



Peace River Area Monitoring Program

AUGUST 2020

Monthly Ambient Air Quality Monitoring Report

PRAMP-202008

Operation and Maintenance:

Bureau Veritas Canada

Data Validation and Report:

Peace River Area Monitoring Program

September 14, 2020

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LIST OF ACRONYMS

AAAQOs	Alberta Ambient Air Quality Objectives
AEP	Alberta Environment and Parks
AMD	Air Monitoring Directive
AT	Ambient Temperature
BP	Barometric Pressure
CH ₄	Methane
EPEA	Environmental Protection and Enhancement Act
H ₂ S	Hydrogen Sulphide
kph	kilometers per hour
mb	millibar
mm	millimeter
NMHC	Non-Methane Hydrocarbons
ppb	parts per billion
ppm	parts per million
PRAMP	Peace River Area Monitoring Program
RH	Relative Humidity
SO ₂	Sulphur Dioxide
ST	Station Temperature
THC	Total Hydrocarbons
TRS	Total Reduced Sulphur
VWD	Vector Wind Direction
VWS	Vector Wind Speed
WD	Wind Direction
WS	Wind Speed
°C	Degrees Celsius



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September 14, 2020

RE: PRAMP – August 2020 Monthly Ambient Air Quality Monitoring Report

Enclosed is the August 2020 Monthly Ambient Air Quality Monitoring Report for the continuous ambient air quality monitoring stations of the Peace River Area Monitoring Program (PRAMP) regional air quality monitoring network.

The representative of the Person Responsible for this monitoring program is

PRAMP Airshed
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This report has been prepared, reviewed and submitted by Michael Bisaga & Lily Lin of the PRAMP Airshed.

NETWORK STATION SUMMARY

Listing of Continuous Monitoring Stations

The PRAMP continuous ambient air quality monitoring network stations are:

- 986c Station
- 842b Station
- Reno Station
- AQHI Cadotte Lake

Station ID	Station Name	Latitude	Longitude
1562	986c	56.36980	-116.92500
1561	842b	56.27406	-116.98129
1563	Reno	55.86936	-117.05739
1651	AQHI-Cadotte Lake	56.49022	-116.42739

Listing of Intermittent Monitoring Stations

- VOC Canister Sampling Station
 - 986c Station
 - 842b Station
 - Reno Station

Monitoring Notes during the Month of August 2020

986c Station

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement, except THC/CH₄/NMHC (84.9%). AEP reference #: 371297.
- **TRS:** The monthly calibration that was attempted on August 5 was aborted as the analyzer failed the low point check. The analyzer was reset to the as found point check condition. A successful shut-down calibration was completed before maintenance was performed on August 6. A post-repair calibration was completed after maintenance. Nine hours of downtime were recorded due to this event.
- **THC/CH₄/NMHC:** The analyzer failed the monthly calibration on August 5. Troubleshooting and adjustments were performed, and a post-repair calibration was successfully completed on August 5. As available diagnostic available data did not reveal a point of failure, data were invalidated back to last valid calibration, which was July 16. One hundred and twelve hours of data were discarded in August.

842b Station

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement.
- **All parameters:** Twenty-five hours of data were invalidated due to a power failure on August 18 and 19. Furthermore, data for THC/CH₄/NMHC, collected on August 19 hour 19, was also discarded as the analyzer was recovering from the power outage.
- **TRS:** The analyzer failed the zero-span check after the power failure on August 19. A repeat zero-span check was initiated to assess the span response. The result was within the acceptable limit. One hour of downtime was recorded due to the additional quality check.
- **THC/CH₄/NMHC:**
 - The analyzer failed the daily span check on August 14. The regulator pressure was adjusted, and a repeat zero-span check was completed. The analyzer passed the check requirements. One hour of downtime was recorded due to the additional quality check.
 - 1-minute data that were recorded less than 1.80 ppm background concentration were considered invalid and were discarded. There were thirteen hours of data discarded because the requirement to have valid data for 75% of each hour was not met.

Reno Station

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement.
- **TRS:** The analyzer failed the daily span check on August 2. A successful repeat zero-span check was completed on August 3. One hour of downtime was recorded due to the additional quality check.

AQHI – Cadotte Lake Station

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement, except TRS (88.0%) and THC/CH₄/NMHC (89.1%). AEP reference #: 371541 and 371542, respectively.
- **All parameters:** Twenty hours of data were invalidated due to two power failure events.
- **All gas parameters:**
 - The daily zero-span check results on August 3 were affected by the power outage. The analyzers passed the scheduled daily zero-span check on August 4.
 - An additional zero-span check was initiated on August 19 hour 6 to confirm the analyzer's functionality after the power was restored. One hour of downtime was recorded due to the additional quality check.
- **TRS:**
 - The analyzer failed the daily span check on August 1, 2 and 6, and the repeat zero-span check on August 2 hour 6. A successful shut-down calibration was performed before maintenance was started on August 6. The analyzer was left offline overnight, and a successful post-repair calibration was completed on August 7. Seventeen hours of downtime were recorded due to this event.

- The analyzer malfunctioned on August 12 hour 15 due to a UV lamp warning alarm. This was traced to a loose electrical connection. The issue was fixed, and a successful zero-span check was completed on August 13. Data was invalidated back to the last valid calibration check, which was August 11 hour 8. Fifty-one hours of data were invalidated due to this event.
- **THC/CH4/NMHC:**
 - Intermittent poor sample injections were observed, starting August 26. The Thermo 55i analyzer, s/n: 1501663728, was removed, and the Thermo 55i analyzer, s/n: 1191032505, was installed on August 28. A successful installation calibration was completed on August 29. Twenty-five hours of downtime were recorded due to this event.
 - 1-minute data that were recorded less than 1.80 ppm background concentration were considered invalid and were discarded. There were thirty-six hours of data discarded because the requirement to have valid data for 75% of each hour was not met.

VOCs Canister Sampling program:

- The canister sampling program collects a 1-hour sample of air when the continuously measured methane (CH₄) and/or non-methane hydrocarbon (NMHC) concentration reaches a specified trigger point. The current trigger points are 5.5 ppm for methane and 0.3 ppm for non-methane hydrocarbons. Both trigger points are based on real-time monitoring data that are averaged over a 5-minute period.
- Canisters sample collection systems are in place at Station 986c, 842b, and the Reno Station; a canister sample collection system is not part of the suite of instruments currently deployed at the AQHI-Cadotte Lake Station.
- Sample analysis and analytical results were prepared and provided by InnoTech Alberta.
- In August, one non-methane-triggered event was recorded at the 842b station and one methane-triggered event was recorded at the Reno station.

Station	Parameter	Concentration (ppm)	Date	Time
842	Non-methane	0.38	12-Aug	12:35
Reno	Methane	6.42	21-Aug	01:05

- Non-methane-triggered sample was collected at the 842b station on August 12.

Sample Date/Time	2020-08-12 @12:35				
Canister Sample	Non-Methane Hydrocarbons				
Canister ID	32185				
Method	NA-025	Method	NA-024	Method	AC-058
Maximum Reading	1.5 Methane	Maximum Reading	1.7 Carbonyl sulphide	Maximum Reading	7.1 Ethanol

- Blank sample was collected at the 842b station on August 12.

Sample Date/Time	2020-08-12 @12:35				
Canister Sample	Blank				
Canister ID	32275				
Method	NA-025	Method	NA-024	Method	AC-058
Maximum Reading	0	Maximum Reading	2.8 Carbonyl sulphide	Maximum Reading	12.1 Isopropyl alcohol

Note: Based on the analytical results, the blank sample on August 12 was contaminated. The blank sample data will be used in future analysis of potential sources of contamination during the data-collection and sample-processing chain.

- Methane-triggered sample was collected at the Reno station on August 21.

Sample Date/Time	2020-08-21 @01:05				
Canister Sample	Methane				
Canister ID	28966				
Method	NA-025	Method	NA-024	Method	AC-058
Maximum Reading	2.4 Methane	Maximum Reading	1.9 Carbon disulphide	Maximum Reading	6.8 Acetone

- Blank sample was collected at the Reno station on August 21.

Sample Date/Time	2020-08-21 @01:05				
Canister Sample	Methane				
Canister ID	32245				
Method	NA-025	Method	NA-024	Method	AC-058
Maximum Reading	0	Maximum Reading	0	Maximum Reading	0.51 Toluene

Revisions to Alberta's Ambient Air Quality Data Warehouse

No revisions to historical data previously submitted to the Alberta's Ambient Air Quality Data Warehouse were made this month.

Deviations from Authorized Monitoring Methods

At the Reno station, nearby trees exceed the height allowed under section 2.3 of the wind speed and wind direction siting criteria in Chapter 3 of the AMD. This non-conformance was documented in the updated station site documents. Further actions are being considered including siting the wind sensor so that it meets AMD Chapter 3 siting requirements, or obtaining written authorization from "The Director" to deviate from AMD Siting requirements.

Disclaimer

Baseline correction were performed on the 1-minute data. 5-minute and hourly data were calculated based on the post-baseline correction 1-minute data set. Data verification/validation were then performed on the 5-minute and hourly data. Hourly data that are included in this report are the post-validation hourly data set.

Equipment calibration / maintenance records were provided by Bureau Veritas.

Certification

This report was prepared and submitted by Lily Lin in accordance with Chapter 9 of the Air Monitoring Directive (AMD 2016).



Lily Lin, Technical Program Manager, PRAMP Airshed

This report was reviewed by Mike Bisaga in accordance with Chapter 9 of the Air Monitoring Directive (AMD 2016).

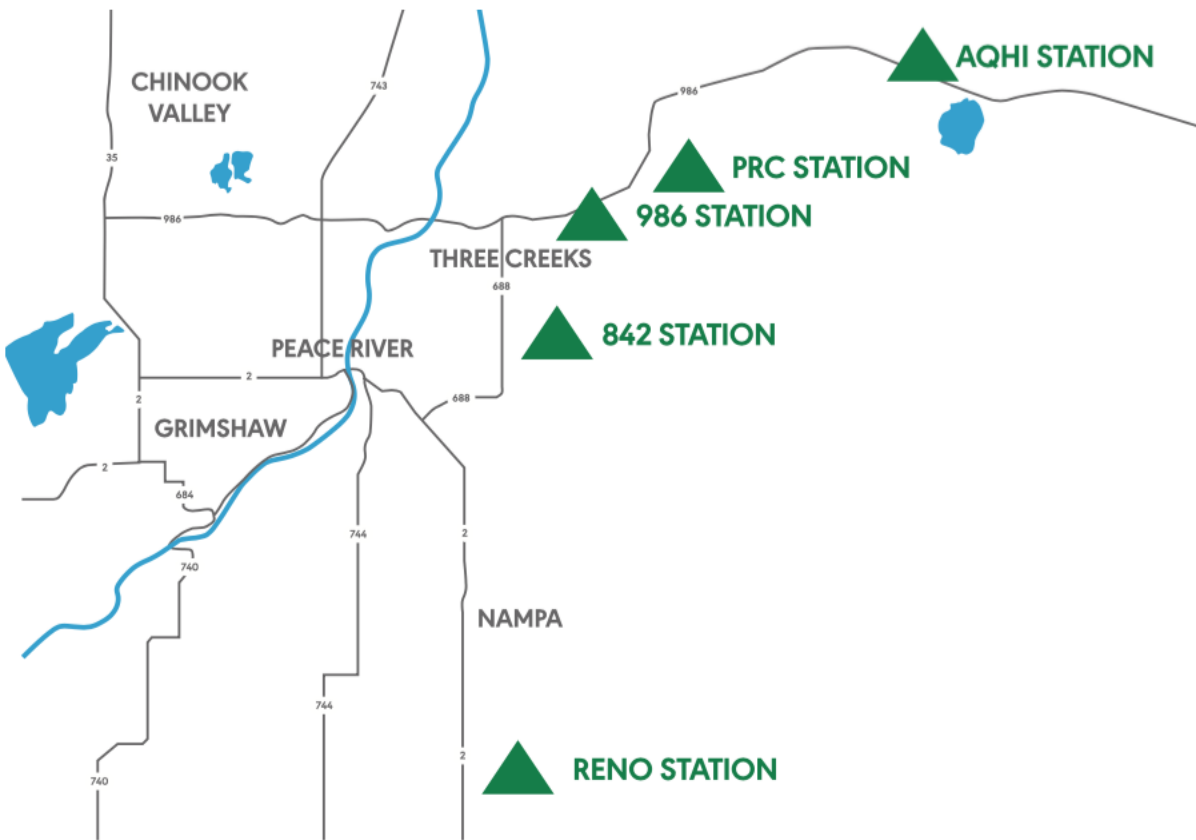
I certify that I have reviewed and verified this report and that the information is complete, accurate and representative of the monitoring results, reporting timeframe and the specified analysis, summarization and reporting requirements. I also certify that at the time of this report's submission, all air data have been electronically uploaded to Alberta's Ambient Air Quality Data Warehouse as required by the AMD. Uploading of VOC data from the canister sampling program was not required at the time of completing this report.



Michael Bisaga, Technical Program Manager, PRAMP Airshed

September 14, 2020

Map of PRAMP Continuous Monitoring Network



CONTINUOUS NETWORK EQUIPMENT AND MONITORING RESULTS SUMMARY

986c Station

Equipment Operation Summary

Parameter	Make / Model	Serial Number	
SO2	Thermo 43iQTL	119358646	
A successful monthly calibration was performed on August 5.			
TRS	Thermo 43iQTL	1191833341	
The monthly calibration that was attempted on August 5 was aborted as the analyzer failed the low point check. The analyzer was reset to the as found point check condition. The channel was put back online on August 5 hour 17. A successful shut-down calibration was completed using different calibration equipment before maintenance was performed on August 6. Maintenance was performed on the TRS convertor, including cleaning quartz tube and increasing the convertor temperature. A post-repair calibration was completed afterward. Nine hours of downtime were recorded due to this event.			
THC/CH4/NMHC	Thermo 55i	119358652	
The analyzer failed the monthly calibration on August 5 due to low CH4 response. Troubleshooting and adjustments were performed, and a post-repair calibration was successfully completed on August 5. As available diagnostic available data did not reveal a point of failure, data were invalidated back to last valid calibration, which was July 16. One hundred and twelve hours of data were discarded in August.			
Relative Humidity (RH)	Rotronic HC2-S3	2057528	
The RH sensor was checked on August 6. The sensor passed the check requirements.			
Barometric Pressure (BP)	MetOne 092	Y23358	
The BP sensor was checked on August 6. The sensor passed the check requirements.			

Parameter	Make / Model	Serial Number	
Ambient Temperature (AT)	Rotronic HC2-S3	2057528	
The temperature sensor was checked on August 6. The sensor passed the check requirements.			
Station Temperature (ST)	Maxxam	N/A	
No issue was identified this month.			
Precipitation (Precip)	EML ARG100	190114	
- The channel was put offline between August 14 and 16 for trailer and equipment transition. Fifty hours of downtime were recorded. - The precipitation channel was put offline on August 17 hour 10 for a system check. One hour of downtime was recorded due to this event.			
Wind Speed/Wind Direction (WS/ WD)	RM Young 05305L	174795	
- Wind direction data contained in this report represents where the wind is coming from. - The annual wind system calibration was completed on July 16, 2020. - The anemometers were checked on August 6. The sensors passed the check requirements.			

Monitored Data Summary for 986c Station

Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.1	0	1	August 1 at hour 0	12.1	SE	0.6	August 5	100.0	95.0
TRS (ppb)	10	3	-	-	-	-	0.26	0.00	1.35	August 20 at hour 4	4.5	E	0.62	August 2	98.8	94.1
THC (ppm)	-	-	-	-	-	-	1.91	1.80	2.60	August 20 at hour 2	5.5	ESE	2.09	August 20	84.9	80.9
CH4 (ppm)	-	-	-	-	-	-	1.91	1.80	2.60	August 20 at hour 2	5.5	ESE	2.09	August 20	84.9	80.9
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.08	August 5 at hour 20	5.4	E	0.00	August 6	84.9	80.9
RH (%)	-	-	-	-	-	-	71.0	31	98	August 24 at hour 4	7.1	ESE	94.3	August 24	100.0	100.0
BP (millibar)	-	-	-	-	-	-	939	925	947	August 1 at hour 0	12.1	SE	945	August 1	100.0	100.0
Ext. Temp. (°C)	-	-	-	-	-	-	14.7	1.9	28.7	August 1 at hour 14	19.6	SE	22.8	August 1	100.0	100.0
Stn. Temp. (°C)	-	-	-	-	-	-	22.9	21.4	24.2	August 18 at hour 2	5.8	S	23.4	August 21	100.0	100.0
Precipitation (mm)*	-	-	-	-	-	-	68.6	0.0	11.6	August 10 at hour 14	17.8	WNW	18.0	August 10	100.0	100.0
WSV (km/hr)	-	-	-	-	-	-	6.0	0.1	24.7	August 4 at hour 11	24.7	WSW	17.0	August 21	100.0	100.0
WDV (sector)	-	-	-	-	-	-	221 (SW)	-	-	-	-	-	-	-	100.0	100.0

1- Date/ Time given is the first minimum and maximum value that was recorded

* Data represents the total (sum) for the indicated time frame

Alberta Ambient Air Quality Objectives (AAAQOs) Exceedances at 986c Station

The measured ambient air quality was within the AAAQOs for all monitored parameters.

842b Station

Equipment Operation Summary

Parameter	Make / Model	Serial Number	
SO2	Thermo / 43i	835033373	
- A successful monthly calibration was performed on August 12. - Twenty-five hours of data were invalidated due to a power failure on August 18 and 19.			
TRS	Thermo / 43i-TLE	1162460023	
- A successful monthly calibration was performed on August 12. - Twenty-five hours of data were invalidated due to a power failure on August 18 and 19. - The analyzer failed the zero-span check after the power failure on August 19. A repeat zero-span check was initiated to assess the span response. The result was within the acceptable limit. One hour of downtime was recorded due to the additional quality check			
THC/CH4/NMHC	Thermo / 55i	1314057759	
- A successful monthly calibration was performed on August 12. - The span gas bottle was replaced on August 13. - The analyzer failed the daily span check on August 14. The regulator pressure was adjusted, and a repeat zero-span check was completed. The analyzer passed the check requirements. One hour of downtime was recorded due to the additional quality check. - Twenty-five hours of data were invalidated due to a power failure on August 18 and 19. Hourly data that was collected on August 19 hour 19 was also discarded as the analyzer was recovering from the power outage. - The H2 gas cylinder was replaced on August 22.			
Relative Humidity (RH)	Campbell Scientific / HMP45C	C2608	
The RH sensor was checked on August 12. The sensor passed the check requirements.			

Parameter	Make / Model	Serial Number	
Barometric Pressure (BP)	MetOne / 92	K12864	
The BP sensor was checked on August 12. The sensor passed the check requirements.			
Station Temperature (ST)	Maxxam	N/A	
No issue was identified this month.			
Ambient Temperature (AT)	Campbell Scientific / HMP45C	C2608	
The temperature sensor was checked on August 12. The sensor passed the check requirements.			
Wind Speed/Wind Direction (WS/ WD)	RM Young / 5305VK	124638	
- Wind direction data contained in this report represents where the wind is coming from. - The annual wind system calibration was completed on June 11, 2020. - The anemometer sensors were checked on August 12. The sensors passed the check requirements.			

Monitored Data Summary for 842b Station

Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.0	0	1	August 3 at hour 11	17.6	SW	0.1	August 3	96.6	91.9
TRS (ppb)	10	3	-	-	-	-	0.36	0.01	1.33	August 20 at hour 4	6.6	NE	0.59	August 2	96.5	91.6
THC (ppm)	-	-	-	-	-	-	1.91	1.80	2.78	August 20 at hour 4	6.6	NE	2.07	August 20	94.9	90.2
CH4 (ppm)	-	-	-	-	-	-	1.91	1.80	2.78	August 20 at hour 4	6.6	NE	2.07	August 20	94.9	90.2
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.08	August 12 at hour 12	15	WSW	0.00	August 12	94.9	90.2
RH (%)	-	-	-	-	-	-	68.5	31	94	August 24 at hour 4	3.5	ENE	89.6	August 24	96.6	96.6
BP (millibar)	-	-	-	-	-	-	940	926	948	August 1 at hour 0	4.8	SE	945	August 1	96.6	96.6
Ext. Temp. (°C)	-	-	-	-	-	-	14.4	1.0	28.5	August 1 at hour 13	10.4	SE	22.8	August 1	96.6	96.6
Stn. Temp. (°C)	-	-	-	-	-	-	23.0	21.7	23.8	August 2 at hour 16	6.9	W	23.4	August 2	96.6	96.6
WSV (km/hr)	-	-	-	-	-	-	6.4	0.1	25.6	August 4 at hour 11	25.6	WSW	15.9	August 7	96.6	96.6
WDV (sector)	-	-	-	-	-	-	232 (SW)	-	-	-	-	-	-	-	96.6	96.6

1- Date/ Time given is the first minimum and maximum value that was recorded

Alberta Ambient Air Quality Objectives (AAAQOs) Exceedances at 842b Station

The measured ambient air quality was within the AAAQOs for all monitored parameters.

Reno Station

Equipment Operation Summary

Parameter	Make / Model	Serial Number	
SO2	API / 100A	1502	
A successful monthly calibration was performed on August 11.			
TRS	1 Thermo 43C	43CTL-66268-352	
The Thermo 43i-TLE analyzer, s/n: 1162460022, failed on August 25. Troubleshooting was attempted, however, due to the initial replacement analyzer failure and the TRS convertor failure, the channel could not be brought back online sooner. A replacement Thermo 43C analyzer, s/n: 43CTL-66268-352, was installed on August 31 following with a successful installation calibration. One hundred forty-nine hours of data were discarded due to this event.			
THC/CH4/NMHC	Thermo / 55i	1505664392	
- The analyzer failed the daily span check on August 2. A successful repeat zero-span check was completed on August 3. One hour of downtime was recorded due to the additional quality check - A successful monthly calibration was performed on August 11.			
Relative Humidity (RH)	RM Young / 43172VC	60837897	
The RH sensor was checked on August 11. The sensor passed the check requirements.			
Barometric Pressure (BP)	MetOne / 92	R12877	
The RH sensor was checked on August 11. The sensor passed the check requirements.			
Ambient Temperature (AT)	RM Young / 43172VC	60837897	
The RH sensor was checked on August 11. The sensor passed the check requirements.			

Parameter	Make / Model	Serial Number	
Station Temperature (ST)	Maxxam	N/A	
No issues were identified this month.			
Wind Speed/Wind Direction (WS/ WD)	RM Young / 5305VK	149769	
- Wind direction data contained in this report represents where the wind is coming from. - The annual wind system calibration was completed on June 17, 2020. - The anemometer sensors were checked on August 11. The sensors passed the check requirements.			

Monitored Data Summary for Reno Station

Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.0	0	1	August 1 at hour 19	0.1	WNW	0.1	August 3	100.0	95.0
TRS (ppb)	10	3	-	-	-	-	0.43	0.01	4.34	August 28 at hour 6	1.4	SSW	1.04	August 24	99.9	94.9
THC (ppm)	-	-	-	-	-	-	1.98	1.82	4.56	August 21 at hour 6	5.5	ESE	2.41	August 21	100.0	95.1
CH4 (ppm)	-	-	-	-	-	-	1.98	1.82	4.56	August 21 at hour 6	5.5	ESE	2.41	August 21	100.0	95.1
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.02	August 1 at hour 20	0.8	SE	0.00	August 1	100.0	95.1
RH (%)	-	-	-	-	-	-	65.8	23	100	August 3 at hour 4	0.4	S	93.2	August 24	100.0	100.0
BP (millibar)	-	-	-	-	-	-	935	922	943	August 1 at hour 0	3.6	ESE	940	August 1	100.0	100.0
Ext. Temp. (°C)	-	-	-	-	-	-	15.0	2.9	30.2	August 18 at hour 15	2.6	S	22.7	August 1	100.0	100.0
Stn. Temp. (°C)	-	-	-	-	-	-	22.1	19.5	24.0	August 3 at hour 23	5.7	SW	22.9	August 7	100.0	100.0
WSV (km/hr)	-	-	-	-	-	-	4.3	0.0	17.2	August 8 at hour 13	17.2	WSW	10.2	August 7	100.0	100.0
WDV (sector)	-	-	-	-	-	-	239 (WSW)	-	-	-	-	-	-	-	100.0	100.0

1- Date/ Time given is the first minimum and maximum value that was recorded

Alberta Ambient Air Quality Objectives (AAAQOs) Exceedances at Reno Station

The measured ambient air quality was within the AAAQOs for all monitored parameters.

AQHI – Cadotte Lake Station

Equipment Operation Summary

Parameter	Make / Model	Serial Number	
SO2	Teledyne / T100	722	
- Two power failure events were recorded on August 3 and August 18. Twenty hours of data were invalidated due to these two events. - A successful monthly calibration was performed on August 13. - An additional zero-span check was initiated on August 19 hour 6 to confirm the analyzer's functionality after the power was restored. One hour of downtime was recorded due to the additional quality check.			
TRS	Teledyne / T100U	132	
- Two power failure events were recorded on August 3 and August 18. Twenty hours of data were invalidated due to these two events. - The analyzer failed the daily span check on August 1, 2 and 6, and the repeat zero-span check on August 2 hour 6. A successful shut-down calibration was performed before maintenance was started on August 6. The sample path was cleaned, and the scrubber was modified. The analyzer was left offline overnight, and a successful post-repair calibration was completed on August 7. Seventeen hours of downtime were recorded due to this event. - The analyzer malfunctioned on August 12 hour 15 due to a UV lamp warning alarm. This was traced to a loose electrical connection. The issue was fixed, and a successful zero-span check was completed on August 13. Data was invalidated back to the last valid calibration check, which was August 11 hour 8. Fifty-one hours of data were invalidated due to this event. - An additional zero-span check was initiated on August 19 hour 6 to confirm the analyzer's functionality after the power was restored. One hour of downtime was recorded due to the additional quality check.			
NOx/NO/NO2	Teledyne / T200	837	
- Two power failure events were recorded on August 3 and August 18. Twenty hours of data were invalidated due to these two events. - A successful monthly calibration was performed on August 13. - An additional zero-span check was initiated on August 19 hour 6 to confirm the analyzer's functionality after the power was restored. One hour of downtime was recorded due to the additional quality check.			

Parameter	Make / Model	Serial Number	
O3	Teledyne / T400	824	
- Two power failure events were recorded on August 3 and August 18. Twenty hours of data were invalidated due to these two events. - A successful monthly calibration was performed on August 13. The analyzer was slow to re-stabilize for the adjusted high point; this is usually an indication of a sudden change in sample humidity and does not impact the validity of the calibration. - An additional zero-span check was initiated on August 19 hour 6 to confirm the analyzer's functionality after the power was restored. One hour of downtime was recorded due to the additional quality check.			
Parameter	Make / Model	Serial Number	
THC/CH4/NMHC	Thermo / 55i	1501663728 / 1191032505	
- Two power failure events were recorded on August 3 and August 18. Twenty hours of data were invalidated due to these two events. - A successful monthly calibration was performed on August 7. - The N2 gas cylinder was replaced on August 13. - An additional zero-span check was initiated on August 19 hour 6 to confirm the analyzer's functionality after the power was restored. One hour of downtime was recorded due to the additional quality check. - Intermittent poor sample injections were observed, starting August 26. The Thermo 55i analyzer, s/n: 1501663728, was removed, and the Thermo 55i analyzer, s/n: 1191032505, was installed on August 28. A successful installation calibration was completed on August 29. Twenty-five hours of downtime were recorded due to this event. 1-minute data that were recorded less than 1.80 ppm background concentration were considered invalid and were discarded. Thirty-six hours of data were discarded as the 75% of valid data for the hour requirement did not meet.			
PM2.5	Teledyne / T640	318	
- Two power failure events were recorded on August 3 and August 18. Twenty hours of data were invalidated due to these two events. - A successful monthly calibration/audit was performed on August 7.			
Relative Humidity (RH)	Vaisala / HMP155	N2910506	
- Two power failure events were recorded on August 3 and August 18. Twenty hours of data were invalidated due to these two events. - The sensor was checked on August 7. The sensor passed the check requirements.			

Parameter	Make / Model	Serial Number	
Ambient Temperature (AT)	Vaisala / HMP155	N2910506	
- Two power failure events were recorded on August 3 and August 18. Twenty hours of data were invalidated due to these two events. - The sensor was checked on August 7. The sensor passed the check requirements.			
Station Temperature (ST)	Maxxam	N/A	
- Two power failure events were recorded on August 3 and August 18. Twenty hours of data were invalidated due to these two events. - No issue was identified this month.			
Wind Speed/Wind Direction (WS/ WD)	RM Young 05305AQ	174801	
- Wind direction data contained in this report represents where the wind is coming from. - The annual wind system calibration was completed on June 18, 2020. - Two power failure events were recorded on August 3 and August 18. Twenty hours of data were invalidated due to these two events. - The anemometer sensors were checked on August 7. The sensors passed the check requirements.			

Monitored Data Summary for AQHI - Cadotte Lake Station

Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.0	0	0	August 1 at hour 0	3.7	ESE	0.0	August 1	97.2	92.2
TRS (ppb)	10	3	-	-	-	-	0.42	0.00	2.72	August 20 at hour 6	1.9	W	0.99	August 30	88.0	82.9
NOx (ppb)	-	-	-	-	-	-	0.4	0	41	August 5 at hour 10	7.3	WSW	3.3	August 5	97.2	91.9
NO (ppb)	-	-	-	-	-	-	0.2	0	18	August 5 at hour 10	7.3	WSW	1.8	August 5	97.2	91.9
NO2 (ppb)	159	-	-	0	-	-	0.3	0	23	August 5 at hour 10	7.3	WSW	1.6	August 5	97.2	91.9
O3 (ppb)	76	-	-	0	-	-	18.9	1	42	August 19 at hour 15	12.8	WSW	26.8	August 19	97.2	92.2
THC (ppm)	-	-	-	-	-	-	1.91	1.80	2.34	August 6 at hour 1	0.7	NW	2.15	August 6	89.1	84.4
CH4 (ppm)	-	-	-	-	-	-	1.90	1.80	2.32	August 6 at hour 6	1.1	NE	2.11	August 6	89.1	84.4
NMHC (ppm)	-	-	-	-	-	-	0.01	0.00	0.25	August 6 at hour 20	1.6	W	0.05	August 2	89.1	84.4
PM2.5 (µg/m3)	80	30	-	0	0	-	4.1	0.3	14.3	August 2 at hour 16	1.3	NNW	10.9	August 2	97.3	97.2
RH (%)	-	-	-	-	-	-	71.5	27	99	August 22 at hour 7	0.4	ENE	97.5	August 24	97.3	97.3
Ext. Temp. (°C)	-	-	-	-	-	-	14.3	-2.6	29.6	August 2 at hour 16	1.3	NNW	22.9	August 2	97.3	97.3
Stn. Temp. (°C)	-	-	-	-	-	-	21.9	20.4	23.7	August 2 at hour 16	1.3	NNW	23.3	August 30	97.3	97.3
WSV (km/hr)	-	-	-	-	-	-	3.2	0.0	19.9	August 4 at hour 13	19.9	WSW	11.9	August 4	97.3	97.3
WDV (sector)	-	-	-	-	-	-	247 (WSW)	-	-	-	-	-	-	-	97.3	97.3

1- Date/ Time given is the first minimum and maximum value that was recorded

Alberta Ambient Air Quality Objectives (AAAQOs) Exceedances at AQHI - Cadotte Lake Station

The measured ambient air quality was within the AAAQOs for all monitored parameters.

TABLES, CHARTS, WIND ROSES AND EQUIPMENT CALIBRATION RECORDS

986c STATION



PEACE RIVER AREA MONITORING PROGRAM

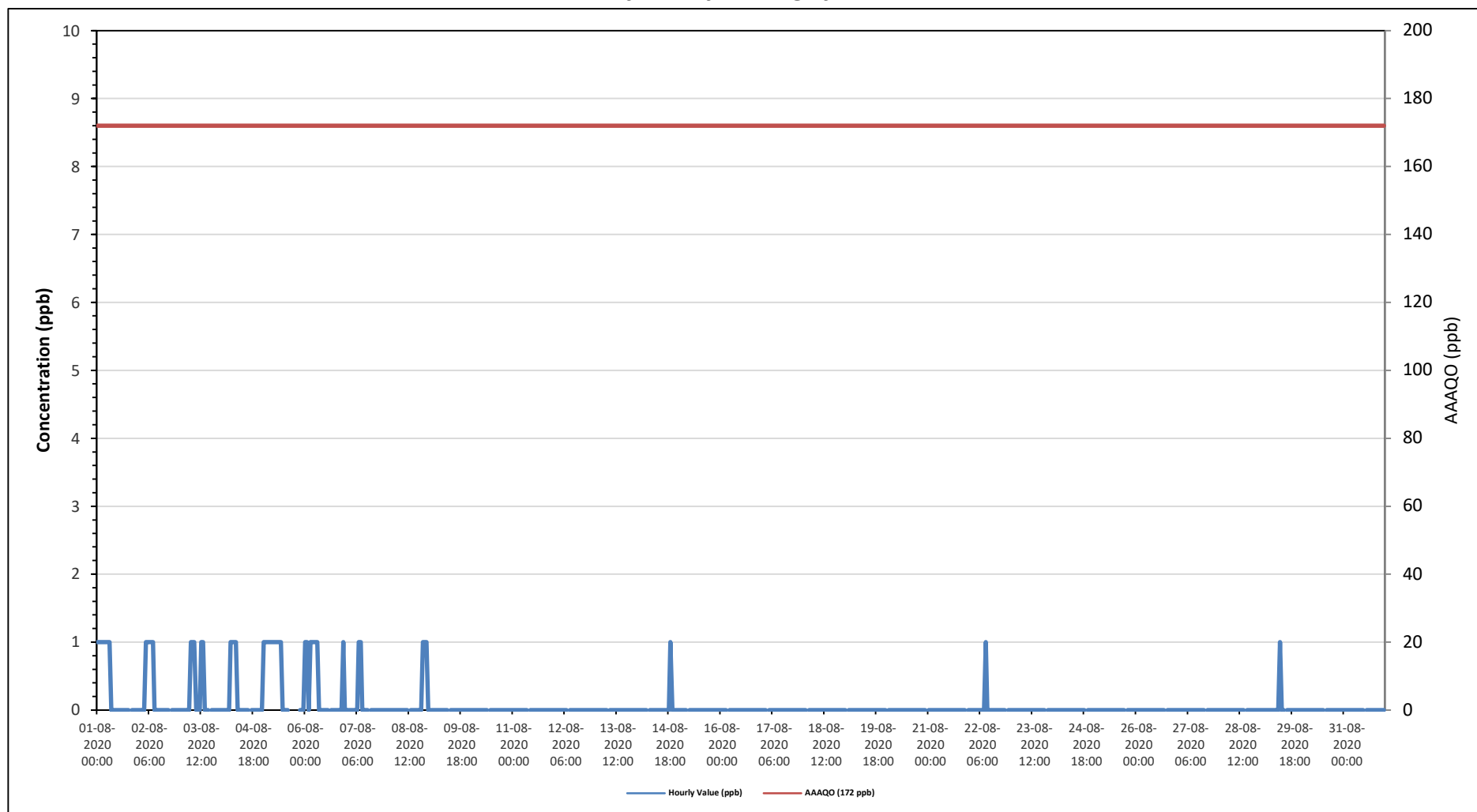
986c Station - August 2020

Summary of Hourly Averages

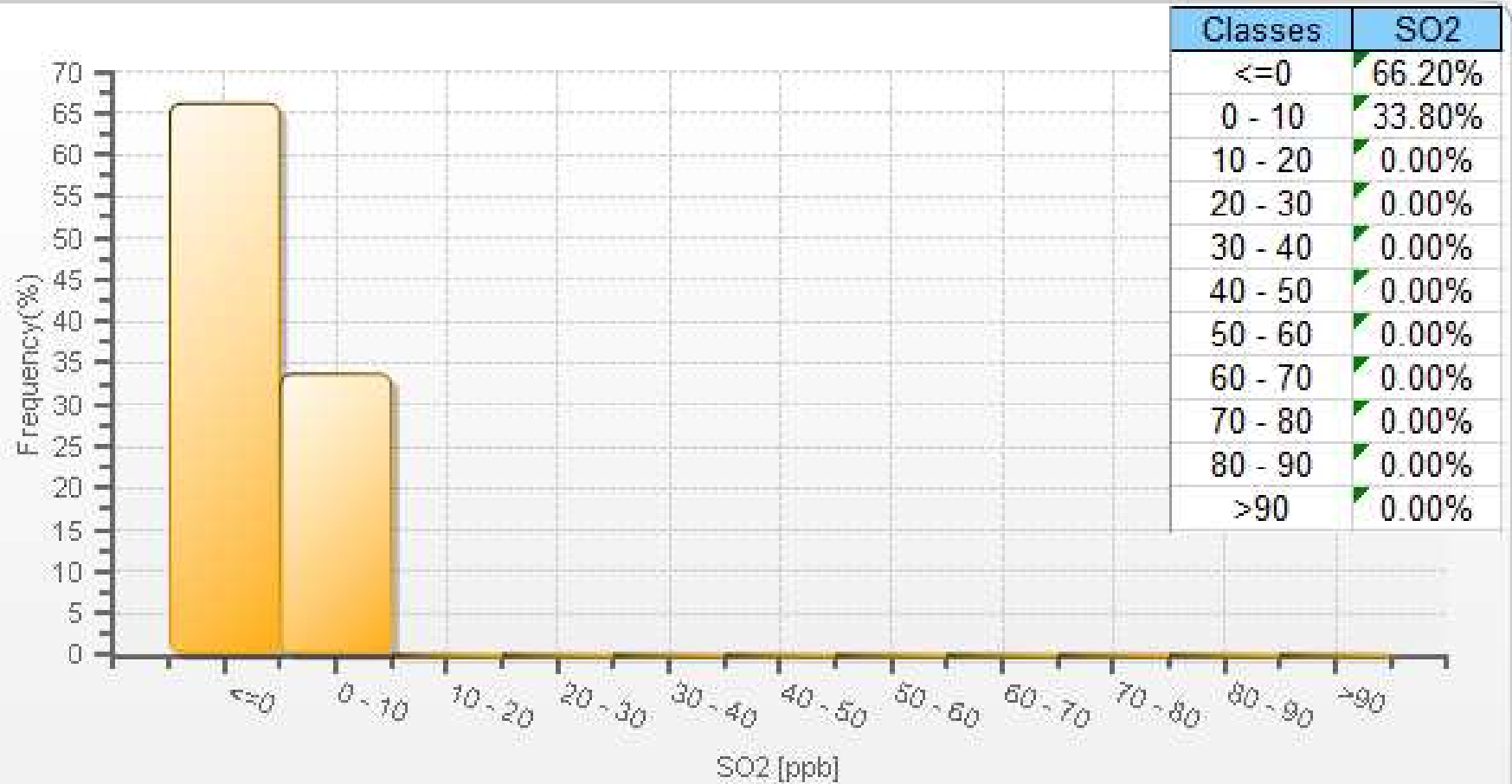
SULPHUR DIOXIDE (SO₂) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb																												
Number of 1-Hour Exceedances:			0			Number of 24-Hour Exceedances:			0			30-Day Exceedance:			0													
Maximum Hourly Value:			1 ppb on August 1 at hour 0			Hours in Service:			744																			
Maximum Daily Value:			0.6 ppb on August 5			Hours of Data:			707																			
Minimum Hourly Value:			0 ppb on August 1 at hour 8			Hours of Missing Data:			0																			
Minimum Daily Value:			0.0 ppb on August 9			Hours of Calibration:			37																			
Monthly Average:			0.1 ppb			Operational Uptime:			100.0																			
Day	Hourly Period Starting at (MST)																									Daily Minimum	Daily Maximum	Daily Average
Aug 1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	0.3
Aug 2	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	0.2
Aug 3	0	0	0	0	0	0	1	1	1	1	0	0	0	1	1	0	0	0	0	S	0	0	0	0	0	0	1	0.2
Aug 4	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	S	C	C	C	C	0	0	0	0	0	1	0.2
Aug 5	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	S	C	C	C	C	C	0	0	0	0	0	1	0.6
Aug 6	1	1	0	1	1	1	1	1	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	1	0	1	0.3	
Aug 7	0	0	0	0	0	0	0	1	1	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	1	0.1	
Aug 8	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	1	1	1	0	1	0.1	
Aug 9	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 10	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 11	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 12	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 13	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 14	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.0	
Aug 15	0	0	0	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	
Aug 16	0	0	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	
Aug 17	0	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	
Aug 18	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	
Aug 19	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	
Aug 20	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0.0	
Aug 21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0.0	
Aug 22	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	1	0.0	
Aug 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0	
Aug 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0	
Aug 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0	
Aug 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	S	0	0	0	0	0	0	0	0.0	
Aug 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 28	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 29	0	0	0	0	0	0	0	0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	
Aug 30	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 31	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Diurnal Maximum	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	0				
Diurnal Average	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	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	0.1	0.0				
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance											
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance											
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)								P Power Failure											
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																												
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																												

Timeseries Chart of Hourly Average for SO₂ - 986c Station



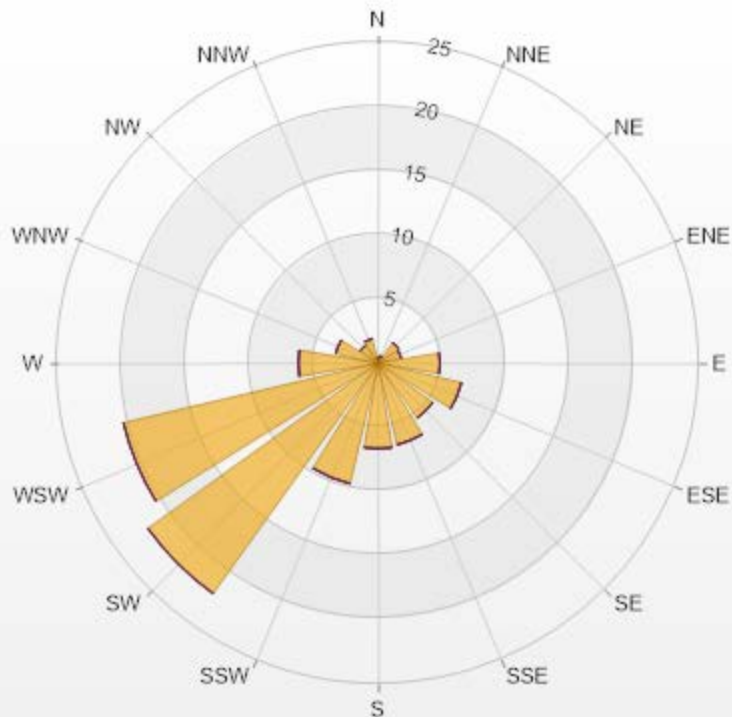
SO2[ppb] Histogram: PRAMP 986c Monthly: 08-2020 1 Hr.



Wind: PRAMP 986c Poll.: PRAMP 986c-SO2[ppb] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.

Calm: 0.00% Valid Data: 95.03% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	0.42	0	0	0	0	0.42
NNE	0.57	0	0	0	0	0.57
NE	1.98	0	0	0	0	1.98
ENE	1.84	0	0	0	0	1.84
E	4.81	0	0	0	0	4.81
ESE	6.65	0	0	0	0	6.65
SE	5.23	0	0	0	0	5.23
SSE	6.51	0	0	0	0	6.51
S	6.65	0	0	0	0	6.65
SSW	9.62	0	0	0	0	9.62
SW	22.07	0	0	0	0	22.07
WSW	20.37	0	0	0	0	20.37
W	6.22	0	0	0	0	6.22
WNW	3.39	0	0	0	0	3.39
NW	1.7	0	0	0	0	1.7
NNW	1.98	0	0	0	0	1.98
Summary	100	0	0	0	0	100



PRAMP-202008

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% Icon Classes (ppb)

100 0-10

0 10-50

0 50-100

0 100-172

0 >172.0



PEACE RIVER AREA MONITORING PROGRAM

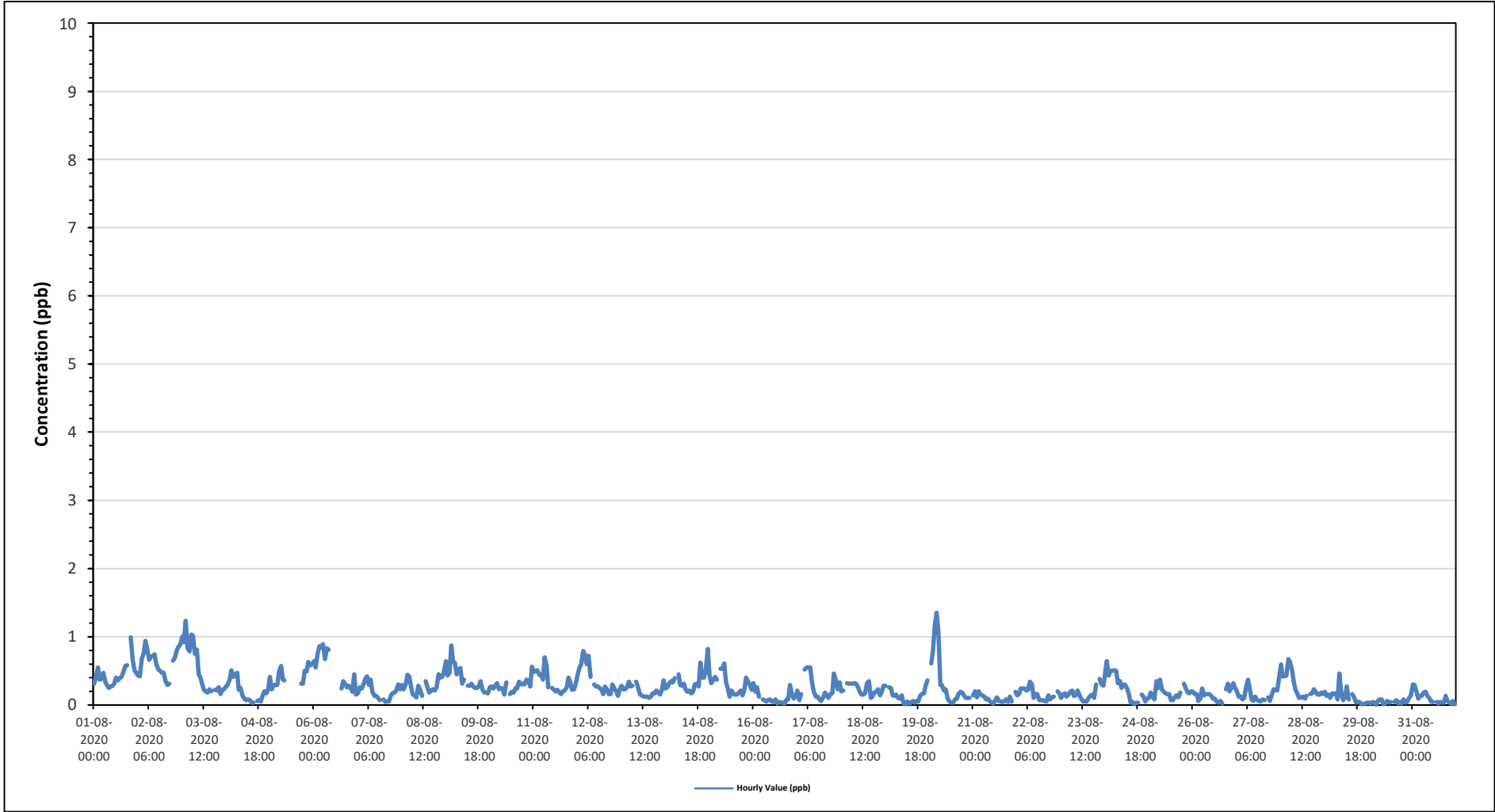
986c Station - August 2020

Summary of Hourly Averages

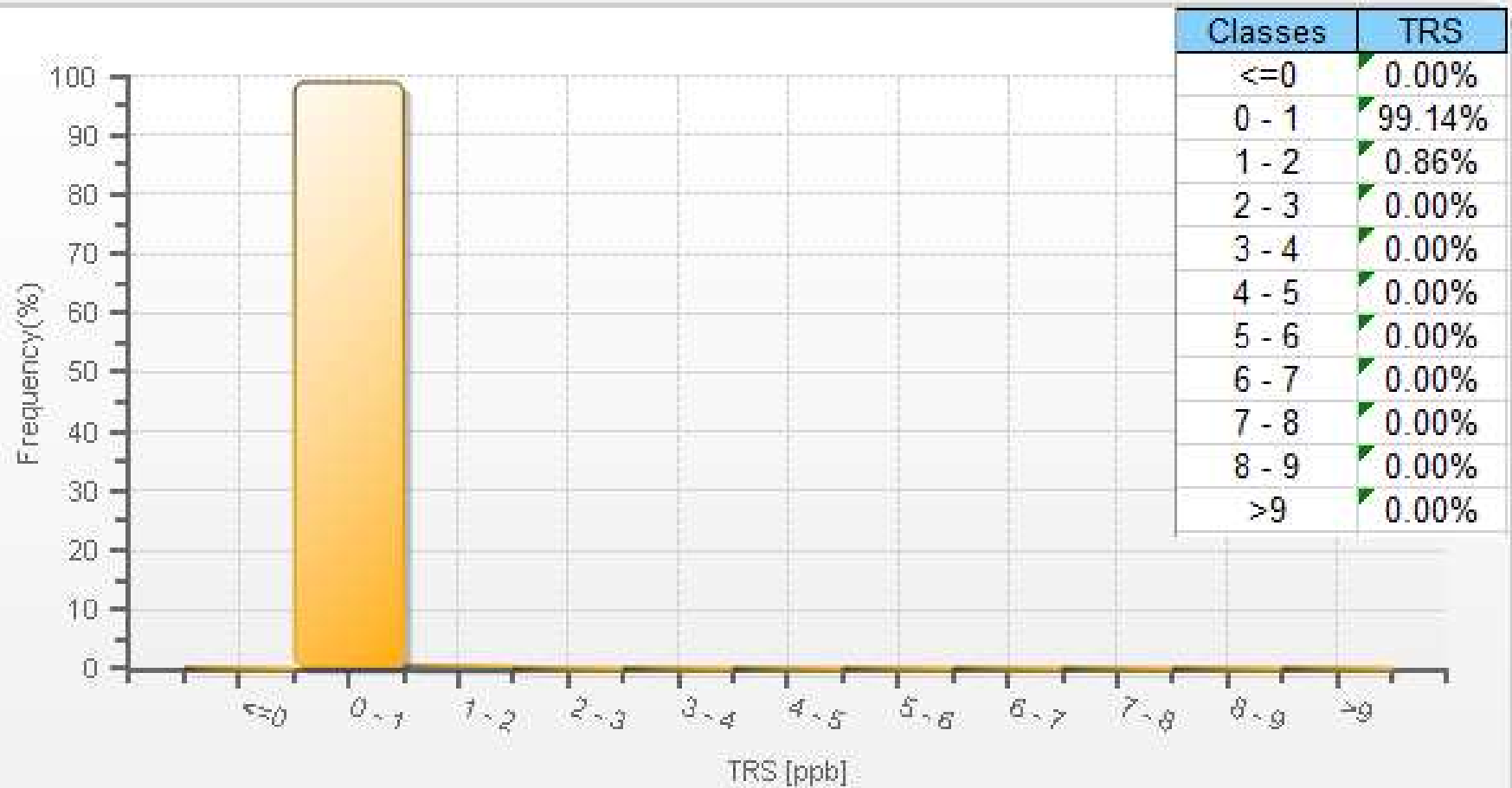
TOTAL REDUCED SULPHUR (TRS) in ppb

Alberta Ambient Air Quality Objectives (AAAQO) for H2S: 1-Hour 10 ppb, 24-Hour 3 ppb																																			
Number of 1-Hour Exceedances: 0									Number of 24-Hour Exceedances: 0																										
Maximum Hourly Value: 1.35 ppb on August 20 at hour 4									Hours in Service: 744																										
Maximum Daily Value: 0.62 ppb on August 2									Hours of Data: 700																										
Minimum Hourly Value: 0.00 ppb on August 30 at hour 4									Hours of Missing Data: 9																										
Minimum Daily Value: 0.05 ppb on August 30									Hours of Calibration: 35																										
Monthly Average: 0.26 ppb									Operational Uptime: 98.8																										
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average								
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23											
Aug 1	0.31	0.41	0.55	0.37	0.38	0.47	0.34	0.29	0.25	0.27	0.28	0.31	0.4	0.36	0.39	0.42	0.48	0.57	0.58	S	0.99	0.66	0.51	0.47	0.25	0.99	0.44								
Aug 2	0.43	0.42	0.68	0.75	0.94	0.82	0.66	0.71	0.72	0.74	0.6	0.52	0.5	0.47	0.47	0.34	0.29	0.31	S	0.65	0.69	0.79	0.85	0.88	0.29	0.94	0.62								
Aug 3	1	0.92	1.23	0.83	0.78	1.03	1.01	0.75	0.81	0.45	0.41	0.3	0.22	0.19	0.18	0.23	0.2	S	0.22	0.21	0.26	0.16	0.22	0.23	0.16	1.23	0.51								
Aug 4	0.27	0.3	0.38	0.51	0.41	0.45	0.47	0.22	0.25	0.13	0.09	0.07	0.08	0.07	0.03	0.03	S	0.06	0.07	0.05	0.13	0.2	0.17	0.23	0.03	0.51	0.20								
Aug 5	0.41	0.23	0.29	0.29	0.29	0.49	0.57	0.37	0.36	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	0.31	0.31	0.5	0.49	0.63	0.58	0.59	0.23	0.63	-						
Aug 6	0.64	0.55	0.75	0.86	0.84	0.89	0.67	0.83	0.81	C	C	Y	C	C	C	0.24	0.35	0.31	0.26	0.28	0.25	0.19	0.45	0.15	0.15	0.89	0.52								
Aug 7	0.17	0.26	0.24	0.29	0.38	0.42	0.29	0.37	0.19	0.13	0.13	0.1	0.07	S	0.08	0.04	0.05	0.05	0.14	0.17	0.18	0.21	0.3	0.23	0.04	0.42	0.20								
Aug 8	0.29	0.23	0.3	0.44	0.42	0.27	0.15	0.14	0.11	0.28	0.22	0.13	S	0.35	0.26	0.18	0.21	0.23	0.21	0.26	0.45	0.4	0.41	0.48	0.11	0.48	0.28								
Aug 9	0.64	0.43	0.47	0.87	0.63	0.62	0.45	0.52	0.54	0.31	0.37	S	0.28	0.28	0.31	0.27	0.25	0.25	0.27	0.35	0.22	0.18	0.18	0.17	0.17	0.87	0.39								
Aug 10	0.26	0.27	0.24	0.28	0.32	0.23	0.25	0.24	0.15	0.33	S	0.16	0.19	0.18	0.25	0.24	0.34	0.3	0.31	0.3	0.37	0.36	0.27	0.56	0.15	0.56	0.28								
Aug 11	0.48	0.5	0.51	0.44	0.45	0.37	0.7	0.57	0.26	S	0.25	0.22	0.2	0.22	0.18	0.16	0.2	0.21	0.26	0.4	0.32	0.22	0.23	0.32	0.16	0.70	0.33								
Aug 12	0.44	0.54	0.59	0.79	0.73	0.6	0.72	0.41	S	0.3	0.27	0.27	0.25	0.22	0.16	0.27	0.22	0.16	0.16	0.3	0.24	0.2	0.13	0.22	0.13	0.79	0.36								
Aug 13	0.28	0.23	0.23	0.26	0.34	0.27	0.28	S	0.34	0.25	0.15	0.14	0.12	0.12	0.12	0.1	0.12	0.17	0.17	0.21	0.18	0.15	0.22	0.36	0.10	0.36	0.21								
Aug 14	0.24	0.26	0.32	0.35	0.33	0.39	S	0.45	0.29	0.28	0.31	0.22	0.19	0.21	0.17	0.19	0.3	0.31	0.27	0.62	0.4	0.4	0.51	0.82	0.17	0.82	0.34								
Aug 15	0.43	0.32	0.36	0.41	0.37	S	0.53	0.53	0.61	0.33	0.24	0.12	0.21	0.16	0.15	0.15	0.18	0.21	0.14	0.21	0.4	0.34	0.3	0.22	0.12	0.61	0.30								
Aug 16	0.32	0.19	0.26	0.12	S	0.08	0.07	0.05	0.07	0.08	0.05	0.04	0.08	0.02	0.04	0.03	0.03	0.02	0.08	0.08	0.29	0.15	0.09	0.12	0.02	0.32	0.10								
Aug 17	0.21	0.07	0.16	S	0.52	0.55	0.55	0.55	0.33	0.19	0.12	0.12	0.08	0.06	0.11	0.18	0.14	0.1	0.16	0.17	0.46	0.36	0.23	0.33	0.06	0.55	0.25								
Aug 18	0.2	0.21	S	0.32	0.31	0.31	0.31	0.32	0.31	0.27	0.2	0.15	0.15	0.17	0.32	0.35	0.1	0.12	0.18	0.19	0.23	0.14	0.18	0.28	0.10	0.35	0.23								
Aug 19	0.28	S	0.26	0.25	0.14	0.13	0.15	0.1	0.09	0.14	0.02	0.01	0.05	0.02	0.03	0.06	0.03	0.06	0.05	0.13	0.16	0.17	0.28	0.36	0.01	0.36	0.13								
Aug 20	S	0.61	0.8	1.17	1.35	1.09	0.29	0.29	0.21	0.23	0.09	0.05	0.03	0.03	0.08	0.09	0.16	0.19	0.18	0.13	0.1	0.1	0.1	S	0.03	1.35	0.34								
Aug 21	0.14	0.2	0.11	0.2	0.15	0.14	0.12	0.08	0.09	0.06	0.03	0.02	0.07	0.11	0.06	0.05	0.04	0.05	0.08	0.04	0.12	0.05	S	0.19	0.02	0.20	0.10								
Aug 22	0.14	0.16	0.24	0.24	0.24	0.21	0.22	0.34	0.3	0.1	0.16	0.16	0.07	0.07	0.07	0.06	0.05	0.14	0.08	0.11	0.12	S	0.2	0.17	0.05	0.34	0.16								
Aug 23	0.1	0.15	0.17	0.12	0.15	0.19	0.21	0.13	0.14	0.21	0.14	0.09	0.05	0.05	0.05	0.1	0.13	0.15	0.1	0.3	S	0.38	0.3	0.28	0.05	0.38	0.16								
Aug 24	0.45	0.64	0.43	0.5	0.5	0.51	0.5	0.32	0.35	0.25	0.3	0.29	0.24	0.16	0.03	0.04	0.01	0.03	0.03	S	0.15	0.12	0.05	0.09	0.01	0.64	0.26								
Aug 25	0.1	0.18	0.12	0.08	0.35	0.25	0.37	0.23	0.19	0.17	0.16	0.16	0.07	0.07	0.11	0.14	0.11	0.18	S	0.31	0.25	0.18	0.17	0.2	0.07	0.37	0.18								
Aug 26	0.19	0.16	0.16	0.06	0.09	0.24	0.14	0.16	0.16	0.16	0.13	0.09	0.09	0.04	0.03	0.06	0.02	S	0.23	0.31	0.2	0.25	0.32	0.25	0.02	0.32	0.15								
Aug 27	0.2	0.12	0.12	0.08	0.1	0.26	0.37	0.23	0.08	0.06	0.12	0.07	0.06	0.05	0.08	0.07	S	0.11	0.06	0.16	0.23	0.22	0.21	0.39	0.05	0.39	0.15								
Aug 28	0.59	0.42	0.42	0.43	0.67	0.63	0.52	0.34	0.22	0.16	0.1	0.11	0.12	0.09	0.13	S	0.16	0.17	0.23	0.19	0.15	0.15	0.18	0.16	0.09	0.67	0.28								
Aug 29	0.19	0.13	0.15	0.1	0.17	0.16	0.17	0.08	0.46	0.16	0.07	0.11	0.27	0.08	S	0.16	0.11	0.03	0.04	0.04	0.01	0.01	0.02	0.03	0.01	0.46	0.12								
Aug 30	0.03	0.02	0.04	0.03	0	0.06	0.08	0.08	0.01	0.02	0.06	0.03	0.04	S	0.04	0.07	0.02	0.04	0.02	0.08	0.03	0.04	0.1	0.14	0.00	0.14	0.05								
Aug 31	0.3	0.29	0.19	0.09	0.13	0.13	0.18	0.19	0.13	0.1	0.05	0.04	S	0.04	0.02	0.04	0.03	0.03	0.13	0.06	0.03	0.02	0.06	0.01	0.01	0.30	0.10								
Diurnal Maximum	1.00	0.92	1.23	1.17	1.35	1.09	1.01	0.83	0.81	0.74	0.60	0.52	0.50	0.47	0.47	0.42	0.48	0.57	0.58	0.65	0.99	0.79	0.85	0.88											
Diurnal Average	0.32	0.31	0.36	0.38	0.42	0.41	0.38	0.33	0.29	0.22	0.18	0.15	0.15	0.14	0.14	0.15	0.15	0.17	0.17	0.23	0.27	0.25	0.26	0.30											
C	Monthly Calibration									S	Daily Zero-Span Check									Q	Quality Assurance														
K	Collection Error									N	No Data (Machine Not in Service)									Y	Routine Maintenance					P	Power Failure								
X	Invalid Data (Equipment Malfunction /Recovery)									NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																								
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																			
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																			

Timeseries Chart of Hourly Average for TRS - 986c Station

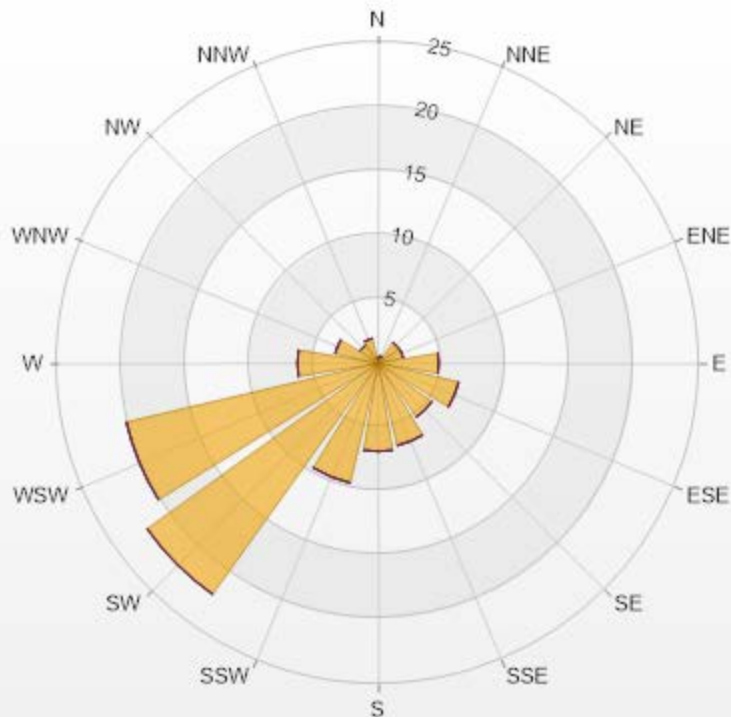


TRS[ppb] Histogram: PRAMP 986c Monthly: 08-2020 1 Hr.



Wind: PRAMP 986c Poll.: PRAMP 986c-TRS[ppb] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 94.09% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	0.43	0	0	0	0	0.43
NNE	0.57	0	0	0	0	0.57
NE	2	0	0	0	0	2
ENE	2	0	0	0	0	2
E	4.71	0	0	0	0	4.71
ESE	6.43	0	0	0	0	6.43
SE	5.14	0	0	0	0	5.14
SSE	6.57	0	0	0	0	6.57
S	6.86	0	0	0	0	6.86
SSW	9.57	0	0	0	0	9.57
SW	22.14	0	0	0	0	22.14
WSW	20.14	0	0	0	0	20.14
W	6.29	0	0	0	0	6.29
WNW	3.43	0	0	0	0	3.43
NW	1.71	0	0	0	0	1.71
NNW	2	0	0	0	0	2
Summary	100	0	0	0	0	100



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% Icon Classes (ppb)

100 0-2

0 2-5

0 5-10

0 10-50

0 >50.0



PEACE RIVER AREA MONITORING PROGRAM

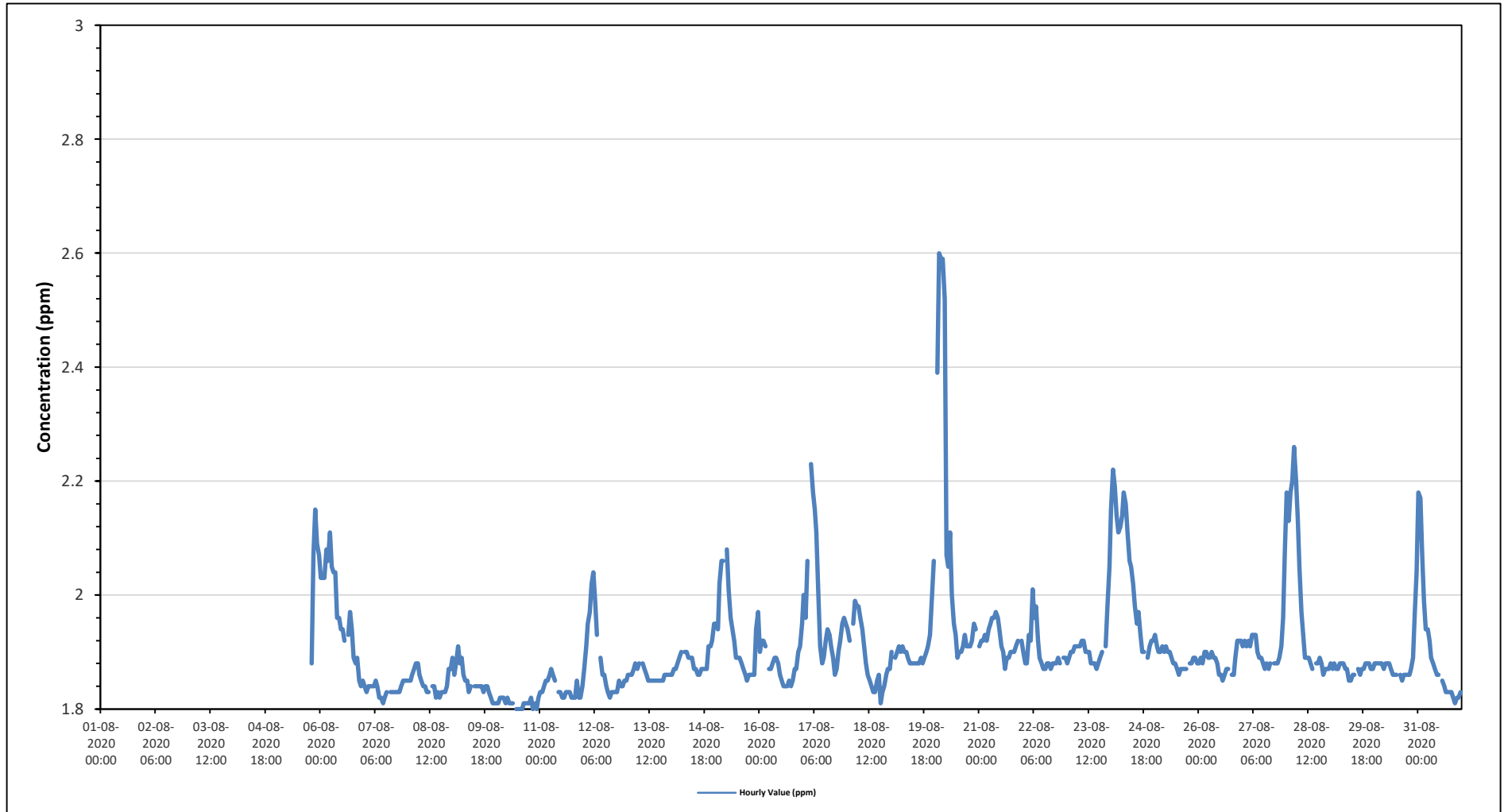
986c Station - August 2020

Summary of Hourly Averages

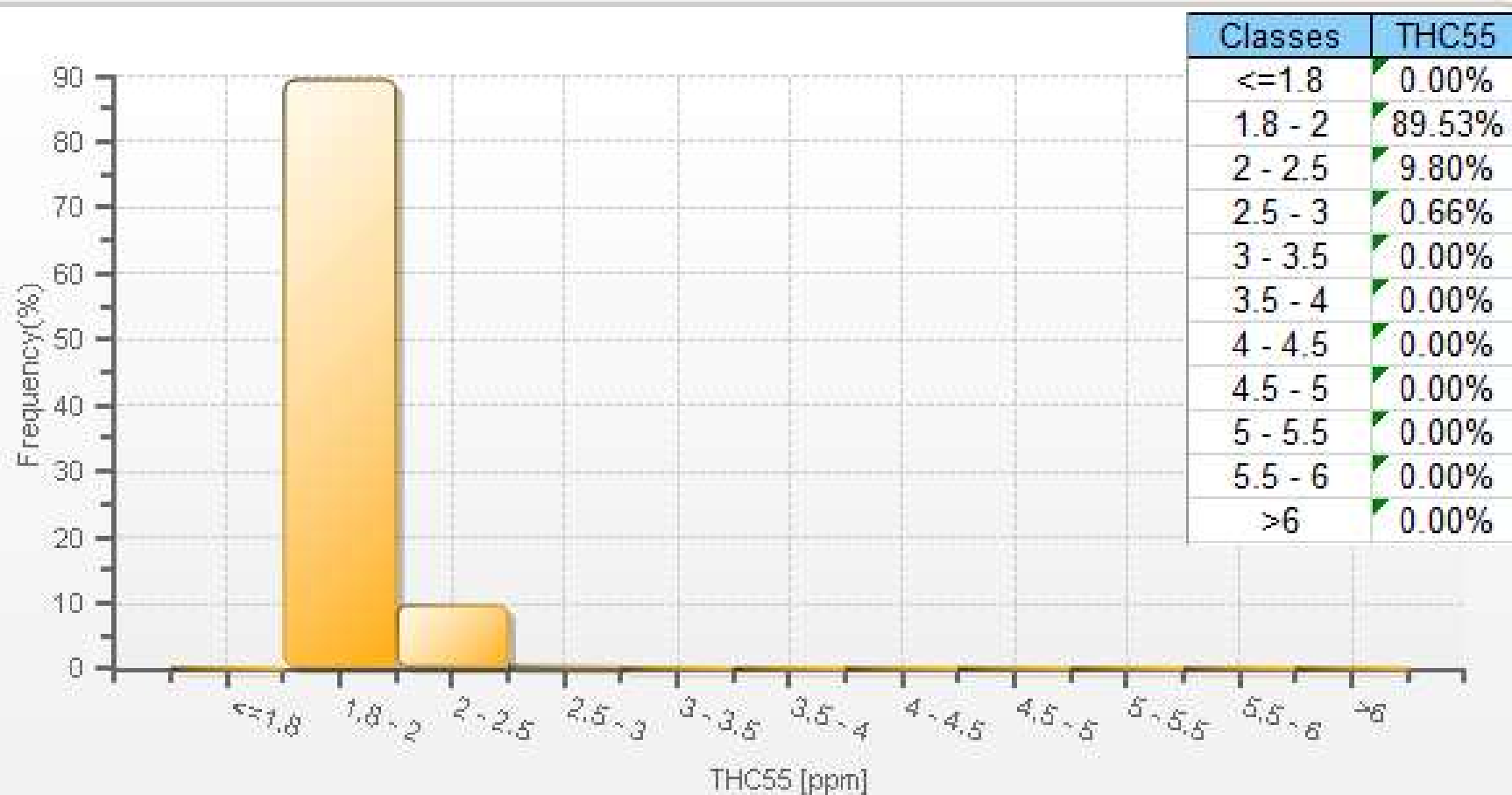
TOTAL HYDROCARBONS (THC) in ppm

Maximum Hourly Value:										2.60 ppm on August 20 at hour 2										Hours in Service:										744									
Maximum Daily Value:										2.09 ppm on August 20										Hours of Data:										602									
Minimum Hourly Value:										1.80 ppm on August 10 at hour 11										Hours of Missing Data:										112									
Minimum Daily Value:										1.81 ppm on August 10										Hours of Calibration:										30									
Monthly Average:										1.91 ppm										Operational Uptime:										84.9									
Day	Hourly Period Starting at (MST)																									Daily Minimum	Daily Maximum	Daily Average											
Aug 1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-											
Aug 2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-											
Aug 3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-											
Aug 4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-											
Aug 5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C	C	C	1.88	2.07	2.15	2.09	2.07	1.88	2.15	-											
Aug 6	2.03	2.03	2.03	2.08	2.06	2.11	2.05	2.04	2.04	1.96	1.96	1.94	1.94	1.92	S	1.93	1.97	1.94	1.89	1.88	1.89	1.85	1.84	1.85	1.84	2.11	1.97												
Aug 7	1.84	1.83	1.84	1.84	1.84	1.84	1.85	1.84	1.82	1.82	1.81	1.82	1.83	S	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.84	1.85	1.85	1.85	1.81	1.85	1.83											
Aug 8	1.85	1.85	1.86	1.87	1.88	1.88	1.86	1.85	1.84	1.84	1.83	1.83	S	1.84	1.84	1.82	1.83	1.82	1.83	1.83	1.83	1.84	1.87	1.87	1.82	1.88	1.85												
Aug 9	1.89	1.86	1.88	1.91	1.88	1.89	1.86	1.85	1.85	1.83	1.84	S	1.84	1.84	1.84	1.84	1.83	1.84	1.84	1.83	1.82	1.81	1.81	1.81	1.81	1.91	1.85												
Aug 10	1.81	1.81	1.82	1.82	1.82	1.81	1.82	1.81	1.81	1.81	S	1.80	1.80	1.80	1.80	1.81	1.81	1.81	1.81	1.82	1.80	1.81	1.80	1.82	1.80	1.82	1.81												
Aug 11	1.83	1.83	1.84	1.85	1.85	1.86	1.87	1.86	1.85	S	1.83	1.83	1.82	1.82	1.83	1.83	1.83	1.82	1.82	1.82	1.85	1.82	1.82	1.84	1.82	1.87	1.84												
Aug 12	1.87	1.91	1.95	1.97	2.02	2.04	1.99	1.93	S	1.89	1.86	1.86	1.84	1.83	1.82	1.83	1.83	1.83	1.83	1.85	1.84	1.84	1.85	1.85	1.82	2.04	1.88												
Aug 13	1.86	1.86	1.86	1.87	1.88	1.87	1.88	S	1.88	1.87	1.86	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.86	1.86	1.86	1.86	1.85	1.88	1.86												
Aug 14	1.86	1.87	1.87	1.88	1.89	1.90	S	1.90	1.90	1.89	1.89	1.89	1.87	1.87	1.86	1.86	1.87	1.87	1.87	1.87	1.91	1.91	1.92	1.95	1.86	1.95	1.89												
Aug 15	1.95	1.94	2.02	2.06	2.06	S	2.08	2.01	1.96	1.94	1.92	1.89	1.89	1.89	1.88	1.87	1.86	1.85	1.86	1.86	1.86	1.86	1.94	1.97	1.85	2.08	1.93												
Aug 16	1.90	1.92	1.92	1.91	S	1.87	1.87	1.88	1.89	1.89	1.88	1.86	1.85	1.84	1.84	1.84	1.85	1.84	1.85	1.87	1.87	1.90	1.91	1.95	1.84	1.95	1.88												
Aug 17	2.00	1.96	2.06	S	2.23	2.18	2.15	2.11	2.00	1.91	1.88	1.89	1.92	1.94	1.93	1.91	1.89	1.86	1.87	1.90	1.92	1.95	1.96	1.95	1.86	2.23	1.97												
Aug 18	1.94	1.92	S	1.95	1.99	1.98	1.98	1.96	1.94	1.91	1.88	1.86	1.85	1.84	1.83	1.83	1.85	1.86	1.81	1.83	1.84	1.86	1.87	1.87	1.81	1.99	1.89												
Aug 19	1.90	S	1.89	1.90	1.91	1.90	1.91	1.90	1.90	1.89	1.88	1.88	1.88	1.88	1.88	1.88	1.89	1.88	1.89	1.90	1.91	1.93	1.99	2.06	1.88	2.06	1.91												
Aug 20	S	2.39	2.60	2.59	2.59	2.52	2.07	2.05	2.11	2.00	1.95	1.93	1.89	1.90	1.90	1.91	1.93	1.91	1.91	1.91	1.92	1.95	1.94	S	1.89	2.60	2.09												
Aug 21	1.91	1.92	1.92	1.93	1.92	1.94	1.95	1.96	1.96	1.97	1.96	1.94	1.91	1.90	1.87	1.89	1.89	1.90	1.90	1.91	1.92	S	1.92	1.92	1.87	1.97	1.92												
Aug 22	1.90	1.88	1.88	1.93	1.92	2.01	1.96	1.98	1.92	1.89	1.88	1.87	1.87	1.88	1.88	1.87	1.88	1.88	1.88	1.89	1.88	S	1.89	1.89	1.87	2.01	1.90												
Aug 23	1.88	1.89	1.90	1.90	1.91	1.91	1.91	1.91	1.92	1.92	1.90	1.90	1.88	1.88	1.88	1.87	1.88	1.88	1.89	1.90	S	1.91	1.98	2.05	1.87	2.05	1.91												
Aug 24	2.15	2.22	2.19	2.14	2.11	2.12	2.14	2.18	2.16	2.11	2.06	2.05	2.02	1.98	1.95	1.97	1.93	1.90	1.90	S	1.89	1.91	1.92	1.92	1.89	2.22	2.04												
Aug 25	1.93	1.91	1.90	1.90	1.91	1.90	1.91	1.90	1.90	1.89	1.88	1.88	1.87	1.86	1.87	1.87	1.87	1.87	S	1.88	1.88	1.89	1.89	1.88	1.86	1.93	1.89												
Aug 26	1.88	1.89	1.88	1.90	1.90	1.89	1.89	1.90	1.89	1.89	1.88	1.86	1.85	1.86	1.87	1.87	S	1.86	1.86	1.89	1.92	1.92	1.92	1.92	1.85	1.92	1.88												
Aug 27	1.91	1.92	1.91	1.92	1.91	1.93	1.93	1.93	1.90	1.89	1.89	1.88	1.87	1.88	1.87	1.88	S	1.88	1.88	1.88	1.89	1.91	1.96	2.08	1.87	2.08	1.91												
Aug 28	2.18	2.13	2.18	2.20	2.26	2.20	2.13	2.05	1.97	1.93	1.89	1.89	1.89	1.88	1.87	S	1.88	1.88	1.89	1.88	1.86	1.87	1.87	1.87	1.86	2.26	1.98												
Aug 29	1.88	1.87	1.88	1.87	1.87	1.88	1.88	1.88	1.87	1.87	1.85	1.85	1.86	1.86	S	1.87	1.86	1.87	1.87	1.88	1.88	1.88	1.87	1.87	1.85	1.88	1.87												
Aug 30	1.88	1.88	1.88	1.88	1.88	1.87	1.88	1.88	1.88	1.87	1.86	1.86	1.86	1.86	S	1.86	1.85	1.86	1.86	1.86	1.86	1.87	1.89	1.97	2.04	1.85	2.04	1.88											
Aug 31	2.18	2.17	2.07	1.99	1.94	1.94	1.92	1.89	1.88	1.87	1.86	1.86	S	1.85	1.84	1.83	1.83	1.83	1.83	1.82	1.81	1.82	1.82	1.83	1.81	2.18	1.90												
Diurnal Maximum	2.18	2.39	2.60	2.59	2.59	2.52	2.15	2.18	2.16	2.11	2.06	2.05	2.02	1.98	1.95	1.97	1.97	1.94	1.91	2.07	2.15	2.09	2.08																
Diurnal Average	1.93	1.95	1.96	1.96	1.98	1.97	1.95	1.94	1.92	1.90	1.89	1.88	1.87	1.87	1.86	1.86	1.87	1.86	1.86	1.87	1.88	1.89	1.90	1.92															
C	Monthly Calibration										S	Daily Zero-Span Check										Q	Quality Assurance																
K	Collection Error										N	No Data (Machine Not in Service)										Y	Routine Maintenance																
X	InValid Data (Equipment Malfunction/Recovery)										NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																											
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																							
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																							

Timeseries Chart of Hourly Average for THC - 986c Station

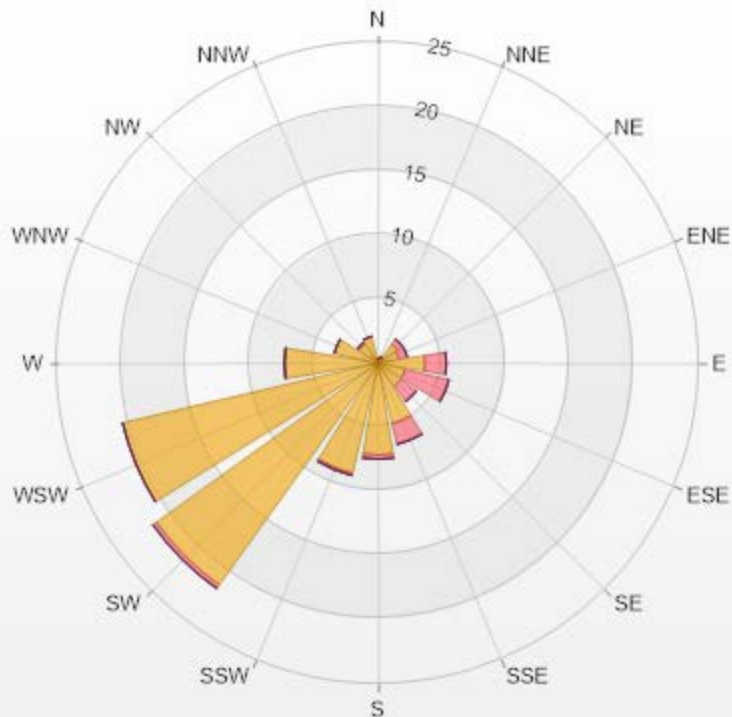


THC55[ppm] Histogram: PRAMP 986c Monthly: 08-2020 1 Hr.



Wind: PRAMP 986c Poll.: PRAMP 986c-THC55[ppm] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 80.91% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	0.33	0	0	0	0	0.33
NNE	0.5	0	0	0	0	0.5
NE	1.83	0.5	0	0	0	2.33
ENE	1.66	0.66	0	0	0	2.32
E	3.65	1.66	0	0	0	5.31
ESE	2.16	3.49	0	0	0	5.65
SE	2.16	1.5	0	0	0	3.66
SSE	4.82	1.66	0	0	0	6.48
S	7.14	0.33	0	0	0	7.47
SSW	8.8	0.17	0	0	0	8.97
SW	21.26	0.33	0	0	0	21.59
WSW	20.43	0	0	0	0	20.43
W	7.31	0	0	0	0	7.31
WNW	3.49	0	0	0	0	3.49
NW	1.83	0.17	0	0	0	2
NNW	2.16	0	0	0	0	2.16
Summary	89.53	10.47	0	0	0	100



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% Icon Classes (ppm)

90

0-2

10

2-5

0

5-10

0

10-40

0

>40.0



PEACE RIVER AREA MONITORING PROGRAM

986c Station - August 2020

Summary of Hourly Averages

METHANE (CH4) in ppm

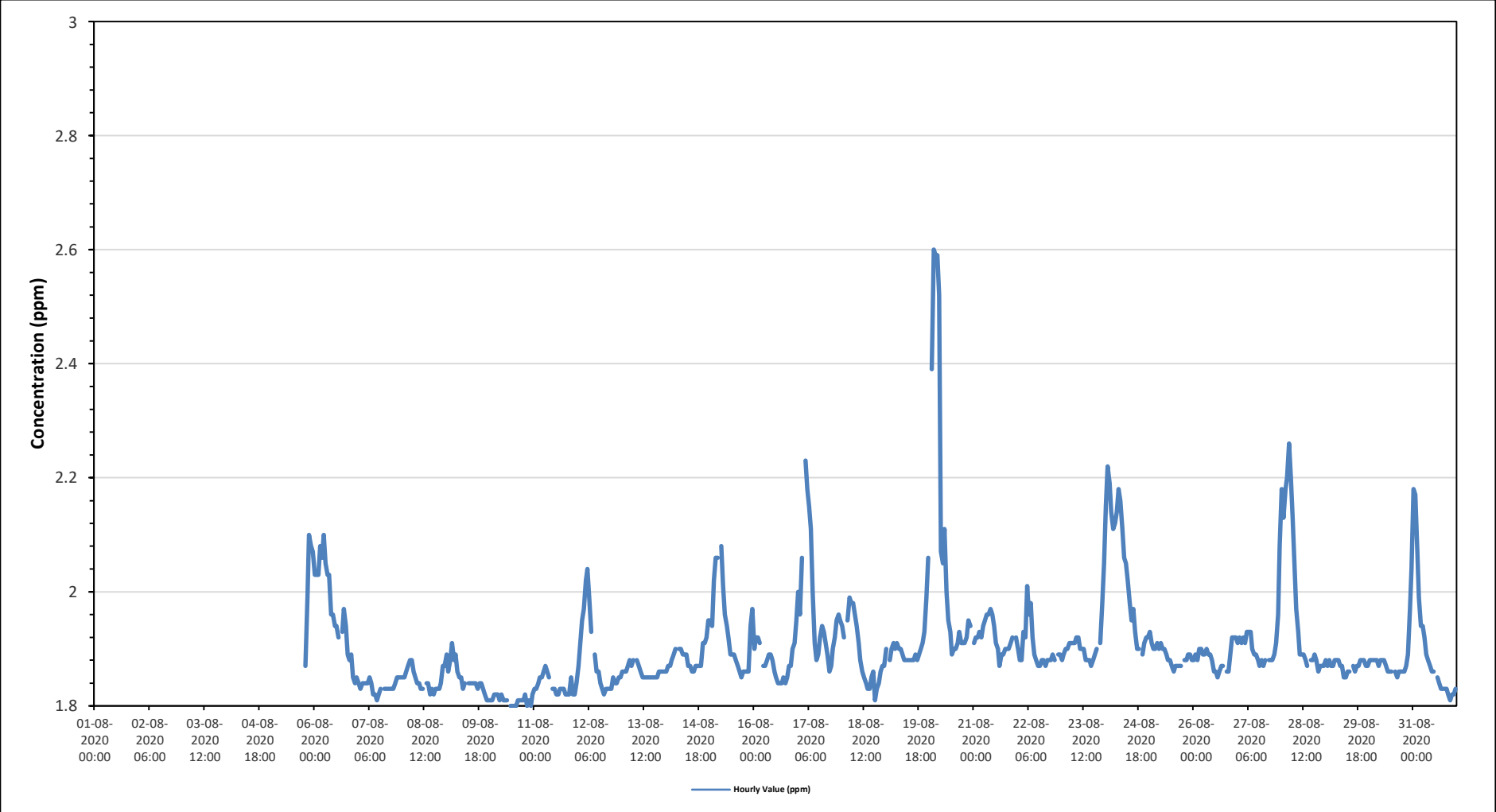
Maximum Hourly Value:	2.60 ppm on August 20 at hour 2	Hours in Service:	744
Maximum Daily Value:	2.09 ppm on August 20	Hours of Data:	602
Minimum Hourly Value:	1.80 ppm on August 10 at hour 11	Hours of Missing Data:	112
Minimum Daily Value:	1.81 ppm on August 10	Hours of Calibration:	30
Monthly Average:	1.91 ppm	Operational Uptime:	84.9

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average			
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
Aug 1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
Aug 2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
Aug 3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
Aug 4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
Aug 5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C	C	C	1.87	1.99	2.10	2.08	2.07	1.87	2.10	-		
Aug 6	2.03	2.03	2.03	2.08	2.06	2.10	2.05	2.03	2.03	1.96	1.96	1.94	1.94	1.92	S	1.93	1.97	1.94	1.89	1.88	1.89	1.85	1.84	1.85	1.84	2.10	1.97		
Aug 7	1.84	1.83	1.84	1.84	1.84	1.84	1.85	1.84	1.82	1.82	1.81	1.82	1.83	S	1.83	1.83	1.83	1.83	1.83	1.83	1.84	1.85	1.85	1.85	1.81	1.85	1.83		
Aug 8	1.85	1.85	1.86	1.87	1.88	1.88	1.86	1.85	1.84	1.84	1.83	1.83	S	1.84	1.84	1.82	1.83	1.82	1.83	1.83	1.83	1.84	1.87	1.87	1.82	1.88	1.85		
Aug 9	1.89	1.86	1.88	1.91	1.88	1.89	1.86	1.85	1.85	1.83	1.84	S	1.84	1.84	1.84	1.84	1.83	1.84	1.84	1.83	1.82	1.81	1.81	1.81	1.81	1.91	1.85		
Aug 10	1.81	1.81	1.82	1.82	1.82	1.81	1.82	1.81	1.81	1.81	S	1.80	1.80	1.80	1.80	1.81	1.81	1.81	1.81	1.82	1.80	1.81	1.80	1.82	1.80	1.82	1.81		
Aug 11	1.83	1.83	1.84	1.85	1.85	1.86	1.87	1.86	1.85	S	1.83	1.83	1.82	1.82	1.83	1.83	1.83	1.82	1.82	1.82	1.85	1.82	1.82	1.84	1.82	1.87	1.84		
Aug 12	1.87	1.91	1.95	1.97	2.02	2.04	1.99	1.93	S	1.89	1.86	1.86	1.84	1.83	1.82	1.83	1.83	1.83	1.83	1.85	1.84	1.84	1.85	1.85	1.82	2.04	1.88		
Aug 13	1.86	1.86	1.86	1.87	1.88	1.87	1.88	S	1.88	1.87	1.86	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.86	1.86	1.86	1.86	1.85	1.88	1.86		
Aug 14	1.86	1.87	1.87	1.88	1.89	1.90	S	1.90	1.90	1.89	1.89	1.89	1.87	1.87	1.86	1.86	1.87	1.87	1.87	1.87	1.91	1.91	1.92	1.95	1.86	1.95	1.89		
Aug 15	1.95	1.94	2.02	2.06	2.06	S	2.08	2.01	1.96	1.94	1.92	1.89	1.89	1.89	1.88	1.87	1.86	1.85	1.86	1.86	1.86	1.86	1.94	1.97	1.85	2.08	1.93		
Aug 16	1.90	1.92	1.92	1.91	S	1.87	1.87	1.88	1.89	1.89	1.88	1.86	1.85	1.84	1.84	1.84	1.85	1.84	1.85	1.87	1.87	1.90	1.91	1.95	1.84	1.95	1.88		
Aug 17	2.00	1.96	2.06	S	2.23	2.18	2.15	2.11	2.00	1.91	1.88	1.89	1.92	1.94	1.93	1.91	1.89	1.86	1.87	1.90	1.92	1.95	1.96	1.95	1.86	2.23	1.97		
Aug 18	1.94	1.92	S	1.95	1.99	1.98	1.98	1.96	1.94	1.91	1.88	1.86	1.85	1.84	1.83	1.83	1.85	1.86	1.81	1.83	1.84	1.86	1.87	1.87	1.81	1.99	1.89		
Aug 19	1.90	S	1.88	1.90	1.91	1.90	1.91	1.90	1.90	1.89	1.88	1.88	1.88	1.88	1.88	1.88	1.89	1.88	1.89	1.90	1.91	1.93	1.99	2.06	1.88	2.06	1.91		
Aug 20	S	2.39	2.60	2.59	2.59	2.52	2.07	2.05	2.11	2.00	1.95	1.93	1.89	1.90	1.90	1.91	1.93	1.91	1.91	1.91	1.92	1.95	1.94	S	1.89	2.60	2.09		
Aug 21	1.91	1.92	1.92	1.93	1.92	1.94	1.95	1.96	1.96	1.97	1.96	1.94	1.91	1.90	1.87	1.89	1.89	1.90	1.90	1.90	1.91	1.92	S	1.92	1.87	1.97	1.92		
Aug 22	1.90	1.88	1.88	1.93	1.92	2.01	1.96	1.98	1.92	1.89	1.88	1.87	1.87	1.88	1.88	1.87	1.88	1.88	1.88	1.89	1.88	S	1.89	1.89	1.87	2.01	1.90		
Aug 23	1.88	1.89	1.90	1.90	1.91	1.91	1.91	1.91	1.92	1.92	1.90	1.90	1.90	1.88	1.88	1.88	1.87	1.88	1.89	1.90	S	1.91	1.98	2.05	1.87	2.05	1.91		
Aug 24	2.15	2.22	2.19	2.14	2.11	2.12	2.14	2.18	2.16	2.11	2.06	2.05	2.02	1.98	1.95	1.97	1.93	1.90	1.90	S	1.89	1.91	1.92	1.92	1.89	2.22	2.04		
Aug 25	1.93	1.91	1.90	1.90	1.91	1.90	1.91	1.90	1.90	1.89	1.88	1.88	1.87	1.86	1.87	1.87	1.87	1.87	S	1.88	1.88	1.89	1.89	1.88	1.86	1.93	1.89		
Aug 26	1.88	1.89	1.88	1.90	1.90	1.89	1.89	1.90	1.89	1.89	1.88	1.86	1.86	1.85	1.86	1.87	1.87	S	1.86	1.86	1.89	1.92	1.92	1.92	1.85	1.92	1.88		
Aug 27	1.91	1.92	1.91	1.92	1.91	1.93	1.93	1.93	1.90	1.89	1.89	1.88	1.87	1.88	1.87	1.88	S	1.88	1.88	1.88	1.89	1.91	1.96	2.08	1.87	2.08	1.91		
Aug 28	2.18	2.13	2.18	2.20	2.26	2.20	2.13	2.05	1.97	1.93	1.89	1.89	1.89	1.88	1.87	S	1.88	1.88	1.89	1.88	1.86	1.87	1.87	1.87	1.86	2.26	1.98		
Aug 29	1.88	1.87	1.88	1.87	1.87	1.88	1.88	1.88	1.87	1.87	1.85	1.85	1.86	1.86	S	1.87	1.86	1.87	1.87	1.88	1.88	1.88	1.87	1.87	1.85	1.88	1.87		
Aug 30	1.88	1.88	1.88	1.88	1.88	1.87	1.88	1.88	1.88	1.87	1.86	1.86	1.86	S	1.86	1.85	1.86	1.86	1.86	1.86	1.87	1.89	1.97	2.04	1.85	2.04	1.88		
Aug 31	2.18	2.17	2.07	1.99	1.94	1.94	1.92	1.89	1.88	1.87	1.86	1.86	S	1.85	1.84	1.83	1.83	1.83	1.83	1.82	1.81	1.82	1.82	1.83	1.81	2.18	1.90		
Diurnal Maximum	2.18	2.39	2.60	2.59	2.59	2.52	2.15	2.18	2.16	2.11	2.06	2.05	2.02	1.98	1.95	1.97	1.97	1.94	1.91	1.99	2.10	2.08	2.08						
Diurnal Average	1.93	1.95	1.96	1.96	1.98	1.97	1.95	1.94	1.92	1.90	1.89	1.88	1.87	1.87	1.86	1.86	1.87	1.86	1.86	1.86	1.87	1.89	1.90	1.92					
C	Monthly Calibration								S	Daily Zero-Span Check								Q	Quality Assurance										
K	Collection Error								N	No Data (Machine Not in Service)								Y	Routine Maintenance								P	Power Failure	
X	Invalid Data (Equipment Malfunction /Recovery)								NR	Unit Maint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																			

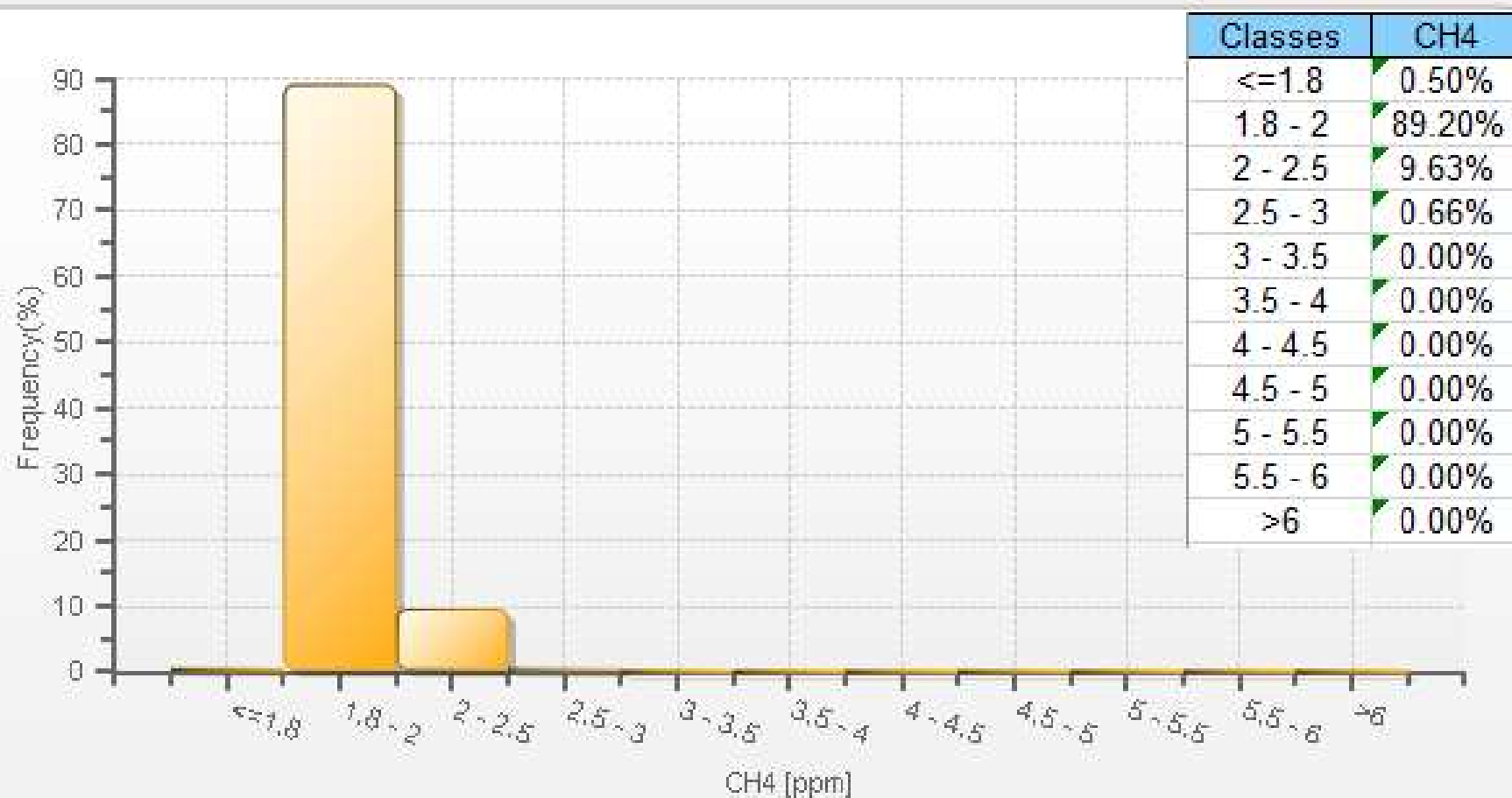
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for CH4 - 986c Station

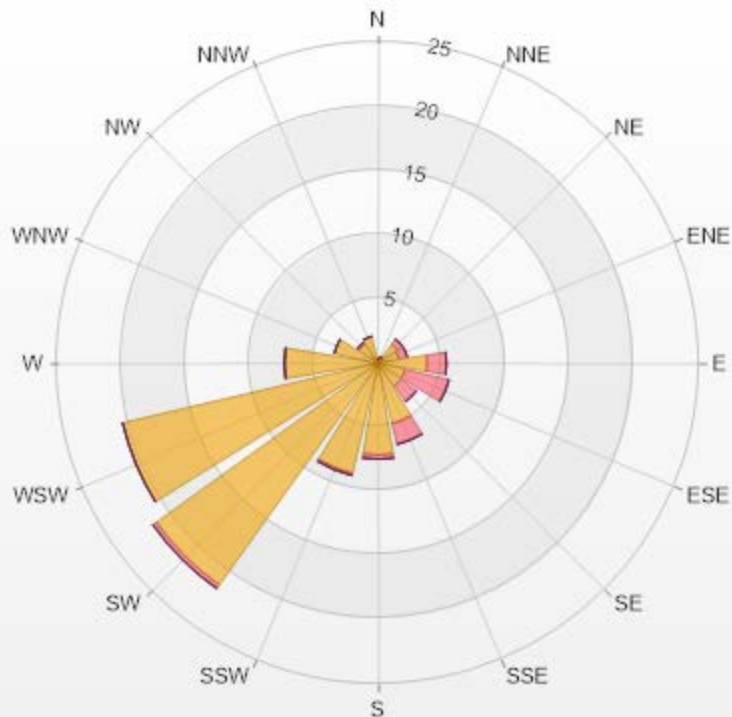


CH4[ppm] Histogram: PRAMP 986c Monthly: 08-2020 1 Hr.



Wind: PRAMP 986c Poll.: PRAMP 986c-CH4[ppm] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 80.91% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	0.33	0	0	0	0	0.33
NNE	0.5	0	0	0	0	0.5
NE	1.83	0.5	0	0	0	2.33
ENE	1.66	0.66	0	0	0	2.32
E	3.82	1.5	0	0	0	5.32
ESE	2.16	3.49	0	0	0	5.65
SE	2.16	1.5	0	0	0	3.66
SSE	4.82	1.66	0	0	0	6.48
S	7.14	0.33	0	0	0	7.47
SSW	8.8	0.17	0	0	0	8.97
SW	21.26	0.33	0	0	0	21.59
WSW	20.43	0	0	0	0	20.43
W	7.31	0	0	0	0	7.31
WNW	3.49	0	0	0	0	3.49
NW	1.83	0.17	0	0	0	2
NNW	2.16	0	0	0	0	2.16
Summary	89.7	10.31	0	0	0	100



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% Icon Classes (ppm)

90

0-2

10

2-5

0

5-10

0

10-20

0

>20.0



PEACE RIVER AREA MONITORING PROGRAM

986c Station - August 2020
Summary of Hourly Averages

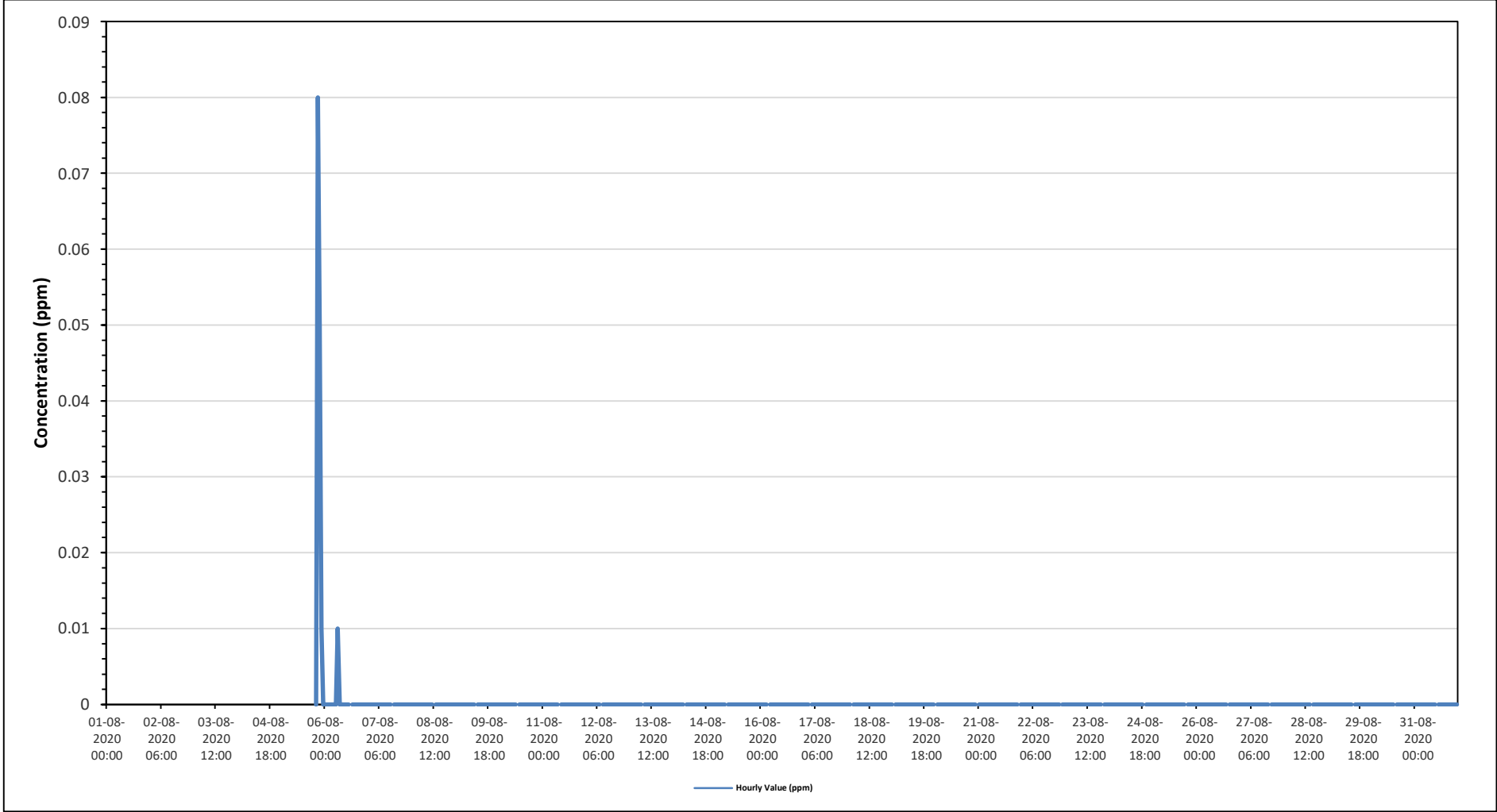
NON-METHANE HYDROCARBONS (NMHC) in ppm

Maximum Hourly Value:	0.08 ppm on August 5 at hour 20	Hours in Service:	744
Maximum Daily Value:	0.00 ppm on August 6	Hours of Data:	602
Minimum Hourly Value:	0.00 ppm on August 5 at hour 19	Hours of Missing Data:	112
Minimum Daily Value:	0.00 ppm on August 7	Hours of Calibration:	30
Monthly Average:	0.00 ppm	Operational Uptime:	84.9

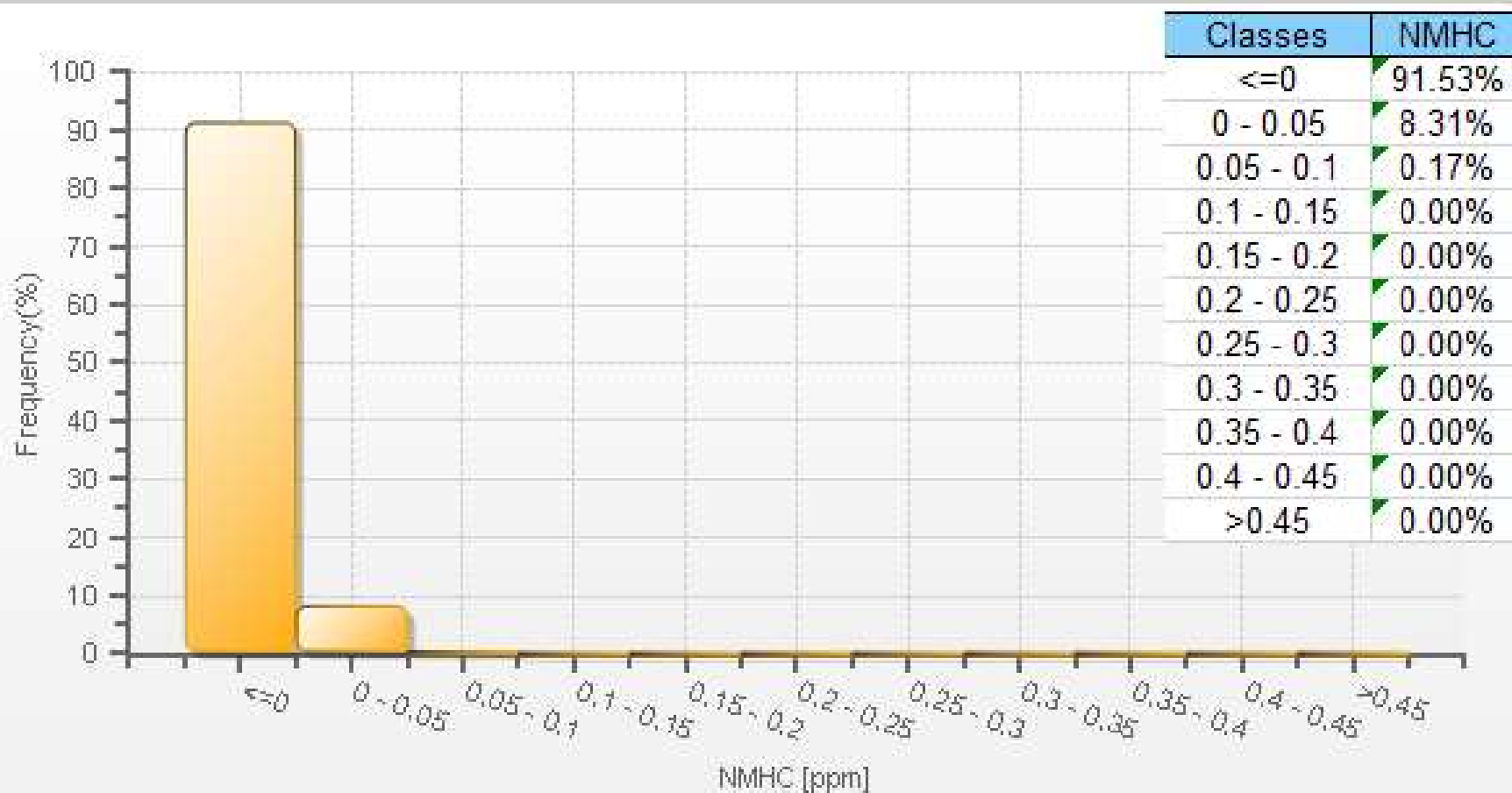
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Aug 1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
Aug 2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
Aug 3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
Aug 4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
Aug 5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C	C	C	0.00	0.08	0.05	0.01	0.00	0.00	0.08	-
Aug 6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Aug 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 14	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 15	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 16	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 17	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 18	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 19	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 20	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00
Aug 21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00
Aug 22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00
Aug 23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00
Aug 24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Diurnal Maximum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.05	0.01	0.00			
Diurnal Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance										
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure		
X	Invalid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																		

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NMHC - 986c Station

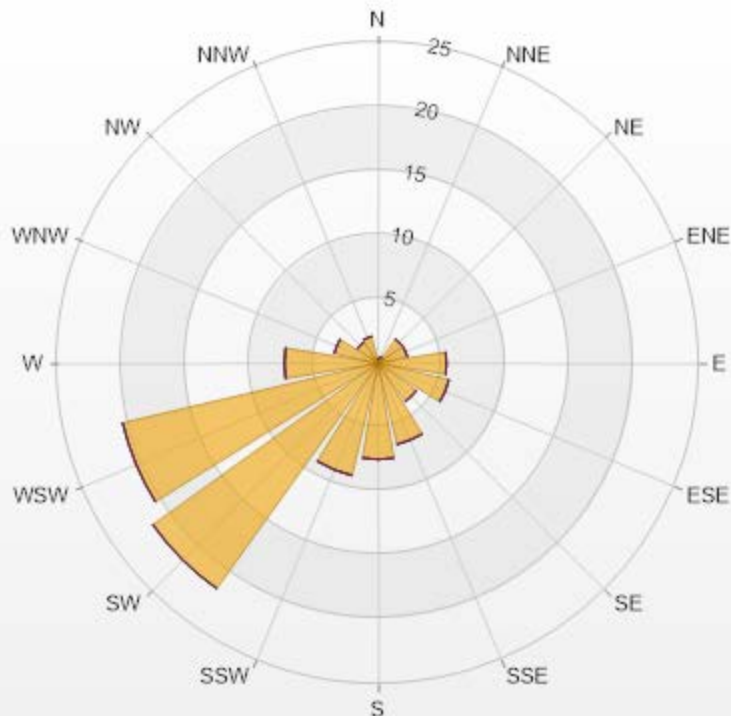


NMHC[ppm] Histogram: PRAMP 986c Monthly: 08-2020 1 Hr.



