



## Peace River Area Monitoring Program

# JANUARY 2024

## Monthly Ambient Air Quality Monitoring Report

### PRAMP-202401

#### **Operation and Maintenance:**

Bureau Veritas Canada

#### **Data Validation and Report:**

Peace River Area Monitoring Program

February 23, 2024

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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 <sub>4</sub>	Methane
EPEA	Environmental Protection and Enhancement Act
H <sub>2</sub> 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 <sub>2</sub>	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



Peace River Area Monitoring Program  
Suite 91, 305 – 4625 Varsity Drive NW  
Calgary, AB, T3A 0Z9  
Phone #: 780-226-7068 / 587-225-2248  
E-mail: [pramptech@prampairshed.ca](mailto:pramptech@prampairshed.ca)  
[www.prampairshed.ca](http://www.prampairshed.ca)

Alberta Environment and Protected Areas (EPA)  
11th Floor, Oxbridge Place  
9820 106 Street  
Edmonton, AB, T5K 2J6

February 23, 2024

**RE: PRAMP – January 2024 Monthly Ambient Air Quality Monitoring Report**

Enclosed is the January 2024 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  
Michael Bisaga / Lily Lin, Technical Program Managers  
Suite 91, 305 – 4625 Varsity Drive NW  
Calgary, AB, T3A 0Z9  
Phone #: 780-226-7068 / 587-225-2248  
E-mail: [pramptech@prampairshed.ca](mailto:pramptech@prampairshed.ca)

This report has been prepared, review and submitted by Michael Bisaga & Lily Lin of the PRAMP Airshed. This report is also submitted on behalf of the industrial member companies to satisfy the requirements of the facility operating approvals.

PRAMP Airshed has retained the services of Bureau Veritas Canada to conduct continuous ambient monitoring on its behalf.

## NETWORK STATION SUMMARY

### Listing of Continuous Monitoring Stations

The PRAMP continuous ambient air quality monitoring network stations are:

- 986-C Station
- 842-B Station
- Reno-B Station
- AQHI Grimshaw
- Peace River Complex (PRC) Station

Station ID	Station Name	Latitude	Longitude
1562	986-C	56.36980	-116.92500
1561	842-B	56.27406	-116.98129
1563	Reno-B	55.890868	-117.137080
1689	AQHI-Grimshaw	56.18657	-117.604994
1698	PRC	56.38257	-116.769283

### Listing of Intermittent Monitoring Stations

- VOC Canister Sampling Station
  - 986-C Station
  - 842-B Station
  - Reno-B Station

### Listing of PRAMP member with EPEA Facility Operating Approval

Company	Facility	Approval No.
Canadian Natural Upgrading Limited	Peace River Complex	1642-03-00

### Calibration and Data Submission

Hourly data and calibration reports for January 2024 were submitted to Alberta's Ambient Air Data Warehouse through ETS for the 986-C station, 842-B station, Reno-B station, PRC station and AQHI-Grimshaw station.

## Monitoring Notes during the Month of January 2024

### All stations

- **TRS/H2S:** Low ambient temperatures, particularly in the middle of the month, had a marked effect on TRS/H2S span results. This is a perennial problem when the moisture levels in sample air drop very low, causing TRS/H2S analyzer to respond more slowly due to the SO2 scrubber requiring a certain humidity to function optimally. Although daily span check results were often below the requirements, and the daily zero check results were occasionally close to or outside the allowable drift range (while low temperatures were occurring), experience indicates the analyzer's performance remains in compliance with AMD performance criteria, and collected data remain valid.
- **AT:** Ambient temperatures were below the sensor recordable range (minimum= -40 °C) on January 14. As a result, real ambient temperatures may be lower than the readings in this report.
- **Precipitation** (only apply for 986-C, 842-B and Reno-B Station): Due to extreme cold weather conditions, precipitation gauge did not work; the built-in heating system does not work efficiently in very low ambient temperatures. Because of this issue, the precipitation gauge malfunctioned for the most time of the month. Precipitation data are excluded from this report. Precipitation is not required by OSM monitoring project. It is monitored to provide nearby residences/communities useful information for farming purposes.

### 986-C 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 (83.6%) – **DINC0005037**.
- **THC/CH4/NMHC:**
  - The analyzer failed the monthly calibration on January 10 due to bad injections. The injection issue was caused by unstable station temperatures. Minute data were reviewed and discarded if data quality was affected by injection issues. Hourly data were recalculated based on the revised minute data result and were invalidated if hourly data completeness requirement was not met. Sixty-six hours of downtime were recorded due to this event.
  - The analyzer failed on January 13 due to an issue with the H2 generator. The H2 generator was restarted following a zero-span check on January 15. Fifty-three hours of downtime were recorded due to this event.

### 842-B 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 (74.6) – **DINC0005038**.
- **TRS:** The analyzer failed the shut-down calibration on January 17. The SO2 scrubber beads were replaced, and a successful post-repair calibration was completed on January 17. Data were

discarded back to the last valid calibration check, which was January 10. One hundred seventy-five hours of downtime were recorded due to this event.

#### Reno-B 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 (27.6%) – **DINC0005039**.
- **THC/CH4/NMHC:** A successfully monthly calibration was completed on January 9. However, the analyzer failed the February’s monthly calibration. In the absence of a clear point of failure, data were discarded back to the January’s calibration. Five hundred thirty-nine hours of downtime were recorded due to this event.

#### PRC 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.
- No major operational issues were recorded this month.

#### AQHI – Grimshaw Station

- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement.
- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) and /or Alberta Ambient Air Quality Guidelines (AAAGs) where applicable, except PM2.5. Stagnant wintertime air conditions likely led to a buildup of particulate matter from home heating and vehicle exhaust in the Town of Grimshaw.

Date	Time (MST)	Parameter	Average Period	Concentration (µg/m3)	Wind speed (km/hr)	Wind Direction	Reference #
24-Jan	-	PM2.5	24-Hour	38	2.8	316°(NW)	424674
25-Jan	-	PM2.5	24-Hour	32	3.7	332°(NNW)	424675

- No major operational issues were recorded this month.

#### VOCs Canister Sampling Program

- The canister sampling program collects a 1-hour sample of air when the continuously measured non-methane hydrocarbon (NMHC) concentration reaches a specified trigger point. The current trigger point is 0.3 ppm for non-methane hydrocarbons. The trigger point is based on real-time monitoring data that are averaged over a 5-minute period.
- The canister sample collection systems are in place at Station 986-C, 842-B, and the Reno-B Station; a canister sample collection system is not part of the suite of instruments currently deployed at both the PRC station and the AQHI-Grimshaw station.
- Sample analysis and analytical results were prepared and provided by InnoTech Alberta.



## 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

No deviations from authorized monitoring methods were recorded this month.

## Disclaimer

Baseline corrections 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

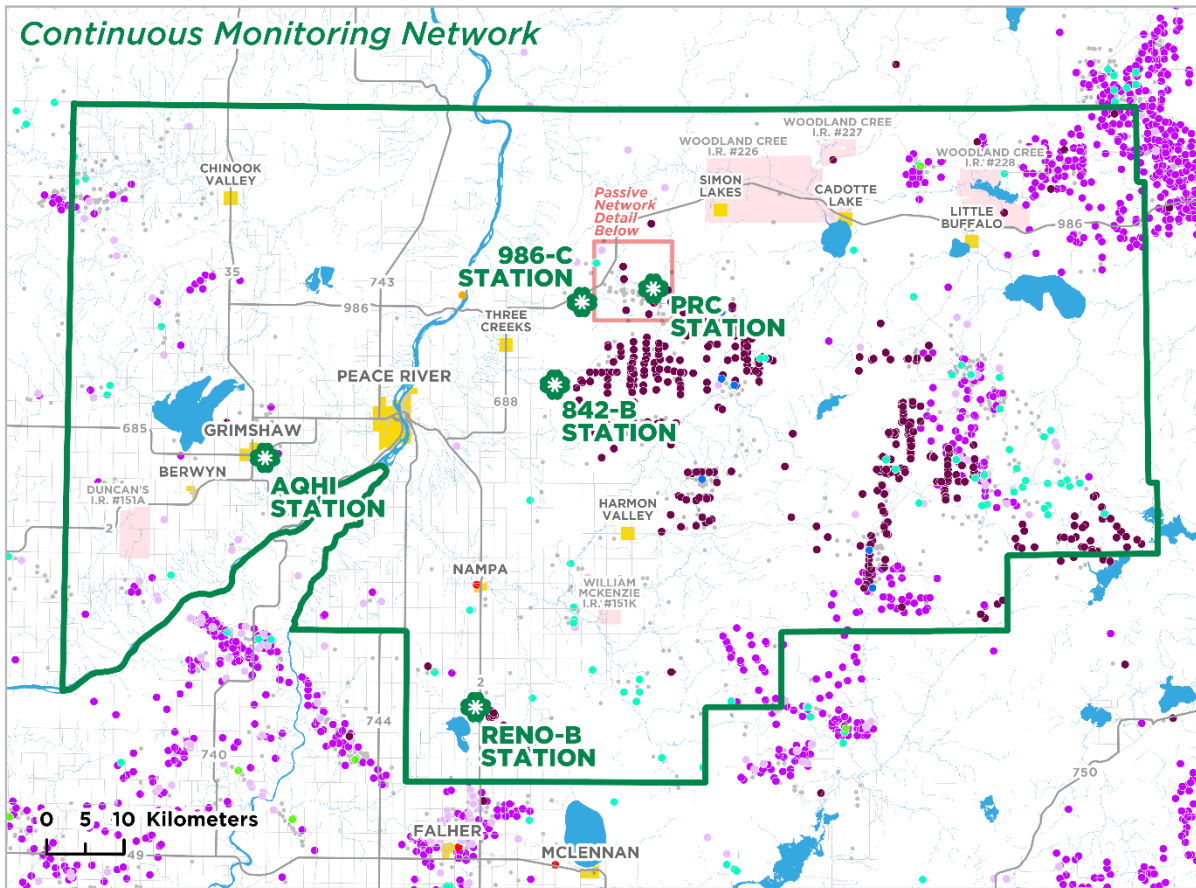
This report was reviewed by Michael Bisaga in accordance with Chapter 9 of the Air Monitoring Directive (AMD 2016).

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

# Map of PRAMP Continuous Monitoring Network

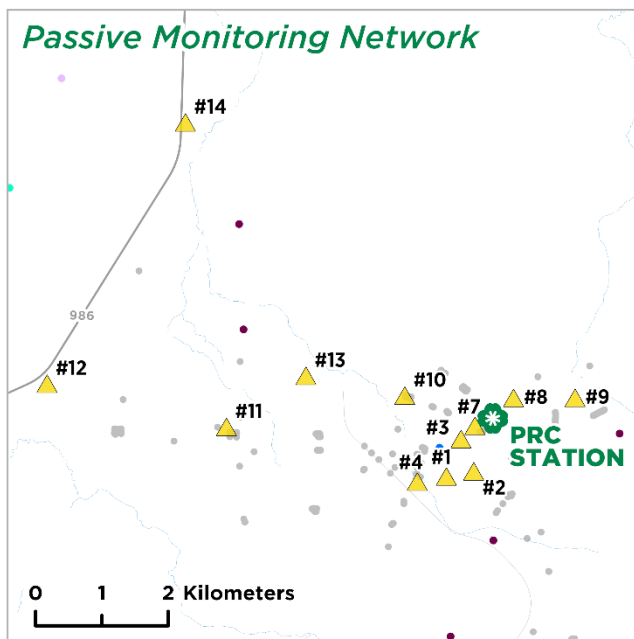


## Legend

- PRAMP Boundary
- Populated Place
- First Nation
- ✳ Continuous Monitoring Station
- ▲ Passive Monitoring Station

## Industrial Facilities

- In-Situ Oil Sands
- Heavy Oil/Bitumen Well or Battery
- Conventional Oil Well or Battery
- Natural Gas Well or Battery
- Gas Plant or Gas Processing
- Compressor Station or Pipeline
- Agricultural Storage and Transfer
- Pulp and Paper
- Well (Not Associated with Batteries)



Service Layer Credit: Esri, CGIAR, USGS, Esri, USGS

# CONTINUOUS NETWORK EQUIPMENT AND MONITORING RESULTS SUMMARY

## Equipment Operation Summary

Parameter	Equipment Operational Summary
<b>SO2</b>  Thermo 43iQTL #1193585646	<ul style="list-style-type: none"> <li>• A successful monthly calibration was performed on January 10.</li> <li>• Three hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<b>TRS</b>  Thermo 43iQTL #1191833341  TRS convertor CD Nova CDN-101 #530 (BV-supplied)	<ul style="list-style-type: none"> <li>• A successful monthly calibration was performed on January 10.</li> <li>• Low ambient temperatures, particularly in the middle of the month, had a marked effect on TRS span results. This is a perennial problem when the moisture levels in sample air drop very low, causing TRS analyzer to respond more slowly due to the SO2 scrubber requiring a certain humidity to function optimally. Although daily span check results were often below the requirements, and the daily zero check results were occasionally close to or outside the allowable drift range (while low temperatures were occurring), experience indicates the analyzer's performance remains in compliance with AMD performance criteria, and collected data remain valid.</li> <li>• Three hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<b>THC/CH4/NMHC</b>  Thermo 55i #12208316589  H2 Generator HG300 #191267063	<ul style="list-style-type: none"> <li>• The analyzer failed the monthly calibration on January 10 due to bad injections. The injection issue was caused by unstable station temperatures. Minute data were reviewed and discarded if data quality was affected by injection issues. Hourly data were recalculated based on the revised minute data result and were invalidated if hourly data completeness requirement was not met. Sixty-six hours of downtime were recorded due to this event.</li> <li>• The analyzer failed on January 13 due to an issue with the H2 generator. The H2 generator was restarted following a zero-span check on January 15. Fifty-three hours of downtime were recorded due to this event.</li> <li>• Three hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<b>RH</b>  Rotronic HC2-S3 #20626912	<ul style="list-style-type: none"> <li>• The RH probe was checked on January 11. The probe passed the check requirements.</li> <li>• Three hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>

Parameter	Equipment Operational Summary
<b>BP</b>  MetOne 092 #Y23358	<ul style="list-style-type: none"> <li>The BP sensor was checked on January 11. The sensor passed the check requirements.</li> <li>Three hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<b>AT</b>  Rotronic HC2-S3 #20626912	<ul style="list-style-type: none"> <li>The AT probe was checked on January 11. The probe passed the check requirements.</li> <li>Ambient temperatures were below the sensor recordable range (minimum= -40 °C) on January 14. As a result, real ambient temperatures may be lower than the readings in this report.</li> <li>Three hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<b>ST</b>  COMET #18961918	<ul style="list-style-type: none"> <li>Three hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<b>Precipitation</b>  RM Young 52202 #TB 16325	<ul style="list-style-type: none"> <li>Due to extreme cold weather conditions, precipitation gauge did not work; the built-in heating system does not work efficiently in very low ambient temperatures. Because of this issue, the precipitation gauge malfunctioned for the most time of the month. Precipitation data are excluded from this report.</li> </ul>
<b>WS/ WD</b>  RM Young 05305AQ #180340	<ul style="list-style-type: none"> <li>Wind direction data contained in this report represents where the wind is coming from.</li> <li>The annual wind system calibration was completed on August 3, 2023.</li> <li>The anemometer sensors were check on January 11. The wind system passed the check requirements.</li> <li>Three hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>

**Monitored Data Summary for 986-C Station**

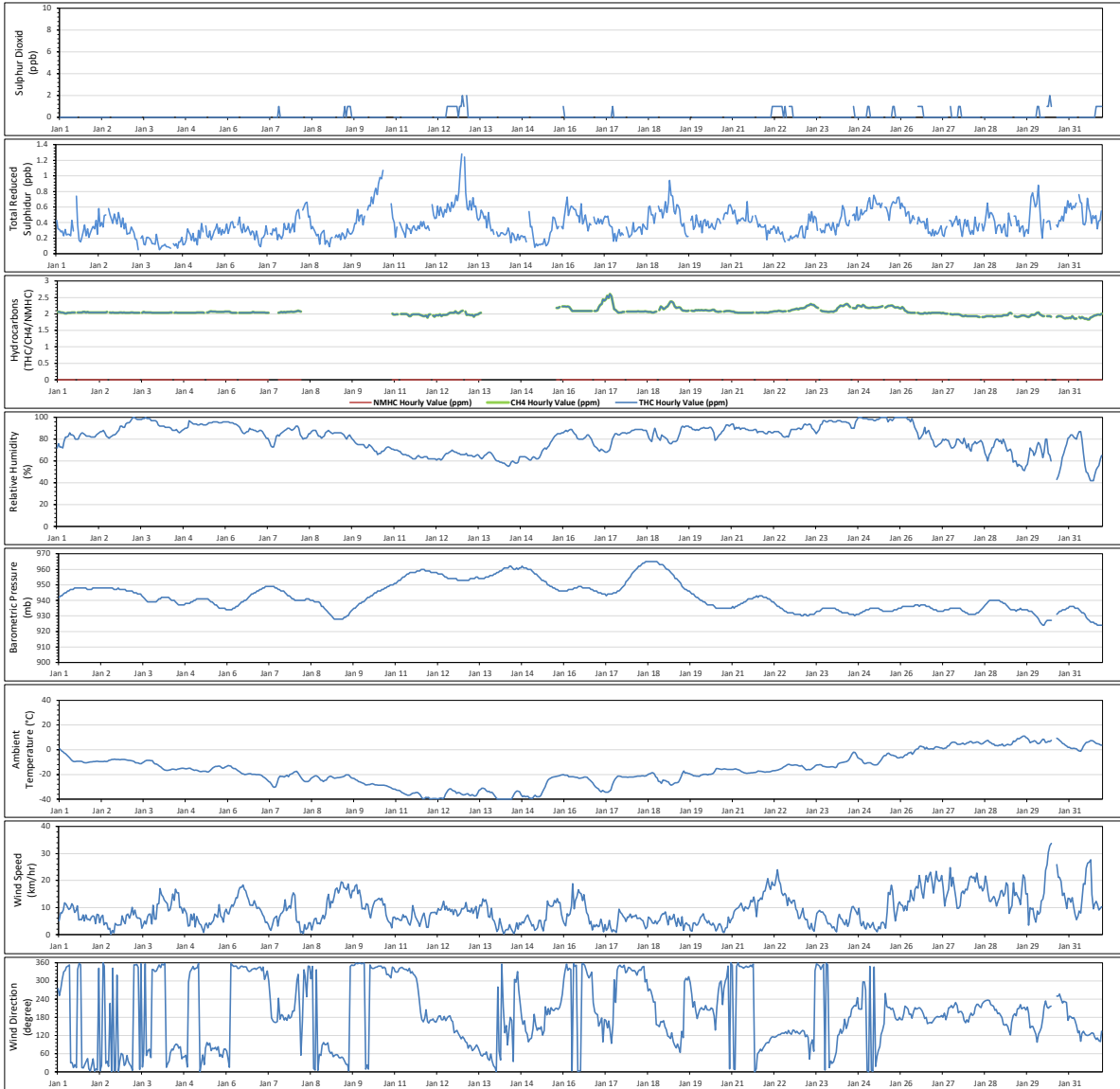
Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.1	0	2	Jan 12 at hr 23	9.6	ESE	0.5	Jan 12	99.6	94.6
TRS (ppb)	-	-	-	-	-	-	0.39	0.05	1.28	Jan 13 at hr 0	9.5	ESE	0.69	Jan 10	99.6	94.6
THC (ppm)	-	-	-	-	-	-	2.06	1.83	2.61	Jan 17 at hr 9	2.7	SE	2.24	Jan 17	83.6	79.5
CH4 (ppm)	-	-	-	-	-	-	2.06	1.83	2.61	Jan 17 at hr 9	2.7	SE	2.24	Jan 17	83.6	79.5
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.00	Jan 1 at hr 0	5.1	W	0.00	Jan 1	83.6	79.5
RH (%)	-	-	-	-	-	-	81.0	42	100	Jan 3 at hr 6	9.1	N	98.7	Jan 25	99.6	99.6
BP (millibar)	-	-	-	-	-	-	942	924	965	Jan 18 at hr 10	2.1	WNW	963	Jan 18	99.6	99.6
Ext. Temp. (°C)	-	-	-	-	-	-	-16.2	-39.9	10.9	Jan 29 at hr 15	22.1	SSW	6.9	Jan 29	99.6	99.6
Stn. Temp. (°C)	-	-	-	-	-	-	22.7	10.8	30.3	Jan 15 at hr 17	12.7	SSW	27.5	Jan 26	99.6	99.6
WSV (km/hr)	-	-	-	-	-	-	1.1	0.1	33.8	Jan 30 at hr 11	33.8	SW	17.6	Jan 30	99.6	99.6
WDV (sector)	-	-	-	-	-	-	144 (SE)	-	-	-	-	-	-	-	99.6	99.6

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

**Alberta Ambient Air Quality Objectives (AAAQOs) Exceedances**

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

Timeseries Chart of Hourly Average for the month of Jan 2024 - 986-C Station





## 842-B Station

### Equipment Operation Summary

Parameter	Equipment Operational Summary
<b>SO2</b>  Thermo 43iQTL #1200736629	<ul style="list-style-type: none"> <li>• A successful monthly calibration was performed on January 17.</li> <li>• Fourteen hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<b>TRS</b>  Thermo 43iQTL #1200736630  TRS Convertor CD Nova CDN-101 #583	<ul style="list-style-type: none"> <li>• The analyzer failed the shut-down calibration on January 17. The SO2 scrubber beads were replaced, and a successful post-repair calibration was completed on January 17. Data were discarded back to the last valid calibration check, which was January 10. One hundred seventy-five hours of downtime were recorded due to this event.</li> <li>• Fourteen hours of downtime were recorded on January 30 due to a power failure event.</li> <li>• Low ambient temperatures, particularly in the middle of the month, had a marked effect on TRS span results. This is a perennial problem when the moisture levels in sample air drop very low, causing TRS analyzer to respond more slowly due to the SO2 scrubber requiring a certain humidity to function optimally. Although daily span check results were often below the requirements, and the daily zero check results were occasionally close to or outside the allowable drift range (while low temperatures were occurring), experience indicates the analyzer's performance remains in compliance with AMD performance criteria, and collected data remain valid.</li> </ul>
<b>THC/CH4/NMHC</b>  Thermo 55i #1501663728  H2 Generator HG300 #190567058	<ul style="list-style-type: none"> <li>• A successful monthly calibration was performed on January 17.</li> <li>• Fourteen hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<b>RH</b>  Rotronic HC2-S3 #20370767	<ul style="list-style-type: none"> <li>• The RH probe was checked on January 17. The probe passed the check requirements.</li> <li>• Fourteen hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>

Parameter	Equipment Operational Summary
<b>AT</b>  Rotronic HC2-S3 #20370767	<ul style="list-style-type: none"> <li>• The AT probe was checked on January 17. The probe passed the check requirements.</li> <li>• Fourteen hours of downtime were recorded on January 30 due to a power failure event.</li> <li>• Ambient temperatures were below the sensor recordable range (minimum= -40 °C) on January 14. As a result, real ambient temperatures may be lower than the readings in this report.</li> </ul>
<b>BP</b>  MetOne 092 #Y23362	<ul style="list-style-type: none"> <li>• The BP sensor was checked on January 17. The sensor passed the check requirements.</li> <li>• Fourteen hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<b>ST</b>  COMET #20790297	<ul style="list-style-type: none"> <li>• Fourteen hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<b>Precipitation</b>  RM Young 52202 #TB 15878	<ul style="list-style-type: none"> <li>• Due to extreme cold weather conditions, precipitation gauge did not work; the built-in heating system does not work efficiently in very low ambient temperatures. Because of this issue, the precipitation gauge malfunctioned for the most time of the month. Precipitation data are excluded from this report.</li> </ul>
<b>WS/ WD</b>  RM Young 05305AQ #174802	<ul style="list-style-type: none"> <li>• Wind direction data contained in this report represents where the wind is coming from.</li> <li>• The annual wind system calibration was completed on August 3, 2023.</li> <li>• The anemometer sensors were check on January 17. Both the wind speed sensor and wind direction sensor passed the check requirements.</li> <li>• Fourteen hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>

### Monitored Data Summary for 842-B Station

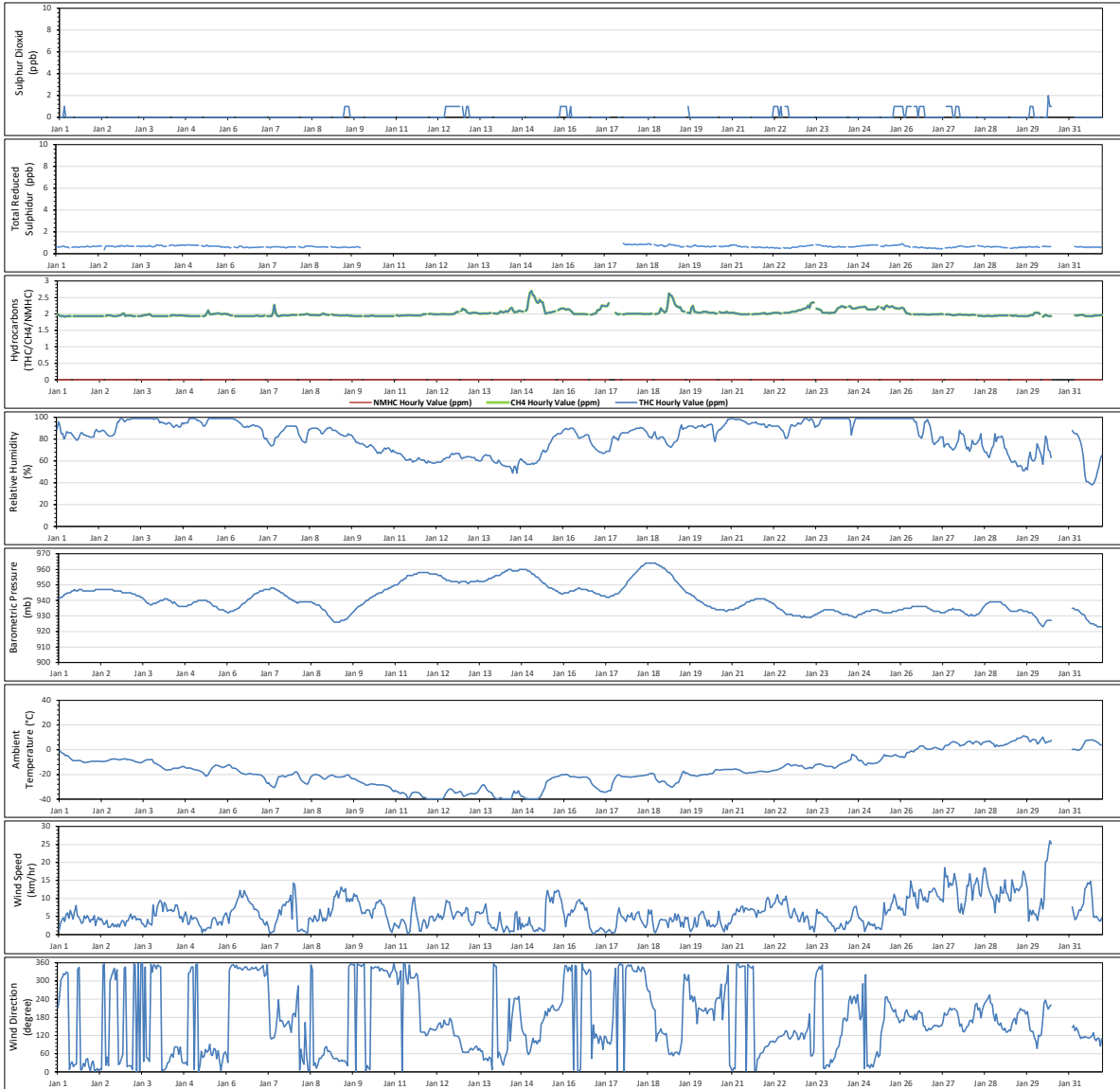
Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.1	0	2	Jan 30 at hr 9	23.4	SSW	0.6	Jan 26	98.1	93.1
TRS (ppb)	-	-	-	-	-	-	NA	0.35	0.94	Jan 17 at hr 19	4	N	0.83	Jan 18	74.6	70.0
THC (ppm)	-	-	-	-	-	-	2.02	1.92	2.70	Jan 15 at hr 1	2.3	E	2.25	Jan 15	98.1	93.3
CH4 (ppm)	-	-	-	-	-	-	2.02	1.92	2.70	Jan 15 at hr 1	2.3	E	2.25	Jan 15	98.1	93.3
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.00	Jan 1 at hr 0	1.2	SSW	0.00	Jan 1	98.1	93.3
RH (%)	-	-	-	-	-	-	82.2	38	99	Jan 2 at hr 21	3.9	NE	99.0	Jan 25	98.1	98.1
BP (millibar)	-	-	-	-	-	-	941	923	964	Jan 18 at hr 10	1.9	NW	962	Jan 18	98.1	98.1
Ext. Temp. (°C)	-	-	-	-	-	-	-16.4	-39.7	11.2	Jan 29 at hr 15	17.6	SSW	7.5	Jan 29	98.1	98.1
Stn. Temp. (°C)	-	-	-	-	-	-	22.6	19.8	24.0	Jan 17 at hr 1	1.5	E	23.2	Jan 11	98.1	98.1
WSV (km/hr)	-	-	-	-	-	-	0.7	0.1	26.1	Jan 30 at hr 10	26.1	SW	12.8	Jan 28	98.1	98.1
WDV (sector)	-	-	-	-	-	-	115 (ESE)	-	-	-	-	-	-	-	98.1	98.1

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

### Alberta Ambient Air Quality Objectives (AAAQOs) Exceedances

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

Timeseries Chart of Hourly Average for the month of Jan 2024 - 842-B Station



## Reno-B Station

### Equipment Operation Summary

Parameter	Equipment Operational Summary
<b>SO2</b>  Thermo 43iQTL #12101910505	<ul style="list-style-type: none"> <li>• A successful monthly calibration was performed on January 9.</li> <li>• Fourteen hours of downtime were recorded on January 30; twelve hours were due to a power failure event and two hours were due to additional quality check completed on analyzer after power was restored.</li> </ul>
<b>TRS</b>  Thermo 43iQTL #12101910504  <b>TRS Convertor</b> CD Nova CDN-101 #590	<ul style="list-style-type: none"> <li>• A successful monthly calibration was performed on January 9.</li> <li>• Fourteen hours of downtime were recorded on January 30; twelve hours were due to a power failure event and two hours were due to additional quality check completed on analyzer after power was restored.</li> <li>• Low ambient temperatures, particularly in the middle of the month, had a marked effect on TRS span results. This is a perennial problem when the moisture levels in sample air drop very low, causing TRS analyzer to respond more slowly due to the SO2 scrubber requiring a certain humidity to function optimally. Although daily span check results were often below the requirements, and the daily zero check results were occasionally close to or outside the allowable drift range (while low temperatures were occurring), experience indicates the analyzer's performance remains in compliance with AMD performance criteria, and collected data remain valid.</li> </ul>
<b>THC/CH4/NMHC</b>  Thermo 55i #12101910497  H2 Generator HG300 #210467069	<ul style="list-style-type: none"> <li>• A successful monthly calibration was performed on January 9.</li> <li>• The H2 generator was serviced (desiccant was replaced) on January 9.</li> <li>• The analyzer failed the February's monthly calibration. In the absence of a clear point of failure, data were discarded back to the January's calibration. Five hundred thirty-nine hours of downtime were recorded due to this event.</li> </ul>
<b>RH</b>  Rotronic HC2-S3 #20467597	<ul style="list-style-type: none"> <li>• The RH probe was checked on January 9. The probe passed the check requirements.</li> <li>• Due to datalogger polling errors, three hours of downtime were recorded as the hourly data completeness requirement did not meet.</li> <li>• Twelve hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<b>BP</b>  MetOne 092 #A17940	<ul style="list-style-type: none"> <li>• The BP sensor was checked on January 9. The sensor passed the check requirements.</li> <li>• Due to datalogger polling errors, three hours of downtime were recorded as the hourly data completeness requirement did not meet.</li> <li>• Twelve hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>

Parameter	Equipment Operational Summary
<b>AT</b>  Rotronic HC2-S3 #20467597	<ul style="list-style-type: none"> <li>• The AT probe was checked on January 9. The probe passed the check requirements.</li> <li>• Due to datalogger polling errors, three hours of downtime were recorded as the hourly data completeness requirement did not meet.</li> <li>• Twelve hours of downtime were recorded on January 30 due to a power failure event.</li> <li>• Ambient temperatures were below the sensor recordable range (minimum= -40 °C) on January 14. As a result, real ambient temperatures may be lower than the readings in this report.</li> </ul>
<b>ST</b>  COMET #NA	<ul style="list-style-type: none"> <li>• Twelve hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<b>Precipitation</b>  RM Young 52202 #TB 15877	<ul style="list-style-type: none"> <li>• Due to extreme cold weather conditions, precipitation gauge did not work; the built-in heating system does not work efficiently in very low ambient temperatures. Because of this issue, the precipitation gauge malfunctioned for the most time of the month. Precipitation data are excluded from this report.</li> </ul>
<b>WS/ WD</b>  RM Young 05305AQ #174795	<ul style="list-style-type: none"> <li>• Wind direction data contained in this report represents where the wind is coming from.</li> <li>• The annual wind system calibration was completed on August 1, 2023.</li> <li>• The anemometer sensors were check on January 9. The wind sensors passed the check requirements.</li> <li>• Due to datalogger polling errors, three hours of downtime were recorded as the hourly data completeness requirement did not meet.</li> <li>• Twelve hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>

**Monitored Data Summary for Reno-B Station**

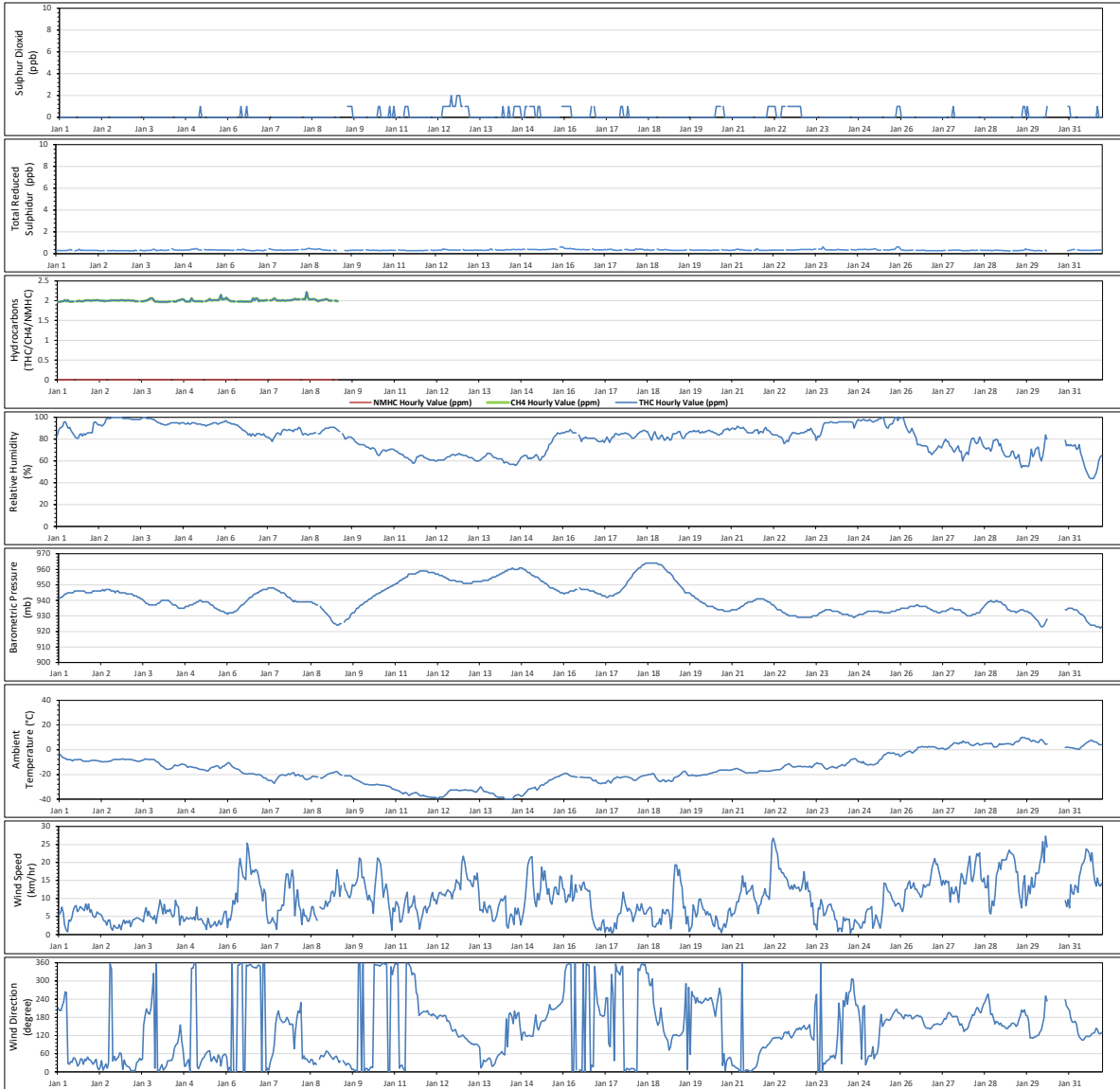
Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.1	0	2	Jan 12 at hr 15	11.8	SSE	0.8	Jan 12	98.1	93.1
TRS (ppb)	-	-	-	-	-	-	0.33	0.24	0.64	Jan 25 at hr 22	8.7	SSW	0.41	Jan 16	98.1	93.1
THC (ppm)	-	-	-	-	-	-	NA	1.97	2.22	Jan 8 at hr 9	3.8	NE	2.04	Jan 8	27.6	25.7
CH4 (ppm)	-	-	-	-	-	-	NA	1.97	2.22	Jan 8 at hr 9	3.8	NE	2.04	Jan 8	27.6	25.7
NMHC (ppm)	-	-	-	-	-	-	NA	0.00	0.00	Jan 1 at hr 0	5.5	SSW	0.00	Jan 1	27.6	25.7
RH (%)	-	-	-	-	-	-	81.0	44	100	Jan 2 at hr 15	2.6	NE	98.5	Jan 3	98.0	98.0
BP (millibar)	-	-	-	-	-	-	941	922	964	Jan 18 at hr 10	5.7	N	962	Jan 18	98.0	98.0
Ext. Temp. (°C)	-	-	-	-	-	-	-15.9	-39.9	10.1	Jan 29 at hr 14	7.4	SSW	6.7	Jan 29	98.0	98.0
Stn. Temp. (°C)	-	-	-	-	-	-	23.3	20.7	24.4	Jan 12 at hr 0	7.9	S	24.0	Jan 12	98.4	98.4
WSV (km/hr)	-	-	-	-	-	-	2.8	0.2	27.3	Jan 30 at hr 7	27.3	WSW	16.5	Jan 29	98.0	98.0
WDV (sector)	-	-	-	-	-	-	113 (ESE)	-	-	-	-	-	-	-	98.0	98.0

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

**Alberta Ambient Air Quality Objectives (AAAQOs) Exceedances**

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

Timeseries Chart of Hourly Average for the month of Jan 2024 - Reno-B Station





PRC Station

Equipment Operation Summary

Parameter	Equipment Operational Summary
<p><b>SO2</b></p> <p>Thermo 43i #1034746225</p>	<ul style="list-style-type: none"> <li>• A successful monthly calibration was performed on January 10.</li> <li>• Three hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<p><b>H2S</b></p> <p>Thermo 450i #1308857354</p>	<ul style="list-style-type: none"> <li>• A successful monthly calibration was performed on January 10.</li> <li>• Three hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<p><b>TRS</b></p> <p>Thermo 450i #1034746224</p> <p>TRS Convertor CD Nova CDN-101 #516</p>	<ul style="list-style-type: none"> <li>• A successful monthly calibration was performed on January 10.</li> <li>• Three hours of downtime were recorded on January 30 due to a power failure event.</li> <li>• Low ambient temperatures, particularly in the middle of the month, had a marked effect on TRS span results. This is a perennial problem when the moisture levels in sample air drop very low, causing TRS analyzer to respond more slowly due to the SO2 scrubber requiring a certain humidity to function optimally. Although daily span check results were often below the requirements, and the daily zero check results were occasionally close to or outside the allowable drift range (while low temperatures were occurring), experience indicates the analyzer’s performance remains in compliance with AMD performance criteria, and collected data remain valid.</li> </ul>
<p><b>THC/CH4/NMHC</b></p> <p>Thermo 55i #1034745845</p> <p>H2 Generator HG300 #211067076</p>	<ul style="list-style-type: none"> <li>• A successful monthly calibration was performed on January 10.</li> <li>• Three hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<p><b>RH</b></p> <p>Rotronic HC2-S3 #20558318</p>	<ul style="list-style-type: none"> <li>• The RH sensor was checked on January 10. The sensor passed the check requirements.</li> <li>• Three hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<p><b>BP</b></p> <p>MetOne 092 #B19577</p>	<ul style="list-style-type: none"> <li>• The BP sensor was checked on January 10. The sensor passed the check requirements.</li> <li>• Three hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>

Parameter	Equipment Operational Summary
<b>AT</b>  Rotronic HC2-S3 #20558318	<ul style="list-style-type: none"> <li>• The AT sensor was checked on January 10. The sensor passed the check requirements.</li> <li>• Three hours of downtime were recorded on January 30 due to a power failure event.</li> <li>• Ambient temperatures were below the sensor recordable range (minimum= -40 °C) on January 14. As a result, real ambient temperatures may be lower than the readings in this report.</li> </ul>
<b>ST</b>  Canadian Natural #NA	<ul style="list-style-type: none"> <li>• Three hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>
<b>WS/ WD</b>  RM Young 05305VK #129612	<ul style="list-style-type: none"> <li>• Wind direction data contained in this report represents where the wind is coming from.</li> <li>• The annual wind system calibration was completed on August 3, 2023.</li> <li>• The anemometer sensors were checked on January 10. The sensors passed the check requirements.</li> <li>• Three hours of downtime were recorded on January 30 due to a power failure event.</li> </ul>

**Monitored Data Summary for Peace River Complex (PRC) Station**

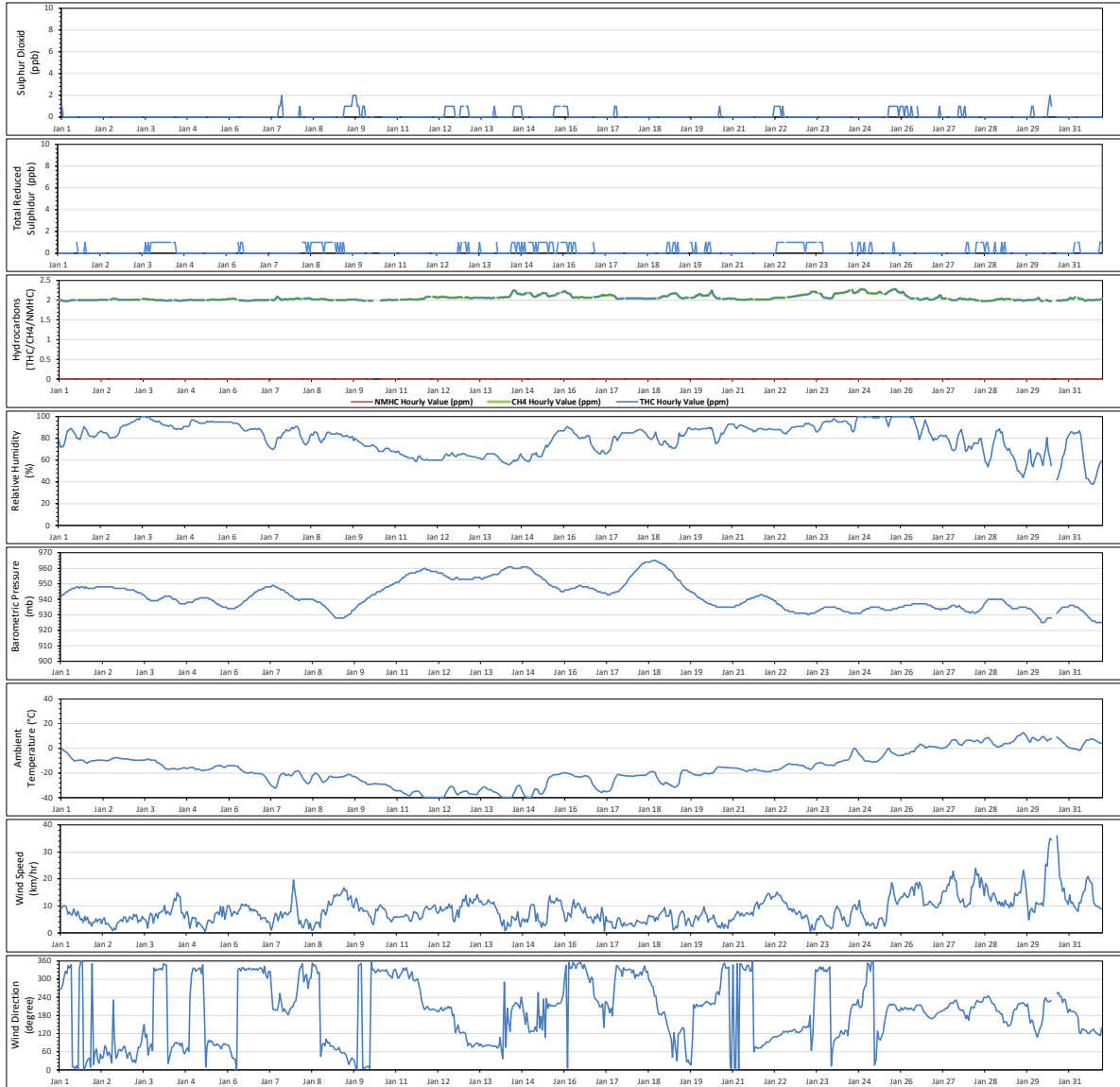
Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.1	0	2	Jan 7 at hr 13	7.8	WSW	0.7	Jan 9	99.6	94.6
H2S (ppb)	10	3	-	0	0	-	0.0	0	0	Jan 1 at hr 0	8.9	W	0.0	Jan 1	99.6	94.6
TRS (ppb)	-	-	-	-	-	-	0.2	0	1	Jan 1 at hr 13	6.4	N	0.7	Jan 15	99.6	94.6
THC (ppm)	-	-	-	-	-	-	2.06	1.98	2.28	Jan 24 at hr 19	7.5	SSW	2.21	Jan 24	99.6	94.6
CH4 (ppm)	-	-	-	-	-	-	2.06	1.98	2.28	Jan 24 at hr 19	7.5	SSW	2.21	Jan 24	99.6	94.6
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.00	Jan 1 at hr 0	8.9	W	0.00	Jan 1	99.6	94.6
RH (%)	-	-	-	-	-	-	80.2	38	100	Jan 3 at hr 11	5.2	ESE	99.0	Jan 25	99.6	99.6
BP (millibar)	-	-	-	-	-	-	942	925	965	Jan 18 at hr 14	6.1	W	962	Jan 18	99.6	99.6
Ext. Temp. (°C)	-	-	-	-	-	-	-16.4	-39.6	12.8	Jan 29 at hr 15	23.2	SW	7.3	Jan 29	99.6	99.6
Stn. Temp. (°C)	-	-	-	-	-	-	21.4	20.1	24.4	Jan 29 at hr 16	20.2	SW	23.5	Jan 30	99.6	99.6
WSV (km/hr)	-	-	-	-	-	-	1.7	0.5	36.0	Jan 30 at hr 15	36	WSW	19.1	Jan 30	99.6	99.6
WDV (sector)	-	-	-	-	-	-	182 (S)	-	-	-	-	-	-	-	99.6	99.6

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

**Alberta Ambient Air Quality Objectives (AAAQOs) Exceedances**

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

Timeseries Chart of Hourly Average for the month of Jan 2024 - Peace River Complex (PRC) Station



Equipment Operation Summary

Parameter	Equipment Operational Summary
<p><b>SO2</b></p> <p>Teledyne T100 #722</p>	<ul style="list-style-type: none"> <li>• A successful monthly calibration was performed on January 16.</li> <li>• No operational issues were identified this month.</li> </ul>
<p><b>TRS</b></p> <p>Teledyne T100U #132</p> <p>TRS Convertor CD Nova CDN-101 #576</p>	<ul style="list-style-type: none"> <li>• A successful monthly calibration was performed on January 16.</li> <li>• Due to analyzer communication issues, data collected between January 18 hour 18 and January 19 hour 7 were lost. Fourteen hours of downtime were recorded due to this event.</li> <li>• Low ambient temperatures, particularly in the middle of the month, had a marked effect on TRS span results. This is a perennial problem when the moisture levels in sample air drop very low, causing TRS analyzer to respond more slowly due to the SO2 scrubber requiring a certain humidity to function optimally. Although daily span check results were often below the requirements, and the daily zero check results were occasionally close to or outside the allowable drift range (while low temperatures were occurring), experience indicates the analyzer’s performance remains in compliance with AMD performance criteria, and collected data remain valid.</li> </ul>
<p><b>NOx/NO/NO2</b></p> <p>API 200E #594</p> <p>Teledyne T200 #837</p>	<ul style="list-style-type: none"> <li>• A successful monthly calibration was performed on January 16.</li> <li>• The analyzer failed the January 24’s daily span check. A repeat zero-span check was completed on January 24 to confirm the drift. The cause was due to the depleted permeation tube. The permeation tube was replaced on February 1. Data quality was not affected by this issue. One hour of downtime was recorded due to the additional quality check.</li> </ul>
<p><b>O3</b></p> <p>Teledyne T400 #824</p>	<ul style="list-style-type: none"> <li>• A successful monthly calibration was performed on January 16.</li> <li>• A repeat zero-span check was completed on January 30 to assess span drift. One hour of downtime was recorded as a result.</li> <li>• Due to datalogger polling errors, one hour of downtime was recorded as the hourly data completeness requirement did not meet.</li> </ul>
<p><b>PM2.5</b></p> <p>Teledyne T640 #318</p>	<ul style="list-style-type: none"> <li>• A successful monthly audit was performed on January 16.</li> <li>• No operational issues were identified this month.</li> </ul>

Parameter	Equipment Operational Summary
<p><b>THC/CH4/NMHC</b></p> <p>Thermo 55i #1191032505</p> <p>H2 Generator AMA HG300 #190567059</p>	<ul style="list-style-type: none"> <li>• A successful monthly calibration was performed on January 16.</li> <li>• The span gas cylinder was changed on January 18. A repeat zero-span check was completed afterwards to obtain a new expected span value. One hour of downtime was recorded as a result.</li> </ul>
<p><b>RH</b></p> <p>Vaisala HMP155 #N2910506</p>	<ul style="list-style-type: none"> <li>• The RH probe was checked on January 16. The Probe passed the check requirements.</li> <li>• Due to datalogger polling errors, four hours of downtime were recorded as the hourly data completeness requirement did not meet.</li> </ul>
<p><b>BP</b></p> <p>MetOne 092 #A2397</p>	<ul style="list-style-type: none"> <li>• The BP sensor was checked on January 16. The sensor passed the check requirements.</li> <li>• Due to datalogger polling errors, four hours of downtime were recorded as the hourly data completeness requirement did not meet.</li> </ul>
<p><b>AT</b></p> <p>Vaisala HMP155 #N2910506</p>	<ul style="list-style-type: none"> <li>• The AT prober was checked on January 16. The probe passed the check requirements.</li> <li>• No operational issues were identified this month.</li> </ul>
<p><b>ST</b></p> <p>COMET #NA</p>	<ul style="list-style-type: none"> <li>• No operational issues were identified this month.</li> </ul>
<p><b>WS/ WD</b></p> <p>RM Young 05305AQ #174801</p>	<ul style="list-style-type: none"> <li>• Wind direction data contained in this report represents where the wind is coming from.</li> <li>• The last annual wind system calibration was completed on August 2, 2023.</li> <li>• The anemometer sensors were check on January 16. Both the wind speed sensor and wind direction sensor passed the check requirements.</li> <li>• Due to datalogger polling errors, four hours of downtime were recorded as the hourly data completeness requirement did not meet.</li> </ul>

**Monitored Data Summary for AQHI - Grimshaw 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	2	Jan 18 at hr 6	4.8	N	0.6	Jan 26	100.0	95.0
TRS (ppb)	-	-	-	-	-	-	0.08	0.00	1.33	Jan 8 at hr 17	4	NE	0.23	Jan 8	98.1	93.1
NOx (ppb)	-	-	-	-	-	-	11.4	1	151	Jan 26 at hr 6	3.6	WSW	33.3	Jan 26	99.9	94.6
NO (ppb)	-	-	-	-	-	-	2.9	0	116	Jan 26 at hr 6	3.6	WSW	12.6	Jan 26	99.9	94.6
NO2 (ppb)	159	-	-	0	-	-	8.5	1	48	Jan 19 at hr 6	2.5	NE	20.7	Jan 26	99.9	94.6
O3 (ppb)	76	-	-	0	-	-	21.8	0.0	44.6	Jan 30 at hr 15	36.2	W	33.8	Jan 30	99.7	94.7
THC (ppm)	-	-	-	-	-	-	2.14	1.97	3.05	Jan 19 at hr 2	4.3	N	2.30	Jan 15	99.9	94.9
CH4 (ppm)	-	-	-	-	-	-	2.13	1.97	2.95	Jan 19 at hr 2	4.3	N	2.27	Jan 25	99.9	94.9
NMHC (ppm)	-	-	-	-	-	-	0.01	0.00	0.18	Jan 13 at hr 0	2	N	0.06	Jan 29	99.9	94.9
PM2.5 (µg/m3)	80	29	-	0	2	-	8.3	0	55	Jan 24 at hr 18	3.6	NNE	37.5	Jan 24	99.9	99.7
RH (%)	-	-	-	-	-	-	78.0	45	99	Jan 26 at hr 12	6	SSW	92.7	Jan 26	99.5	99.5
BP (millibar)	-	-	-	-	-	-	943	925	967	Jan 18 at hr 11	2.1	SSE	964	Jan 18	99.5	99.5
Ext. Temp. (°C)	-	-	-	-	-	-	-16.3	-38.7	8.6	Jan 30 at hr 15	36.2	W	5.4	Jan 30	100.0	100.0
Stn. Temp. (°C)	-	-	-	-	-	-	21.5	20.1	25.4	Jan 30 at hr 5	10.1	S	22.9	Jan 30	100.0	100.0
WSV (km/hr)	-	-	-	-	-	-	6.0	0.1	36.2	Jan 30 at hr 15	36.2	W	17.3	Jan 30	99.5	99.5
WDV (sector)	-	-	-	-	-	-	6 (N)	-	-	-	-	-	-	-	99.5	99.5

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

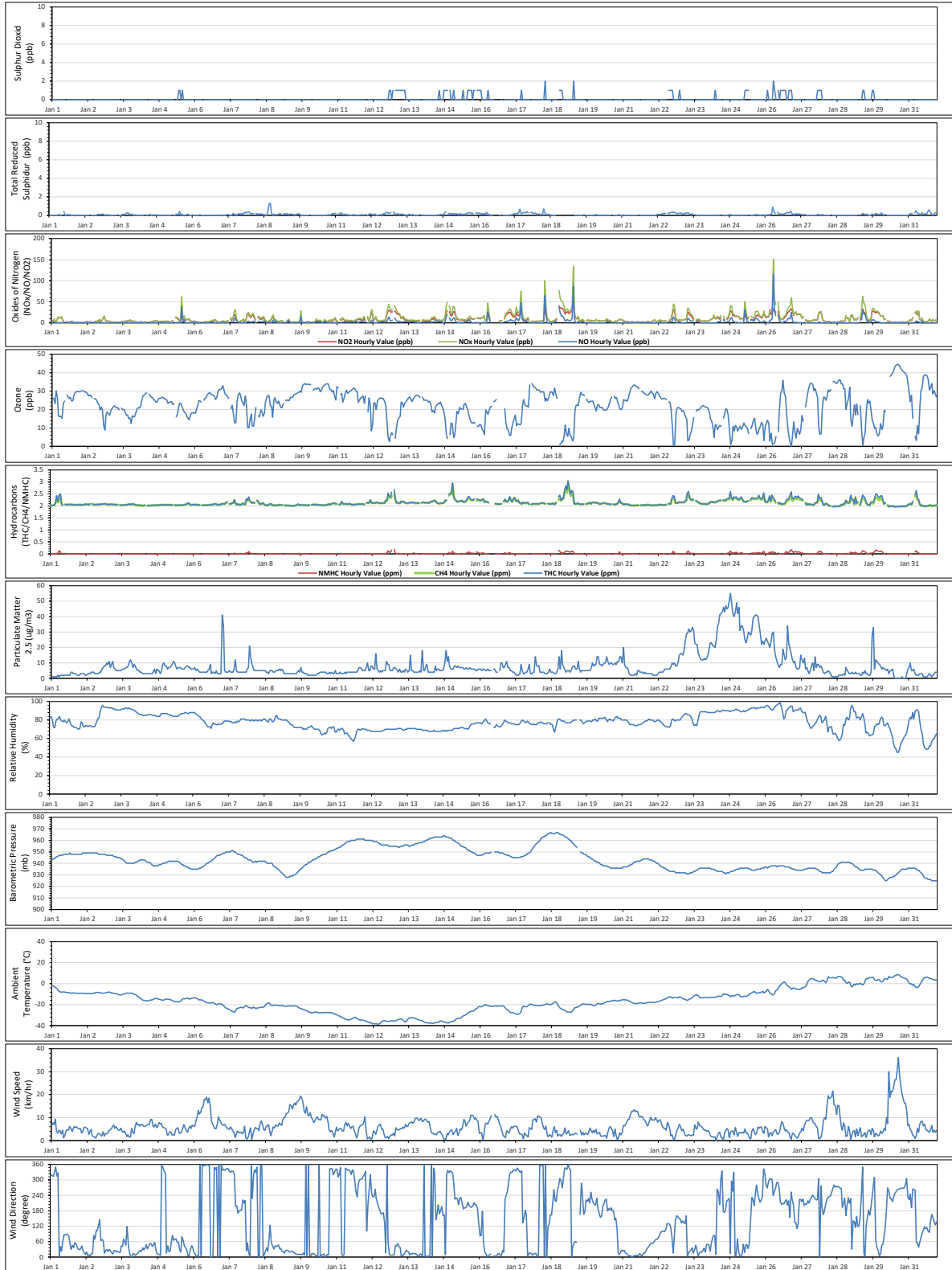
The following exceedances of AAAQOs were observed at the AQHI - Grimshaw Station.

