MEAN	14.5	14.4	14.3	13.7	13.9	14.8	9.0	8.5	5.3	6.3	#DIV/0!	#DIV/0!	8.8	9.0	7.1	7.2	8.8	9.5	9.6	10.5	12.3	12.4	13.5	13.5		
MAX	20.5	22.0	21.9	20.9	21.1	20.9	9.0	8.5	5.3	6.3	0.0	0.0	8.8	9.0	7.1	7.2	8.8	11.8	12.2	14.2	16.5	17.2	19.7	19.6		



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	35	
Maximum 1-HR Average	19.7 UG/M3	
Maximum 24-HR Average	10.2 UG/M3	
IZS Calibration Time		Operational Time
Down Time	0	Operational Uptime
Standard Deviation	5.781	Monthly Average
		35 HRS
		4.9 %
		11.5 UG/M3

West PM₁₀ (µg/m³) – September 2022

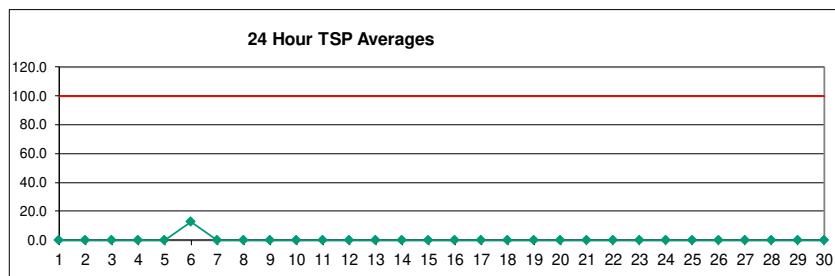
Day	HOUR																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
2	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
3	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
4	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
5	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	9.5	9.4	9.0	10.4	11.2	9.3	9.5
6	10.3	8.7	9.2	9.0	9.3	11.1	11.2	11.3	7.1	8.9	K	K	12.9	13.3	9.3	8.8	11.2	14.2	14.7	17.7	21.8	22.4	28.1	27.9
7	29.0	31.2	30.4	25.8	25.4	25.3	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
8	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
9	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
10	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
11	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
12	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
13	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
14	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
15	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
16	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
17	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
18	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
19	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
20	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
21	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
22	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
23	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
24	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
25	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
26	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
27	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
28	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
29	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
30	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
NO.	2	2	2	2	2	2	1	1	1	1	0	0	1	1	1	1	1	2	2	2	2	2	2	2
MEAN	19.7	20.0	19.8	17.4	17.3	18.2	11.2	11.3	7.1	8.9	#DIV/0!	#DIV/0!	12.9	13.3	9.3	8.8	11.2	11.9	12.0	13.3	16.1	16.8	18.7	18.7
MAX	29.0	31.2	30.4	25.8	25.4	25.3	11.2	11.3	7.1	8.9	0.0	0.0	12.9	13.3	9.3	8.8	11.2	14.2	14.7	17.7	21.8	22.4	28.1	27.9



Number of Non-Zero Readings	35
Maximum 1-HR Average	28.1 UG/M3
Maximum 24-HR Average	13.6 UG/M3
IZS Calibration Time	
Down Time	0
Standard Deviation	7.8
OperatioEl Time	35 HRS
OperatioEl Uptime	4.9 %
Monthly Average	15.3 UG/M3

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

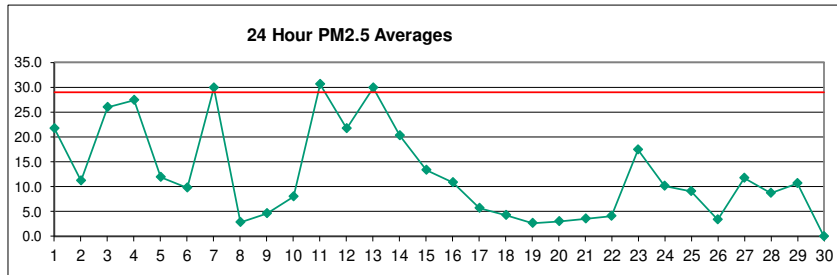
Day	HOUR																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
2	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
3	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
4	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
5	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	10.5	10.2	9.7	11.7	11.6	10.6	10.9
6	12.0	9.5	7.9	6.9	6.9	11.3	12.5	10.7	5.3	8.5	K	K	14.4	14.9	10.7	10.2	11.8	10.8	12.1	20.1	22.0	23.4	23.0	19.9
7	20.3	22.3	21.3	17.4	17.2	16.9	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
8	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
9	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
10	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
11	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
12	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
13	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
14	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
15	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
16	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
17	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
18	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
19	K	K	K	K	K	K	K	K	K	K	K	K	K	K	G	G	G	G	G	G	G	G	G	G
20	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
21	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
22	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
23	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
24	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
25	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
26	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
27	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
28	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
29	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
30	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
NO.	2	2	2	2	2	2	1	1	1	1	0	0	1	1	1	1	1	2	2	2	2	2	2	2
MEAN	16.1	15.9	14.6	12.2	12.0	14.1	12.5	10.7	5.3	8.5	#DIV/0!	#DIV/0!	14.4	14.9	10.7	10.2	11.8	10.6	11.1	14.9	16.9	17.5	16.8	15.4
MAX	20.3	22.3	21.3	17.4	17.2	16.9	12.5	10.7	5.3	8.5	0.0	0.0	14.4	14.9	10.7	10.2	11.8	10.8	12.1	20.1	22.0	23.4	23.0	19.9