Wind: PRAMP 986c Poll.: PRAMP 986c-NMHC[ppm] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 80.91% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-0.9	0.9-2	>2.0	Total
N	0.33	0	0	0	0	0.33
NNE	0.5	0	0	0	0	0.5
NE	2.33	0	0	0	0	2.33
ENE	2.33	0	0	0	0	2.33
E	5.32	0	0	0	0	5.32
ESE	5.65	0	0	0	0	5.65
SE	3.65	0	0	0	0	3.65
SSE	6.48	0	0	0	0	6.48
S	7.48	0	0	0	0	7.48
SSW	8.97	0	0	0	0	8.97
SW	21.59	0	0	0	0	21.59
WSW	20.43	0	0	0	0	20.43
W	7.31	0	0	0	0	7.31
WNW	3.49	0	0	0	0	3.49
NW	1.99	0	0	0	0	1.99
NNW	2.16	0	0	0	0	2.16
Summary	100	0	0	0	0	100



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% Icon Classes (ppm)

100 0-0.1

0 0.1-0.5

0 0.3-0.9

0 0.9-2

0 >2.0



PEACE RIVER AREA MONITORING PROGRAM

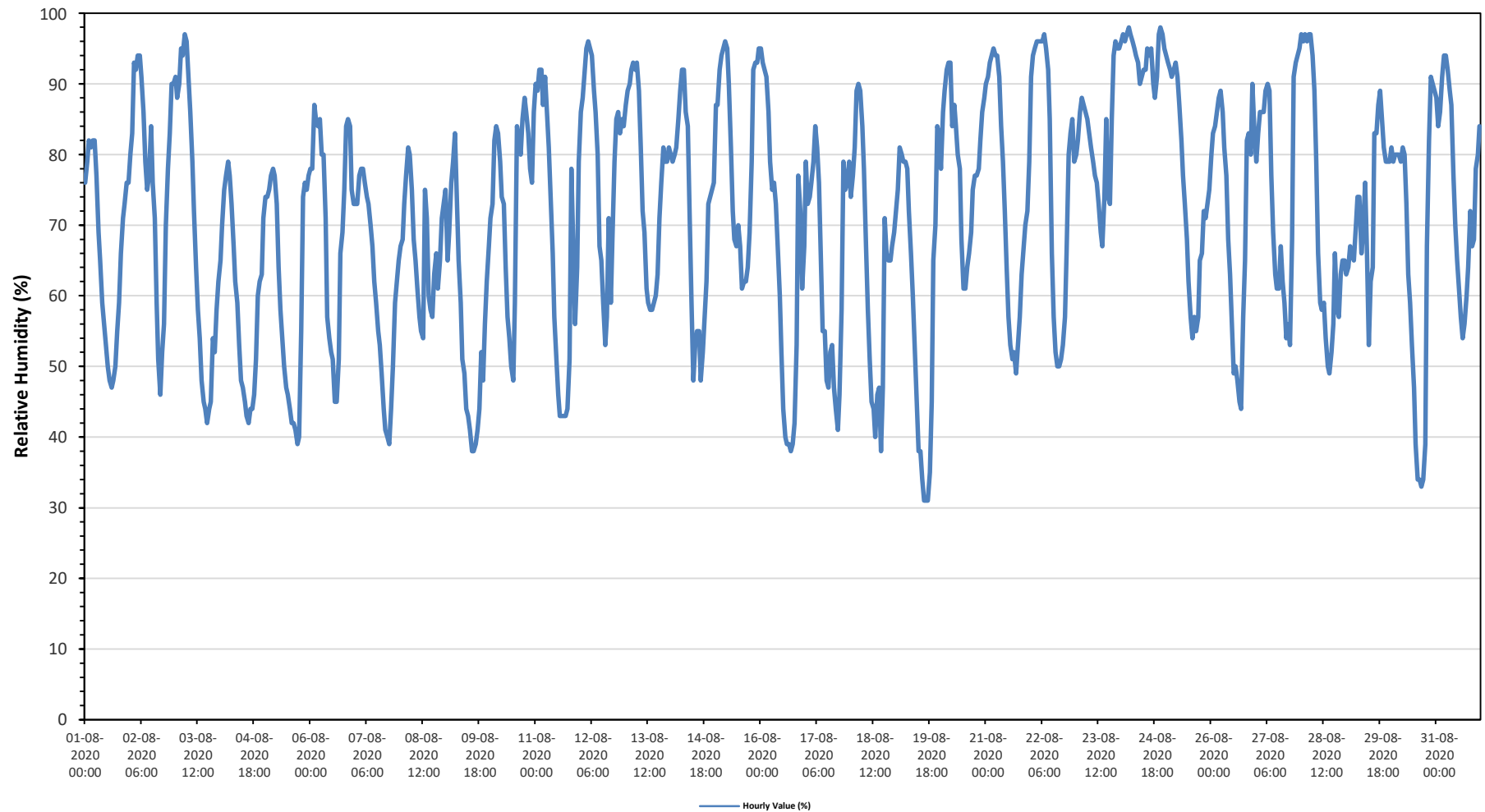
986c Station - August 2020

Summary of Hourly Averages

RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:			98	%	on August 24 at hour 4										Hours in Service:			744									
Maximum Daily Value:			94.3	%	on August 24										Hours of Data:			744									
Minimum Hourly Value:			31	%	on August 19 at hour 15										Hours of Missing Data:			0									
Minimum Daily Value:			56.6	%	on August 9										Hours of Calibration:			0									
Monthly Average:			71.0	%											Operational Uptime:			100.0									
Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Aug 1	76	79	82	81	82	82	77	69	65	59	56	53	50	48	47	48	50	55	59	66	71	73	76	76	47	82	65.8
Aug 2	80	83	93	92	94	94	91	86	79	75	77	84	76	71	59	51	46	52	56	70	78	83	90	90	46	94	77.1
Aug 3	91	88	90	95	94	97	96	91	86	79	72	64	58	54	48	45	44	42	44	45	54	52	58	62	42	97	68.7
Aug 4	65	70	75	77	79	77	73	67	62	59	53	48	47	45	43	42	44	44	46	51	60	62	63	71	42	79	59.3
Aug 5	74	74	75	77	78	77	73	64	58	54	50	47	46	44	42	42	41	39	40	55	74	76	75	77	39	78	60.5
Aug 6	78	78	87	85	84	85	80	80	71	57	54	52	51	45	45	51	66	69	75	84	85	84	75	73	45	87	70.6
Aug 7	73	73	77	78	78	76	74	73	70	67	62	59	55	53	49	44	41	40	39	44	50	59	62	65	39	78	60.9
Aug 8	67	68	73	77	81	80	75	68	65	61	57	55	54	75	71	60	58	57	63	66	61	65	71	73	54	81	66.7
Aug 9	75	65	69	76	79	83	74	65	59	51	49	44	43	41	38	38	39	41	44	52	48	56	62	67	38	83	56.6
Aug 10	71	73	82	84	83	79	74	73	64	57	54	50	48	59	84	82	80	85	88	86	83	78	76	86	48	88	74.1
Aug 11	90	89	92	92	87	91	86	81	74	66	57	51	46	43	43	43	43	44	51	78	67	56	64	79	43	92	67.2
Aug 12	86	88	91	95	96	95	94	89	86	80	67	65	59	53	57	71	59	68	79	85	86	83	85	84	53	96	79.2
Aug 13	87	89	90	92	93	92	93	89	81	72	69	61	59	58	58	59	60	63	71	76	81	79	79	81	58	93	76.3
Aug 14	80	79	80	81	85	89	92	92	86	84	73	59	48	53	55	55	48	52	57	62	73	74	75	76	48	92	71.2
Aug 15	87	87	92	94	95	96	95	90	81	72	68	67	70	67	61	62	62	64	69	79	92	93	93	95	61	96	80.5
Aug 16	95	93	92	91	86	79	75	76	73	67	60	52	44	40	39	39	38	39	42	53	77	72	61	67	38	95	64.6
Aug 17	79	73	74	76	79	84	81	76	64	55	55	48	47	52	53	47	44	41	46	58	79	75	76	79	41	84	64.2
Aug 18	74	77	81	89	90	89	84	78	67	58	51	45	44	40	46	47	38	47	71	66	65	65	67	69	38	90	64.5
Aug 19	72	75	81	80	79	79	78	72	66	60	53	46	38	38	34	31	31	31	35	45	65	70	84	83	31	84	59.4
Aug 20	78	86	89	92	93	93	84	87	84	80	78	68	61	61	64	66	69	75	77	77	78	82	86	88	61	93	79.0
Aug 21	90	91	93	94	95	94	94	91	84	79	72	64	57	53	51	52	49	53	57	63	67	70	72	79	49	95	73.5
Aug 22	91	94	95	96	96	96	96	97	95	92	85	66	57	52	50	50	51	53	57	66	80	83	85	79	50	97	77.6
Aug 23	80	82	86	88	87	86	85	83	81	79	77	76	73	69	67	74	85	74	73	85	94	96	95	95	67	96	82.1
Aug 24	96	97	96	97	98	97	96	95	94	93	90	91	92	92	95	94	95	90	88	91	97	98	97	95	88	98	94.3
Aug 25	94	93	92	91	92	93	91	87	82	77	73	68	62	57	54	57	55	57	65	66	72	71	73	75	54	94	74.9
Aug 26	80	83	84	86	88	89	86	81	77	68	63	56	49	50	48	45	44	57	65	82	83	80	90	83	44	90	71.5
Aug 27	79	83	86	86	86	89	90	89	77	69	63	61	61	67	62	59	54	56	53	68	91	93	94	95	53	95	75.5
Aug 28	97	96	97	96	97	97	94	89	79	66	59	58	59	54	50	49	52	56	66	58	57	63	65	65	49	97	71.6
Aug 29	63	64	67	66	65	70	74	74	66	69	76	66	53	62	64	83	83	87	89	85	81	79	79	79	53	89	72.7
Aug 30	81	79	80	80	80	79	81	80	73	63	59	53	47	39	34	34	33	34	39	67	82	91	90	89	33	91	65.3
Aug 31	88	84	86	91	94	94	92	89	87	77	70	65	61	57	54	56	60	64	72	67	68	78	80	84	54	94	75.8
Diurnal Maximum	97	97	97	97	98	97	96	97	95	93	90	91	92	92	95	94	95	90	89	91	97	98	97	95			
Diurnal Average	81.2	81.7	84.7	86.3	86.9	87.1	84.8	81.3	75.4	69.2	64.6	59.4	55.3	54.6	53.7	54.1	53.6	55.8	60.5	67.6	74.2	75.5	77.4	79.3			
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance										
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure		
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																		
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																											
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																											

Timeseries Chart of Hourly Average for RH - 986c Station





PEACE RIVER AREA MONITORING PROGRAM

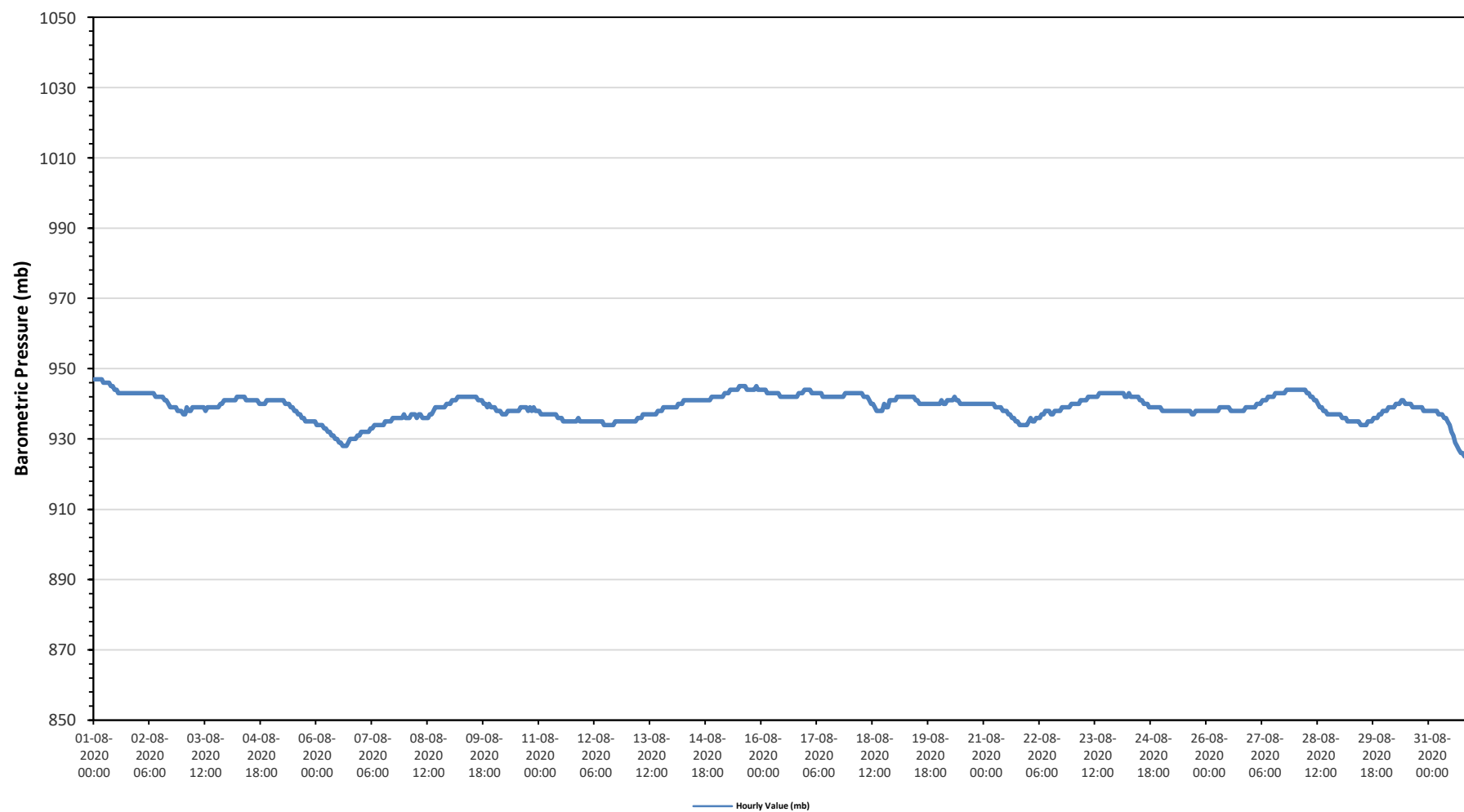
986c Station - August 2020

Summary of Hourly Averages

BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:										947	mb	on August 1 at hour 0										Hours in Service:										744
Maximum Daily Value:										945	mb	on August 1										Hours of Data:										744
Minimum Hourly Value:										925	mb	on August 31 at hour 19										Hours of Missing Data:										0
Minimum Daily Value:										931	mb	on August 6										Hours of Calibration:										0
Monthly Average:										939	mb											Operational Uptime:										100.0
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average						
Aug 1	947	947	947	947	947	946	946	946	946	945	945	944	944	943	943	943	943	943	943	943	943	943	943	943	943	943	947	945				
Aug 2	943	943	943	943	943	943	943	943	943	943	942	942	942	942	941	941	940	939	939	939	939	939	938	938	938	938	943	941				
Aug 3	937	937	939	938	938	939	939	939	939	939	939	939	938	939	939	939	939	939	939	939	940	940	941	941	941	937	941	939				
Aug 4	941	941	941	941	941	942	942	942	942	942	941	941	941	941	941	941	940	940	940	940	940	941	941	941	941	940	942	941				
Aug 5	941	941	941	941	941	941	941	940	940	940	939	939	938	938	937	937	936	936	935	935	935	935	935	935	935	935	941	938				
Aug 6	934	934	934	934	933	933	932	932	931	931	930	930	929	929	928	928	928	929	930	930	930	930	931	931	928	934	931					
Aug 7	932	932	932	932	932	933	933	934	934	934	934	934	934	935	935	935	936	936	936	936	936	936	936	937	932	937	934					
Aug 8	936	936	936	937	937	937	936	937	937	936	936	936	936	937	937	938	939	939	939	939	939	939	940	940	936	940	937					
Aug 9	940	941	941	941	942	942	942	942	942	942	942	942	942	942	941	941	941	940	940	939	940	939	939	939	939	942	941					
Aug 10	939	938	938	938	937	937	937	938	938	938	938	938	938	938	939	939	939	939	938	939	938	939	938	938	937	939	938					
Aug 11	938	937	937	937	937	937	937	937	937	937	936	936	936	935	935	935	935	935	935	935	935	936	935	935	935	935	938	936				
Aug 12	935	935	935	935	935	935	935	935	935	935	935	934	934	934	934	934	934	935	935	935	935	935	935	935	934	935	935					
Aug 13	935	935	935	935	935	936	936	936	936	937	937	937	937	937	937	937	938	938	938	939	939	939	939	939	935	939	937					
Aug 14	939	939	939	940	940	940	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	942	942	942	939	942	941					
Aug 15	942	942	942	942	943	943	943	944	944	944	944	944	945	945	945	945	944	944	944	944	944	945	944	944	942	945	944					
Aug 16	944	944	944	943	943	943	943	943	943	943	942	942	942	942	942	942	942	942	942	942	942	943	943	943	942	944	943					
Aug 17	944	944	944	943	943	943	943	943	943	942	942	942	942	942	942	942	942	942	942	942	942	943	943	943	942	944	943					
Aug 18	943	943	943	943	943	943	943	942	942	942	941	940	940	939	938	938	938	940	939	939	941	941	941	941	938	943	941					
Aug 19	941	942	942	942	942	942	942	942	942	942	941	941	940	940	940	940	940	940	940	940	940	940	940	940	940	942	941					
Aug 20	940	941	940	940	941	941	941	941	942	941	941	940	940	940	940	940	940	940	940	940	940	940	940	940	940	942	940					
Aug 21	940	940	940	940	940	940	939	939	939	939	938	938	938	937	937	936	936	935	935	934	934	934	934	934	934	940	937					
Aug 22	935	936	935	935	936	936	936	937	937	938	938	938	937	937	938	938	938	938	939	939	939	939	939	940	935	940	937					
Aug 23	940	940	940	940	941	941	941	941	942	942	942	942	942	942	943	943	943	943	943	943	943	943	943	943	940	943	942					
Aug 24	943	943	943	943	942	942	943	942	942	942	942	942	941	941	940	940	940	939	939	939	939	939	939	939	939	943	941					
Aug 25	938	938	938	938	938	938	938	938	938	938	938	938	938	938	938	938	937	937	938	938	938	938	938	938	937	938	938					
Aug 26	938	938	938	938	938	938	938	939	939	939	939	939	939	938	938	938	938	938	938	938	939	939	939	939	938	939	938					
Aug 27	939	939	939	940	940	940	941	941	941	942	942	942	942	943	943	943	943	943	944	944	944	944	944	944	939	944	942					
Aug 28	944	944	944	944	944	944	943	943	942	942	941	941	940	939	939	938	938	937	937	937	937	937	937	937	937	944	940					
Aug 29	937	936	936	936	935	935	935	935	935	935	935	934	934	934	935	935	935	936	936	936	937	937	937	938	934	938	935					
Aug 30	938	938	939	939	939	939	940	940	940	941	941	940	940	940	940	939	939	939	939	939	938	938	938	938	938	941	939					
Aug 31	938	938	938	938	938	937	937	937	936	936	935	934	932	931	929	928	927	926	926	925	925	926	927	927	925	938	932					
Diurnal Maximum	947	947	947	947	947	946	946	946	946	945	945	944	945	945	945	944	944	944	944	944	945	944	944	944	944	944	944					
Diurnal Average	939	939	939	939	939	940	940	940	940	940	939	939	939	939	939	938	938	938	938	938	939	939	939	939	939	939	939					
C	Monthly Calibration						S	Daily Zero-Span Check						Q	Quality Assurance																	
K	Collection Error						N	No Data (Machine Not in Service)						Y	Routine Maintenance						P	Power Failure										
X	InValid Data (Equipment Malfunction /Recovery)						NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																								
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																

Timeseries Chart of Hourly Average for BP - 986c Station





PEACE RIVER AREA MONITORING PROGRAM

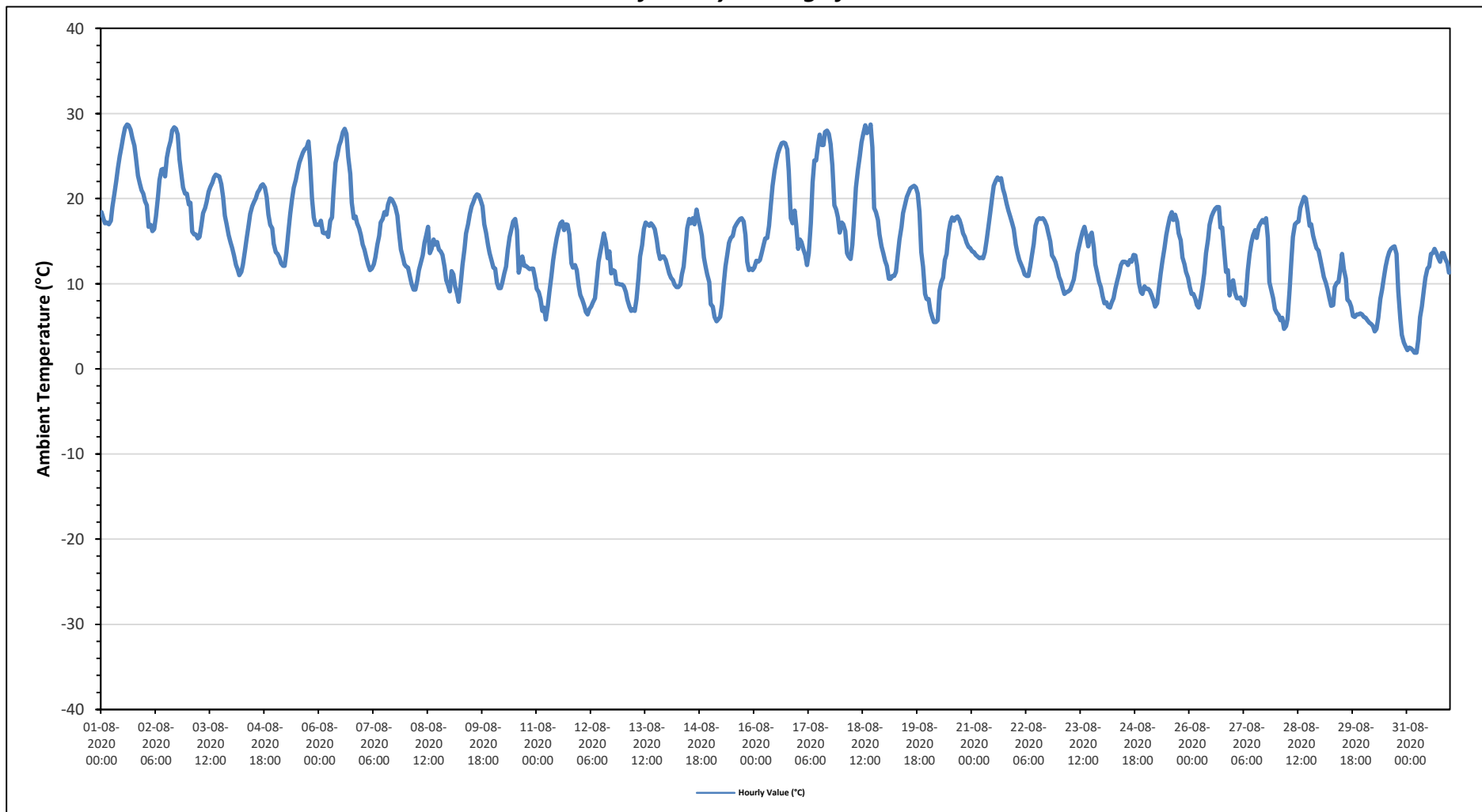
986c Station - August 2020

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

Maximum Hourly Value:										28.7		°C		on August 1 at hour 14										Hours in Service:										744	
Maximum Daily Value:										22.8		°C		on August 1										Hours of Data:										744	
Minimum Hourly Value:										1.9		°C		on August 31 at hour 4										Hours of Missing Data:										0	
Minimum Daily Value:										8.2		°C		on August 30										Hours of Calibration:										0	
Monthly Average:										14.7		°C												Operational Uptime:										100.0	
Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily									
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average								
Aug 1	18.4	17.6	17.1	17.2	17	17.4	19	20.6	22	23.6	25	26.1	27.3	28.3	28.7	28.6	28.1	27.1	26.2	24.8	22.7	21.8	21	20.6	17.0	28.7	22.8								
Aug 2	19.7	19.2	16.7	16.9	16.2	16.4	17.9	20.2	22.2	23.4	23.5	22.6	24.8	25.9	26.8	28	28.4	28.2	27.5	24.6	22.7	21.3	20.6	20.6	16.2	28.4	22.3								
Aug 3	19.3	19.5	16.1	15.8	15.8	15.3	15.5	16.8	18.3	18.9	19.6	20.8	21.4	21.9	22.5	22.8	22.7	22.6	21.7	20.2	18	17	15.7	14.9	14.9	22.8	18.9								
Aug 4	14.2	13.3	12.2	11.7	11	11.4	12.2	13.8	15.3	16.9	18.2	19.1	19.6	20	20.7	21.1	21.5	21.7	21.3	20.2	18.1	16.9	16.5	14.7	11.0	21.7	16.7								
Aug 5	13.7	13.5	13.1	12.4	12.1	12.1	13.7	16.2	18.2	19.9	21.3	22.2	23.1	24.2	24.8	25.4	25.8	26	26.7	24.5	20	17.8	16.9	16.9	12.1	26.7	19.2								
Aug 6	16.9	17.4	16	15.9	16	15.5	17.4	17.8	20.9	24.2	25.1	26.2	26.8	27.8	28.2	27.6	24.9	22.9	19.5	17.7	17.9	17.1	16.5	15.7	15.5	28.2	20.5								
Aug 7	14.6	14	13	12.2	11.6	11.8	12.3	13.1	14.6	15.6	17.2	17.6	18.4	18.1	19.3	20	19.9	19.5	19	18	16.1	14	13.2	12.3	11.6	20.0	15.6								
Aug 8	12	11.9	10.8	10	9.3	9.3	10.3	11.6	12.5	13.3	14.8	15.7	16.7	13.6	14.1	15.2	14.6	14.9	14	13.8	13.4	12	10.4	9.8	9.3	16.7	12.7								
Aug 9	9.1	11.5	11.1	9.7	8.8	7.9	10	12.2	14.1	15.9	17	18.2	19.1	19.6	20.2	20.5	20.4	19.8	19.1	17	16	14.5	13.6	12.7	7.9	20.5	14.9								
Aug 10	11.9	11.8	10.1	9.5	9.5	10.1	11.2	12	14	15.5	16.5	17.3	17.6	16.3	11.3	12.3	13.2	12.1	12.1	11.9	11.7	11.8	11.8	10.6	9.5	17.6	12.6								
Aug 11	9.4	9	8.2	6.8	7.2	5.8	7.4	9	10.9	12.8	14.2	15.4	16.4	17.1	17.3	16.3	17	16.9	15.8	12.4	11.9	12.2	11.6	9.7	5.8	17.3	12.1								
Aug 12	8.7	8.1	7.5	6.7	6.4	7	7.3	7.8	8.3	10.1	12.6	13.7	14.9	15.9	14.8	13	13.8	11.2	11.6	11.5	10	10	9.9	9.9	6.4	15.9	10.4								
Aug 13	9.7	9	8.1	7.3	6.8	7	6.8	8.2	10.8	13.2	14.5	16.4	17.2	17	16.8	17.1	16.8	16.4	15.1	13.8	12.9	13.2	13.2	12.8	6.8	17.2	12.5								
Aug 14	12	11.2	10.7	10.4	9.9	9.6	9.6	9.9	11.1	12	14.5	16.5	17.6	17.1	17.7	17	18.7	17.6	16.7	15.6	13.1	12.1	11.1	10.2	9.6	18.7	13.4								
Aug 15	7.6	7.3	6.1	5.6	5.8	6.1	7.5	9.9	12	13.6	14.8	15.4	15.6	16.6	17	17.3	17.6	17.7	17.3	15.7	12.6	11.6	11.8	11.6	5.6	17.7	12.3								
Aug 16	11.9	12.7	12.6	12.8	13.6	14.6	15.3	15.4	16.8	19.2	21.5	23.3	24.4	25.3	26	26.5	26.6	26.5	25.8	23.2	17.7	17.1	18.6	17	11.9	26.6	19.4								
Aug 17	14.1	15.2	14.9	14	13.4	12.2	13.6	17.1	21.9	24.5	24.5	26.4	27.5	26.3	26.3	27.8	28	27.6	26.4	23.9	19.2	18.7	17.8	16	12.2	28.0	20.7								
Aug 18	17.2	17	16.2	13.6	13.2	12.9	14.6	18.3	21.3	23.4	24.9	26.6	27.6	28.6	27.7	27.9	28.7	26	18.9	18.4	17.5	15.8	14.4	13.6	12.9	28.7	20.2								
Aug 19	12.7	12.1	10.6	10.6	10.9	10.9	11.4	13.3	15.2	16.7	18.3	19.3	20.2	20.7	21.2	21.4	21.5	21.3	20.6	18.4	13.7	12	8.8	8.2	8.2	21.5	15.4								
Aug 20	8.2	6.8	6	5.5	5.5	5.7	9.2	10.2	10.7	12.8	13.5	16	17.2	17.8	17.4	17.8	17.9	17.5	16.8	15.9	15.5	14.8	14.3	14.2	5.5	17.9	12.8								
Aug 21	13.8	13.7	13.4	13.2	13	13.1	13	13.7	15.1	16.7	18.3	20.2	21.5	22.1	22.5	22.2	22.4	21.1	20.5	19.4	18.6	17.9	17.2	16.4	13.0	22.5	17.5								
Aug 22	14.6	13.7	12.8	12.3	11.8	11.1	10.9	10.9	12	13.4	14.7	16.8	17.5	17.7	17.6	17.7	17.4	16.8	16	15	13.3	13	12.5	11.7	10.9	17.7	14.2								
Aug 23	10.8	10.3	9.4	8.8	9	9.1	9.3	9.8	10.5	11.8	13.5	14.4	15.3	16.1	16.7	15.6	14.4	15.6	16	14.3	12.3	11.2	10.2	9.6	8.8	16.7	12.3								
Aug 24	8.5	7.7	7.8	7.3	7.2	7.8	8.3	9.4	10.4	11.1	12.2	12.6	12.6	12.5	12.2	12.8	12.6	13.4	13.3	12.1	10.1	9	8.8	9.7	7.2	13.4	10.4								
Aug 25	9.4	9.4	9.2	8.7	8	7.3	7.7	9.5	11.2	12.7	14.2	15.7	16.8	17.8	18.4	17.5	18.1	17.3	15.9	15.1	13.1	12.3	11.4	10.7	7.3	18.4	12.8								
Aug 26	9.6	8.8	8.8	8.2	7.5	7.2	8.4	9.7	11.2	13.6	15.2	16.9	17.9	18.4	18.8	19	19	16.6	16.6	13.8	11.4	11.6	8.6	10.1	7.2	19.0	12.8								
Aug 27	10.4	8.9	8.3	8.3	8.4	7.7	7.5	8.5	11.6	13.5	14.8	15.7	16.3	15.4	16.7	17.1	17.5	17.2	17.7	15.4	10.2	9.2	8.3	7	7.0	17.7	12.2								
Aug 28	6.6	6.3	5.7	6	4.7	5	5.9	9.3	12.8	15.5	17	17.2	17.3	18.9	19.6	20.2	20	18.6	16.8	17	15.6	14.8	14.2	13.9	4.7	20.2	13.3								
Aug 29	12.9	11.7	10.8	10.1	9.3	8.3	7.4	7.5	9.6	10.1	10.2	11.7	13.5	11.7	10.6	8.1	7.9	7.3	6.2	6.1	6.4	6.4	6.5	6.4	6.1	13.5	9.0								
Aug 30	6.1	6	5.7	5.4	5.3	5	4.4	4.7	6	8.2	9.3	10.7	12	13	13.7	14.1	14.3	14.4	13.5	9.1	5.9	4	3.1	2.6	2.6	14.4	8.2								
Aug 31	2.2	2.5	2.4	2.2	1.9	1.9	3.5	6.1	7.3	9.3	10.7	11.8	12	13.5	13.6	14.1	13.6	13.1	12.6	13.6	13.6	12.9	12.4	11.3	1.9	14.1	9.1								
Diurnal Maximum	19.7	19.5	17.1	17.2	17.0	17.4	19.0	20.6	22.2	24.5	25.1	26.6	27.6	28.6	28.7	28.6	28.7	28.2	27.5	24.8	22.7	21.8	21.0	20.6											
Diurnal Average	11.8	11.5	10.7	10.2	9.9	9.8	10.6	12.0	13.8	15.5	16.8	18.0	18.9	19.2	19.3	19.4	19.5	18.9	18.0	16.5	14.6	13.7	12.9	12.3											
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance																		
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure										
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																										
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																			
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																			

Timeseries Chart of Hourly Average for AT - 986c Station





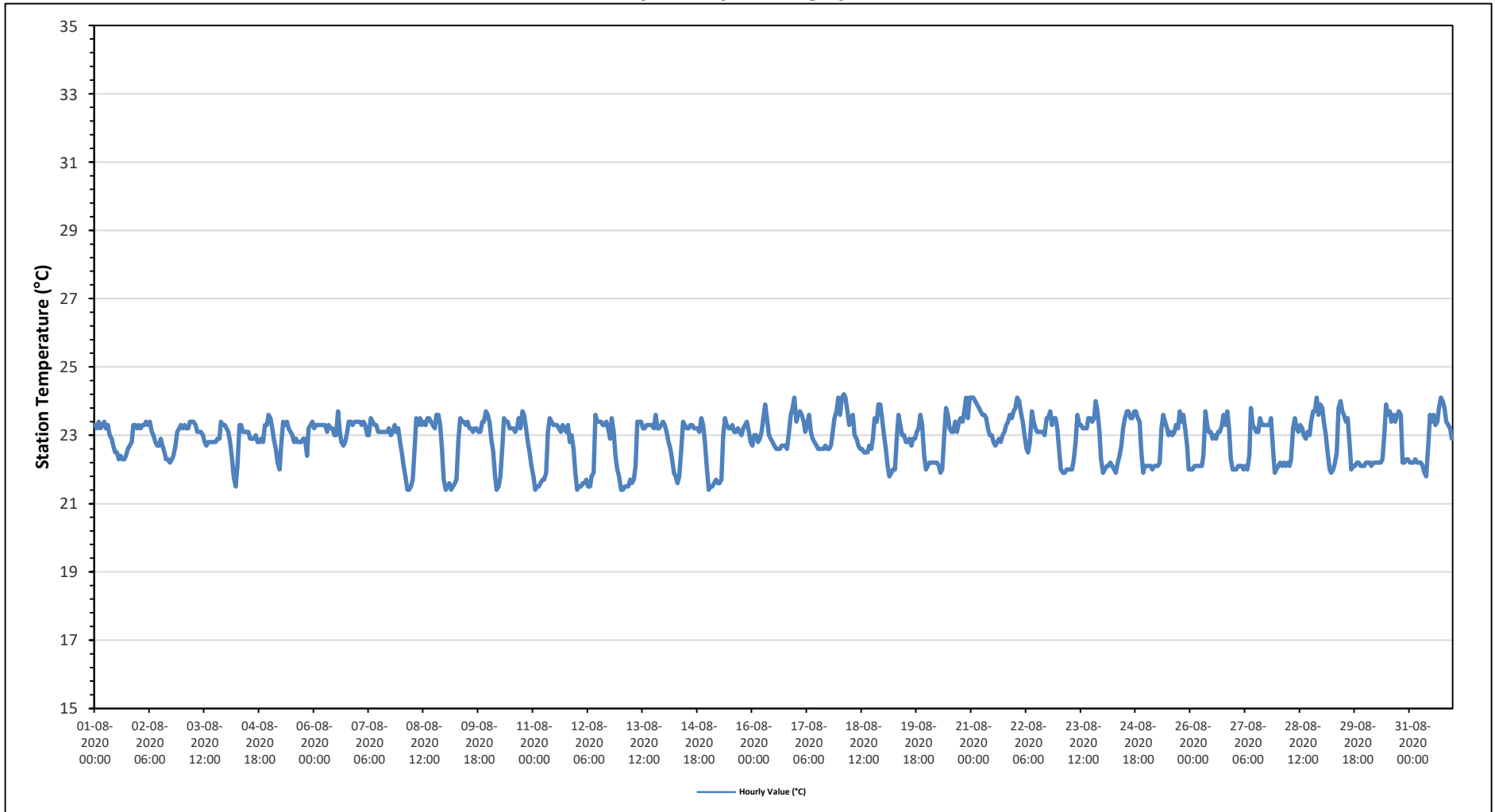
PEACE RIVER AREA MONITORING PROGRAM

986c Station - August 2020
Summary of Hourly Averages

STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:										24.2	°C	on August 18 at hour 2					Hours in Service:										744					
Maximum Daily Value:										23.4	°C	on August 21					Hours of Data:										744					
Minimum Hourly Value:										21.4	°C	on August 8 at hour 3					Hours of Missing Data:										0					
Minimum Daily Value:										22.4	°C	on August 12					Hours of Calibration:										0					
Monthly Average:										22.9	°C											Operational Uptime:										100.0
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average						
Aug 1	23.3	23.2	23.4	23.2	23.3	23.4	23.2	23.3	23.0	22.9	22.7	22.5	22.5	22.3	22.4	22.3	22.3	22.4	22.6	22.7	22.8	23.3	23.3	23.2	22.3	23.4	22.9					
Aug 2	23.3	23.2	23.3	23.3	23.4	23.3	23.4	23.1	23.0	22.8	22.7	22.7	22.9	22.7	22.5	22.3	22.3	22.2	22.3	22.4	22.7	23.1	23.2	23.3	22.2	23.4	22.9					
Aug 3	23.2	23.3	23.2	23.2	23.4	23.4	23.4	23.3	23.1	23.1	23.1	23.0	22.8	22.7	22.8	22.8	22.8	22.8	22.9	22.9	23.4	23.3	23.3	23.3	22.7	23.4	23.1					
Aug 4	23.2	23.1	22.8	22.3	21.8	21.5	22.1	23.3	23.3	23.1	23.1	23.1	23.1	22.9	22.9	22.9	23.0	22.8	22.8	22.9	22.8	23.3	23.3	23.6	21.5	23.6	22.9					
Aug 5	23.5	23.2	22.9	22.6	22.2	22.0	22.7	23.4	23.3	23.4	23.2	23.1	23.0	22.8	22.9	22.8	22.8	22.8	22.9	22.9	22.4	23.2	23.3	23.4	22.0	23.5	22.9					
Aug 6	23.2	23.3	23.3	23.3	23.3	23.3	23.3	23.1	23.3	23.2	23.2	23.0	23.0	23.7	23.1	22.8	22.7	22.8	23.1	23.4	23.4	23.3	23.4	23.4	22.7	23.7	23.2					
Aug 7	23.4	23.4	23.3	23.4	23.3	23.0	23.0	23.5	23.4	23.3	23.3	23.1	23.1	23.1	23.1	23.1	23.1	23.2	23.0	23.1	23.3	23.1	23.2	22.8	22.8	23.5	23.2					
Aug 8	22.5	22.1	21.8	21.4	21.4	21.5	21.7	22.7	23.5	23.3	23.5	23.3	23.4	23.3	23.5	23.5	23.4	23.3	23.2	23.6	23.6	23.3	22.6	21.7	21.4	23.6	22.8					
Aug 9	21.4	21.5	21.6	21.4	21.5	21.6	21.7	22.9	23.5	23.4	23.4	23.3	23.4	23.2	23.2	23.1	23.2	23.2	23.1	23.1	23.4	23.4	23.7	23.6	21.4	23.7	22.8					
Aug 10	23.4	22.9	22.5	21.8	21.4	21.5	21.8	22.7	23.5	23.4	23.4	23.2	23.2	23.2	23.1	23.2	23.5	23.2	23.7	23.6	23.2	22.8	22.5	22.1	21.4	23.7	22.9					
Aug 11	21.8	21.4	21.5	21.5	21.6	21.7	21.7	21.9	23.1	23.5	23.4	23.3	23.3	23.3	23.2	23.1	23.3	23.2	23.1	23.3	22.8	23.0	22.6	21.9	21.4	23.5	22.6					
Aug 12	21.4	21.5	21.5	21.6	21.6	21.7	21.5	21.5	21.8	21.9	23.6	23.4	23.4	23.4	23.3	23.3	23.4	23.2	22.9	23.5	23.1	22.4	22.0	21.8	21.4	23.6	22.4					
Aug 13	21.4	21.4	21.5	21.5	21.5	21.7	21.6	21.7	22.1	23.4	23.4	23.4	23.2	23.2	23.3	23.3	23.3	23.3	23.2	23.6	23.2	23.2	23.3	23.4	21.4	23.6	22.7					
Aug 14	23.3	23.1	22.8	22.6	22.3	21.9	21.8	21.6	21.8	22.6	23.4	23.3	23.2	23.2	23.3	23.3	23.2	23.2	23.1	23.5	23.3	22.8	22.1	21.6	21.6	23.5	22.8					
Aug 15	21.4	21.5	21.5	21.6	21.7	21.6	21.6	21.7	23.0	23.5	23.3	23.2	23.2	23.3	23.1	23.1	23.2	23.1	23.0	23.2	23.3	23.4	23.1	22.8	21.4	23.5	22.6					
Aug 16	22.7	23.0	23.0	22.8	22.9	23.1	23.5	23.9	23.5	23.0	22.9	22.8	22.7	22.6	22.6	22.6	22.7	22.7	22.7	22.6	23.1	23.6	23.8	24.1	22.6	24.1	23.0					
Aug 17	23.4	23.6	23.7	23.6	23.4	23.1	23.3	23.6	23.1	22.9	22.8	22.7	22.6	22.6	22.6	22.6	22.7	22.6	22.6	22.7	23.1	23.5	23.7	24.1	22.6	24.1	23.1					
Aug 18	23.6	24.1	24.2	24.1	23.7	23.3	23.5	23.6	23.0	22.9	22.7	22.6	22.6	22.5	22.5	22.5	22.7	22.6	22.9	23.5	23.4	23.9	23.9	23.5	22.5	24.2	23.2					
Aug 19	23.0	22.6	22.1	21.8	21.9	22.0	22.0	22.9	23.6	23.3	23.0	23.0	22.8	22.8	22.9	22.7	22.9	22.9	23.1	23.2	23.6	23.3	22.4	22.0	21.8	23.6	22.7					
Aug 20	22.1	22.2	22.2	22.2	22.2	22.2	22.1	21.9	22.0	23.0	23.8	23.6	23.2	23.1	23.1	23.4	23.1	23.4	23.5	23.4	23.7	24.1	23.5	24.1	21.9	24.1	23.0					
Aug 21	24.1	24.1	24.0	23.9	23.8	23.7	23.6	23.6	23.5	23.2	23.0	23.0	22.8	22.7	22.8	22.9	22.8	23.0	23.1	23.3	23.4	23.6	23.5	23.7	22.7	24.1	23.4					
Aug 22	23.8	24.1	24.0	23.7	23.4	23.0	22.6	22.5	22.8	23.7	23.4	23.2	23.1	23.1	23.1	23.1	23.0	23.5	23.5	23.7	23.3	23.5	23.5	23.2	22.5	24.1	23.3					
Aug 23	22.5	22.0	21.9	21.9	22.0	22.0	22.0	22.0	22.3	22.8	23.6	23.3	23.3	23.2	23.2	23.2	23.5	23.5	23.4	23.5	24.0	23.7	23.1	22.3	21.9	24.0	22.8					
Aug 24	21.9	22.0	22.1	22.1	22.2	22.1	22.0	21.9	22.2	22.4	22.7	23.2	23.5	23.7	23.7	23.5	23.5	23.7	23.7	23.5	23.4	22.5	21.9	22.1	21.9	23.7	22.7					
Aug 25	22.1	22.1	22.1	22.0	22.1	22.1	22.1	22.2	23.2	23.6	23.4	23.2	23.0	23.1	23.0	23.1	23.3	23.2	23.7	23.4	23.6	23.2	22.7	22.0	22.0	23.7	22.8					
Aug 26	22.0	22.0	22.1	22.1	22.1	22.1	22.1	22.4	23.7	23.3	23.1	23.1	22.9	23.0	22.9	23.1	23.1	23.3	23.6	23.3	23.7	23.2	22.3	22.0	22.0	23.7	22.8					
Aug 27	22.0	22.0	22.1	22.1	22.1	22.0	22.1	22.0	22.4	23.8	23.3	23.2	23.1	23.1	23.5	23.3	23.3	23.3	23.3	23.3	23.5	22.6	21.9	22.0	21.9	23.8	22.7					
Aug 28	22.1	22.2	22.1	22.2	22.1	22.2	22.1	22.3	23.2	23.5	23.2	23.1	23.3	23.2	23.0	22.9	23.1	23.0	23.4	23.7	23.7	24.1	23.6	23.9	22.1	24.1	23.0					
Aug 29	23.8	23.4	23.0	22.5	22.0	21.9	22.0	22.2	22.5	23.8	24.0	23.7	23.6	23.4	23.5	22.7	22.0	22.1	22.2	22.2	22.1	22.1	22.1	22.1	21.9	24.0	22.7					
Aug 30	22.2	22.2	22.2	22.1	22.2	22.2	22.2	22.2	22.2	22.3	23.0	23.9	23.6	23.7	23.4	23.6	23.4	23.6	23.7	23.6	22.2	22.2	22.3	22.3	22.1	23.9	22.8					
Aug 31	22.2	22.2	22.2	22.3	22.2	22.2	22.2	22.1	21.9	21.8	22.7	23.6	23.4	23.6	23.3	23.4	23.8	24.1	24.0	23.8	23.4	23.3	23.2	22.9	21.8	24.1	22.9					
Diurnal Maximum	24.1	24.1	24.2	24.1	23.8	23.7	23.6	23.9	23.7	23.8	24.0	23.9	23.6	23.7	23.7	23.6	23.8	24.1	24.0	23.8	24.0	24.1	23.9	24.1								
Diurnal Average	22.7	22.6	22.6	22.5	22.4	22.3	22.4	22.6	22.9	23.1	23.2	23.2	23.1	23.1	23.1	23.0	23.0	23.1	23.1	23.2	23.2	23.0	22.9									
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance															
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance															
X	Invalid Data (Equipment Malfunction/Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																							
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																

Timeseries Chart of Hourly Average for ST - 986c Station





PEACE RIVER AREA MONITORING PROGRAM

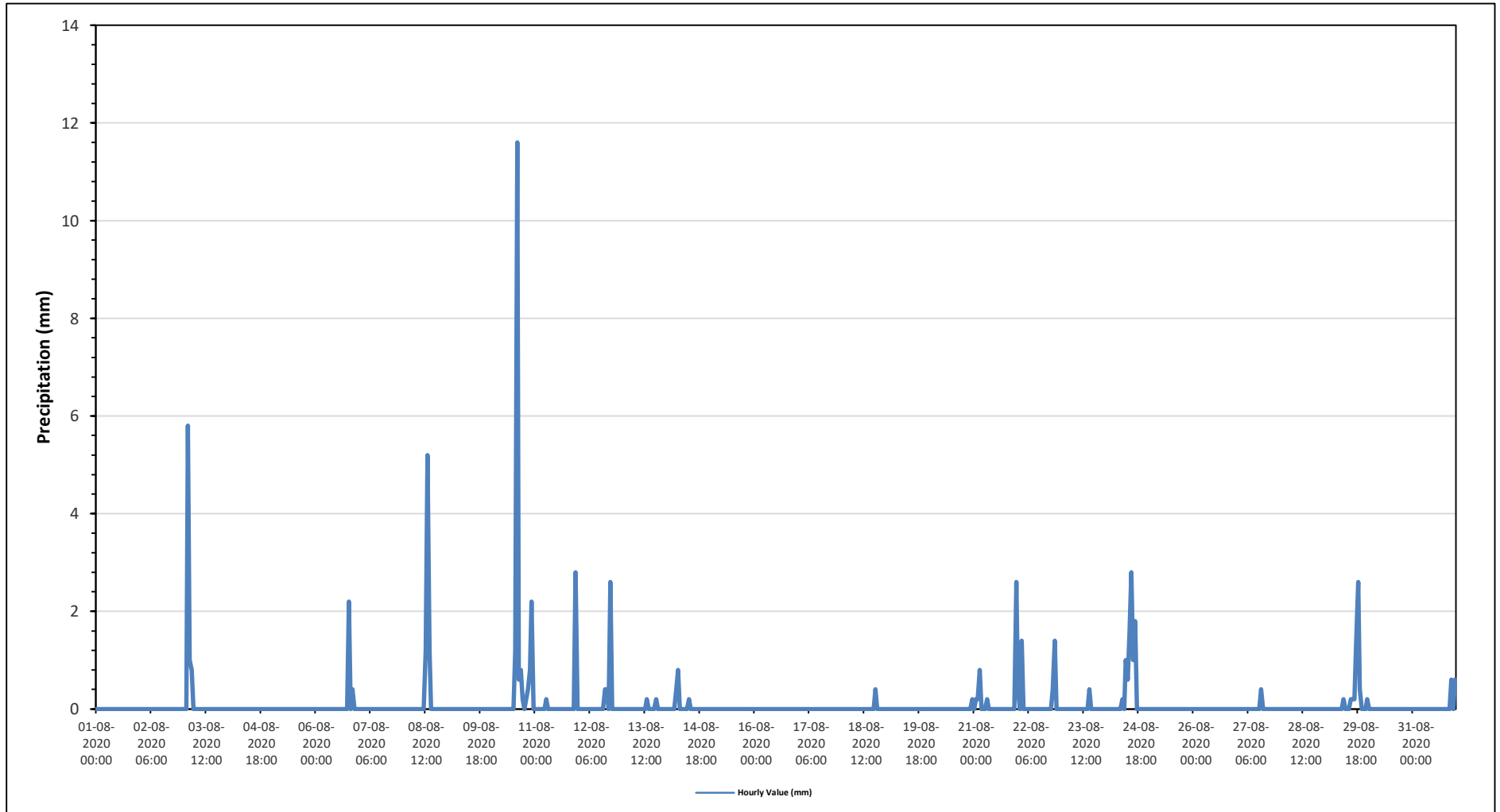
986c Station - August 2020

Summary of Hourly Averages

PRECIPITATION in mm

Maximum Hourly Value:										11.6 mm on August 10 at hour 14										Hours in Service:										744									
Maximum Daily Value:										18.0 mm on August 10										Hours of Data:										744									
Minimum Hourly Value:										0.0 mm on August 1 at hour 0										Hours of Missing Data:										0									
Minimum Daily Value:										0.0 mm on August 1										Hours of Calibration:										0									
Monthly Total:										68.6 mm										Operational Uptime:										100.0									
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Total												
Aug 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											
Aug 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											
Aug 3	0	0	5.8	1	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	5.8	7.6											
Aug 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											
Aug 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											
Aug 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.2	0	0.4	0	0	0	0	0.0	2.2	2.6											
Aug 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											
Aug 8	0	0	0	0	0	0	0	0	0	0	0	0	1.2	5.2	1.2	0	0	0	0	0	0	0	0	0	0	0.0	5.2	7.6											
Aug 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0											
Aug 10	0	0	0	0	0	0	0	0	0	0	0	0	1.2	11.6	0.6	0.8	0.2	0	0.2	0.4	0.8	2.2	0	0	0.0	11.6	18.0												
Aug 11	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.8	0	0	0.0	2.8	3.0												
Aug 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4	0	2.6	0	0	0	0	0	0	0.0	2.6	3.4											
Aug 13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0.2	0	0	0	0	0	0.0	0.2	0.4											
Aug 14	0	0	0	0	0	0.4	0.8	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.8	1.4											
Aug 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											
Aug 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											
Aug 17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0											
Aug 18	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	0.4	0.4											
Aug 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0											
Aug 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.0	0.2	0.2												
Aug 21	0	0.2	0.2	0.8	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.6	0.0	2.6	4.0												
Aug 22	0.4	0	1.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.4	0	0	0	0	0.0	1.4	3.6												
Aug 23	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	0.4	0.4												
Aug 24	0	0	0	0	0	0	0	0	0	0	0.2	0	1	0.6	1.6	2.8	1	1.8	0	0	0	0	0	0	0	0.0	2.8	9.0											
Aug 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												
Aug 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0												
Aug 27	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	0.4	0.4											
Aug 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0											
Aug 29	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0.2	0.2	0.2	1.4	2.6	0.4	0	0	0.2	0.0	2.6	5.4												
Aug 30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0												
Aug 31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0	0.6	0.0	0.6	1.2												
Diurnal Maximum	0.4	0.2	5.8	1.0	0.8	0.4	0.8	0.2	0.0	0.2	0.2	1.0	1.2	5.2	11.6	1.0	1.8	2.6	2.6	0.4	1.4	0.8	2.8	2.6															
Diurnal Average	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.1	0.1	0.1	0.2	0.0	0.1	0.0	0.2	0.1															
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance																						
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure														
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																														
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																							
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																							

Timeseries Chart of Hourly Average for Precipitation - 986c Station





PEACE RIVER AREA MONITORING PROGRAM

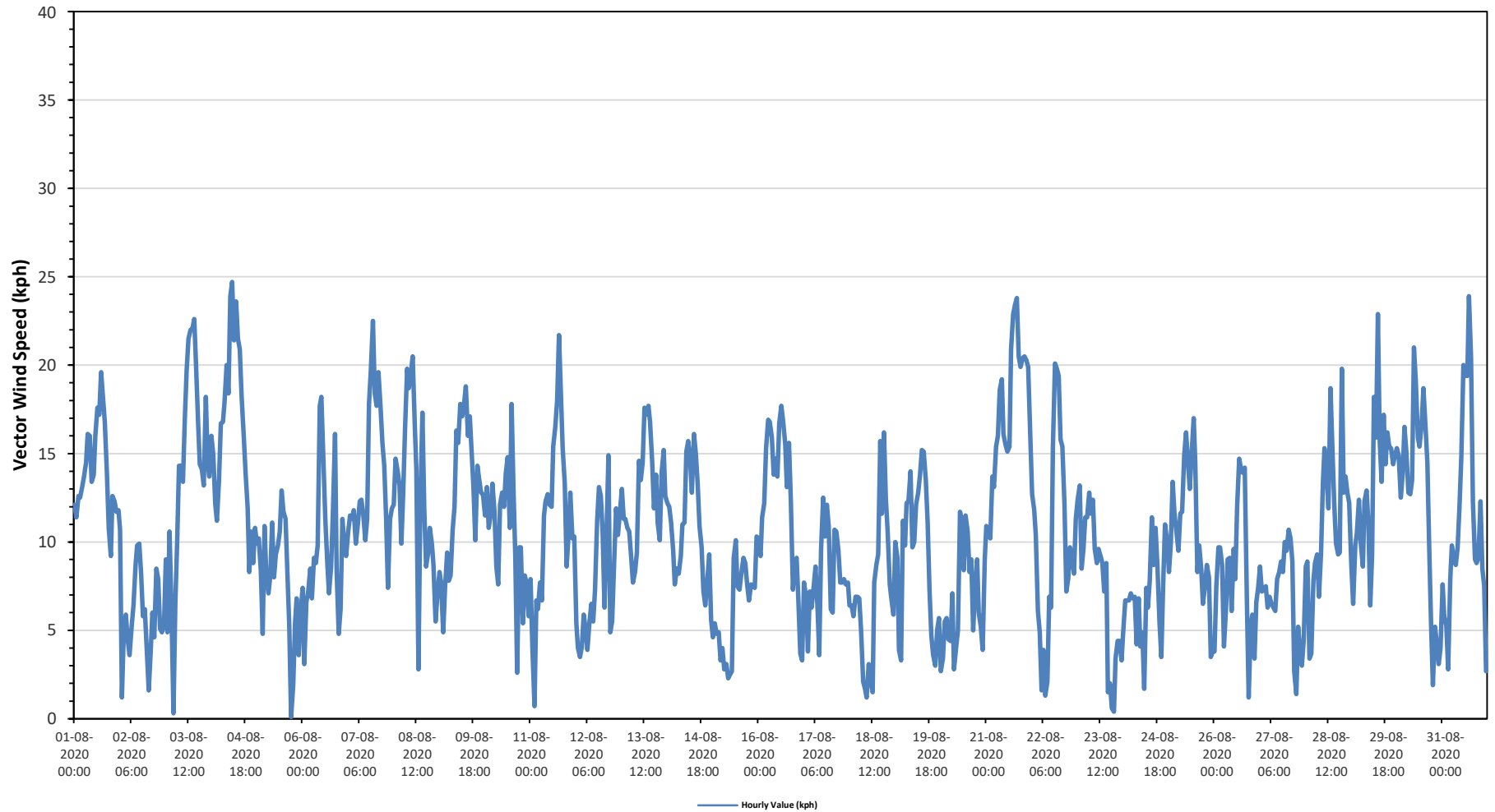
986c Station - August 2020

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr

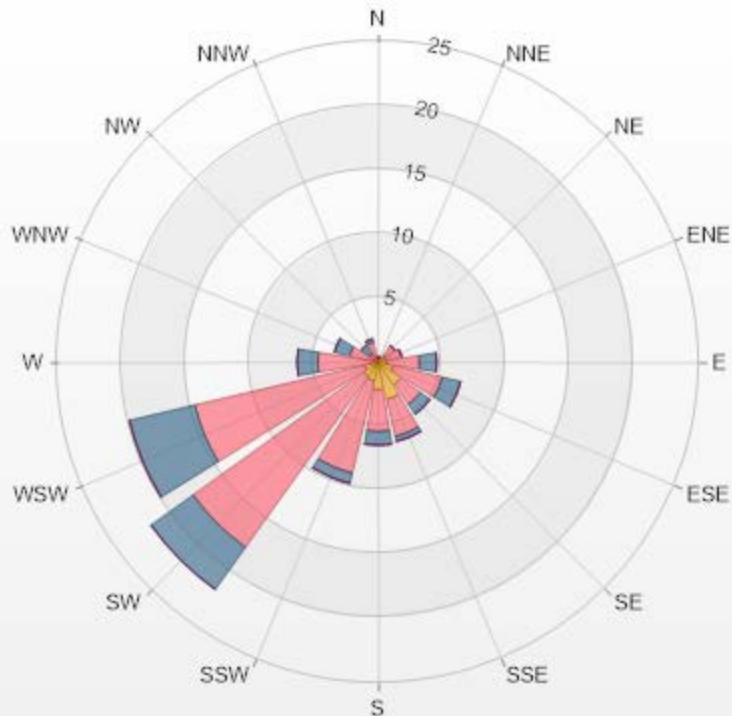
Maximum Hourly Value:										24.7		kph		on August 4 at hour 11										Hours in Service:					744				
Maximum Daily Value:										17.0		kph		on August 21										Hours of Data:					744				
Minimum Hourly Value:										0.1		kph		on August 5 at hour 18										Hours of Missing Data:					0				
Minimum Daily Value:										2.8		kph		on August 6										Hours of Calibration:					0				
Monthly Average:										6.0		kph												Operational Uptime:					100.0				
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average							
Aug 1	12.1	11.4	12.6	12.5	13.1	13.7	14.5	16.1	16.0	13.4	13.8	16.0	17.6	17.2	19.6	18.0	16.8	13.9	10.8	9.2	12.6	12.3	11.7	11.8	9.2	19.6	13.6						
Aug 2	10.7	1.2	5.3	5.9	4.5	3.6	5.2	6.4	8.7	9.8	9.9	8.2	5.8	6.2	4.1	1.6	3.7	6.0	4.6	8.5	7.9	5.1	4.9	5.3	1.2	10.7	3.0						
Aug 3	9.0	4.9	10.6	6.5	0.3	6.5	10.0	14.3	14.3	13.4	16.9	19.7	21.5	22.0	22.0	22.6	19.9	16.6	14.4	14.1	13.2	18.2	14.5	13.7	0.3	22.6	12.1						
Aug 4	16.0	15.0	12.1	11.2	13.5	16.7	16.8	17.9	20.0	18.4	23.9	24.7	21.4	23.6	21.5	20.9	18.2	16.0	13.9	11.9	8.3	10.6	8.8	10.8	8.3	24.7	16.0						
Aug 5	9.9	10.2	8.4	4.8	10.9	8.0	7.1	8.1	11.1	8.0	9.3	9.8	10.6	12.9	11.7	11.3	8.2	5.3	0.1	1.9	5.4	6.8	3.6	6.0	0.1	12.9	6.3						
Aug 6	7.4	3.1	6.6	7.2	8.5	6.8	9.1	8.8	9.8	17.7	18.2	14.5	11.3	8.7	7.1	8.6	11.7	16.1	8.4	4.8	6.2	11.3	9.9	9.2	3.1	18.2	2.8						
Aug 7	10.6	11.5	11.3	11.8	9.9	10.9	12.3	12.4	11.6	10.1	11.3	17.8	19.7	22.5	18.4	17.7	19.6	17.6	15.6	14.3	11.4	7.4	11.3	11.9	7.4	22.5	13.5						
Aug 8	12.1	14.7	14.0	13.2	9.9	12.8	16.4	19.8	18.7	19.5	20.5	16.6	14.1	2.8	12.0	17.3	11.9	8.6	9.3	10.8	9.9	8.7	5.5	7.0	2.8	20.5	11.9						
Aug 9	8.3	7.7	4.9	7.4	9.4	7.8	8.1	10.7	12.0	16.3	15.6	17.8	17.1	17.9	18.8	16.0	17.1	15.1	13.1	10.1	14.3	13.5	12.8	12.7	4.9	18.8	12.3						
Aug 10	11.5	13.1	10.8	11.5	13.3	11.7	8.6	7.6	12.1	12.8	12.0	13.9	14.8	10.8	17.8	13.0	9.2	2.6	9.7	9.7	5.4	8.1	7.6	5.8	2.6	17.8	8.5						
Aug 11	7.9	4.0	0.7	6.7	6.2	7.7	6.7	11.5	12.3	12.7	12.1	12.0	15.4	16.5	18.0	21.7	18.5	15.3	13.3	8.6	10.6	12.8	10.2	10.3	0.7	21.7	10.0						
Aug 12	5.4	4.0	3.5	4.1	5.9	5.1	3.9	5.5	6.5	5.5	7.3	11.2	13.1	12.6	10.5	6.3	10.7	14.9	4.9	5.5	9.0	11.9	10.4	11.6	3.5	14.9	5.7						
Aug 13	13.0	11.3	11.3	10.8	10.6	9.0	7.7	8.3	9.4	14.6	13.5	14.5	17.6	17.2	17.7	16.8	14.6	11.9	13.8	11.1	10.1	13.9	15.2	12.6	7.7	17.7	12.5						
Aug 14	12.2	12.0	11.1	9.5	7.6	8.5	8.2	9.2	11.0	11.1	15.1	15.7	14.7	12.8	16.1	15.0	13.3	10.9	9.7	7.2	6.4	7.7	9.3	5.6	5.6	16.1	10.3						
Aug 15	4.6	5.4	4.8	4.9	3.3	4.0	2.8	3.1	2.3	2.5	2.7	9.1	10.1	7.5	7.3	8.2	9.1	8.8	7.6	6.7	7.6	7.5	7.4	10.3	2.3	10.3	5.1						
Aug 16	10.2	9.2	11.4	12.2	15.3	16.9	16.8	15.9	13.8	14.7	13.7	16.7	17.7	16.8	15.5	13.1	15.6	12.4	7.3	8.8	9.1	6.6	3.7	3.3	3.3	17.7	11.2						
Aug 17	7.7	6.9	3.8	7.2	6.3	7.5	8.6	6.1	3.6	9.6	12.5	10.3	12.1	10.9	6.2	6.0	10.7	10.6	9.5	7.7	7.7	7.9	7.6	7.7	3.6	12.5	4.8						
Aug 18	6.4	6.4	5.8	6.9	6.9	6.8	5.0	2.1	1.7	1.2	3.1	2.2	1.5	7.7	8.7	9.3	15.7	11.6	16.2	12.5	10.6	7.6	6.8	5.9	1.2	16.2	4.7						
Aug 19	10.0	9.1	3.9	3.3	11.2	9.8	12.2	12.3	14.0	9.7	10.0	12.1	12.8	13.8	15.2	15.1	13.5	11.1	7.3	4.7	3.6	3.0	5.0	5.7	3.0	15.2	8.6						
Aug 20	2.7	3.4	5.5	5.7	4.5	4.4	7.1	2.8	4.0	5.0	11.7	11.2	8.4	11.5	10.6	8.3	9.0	5.0	7.4	9.0	6.0	5.2	3.9	9.0	2.7	11.7	5.7						
Aug 21	10.9	10.4	10.2	13.7	13.1	15.4	16.0	18.6	19.2	16.1	15.5	15.1	15.4	20.9	22.9	23.4	23.8	20.5	19.9	20.4	20.5	20.3	19.9	16.0	10.2	23.8	17.0						
Aug 22	12.7	11.8	10.4	6.1	4.9	1.6	3.9	1.3	2.1	6.9	6.3	15.4	20.1	19.8	19.4	15.8	15.4	12.1	7.2	7.9	9.7	9.0	8.2	11.3	1.3	20.1	8.2						
Aug 23	12.4	13.2	8.5	9.6	11.4	11.4	12.8	11.6	12.4	9.6	8.8	9.6	9.2	8.8	7.2	8.8	1.5	2.0	0.6	0.4	3.4	4.4	4.4	3.3	0.4	13.2	6.3						
Aug 24	4.9	6.7	6.7	6.7	7.1	6.8	6.9	4.2	6.8	4.1	4.9	1.7	7.4	6.3	7.8	11.4	8.7	10.8	8.7	5.5	3.5	7.6	11.0	10.1	1.7	11.4	5.1						
Aug 25	8.3	9.9	13.4	11.6	10.5	9.5	11.6	11.7	14.9	16.2	14.6	13.0	15.2	17.0	14.5	8.3	9.8	8.4	6.5	7.5	8.7	8.0	3.5	3.8	3.5	17.0	10.1						
Aug 26	3.8	7.5	9.7	9.7	8.7	4.1	6.3	9.0	9.1	6.1	9.6	7.9	12.0	14.7	14.1	13.9	14.2	6.8	1.2	5.3	5.9	3.4	6.6	7.4	1.2	14.7	7.5						
Aug 27	8.6	7.2	7.3	7.5	6.3	6.9	6.5	6.3	6.1	7.9	8.3	8.9	8.3	10.0	9.5	10.7	10.2	8.9	2.7	1.4	5.2	3.9	3.0	4.4	1.4	10.7	3.9						
Aug 28	8.6	8.9	3.4	3.7	7.8	8.8	9.3	6.9	9.4	13.3	15.3	13.8	11.9	18.7	15.8	12.2	9.9	9.3	9.4	19.8	12.8	13.7	12.8	12.2	3.4	19.8	8.9						
Aug 29	8.7	6.5	9.8	10.5	12.4	9.9	8.6	12.3	12.9	11.0	6.4	9.3	18.2	15.9	22.9	15.7	13.4	17.2	14.4	16.2	15.4	15.3	14.4	14.9	6.4	22.9	11.9						
Aug 30	15.3	14.9	12.5	13.8	16.5	15.1	12.8	12.7	13.5	21.0	19.1	15.9	15.4	16.6	18.7	16.5	14.5	9.7	5.4	1.9	5.2	4.4	3.1	4.0	1.9	21.0	10.3						
Aug 31	7.6	5.8	5.3	2.8	7.9	9.8	9.0	8.7	9.7	12.0	14.8	20.0	19.4	23.9	20.4	12.3	9.0	8.8	9.1	12.3	8.5	7.5	2.7		2.7	23.9	9.4						
Diurnal Maximum	16	15	14	14	17	17	17	20	20	21	24	25	22	24	24	23	24	21	20	20	21	20	20	16									
Diurnal Average	9.3	8.6	8.2	8.4	9.0	9.0	9.4	9.7	10.6	11.3	12.2	13.1	13.9	14.2	14.7	13.7	12.9	11.1	9.1	8.8	9.0	9.2	8.5	8.6									
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance																
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure								
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																								
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																	
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																	

Timeseries Chart of Hourly Average for VWS - 986c Station



Wind: PRAMP 986c Monitor: WDS [KPH] Monthly: 08-2020 Type: WindRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 2.15% Valid Data: 100.00%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	0.27	0.13	0	0	0	0.4
NNE	0.4	0	0	0	0	0.4
NE	0.67	0.94	0	0	0	1.61
ENE	0.54	1.34	0	0	0	1.88
E	0.67	2.55	1.34	0	0	4.56
ESE	1.21	3.9	1.48	0	0	6.59
SE	2.15	1.88	0.94	0	0	4.97
SSE	2.96	2.96	0.4	0	0	6.32
S	2.15	3.23	1.08	0	0	6.46
SSW	1.48	7.39	0.81	0	0	9.68
SW	1.34	16.4	4.03	0	0	21.77
WSW	1.08	13.58	5.24	0	0	19.9
W	0.13	4.57	1.61	0	0	6.31
WNW	0.4	1.88	1.21	0	0	3.49
NW	0.13	0.67	0.81	0	0	1.61
NNW	0.4	1.21	0.27	0	0	1.88
Summary	15.98	62.63	19.22	0	0	97.83



PRAMP-202008

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% Icon Classes (KPH)

16

1.8-6.0

63

6.0-15.0

19

15.0-29.0

0

29.0-39.0

0

>39.0



PEACE RIVER AREA MONITORING PROGRAM

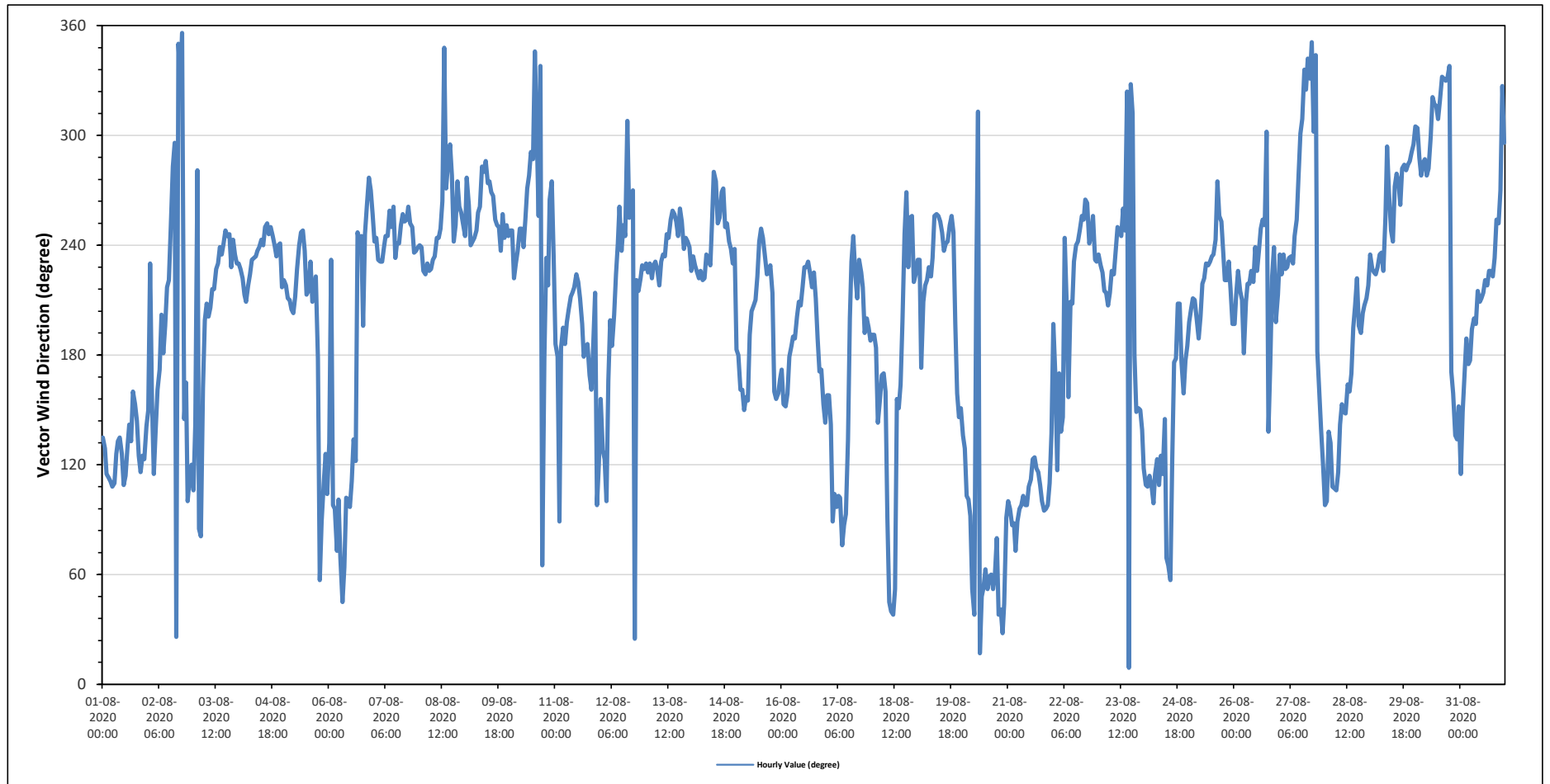
886c Station - August 2020

Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

Monthly Average:																								221 (SW) degree		Hours in Service:										744	
																								Hours of Data:										744			
																								Hours of Missing Data:										0			
																								Hours of Calibration:										0			
																								Operational Uptime:										100.0			
Day	Hourly Period Starting at (MST)																							Daily Average													
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Degree	Quadrant											
Aug 1	SE	SE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	ESE	ESE	SE	SE	SSE	SSE	SSE	SE	SE	ESE	SE	ESE	SE	128	SE											
Aug 2	SSE	SW	SSE	ESE	SE	SSE	S	SSW	S	SSW	SW	SW	WSW	W	WNW	NNE	N	NNW	N	SE	SSE	E	ESE	ESE	177	S											
Aug 3	ESE	SE	W	E	E	SSE	SSW	SSW	SSW	SSW	SW	SW	SW	SW	WSW	SW	WSW	WSW	WSW	WSW	SW	WSW	SW	SW	226	SW											
Aug 4	SW	SW	SW	SSW	SSW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	SW	235	SW											
Aug 5	SW	SW	SSW	SSW	SSW	SSW	SSW	SW	WSW	WSW	WSW	SW	SSW	SSW	SW	SSW	SSW	SSW	SW	S	ENE	E	ESE	SE	ESE	214	SSW										
Aug 6	SE	SW	E	E	ENE	E	ENE	NE	ENE	E	E	E	ESE	SE	ESE	WSW	WSW	WSW	SSW	WSW	W	W	W	WSW	130	SE											
Aug 7	WSW	WSW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	W	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	WSW	SW	SW	WSW	246	WSW										
Aug 8	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	W	NNW	W	NNW	W	NNW	W	WSW	WSW	W	WSW	WSW	248	WSW											
Aug 9	WSW	W	W	WSW	WSW	WSW	WSW	WSW	W	W	W	WNW	W	W	W	W	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	261	W											
Aug 10	WSW	WSW	SW	SW	SW	WSW	WSW	WSW	WSW	W	W	WNW	WNW	NNW	WNW	WSW	NNW	ENE	S	SW	SW	W	W	SW	261	W											
Aug 11	S	S	E	S	SSW	S	SSW	SSW	SSW	SSW	SW	SW	SW	SSW	SSW	S	S	S	SSE	SSE	S	SSW	E	ESE	192	S											
Aug 12	SSE	SE	ESE	E	SSE	SSW	S	SSW	SW	WSW	W	SW	WSW	WSW	NW	WSW	W	W	NNE	SW	SSW	SW	SW	SW	234	SW											
Aug 13	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	242	WSW											
Aug 14	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	W	W	WSW	WSW	W	W	WSW	WSW	WSW	SW	SW	SW	244	WSW											
Aug 15	S	S	SSE	SSE	SSE	SSE	SSE	S	SSW	SSW	SSW	SW	WSW	WSW	WSW	SW	SW	SW	SW	SSW	SSE	SSE	SSE	SSE	201	SSW											
Aug 16	S	SSE	SSE	SSE	S	S	S	S	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SSW	S	S	S	SSE	SE	198	SSW											
Aug 17	SSE	SSE	SE	E	ESE	E	ESE	E	ENE	E	E	SE	SSW	SW	WSW	SW	SSW	SW	SW	S	SSW	SSW	S	169	SSE												
Aug 18	S	S	S	SE	SSE	SSE	SSE	SSE	E	NE	NE	NE	NE	SSE	SSE	SSE	SSW	WSW	W	SW	WSW	WSW	SW	SW	203	SSW											
Aug 19	SW	SW	S	SSW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	SSW	SSE	SE	SSE	234	SW											
Aug 20	SE	SE	ESE	E	E	NE	NE	SSW	NW	NNE	NE	NE	ENE	NE	ENE	ENE	NE	ENE	E	NE	NE	NNE	NE	E	59	ENE											
Aug 21	E	E	E	E	ENE	E	E	E	ESE	E	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	E	E	E	E	ESE	SE	105	ESE											
Aug 22	SSW	S	ESE	SSE	SE	SE	WSW	SSW	SSE	SSW	SSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	WSW	WSW	WSW	SW	SW	230	SW										
Aug 23	SW	SW	SW	SSW	SSW	SSW	SSW	SW	SW	SW	WSW	WSW	WSW	WSW	NW	N	NNW	NW	S	SSE	SSE	SSE	SE	229	SW												
Aug 24	ESE	ESE	ESE	ESE	ESE	E	ESE	ESE	ESE	SE	ESE	SE	ENE	ENE	ENE	ESE	S	S	SSW	SSW	S	SSE	S	S	135	SE											
Aug 25	SSW	SSW	SSW	SSW	SSW	S	SSW	SW	SW	SW	SW	SW	SW	SW	WSW	W	WSW	WSW	SW	SW	SW	SW	SSW	SSW	224	SW											
Aug 26	SSW	SSW	SW	SSW	SSW	S	SSW	SW	SW	SW	WSW	SW	WSW	SW	WSW	WSW	WSW	WNW	SE	S	SW	WSW	SSW	SSW	227	SW											
Aug 27	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	W	WNW	NW	NNW	NW	NNW	NNW	N	WNW	NNW	S	SSE	SE	ESE	273	W											
Aug 28	E	E	SE	SE	ESE	ESE	ESE	ESE	SE	SSE	SSE	SE	SSE	SSE	SSE	SSW	SSW	SW	SSW	S	SSW	SSW	SSW	SW	167	SSE											
Aug 29	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WNW	W	WSW	WSW	W	W	W	W	W	WNW	W	WNW	WNW	WNW	WNW	264	W											
Aug 30	WNW	WNW	WNW	W	WNW	WNW	W	W	WNW	NW	NW	NW	NW	NW	NNW	NNW	NNW	NNW	NW	S	SSE	SE	SE	SSE	307	NW											
Aug 31	ESE	SSE	SSE	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	WSW	WSW	W	NW	WNW	216	SW												
C	Monthly Calibration						S	Daily Zero-Span Check						Q	Quality Assurance						P	Power Failure															
K	Collection Error						N	No Data (Machine Not in Service)						Y	Routine Maintenance																						
X	InValid Data (Machine Malfunction /Recovery)						NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																													
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																					
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																					

Timeseries Chart of Hourly Average for VWD - 986c Station



842b STATION



PEACE RIVER AREA MONITORING PROGRAM

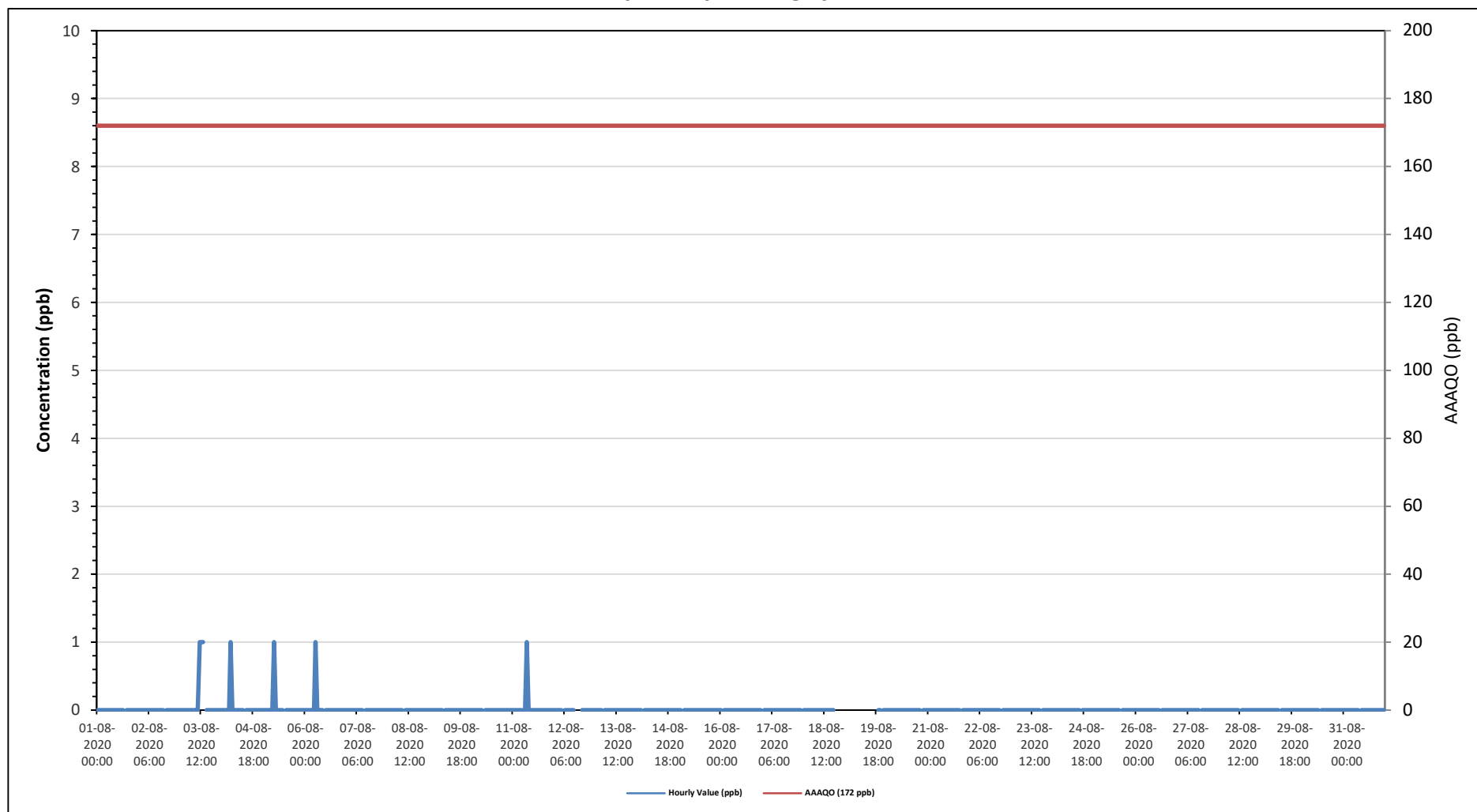
842b Station - August 2020

Summary of Hourly Averages

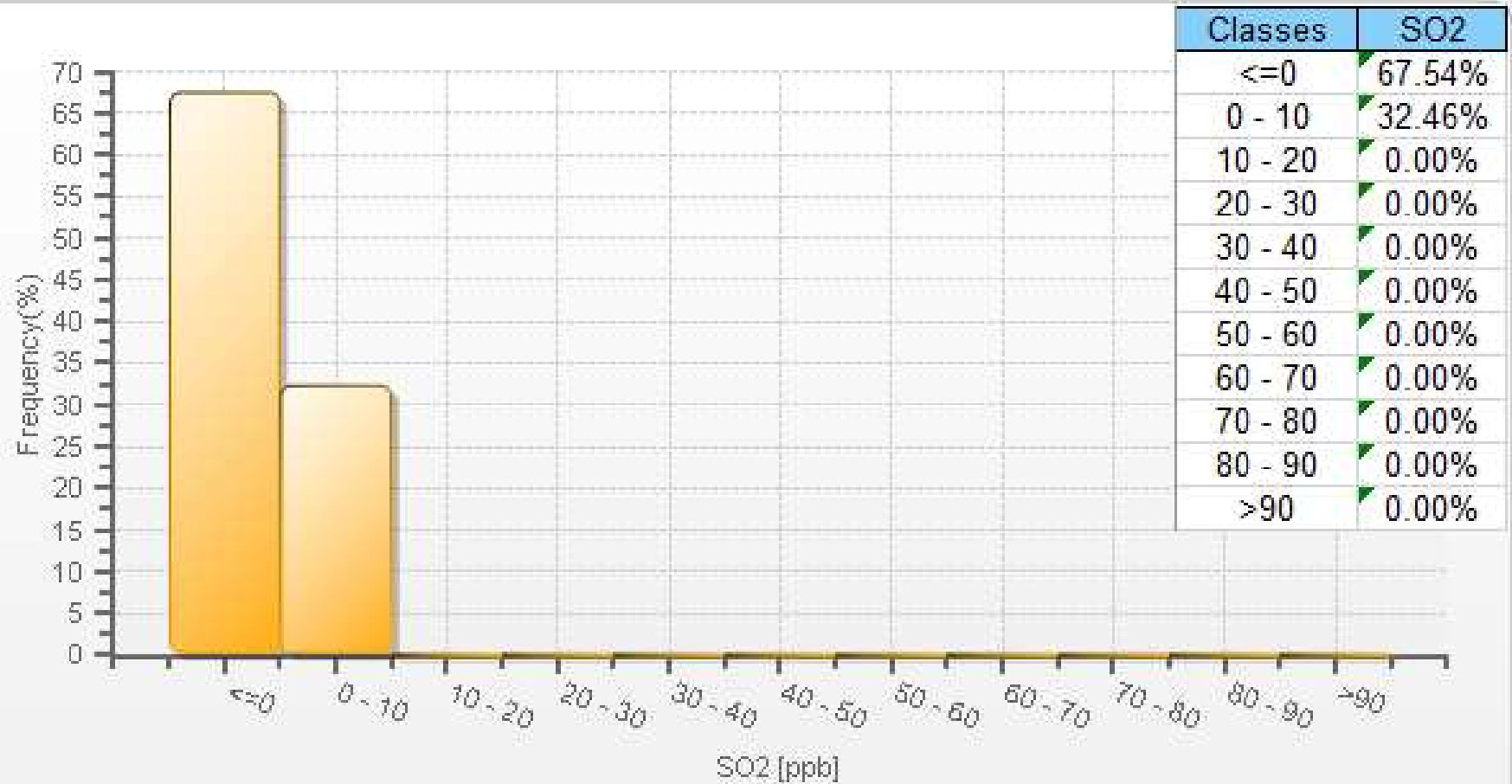
SULPHUR DIOXIDE (SO₂) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb																												
Number of 1-Hour Exceedances:			0			Number of 24-Hour Exceedances:			0			30-Day Exceedance:			0													
Maximum Hourly Value:			1 ppb on August 3 at hour 11			Hours in Service:			744																			
Maximum Daily Value:			0.1 ppb on August 3			Hours of Data:			684																			
Minimum Hourly Value:			0 ppb on August 1 at hour 0			Hours of Missing Data:			25																			
Minimum Daily Value:			0.0 ppb on August 1			Hours of Calibration:			35																			
Monthly Average:			0.0 ppb			Operational Uptime:			96.6																			
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
Aug 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0	
Aug 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 3	0	0	0	0	0	0	0	0	0	0	0	1	1	1	S	0	0	0	0	0	0	0	0	0	0	0	0.1	
Aug 4	0	0	0	0	0	1	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 5	0	0	0	0	0	0	1	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 6	0	0	0	0	0	0	1	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 7	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 8	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 9	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 10	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 11	0	0	0	0	0	0	S	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 12	0	0	0	0	0	S	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 13	0	0	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	
Aug 14	0	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	
Aug 15	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	
Aug 16	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	
Aug 17	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0.0	
Aug 18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	P	P	P	P	P	P	P	P	0	0.0	
Aug 19	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0	0	S	0	0	0	0	-	
Aug 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0	
Aug 21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0	
Aug 22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	S	0	0	0	0	0	0	0	0.0	
Aug 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0	
Aug 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 26	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 27	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 28	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 29	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 30	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Aug 31	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
Diurnal Maximum	0	0	0	0	0	1	1	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
Diurnal Average	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	0.0	0.0	0.0	0.0		
C	Monthly Calibration						S	Daily Zero-Span Check						Q	Quality Assurance													
K	Collection Error						N	No Data (Machine Not in Service)						Y	Routine Maintenance						P	Power Failure						
X	InValid Data (Equipment Malfunction /Recovery)						NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																				
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																												
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																												

Timeseries Chart of Hourly Average for SO2 - 842b Station

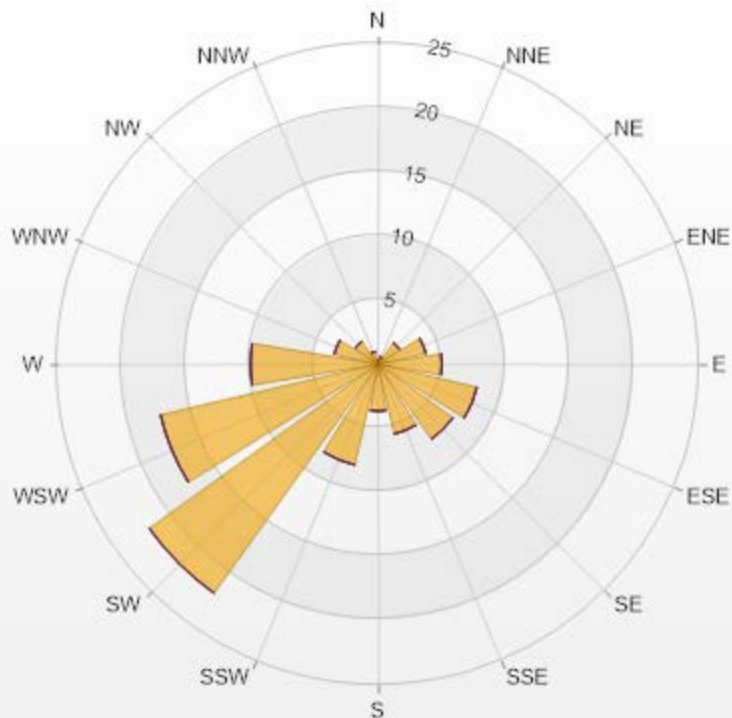


SO2[ppb] Histogram: PRAMP 842b Monthly: 08-2020 1 Hr.



Wind: PRAMP 842b Poll.: PRAMP 842b-SO2[ppb] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 91.94% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	0.29	0	0	0	0	0.29
NNE	0.58	0	0	0	0	0.58
NE	2.05	0	0	0	0	2.05
ENE	3.8	0	0	0	0	3.8
E	4.97	0	0	0	0	4.97
ESE	7.89	0	0	0	0	7.89
SE	7.16	0	0	0	0	7.16
SSE	5.56	0	0	0	0	5.56
S	3.65	0	0	0	0	3.65
SSW	8.04	0	0	0	0	8.04
SW	21.93	0	0	0	0	21.93
WSW	17.4	0	0	0	0	17.4
W	9.94	0	0	0	0	9.94
WNW	3.51	0	0	0	0	3.51
NW	2.19	0	0	0	0	2.19
NNW	1.02	0	0	0	0	1.02
Summary	100	0	0	0	0	100



PRAMP-202008

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% Icon Classes (ppb)

100

0-10

0

10-50

0

50-100

0

100-172

0

>172.0



PEACE RIVER AREA MONITORING PROGRAM

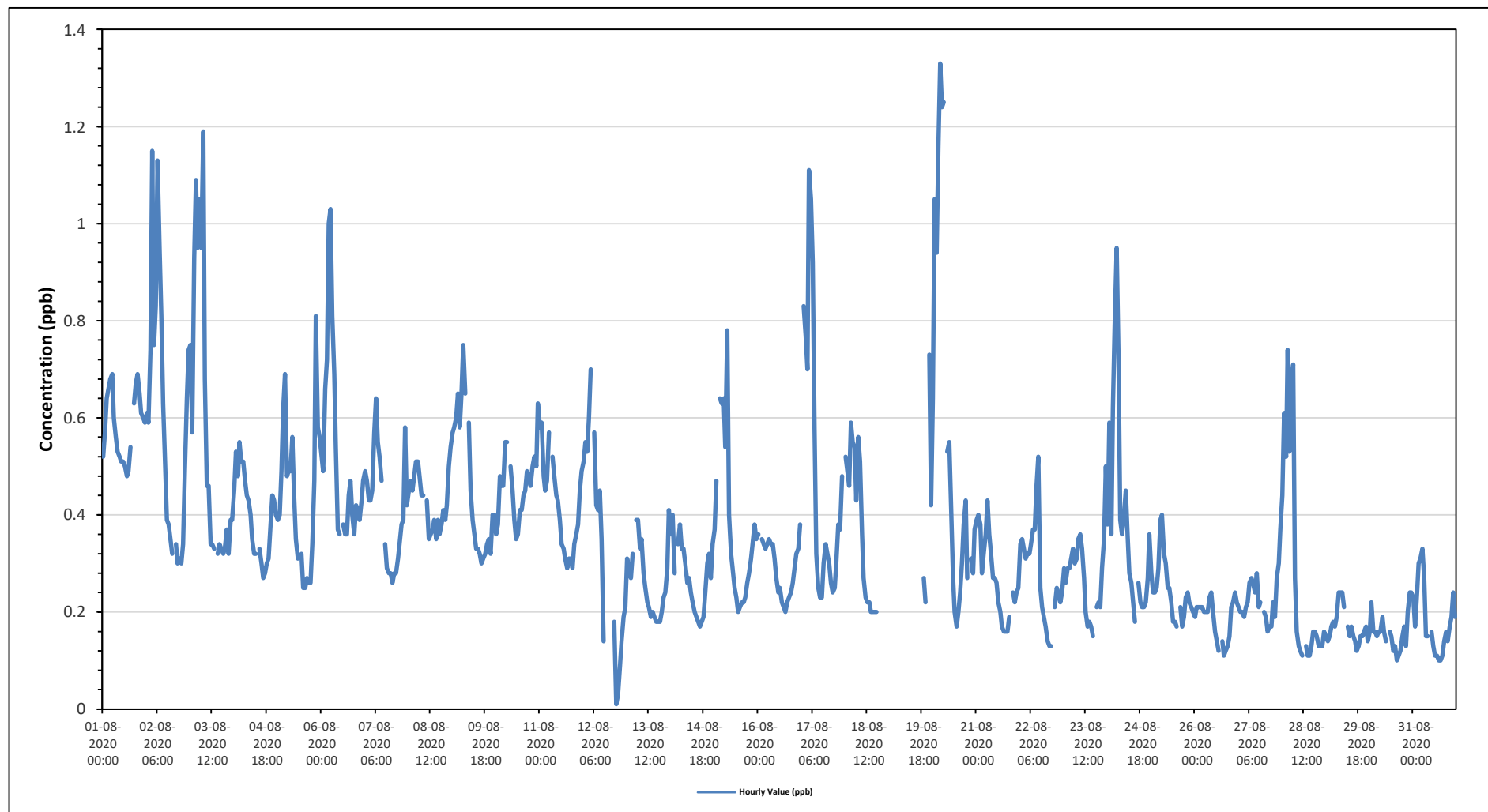
842b Station - August 2020

Summary of Hourly Averages

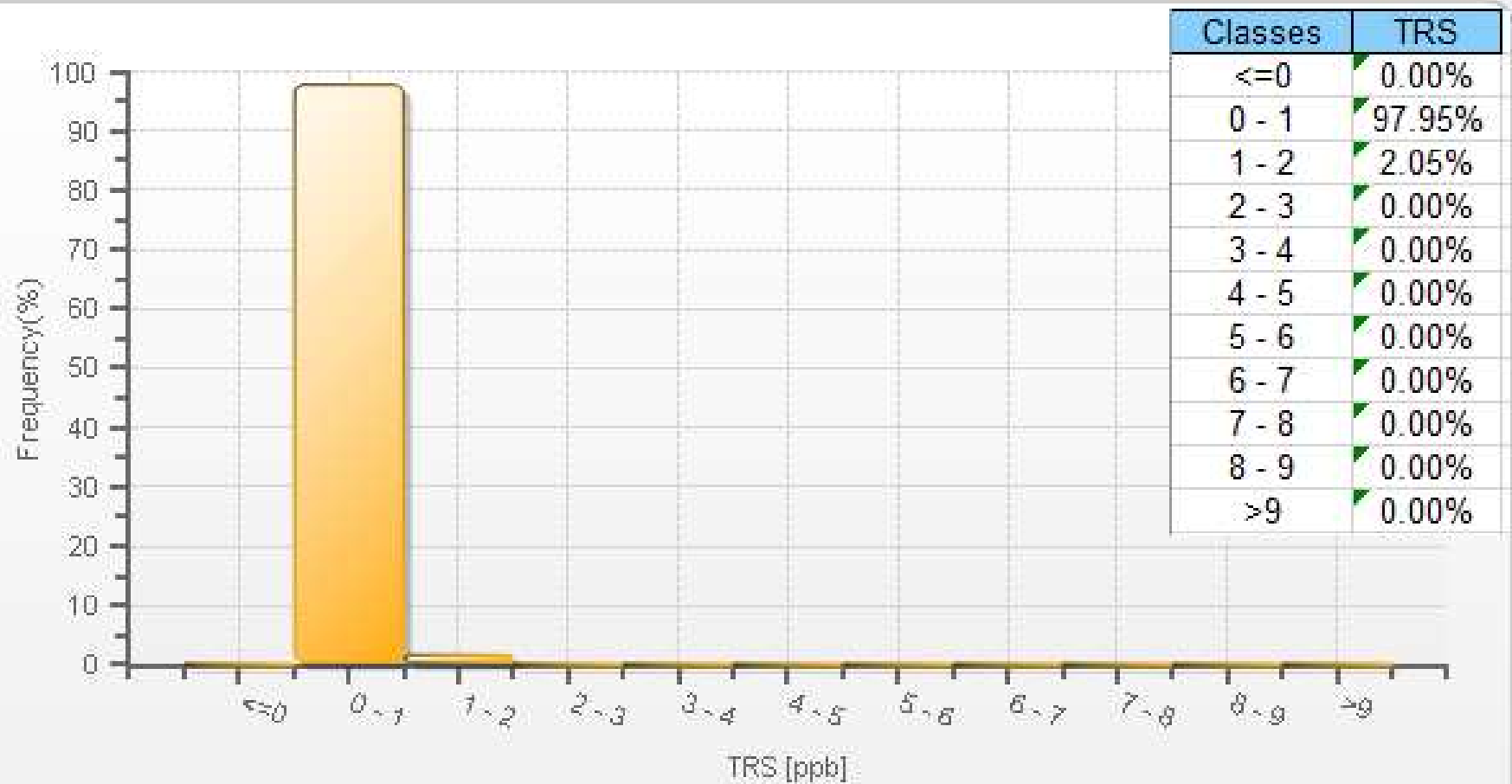
TOTAL REDUCED SULPHUR (TRS) in ppb

Alberta Ambient Air Quality Objectives (AAAQO) for H2S: 1-Hour 10 ppb, 24-Hour 3 ppb																														
Number of 1-Hour Exceedances: 0										Number of 24-Hour Exceedances: 0																				
Maximum Hourly Value:		1.33	ppb	on August 20 at hour 4										Hours in Service:		744														
Maximum Daily Value:		0.59	ppb	on August 2										Hours of Data:		682														
Minimum Hourly Value:		0.01	ppb	on August 12 at hour 18										Hours of Missing Data:		26														
Minimum Daily Value:		0.16	ppb	on August 30										Hours of Calibration:		36														
Monthly Average:		0.36	ppb											Operational Uptime:		96.5														
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average			
Aug 1	0.52	0.57	0.64	0.66	0.68	0.69	0.6	0.56	0.53	0.52	0.51	0.51	0.5	0.48	0.49	0.54	S	0.63	0.67	0.69	0.65	0.61	0.6	0.59	0.48	0.69	0.58			
Aug 2	0.61	0.59	0.74	1.15	0.75	0.83	1.13	0.95	0.81	0.63	0.52	0.39	0.38	0.35	0.32	S	0.34	0.3	0.31	0.3	0.34	0.49	0.64	0.74	0.30	1.15	0.59			
Aug 3	0.75	0.57	0.93	1.09	0.95	1.05	0.95	1.19	0.68	0.46	0.46	0.34	0.34	0.33	S	0.32	0.34	0.33	0.32	0.33	0.37	0.32	0.39	0.39	0.32	1.19	0.57			
Aug 4	0.45	0.53	0.48	0.55	0.51	0.51	0.47	0.44	0.43	0.4	0.35	0.32	0.32	S	0.33	0.3	0.27	0.28	0.3	0.31	0.38	0.44	0.43	0.4	0.27	0.55	0.40			
Aug 5	0.39	0.4	0.49	0.62	0.69	0.48	0.49	0.49	0.56	0.44	0.35	0.31	S	0.32	0.25	0.25	0.27	0.26	0.26	0.34	0.47	0.81	0.58	0.56	0.25	0.81	0.44			
Aug 6	0.52	0.49	0.66	0.72	1	1.03	0.81	0.69	0.54	0.37	0.36	S	0.38	0.36	0.36	0.44	0.47	0.4	0.36	0.42	0.41	0.39	0.43	0.47	0.36	1.03	0.53			
Aug 7	0.49	0.47	0.43	0.43	0.45	0.57	0.64	0.55	0.52	0.47	S	0.34	0.29	0.28	0.28	0.26	0.28	0.28	0.31	0.34	0.38	0.39	0.58	0.42	0.26	0.64	0.41			
Aug 8	0.45	0.47	0.45	0.48	0.51	0.51	0.48	0.44	0.44	S	0.43	0.35	0.36	0.37	0.39	0.35	0.39	0.36	0.38	0.41	0.39	0.42	0.5	0.54	0.35	0.54	0.43			
Aug 9	0.57	0.58	0.6	0.65	0.58	0.65	0.75	0.65	S	0.59	0.45	0.39	0.36	0.33	0.33	0.32	0.3	0.31	0.32	0.34	0.35	0.32	0.4	0.4	0.30	0.75	0.46			
Aug 10	0.36	0.38	0.48	0.46	0.46	0.55	0.55	S	0.5	0.45	0.39	0.35	0.36	0.41	0.41	0.44	0.45	0.49	0.48	0.46	0.5	0.52	0.5	0.63	0.35	0.63	0.46			
Aug 11	0.58	0.59	0.48	0.45	0.47	0.57	S	0.52	0.48	0.44	0.43	0.39	0.34	0.33	0.31	0.29	0.31	0.31	0.29	0.34	0.36	0.38	0.45	0.49	0.29	0.59	0.42			
Aug 12	0.51	0.55	0.53	0.6	0.7	S	0.57	0.42	0.41	0.45	0.35	0.14	C	C	C	C	C	0.18	0.01	0.03	0.09	0.14	0.19	0.21	0.01	0.70	0.34			
Aug 13	0.31	0.29	0.27	0.32	S	0.39	0.39	0.33	0.35	0.28	0.25	0.22	0.21	0.19	0.2	0.19	0.18	0.18	0.18	0.2	0.23	0.24	0.29	0.41	0.18	0.41	0.27			
Aug 14	0.36	0.4	0.28	S	0.34	0.38	0.33	0.33	0.3	0.26	0.27	0.24	0.22	0.2	0.19	0.18	0.17	0.18	0.19	0.24	0.3	0.32	0.27	0.34	0.17	0.40	0.27			
Aug 15	0.37	0.47	S	0.64	0.63	0.64	0.54	0.78	0.4	0.32	0.29	0.25	0.23	0.2	0.21	0.22	0.22	0.23	0.26	0.28	0.31	0.34	0.38	0.35	0.20	0.78	0.37			
Aug 16	0.36	S	0.35	0.34	0.33	0.34	0.35	0.34	0.34	0.31	0.27	0.24	0.25	0.22	0.21	0.2	0.22	0.23	0.24	0.26	0.29	0.32	0.33	0.38	0.20	0.38	0.29			
Aug 17	S	0.83	0.77	0.7	1.11	1.05	0.92	0.58	0.32	0.25	0.23	0.23	0.3	0.34	0.32	0.3	0.26	0.24	0.25	0.3	0.38	0.37	0.48	S	0.23	1.11	0.48			
Aug 18	0.52	0.49	0.46	0.59	0.55	0.54	0.43	0.56	0.51	0.36	0.27	0.23	0.22	0.22	0.2	0.2	0.2	0.2	P	P	P	P	P	P	0.20	0.59	0.38			
Aug 19	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0.22	S	0.73	0.42	0.22	0.73	-			
Aug 20	0.64	1.05	0.94	1.16	1.33	1.24	1.25	NRM	0.53	0.55	0.42	0.27	0.2	0.17	0.2	0.24	0.3	0.38	0.43	0.27	S	0.31	0.28	0.37	0.17	1.33	0.57			
Aug 21	0.39	0.4	0.38	0.28	0.32	0.36	0.43	0.36	0.32	0.27	0.27	0.26	0.22	0.2	0.17	0.16	0.16	0.16	0.19	S	0.24	0.22	0.24	0.25	0.16	0.43	0.27			
Aug 22	0.34	0.35	0.33	0.31	0.32	0.32	0.34	0.37	0.37	0.46	0.52	0.25	0.21	0.19	0.17	0.14	0.13	0.13	S	0.21	0.25	0.24	0.22	0.24	0.13	0.52	0.28			
Aug 23	0.29	0.26	0.29	0.29	0.31	0.33	0.3	0.31	0.35	0.36	0.33	0.27	0.2	0.17	0.18	0.17	0.15	S	0.21	0.22	0.21	0.29	0.35	0.5	0.15	0.50	0.28			
Aug 24	0.38	0.59	0.36	0.62	0.79	0.95	0.73	0.39	0.36	0.4	0.45	0.36	0.28	0.26	0.22	0.18	S	0.26	0.22	0.21	0.21	0.22	0.27	0.36	0.18	0.95	0.39			
Aug 25	0.28	0.24	0.24	0.25	0.29	0.39	0.4	0.32	0.3	0.25	0.25	0.22	0.18	0.18	0.17	S	0.21	0.17	0.19	0.23	0.24	0.22	0.21	0.2	0.17	0.40	0.24			
Aug 26	0.19	0.21	0.21	0.21	0.21	0.2	0.2	0.2	0.23	0.24	0.2	0.16	0.14	0.12	S	0.14	0.11	0.12	0.13	0.15	0.21	0.22	0.24	0.22	0.11	0.24	0.19			
Aug 27	0.21	0.2	0.2	0.19	0.21	0.22	0.26	0.27	0.26	0.24	0.28	0.21	0.22	S	0.2	0.19	0.16	0.17	0.17	0.22	0.19	0.27	0.3	0.37	0.16	0.37	0.23			
Aug 28	0.44	0.61	0.52	0.74	0.53	0.68	0.71	0.27	0.16	0.13	0.12	0.11	S	0.13	0.11	0.11	0.13	0.16	0.16	0.15	0.13	0.13	0.13	0.16	0.11	0.74	0.28			
Aug 29	0.15	0.14	0.15	0.17	0.18	0.17	0.19	0.24	0.24	0.24	0.21	S	0.17	0.15	0.17	0.15	0.14	0.12	0.13	0.15	0.15	0.16	0.17	0.14	0.12	0.24	0.17			
Aug 30	0.16	0.22	0.16	0.16	0.15	0.16	0.16	0.19	0.16	0.14	S	0.16	0.15	0.12	0.13	0.1	0.11	0.12	0.15	0.17	0.13	0.2	0.24	0.24	0.10	0.24	0.16			
Aug 31	0.23	0.17	0.24	0.3	0.31	0.33	0.27	0.15	0.15	S	0.16	0.13	0.11	0.11	0.1	0.1	0.11	0.14	0.16	0.14	0.17	0.19	0.24	0.19	0.10	0.33	0.18			
Diurnal Maximum	0.75	1.05	0.94	1.16	1.33	1.24	1.25	1.19	0.81	0.63	0.52	0.51	0.50	0.48	0.49	0.54	0.47	0.63	0.67	0.69	0.65	0.81	0.73	0.74						
Diurnal Average	0.41	0.45	0.45	0.52	0.54	0.56	0.54	0.46	0.40	0.37	0.34	0.27	0.26	0.25	0.25	0.24	0.24	0.25	0.26	0.28	0.29	0.33	0.37	0.38						
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance													
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance										P	Power Failure		
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																					
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																														
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																														

Timeseries Chart of Hourly Average for TRS - 842b Station

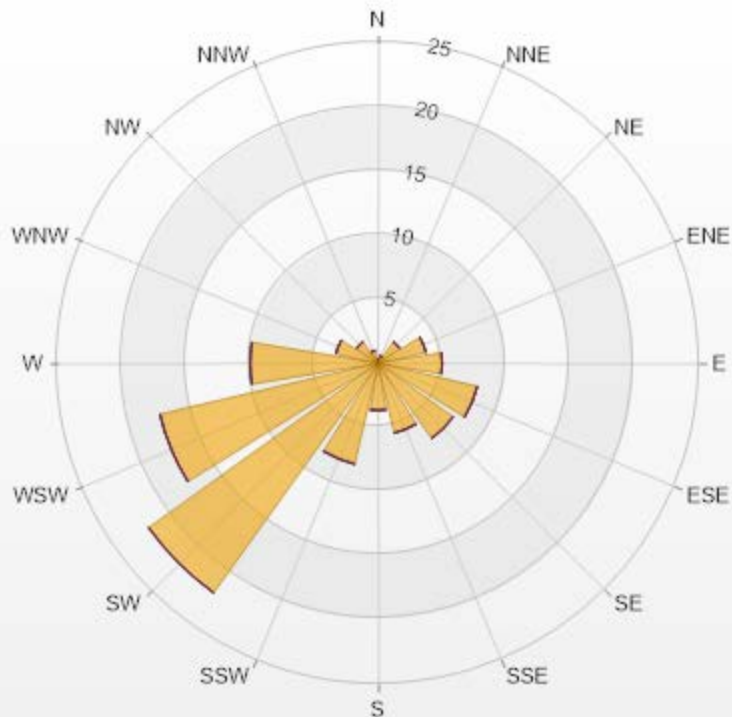


TRS[ppb] Histogram: PRAMP 842b Monthly: 08-2020 1 Hr.



Wind: PRAMP 842b Poll.: PRAMP 842b-TRS[ppb] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 91.67% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	0.29	0	0	0	0	0.29
NNE	0.59	0	0	0	0	0.59
NE	2.05	0	0	0	0	2.05
ENE	3.81	0	0	0	0	3.81
E	4.99	0	0	0	0	4.99
ESE	7.92	0	0	0	0	7.92
SE	7.18	0	0	0	0	7.18
SSE	5.57	0	0	0	0	5.57
S	3.67	0	0	0	0	3.67
SSW	8.06	0	0	0	0	8.06
SW	21.99	0	0	0	0	21.99
WSW	17.45	0	0	0	0	17.45
W	9.97	0	0	0	0	9.97
WNW	3.37	0	0	0	0	3.37
NW	2.05	0	0	0	0	2.05
NNW	1.03	0	0	0	0	1.03
Summary	100	0	0	0	0	100



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% Icon Classes (ppb)

100 0-2

0 2-5

0 5-10

0 10-50

0 >50.0



PEACE RIVER AREA MONITORING PROGRAM

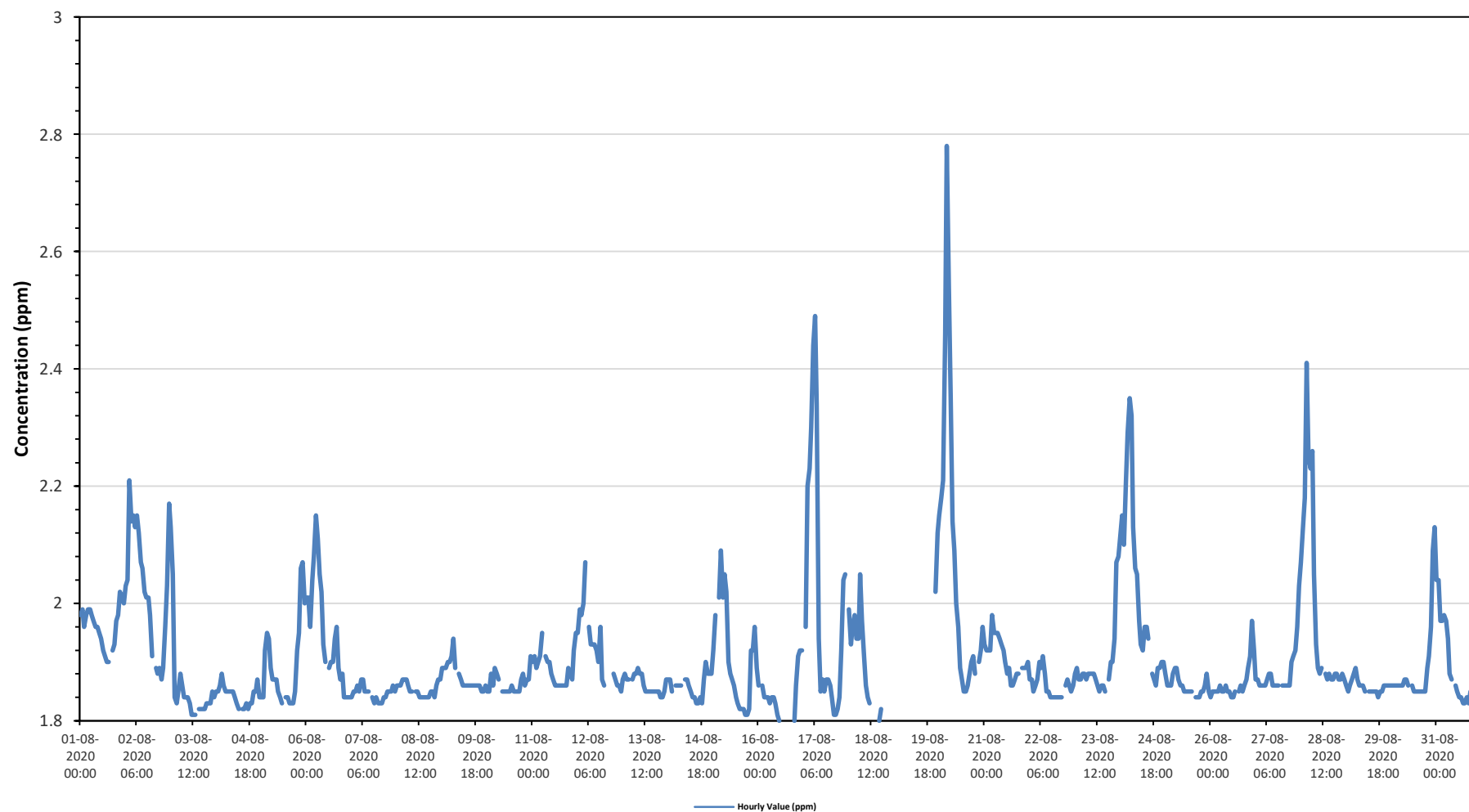
842b Station - August 2020

Summary of Hourly Averages

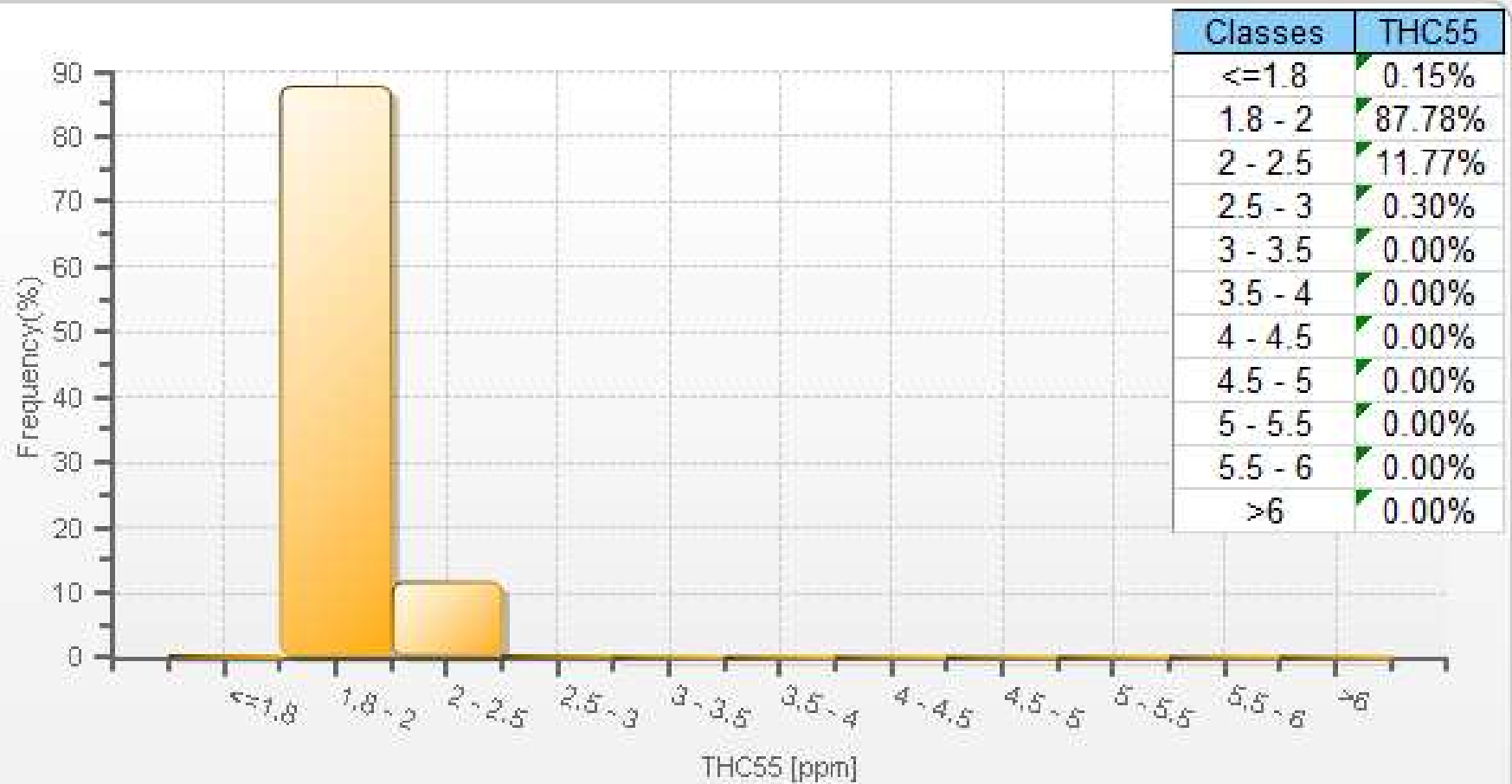
TOTAL HYDROCARBONS (THC) in ppm

Maximum Hourly Value:		2.78 ppm on August 20 at hour 4														Hours in Service:		744										
Maximum Daily Value:		2.07 ppm on August 20														Hours of Data:		671										
Minimum Hourly Value:		1.80 ppm on August 16 at hour 11														Hours of Missing Data:		38										
Minimum Daily Value:		1.84 ppm on August 4														Hours of Calibration:		35										
Monthly Average:		1.91 ppm														Operational Uptime:		94.9										
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
Aug 1	1.98	1.99	1.96	1.98	1.99	1.99	1.98	1.97	1.96	1.96	1.95	1.94	1.92	1.91	1.90	1.90	S	1.92	1.93	1.97	1.98	2.02	2.01	2.00	1.90	2.02	1.96	
Aug 2	2.03	2.04	2.21	2.14	2.15	2.13	2.15	2.12	2.07	2.06	2.02	2.01	2.01	1.98	1.91	S	1.89	1.88	1.89	1.87	1.89	1.96	2.03	2.17	1.87	2.21	2.03	
Aug 3	2.13	2.05	1.84	1.83	1.85	1.88	1.86	1.84	1.84	1.84	1.83	1.81	1.81	S	1.82	1.82	1.82	1.82	1.82	1.83	1.83	1.83	1.85	1.84	1.81	2.13	1.86	
Aug 4	1.85	1.85	1.86	1.88	1.86	1.85	1.85	1.85	1.85	1.85	1.84	1.83	1.82	S	1.82	1.82	1.83	1.82	1.83	1.83	1.85	1.85	1.87	1.84	1.82	1.88	1.84	
Aug 5	1.84	1.84	1.92	1.95	1.94	1.89	1.87	1.87	1.87	1.85	1.84	1.83	S	1.84	1.84	1.83	1.83	1.83	1.85	1.92	1.95	2.06	2.07	2.00	1.83	2.07	1.89	
Aug 6	2.01	2.01	1.96	2.04	2.08	2.15	2.11	2.05	2.02	1.93	1.90	S	1.89	1.90	1.90	1.94	1.96	1.89	1.87	1.88	1.84	1.84	1.84	1.84	1.84	1.84	2.15	1.95
Aug 7	1.84	1.85	1.85	1.86	1.85	1.87	1.87	1.85	1.85	S	1.84	1.83	1.84	1.83	1.83	1.83	1.84	1.84	1.84	1.85	1.85	1.85	1.86	1.85	1.83	1.87	1.85	
Aug 8	1.86	1.86	1.86	1.87	1.87	1.87	1.86	1.85	1.85	S	1.85	1.85	1.84	1.84	1.84	1.84	1.84	1.84	1.85	1.85	1.84	1.86	1.87	1.87	1.84	1.87	1.85	
Aug 9	1.89	1.89	1.89	1.90	1.90	1.91	1.94	1.89	S	1.88	1.87	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.85	1.85	1.86	1.85	1.94	1.87	
Aug 10	1.85	1.85	1.88	1.86	1.89	1.88	1.87	S	1.85	1.85	1.85	1.85	1.85	1.86	1.85	1.85	1.85	1.85	1.87	1.88	1.86	1.87	1.87	1.91	1.85	1.91	1.86	
Aug 11	1.90	1.91	1.89	1.90	1.91	1.95	S	1.91	1.90	1.90	1.88	1.87	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.89	1.88	1.87	1.92	1.95	1.86	1.95	1.89	
Aug 12	1.95	1.99	1.98	2.00	2.07	S	1.96	1.93	1.93	1.93	1.92	1.90	1.96	1.87	1.86	C	C	C	C	1.88	1.87	1.86	1.86	1.85	1.85	2.07	1.92	
Aug 13	1.87	1.88	1.87	1.87	S	1.87	1.88	1.88	1.89	1.88	1.88	1.86	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.84	1.84	1.85	1.87	1.84	1.89	1.86	
Aug 14	1.87	1.87	1.85	S	1.86	1.86	1.86	1.86	NRM	1.87	1.87	1.86	1.85	1.84	1.84	1.83	1.83	1.84	1.83	1.87	1.90	1.88	1.88	1.88	1.83	1.90	1.86	
Aug 15	1.92	1.98	S	2.01	2.09	2.01	2.05	2.02	1.90	1.88	1.87	1.86	1.84	1.83	1.82	1.82	1.82	1.81	1.81	1.82	1.92	1.92	1.96	1.89	1.81	2.09	1.91	
Aug 16	1.86	S	1.86	1.84	1.84	1.84	1.83	1.84	1.84	1.83	1.81	1.80	X	X	X	X	X	X	X	1.80	1.86	1.91	1.92	1.92	1.80	1.92	-	
Aug 17	S	1.96	2.20	2.23	2.30	2.44	2.49	2.34	1.94	1.85	1.87	1.85	1.87	1.87	1.86	1.84	1.81	1.81	1.82	1.84	1.92	2.04	2.05	S	1.81	2.49	2.01	
Aug 18	1.99	1.93	1.96	1.98	1.94	1.94	2.05	1.97	1.91	1.86	1.84	1.83	X	X	X	X	1.80	1.82	P	P	P	P	P	P	1.80	2.05	-	
Aug 19	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	X	1.98	S	2.02	2.12	1.98	2.12	-	
Aug 20	2.15	2.18	2.21	2.46	2.78	2.54	2.35	2.14	2.09	2.00	1.96	1.89	1.87	1.85	1.85	1.86	1.88	1.90	1.91	1.88	S	1.90	1.92	1.96	1.85	2.78	2.07	
Aug 21	1.93	1.92	1.92	1.92	1.98	1.95	1.95	1.95	1.94	1.93	1.92	1.90	1.88	1.89	1.86	1.86	1.87	1.88	1.88	S	1.89	1.89	1.89	1.90	1.86	1.98	1.91	
Aug 22	1.87	1.87	1.85	1.86	1.87	1.90	1.89	1.91	1.88	1.85	1.85	1.84	1.84	1.84	1.84	1.84	1.84	1.84	S	1.86	1.87	1.86	1.85	1.86	1.84	1.91	1.86	
Aug 23	1.88	1.89	1.87	1.87	1.88	1.88	1.87	1.88	1.88	1.88	1.88	1.87	1.86	1.85	1.86	1.86	1.85	S	1.87	1.90	1.90	1.94	2.07	2.08	1.85	2.08	1.89	
Aug 24	2.11	2.15	2.10	2.20	2.29	2.35	2.32	2.13	2.06	2.05	1.97	1.93	1.92	1.96	1.96	1.94	S	1.88	1.87	1.86	1.89	1.89	1.90	1.90	1.86	2.35	2.03	
Aug 25	1.88	1.86	1.86	1.86	1.88	1.89	1.89	1.87	1.86	1.86	1.85	1.85	1.85	1.85	S	1.84	1.84	1.84	1.85	1.85	1.86	1.88	1.85	1.84	1.89	1.86		
Aug 26	1.84	1.85	1.85	1.85	1.85	1.86	1.85	1.85	1.86	1.85	1.85	1.84	1.84	1.85	S	1.85	1.86	1.85	1.86	1.87	1.89	1.91	1.97	1.92	1.84	1.97	1.86	
Aug 27	1.87	1.87	1.86	1.86	1.86	1.86	1.87	1.88	1.88	1.86	1.86	1.86	1.86	S	1.86	1.86	1.86	1.86	1.86	1.90	1.91	1.92	1.96	2.03	1.86	2.03	1.88	
Aug 28	2.07	2.13	2.18	2.41	2.25	2.23	2.26	2.05	1.93	1.89	1.88	1.89	S	1.88	1.87	1.88	1.87	1.87	1.88	1.88	1.87	1.87	1.88	1.87	1.87	2.41	1.99	
Aug 29	1.86	1.85	1.86	1.87	1.88	1.89	1.87	1.86	1.86	1.86	1.85	S	1.85	1.85	1.85	1.85	1.85	1.84	1.85	1.85	1.86	1.86	1.86	1.86	1.84	1.89	1.86	
Aug 30	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.87	1.87	1.86	S	1.86	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.89	1.91	1.96	2.09	2.13	1.85	2.13	1.89	
Aug 31	2.04	2.04	1.97	1.97	1.98	1.97	1.94	1.88	1.87	S	1.86	1.85	1.84	1.84	1.83	1.83	1.84	1.83	1.85	1.83	1.83	1.82	1.84	1.83	1.82	2.04	1.89	
Diurnal Maximum	2.15	2.18	2.21	2.46	2.78	2.54	2.49	2.34	2.09	2.06	2.02	2.01	2.01	1.98	1.96	1.94	1.96	1.92	1.93	1.97	1.98	2.06	2.09	2.17				
Diurnal Average	1.93	1.94	1.94	1.97	1.99	1.98	1.98	1.94	1.91	1.89	1.88	1.87	1.87	1.86	1.86	1.85	1.85	1.86	1.87	1.88	1.90	1.92	1.92	1.93				
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance											
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance											
X	InValid Data (Equipment Malfunction/Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																			
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																												
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																												

Timeseries Chart of Hourly Average for THC - 842b Station

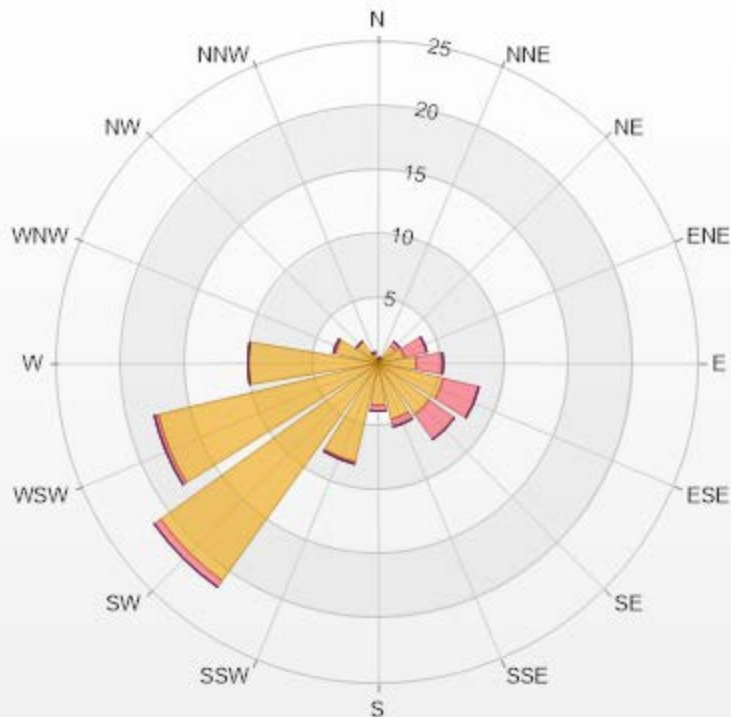


THC55[ppm] Histogram: PRAMP 842b Monthly: 08-2020 1 Hr.