Date	Time (MST)	Parameter	Average Period	AAAQOs / AAAQGs	Concentration	Wind speed	Wind Direction	Reference #
Jan 24	-	PM2.5	24-Hour	29 µg/m3	38 µg/m3	2.8 km/hr	316° (NW)	424674
Jan 25	-	PM2.5	24-Hour	29 µg/m3	32 µg/m3	3.7 km/hr	332° (NNW)	424675

- The exceedances of the PM2.5 objective are believed to be the result of local buildup of emissions, given the low wind speeds recorded at the time.



Timeseries Chart of Hourly Average for the month of Jan 2024 - AQHI - Grimshaw Station



## TABLES, CHARTS AND WIND ROSES

## 986-C STATION

**Peace River Area Monitoring Program**

**986-C Station - January 2024**

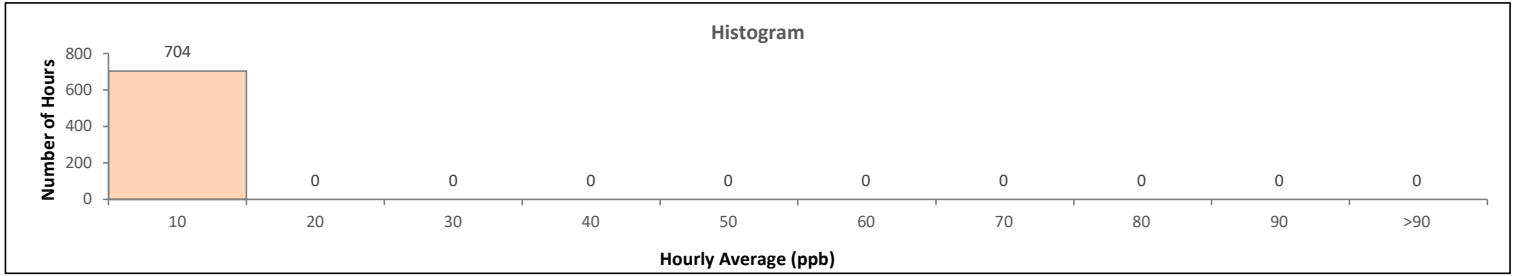
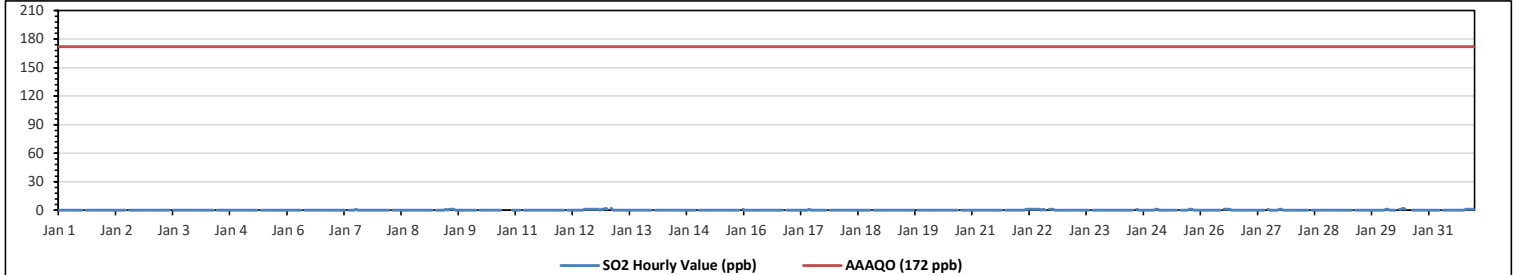
**Summary of Hourly Averages**

**SULPHUR DIOXIDE (SO<sub>2</sub>) 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: 2 ppb on Jan 12 at hr 23						Hours in Service: 744																						
Maximum Daily Value: 0.5 ppb on Jan 12						Hours of Data: 704																						
Minimum Hourly Value: 0 ppb on Jan 1 at hr 0						Hours of Missing Data: 3																						
Minimum Daily Value: 0.0 ppb on Jan 1						Hours of Calibration: 37																						
Monthly Average: 0.1 ppb						Operational Uptime: 99.6																						
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				
Jan 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
Jan 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
Jan 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Jan 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
Jan 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
Jan 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Jan 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
Jan 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Jan 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
Jan 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Jan 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Jan 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Jan 13	1	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	0.1
Jan 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Jan 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
Jan 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
Jan 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
Jan 18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Jan 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
Jan 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Jan 21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Jan 22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Jan 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Jan 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Jan 25	1	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	0.2
Jan 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	0.2
Jan 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1
Jan 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
Jan 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Jan 30	0	1	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	0.4
Jan 31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2
Diurnal Maximum	1	1	2	0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Diurnal Average	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

**C** Monthly Calibration      **S** Daily Zero-Span Check      **Q** Quality Assurance  
**K** Collection Error      **ND** 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.

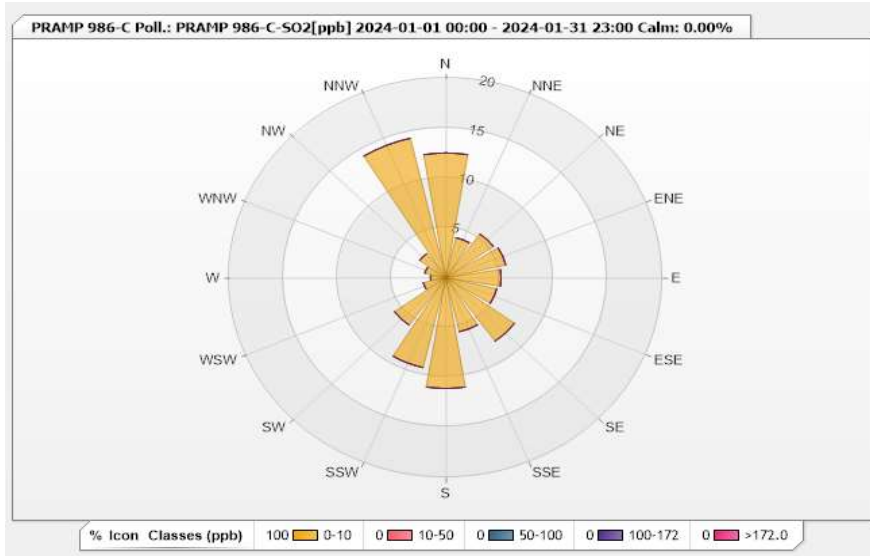


Station: PRAMP 986-C Poll.: PRAMP 986-C-SO2[ppb] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 94.62%      Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	12.5	0	0	0	0	12.5
NNE	4.12	0	0	0	0	4.12
NE	5.4	0	0	0	0	5.4
ENE	5.68	0	0	0	0	5.68
E	5.11	0	0	0	0	5.11
ESE	4.83	0	0	0	0	4.83
SE	7.81	0	0	0	0	7.81
SSE	5.54	0	0	0	0	5.54
S	11.08	0	0	0	0	11.08
SSW	9.23	0	0	0	0	9.23
SW	5.82	0	0	0	0	5.82
WSW	2.13	0	0	0	0	2.13
W	1.42	0	0	0	0	1.42
WNW	1.99	0	0	0	0	1.99
NW	2.98	0	0	0	0	2.98
NNW	14.35	0	0	0	0	14.35
Summary	100	0	0	0	0	100



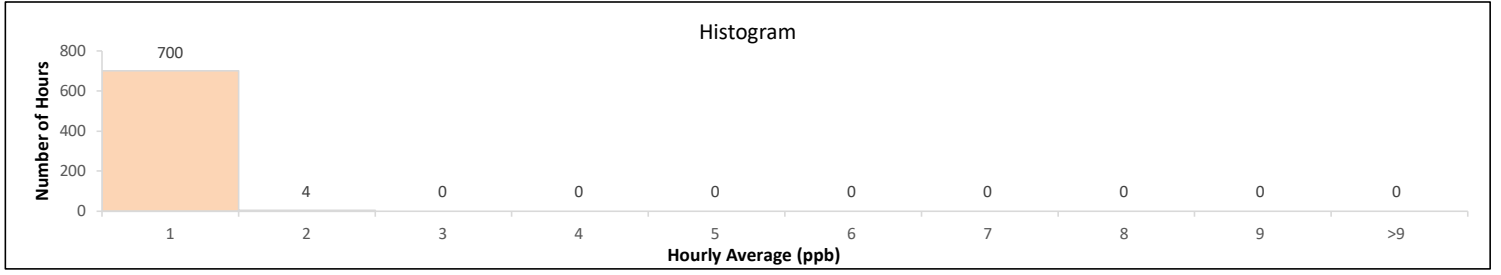
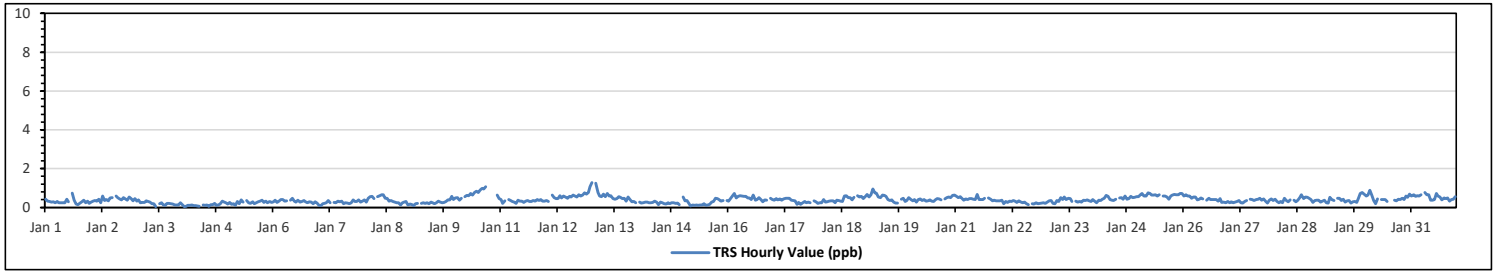
**Peace River Area Monitoring Program**  
**986-C Station - January 2024**  
**Summary of Hourly Averages**  
**TOTAL REDUCED SULPHUR (TRS) in ppb**

Maximum Hourly Value:	1.28	ppb	on Jan 13 at hr 0	Hours in Service:	744
Maximum Daily Value:	0.69	ppb	on Jan 10	Hours of Data:	704
Minimum Hourly Value:	0.05	ppb	on Jan 3 at hr 10	Hours of Missing Data:	3
Minimum Daily Value:	0.13	ppb	on Jan 4	Hours of Calibration:	37
Monthly Average:	0.39	ppb		Operational Uptime:	99.6

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
Jan 1	0.43	0.32	0.31	0.28	0.29	0.23	0.31	0.24	0.25	0.25	0.23	0.43	0.29	S	0.74	0.37	0.17	0.15	0.21	0.29	0.37	0.23	0.32	0.21	0.15	0.74	0.30
Jan 2	0.27	0.32	0.35	0.32	0.43	0.25	0.58	0.35	0.4	0.34	0.49	0.5	S	0.58	0.5	0.44	0.39	0.51	0.44	0.38	0.53	0.45	0.34	0.46	0.25	0.58	0.42
Jan 3	0.32	0.39	0.25	0.26	0.26	0.34	0.31	0.27	0.19	0.18	0.05	S	0.2	0.23	0.12	0.11	0.21	0.21	0.2	0.17	0.13	0.13	0.12	0.25	0.05	0.39	0.21
Jan 4	0.14	0.05	0.07	0.1	0.1	0.12	0.09	0.09	0.08	0.07	S	0.13	0.1	0.13	0.07	0.15	0.15	0.21	0.11	0.12	0.17	0.32	0.28	0.24	0.05	0.32	0.13
Jan 5	0.17	0.26	0.16	0.2	0.11	0.3	0.2	0.39	0.28	S	0.36	0.23	0.21	0.29	0.18	0.23	0.29	0.32	0.38	0.26	0.33	0.24	0.31	0.26	0.11	0.39	0.26
Jan 6	0.29	0.38	0.26	0.33	0.4	0.41	0.33	0.34	S	0.37	0.47	0.32	0.27	0.38	0.28	0.3	0.35	0.29	0.24	0.29	0.28	0.18	0.29	0.22	0.18	0.47	0.32
Jan 7	0.11	0.09	0.2	0.21	0.25	0.36	0.25	S	0.26	0.24	0.32	0.29	0.33	0.18	0.25	0.22	0.19	0.24	0.39	0.31	0.31	0.39	0.27	0.33	0.09	0.39	0.26
Jan 8	0.39	0.28	0.48	0.55	0.57	0.45	S	0.56	0.61	0.65	0.66	0.47	0.48	0.32	0.35	0.31	0.27	0.23	0.25	0.12	0.25	0.28	0.3	0.12	0.12	0.66	0.39
Jan 9	0.17	0.15	0.09	0.2	0.21	S	0.21	0.24	0.21	0.25	0.18	0.27	0.25	0.19	0.23	0.32	0.27	0.25	0.26	0.3	0.39	0.39	0.57	0.42	0.09	0.57	0.26
Jan 10	0.49	0.5	0.37	0.48	S	0.56	0.62	0.61	0.73	0.64	0.78	0.84	0.76	0.9	0.98	0.96	1.07	C	C	C	C	C	0.64	0.46	0.37	1.07	0.69
Jan 11	0.4	0.21	0.34	S	0.4	0.35	0.3	0.27	0.21	0.38	0.32	0.26	0.33	0.36	0.31	0.3	0.36	0.32	0.41	0.35	0.41	0.33	0.32	0.21	0.41	0.33	0.32
Jan 12	0.36	0.3	S	0.63	0.5	0.45	0.46	0.61	0.49	0.6	0.54	0.47	0.57	0.53	0.64	0.59	0.54	0.66	0.59	0.63	0.75	0.68	0.78	1.07	0.30	1.07	0.58
Jan 13	1.28	S	1.24	0.78	0.58	0.56	0.68	0.56	0.72	0.6	0.61	0.46	0.43	0.46	0.56	0.52	0.45	0.48	0.33	0.53	0.4	0.29	0.31	0.25	0.25	1.28	0.57
Jan 14	S	0.28	0.22	0.23	0.27	0.27	0.25	0.24	0.26	0.33	0.28	0.14	0.27	0.25	0.18	0.17	0.25	0.18	0.23	0.23	0.21	0.22	0.15	S	0.14	0.33	0.23
Jan 15	0.54	0.34	0.35	0.21	0.08	0.13	0.1	0.12	0.11	0.13	0.12	0.19	0.1	0.12	0.16	0.27	0.3	0.47	0.46	0.4	0.32	0.35	S	0.35	0.08	0.54	0.25
Jan 16	0.32	0.46	0.6	0.73	0.49	0.57	0.61	0.6	0.57	0.57	0.49	0.49	0.4	0.64	0.38	0.42	0.5	0.4	0.29	0.39	0.37	S	0.47	0.4	0.29	0.73	0.49
Jan 17	0.38	0.45	0.39	0.44	0.38	0.44	0.48	0.47	0.48	0.37	0.35	0.34	0.16	0.26	0.16	0.25	0.31	0.23	0.27	0.24	S	0.34	0.29	0.21	0.16	0.48	0.33
Jan 18	0.23	0.25	0.4	0.28	0.29	0.32	0.34	0.34	0.25	0.38	0.35	0.32	0.31	0.6	0.61	0.5	0.5	0.39	0.52	S	0.61	0.54	0.57	0.46	0.23	0.61	0.41
Jan 19	0.55	0.67	0.53	0.66	0.94	0.75	0.74	0.54	0.51	0.63	0.62	0.57	0.4	0.35	0.39	0.27	0.22	0.22	S	0.43	0.48	0.31	0.35	0.5	0.22	0.94	0.51
Jan 20	0.4	0.34	0.42	0.27	0.42	0.44	0.36	0.42	0.33	0.34	0.39	0.33	0.31	0.39	0.45	0.44	0.39	S	0.44	0.51	0.53	0.51	0.62	0.63	0.27	0.63	0.42
Jan 21	0.58	0.51	0.56	0.46	0.38	0.44	0.42	0.45	0.46	0.43	0.42	0.67	0.42	0.4	0.41	0.48	S	0.49	0.43	0.34	0.38	0.34	0.34	0.34	0.34	0.67	0.44
Jan 22	0.37	0.18	0.3	0.26	0.32	0.31	0.36	0.32	0.26	0.34	0.27	0.25	0.28	0.2	0.15	S	0.18	0.17	0.23	0.19	0.21	0.22	0.24	0.21	0.15	0.37	0.25
Jan 23	0.27	0.34	0.36	0.21	0.2	0.35	0.31	0.51	0.42	0.54	0.4	0.48	0.46	0.3	S	0.32	0.27	0.3	0.27	0.38	0.36	0.39	0.34	0.3	0.20	0.54	0.35
Jan 24	0.4	0.33	0.24	0.38	0.35	0.43	0.48	0.62	0.57	0.42	0.37	0.36	0.43	S	0.49	0.51	0.43	0.6	0.43	0.45	0.57	0.5	0.52	0.55	0.24	0.62	0.45
Jan 25	0.55	0.66	0.72	0.58	0.58	0.75	0.71	0.64	0.63	0.65	0.59	0.65	S	0.6	0.59	0.53	0.43	0.58	0.64	0.67	0.65	0.65	0.72	0.73	0.43	0.75	0.63
Jan 26	0.58	0.65	0.6	0.6	0.48	0.53	0.54	0.39	0.43	0.49	0.44	S	0.38	0.47	0.41	0.4	0.41	0.41	0.32	0.45	0.26	0.28	0.23	0.31	0.23	0.65	0.44
Jan 27	0.23	0.29	0.25	0.27	0.31	0.36	0.24	0.22	0.31	0.35	S	0.43	0.42	0.35	0.4	0.43	0.48	0.37	0.44	0.32	0.22	0.37	0.44	0.35	0.22	0.48	0.34
Jan 28	0.43	0.3	0.25	0.3	0.25	0.47	0.36	0.29	0.39	S	0.38	0.29	0.37	0.51	0.65	0.46	0.53	0.52	0.48	0.41	0.26	0.35	0.37	0.37	0.25	0.65	0.39
Jan 29	0.27	0.33	0.38	0.23	0.22	0.52	0.42	0.36	S	0.48	0.48	0.36	0.43	0.28	0.34	0.36	0.22	0.29	0.31	0.26	0.46	0.73	0.78	0.68	0.22	0.78	0.40
Jan 30	0.6	0.64	0.88	0.64	0.35	0.2	0.44	S	0.4	0.42	0.31	P	P	P	0.37	0.34	0.43	0.42	0.48	0.42	0.6	0.52	0.68	0.20	0.88	0.48	
Jan 31	0.59	0.65	0.57	0.61	0.59	0.65	S	0.76	0.66	0.65	0.38	0.37	0.42	0.71	0.58	0.53	0.39	0.49	0.45	0.49	0.32	0.42	0.43	0.55	0.32	0.76	0.53
Diurnal Maximum	1.28	0.67	1.24	0.78	0.94	0.75	0.74	0.76	0.73	0.65	0.78	0.84	0.76	0.90	0.98	0.96	1.07	0.66	0.64	0.67	0.75	0.73	0.78	1.07			
Diurnal Average	0.40	0.36	0.40	0.39	0.37	0.41	0.40	0.41	0.40	0.42	0.41	0.39	0.35	0.39	0.40	0.38	0.36	0.36	0.36	0.36	0.38	0.38	0.41	0.41			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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.

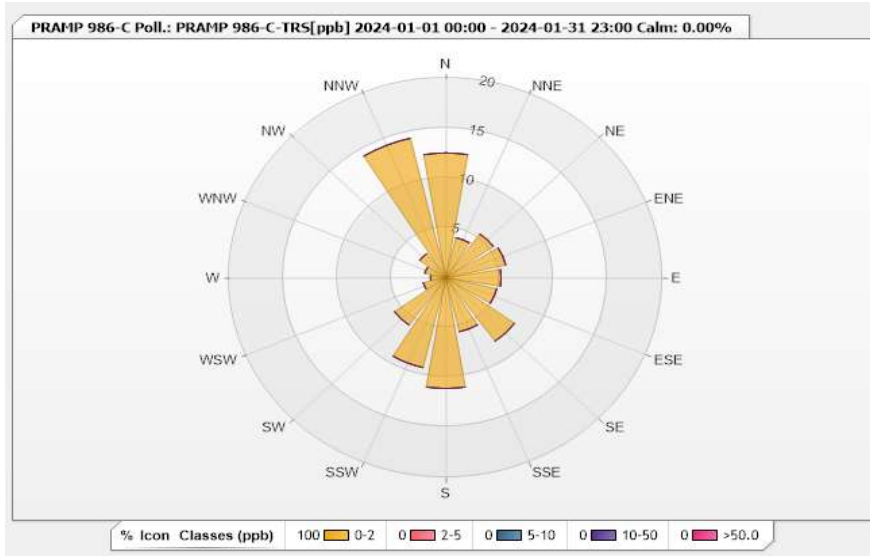


Station: PRAMP 986-C Poll.: PRAMP 986-C-TRS[ppb] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 94.62%      Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	12.5	0	0	0	0	12.5
NNE	4.12	0	0	0	0	4.12
NE	5.4	0	0	0	0	5.4
ENE	5.68	0	0	0	0	5.68
E	5.11	0	0	0	0	5.11
ESE	4.83	0	0	0	0	4.83
SE	7.81	0	0	0	0	7.81
SSE	5.54	0	0	0	0	5.54
S	11.08	0	0	0	0	11.08
SSW	9.23	0	0	0	0	9.23
SW	5.82	0	0	0	0	5.82
WSW	2.13	0	0	0	0	2.13
W	1.42	0	0	0	0	1.42
WNW	1.99	0	0	0	0	1.99
NW	2.98	0	0	0	0	2.98
NNW	14.35	0	0	0	0	14.35
Summary	100	0	0	0	0	100



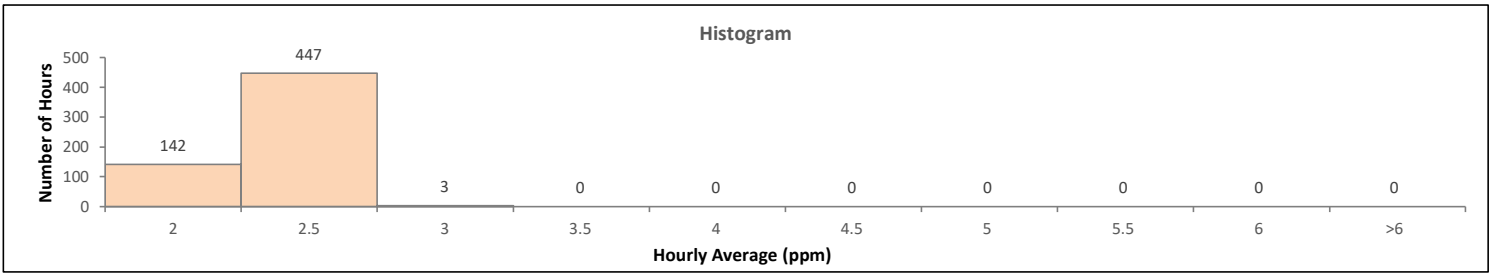
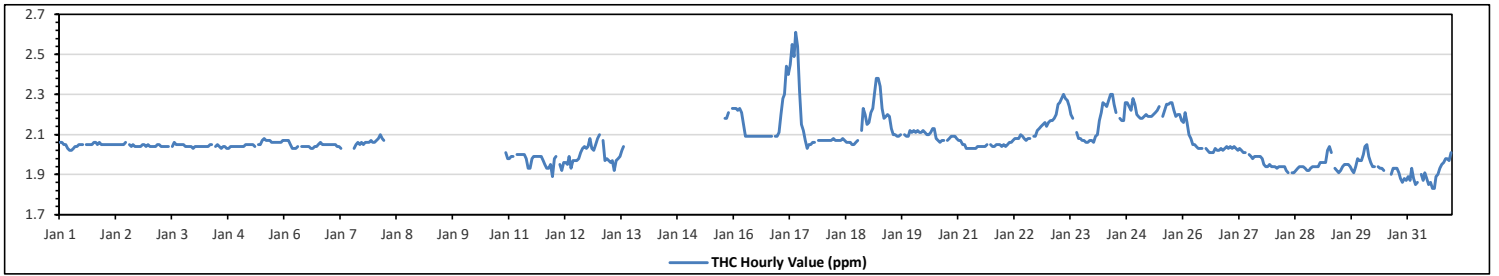
**Peace River Area Monitoring Program**  
**986-C Station - January 2024**  
**Summary of Hourly Averages**  
**TOTAL HYDROCARBONS (THC) in ppm**

Maximum Hourly Value:	2.61 ppm	on Jan 17 at hr 9	Hours in Service:	744
Maximum Daily Value:	2.24 ppm	on Jan 17	Hours of Data:	592
Minimum Hourly Value:	1.83 ppm	on Jan 31 at hr 13	Hours of Missing Data:	122
Minimum Daily Value:	1.90 ppm	on Jan 31	Hours of Calibration:	30
Monthly Average:	2.06 ppm		Operational Uptime:	83.6

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		
Jan 1	2.06	2.06	2.05	2.05	2.03	2.02	2.02	2.03	2.04	2.04	2.05	2.05	2.05	S	2.05	2.05	2.05	2.05	2.06	2.05	2.06	2.05	2.05	2.05	2.02	2.06	2.05		
Jan 2	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.06	S	2.05	2.04	2.05	2.04	2.04	2.04	2.04	2.05	2.05	2.04	2.05	2.04	2.06	2.05		
Jan 3	2.04	2.04	2.04	2.04	2.05	2.05	2.04	2.04	2.04	2.04	2.04	S	2.04	2.06	2.05	2.05	2.05	2.05	2.05	2.04	2.04	2.04	2.04	2.04	2.03	2.03	2.06	2.04	
Jan 4	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.05	2.05	S	2.04	2.05	2.04	2.03	2.04	2.04	2.04	2.03	2.03	2.04	2.04	2.04	2.04	2.04	2.04	2.03	2.04	
Jan 5	2.04	2.04	2.04	2.05	2.05	2.05	2.05	2.05	2.04	S	2.05	2.05	2.07	2.08	2.07	2.07	2.07	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.07	2.04	2.08	2.06	
Jan 6	2.07	2.07	2.07	2.05	2.03	2.03	2.03	2.04	S	2.04	2.04	2.04	2.04	2.04	2.03	2.03	2.04	2.04	2.04	2.04	2.05	2.06	2.05	2.05	2.05	2.03	2.07	2.05	
Jan 7	2.05	2.05	2.05	2.05	2.04	2.04	2.04	2.03	S	X	X	X	X	2.03	2.05	2.06	2.05	2.06	2.05	2.06	2.06	2.06	2.06	2.07	2.06	2.03	2.07	2.05	
Jan 8	2.06	2.07	2.08	2.10	2.08	2.07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2.06	2.10	NA	
Jan 9	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	-	-	-	
Jan 10	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	-	-	-	
Jan 11	1.98	1.99	1.99	S	2.00	2.00	2.00	2.00	1.98	1.93	1.93	1.98	1.99	1.99	1.99	1.99	1.99	1.99	1.97	1.95	1.93	1.93	1.95	1.89	1.98	2.01	1.98	NA	
Jan 12	1.98	1.99	S	1.95	1.92	1.96	1.96	1.95	1.99	1.93	1.97	1.97	1.97	1.98	2.01	2.03	2.04	2.03	2.04	2.08	2.03	2.02	2.05	2.08	1.92	2.08	2.00	2.00	
Jan 13	2.10	S	2.07	1.97	1.98	1.97	1.96	1.97	1.92	1.97	1.98	1.99	2.02	2.04	X	X	X	X	X	X	X	X	X	X	1.92	2.10	NA	2.10	
Jan 14	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	-	-	-	
Jan 15	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	-	-	-	
Jan 16	2.23	2.23	2.22	2.23	2.21	2.15	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.23	2.12	
Jan 17	2.11	2.20	2.28	2.30	2.44	2.40	2.45	2.55	2.49	2.61	2.54	2.32	2.15	2.12	2.07	2.03	2.05	2.05	2.06	2.06	S	2.07	2.07	2.07	2.03	2.61	2.24	2.12	
Jan 18	2.07	2.07	2.07	2.07	2.07	2.08	2.07	2.07	2.07	2.07	2.08	2.07	2.06	2.06	2.06	2.05	2.05	2.06	2.07	S	2.12	2.23	2.20	2.15	2.05	2.23	2.09	2.09	
Jan 19	2.16	2.21	2.23	2.30	2.38	2.38	2.34	2.23	2.18	2.19	2.20	2.19	2.13	2.10	2.09	2.09	2.09	2.10	S	2.10	2.09	2.09	2.12	2.11	2.09	2.38	2.18	2.18	
Jan 20	2.12	2.11	2.12	2.11	2.11	2.12	2.11	2.10	2.11	2.13	2.13	2.08	2.07	2.06	2.07	2.07	S	2.07	2.08	2.09	2.09	2.09	2.08	2.06	2.13	2.10	2.10	2.10	
Jan 21	2.07	2.07	2.05	2.05	2.03	2.03	2.03	2.03	2.03	2.04	2.04	2.04	2.04	2.05	S	2.05	2.04	2.04	2.05	2.05	2.05	2.05	2.04	2.03	2.07	2.04	2.04	2.04	
Jan 22	2.05	2.04	2.05	2.06	2.06	2.07	2.08	2.08	2.08	2.10	2.09	2.08	2.07	2.08	S	2.09	2.09	2.09	2.12	2.13	2.14	2.15	2.16	2.14	2.04	2.16	2.09	2.09	
Jan 23	2.16	2.17	2.17	2.18	2.20	2.25	2.26	2.28	2.30	2.28	2.27	2.24	2.20	2.18	S	2.11	2.08	2.08	2.07	2.07	2.06	2.06	2.07	2.07	2.06	2.30	2.17	2.17	
Jan 24	2.06	2.09	2.10	2.17	2.21	2.26	2.25	2.24	2.27	2.30	2.30	2.25	2.21	S	2.18	2.17	2.17	2.26	2.26	2.24	2.22	2.28	2.25	2.20	2.06	2.30	2.21	2.21	
Jan 25	2.19	2.18	2.18	2.19	2.20	2.19	2.19	2.20	2.21	2.22	2.24	S	2.19	2.22	2.25	2.25	2.26	2.26	2.22	2.19	2.20	2.20	2.17	2.17	2.26	2.21	2.21	2.21	
Jan 26	2.16	2.21	2.16	2.10	2.08	2.05	2.05	2.04	2.03	2.03	S	2.03	2.02	2.01	2.01	2.01	2.03	2.02	2.02	2.03	2.02	2.03	2.04	2.01	2.21	2.05	2.05	2.05	
Jan 27	2.03	2.04	2.03	2.04	2.03	2.02	2.03	2.02	2.01	2.01	S	2.00	1.99	1.98	1.99	1.99	1.99	1.98	1.95	1.94	1.94	1.95	1.94	1.94	1.94	2.04	2.00	2.00	
Jan 28	1.94	1.94	1.93	1.94	1.94	1.94	1.94	1.94	1.92	1.91	S	1.91	1.91	1.92	1.93	1.94	1.94	1.94	1.93	1.92	1.92	1.93	1.94	1.94	1.94	1.94	1.94	1.93	
Jan 29	1.94	1.96	1.96	1.96	1.96	2.02	2.04	2.01	S	1.93	1.92	1.91	1.92	1.94	1.95	1.95	1.95	1.94	1.92	1.91	1.94	1.98	1.97	1.97	1.91	2.04	1.95	1.95	
Jan 30	2.00	2.04	2.05	1.99	1.96	1.94	1.94	S	1.94	1.93	1.93	1.92	P	P	P	1.90	1.93	1.93	1.93	1.91	1.88	1.86	1.88	1.87	1.86	2.05	1.94	1.94	
Jan 31	1.89	1.87	1.93	1.88	1.85	1.86	S	1.90	1.87	1.91	1.88	1.85	1.86	1.83	1.83	1.89	1.90	1.93	1.95	1.96	1.98	1.98	1.97	2.01	1.83	2.01	1.90	1.90	
Diurnal Maximum	2.23	2.23	2.28	2.30	2.44	2.40	2.45	2.55	2.49	2.61	2.54	2.32	2.21	2.19	2.22	2.25	2.26	2.26	2.24	2.22	2.28	2.25	2.23	2.06	2.30	2.23	2.12	2.12	
Diurnal Average	2.06	2.07	2.08	2.07	2.07	2.08	2.08	2.08	2.07	2.08	2.08	2.06	2.04	2.04	2.04	2.04	2.04	2.05	2.05	2.05	2.05	2.06	2.05	2.05	2.06	2.05	2.05	2.05	2.05

**C** Monthly Calibration      **S** Daily Zero-Span Check      **Q** Quality Assurance  
**K** Collection Error      **ND** 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.



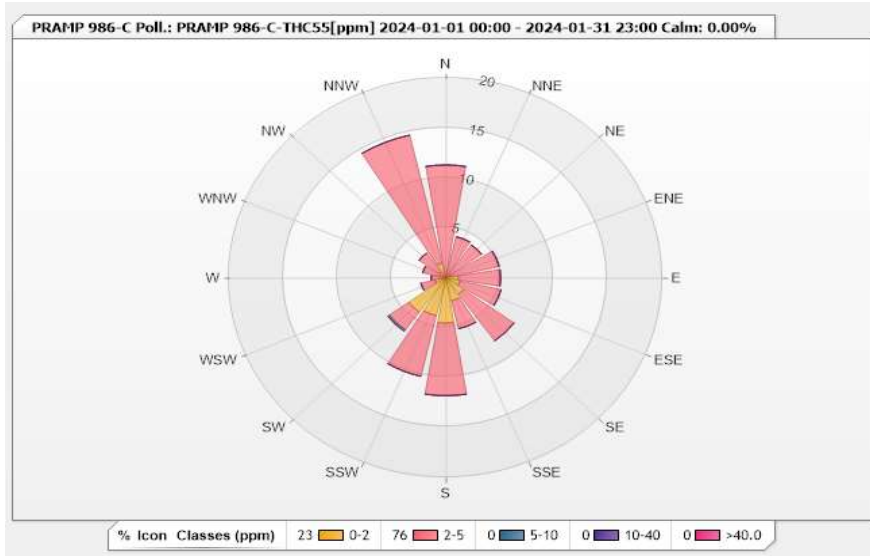


Station: PRAMP 986-C Poll.: PRAMP 986-C-THC55[ppm] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 79.70%      Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	0	11.3	0	0	0	11.3
NNE	0	4.22	0	0	0	4.22
NE	0	4.05	0	0	0	4.05
ENE	0.51	4.55	0	0	0	5.06
E	1.18	3.88	0	0	0	5.06
ESE	1.35	3.88	0	0	0	5.23
SE	2.02	5.73	0	0	0	7.75
SSE	2.36	2.87	0	0	0	5.23
S	4.55	7.25	0	0	0	11.8
SSW	3.88	6.24	0	0	0	10.12
SW	4.22	2.19	0.17	0	0	6.58
WSW	1.01	1.35	0	0	0	2.36
W	0	1.35	0	0	0	1.35
WNW	0.17	2.02	0	0	0	2.19
NW	0.67	2.36	0	0	0	3.03
NNW	1.52	13.15	0	0	0	14.67
Summary	23.44	76.39	0.17	0	0	100



**Peace River Area Monitoring Program**

**986-C Station - January 2024**

**Summary of Hourly Averages**

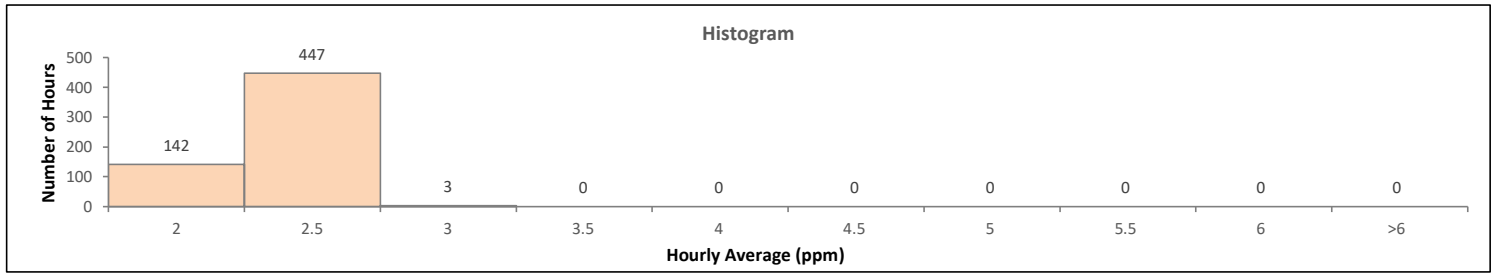
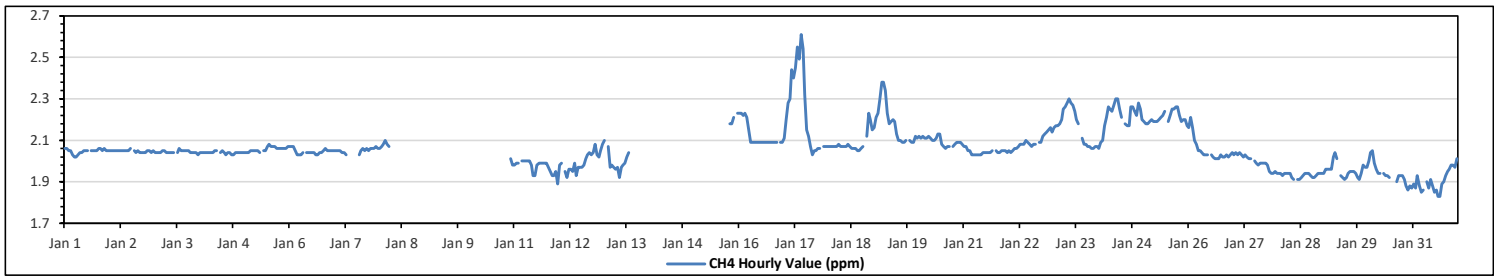
**METHANE (CH4) in ppm**

Maximum Hourly Value:	2.61 ppm	on Jan 17 at hr 9	Hours in Service:	744
Maximum Daily Value:	2.24 ppm	on Jan 17	Hours of Data:	592
Minimum Hourly Value:	1.83 ppm	on Jan 31 at hr 13	Hours of Missing Data:	122
Minimum Daily Value:	1.90 ppm	on Jan 31	Hours of Calibration:	30
Monthly Average:	2.06 ppm		Operational Uptime:	83.6

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	
Jan 1	2.06	2.06	2.05	2.05	2.03	2.02	2.02	2.03	2.04	2.04	2.05	2.05	2.05	S	2.05	2.05	2.05	2.05	2.06	2.06	2.05	2.06	2.05	2.05	2.02	2.06	2.05	
Jan 2	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.06	S	2.05	2.04	2.05	2.04	2.04	2.04	2.04	2.05	2.05	2.04	2.05	2.04	2.06	2.05	
Jan 3	2.04	2.04	2.04	2.04	2.05	2.05	2.04	2.04	2.04	2.04	2.04	S	2.04	2.06	2.05	2.05	2.05	2.05	2.05	2.04	2.04	2.04	2.04	2.04	2.03	2.03	2.06	2.04
Jan 4	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.05	2.05	S	2.04	2.05	2.04	2.03	2.04	2.04	2.04	2.03	2.03	2.04	2.04	2.04	2.04	2.04	2.04	2.03	2.04
Jan 5	2.04	2.04	2.04	2.05	2.05	2.05	2.05	2.05	2.04	S	2.05	2.05	2.07	2.08	2.07	2.07	2.07	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.07	2.04	2.08	2.06
Jan 6	2.07	2.07	2.07	2.05	2.03	2.03	2.03	2.04	S	2.04	2.04	2.04	2.04	2.04	2.03	2.03	2.04	2.04	2.04	2.04	2.05	2.06	2.05	2.05	2.05	2.03	2.07	2.05
Jan 7	2.05	2.05	2.05	2.05	2.04	2.04	2.04	2.03	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2.06	2.10	2.05
Jan 8	2.06	2.07	2.08	2.10	2.08	2.07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2.06	2.10	NA
Jan 9	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	-	-	-
Jan 10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C	C	C	2.01	1.98	1.98	2.01	NA
Jan 11	1.98	1.99	1.99	S	2.00	2.00	2.00	2.00	1.98	1.93	1.93	1.98	1.99	1.99	1.99	1.99	1.99	1.97	1.95	1.93	1.93	1.95	1.89	1.89	2.00	2.00	1.97	
Jan 12	1.98	1.99	S	1.95	1.92	1.96	1.96	1.95	1.99	1.93	1.97	1.97	1.97	1.98	2.01	2.03	2.04	2.03	2.04	2.08	2.03	2.02	2.05	2.08	1.92	2.08	2.00	
Jan 13	2.10	S	2.07	1.97	1.98	1.97	1.96	1.97	1.92	1.97	1.98	1.99	2.02	2.04	X	X	X	X	X	X	X	X	X	X	1.92	2.10	NA	
Jan 14	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	-	-	-
Jan 15	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	-	-	-
Jan 16	2.23	2.23	2.22	2.23	2.21	2.15	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	S	2.09	2.09	2.12	
Jan 17	2.11	2.20	2.28	2.30	2.44	2.40	2.45	2.55	2.49	2.61	2.54	2.32	2.15	2.12	2.07	2.03	2.05	2.05	2.06	2.06	S	2.07	2.07	2.07	2.03	2.61	2.24	
Jan 18	2.07	2.07	2.07	2.07	2.07	2.08	2.07	2.07	2.07	2.08	2.07	2.08	2.07	2.06	2.06	2.05	2.05	2.06	2.07	S	2.12	2.23	2.20	2.15	2.05	2.23	2.09	
Jan 19	2.16	2.21	2.23	2.30	2.38	2.38	2.34	2.23	2.18	2.19	2.20	2.19	2.13	2.10	2.10	2.09	2.09	2.09	2.10	S	2.10	2.09	2.09	2.12	2.11	2.09	2.38	2.18
Jan 20	2.12	2.11	2.12	2.11	2.11	2.12	2.11	2.10	2.10	2.11	2.13	2.13	2.08	2.07	2.06	2.07	2.07	S	2.07	2.08	2.09	2.09	2.09	2.08	2.06	2.13	2.10	
Jan 21	2.07	2.07	2.05	2.05	2.03	2.03	2.03	2.03	2.03	2.04	2.04	2.04	2.04	2.04	2.05	S	2.05	2.04	2.04	2.05	2.05	2.05	2.05	2.04	2.03	2.07	2.04	
Jan 22	2.05	2.04	2.05	2.06	2.06	2.07	2.08	2.08	2.08	2.10	2.09	2.08	2.07	2.08	2.08	S	2.09	2.09	2.12	2.13	2.14	2.15	2.16	2.14	2.04	2.16	2.09	
Jan 23	2.16	2.17	2.17	2.18	2.20	2.25	2.26	2.28	2.28	2.28	2.27	2.24	2.20	2.18	S	2.11	2.08	2.08	2.07	2.07	2.06	2.06	2.07	2.07	2.06	2.30	2.17	
Jan 24	2.06	2.09	2.10	2.17	2.21	2.26	2.25	2.24	2.27	2.30	2.30	2.25	2.21	S	2.18	2.17	2.17	2.26	2.26	2.24	2.22	2.28	2.25	2.20	2.06	2.30	2.21	
Jan 25	2.19	2.18	2.18	2.19	2.20	2.19	2.19	2.20	2.21	2.22	2.24	S	2.19	2.22	2.25	2.25	2.26	2.26	2.22	2.19	2.20	2.20	2.17	2.17	2.26	2.21	2.21	
Jan 26	2.16	2.21	2.16	2.10	2.08	2.05	2.05	2.04	2.03	2.03	S	2.03	2.02	2.01	2.01	2.03	2.02	2.02	2.02	2.03	2.02	2.03	2.04	2.01	2.21	2.05	2.05	
Jan 27	2.03	2.04	2.03	2.04	2.03	2.02	2.03	2.02	2.01	S	2.00	1.99	1.98	1.99	1.99	1.99	1.99	1.98	1.95	1.94	1.94	1.95	1.94	1.94	1.94	2.04	2.00	
Jan 28	1.94	1.94	1.93	1.94	1.94	1.94	1.94	1.92	1.91	S	1.91	1.91	1.92	1.93	1.94	1.94	1.94	1.92	1.92	1.93	1.94	1.94	1.94	1.94	1.91	1.94	1.93	
Jan 29	1.94	1.96	1.96	1.96	1.96	2.02	2.04	2.01	S	1.93	1.92	1.91	1.92	1.94	1.95	1.95	1.95	1.94	1.92	1.91	1.94	1.98	1.97	1.97	1.91	2.04	1.95	
Jan 30	2.00	2.04	2.05	1.99	1.96	1.94	1.94	S	1.94	1.93	1.93	1.92	P	P	P	1.90	1.93	1.93	1.93	1.91	1.88	1.86	1.88	1.87	1.86	2.05	1.94	
Jan 31	1.89	1.87	1.93	1.88	1.85	1.86	S	1.90	1.87	1.91	1.88	1.85	1.86	1.83	1.83	1.89	1.90	1.93	1.95	1.96	1.98	1.98	1.97	2.01	1.83	2.01	1.90	
Diurnal Maximum	2.23	2.23	2.28	2.30	2.44	2.40	2.45	2.55	2.49	2.61	2.54	2.32	2.21	2.19	2.22	2.25	2.26	2.26	2.24	2.22	2.28	2.25	2.23	2.06	2.30	2.23	2.12	
Diurnal Average	2.06	2.07	2.08	2.07	2.07	2.08	2.08	2.08	2.07	2.08	2.08	2.06	2.04	2.04	2.04	2.04	2.04	2.05	2.05	2.05	2.05	2.06	2.05	2.05	2.06	2.05	2.05	2.05

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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.

