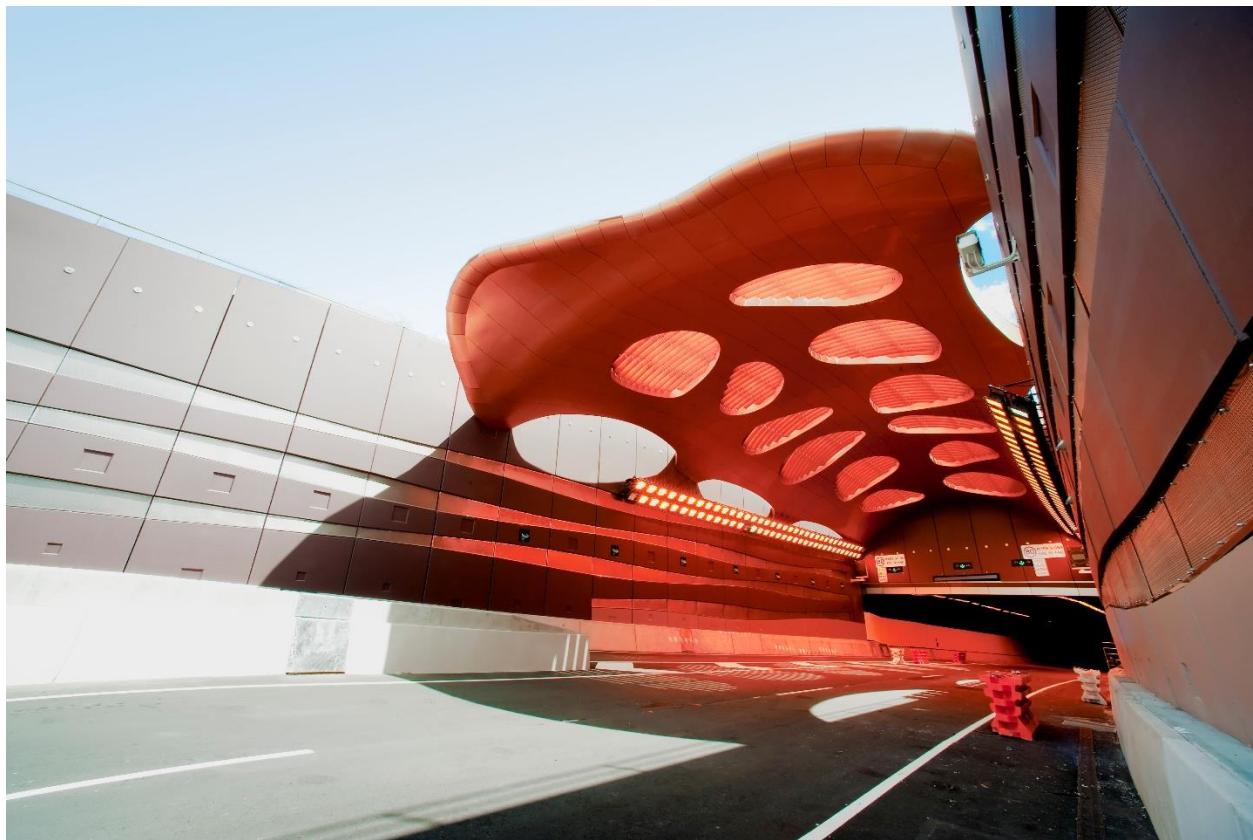


LAFARGE CANADA INC.

AMBIENT AIR QUALITY MONTHLY REPORT

SEPTEMBER 2019

OCTOBER 23, 2019



WSP



AMBIENT AIR QUALITY MONTHLY REPORT

SEPTEMBER 2019

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-00
DATE: OCTOBER 23, 2019

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October 23, 2019

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

Attention: Janet Brygger

Dear Ms. Brygger

Subject: Ambient Air Quality Monthly Report - September 2019

The operational uptime for all analyzers and the wind sensors was 100% (except for the rest of the meteorological systems) at the Lagoon station in September. The temperature sensor had 99.7% uptime due to two hours of operational maintenance on September 4, 2019. There were no exceedances of the 24-hour TSP Alberta Ambient Air Quality Objectives (AAAQOs), the 24-hour PM_{2.5} AAAQOs, nor the 1-hour PM_{2.5} AAAQG in September at the Lagoon monitoring location.

The Windridge station was taken out of operation beginning April 8th as a result of construction work for flood mitigation along Exshaw Creek. The monitor at this station is expected to be re-installed sometime in 2020, after the completion of the construction work

Data collected at all of 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. The operational uptime at all 3 monitors was as follows: 100% at the West GRIMM, 100% at the Berm GRIMM, and 94.4% at the Entrance GRIMM due to 40 hours of pump failure. The West GRIMM monitor recorded zero exceedances of the 24-hour TSP AAAQG and the 24-hour PM_{2.5} AAAQG. The Berm GRIMM had 12 exceedances of the TSP guideline and zero exceedances of the PM_{2.5} guideline. The Entrance GRIMM monitor recorded 11 and zero exceedances for the 24-hour TSP AAAQG and 24-hour PM_{2.5} AAAQG, respectively. High particulate levels and exceedances at the Berm and Entrance monitors are likely influenced by flood mitigation work along Exshaw creek and the hauling of creek materials along Highway 1A which is producing fugitive dust near the monitors.

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

Sincerely,

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

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October 23, 2019

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Date

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



October 23, 2019

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. The station is operated by WSP on behalf of Lafarge Canada Inc. (Lafarge) and is a requirement of Lafarge's Approval 1702-02-04. This report contains data collected between September 1, 2019 and September 30, 2019.

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

1.1 EXSHAW CREEK FLOOD MITIGATION

Due to flood mitigation construction at Exshaw creek (Figure 1-1), the Windridge monitor was taken out of operation and removed from the site on April 8, 2019. The monitoring station will be re-installed after the completion of construction in 2020.

Dust created from the flood mitigation work has the potential to impact particulate matter concentrations at the remaining stations.



Figure 1-1 Photo of Flood Mitigation Construction at Exshaw Creek

2 SEPTEMBER 2019 REPORT SUMMARY

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

2.1 LAGOON STATION

Table 2-1 Lagoon station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQO or AAAQG	Maximum Concentration	Exceedances of AAAQO
NO ₂ (ppb)	100.0	18.6	0	9.7	-
SO ₂ (ppb)	100.0	10.3	0	1.5	0
PM _{2.5} (µg/m ³)	100.0	18.5	0 ¹	8.7	0
PM ₁₀ (µg/m ³)	100.0	145.5	-	33.4	-
TSP (µg/m ³)	100.0	467.4	-	55.8	0
Temperature (°C)	99.7	24.8	-	17.0	-
Wind Speed (km/hr) /Direction (Degrees)	100.0	37.1/W	-	26.9/WSW	-
Precipitation (mm)	100.0	2.75 ²	-	41.25 ³	-

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

²Maximum Daily Total Accumulation of Precipitation (mm)

³Monthly Total Accumulation of Precipitation (mm)

Data Quality Notes:

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

Calibration/Maintenance Notes:

- The NO_x, SO₂, PM_{2.5}, PM₁₀, and TSP analysers had 100% uptime for the month of September
 - The wind sensor was calibrated on September 4th for two hours (11:00-13:00) and had 100% uptime for the month of September
 - The other meteorological sensors had 99.7% uptime due to two hours of maintenance on September 4, 2019
-

2.2 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 2-2 West station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} ($\mu\text{g}/\text{m}^3$)	100.0	16.8	0*	11.9	0
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	100.0	40.2	-	15.4	-
TSP ($\mu\text{g}/\text{m}^3$)	100.0	95.3	-	24.3	0

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

Data Quality Notes:

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

Calibration/Maintenance Notes:

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

2.3 BERM GRIMM

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

Table 2-3 Berm station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} ($\mu\text{g}/\text{m}^3$)	100.0	57.5	0*	20.0	0
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	100.0	516.1	-	173.4	-
TSP ($\mu\text{g}/\text{m}^3$)	100.0	2097.8	-	613.0	12

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

Data Quality Notes:

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

Calibration/Maintenance Notes:

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

2.4 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 2-4 Entrance station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} ($\mu\text{g}/\text{m}^3$)	94.4	59.8	0*	15.9	0
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	94.4	309.7	-	90.5	-
TSP ($\mu\text{g}/\text{m}^3$)	94.4	1153.4	-	223.7	11

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

Data Quality Notes:

- There were no exceedances of the 24-hour PM_{2.5} AAAQG.
- There were no exceedances of the 1-hour PM_{2.5} AAAQG.
- There were 11 days exceeding the 24-hour TSP AAAQG.

Calibration/Maintenance Notes:

- The analyzer had 94.4% uptime for the month of September due to 40-hours of pump failure between September 25th at 19:00 to September 27th at 10:00

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 3-2) and tables and graphs illustrating the monitoring results for September 2019.

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 4 th . The monitor had 100% uptime in September.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on September 4 th . The monitor had 100% uptime in September.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on September 4 th . The monitor had 100% uptime in September.
Oxides of Nitrogen	TEI 42C	The monitor was calibrated on September 4 th . The monitors had 100% uptime in September.
Sulphur Dioxide	Teledyne API 102A	The monitor was calibrated from September 4 th at 5:00 to September 5 th at 12:00. The monitor had 100% uptime in September.
Precipitation	MetOne 130 Rain/Snow Gauge	The monitor had 100% uptime in September.
Wind Speed	MetOne Wind Sensor	The wind sensor was calibrated on September 4 th from 11:00 to 13:00. The monitors had 100% uptime in September.
Wind Direction		

Ambient Temperature	MetOne Ambient Temperature Sensor	The monitor had 99.7% uptime in September due to two hours of maintenance from September 4 th at 11:00 to 13:00.
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Figure 3-1 Inlets on the top of WSP's Lagoon monitor

3.2 MONITORING RESULTS AND TRENDS

The following wind rose (Figure 3-2) illustrates the frequency of wind speed by wind direction for the month of September 2019. The wind rose indicates that the winds predominantly came from the west direction.

Table 3-2 summarizes the hourly, daily, and monthly concentrations recorded in September 2019.

Figure 3-3 graphically illustrates the time series for hourly concentrations as well as wind speed and direction, while Figure 3-9 shows daily average concentrations recorded during September 2019 for the pollutants listed in Table 3-2. Additionally, Figure 3-4 to Figure 3-8 show the histograms of the hourly concentrations of NO₂, SO₂, PM_{2.5}, PM₁₀, and TSP measured at the Lagoon station.

Dust created from the flood mitigation work (section 1.1) has the potential to impact the monitored particulate matter concentrations in the airshed, including at the Lagoon station. However, there were no exceedances of the 24-hour TSP (100 µg/m³) AAAQO, the 24-hour PM_{2.5} (29 µg/m³) AAAQO, nor the 1-hour PM_{2.5} AAAQG.

Historically in September, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM_{2.5} AAAQO exceedances are both zero. The maximum number of 24-hour AAAQO exceedances was 5 days in 2017 for TSP, and 5 days in 2017 for PM_{2.5}.

Table 3-2 Summary of September 2019 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	-	0.0	5.2	18.6	16	14	4.5	96.8	9.7	16	100.0
SO ₂ (ppb)	172	48	Lagoon	0	0	0.0	0.5	10.3	3	9	19.5	269.0	1.5	3	100.0
PM _{2.5} (µg/m ³)	80	29	Lagoon	0	0	0.0	4.2	18.5	1	23	8.9	268.3	8.7	1	100.0
PM ₁₀ (µg/m ³)	-	-	Lagoon	-	-	0.0	14.2	145.5	23	15	35.3	269.3	33.4	23	100.0
TSP (µg/m ³)	-	100	Lagoon	-	0	0.0	23.1	467.4	9	17	18.7	67.1	55.8	23	100.0
Temperature (°C)	-	-	Lagoon	-	-	-4.6	10.5	24.8	3	16	15.6	263.0	17.0	4	99.7
Wind Speed (km/hr)/Direction (degrees)	-	-	Lagoon	-	-	1.4	14.3	37.1/W	23	18	37.1	271.5	26.9/WSW	24	100.0
Precipitation (mm)	-	-	Lagoon	-	-	0.0	0.1	2.8	8	21	14.7	100.8	41.3		100.0

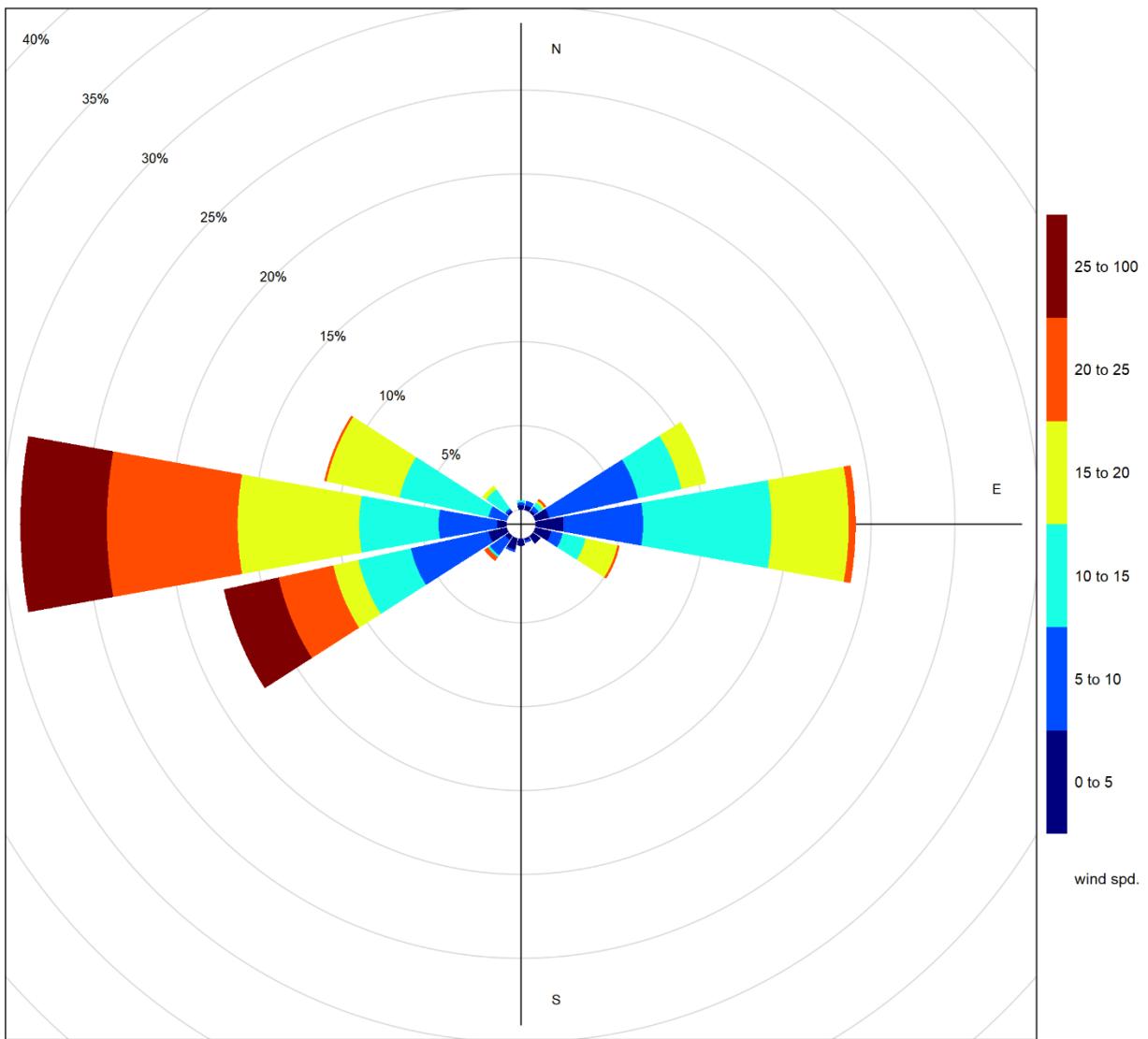


Figure 3-2 September 2019 wind rose from the Lagoon Station

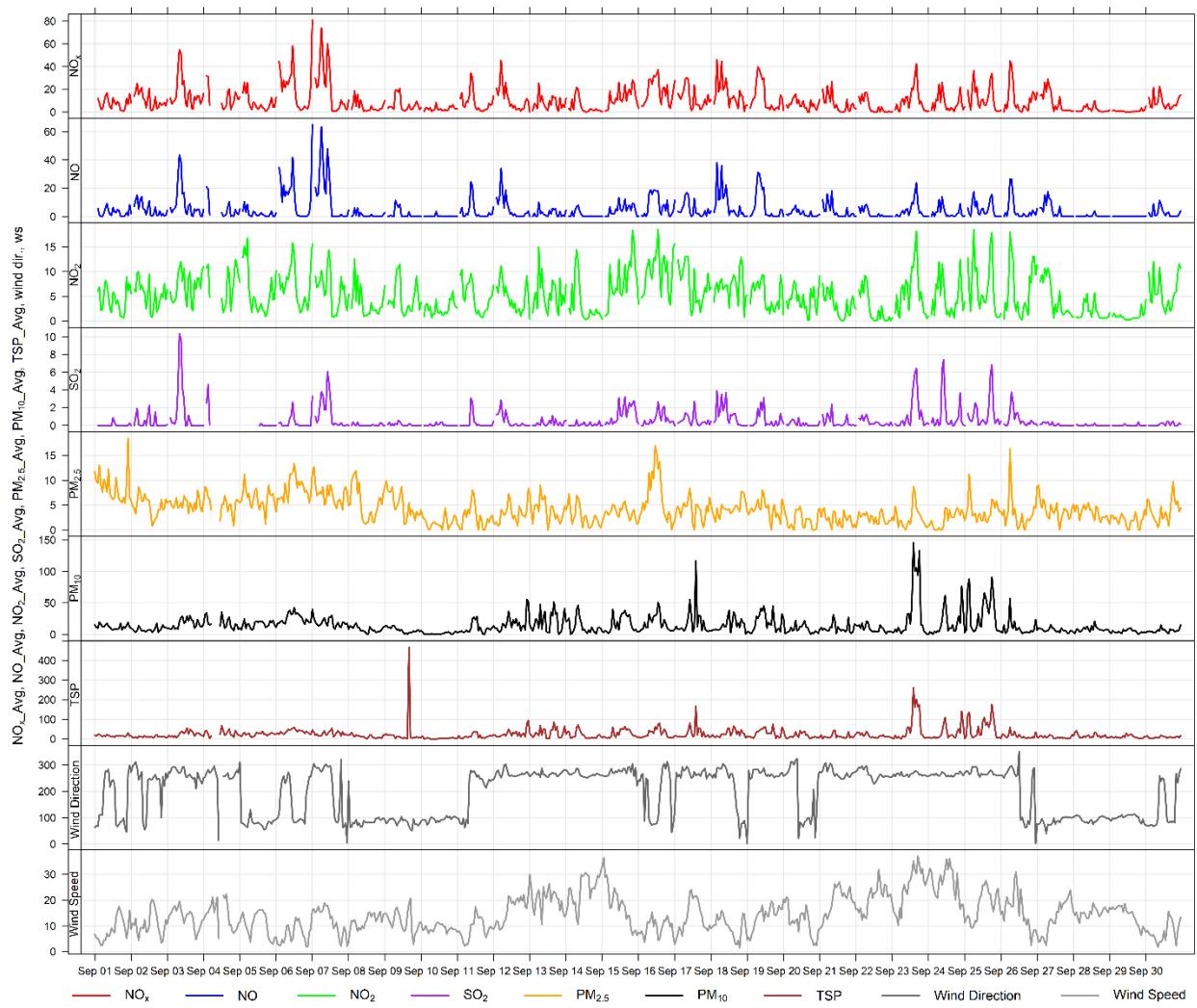


Figure 3-3 1-hour concentrations of NO_x, SO₂, particulate matter, wind direction and wind speed at the Lagoon station

Histogram of Hourly NO₂ Readings

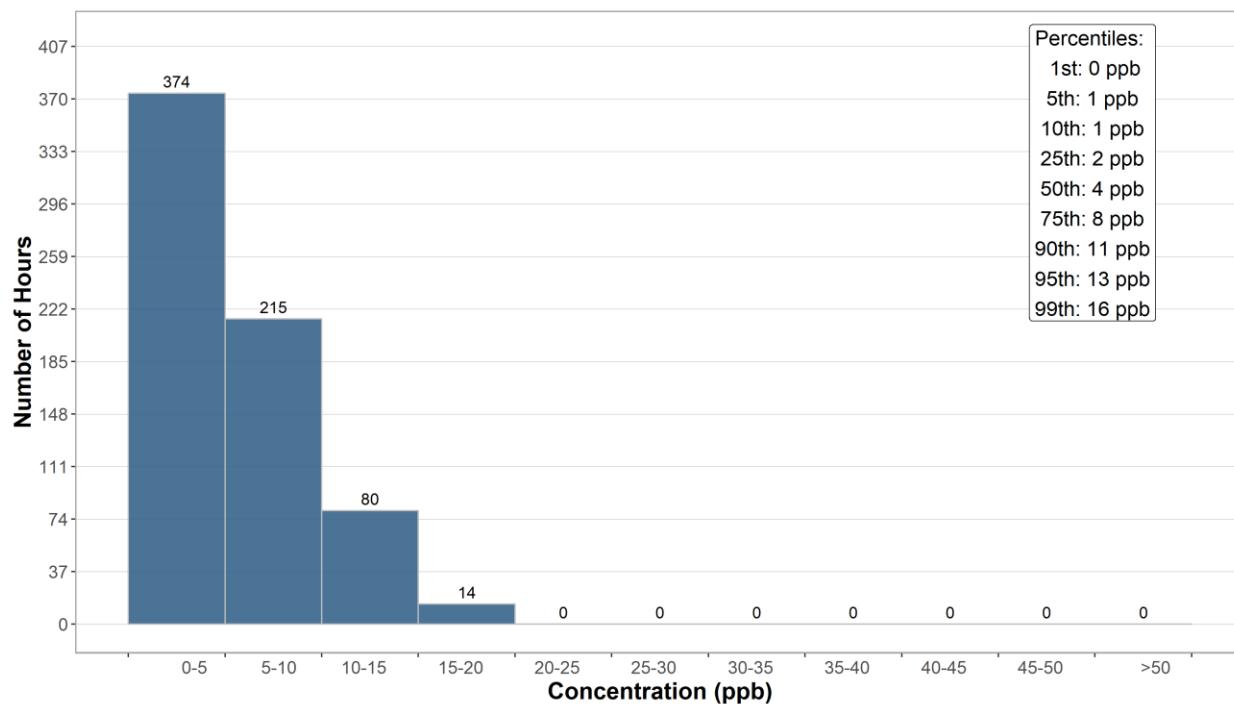


Figure 3-4 Histogram of hourly NO₂ concentrations at the Lagoon station

Histogram of Hourly SO₂ Readings

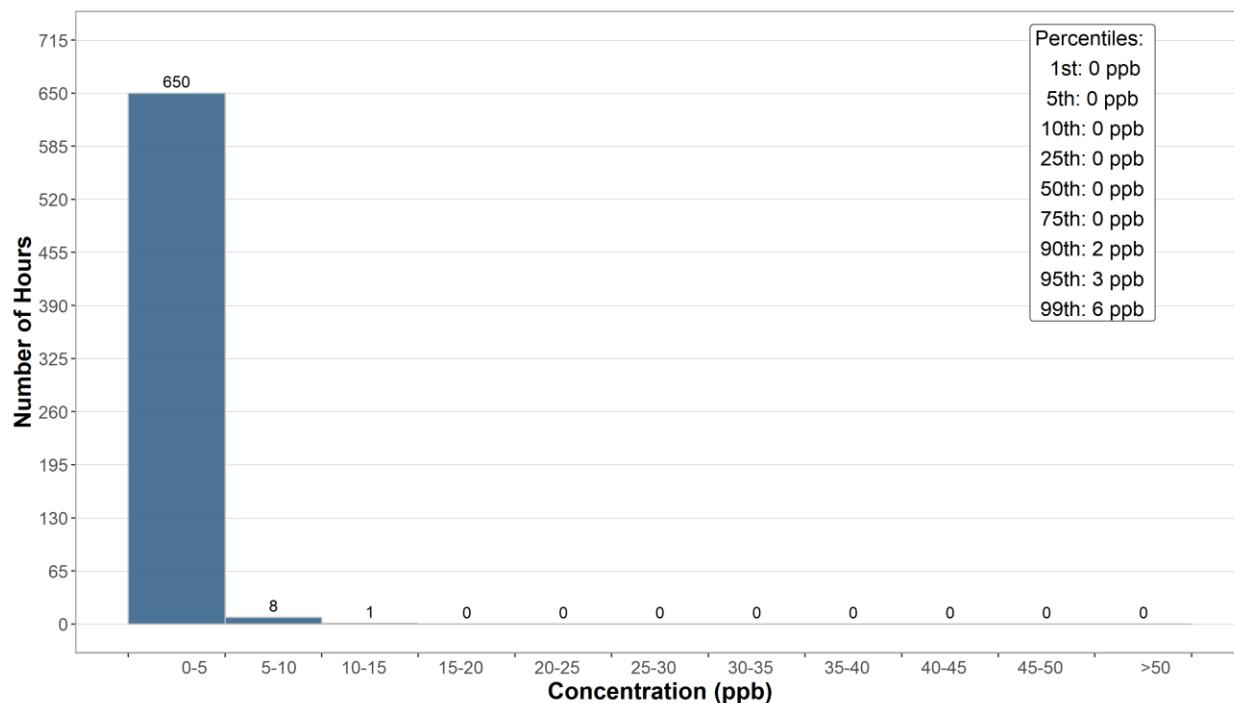


Figure 3-5 Histogram of hourly SO₂ concentrations at the Lagoon station

Histogram of Hourly PM_{2.5} Readings

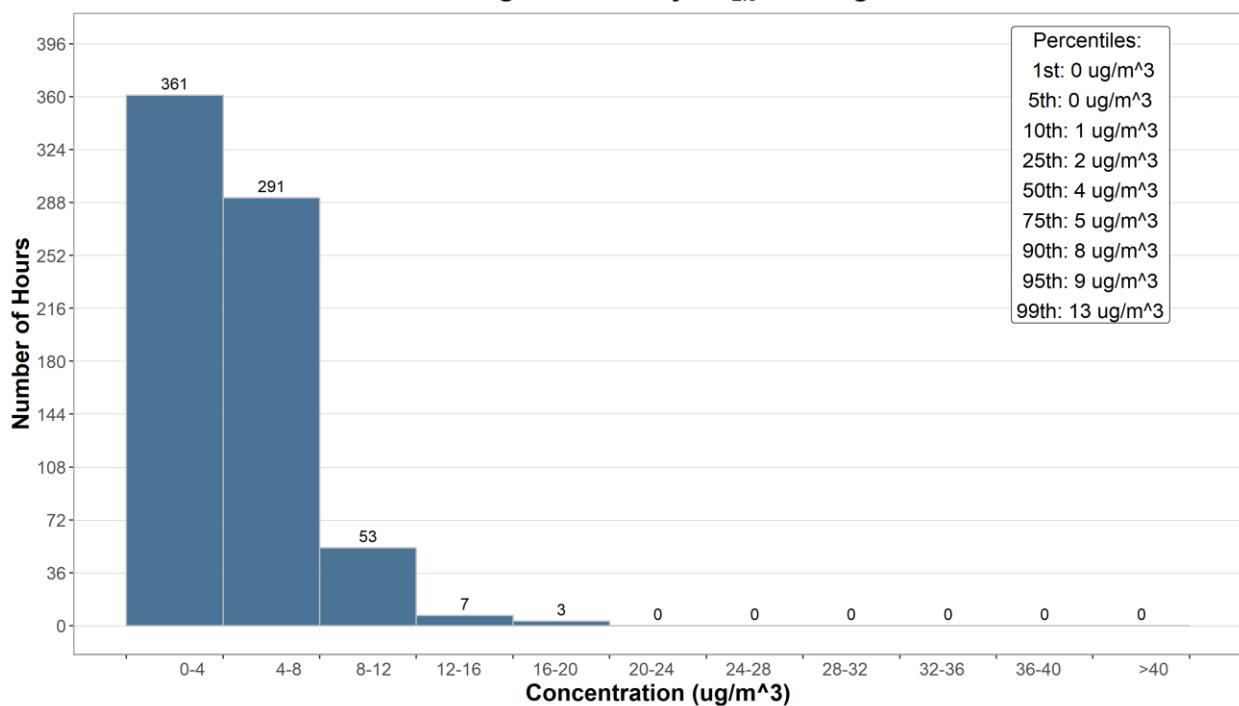


Figure 3-6 Histogram of hourly PM_{2.5} concentrations at the Lagoon station

Histogram of Hourly PM₁₀ Readings

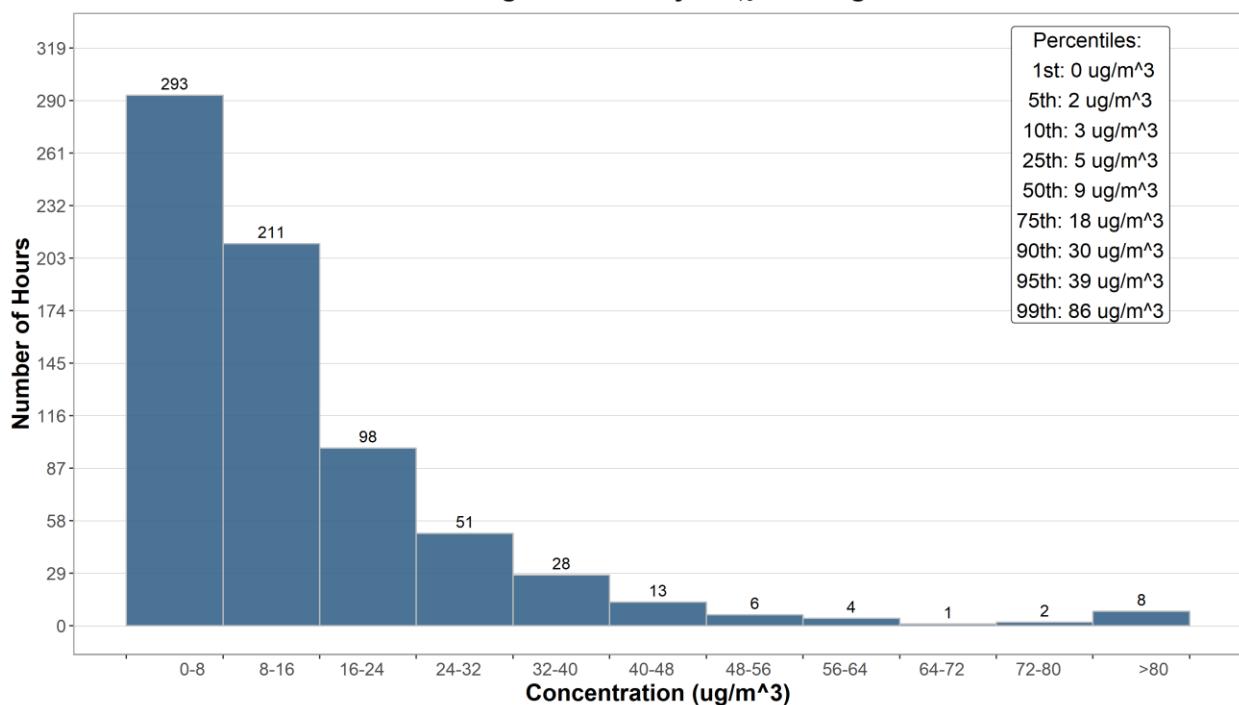


Figure 3-7 Histogram of hourly PM₁₀ concentrations at the Lagoon station

Histogram of Hourly TSP Readings

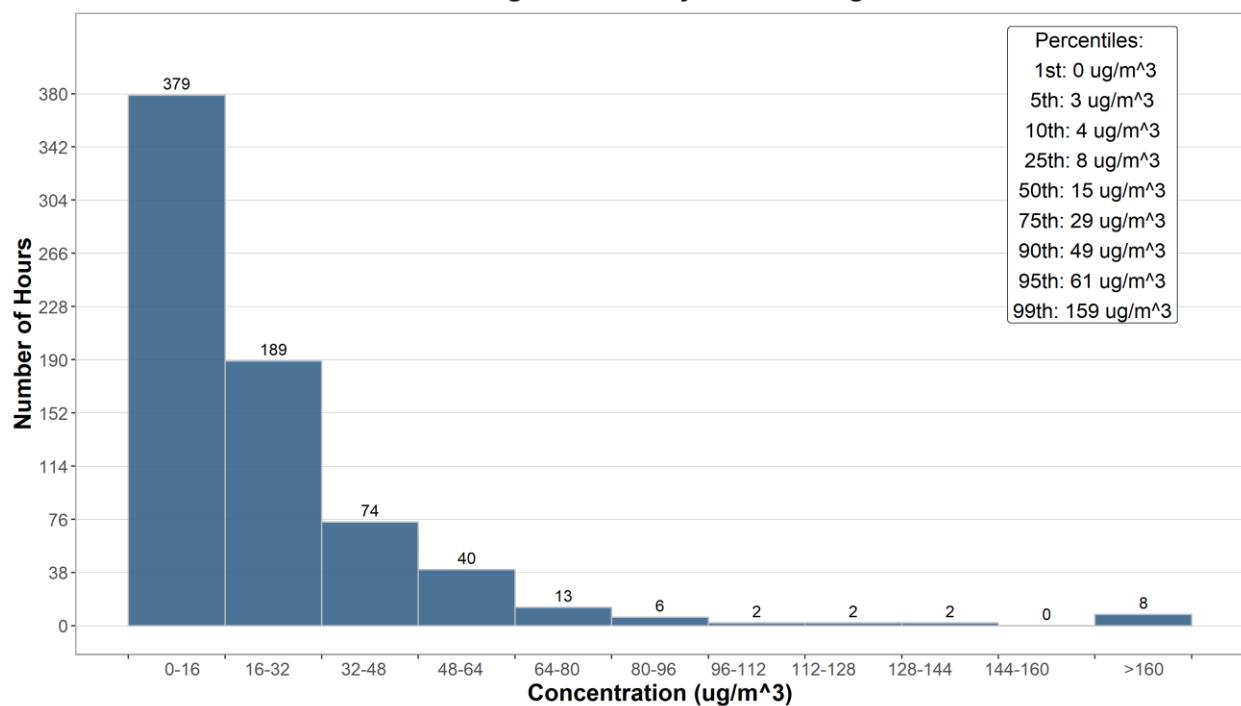


Figure 3-8 Histogram of hourly TSP concentrations at the Lagoon station

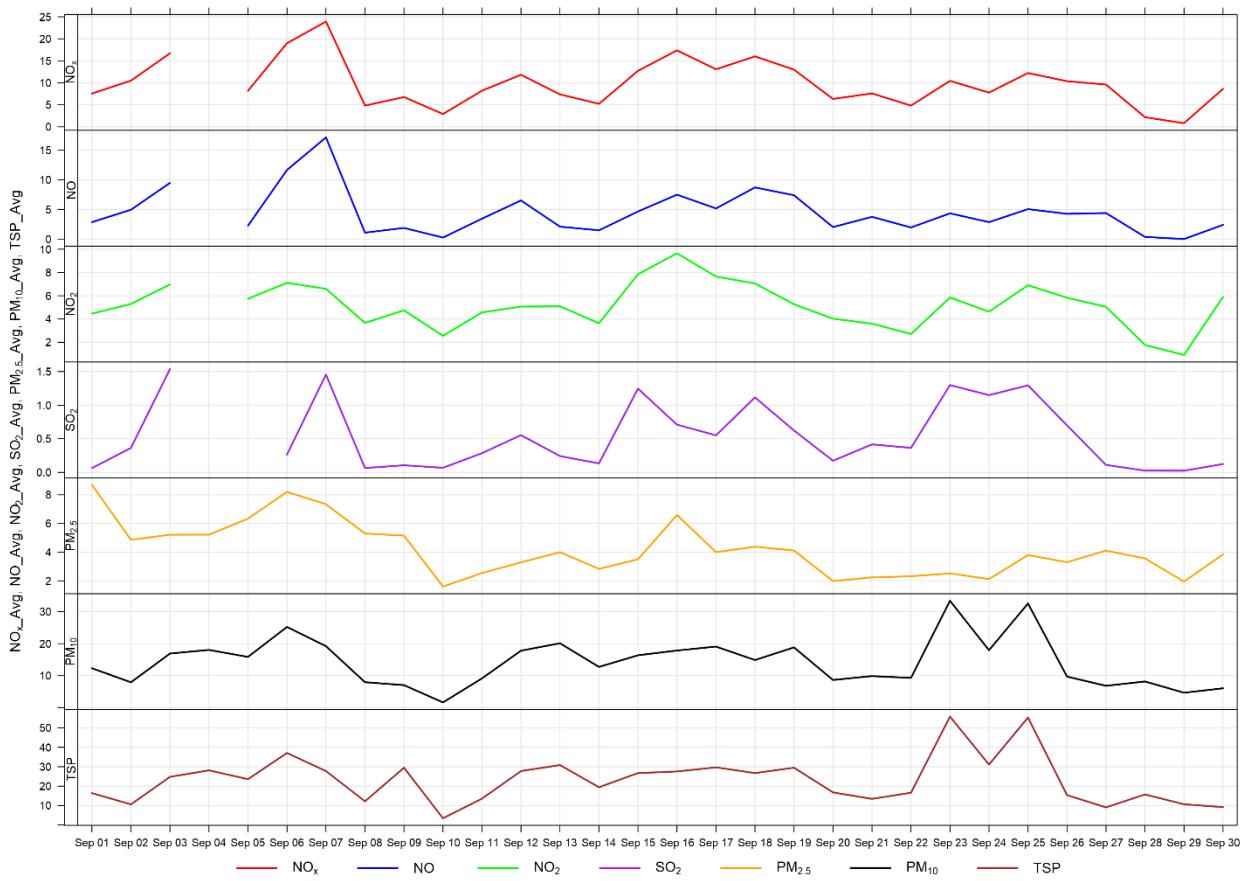


Figure 3-9 24-hour concentrations of NO_x, SO₂, and particulate matter at the Lagoon monitor