Wind: PRAMP 842b Poll.: PRAMP 842b-THC55[ppm] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 90.19% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	0.3	0	0	0	0	0.3
NNE	0.3	0.15	0	0	0	0.45
NE	1.64	0.45	0	0	0	2.09
ENE	2.09	1.79	0	0	0	3.88
E	2.98	2.09	0	0	0	5.07
ESE	5.22	2.83	0	0	0	8.05
SE	4.92	2.38	0	0	0	7.3
SSE	4.47	0.6	0	0	0	5.07
S	3.28	0.45	0	0	0	3.73
SSW	7.9	0.15	0	0	0	8.05
SW	20.86	0.6	0	0	0	21.46
WSW	17.59	0.3	0	0	0	17.89
W	10.13	0	0	0	0	10.13
WNW	3.43	0.15	0	0	0	3.58
NW	2.09	0	0	0	0	2.09
NNW	0.75	0.15	0	0	0	0.9
Summary	87.95	12.09	0	0	0	100



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% Icon Classes (ppm)

88

0-2

12

2-5

0

5-10

0

10-40

0

>40.0



PEACE RIVER AREA MONITORING PROGRAM

842b Station - August 2020

Summary of Hourly Averages

METHANE (CH4) in ppm

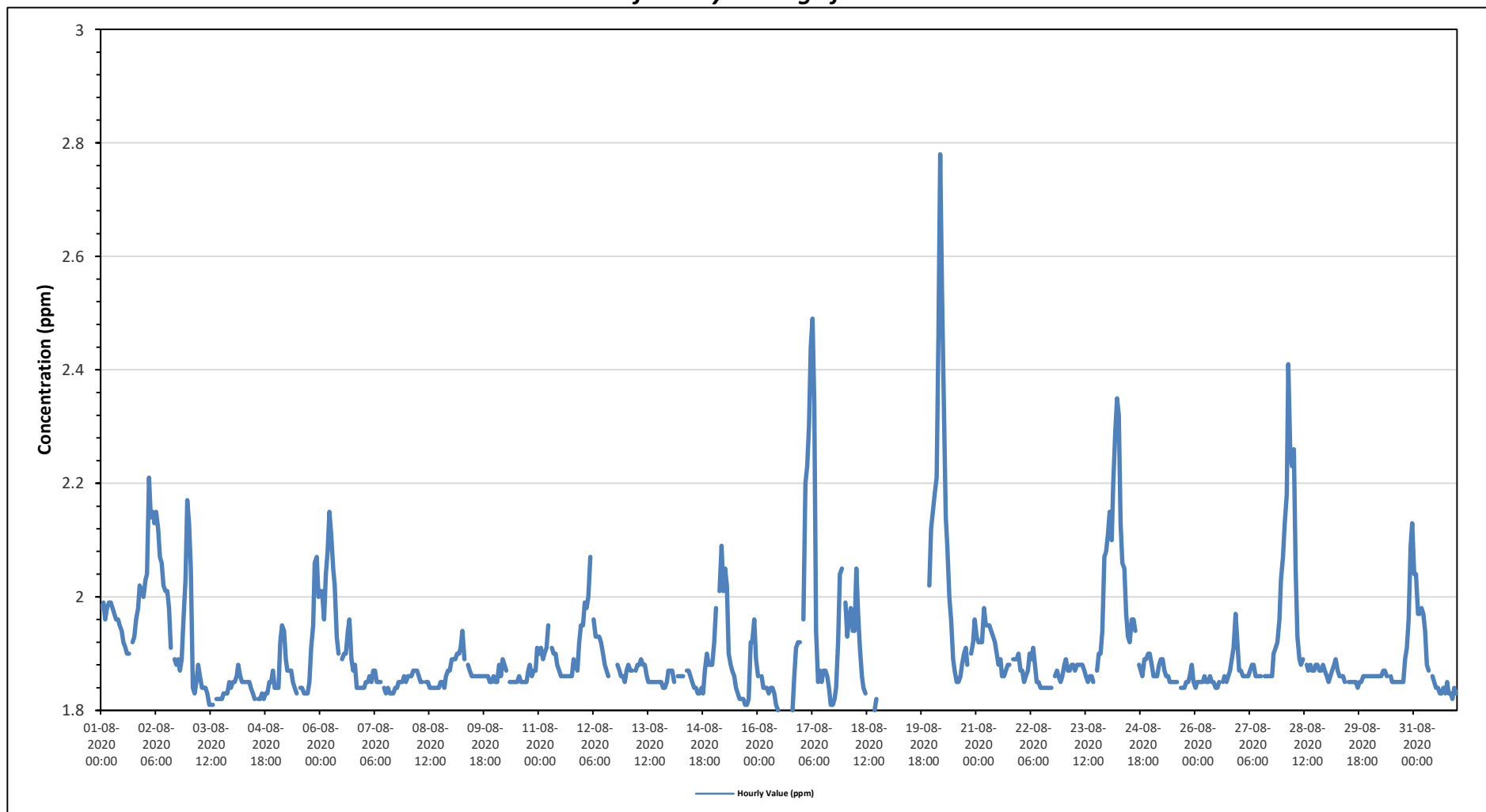
Maximum Hourly Value:	2.78 ppm on August 20 at hour 4	Hours in Service:	744
Maximum Daily Value:	2.07 ppm on August 20	Hours of Data:	671
Minimum Hourly Value:	1.80 ppm on August 16 at hour 11	Hours of Missing Data:	38
Minimum Daily Value:	1.84 ppm on August 4	Hours of Calibration:	35
Monthly Average:	1.91 ppm	Operational Uptime:	94.9

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average	
Aug 1	1.98	1.99	1.96	1.98	1.99	1.99	1.98	1.97	1.96	1.96	1.95	1.94	1.92	1.91	1.90	1.90	S	1.92	1.93	1.96	1.98	2.02	2.01	2.00	1.90	2.02	1.96	
Aug 2	2.03	2.04	2.21	2.14	2.15	2.13	2.15	2.12	2.07	2.06	2.02	2.01	2.01	1.98	1.91	S	1.89	1.88	1.89	1.87	1.89	1.96	2.03	2.17	1.87	2.21	2.03	
Aug 3	2.13	2.05	1.84	1.83	1.85	1.88	1.86	1.84	1.84	1.84	1.83	1.81	1.81	1.81	S	1.82	1.82	1.82	1.82	1.83	1.83	1.83	1.85	1.84	1.81	2.13	1.86	
Aug 4	1.85	1.85	1.86	1.88	1.86	1.85	1.85	1.85	1.85	1.85	1.84	1.83	1.82	S	1.82	1.82	1.83	1.82	1.83	1.83	1.85	1.85	1.87	1.84	1.82	1.88	1.84	
Aug 5	1.84	1.84	1.92	1.95	1.94	1.89	1.87	1.87	1.87	1.85	1.84	1.83	S	1.84	1.84	1.83	1.83	1.83	1.85	1.91	1.95	2.06	2.07	2.00	1.83	2.07	1.89	
Aug 6	2.01	2.01	1.96	2.04	2.08	2.15	2.11	2.05	2.02	1.93	1.90	S	1.89	1.90	1.90	1.94	1.96	1.89	1.87	1.88	1.84	1.84	1.84	1.84	1.84	2.15	1.95	
Aug 7	1.84	1.85	1.85	1.86	1.85	1.87	1.87	1.85	1.85	1.85	S	1.84	1.83	1.84	1.83	1.83	1.83	1.84	1.84	1.85	1.85	1.85	1.86	1.85	1.83	1.87	1.85	
Aug 8	1.86	1.86	1.86	1.87	1.87	1.87	1.86	1.85	1.85	S	1.85	1.85	1.84	1.84	1.84	1.84	1.84	1.84	1.85	1.85	1.84	1.86	1.87	1.87	1.84	1.87	1.85	
Aug 9	1.89	1.89	1.89	1.90	1.90	1.91	1.94	1.89	S	1.88	1.87	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.85	1.85	1.86	1.85	1.94	1.87	
Aug 10	1.85	1.85	1.88	1.86	1.89	1.88	1.87	S	1.85	1.85	1.85	1.85	1.85	1.86	1.85	1.85	1.85	1.85	1.87	1.88	1.86	1.87	1.87	1.91	1.85	1.91	1.86	
Aug 11	1.90	1.91	1.89	1.90	1.91	1.95	S	1.91	1.90	1.90	1.88	1.87	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.89	1.88	1.87	1.92	1.95	1.86	1.95	1.89	
Aug 12	1.95	1.99	1.98	2.00	2.07	S	1.96	1.93	1.93	1.93	1.92	1.90	1.88	1.87	1.86	C	C	C	C	1.88	1.87	1.86	1.86	1.85	1.85	2.07	1.92	
Aug 13	1.87	1.88	1.87	1.87	S	1.87	1.88	1.88	1.89	1.88	1.88	1.86	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.84	1.84	1.85	1.87	1.84	1.89	1.86	
Aug 14	1.87	1.87	1.85	S	1.86	1.86	1.86	1.86	NRM	1.87	1.87	1.86	1.85	1.84	1.84	1.83	1.83	1.84	1.83	1.87	1.90	1.88	1.88	1.88	1.83	1.90	1.86	
Aug 15	1.92	1.98	S	2.01	2.09	2.01	2.05	2.02	1.90	1.88	1.87	1.86	1.84	1.83	1.82	1.82	1.82	1.81	1.81	1.82	1.92	1.92	1.96	1.89	1.81	2.09	1.91	
Aug 16	1.86	S	1.86	1.84	1.84	1.84	1.83	1.84	1.84	1.83	1.81	1.80	X	X	X	X	X	X	X	1.80	1.86	1.91	1.92	1.92	1.80	1.92	-	
Aug 17	S	1.96	2.20	2.23	2.30	2.44	2.49	2.34	1.94	1.85	1.87	1.85	1.87	1.87	1.86	1.84	1.81	1.81	1.82	1.84	1.92	2.04	2.05	S	1.81	2.49	2.01	
Aug 18	1.99	1.93	1.96	1.98	1.94	1.94	2.05	1.97	1.91	1.86	1.84	1.83	X	X	X	X	1.80	1.82	P	P	P	P	P	P	1.80	2.05	-	
Aug 19	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	X	1.98	S	2.02	2.12	1.98	2.12	-	
Aug 20	2.15	2.18	2.21	2.46	2.78	2.54	2.35	2.14	2.09	2.00	1.96	1.89	1.87	1.85	1.85	1.86	1.88	1.90	1.91	1.88	S	1.90	1.92	1.96	1.85	2.78	2.07	
Aug 21	1.93	1.92	1.92	1.92	1.98	1.95	1.95	1.95	1.94	1.93	1.92	1.90	1.88	1.89	1.86	1.86	1.87	1.88	1.88	S	1.89	1.89	1.89	1.90	1.86	1.98	1.91	
Aug 22	1.87	1.87	1.85	1.86	1.87	1.90	1.89	1.91	1.88	1.85	1.85	1.84	1.84	1.84	1.84	1.84	1.84	1.84	S	1.86	1.87	1.86	1.85	1.86	1.84	1.91	1.86	
Aug 23	1.88	1.89	1.87	1.87	1.88	1.88	1.87	1.88	1.88	1.88	1.88	1.87	1.86	1.85	1.86	1.86	1.85	S	1.87	1.90	1.90	1.94	2.07	2.08	1.85	2.08	1.89	
Aug 24	2.11	2.15	2.10	2.20	2.29	2.35	2.32	2.13	2.06	2.05	1.97	1.93	1.92	1.96	1.96	1.94	S	1.88	1.87	1.86	1.89	1.89	1.90	1.90	1.86	2.35	2.03	
Aug 25	1.88	1.86	1.86	1.86	1.88	1.89	1.89	1.87	1.86	1.86	1.85	1.85	1.85	1.85	1.85	S	1.84	1.84	1.84	1.85	1.85	1.86	1.88	1.85	1.84	1.89	1.86	
Aug 26	1.84	1.85	1.85	1.85	1.85	1.86	1.85	1.85	1.86	1.85	1.85	1.84	1.84	1.85	S	1.85	1.86	1.85	1.86	1.87	1.89	1.91	1.97	1.92	1.84	1.97	1.86	
Aug 27	1.87	1.87	1.86	1.86	1.86	1.86	1.87	1.88	1.88	1.86	1.86	1.86	1.86	1.86	S	1.86	1.86	1.86	1.86	1.86	1.90	1.91	1.92	1.96	2.03	1.86	2.03	1.88
Aug 28	2.07	2.13	2.18	2.41	2.25	2.23	2.26	2.05	1.93	1.89	1.88	1.89	S	1.88	1.87	1.88	1.87	1.87	1.88	1.88	1.87	1.87	1.88	1.87	1.87	1.87	2.41	1.99
Aug 29	1.86	1.85	1.86	1.87	1.88	1.89	1.87	1.86	1.86	1.86	1.85	S	1.85	1.85	1.85	1.85	1.85	1.84	1.85	1.85	1.86	1.86	1.86	1.86	1.84	1.89	1.86	
Aug 30	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.87	1.87	1.86	S	1.86	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.89	1.91	1.96	2.09	2.13	1.85	2.13	1.89	
Aug 31	2.04	2.04	1.97	1.97	1.98	1.97	1.94	1.88	1.87	S	1.86	1.85	1.84	1.84	1.83	1.83	1.84	1.83	1.85	1.83	1.83	1.82	1.84	1.83	1.82	2.04	1.89	
Diurnal Maximum	2.15	2.18	2.21	2.46	2.78	2.54	2.49	2.34	2.09	2.06	2.02	2.01	2.01	1.98	1.96	1.94	1.96	1.92	1.93	1.96	1.98	2.06	2.09	2.17				
Diurnal Average	1.93	1.94	1.94	1.97	1.99	1.98	1.98	1.94	1.91	1.89	1.88	1.87	1.86	1.86	1.86	1.85	1.85	1.85	1.86	1.87	1.88	1.90	1.92	1.93				

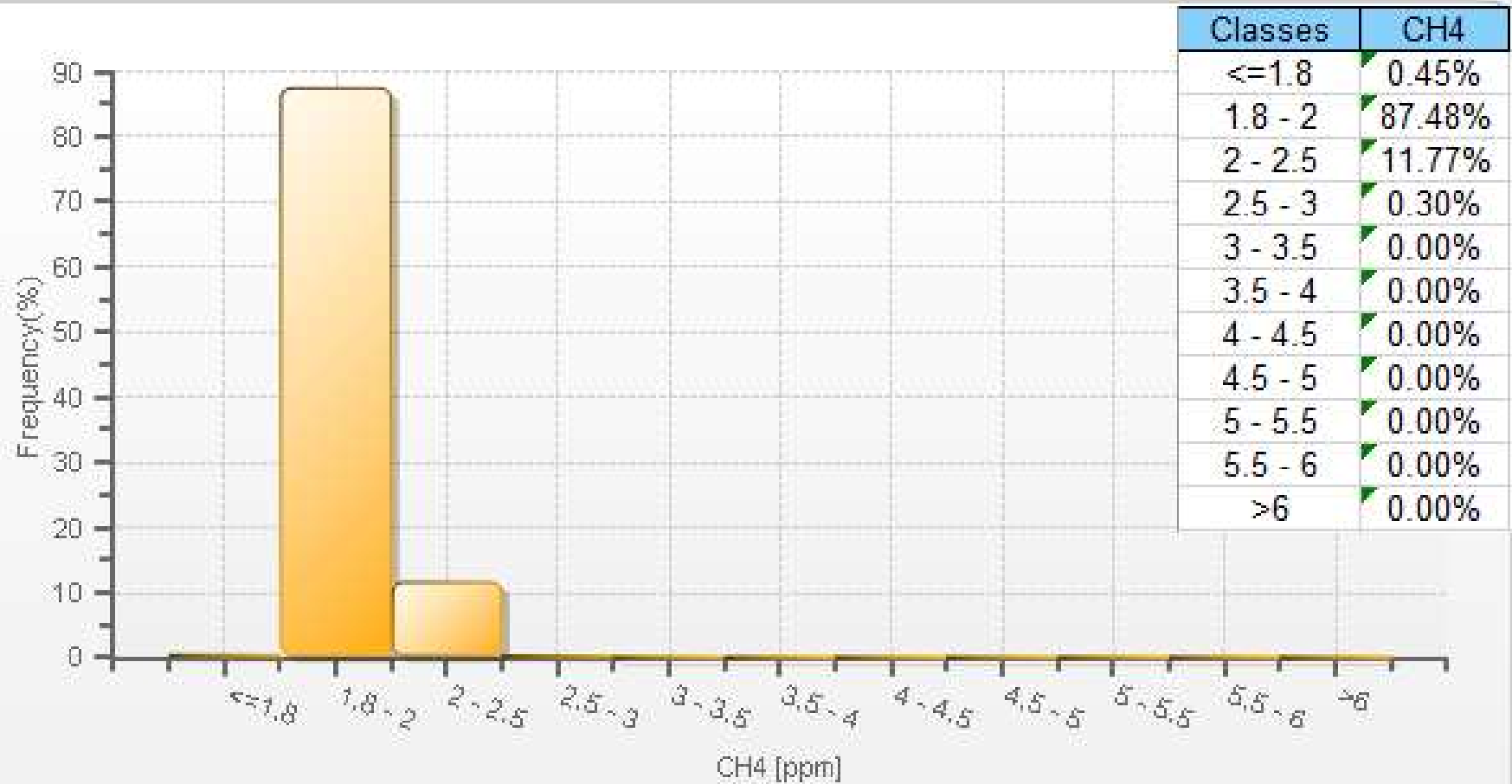
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P	Power Failure

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
 Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for CH4 - 842b Station

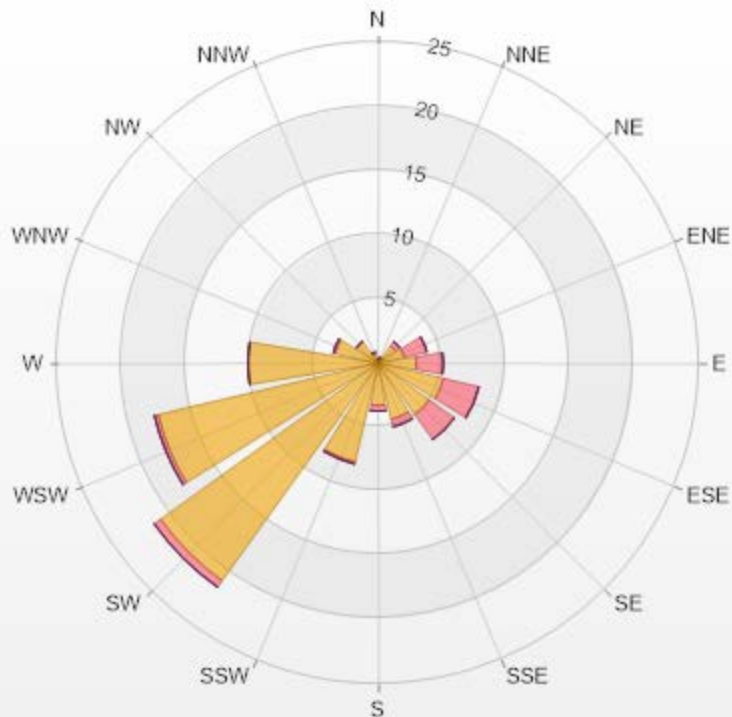


CH4[ppm] Histogram: PRAMP 842b Monthly: 08-2020 1 Hr.



Wind: PRAMP 842b Poll.: PRAMP 842b-CH4[ppm] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 90.19% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	0.3	0	0	0	0	0.3
NNE	0.3	0.15	0	0	0	0.45
NE	1.64	0.45	0	0	0	2.09
ENE	2.09	1.79	0	0	0	3.88
E	2.98	2.09	0	0	0	5.07
ESE	5.22	2.83	0	0	0	8.05
SE	4.92	2.38	0	0	0	7.3
SSE	4.47	0.6	0	0	0	5.07
S	3.28	0.45	0	0	0	3.73
SSW	7.9	0.15	0	0	0	8.05
SW	20.86	0.6	0	0	0	21.46
WSW	17.59	0.3	0	0	0	17.89
W	10.13	0	0	0	0	10.13
WNW	3.43	0.15	0	0	0	3.58
NW	2.09	0	0	0	0	2.09
NNW	0.75	0.15	0	0	0	0.9
Summary	87.95	12.09	0	0	0	100



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% Icon Classes (ppm)

88

0-2

12

2-5

0

5-10

0

10-20

0

>20.0



PEACE RIVER AREA MONITORING PROGRAM

842b Station - August 2020

Summary of Hourly Averages

NON-METHANE HYDROCARBONS (NMHC) in ppm

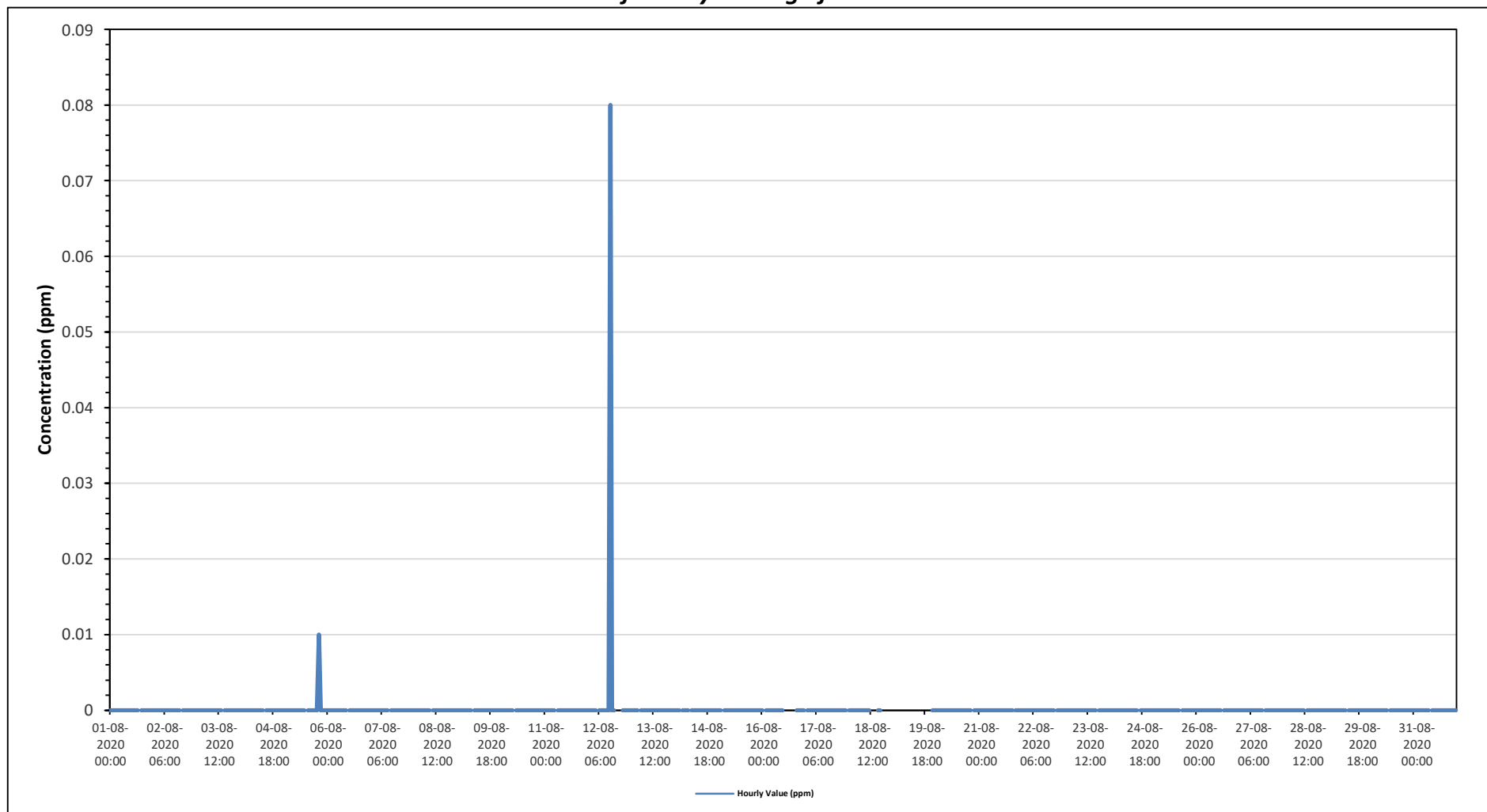
Maximum Hourly Value:	0.08 ppm on August 12 at hour 12	Hours in Service:	744
Maximum Daily Value:	0.00 ppm on August 12	Hours of Data:	671
Minimum Hourly Value:	0.00 ppm on August 1 at hour 0	Hours of Missing Data:	38
Minimum Daily Value:	0.00 ppm on August 1	Hours of Calibration:	35
Monthly Average:	0.00 ppm	Operational Uptime:	94.9

Hourly Period Starting at (MST)																									Daily Minimum	Daily Maximum	Daily Average
Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Aug 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Aug 6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 11	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 12	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	C	C	C	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 13	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 14	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	NRM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 15	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 16	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	X	X	X	X	X	X	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Aug 17	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00
Aug 18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	X	X	X	0.00	0.00	P	P	P	P	P	P	0.00	0.00	-
Aug 19	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	X	0.00	S	0.00	0.00	0.00	0.00	-
Aug 20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00
Aug 21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Diurnal Maximum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Diurnal Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C	Monthly Calibration								S	Daily Zero-Span Check								Q	Quality Assurance								
K	Collection Error								N	No Data (Machine Not in Service)								Y	Routine Maintenance								
X	Invalid Data (Equipment Malfunction/Recovery)								NRM	Unit Maint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)								P	Power Failure								

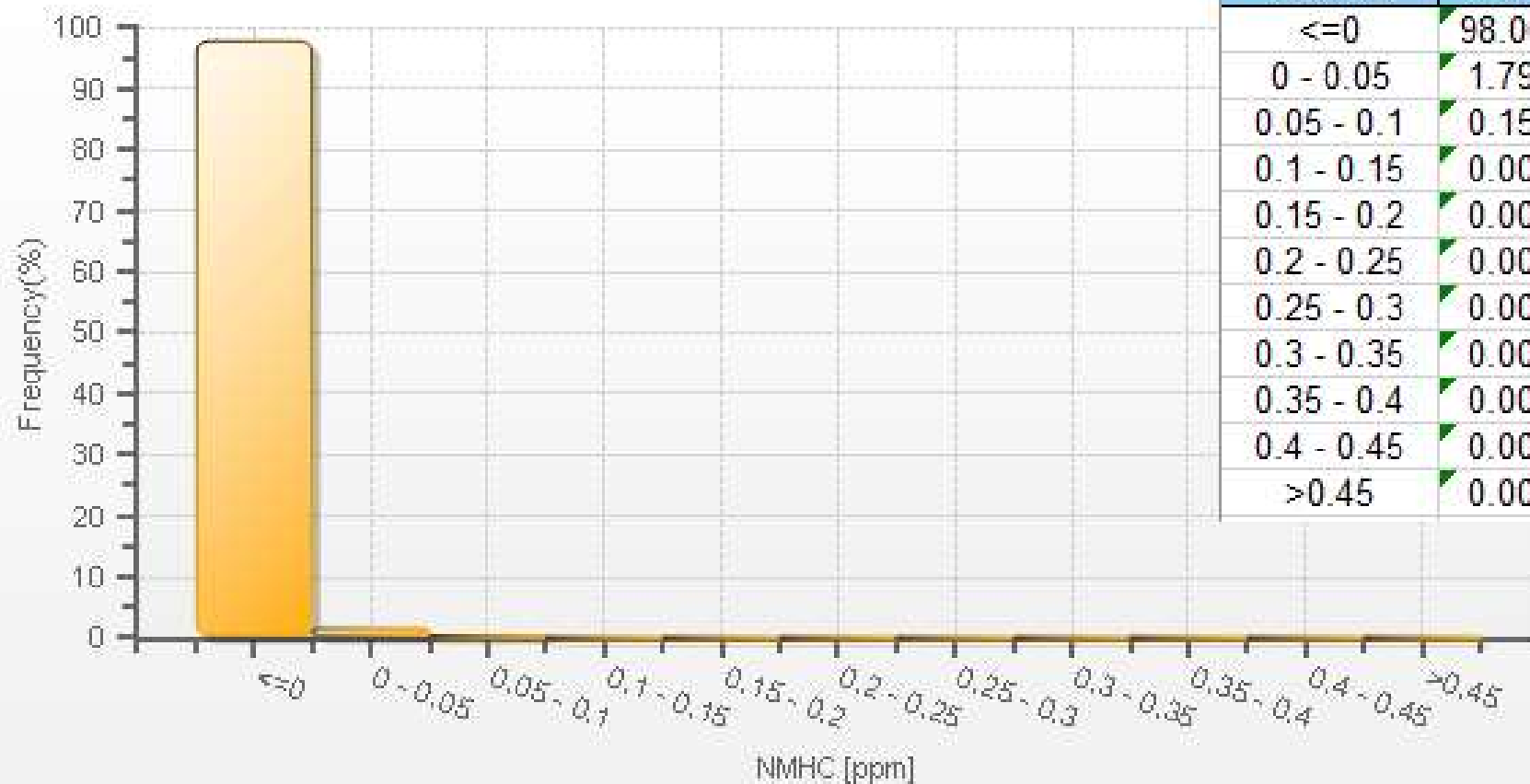
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NMHC - 842b Station

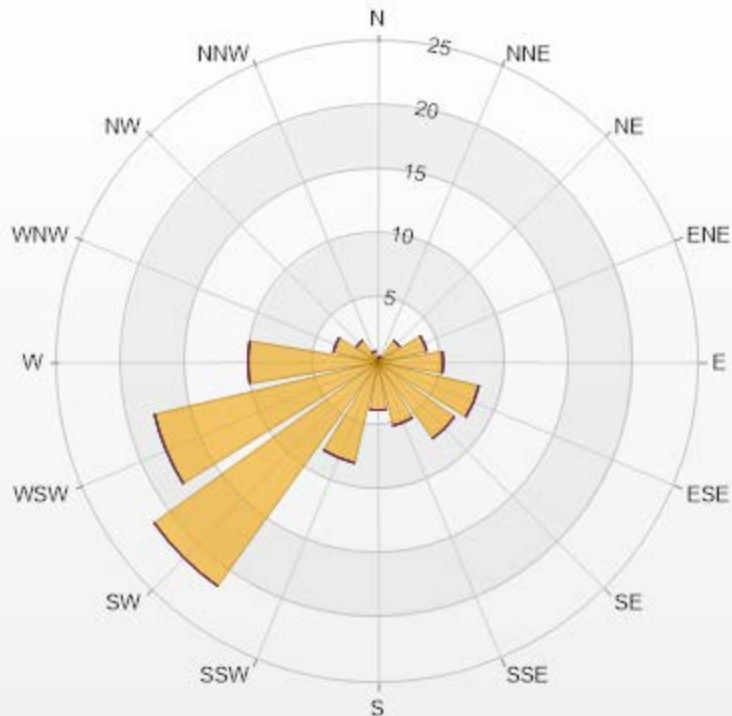


NMHC[ppm] Histogram: PRAMP 842b Monthly: 08-2020 1 Hr.



Wind: PRAMP 842b Poll.: PRAMP 842b-NMHC[ppm] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 90.19% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-0.9	0.9-2	>2.0	Total
N	0.3	0	0	0	0	0.3
NNE	0.45	0	0	0	0	0.45
NE	2.09	0	0	0	0	2.09
ENE	3.87	0	0	0	0	3.87
E	5.07	0	0	0	0	5.07
ESE	8.05	0	0	0	0	8.05
SE	7.3	0	0	0	0	7.3
SSE	5.07	0	0	0	0	5.07
S	3.73	0	0	0	0	3.73
SSW	8.05	0	0	0	0	8.05
SW	21.46	0	0	0	0	21.46
WSW	17.88	0	0	0	0	17.88
W	10.13	0	0	0	0	10.13
WNW	3.58	0	0	0	0	3.58
NW	2.09	0	0	0	0	2.09
NNW	0.89	0	0	0	0	0.89
Summary	100	0	0	0	0	100



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% Icon Classes (ppm)

100 0-0.1

0 0.1-0.3

0 0.3-0.9

0 0.9-2

0 >2.0



PEACE RIVER AREA MONITORING PROGRAM

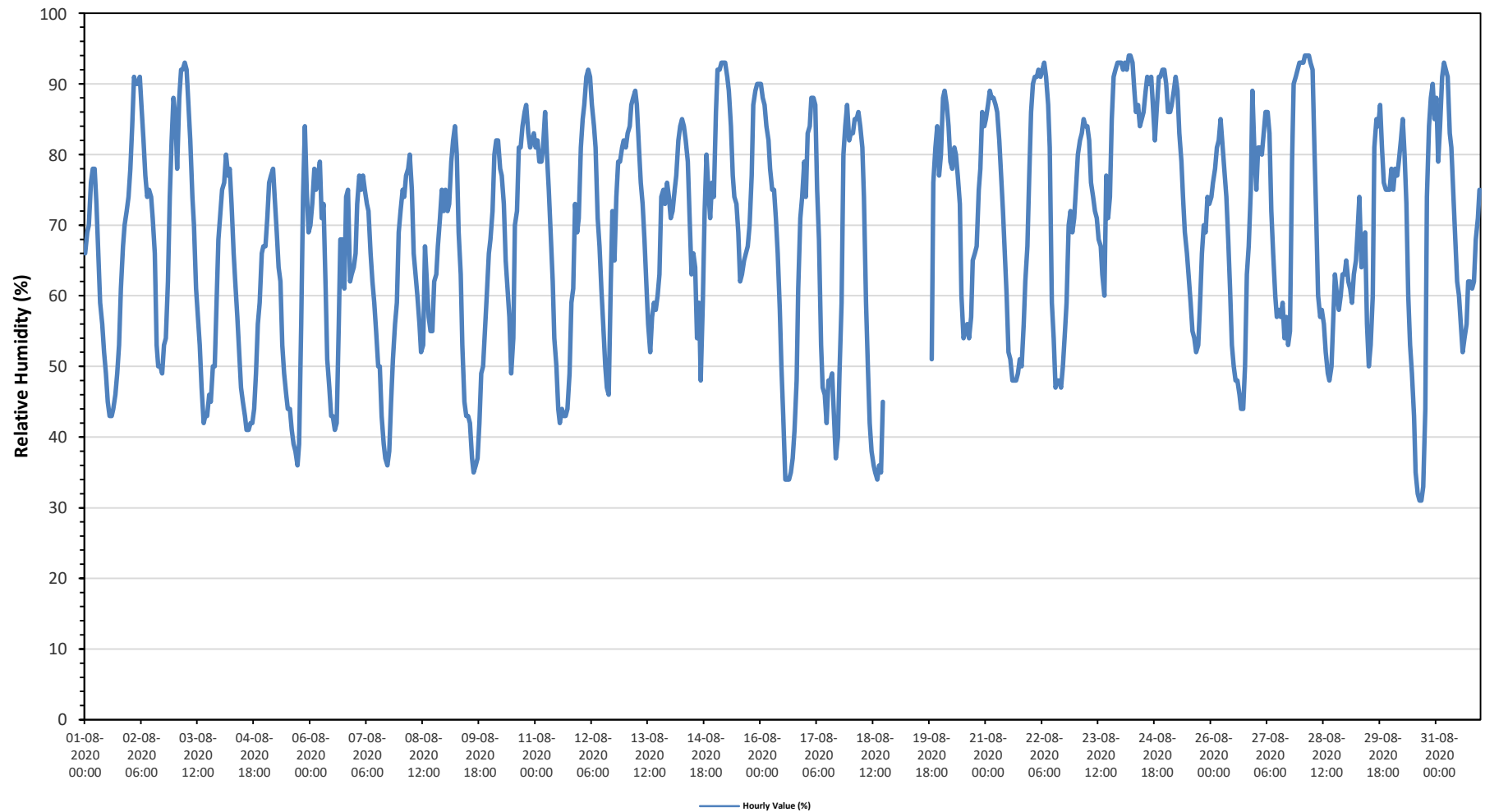
842b Station - August 2020

Summary of Hourly Averages

RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:			94	%	on August 24 at hour 4										Hours in Service:			744										
Maximum Daily Value:			89.6	%	on August 24										Hours of Data:			719										
Minimum Hourly Value:			31	%	on August 30 at hour 15										Hours of Missing Data:			25										
Minimum Daily Value:			57.1	%	on August 9										Hours of Calibration:			0										
Monthly Average:			68.5	%											Operational Uptime:			96.6										
Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average	
Aug 1	66	69	70	76	78	78	73	65	59	56	52	49	45	43	43	44	46	49	53	61	67	70	72	74	43	78	60.8	
Aug 2	78	84	91	90	90	91	87	82	77	74	75	74	71	66	53	50	50	49	53	54	62	74	82	88	49	91	72.7	
Aug 3	85	78	88	92	92	93	92	87	82	74	70	61	57	53	47	42	43	43	46	45	50	50	59	68	42	93	66.5	
Aug 4	72	75	76	80	77	78	73	66	62	57	52	47	45	43	41	41	42	42	44	49	56	59	66	67	41	80	58.8	
Aug 5	67	71	76	77	78	74	69	64	62	53	49	46	44	44	41	39	38	36	39	56	74	84	75	69	36	84	59.4	
Aug 6	70	73	78	75	77	79	71	73	61	51	47	43	43	41	42	56	68	68	61	74	75	62	63	64	41	79	63.1	
Aug 7	66	73	77	75	77	75	73	72	66	62	59	55	50	50	43	39	37	36	38	45	51	56	59	69	36	77	58.5	
Aug 8	72	75	74	77	78	80	75	66	63	60	56	52	53	67	62	57	55	55	62	63	67	71	75	72	52	80	66.1	
Aug 9	75	72	73	79	82	84	80	69	63	53	45	43	43	42	37	35	36	37	42	49	50	55	60	66	35	84	57.1	
Aug 10	68	72	80	82	82	78	77	73	65	61	57	49	54	70	72	81	81	84	86	87	83	81	82	83	49	87	74.5	
Aug 11	81	82	79	79	81	86	80	75	69	62	54	50	44	42	44	43	43	44	49	59	61	73	69	71	42	86	63.3	
Aug 12	81	85	87	91	92	91	87	84	81	71	67	61	56	50	47	46	62	72	65	74	79	79	81	82	46	92	73.8	
Aug 13	81	83	84	87	88	89	87	81	76	73	68	61	56	52	57	59	58	60	63	74	75	73	76	74	52	89	72.3	
Aug 14	71	72	75	77	82	84	85	84	82	79	72	63	66	64	54	59	48	59	72	80	75	71	76	74	48	85	71.8	
Aug 15	86	92	92	93	93	93	91	89	84	77	74	73	69	62	63	65	66	67	70	77	87	89	90	90	62	93	80.5	
Aug 16	90	88	87	84	82	78	75	75	71	66	58	50	43	34	34	34	35	37	41	48	61	71	74	79	34	90	62.3	
Aug 17	74	83	84	88	88	87	75	68	53	47	46	42	48	48	49	43	37	40	49	59	80	84	87	82	37	88	64.2	
Aug 18	83	83	85	85	86	84	81	74	59	50	42	38	36	35	34	36	35	45	P	P	P	P	P	P	34	86	59.5	
Aug 19	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	51	76	81	84	77	51	84	-	
Aug 20	80	88	89	87	84	79	78	81	80	77	73	60	54	55	56	54	57	65	66	67	75	78	86	84	54	89	73.0	
Aug 21	85	87	89	88	88	87	86	82	77	72	66	60	52	51	48	48	48	49	51	50	56	62	67	77	48	89	67.8	
Aug 22	86	90	91	91	92	91	92	93	91	87	81	59	54	47	48	48	47	50	55	59	70	72	69	71	47	93	72.3	
Aug 23	76	80	82	83	85	84	84	82	76	74	72	71	68	67	63	60	77	71	74	85	91	92	93	93	60	93	78.5	
Aug 24	93	92	93	92	94	94	93	89	86	87	84	85	86	89	91	90	91	86	82	87	91	91	92	92	82	94	89.6	
Aug 25	90	86	86	87	89	91	89	83	79	74	69	66	63	59	55	54	52	53	58	66	70	69	74	73	52	91	72.3	
Aug 26	74	76	78	81	82	85	81	78	74	68	61	53	50	48	48	46	44	44	50	63	67	75	89	80	44	89	66.5	
Aug 27	75	81	81	80	83	86	86	83	72	66	60	57	58	57	59	54	57	53	55	79	90	91	92	93	53	93	72.8	
Aug 28	93	93	94	94	94	93	92	81	71	60	57	58	56	52	49	48	50	57	63	60	58	60	63	63	48	94	69.1	
Aug 29	65	62	61	59	63	65	69	74	64	65	69	56	50	53	60	81	85	84	87	81	76	75	75	75	50	87	68.9	
Aug 30	78	75	78	77	79	82	85	80	73	60	53	49	43	35	32	31	31	33	44	74	84	88	90	85	31	90	64.1	
Aug 31	88	79	84	91	93	92	91	83	81	74	68	62	60	56	52	54	56	62	62	61	62	68	71	75	52	93	71.9	
Diurnal Maximum	93	93	94	94	94	94	93	93	91	87	84	85	86	89	91	90	91	86	87	87	91	92	93	93				
Diurnal Average	78.3	80.0	82.1	83.2	84.3	84.4	81.9	77.9	72.0	66.3	61.9	56.4	53.9	52.5	50.8	51.2	52.5	54.3	57.9	64.6	70.6	73.5	76.4	77.0				
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance											
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure			
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																			
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																												
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																												

Timeseries Chart of Hourly Average for RH - 842b Station





PEACE RIVER AREA MONITORING PROGRAM

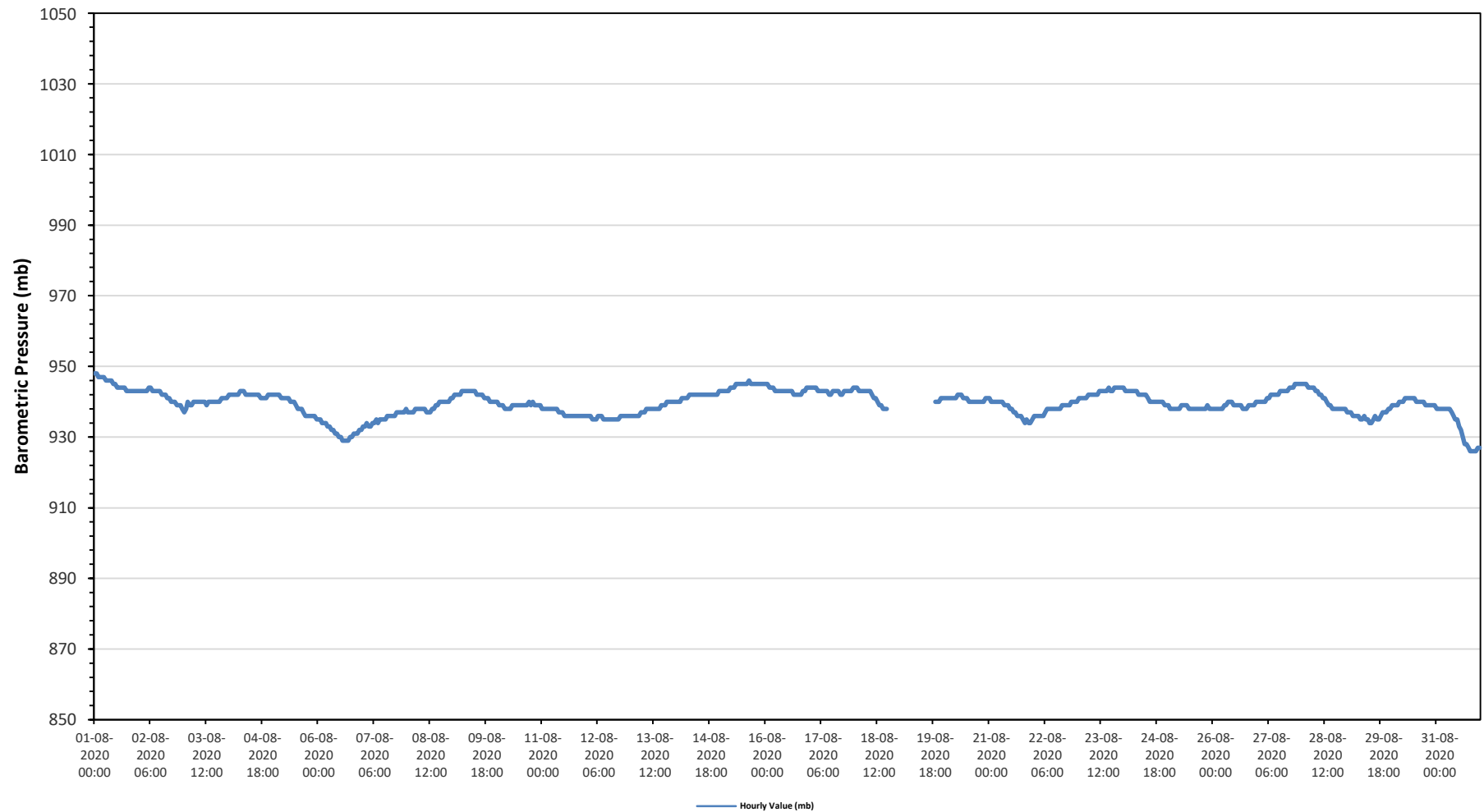
842b Station - August 2020

Summary of Hourly Averages

BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:										948	mb	on August 1 at hour 0										Hours in Service:										744
Maximum Daily Value:										945	mb	on August 1										Hours of Data:										719
Minimum Hourly Value:										926	mb	on August 31 at hour 18										Hours of Missing Data:										25
Minimum Daily Value:										932	mb	on August 6										Hours of Calibration:										0
Monthly Average:										940	mb											Operational Uptime:										96.6
Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily						
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average					
Aug 1	948	948	947	947	947	947	946	946	946	946	945	945	944	944	944	944	944	943	943	943	943	943	943	943	943	943	945					
Aug 2	943	943	943	943	943	944	944	943	943	943	943	943	942	942	942	941	941	940	940	940	939	939	939	938	938	944	942					
Aug 3	937	938	940	939	939	940	940	940	940	940	940	940	939	940	940	940	940	940	940	941	941	941	941	941	937	941	940					
Aug 4	942	942	942	942	942	942	943	943	943	942	942	942	942	942	942	942	942	941	941	941	941	942	942	942	941	943	942					
Aug 5	942	942	942	942	941	941	941	941	941	940	940	940	939	938	938	938	937	936	936	936	936	936	936	935	935	942	939					
Aug 6	935	935	934	934	934	933	933	932	932	931	931	930	930	929	929	929	929	930	930	931	931	931	932	932	929	935	932					
Aug 7	933	933	934	933	933	934	934	935	934	935	935	935	935	936	936	936	936	936	937	937	937	937	937	938	933	938	935					
Aug 8	937	937	937	937	938	938	938	938	938	938	937	937	937	938	938	939	939	940	940	940	940	940	940	941	937	941	938					
Aug 9	941	942	942	942	942	943	943	943	943	943	943	943	943	942	942	942	942	941	941	941	940	940	940	940	940	943	942					
Aug 10	940	939	939	939	938	938	938	938	939	939	939	939	939	939	939	939	939	940	939	940	939	939	939	939	938	940	939					
Aug 11	938	938	938	938	938	938	938	938	938	937	937	937	936	936	936	936	936	936	936	936	936	936	936	936	936	938	937					
Aug 12	936	936	936	935	935	935	936	936	936	935	935	935	935	935	935	935	935	935	936	936	936	936	936	936	935	936	936					
Aug 13	936	936	936	936	936	937	937	937	938	938	938	938	938	938	938	938	939	939	939	940	940	940	940	940	936	940	938					
Aug 14	940	940	940	941	941	941	941	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	943	940	943	942					
Aug 15	943	943	943	943	943	944	944	944	945	945	945	945	945	945	945	946	945	945	945	945	945	945	945	945	943	946	945					
Aug 16	945	945	944	944	944	943	943	943	943	943	943	943	943	943	943	942	942	942	942	942	943	943	944	944	942	945	943					
Aug 17	944	944	944	944	943	943	943	943	943	943	942	942	943	943	943	943	942	942	943	943	943	943	943	944	942	944	943					
Aug 18	944	944	943	943	943	943	943	943	943	942	941	941	940	939	939	938	938	938	P	P	P	P	P	P	938	944	941					
Aug 19	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	940	940	940	941	941	940	941	-					
Aug 20	941	941	941	941	941	941	941	942	942	942	941	941	941	940	940	940	940	940	940	940	940	941	941	941	940	942	941					
Aug 21	941	940	940	940	940	940	940	940	939	939	939	938	938	937	937	936	936	936	935	934	935	934	934	935	934	941	938					
Aug 22	936	936	936	936	936	936	937	938	938	938	938	938	938	938	939	939	939	939	939	939	940	940	940	940	936	940	938					
Aug 23	941	941	941	941	941	942	942	942	942	942	942	943	943	943	943	943	944	943	943	944	944	944	944	944	941	944	943					
Aug 24	944	943	943	943	943	943	943	943	942	942	942	942	942	941	940	940	940	940	940	940	940	940	939	939	939	944	941					
Aug 25	939	938	938	938	938	938	938	939	939	939	939	938	938	938	938	938	938	938	938	938	938	939	938	938	938	939	938					
Aug 26	938	938	938	938	938	938	939	939	940	940	940	939	939	939	939	939	938	938	938	939	939	939	939	940	938	940	939					
Aug 27	940	940	940	940	940	941	941	942	942	942	942	943	943	943	943	943	943	944	944	944	945	945	945	945	940	945	942					
Aug 28	945	945	945	944	944	944	944	943	943	942	942	941	941	940	939	939	938	938	938	938	938	938	938	938	938	945	941					
Aug 29	937	937	937	936	936	936	936	935	935	936	935	935	934	934	935	936	935	935	936	937	937	937	938	938	934	938	936					
Aug 30	939	939	939	939	940	940	940	941	941	941	941	941	941	940	940	940	940	940	939	939	939	939	939	939	939	941	940					
Aug 31	938	938	938	938	938	938	938	938	937	936	935	935	933	932	930	928	928	927	926	926	926	926	927	927	926	938	933					
Diurnal Maximum	948	948	947	947	947	947	946	946	946	946	945	945	945	945	945	946	945	945	945	945	945	945	945	945	945	945	945					
Diurnal Average	940	940	940	940	940	940	940	940	940	940	940	940	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939					
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance															
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure							
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																							
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																

Timeseries Chart of Hourly Average for BP - 842b Station





PEACE RIVER AREA MONITORING PROGRAM

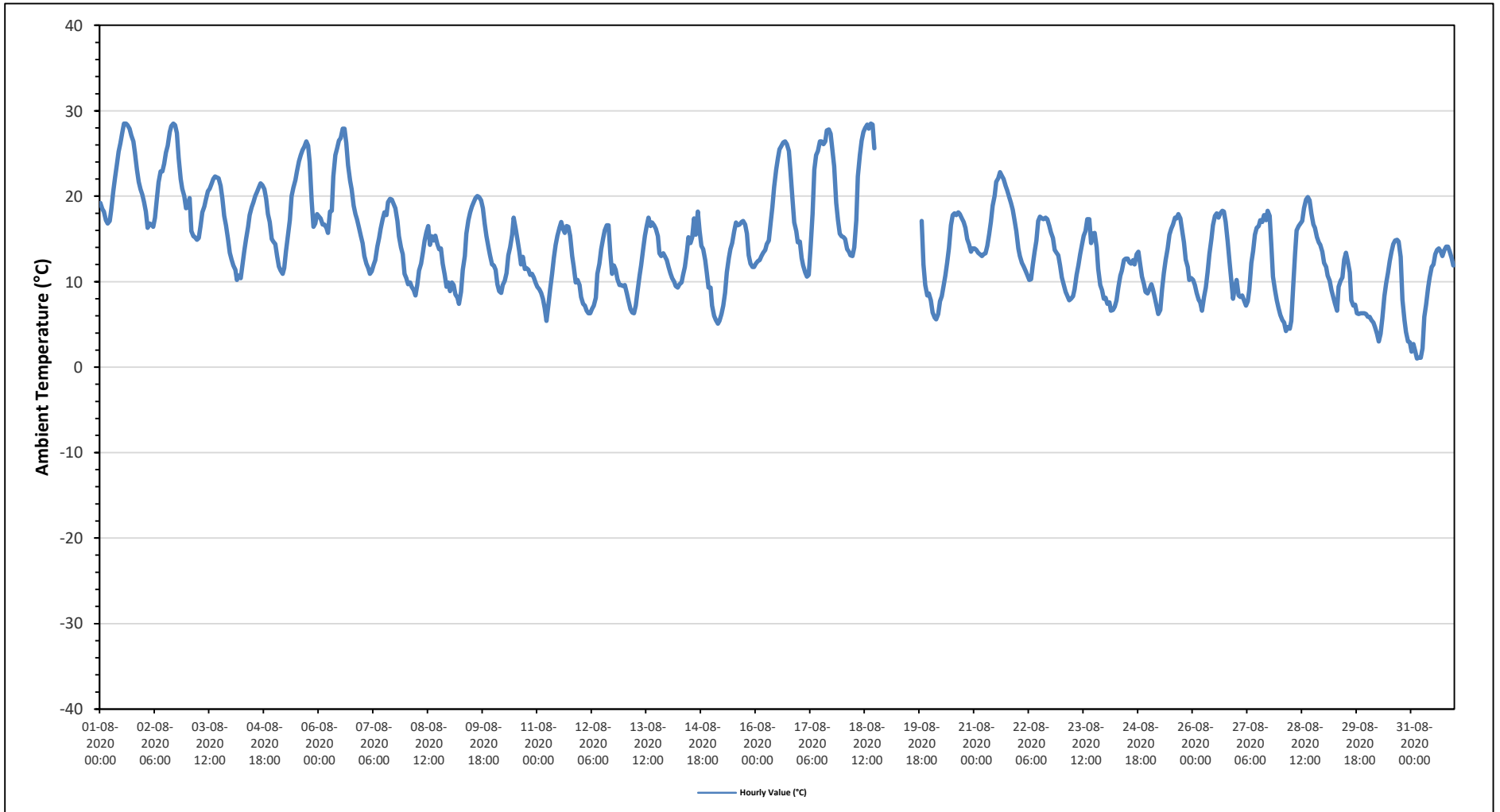
842b Station - August 2020

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

Maximum Hourly Value:				28.5	°C	on August 1 at hour 13				Hours in Service:				744													
Maximum Daily Value:				22.8	°C	on August 1				Hours of Data:				719													
Minimum Hourly Value:				1.0	°C	on August 31 at hour 3				Hours of Missing Data:				25													
Minimum Daily Value:				8.1	°C	on August 30				Hours of Calibration:				0													
Monthly Average:				14.4	°C					Operational Uptime:				96.6													
Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Aug 1	19.2	18.5	18.2	17.2	16.8	17.1	18.4	20.6	22.2	23.7	25.2	26.2	27.4	28.5	28.5	28.3	27.9	27.1	26.4	25.1	23.1	21.7	20.8	20.2	16.8	28.5	22.8
Aug 2	19.3	18.2	16.3	16.8	16.7	16.4	17.5	19.9	21.6	22.9	22.9	23.8	25.1	25.9	27.5	28.2	28.5	28.3	27.4	24.5	22	20.9	20	18.6	16.3	28.5	22.1
Aug 3	18.8	19.8	15.9	15.3	15.2	14.9	15.1	16.5	18.1	18.8	19.6	20.6	20.9	21.5	22	22.3	22.2	22.1	21.2	19.7	17.7	16.6	15	13.4	13.4	22.3	18.5
Aug 4	12.6	11.9	11.4	10.2	10.7	10.4	11.8	13.6	15	16.4	17.8	18.7	19.3	20	20.5	21.1	21.5	21.3	20.8	19.7	17.9	17	15	14.7	10.2	21.5	16.2
Aug 5	14.4	13	11.8	11.3	10.9	11.6	13.6	15.5	17.2	20	21	21.9	22.9	24.1	24.8	25.4	25.8	26.4	25.9	24	19.4	16.4	16.8	17.9	10.9	26.4	18.8
Aug 6	17.6	17.4	16.7	16.7	16.3	15.7	18.2	18.3	22.3	24.8	25.6	26.5	26.8	27.9	27.9	26.2	23.6	21.8	20.8	18.9	17.9	17.3	16.3	15.4	15.4	27.9	20.7
Aug 7	14.5	13	12.1	11.6	10.9	11.2	12	12.5	14.1	15.1	16.2	17.3	18.1	17.8	19.3	19.7	19.6	19.1	18.6	17.1	15.3	14	13.2	10.9	10.9	19.7	15.1
Aug 8	10.4	9.7	9.9	9.4	9	8.4	9.6	11.3	12.1	13.4	14.8	15.8	16.5	14.3	15.3	14.8	15.4	14.4	13.8	13.9	12.1	10.8	9.4	9.9	8.4	16.5	12.3
Aug 9	8.9	9.9	9.6	8.5	8.1	7.4	8.8	11.4	13	15.6	17.2	18.1	18.8	19.3	19.8	20	19.9	19.5	18.6	16.8	15.3	14	13.1	12	7.4	20.0	14.3
Aug 10	11.9	11.4	9.7	8.9	8.7	9.6	10.1	11	13.1	14	15.5	17.5	16.2	14.9	13.6	12	12.9	11.5	11.6	11.4	10.8	10.9	10.5	9.8	8.7	17.5	12.0
Aug 11	9.4	9.1	8.7	8	6.9	5.4	7.4	9	10.9	12.8	14.3	15.4	16.3	17	16.2	15.7	16.5	16.4	15.4	13	11.8	9.9	10.2	9.6	5.4	17.0	11.9
Aug 12	8.2	7.4	7.2	6.6	6.3	6.3	6.8	7.2	8.1	10.9	12.1	13.8	15.1	16	16.6	16.6	13.3	10.9	11.9	11.4	10.3	9.6	9.6	9.5	6.3	16.6	10.5
Aug 13	9.6	8.6	7.8	6.8	6.4	6.3	7.2	8.9	10.7	11.9	13.8	15.4	16.5	17.5	16.5	16.9	16.6	16.2	15.3	13.3	13	13.3	13	12.5	6.3	17.5	12.3
Aug 14	11.7	11	10.4	10	9.5	9.3	9.7	9.9	10.8	11.7	13.5	15.2	14.5	15.2	17.4	15.5	18.2	15.9	14.2	13.8	12.5	11.1	9.3	9.3	9.3	18.2	12.5
Aug 15	7.2	6	5.5	5.1	5.4	6.2	7.2	8.7	11.1	12.8	13.8	14.5	15.9	16.9	16.6	16.7	17	17.1	16.7	15.6	13.1	12.1	11.7	11.7	5.1	17.1	11.9
Aug 16	12.1	12.4	12.5	13	13.4	13.7	14.4	14.8	16.8	18.7	21.1	23.1	24.5	25.5	25.9	26.3	26.4	26.1	25.3	23	19.7	16.9	15.9	14.6	12.1	26.4	19.0
Aug 17	14.7	12.8	11.9	11.1	10.6	10.8	13.9	17.9	23.1	24.8	25.3	26.4	26.4	26.1	26.4	27.7	27.8	27.3	25.4	23.5	19.2	17.2	15.6	15.3	10.6	27.8	20.1
Aug 18	15.2	15	13.8	13.5	13.1	13	14	17.2	22.3	24.8	26.5	27.5	28	28.4	27.9	28.5	28.4	25.6	P	P	P	P	P	P	13.0	28.5	21.3
Aug 19	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	17.1	12	9.6	8.4	8.6	8.4	17.1	-
Aug 20	7.8	6.4	5.8	5.6	6.2	7.7	8.3	9.5	10.7	12.2	13.9	16.6	17.8	18	17.8	18.1	17.9	17.4	17	16.3	15	14.4	13.5	13.9	5.6	18.1	12.8
Aug 21	13.9	13.7	13.4	13.2	13	13.2	13.3	14.2	15.5	17	18.9	20.1	21.7	22.1	22.8	22.4	22	21.2	20.7	19.9	19.2	18.4	17.2	15.9	13.0	22.8	17.6
Aug 22	13.9	13	12.2	11.8	11.3	10.8	10.2	10.3	12	13.5	14.8	17.1	17.6	17.4	17.3	17.5	17.3	16.5	15.8	15.1	13.7	13.4	13.1	11.9	10.2	17.6	14.1
Aug 23	10.5	9.7	8.8	8.4	7.8	8	8.3	9.1	10.8	11.9	13.2	14.3	15.4	15.9	17.3	17.3	14.5	15.6	15.7	14	11.5	9.6	9	8	7.8	17.3	11.9
Aug 24	8.1	7.4	7.6	6.6	6.7	7.1	7.8	9.3	10.7	11.3	12.5	12.7	12.7	12.3	12.1	12.5	12	13.2	13.5	12	10.6	9.7	8.8	8.6	6.6	13.5	10.2
Aug 25	9.1	9.7	9.1	8.2	7.1	6.2	6.7	9.1	11	12.5	13.9	15.5	16.2	16.7	17.5	17.4	17.9	17.4	16.2	14.6	12.6	11.7	10.2	10.4	6.2	17.9	12.4
Aug 26	10.2	9.6	8.7	7.9	7.6	6.6	8.2	9.3	11.1	13.2	15	16.6	17.7	18	17.5	18	18.3	18.2	17	14.7	12.4	10.2	8	9.5	6.6	18.3	12.6
Aug 27	10.2	8.4	8.2	8.4	7.8	7.2	7.7	9.1	12.2	13.6	15.5	16.3	16.5	17.2	17	17.8	17.2	18.3	17.7	14	10.6	9	7.8	6.9	6.9	18.3	12.3
Aug 28	6.1	5.5	5.2	4.2	4.7	4.5	5.4	9.7	13.3	16	16.5	16.8	17.1	18.6	19.6	19.9	19.5	18	16.7	16.3	15.2	14.6	14.3	13.5	4.2	19.9	13.0
Aug 29	12.2	11.7	10.7	10.1	9	8.2	7.4	6.6	9.4	10.1	10.5	12.6	13.4	12.4	11.1	7.8	7.2	7.3	6.3	6.2	6.3	6.3	6.3	6.2	6.2	13.4	9.0
Aug 30	5.9	5.9	5.5	5.2	4.7	3.9	3	3.9	5.7	8.3	9.8	11	12.4	13.5	14.4	14.8	14.9	14.7	12.9	7.9	5.5	4.1	3	2.9	2.9	14.9	8.1
Aug 31	1.8	2.7	1.9	1	1.1	1.1	2.2	5.9	7.3	9.3	10.5	11.7	12	13.2	13.7	13.9	13.5	13	13.7	14.1	14.1	13.5	12.7	11.9	1.0	14.1	9.0
Diurnal Maximum	19.3	19.8	18.2	17.2	16.8	17.1	18.4	20.6	23.1	24.8	26.5	27.5	28.0	28.5	28.5	28.5	28.5	28.3	27.4	25.1	23.1	21.7	20.8	20.2			
Diurnal Average	11.5	11.0	10.2	9.7	9.4	9.3	10.1	11.7	13.7	15.4	16.7	18.0	18.7	19.1	19.4	19.3	19.1	18.6	17.7	16.2	14.3	13.1	12.3	11.8			
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance										
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure		
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																		
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																											
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																											

Timeseries Chart of Hourly Average for AT - 842b Station





PEACE RIVER AREA MONITORING PROGRAM

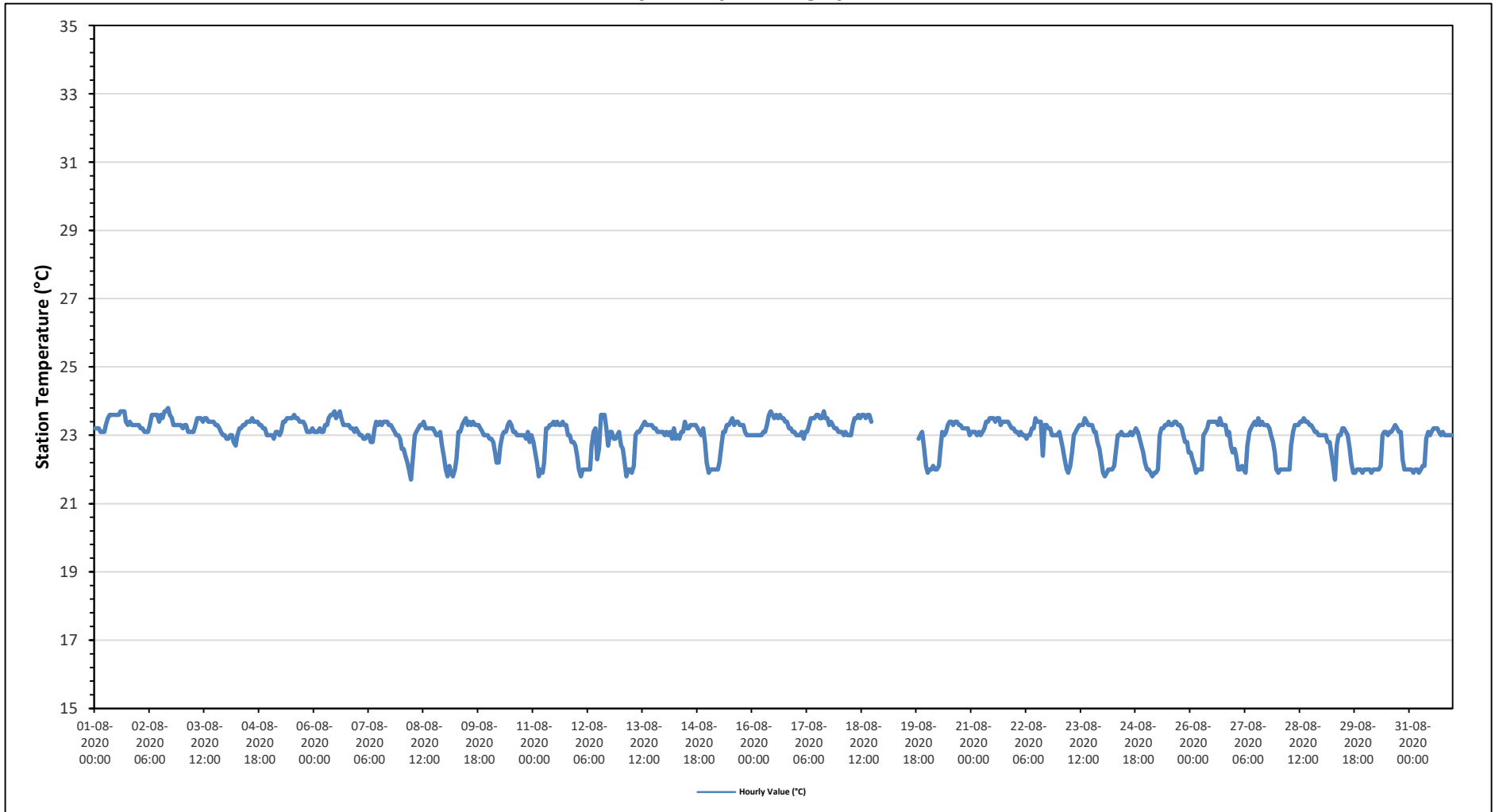
842b Station - August 2020

Summary of Hourly Averages

STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:										23.8	°C	on August 2 at hour 16										Hours in Service:										744
Maximum Daily Value:										23.4	°C	on August 2										Hours of Data:										719
Minimum Hourly Value:										21.7	°C	on August 8 at hour 5										Hours of Missing Data:										25
Minimum Daily Value:										22.5	°C	on August 29										Hours of Calibration:										0
Monthly Average:										23.0	°C											Operational Uptime:										96.6
Day	Hourly Period Starting at (MST)																									Daily	Daily	Daily				
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average					
Aug 1	23.2	23.2	23.2	23.1	23.1	23.1	23.3	23.5	23.6	23.6	23.6	23.6	23.6	23.6	23.7	23.7	23.7	23.4	23.3	23.4	23.3	23.3	23.3	23.3	23.3	23.1	23.7	23.4				
Aug 2	23.3	23.2	23.2	23.1	23.1	23.1	23.3	23.6	23.6	23.6	23.6	23.4	23.6	23.5	23.7	23.7	23.8	23.6	23.5	23.3	23.3	23.3	23.3	23.3	23.1	23.8	23.4					
Aug 3	23.2	23.3	23.3	23.1	23.1	23.1	23.1	23.3	23.5	23.5	23.5	23.4	23.5	23.5	23.4	23.4	23.4	23.4	23.3	23.3	23.2	23.1	23.0	23.0	23.0	23.5	23.3					
Aug 4	22.9	22.9	23.0	23.0	22.8	22.7	23.0	23.2	23.2	23.3	23.3	23.4	23.4	23.4	23.5	23.4	23.4	23.4	23.3	23.3	23.2	23.2	23.0	23.0	22.7	23.5	23.2					
Aug 5	23.0	23.0	22.9	23.1	23.1	23.0	23.1	23.4	23.4	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.4	23.4	23.4	23.3	23.1	23.1	23.1	23.2	22.9	23.6	23.3					
Aug 6	23.1	23.1	23.1	23.2	23.1	23.1	23.3	23.3	23.5	23.6	23.6	23.7	23.5	23.6	23.7	23.5	23.3	23.3	23.3	23.3	23.2	23.2	23.1	23.2	23.1	23.7	23.3					
Aug 7	23.1	23.0	23.0	22.9	22.9	23.0	23.0	22.8	22.8	23.2	23.4	23.3	23.4	23.3	23.4	23.4	23.4	23.3	23.3	23.2	23.1	23.0	23.0	22.9	22.8	23.4	23.1					
Aug 8	22.6	22.6	22.4	22.2	22.0	21.7	22.3	23.0	23.1	23.2	23.3	23.3	23.4	23.2	23.2	23.2	23.2	23.2	23.1	23.0	23.0	23.1	22.7	22.4	21.7	23.4	22.9					
Aug 9	22.0	21.8	22.1	21.9	21.8	22.0	22.3	23.1	23.1	23.3	23.4	23.5	23.3	23.4	23.3	23.4	23.3	23.3	23.3	23.2	23.1	23.0	23.0	23.0	21.8	23.5	22.9					
Aug 10	22.9	22.9	22.8	22.5	22.2	22.2	22.7	23.0	23.1	23.1	23.3	23.4	23.3	23.1	23.1	23.0	23.0	23.0	23.0	23.0	22.9	23.1	22.8	23.0	22.2	23.4	22.9					
Aug 11	22.8	22.5	22.2	21.8	22.0	21.9	22.2	23.2	23.2	23.3	23.3	23.4	23.3	23.4	23.3	23.3	23.4	23.3	23.3	23.0	23.0	22.8	22.8	22.7	21.8	23.4	22.9					
Aug 12	22.4	22.0	21.8	22.0	22.0	22.0	22.0	22.0	22.7	23.1	23.2	22.3	22.6	23.6	23.6	23.6	23.2	22.7	23.1	23.1	22.9	22.9	23.0	23.1	21.8	23.6	22.7					
Aug 13	22.7	22.6	22.2	21.8	22.0	22.0	21.9	22.1	23.0	23.1	23.1	23.2	23.3	23.4	23.3	23.3	23.3	23.3	23.2	23.2	23.1	23.1	23.1	23.1	21.8	23.4	22.9					
Aug 14	23.0	23.1	23.0	23.1	22.9	23.2	22.9	23.0	22.9	23.1	23.1	23.4	23.2	23.2	23.3	23.3	23.3	23.3	23.2	23.1	23.0	23.2	22.8	22.2	22.2	23.4	23.1					
Aug 15	21.9	22.0	22.0	22.0	22.0	22.0	22.2	22.7	23.1	23.1	23.3	23.3	23.4	23.5	23.3	23.4	23.4	23.3	23.3	23.3	23.1	23.0	23.0	23.0	21.9	23.5	22.9					
Aug 16	23.0	23.0	23.0	23.0	23.0	23.0	23.1	23.1	23.3	23.6	23.7	23.6	23.5	23.6	23.5	23.6	23.5	23.5	23.4	23.4	23.2	23.2	23.1	23.1	23.0	23.7	23.3					
Aug 17	23.0	23.0	23.0	23.1	22.9	23.1	23.1	23.3	23.5	23.5	23.5	23.6	23.6	23.5	23.5	23.7	23.5	23.5	23.3	23.4	23.3	23.2	23.2	23.1	22.9	23.7	23.3					
Aug 18	23.1	23.1	23.0	23.1	23.0	23.0	23.0	23.3	23.5	23.5	23.6	23.5	23.6	23.5	23.5	23.6	23.6	23.4	P	P	P	P	P	P	23.0	23.6	23.3					
Aug 19	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	22.9	23.0	23.1	22.6	22.1	22.1	23.1	-					
Aug 20	21.9	22.0	22.0	22.1	22.0	22.0	22.1	22.6	23.1	23.0	23.1	23.3	23.4	23.4	23.3	23.4	23.4	23.3	23.3	23.2	23.2	23.2	23.2	23.0	21.9	23.4	22.9					
Aug 21	23.1	23.1	23.1	23.0	23.1	23.0	23.1	23.2	23.4	23.4	23.5	23.5	23.5	23.4	23.5	23.5	23.3	23.4	23.4	23.4	23.4	23.3	23.2	23.2	23.0	23.5	23.3					
Aug 22	23.1	23.1	23.0	23.1	23.0	23.0	22.9	23.0	23.0	23.2	23.2	23.5	23.4	23.4	23.4	22.4	23.3	23.3	23.2	23.2	23.0	23.0	23.0	23.0	22.4	23.5	23.1					
Aug 23	23.1	22.9	22.6	22.3	22.0	21.9	22.1	22.5	23.0	23.1	23.2	23.3	23.3	23.3	23.5	23.4	23.3	23.3	23.3	23.1	23.1	22.8	22.6	22.3	21.9	23.5	22.9					
Aug 24	21.9	21.8	21.9	22.0	22.0	22.0	22.1	22.5	23.0	23.0	23.1	23.0	23.0	23.0	23.1	23.0	23.1	23.2	23.1	22.9	22.7	22.5	22.2	21.8	23.2	22.6						
Aug 25	22.0	22.0	21.9	21.8	21.9	21.9	22.0	23.0	23.2	23.2	23.3	23.3	23.4	23.3	23.3	23.4	23.4	23.3	23.3	23.2	23.0	22.8	22.8	22.5	21.8	23.4	22.8					
Aug 26	22.5	22.3	22.1	21.9	22.0	22.0	22.0	23.0	23.1	23.2	23.4	23.4	23.4	23.4	23.4	23.3	23.5	23.3	23.3	23.3	23.0	23.1	22.7	22.5	21.9	23.5	22.9					
Aug 27	22.6	22.4	22.0	22.0	22.1	22.0	21.9	22.7	23.1	23.2	23.3	23.4	23.3	23.5	23.3	23.4	23.3	23.3	23.3	23.2	23.0	22.8	22.5	22.0	21.9	23.5	22.8					
Aug 28	21.9	22.0	22.0	22.0	22.0	22.0	22.0	22.7	23.1	23.3	23.3	23.3	23.4	23.4	23.5	23.4	23.4	23.3	23.3	23.2	23.1	23.1	23.0	23.0	21.9	23.5	22.9					
Aug 29	23.0	23.0	23.0	22.8	22.8	22.5	22.1	21.7	22.7	23.0	23.0	23.2	23.2	23.1	23.0	22.6	22.2	21.9	21.9	22.0	22.0	22.0	21.9	22.0	21.7	23.2	22.5					
Aug 30	22.0	22.0	22.0	21.9	22.0	22.0	22.0	22.0	22.1	23.0	23.1	23.1	23.0	23.1	23.1	23.2	23.3	23.2	23.1	23.1	22.3	22.0	22.0	22.0	21.9	23.3	22.5					
Aug 31	22.0	22.0	21.9	22.0	22.0	21.9	22.0	22.1	22.1	22.9	23.1	23.0	23.1	23.2	23.2	23.2	23.1	23.0	23.1	23.0	23.0	23.0	23.0	23.0	21.9	23.2	22.7					
Diurnal Maximum	23.3	23.3	23.3	23.2	23.1	23.2	23.3	23.6	23.6	23.6	23.7	23.7	23.6	23.6	23.7	23.7	23.8	23.6	23.5	23.4	23.4	23.3	23.3	23.3								
Diurnal Average	22.7	22.6	22.6	22.5	22.5	22.4	22.5	22.9	23.1	23.3	23.3	23.3	23.4	23.4	23.3	23.3	23.3	23.2	23.2	23.2	23.0	23.0	22.9	22.8								
C	Monthly Calibration								S	Daily Zero-Span Check								Q	Quality Assurance													
K	Collection Error								N	No Data (Machine Not in Service)								Y	Routine Maintenance								P	Power Failure				
X	InValid Data (Equipment Malfunction /Recovery)								NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																						
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																

Timeseries Chart of Hourly Average for ST - 842b Station





PEACE RIVER AREA MONITORING PROGRAM

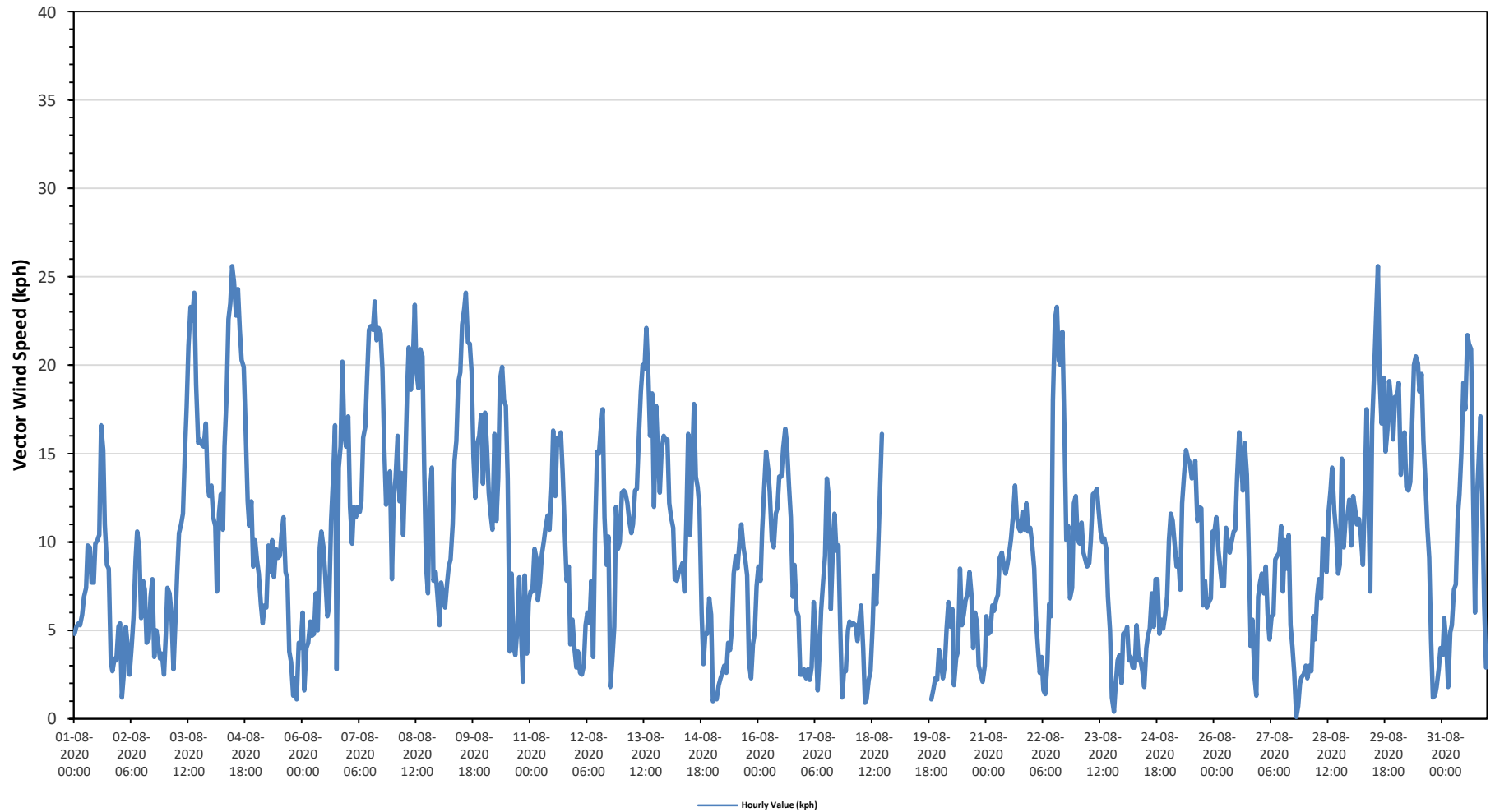
842b Station - August 2020

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr

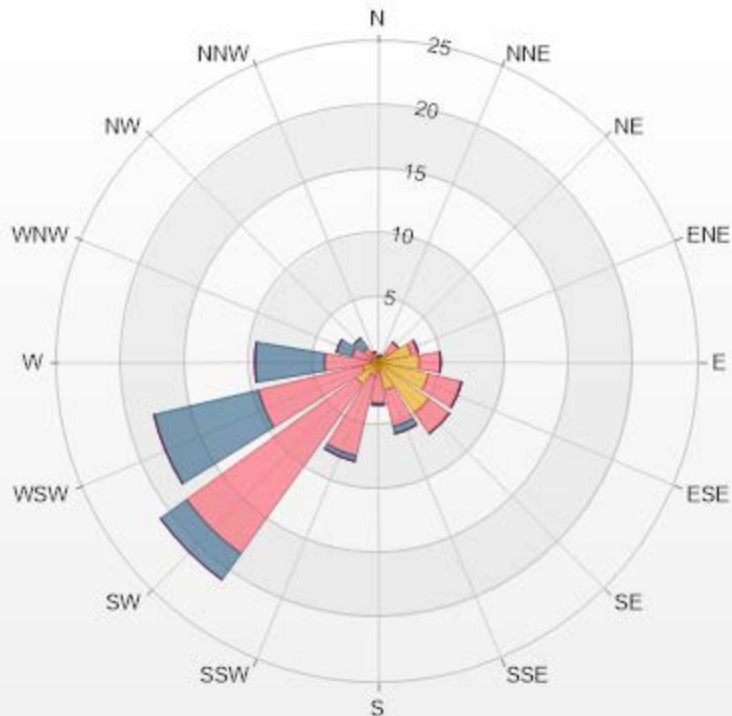
Maximum Hourly Value:										25.6 kph		on August 4 at hour 11										Hours in Service:										744											
Maximum Daily Value:										15.9 kph		on August 7										Hours of Data:										719											
Minimum Hourly Value:										0.1 kph		on August 27 at hour 19										Hours of Missing Data:										25											
Minimum Daily Value:										2.5 kph		on August 2										Hours of Calibration:										0											
Monthly Average:										6.4 kph												Operational Uptime:										96.6											
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average																	
Aug 1	4.8	5.2	5.4	5.3	5.9	6.9	7.4	9.8	9.7	7.7	7.7	9.9	10.1	10.4	16.6	15.2	11.0	8.7	8.5	3.2	2.7	3.4	3.3	5.2	2.7	16.6	7.3																
Aug 2	5.4	1.2	2.7	5.2	4.1	2.5	4.1	5.7	9.0	10.6	9.6	5.7	7.8	7.3	4.3	4.5	6.9	7.9	3.5	5.0	4.2	3.4	3.7	2.5	1.2	10.6	2.5																
Aug 3	4.8	7.4	7.1	6.0	2.8	5.4	8.2	10.5	11.0	11.6	14.9	17.6	21.1	23.3	22.5	24.1	18.9	15.6	15.8	15.5	15.4	16.7	13.2	12.6	2.8	24.1	11.8																
Aug 4	13.2	11.4	10.9	7.2	11.6	12.7	10.7	15.4	18.3	22.6	23.5	25.6	24.7	22.8	24.3	22.0	20.3	19.9	16.5	12.3	10.9	12.3	8.6	10.1	7.2	25.6	15.6																
Aug 5	9.0	8.2	6.5	5.4	6.4	6.3	9.8	8.3	10.1	8.0	9.6	9.1	9.2	10.5	11.4	8.3	7.9	3.8	3.2	1.3	2.3	1.1	4.3	4.0	1.1	11.4	5.8																
Aug 6	6.0	1.6	4.0	4.3	5.5	4.7	4.8	7.1	5.0	9.7	10.6	9.7	8.0	5.8	6.3	11.2	13.4	16.6	2.8	14.2	15.4	20.2	16.1	15.4	1.6	20.2	3.2																
Aug 7	17.1	12.0	9.9	12.0	11.4	12.0	11.7	12.3	15.9	16.5	19.4	22.0	22.2	22.0	23.6	21.4	22.1	21.8	19.8	15.3	12.1	13.7	14.0	7.9	7.9	23.6	15.9																
Aug 8	12.5	13.6	16.0	12.3	13.9	10.4	13.9	18.6	21.0	18.6	19.9	23.4	19.7	18.7	20.9	20.5	14.0	8.6	7.1	12.8	14.2	7.8	8.3	7.0	7.0	23.4	14.0																
Aug 9	5.3	7.7	7.0	6.3	7.7	8.6	9.0	11.0	14.6	15.7	19.0	19.6	22.3	23.2	24.1	21.3	21.2	19.6	14.8	12.5	15.6	16.0	17.2	13.3	5.3	24.1	14.3																
Aug 10	17.3	15.4	12.8	11.6	10.7	16.1	11.2	13.6	19.2	19.9	18.0	17.7	13.6	3.8	8.2	4.1	3.6	5.0	8.0	5.3	2.1	8.1	3.7	6.6	2.1	19.9	9.0																
Aug 11	7.2	7.2	9.6	9.1	6.7	7.7	9.3	10.1	10.8	11.5	10.7	13.1	16.3	12.6	15.9	15.5	16.2	13.9	10.6	7.8	8.6	4.2	5.6	4.1	4.1	16.3	8.6																
Aug 12	2.9	3.8	2.6	2.5	3.0	5.3	6.0	5.4	7.8	3.5	10.5	15.1	15.0	16.4	17.5	11.4	8.7	10.3	1.8	3.2	5.2	12.0	9.6	10.0	1.8	17.5	5.8																
Aug 13	12.8	12.9	12.8	12.2	11.2	10.5	11.0	12.9	13.0	16.1	18.5	20.0	19.8	22.1	19.2	16.0	18.4	12.0	17.7	15.4	12.8	15.2	16.0	15.8	10.5	22.1	14.7																
Aug 14	15.8	12.2	11.4	10.8	7.9	7.8	8.3	8.5	8.8	7.2	11.1	16.1	10.4	13.7	17.8	13.7	13.1	11.9	6.0	3.1	4.8	4.8	6.8	5.9	3.1	17.8	9.4																
Aug 15	1.0	1.3	1.1	1.9	2.3	2.6	3.0	2.6	4.3	3.9	5.1	8.2	9.2	8.5	10.0	11.0	9.7	9.0	8.1	3.2	2.3	4.2	4.9	7.5	1.0	11.0	3.9																
Aug 16	8.6	7.8	10.6	13.1	15.1	14.1	12.8	10.1	9.7	11.6	11.9	13.7	13.7	15.3	16.4	15.6	13.2	11.4	6.9	8.7	6.1	5.8	2.5	2.5	2.5	16.4	8.8																
Aug 17	2.8	2.3	2.8	2.2	2.9	6.6	5.0	1.6	3.3	6.1	7.8	9.2	13.6	12.6	6.2	9.3	11.6	9.5	9.8	5.1	1.2	2.7	2.7	5.0	1.2	13.6	2.9																
Aug 18	5.5	5.3	5.4	5.3	4.4	5.5	6.4	4.0	0.9	1.1	2.2	2.7	5.3	8.1	6.5	9.6	13.4	16.1	P	P	P	P	P	P	0.9	16.1	4.7																
Aug 19	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	1.1	1.6	2.3	2.2	3.9	1.1	3.9	-																
Aug 20	3.2	2.3	3.0	5.1	6.6	5.2	6.2	1.9	3.4	3.8	8.5	5.3	5.9	6.7	7.1	8.3	7.1	4.0	6.0	5.4	3.0	2.5	2.1	3.0	1.9	8.5	4.3																
Aug 21	5.8	4.8	4.9	6.4	6.1	6.7	7.0	9.1	9.4	8.8	8.2	8.7	9.5	10.2	11.6	13.2	11.4	10.8	10.6	11.7	10.7	12.2	10.6	10.8	4.8	13.2	8.8																
Aug 22	9.9	8.5	5.8	4.0	2.6	3.5	1.6	1.4	3.2	6.5	5.8	18.0	22.6	23.3	20.3	20.0	21.9	16.2	10.1	10.9	6.8	7.4	12.2	12.6	1.4	23.3	9.0																
Aug 23	10.1	9.9	11.1	9.4	9.0	8.6	8.8	10.1	12.7	12.8	13.0	11.9	10.6	10.0	10.2	9.6	6.9	5.0	1.2	0.4	1.8	3.3	3.6	2.0	0.4	13.0	5.7																
Aug 24	4.8	4.8	5.2	3.3	3.5	2.9	2.9	5.3	3.3	3.4	2.7	1.8	4.0	4.7	5.1	7.1	5.2	7.9	7.9	4.8	5.6	5.1	5.8	6.9	1.8	7.9	3.0																
Aug 25	10.1	11.6	11.2	10.0	8.6	9.0	7.3	12.2	13.9	15.2	14.7	14.5	13.6	13.9	14.6	11.2	12.0	11.9	6.4	7.8	6.3	6.6	6.8	10.6	6.3	15.2	9.8																
Aug 26	10.6	11.4	9.5	8.6	7.5	7.5	10.8	10.1	9.4	10.0	10.6	10.7	13.7	16.2	14.5	12.9	15.6	13.8	9.5	4.1	5.6	2.4	1.3	6.9	1.3	16.2	9.1																
Aug 27	7.7	8.2	7.1	8.6	5.9	4.5	5.8	5.9	9.0	9.2	9.4	10.9	7.2	10.1	8.5	10.4	5.3	4.1	2.6	0.1	0.7	2.0	2.4	2.5	0.1	10.9	4.5																
Aug 28	3.0	2.3	3.0	2.7	5.8	4.5	6.9	7.9	6.8	10.2	10.0	8.3	11.6	12.9	14.2	11.8	10.6	8.2	8.7	14.7	9.7	11.3	11.4	12.4	2.3	14.7	6.9																
Aug 29	9.8	12.6	11.8	11.0	11.3	10.4	8.7	12.0	17.5	12.4	7.2	16.6	19.3	22.7	25.6	19.1	16.7	19.3	15.1	16.3	19.1	18.0	15.8	18.2	7.2	25.6	14.1																
Aug 30	18.0	19.0	13.8	15.3	16.2	13.1	12.9	13.4	16.6	20.0	20.5	20.1	18.5	19.5	15.7	13.3	10.8	9.1	4.5	1.2	1.3	1.8	2.8	4.0	1.2	20.5	11.2																
Aug 31	3.6	5.7	4.2	1.8	4.9	5.3	7.3	7.6	11.3	12.7	15.0	19.0	17.5	21.7	21.2	20.9	13.4	6.0	12.0	14.3	17.1	11.9	6.4	2.9	1.8	21.7	9.0																
Diurnal Maximum	18	19	16	15	16	16	14	19	21	23	24	26	25	23	26	24	22	22	20	16	19	20	17	18																			
Diurnal Average	8.3	7.9	7.6	7.3	7.4	7.6	8.0	8.8	10.3	10.9	11.9	13.5	13.9	14.3	14.7	13.8	12.7	11.3	8.8	7.9	7.5	7.9	7.5	7.7																			
C	Monthly Calibration										S	Daily Zero-Span Check										Q	Quality Assurance																				
K	Collection Error										N	No Data (Machine Not in Service)										Y	Routine Maintenance										P	Power Failure									
X	InValid Data (Equipment Malfunction /Recovery)										NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																															
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																											
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																											

Timeseries Chart of Hourly Average for VWS - 842b Station



Wind: PRAMP 842b Monitor: WDS [KPH] Monthly: 08-2020 Type: WindRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 3.62% Valid Data: 96.64%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	0.28	0.14	0	0	0	0.42
NNE	0.56	0	0	0	0	0.56
NE	0.83	1.11	0	0	0	1.94
ENE	2.64	0.56	0	0	0	3.2
E	3.2	1.67	0	0	0	4.87
ESE	4.03	2.64	0	0	0	6.67
SE	4.87	1.95	0	0	0	6.82
SSE	2.23	2.92	0.56	0	0	5.71
S	0.7	2.5	0.14	0	0	3.34
SSW	1.11	6.4	0.42	0	0	7.93
SW	2.09	16.27	2.5	0	0	20.86
WSW	1.25	8.34	8.34	0	0	17.93
W	0.56	3.62	5.42	0	0	9.6
WNW	0.56	1.53	1.25	0	0	3.34
NW	0.42	0.97	0.97	0	0	2.36
NNW	0.56	0.28	0	0	0	0.84
Summary	25.89	50.9	19.6	0	0	96.39



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% Icon Classes (KPH)

26

1.8-6.0

51

6.0-15.0

20

15.0-29.0

0

29.0-39.0

0

>39.0



PEACE RIVER AREA MONITORING PROGRAM

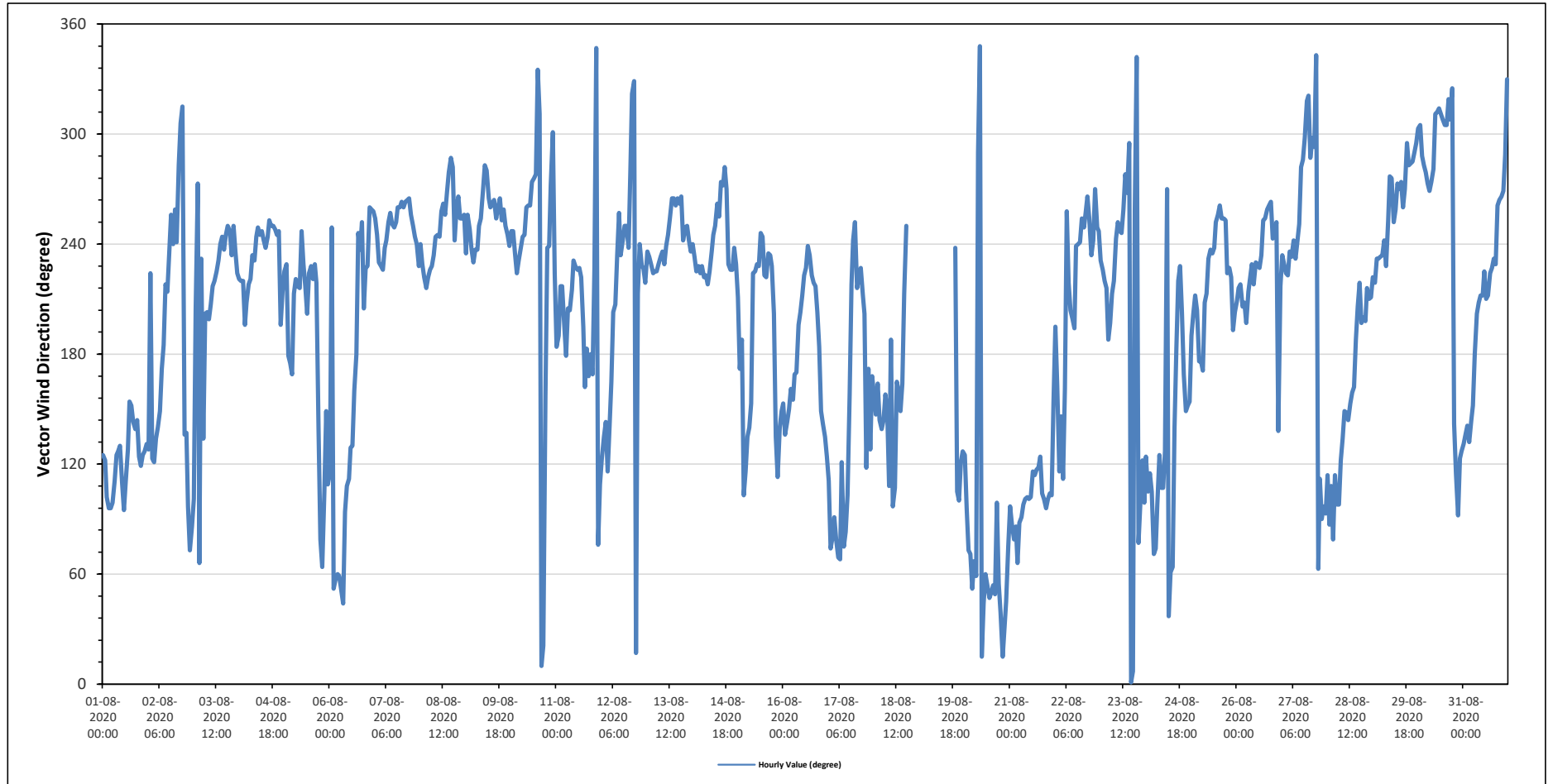
842b Station - August 2020

Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

Monthly Average:										232 (SW) degree										Hours in Service:										744									
																				Hours of Data:										719									
																				Hours of Missing Data:										25									
																				Hours of Calibration:										0									
																				Operational Uptime:										96.6									
Day	Hourly Period Starting at (MST)																							Daily Average															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Degree	Quadrant													
Aug 1	SE	ESE	E	E	E	E	ESE	SE	SE	SE	ESE	E	ESE	SE	SSE	SSE	SE	SE	SE	ESE	ESE	SE	SE	SE	126	SE													
Aug 2	SE	SW	ESE	ESE	SE	SE	SSE	S	S	SW	SSW	SW	WSW	WSW	WSW	WSW	W	NW	NW	SE	SE	E	ENE	E	201	SSW													
Aug 3	E	SSW	W	ENE	SW	SE	SSW	SSW	SSW	SSW	SW	SW	SW	SW	WSW	WSW	SW	WSW	WSW	WSW	SW	WSW	SW	SW	229	SW													
Aug 4	SW	SW	SW	SSW	SSW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	SSW	SSW	SSW	237	SW													
Aug 5	SW	SW	S	S	SSE	SSW	SW	SW	SW	WSW	SW	SW	SSW	SW	SW	SW	SW	SE	ENE	ENE	ESE	SSE	ESE	211	SSW														
Aug 6	ESE	WSW	NE	ENE	ENE	ENE	NE	NE	E	ESE	ESE	SE	SE	SSE	S	WSW	SW	WSW	SSW	SW	SW	WSW	WSW	WSW	214	SSW													
Aug 7	WSW	WSW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	W	W	W	WSW	WSW	WSW	WSW	SW	252	WSW													
Aug 8	WSW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	W	WSW	W	W	WNW	W	WSW	WSW	W	WSW	WSW	WSW	249	WSW													
Aug 9	SW	WSW	WSW	SW	SW	SW	SW	WSW	WSW	W	W	W	W	WSW	W	W	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	258	WSW													
Aug 10	WSW	WSW	SW	SW	SW	SW	WSW	WSW	WSW	W	W	W	W	NNW	NW	N	NNE	SSE	SW	WSW	W	WNW	SW	255	WSW														
Aug 11	S	S	SW	SW	SSW	S	SSW	SSW	SSW	SW	SW	SW	SW	SSW	SSE	S	SSE	S	SSE	SW	NNW	ENE	ESE	200	SSW														
Aug 12	ESE	SE	SE	ESE	SE	SSE	SSW	SSW	SW	WSW	SW	WSW	WSW	WSW	SW	W	NW	NNW	NNE	SSW	WSW	SW	SW	SW	239	WSW													
Aug 13	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	W	W	W	W	W	W	WSW	WSW	WSW	WSW	SW	245	WSW													
Aug 14	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	W	WSW	W	W	W	W	SW	SW	SW	SW	SW	243	WSW													
Aug 15	SSW	S	S	ESE	ESE	SE	SE	SSE	SW	SW	SW	SW	WSW	WSW	SW	SW	SW	SW	SW	SSW	SE	ESE	SE	SSE	210	SSW													
Aug 16	SSE	SE	SE	SSE	SSE	SSE	SSE	SSE	SSW	SSW	SSW	SW	SW	WSW	SW	SW	SW	SW	SSW	S	SSE	SE	SE	ESE	191	S													
Aug 17	ESE	ENE	E	E	ENE	ENE	ENE	ESE	ENE	E	ESE	SSE	SW	WSW	WSW	SW	SW	SW	SSW	SSW	ESE	S	SE	SSE	183	S													
Aug 18	SSE	SE	SSE	SE	SE	SE	SSE	SSE	ESE	S	E	ESE	SSE	SSE	SSE	SSE	SSW	WSW	P	P	P	P	P	P	171	S													
Aug 19	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	SW	ESE	E	ESE	SE	-	-													
Aug 20	SE	E	ENE	ENE	NE	ENE	ENE	WNW	NNW	NNE	NE	ENE	NE	NE	NE	NE	NE	E	NE	NE	NNE	NNE	NE	ENE	53	NE													
Aug 21	E	E	ENE	E	ENE	E	E	E	E	E	E	E	ESE	ESE	ESE	ESE	ESE	ESE	E	E	E	ESE	ESE	SSE	105	ESE													
Aug 22	SSW	SSE	ESE	SE	ESE	SSE	WSW	SW	SSW	SSW	SSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	SW	WSW	W	WSW	WSW	238	SW													
Aug 23	SW	SW	SW	SW	S	SSW	SSW	SW	WSW	WSW	WSW	WSW	WSW	W	W	WNW	N	N	WSW	NNW	ENE	E	ESE	E	240	WSW													
Aug 24	ESE	ESE	ESE	ESE	ENE	ENE	E	SE	ESE	ESE	SE	W	NE	ENE	ENE	SE	S	SW	SW	SSW	SSE	SSE	SSE	SSE	137	SE													
Aug 25	S	SSW	SSW	SSW	S	S	S	SSW	SSW	SW	SW	SW	SW	WSW	WSW	W	WSW	WSW	WSW	SW	SW	SW	S	SSW	224	SW													
Aug 26	SSW	SW	SW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	WSW	WSW	W	W	WSW	WSW	WSW	WSW	SE	SW	SW	232	SW													
Aug 27	SW	SW	SW	SW	SW	SW	WSW	SW	WSW	WSW	W	WNW	WNW	NW	NW	WNW	WNW	WNW	NNW	ENE	ESE	E	E	E	265	W													
Aug 28	ESE	E	ESE	ENE	ESE	E	E	ESE	SE	SSE	SE	SE	SSE	SSE	SSE	S	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	170	SSE													
Aug 29	SW	SW	SW	SW	SW	SW	WSW	SW	WSW	W	W	WSW	WSW	W	W	W	WSW	W	WNW	W	WNW	WNW	WNW	WNW	264	W													
Aug 30	WNW	WNW	WNW	W	W	W	W	W	W	NW	NW	NW	NW	NW	WNW	WNW	NW	NW	NW	SE	ESE	E	ESE	SE	299	WNW													
Aug 31	SE	SE	SE	SE	SE	SSE	S	SSW	SSW	SSW	SSW	SW	SSW	SSW	SW	SW	SW	SW	W	W	W	W	WNW	NNW	223	SW													
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance																						
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure														
X	Invalid Data (Machine Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																														
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																							
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																							

Timeseries Chart of Hourly Average for VWD - 842b Station



RENO STATION



PEACE RIVER AREA MONITORING PROGRAM

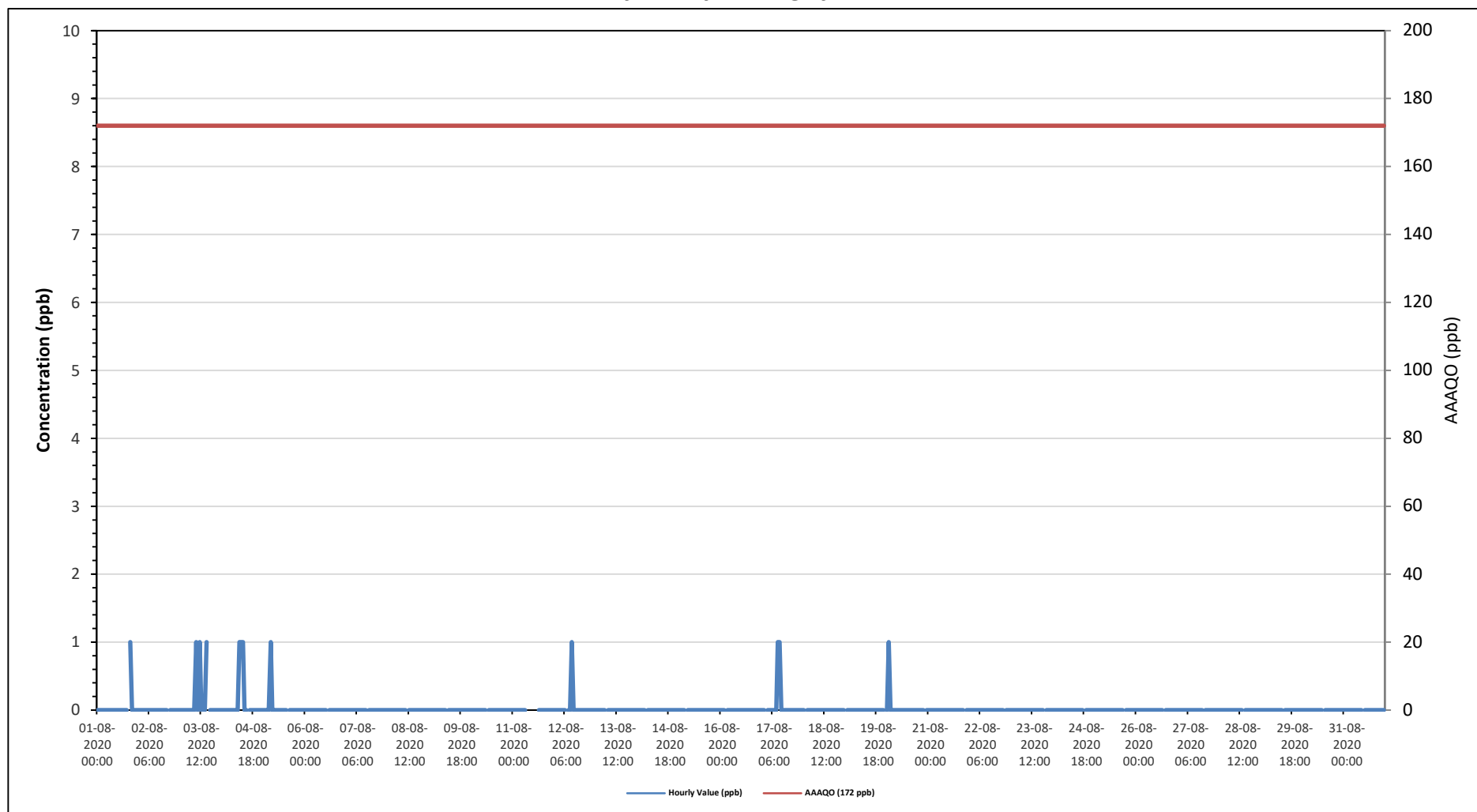
Reno Station - August 2020

Summary of Hourly Averages

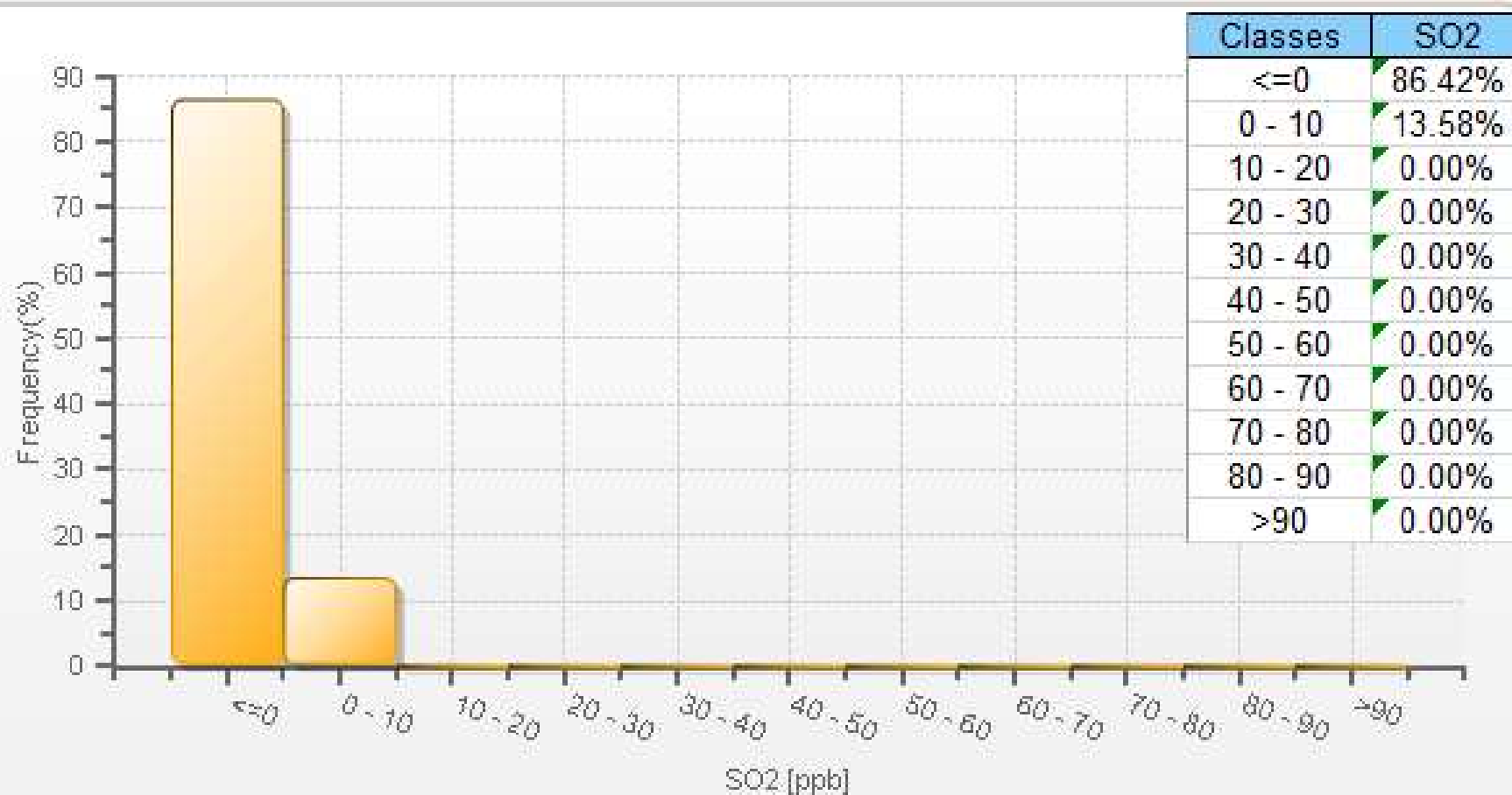
SULPHUR DIOXIDE (SO₂) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb																											
Number of 1-Hour Exceedances:					0					Number of 24-Hour Exceedances:					0					30-Day Exceedance:					0		
Maximum Hourly Value:					1 ppb on August 1 at hour 19					Hours in Service:					744												
Maximum Daily Value:					0.1 ppb on August 3					Hours of Data:					707												
Minimum Hourly Value:					0 ppb on August 1 at hour 0					Hours of Missing Data:					0												
Minimum Daily Value:					0.0 ppb on August 2					Hours of Calibration:					37												
Monthly Average:					0.0 ppb					Operational Uptime:					100.0												
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Aug 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	0	0	0.0
Aug 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Aug 3	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	S	0	0	0	0	0	0	0	0	0	0.1
Aug 4	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	S	0	0	0	0	0	0	0	0	0	0	0.1
Aug 5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 6	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 7	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 8	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 9	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 10	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 11	0	0	0	0	0	0	0	0	S	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 12	0	0	0	0	0	0	0	S	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Aug 13	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 14	0	0	0	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
Aug 15	0	0	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
Aug 16	0	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
Aug 17	0	0	S	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Aug 18	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
Aug 19	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0.0
Aug 20	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	1	0.0	
Aug 21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0.0
Aug 22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
Aug 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
Aug 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
Aug 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	S	0	0	0	0	0	0	0	0	0.0
Aug 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0.0
Aug 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0.0
Aug 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 29	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 30	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 31	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Diurnal Maximum	0	1	0	0	1	0	0	0	0	1	1	1	1	0	0	1	0	0	0	1	0	0	0	0	0		
Diurnal Average	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance										
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance										
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)							P	Power Failure										
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																											
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																											

Timeseries Chart of Hourly Average for SO2 - Reno Station

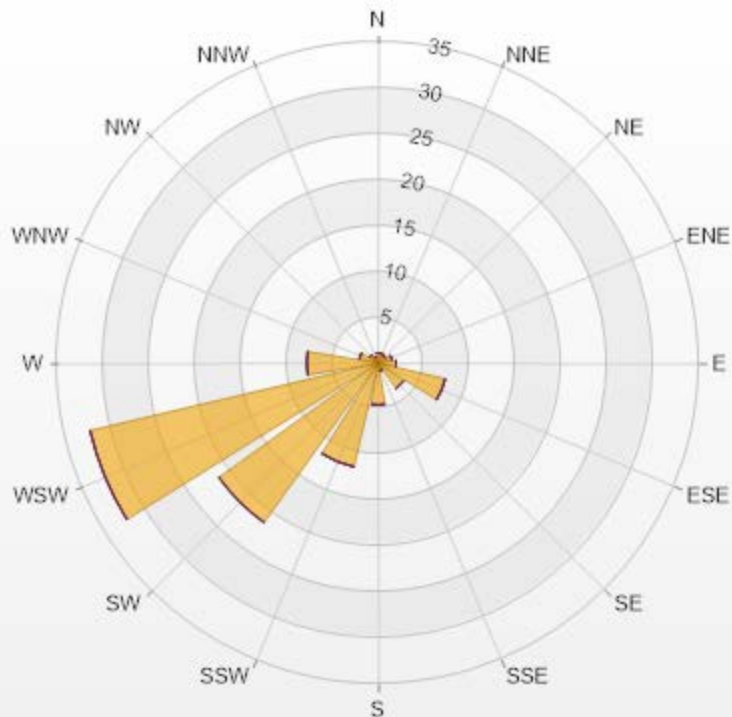


SO2[ppb] Histogram: PRAMP RENO Monthly: 08-2020 1 Hr.



Wind: PRAMP RENO Poll.: PRAMP RENO-SO2[ppb] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 95.03% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	1.13	0	0	0	0	1.13
NNE	1.13	0	0	0	0	1.13
NE	0.99	0	0	0	0	0.99
ENE	1.56	0	0	0	0	1.56
E	1.98	0	0	0	0	1.98
ESE	7.5	0	0	0	0	7.5
SE	3.39	0	0	0	0	3.39
SSE	0.85	0	0	0	0	0.85
S	4.53	0	0	0	0	4.53
SSW	11.6	0	0	0	0	11.6
SW	21.36	0	0	0	0	21.36
WSW	32.25	0	0	0	0	32.25
W	7.78	0	0	0	0	7.78
WNW	2.12	0	0	0	0	2.12
NW	1.13	0	0	0	0	1.13
NNW	0.71	0	0	0	0	0.71
Summary	100	0	0	0	0	100



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% Icon Classes (ppb)

100 0-10

0 10-50

0 50-100

0 100-172

0 >172.0



PEACE RIVER AREA MONITORING PROGRAM

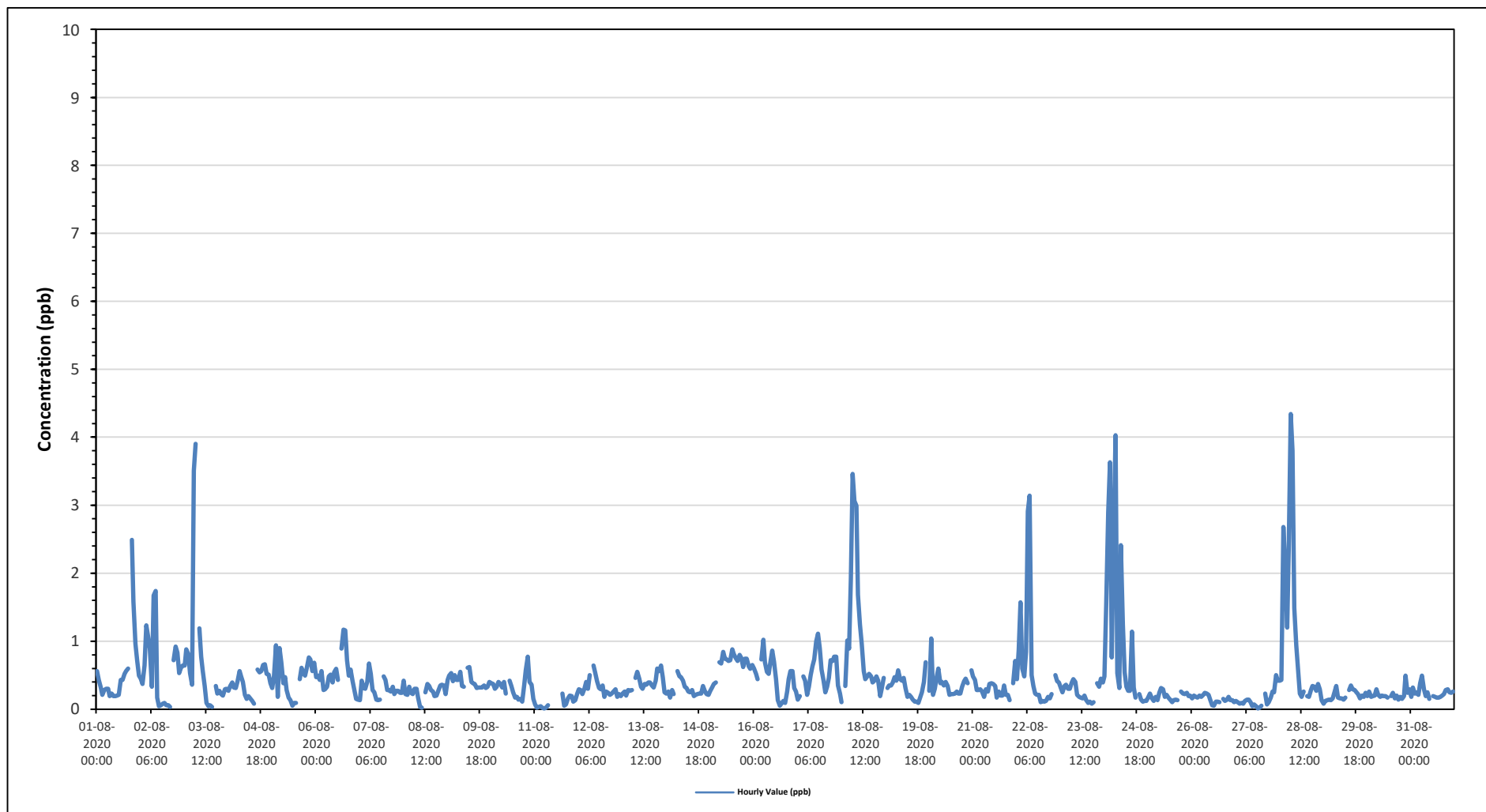
Reno Station - August 2020

Summary of Hourly Averages

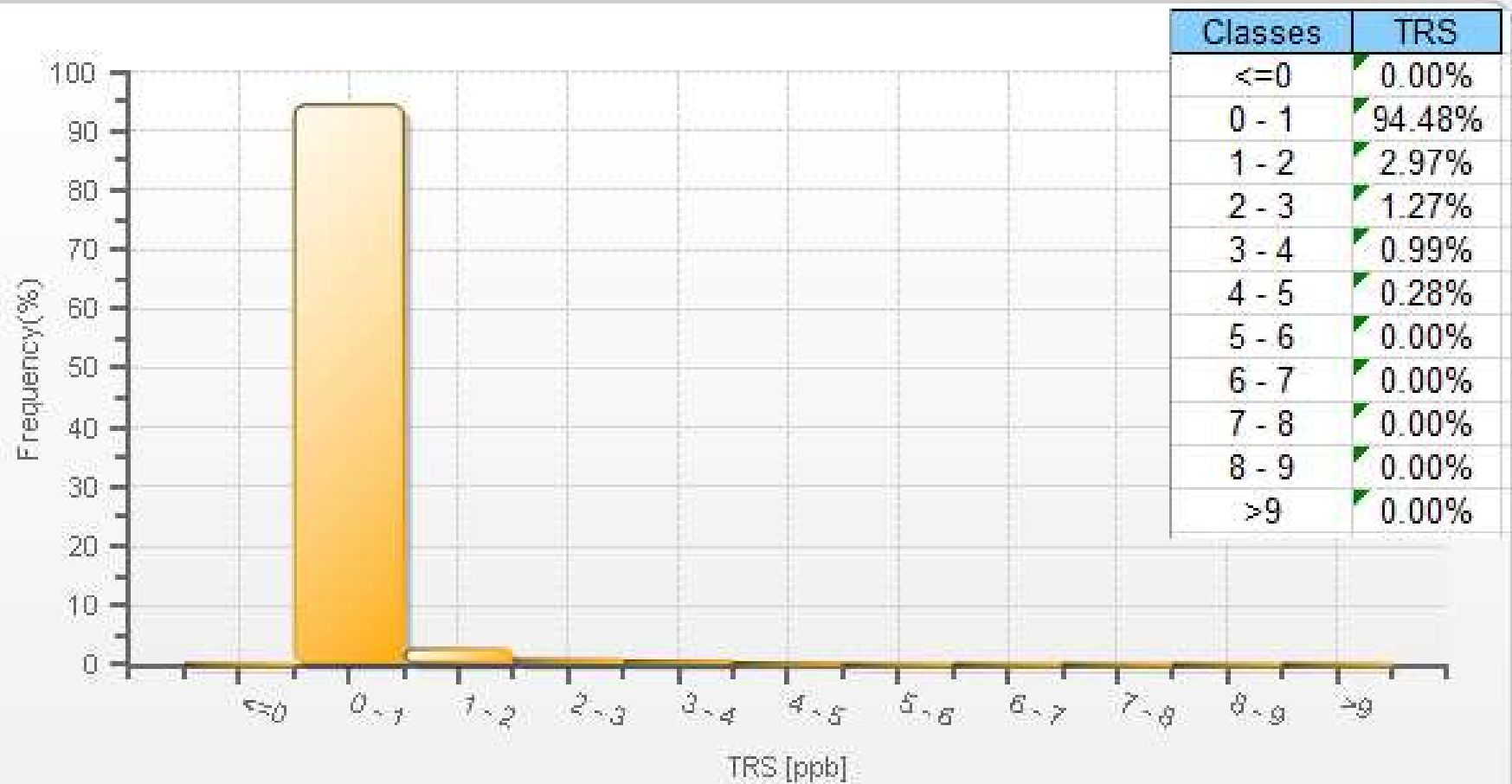
TOTAL REDUCED SULPHUR (TRS) in ppb

Alberta Ambient Air Quality Objectives (AAAQO) for H2S: 1-Hour 10 ppb, 24-Hour 3 ppb																												
Number of 1-Hour Exceedances: 0														Number of 24-Hour Exceedances: 0														
Maximum Hourly Value: 4.34 ppb on August 28 at hour 6														Hours in Service: 744														
Maximum Daily Value: 1.04 ppb on August 24														Hours of Data: 706														
Minimum Hourly Value: 0.01 ppb on August 11 at hour 5														Hours of Missing Data: 1														
Minimum Daily Value: 0.10 ppb on August 11														Hours of Calibration: 37														
Monthly Average: 0.43 ppb														Operational Uptime: 99.9														
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
Aug 1	0.56	0.43	0.32	0.21	0.28	0.3	0.3	0.19	0.23	0.19	0.19	0.2	0.21	0.43	0.43	0.52	0.56	0.6	S	2.49	1.58	0.96	0.71	0.49	0.19	2.49	0.54	
Aug 2	0.45	0.37	0.64	1.23	1.07	0.89	0.33	1.67	1.74	0.17	0.04	0.06	0.08	0.09	0.06	0.06	0.03	S	0.72	0.92	0.83	0.53	0.61	0.64	0.03	1.74	0.58	
Aug 3	0.64	0.88	0.81	0.53	0.36	3.51	3.9	NRM	1.19	0.77	0.57	0.34	0.09	0.04	0.06	0.03	S	0.34	0.23	0.27	0.22	0.2	0.29	0.3	0.03	3.90	0.71	
Aug 4	0.27	0.34	0.39	0.32	0.31	0.41	0.56	0.48	0.4	0.21	0.15	0.19	0.16	0.12	0.08	S	0.58	0.54	0.56	0.65	0.66	0.52	0.51	0.38	0.08	0.66	0.38	
Aug 5	0.31	0.48	0.94	0.18	0.9	0.69	0.38	0.47	0.28	0.17	0.13	0.05	0.09	0.09	S	0.44	0.61	0.53	0.49	0.61	0.76	0.73	0.56	0.68	0.05	0.94	0.46	
Aug 6	0.47	0.49	0.43	0.56	0.28	0.29	0.33	0.48	0.51	0.39	0.54	0.59	0.43	S	0.89	1.17	1.16	0.72	0.49	0.58	0.41	0.28	0.15	0.14	0.14	1.17	0.51	
Aug 7	0.13	0.42	0.31	0.3	0.4	0.67	0.52	0.28	0.25	0.14	0.13	0.14	S	0.48	0.43	0.28	0.28	0.26	0.33	0.22	0.27	0.27	0.24	0.24	0.13	0.67	0.30	
Aug 8	0.42	0.22	0.21	0.33	0.24	0.22	0.3	0.3	0.17	0.03	0.02	S	0.25	0.37	0.34	0.28	0.26	0.19	0.2	0.27	0.35	0.36	0.35	0.22	0.02	0.42	0.26	
Aug 9	0.43	0.49	0.53	0.41	0.5	0.43	0.43	0.55	0.34	0.33	S	0.61	0.62	0.4	0.38	0.37	0.31	0.32	0.32	0.35	0.31	0.33	0.4	0.31	0.62	0.41		
Aug 10	0.38	0.37	0.3	0.33	0.4	0.37	0.32	0.4	0.23	S	0.42	0.34	0.25	0.17	0.18	0.14	0.15	0.11	0.36	0.57	0.77	0.4	0.36	0.15	0.11	0.77	0.32	
Aug 11	0.07	0.02	0.03	0.04	0.02	0.01	0.02	0.06	S	0.17	C	C	C	C	C	0.23	0.05	0.07	0.16	0.2	0.19	0.11	0.13	0.22	0.01	0.23	0.10	
Aug 12	0.29	0.28	0.22	0.3	0.4	0.3	0.5	S	0.64	0.53	0.41	0.31	0.29	0.35	0.18	0.26	0.24	0.21	0.23	0.26	0.29	0.18	0.22	0.19	0.18	0.64	0.31	
Aug 13	0.23	0.26	0.2	0.28	0.27	0.28	S	0.46	0.55	0.45	0.33	0.3	0.37	0.36	0.39	0.39	0.35	0.32	0.42	0.6	0.56	0.64	0.47	0.25	0.20	0.64	0.38	
Aug 14	0.23	0.26	0.17	0.28	0.22	S	0.56	0.48	0.47	0.42	0.33	0.31	0.26	0.25	0.28	0.19	0.21	0.22	0.23	0.23	0.34	0.27	0.22	0.21	0.17	0.56	0.29	
Aug 15	0.27	0.32	0.37	0.39	S	0.69	0.67	0.84	0.74	0.73	0.71	0.72	0.88	0.81	0.75	0.71	0.8	0.75	0.62	0.74	0.74	0.63	0.59	0.65	0.27	0.88	0.66	
Aug 16	0.6	0.52	0.44	S	0.73	1.02	0.69	0.55	0.52	0.7	0.86	0.7	0.44	0.13	0.05	0.08	0.12	0.09	0.26	0.44	0.56	0.56	0.31	0.26	0.05	1.02	0.46	
Aug 17	0.14	0.19	S	0.48	0.42	0.21	0.33	0.5	0.63	0.73	1	1.11	0.9	0.58	0.42	0.25	0.33	0.46	0.72	0.71	0.77	0.77	0.35	0.23	0.14	1.11	0.53	
Aug 18	0.1	S	0.34	1.01	0.89	1.92	3.46	3.06	2.99	1.68	1.24	0.96	0.56	0.44	0.48	0.52	0.48	0.39	0.42	0.48	0.42	0.19	0.3	0.46	0.10	3.46	0.99	
Aug 19	S	0.31	0.35	0.35	0.39	0.47	0.42	0.57	0.44	0.42	0.46	0.31	0.18	0.21	0.18	0.14	0.11	0.11	0.09	0.17	0.25	0.4	0.69	S	0.09	0.69	0.32	
Aug 20	0.27	1.04	0.21	0.3	0.46	0.6	0.38	0.4	0.35	0.4	0.34	0.21	0.22	0.22	0.23	0.26	0.23	0.23	0.33	0.41	0.45	0.38	S	0.57	0.21	1.04	0.37	
Aug 21	0.48	0.43	0.28	0.28	0.29	0.26	0.18	0.29	0.26	0.37	0.38	0.37	0.34	0.17	0.26	0.2	0.2	0.35	0.21	0.21	0.13	S	0.38	0.71	0.13	0.71	0.31	
Aug 22	0.44	0.87	1.57	0.6	0.48	0.84	2.91	3.14	0.5	0.34	0.23	0.21	0.21	0.1	0.12	0.11	0.12	0.18	0.16	0.22	S	0.5	0.41	0.39	0.10	3.14	0.64	
Aug 23	0.32	0.25	0.34	0.36	0.3	0.3	0.39	0.44	0.4	0.21	0.18	0.17	0.16	0.2	0.13	0.09	0.11	0.08	0.1	S	0.38	0.33	0.45	0.39	0.08	0.45	0.26	
Aug 24	0.48	1.53	2.89	3.63	0.76	2.44	4.03	0.53	0.31	2.41	1.24	0.54	0.33	0.27	0.27	1.14	0.32	0.17	S	0.22	0.14	0.11	0.12	0.12	0.11	4.03	1.04	
Aug 25	0.18	0.23	0.16	0.12	0.18	0.13	0.24	0.31	0.29	0.18	0.21	0.17	0.14	0.1	0.13	0.14	0.13	S	0.26	0.23	0.22	0.24	0.19	0.2	0.10	0.31	0.19	
Aug 26	0.16	0.2	0.18	0.17	0.2	0.18	0.21	0.24	0.23	0.21	0.13	0.06	0.05	0.11	0.11	0.1	S	0.15	0.12	0.14	0.18	0.13	0.13	0.1	0.05	0.24	0.15	
Aug 27	0.12	0.1	0.08	0.09	0.08	0.12	0.14	0.14	0.1	0.04	0.07	0.04	0.01	0.02	0.05	S	0.23	0.07	0.1	0.17	0.26	0.25	0.5	0.42	0.01	0.50	0.14	
Aug 28	0.42	0.43	2.68	2.09	1.2	2.34	4.34	3.8	1.49	0.93	0.63	0.23	0.18	0.26	S	0.19	0.18	0.28	0.34	0.33	0.27	0.37	0.29	0.13	0.13	4.34	1.02	
Aug 29	0.08	0.12	0.13	0.14	0.13	0.16	0.25	0.34	0.17	0.16	0.16	0.14	0.17	S	0.28	0.35	0.29	0.28	0.25	0.22	0.16	0.2	0.18	0.24	0.08	0.35	0.20	
Aug 30	0.19	0.26	0.18	0.19	0.2	0.29	0.21	0.18	0.2	0.19	0.19	0.17	S	0.19	0.24	0.16	0.2	0.14	0.18	0.15	0.19	0.49	0.24	0.29	0.14	0.49	0.21	
Aug 31	0.18	0.32	0.23	0.24	0.21	0.38	0.49	0.29	0.19	0.25	0.15	S	0.19	0.18	0.17	0.17	0.18	0.2	0.22	0.28	0.29	0.25	0.24	0.26	0.15	0.49	0.24	
Diurnal Maximum	0.64	1.53	2.89	3.63	1.20	3.51	4.34	3.80	2.99	2.41	1.24	1.11	0.90	0.81	0.89	1.17	1.16	0.75	0.72	2.49	1.58	0.96	0.71	0.71				
Diurnal Average	0.31	0.41	0.53	0.52	0.42	0.69	0.93	0.74	0.56	0.46	0.39	0.34	0.29	0.26	0.27	0.31	0.30	0.29	0.31	0.44	0.43	0.39	0.35	0.33				
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance											
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure			
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																			
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																												
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																												

Timeseries Chart of Hourly Average for TRS - Reno Station

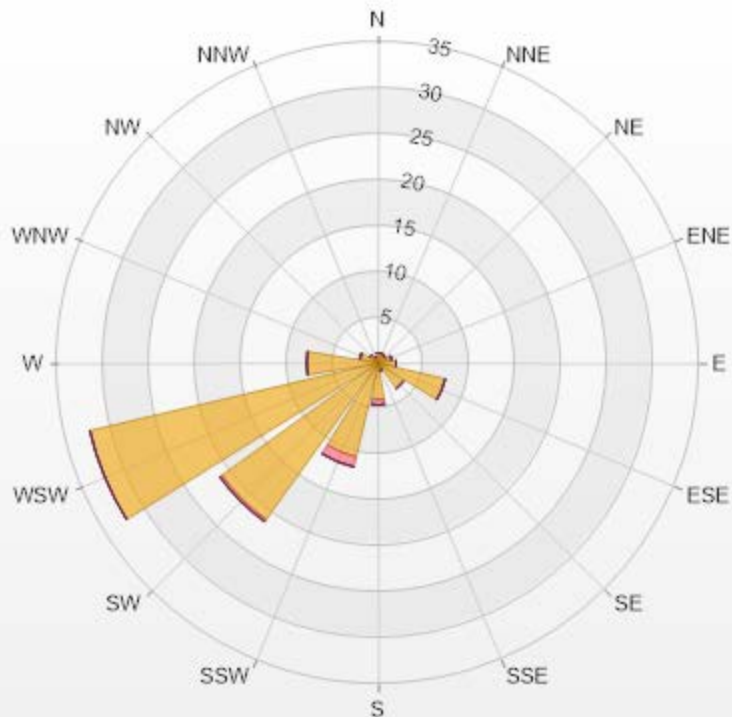


TRS[ppb] Histogram: PRAMP RENO Monthly: 08-2020 1 Hr.