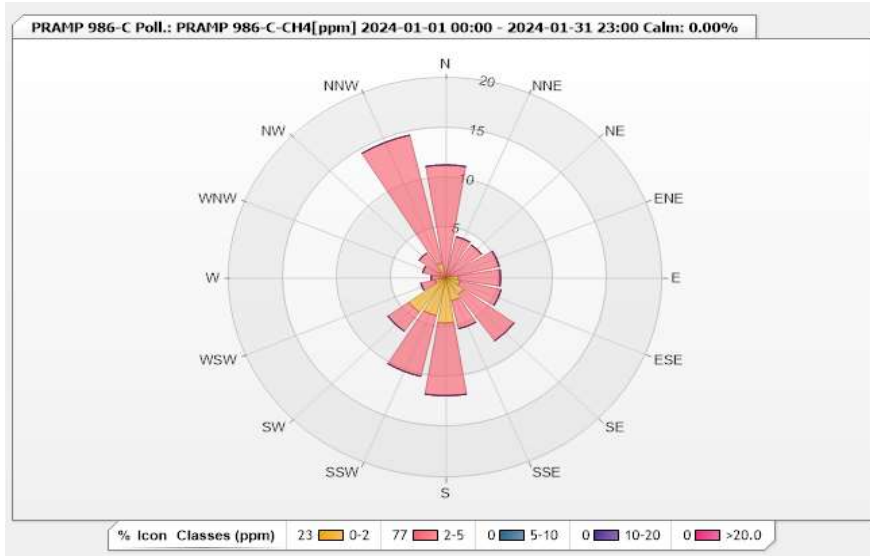


Station: PRAMP 986-C Poll.: PRAMP 986-C-CH4[ppm] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 79.70%      Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	0	11.3	0	0	0	11.3
NNE	0	4.22	0	0	0	4.22
NE	0	4.05	0	0	0	4.05
ENE	0.51	4.55	0	0	0	5.06
E	1.18	3.88	0	0	0	5.06
ESE	1.35	3.88	0	0	0	5.23
SE	2.02	5.73	0	0	0	7.75
SSE	2.36	2.87	0	0	0	5.23
S	4.55	7.25	0	0	0	11.8
SSW	3.88	6.24	0	0	0	10.12
SW	4.22	2.36	0	0	0	6.58
WSW	1.01	1.35	0	0	0	2.36
W	0	1.35	0	0	0	1.35
WNW	0.17	2.02	0	0	0	2.19
NW	0.67	2.36	0	0	0	3.03
NNW	1.52	13.15	0	0	0	14.67
Summary	23.44	76.56	0	0	0	100



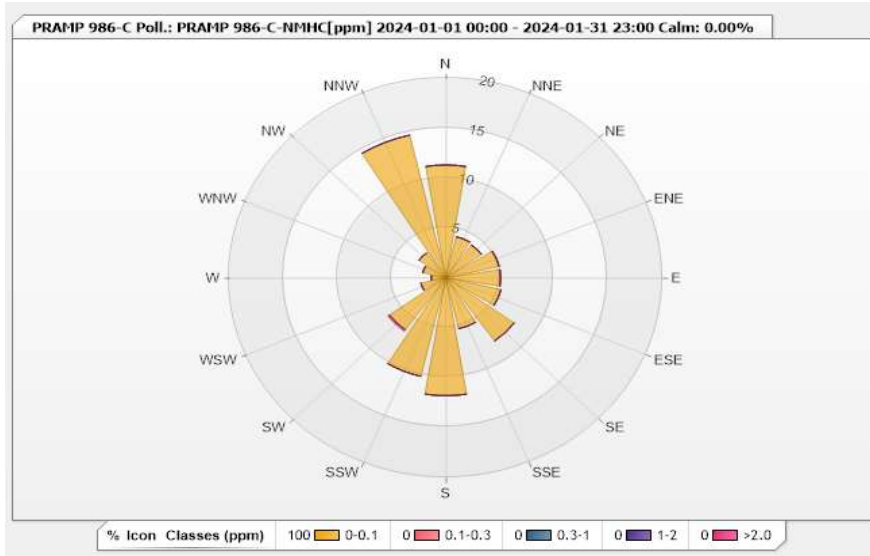


Station: PRAMP 986-C Poll.: PRAMP 986-C-NMHC[ppm] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 79.70%      Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	11.3	0	0	0	0	11.3
NNE	4.22	0	0	0	0	4.22
NE	4.05	0	0	0	0	4.05
ENE	5.06	0	0	0	0	5.06
E	5.06	0	0	0	0	5.06
ESE	5.23	0	0	0	0	5.23
SE	7.76	0	0	0	0	7.76
SSE	5.23	0	0	0	0	5.23
S	11.8	0	0	0	0	11.8
SSW	10.12	0	0	0	0	10.12
SW	6.41	0	0	0	0.17	6.58
WSW	2.36	0	0	0	0	2.36
W	1.35	0	0	0	0	1.35
WNW	2.19	0	0	0	0	2.19
NW	3.04	0	0	0	0	3.04
NNW	14.67	0	0	0	0	14.67
Summary	100	0	0	0	0.17	100



**Peace River Area Monitoring Program**

**986-C Station - January 2024**

**Summary of Hourly Averages**

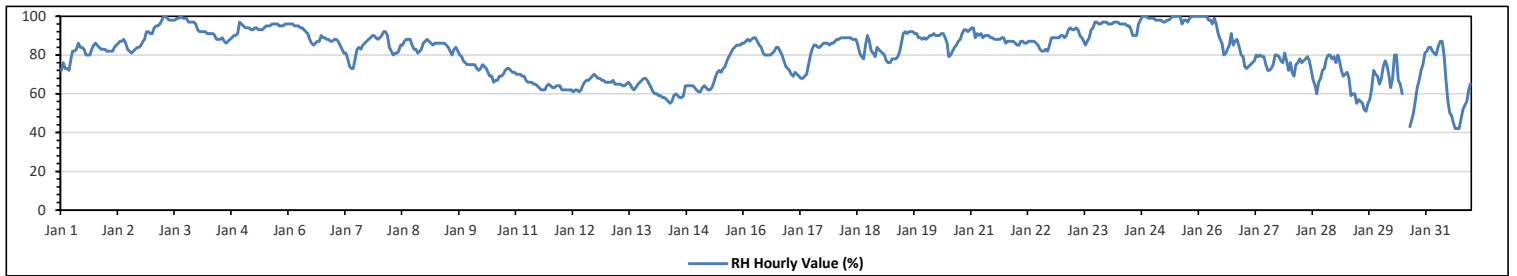
**RELATIVE HUMIDITY (RH) in %**

Maximum Hourly Value:	100 %	on Jan 3 at hr 6	Hours in Service:	744
Maximum Daily Value:	98.7 %	on Jan 25	Hours of Data:	741
Minimum Hourly Value:	42 %	on Jan 31 at hr 15	Hours of Missing Data:	3
Minimum Daily Value:	59.9 %	on Jan 14	Hours of Calibration:	0
Monthly Average:	81.0 %		Operational Uptime:	99.6

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																																																																				
Jan 1	72	76	73	73	72	78	82	82	83	86	84	84	83	80	80	80	83	85	86	85	84	83	83	83	72	86	80.8																																																																				
Jan 2	82	82	82	82	84	85	86	87	87	88	86	83	82	81	82	83	84	84	85	87	88	92	92	91	81	92	85.2																																																																				
Jan 3	91	94	95	95	96	98	100	100	99	98	98	98	98	99	99	100	99	99	99	97	97	97	97	96	91	100	97.5																																																																				
Jan 4	93	92	92	92	92	91	91	91	91	90	88	88	88	89	87	86	87	88	89	90	90	91	97	96	86	97	90.4																																																																				
Jan 5	95	94	94	94	93	93	94	94	93	93	93	94	95	95	95	96	96	96	96	95	95	95	96	96	93	96	94.6																																																																				
Jan 6	96	96	96	95	95	95	94	94	93	92	91	88	86	85	86	87	87	90	89	89	88	88	87	87	85	96	90.6																																																																				
Jan 7	88	88	87	85	83	81	81	78	74	73	73	78	83	84	83	85	86	87	88	89	90	90	89	88	73	90	83.8																																																																				
Jan 8	89	90	92	92	90	84	82	80	81	81	82	85	85	87	88	88	88	85	83	83	81	82	83	86	80	92	85.3																																																																				
Jan 9	87	88	87	86	85	86	86	86	86	86	86	85	84	82	80	83	84	82	80	79	77	76	75	75	75	88	83.0																																																																				
Jan 10	75	75	75	73	72	73	75	74	73	71	69	69	66	67	67	69	69	70	72	73	73	72	71	71	66	75	71.4																																																																				
Jan 11	70	70	70	69	69	67	66	66	66	65	65	64	63	62	62	64	65	64	63	63	63	64	64	64	62	70	65.3																																																																				
Jan 12	62	62	62	62	62	62	61	62	62	61	62	64	66	67	67	68	69	70	69	68	68	67	67	66	61	70	64.8																																																																				
Jan 13	66	66	66	67	65	65	65	65	64	64	65	66	65	63	62	63	65	66	67	68	68	67	65	63	62	68	65.3																																																																				
Jan 14	61	60	60	59	59	58	58	57	56	55	56	59	60	59	58	58	59	64	64	64	64	63	62	62	55	64	59.9																																																																				
Jan 15	61	61	63	64	63	62	62	63	66	69	71	72	71	73	74	77	79	81	83	84	85	85	85	86	61	86	72.5																																																																				
Jan 16	86	87	88	87	88	89	89	87	85	84	81	80	80	80	80	81	82	84	84	82	80	77	74	73	73	89	82.8																																																																				
Jan 17	72	70	69	71	70	69	68	68	69	70	75	80	83	85	85	84	84	85	86	86	86	85	86	86	68	86	78.0																																																																				
Jan 18	87	88	88	89	89	89	89	89	89	88	88	88	85	81	79	78	85	90	87	82	81	79	84	83	78	90	85.6																																																																				
Jan 19	82	81	80	77	76	76	78	78	78	79	82	86	91	92	91	92	92	92	91	91	89	89	88	89	76	92	85.0																																																																				
Jan 20	88	89	90	90	91	90	90	90	91	91	89	86	79	80	82	84	85	87	88	91	93	93	92	93	79	93	88.4																																																																				
Jan 21	94	94	89	91	90	91	89	90	90	90	89	89	88	88	88	88	89	89	86	87	87	87	87	86	86	94	89.0																																																																				
Jan 22	85	85	87	87	86	86	87	87	87	87	86	85	83	82	82	83	82	85	89	89	89	89	89	90	82	90	86.1																																																																				
Jan 23	90	89	90	93	94	93	93	94	93	90	89	87	85	87	89	93	94	97	97	96	96	97	97	97	85	97	92.5																																																																				
Jan 24	96	96	96	97	97	96	96	96	96	96	95	95	93	90	90	90	96	98	100	100	100	99	99	99	90	100	96.1																																																																				
Jan 25	99	98	98	98	98	97	97	98	98	99	100	100	100	100	100	96	98	98	97	99	100	100	100	100	96	100	98.7																																																																				
Jan 26	100	100	100	100	100	98	98	96	99	96	91	88	86	80	81	83	85	91	85	87	88	84	80	79	79	100	90.6																																																																				
Jan 27	74	73	74	75	76	77	80	79	80	79	79	75	72	72	73	75	80	80	79	77	76	81	77	72	72	81	76.5																																																																				
Jan 28	76	71	69	75	76	78	76	77	78	79	77	72	67	64	60	66	68	72	73	78	80	80	78	79	60	80	73.7																																																																				
Jan 29	76	80	77	72	69	70	71	68	59	60	60	55	57	56	55	52	51	55	57	63	72	70	69	65	51	80	64.1																																																																				
Jan 30	68	74	77	75	70	63	68	80	80	67	65	60	P	P	P	43	46	50	56	63	67	72	75	81	43	81	66.7																																																																				
Jan 31	82	84	84	82	81	80	84	87	87	80	67	56	50	49	45	42	42	42	47	52	54	56	62	65	42	87	65.0																																																																				
Diurnal Maximum	100	100	100	100	100	98	100	100	99	99	100	100	100	100	100	99	99	100	100	100	100	100	100	100	100	100	100																																																																				
Diurnal Average	82.0	82.4	82.3	82.2	81.6	81.3	81.8	82.0	81.7	80.9	80.1	79.3	79.1	78.6	78.3	77.9	79.3	80.9	81.2	81.8	82.2	82.3	82.3	82.2	82.3	82.2	82.2																																																																				
C	Monthly Calibration																							S	Daily Zero-Span Check																							Q	Quality Assurance																																														
K	Collection Error																							ND	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 days is not met.  
 Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



**Peace River Area Monitoring Program**  
**986-C Station - January 2024**  
**Summary of Hourly Averages**  
**BAROMETRIC PRESSURE (BP) in millibar**

Maximum Hourly Value:	965	mb	on Jan 18 at hr 10	Hours in Service:	744
Maximum Daily Value:	963	mb	on Jan 18	Hours of Data:	741
Minimum Hourly Value:	924	mb	on Jan 30 at hr 5	Hours of Missing Data:	3
Minimum Daily Value:	930	mb	on Jan 30	Hours of Calibration:	0
Monthly Average:	942	mb		Operational Uptime:	99.6

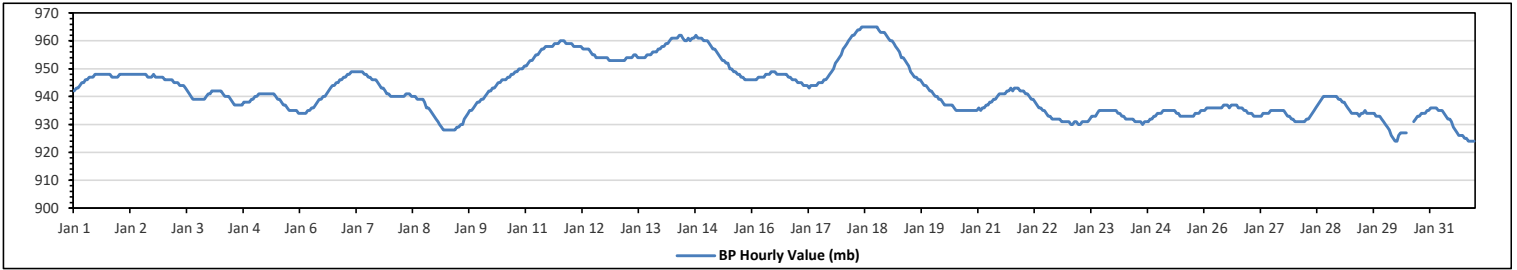
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average			
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23		
Jan 1	942	943	943	944	945	945	946	946	947	947	947	948	948	948	948	948	948	948	948	948	947	947	947	947	947	942	948	946	
Jan 2	948	948	948	948	948	948	948	948	948	948	948	948	948	948	947	947	947	948	947	947	947	947	947	947	947	947	947	948	948
Jan 3	946	946	946	946	946	945	945	945	944	944	944	943	942	941	940	939	939	939	939	939	939	939	939	940	941	939	946	942	
Jan 4	941	942	942	942	942	942	942	941	940	940	940	939	938	937	937	937	937	938	938	938	938	939	939	939	939	937	942	939	
Jan 5	940	940	941	941	941	941	941	941	941	941	941	940	939	939	939	938	937	937	936	935	935	935	935	934	934	941	941	939	
Jan 6	934	934	934	934	935	935	936	936	937	938	939	939	940	940	941	942	943	944	944	945	945	946	946	947	934	947	940		
Jan 7	947	948	948	949	949	949	949	949	949	949	948	948	947	947	946	946	946	945	944	943	943	942	941	941	941	949	946		
Jan 8	940	940	940	940	940	940	940	940	941	941	941	940	940	940	939	939	939	939	938	936	936	935	934	933	933	941	939		
Jan 9	932	931	930	929	928	928	928	928	928	928	928	929	929	930	930	932	933	934	935	935	936	937	938	938	928	938	931		
Jan 10	939	939	940	941	942	942	943	943	944	945	945	946	946	946	947	947	948	948	949	949	950	950	950	951	939	951	945		
Jan 11	951	952	953	953	954	955	955	956	957	957	958	958	958	958	958	959	959	959	960	960	960	959	959	959	951	960	957		
Jan 12	959	958	958	958	958	958	957	957	957	957	956	955	955	954	954	954	954	954	954	954	953	953	953	953	953	959	956		
Jan 13	953	953	953	953	953	954	954	954	954	955	955	954	954	954	954	954	955	955	955	955	956	956	957	957	953	957	955		
Jan 14	958	958	959	959	960	961	961	961	961	962	962	961	960	960	961	960	961	961	961	961	961	961	960	960	958	962	960		
Jan 15	960	959	958	957	957	956	955	954	953	953	952	952	950	950	949	949	948	948	947	947	946	946	946	946	946	960	952		
Jan 16	946	946	946	947	947	947	947	948	948	948	948	949	949	949	948	948	948	948	948	947	947	946	946	946	946	949	947		
Jan 17	945	945	945	944	944	944	943	944	944	944	944	944	945	945	946	946	947	948	949	950	952	953	954	955	943	955	947		
Jan 18	957	958	959	960	961	962	962	963	964	964	965	965	965	965	965	965	965	965	965	964	963	963	962	962	957	965	963		
Jan 19	961	960	960	959	958	957	956	954	954	953	952	951	949	948	947	947	946	946	945	944	944	943	942	942	942	961	951		
Jan 20	941	940	940	939	939	938	937	937	937	937	937	936	935	935	935	935	935	935	935	935	935	935	935	935	935	941	937		
Jan 21	936	935	936	936	937	937	938	938	939	939	940	941	941	941	941	942	942	943	942	943	943	943	942	942	935	943	940		
Jan 22	942	941	941	940	939	939	938	937	936	936	935	935	934	933	933	932	932	932	932	932	931	931	931	931	931	942	935		
Jan 23	931	930	930	931	931	930	930	931	931	931	931	932	933	933	933	934	935	935	935	935	935	935	935	935	930	935	933		
Jan 24	935	935	934	934	933	933	932	932	932	932	931	931	931	931	931	930	931	931	931	932	932	933	933	934	930	935	932		
Jan 25	934	934	935	935	935	935	935	935	935	934	934	933	933	933	933	933	933	933	933	934	934	934	935	933	935	935	934		
Jan 26	935	936	936	936	936	936	936	936	936	936	937	937	937	936	937	937	937	936	936	936	936	935	935	934	934	937	936		
Jan 27	934	934	933	933	933	933	933	934	934	934	934	935	935	935	935	935	935	935	934	933	933	932	932	932	932	935	934		
Jan 28	931	931	931	931	931	931	932	932	933	934	935	936	937	938	939	940	940	940	940	940	940	940	940	939	931	940	936		
Jan 29	939	938	938	937	936	935	934	934	934	934	933	934	934	935	934	934	934	934	933	933	933	933	932	931	931	939	934		
Jan 30	930	929	928	926	925	924	924	926	927	927	927	927	927	P	P	P	931	932	933	933	934	934	935	935	924	935	930		
Jan 31	936	936	936	936	935	935	935	934	933	932	932	931	929	928	927	926	926	926	925	925	924	924	924	924	924	936	930		
Diurnal Maximum	961	960	960	960	961	962	962	963	964	964	965	965	965	965	965	965	965	965	965	964	963	963	963	962	962	962	962		
Diurnal Average	943	943	943	943	942	942	942	943	943	943	943	943	943	942	942	942	942	942	942	942	942	942	942	942	942	942	942		

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



**Peace River Area Monitoring Program**  
**986-C Station - January 2024**  
**Summary of Hourly Averages**  
**AMBIENT TEMPERATURE (AT) in Degree Celsius**

Maximum Hourly Value:	10.9 °C	on Jan 29 at hr 15	Hours in Service:	744
Maximum Daily Value:	6.9 °C	on Jan 29	Hours of Data:	741
Minimum Hourly Value:	-39.9 °C	on Jan 14 at hr 0	Hours of Missing Data:	3
Minimum Daily Value:	-38.0 °C	on Jan 14	Hours of Calibration:	0
Monthly Average:	-16.2 °C		Operational Uptime:	99.6

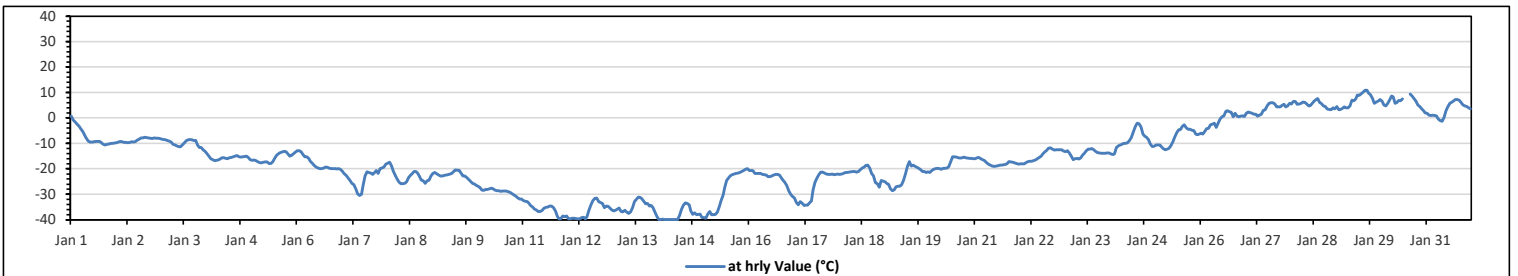
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
Jan 1	0.7	-0.8	-1.5	-2.5	-3.1	-4.3	-5.4	-6.6	-8	-9.1	-9.5	-9.5	-9.4	-9.3	-9.2	-9.2	-9.7	-10.3	-10.6	-10.4	-10.2	-10	-9.9	-9.8	-10.6	0.7	-7.4	
Jan 2	-9.7	-9.5	-9.3	-9.4	-9.6	-9.6	-9.7	-9.6	-9.4	-9.5	-9.3	-8.7	-8.3	-7.8	-7.8	-7.6	-7.7	-7.8	-8	-8.1	-7.9	-8	-8	-8.1	-9.7	-7.6	-8.7	
Jan 3	-8.3	-8.5	-8.6	-8.8	-9.1	-9.5	-10.4	-10.7	-10.9	-11.2	-11.3	-10.7	-9.8	-9	-8.6	-8.5	-8.6	-8.9	-8.9	-10.5	-11.6	-11.6	-12.4	-13.1	-13.1	-8.3	-10.0	
Jan 4	-14	-15	-16	-16.4	-16.7	-17.5	-17.6	-17.4	-17.3	-17.3	-17.9	-17.9	-17.1	-15.8	-14.7	-14	-13.6	-13.4	-13.2	-13.3	-14.1	-14.9	-14.6	-14	-13.4	-17.9	-13.2	-15.7
Jan 5	-16.6	-16.5	-16.7	-17.1	-17.5	-17.6	-17.4	-17.3	-17.3	-17.9	-17.9	-17.1	-15.8	-14.7	-14	-13.6	-13.4	-13.2	-13.3	-14.1	-14.9	-14.6	-14	-13.4	-17.9	-13.2	-15.7	
Jan 6	-12.8	-12.9	-13.3	-14.4	-15.3	-15.3	-15.9	-17	-17.8	-18.7	-19.3	-19.7	-20	-19.9	-19.6	-19.3	-19.4	-19.8	-19.9	-19.9	-20	-20.1	-20	-20.2	-20.2	-12.8	-17.9	
Jan 7	-20.9	-21.9	-22.6	-23.6	-24.5	-25.6	-26.2	-27.9	-29.8	-30.5	-29.9	-26.5	-22.9	-21.2	-21.5	-21.6	-22.2	-21.4	-20.7	-21.8	-20	-19.7	-19.2	-18.2	-30.5	-18.2	-23.3	
Jan 8	-17.7	-17.4	-18.9	-20.8	-22.4	-24	-25.2	-25.8	-25.8	-25.6	-25.1	-23.4	-22.6	-21.8	-21	-21.1	-21.7	-23.1	-24.4	-24.7	-25.7	-24.7	-24.4	-22.8	-25.8	-17.4	-22.9	
Jan 9	-21.8	-21.4	-21.9	-22.5	-22.9	-22.8	-22.6	-22.5	-22.3	-22	-21.7	-21.2	-20.4	-20.5	-20.5	-21.6	-22.8	-22.9	-23.4	-24.2	-24.9	-25.7	-25.9	-26.4	-26.4	-20.4	-22.7	
Jan 10	-26.9	-27.3	-28.3	-28.4	-28.1	-28.1	-27.8	-27.6	-27.9	-28.3	-28.5	-28.6	-28.8	-28.7	-28.7	-28.7	-28.9	-29.2	-29.7	-30.2	-30.7	-31.3	-31.9	-31.9	-31.9	-26.9	-28.9	
Jan 11	-32.5	-32.7	-32.8	-33.5	-34.5	-35	-35.7	-36.2	-36.7	-36.8	-36.4	-35.5	-35.1	-35	-34.6	-34.6	-35.2	-36.5	-38.7	-39.7	-39.5	-38.6	-38.8	-38.5	-39.7	-32.5	-36.0	
Jan 12	-39.7	-39.7	-39.4	-39.4	-39.5	-39.7	-39.6	-39.1	-39	-39.7	-38.7	-36.1	-34.1	-32.5	-31.6	-31.5	-32.8	-33.3	-33.6	-35.2	-34.6	-34.8	-35.5	-36.2	-39.7	-31.5	-36.5	
Jan 13	-36.5	-36.3	-35.9	-35.4	-36.8	-36.9	-36.3	-37	-37.5	-36.9	-35.2	-32.9	-32	-31.1	-31.2	-31.7	-32.7	-33.7	-33.6	-34.6	-34.4	-35.2	-37	-38.7	-38.7	-31.1	-35.0	
Jan 14	<b>-39.9</b>	<b>-39.9</b>	<b>-39.8</b>	<b>-39.9</b>	<b>-39.9</b>	<b>-39.9</b>	<b>-39.9</b>	<b>-39.9</b>	<b>-39.9</b>	<b>-39.9</b>	<b>-39.9</b>	<b>-39.9</b>	<b>-38.3</b>	<b>-35.9</b>	<b>-34.2</b>	<b>-33.4</b>	<b>-33.6</b>	<b>-34.1</b>	<b>-36.5</b>	<b>-37.9</b>	<b>-37.3</b>	<b>-38</b>	<b>-37.8</b>	<b>-37.7</b>	<b>-39.1</b>	<b>-39.9</b>	<b>-33.4</b>	<b>-38.0</b>
Jan 15	-39.1	-39.4	-37.7	-36.8	-38	-38	-37.9	-37	-34.9	-32.3	-30.3	-27.3	-24.6	-23.6	-22.9	-22.3	-22	-21.8	-21.6	-21.4	-21.1	-20.6	-20.2	-20	-39.4	-20.0	-28.8	
Jan 16	-20.7	-20.6	-20.7	-21.8	-21.8	-21.7	-21.8	-22.1	-22.3	-22.4	-23	-23	-22.8	-22.5	-22.2	-22.2	-22.4	-23.5	-24.4	-25.4	-26.6	-28.6	-29.9	-30.9	-30.9	-20.6	-23.5	
Jan 17	-31.5	-33.2	-34.1	-32.8	-33.5	-34.4	-34.3	-34.3	-32.6	-28.3	-25.4	-23.7	-22.3	-21.3	-21.3	-21.6	-22	-22.1	-22.1	-22	-22.3	-22.1	-22	-22.1	-22	-34.4	-21.3	-27.2
Jan 18	-22.1	-22	-21.7	-21.5	-21.4	-21.3	-21.2	-21	-21.1	-21.3	-21	-20.3	-19.7	-19.3	-18.7	-18.6	-19.7	-21.7	-22.8	-25.5	-25.8	-27.2	-24.5	-24.8	-27.2	-18.6	-21.8	
Jan 19	-25.1	-25.7	-26.1	-27.9	-28.6	-28.2	-27.1	-26.8	-26.8	-26.2	-24.4	-21.9	-19	-17.2	-18.9	-18.6	-19	-19.4	-19.8	-20.3	-21.1	-21.1	-21.4	-21.2	-28.6	-17.2	-23.0	
Jan 20	-21.5	-20.7	-20.2	-19.9	-19.8	-19.9	-20.2	-19.8	-19.8	-19.7	-19.1	-17.3	-15.2	-15.3	-15.4	-15.7	-15.8	-15.6	-15.4	-15.6	-15.8	-15.9	-15.9	-16	-21.5	-15.2	-17.7	
Jan 21	-16	-15.7	-15.5	-16	-16.3	-16.8	-17.5	-18.1	-18.6	-18.9	-19	-18.9	-18.8	-18.6	-18.6	-18.4	-18.3	-17.9	-17.2	-17.3	-17.4	-17.6	-17.9	-18.1	-19.0	-15.5	-17.6	
Jan 22	-18	-18	-18	-17.5	-17.1	-17	-17	-16.8	-16.5	-16	-15.5	-15	-14.1	-13.4	-12.7	-11.9	-11.7	-12.2	-12.6	-12.5	-12.4	-12.4	-12.5	-13	-18.0	-11.7	-14.7	
Jan 23	-13.3	-12.8	-13.7	-15	-16.3	-16.1	-15.9	-16.2	-15.7	-14.6	-13.9	-12.8	-12.2	-12.2	-12	-12.4	-13.1	-13.6	-13.7	-13.9	-13.9	-13.9	-13.7	-13.7	-16.3	-12.0	-13.9	
Jan 24	-14.1	-14.4	-14.1	-11.6	-10.9	-10.7	-10.3	-10	-9.9	-9.7	-7.6	-5.5	-3.4	-2	-2.3	-3.6	-6.3	-7.1	-7.6	-8.4	-10.2	-11.2	-11.1	-14.4	-2.0	-8.8		
Jan 25	-10.7	-10.6	-10.6	-11.3	-12.1	-12.4	-12.2	-11.9	-10.8	-9.2	-7.6	-6	-4.7	-4.6	-3.3	-2.7	-3.8	-4.4	-4.4	-4.8	-5	-6.3	-6.6	-6.3	-12.4	-2.7	-7.6	
Jan 26	-5.9	-6.3	-5.3	-4.2	-4.1	-2.7	-2.5	-2	-3.7	-2.1	-0.4	0.5	0.8	2.6	2.8	2.5	2.3	0.4	1.8	0.7	0.5	0.7	0.8	0.6	-6.3	2.8	-0.9	
Jan 27	1.9	2.4	2.1	1.8	1.4	1.4	0.7	1.1	1.5	3	3.2	4.7	5.8	6	6	5.5	4.4	4.4	4.4	5	5.3	4.3	4.7	5.7	0.7	6.0	3.6	
Jan 28	5.5	6.5	6.5	5.3	5.5	5.8	6.3	6.1	5.4	4.7	4.9	5.8	6.6	7.3	7.6	6.2	5.6	4.7	4.5	3.5	3.4	3.2	3.9	3.7	3.2	7.6	5.4	
Jan 29	4.5	3.2	3.3	3.8	4.3	4	3.9	4.7	7	6.7	7.5	9.1	8.9	9.5	10.1	<b>10.9</b>	<b>10.9</b>	9.7	9.2	7.8	5.7	6.3	6.6	7.3	3.2	<b>10.9</b>	<b>6.9</b>	
Jan 30	6.6	5.2	4.8	5.7	7.1	8.6	8.3	5.8	6.1	6.9	6.7	7.5	<b>P</b>	<b>P</b>	<b>P</b>	9.3	8.6	7.6	6.6	5.2	4.5	3.7	3	2	2.0	9.3	6.2	
Jan 31	1.8	1.1	1	1.1	1	0.8	-0.4	-1	-1.3	0.2	2.8	4.5	5.8	6.1	6.6	7.2	7.2	7	6.1	5.1	4.8	4.5	3.9	3.7	-1.3	7.2	3.3	
Diurnal Maximum	6.6	6.5	6.5	5.7	7.1	8.6	8.3	6.1	7.0	6.9	7.5	9.1	8.9	9.5	10.1	10.9	10.9	9.7	9.2	7.8	5.7	6.3	6.6	7.3				
Diurnal Average	-16.6	-16.8	-16.9	-17.1	-17.4	-17.5	-17.7	-17.8	-17.8	-16.9	-15.7	-15.4	-14.7	-14.4	-13.6	-14.1	-14.7	-15.1	-15.6	-15.9	-16.1	-16.2	-16.3					

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

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





**Peace River Area Monitoring Program**  
**986-C Station - January 2024**  
**Summary of Hourly Averages**  
**STATION TEMPERATURE (ST) in Degree Celsius**

Maximum Hourly Value:	30.3	°C	on Jan 15 at hr 17	Hours in Service:	744
Maximum Daily Value:	27.5	°C	on Jan 26	Hours of Data:	741
Minimum Hourly Value:	10.8	°C	on Jan 12 at hr 2	Hours of Missing Data:	3
Minimum Daily Value:	12.9	°C	on Jan 12	Hours of Calibration:	0
Monthly Average:	22.7	°C		Operational Uptime:	99.6

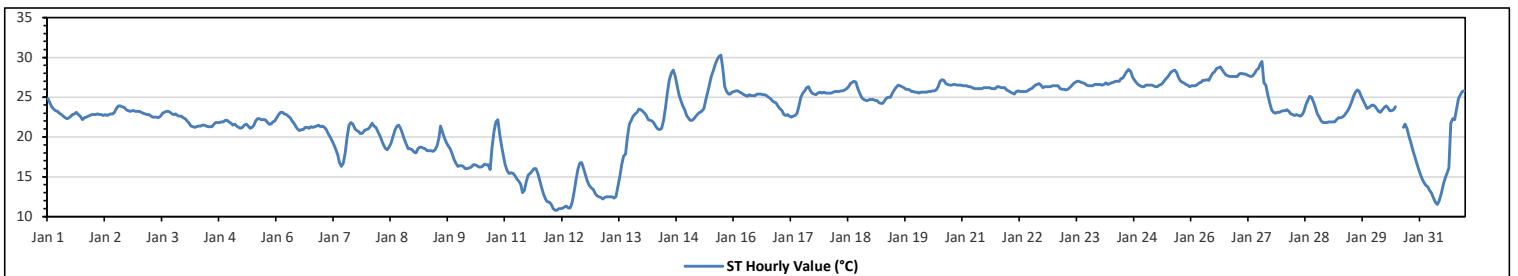
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23
Jan 1	24.8	24.3	23.8	23.5	23.3	23.2	23.0	22.8	22.6	22.4	22.3	22.4	22.6	22.8	22.9	23.1	22.8	22.6	22.2	22.4	22.5	22.6	22.7	22.8	22.2	24.8	22.9
Jan 2	22.8	22.8	22.9	22.8	22.8	22.7	22.8	22.7	22.8	22.9	22.9	23.1	23.6	23.9	23.9	23.8	23.7	23.4	23.3	23.2	23.3	23.3	23.2	23.2	22.7	23.9	23.2
Jan 3	23.2	23.1	23.0	22.9	22.8	22.8	22.6	22.5	22.5	22.5	22.4	22.6	23.0	23.1	23.2	23.2	23.1	22.9	22.8	22.9	22.7	22.6	22.6	22.4	22.4	23.2	22.8
Jan 4	22.3	22.0	21.7	21.4	21.3	21.2	21.3	21.4	21.4	21.5	21.5	21.4	21.3	21.3	21.3	21.6	21.8	21.8	21.8	21.9	21.9	22.1	22.1	21.9	21.2	22.3	21.6
Jan 5	21.7	21.5	21.6	21.4	21.2	21.1	21.2	21.5	21.6	21.4	21.1	21.2	21.5	22.0	22.3	22.3	22.2	22.2	21.9	21.6	21.6	21.9	22.0	21.1	21.2	22.3	21.7
Jan 6	22.4	22.8	23.1	23.1	22.9	22.8	22.6	22.4	22.0	21.7	21.3	21.0	20.8	20.9	20.9	21.2	21.2	21.1	21.3	21.2	21.3	21.4	21.5	21.3	20.8	23.1	21.8
Jan 7	21.4	21.2	20.9	20.4	20.0	19.5	19.0	18.4	17.7	16.8	16.3	16.7	18.0	20.0	20.5	21.8	21.6	21.0	20.8	20.7	20.4	20.5	20.8	20.9	16.3	21.8	19.8
Jan 8	21.0	21.3	21.7	21.4	21.2	20.7	20.2	19.7	19.1	18.6	18.4	18.7	19.2	20.1	20.9	21.4	21.5	21.1	20.4	19.7	19.1	18.5	18.5	18.4	18.4	21.7	20.0
Jan 9	18.1	18.0	18.5	18.7	18.7	18.6	18.5	18.3	18.3	18.3	18.2	18.4	18.9	19.9	21.4	20.6	19.9	19.3	18.9	18.5	17.9	17.2	16.7	16.3	16.3	21.4	18.6
Jan 10	16.4	16.4	16.3	16.0	16.0	16.1	16.2	16.5	16.5	16.4	16.2	16.2	16.3	16.6	16.5	16.5	15.9	18.7	20.7	21.9	22.2	20.3	18.8	17.5	15.9	22.2	17.4
Jan 11	16.5	15.8	15.4	15.5	15.4	15.1	14.7	14.4	14.0	13.0	13.3	14.4	15.2	15.4	15.7	16.0	16.0	15.4	14.5	13.6	12.8	12.2	11.9	11.8	11.8	16.5	14.5
Jan 12	11.5	11.0	10.8	10.8	11.0	11.0	11.1	11.2	11.3	11.1	11.1	11.7	13.0	14.5	15.9	16.7	16.8	16.0	15.2	14.4	13.9	13.6	13.4	12.9	10.8	16.8	12.9
Jan 13	12.6	12.5	12.4	12.2	12.4	12.5	12.5	12.5	12.5	12.3	12.5	13.7	15.0	16.5	17.6	17.8	20.0	21.6	22.1	22.6	22.9	23.1	23.5	23.4	12.2	23.5	16.5
Jan 14	23.2	23.0	22.7	22.2	22.1	22.0	21.7	21.3	21.0	20.9	21.1	22.1	23.7	25.6	27.2	28.0	28.4	27.7	26.5	25.3	24.6	23.9	23.4	22.7	20.9	28.4	23.8
Jan 15	22.4	22.1	22.1	22.3	22.6	22.9	23.1	23.2	23.6	24.5	25.5	26.5	27.6	28.3	29.1	29.7	30.1	30.3	28.6	26.3	25.7	25.4	25.4	25.6	22.1	30.3	25.5
Jan 16	25.7	25.8	25.8	25.6	25.5	25.3	25.2	25.1	25.3	25.2	25.2	25.2	25.4	25.4	25.4	25.3	25.3	25.2	25.0	24.8	24.6	24.4	24.3	23.9	23.9	25.8	25.2
Jan 17	23.6	23.3	22.8	22.7	22.8	22.6	22.5	22.6	22.7	23.0	23.9	25.0	25.5	25.8	26.2	26.3	25.8	25.5	25.4	25.3	25.5	25.6	25.5	25.6	22.9	26.3	24.4
Jan 18	25.5	25.5	25.5	25.5	25.6	25.7	25.7	25.7	25.8	25.8	25.9	26.1	26.3	26.7	26.9	27.0	26.9	26.1	25.4	24.9	24.7	24.6	24.6	24.7	24.6	27.0	25.7
Jan 19	24.7	24.7	24.6	24.6	24.3	24.2	24.2	24.6	24.9	25.0	25.0	25.5	25.9	26.2	26.5	26.4	26.3	26.2	26.0	26.0	25.9	25.7	25.7	25.6	24.2	26.5	25.4
Jan 20	25.6	25.5	25.6	25.6	25.6	25.6	25.7	25.7	25.8	25.8	25.9	26.3	27.0	27.2	27.1	26.7	26.6	26.5	26.5	26.6	26.6	26.5	26.5	26.5	25.5	27.2	26.2
Jan 21	26.4	26.4	26.4	26.3	26.3	26.2	26.1	26.1	26.1	26.1	26.1	26.2	26.2	26.2	26.2	26.1	26.1	26.1	26.3	26.3	26.2	26.2	26.2	25.9	25.9	26.4	26.2
Jan 22	25.8	25.6	25.5	25.4	25.7	25.8	25.7	25.7	25.7	25.7	25.8	26.0	26.1	26.3	26.5	26.6	26.7	26.5	26.2	26.3	26.3	26.3	26.3	26.4	25.4	26.7	26.0
Jan 23	26.4	26.4	26.4	26.1	26.0	26.0	25.9	26.0	26.2	26.4	26.7	26.9	27.0	27.0	26.9	26.8	26.7	26.5	26.4	26.4	26.4	26.6	26.6	26.6	25.9	27.0	26.5
Jan 24	26.6	26.5	26.6	26.8	26.6	26.7	26.8	26.9	27.0	27.0	27.0	27.3	27.4	27.8	28.2	28.5	28.2	27.5	27.1	26.8	26.6	26.4	26.3	26.3	26.3	28.5	27.0
Jan 25	26.5	26.5	26.5	26.5	26.4	26.3	26.3	26.5	26.6	26.8	27.1	27.4	27.7	28.1	28.3	28.4	28.1	27.5	27.1	26.9	26.8	26.6	26.5	26.3	26.3	28.4	27.0
Jan 26	26.4	26.4	26.4	26.6	26.8	26.9	27.1	27.1	27.2	27.1	27.6	28.0	28.2	28.6	28.7	28.8	28.5	28.1	27.8	27.7	27.6	27.6	27.6	27.6	26.4	28.8	27.5
Jan 27	27.6	27.9	28.0	27.9	27.9	27.8	27.7	27.6	27.7	28.0	28.4	28.6	29.2	29.5	29.8	26.5	25.3	24.3	23.4	23.1	23.0	23.1	23.1	23.2	23.0	29.5	26.5
Jan 28	23.3	23.3	23.4	23.2	22.9	22.8	22.7	22.8	22.7	22.6	22.8	23.2	24.0	24.6	25.1	25.0	24.4	23.7	22.9	22.5	22.0	21.8	21.8	21.8	21.8	25.1	23.1
Jan 29	21.9	21.9	21.9	21.9	22.2	22.4	22.4	22.5	22.7	23.0	23.3	23.8	24.4	25.1	25.6	25.9	25.7	25.1	24.6	24.1	23.6	23.7	23.9	24.0	21.9	25.9	23.6
Jan 30	23.9	23.6	23.2	23.1	23.4	23.7	23.9	23.7	23.3	23.3	23.4	23.8	P	P	P	21.2	21.6	21.1	20.1	19.3	18.4	17.6	16.8	16.0	16.0	23.9	21.6
Jan 31	15.3	14.7	14.2	13.9	13.7	13.3	12.9	12.3	11.8	11.5	12.0	13.0	14.1	14.9	15.4	16.1	21.7	22.3	22.2	23.5	24.8	25.3	25.7	25.8	11.5	25.8	17.1
Diurnal Maximum	27.6	27.9	28.0	27.9	27.9	27.8	27.7	27.6	27.7	28.0	28.4	28.6	29.2	29.5	29.1	29.7	30.1	30.3	28.6	27.7	27.6	27.6	27.6	27.6			
Diurnal Average	22.4	22.3	22.2	22.1	22.0	22.0	21.9	21.9	21.8	21.9	22.3	22.8	23.3	23.7	23.7	23.8	23.7	23.3	23.1	23.0	22.8	22.7	22.6				

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

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



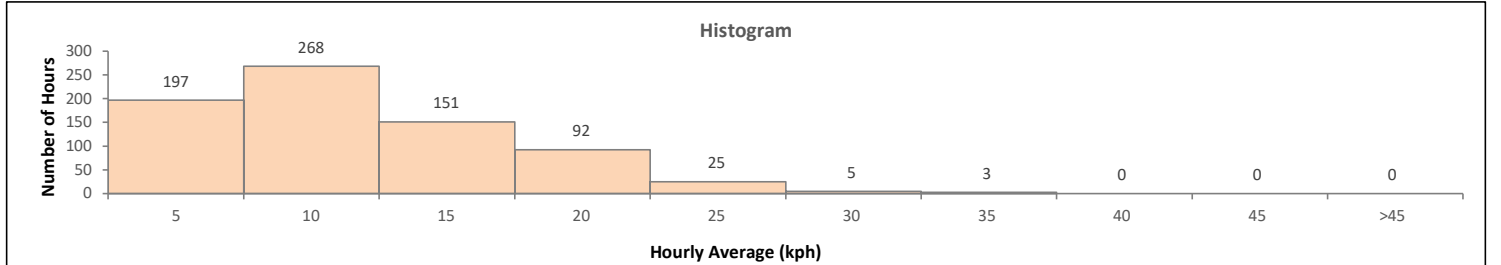
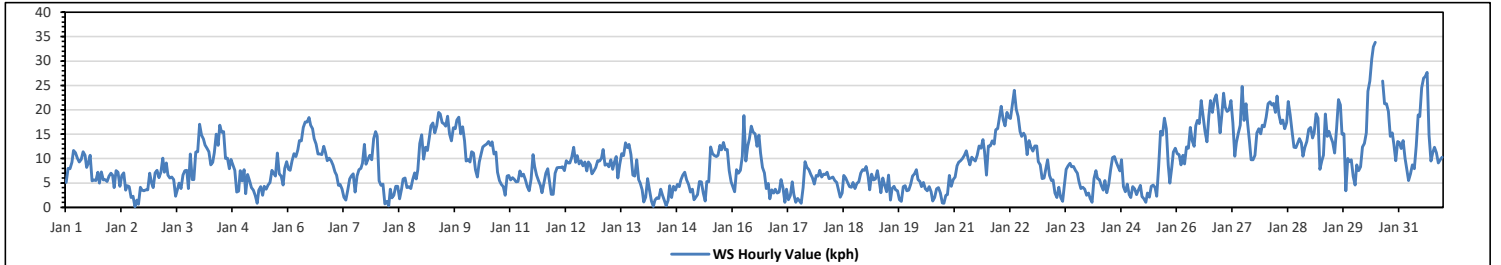
**Peace River Area Monitoring Program**  
**986-C Station - January 2024**  
**Summary of Hourly Averages**  
**VECTOR WIND SPEED (VWS) in km/hr**

Maximum Hourly Value:	33.8	kph	on Jan 30 at hr 11	Hours in Service:	744
Maximum Daily Value:	17.6	kph	on Jan 30	Hours of Data:	741
Minimum Hourly Value:	0.1	kph	on Jan 2 at hr 13	Hours of Missing Data:	3
Minimum Daily Value:	3.2	kph	on Jan 14	Hours of Calibration:	0
Monthly Average:	1.1	kph		Operational Uptime:	99.6

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	
Jan 1	5.1	8.0	7.9	9.2	11.7	11.2	10.1	9.3	9.8	11.4	10.7	8.2	9.0	10.7	5.4	5.6	5.5	7.2	5.0	7.3	5.6	5.7	5.3	6.4	5.0	11.7	8.0	
Jan 2	7.0	6.6	4.0	7.5	7.2	4.3	6.5	7.1	3.5	4.4	4.2	2.0	2.3	0.1	1.5	0.6	4.1	3.5	3.4	3.6	3.6	7.0	5.0	4.0	0.1	7.5	4.3	
Jan 3	7.1	7.6	6.1	7.2	10.1	7.2	9.1	6.6	6.0	6.2	5.7	2.3	3.7	5.0	3.9	6.6	7.5	7.6	3.9	10.9	5.7	5.7	11.3	11.4	2.3	11.4	6.9	
Jan 4	17.0	14.8	14.0	12.8	12.1	11.4	8.7	9.2	11.2	15.0	12.7	16.8	15.4	15.5	10.0	10.1	7.9	9.8	8.7	7.6	3.1	3.3	7.5	5.4	3.1	17.0	10.8	
Jan 5	7.7	2.8	6.7	5.5	4.0	3.5	2.4	0.8	3.5	4.2	2.5	4.3	3.7	4.6	5.1	7.6	7.0	6.4	11.1	6.9	6.4	4.6	8.0	9.4	0.8	11.1	5.4	
Jan 6	7.8	7.6	9.6	11.0	10.4	11.8	13.7	13.6	16.4	17.5	17.5	18.4	16.8	16.1	14.1	13.0	10.9	10.9	10.8	12.5	11.3	9.6	10.1	9.6	7.6	18.4	12.5	
Jan 7	8.6	7.3	6.6	4.5	4.7	3.8	2.1	1.5	3.5	5.8	6.4	6.9	3.1	6.4	7.7	8.0	9.0	12.9	8.8	10.7	9.7	14.1	15.5	1.5	15.5	7.4		
Jan 8	14.6	5.4	4.5	4.8	0.7	1.2	0.3	3.7	1.9	2.5	4.3	4.3	1.7	3.7	5.8	6.0	4.0	4.2	3.9	5.7	7.1	5.8	7.7	13.1	0.3	14.6	4.9	
Jan 9	14.9	9.9	12.3	11.7	14.3	16.7	17.3	15.3	16.7	19.5	19.1	17.4	17.1	16.6	18.7	15.1	13.6	16.3	16.1	17.9	18.5	15.1	16.5	13.6	9.9	19.5	15.8	
Jan 10	9.5	9.8	9.3	11.4	11.1	7.7	6.2	9.3	11.0	12.4	12.7	13.0	13.5	12.7	13.4	10.9	11.3	7.2	5.5	4.7	4.2	2.5	6.4	6.5	2.5	13.5	9.3	
Jan 11	5.6	6.1	5.7	5.2	5.3	7.4	6.4	6.8	5.7	4.2	3.4	5.8	10.8	8.4	6.6	5.5	4.5	3.0	5.0	7.0	7.9	5.5	2.7	2.7	2.7	10.8	5.7	
Jan 12	7.0	8.1	8.2	8.2	8.3	7.5	9.6	9.1	9.1	10.3	12.3	9.2	10.6	8.9	9.6	8.5	9.3	7.4	9.3	8.7	6.9	7.4	8.2	9.6	6.9	12.3	8.8	
Jan 13	9.5	10.1	11.9	8.6	8.9	8.3	9.7	7.8	9.2	10.4	6.0	8.8	11.0	10.6	13.2	12.2	12.9	10.8	6.6	6.4	9.7	5.7	5.0	3.6	3.6	13.2	9.0	
Jan 14	1.1	2.1	5.9	3.5	1.3	0.2	1.5	1.9	1.8	3.7	2.4	1.3	0.3	1.4	4.4	2.0	4.3	3.5	4.7	4.2	5.6	6.6	7.2	5.6	0.2	7.2	3.2	
Jan 15	4.7	3.1	3.7	1.6	2.0	2.6	5.3	5.2	2.9	1.3	5.3	5.2	12.4	11.0	10.6	10.4	10.7	12.7	11.8	13.3	11.8	11.9	7.5	5.2	1.3	13.3	7.2	
Jan 16	4.1	3.2	7.7	7.0	7.6	10.5	18.8	9.5	12.6	14.0	16.6	15.4	15.1	12.5	14.8	11.1	8.2	7.1	3.9	4.9	1.7	3.6	2.9	3.7	1.7	18.8	9.0	
Jan 17	2.9	3.1	5.7	4.0	1.0	3.7	1.6	2.4	5.2	2.7	1.0	1.8	1.3	0.8	4.0	9.4	8.2	7.7	6.7	6.1	4.8	6.5	6.4	7.6	0.8	9.4	4.4	
Jan 18	6.2	6.8	6.7	7.2	5.9	6.0	6.2	5.5	5.1	3.7	2.1	2.9	6.5	6.0	5.1	4.2	4.1	5.1	3.9	4.9	5.2	7.0	7.7	7.6	2.1	7.7	5.5	
Jan 19	8.4	6.4	3.6	6.8	5.6	5.8	7.5	5.3	3.0	6.0	4.5	3.2	6.6	1.5	3.9	4.3	3.6	3.4	1.6	1.2	4.2	4.4	3.4	3.5	1.2	8.4	4.5	
Jan 20	4.7	6.4	6.9	7.7	5.7	5.3	4.2	5.1	3.8	3.4	4.2	3.2	1.3	2.0	3.8	4.0	2.9	0.9	0.8	2.5	2.6	6.5	4.3	5.7	0.8	7.7	4.1	
Jan 21	6.2	8.5	9.2	9.6	10.0	10.7	11.6	9.9	8.7	10.3	9.9	9.5	10.7	12.6	12.1	13.9	11.4	6.6	12.6	13.6	13.0	15.9	16.1	6.2	16.1	11.1	11.1	
Jan 22	18.2	20.7	18.0	16.7	19.5	18.4	18.2	21.1	24.0	20.1	18.6	15.5	14.5	15.2	14.6	10.8	13.7	12.3	11.5	12.6	12.6	9.4	8.7	5.9	5.9	24.0	15.5	
Jan 23	6.0	7.7	9.7	6.5	5.5	5.6	2.9	2.0	4.1	2.0	1.2	4.3	7.8	8.5	9.0	8.3	8.4	7.6	7.0	5.3	3.9	4.1	3.7	2.5	1.2	9.7	5.6	
Jan 24	2.9	1.8	1.0	5.9	7.5	5.9	5.7	4.4	3.5	5.5	3.0	4.7	7.7	10.2	10.4	9.4	8.4	7.4	9.7	4.2	3.2	4.8	2.6	2.0	1.0	10.4	5.5	
Jan 25	4.2	3.8	2.6	3.6	4.5	2.2	1.7	1.0	2.9	2.1	4.3	4.6	4.0	2.3	8.3	15.6	14.8	18.3	16.1	8.7	5.0	8.2	11.3	12.1	1.0	18.3	6.8	
Jan 26	11.0	10.8	8.7	10.7	8.9	12.4	12.1	16.4	13.6	12.5	16.7	17.8	17.2	21.9	18.7	15.5	13.4	18.8	21.9	19.5	22.1	23.1	19.9	15.3	8.7	23.1	15.8	
Jan 27	18.6	23.4	20.6	19.7	20.0	21.9	17.3	10.5	13.3	15.2	16.8	24.8	17.8	21.2	17.3	13.4	9.7	9.7	10.7	15.3	16.1	15.1	16.8	16.5	9.7	24.8	16.7	
Jan 28	18.5	21.2	21.6	21.0	21.3	19.5	22.8	19.0	17.2	17.9	16.1	17.4	21.7	19.0	15.5	12.3	12.2	13.2	14.1	13.2	10.5	12.3	13.5	16.0	10.5	22.8	17.0	
Jan 29	16.4	14.2	15.3	19.2	18.3	7.8	9.6	10.7	19.1	14.5	15.6	14.4	13.3	11.1	16.1	22.1	21.0	15.0	15.1	3.4	10.0	9.4	9.7	6.3	3.4	22.1	13.7	
Jan 30	4.6	8.7	7.5	8.3	12.4	13.1	15.3	23.8	25.9	30.4	32.9	33.8	24.5	26.5	26.8	27.7	21.2	21.2	19.7	14.5	15.3	13.0	9.6	13.5	4.6	33.8	17.6	
Jan 31	13.3	12.0	13.7	10.1	7.6	5.5	6.9	8.7	7.9	12.6	18.9	18.6	24.5	26.5	26.8	27.7	14.8	9.5	11.3	12.3	11.2	9.1	9.7	10.3	5.5	27.7	13.7	
Diurnal Maximum	18.6	23.4	21.6	21.0	21.3	21.9	22.8	23.8	25.9	30.4	32.9	33.8	24.5	26.5	26.8	27.7	21.2	21.2	19.5	22.1	23.1	19.9	16.5					
Diurnal Average	8.8	8.6	8.9	8.9	8.8	8.4	8.8	8.5	9.1	9.7	9.9	10.2	10.0	10.1	10.3	10.6	9.6	9.3	9.1	8.6	8.4	8.2	8.7	8.6				

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

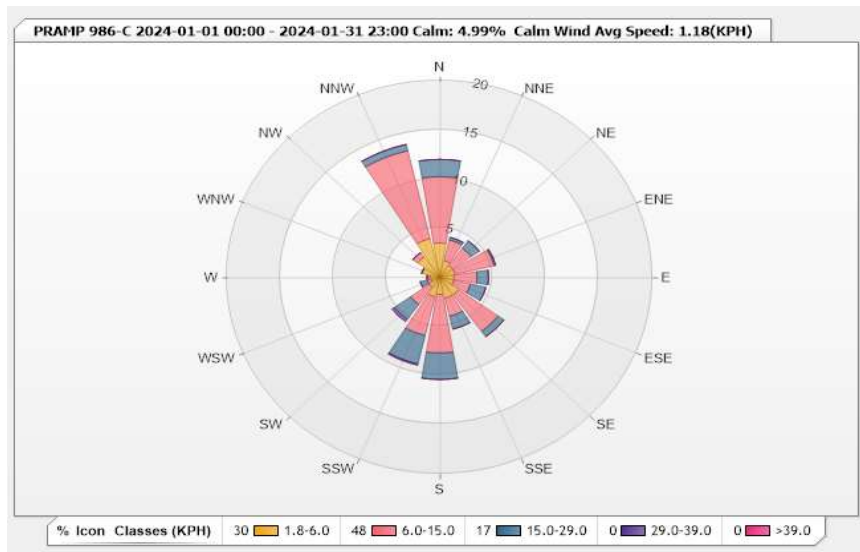


Station: PRAMP 986-C Monitor: WDS [KPH] Monthly: 01-2024

Type: Wind Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm (WS<1.8kph): 4.99%      Valid Data: 99.60%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	3.51	6.75	1.75	0	0	12.01
NNE	1.75	2.16	0.27	0	0	4.18
NE	1.48	2.16	0.94	0	0	4.58
ENE	1.48	3.78	0.13	0	0	5.39
E	1.35	2.16	1.08	0	0	4.59
ESE	1.35	1.62	1.48	0	0	4.45
SE	2.16	4.59	0.67	0	0	7.42
SSE	2.16	1.89	1.35	0	0	5.4
S	1.75	5.94	2.7	0	0	10.39
SSW	2.02	4.05	2.97	0.13	0	9.17
SW	1.21	2.16	1.89	0.27	0	5.53
WSW	0.81	0.4	0.67	0	0	1.88
W	0.94	0.27	0	0	0	1.21
WNW	1.75	0	0	0	0	1.75
NW	2.56	0.54	0	0	0	3.1
NNW	4.05	9.18	0.67	0	0	13.9
Summary	30.33	47.65	16.57	0.4	0	94.95



Peace River Area Monitoring Program

986-C Station - January 2024

Summary of Hourly Averages

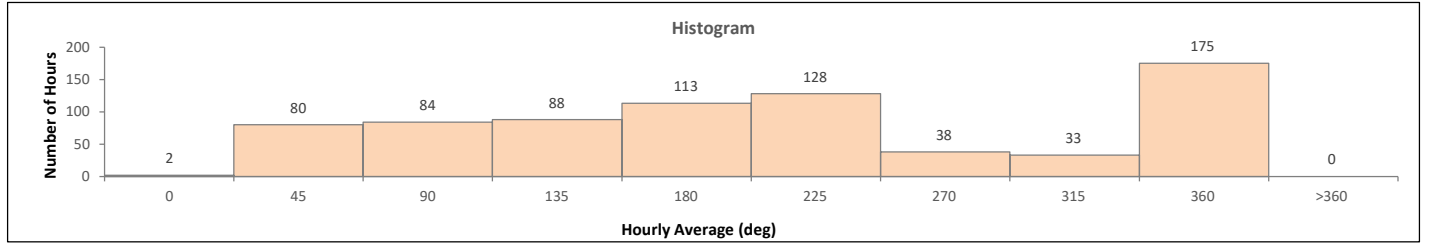
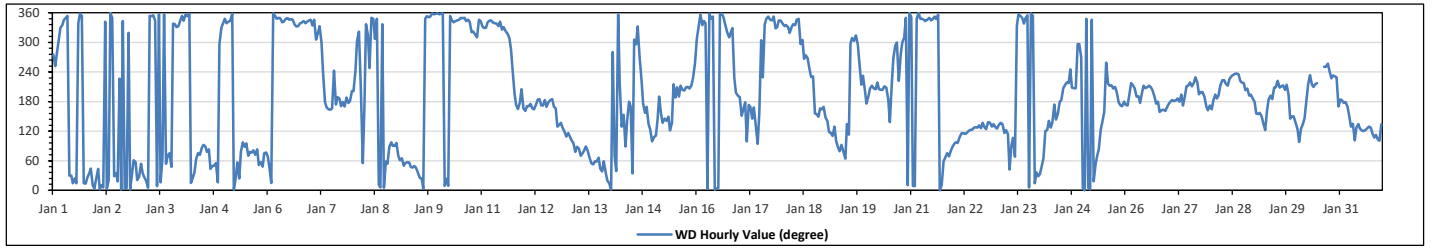
WIND DIRECTION (VWD) in sector

Monthly Average:	144 (SE) degree	Hours in Service:	744
		Hours of Data:	741
		Hours of Missing Data:	3
		Hours of Calibration:	0
		Operational Uptime:	99.6

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
Jan 1	W	WSW	W	NW	NNW	NNW	NNW	N	N	NNE	NNE	NNE	NNE	NNW	N	N	NNE	NNE	NNE	NE	NE	N	N	355	N	
Jan 2	NNE	NE	N	N	N	NNW	N	NNE	N	NNW	NNE	NE	NNE	SW	N	NNW	N	N	NW	N	NE	ENE	ENE	NNE	16	NNE
Jan 3	NNE	NE	NE	NNE	NNE	N	N	N	NNW	N	N	NNE	ENE	N	NE	ENE	ENE	NE	NNW	NNW	NNW	NNW	NNW	41	NNE	
Jan 4	N	NNW	N	N	N	NNE	NNE	NE	ENE	ENE	ENE	E	E	ENE	E	ENE	E	NE	NE	NE	NNE	WNW	NNW	NNW	40	NE
Jan 5	NNW	NNW	NNW	NNW	N	N	NNE	NE	NNE	ENE	E	E	ENE	ENE	ENE	E	ENE	E	NE	ENE	NE	ENE	ENE	54	NE	
Jan 6	ENE	NE	NNE	N	N	NNW	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	348	NNW
Jan 7	NNW	NNW	NNW	NW	NW	NNW	WNW	SW	S	SSE	SSE	SSE	SSE	WSW	S	S	S	S	SSE	S	S	S	SSW	192	S	
Jan 8	SSW	WSW	WNW	NW	SSW	NE	SSE	NNW	NW	WSW	N	NNW	NW	NNW	NNE	N	NNW	N	ENE	NE	E	E	E	29	NNE	
Jan 9	E	ENE	ENE	ENE	NE	NE	ENE	NE	NE	NE	NE	NE	NE	NNE	NNE	N	NNW	N	N	N	N	N	N	30	NNE	
Jan 10	N	N	N	N	NNE	N	N	NNW	NNW	NNW	NNW	NNW	NNW	N	NNW	NNW	NNW	NNW	NW	NW	NW	NW	NNW	NNW	349	NNW
Jan 11	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NW	NNW	NW	NW	NW	WNW	WSW	SSW	S	SSE	S	SSW	SSE	318	NW
Jan 12	SSE	S	S	S	SSE	SSE	S	S	S	S	S	SSE	S	S	S	SSE	SSE	SE	SE	SE	SE	SE	SE	ESE	163	SSE
Jan 13	ESE	ESE	E	E	ENE	E	E	ENE	ENE	E	E	ENE	NE	NE	ENE	ENE	ENE	NE	NE	ENE	NE	NNE	NNE	71	ENE	
Jan 14	N	W	ENE	NE	N	SSW	SE	SSE	E	SE	S	SSE	NE	NW	WNW	NNW	W	SW	S	SSE	SSE	SE	ESE	E	142	SE
Jan 15	ESE	ESE	SE	S	SSE	SE	SE	SSE	ESE	SE	SSW	S	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	194	SSW
Jan 16	NW	NNW	N	NNW	NNW	NNW	N	NNW	N	N	N	N	N	N	N	NNW	NW	NW	NW	NNW	SW	SSW	S	348	NNW	
Jan 17	S	SSE	SSE	S	E	S	SSE	SE	SSE	SE	E	SSE	WNW	SW	NNW	NNW	N	NNW	NNW	N	NNW	NNW	NNW	344	NNW	
Jan 18	NNW	NNW	NNW	NNW	NW	NNW	NNW	NNW	NNW	WNW	WNW	W	W	W	WSW	SW	SW	SSE	SSE	SSE	SSE	SSE	SSE	287	WNW	
Jan 19	SE	SE	ESE	ESE	ESE	SE	E	ENE	E	ENE	ESE	ESE	ESE	WNW	NW	WNW	NW	WNW	WSW	SSW	SSW	SSW	SSW	126	SE	
Jan 20	S	SSW	SSW	SSW	SSW	SW	SSW	SSW	SSW	SSW	SSW	S	SE	SSW	W	WNW	WNW	SW	W	WNW	NW	N	N	230	SW	
Jan 21	N	N	N	NNW	N	NNW	NNW	NNW	NNW	NNW	N	NNW	NNW	N	NNW	N	N	ENE	ENE	ENE	ENE	ENE	ENE	E	16	NNE
Jan 22	E	E	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	119	ESE	
Jan 23	SE	SE	SE	SE	ESE	ESE	ESE	NE	E	ESE	ENE	NNW	N	N	NNW	NNW	NNW	N	N	N	N	NNE	NE	35	NE	
Jan 24	NNE	NE	ENE	ESE	ESE	SE	SE	SE	S	SE	SSE	S	S	SSW	SSW	SW	WSW	SSW	SSW	SSW	SSW	WNW	WNW	189	S	
Jan 25	N	N	NNW	N	N	NNW	NNE	NE	ENE	E	ESE	SE	SSE	WSW	SW	SSW	SSW	SSW	SSW	SSW	S	S	S	195	SSW	
Jan 26	S	S	S	SW	SSW	SSW	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	SSE	SSE	SSE	SSE	187	S	
Jan 27	S	S	S	S	S	S	S	SSW	S	S	SSW	SSW	SW	SSW	SW	SW	SW	SSW	SSW	SSW	S	SSE	SSE	192	S	
Jan 28	SSE	S	SSW	S	S	SSW	SW	SW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	210	SSW	
Jan 29	S	SSE	SSE	SSE	SSE	SE	SSE	SSE	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SE	SSE	SSE	181	S	
Jan 30	ESE	E	SE	SE	SE	S	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	217	SW	
Jan 31	S	S	S	S	SSE	SSE	SE	SE	SE	SE	SE	ESE	ESE	ESE	SE	SE	SE	ESE	ESE	ESE	ESE	ESE	ESE	131	SE	

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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)	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.