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	35	
Maximum 1-HR Average	23.4 UG/M3	
Maximum 24-HR Average	13.0 UG/M3	
IZS Calibration Time		Operational Time
Down Time	0	Operational Uptime
Standard Deviation	5.155	Monthly Average
		35 HRS
		4.9 %
		13.6 UG/M3

Berm PM_{2.5} (µg/m³) – September 2022

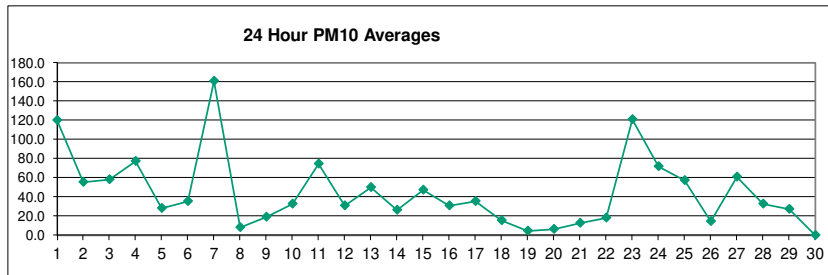
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	6.2	5.4	5.3	5.5	6.7	5.9	6.2	6.9	23.5	58.1	59.2	46.3	40.0	59.7	53.9	42.8	34.2	17.8	7.0	5.2	6.9	7.2	7.0	5.6	21.8	59.7
2	4.5	6.4	7.1	10.5	7.3	6.8	6.2	7.3	10.3	15.0	19.1	8.3	14.8	14.2	26.8	24.2	22.6	16.9	6.3	3.8	4.4	7.9	8.0	11.0	11.2	26.8
3	11.8	11.3	15.7	20.4	24.6	23.4	24.5	29.2	35.5	31.3	30.7	32.7	30.6	23.3	58.1	21.2	13.3	16.2	16.2	22.5	25.9	38.9	34.3	31.8	26.0	58.1
4	37.5	38.2	37.9	37.9	39.5	38.6	37.2	37.0	30.5	25.4	34.7	52.4	28.7	25.1	15.7	13.3	16.8	22.6	20.7	16.1	12.2	19.0	11.4	11.3	27.5	52.4
5	14.9	14.7	15.9	11.8	7.1	10.5	19.0	33.3	30.1	20.4	16.0	13.5	9.5	8.6	8.1	5.6	6.8	5.2	5.5	4.8	5.5	7.5	6.9	5.6	11.9	33.3
6	5.1	4.6	5.0	6.5	6.7	4.5	3.4	6.8	9.9	11.8	7.3	Y	6.4	6.2	7.3	8.0	11.5	29.6	17.1	11.1	11.1	11.3	17.1	16.4	9.8	29.6
7	21.9	17.9	14.7	14.1	15.6	26.7	34.3	29.8	29.3	34.3	51.7	61.8	94.7	46.4	33.4	51.2	23.4	10.8	28.7	24.5	24.4	15.6	6.4	4.6	29.8	94.7
8	4.7	4.4	4.5	4.2	6.6	2.3	2.5	3.4	1.2	0.9	1.0	1.2	1.8	1.9	2.2	2.3	2.3	2.8	3.6	3.5	3.5	4.2	3.7	0.9	2.9	6.6
9	1.4	2.6	1.5	2.2	2.7	4.0	3.5	3.5	4.3	2.6	3.3	3.9	7.0	14.7	12.8	23.5	6.6	1.4	1.0	1.0	1.2	2.4	1.8	3.5	4.7	23.5
10	2.0	2.1	3.1	2.6	2.2	2.9	3.6	4.2	5.6	8.0	20.1	13.6	20.3	23.6	11.5	13.1	21.3	5.6	4.5	4.7	5.1	4.5	4.9	5.1	8.1	23.6
11	5.5	6.1	7.5	7.9	8.4	9.3	9.7	10.0	10.6	10.3	10.6	11.0	16.2	17.3	31.0	48.9	44.4	47.0	53.1	80.9	68.0	77.9	87.1	55.3	30.6	87.1
12	53.0	52.8	52.0	38.2	24.5	29.5	24.4	26.0	18.4	15.0	13.6	11.9	10.5	10.7	10.4	11.6	13.9	14.9	13.2	13.2	14.2	15.2	17.1	18.3	21.8	53.0
13	19.2	23.0	26.2	31.6	31.4	34.8	32.6	32.8	33.8	36.5	34.6	33.7	36.6	51.2	35.8	33.9	24.1	20.0	23.9	26.1	26.3	23.4	23.0	23.9	29.9	51.2
14	30.7	28.9	29.3	27.8	26.4	29.2	29.9	23.5	24.9	22.9	22.9	22.5	26.7	19.6	13.8	12.0	11.1	10.8	12.5	12.5	14.1	12.9	11.5	11.8	20.3	30.7
15	12.4	13.9	12.1	14.5	12.6	10.8	8.7	9.6	7.7	9.8	12.0	9.2	18.6	19.6	20.9	21.7	17.3	22.3	19.4	15.6	8.4	9.6	7.6	7.2	13.4	22.3
16	8.1	7.9	8.9	9.1	9.3	9.3	9.0	11.7	15.0	14.6	12.8	10.8	15.7	20.7	14.4	16.9	26.1	8.3	5.7	4.9	4.5	5.8	10.6	2.1	10.9	26.1
17	1.6	1.9	1.6	1.8	2.4	1.8	1.4	1.2	2.2	8.4	7.1	4.7	16.3	10.7	7.5	17.6	12.8	12.6	15.8	1.7	0.9	0.8	1.3	1.2	5.6	17.6
18	1.6	1.7	1.5	1.5	1.1	1.9	1.3	1.9	1.3	1.7	4.0	4.1	3.1	1.8	2.0	3.7	19.7	13.6	8.7	4.2	4.8	5.3	6.0	5.1	4.2	19.7
19	5.4	5.2	5.3	5.9	5.3	3.8	2.6	2.0	1.3	0.7	0.4	0.4	0.2	0.3	0.9	2.1	4.8	6.6	2.2	2.7	1.9	1.7	1.6	1.3	2.7	6.6
20	1.2	2.3	1.8	1.7	2.7	4.3	6.0	5.5	6.5	5.5	5.6	3.3	3.6	2.5	2.6	1.7	2.4	1.7	1.1	1.2	1.4	2.0	2.9	4.1	3.1	6.5
21	4.8	4.4	5.1	2.6	2.2	4.0	3.2	5.5	6.4	5.5	4.8	5.0	9.1	2.9	2.9	2.4	2.0	1.6	2.2	1.7	1.5	1.5	2.4	2.5	3.6	9.1
22	3.5	4.5	3.1	3.2	3.7	3.1	3.2	4.5	5.3	7.8	5.8	7.0	7.3	3.4	4.3	4.6	4.1	2.8	2.7	2.3	3.2	4.0	3.5	2.5	4.1	7.8
23	2.0	2.3	2.3	2.6	3.9	2.8	2.9	3.6	5.5	6.4	22.2	22.5	41.6	32.3	36.1	39.6	35.8	34.9	28.3	35.8	16.0	15.3	18.8	4.8	17.4	41.6
24	9.6	7.7	5.9	1.8	1.6	2.5	2.4	3.2	7.0	16.5	25.4	12.1	14.5	21.3	18.0	26.2	16.1	15.5	23.1	5.6	1.5	1.8	2.0	2.7	10.2	26.2
25	2.4	2.1	3.1	7.1	3.0	1.9	2.1	3.1	2.6	2.7	12.0	16.0	20.1	26.8	25.5	22.6	24.9	18.3	5.6	9.4	1.4	1.2	1.3	1.0	9.0	26.8
26	1.3	1.7	1.4	1.4	1.5	1.7	2.2	8.1	4.3	4.3	5.3	4.6	7.0	5.9	7.3	2.6	3.2	1.8	1.8	1.9	1.8	2.2	3.5	3.4	3.3	8.1
27	2.7	2.7	2.9	2.3	2.9	3.1	2.9	3.6	5.4	8.8	5.5	14.9	23.1	55.9	36.4	22.8	36.2	14.9	5.7	3.7	6.1	12.1	4.5	4.8	11.8	55.9
28	5.4	6.1	14.1	6.8	7.3	7.1	8.1	9.3	8.3	9.9	14.6	8.6	13.9	8.1	7.2	7.5	6.6	3.1	3.0	7.2	11.1	16.8	11.4	7.9	8.7	16.8
29	8.3	9.4	7.9	9.4	12.5	18.7	22.5	15.0	15.6	16.8	12.9	12.3	12.7	11.6	9.8	8.6	6.9	6.8	6.7	6.4	6.5	6.3	6.4	7.4	10.7	22.5
30	6.4	9.8	7.5	8.1	8.4	6.7	6.0	6.1	6.0	5.9	7.8	6.2	11.2	16.4	14.4	7.0	P	P	P	P	P	P	P	P	-	-
NO.	30	30	30	30	30	30	30	30	30	30	30	30	29	30	30	30	29	29	29	29	29	29	29	29	711	99%
MEAN	9.8	10.1	10.3	10.0	9.7	10.4	10.7	11.6	12.3	13.9	16.1	15.7	18.7	18.8	17.7	17.3	16.2	13.3	11.9	11.5	10.1	11.5	11.2	9.1		
MAX	53.0	52.8	52.0	38.2	39.5	38.6	37.2	37.0	35.5	58.1	59.2	61.8	94.7	59.7	58.1	51.2	44.4	47.0	53.1	80.9	68.0	77.9	87.1	55.3		