Wind: PRAMP RENO Poll.: PRAMP RENO-TRS[ppb] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 94.89% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	1.13	0	0	0	0	1.13
NNE	1.13	0	0	0	0	1.13
NE	0.99	0	0	0	0	0.99
ENE	1.42	0.14	0	0	0	1.56
E	1.98	0	0	0	0	1.98
ESE	7.51	0	0	0	0	7.51
SE	3.4	0	0	0	0	3.4
SSE	0.57	0.28	0	0	0	0.85
S	3.97	0.57	0	0	0	4.54
SSW	10.48	1.13	0	0	0	11.61
SW	20.96	0.28	0	0	0	21.24
WSW	32.29	0	0	0	0	32.29
W	7.79	0	0	0	0	7.79
WNW	1.98	0.14	0	0	0	2.12
NW	1.13	0	0	0	0	1.13
NNW	0.71	0	0	0	0	0.71
Summary	97.44	2.54	0	0	0	100



PRAMP-202008

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% Icon Classes (ppb)

97 0-2

3 2-5

0 5-10

0 10-50

0 >50.0



PEACE RIVER AREA MONITORING PROGRAM

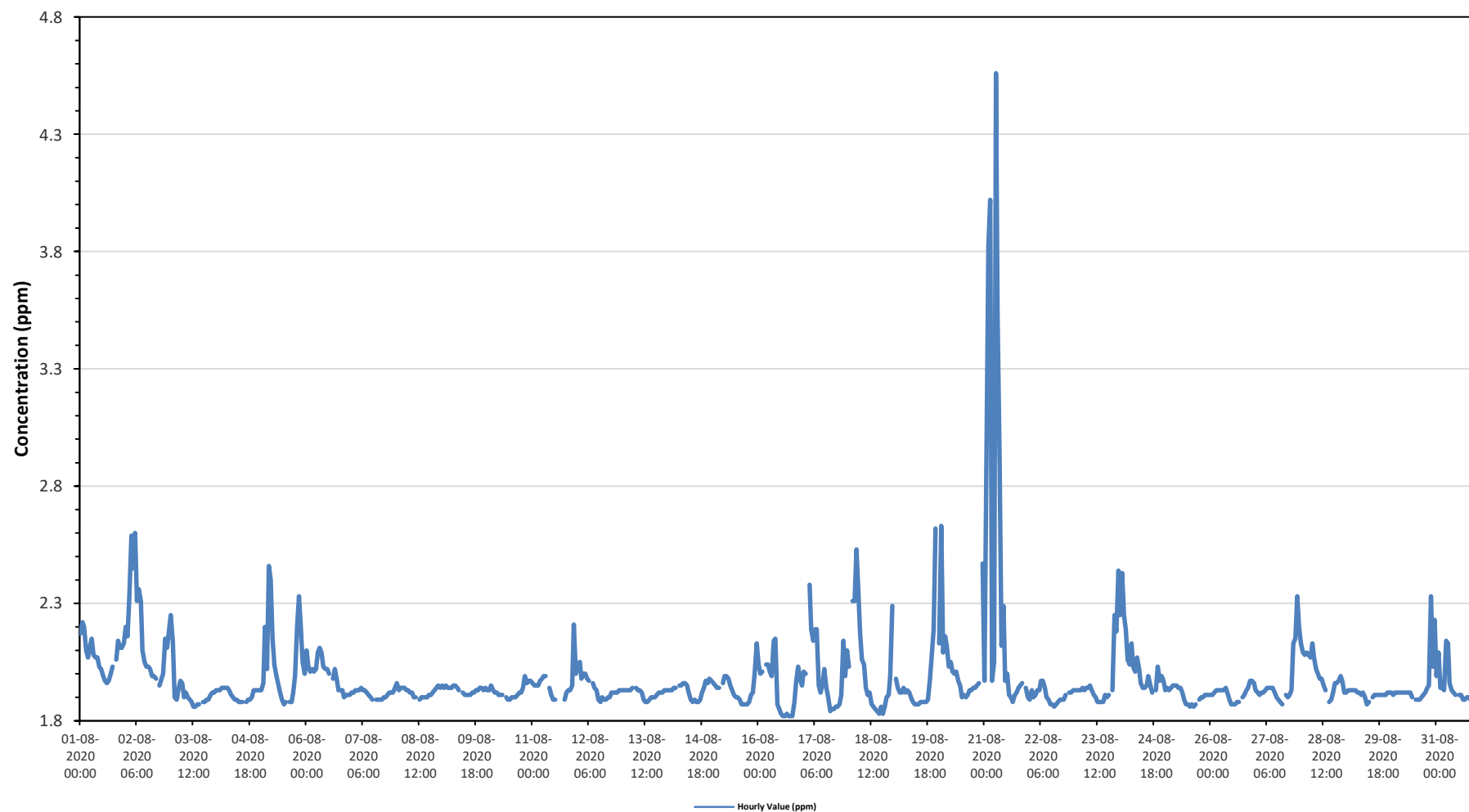
Reno Station - August 2020

Summary of Hourly Averages

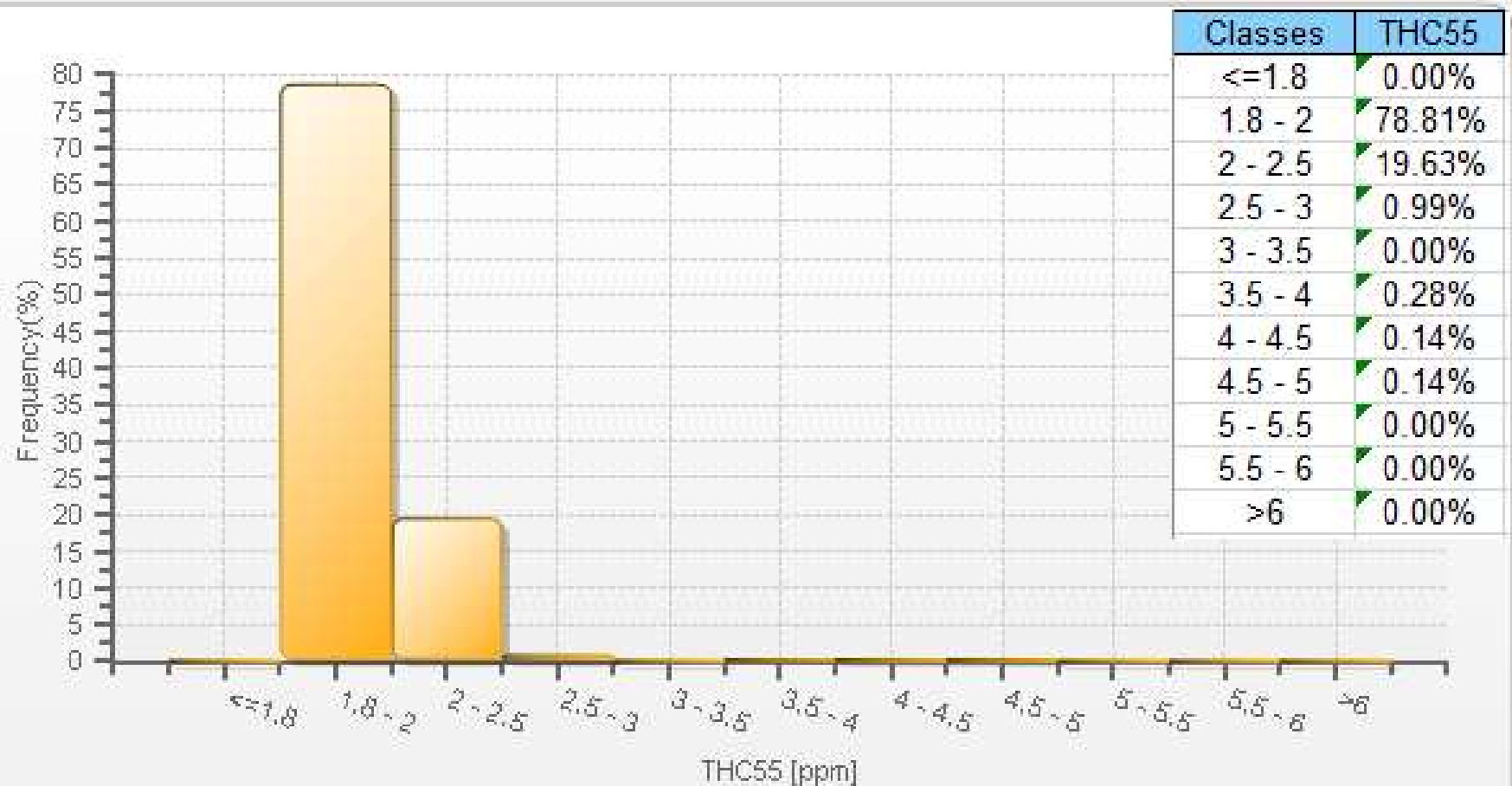
TOTAL HYDROCARBONS (THC) in ppm

Maximum Hourly Value: 4.56 ppm on August 21 at hour 6										Hours in Service: 744																		
Maximum Daily Value: 2.41 ppm on August 21										Hours of Data: 708																		
Minimum Hourly Value: 1.82 ppm on August 16 at hour 13										Hours of Missing Data: 0																		
Minimum Daily Value: 1.91 ppm on August 22										Hours of Calibration: 36																		
Monthly Average: 1.98 ppm										Operational Uptime: 100.0																		
Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average	
Aug 1	2.17	2.22	2.20	2.10	2.07	2.12	2.15	2.08	2.07	2.07	2.03	2.02	1.99	1.97	1.96	1.97	2.00	2.03	S	2.06	2.14	2.11	2.11	2.13	1.96	2.22	2.08	
Aug 2	2.20	2.16	2.33	2.59	2.45	2.60	2.31	2.36	2.31	2.10	2.05	2.03	2.03	2.02	1.99	1.99	1.98	S	1.95	1.98	2.00	2.15	2.11	2.19	1.95	2.60	2.17	
Aug 3	2.25	2.14	1.90	1.89	1.93	1.97	1.96	1.90	1.92	1.90	1.89	1.88	1.86	1.86	1.87	1.87	S	1.88	1.88	1.89	1.89	1.91	1.92	1.92	1.86	2.25	1.93	
Aug 4	1.93	1.93	1.93	1.94	1.94	1.94	1.94	1.93	1.91	1.90	1.89	1.89	1.88	1.88	1.88	S	1.88	1.89	1.89	1.90	1.93	1.93	1.93	1.93	1.88	1.94	1.91	
Aug 5	1.93	1.96	2.20	2.02	2.46	2.40	2.15	2.04	1.99	1.96	1.92	1.89	1.87	1.88	S	1.88	1.88	1.92	1.99	2.20	2.33	2.20	2.05	2.00	1.87	2.46	2.05	
Aug 6	2.10	2.03	2.01	2.02	2.01	2.02	2.09	2.11	2.09	2.03	2.02	2.02	2.00	S	1.98	2.02	1.98	1.93	1.93	1.93	1.90	1.91	1.91	1.91	1.90	2.11	2.00	
Aug 7	1.92	1.92	1.93	1.93	1.93	1.94	1.93	1.93	1.92	1.91	1.90	1.89	S	1.89	1.89	1.89	1.89	1.90	1.90	1.91	1.92	1.92	1.92	1.94	1.89	1.94	1.91	
Aug 8	1.96	1.93	1.94	1.94	1.94	1.93	1.93	1.92	1.92	1.90	1.90	S	1.89	1.90	1.90	1.90	1.90	1.91	1.91	1.92	1.93	1.94	1.95	1.94	1.89	1.96	1.92	
Aug 9	1.95	1.94	1.95	1.94	1.94	1.94	1.95	1.95	1.94	1.93	S	1.92	1.91	1.91	1.91	1.91	1.92	1.92	1.93	1.93	1.94	1.94	1.93	1.94	1.91	1.95	1.93	
Aug 10	1.93	1.93	1.95	1.93	1.92	1.92	1.91	1.91	1.91	S	1.90	1.89	1.89	1.90	1.90	1.90	1.91	1.92	1.92	1.94	1.99	1.96	1.97	1.97	1.89	1.99	1.92	
Aug 11	1.96	1.95	1.95	1.95	1.97	1.98	1.99	1.99	S	1.94	1.91	1.89	1.89	C	C	C	C	1.89	1.92	1.93	1.93	1.95	2.21	2.00	1.89	2.21	1.96	
Aug 12	2.03	2.05	1.98	2.00	2.00	1.98	1.97	S	1.96	1.94	1.93	1.89	1.88	1.90	1.89	1.89	1.90	1.90	1.92	1.92	1.92	1.92	1.93	1.93	1.88	2.05	1.94	
Aug 13	1.93	1.93	1.93	1.93	1.93	1.94	S	1.94	1.93	1.93	1.92	1.89	1.88	1.88	1.89	1.90	1.90	1.90	1.91	1.92	1.92	1.92	1.93	1.93	1.88	1.94	1.92	
Aug 14	1.93	1.93	1.93	1.94	1.94	S	1.95	1.95	1.96	1.96	1.95	1.92	1.89	1.88	1.89	1.88	1.88	1.89	1.92	1.94	1.97	1.96	1.98	1.97	1.88	1.98	1.93	
Aug 15	1.96	1.95	1.94	1.94	S	1.96	1.99	1.99	1.98	1.95	1.93	1.91	1.90	1.90	1.89	1.87	1.87	1.87	1.87	1.88	1.91	1.92	2.00	2.13	1.87	2.13	1.94	
Aug 16	2.04	2.00	2.01	S	2.04	2.04	2.01	1.99	2.14	2.15	1.87	1.85	1.83	1.82	1.82	1.83	1.82	1.82	1.82	1.88	1.96	2.03	1.98	1.95	1.82	2.15	1.94	
Aug 17	2.01	2.00	S	S	2.38	2.19	2.14	2.19	2.19	1.95	1.92	1.96	2.02	1.94	1.90	1.84	1.85	1.85	1.86	1.86	1.87	1.91	2.14	1.99	2.10	1.84	2.38	2.00
Aug 18	2.03	S	2.31	2.31	2.53	2.33	2.17	2.06	2.04	1.94	1.91	1.92	1.87	1.86	1.85	1.84	1.83	1.86	1.83	1.86	1.90	1.91	1.99	2.29	1.83	2.53	2.02	
Aug 19	S	1.98	1.94	1.92	1.92	1.94	1.92	1.93	1.92	1.90	1.88	1.87	1.87	1.87	1.88	1.88	1.88	1.88	1.89	1.98	2.07	2.19	2.62	S	1.87	2.62	1.96	
Aug 20	2.13	2.63	2.09	2.16	2.12	2.03	2.05	2.01	2.00	2.01	1.97	1.95	1.90	1.91	1.90	1.91	1.93	1.93	1.94	1.94	1.95	1.96	S	2.47	1.90	2.63	2.04	
Aug 21	1.97	2.96	3.82	4.02	1.97	2.05	4.56	3.54	2.90	2.12	2.29	1.97	2.00	1.91	1.90	1.88	1.91	1.92	1.94	1.95	1.96	S	1.94	1.90	1.88	4.56	2.41	
Aug 22	1.89	1.93	1.90	1.91	1.93	1.93	1.97	1.97	1.94	1.90	1.89	1.87	1.87	1.86	1.87	1.88	1.89	1.89	1.89	1.91	S	1.92	1.92	1.93	1.86	1.97	1.91	
Aug 23	1.93	1.93	1.93	1.93	1.94	1.93	1.94	1.94	1.95	1.93	1.91	1.90	1.88	1.88	1.88	1.88	1.91	1.90	1.91	S	1.93	2.25	2.18	2.44	1.88	2.44	1.97	
Aug 24	2.25	2.43	2.25	2.19	2.06	2.04	2.13	2.03	2.01	2.07	2.02	1.96	1.94	1.94	1.95	1.99	1.95	1.92	S	1.93	2.03	1.97	1.99	1.97	1.92	2.43	2.04	
Aug 25	1.93	1.94	1.93	1.94	1.95	1.95	1.95	1.94	1.94	1.92	1.89	1.87	1.87	1.86	1.87	1.86	1.87	S	1.89	1.90	1.90	1.91	1.91	1.91	1.86	1.95	1.91	
Aug 26	1.91	1.91	1.92	1.93	1.93	1.93	1.93	1.93	1.94	1.92	1.89	1.87	1.87	1.87	1.88	1.88	S	1.90	1.91	1.93	1.94	1.97	1.97	1.96	1.87	1.97	1.92	
Aug 27	1.93	1.92	1.91	1.92	1.92	1.93	1.94	1.94	1.94	1.94	1.92	1.90	1.89	1.88	1.87	S	1.91	1.90	1.91	1.93	2.13	2.15	2.33	2.20	1.87	2.33	1.97	
Aug 28	2.13	2.09	2.08	2.09	2.08	2.07	2.13	2.07	2.02	2.00	1.98	1.98	1.95	1.93	S	1.88	1.89	1.92	1.96	1.96	1.97	1.99	1.97	1.92	1.88	2.13	2.00	
Aug 29	1.92	1.93	1.93	1.93	1.93	1.93	1.92	1.92	1.91	1.92	1.90	1.87	1.88	S	1.90	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.92	1.92	1.87	1.93	1.91	
Aug 30	1.92	1.91	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.90	S	1.89	1.89	1.89	1.90	1.91	1.92	1.94	1.95	2.33	2.03	2.23	1.89	2.33	1.95	
Aug 31	1.99	2.09	1.94	1.94	1.93	2.14	2.13	1.96	1.93	1.92	1.91	S	1.91	1.91	1.89	1.89	1.90	1.90	1.89	1.89	1.88	1.88	1.89	1.89	1.88	2.14	1.94	
Diurnal Maximum	2.25	2.96	3.82	4.02	2.53	2.60	4.56	3.54	2.90	2.15	2.29	2.03	2.03	2.02	1.99	2.02	2.00	2.03	1.99	2.20	2.33	2.33	2.62	2.47				
Diurnal Average	2.00	2.05	2.07	2.09	2.03	2.03	2.10	2.04	2.01	1.96	1.94	1.92	1.90	1.90	1.89	1.90	1.90	1.90	1.91	1.93	1.97	2.01	2.02	2.03				
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance											
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure			
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																			
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																												
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																												

Timeseries Chart of Hourly Average for THC - Reno Station

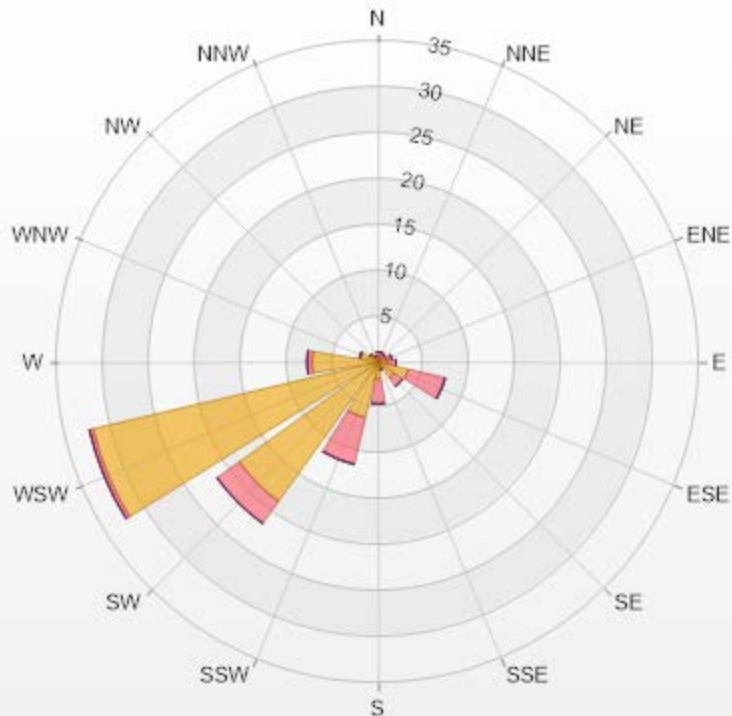


THC55[ppm] Histogram: PRAMP RENO Monthly: 08-2020 1 Hr.



Wind: PRAMP RENO Poll.: PRAMP RENO-THC55[ppm] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 95.16% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	0.56	0.56	0	0	0	1.12
NNE	0.42	0.71	0	0	0	1.13
NE	0.42	0.56	0	0	0	0.98
ENE	0.99	0.56	0	0	0	1.55
E	0.99	0.99	0	0	0	1.98
ESE	3.39	4.1	0	0	0	7.49
SE	2.12	1.13	0	0	0	3.25
SSE	0.42	0.42	0	0	0	0.84
S	1.84	2.68	0	0	0	4.52
SSW	6.21	5.23	0	0	0	11.44
SW	18.64	2.97	0	0	0	21.61
WSW	31.92	0.42	0	0	0	32.34
W	7.2	0.56	0	0	0	7.76
WNW	1.98	0.14	0	0	0	2.12
NW	0.99	0.14	0	0	0	1.13
NNW	0.56	0.14	0	0	0	0.7
Summary	78.65	21.31	0	0	0	100



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% Icon Classes (ppm)

79

0-2

21

2-5

0

5-10

0

10-40

0

>40.0



PEACE RIVER AREA MONITORING PROGRAM

Reno Station - August 2020 Summary of Hourly Averages

METHANE (CH4) in ppm

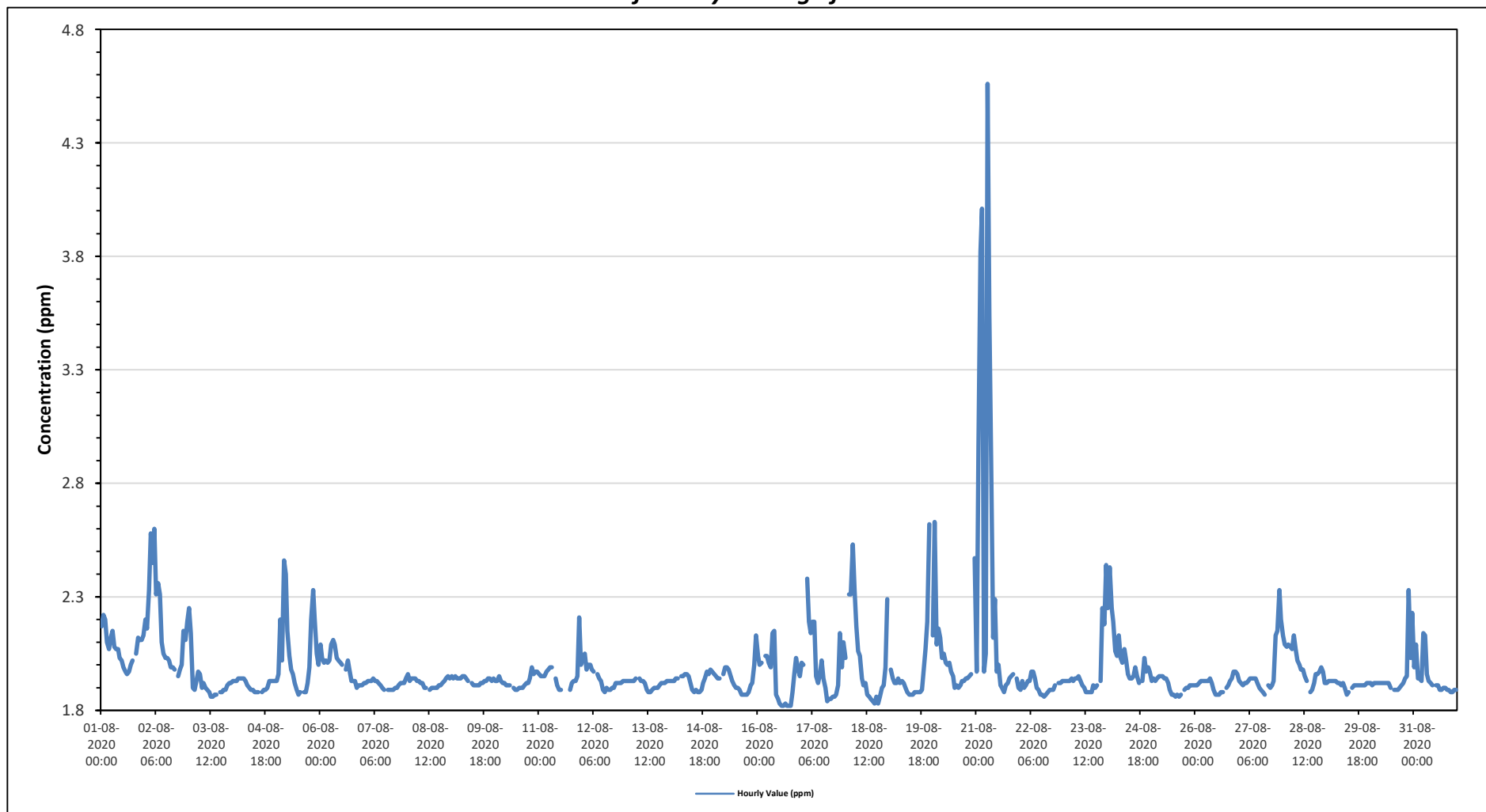
Maximum Hourly Value:	4.56 ppm	on August 21 at hour 6	Hours in Service:	744
Maximum Daily Value:	2.41 ppm	on August 21	Hours of Data:	708
Minimum Hourly Value:	1.82 ppm	on August 16 at hour 13	Hours of Missing Data:	0
Minimum Daily Value:	1.91 ppm	on August 22	Hours of Calibration:	36
Monthly Average:	1.98 ppm		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
Aug 1	2.17	2.22	2.20	2.10	2.07	2.12	2.15	2.08	2.07	2.07	2.03	2.02	1.99	1.97	1.96	1.97	2.00	2.02	S	2.05	2.12	2.11	2.11	2.13	1.96	2.22	2.08	
Aug 2	2.20	2.16	2.33	2.58	2.45	2.60	2.31	2.36	2.31	2.10	2.05	2.03	2.03	2.02	1.99	1.99	1.98	S	1.95	1.98	2.00	2.15	2.11	2.19	1.95	2.60	2.17	
Aug 3	2.25	2.14	1.90	1.89	1.93	1.97	1.96	1.90	1.92	1.90	1.89	1.88	1.86	1.86	1.87	1.87	S	1.88	1.88	1.89	1.89	1.91	1.92	1.92	1.86	2.25	1.93	
Aug 4	1.93	1.93	1.93	1.94	1.94	1.94	1.94	1.93	1.91	1.90	1.89	1.89	1.88	1.88	1.88	S	1.88	1.89	1.89	1.90	1.93	1.93	1.93	1.93	1.88	1.94	1.91	
Aug 5	1.93	1.96	2.20	2.02	2.46	2.40	2.15	2.04	1.98	1.96	1.92	1.89	1.87	1.88	S	1.88	1.88	1.92	1.99	2.20	2.33	2.20	2.05	2.00	1.87	2.46	2.05	
Aug 6	2.09	2.03	2.01	2.02	2.01	2.02	2.09	2.11	2.09	2.03	2.02	2.01	2.00	S	1.98	2.02	1.98	1.93	1.93	1.93	1.90	1.91	1.91	1.91	1.90	2.11	2.00	
Aug 7	1.92	1.92	1.93	1.93	1.93	1.94	1.93	1.93	1.92	1.91	1.90	1.89	S	1.89	1.89	1.89	1.89	1.90	1.90	1.91	1.92	1.92	1.92	1.94	1.89	1.94	1.91	
Aug 8	1.96	1.93	1.94	1.94	1.94	1.93	1.93	1.92	1.92	1.90	1.90	S	1.89	1.90	1.90	1.90	1.90	1.91	1.91	1.92	1.93	1.94	1.95	1.94	1.89	1.96	1.92	
Aug 9	1.95	1.94	1.95	1.94	1.94	1.94	1.95	1.95	1.94	1.93	S	1.92	1.91	1.91	1.91	1.91	1.92	1.92	1.93	1.93	1.94	1.94	1.93	1.94	1.91	1.95	1.93	
Aug 10	1.93	1.93	1.95	1.93	1.92	1.92	1.91	1.91	1.91	S	1.90	1.89	1.89	1.90	1.90	1.90	1.91	1.92	1.92	1.94	1.99	1.96	1.97	1.97	1.89	1.99	1.92	
Aug 11	1.96	1.95	1.95	1.95	1.97	1.98	1.99	1.99	S	1.94	1.91	1.89	1.89	C	C	C	C	1.89	1.92	1.93	1.93	1.95	2.21	2.00	1.89	2.21	1.96	
Aug 12	2.03	2.05	1.98	2.00	2.00	1.98	1.97	S	1.96	1.94	1.93	1.89	1.88	1.90	1.89	1.89	1.90	1.90	1.92	1.92	1.92	1.92	1.93	1.93	1.88	2.05	1.94	
Aug 13	1.93	1.93	1.93	1.93	1.93	1.94	S	1.94	1.93	1.93	1.92	1.89	1.88	1.88	1.89	1.90	1.90	1.90	1.91	1.92	1.92	1.92	1.93	1.93	1.88	1.94	1.92	
Aug 14	1.93	1.93	1.93	1.94	1.94	S	1.95	1.95	1.96	1.96	1.95	1.92	1.89	1.88	1.89	1.88	1.88	1.89	1.92	1.94	1.97	1.96	1.98	1.97	1.88	1.98	1.93	
Aug 15	1.96	1.95	1.94	1.94	S	1.96	1.99	1.99	1.98	1.95	1.93	1.91	1.90	1.90	1.89	1.87	1.87	1.87	1.87	1.88	1.91	1.92	2.00	2.13	1.87	2.13	1.94	
Aug 16	2.04	2.00	2.01	S	2.04	2.04	2.01	1.99	2.14	2.15	1.87	1.85	1.83	1.82	1.82	1.83	1.82	1.82	1.88	1.96	2.03	1.98	1.95	1.82	2.15	1.94		
Aug 17	2.01	2.00	S	S	2.38	2.19	2.14	2.19	2.19	1.95	1.92	1.96	2.02	1.94	1.90	1.84	1.85	1.85	1.86	1.86	1.87	1.91	2.14	1.99	2.10	1.84	2.38	2.00
Aug 18	2.03	S	S	2.31	2.31	2.53	2.33	2.17	2.06	2.04	1.94	1.91	1.92	1.87	1.86	1.85	1.84	1.83	1.86	1.83	1.86	1.90	1.91	1.99	2.29	1.83	2.53	2.02
Aug 19	S	1.98	1.94	1.92	1.92	1.94	1.92	1.93	1.92	1.90	1.88	1.87	1.87	1.87	1.88	1.88	1.88	1.88	1.89	1.98	2.07	2.19	2.62	S	1.87	2.62	1.96	
Aug 20	2.13	2.63	2.09	2.16	2.12	2.03	2.05	2.01	2.00	2.01	1.97	1.95	1.90	1.91	1.90	1.91	1.93	1.93	1.94	1.94	1.95	1.96	S	2.47	1.90	2.63	2.04	
Aug 21	1.97	2.96	3.82	4.01	1.97	2.05	4.56	3.54	2.90	2.12	2.29	1.97	2.00	1.91	1.90	1.88	1.91	1.92	1.94	1.95	1.96	S	1.94	1.90	1.88	4.56	2.41	
Aug 22	1.89	1.93	1.90	1.91	1.93	1.93	1.97	1.97	1.94	1.90	1.89	1.87	1.87	1.86	1.87	1.88	1.89	1.89	1.89	1.91	S	1.92	1.92	1.93	1.86	1.97	1.91	
Aug 23	1.93	1.93	1.93	1.93	1.94	1.93	1.94	1.94	1.95	1.93	1.91	1.90	1.88	1.88	1.88	1.88	1.91	1.90	1.91	S	1.93	2.25	2.18	2.44	1.88	2.44	1.97	
Aug 24	2.25	2.43	2.25	2.19	2.06	2.04	2.13	2.03	2.01	2.07	2.02	1.96	1.94	1.94	1.95	1.99	1.95	1.92	S	1.93	2.03	1.97	1.99	1.97	1.92	2.43	2.04	
Aug 25	1.93	1.94	1.93	1.94	1.95	1.95	1.95	1.94	1.94	1.92	1.89	1.87	1.87	1.86	1.87	1.86	1.87	S	1.89	1.90	1.90	1.91	1.91	1.91	1.86	1.95	1.91	
Aug 26	1.91	1.91	1.92	1.93	1.93	1.93	1.93	1.93	1.94	1.92	1.89	1.87	1.87	1.87	1.88	1.88	S	1.90	1.91	1.93	1.94	1.97	1.97	1.96	1.87	1.97	1.92	
Aug 27	1.93	1.92	1.91	1.92	1.92	1.93	1.94	1.94	1.94	1.94	1.92	1.90	1.89	1.88	1.87	S	1.91	1.90	1.91	1.93	2.13	2.15	2.33	2.20	1.87	2.33	1.97	
Aug 28	2.13	2.09	2.08	2.09	2.08	2.07	2.13	2.07	2.02	2.00	1.98	1.98	1.95	1.93	S	1.88	1.89	1.92	1.96	1.96	1.97	1.99	1.97	1.92	1.88	2.13	2.00	
Aug 29	1.92	1.93	1.93	1.93	1.93	1.93	1.92	1.92	1.91	1.92	1.90	1.87	1.88	S	1.90	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.92	1.87	1.93	1.91	
Aug 30	1.92	1.91	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.90	S	1.89	1.89	1.89	1.90	1.91	1.92	1.94	1.95	2.33	2.03	2.23	1.89	2.33	1.95	
Aug 31	1.99	2.09	1.94	1.94	1.93	2.14	2.13	1.96	1.93	1.92	1.91	S	1.91	1.91	1.89	1.89	1.90	1.90	1.89	1.89	1.88	1.88	1.89	1.89	1.88	2.14	1.94	
Diurnal Maximum	2.25	2.96	3.82	4.01	2.53	2.60	4.56	3.54	2.90	2.15	2.29	2.03	2.03	2.02	1.99	2.02	2.00	2.02	1.99	2.20	2.33	2.33	2.62	2.47				
Diurnal Average	2.00	2.05	2.07	2.08	2.03	2.03	2.10	2.04	2.01	1.96	1.94	1.92	1.90	1.90	1.89	1.90	1.90	1.90	1.91	1.93	1.97	2.01	2.02	2.03				

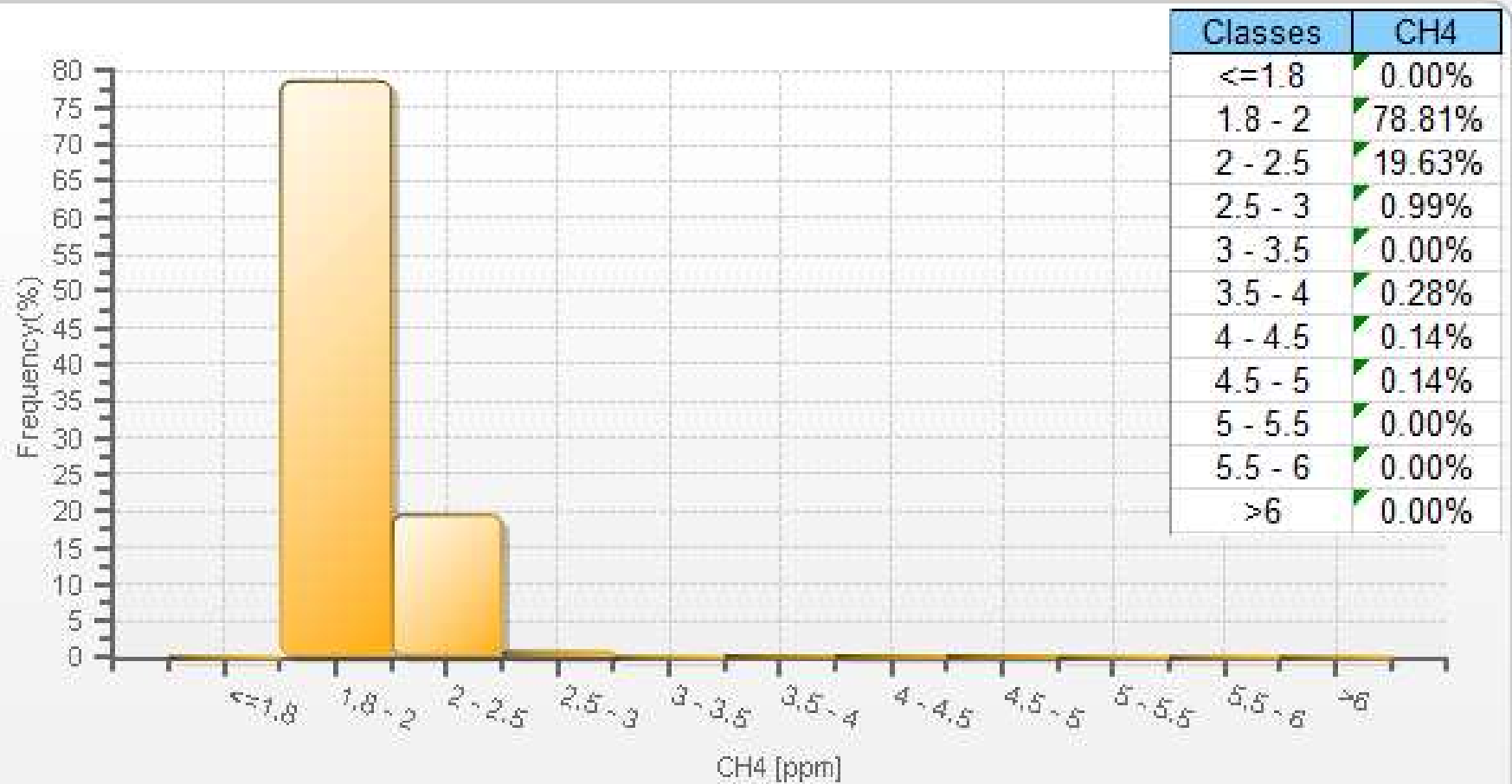
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P	Power Failure

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for CH4 - Reno Station

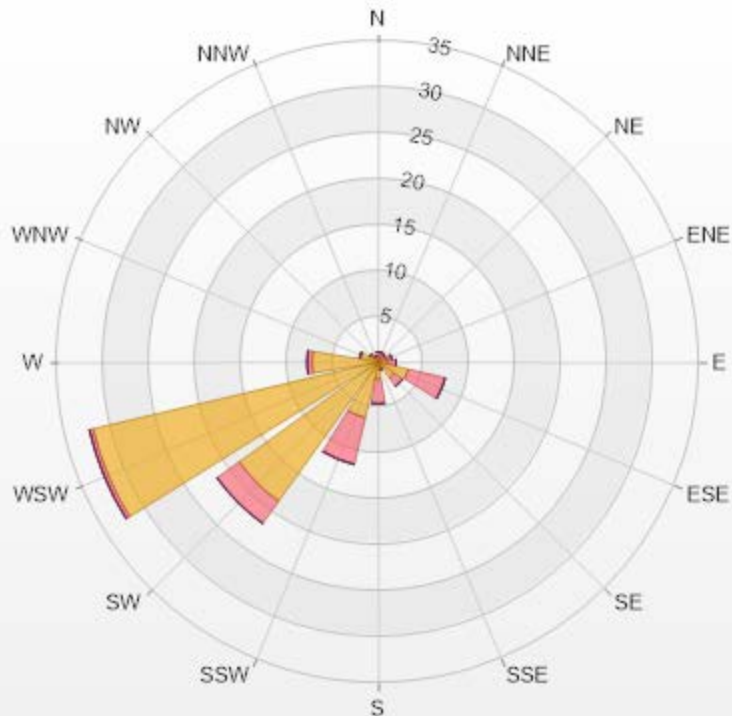


CH4[ppm] Histogram: PRAMP RENO Monthly: 08-2020 1 Hr.



Wind: PRAMP RENO Poll.: PRAMP RENO-CH4[ppm] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 95.16% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	0.56	0.56	0	0	0	1.12
NNE	0.42	0.71	0	0	0	1.13
NE	0.42	0.56	0	0	0	0.98
ENE	0.99	0.56	0	0	0	1.55
E	0.99	0.99	0	0	0	1.98
ESE	3.39	4.1	0	0	0	7.49
SE	2.12	1.13	0	0	0	3.25
SSE	0.42	0.42	0	0	0	0.84
S	1.84	2.68	0	0	0	4.52
SSW	6.21	5.23	0	0	0	11.44
SW	18.64	2.97	0	0	0	21.61
WSW	31.92	0.42	0	0	0	32.34
W	7.2	0.56	0	0	0	7.76
WNW	1.98	0.14	0	0	0	2.12
NW	0.99	0.14	0	0	0	1.13
NNW	0.56	0.14	0	0	0	0.7
Summary	78.65	21.31	0	0	0	100



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% Icon Classes (ppm)

79

0-2

21

2-5

0

5-10

0

10-20

0

>20.0



PEACE RIVER AREA MONITORING PROGRAM

Reno Station - August 2020

Summary of Hourly Averages

NON-METHANE HYDROCARBONS (NMHC) in ppm

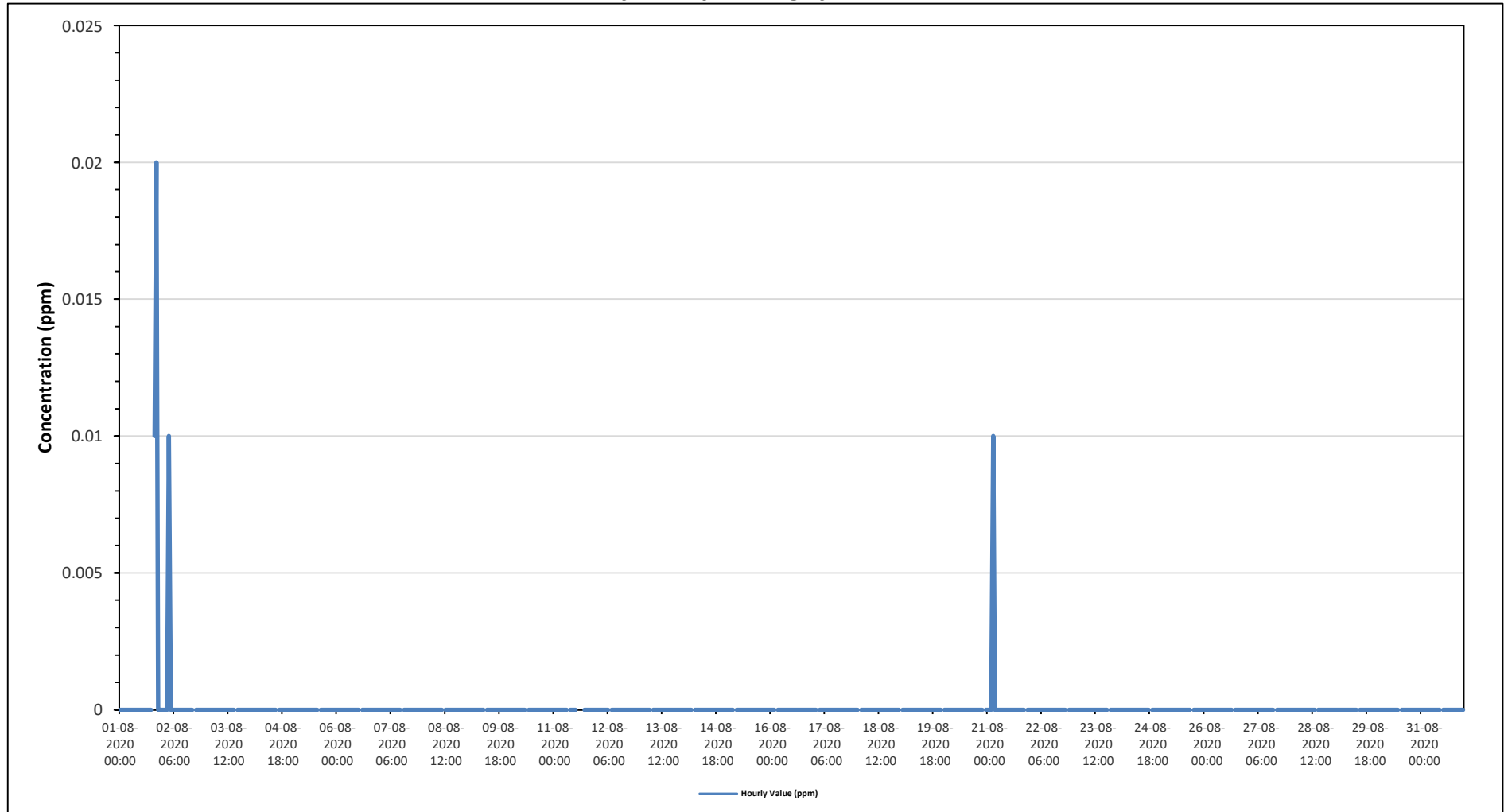
Maximum Hourly Value:	0.02 ppm on August 1 at hour 20	Hours in Service:	744
Maximum Daily Value:	0.00 ppm on August 1	Hours of Data:	708
Minimum Hourly Value:	0.00 ppm on August 1 at hour 0	Hours of Missing Data:	0
Minimum Daily Value:	0.00 ppm on August 3	Hours of Calibration:	36
Monthly Average:	0.00 ppm	Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
Aug 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.02	0.00
Aug 2	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Aug 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	C	C	C	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 13	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 14	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 15	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 16	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 17	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 18	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 19	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00
Aug 20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00
Aug 21	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.01	0.00	0.00
Aug 22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Diurnal Maximum	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Diurnal Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance											
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure			
X	Invalid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																			

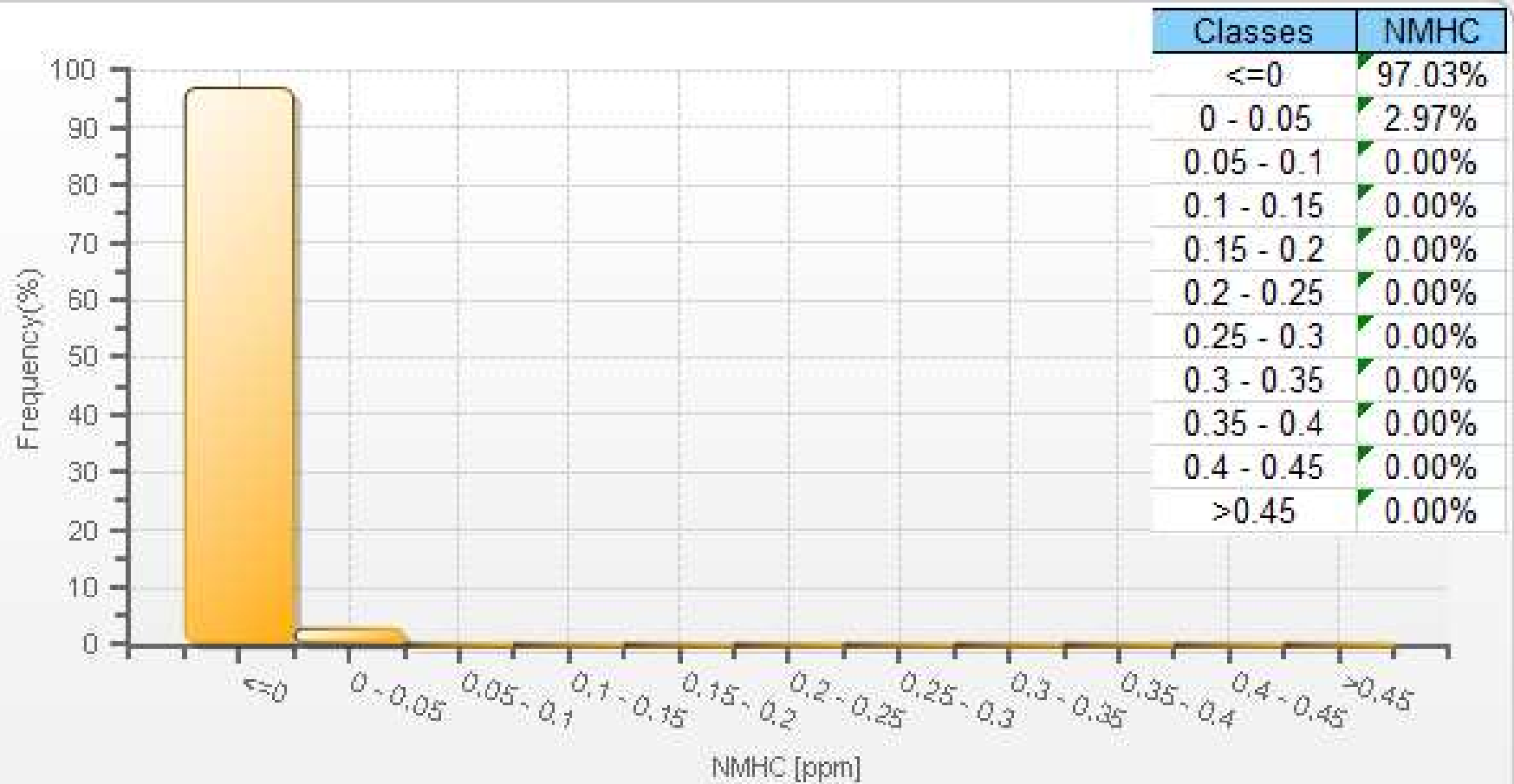
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NMHC - Reno Station

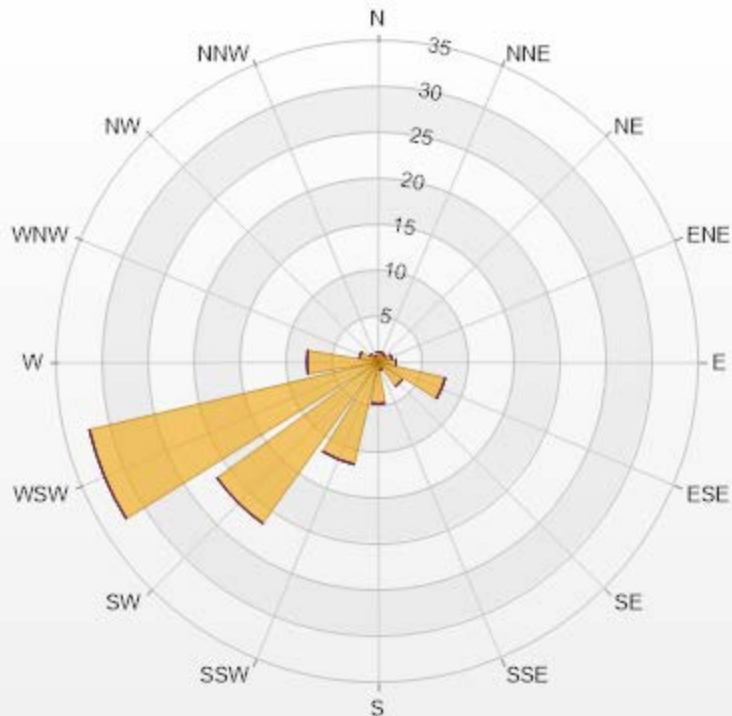


NMHC[ppm] Histogram: PRAMP RENO Monthly: 08-2020 1 Hr.



Wind: PRAMP RENO Poll.: PRAMP RENO-NMHC[ppm] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 95.16% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-0.9	0.9-2	>2.0	Total
N	1.13	0	0	0	0	1.13
NNE	1.13	0	0	0	0	1.13
NE	0.99	0	0	0	0	0.99
ENE	1.55	0	0	0	0	1.55
E	1.98	0	0	0	0	1.98
ESE	7.49	0	0	0	0	7.49
SE	3.25	0	0	0	0	3.25
SSE	0.85	0	0	0	0	0.85
S	4.52	0	0	0	0	4.52
SSW	11.44	0	0	0	0	11.44
SW	21.61	0	0	0	0	21.61
WSW	32.34	0	0	0	0	32.34
W	7.77	0	0	0	0	7.77
WNW	2.12	0	0	0	0	2.12
NW	1.13	0	0	0	0	1.13
NNW	0.71	0	0	0	0	0.71
Summary	100	0	0	0	0	100



PRAMP-202008

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% Icon Classes (ppm)

100 0-0.1

0 0.1-0.3

0 0.3-0.9

0 0.9-2

0 >2.0



PEACE RIVER AREA MONITORING PROGRAM

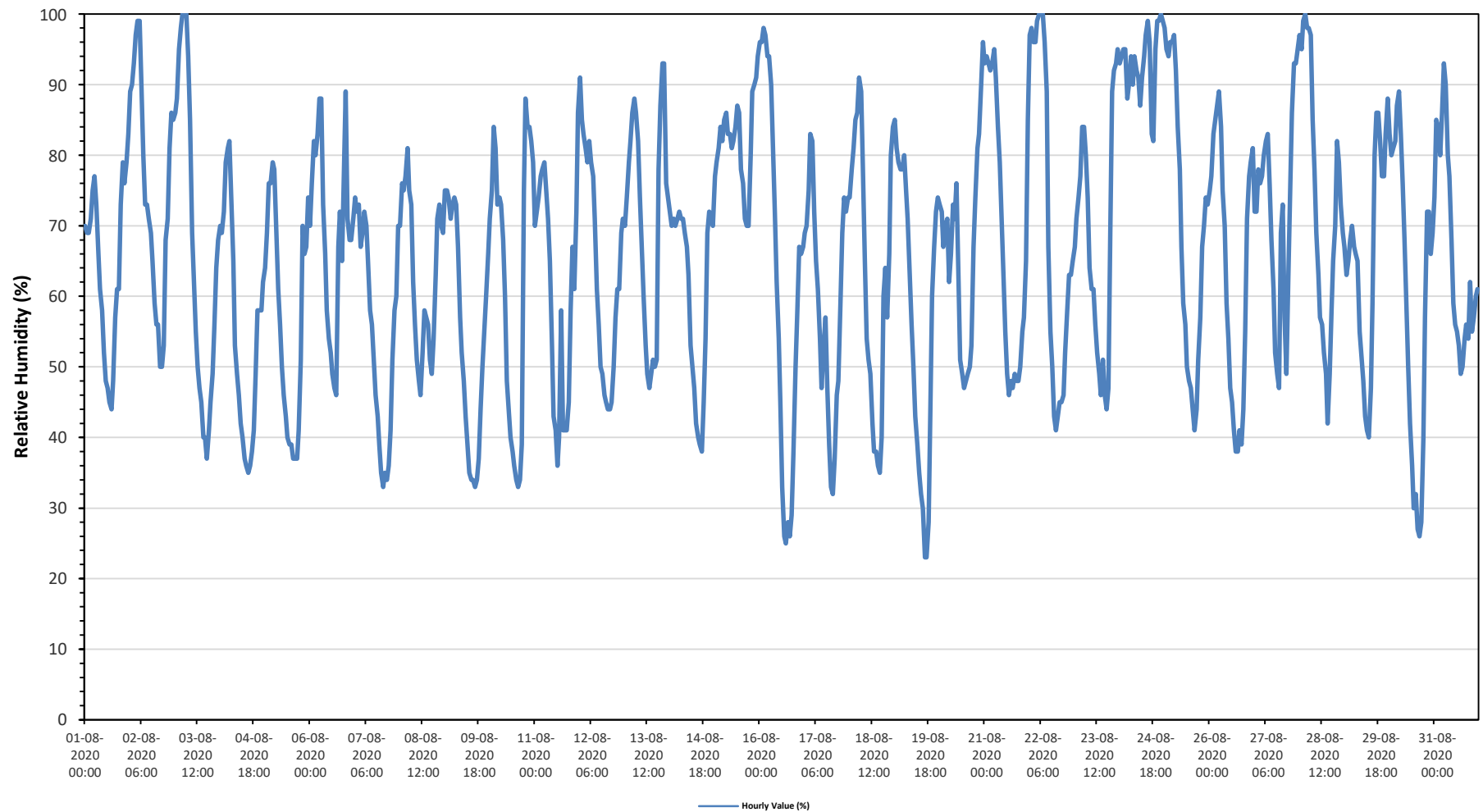
Reno Station - August 2020

Summary of Hourly Averages

RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:				100	%	on August 3 at hour 4										Hours in Service:				744							
Maximum Daily Value:				93.2	%	on August 24										Hours of Data:				744							
Minimum Hourly Value:				23	%	on August 19 at hour 16										Hours of Missing Data:				0							
Minimum Daily Value:				54.3	%	on August 9										Hours of Calibration:				0							
Monthly Average:				65.8	%											Operational Uptime:				100.0							
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
Aug 1	70	69	69	71	75	77	73	66	61	58	52	48	47	45	44	48	57	61	61	73	79	76	79	83	44	83	64.3
Aug 2	89	90	93	97	99	99	91	80	73	73	71	69	65	59	56	56	50	50	53	68	71	81	86	85	50	99	75.2
Aug 3	86	88	95	98	100	100	100	94	85	69	63	55	50	47	45	40	40	37	41	45	49	56	64	68	37	100	67.3
Aug 4	70	69	72	79	81	82	74	65	53	49	46	42	40	37	36	35	36	38	41	49	58	58	58	62	35	82	55.4
Aug 5	64	69	76	76	79	78	69	61	56	50	46	43	40	39	39	37	37	37	41	51	70	66	67	74	37	79	56.9
Aug 6	70	76	82	80	83	88	88	73	66	58	54	52	49	47	46	67	72	65	77	89	71	68	68	71	46	89	69.2
Aug 7	74	72	73	67	69	72	70	65	58	56	51	46	43	39	35	33	35	34	36	41	51	58	60	70	33	74	54.5
Aug 8	70	76	75	77	81	75	73	62	56	51	48	46	52	58	57	56	51	49	54	63	71	73	70	69	46	81	63.0
Aug 9	75	75	74	71	73	74	73	67	57	52	48	43	39	35	34	34	33	34	37	44	50	55	60	66	33	75	54.3
Aug 10	71	75	84	81	73	74	73	68	60	48	44	40	38	36	34	33	34	39	75	88	84	84	82	79	33	88	62.4
Aug 11	70	72	74	77	78	79	75	71	65	53	43	41	36	40	58	41	41	41	45	58	67	61	72	86	36	86	60.2
Aug 12	91	85	83	81	79	82	79	77	71	61	56	50	49	46	45	44	44	45	50	57	61	61	69	71	44	91	64.0
Aug 13	70	74	79	82	86	88	86	82	74	67	60	53	49	47	49	51	50	51	78	87	93	93	76	74	47	93	70.8
Aug 14	72	70	71	70	71	72	71	71	69	67	63	53	50	47	42	40	39	38	45	54	69	72	71	70	38	72	60.7
Aug 15	77	79	81	84	82	85	86	83	83	81	82	84	87	86	78	76	71	70	70	80	89	90	91	94	70	94	82.0
Aug 16	96	96	98	97	94	94	90	81	72	62	54	45	33	26	25	28	26	29	38	50	57	67	66	67	25	98	62.1
Aug 17	69	70	75	83	82	72	65	61	54	47	53	57	47	39	33	32	37	46	48	59	69	74	72	74	32	83	59.1
Aug 18	74	78	81	85	86	91	89	79	65	54	51	49	42	38	38	36	35	40	60	64	57	66	80	84	35	91	63.4
Aug 19	85	81	79	78	78	80	75	71	63	56	50	43	39	35	32	30	23	23	28	45	60	67	72	74	23	85	57.0
Aug 20	73	72	67	70	71	62	66	73	71	76	62	51	49	47	48	49	50	53	67	74	81	83	89	96	47	96	66.7
Aug 21	93	94	93	92	93	95	91	84	79	71	63	55	49	46	48	47	49	48	48	50	55	57	65	85	46	95	68.8
Aug 22	97	98	96	96	99	100	100	100	96	89	67	55	50	43	41	43	45	45	46	52	58	63	63	65	41	100	71.1
Aug 23	67	71	74	77	84	84	80	74	64	61	61	56	52	49	46	51	46	44	47	69	89	92	93	95	44	95	67.8
Aug 24	93	94	95	95	88	90	94	90	94	92	91	87	91	94	97	99	96	83	82	95	99	99	100	99	82	100	93.2
Aug 25	98	95	94	96	96	97	92	84	78	67	59	56	50	48	47	44	41	44	51	57	67	70	74	73	41	98	69.9
Aug 26	75	77	83	85	87	89	84	75	70	59	54	47	45	41	38	38	41	39	44	55	71	77	79	81	38	89	63.9
Aug 27	72	72	78	76	77	80	82	83	76	68	61	52	49	47	69	73	57	49	62	76	86	93	93	95	47	95	71.9
Aug 28	97	95	99	100	98	98	97	85	78	69	63	57	56	52	49	42	49	58	65	70	82	79	73	69	42	100	74.2
Aug 29	67	63	65	68	70	67	66	65	55	52	48	43	41	40	47	59	80	86	86	82	77	77	83	88	40	88	65.6
Aug 30	83	80	81	82	87	89	83	76	68	59	50	42	36	30	32	27	26	28	40	57	72	72	66	69	26	89	59.8
Aug 31	74	85	84	80	86	93	90	80	77	68	59	56	55	53	49	50	54	56	54	62	55	57	60	61	49	93	66.6
Diurnal Maximum	98	98	99	100	100	100	100	100	96	92	91	87	91	94	97	99	96	86	86	95	99	99	100	99			
Diurnal Average	78.5	79.4	81.4	82.3	83.4	84.1	81.5	75.7	69.3	62.7	57.2	52.1	49.0	46.3	46.4	46.4	46.6	47.1	53.9	63.4	69.9	72.4	74.2	77.3			
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance										
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure		
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																		
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																											
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																											

Timeseries Chart of Hourly Average for RH - Reno Station





PEACE RIVER AREA MONITORING PROGRAM

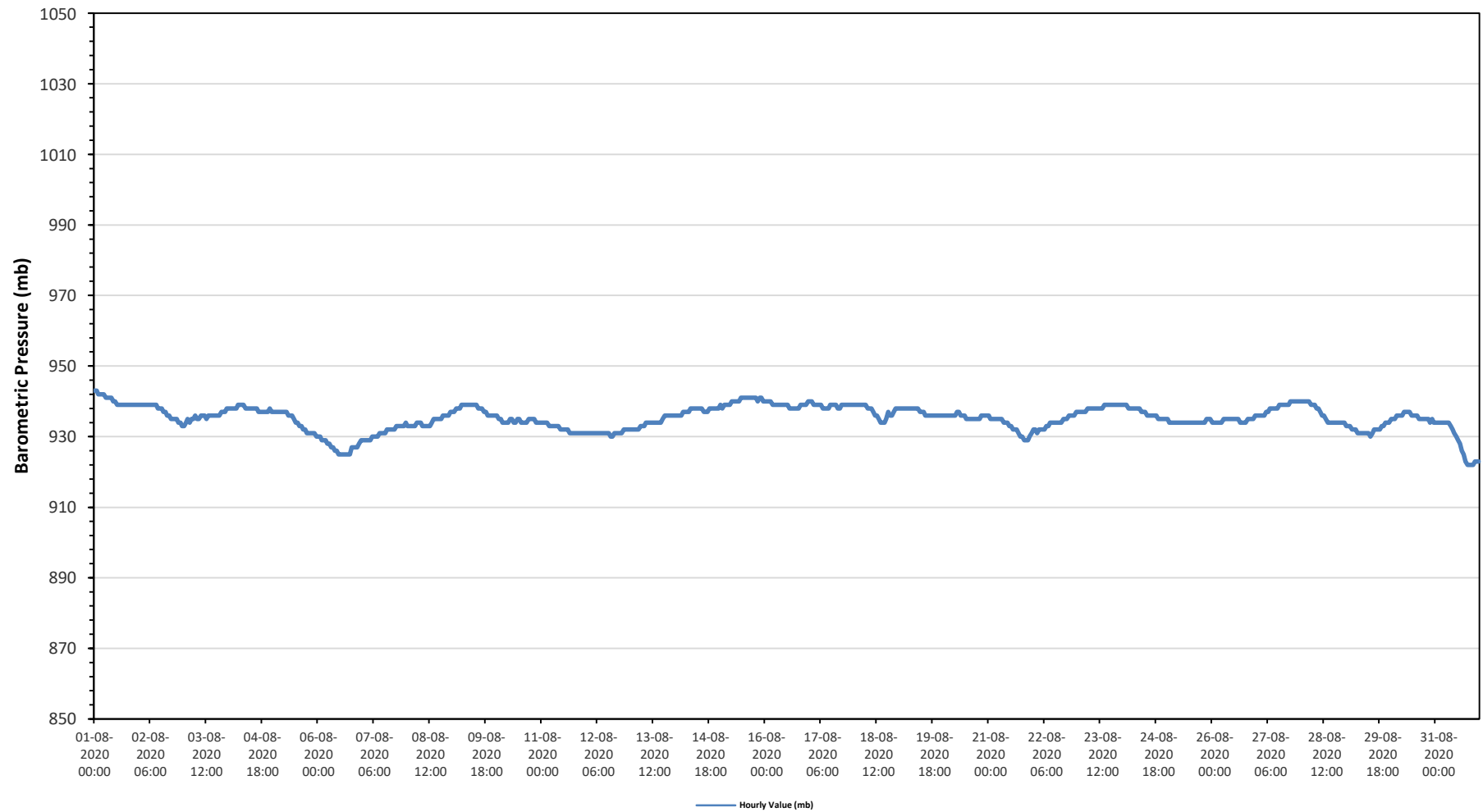
Reno Station - August 2020

Summary of Hourly Averages

BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:										943	mb	on August 1 at hour 0										Hours in Service:										744
Maximum Daily Value:										940	mb	on August 1										Hours of Data:										744
Minimum Hourly Value:										922	mb	on August 31 at hour 17										Hours of Missing Data:										0
Minimum Daily Value:										927	mb	on August 6										Hours of Calibration:										0
Monthly Average:										935	mb											Operational Uptime:										100.0
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average						
Aug 1	943	943	942	942	942	942	941	941	941	941	940	940	939	939	939	939	939	939	939	939	939	939	939	939	939	939	943	940				
Aug 2	939	939	939	939	939	939	939	939	939	939	938	938	938	937	937	936	936	935	935	935	935	934	934	933	933	939	937					
Aug 3	933	934	935	934	935	935	936	935	935	936	936	936	935	936	936	936	936	936	936	937	937	937	938	933	938	936						
Aug 4	938	938	938	938	938	939	939	939	939	938	938	938	938	938	938	937	937	937	937	937	937	938	937	937	939	938						
Aug 5	937	937	937	937	937	937	937	937	936	936	936	935	934	934	933	933	932	932	931	931	931	931	931	930	930	937	934					
Aug 6	930	930	929	929	929	928	928	927	927	926	926	925	925	925	925	925	925	927	927	927	927	928	929	925	930	927						
Aug 7	929	929	929	929	929	930	930	930	930	931	931	931	931	932	932	932	932	933	933	933	933	933	934	929	934	931						
Aug 8	933	933	933	933	933	934	934	934	933	933	933	933	933	934	935	935	935	935	935	936	936	936	937	933	937	934						
Aug 9	937	937	938	938	938	939	939	939	939	939	939	939	939	938	938	938	937	937	936	936	936	936	936	936	939	938						
Aug 10	936	935	935	934	934	934	934	935	935	934	934	935	935	934	934	934	935	935	935	935	934	934	934	934	936	935						
Aug 11	934	934	934	934	933	933	933	933	933	932	932	932	932	932	931	931	931	931	931	931	931	931	931	931	934	932						
Aug 12	931	931	931	931	931	931	931	931	931	931	931	931	931	930	930	931	931	931	931	931	932	932	932	930	932	931						
Aug 13	932	932	932	932	932	933	933	933	934	934	934	934	934	934	934	934	935	936	936	936	936	936	936	932	936	934						
Aug 14	936	936	936	936	937	937	937	937	938	938	938	938	938	938	937	937	937	938	938	938	938	938	938	936	938	937						
Aug 15	939	938	939	939	939	939	940	940	940	940	940	941	941	941	941	941	941	941	941	940	941	940	938	941	940							
Aug 16	940	940	940	940	939	939	939	939	939	939	939	939	939	938	938	938	938	938	938	939	939	939	940	938	940	939						
Aug 17	940	940	939	939	939	939	939	939	938	938	938	938	939	939	939	939	938	938	939	939	939	939	939	938	940	939						
Aug 18	939	939	939	939	939	939	939	939	938	938	938	937	936	936	935	934	934	935	937	936	936	937	938	934	939	937						
Aug 19	938	938	938	938	938	938	938	938	938	938	938	937	937	937	936	936	936	936	936	936	936	936	936	936	938	937						
Aug 20	936	936	936	936	936	936	936	937	937	936	936	936	935	935	935	935	935	935	935	935	936	936	936	935	937	936						
Aug 21	936	935	935	935	935	935	935	935	935	934	934	934	933	933	932	932	931	930	930	929	929	930	931	929	936	933						
Aug 22	932	932	931	932	932	932	932	933	933	934	934	934	934	934	934	935	935	935	936	936	936	936	937	931	937	934						
Aug 23	937	937	937	937	937	938	938	938	938	938	938	938	938	938	939	939	939	939	939	939	939	939	939	937	939	938						
Aug 24	939	939	939	938	938	938	938	938	938	938	937	937	937	936	936	936	936	936	936	935	935	935	935	935	939	937						
Aug 25	935	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	935	935	934	935	934						
Aug 26	934	934	934	934	934	934	935	935	935	935	935	935	935	935	935	934	934	934	934	935	935	935	935	934	936	935						
Aug 27	936	936	936	936	936	937	937	938	938	938	938	938	939	939	939	939	939	939	940	940	940	940	940	936	940	938						
Aug 28	940	940	940	940	940	939	939	939	939	938	938	937	936	936	935	934	934	934	934	934	934	934	934	934	940	937						
Aug 29	933	933	933	932	932	932	931	931	931	931	931	931	931	930	931	932	932	933	933	934	934	934	934	930	934	932						
Aug 30	935	935	935	936	936	936	936	937	937	937	937	936	936	936	935	935	935	935	935	935	934	935	934	934	937	936						
Aug 31	934	934	934	934	934	934	934	934	933	932	931	930	929	928	926	925	923	922	922	922	922	923	923	923	922	934	929					
Diurnal Maximum	943	943	942	942	942	942	941	941	941	941	940	941	941	941	941	941	941	941	941	940	941	941	940	939	941	940						
Diurnal Average	936	936	936	936	936	936	936	936	936	936	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935						
C	Monthly Calibration						S	Daily Zero-Span Check						Q	Quality Assurance																	
K	Collection Error						N	No Data (Machine Not in Service)						Y	Routine Maintenance						P	Power Failure										
X	InValid Data (Equipment Malfunction /Recovery)						NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																								
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																

Timeseries Chart of Hourly Average for BP - Reno Station





PEACE RIVER AREA MONITORING PROGRAM

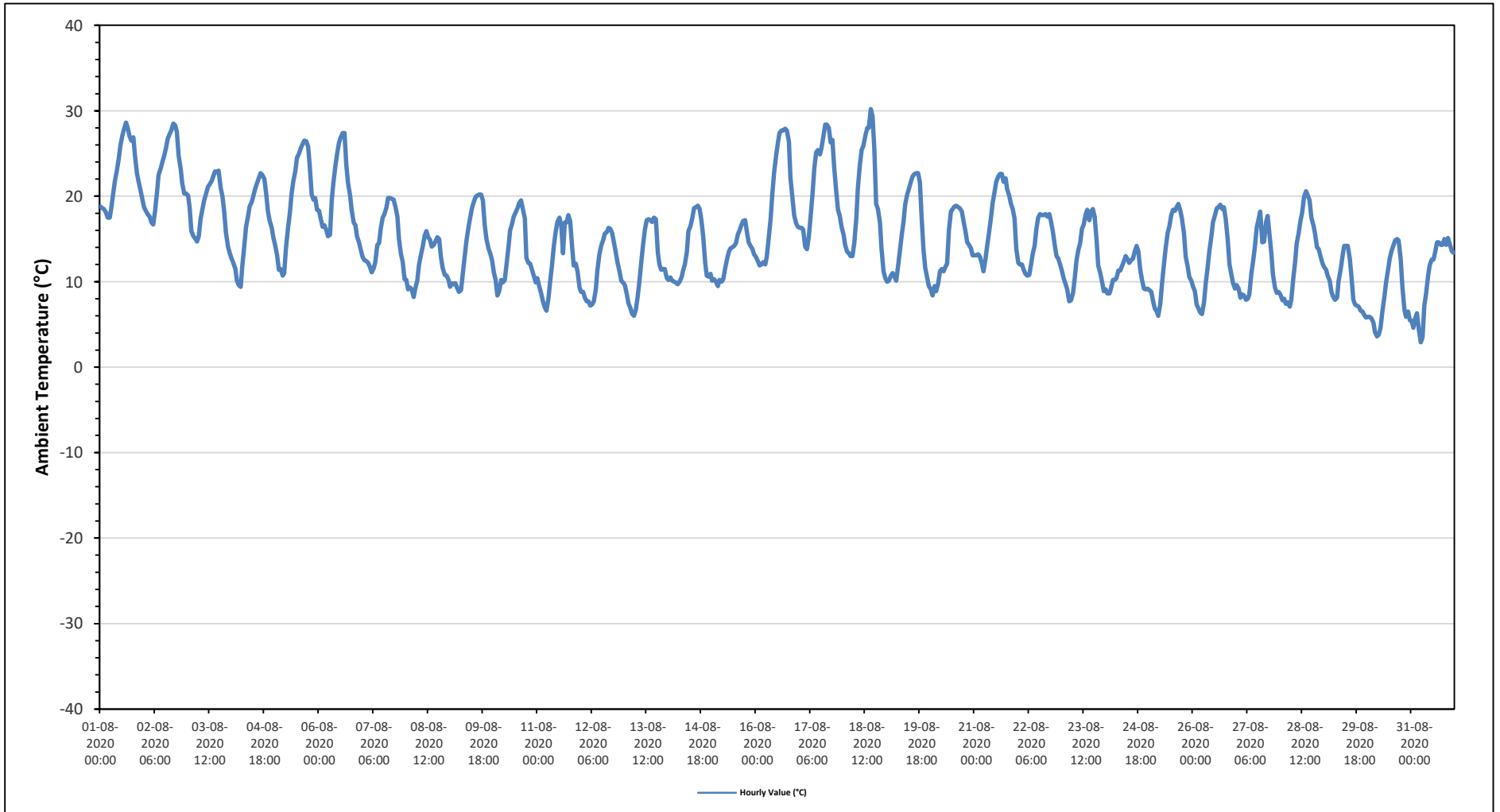
Reno Station - August 2020

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

Maximum Hourly Value:		30.2	°C	on August 18 at hour 15											Hours in Service:		744										
Maximum Daily Value:		22.7	°C	on August 1											Hours of Data:		744										
Minimum Hourly Value:		2.9	°C	on August 31 at hour 5											Hours of Missing Data:		0										
Minimum Daily Value:		8.6	°C	on August 30											Hours of Calibration:		0										
Monthly Average:		15.0	°C												Operational Uptime:		100.0										
Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Aug 1	18.8	18.6	18.5	18.1	17.5	17.5	18.6	20.4	21.9	23	24.3	25.9	27	27.8	28.6	28.1	27	26.5	26.9	24.8	22.7	21.6	20.7	19.7	17.5	28.6	22.7
Aug 2	18.7	18.3	17.9	17.6	16.9	16.7	18.2	20.5	22.5	23.2	24	24.7	25.6	26.7	27.3	27.7	28.5	28.3	27.5	24.7	23.2	21.5	20.3	20.3	16.7	28.5	22.5
Aug 3	20.1	18.7	15.9	15.3	15.1	14.7	15.3	17.3	18.4	19.6	20.2	21.1	21.4	21.8	22.3	22.9	22.8	23	21	20	18.2	15.7	14.1	13.3	13.3	23.0	18.7
Aug 4	12.7	12.2	11.5	10.1	9.6	9.4	11.8	14.2	16.4	17.7	18.8	19.3	20.1	20.9	21.5	22.2	22.7	22.5	22	20.3	18.2	17.1	16.3	15.2	9.4	22.7	16.8
Aug 5	14.2	13.1	11.4	11.5	10.7	11	14	16.3	18	20.3	21.8	23	24.5	25	25.6	26.1	26.5	26.4	25.8	23.7	20.2	19.6	19.8	18.4	10.7	26.5	19.5
Aug 6	18.3	17.4	16.4	16.6	16	15.3	15.5	19.6	21.5	23.5	25	26.2	26.9	27.4	27.4	23.7	21.5	20.1	18.4	16.9	16.6	15.3	14.6	13.7	13.7	27.4	19.7
Aug 7	12.9	12.5	12.4	12.2	11.7	11.1	11.6	12.3	14.3	14.5	16.1	17.5	17.9	18.7	19.8	19.8	19.7	19.6	18.8	17.6	15	13.2	12.3	10.3	10.3	19.8	15.1
Aug 8	10.2	9.1	9.3	9.1	8.2	9.3	10.1	12	13.2	14.2	15.4	15.9	15.2	14.9	14.1	14.3	14.7	15.2	15	12.9	11.6	10.8	10.7	10.3	8.2	15.9	12.3
Aug 9	9.4	9.8	9.7	9.8	9.2	8.8	9	10.9	13.1	14.7	16.3	17.5	18.6	19.3	19.9	20.1	20.2	20.2	19.5	16.7	15	13.9	13.4	12.5	8.8	20.2	14.5
Aug 10	11.1	10.2	8.4	8.9	10.2	9.9	10.2	12	13.9	16	16.8	17.6	18.1	18.6	19.2	19.5	18.5	17.4	12.8	12.2	12.1	11.4	10.7	9.9	8.4	19.5	13.6
Aug 11	10.4	9.4	8.6	7.7	7	6.6	8.1	9.9	12	14.2	15.8	17	17.5	16.6	13.3	16.9	16.9	17.8	17.1	14	11.9	12.1	11.2	9.3	6.6	17.8	12.6
Aug 12	8.8	8.8	8.1	7.7	7.7	7.2	7.3	7.7	9.1	11.3	13.2	14.2	14.9	15.6	15.8	16.3	16.2	15.7	14.6	13.5	12.3	11.2	10.1	9.9	7.2	16.3	11.6
Aug 13	9.6	8.5	7.5	6.9	6.2	6	6.7	8.1	10.2	12.1	14.4	16.1	17.2	17.3	17.2	17	17.5	17.3	13.3	12	11.4	11.5	11.5	10.4	6.0	17.5	11.9
Aug 14	10.2	10.5	10.1	10	9.9	9.7	10	10.5	11.3	12	13.5	15.9	16.5	17.4	18.6	18.7	18.9	18.5	17.2	15.3	12.2	10.7	10.6	10.9	9.7	18.9	13.3
Aug 15	10.1	10.3	10	9.5	10.2	10	10.3	11.5	12.5	13.5	13.9	14	14.2	14.5	15.5	16	16.7	17.1	17.2	15.8	14.6	14.2	13.8	13.2	9.5	17.2	13.3
Aug 16	12.9	12.4	11.9	12	12.3	12	12.9	15.2	17.3	20.3	22.8	24.8	26.3	27.4	27.7	27.9	27.7	26.4	22.2	19.8	17.7	16.8	16.4	11.9	27.9	19.6	
Aug 17	16.3	16.3	16.1	14.1	13.8	15.2	17.5	20.3	23.3	25.1	25.4	24.9	25.6	27.1	28.4	28.4	28	26.3	26.6	23.4	20.6	18.4	17.7	16.4	13.8	28.4	21.5
Aug 18	15.5	14.3	13.5	13.3	13	13	14.5	17.4	20.9	23.7	25.4	25.9	27	28	28	30.2	29.3	25.4	19.1	18.5	16.9	13.9	11.2	10.4	10.4	30.2	19.5
Aug 19	10	10.1	10.7	11	10.6	10.1	11.8	13.5	15.3	17.1	19	20.2	20.9	21.6	22.3	22.6	22.7	22.7	21.6	17.4	13.8	11.6	10.4	9.5	9.5	22.7	15.7
Aug 20	9.1	8.4	9.5	8.9	9.8	11.2	11.5	11.2	11.7	12.1	16	18.2	18.5	18.8	18.9	18.7	18.6	18.2	17	15.9	14.6	14.3	13.9	13.1	8.4	18.9	14.1
Aug 21	13.1	13.1	13.2	12.9	12.1	11.2	12.7	14.3	15.8	17.4	19.2	20.6	21.7	22.3	22.6	22.6	21.7	22.1	20.8	20.1	19.1	18.5	17.4	13.8	11.2	22.6	17.4
Aug 22	12.2	12	12	11.4	10.9	10.7	10.8	12	13.3	14.2	16.2	17.5	17.9	17.8	17.8	17.9	17.6	17.9	17.1	15.8	14.3	13	12.7	12	10.7	17.9	14.4
Aug 23	11.3	10.4	9.7	9.1	7.7	7.8	8.7	10.2	12.6	13.7	14.5	16.2	16.7	17.8	18.4	17.2	18.2	18.5	17.6	14.7	11.9	11	10	8.9	7.7	18.5	13.0
Aug 24	9.1	8.6	8.6	9.2	10.2	10.2	10.4	11.3	11.3	11.8	12.4	13	12.6	12.2	12.5	12.7	13.5	14.2	13.5	11.5	10.2	9.2	9.1	9.2	8.6	14.2	11.1
Aug 25	9	8.8	7.8	6.9	6.5	6	7.4	9.8	11.9	13.9	15.7	16.5	17.8	18.4	18.3	18.7	19.1	18.3	17.4	15.7	12.9	11.7	10.6	10.1	6.0	19.1	12.9
Aug 26	9.4	8.9	7.3	6.8	6.4	6.2	7.6	9.9	11.6	13.6	15.3	16.9	17.8	18.6	18.7	19	18.5	18.7	17.4	15	12	10.9	9.8	9.2	6.2	19.0	12.7
Aug 27	9.6	9.2	8.1	8.5	8.4	7.9	8	8.5	10.9	12.4	14.1	16.3	17.4	18.2	14.6	14.7	17	17.7	15.3	13.2	10.8	9.3	8.7	8.8	7.9	18.2	12.0
Aug 28	8.5	7.8	8	7.4	7.6	7.1	7.9	10.4	12.3	14.4	15.7	17.1	18.1	19.9	20.6	20.1	19.5	17.5	16.6	15.7	14	13.8	13.1	12.2	7.1	20.6	13.6
Aug 29	11.7	11.4	10.7	10.1	8.8	8.2	7.9	8.1	10.1	11.4	12.9	14.2	14.2	14.2	12.7	10.8	7.9	7.3	7.2	7.1	6.6	6.5	6.1	5.8	5.8	14.2	9.7
Aug 30	5.9	5.9	5.7	5.2	4.1	3.6	3.8	4.6	6.5	8.2	10	11.3	12.7	13.6	14.2	14.8	15	14.8	12.7	9.3	6.7	5.9	6.5	5.5	3.6	15.0	8.6
Aug 31	5.4	4.6	5.7	6.3	4.5	2.9	3.5	7.2	8.6	10.7	11.9	12.6	12.6	13.5	14.6	14.6	14.3	14.3	15	14.3	15.1	14.4	13.6	13.4	2.9	15.1	10.6
Diurnal Maximum	20.1	18.7	18.5	18.1	17.5	17.5	18.6	20.5	23.3	25.1	25.4	26.2	27.0	28.0	28.6	30.2	29.3	28.3	27.5	24.8	23.2	21.6	20.7	20.3			
Diurnal Average	11.8	11.3	10.8	10.5	10.1	9.9	10.8	12.5	14.2	15.8	17.3	18.5	19.1	19.7	19.9	20.0	19.9	19.6	18.3	16.5	14.7	13.5	12.8	12.0			
C	Monthly Calibration						S	Daily Zero-Span Check						Q	Quality Assurance												
K	Collection Error						N	No Data (Machine Not in Service)						Y	Routine Maintenance						P	Power Failure					
X	InValid Data (Equipment Malfunction /Recovery)						NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																			
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																											
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																											

Timeseries Chart of Hourly Average for AT - Reno Station





PEACE RIVER AREA MONITORING PROGRAM

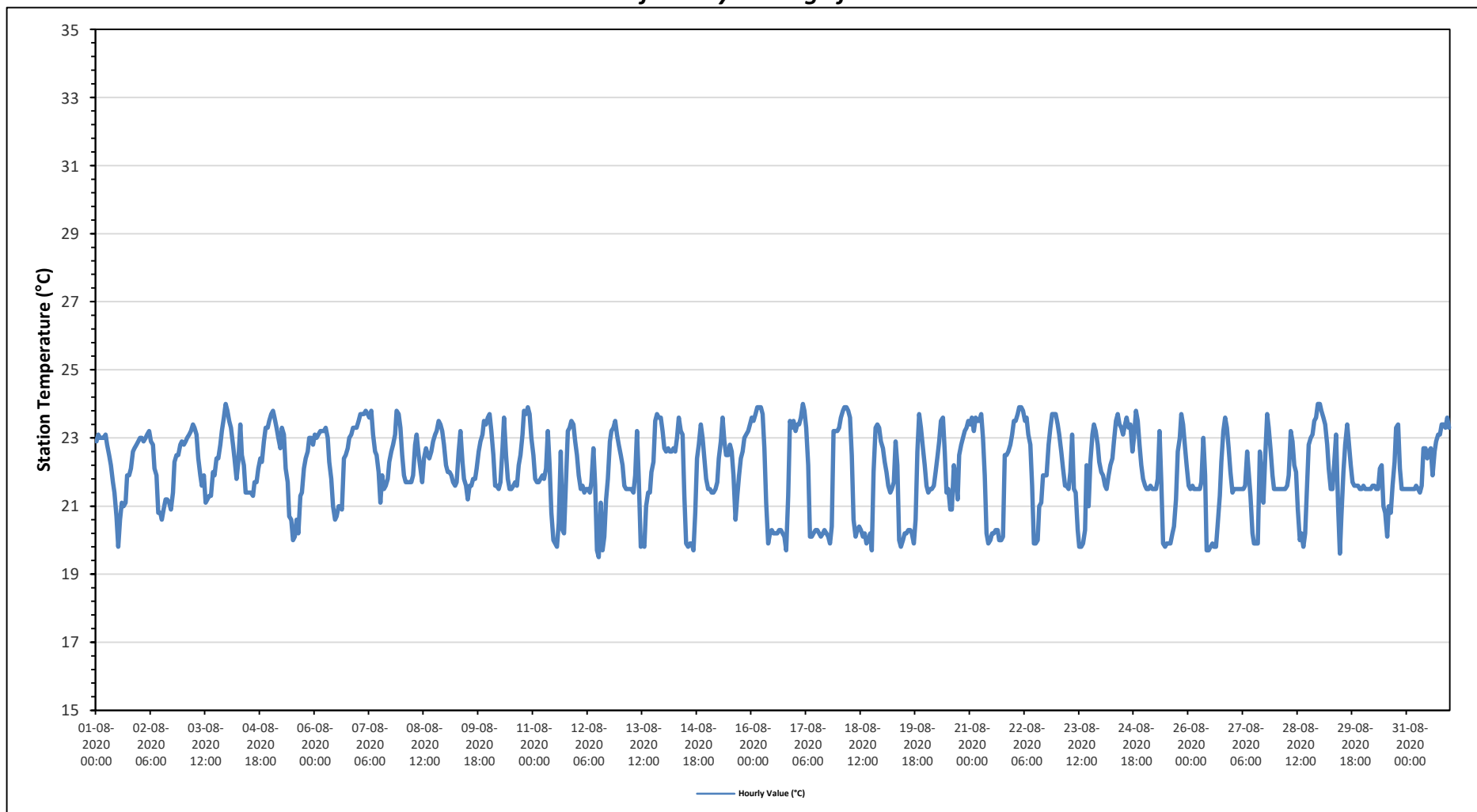
Reno Station - August 2020

Summary of Hourly Averages

STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:										24.0	°C	on August 3 at hour 23										Hours in Service:										744									
Maximum Daily Value:										22.9	°C	on August 7										Hours of Data:										744									
Minimum Hourly Value:										19.5	°C	on August 12 at hour 12										Hours of Missing Data:										0									
Minimum Daily Value:										21.4	°C	on August 19										Hours of Calibration:										0									
Monthly Average:										22.1	°C											Operational Uptime:										100.0									
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23																	
Aug 1	22.9	23.1	23.0	23.0	23.0	23.1	22.8	22.5	22.2	21.7	21.4	20.7	19.8	20.6	21.1	21.0	21.1	21.9	21.9	22.1	22.6	22.7	22.8	22.9	19.8	23.1	22.1														
Aug 2	23.0	23.0	22.9	23.0	23.1	23.2	22.9	22.8	22.1	21.9	20.8	20.8	20.6	20.9	21.2	21.2	21.1	20.9	21.4	22.3	22.5	22.5	22.8	22.9	20.6	23.2	22.1														
Aug 3	22.8	22.9	23.0	23.1	23.2	23.4	23.3	23.1	22.4	21.9	21.6	21.9	21.1	21.2	21.3	21.3	22.0	21.9	22.4	22.4	22.8	23.2	23.6	24.0	21.1	24.0	22.5														
Aug 4	23.8	23.5	23.3	22.8	22.4	21.8	22.3	23.4	22.5	22.2	21.4	21.4	21.4	21.4	21.3	21.7	21.7	22.1	22.4	22.3	22.9	23.3	23.3	23.5	21.3	23.8	22.4														
Aug 5	23.7	23.8	23.6	23.3	23.0	22.7	23.3	23.1	22.1	21.7	20.7	20.6	20.0	20.1	20.6	20.2	21.3	21.4	22.1	22.4	22.6	23.0	23.0	22.8	20.0	23.8	22.1														
Aug 6	23.1	23.0	23.1	23.2	23.2	23.2	23.3	23.0	22.3	21.8	21.0	20.6	20.7	21.0	21.0	20.9	22.4	22.5	22.7	23.0	23.1	23.3	23.3	23.3	20.6	23.3	22.4														
Aug 7	23.5	23.7	23.7	23.7	23.8	23.7	23.6	23.8	23.1	22.6	22.5	22.0	21.1	21.9	21.5	21.6	21.8	22.3	22.6	22.8	23.1	23.8	23.7	23.3	21.1	23.8	22.9														
Aug 8	22.5	21.9	21.7	21.7	21.7	21.7	21.9	22.8	23.1	22.5	22.1	21.7	22.4	22.7	22.5	22.4	22.6	22.9	23.1	23.2	23.5	23.4	23.2	22.8	21.7	23.5	22.5														
Aug 9	22.2	22.0	22.0	21.9	21.7	21.6	21.7	22.6	23.2	22.3	21.8	21.6	21.2	21.6	21.6	21.8	21.8	22.1	22.6	22.9	23.1	23.5	23.4	23.6	21.2	23.6	22.2														
Aug 10	23.7	23.2	22.5	21.6	21.6	21.5	21.7	22.7	23.6	22.5	21.8	21.5	21.5	21.6	21.7	21.6	22.2	22.5	23.1	23.8	23.7	23.9	23.7	23.0	21.5	23.9	22.5														
Aug 11	22.5	21.8	21.7	21.7	21.8	21.9	21.8	22.1	23.2	22.2	20.8	20.0	19.9	19.8	20.5	22.6	20.3	20.2	21.8	23.2	23.3	23.5	23.4	22.9	19.8	23.5	21.8														
Aug 12	22.5	21.9	21.5	21.6	21.4	21.5	21.5	21.4	21.7	22.7	21.6	19.7	19.5	21.1	19.7	20.1	21.2	21.8	22.9	23.2	23.3	23.5	23.1	22.8	19.5	23.5	21.7														
Aug 13	22.5	22.2	21.6	21.5	21.5	21.5	21.5	21.4	21.9	23.2	21.8	19.8	19.9	19.8	21.0	21.4	21.4	22.0	22.3	23.5	23.7	23.6	23.6	23.2	19.8	23.7	21.9														
Aug 14	22.7	22.6	22.7	22.6	22.6	22.7	22.6	23.0	23.6	23.2	23.1	21.3	19.9	19.8	19.9	19.9	19.7	20.8	22.4	22.8	23.4	23.0	22.4	21.8	19.7	23.6	22.0														
Aug 15	21.5	21.5	21.4	21.4	21.5	21.7	22.4	22.9	23.6	22.9	22.5	22.5	22.8	22.6	21.9	20.6	21.3	21.9	22.4	22.6	23.0	23.1	23.2	23.4	20.6	23.6	22.3														
Aug 16	23.6	23.5	23.7	23.9	23.9	23.9	23.7	22.7	21.1	19.9	20.2	20.3	20.2	20.2	20.2	20.3	20.3	20.2	20.1	19.7	21.3	23.5	23.3	23.5	19.7	23.9	21.8														
Aug 17	23.2	23.4	23.4	23.6	24.0	23.8	23.3	22.2	20.1	20.1	20.2	20.3	20.3	20.2	20.1	20.2	20.3	20.2	20.1	19.9	20.4	23.2	23.2	23.2	19.9	24.0	21.6														
Aug 18	23.3	23.6	23.8	23.9	23.9	23.8	23.6	22.5	20.6	20.1	20.3	20.4	20.3	20.1	20.2	19.9	20.0	20.2	19.7	22.0	23.3	23.4	23.3	22.9	19.7	23.9	21.9														
Aug 19	22.7	22.3	22.0	21.6	21.4	21.5	21.7	22.9	22.2	20.0	19.8	20.0	20.2	20.2	20.3	20.3	20.2	19.9	20.6	22.6	23.7	23.3	22.7	22.2	19.8	23.7	21.4														
Aug 20	21.6	21.4	21.5	21.5	21.6	22.0	22.5	22.9	23.5	23.6	22.6	21.4	21.5	20.9	20.9	22.2	21.9	21.2	22.5	22.8	23.0	23.2	23.3	23.5	20.9	23.6	22.2														
Aug 21	23.4	23.6	23.2	23.6	23.5	23.5	23.7	23.0	21.9	20.2	19.9	20.0	20.2	20.2	20.3	20.3	20.0	20.0	20.1	22.5	22.5	22.6	22.8	23.1	19.9	23.7	21.8														
Aug 22	23.5	23.5	23.7	23.9	23.9	23.8	23.5	23.6	23.1	22.8	21.6	19.9	19.9	20.0	21.0	21.1	21.9	21.9	21.9	22.8	23.3	23.7	23.7	23.7	19.9	23.9	22.6														
Aug 23	23.4	23.1	22.6	22.1	21.6	21.6	21.5	22.0	23.1	21.5	21.4	20.3	19.8	19.8	19.9	20.3	22.2	21.0	22.3	23.1	23.4	23.2	22.8	22.3	19.8	23.4	21.8														
Aug 24	22.0	21.9	21.6	21.5	21.9	22.2	22.4	22.9	23.5	23.7	23.4	23.3	23.1	23.4	23.6	23.3	23.4	22.6	23.0	23.8	23.5	22.8	22.2	21.8	21.5	23.8	22.8														
Aug 25	21.6	21.5	21.5	21.6	21.5	21.5	21.5	21.8	23.2	21.7	19.9	19.8	19.9	19.9	19.9	20.2	20.4	21.2	22.6	23.0	23.7	23.4	22.7	22.2	19.8	23.7	21.5														
Aug 26	21.6	21.5	21.6	21.5	21.5	21.5	21.5	21.7	23.0	21.9	19.7	19.7	19.8	19.9	19.8	19.8	20.5	21.3	22.3	23.2	23.6	23.3	22.7	22.0	19.7	23.6	21.5														
Aug 27	21.4	21.5	21.5	21.5	21.5	21.5	21.5	21.6	22.6	22.0	21.3	20.2	19.9	19.9	19.9	22.6	22.0	21.1	22.4	23.7	23.3	22.6	21.9	21.5	19.9	23.7	21.6														
Aug 28	21.5	21.5	21.5	21.5	21.5	21.5	21.6	21.9	23.2	22.9	22.2	22.0	20.9	20.0	20.2	19.8	20.2	21.7	22.8	23.0	23.1	23.5	23.6	24.0	19.8	24.0	21.9														
Aug 29	24.0	23.8	23.6	23.4	22.8	22.1	21.5	21.5	22.3	23.1	21.0	19.6	20.7	22.0	22.8	23.4	22.9	22.2	21.7	21.6	21.6	21.6	21.5	21.5	19.6	24.0	22.2														
Aug 30	21.6	21.5	21.5	21.5	21.5	21.6	21.6	21.5	21.5	22.1	22.2	21.0	20.8	20.1	21.0	20.8	21.6	22.3	23.3	23.4	22.1	21.5	21.5	21.5	20.1	23.4	21.6														
Aug 31	21.5	21.5	21.5	21.5	21.5	21.6	21.5	21.4	21.6	22.7	22.7	22.4	22.6	22.7	21.9	22.6	22.9	23.1	23.1	23.4	23.4	23.3	23.6	23.3	21.4	23.6	22.4														
Diurnal Maximum	24.0	23.8	23.8	23.9	24.0	23.9	23.7	23.8	23.6	23.7	23.4	23.3	23.1	23.4	23.6	23.4	23.4	23.1	23.3	23.8	23.7	23.9	23.7	24.0																	
Diurnal Average	22.7	22.6	22.4	22.4	22.4	22.3	22.4	22.5	22.5	22.1	21.4	20.9	20.7	20.8	20.9	21.1	21.4	21.5	22.1	22.7	23.0	23.1	23.0	22.9																	
C	Monthly Calibration						S	Daily Zero-Span Check						Q	Quality Assurance																										
K	Collection Error						N	No Data (Machine Not in Service)						Y	Routine Maintenance						P	Power Failure																			
X	Invalid Data (Equipment Malfunction /Recovery)						NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																																	
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																									
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																									

Timeseries Chart of Hourly Average for ST - Reno Station





PEACE RIVER AREA MONITORING PROGRAM

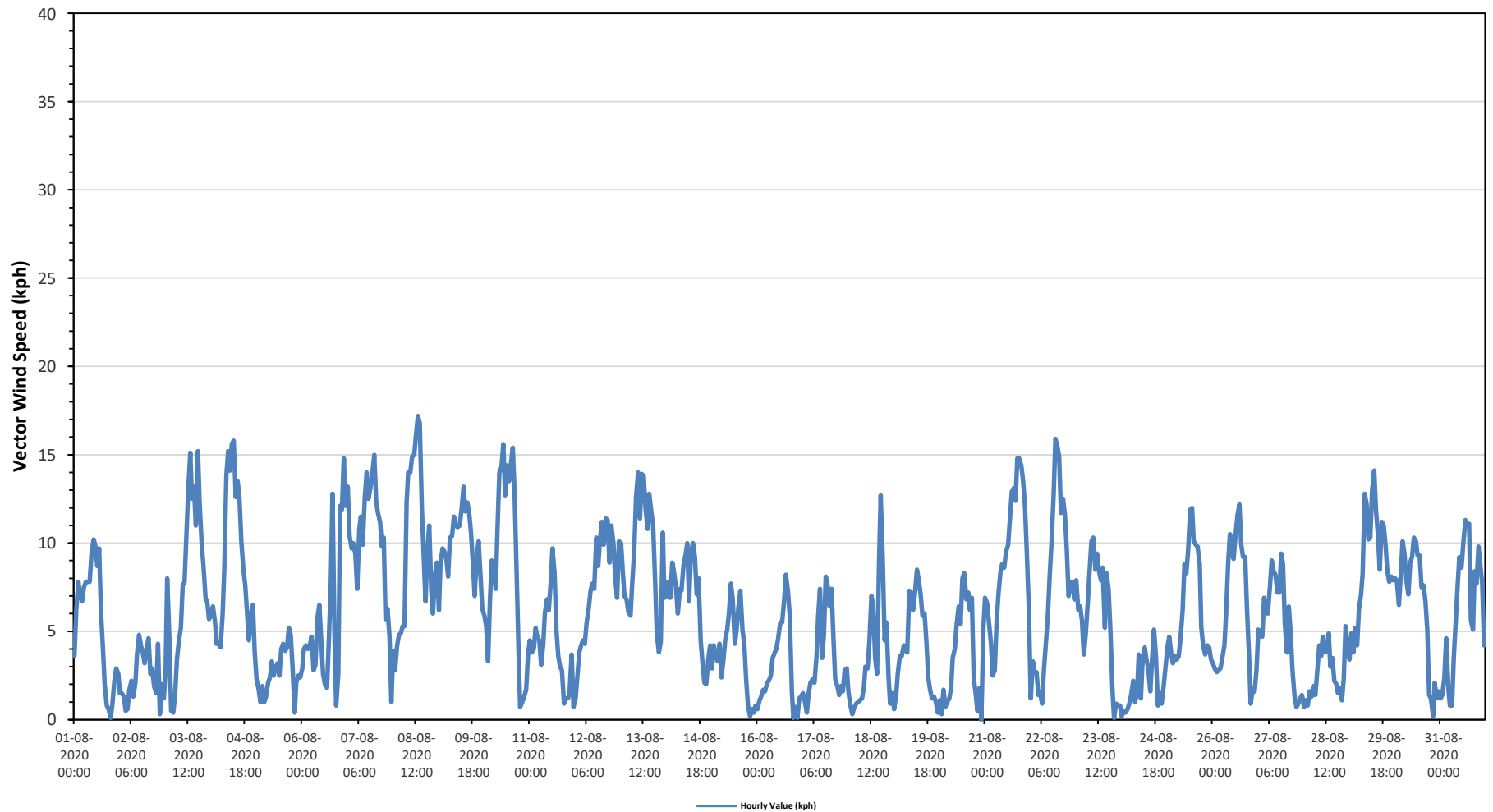
Reno Station - August 2020

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr

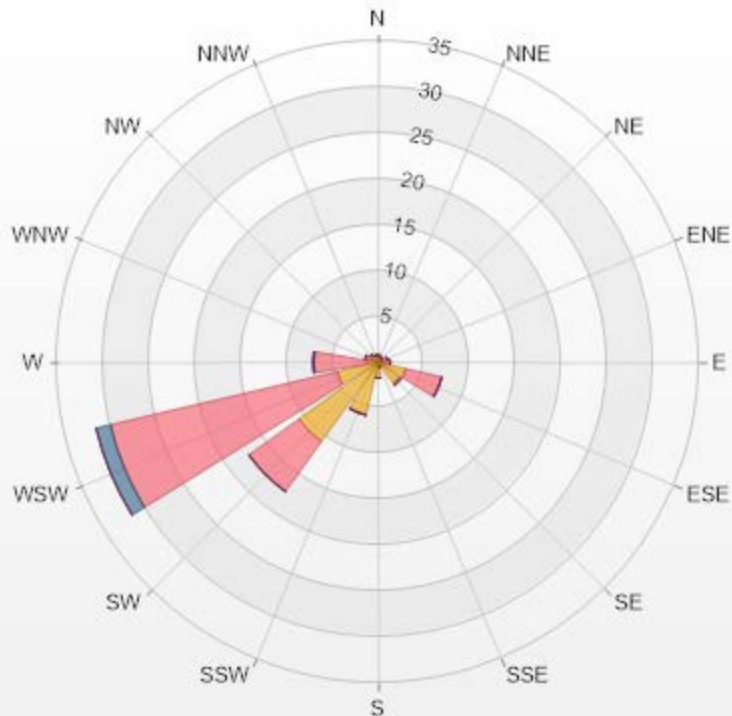
Maximum Hourly Value:										17.2 kph		on August 8 at hour 13										Hours in Service:										744	
Maximum Daily Value:										10.2 kph		on August 7										Hours of Data:										744	
Minimum Hourly Value:										0.0 kph		on August 20 at hour 22										Hours of Missing Data:										0	
Minimum Daily Value:										0.5 kph		on August 24										Hours of Calibration:										0	
Monthly Average:										4.3 kph												Operational Uptime:										100.0	
Day	Hourly Period Starting at (MST)																									Daily	Daily	Daily					
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average						
Aug 1	3.6	6.2	7.8	7.1	6.7	7.5	7.8	7.8	7.8	9.4	10.2	9.9	8.7	9.7	6.1	3.9	2.0	0.8	0.6	0.1	0.8	2.2	2.9	2.6	0.1	10.2	5.3						
Aug 2	1.5	1.5	1.3	0.5	0.6	1.7	2.2	1.3	2.1	3.7	4.8	4.2	3.8	3.2	4.0	4.6	2.6	2.9	1.9	1.5	4.3	0.3	2.0	1.2	0.3	4.8	0.6						
Aug 3	2.8	8.0	4.7	0.5	0.4	1.4	3.4	4.4	5.2	7.6	7.8	10.4	13.0	15.1	12.5	13.2	11.0	15.2	12.4	10.0	8.7	6.9	6.6	5.7	0.4	15.2	7.2						
Aug 4	5.9	6.4	5.5	4.3	4.3	4.1	6.0	8.4	13.8	15.2	14.1	15.6	15.8	12.6	13.5	12.5	10.1	8.5	7.6	5.8	4.5	6.0	6.5	3.8	3.8	15.8	8.6						
Aug 5	2.3	1.8	1.0	1.9	1.0	1.3	2.1	2.4	3.3	2.5	2.9	3.2	2.5	4.0	4.3	3.9	4.1	5.2	4.8	2.7	0.4	2.1	2.5	2.4	0.4	5.2	1.9						
Aug 6	2.9	4.0	4.2	4.0	4.2	4.7	2.8	3.1	5.7	6.5	4.8	2.6	2.0	1.8	4.1	7.3	12.8	4.4	0.8	2.6	12.1	11.9	14.8	12.1	0.8	14.8	2.3						
Aug 7	13.2	10.4	9.7	10.0	9.4	7.4	10.8	11.5	9.9	12.6	14.0	12.5	13.1	14.0	15.0	12.4	11.7	11.2	9.8	10.3	5.7	6.3	4.7	1.0	1.0	15.0	10.2						
Aug 8	3.9	2.8	4.2	4.8	4.9	5.3	5.3	12.3	14.0	14.0	14.9	15.0	16.0	17.2	16.8	12.0	9.3	6.7	9.7	11.0	7.3	6.0	8.2	8.9	2.8	17.2	9.3						
Aug 9	6.2	8.9	9.7	9.5	9.0	8.1	10.3	10.4	11.5	11.0	10.9	11.0	11.9	13.2	11.8	12.3	11.7	10.6	8.9	7.0	9.3	10.1	8.2	6.3	6.2	13.2	9.8						
Aug 10	5.9	5.3	3.3	6.7	9.0	8.5	7.4	10.9	14.0	14.3	15.6	12.7	14.4	13.5	14.5	15.4	12.8	8.7	3.9	0.7	1.0	1.3	1.7	3.7	0.7	15.6	8.2						
Aug 11	4.5	3.8	4.0	5.2	4.7	4.5	3.1	4.3	6.0	6.8	6.2	7.9	9.7	8.3	5.1	3.6	3.0	2.8	0.9	1.2	1.2	1.5	3.7	0.7	0.7	9.7	3.8						
Aug 12	1.2	2.3	3.8	4.2	4.5	4.3	5.5	6.3	7.3	7.7	7.4	10.3	8.7	10.2	11.2	9.9	11.4	11.3	8.9	11.0	10.0	8.0	6.9	10.1	1.2	11.4	7.5						
Aug 13	10.0	8.3	7.0	6.8	6.1	5.9	7.6	9.5	12.6	14.0	11.4	13.9	13.8	12.0	10.8	12.8	11.8	11.0	7.7	4.9	3.8	4.4	10.6	6.9	3.8	14.0	9.2						
Aug 14	7.0	7.8	6.9	8.9	8.4	7.5	6.0	7.4	7.3	8.8	9.3	10.0	6.7	9.5	10.0	9.2	7.1	8.0	4.5	3.2	2.1	2.0	3.4	4.2	2.0	10.0	6.8						
Aug 15	2.9	4.2	3.6	3.3	4.3	2.4	3.3	4.6	5.1	6.1	7.7	6.8	4.3	5.0	6.4	7.3	5.1	4.3	2.3	0.8	0.2	0.6	0.4	0.8	0.2	7.7	3.7						
Aug 16	0.6	1.1	1.3	1.7	1.6	2.1	2.2	2.5	3.5	3.8	4.0	4.6	5.5	5.5	6.8	8.2	7.3	5.9	1.6	0.1	0.7	0.1	1.2	1.3	0.1	8.2	2.8						
Aug 17	1.5	1.0	0.4	1.5	2.1	2.3	2.1	3.6	5.8	7.4	3.5	4.8	8.1	7.6	6.4	7.4	4.7	2.3	1.9	1.4	1.9	1.6	2.8	2.9	0.4	8.1	2.1						
Aug 18	1.6	0.8	0.3	0.7	0.9	1.0	1.1	1.2	1.8	3.0	2.9	4.4	7.0	6.5	3.5	2.6	9.0	12.7	9.0	4.5	5.5	2.4	0.9	1.5	0.3	12.7	1.9						
Aug 19	0.6	1.4	2.6	3.6	3.6	4.2	4.0	3.8	7.3	7.2	6.2	7.1	8.5	7.9	7.1	5.9	6.0	4.4	2.4	1.7	1.2	1.3	1.0	0.4	0.4	8.5	3.9						
Aug 20	1.1	0.3	1.7	0.7	1.0	1.2	1.8	3.5	4.0	5.4	6.4	5.4	8.0	8.3	6.8	7.2	6.2	6.9	2.4	1.4	0.5	1.8	0.0	5.2	0.0	8.3	3.1						
Aug 21	6.9	6.6	5.5	4.3	2.5	2.8	5.5	7.1	8.4	8.8	8.6	9.5	9.9	11.2	12.9	13.1	12.4	14.8	14.8	14.4	13.5	12.1	9.5	6.2	2.5	14.8	8.8						
Aug 22	1.2	3.3	2.7	2.7	1.4	1.5	0.9	2.8	4.4	5.9	8.1	10.0	12.7	15.9	15.5	14.9	11.7	12.5	11.6	9.7	7.0	7.8	7.8	6.8	0.9	15.9	6.7						
Aug 23	7.9	6.2	6.4	5.6	3.7	4.8	6.6	8.2	10.1	10.3	8.5	9.4	8.4	7.9	8.6	5.2	8.3	7.4	5.1	1.7	0.1	0.9	0.8	0.8	0.1	10.3	5.6						
Aug 24	0.2	0.5	0.4	0.6	0.9	1.4	2.2	1.0	1.6	3.7	1.2	3.5	4.1	3.4	2.9	1.6	3.5	5.1	3.7	0.8	1.5	0.9	1.8	3.0	0.2	5.1	0.5						
Aug 25	4.1	4.7	3.8	3.2	3.6	3.4	3.6	4.6	6.2	8.8	8.3	9.6	11.9	12.0	10.1	9.9	9.8	8.8	5.2	4.1	3.7	4.2	4.1	3.4	3.2	12.0	6.1						
Aug 26	3.2	2.9	2.7	2.8	2.9	3.5	4.2	5.9	8.8	10.5	9.4	9.1	10.4	11.6	12.2	9.9	9.2	9.2	6.2	3.5	0.9	1.8	1.6	2.8	0.9	12.2	5.9						
Aug 27	5.1	4.8	4.7	6.9	6.2	6.0	7.5	9.0	8.4	8.2	7.2	7.2	9.4	8.8	5.4	3.8	6.4	4.9	2.8	1.3	0.7	0.9	1.2	1.4	0.7	9.4	4.8						
Aug 28	0.7	1.1	0.8	1.6	1.3	1.9	1.4	2.7	4.2	3.6	4.7	3.8	3.9	4.9	3.0	3.5	2.2	2.0	1.5	1.8	1.1	2.3	5.3	4.0	0.7	5.3	2.1						
Aug 29	3.4	4.9	3.8	5.2	4.2	6.3	7.1	8.3	12.8	12.2	10.2	10.3	13.0	14.1	11.8	10.5	8.5	11.2	11.0	9.9	8.4	7.8	8.1	7.9	3.4	14.1	8.5						
Aug 30	8.0	7.9	6.5	8.2	10.1	9.4	7.8	7.1	8.9	9.2	10.3	10.1	9.3	9.3	7.5	7.6	6.7	5.1	1.4	1.2	0.2	2.1	1.2	1.6	0.2	10.3	5.9						
Aug 31	1.2	1.4	2.4	4.6	1.8	0.8	0.8	3.6	5.5	7.5	9.2	8.6	10.0	11.3	11.0	11.1	5.6	5.1	8.4	7.7	9.8	8.7	7.7	4.2	0.8	11.3	6.0						
Diurnal Maximum	13	10	10	10	10	9	11	12	14	15	16	16	16	17	17	15	13	15	15	14	14	12	15	12									
Diurnal Average	3.9	4.2	4.0	4.2	4.0	4.1	4.6	5.8	7.3	8.2	8.1	8.5	9.2	9.5	9.0	8.5	7.9	7.4	5.6	4.5	4.1	4.1	4.5	4.0									
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance																
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure								
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																								
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																	
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																	

Timeseries Chart of Hourly Average for VWS - Reno Station



Wind: PRAMP RENO Monitor: WDS [KPH] Monthly: 08-2020 Type: WindRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 17.74% Valid Data: 100.00%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	0.81	0	0	0	0	0.81
NNE	0.67	0	0	0	0	0.67
NE	0.54	0	0	0	0	0.54
ENE	0.4	0.67	0	0	0	1.07
E	0.54	0.81	0	0	0	1.35
ESE	3.09	4.03	0	0	0	7.12
SE	2.82	0.27	0	0	0	3.09
SSE	0.54	0	0	0	0	0.54
S	1.75	0	0	0	0	1.75
SSW	5.91	0	0	0	0	5.91
SW	10.62	6.72	0	0	0	17.34
WSW	4.57	25.4	1.61	0	0	31.58
W	1.21	5.78	0.13	0	0	7.12
WNW	0.67	0.81	0	0	0	1.48
NW	0.4	0.67	0	0	0	1.07
NNW	0.81	0	0	0	0	0.81
Summary	35.35	45.16	1.74	0	0	82.25



PRAMP-202008

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% Icon Classes (KPH)

35 1.8-6.0

45 6.0-15.0

2 15.0-29.0

0 29.0-39.0

0 >39.0



PEACE RIVER AREA MONITORING PROGRAM

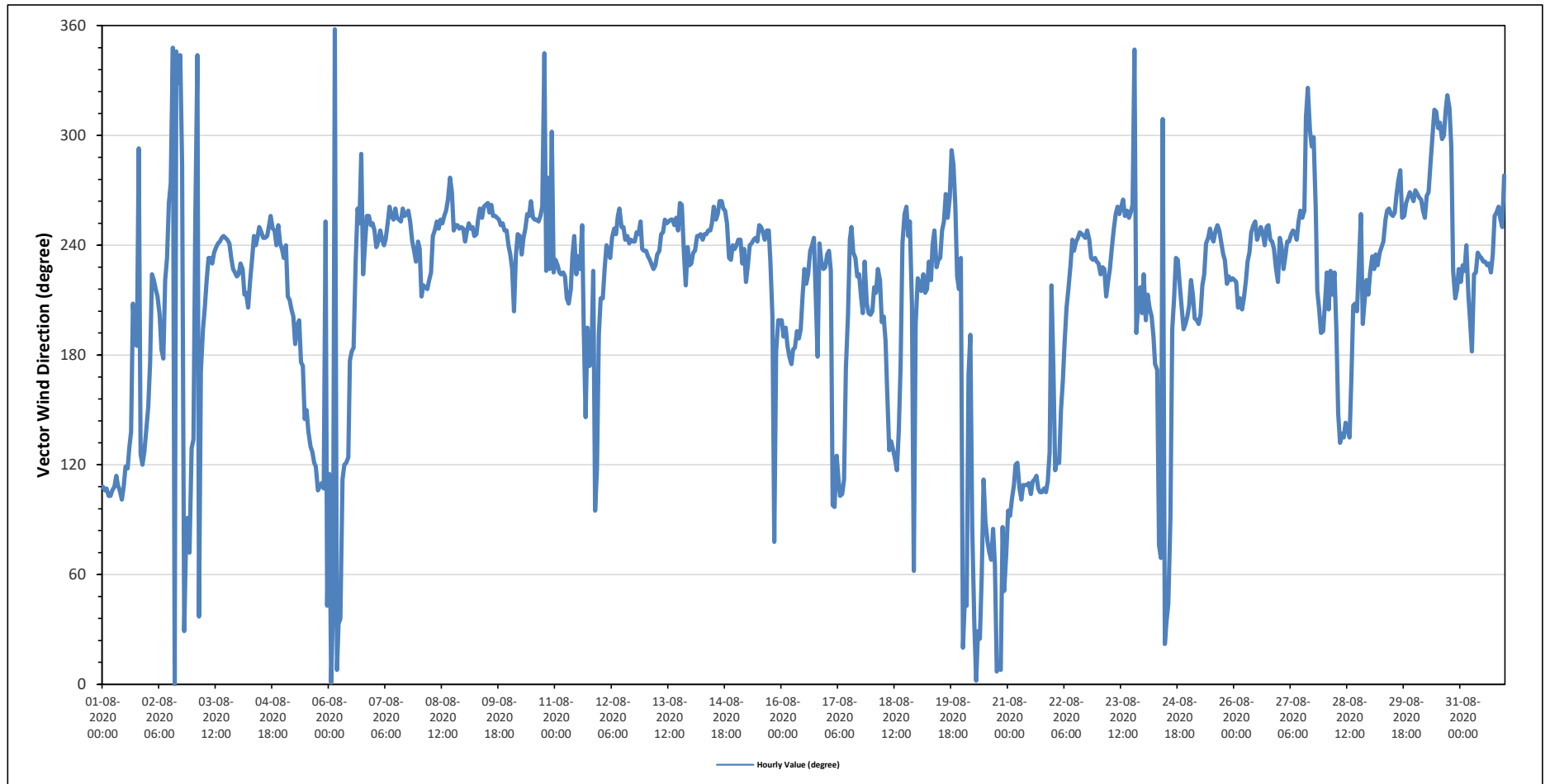
Reno Station - August 2020

Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

Monthly Average:		239 (WSW) degree																							Hours in Service:		744								
																									Hours of Data:		744								
																									Hours of Missing Data:		0								
																									Hours of Calibration:		0								
																									Operational Uptime:		100.0								
Day	Hourly Period Starting at (MST)																										Daily Average								
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Degree	Quadrant								
Aug 1		ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	E	ESE	ESE	ESE	SE	SE	SSW	S	S	WNW	SE	ESE	SE	SE	113	ESE								
Aug 2		SSE	S	SW	SW	SW	SSW	SSW	S	S	SW	SW	W	W	NNW	N	NNW	NNW	NNW	WNW	NNE	ENE	E	ENE	SE	276	W								
Aug 3		SE	WSW	NNW	NE	S	SSW	SSW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	238	SW								
Aug 4		SW	SW	SW	SSW	SSW	SSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	241	WSW								
Aug 5		SW	WSW	SSW	SSW	SSW	SSW	S	SSW	SSW	S	S	SE	SSE	SE	SE	SE	ESE	ESE	ESE	ESE	ESE	ESE	WSW	NE	151	SSE								
Aug 6		ESE	N	NE	N	N	NNE	NE	ESE	ESE	ESE	ESE	S	S	S	SW	WSW	WSW	WNW	SW	WSW	WSW	WSW	WSW	WSW	250	WSW								
Aug 7		WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	WSW	251	WSW								
Aug 8		SW	SSW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	WSW	WSW	WSW	WSW	WSW	WSW	250	WSW								
Aug 9		WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	254	WSW								
Aug 10		SW	SW	SSW	SW	WSW	WSW	SW	WSW	WSW	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	W	NNW	SW	W	SW	WNW	SW	251	WSW								
Aug 11		SW	SW	SW	SW	SW	SW	SSW	SSW	SW	SW	WSW	SW	SW	SW	WSW	SSW	SE	SSW	S	S	SW	E	ESE	S	220	SW								
Aug 12		SSW	SSW	SW	WSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	244	WSW								
Aug 13		SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	SW	SW	WSW	SW	245	WSW								
Aug 14		SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	WSW	W	W	WSW	WSW	WSW	SW	SW	WSW	SW	249	WSW								
Aug 15		WSW	WSW	WSW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SSW	ENE	S	SSW	SSW	241	WSW								
Aug 16		SSW	S	SSW	S	S	S	S	S	S	S	SSW	SSW	SW	SW	SW	WSW	WSW	SSW	S	WSW	SW	SW	SW	216	SW									
Aug 17		SW	SW	SW	E	E	SE	ESE	ESE	ESE	S	SSW	WSW	WSW	SW	SW	SW	SSW	SSW	SW	SSW	SSW	SSW	SSW	199	SSW									
Aug 18		SSW	SW	SSW	SW	SW	SSW	SSW	S	SSE	SE	SE	SE	ESE	ESE	SE	S	WSW	WSW	W	WSW	WSW	SSW	ENE	SSW	205	SSW								
Aug 19		SW	SW	SSW	SW	SSW	SW	SW	SW	WSW	WSW	SW	SW	SW	WSW	WSW	W	WSW	W	WNW	WNW	W	SW	SW	SW	241	WSW								
Aug 20		NNE	NE	NE	SSE	S	E	NNE	N	NNE	NNE	ENE	ESE	E	ENE	ENE	ENE	E	ENE	N	NNE	N	E	NE	ENE	65	ENE								
Aug 21		E	E	E	ESE	ESE	ESE	ESE	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SW	110	ESE								
Aug 22		S	ESE	ESE	ESE	SSE	SSE	S	SSW	SW	SW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	236	SW								
Aug 23		SW	SW	SW	SW	SSW	SW	SW	SW	WSW	WSW	W	WSW	W	W	WSW	WSW	WSW	WSW	W	NNW	S	SSW	SW	SSW	247	WSW								
Aug 24		SW	SSW	SSW	SSW	SSW	S	S	S	ENE	ENE	NW	NNE	NE	NE	E	SSW	SSW	SW	SW	SW	SSW	SSW	SSW	SSW	182	S								
Aug 25		SSW	SW	SSW	SSW	SSW	SSW	SSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	SW	SW	234	SW								
Aug 26		SW	SW	SSW	SSW	SSW	SSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	240	WSW								
Aug 27		WSW	WSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	NW	NW	WNW	WNW	WNW	WSW	SSW	SSW	S	S	255	WSW								
Aug 28		SSW	SW	SSW	SW	SSW	SW	SSW	SE	SE	SE	SE	SE	SE	SE	SSE	SSW	SSW	SSW	SW	WSW	SSW	SSW	SW	SSW	179	S								
Aug 29		SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	WSW	WSW	W	W	W	W	W	257	WSW								
Aug 30		W	W	W	W	WSW	WSW	W	W	WNW	WNW	NW	NW	WNW	NW	WNW	WNW	NW	NW	NW	WNW	SW	SSW	SW	SW	286	WNW								
Aug 31		SW	SW	SW	WSW	SSW	SSW	S	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	W	WSW	WSW	W	239	WSW								
C	Monthly Calibration								S	Daily Zero-Span Check								Q	Quality Assurance																
K	Collection Error								N	No Data (Machine Not in Service)								Y	Routine Maintenance								P	Power Failure							
X	Invalid Data (Machine Malfunction /Recovery)								NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																									
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																			
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																			

Timeseries Chart of Hourly Average for VWD - Reno Station



AQHI CADOTTE LAKE STATION



PEACE RIVER AREA MONITORING PROGRAM

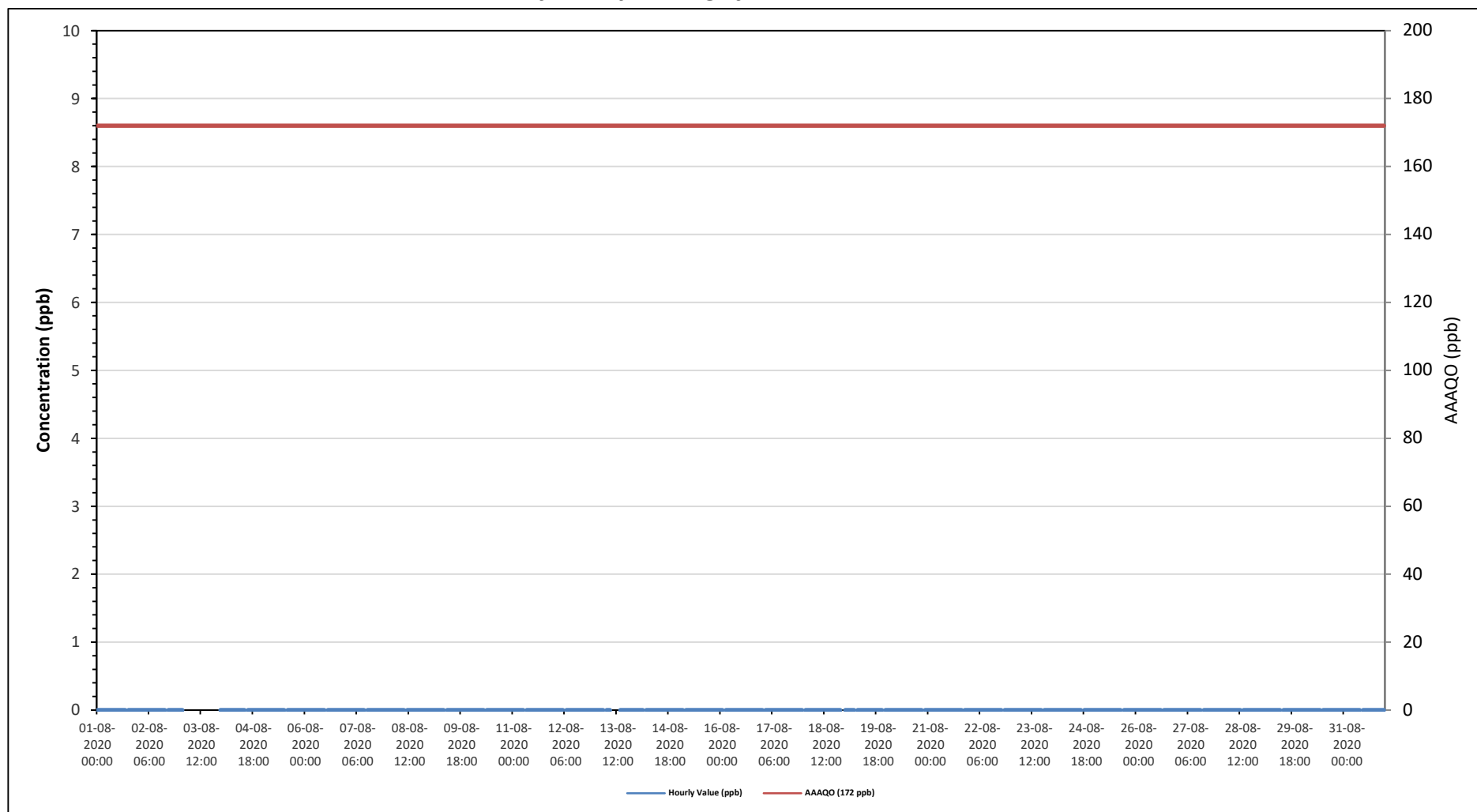
AQHI - Cadotte Lake Station - August 2020

Summary of Hourly Averages

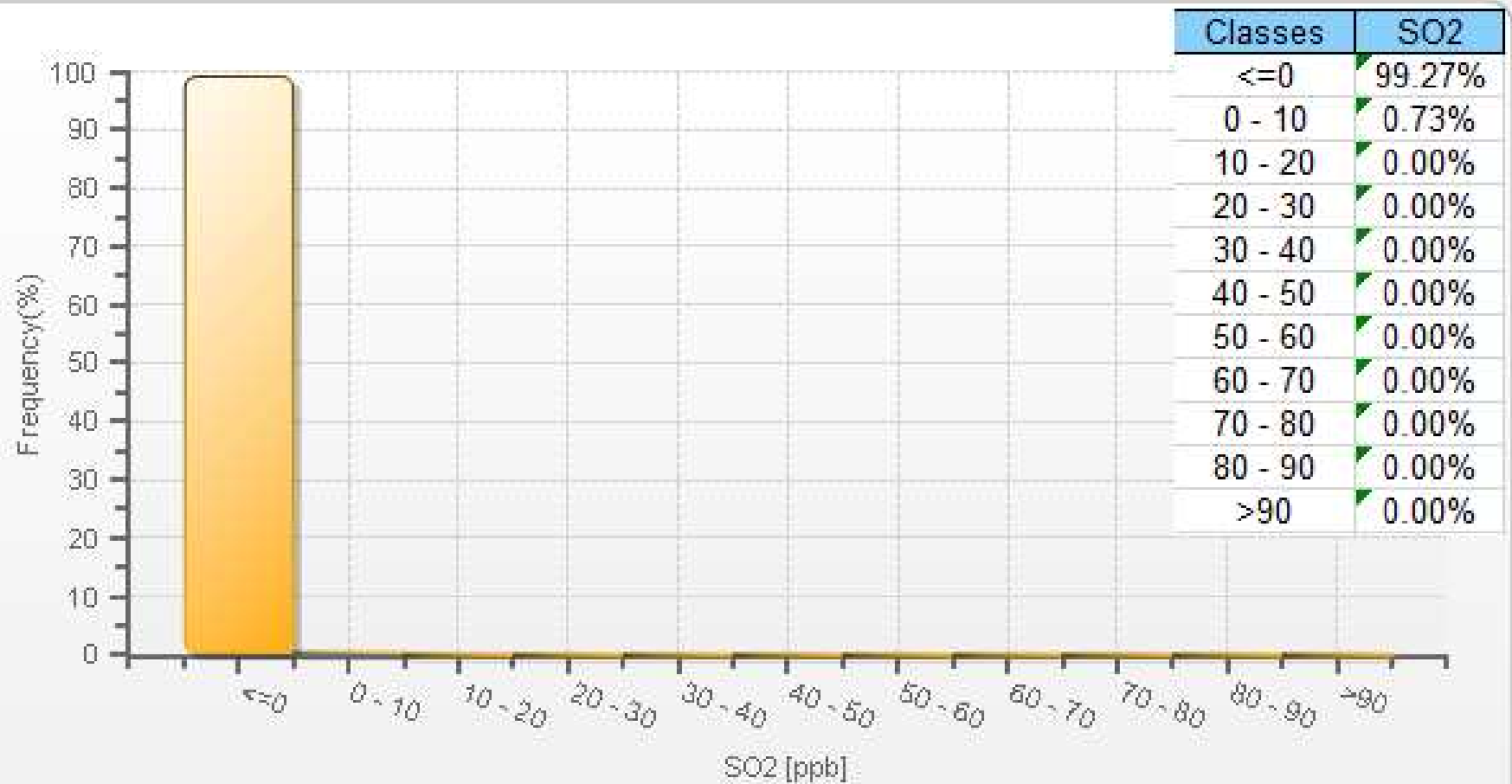
SULPHUR DIOXIDE (SO₂) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb																											
Number of 1-Hour Exceedances:			0			Number of 24-Hour Exceedances:			0			30-Day Exceedance:			0												
Maximum Hourly Value:			0 ppb on August 1 at hour 0			Hours in Service:			744																		
Maximum Daily Value:			0.0 ppb on August 1			Hours of Data:			686																		
Minimum Hourly Value:			0 ppb on August 1 at hour 0			Hours of Missing Data:			21																		
Minimum Daily Value:			0.0 ppb on August 1			Hours of Calibration:			37																		
Monthly Average:			0.0 ppb			Operational Uptime:			97.2																		
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
Aug 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0
Aug 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0
Aug 3	0	0	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0	S	0	-
Aug 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 5	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 6	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 7	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 8	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 9	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 10	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 11	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 12	0	0	0	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
Aug 13	0	0	0	0	S	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 14	0	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
Aug 15	0	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
Aug 16	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 17	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
Aug 18	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	P	S	0	0.0
Aug 19	0	0	0	0	0	NRM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	S	0	0
Aug 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0.0
Aug 21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0
Aug 22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
Aug 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0
Aug 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0
Aug 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 26	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 28	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 29	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 30	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 31	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Diurnal Maximum																											
Diurnal Average	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	Monthly Calibration						S	Daily Zero-Span Check						Q	Quality Assurance												
K	Collection Error						N	No Data (Machine Not in Service)						Y	Routine Maintenance						P	Power Failure					
X	InValid Data (Equipment Malfunction /Recovery)						NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																			
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																											
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																											

Timeseries Chart of Hourly Average for SO₂ - AQHI - Cadotte Lake Station

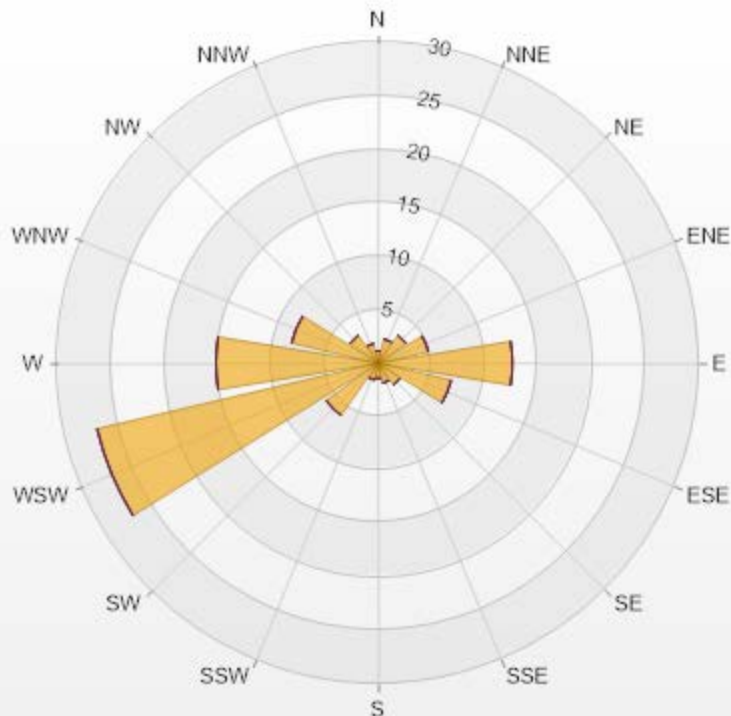


SO2[ppb] Histogram: AQHI Cadotte Lake Monthly: 08-2020 1 Hr.