**Peace River Area Monitoring Program**

**986-C Station - January 2024**

**Summary of Hourly Averages**

**VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector**

WIND SPEED																												
Maximum Hourly Value: 33.8 kph on Jan 30 at hr 11													Hours in Service: 744															
Maximum Daily Value: 17.6 kph on Jan 30													Hours of Data: 741															
Minimum Hourly Value: 0.1 kph on Jan 2 at hr 13													Hours of Missing Data: 3															
Minimum Daily Value: 3.2 kph on Jan 14													Hours of Calibration: 0															
Monthly Average: 1.1 kph													Operational Uptime: 99.6															
WIND DIRECTION																												
Monthly Average: 144 degree (SE)																												
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	
Jan 1	5.1	8.0	7.9	9.2	11.7	11.2	10.1	9.3	9.8	11.4	10.7	8.2	9.0	10.7	5.4	5.6	5.5	7.2	5.0	7.3	5.6	5.7	5.3	6.4	5.0	11.7	8.0	
Jan 2	7.0	6.6	4.0	7.5	7.2	4.3	6.5	7.1	3.5	4.4	4.2	2.0	2.3	0.1	1.5	0.6	4.1	3.5	3.4	3.6	3.6	7.0	5.0	4.0	0.1	7.5	4.3	
Jan 3	NNE	NE	N	N	N	NNW	N	NNE	N	NNW	NNE	NE	NNE	SW	N	NNW	N	NW	N	NE	ENE	ENE	NNE	N	2.3	11.4	6.9	
Jan 4	17.0	14.8	14.0	12.8	12.1	11.4	8.7	9.2	11.2	15.0	12.7	16.8	15.4	15.5	10.0	10.1	7.9	9.8	8.7	7.6	3.1	3.3	7.5	5.4	3.1	17.0	10.8	
Jan 5	N	NNW	N	N	NNE	NNE	NE	ENE	ENE	ENE	E	E	E	ENE	E	ENE	E	ENE	E	NE	NE	NNE	WNW	NNW	NNW	40(NE)	5.4	
Jan 6	7.7	2.8	6.7	5.5	4.0	3.5	2.4	0.8	3.5	4.2	2.5	4.3	3.7	4.6	5.1	7.6	7.0	6.4	11.1	6.9	6.4	4.6	8.0	9.4	0.8	11.1	5.4	
Jan 7	NNW	NNW	NNW	NNW	N	NNE	NE	NNE	ENE	E	E	ENE	ENE	E	ENE	E	ENE	E	ENE	E	NE	ENE	ENE	ENE	ENE	ENE	54(NE)	12.5
Jan 8	8.6	7.3	6.6	4.5	4.7	3.8	2.1	1.5	3.5	5.8	6.4	6.9	3.1	6.4	7.7	8.0	9.0	12.9	8.8	9.8	10.7	9.7	14.1	15.5	1.5	15.5	7.4	
Jan 9	NNW	NNW	NNW	NW	NW	NNW	SW	S	SSE	SSE	SSE	SSE	WSW	S	S	S	S	SSE	S	S	S	SSE	S	S	SSW	192(S)	4.9	
Jan 10	14.6	5.4	4.5	4.8	0.7	1.2	0.3	3.7	1.9	2.5	4.3	4.3	1.7	3.7	5.8	6.0	4.0	4.2	3.9	5.7	7.1	5.8	7.7	13.1	0.3	14.6	4.9	
Jan 11	SSW	WSW	WNW	NW	SSW	NE	SSE	NNW	NW	WSW	N	NNW	NW	NNW	NNE	N	NNW	N	ENE	NE	E	E	E	E	E	29(NNE)	15.8	
Jan 12	14.9	9.9	12.3	11.7	14.3	16.7	17.3	15.3	16.7	19.5	19.1	17.4	17.1	16.6	18.7	15.1	13.6	16.3	16.1	17.9	18.5	15.1	16.5	13.6	9.9	19.5	15.8	
Jan 13	E	ENE	ENE	ENE	NE	NE	ENE	NE	NE	NE	NE	NE	NNE	NNE	N	NNW	N	N	N	N	N	N	N	N	N	30(NNE)	9.3	
Jan 14	9.5	9.8	9.3	11.4	11.1	7.7	6.2	9.3	11.0	12.4	12.7	13.0	13.5	12.7	13.4	10.9	11.3	7.2	5.5	4.7	4.2	2.5	6.4	6.5	2.5	13.5	9.3	
Jan 15	N	N	N	N	NNE	N	N	NNW	NNW	NNW	NNW	NNW	N	NNW	N	NNW	NNW	NW	NW	NW	NW	NW	NNW	NNW	349(NNW)	5.7	2.7	
Jan 16	5.6	6.1	5.7	5.2	5.3	7.4	6.4	6.8	5.7	4.2	3.4	5.8	10.8	8.4	6.6	5.5	4.5	3.0	5.0	7.0	7.9	5.5	2.7	2.7	2.7	10.8	5.7	
Jan 17	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NW	NNW	NW	NW	WNW	WSW	SSW	S	SSE	S	SSW	SSE	6.9	12.3	8.8
Jan 18	7.0	8.1	8.2	8.2	8.3	7.5	9.6	9.1	9.1	10.3	12.3	9.2	10.6	8.9	9.6	8.5	9.3	7.4	9.3	8.7	6.9	7.4	8.2	9.6	6.9	12.3	8.8	
Jan 19	SSE	S	S	S	SSE	SSE	S	S	S	S	S	SSE	S	S	S	SSE	SSE	SE	SE	SE	SE	SE	SE	SE	SE	163(SSE)	9.0	
Jan 20	9.5	10.1	11.9	8.6	8.9	8.3	9.7	7.8	9.2	10.4	6.0	8.8	11.0	10.6	13.2	12.2	12.9	10.8	6.6	6.4	9.7	5.7	5.0	3.6	3.6	13.2	9.0	
Jan 21	ESE	ESE	E	E	ENE	E	E	ENE	ENE	E	E	ENE	NE	NE	ENE	ENE	ENE	ENE	NE	ENE	NE	ENE	NNE	NNE	71(ENE)	9.0	3.6	
Jan 22	1.1	2.1	5.9	3.5	1.3	0.2	1.5	1.9	1.8	3.7	2.4	1.3	0.3	1.4	4.4	2.0	4.3	3.5	4.7	4.2	5.6	6.6	7.2	5.6	0.2	7.2	3.2	
Jan 23	N	W	ENE	NE	N	SSW	SE	SSE	E	SE	S	SSE	NE	WNW	WNW	W	SW	S	SSE	SE	SE	SE	E	E	142(SE)	7.2	0.2	
Jan 24	4.7	3.1	3.7	1.6	2.0	2.6	5.3	5.2	2.9	1.3	5.3	5.2	12.4	11.0	10.6	10.4	10.7	12.7	11.8	13.3	11.8	11.9	7.5	5.2	1.3	13.3	7.2	
Jan 25	ESE	ESE	SE	S	SSE	SE	SE	SSE	ESE	SE	SSW	S	SSW	S	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	194(SSW)	9.0	
Jan 26	4.1	3.2	7.7	7.0	7.6	10.5	18.8	9.5	12.6	14.0	16.6	15.4	15.1	12.5	14.8	11.1	8.2	7.1	3.9	4.9	1.7	3.6	2.9	3.7	1.7	18.8	9.0	
Jan 27	NW	NNW	N	NNW	NNW	NNW	N	NNW	N	N	N	N	N	N	N	NNW	NW	NW	NW	NNW	SW	SSW	S	S	348(NNW)	4.4	0.8	
Jan 28	2.9	3.1	5.7	4.0	1.0	3.7	1.6	2.4	5.2	2.7	1.0	1.8	1.3	0.8	4.0	9.4	8.2	7.7	6.7	6.1	4.8	6.5	6.4	7.6	0.8	9.4	4.4	
Jan 29	S	SSE	SSE	S	E	SSE	SE	SSE	SE	E	SSE	WNW	SW	NNW	NNW	N	NNW	NNW	N	NNW	NNW	NNW	NNW	NNW	344(NNW)	7.6	2.1	
Jan 30	6.2	6.8	6.7	7.2	5.9	6.0	6.2	5.5	5.1	3.7	2.1	2.9	6.5	6.0	5.1	4.2	4.1	5.1	3.9	4.9	5.2	7.0	7.7	7.6	2.1	7.7	5.5	
Jan 31	NNW	NNW	NNW	NNW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	W	W	WSW	SW	SW	SSE	SSE	SSE	SSE	SSE	SSE	SSE	287(WNW)	1.2	8.4	
Jan 1	8.4	6.4	3.6	6.8	5.6	5.8	7.5	5.3	3.0	6.0	4.5	3.2	6.6	1.5	3.9	4.3	3.6	3.4	1.6	1.2	4.2	4.4	3.4	3.5	1.2	8.4	4.5	
Jan 2	SE	SE	ESE	ESE	ESE	SE	E	ENE	E	ENE	ENE	SE	ESE	ESE	WNW	NW	WNW	NW	WNW	WSW	SSW	SSW	SSW	S	126(SE)	4.5	0.8	
Jan 3	4.7	6.4	6.9	7.7	5.7	5.3	4.2	5.1	3.8	3.4	4.2	3.2	1.3	2.0	3.8	4.0	2.9	0.9	0.8	2.5	2.6	6.5	4.3	5.7	0.8	7.7	4.1	
Jan 4	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSE	W	WNW	WNW	SW	W	WNW	N	N	N	N	N	N	230(S)	5.7	0.8	
Jan 5	6.2	8.5	9.2	9.6	10.0	10.7	11.6	9.9	8.7	10.3	9.9	9.5	10.7	12.6	12.1	13.9	11.4	6.6	12.6	12.6	13.6	13.0	15.9	16.1	6.2	16.1	11.1	
Jan 6	N	N	N	NNW	N	NNW	NNW	NNW	NNW	NNW	N	NNW	NNW	N	NNW	N	N	ENE	ENE	ENE	ENE	ENE	ENE	E	16(NNE)	16.1	6.2	
Jan 7	18.2	20.7	18.0	16.7	19.5	18.4	18.2	21.1	24.0	20.1	18.6	15.5	14.5	15.2	14.6	10.8	13.7	12.3	11.5	12.6	12.6	9.4	8.7	5.9	5.9	24.0	15.5	
Jan 8	E	E	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	SE	SE	SE	SE	ESE	SE	SE	SE	SE	SE	119(ESE)	2.5	1.2	
Jan 9	6.0	7.7	9.7	6.5	5.5	5.6	2.9	2.0	4.1	2.0	1.2	4.3	7.8	8.5	9.0	8.3	8.4	7.6	7.0	5.3	3.9	4.1	3.7	2.5	1.2	9.7	5.6	
Jan 10	SE	SE	SE	SE	ESE	ESE	NE	E	ESE	ENE	NNW	N	NNW	NNW	NNW	N	N	N	N	N	N	NNE	NE	NNE	35(NE)	5.5	1.0	
Jan 11	2.9	1.8	1.0	5.9	7.5	5.9	5.7	4.4	3.5	5.5	3.0	4.7	7.7	10.2	10.4	9.4	8.4	7.4	9.7	4.2	3.2	4.8	2.6	2.0	1.0	10.4	5.5	
Jan 12	NNE	NE	ENE	ESE	ESE	SE	SE	SE	SSE	S	SSE	SSW	SW	SW	WSW	SSW	SSW	SSW	SSW	SSW	WNW	WNW	W	W	189(S)	6.8	1.0	
Jan 13	4.2	3.8	2.6	3.6	4.5	2.2	1.7	1.0	2.9	2.1	4.3	4.6	4.0	2.3	8.3	15.6	14.8	18.3	16.1	8.7	5.0	8.2	11.3	12.1	1.0	18.3	6.8	
Jan 14	N	N	NNW	N	N	NNW	NNE	NE	ENE	E	ESE	SE	SSE	WSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	195(SSW)	15.3	8.7	
Jan 15	11.0	10.8	8.7	10.7	8.9	12.4	12.1	16.4	13.6	12.5	16.7	17.8	17.2	21.9	18.7	15.5	13.4	18.8	21.9	19.5	22.1	23.1	19.9	15.3	8.7	23.1	15.8	
Jan 16	S	S	S	SW	SSW	SSW	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	SSE	SSE	SSE	SSE	SSE	SSE	187(S)	15.3	8.7	
Jan 17	18.6	23.4	20.6	19.7	20.0	21.9	17.3	10.5	13.3	15.2	16.8	24.8	17.8	21.2	17.3	13.4	9.7	9.7	10.7	15.3	16.1	15.1	16.8	16.5	9.7	24.8	16.7	
Jan 18	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	192(S)	16.5	9.7
Jan 19	18.5	21.2	21.6	21.0	21.3	19.5	22.8	19.0	17.2	17.9	16.1	17.4	21.7	19.0	15.5	12.3	12.2	13.2	14.1	13.2	10.5	12.3	13.5	16.0	10.5	22.8	17.0	
Jan 20	SSE	S	SSW	S	S	SSW	SW	SW	SSW	SW	SW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SSW	SSW	SSW	S	210(SSW)	16.0	10.5	
Jan 21	16.4	14.2	15.3	19.2	18.3	7.8	9.6	10.7	19.1	14.5	15.6	14.4	13.3	11.1	16.1	22.1	21.0	15.0	15.1	3.4	10.0	9.4	9.7	6.3	3.4	22.1	13.7	
Jan 22	S	SSE	SSE	SSE	SSE	SE	ESE	SSE	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	181(S)	13.5	4.6	
Jan 23	4.6	8.7	7.5	8.3	12.4	13.1	15.3	23.8	25.9	30.4	32.9	33.8	P	P	P	25.9	21.2	21.2	19.7	14.5	15.3	13.0	9.6	13.5	4.6	33.8	17.6	
Jan 24	ESE	E	SE	SE	SE	S	SSW	SW	SSW	SSW	SSW	SSW	S	SSW	WSW	WSW	WSW	WSW	WSW</									

842-B STATION

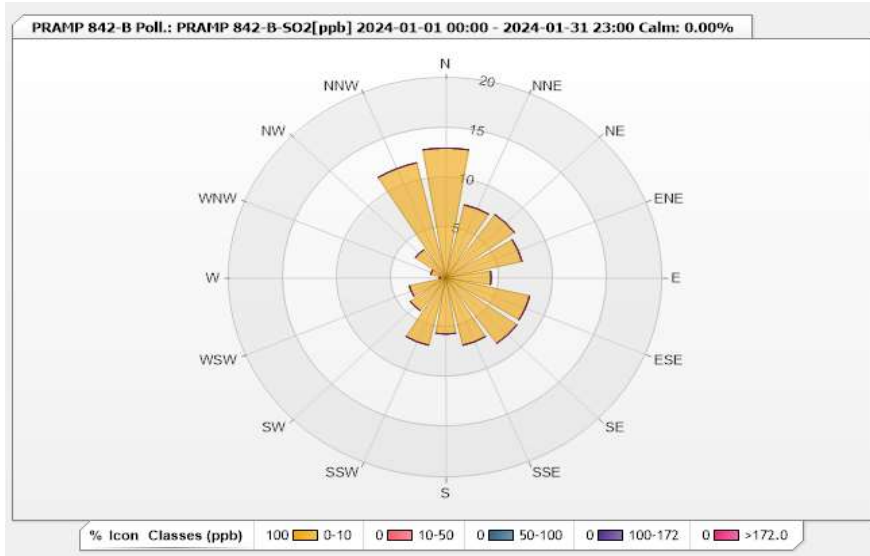


Station: PRAMP 842-B Poll.: PRAMP 842-B-SO2[ppb] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 93.15%      Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	12.99	0	0	0	0	12.99
NNE	7.5	0	0	0	0	7.5
NE	7.79	0	0	0	0	7.79
ENE	7.22	0	0	0	0	7.22
E	4.18	0	0	0	0	4.18
ESE	7.94	0	0	0	0	7.94
SE	8.08	0	0	0	0	8.08
SSE	6.93	0	0	0	0	6.93
S	5.63	0	0	0	0	5.63
SSW	6.93	0	0	0	0	6.93
SW	4.04	0	0	0	0	4.04
WSW	3.46	0	0	0	0	3.46
W	0.58	0	0	0	0	0.58
WNW	1.44	0	0	0	0	1.44
NW	3.46	0	0	0	0	3.46
NNW	11.83	0	0	0	0	11.83
Summary	100	0	0	0	0	100





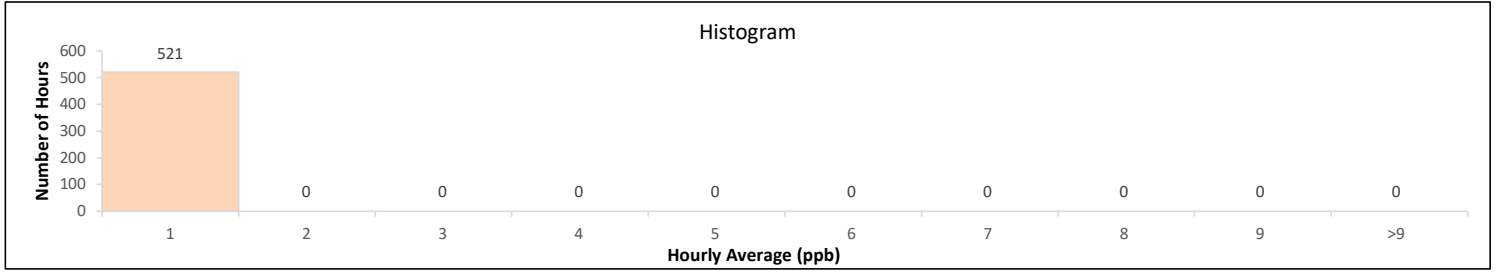
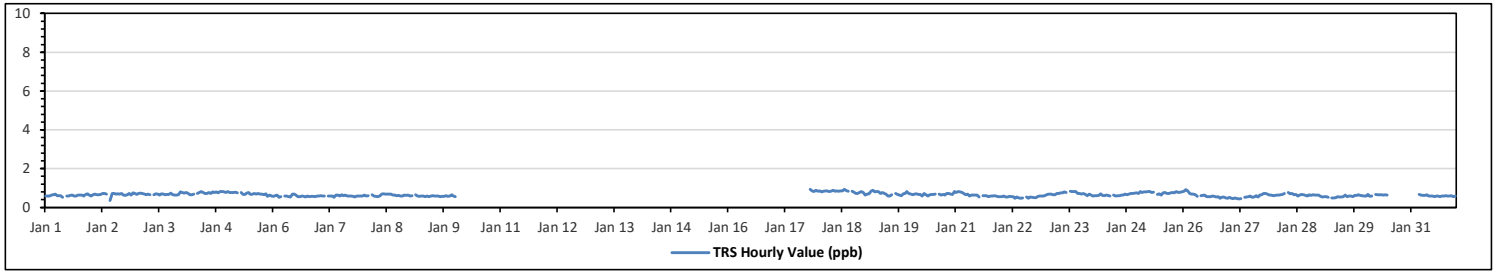
**Peace River Area Monitoring Program**  
**842-B Station - January 2024**  
**Summary of Hourly Averages**  
**TOTAL REDUCED SULPHUR (TRS) in ppb**

Maximum Hourly Value:	0.94 ppb	on Jan 17 at hr 19	Hours in Service:	744
Maximum Daily Value:	0.83 ppb	on Jan 18	Hours of Data:	521
Minimum Hourly Value:	0.35 ppb	on Jan 2 at hr 10	Hours of Missing Data:	189
Minimum Daily Value:	0.54 ppb	on Jan 22	Hours of Calibration:	34
Monthly Average:	NA ppb		Operational Uptime:	74.6

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	
Jan 1	0.59	0.6	0.6	0.63	0.65	0.68	0.61	0.61	0.61	0.52	S	0.58	0.6	0.62	0.63	0.58	0.58	0.63	0.63	0.63	0.6	0.67	0.7	0.64	0.52	0.70	0.62	
Jan 2	0.6	0.66	0.68	0.65	0.65	0.67	0.71	0.72	0.68	S	0.35	0.71	0.73	0.69	0.7	0.69	0.71	0.64	0.62	0.65	0.72	0.64	0.75	0.73	0.35	0.75	0.67	
Jan 3	0.67	0.71	0.74	0.71	0.69	0.66	0.68	0.65	S	0.66	0.7	0.69	0.63	0.7	0.68	0.66	0.67	0.67	0.74	0.65	0.63	0.64	0.66	0.8	0.63	0.80	0.68	
Jan 4	0.78	0.74	0.78	0.74	0.65	0.66	0.69	S	0.73	0.78	0.81	0.77	0.73	0.73	0.77	0.73	0.8	0.78	0.8	0.75	0.81	0.81	0.8	0.78	0.65	0.81	0.76	
Jan 5	0.81	0.78	0.78	0.76	0.79	0.75	S	0.76	0.67	0.67	0.74	0.77	0.67	0.68	0.71	0.68	0.71	0.69	0.68	0.65	0.7	0.57	0.63	0.6	0.57	0.81	0.71	
Jan 6	0.57	0.61	0.64	0.52	0.55	S	0.59	0.58	0.56	0.54	0.68	0.68	0.64	0.56	0.56	0.59	0.57	0.53	0.58	0.55	0.57	0.57	0.56	0.6	0.52	0.68	0.58	
Jan 7	0.58	0.61	0.59	0.6	S	0.59	0.59	0.6	0.52	0.63	0.64	0.6	0.65	0.61	0.63	0.6	0.58	0.6	0.57	0.53	0.58	0.59	0.59	0.6	0.52	0.65	0.59	
Jan 8	0.64	0.59	0.61	S	0.65	0.6	0.57	0.56	0.58	0.68	0.7	0.69	0.68	0.69	0.68	0.63	0.63	0.61	0.62	0.6	0.6	0.64	0.62	0.63	0.56	0.70	0.62	
Jan 9	0.58	0.61	S	0.65	0.59	0.57	0.6	0.58	0.56	0.58	0.55	0.58	0.61	0.59	0.58	0.58	0.56	0.57	0.57	0.61	0.57	0.6	0.65	0.58	0.55	0.65	0.59	
Jan 10	0.55	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0.55	0.55	NA	
Jan 11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
Jan 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	-	-	-	
Jan 13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
Jan 14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
Jan 15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
Jan 16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
Jan 17	X	X	X	X	X	X	X	X	X	C	C	C	C	C	C	C	C	C	C	C	0.94	0.86	0.82	0.88	0.84	0.82	0.94	NA
Jan 18	0.85	0.8	0.84	0.86	0.85	0.82	0.84	0.88	0.83	0.86	0.84	0.85	0.85	0.94	0.87	0.84	S	0.83	0.79	0.73	0.73	0.78	0.82	0.78	0.73	0.94	0.83	
Jan 19	0.63	0.68	0.7	0.84	0.88	0.8	0.81	0.81	0.72	0.76	0.73	0.69	0.6	0.6	0.66	S	0.71	0.67	0.63	0.61	0.7	0.73	0.81	0.73	0.60	0.88	0.72	
Jan 20	0.68	0.66	0.68	0.7	0.67	0.67	0.59	0.71	0.66	0.59	0.65	0.67	0.67	0.68	S	0.68	0.64	0.67	0.64	0.71	0.71	0.69	0.67	0.81	0.59	0.81	0.67	
Jan 21	0.76	0.81	0.8	0.78	0.73	0.66	0.68	0.6	0.64	0.63	0.63	0.63	0.54	S	0.61	0.61	0.61	0.56	0.58	0.59	0.61	0.58	0.56	0.55	0.54	0.81	0.64	
Jan 22	0.55	0.59	0.54	0.53	0.57	0.55	0.56	0.48	0.54	0.49	0.48	0.49	S	0.54	0.48	0.53	0.52	0.5	0.51	0.57	0.6	0.58	0.58	0.62	0.48	0.62	0.54	
Jan 23	0.67	0.69	0.68	0.66	0.65	0.73	0.73	0.75	0.75	0.8	0.77	S	0.83	0.82	0.81	0.81	0.72	0.71	0.68	0.73	0.67	0.61	0.68	0.64	0.61	0.83	0.72	
Jan 24	0.58	0.61	0.61	0.62	0.7	0.62	0.61	0.63	0.62	0.6	S	0.63	0.59	0.61	0.61	0.63	0.64	0.68	0.66	0.69	0.72	0.73	0.74	0.75	0.58	0.75	0.65	
Jan 25	0.73	0.81	0.76	0.8	0.8	0.81	0.81	0.77	0.79	S	0.67	0.7	0.64	0.75	0.77	0.73	0.73	0.75	0.76	0.75	0.81	0.76	0.79	0.8	0.64	0.81	0.76	
Jan 26	0.84	0.92	0.85	0.73	0.69	0.68	0.66	0.57	S	0.61	0.62	0.64	0.56	0.55	0.55	0.59	0.57	0.53	0.56	0.47	0.52	0.53	0.49	0.48	0.47	0.92	0.62	
Jan 27	0.52	0.48	0.45	0.49	0.45	0.44	0.46	S	0.52	0.53	0.55	0.52	0.54	0.61	0.54	0.64	0.65	0.71	0.72	0.69	0.63	0.64	0.61	0.44	0.44	0.72	0.56	
Jan 28	0.62	0.63	0.63	0.66	0.67	0.72	S	0.76	0.7	0.72	0.66	0.67	0.6	0.64	0.67	0.66	0.62	0.58	0.66	0.62	0.65	0.64	0.63	0.64	0.58	0.76	0.65	
Jan 29	0.57	0.54	0.55	0.55	0.52	S	0.49	0.49	0.51	0.56	0.54	0.53	0.55	0.63	0.56	0.59	0.59	0.56	0.62	0.62	0.66	0.62	0.61	0.59	0.49	0.66	0.57	
Jan 30	0.6	0.67	0.57	0.58	S	0.67	0.66	0.66	0.66	0.63	0.66	0.64	P	P	P	P	P	P	P	P	P	P	P	P	0.57	0.67	NA	
Jan 31	P	P	0.71	S	0.67	0.64	0.62	0.62	0.65	0.59	0.59	0.59	0.55	0.59	0.6	0.56	0.6	0.59	0.61	0.58	0.6	0.61	0.55	0.59	0.55	0.71	0.61	
Diurnal Maximum	0.85	0.92	0.85	0.86	0.88	0.82	0.84	0.88	0.83	0.86	0.84	0.85	0.85	0.94	0.87	0.84	0.80	0.83	0.80	0.94	0.86	0.82	0.88	0.84				
Diurnal Average	0.65	0.67	0.67	0.67	0.67	0.67	0.65	0.66	0.64	0.64	0.65	0.65	0.64	0.66	0.65	0.64	0.64	0.64	0.64	0.65	0.65	0.67	0.65	0.67	0.65	0.67	0.67	

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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.

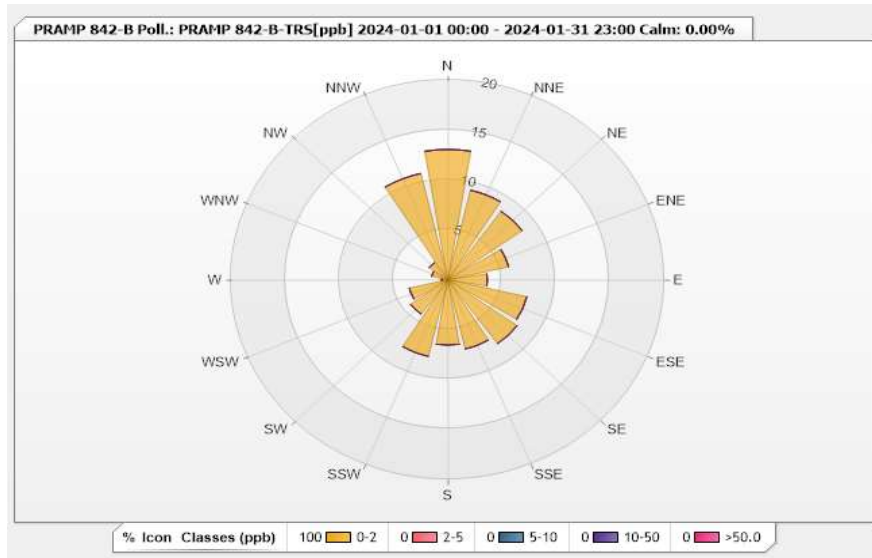


Station: PRAMP 842-B Poll.: PRAMP 842-B-TRS[ppb] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 70.03%      Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	13.05	0	0	0	0	13.05
NNE	9.21	0	0	0	0	9.21
NE	8.45	0	0	0	0	8.45
ENE	5.76	0	0	0	0	5.76
E	3.65	0	0	0	0	3.65
ESE	7.49	0	0	0	0	7.49
SE	7.87	0	0	0	0	7.87
SSE	7.1	0	0	0	0	7.1
S	6.53	0	0	0	0	6.53
SSW	7.87	0	0	0	0	7.87
SW	4.22	0	0	0	0	4.22
WSW	3.65	0	0	0	0	3.65
W	0.58	0	0	0	0	0.58
WNW	1.54	0	0	0	0	1.54
NW	2.11	0	0	0	0	2.11
NNW	10.94	0	0	0	0	10.94
Summary	100	0	0	0	0	100



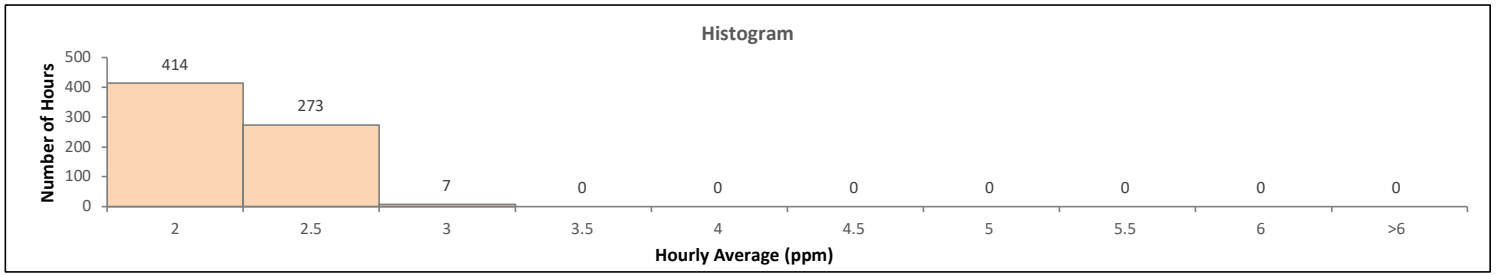
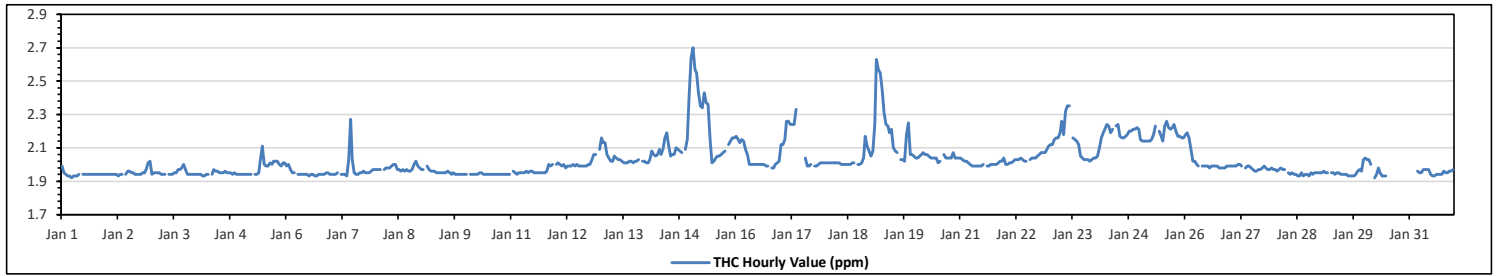
**Peace River Area Monitoring Program**  
**842-B Station - January 2024**  
**Summary of Hourly Averages**  
**TOTAL HYDROCARBONS (THC) in ppm**

Maximum Hourly Value:	2.70 ppm	on Jan 15 at hr 1	Hours in Service:	744
Maximum Daily Value:	2.25 ppm	on Jan 15	Hours of Data:	694
Minimum Hourly Value:	1.92 ppm	on Jan 1 at hr 5	Hours of Missing Data:	14
Minimum Daily Value:	1.94 ppm	on Jan 1	Hours of Calibration:	36
Monthly Average:	2.02 ppm		Operational Uptime:	98.1

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		
Jan 1	1.99	1.95	1.94	1.93	1.93	1.92	1.93	1.93	1.93	1.94	S	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.92	1.99	1.94		
Jan 2	1.94	1.94	1.94	1.94	1.94	1.94	1.93	1.94	1.94	1.94	S	1.94	1.96	1.96	1.95	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.97	2.01	2.02	1.93	2.02	1.95	
Jan 3	1.94	1.95	1.95	1.95	1.95	1.94	1.94	1.94	1.94	S	1.94	1.94	1.94	1.95	1.95	1.97	1.97	1.98	2.00	1.97	1.94	1.94	1.94	1.94	1.94	1.94	2.00	1.95	
Jan 4	1.94	1.94	1.94	1.93	1.93	1.94	1.94	S	1.94	1.94	1.97	1.96	1.96	1.95	1.95	1.95	1.96	1.95	1.95	1.95	1.94	1.94	1.94	1.94	1.94	1.94	1.93	1.97	1.95
Jan 5	1.94	1.94	1.94	1.94	1.94	1.94	S	1.94	1.94	1.95	2.03	2.11	2.00	1.99	1.99	2.01	2.00	2.02	2.02	2.02	2.00	1.99	2.01	2.01	1.94	2.11	1.99		
Jan 6	1.99	2.00	1.97	1.95	1.95	S	1.94	1.94	1.94	1.94	1.94	1.94	1.93	1.94	1.94	1.93	1.93	1.94	1.94	1.94	1.94	1.95	1.95	1.94	1.93	2.00	1.95		
Jan 7	1.94	1.94	1.94	1.95	S	1.94	1.94	1.94	1.93	2.03	2.27	2.03	1.95	1.94	1.94	1.95	1.95	1.96	1.95	1.95	1.95	1.96	1.97	1.97	1.97	1.93	2.27	1.97	
Jan 8	1.97	1.97	1.97	S	1.97	1.98	1.98	1.98	1.99	2.00	2.00	1.97	1.97	1.96	1.97	1.96	1.97	1.96	1.96	1.97	2.00	2.02	1.99	1.98	1.96	2.02	1.98		
Jan 9	1.97	1.97	S	1.99	1.97	1.96	1.96	1.96	1.95	1.95	1.95	1.95	1.95	1.95	1.96	1.95	1.94	1.95	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.99	1.95		
Jan 10	1.94	S	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.94		
Jan 11	S	1.96	1.95	1.94	1.95	1.95	1.95	1.95	1.95	1.96	1.95	1.96	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.96	2.00	1.99	2.00	S	1.94	2.00	1.96	
Jan 12	2.00	2.01	2.00	1.99	2.00	1.98	1.99	1.99	1.99	2.00	1.99	2.00	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.00	2.03	2.06	2.06	S	2.09	1.98	2.09	2.01	
Jan 13	2.16	2.13	2.13	2.06	2.04	2.02	2.02	2.05	2.04	2.03	2.03	2.02	2.01	2.01	2.01	2.02	2.02	2.01	2.02	2.02	2.03	S	S	2.02	2.02	2.01	2.16	2.04	
Jan 14	2.01	2.01	2.03	2.08	2.06	2.05	2.06	2.09	2.06	2.09	2.16	2.19	2.11	2.05	2.06	2.06	2.10	2.09	2.08	2.07	S	2.09	2.15	2.42	2.01	2.42	2.09		
Jan 15	2.64	2.70	2.57	2.55	2.43	2.35	2.34	2.43	2.37	2.36	2.16	2.01	2.02	2.04	2.05	2.05	2.06	2.07	2.08	S	2.12	2.14	2.16	2.16	2.01	2.70	2.25		
Jan 16	2.17	2.15	2.13	2.15	2.14	2.09	2.06	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.99	1.99	S	1.98	1.98	2.00	2.01	2.02	1.98	2.17	2.04	
Jan 17	2.12	2.12	2.15	2.26	2.26	2.24	2.24	2.24	2.33	C	C	C	C	2.04	1.99	1.99	2.00	S	1.99	1.99	2.00	2.01	2.01	2.01	1.99	2.33	2.10		
Jan 18	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.01	2.01	S	2.00	2.00	2.00	2.01	2.04	2.17	2.11	2.08	2.00	2.17	2.02	
Jan 19	2.05	2.08	2.24	2.63	2.57	2.55	2.45	2.31	2.24	2.23	2.19	2.21	2.10	2.08	2.07	S	2.03	2.03	2.02	2.18	2.25	2.06	2.06	2.05	2.02	2.63	2.20		
Jan 20	2.04	2.04	2.05	2.06	2.07	2.06	2.06	2.05	2.04	2.04	2.04	2.04	2.01	2.02	S	2.06	2.04	2.04	2.04	2.04	2.07	2.04	2.04	2.04	2.01	2.07	2.04		
Jan 21	2.04	2.03	2.02	2.02	2.01	2.00	1.99	1.99	1.99	1.99	1.99	2.00	S	1.99	1.99	2.00	2.00	2.00	2.00	2.00	2.01	2.02	2.02	2.04	1.99	2.04	2.01		
Jan 22	2.00	2.00	2.01	2.01	2.02	2.03	2.03	2.03	2.04	2.03	2.02	2.02	S	2.03	2.04	2.04	2.04	2.05	2.06	2.07	2.07	2.07	2.09	2.11	2.00	2.11	2.04		
Jan 23	2.12	2.12	2.15	2.16	2.16	2.19	2.26	2.18	2.32	2.35	2.35	S	2.16	2.15	2.14	2.12	2.05	2.04	2.03	2.03	2.02	2.03	2.04	2.02	2.02	2.35	2.14		
Jan 24	2.04	2.05	2.10	2.16	2.19	2.21	2.24	2.23	2.19	2.21	S	2.23	2.24	2.17	2.16	2.16	2.17	2.18	2.20	2.20	2.21	2.21	2.22	2.21	2.04	2.24	2.18		
Jan 25	2.15	2.14	2.14	2.14	2.14	2.14	2.15	2.18	2.23	S	2.20	2.17	2.14	2.23	2.26	2.22	2.21	2.22	2.24	2.20	2.17	2.17	2.16	2.16	2.14	2.26	2.18		
Jan 26	2.18	2.19	2.16	2.09	2.02	2.00	1.99	S	1.99	1.99	1.99	1.99	1.99	1.98	1.99	1.99	1.99	1.99	1.98	1.98	1.98	1.98	1.99	1.99	1.98	2.19	2.02		
Jan 27	1.99	1.99	1.99	1.99	2.00	2.00	1.99	S	1.98	1.99	1.99	1.98	1.97	1.96	1.96	1.97	1.97	1.98	1.99	1.98	1.97	1.97	1.98	1.97	1.96	2.00	1.98		
Jan 28	1.97	1.96	1.97	1.98	1.97	1.97	S	1.95	1.94	1.95	1.94	1.94	1.93	1.93	1.95	1.93	1.94	1.94	1.93	1.95	1.94	1.95	1.95	1.95	1.93	1.98	1.95		
Jan 29	1.95	1.95	1.96	1.95	1.95	S	1.95	1.95	1.94	1.95	1.95	1.94	1.94	1.94	1.93	1.93	1.93	1.93	1.93	1.94	1.96	1.97	1.96	2.03	1.93	2.03	1.95		
Jan 30	2.04	2.03	2.03	2.00	S	1.92	1.94	1.98	1.95	1.93	1.93	1.93	P	P	P	P	P	P	P	P	P	P	P	P	1.92	2.04	NA		
Jan 31	P	P	1.96	S	1.96	1.95	1.95	1.97	1.97	1.97	1.97	1.94	1.93	1.93	1.94	1.94	1.94	1.94	1.96	1.95	1.95	1.96	1.96	1.97	1.93	1.97	1.95		
Diurnal Maximum	2.64	2.70	2.57	2.63	2.57	2.55	2.45	2.43	2.37	2.36	2.35	2.23	2.24	2.23	2.26	2.22	2.21	2.22	2.24	2.20	2.25	2.21	2.22	2.42	2.01	2.42	2.09		
Diurnal Average	2.04	2.04	2.04	2.06	2.05	2.04	2.04	2.04	2.04	2.03	2.03	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.01	2.02	2.02	2.03	1.93	1.97	1.95		

**C** Monthly Calibration      **S** Daily Zero-Span Check      **Q** Quality Assurance  
**K** Collection Error      **ND** 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.

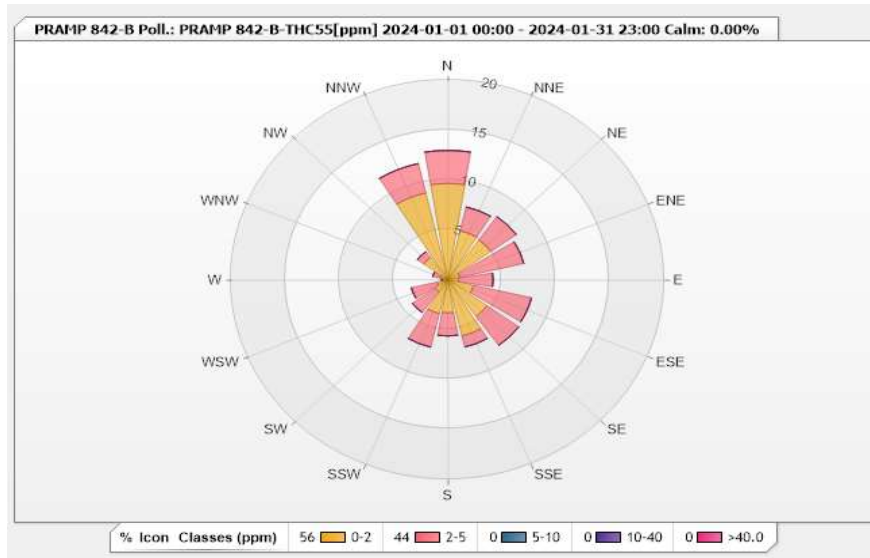


Station: PRAMP 842-B Poll.: PRAMP 842-B-THC55[ppm] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 93.28%      Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	9.65	3.31	0	0	0	12.96
NNE	5.04	2.45	0	0	0	7.49
NE	4.9	2.88	0	0	0	7.78
ENE	1.15	6.05	0	0	0	7.2
E	1.01	3.17	0	0	0	4.18
ESE	2.45	5.48	0	0	0	7.93
SE	4.47	3.6	0	0	0	8.07
SSE	5.76	1.15	0	0	0	6.91
S	3.31	2.31	0	0	0	5.62
SSW	3.46	3.46	0	0	0	6.92
SW	1.44	2.59	0	0	0	4.03
WSW	1.01	2.45	0	0	0	3.46
W	0.43	0.14	0	0	0	0.57
WNW	0.72	0.72	0	0	0	1.44
NW	2.74	0.72	0	0	0	3.46
NNW	8.93	3.03	0	0	0	11.96
Summary	56.47	43.51	0	0	0	100



Peace River Area Monitoring Program

842-B Station - January 2024

Summary of Hourly Averages

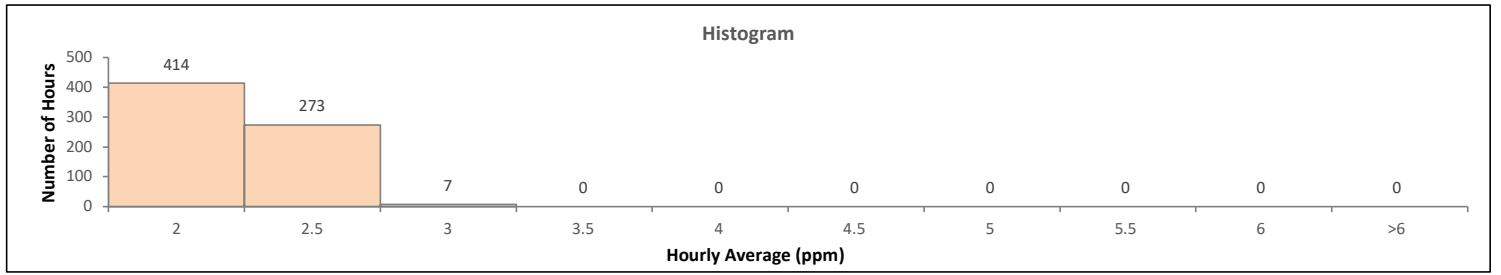
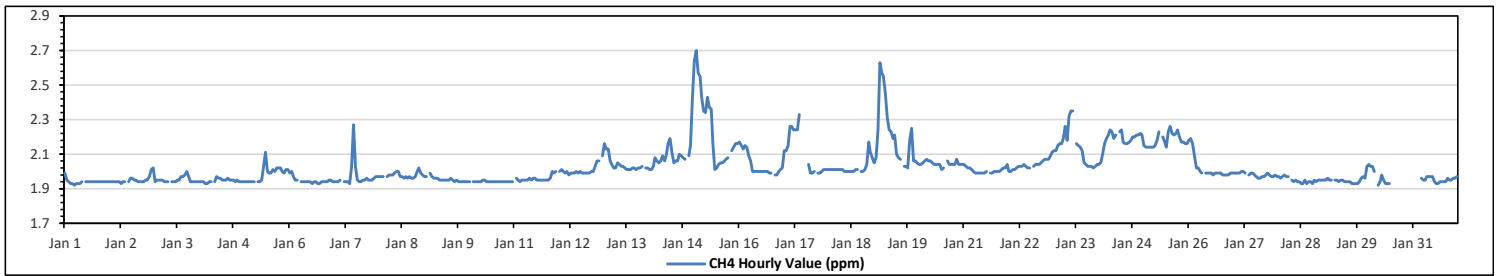
METHANE (CH4) in ppm

Maximum Hourly Value:	2.70	ppm	on Jan 15 at hr 1	Hours in Service:	744
Maximum Daily Value:	2.25	ppm	on Jan 15	Hours of Data:	694
Minimum Hourly Value:	1.92	ppm	on Jan 1 at hr 5	Hours of Missing Data:	14
Minimum Daily Value:	1.94	ppm	on Jan 1	Hours of Calibration:	36
Monthly Average:	2.02	ppm		Operational Uptime:	98.1

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	
Jan 1	1.99	1.95	1.94	1.93	1.93	1.92	1.93	1.93	1.93	1.94	S	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.92	1.99	1.94		
Jan 2	1.94	1.94	1.94	1.94	1.94	1.94	1.93	1.94	1.94	1.94	S	1.94	1.96	1.96	1.95	1.94	1.94	1.94	1.94	1.95	1.95	1.97	2.01	2.02	1.93	2.02	1.95	
Jan 3	1.94	1.95	1.95	1.95	1.95	1.94	1.94	1.94	1.94	S	1.94	1.94	1.94	1.95	1.95	1.97	1.97	1.98	2.00	1.97	1.94	1.94	1.94	1.94	1.94	1.94	1.95	
Jan 4	1.94	1.94	1.94	1.93	1.93	1.94	1.94	S	1.94	1.94	1.97	1.96	1.96	1.95	1.95	1.95	1.96	1.95	1.95	1.94	1.94	1.95	1.94	1.94	1.94	1.93	1.97	1.95
Jan 5	1.94	1.94	1.94	1.94	1.94	1.94	S	1.94	1.94	1.95	2.03	2.11	2.00	1.99	1.99	2.01	2.00	2.02	2.02	2.02	2.00	1.99	2.01	1.94	2.11	1.99	1.95	
Jan 6	1.99	2.00	1.97	1.95	1.95	S	1.94	1.94	1.94	1.94	1.94	1.94	1.93	1.94	1.94	1.93	1.93	1.94	1.94	1.94	1.94	1.95	1.95	1.94	1.93	2.00	1.95	
Jan 7	1.94	1.94	1.94	1.95	S	1.94	1.94	1.94	1.93	2.03	2.27	2.03	1.95	1.94	1.94	1.95	1.95	1.96	1.95	1.95	1.95	1.96	1.97	1.97	1.93	2.27	1.97	
Jan 8	1.97	1.97	1.97	S	1.97	1.98	1.98	1.98	1.99	2.00	2.00	1.97	1.97	1.96	1.97	1.96	1.97	1.96	1.96	1.97	2.00	2.02	1.99	1.98	1.96	2.02	1.98	
Jan 9	1.97	1.97	S	1.99	1.97	1.96	1.96	1.96	1.95	1.95	1.95	1.95	1.95	1.95	1.96	1.95	1.94	1.95	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.99	1.95	
Jan 10	1.94	S	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.94	
Jan 11	S	1.96	1.95	1.94	1.95	1.95	1.95	1.95	1.95	1.96	1.95	1.96	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.96	2.00	1.99	2.00	S	1.94	2.00	1.96	
Jan 12	2.00	2.01	2.00	1.99	2.00	1.98	1.99	1.99	1.99	2.00	1.99	2.00	1.99	1.99	1.99	1.99	1.99	2.00	2.00	2.03	2.06	2.06	S	2.09	1.98	2.09	2.01	
Jan 13	2.16	2.13	2.13	2.06	2.04	2.02	2.02	2.05	2.04	2.03	2.03	2.02	2.01	2.01	2.01	2.02	2.02	2.01	2.02	2.02	2.03	S	2.02	2.02	2.01	2.16	2.04	
Jan 14	2.01	2.01	2.03	2.08	2.06	2.05	2.06	2.09	2.06	2.09	2.16	2.19	2.11	2.05	2.06	2.06	2.10	2.09	2.08	2.07	S	2.09	2.15	2.42	2.01	2.42	2.09	
Jan 15	2.64	2.70	2.57	2.55	2.43	2.35	2.34	2.43	2.37	2.36	2.16	2.01	2.02	2.04	2.05	2.05	2.06	2.07	2.08	S	2.12	2.14	2.16	2.16	2.01	2.70	2.25	
Jan 16	2.17	2.15	2.13	2.15	2.14	2.09	2.06	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.99	1.99	S	1.98	1.98	2.00	2.01	2.02	1.98	2.17	2.04
Jan 17	2.12	2.12	2.15	2.26	2.26	2.24	2.24	2.24	2.33	C	C	C	C	2.04	1.99	1.99	2.00	S	1.99	1.99	2.00	2.01	2.01	2.01	1.99	2.33	2.10	
Jan 18	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.01	2.01	S	2.00	2.00	2.01	2.04	2.17	2.11	2.08	2.00	2.17	2.02	
Jan 19	2.05	2.08	2.24	2.63	2.57	2.55	2.45	2.31	2.24	2.23	2.19	2.21	2.10	2.08	2.07	S	2.03	2.03	2.02	2.18	2.25	2.06	2.06	2.05	2.02	2.63	2.20	
Jan 20	2.04	2.04	2.05	2.06	2.07	2.06	2.06	2.05	2.04	2.04	2.04	2.04	2.01	2.02	S	2.06	2.04	2.04	2.04	2.04	2.04	2.07	2.04	2.04	2.01	2.07	2.04	
Jan 21	2.04	2.03	2.02	2.02	2.01	2.00	1.99	1.99	1.99	2.09	1.99	1.99	2.00	S	1.99	1.99	2.00	2.00	2.00	2.00	2.01	2.02	2.02	2.04	1.99	2.04	2.01	
Jan 22	2.00	2.00	2.01	2.01	2.02	2.03	2.03	2.04	2.03	2.02	2.02	S	2.03	2.04	2.04	2.04	2.05	2.06	2.07	2.07	2.07	2.07	2.09	2.11	2.00	2.11	2.04	
Jan 23	2.12	2.12	2.15	2.16	2.16	2.19	2.26	2.18	2.32	2.35	2.35	S	2.16	2.15	2.14	2.12	2.05	2.04	2.03	2.03	2.02	2.02	2.03	2.04	2.02	2.35	2.14	
Jan 24	2.04	2.05	2.10	2.16	2.19	2.21	2.24	2.23	2.19	2.21	S	2.23	2.24	2.17	2.16	2.16	2.17	2.18	2.20	2.20	2.21	2.21	2.22	2.21	2.04	2.24	2.18	
Jan 25	2.15	2.14	2.14	2.14	2.14	2.14	2.15	2.18	2.23	S	2.20	2.17	2.14	2.23	2.26	2.22	2.21	2.22	2.24	2.20	2.17	2.17	2.16	2.16	2.14	2.26	2.18	
Jan 26	2.18	2.19	2.16	2.09	2.02	2.00	1.99	S	1.99	1.99	1.99	1.99	1.99	1.98	1.99	1.99	1.99	1.99	1.98	1.98	1.98	1.98	1.99	1.99	1.98	2.19	2.02	
Jan 27	1.99	1.99	1.99	1.99	2.00	2.00	1.99	S	1.98	1.99	1.99	1.98	1.97	1.96	1.96	1.97	1.97	1.98	1.99	1.98	1.97	1.97	1.98	1.97	1.96	2.00	1.98	
Jan 28	1.97	1.96	1.97	1.98	1.97	1.97	S	1.95	1.94	1.95	1.94	1.94	1.93	1.93	1.95	1.93	1.94	1.94	1.93	1.95	1.94	1.95	1.95	1.95	1.93	1.98	1.95	
Jan 29	1.95	1.95	1.96	1.95	1.95	S	1.95	1.95	1.94	1.95	1.95	1.94	1.94	1.94	1.93	1.93	1.93	1.93	1.93	1.94	1.96	1.97	1.96	2.03	1.93	2.03	1.95	
Jan 30	2.04	2.03	2.03	2.00	S	1.92	1.94	1.98	1.95	1.93	1.93	1.93	P	P	P	P	P	P	P	P	P	P	P	P	1.92	2.04	NA	
Jan 31	P	P	1.96	S	1.96	1.95	1.95	1.97	1.97	1.97	1.97	1.94	1.93	1.93	1.94	1.94	1.94	1.94	1.96	1.95	1.95	1.96	1.96	1.97	1.93	1.97	1.95	
Diurnal Maximum	2.64	2.70	2.57	2.63	2.57	2.55	2.45	2.43	2.37	2.36	2.35	2.23	2.24	2.23	2.26	2.22	2.21	2.22	2.24	2.20	2.25	2.21	2.22	2.42	2.01	2.70	2.25	
Diurnal Average	2.04	2.04	2.04	2.06	2.05	2.04	2.04	2.04	2.04	2.03	2.03	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.01	2.02	2.02	2.03	1.93	1.97	1.95	

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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.