Number of 24HR Exceedences	3	Proposed Guideline
Number of Non-Zero Readings	711	
Maximum 1-HR Average	94.7 UG/M3	
Maximum 24-HR Average	30.6 UG/M3	
Monthly Calibration	0	Operational Time
Standard Deviation	13.4	Operational Uptime
		Monthly Average
		711 HRS
		98.8 %
		12.8 UG/M3

Berm PM₁₀ (µg/m³) – September 2022

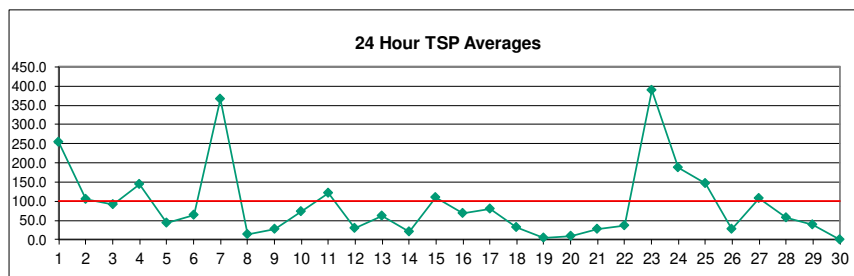
DAY	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	13.8	7.2	6.6	6.7	14.9	11.6	13.1	19.4	167.4	371.2	349.3	254.3	256.0	368.3	291.8	283.8	212.4	105.6	28.1	17.8	24.1	23.0	20.7	13.8	120.0	371.2	
2	8.6	17.0	17.5	30.6	13.8	13.9	10.8	23.1	56.0	93.9	138.4	45.5	106.8	107.5	150.1	137.3	146.1	97.9	32.2	5.6	6.3	21.4	24.0	25.2	55.4	150.1	
3	19.5	13.2	17.3	26.7	34.6	25.4	28.7	39.3	74.9	64.4	83.4	87.6	89.9	57.5	257.6	81.6	23.8	34.1	18.7	40.2	35.3	117.9	63.9	47.4	57.6	257.6	
4	81.1	68.5	45.9	48.7	55.1	53.9	54.3	69.1	47.3	49.5	129.9	276.9	136.7	129.4	71.6	49.0	60.2	103.7	87.4	64.2	26.4	64.5	31.7	35.5	76.7	276.9	
5	56.8	49.0	60.9	43.9	17.6	48.3	43.8	41.7	37.4	25.9	23.9	21.3	16.8	17.4	27.3	14.1	16.2	12.1	15.5	12.5	16.7	22.8	20.4	12.9	28.1	60.9	
6	10.1	8.8	10.8	17.7	24.8	10.8	6.1	27.3	55.3	64.1	31.2	Y	21.2	20.9	23.9	25.6	39.5	202.4	82.0	15.9	12.7	12.3	53.1	32.8	35.2	202.4	
7	54.3	33.6	21.4	16.3	22.4	106.6	149.6	103.2	88.2	156.3	325.1	396.8	649.4	256.0	185.0	371.1	177.1	64.7	195.7	194.9	148.2	99.7	22.5	11.7	160.4	649.4	
8	12.8	12.1	10.8	9.6	27.0	5.2	7.1	12.0	4.1	2.6	2.8	2.7	5.2	4.5	5.7	5.3	5.7	6.7	8.3	6.5	5.3	8.9	8.0	1.4	7.5	27.0	
9	1.6	3.2	1.8	2.8	3.7	5.3	4.8	4.5	6.2	4.3	11.7	16.5	47.9	85.6	72.4	111.8	30.8	5.0	2.0	1.2	1.6	8.0	3.6	9.1	18.6	111.8	
10	4.4	4.2	8.1	5.5	3.0	3.8	4.8	5.3	12.8	11.2	34.5	122.3	52.7	104.2	128.5	39.6	58.5	128.0	14.1	7.3	7.0	7.2	5.6	7.1	6.2	32.3	128.5
11	6.9	7.0	10.6	9.5	8.9	11.2	10.8	11.2	13.0	11.6	13.6	20.1	52.7	54.2	134.7	165.2	115.7	120.2	137.8	225.0	158.4	192.8	221.7	78.0	74.6	225.0	
12	59.3	55.8	53.4	41.9	27.9	31.3	26.5	49.9	33.6	23.2	21.7	21.5	19.1	22.4	20.7	25.9	40.5	43.8	25.0	22.7	16.9	16.8	20.5	21.7	30.9	59.3	
13	20.7	23.4	26.6	35.5	32.3	43.0	32.9	33.6	46.2	75.8	67.7	65.0	81.2	173.8	94.9	81.2	61.3	34.5	28.2	26.6	27.4	25.4	23.8	25.9	49.5	173.8	
14	40.0	35.5	36.6	33.6	30.1	36.5	38.2	25.9	28.9	25.5	28.0	28.6	39.7	28.3	18.5	18.1	16.2	14.2	15.5	18.1	25.1	19.3	14.0	15.8	26.2	40.0	