Wind: AQHI Cadotte Lake Poll.: AQHI Cadotte Lake-SO2[ppb] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 92.20% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	1.17	0	0	0	0	1.17
NNE	2.33	0	0	0	0	2.33
NE	3.21	0	0	0	0	3.21
ENE	4.81	0	0	0	0	4.81
E	12.54	0	0	0	0	12.54
ESE	7	0	0	0	0	7
SE	2.48	0	0	0	0	2.48
SSE	1.9	0	0	0	0	1.9
S	1.46	0	0	0	0	1.46
SSW	1.6	0	0	0	0	1.6
SW	5.98	0	0	0	0	5.98
WSW	26.97	0	0	0	0	26.97
W	15.16	0	0	0	0	15.16
WNW	8.31	0	0	0	0	8.31
NW	3.21	0	0	0	0	3.21
NNW	1.9	0	0	0	0	1.9
Summary	100	0	0	0	0	100



PRAMP-202008

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% Icon Classes (ppb)

100 0-10

0 10-50

0 50-100

0 100-172

0 >172.0



PEACE RIVER AREA MONITORING PROGRAM

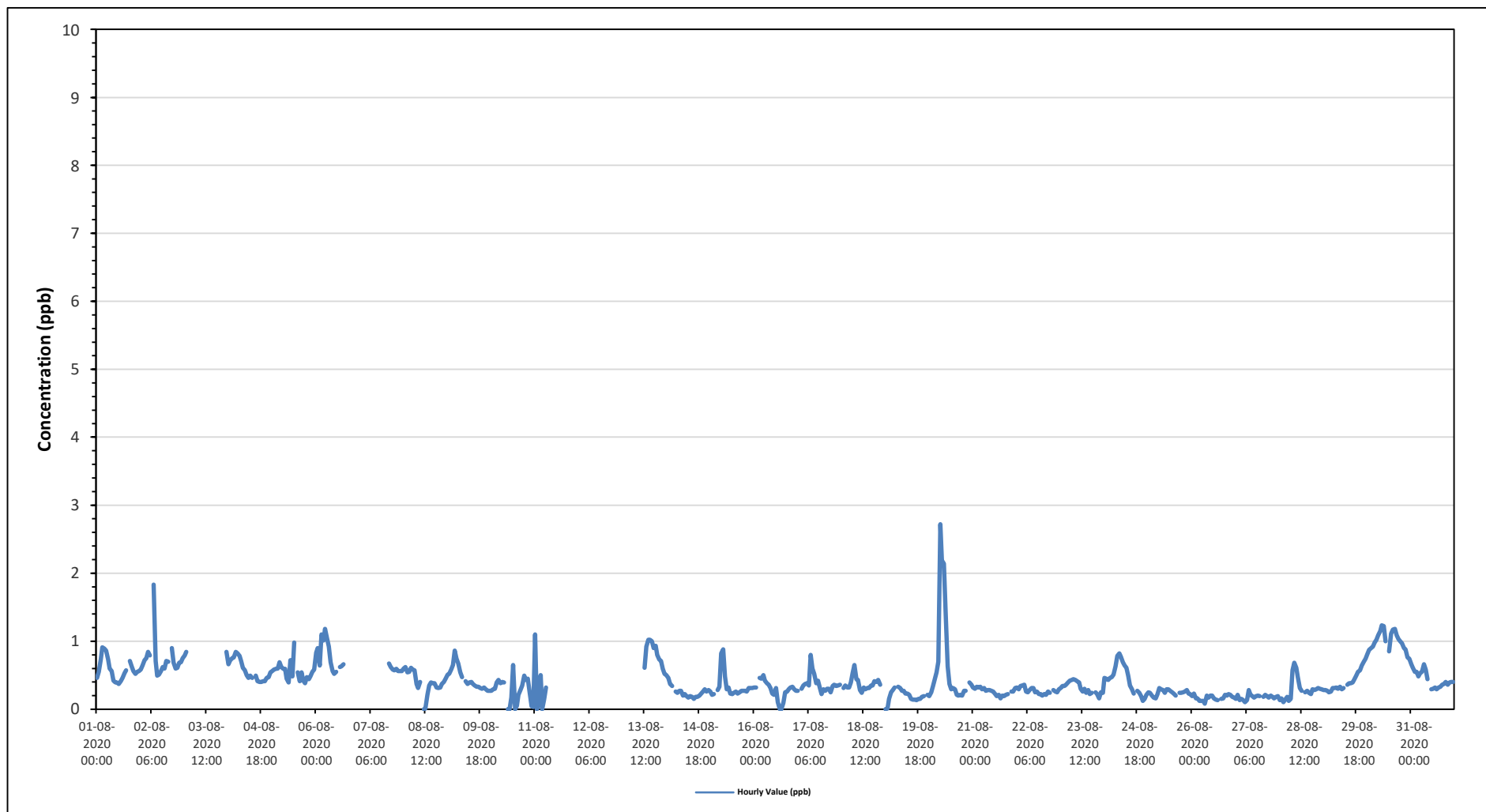
AQHI - Cadotte Lake Station - August 2020

Summary of Hourly Averages

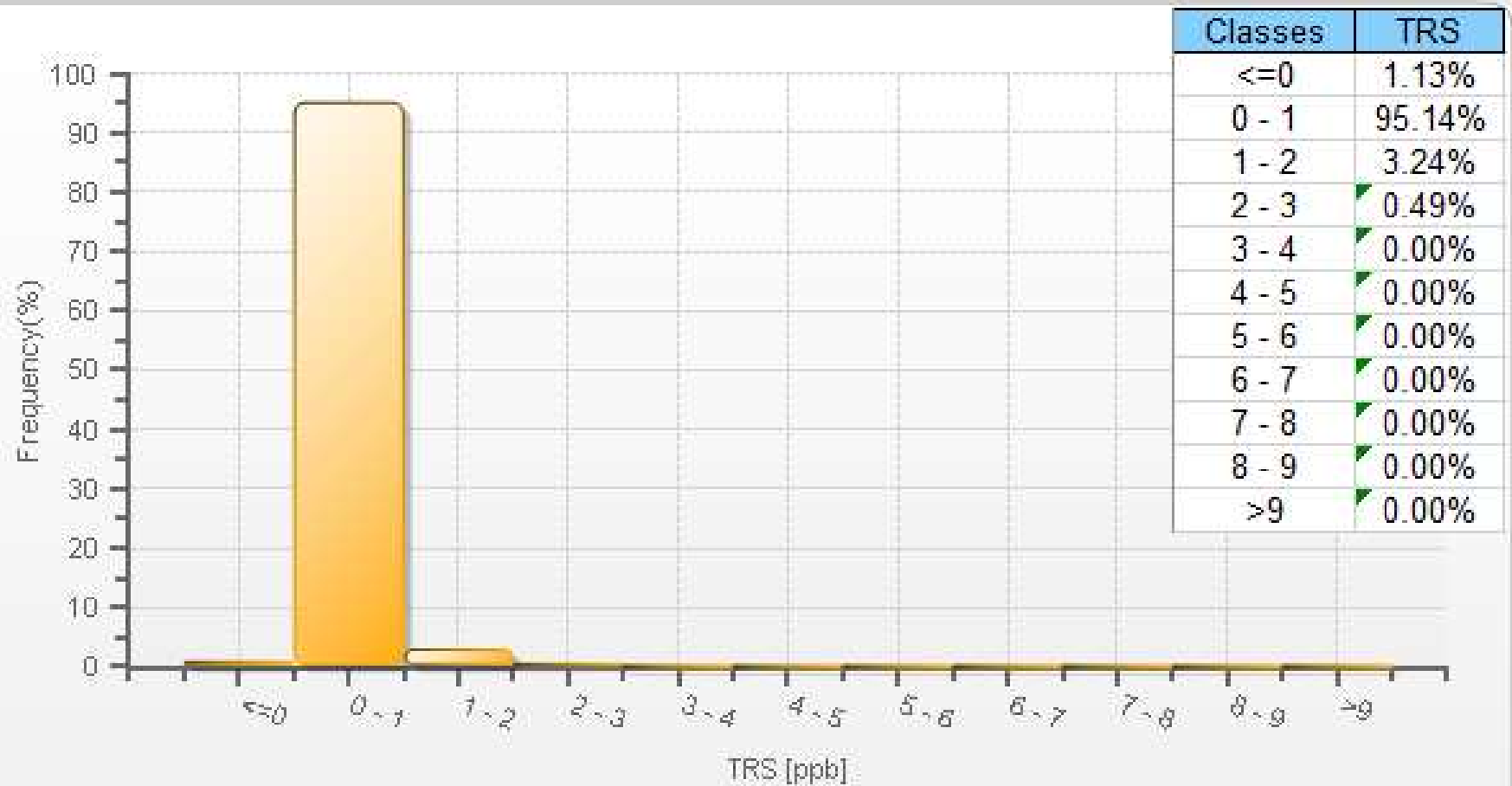
TOTAL REDUCED SULPHUR (TRS) in ppb

Alberta Ambient Air Quality Objectives (AAAQO) for H2S: 1-Hour 10 ppb, 24-Hour 3 ppb																												
Number of 1-Hour Exceedances:						0						Number of 24-Hour Exceedances:						0										
Maximum Hourly Value:						2.72 ppb on August 20 at hour 6						Hours in Service:						744										
Maximum Daily Value:						0.99 ppb on August 30						Hours of Data:						617										
Minimum Hourly Value:						0.00 ppb on August 8 at hour 11						Hours of Missing Data:						89										
Minimum Daily Value:						0.17 ppb on August 26						Hours of Calibration:						38										
Monthly Average:						0.42 ppb						Operational Uptime:						88.0										
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
Aug 1	0.46	0.55	0.73	0.91	0.89	0.86	0.73	0.6	0.56	0.42	0.39	0.39	0.37	0.41	0.46	0.53	0.57	S	0.71	0.62	0.56	0.52	0.55	0.56	0.37	0.91	0.58	
Aug 2	0.58	0.64	0.72	0.75	0.84	0.79	NRM	1.83	0.71	0.49	0.51	0.56	0.62	0.6	0.71	0.7	S	0.9	0.68	0.6	0.61	0.68	0.69	0.75	0.49	1.83	0.73	
Aug 3	0.79	0.84	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0.01	S	0.84	0.01	0.84	-	
Aug 4	0.66	0.72	0.75	0.76	0.84	0.82	0.78	0.71	0.61	0.57	0.5	0.46	0.49	0.46	S	0.49	0.41	0.4	0.4	0.41	0.41	0.46	0.47	0.54	0.40	0.84	0.57	
Aug 5	0.56	0.58	0.59	0.6	0.69	0.62	0.59	0.59	0.45	0.39	0.72	0.48	0.98	S	0.54	0.41	0.54	0.42	0.38	0.47	0.44	0.48	0.55	0.58	0.38	0.98	0.55	
Aug 6	0.83	0.9	0.64	1.1	1.01	1.18	1.04	0.92	0.69	0.56	0.52	0.55	S	0.62	0.63	0.66	C	C	C	Y	Y	Y	Y	Y	0.52	1.18	-	
Aug 7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	C	C	C	C	C	C	0.67	0.62	0.58	0.57	0.59	0.56	0.56	0.56	0.67	-	
Aug 8	0.6	0.62	0.54	0.55	0.61	0.58	0.57	0.37	0.31	0.4	S	0	0.01	0.21	0.35	0.39	0.38	0.38	0.32	0.31	0.32	0.37	0.4	0.45	0.00	0.62	0.39	
Aug 9	0.51	0.52	0.58	0.65	0.86	0.74	0.67	0.54	0.47	S	0.41	0.37	0.39	0.4	0.37	0.35	0.33	0.33	0.31	0.3	0.32	0.29	0.27	0.27	0.27	0.86	0.45	
Aug 10	0.27	0.29	0.3	0.39	0.43	0.38	0.4	0.39	S	0	0	0.17	0.65	0	0.05	0.21	0.28	0.35	0.49	0.43	0.45	0.26	0.04	0.03	0.00	0.65	0.27	
Aug 11	1.1	0	0.07	0.5	0	0.15	0.32	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0.00	1.10	-	
Aug 12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Aug 13	X	X	X	X	X	X	X	X	X	X	X	X	S	0.61	0.92	1.02	1.02	1	0.9	0.93	0.8	0.73	0.71	0.59	0.52	0.52	1.02	-
Aug 14	0.5	0.46	0.37	0.34	S	0.26	0.24	0.27	0.27	0.2	0.22	0.19	0.17	0.19	0.18	0.15	0.18	0.18	0.2	0.23	0.26	0.29	0.26	0.28	0.15	0.50	0.26	
Aug 15	0.26	0.21	0.22	S	0.28	0.33	0.82	0.88	0.48	0.29	0.32	0.23	0.22	0.24	0.26	0.23	0.25	0.27	0.27	0.27	0.26	0.31	0.31	0.31	0.21	0.88	0.33	
Aug 16	0.32	0.32	S	0.46	0.45	0.5	0.42	0.38	0.36	0.31	0.23	0.21	0.31	0.1	0	0	0.09	0.25	0.26	0.29	0.32	0.33	0.29	0.27	0.00	0.50	0.28	
Aug 17	0.27	S	0.3	0.35	0.37	0.38	0.35	0.8	0.6	0.52	0.38	0.42	0.32	0.22	0.29	0.27	0.3	0.3	0.25	0.34	0.36	0.34	0.35	0.36	0.22	0.80	0.37	
Aug 18	S	0.31	0.35	0.32	0.32	0.39	0.53	0.65	0.44	0.43	0.28	0.24	0.32	0.29	0.31	0.31	0.35	0.35	0.41	0.4	0.43	0.36	P	S	0.24	0.65	0.37	
Aug 19	0	0.01	0.15	0.25	0.28	0.32	NRM	0.33	0.31	0.27	0.27	0.23	0.23	0.21	0.15	0.14	0.14	0.13	0.15	0.15	0.18	0.19	S	0.21	0.00	0.33	0.20	
Aug 20	0.19	0.25	0.34	0.44	0.54	0.7	2.72	2.19	2.14	1.41	0.63	0.37	0.29	0.31	0.29	0.21	0.2	0.21	0.2	0.27	0.27	S	0.39	0.36	0.19	2.72	0.65	
Aug 21	0.32	0.3	0.33	0.32	0.33	0.29	0.31	0.27	0.28	0.28	0.27	0.26	0.22	0.19	0.21	0.16	0.2	0.19	0.21	0.22	S	0.26	0.26	0.31	0.16	0.33	0.26	
Aug 22	0.32	0.29	0.34	0.35	0.36	0.26	0.25	0.28	0.31	0.31	0.25	0.26	0.22	0.22	0.2	0.22	0.21	0.26	0.24	S	0.28	0.26	0.25	0.29	0.20	0.36	0.27	
Aug 23	0.31	0.34	0.34	0.36	0.39	0.42	0.43	0.44	0.43	0.41	0.39	0.3	0.26	0.3	0.24	0.28	0.22	0.24	S	0.25	0.22	0.16	0.25	0.24	0.16	0.44	0.31	
Aug 24	0.46	0.45	0.43	0.46	0.47	0.51	0.63	0.78	0.82	0.77	0.69	0.64	0.61	0.49	0.35	0.29	0.23	S	0.27	0.24	0.19	0.12	0.15	0.21	0.12	0.82	0.45	
Aug 25	0.25	0.24	0.2	0.17	0.16	0.22	0.31	0.29	0.28	0.24	0.29	0.29	0.27	0.25	0.23	0.2	S	0.24	0.24	0.25	0.26	0.28	0.23	0.22	0.16	0.31	0.24	
Aug 26	0.19	0.23	0.16	0.16	0.12	0.12	0.12	0.08	0.2	0.17	0.2	0.2	0.16	0.14	0.13	S	0.15	0.16	0.21	0.2	0.22	0.21	0.18	0.17	0.08	0.23	0.17	
Aug 27	0.15	0.21	0.13	0.15	0.13	0.1	0.13	0.28	0.21	0.19	0.17	0.19	0.2	0.19	S	0.18	0.21	0.19	0.17	0.2	0.18	0.16	0.18	0.19	0.10	0.28	0.18	
Aug 28	0.13	0.16	0.1	0.14	0.18	0.12	0.15	0.57	0.68	0.61	0.47	0.31	0.27	S	0.25	0.27	0.24	0.22	0.29	0.28	0.29	0.31	0.3	0.29	0.10	0.68	0.29	
Aug 29	0.28	0.28	0.27	0.25	0.26	0.31	0.31	0.32	0.3	0.33	0.29	0.31	S	0.36	0.38	0.38	0.39	0.45	0.5	0.55	0.57	0.64	0.7	0.74	0.25	0.74	0.40	
Aug 30	0.81	0.87	0.9	0.92	0.98	1.02	1.09	1.15	1.23	1.22	1	S	0.85	1.11	1.17	1.18	1.09	1.03	1	0.97	0.9	0.88	0.76	0.74	0.74	1.23	0.99	
Aug 31	0.66	0.61	0.55	0.55	0.48	0.53	0.55	0.66	0.58	0.44	S	0.29	0.3	0.32	0.29	0.32	0.33	0.36	0.37	0.4	0.36	0.39	0.4	0.4	0.29	0.66	0.44	
Diurnal Maximum	1.10	0.90	0.90	1.10	1.01	1.18	2.72	2.19	2.14	1.41	1.00	0.64	0.98	1.11	1.17	1.18	1.09	1.03	1.00	0.97	0.90	0.88	0.76	0.84				
Diurnal Average	0.44	0.41	0.40	0.47	0.47	0.48	0.58	0.64	0.55	0.45	0.39	0.32	0.37	0.35	0.36	0.37	0.36	0.37	0.39	0.39	0.38	0.36	0.38	0.40				
C	Monthly Calibration						S	Daily Zero-Span Check						Q	Quality Assurance													
K	Collection Error						N	No Data (Machine Not in Service)						Y	Routine Maintenance						P	Power Failure						
X	InValid Data (Equipment Malfunction /Recovery)						NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																				
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																												
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																												

Timeseries Chart of Hourly Average for TRS - AQHI - Cadotte Lake Station

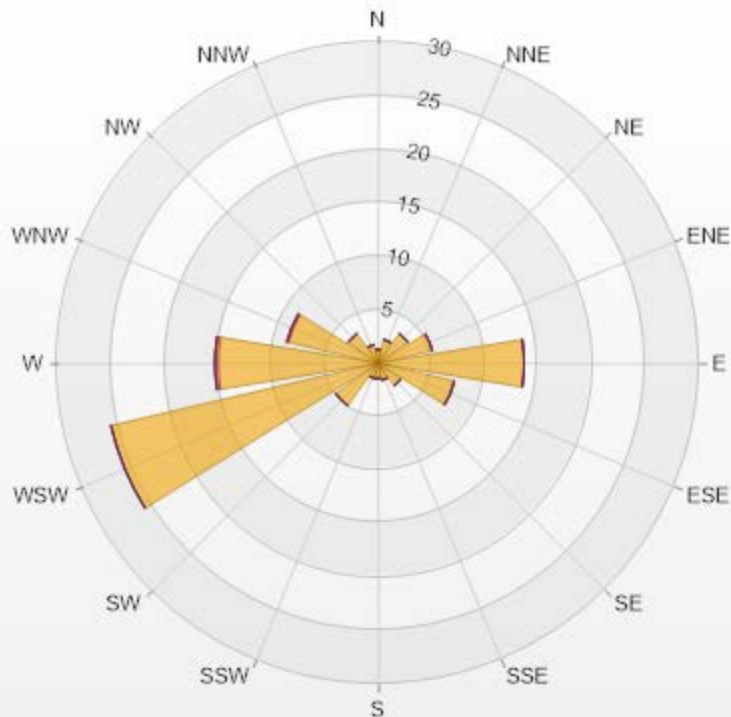


TRS[ppb] Histogram: AQHI Cadotte Lake Monthly: 08-2020 1 Hr.



Wind: AQHI Cadotte Lake Poll.: AQHI Cadotte Lake-TRS[ppb] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 82.93% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	1.3	0	0	0	0	1.3
NNE	2.27	0	0	0	0	2.27
NE	3.57	0	0	0	0	3.57
ENE	5.19	0	0	0	0	5.19
E	13.61	0	0	0	0	13.61
ESE	7.29	0	0	0	0	7.29
SE	2.59	0	0	0	0	2.59
SSE	1.62	0	0	0	0	1.62
S	1.46	0	0	0	0	1.46
SSW	1.46	0	0	0	0	1.46
SW	4.86	0	0	0	0	4.86
WSW	25.61	0	0	0	0	25.61
W	14.91	0.32	0	0	0	15.23
WNW	8.59	0.16	0	0	0	8.75
NW	3.4	0	0	0	0	3.4
NNW	1.78	0	0	0	0	1.78
Summary	100	0.48	0	0	0	100



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% Icon Classes (ppb)

100 0-2

0 2-5

0 5-10

0 10-50

0 >50.0



PEACE RIVER AREA MONITORING PROGRAM

AQHI - Cadotte Lake Station - August 2020

Summary of Hourly Averages

OXIDES OF NITROGEN (NOx) in ppb

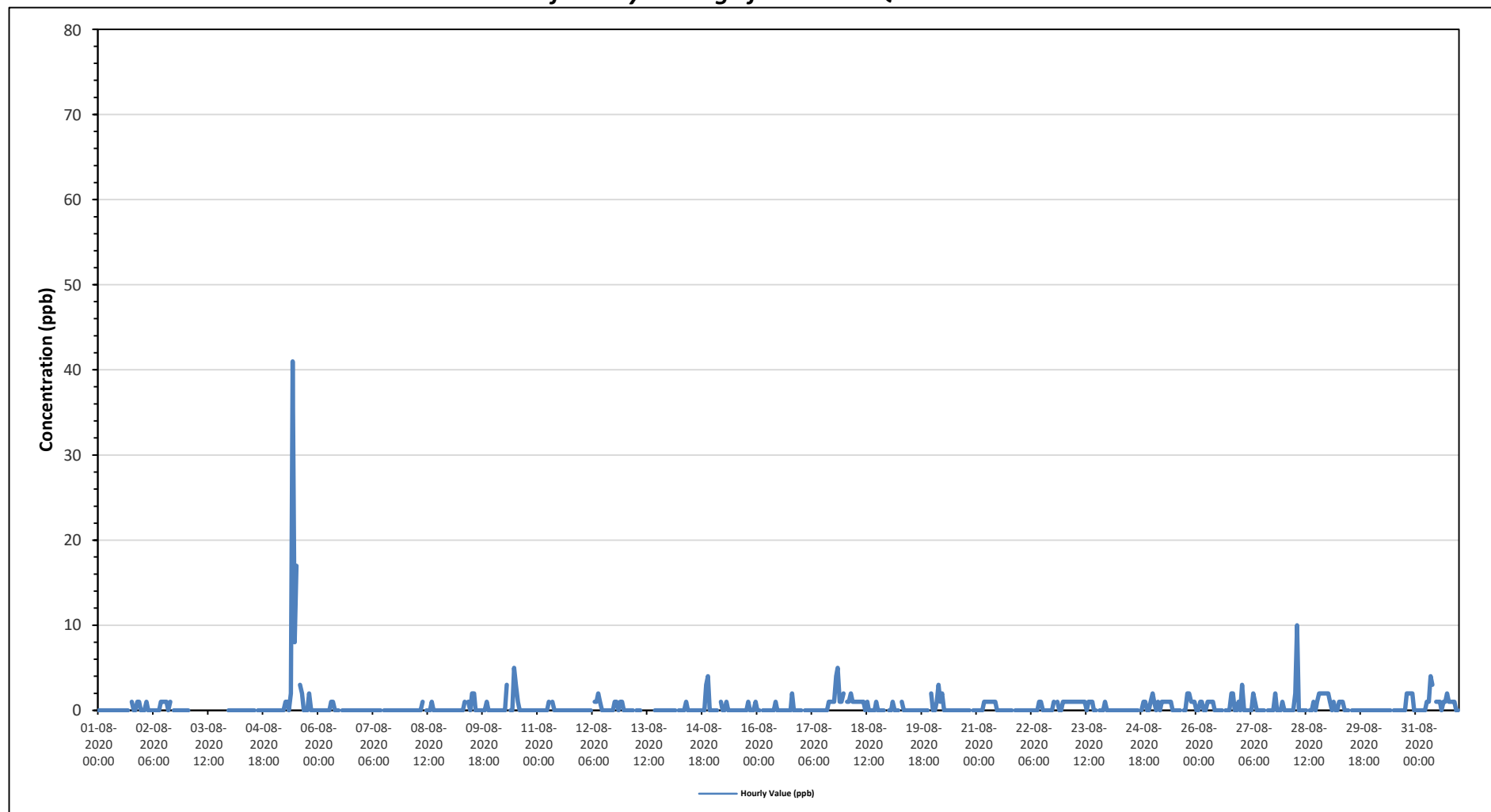
Maximum Hourly Value:	41	ppb	on August 5 at hour 10	Hours in Service:	744
Maximum Daily Value:	3.3	ppb	on August 5	Hours of Data:	684
Minimum Hourly Value:	0	ppb	on August 1 at hour 0	Hours of Missing Data:	21
Minimum Daily Value:	0.0	ppb	on August 4	Hours of Calibration:	39
Monthly Average:	0.4	ppb		Operational Uptime:	97.2

Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
Aug 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	1	1	0	0	0	1	0.1
Aug 2	0	0	1	0	0	0	0	0	0	0	1	1	1	1	0	1	S	0	0	0	0	0	0	0	0	0	1	0.3
Aug 3	0	0	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0	S	0	0	0	0	-
Aug 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 5	0	0	0	0	0	0	1	1	0	2	41	8	17	S	3	2	0	0	0	0	2	0	0	0	0	0	41	3.3
Aug 6	0	0	0	0	0	0	0	1	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Aug 7	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 8	0	0	0	0	0	0	0	0	0	1	S	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Aug 9	0	0	0	0	0	0	0	0	1	S	1	0	2	2	0	0	0	0	0	0	1	0	0	0	0	0	2	0.3
Aug 10	0	0	0	0	0	0	0	3	S	0	0	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	5	0.5
Aug 11	0	0	0	0	0	0	1	S	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	
Aug 12	0	0	0	0	0	0	S	1	1	2	1	0	0	0	0	0	0	0	1	1	0	1	1	0	0	2	0.4	
Aug 13	0	0	0	0	0	S	0	0	0	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	-	
Aug 14	0	0	0	0	S	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	4	0	0	0	4	0.3	
Aug 15	0	0	0	S	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0.2	
Aug 16	0	0	S	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0.1	
Aug 17	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	4	5	1	1	2	0	5	0.7	
Aug 18	S	1	1	2	1	1	1	1	1	1	1	0	1	0	0	0	0	1	0	0	0	0	P	S	0	2	0.6	
Aug 19	0	0	1	0	0	0	NRM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	2	0	2	0.2	
Aug 20	0	0	1	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	3	0.3	
Aug 21	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	S	0	0	0	0	1	0.3	
Aug 22	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	S	1	0	0	1	0	1	0.2	
Aug 23	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	S	0	0	0	1	0	0	1	0.7	
Aug 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	1	1	0	0	1	0	1	0.1	
Aug 25	2	1	0	1	0	1	1	1	1	1	1	0	0	0	0	0	S	0	0	2	2	1	1	1	0	2	0.7	
Aug 26	0	0	1	1	0	0	1	1	1	1	0	0	0	0	0	S	0	0	0	2	2	0	0	1	0	2	0.5	
Aug 27	0	3	0	0	0	0	0	2	1	0	0	0	0	0	S	0	0	0	0	2	0	0	0	1	0	3	0.4	
Aug 28	0	0	0	0	0	0	2	10	0	0	0	0	0	S	0	0	1	0	1	2	2	2	2	2	0	10	1.0	
Aug 29	2	1	0	1	0	0	1	1	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	
Aug 30	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	2	2	2	2	0	0	2	0.3	
Aug 31	0	0	0	0	0	0	1	1	4	3	S	1	1	1	0	1	1	2	1	1	1	1	0	0	0	4	0.9	
Diurnal Maximum	2	3	1	3	1	2	2	10	4	3	41	8	17	2	3	2	1	2	1	4	5	4	2	2				
Diurnal Average	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.9	0.5	0.5	1.9	0.6	0.9	0.2	0.2	0.2	0.1	0.1	0.2	0.8	0.7	0.4	0.3	0.4				

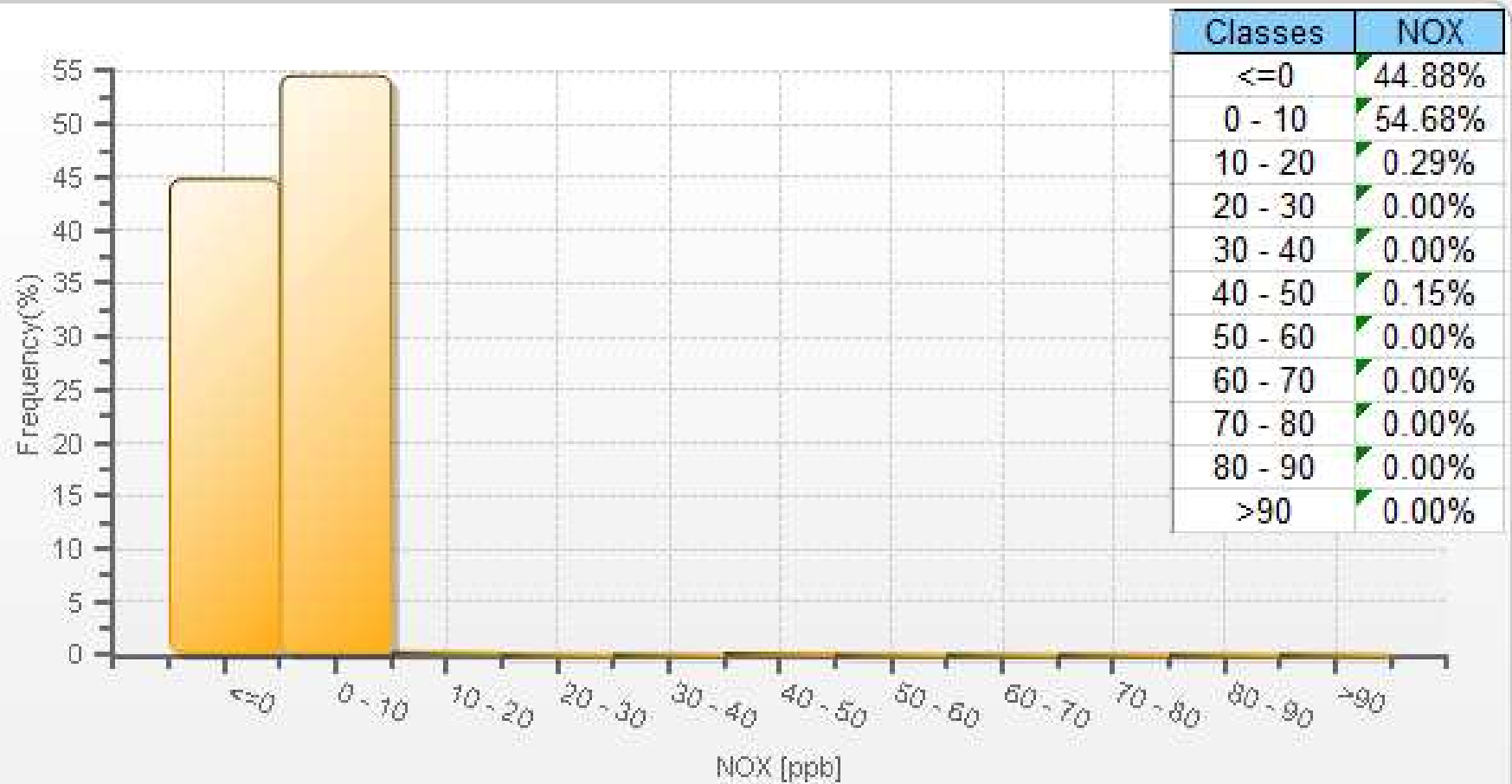
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance
X	InValid Data (Equipment Malfunction/Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P	Power Failure

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NOx - AQHI - Cadotte Lake Station

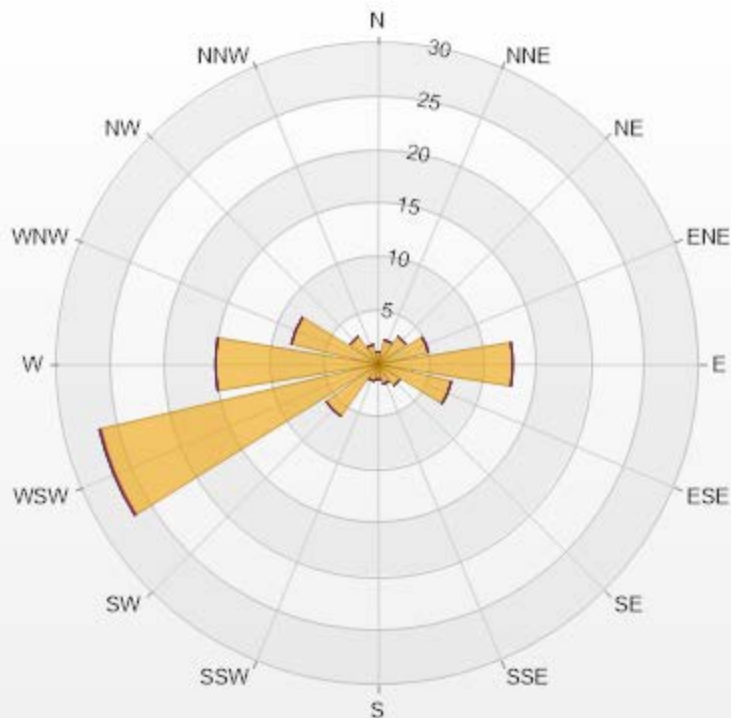


NOX[ppb] Histogram: AQHI Cadotte Lake Monthly: 08-2020 1 Hr.



Wind: AQHI Cadotte Lake Poll.: AQHI Cadotte Lake-NOX[ppb] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 91.94% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	1.17	0	0	0	0	1.17
NNE	2.34	0	0	0	0	2.34
NE	3.22	0	0	0	0	3.22
ENE	4.82	0	0	0	0	4.82
E	12.57	0	0	0	0	12.57
ESE	7.02	0	0	0	0	7.02
SE	2.49	0	0	0	0	2.49
SSE	1.9	0	0	0	0	1.9
S	1.46	0	0	0	0	1.46
SSW	1.61	0	0	0	0	1.61
SW	5.99	0	0	0	0	5.99
WSW	26.61	0.15	0	0	0	26.76
W	15.2	0	0	0	0	15.2
WNW	8.33	0	0	0	0	8.33
NW	3.22	0	0	0	0	3.22
NNW	1.9	0	0	0	0	1.9
Summary	100	0.15	0	0	0	100



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% Icon Classes (ppb)

100 0-30

0 30-50

0 50-76

0 76-159

0 >159.0



PEACE RIVER AREA MONITORING PROGRAM

AQHI - Cadotte Lake Station - August 2020

Summary of Hourly Averages

NITRIC OXIDE (NO) in ppb

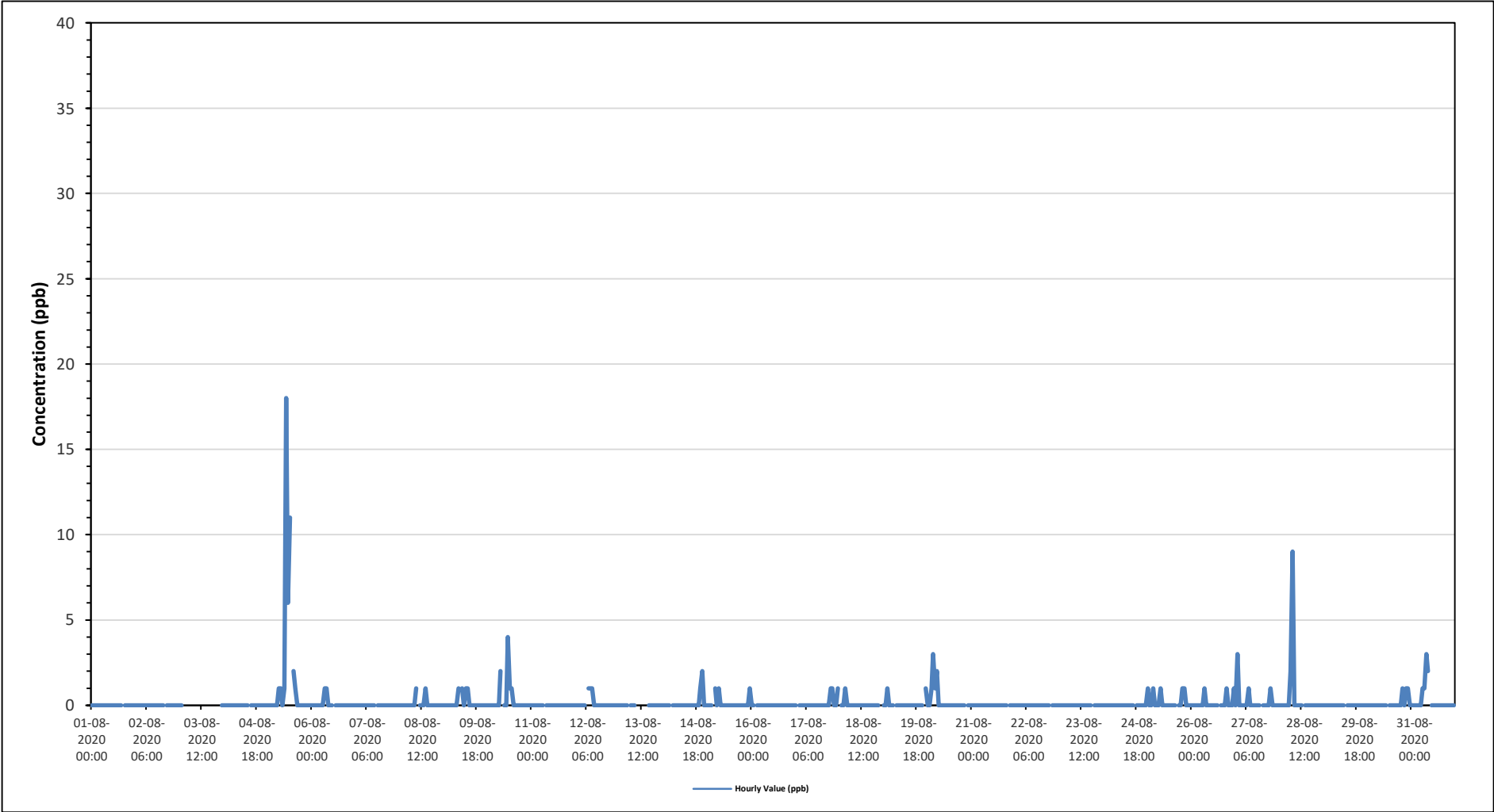
Maximum Hourly Value:	18	ppb	on August 5 at hour 10	Hours in Service:	744
Maximum Daily Value:	1.8	ppb	on August 5	Hours of Data:	684
Minimum Hourly Value:	0	ppb	on August 1 at hour 0	Hours of Missing Data:	21
Minimum Daily Value:	0.0	ppb	on August 1	Hours of Calibration:	39
Monthly Average:	0.2	ppb		Operational Uptime:	97.2

Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Aug 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Aug 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Aug 3	0	0	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	S	0	0	-
Aug 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 5	0	0	0	0	0	0	1	1	0	1	18	6	11	S	2	1	0	0	0	0	0	0	0	0	0	18	1.8
Aug 6	0	0	0	0	0	0	0	0	1	1	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Aug 7	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 8	0	0	0	0	0	0	0	0	0	1	S	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.1
Aug 9	0	0	0	0	0	0	0	0	1	S	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0.2
Aug 10	0	0	0	0	0	0	0	2	S	0	0	4	1	1	0	0	0	0	0	0	0	0	0	0	0	4	0.3
Aug 11	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 12	0	0	0	0	0	0	S	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Aug 13	0	0	0	0	0	S	0	0	0	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	-
Aug 14	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	2	0.1
Aug 15	0	0	0	S	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.1
Aug 16	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 17	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	1	0.1
Aug 18	S	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	P	S	0	1	0.0
Aug 19	0	0	1	0	0	0	NRM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	1	0.1
Aug 20	0	0	1	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	3	0.3
Aug 21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0
Aug 22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
Aug 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
Aug 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Aug 25	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	S	0	0	1	1	0	0	0	0	1	0.2
Aug 26	0	0	0	0	0	0	0	1	0	0	0	0	0	0	S	0	0	0	0	1	0	0	0	1	0	1	0.1
Aug 27	0	3	0	0	0	0	0	1	0	0	0	0	0	S	0	0	0	0	0	1	0	0	0	0	0	3	0.2
Aug 28	0	0	0	0	0	0	2	9	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	9	0.5
Aug 29	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 30	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	1	0	1	1	0	1	0.1	0.1
Aug 31	0	0	0	0	0	0	1	1	3	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.3
Diurnal Maximum	1	3	1	3	1	2	2	9	3	2	18	6	11	1	2	1	0	0	0	1	1	2	1	1			
Diurnal Average	0.0	0.1	0.1	0.2	0.1	0.1	0.2	0.6	0.2	0.2	0.7	0.4	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.1			

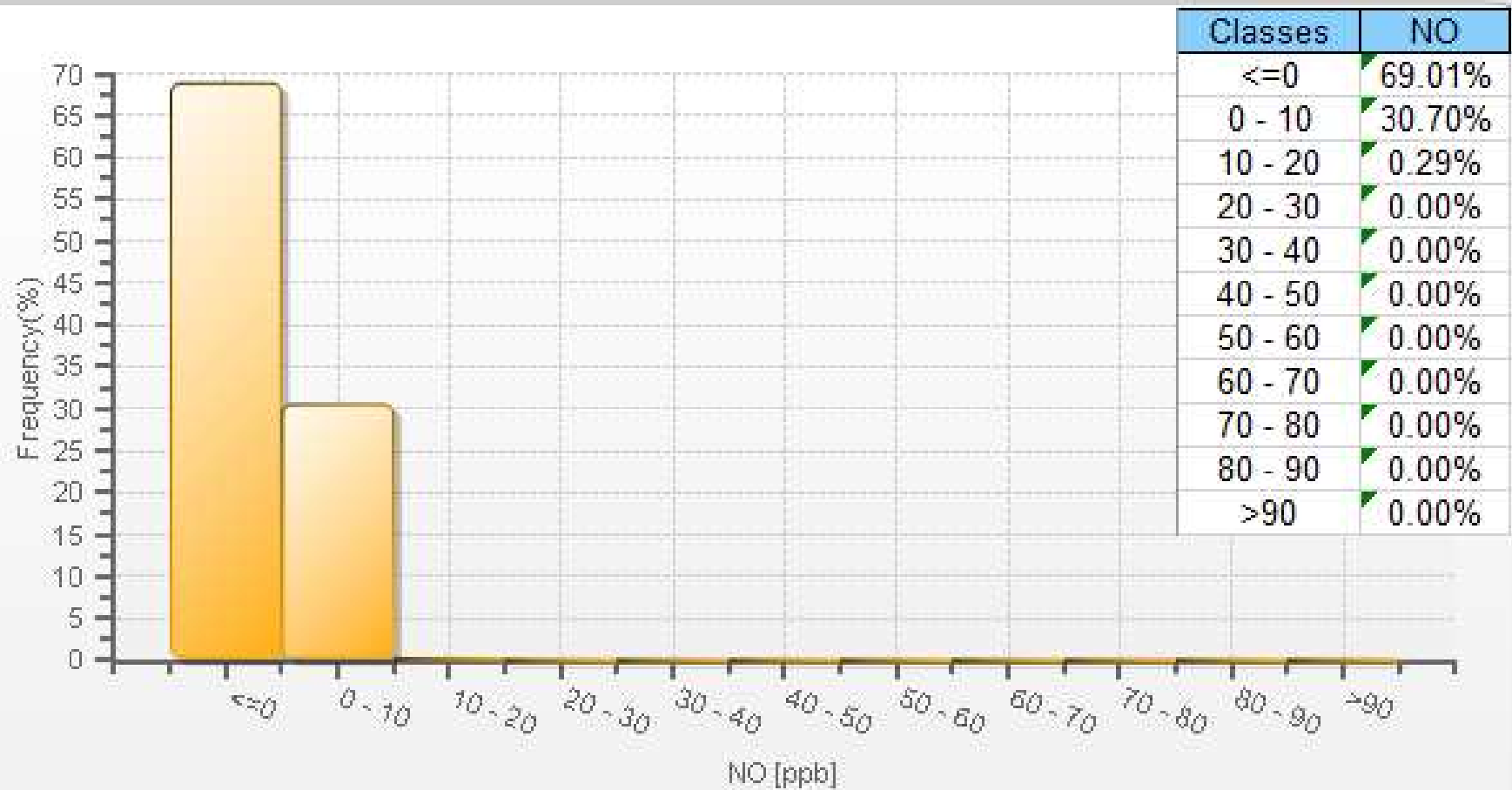
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance
X	InValid Data (Equipment Malfunction/Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P	Power Failure

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NO - AQHI - Cadotte Lake Station

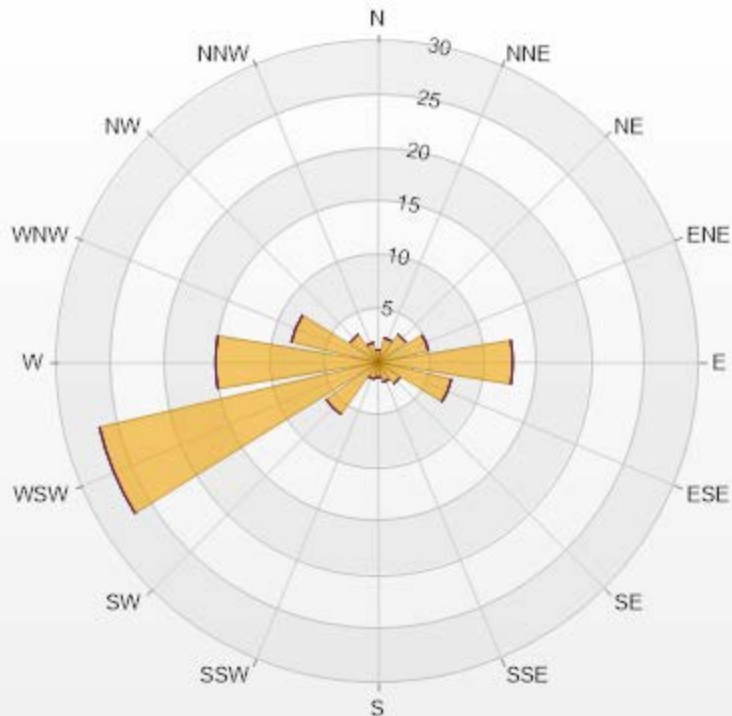


NO[ppb] Histogram: AQHI Cadotte Lake Monthly: 08-2020 1 Hr.



Wind: AQHI Cadotte Lake Poll.: AQHI Cadotte Lake-NO[ppb] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 91.94% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	1.17	0	0	0	0	1.17
NNE	2.34	0	0	0	0	2.34
NE	3.22	0	0	0	0	3.22
ENE	4.82	0	0	0	0	4.82
E	12.57	0	0	0	0	12.57
ESE	7.02	0	0	0	0	7.02
SE	2.49	0	0	0	0	2.49
SSE	1.9	0	0	0	0	1.9
S	1.46	0	0	0	0	1.46
SSW	1.61	0	0	0	0	1.61
SW	5.99	0	0	0	0	5.99
WSW	26.75	0	0	0	0	26.75
W	15.2	0	0	0	0	15.2
WNW	8.33	0	0	0	0	8.33
NW	3.22	0	0	0	0	3.22
NNW	1.9	0	0	0	0	1.9
Summary	100	0	0	0	0	100



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% Icon Classes (ppb)

100

0-30

0

30-50

0

50-76

0

76-159

0

>159.0



PEACE RIVER AREA MONITORING PROGRAM

AQHI - Cadotte Lake Station - August 2020

Summary of Hourly Averages

NITROGEN DIOXIDE (NO₂) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 159 ppb

Number of 1-Hour Exceedances: 0

Maximum Hourly Value: 23 ppb on August 5 at hour 10

Hours in Service: 744

Maximum Daily Value: 1.6 ppb on August 5

Hours of Data: 684

Minimum Hourly Value: 0 ppb on August 1 at hour 0

Hours of Missing Data: 21

Minimum Daily Value: 0.0 ppb on August 4

Hours of Calibration: 39

Monthly Average: 0.3 ppb

Operational Uptime: 97.2

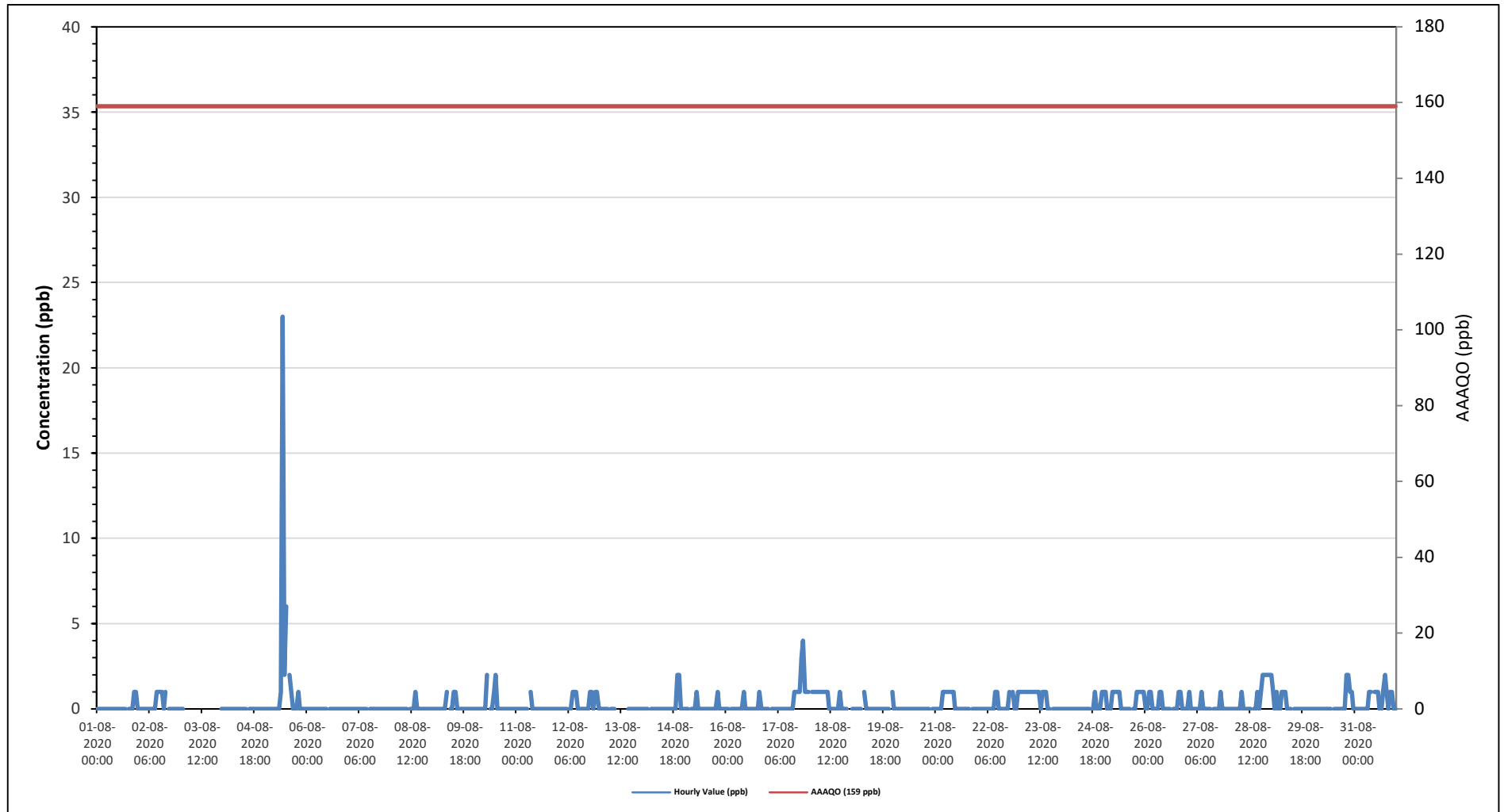
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Aug 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	1	1	0	0	1	0.1
Aug 2	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	S	0	0	0	0	0	0	0	0	0	0.2
Aug 3	0	0	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	S	0	0	0	-
Aug 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 5	0	0	0	0	0	0	0	0	0	1	23	2	6	S	2	1	0	0	0	1	0	0	0	0	0	23	1.6
Aug 6	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 7	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Aug 8	0	0	0	0	0	0	0	0	0	0	S	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.0
Aug 9	0	0	0	0	0	0	0	0	1	S	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Aug 10	0	0	0	0	0	0	0	2	S	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0.2
Aug 11	0	0	0	0	0	0	0	S	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Aug 12	0	0	0	0	0	0	S	0	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	0	0	1	0.3
Aug 13	0	0	0	0	0	S	0	0	0	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	-
Aug 14	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	2	0.2
Aug 15	0	0	0	S	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.1
Aug 16	0	0	S	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.1
Aug 17	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	3	4	1	1	1	0	4	0.6
Aug 18	S	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	P	S	0	1	0.5
Aug 19	0	0	0	0	0	0	NRM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	1	0.1
Aug 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0.0
Aug 21	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	S	0	0	0	0	1	0.3
Aug 22	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	S	1	0	0	1	0	1	0.2
Aug 23	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	S	0	0	0	0	0	0	1	0.7
Aug 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	1	0	0	0	1	0	1	0.1
Aug 25	1	1	0	0	0	1	1	1	1	1	0	0	0	0	0	0	S	0	0	1	1	1	1	1	0	1	0.5
Aug 26	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	S	0	0	0	1	1	0	0	0	0	1	0.3
Aug 27	0	1	0	0	0	0	0	0	1	0	0	0	0	0	S	0	0	0	0	1	0	0	0	0	0	1	0.1
Aug 28	0	0	0	0	0	0	0	1	0	0	0	0	0	S	0	0	1	0	1	2	2	2	2	2	0	2	0.6
Aug 29	2	1	0	1	0	0	1	1	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3
Aug 30	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	2	2	1	1	0	0	2	0.3
Aug 31	0	0	0	0	0	0	0	0	1	1	S	1	1	1	0	0	1	2	1	0	1	1	0	0	0	2	0.5
Diurnal Maximum	2	1	1	1	1	1	1	2	1	1	23	2	6	1	2	1	1	2	1	3	4	2	2	2	2		
Diurnal Average	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.3	1.1	0.3	0.4	0.1	0.1	0.1	0.1	0.1	0.2	0.5	0.5	0.3	0.3	0.2			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

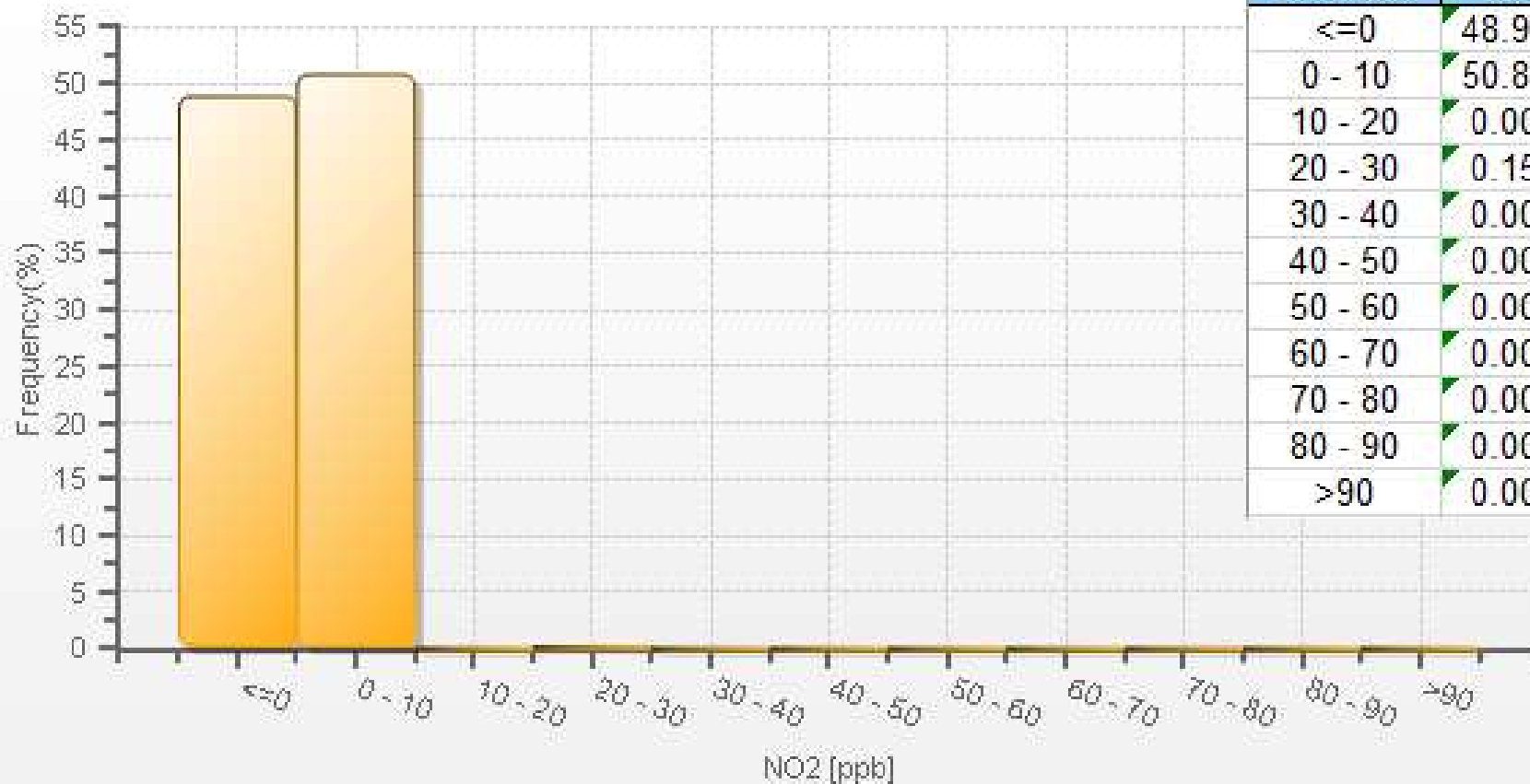
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NO2 - AQHI - Cadotte Lake Station

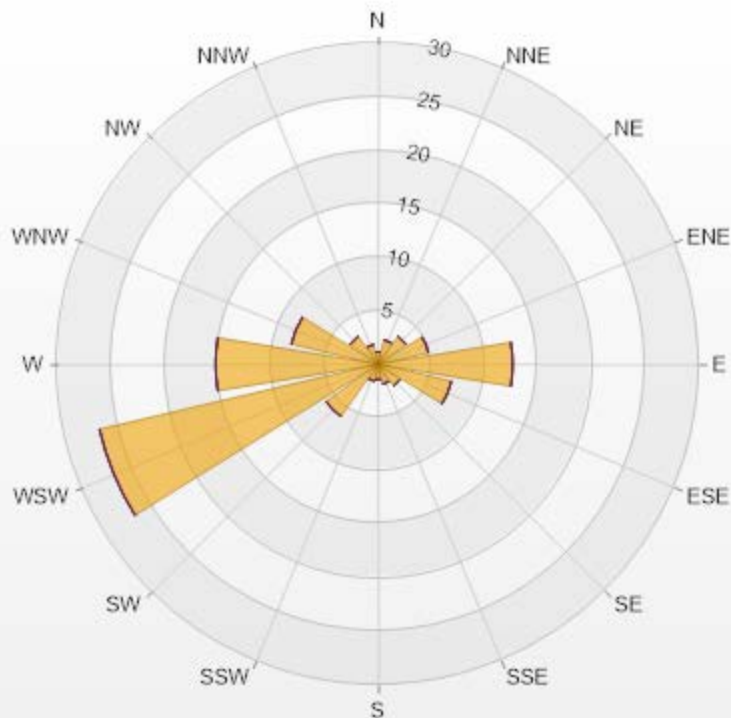


NO2[ppb] Histogram: AQHI Cadotte Lake Monthly: 08-2020 1 Hr.



Wind: AQHI Cadotte Lake Poll.: AQHI Cadotte Lake-NO2[ppb] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 91.94% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	1.17	0	0	0	0	1.17
NNE	2.34	0	0	0	0	2.34
NE	3.22	0	0	0	0	3.22
ENE	4.82	0	0	0	0	4.82
E	12.57	0	0	0	0	12.57
ESE	7.02	0	0	0	0	7.02
SE	2.49	0	0	0	0	2.49
SSE	1.9	0	0	0	0	1.9
S	1.46	0	0	0	0	1.46
SSW	1.61	0	0	0	0	1.61
SW	5.99	0	0	0	0	5.99
WSW	26.75	0	0	0	0	26.75
W	15.2	0	0	0	0	15.2
WNW	8.33	0	0	0	0	8.33
NW	3.22	0	0	0	0	3.22
NNW	1.9	0	0	0	0	1.9
Summary	100	0	0	0	0	100



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% Icon Classes (ppb)

100 0-30

0 30-50

0 50-76

0 76-159

0 >159.0



PEACE RIVER AREA MONITORING PROGRAM

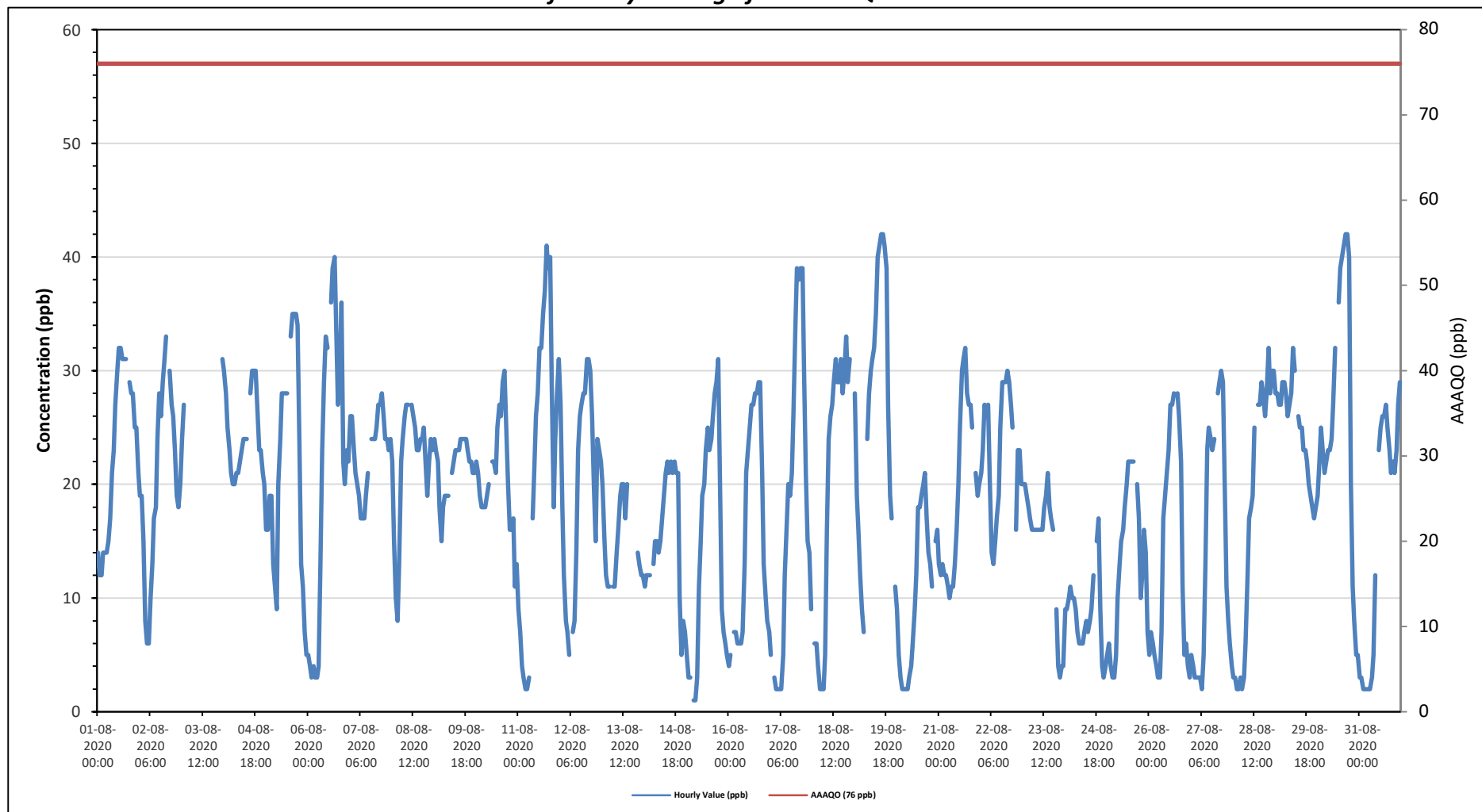
AQHI - Cadotte Lake Station - August 2020

Summary of Hourly Averages

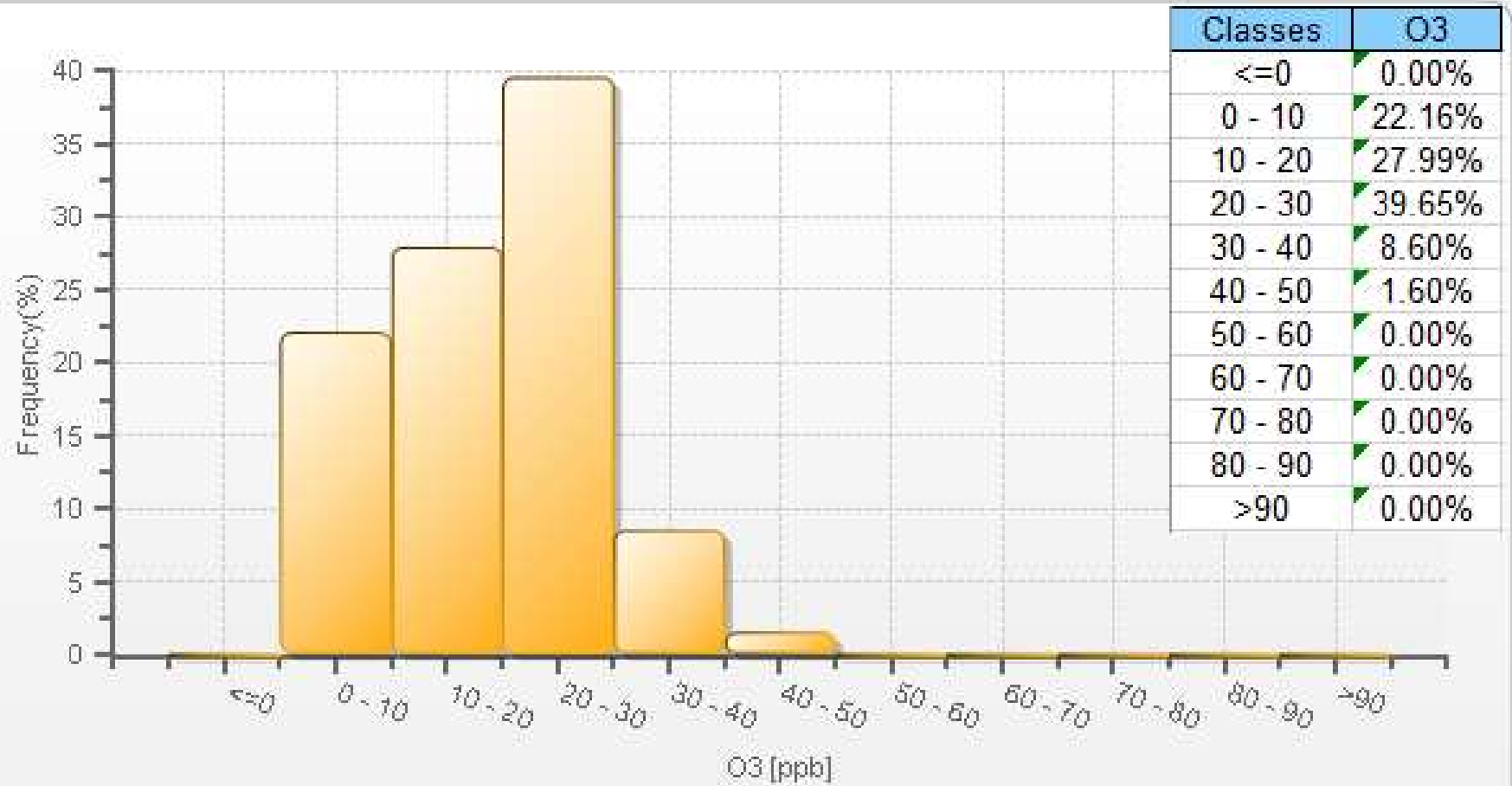
OZONE (O₃) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 76 ppb																												
Number of 1-Hour Exceedances:		0																										
Maximum Hourly Value: 42 ppb on August 19 at hour 15													Hours in Service: 744															
Maximum Daily Value: 26.8 ppb on August 19													Hours of Data: 686															
Minimum Hourly Value: 1 ppb on August 15 at hour 4													Hours of Missing Data: 21															
Minimum Daily Value: 8.5 ppb on August 24													Hours of Calibration: 37															
Monthly Average: 18.9 ppb													Operational Uptime: 97.2															
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
Aug 1	14	12	12	14	14	14	15	17	21	23	27	30	32	32	31	31	31	S	29	28	28	25	25	21	12	32	22.9	
Aug 2	19	19	15	8	6	6	10	13	17	18	24	28	26	29	31	33	S	30	27	26	23	19	18	20	6	33	20.2	
Aug 3	24	27	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	S	31	24	33	-	
Aug 4	30	28	25	23	21	20	20	21	21	22	23	24	24	24	S	28	30	30	30	27	23	23	21	20	20	30	24.3	
Aug 5	16	16	19	19	13	11	9	20	24	28	28	28	28	S	33	35	35	35	34	24	13	11	7	5	5	35	21.3	
Aug 6	5	4	3	4	3	3	4	13	23	29	33	32	S	36	39	40	34	27	30	36	22	20	23	22	3	40	21.1	
Aug 7	26	26	23	21	20	19	17	17	17	19	21	S	24	24	24	25	27	27	28	26	24	24	23	24	17	28	22.9	
Aug 8	22	15	10	8	13	22	24	26	27	27	S	27	26	25	23	23	24	24	25	22	19	22	24	23	8	27	21.8	
Aug 9	24	23	22	18	15	18	19	19	19	S	21	22	23	23	23	24	24	24	24	23	22	22	21	21	15	24	21.5	
Aug 10	22	21	19	18	18	18	19	20	S	22	22	21	25	27	26	29	30	25	20	16	16	17	11	13	11	30	20.7	
Aug 11	9	7	4	3	2	2	3	S	17	21	26	28	32	32	35	37	41	39	40	29	18	24	28	31	2	41	22.1	
Aug 12	27	18	12	8	7	5	S	7	8	14	23	26	27	28	28	31	31	30	26	20	15	24	23	22	5	31	20.0	
Aug 13	20	15	12	11	11	S	11	11	14	16	19	20	20	17	20	C	C	C	C	C	14	13	12	12	11	20	14.9	
Aug 14	11	12	12	12	S	13	15	15	14	15	17	19	21	22	21	22	21	22	21	21	10	5	8	7	5	22	15.5	
Aug 15	5	3	3	S	1	1	3	11	15	19	20	23	25	23	24	26	28	29	31	20	9	7	6	5	1	31	14.7	
Aug 16	4	5	S	7	7	6	6	6	7	13	21	23	25	27	27	28	28	29	29	21	13	10	8	7	4	29	15.5	
Aug 17	5	S	3	2	2	2	2	5	12	16	20	19	21	26	34	39	38	39	39	30	21	15	14	9	2	39	18.0	
Aug 18	S	6	6	4	2	2	2	5	16	24	26	27	29	31	29	29	31	28	30	33	29	31	P	S	2	33	20.0	
Aug 19	28	19	16	12	9	7	NRM	24	28	30	31	32	35	40	41	42	42	41	39	27	19	17	S	11	7	42	26.8	
Aug 20	9	5	3	2	2	2	2	3	4	6	9	12	18	18	19	20	21	17	14	13	11	S	15	16	2	21	10.5	
Aug 21	13	12	13	12	12	11	10	11	11	13	16	20	25	30	31	32	28	27	27	25	S	21	19	20	10	32	19.1	
Aug 22	21	23	27	26	27	20	14	13	15	17	19	25	29	29	29	30	29	27	25	S	16	23	23	20	13	30	22.9	
Aug 23	20	20	19	18	17	16	16	16	16	16	16	16	18	19	21	18	17	16	S	9	4	3	4	4	3	21	14.7	
Aug 24	9	9	10	11	10	10	9	7	6	6	6	7	8	7	8	9	12	S	15	17	9	4	3	4	3	17	8.5	
Aug 25	5	6	4	3	3	5	10	13	15	16	18	20	22	22	22	22	S	20	17	10	12	16	14	7	3	22	13.1	
Aug 26	5	7	6	5	4	3	3	7	17	19	21	23	27	27	28	S	28	26	22	11	5	6	4	3	3	28	13.3	
Aug 27	5	4	3	3	3	3	2	5	13	23	25	24	23	24	S	28	29	30	29	20	11	8	6	4	2	30	14.1	
Aug 28	3	3	2	2	3	2	3	6	12	17	18	19	25	S	27	27	29	28	26	28	32	28	30	30	2	32	17.4	
Aug 29	28	28	27	27	29	29	28	26	27	28	32	30	S	26	25	25	23	23	22	20	19	18	17	18	17	32	25.0	
Aug 30	19	22	25	23	21	22	23	23	24	27	32	S	36	39	40	41	42	42	40	20	11	8	5	5	5	42	25.7	
Aug 31	3	3	2	2	2	2	2	3	5	12	S	23	25	26	26	27	25	23	21	22	21	23	27	29	2	29	15.4	
Diurnal Maximum	30	28	27	27	29	29	28	26	28	30	33	32	36	40	41	42	42	42	40	36	32	33	30	31				
Diurnal Average	15.0	13.9	12.3	11.2	10.2	10.1	10.8	13.2	16.0	19.2	21.9	23.1	25.0	26.2	27.3	28.6	28.8	28.1	27.1	22.3	16.9	17.3	15.7	15.5				
C	Monthly Calibration						S	Daily Zero-Span Check										Q	Quality Assurance									
K	Collection Error						N	No Data (Machine Not in Service)										Y	Routine Maintenance									
X	Invalid Data (Equipment Malfunction /Recovery)						NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)										P	Power Failure									
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																												
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																												

Timeseries Chart of Hourly Average for O3 - AQHI - Cadotte Lake Station

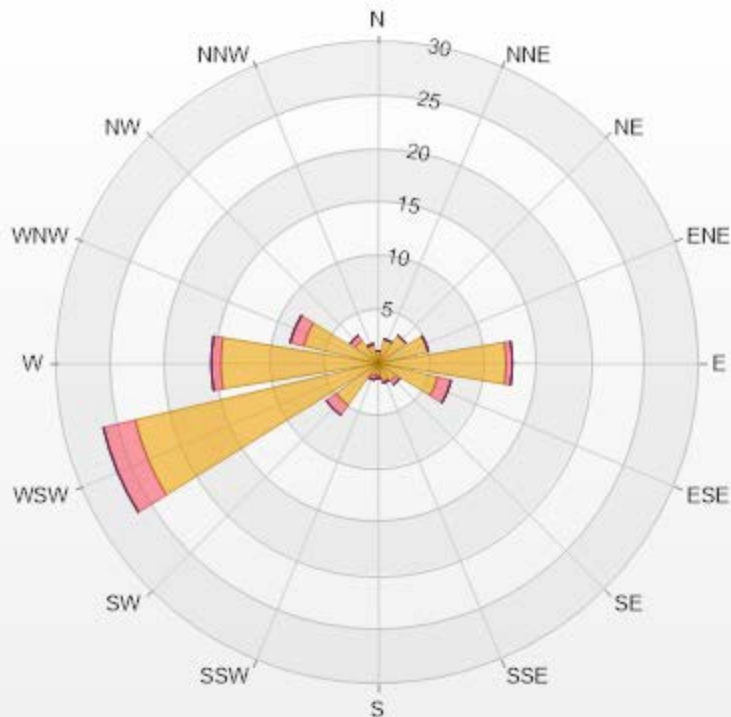


O3[ppb] Histogram: AQHI Cadotte Lake Monthly: 08-2020 1 Hr.



Wind: AQHI Cadotte Lake Poll.: AQHI Cadotte Lake-O3[ppb] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 92.20% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	1.17	0	0	0	0	1.17
NNE	2.33	0	0	0	0	2.33
NE	3.21	0	0	0	0	3.21
ENE	4.81	0	0	0	0	4.81
E	11.95	0.58	0	0	0	12.53
ESE	5.69	1.31	0	0	0	7
SE	2.04	0.44	0	0	0	2.48
SSE	1.75	0.15	0	0	0	1.9
S	1.17	0.29	0	0	0	1.46
SSW	1.17	0.44	0	0	0	1.61
SW	4.81	1.17	0	0	0	5.98
WSW	23.32	3.06	0	0	0	26.38
W	14.72	0.87	0	0	0	15.59
WNW	7.14	1.31	0	0	0	8.45
NW	2.62	0.58	0	0	0	3.2
NNW	1.75	0.15	0	0	0	1.9
Summary	89.65	10.35	0	0	0	100



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% Icon Classes (ppb)

90

0-30

10

30-50

0

50-76

0

76-159

0

>159.0



PEACE RIVER AREA MONITORING PROGRAM

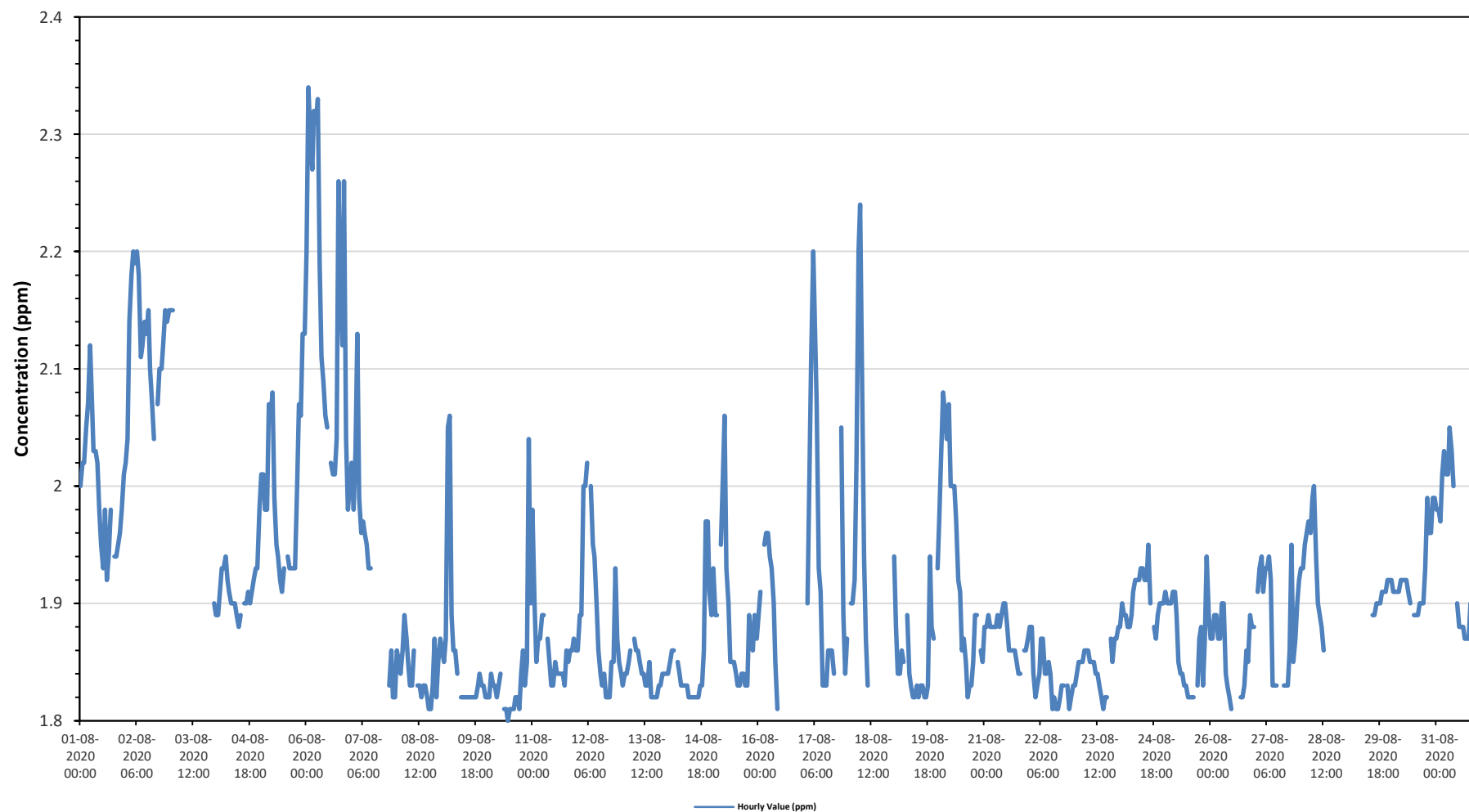
AQHI - Cadotte Lake Station - August 2020

Summary of Hourly Averages

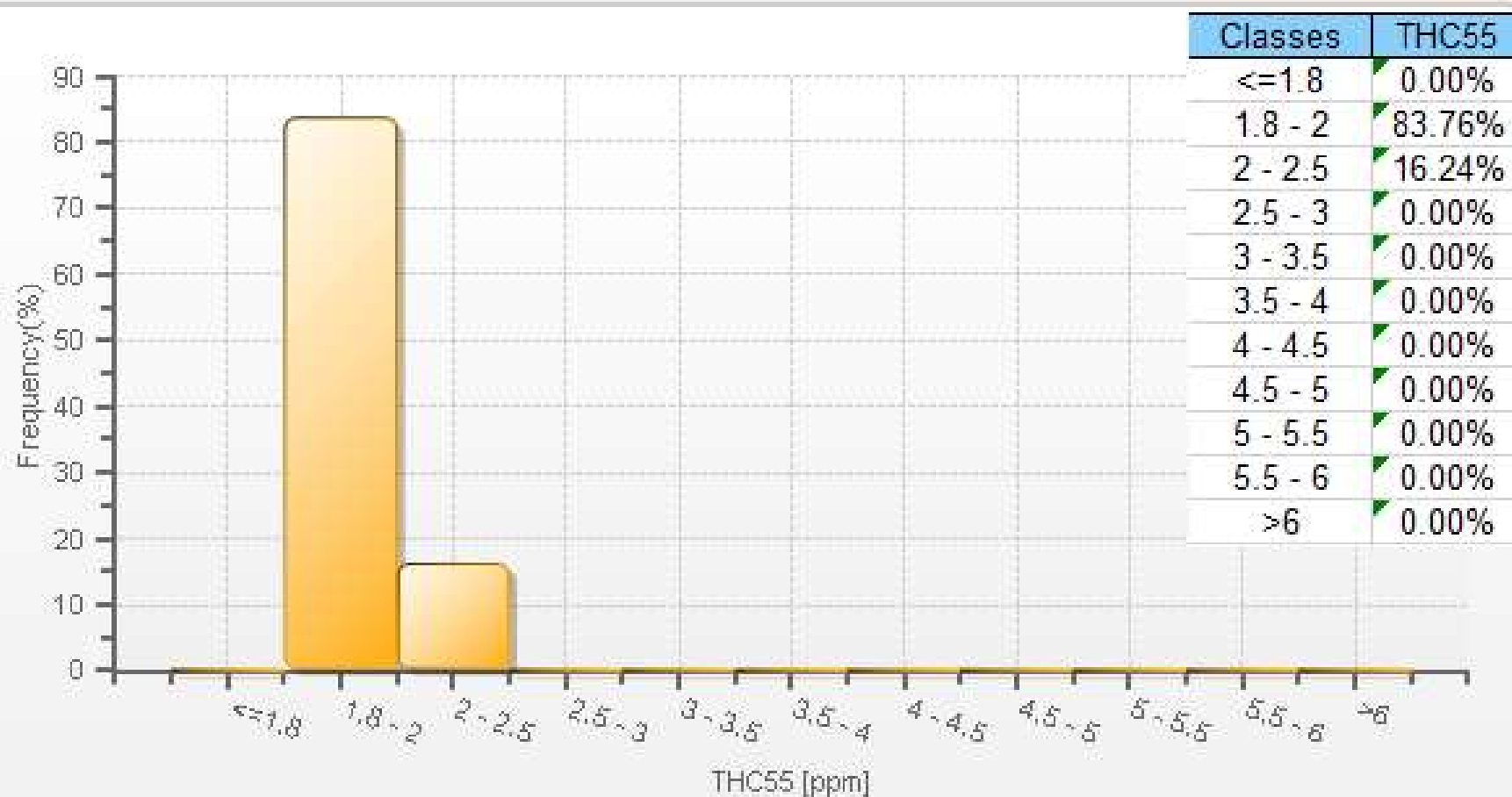
TOTAL HYDROCARBONS (THC) in ppm

Maximum Hourly Value:										2.34 ppm on August 6 at hour 1										Hours in Service:										744									
Maximum Daily Value:										2.15 ppm on August 6										Hours of Data:										628									
Minimum Hourly Value:										1.80 ppm on August 10 at hour 11										Hours of Missing Data:										81									
Minimum Daily Value:										1.84 ppm on August 22										Hours of Calibration:										35									
Monthly Average:										1.91 ppm										Operational Uptime:										89.1									
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average													
Aug 1	2.00	2.02	2.02	2.05	2.07	2.12	2.08	2.03	2.03	2.02	1.98	1.95	1.93	1.98	1.92	1.94	1.98	S	1.94	1.94	1.95	1.96	1.98	2.01	1.92	2.12	2.00												
Aug 2	2.02	2.04	2.14	2.18	2.20	2.19	2.20	2.18	2.11	2.12	2.14	2.13	2.15	2.10	2.07	2.04	S	2.07	2.10	2.10	2.12	2.15	2.14	2.15	2.02	2.20	2.12												
Aug 3	2.15	2.15	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	1.89	S	1.90	1.89												
Aug 4	1.89	1.89	1.91	1.93	1.93	1.94	1.92	1.91	1.90	1.90	1.90	1.89	1.88	1.89	S	1.90	1.90	1.91	1.90	1.91	1.92	1.93	1.93	1.98	1.88	1.98	1.91												
Aug 5	2.01	2.01	1.98	1.98	2.07	2.06	2.08	1.99	1.95	1.94	1.92	1.91	1.93	S	1.94	1.93	1.93	1.93	1.93	2.00	2.07	2.06	2.13	2.13	1.91	2.13	1.99												
Aug 6	2.20	2.34	2.30	2.27	2.32	2.31	2.33	2.19	2.11	2.09	2.06	2.05	S	2.02	2.01	2.01	2.04	2.26	2.17	2.12	2.26	2.04	1.98	2.00	1.98	2.34	2.15												
Aug 7	2.02	1.98	2.03	2.13	1.99	1.96	1.97	1.96	1.95	1.93	1.93	C	C	C	C	C	X	X	X	X	1.83	1.86	1.82	1.82	1.82	2.13	-												
Aug 8	1.86	1.85	1.84	1.86	1.89	1.87	1.85	1.83	1.83	1.86	S	1.83	1.83	1.82	1.83	1.83	1.82	1.81	1.81	1.83	1.87	1.82	1.85	1.87	1.81	1.89	1.84												
Aug 9	1.86	1.85	1.87	2.05	2.06	1.89	1.86	1.86	1.84	S	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.83	1.84	1.83	1.83	1.82	1.82	2.06	1.86												
Aug 10	1.82	1.82	1.84	1.83	1.83	1.82	1.83	1.84	S	1.81	1.81	1.80	1.81	1.81	1.81	1.82	1.82	1.81	1.84	1.86	1.83	1.85	2.04	1.90	1.80	2.04	1.84												
Aug 11	1.98	1.90	1.85	1.87	1.87	1.89	1.89	S	1.87	1.85	1.83	1.83	1.85	1.84	1.84	1.84	1.84	1.83	1.86	1.85	1.86	1.86	1.87	1.86	1.83	1.98	1.86												
Aug 12	1.86	1.89	1.89	2.00	2.00	2.02	S	2.00	1.95	1.94	1.90	1.86	1.84	1.83	1.84	1.82	1.82	1.82	1.85	1.85	1.93	1.87	1.85	1.84	1.82	2.02	1.89												
Aug 13	1.83	1.84	1.84	1.85	1.86	S	1.87	1.86	1.86	1.85	1.84	1.84	1.83	1.83	1.85	1.82	1.82	1.82	1.82	1.83	1.83	1.84	1.84	1.84	1.82	1.87	1.84												
Aug 14	1.84	1.85	1.86	1.86	S	1.85	1.84	1.83	1.83	1.83	1.83	1.82	1.82	1.82	1.82	1.82	1.82	1.83	1.83	1.86	1.97	1.97	1.91	1.89	1.82	1.97	1.85												
Aug 15	1.93	1.89	1.89	S	1.95	2.01	2.06	1.93	1.90	1.85	1.85	1.85	1.84	1.83	1.83	1.84	1.84	1.83	1.83	1.89	1.87	1.86	1.89	1.87	1.83	2.06	1.88												
Aug 16	1.89	1.91	S	1.95	1.96	1.96	1.94	1.93	1.90	1.85	1.81	X	X	X	X	X	X	X	X	X	X	X	X	X	1.81	1.96	-												
Aug 17	1.85	S	1.90	2.02	2.11	2.20	2.13	2.07	1.93	1.91	1.83	1.83	1.83	1.86	1.86	1.86	1.84	X	X	X	2.05	1.89	1.84	1.87	1.83	2.20	1.93												
Aug 18	S	1.90	1.90	1.92	2.02	2.20	2.24	2.10	1.94	1.87	1.83	X	X	X	X	X	X	X	X	X	X	X	P	S	1.83	2.24	-												
Aug 19	1.94	1.88	1.84	1.84	1.86	1.85	NRM	1.89	1.84	1.83	1.82	1.82	1.83	1.82	1.83	1.82	1.82	1.83	1.94	1.88	1.87	S	1.93	1.82	1.94	1.86													
Aug 20	1.97	2.03	2.08	2.06	2.04	2.07	2.00	2.00	2.00	1.97	1.92	1.91	1.86	1.87	1.85	1.82	1.83	1.83	1.85	1.89	1.89	S	1.86	1.85	1.82	2.08	1.93												
Aug 21	1.88	1.88	1.89	1.88	1.88	1.88	1.88	1.89	1.88	1.89	1.90	1.90	1.88	1.86	1.86	1.86	1.86	1.85	1.84	1.84	S	1.86	1.86	1.87	1.84	1.90	1.87												
Aug 22	1.88	1.88	1.84	1.82	1.83	1.84	1.87	1.87	1.84	1.84	1.85	1.84	1.81	1.82	1.81	1.81	1.82	1.83	1.83	S	1.83	1.81	1.82	1.83	1.81	1.88	1.84												
Aug 23	1.83	1.84	1.85	1.85	1.85	1.86	1.86	1.86	1.85	1.85	1.85	1.84	1.84	1.83	1.82	1.81	1.82	1.82	S	1.87	1.85	1.87	1.87	1.88	1.81	1.88	1.85												
Aug 24	1.88	1.90	1.89	1.89	1.88	1.88	1.89	1.91	1.92	1.92	1.92	1.93	1.93	1.92	1.92	1.95	1.90	S	1.88	1.87	1.89	1.90	1.90	1.90	1.87	1.95	1.90												
Aug 25	1.91	1.90	1.90	1.90	1.91	1.91	1.89	1.85	1.84	1.84	1.83	1.83	1.82	1.82	1.82	1.82	S	1.83	1.87	1.88	1.83	1.87	1.94	1.89	1.82	1.94	1.87												
Aug 26	1.87	1.87	1.89	1.89	1.87	1.87	1.90	1.90	1.84	1.83	1.82	1.81	X	X	X	S	1.82	1.82	1.83	1.86	1.85	1.89	1.88	1.88	1.81	1.90	1.86												
Aug 27	X	1.91	1.93	1.94	1.91	1.93	1.93	1.94	1.92	1.83	1.83	1.83	X	1.82	S	1.83	1.83	1.83	1.86	1.95	1.85	1.87	1.90	1.92	1.82	1.95	1.88												
Aug 28	1.93	1.93	1.95	1.96	1.97	1.96	1.99	2.00	1.94	1.90	1.89	1.88	1.86	S	NRM	NRM	Y	Y	Y	Y	Y	Y	Y	Y	1.86	2.00	-												
Aug 29	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NRM	NRM	NRM	NRM	1.89	1.89	1.90	1.90	1.90	1.91	1.91	1.91	1.92	1.92	1.89	1.92	-												
Aug 30	1.92	1.91	1.91	1.91	1.91	1.92	1.92	1.92	1.92	1.91	1.90	S	1.89	1.89	1.89	1.90	1.90	1.90	1.93	1.99	1.96	1.96	1.99	1.99	1.89	1.99	1.92												
Aug 31	1.98	1.98	1.97	2.01	2.03	2.01	2.01	2.05	2.03	2.00	S	1.90	1.88	1.88	1.88	1.87	1.87	1.87	1.90	1.90	1.95	1.90	1.87	1.87	1.87	1.87	2.05	1.94											
Diurnal Maximum	2.20	2.34	2.30	2.27	2.32	2.31	2.33	2.19	2.11	2.12	2.14	2.13	2.15	2.10	2.07	2.04	2.04	2.26	2.17	2.12	2.26	2.15	2.14	2.15															
Diurnal Average	1.93	1.93	1.93	1.95	1.97	1.97	1.97	1.95	1.92	1.90	1.88	1.88	1.87	1.87	1.87	1.87	1.86	1.87	1.88	1.91	1.92	1.90	1.91	1.91															
C	Monthly Calibration										S	Daily Zero-Span Check										Q	Quality Assurance																
K	Collection Error										N	No Data (Machine Not in Service)										Y	Routine Maintenance																
X	InValid Data (Equipment Malfunction/Recovery)										NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																											
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																							
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																							

Timeseries Chart of Hourly Average for THC - AQHI - Cadotte Lake Station

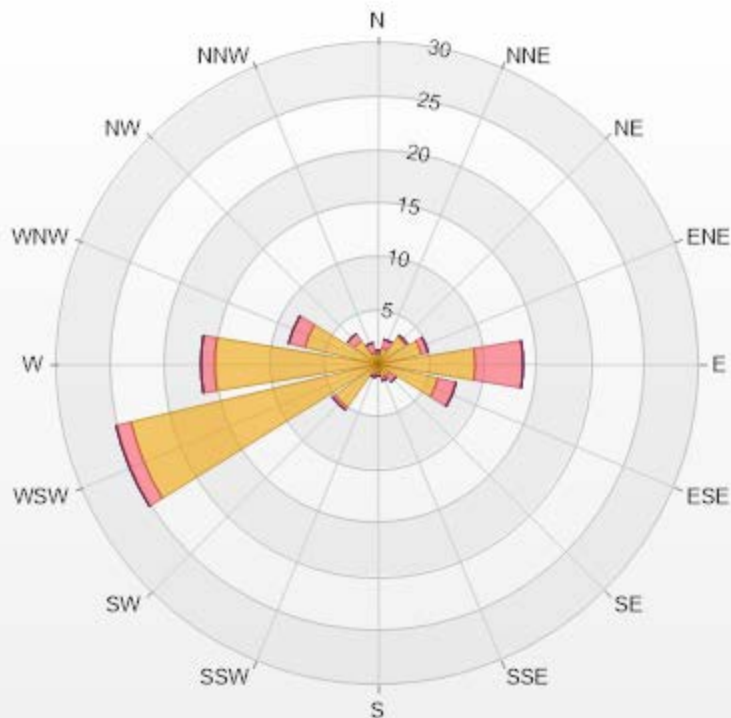


THC55[ppm] Histogram: AQHI Cadotte Lake Monthly: 08-2020 1 Hr.



Wind: AQHI Cadotte Lake Poll.: AQHI Cadotte Lake-THC55[ppm] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 84.41% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	0.96	0.32	0	0	0	1.28
NNE	1.59	0.8	0	0	0	2.39
NE	3.18	0.16	0	0	0	3.34
ENE	4.14	0.64	0	0	0	4.78
E	9.08	4.46	0	0	0	13.54
ESE	5.73	1.75	0	0	0	7.48
SE	1.27	0.8	0	0	0	2.07
SSE	1.27	0.32	0	0	0	1.59
S	0.8	0.32	0	0	0	1.12
SSW	0.96	0.32	0	0	0	1.28
SW	4.94	0.32	0	0	0	5.26
WSW	23.73	1.43	0	0	0	25.16
W	15.29	1.27	0	0	0	16.56
WNW	7.01	1.59	0	0	0	8.6
NW	2.71	0.8	0	0	0	3.51
NNW	1.11	0.96	0	0	0	2.07
Summary	83.77	16.26	0	0	0	100



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% Icon Classes (ppm)

84

0-2

16

2-5

0

5-10

0

10-40

0

>40.0



PEACE RIVER AREA MONITORING PROGRAM

AQHI - Cadotte Lake Station - August 2020

Summary of Hourly Averages

METHANE (CH4) in ppm

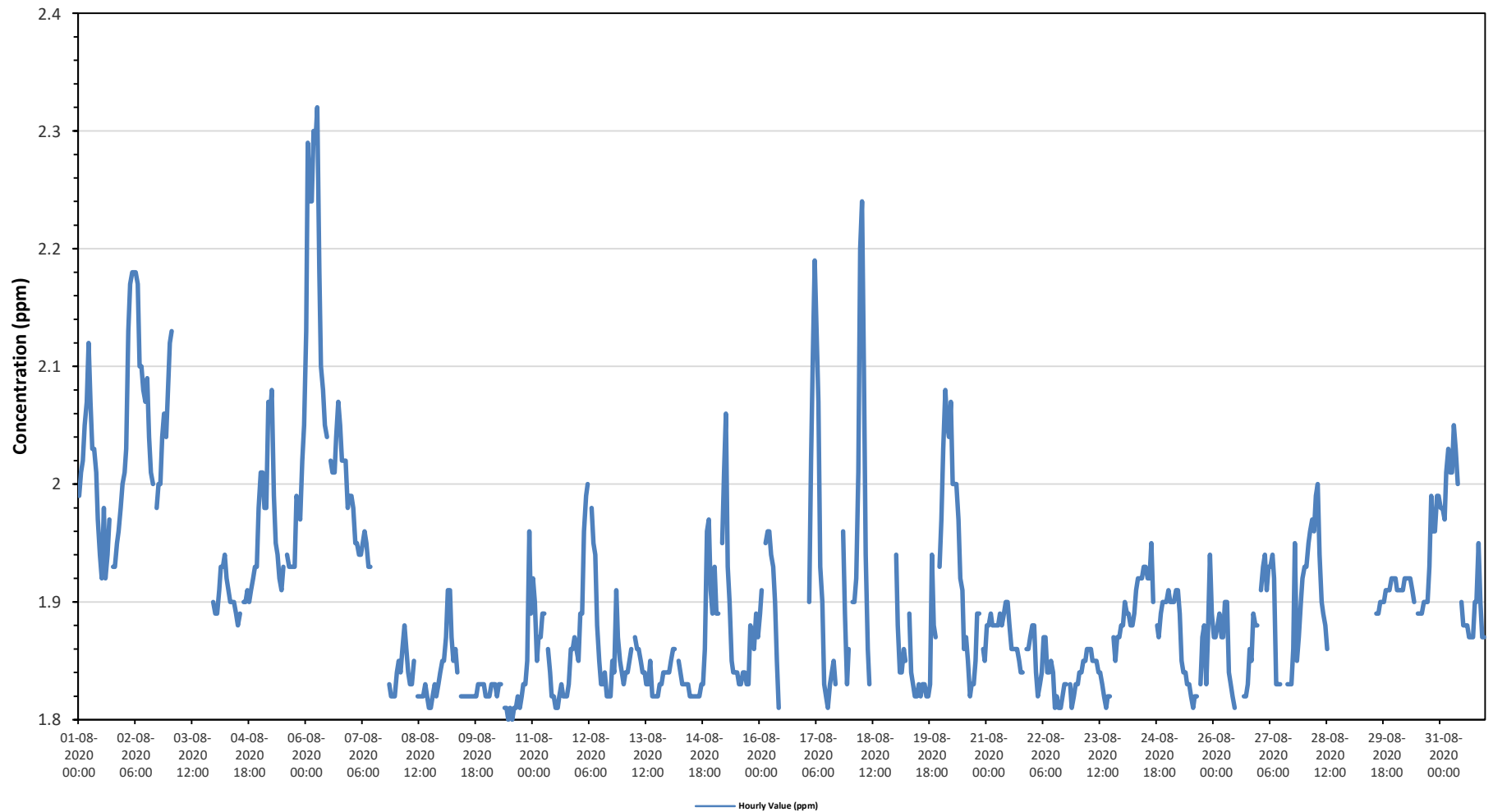
Maximum Hourly Value:	2.32 ppm on August 6 at hour 6	Hours in Service:	744
Maximum Daily Value:	2.11 ppm on August 6	Hours of Data:	628
Minimum Hourly Value:	1.80 ppm on August 10 at hour 11	Hours of Missing Data:	81
Minimum Daily Value:	1.83 ppm on August 10	Hours of Calibration:	35
Monthly Average:	1.90 ppm	Operational Uptime:	89.1

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
Aug 1	1.99	2.01	2.02	2.05	2.07	2.12	2.07	2.03	2.03	2.01	1.97	1.94	1.92	1.98	1.92	1.94	1.97	S	1.93	1.93	1.95	1.96	1.98	2.00	1.92	2.12	1.99	
Aug 2	2.01	2.03	2.13	2.17	2.18	2.18	2.18	2.17	2.10	2.10	2.08	2.07	2.09	2.04	2.01	2.00	S	1.98	2.00	2.00	2.04	2.06	2.04	2.08	1.98	2.18	2.08	
Aug 3	2.12	2.13	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	1.89	S	1.90	1.89	2.13	-
Aug 4	1.89	1.89	1.91	1.93	1.93	1.94	1.92	1.91	1.90	1.90	1.90	1.89	1.88	1.89	S	1.90	1.90	1.91	1.90	1.91	1.92	1.93	1.93	1.98	1.88	1.98	1.91	
Aug 5	2.01	2.01	1.98	1.98	2.07	2.06	2.08	1.99	1.95	1.94	1.92	1.91	1.93	S	1.94	1.93	1.93	1.93	1.93	1.99	1.98	1.97	2.02	2.05	1.91	2.08	1.98	
Aug 6	2.13	2.29	2.24	2.24	2.30	2.29	2.32	2.18	2.10	2.08	2.05	2.04	S	2.02	2.01	2.01	2.04	2.07	2.05	2.02	2.02	2.02	1.98	1.99	1.98	2.32	2.11	
Aug 7	1.99	1.98	1.95	1.95	1.94	1.94	1.95	1.96	1.95	1.93	1.93	C	C	C	C	C	X	X	X	X	1.83	1.82	1.82	1.82	1.82	1.99	-	
Aug 8	1.84	1.85	1.84	1.86	1.88	1.86	1.84	1.83	1.83	1.85	S	1.82	1.82	1.82	1.82	1.83	1.82	1.81	1.81	1.82	1.83	1.82	1.83	1.84	1.81	1.88	1.83	
Aug 9	1.85	1.85	1.87	1.91	1.91	1.87	1.85	1.86	1.84	S	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.83	1.83	1.83	1.83	1.82	1.82	1.91	1.84	
Aug 10	1.82	1.82	1.83	1.83	1.83	1.82	1.83	1.83	S	1.81	1.81	1.80	1.81	1.80	1.81	1.81	1.82	1.81	1.82	1.83	1.83	1.85	1.96	1.89	1.80	1.96	1.83	
Aug 11	1.92	1.90	1.85	1.87	1.87	1.89	1.89	S	1.86	1.84	1.82	1.82	1.81	1.81	1.82	1.83	1.82	1.82	1.82	1.83	1.86	1.86	1.87	1.86	1.81	1.92	1.85	
Aug 12	1.85	1.89	1.89	1.96	1.99	2.00	S	1.98	1.95	1.94	1.88	1.85	1.83	1.83	1.84	1.82	1.82	1.82	1.85	1.84	1.91	1.87	1.85	1.84	1.82	2.00	1.88	
Aug 13	1.83	1.84	1.84	1.85	1.86	S	1.87	1.86	1.86	1.85	1.84	1.84	1.83	1.83	1.85	1.82	1.82	1.82	1.82	1.83	1.83	1.84	1.84	1.84	1.82	1.87	1.84	
Aug 14	1.84	1.85	1.86	1.86	S	1.85	1.84	1.83	1.83	1.83	1.83	1.82	1.82	1.82	1.82	1.82	1.82	1.83	1.83	1.86	1.96	1.97	1.91	1.89	1.82	1.97	1.85	
Aug 15	1.93	1.89	1.89	S	1.95	2.01	2.06	1.93	1.90	1.85	1.84	1.84	1.84	1.83	1.83	1.84	1.84	1.83	1.83	1.88	1.87	1.86	1.89	1.87	1.83	2.06	1.88	
Aug 16	1.89	1.91	S	1.95	1.96	1.96	1.94	1.93	1.90	1.85	1.81	X	X	X	X	X	X	X	X	X	X	X	X	X	1.81	1.96	-	
Aug 17	1.84	S	1.90	2.02	2.11	2.19	2.13	2.07	1.93	1.90	1.83	1.82	1.81	1.83	1.84	1.85	1.83	X	X	X	1.96	1.89	1.83	1.86	1.81	2.19	1.92	
Aug 18	S	1.90	1.90	1.92	2.01	2.20	2.24	2.10	1.94	1.86	1.83	X	X	X	X	X	X	X	X	X	X	X	P	S	1.83	2.24	-	
Aug 19	1.94	1.88	1.84	1.84	1.86	1.85	NRM	1.89	1.84	1.83	1.82	1.82	1.83	1.82	1.83	1.83	1.82	1.82	1.83	1.94	1.88	1.87	S	1.93	1.82	1.94	1.86	
Aug 20	1.97	2.03	2.08	2.05	2.04	2.07	2.00	2.00	2.00	1.97	1.92	1.91	1.86	1.87	1.85	1.82	1.83	1.83	1.85	1.89	1.89	S	1.86	1.85	1.82	2.08	1.93	
Aug 21	1.88	1.88	1.89	1.88	1.88	1.88	1.88	1.89	1.88	1.89	1.90	1.90	1.88	1.86	1.86	1.86	1.86	1.85	1.84	1.84	S	1.86	1.86	1.87	1.84	1.90	1.87	
Aug 22	1.88	1.88	1.84	1.82	1.83	1.84	1.87	1.87	1.84	1.84	1.85	1.84	1.81	1.82	1.81	1.81	1.82	1.83	1.83	S	1.83	1.81	1.82	1.83	1.81	1.88	1.84	
Aug 23	1.83	1.84	1.84	1.85	1.85	1.86	1.86	1.86	1.85	1.85	1.85	1.84	1.84	1.83	1.82	1.81	1.82	1.82	S	1.87	1.85	1.87	1.87	1.88	1.81	1.88	1.85	
Aug 24	1.88	1.90	1.89	1.89	1.88	1.88	1.89	1.91	1.92	1.92	1.92	1.93	1.93	1.92	1.92	1.95	1.90	S	1.88	1.87	1.89	1.90	1.90	1.90	1.87	1.95	1.90	
Aug 25	1.91	1.90	1.90	1.90	1.91	1.91	1.89	1.85	1.84	1.84	1.83	1.83	1.82	1.81	1.82	1.82	S	1.83	1.87	1.88	1.83	1.87	1.94	1.89	1.81	1.94	1.86	
Aug 26	1.87	1.87	1.88	1.89	1.87	1.87	1.90	1.90	1.84	1.83	1.82	1.81	X	X	X	S	1.82	1.82	1.83	1.86	1.85	1.89	1.88	1.88	1.81	1.90	1.86	
Aug 27	X	1.91	1.93	1.94	1.91	1.93	1.93	1.94	1.92	1.83	1.83	1.83	X	1.82	S	1.83	1.83	1.83	1.86	1.95	1.85	1.87	1.90	1.92	1.82	1.95	1.88	
Aug 28	1.93	1.93	1.95	1.96	1.97	1.96	1.99	2.00	1.94	1.90	1.89	1.88	1.86	S	NRM	NRM	Y	Y	Y	Y	Y	Y	Y	Y	1.86	2.00	-	
Aug 29	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NRM	NRM	NRM	NRM	1.89	1.89	1.90	1.90	1.90	1.91	1.91	1.91	1.92	1.92	1.89	1.92	-	
Aug 30	1.92	1.91	1.91	1.91	1.91	1.92	1.92	1.92	1.92	1.91	1.90	S	1.89	1.89	1.89	1.90	1.90	1.90	1.93	1.99	1.96	1.96	1.99	1.99	1.89	1.99	1.92	
Aug 31	1.98	1.98	1.97	2.01	2.03	2.01	2.01	2.05	2.03	2.00	S	1.90	1.88	1.88	1.88	1.87	1.87	1.87	1.90	1.90	1.95	1.90	1.87	1.87	1.87	1.87	1.94	
Diurnal Maximum	2.13	2.29	2.24	2.24	2.30	2.29	2.32	2.18	2.10	2.10	2.08	2.07	2.09	2.04	2.01	2.01	2.04	2.07	2.05	2.02	2.04	2.06	2.04	2.08				
Diurnal Average	1.92	1.93	1.92	1.94	1.96	1.97	1.97	1.95	1.92	1.90	1.88	1.87	1.86	1.86	1.87	1.86	1.86	1.86	1.87	1.89	1.90	1.89	1.90	1.90				

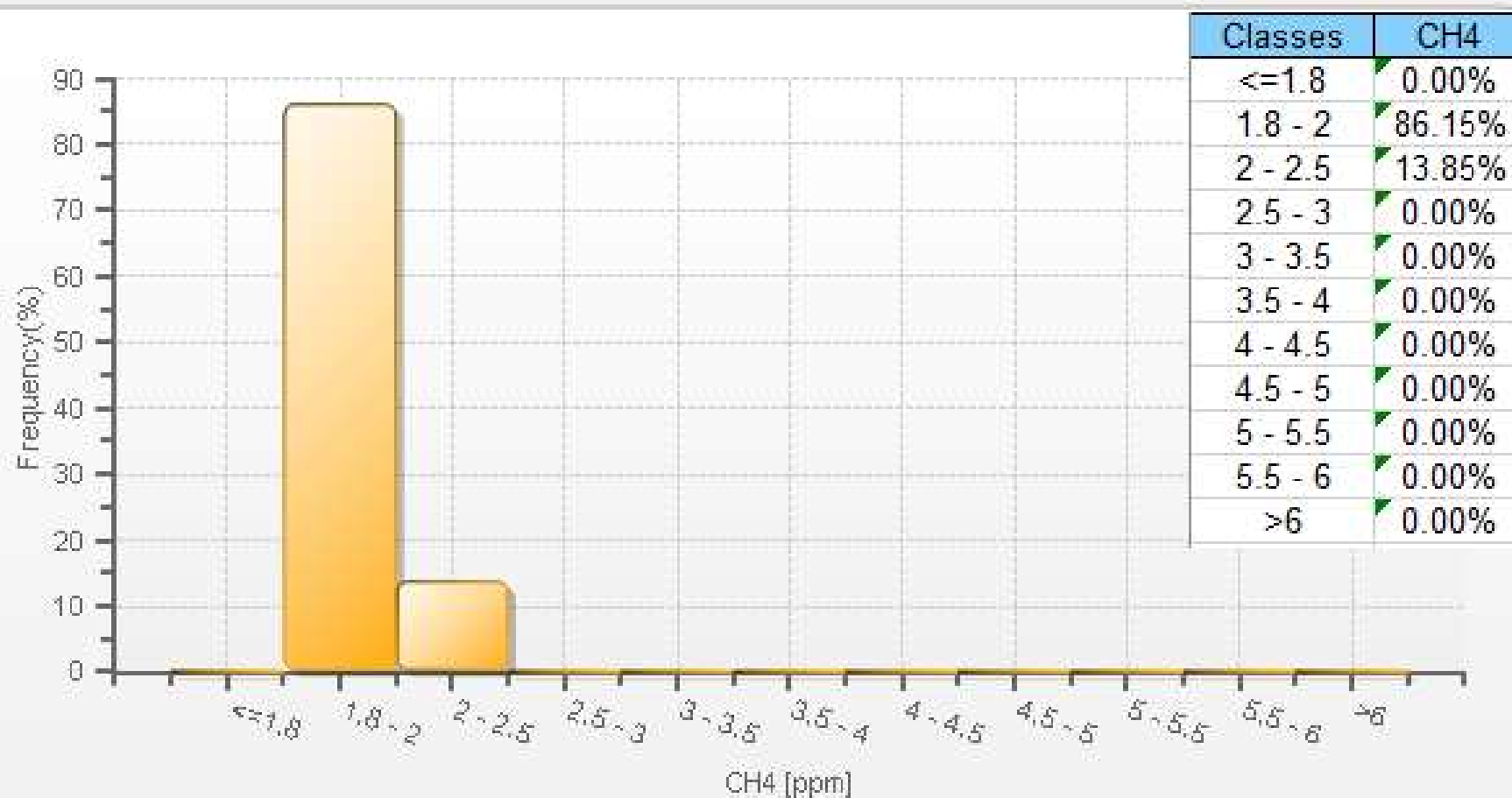
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P	Power Failure

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
 Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for CH4 - AQHI - Cadotte Lake Station

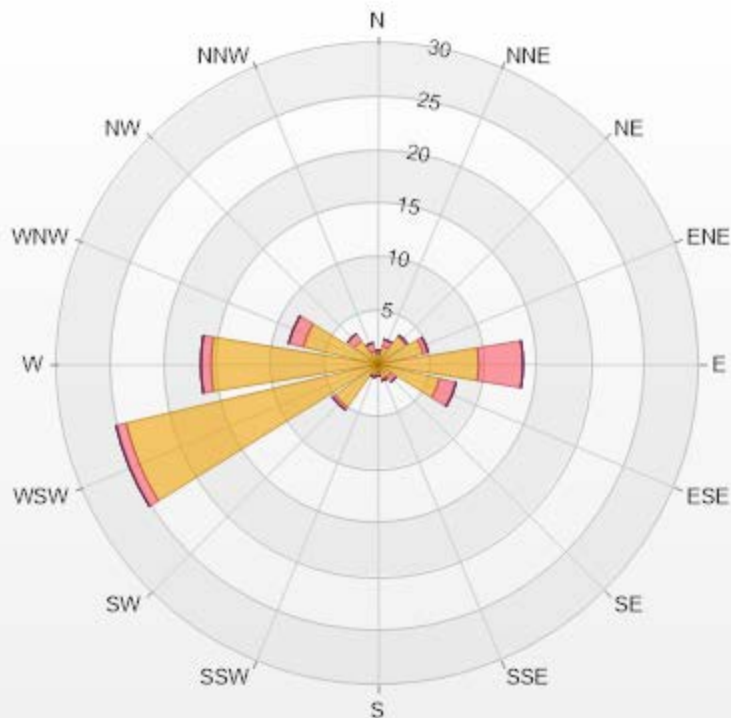


CH4[ppm] Histogram: AQHI Cadotte Lake Monthly: 08-2020 1 Hr.