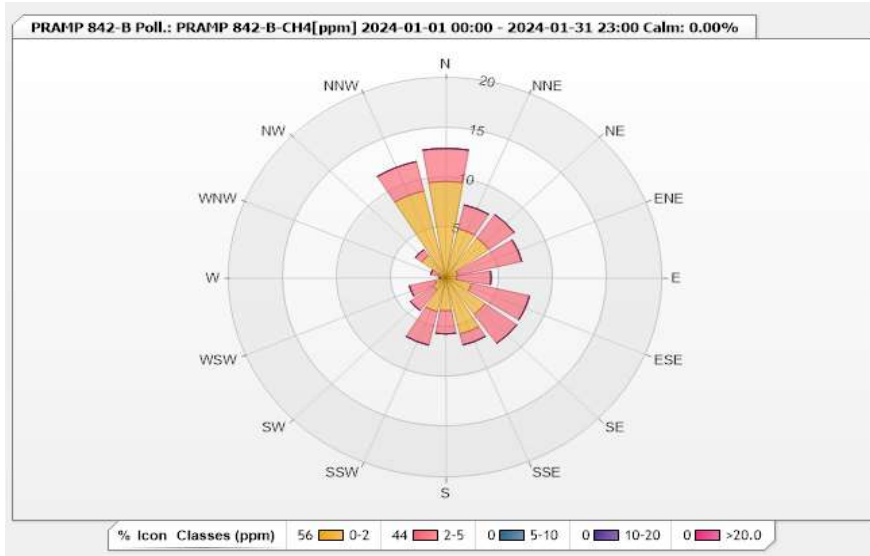


Station: PRAMP 842-B Poll.: PRAMP 842-B-CH4[ppm] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 93.28%      Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	9.65	3.31	0	0	0	12.96
NNE	5.04	2.45	0	0	0	7.49
NE	4.9	2.88	0	0	0	7.78
ENE	1.15	6.05	0	0	0	7.2
E	1.01	3.17	0	0	0	4.18
ESE	2.45	5.48	0	0	0	7.93
SE	4.47	3.6	0	0	0	8.07
SSE	5.76	1.15	0	0	0	6.91
S	3.31	2.31	0	0	0	5.62
SSW	3.46	3.46	0	0	0	6.92
SW	1.44	2.59	0	0	0	4.03
WSW	1.01	2.45	0	0	0	3.46
W	0.43	0.14	0	0	0	0.57
WNW	0.72	0.72	0	0	0	1.44
NW	2.74	0.72	0	0	0	3.46
NNW	8.93	3.03	0	0	0	11.96
Summary	56.47	43.51	0	0	0	100



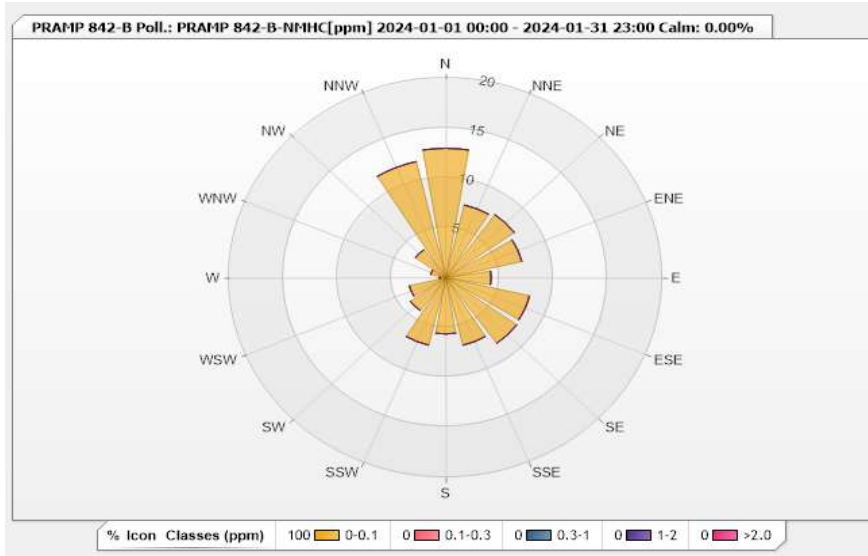


Station: PRAMP 842-B Poll.: PRAMP 842-B-NMHC[ppm] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 93.28%      Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	12.97	0	0	0	0	12.97
NNE	7.49	0	0	0	0	7.49
NE	7.78	0	0	0	0	7.78
ENE	7.2	0	0	0	0	7.2
E	4.18	0	0	0	0	4.18
ESE	7.93	0	0	0	0	7.93
SE	8.07	0	0	0	0	8.07
SSE	6.92	0	0	0	0	6.92
S	5.62	0	0	0	0	5.62
SSW	6.92	0	0	0	0	6.92
SW	4.03	0	0	0	0	4.03
WSW	3.46	0	0	0	0	3.46
W	0.58	0	0	0	0	0.58
WNW	1.44	0	0	0	0	1.44
NW	3.46	0	0	0	0	3.46
NNW	11.96	0	0	0	0	11.96
Summary	100	0	0	0	0	100





**Peace River Area Monitoring Program**

**842-B Station - January 2024**

**Summary of Hourly Averages**

**RELATIVE HUMIDITY (RH) in %**

Maximum Hourly Value:	99	%	on Jan 2 at hr 21	Hours in Service:	744
Maximum Daily Value:	99.0	%	on Jan 25	Hours of Data:	730
Minimum Hourly Value:	38	%	on Jan 31 at hr 16	Hours of Missing Data:	14
Minimum Daily Value:	56.6	%	on Jan 14	Hours of Calibration:	0
Monthly Average:	82.2	%		Operational Uptime:	98.1

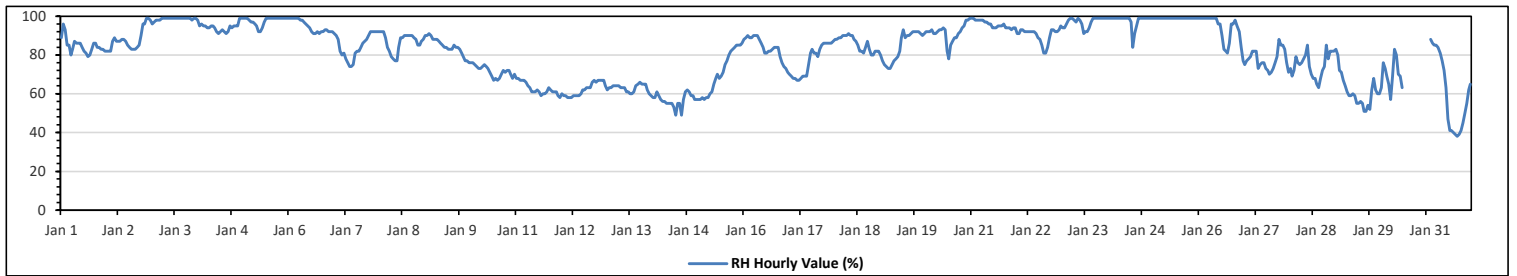
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
Jan 1	89	96	93	85	85	80	83	87	86	86	86	84	82	81	79	80	83	86	86	84	84	83	83	82	79	96	84.7	
Jan 2	82	82	82	87	89	87	87	87	88	88	87	85	84	83	83	84	85	90	96	96	99	99	98	82	99	88.0		
Jan 3	96	97	98	98	98	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	98	99	99	96	99	98.6
Jan 4	98	95	96	95	95	94	94	95	95	94	92	91	92	93	92	91	92	95	94	95	95	95	99	99	91	99	94.4	
Jan 5	99	99	99	98	97	97	96	95	92	92	94	97	99	99	99	99	99	99	99	99	99	99	99	99	92	99	97.6	
Jan 6	99	99	99	99	99	99	98	98	97	96	95	94	92	91	91	92	91	92	92	93	93	92	92	92	91	99	94.8	
Jan 7	91	90	88	82	80	81	78	76	74	74	75	81	82	82	84	86	87	88	90	92	92	92	92	92	74	92	84.5	
Jan 8	92	92	92	89	84	82	79	78	77	77	84	89	89	90	90	90	90	90	89	88	85	85	87	88	77	92	86.5	
Jan 9	90	90	91	90	88	88	88	87	86	85	84	84	83	83	83	85	84	84	83	81	79	77	77	76	76	91	84.4	
Jan 10	76	76	75	74	73	73	74	75	74	73	71	69	67	68	67	68	70	72	71	72	72	70	68	70	67	76	71.6	
Jan 11	68	68	67	67	67	66	64	63	61	61	61	62	61	59	60	60	61	63	62	61	61	61	59	58	58	68	62.5	
Jan 12	60	59	59	58	58	58	59	59	59	59	60	62	62	63	63	63	66	67	66	67	67	67	67	64	58	67	62.2	
Jan 13	62	63	63	64	64	64	64	63	63	63	61	61	60	60	61	64	65	66	65	65	65	62	60	59	59	66	62.8	
Jan 14	58	58	61	59	57	56	56	55	55	55	53	49	55	55	49	57	61	62	61	59	59	57	57	49	62	56.6		
Jan 15	57	57	58	57	58	58	60	61	65	68	70	68	69	71	75	77	80	82	83	84	85	85	85	86	57	86	70.8	
Jan 16	88	89	90	89	89	90	90	90	88	86	84	81	81	82	82	83	84	84	84	79	76	74	73	71	71	90	83.6	
Jan 17	70	69	68	68	67	67	68	69	69	69	75	81	83	81	81	79	83	85	86	86	86	86	86	87	67	87	77.0	
Jan 18	88	88	89	89	90	90	90	91	90	90	88	87	85	82	82	81	84	87	83	80	80	82	82	82	80	91	85.8	
Jan 19	80	77	75	74	73	73	75	77	78	79	82	89	93	89	90	90	91	92	92	92	92	91	90	91	73	93	84.4	
Jan 20	92	92	92	93	91	91	92	93	93	94	93	82	78	85	87	89	89	91	92	94	95	98	98	99	78	99	91.4	
Jan 21	99	99	98	98	98	98	98	97	97	96	96	94	94	94	95	95	95	96	94	94	94	93	94	94	93	99	95.8	
Jan 22	91	91	93	93	92	92	92	92	92	91	89	88	85	81	81	84	89	93	93	92	92	93	95	81	95	90.3		
Jan 23	94	94	96	98	99	99	98	97	99	98	96	91	92	92	94	97	99	99	99	99	99	99	99	99	91	99	96.9	
Jan 24	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	84	99	97.8	
Jan 25	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99.0	
Jan 26	99	99	99	99	99	99	99	99	99	99	96	90	83	82	81	86	96	96	98	95	92	84	77	77	99	99	93.4	
Jan 27	75	77	78	79	82	82	82	73	75	76	76	73	72	70	71	73	76	79	88	85	85	83	76	71	70	88	77.4	
Jan 28	73	69	72	79	76	75	76	78	80	85	74	70	68	68	65	63	68	72	74	85	78	82	82	82	63	85	74.8	
Jan 29	83	80	72	71	67	64	61	59	59	60	59	55	55	56	55	51	54	52	62	68	62	60	60	60	51	83	61.5	
Jan 30	63	76	73	69	65	57	69	83	80	70	69	63	P	P	P	P	P	P	P	P	P	P	P	P	57	83	NA	
Jan 31	P	P		88	86	85	85	84	81	77	72	63	47	41	41	40	39	38	39	41	45	50	55	62	65	38	88	60.2
Diurnal Maximum	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	
Diurnal Average	83.7	84.0	83.9	83.4	82.7	82.0	82.3	82.4	82.1	81.7	81.1	79.8	79.5	78.9	79.2	79.4	81.1	83.0	83.4	84.2	84.0	83.7	83.3	83.0				

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

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



**Peace River Area Monitoring Program**  
**842-B Station - January 2024**  
**Summary of Hourly Averages**  
**BAROMETRIC PRESSURE (BP) in millibar**

Maximum Hourly Value:	964	mb	on Jan 18 at hr 10	Hours in Service:	744
Maximum Daily Value:	962	mb	on Jan 18	Hours of Data:	730
Minimum Hourly Value:	923	mb	on Jan 30 at hr 5	Hours of Missing Data:	14
Minimum Daily Value:	928	mb	on Jan 31	Hours of Calibration:	0
Monthly Average:	941	mb		Operational Uptime:	98.1

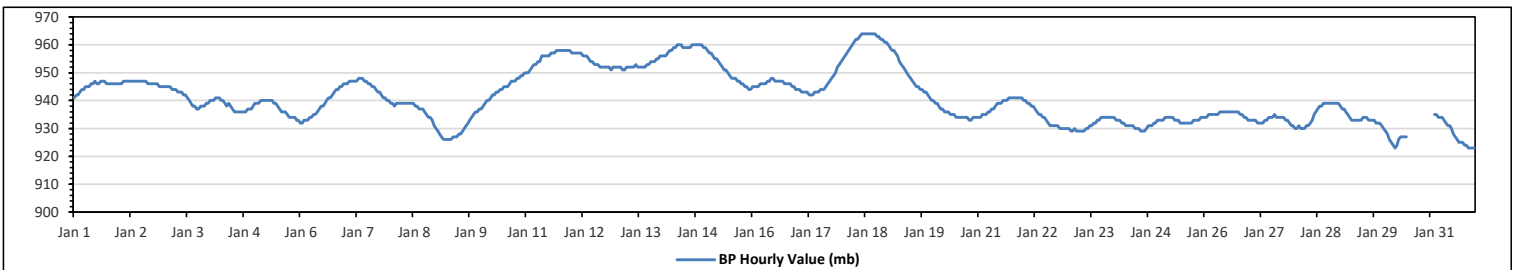
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
Jan 1	941	942	942	943	944	944	945	945	945	946	946	947	946	946	947	947	947	946	946	946	946	946	946	946	941	947	945	
Jan 2	946	946	947	947	947	947	947	947	947	947	947	947	947	947	947	946	946	946	946	946	946	945	945	945	945	947	946	
Jan 3	945	945	945	945	944	944	944	943	943	943	942	942	941	940	939	938	938	937	937	938	938	938	939	939	937	945	941	
Jan 4	940	940	940	941	941	941	940	940	939	938	939	938	937	936	936	936	936	936	936	936	936	937	937	937	936	941	938	
Jan 5	939	939	939	940	940	940	940	940	940	939	939	938	937	936	936	936	935	934	934	934	934	933	933	933	933	940	937	
Jan 6	932	932	933	933	933	934	934	935	935	936	937	938	938	939	940	941	941	942	943	944	944	945	945	946	942	946	938	
Jan 7	946	946	947	947	947	947	948	948	948	948	947	947	946	946	945	945	944	943	943	942	941	941	940	940	940	948	945	
Jan 8	939	939	938	939	939	939	939	939	939	939	939	939	938	938	937	937	936	935	934	934	933	933	931	931	939	937	937	
Jan 9	930	929	928	927	926	926	926	926	927	927	927	928	928	928	929	930	931	932	933	934	935	936	936	937	926	937	930	
Jan 10	937	938	939	940	940	941	942	942	943	943	944	944	945	945	945	946	947	947	947	948	948	949	949	950	937	950	944	
Jan 11	950	950	951	952	953	953	954	954	956	956	956	956	956	957	957	957	958	958	958	958	958	958	958	958	950	958	956	
Jan 12	957	957	957	957	957	957	956	956	956	956	954	954	953	953	953	952	952	952	952	952	951	951	952	952	951	957	954	
Jan 13	952	952	952	951	951	952	952	952	952	952	953	952	952	952	952	952	953	953	954	954	955	955	955	956	951	956	953	
Jan 14	956	956	956	957	958	958	959	959	960	960	960	959	959	959	959	960	960	960	960	960	960	959	959	956	960	959	959	
Jan 15	958	957	957	956	955	955	954	953	952	951	951	950	949	948	948	948	947	947	946	946	945	945	944	944	944	958	950	
Jan 16	945	945	945	945	946	946	946	946	947	947	948	948	947	947	947	947	946	946	946	946	945	945	944	944	944	948	946	
Jan 17	944	944	943	943	943	943	942	942	942	943	943	943	944	944	944	944	945	946	947	948	949	950	952	953	954	942	954	945
Jan 18	955	956	957	958	959	960	961	962	962	963	964	964	964	964	964	964	964	964	963	963	962	962	961	961	955	964	962	
Jan 19	960	959	958	958	957	956	954	953	952	951	950	949	948	947	946	945	945	944	944	943	943	942	941	940	940	960	949	
Jan 20	940	939	939	938	937	937	936	936	936	935	935	935	934	934	934	934	934	934	934	933	933	934	934	933	940	935	935	
Jan 21	934	934	935	935	935	936	936	937	937	938	939	939	940	940	940	941	941	941	941	941	941	941	941	941	934	941	938	
Jan 22	940	940	939	939	938	938	937	936	935	935	934	934	933	932	931	931	931	931	931	930	930	930	930	930	930	940	934	
Jan 23	930	929	929	930	929	929	929	929	930	930	931	931	932	932	933	933	934	934	934	934	934	934	934	934	929	934	931	
Jan 24	934	933	933	933	932	932	931	931	931	931	931	930	930	930	929	929	929	930	931	931	931	932	932	933	929	934	931	
Jan 25	933	933	933	934	934	934	934	934	933	933	933	932	932	932	932	932	932	932	933	933	933	933	934	934	932	934	933	
Jan 26	934	934	935	935	935	935	935	935	936	936	936	936	936	936	936	936	936	936	936	935	935	934	934	933	933	936	935	
Jan 27	933	933	933	933	932	932	932	932	933	933	934	934	934	935	934	934	934	934	934	933	933	932	931	931	931	931	933	
Jan 28	930	930	931	930	930	930	931	931	932	933	933	935	936	937	938	938	939	939	939	939	939	939	939	939	930	939	935	
Jan 29	938	937	937	936	935	934	933	933	933	933	933	933	933	934	934	934	933	933	933	932	932	932	931	930	930	938	934	
Jan 30	929	928	926	925	924	923	924	926	927	927	927	927	927	927	927	927	927	927	927	927	927	927	927	923	929	935		
Jan 31	P	P	935	935	934	934	934	933	932	931	931	930	928	927	926	925	925	925	924	924	923	923	923	923	923	923	928	
Diurnal Maximum	960	959	958	958	959	960	961	962	962	963	964	964	964	964	964	964	964	963	963	962	962	961	961	961	961	961	961	
Diurnal Average	942	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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 days is not met.  
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



**Peace River Area Monitoring Program**  
**842-B Station - January 2024**  
**Summary of Hourly Averages**  
**AMBIENT TEMPERATURE (AT) in Degree Celsius**

Maximum Hourly Value:	11.2 °C	on Jan 29 at hr 15	Hours in Service:	744
Maximum Daily Value:	7.5 °C	on Jan 29	Hours of Data:	730
Minimum Hourly Value:	-39.7 °C	on Jan 11 at hr 23	Hours of Missing Data:	14
Minimum Daily Value:	-38.1 °C	on Jan 14	Hours of Calibration:	0
Monthly Average:	-16.4 °C		Operational Uptime:	98.1

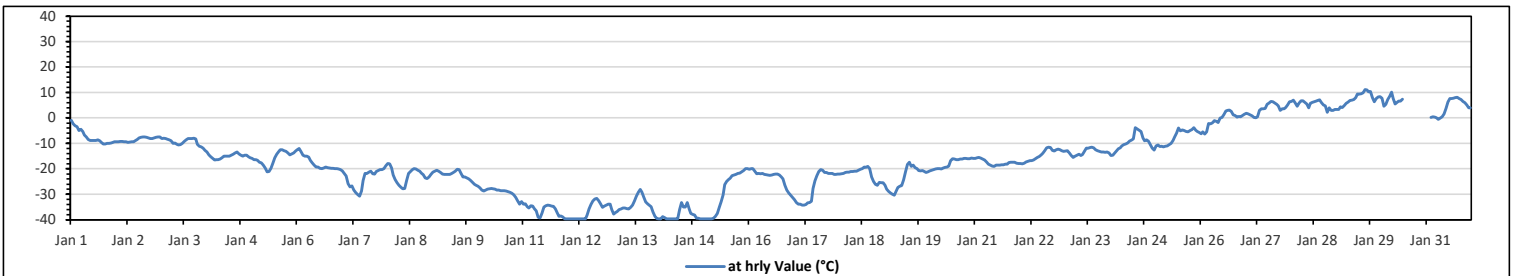
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
Jan 1	-0.9	-2.3	-3	-3.4	-4.9	-4.4	-5.3	-6.7	-7.4	-8.5	-8.9	-8.9	-8.8	-8.6	-9	-9.6	-10.2	-10.2	-10	-10	-9.8	-9.6	-9.4	-10.2	-0.9	-7.4		
Jan 2	-9.4	-9.4	-9.2	-9.3	-9.4	-9.4	-9.6	-9.5	-9.4	-9.4	-8.9	-8.5	-7.9	-7.6	-7.5	-7.4	-7.6	-7.8	-8.1	-8.1	-7.9	-7.6	-7.4	-7.4	-9.6	-7.4	-8.5	
Jan 3	-8.1	-8	-8.1	-8.3	-8.6	-9	-9.9	-9.8	-10.3	-10.6	-10.5	-9.9	-9.2	-8.6	-8.1	-8.1	-8.1	-8	-8.2	-10.3	-11.1	-11.3	-11.9	-12.7	-12.7	-8.0	-9.4	
Jan 4	-13.4	-14.5	-15.2	-15.9	-16.5	-16.4	-16.3	-16.2	-15.6	-14.9	-15	-14.9	-14.9	-14.7	-14.2	-13.7	-13.4	-14.1	-14.6	-14.9	-14.7	-14.6	-15.2	-15.7	-16.5	-13.4	-15.0	
Jan 5	-15.9	-16.4	-16.4	-16.6	-17.4	-17.6	-18.5	-19.7	-21.2	-21	-19.8	-17.7	-15.6	-14.2	-13.3	-12.5	-12.5	-12.9	-13.1	-13.7	-14.5	-14.1	-13.7	-13	-21.2	-12.5	-15.9	
Jan 6	-12.4	-12	-13.3	-14.7	-14.9	-14.9	-15.4	-16.6	-17.6	-18.6	-19.2	-19.3	-19.8	-19.9	-19.7	-19.3	-19.5	-19.7	-19.8	-19.8	-19.9	-20	-20.1	-20.3	-20.3	-12.0	-17.8	
Jan 7	-20.8	-21.8	-22.9	-25.8	-27.1	-26.7	-28.3	-29.4	-30.1	-30.7	-28.7	-24.6	-21.8	-21.7	-21.3	-20.9	-21.9	-22	-21	-20.7	-20.3	-20.3	-19.9	-18.8	-30.7	-18.8	-23.6	
Jan 8	-17.9	-18	-19.6	-22.4	-24.2	-25.5	-26.5	-27.2	-27.8	-27.7	-24.5	-21.8	-21.1	-20.3	-19.9	-20.1	-20.5	-20.9	-21.6	-22.3	-23.6	-23.8	-23.1	-22.1	-27.8	-17.9	-22.6	
Jan 9	-21.3	-20.9	-20.5	-20.9	-21.5	-22	-22.2	-22.1	-22.1	-22.1	-21.8	-21.5	-20.9	-20.2	-20.3	-21.7	-23.2	-23.2	-23.6	-24	-24.6	-25.4	-26	-26.4	-26.4	-20.2	-22.4	
Jan 10	-26.9	-27.5	-28.3	-28.7	-28.3	-28	-27.8	-27.7	-27.9	-28	-28.3	-28.3	-28.5	-28.5	-28.5	-28.7	-29	-29.2	-29.6	-30.2	-31.2	-32.6	-33.8	-32.9	-33.8	-26.9	-29.1	
Jan 11	-33.9	-33.7	-34.9	-35.4	-34.5	-34.7	-35.6	-36.5	-39	-39.3	-37.4	-35	-34.5	-34.3	-34.4	-34.6	-34.8	-35.8	-37.4	-38.7	-38.6	-38.9	-39.6	-39.7	-39.7	-33.7	-36.3	
Jan 12	-39.6	-39.6	-39.7	-39.7	-39.7	-39.7	-39.7	-39.7	-39.7	-39.6	-38.1	-35.7	-34	-32.6	-31.9	-31.6	-32.4	-33.7	-35.1	-34.7	-34.3	-33.8	-33.9	-36	-39.7	-31.6	-36.4	
Jan 13	-37.7	-37.2	-36.8	-36	-35.8	-35.3	-35.4	-35.6	-35.8	-35.1	-34.2	-32.6	-30.7	-29.2	-28.1	-29.1	-31.1	-33	-33.7	-34.4	-34.9	-37	-38.7	-39.5	-39.5	-28.1	-34.5	
Jan 14	-39.6	-39.7	-38.8	-39.1	-39.7	-39.7	-39.7	-39.7	-39.7	-39.6	-36	-33.3	-35	-35	-33.2	-35.8	-37.6	-37.8	-38.1	-39.4	-39.4	-39.7	-39.7	-39.7	-33.2	-38.1	-39.7	
Jan 15	-39.7	-39.7	-39.7	-39.7	-39.6	-39.4	-38.7	-37.6	-35.1	-32.8	-30.2	-26.2	-25	-24.2	-23.7	-22.7	-22.5	-22.1	-21.7	-21.6	-21.2	-20.6	-20	-20	-39.7	-20.0	-29.3	
Jan 16	-20.2	-19.9	-20	-20.9	-21.9	-21.8	-21.9	-21.8	-22.1	-22.3	-22.4	-22.6	-22.4	-22.1	-22	-22	-22.4	-23.1	-24	-26.5	-28.3	-29.5	-30.4	-31.2	-31.2	-19.9	-23.4	
Jan 17	-32.2	-33.2	-33.8	-33.8	-34.3	-34.3	-34	-33.4	-33.2	-32.7	-27.7	-24.7	-22.7	-21	-20.3	-20.5	-21.4	-21.5	-21.7	-21.7	-22.1	-22.1	-22.1	-22	-34.3	-20.3	-26.9	
Jan 18	-22	-21.9	-21.8	-21.5	-21.3	-21.3	-21.1	-21	-20.9	-20.9	-20.5	-20.2	-19.9	-19.2	-19.4	-19	-20	-23.2	-25	-26.1	-26.5	-25.4	-25.5	-25.5	-26.5	-19.0	-22.0	
Jan 19	-26.4	-28	-28.8	-29.5	-30	-30.3	-29	-27.3	-26.8	-26.6	-24.3	-21.2	-18.3	-17.4	-19	-18.5	-19.5	-20	-20.6	-20.8	-20.7	-21.1	-21.4	-21.2	-30.3	-17.4	-23.6	
Jan 20	-20.8	-20.5	-20.3	-20.1	-19.9	-20	-20.1	-19.6	-19.4	-19.3	-18.9	-16.7	-16	-16.2	-16.4	-16.4	-16.2	-16.2	-15.9	-15.9	-16	-16	-15.8	-15.9	-20.8	-15.8	-17.9	
Jan 21	-15.9	-15.7	-15.5	-15.8	-16.2	-16.5	-17.3	-18.1	-18.5	-18.9	-19	-18.6	-18.5	-18.5	-18.4	-18.4	-18.1	-18.1	-17.5	-17.4	-17.4	-17.4	-17.7	-17.9	-19.0	-15.5	-17.6	
Jan 22	-17.9	-18	-17.7	-17.3	-17	-16.8	-16.8	-16.5	-16.1	-15.5	-15.1	-14.5	-13.8	-12.9	-11.7	-11.5	-11.6	-12.7	-13	-12.5	-12.2	-12.4	-12.8	-13.2	-18.0	-11.5	-14.6	
Jan 23	-13	-12.8	-13.7	-14.8	-15.5	-14.9	-14.7	-14.2	-14.8	-14.4	-13.2	-11.9	-11.9	-11.6	-11.5	-11.7	-12.4	-12.8	-13.2	-13.4	-13.4	-13.5	-13.4	-13.7	-15.5	-11.5	-13.4	
Jan 24	-14.8	-14.7	-13.9	-13	-12.1	-11.7	-11	-10.5	-10.2	-9.8	-9.1	-8.7	-8.2	-3.8	-4.3	-4.8	-5.4	-7.9	-9	-8.6	-9.1	-10.5	-11.9	-12.6	-14.8	-3.8	-9.8	
Jan 25	-11	-10.7	-11.2	-11.1	-11.4	-11.1	-10.9	-10.5	-9.9	-8.9	-7.4	-5.9	-4	-5.1	-4.7	-5	-5.3	-5.5	-4.9	-4.5	-3.9	-4.8	-5.3	-5.6	-11.4	-3.9	-7.4	
Jan 26	-6.2	-5.5	-6.3	-5.5	-2.2	-2.3	-1.9	-1.1	-1.3	-1.8	-0.1	0.2	1.3	2.7	2.9	3.1	2.6	1.2	1	0.3	0.6	0.4	1	1.5	-6.3	3.1	-0.6	
Jan 27	1.8	1.6	1.2	0.8	0.2	0	0.5	3	3.6	3.7	3.8	5.3	5.9	6.5	6.4	5.9	5.3	4.7	2.9	3.6	3.7	4.1	5.2	6.4	0.0	6.5	3.6	
Jan 28	6.5	7	5.9	4.6	5.9	6.7	6.7	6.1	5.4	4	5.7	6.1	6.4	6.6	6.9	7.1	6	5.2	4.7	2.3	4	2.9	3	3.4	2.3	7.1	5.4	
Jan 29	3.3	3.4	4.3	4.1	4.9	5.7	6.3	6.9	7	7.2	8	9.3	9.4	9.5	9.9	<b>11.2</b>	11	10.3	10.5	7.9	6.4	7.6	8.2	8.4	3.3	<b>11.2</b>	<b>7.5</b>	
Jan 30	7.8	4.6	5.3	7.2	8.5	10.2	7.6	5.4	6.1	6.6	6.6	7.4													4.6	10.2	NA	
Jan 31	<b>P</b>	<b>P</b>		0.2	0.4	0.3	0	-0.5	-0.1	0.4	1.6	3.8	6.3	7.6	7.6	7.8	7.9	8.1	7.6	7.2	6.5	6	5.2	4	3.9	-0.5	8.1	4.2
Diurnal Maximum	7.8	7.0	5.9	7.2	8.5	10.2	7.6	6.9	7.0	7.2	8.0	9.3	9.4	9.5	9.9	11.2	11.0	10.3	10.5	7.9	6.4	7.6	8.2	8.4				
Diurnal Average	-17.3	-17.5	-17.2	-17.5	-17.6	-17.5	-17.6	-17.7	-17.6	-17.7	-16.6	-15.2	-15.0	-14.5	-14.3	-14.2	-14.7	-15.4	-15.8	-16.3	-16.5	-16.7	-16.9	-17.0				

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

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



**Peace River Area Monitoring Program**  
**842-B Station - January 2024**  
**Summary of Hourly Averages**  
**STATION TEMPERATURE (ST) in Degree Celsius**

Maximum Hourly Value:	24.0 °C	on Jan 17 at hr 1	Hours in Service:	744
Maximum Daily Value:	23.2 °C	on Jan 11	Hours of Data:	730
Minimum Hourly Value:	19.8 °C	on Jan 16 at hr 19	Hours of Missing Data:	14
Minimum Daily Value:	21.8 °C	on Jan 29	Hours of Calibration:	0
Monthly Average:	22.6 °C		Operational Uptime:	98.1

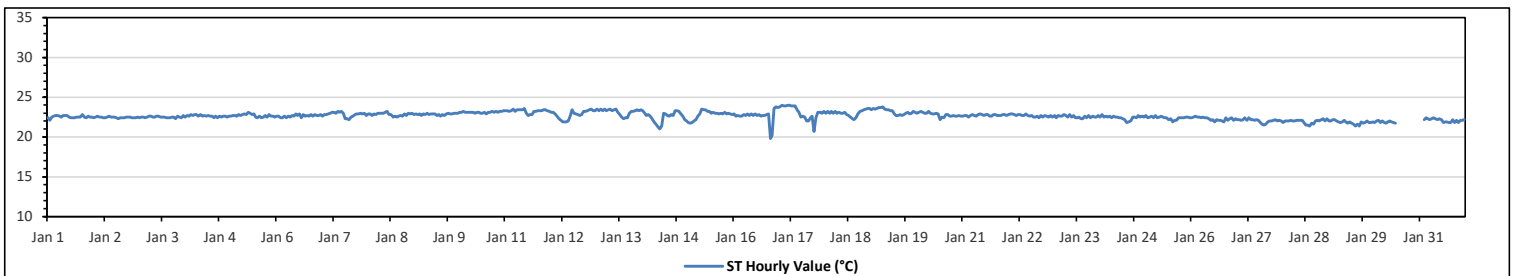
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23
Jan 1	22.4	22.1	22.5	22.6	22.7	22.7	22.6	22.5	22.7	22.7	22.7	22.5	22.4	22.4	22.4	22.5	22.5	22.5	22.8	22.5	22.4	22.6	22.5	22.5	22.1	22.8	22.5
Jan 2	22.4	22.5	22.6	22.5	22.5	22.4	22.4	22.5	22.6	22.5	22.5	22.5	22.4	22.3	22.4	22.4	22.4	22.5	22.5	22.5	22.4	22.4	22.4	22.4	22.3	22.6	22.5
Jan 3	22.4	22.5	22.5	22.4	22.5	22.6	22.6	22.5	22.5	22.6	22.6	22.5	22.5	22.5	22.4	22.4	22.4	22.5	22.5	22.3	22.6	22.5	22.4	22.7	22.3	22.7	22.5
Jan 4	22.5	22.7	22.6	22.8	22.7	22.8	22.8	22.6	22.8	22.6	22.7	22.6	22.7	22.6	22.6	22.4	22.6	22.4	22.6	22.6	22.5	22.6	22.6	22.5	22.6	22.4	22.6
Jan 5	22.6	22.7	22.7	22.6	22.8	22.7	22.8	22.9	22.8	23.1	23.0	22.8	22.9	22.5	22.4	22.6	22.4	22.5	22.7	22.5	22.8	22.6	22.6	22.5	22.4	22.8	22.7
Jan 6	22.6	22.6	22.4	22.4	22.6	22.4	22.6	22.5	22.7	22.6	22.9	22.7	22.9	22.4	22.8	22.6	22.7	22.6	22.8	22.6	22.8	22.7	22.7	22.7	22.2	22.9	22.6
Jan 7	22.6	22.8	22.8	22.9	23.0	23.1	23.1	23.0	23.2	23.1	23.2	23.0	22.3	22.3	22.2	22.5	22.6	22.8	22.9	22.9	23.0	22.9	23.0	22.9	22.2	23.2	22.8
Jan 8	22.9	22.9	22.7	22.9	22.8	23.0	23.0	23.0	23.0	23.1	23.2	22.8	22.8	22.5	22.6	22.5	22.6	22.7	22.6	22.9	22.7	23.0	22.9	23.0	22.5	23.2	22.8
Jan 9	22.8	22.9	22.8	22.9	22.7	22.9	22.8	23.0	22.8	22.9	22.9	22.7	22.8	22.6	22.8	22.7	22.9	23.0	22.9	22.9	23.0	23.0	23.0	22.6	23.0	22.9	22.9
Jan 10	23.1	23.1	23.2	23.1	23.1	23.1	23.1	23.0	23.1	23.1	23.0	23.1	23.0	23.0	23.1	22.9	23.1	23.1	23.2	23.1	23.2	23.1	23.2	23.2	23.2	23.2	23.1
Jan 11	23.3	23.3	23.2	23.3	23.5	23.2	23.4	23.4	23.4	23.4	23.6	23.0	22.7	22.8	22.8	23.2	23.2	23.3	23.3	23.3	23.4	23.4	23.3	23.2	22.7	23.6	23.2
Jan 12	23.1	23.1	22.9	22.6	22.3	22.1	21.9	21.9	21.9	22.0	22.6	23.4	23.0	22.9	22.8	22.7	22.8	23.2	23.2	23.3	23.4	23.5	23.3	23.3	21.9	23.5	22.8
Jan 13	23.5	23.3	23.5	23.3	23.5	23.3	23.4	23.5	23.3	23.4	23.5	23.1	22.8	22.5	22.3	22.4	22.4	23.0	23.2	23.2	23.3	23.4	23.3	23.4	22.3	23.5	23.2
Jan 14	23.3	23.0	22.7	22.8	22.6	22.3	21.9	21.6	21.3	21.0	21.4	23.0	22.9	22.7	22.6	22.8	22.7	23.3	23.3	23.2	22.9	22.6	22.2	22.0	21.0	23.3	22.5
Jan 15	21.8	21.7	21.8	22.0	22.2	22.6	22.9	23.5	23.4	23.4	23.2	23.2	23.0	23.1	23.0	23.0	22.9	23.0	22.9	23.1	22.9	23.0	22.9	22.8	21.7	23.5	22.8
Jan 16	22.9	22.6	22.7	22.6	22.6	22.8	22.7	22.9	22.7	22.9	22.7	22.9	22.7	22.8	22.6	22.7	22.7	22.8	22.9	19.8	20.2	23.6	23.8	23.7	19.8	23.8	22.6
Jan 17	23.8	24.0	23.9	23.9	24.0	24.0	23.9	23.9	23.9	23.4	23.1	22.5	22.6	22.5	22.0	22.0	22.4	22.6	20.7	22.4	23.1	23.1	23.0	23.2	20.7	24.0	23.1
Jan 18	23.0	23.2	23.0	23.2	23.0	23.2	23.0	23.1	23.0	23.0	23.1	22.8	22.7	22.5	22.3	22.2	22.4	22.9	23.2	23.3	23.4	23.5	23.6	23.6	22.2	23.6	23.0
Jan 19	23.4	23.6	23.5	23.6	23.7	23.7	23.8	23.5	23.4	23.4	23.3	23.3	22.9	22.7	22.7	22.8	22.7	23.0	23.1	22.9	23.0	23.2	23.1	22.7	23.7	23.8	23.2
Jan 20	23.0	23.1	23.2	23.1	23.0	23.0	23.2	23.0	22.9	22.9	23.0	22.9	22.2	22.5	22.4	22.8	22.8	22.6	22.6	22.7	22.6	22.6	22.7	22.6	22.2	23.2	22.8
Jan 21	22.6	22.7	22.7	22.5	22.7	22.8	22.7	22.6	22.8	22.9	22.8	22.7	22.8	22.8	22.6	22.6	22.8	22.8	22.7	22.7	22.7	22.8	22.8	22.7	22.5	22.9	22.7
Jan 22	22.8	22.9	22.9	22.8	22.7	22.8	22.8	22.7	22.7	22.9	22.7	22.6	22.7	22.5	22.5	22.6	22.4	22.7	22.5	22.7	22.6	22.5	22.7	22.5	22.4	22.9	22.7
Jan 23	22.7	22.4	22.7	22.6	22.6	22.8	22.7	22.5	22.8	22.5	22.7	22.4	22.4	22.5	22.3	22.3	22.6	22.4	22.7	22.4	22.6	22.5	22.5	22.7	22.3	22.8	22.6
Jan 24	22.5	22.8	22.5	22.6	22.5	22.6	22.4	22.6	22.5	22.5	22.4	22.4	22.3	22.2	21.8	21.9	22.0	22.5	22.4	22.7	22.5	22.6	22.5	21.8	22.8	22.8	22.4
Jan 25	22.7	22.4	22.5	22.6	22.4	22.7	22.4	22.5	22.6	22.5	22.4	22.4	22.2	22.3	21.9	22.1	22.1	22.4	22.4	22.4	22.4	22.5	22.5	22.4	21.9	22.7	22.4
Jan 26	22.4	22.5	22.6	22.5	22.5	22.4	22.4	22.5	22.4	22.3	22.1	22.2	21.9	22.2	22.1	22.1	21.9	22.4	22.1	22.3	22.4	22.1	22.3	21.9	22.9	22.6	22.3
Jan 27	22.2	22.2	22.1	22.2	22.4	22.1	22.4	22.2	22.2	22.1	22.2	22.1	21.8	21.6	21.5	21.6	21.9	22.0	22.0	22.1	22.2	22.0	22.1	22.0	21.5	22.4	22.1
Jan 28	21.8	22.0	22.0	22.0	22.1	22.0	22.0	22.1	22.1	22.1	22.1	21.8	21.5	21.5	21.4	21.7	21.6	22.0	22.1	22.0	22.2	22.3	22.0	22.3	21.4	22.3	21.9
Jan 29	22.0	22.0	22.2	22.2	22.0	21.9	21.8	21.9	22.1	21.9	21.7	21.9	21.7	21.6	21.4	21.6	21.4	21.9	21.7	21.8	22.0	21.8	21.8	21.9	21.4	22.2	21.8
Jan 30	21.8	22.0	22.1	21.8	22.0	21.8	21.7	21.9	22.0	21.9	21.8	21.7	P	P	P	P	P	P	P	P	P	P	P	P	21.7	22.1	NA
Jan 31	P	P	22.2	22.4	22.3	22.2	22.3	22.4	22.3	22.2	22.3	22.2	21.8	21.9	21.9	21.8	21.8	22.2	21.8	22.1	21.8	22.1	22.1	22.2	21.8	22.4	22.1
Diurnal Maximum	23.8	24.0	23.9	23.9	24.0	24.0	23.9	23.9	23.9	23.4	23.6	23.4	23.0	23.1	23.0	23.2	23.2	23.3	23.3	23.3	23.4	23.6	23.8	23.7			
Diurnal Average	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.6	22.5	22.5	22.3	22.4	22.5	22.6	22.6	22.6	22.6	22.8	22.7	22.7			

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



**Peace River Area Monitoring Program**

**842-B Station - January 2024**

**Summary of Hourly Averages**

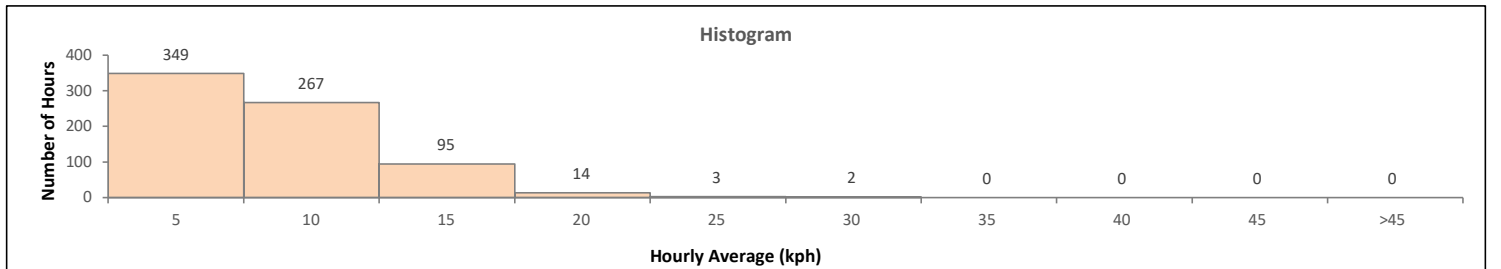
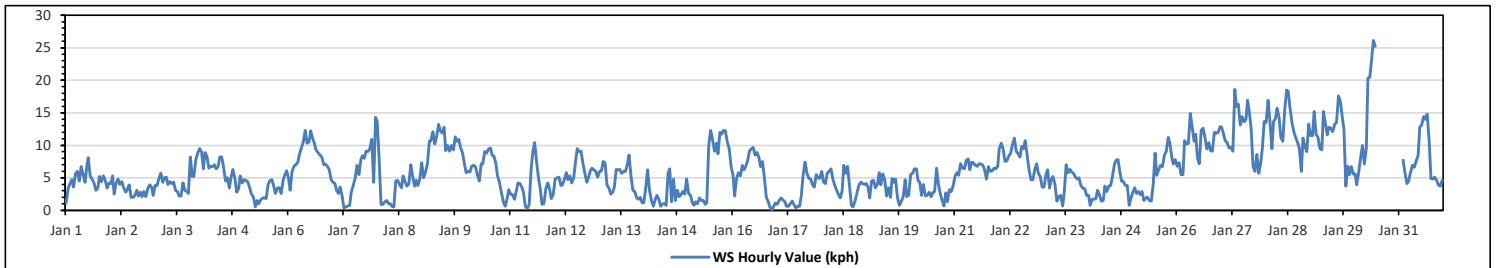
**VECTOR WIND SPEED (VWS) in km/hr**

Maximum Hourly Value:	26.1 kph	on Jan 30 at hr 10	Hours in Service:	744
Maximum Daily Value:	12.8 kph	on Jan 28	Hours of Data:	730
Minimum Hourly Value:	0.1 kph	on Jan 16 at hr 21	Hours of Missing Data:	14
Minimum Daily Value:	2.6 kph	on Jan 14	Hours of Calibration:	0
Monthly Average:	0.7 kph		Operational Uptime:	98.1

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
Jan 1	1.2	3.3	4.1	4.7	3.6	5.6	6.0	4.5	6.7	5.5	4.3	6.5	8.1	5.3	4.8	4.2	3.1	3.4	5.2	4.4	5.3	4.6	3.4	4.2	1.2	8.1	4.7
Jan 2	4.1	5.3	2.5	4.1	4.8	4.0	4.4	3.4	2.8	3.2	3.9	2.0	2.0	2.3	3.1	2.2	2.8	2.1	2.9	2.1	3.3	3.9	3.6	2.3	2.0	5.3	3.2
Jan 3	3.8	3.8	4.9	5.7	4.3	5.0	5.1	4.0	4.4	4.1	4.3	3.0	2.9	2.2	2.2	4.2	3.1	2.9	2.6	8.2	5.2	5.2	7.7	8.8	2.2	8.8	4.5
Jan 4	9.5	9.0	6.4	8.9	8.3	6.5	6.8	6.7	7.0	6.4	6.7	8.2	8.2	6.6	4.5	5.0	3.4	5.0	6.3	5.0	2.8	3.3	5.3	4.2	2.8	9.5	6.3
Jan 5	4.7	4.6	4.4	3.6	2.5	2.1	0.5	1.5	1.0	1.6	1.9	1.9	1.8	4.0	4.6	4.7	3.8	2.6	3.4	3.5	2.6	4.6	5.4	6.1	0.5	6.1	3.2
Jan 6	4.9	3.1	6.0	6.8	7.0	7.4	8.6	9.6	10.5	12.3	10.3	10.5	12.2	11.1	10.4	9.3	8.9	8.5	8.2	7.0	7.1	6.8	6.3	4.7	3.1	12.3	8.2
Jan 7	4.3	4.1	3.1	2.6	3.6	2.3	0.4	0.5	0.7	0.8	2.8	3.8	4.9	6.9	5.5	7.8	8.4	8.0	9.1	9.0	9.5	10.9	4.3	14.3	0.4	14.3	5.3
Jan 8	13.7	7.9	0.9	0.9	1.3	1.5	1.0	1.0	0.6	0.5	4.5	4.6	4.0	3.5	5.3	4.4	3.7	4.1	7.0	5.2	3.7	4.6	3.8	4.8	0.5	13.7	3.9
Jan 9	7.3	5.0	5.9	7.2	10.6	10.7	12.1	10.2	11.4	13.2	12.2	11.9	12.8	9.2	10.0	9.1	10.0	9.3	11.3	10.6	10.9	9.6	8.8	7.0	5.0	13.2	9.8
Jan 10	5.8	6.0	5.9	6.8	6.9	6.7	5.5	4.5	7.1	7.2	9.0	8.8	9.4	9.6	8.5	8.3	7.2	5.3	4.3	2.8	1.3	0.6	1.8	3.2	0.6	9.6	5.9
Jan 11	2.5	2.4	1.7	2.8	4.2	4.1	3.6	2.8	0.6	0.2	0.9	6.4	9.2	10.4	7.5	5.0	3.2	0.9	1.0	3.3	4.2	3.4	1.8	2.4	0.2	10.4	3.5
Jan 12	4.8	5.0	5.1	3.8	3.9	4.8	5.8	4.7	5.3	4.2	5.0	7.5	9.5	9.0	9.1	7.2	5.7	4.3	5.0	6.1	6.5	6.2	6.0	5.1	3.8	9.5	5.8
Jan 13	6.0	6.1	7.5	7.3	3.9	3.4	2.5	2.8	3.6	6.3	6.2	6.3	5.7	6.0	6.0	7.2	8.5	5.3	3.1	2.9	1.9	1.7	2.0	1.2	1.2	8.5	4.7
Jan 14	1.2	3.3	6.2	3.1	1.5	0.6	1.5	2.3	1.7	0.6	1.0	1.0	0.8	5.7	6.4	1.3	4.8	1.5	3.1	2.1	2.4	2.9	2.5	4.8	0.6	6.4	2.6
Jan 15	2.6	2.3	1.2	0.8	1.3	1.0	1.9	1.5	1.5	0.9	1.2	9.9	12.3	10.9	9.1	10.3	8.7	12.0	11.7	12.3	12.2	10.5	9.5	6.7	0.8	12.3	6.3
Jan 16	5.4	2.2	4.9	5.8	5.3	6.9	6.2	6.8	7.7	9.1	9.4	9.7	8.5	8.9	8.1	6.7	7.5	5.0	2.0	1.3	0.5	0.1	0.6	1.1	0.1	9.7	5.4
Jan 17	0.9	1.5	1.9	1.6	1.3	0.6	0.6	1.0	1.4	0.9	0.4	0.6	0.6	2.1	5.4	7.4	5.7	4.9	4.8	4.0	3.6	5.5	5.0	4.9	0.4	7.4	2.8
Jan 18	6.0	4.3	4.1	5.7	6.0	6.4	4.8	3.8	3.0	2.5	1.9	3.0	6.9	5.7	6.8	3.7	0.8	0.5	1.4	2.6	3.8	4.3	4.1	4.0	0.5	6.9	4.0
Jan 19	4.1	3.6	1.9	4.5	4.6	3.5	4.0	5.8	3.9	5.6	4.7	2.2	3.5	2.0	4.9	4.3	4.8	1.9	0.8	1.4	2.1	4.7	2.1	2.4	0.8	5.8	3.5
Jan 20	5.5	5.7	6.4	6.4	4.6	4.2	2.3	4.0	2.2	2.3	2.8	2.1	2.7	2.9	6.5	4.0	2.5	1.4	0.7	2.7	1.3	3.2	2.9	3.8	0.7	6.5	3.5
Jan 21	5.3	5.8	5.4	7.2	6.5	6.4	7.7	7.9	6.2	7.4	7.3	6.9	6.8	7.2	7.1	6.9	6.2	4.8	6.7	6.0	6.1	6.5	6.4	6.7	4.8	7.9	6.6
Jan 22	9.5	10.3	9.5	7.5	7.6	8.4	8.7	10.1	11.1	9.1	8.7	8.2	9.8	9.5	10.7	8.5	6.2	4.7	4.7	6.3	7.2	5.7	5.2	3.6	3.6	11.1	8.0
Jan 23	3.6	5.3	6.2	3.4	4.8	5.2	4.0	1.4	2.1	2.3	0.7	2.7	7.0	5.8	6.3	5.9	5.7	5.1	4.8	5.0	3.8	3.4	3.3	2.3	0.7	7.0	4.2
Jan 24	2.3	0.8	1.7	1.7	1.8	3.1	2.4	1.4	1.5	3.7	2.9	3.7	3.8	5.3	7.1	7.7	7.8	5.9	4.5	4.4	3.8	3.8	0.8	1.8	0.8	7.8	3.5
Jan 25	2.7	3.5	2.6	2.9	2.4	2.9	1.5	1.9	2.0	1.5	1.4	4.0	8.8	5.4	6.2	6.9	6.7	8.5	9.1	11.2	10.3	8.2	7.1	7.8	1.4	11.2	5.2
Jan 26	6.8	7.3	5.5	5.5	10.7	10.2	10.3	14.9	12.7	10.6	11.7	8.1	7.2	12.3	12.6	11.1	9.4	10.4	9.2	9.1	12.0	11.8	12.0	12.9	5.5	14.9	10.2
Jan 27	12.8	11.7	10.7	10.4	9.6	9.7	9.1	18.6	16.0	16.3	13.1	14.4	13.6	14.0	16.9	14.9	12.6	6.8	6.0	8.6	5.7	7.3	9.5	13.7	5.7	18.6	11.8
Jan 28	13.5	16.9	13.6	9.5	13.6	14.1	15.7	14.4	11.2	10.6	15.4	18.5	18.3	15.5	13.4	12.0	11.1	10.3	9.4	6.0	11.1	9.8	9.0	13.3	6.0	18.5	12.8
Jan 29	11.5	11.5	15.2	11.7	11.2	9.5	9.3	15.2	13.4	11.6	12.8	12.6	12.1	13.2	13.5	17.6	16.7	14.7	12.5	3.7	6.8	5.5	6.7	5.6	3.7	17.6	11.4
Jan 30	5.6	3.9	5.8	8.0	10.0	7.1	9.6	20.3	20.5	23.4	26.1	25.2	P	P	P	P	P	P	P	P	P	P	P	P	3.9	26.1	NA
Jan 31	P	P	7.7	5.7	4.1	4.5	5.8	6.9	6.6	7.6	8.5	12.8	13.1	14.4	14.0	14.8	11.0	4.9	4.8	5.1	4.7	3.9	3.7	4.6	3.7	14.8	7.7
Diurnal Maximum	13.7	16.9	15.2	11.7	13.6	14.1	15.7	20.3	20.5	23.4	26.1	25.2	18.3	15.5	16.9	17.6	16.7	14.7	12.5	12.3	12.2	11.8	12.0	14.3			
Diurnal Average	5.7	5.5	5.4	5.4	5.5	5.4	5.4	6.3	6.0	6.2	6.5	7.3	7.6	7.6	7.9	7.4	6.7	5.5	5.5	5.4	5.4	5.4	5.0	5.6			

<b>C</b> Month Calibration	<b>S</b> Daily Zero-Span Check	<b>Q</b> Quality Assurance
<b>K</b> Collection Error	<b>ND</b> No Data (Machine Not in Service)	<b>Y</b> Routine Maintenance
<b>X</b> InValid Data (Equipment Malfunction /Recovery)	<b>NRM</b> UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	<b>P</b> 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.