15	14.9	17.4	14.4	19.2	15.6	12.7	9.7	11.9	8.5	26.9	33.2	14.4	100.5	78.3	121.3	137.2	93.5	134.1	120.4	72.7	17.6	30.7	11.4	8.0	46.8	137.2	
16	10.2	8.6	9.8	10.2	10.6	10.6	9.5	15.3	21.4	30.3	41.1	20.9	70.9	93.6	51.5	74.6	135.5	24.6	15.9	9.6	6.4	9.8	37.4	5.4	30.6	135.5	
17	2.5	3.6	2.3	3.3	6.3	6.3	3.7	3.7	12.7	68.3	49.5	26.6	105.0	70.0	44.3	129.6	86.4	87.5	121.9	5.8	1.9	1.2	2.3	1.6	35.3	129.6	
18	15.6	3.3	2.4	4.3	1.5	4.1	2.6	5.1	2.4	5.2	14.3	18.9	10.0	4.0	5.1	17.1	111.4	65.6	41.4	5.8	7.4	7.1	9.5	5.5	15.4	111.4	
19	6.9	5.8	6.0	12.8	9.7	9.9	3.5	2.2	1.4	0.8	0.5	0.4	0.2	0.3	1.0	2.8	6.9	9.5	2.4	3.1	2.1	1.9	1.8	1.4	3.9	12.8	
20	1.2	2.9	1.9	1.7	2.8	5.2	8.2	7.7	9.2	7.9	8.1	8.9	15.4	10.8	13.2	6.1	12.0	5.7	1.5	1.4	1.8	2.7	4.1	6.0	6.1	15.4	
21	7.1	6.3	7.4	3.5	2.8	5.8	4.5	8.1	44.5	37.6	29.0	31.0	44.0	10.2	11.0	10.7	7.5	3.4	5.3	2.9	2.1	2.0	5.4	5.2	12.4	44.5	
22	8.7	15.4	7.2	9.1	17.7	11.5	10.2	21.2	27.2	53.0	27.3	36.8	45.5	19.5	20.0	21.1	15.8	8.1	8.9	3.8	8.4	13.9	12.2	5.7	17.8	53.0	
23	3.9	4.7	4.4	6.5	13.9	3.9	3.8	7.4	18.4	23.6	150.7	141.0	316.6	258.8	267.1	289.1	272.1	270.7	210.1	268.0	103.3	117.0	129.2	24.6	121.2	316.6	
24	49.3	40.9	23.9	3.0	2.7	9.0	7.5	18.6	57.2	110.7	179.7	81.6	118.1	192.7	141.5	199.1	136.9	120.7	197.2	30.9	2.4	3.1	3.6	5.5	71.9	199.1	
25	4.1	3.7	8.9	44.2	10.0	2.7	3.7	8.2	6.1	5.7	76.0	116.9	128.3	190.8	170.4	160.5	190.2	127.6	38.4	56.3	4.1	2.9	2.8	1.3	56.8	190.8	
26	1.8	2.9	2.1	1.9	1.9	2.6	5.4	58.0	23.9	19.5	25.9	24.4	38.1	31.0	34.4	11.0	15.6	5.7	3.4	3.4	3.5	4.9	10.0	10.0	14.2	58.0	
27	7.4	6.5	7.2	3.6	6.1	5.7	5.2	8.1	22.9	55.5	20.5	79.1	119.4	289.8	218.9	150.0	237.7	86.9	22.1	8.3	15.6	53.0	10.1	8.1	60.3	289.8	
28	11.8	10.3	40.2	13.0	14.9	18.3	23.6	33.5	27.7	47.1	83.6	39.1	76.2	37.0	34.0	39.5	31.2	7.7	5.8	25.4	41.8	69.2	36.8	18.9	32.8	83.6	
29	19.9	24.4	15.5	20.3	36.3	88.1	100.9	56.4	59.6	67.7	30.3	15.7	17.4	14.7	10.6	11.4	7.6	7.2	7.2	6.8	7.0	6.9	7.0	9.1	27.0	100.9	
30	8.2	13.4	9.9	10.8	11.5	9.2	7.9	8.4	8.2	8.1	11.5	8.8	16.8	24.7	40.5	24.2	P	P	P	P	P	P	P	P	-	-	
NO. MEAN MAX	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	29	29	29	29	29	29	29	711	99%	
	18.8	16.6	16.4	16.5	16.0	20.4	21.4	24.6	34.1	52.4	71.0	67.4	95.0	92.7	85.9	90.4	83.9	62.9	51.2	40.1	25.4	33.3	28.2	15.6			
	81.1	68.5	60.9	48.7	55.1	106.6	149.6	103.2	167.4	371.2	349.3	396.8	649.4	368.3	291.8	371.1	272.1	270.7	210.1	268.0	158.4	192.8	221.7	78.0			