Wind: AQHI Cadotte Lake Poll.: AQHI Cadotte Lake-CH4[ppm] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 84.41% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	0.96	0.32	0	0	0	1.28
NNE	1.75	0.64	0	0	0	2.39
NE	3.18	0.16	0	0	0	3.34
ENE	4.3	0.48	0	0	0	4.78
E	9.39	4.14	0	0	0	13.53
ESE	5.89	1.59	0	0	0	7.48
SE	1.43	0.64	0	0	0	2.07
SSE	1.43	0.16	0	0	0	1.59
S	0.8	0.32	0	0	0	1.12
SSW	1.11	0.16	0	0	0	1.27
SW	4.94	0.32	0	0	0	5.26
WSW	24.2	0.96	0	0	0	25.16
W	15.61	0.96	0	0	0	16.57
WNW	7.17	1.43	0	0	0	8.6
NW	2.71	0.8	0	0	0	3.51
NNW	1.27	0.8	0	0	0	2.07
Summary	86.14	13.88	0	0	0	100



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% Icon Classes (ppm)

86

0-2

14

2-5

0

5-10

0

10-20

0

>20.0



PEACE RIVER AREA MONITORING PROGRAM

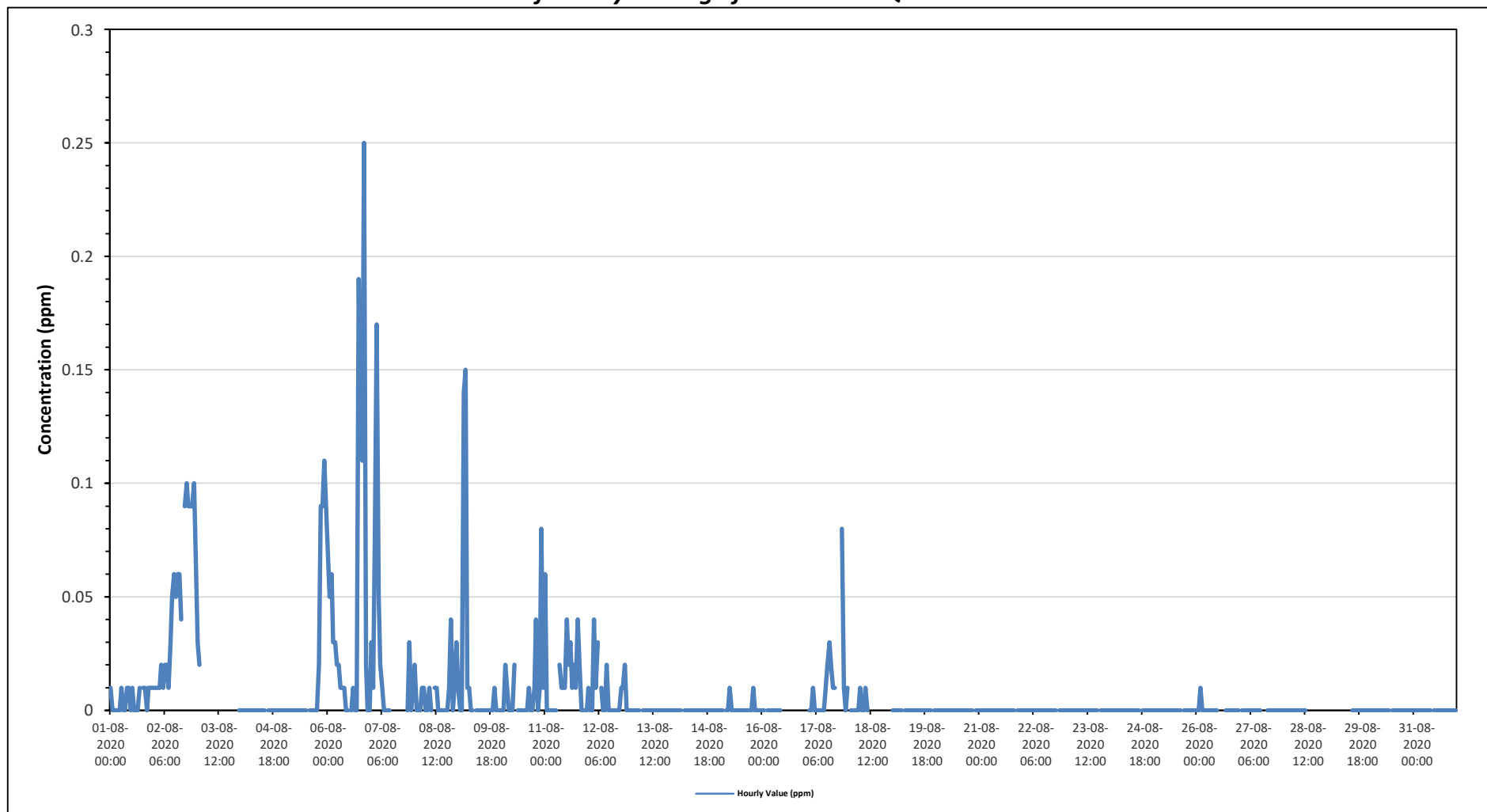
AQHI - Cadotte Lake Station - August 2020

Summary of Hourly Averages

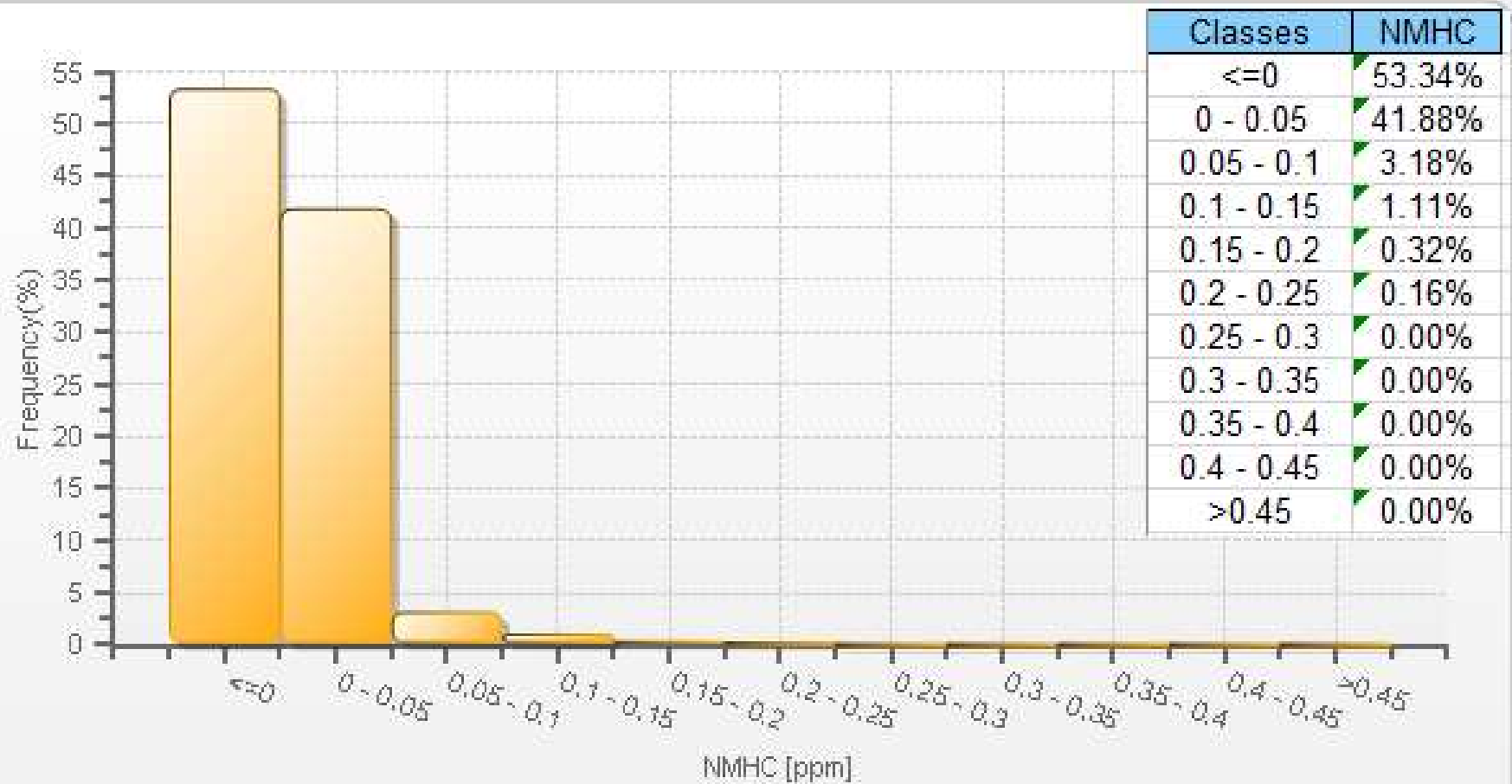
NON-METHANE HYDROCARBONS (NMHC) in ppm

Maximum Hourly Value:										0.25 ppm on August 6 at hour 20										Hours in Service:										744									
Maximum Daily Value:										0.05 ppm on August 2										Hours of Data:										628									
Minimum Hourly Value:										0.00 ppm on August 1 at hour 1										Hours of Missing Data:										81									
Minimum Daily Value:										0.00 ppm on August 4										Hours of Calibration:										35									
Monthly Average:										0.01 ppm										Operational Uptime:										89.1									
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average													
Aug 1	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.01	S	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00											
Aug 2	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.02	0.01	0.03	0.05	0.06	0.05	0.06	0.06	0.04	S	0.09	0.10	0.09	0.09	0.09	0.09	0.10	0.07	0.01	0.10	0.05											
Aug 3	0.03	0.02	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0.00	S	0.00	0.00	0.03	-										
Aug 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
Aug 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.02	0.09	0.09	0.11	0.09	0.00	0.11	0.02	0.02											
Aug 6	0.07	0.05	0.06	0.03	0.03	0.02	0.02	0.01	0.01	0.01	0.00	0.00	S	0.00	0.01	0.00	0.00	0.19	0.13	0.11	0.25	0.02	0.00	0.00	0.00	0.00	0.25	0.04											
Aug 7	0.03	0.01	0.08	0.17	0.05	0.02	0.01	0.00	0.00	0.00	0.00	C	C	C	C	C	X	X	X	X	0.00	0.03	0.00	0.01	0.00	0.17	-	0.01											
Aug 8	0.02	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00	S	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.00	0.01	0.03	0.00	0.04	0.01	0.01	0.01											
Aug 9	0.01	0.00	0.00	0.14	0.15	0.01	0.01	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.15	0.01	0.01											
Aug 10	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.02	S	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.04	0.00	0.01	0.08	0.01	0.00	0.08	0.01	0.01											
Aug 11	0.06	0.00	0.00	0.00	0.00	0.00	0.00	S	0.02	0.01	0.01	0.01	0.04	0.02	0.03	0.01	0.02	0.01	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.01											
Aug 12	0.01	0.00	0.00	0.04	0.01	0.03	S	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.00	0.00	0.00	0.00	0.04	0.01	0.01											
Aug 13	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00											
Aug 14	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00											
Aug 15	0.00	0.00	0.00	S	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00											
Aug 16	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	X	X	X	X	X	X	X	X	X	X	X	X	0.00	0.00	-	0.00											
Aug 17	0.00	S	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.02	0.01	0.01	X	X	X	0.08	0.01	0.00	0.01	0.00	0.08	0.01	0.01											
Aug 18	S	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	X	X	X	X	X	X	X	X	X	X	X	P	S	0.00	0.01	-	0.00											
Aug 19	0.00	0.00	0.00	0.00	0.00	0.00	NRM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00											
Aug 20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00											
Aug 21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
Aug 22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
Aug 23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
Aug 24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
Aug 25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
Aug 26	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	X	X	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00											
Aug 27	X	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
Aug 28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	NRM	NRM	Y	Y	Y	Y	Y	Y	Y	Y	Y	0.00	0.00	-	0.00											
Aug 29	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NRM	NRM	NRM	NRM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00										
Aug 30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
Aug 31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
Diurnal Maximum	0.07	0.05	0.08	0.17	0.15	0.03	0.02	0.02	0.02	0.03	0.05	0.06	0.05	0.06	0.06	0.04	0.02	0.19	0.13	0.11	0.25	0.09	0.11	0.09	0.00	0.00	0.00	0.00	0.00										
Diurnal Average	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00										
C	Monthly Calibration						S	Daily Zero-Span Check										Q	Quality Assurance																				
K	Collection Error						N	No Data (Machine Not in Service)										Y	Routine Maintenance																				
X	InValid Data (Equipment Malfunction/Recovery)						NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)										P	Power Failure																				
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																							
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																							

Timeseries Chart of Hourly Average for NMHC - AQHI - Cadotte Lake Station

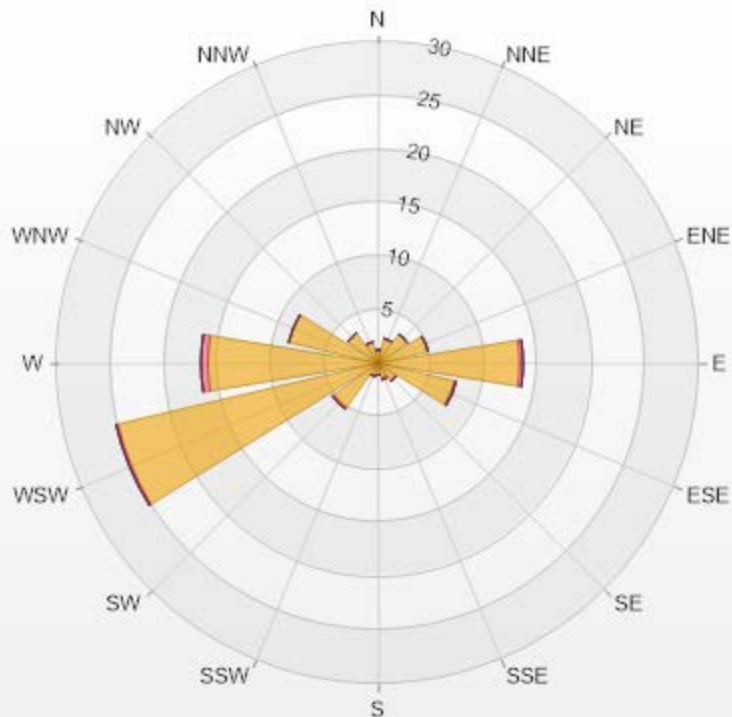


NMHC[ppm] Histogram: AQHI Cadotte Lake Monthly: 08-2020 1 Hr.



Wind: AQHI Cadotte Lake Poll.: AQHI Cadotte Lake-NMHC[ppm] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 84.41% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-0.9	0.9-2	>2.0	Total
N	1.27	0	0	0	0	1.27
NNE	2.39	0	0	0	0	2.39
NE	3.34	0	0	0	0	3.34
ENE	4.78	0	0	0	0	4.78
E	13.22	0.32	0	0	0	13.54
ESE	7.32	0.16	0	0	0	7.48
SE	2.07	0	0	0	0	2.07
SSE	1.43	0.16	0	0	0	1.59
S	1.11	0	0	0	0	1.11
SSW	1.27	0	0	0	0	1.27
SW	5.1	0.16	0	0	0	5.26
WSW	25	0.16	0	0	0	25.16
W	15.92	0.64	0	0	0	16.56
WNW	8.6	0	0	0	0	8.6
NW	3.5	0	0	0	0	3.5
NNW	2.07	0	0	0	0	2.07
Summary	98.39	1.6	0	0	0	100



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% Icon Classes (ppm)

98 0-0.1

2 0.1-0.3

0 0.3-0.9

0 0.9-2

0 >2.0



PEACE RIVER AREA MONITORING PROGRAM

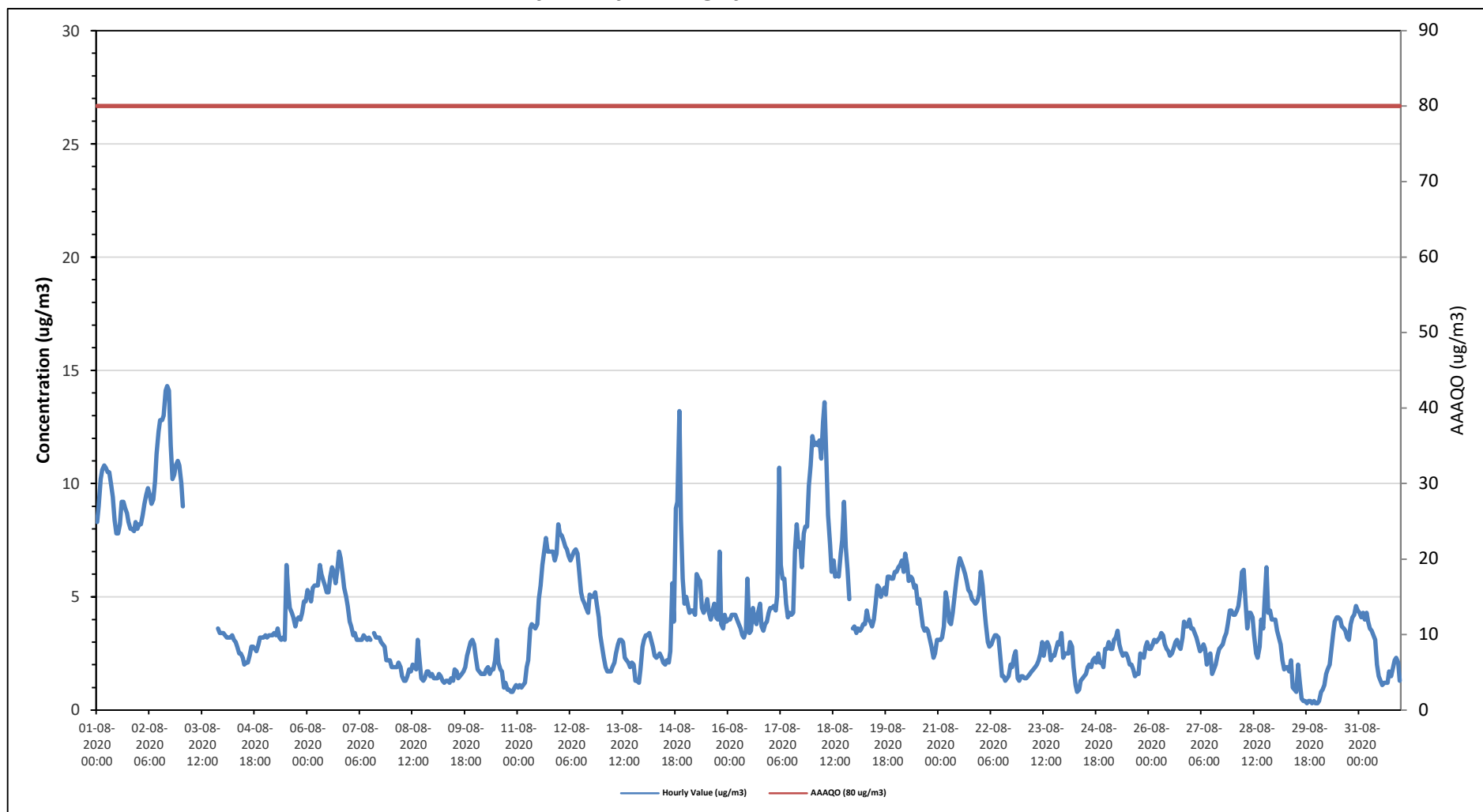
AQHI - Cadotte Lake Station - August 2020

Summary of Hourly Averages

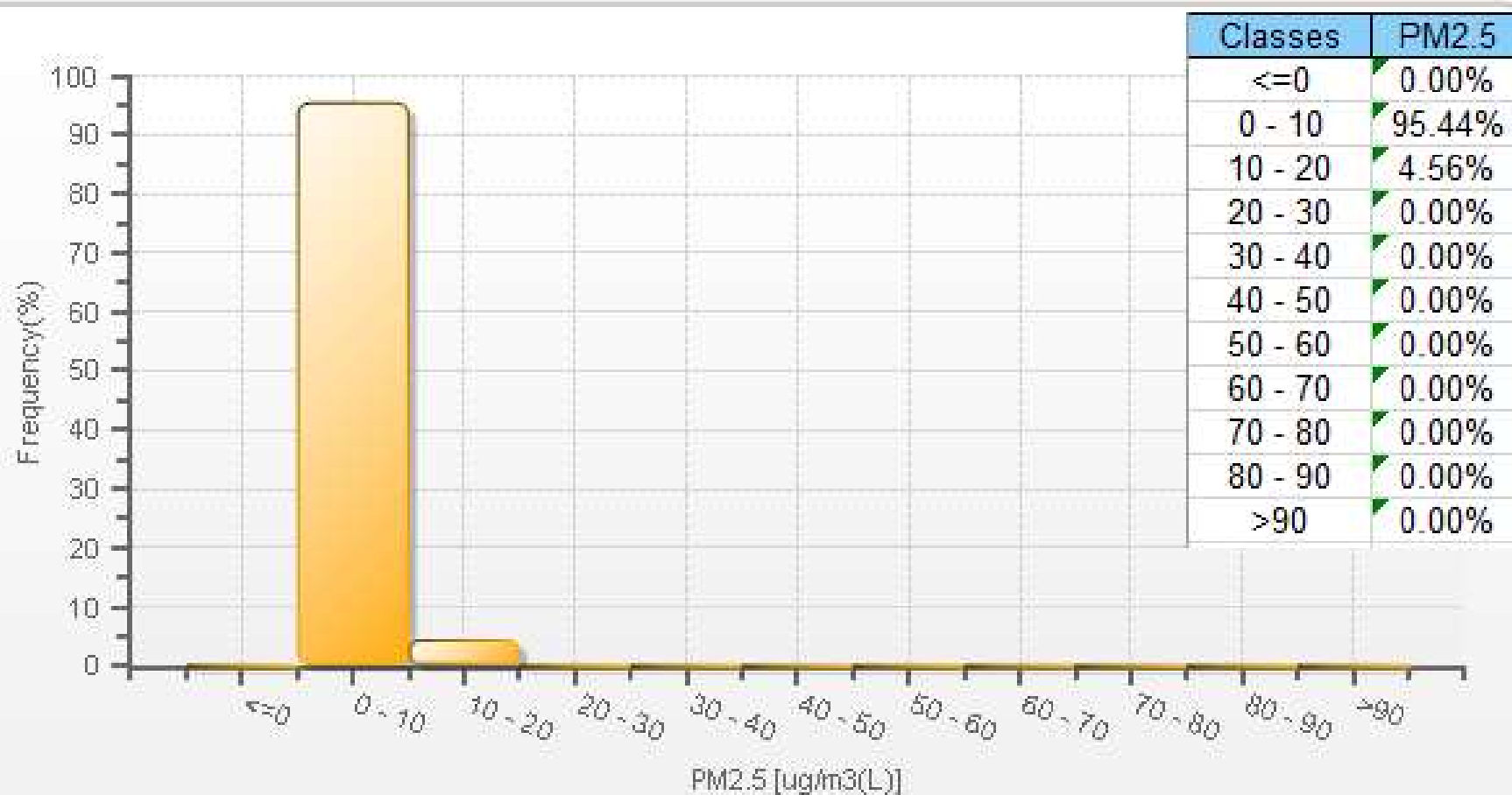
PARTICULATE MATTER 2.5 (PM_{2.5}) in µg/m³

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 80 µg/m3, 24-Hour 29 µg/m3																												
Number of 1-Hour Exceedances: 0							Number of 24-Hour Exceedances: 0																					
Maximum Hourly Value: 14.3 µg/m³ on August 2 at hour 16							Hours in Service: 744																					
Maximum Daily Value: 10.9 µg/m³ on August 2							Hours of Data: 723																					
Minimum Hourly Value: 0.3 µg/m³ on August 29 at hour 18							Hours of Missing Data: 20																					
Minimum Daily Value: 1.4 µg/m³ on August 29							Hours of Calibration: 1																					
Monthly Average: 4.1 µg/m³							Operational Uptime: 97.3																					
Day	Hourly Period Starting at (MST)																									Daily Minimum	Daily Maximum	Daily Average
Aug 1	8.3	9	10.2	10.6	10.8	10.7	10.5	10.5	9.9	9.4	8.4	7.8	7.8	8.2	9.2	9.2	8.9	8.7	8.3	8	8	7.9	8.3	8	7.8	10.8	9.0	
Aug 2	8	8	9	9	10	10	10	9	9	10	11	12	13	13	13	14	14	14	12	10	10	11	11	11	8.2	14.3	10.9	
Aug 3	10	9	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	4	3	3	3.4	10.0	-
Aug 4	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	3	3	3	3	3	3	3	3	3	2.0	3.4	2.8	
Aug 5	3	3	3	3	3	3	3	4	3	3	3	3	6	5	5	4	4	4	4	4	4	4	5	5	3.1	6.4	3.9	
Aug 6	5	5	5	5	6	6	6	6	6	6	6	5	5	6	6	6	6	6	7	7	6	5	5	5	4.6	7.0	5.7	
Aug 7	4	4	3	3	3	3	3	3	3	3	3	3	C	3	3	3	3	3	3	3	2	2	2	2	2.2	3.9	3.1	
Aug 8	2	2	2	2	2	2	2	1	1	2	2	2	2	2	3	2	1	1	1	1	2	2	2	2	1.3	3.1	1.8	
Aug 9	1	1	1	2	2	1	1	1	1	1	1	1	2	2	1	2	2	2	2	2	3	3	3	3	1.2	3.1	1.8	
Aug 10	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	1	1	1	1	1	1	1	1	0.8	3.1	1.6	
Aug 11	1	1	1	1	1	2	2	4	4	4	4	4	5	6	6	7	8	7	7	7	7	7	7	8	1.0	8.2	4.5	
Aug 12	8	8	8	7	7	7	7	7	7	7	7	6	5	5	5	5	4	5	5	5	5	5	4	3	3.3	7.8	5.9	
Aug 13	3	2	2	2	2	2	2	2	3	3	3	3	3	2	2	2	2	2	2	1	1	1	2	3	1.2	3.1	2.2	
Aug 14	3	3	3	3	3	3	2	2	2	3	2	2	2	2	2	3	6	4	9	9	13	8	6	5	2.0	13.2	4.2	
Aug 15	5	5	4	4	4	4	6	6	6	5	4	5	5	4	4	5	4	5	4	7	4	4	4	4	3.6	7.0	4.6	
Aug 16	4	4	4	4	4	4	4	4	3	3	4	6	3	4	5	4	4	4	5	4	4	4	4	4	3.2	5.8	4.0	
Aug 17	5	5	5	4	5	11	6	6	6	5	4	4	4	4	7	8	7	7	6	8	8	8	10	11	4.1	10.8	6.4	
Aug 18	12	12	12	12	12	11	13	14	11	9	7	6	7	6	6	6	7	8	9	7	6	5	P	4	3.6	13.6	8.7	
Aug 19	4	3	4	4	4	4	4	4	4	4	4	4	5	6	5	5	5	5	6	6	6	6	6	6	3.4	6.1	4.6	
Aug 20	6	6	6	7	6	7	6	6	6	6	5	6	5	5	4	4	4	4	4	3	3	2	3	3	2.3	6.9	4.8	
Aug 21	3	3	3	4	5	5	4	4	4	5	6	6	7	7	6	6	6	5	5	5	5	5	5	5	3.1	6.7	4.9	
Aug 22	6	6	5	4	3	3	3	3	3	3	3	3	2	2	1	1	2	2	2	2	3	1	1	2	1.3	6.1	2.7	
Aug 23	2	1	1	2	2	2	2	2	2	2	3	3	2	3	3	3	2	2	2	3	3	3	3	2	1.4	3.4	2.3	
Aug 24	3	3	3	3	3	2	1	1	1	1	1	2	2	2	2	2	2	2	2	3	2	2	2	3	0.8	3.0	2.0	
Aug 25	3	3	3	3	3	3	4	3	3	2	3	3	2	2	2	2	2	2	2	3	2	2	3	3	1.5	3.5	2.5	
Aug 26	3	3	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	4	4	4	4	2.4	4.0	3.1	
Aug 27	4	4	3	3	3	3	3	3	3	3	2	2	3	2	2	2	3	3	3	3	3	4	4	4	1.6	4.4	2.9	
Aug 28	4	4	4	5	5	6	6	5	4	4	4	4	3	3	2	3	4	4	5	6	4	4	4	4	2.3	6.3	4.3	
Aug 29	4	4	3	3	2	2	2	2	2	2	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0.3	4.0	1.4	
Aug 30	0	0	1	1	1	2	2	2	3	3	4	4	4	4	4	4	4	3	3	4	4	4	5	4	0.3	4.6	2.9	
Aug 31	4	4	4	4	4	4	4	4	3	3	2	2	1	1	1	1	1	2	2	2	2	2	1	1	1.1	4.3	2.5	
Diurnal Maximum	12	12	12	12	12	11	13	14	11	10	11	12	13	13	13	14	14	14	12	10	13	11	11	11				
Diurnal Average	4.3	4.2	4.0	4.1	4.1	4.3	4.1	4.2	4.0	3.9	3.8	3.9	3.9	3.9	3.9	4.0	4.1	4.0	4.2	4.3	4.3	4.0	4.1	4.1				
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance											
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance											
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)								Power Failure											
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																												
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																												

Timeseries Chart of Hourly Average for PM2.5 - AQHI - Cadotte Lake Station

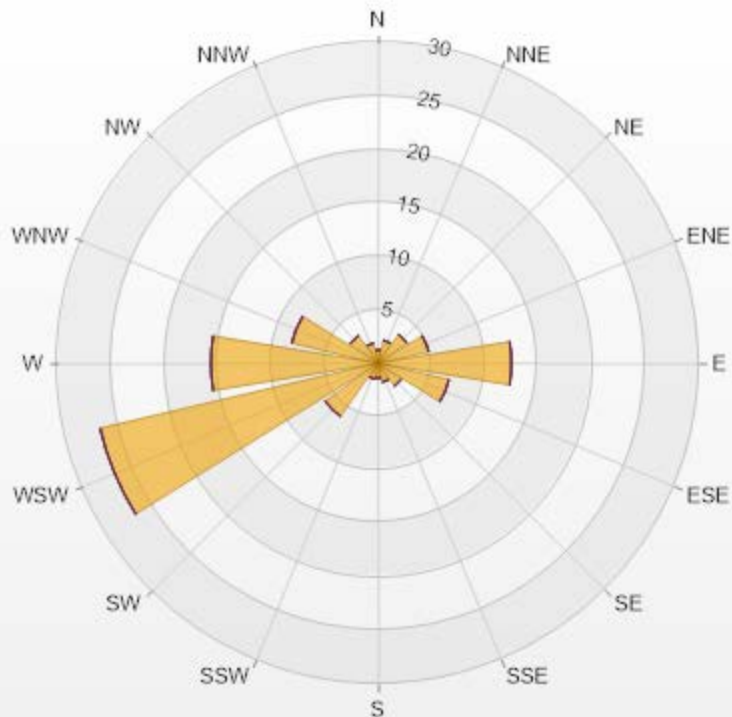


PM2.5[ug/m3(L)] Histogram: AQHI Cadotte Lake Monthly: 08-2020 1 Hr.



Wind: AQHI Cadotte Lake Poll.: AQHI Cadotte Lake-PM2.5[ug/m3(L)] Monthly: 08-2020 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 97.18% Calm Avg: 0.00 [ug/m3(L)]

Direction	0-50	50-80	80-120	120-240	>240.0	Total
N	1.24	0	0	0	0	1.24
NNE	2.21	0	0	0	0	2.21
NE	3.32	0	0	0	0	3.32
ENE	4.84	0	0	0	0	4.84
E	12.45	0	0	0	0	12.45
ESE	6.78	0	0	0	0	6.78
SE	2.63	0	0	0	0	2.63
SSE	1.8	0	0	0	0	1.8
S	1.38	0	0	0	0	1.38
SSW	1.52	0	0	0	0	1.52
SW	6.09	0	0	0	0	6.09
WSW	26.69	0	0	0	0	26.69
W	15.63	0	0	0	0	15.63
WNW	8.3	0	0	0	0	8.3
NW	3.18	0	0	0	0	3.18
NNW	1.94	0	0	0	0	1.94
Summary	100	0	0	0	0	100



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% Icon Classes (ug/m3(L))

100 0-50

0 50-80

0 80-120

0 120-240

0 >240.0



PEACE RIVER AREA MONITORING PROGRAM

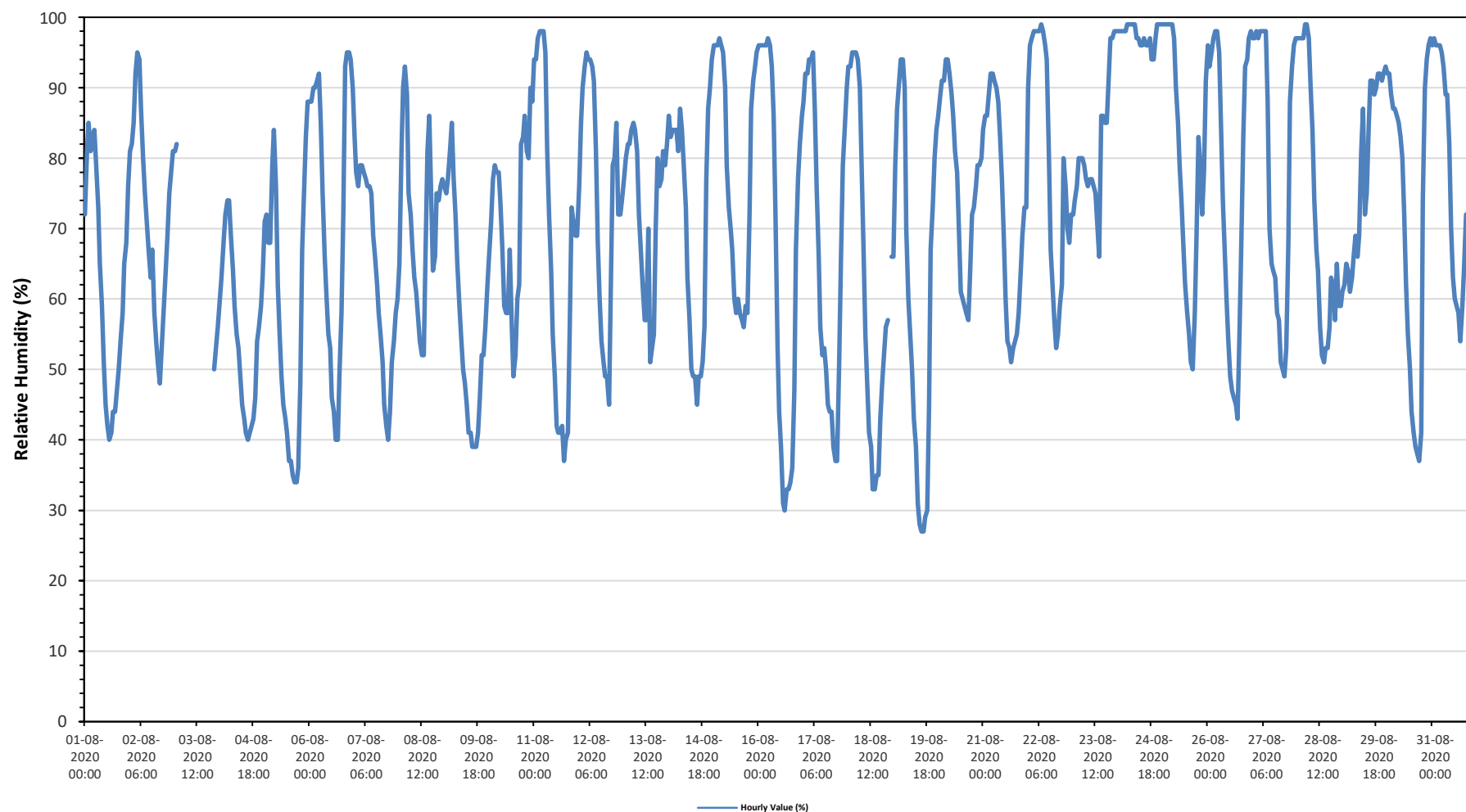
AQHI - Cadotte Lake Station - August 2020

Summary of Hourly Averages

RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:			99	%	on August 22 at hour 7										Hours in Service:			744									
Maximum Daily Value:			97.5	%	on August 24										Hours of Data:			724									
Minimum Hourly Value:			27	%	on August 19 at hour 15										Hours of Missing Data:			20									
Minimum Daily Value:			55.5	%	on August 4										Hours of Calibration:			0									
Monthly Average:			71.5	%											Operational Uptime:			97.3									
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
Aug 1	72	81	85	81	83	84	79	73	65	59	51	45	42	40	41	44	44	47	50	54	58	65	68	76	40	85	62.0
Aug 2	81	82	85	92	95	94	87	80	75	71	67	63	67	58	54	51	48	53	58	63	69	75	78	81	48	95	72.0
Aug 3	81	82	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	50	53	56	50	82	-
Aug 4	60	63	68	72	74	74	69	64	59	55	53	49	45	43	41	40	41	42	43	46	54	56	59	63	40	74	55.5
Aug 5	71	72	68	68	79	84	76	62	55	49	45	43	41	37	37	35	34	34	36	48	67	75	83	88	34	88	57.8
Aug 6	88	88	90	90	91	92	85	75	66	61	55	53	46	44	40	40	49	58	72	93	95	95	94	90	40	95	72.9
Aug 7	83	78	76	79	79	78	77	76	76	75	69	66	62	58	55	51	45	42	40	44	51	54	58	60	40	83	63.8
Aug 8	65	81	90	93	89	75	72	67	63	61	57	54	52	52	67	81	86	75	64	66	75	74	76	77	52	93	71.3
Aug 9	76	75	77	81	85	77	72	65	59	55	50	48	45	41	41	39	39	39	41	46	52	52	56	62	39	85	57.2
Aug 10	66	71	77	79	78	78	74	67	59	58	58	67	56	49	52	60	62	82	83	86	81	80	90	88	49	90	70.9
Aug 11	94	94	97	98	98	98	95	81	72	64	55	49	42	41	41	42	37	40	41	56	73	71	69	69	37	98	67.4
Aug 12	76	85	90	93	95	94	94	93	91	81	68	60	54	51	49	49	45	60	79	80	85	72	72	74	45	95	74.6
Aug 13	77	80	82	82	84	85	84	81	72	67	62	57	57	70	51	53	55	70	80	76	77	81	79	82	51	85	72.7
Aug 14	86	83	84	84	84	81	87	84	79	73	63	57	50	49	49	45	49	49	51	56	77	87	90	94	45	94	70.5
Aug 15	96	96	96	97	96	95	90	79	73	70	67	60	58	60	58	57	56	59	58	72	87	91	93	95	56	97	77.5
Aug 16	96	96	96	96	96	97	96	93	86	72	53	44	39	31	30	33	33	34	36	47	67	77	82	86	30	97	67.3
Aug 17	88	92	92	94	94	95	87	76	66	56	52	53	50	45	44	44	39	37	37	51	66	79	84	90	37	95	67.1
Aug 18	93	93	95	95	95	94	90	80	67	55	48	41	39	33	33	35	35	43	48	52	56	57	P	66	33	95	62.7
Aug 19	66	79	87	91	94	94	90	70	60	55	50	43	39	31	28	27	27	29	30	45	67	73	80	84	27	94	60.0
Aug 20	86	89	91	91	94	94	92	89	86	81	78	71	61	60	59	58	57	63	72	73	76	79	79	80	57	94	77.5
Aug 21	84	86	86	89	92	92	91	90	88	83	77	69	60	54	53	51	53	54	55	58	64	69	73	73	51	92	72.7
Aug 22	90	96	97	98	98	98	98	99	98	96	94	81	67	62	57	53	55	59	62	80	76	70	68	72	53	99	80.2
Aug 23	72	74	76	80	80	80	79	77	76	77	77	76	75	70	66	86	86	85	85	91	97	97	98	98	66	98	81.6
Aug 24	98	98	98	98	98	99	99	99	99	99	97	97	96	96	97	96	96	97	94	94	97	99	99	99	94	99	97.5
Aug 25	99	99	99	99	99	99	97	90	85	79	74	67	62	58	55	51	50	58	68	83	79	72	78	91	50	99	78.8
Aug 26	96	93	95	97	98	98	95	86	74	67	60	54	49	47	46	45	43	56	69	83	93	94	97	98	43	98	76.4
Aug 27	97	97	98	97	98	98	98	98	88	70	65	64	63	58	57	51	50	49	53	68	88	93	96	97	49	98	78.8
Aug 28	97	97	97	97	99	99	97	90	84	74	67	64	56	52	51	53	53	56	63	62	57	65	59	59	51	99	72.8
Aug 29	61	62	65	64	61	63	66	69	66	69	81	87	72	75	85	91	91	89	90	92	92	91	92	93	61	93	77.8
Aug 30	92	92	89	87	87	86	85	83	80	72	62	55	50	44	41	39	38	37	41	74	90	94	96	97	37	97	71.3
Aug 31	96	97	96	96	96	95	93	89	89	82	70	63	60	59	58	54	59	64	72	72	75	73	91	95	54	97	78.9
Diurnal Maximum	99	99	99	99	99	99	99	99	99	99	97	97	96	96	97	96	96	97	94	94	97	99	99	99	99	99	99
Diurnal Average	83.3	85.5	87.4	88.6	89.6	89.0	86.5	80.8	75.2	69.5	64.2	60.0	55.2	52.3	51.2	51.8	51.8	55.3	59.0	67.0	74.7	76.1	79.7	81.7	81.7	81.7	81.7
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance										
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure		
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																		
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																											
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																											

Timeseries Chart of Hourly Average for RH - AQHI - Cadotte Lake Station





PEACE RIVER AREA MONITORING PROGRAM

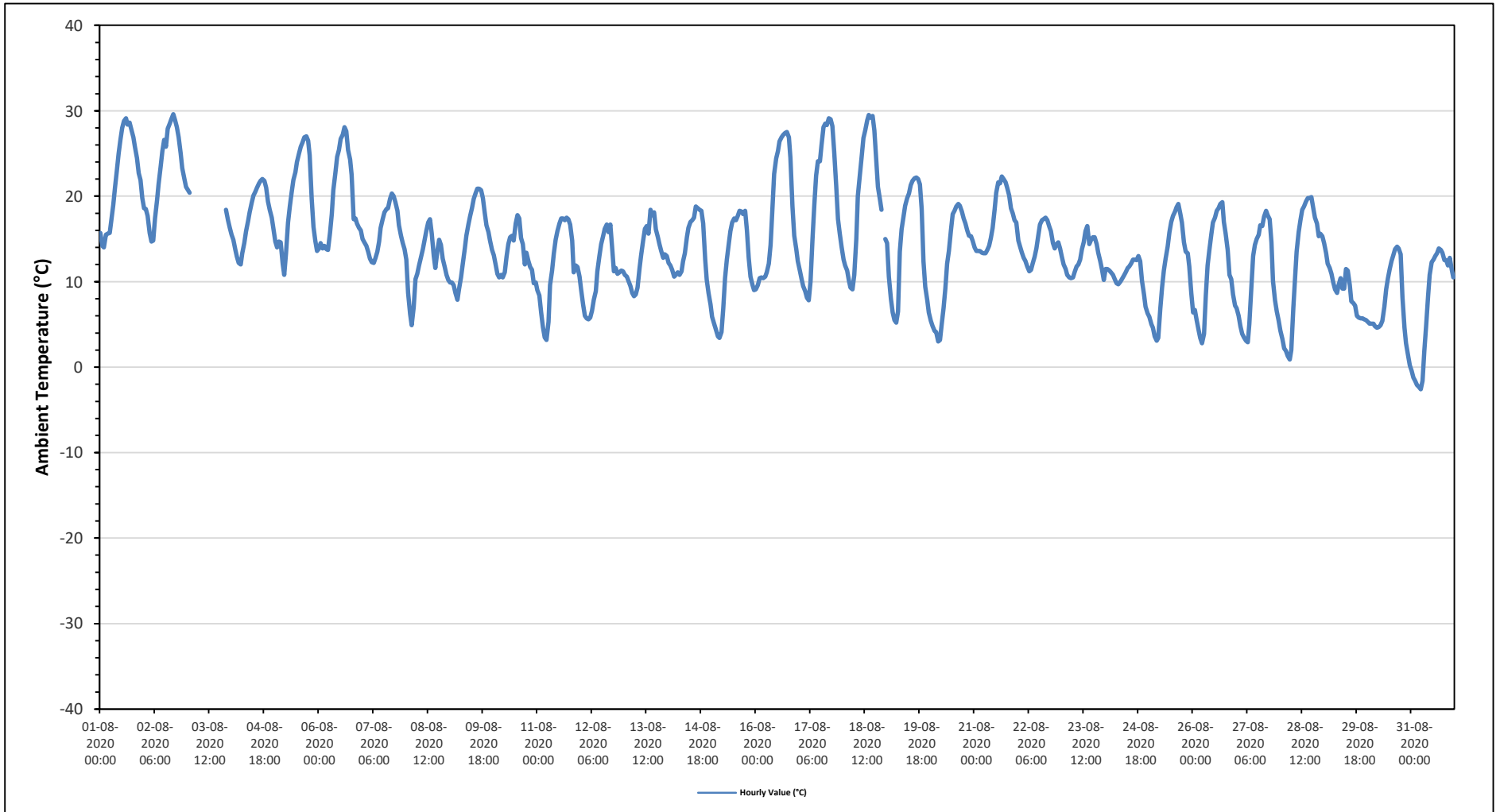
AQHI - Cadotte Lake Station - August 2020

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

Maximum Hourly Value:			29.6	°C	on August 2 at hour 16										Hours in Service:			744									
Maximum Daily Value:			22.9	°C	on August 2										Hours of Data:			724									
Minimum Hourly Value:			-2.6	°C	on August 31 at hour 5										Hours of Missing Data:			20									
Minimum Daily Value:			7.4	°C	on August 31										Hours of Calibration:			0									
Monthly Average:			14.3	°C											Operational Uptime:			97.3									
Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Aug 1	15.7	14.2	14	15.5	15.6	15.7	17.1	19	21.1	23	25	26.6	28	28.8	29.1	28.4	28.6	27.8	26.9	25.8	24.5	22.7	21.9	19.8	14.0	29.1	22.3
Aug 2	18.6	18.5	17.7	15.7	14.7	14.8	17.4	19.5	21.4	23.4	25.3	26.6	25.8	27.9	28.5	29	29.6	28.9	28.1	26.9	25	23.3	22.1	21.1	14.7	29.6	22.9
Aug 3	20.7	20.4	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	18.4	17.2	16.3	
Aug 4	15.5	14.9	13.7	12.9	12.2	12	13.3	14.5	15.9	17.1	18.1	19.2	20.1	20.5	21	21.5	21.8	22	21.8	21	19.4	18.4	17.5	16.3	12.0	22.0	17.5
Aug 5	14.7	14	14.7	14.6	12.1	10.8	13.3	16.9	18.8	20.4	21.9	22.8	24	25	25.8	26.3	26.9	27	26.5	24.8	19.7	16.4	14.8	13.6	10.8	27.0	19.4
Aug 6	13.9	14.5	13.9	14.2	13.8	13.7	15.7	17.9	20.7	22.7	24.6	25.4	26.7	27.2	28.1	27.6	25.4	24.3	22.5	17.3	17.4	16.8	16.3	16	13.7	28.1	19.9
Aug 7	15	14.6	14.2	13.5	12.7	12.3	12.2	12.7	13.5	14.7	16.3	17.3	18.1	18.5	18.6	19.7	20.3	20	19.3	18.3	16.6	15.4	14.5	13.8	12.2	20.3	15.9
Aug 8	12.6	8.7	6.2	4.9	7	10.3	10.9	11.9	12.9	13.8	14.9	16	16.9	17.3	15.6	13	11.6	13.6	14.9	14.3	12.7	11.7	10.8	10.2	4.9	17.3	12.2
Aug 9	9.9	9.9	9.6	8.7	7.9	9.1	10.5	12.1	13.9	15.4	16.7	17.7	18.6	19.7	20.3	20.9	20.9	20.7	19.8	18.1	16.6	15.8	14.8	13.7	7.9	20.9	15.1
Aug 10	13.1	12	10.9	10.5	10.8	10.5	11.1	12.9	14.4	15.2	15.4	14.8	16.8	17.8	17.4	15.1	14.4	12	13.4	12.4	11.7	11.4	9.8	9.9	9.8	17.8	13.1
Aug 11	9	8.4	6.4	4.7	3.5	3.2	5.3	9.6	11.3	13.3	14.9	15.9	16.8	17.4	17.4	17.2	17.5	17.3	16.7	14.8	11.1	11.9	11.7	10.6	3.2	17.5	11.9
Aug 12	9.1	7.3	6	5.7	5.6	5.8	6.6	7.9	8.9	11.2	13	14.4	15.4	16.2	16.7	15.8	16.7	14	11.2	11.6	10.9	11.1	11.3	11.2	5.6	16.7	11.0
Aug 13	10.8	10.6	10.1	9.5	8.7	8.3	8.5	9.3	11.6	13.1	14.8	16.2	16.5	15.6	18.4	17.8	18.1	16.1	15.2	14.4	13.6	12.8	13.2	13	8.3	18.4	13.2
Aug 14	12.2	11.9	11.4	10.6	10.8	11.1	10.8	11.2	12.4	13.3	15.2	16.3	17	17.2	17.5	18.8	18.6	18.4	18.3	16.8	12.6	10.2	8.7	7.3	7.3	18.8	13.7
Aug 15	5.9	5.1	4.4	3.6	3.4	4.1	6.9	10.4	12.6	14.5	15.9	16.9	17.4	17.2	17.7	18.3	18.2	17.9	18.3	16	12.8	10.6	9.6	9	3.4	18.3	11.9
Aug 16	9.1	9.6	10.4	10.5	10.4	10.6	11.1	12.1	14.3	18.4	22.6	24.4	25.3	26.4	26.9	27.2	27.4	27.5	26.9	24.5	18.8	15.4	13.8	12.4	9.1	27.5	18.2
Aug 17	11.3	10.3	9.5	8.9	8.1	7.8	10	15.1	19	22.4	24.1	24.1	25.9	28.1	28.5	28.3	29.1	29	28.2	25.2	21.2	17.3	15.6	14.1	7.8	29.1	19.2
Aug 18	12.6	11.9	11.3	10.1	9.3	9.1	10.8	15	20	22.5	24.6	26.8	27.7	28.9	29.5	29.2	29.4	27.7	24.4	21.1	19.6	18.4	P	15	9.1	29.5	19.8
Aug 19	14.5	10.6	8	6.4	5.5	5.2	6.5	13.5	16.1	17.7	18.9	19.8	20.3	21.3	21.8	22.1	22.2	22	21.4	18.5	12.4	9.4	7.8	6.4	5.2	22.2	14.5
Aug 20	5.4	4.8	4.2	4.1	3	3.2	5.1	6.9	9.2	12.1	13.6	16	17.9	18.3	18.8	19.1	18.9	18.2	17.4	16.8	16	15.4	15.3	14.8	3.0	19.1	12.3
Aug 21	14	13.6	13.6	13.6	13.4	13.3	13.3	13.7	14.2	15.1	16.3	18.5	20.4	21.6	21.5	22.3	22	21.6	21	20.1	18.6	18	17.2	16.9	13.3	22.3	17.2
Aug 22	14.8	14.2	13.4	12.8	12.4	11.8	11.2	11.4	12.2	12.9	13.9	15.3	16.7	17.2	17.3	17.5	17.2	16.4	15.9	14.5	13.9	14.4	14.6	13.9	11.2	17.5	14.4
Aug 23	12.9	12	11.5	10.8	10.5	10.4	10.5	11.1	11.8	12	12.6	13.8	14.6	15.9	16.5	14.4	14.9	15.2	15.2	14.4	13.4	12.4	11.4	10.2	10.2	16.5	12.9
Aug 24	11.5	11.5	11.3	11.1	10.8	10.3	9.8	9.7	10	10.3	10.7	11.1	11.6	11.8	12.1	12.6	12.6	12.5	13	12.4	10.1	8.5	7.1	6.3	6.3	13.0	10.8
Aug 25	5.9	5	4.6	3.6	3.1	3.4	6.8	9.3	11.3	12.7	14.1	15.8	17	17.7	18.2	18.7	19.1	17.9	16.9	14.6	13.5	13.3	11.8	8.6	3.1	19.1	11.8
Aug 26	6.4	6.7	5.5	4.3	3.4	2.8	3.9	8.4	11.9	13.7	15.6	16.9	17.5	18.3	18.6	19.1	19.3	17	15.6	13.7	10.8	10.3	8.5	7.2	2.8	19.3	11.5
Aug 27	6.9	6	4.8	3.9	3.5	3.1	2.9	5	9.3	13	14.3	15	15.5	16.6	16.5	17.6	18.3	17.8	17.3	14.6	10.1	7.8	6.5	5.5	2.9	18.3	10.5
Aug 28	4.3	3.3	2.2	1.9	1.3	0.9	2	6.9	10.5	13.5	15.8	17.2	18.4	18.8	19.4	19.8	19.8	19.9	18.5	17.5	16.8	15.3	15.6	15.3	0.9	19.9	12.3
Aug 29	14.5	13.3	12.1	11.6	10.9	9.9	9.1	8.7	9.6	10.4	9.2	9.2	11.5	11.3	9.6	7.7	7.5	7.2	6	5.8	5.7	5.7	5.6	5.5	5.5	14.5	9.1
Aug 30	5.3	5.1	5.1	5.1	4.8	4.6	4.7	4.9	5.4	7.1	9.1	10.4	11.5	12.4	13.1	13.8	14.1	13.9	13.2	8.2	4.6	2.8	1.4	0.2	0.2	14.1	7.5
Aug 31	-0.4	-1.2	-1.6	-2.1	-2.3	-2.6	-1.6	1.9	4.8	8.4	10.8	12.3	12.6	13	13.3	13.9	13.7	13.4	12.5	12.5	11.9	12.8	11.4	10.5	-2.6	13.9	7.4
Diurnal Maximum	20.7	20.4	17.7	15.7	15.6	15.7	17.4	19.5	21.4	23.4	25.3	26.8	28.0	28.9	29.5	29.2	29.6	29.0	28.2	26.9	25.0	23.3	22.1	21.1			
Diurnal Average	11.2	10.4	9.3	8.7	8.2	8.2	9.2	11.3	13.3	15.1	16.6	17.8	18.8	19.5	19.8	19.8	19.8	19.2	18.5	16.9	14.7	13.7	12.6	11.8			
C	Monthly Calibration						S	Daily Zero-Span Check						Q	Quality Assurance												
K	Collection Error						N	No Data (Machine Not in Service)						Y	Routine Maintenance						P	Power Failure					
X	InValid Data (Equipment Malfunction /Recovery)						NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																			
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																											
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																											

Timeseries Chart of Hourly Average for AT - AQHI - Cadotte Lake Station





PEACE RIVER AREA MONITORING PROGRAM

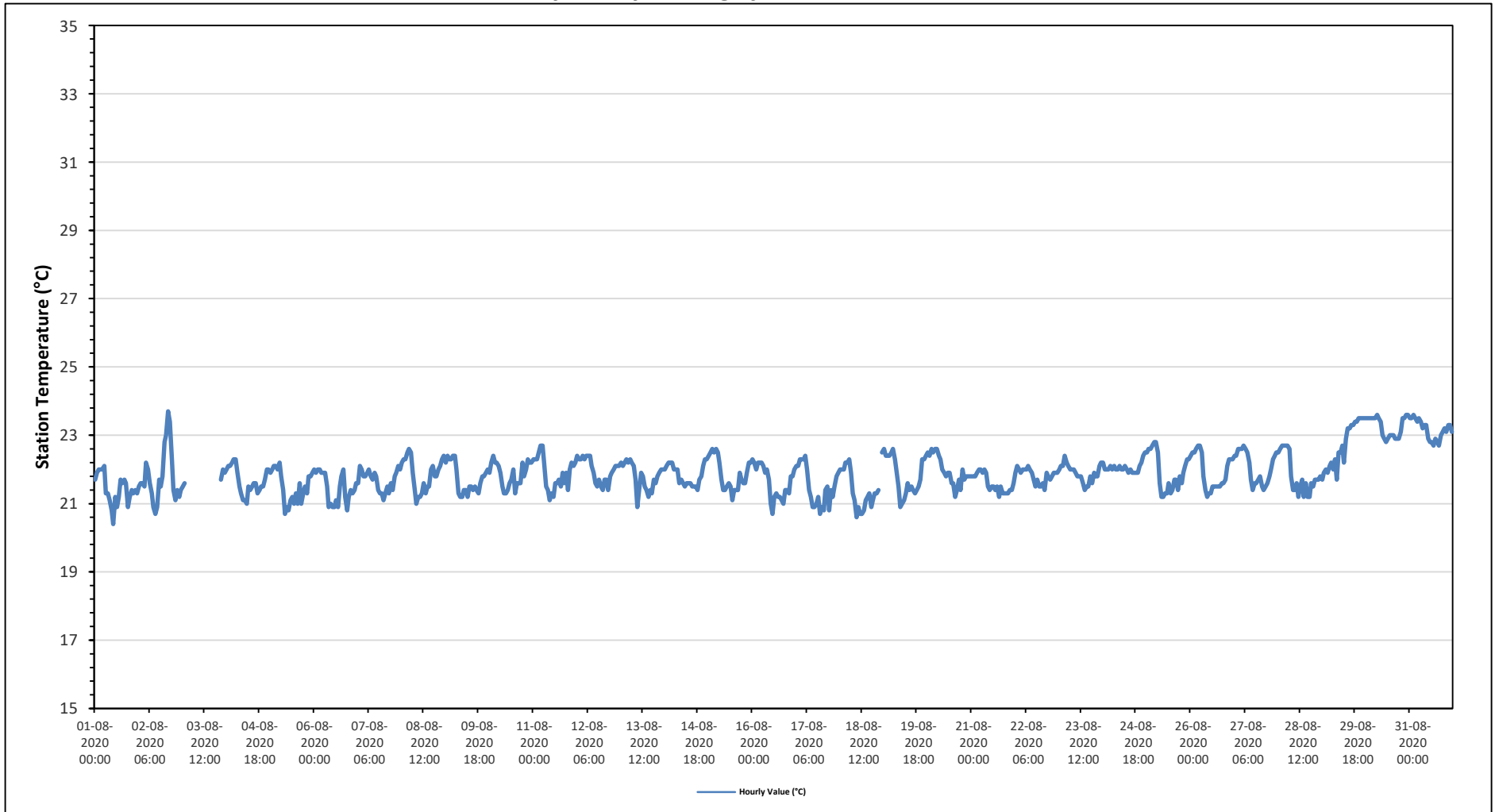
AQHI - Cadotte Lake Station - August 2020

Summary of Hourly Averages

STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:										23.7	°C	on August 2 at hour 16					Hours in Service:										744					
Maximum Daily Value:										23.3	°C	on August 30					Hours of Data:										724					
Minimum Hourly Value:										20.4	°C	on August 1 at hour 10					Hours of Missing Data:										20					
Minimum Daily Value:										21.4	°C	on August 1					Hours of Calibration:										0					
Monthly Average:										21.9	°C											Operational Uptime:										97.3
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average						
Aug 1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	20.4	22.1	21.4					
Aug 2	21.5	21.6	21.6	21.5	22.2	22.0	21.6	21.3	20.9	20.7	20.9	21.7	21.5	21.8	22.8	23.0	23.7	23.4	22.3	21.4	21.1	21.4	21.2	21.4	20.7	23.7	21.8					
Aug 3	21.5	21.6	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	21.7	22.0	21.5	22.0	-				
Aug 4	22.0	22.1	22.1	22.2	22.3	22.3	21.9	21.5	21.3	21.1	21.1	21.0	21.5	21.4	21.5	21.6	21.6	21.3	21.4	21.5	21.5	21.7	22.0	22.0	21.0	22.3	21.7					
Aug 5	21.9	22.0	22.1	22.1	22.0	22.2	21.8	21.4	20.7	20.9	20.8	21.1	21.2	21.0	21.3	21.0	21.6	21.0	21.3	21.5	21.3	21.8	21.8	21.9	20.7	22.2	21.5					
Aug 6	22.0	21.9	22.0	22.0	21.9	21.9	21.9	21.5	20.9	21.0	20.9	20.9	21.1	20.9	21.5	21.8	22.0	21.2	20.8	21.2	21.4	21.3	21.4	21.6	20.8	22.0	21.5					
Aug 7	21.6	22.1	22.0	21.8	21.8	21.9	22.0	21.8	21.7	21.9	21.8	21.4	21.3	21.3	21.1	21.3	21.5	21.3	21.6	21.4	21.8	21.9	22.1	22.0	21.1	22.1	21.7					
Aug 8	22.2	22.3	22.3	22.5	22.6	22.5	21.9	21.4	21.0	21.2	21.2	21.3	21.6	21.3	21.5	21.5	22.0	22.1	21.8	21.8	22.0	22.1	22.3	22.4	21.0	22.6	21.9					
Aug 9	22.2	22.4	22.3	22.3	22.4	22.4	22.0	21.3	21.2	21.2	21.4	21.4	21.2	21.5	21.5	21.4	21.5	21.4	21.3	21.6	21.8	21.8	21.9	22.0	21.2	22.4	21.7					
Aug 10	21.9	22.2	22.4	22.2	22.2	22.1	21.9	21.5	21.3	21.3	21.4	21.6	21.7	22.0	21.3	21.6	21.6	21.6	22.2	21.8	22.0	22.3	22.2	22.2	21.3	22.4	21.9					
Aug 11	22.3	22.3	22.3	22.5	22.7	22.7	22.2	21.5	21.4	21.1	21.3	21.2	21.6	21.6	21.7	21.5	21.9	21.6	21.9	21.4	22.0	22.2	22.1	22.2	21.1	22.7	21.9					
Aug 12	22.4	22.3	22.3	22.4	22.3	22.4	22.4	22.4	22.1	21.9	21.6	21.5	21.7	21.5	21.4	21.7	21.7	21.4	21.8	21.9	22.0	22.1	22.1	22.1	21.4	22.4	22.0					
Aug 13	22.2	22.1	22.2	22.3	22.2	22.3	22.2	22.1	21.7	20.9	21.4	21.9	21.8	21.5	21.4	21.2	21.4	21.3	21.7	21.6	21.8	21.9	22.0	22.0	20.9	22.3	21.8					
Aug 14	22.0	22.1	22.2	22.2	22.2	22.0	22.0	22.0	21.6	21.7	21.6	21.5	21.6	21.6	21.6	21.5	21.5	21.5	21.4	21.7	21.8	22.1	22.3	22.3	21.4	22.3	21.8					
Aug 15	22.4	22.5	22.6	22.5	22.6	22.5	22.2	21.7	21.4	21.4	21.5	21.6	21.5	21.1	21.4	21.4	21.4	21.9	21.7	21.6	21.6	21.9	22.2	22.2	21.1	22.6	21.9					
Aug 16	22.3	22.2	22.0	22.2	22.2	22.2	22.1	21.9	22.0	21.7	21.0	20.7	21.2	21.3	21.2	21.2	21.1	21.0	21.4	21.4	21.3	21.8	21.8	22.0	20.7	22.3	21.6					
Aug 17	22.1	22.1	22.3	22.3	22.3	22.4	22.0	21.4	21.2	20.9	20.9	21.0	21.2	20.7	20.9	20.8	21.4	21.5	20.8	21.4	21.2	21.5	21.8	21.9	20.7	22.4	21.5					
Aug 18	22.0	22.0	22.0	22.2	22.2	22.3	21.9	21.3	21.1	20.6	20.9	20.7	20.7	20.8	21.1	21.2	21.3	20.9	21.1	21.3	21.3	21.4	P	22.5	20.6	22.5	21.4					
Aug 19	22.6	22.4	22.4	22.4	22.5	22.6	22.3	21.9	21.5	20.9	21.0	21.1	21.3	21.6	21.4	21.5	21.4	21.3	21.4	21.5	21.7	22.3	22.3	22.4	20.9	22.6	21.8					
Aug 20	22.5	22.4	22.6	22.5	22.6	22.6	22.4	22.3	22.0	21.9	21.8	21.9	21.9	21.6	21.6	21.2	21.4	21.7	21.4	22.0	21.7	21.8	21.8	21.8	21.2	22.6	22.0					
Aug 21	21.8	21.8	21.8	21.9	22.0	22.0	21.9	22.0	21.9	21.5	21.4	21.5	21.5	21.4	21.5	21.2	21.5	21.3	21.3	21.3	21.4	21.4	21.6	21.6	21.2	22.0	21.6					
Aug 22	21.9	22.1	22.0	21.9	22.0	22.0	22.0	22.1	22.0	21.9	21.7	21.5	21.7	21.5	21.5	21.6	21.4	21.9	21.8	21.7	21.8	21.9	21.9	21.9	21.4	22.1	21.8					
Aug 23	22.0	22.1	22.1	22.4	22.2	22.1	22.0	22.0	22.0	21.9	21.8	21.8	21.8	21.6	21.4	21.5	21.5	21.8	21.6	21.9	21.8	21.8	22.1	22.2	21.4	22.4	21.9					
Aug 24	22.2	22.0	22.0	22.0	22.1	22.0	22.1	22.0	22.0	22.1	22.0	22.0	22.1	22.0	21.9	22.0	21.9	21.9	21.9	21.9	22.1	22.2	22.4	22.5	21.9	22.5	22.1					
Aug 25	22.5	22.6	22.6	22.7	22.8	22.8	22.5	21.6	21.2	21.2	21.3	21.3	21.6	21.3	21.4	21.7	21.7	21.4	21.8	21.6	21.9	22.1	22.3	22.3	21.2	22.8	21.9					
Aug 26	22.4	22.5	22.5	22.6	22.7	22.7	22.5	21.8	21.4	21.2	21.3	21.3	21.5	21.5	21.5	21.5	21.5	21.6	21.6	21.7	22.1	22.3	22.3	22.3	21.2	22.7	21.9					
Aug 27	22.4	22.4	22.6	22.6	22.6	22.7	22.6	22.5	22.2	21.7	21.4	21.6	21.6	21.7	21.8	21.5	21.4	21.5	21.6	21.8	22.0	22.3	22.4	22.5	21.4	22.7	22.1					
Aug 28	22.5	22.6	22.7	22.7	22.7	22.7	22.6	21.8	21.4	21.4	21.6	21.2	21.5	21.7	21.2	21.6	21.2	21.2	21.6	21.5	21.7	21.7	21.7	21.8	21.2	22.7	21.8					
Aug 29	21.7	21.9	22.0	21.9	22.1	22.2	22.0	22.3	21.7	22.5	22.5	22.7	22.2	22.9	23.2	23.2	23.3	23.3	23.4	23.4	23.5	23.5	23.5	23.5	21.7	23.5	22.7					
Aug 30	23.5	23.5	23.5	23.5	23.5	23.5	23.6	23.5	23.4	23.0	22.9	22.8	22.9	23.0	23.0	23.0	22.9	22.9	22.9	23.1	23.5	23.5	23.6	23.6	22.8	23.6	23.3					
Aug 31	23.5	23.5	23.6	23.5	23.4	23.5	23.4	23.2	23.3	23.3	22.9	22.8	22.8	22.7	22.9	22.8	22.7	23.0	23.1	23.2	23.1	23.3	23.3	23.1	22.7	23.6	23.2					
Diurnal Maximum	23.5	23.5	23.6	23.5	23.5	23.5	23.6	23.5	23.4	23.3	22.9	22.8	22.9	23.0	23.2	23.2	23.7	23.4	23.4	23.4	23.5	23.5	23.6	23.6								
Diurnal Average	22.2	22.2	22.3	22.3	22.4	22.4	22.2	21.9	21.6	21.5	21.5	21.6	21.6	21.6	21.6	21.7	21.8	21.7	21.7	21.7	21.9	22.0	22.1	22.2								
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance															
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure							
X	InValid Data (Equipment Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																							
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																

Timeseries Chart of Hourly Average for ST - AQHI - Cadotte Lake Station





PEACE RIVER AREA MONITORING PROGRAM

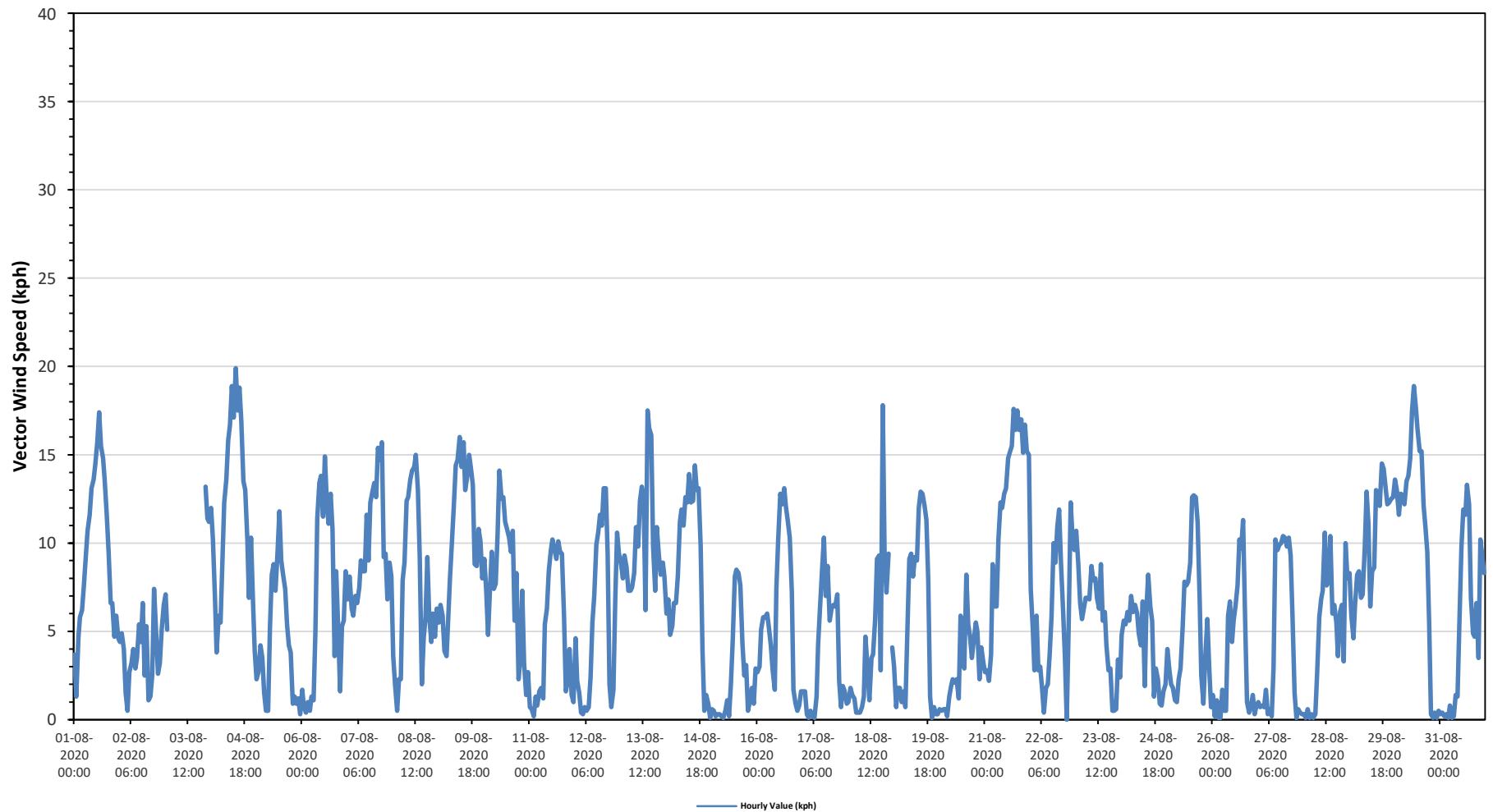
AQHI - Cadotte Lake Station - August 2020

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr

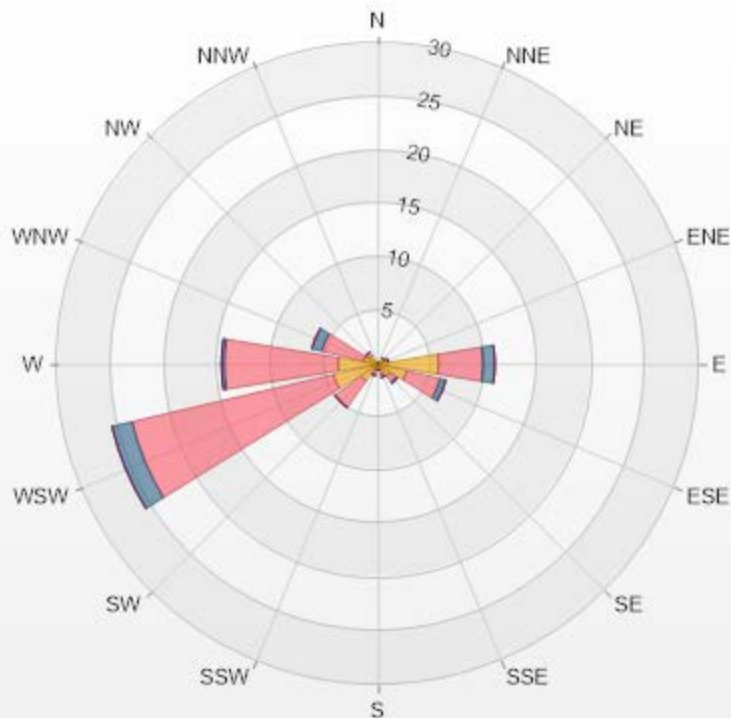
Maximum Hourly Value: 19.9 kph on August 4 at hour 13										Hours in Service: 744																	
Maximum Daily Value: 11.9 kph on August 4										Hours of Data: 724																	
Minimum Hourly Value: 0.0 kph on August 22 at hour 19										Hours of Missing Data: 20																	
Minimum Daily Value: 0.9 kph on August 17										Hours of Calibration: 0																	
Monthly Average: 3.2 kph										Operational Uptime: 97.3																	
Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Aug 1	3.7	1.3	4.6	5.8	6.2	7.6	9.4	10.7	11.6	13.1	13.6	14.4	15.7	17.4	15.5	14.8	13.6	11.6	9.5	6.6	6.6	4.7	5.9	4.6	1.3	17.4	9.2
Aug 2	4.4	4.9	4.0	1.5	0.5	2.7	3.2	4.0	2.9	3.5	5.4	4.4	6.6	2.5	5.3	1.1	1.3	2.5	7.4	4.9	2.6	3.2	5.1	6.5	0.5	7.4	2.1
Aug 3	7.1	5.1	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	13.2	11.4	11.2	5.1	13.2	-
Aug 4	12.0	10.2	6.8	3.8	5.9	5.5	9.4	12.3	13.6	15.8	16.7	18.9	17.1	19.9	17.5	18.8	16.9	13.5	13.0	10.2	6.9	10.3	6.9	3.9	3.8	19.9	11.9
Aug 5	2.3	2.7	4.2	3.5	1.5	0.5	0.5	5.2	8.2	8.8	7.3	9.5	11.8	9.0	8.2	7.4	5.4	4.2	3.8	0.9	1.3	0.9	1.2	0.3	0.3	11.8	3.9
Aug 6	1.7	0.7	0.4	1.0	0.5	1.3	1.1	5.0	11.4	13.4	13.8	11.5	14.9	12.1	11.1	12.8	10.8	3.6	8.4	5.0	1.6	5.3	5.6	8.4	0.4	14.9	3.7
Aug 7	6.8	8.1	6.3	5.9	7.0	6.6	7.5	9.0	8.4	8.4	11.6	9.0	12.3	12.9	13.4	12.6	15.4	14.7	15.7	9.2	9.4	6.8	8.9	8.1	5.9	15.7	9.7
Aug 8	3.6	2.0	0.5	2.3	2.3	7.9	8.9	12.4	12.6	13.6	14.1	14.3	15.0	13.0	9.2	2.0	4.6	5.8	9.2	5.9	4.4	6.0	4.7	6.3	0.5	15.0	6.8
Aug 9	5.5	6.5	5.9	3.9	3.6	5.6	8.0	10.2	12.2	14.4	14.7	16.0	14.3	15.7	13.0	13.8	15.0	14.2	13.3	8.8	8.7	10.8	10.1	8.0	3.6	16.0	10.3
Aug 10	9.1	7.3	4.8	7.3	9.5	7.4	7.7	10.4	14.1	12.5	12.6	11.2	10.8	10.3	9.5	10.7	5.6	8.3	2.3	3.3	7.3	3.2	1.4	2.7	1.4	14.1	7.3
Aug 11	0.7	0.6	0.2	1.3	0.8	1.6	1.8	1.2	5.4	6.3	8.4	9.6	10.2	9.6	9.1	10.1	9.5	9.4	5.9	1.6	2.3	4.0	1.4	1.0	0.2	10.2	3.8
Aug 12	4.6	2.2	1.5	0.4	0.3	0.7	0.5	0.7	2.4	5.5	7.0	9.9	10.6	11.6	11.0	13.1	13.1	9.4	2.0	0.7	1.7	6.8	10.6	9.4	0.3	13.1	4.6
Aug 13	8.8	8.0	9.3	8.6	7.3	7.3	7.5	8.3	10.9	9.8	12.4	13.2	12.5	6.2	17.5	16.5	16.1	9.8	7.3	10.9	9.3	8.2	8.9	8.1	6.2	17.5	10.0
Aug 14	6.0	6.8	4.8	5.3	6.6	6.6	8.1	11.2	11.9	11.0	12.6	12.3	13.9	12.3	12.4	14.4	13.0	13.1	9.8	3.9	0.5	1.4	0.9	0.1	0.1	14.4	8.0
Aug 15	0.6	0.5	0.2	0.3	0.3	0.2	0.1	0.5	1.1	0.2	2.0	4.5	8.1	8.5	8.3	7.6	4.3	2.5	3.1	0.5	1.1	1.8	0.9	2.9	0.1	8.5	1.7
Aug 16	2.7	3.0	5.1	5.8	5.8	6.0	5.3	4.2	2.8	1.7	7.4	10.2	12.8	12.2	13.1	12.1	11.2	10.3	7.2	1.7	0.9	0.5	0.8	1.6	0.5	13.1	2.6
Aug 17	1.6	1.6	0.3	0.1	0.5	0.2	0.1	1.3	4.3	6.3	8.5	10.3	7.0	8.7	5.6	6.3	6.5	6.4	7.1	2.2	0.7	1.9	1.6	0.9	0.1	10.3	0.9
Aug 18	1.0	1.8	1.4	1.2	0.4	0.4	0.4	0.7	1.3	4.7	2.9	1.1	3.5	3.7	5.7	9.1	9.3	2.8	17.8	9.1	7.2	9.4	P	4.1	0.4	17.8	1.3
Aug 19	3.0	0.7	1.8	1.8	1.0	1.6	0.7	4.7	9.1	9.4	8.1	9.2	9.0	12.0	12.9	12.8	12.1	11.3	7.9	1.3	0.1	0.7	0.3	0.3	0.1	12.9	4.7
Aug 20	0.6	0.5	0.6	0.6	0.2	1.3	1.9	2.3	2.1	2.3	1.2	5.9	3.9	2.9	8.2	5.4	4.7	3.5	4.5	5.5	5.0	2.3	4.1	3.2	0.2	8.2	1.6
Aug 21	2.7	2.8	2.2	3.7	8.8	6.4	6.4	10.2	12.3	12.0	12.8	13.1	14.8	15.1	15.5	17.6	16.4	17.5	16.4	17.0	15.1	16.7	15.2	15.0	2.2	17.6	11.8
Aug 22	7.4	5.1	2.8	5.9	2.8	3.0	1.8	0.4	1.8	2.0	3.7	5.8	10.0	8.9	10.9	11.9	8.9	6.2	3.6	0.0	5.1	12.3	10.3	9.6	0.0	12.3	3.8
Aug 23	10.7	8.8	6.6	5.7	6.3	6.9	6.9	6.8	8.7	7.9	8.0	6.9	6.3	8.8	5.6	6.1	4.2	2.8	2.9	0.5	0.5	0.6	3.4	2.4	0.5	10.7	4.9
Aug 24	4.8	5.6	5.4	6.1	5.6	7.0	6.1	6.5	6.0	4.9	4.2	6.7	1.9	6.2	8.2	6.4	5.6	1.3	2.9	2.3	0.9	0.8	1.6	2.0	0.8	8.2	4.0
Aug 25	4.0	2.9	2.0	1.8	1.1	1.0	2.3	2.9	5.2	7.8	7.6	7.8	8.9	12.6	12.7	12.6	11.2	6.7	2.5	0.9	3.5	5.7	3.0	0.7	0.7	12.7	4.1
Aug 26	1.4	0.2	1.1	0.1	0.1	1.7	0.5	0.5	5.9	6.7	4.4	5.6	6.4	7.6	10.2	9.7	11.3	5.5	1.0	0.4	0.7	1.4	0.3	0.8	0.1	11.3	2.8
Aug 27	1.0	0.7	0.8	0.7	1.7	0.3	0.6	0.2	3.0	10.2	9.6	9.9	10.0	10.4	10.3	9.8	10.3	9.3	5.9	1.5	0.1	0.6	0.4	0.3	0.1	10.4	4.0
Aug 28	0.3	0.1	0.6	0.1	0.3	0.1	0.3	2.7	5.8	6.8	7.3	10.6	7.6	7.9	10.4	6.0	6.5	5.5	3.6	6.1	6.5	3.3	10.0	8.0	0.1	10.6	3.4
Aug 29	8.3	5.9	4.6	6.5	8.2	8.4	6.9	7.1	9.7	12.9	11.1	6.4	8.4	8.6	13.0	12.6	12.1	14.5	14.2	13.2	12.2	12.3	12.5	12.6	4.6	14.5	9.6
Aug 30	13.6	13.0	11.6	12.8	12.7	12.2	13.5	13.8	14.8	17.5	18.9	17.6	16.4	15.2	15.2	12.1	10.9	9.5	5.5	0.3	0.1	0.4	0.1	0.5	0.1	18.9	10.6
Aug 31	0.3	0.4	0.2	0.3	0.1	0.8	0.1	0.2	1.4	1.3	5.4	9.8	11.9	11.6	13.3	12.2	6.9	4.9	4.7	6.6	3.5	10.2	9.3	8.3	0.1	13.3	4.5
Diurnal Maximum	14	13	12	13	13	12	14	14	15	18	19	19	17	20	18	19	17	18	18	17	15	17	15	15			
Diurnal Average	4.5	3.9	3.4	3.5	3.6	4.0	4.3	5.5	7.4	8.4	9.1	9.9	10.4	10.4	11.1	10.6	9.8	8.0	7.3	4.7	4.2	5.3	5.2	4.9			
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance										
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure		
X	InValid Data (Equipment Malfunction/Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																		
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																											
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																											

Timeseries Chart of Hourly Average for VWS - AQHI - Cadotte Lake Station



Wind: AQHI Cadotte Lake Monitor: WDS [KPH] Monthly: 08-2020 Type: WindRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 22.79% Valid Data: 97.31%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	0.14	0	0	0	0	0.14
NNE	0	0	0	0	0	0
NE	0.69	0	0	0	0	0.69
ENE	0.97	0	0	0	0	0.97
E	5.66	4.14	1.1	0	0	10.9
ESE	2.76	3.18	0.55	0	0	6.49
SE	1.38	0.69	0.14	0	0	2.21
SSE	0.97	0.28	0	0	0	1.25
S	0.55	0	0	0	0	0.55
SSW	0.41	0.69	0	0	0	1.1
SW	1.93	3.04	0	0	0	4.97
WSW	4.28	19.34	1.93	0	0	25.55
W	3.73	10.64	0.28	0	0	14.65
WNW	1.38	4.01	0.97	0	0	6.36
NW	0.97	0.41	0	0	0	1.38
NNW	0	0	0	0	0	0
Summary	25.82	46.42	4.97	0	0	77.21



PRAMP-202008

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% Icon Classes (KPH)	26	1.8-6.0	46	6.0-15.0	5	15.0-29.0	0	29.0-39.0	0	>39.0
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PEACE RIVER AREA MONITORING PROGRAM

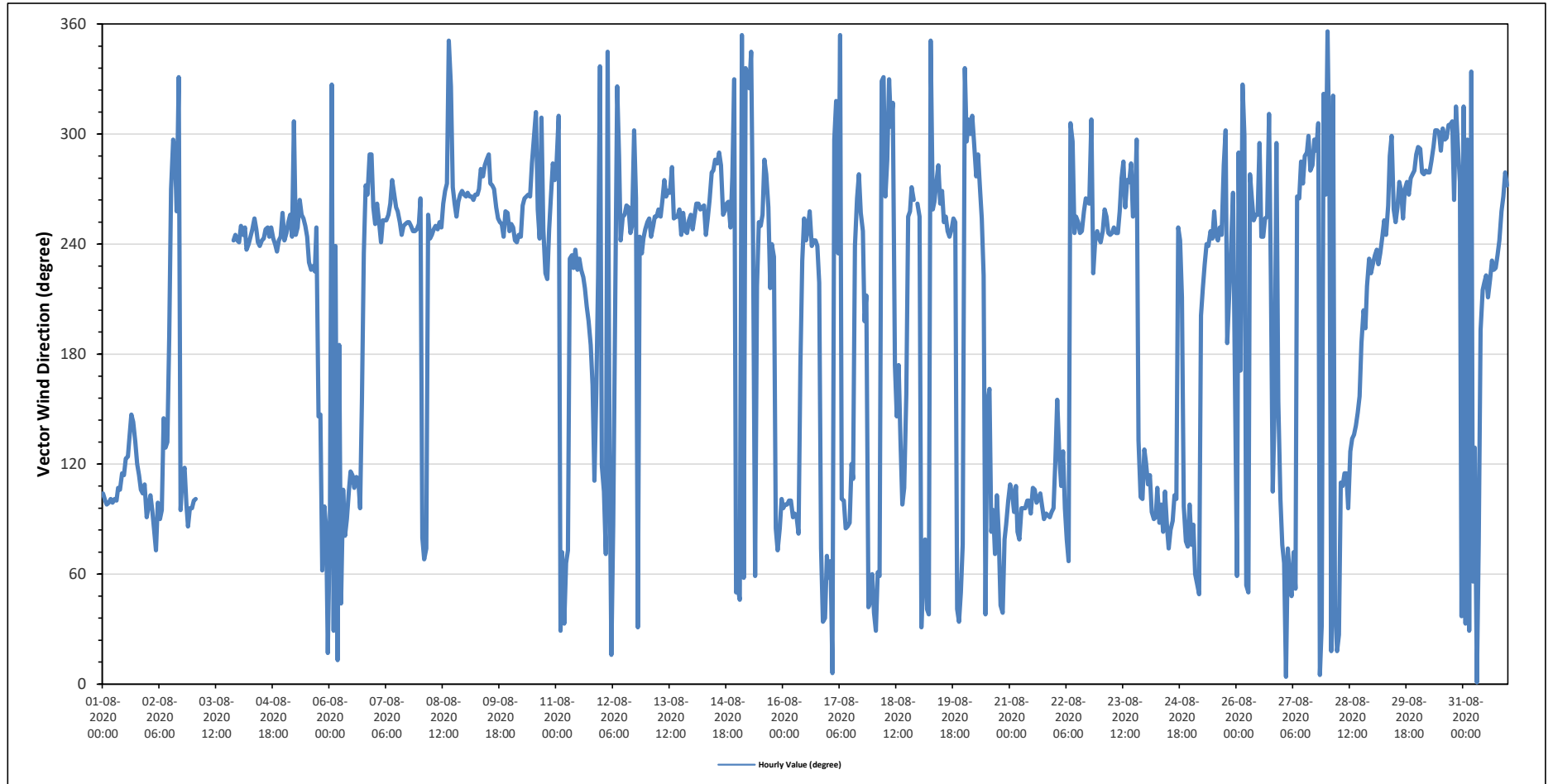
AQHI - Cadotte Lake Station - August 2020

Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

Monthly Average:		247 (WSW) degree																						Hours in Service:		744		Hours of Data:		724		Hours of Missing Data:		20		Hours of Calibration:		0		Operational Uptime:		97.3	
Day	Hourly Period Starting at (MST)																							Daily Average																			
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Degree	Quadrant																	
Aug 1	ESE	E	E	E	E	E	E	E	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	ESE	ESE	ESE	ESE	ESE	E	117	ESE																	
Aug 2	E	ESE	E	E	ENE	E	E	E	SE	SE	SE	S	W	WNW	WNW	WSW	NNW	E	ESE	ESE	E	E	E	E	111	ESE																	
Aug 3	E	E	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	WSW	WSW	WSW	-	SW																	
Aug 4	WSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	245	WSW																
Aug 5	WSW	WSW	WSW	WSW	WSW	NW	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	WSW	SE	SE	ENE	E	E	NNE	241	WSW																
Aug 6	E	NW	NNE	WSW	NNE	S	NE	ESE	E	E	ESE	ESE	ESE	ESE	ESE	ESE	E	SSE	SW	W	W	WNW	WNW	WSW	112	ESE																	
Aug 7	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	254	WSW																
Aug 8	W	E	ENE	ENE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	N	NW	W	W	WSW	W	W	W	W	259	WSW																	
Aug 9	W	W	W	W	W	W	W	W	W	W	W	WNW	WNW	W	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	268	W																	
Aug 10	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	W	W	WNW	WNW	NW	WSW	WSW	NW	WSW	SW	SW	WSW	W	WNW	W	263	W																	
Aug 11	WNW	NW	NNE	ENE	NNE	ENE	ENE	SW	SW	SW	SW	SW	SW	SW	SW	SW	SSW	SSW	S	SSE	ESE	SSE	SW	NNW	215	SSW																	
Aug 12	ESE	ESE	ENE	NNW	SE	NNE	E	SW	NW	WNW	WSW	WSW	WSW	W	WSW	WSW	WSW	WNW	W	NNE	WSW	SW	WSW	WSW	255	WSW																	
Aug 13	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	W	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	257	WSW																
Aug 14	WSW	WSW	W	W	WSW	WSW	W	WSW	WSW	W	W	W	WNW	WNW	WNW	W	WSW	WSW	W	W	WSW	W	NNW	NE	268	W																	
Aug 15	NE	NE	N	ENE	NNW	NNW	NW	NNW	WSW	ENE	SW	WSW	WSW	WSW	WNW	W	WSW	SW	WSW	SW	E	ENE	E	E	260	WSW																	
Aug 16	E	E	E	E	E	E	E	E	E	S	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	ENE	NE	NE	ENE	224	SW																	
Aug 17	ENE	ENE	N	WNW	NW	SW	N	E	E	E	ESE	ESE	ESE	WSW	W	W	WSW	WSW	SSW	SSW	NE	NE	ENE	119	ESE																		
Aug 18	NE	NNE	ENE	ENE	NNW	NNW	W	WNW	NNW	WNW	NW	S	SE	S	SE	E	ESE	SSE	WSW	WSW	W	W	#N/A	W	239	WSW																	
Aug 19	WSW	NNE	ENE	ENE	NE	NE	N	WSW	W	W	W	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	NE	NE	NE	ENE	260	WSW																	
Aug 20	NNW	WNW	NW	WNW	NW	WNW	W	WNW	W	WSW	SW	NE	SSE	SSE	E	E	ENE	ESE	E	NE	NE	ENE	E	E	75	ENE																	
Aug 21	ESE	ESE	E	ESE	E	ENE	E	E	E	E	E	ESE	ESE	E	E	ESE	E	E	E	E	E	E	E	E	97	E																	
Aug 22	ESE	SSE	ESE	ESE	SE	E	ENE	ENE	NW	WNW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	NW	SW	WSW	WSW	WSW	239	WSW																	
Aug 23	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WNW	WSW	W	W	WNW	WSW	WSW	WNW	SE	E	E	SE	255	WSW																	
Aug 24	ESE	ESE	ESE	E	E	E	ESE	E	E	ESE	E	ENE	E	E	ESE	E	ESE	E	WSW	WSW	SSW	E	ENE	ENE	E	99	E																
Aug 25	ENE	E	ENE	NE	NE	SSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WNW	S	SSW	WSW	W	SSE	245	WSW																	
Aug 26	ENE	WNW	S	NW	WNW	NE	NE	W	W	WSW	WSW	WSW	WNW	WSW	WSW	WSW	WSW	NW	SW	ESE	SSE	WNW	SSE	E	260	WSW																	
Aug 27	ENE	ENE	N	ENE	ENE	NE	ENE	NE	W	W	WNW	W	WNW	WNW	WNW	W	W	WNW	WNW	NW	N	NNE	NW	W	287	WNW																	
Aug 28	N	WNW	NNE	NW	NE	NNE	NNE	ESE	ESE	ESE	ESE	E	SE	SE	SE	SE	SE	SSE	S	SSW	SSW	SW	SW	SW	150	SSE																	
Aug 29	SW	SW	SW	SW	SW	WSW	WSW	W	WNW	WNW	WSW	WSW	WSW	WSW	W	W	WSW	W	W	W	W	W	W	WNW	265	W																	
Aug 30	WNW	WNW	W	W	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	W	NW	WNW	W	NE	293	WNW																	
Aug 31	NW	NNE	WNW	NNE	NNW	NE	SE	N	ENE	S	SSW	SW	SW	SSW	SW	SW	SW	SW	SW	WSW	WSW	W	W	W	236	SW																	
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance																										
K	Collection Error							N	No Data (Machine Not in Service)							Y	Routine Maintenance							P	Power Failure																		
X	Invalid Data (Machine Malfunction /Recovery)							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																																		
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																											
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																											

Timeseries Chart of Hourly Average for VWD - AQHI - Cadotte Lake Station



VOC CANISTER SAMPLING RESULTS

PEACE RIVER AREA MONITORING PROGRAM

842b Site - August 2020

Volatile Organic Compounds (VOCs) Results

Sample Date/Time Canister Sample Canister ID			2020-08-12 @ 12:35 Non-Methane Hydrocarbons 32185					
Method NA-025			Method NA-024			Method AC-058		
Maximum Reading 1.5 Methane			Maximum Reading 1.7 Carbonyl sulphide			Maximum Reading 7.1 Ethanol		
Parameter	Result (ppmv)	RDL (ppmv)	Parameter	Result (ppbv)	RDL (ppbv)	Parameter	Result (ppbv)	RDL (ppbv)
1-Butene	0	0.15	2,5-Dimethylthiophene	0	0.4	1,1,1-Trichloroethane	0	0.03
Acetylene	0	0.12	2-Ethylthiophene	0	0.3	1,1,2,2-Tetrachloroethane	0	0.03
cis-2-Butene	0	0.06	2-Methylthiophene	0	0.3	1,1,2-Trichloroethane	0	0.03
Ethane	0	0.1	3-Methylthiophene	0	0.4	1,1-Dichloroethane	0	0.03
Ethylacetylene	0	0.09	Butyl mercaptan	0	0.4	1,1-Dichloroethylene	0	0.06
Ethylene	0	0.10	Carbon disulphide	0	0.3	1,2,3-Trimethylbenzene	0	0.07
Isobutane	0	0.1	Carbonyl sulphide	1.7	0.4	1,2,4-Trichlorobenzene	0	1.2
Isobutylene	0	0.1	Dimethyl disulphide	0	0.3	1,2,4-Trimethylbenzene	0	0.07
Methane	1.5	0.1	Dimethyl sulphide	0	0.3	1,2-Dibromoethane	0	0.03
n-Butane	0	0.3	Ethyl mercaptan	0	0.4	1,2-Dichlorobenzene	0	0.04
n-Propane	0	0.10	Ethyl sulphide	0	0.4	1,2-Dichloroethane	0	0.01
Propylene	0	0.1	Hydrogen sulphide	1.1	0.4	1,2-Dichloropropane	0	0.01
Propyne	0	0.1	Isobutyl mercaptan	0	0.4	1,3,5-Trimethylbenzene	0	0.03
trans-2-Butene	0	0.13	Isopropyl mercaptan	0	0.4	1,3-Butadiene	0	0.03
			Methyl mercaptan	0	0.3	1,3-Dichlorobenzene	0	0.4
			Pentyl mercaptan	0	0.6	1,4-Dichlorobenzene	0	0.6
			Propyl mercaptan	0	0.6	1,4-Dioxane	0	0.6
			tert-Butyl mercaptan	0	0.4	1-Butene/Isobutylene	0.97	0.03
			Thiophene	0	0.3	1-Hexene/2-Methyl-1-pentene	0	0.03
						1-Pentene	0.33	0.01
						2,2,4-Trimethylpentane	0	0.01
						2,2-Dimethylbutane	0	0.01
						2,3,4-Trimethylpentane	0	0.01
						2,3-Dimethylbutane	0.06	0.03
						2,3-Dimethylpentane	0	0.03
						2,4-Dimethylpentane	0	0.01
						2-Methylheptane	0	0.01
						2-Methylhexane	0	0.01
						2-Methylpentane	0.1	0.01
						3-Methylheptane	0	0.03
						3-Methylhexane	0	0.03
						3-Methylpentane	0	0.01
						Acetone	6.9	0.6
						Acrolein	0	0.4
						Benzene	0	0.01
						Benzyl chloride	0	0.6
						Bromodichloromethane	0	0.03
						Bromoform	0	0.03
						Bromomethane	0	0.01
						Carbon disulfide	0	0.01
						Carbon tetrachloride	0.14	0.01
						Chlorobenzene	0	0.03
						Chloroethane	0	0.03
						Chloroform	0	0.03
						Chloromethane	0.8	0.03
						cis-1,2-Dichloroethene	0	0.01
						cis-1,3-Dichloropropene	0	0.06
						cis-2-Butene	0	0.03
						cis-2-Pentene	0.45	0.03
						Cyclohexane	0	0.03
						Cyclopentane	0.58	0.01
						Dibromochloromethane	0.06	0.01
						Ethanol	7.1	0.4
						Ethyl acetate	0	0.6
						Ethylbenzene	0	0.01
						Freon-11	0.33	0.03
						Freon-113	0.12	0.01
						Freon-114	0	0.03

PEACE RIVER AREA MONITORING PROGRAM

842b Site - August 2020

Volatile Organic Compounds (VOCs) Results

Sample Date/Time Canister Sample Canister ID		2020-08-12 @12:35 Non-Methane Hydrocarbons 32185									
Method		NA-025		Method		NA-024		Method		AC-058	
Maximum Reading		1.5 Methane		Maximum Reading		1.7 Carbonyl sulphide		Maximum Reading		7.1 Ethanol	
Parameter	Result (ppmv)	RDL (ppmv)	Parameter	Result (ppbv)	RDL (ppbv)	Parameter	Result (ppbv)	RDL (ppbv)	Parameter	Result (ppbv)	RDL (ppbv)
						Freon-12	0.52	0.03			
						Hexachloro-1,3-butadiene	0	0.73			
						Isobutane	0.3	0.03			
						Isopentane	0.1	0.04			
						Isoprene	0.85	0.01			
						Isopropyl alcohol	4.4	0.6			
						Isopropylbenzene	0	0.01			
						m,p-Xylene	0	0.04			
						m-Diethylbenzene	0	0.06			
						m-Ethyltoluene	0	0.12			
						Methyl butyl ketone	0	0.73			
						Methyl ethyl ketone	0	0.4			
						Methyl isobutyl ketone	0	0.6			
						Methyl methacrylate	0	0.10			
						Methyl tert butyl ether	0	0.04			
						Methylcyclohexane	0	0.01			
						Methylcyclopentane	0	0.03			
						Methylene chloride	0	0.4			
						n-Butane	0.23	0.04			
						n-Decane	0	0.09			
						n-Dodecane	0	0.6			
						n-Heptane	0	0.01			
						n-Hexane	0	0.01			
						n-Nonane	0	0.01			
						n-Octane	0	0.03			
						n-Pentane	0	0.1			
						n-Propylbenzene	0	0.07			
						n-Undecane	0	0.7			
						Naphthalene	0	0.7			
						o-Ethyltoluene	0	0.01			
						o-Xylene	0	0.01			
						p-Diethylbenzene	0	0.06			
						p-Ethyltoluene	0	0.10			
						Styrene	0	0.06			
						Tetrachloroethylene	0	0.06			
						Tetrahydrofuran	0	0.6			
						Toluene	0.16	0.01			
						trans-1,2-Dichloroethylene	2.69	0.01			
						trans-1,3-Dichloropropylene	0	0.06			
						trans-2-Butene	0	0.01			
						trans-2-Pentene	0	0.03			
						Trichloroethylene	0	0.06			
						Vinyl acetate	0	0.6			
						Vinyl chloride	0	0.03			

PEACE RIVER AREA MONITORING PROGRAM

842b Site - August 2020

Volatile Organic Compounds (VOCs) Results

Sample Date/Time Canister Sample Canister ID			2020-08-12 @12:35 Blank 32275		
Method NA-025			Method NA-024		
Maximum Reading 0			Maximum Reading 2.8 Carbonyl sulphide		
Parameter	Result (ppmv)	RDL (ppmv)	Parameter	Result (ppbv)	RDL (ppbv)
1-Butene	0	0.10	2,5-Dimethylthiophene	0	0.3
Acetylene	0	0.08	2-Ethylthiophene	0	0.2
cis-2-Butene	0	0.04	2-Methylthiophene	0	0.2
Ethane	0	0.1	3-Methylthiophene	0	0.3
Ethylacetylene	0	0.06	Butyl mercaptan	0	0.3
Ethylene	0	0.07	Carbon disulphide	1.2	0.2
Isobutane	0	0.1	Carbonyl sulphide	2.8	0.3
Isobutylene	0	0.1	Dimethyl disulphide	0	0.2
Methane	0	0.1	Dimethyl sulphide	0	0.2
n-Butane	0	0.2	Ethyl mercaptan	0	0.3
n-Propane	0	0.07	Ethyl sulphide	0	0.3
Propylene	0	0.1	Hydrogen sulphide	0.4	0.3
Propyne	0	0.1	Isobutyl mercaptan	0	0.3
trans-2-Butene	0	0.09	Isopropyl mercaptan	0	0.3
			Methyl mercaptan	0	0.2
			Pentyl mercaptan	0	0.4
			Propyl mercaptan	0	0.4
			tert-Butyl mercaptan	0	0.3
			Thiophene	0	0.2
			1,1,1-Trichloroethane	0	0.02
			1,1,2,2-Tetrachloroethane	0	0.02
			1,1,2-Trichloroethane	0	0.02
			1,1-Dichloroethane	0	0.02
			1,1-Dichloroethylene	0	0.04
			1,2,3-Trimethylbenzene	0.08	0.05
			1,2,4-Trichlorobenzene	0	0.8
			1,2,4-Trimethylbenzene	0.08	0.05
			1,2-Dibromoethane	0	0.02
			1,2-Dichlorobenzene	0	0.03
			1,2-Dichloroethane	0	0.01
			1,2-Dichloropropane	0	0.01
			1,3,5-Trimethylbenzene	0.03	0.02
			1,3-Butadiene	0	0.02
			1,3-Dichlorobenzene	0	0.3
			1,4-Dichlorobenzene	0	0.4
			1,4-Dioxane	0	0.4
			1-Butene/Isobutylene	0.35	0.02
			1-Hexene/2-Methyl-1-pentene	0	0.02
			1-Pentene	0.75	0.01
			2,2,4-Trimethylpentane	0	0.01
			2,2-Dimethylbutane	0	0.01
			2,3,4-Trimethylpentane	0	0.01
			2,3-Dimethylbutane	0.03	0.02
			2,3-Dimethylpentane	0	0.02
			2,4-Dimethylpentane	0	0.01
			2-Methylheptane	0	0.01
			2-Methylhexane	0	0.01
			2-Methylpentane	0	0.01
			3-Methylheptane	0	0.02
			3-Methylhexane	0	0.02
			3-Methylpentane	0	0.01
			Acetone	2.6	0.4
			Acrolein	0	0.3
			Benzene	0	0.01
			Benzyl chloride	0	0.4
			Bromodichloromethane	0	0.02
			Bromoform	0	0.02
			Bromomethane	0	0.01
			Carbon disulfide	0	0.01
			Carbon tetrachloride	0	0.01
			Chlorobenzene	0	0.02
			Chloroethane	0	0.02
			Chloroform	0	0.02
			Chloromethane	0.13	0.02
			cis-1,2-Dichloroethene	0	0.01
			cis-1,3-Dichloropropene	0	0.04
			cis-2-Butene	0	0.02
			cis-2-Pentene	0.34	0.02
			Cyclohexane	0	0.02
			Cyclopentane	0	0.01
			Dibromochloromethane	0	0.01
			Ethanol	7.4	0.3
			Ethyl acetate	0	0.4
			Ethylbenzene	0.12	0.01
			Freon-11	0	0.02
			Freon-113	0.03	0.01
			Freon-114	0	0.02

PEACE RIVER AREA MONITORING PROGRAM

842b Site - August 2020

Volatile Organic Compounds (VOCs) Results

Sample Date/Time		2020-08-12 @12:35									
Canister Sample		Blank									
Canister ID		32275									
Method		NA-025		Method		NA-024		Method		AC-058	
Maximum Reading		0		Maximum Reading		2.8 Carbonyl sulphide		Maximum Reading		12.1 Isopropyl alcohol	
Parameter	Result (ppmv)	RDL (ppmv)	Parameter	Result (ppbv)	RDL (ppbv)	Parameter	Result (ppbv)	RDL (ppbv)			
						Freon-12	0	0.02			
						Hexachloro-1,3-butadiene	0	0.50			
						Isobutane	0.27	0.02			
						Isopentane	0	0.03			
						Isoprene	0.31	0.01			
						Isopropyl alcohol	12.1	0.4			
						Isopropylbenzene	0	0.01			
						m,p-Xylene	0.48	0.03			
						m-Diethylbenzene	0	0.04			
						m-Ethyltoluene	0	0.08			
						Methyl butyl ketone	0	0.50			
						Methyl ethyl ketone	0.3	0.3			
						Methyl isobutyl ketone	0	0.4			
						Methyl methacrylate	0	0.07			
						Methyl tert butyl ether	0	0.03			
						Methylcyclohexane	0	0.01			
						Methylcyclopentane	0	0.02			
						Methylene chloride	0	0.3			
						n-Butane	0	0.03			
						n-Decane	0	0.06			
						n-Dodecane	0	0.4			
						n-Heptane	0	0.01			
						n-Hexane	0	0.01			
						n-Nonane	0	0.01			
						n-Octane	0	0.02			
						n-Pentane	0	0.1			
						n-Propylbenzene	0	0.05			
						n-Undecane	0	0.5			
						Naphthalene	0	0.5			
						o-Ethyltoluene	0	0.01			
						o-Xylene	0.35	0.01			
						p-Diethylbenzene	0.17	0.04			
						p-Ethyltoluene	0	0.07			
						Styrene	0	0.04			
						Tetrachloroethylene	0	0.04			
						Tetrahydrofuran	0	0.4			
						Toluene	0.15	0.01			
						trans-1,2-Dichloroethylene	6.04	0.01			
						trans-1,3-Dichloropropylene	0	0.04			
						trans-2-Butene	0	0.01			
						trans-2-Pentene	0	0.02			
						Trichloroethylene	0	0.04			
						Vinyl acetate	0	0.4			
						Vinyl chloride	0	0.02			

PEACE RIVER AREA MONITORING PROGRAM
Reno Site - August 2020
Volatile Organic Compounds (VOCs) Results

Sample Date/Time Canister Sample Canister ID			2020-08-21 @01:05 Methane 28966														
Method			NA-025			Method			NA-024			Method			AC-058		
Maximum Reading			2.4 Methane			Maximum Reading			1.9 Carbon disulphide			Maximum Reading			6.8 Acetone		
Parameter	Result (ppmv)	RDL (ppmv)	Parameter	Result (ppbv)	RDL (ppbv)	Parameter	Result (ppbv)	RDL (ppbv)	Parameter	Result (ppbv)	RDL (ppbv)	Parameter	Result (ppbv)	RDL (ppbv)			
1-Butene	0	0.16	2,5-Dimethylthiophene	0	0.5	1,1,1-Trichloroethane	0	0.03									
Acetylene	0	0.13	2-Ethylthiophene	0	0.3	1,1,2,2-Tetrachloroethane	0	0.03									
cis-2-Butene	0	0.06	2-Methylthiophene	0	0.3	1,1,2-Trichloroethane	0	0.03									
Ethane	0	0.2	3-Methylthiophene	0	0.5	1,1-Dichloroethane	0	0.03									
Ethylacetylene	0	0.09	Butyl mercaptan	0	0.5	1,1-Dichloroethylene	0	0.06									
Ethylene	0	0.11	Carbon disulphide	1.9	0.3	1,2,3-Trimethylbenzene	0	0.08									
Isobutane	0	0.2	Carbonyl sulphide	1.7	0.5	1,2,4-Trichlorobenzene	0	1.3									
Isobutylene	0	0.2	Dimethyl disulphide	0	0.3	1,2,4-Trimethylbenzene	0	0.08									
Methane	2.4	0.2	Dimethyl sulphide	0	0.3	1,2-Dibromoethane	0	0.03									
n-Butane	0	0.3	Ethyl mercaptan	0	0.5	1,2-Dichlorobenzene	0	0.05									
n-Propane	0	0.11	Ethyl sulphide	0	0.5	1,2-Dichloroethane	0	0.02									
Propylene	0	0.2	Hydrogen sulphide	1.2	0.5	1,2-Dichloropropane	0	0.02									
Propyne	0	0.2	Isobutyl mercaptan	0	0.5	1,3,5-Trimethylbenzene	0	0.03									
trans-2-Butene	0	0.14	Isopropyl mercaptan	0	0.5	1,3-Butadiene	0	0.03									
			Methyl mercaptan	0	0.3	1,3-Dichlorobenzene	0	0.5									
			Pentyl mercaptan	0	0.6	1,4-Dichlorobenzene	0	0.6									
			Propyl mercaptan	0	0.6	1,4-Dioxane	0	0.6									
			tert-Butyl mercaptan	0	0.5	1-Butene/Isobutylene	0.56	0.03									
			Thiophene	0	0.3	1-Hexene/2-Methyl-1-pentene	0	0.03									
						1-Pentene	0.23	0.02									
						2,2,4-Trimethylpentane	0	0.02									
						2,2-Dimethylbutane	0	0.02									
						2,3,4-Trimethylpentane	0	0.02									
						2,3-Dimethylbutane	0.16	0.03									
						2,3-Dimethylpentane	0.08	0.03									
						2,4-Dimethylpentane	0.06	0.02									
						2-Methylheptane	0	0.02									
						2-Methylhexane	0	0.02									
						2-Methylpentane	0.17	0.02									
						3-Methylheptane	0	0.03									
						3-Methylhexane	0	0.03									
						3-Methylpentane	0.11	0.02									
						Acetone	6.8	0.6									
						Acrolein	0	0.5									
						Benzene	0.23	0.02									
						Benzyl chloride	0	0.6									
						Bromodichloromethane	0	0.03									
						Bromoform	0	0.03									
						Bromomethane	0	0.02									
						Carbon disulfide	0	0.02									
						Carbon tetrachloride	0.06	0.02									
						Chlorobenzene	0	0.03									
						Chloroethane	0	0.03									
						Chloroform	0	0.03									
						Chloromethane	0.63	0.03									
						cis-1,2-Dichloroethene	0	0.02									
						cis-1,3-Dichloropropene	0	0.06									
						cis-2-Butene	0	0.03									
						cis-2-Pentene	0	0.03									
						Cyclohexane	0.13	0.03									
						Cyclopentane	0.55	0.02									
						Dibromochloromethane	0	0.02									
						Ethanol	4.2	0.5									
						Ethyl acetate	0	0.6									
						Ethylbenzene	0	0.02									
						Freon-11	0.17	0.03									
						Freon-113	0.1	0.02									
						Freon-114	0	0.03									

PEACE RIVER AREA MONITORING PROGRAM

Reno Site - August 2020

Volatile Organic Compounds (VOCs) Results

Sample Date/Time Canister Sample Canister ID		2020-08-21 @01:05 Methane 28966			
Method NA-025		Method NA-024		Method AC-058	
Maximum Reading 2.4 Methane		Maximum Reading 1.9 Carbon disulphide		Maximum Reading 6.8 Acetone	
Parameter	Result (ppmv) RDL (ppmv)	Parameter	Result (ppbv) RDL (ppbv)	Parameter	Result (ppbv) RDL (ppbv)
				Freon-12	0.46 0.03
				Hexachloro-1,3-butadiene	0 0.79
				Isobutane	0.42 0.03
				Isopentane	0.31 0.05
				Isoprene	1.08 0.02
				Isopropyl alcohol	2.9 0.6
				Isopropylbenzene	0 0.02
				m,p-Xylene	0 0.05
				m-Diethylbenzene	0 0.06
				m-Ethyltoluene	0 0.13
				Methyl butyl ketone	0 0.79
				Methyl ethyl ketone	0 0.5
				Methyl isobutyl ketone	0 0.6
				Methyl methacrylate	0 0.11
				Methyl tert butyl ether	0 0.05
				Methylcyclohexane	0 0.02
				Methylcyclopentane	0.11 0.03
				Methylene chloride	0 0.5
				n-Butane	0.42 0.05
				n-Decane	0 0.09
				n-Dodecane	0 0.6
				n-Heptane	0 0.02
				n-Hexane	0 0.02
				n-Nonane	0 0.02
				n-Octane	0 0.03
				n-Pentane	0.2 0.2
				n-Propylbenzene	0 0.08
				n-Undecane	0 0.8
				Naphthalene	0 0.8
				o-Ethyltoluene	0 0.02
				o-Xylene	0 0.02
				p-Diethylbenzene	0 0.06
				p-Ethyltoluene	0 0.11
				Styrene	0 0.06
				Tetrachloroethylene	0 0.06
				Tetrahydrofuran	0 0.6
				Toluene	0.23 0.02
				trans-1,2-Dichloroethylene	4.8 0.02
				trans-1,3-Dichloropropylene	0 0.06
				trans-2-Butene	0 0.02
				trans-2-Pentene	0 0.03
				Trichloroethylene	0 0.06
				Vinyl acetate	0 0.6
				Vinyl chloride	0 0.03

PEACE RIVER AREA MONITORING PROGRAM

Reno Site - August 2020

Volatile Organic Compounds (VOCs) Results

Sample Date/Time Canister Sample Canister ID			2020-08-21 @01:05 Methane 32245		
Method NA-025			Method NA-024		
Maximum Reading 0			Maximum Reading 0		
Parameter	Result (ppmv)	RDL (ppmv)	Parameter	Result (ppbv)	RDL (ppbv)
1-Butene	0	0.10	2,5-Dimethylthiophene	0	0.3
Acetylene	0	0.08	2-Ethylthiophene	0	0.2
cis-2-Butene	0	0.04	2-Methylthiophene	0	0.2
Ethane	0	0.1	3-Methylthiophene	0	0.3
Ethylacetylene	0	0.06	Butyl mercaptan	0	0.3
Ethylene	0	0.07	Carbon disulphide	0	0.2
Isobutane	0	0.1	Carbonyl sulphide	0	0.3
Isobutylene	0	0.1	Dimethyl disulphide	0	0.2
Methane	0	0.1	Dimethyl sulphide	0	0.2
n-Butane	0	0.2	Ethyl mercaptan	0	0.3
n-Propane	0	0.07	Ethyl sulphide	0	0.3
Propylene	0	0.1	Hydrogen sulphide	0	0.3
Propyne	0	0.1	Isobutyl mercaptan	0	0.3
trans-2-Butene	0	0.09	Isopropyl mercaptan	0	0.3
			Methyl mercaptan	0	0.2
			Pentyl mercaptan	0	0.4
			Propyl mercaptan	0	0.4
			tert-Butyl mercaptan	0	0.3
			Thiophene	0	0.2
			1,1,1-Trichloroethane	0	0.02
			1,1,2,2-Tetrachloroethane	0	0.02
			1,1,2-Trichloroethane	0	0.02
			1,1-Dichloroethane	0	0.02
			1,1-Dichloroethylene	0	0.04
			1,2,3-Trimethylbenzene	0	0.05
			1,2,4-Trichlorobenzene	0	0.8
			1,2,4-Trimethylbenzene	0	0.05
			1,2-Dibromoethane	0	0.02
			1,2-Dichlorobenzene	0	0.03
			1,2-Dichloroethane	0	0.01
			1,2-Dichloropropane	0	0.01
			1,3,5-Trimethylbenzene	0	0.02
			1,3-Butadiene	0	0.02
			1,3-Dichlorobenzene	0	0.3
			1,4-Dichlorobenzene	0	0.4
			1,4-Dioxane	0	0.4
			1-Butene/Isobutylene	0	0.02
			1-Hexene/2-Methyl-1-pentene	0	0.02
			1-Pentene	0	0.01
			2,2,4-Trimethylpentane	0	0.01
			2,2-Dimethylbutane	0	0.01
			2,3,4-Trimethylpentane	0	0.01
			2,3-Dimethylbutane	0	0.02
			2,3-Dimethylpentane	0	0.02
			2,4-Dimethylpentane	0	0.01
			2-Methylheptane	0	0.01
			2-Methylhexane	0	0.01
			2-Methylpentane	0	0.01
			3-Methylheptane	0	0.02
			3-Methylhexane	0	0.02
			3-Methylpentane	0.05	0.01
			Acetone	0	0.4
			Acrolein	0	0.3
			Benzene	0	0.01
			Benzyl chloride	0	0.4
			Bromodichloromethane	0	0.02
			Bromoform	0	0.02
			Bromomethane	0	0.01
			Carbon disulfide	0	0.01
			Carbon tetrachloride	0	0.01
			Chlorobenzene	0	0.02
			Chloroethane	0	0.02
			Chloroform	0	0.02
			Chloromethane	0	0.02
			cis-1,2-Dichloroethene	0	0.01
			cis-1,3-Dichloropropene	0	0.04
			cis-2-Butene	0	0.02
			cis-2-Pentene	0	0.02
			Cyclohexane	0.07	0.02
			Cyclopentane	0.06	0.01
			Dibromochloromethane	0	0.01
			Ethanol	0	0.3
			Ethyl acetate	0	0.4
			Ethylbenzene	0.17	0.01
			Freon-11	0	0.02
			Freon-113	0	0.01
			Freon-114	0	0.02



PEACE RIVER AREA MONITORING PROGRAM

Reno Site - August 2020

Volatile Organic Compounds (VOCs) Results

Sample Date/Time Canister Sample Canister ID		2020-08-21 @01:05 Methane 32245									
Method		NA-025		Method		NA-024		Method		AC-058	
Maximum Reading		0		Maximum Reading		0		Maximum Reading		0.51 Toluene	
Parameter	Result (ppmv)	RDL (ppmv)	Parameter	Result (ppbv)	RDL (ppbv)	Parameter	Result (ppbv)	RDL (ppbv)			
						Freon-12	0	0.02			
						Hexachloro-1,3-butadiene	0	0.5			
						Isobutane	0	0.02			
						Isopentane	0	0.03			
						Isoprene	0	0.01			
						Isopropyl alcohol	0	0.4			
						Isopropylbenzene	0	0.01			
						m,p-Xylene	0.23	0.03			
						m-Diethylbenzene	0	0.04			
						m-Ethyltoluene	0	0.08			
						Methyl butyl ketone	0	0.5			
						Methyl ethyl ketone	0	0.3			
						Methyl isobutyl ketone	0	0.4			
						Methyl methacrylate	0	0.07			
						Methyl tert butyl ether	0	0.03			
						Methylcyclohexane	0	0.01			
						Methylcyclopentane	0.05	0.02			
						Methylene chloride	0	0.3			
						n-Butane	0	0.03			
						n-Decane	0	0.06			
						n-Dodecane	0	0.4			
						n-Heptane	0	0.01			
						n-Hexane	0	0.01			
						n-Nonane	0	0.01			
						n-Octane	0	0.02			
						n-Pentane	0	0.1			
						n-Propylbenzene	0	0.05			
						n-Undecane	0	0.5			
						Naphthalene	0	0.5			
						o-Ethyltoluene	0	0.01			
						o-Xylene	0	0.01			
						p-Diethylbenzene	0	0.04			
						p-Ethyltoluene	0	0.07			
						Styrene	0	0.04			
						Tetrachloroethylene	0	0.04			
						Tetrahydrofuran	0	0.4			
						Toluene	0.51	0.01			
						trans-1,2-Dichloroethylene	0	0.01			
						trans-1,3-Dichloropropylene	0	0.04			
						trans-2-Butene	0	0.01			
						trans-2-Pentene	0	0.02			
						Trichloroethylene	0	0.04			
						Vinyl acetate	0	0.4			
						Vinyl chloride	0	0.02			

END OF REPORT

This page, 222 of 222, ends the August 2020 Monthly Ambient Air Quality Monitoring Report.