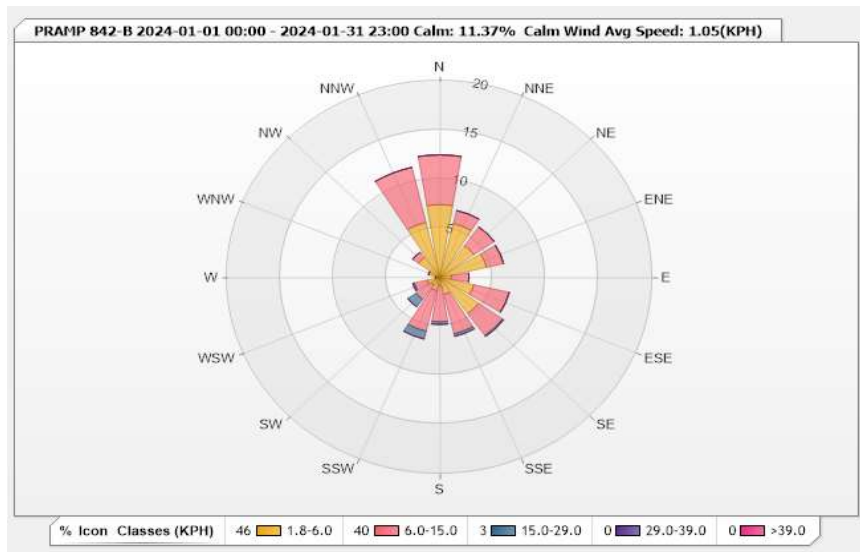


Station: PRAMP 842-B Monitor: WDS [KPH] Monthly: 01-2024

Type: Wind Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm (WS<1.8kph): 11.37%      Valid Data: 98.12%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	7.4	5.07	0	0	0	12.47
NNE	5.62	1.37	0	0	0	6.99
NE	3.97	2.33	0	0	0	6.3
ENE	4.52	1.64	0	0	0	6.16
E	1.1	1.64	0	0	0	2.74
ESE	3.29	3.42	0	0	0	6.71
SE	4.52	2.74	0.14	0	0	7.4
SSE	1.78	4.11	0.27	0	0	6.16
S	0.82	3.7	0.27	0	0	4.79
SSW	1.37	4.25	0.82	0	0	6.44
SW	0.96	1.78	0.96	0	0	3.7
WSW	1.23	1.23	0.14	0	0	2.6
W	0.27	0.14	0	0	0	0.41
WNW	1.1	0	0	0	0	1.1
NW	2.47	0.68	0	0	0	3.15
NNW	5.75	5.75	0	0	0	11.5
Summary	46.17	39.85	2.6	0	0	88.62



Peace River Area Monitoring Program

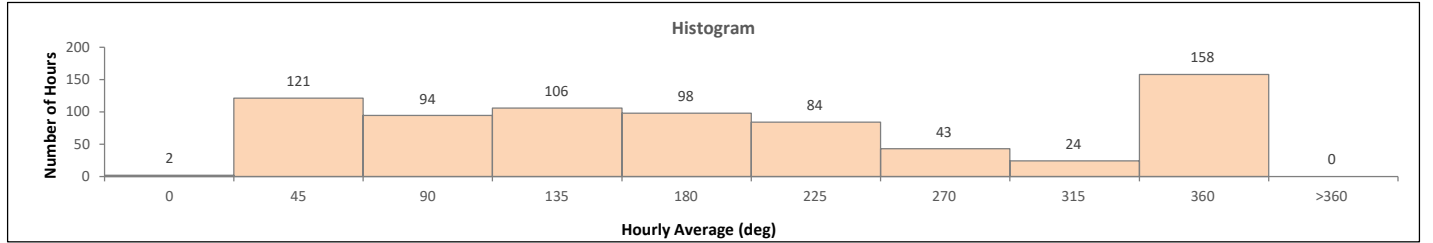
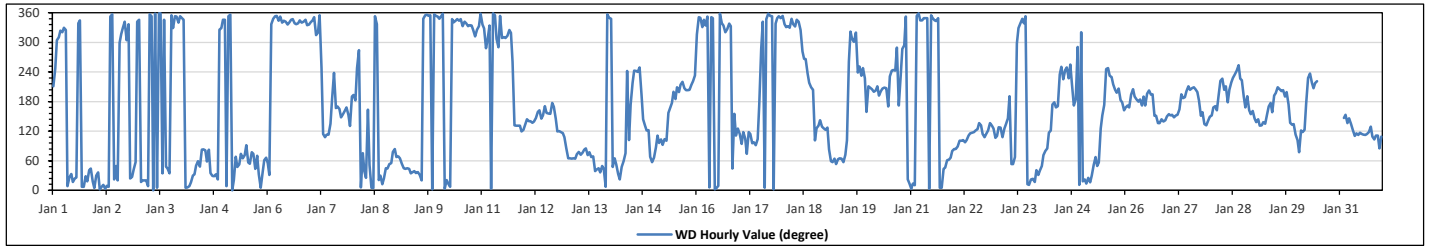
842-B Station - January 2024

Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

Monthly Average:		115 (ESE) degree													Hours in Service:		744											
															Hours of Data:		730											
															Hours of Missing Data:		14											
															Hours of Calibration:		0											
															Operational Uptime:		98.1											
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		
Jan 1	SSW	WSW	WNW	NW	NW	NW	NNW	NW	N	NNE	NNE	NNE	NNE	NNE	NNW	NNW	N	N	NNE	NNE	NE	NE	NNE	N	1	N		
Jan 2	NNE	NE	N	N	NNE	N	N	N	N	N	NNE	NE	NNE	WNW	NW	NNW	NNW	WNW	NNW	NNE	NNE	NE	ENE	NNW	8	N		
Jan 3	NNW	NNE	NNE	NNE	NNE	N	N	N	N	N	N	N	N	NE	NNW	NE	NE	NE	N	NNW	N	N	NNW	N	2	N		
Jan 4	NNW	NNW	N	N	N	NNE	NNE	NNE	NE	ENE	NE	E	E	ENE	E	ENE	E	NE	NNE	NNE	NNE	NW	NNW	NNW	29	NNE		
Jan 5	NNW	N	N	N	N	NNE	ENE	NE	NE	ENE	ENE	E	NE	NE	ENE	ENE	NE	ENE	NNE	N	NE	ENE	ENE	42	NE			
Jan 6	NE	NNE	NNW	NNW	N	NNW	N	NNW	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	345	NNW		
Jan 7	NNW	NNW	N	NW	NW	N	WSW	ESE	ESE	ESE	ESE	SE	S	SW	SSE	SSE	SSE	SE	SSE	SSE	SSE	SSE	SSE	S	167	SSE		
Jan 8	S	S	WSW	WNW	N	ENE	NE	NNE	SSE	NE	N	N	NNW	NNE	NNE	NNE	NNE	NE	NE	NE	NE	ENE	E	43	NE			
Jan 9	ENE	ENE	ENE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NNE	NNE	NNW	N	N	N	N	N	N	N	N	25	NNE		
Jan 10	NNW	N	N	N	NNE	NNE	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	347	NNW	
Jan 11	NNW	NNW	WNW	NW	NNW	N	N	N	NW	WNW	N	NW	NW	NW	NW	NW	NW	WSW	SE	SE	SE	SE	ESE	ESE	326	NW		
Jan 12	SE	SE	SE	SE	SE	SE	SSE	SSE	SE	SSE	S	SSE	SSE	SSE	S	SSE	SE	ESE	ESE	ESE	ESE	ESE	ESE	E	143	SE		
Jan 13	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	E	ENE	ENE	ENE	NE	NE	NE	NE	NE	NE	NE	N	N	N	N	61	ENE		
Jan 14	NNW	NE	ENE	NE	NNE	NNE	NE	ENE	ENE	WSW	E	S	SW	WSW	WSW	WSW	WSW	SSW	SE	SE	ESE	ESE	ENE	ENE	99	E		
Jan 15	ENE	E	ESE	E	ESE	E	ESE	E	SSE	SSE	S	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	201	SSW		
Jan 16	NW	N	N	NNW	NNW	NNW	N	N	NNW	N	N	N	N	NNW	NNW	NW	NW	NNW	NE	SSE	ESE	SE	SE	SE	348	NNW		
Jan 17	ESE	E	ESE	ESE	ENE	ESE	ESE	E	E	ESE	S	WNW	NNW	N	NNW	N	N	N	NNW	NNW	N	NNW	N	NNW	5	N		
Jan 18	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NW	W	W	W	SW	SW	SSW	SSW	E	SE	SE	SE	SE	SE	313	NW		
Jan 19	ESE	SE	E	ENE	ENE	ENE	NE	ENE	ENE	ENE	E	W	NW	WNW	NW	WSW	WSW	WSW	WSW	SW	WSW	SW	SSW	SSW	54	NE		
Jan 20	SSW	SSW	SSW	SSW	SSW	SSW	S	SSW	SSW	SSW	SSW	SSE	SW	WSW	WSW	WSW	WNW	S	SW	WNW	WNW	N	NNE	NNE	223	SW		
Jan 21	N	NNE	N	N	N	NNW	NNW	NNW	NNW	N	N	NNW	NNW	NNW	NNW	N	N	NE	NE	ENE	ENE	ENE	E	9	N			
Jan 22	E	E	E	E	E	E	E	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	ESE	111	ESE		
Jan 23	ESE	SE	SE	ESE	SE	SE	S	NE	NE	ENE	WNW	NNW	NNW	NNW	NNW	N	NNE	NNE	NNE	NNE	NNE	NE	NE	NE	35	NE		
Jan 24	NE	NE	ENE	E	E	ESE	ESE	S	S	SSE	S	SW	WSW	SW	WSW	WSW	SW	WSW	SW	S	S	WNW	NNE	NW	218	SW		
Jan 25	NNE	NNE	NNE	NNE	NNE	NNE	NE	ENE	NE	SE	SSE	S	WSW	WSW	SW	SW	SSW	SSW	SSW	SSW	S	S	SSE	197	SSW			
Jan 26	SSE	S	SSE	SSW	SSW	S	S	S	S	S	S	S	S	SSW	SSW	SSW	SSW	SSE	SSE	SE	SE	SE	SE	SSE	172	S		
Jan 27	SSE	SSE	SSE	SE	SSE	SSE	SSE	SSW	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSE	SE	SE	SE	SE	SSE	178	S		
Jan 28	SSE	SSE	S	SSE	S	SW	SW	SSW	S	SSW	SW	S	SSW	SW	WSW	WSW	SSW	S	SSE	S	SSE	SSE	SSE	201	SSW			
Jan 29	SE	SE	SE	SE	SE	SE	SE	SSE	S	SSE	S	SSE	S	SSW	SSW	SSW	SSW	S	SSE	S	SSE	SSE	SSE	168	SSE			
Jan 30	E	ENE	ESE	ESE	ESE	S	SW	SW	SSE	SSW	SW	SW	P	P	P	P	P	P	P	P	P	P	P	NA	NA			
Jan 31	P	P	SE	SSE	SE	SE	SE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	118	ESE		
C	Monthly Calibration													S	Daily Zero-Span Check					Q	Quality Assurance							
K	Collection Error													ND	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.



**Peace River Area Monitoring Program**

**842-B Station - January 2024**

**Summary of Hourly Averages**

**VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector**

WIND SPEED	
Maximum Hourly Value:	26.1 kph on Jan 30 at hr 10
Maximum Daily Value:	12.8 kph on Jan 28
Minimum Hourly Value:	0.1 kph on Jan 16 at hr 21
Minimum Daily Value:	2.6 kph on Jan 14
Monthly Average:	0.7 kph
Hours in Service:	744
Hours of Data:	730
Hours of Missing Data:	14
Hours of Calibration:	0
Operational Uptime:	98.1

WIND DIRECTION	
Monthly Average:	115 degree (ESE)

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	
Jan 1	1.2	3.3	4.1	4.7	3.6	5.6	6.0	4.5	6.7	5.5	4.3	6.5	8.1	5.3	4.8	4.2	3.1	3.4	5.2	4.4	5.3	4.6	3.4	4.2	1.2	8.1	4.7	
Jan 2	4.1	5.3	2.5	4.1	4.8	4.0	4.4	3.4	2.8	3.2	3.9	2.0	2.0	2.3	3.1	2.2	2.8	2.1	2.9	2.1	3.3	3.9	3.6	2.3	2.0	5.3	3.2	
Jan 3	3.8	3.8	4.9	5.7	4.3	5.0	5.1	4.0	4.4	4.1	4.3	3.0	2.9	2.2	2.2	4.2	3.1	2.9	2.6	8.2	5.2	5.2	7.7	8.8	2.2	8.8	4.5	
Jan 4	9.5	9.0	6.4	8.9	8.3	6.5	6.8	6.7	7.0	6.4	6.7	8.2	8.2	6.6	4.5	5.0	3.4	5.0	6.3	5.0	2.8	3.3	5.3	4.2	2.8	9.5	6.3	
Jan 5	4.7	4.6	4.4	3.6	2.5	2.1	0.5	1.5	1.0	1.6	1.9	1.9	1.8	4.0	4.6	4.7	3.8	2.6	3.4	3.5	2.6	4.6	5.4	6.1	0.5	6.1	3.2	
Jan 6	4.9	3.1	6.0	6.8	7.0	7.4	8.6	9.6	10.5	12.3	10.3	10.5	12.2	11.1	10.4	9.3	8.9	8.5	8.2	7.0	7.1	6.8	6.3	4.7	3.1	12.3	8.2	
Jan 7	4.3	4.1	3.1	2.6	3.6	2.3	0.4	0.5	0.7	0.8	2.8	3.8	4.9	6.9	5.5	7.8	8.4	8.0	9.1	9.0	9.5	10.9	4.3	14.3	0.4	14.3	5.3	
Jan 8	13.7	7.9	0.9	0.9	1.3	1.5	1.0	1.0	0.6	0.5	4.5	4.6	4.0	3.5	5.3	4.4	3.7	4.1	7.0	5.2	3.7	4.6	3.8	4.8	0.5	13.7	3.9	
Jan 9	7.3	5.0	5.9	7.2	10.6	10.7	12.1	10.2	11.4	13.2	12.2	11.9	12.8	9.2	10.0	9.1	10.0	9.3	11.3	10.6	10.9	9.6	8.8	7.0	5.0	13.2	9.8	
Jan 10	5.8	6.0	5.9	6.8	6.9	6.7	5.5	4.5	7.1	7.2	9.0	8.8	9.4	9.6	8.5	8.3	7.2	5.3	4.3	2.8	1.3	0.6	1.8	3.2	0.6	9.6	5.9	
Jan 11	2.5	2.4	1.7	2.8	4.2	4.1	3.6	2.8	0.6	0.2	0.9	6.4	9.2	10.4	7.5	5.0	3.2	0.9	1.0	3.3	4.2	3.4	1.8	2.4	0.2	10.4	3.5	
Jan 12	4.8	5.0	5.1	3.8	3.9	4.8	5.8	4.7	5.3	4.2	5.0	7.5	9.5	9.0	9.1	7.2	5.7	4.3	5.0	6.1	6.5	6.2	6.0	5.1	3.8	9.5	5.8	
Jan 13	6.0	6.1	7.5	7.3	3.9	3.4	2.5	2.8	3.6	6.3	6.2	6.3	5.7	6.0	6.0	7.2	8.5	5.3	3.1	2.9	1.9	1.7	2.0	1.2	1.2	8.5	4.7	
Jan 14	1.2	3.3	6.2	3.1	1.5	0.6	1.5	2.3	1.7	0.6	1.0	1.0	0.8	5.7	6.4	1.3	4.8	1.5	3.1	2.1	2.4	2.9	2.5	4.8	0.6	6.4	2.6	
Jan 15	2.6	2.3	1.2	0.8	1.3	1.0	1.9	1.5	1.5	0.9	1.2	9.9	12.3	10.9	9.1	10.3	8.7	12.0	11.7	12.3	12.2	10.5	9.5	6.7	0.8	12.3	6.3	
Jan 16	5.4	2.2	4.9	5.8	5.3	6.9	6.2	6.8	7.7	9.1	9.4	9.7	8.5	8.9	8.1	6.7	7.5	5.0	2.0	1.3	0.5	0.1	0.6	1.1	0.1	9.7	5.4	
Jan 17	0.9	1.5	1.9	1.6	1.3	0.6	0.6	1.0	1.4	0.9	0.4	0.6	0.6	2.1	5.4	7.4	5.7	4.9	4.8	4.0	3.6	5.5	5.0	4.9	0.4	7.4	2.8	
Jan 18	6.0	4.3	4.1	5.7	6.0	6.4	4.8	3.8	3.0	2.5	1.9	3.0	6.9	5.7	6.8	3.7	0.8	0.5	1.4	2.6	3.8	4.3	4.1	4.0	0.5	6.9	4.0	
Jan 19	4.1	3.6	1.9	4.5	4.6	3.5	4.0	5.8	3.9	5.6	4.7	2.2	3.5	2.0	4.9	4.3	4.8	1.9	0.8	1.4	2.1	4.7	2.1	2.4	0.8	5.8	3.5	
Jan 20	5.5	5.7	6.4	6.4	4.6	4.2	2.3	4.0	2.2	2.3	2.8	2.1	2.7	2.9	6.5	4.0	2.5	1.4	0.7	2.7	1.3	3.2	2.9	3.8	0.7	6.5	3.5	
Jan 21	5.3	5.8	5.4	7.2	6.5	6.4	7.7	7.9	6.2	7.4	7.3	6.9	6.8	7.2	7.1	6.9	6.2	4.8	6.7	6.0	6.1	6.5	6.4	6.7	4.8	7.9	6.6	
Jan 22	9.5	10.3	9.5	7.5	7.6	8.4	8.7	10.1	11.1	9.1	8.7	8.2	9.8	9.5	10.7	8.5	6.2	4.7	4.7	6.3	7.2	5.7	5.2	3.6	3.6	11.1	8.0	
Jan 23	3.6	5.3	6.2	3.4	4.8	5.2	4.0	1.4	2.1	2.3	0.7	2.7	7.0	5.8	6.3	5.9	5.7	5.1	4.8	5.0	3.8	3.4	3.3	2.3	0.7	7.0	4.2	
Jan 24	2.3	0.8	1.7	1.7	1.8	3.1	2.4	1.4	1.5	3.7	2.9	3.7	3.8	5.3	7.1	7.7	7.8	5.9	4.5	4.4	3.8	3.8	0.8	1.8	0.8	7.8	3.5	
Jan 25	2.7	3.5	2.6	2.9	2.4	2.9	1.5	1.9	2.0	1.5	1.4	4.0	8.8	5.4	6.2	6.9	6.7	8.5	9.1	11.2	10.3	8.2	7.1	7.8	1.4	11.2	5.2	
Jan 26	6.8	7.3	5.5	5.5	10.7	10.2	10.3	14.9	12.7	10.6	11.7	8.1	7.2	12.3	12.6	11.1	9.4	10.4	9.2	9.1	12.0	11.8	12.0	12.9	5.5	14.9	10.2	
Jan 27	12.8	11.7	10.7	10.4	9.6	9.7	9.1	18.6	16.0	16.3	13.1	14.4	13.6	14.0	16.9	14.9	12.6	6.8	6.0	8.6	5.7	7.3	9.5	13.7	5.7	18.6	11.8	
Jan 28	13.5	16.9	13.6	9.5	13.6	14.1	15.7	14.4	11.2	10.6	15.4	18.5	18.3	15.5	13.4	12.0	11.1	10.3	9.4	6.0	11.1	9.8	9.0	13.3	6.0	18.5	12.8	
Jan 29	11.5	11.5	15.2	11.7	11.2	9.5	9.3	15.2	13.4	11.6	12.8	12.6	12.1	13.2	13.5	17.6	16.7	14.7	12.5	3.7	6.8	5.5	6.7	5.6	3.7	17.6	11.4	
Jan 30	5.6	3.9	5.8	8.0	10.0	7.1	9.6	20.3	20.5	23.4	26.1	25.2	13.1	14.4	14.0	14.8	11.0	4.9	4.8	5.1	4.7	3.9	3.7	4.6	3.9	26.1	NA	
Jan 31	7.7	7.7	7.7	5.7	4.1	4.5	5.8	6.9	6.6	7.6	8.5	12.8	13.1	14.4	14.0	14.8	11.0	4.9	4.8	5.1	4.7	3.9	3.7	4.6	3.7	14.8	7.7	

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.

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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



## RENO -B STATION

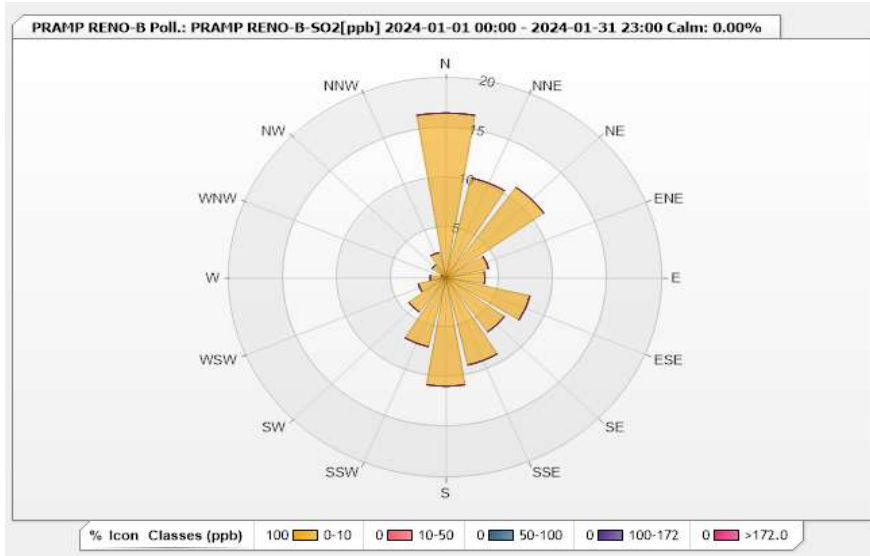


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-SO2[ppb] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 92.88%      Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	16.5	0	0	0	0	16.5
NNE	10.27	0	0	0	0	10.27
NE	11.14	0	0	0	0	11.14
ENE	4.05	0	0	0	0	4.05
E	3.62	0	0	0	0	3.62
ESE	7.96	0	0	0	0	7.96
SE	6.66	0	0	0	0	6.66
SSE	8.97	0	0	0	0	8.97
S	10.85	0	0	0	0	10.85
SSW	7.09	0	0	0	0	7.09
SW	4.2	0	0	0	0	4.2
WSW	2.6	0	0	0	0	2.6
W	1.45	0	0	0	0	1.45
WNW	0.43	0	0	0	0	0.43
NW	1.59	0	0	0	0	1.59
NNW	2.6	0	0	0	0	2.6
Summary	100	0	0	0	0	100



**Peace River Area Monitoring Program**  
**Reno-B Station - January 2024**  
**Summary of Hourly Averages**  
**TOTAL REDUCED SULPHUR (TRS) in ppb**

Maximum Hourly Value:	0.64 ppb	on Jan 25 at hr 22	Hours in Service:	744
Maximum Daily Value:	0.41 ppb	on Jan 16	Hours of Data:	693
Minimum Hourly Value:	0.24 ppb	on Jan 1 at hr 13	Hours of Missing Data:	14
Minimum Daily Value:	0.28 ppb	on Jan 2	Hours of Calibration:	37
Monthly Average:	0.33 ppb		Operational Uptime:	98.1

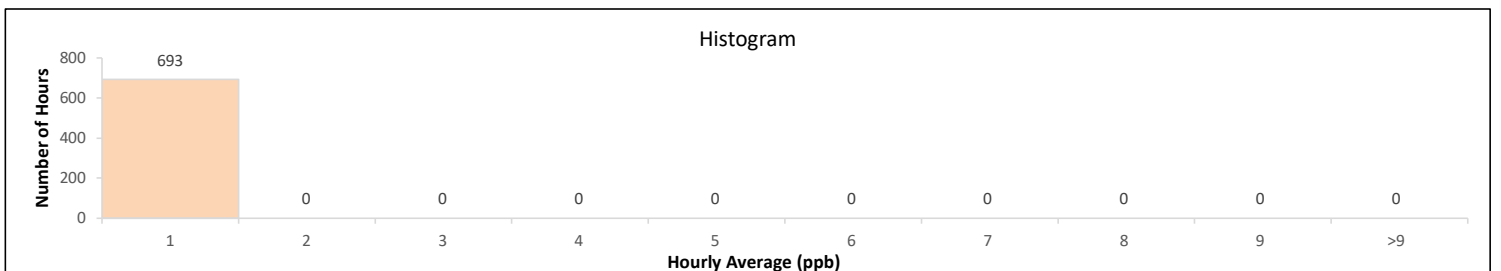
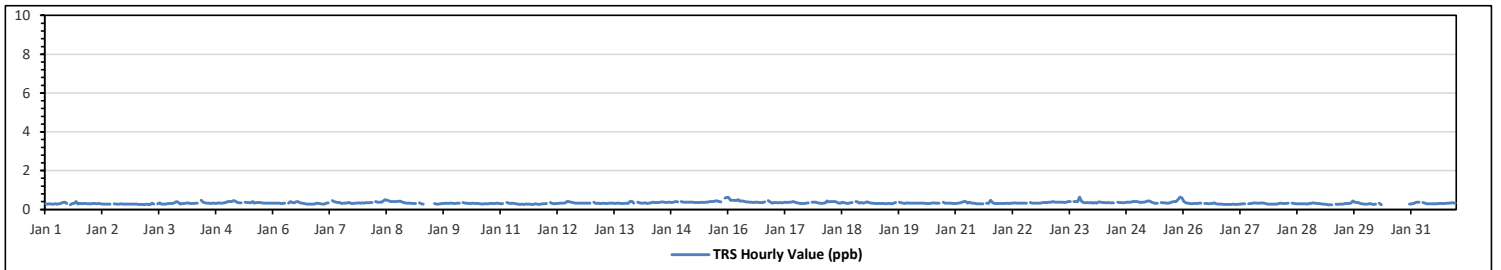
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
Jan 1	0.29	0.28	0.29	0.28	0.28	0.29	0.27	0.29	0.3	0.35	0.37	0.3	S	0.24	0.31	0.3	0.42	0.28	0.32	0.29	0.3	0.3	0.29	0.29	0.24	0.42	0.30	
Jan 2	0.29	0.3	0.3	0.29	0.3	0.29	0.27	0.28	0.27	0.27	0.28	S	0.29	0.28	0.28	0.28	0.29	0.28	0.28	0.27	0.28	0.27	0.27	0.28	0.27	0.30	0.28	
Jan 3	0.27	0.26	0.26	0.26	0.25	0.27	0.26	0.25	0.32	0.27	S	0.29	0.34	0.27	0.27	0.28	0.29	0.31	0.3	0.3	0.35	0.41	0.36	0.27	0.25	0.41	0.29	
Jan 4	0.31	0.31	0.33	0.34	0.31	0.31	0.3	0.33	0.33	S	0.47	0.37	0.34	0.33	0.32	0.31	0.33	0.31	0.34	0.33	0.33	0.34	0.36	0.34	0.36	0.30	0.47	0.33
Jan 5	0.42	0.41	0.42	0.46	0.43	0.35	0.34	0.34	S	0.38	0.35	0.35	0.34	0.4	0.33	0.35	0.35	0.35	0.34	0.33	0.33	0.33	0.32	0.32	0.32	0.46	0.36	
Jan 6	0.32	0.32	0.33	0.32	0.31	0.31	0.33	S	0.33	0.4	0.36	0.34	0.39	0.41	0.34	0.33	0.3	0.29	0.28	0.28	0.28	0.28	0.29	0.32	0.28	0.41	0.32	
Jan 7	0.3	0.29	0.28	0.28	0.33	0.34	S	0.46	0.41	0.37	0.36	0.35	0.31	0.33	0.32	0.34	0.36	0.31	0.31	0.32	0.33	0.34	0.33	0.34	0.28	0.46	0.34	
Jan 8	0.33	0.35	0.34	0.35	0.36	S	0.4	0.37	0.38	0.38	0.44	0.51	0.47	0.44	0.42	0.41	0.41	0.4	0.43	0.43	0.37	0.35	0.33	0.33	0.33	0.51	0.39	
Jan 9	0.32	0.31	0.31	0.31	S	0.34	0.29	0.28	C	C	C	C	C	C	0.3	0.28	0.28	0.29	0.3	0.31	0.32	0.31	0.32	0.32	0.31	0.28	0.34	0.31
Jan 10	0.31	0.32	0.33	S	0.36	0.32	0.32	0.3	0.3	0.32	0.3	0.31	0.3	0.29	0.28	0.29	0.29	0.29	0.3	0.3	0.3	0.31	0.32	0.3	0.28	0.36	0.31	
Jan 11	0.29	0.3	S	0.36	0.32	0.31	0.32	0.31	0.29	0.28	0.26	0.27	0.26	0.27	0.27	0.27	0.26	0.26	0.29	0.27	0.26	0.28	0.29	0.29	0.26	0.36	0.29	
Jan 12	0.3	S	0.35	0.3	0.29	0.3	0.3	0.32	0.32	0.32	0.34	0.43	0.39	0.37	0.35	0.33	0.33	0.32	0.32	0.33	0.32	0.33	0.32	0.33	0.32	0.43	0.33	
Jan 13	S	0.37	0.31	0.32	0.31	0.31	0.32	0.31	0.31	0.32	0.32	0.32	0.31	0.32	0.32	0.31	0.31	0.31	0.32	0.31	0.4	0.43	0.32	S	0.31	0.43	0.33	
Jan 14	0.38	0.34	0.33	0.33	0.34	0.31	0.32	0.34	0.37	0.36	0.35	0.35	0.37	0.39	0.37	0.36	0.37	0.37	0.36	0.38	0.42	0.39	S	0.42	0.31	0.42	0.36	
Jan 15	0.37	0.37	0.37	0.37	0.37	0.38	0.36	0.36	0.35	0.36	0.37	0.36	0.37	0.38	0.4	0.41	0.41	0.44	0.44	0.4	0.39	S	0.6	0.62	0.35	0.62	0.40	
Jan 16	0.62	0.48	0.47	0.47	0.45	0.5	0.43	0.44	0.43	0.39	0.39	0.38	0.37	0.36	0.37	0.37	0.35	0.35	0.36	0.39	S	0.45	0.37	0.33	0.33	0.62	0.41	
Jan 17	0.35	0.35	0.34	0.36	0.34	0.35	0.37	0.35	0.37	0.37	0.42	0.37	0.34	0.33	0.31	0.31	0.31	0.32	0.34	S	0.38	0.38	0.38	0.34	0.31	0.42	0.35	
Jan 18	0.33	0.31	0.33	0.34	0.44	0.39	0.41	0.41	0.41	0.37	0.32	0.32	0.38	0.34	0.33	0.3	0.34	0.36	S	0.42	0.39	0.32	0.35	0.33	0.30	0.44	0.36	
Jan 19	0.35	0.39	0.35	0.32	0.32	0.3	0.31	0.3	0.31	0.31	0.31	0.29	0.3	0.3	0.29	0.32	0.36	S	0.37	0.34	0.32	0.31	0.34	0.32	0.29	0.39	0.32	
Jan 20	0.33	0.33	0.32	0.33	0.32	0.33	0.33	0.32	0.31	0.31	0.31	0.33	0.34	0.33	0.33	0.32	S	0.37	0.33	0.32	0.33	0.32	0.31	0.31	0.31	0.37	0.33	
Jan 21	0.31	0.32	0.34	0.38	0.42	0.42	0.33	0.37	0.32	0.32	0.3	0.29	0.29	0.29	0.29	S	0.33	0.31	0.47	0.35	0.3	0.3	0.3	0.3	0.29	0.47	0.33	
Jan 22	0.3	0.3	0.31	0.32	0.31	0.33	0.33	0.34	0.33	0.32	0.32	0.33	0.33	0.33	S	0.36	0.32	0.32	0.33	0.33	0.33	0.34	0.35	0.35	0.30	0.36	0.33	
Jan 23	0.36	0.37	0.38	0.4	0.37	0.38	0.37	0.38	0.37	0.36	0.38	0.41	0.42	S	0.41	0.41	0.42	0.63	0.43	0.36	0.34	0.35	0.34	0.35	0.34	0.63	0.39	
Jan 24	0.32	0.35	0.33	0.39	0.37	0.35	0.36	0.34	0.35	0.34	0.34	0.34	S	0.38	0.36	0.35	0.34	0.35	0.37	0.37	0.38	0.4	0.4	0.41	0.32	0.41	0.36	
Jan 25	0.39	0.36	0.37	0.38	0.4	0.44	0.43	0.38	0.34	0.31	0.32	S	0.35	0.34	0.34	0.33	0.33	0.35	0.39	0.4	0.4	0.54	0.64	0.59	0.31	0.64	0.40	
Jan 26	0.42	0.34	0.33	0.31	0.29	0.31	0.31	0.31	0.32	0.32	S	0.31	0.31	0.29	0.3	0.31	0.34	0.29	0.28	0.27	0.27	0.26	0.26	0.26	0.26	0.42	0.30	
Jan 27	0.26	0.26	0.27	0.26	0.26	0.28	0.28	0.29	S	0.29	0.3	0.31	0.34	0.33	0.33	0.32	0.34	0.34	0.33	0.3	0.3	0.28	0.27	0.27	0.26	0.34	0.29	
Jan 28	0.28	0.28	0.3	0.32	0.3	0.3	0.31	0.33	S	0.33	0.3	0.29	0.29	0.29	0.29	0.29	0.29	0.28	0.3	0.3	0.34	0.33	0.3	0.3	0.28	0.34	0.30	
Jan 29	0.29	0.28	0.27	0.26	0.25	0.25	0.25	S	0.27	0.26	0.27	0.27	0.28	0.3	0.3	0.31	0.32	0.44	0.37	0.36	0.36	0.3	0.29	0.28	0.25	0.44	0.30	
Jan 30	0.28	0.27	0.3	0.27	0.26	0.27	S	0.32	0.25	P	P	P	P	P	P	P	P	P	P	P	P	P	NRM	NRM	0.28	0.25	0.32	NA
Jan 31	0.29	0.31	0.36	0.38	0.38	S	0.35	0.32	0.29	0.29	0.29	0.29	0.29	0.29	0.3	0.31	0.31	0.31	0.31	0.33	0.33	0.34	0.34	0.33	0.29	0.38	0.32	
Diurnal Maximum	0.62	0.48	0.47	0.47	0.45	0.50	0.43	0.46	0.43	0.40	0.47	0.51	0.47	0.44	0.42	0.41	0.42	0.63	0.47	0.43	0.42	0.54	0.64	0.62				
Diurnal Average	0.33	0.33	0.33	0.34	0.33	0.33	0.33	0.34	0.33	0.33	0.34	0.34	0.34	0.33	0.32	0.33	0.33	0.34	0.34	0.34	0.33	0.34	0.34	0.34	0.34	0.34	0.34	0.34

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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.

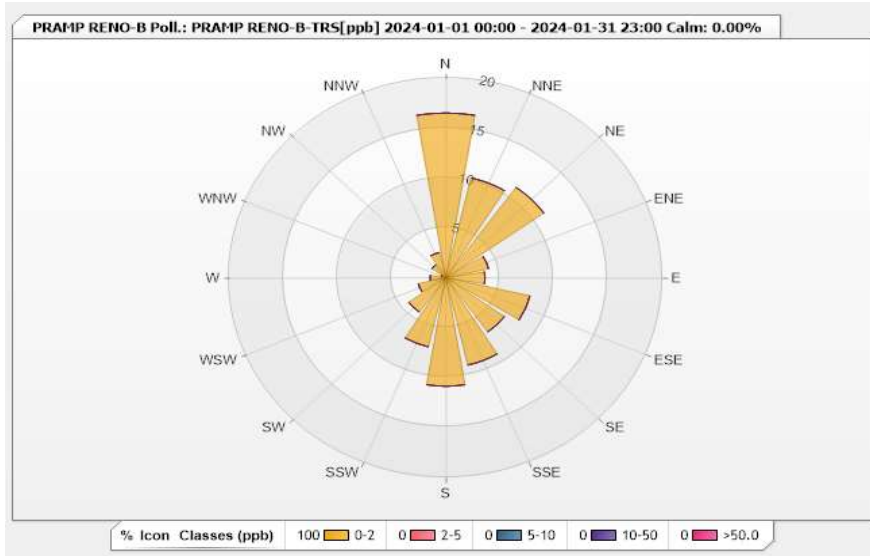


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-TRS[ppb] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 92.88%      Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	16.5	0	0	0	0	16.5
NNE	10.27	0	0	0	0	10.27
NE	11.14	0	0	0	0	11.14
ENE	4.05	0	0	0	0	4.05
E	3.62	0	0	0	0	3.62
ESE	7.96	0	0	0	0	7.96
SE	6.66	0	0	0	0	6.66
SSE	8.97	0	0	0	0	8.97
S	10.85	0	0	0	0	10.85
SSW	7.09	0	0	0	0	7.09
SW	4.2	0	0	0	0	4.2
WSW	2.6	0	0	0	0	2.6
W	1.45	0	0	0	0	1.45
WNW	0.43	0	0	0	0	0.43
NW	1.59	0	0	0	0	1.59
NNW	2.6	0	0	0	0	2.6
Summary	100	0	0	0	0	100



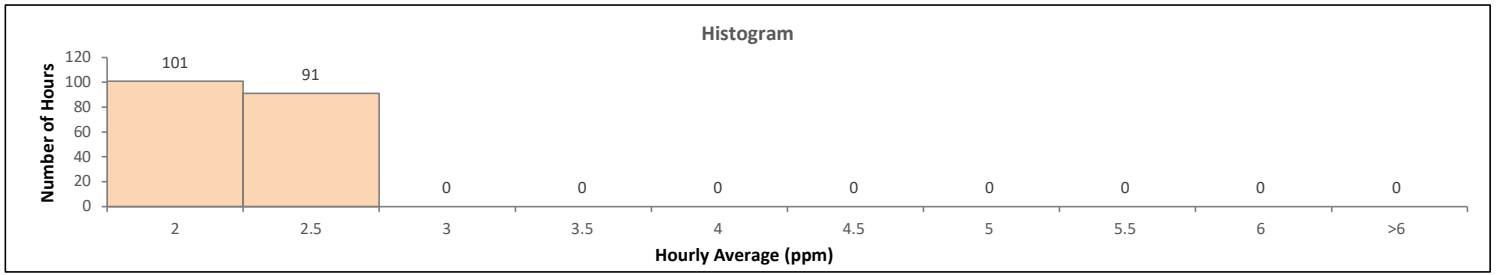
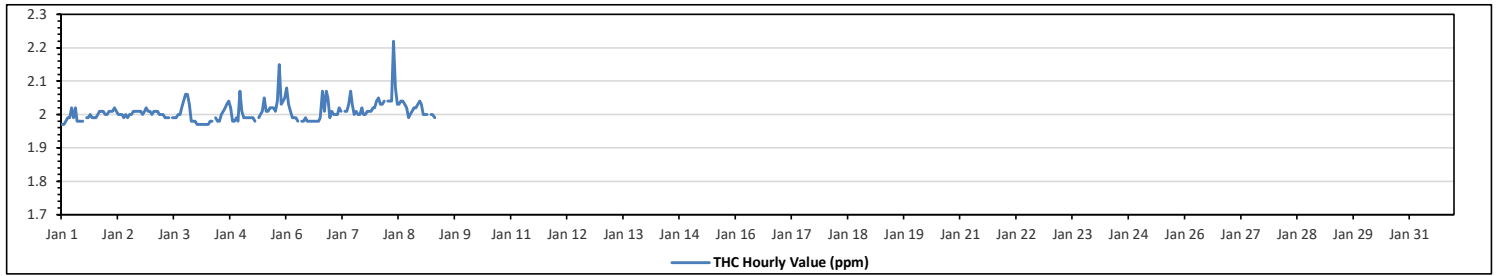
**Peace River Area Monitoring Program**  
**Reno-B Station - January 2024**  
**Summary of Hourly Averages**  
**TOTAL HYDROCARBONS (THC) in ppm**

Maximum Hourly Value:	2.22	ppm	on Jan 8 at hr 9	Hours in Service:	744
Maximum Daily Value:	2.04	ppm	on Jan 8	Hours of Data:	191
Minimum Hourly Value:	1.97	ppm	on Jan 1 at hr 0	Hours of Missing Data:	539
Minimum Daily Value:	1.99	ppm	on Jan 4	Hours of Calibration:	14
Monthly Average:	NA	ppm		Operational Uptime:	27.6

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	
Jan 1	1.97	1.97	1.98	1.99	1.99	2.02	1.99	2.02	1.98	1.98	1.98	1.98	S	1.99	1.99	2.00	1.99	1.99	1.99	1.99	2.00	2.01	2.01	2.01	2.00	1.97	2.02	1.99
Jan 2	2.00	2.01	2.01	2.01	2.02	2.01	2.00	2.00	2.00	1.99	2.00	S	2.00	2.00	2.01	2.01	2.01	2.01	2.01	2.01	2.00	2.01	2.02	2.01	2.01	1.99	2.02	2.01
Jan 3	2.00	2.01	2.01	2.01	2.00	2.00	2.00	1.99	1.99	1.99	S	1.99	1.99	1.99	2.00	2.00	2.02	2.04	2.06	2.06	2.03	1.98	1.98	1.98	1.98	1.98	2.06	2.01
Jan 4	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.98	1.98	S	1.99	1.98	1.98	2.00	2.01	2.02	2.03	2.04	2.02	1.98	1.98	1.99	1.98	2.07	1.97	2.07	1.99	
Jan 5	2.01	1.99	1.99	1.99	1.99	1.99	1.99	1.98	S	1.99	2.00	2.01	2.05	2.01	2.01	2.02	2.02	2.02	2.01	2.04	2.15	2.03	2.04	2.05	1.98	2.15	2.02	
Jan 6	2.08	2.03	2.01	1.99	1.99	1.99	1.99	S	1.98	1.98	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.99	1.99	2.07	2.01	2.07	2.05	1.99	1.98	2.08	2.00
Jan 7	2.01	2.00	2.00	2.00	2.02	2.01	S	2.01	2.01	2.03	2.07	2.03	2.00	2.01	2.00	2.00	2.02	2.00	2.01	2.01	2.01	2.01	2.02	2.02	2.00	2.07	2.01	
Jan 8	2.04	2.05	2.03	2.03	2.04	S	2.04	2.04	2.04	2.22	2.08	2.03	2.03	2.03	2.04	2.04	2.03	2.02	1.99	2.00	2.01	2.02	2.02	2.03	1.99	2.22	2.04	
Jan 9	2.03	2.00	2.00	2.00	S	2.00	2.00	1.99	C	C	C	C	C	C	X	X	X	X	X	X	X	X	X	X	1.99	2.03	NA	
Jan 10	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	-	-	-
Jan 11	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	-	-	-
Jan 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	X	-	-	-
Jan 13	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	-	-	-
Jan 14	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	-	-	-
Jan 15	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	-	-	-
Jan 16	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	-	-	-
Jan 17	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	-	-	-
Jan 18	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	-	-	-
Jan 19	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	-	-	-
Jan 20	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	-	-	-
Jan 21	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	-	-	-
Jan 22	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	-	-	-
Jan 23	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	-	-	-
Jan 24	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	-	-	-
Jan 25	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	-	-	-
Jan 26	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	-	-	-
Jan 27	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	-	-	-
Jan 28	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	-	-	-
Jan 29	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	-	-	-
Jan 30	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	-	-	-
Jan 31	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	-	-	-
Diurnal Maximum	2.08	2.05	2.03	2.03	2.04	2.02	2.04	2.04	2.04	2.22	2.08	2.03	2.05	2.04	2.04	2.03	2.01	2.03	2.04	2.06	2.07	2.15	2.07	2.05	2.07			
Diurnal Average	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.03	2.02	2.00	2.00	2.00	2.01	2.01	2.01	2.01	2.01	2.01	2.02	2.03	2.02	2.02	2.02			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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.

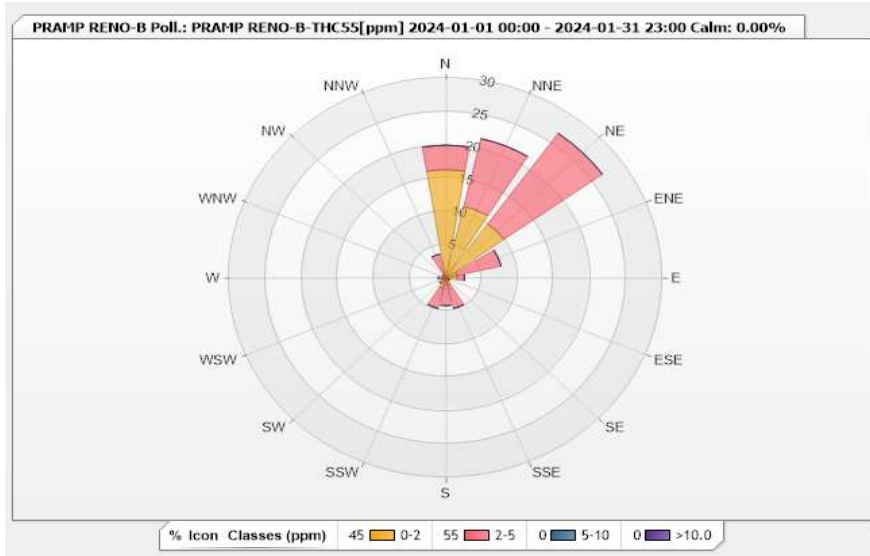


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-THC55[ppm] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 25.67%      Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	>10.0	Total	Total
N	16.23	3.66	0	0	19.89	0
NNE	10.99	10.47	0	0	21.46	0
NE	9.95	16.75	0	0	26.7	0
ENE	1.57	6.28	0	0	7.85	0
E	1.57	1.05	0	0	2.62	0
ESE	0	0.52	0	0	0.52	0
SE	0	0.52	0	0	0.52	0
SSE	1.05	3.66	0	0	4.71	0
S	0.52	3.66	0	0	4.18	0
SSW	1.57	3.14	0	0	4.71	0
SW	1.05	0	0	0	1.05	0
WSW	0	0.52	0	0	0.52	0
W	0.52	0.52	0	0	1.04	0
WNW	0	0	0	0	0	0
NW	0	0.52	0	0	0.52	0
NNW	0	3.66	0	0	3.66	0
Summary	45.02	54.93	0	0	100	0



Peace River Area Monitoring Program

Reno-B Station - January 2024

Summary of Hourly Averages

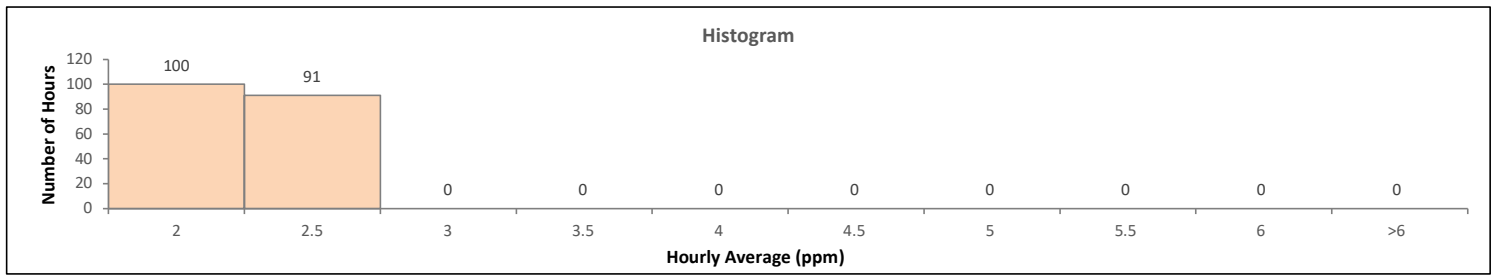
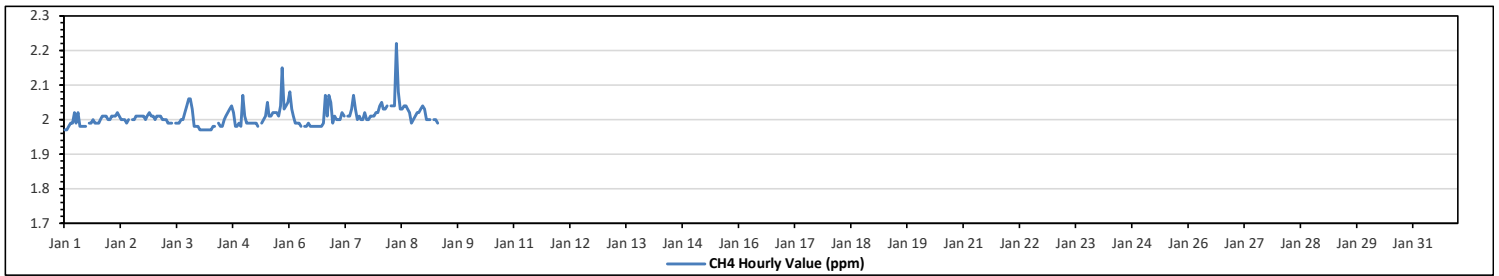
METHANE (CH4) in ppm

Maximum Hourly Value:	2.22	ppm	on Jan 8 at hr 9	Hours in Service:	744
Maximum Daily Value:	2.04	ppm	on Jan 8	Hours of Data:	191
Minimum Hourly Value:	1.97	ppm	on Jan 1 at hr 0	Hours of Missing Data:	539
Minimum Daily Value:	1.99	ppm	on Jan 4	Hours of Calibration:	14
Monthly Average:	NA	ppm		Operational Uptime:	27.6

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				
Jan 1	1.97	1.97	1.98	1.99	1.99	2.02	1.99	2.02	1.98	1.98	1.98	1.98	S	1.99	1.99	2.00	1.99	1.99	1.99	1.99	2.00	2.01	2.01	2.01	2.00	1.97	2.02	1.99
Jan 2	2.00	2.01	2.01	2.01	2.02	2.01	2.00	2.00	2.00	1.99	2.00	S	2.00	2.00	2.01	2.01	2.01	2.01	2.01	2.01	2.00	2.01	2.02	2.01	2.01	1.99	2.02	2.01
Jan 3	2.00	2.01	2.01	2.01	2.00	2.00	2.00	1.99	1.99	1.99	S	1.99	1.99	1.99	2.00	2.00	2.02	2.04	2.06	2.06	2.03	1.98	1.98	1.98	1.98	1.98	2.06	2.01
Jan 4	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.98	1.98	S	1.99	1.98	1.98	2.00	2.01	2.02	2.03	2.04	2.02	1.98	1.98	1.99	1.98	2.07	1.97	2.07	1.99	
Jan 5	2.01	1.99	1.99	1.99	1.99	1.99	1.99	1.98	S	1.99	2.00	2.01	2.05	2.01	2.01	2.02	2.02	2.02	2.01	2.04	2.15	2.03	2.04	2.05	1.98	2.15	2.02	
Jan 6	2.08	2.03	2.01	1.99	1.99	1.99	1.98	S	1.98	1.98	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.99	2.07	2.01	2.07	2.05	1.99	1.98	2.08	2.00	
Jan 7	2.01	2.00	2.00	2.00	2.02	2.01	S	2.01	2.01	2.03	2.07	2.00	2.01	2.00	2.01	2.00	2.00	2.02	2.00	2.01	2.01	2.01	2.02	2.02	2.00	2.07	2.01	
Jan 8	2.04	2.05	2.03	2.03	2.04	S	2.04	2.04	2.04	2.22	2.08	2.03	2.03	2.04	2.04	2.03	2.02	1.99	2.00	2.01	2.02	2.02	2.03	2.04	1.99	2.22	2.04	
Jan 9	2.03	2.00	2.00	2.00	S	2.00	2.00	1.99	C	C	C	C	C	C	X	X	X	X	X	X	X	X	X	X	1.99	2.03	NA	
Jan 10	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	-	-	-
Jan 11	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	-	-	-
Jan 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	X	-	-	-
Jan 13	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	-	-	-
Jan 14	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	-	-	-
Jan 15	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	-	-	-
Jan 16	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	-	-	-
Jan 17	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	-	-	-
Jan 18	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	-	-	-
Jan 19	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	-	-	-
Jan 20	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	-	-	-
Jan 21	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	-	-	-
Jan 22	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	-	-	-
Jan 23	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	-	-	-
Jan 24	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	-	-	-
Jan 25	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	-	-	-
Jan 26	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	-	-	-
Jan 27	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	-	-	-
Jan 28	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	-	-	-
Jan 29	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	-	-	-
Jan 30	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	-	-	-
Jan 31	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	-	-	-
Diurnal Maximum	2.08	2.05	2.03	2.03	2.04	2.02	2.04	2.04	2.04	2.22	2.08	2.03	2.05	2.04	2.04	2.03	2.03	2.04	2.06	2.07	2.15	2.07	2.05	2.07				
Diurnal Average	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.02	2.02	2.00	2.00	2.00	2.01	2.01	2.01	2.01	2.01	2.02	2.03	2.02	2.02	2.02				

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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.



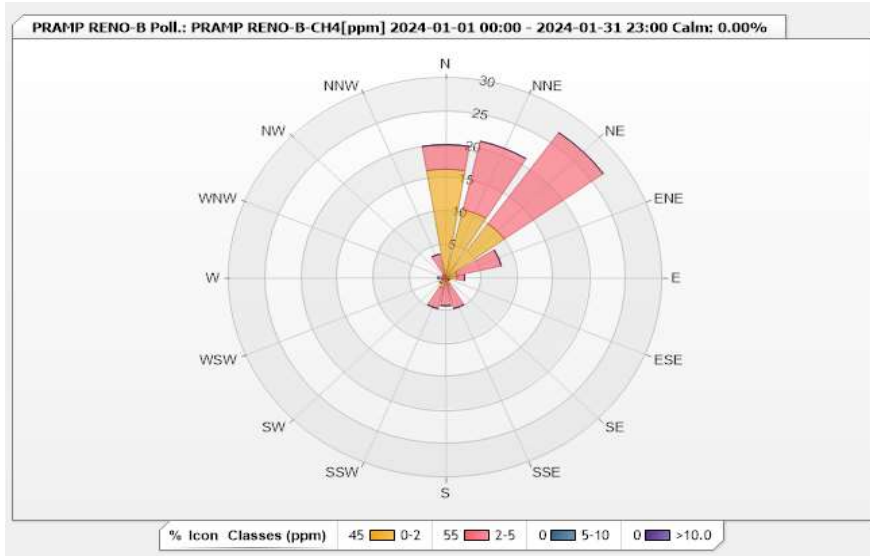


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-CH4[ppm] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 25.54%      Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	>10.0	Total	Total
N	16.32	3.68	0	0	20	0
NNE	10.53	10.53	0	0	21.06	0
NE	10	16.84	0	0	26.84	0
ENE	1.58	6.32	0	0	7.9	0
E	1.58	1.05	0	0	2.63	0
ESE	0	0.53	0	0	0.53	0
SE	0	0.53	0	0	0.53	0
SSE	1.05	3.68	0	0	4.73	0
S	0.53	3.68	0	0	4.21	0
SSW	1.58	3.16	0	0	4.74	0
SW	1.05	0	0	0	1.05	0
WSW	0	0.53	0	0	0.53	0
W	0.53	0.53	0	0	1.06	0
WNW	0	0	0	0	0	0
NW	0	0.53	0	0	0.53	0
NNW	0	3.68	0	0	3.68	0
Summary	44.75	55.27	0	0	100	0



Peace River Area Monitoring Program

Reno-B Station - January 2024

Summary of Hourly Averages

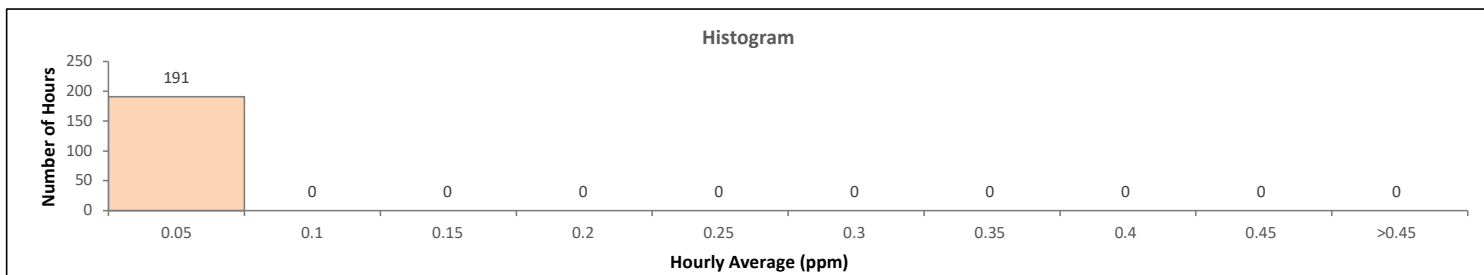
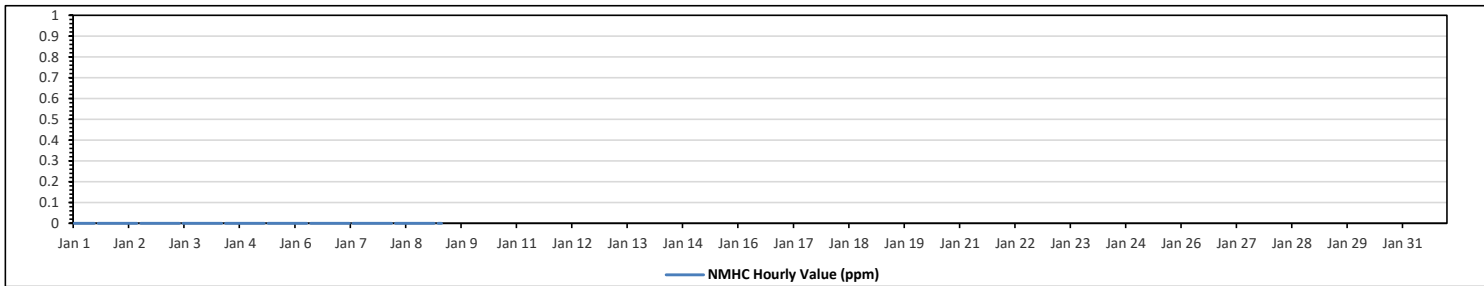
NON-METHANE HYDROCARBONS (NMHC) in ppm

Maximum Hourly Value:	0.00	ppm	on Jan 1 at hr 0	Hours in Service:	744
Maximum Daily Value:	0.00	ppm	on Jan 1	Hours of Data:	191
Minimum Hourly Value:	0.00	ppm	on Jan 1 at hr 0	Hours of Missing Data:	539
Minimum Daily Value:	0.00	ppm	on Jan 1	Hours of Calibration:	14
Monthly Average:	NA	ppm		Operational Uptime:	27.6

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														
Jan 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	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			
Jan 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	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				
Jan 3	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	0.00	0.00	0.00	0.00	0.00				
Jan 4	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	0.00	0.00	0.00	0.00	0.00				
Jan 5	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Jan 6	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	0.00	0.00	0.00	0.00	0.00	0.00				
Jan 7	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	0.00	0.00	0.00	0.00	0.00	0.00				
Jan 8	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	0.00	0.00	0.00	0.00	0.00	0.00				
Jan 9	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	C	C	C	C	C	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0.00	0.00	NA			
Jan 10	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	X	X	X	X	X	X	X	X	-	-	-		
Jan 11	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	X	X	X	X	X	X	X	X	X	-	-	-	
Jan 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	X	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 13	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 14	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 15	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 16	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 17	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 18	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 19	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 20	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 21	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 22	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 23	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 24	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 25	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 26	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 27	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 28	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 29	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 30	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	X	X	X	X	X	X	X	X	X	X	-	-	-
Jan 31	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	X	X	X	X	X	X	X	X	X	X	-	-	-
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	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	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	ND	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.