Number of Non-Zero Readings	711		
Maximum 1-HR Average	649.4 UG/M3		
Maximum 24-HR Average	160.4 UG/M3		
		Operational Time	711 HRS
Monthly Calibration	0	Operational Uptime	98.8 %
Standard Deviation	67.65	Monthly Average	45.0 UG/M3

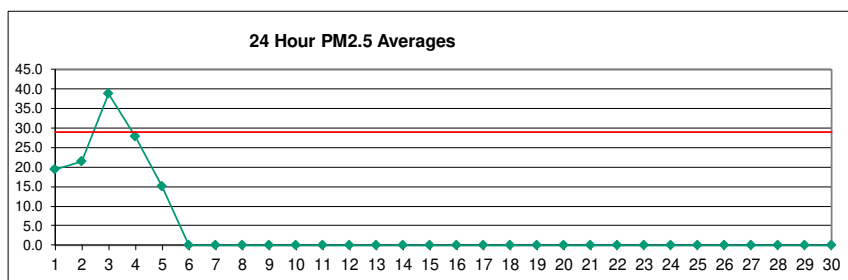
Berm TSP (µg/m³) – September 2022

DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	21.6	6.3	8.1	5.9	25.4	15.3	21.7	42.3	471.6	896.6	719.7	490.7	588.8	727.9	497.6	675.9	439.0	238.3	58.1	26.1	35.0	42.2	29.3	25.6	254.5	896.6
2	10.4	34.8	22.8	38.7	14.8	23.1	16.1	51.5	149.6	214.5	310.8	80.6	234.7	189.6	269.8	268.6	224.4	158.9	61.2	5.3	4.9	37.5	47.8	45.1	104.8	310.8
3	26.0	12.9	13.1	23.8	35.4	21.8	27.1	48.6	106.6	112.9	118.5	116.9	118.0	78.5	594.0	152.9	32.6	43.8	16.1	37.6	37.8	263.5	98.6	63.6	91.7	594.0
4	126.0	102.2	42.2	57.7	56.3	66.2	75.3	151.6	80.7	91.3	295.5	693.7	335.3	314.7	187.8	109.0	107.7	152.8	109.1	80.7	23.9	72.6	37.0	66.0	143.1	693.7
5	99.3	82.4	101.3	86.2	26.6	83.2	77.6	48.2	47.4	25.1	35.3	24.7	33.4	28.2	41.0	21.6	23.9	18.2	26.0	14.1	20.2	34.6	29.2	14.0	43.4	101.3
6	8.5	7.7	15.2	26.1	36.3	14.2	7.2	30.6	102.4	117.6	44.6	Y	38.9	31.4	34.8	43.5	66.6	512.9	172.0	21.0	17.1	9.2	62.7	29.5	63.0	512.9
7	52.0	31.9	22.3	12.4	25.4	206.3	304.9	185.3	112.8	289.2	761.6	876.2	1753.6	536.9	442.8	923.1	444.0	150.8	455.2	550.0	358.2	226.5	55.8	17.3	366.4	1753.6
8	21.6	16.7	12.9	13.9	86.9	7.1	8.1	14.5	6.8	5.0	4.2	5.0	6.5	9.1	5.7	6.3	8.1	10.4	11.9	11.5	4.0	8.5	21.0	2.7	12.9	86.9
9	1.1	2.6	1.4	2.1	2.9	4.6	4.3	3.8	5.5	6.4	24.2	33.0	108.7	134.9	106.8	117.8	37.3	8.1	2.7	1.1	1.1	12.4	5.0	10.7	26.6	134.9
10	4.8	4.0	5.8	4.2	7.4	5.4	7.1	7.5	21.9	126.3	395.0	135.2	257.2	266.7	58.5	102.4	269.9	20.8	8.4	8.4	5.1	4.5	7.8	5.7	72.5	395.0
11	5.6	7.1	13.4	11.8	6.8	11.1	10.7	16.5	15.5	9.0	12.4	28.7	79.1	96.0	297.0	444.3	280.1	280.2	305.5	311.6	196.2	199.7	199.6	60.0	120.7	444.3
12	41.8	39.0	35.8	33.0	23.7	23.8	20.8	48.2	31.0	24.1	27.7	21.8	23.5	34.5	27.4	33.9	42.9	42.5	24.4	21.5	11.8	11.6	23.1	23.8	28.8	48.2
13	14.7	15.2	17.4	23.7	21.0	30.5	21.3	22.1	51.4	133.1	105.4	80.9	123.5	345.2	141.6	120.0	86.6	35.2	29.4	17.2	17.9	17.6	15.5	17.0	62.6	345.2
14	26.6	23.3	24.3	21.8	19.6	24.4	26.2	17.6	20.1	17.8	21.1	22.5	37.4	23.6	16.9	16.0	15.2	13.6	13.0	19.8	33.1	18.2	11.0	14.0	20.7	37.4
15	10.3	12.6	10.1	14.1	10.9	8.6	6.5	8.6	5.8	60.2	59.7	17.9	299.9	180.9	339.5	348.3	215.6	345.4	343.1	191.0	44.7	76.5	11.7	5.8	109.5	348.3