Peace River Area Monitoring Program

AUGUST 2020

Ambient Air Monitoring Calibration Report

- 842b STATION-

CAL-PRAMP-202008-01561

Operation and Maintenance:

Bureau Veritas Canada

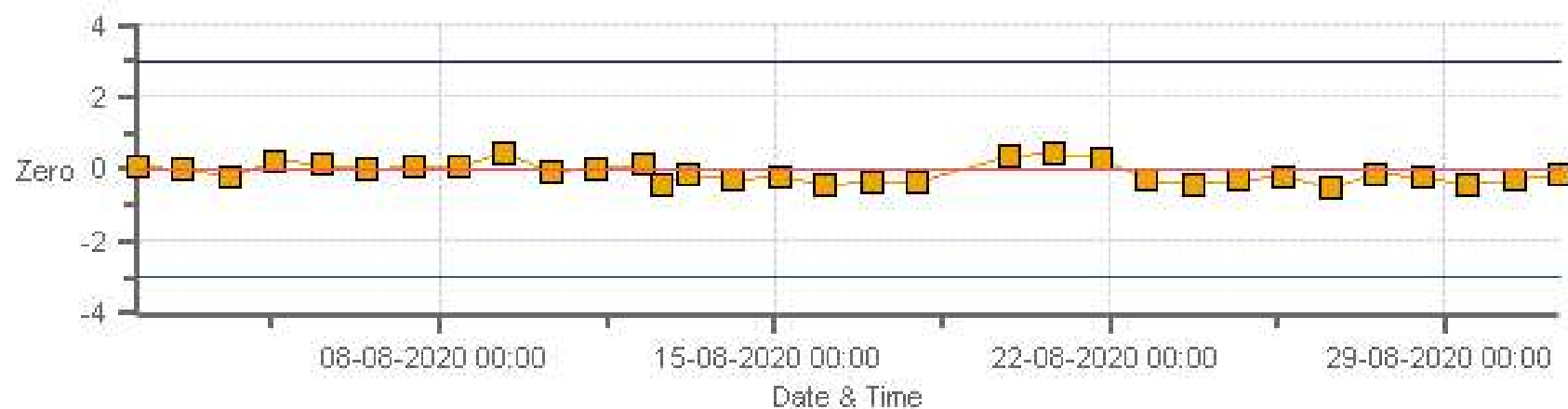
Data Validation and Report:

Bureau Veritas Canada

September 14, 2020

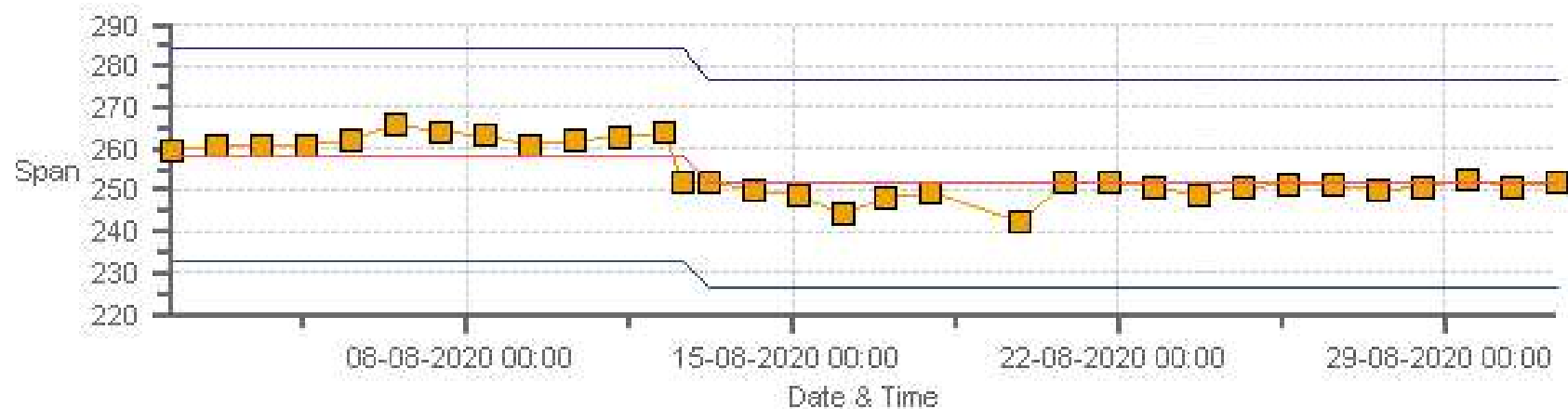
DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO₂[ppb] Calibration: PRAMP 842b Monthly: 08-2020 Type: SpanAndZero - Zero



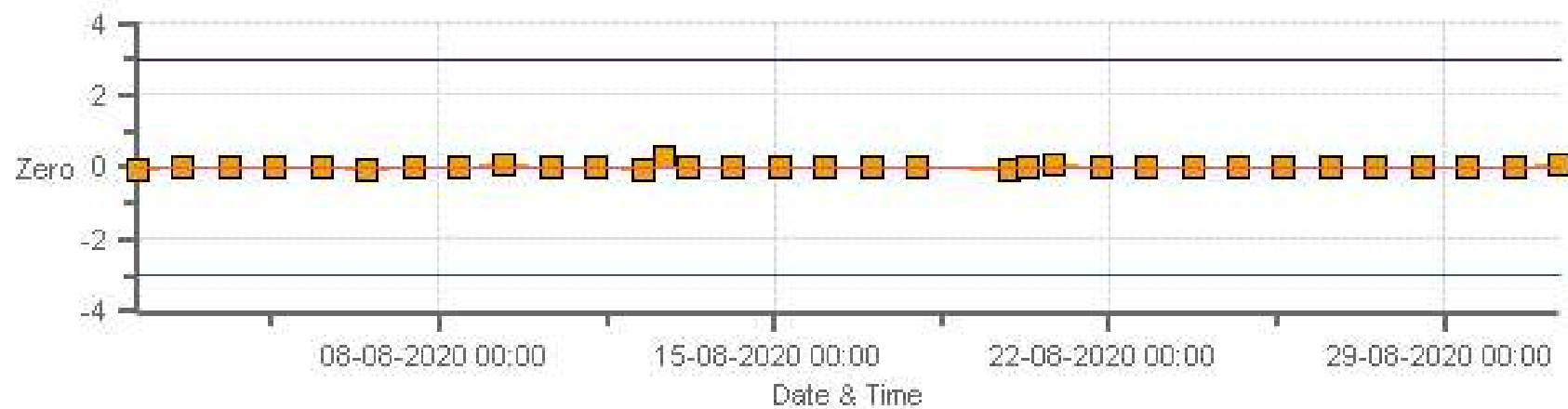
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SO₂[ppb] Calibration: PRAMP 842b Monthly: 08-2020 Type: SpanAndZero - Span

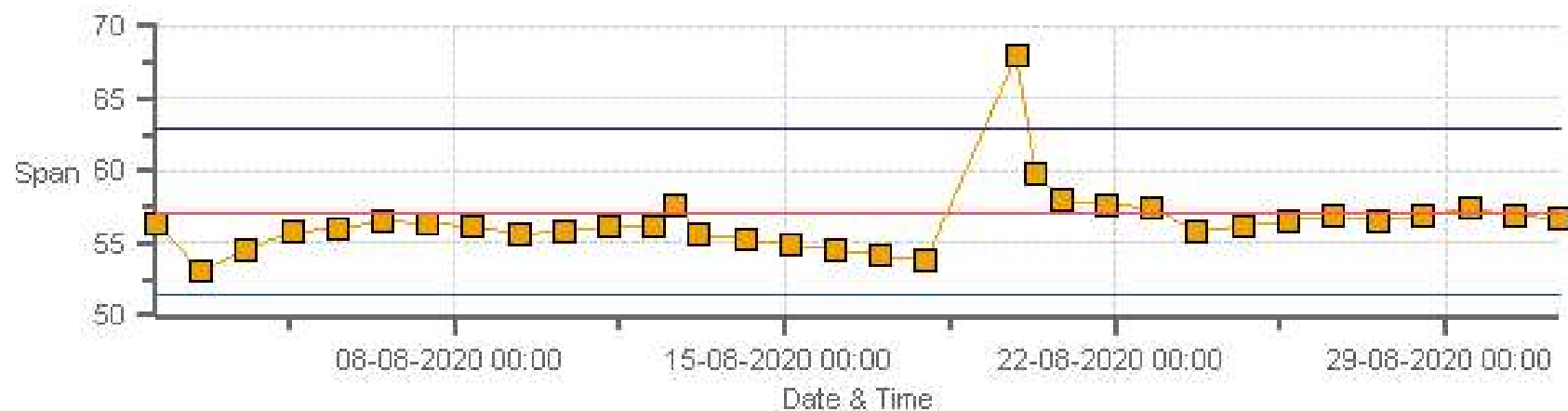


Span Span Ref Span Low Span High

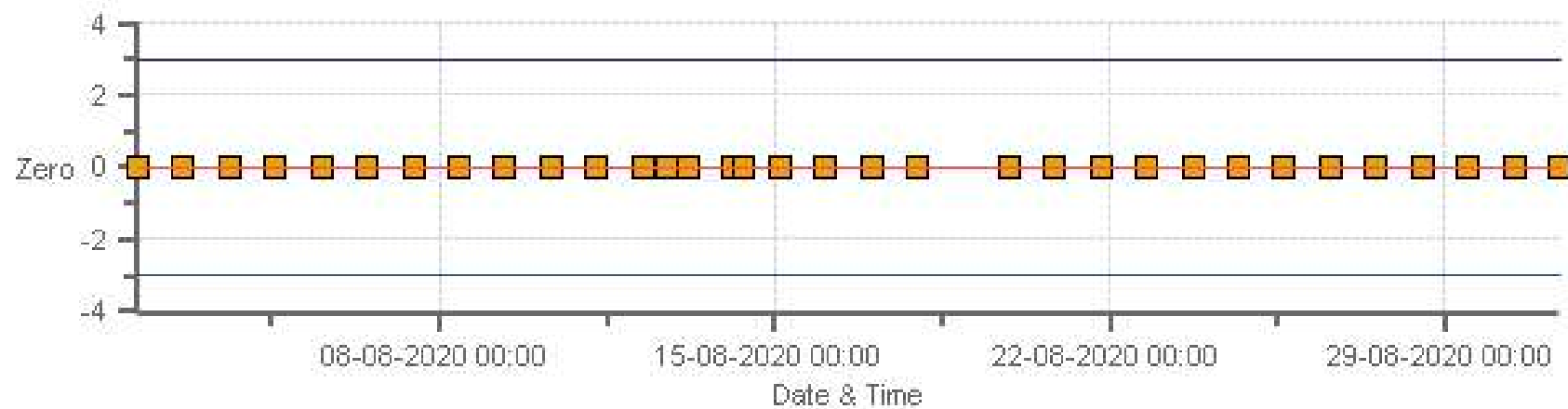
TRS[ppb] Calibration: PRAMP 842b Monthly: 08-2020 Type: SpanAndZero - Zero



TRS[ppb] Calibration: PRAMP 842b Monthly: 08-2020 Type: SpanAndZero - Span

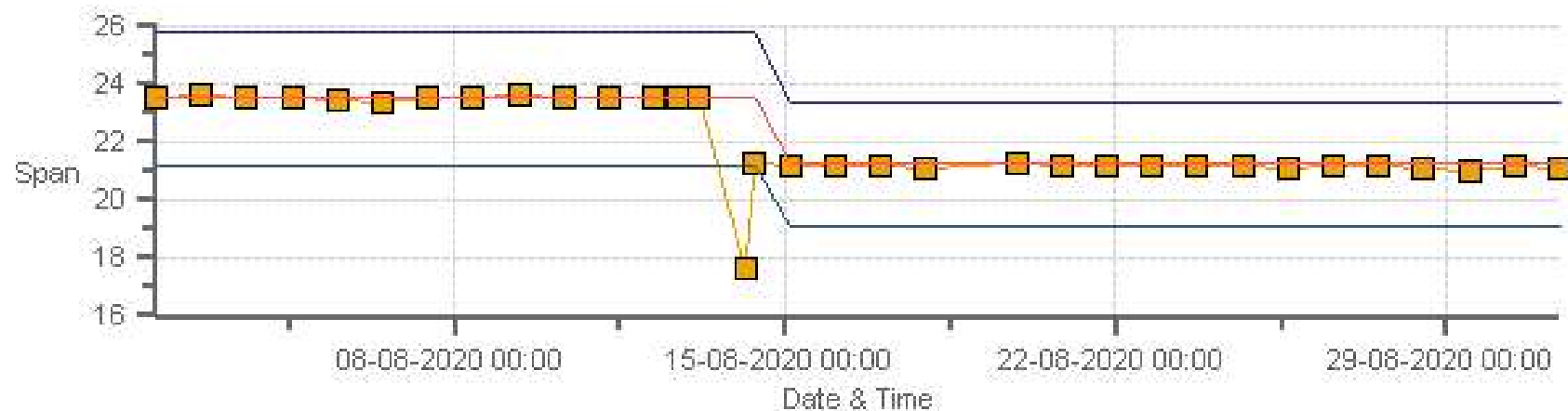


THC55[ppm] Calibration: PRAMP 842b Monthly: 08-2020 Type: SpanAndZero - Zero



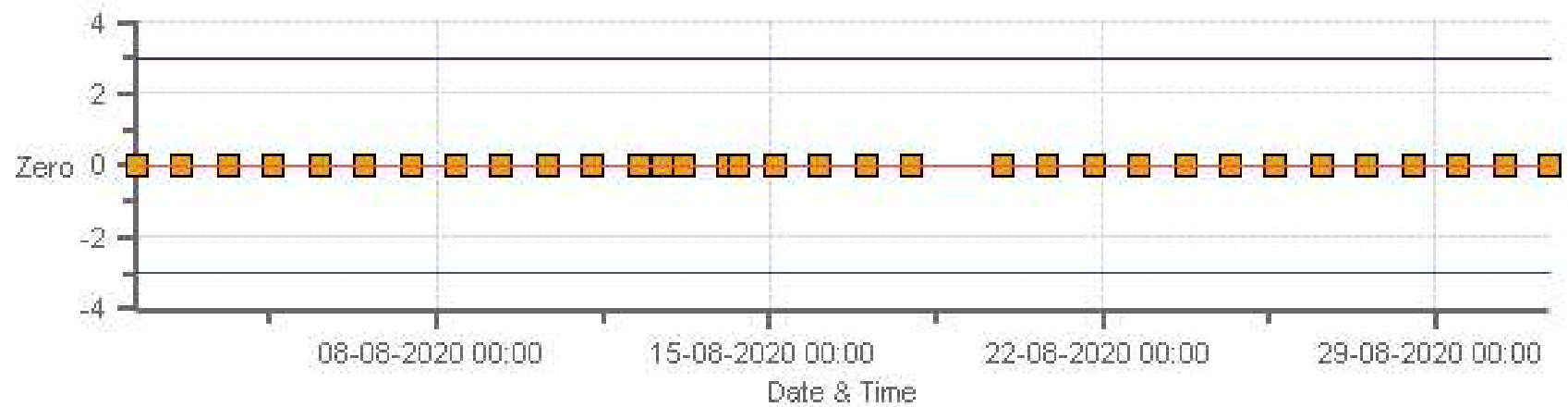
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THC55[ppm] Calibration: PRAMP 842b Monthly: 08-2020 Type: SpanAndZero - Span



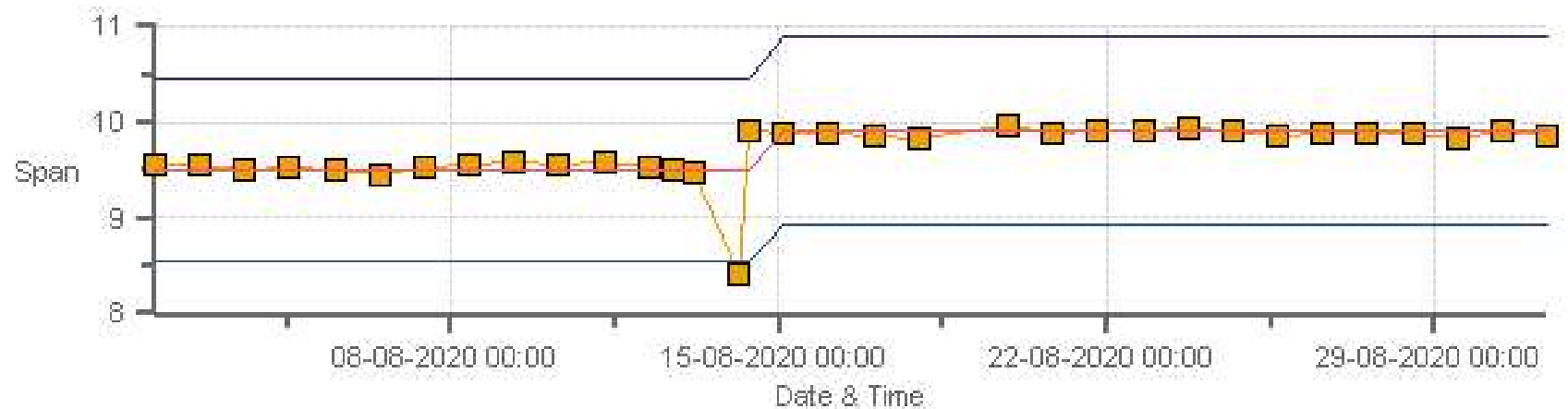
Span Span Ref Span Low Span High

CH₄[ppm] Calibration: PRAMP 842b Monthly: 08-2020 Type: SpanAndZero - Zero



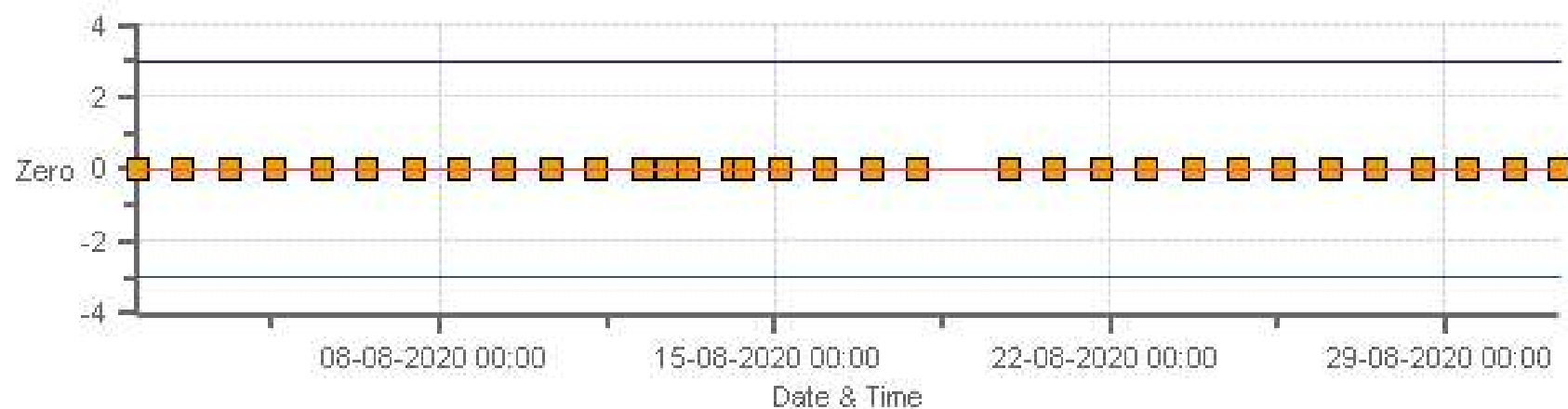
Zero Zero Ref Zero Low Zero High

CH₄[ppm] Calibration: PRAMP 842b Monthly: 08-2020 Type: SpanAndZero - Span



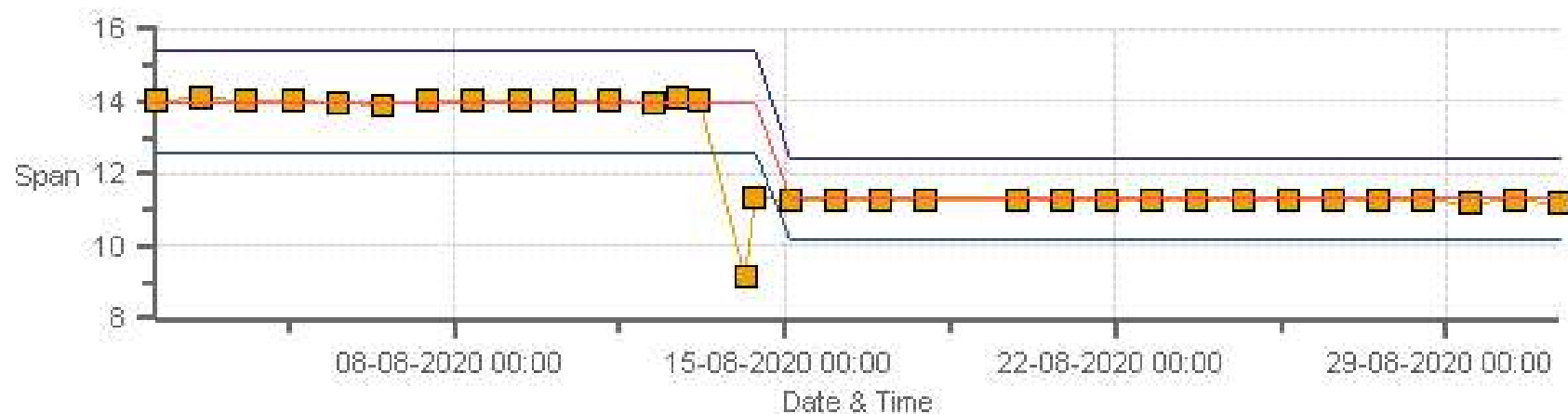
Span SpanRef Span Low Span High

NMHC[ppm] Calibration: PRAMP 842b Monthly: 08-2020 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: PRAMP 842b Monthly: 08-2020 Type: SpanAndZero - Span



Span SpanRef Span Low Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution



DATE:	12-Aug-2020	PREVIOUS CALIBRATION DATE:	29-Jul-2020
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	23.2
LOCATION:	842b	BAROMETRIC (mBar):	933
PURPOSE:	Routine	START TIME (MST):	12:00
PERFORMED BY:	Limin Li	END TIME (MST):	15:36

ANALYZER:

MAKE/MODEL	Thermo 43i	RANGE	500 ppb
SERIAL #	835033373	FLOW (mL/min)	419
INITIAL		FINAL	
BKG/OFFSET	16.2	BKG/OFFSET	15.8
COEF/SLOPE	1.072	COEF/SLOPE	1.027
Expected (reference) Value	258.3	Expected (reference) Value	251.6

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	701
ID:	17200415	ID:	1105
MFC CALIBRATION DATE:	11-May-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL104183	HIGH ID	128686
CONC (ppm):	49.50	EXPIRY DATE	07-Jan-2021
CYLINDER (psi):	350	LOW ID	129069
EXPIRY DATE	24-Oct-2020	EXPIRY DATE	06-Jan-2021

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	390	190	95
RANGE	300 - 400	150 - 200	50 - 100

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
6031	46.85	6031	0.00	0.2	0	0.952	1.000
5987	46.85	6034	384.37	404	384.4	0.952	1.000
6017	22.30	6040	182.74	n/a	183.7	n/a	0.995
6034	11.30	6046	92.53	n/a	93.4	n/a	0.991

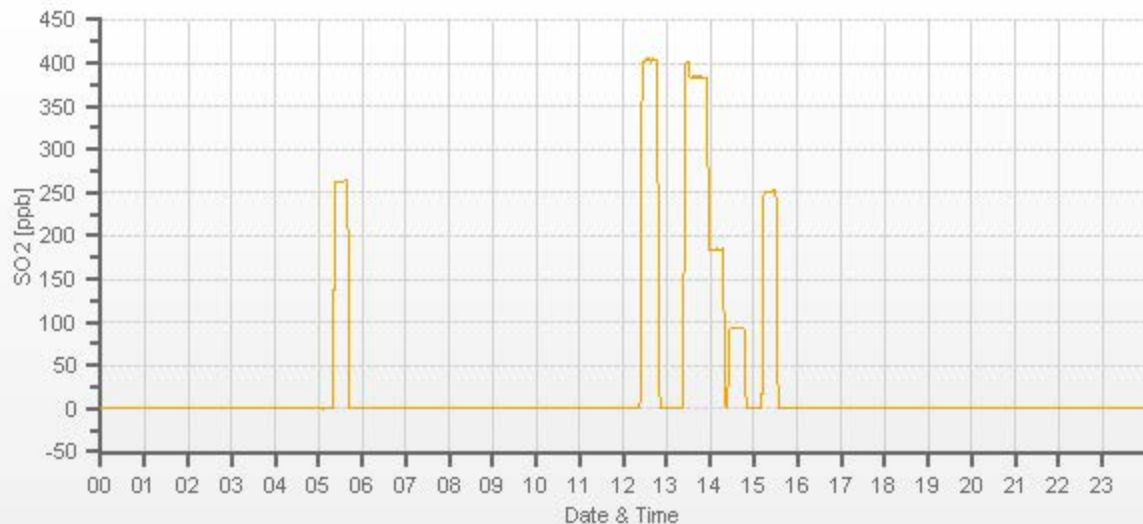
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.000	0.1%

COMMENTS:

No issues

SO2[ppb] Station: PRAMP 842b Daily: 12-08-2020 Type: AVG 1 Min. [1 Min.]



CAL-PRAMP-202008-01561

— SO2 [ppb]

TRS Analyzer Calibration by Dilution



DATE:	12-Aug-2020	PREVIOUS CALIBRATION DATE:	29-Jul-2020
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	23.2
LOCATION:	842b	BAROMETRIC (mBar):	933
PURPOSE:	Routine	START TIME (MST):	12:00
PERFORMED BY:	Limin Li	END TIME (MST):	16:56

ANALYZER:

MAKE/MODEL	Thermo 43I-TLE	RANGE	100 ppb
SERIAL #	1162460023	FLOW (mL/min)	397
INITIAL		FINAL	
BKG/OFFSET	3.04	BKG/OFFSET	2.96
COEF/SLOPE	0.915	COEF/SLOPE	0.899
Expected (reference) Value	57.12	Expected (reference) Value	57.12

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	API	MAKE:	API
MODEL:	700	MODEL:	701
ID:	627	ID:	1105
MFC CALIBRATION DATE:	13-Apr-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0001074	HIGH ID	128686
CONC (ppm):	10.00	EXPIRY DATE	07-Jan-2021
CYLINDER (psi):	1900	LOW ID	129069
EXPIRY DATE	16-Jul-2022	EXPIRY DATE	06-Jan-2021

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	12:25	SO2 Conc (ppb)	380
END TIME:	12:46	Analyzer Response (ppb)	0.0

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
7449	59.07	7449	0.00	0	0	1.003	1.000
7378	59.07	7437	79.43	79.2	79.4	1.003	1.000
7410	28.67	7439	38.54	n/a	38.3	n/a	1.006
7415	14.38	7429	19.35	n/a	18.8	n/a	1.029

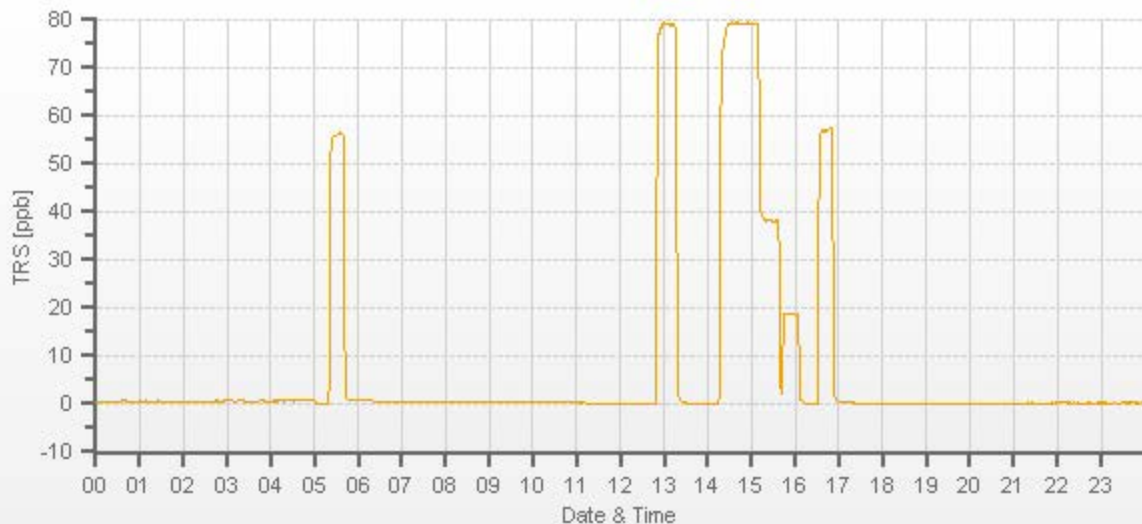
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	-0.3%

COMMENTS:

No issues.

TRS[ppb] Station: PRAMP 842b Daily: 12-08-2020 Type: AVG 1 Min. [1 Min.]



CAL-PRAMP-202008-01561

— TRS [ppb]

Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	12-Aug-2020	PREVIOUS CALIBRATION DATE:	29-Jul-2020	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	23.2		Thermo 55i	1314057759	1217
LOCATION:	842b	BAROMETRIC (mBar):	933	PARAMETER:	CH4	NMHC	THC
PURPOSE:	Routine	START TIME (MST):	14:54	RANGE (ppm):	20	20	40
PERFORMED BY:	Limin Li	END TIME (MST):	18:47	PREVIOUS CF:	1.000	0.999	1.000

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	LL70331	HIGH ID:	128686
MODEL:	2010	MODEL:	701	CH ₄ /C ₃ H ₈ (ppm):	909.0 308.0	HIGH EXPIRY:	07-Jan-2021
ID:	17200415	ID:	1105	CYLINDER (psi):	1850	LOW ID:	129069
MFC CALIBRATION DATE:	11-May-2020	OXIDIZER ID:	111	EXPIRY DATE	21-Jan-2028	LOW EXPIRY:	06-Jan-2021

CALIBRATION PARAMETERS:

POINT (CH ₄ /NMHC)	HIGH	MID	LOW	CH ₄ EQUIVILANCE	
TARGET	14	7	3.5	C ₃ H ₈ as CH ₄	847.0
RANGE	12 - 16	6 - 8	2 - 4	THC as CH ₄	1756.0

EXPECTED (REFERENCE) VALUE:

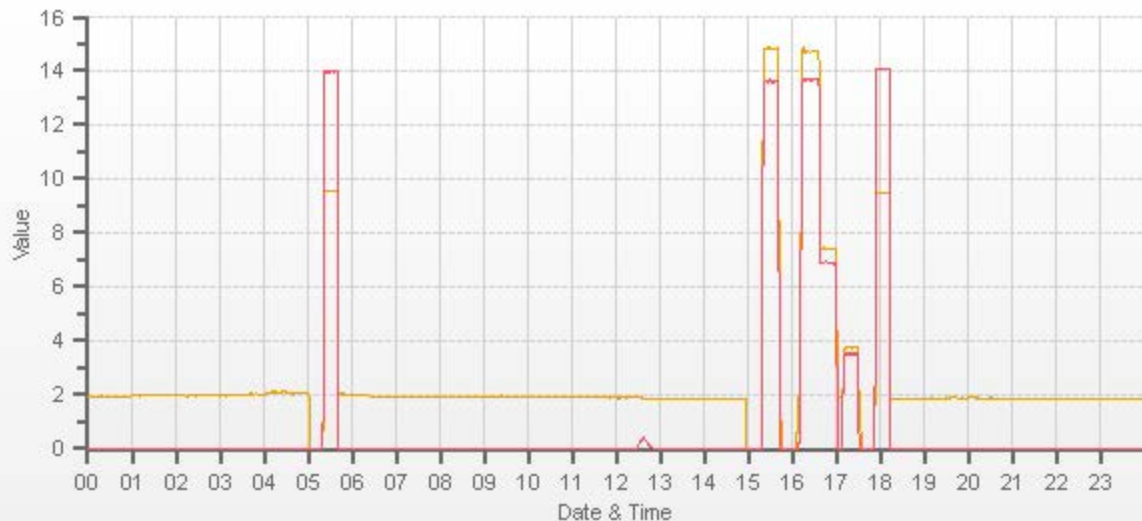
INITIAL	CH ₄	NMHC	THC	FINAL	CH ₄	NMHC	THC
	9.51	13.99	23.50		9.51	13.99	23.50

CALIBRATION:

FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC
3197	X	3197	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	X	X	X	X	X
3143	51.66	3195	14.70	13.70	28.40	14.83	13.60	28.43	14.73	13.71	28.44	0.991	1.007	0.999	0.998	0.999	0.998
3174	25.92	3200	7.36	6.86	14.22	n/a	n/a	n/a	7.40	6.89	14.29	n/a	n/a	n/a	0.995	0.996	0.995
3189	13.10	3202	3.72	3.47	7.19	n/a	n/a	n/a	3.75	3.52	7.27	n/a	n/a	n/a	0.992	0.985	0.988

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT	Comments:			
CH ₄	1.000	1.002	0.1%	No issues.			
NMHC	1.000	1.000	0.1%				
THC	1.000	1.001	0.1%				
				Use Zero Chrom?		No	



CAL-PRAMP-202008-01561

CH4 [ppm] NMHC [ppm]

Meteorological System Checklist



Date:	August 12, 2020		
Technician:	Limin Li		
Station:	842B		
Unit:	Make:	Model:	Serial #:
Temperature Sensor:	Campbell Scientific	HMP45C	C2608
Barometric Pressure Sensor:	MetOne	92	K12864
Relative Humidity Sensor:	Campbell Scientific	HMP45C	C2608
Anemometer:	RM Young	05305VK	124638
AMBIENT TEMPERATURE SENSOR CHECK			
Previous check date:	July 29, 2020		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	FS 160459244 expires June 10, 2021		
Reference Temperature (°C):	16.2		
Station - Ambient Temperature (°C):	16.3		
Temperature Difference (°C):	-0.1		
BAROMETRIC PRESSURE SENSOR CHECK			
Previous check date:	July 29, 2020		
Reference Barometer ID:	Brunton 05490 expires Jan08, 2021		
Reference Pressure - Units/Reading:	millibar	932.9	
Station Pressure - Units/Reading:	millibar	934.7	
Pressure Tolerance +/- 15% of error:	793 - 1073	-0.19%	
RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK			
Previous check date:	July 29, 2020		
Reference Hygrometer ID:	FS 160459244 expires June 10, 2021		
Reference Hygrometer % RH- Reading:	52.00		
Station Hygrometer % RH- Reading:	48.00		
RH Tolerance +/- 15% of difference:	44.20 - 59.80	7.7%	
ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK			
WIND SPEED		WIND DIRECTION	
Previous check date:	July 29, 2020	Previous check date:	July 29, 2020
Wind Speed Observed (kph):	15 ~ 25	Wind Direction Observed:	W
Wind speed on Data Logger (kph):	20.6	Wind Direction on Data Logger:	W
		Wind Direction Pass/Fail?:	Pass
Comments			



Meteorological Sensor Audit/Calibration

Location Information

Company: PRAMP
Audit Location: 842b
Audit Date: June 11, 2020
Calibration Purpose: routine annual

Performed By: Ferdinand Roy
Reviewed By: Chris Wesson
Start/End Time (mst): 14:36 / 16:59
Weather Conditions: Mix of sun and clouds

Wind Sensor Information

Sensor ID Data:		Sensor Outputs:	
Sensor Make:	RM Young	Velocity Voltage Output Range:	0-1
Sensor Model:	05305VK	Velocity Unit Output Range:	0-200
Serial #:	124638	Direction Voltage Output Range:	0-1
Previous Cal/Audit Date:	August 7, 2019	Direction Unit Output Range:	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# CA03309 expires November 20, 2020

Wind Speed Audit Data ****+/- 2% of the average correction factor is the limit****

RPM	Wind Speed Generated kph	Clockwise Wind Speed kph	Counter Clockwise Wind Speed kph	Correction Factor
0	0	0.2	0.2	-
1000	18.4	18.4	18.4	1.002
2000	36.9	36.8	36.8	1.002
3000	55.3	55.2	55.2	1.002
4000	73.7	73.6	73.6	1.002
5000	92.2	92.0	92.0	1.002
6000	110.6	110.4	110.4	1.002
7000	129.0	129.0	129.0	1.000
8000	147.4	147.4	147.4	1.000
9000	165.9	166.0	166.0	0.999
10000	184.3	184.2	184.6	0.999
The audit meets AMD requirements.			Average Correction Factor=	1.001

Wind Direction Audit Data ****+/- 3° of the absolute average degrees difference for all points is the limit****

Generated Wind Direction 0-360 (Up)	Generated Wind Direction 360-0 (Down)	Indicated Wind Direction 0-360 (Up)	Indicated Wind Direction 360-0 (Down)	Degrees Difference 0-360 (Up)	Degrees Difference 360-0 (Down)	Average Absolute Degrees Difference
0	355	1	355	1.0	0.0	0.5
30	330	29	330	1.0	0.0	0.5
60	300	60	300	0.0	0.0	0.0
90	270	90	270	0.0	0.0	0.0
120	240	120	240	0.0	0.0	0.0
150	210	150	210	0.0	0.0	0.0
180	180	180	180	0.0	0.0	0.0
210	150	210	150	0.0	0.0	0.0
240	120	240	120	0.0	0.0	0.0
270	90	270	90	0.0	0.0	0.0
300	60	300	60	0.0	0.0	0.0
330	30	330	29	0.0	1.0	0.5
355	0	355	1	0.0	1.0	0.5
The audit meets AMD requirements.			Average Absolute Degrees Difference=			0.2

Comments:

Physical inspection completed - no issues.



Peace River Area Monitoring Program

AUGUST 2020

Ambient Air Monitoring Calibration Report

- 986c STATION-

CAL-PRAMP-202008-01562

Operation and Maintenance:

Bureau Veritas Canada

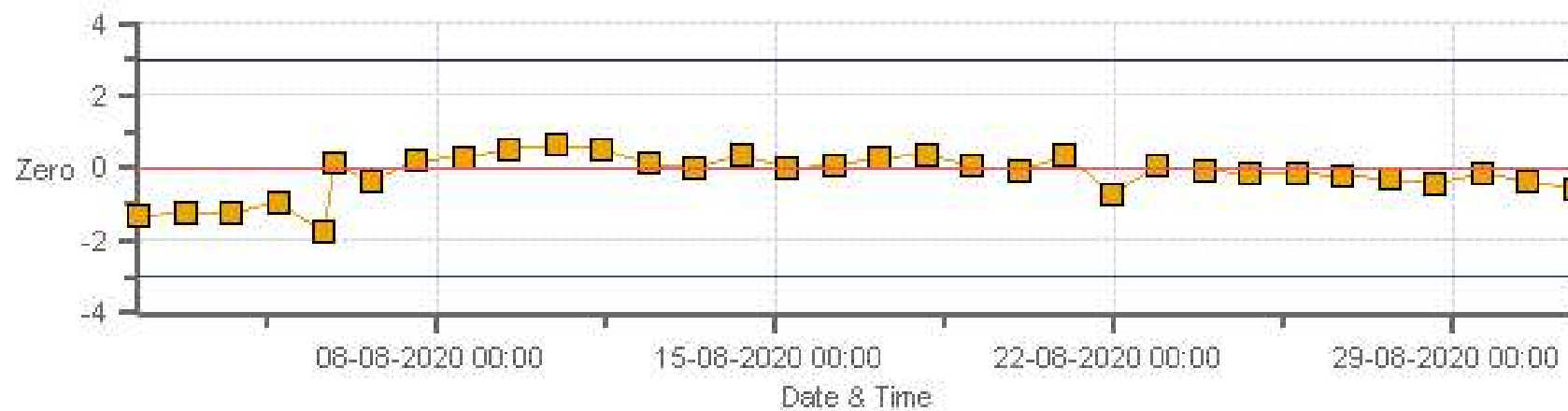
Data Validation and Report:

Bureau Veritas Canada

September 14, 2020

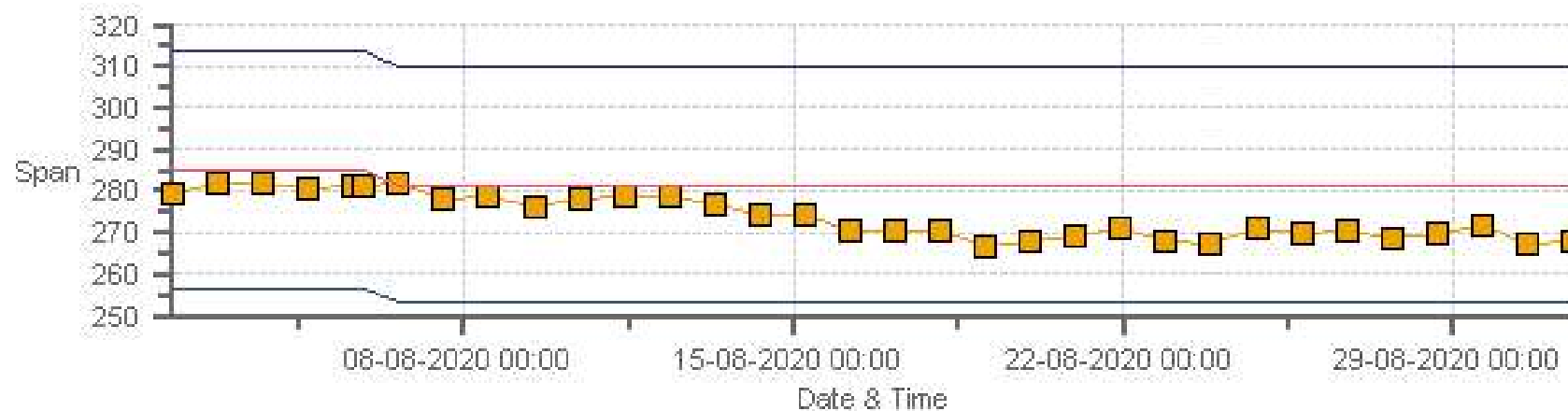
DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2(ppb) Calibration: PRAMP 986c Monthly: 08-2020 Type: SpanAndZero - Zero



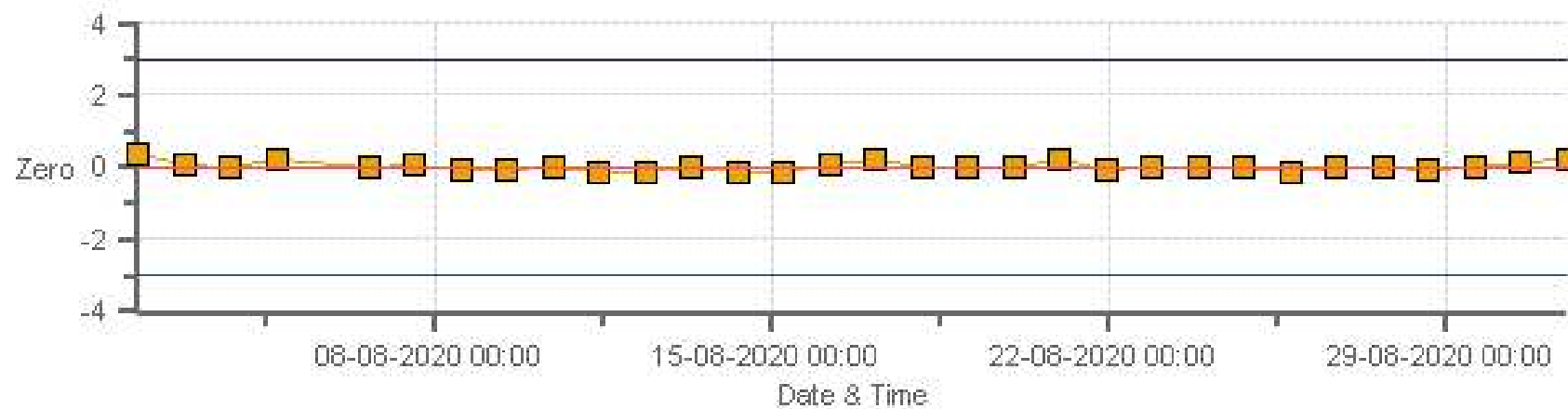
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SO2[ppb] Calibration: PRAMP 986c Monthly: 08-2020 Type: SpanAndZero - Span



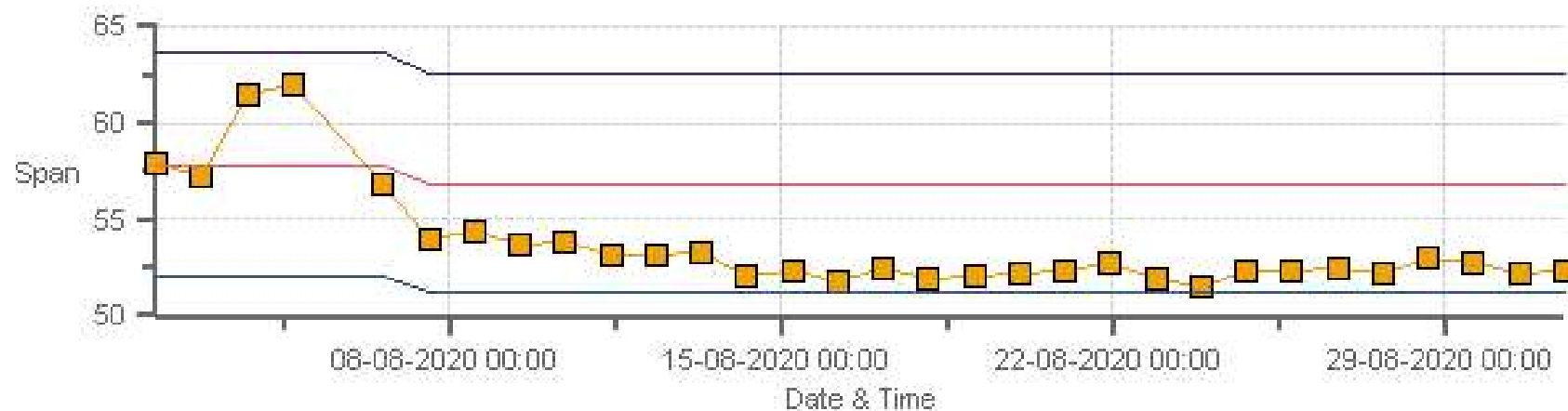
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TRS[ppb] Calibration: PRAMP 986c Monthly: 08-2020 Type: SpanAndZero - Zero



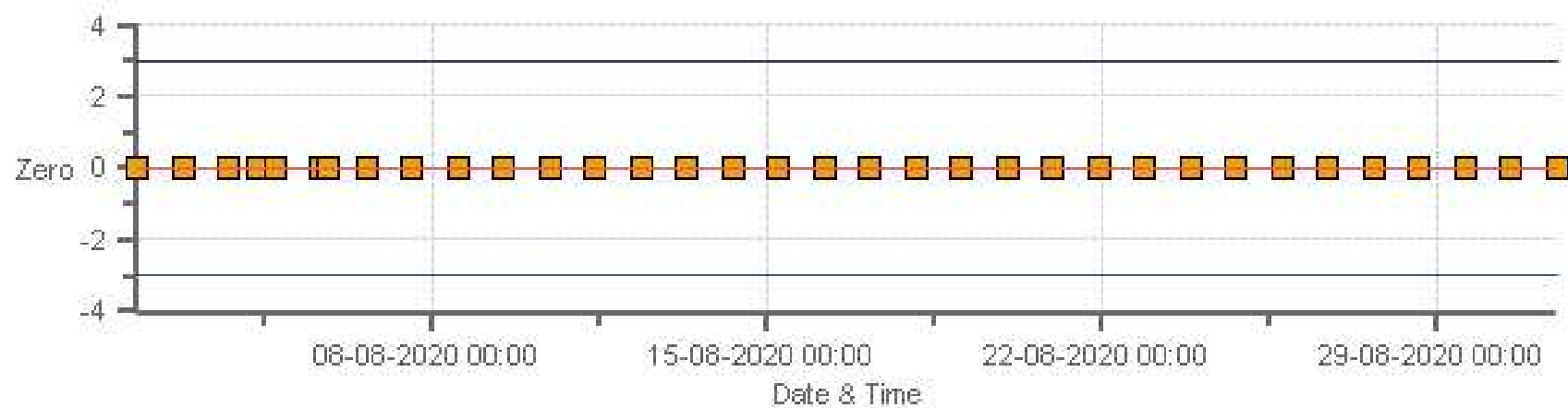
 Zero
 Zero Ref
 Zero Low
 Zero High

TRS[ppb] Calibration: PRAMP 986c Monthly: 08-2020 Type: SpanAndZero - Span



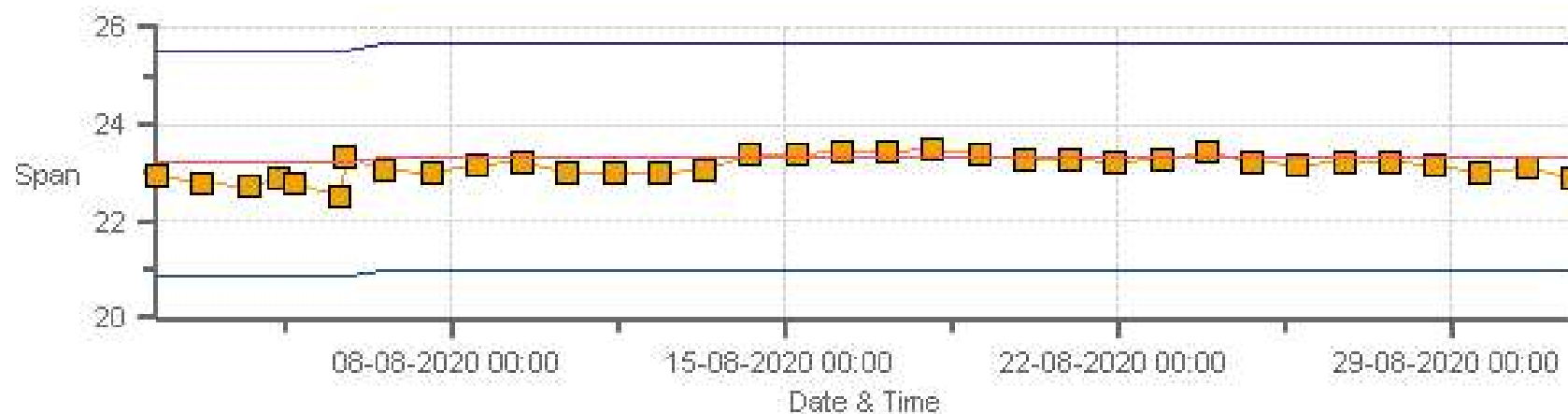
 Span
 SpanRef
 Span Low
 Span High

THC55[ppm] Calibration: PRAMP 986c Monthly: 08-2020 Type: SpanAndZero - Zero



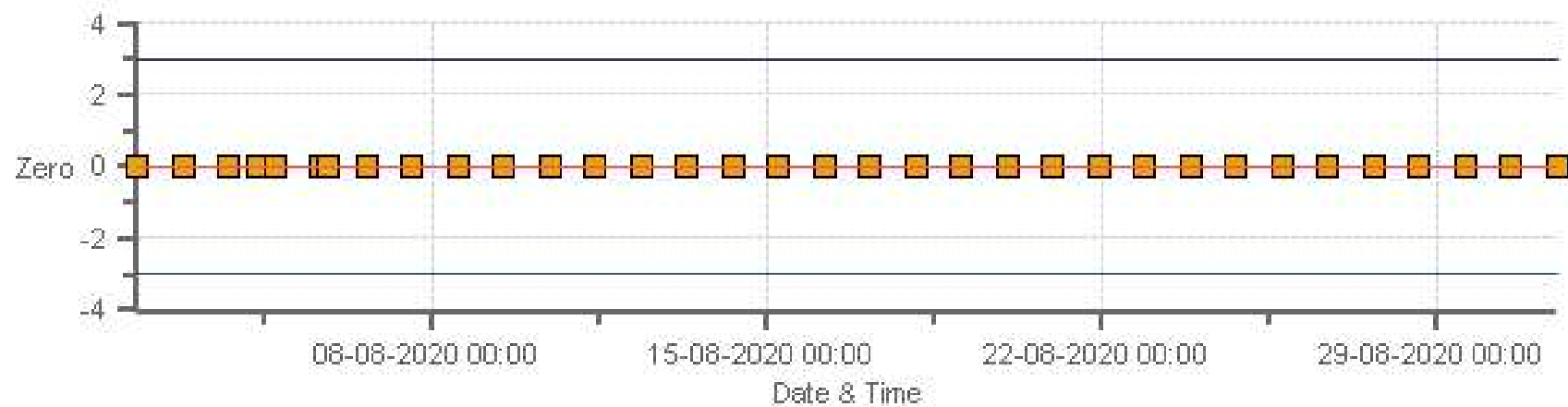
 Zero
  Zero Ref
  Zero Low
  Zero High

THC55[ppm] Calibration: PRAMP 986c Monthly: 08-2020 Type: SpanAndZero - Span



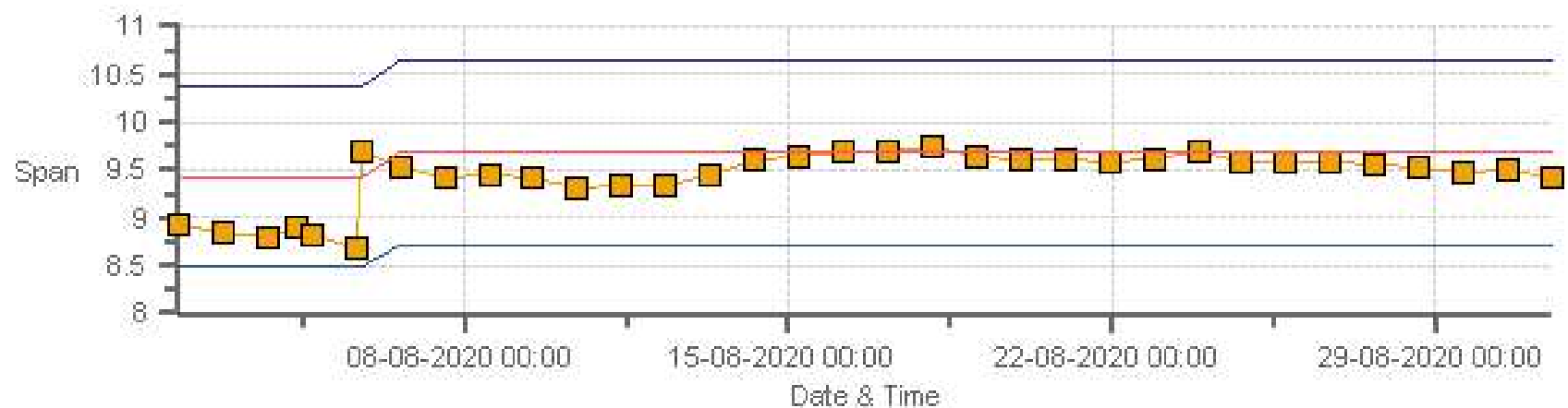
 Span
  SpanRef
  Span Low
  Span High

CH4[ppm] Calibration: PRAMP 986c Monthly: 08-2020 Type: SpanAndZero - Zero



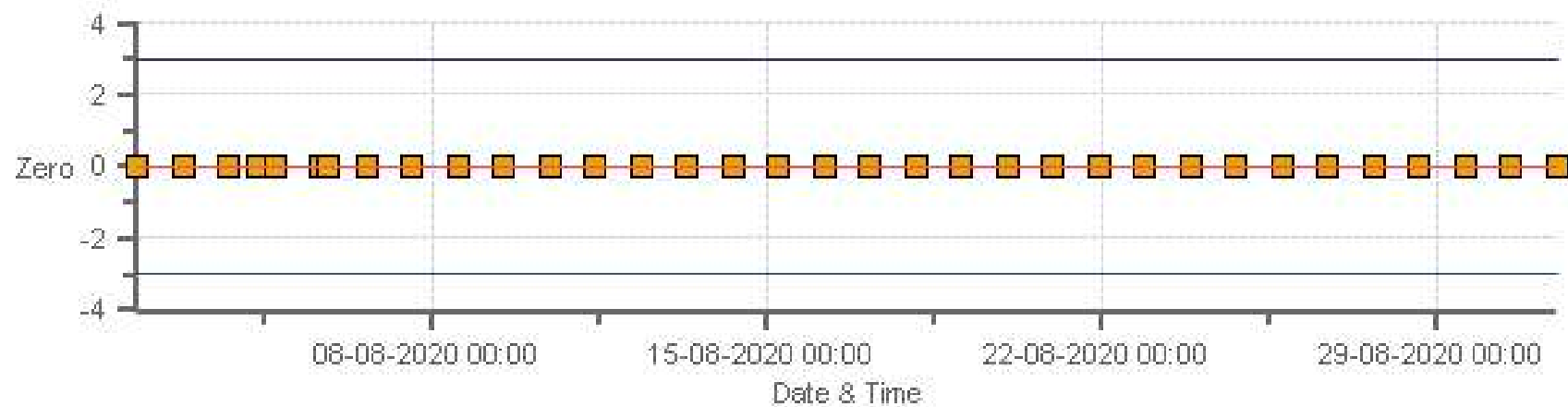
Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: PRAMP 986c Monthly: 08-2020 Type: SpanAndZero - Span



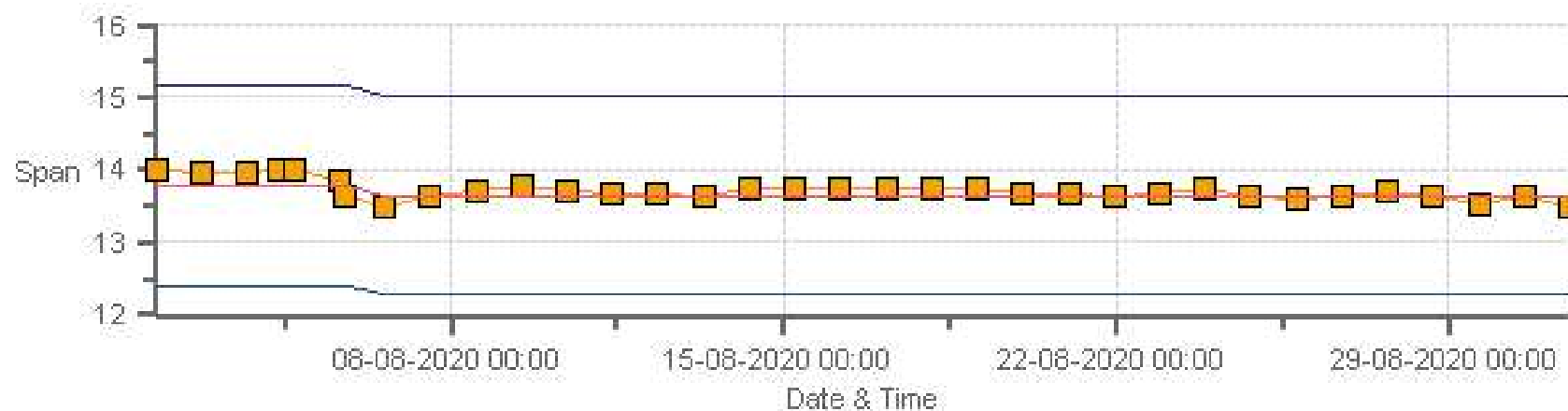
 Span
  SpanRef
  Span Low
  Span High

NMHC[ppm] Calibration: PRAMP 986c Monthly: 08-2020 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: PRAMP 986c Monthly: 08-2020 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution



DATE:	05-Aug-2020	PREVIOUS CALIBRATION DATE:	16-Jul-2020
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	23.4
LOCATION:	986C	BAROMETRIC (mBar):	936
PURPOSE:	Routine	START TIME (MST):	16:47
PERFORMED BY:	Ferdinand Roy	END TIME (MST):	20:58

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	500 ppb
SERIAL #	119358646	FLOW (mL/min)	422
INITIAL		FINAL	
BKG/OFFSET	14.2	BKG/OFFSET	12.6
COEF/SLOPE	1.043	COEF/SLOPE	1.032
Expected (reference) Value	285.2	Expected (reference) Value	281

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	API
MODEL:	2010	MODEL:	M701
ID:	26701218	ID:	916
MFC CALIBRATION DATE:	08-Jun-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	BAL3157	HIGH ID	n/a
CONC (ppm):	49.30	EXPIRY DATE	n/a
CYLINDER (psi):	800	LOW ID	n/a
EXPIRY DATE	01-Jul-2027	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	390	190	95
RANGE	300 - 400	150 - 200	50 - 100

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
5954	46.20	5954	0.00	-1.9	0	1.001	0.999
5954	46.20	6000	379.61	377.4	379.8	1.001	0.999
5977	21.90	5999	179.97	n/a	180.1	n/a	0.999
5990	11.00	6001	90.37	n/a	89.3	n/a	1.012

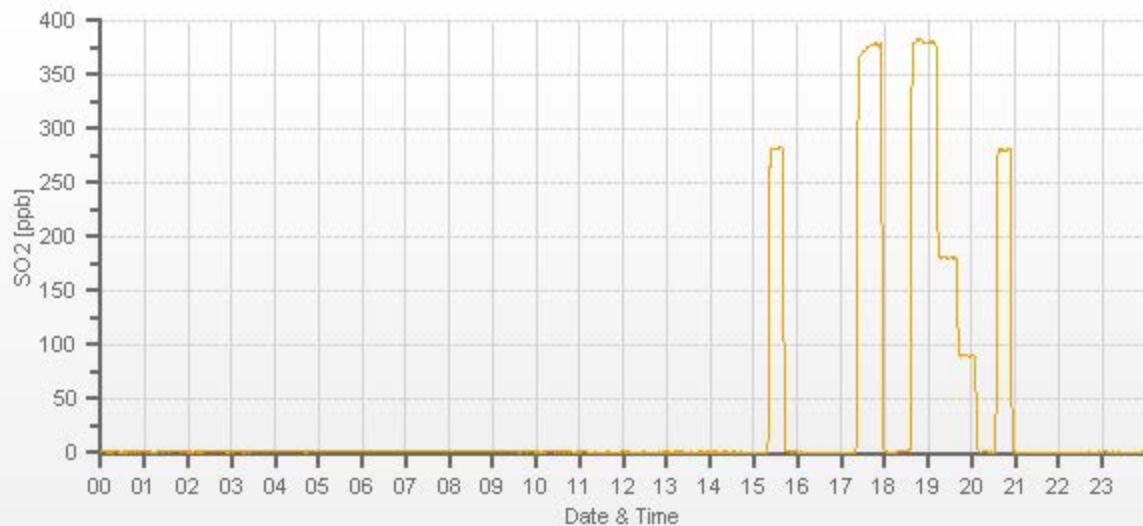
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	-0.1%

COMMENTS:

Monthly calibration and sample filter changed - no issues.

SO2[ppb] Station: PRAMP 986c Daily: 05-08-2020 Type: AVG 1 Min. [1 Min.]



CAL-PRAMP-202008-01562

— SO2 [ppb]

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TRS Analyzer Calibration by Dilution



DATE:	06-Aug-2020	PREVIOUS CALIBRATION DATE:	28-Jul-2020
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	24.5
LOCATION:	986c	BAROMETRIC (mBar):	933
PURPOSE:	Removal/Shut-down	START TIME (MST):	08:55
PERFORMED BY:	Chris Wesson	END TIME (MST):	11:03

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1191833341	FLOW (mL/min)	420
INITIAL		FINAL	
BKG/OFFSET	13.7	BKG/OFFSET	n/a
COEF/SLOPE	1.026	COEF/SLOPE	n/a
Expected (reference) Value	57.79	Expected (reference) Value	n/a

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	EnviroNics	MAKE:	API
MODEL:	2000	MODEL:	701
ID:	1991	ID:	1104
MFC CALIBRATION DATE:	10-Jun-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY000644	HIGH ID	n/a
CONC (ppm):	10.00	EXPIRY DATE	n/a
CYLINDER (psi):	1400	LOW ID	n/a
EXPIRY DATE	16-Jul-2022	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	09:20	SO2 Conc (ppb)	380
END TIME:	09:35	Analyzer Response (ppb)	0.0

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
4002	31.24	4002	0.00	0.11	n/a	0.963	n/a
3972	31.24	4003	78.05	81.17	n/a	0.963	n/a
3989	15.23	4005	38.04	38.65	n/a	0.987	n/a
3997	7.63	4005	19.05	18.65	n/a	1.027	n/a

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.043	-0.6%

COMMENTS:

Shutdown calibration due to inconsistent / non-linear results.

TRS Analyzer Calibration by Dilution



DATE:	06-Aug-2020	PREVIOUS CALIBRATION DATE:	n/a
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	n/a
CLIENT:	PRAMP	TEMPERATURE (°C):	22.0
LOCATION:	986c	BAROMETRIC (mBar):	930
PURPOSE	Install/Post-Repair	START TIME (MST):	12:05
PERFORMED BY:	Chris Wesson	END TIME (MST):	14:45

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1191833341	FLOW (mL/min)	420
INITIAL		FINAL	
BKG/OFFSET	13.7	BKG/OFFSET	12.3
COEF/SLOPE	1.026	COEF/SLOPE	0.916
Expected (reference) Value	n/a	Expected (reference) Value	56.86

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	EnviroNics	MAKE:	API
MODEL:	2000	MODEL:	701
ID:	1991	ID:	1104
MFC CALIBRATION DATE:	10-Jun-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY000644	HIGH ID	n/a
CONC (ppm):	10.00	EXPIRY DATE	n/a
CYLINDER (psi):	1400	LOW ID	n/a
EXPIRY DATE	16-Jul-2022	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
4002	31.25	4002	0.00	n/a	0	n/a	1.000
3970	31.25	4001	78.10	n/a	78.1	n/a	1.000
3985	15.21	4001	38.02	n/a	37.93	n/a	1.002
3993	7.62	4001	19.06	n/a	18.49	n/a	1.031

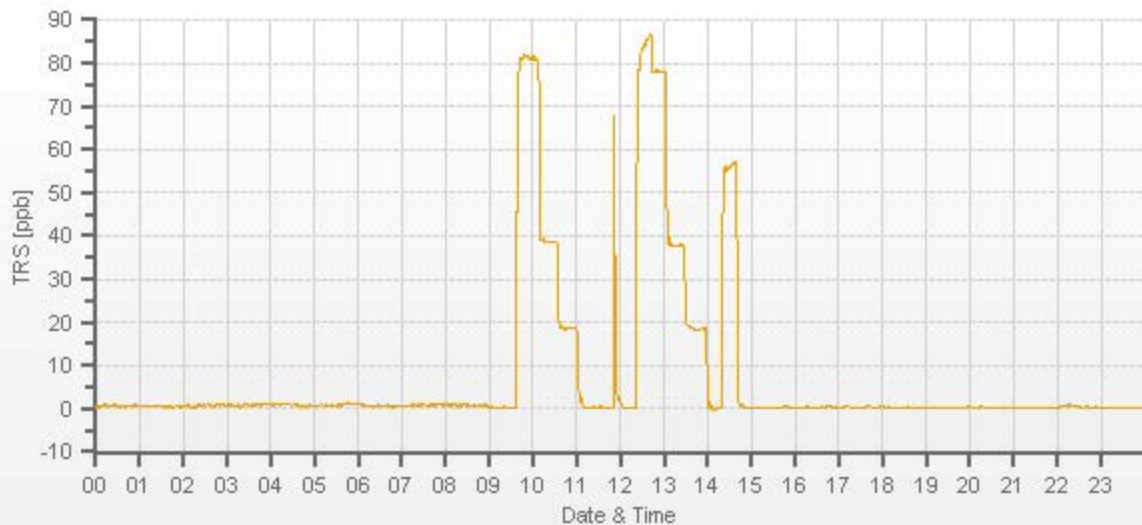
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	-0.2%

COMMENTS:

Post-repair following maintenance/adjustment of TRS converter.

TRS[ppb] Station: PRAMP 986c Daily: 06-08-2020 Type: AVG 1 Min. [1 Min.]



CAL-PRAMP-202008-01562

— TRS [ppb]

Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	05-Aug-2020	PREVIOUS CALIBRATION DATE:	n/a	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	23.5		Thermo 55i	1193585652	1321.7
LOCATION:	986C	BAROMETRIC (mBar):	939	PARAMETER:	CH4	NMHC	THC
PURPOSE	Install/Post-Repair	START TIME (MST):	16:12	RANGE (ppm):	20	20	40
PERFORMED BY:	Ferdinand Roy	END TIME (MST):	18:58	PREVIOUS CF:	n/a	n/a	n/a

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	API	CYLINDER ID:	LL84567	HIGH ID:	n/a
MODEL:	2010	MODEL:	M701	CH ₄ /C ₃ H ₈ (ppm):	591.0 200.0	HIGH EXPIRY:	n/a
ID:	17100415	ID:	916	CYLINDER (psi):	1210	LOW ID:	n/a
MFC CALIBRATION DATE:	08-Jun-2020	OXIDIZER ID:	Internal	EXPIRY DATE	17-Jul-2027	LOW EXPIRY:	n/a

CALIBRATION PARAMETERS:

POINT (CH ₄ /NMHC)	HIGH	MID	LOW	CH ₄ EQUIVILANCE	
TARGET	14	7	3.5	C ₃ H ₈ as CH ₄	550.0
RANGE	12 - 16	6 - 8	2 - 4	THC as CH ₄	1141.0

EXPECTED (REFERENCE) VALUE:

INITIAL	CH ₄	NMHC	THC	FINAL	CH ₄	NMHC	THC
	n/a	n/a	n/a		9.69	13.65	23.34

CALIBRATION:

FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC
3326	3326	3326	0.00	0.00	0.00	n/a	n/a	n/a	0.00	0.00	0.00	3326	3326	3326	3326	3326	3326
3243	81.60	3325	14.50	13.50	28.00	n/a	n/a	n/a	14.50	13.53	28.03	n/a	n/a	n/a	1.000	0.998	0.999
3285	40.80	3326	7.25	6.75	14.00	n/a	n/a	n/a	7.19	6.76	13.95	n/a	n/a	n/a	1.008	0.998	1.003
3306	20.40	3326	3.62	3.37	7.00	n/a	n/a	n/a	3.60	3.40	7.00	n/a	n/a	n/a	1.007	0.992	1.000

LINEAR REGRESSION ANALYSIS:

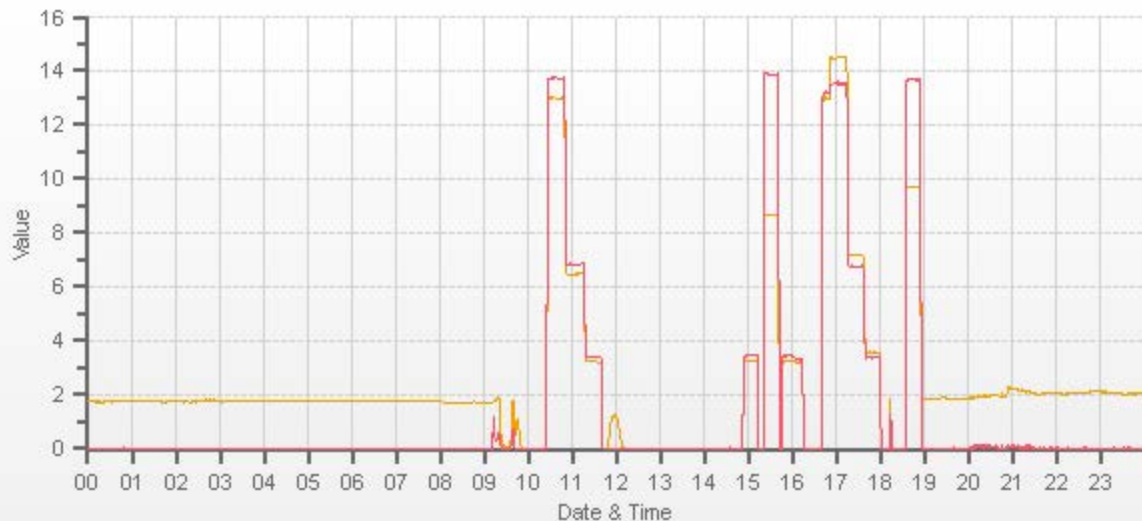
	CORRELATION	SLOPE	INTERCEPT
CH ₄	1.000	1.000	-0.1%
NMHC	1.000	1.002	0.0%
THC	1.000	1.001	0.0%

Comments:

Sample filter changed. N2 pressure changed to 35 psi. RT changed from 12.6 to 12.4. Post Repair calibration - no issues.

Use Zero Chrom?

No



CAL-PRAMP-202008-01562

CH4 [ppm] NMHC [ppm]

Meteorological System Checklist



Date:	August 6, 2020		
Technician:	Chris Wesson		
Station:	PRAMP 986c		
Unit:	Make:	Model:	Serial #:
Temperature Sensor:	Rotronic	HC2-S3	20357528
Barometric Pressure Sensor:	MetOne	092	Y23358
Relative Humidity Sensor:	Rotronic	HC2-S3	2057528
Anemometer:	RM Young	05305L	174795
AMBIENT TEMPERATURE SENSOR CHECK			
Previous check date:	July 16, 2020		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	F.S. 1702866131 expires Jun 05, 2021		
Reference Temperature (°C):	26.3		
Station - Ambient Temperature (°C):	26.6		
Temperature Difference (°C):	-0.3		
BAROMETRIC PRESSURE SENSOR CHECK			
Previous check date:	July 16, 2020		
Reference Barometer ID:	Brunton 05535 expires Jan07, 2021		
Reference Pressure - Units/Reading:	millibar	928.7	
Station Pressure - Units/Reading:	millibar	929.4	
Pressure Tolerance +/- 15% of error:	789 - 1068	-0.08%	
RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK			
Previous check date:	July 16, 2020		
Reference Hygrometer ID:	F.S. 1702866131 expires Jun 05, 2021		
Reference Hygrometer % RH- Reading:	53.20		
Station Hygrometer % RH- Reading:	55.00		
RH Tolerance +/- 15% of difference:	45.22 - 61.18	-3.4%	
ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK			
WIND SPEED		WIND DIRECTION	
Previous check date:	July 16, 2020	Previous check date:	July 16, 2020
Wind Speed Observed (kph):	10-20	Wind Direction Observed:	E
Wind speed on Data Logger (kph):	17.9	Wind Direction on Data Logger:	E
		Wind Direction Pass/Fail?:	Pass
Comments			
Timing: Temp@12:01; BP@12:02; wind@12:05			



Meteorological Sensor Audit/Calibration

Location Information

Company: PRAMP
Audit Location: 986C
Audit Date: July 16, 2020
Calibration Purpose: installation

Performed By: Chris Wesson
Reviewed By: Ferdinand Roy
Start/End Time (mst): 15:07 / 16:17
Weather Conditions: Mix of sun and clouds with rain showers

Wind Sensor Information

Sensor ID Data:		Sensor Outputs:	
Sensor Make:	RM Young	Velocity Voltage Output Range:	n/a
Sensor Model:	05305L	Velocity Unit Output Range:	0-180
Serial #:	174795	Direction Voltage Output Range:	n/a
Previous Cal/Audit Date:	n/a	Direction Unit Output Range:	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# CA03309 expires November 20, 2020

Wind Speed Audit Data ****+/- 2% of the average correction factor is the limit****

RPM	Wind Speed Generated kph	Clockwise Wind Speed kph	Counter Clockwise Wind Speed kph	Correction Factor
0	0	0.0	0.0	-
1000	18.4	18.3	18.3	1.007
2000	36.9	36.7	36.7	1.004
3000	55.3	55.1	55.1	1.003
4000	73.7	73.6	73.6	1.002
5000	92.2	92.0	92.0	1.002
6000	110.6	110.5	110.5	1.001
7000	129.0	128.9	128.9	1.001
8000	147.4	147.3	147.3	1.001
9000	165.9	165.8	165.8	1.000
10000	184.3	184.2	184.2	1.001
The audit meets AMD requirements.			Average Correction Factor=	1.002

Wind Direction Audit Data ****+/- 3° of the absolute average degrees difference for all points is the limit****

Generated Wind Direction 0-360 (Up)	Generated Wind Direction 360-0 (Down)	Indicated Wind Direction 0-360 (Up)	Indicated Wind Direction 360-0 (Down)	Degrees Difference 0-360 (Up)	Degrees Difference 360-0 (Down)	Average Absolute Degrees Difference
0	355	0	354	0.0	1.0	0.5
30	330	30	330	0.0	0.0	0.0
60	300	59	299	1.0	1.0	1.0
90	270	90	270	0.0	0.0	0.0
120	240	119	240	1.0	0.0	0.5
150	210	150	210	0.0	0.0	0.0
180	180	181	180	-1.0	0.0	0.5
210	150	211	150	-1.0	0.0	0.5
240	120	241	120	-1.0	0.0	0.5
270	90	270	89	0.0	1.0	0.5
300	60	300	59	0.0	1.0	0.5
330	30	330	30	0.0	0.0	0.0
355	0	354	0	1.0	0.0	0.5
The audit meets AMD requirements.			Average Absolute Degrees Difference=		0.4	

Comments:

Magnetic declination = 15Deg(E)



Peace River Area Monitoring Program

AUGUST 2020

Ambient Air Monitoring Calibration Report

- RENO STATION-

CAL-PRAMP-202008-01563

Operation and Maintenance:

Bureau Veritas Canada

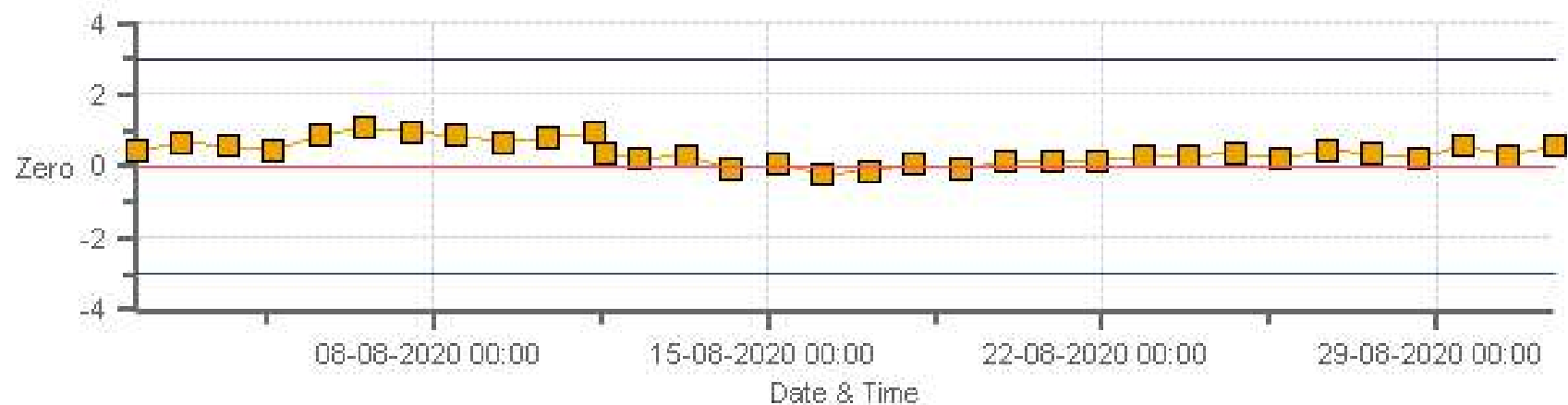
Data Validation and Report:

Bureau Veritas Canada

September 14, 2020

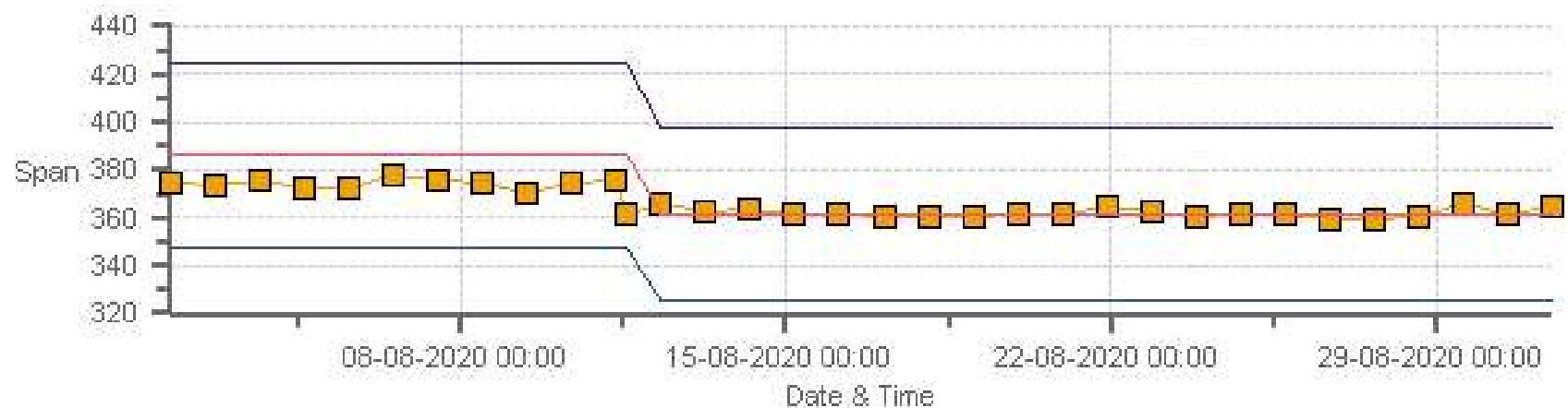
DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: PRAMP RENO Monthly: 08-2020 Type: SpanAndZero - Zero



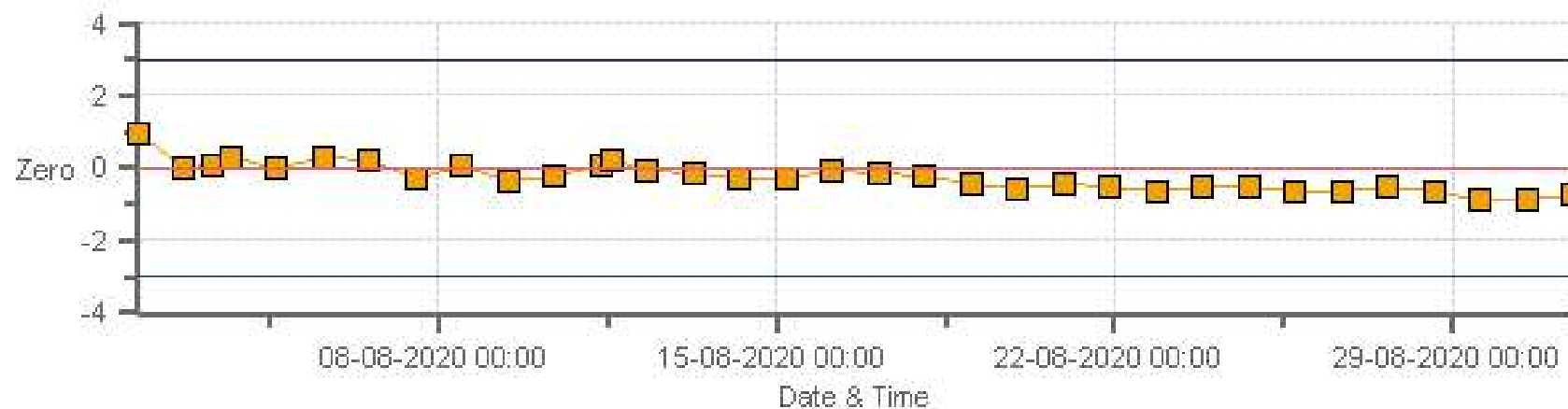
Zero Zero Ref Zero Low Zero High

SO2[ppb] Calibration: PRAMP RENO Monthly: 08-2020 Type: SpanAndZero - Span



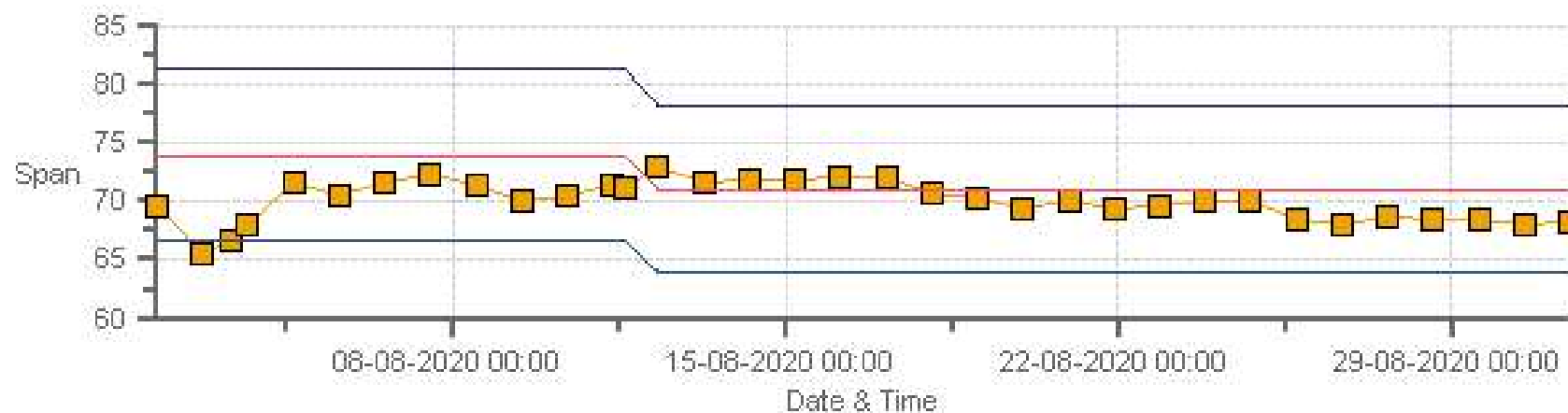
Span SpanRef Span Low Span High

TRS[ppb] Calibration: PRAMP RENO Monthly: 08-2020 Type: SpanAndZero - Zero



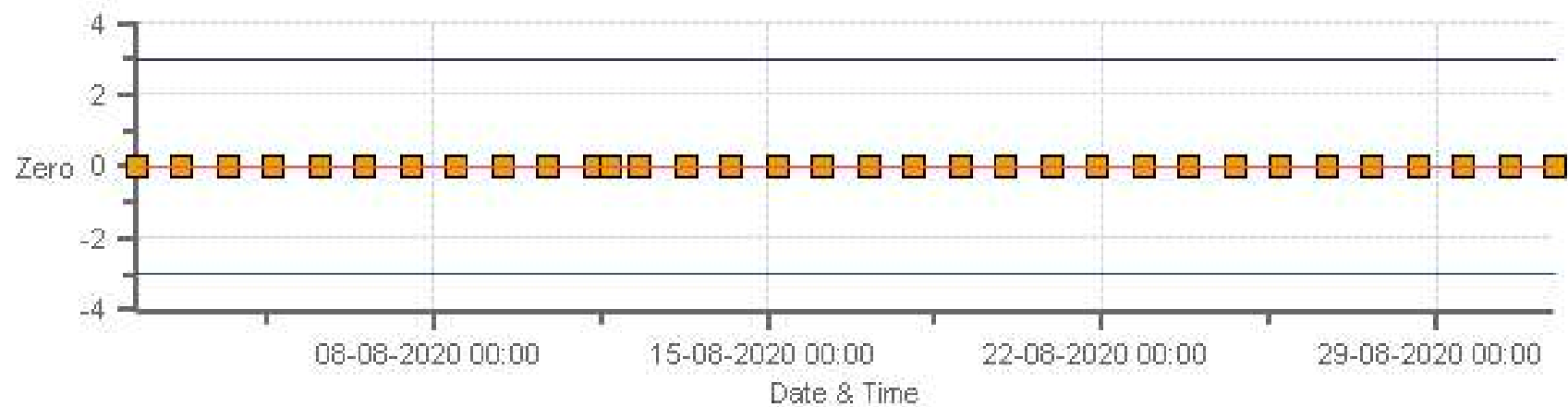
Zero Zero Ref Zero Low Zero High

TRS[ppb] Calibration: PRAMP RENO Monthly: 08-2020 Type: SpanAndZero - Span



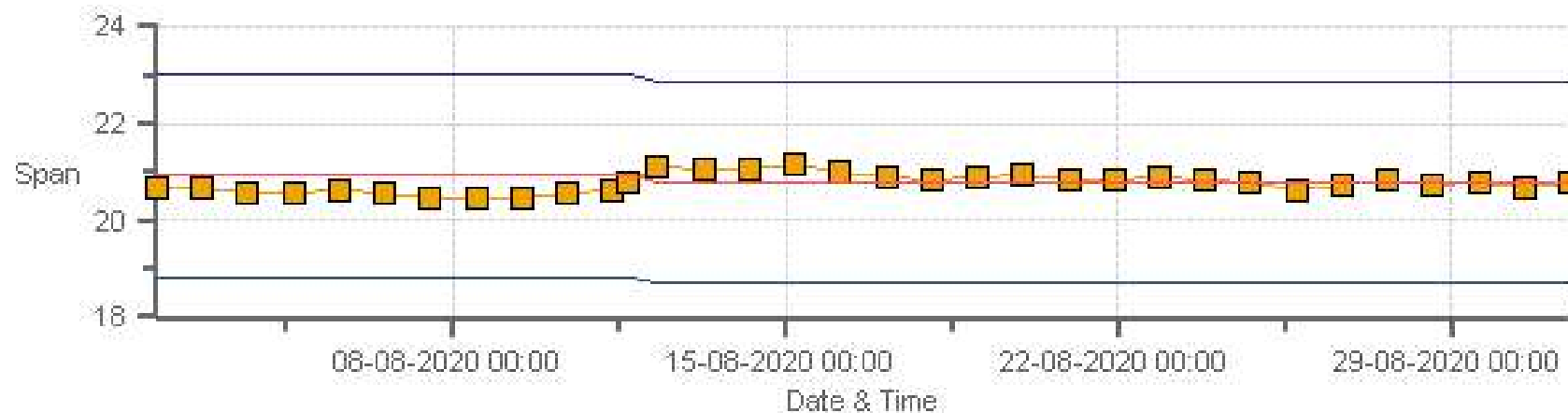
Span SpanRef Span Low Span High

THC55[ppm] Calibration: PRAMP RENO Monthly: 08-2020 Type: SpanAndZero - Zero



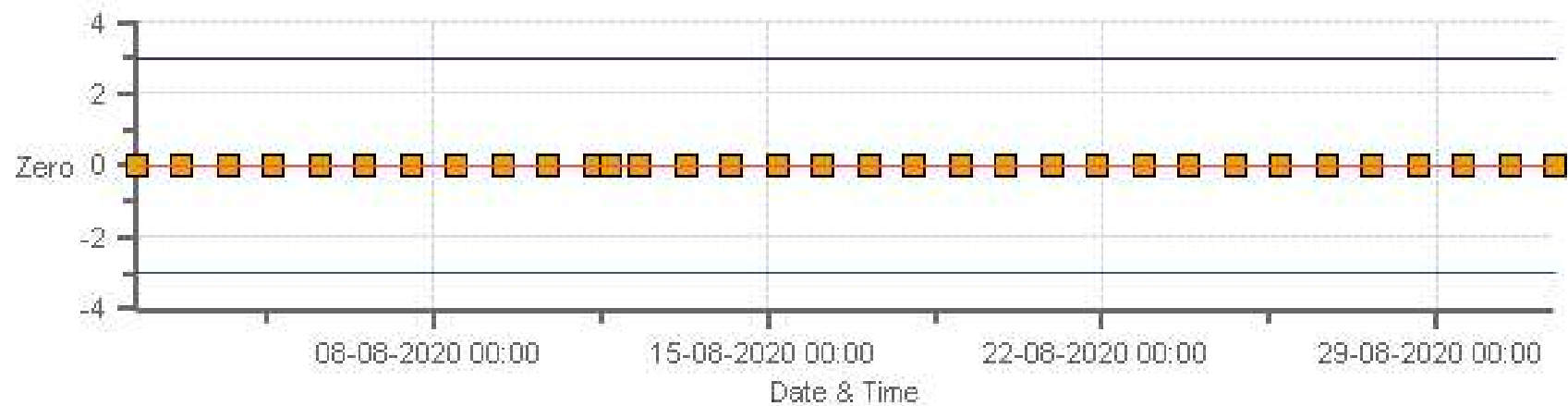
Zero Zero Ref Zero Low Zero High

THC55[ppm] Calibration: PRAMP RENO Monthly: 08-2020 Type: SpanAndZero - Span



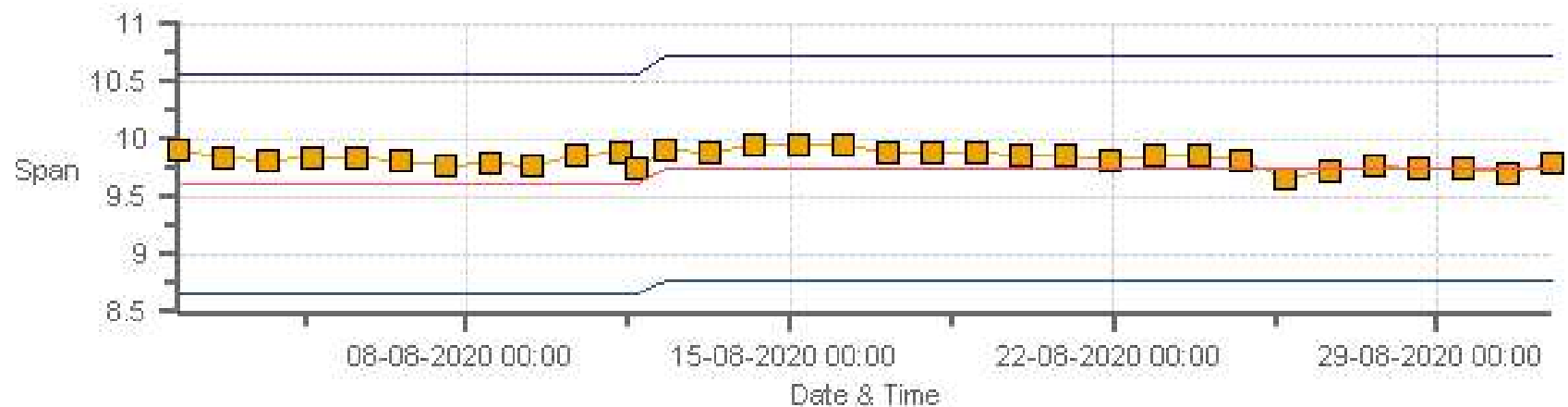
Span Span Ref Span Low Span High

CH4[ppm] Calibration: PRAMP RENO Monthly: 08-2020 Type: SpanAndZero - Zero



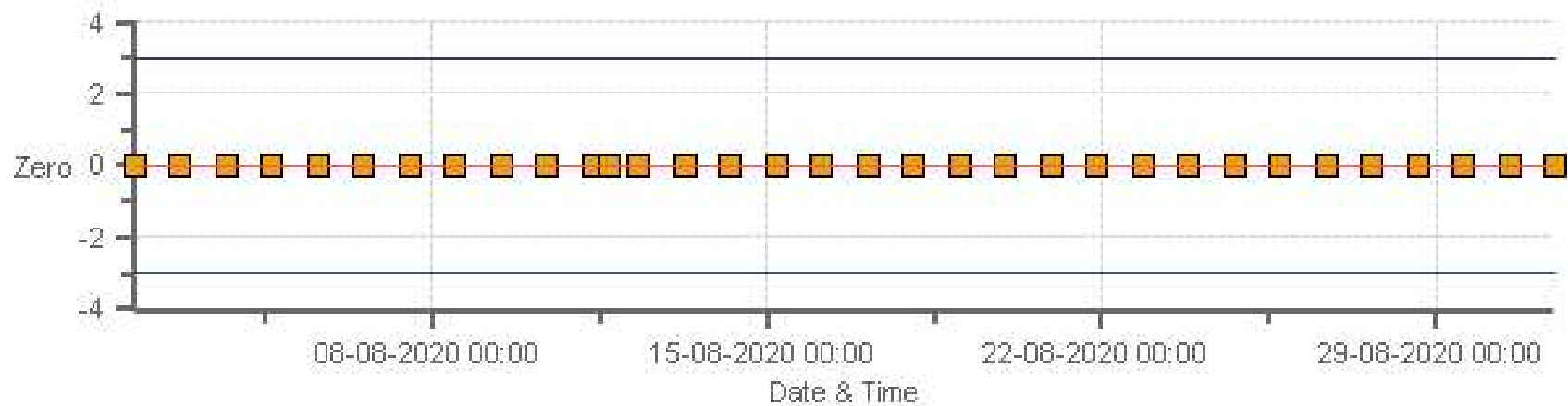
Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: PRAMP RENO Monthly: 08-2020 Type: SpanAndZero - Span



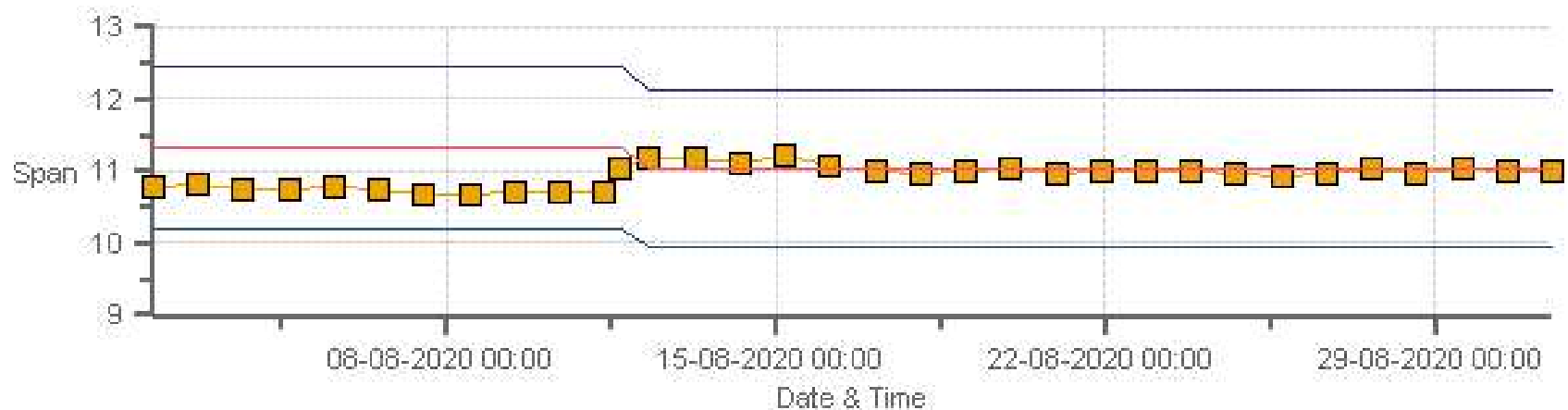
Span SpanRef Span Low Span High

NMHC[ppm] Calibration: PRAMP RENO Monthly: 08-2020 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: PRAMP RENO Monthly: 08-2020 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution



DATE:	11-Aug-2020	PREVIOUS CALIBRATION DATE:	27-Jul-2020
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	22.3
LOCATION:	Reno	BAROMETRIC (mBar):	932
PURPOSE:	Routine	START TIME (MST):	10:00
PERFORMED BY:	Limin Li	END TIME (MST):	14:05

ANALYZER:

MAKE/MODEL	API 100A	RANGE	500 ppb
SERIAL #	1502	FLOW (mL/min)	652
INITIAL		FINAL	
BKG/OFFSET	88.7	BKG/OFFSET	90.1
COEF/SLOPE	0.969	COEF/SLOPE	0.947
Expected (reference) Value	386.3	Expected (reference) Value	361.8

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	701
ID:	17200415	ID:	1105
MFC CALIBRATION DATE:	11-May-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL104183	HIGH ID	128686
CONC (ppm):	49.50	EXPIRY DATE	07-Jan-2021
CYLINDER (psi):	350	LOW ID	129069
EXPIRY DATE	24-Oct-2020	EXPIRY DATE	06-Jan-2021

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	390	190	95
RANGE	300 - 400	150 - 200	50 - 100

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

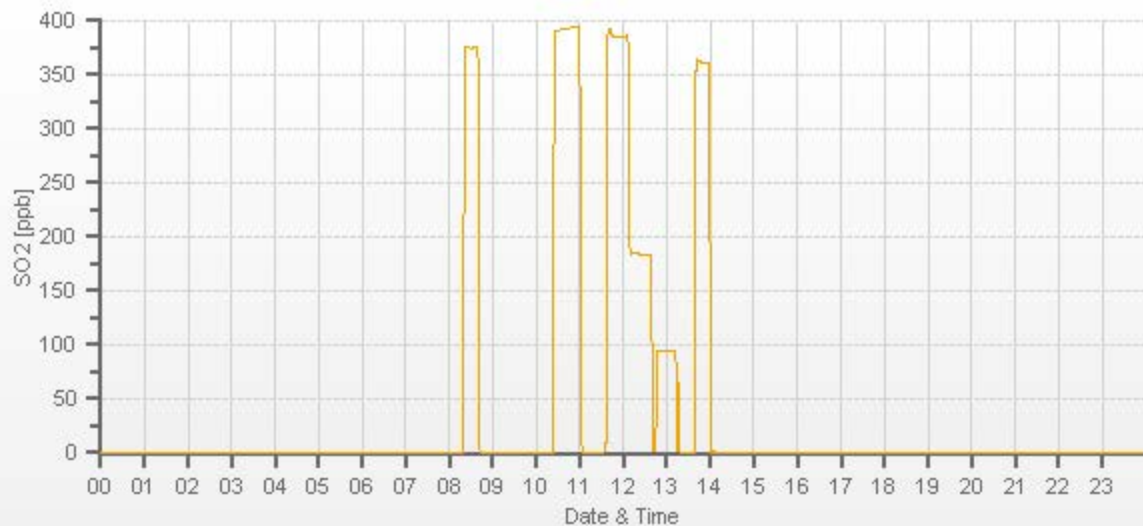
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
6016	47.01	6016	0.00	0.7	0	0.980	1.000
5972	47.01	6019	386.63	395.2	386.6	0.980	1.000
5993	22.59	6016	185.85	n/a	184.8	n/a	1.006
6006	11.60	6018	95.42	n/a	94.6	n/a	1.009

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.000	-0.1%

COMMENTS:

no issue



CAL-PRAMP-202008-01563

— SO2 [ppb]

TRS Analyzer Calibration by Dilution



DATE:	11-Aug-2020	PREVIOUS CALIBRATION DATE:	31-Jul-2020
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	22.3
LOCATION:	Reno	BAROMETRIC (mBar):	932
PURPOSE:	Routine	START TIME (MST):	11:14
PERFORMED BY:	Limin Li	END TIME (MST):	14:50

ANALYZER:

MAKE/MODEL	Thermo 43C	RANGE	100 ppb
SERIAL #	43CTL-66268-352	FLOW (mL/min)	815
INITIAL		FINAL	
BKG/OFFSET	10	BKG/OFFSET	10.1
COEF/SLOPE	1.179	COEF/SLOPE	1.212
Expected (reference) Value	73.9	Expected (reference) Value	71

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	API	MAKE:	API
MODEL:	700	MODEL:	701
ID:	627	ID:	1105
MFC CALIBRATION DATE:	13-Apr-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0001074	HIGH ID	128686
CONC (ppm):	10.00	EXPIRY DATE	07-Jan-2021
CYLINDER (psi):	1900	LOW ID	129069
EXPIRY DATE	16-Jul-2022	EXPIRY DATE	06-Jan-2021

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	10:42	SO2 Conc (ppb)	380
END TIME:	11:00	Analyzer Response (ppb)	0.4

CALIBRATION:

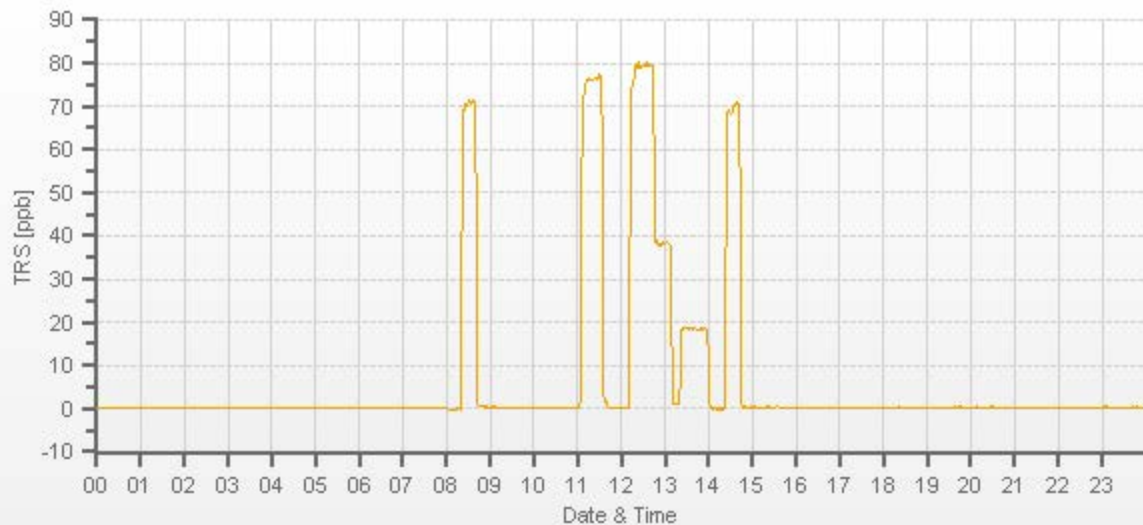
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
7418	59.09	7418	0.00	-0.4	0	1.032	1.000
7368	59.09	7427	79.57	76.7	79.6	1.032	1.000
7386	28.84	7415	38.89	n/a	38.1	n/a	1.021
7394	14.50	7408	19.57	n/a	18.8	n/a	1.041

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.003	-0.5%

COMMENTS:

No issues



CAL-PRAMP-202008-01563

— TRS [ppb]

Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	11-Aug-2020	PREVIOUS CALIBRATION DATE:	27-Jul-2020	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	22.3		Thermo 55i	1505664392	1228
LOCATION:	Reno	BAROMETRIC (mBar):	932	PARAMETER:	CH4	NMHC	THC
PURPOSE:	Routine	START TIME (MST):	13:18	RANGE (ppm):	20	20	40
PERFORMED BY:	Limin Li	END TIME (MST):	16:50	PREVIOUS CF:	1.000	0.999	1.000

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	LL70331	HIGH ID:	128686
MODEL:	2010	MODEL:	701	CH ₄ /C ₃ H ₈ (ppm):	909.0 308.0	HIGH EXPIRY:	07-Jan-2021
ID:	17200415	ID:	1105	CYLINDER (psi):	1850	LOW ID:	129069
MFC CALIBRATION DATE:	11-May-2020	OXIDIZER ID:	111	EXPIRY DATE	21-Jan-2028	LOW EXPIRY:	06-Jan-2021

CALIBRATION PARAMETERS:

POINT (CH ₄ /NMHC)	HIGH	MID	LOW	CH ₄ EQUIVILANCE	
TARGET	14	7	3.5	C ₃ H ₈ as CH ₄	847.0
RANGE	12 - 16	6 - 8	2 - 4	THC as CH ₄	1756.0

EXPECTED (REFERENCE) VALUE:

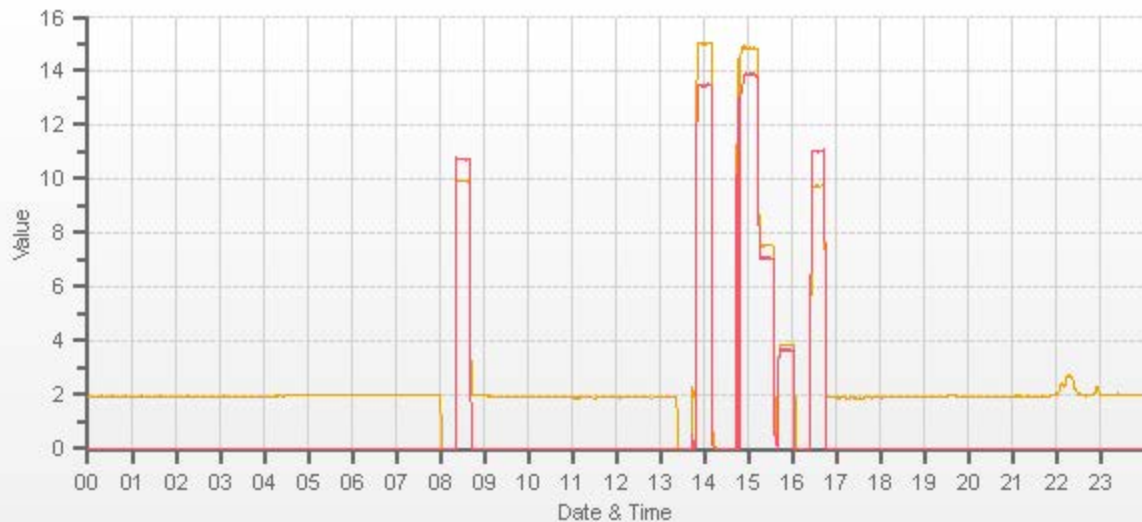
INITIAL	CH ₄	NMHC	THC	FINAL	CH ₄	NMHC	THC
	9.61	11.32	20.93		9.76	11.04	20.80

CALIBRATION:

FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC
3484	X	3484	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	X	X	X	X	X
3418	56.78	3475	14.85	13.84	28.69	15.00	13.45	28.45	14.84	13.83	28.67	0.990	1.029	1.009	1.001	1.001	1.001
3458	28.62	3487	7.46	6.95	14.41	n/a	n/a	n/a	7.55	7.08	14.63	n/a	n/a	n/a	0.988	0.982	0.985
3470	14.60	3485	3.81	3.55	7.36	n/a	n/a	n/a	3.85	3.66	7.51	n/a	n/a	n/a	0.989	0.970	0.980

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT	Comments:			
CH ₄	1.000	0.999	0.2%	Sample filter changed. Monthly calibration - no issues.			
NMHC	1.000	0.998	0.4%				
THC	1.000	0.998	0.3%				
				Use Zero Chrom?		No	



CAL-PRAMP-202008-01563

— CH4 [ppm] — NMHC [ppm]

Meteorological System Checklist



Date:	August 11, 2020		
Technician:	Limin Li		
Station:	PRAMP Reno		
Unit:	Make:	Model:	Serial #:
Temperature Sensor:	RM Young	43172VC	60837897
Barometric Pressure Sensor:	MetOne	92	R12877
Relative Humidity Sensor:	RM Young	43172VC	60837897
AMBIENT TEMPERATURE SENSOR CHECK			
Previous check date:	July 31, 2020		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	FS 160459244 expires June 10, 2021		
Reference Temperature (°C):	18.7		
Station - Ambient Temperature (°C):	18.3		
Temperature Difference (°C):	0.4		
BAROMETRIC PRESSURE SENSOR CHECK			
Previous check date:	July 31, 2020		
Reference Barometer ID:	Brunton 05490 expires Jan08, 2021		
Reference Pressure - Units/Reading:	millibar	931.5	
Station Pressure - Units/Reading:	millibar	931.9	
Pressure Tolerance +/- 15% of error:	792 - 1071	-0.04%	
RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK			
Previous check date:	July 31, 2020		
Reference Hygrometer ID:	FS 160459244 expires June 10, 2021		
Reference Hygrometer % RH- Reading:	40.65		
Station Hygrometer % RH- Reading:	37.20		
RH Tolerance +/- 15% of difference:	34.55 - 46.75	8.5%	
ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK			
WIND SPEED		WIND DIRECTION	
Previous check date:	July 31, 2020	Previous check date:	July 31, 2020
Wind Speed Observed (kph):	5 ~20	Wind Direction Observed:	SW
Wind speed on Data Logger (kph):	10	Wind Direction on Data Logger:	SW
		Wind Direction Pass/Fail?:	Pass
Comments			



Meteorological Sensor Audit/Calibration

Location Information

Company: PRAMP
 Audit Location: Reno
 Audit Date: June 17, 2020
 Calibration Purpose: routine annual

Performed By: Chris Wesson
 Reviewed By: Ferdinand Roy
 Start/End Time (mst): 16:12 / 17:13
 Weather Conditions: Light rain/scattered showers

Wind Sensor Information

Sensor ID Data:		Sensor Outputs:	
Sensor Make:	RM Young	Velocity Voltage Output Range:	0-1
Sensor Model:	05305VK	Velocity Unit Output Range:	0-200
Serial #:	149769	Direction Voltage Output Range:	0-1
Previous Cal/Audit Date:	April 24, 2019	Direction Unit Output Range:	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# CA03309 expires November 20, 2020

Wind Speed Audit Data ****+/- 2% of the average correction factor is the limit****

RPM	Wind Speed Generated kph	Clockwise Wind Speed kph	Counter Clockwise Wind Speed kph	Correction Factor
0	0	0.0	0.0	-
1000	18.4	18.4	18.4	1.002
2000	36.9	36.8	36.8	1.002
3000	55.3	55.2	55.2	1.002
4000	73.7	73.6	73.6	1.002
5000	92.2	92.2	92.2	0.999
6000	110.6	110.6	110.6	1.000
7000	129.0	129.2	129.2	0.999
8000	147.4	147.8	147.8	0.998
9000	165.9	166.2	166.2	0.998
10000	184.3	184.8	185.0	0.997
The audit meets AMD requirements.			Average Correction Factor=	1.000

Wind Direction Audit Data ****+/- 3° of the absolute average degrees difference for all points is the limit****

Generated Wind Direction 0-360 (Up)	Generated Wind Direction 360-0 (Down)	Indicated Wind Direction 0-360 (Up)	Indicated Wind Direction 360-0 (Down)	Degrees Difference 0-360 (Up)	Degrees Difference 360-0 (Down)	Average Absolute Degrees Difference
0	355	0	354	0.0	1.0	0.5
30	330	31	328	-1.0	2.0	1.5
60	300	61	298	-1.0	2.0	1.5
90	270	91	269	-1.0	1.0	1.0
120	240	121	239	-1.0	1.0	1.0
150	210	151	209	-1.0	1.0	1.0
180	180	180	180	0.0	0.0	0.0
210	150	210	150	0.0	0.0	0.0
240	120	240	121	0.0	-1.0	0.5
270	90	269	90	1.0	0.0	0.5
300	60	299	61	1.0	-1.0	1.0
330	30	328	30	2.0	0.0	1.0
355	0	354	0	1.0	0.0	0.5
The audit meets AMD requirements.				Average Absolute Degrees Difference=		0.8

Comments:

Bearings replaced. Declination = 15deg East



Peace River Area Monitoring Program

AUGUST 2020

Ambient Air Monitoring Calibration Report

- AQHI - CADOTTE LAKE STATION-

CAL-PRAMP-202008-01651

Operation and Maintenance:

Bureau Veritas Canada

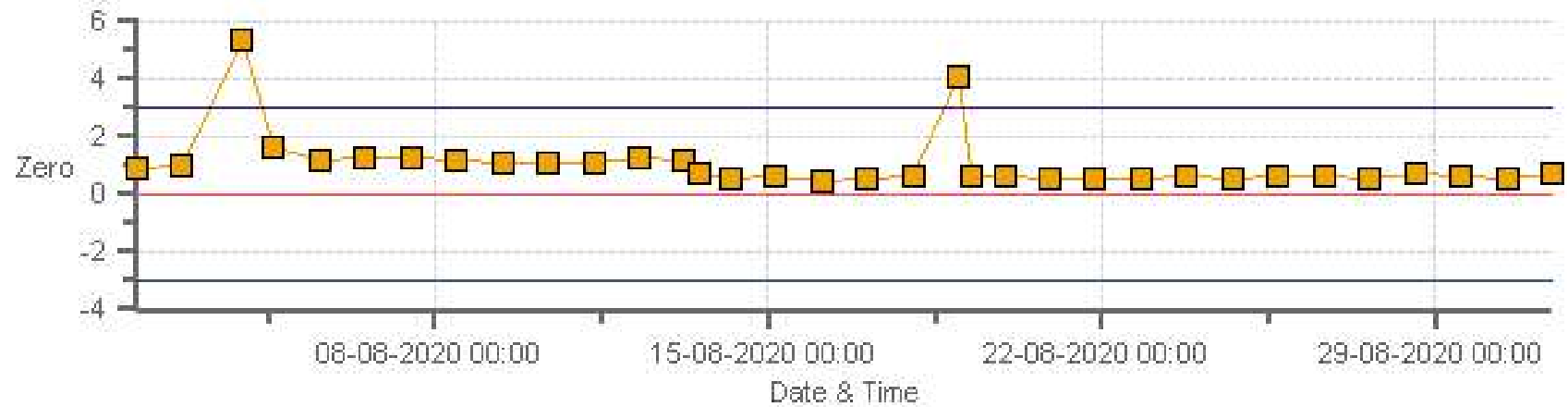
Data Validation and Report:

Bureau Veritas Canada

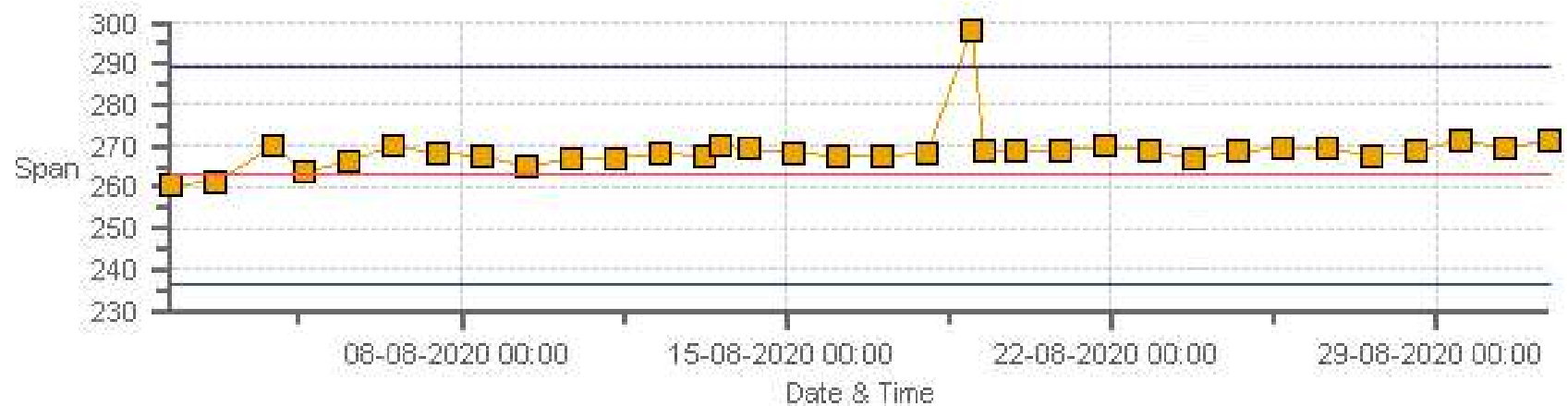
September 14, 2020

DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

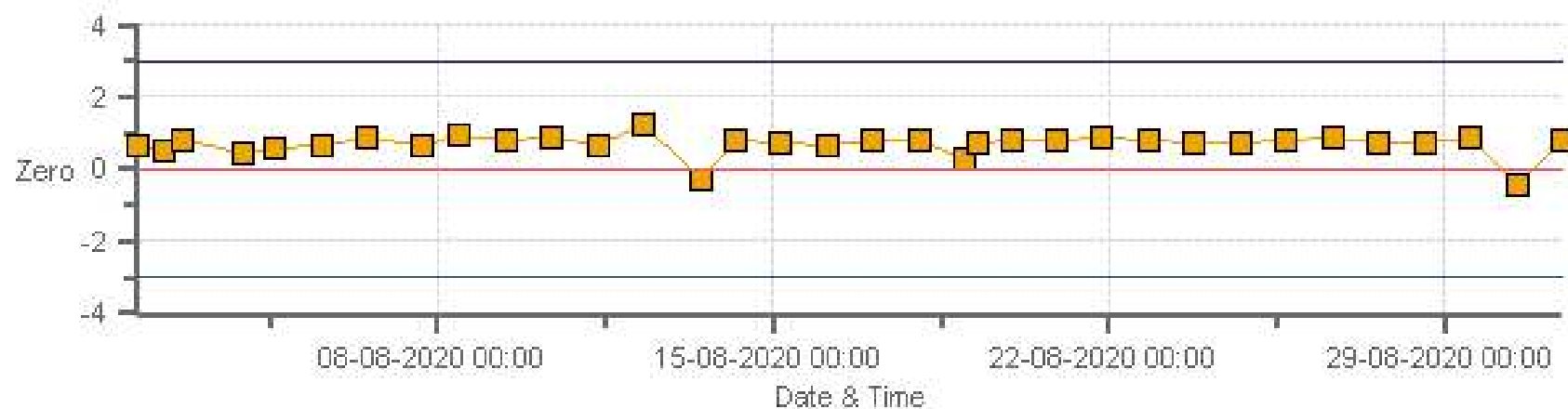
SO2[ppb] Calibration: AQHI Cadotte Lake Monthly: 08-2020 Type: SpanAndZero - Zero



SO2[ppb] Calibration: AQHI Cadotte Lake Monthly: 08-2020 Type: SpanAndZero - Span

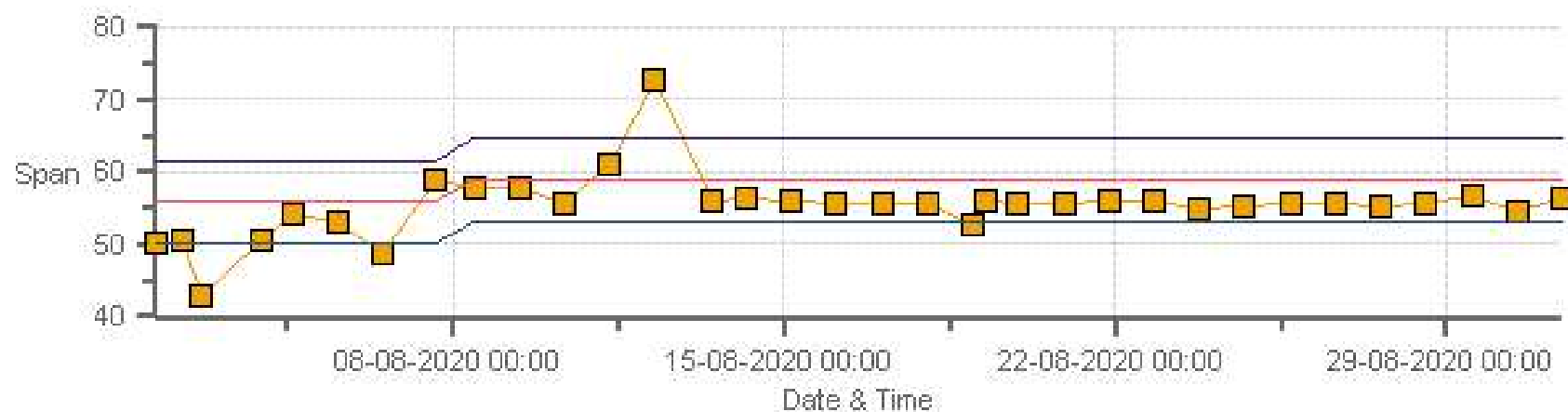


TRS[ppb] Calibration: AQHI Cadotte Lake Monthly: 08-2020 Type: SpanAndZero - Zero



 Zero
  Zero Ref
  Zero Low
  Zero High

TRS[ppb] Calibration: AQHI Cadotte Lake Monthly: 08-2020 Type: SpanAndZero - Span



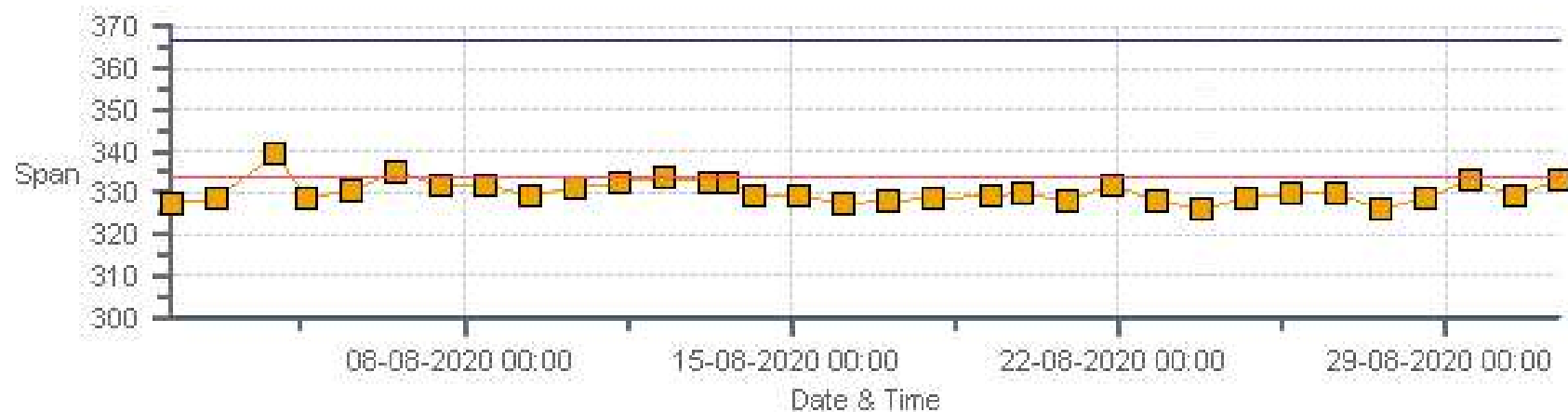
 Span
  SpanRef
  Span Low
  Span High

NOX[ppb] Calibration: AQHI Cadotte Lake Monthly: 08-2020 Type: SpanAndZero - Zero



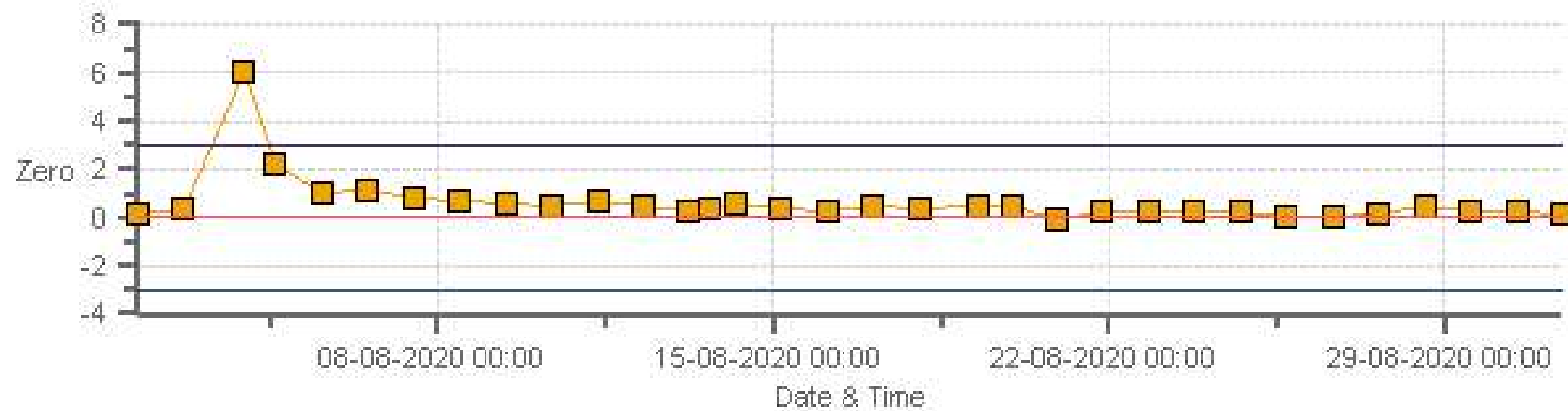
Zero Zero Ref Zero Low Zero High

NOX[ppb] Calibration: AQHI Cadotte Lake Monthly: 08-2020 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