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

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

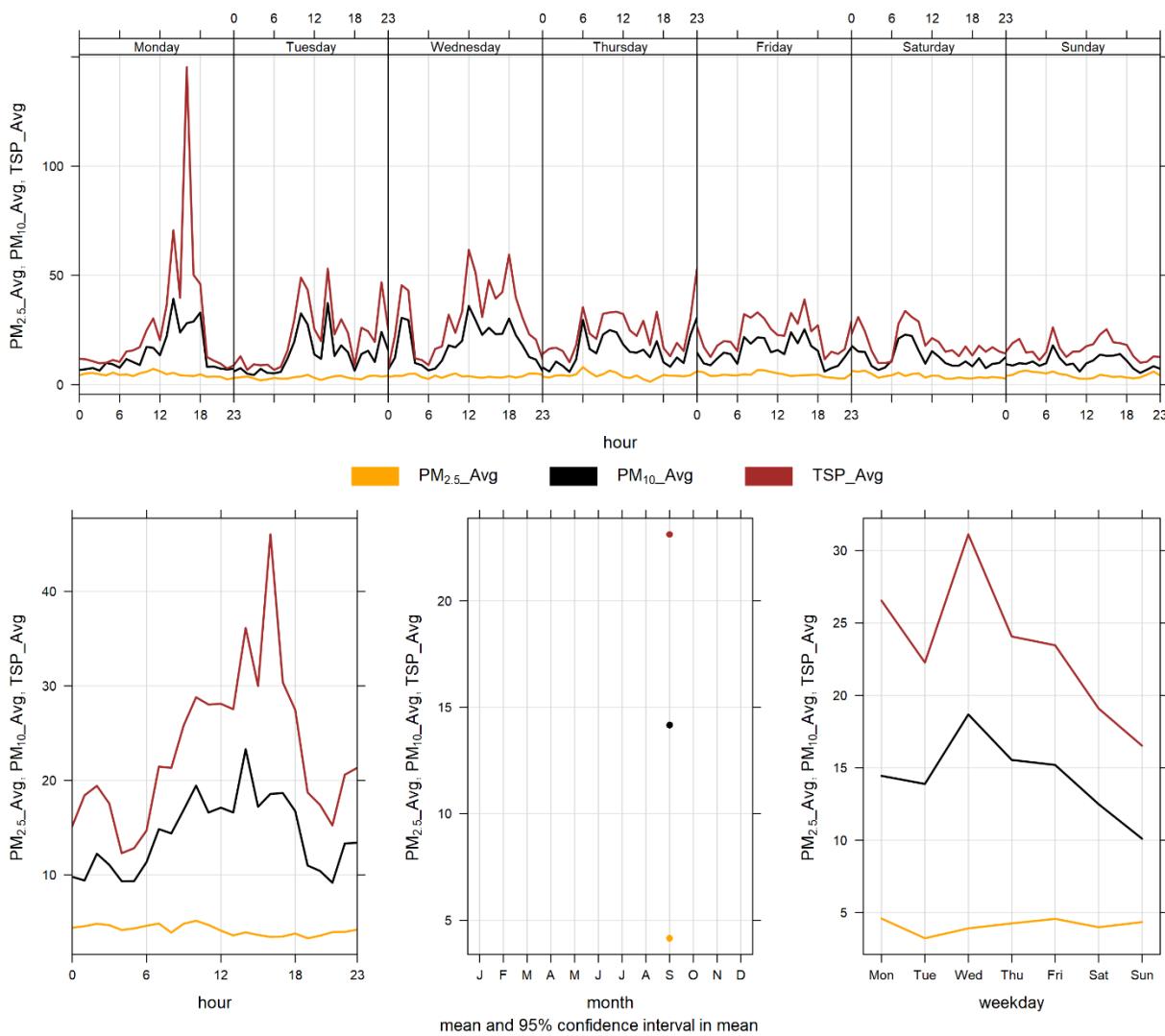


Figure 3-10 Lagoon monitor particulate matter time variation

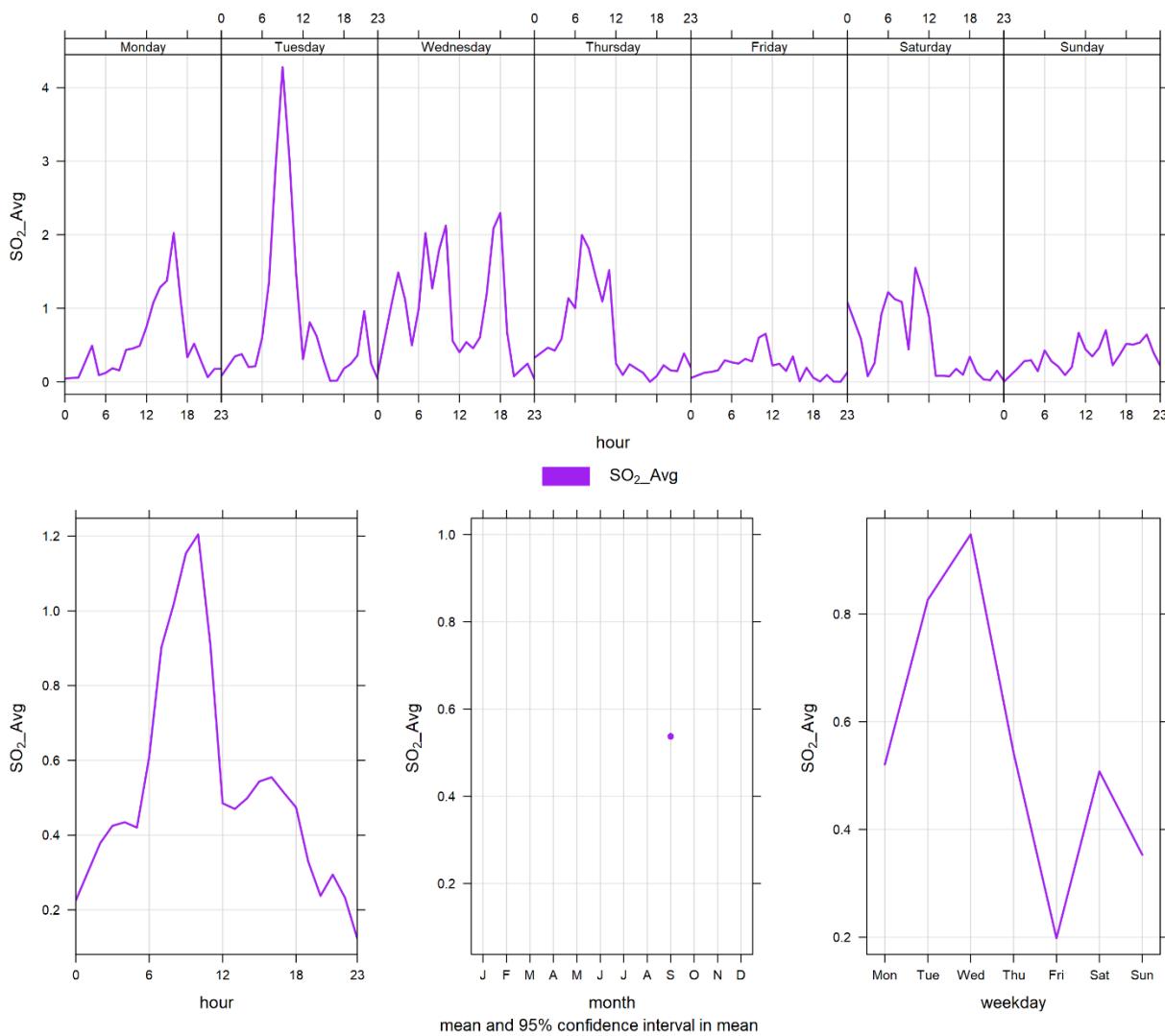


Figure 3-11 Lagoon monitor SO₂ time variation

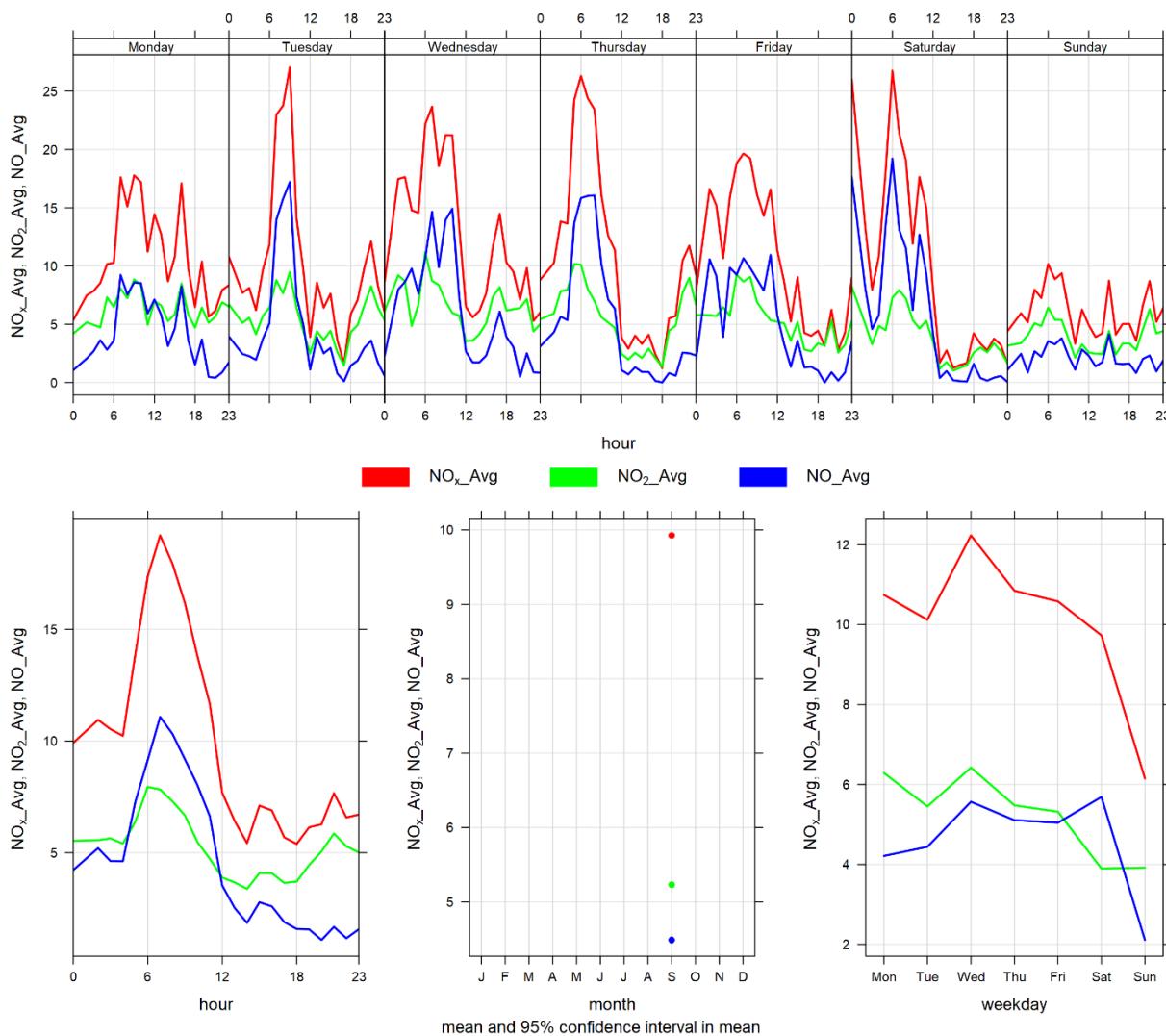


Figure 3-12 Lagoon monitor NO_x time variation

4 WEST INDUSTRIAL GRIMM

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 West monitoring location

Parameter Measured	Equipment Description	Notes
PM_{2.5}, PM₁₀, TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The monitors had 100% uptime in September.

4.2 MONITORING RESULTS AND TRENDS

The West GRIMM was installed in its current location in order to monitor “background” PM concentrations since the predominant wind pattern is from west to east in the valley. Table 4-2 summarizes the monthly concentrations, and the maximum 1-hour and 24-hour concentrations recorded over the course of the month. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO.

Figure 4-1 and Figure 4-2 show the hourly and daily PM_{2.5}, PM₁₀ and TSP concentrations recorded over the month. There were no exceedances of the 24-hour TSP guideline (100 µg/m³) nor the 24-hour PM_{2.5} guideline (29µg/m³).

Historically in September, the average number of 24-hour TSP AAAQG exceedances and 24-hour PM_{2.5} AAAQG exceedances are both zero. The maximum number of 24-hour AAAQG exceedances was 1 day in 2017 for TSP, and 2 days in 2017 for PM_{2.5}.

Table 4-2 Summary of September 2019 data at the West GRIMM

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM _{2.5} (µg/m ³)	80	29	West	0	0	0.2	3.7	16.8	6	13	10.1	80.8	11.9	1	100.0
PM ₁₀ (µg/m ³)	-	-	West	-	-	0.2	6.0	40.2	7	16	9.9	91.4	15.4	5	100.0
TSP (µg/m ³)	-	100	West	-	0	0.1	7.1	95.3	11	13	17.4	267.4	24.3	5	100.0

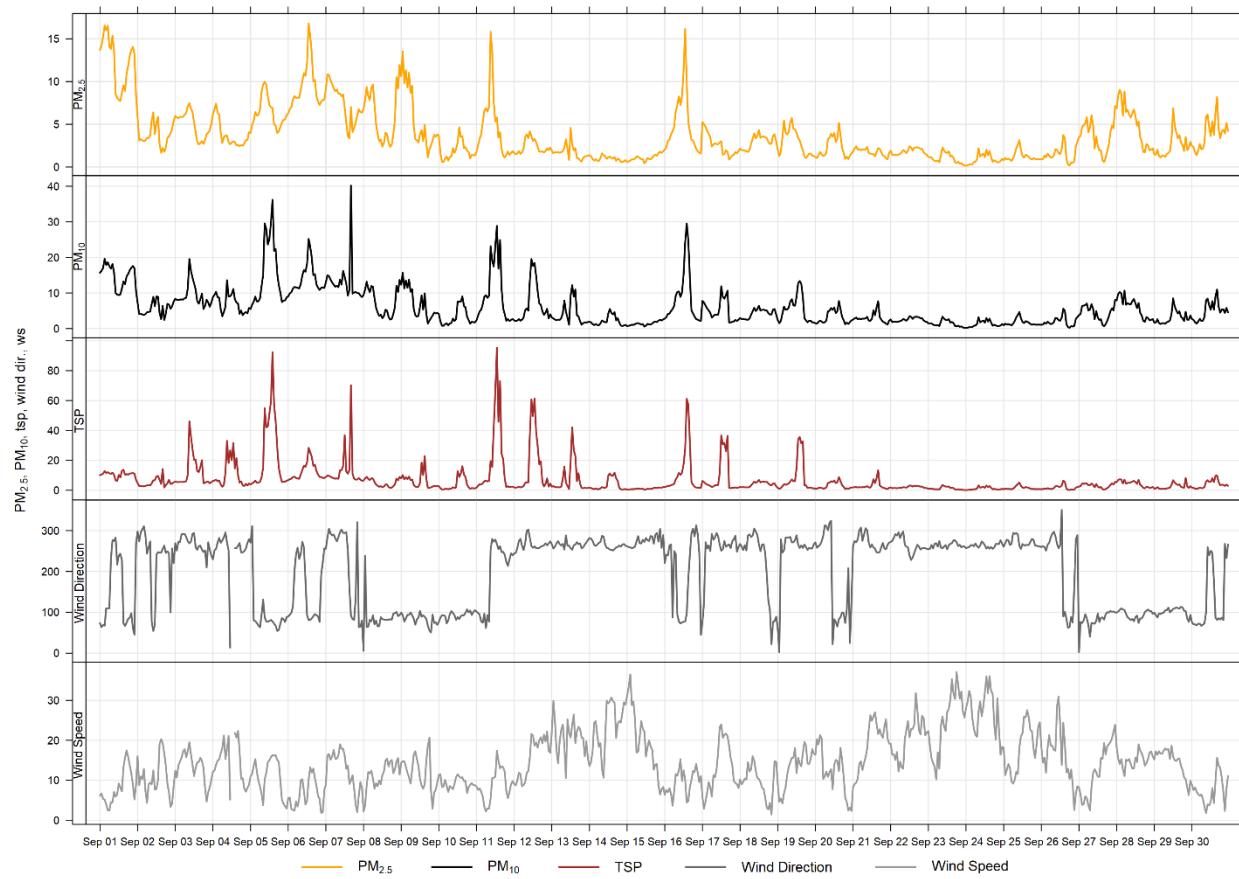


Figure 4-1 1-hour particulate matter concentrations at the West monitor

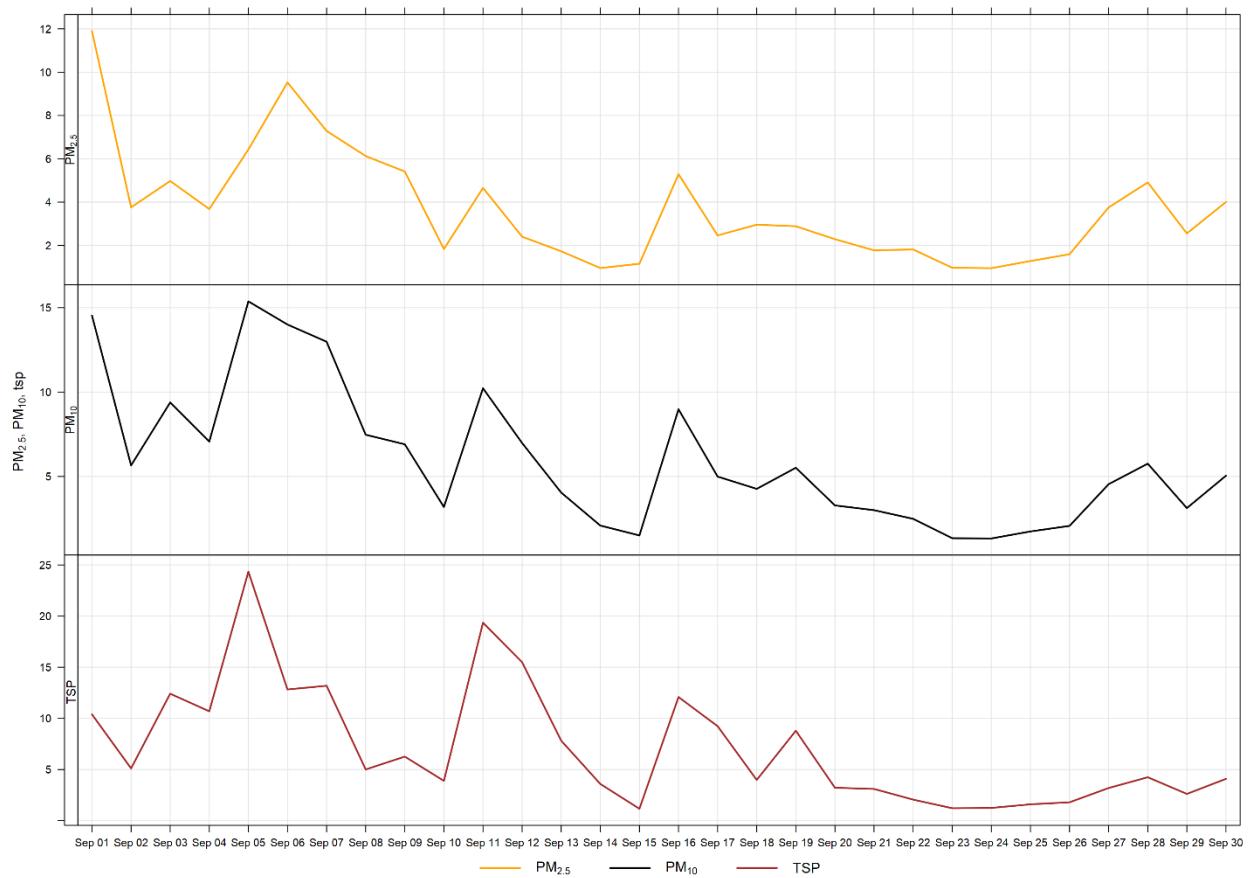


Figure 4-2 24-hour particulate matter concentrations at the West monitor

Figure 4-3 illustrates the hourly PM concentrations recorded at the West monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 4-3 is based on data collected during September 2019 and indicates a diurnal relationship that could be due to the proximity of the West monitor to the highway. As the monitor is generally ‘up-wind’ of the facility, the daily variations in PM are more likely a result of higher traffic volume during daylight hours than specific Lafarge operations.

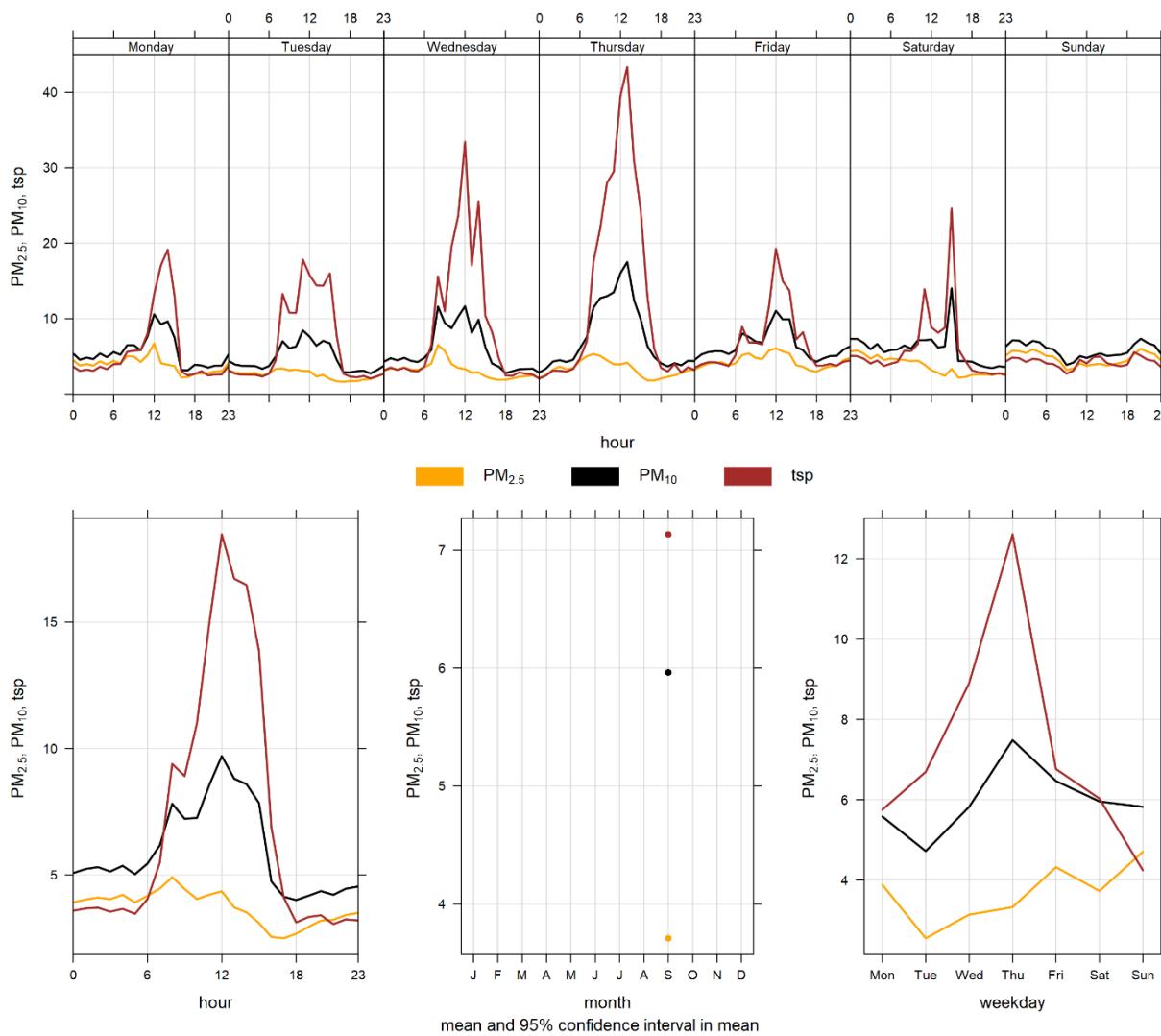


Figure 4-3 **West particulate matter time variation**

5 BERM INDUSTRIAL GRIMM

5.1 OPERATIONAL SUMMARY

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

Table 5-1 Instrumentation List at the Berm monitoring location

Parameter Measured	Equipment Description	Notes
PM_{2.5}, PM₁₀, TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The monitors had 100% uptime in September.

5.2 MONITORING RESULTS AND TRENDS

The Berm monitor was placed at its current location as a result of the dispersion modelling conducted for the facility in 2009. Figure 5-1 and Figure 5-2 show the hourly and daily PM_{2.5}, PM₁₀ and TSP concentrations recorded over the month. Table 5-2 summarizes the monthly concentrations, and the maximum 1-hour and 24-hour PM concentrations recorded during the month, and Table 5-3 summarizes the recorded exceedances. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO.

There were 12 and zero exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) guidelines, respectively. Elevated TSP concentrations this month could be associated with Exshaw Creek flood mitigation construction activities.

Historically during the month of September, the Berm monitor records an average of 11 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 where there were 19 days that exceeded the guideline. On the other hand, the maximum number of PM_{2.5} exceedances in September occurred in 2017, where there were 7 days that exceeded the guideline.

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.

Table 5-2 Summary of September 2019 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	0	0	0.2	7.4	57.5	25	22	23.3	261.6	20.0	25	100.0
PM ₁₀ (µg/m ³)	-	-	Berm	-	-	0.2	43.6	516.1	23	14	30.2	267.7	173.4	25	100.0
TSP (µg/m ³)	-	100	Berm	-	12	0.2	148.4	2097.8	23	14	30.2	267.7	613.0	25	100.0

Table 5-3 Days exceeding the Guideline for TSP or PM_{2.5} at the Berm Monitor

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Berm						
2019-09-04	142.4	-	267.0	14.5	49.1	Dust, possibly from flood mitigation work
2019-09-12	247.9	-	266.1	16.1	57.0	Dust, possibly from flood mitigation work
2019-09-13	298.5	-	264.8	20.6	47.2	High wind event; Dust, possibly from flood mitigation work
2019-09-14	283.4	-	262.9	23.9	47.1	High wind event; Dust, possibly from flood mitigation work
2019-09-15	238.0	-	270.9	18.6	50.9	Dust, possibly from flood mitigation work
2019-09-17	155.4	-	267.3	13.2	66.5	Dust, possibly from flood mitigation work
2019-09-19	301.5	-	268.1	13.4	58.5	Dust, possibly from flood mitigation work
2019-09-21	264.4	-	267.5	19.3	57.6	Dust, possibly from flood mitigation work
2019-09-22	271.1	-	261.2	20.7	41.7	High wind event; Dust, possibly from flood mitigation work

2019-09-23	592.9	-	264.2	24.8	44.6	High wind event; Dust, possibly from flood mitigation work
2019-09-24	568.8	-	262.8	26.9	45.3	High wind event; Dust, possibly from flood mitigation work
2019-09-25	613.0	-	269.0	18.0	38.9	Dust, possibly from flood mitigation work
Total # of Exceedances	12	0				
Maximum # of Exceedances (September)	19 (2011)	7 (2017)				
Average # of Exceedances (September)	11	1				
Minimum # of Exceedances (September)	7 (2013)	0 (2010 ~ 2015)				

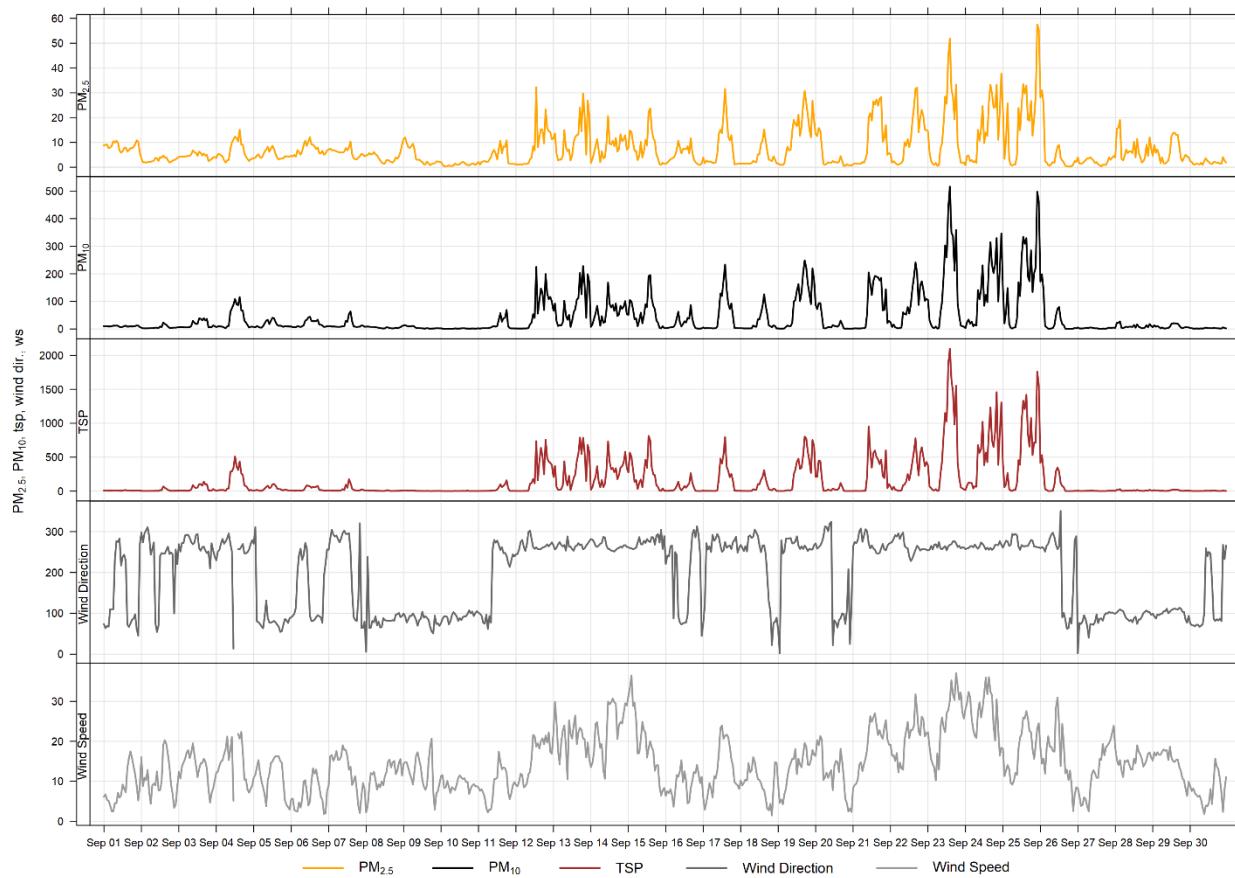


Figure 5-1 1-hour particulate matter concentrations recorded at the Berm monitor

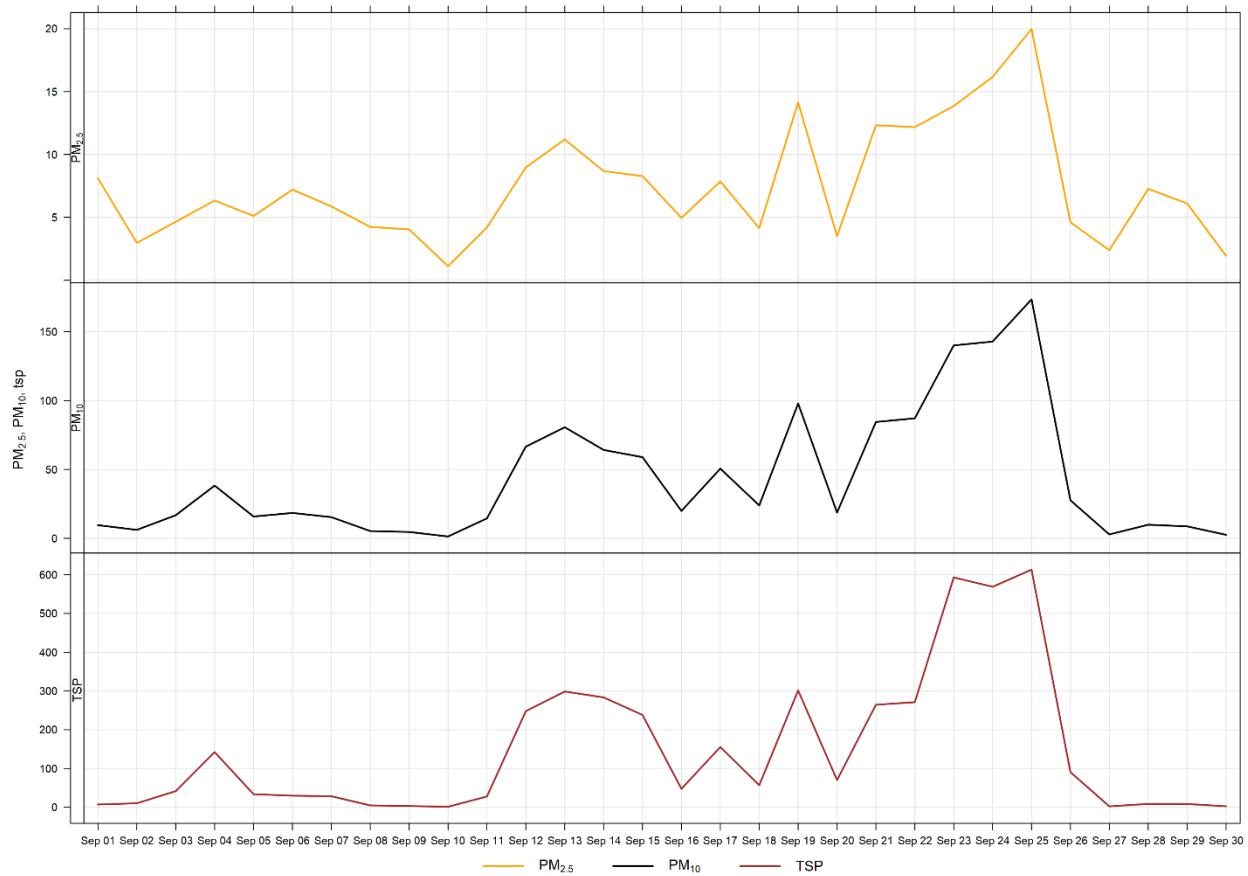


Figure 5-2 24-hour particulate matter concentrations recorded at the Berm monitor

Figure 5-3 shows the wind rose for the 12 days of TSP exceedances recorded this month. The wind rose shows that the winds predominantly came from the west direction.