16	8.6	6.5	7.0	7.2	7.5	7.3	6.2	12.5	19.9	46.8	87.6	42.1	177.7	256.1	115.9	171.3	382.1	60.0	40.4	12.9	9.0	16.9	125.0	13.1	68.3	382.1
17	3.0	3.5	1.5	3.2	7.6	23.0	6.0	14.3	39.3	198.6	128.8	58.4	220.3	151.9	96.3	305.4	195.7	194.0	279.0	8.6	2.2	0.8	1.9	1.9	81.1	305.4
18	54.3	2.6	2.7	11.5	8.7	3.4	4.6	12.2	4.3	19.6	22.2	31.2	11.6	3.7	6.4	33.7	250.6	139.4	105.8	5.0	8.3	5.0	8.1	3.6	31.6	250.6
19	4.6	3.9	3.9	20.4	13.7	26.6	3.8	1.4	0.9	0.5	0.3	0.3	0.1	0.2	0.6	2.3	6.4	8.0	1.6	2.1	1.4	1.3	1.2	0.9	4.4	26.6
20	0.8	2.5	1.3	1.1	1.9	4.0	6.7	6.6	8.0	7.2	8.1	23.9	51.2	23.5	30.0	9.6	20.7	12.5	1.0	1.2	1.2	2.3	3.6	5.6	9.8	51.2
21	6.6	6.2	7.3	2.8	2.2	5.7	4.0	8.8	165.8	119.9	86.1	75.8	58.6	18.5	21.1	26.4	17.2	4.1	6.1	4.0	3.1	2.5	6.1	5.7	27.7	165.8
22	10.7	73.1	11.1	20.9	49.7	27.1	22.8	57.8	58.4	121.7	54.9	62.9	67.8	32.0	28.4	36.3	19.9	11.8	22.2	3.5	12.6	20.3	26.3	8.8	35.9	121.7
23	7.4	7.3	7.5	14.2	41.5	4.6	3.7	11.4	35.5	53.3	472.7	438.2	892.6	816.7	852.6	986.6	887.0	920.0	798.4	863.9	306.3	396.0	421.0	85.6	388.5	986.6
24	107.9	54.9	48.6	4.8	3.7	20.8	11.9	51.6	179.3	313.1	503.9	202.7	344.0	502.7	380.5	503.3	358.1	280.8	518.2	72.4	2.9	2.8	7.7	6.0	186.8	518.2
25	4.3	3.2	24.4	128.1	26.0	5.7	5.5	23.1	17.3	12.1	176.8	289.8	241.2	465.5	437.2	445.9	568.1	411.2	133.8	102.3	4.7	7.3	6.3	1.2	147.5	568.1
26	1.5	3.7	4.1	1.4	1.8	2.4	8.2	165.2	70.2	45.2	50.4	51.9	61.3	50.9	41.3	14.9	20.7	8.0	2.5	2.6	2.7	4.4	13.7	11.0	26.7	165.2
27	13.6	11.1	14.1	6.1	10.0	8.0	8.5	15.4	59.3	134.8	33.4	124.7	181.4	498.8	392.3	301.1	468.2	165.2	38.7	8.3	12.3	80.9	14.2	9.1	108.7	498.8
28	14.0	9.7	55.8	21.9	24.2	41.8	54.8	68.1	54.9	138.7	209.0	68.1	144.4	48.6	44.6	48.6	40.8	9.9	7.3	30.9	61.3	98.8	46.3	19.6	56.8	209.0
29	19.8	22.1	14.1	25.9	54.3	156.1	172.3	103.8	96.8	124.9	37.4	12.9	13.7	10.9	7.0	10.6	5.4	4.7	4.7	4.4	4.5	4.4	4.6	6.1	38.4	172.3
30	5.9	9.0	6.9	7.2	7.7	6.4	5.6	6.5	6.7	7.0	11.6	7.6	18.8	28.4	47.3	29.9	P	P	P	P	P	P	P	P	-	-
NO.	30	30	30	30	30	30	30	30	30	30	30	30	29	30	30	30	29	29	29	29	29	29	29	29	711	99%
MEAN	24.4	20.6	18.6	21.7	22.0	29.6	32.0	41.9	68.2	115.8	160.6	142.0	217.4	196.9	185.4	210.3	190.9	146.9	124.0	84.1	42.9	57.9	46.2	20.0		
MAX	126.0	102.2	101.3	128.1	86.9	206.3	304.9	185.3	471.6	896.6	761.6	876.2	1753.6	816.7	852.6	986.6	887.0	920.0	798.4	863.9	358.2	396.0	421.0	85.6		