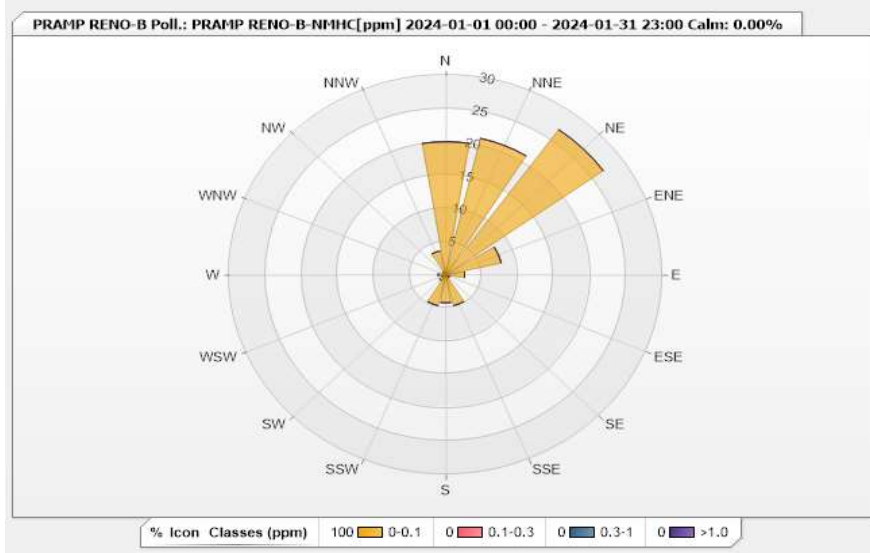


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-NMHC[ppm] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 25.54%      Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	>1.0	Total	Total
N	20	0	0	0	20	0
NNE	21.05	0	0	0	21.05	0
NE	26.84	0	0	0	26.84	0
ENE	7.89	0	0	0	7.89	0
E	2.63	0	0	0	2.63	0
ESE	0.53	0	0	0	0.53	0
SE	0.53	0	0	0	0.53	0
SSE	4.74	0	0	0	4.74	0
S	4.21	0	0	0	4.21	0
SSW	4.74	0	0	0	4.74	0
SW	1.05	0	0	0	1.05	0
WSW	0.53	0	0	0	0.53	0
W	1.05	0	0	0	1.05	0
WNW	0	0	0	0	0	0
NW	0.53	0	0	0	0.53	0
NNW	3.68	0	0	0	3.68	0
Summary	100	0	0	0	100	0



**Peace River Area Monitoring Program**

**Reno-B Station - January 2024**

**Summary of Hourly Averages**

**RELATIVE HUMIDITY (RH) in %**

Maximum Hourly Value:	100 %	on Jan 2 at hr 15	Hours in Service:	744
Maximum Daily Value:	98.5 %	on Jan 3	Hours of Data:	729
Minimum Hourly Value:	44 %	on Jan 31 at hr 15	Hours of Missing Data:	15
Minimum Daily Value:	60.3 %	on Jan 31	Hours of Calibration:	0
Monthly Average:	81.0 %		Operational Uptime:	98.0

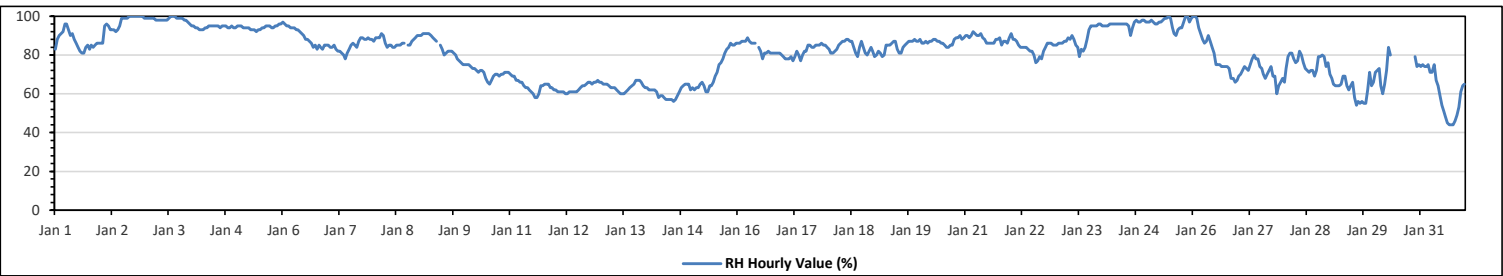
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
Jan 1	83	88	90	91	92	96	96	93	90	91	88	86	84	82	81	81	84	85	83	85	84	85	86	86	81	96	87.1	
Jan 2	86	86	95	96	95	93	93	93	92	93	95	99	99	99	99	99	100	100	100	100	100	100	100	99	86	100	96.3	
Jan 3	99	99	99	99	99	98	98	98	98	98	98	98	99	100	100	100	99	99	99	99	98	98	97	96	96	100	98.5	
Jan 4	95	95	94	94	93	93	93	94	94	95	95	95	95	95	95	94	95	95	95	94	94	95	94	94	93	95	94.4	
Jan 5	95	95	95	94	94	94	94	93	93	93	92	93	93	94	94	95	95	95	94	94	95	95	96	96	92	96	94.2	
Jan 6	97	96	95	95	94	94	94	93	93	92	91	90	88	88	87	86	84	85	83	85	84	83	85	85	83	97	89.5	
Jan 7	85	84	84	85	83	82	82	81	80	78	81	83	85	86	85	84	87	89	89	88	88	89	88	88	78	89	84.8	
Jan 8	87	89	89	89	91	90	86	84	85	85	84	84	85	85	85	86	86	K	85	85	87	88	89	90	84	91	86.7	
Jan 9	90	90	91	91	91	91	90	89	88	87	K	85	83	80	81	82	82	82	81	80	78	77	76	75	75	91	84.3	
Jan 10	75	75	75	74	73	73	72	71	72	72	71	68	66	65	67	69	70	69	70	70	71	71	71	71	65	75	70.8	
Jan 11	70	69	69	67	67	66	66	64	63	63	62	61	60	58	58	60	64	64	65	65	65	63	63	62	58	70	63.9	
Jan 12	62	61	61	61	61	60	60	61	61	61	61	61	62	63	64	64	65	66	66	65	66	66	67	66	60	67	63.0	
Jan 13	66	65	65	65	64	63	63	63	62	61	60	60	60	61	62	63	64	65	67	67	67	66	64	63	60	67	63.6	
Jan 14	63	62	62	62	62	61	58	59	59	58	57	57	57	57	56	57	59	61	63	64	65	65	65	62	56	65	60.5	
Jan 15	63	62	63	63	65	66	64	61	61	64	64	66	69	71	75	76	78	81	83	84	86	85	85	86	61	86	71.7	
Jan 16	86	86	87	87	87	89	87	86	86	86	K	84	82	78	81	81	82	81	81	81	81	81	81	80	78	89	83.5	
Jan 17	79	78	78	78	79	77	79	82	80	77	80	82	82	85	85	84	84	85	85	85	86	85	85	84	77	86	81.8	
Jan 18	83	81	81	82	83	85	86	87	87	88	88	87	87	84	81	79	84	87	84	81	80	82	84	82	79	88	83.9	
Jan 19	79	80	82	81	79	80	85	85	85	85	86	87	87	83	81	81	84	85	86	87	87	88	87	87	79	88	84.1	
Jan 20	88	86	86	87	86	87	87	88	88	87	87	86	86	85	84	84	85	85	88	89	89	90	88	89	84	90	86.9	
Jan 21	90	90	89	90	92	91	90	90	91	89	88	86	86	86	86	86	88	88	89	85	87	87	86	89	85	92	88.3	
Jan 22	91	88	88	87	85	84	84	84	84	83	82	82	80	76	77	79	78	82	84	86	86	86	85	85	76	91	83.6	
Jan 23	85	86	86	86	87	87	89	88	90	88	85	84	79	83	82	84	88	93	95	95	95	96	96	79	96	88.4		
Jan 24	95	95	95	95	96	96	96	96	96	96	96	96	96	96	95	90	94	97	98	97	97	98	98	97	90	98	95.9	
Jan 25	97	97	98	97	96	96	97	97	98	99	99	100	99	94	91	90	93	94	94	97	100	100	97	99	90	100	96.6	
Jan 26	100	100	99	94	91	88	86	87	90	87	84	81	75	75	74	74	74	74	73	68	68	66	67	66	66	100	81.3	
Jan 27	69	70	72	74	73	72	75	78	80	78	78	74	73	70	68	70	72	74	69	69	60	64	66	68	60	80	71.5	
Jan 28	66	73	79	81	81	78	76	77	82	80	76	73	72	71	72	72	69	72	79	79	80	79	74	76	66	82	75.7	
Jan 29	70	68	65	64	64	64	65	69	69	64	62	64	66	58	54	56	55	56	55	62	71	64	66	64	54	71	62.8	
Jan 30	71	72	73	64	60	65	72	84	80	P	P	P	P	P	P	P	P	P	P	P	P	P	79	74	75	60	84	NA
Jan 31	74	75	74	74	75	71	71	75	67	64	59	54	51	48	45	44	44	44	46	49	53	61	64	65	44	75	60.3	
Diurnal Maximum	100	100	99	99	99	98	98	98	98	99	99	100	99	100	100	100	100	100	100	100	100	100	100	99				
Diurnal Average	81.9	82.0	82.5	82.2	81.9	81.6	81.7	82.3	82.1	81.4	80.4	80.2	79.4	78.5	78.2	78.5	79.6	80.5	81.0	81.1	81.3	81.9	81.3	81.4				

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

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



**Peace River Area Monitoring Program**

**Reno-B Station - January 2024**

**Summary of Hourly Averages**

**BAROMETRIC PRESSURE (BP) in millibar**

Maximum Hourly Value:	964	mb	on Jan 18 at hr 10	Hours in Service:	744
Maximum Daily Value:	962	mb	on Jan 18	Hours of Data:	729
Minimum Hourly Value:	922	mb	on Jan 31 at hr 22	Hours of Missing Data:	15
Minimum Daily Value:	928	mb	on Jan 31	Hours of Calibration:	0
Monthly Average:	941	mb		Operational Uptime:	98.0

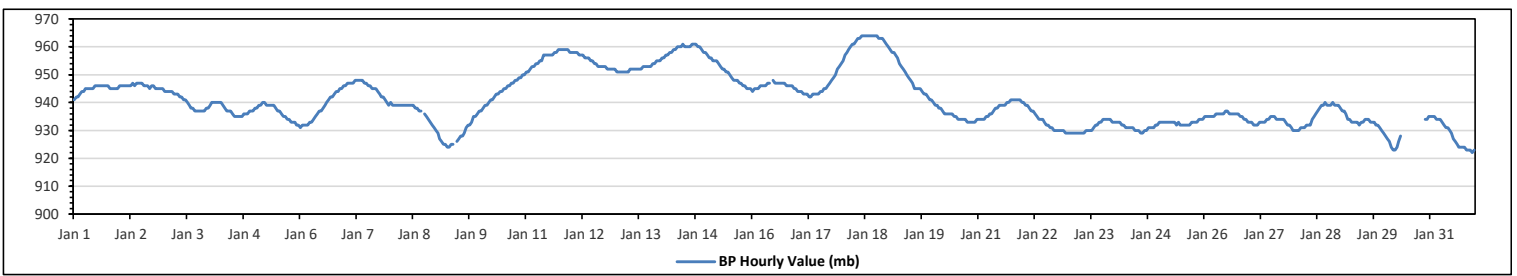
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23
Jan 1	941	942	942	943	944	944	945	945	945	945	946	946	946	946	946	946	946	946	946	945	945	945	945	945	941	946	945
Jan 2	946	946	946	946	946	946	946	947	946	947	947	947	946	946	946	945	946	946	945	945	945	945	945	945	945	947	946
Jan 3	944	944	944	944	944	943	943	943	942	942	941	941	940	939	938	938	937	937	937	937	937	937	937	938	938	937	940
Jan 4	939	940	940	940	940	940	940	939	938	937	937	937	936	935	935	935	935	936	936	936	936	937	937	937	935	940	937
Jan 5	938	938	939	939	940	940	939	939	939	939	938	937	937	936	935	935	934	934	933	933	933	932	932	932	932	940	937
Jan 6	931	932	932	932	932	933	933	934	935	936	937	938	939	940	941	942	942	943	944	944	945	945	945	946	931	946	938
Jan 7	946	947	947	947	947	948	948	948	948	948	947	947	946	946	945	945	945	944	943	942	942	941	940	939	939	948	945
Jan 8	940	939	939	939	939	939	939	939	939	939	939	939	938	938	937	937	K	936	935	934	933	932	931	931	940	937	
Jan 9	930	929	927	926	925	925	924	924	925	925	K	926	927	928	928	929	931	932	932	933	935	935	936	937	924	937	929
Jan 10	937	938	939	939	940	941	941	942	943	943	944	944	945	945	946	946	947	947	948	948	949	949	950	950	937	950	944
Jan 11	951	951	952	953	953	954	954	955	955	957	957	957	957	957	957	958	958	959	959	959	959	959	959	959	951	959	956
Jan 12	958	958	958	958	957	957	957	956	956	956	955	955	954	954	953	953	953	953	952	952	952	952	952	952	952	958	955
Jan 13	951	951	951	951	951	951	951	952	952	952	952	952	952	952	953	953	953	953	953	954	954	955	955	955	951	955	952
Jan 14	956	956	957	957	958	958	959	959	960	960	960	961	960	960	960	961	961	961	961	960	960	959	958	958	956	961	959
Jan 15	957	956	956	955	955	955	954	953	952	952	951	951	950	949	948	948	948	947	947	946	946	945	945	945	945	948	946
Jan 16	944	945	945	945	946	946	946	946	947	947	K	948	947	947	947	947	947	947	946	946	946	945	945	944	948	946	
Jan 17	944	944	944	943	943	943	942	942	943	943	943	943	944	944	945	945	946	947	948	949	950	952	953	954	942	954	946
Jan 18	955	957	958	959	960	961	961	962	963	963	964	964	964	964	964	964	964	964	964	963	963	963	962	961	955	964	962
Jan 19	960	959	958	958	957	956	954	953	952	951	950	949	948	947	945	945	945	944	943	943	942	941	941	941	941	960	949
Jan 20	940	939	939	938	938	937	936	936	936	936	936	935	935	934	934	934	934	934	933	933	933	933	933	933	933	940	935
Jan 21	934	934	934	934	935	935	936	936	937	938	938	939	939	939	939	940	941	941	941	941	941	941	941	941	934	941	938
Jan 22	940	939	939	938	937	937	936	935	934	934	934	933	932	932	931	931	930	930	930	930	930	929	929	929	929	940	933
Jan 23	929	929	929	929	929	929	929	929	930	930	930	930	931	932	932	933	933	934	934	934	934	934	933	933	929	934	931
Jan 24	933	933	933	933	932	932	931	931	931	931	931	930	930	930	929	929	930	930	931	931	931	931	931	932	929	933	931
Jan 25	933	933	933	933	933	933	933	933	933	932	933	932	932	932	932	932	932	933	933	933	933	933	934	934	932	934	933
Jan 26	935	935	935	935	935	935	936	936	936	936	936	937	937	936	936	936	936	936	936	935	935	934	934	933	933	937	935
Jan 27	933	933	932	932	932	933	933	933	933	934	934	935	935	935	934	934	934	934	934	932	932	932	931	930	930	935	933
Jan 28	930	930	930	931	931	931	932	932	932	934	935	936	937	938	939	939	940	939	939	939	940	939	939	939	930	940	935
Jan 29	938	937	937	936	934	934	933	933	933	933	932	933	933	934	934	933	933	933	932	932	931	930	929	929	929	938	933
Jan 30	928	927	926	924	923	923	924	926	928	P	P	P	P	P	P	P	P	P	P	P	P	P	P	934	934	935	NA
Jan 31	935	935	935	934	934	934	933	932	931	931	930	929	927	926	925	924	924	924	924	923	923	923	922	923	922	935	928
Diurnal Maximum	960	959	958	959	960	961	961	962	963	963	964	964	964	964	964	964	964	964	964	963	963	963	962	961			
Diurnal Average	941	941	941	941	941	941	941	941	941	942	942	942	941	941	941	941	941	942	941	941	941	941	941	941			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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 days is not met.  
 Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



**Peace River Area Monitoring Program**  
**Reno-B Station - January 2024**  
**Summary of Hourly Averages**  
**AMBIENT TEMPERATURE (AT) in Degree Celsius**

Maximum Hourly Value:	10.1 °C	on Jan 29 at hr 14	Hours in Service:	744
Maximum Daily Value:	6.7 °C	on Jan 29	Hours of Data:	729
Minimum Hourly Value:	-39.9 °C	on Jan 14 at hr 6	Hours of Missing Data:	15
Minimum Daily Value:	-37.4 °C	on Jan 14	Hours of Calibration:	0
Monthly Average:	-15.9 °C		Operational Uptime:	98.0

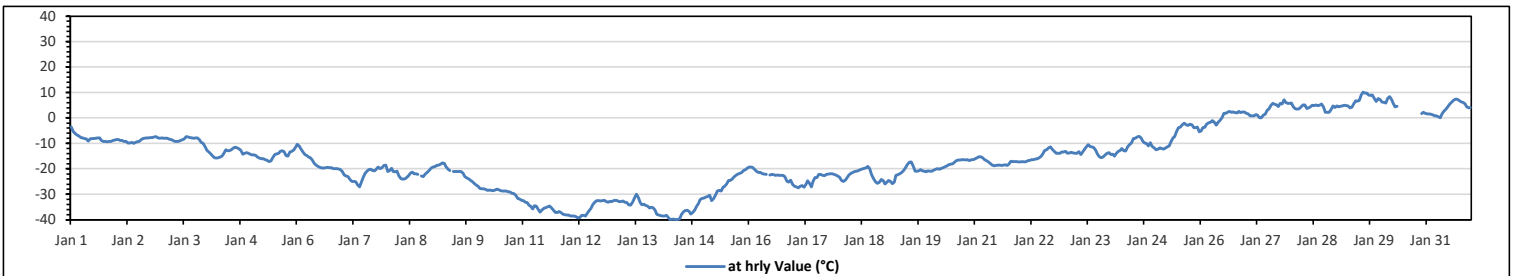
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average			
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23		
Jan 1	-3.5	-5.3	-6.1	-6.7	-7.1	-7.7	-7.9	-8.1	-8.2	-9.1	-8.2	-8.1	-8.1	-8	-7.8	-7.8	-8.8	-9.2	-9.2	-9.4	-9.2	-8.9	-8.7	-9.4	-3.5	-7.9			
Jan 2	-8.5	-8.5	-8.9	-8.9	-9.2	-9.3	-9.8	-9.8	-9.6	-9.9	-9.6	-9.4	-9.2	-8.6	-8.1	-8	-7.9	-7.8	-7.7	-7.7	-7.5	-7.3	-7.9	-8	-9.9	-7.3	-8.6		
Jan 3	-7.9	-8	-8	-8	-8.3	-8.5	-8.9	-9.2	-9.3	-9.2	-8.9	-8.6	-8.2	-7.3	-7.5	-7.7	-7.8	-8	-7.9	-7.9	-8.5	-9.6	-10	-11.2	-11.2	-7.3	-8.5		
Jan 4	-12.7	-13.4	-14.1	-15	-15.6	-15.8	-15.7	-15.4	-14.9	-13.8	-12.4	-12.8	-12.9	-12.5	-11.9	-11.5	-11.7	-12.1	-12.7	-14.2	-13.9	-13.6	-13.9	-14.3	-15.8	-11.5	-13.6		
Jan 5	-14.5	-14.5	-14.8	-15.4	-15.8	-16	-16	-16.4	-16.6	-17.2	-16.9	-15.5	-14.4	-14.1	-13.9	-13.2	-12.9	-13.3	-14.8	-14.9	-13.4	-13.1	-12.6	-11.5	-17.2	-11.5	-14.7		
Jan 6	-10.3	-10.9	-12.2	-13.4	-14.4	-14.8	-15.4	-15.6	-16.5	-17.7	-18.6	-19	-19.4	-19.7	-19.7	-19.5	-19.4	-19.5	-19.5	-19.9	-20	-20	-20.1	-20.3	-20.3	-10.3	-17.3		
Jan 7	-21	-22.4	-22.8	-23	-24.2	-25	-24.9	-25.1	-26.3	-27.1	-25.1	-23.4	-21.8	-20.9	-20.3	-20.2	-20.6	-20.8	-20.2	-19.3	-20	-19.5	-18.7	-18.6	-27.1	-18.6	-22.1		
Jan 8	-21.1	-20.6	-19.8	-21	-21.2	-20.9	-22.8	-23.8	-24.1	-24	-23.4	-22.7	-21.6	-21.3	-21.9	-21.9	-22.2	<b>K</b>	-22.8	-23	-22	-21.5	-20.6	-19.8	-24.1	-19.8	-21.9		
Jan 9	-19.3	-19.1	-18.7	-18.5	-18.2	-17.6	-17.9	-19.1	-20.1	-20.6	<b>K</b>	-21	-21.1	-21.1	-21.1	-21.1	-21.6	-23	-23.5	-23.9	-24.6	-25.1	-25.8	-26.3	-26.3	-17.6	-21.2		
Jan 10	-26.9	-27.7	-27.9	-27.9	-28.1	-28.4	-28.3	-28.4	-28.5	-28.3	-28	-28.2	-28.5	-28.7	-28.7	-28.7	-29	-29.1	-29.6	-29.7	-30.4	-31.6	-31.9	-32.3	-32.3	-26.9	-29.0		
Jan 11	-32.5	-33.1	-33.3	-34.3	-34.8	-35.8	-34.5	-34.7	-35.9	-37	-36.2	-35.5	-35.2	-34.9	-34.6	-35.3	-36.3	-37.1	-37.1	-36.8	-37.1	-37.7	-38	-38.1	-38.1	-32.5	-35.7		
Jan 12	-38.1	-38.6	-38.6	-38.6	-38.8	-39.2	-39.1	-38.2	-38.5	-37.6	-36.5	-35.5	-34	-33.1	-32.4	-32.5	-32.6	-32.5	-32.3	-32.8	-33.1	-32.7	-32.8	-32.8	-39.2	-32.3	-35.7		
Jan 13	-32.5	-32.3	-32.5	-32.9	-32.8	-32.6	-33.1	-33.3	-34.1	-34.2	-33.1	-31.5	-29.9	-31.2	-33.2	-34.1	-33.9	-34.4	-34.7	-35.3	-35.1	-35.2	-36.2	-37.8	-37.8	-29.9	-33.6		
Jan 14	-38.1	-38.4	-38.6	-38.5	-38.2	-39.1	<b>-39.9</b>	-39.8	-39.8	<b>-39.9</b>	<b>-39.9</b>	-39.6	-37.8	-36.9	-36.4	-36.3	-36.8	-37.7	-37.1	-36.3	-34.8	-33.6	-32.1	-31.6	<b>-39.9</b>	-31.6	<b>-37.4</b>		
Jan 15	-31.4	-31.1	-30.9	-30.3	-32.5	-31.8	-30.3	-28.7	-28.4	-28.7	-27.2	-26.9	-25.9	-24.5	-24.5	-24.1	-23.2	-22.6	-22	-21.8	-21.5	-20.7	-20.3	-19.6	-32.5	-19.6	-26.2		
Jan 16	-19.2	-19.2	-19.5	-20.3	-21	-21.5	-21.5	-21.9	-22	-22.2	<b>K</b>	-22.4	-22.2	-22.3	-22.6	-22.5	-22.6	-22.6	-22.6	-22.6	-23	-24.8	-25.2	-24.4	-26.1	-26.1	-19.2	-22.2	
Jan 17	-26.9	-27.1	-27.4	-26.9	-26.6	-27.2	-26.1	-24.7	-25.6	-27	-25	-23.4	-23.4	-22.2	-22.1	-22.6	-22.7	-22.2	-22	-21.9	-21.9	-22.1	-22.4	-22.8	-27.4	-21.9	-24.3		
Jan 18	-23.3	-24.5	-24.9	-24.4	-23.5	-22.5	-21.7	-21.4	-21.1	-20.9	-20.6	-20.3	-20.1	-19.8	-19.7	-19	-20	-22.3	-23.8	-25.1	-25.7	-25.4	-24.2	-24.5	-25.7	-19.0	-22.4		
Jan 19	-25.9	-25.3	-24.6	-25	-25.8	-25.2	-22.6	-22.3	-21.9	-21.4	-20.6	-19.5	-18.3	-17.4	-17.3	-18.9	-20.9	-20.9	-20.8	-20.3	-20.8	-20.9	-21.2	-20.8	-25.9	-17.3	-21.6		
Jan 20	-20.9	-20.9	-20.5	-20.2	-20	-20.2	-19.8	-19.5	-19.1	-18.8	-18.4	-18.2	-18	-17.4	-16.8	-16.5	-16.5	-16.4	-16.4	-16.5	-16.4	-16.7	-16.4	-16.4	-20.9	-16.4	-18.2		
Jan 21	-16	-15.6	-15.3	-15.3	-15.7	-16.3	-16.8	-17.3	-17.9	-18.5	-18.8	-18.7	-18.5	-18.6	-18.7	-18.5	-18.4	-18.7	-18.1	-17	-17.1	-17.1	-17.2	-17.3	-18.8	-15.3	-17.4		
Jan 22	-17.3	-17.2	-17.3	-17.2	-16.8	-16.6	-16.6	-16.3	-16.2	-16.1	-15.6	-15	-14.1	-12.7	-12.4	-11.7	-11.4	-12.3	-13.1	-13.9	-13.9	-13.8	-13.4	-13.4	-17.3	-11.4	-14.8		
Jan 23	-13.2	-13.8	-13.7	-13.5	-13.7	-13.8	-13.9	-13.3	-14.4	-13.5	-12.3	-11.4	-10.5	-11.2	-11.3	-11.6	-12.6	-14.3	-15.3	-15.7	-15.3	-14.5	-13.9	-13.6	-15.7	-10.5	-13.3		
Jan 24	-14.4	-14.3	-15	-13.8	-13.1	-12.7	-12	-12.8	-13	-11.3	-10.5	-9.8	-8.1	-8	-7.4	-7.2	-7.9	-9.3	-9.8	-9.9	-10.9	-9.7	-11.2	-11.8	-15.0	-7.2	-11.0		
Jan 25	-12.4	-12.2	-11.7	-12	-12.2	-11.9	-11.4	-11	-9.3	-7.9	-7.3	-5.4	-3.9	-3.6	-2.7	-2.1	-2.7	-2.9	-2.5	-2.7	-3.9	-3.8	-3.5	-5.5	-12.4	-2.1	-6.9		
Jan 26	-5.1	-3.9	-3.7	-2.5	-1.9	-1.6	-1.1	-1.7	-2.8	-1.7	-0.9	0	1.8	1.9	2.2	2.6	2.3	2.4	2.1	2	2.6	2.1	2.4	2.4	-5.1	2.6	0.0		
Jan 27	1.8	1.6	0.9	0.8	0.9	1.3	1.1	0.1	0.1	1.1	1.5	2.9	3.6	5	5.7	5.3	5.2	4.5	5.8	5.4	7.1	6.1	5.7	5.8	0.1	7.1	3.3		
Jan 28	5.9	4.4	3.6	3.5	3.6	4.4	5.2	5.1	3.8	4	4.4	5	4.9	5.1	4.9	5	5.4	4.3	2.3	2.2	3.3	4.8	4.1	2.2	5.9	4.2			
Jan 29	4.7	4.4	4.6	4.8	5	4.9	4.7	4	4.2	5.6	6.7	6.6	6.8	9	<b>10.1</b>	9.8	9.7	9.1	8.9	9	7.7	6.5	7.7	7.3	4.0	<b>10.1</b>	<b>6.7</b>		
Jan 30	6.3	6.2	5.9	7.8	8.4	7.3	5.8	4.4	4.6	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	1.7	2.2	1.8	1.7	8.4	NA
Jan 31	1.6	1.6	1.5	1.2	0.9	0.8	0.5	0.1	1.7	2.7	3.5	4.5	5.4	6.1	6.8	7.4	7.4	6.9	6.4	6.1	5.6	4.4	4	4.1	0.1	7.4	3.8		
Diurnal Maximum	6.3	6.2	5.9	7.8	8.4	7.3	5.8	5.1	4.6	5.6	6.7	6.6	6.8	9.0	10.1	9.8	9.7	9.1	8.9	9.0	7.7	6.5	7.7	7.3					
Diurnal Average	-15.9	-16.1	-16.3	-16.3	-16.5	-16.6	-16.5	-16.6	-16.8	-17.4	-16.4	-16.1	-15.5	-15.0	-14.8	-14.7	-15.0	-15.2	-15.7	-15.8	-15.9	-15.4	-15.2	-15.4					

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

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



**Peace River Area Monitoring Program**  
**Reno-B Station - January 2024**  
**Summary of Hourly Averages**  
**STATION TEMPERATURE (ST) in Degree Celsius**

Maximum Hourly Value:	24.4 °C	on Jan 12 at hr 0	Hours in Service:	744
Maximum Daily Value:	24.0 °C	on Jan 12	Hours of Data:	732
Minimum Hourly Value:	20.7 °C	on Jan 9 at hr 13	Hours of Missing Data:	12
Minimum Daily Value:	22.5 °C	on Jan 31	Hours of Calibration:	0
Monthly Average:	23.3 °C		Operational Uptime:	98.4

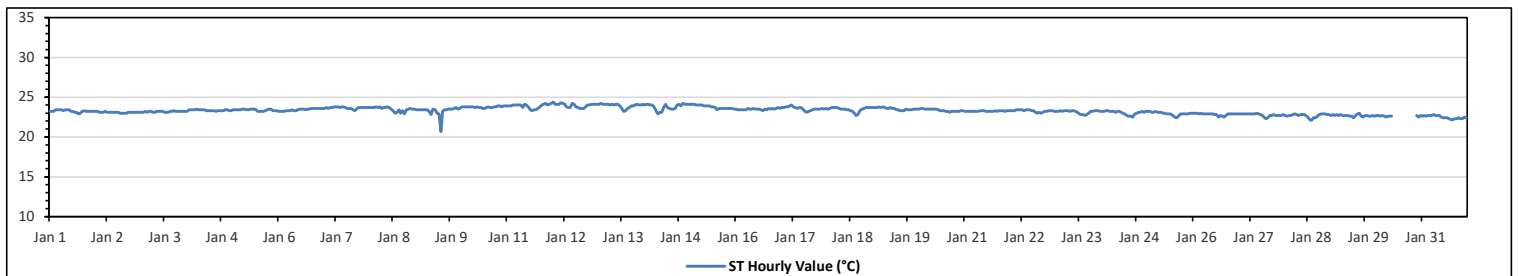
  

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Jan 1	23.2	23.2	23.2	23.4	23.4	23.4	23.4	23.3	23.4	23.4	23.4	23.2	23.2	23.1	23.1	22.9	23.0	23.2	23.3	23.2	23.2	23.2	23.2	23.2	22.9	23.4	23.2
Jan 2	23.2	23.2	23.1	23.1	23.1	23.2	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.0	23.0	23.0	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.0	23.2	23.1
Jan 3	23.1	23.1	23.2	23.1	23.2	23.2	23.1	23.1	23.2	23.2	23.2	23.2	23.1	23.1	23.1	23.2	23.2	23.3	23.2	23.2	23.2	23.2	23.2	23.2	23.1	23.3	23.2
Jan 4	23.2	23.4	23.4	23.4	23.4	23.5	23.4	23.4	23.4	23.4	23.3	23.3	23.3	23.3	23.3	23.2	23.3	23.3	23.3	23.3	23.3	23.4	23.4	23.3	23.2	23.5	23.3
Jan 5	23.4	23.4	23.4	23.4	23.4	23.5	23.4	23.4	23.4	23.5	23.5	23.5	23.4	23.2	23.2	23.2	23.3	23.4	23.5	23.5	23.3	23.3	23.3	23.3	23.2	23.5	23.4
Jan 6	23.2	23.2	23.2	23.2	23.3	23.3	23.3	23.4	23.3	23.3	23.4	23.5	23.5	23.5	23.4	23.5	23.5	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.2	23.6	23.4
Jan 7	23.6	23.7	23.6	23.7	23.7	23.8	23.8	23.8	23.7	23.8	23.8	23.7	23.6	23.6	23.6	23.4	23.3	23.6	23.7	23.7	23.7	23.7	23.7	23.7	23.3	23.8	23.7
Jan 8	23.7	23.7	23.7	23.8	23.7	23.8	23.6	23.7	23.7	23.8	23.7	23.5	23.3	23.0	23.1	23.4	23.0	23.3	22.9	23.4	23.5	23.6	23.5	23.5	22.9	23.8	23.5
Jan 9	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.2	22.8	23.5	23.4	23.0	22.9	20.7	23.2	23.4	23.4	23.5	23.5	23.6	23.7	23.5	23.6	20.7	23.7	23.3	
Jan 10	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.7	23.8	23.7	23.7	23.6	23.6	23.7	23.8	23.7	23.7	23.8	23.8	23.9	23.8	23.9	23.8	23.9	23.9	23.9	23.8
Jan 11	23.9	23.9	23.9	24.0	24.0	24.0	24.0	24.0	23.7	24.1	24.0	23.8	23.4	23.3	23.4	23.4	23.6	23.8	24.0	24.1	24.2	24.0	24.1	24.2	23.3	24.2	23.9
Jan 12	24.4	24.1	24.1	24.1	24.3	24.2	24.1	23.8	23.7	23.7	24.2	24.1	23.8	23.7	23.6	23.6	23.8	23.8	24.0	24.0	24.1	24.1	24.1	24.1	23.6	24.4	24.0
Jan 13	24.1	24.2	24.1	24.1	24.1	24.1	24.0	24.1	24.0	24.1	24.1	23.9	23.6	23.2	23.3	23.6	23.7	23.9	23.9	24.0	24.1	24.0	24.0	24.1	23.2	24.2	23.9
Jan 14	24.0	24.1	24.1	24.0	24.0	23.8	23.3	22.9	23.1	23.1	23.7	24.1	23.7	23.6	23.5	23.5	23.6	24.0	24.1	23.9	24.2	24.1	24.1	24.1	22.9	24.2	23.8
Jan 15	24.1	24.1	24.1	24.0	24.0	24.0	24.0	23.9	23.9	23.9	23.9	23.8	23.8	23.7	23.4	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.4	24.1	23.8
Jan 16	23.5	23.4	23.4	23.4	23.4	23.4	23.6	23.5	23.5	23.6	23.5	23.5	23.5	23.4	23.3	23.5	23.4	23.6	23.5	23.6	23.5	23.6	23.6	23.7	23.6	23.3	23.7
Jan 17	23.7	23.7	23.8	23.8	23.9	24.0	23.8	23.7	23.6	23.7	23.7	23.5	23.2	23.1	23.2	23.3	23.4	23.5	23.5	23.5	23.6	23.5	23.6	23.1	24.0	23.6	
Jan 18	23.5	23.6	23.7	23.7	23.7	23.7	23.6	23.5	23.5	23.5	23.4	23.4	23.3	23.2	23.0	22.7	22.8	23.3	23.5	23.6	23.7	23.7	23.7	22.7	23.7	23.5	
Jan 19	23.7	23.7	23.7	23.8	23.7	23.8	23.7	23.6	23.6	23.7	23.6	23.6	23.4	23.2	23.3	23.3	23.5	23.4	23.4	23.4	23.5	23.5	23.5	23.5	22.7	23.8	23.5
Jan 20	23.5	23.6	23.6	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.4	23.3	23.3	23.3	23.2	23.2	23.1	23.2	23.2	23.2	23.2	23.2	23.3	23.3	23.1	23.6	23.4
Jan 21	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.3	23.3	23.3	23.2	23.2	23.2	23.2	23.2	23.3	23.2	23.3	23.3	23.2	23.3	23.3	23.2	23.2	23.3	23.2
Jan 22	23.3	23.3	23.3	23.4	23.4	23.4	23.4	23.3	23.4	23.4	23.4	23.4	23.3	23.3	23.1	23.0	23.1	23.0	23.1	23.2	23.2	23.3	23.3	23.2	23.0	23.4	23.3
Jan 23	23.2	23.2	23.3	23.2	23.3	23.3	23.3	23.2	23.3	23.3	23.2	23.1	22.9	22.8	22.8	22.7	22.8	23.0	23.2	23.2	23.3	23.3	23.3	23.2	22.7	23.3	23.1
Jan 24	23.2	23.2	23.3	23.3	23.2	23.2	23.2	23.1	23.2	23.2	23.1	23.0	22.9	22.7	22.6	22.6	22.5	22.9	23.0	23.1	23.1	23.2	23.1	23.2	22.5	23.3	23.0
Jan 25	23.2	23.2	23.1	23.1	23.2	23.1	23.1	23.1	23.0	23.0	22.9	22.9	22.9	22.7	22.5	22.4	22.6	22.9	22.9	22.9	22.9	22.9	22.9	23.0	22.4	23.2	22.9
Jan 26	23.0	23.0	23.0	22.9	23.0	22.9	22.9	22.9	22.9	22.9	22.9	22.8	22.8	22.5	22.7	22.6	22.5	22.7	22.9	22.9	22.9	22.9	22.9	22.9	22.5	23.0	22.8
Jan 27	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	23.0	22.9	22.8	22.7	22.5	22.3	22.4	22.7	22.7	22.8	22.7	22.7	22.7	22.7	22.7	22.7	22.3	23.0	22.8
Jan 28	22.7	22.6	22.7	22.7	22.8	22.9	22.8	22.7	22.8	22.8	22.8	22.7	22.5	22.2	22.1	22.4	22.4	22.6	22.8	22.9	22.9	22.9	22.9	22.8	22.1	22.9	22.7
Jan 29	22.7	22.8	22.7	22.8	22.7	22.8	22.7	22.7	22.7	22.7	22.6	22.6	22.4	22.7	22.9	23.0	22.6	22.5	22.7	22.7	22.6	22.6	22.6	22.6	22.4	23.0	22.7
Jan 30	22.7	22.7	22.6	22.7	22.6	22.5	22.6	22.6	22.6	P	P	P	P	P	P	P	P	P	P	P	P	P	22.7	22.5	22.7	NA	
Jan 31	22.6	22.7	22.6	22.7	22.7	22.7	22.8	22.7	22.7	22.7	22.5	22.4	22.4	22.4	22.3	22.2	22.2	22.3	22.3	22.4	22.3	22.3	22.3	22.2	22.8	22.5	
Diurnal Maximum	24.4	24.2	24.1	24.1	24.3	24.2	24.1	24.1	24.0	24.1	24.2	24.1	23.8	23.7	23.8	23.7	23.7	24.0	24.1	24.1	24.2	24.1	24.1	24.2			
Diurnal Average	23.4	23.4	23.4	23.4	23.4	23.4	23.3	23.3	23.3	23.3	23.4	23.3	23.2	23.0	23.1	23.1	23.3	23.3	23.4	23.4	23.4	23.4	23.4	23.4			

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

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



Peace River Area Monitoring Program

Reno-B Station - January 2024

Summary of Hourly Averages

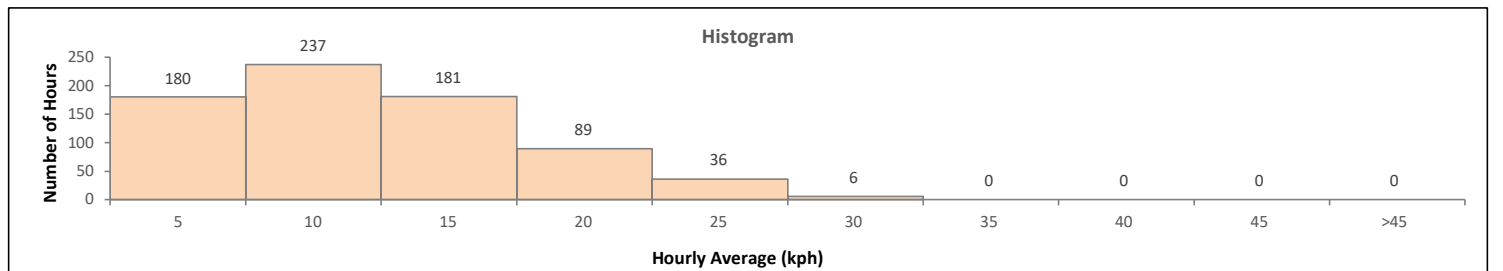
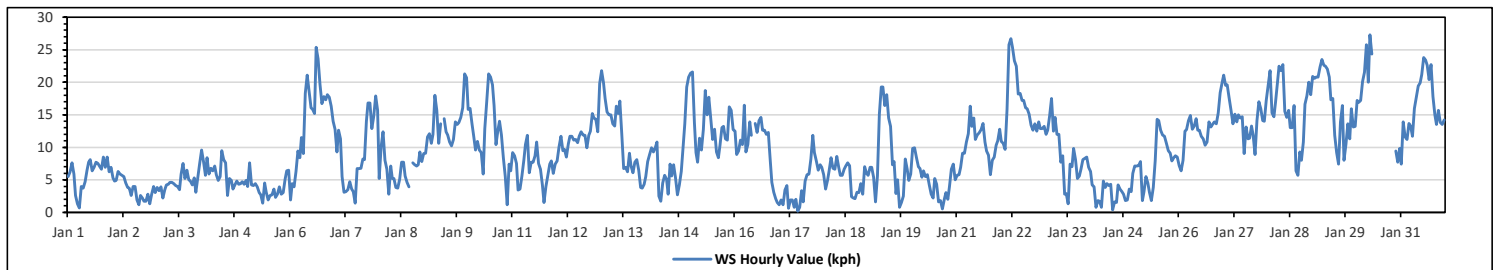
VECTOR WIND SPEED (VWS) in km/hr

Maximum Hourly Value:	27.3	kph	on Jan 30 at hr 7	Hours in Service:	744
Maximum Daily Value:	16.5	kph	on Jan 29	Hours of Data:	729
Minimum Hourly Value:	0.2	kph	on Jan 17 at hr 10	Hours of Missing Data:	15
Minimum Daily Value:	3.1	kph	on Jan 24	Hours of Calibration:	0
Monthly Average:	2.8	kph		Operational Uptime:	98.0

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		
Jan 1	5.5	6.2	7.6	5.9	2.6	1.3	0.7	4.0	3.7	4.7	6.5	7.7	8.1	6.4	6.9	7.7	7.5	7.0	6.6	8.5	6.9	8.5	6.2	6.9	0.7	8.5	6.0		
Jan 2	5.3	4.8	4.9	6.3	5.9	5.7	5.5	4.5	3.8	3.7	2.6	4.0	4.0	1.9	1.2	2.6	2.2	1.7	1.7	2.8	1.3	2.8	4.0	3.0	1.2	6.3	3.6		
Jan 3	3.8	3.3	3.9	2.2	3.5	4.2	4.3	4.6	4.6	4.4	4.1	4.0	3.5	5.9	7.5	5.2	6.5	5.0	4.8	4.2	5.3	3.1	5.3	7.5	2.2	7.5	4.6		
Jan 4	9.6	7.8	5.7	8.4	5.9	6.8	6.4	7.1	5.8	4.9	5.5	9.5	8.1	7.6	2.6	5.2	4.9	3.6	4.2	4.8	4.3	4.4	4.7	4.3	2.6	9.6	5.9		
Jan 5	4.9	4.0	7.6	4.2	4.1	4.4	3.9	3.0	2.7	1.4	4.5	3.1	1.9	2.6	2.7	3.6	2.3	2.8	3.9	2.8	3.0	5.1	6.4	6.5	1.4	7.6	3.8		
Jan 6	1.9	4.4	3.9	6.3	9.4	8.4	11.5	9.0	18.3	21.1	18.6	16.1	15.8	15.2	25.4	23.6	19.7	16.7	17.8	17.3	18.1	17.7	16.3	14.0	1.9	25.4	14.4		
Jan 7	12.8	9.3	12.6	11.3	5.5	3.1	3.2	3.5	4.7	3.6	3.2	1.4	6.7	6.7	6.8	8.2	8.1	14.0	16.8	16.8	12.9	14.8	17.9	15.7	1.4	17.9	9.2		
Jan 8	5.2	10.1	12.4	8.0	6.6	2.8	7.1	5.2	5.2	3.8	3.7	5.1	7.7	7.7	5.6	4.6	3.9	K	7.6	7.3	7.1	7.3	9.3	7.8	2.8	12.4	6.6		
Jan 9	9.0	9.1	11.6	12.1	10.6	12.0	18.0	15.7	10.6	13.6	K	14.4	12.4	11.9	10.8	10.2	11.2	13.9	13.5	13.8	14.6	16.1	21.3	20.7	9.0	21.3	13.4		
Jan 10	15.8	16.0	13.6	11.8	9.6	10.9	9.6	9.2	5.9	12.9	17.0	21.3	20.8	19.6	16.4	10.4	12.6	14.0	11.9	8.4	5.5	1.2	7.4	6.4	1.2	21.3	12.0		
Jan 11	9.2	8.7	7.5	3.4	3.6	5.6	8.0	10.4	11.8	6.1	7.7	7.7	8.7	10.8	7.5	6.6	4.2	1.5	4.0	5.7	7.4	7.9	6.0	7.4	1.5	11.8	7.0		
Jan 12	7.9	10.1	11.7	9.5	9.7	8.5	10.5	11.7	11.7	11.1	11.2	10.7	11.7	12.4	11.9	11.8	9.9	11.8	12.5	15.2	14.5	14.3	12.4	19.8	7.9	19.8	11.8		
Jan 13	21.8	19.9	17.5	15.4	15.0	15.0	13.6	13.3	16.3	15.2	17.1	12.1	6.7	6.9	6.2	9.1	7.1	6.1	7.7	8.1	6.5	3.8	3.7	4.3	3.7	21.8	11.2		
Jan 14	5.5	7.8	8.9	9.9	9.3	10.0	10.8	2.5	1.7	4.5	5.7	5.1	2.8	7.4	5.6	7.3	5.3	2.7	4.2	6.3	9.6	13.6	19.3	20.8	1.7	20.8	7.8		
Jan 15	21.4	21.6	13.8	9.2	7.7	11.4	9.6	12.7	18.7	15.0	17.7	14.5	11.2	12.8	9.3	8.4	10.3	13.0	13.2	11.3	11.1	16.2	15.7	12.7	7.7	21.6	13.3		
Jan 16	12.5	8.9	9.4	11.1	10.4	16.5	9.3	10.4	13.9	11.8	K	13.7	12.3	14.1	14.6	12.6	12.6	12.0	12.3	8.0	4.6	3.1	2.1	1.5	1.5	16.5	10.3		
Jan 17	1.2	1.9	1.2	3.4	4.1	0.6	1.9	1.9	0.8	2.0	0.2	0.8	3.3	1.6	4.8	5.8	5.9	8.2	11.8	9.2	7.9	6.5	7.3	6.9	0.2	11.8	4.1		
Jan 18	5.8	3.6	4.9	6.4	8.4	6.8	6.6	8.6	6.9	5.7	5.7	6.6	7.1	7.6	7.2	2.4	2.2	2.1	3.1	3.0	4.4	2.8	7.0	6.0	2.1	8.6	5.5		
Jan 19	5.7	6.9	6.9	5.4	1.6	5.6	15.1	19.3	19.3	16.4	18.1	14.5	13.2	7.3	7.8	2.9	5.0	0.8	1.5	2.5	8.2	6.6	4.9	5.9	0.8	19.3	8.4		
Jan 20	9.8	9.9	8.4	7.0	6.7	5.4	6.4	5.5	5.8	4.2	2.8	2.2	5.2	4.3	1.6	1.8	0.5	2.0	3.0	2.0	3.9	6.6	7.4	5.0	0.5	9.9	4.9		
Jan 21	5.7	5.8	6.9	9.1	9.1	10.8	12.1	16.3	13.2	14.5	11.2	11.9	12.2	12.7	13.7	10.8	9.4	8.8	5.8	8.0	8.5	10.3	11.0	12.8	5.7	16.3	10.4		
Jan 22	10.9	10.6	9.7	15.8	25.8	26.7	25.4	23.3	22.5	18.2	18.3	17.2	17.2	16.1	15.9	15.1	13.4	12.6	13.6	12.5	13.9	12.9	12.9	13.2	9.7	26.7	16.4		
Jan 23	12.0	12.6	14.8	17.5	12.5	14.6	12.0	12.0	7.7	8.7	2.8	2.9	1.3	7.4	7.0	9.8	8.1	5.2	5.6	6.6	8.1	8.3	8.5	6.9	1.3	17.5	8.9		
Jan 24	6.3	4.2	3.9	0.8	1.8	1.7	0.8	4.8	3.8	4.4	4.1	4.3	0.4	1.6	1.5	4.2	3.6	3.2	2.8	1.8	1.9	3.6	3.2	6.0	0.4	6.3	3.1		
Jan 25	7.1	7.1	7.2	7.8	1.8	3.2	5.5	4.5	3.1	1.8	3.8	7.9	14.3	14.1	12.6	11.9	11.7	10.6	9.5	9.1	7.9	8.4	8.7	8.5	1.8	14.3	7.8		
Jan 26	7.2	6.4	8.0	12.5	12.7	14.1	14.9	12.8	13.3	14.4	12.6	12.6	11.7	11.3	10.3	10.8	13.9	13.1	13.5	13.9	13.6	15.3	18.4	19.9	6.4	19.9	12.8		
Jan 27	21.1	19.5	19.6	17.6	15.7	13.6	15.1	13.9	15.0	14.5	14.7	9.0	13.1	11.3	11.4	13.3	11.9	8.9	14.1	17.0	15.9	14.1	14.0	17.2	8.9	21.1	14.6		
Jan 28	19.5	21.8	15.3	14.7	16.9	19.9	22.5	21.8	22.7	15.5	14.6	15.7	13.0	13.0	16.4	6.4	5.7	9.3	8.0	10.8	16.6	17.9	20.0	18.1	5.7	22.7	15.7		
Jan 29	20.9	20.6	20.8	20.8	22.3	23.5	22.6	22.5	22.0	20.8	17.3	17.5	11.8	9.2	7.4	13.9	16.4	8.0	10.4	13.6	11.3	15.9	13.1	13.2	7.4	23.5	16.5		
Jan 30	17.2	16.9	17.2	20.1	21.5	25.8	20.0	27.3	24.3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	9.4	7.7	9.8	7.7	27.3	NA
Jan 31	7.4	13.9	11.6	11.2	13.7	13.3	11.7	16.0	17.7	19.4	19.9	21.2	23.8	23.4	22.6	20.4	22.7	17.8	15.0	13.5	15.7	13.8	13.5	14.2	7.4	23.8	16.4		
Diurnal Maximum	21.8	21.8	20.8	20.8	25.8	26.7	25.4	27.3	24.3	21.1	19.9	21.3	23.8	23.4	25.4	23.6	22.7	17.8	17.8	17.3	18.1	17.9	21.3	20.8					
Diurnal Average	10.0	10.1	10.0	9.8	9.5	10.1	10.5	10.9	10.9	9.9	9.7	9.8	9.7	9.7	9.4	8.9	8.6	8.2	8.7	8.8	9.0	9.4	10.2	10.4					

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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.