Figure 5-4 shows the variation of PM recorded at the Berm monitor over various time averaging periods. The Berm monitor diurnal pattern, similar to the Windridge and Lagoon stations, is associated with Lafarge operations, but also daytime emissions from traffic and other activities in Exshaw, such as the flood mitigation work that is currently underway.

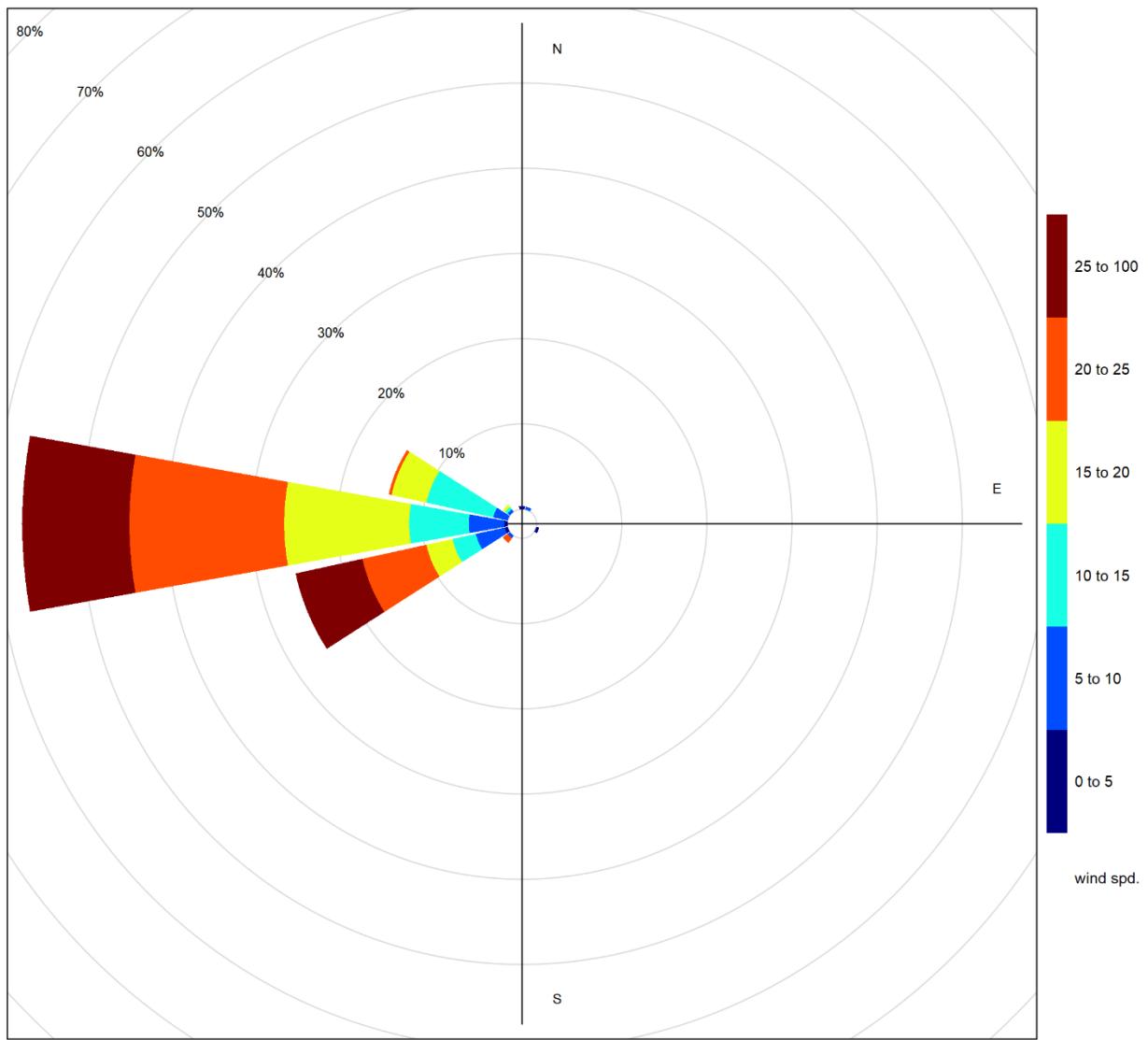


Figure 5-3 Wind rose for TSP exceedance days recorded at the Berm GRIMM

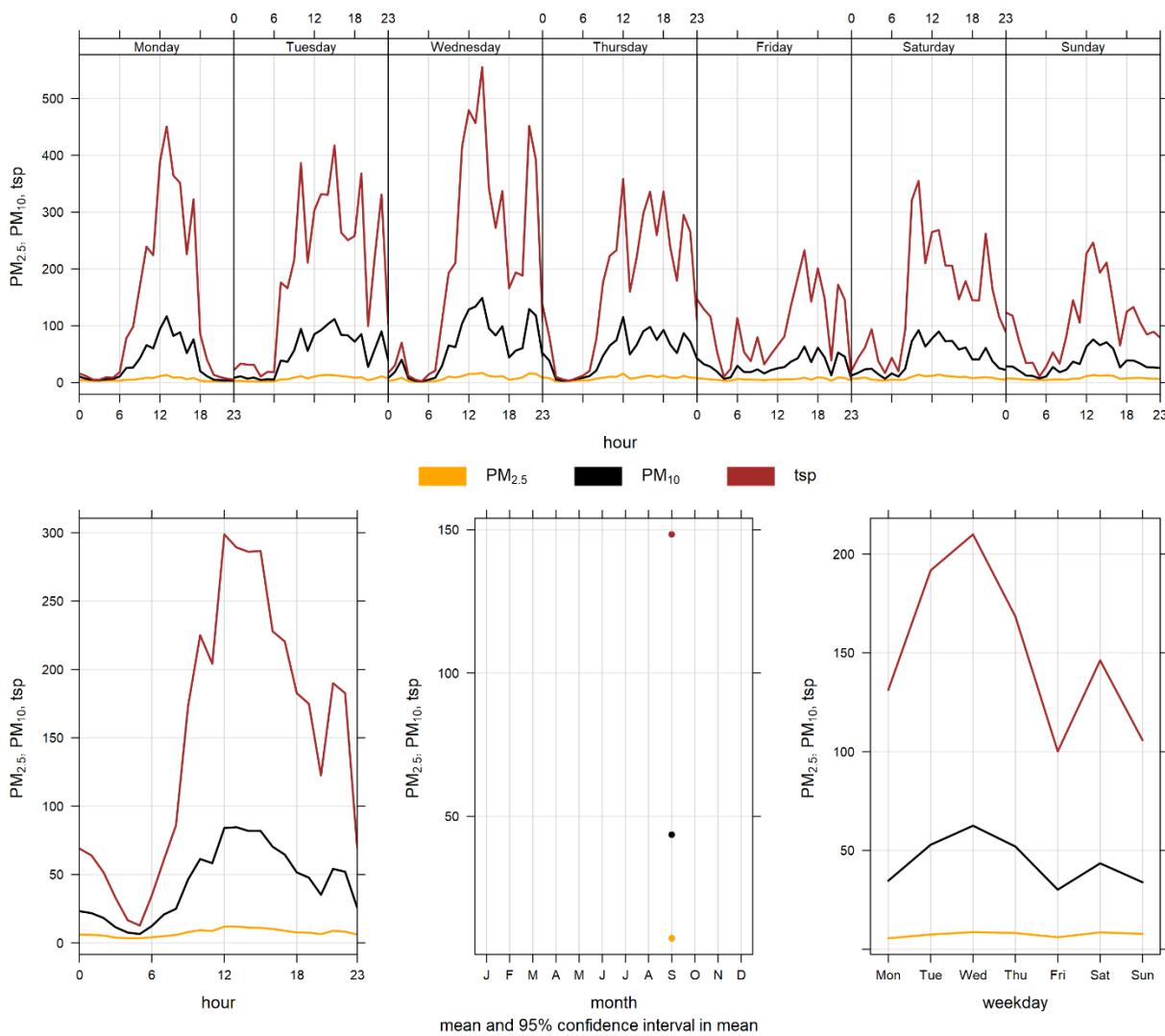


Figure 5-4 **Berm particulate matter time variation**

6 ENTRANCE 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 Entrance monitoring location

Parameter Measured	Equipment Description	Notes
PM_{2.5}, PM₁₀, TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The monitors had 94.4% uptime in September due to 40 hours of calibration from September 4 th at 5:00 to September 5 th at 12:00.

6.2 MONITORING RESULTS AND TRENDS

The Entrance monitor was placed at its current location as a result of dispersion modelling conducted in 2009. This area was indicated as being the area where the maximum PM concentrations were expected. Figure 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 monthly concentrations, and the maximum 1-hour and 24-hour PM concentrations recorded during the month. 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.

During September, there were 11 and zero exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) guidelines, respectively. Dust created from the flood mitigation work (section 1.1) has the potential to impact particulate matter concentrations and may have contributed to particulate at the Entrance monitor.

Historically, the Entrance monitor records an average of 15 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 (22 days), while the minimum number of TSP exceedances recorded during September occurred in 2016 (9 days). On the other hand, the maximum number of PM_{2.5} exceedances in September was 7 days, occurring in 2017.

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

The Entrance monitor is impacted by fugitive dust from plant activities, and high wind events. Trucks also pass near to the Entrance monitor as they enter and exit the Lafarge facility for loading and deliveries. Additionally, the monitor is closely located to Highway 1A. Traffic, particularly large trucks, can create dust while crossing over the railway tracks. This can all lead to the monitor recording high TSP concentrations, which are typically associated with fugitive dust sources. The CPR rail crossing is in disrepair and may be contributing to PM concentrations at the Entrance monitor. Lafarge has been informed the crossing is scheduled to be repaired in the summer of 2019.

Figure 6-3 shows the wind rose for the 11 days that exceeded the TSP guideline. The wind rose indicates that the winds predominantly came from the west direction. High wind speeds were not a primary factor for the TSP exceedances in September at the Entrance station. It is likely that the flood mitigation work impacts particulate

concentrations at the Entrance monitor. Other sources, such as industry, traffic and rail may have contributed to these exceedances.

Table 6-2 Summary of September 2019 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	0	0.3	8.0	59.8	17	14	21.4	274.5	15.9	16	94.4
PM ₁₀ (µg/m ³)	-	-	Entrance	-	-	0.4	35.1	309.7	16	15	4.8	182.9	90.5	25	94.4
TSP (µg/m ³)	-	100	Entrance	-	11	0.3	84.1	1153.4	23	14	30.2	267.7	223.7	25	94.4

Table 6-3 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						
2019-09-03	132.9	-	268.1	13.3	54.8	TSP - Dust, possibly from flood mitigation work
2019-09-04	173.4	-	267.0	14.5	49.1	TSP - Dust, possibly from flood mitigation work
2019-09-05	196.6	-	73.0	10.8	64.1	TSP - Dust, possibly from flood mitigation work
2019-09-06	114.7	-	121.6	6.8	79.7	TSP - Dust, possibly from flood mitigation work
2019-09-11	104.8	-	248.8	8.7	74.2	TSP - Dust, possibly from flood mitigation work
2019-09-12	100.7	-	266.1	16.1	57.0	high wind event
2019-09-16	142.3	-	315.5	9.5	70.7	TSP - Dust, possibly from flood mitigation work
2019-09-18	125.3	-	281.9	9.7	67.4	TSP - Dust, possibly from flood mitigation work
2019-09-20	172.9	-	332.0	11.8	65.4	TSP - Dust, possibly from flood mitigation work
2019-09-23	199.5	-	264.2	24.8	44.6	High wind event
2019-09-25	223.7	-	269.0	18.0	38.9	TSP - Dust, possibly from flood mitigation work

Total # of Exceedances	11	0				
Maximum # of Exceedances (September)	22 (2013)	7 (2017)				
Average # of Exceedances (September)	15	1				
Minimum # of Exceedances (September)	9 (2016)	0 (2011, 2015, 2016)				

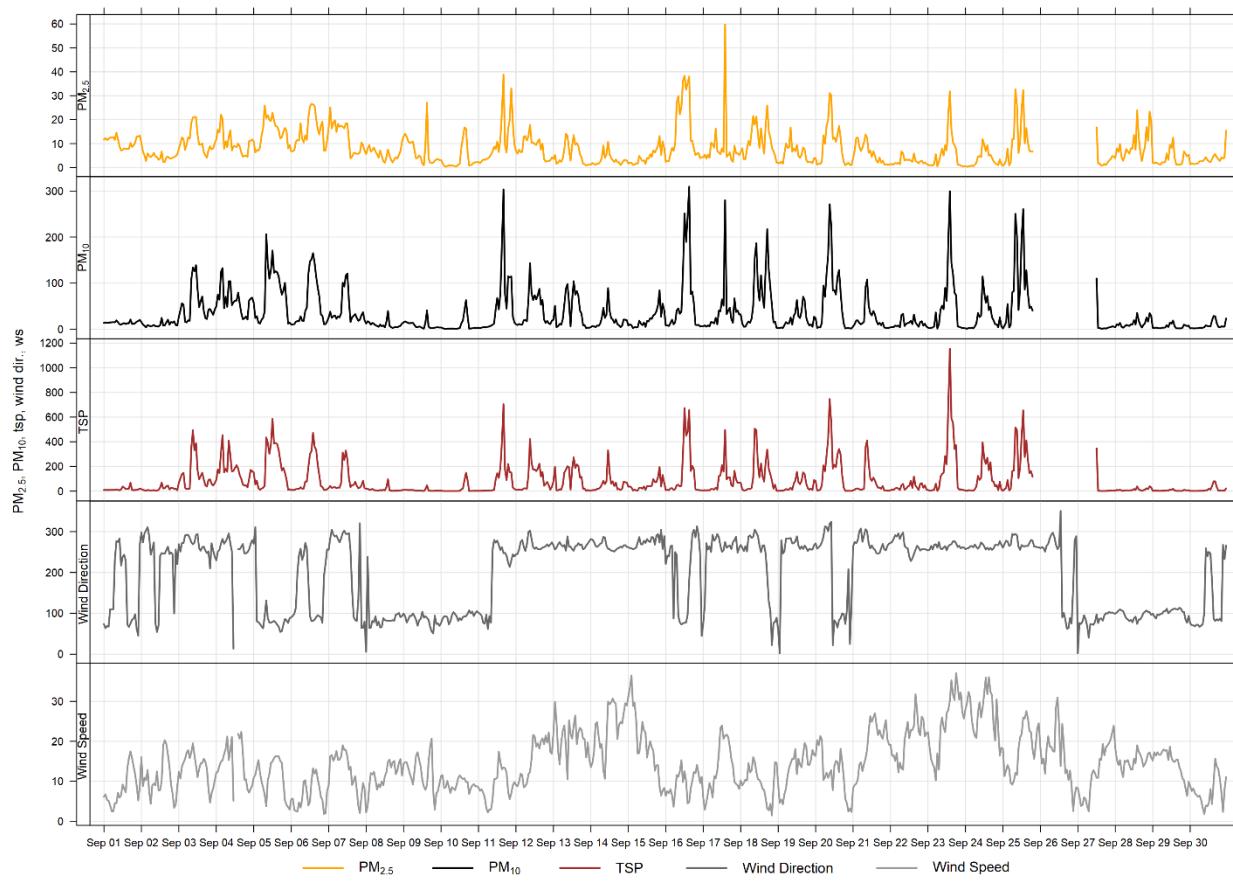


Figure 6-1 1-hour particulate matter concentrations recorded at the Entrance monitor

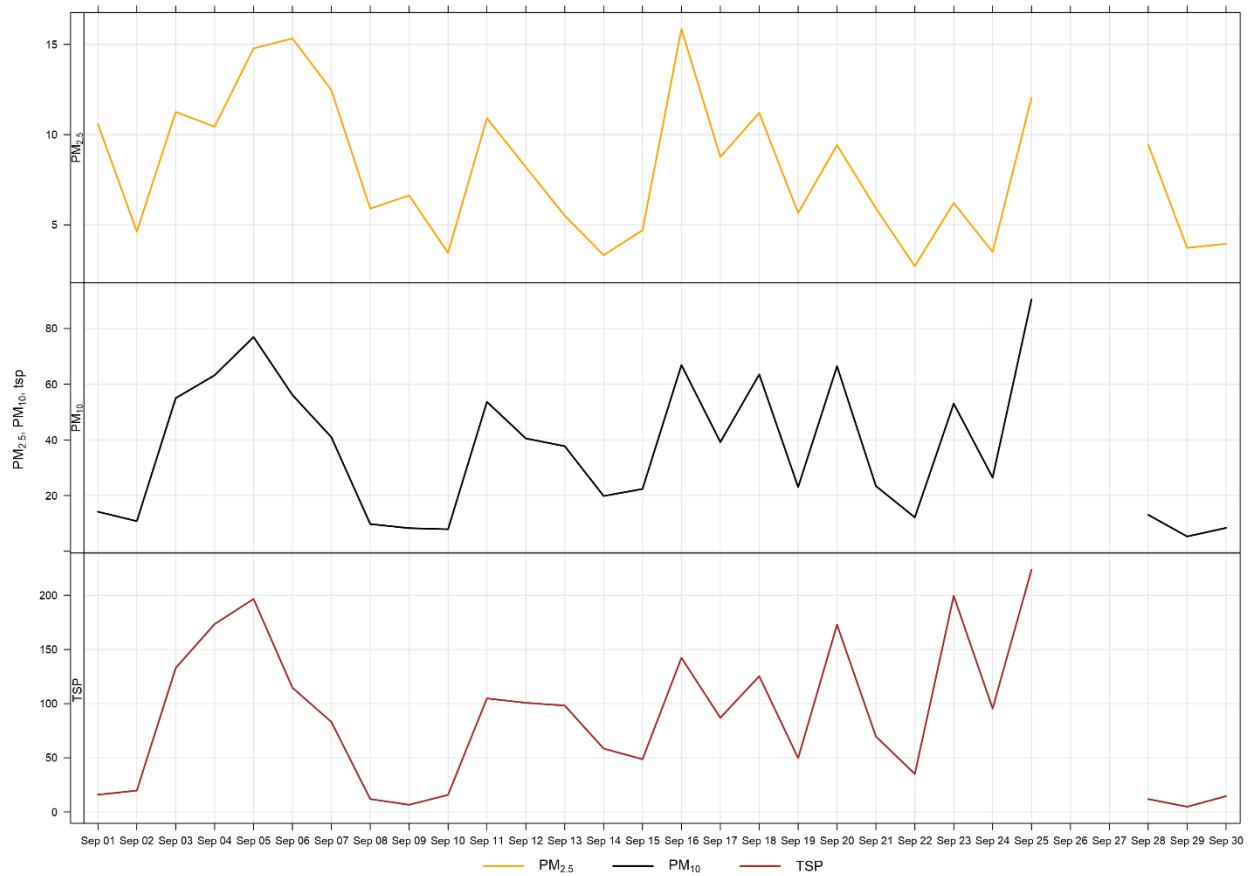


Figure 6-2 24-hour particulate matter concentrations at the Entrance monitor

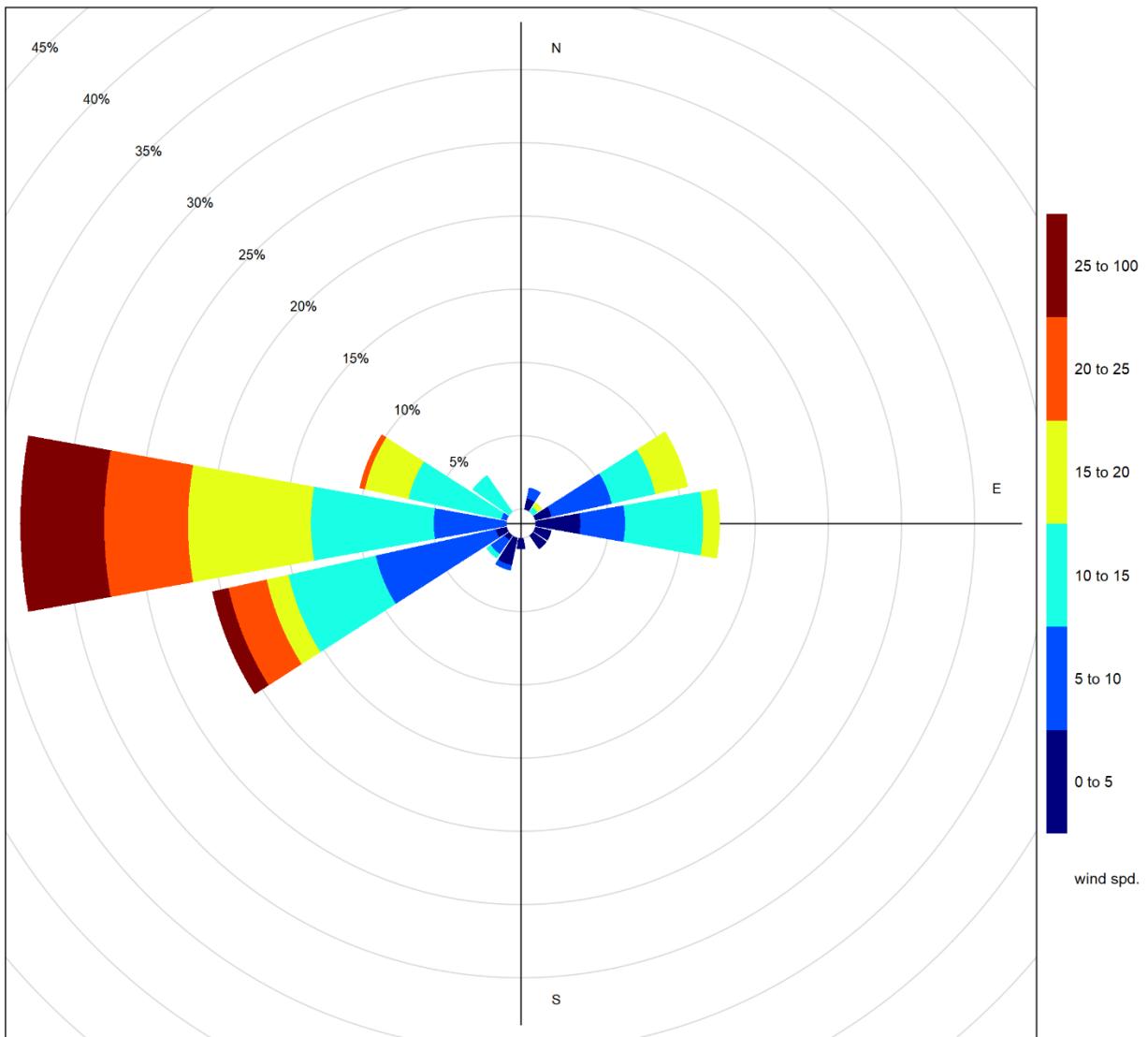


Figure 6-3 Wind rose for TSP exceedance days recorded at the Entrance GRIMM

Figure 6-4 illustrates the hourly PM concentrations recorded at the Entrance monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 6-4 is based on data collected during September 2019. The diurnal pattern is likely more influenced by daytime traffic emission (from vehicles serving Lafarge as well as regular highway traffic) given its location near the highway entrance to Lafarge, but can also be influenced by the flood mitigation work currently underway, as well as industry and rail sources.

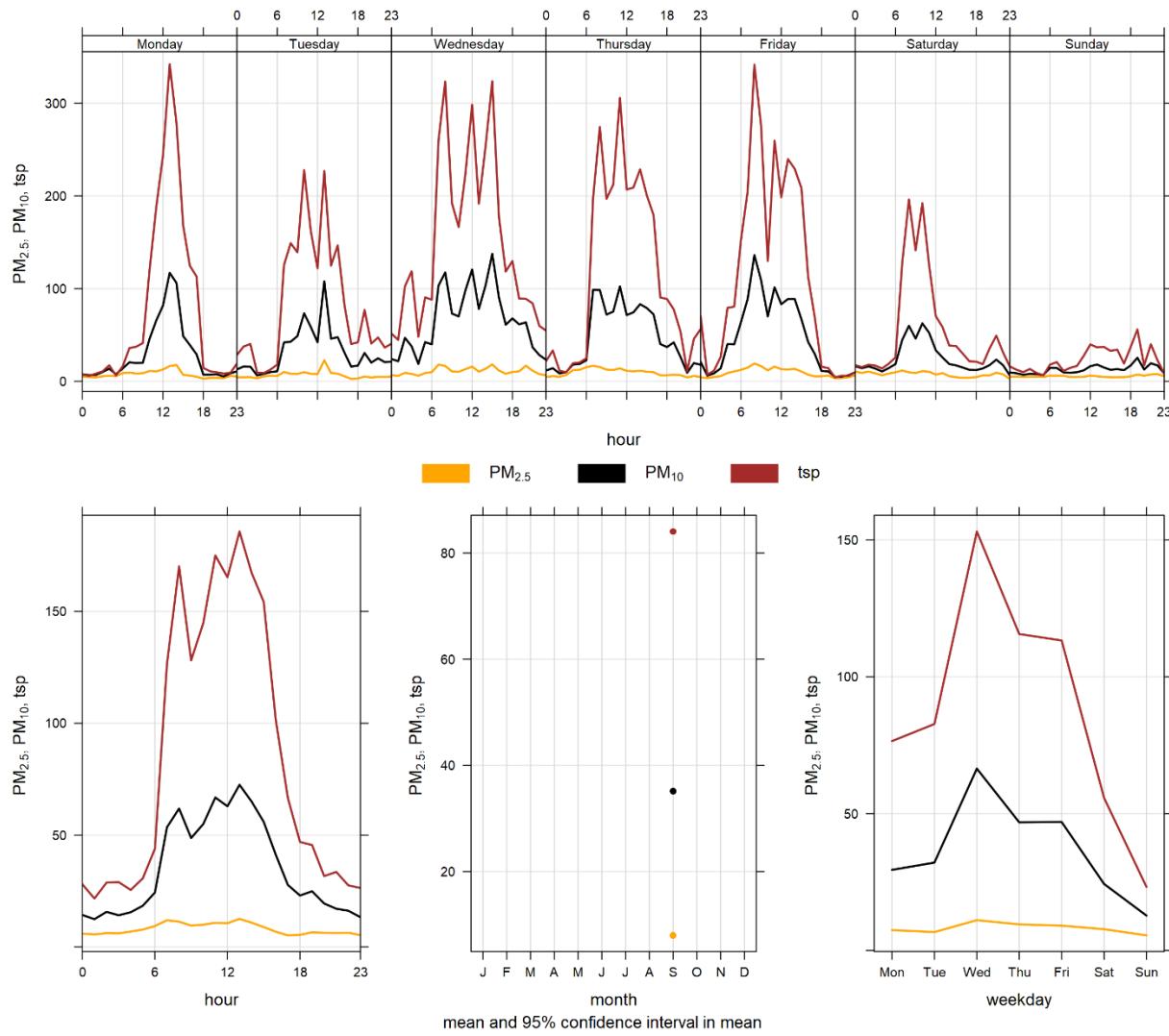


Figure 6-4 Entrance particulate matter time variation

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APPENDIX

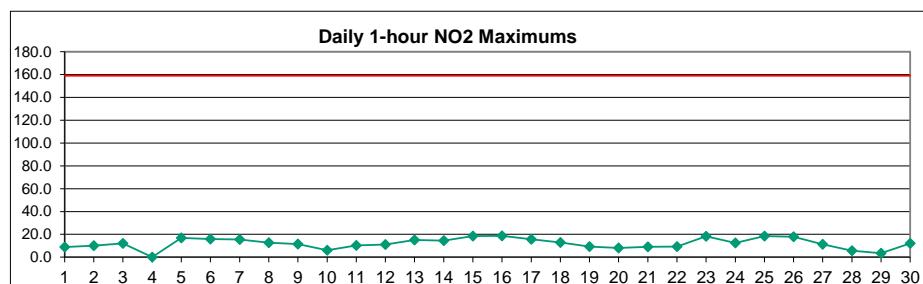
A DATA & CALIBRATION REPORTS

APPENDIX



Lagoon NO₂ (ppb) – September 2019

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	5.9	S	6.1	6.9	2.2	2.2	5.6	8.2	7.4	5.0	2.4	1.7	5.9	5.4	3.4	4.2	3.1	0.8	1.0	0.6	2.0	8.9	6.1	7.5	4.5	8.9
2	5.5	S	6.5	5.9	9.7	10.0	6.4	7.3	6.3	5.6	2.4	4.6	9.4	1.0	0.7	3.0	6.7	1.8	2.7	4.1	5.5	4.8	7.5	4.3	5.3	10.0
3	6.4	S	5.9	4.0	3.7	4.1	5.1	9.4	10.9	12.0	8.1	10.7	4.9	2.9	8.9	9.9	2.6	2.1	8.2	6.4	8.7	8.7	6.6	10.2	7.0	12.0
4	11.1	S	10.8	11.5	4.8	C	C	C	C	C	C	C	4.5	1.7	2.6	3.8	11.1	9.6	1.9	5.2	8.4	12.4	11.5	9.2	-	-
5	7.9	S	12.8	15.2	13.3	16.8	6.7	3.9	1.7	4.9	4.5	2.8	1.8	2.6	3.5	2.3	1.9	0.9	1.6	3.6	5.7	8.9	4.4	4.5	5.7	16.8
6	10.2	S	9.5	6.4	7.7	5.5	6.8	9.0	8.4	10.3	11.6	15.9	13.6	7.6	3.9	3.3	1.7	1.9	3.3	4.9	3.5	2.2	4.9	11.4	7.1	15.9
7	15.6	S	9.0	6.8	7.1	8.2	10.2	8.3	5.1	5.5	11.7	14.4	11.3	1.0	0.8	1.1	1.0	2.5	4.0	9.0	6.4	7.3	3.4	2.1	6.6	15.6
8	5.4	S	2.5	5.8	12.6	4.0	9.3	3.2	7.5	4.0	1.0	1.2	1.0	1.5	1.4	3.7	2.3	2.1	2.3	1.6	1.5	2.8	2.8	4.8	3.7	12.6
9	7.1	S	3.4	4.2	3.6	3.9	2.7	7.8	10.6	11.0	11.5	2.2	1.4	0.9	1.4	2.8	3.1	2.0	2.0	4.4	6.2	9.1	5.7	2.2	4.7	11.5
10	3.8	S	0.9	3.2	3.6	2.1	2.9	0.6	1.4	1.5	4.4	1.8	1.6	2.0	1.2	1.2	1.8	1.5	2.1	4.6	4.3	6.0	3.4	2.8	2.5	6.0
11	2.7	S	9.3	10.4	4.8	3.9	7.1	7.6	7.9	9.6	8.2	4.8	2.1	1.4	2.2	1.1	0.8	0.7	1.8	2.2	2.3	4.4	4.7	5.1	4.6	10.4
12	7.2	S	7.0	5.7	8.7	11.2	8.4	5.2	7.1	5.5	4.7	3.0	4.3	2.5	3.6	1.7	2.1	2.4	1.0	2.1	2.2	6.4	9.1	5.5	5.1	11.2
13	0.4	S	1.7	4.7	5.8	2.5	15.0	6.7	10.6	5.9	3.7	2.1	1.1	5.6	4.1	8.3	7.4	7.3	2.2	1.1	8.7	3.1	5.3	3.7	5.1	15.0
14	7.4	S	2.5	1.4	7.6	2.1	11.0	14.5	11.9	6.6	2.8	1.1	0.6	0.3	0.4	0.7	2.2	1.7	1.2	1.3	2.4	1.5	1.6	0.9	3.6	14.5
15	0.5	S	1.0	1.3	1.7	11.4	7.3	5.6	5.4	6.7	6.2	12.6	5.6	5.1	6.9	11.5	5.7	10.2	12.0	10.9	18.4	16.2	10.2	8.3	7.8	18.4
16	3.4	S	4.6	5.2	5.4	10.0	11.3	12.6	9.4	8.5	12.7	12.3	14.5	18.6	10.3	4.9	12.5	13.3	9.9	12.2	4.3	3.2	8.2	14.8	9.7	18.6
17	15.7	S	12.5	10.6	8.2	9.3	11.2	13.1	13.1	12.8	4.8	1.1	2.2	10.6	3.6	4.1	4.2	1.7	3.3	5.2	6.7	5.8	9.7	6.3	7.7	15.7
18	6.8	S	3.9	6.9	7.8	5.8	8.0	8.6	6.4	6.9	7.3	7.1	2.6	7.5	8.2	9.3	8.8	6.5	3.1	11.2	12.9	11.0	0.7	5.0	7.1	12.9
19	5.2	S	3.4	6.8	7.7	6.1	7.3	8.1	6.6	8.3	9.4	9.2	2.6	2.2	2.9	1.4	3.8	2.5	1.7	3.0	3.9	2.4	9.4	7.3	5.3	9.4
20	1.3	S	4.0	2.4	4.6	4.3	6.0	8.1	7.5	4.1	5.3	2.9	2.7	5.4	2.6	3.0	0.3	0.2	6.6	4.8	6.9	3.2	1.3	5.2	4.0	8.1
21	9.2	S	7.7	4.2	4.1	6.9	6.6	4.4	8.0	3.8	2.1	3.7	1.4	0.7	0.2	0.2	0.1	1.0	4.4	1.3	1.1	4.1	5.1	2.8	3.6	9.2
22	2.5	S	6.3	4.8	8.2	5.7	9.2	8.7	5.8	2.2	0.7	0.7	0.0	0.1	0.1	2.2	0.4	3.0	0.8	0.1	0.1	0.8	0.0	2.7	9.2	
23	0.6	S	1.5	5.3	1.2	0.6	6.6	7.3	4.3	8.3	7.6	2.1	7.2	11.1	10.8	14.5	18.2	9.7	4.1	5.9	3.8	1.6	1.5	0.5	5.8	18.2
24	1.0	S	1.2	4.4	1.1	7.5	6.5	12.0	5.2	11.6	8.3	3.9	1.4	2.0	0.9	2.6	1.9	0.6	3.6	3.5	6.8	12.4	6.1	2.1	4.6	12.4
25	3.9	S	12.8	6.0	2.0	10.4	18.5	10.0	10.9	4.4	2.4	5.3	5.0	3.8	3.6	6.2	8.8	15.9	17.9	6.6	2.0	0.8	0.7	0.7	6.9	18.5
26	1.5	S	0.4	3.8	2.1	6.6	18.0	14.9	12.6	3.8	2.0	3.9	1.1	0.6	0.2	3.0	3.8	2.5	1.2	9.1	7.7	13.1	13.1	9.3	5.8	18.0
27	11.3	S	8.0	9.3	7.7	10.6	9.1	10.8	9.7	7.3	3.5	0.5	3.4	1.8	3.8	6.2	1.9	1.3	1.4	1.9	2.1	1.8	1.5	0.9	5.0	11.3
28	0.8	S	0.8	0.7	0.7	0.7	1.3	4.6	3.8	5.5	1.9	2.1	0.8	2.8	5.7	2.2	1.7	0.7	0.6	0.5	0.6	0.6	0.7	0.7	1.8	5.7
29	1.7	S	1.0	1.6	0.8	0.9	0.8	1.2	0.8	0.9	0.3	0.3	0.3	0.2	0.3	0.5	0.5	0.6	0.6	0.6	0.8	3.4	1.2	1.5	0.9	3.4
30	4.3	S	9.8	4.1	3.7	12.0	5.4	5.4	5.6	10.9	7.4	3.5	2.4	1.4	3.1	4.1	2.0	2.3	4.8	5.7	5.9	9.6	11.5	10.7	5.9	12.0
NO.	30	-	30	30	30	29	29	29	29	29	29	29	30	30	30	30	30	30	30	30	30	30	30	30	683	100%
MEAN	5.5	-	5.6	5.6	5.4	6.4	7.9	7.8	7.3	6.7	5.5	4.7	3.9	3.7	4.1	4.1	3.6	3.7	4.4	5.1	5.9	5.3	5.0			
MAX	15.7	-	12.8	15.2	13.3	16.8	18.5	14.9	13.1	12.8	15.9	14.5	18.6	10.8	14.5	18.2	15.9	17.9	12.2	18.4	16.2	13.1	14.8			

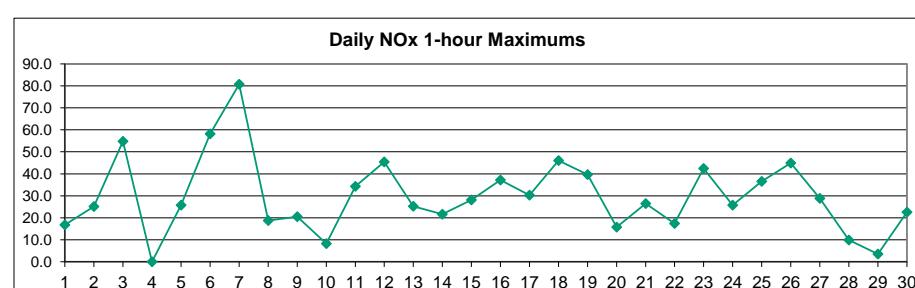


Number of 1HR Exceedences	0
Number of Non-Zero Readings	682
Maximum 1-HR Average	18.6 PPB
Maximum 24-HR Average	9.7 PPB
Monthly Calibration Standard Deviation	3.9
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	5.2 PPB