Number of 24HR Exceedences	10	Proposed Guideline
Number of Non-Zero Readings	711	
Maximum 1-HR Average	1753.6 UG/M3	
Maximum 24-HR Average	388.5 UG/M3	
IZS Calibration Time		Operational Time
Monthly Calibration	0	Operational Uptime
Standard Deviation	172.8	Monthly Average
		711 HRS
		98.8 %
		92.5 UG/M3

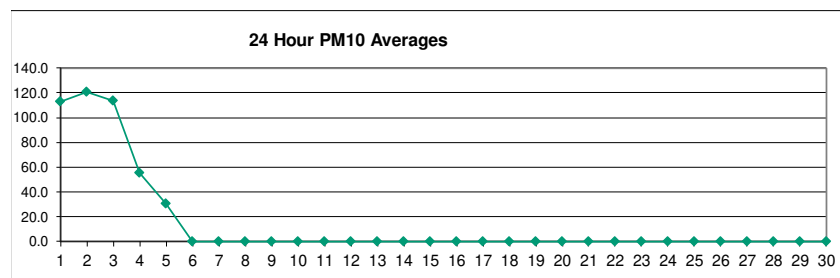
Entrance PM_{2.5} (µg/m³) – September 2022

[illegible]

Number of 24HR Exceedences	1	Proposed Guideline	
Number of Non-Zero Readings	131		
Maximum 1-HR Average	62.0	UG/M3	
Maximum 24-HR Average	38.8	UG/M3	
Monthly Calibration	0	Operational Time	131 HRS
Standard Deviation	15.17	Operational Uptime	18.2 %
		Monthly Average	23.7 UG/M3