NO2[ppb] Calibration: AQHI Cadotte Lake Monthly: 08-2020 Type: SpanAndZero - Zero



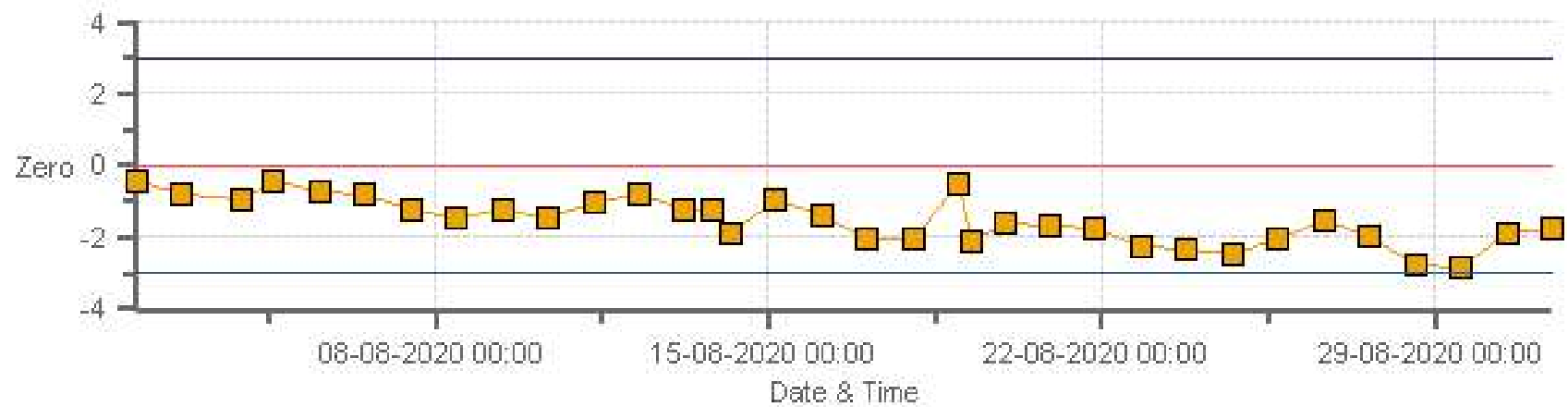
Zero Zero Ref Zero Low Zero High

NO2[ppb] Calibration: AQHI Cadotte Lake Monthly: 08-2020 Type: SpanAndZero - Span

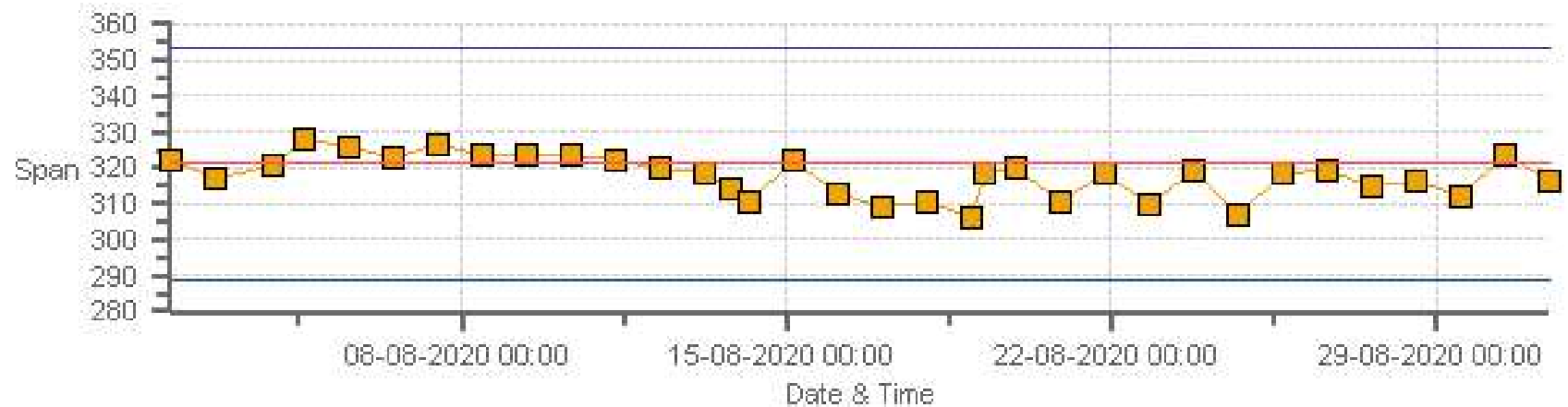


Span SpanRef Span Low Span High

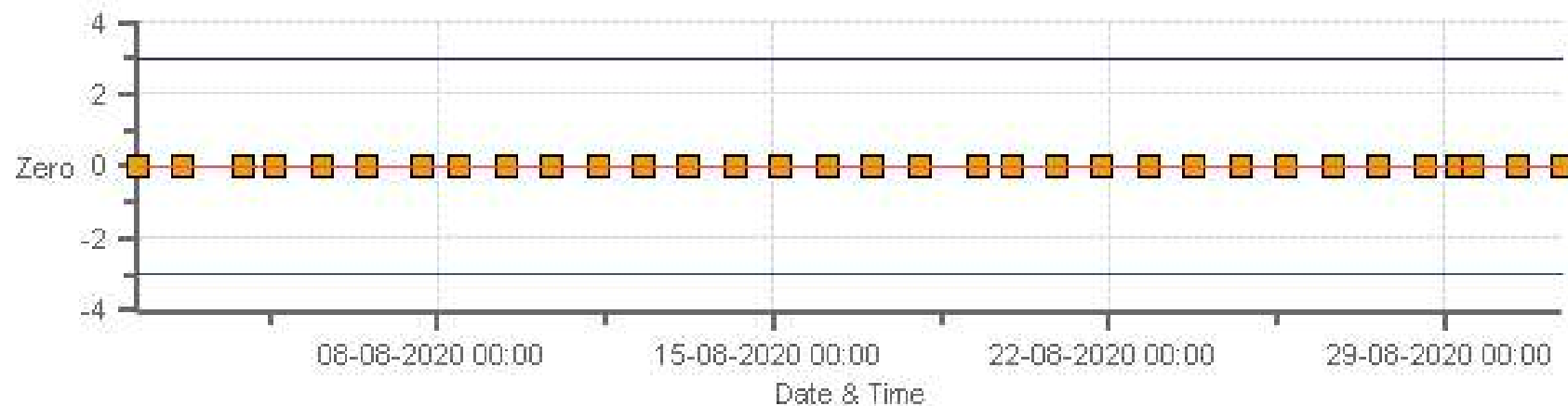
03[ppb] Calibration: AQHI Cadotte Lake Monthly: 08-2020 Type: SpanAndZero - Zero



03[ppb] Calibration: AQHI Cadotte Lake Monthly: 08-2020 Type: SpanAndZero - Span

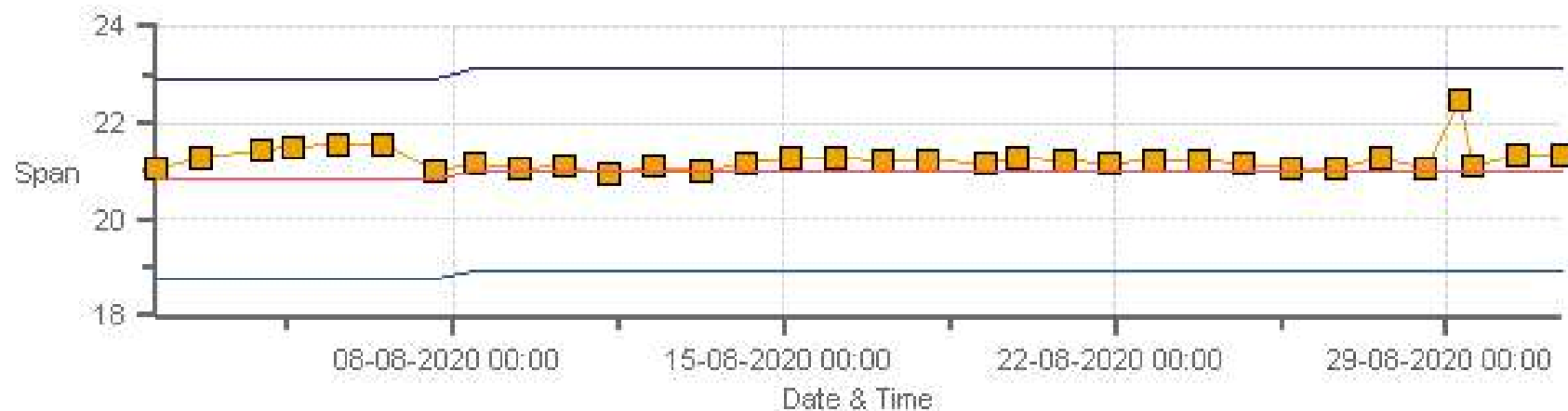


THC55[ppm] Calibration: AQHI Cadotte Lake Monthly: 08-2020 Type: SpanAndZero - Zero



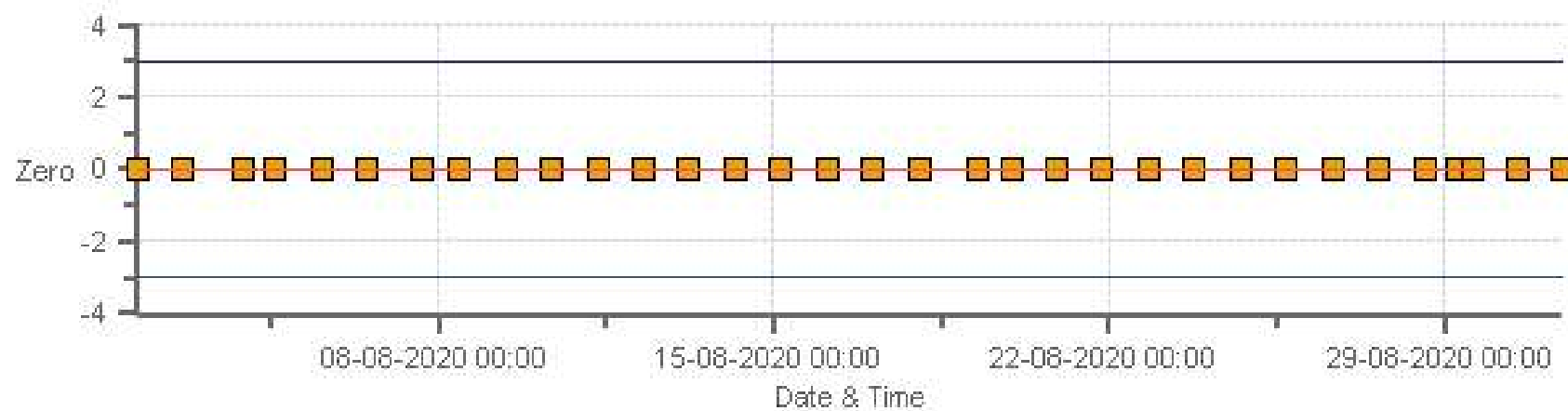
Zero Zero Ref Zero Low Zero High

THC55[ppm] Calibration: AQHI Cadotte Lake Monthly: 08-2020 Type: SpanAndZero - Span



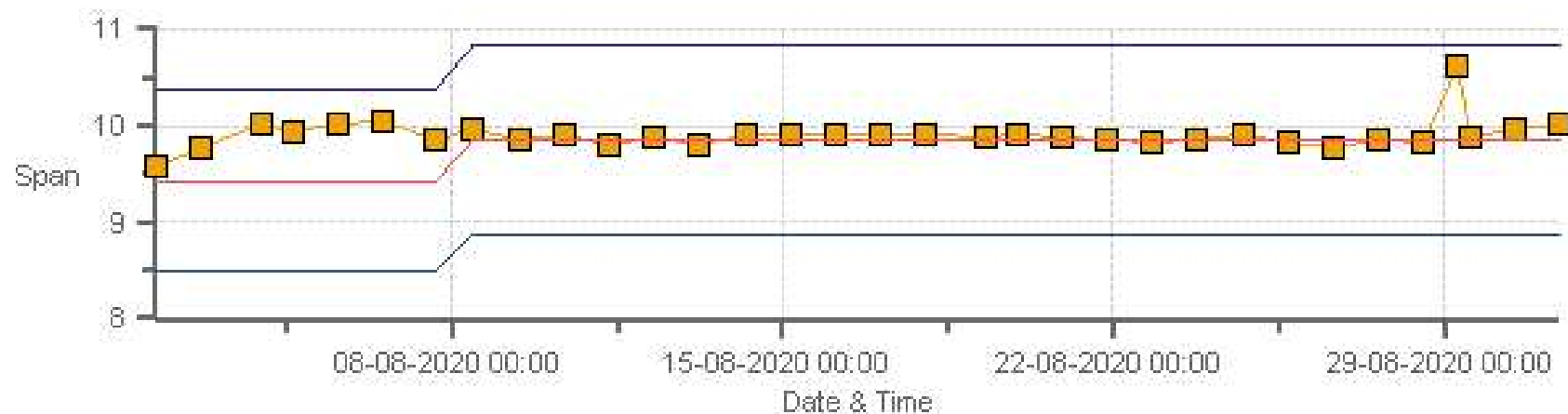
Span Span Ref Span Low Span High

CH4[ppm] Calibration: AQHI Cadotte Lake Monthly: 08-2020 Type: SpanAndZero - Zero



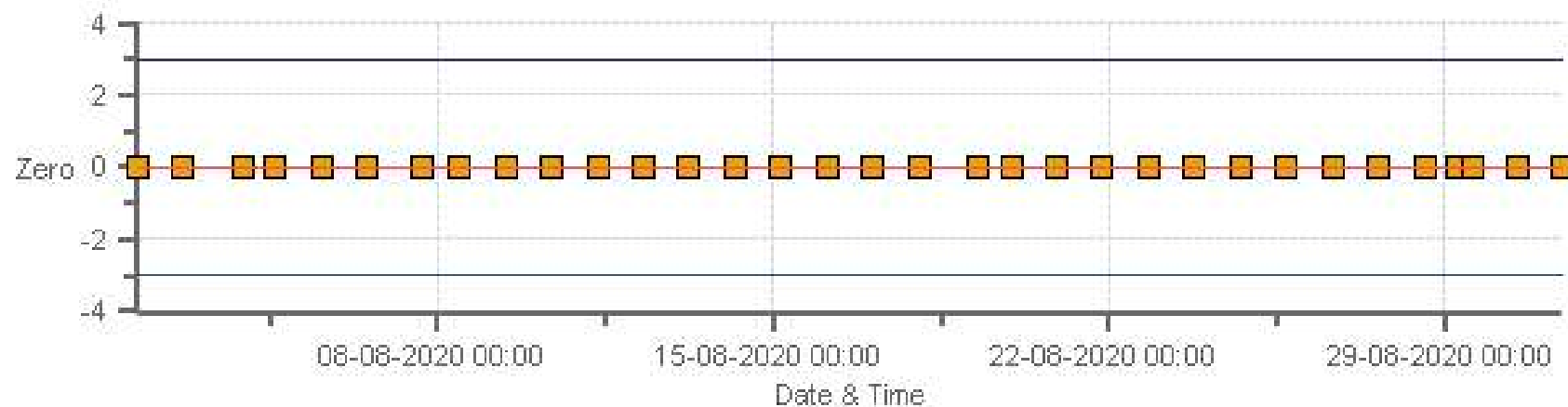
Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: AQHI Cadotte Lake Monthly: 08-2020 Type: SpanAndZero - Span



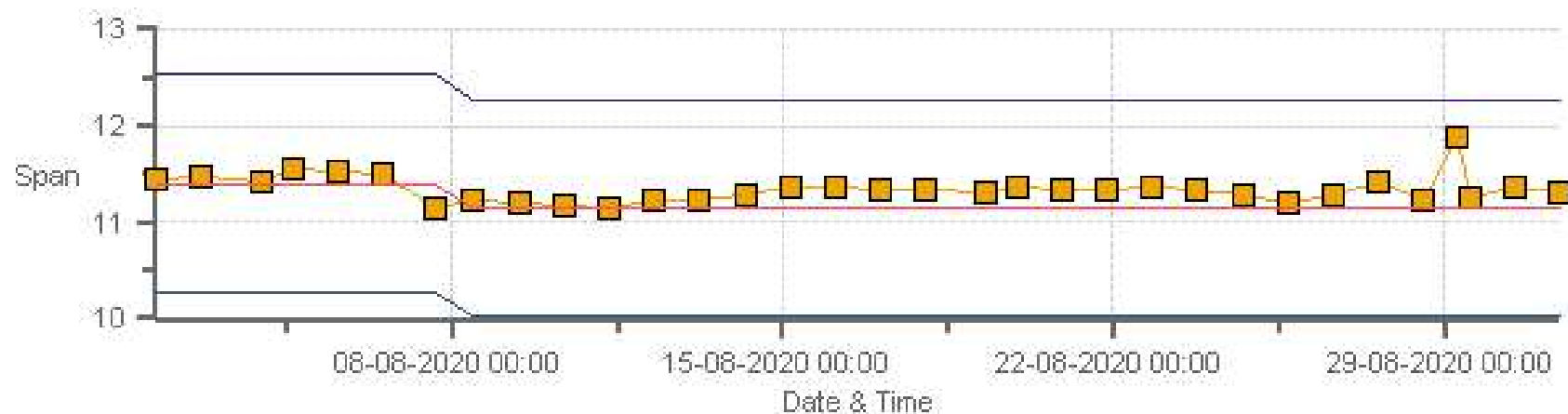
Span Span Ref Span Low Span High

NMHC[ppm] Calibration: AQHI Cadotte Lake Monthly: 08-2020 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: AQHI Cadotte Lake Monthly: 08-2020 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution



DATE:	13-Aug-2020	PREVIOUS CALIBRATION DATE:	07-Jul-2020
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	21.8
LOCATION:	Cadotte Lake	BAROMETRIC (mBar):	939
PURPOSE:	Routine	START TIME (MST):	09:33
PERFORMED BY:	Limin Li	END TIME (MST):	13:44

ANALYZER:

MAKE/MODEL	Teledyne T100	RANGE	500 ppb
SERIAL #	722	FLOW (mL/min)	530
INITIAL		FINAL	
BKG/OFFSET	16.9	BKG/OFFSET	18
COEF/SLOPE	0.902	COEF/SLOPE	0.918
Expected (reference) Value	262.8	Expected (reference) Value	262.8

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	API
MODEL:	2010	MODEL:	701
ID:	17200415	ID:	1105
MFC CALIBRATION DATE:	04-Mar-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0001011	HIGH ID	128686
CONC (ppm):	50.10	EXPIRY DATE	07-Jan-2021
CYLINDER (psi):	1000	LOW ID	129069
EXPIRY DATE	01-Jul-2027	EXPIRY DATE	06-Jan-2021

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	390	190	95
RANGE	300 - 400	150 - 200	50 - 100

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
6025	45.90	6025	0.00	0.4	0	1.017	1.000
5974	45.90	6020	382.02	376	382	1.017	1.000
6013	21.98	6035	182.47	n/a	182.3	n/a	1.001
6022	11.24	6033	93.34	n/a	92.7	n/a	1.007

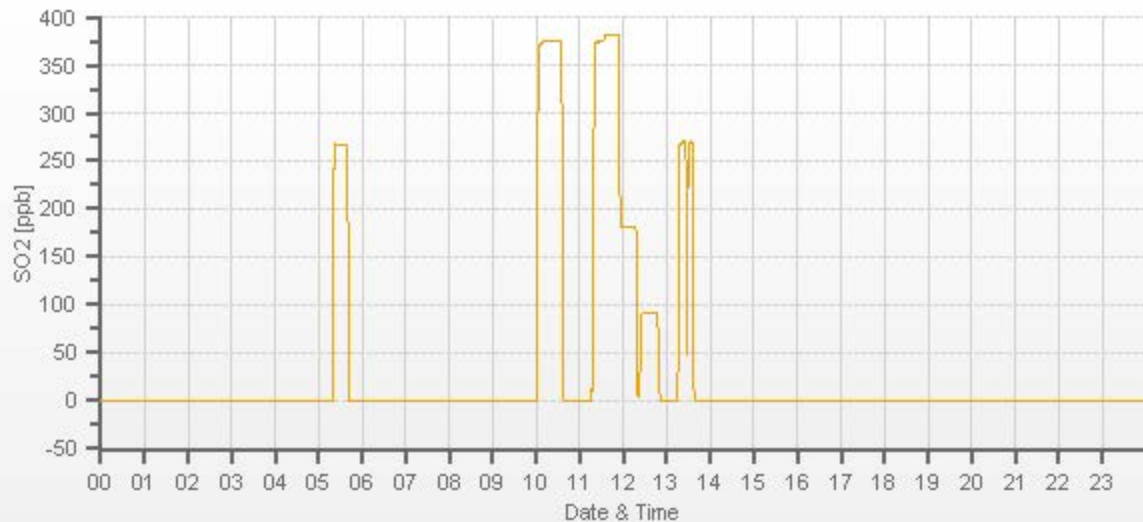
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.000	-0.1%

COMMENTS:

Sample filter changed.

SO2[ppb] Station: AQHI Cadotte Lake Daily: 13-08-2020 Type: AVG 1 Min. [1 Min.]



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— SO2 [ppb]

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TRS Analyzer Calibration by Dilution



DATE:	06-Aug-2020	PREVIOUS CALIBRATION DATE:	07-Jul-2020
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	22.1
LOCATION:	Cadotte Lake	BAROMETRIC (mBar):	931
PURPOSE:	Removal/Shut-down	START TIME (MST):	16:26
PERFORMED BY:	Chris Wesson	END TIME (MST):	18:28

ANALYZER:

MAKE/MODEL	Teledyne T100U	RANGE	100 ppb
SERIAL #	132	FLOW (mL/min)	512
INITIAL		FINAL	
BKG/OFFSET	17.7	BKG/OFFSET	n/a
COEF/SLOPE	1.107	COEF/SLOPE	n/a
Expected (reference) Value	55.93	Expected (reference) Value	n/a

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	EnviroNics	MAKE:	API
MODEL:	2000	MODEL:	701
ID:	1991	ID:	1104
MFC CALIBRATION DATE:	10-Jun-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY000644	HIGH ID	n/a
CONC (ppm):	10.00	EXPIRY DATE	n/a
CYLINDER (psi):	1400	LOW ID	n/a
EXPIRY DATE	16-Jul-2022	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	09:20	SO2 Conc (ppb)	380
END TIME:	09:35	Analyzer Response (ppb)	0.0

CALIBRATION:

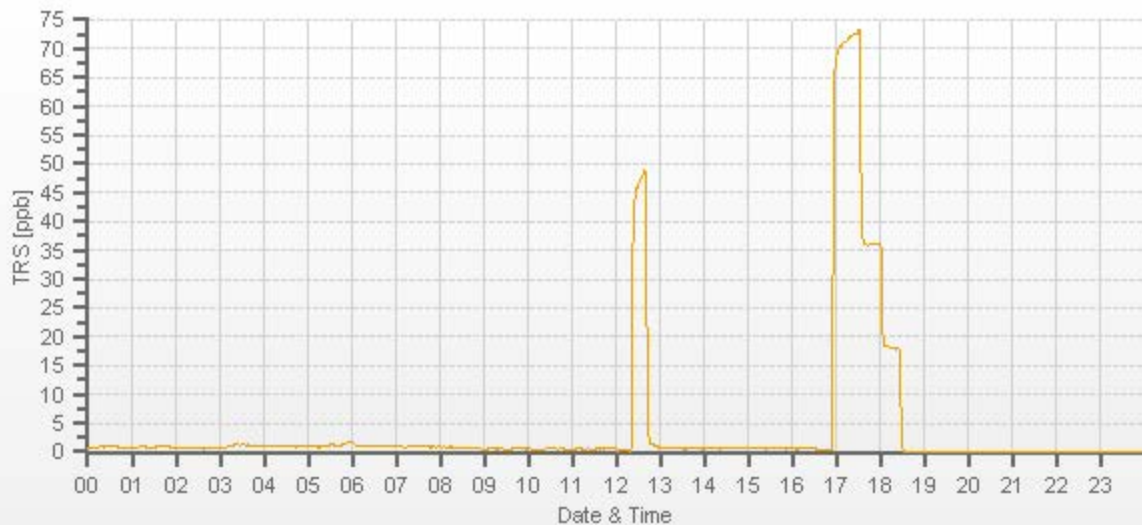
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
4001	31.24	4001	0.00	0.86	n/a	1.085	n/a
3972	31.24	4003	78.04	72.8	n/a	1.085	n/a
3987	15.22	4002	38.03	36.74	n/a	1.060	n/a
3994	7.62	4002	19.03	18.6	n/a	1.073	n/a

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.922	1.1%

COMMENTS:

Shut-down calibration due to slow response.



CAL-PRAMP-202008-01651

— TRS [ppb]

TRS Analyzer Calibration by Dilution



DATE:	07-Aug-2020	PREVIOUS CALIBRATION DATE:	n/a
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	n/a
CLIENT:	PRAMP	TEMPERATURE (°C):	21.5
LOCATION:	Cadotte Lake	BAROMETRIC (mBar):	936
PURPOSE:	Install/Post-Repair	START TIME (MST):	11:21
PERFORMED BY:	Chris Wesson	END TIME (MST):	15:29

ANALYZER:

MAKE/MODEL	Teledyne T100U	RANGE	100 ppb
SERIAL #	132	FLOW (mL/min)	524
INITIAL		FINAL	
BKG/OFFSET	17.7	BKG/OFFSET	17.1
COEF/SLOPE	1.107	COEF/SLOPE	1.074
Expected (reference) Value	55.93	Expected (reference) Value	58.84

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	EnviroNics	MAKE:	API
MODEL:	2000	MODEL:	701
ID:	1991	ID:	1104
MFC CALIBRATION DATE:	10-Jun-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY000644	HIGH ID	n/a
CONC (ppm):	10.00	EXPIRY DATE	n/a
CYLINDER (psi):	1400	LOW ID	n/a
EXPIRY DATE	16-Jul-2022	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	12:00	SO2 Conc (ppb)	380
END TIME:	12:15	Analyzer Response (ppb)	0.4

CALIBRATION:

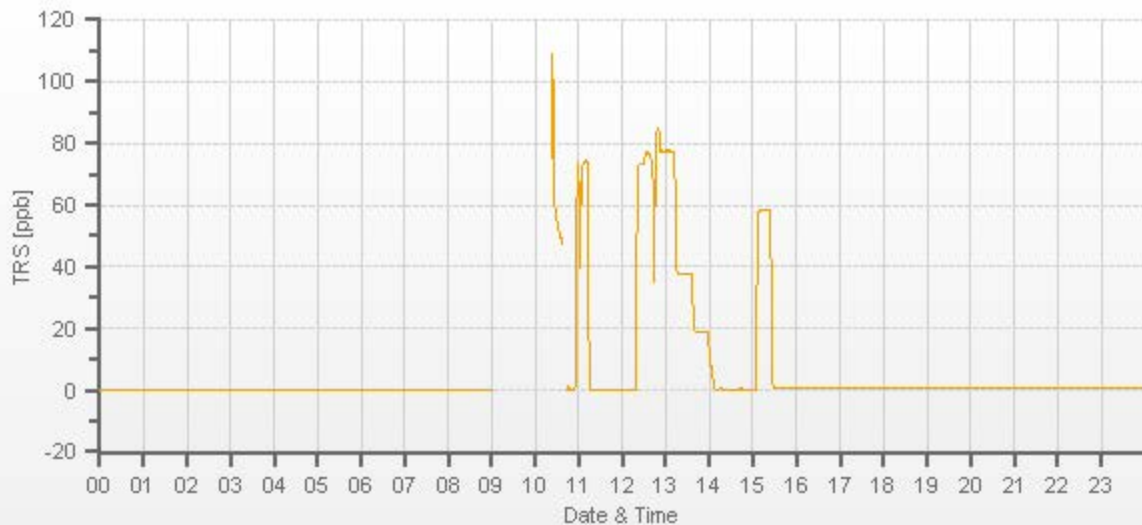
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
3998	31.22	3998	0.00	n/a	0	n/a	0.999
3968	31.22	4000	78.05	n/a	78.1	n/a	0.999
3983	15.20	3998	38.01	n/a	38.28	n/a	0.993
3990	7.62	3998	19.07	n/a	19.49	n/a	0.979

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.999	0.2%

COMMENTS:

Post-repair calibration following cleaning of sample path and modification to scrubber.
12:30-12:45 = operator error (low cal gas pressure), adjusted high point restarted.



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— TRS [ppb]

NOx Calibration by Dilution/Gas-Phase Titration



CALIBRATION:				ANALYZER:			
DATE:	13-Aug-2020	PREVIOUS CALIBRATION DATE:	07-Jul-2020	MAKE/MODEL:	Teledyne T200	PREVIOUS CF.	
CLIENT:	PRAMP	TEMPERATURE (°C):	20.0	SERIAL #:	837	NOx	1.000
LOCATION:	Cadotte Lake	BAROMETRIC (mBar):	939.10	FLOW (mL/min):	441	NO	1.000
PURPOSE:	Routine	START TIME (MST):	09:33	RANGE (ppb):	500	NO2	1.000
PERFORMED BY:	Limin Li	END TIME (MST):	15:37	GPT FOR O3?		Yes	

CALIBRATION SYSTEM:				FLOWMETERS (if applicable):			
CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			
MAKE:	Sabio	MAKE:	API	CYLINDER ID:	EY0001011	HIGH ID:	128686
MODEL:	2010	MODEL:	701	NO/NOx (PPM):	50.6 50.8	HIGH EXPIRY:	07-Jan-2021
ID:	17200415	ID:	1105	CYLINDER (psi):	1000	LOW ID:	129069
MFC CALIBRATION DATE:	04-Mar-2020	OXIDIZER ID:	n/a	EXPIRY DATE:	01-Jul-2027	LOW EXPIRY:	06-Jan-2021

CALIBRATION SETTINGS:							
INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
BKG/OFFSET:	-0.7	-0.6	n/a	BKG/OFFSET:	0.1	0	n/a
SLOPE/COEF/CE:	1.069	1.063	1	SLOPE/COEF/CE:	1.07	1.068	1

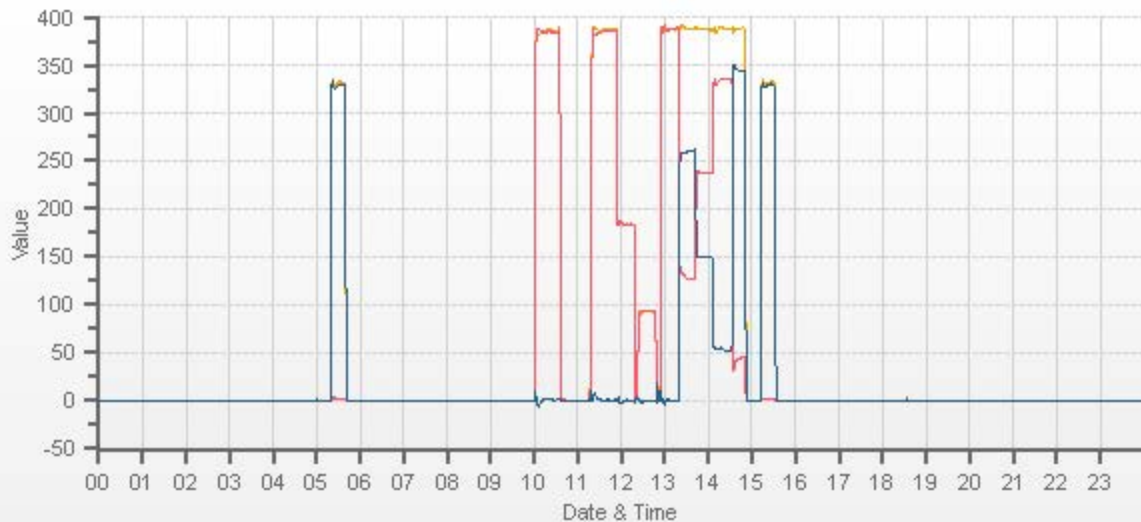
EXPECTED (REFERENCE) VALUE:							
INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
	334	4	330.0		334	4	330.0

CALIBRATION PARAMETERS:		POINT	NO TARGET (PPB)	NO2 TARGET (PPB)	NO2 RANGE	O3 POINT
		HIGH	395	250	240-275	n/a
		MID	180	154	150-157	Mid
		LOW	90	54	50-58	Low
		EXTRA 1	n/a	340	300-370	High

NO/NOx CALIBRATION:			CONCENTRATION (ppb)									CORRECTION FACTOR (CF.)					
FLOW RATE (mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	NO	NOx	NO2	NO	NOx	NO2	NO	NOx	NO2	NO	NOx	NO2	NO	NOx	NO2
6025	45.90	6025	0.0	0.0	0.0	-0.1	0.2	0.3	0.0	0.0	0.0	1.003	1.003	1.003	1.000	1.000	1.000
5974	45.90	6020	385.8	387.4	1.5	384.5	386.3	1.8	385.8	387.4	1.6	1.003	1.003	1.003	1.000	1.000	1.000
6013	21.98	6035	184.3	185.0	0.7	n/a	n/a	n/a	184.4	184.6	0.2	n/a	n/a	1.003	0.999	1.002	1.000
6022	11.24	6033	94.3	94.6	0.4	n/a	n/a	n/a	93.2	93.3	0.0	n/a	n/a	1.003	1.012	1.014	1.000

GPT CALIBRATION:										
Point	CALIBRATOR			INDICATED (ppb)			NO DROP / O3 Conc (ppb)	NO2 GAIN (ppb)	NO2 Corr. FACTOR	CONV. EFFICIENCY
	GAS	TOTAL	O3 SETPOINT	NO	NOx	NO2				
REFERENCE	38.31	5038	0	388.0	387.5	-0.5				
AS-FOUND HIGH	38.31	5038	245	127.3	387.9	260.6	260.7	261.1	0.998	100.15%
ADJUSTED HIGH	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MID	38.31	5038	140	237.6	387.1	149.6	150.4	150.1	1.002	99.80%
LOW	38.31	5038	48	335.6	388.2	52.6	52.4	53.1	0.987	101.34%
NO2 adjustment not required.									AVERAGE:	100.43%

LINEAR REGRESSION ANALYSIS:				COMMENTS:			
	CORRELATION	SLOPE	INTERCEPT	Sample filter changed Additional point for O3: Setting = 320, actual = 344 ppb.			
NO	1.000	1.001	-0.08%				
NOx	1.000	1.001	-0.13%				
NO2	1.000	0.999	0.09%				



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NOX [ppb] NO [ppb] NO2 [ppb]

Ozone Calibration by Direct GPT



DATE:	13-Aug-2020	PREVIOUS CALIBRATION DATE:	07-Jul-2020
PARAMETER:	O3	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	23.7
LOCATION:	Cadotte Lake	BAROMETRIC (mBar):	939
PURPOSE:	Routine	START TIME (MST):	14:52
PERFORMED BY:	Limin Li	END TIME (MST):	19:15

ANALYZER:

MAKE/MODEL	Teledyne T400	RANGE	500 ppb
SERIAL #	824	FLOW (mL/min)	757
INITIAL		FINAL	
BKG/OFFSET	-0.7	BKG/OFFSET	-0.9
COEF/SLOPE	1.013	COEF/SLOPE	1.022
Expected (reference) Value	321.1	Expected (reference) Value	321.1

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	API
MODEL:	2010	MODEL:	701
ID:	17200415	ID:	1105
MFC CALIBRATION DATE:	11-Jun-2020	OXIDIZER ID:	n/a
CALIBRATION METHOD:		Direct GPT	
GPT DATE:	13-Aug-2020	GPT END TIME:	14:51

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
RANGE	300 - 400	150 - 200	50 - 100

CALIBRATION:

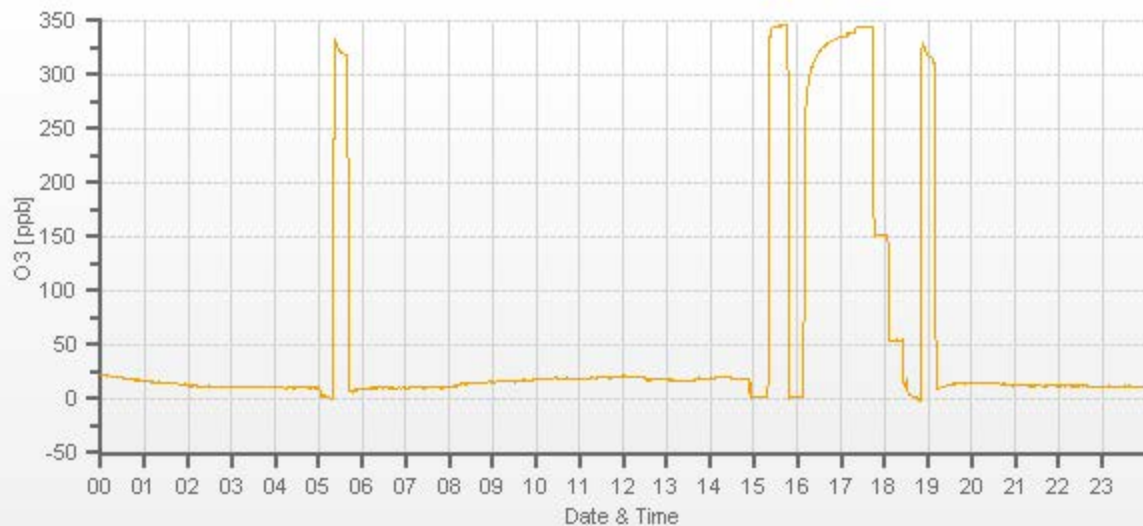
FLOW RATES			CONCENTRATION (ppb)			CORRECTION FACTOR	
(mL/min)			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
5000	5000	5000	0.0	-0.1	0.0	0.996	1.000
5000	5000	5000	344.0	345.3	344.0	0.996	1.000
5000	5000	5000	150.4	n/a	150.5	n/a	0.999
5000	5000	5000	52.4	n/a	52.7	n/a	0.994

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.000	0.0%

COMMENTS:

Sample filter changed.



CAL-PRAMP-202008-01651

— O3 [ppb]

Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	07-Aug-2020	PREVIOUS CALIBRATION DATE:	14-Jul-2020	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	20.8		Thermo 55i	1501663728	1108
LOCATION:	Cadotte Lake	BAROMETRIC (mBar):	936	PARAMETER:	CH4	NMHC	THC
PURPOSE:	Routine	START TIME (MST):	11:23	RANGE (ppm):	20	20	40
PERFORMED BY:	Chris Wesson	END TIME (MST):	15:29	PREVIOUS CF:	1.000	1.000	1.000

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	API	CYLINDER ID:	LL168375	HIGH ID:	n/a
MODEL:	2010	MODEL:	701	CH ₄ /C ₃ H ₈ (ppm):	914.0 307.0	HIGH EXPIRY:	n/a
ID:	26801218	ID:	1104	CYLINDER (psi):	1800	LOW ID:	n/a
MFC CALIBRATION DATE:	11-Jun-2020	OXIDIZER ID:	n/a	EXPIRY DATE	21-Jan-2028	LOW EXPIRY:	n/a

CALIBRATION PARAMETERS:

POINT (CH ₄ /NMHC)	HIGH	MID	LOW	CH ₄ EQUIVILANCE	
TARGET	14	7	3.5	C ₃ H ₈ as CH ₄	844.3
RANGE	12 - 16	6 - 8	2 - 4	THC as CH ₄	1758.3

EXPECTED (REFERENCE) VALUE:

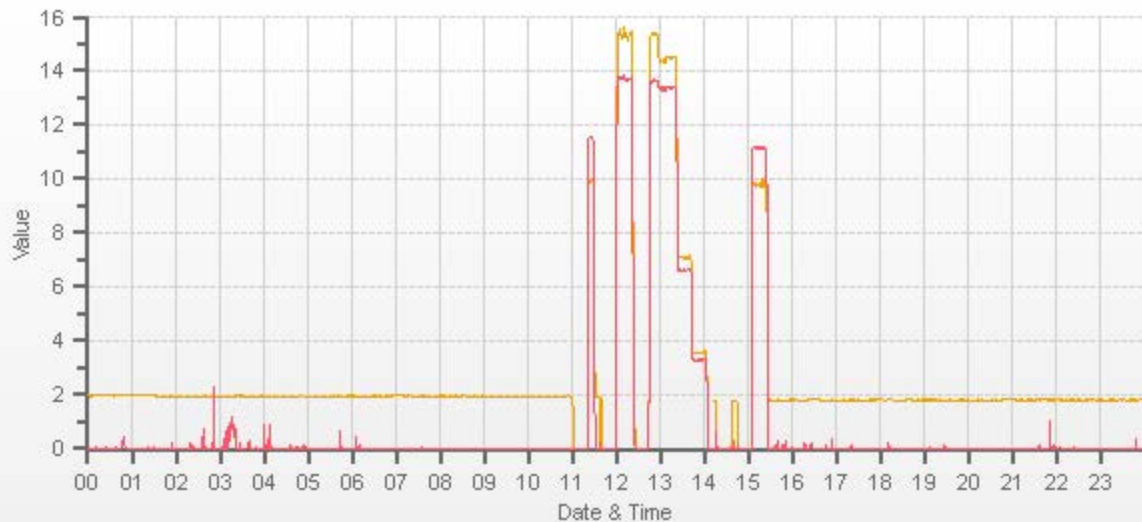
INITIAL	CH ₄	NMHC	THC	FINAL	CH ₄	NMHC	THC
	9.43	11.40	20.83		9.85	11.15	21.01

CALIBRATION:

FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC
3111	X	3111	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	X	X	X	X	X
3065	49.40	3114	14.50	13.39	27.89	15.26	13.65	28.92	14.49	13.36	27.85	0.950	0.981	0.964	1.001	1.002	1.002
3087	24.70	3112	7.25	6.70	13.96	n/a	n/a	n/a	7.11	6.63	13.73	n/a	n/a	n/a	1.020	1.011	1.016
3100	12.40	3112	3.64	3.36	7.01	n/a	n/a	n/a	3.56	3.30	6.87	n/a	n/a	n/a	1.023	1.019	1.020

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT	Comments:			
CH ₄	1.000	1.000	-0.3%	Span gas exchanged.			
NMHC	1.000	0.998	-0.2%				
THC	1.000	0.999	-0.2%				
				Use Zero Chrom?		Yes	



CAL-PRAMP-202008-01651

CH4 [ppm] NMHC [ppm]

Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	28-Aug-2020	PREVIOUS CALIBRATION DATE:	07-Aug-2020	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	20.4		Thermo 55i	1501663728	1108
LOCATION:	Cadotte Lake	BAROMETRIC (mBar):	942	PARAMETER:	CH4	NMHC	THC
PURPOSE:	Removal/Shut-down	START TIME (MST):	13:48	RANGE (ppm):	20	20	40
PERFORMED BY:	Limin Li	END TIME (MST):	15:54	PREVIOUS CF:	1.001	1.002	1.002

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	LL70331	HIGH ID:	128686
MODEL:	2010	MODEL:	701	CH ₄ /C ₃ H ₈ (ppm):	909.0 308.0	HIGH EXPIRY:	07-Jan-2021
ID:	17200415	ID:	1105	CYLINDER (psi):	1850	LOW ID:	129069
MFC CALIBRATION DATE:	11-May-2020	OXIDIZER ID:	111	EXPIRY DATE	21-Jan-2028	LOW EXPIRY:	06-Jan-2021

CALIBRATION PARAMETERS:

POINT (CH ₄ /NMHC)	HIGH	MID	LOW	CH ₄ EQUIVILANCE	
TARGET	14	7	3.5	C ₃ H ₈ as CH ₄	847.0
RANGE	12 - 16	6 - 8	2 - 4	THC as CH ₄	1756.0

EXPECTED (REFERENCE) VALUE:

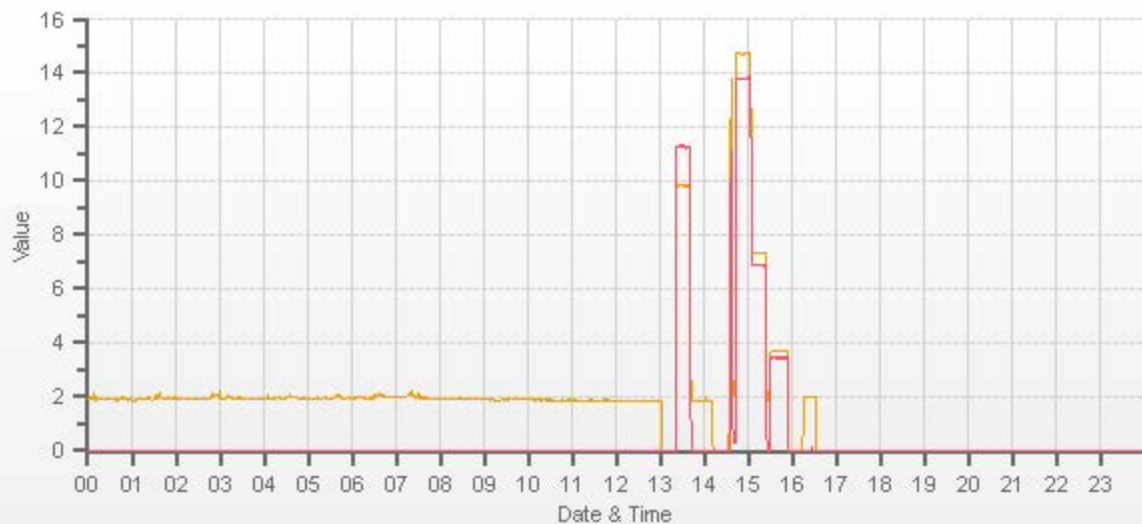
INITIAL	CH ₄	NMHC	THC	FINAL	CH ₄	NMHC	THC
	9.85	11.15	21.01		n/a	n/a	n/a

CALIBRATION:

FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC
3185	51.79	3185	0.00	0.00	0.00	0.00	0.00	0.00	n/a	n/a	n/a	1.004	0.999	1.002	n/a	n/a	n/a
3131	51.79	3183	14.79	13.78	28.57	14.73	13.79	28.52	n/a	n/a	n/a	1.004	0.999	1.002	n/a	n/a	n/a
3163	26.14	3189	7.45	6.94	14.39	7.34	6.88	14.22	n/a	n/a	n/a	1.015	1.009	1.012	n/a	n/a	n/a
3181	13.33	3194	3.79	3.53	7.33	3.70	3.45	7.15	n/a	n/a	n/a	1.025	1.025	1.025	n/a	n/a	n/a

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT	Comments:			
CH ₄	1.000	0.997	-0.2%	Shut-down due to intermittent injection issues.			
NMHC	1.000	1.002	-0.2%				
THC	1.000	1.000	-0.2%				
				Use Zero Chrom?		No	



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CH4 [ppm] NMHC [ppm]

Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	29-Aug-2020	PREVIOUS CALIBRATION DATE:	n/a	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	20.0		Thermo 55i	1191032505	1240
LOCATION:	Cadotte Lake	BAROMETRIC (mBar):	937	PARAMETER:	CH4	NMHC	THC
PURPOSE:	Install/Post-Repair	START TIME (MST):	10:14	RANGE (ppm):	20	20	40
PERFORMED BY:	Limin Li	END TIME (MST):	13:32	PREVIOUS CF:	n/a	n/a	n/a

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	LL70331	HIGH ID:	128686
MODEL:	2010	MODEL:	701	CH ₄ /C ₃ H ₈ (ppm):	909.0 308.0	HIGH EXPIRY:	07-Jan-2021
ID:	17200415	ID:	1105	CYLINDER (psi):	1850	LOW ID:	129069
MFC CALIBRATION DATE:	11-May-2020	OXIDIZER ID:	111	EXPIRY DATE	21-Jan-2028	LOW EXPIRY:	06-Jan-2021

CALIBRATION PARAMETERS:

POINT (CH ₄ /NMHC)	HIGH	MID	LOW	CH ₄ EQUIVILANCE	
TARGET	14	7	3.5	C ₃ H ₈ as CH ₄	847.0
RANGE	12 - 16	6 - 8	2 - 4	THC as CH ₄	1756.0

EXPECTED (REFERENCE) VALUE:

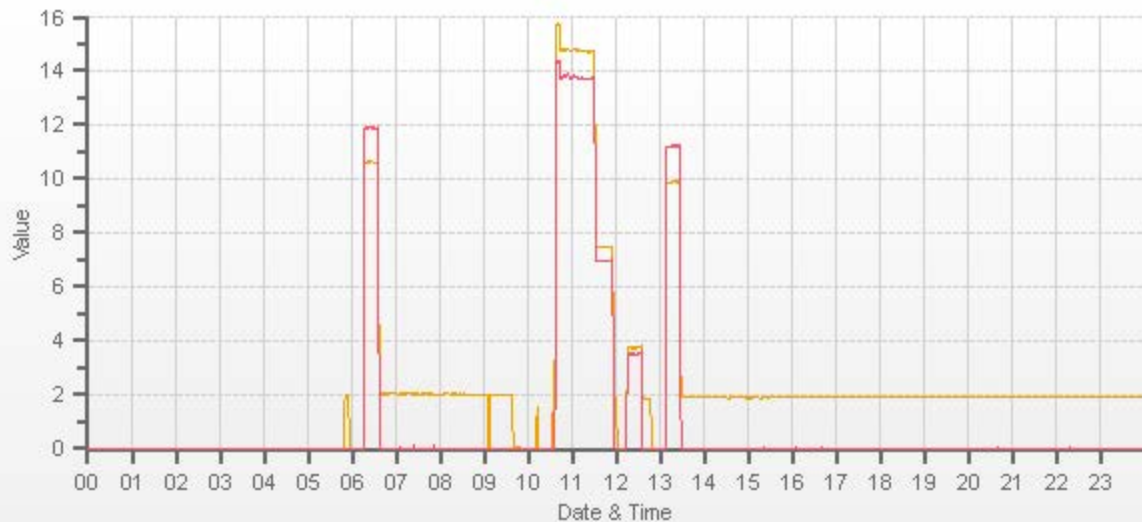
INITIAL	CH ₄	NMHC	THC	FINAL	CH ₄	NMHC	THC
	n/a	n/a	n/a		9.85	11.15	21.44

CALIBRATION:

FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC
3185	3185	3185	0.00	0.00	0.00	n/a	n/a	n/a	0.00	0.00	0.00	3185	3185	3185	3185	3185	3185
3138	51.76	3190	14.75	13.74	28.49	n/a	n/a	n/a	14.74	13.75	28.49	n/a	n/a	n/a	1.001	1.000	1.000
3174	26.04	3200	7.40	6.89	14.29	n/a	n/a	n/a	7.47	6.96	14.43	n/a	n/a	n/a	0.990	0.990	0.990
3188	13.24	3201	3.76	3.50	7.26	n/a	n/a	n/a	3.74	3.51	7.25	n/a	n/a	n/a	1.005	0.998	1.002

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT	Comments:			
CH ₄	1.000	1.000	0.0%	Installed on Aug 28. Column conditioning overnight. Replaced zero air.			
NMHC	1.000	1.001	0.1%				
THC	1.000	1.001	0.1%				
				Use Zero Chrom?		No	





Teledyne T640 Audit/Calibration

Date/Previous Audit Date:	August 7, 2020	July 14, 2020	Weather Conditions:	Cloudy/Overcast	
Company:	PRAMP		Start Time (mst):	13:14	
Station:	Cadotte Lake		End Time (mst):	13:36	
Parameter:	PM 2.5		Performed By/Reviewer:	Chris Wesson	Ferdinand Roy
Instrument Data:					
Make/Model:	Teledyne T640		Serial Number:	318	
Owner:	PRAMP		Alarms (detail in comments):	No	
Reference Standards/I.D./Expiry Date:					
Flow Standard:		Maxxam ID #3 expires June 11, 2021		Temperature: FS 181341226 expires June 10, 2021	
Digital Manometer:		Dwyer 475 Mark III id# 2 expires Feb 11, 2021		Pressure: Brunton 10528 expires Jan 07, 2021	
DIAGNOSTICS:					
Ambient Pressure (mmHg)	702.7	Ambient Temp (°C)	19.0	ASC Heater Duty (%)	10.0
Box Temp (°C)	25.2	Current PMT HV (V)	1541	LED Temp (°C)	34.79
P3 Value	46	PMT Setting (V)	1547	Pump PWM (%)	38
Sample Flow (L/min)	4.98	Sample RH (%RH)	33.8	Sample Temp (°C)	26.9
Monthly Audit/Calibration:					
Item:	As-found		As-left		Tolerance
	Reference	T640x	Reference	T640x	
Zero Test (Leak Check)	PM10	0.0	PM10	0.0	0.0 to 0.2
	PM2.5	0.0	PM2.5	0.0	
Ambient Pressure (mmHg)	702.7	702.6	n/a	n/a	+/- 10 mm Hg
Ambient Temperature (°C)	19.40	19.2	n/a		+/- 2°C
Sample Flow (L/min)	5.02	5.01	n/a	n/a	+/- 5% of T640x (e.g., 4.75 – 5.25 lpm)
Additional Monthly Maintenance :					Completed
Inlet cleaned?					Yes
Sample tubing inspected (inner and outer)?					Yes
Comments:					
No issues.					

Meteorological System Checklist



Date:	August 7, 2020		
Technician:	Chris Wesson		
Station:	PRAMP Cadotte Lake		
Unit:	Make:	Model:	Serial #:
Temperature Sensor:	Vaisala	HMP155	N2910506
Relative Humidity Sensor:	Vaisala	HMP155	N2910506
Anemometer:	RM Young	05305AQ	174801
AMBIENT TEMPERATURE SENSOR CHECK			
Previous check date:	July 7, 2020		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	FS 170286131 expires June 05, 2021		
Reference Temperature (°C):	19.4		
Station - Ambient Temperature (°C):	18.6		
Temperature Difference (°C):	0.8		
RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK			
Previous check date:	July 7, 2020		
Reference Hygrometer ID:	FS 170286131 expires June 05, 2021		
Reference Hygrometer % RH- Reading:	58.50		
Station Hygrometer % RH- Reading:	60.00		
RH Tolerance +/- 15% of difference:	49.73 - 67.28	-2.6%	
ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK			
WIND SPEED		WIND DIRECTION	
Previous check date:	July 7, 2020	Previous check date:	July 7, 2020
Wind Speed Observed (kph):	10-20	Wind Direction Observed:	W
Wind speed on Data Logger (kph):	18.5	Wind Direction on Data Logger:	W
		Wind Direction Pass/Fail?:	Pass
Comments			
Timing: Temp/RH@1:04 ; WS/WD @ 13:09;			



Meteorological Sensor Audit/Calibration

Location Information

Company: PRAMP
 Audit Location: Cadotte Lake
 Audit Date: June 18, 2020
 Calibration Purpose: installation

Performed By: Chris Wesson
 Reviewed By: Ferdinand Roy
 Start/End Time (mst): 14:28 / 15:15
 Weather Conditions: Mix of sun and clouds

Wind Sensor Information

Sensor ID Data:		Sensor Outputs:	
Sensor Make:	RM Young	Velocity Voltage Output Range:	n/a
Sensor Model:	05305AQ	Velocity Unit Output Range:	0-180
Serial #:	174801	Direction Voltage Output Range:	n/a
Previous Cal/Audit Date:	n/a	Direction Unit Output Range:	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# CA03309 expires November 20, 2020

Wind Speed Audit Data ****+/- 2% of the average correction factor is the limit****

RPM	Wind Speed Generated kph	Clockwise Wind Speed kph	Counter Clockwise Wind Speed kph	Correction Factor
0	0	0.0	0.0	-
1000	18.4	18.3	18.3	1.007
2000	36.9	36.7	36.7	1.004
3000	55.3	55.1	55.1	1.003
4000	73.7	73.6	73.6	1.002
5000	92.2	92.0	92.0	1.002
6000	110.6	110.5	110.5	1.001
7000	129.0	128.9	128.9	1.001
8000	147.4	147.3	147.3	1.001
9000	165.9	165.8	165.8	1.000
10000	184.3	184.2	184.2	1.001
The audit meets AMD requirements.			Average Correction Factor=	1.002

Wind Direction Audit Data ****+/- 3° of the absolute average degrees difference for all points is the limit****

Generated Wind Direction 0-360 (Up)	Generated Wind Direction 360-0 (Down)	Indicated Wind Direction 0-360 (Up)	Indicated Wind Direction 360-0 (Down)	Degrees Difference 0-360 (Up)	Degrees Difference 360-0 (Down)	Average Absolute Degrees Difference
0	355	0	353	0.1	2.0	1.1
30	330	28	329	2.0	1.0	1.5
60	300	58	299	2.0	1.0	1.5
90	270	88	268	2.0	2.0	2.0
120	240	119	239	1.0	1.0	1.0
150	210	149	209	1.0	1.0	1.0
180	180	179	179	1.0	1.0	1.0
210	150	209	149	1.0	1.0	1.0
240	120	239	119	1.0	1.0	1.0
270	90	270	89	0.0	1.0	0.5
300	60	299	58	1.0	2.0	1.5
330	30	329	29	1.0	1.0	1.0
355	0	354	1	1.0	0.6	0.8
The audit meets AMD requirements.				Average Absolute Degrees Difference=		1.1

Comments:

Declination = 15deg East



Peace River Area Monitoring Program

AUGUST 2020

Ambient Air Monitoring

Certified Laboratory Analysis Report

LAB-PRAMP-202008

Operation and Maintenance:

Bureau Veritas Canada

Data Validation and Report:

Peace River Area Monitoring Program

August 14, 2020



Highway 16A & 75 Street
PO Bag 4000
Vegreville, AB, T9C 1T4
Environmental Analytical Services
Phone: (780) 632-8403 Fax: (780) 632-8620

Sample ID: 20080172-001

Customer ID: PRAMP

Cust Samp ID: PRAMP_842-20200812

Priority: Normal

Date Received- Lab Use Only

RECEIVED

AUG 14 2020

Client Contact Details:

Contact: Karla Ressor, Michael Bisaga/ Lily Lin

Company: PRAMP Airshed

PO#: ☒ 842 Station ☐ 986 Station ☐ Reno Station

Address: 842 (Lat. 56.27406N, Long. 116.98129W)

☐ 986 (Lat. 56.36988N, Long. 116.925636W)

☐ Reno (Lat. 55.86936N, Long. 117.05739W)

Telephone: 403-8072995, 780-2667068/587-2252248

Email: karla@prampairshed.ca, pramptech@prampairshed.ca

RUSH (Surcharge) ☐

Invoice Instructions:

Send to: officemanager@prampairshed.ca, karla@prampairshed.ca,

pramptech@prampairshed.ca Attention: PRAMP Office Manager

Any correspondence related to canister analysis, send the information to karla@prampairshed.ca and pramptech@prampairshed.ca

InnoTech Contact: Graham Knox Phone: 780-6328403 Cell: 780-6321519

Email: Graham.Knox@innotechalberta.ca

Sample ID (PRAMP_station_yyyymmdd)	Canister Number	Sample Description	Date/Time Sampled		Analysis Requested
			From/To		
			Date (dd/mm/yy)	Time (24 Hr) (MST)	
PRAMP_842- <u>20200812</u> (Sample date: yyyymmdd)	32185	☐ Methane Trigger	12/08/20	12:40	* AIR C1C4, AIR VOC, AIR RSC
PRAMP_986- _____ (Sample date: yyyymmdd)		☒ NMHC Trigger			* Unknown to be reported
PRAMP_Reno- _____ (Sample date: yyyymmdd)		☐ Methane Blank			* Carbon Isotopic Analysis (if sample is collected from Methane trigger)
		☐ NMHC Blank			
		☐ Expired Canister – No further analysis is required.			

Sample Collection:

Collect By LIMAN LI (Name) of BV (Company) on Aug 12, 2020 / 16:44PM (Date/Time (MST)).



Highway 16A & 75 Street
PO Bag 4000
Vegreville, AB, T9C 1T4
Environmental Analytical Services
Phone: (780) 632-8403 Fax: (780) 632-8620

Sample ID: 20080172-002

Customer ID: PRAMP
Cust Samp ID: PRAMP_842-20200812-Blank

Date Received- Lab Use Only

RECEIVED
AUG 14 2020

Client Contact Details:

Contact: Karla Ressor, Michael Bisaga/ Lily Lin
Company: PRAMP Airshed
PO#: ☒ 842 Station ☐ 986 Station ☐ Reno Station
Address: 842 (Lat. 56.27406N, Long. 116.98129W)
986 (Lat. 56.36988N, Long. 116.925636W)
Reno (Lat. 55.86936N, Long. 117.05739W)
Telephone: 403-8072995, 780-2667068/587-2252248
Email: karla@prampairshed.ca, pramptech@prampairshed.ca

RUSH (Surcharge) ☐

Invoice Instructions:

Send to: officemanager@prampairshed.ca, karla@prampairshed.ca,
pramptech@prampairshed.ca Attention: PRAMP Office Manager
Any correspondence related to canister analysis, send the information to karla@prampairshed.ca
and pramptech@prampairshed.ca

InnoTech Contact: Graham Knox Phone: 780-6328403 Cell: 780-6321519
Email: Graham.Knox@innotechalberta.ca

Sample ID (PRAMP_station_yyyymmdd)	Canister Number	Sample Description	Date/Time Sampled		Analysis Requested
			From/To		
			Date (dd/mm/yy)	Time (24 Hr) (MST)	
PRAMP_842- <u>20200812</u> (Sample date: yyyymmdd) PRAMP_986- _____ (Sample date: yyyymmdd) PRAMP_Reno- _____ (Sample date: yyyymmdd)	32275	☐ Methane Trigger ☐ NMHC Trigger ☐ Methane Blank ☒ NMHC Blank ☐ Expired Canister – No further analysis is required.			* AIR C1C4, AIR VOC, AIR RSC * Unknown to be reported * Carbon Isotopic Analysis (if sample is collected from Methane trigger)

Sample Collection:

Collect By Kimin Li (Name) of BV (Company) on Aug 12, 2020 (Date/Time (MST)).

 Canister ID: <u>32185</u> This cleaned canister meets or exceeds TO-15 Method Specifications Proofed on: <u>DOS4</u> Evacuated on: <u>JAN 20 2020</u> Recertified on: <u>JUN 11 2020</u> (Use within: 3 months from recertification date) Laboratory Contact Number: 780-632-8403	Sample ID: <u>32185 PRAMP-842-20200812 (NMHC)</u>	
	Sampled By: <u>LIMIN LI</u> <u>Aug 12, 2020</u> <u>-211/g</u>	
	Starting Vacuum: <u>-27.5</u> "Hg	End Vacuum: <u>-2</u> "Hg/psig <u>JMP</u>

Sample ID: 20080172-001

Customer ID: PRAMP

Cust Samp ID: PRAMP_842-20200812

Priority: Normal

 Canister ID: <u>32275</u> This cleaned canister meets or exceeds TO-15 Method Specifications Proofed on: <u>MAY 11 2020</u> Evacuated on: <u>MAY 14 2020</u> Recertified on: <u>JUN 30 2020</u> (Use within: 3 months from recertification date) Laboratory Contact Number: 780-632-8403	Sample ID: <u>842 - Blank</u>	
	Sampled By: _____	
	Starting Vacuum: <u>-26.5</u> "Hg	End Vacuum: <u>0psi</u> "Hg/psig <u>JMP</u>

ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

Page 1 of 18

RESULTS: Karla Reesor 403 807 2995 Peace River Area Monitoring Program Committee	CLIENT SAMPLE ID PRAMP_842-20200812			Matrix Ambient Air
	CANISTER ID: 32185			
	PRIORITY: Normal			
	DESCRIPTION: NMHC Trigger			
	DATE SAMPLED: 12-Aug-20 12:40		DATE RECEIVED: 14-Aug-20	
	REPORT CREATED: 25-Aug-20		REPORT NUMBER: 20080172	
			VERSION: Version 01	
INVOICE: Office Manager				

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080172-001	1-Butene	K, T, U	< 0.14	ppmv	0.14	NA-025	17-Aug-20
20080172-001	Acetylene	K, T, U	< 0.12	ppmv	0.12	NA-025	17-Aug-20
20080172-001	n-Butane	K, T, U	< 0.3	ppmv	0.3	NA-025	17-Aug-20
20080172-001	cis-2-Butene	K, T, U	< 0.06	ppmv	0.06	NA-025	17-Aug-20
20080172-001	Ethane	K, T, U	< 0.1	ppmv	0.1	NA-025	17-Aug-20
20080172-001	Ethylacetylene	K, T, U	< 0.09	ppmv	0.09	NA-025	17-Aug-20
20080172-001	Ethylene	K, T, U	< 0.10	ppmv	0.10	NA-025	17-Aug-20
20080172-001	Isobutane	K, T, U	< 0.1	ppmv	0.1	NA-025	17-Aug-20
20080172-001	Isobutylene	K, T, U	< 0.1	ppmv	0.1	NA-025	17-Aug-20
20080172-001	Methane		1.5	ppmv	0.1	NA-025	17-Aug-20
20080172-001	n-Propane	K, T, U	< 0.10	ppmv	0.10	NA-025	17-Aug-20
20080172-001	Propylene	K, T, U	< 0.1	ppmv	0.1	NA-025	17-Aug-20
20080172-001	Propyne	K, T, U	< 0.1	ppmv	0.1	NA-025	17-Aug-20
20080172-001	trans-2-Butene	K, T, U	< 0.13	ppmv	0.13	NA-025	17-Aug-20
20080172-001	2,5-Dimethylthiophene	K, T, U	< 0.4	ppbv	0.4	NA-024	18-Aug-20
20080172-001	2-Ethylthiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Aug-20
20080172-001	2-Methylthiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Aug-20
20080172-001	3-Methylthiophene	K, T, U	< 0.4	ppbv	0.4	NA-024	18-Aug-20

Report certified by: Rebecca Holgate, Account Coordinator

On behalf of: PJ Pretorius, Manager, Analysis and Testing Services

Date: August 25, 2020

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

LAB-PRAMP-202008

CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_842-20200812		32185	Ambient Air	12-Aug-20	12:40
DESCRIPTION:	NMHC Trigger				
REPORT NUMBER:	20080172	REPORT CREATED:	25-Aug-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080172-001	Butyl mercaptan	K, T, U	< 0.4	ppbv	0.4	NA-024	18-Aug-20
20080172-001	Carbon disulphide	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Aug-20
20080172-001	Carbonyl sulphide		1.7	ppbv	0.4	NA-024	18-Aug-20
20080172-001	Dimethyl disulphide	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Aug-20
20080172-001	Dimethyl sulphide	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Aug-20
20080172-001	Ethyl mercaptan	K, T, U	< 0.4	ppbv	0.4	NA-024	18-Aug-20
20080172-001	Ethyl sulphide	K, T, U	< 0.4	ppbv	0.4	NA-024	18-Aug-20
20080172-001	Hydrogen sulphide		1.1	ppbv	0.4	NA-024	18-Aug-20
20080172-001	Isobutyl mercaptan	K, T, U	< 0.4	ppbv	0.4	NA-024	18-Aug-20
20080172-001	Isopropyl mercaptan	K, T, U	< 0.4	ppbv	0.4	NA-024	18-Aug-20
20080172-001	Methyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Aug-20
20080172-001	Pentyl mercaptan	K, T, U	< 0.6	ppbv	0.6	NA-024	18-Aug-20
20080172-001	Propyl mercaptan	K, T, U	< 0.6	ppbv	0.6	NA-024	18-Aug-20
20080172-001	tert-Butyl mercaptan	K, T, U	< 0.4	ppbv	0.4	NA-024	18-Aug-20
20080172-001	Thiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Aug-20
20080172-001	1,1,1-Trichloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	1,1,2,2-Tetrachloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	1,1,2-Trichloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	1,1-Dichloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	1,1-Dichloroethylene	K, T, U	< 0.06	ppbv	0.06	AC-058	21-Aug-20
20080172-001	1,2,3-Trimethylbenzene	K, T, U	< 0.07	ppbv	0.07	AC-058	21-Aug-20
20080172-001	1,2,4-Trichlorobenzene	K, T, U	< 1.2	ppbv	1.2	AC-058	21-Aug-20
20080172-001	1,2,4-Trimethylbenzene	K, T, U	< 0.07	ppbv	0.07	AC-058	21-Aug-20
20080172-001	1,2-Dibromoethane	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	1,2-Dichlorobenzene	K, T, U	< 0.04	ppbv	0.04	AC-058	21-Aug-20

Report certified by: Rebecca Holgate, Account Coordinator

On behalf of: PJ Pretorius, Manager, Analysis and Testing Services

Date: August 25, 2020

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

LAB-PRAMP-202008

CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_842-20200812		32185	Ambient Air	12-Aug-20	12:40
DESCRIPTION:	NMHC Trigger				
REPORT NUMBER:	20080172	REPORT CREATED:	25-Aug-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080172-001	1,2-Dichloroethane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	1,2-Dichloropropane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	1,3,5-Trimethylbenzene	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	1,3-Butadiene	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	1,3-Dichlorobenzene	K, T, U	< 0.4	ppbv	0.4	AC-058	21-Aug-20
20080172-001	1,4-Dichlorobenzene	K, T, U	< 0.6	ppbv	0.6	AC-058	21-Aug-20
20080172-001	1,4-Dioxane	K, T, U	< 0.6	ppbv	0.6	AC-058	21-Aug-20
20080172-001	1-Butene/Isobutylene		0.97	ppbv	0.03	AC-058	21-Aug-20
20080172-001	1-Hexene/2-Methyl-1-pentene	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	1-Pentene		0.33	ppbv	0.01	AC-058	21-Aug-20
20080172-001	2,2,4-Trimethylpentane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	2,2-Dimethylbutane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	2,3,4-Trimethylpentane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	2,3-Dimethylbutane		0.06	ppbv	0.03	AC-058	21-Aug-20
20080172-001	2,3-Dimethylpentane	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	2,4-Dimethylpentane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	2-Methylheptane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	2-Methylhexane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	2-Methylpentane		0.10	ppbv	0.01	AC-058	21-Aug-20
20080172-001	3-Methylheptane	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	3-Methylhexane	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	3-Methylpentane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	Acetone		6.9	ppbv	0.6	AC-058	21-Aug-20
20080172-001	Acrolein	K, T, U	< 0.4	ppbv	0.4	AC-058	21-Aug-20
20080172-001	Benzene	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20

Report certified by: Rebecca Holgate, Account Coordinator

On behalf of: PJ Pretorius, Manager, Analysis and Testing Services

Date: August 25, 2020

LAB-PRAMP-202008

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_842-20200812		32185	Ambient Air	12-Aug-20	12:40
DESCRIPTION:	NMHC Trigger				
REPORT NUMBER:	20080172	REPORT CREATED:	25-Aug-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080172-001	Benzyl chloride	K, T, U	< 0.6	ppbv	0.6	AC-058	21-Aug-20
20080172-001	Bromodichloromethane	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	Bromoform	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	Bromomethane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	Carbon disulfide	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	Carbon tetrachloride	I	0.14	ppbv	0.01	AC-058	21-Aug-20
20080172-001	Chlorobenzene	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	Chloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	Chloroform	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	Chloromethane		0.80	ppbv	0.03	AC-058	21-Aug-20
20080172-001	cis-1,2-Dichloroethene	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	cis-1,3-Dichloropropene	K, T, U	< 0.06	ppbv	0.06	AC-058	21-Aug-20
20080172-001	cis-2-Butene	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	cis-2-Pentene		0.45	ppbv	0.03	AC-058	21-Aug-20
20080172-001	Cyclohexane	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	Cyclopentane		0.58	ppbv	0.01	AC-058	21-Aug-20
20080172-001	Dibromochloromethane	I	0.06	ppbv	0.01	AC-058	21-Aug-20
20080172-001	Ethanol		7.1	ppbv	0.4	AC-058	21-Aug-20
20080172-001	Ethyl acetate	K, T, U	< 0.6	ppbv	0.6	AC-058	21-Aug-20
20080172-001	Ethylbenzene	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	Freon-11	I	0.33	ppbv	0.03	AC-058	21-Aug-20
20080172-001	Freon-113	I	0.12	ppbv	0.01	AC-058	21-Aug-20
20080172-001	Freon-114	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	Freon-12		0.52	ppbv	0.03	AC-058	21-Aug-20
20080172-001	Hexachloro-1,3-butadiene	K, T, U	< 0.72	ppbv	0.72	AC-058	21-Aug-20

Report certified by: Rebecca Holgate, Account Coordinator

On behalf of: PJ Pretorius, Manager, Analysis and Testing Services

Date: August 25, 2020

LAB-PRAMP-202008

Inquiries: (780) 632 8455

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CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_842-20200812		32185	Ambient Air	12-Aug-20	12:40
DESCRIPTION:	NMHC Trigger				
REPORT NUMBER:	20080172	REPORT CREATED:	25-Aug-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080172-001	Isobutane		0.30	ppbv	0.03	AC-058	21-Aug-20
20080172-001	Isopentane		0.10	ppbv	0.04	AC-058	21-Aug-20
20080172-001	Isoprene		0.85	ppbv	0.01	AC-058	21-Aug-20
20080172-001	Isopropyl alcohol		4.4	ppbv	0.6	AC-058	21-Aug-20
20080172-001	Isopropylbenzene	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	m,p-Xylene	K, T, U	< 0.04	ppbv	0.04	AC-058	21-Aug-20
20080172-001	m-Diethylbenzene	K, T, U	< 0.06	ppbv	0.06	AC-058	21-Aug-20
20080172-001	m-Ethyltoluene	K, T, U	< 0.12	ppbv	0.12	AC-058	21-Aug-20
20080172-001	Methyl butyl ketone	K, T, U	< 0.72	ppbv	0.72	AC-058	21-Aug-20
20080172-001	Methyl ethyl ketone	K, T, U	< 0.4	ppbv	0.4	AC-058	21-Aug-20
20080172-001	Methyl isobutyl ketone	K, T, U	< 0.6	ppbv	0.6	AC-058	21-Aug-20
20080172-001	Methyl methacrylate	K, T, U	< 0.10	ppbv	0.10	AC-058	21-Aug-20
20080172-001	Methyl tert butyl ether	K, T, U	< 0.04	ppbv	0.04	AC-058	21-Aug-20
20080172-001	Methylcyclohexane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	Methylcyclopentane	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	Methylene chloride	K, T, U	< 0.4	ppbv	0.4	AC-058	21-Aug-20
20080172-001	n-Butane		0.23	ppbv	0.04	AC-058	21-Aug-20
20080172-001	n-Decane	K, T, U	< 0.09	ppbv	0.09	AC-058	21-Aug-20
20080172-001	n-Dodecane	K, T, U	< 0.6	ppbv	0.6	AC-058	21-Aug-20
20080172-001	n-Heptane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	n-Hexane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	n-Octane	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	n-Pentane	K, T, U	< 0.1	ppbv	0.1	AC-058	21-Aug-20
20080172-001	n-Propylbenzene	K, T, U	< 0.07	ppbv	0.07	AC-058	21-Aug-20
20080172-001	n-Undecane	K, T, U	< 0.7	ppbv	0.7	AC-058	21-Aug-20

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CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_842-20200812		32185	Ambient Air	12-Aug-20	12:40
DESCRIPTION:	NMHC Trigger				
REPORT NUMBER:	20080172	REPORT CREATED:	25-Aug-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080172-001	Naphthalene	K, T, U	< 0.7	ppbv	0.7	AC-058	21-Aug-20
20080172-001	n-Nonane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	o-Ethyltoluene	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	o-Xylene	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	p-Diethylbenzene	K, T, U	< 0.06	ppbv	0.06	AC-058	21-Aug-20
20080172-001	p-Ethyltoluene	K, T, U	< 0.10	ppbv	0.10	AC-058	21-Aug-20
20080172-001	Styrene	K, T, U	< 0.06	ppbv	0.06	AC-058	21-Aug-20
20080172-001	Tetrachloroethylene	K, T, U	< 0.06	ppbv	0.06	AC-058	21-Aug-20
20080172-001	Tetrahydrofuran	K, T, U	< 0.6	ppbv	0.6	AC-058	21-Aug-20
20080172-001	Toluene		0.16	ppbv	0.01	AC-058	21-Aug-20
20080172-001	trans-1,2-Dichloroethylene		2.69	ppbv	0.01	AC-058	21-Aug-20
20080172-001	trans-1,3-Dichloropropylene	K, T, U	< 0.06	ppbv	0.06	AC-058	21-Aug-20
20080172-001	trans-2-Butene	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-001	trans-2-Pentene	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-001	Trichloroethylene	K, T, U	< 0.06	ppbv	0.06	AC-058	21-Aug-20
20080172-001	Vinyl acetate	K, T, U	< 0.6	ppbv	0.6	AC-058	21-Aug-20
20080172-001	Vinyl chloride	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20

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CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_842-20200812-Blank		32275	Ambient Air	12-Aug-20	12:40
DESCRIPTION:	NMHC Blank				
REPORT NUMBER:	20080172	REPORT CREATED:	25-Aug-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080172-002	1-Butene	K, T, U	< 0.10	ppmv	0.10	NA-025	17-Aug-20
20080172-002	Acetylene	K, T, U	< 0.08	ppmv	0.08	NA-025	17-Aug-20
20080172-002	n-Butane	K, T, U	< 0.2	ppmv	0.2	NA-025	17-Aug-20
20080172-002	cis-2-Butene	K, T, U	< 0.04	ppmv	0.04	NA-025	17-Aug-20
20080172-002	Ethane	K, T, U	< 0.1	ppmv	0.1	NA-025	17-Aug-20
20080172-002	Ethylacetylene	K, T, U	< 0.06	ppmv	0.06	NA-025	17-Aug-20
20080172-002	Ethylene	K, T, U	< 0.07	ppmv	0.07	NA-025	17-Aug-20
20080172-002	Isobutane	K, T, U	< 0.1	ppmv	0.1	NA-025	17-Aug-20
20080172-002	Isobutylene	K, T, U	< 0.1	ppmv	0.1	NA-025	17-Aug-20
20080172-002	Methane	K, T, U	< 0.1	ppmv	0.1	NA-025	17-Aug-20
20080172-002	n-Propane	K, T, U	< 0.07	ppmv	0.07	NA-025	17-Aug-20
20080172-002	Propylene	K, T, U	< 0.1	ppmv	0.1	NA-025	17-Aug-20
20080172-002	Propyne	K, T, U	< 0.1	ppmv	0.1	NA-025	17-Aug-20
20080172-002	trans-2-Butene	K, T, U	< 0.09	ppmv	0.09	NA-025	17-Aug-20
20080172-002	2,5-Dimethylthiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Aug-20
20080172-002	2-Ethylthiophene	K, T, U	< 0.2	ppbv	0.2	NA-024	18-Aug-20
20080172-002	2-Methylthiophene	K, T, U	< 0.2	ppbv	0.2	NA-024	18-Aug-20
20080172-002	3-Methylthiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Aug-20
20080172-002	Butyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Aug-20
20080172-002	Carbon disulphide		1.2	ppbv	0.2	NA-024	18-Aug-20
20080172-002	Carbonyl sulphide		2.8	ppbv	0.3	NA-024	18-Aug-20
20080172-002	Dimethyl disulphide	K, T, U	< 0.2	ppbv	0.2	NA-024	18-Aug-20
20080172-002	Dimethyl sulphide	K, T, U	< 0.2	ppbv	0.2	NA-024	18-Aug-20
20080172-002	Ethyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Aug-20
20080172-002	Ethyl sulphide	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Aug-20

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CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_842-20200812-Blank		32275	Ambient Air	12-Aug-20	12:40
DESCRIPTION:	NMHC Blank				
REPORT NUMBER:	20080172	REPORT CREATED:	25-Aug-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080172-002	Hydrogen sulphide		0.4	ppbv	0.3	NA-024	18-Aug-20
20080172-002	Isobutyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Aug-20
20080172-002	Isopropyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Aug-20
20080172-002	Methyl mercaptan	K, T, U	< 0.2	ppbv	0.2	NA-024	18-Aug-20
20080172-002	Pentyl mercaptan	K, T, U	< 0.4	ppbv	0.4	NA-024	18-Aug-20
20080172-002	Propyl mercaptan	K, T, U	< 0.4	ppbv	0.4	NA-024	18-Aug-20
20080172-002	tert-Butyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Aug-20
20080172-002	Thiophene	K, T, U	< 0.2	ppbv	0.2	NA-024	18-Aug-20
20080172-002	1,1,1-Trichloroethane	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	1,1,2,2-Tetrachloroethane	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	1,1,2-Trichloroethane	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	1,1-Dichloroethane	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	1,1-Dichloroethylene	K, T, U	< 0.04	ppbv	0.04	AC-058	21-Aug-20
20080172-002	1,2,3-Trimethylbenzene	I	0.08	ppbv	0.05	AC-058	21-Aug-20
20080172-002	1,2,4-Trichlorobenzene	K, T, U	< 0.8	ppbv	0.8	AC-058	21-Aug-20
20080172-002	1,2,4-Trimethylbenzene		0.08	ppbv	0.05	AC-058	21-Aug-20
20080172-002	1,2-Dibromoethane	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	1,2-Dichlorobenzene	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-002	1,2-Dichloroethane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	1,2-Dichloropropane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	1,3,5-Trimethylbenzene		0.03	ppbv	0.02	AC-058	21-Aug-20
20080172-002	1,3-Butadiene	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	1,3-Dichlorobenzene	K, T, U	< 0.3	ppbv	0.3	AC-058	21-Aug-20
20080172-002	1,4-Dichlorobenzene	K, T, U	< 0.4	ppbv	0.4	AC-058	21-Aug-20
20080172-002	1,4-Dioxane	K, T, U	< 0.4	ppbv	0.4	AC-058	21-Aug-20

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CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_842-20200812-Blank		32275	Ambient Air	12-Aug-20	12:40
DESCRIPTION:	NMHC Blank				
REPORT NUMBER:	20080172	REPORT CREATED:	25-Aug-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080172-002	1-Butene/Isobutylene		0.35	ppbv	0.02	AC-058	21-Aug-20
20080172-002	1-Hexene/2-Methyl-1-pentene	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	1-Pentene		0.75	ppbv	0.01	AC-058	21-Aug-20
20080172-002	2,2,4-Trimethylpentane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	2,2-Dimethylbutane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	2,3,4-Trimethylpentane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	2,3-Dimethylbutane		0.03	ppbv	0.02	AC-058	21-Aug-20
20080172-002	2,3-Dimethylpentane	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	2,4-Dimethylpentane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	2-Methylheptane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	2-Methylhexane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	2-Methylpentane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	3-Methylheptane	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	3-Methylhexane	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	3-Methylpentane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	Acetone		2.6	ppbv	0.4	AC-058	21-Aug-20
20080172-002	Acrolein	K, T, U	< 0.3	ppbv	0.3	AC-058	21-Aug-20
20080172-002	Benzene	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	Benzyl chloride	K, T, U	< 0.4	ppbv	0.4	AC-058	21-Aug-20
20080172-002	Bromodichloromethane	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	Bromoform	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	Bromomethane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	Carbon disulfide	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	Carbon tetrachloride	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	Chlorobenzene	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20

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PRAMP_842-20200812-Blank		32275	Ambient Air	12-Aug-20	12:40
DESCRIPTION:	NMHC Blank				
REPORT NUMBER:	20080172	REPORT CREATED:	25-Aug-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080172-002	Chloroethane	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	Chloroform	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	Chloromethane	I	0.13	ppbv	0.02	AC-058	21-Aug-20
20080172-002	cis-1,2-Dichloroethene	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	cis-1,3-Dichloropropene	K, T, U	< 0.04	ppbv	0.04	AC-058	21-Aug-20
20080172-002	cis-2-Butene	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	cis-2-Pentene		0.34	ppbv	0.02	AC-058	21-Aug-20
20080172-002	Cyclohexane	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	Cyclopentane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	Dibromochloromethane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	Ethanol		7.4	ppbv	0.3	AC-058	21-Aug-20
20080172-002	Ethyl acetate	K, T, U	< 0.4	ppbv	0.4	AC-058	21-Aug-20
20080172-002	Ethylbenzene		0.12	ppbv	0.01	AC-058	21-Aug-20
20080172-002	Freon-11	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	Freon-113	I	0.03	ppbv	0.01	AC-058	21-Aug-20
20080172-002	Freon-114	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	Freon-12	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	Hexachloro-1,3-butadiene	K, T, U	< 0.50	ppbv	0.50	AC-058	21-Aug-20
20080172-002	Isobutane		0.27	ppbv	0.02	AC-058	21-Aug-20
20080172-002	Isopentane	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-002	Isoprene		0.31	ppbv	0.01	AC-058	21-Aug-20
20080172-002	Isopropyl alcohol		12.1	ppbv	0.4	AC-058	21-Aug-20
20080172-002	Isopropylbenzene	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	m,p-Xylene		0.48	ppbv	0.03	AC-058	21-Aug-20
20080172-002	m-Diethylbenzene	K, T, U	< 0.04	ppbv	0.04	AC-058	21-Aug-20

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PRAMP_842-20200812-Blank		32275	Ambient Air	12-Aug-20	12:40
DESCRIPTION:	NMHC Blank				
REPORT NUMBER:	20080172	REPORT CREATED:	25-Aug-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080172-002	m-Ethyltoluene	K, T, U	< 0.08	ppbv	0.08	AC-058	21-Aug-20
20080172-002	Methyl butyl ketone	K, T, U	< 0.50	ppbv	0.50	AC-058	21-Aug-20
20080172-002	Methyl ethyl ketone		0.3	ppbv	0.3	AC-058	21-Aug-20
20080172-002	Methyl isobutyl ketone	K, T, U	< 0.4	ppbv	0.4	AC-058	21-Aug-20
20080172-002	Methyl methacrylate	K, T, U	< 0.07	ppbv	0.07	AC-058	21-Aug-20
20080172-002	Methyl tert butyl ether	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-002	Methylcyclohexane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	Methylcyclopentane	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	Methylene chloride	K, T, U	< 0.3	ppbv	0.3	AC-058	21-Aug-20
20080172-002	n-Butane	K, T, U	< 0.03	ppbv	0.03	AC-058	21-Aug-20
20080172-002	n-Decane	K, T, U	< 0.06	ppbv	0.06	AC-058	21-Aug-20
20080172-002	n-Dodecane	K, T, U	< 0.4	ppbv	0.4	AC-058	21-Aug-20
20080172-002	n-Heptane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	n-Hexane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	n-Octane	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	n-Pentane	K, T, U	< 0.1	ppbv	0.1	AC-058	21-Aug-20
20080172-002	n-Propylbenzene	K, T, U	< 0.05	ppbv	0.05	AC-058	21-Aug-20
20080172-002	n-Undecane	K, T, U	< 0.5	ppbv	0.5	AC-058	21-Aug-20
20080172-002	Naphthalene	K, T, U	< 0.5	ppbv	0.5	AC-058	21-Aug-20
20080172-002	n-Nonane	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	o-Ethyltoluene	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	o-Xylene		0.35	ppbv	0.01	AC-058	21-Aug-20
20080172-002	p-Diethylbenzene	I	0.17	ppbv	0.04	AC-058	21-Aug-20
20080172-002	p-Ethyltoluene	K, T, U	< 0.07	ppbv	0.07	AC-058	21-Aug-20
20080172-002	Styrene	K, T, U	< 0.04	ppbv	0.04	AC-058	21-Aug-20

Report certified by: Rebecca Holgate, Account Coordinator

On behalf of: PJ Pretorius, Manager, Analysis and Testing Services

Date: August 25, 2020

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

LAB-PRAMP-202008

CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_842-20200812-Blank		32275	Ambient Air	12-Aug-20	12:40
DESCRIPTION:	NMHC Blank				
REPORT NUMBER:	20080172	REPORT CREATED:	25-Aug-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080172-002	Tetrachloroethylene	K, T, U	< 0.04	ppbv	0.04	AC-058	21-Aug-20
20080172-002	Tetrahydrofuran	K, T, U	< 0.4	ppbv	0.4	AC-058	21-Aug-20
20080172-002	Toluene		0.15	ppbv	0.01	AC-058	21-Aug-20
20080172-002	trans-1,2-Dichloroethylene		6.04	ppbv	0.01	AC-058	21-Aug-20
20080172-002	trans-1,3-Dichloropropylene	K, T, U	< 0.04	ppbv	0.04	AC-058	21-Aug-20
20080172-002	trans-2-Butene	K, T, U	< 0.01	ppbv	0.01	AC-058	21-Aug-20
20080172-002	trans-2-Pentene	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20
20080172-002	Trichloroethylene	K, T, U	< 0.04	ppbv	0.04	AC-058	21-Aug-20
20080172-002	Vinyl acetate	K, T, U	< 0.4	ppbv	0.4	AC-058	21-Aug-20
20080172-002	Vinyl chloride	K, T, U	< 0.02	ppbv	0.02	AC-058	21-Aug-20

Report certified by: Rebecca Holgate, Account Coordinator

On behalf of: PJ Pretorius, Manager, Analysis and Testing Services

Date: August 25, 2020

LAB-PRAMP-202008

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca



PO Bag 4000
Vegreville, Alberta
Canada T9C 1T4
(780) 632-8211

ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Revision History

Order ID	Ver	Date	Reason
20080172	01	25-Aug-20	Report created

Methods

Method	Description
AC-058	Determination of Volatile Organic Compounds in Ambient Air by Gas Chromatography Mass Spectrometry
NA-024	Analysis for Reduced Sulfur Compounds in Air Samples
NA-025	Determination of Light Hydrocarbons (C1C4) in Ambient Air by Gas Chromatography Flame Ionization Detector

Qualifiers

Data Qualifier Translation

B	Blank contamination; Analyte detected above the method reporting limit in an associated blank
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J1	Reported value is estimated; Surrogate recoveries limits were exceeded
J2	Reported value is estimated; No known QC criteria for this component
J3	Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
J4	Reported value is estimated; The sample matrix interfered with the analysis
K	Off-scale low. Actual value is known to be less than the value given
L	Off-scale high. Actual value is known to be greater than value given
N	Non-target analyte; Tentatively identified compound (using mass spectroscopy)
Q	Sample held beyond the accepted holding time
R	Rejected data; Not suitable for the projects intended use
T	Value reported is less than the laboratory method detection limit
U	Compound was analyzed for but not detected
V	Analyte was detected in both the sample and the associated method blank



PO Bag 4000
Vegreville, Alberta
Canada T9C 1T4
(780) 632-8211

ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

Page 16 of 18

Order Comments

20080172

Invoice also to: pramptech@prampairshed.ca



PO Bag 4000
Vegreville, Alberta
Canada T9C 1T4
(780) 632-8211

ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

Page 17 of 18

Sample Comments

Result Comments

Note:

- 1. Results relate only to items tested and apply to the sample as received.*
- 2. This report shall not be reproduced, except in full, without the explicit approval of the laboratory.*



Highway 16A & 75 Street
PO Bag 4000
Vegreville, AB, T9C 1T4
Environmental Analytical Services
Phone: (780) 632-8403 Fax: (780) 632-8620

Sample ID: 20080283-001

Customer ID: PRAMP

Cust Samp ID: PRAMP_Reno-20200821

Priority: Normal

Date Received- Lab Use Only

RECEIVED
AUG 25 2020

Client Contact Details:

Contact: Karla Ressor, Michael Bisaga/ Lily Lin

Company: PRAMP Airshed

PO#: ☐ 842 Station ☐ 986 Station ☐ Reno Station

Address: ☐ 842 (Lat. 56.27406N, Long. 116.98129W)

☐ 986 (Lat. 56.36988N, Long. 116.925636W)

☐ Reno (Lat. 55.86936N, Long. 117.05739W)

Telephone: 403-8072995, 780-2667068/587-2252248

Email: karla@prampairshed.ca, pramptech@prampairshed.ca

RUSH (Surcharge) ☐

Invoice Instructions:

Send to: officemanager@prampairshed.ca, karla@prampairshed.ca,
pramptech@prampairshed.ca Attention: PRAMP Office Manager

Any correspondence related to canister analysis, send the information to karla@prampairshed.ca
and pramptech@prampairshed.ca

InnoTech Contact: Graham Knox Phone: 780-6328403 Cell: 780-6321519

Email: Graham.Knox@innotechalberta.ca

Sample ID (PRAMP_station_yyyymmdd)	Canister Number	Sample Description	Date/Time Sampled		Analysis Requested
			From/To		
			Date (dd/mm/yy)	Time (24 Hr) (MST)	
PRAMP_842- _____ (Sample date: yyyymmdd)	28966	☒ Methane Trigger	21/08/20	01:10 am	* AIR C1C4, AIR VOC, AIR RSC
PRAMP_986- _____ (Sample date: yyyymmdd)		☐ NMHC Trigger			* Unknown to be reported
PRAMP_Reno- 20200821 (Sample date: yyyymmdd)		☐ Methane Blank			* Carbon Isotopic Analysis (if sample is collected from Methane trigger)
		☐ NMHC Blank			
		☐ Expired Canister – No further analysis is required.			

Sample Collection:

Collect By Ferdinand Roy (Name) of Veritas (Company) on 22/08/20 13:52 (Date/Time (MST)).



Highway 16A & 75 Street
PO Bag 4000
Vegreville, AB, T9C 1T4
Environmental Analytical Services
Phone: (780) 632-8403 Fax: (780) 632-8620

Sample ID: 20080283-002

Customer ID: PRAMP
Cust Samp ID: PRAMP_Reno-Blank
Priority: Normal

Date Received- Lab Use Only

RECEIVED

AUG 25 2020

Client Contact Details:

Contact: Karla Ressor, Michael Bisaga/ Lily Lin

Company: PRAMP Airshed

PO#: ☐ 842 Station ☐ 986 Station ☐ Reno Station

Address: ☐ 842 (Lat. 56.27406N, Long. 116.98129W)

☐ 986 (Lat. 56.36988N, Long. 116.925636W)

☐ Reno (Lat. 55.86936N, Long. 117.05739W)

Telephone: 403-8072995, 780-2667068/587-2252248

Email: karla@prampairshed.ca, pramptech@prampairshed.ca

RUSH (Surcharge) ☐

Invoice Instructions:

Send to: officemanager@prampairshed.ca, karla@prampairshed.ca,
pramptech@prampairshed.ca Attention: PRAMP Office Manager

Any correspondence related to canister analysis, send the information to karla@prampairshed.ca
and pramptech@prampairshed.ca

InnoTech Contact: Graham Knox Phone: 780-6328403 Cell: 780-6321519

Email: Graham.Knox@innotechalberta.ca

Sample ID (PRAMP_station_YYYYMMDD)	Canister Number	Sample Description	Date/Time Sampled		Analysis Requested
			From/To		
			Date (dd/mm/yy)	Time (24 Hr) (MST)	
PRAMP_842- _____ (Sample date: YYYYMMDD)	32245	☐ Methane Trigger			* AIR C1C4, AIR VOC, AIR RSC
PRAMP_986- _____ (Sample date: YYYYMMDD)		☐ NMHC Trigger			* Unknown to be reported
PRAMP_Reno- BLANK (Sample date: YYYYMMDD)		☒ Methane Blank			* Carbon Isotopic Analysis (if sample is collected from Methane trigger)
		☐ NMHC Blank			
		☐ Expired Canister – No further analysis is required.			

Sample Collection:

Collect By Ferdinand Lopez (Name) of Bureau Veritas (Company) on 22/08/20 13:52 (Date/Time (MST)).

Sample ID: 20080283-001

Customer ID: PRAMP

Cust Samp ID: PRAMP_Reno-20200821

Priority: Normal

RECEIVED

AUG 25 2020

 Canister ID: <u>28966</u> This cleaned canister meets or exceeds TO-15 Method Specifications Proofed on: <u>MAY 11 2020</u> Evacuated on: <u>MAY 14 2020</u> Recertified on: <u>JUN 30 2020</u> (Use within: 3 months from recertification date) Laboratory Contact Number: 780-632-8403	Sample ID: <u>PRAMP_RENO_20200821 (CH4)</u>	
	Sampled By: <u>Ferdinand Roy</u>	
	Starting Vacuum: <u>-26.7</u> "Hg	End Vacuum: <u>-3</u> Hg <u>-2</u> "Hg/psig <u>MW</u>

 Canister ID: <u>32245</u> This cleaned canister meets or exceeds TO-15 Method Specifications Proofed by: <u>DOSB</u> on: <u>JUN 08 2020</u> Evacuated on: <u>JUN 26 2020</u> Use within: 3 months from evacuation date Laboratory Contact Number: 780-632-8403	Sample ID: <u>PRAMP_RENO_BLACK</u>	
	Sampled By: _____	
	Starting Vacuum: <u>-27.3</u> "Hg	End Vacuum: <u>MW</u> <u>-26</u> "Hg/psig

ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

Page 1 of 18

RESULTS: Karla Reesor 403 807 2995
Peace River Area Monitoring Program Committee

INVOICE: Office Manager

CLIENT SAMPLE ID

PRAMP_Reno-20200821

Matrix

Ambient Air

CANISTER ID: 28966

PRIORITY: Normal

DESCRIPTION: Methane Trigger

DATE SAMPLED: 21-Aug-20 1:10

DATE RECEIVED: 25-Aug-20

REPORT CREATED: 02-Sep-20

REPORT NUMBER: 20080283

VERSION: Version 01

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
20080283-001	1-Butene	K, T, U	< 0.15 ppmv	0.15	NA-025	26-Aug-20
20080283-001	Acetylene	K, T, U	< 0.12 ppmv	0.12	NA-025	26-Aug-20
20080283-001	n-Butane	K, T, U	< 0.3 ppmv	0.3	NA-025	26-Aug-20
20080283-001	cis-2-Butene	K, T, U	< 0.06 ppmv	0.06	NA-025	26-Aug-20
20080283-001	Ethane	K, T, U	< 0.2 ppmv	0.2	NA-025	26-Aug-20
20080283-001	Ethylacetylene	K, T, U	< 0.09 ppmv	0.09	NA-025	26-Aug-20
20080283-001	Ethylene	K, T, U	< 0.11 ppmv	0.11	NA-025	26-Aug-20
20080283-001	Isobutane	K, T, U	< 0.2 ppmv	0.2	NA-025	26-Aug-20
20080283-001	Isobutylene	K, T, U	< 0.2 ppmv	0.2	NA-025	26-Aug-20
20080283-001	Methane		2.4 ppmv	0.2	NA-025	26-Aug-20
20080283-001	n-Propane	K, T, U	< 0.11 ppmv	0.11	NA-025	26-Aug-20
20080283-001	Propylene	K, T, U	< 0.2 ppmv	0.2	NA-025	26-Aug-20
20080283-001	Propyne	K, T, U	< 0.2 ppmv	0.2	NA-025	26-Aug-20
20080283-001	trans-2-Butene	K, T, U	< 0.14 ppmv	0.14	NA-025	26-Aug-20
20080283-001	2,5-Dimethylthiophene	K, T, U	< 0.5 ppbv	0.5	NA-024	26-Aug-20
20080283-001	2-Ethylthiophene	K, T, U	< 0.3 ppbv	0.3	NA-024	26-Aug-20
20080283-001	2-Methylthiophene	K, T, U	< 0.3 ppbv	0.3	NA-024	26-Aug-20
20080283-001	3-Methylthiophene	K, T, U	< 0.5 ppbv	0.5	NA-024	26-Aug-20

Report certified by: Rebecca Holgate, Account Coordinator

On behalf of: PJ Pretorius, Manager, Analysis and Testing Services

Date: September 2, 2020

LAB-PRAMP-202008

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_Reno-20200821		28966	Ambient Air	21-Aug-20	1:10
DESCRIPTION:	Methane Trigger				
REPORT NUMBER:	20080283	REPORT CREATED:	02-Sep-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080283-001	Butyl mercaptan	K, T, U	< 0.5	ppbv	0.5	NA-024	26-Aug-20
20080283-001	Carbon disulphide		1.9	ppbv	0.3	NA-024	26-Aug-20
20080283-001	Carbonyl sulphide		1.7	ppbv	0.5	NA-024	26-Aug-20
20080283-001	Dimethyl disulphide	K, T, U	< 0.3	ppbv	0.3	NA-024	26-Aug-20
20080283-001	Dimethyl sulphide	K, T, U	< 0.3	ppbv	0.3	NA-024	26-Aug-20
20080283-001	Ethyl mercaptan	K, T, U	< 0.5	ppbv	0.5	NA-024	26-Aug-20
20080283-001	Ethyl sulphide	K, T, U	< 0.5	ppbv	0.5	NA-024	26-Aug-20
20080283-001	Hydrogen sulphide		1.2	ppbv	0.5	NA-024	26-Aug-20
20080283-001	Isobutyl mercaptan	K, T, U	< 0.5	ppbv	0.5	NA-024	26-Aug-20
20080283-001	Isopropyl mercaptan	K, T, U	< 0.5	ppbv	0.5	NA-024	26-Aug-20
20080283-001	Methyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	26-Aug-20
20080283-001	Pentyl mercaptan	K, T, U	< 0.6	ppbv	0.6	NA-024	26-Aug-20
20080283-001	Propyl mercaptan	K, T, U	< 0.6	ppbv	0.6	NA-024	26-Aug-20
20080283-001	tert-Butyl mercaptan	K, T, U	< 0.5	ppbv	0.5	NA-024	26-Aug-20
20080283-001	Thiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	26-Aug-20
20080283-001	1,1,1-Trichloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	1,1,2,2-Tetrachloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	1,1,2-Trichloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	1,1-Dichloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	1,1-Dichloroethylene	K, T, U	< 0.06	ppbv	0.06	AC-058	27-Aug-20
20080283-001	1,2,3-Trimethylbenzene	K, T, U	< 0.08	ppbv	0.08	AC-058	27-Aug-20
20080283-001	1,2,4-Trichlorobenzene	K, T, U	< 1.2	ppbv	1.2	AC-058	27-Aug-20
20080283-001	1,2,4-Trimethylbenzene	K, T, U	< 0.08	ppbv	0.08	AC-058	27-Aug-20
20080283-001	1,2-Dibromoethane	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	1,2-Dichlorobenzene	K, T, U	< 0.05	ppbv	0.05	AC-058	27-Aug-20

Report certified by: Rebecca Holgate, Account Coordinator

On behalf of: PJ Pretorius, Manager, Analysis and Testing Services

Date: September 2, 2020

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E-mail: EAS.Results@innotechalberta.ca

LAB-PRAMP-202008

CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_Reno-20200821		28966	Ambient Air	21-Aug-20	1:10
DESCRIPTION:	Methane Trigger				
REPORT NUMBER:	20080283	REPORT CREATED:	02-Sep-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080283-001	1,2-Dichloroethane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	1,2-Dichloropropane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	1,3,5-Trimethylbenzene	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	1,3-Butadiene	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	1,3-Dichlorobenzene	K, T, U	< 0.5	ppbv	0.5	AC-058	27-Aug-20
20080283-001	1,4-Dichlorobenzene	K, T, U	< 0.6	ppbv	0.6	AC-058	27-Aug-20
20080283-001	1,4-Dioxane	K, T, U	< 0.6	ppbv	0.6	AC-058	27-Aug-20
20080283-001	1-Butene/Isobutylene		0.56	ppbv	0.03	AC-058	27-Aug-20
20080283-001	1-Hexene/2-Methyl-1-pentene	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	1-Pentene		0.23	ppbv	0.02	AC-058	27-Aug-20
20080283-001	2,2,4-Trimethylpentane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	2,2-Dimethylbutane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	2,3,4-Trimethylpentane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	2,3-Dimethylbutane		0.16	ppbv	0.03	AC-058	27-Aug-20
20080283-001	2,3-Dimethylpentane		0.08	ppbv	0.03	AC-058	27-Aug-20
20080283-001	2,4-Dimethylpentane		0.06	ppbv	0.02	AC-058	27-Aug-20
20080283-001	2-Methylheptane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	2-Methylhexane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	2-Methylpentane		0.17	ppbv	0.02	AC-058	27-Aug-20
20080283-001	3-Methylheptane	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	3-Methylhexane	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	3-Methylpentane		0.11	ppbv	0.02	AC-058	27-Aug-20
20080283-001	Acetone		6.8	ppbv	0.6	AC-058	27-Aug-20
20080283-001	Acrolein	K, T, U	< 0.5	ppbv	0.5	AC-058	27-Aug-20
20080283-001	Benzene		0.23	ppbv	0.02	AC-058	27-Aug-20

Report certified by: Rebecca Holgate, Account Coordinator

On behalf of: PJ Pretorius, Manager, Analysis and Testing Services

Date: September 2, 2020

LAB-PRAMP-202008

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_Reno-20200821		28966	Ambient Air	21-Aug-20	1:10
DESCRIPTION:	Methane Trigger				
REPORT NUMBER:	20080283	REPORT CREATED:	02-Sep-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080283-001	Benzyl chloride	K, T, U	< 0.6	ppbv	0.6	AC-058	27-Aug-20
20080283-001	Bromodichloromethane	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	Bromoform	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	Bromomethane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	Carbon disulfide	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	Carbon tetrachloride	I	0.06	ppbv	0.02	AC-058	27-Aug-20
20080283-001	Chlorobenzene	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	Chloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	Chloroform	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	Chloromethane		0.63	ppbv	0.03	AC-058	27-Aug-20
20080283-001	cis-1,2-Dichloroethene	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	cis-1,3-Dichloropropene	K, T, U	< 0.06	ppbv	0.06	AC-058	27-Aug-20
20080283-001	cis-2-Butene	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	cis-2-Pentene	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	Cyclohexane		0.13	ppbv	0.03	AC-058	27-Aug-20
20080283-001	Cyclopentane		0.55	ppbv	0.02	AC-058	27-Aug-20
20080283-001	Dibromochloromethane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	Ethanol		4.2	ppbv	0.5	AC-058	27-Aug-20
20080283-001	Ethyl acetate	K, T, U	< 0.6	ppbv	0.6	AC-058	27-Aug-20
20080283-001	Ethylbenzene	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	Freon-11	I	0.17	ppbv	0.03	AC-058	27-Aug-20
20080283-001	Freon-113	I	0.10	ppbv	0.02	AC-058	27-Aug-20
20080283-001	Freon-114	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	Freon-12		0.46	ppbv	0.03	AC-058	27-Aug-20
20080283-001	Hexachloro-1,3-butadiene	K, T, U	< 0.76	ppbv	0.76	AC-058	27-Aug-20

Report certified by: Rebecca Holgate, Account Coordinator

On behalf of: PJ Pretorius, Manager, Analysis and Testing Services

Date: September 2, 2020

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

LAB-PRAMP-202008

CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_Reno-20200821		28966	Ambient Air	21-Aug-20	1:10
DESCRIPTION:	Methane Trigger				
REPORT NUMBER:	20080283	REPORT CREATED:	02-Sep-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080283-001	Isobutane		0.42	ppbv	0.03	AC-058	27-Aug-20
20080283-001	Isopentane		0.31	ppbv	0.05	AC-058	27-Aug-20
20080283-001	Isoprene		1.08	ppbv	0.02	AC-058	27-Aug-20
20080283-001	Isopropyl alcohol		2.9	ppbv	0.6	AC-058	27-Aug-20
20080283-001	Isopropylbenzene	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	m,p-Xylene	K, T, U	< 0.05	ppbv	0.05	AC-058	27-Aug-20
20080283-001	m-Diethylbenzene	K, T, U	< 0.06	ppbv	0.06	AC-058	27-Aug-20
20080283-001	m-Ethyltoluene	K, T, U	< 0.12	ppbv	0.12	AC-058	27-Aug-20
20080283-001	Methyl butyl ketone	K, T, U	< 0.76	ppbv	0.76	AC-058	27-Aug-20
20080283-001	Methyl ethyl ketone	K, T, U	< 0.5	ppbv	0.5	AC-058	27-Aug-20
20080283-001	Methyl isobutyl ketone	K, T, U	< 0.6	ppbv	0.6	AC-058	27-Aug-20
20080283-001	Methyl methacrylate	K, T, U	< 0.11	ppbv	0.11	AC-058	27-Aug-20
20080283-001	Methyl tert butyl ether	K, T, U	< 0.05	ppbv	0.05	AC-058	27-Aug-20
20080283-001	Methylcyclohexane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	Methylcyclopentane		0.11	ppbv	0.03	AC-058	27-Aug-20
20080283-001	Methylene chloride	K, T, U	< 0.5	ppbv	0.5	AC-058	27-Aug-20
20080283-001	n-Butane		0.42	ppbv	0.05	AC-058	27-Aug-20
20080283-001	n-Decane	K, T, U	< 0.09	ppbv	0.09	AC-058	27-Aug-20
20080283-001	n-Dodecane	K, T, U	< 0.6	ppbv	0.6	AC-058	27-Aug-20
20080283-001	n-Heptane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	n-Hexane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	n-Octane	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	n-Pentane		0.2	ppbv	0.2	AC-058	27-Aug-20
20080283-001	n-Propylbenzene	K, T, U	< 0.08	ppbv	0.08	AC-058	27-Aug-20
20080283-001	n-Undecane	K, T, U	< 0.8	ppbv	0.8	AC-058	27-Aug-20

Report certified by: Rebecca Holgate, Account Coordinator

On behalf of: PJ Pretorius, Manager, Analysis and Testing Services

Date: September 2, 2020

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LAB-PRAMP-202008

CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_Reno-20200821		28966	Ambient Air	21-Aug-20	1:10
DESCRIPTION:	Methane Trigger				
REPORT NUMBER:	20080283	REPORT CREATED:	02-Sep-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080283-001	Naphthalene	K, T, U	< 0.8	ppbv	0.8	AC-058	27-Aug-20
20080283-001	n-Nonane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	o-Ethyltoluene	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	o-Xylene	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	p-Diethylbenzene	K, T, U	< 0.06	ppbv	0.06	AC-058	27-Aug-20
20080283-001	p-Ethyltoluene	K, T, U	< 0.11	ppbv	0.11	AC-058	27-Aug-20
20080283-001	Styrene	K, T, U	< 0.06	ppbv	0.06	AC-058	27-Aug-20
20080283-001	Tetrachloroethylene	K, T, U	< 0.06	ppbv	0.06	AC-058	27-Aug-20
20080283-001	Tetrahydrofuran	K, T, U	< 0.6	ppbv	0.6	AC-058	27-Aug-20
20080283-001	Toluene		0.23	ppbv	0.02	AC-058	27-Aug-20
20080283-001	trans-1,2-Dichloroethylene		4.80	ppbv	0.02	AC-058	27-Aug-20
20080283-001	trans-1,3-Dichloropropylene	K, T, U	< 0.06	ppbv	0.06	AC-058	27-Aug-20
20080283-001	trans-2-Butene	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-001	trans-2-Pentene	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-001	Trichloroethylene	K, T, U	< 0.06	ppbv	0.06	AC-058	27-Aug-20
20080283-001	Vinyl acetate	K, T, U	< 0.6	ppbv	0.6	AC-058	27-Aug-20
20080283-001	Vinyl chloride	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20

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Date: September 2, 2020

LAB-PRAMP-202008

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CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_Reno-Blank		32245	Ambient Air	21-Aug-20	1:10
DESCRIPTION:	Methane Blank				
REPORT NUMBER:	20080283	REPORT CREATED:	02-Sep-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080283-002	1-Butene	K, T, U	< 0.10	ppmv	0.10	NA-025	26-Aug-20
20080283-002	Acetylene	K, T, U	< 0.08	ppmv	0.08	NA-025	26-Aug-20
20080283-002	n-Butane	K, T, U	< 0.2	ppmv	0.2	NA-025	26-Aug-20
20080283-002	cis-2-Butene	K, T, U	< 0.04	ppmv	0.04	NA-025	26-Aug-20
20080283-002	Ethane	K, T, U	< 0.1	ppmv	0.1	NA-025	26-Aug-20
20080283-002	Ethylacetylene	K, T, U	< 0.06	ppmv	0.06	NA-025	26-Aug-20
20080283-002	Ethylene	K, T, U	< 0.07	ppmv	0.07	NA-025	26-Aug-20
20080283-002	Isobutane	K, T, U	< 0.1	ppmv	0.1	NA-025	26-Aug-20
20080283-002	Isobutylene	K, T, U	< 0.1	ppmv	0.1	NA-025	26-Aug-20
20080283-002	Methane	K, T, U	< 0.1	ppmv	0.1	NA-025	26-Aug-20
20080283-002	n-Propane	K, T, U	< 0.07	ppmv	0.07	NA-025	26-Aug-20
20080283-002	Propylene	K, T, U	< 0.1	ppmv	0.1	NA-025	26-Aug-20
20080283-002	Propyne	K, T, U	< 0.1	ppmv	0.1	NA-025	26-Aug-20
20080283-002	trans-2-Butene	K, T, U	< 0.09	ppmv	0.09	NA-025	26-Aug-20
20080283-002	2,5-Dimethylthiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	26-Aug-20
20080283-002	2-Ethylthiophene	K, T, U	< 0.2	ppbv	0.2	NA-024	26-Aug-20
20080283-002	2-Methylthiophene	K, T, U	< 0.2	ppbv	0.2	NA-024	26-Aug-20
20080283-002	3-Methylthiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	26-Aug-20
20080283-002	Butyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	26-Aug-20
20080283-002	Carbon disulphide	K, T, U	< 0.2	ppbv	0.2	NA-024	26-Aug-20
20080283-002	Carbonyl sulphide	K, T, U	< 0.3	ppbv	0.3	NA-024	26-Aug-20
20080283-002	Dimethyl disulphide	K, T, U	< 0.2	ppbv	0.2	NA-024	26-Aug-20
20080283-002	Dimethyl sulphide	K, T, U	< 0.2	ppbv	0.2	NA-024	26-Aug-20
20080283-002	Ethyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	26-Aug-20
20080283-002	Ethyl sulphide	K, T, U	< 0.3	ppbv	0.3	NA-024	26-Aug-20

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LAB-PRAMP-202008

CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED
PRAMP_Reno-Blank	32245	Ambient Air	21-Aug-20 1:10
DESCRIPTION: Methane Blank			
REPORT NUMBER: 20080283	REPORT CREATED: 02-Sep-20	VERSION: Version 01	

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080283-002	Hydrogen sulphide	K, T, U	< 0.3	ppbv	0.3	NA-024	26-Aug-20
20080283-002	Isobutyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	26-Aug-20
20080283-002	Isopropyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	26-Aug-20
20080283-002	Methyl mercaptan	K, T, U	< 0.2	ppbv	0.2	NA-024	26-Aug-20
20080283-002	Pentyl mercaptan	K, T, U	< 0.4	ppbv	0.4	NA-024	26-Aug-20
20080283-002	Propyl mercaptan	K, T, U	< 0.4	ppbv	0.4	NA-024	26-Aug-20
20080283-002	tert-Butyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	26-Aug-20
20080283-002	Thiophene	K, T, U	< 0.2	ppbv	0.2	NA-024	26-Aug-20
20080283-002	1,1,1-Trichloroethane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	1,1,2,2-Tetrachloroethane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	1,1,2-Trichloroethane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	1,1-Dichloroethane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	1,1-Dichloroethylene	K, T, U	< 0.04	ppbv	0.04	AC-058	27-Aug-20
20080283-002	1,2,3-Trimethylbenzene	K, T, U	< 0.05	ppbv	0.05	AC-058	27-Aug-20
20080283-002	1,2,4-Trichlorobenzene	K, T, U	< 0.8	ppbv	0.8	AC-058	27-Aug-20
20080283-002	1,2,4-Trimethylbenzene	K, T, U	< 0.05	ppbv	0.05	AC-058	27-Aug-20
20080283-002	1,2-Dibromoethane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	1,2-Dichlorobenzene	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-002	1,2-Dichloroethane	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	1,2-Dichloropropane	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	1,3,5-Trimethylbenzene	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	1,3-Butadiene	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	1,3-Dichlorobenzene	K, T, U	< 0.3	ppbv	0.3	AC-058	27-Aug-20
20080283-002	1,4-Dichlorobenzene	K, T, U	< 0.4	ppbv	0.4	AC-058	27-Aug-20
20080283-002	1,4-Dioxane	K, T, U	< 0.4	ppbv	0.4	AC-058	27-Aug-20

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LAB-PRAMP-202008

CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_Reno-Blank		32245	Ambient Air	21-Aug-20	1:10
DESCRIPTION:	Methane Blank				
REPORT NUMBER:	20080283	REPORT CREATED:	02-Sep-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080283-002	1-Butene/Isobutylene	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	1-Hexene/2-Methyl-1-pentene	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	1-Pentene	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	2,2,4-Trimethylpentane	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	2,2-Dimethylbutane	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	2,3,4-Trimethylpentane	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	2,3-Dimethylbutane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	2,3-Dimethylpentane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	2,4-Dimethylpentane	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	2-Methylheptane	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	2-Methylhexane	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	2-Methylpentane	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	3-Methylheptane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	3-Methylhexane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	3-Methylpentane		0.05	ppbv	0.01	AC-058	27-Aug-20
20080283-002	Acetone	K, T, U	< 0.4	ppbv	0.4	AC-058	27-Aug-20
20080283-002	Acrolein	K, T, U	< 0.3	ppbv	0.3	AC-058	27-Aug-20
20080283-002	Benzene	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	Benzyl chloride	K, T, U	< 0.4	ppbv	0.4	AC-058	27-Aug-20
20080283-002	Bromodichloromethane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	Bromoform	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	Bromomethane	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	Carbon disulfide	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	Carbon tetrachloride	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	Chlorobenzene	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20

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LAB-PRAMP-202008

CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_Reno-Blank		32245	Ambient Air	21-Aug-20	1:10
DESCRIPTION:	Methane Blank				
REPORT NUMBER:	20080283	REPORT CREATED:	02-Sep-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080283-002	Chloroethane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	Chloroform	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	Chloromethane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	cis-1,2-Dichloroethene	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	cis-1,3-Dichloropropene	K, T, U	< 0.04	ppbv	0.04	AC-058	27-Aug-20
20080283-002	cis-2-Butene	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	cis-2-Pentene	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	Cyclohexane		0.07	ppbv	0.02	AC-058	27-Aug-20
20080283-002	Cyclopentane		0.06	ppbv	0.01	AC-058	27-Aug-20
20080283-002	Dibromochloromethane	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	Ethanol	K, T, U	< 0.3	ppbv	0.3	AC-058	27-Aug-20
20080283-002	Ethyl acetate	K, T, U	< 0.4	ppbv	0.4	AC-058	27-Aug-20
20080283-002	Ethylbenzene		0.17	ppbv	0.01	AC-058	27-Aug-20
20080283-002	Freon-11	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	Freon-113	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	Freon-114	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	Freon-12	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	Hexachloro-1,3-butadiene	K, T, U	< 0.50	ppbv	0.50	AC-058	27-Aug-20
20080283-002	Isobutane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	Isopentane	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-002	Isoprene	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	Isopropyl alcohol	K, T, U	< 0.4	ppbv	0.4	AC-058	27-Aug-20
20080283-002	Isopropylbenzene	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	m,p-Xylene		0.23	ppbv	0.03	AC-058	27-Aug-20
20080283-002	m-Diethylbenzene	K, T, U	< 0.04	ppbv	0.04	AC-058	27-Aug-20

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CLIENT SAMPLE ID		CANISTER ID		Matrix		DATE SAMPLED	
PRAMP_Reno-Blank		32245		Ambient Air		21-Aug-20	1:10
DESCRIPTION: Methane Blank							
REPORT NUMBER: 20080283		REPORT CREATED: 02-Sep-20		VERSION: Version 01			

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080283-002	m-Ethyltoluene	K, T, U	< 0.08	ppbv	0.08	AC-058	27-Aug-20
20080283-002	Methyl butyl ketone	K, T, U	< 0.50	ppbv	0.50	AC-058	27-Aug-20
20080283-002	Methyl ethyl ketone	K, T, U	< 0.3	ppbv	0.3	AC-058	27-Aug-20
20080283-002	Methyl isobutyl ketone	K, T, U	< 0.4	ppbv	0.4	AC-058	27-Aug-20
20080283-002	Methyl methacrylate	K, T, U	< 0.07	ppbv	0.07	AC-058	27-Aug-20
20080283-002	Methyl tert butyl ether	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-002	Methylcyclohexane	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	Methylcyclopentane		0.05	ppbv	0.02	AC-058	27-Aug-20
20080283-002	Methylene chloride	K, T, U	< 0.3	ppbv	0.3	AC-058	27-Aug-20
20080283-002	n-Butane	K, T, U	< 0.03	ppbv	0.03	AC-058	27-Aug-20
20080283-002	n-Decane	K, T, U	< 0.06	ppbv	0.06	AC-058	27-Aug-20
20080283-002	n-Dodecane	K, T, U	< 0.4	ppbv	0.4	AC-058	27-Aug-20
20080283-002	n-Heptane	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	n-Hexane	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	n-Octane	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	n-Pentane	K, T, U	< 0.1	ppbv	0.1	AC-058	27-Aug-20
20080283-002	n-Propylbenzene	K, T, U	< 0.05	ppbv	0.05	AC-058	27-Aug-20
20080283-002	n-Undecane	K, T, U	< 0.5	ppbv	0.5	AC-058	27-Aug-20
20080283-002	Naphthalene	K, T, U	< 0.5	ppbv	0.5	AC-058	27-Aug-20
20080283-002	n-Nonane	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	o-Ethyltoluene	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	o-Xylene	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	p-Diethylbenzene	K, T, U	< 0.04	ppbv	0.04	AC-058	27-Aug-20
20080283-002	p-Ethyltoluene	K, T, U	< 0.07	ppbv	0.07	AC-058	27-Aug-20
20080283-002	Styrene	K, T, U	< 0.04	ppbv	0.04	AC-058	27-Aug-20

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LAB-PRAMP-202008

CLIENT SAMPLE ID		CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_Reno-Blank		32245	Ambient Air	21-Aug-20	1:10
DESCRIPTION:	Methane Blank				
REPORT NUMBER:	20080283	REPORT CREATED:	02-Sep-20	VERSION:	Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
20080283-002	Tetrachloroethylene	K, T, U	< 0.04	ppbv	0.04	AC-058	27-Aug-20
20080283-002	Tetrahydrofuran	K, T, U	< 0.4	ppbv	0.4	AC-058	27-Aug-20
20080283-002	Toluene		0.51	ppbv	0.01	AC-058	27-Aug-20
20080283-002	trans-1,2-Dichloroethylene	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	trans-1,3-Dichloropropylene	K, T, U	< 0.04	ppbv	0.04	AC-058	27-Aug-20
20080283-002	trans-2-Butene	K, T, U	< 0.01	ppbv	0.01	AC-058	27-Aug-20
20080283-002	trans-2-Pentene	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20
20080283-002	Trichloroethylene	K, T, U	< 0.04	ppbv	0.04	AC-058	27-Aug-20
20080283-002	Vinyl acetate	K, T, U	< 0.4	ppbv	0.4	AC-058	27-Aug-20
20080283-002	Vinyl chloride	K, T, U	< 0.02	ppbv	0.02	AC-058	27-Aug-20

Report certified by: Rebecca Holgate, Account Coordinator

On behalf of: PJ Pretorius, Manager, Analysis and Testing Services

Date: September 2, 2020

LAB-PRAMP-202008

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TEST REPORT

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Revision History

Order ID	Ver	Date	Reason
20080283	01	02-Sep-20	Report created

Methods

Method	Description
AC-058	Determination of Volatile Organic Compounds in Ambient Air by Gas Chromatography Mass Spectrometry
NA-024	Analysis for Reduced Sulfur Compounds in Air Samples
NA-025	Determination of Light Hydrocarbons (C1C4) in Ambient Air by Gas Chromatography Flame Ionization Detector

Qualifiers

Data Qualifier	Translation
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B	Blank contamination; Analyte detected above the method reporting limit in an associated blank
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J1	Reported value is estimated; Surrogate recoveries limits were exceeded
J2	Reported value is estimated; No known QC criteria for this component
J3	Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
J4	Reported value is estimated; The sample matrix interfered with the analysis
K	Off-scale low. Actual value is known to be less than the value given
L	Off-scale high. Actual value is known to be greater than value given
N	Non-target analyte; Tentatively identified compound (using mass spectroscopy)
Q	Sample held beyond the accepted holding time
R	Rejected data; Not suitable for the projects intended use
T	Value reported is less than the laboratory method detection limit
U	Compound was analyzed for but not detected
V	Analyte was detected in both the sample and the associated method blank



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Order Comments

20080283

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Sample Comments

Result Comments

Note:

- 1. Results relate only to items tested and apply to the sample as received.*
- 2. This report shall not be reproduced, except in full, without the explicit approval of the laboratory.*

End of Report