Lagoon NOx (ppb) – September 2019

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	6.8	S	12.0	8.3	2.5	2.5	8.3	14.4	16.8	9.3	4.1	3.0	12.6	8.9	6.4	9.3	7.6	1.3	1.3	0.7	3.0	12.0	7.0	16.1	7.6	16.8
2	7.9	S	14.0	18.0	25.1	15.5	18.7	21.4	12.1	10.5	3.9	10.9	20.7	1.7	1.3	4.8	13.5	2.7	3.8	8.2	6.2	6.8	8.1	5.5	10.5	25.1
3	11.0	S	12.3	7.1	8.9	10.2	14.0	38.0	54.8	51.7	24.4	27.7	8.2	4.7	16.6	19.1	3.5	2.5	13.7	10.7	14.1	13.9	6.9	10.4	16.7	54.8
4	16.3	S	32.0	31.0	6.2	C	C	C	C	C	7.4	2.1	3.4	5.4	17.8	20.3	2.2	6.0	8.8	17.5	14.1	10.9	-	-	-	-
5	13.4	S	17.0	25.8	16.5	25.7	7.9	4.6	2.0	8.7	7.5	4.1	2.5	3.9	6.5	4.0	3.2	0.8	1.4	3.8	7.5	12.8	4.3	4.5	8.2	25.8
6	12.9	S	44.4	34.3	18.0	27.9	21.5	27.0	24.1	29.9	33.2	58.2	33.5	12.7	4.8	4.3	1.7	1.9	3.1	5.0	3.5	3.1	7.8	24.5	19.0	58.2
7	80.7	S	29.8	21.7	23.4	46.6	74.0	49.6	25.2	22.0	59.9	49.2	27.7	1.0	0.7	1.1	0.9	2.6	4.0	10.7	7.0	7.1	3.1	1.9	23.9	80.7
8	10.3	S	2.4	6.7	18.8	5.2	15.5	3.5	10.5	5.5	0.8	1.3	0.9	1.5	1.4	5.5	2.5	1.9	2.1	1.4	1.3	2.8	2.9	6.3	4.8	18.8
9	10.1	S	3.4	4.8	4.7	3.9	2.5	19.4	19.5	17.6	20.5	2.7	1.6	1.0	1.6	3.1	6.7	2.5	1.9	4.2	6.0	9.4	6.3	2.1	6.8	20.5
10	3.9	S	0.7	3.5	3.5	1.8	3.7	0.4	1.7	2.0	8.2	2.4	2.3	2.8	1.4	1.2	2.0	1.3	1.9	5.2	4.5	6.4	3.4	2.8	2.9	8.2
11	2.8	S	11.8	16.9	5.2	3.9	9.3	9.0	14.4	34.3	29.9	11.7	3.7	2.0	3.7	1.5	0.9	0.6	1.9	2.0	2.6	7.4	6.0	7.1	8.2	34.3
12	14.3	S	20.6	14.5	23.6	45.4	25.3	11.6	26.1	15.5	10.7	5.0	7.1	3.4	5.6	2.0	2.6	3.0	0.9	2.6	2.6	8.8	11.6	9.4	11.8	45.4
13	0.0	S	1.5	7.3	6.1	2.9	25.3	9.1	14.2	7.9	5.0	2.9	1.4	10.0	6.1	14.3	12.6	13.0	2.7	1.0	12.5	3.3	6.4	4.2	7.4	25.3
14	12.1	S	3.0	1.4	11.5	2.1	15.7	21.7	20.2	10.6	4.6	1.5	0.6	0.2	0.3	0.6	2.9	2.2	1.3	1.2	2.8	1.4	1.7	0.7	5.2	21.7
15	0.3	S	0.9	1.4	2.1	18.5	9.3	7.8	7.5	12.3	10.6	26.1	11.0	9.1	13.2	24.1	9.8	17.0	20.3	15.3	28.1	25.3	14.5	8.4	12.7	28.1
16	3.3	S	5.5	5.1	7.9	9.8	14.2	29.0	28.5	24.6	31.8	30.9	33.1	37.1	14.3	6.4	20.4	21.9	14.2	24.1	5.3	3.3	10.2	18.8	17.4	37.1
17	27.4	S	16.4	13.8	11.3	15.4	19.5	29.1	30.2	28.8	7.9	1.4	3.3	23.7	6.4	6.3	6.3	2.1	3.4	6.6	11.1	6.4	15.2	8.7	13.1	30.2
18	10.8	S	7.0	14.4	46.1	17.7	20.7	44.7	19.3	22.6	30.0	18.4	3.8	11.8	11.7	14.0	11.2	7.3	3.1	18.9	14.8	13.8	0.5	5.6	16.0	46.1
19	6.0	S	3.3	8.2	11.8	12.3	27.0	39.7	37.3	33.2	28.7	30.0	4.3	3.7	4.0	1.9	6.0	3.1	1.5	3.2	4.2	2.4	14.8	12.3	13.0	39.7
20	1.2	S	6.1	3.6	7.1	6.9	11.2	13.7	15.8	7.4	10.8	4.8	5.0	9.8	3.8	4.1	0.1	0.0	10.7	4.9	7.2	3.2	1.7	6.5	6.3	15.8
21	10.9	S	19.8	8.3	8.0	23.2	16.1	9.1	26.5	7.9	3.5	6.5	2.3	0.8	0.0	0.0	0.0	1.2	11.1	1.2	0.9	6.0	7.7	3.4	7.6	26.5
22	2.9	S	13.4	7.6	15.8	9.3	17.1	17.4	11.3	3.4	0.9	0.8	0.0	0.0	0.0	4.5	0.3	4.4	1.0	0.0	0.0	0.0	0.7	0.0	4.8	17.4
23	0.4	S	1.9	6.9	1.1	0.3	9.6	11.8	6.5	13.5	13.4	3.4	11.8	21.1	20.1	32.1	42.4	18.9	7.0	9.3	5.3	1.7	1.4	0.3	10.4	42.4
24	0.9	S	1.4	8.0	1.1	11.0	10.2	24.4	8.4	25.8	15.7	7.0	1.9	3.1	1.2	3.8	2.8	0.5	4.5	5.8	9.7	21.8	7.8	2.2	7.8	25.8
25	4.8	S	19.1	8.3	1.7	22.0	36.5	17.3	22.0	6.8	3.8	10.4	11.2	6.4	5.8	9.8	16.7	29.7	34.0	11.2	2.2	0.6	0.6	0.5	12.2	36.5
26	1.7	S	0.1	6.8	2.7	13.4	44.9	41.7	28.3	7.2	3.5	6.4	1.4	0.6	0.0	5.4	4.6	2.7	1.1	12.4	8.7	17.8	16.2	10.6	10.4	44.9
27	17.2	S	14.4	15.6	11.4	26.0	17.3	28.8	22.9	19.3	8.2	0.5	5.4	2.2	6.3	13.6	2.6	1.2	1.6	1.8	1.5	1.3	0.8	9.6	28.8	
28	0.5	S	0.6	0.5	0.4	0.6	1.3	5.2	4.3	7.0	2.5	2.9	0.9	4.7	9.9	3.2	2.2	0.6	0.4	0.3	0.4	0.4	0.6	0.6	2.2	9.9
29	1.8	S	1.2	1.8	0.6	0.7	0.7	1.1	0.7	0.9	0.2	0.1	0.2	0.0	0.1	0.4	0.4	0.4	0.4	0.5	0.8	3.5	1.0	1.3	0.8	3.5
30	5.1	S	12.7	4.4	3.8	21.4	6.4	6.4	8.9	22.6	16.4	8.3	5.1	2.6	6.0	7.5	2.6	2.9	5.5	6.0	5.4	9.5	13.7	15.1	8.6	22.6

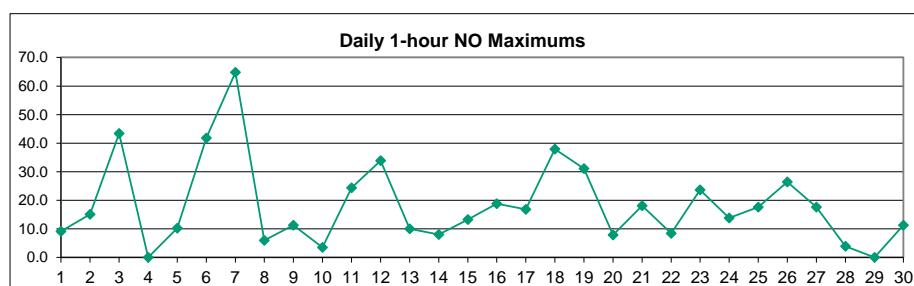
NO.	30	-	30	30	29	29	29	29	29	29	29	30	30	30	30	30	30	30	30	30	30	30	30	30	683	100%
MEAN	9.9	-	10.9	10.5	10.2	13.9	17.4	19.2	17.9	16.2	13.8	11.7	7.7	6.4	5.4	7.1	6.9	5.7	5.4	6.1	6.3	7.7	6.6	6.7		
MAX	80.7	-	44.4	34.3	46.1	46.6	74.0	49.6	54.8	51.7	59.9	58.2	33.5	37.1	20.1	32.1	42.4	29.7	34.0	24.1	28.1	25.3	16.2	24.5		



Number of Non-Zero Readings	673
Maximum 1-HR Average	80.7 PPB
Maximum 24-HR Average	23.9 PPB
Monthly Calibration Standard Deviation	10.82
Opperational Time	720 HRS
Opperational Uptime	100.0 %
Monthly Average	9.9 PPB

Lagoon NO (ppb) – September 2019

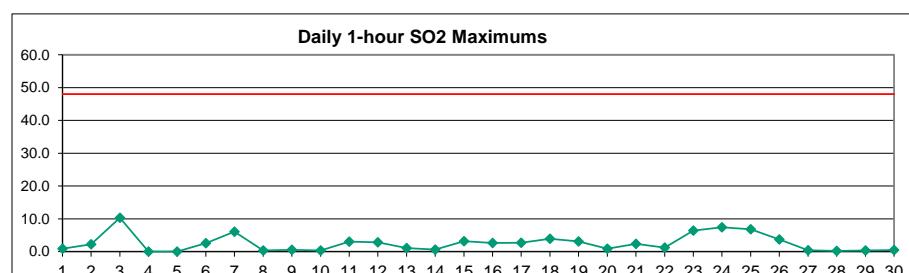
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0.7	S	5.6	1.2	0.0	0.0	2.5	6.0	9.2	4.1	1.4	0.9	6.4	3.2	2.7	4.8	4.2	0.2	0.1	0.0	0.7	2.8	0.7	8.2	2.9	9.2	
2	2.1	S	7.2	11.8	15.1	5.2	12.0	13.9	5.6	4.7	1.1	5.9	11.0	0.6	0.4	1.7	6.5	0.6	0.9	3.9	0.5	1.8	0.4	0.9	5.0	15.1	
3	4.5	S	6.2	2.8	5.0	5.8	8.6	28.2	43.4	39.2	16.0	16.7	3.1	1.6	7.5	9.0	0.7	0.2	5.3	4.0	5.2	4.9	0.2	0.1	9.5	43.4	
4	5.0	S	20.9	19.2	1.1	C	C	C	C	C	C	C	2.6	0.2	0.5	1.4	6.5	10.5	0.0	0.6	0.3	4.8	2.4	1.5	-	-	
5	5.3	S	3.9	10.3	3.0	8.6	1.1	0.5	0.0	3.6	2.8	1.0	0.5	1.1	2.7	1.4	1.0	0.0	0.0	0.0	1.5	3.7	0.0	0.0	2.3	10.3	
6	2.5	S	34.5	27.6	10.0	22.1	14.4	17.7	15.4	19.2	21.2	41.8	19.5	4.9	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.6	12.8	11.7	41.8
7	64.8	S	20.4	14.6	16.0	38.0	63.4	41.0	19.7	16.2	47.9	34.5	16.2	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.4	0.0	0.0	0.0	17.2	64.8	
8	4.6	S	0.0	0.7	5.9	0.9	6.0	0.0	2.8	1.2	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	6.0	
9	2.8	S	0.0	0.3	0.9	0.0	0.0	11.3	8.6	6.4	8.7	0.2	0.0	0.0	0.0	0.1	3.3	0.2	0.0	0.0	0.1	0.4	0.0	0.0	1.9	11.3	
10	0.0	S	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.2	3.5	0.3	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.1	0.0	0.0	0.3	3.5	
11	0.0	S	2.3	6.2	0.1	0.0	2.0	1.2	6.3	24.4	21.3	6.6	1.4	0.4	1.2	0.1	0.0	0.0	0.0	0.0	0.0	2.7	1.1	1.7	3.4	24.4	
12	6.8	S	13.4	8.6	14.5	33.9	16.6	6.2	18.7	9.7	5.7	1.8	2.5	0.6	1.7	0.2	0.2	0.3	0.0	0.3	0.1	2.1	2.3	3.7	6.5	33.9	
13	0.0	S	0.0	2.3	0.1	0.2	10.0	2.1	3.3	1.7	1.1	0.5	0.0	4.2	1.7	5.8	4.9	5.4	0.3	0.0	3.5	0.0	0.9	0.2	2.1	10.0	
14	4.4	S	0.1	0.0	3.6	0.0	4.4	6.9	8.1	3.8	1.6	0.2	0.0	0.0	0.0	0.4	0.3	0.0	0.0	0.2	0.0	0.0	0.0	1.5	8.1		
15	0.0	S	0.0	0.0	0.1	6.8	1.7	1.9	1.9	5.3	4.1	13.3	5.1	3.8	6.0	12.3	3.9	6.6	8.0	4.1	9.4	8.8	4.1	0.0	4.7	13.3	
16	0.0	S	0.6	0.0	2.2	0.0	2.7	16.2	18.8	15.8	18.7	18.3	18.2	18.1	3.8	1.3	7.6	8.2	4.0	11.6	0.8	0.0	1.8	3.7	7.5	18.8	
17	11.3	S	3.6	3.0	2.8	5.9	8.0	15.6	16.8	15.6	2.8	0.0	0.8	12.8	2.5	2.0	1.8	0.2	0.0	1.2	4.1	0.3	5.3	2.2	5.2	16.8	
18	3.7	S	2.8	7.2	37.9	11.7	12.4	35.9	12.6	15.4	22.4	10.9	0.9	4.1	3.4	4.6	2.3	0.6	0.0	7.4	1.7	2.5	0.0	0.1	8.7	37.9	
19	0.4	S	0.0	1.1	3.7	5.8	19.3	31.1	30.2	24.5	18.9	20.3	1.2	1.1	0.8	0.1	1.9	0.2	0.0	0.0	0.0	5.0	4.6	7.4	31.1		
20	0.0	S	1.7	0.8	2.1	2.2	4.8	5.2	7.9	3.0	5.0	1.5	1.9	4.1	0.9	0.7	0.0	0.0	3.7	0.0	0.0	0.0	0.0	1.0	2.0	7.9	
21	1.4	S	11.8	3.7	3.6	15.9	9.1	4.3	18.1	3.7	1.1	2.5	0.6	0.0	0.0	0.0	0.0	0.0	6.4	0.0	0.0	1.6	2.2	0.2	3.8	18.1	
22	0.1	S	6.7	2.4	7.3	3.3	7.5	8.4	5.2	0.9	0.0	0.0	0.0	0.0	0.0	2.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	2.0	8.4		
23	0.0	S	0.0	1.2	0.0	0.0	2.6	4.1	1.8	4.9	5.4	0.9	4.2	9.6	8.9	17.1	23.7	8.8	2.5	3.0	1.2	0.0	0.0	0.0	4.3	23.7	
24	0.0	S	0.0	3.2	0.0	3.1	3.3	11.9	2.8	13.8	7.0	2.7	0.2	0.7	0.0	0.9	0.6	0.0	0.5	1.9	2.6	9.0	1.3	0.0	2.9	13.8	
25	0.5	S	5.9	1.9	0.0	11.2	17.6	6.9	10.7	2.1	1.0	4.7	5.8	2.2	1.8	3.2	7.5	13.3	15.6	4.2	0.0	0.0	0.0	0.0	5.1	17.6	
26	0.0	S	0.0	2.7	0.2	6.4	26.4	26.3	15.3	3.0	1.1	2.2	0.0	0.0	0.0	2.0	0.5	0.0	0.0	2.9	0.6	4.4	2.8	1.0	4.3	26.4	
27	5.5	S	6.1	5.9	3.3	15.0	7.8	17.6	12.8	11.6	4.3	0.0	1.6	0.0	2.1	7.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	4.4	17.6		
28	0.0	S	0.0	0.0	0.0	0.0	0.0	0.2	0.2	1.1	0.2	0.4	0.0	0.0	1.5	3.9	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.4	3.9		
29	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
30	0.4	S	2.5	0.0	0.0	8.9	0.6	0.6	3.0	11.3	8.7	4.4	2.3	0.7	2.5	3.0	0.1	0.2	0.2	0.0	0.0	1.8	4.0	2.4	11.3		
NO.	30	-	30	30	30	29	29	29	29	29	29	29	30	30	30	30	30	30	30	30	30	30	30	30	683	100%	
MEAN	4.2	-	5.2	4.6	4.6	7.3	9.2	11.1	10.3	9.2	8.0	6.6	3.5	2.5	1.9	2.8	2.6	1.9	1.6	1.6	1.1	1.7	1.2	1.6	-	-	
MAX	64.8	-	34.5	27.6	37.9	38.0	63.4	41.0	43.4	39.2	47.9	41.8	19.5	18.1	8.9	17.1	23.7	13.3	15.6	11.6	9.4	9.0	5.3	12.8	-	-	



Number of Non-Zero Readings	490
Maximum 1-HR Average	64.8 PPB
Maximum 24-HR Average	17.2 PPB
Monthly Calibration Standard Deviation	7.839
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	4.5 PPB

Lagoon SO₂ (ppb) – September 2019

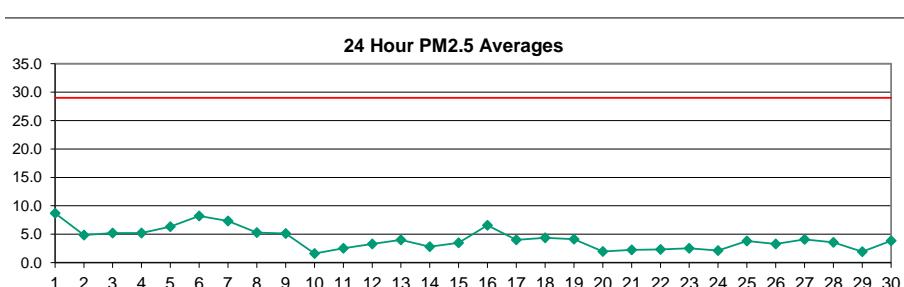
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.9
2	0.0	S	0.0	1.0	1.9	0.1	0.0	0.0	0.0	0.6	0.0	1.0	2.2	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.2
3	0.1	S	0.8	0.3	0.3	0.2	0.8	4.0	10.3	9.7	4.2	3.0	0.0	0.0	1.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	10.3
4	0.0	S	2.5	4.6	0.1	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	-	-	
5	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	-	-	
6	0.0	S	0.3	0.3	0.0	0.0	0.0	0.0	0.8	1.1	2.6	0.7	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.6
7	3.3	S	1.0	0.3	0.7	2.3	3.8	3.4	1.8	1.7	6.1	4.9	3.0	0.3	0.1	0.2	0.2	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.1	1.5	6.1
8	0.0	S	0.0	0.4	0.1	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	0.1	0.4
9	0.0	S	0.1	0.3	0.0	0.2	0.0	0.2	0.1	0.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
10	0.0	S	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.4	0.1	0.1	0.4	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
11	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	3.1	2.6	0.5	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	3.1
12	0.5	S	1.2	1.3	1.8	2.9	1.1	0.3	1.8	1.0	0.3	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.6	2.9
13	0.0	S	0.0	0.0	0.0	0.3	0.1	0.0	1.0	0.2	0.0	0.0	0.2	0.5	0.2	1.1	0.0	0.8	0.2	0.0	0.4	0.0	0.0	0.5	0.0	0.2	1.1
14	0.6	S	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1	0.1	0.4	0.0	0.0	0.1	0.4	0.0	0.0	0.2	0.0	0.1	0.5	0.0	0.1	0.6	
15	0.0	S	0.1	0.4	0.2	0.2	0.8	0.1	0.4	0.3	0.7	3.1	1.1	1.0	1.9	3.2	1.0	1.8	2.6	2.1	2.5	2.8	1.8	0.4	1.2	3.2	
16	0.2	S	0.0	0.0	0.6	0.2	0.2	0.7	0.3	0.4	0.7	1.3	2.7	1.3	0.5	1.9	2.2	0.4	0.9	0.5	0.3	0.5	0.5	0.7	0.7	2.7	
17	0.0	S	0.2	0.4	0.5	0.5	0.7	1.4	1.2	1.1	0.3	0.0	0.7	2.7	0.9	0.2	0.0	0.1	0.3	0.4	0.4	0.2	0.6	0.1	0.6	2.7	
18	0.5	S	0.3	0.6	3.9	1.0	1.6	3.5	1.7	2.2	3.7	0.8	0.2	1.2	1.1	1.3	1.3	0.6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.1	3.9
19	0.0	S	0.0	0.0	0.0	0.2	0.4	1.9	1.0	2.6	1.7	3.1	0.0	0.2	0.1	0.1	0.4	0.0	0.0	0.5	0.0	0.2	1.4	0.6	0.6	3.1	
20	0.2	S	0.1	0.0	0.2	0.5	0.7	0.6	0.2	0.0	0.9	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9	
21	0.5	S	1.2	0.0	0.4	1.4	1.1	0.5	2.4	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.4	1.3	0.1	0.1	0.0	0.1	0.0	0.0	0.4	2.4	
22	0.0	S	0.8	0.6	1.2	0.5	1.0	1.2	0.6	0.1	0.2	0.2	0.2	0.3	0.4	0.3	0.1	0.0	0.0	0.0	0.2	0.1	0.0	0.4	0.4	1.2	
23	0.0	S	0.2	0.0	0.0	0.0	0.4	0.5	0.0	0.6	1.2	0.3	0.0	2.7	4.7	5.9	6.4	3.1	0.8	1.7	0.9	0.0	0.1	0.3	1.3	6.4	
24	0.2	S	0.3	0.9	0.0	0.1	0.7	0.0	0.2	6.4	7.4	2.8	0.4	0.2	0.1	0.6	0.0	0.0	0.4	0.6	1.0	3.7	0.4	0.1	1.1	7.4	
25	0.0	S	1.4	0.8	0.5	0.5	1.4	2.5	2.1	0.1	0.1	0.5	0.7	0.4	0.1	0.5	2.2	5.7	6.8	1.9	0.2	0.5	0.7	0.1	1.3	6.8	
26	0.5	S	0.1	0.0	0.0	0.3	1.6	3.7	2.7	0.7	1.3	1.5	0.7	0.2	0.5	0.4	0.1	0.0	0.3	0.1	0.5	0.4	0.2	0.7	0.7	3.7	
27	0.0	S	0.1	0.2	0.4	0.3	0.2	0.4	0.1	0.1	0.4	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	0.1	0.4	
28	0.0	S	0.1	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	0.2	
29	0.0	S	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	0.4	0.0	0.0	0.0	0.0	0.0	0.4	
30	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.3	0.1	0.0	0.5	0.4	0.0	0.3	0.5	0.0	0.0	0.0	0.3	0.1	0.1	0.5	
NO.	29	-	29	29	29	28	28	28	28	28	28	28	28	29	29	29	29	29	29	29	29	29	29	29	659	100%	
MEAN	0.2	-	0.4	0.4	0.4	0.4	0.6	0.9	1.0	1.2	1.2	0.9	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.3	0.2	0.3	0.2	0.1	0.1		
MAX	3.3	-	2.5	4.6	3.9	2.9	3.8	4.0	10.3	9.7	7.4	4.9	3.0	2.7	4.7	5.9	6.4	5.7	6.8	2.1	2.5	3.7	1.8	0.6	0.6		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	384
Maximum 1-HR Average	10.3 PPB
Maximum 24-HR Average	1.5 PPB
Monthly Calibration Standard Deviation	32
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	0.5 PPB

Lagoon PM_{2.5} ($\mu\text{g}/\text{m}^3$) – September 2019

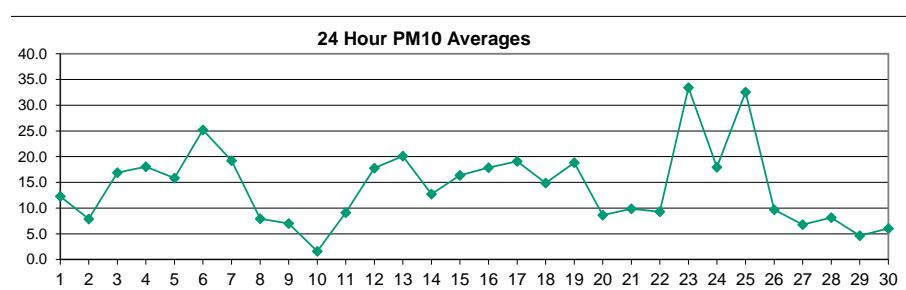
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	11.8	9.8	9.4	13.0	9.1	7.6	10.1	9.2	7.6	12.3	7.3	6.5	6.2	6.5	10.5	8.0	6.2	5.8	5.5	6.5	5.5	9.1	18.5	6.5	8.7	18.5
2	5.8	4.8	4.4	3.3	5.7	8.6	7.6	5.8	5.8	7.3	6.2	6.2	5.8	3.3	0.8	1.5	2.2	2.6	4.0	4.0	6.2	4.0	4.4	6.2	4.9	8.6
3	5.5	5.7	5.8	4.8	4.4	5.1	6.5	4.4	4.7	5.5	4.4	6.9	6.2	5.8	3.3	5.5	4.7	3.7	5.5	4.0	8.0	6.9	4.2	3.7	5.2	8.0
4	5.9	8.7	8.3	6.5	6.2	4.0	C	C	C	C	1.9	5.1	5.1	6.9	5.8	3.7	5.1	5.1	2.6	0.8	5.4	6.2	5.8	5.2	8.7	
5	5.5	5.8	7.3	11.2	8.3	6.5	7.3	5.1	4.4	6.2	8.0	8.3	5.5	4.0	5.5	5.7	4.4	1.2	6.2	9.1	7.2	6.9	7.3	5.5	6.3	11.2
6	3.7	6.4	6.2	6.5	6.5	5.5	9.4	7.3	5.5	11.2	11.2	11.6	13.4	11.2	8.5	9.8	9.1	9.8	9.1	7.6	8.0	7.3	5.5	6.9	8.2	13.4
7	11.6	12.7	9.2	6.9	7.3	7.6	7.3	8.7	5.1	5.5	9.1	6.9	9.1	8.0	6.2	5.1	4.3	5.8	6.2	5.5	4.0	8.0	8.7	7.6	7.3	12.7
8	4.9	5.1	9.8	10.9	11.6	11.9	7.3	9.6	5.8	2.2	1.5	1.2	1.5	1.5	3.3	3.7	1.5	1.5	3.3	4.0	6.2	6.5	5.1	7.3	5.3	11.9
9	8.7	9.8	8.0	7.6	7.8	8.7	5.1	4.0	4.7	5.5	6.9	8.7	5.5	1.2	1.2	3.0	5.5	3.0	4.0	3.3	1.9	3.7	3.0	3.0	5.2	9.8
10	4.0	2.6	2.2	1.9	0.8	0.1	0.2	1.2	1.5	1.5	1.2	1.2	0.8	0.8	0.0	2.2	4.4	2.2	0.1	0.8	1.2	1.9	3.0	2.6	1.6	4.4
11	1.2	0.8	0.1	0.1	3.0	4.0	2.6	4.0	3.3	5.4	8.0	7.3	4.4	1.5	0.0	2.9	2.2	0.0	0.0	0.8	2.2	1.5	2.6	3.0	2.5	8.0
12	1.6	1.2	1.5	0.8	1.2	4.0	3.7	3.0	3.3	4.4	7.2	6.2	3.3	2.2	2.9	1.9	0.8	4.7	4.0	2.9	2.9	2.6	4.0	8.3	3.3	8.3
13	7.3	3.7	1.2	4.7	5.1	5.1	3.7	9.1	6.2	6.2	6.9	3.7	0.0	1.7	4.7	4.7	3.7	2.2	3.1	2.2	1.2	1.9	3.1	4.8	4.0	9.1
14	4.0	4.9	7.3	4.0	1.2	2.2	3.0	6.9	6.5	5.5	2.6	0.4	2.6	2.9	1.9	0.4	0.4	0.8	1.7	2.9	2.6	1.9	0.8	0.4	2.8	7.3
15	1.7	2.6	3.7	3.7	3.0	3.3	4.0	5.1	4.9	4.0	2.9	2.6	4.4	4.0	5.5	5.8	4.1	3.3	1.9	2.2	3.7	4.0	2.2	3.5	5.8	
16	1.5	3.0	3.7	5.4	4.0	5.8	5.5	11.6	8.0	11.8	10.4	17.0	15.5	12.3	13.7	8.7	5.1	3.3	2.6	1.5	3.7	3.0	0.1	1.2	6.6	17.0
17	1.9	4.0	4.8	4.0	2.6	4.4	5.5	4.8	4.8	6.5	8.3	5.7	1.0	0.0	5.1	5.1	4.4	4.0	1.5	0.4	2.2	4.8	3.6	6.5	4.0	8.3
18	5.1	3.6	2.6	1.6	4.4	2.6	2.2	5.1	4.4	4.3	4.0	4.0	4.2	3.3	3.7	4.0	4.7	4.9	4.4	3.7	7.6	7.6	7.3	5.6	4.4	7.6
19	3.7	3.1	4.0	4.4	3.7	4.0	4.9	6.2	4.4	4.0	8.0	7.3	4.7	4.4	5.1	1.9	0.0	4.0	5.1	2.6	3.3	2.6	1.2	6.2	4.1	8.0
20	5.1	3.3	2.6	0.4	0.4	1.2	0.4	0.0	4.0	4.0	4.0	4.7	3.3	0.4	0.4	2.2	2.2	2.2	1.9	0.1	0.0	0.0	0.3	4.0	2.0	5.1
21	4.4	2.6	4.0	4.4	2.2	1.9	2.6	1.2	0.1	3.7	3.7	1.5	0.8	2.2	0.8	0.4	4.0	2.6	1.9	2.6	2.9	1.5	0.4	1.2	2.2	4.4
22	0.4	1.9	3.7	2.6	3.0	3.3	3.0	3.6	2.6	1.5	2.9	2.6	1.2	2.6	1.2	3.7	4.3	2.9	1.5	1.2	1.2	1.9	1.9	2.3	4.3	
23	2.6	1.9	4.7	3.3	0.4	1.9	1.9	0.8	0.4	0.0	1.2	1.9	1.2	3.3	8.8	7.6	4.4	3.7	3.3	2.6	1.9	1.5	0.8	0.4	2.5	8.8
24	0.8	1.2	1.9	0.8	0.0	0.0	0.0	0.4	0.0	0.1	0.8	4.4	4.4	1.9	4.0	2.6	2.6	2.6	3.7	4.4	4.0	3.0	4.0	3.3	2.1	4.4
25	1.9	3.0	4.8	11.2	6.5	3.0	3.0	3.3	1.5	3.0	3.3	1.9	1.9	3.7	1.9	1.5	2.6	3.0	6.2	5.9	4.4	5.8	4.4	3.7	3.8	11.2
26	3.7	3.0	4.0	0.8	2.6	4.0	16.2	8.4	3.0	4.4	2.6	0.1	0.4	1.5	3.3	0.4	0.0	1.8	2.2	1.9	2.6	3.1	4.8	4.4	3.3	16.2
27	8.7	9.1	5.8	4.4	6.2	5.5	3.3	2.6	2.2	5.1	4.0	3.3	4.0	5.5	1.9	0.0	2.2	3.3	4.4	4.0	3.7	2.2	2.6	4.4	4.1	9.1
28	5.1	3.7	5.0	4.4	1.9	3.3	4.3	5.1	4.0	4.8	5.5	4.0	4.0	3.0	1.9	4.8	4.4	2.2	1.5	2.6	2.6	2.6	3.0	1.9	3.6	5.5
29	1.2	3.0	3.0	2.2	2.5	1.9	1.2	2.6	3.3	2.6	2.2	0.8	0.0	0.1	1.9	1.9	3.7	2.6	0.0	0.0	1.9	2.2	4.0	1.9	4.0	
30	3.0	6.2	5.8	4.0	3.3	2.6	1.9	1.5	0.4	1.5	4.8	2.2	2.6	3.7	2.6	0.8	3.3	6.9	9.8	6.2	5.1	5.8	3.7	4.4	3.8	9.8
NO.	30	30	30	30	30	30	29	29	29	29	29	30	30	30	30	30	30	30	30	30	30	30	30	30	715	100%
MEAN	4.4	4.6	4.8	4.7	4.2	4.3	4.6	4.8	3.9	4.8	5.1	4.7	4.1	3.6	3.9	3.6	3.4	3.5	3.8	3.3	3.6	3.9	4.0	4.2		
MAX	11.8	12.7	9.8	13.0	11.6	11.9	16.2	11.6	8.0	12.3	11.2	17.0	15.5	12.3	13.7	9.8	9.1	9.8	9.8	9.1	8.0	9.1	18.5	8.3		



Number of 24HR Exceedences	0
Number of Non-Zero Readings	696
Maximum 1-HR Average	18.5 UG/M3
Maximum 24-HR Average	8.7 UG/M3
Monthly Calibration Standard Deviation	5.2832
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	4.2 UG/M3