Entrance PM₁₀ (µg/m³) – September 2022

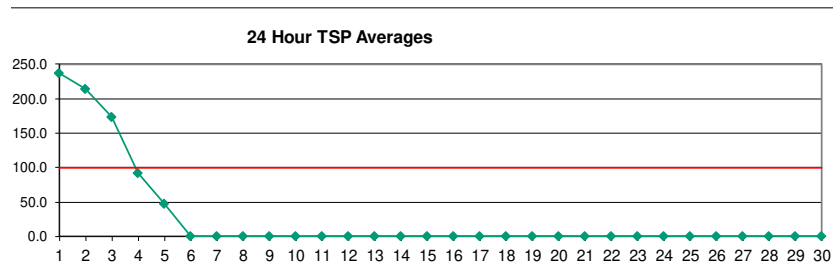
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	33.9	125.6	65.1	92.7	178.5	182.3	245.0	227.9	282.1	116.6	117.1	138.8	84.8	65.3	68.0	130.3	152.0	151.3	50.2	40.0	30.4	34.7	39.6	53.5	112.7	282.1
2	40.5	55.3	73.3	62.0	110.4	118.5	130.1	139.4	168.9	101.2	44.9	76.3	47.8	38.0	61.9	48.8	28.2	30.0	30.8	39.1	68.5	336.3	553.4	483.6	120.3	553.4
3	159.9	84.0	103.1	138.2	197.1	137.8	239.9	173.9	209.2	173.7	81.8	66.1	62.6	64.1	156.3	69.4	37.9	36.0	44.2	132.3	111.8	77.2	83.0	77.2	113.2	239.9
4	75.0	72.2	94.4	71.1	98.3	105.9	90.8	80.8	62.8	45.2	70.8	120.3	46.0	43.3	30.0	25.1	20.1	21.8	20.2	17.6	26.5	28.5	40.6	24.4	55.5	120.3
5	24.0	21.2	15.5	12.5	9.7	9.1	52.6	59.2	56.2	36.7	32.7	37.1	41.2	27.1	25.3	25.2	26.9	20.4	31.6	30.1	29.9	27.6	32.5	45.9	30.4	59.2
6	21.0	15.9	13.1	57.9	13.1	26.4	42.2	76.1	26.9	50.8	116.5	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
7	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
8	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
9	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
10	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
11	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
12	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
13	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
14	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
15	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
16	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
17	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
18	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
19	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
20	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
21	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
22	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
23	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
24	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
25	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
26	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
27	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
28	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
29	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
30	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
NO.	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	131	18%
MEAN	59.1	62.4	60.8	72.4	101.2	96.7	133.4	126.2	134.4	87.4	77.3	87.7	56.5	47.6	68.3	59.8	53.0	51.9	35.4	51.8	53.4	100.8	149.8	136.9		
MAX	159.9	125.6	103.1	138.2	197.1	182.3	245.0	227.9	282.1	173.7	117.1	138.8	84.8	65.3	156.3	130.3	152.0	151.3	50.2	132.3	111.8	336.3	553.4	483.6		



Number of Non-Zero Readings	131
Maximum 1-HR Average	553.4 UG/M3
Maximum 24-HR Average	120.3 UG/M3
Monthly Calibration	0
Standard Deviation	81.28
Operational Time	131 HRS
Operational Uptime	18.2 %
Monthly Average	82.7 UG/M3

Entrance TSP (µg/m³) – September 2022

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	69.7	286.4	71.6	129.3	324.4	318.0	439.7	343.5	536.3	345.6	310.3	376.1	220.7	151.9	141.8	317.9	362.4	485.1	130.7	81.8	61.3	64.2	61.3	70.9
2	49.2	84.1	115.5	85.6	169.5	193.9	224.9	244.2	279.0	168.7	84.5	140.6	81.1	69.3	140.5	117.2	60.4	47.0	47.7	71.8	92.2	671.2	1027.9	893.1
3	299.3	131.3	135.2	198.5	266.8	192.1	402.2	294.6	341.9	279.4	104.7	80.3	77.1	76.0	323.3	108.3	52.6	35.6	46.5	206.6	153.7	111.2	131.6	107.2
4	86.3	90.0	139.0	95.3	137.8	167.4	151.3	129.9	87.3	59.3	138.8	321.8	113.6	110.0	64.6	38.8	33.5	35.1	21.9	18.0	28.5	28.9	63.8	41.0
5	43.6	25.3	23.5	15.6	8.2	10.2	124.3	82.0	70.7	45.1	48.8	54.1	64.2	58.1	44.3	53.5	55.1	34.9	60.1	56.0	40.9	33.9	40.5	45.1
6	21.5	15.9	11.4	90.5	11.7	25.8	45.0	110.1	42.8	83.6	252.2	G	G	G	G	G	G	G	G	G	G	G	G	G
7	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
8	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
9	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
10	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
11	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
12	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
13	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
14	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
15	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
16	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
17	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
18	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
19	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
20	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
21	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
22	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
23	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
24	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
25	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
26	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
27	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
28	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
29	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
30	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
NO.	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5
MEAN	94.9	105.5	82.7	102.5	153.1	151.2	231.2	200.7	226.3	163.6	156.6	194.6	111.3	93.1	142.9	127.1	112.8	127.5	61.4	86.9	75.3	181.9	265.0	231.5
MAX	299.3	286.4	139.0	198.5	324.4	318.0	439.7	343.5	536.3	345.6	310.3	376.1	220.7	151.9	323.3	317.9	362.4	485.1	130.7	206.6	153.7	671.2	1027.9	893.1



Number of 24HR Exceedences	3	Proposed Guideline
Number of Non-Zero Readings	131	
Maximum 1-HR Average	1027.9 UG/M3	
Maximum 24-HR Average	237.5 UG/M3	
Monthly Calibration	0	Operational Time
Standard Deviation	158.2	Operational Uptime
		Monthly Average
		131 HRS
		18.2 %
		145.5 UG/M3