Lagoon PM₁₀ ($\mu\text{g}/\text{m}^3$) – September 2019

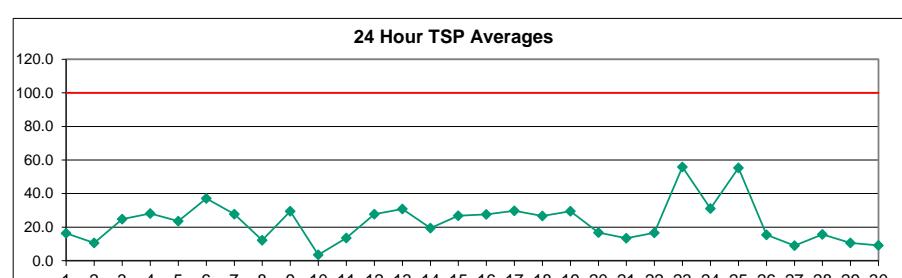
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	14.8	11.4	10.1	19.6	16.2	12.1	12.1	15.5	17.5	12.8	11.3	8.0	7.4	8.7	8.0	8.7	9.4	17.5	7.4	12.1	10.2	14.1	18.9	11.4	12.3	19.6
2	10.1	8.0	5.3	3.3	6.1	13.6	10.1	5.3	6.0	5.3	4.0	6.7	6.7	7.4	3.3	6.0	10.1	17.5	3.3	6.0	9.4	14.8	10.8	10.8	7.9	17.5
3	10.1	9.4	8.7	9.0	14.1	8.7	10.1	8.7	20.3	27.0	29.0	18.2	19.5	29.0	21.6	29.8	23.0	21.7	10.1	12.8	23.6	16.8	12.1	12.1	16.9	29.8
4	16.9	31.8	34.5	16.8	15.5	16.2	C	C	C	C	13.5	35.8	21.6	10.1	12.1	23.6	27.6	12.1	9.1	6.0	16.2	15.6	8.0	18.0	35.8	
5	10.1	7.4	15.5	24.3	9.4	16.8	16.2	10.1	6.7	9.4	19.5	20.9	19.5	20.9	20.2	20.2	17.5	11.4	12.8	14.1	21.5	18.9	22.3	14.8	15.8	24.3
6	11.4	17.5	17.5	20.9	21.6	18.2	16.9	26.3	35.1	37.8	31.7	32.4	42.6	32.4	33.8	31.7	29.0	27.0	20.9	16.2	24.3	21.6	18.9	19.6	25.2	42.6
7	39.9	26.3	19.6	16.2	13.5	14.8	17.5	22.3	26.3	18.2	13.5	26.5	27.7	30.4	10.7	8.7	14.8	18.8	12.8	11.4	18.9	18.7	16.2	17.5	19.2	39.9
8	8.7	13.5	12.2	10.1	14.8	17.7	11.4	10.8	6.0	6.1	5.3	4.0	0.6	0.0	12.1	8.7	5.8	6.7	3.3	4.0	4.0	5.3	8.0	11.4	7.9	17.7
9	12.8	14.1	11.4	11.4	9.4	13.5	14.1	10.8	7.3	8.0	6.0	7.4	4.0	0.6	1.9	0.6	2.6	2.6	3.3	5.3	4.0	5.3	7.4	4.6	7.0	14.1
10	5.9	4.0	0.6	0.0	0.6	0.0	1.3	0.0	0.0	0.6	0.7	0.0	0.0	1.3	1.3	3.3	3.3	4.0	2.6	0.7	0.7	3.3	4.7	1.6	5.9	
11	2.6	4.0	4.0	5.3	3.3	4.0	6.7	4.0	4.0	9.4	25.0	27.0	23.6	28.4	6.0	11.6	6.0	0.0	0.0	7.4	10.1	8.7	7.4	10.8	9.1	28.4
12	13.5	10.1	10.1	6.0	3.3	6.0	16.9	15.5	10.8	20.2	36.5	21.6	10.7	22.9	17.5	25.0	14.1	18.9	6.0	12.8	14.1	7.4	55.4	52.1	17.8	55.4
13	14.8	9.5	5.9	14.1	25.0	21.6	9.9	47.3	8.7	26.9	36.5	4.7	2.6	2.6	35.1	29.3	51.4	32.4	34.4	0.0	1.9	5.3	21.6	41.2	20.1	51.4
14	20.2	21.6	25.7	0.6	1.9	5.9	13.5	39.2	46.0	27.0	18.9	6.7	8.0	4.9	1.9	6.7	3.3	11.1	6.7	3.3	1.3	10.1	11.4	9.4	12.7	46.0
15	4.6	3.3	6.0	4.0	1.3	4.0	10.1	39.9	16.2	9.4	20.2	7.4	27.0	33.1	33.8	37.8	30.4	28.4	31.7	16.2	9.4	6.0	8.0	4.7	16.4	39.9
16	4.0	5.3	8.0	8.7	18.9	10.8	10.8	32.4	24.3	19.6	29.0	29.7	31.8	50.7	42.6	10.7	13.7	23.6	18.2	10.1	8.0	6.0	6.0	5.5	17.8	50.7
17	8.0	12.8	8.0	8.0	9.4	9.4	5.3	8.7	16.2	29.0	55.5	29.7	4.0	12.1	116.4	12.1	30.4	29.0	6.2	22.3	8.7	6.0	4.6	6.0	19.1	116.4
18	5.3	6.7	7.4	8.0	7.4	7.4	8.0	12.1	16.8	12.1	12.1	27.5	38.0	2.6	16.9	35.8	29.7	12.1	18.2	10.8	25.0	18.9	17.5	0.6	14.9	38.0
19	4.0	4.0	1.9	1.9	6.7	10.8	28.4	25.7	30.4	41.2	37.2	45.3	32.4	10.1	18.9	16.2	15.0	45.3	18.9	3.3	8.0	9.4	4.6	32.4	18.8	45.3
20	25.7	1.9	2.6	4.1	5.3	11.4	6.0	7.5	22.3	6.0	7.4	12.8	12.1	16.8	21.6	12.1	10.7	4.6	0.6	2.6	1.9	5.3	4.0	1.8	8.6	25.7
21	8.0	10.9	6.7	9.4	7.4	6.0	5.3	12.0	10.8	31.1	22.1	1.3	12.1	8.6	5.9	7.4	6.7	4.6	7.4	27.0	4.0	1.9	3.9	16.2	9.9	31.1
22	14.8	13.5	14.8	10.1	18.2	6.7	10.8	21.0	19.6	8.8	6.0	4.6	5.3	4.0	4.6	4.6	14.8	11.4	9.4	4.6	1.3	4.6	4.6	4.6	9.3	21.0
23	3.5	3.3	8.0	4.0	10.8	6.0	1.3	5.3	6.7	6.7	32.4	33.1	16.8	46.0	145.5	100.8	105.6	94.0	132.6	15.5	14.8	5.3	3.2	0.6	33.4	145.5
24	0.0	4.0	2.6	0.6	4.7	3.3	5.3	4.6	11.2	22.3	45.3	61.5	31.7	6.0	10.1	9.4	15.1	5.3	5.3	18.2	29.0	17.9	76.5	40.5	17.9	76.5
25	3.2	6.7	76.5	88.0	13.5	8.0	4.8	6.0	12.1	32.4	14.1	12.1	46.6	65.6	58.2	44.6	33.1	53.4	90.7	63.6	31.1	6.7	5.3	5.3	32.6	90.7
26	4.0	2.6	14.8	1.9	4.0	12.8	57.3	14.1	9.4	20.9	6.7	8.0	10.8	6.0	1.9	2.6	3.3	4.0	3.3	2.6	6.0	4.0	8.0	23.6	9.7	57.3
27	6.7	10.1	9.4	8.7	6.7	4.6	5.3	6.0	8.9	15.5	10.1	9.4	6.0	4.0	5.3	2.6	10.1	6.7	6.0	5.3	2.1	2.2	6.0	5.6	6.8	15.5
28	3.3	1.9	8.0	8.0	4.0	4.7	8.0	10.8	8.5	12.8	8.0	4.0	13.5	7.4	20.9	12.1	10.1	8.0	6.7	6.7	6.0	7.4	8.0	7.4	8.2	20.9
29	4.0	1.9	6.0	4.0	2.6	2.6	4.6	2.6	1.9	8.0	5.3	6.0	8.6	9.6	10.1	6.0	6.0	6.0	3.0	0.0	1.9	4.0	2.6	4.0	4.6	10.1
30	3.1	4.6	5.2	4.7	4.6	2.6	2.6	4.7	7.4	5.3	14.8	7.4	8.0	6.0	3.0	1.3	8.5	6.7	7.4	4.0	5.3	5.3	7.4	14.8	6.0	14.8



Number of Non-Zero Readings	702
Maximum 1-HR Average	145.5 UG/M3
Maximum 24-HR Average	33.4 UG/M3
Monthly Calibration	5
Standard Deviation	15.58
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	14.2 UG/M3

Lagoon TSP ($\mu\text{g}/\text{m}^3$) – September 2019

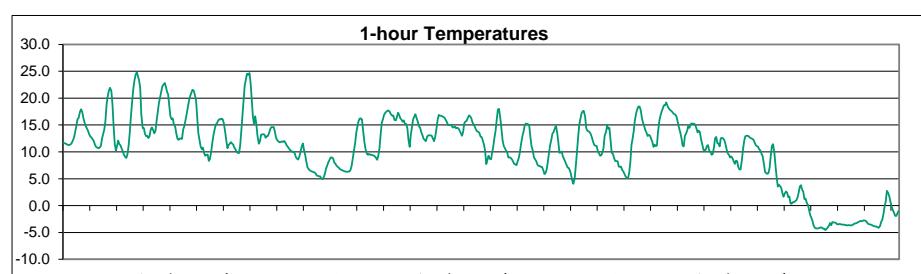
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	18.5	15.4	22.3	23.8	16.8	12.6	15.4	12.6	22.3	18.2	14.0	11.3	14.0	8.4	16.8	15.4	16.8	16.6	14.1	14.2	11.3	16.8	30.6	15.4	16.4	30.6
2	14.1	7.1	7.1	9.9	4.4	14.0	9.9	9.9	8.5	16.4	8.5	11.3	8.5	11.3	8.5	5.7	16.8	20.9	9.9	12.6	11.3	9.9	11.3	7.1	10.6	20.9
3	7.1	18.2	9.9	15.4	8.5	15.4	7.1	12.6	25.1	36.1	36.1	26.5	36.1	55.5	25.1	48.6	41.7	32.0	14.0	26.5	30.6	29.2	20.9	16.8	24.8	55.5
4	12.6	38.9	43.1	23.7	3.0	15.4	C	C	C	C	23.6	66.5	43.0	18.2	23.7	38.2	49.9	19.5	18.2	8.5	41.7	29.2	18.2	28.2	66.5	
5	18.2	12.6	23.2	32.0	20.9	25.1	29.2	12.7	8.4	11.5	18.2	32.0	30.5	28.5	27.8	38.9	23.7	23.7	16.7	22.3	25.1	32.0	27.9	25.1	23.6	38.9
6	25.1	29.2	23.7	36.1	30.6	23.9	29.2	37.5	48.6	45.8	48.6	54.3	58.2	46.4	37.5	44.4	43.3	43.0	36.1	27.8	38.9	33.4	25.7	22.3	37.1	58.2
7	45.8	33.4	18.2	23.7	15.4	16.8	15.4	30.6	40.3	19.6	22.3	37.5	41.7	54.1	11.3	19.5	30.6	41.7	33.4	15.4	36.1	20.9	24.2	18.9	27.8	54.1
8	18.7	20.9	33.4	18.5	10.9	19.6	15.4	16.5	9.9	9.9	11.3	5.5	0.2	7.1	19.5	19.6	7.1	5.7	1.6	5.7	5.7	5.7	4.4	19.6	12.2	33.4
9	18.2	26.5	18.2	19.6	18.2	18.2	18.2	1.6	12.7	11.3	9.9	5.6	3.0	7.1	1.6	1.6	467.4	7.1	4.4	5.8	5.7	9.8	8.5	8.0	29.5	467.4
10	7.1	14.0	0.0	1.6	5.7	4.4	0.2	0.2	0.2	0.0	0.2	0.2	3.0	3.0	4.4	4.4	3.1	3.0	3.0	5.5	4.4	7.1	4.4	4.4	3.5	14.0
11	3.0	16.8	4.4	4.4	3.3	11.3	9.9	8.5	11.3	9.9	27.9	36.1	34.8	36.1	5.7	19.3	4.3	5.9	4.0	8.5	12.6	14.0	18.2	15.4	13.6	36.1
12	20.6	19.6	12.6	11.3	9.9	16.8	19.6	23.7	15.4	29.2	48.6	33.4	15.4	33.4	27.8	37.5	15.4	32.0	11.3	22.3	29.2	11.3	77.6	92.8	27.8	92.8
13	27.8	17.2	8.5	16.8	32.0	26.5	16.8	67.7	18.2	48.8	50.0	3.0	3.0	46.3	44.4	84.5	45.8	63.8	7.1	8.5	8.5	27.9	65.2	30.9	84.5	
14	23.7	36.1	37.5	4.4	5.7	11.3	11.1	58.3	70.7	47.2	30.6	19.5	18.2	4.3	4.3	5.7	3.0	8.5	4.3	5.7	4.3	16.8	22.3	12.6	19.4	70.7
15	7.1	11.3	8.5	4.3	5.7	4.4	14.0	59.6	18.2	8.5	33.4	19.4	49.9	52.7	48.6	62.4	45.8	50.0	47.2	32.0	21.0	14.0	15.4	8.5	26.7	62.4
16	9.9	7.1	5.7	10.7	10.7	15.4	15.4	43.1	37.5	36.1	29.2	61.0	48.6	74.8	79.0	20.9	30.6	49.9	37.5	12.6	5.7	8.5	5.7	5.7	27.6	79.0
17	15.4	14.0	12.7	13.2	11.3	12.6	11.3	11.3	23.2	45.9	81.8	37.5	12.6	14.0	166.0	20.9	55.5	51.3	11.3	36.1	12.6	12.7	20.9	8.5	29.7	166.0
18	12.7	19.6	9.9	8.5	15.4	9.9	8.5	25.1	23.2	22.3	52.7	54.1	16.8	30.6	65.3	55.5	23.7	38.9	16.8	47.2	30.6	26.5	5.7	26.7	65.3	
19	14.0	9.9	10.7	7.1	4.4	14.0	34.7	37.5	41.7	50.0	48.8	59.6	61.0	26.5	27.8	29.2	27.8	74.8	32.0	3.0	16.8	8.5	8.5	59.6	29.5	74.8
20	44.4	14.0	3.0	4.4	9.9	12.7	8.5	14.0	36.1	18.2	8.5	41.7	26.5	34.7	38.9	18.2	19.5	4.4	3.0	8.5	8.5	12.7	5.7	7.1	16.8	44.4
21	7.1	19.6	0.2	11.3	9.8	5.8	8.4	8.5	15.4	40.2	44.4	7.1	15.4	11.3	12.6	7.1	5.7	4.3	9.9	36.1	7.1	11.2	7.1	16.8	13.4	44.4
22	25.1	34.8	32.0	20.9	30.6	13.7	20.9	37.9	26.5	9.9	8.5	9.9	7.1	6.0	4.3	9.9	16.8	14.0	19.5	9.9	11.3	11.3	9.9	8.5	16.6	37.9
23	4.3	1.6	18.2	4.3	12.6	5.7	0.2	15.4	11.3	14.2	58.3	59.6	29.2	79.0	259.9	161.9	201.9	164.6	172.9	25.1	20.9	7.1	4.4	7.1	55.8	259.9
24	5.7	5.7	4.4	7.1	9.9	4.4	8.5	8.5	14.0	36.1	77.6	109.3	49.9	7.1	16.8	18.2	19.5	8.5	7.1	36.1	50.0	29.2	141.2	72.1	31.1	141.2
25	1.6	14.0	124.6	135.7	26.5	8.5	8.5	15.4	18.2	63.8	20.9	21.0	91.4	109.3	69.3	83.1	59.6	90.0	175.7	116.3	54.1	5.7	8.5	7.1	55.4	175.7
26	3.4	23.7	20.9	11.1	5.7	16.8	58.3	19.6	18.2	38.9	16.7	8.5	22.3	10.9	5.7	11.3	5.7	3.0	7.1	4.4	5.5	9.9	7.1	34.7	15.4	58.3
27	8.5	8.5	15.4	14.0	7.1	15.4	7.1	9.9	19.6	19.6	14.0	3.0	3.0	5.4	8.5	4.4	8.5	4.4	5.7	3.0	4.4	1.6	5.7	20.9	9.1	20.9
28	15.4	34.8	41.7	22.7	8.5	5.7	7.1	14.0	8.5	16.8	18.2	7.1	9.9	8.5	32.0	30.6	12.8	15.4	5.7	14.1	12.6	19.6	7.1	8.5	15.7	41.7
29	5.7	12.6	8.5	5.7	11.3	5.7	8.5	4.4	7.1	16.8	8.5	29.9	16.8	18.2	25.1	19.6	10.5	8.5	8.5	3.0	1.0	4.4	4.4	11.3	10.7	29.9
30	12.6	15.4	4.4	4.4	3.0	8.5	5.7	8.5	7.9	18.2	14.0	12.6	9.9	4.4	8.5	9.9	8.5	5.7	7.1	11.3	13.0	7.1	16.0	9.2	18.2	
NO.	30	30	30	30	30	30	29	29	29	29	29	30	30	30	30	30	30	30	30	30	30	30	30	30	715	100%
MEAN	15.1	18.4	19.4	17.5	12.3	12.8	14.7	21.5	21.3	25.8	28.8	28.0	28.1	27.5	36.1	30.0	46.0	30.4	27.5	18.7	17.4	15.2	20.6	21.3		
MAX	45.8	38.9	124.6	135.7	32.0	26.5	58.3	67.7	70.7	63.8	81.8	109.3	91.4	109.3	259.9	161.9	467.4	164.6	175.7	116.3	54.1	41.7	141.2	92.8		



Number of 24HR Exceedences	0
Number of Non-Zero Readings	713
Maximum 1-HR Average	467.4 UG/M3
Maximum 24-HR Average	55.8 UG/M3
Monthly Calibration Standard Deviation	30.4
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	23.1 UG/M3

Lagoon Temperature (°C) – September 2019

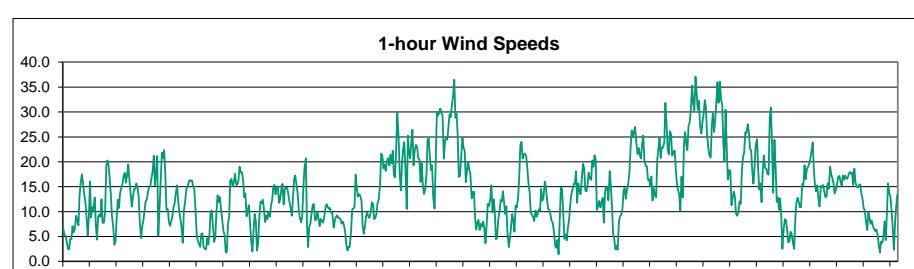
Day	Hour																								Mean	Max
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	11.7	11.6	11.5	11.4	11.3	11.3	11.4	11.7	12.2	12.7	13.7	14.8	16.1	16.3	17.5	17.9	17.4	16.3	15.5	14.9	14.4	14.0	13.3	12.8	13.8	17.9
2	12.6	12.3	12.0	11.3	10.9	10.8	10.7	10.7	11.1	12.5	13.3	14.2	15.8	18.8	20.4	21.3	21.9	21.3	18.8	14.8	11.5	10.3	11.1	12.1	14.2	21.9
3	11.5	11.2	10.5	10.0	9.4	9.1	8.9	9.6	11.2	13.5	16.6	19.6	21.8	23.4	24.4	24.8	24.1	23.3	21.9	16.9	14.4	14.4	13.4	12.9	15.7	24.8
4	13.0	12.6	12.9	14.1	14.6	14.2	13.4	13.9	15.7	17.3	19.0	Y	22.1	22.5	22.8	22.2	21.2	20.7	18.6	16.6	16.1	16.2	15.2	17.0	22.8	
5	14.7	13.4	12.4	12.2	12.5	12.5	12.4	14.1	14.8	16.0	17.2	18.4	19.6	20.4	21.0	21.5	21.4	20.8	19.5	16.4	13.4	12.2	11.0	10.5	15.8	21.5
6	10.8	9.8	9.3	9.5	9.5	8.3	8.7	9.9	11.6	13.0	14.1	15.0	15.4	15.8	16.1	16.0	16.2	16.0	15.4	14.0	12.4	10.7	11.3	11.5	12.5	16.2
7	11.8	11.6	11.4	10.8	10.5	10.0	9.8	9.8	11.2	13.9	16.7	19.6	22.4	23.4	24.5	24.3	24.7	22.8	19.7	16.5	15.2	16.6	15.2	13.0	16.1	24.7
8	11.5	11.9	13.2	13.3	13.3	13.2	12.6	12.9	12.9	13.6	14.3	14.6	14.6	14.6	13.7	12.6	12.2	11.9	11.8	11.8	11.9	11.9	12.0	11.7	12.8	14.6
9	11.2	11.0	10.7	10.3	10.1	10.0	10.0	9.7	9.0	8.7	8.6	9.1	10.1	11.0	11.5	10.3	9.5	8.2	7.2	6.8	6.6	6.4	6.3	6.2	9.1	11.5
10	6.2	6.0	5.6	5.5	5.4	5.4	5.1	4.9	5.3	5.9	6.9	7.5	8.0	8.5	8.9	9.0	8.8	8.0	7.8	7.4	7.2	7.0	6.8	6.7	6.8	9.0
11	6.6	6.5	6.4	6.3	6.3	6.3	6.3	6.6	7.3	8.6	10.3	11.7	13.6	14.8	15.7	16.2	16.2	16.0	13.9	11.7	10.4	9.7	9.5	9.6	10.3	16.2
12	9.4	9.5	9.4	9.3	9.2	8.9	8.5	9.3	10.7	13.1	15.4	16.0	16.9	17.3	17.5	17.7	17.7	17.4	16.9	16.7	16.7	15.9	15.9	16.5	13.8	17.7
13	17.3	16.8	16.2	16.0	15.6	15.8	15.2	15.2	14.3	12.1	10.9	13.2	14.5	16.1	16.5	17.0	16.2	15.6	14.8	14.5	13.7	13.1	12.4	12.2	14.8	17.3
14	12.0	12.9	13.1	13.1	13.1	13.0	12.5	12.0	12.7	14.1	16.0	16.9	16.7	16.7	16.6	16.5	16.4	16.0	15.6	15.0	15.0	15.0	14.9	14.5	14.6	16.9
15	14.6	14.7	14.4	14.5	14.3	13.9	13.5	13.0	13.7	15.3	15.6	15.7	16.2	16.8	16.6	16.3	15.5	15.1	14.7	14.2	13.8	13.8	13.6	12.8	14.7	16.8
16	12.7	12.1	11.3	10.2	7.7	8.5	9.3	8.7	8.6	9.9	11.0	12.7	13.9	16.0	16.5	14.2	12.1	11.1	10.7	10.3	10.0	8.9	11.8	18.0		
17	9.0	8.9	8.6	8.2	7.8	7.7	7.5	8.2	8.9	10.0	11.4	12.9	13.7	14.9	15.2	15.2	15.2	14.9	12.8	11.1	10.2	8.9	8.6	8.3	10.8	15.2
18	7.6	7.4	7.2	7.2	6.6	5.9	6.1	6.7	8.1	9.8	11.3	12.2	13.4	13.8	14.4	14.8	13.6	11.9	9.8	9.9	10.1	9.2	8.6	9.7	14.8	
19	8.1	7.6	7.1	7.0	6.6	5.8	4.7	4.1	5.0	7.4	9.9	12.6	15.0	16.1	17.1	17.6	16.6	14.4	13.9	13.9	13.7	13.3	12.6	11.2	17.6	
20	11.9	11.3	11.1	11.1	10.1	9.7	9.3	9.4	9.9	10.7	13.0	13.8	14.9	14.3	14.5	12.1	9.8	9.7	8.9	8.3	8.3	8.3	7.3	7.2	10.6	14.9
21	7.3	6.6	6.4	5.9	5.5	5.2	5.1	6.1	8.0	11.3	12.4	13.9	15.8	17.0	17.9	18.5	18.4	17.7	16.3	15.5	14.7	14.1	13.6	13.0	11.9	18.5
22	13.2	13.0	12.3	11.8	10.9	11.3	11.1	11.2	13.8	15.8	16.8	17.5	18.1	18.7	18.7	19.2	18.6	18.2	17.9	17.7	17.5	17.1	17.0	16.9	15.6	19.2
23	16.4	15.5	14.5	13.6	12.6	11.2	11.0	13.0	13.4	13.9	14.8	14.5	15.2	15.3	15.2	15.3	15.0	14.3	13.6	14.0	13.7	12.2	11.3	10.4	13.7	16.4
24	10.2	10.4	11.1	11.3	10.2	10.0	9.4	9.6	10.8	12.5	12.8	11.6	11.5	11.0	12.5	12.6	12.5	12.1	11.4	10.4	9.7	9.4	8.9	9.1	10.9	12.8
25	8.8	8.2	7.8	8.4	8.3	7.2	6.8	6.7	8.2	10.5	12.0	12.9	13.0	13.0	12.9	12.7	12.5	12.4	12.2	11.8	11.3	11.1	11.0	10.5	10.4	13.0
26	10.3	9.7	9.2	7.7	6.2	6.0	5.9	6.1	7.1	9.3	11.1	11.4	9.8	7.3	5.3	3.5	3.9	3.6	3.3	2.4	1.6	2.3	2.6	2.4	6.2	11.4
27	1.6	1.7	0.4	0.3	0.6	0.6	0.8	1.0	1.5	2.5	3.5	3.8	2.9	2.6	1.2	1.3	0.5	0.1	-0.9	-1.8	-2.3	-2.9	-3.8	-4.1	0.5	3.8
28	-4.2	-4.2	-4.2	-4.2	-4.0	-4.1	-4.3	-4.3	-4.6	-4.4	-4.0	-3.8	-3.2	-3.7	-3.1	-3.2	-3.2	-3.5	-3.5	-3.4	-3.4	-3.5	-3.6	-3.8	-3.1	
29	-3.5	-3.6	-3.6	-3.7	-3.6	-3.7	-3.7	-3.6	-3.5	-3.3	-3.3	-3.2	-3.1	-3.0	-2.9	-2.9	-2.9	-2.7	-2.8	-2.9	-3.2	-3.4	-3.5	-3.5	-3.3	-2.7
30	-3.6	-3.7	-3.8	-3.9	-3.9	-4.0	-4.1	-3.8	-3.0	-2.6	-1.6	-0.1	0.8	2.7	2.4	1.8	0.7	-0.1	-0.8	-1.2	-1.9	-1.9	-1.5	-1.0	-1.6	2.7
NO.	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	30	718	100%
MEAN	9.3	9.1	8.8	8.6	8.3	8.0	7.8	8.1	8.8	10.1	11.3	12.0	12.8	13.7	14.1	14.0	13.7	13.0	12.0	10.9	10.1	9.8	9.4	9.1		
MAX	17.3	16.8	16.2	16.0	15.6	15.8	15.2	15.2	15.7	17.3	19.0	19.6	22.4	23.4	24.5	24.8	24.7	23.3	21.9	18.6	17.5	17.1	17.0	16.9		



Number of Non-Zero Readings	718
Maximum 1-HR Average	24.8 C
Maximum 24-HR Average	17.0 C
Operational Time	718 HRS
Monthly Calibration Standard Deviation	6.321
Operational Uptime	100.0 %
Monthly Average	10.5 C

Lagoon Wind Speed (km/hr) – September 2019

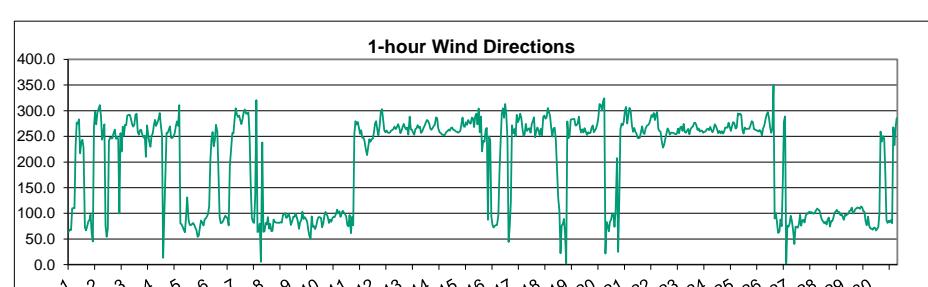
Day	HOUR																								MEAN	MAX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	6.7	5.3	5.1	3.9	2.5	2.4	4.5	4.5	7.1	5.9	6.5	9.2	8.1	7.2	13.3	15.7	17.5	15.8	13.7	11.8	8.8	5.2	8.9	16.0	8.6	17.5		
2	8.8	10.9	10.3	12.8	7.4	4.3	9.0	9.4	9.0	12.5	7.7	7.8	10.0	19.0	20.3	19.3	16.7	13.6	9.2	6.9	3.4	4.1	8.7	12.4	10.6	20.3		
3	10.7	13.7	14.7	15.6	17.2	17.8	15.8	17.3	19.5	16.5	13.9	11.0	13.0	14.5	14.6	14.6	14.9	13.1	8.0	4.7	7.0	8.2	10.1	12.1	13.3	19.5		
4	12.4	13.9	14.9	15.2	16.8	18.1	21.2	15.3	17.9	21.1	5.1	C	21.9	20.7	22.4	17.3	10.4	10.5	7.9	7.1	8.1	8.9	11.0	14.5	22.4			
5	11.6	13.6	15.3	12.2	9.9	8.4	6.7	3.7	10.3	11.8	14.6	15.0	15.8	16.3	16.2	16.2	15.1	14.6	9.8	5.1	4.1	3.5	2.9	5.5	10.8	16.3		
6	5.7	2.8	2.5	2.4	4.7	3.4	5.4	9.9	10.3	7.3	3.9	4.9	10.1	13.3	11.9	12.9	10.5	8.6	6.1	5.3	1.8	2.0	7.6	8.9	6.8	13.3		
7	16.2	16.6	15.1	16.0	17.6	15.4	15.4	16.2	19.0	17.9	17.9	16.2	12.9	13.7	9.1	9.9	11.3	7.9	3.8	2.0	6.3	9.5	8.1	2.2	12.3	19.0		
8	3.6	8.6	12.0	11.7	12.4	10.4	7.9	9.2	8.5	10.0	9.0	11.3	12.2	14.9	15.4	13.5	14.7	15.1	11.8	12.7	14.7	15.5	11.4	14.4	11.7	15.5		
9	14.8	14.7	13.4	11.9	10.7	9.2	12.6	16.4	17.3	15.3	13.6	10.3	8.7	7.9	8.9	14.8	18.7	20.7	7.4	2.9	6.9	7.6	9.4	11.3	11.9	20.7		
10	11.5	8.3	8.5	10.1	8.6	7.1	8.5	8.1	7.8	9.1	10.8	11.5	10.9	10.6	10.7	9.8	9.8	6.8	8.2	9.3	8.7	8.8	8.4	9.2	11.5			
11	7.6	8.0	7.1	5.9	3.3	2.2	3.0	2.9	5.4	10.5	10.6	10.9	17.4	14.9	13.0	13.5	13.3	12.1	7.3	5.5	7.0	9.0	9.8	9.1	8.7	17.4		
12	8.7	9.9	11.9	11.6	8.5	8.8	9.5	11.7	12.4	15.6	21.6	21.2	18.7	19.5	18.2	20.0	20.7	19.3	21.4	19.7	22.2	17.4	16.9	22.1	16.1	22.2		
13	29.9	24.8	17.5	14.2	19.7	22.6	24.0	18.7	10.5	25.2	21.8	20.7	23.9	26.4	19.3	22.2	23.4	22.9	20.7	20.5	16.0	19.7	15.5	13.5	20.6	29.9		
14	14.6	17.3	24.4	24.8	21.2	18.3	19.3	12.8	10.6	20.1	29.9	29.3	29.8	30.7	29.8	29.4	20.6	24.1	24.8	24.4	26.9	29.5	29.0	31.2	23.9	31.2		
15	33.4	36.5	28.8	29.7	25.4	16.9	17.1	20.6	24.8	22.8	22.2	15.9	18.3	20.0	18.4	17.7	12.6	13.9	14.0	8.7	6.4	7.7	8.3	6.3	18.6	36.5		
16	7.5	7.0	8.0	6.5	3.6	7.3	11.5	11.1	12.5	15.3	9.8	12.5	10.1	4.5	4.8	8.3	10.1	12.3	12.0	14.1	11.9	9.5	11.1	5.8	9.5	15.3		
17	2.9	4.7	7.0	9.5	8.2	6.0	11.2	10.8	12.7	16.9	23.3	24.0	20.6	21.4	21.7	21.1	18.6	15.6	13.9	9.8	9.3	9.0	8.1	10.2	13.2	24.0		
18	9.0	9.6	10.4	10.2	14.5	12.2	12.7	16.0	14.9	12.4	10.6	10.3	9.5	8.1	7.8	5.7	3.1	2.7	4.3	1.4	8.4	14.8	14.6	9.3	9.7	16.0		
19	4.6	5.4	4.2	6.8	8.2	11.3	13.4	14.5	15.6	15.6	18.0	11.8	15.6	14.2	13.5	16.8	19.6	18.7	14.2	14.1	15.4	17.8	16.6	16.4	13.4	19.6		
20	20.3	19.0	21.3	20.4	10.3	11.0	12.1	10.9	12.0	12.8	7.8	13.9	15.1	14.8	12.3	12.3	11.0	5.6	4.5	2.4	3.1	2.3	8.3	11.8	21.3			
21	9.1	9.4	10.4	14.1	14.7	12.6	14.3	15.8	17.9	22.6	26.3	24.9	26.0	27.0	24.1	21.6	22.8	21.4	20.7	23.4	25.3	20.5	19.2	19.1	19.3	27.0		
22	16.4	16.5	15.1	17.0	12.2	14.7	13.2	12.9	20.4	22.6	24.8	20.8	22.8	22.9	23.9	31.8	27.7	22.5	21.5	26.2	25.5	21.3	22.0	22.3	20.7	31.8		
23	18.6	15.5	14.3	13.4	10.2	17.0	12.9	23.6	26.0	23.5	22.3	27.1	27.8	30.2	35.3	31.7	30.4	37.1	33.8	30.5	32.2	27.3	25.7	28.1	24.8	37.1		
24	29.6	32.4	31.0	25.6	22.9	21.4	20.9	27.2	29.7	26.0	28.4	31.9	36.0	31.8	36.1	32.4	31.6	23.9	20.2	30.5	22.9	16.4	18.4	18.1	26.9	36.1		
25	11.3	12.6	14.0	13.1	9.6	9.2	10.1	12.1	11.6	18.2	21.0	21.8	25.9	25.8	27.6	25.8	22.6	22.3	18.0	15.6	19.0	23.3	24.5	18.4	18.0	27.6		
26	14.4	15.7	11.9	18.1	21.3	18.7	18.6	17.6	17.4	28.5	30.9	24.1	13.8	24.4	19.1	12.0	12.9	10.3	12.7	9.0	2.5	6.7	8.5	8.3	15.7	30.9		
27	6.4	3.8	4.0	5.9	5.6	3.7	2.5	8.5	11.8	12.8	12.0	10.9	10.9	15.6	15.3	19.3	16.5	18.5	19.0	19.5	20.5	22.2	23.9	18.4	12.8	23.9		
28	15.4	14.1	15.3	12.7	11.0	15.1	14.9	15.3	14.1	12.9	13.0	15.6	14.5	19.0	17.5	16.7	15.6	13.7	14.3	15.4	16.9	17.2	16.0	15.2	15.1	19.0		
29	17.2	16.4	17.3	16.6	16.6	17.4	18.0	17.6	17.8	15.3	18.7	15.9	15.0	14.8	15.3	15.5	13.6	12.6	10.7	10.3	8.2	6.3	9.8	8.8	14.4	18.7		
30	7.5	8.2	7.1	6.5	6.1	6.4	5.3	3.3	1.8	3.9	3.7	4.7	8.0	4.3	9.8	15.7	13.7	13.1	10.6	7.2	2.3	7.9	11.1	13.4	7.6	15.7		
NO.	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	30	718	100%		
MEAN	12.9	13.2	13.1	13.2	12.0	11.6	12.4	13.1	14.2	16.0	16.0	16.0	16.6	17.6	17.5	18.2	17.0	15.8	13.6	12.6	12.4	12.6	13.2	13.5				
MAX	33.4	36.5	31.0	29.7	25.4	22.6	24.0	27.2	29.7	28.5	30.9	31.9	36.0	31.8	36.1	32.4	31.6	37.1	33.8	30.5	32.2	29.5	29.0	31.2				



Number of Non-Zero Readings	718
Maximum 1-HR Average	37.1 KM/HR
Maximum 24-HR Average	26.9 KM/HR
Monthly Calibration Standard Deviation	7.144
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	14.3 KM/HR

Lagoon Wind Direction (°) – September 2019

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	63.5	68.7	67.4	109.9	109.8	109.9	230.0	276.8	274.6	283.0	217.0	238.3	243.3	228.0	72.9	66.6	74.8	84.0	86.8	97.5	61.2	45.1	268.3	298.0	73.3	298.0
2	273.4	295.8	303.1	310.9	288.9	243.5	258.3	273.5	76.4	54.3	70.1	240.7	247.6	245.9	245.9	255.3	263.0	245.2	249.2	244.3	99.7	256.3	220.5	269.2	263.3	310.9
3	251.3	272.6	271.7	290.6	292.1	291.7	284.3	273.9	269.0	272.9	292.1	294.1	259.0	253.2	262.1	263.0	253.5	247.4	251.5	210.0	271.4	253.5	238.9	229.8	268.1	294.1
4	250.9	255.2	271.0	282.1	270.3	276.0	283.8	295.4	270.9	251.7	13.4	C	C	256.9	256.8	262.9	269.5	246.8	246.9	249.6	256.3	269.7	279.1	270.6	267.0	295.4
5	311.1	80.4	78.5	73.9	68.0	63.3	93.0	131.1	88.0	77.6	77.0	79.0	81.1	77.7	72.1	67.1	54.4	56.5	72.6	86.0	82.8	76.3	88.1	90.1	73.0	311.1
6	93.8	98.7	114.2	201.0	242.8	258.2	230.5	243.0	272.5	259.0	178.4	93.3	80.8	81.5	84.8	90.5	95.6	92.6	90.1	76.5	192.1	221.6	256.3	255.8	121.6	272.5
7	283.2	304.6	292.7	288.1	290.4	281.3	273.7	283.8	296.6	302.5	294.4	294.2	296.3	253.1	157.8	91.4	83.4	81.2	134.9	320.5	63.7	64.7	79.9	5.6	296.1	320.5
8	238.3	63.9	64.9	81.5	78.1	92.5	70.3	79.6	65.4	66.1	88.0	83.2	82.3	81.6	81.8	81.8	83.1	81.9	96.7	97.9	100.8	90.7	93.3	99.1	84.2	238.3
9	93.0	77.3	84.8	93.8	93.4	99.4	92.9	84.0	69.7	82.7	86.8	103.5	89.3	92.6	88.9	84.0	67.1	55.6	50.7	94.1	73.7	75.2	69.4	76.2	81.1	103.5
10	87.0	92.6	92.7	90.7	73.0	80.2	95.7	102.8	97.9	92.7	81.4	88.0	83.4	90.6	93.0	92.8	98.7	107.1	99.8	104.2	93.3	100.7	105.1	101.6	93.1	107.1
11	98.6	94.0	77.1	74.6	96.5	61.5	93.2	77.1	254.4	279.6	273.0	277.8	267.4	254.9	261.9	247.4	247.9	240.8	223.6	213.6	229.1	244.3	239.2	244.3	248.8	279.6
12	245.3	256.5	274.7	279.8	263.3	252.3	268.4	299.0	302.8	282.2	262.1	258.0	261.4	257.5	256.6	257.3	260.9	262.2	264.0	268.9	264.1	268.7	273.7	266.7	266.1	302.8
13	256.3	260.8	269.0	274.2	267.2	263.6	267.3	253.5	288.4	263.5	262.8	257.1	253.2	264.3	265.4	271.7	266.7	268.8	256.6	259.2	265.7	270.6	276.7	281.9	264.8	288.4
14	280.6	274.9	265.2	262.6	266.0	270.2	272.4	287.0	285.5	265.4	258.1	256.8	253.6	253.1	251.3	255.0	258.7	260.2	263.3	260.9	266.3	267.1	262.7	262.0	262.9	287.0
15	259.7	258.9	257.1	258.4	260.7	273.5	286.5	269.4	268.6	277.5	272.5	281.9	276.6	274.6	286.7	285.5	268.1	289.9	294.1	273.2	304.4	257.8	288.9	220.8	270.9	304.4
16	241.2	239.4	263.6	266.1	87.6	249.8	242.4	93.9	77.7	72.4	75.5	76.7	77.3	96.8	182.9	240.9	293.6	304.5	286.0	312.9	291.6	245.1	44.4	74.7	315.5	312.9
17	123.1	271.6	256.2	264.0	250.2	292.0	277.7	283.2	294.2	286.2	265.7	250.8	254.6	274.5	260.5	264.2	266.0	257.3	273.8	279.4	287.3	248.3	260.1	267.3	294.2	
18	261.1	252.1	264.4	251.6	288.0	290.6	284.6	287.5	304.9	297.8	289.4	266.4	249.7	265.6	266.6	245.3	192.5	128.7	105.4	22.2	76.6	78.8	89.2	60.2	281.9	304.9
19	2.3	278.9	246.4	251.7	282.6	283.4	283.3	284.2	271.3	271.4	276.2	288.5	265.6	257.7	263.7	257.7	265.8	259.9	252.6	257.8	256.1	256.5	266.8	271.2	268.1	288.5
20	258.2	261.9	265.7	273.9	287.5	313.0	311.1	300.9	319.3	324.1	21.8	82.8	76.7	65.2	83.3	87.8	99.7	98.1	73.9	105.7	207.7	24.8	126.6	263.6	332.0	324.1
21	274.6	271.5	278.8	300.9	307.5	275.2	290.4	305.8	300.8	270.2	258.7	266.2	258.9	255.5	247.2	246.5	247.5	259.6	269.6	256.6	254.3	265.1	270.7	272.2	267.5	307.5
22	274.9	282.4	291.4	288.0	295.6	281.8	292.2	297.5	265.1	260.8	259.1	238.8	228.1	234.3	245.2	255.7	265.3	260.9	253.7	256.9	257.3	257.1	255.4	254.2	261.2	297.5
23	255.5	264.9	256.4	267.8	269.1	260.7	274.3	258.4	257.1	261.1	264.4	254.2	264.4	267.7	269.3	276.0	276.4	271.5	262.4	265.3	259.1	261.7	260.9	264.2	276.4	
24	258.7	259.8	264.1	264.7	261.8	268.5	262.2	258.1	263.3	273.5	269.8	264.1	256.1	260.6	255.8	260.0	255.4	258.8	267.4	267.2	266.9	276.4	268.1	260.5	262.8	276.4
25	269.3	277.8	276.0	264.9	267.5	294.3	292.0	294.2	291.1	263.0	255.3	267.1	264.2	264.4	265.0	264.8	272.3	279.6	277.7	263.6	263.1	261.6	261.6	259.5	269.0	294.3
26	262.3	259.9	251.2	265.3	270.1	283.6	292.6	297.1	286.3	267.8	257.1	264.0	350.6	90.0	100.9	84.1	62.0	63.9	88.4	74.9	160.5	279.1	288.7	2.2	284.3	350.6
27	76.2	73.8	80.0	95.3	85.2	68.6	40.3	74.1	73.0	71.8	78.9	97.2	76.1	86.6	87.4	82.1	95.1	100.2	99.5	103.3	101.2	99.8	99.3	90.8	103.3	
28	101.9	106.2	109.5	106.8	105.6	95.8	87.9	84.9	80.9	83.7	78.1	88.2	91.8	74.0	84.8	85.0	91.4	100.5	103.9	106.7	103.3	102.6	96.3	99.0	94.2	109.5
29	92.9	87.3	97.1	95.7	98.1	99.3	104.9	105.3	111.1	99.9	103.9	108.2	109.7	111.6	110.4	109.1	113.3	111.9	104.0	103.1	84.5	76.8	93.7	75.4	101.7	113.3
30	70.7	70.4	68.1	72.0	71.9	66.9	69.8	73.2	99.9	259.4	239.8	250.5	245.6	178.0	87.0	81.2	85.5	82.4	86.9	80.9	267.7	232.7	266.0	285.4	81.3	285.4



Lagoon Pressure (mmHg) – September 2019

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	655.0	655.0	654.8	654.8	654.6	654.6	654.4	654.4	654.1	653.8	653.4	653.3	653.1	652.6	652.0	651.6	651.5	651.5	651.7	651.7	651.9	651.5	651.9	653.2	655.0	
2	651.8	651.7	651.6	651.7	652.1	652.5	653.0	653.4	653.5	653.8	654.2	654.1	654.0	653.7	653.6	653.3	653.4	653.6	653.8	654.1	654.5	654.8	655.0	655.0		
3	655.1	655.1	655.3	655.5	655.6	655.9	656.0	656.0	655.8	655.5	655.1	654.7	654.0	653.5	653.0	652.5	652.4	652.6	652.1	652.0	651.9	651.7	651.5	651.1		
4	650.8	650.5	650.3	650.3	650.2	650.0	650.3	650.9	651.4	651.5	651.6	Y	Y	651.7	651.8	651.9	652.1	652.3	652.3	652.7	653.1	653.3	653.8	654.2		
5	654.6	655.4	656.2	656.6	656.8	657.2	657.5	657.7	658.0	658.2	658.1	657.7	657.5	657.2	657.0	656.8	656.7	656.8	656.8	657.2	657.5	657.5	657.6	657.6		
6	657.6	657.6	657.5	657.4	657.1	657.1	657.0	656.8	656.6	656.4	656.2	656.2	656.1	656.0	655.8	655.6	655.5	655.3	655.3	655.4	655.5	655.6	655.4	656.3	657.6	
7	655.3	655.4	655.4	655.5	655.5	655.7	655.7	655.7	655.5	655.1	654.8	654.3	653.8	653.4	653.0	652.6	652.2	651.8	651.8	652.1	652.4	652.4	652.3	651.8	653.9	655.7
8	651.6	651.9	652.0	651.9	651.9	651.8	651.9	651.6	651.6	651.1	650.8	650.6	650.5	650.6	650.4	650.4	650.3	650.2	650.3	650.1	650.1	650.2	650.2	650.1	650.9	652.0
9	650.1	650.0	650.0	650.0	650.1	650.1	650.2	650.3	650.4	650.8	651.0	651.2	651.1	651.1	651.0	651.2	651.4	652.0	652.8	653.1	653.4	653.6	653.6	651.4	653.6	
10	653.7	653.9	653.8	654.0	654.0	653.9	654.0	654.3	654.5	654.7	654.8	654.7	654.7	654.6	654.4	654.4	654.4	654.4	654.8	655.1	655.3	655.3	655.3	654.5	655.3	
11	655.3	655.1	655.0	654.9	654.9	654.9	655.1	655.3	655.5	655.4	655.3	655.2	655.1	655.1	654.9	654.8	654.9	654.9	655.0	655.3	655.3	655.8	656.1	656.2	655.3	656.2
12	656.2	656.3	656.6	656.6	656.6	656.5	656.6	656.5	656.4	656.1	656.0	655.7	655.4	655.1	654.7	654.4	654.1	653.8	653.3	653.2	652.8	652.3	651.9	651.5	654.9	656.6
13	651.2	651.3	651.0	650.6	650.2	649.8	649.7	649.7	650.0	650.6	651.1	650.5	650.4	650.3	650.3	650.4	650.6	650.7	650.8	650.7	650.7	650.9	650.7	650.5	650.5	651.3
14	650.3	649.9	649.5	649.1	649.0	648.6	648.2	648.2	648.2	647.8	647.6	647.7	647.7	647.5	647.5	647.5	647.5	647.5	647.3	647.3	647.1	646.8	646.7	646.5	646.3	647.9
15	646.1	646.0	646.0	645.6	645.7	646.1	646.1	646.2	645.9	645.8	645.9	645.8	645.7	645.4	645.4	645.1	644.7	644.4	644.4	644.4	644.5	644.6	644.8	645.1	645.4	646.2
16	645.1	645.1	645.1	645.2	645.4	645.6	645.8	646.0	646.3	646.3	645.9	645.7	645.6	645.6	645.4	645.2	645.0	645.1	645.8	646.4	646.4	646.6	646.8	647.0	645.8	647.0
17	647.0	647.0	647.0	647.0	647.2	647.3	647.2	647.5	647.6	647.3	647.2	647.4	647.4	647.4	647.4	647.4	647.7	647.9	648.2	648.2	648.4	648.7	648.9	649.0	647.6	649.0
18	649.2	649.4	649.3	649.4	649.6	649.8	650.2	650.3	650.2	650.2	650.1	650.0	649.9	649.9	649.8	649.7	649.8	650.2	650.4	650.8	651.2	651.6	652.2	652.4	650.2	652.4
19	652.1	651.9	651.9	651.9	651.8	651.8	652.0	652.0	651.9	651.3	650.5	650.0	649.5	649.0	648.3	647.9	647.8	648.0	648.0	648.1	648.2	648.4	648.7	650.0	652.1	
20	648.9	649.1	649.0	648.9	649.2	649.6	649.9	650.1	650.3	650.3	650.3	650.3	650.3	650.3	650.5	651.2	652.1	652.4	652.5	652.6	652.8	652.9	652.7	650.8	652.9	
21	652.7	652.7	652.4	652.1	652.1	652.2	652.2	652.2	651.9	651.6	651.3	650.9	650.5	650.0	649.7	649.4	649.3	649.4	649.6	649.7	649.8	649.9	649.7	650.9	652.7	
22	649.4	649.1	648.6	648.4	648.3	648.3	648.4	648.6	648.3	648.0	647.8	647.3	647.1	646.8	646.5	646.3	646.4	646.1	645.8	645.7	645.6	645.7	645.3	647.3	649.4	
23	645.5	646.0	646.2	646.4	646.7	647.4	647.3	647.5	647.8	648.0	647.8	647.4	647.0	646.7	646.6	646.9	647.1	646.8	646.8	647.0	647.3	647.8	647.9	647.1	648.0	
24	647.6	647.3	647.3	647.8	648.2	648.5	649.0	648.9	648.8	649.1	649.6	649.8	649.7	650.0	649.8	650.0	650.2	650.6	650.4	650.8	650.9	651.3	651.4	649.5	651.7	
25	651.7	651.8	652.3	652.5	652.7	653.1	653.3	653.6	653.6	653.5	653.3	653.0	652.6	652.3	651.9	651.4	650.6	650.1	649.7	649.4	648.9	648.1	647.2	646.1	651.4	653.6
26	644.9	644.5	643.8	643.8	643.5	643.0	642.8	642.9	642.8	642.9	643.3	644.3	645.2	645.9	646.7	647.1	647.4	648.1	648.3	648.6	648.7	648.7	648.7	645.4	648.7	
27	649.0	649.2	649.3	649.4	649.6	649.9	650.0	650.3	650.5	650.7	650.7	650.8	651.0	651.0	651.4	651.8	652.5	653.1	654.1	654.9	655.4	656.4	657.0	651.8	657.0	
28	657.1	657.1	657.1	657.3	657.3	657.4	657.8	658.1	658.3	658.1	658.0	657.8	657.5	657.3	657.1	657.1	657.3	657.3	657.3	657.4	657.4	657.5	657.5	657.5	658.3	
29	657.5	657.4	657.1	657.1	657.1	657.2	657.1	657.2	657.3	657.5	657.3	657.0	656.7	656.8	656.8	656.7	656.8	656.8	656.9	657.1	657.1	657.1	656.9	656.7	657.0	
30	656.0	655.7	655.3	655.0	654.8	654.6	654.4	654.5	654.3	654.1	653.7	653.3	652.8	652.5	652.4	652.6	652.6	653.0	653.2	653.3	653.2	653.0	652.7	653.8	656.0	
NO.	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	718	100%	
MEAN	651.6	651.6	651.6	651.6	651.6	651.7	651.8	651.9	651.9	651.8	651.6	651.6	651.3	651.2	651.1	651.1	651.2	651.3	651.5	651.6	651.6	651.6	651.6	651.6		
MAX	657.6	657.6	657.5	657.4	657.3	657.4	657.8	658.1	658.3	658.3	658.0	657.8	657.5	657.3	657.1	657.1	657.3	657.3	657.5	657.6	657.6	657.6	657.6	657.6		

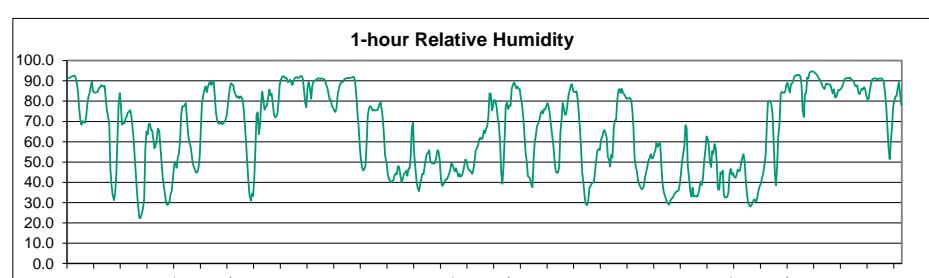
1-hour Pressures



Number of Non-Zero Readings	718
Maximum 1-HR Average	658 MMHg
Maximum 24-HR Average	658 MMHg
Monthly Calibration Standard Deviation	3.692
Operational Time	718 HRS
Operational Uptime	99.7 %
Monthly Average	651.5 MMHg

Lagoon Relative Humidity (%) – September 2019

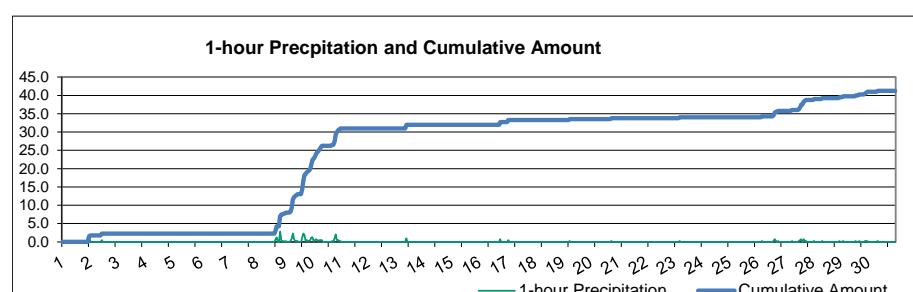
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	91.2	91.4	91.6	92.0	92.3	92.5	92.7	91.6	88.8	85.0	76.6	71.1	68.4	70.2	69.5	69.4	72.3	78.6	82.2	84.1	87.3	89.6	84.8	84.5	83.2	92.7
2	84.1	84.5	84.5	86.5	86.8	87.9	87.4	87.2	87.5	80.9	75.1	72.6	68.4	46.4	38.9	33.7	31.2	34.8	44.2	61.5	78.0	84.0	77.9	68.3	69.7	87.9
3	69.6	68.9	71.3	72.3	74.3	74.9	75.5	72.5	66.9	60.9	51.5	43.2	34.3	27.6	22.4	22.5	24.3	26.7	31.8	56.4	65.1	63.5	68.8	69.0	54.8	75.5
4	65.9	65.5	61.5	56.8	58.2	61.1	66.5	65.3	57.5	50.1	42.6	Y	Y	29.7	28.9	29.4	30.8	34.2	36.0	42.5	49.1	49.9	47.2	52.2	49.1	66.5
5	54.3	60.5	73.0	77.4	77.3	77.9	79.1	71.7	64.1	59.5	58.0	53.6	49.2	47.5	45.8	44.7	45.0	47.1	52.7	66.2	79.0	82.5	85.8	87.4	64.1	87.4
6	84.4	87.0	88.8	89.6	87.9	89.7	90.0	82.8	74.7	71.0	69.3	69.0	69.8	68.7	68.9	69.7	70.4	72.2	76.6	82.1	86.4	88.8	88.3	87.8	79.7	90.0
7	84.6	82.9	81.8	82.5	81.4	82.4	82.0	80.6	75.8	68.2	59.7	50.0	40.9	33.9	31.1	34.5	33.3	42.3	56.8	73.3	74.6	63.6	68.0	78.6	64.3	84.6
8	84.7	80.5	75.7	77.1	78.2	82.0	85.8	82.9	83.7	78.9	73.7	72.0	72.5	73.8	79.4	87.9	90.7	91.9	92.4	91.9	91.2	91.4	89.3	89.9	83.2	92.4
9	90.5	89.0	88.1	89.6	91.2	91.8	91.7	91.4	91.9	92.4	92.3	90.8	85.1	79.2	77.0	86.4	89.4	86.6	81.1	87.5	89.8	90.0	90.3	90.8	88.5	92.4
10	91.2	91.2	90.9	91.2	91.1	90.9	90.3	88.1	86.5	83.7	80.6	80.7	77.4	76.8	75.3	74.7	76.6	82.9	85.8	88.3	89.3	89.2	90.0	90.9	85.6	91.2
11	91.3	91.3	91.3	91.3	91.5	91.6	91.9	91.9	90.2	82.6	73.9	67.2	57.5	51.2	47.4	45.8	46.7	48.2	59.5	73.1	76.3	77.5	76.7	75.4	74.2	91.9
12	75.7	75.3	75.5	75.6	76.5	78.2	79.4	75.6	71.2	62.8	53.0	49.9	44.2	41.9	40.7	40.1	40.4	41.1	43.5	44.4	43.9	47.9	47.6	43.8	57.0	79.4
13	39.9	41.7	44.0	44.6	45.7	43.3	46.9	46.7	52.7	67.1	69.4	53.9	47.6	39.8	37.0	35.6	38.7	41.7	44.4	44.0	48.0	51.5	54.2	54.4	47.2	69.4
14	55.8	50.3	49.4	49.3	49.2	49.6	52.7	55.9	55.0	50.8	42.1	38.4	38.8	39.7	41.3	41.4	42.7	44.3	46.1	49.5	48.5	46.9	45.4	46.9	47.1	55.9
15	45.2	42.9	44.3	42.7	43.3	45.1	48.1	51.2	50.8	47.7	46.1	45.8	45.1	44.1	46.0	50.1	55.5	56.9	58.2	61.1	62.0	61.2	61.8	65.6	50.9	65.6
16	64.2	66.3	67.7	72.3	83.9	83.7	75.5	78.2	80.6	80.1	77.2	71.7	68.4	60.1	45.2	39.4	47.3	61.3	77.7	79.2	76.2	77.9	86.1	70.7	86.1	
17	87.8	89.2	88.0	86.3	87.3	86.3	86.0	81.7	78.5	71.9	63.3	54.6	49.9	43.2	42.5	41.8	38.8	37.7	51.6	59.8	63.2	67.7	69.3	71.0	66.5	89.2
18	73.9	75.2	74.0	76.1	75.9	77.6	79.1	77.1	73.7	68.0	63.4	57.5	50.7	45.4	44.7	44.8	47.6	64.1	70.1	79.0	76.6	73.3	73.5	77.2	67.4	79.1
19	82.9	85.3	87.9	88.4	85.2	84.4	84.5	84.9	81.1	73.7	66.1	55.6	44.6	38.7	32.4	29.2	28.7	30.7	37.0	38.1	39.3	39.9	40.1	45.4	58.5	88.4
20	50.8	55.7	56.4	55.9	60.9	62.1	64.7	65.8	64.2	62.0	52.4	51.4	47.8	53.6	52.2	66.9	70.7	70.7	80.1	85.2	86.0	84.0	86.1	84.3	65.4	86.1
21	83.5	82.5	81.1	81.2	81.3	81.7	80.5	75.9	67.3	52.3	47.9	45.3	41.1	38.9	37.9	36.8	36.7	38.5	42.6	45.0	47.9	50.7	52.0	53.9	57.6	83.5
22	51.8	52.0	54.3	55.7	59.4	57.5	58.9	59.3	49.2	40.0	35.7	33.7	32.0	30.3	29.6	28.9	31.0	32.1	32.3	34.1	34.6	35.5	35.7	36.1	41.7	59.4
23	39.0	44.2	50.4	54.2	57.7	68.1	66.8	48.1	41.7	35.5	32.9	37.5	33.0	33.1	33.2	33.0	34.2	36.9	40.2	38.8	41.6	50.7	55.7	62.7	44.6	68.1
24	61.6	57.8	49.9	47.5	55.4	54.1	58.8	57.2	49.4	36.6	36.4	44.9	43.9	45.8	33.8	32.4	32.8	32.8	35.1	44.5	46.6	43.7	44.6	42.6	45.3	61.6
25	42.2	43.8	46.3	45.4	46.0	50.1	52.2	53.8	50.0	41.2	34.3	29.9	28.5	28.1	29.0	30.4	31.5	31.1	30.6	33.1	36.2	38.1	39.3	42.2	38.9	53.8
26	44.2	48.9	53.7	68.0	79.9	80.1	79.9	78.4	73.7	60.4	44.8	38.5	47.6	62.1	69.9	83.6	84.6	84.0	84.1	85.0	88.5	89.0	86.3	84.3	70.8	89.0
27	88.4	88.8	90.3	92.2	92.6	92.9	92.9	93.0	92.1	88.2	75.4	72.1	83.5	83.8	91.7	91.1	94.1	94.6	94.7	94.2	93.7	93.0	92.3	90.0	94.7	
28	91.2	90.4	89.3	87.4	86.5	85.9	88.5	88.6	88.1	87.9	85.6	83.8	85.9	81.8	82.1	84.2	85.6	85.5	86.3	87.2	88.8	90.6	91.3	87.1	91.3	
29	91.4	91.2	91.5	91.6	90.4	90.4	90.0	88.0	87.2	87.8	84.4	83.5	84.9	86.2	85.7	86.9	85.8	82.5	80.8	81.4	85.1	89.1	90.7	91.1	87.4	91.6
30	91.1	91.3	91.0	90.9	91.1	91.2	91.2	90.8	89.5	84.8	77.1	67.3	56.7	51.4	59.9	67.1	77.0	80.2	82.2	82.5	86.3	89.3	84.3	78.2	80.9	91.3
NO.	30	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	718	100%
MEAN	71.8	72.2	72.8	73.7	75.3	76.2	77.0	75.2	72.1	67.1	61.4	58.2	55.0	51.9	50.6	52.0	53.8	56.4	60.5	65.7	68.6	69.6	69.8	70.8		
MAX	91.4	91.4	91.6	92.2	92.6	92.9	92.9	93.0	92.1	92.4	92.3	90.8	85.1	86.2	91.7	91.1	94.1	94.6	94.7	94.6	94.2	93.7	93.0	92.3	90.0	94.7



Number of Non-Zero Readings	718
Maximum 1-HR Average	94.7 %
Maximum 24-HR Average	90.0 %
Monthly Calibration Standard Deviation	20.08
Operational Time	718 HRS
Operational Uptime	99.7 %
Monthly Average	65.8 %

Lagoon Precipitation (mm) – September 2019

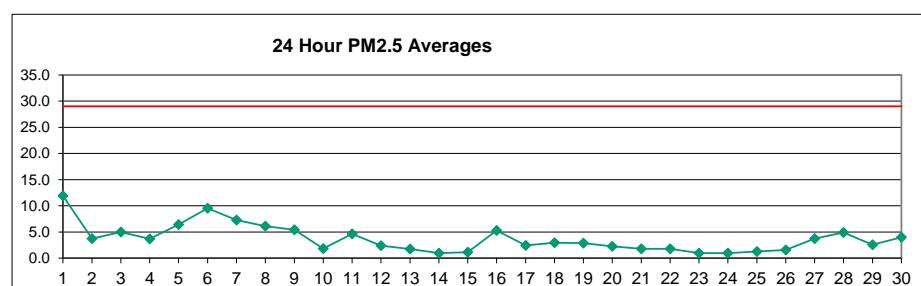
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.1	1.5
2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.8	1.3	0.0	0.0	2.8	0.5	0.0	0.3	0.2
9	0.0	0.3	0.0	0.0	0.0	0.3	1.0	2.3	0.8	0.3	0.3	0.3	0.0	0.0	1.3	2.3	1.8	0.3	0.5	0.3	0.3	0.5	0.5	1.3	0.6	2.3
10	1.3	0.3	0.5	0.8	0.5	0.3	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	1.0	2.0	0.5	0.5	0.3	0.4	2.0
11	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	1.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.8
17	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	0.5
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	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	0.3
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	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.3	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	0.3
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8
27	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.8	0.0	0.8	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.8
28	0.0	0.3	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	0.3
29	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.3	0.1	0.3	0.1
30	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	0.3
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	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.1
MAX	1.3	0.5	0.5	0.8	0.5	0.3	1.0	2.3	0.8	1.0	0.5	0.3	0.5	0.8	1.3	2.3	1.8	0.8	1.0	2.8	0.5	0.5	1.5	0.0	0.3	



Number of Non-Zero Readings	69
Maximum 1-HR Average	2.8 MM
Maximum 24-HR Average	0.6 MM
Monthly Calibration Standard Deviation	0.245
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	0.06 MM

West PM_{2.5} ($\mu\text{g}/\text{m}^3$) – September 2019

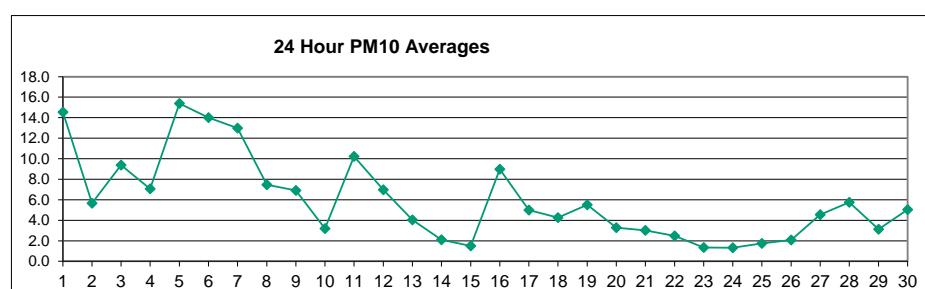
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	14.2	15.2	16.6	16.0	16.5	14.1	13.8	15.4	13.5	8.5	8.1	7.8	7.7	8.7	9.6	8.9	11.0	11.8	13.0	13.7	14.1	13.2	8.4	5.8	11.9	16.6
2	3.1	3.2	3.1	3.0	3.1	3.4	3.4	3.7	5.4	6.4	3.8	5.2	5.9	2.7	1.7	2.2	1.8	2.3	3.4	3.6	3.9	4.5	5.4	6.0	3.8	6.4
3	5.8	5.7	5.9	5.8	5.9	6.1	6.3	7.2	7.5	6.8	6.4	5.2	4.1	2.9	2.6	2.8	3.0	2.7	3.2	3.8	4.0	4.3	5.1	6.2	5.0	7.5
4	6.8	7.4	6.3	6.1	4.0	2.8	3.5	3.7	3.7	2.9	2.7	2.9	3.0	2.9	2.5	2.6	2.4	2.6	2.5	2.8	3.1	3.1	4.1	4.0	3.7	7.4
5	4.9	5.4	6.4	6.0	6.1	6.7	8.8	9.6	10.0	9.6	8.2	7.3	7.0	6.9	5.0	4.8	4.0	4.2	4.7	5.2	5.5	5.6	6.1	6.3	6.4	10.0
6	6.8	7.0	7.9	8.3	8.1	8.1	9.0	10.1	11.0	10.7	12.1	16.8	15.4	13.3	10.0	10.2	8.3	7.7	7.3	7.7	7.8	7.9	9.2	9.5	16.8	
7	10.8	10.8	10.1	9.7	9.2	8.9	9.1	8.6	8.6	8.3	8.5	6.9	5.2	3.6	3.4	7.0	4.1	4.6	5.2	6.1	6.8	6.4	6.4	6.7	7.3	10.8
8	7.8	9.4	8.3	7.8	9.3	9.6	7.3	5.0	3.8	3.0	3.2	2.4	2.8	4.0	3.8	2.8	2.4	2.6	3.8	5.5	10.5	9.2	11.9	10.6	6.1	11.9
9	13.5	9.8	11.3	9.3	11.0	8.7	9.5	4.9	3.3	3.1	2.9	3.9	4.3	3.0	4.9	2.8	1.1	2.0	2.5	3.1	3.8	3.5	3.8	3.7	5.4	13.5
10	1.7	0.6	0.6	1.0	1.2	0.7	1.2	1.2	2.2	1.7	2.1	2.9	4.6	3.5	3.6	2.2	2.3	1.9	1.7	1.0	1.4	1.4	1.4	1.8	1.8	4.6
11	2.5	3.3	3.9	5.3	6.6	6.9	6.5	7.0	15.8	13.5	7.6	5.3	5.8	3.4	4.1	2.1	1.3	1.1	1.4	1.8	1.4	1.6	1.9	1.6	4.7	15.8
12	1.5	1.6	1.9	1.5	1.7	2.1	3.5	3.8	3.4	4.2	3.6	3.0	3.3	2.9	2.3	1.8	1.8	1.8	1.7	1.9	2.2	2.0	2.2	1.9	2.4	4.2
13	1.6	1.7	1.7	1.7	1.7	1.8	2.3	3.2	2.1	0.8	4.6	2.6	1.9	2.2	1.1	1.0	0.8	0.6	1.1	1.2	1.3	1.3	1.4	1.4	1.7	4.6
14	1.2	0.9	0.8	0.9	0.7	0.7	1.0	1.6	1.4	1.3	1.0	1.1	1.2	1.1	1.0	1.2	0.7	1.0	0.9	0.6	0.6	0.7	0.8	0.6	1.0	1.6
15	0.7	0.8	0.9	0.9	1.0	1.2	1.2	1.1	0.9	0.9	0.4	0.7	1.0	1.0	0.9	0.9	1.1	1.3	1.4	1.3	1.6	1.8	1.8	2.0	1.2	2.0
16	2.3	3.0	3.2	3.8	4.2	4.7	6.5	7.3	8.2	7.3	8.3	11.3	16.2	9.8	5.2	4.2	3.2	3.1	2.6	2.2	1.8	1.7	1.6	5.2	5.3	16.2
17	5.0	4.7	4.2	3.9	3.5	2.4	2.6	2.8	2.7	2.7	2.9	3.0	1.4	1.5	2.0	1.8	0.9	1.1	1.3	1.5	1.7	1.6	1.9	2.1	2.5	5.0
18	2.0	2.0	1.9	1.8	1.8	2.0	2.7	3.3	3.9	3.4	3.6	4.3	3.4	3.6	3.6	3.5	3.4	2.9	2.7	2.7	3.7	3.8	3.0	2.0	3.0	4.3
19	1.3	1.8	3.5	5.4	4.0	3.8	4.1	5.3	5.7	4.5	4.4	4.0	3.4	3.1	2.5	2.0	1.2	1.0	1.3	1.6	1.6	1.3	1.3	1.1	2.9	5.7
20	1.1	1.4	1.8	1.5	1.3	1.4	1.7	3.3	3.4	3.9	3.5	4.0	2.9	3.3	5.2	3.7	2.3	1.6	1.0	1.2	0.9	1.3	1.6	1.8	2.3	5.2
21	2.2	2.4	2.0	2.1	2.0	2.1	2.3	1.6	1.6	1.5	1.5	1.3	1.7	2.2	2.1	1.7	1.4	1.2	1.0	0.9	1.7	1.9	1.8	2.4	1.8	2.4
22	1.4	1.4	1.4	1.4	1.5	1.7	2.0	1.8	1.6	1.9	2.4	2.3	1.9	2.2	2.3	2.3	2.3	2.1	2.1	1.7	1.5	1.4	1.2	1.8	1.8	2.4
23	1.2	1.1	0.8	0.7	0.7	0.7	0.5	1.4	2.3	1.9	1.7	1.7	1.8	1.2	1.3	1.1	0.5	0.5	0.6	0.4	0.5	0.3	0.2	0.2	1.0	2.3
24	0.2	0.3	0.3	0.3	0.6	0.6	0.9	2.2	1.2	1.4	1.6	1.2	2.0	1.4	1.9	1.2	0.6	0.8	0.7	0.5	0.6	0.7	1.0	0.8	0.9	2.2
25	1.1	0.9	1.0	0.9	0.7	1.0	1.5	2.2	2.6	3.1	2.0	1.3	1.1	1.4	1.3	1.2	1.0	0.9	1.0	1.0	0.9	0.9	0.9	0.9	1.3	3.1
26	0.9	1.3	1.1	1.6	1.3	1.1	1.1	1.4	2.1	2.0	1.6	1.5	2.1	3.7	3.4	0.9	0.3	0.2	0.5	0.5	0.6	2.4	3.0	3.5	1.6	3.7
27	3.6	4.7	4.9	5.1	5.8	4.1	4.6	6.1	4.9	2.2	3.6	2.5	1.9	1.9	0.8	0.6	1.1	1.9	2.6	4.0	4.9	4.5	7.1	6.9	3.8	7.1
28	8.4	9.0	8.5	6.0	8.8	6.4	6.7	6.1	5.8	6.3	6.7	6.0	4.8	5.3	3.5	3.0	1.8	1.7	2.7	2.5	2.0	2.1	2.2	1.5	4.9	9.0
29	1.4	2.0	1.3	1.1	1.3	1.3	1.2	1.5	1.6	1.9	3.2	6.9	4.9	4.1	3.4	3.7	2.9	2.6	1.9	3.5	2.0	2.2	2.9	2.5	2.6	6.9
30	2.3	1.7	1.4	1.9	2.7	2.1	2.1	2.9	5.9	6.1	4.6	3.6	5.3	3.7	6.4	8.2	4.4	3.4	4.1	4.4	3.9	5.1	4.2	5.4	4.0	8.2
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	3.9	4.0	4.1	4.0	4.2	3.9	4.2	4.5	4.9	4.4	4.0	4.2	4.3	3.7	3.5	3.1	2.5	2.5	2.7	2.9	3.2	3.4	3.5			
MAX	14.2	15.2	16.6	16.0	16.5	14.1	13.8	15.4	15.8	13.5	10.7	12.1	16.8	15.4	13.3	10.0	11.0	11.8	13.0	13.7	14.1	13.2	11.9	10.6		



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	720	
Maximum 1-HR Average	16.8 UG/M3	
Maximum 24-HR Average	11.9 UG/M3	
Izs Calibration Time		
Down Time	0	
Standard Deviation	3.166	
Operational Time		
Operational Uptime		
Monthly Average		
		720 HRS
		100.0 %
		3.7 UG/M3

West PM₁₀ ($\mu\text{g}/\text{m}^3$) – September 2019

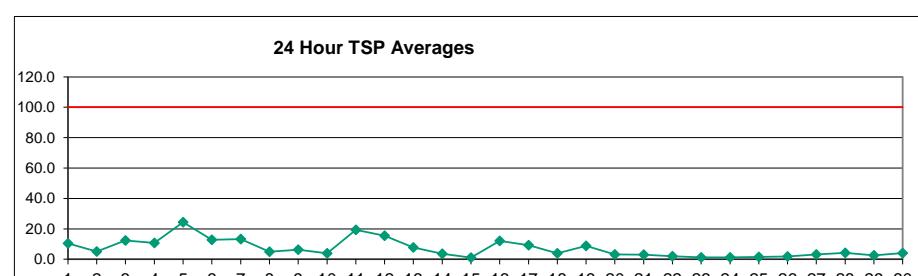
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	16.2	17.0	19.6	17.9	18.6	17.5	16.8	18.1	15.7	10.0	9.5	9.4	9.6	11.3	13.2	12.5	14.7	15.3	16.4	17.1	17.6	16.9	10.6	7.3	14.5	19.6
2	4.1	4.1	4.0	3.8	4.1	4.6	4.7	4.8	6.9	8.9	6.3	9.0	8.9	4.4	2.6	6.4	2.4	4.2	6.9	6.7	5.6	6.2	7.6	8.4	5.7	9.0
3	8.1	8.0	8.1	8.2	8.1	8.5	8.7	11.3	19.5	16.3	14.3	12.7	11.0	7.7	7.0	8.3	9.8	5.5	6.4	8.1	7.3	6.1	7.3	8.8	9.4	19.5
4	9.5	10.3	8.8	8.7	5.4	3.4	4.7	6.2	13.6	9.1	9.1	9.7	11.1	8.2	7.3	7.0	4.2	5.0	3.8	4.3	4.7	4.3	5.8	5.5	7.1	13.6
5	6.7	7.5	9.0	7.6	7.7	8.5	11.9	15.0	29.5	28.0	23.6	25.1	29.8	36.2	21.8	22.3	15.4	12.2	10.1	7.4	7.9	7.9	8.7	9.1	15.4	36.2
6	9.9	10.2	11.2	11.7	11.6	11.5	11.3	12.5	15.0	16.4	16.0	18.2	25.2	23.1	20.0	15.0	15.3	12.4	11.5	10.9	11.4	11.6	11.4	13.0	14.0	25.2
7	15.0	14.7	13.8	12.9	12.3	11.8	12.0	11.6	13.7	12.3	16.2	14.5	12.6	9.3	10.9	40.2	9.8	10.1	10.3	9.9	9.9	9.3	8.9	9.4	13.0	40.2
8	11.0	13.2	11.3	10.2	11.9	11.7	8.5	5.8	4.5	3.5	3.9	2.9	3.5	5.3	5.0	3.2	2.5	2.7	4.1	6.0	12.0	10.3	13.7	12.3	7.5	13.7
9	15.7	11.3	13.5	11.5	13.7	10.3	11.0	5.6	3.7	3.4	3.6	6.1	9.3	5.3	9.9	4.2	1.4	2.2	3.0	3.6	4.5	4.3	4.4	4.1	6.9	15.7
10	2.0	0.8	0.8	1.3	1.4	0.9	1.4	1.6	2.8	2.1	2.7	7.6	7.6	7.5	9.0	6.3	5.9	3.3	2.4	1.4	1.9	1.8	1.7	2.3	3.2	9.0
11	3.6	4.8	5.3	6.9	9.0	9.4	8.6	9.2	23.1	19.1	17.4	23.1	28.8	16.9	24.9	11.1	5.7	4.0	2.2	2.7	2.1	2.4	2.7	2.3	10.2	28.8
12	2.1	2.3	2.7	2.2	2.5	3.1	5.1	5.7	5.0	13.5	19.5	17.7	18.4	14.9	10.5	7.1	6.7	4.9	3.8	4.5	5.5	2.9	4.0	3.1	7.0	19.5
13	2.9	2.5	2.4	2.5	2.4	2.9	4.3	7.9	4.8	3.0	1.1	9.2	12.2	9.0	11.0	3.8	3.4	2.1	1.1	1.5	1.7	1.7	1.8	1.9	4.0	12.2
14	1.7	1.2	1.0	1.3	1.0	0.9	1.4	2.3	1.9	1.8	1.8	4.2	5.5	4.4	4.0	4.6	2.3	2.9	1.7	0.8	0.7	0.9	1.0	0.7	2.1	5.5
15	0.8	0.9	1.1	1.0	1.2	1.5	1.5	1.3	1.2	1.3	0.5	0.8	1.3	1.2	1.2	1.4	1.8	1.9	1.8	2.2	2.4	2.3	2.6	2.8	1.5	2.8
16	3.2	4.1	4.2	4.9	5.5	6.4	9.2	10.3	10.4	8.9	10.2	15.2	24.2	29.5	24.7	14.4	5.1	4.3	3.3	2.7	2.5	2.3	2.1	7.8	9.0	29.5
17	7.3	6.5	5.7	5.1	4.4	3.1	3.5	3.9	3.9	3.9	6.0	11.9	8.9	8.4	9.4	10.6	1.7	1.7	1.9	2.0	2.4	2.1	2.5	2.9	5.0	11.9
18	2.7	2.7	2.6	2.5	2.4	2.8	3.9	4.8	5.8	5.0	5.4	6.4	5.0	5.3	5.1	5.1	4.4	3.9	4.0	5.3	5.5	3.9	2.4	4.3	6.4	
19	1.5	2.1	4.2	6.2	5.3	5.4	5.9	7.6	8.2	6.5	6.4	9.0	12.8	13.4	12.6	9.0	2.9	2.3	1.8	2.2	2.2	1.8	1.7	1.5	5.5	13.4
20	1.3	1.9	2.2	1.9	1.6	1.8	2.3	4.9	5.0	5.7	5.2	5.9	4.4	4.9	7.7	5.5	3.3	2.4	1.2	1.7	1.3	1.8	2.3	2.5	3.3	7.7
21	2.9	3.1	2.7	2.8	2.6	2.8	2.8	2.9	3.3	2.2	2.2	2.7	5.1	3.8	6.0	7.7	3.2	2.5	1.9	1.7	1.4	1.2	2.2	2.5	3.0	7.7
22	1.8	1.9	1.9	1.8	2.0	2.1	2.3	2.7	2.5	2.2	2.7	3.5	3.3	2.7	3.2	3.3	3.2	2.9	2.9	2.3	2.0	1.9	1.5	2.5	3.5	
23	1.5	1.5	1.1	1.0	0.9	1.0	0.7	2.0	3.3	2.8	2.4	2.4	2.6	1.7	1.8	1.6	0.7	0.6	0.8	0.5	0.6	0.3	0.2	0.2	1.3	3.3
24	0.2	0.4	0.4	0.4	0.8	0.8	1.3	3.2	1.8	2.0	2.2	1.7	3.0	2.0	2.8	1.6	0.8	1.1	0.9	0.7	0.7	0.9	1.3	0.9	1.3	3.2
25	1.4	1.2	1.2	1.1	0.9	1.4	2.1	3.1	3.8	4.6	2.9	1.9	1.5	2.1	1.9	1.7	1.3	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.7	4.6
26	1.1	1.6	1.4	1.9	1.6	1.3	1.3	1.8	3.0	2.9	2.3	2.2	3.1	5.6	5.0	1.2	0.4	0.2	0.7	0.5	0.8	2.7	3.2	3.8	2.1	5.6
27	4.1	6.4	6.4	6.6	7.0	5.1	5.4	6.9	5.6	2.7	4.9	3.1	2.4	2.6	1.0	0.7	1.2	2.2	3.4	4.8	5.7	5.1	8.1	7.9	4.5	8.1
28	9.7	10.3	9.8	6.8	10.7	6.7	7.1	6.9	6.8	7.7	8.3	7.1	5.7	7.2	4.4	3.7	2.1	1.9	3.2	3.0	2.3	2.4	2.7	1.7	5.8	10.7
29	1.7	2.6	1.5	1.3	1.5	1.5	1.3	1.8	1.9	2.3	4.2	8.5	6.2	5.1	4.2	4.8	3.3	2.8	2.1	4.7	2.5	2.5	3.7	2.7	3.1	8.5
30	2.4	1.8	1.4	2.0	2.7	2.1	2.2	3.3	7.9	8.4	6.5	5.3	7.7	5.3	9.0	11.0	6.2	4.5	5.3	5.4	4.4	5.8	4.5	5.8	5.0	11.0
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	720	100%
MEAN	5.1	5.2	5.3	5.1	5.4	5.0	5.4	6.2	7.8	7.2	7.2	8.6	9.7	8.8	8.6	7.8	4.7	4.1	4.0	4.2	4.4	4.2	4.4	4.5		
MAX	16.2	17.0	19.6	17.9	18.6	17.5	16.8	18.1	29.5	28.0	23.6	25.1	29.8	36.2	24.9	40.2	15.4	15.3	16.4	17.1	17.6	16.9	13.7	13.0		



Number of Non-Zero Readings	720
Maximum 1-HR Average	40.2 UG/M3
Maximum 24-HR Average	15.4 UG/M3
Izs Calibration Time	
Down Time	0
OpperatioEl Time	
Standard Deviation	5.5
OpperatioEl Uptime	
Monthly Average	6.0 UG/M3
720 HRS	
100.0 %	

West TSP ($\mu\text{g}/\text{m}^3$) – September 2019

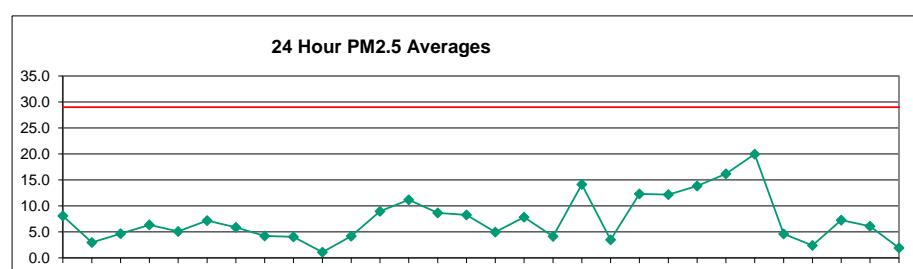
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	10.5	11.1	12.8	11.6	12.0	11.4	10.9	11.8	10.3	6.6	6.3	10.2	8.6	13.0	13.7	10.4	10.8	10.4	11.3	11.3	11.5	11.1	6.9	4.9	10.4	13.7	
2	2.9	2.8	2.7	2.6	2.9	3.3	3.4	3.3	4.7	6.6	6.7	9.2	9.6	7.0	4.2	14.2	1.9	3.4	4.6	7.0	4.2	4.5	5.3	5.7	5.1	14.2	
3	5.5	5.4	5.5	5.5	5.5	5.8	6.1	10.4	46.0	36.0	27.5	20.3	20.5	12.2	15.4	20.0	4.8	4.9	5.6	5.7	4.7	5.4	6.3	6.3	12.4	46.0	
4	6.5	7.0	6.0	6.5	3.8	3.6	12.0	33.0	18.3	26.6	20.1	31.6	14.6	21.6	10.1	5.2	5.9	3.3	2.9	4.3	3.1	4.5	3.9	10.7	33.0		
5	4.6	5.3	6.4	5.0	5.1	5.6	8.6	15.0	54.9	42.1	42.7	51.1	59.3	92.3	57.1	46.2	28.5	15.0	9.4	5.4	5.7	5.7	6.4	6.7	24.3	92.3	
6	7.5	7.7	8.9	9.0	8.2	7.8	7.7	10.6	13.6	16.4	15.7	18.6	28.4	25.5	22.4	16.3	17.1	12.9	10.5	8.9	8.9	8.3	8.2	8.9	12.8	28.4	
7	9.8	9.6	9.0	8.4	8.1	7.7	7.9	7.7	13.3	13.5	16.2	36.8	12.6	11.1	13.5	70.3	10.9	7.8	7.1	7.2	8.1	7.1	6.4	6.5	13.2	70.3	
8	7.9	9.0	7.6	6.8	7.9	7.8	5.6	3.9	3.0	2.4	2.7	2.1	2.5	3.8	3.8	2.1	1.6	1.8	2.7	3.9	7.8	6.7	8.9	8.0	5.0	9.0	
9	10.2	7.3	8.8	7.5	9.1	6.8	7.1	3.6	2.4	2.2	5.0	18.5	10.2	22.9	7.7	1.6	1.5	2.0	2.4	3.0	2.8	2.9	2.7	6.3	22.9		
10	1.4	0.6	0.6	0.9	1.0	0.7	1.0	1.1	2.0	1.5	1.9	12.8	8.9	11.2	16.1	10.5	8.9	3.7	1.9	1.1	1.5	1.3	1.3	1.7	3.9	16.1	
11	3.0	4.1	3.9	4.6	6.0	6.4	5.8	6.4	19.5	15.6	42.6	66.0	95.3	45.8	73.0	24.4	20.9	7.7	2.1	2.7	2.0	2.3	2.4	1.9	19.4	95.3	
12	1.8	1.9	2.4	1.9	2.1	2.8	4.8	5.4	5.3	36.9	60.8	49.6	61.3	39.1	29.5	17.4	19.3	5.4	2.6	4.2	7.9	2.5	4.4	2.4	15.5	61.3	
13	2.8	2.1	2.0	2.0	2.0	2.4	7.5	15.8	5.1	2.9	0.8	19.5	42.1	26.9	23.0	6.1	11.4	4.4	1.5	1.4	1.6	1.4	1.5	1.6	7.8	42.1	
14	1.5	1.0	0.8	1.2	0.8	0.7	1.3	2.1	1.7	1.6	2.3	9.8	11.3	9.7	9.8	11.8	8.0	6.3	1.5	0.7	0.5	0.7	0.8	0.5	3.6	11.8	
15	0.6	0.6	0.8	0.7	0.9	1.0	1.2	1.0	0.9	1.0	0.4	0.6	1.0	0.9	0.9	1.1	1.6	1.6	1.5	1.8	1.8	2.1	2.2	1.2	1.2	2.2	
16	2.5	2.9	3.0	3.4	3.7	4.4	7.3	8.9	11.5	10.4	11.8	17.4	27.8	61.1	57.2	32.2	5.4	3.7	2.3	1.8	1.8	1.7	1.6	6.2	12.1	61.1	
17	5.5	4.4	3.8	3.4	3.0	2.2	2.5	3.3	3.4	3.5	11.3	36.6	30.6	31.6	26.3	36.4	1.5	1.4	1.7	1.7	1.9	1.6	1.8	2.1	9.2	36.6	
18	2.0	2.1	1.9	2.0	1.9	2.2	3.3	4.5	5.8	4.9	5.7	6.9	5.3	5.6	5.8	5.5	5.7	4.5	3.6	3.3	4.4	4.5	2.7	1.6	4.0	6.9	
19	1.0	1.5	2.8	4.0	3.7	4.0	4.5	5.9	7.2	6.0	6.1	15.0	34.2	35.6	31.5	32.6	3.3	3.3	1.5	1.9	1.8	1.4	1.3	1.1	8.8	35.6	
20	1.0	1.6	1.5	1.2	1.3	1.8	4.9	5.1	6.0	5.6	6.5	4.8	5.4	8.8	6.1	3.4	2.2	0.9	1.3	1.0	1.5	1.9	1.9	3.2	8.8		
21	2.0	2.1	1.9	2.1	2.1	2.0	2.2	2.7	1.9	1.8	3.5	7.3	4.8	8.2	13.4	3.3	2.4	1.7	1.5	1.1	0.9	1.6	1.9	3.1	13.4		
22	1.3	1.5	1.4	1.4	1.5	1.6	1.7	2.0	1.9	1.8	2.4	3.2	3.1	2.5	3.0	3.0	2.9	2.7	2.4	2.5	1.7	1.5	1.4	1.1	2.1	3.2	
23	1.1	1.1	0.8	0.7	0.6	0.7	0.5	1.9	3.5	2.9	2.5	2.4	2.5	1.5	1.7	1.4	0.6	0.5	0.7	0.4	0.5	0.2	0.2	0.1	1.2	3.5	
24	0.2	0.3	0.3	0.3	0.7	0.7	1.2	3.3	1.7	2.0	2.3	1.6	3.1	2.0	2.8	1.6	0.6	0.9	0.7	0.5	0.5	0.6	1.0	0.7	1.2	3.3	
25	1.1	0.9	0.9	0.8	0.6	1.1	1.9	3.1	4.1	5.1	3.0	1.8	1.5	2.1	1.9	1.6	1.2	0.8	0.8	0.8	0.8	0.8	0.7	1.6	5.1		
26	0.8	1.1	1.0	1.4	1.0	0.8	0.9	1.5	2.7	2.8	2.4	2.3	3.3	6.4	5.6	1.0	0.3	0.1	0.5	0.4	0.5	1.8	2.4	1.8	6.4		
27	2.8	4.4	4.4	4.4	4.6	3.4	3.5	4.5	3.6	2.0	4.2	2.4	1.8	2.2	0.7	0.5	0.8	1.4	2.2	3.5	4.5	3.9	5.6	5.4	3.2	5.6	
28	6.9	7.4	7.1	4.5	7.1	4.4	4.9	5.0	5.3	5.8	6.2	5.5	4.3	6.9	3.7	2.9	1.5	1.3	2.3	2.1	1.7	1.8	2.2	1.1	4.2	7.4	
29	1.3	2.0	1.2	0.9	1.0	1.0	0.9	1.3	1.4	1.7	3.7	6.7	5.1	4.2	3.5	3.9	2.4	1.9	1.7	8.2	2.5	1.6	2.7	1.8	2.6	8.2	
30	1.6	1.1	0.9	1.3	1.8	1.4	1.4	2.2	5.9	6.7	5.5	5.7	8.0	5.4	9.6	9.8	5.5	3.4	3.7	3.6	2.9	3.8	3.0	3.8	4.1	9.8	
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%	
MEAN	3.6	3.7	3.7	3.5	3.7	3.5	4.0	5.5	9.4	8.9	11.0	15.0	18.5	16.7	16.5	13.9	6.9	4.1	3.1	3.3	3.4	3.1	3.2	3.2			
MAX	10.5	11.1	12.8	11.6	12.0	11.4	10.9	15.8	54.9	42.1	60.8	66.0	95.3	92.3	73.0	70.3	28.5	15.0	11.3	11.3	11.5	11.1	8.9	8.9			



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	720	
Maximum 1-HR Average	95.3 UG/M3	
Maximum 24-HR Average	24.3 UG/M3	
IHZ Calibration Time		
Down Time	0	
Standard Deviation	11.23	
Opperational Time		
Opperational Uptime		
Monthly Average		
		720 HRS
		100.0 %
		7.1 UG/M3

Berm PM_{2.5} ($\mu\text{g}/\text{m}^3$) – September 2019

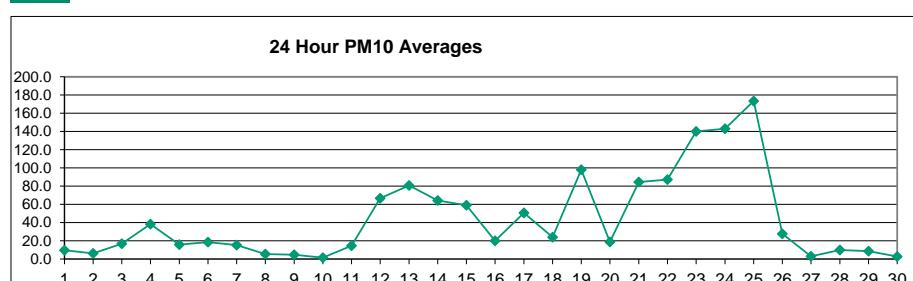
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	9.0	9.1	7.7	8.0	8.6	10.5	10.0	10.7	9.9	6.7	5.9	6.4	7.7	7.9	6.4	6.8	7.7	7.6	8.2	9.1	10.8	10.3	5.9	3.6	8.1	10.8
2	2.0	2.0	1.9	2.1	2.1	2.3	2.4	2.7	3.7	3.6	2.5	4.1	3.9	4.7	3.9	4.0	2.8	1.9	2.2	2.7	2.9	3.2	3.7	4.1	3.0	4.7
3	4.3	4.3	4.2	4.4	4.4	4.6	4.6	5.3	6.8	6.0	5.8	4.6	6.3	5.8	4.7	5.5	4.7	5.1	2.4	3.2	4.0	4.1	3.6	4.6	4.6	6.8
4	5.2	5.2	4.8	4.3	2.8	1.9	2.8	3.0	7.3	10.0	11.2	12.3	11.7	10.4	15.1	9.1	9.1	5.6	4.3	3.4	2.5	3.2	3.4	3.6	6.3	15.1
5	3.8	4.7	5.2	4.0	3.8	4.8	6.4	7.1	8.3	6.2	7.6	8.7	7.3	5.3	3.7	3.2	3.4	3.5	3.6	4.4	4.3	4.3	4.6	5.1	8.7	
6	4.4	5.0	4.3	6.9	6.0	5.1	6.4	9.0	10.7	8.6	10.4	12.0	9.2	9.1	8.3	7.4	7.9	5.6	5.6	6.6	5.0	5.5	6.8	7.1	7.2	12.0
7	7.5	6.8	6.9	6.6	6.4	6.1	6.0	6.0	5.9	6.3	7.7	6.8	8.0	10.3	5.3	3.5	3.3	3.2	3.8	4.5	5.4	5.1	4.4	4.7	5.9	10.3
8	5.0	5.7	5.2	5.3	6.1	5.3	4.7	3.8	2.7	1.9	1.5	1.5	2.8	3.0	2.5	2.1	1.9	2.5	3.9	3.4	4.3	6.1	9.2	11.3	4.2	11.3
9	12.0	9.8	8.1	7.7	8.6	9.5	7.1	3.2	3.0	3.1	2.5	2.1	1.2	1.2	2.3	1.6	0.8	1.3	1.5	1.6	2.3	2.4	2.1	2.1	4.0	12.0
10	1.0	0.4	0.5	0.5	0.7	0.5	0.5	0.7	1.5	1.0	1.0	1.2	1.9	2.2	1.8	1.1	0.9	0.7	1.1	1.5	1.4	0.9	1.5	2.1	1.1	2.2
11	1.1	2.1	2.3	2.5	2.2	2.1	3.1	4.0	6.2	7.0	5.5	3.1	7.4	10.6	5.6	8.4	8.2	10.8	1.8	1.3	1.3	1.4	1.2	1.2	4.2	10.8
12	1.2	1.1	1.1	1.1	1.3	1.3	1.4	1.6	3.2	3.8	8.4	6.8	32.3	8.0	12.1	15.3	15.1	9.6	23.3	15.8	14.5	14.1	11.3	11.6	9.0	32.3
13	13.6	5.5	2.7	3.1	3.1	4.6	15.0	8.1	6.5	7.1	2.7	4.7	10.2	12.2	12.9	13.2	24.0	14.5	29.7	21.2	5.1	26.9	20.5	1.7	11.2	29.7
14	3.2	5.7	8.6	11.3	6.9	2.0	6.4	3.6	4.1	9.6	20.7	9.5	9.2	10.7	8.5	11.8	6.3	7.3	13.3	10.5	11.2	12.9	7.1	7.8	8.7	20.7
15	14.8	14.2	10.0	6.6	6.6	2.9	4.5	10.2	4.0	6.5	11.1	8.8	22.2	23.7	15.3	11.6	10.5	5.0	3.6	1.2	1.0	1.7	1.3	1.4	8.3	23.7
16	1.9	2.6	3.2	3.6	3.8	4.8	7.1	10.7	8.1	5.6	7.4	7.3	7.3	8.4	5.6	11.7	6.0	3.1	2.1	1.5	1.0	0.9	1.5	3.9	5.0	11.7
17	1.6	2.7	2.3	2.3	2.3	1.7	1.8	2.0	5.5	13.5	15.1	13.7	21.7	31.6	21.1	12.3	10.9	12.9	6.7	1.2	1.3	1.3	1.5	1.6	7.9	31.6
18	1.5	1.4	1.5	1.4	1.4	1.5	1.7	2.6	2.2	2.0	5.2	5.3	9.4	10.8	15.2	10.8	6.5	3.1	2.9	2.4	4.4	3.2	1.5	1.6	4.1	15.2
19	1.0	1.0	0.9	1.6	5.5	8.3	6.8	7.0	14.5	19.0	17.5	16.6	21.1	12.6	16.6	25.2	30.8	25.9	21.2	15.4	12.1	26.8	19.0	13.3	14.1	30.8
20	12.6	15.8	14.6	8.1	1.3	1.0	1.3	2.0	1.8	1.9	2.5	2.0	2.1	1.8	2.2	4.4	2.6	0.6	0.5	1.2	0.8	0.9	0.7	1.1	3.5	15.8
21	1.6	1.6	1.3	1.4	1.4	2.1	1.9	3.5	5.7	20.2	21.8	18.8	26.5	25.3	27.3	24.8	27.6	28.2	10.2	11.8	16.9	5.0	5.7	5.3	12.3	28.2
22	1.8	2.4	1.8	1.2	1.0	1.4	1.7	2.7	10.1	8.7	11.3	8.1	11.1	18.6	24.1	31.7	32.1	14.1	20.0	23.1	20.7	15.1	15.0	14.4	12.2	32.1
23	5.9	2.5	1.4	1.0	1.7	0.6	0.8	7.6	9.6	17.5	28.5	25.6	44.6	51.9	31.5	28.3	19.4	33.3	9.1	5.6	1.9	1.9	1.8	0.8	13.9	51.9
24	4.5	4.7	2.4	3.0	2.0	2.4	1.8	15.1	10.7	15.5	24.6	9.7	14.0	12.6	26.3	33.2	29.7	24.1	24.2	33.2	11.1	22.7	37.7	23.1	16.2	37.7
25	3.4	11.3	25.7	3.1	0.9	0.8	1.1	1.2	4.9	23.8	14.9	25.2	33.5	29.7	32.9	19.2	18.8	26.7	12.7	19.7	28.7	57.5	55.5	28.2	20.0	57.5
26	31.0	25.5	2.5	1.9	0.9	0.6	1.3	2.1	1.8	5.6	8.4	9.0	3.7	2.8	1.9	0.6	0.5	0.2	0.4	0.4	1.1	2.5	2.1	3.9	4.6	31.0
27	1.5	1.5	1.6	2.3	2.8	3.5	3.6	4.0	3.3	2.7	1.7	2.1	1.2	0.8	0.3	1.0	0.9	1.0	2.1	3.9	3.0	3.8	4.5	4.0	2.4	4.5
28	15.5	15.9	19.0	3.4	2.7	4.7	7.1	5.8	6.4	6.4	5.7	10.2	3.9	11.4	5.8	4.1	1.9	2.4	3.8	9.1	4.7	12.1	7.5	4.6	7.3	19.0
29	8.9	5.8	7.1	4.9	1.6	3.9	1.6	1.5	2.0	2.7	5.7	12.5	13.7	14.0	13.1	13.0	8.6	3.7	2.4	3.9	5.0	4.3	4.0	2.5	6.1	14.0
30	2.1	1.2	1.1	1.4	1.3	1.1	1.8	1.0	2.5	3.6	2.5	2.2	1.4	1.2	2.1	2.1	1.8	1.9	1.4	1.4	4.1	2.6	1.9	2.8	1.9	4.1
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	6.1	5.9	5.3	3.8	3.3	3.4	4.1	4.9	5.8	7.9	9.2	8.7	11.9	12.0	11.1	10.9	10.2	8.8	7.6	7.5	6.4	8.8	8.2	6.1		
MAX	31.0	25.5	25.7	11.3	8.6	10.5	15.0	15.1	14.5	23.8	28.5	25.6	44.6	51.9	32.9	33.2	32.1	33.3	29.7	33.2	28.7	57.5	55.5	28.2		



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	720	
Maximum 1-HR Average	57.5 UG/M3	
Maximum 24-HR Average	20.0 UG/M3	
Monthly Calibration Standard Deviation	7.9	Operational Time Operational Uptime Monthly Average
		720 HRS 100.0 % 7.4 UG/M3

Berm PM₁₀ ($\mu\text{g}/\text{m}^3$) – September 2019

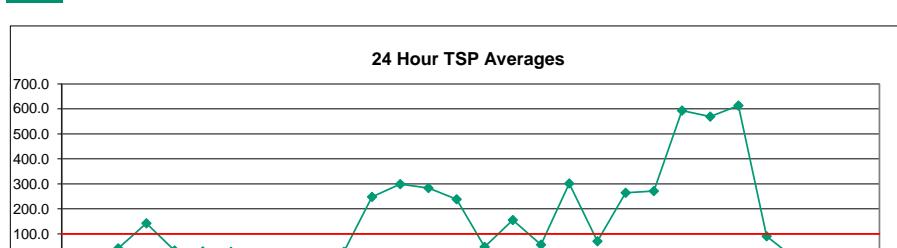
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	10.1	10.2	8.8	9.1	9.8	12.0	11.6	12.2	11.3	7.5	6.6	7.7	10.3	11.7	8.2	8.7	9.5	8.9	9.5	10.4	12.5	11.9	7.1	4.3	9.6	12.5
2	2.4	2.4	2.2	2.4	2.5	2.9	3.1	3.3	4.7	4.4	3.3	8.7	6.7	23.2	18.4	15.1	9.0	4.0	3.5	4.4	4.8	4.7	5.6	6.1	6.2	23.2
3	6.4	7.1	5.9	5.6	5.7	5.8	6.5	11.4	29.2	22.1	18.0	18.7	37.8	37.0	31.3	39.2	30.9	36.6	5.7	6.0	6.7	12.5	10.0	6.9	16.8	39.2
4	8.8	9.8	8.6	8.2	5.2	2.7	9.2	11.3	61.7	75.0	87.9	108.7	89.3	86.4	115.5	67.8	66.1	30.0	23.3	14.4	5.1	8.0	8.3	7.4	38.3	115.5
5	6.1	10.3	7.8	5.0	4.8	10.2	20.4	30.0	33.0	17.7	29.6	40.4	38.6	24.8	14.7	11.4	12.1	10.0	7.6	10.2	9.3	9.1	8.6	8.9	15.9	40.4
6	6.3	7.3	6.1	10.1	8.7	7.2	9.3	13.5	29.8	33.6	41.5	44.2	29.0	28.0	28.1	28.3	33.5	15.5	15.2	12.3	7.4	8.0	9.8	9.9	18.4	44.2
7	10.1	8.5	8.9	8.4	8.0	7.6	7.7	8.2	9.7	10.1	29.4	26.1	54.3	63.5	28.0	9.2	8.1	7.1	7.9	8.3	12.7	11.7	7.9	8.2	15.4	63.5
8	8.7	8.1	7.5	7.3	7.5	6.2	5.3	4.3	3.2	2.2	1.8	2.1	5.9	5.4	3.3	2.4	2.0	2.5	4.2	3.5	4.4	6.3	10.3	12.8	5.3	12.8
9	13.6	11.1	9.5	9.2	10.2	11.0	8.2	3.6	3.0	3.2	2.5	2.4	1.4	1.6	3.1	1.9	0.9	1.3	1.7	1.9	2.6	2.6	2.3	2.3	4.6	13.6
10	1.2	0.4	0.6	0.6	0.8	0.6	0.7	0.9	2.0	1.4	1.2	1.5	2.3	2.6	2.7	1.4	1.6	0.9	1.3	1.7	1.6	1.0	1.7	2.3	1.4	2.7
11	1.3	2.6	2.7	2.9	2.8	2.8	4.0	5.3	8.6	9.8	8.3	10.4	33.9	57.2	26.4	38.9	40.6	68.9	9.9	2.9	2.0	2.0	1.8	1.7	14.5	68.9
12	1.7	1.5	1.6	1.6	1.9	1.8	2.0	3.7	16.8	23.2	53.6	40.4	224.7	55.5	103.6	146.3	131.4	68.6	199.3	129.6	107.9	116.1	98.9	66.1	66.6	224.7
13	91.7	28.2	10.8	13.9	12.6	23.4	102.0	49.3	33.5	50.7	7.4	29.9	60.7	72.4	106.4	111.9	202.8	125.6	227.8	159.3	40.3	198.4	167.8	7.6	80.6	227.8
14	16.5	36.5	56.0	83.8	46.6	11.8	46.5	22.9	24.7	70.0	168.4	90.6	77.8	87.4	65.5	92.3	46.6	52.3	83.7	72.8	81.3	100.7	53.8	51.2	64.2	168.4
15	105.0	99.5	71.3	35.6	37.7	10.0	31.2	59.1	20.4	48.5	89.0	79.7	191.9	195.3	110.0	83.5	71.5	30.9	22.0	3.7	2.1	9.4	3.1	3.1	58.9	195.3
16	3.8	4.7	5.6	6.1	7.9	16.0	38.3	62.3	24.4	9.1	17.5	27.7	23.5	40.1	37.4	86.5	36.8	14.3	3.3	1.8	1.3	1.3	2.1	5.6	19.9	86.5
17	2.2	3.7	3.1	3.0	2.9	2.1	2.4	2.8	8.2	59.7	128.8	119.7	177.6	233.3	144.2	92.3	72.4	92.5	48.0	3.7	3.0	3.1	2.7	2.9	50.6	233.3
18	2.5	2.0	2.0	1.9	2.0	2.3	12.4	8.7	7.9	34.9	34.9	57.4	83.1	125.4	84.6	53.0	12.7	10.2	6.2	12.9	10.5	1.8	1.9	23.9	125.4	
19	1.2	1.2	1.2	2.0	7.8	12.4	10.1	10.4	21.8	99.1	105.2	139.3	162.4	100.9	133.4	203.0	248.6	222.5	163.2	128.5	89.8	219.4	178.2	87.7	97.9	248.6
20	71.9	93.3	93.6	50.2	3.1	2.1	3.4	6.9	6.1	5.4	14.0	11.0	10.0	8.3	13.7	30.0	17.3	2.2	0.7	1.5	1.0	1.0	1.0	1.5	18.7	93.6
21	2.1	2.0	1.8	1.8	1.8	2.8	2.5	5.2	55.8	204.7	164.2	123.2	173.7	192.3	189.5	187.1	176.1	185.2	67.4	69.1	143.8	21.3	29.0	24.0	84.4	204.7
22	7.0	15.7	5.8	4.0	1.9	4.0	4.9	59.9	54.4	52.3	79.2	55.8	89.7	147.1	188.9	241.4	202.5	86.9	157.4	172.6	143.9	102.2	108.5	105.2	87.1	241.4
23	31.1	14.7	5.2	3.0	8.7	1.3	2.9	59.1	98.0	191.3	302.9	260.3	437.6	516.1	349.3	336.4	210.9	358.6	91.1	48.1	12.3	10.0	8.0	2.8	140.0	516.1
24	24.6	33.9	19.1	26.5	10.0	15.7	12.8	141.1	107.5	144.5	230.5	84.2	123.4	97.1	233.4	314.3	231.7	202.4	234.1	329.6	99.7	219.3	345.8	146.2	142.8	345.8
25	20.3	61.2	148.2	18.2	3.6	1.7	5.1	5.5	37.9	169.2	119.2	262.4	333.9	309.0	329.1	190.7	173.0	284.9	134.0	202.2	223.0	497.5	460.1	171.9	173.4	497.5
26	198.3	141.8	11.3	6.0	1.0	0.7	1.8	3.2	14.0	49.5	73.1	79.4	36.1	17.8	13.4	0.9	0.6	0.2	0.5	0.5	1.2	3.4	2.4	5.4	27.6	198.3
27	1.9	1.7	1.8	2.6	3.2	4.2	3.9	5.3	4.7	3.8	2.2	2.7	1.4	0.9	0.3	1.3	1.0	1.0	2.8	4.9	3.6	4.4	4.8	4.1	2.9	5.3
28	22.0	22.5	27.2	3.9	2.9	5.6	8.3	6.8	8.3	8.1	7.1	14.4	4.6	16.6	8.1	5.4	2.4	3.0	5.1	13.2	6.5	17.7	10.9	6.5	9.9	27.2
29	13.1	8.3	10.5	7.2	2.1	5.5	2.1	1.8	2.6	3.5	8.1	18.4	20.3	19.4	19.3	12.6	5.0	2.7	4.9	6.2	5.7	5.6	3.2	8.7	20.7	
30	2.7	1.3	1.3	1.7	1.4	1.2	2.1	1.1	3.2	4.8	3.5	2.9	2.8	2.4	4.0	3.1	2.5	2.3	1.7	1.7	5.7	3.4	2.1	2.9	2.6	5.7
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	23.1	21.7	18.2	11.4	7.5	6.4	12.4	20.8	24.9	46.4	61.3	58.3	84.0	84.6	81.8	81.8	70.3	64.6	51.5	47.7	35.1	54.1	52.0	25.7		
MAX	198.3	141.8	148.2	83.8	46.6	23.4	102.0	141.1	107.5	204.7	302.9	262.4	437.6	516.1	349.3	336.4	248.6	358.6	234.1	329.6	223.0	497.5	460.1	171.9		



Number of Non-Zero Readings	720
Maximum 1-HR Average	516.1 UG/M3
Maximum 24-HR Average	173.4 UG/M3
Monthly Calibration Standard Deviation	73.6
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	43.6 UG/M3

Berm TSP ($\mu\text{g}/\text{m}^3$) – September 2019

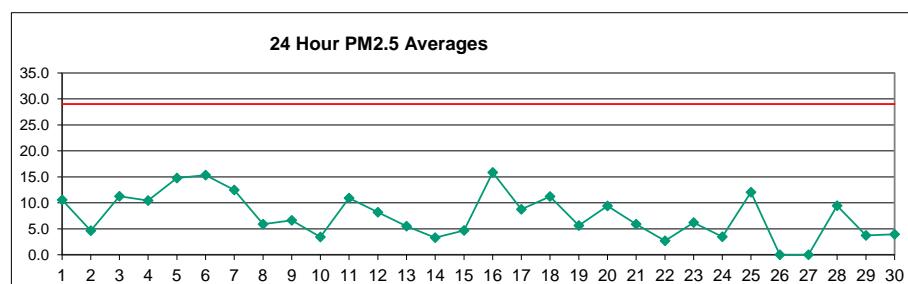
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	6.5	6.6	5.7	5.9	6.3	7.9	7.6	7.9	7.3	4.9	4.4	5.4	12.4	14.5	7.5	8.4	8.7	5.9	6.3	6.8	8.2	7.9	4.7	2.9	7.1	14.5
2	1.6	1.6	1.4	1.6	1.7	1.9	2.2	2.2	3.2	2.9	2.2	14.7	11.9	67.0	49.2	33.1	18.7	5.8	3.1	2.9	4.1	3.4	4.9	4.0	10.2	67.0
3	5.8	5.3	5.3	3.8	3.7	3.8	7.2	26.0	89.2	56.1	45.1	53.4	101.6	103.3	80.2	139.3	97.5	99.4	8.4	5.9	6.9	29.9	13.8	6.5	41.6	139.3
4	7.6	15.0	14.0	16.6	13.4	2.9	35.9	38.6	285.7	289.7	341.1	510.5	363.1	310.6	434.8	261.6	235.4	82.6	74.0	44.9	6.1	17.2	9.4	6.4	142.4	510.5
5	11.3	16.8	10.6	3.3	3.1	15.8	35.7	61.8	78.9	43.6	53.8	99.6	104.1	81.3	37.2	29.3	28.4	15.1	11.2	21.1	16.2	10.4	7.6	10.9	33.6	104.1
6	5.1	5.8	4.5	9.0	7.0	5.2	8.4	14.1	51.2	83.4	76.9	68.4	48.3	61.5	56.3	64.0	75.3	17.2	15.0	12.6	5.5	5.6	6.9	7.1	29.8	83.4
7	7.0	5.8	6.0	5.5	5.3	5.0	5.2	10.3	30.1	15.2	93.5	48.9	173.7	119.7	35.8	16.5	11.3	9.4	6.9	9.6	24.3	18.1	10.1	8.4	28.4	173.7
8	10.5	6.0	6.6	10.6	5.0	4.1	3.5	2.9	2.2	1.5	1.2	1.8	9.3	13.2	2.5	1.6	1.3	1.6	3.0	2.3	2.8	4.1	6.8	8.5	4.7	13.2
9	9.0	7.4	6.5	6.2	7.0	7.3	5.4	2.4	1.9	2.2	1.6	1.6	1.0	1.2	2.7	1.3	0.6	0.9	1.1	1.3	1.7	1.7	1.5	1.5	3.1	9.0
10	0.8	0.3	0.4	0.4	0.5	0.4	0.5	0.7	1.9	1.2	1.0	1.1	1.6	1.8	2.1	1.1	6.5	0.7	0.9	1.2	1.0	0.7	1.1	1.5	1.2	6.5
11	0.8	1.7	1.7	1.9	2.1	2.1	2.8	3.8	6.9	8.0	10.6	22.0	54.4	99.1	57.8	77.6	102.7	158.8	42.7	2.9	1.8	1.8	1.6	1.4	27.8	158.8
12	1.4	1.2	1.2	1.2	1.5	1.5	1.6	5.6	106.8	119.2	177.4	114.4	735.7	158.9	438.0	637.0	512.3	248.3	755.1	488.0	433.3	415.1	386.0	209.5	247.9	755.1
13	370.4	59.6	18.8	17.9	27.3	86.0	436.7	172.7	83.4	224.1	13.8	102.4	194.0	243.7	445.6	553.9	788.9	546.5	785.8	574.2	147.5	678.7	572.8	18.5	298.5	788.9
14	58.1	149.0	210.2	365.6	142.4	56.7	161.5	59.2	109.2	310.2	732.1	431.6	321.5	340.2	278.8	336.9	175.2	237.9	345.8	365.1	419.3	579.8	339.4	275.7	283.4	732.1
15	566.7	503.6	316.2	135.2	161.2	31.0	119.5	170.5	57.7	255.3	462.7	342.5	812.9	748.9	351.0	246.4	233.2	84.2	59.0	7.5	1.7	38.8	4.0	3.6	238.0	812.9
16	2.6	3.6	4.8	5.8	11.1	31.8	74.6	138.1	44.6	11.3	38.4	73.4	49.7	83.7	111.6	263.1	125.8	53.2	4.0	1.2	0.9	0.9	1.6	4.7	47.5	263.1
17	1.7	2.7	2.2	2.2	2.0	1.5	1.9	2.1	9.2	191.1	478.4	407.9	543.8	795.3	359.6	296.7	204.8	253.1	154.4	7.0	3.7	2.9	2.9	3.2	155.4	795.3
18	1.8	1.5	1.6	1.5	1.6	1.6	1.9	25.9	21.2	19.0	101.9	100.0	167.0	208.5	307.4	182.2	95.9	28.1	16.5	12.6	33.7	28.1	1.3	1.3	56.8	307.4
19	0.8	0.8	0.9	1.4	7.7	13.6	10.5	11.3	24.8	248.4	314.3	432.1	476.3	325.2	347.9	523.3	802.3	774.8	577.9	446.5	266.8	752.1	664.3	210.9	301.5	802.3
20	210.3	451.4	440.3	183.7	5.4	2.2	6.6	23.7	12.5	8.5	36.8	24.9	18.7	18.0	42.7	118.6	66.8	5.7	0.5	1.1	0.7	0.8	0.8	1.2	70.1	451.4
21	1.6	1.5	1.3	1.3	1.4	2.4	2.0	5.6	222.9	953.4	588.8	345.8	561.4	597.0	503.1	465.2	398.6	464.3	224.5	192.3	599.5	43.2	102.7	66.3	264.4	953.4
22	19.9	63.6	20.5	14.1	1.6	6.4	8.2	84.2	97.2	141.5	249.4	160.8	279.8	433.1	586.6	779.3	441.9	231.4	554.6	645.3	511.4	369.1	428.2	377.3	271.1	779.3
23	65.8	44.8	14.4	11.2	27.1	2.4	8.4	248.3	439.1	827.0	1151.3	1028.9	1875.0	2097.8	1649.4	1454.3	982.0	1551.3	417.7	197.2	57.1	39.7	25.5	14.3	592.9	2097.8
24	80.0	125.6	119.3	119.0	37.6	69.7	64.9	675.9	564.4	615.6	1020.8	382.3	565.9	426.3	879.5	1231.9	746.5	649.4	868.4	1458.3	387.4	854.8	1305.2	403.0	568.8	1458.3
25	58.0	103.6	263.8	28.8	5.3	2.6	17.1	15.8	116.2	455.2	387.7	1028.3	1322.1	1208.2	1420.1	844.9	655.7	1079.0	530.8	715.1	711.8	1759.2	1554.6	417.5	613.0	1759.2
26	530.3	303.4	27.7	17.3	0.7	0.5	1.8	4.3	97.3	295.3	347.4	286.1	117.4	74.8	56.5	0.7	0.4	0.2	0.3	0.3	0.8	3.1	1.7	5.3	90.6	530.3
27	1.5	1.2	1.2	1.8	2.1	3.4	2.6	4.5	4.6	3.4	1.7	2.4	0.9	0.7	0.2	1.0	0.6	0.7	2.6	4.3	3.0	3.8	3.4	2.8	2.3	4.6
28	18.0	18.2	29.0	3.0	2.1	3.7	6.3	5.2	6.9	6.1	4.9	14.0	3.3	16.7	7.1	4.2	1.8	2.3	3.8	11.5	5.3	17.3	10.3	5.7	8.6	29.0
29	13.3	8.9	11.0	6.4	1.7	5.5	1.8	1.4	2.1	3.1	8.4	17.2	20.6	22.5	19.7	20.6	12.0	3.8	1.8	3.2	4.8	4.4	4.2	2.3	8.4	22.5
30	1.8	0.9	0.8	1.2	1.0	0.8	1.5	0.7	2.5	3.7	2.9	2.4	4.4	2.9	8.7	4.5	2.3	1.7	1.2	1.2	5.4	2.9	1.4	1.9	2.5	8.7
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	69.0	63.9	51.6	32.8	16.5	12.7	34.8	60.9	86.0	173.3	225.0	204.2	298.7	289.2	286.0	286.6	227.8	220.4	182.6	174.8	122.4	189.8	182.6	69.5		
MAX	566.7	503.6	440.3	365.6	161.2	86.0	436.7	675.9	564.4	953.4	1151.3	1028.9	1875.0	2097.8	1649.4	1454.3	982.0	1551.3	868.4	1458.3	711.8	1759.2	1554.6	417.5		



Number of 24HR Exceedances		12 Proposed Guideline
Number of Non-Zero Readings		720
Maximum 1-HR Average		2097.8 UG/M3
Maximum 24-HR Average		613.0 UG/M3
IZS Calibration Time		
Monthly Calibration		0
Standard Deviation		285.5
Operational Time		720 HRS
Operational Uptime		100.0 %
Monthly Average		148.4 UG/M3

Entrance PM_{2.5} ($\mu\text{g}/\text{m}^3$) – September 2019

Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	12.2	11.5	12.0	12.5	12.5	12.7	11.6	14.6	11.9	8.8	7.1	7.4	8.0	7.8	7.7	7.9	10.3	8.6	9.2	10.4	13.0	12.9	13.4	10.2	10.6	14.6	
2	6.7	5.0	2.7	5.9	4.9	4.3	4.9	6.1	4.7	4.4	3.2	3.8	6.6	2.3	2.4	4.3	4.5	3.9	3.7	4.2	4.4	4.8	5.5	7.9	4.6	7.9	
3	10.0	12.6	11.8	7.3	9.6	12.6	12.0	18.8	20.9	21.2	21.0	13.8	9.5	9.6	10.0	6.4	5.1	4.1	7.3	8.9	7.6	8.0	10.1	11.8	11.3	21.2	
4	15.9	14.6	22.0	20.3	7.8	11.0	8.5	12.8	15.5	7.1	8.8	8.9	8.5	10.0	8.9	6.3	4.5	4.8	5.0	4.4	11.0	11.2	11.7	10.9	10.4	22.0	
5	6.3	7.3	7.1	8.3	13.5	16.4	25.9	20.6	21.9	19.9	19.4	22.9	19.6	17.4	17.1	15.5	12.1	12.7	14.9	16.5	15.3	8.0	9.3	6.6	14.8	25.9	
6	6.9	7.2	10.8	11.6	11.3	18.5	12.1	10.5	13.5	11.6	20.8	25.5	26.6	26.3	25.7	20.3	15.9	13.8	17.4	19.2	7.1	11.2	16.9	15.3	26.6		
7	25.1	16.3	18.8	19.7	14.9	18.3	17.1	17.5	17.0	16.4	18.5	18.3	11.0	3.9	4.5	6.0	6.0	5.7	5.8	6.2	10.4	9.3	7.1	5.6	12.5	25.1	
8	7.8	9.4	6.7	7.3	8.3	6.6	5.6	4.1	7.1	4.8	2.6	2.0	4.3	7.5	5.0	3.2	2.1	3.3	4.3	3.7	5.3	6.9	10.8	13.0	5.9	13.0	
9	14.1	12.9	10.9	10.3	10.5	10.8	7.3	3.8	4.1	5.1	4.3	1.7	0.9	9.5	27.1	3.8	2.0	2.0	2.0	2.9	3.3	3.6	3.1	3.2	6.6	27.1	
10	1.8	0.7	0.3	0.7	0.9	0.7	0.7	0.6	0.5	1.2	1.6	8.3	12.3	16.7	16.2	6.7	0.8	1.0	1.3	2.1	2.2	2.2	2.3	3.4	16.7		
11	1.8	2.6	3.3	3.2	3.4	3.8	4.3	5.4	5.6	6.7	8.7	7.7	10.8	6.5	11.8	23.1	38.8	9.2	6.3	16.2	19.9	33.1	18.4	9.6	7.0	10.9	38.8
12	5.8	7.4	6.5	6.5	12.8	13.1	11.3	13.1	17.8	10.4	10.4	9.9	9.4	10.9	11.8	7.5	10.0	3.6	2.5	2.7	2.6	3.0	4.2	3.6	8.2	17.8	
13	5.2	1.6	2.0	3.0	2.4	3.8	7.7	14.1	13.3	7.5	2.9	9.2	13.5	9.5	10.2	9.0	5.6	4.3	1.6	1.4	0.9	1.1	1.3	1.3	5.5	14.1	
14	1.9	1.6	1.1	1.6	1.5	2.4	4.1	9.2	4.0	5.4	10.8	5.4	4.0	3.1	2.3	3.3	2.3	2.1	1.1	1.8	2.9	3.2	2.9	1.7	3.3	10.8	
15	2.0	2.0	1.0	1.2	1.8	1.5	4.8	3.7	2.8	3.0	1.5	4.0	3.7	5.5	4.4	7.1	6.3	7.6	9.2	13.1	5.2	10.9	8.1	2.3	4.7	13.1	
16	2.8	2.7	5.6	8.2	7.0	9.8	27.0	29.9	22.2	25.2	36.2	38.3	32.5	35.2	38.0	11.1	11.2	7.9	5.1	5.8	6.0	3.9	4.3	4.3	15.9	38.3	
17	5.3	3.7	5.4	4.1	10.3	9.8	8.3	16.2	6.9	6.2	5.6	8.0	6.5	59.8	4.5	5.3	6.3	3.2	2.4	9.1	5.9	6.0	5.3	6.4	8.8	59.8	
18	8.0	3.5	3.5	7.7	11.1	9.3	15.2	21.5	17.9	21.2	14.3	8.2	16.4	10.2	5.8	17.6	25.9	15.0	12.6	8.3	6.8	5.0	2.0	2.0	11.2	25.9	
19	1.8	2.4	1.6	5.8	10.0	8.1	8.5	16.7	6.6	8.0	6.9	9.4	4.9	4.0	5.3	8.3	7.5	3.2	2.2	2.4	2.3	1.8	3.9	3.9	5.7	16.7	
20	1.2	1.6	1.5	2.5	13.4	9.9	17.4	19.8	31.0	30.2	12.0	12.5	10.7	13.7	17.3	12.4	5.9	2.4	1.0	1.6	1.9	1.1	1.0	3.9	9.4	31.0	
21	7.1	12.3	12.5	8.8	6.9	8.3	10.5	13.8	12.3	6.2	7.0	4.5	6.8	4.8	2.8	2.0	4.1	2.0	2.8	1.3	1.2	1.3	1.2	1.4	5.9	13.8	
22	1.4	1.3	1.9	1.6	2.0	1.4	6.7	6.0	3.0	3.4	3.1	3.3	2.9	2.4	5.8	2.7	2.3	1.8	2.5	2.9	1.7	2.1	1.5	1.2	2.7	6.7	
23	0.9	1.0	0.8	1.5	5.5	0.5	2.4	5.2	7.8	5.0	9.3	7.2	22.1	31.8	15.8	10.5	9.3	7.8	1.1	1.2	0.8	0.6	0.6	0.4	6.2	31.8	
24	0.3	0.5	0.6	0.8	0.6	1.2	2.0	4.5	4.8	4.3	11.8	9.7	6.8	9.2	5.0	5.3	4.1	2.6	1.9	1.5	1.0	3.4	1.3	0.7	3.5	11.8	
25	1.5	2.9	7.9	0.9	2.1	11.9	11.9	32.7	26.1	6.1	10.5	24.8	32.3	10.1	16.4	10.5	6.9	6.8	6.6	X	X	X	X	X	-	12.0	32.7
26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-		
27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-		
28	8.0	6.5	9.8	4.3	2.8	4.7	7.7	6.7	5.8	8.0	7.9	13.6	7.4	23.9	12.8	6.7	2.7	6.1	8.6	16.8	11.2	23.4	19.4	2.0	9.4	23.9	
29	1.7	2.2	1.8	1.4	1.3	2.2	2.1	2.5	5.9	3.2	9.4	8.1	12.5	4.3	1.3	1.2	2.1	6.7	5.7	4.7	5.3	1.3	3.7	1.3	12.5		
30	1.7	1.5	1.4	1.6	1.8	2.6	2.6	2.6	3.3	4.4	3.2	2.5	2.3	3.5	4.9	5.6	4.3	3.5	2.7	4.2	3.8	4.2	15.4	11.0	3.9	15.4	
NO.	28	28	28	28	28	28	28	28	28	28	28	29	29	29	29	29	29	29	29	28	28	28	28	28	680	94%	
MEAN	5.9	5.5	6.1	6.0	6.8	7.7	9.3	11.9	11.3	9.5	9.9	10.8	10.6	12.5	10.8	8.8	6.7	5.1	5.3	6.5	6.3	6.2	6.3	5.2			
MAX	25.1	16.3	22.0	20.3	14.9	18.5	27.0	32.7	31.0	30.2	36.2	38.3	32.5	59.8	38.0	38.8	25.9	15.0	17.4	19.9	33.1	23.4	19.4	16.9			

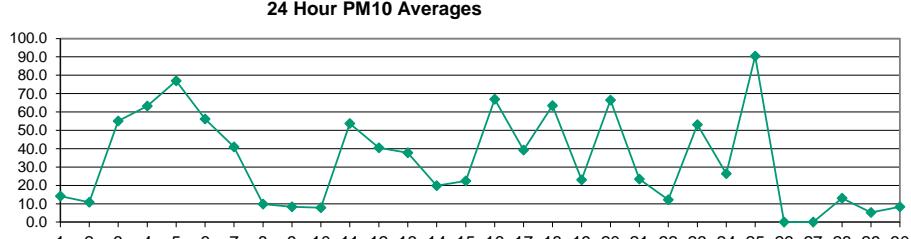


Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	680	
Maximum 1-HR Average	59.8 UG/M3	
Maximum 24-HR Average	15.9 UG/M3	
Monthly Calibration Standard Deviation	7.096	Operational Time 0 HRS
		Operational Uptime 94.4 %
		Monthly Average 8.0 UG/M3

Entrance PM₁₀ ($\mu\text{g}/\text{m}^3$) – September 2019

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	13.3	14.0	14.5	14.7	15.1	14.7	18.8	14.8	10.6	9.7	11.9	12.9	11.0	12.7	12.6	20.8	11.5	11.2	12.7	16.1	17.5	20.0	15.2	14.2	20.8	
2	9.9	7.3	3.7	8.7	7.2	6.0	7.0	8.9	6.3	5.9	5.7	8.3	24.3	7.5	8.1	14.6	20.4	9.6	15.4	14.0	16.8	8.9	8.1	26.7	10.8	26.7	
3	40.9	55.9	52.7	15.8	14.4	18.9	18.0	108.0	133.9	125.5	138.8	86.7	47.6	61.3	70.6	39.1	24.0	21.9	42.5	43.5	37.3	31.1	42.2	49.4	55.0	138.8	
4	75.1	63.9	124.2	132.5	45.2	70.5	48.3	104.0	103.9	51.9	58.3	61.6	62.0	79.2	55.7	35.0	21.7	22.8	27.6	20.7	61.7	66.3	68.2	56.9	63.2	132.5	
5	24.1	28.2	13.8	12.0	20.1	24.4	38.7	206.2	142.4	109.5	127.7	170.7	122.5	125.6	123.7	114.1	91.6	75.0	83.7	100.5	56.9	11.9	14.0	9.9	77.0	206.2	
6	10.2	10.7	16.1	17.4	16.9	27.8	18.2	17.7	39.5	46.5	120.0	147.2	151.6	164.9	143.6	113.7	90.1	70.7	32.0	28.8	10.6	10.7	16.7	25.3	56.1	164.9	
7	37.7	24.5	28.1	29.5	22.3	27.4	25.6	34.4	100.7	92.4	116.5	120.7	61.3	15.3	25.6	28.6	32.5	24.6	18.0	20.4	30.3	36.4	19.1	12.0	41.0	120.7	
8	17.0	14.8	9.8	13.3	11.4	8.3	6.8	5.0	9.7	6.1	7.8	3.8	15.8	39.2	7.2	4.0	2.3	3.7	4.5	4.0	5.6	7.3	12.1	14.6	9.8	39.2	
9	16.7	14.9	13.1	12.8	13.1	13.4	8.8	4.2	4.4	5.4	4.7	2.0	1.1	14.2	40.6	5.3	2.2	2.2	2.3	3.1	3.6	3.9	3.3	3.5	8.3	40.6	
10	2.1	0.8	0.4	0.8	1.0	0.8	1.1	0.9	0.7	0.6	1.5	2.0	12.4	18.4	40.2	63.0	28.5	1.1	1.3	1.8	2.4	2.5	2.6	2.7	7.9	63.0	
11	2.2	3.1	4.0	3.8	4.4	5.0	5.6	7.4	9.1	12.3	42.9	67.6	42.9	76.2	184.1	303.5	75.3	44.6	114.6	112.2	114.7	27.6	14.4	10.5	53.7	303.5	
12	8.7	11.1	9.7	9.7	19.2	19.6	16.9	64.7	143.3	77.6	63.1	73.4	64.4	73.8	87.4	52.8	63.2	20.8	13.5	17.8	12.5	10.7	18.3	20.2	40.5	143.3	
13	50.4	3.9	6.3	11.2	9.4	21.7	53.3	87.6	97.9	57.2	5.9	63.7	104.1	75.1	82.6	72.2	40.4	33.6	8.5	8.6	1.8	3.2	2.8	4.3	37.7	104.1	
14	6.6	5.8	4.2	7.6	7.2	12.0	24.2	46.0	24.3	31.2	89.1	40.2	23.8	20.9	13.4	21.1	10.5	8.2	4.2	7.3	20.7	20.4	19.3	7.8	19.8	89.1	
15	10.5	8.1	2.0	4.2	3.6	4.1	18.2	12.1	8.7	14.2	4.8	17.5	16.7	23.6	22.1	29.7	32.0	38.7	51.8	84.1	27.0	55.0	40.5	8.0	22.4	84.1	
16	7.9	6.8	13.1	20.5	10.4	14.7	40.5	44.8	33.3	37.7	122.7	251.0	189.3	244.8	309.7	76.3	81.3	55.7	9.1	8.7	9.1	5.8	6.3	6.1	66.9	309.7	
17	7.8	5.3	8.0	5.9	15.4	14.6	12.4	24.3	10.4	40.0	38.8	64.4	51.0	280.1	32.3	40.4	46.3	21.7	13.8	66.6	37.3	40.4	32.0	31.8	39.2	280.1	
18	12.0	5.2	5.2	11.6	16.6	13.9	22.9	51.2	154.5	186.5	93.0	61.9	116.7	71.2	46.4	133.9	217.2	128.2	89.0	51.7	14.5	16.3	2.6	2.5	63.5	217.2	
19	2.3	3.5	2.2	8.5	15.0	12.2	12.8	25.0	9.8	28.9	35.0	63.1	27.5	23.9	38.7	70.2	61.8	24.9	13.8	7.8	10.1	5.1	26.8	23.8	23.0	70.2	
20	2.6	3.8	3.6	13.8	94.3	70.2	119.6	161.0	271.2	223.6	84.3	84.8	75.2	113.1	128.4	81.0	37.8	12.1	1.5	2.0	2.6	1.4	1.5	5.7	66.5	271.2	
21	10.6	18.5	18.8	13.1	10.4	12.5	15.8	90.7	107.7	50.8	34.5	29.7	39.2	31.8	17.2	10.2	13.4	8.4	13.9	3.3	2.7	2.4	2.8	3.7	23.4	107.7	
22	4.6	4.4	7.5	6.3	7.7	3.8	30.3	33.1	6.7	11.3	13.1	14.2	18.0	10.7	31.3	14.5	9.5	5.0	15.3	17.0	7.3	11.4	5.5	3.0	12.1	33.1	
23	1.9	2.9	3.2	6.4	35.9	1.0	10.5	42.0	50.8	43.2	89.4	61.2	187.9	299.7	144.0	120.0	78.9	73.4	6.0	4.8	3.4	2.5	2.2	1.6	53.0	299.7	
24	0.8	2.2	2.3	3.0	1.6	5.6	12.1	34.7	26.1	29.1	114.1	81.2	57.7	71.9	41.0	48.1	25.6	19.0	10.6	10.6	4.0	25.6	6.1	1.3	26.4	114.1	
25	7.1	14.7	54.5	3.3	9.1	79.8	82.9	250.6	202.2	41.6	86.1	200.6	260.7	85.9	127.6	77.4	46.0	48.8	40.2	X	X	X	X	X	X	90.5	260.7
26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-		
27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-		
28	10.7	8.3	13.3	5.1	2.9	5.5	9.0	7.8	6.9	10.2	10.1	19.2	9.9	35.2	18.5	9.2	3.3	8.7	12.4	24.9	16.3	34.7	28.7	2.6	13.1	35.2	
29	2.5	3.1	2.5	1.9	1.7	3.1	3.0	3.4	8.6	4.6	13.9	11.9	18.4	6.2	1.7	1.7	1.6	1.5	2.8	9.6	8.0	6.5	7.5	1.5	5.3	18.4	
30	2.0	1.6	1.6	1.8	1.9	2.8	2.7	2.8	3.9	8.1	6.7	6.2	5.9	19.0	28.4	27.8	13.0	5.0	3.7	5.9	5.0	5.6	22.9	16.5	8.4	28.4	
NO.	28	28	28	28	28	28	28	28	28	28	28	28	29	29	29	29	29	29	29	28	28	28	28	28	680	94%	
MEAN	14.3	12.4	15.6	14.1	15.5	18.4	24.3	53.5	61.9	48.7	54.9	66.8	62.9	72.5	64.9	55.9	41.1	27.7	23.0	24.9	19.4	17.0	16.1	13.3			
MAX	75.1	63.9	124.2	132.5	94.3	79.8	119.6	250.6	271.2	223.6	138.8	251.0	260.7	299.7	309.7	303.5	217.2	128.2	114.6	112.2	114.7	66.3	68.2	56.9			

24 Hour PM₁₀ Averages



Number of Non-Zero Readings 680

Maximum 1-HR Average 309.7 UG/M3

Maximum 24-HR Average 90.5 UG/M3

Monthly Calibration Standard Deviation 48.33

Operational Time 0

Operational Uptime

Monthly Average

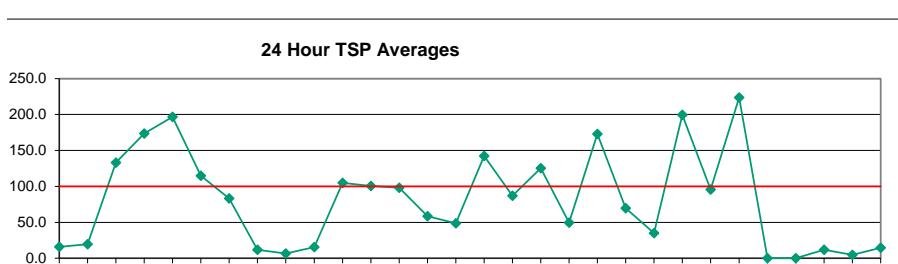
680 HRS

94.4 %

35.1 UG/M3

Entrance TSP ($\mu\text{g}/\text{m}^3$) – September 2019

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	9.2	8.6	9.1	9.4	9.5	9.8	9.7	12.9	9.8	7.1	13.3	36.5	28.3	15.4	18.7	19.8	67.8	10.2	7.5	8.7	10.7	13.1	20.5	15.4	15.9	67.8	
2	9.7	6.9	2.9	8.9	6.8	4.5	5.3	7.9	4.6	4.1	9.5	28.2	68.1	21.4	23.1	40.0	44.5	13.7	25.1	24.9	18.8	19.5	7.3	67.3	19.7	68.1	
3	103.2	137.9	147.1	26.5	15.1	20.0	19.9	349.7	493.6	331.8	388.0	169.3	95.7	121.5	148.3	93.5	47.0	36.5	91.6	94.1	58.8	45.5	64.1	91.1	132.9	493.6	
4	176.3	146.9	312.8	454.0	152.2	180.1	156.5	408.2	286.2	159.4	164.2	188.5	208.9	182.5	129.5	100.1	54.6	44.4	46.4	30.8	96.4	171.2	161.2	150.6	173.4	454.0	
5	54.1	84.0	22.1	10.4	20.4	26.1	43.0	434.4	391.1	302.7	377.4	585.5	386.5	389.6	381.2	331.2	247.7	168.3	186.8	147.7	93.6	11.8	14.6	9.1	196.6	585.5	
6	9.2	9.5	15.7	17.6	17.5	30.8	19.5	20.5	77.2	77.9	195.1	298.4	325.5	471.7	358.9	334.2	212.0	128.4	40.2	33.0	10.0	9.3	15.0	25.0	114.7	471.7	
7	41.4	25.5	30.2	32.0	23.3	28.8	27.4	67.7	311.8	251.8	328.1	253.4	102.5	32.1	48.3	49.4	74.8	43.5	23.0	28.6	44.9	83.3	23.0	20.2	83.1	328.1	
8	18.2	12.3	11.6	17.6	8.9	5.8	4.6	3.4	8.6	5.1	11.1	6.2	31.0	96.1	6.4	2.8	1.5	2.4	3.0	2.6	3.7	4.8	7.8	9.4	11.9	96.1	
9	10.9	9.7	8.5	8.5	8.7	8.8	5.8	2.7	2.9	3.5	3.1	1.3	0.7	15.6	46.6	5.1	1.4	1.4	1.5	2.1	2.3	2.5	2.1	2.3	6.6	46.6	
10	1.5	0.5	0.3	0.5	0.6	0.6	0.7	0.6	0.5	0.4	1.1	1.6	13.9	20.6	87.3	148.5	88.4	0.8	0.9	1.3	1.6	1.7	1.7	1.8	15.7	148.5	
11	1.5	2.1	2.6	2.6	3.1	3.5	3.9	5.4	7.0	10.3	94.8	144.4	107.0	188.5	395.1	704.5	169.0	89.6	219.1	152.1	151.2	29.7	16.4	11.9	104.8	704.5	
12	9.7	12.5	10.6	10.9	21.7	22.3	19.0	130.4	421.5	227.6	173.9	175.9	162.0	181.3	222.0	118.7	154.1	43.2	56.6	73.7	47.2	11.3	33.4	77.8	100.7	421.5	
13	196.3	6.3	6.7	14.5	12.6	49.6	149.9	172.6	201.6	191.8	11.6	180.3	273.5	186.9	216.3	202.5	110.2	115.9	19.2	19.8	1.8	8.6	3.2	5.2	98.2	273.5	
14	7.2	8.7	9.0	18.0	19.3	29.3	52.0	82.7	56.9	80.7	330.7	148.8	59.9	78.8	41.7	69.0	14.5	16.9	9.5	17.7	75.0	71.8	69.7	35.6	58.5	330.7	
15	37.7	28.9	4.8	12.3	5.1	5.4	26.8	27.1	19.8	37.5	9.8	40.3	38.0	40.2	42.6	96.5	72.9	73.5	113.5	194.6	37.0	130.4	64.7	7.7	48.6	194.6	
16	11.0	7.2	21.8	23.6	10.2	15.5	46.7	51.7	37.6	42.7	296.2	672.8	448.4	479.3	656.6	162.8	203.5	175.0	15.1	9.3	9.6	6.1	6.4	5.3	142.3	672.8	
17	7.7	4.4	8.0	5.6	16.9	16.1	13.6	28.0	11.6	120.2	128.0	209.1	157.7	495.1	95.3	110.8	111.7	48.6	37.6	164.4	94.9	66.4	68.6	66.9	87.0	495.1	
18	13.5	5.4	5.5	13.0	19.0	15.7	25.9	110.0	505.8	493.2	218.7	111.5	223.4	119.7	77.5	237.2	336.3	180.1	136.3	85.0	19.4	51.5	1.9	1.8	125.3	505.8	
19	1.7	3.4	1.9	8.2	16.4	12.7	12.7	27.5	10.3	60.4	85.2	155.7	72.1	56.0	82.7	151.6	135.9	59.8	23.0	11.4	20.9	9.3	89.4	82.4	49.6	155.7	
20	5.3	5.7	12.7	47.8	207.8	161.4	285.9	421.7	745.9	557.3	182.6	213.4	193.9	298.1	341.4	296.6	127.7	29.8	1.5	1.5	2.0	1.0	1.4	6.0	172.9	745.9	
21	11.7	20.9	21.3	14.6	11.2	14.1	17.6	354.1	410.6	225.4	102.7	82.7	109.2	85.7	51.0	26.7	28.3	19.0	41.0	5.1	6.1	3.0	3.3	6.2	69.7	410.6	
22	13.0	9.9	22.2	25.8	20.4	9.2	47.0	57.9	12.1	19.8	36.4	43.4	83.3	25.5	117.1	44.1	27.4	8.8	59.6	63.9	27.2	46.0	13.1	8.3	35.1	117.1	
23	3.9	5.0	7.4	11.5	59.5	1.5	20.9	115.5	138.9	149.4	283.7	218.8	687.9	1153.4	588.7	553.8	340.8	370.9	27.8	12.6	13.9	10.3	7.6	4.8	199.5	1153.4	
24	1.3	7.5	5.9	5.4	2.9	14.6	38.0	122.9	90.5	104.4	394.1	267.9	220.5	270.1	168.2	233.7	83.9	75.2	38.4	48.4	7.8	75.9	11.4	2.8	95.5	394.1	
25	14.6	24.7	89.1	5.3	18.3	163.0	166.0	515.1	494.2	105.4	188.2	448.8	653.6	275.9	411.3	252.7	146.5	159.8	117.2	X	X	X	X	X	X	223.7	653.6
26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-		
27	X	X	X	X	X	X	X	X	X	X	345.9	1.5	2.0	0.6	0.7	1.2	0.8	2.2	2.9	3.6	5.4	3.9	2.8	-	-		
28	9.7	6.1	11.4	3.5	1.9	3.9	6.5	5.8	5.2	7.3	7.2	17.0	9.4	37.7	13.7	7.6	2.5	7.2	11.4	23.0	15.7	39.0	29.3	2.2	11.8	39.0	
29	2.6	3.3	2.4	1.8	1.4	2.6	2.3	2.6	6.5	3.3	12.5	10.6	18.5	6.2	1.4	1.4	1.3	1.1	1.9	9.9	7.2	5.8	6.7	1.0	4.8	18.5	
30	1.3	1.1	1.0	1.2	1.2	1.9	1.8	1.9	2.7	6.7	7.5	19.7	12.4	40.3	78.7	78.7	32.8	4.6	3.1	5.7	4.2	3.9	21.8	15.6	14.6	78.7	
NO.	28	28	28	28	28	28	28	28	28	28	28	28	29	29	29	29	29	29	29	28	28	28	28	28	680	94%	
MEAN	28.0	21.6	28.7	29.0	25.4	30.6	43.9	126.5	170.2	128.1	144.8	175.0	165.3	185.8	167.2	154.3	101.4	66.5	46.9	45.5	31.6	33.5	27.5	26.3			
MAX	196.3	146.9	312.8	454.0	207.8	180.1	285.9	515.1	745.9	557.3	394.1	672.8	687.9	1153.4	656.6	704.5	340.8	370.9	219.1	194.6	151.2	171.2	161.2	150.6			



Number of 24HR Exceedences	11	Proposed Guideline
Number of Non-Zero Readings	680	
Maximum 1-HR Average	1153.4	UG/M3
Maximum 24-HR Average	223.7	UG/M3
Monthly Calibration Standard Deviation	133.2	
Operational Time	680 HRS	
Operational Uptime	94.4 %	
Monthly Average	84.1	UG/M3