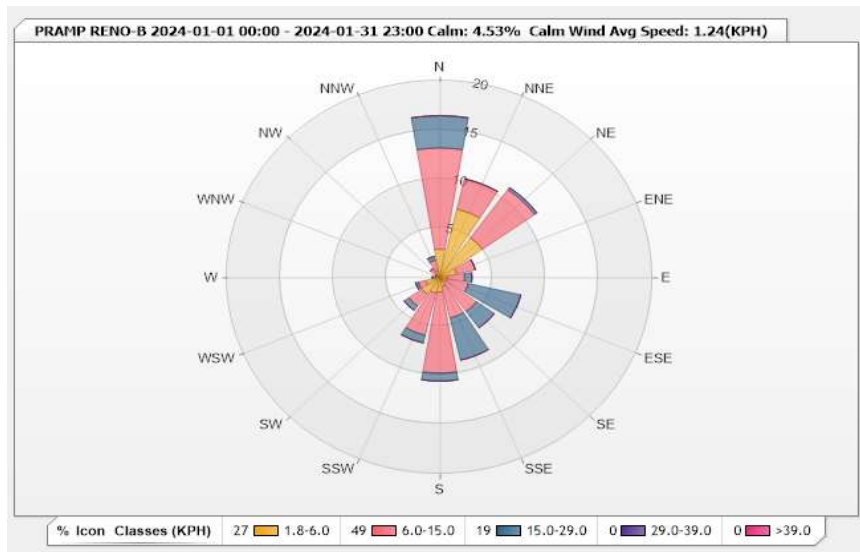


Station: PRAMP RENO-B Monitor: WDS [KPH] Monthly: 01-2024

Type: Wind Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm (WS<1.8kph): 4.53% Valid Data: 97.98%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	2.88	10.29	3.29	0	0	16.46
NNE	7.13	3.16	0	0	0	10.29
NE	4.94	6.04	0.27	0	0	11.25
ENE	1.65	1.78	0	0	0	3.43
E	0.69	1.65	0.69	0	0	3.03
ESE	0.69	2.06	5.08	0	0	7.83
SE	0.27	3.98	2.06	0	0	6.31
SSE	0.96	3.29	4.39	0	0	8.64
S	1.51	8.23	0.82	0	0	10.56
SSW	1.65	4.39	0.82	0	0	6.86
SW	2.06	1.51	0.55	0	0	4.12
WSW	1.37	0.69	0.27	0	0	2.33
W	0.41	0.27	0	0	0	0.68
WNW	0.14	0.27	0	0	0	0.41
NW	0.41	0.69	0	0	0	1.1
NNW	0.69	1.1	0.41	0	0	2.2
Summary	27.45	49.4	18.65	0	0	95.5



Peace River Area Monitoring Program

Reno-B Station - January 2024

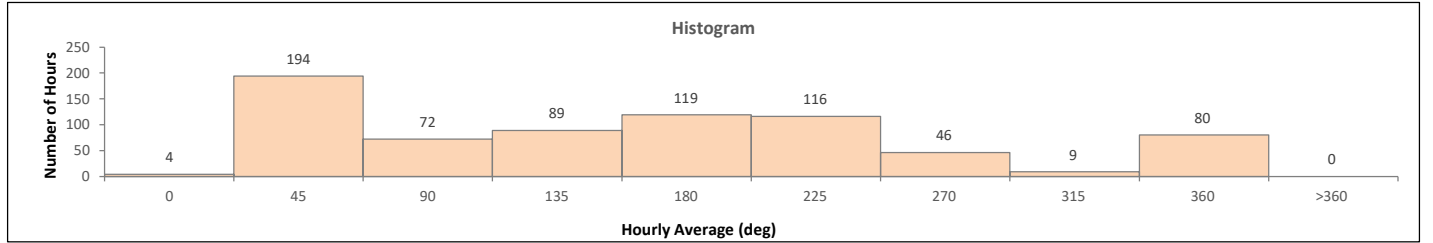
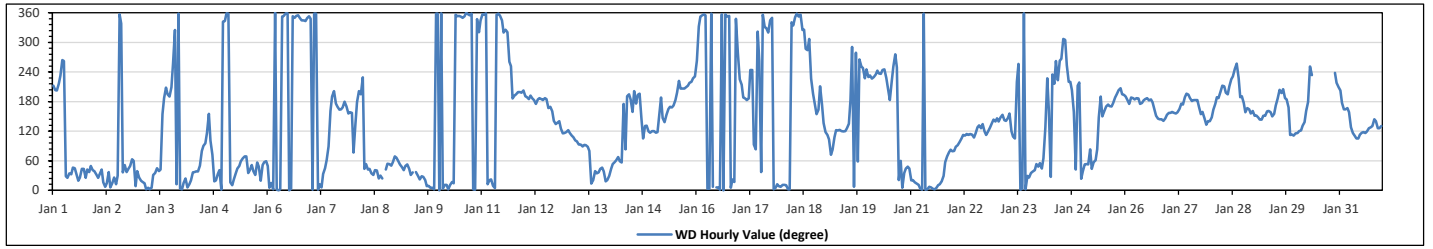
Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

Monthly Average:		113 (ESE) degree																		Hours of Service:		744				
																				Hours of Data:		729				
																				Hours of Missing Data:		15				
																				Hours of Calibration:		0				
																				Operational Uptime:		98.0				
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
Jan 1	SSW	SSW	SSW	SW	SW	W	W	NNE	NNE	NE	NNE	NE	NNE	NNE	NNE	NE	NE	NNE	NE	NE	NE	NE	NE	NE	38	NE
Jan 2	NNE	NNE	NNE	NE	NNE	N	NNE	NE	N	NNE	NNE	NNE	NNE	N	NNW	NE	NE	NE	NE	ENE	ENE	N	NE	26	NNE	
Jan 3	NNE	NNE	NNE	NNE	N	N	N	N	NNE	NE	NE	NE	NE	SSE	S	SSW	SSW	S	SSW	WSW	NW	NNE	N	11	NNE	
Jan 4	N	NNE	NNE	N	NNE	NNE	NE	NE	NE	NE	E	E	E	ESE	SSE	E	ENE	NNE	NNE	NNE	NE	N	NNW	40	NE	
Jan 5	NNW	N	N	NNE	N	NNE	NE	NE	NE	ENE	ENE	ENE	ENE	NE	NE	NE	NNE	NE	NE	NNE	NE	ENE	ENE	36	NE	
Jan 6	NE	N	NNE	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	NNW	NNW	NNW	NNW	NNW	N	354	N
Jan 7	NNW	N	N	N	N	NNE	N	NNE	NE	ENE	E	SSE	S	SSW	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	152	SSE	
Jan 8	ENE	SE	S	SSW	SSW	SW	NE	NE	NE	NE	NNE	NE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	63	ENE	
Jan 9	ENE	ENE	NE	NE	NE	NE	NE	NNE	NE	K	NE	NNE	NNE	NNE	NNE	NNE	N	N	N	N	N	N	N	26	NNE	
Jan 10	N	N	N	NNE	NNE	N	NNE	NNE	N	N	N	N	N	N	N	N	N	N	N	N	NNW	NNW	NNW	N	358	N
Jan 11	N	N	N	NNE	NNE	NNE	N	N	N	N	N	NNW	NW	NW	NW	W	WSW	S	S	SSW	SSW	SSW	SSW	SSW	332	NNW
Jan 12	S	S	S	S	S	S	S	S	S	S	S	S	S	SSE	SSE	SSE	SE	SE	SE	SE	SE	ESE	ESE	161	SSE	
Jan 13	ESE	ESE	ESE	ESE	E	E	E	E	E	E	E	E	E	NNE	NNE	NE	NE	NE	NE	NNE	NNE	NNE	NNE	85	E	
Jan 14	NE	NE	ENE	ENE	ENE	NE	S	E	S	SSW	S	SSE	SSW	S	S	SSW	SE	ESE	SE	SE	ESE	ESE	ESE	114	ESE	
Jan 15	ESE	ESE	ESE	SSE	S	SE	SE	SSE	SSE	SSE	S	S	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	178	S	
Jan 16	W	NNW	N	N	N	N	N	N	N	N	K	N	N	N	N	N	N	N	N	N	NNE	NNE	NNW	W	355	N
Jan 17	SW	SSW	S	S	S	S	WSW	WSW	E	E	NW	W	NE	N	NNW	NNW	NNW	NNW	N	N	N	N	N	350	N	
Jan 18	NNE	NNE	N	N	N	NNW	NNW	N	N	N	N	NW	NW	WNW	WNW	NW	SW	SSW	S	SSE	SSW	S	SE	337	NNW	
Jan 19	ESE	ESE	ESE	ENE	E	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	S	WNW	N	W	ENE	W	WSW	WSW	WSW	WSW	128	SE	
Jan 20	SW	SW	SW	SW	SW	WSW	SW	SW	WSW	WSW	SW	SSW	S	SW	WSW	W	WSW	NNE	ENE	N	NE	NE	NE	236	SW	
Jan 21	NNE	NNE	NNE	NNE	NNE	N	N	N	N	N	N	N	N	N	N	N	N	NNE	NNE	ENE	ENE	ENE	ENE	ENE	19	NNE
Jan 22	E	E	E	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	ESE	ESE	ESE	SE	SE	SE	115	ESE	
Jan 23	SE	SE	SE	SSE	SE	SE	SSE	ESE	ESE	ESE	ESE	SW	WSW	N	N	N	N	NNE	NNE	NE	NE	NE	NE	106	ESE	
Jan 24	NE	NE	ENE	SE	SW	SSE	NNE	SW	SW	W	SW	W	NW	WNW	WSW	SW	SW	SSW	SSE	NE	SSW	SW	NNE	237	SW	
Jan 25	NE	NE	NE	NE	E	NE	ENE	ENE	E	SE	S	SSE	SSE	S	S	SSE	S	S	SSW	SSW	SSW	SSW	S	159	SSE	
Jan 26	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	SSE	SSE	SE	SE	SE	SE	170	SSE	
Jan 27	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	S	S	SSW	SSW	S	S	S	S	S	SSE	SSE	SE	SE	SE	SE	165	SSE	
Jan 28	SE	SSE	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	WSW	WSW	SW	S	S	SSE	SSE	SSE	SSE	SSE	191	S	
Jan 29	SSE	SSE	SE	SE	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSW	SSW	S	S	SSE	ESE	ESE	ESE	ESE	155	SSE	
Jan 30	ESE	ESE	ESE	SE	SE	SSE	S	WSW	SW	P	P	P	P	P	P	P	P	P	P	P	P	P	P	NA	NA	NA
Jan 31	SSW	S	SSE	SSE	SSE	SSE	SE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	SE	SE	SE	129	SE	

**C** Monthly Calibration      **S** Daily Zero-Span Check      **Q** Quality Assurance  
**K** Collection Error      **ND** 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.



## Peace River Area Monitoring Program

### Reno-B Station - January 2024

#### Summary of Hourly Averages

#### VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector

WIND SPEED			
Maximum Hourly Value:	27.3	kph	on Jan 30 at hr 7
Maximum Daily Value:	16.5	kph	on Jan 29
Minimum Hourly Value:	0.2	kph	on Jan 17 at hr 10
Minimum Daily Value:	3.1	kph	on Jan 24
Monthly Average:	2.8	kph	

Hours in Service:	744
Hours of Data:	729
Hours of Missing Data:	15
Hours of Calibration:	0
Operational Uptime:	98.0

WIND DIRECTION			
Monthly Average:	113	degree (ESE)	

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
Jan 1	5.5	6.2	7.6	5.9	2.6	1.3	0.7	4.0	3.7	4.7	6.5	7.7	8.1	6.4	6.9	7.7	7.5	7.0	6.6	8.5	6.9	8.5	6.2	6.9	0.7	8.5	6.0
Jan 2	SSW	SSW	SSW	SW	SW	W	W	NNE	NNE	NE	NNE	NE	NE	NNE	NNE	NE	NE	NE	NNE	NE	NE	NE	NE	NE	1.2	6.3	3.8
Jan 3	5.3	4.8	4.9	6.3	5.9	5.7	5.5	4.5	3.8	3.7	2.6	4.0	4.0	1.9	1.2	2.6	2.2	1.7	1.7	2.8	1.3	2.8	4.0	3.0	2.2	7.5	4.6
Jan 4	NNE	NNE	NNE	NE	NNE	N	NNE	NE	N	NNE	NNE	NNE	NNE	N	NNW	NE	NE	NE	NE	ENE	ENE	N	NE	N	2.6	9.6	5.9
Jan 5	3.8	3.3	3.9	2.2	3.5	4.2	4.3	4.6	4.6	4.4	4.1	4.0	3.5	5.9	7.5	5.2	6.5	5.0	4.8	4.2	5.3	3.1	5.3	7.5	1.4	7.6	3.8
Jan 6	NNE	NNE	NNE	NNE	N	N	N	N	NNE	NE	NE	NE	NE	SSE	S	SSW	SSW	S	SSW	WSW	NW	NNE	N	N	1.9	25.4	14.4
Jan 7	9.6	7.8	5.7	8.4	5.9	6.8	6.4	7.1	5.8	4.9	5.5	9.5	8.1	7.6	2.6	5.2	4.9	3.6	4.2	4.8	4.3	4.4	4.7	4.3	1.4	17.9	9.2
Jan 8	N	NNE	NNE	N	NNE	NNE	NE	NE	NE	NE	NE	E	E	E	ESE	SSE	E	ENE	NNE	NNE	NE	N	NNW	N	2.8	12.4	6.6
Jan 9	4.9	4.0	7.6	4.2	4.1	4.4	3.9	3.0	2.7	1.4	4.5	3.1	1.9	2.6	2.7	3.6	2.3	2.8	3.9	2.8	3.0	5.1	6.4	6.5	9.0	21.3	13.4
Jan 10	NNW	N	NNE	N	NNE	N	NNE	NE	NE	ENE	ENE	ENE	ENE	NE	NE	NE	NE	NE	NE	NE	NNE	NE	ENE	ENE	1.2	21.3	12.0
Jan 11	1.9	4.4	3.9	6.3	9.4	8.4	11.5	9.0	18.3	21.1	18.6	16.1	15.8	15.2	25.4	23.6	19.7	16.7	17.8	17.3	18.1	17.7	16.3	14.0	1.5	11.8	7.0
Jan 12	NE	N	NNE	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	NNW	NNW	NNW	N	N	7.9	19.8	11.8
Jan 13	12.8	9.3	12.6	11.3	5.5	3.1	3.2	3.5	4.7	3.6	3.2	1.4	6.7	6.7	6.8	8.2	8.1	14.0	16.8	16.8	12.9	14.8	17.9	15.7	3.7	21.8	11.2
Jan 14	NNW	N	N	N	N	NNE	N	NNE	NE	ENE	E	SSE	S	SSW	S	SSE	SSE	SSE	SSE	S	SSE	SSE	SSE	SSE	1.7	20.8	7.8
Jan 15	5.2	10.1	12.4	8.0	6.6	2.8	7.1	5.2	5.2	3.8	3.7	5.1	7.7	7.7	5.6	4.6	3.9	K	7.6	7.3	7.1	7.3	9.3	7.8	7.7	21.6	13.3
Jan 16	ENE	SE	S	SSW	SSW	SW	NE	NE	NE	NE	NNE	NE	NE	NNE	NNE	NNE	NNE	K	NE	NE	NE	ENE	ENE	ENE	1.5	16.5	10.3
Jan 17	9.0	9.1	11.6	12.1	10.6	12.0	18.0	15.7	10.6	13.6	K	14.4	12.4	11.9	10.8	10.2	11.2	13.9	13.5	13.8	14.6	16.1	21.3	20.7	0.2	11.8	4.1
Jan 18	ENE	ENE	NE	NE	NE	NE	NE	NE	NNE	NE	K	NE	NNE	NNE	NNE	NNE	NNE	N	N	N	N	N	N	N	2.1	8.6	5.5
Jan 19	15.8	16.0	13.6	11.8	9.6	10.9	9.6	9.2	5.9	12.9	17.0	21.3	20.8	19.6	16.4	10.4	12.6	14.0	11.9	8.4	5.5	1.2	7.4	6.4	0.8	19.3	8.4
Jan 20	N	N	N	NNE	NNE	N	NNE	NNE	NNE	N	N	N	N	N	N	N	N	N	N	N	NNW	NW	NNW	N	0.5	9.9	4.9
Jan 21	9.2	8.7	7.5	3.4	3.6	5.6	8.0	10.4	11.8	6.1	7.7	7.7	8.7	10.8	7.5	6.6	4.2	1.5	4.0	5.7	7.4	7.9	6.0	7.4	5.7	16.3	10.4
Jan 22	N	N	N	NNE	NNE	NNE	N	N	N	N	N	NNW	NW	NW	NW	W	WSW	S	S	SSW	SSW	SSW	SSW	SSW	7.4	23.5	16.5
Jan 23	7.9	10.1	11.7	9.5	9.7	8.5	10.5	11.7	11.1	11.2	10.7	11.7	12.4	11.9	11.8	9.9	11.8	12.5	15.2	14.5	14.3	12.4	19.8	19.8	7.7	21.6	13.3
Jan 24	S	S	S	S	S	S	S	S	S	S	S	S	S	S	SSE	SSE	SSE	SE	SE	SE	SE	ESE	ESE	ESE	1.5	16.5	10.3
Jan 25	21.8	19.9	17.5	15.4	15.0	15.0	13.6	13.3	16.3	15.2	17.1	12.1	6.7	6.9	6.2	9.1	7.1	6.1	7.7	8.1	6.5	3.8	3.7	4.3	0.2	11.8	4.1
Jan 26	ESE	ESE	ESE	ESE	E	E	E	E	E	E	E	E	E	E	NNE	NNE	NE	NE	NE	NE	NNE	NNE	NNE	NNE	2.1	8.6	5.5
Jan 27	5.5	7.8	8.9	9.9	9.3	10.0	10.8	2.5	1.7	4.5	5.7	5.1	2.8	7.4	5.6	7.3	5.3	2.7	4.2	6.3	9.6	13.6	19.3	20.8	0.8	19.3	8.4
Jan 28	NE	NE	ENE	ENE	ENE	ENE	NE	S	E	S	SSW	S	SSE	SSW	S	S	SSW	SE	ESE	SE	ESE	ESE	ESE	ESE	0.5	9.9	4.9
Jan 29	21.4	21.6	13.8	9.2	7.7	11.4	9.6	12.7	18.7	15.0	17.7	14.5	11.2	12.8	9.3	8.4	10.3	13.0	13.2	11.3	11.1	16.2	15.7	12.7	5.7	16.3	10.4
Jan 30	ESE	ESE	ESE	SSE	S	SE	SE	SSE	SSE	SSE	SSE	S	S	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	7.7	27.3	NA
Jan 31	12.5	8.9	9.4	11.1	10.4	16.5	9.3	10.4	13.9	11.8	K	13.7	12.3	14.1	14.6	12.6	12.6	12.0	12.3	8.0	4.6	3.1	2.1	1.5	7.4	23.8	16.4
Jan 31	W	NNW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	NNE	NNE	NNW	W	7.4	23.8	16.4
Jan 31	1.2	1.9	1.2	3.4	4.1	0.6	1.9	1.9	0.8	2.0	0.2	0.8	3.3	1.6	4.8	5.8	5.9	8.2	11.8	9.2	7.9	6.5	7.3	6.9	7.4	23.8	16.4
Jan 31	SW	SSW	S	S	S	WSW	WSW	E	NW	W	NE	N	NNW	NNW	NW	NNW	N	N	N	N	NNE	N	N	N	7.4	23.8	16.4
Jan 31	5.8	3.6	4.9	6.4	8.4	6.8	6.6	8.6	6.9	5.7	5.7	6.6	7.1	7.6	7.2	2.4	2.2	2.1	3.1	3.0	4.4	2.8	7.0	6.0	7.4	23.8	16.4
Jan 31	NNE	NNE	N	N	N	NNW	NNW	N	N	N	N	NW	NW	WNW	WNW	NW	SW	SSW	S	SSE	SSE	SSW	S	SE	7.4	23.8	16.4
Jan 31	5.7	6.9	6.9	5.4	1.6	5.6	15.1	19.3	19.3	16.4	18.1	14.5	13.2	7.3	7.8	2.9	5.0	0.8	1.5	2.5	8.2	6.6	4.9	5.9	7.4	23.8	16.4
Jan 31	ESE	ESE	ESE	ENE	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	S	WNW	N	W	ENE	W	WSW	WSW	WSW	WSW	WSW	7.4	23.8	16.4
Jan 31	9.8	9.9	8.4	7.0	6.7	5.4	5.5	5.8	4.2	2.8	2.2	5.2	4.3	1.6	1.8	0.5	2.0	3.0	2.0	3.9	6.6	7.4	5.0	0.5	7.4	23.8	16.4
Jan 31	SW	SW	SW	SW	WSW	SW	WSW	WSW	WSW	WSW	SSW	SSW	S	SSW	W	WSW	W	WSW	NNE	N	NE	NE	NE	NE	7.4	23.8	16.4
Jan 31	5.7	5.8	6.9	9.1	9.1	10.8	12.1	16.3	13.2	14.5	11.2	11.9	12.2	12.7	13.7	10.8	9.4	8.8	5.8	8.0	8.5	10.3	11.0	12.8	7.4	23.8	16.4
Jan 31	NNE	NNE	NNE	NNE	N	N	N	N	N	N	N	N	N	N	N	NNE	NNE	NNE	ENE	ENE	ENE	E	ENE	ENE	7.4	23.8	16.4
Jan 31	10.9	10.6	9.7	15.8	25.8	26.7	25.4	23.3	22.5	18.2	18.3	17.2	17.2	16.1	15.9	15.1	13.4	12.6	13.6	12.5	13.9	12.9	12.9	13.2	7.4	23.8	16.4
Jan 31	E	E	E	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	SE	ESE	ESE	ESE	SE	SE	SE	SE	7.4	23.8	16.4
Jan 31	12.0	12.6	14.8	17.5	12.5	14.6	12.0	12.0	7.7	8.7	2.8	2.9	1.3	7.4	7.0	9.8	8.1	5.2	5.6	6.6	8.1	8.3	8.5	6.9	7.4	23.8	16.4
Jan 31	SE	SE	SE	SSE	SE	SE	SSE	ESE	ESE	ESE	ESE	SW	WSW	N	N	N	NNE	NNE	NE	NE	NE	NE	NE	NE	7.4	23.8	16.4
Jan 31	6.3	4.2	3.9	0.8	1.8	1.7	0.8	4.8	3.8	4.4	4.1	4.3	0.4	1.6	1.5	4.2	3.6	3.2	2.8	1.8	1.9	3.6	3.2	6.0	7.4	23.8	16.4
Jan 31	NE	NE	ENE	SE	SW	SSE	NNE	SW	W	SW	W	SW	W	SW	WNW	WSW	SW	SSW	SSE	NE	SSW	SSW	SSW	NNE	7.4	23.8	16.4
Jan 31	7.1	7.1	7.2	7.8	1.8	3.2	5.5	4.5	3.1	1.8	3.8	7.9	14.3	14.1	12.6	11.9	11.7	10.6	9.5	9.1	7.9	8.4	8.7	8.5	7.4	23.8	16.4
Jan 31	NE	NE	NE	NE	E	NE	ENE	ENE	E	SE	S	SSE	SSE	S	S	SSE	S	S	SSW	SSW	SSW	SSW	SSW	S	7.4	23.8	16.4
Jan 31	7.2	6.4	8.0	12.5	12.7	14.1	14.9	12.8	13.3	14.4	12.6	12.6	11.7	11.3	10.3	10.8	13.9	13.1	13.5	13.9	13.6	15.3	18.4	19.9	7.4	23.8	16.4
Jan 31	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	SSE	SSE	SE	SE	SE	SE	SE	SE	SSE	7.4	23.8	16.4
Jan 31	21.1	19.5	1																								

PRC STATION

**Peace River Area Monitoring Program**

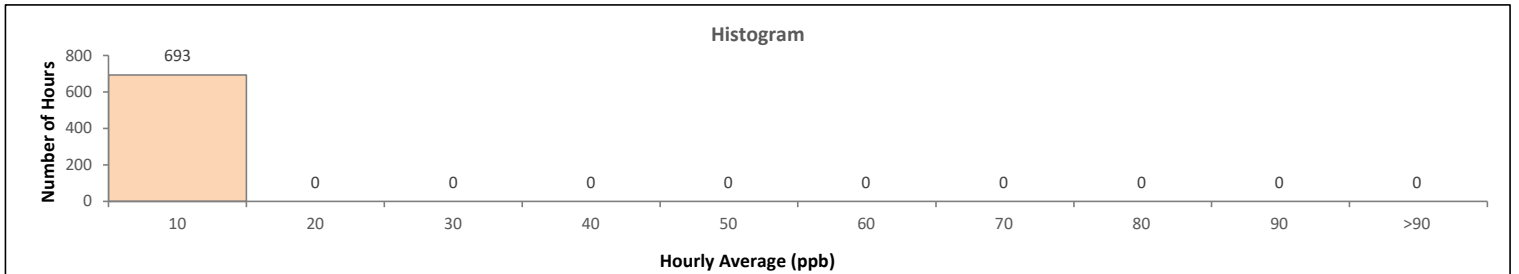
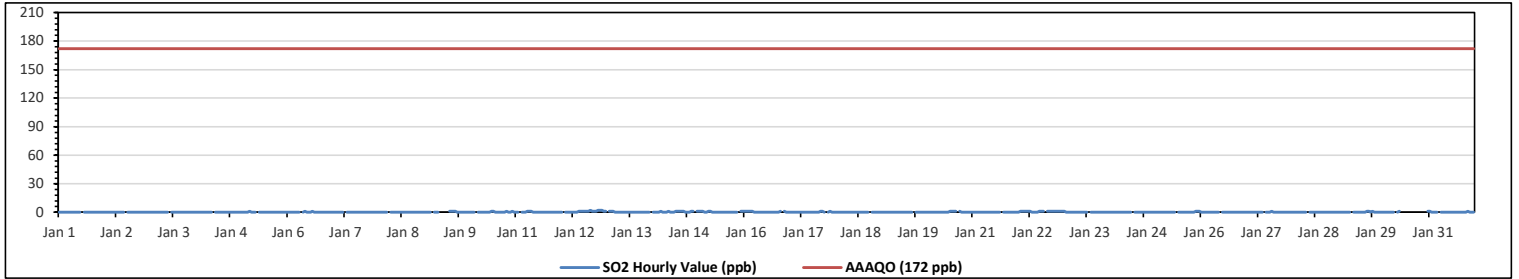
**Reno-B Station - January 2024**

**Summary of Hourly Averages**

**SULPHUR DIOXIDE (SO<sub>2</sub>) 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 Exceedence:					0								
Maximum Hourly Value:					2 ppb on Jan 12 at hr 15					Hours in Service:					744																		
Maximum Daily Value:					0.8 ppb on Jan 12					Hours of Data:					693																		
Minimum Hourly Value:					0 ppb on Jan 1 at hr 0					Hours of Missing Data:					14																		
Minimum Daily Value:					0.0 ppb on Jan 1					Hours of Calibration:					37																		
Monthly Average:					0.1 ppb					Operational Uptime:					98.1																		
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						
Jan 1	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							
Jan 2	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							
Jan 3	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							
Jan 4	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							
Jan 5	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							
Jan 6	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0							
Jan 7	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							
Jan 8	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							
Jan 9	0	0	0	0	S	0	0	0	0	C	C	C	C	C	1	1	1	1	0	0	0	0	0	0	0	0							
Jan 10	0	0	0	0	S	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	1	0	0							
Jan 11	0	0	S	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
Jan 12	0	S	0	0	0	0	0	0	0	1	1	1	1	1	1	2	1	1	1	2	2	2	1	1	0	2							
Jan 13	S	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1							
Jan 14	0	0	0	0	1	0	0	0	0	1	0	0	0	1	1	1	1	1	0	0	0	1	1	S	1	0							
Jan 15	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0							
Jan 16	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	S	1	0	0	0							
Jan 17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	S	S	0	1	0	0	0							
Jan 18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	S	0	0	0	0	0							
Jan 19	0	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							
Jan 20	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	S	1	0	0	0	0	0	0	0	0	0							
Jan 21	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							
Jan 22	0	1	1	1	1	1	1	0	0	0	0	1	1	1	S	1	1	1	1	1	1	1	1	1	1	0							
Jan 23	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							
Jan 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
Jan 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0							
Jan 26	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							
Jan 27	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							
Jan 28	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							
Jan 29	0	0	0	0	0	0	0	0	S	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0							
Jan 30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0							
Jan 31	1	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0							
Diurnal Maximum	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	2	2	1	1	1	1							
Diurnal Average	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2							
<b>C</b>	Monthly Calibration												<b>S</b>	Daily Zero-Span Check																			
<b>K</b>	Collection Error												<b>ND</b>	No Data (Machine Not in Service)								<b>Q</b>	Quality Assurance										
<b>X</b>	Invalid Data (Equipment Malfunction /Recovery)												<b>NRM</b>	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)								<b>Y</b>	Routine Maintenance								<b>P</b>	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.

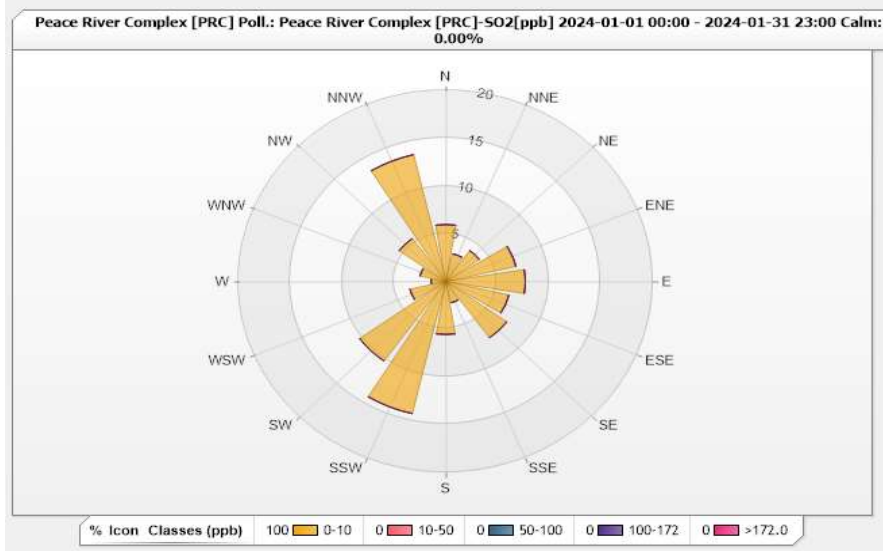


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-SO2[ppb] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 94.62%      Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	5.97	0	0	0	0	5.97
NNE	2.98	0	0	0	0	2.98
NE	3.98	0	0	0	0	3.98
ENE	6.96	0	0	0	0	6.96
E	7.67	0	0	0	0	7.67
ESE	6.25	0	0	0	0	6.25
SE	7.24	0	0	0	0	7.24
SSE	2.27	0	0	0	0	2.27
S	5.54	0	0	0	0	5.54
SSW	14.2	0	0	0	0	14.2
SW	10.23	0	0	0	0	10.23
WSW	3.55	0	0	0	0	3.55
W	1.42	0	0	0	0	1.42
WNW	2.56	0	0	0	0	2.56
NW	5.54	0	0	0	0	5.54
NNW	13.64	0	0	0	0	13.64
Summary	100	0	0	0	0	100

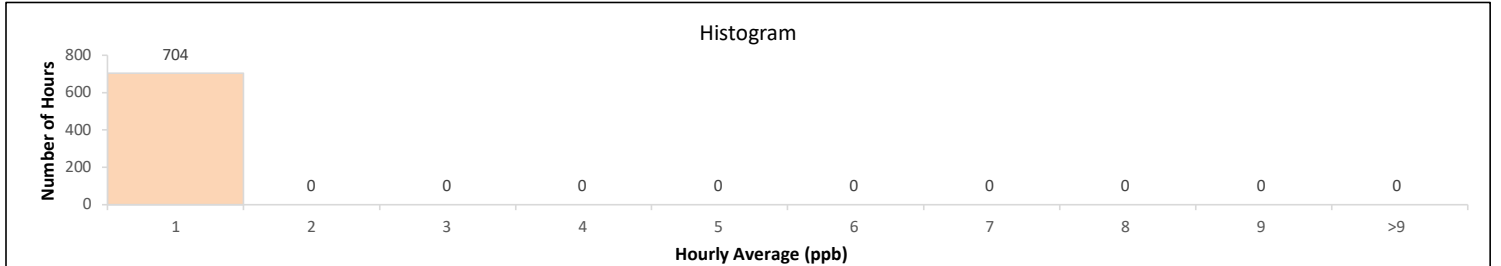
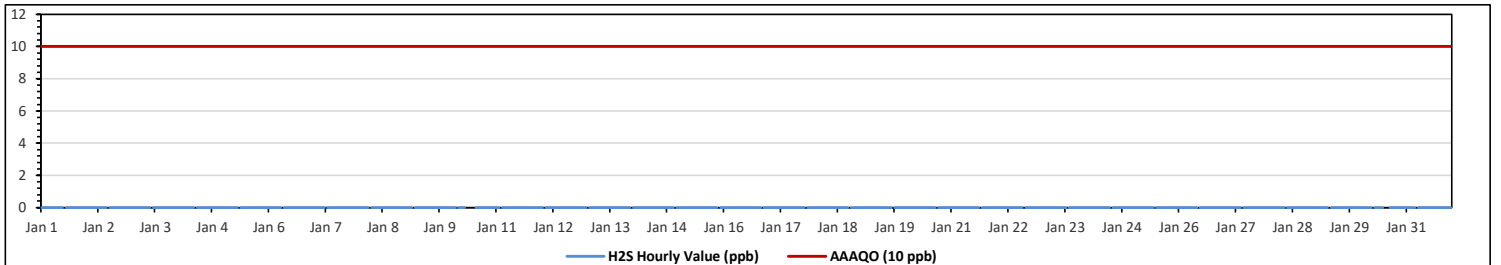


**Peace River Area Monitoring Program**  
**Peace River Complex (PRC) Station - January 2024**  
**Summary of Hourly Averages**  
**HYDROGEN SULPHIDE (H<sub>2</sub>S) in ppb**

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 10 ppb, 24-Hour 3 ppb																													
Number of 1-Hour Exceedances: 0													Number of 24-Hour Exceedances: 0																
Maximum Hourly Value:	0	ppb	on Jan 1 at hr 0													Hours in Service:	744												
Maximum Daily Value:	0.0	ppb	on Jan 1													Hours of Data:	704												
Minimum Hourly Value:	0	ppb	on Jan 1 at hr 0													Hours of Missing Data:	3												
Minimum Daily Value:	0.0	ppb	on Jan 1													Hours of Calibration:	37												
Monthly Average:	0.0	ppb														Operational Uptime:	99.6												
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		
Jan 1	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		
Jan 2	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		
Jan 3	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		
Jan 4	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		
Jan 5	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		
Jan 6	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		
Jan 7	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		
Jan 8	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		
Jan 9	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		
Jan 10	0	0	S	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Jan 11	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		
Jan 12	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		
Jan 13	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Jan 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Jan 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		
Jan 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		
Jan 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		
Jan 18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Jan 19	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		
Jan 20	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		
Jan 21	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		
Jan 22	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		
Jan 23	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		
Jan 24	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		
Jan 25	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		
Jan 26	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		
Jan 27	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		
Jan 28	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		
Jan 29	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		
Jan 30	0	0	0	0	0	S	0	0	0	0	0	0	P	P	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Jan 31	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		
Diurnal Maximum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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      **ND** 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.

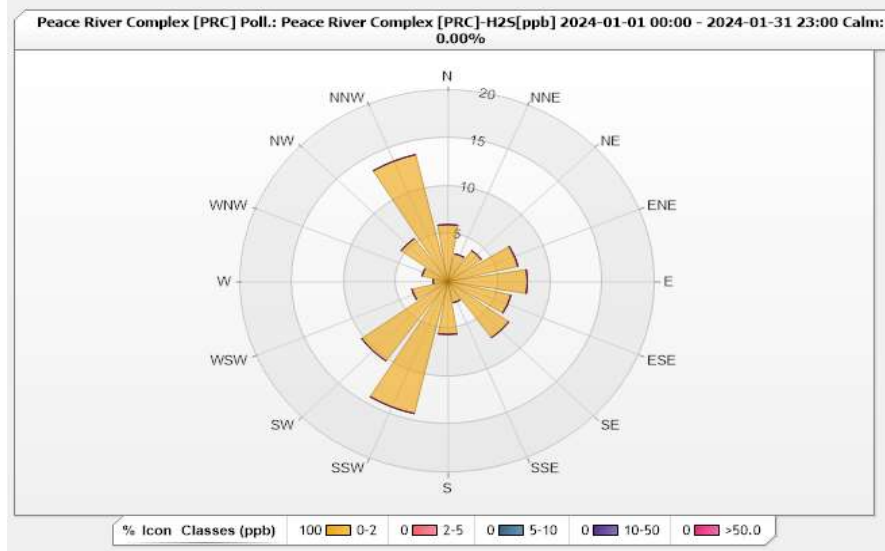


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-H2S[ppb] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 94.62%      Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	5.97	0	0	0	0	5.97
NNE	2.98	0	0	0	0	2.98
NE	3.98	0	0	0	0	3.98
ENE	6.96	0	0	0	0	6.96
E	7.67	0	0	0	0	7.67
ESE	6.25	0	0	0	0	6.25
SE	7.24	0	0	0	0	7.24
SSE	2.27	0	0	0	0	2.27
S	5.54	0	0	0	0	5.54
SSW	14.2	0	0	0	0	14.2
SW	10.23	0	0	0	0	10.23
WSW	3.55	0	0	0	0	3.55
W	1.42	0	0	0	0	1.42
WNW	2.56	0	0	0	0	2.56
NW	5.54	0	0	0	0	5.54
NNW	13.64	0	0	0	0	13.64
Summary	100	0	0	0	0	100





**Peace River Area Monitoring Program**  
**Reno-B Station - January 2024**  
**Summary of Hourly Averages**  
**TOTAL REDUCED SULPHUR (TRS) in ppb**

Maximum Hourly Value:	0.64 ppb	on Jan 25 at hr 22	Hours in Service:	744
Maximum Daily Value:	0.41 ppb	on Jan 16	Hours of Data:	693
Minimum Hourly Value:	0.24 ppb	on Jan 1 at hr 13	Hours of Missing Data:	14
Minimum Daily Value:	0.28 ppb	on Jan 2	Hours of Calibration:	37
Monthly Average:	0.33 ppb		Operational Uptime:	98.1

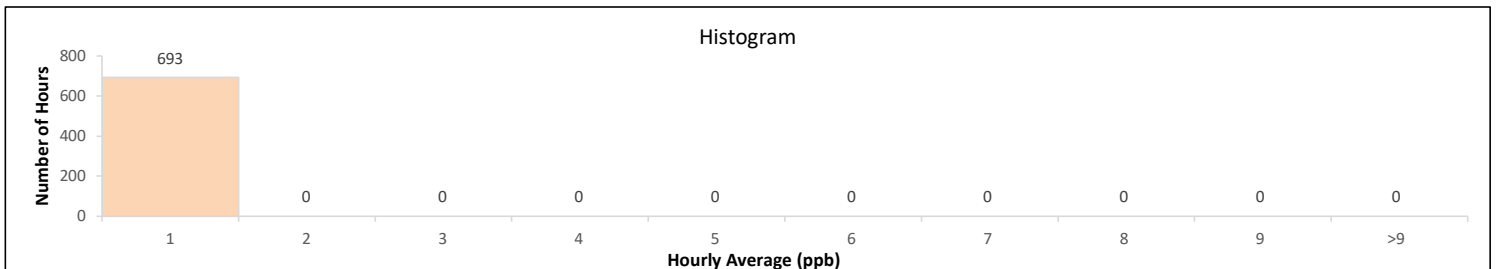
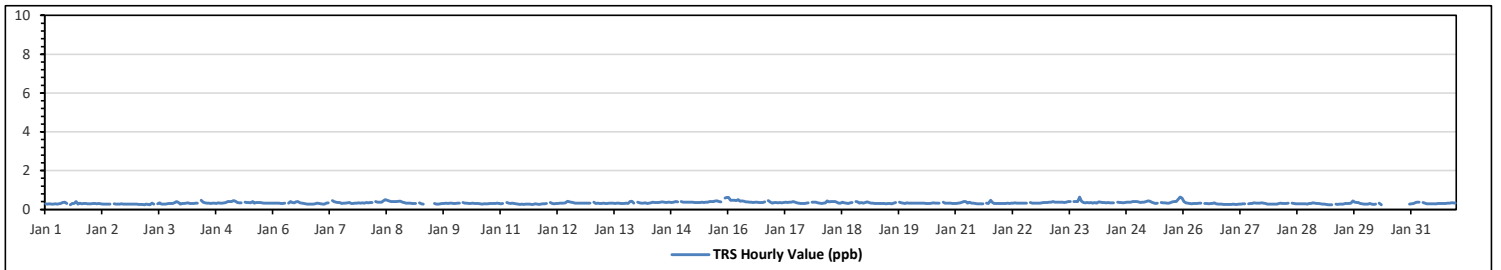
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
Jan 1	0.29	0.28	0.29	0.28	0.28	0.29	0.27	0.29	0.3	0.35	0.37	0.3	S	0.24	0.31	0.3	0.42	0.28	0.32	0.29	0.3	0.3	0.29	0.29	0.24	0.42	0.30	
Jan 2	0.29	0.3	0.3	0.29	0.3	0.29	0.27	0.28	0.27	0.27	0.28	S	0.29	0.28	0.28	0.28	0.29	0.28	0.28	0.27	0.28	0.27	0.27	0.28	0.27	0.30	0.28	
Jan 3	0.27	0.26	0.26	0.26	0.25	0.27	0.26	0.25	0.32	0.27	S	0.29	0.34	0.27	0.27	0.28	0.29	0.31	0.3	0.3	0.35	0.41	0.36	0.27	0.25	0.41	0.29	
Jan 4	0.31	0.31	0.33	0.34	0.31	0.31	0.3	0.33	0.33	S	0.47	0.37	0.34	0.33	0.32	0.31	0.33	0.31	0.34	0.33	0.33	0.34	0.36	0.34	0.36	0.30	0.47	0.33
Jan 5	0.42	0.41	0.42	0.46	0.43	0.35	0.34	0.34	S	0.38	0.35	0.35	0.34	0.4	0.33	0.35	0.35	0.35	0.34	0.33	0.33	0.33	0.32	0.32	0.32	0.46	0.36	
Jan 6	0.32	0.32	0.33	0.32	0.31	0.31	0.33	S	0.33	0.4	0.36	0.34	0.39	0.41	0.34	0.33	0.3	0.29	0.28	0.28	0.28	0.28	0.29	0.32	0.28	0.41	0.32	
Jan 7	0.3	0.29	0.28	0.28	0.33	0.34	S	0.46	0.41	0.37	0.36	0.35	0.31	0.33	0.32	0.34	0.36	0.31	0.31	0.32	0.33	0.34	0.33	0.34	0.28	0.46	0.34	
Jan 8	0.33	0.35	0.34	0.35	0.36	S	0.4	0.37	0.38	0.38	0.44	0.51	0.47	0.44	0.42	0.41	0.41	0.4	0.43	0.43	0.37	0.35	0.33	0.33	0.33	0.51	0.39	
Jan 9	0.32	0.31	0.31	0.31	S	0.34	0.29	0.28	C	C	C	C	C	C	0.3	0.28	0.28	0.29	0.3	0.31	0.32	0.31	0.32	0.32	0.31	0.28	0.34	0.31
Jan 10	0.31	0.32	0.33	S	0.36	0.32	0.32	0.3	0.3	0.32	0.3	0.31	0.3	0.29	0.28	0.29	0.29	0.29	0.3	0.3	0.3	0.31	0.32	0.3	0.28	0.36	0.31	
Jan 11	0.29	0.3	S	0.36	0.32	0.31	0.32	0.31	0.29	0.28	0.26	0.27	0.26	0.27	0.27	0.27	0.26	0.26	0.29	0.27	0.26	0.28	0.29	0.29	0.26	0.36	0.29	
Jan 12	0.3	S	0.35	0.3	0.29	0.3	0.3	0.32	0.32	0.32	0.34	0.43	0.39	0.37	0.35	0.33	0.33	0.32	0.32	0.33	0.32	0.33	0.32	0.33	0.32	0.43	0.33	
Jan 13	S	0.37	0.31	0.32	0.31	0.31	0.32	0.31	0.31	0.32	0.32	0.32	0.31	0.32	0.32	0.31	0.31	0.31	0.32	0.31	0.4	0.43	0.32	S	0.31	0.43	0.33	
Jan 14	0.38	0.34	0.33	0.33	0.34	0.31	0.32	0.34	0.37	0.36	0.35	0.35	0.37	0.39	0.37	0.36	0.37	0.37	0.36	0.38	0.42	0.39	S	0.42	0.31	0.42	0.36	
Jan 15	0.37	0.37	0.37	0.37	0.37	0.38	0.36	0.36	0.35	0.36	0.37	0.36	0.37	0.38	0.4	0.41	0.41	0.44	0.44	0.4	0.39	S	0.6	0.62	0.35	0.62	0.40	
Jan 16	0.62	0.48	0.47	0.47	0.45	0.5	0.43	0.44	0.43	0.39	0.39	0.38	0.37	0.36	0.37	0.37	0.35	0.35	0.36	0.39	S	0.45	0.37	0.33	0.33	0.62	0.41	
Jan 17	0.35	0.35	0.34	0.36	0.34	0.35	0.37	0.35	0.37	0.37	0.42	0.37	0.34	0.33	0.31	0.31	0.31	0.32	0.34	S	0.38	0.38	0.38	0.34	0.31	0.42	0.35	
Jan 18	0.33	0.31	0.33	0.34	0.44	0.39	0.41	0.41	0.41	0.37	0.32	0.32	0.38	0.34	0.33	0.3	0.34	0.36	S	0.42	0.39	0.32	0.35	0.33	0.30	0.44	0.36	
Jan 19	0.35	0.39	0.35	0.32	0.32	0.3	0.31	0.3	0.31	0.31	0.31	0.29	0.3	0.3	0.29	0.32	0.36	S	0.37	0.34	0.32	0.31	0.34	0.32	0.29	0.39	0.32	
Jan 20	0.33	0.33	0.32	0.33	0.32	0.33	0.33	0.32	0.31	0.31	0.31	0.33	0.34	0.33	0.33	0.32	S	0.37	0.33	0.32	0.33	0.32	0.31	0.31	0.31	0.37	0.33	
Jan 21	0.31	0.32	0.34	0.38	0.42	0.42	0.33	0.37	0.32	0.32	0.3	0.29	0.29	0.29	0.29	S	0.33	0.31	0.47	0.35	0.3	0.3	0.3	0.3	0.29	0.47	0.33	
Jan 22	0.3	0.3	0.31	0.32	0.31	0.33	0.33	0.34	0.33	0.32	0.32	0.33	0.33	0.33	S	0.36	0.32	0.32	0.33	0.33	0.33	0.34	0.35	0.35	0.30	0.36	0.33	
Jan 23	0.36	0.37	0.38	0.4	0.37	0.38	0.37	0.38	0.37	0.36	0.38	0.41	0.42	S	0.41	0.41	0.42	0.63	0.43	0.36	0.34	0.35	0.34	0.35	0.34	0.63	0.39	
Jan 24	0.32	0.35	0.33	0.39	0.37	0.35	0.36	0.34	0.35	0.34	0.34	0.34	S	0.38	0.36	0.35	0.34	0.35	0.37	0.37	0.38	0.4	0.4	0.41	0.32	0.41	0.36	
Jan 25	0.39	0.36	0.37	0.38	0.4	0.44	0.43	0.38	0.34	0.31	0.32	S	0.35	0.34	0.34	0.33	0.33	0.35	0.39	0.4	0.4	0.54	0.64	0.59	0.31	0.64	0.40	
Jan 26	0.42	0.34	0.33	0.31	0.29	0.31	0.31	0.31	0.32	0.32	S	0.31	0.31	0.29	0.3	0.31	0.34	0.29	0.28	0.27	0.27	0.26	0.26	0.26	0.26	0.42	0.30	
Jan 27	0.26	0.26	0.27	0.26	0.26	0.28	0.28	0.29	S	0.29	0.3	0.31	0.34	0.33	0.33	0.32	0.34	0.34	0.33	0.3	0.28	0.27	0.27	0.26	0.26	0.34	0.29	
Jan 28	0.28	0.28	0.3	0.32	0.3	0.3	0.31	0.33	S	0.33	0.3	0.29	0.29	0.29	0.29	0.29	0.29	0.28	0.3	0.3	0.34	0.33	0.3	0.3	0.28	0.34	0.30	
Jan 29	0.29	0.28	0.27	0.26	0.25	0.25	0.25	S	0.27	0.26	0.27	0.27	0.28	0.3	0.3	0.31	0.32	0.44	0.37	0.36	0.36	0.3	0.29	0.28	0.25	0.44	0.30	
Jan 30	0.28	0.27	0.3	0.27	0.26	0.27	S	0.32	0.25	P	P	P	P	P	P	P	P	P	P	P	P	P	NRM	NRM	0.28	0.25	0.32	NA
Jan 31	0.29	0.31	0.36	0.38	0.38	S	0.35	0.32	0.29	0.29	0.29	0.29	0.29	0.29	0.3	0.31	0.31	0.31	0.31	0.33	0.33	0.34	0.34	0.33	0.29	0.38	0.32	
Diurnal Maximum	0.62	0.48	0.47	0.47	0.45	0.50	0.43	0.46	0.43	0.40	0.47	0.51	0.47	0.44	0.42	0.41	0.42	0.63	0.47	0.43	0.42	0.54	0.64	0.62				
Diurnal Average	0.33	0.33	0.33	0.34	0.33	0.33	0.33	0.34	0.33	0.33	0.34	0.34	0.34	0.33	0.32	0.33	0.33	0.34	0.34	0.33	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34

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

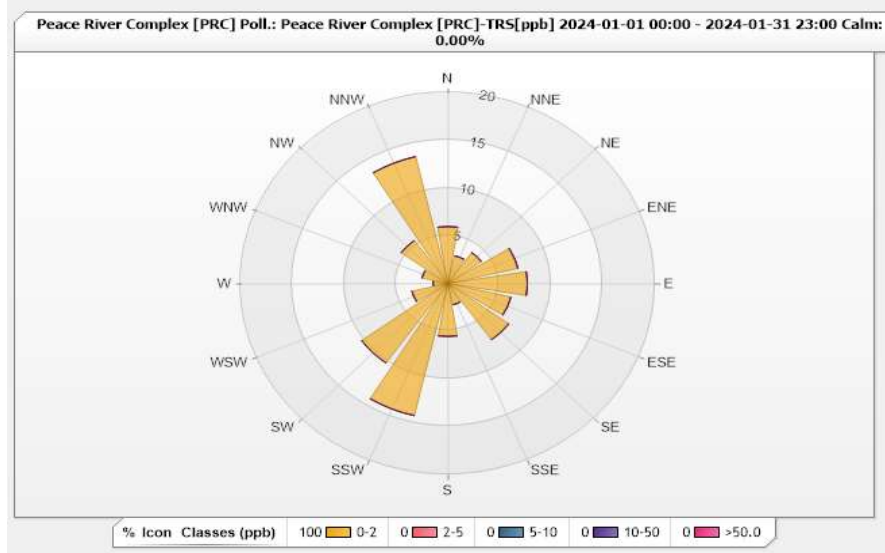


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-TRS[ppb] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 94.62%      Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	5.97	0	0	0	0	5.97
NNE	2.98	0	0	0	0	2.98
NE	3.98	0	0	0	0	3.98
ENE	6.96	0	0	0	0	6.96
E	7.67	0	0	0	0	7.67
ESE	6.25	0	0	0	0	6.25
SE	7.24	0	0	0	0	7.24
SSE	2.27	0	0	0	0	2.27
S	5.54	0	0	0	0	5.54
SSW	14.2	0	0	0	0	14.2
SW	10.23	0	0	0	0	10.23
WSW	3.55	0	0	0	0	3.55
W	1.42	0	0	0	0	1.42
WNW	2.56	0	0	0	0	2.56
NW	5.54	0	0	0	0	5.54
NNW	13.64	0	0	0	0	13.64
Summary	100	0	0	0	0	100



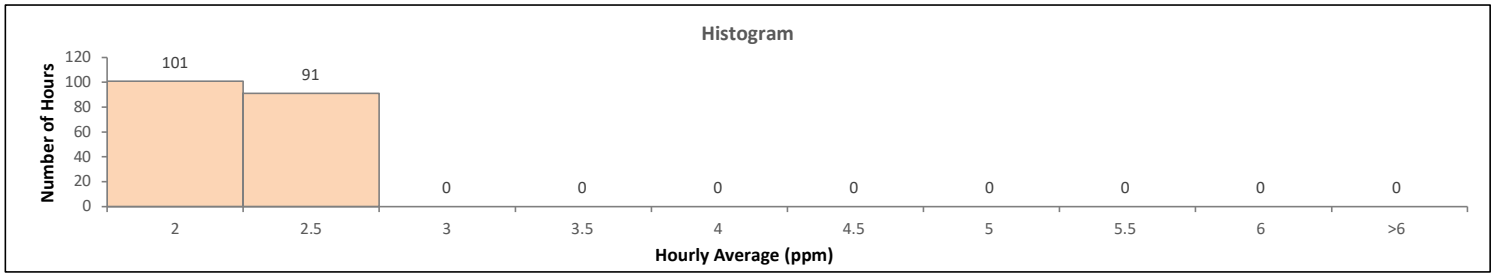
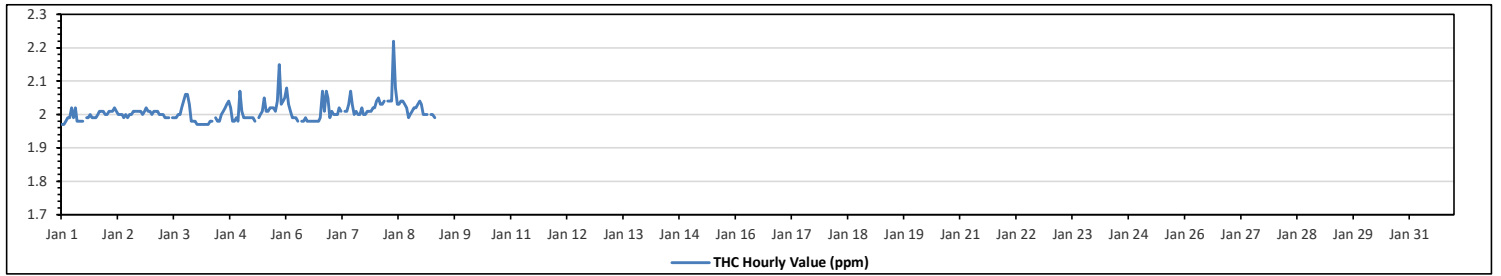
**Peace River Area Monitoring Program**  
**Reno-B Station - January 2024**  
**Summary of Hourly Averages**  
**TOTAL HYDROCARBONS (THC) in ppm**

Maximum Hourly Value:	2.22 ppm	on Jan 8 at hr 9	Hours in Service:	744
Maximum Daily Value:	2.04 ppm	on Jan 8	Hours of Data:	191
Minimum Hourly Value:	1.97 ppm	on Jan 1 at hr 0	Hours of Missing Data:	539
Minimum Daily Value:	1.99 ppm	on Jan 4	Hours of Calibration:	14
Monthly Average:	NA ppm		Operational Uptime:	27.6

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	
Jan 1	1.97	1.97	1.98	1.99	1.99	2.02	1.99	2.02	1.98	1.98	1.98	1.98	S	1.99	1.99	2.00	1.99	1.99	1.99	1.99	2.00	2.01	2.01	2.01	2.00	1.97	2.02	1.99
Jan 2	2.00	2.01	2.01	2.01	2.02	2.01	2.00	2.00	2.00	1.99	2.00	S	2.00	2.00	2.01	2.01	2.01	2.01	2.01	2.01	2.00	2.01	2.02	2.01	2.01	1.99	2.02	2.01
Jan 3	2.00	2.01	2.01	2.01	2.00	2.00	2.00	1.99	1.99	1.99	S	1.99	1.99	1.99	2.00	2.00	2.02	2.04	2.06	2.06	2.03	1.98	1.98	1.98	1.98	1.98	2.06	2.01
Jan 4	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.98	1.98	S	1.99	1.98	1.98	2.00	2.01	2.02	2.03	2.04	2.02	1.98	1.98	1.99	1.98	2.07	1.97	2.07	1.99	
Jan 5	2.01	1.99	1.99	1.99	1.99	1.99	1.99	1.98	S	1.99	2.00	2.01	2.05	2.01	2.01	2.02	2.02	2.02	2.01	2.04	2.15	2.03	2.04	2.05	1.98	2.15	2.02	
Jan 6	2.08	2.03	2.01	1.99	1.99	1.99	1.99	S	1.98	1.98	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.99	2.07	2.01	2.07	2.05	1.99	1.98	2.08	2.00	
Jan 7	2.01	2.00	2.00	2.00	2.02	2.01	S	2.01	2.01	2.03	2.07	2.03	2.00	2.01	2.00	2.00	2.02	2.00	2.01	2.01	2.01	2.01	2.02	2.02	2.00	2.07	2.01	
Jan 8	2.04	2.05	2.03	2.03	2.04	S	2.04	2.04	2.04	2.22	2.08	2.03	2.03	2.04	2.04	2.03	2.02	1.99	2.00	2.01	2.02	2.02	2.03	2.04	1.99	2.22	2.04	
Jan 9	2.03	2.00	2.00	2.00	S	2.00	2.00	1.99	C	C	C	C	C	C	X	X	X	X	X	X	X	X	X	X	1.99	2.03	NA	
Jan 10	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	-	-	-
Jan 11	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	-	-	-
Jan 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	X	-	-	-
Jan 13	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	-	-	-
Jan 14	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	-	-	-
Jan 15	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	-	-	-
Jan 16	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	-	-	-
Jan 17	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	-	-	-
Jan 18	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	-	-	-
Jan 19	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	-	-	-
Jan 20	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	-	-	-
Jan 21	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	-	-	-
Jan 22	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	-	-	-
Jan 23	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	-	-	-
Jan 24	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	-	-	-
Jan 25	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	-	-	-
Jan 26	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	-	-	-
Jan 27	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	-	-	-
Jan 28	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	-	-	-
Jan 29	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	-	-	-
Jan 30	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	-	-	-
Jan 31	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	-	-	-
Diurnal Maximum	2.08	2.05	2.03	2.03	2.04	2.02	2.04	2.04	2.04	2.22	2.08	2.03	2.05	2.04	2.04	2.03	2.01	2.03	2.04	2.06	2.07	2.15	2.07	2.05	2.07			
Diurnal Average	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.03	2.02	2.00	2.00	2.00	2.01	2.01	2.01	2.01	2.01	2.01	2.02	2.03	2.02	2.02	2.02			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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.

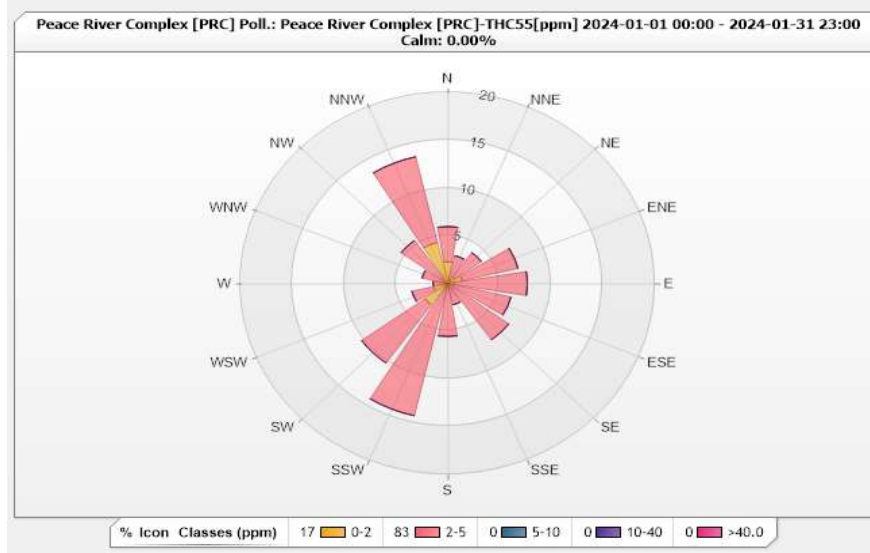


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-THC55[ppm] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 94.62%      Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	2.27	3.69	0	0	0	5.96
NNE	0.43	2.56	0	0	0	2.99
NE	0.85	3.13	0	0	0	3.98
ENE	1.42	5.54	0	0	0	6.96
E	0.57	7.1	0	0	0	7.67
ESE	0	6.25	0	0	0	6.25
SE	0.71	6.53	0	0	0	7.24
SSE	0.14	2.13	0	0	0	2.27
S	0.28	5.26	0	0	0	5.54
SSW	0.43	13.78	0	0	0	14.21
SW	2.7	7.53	0	0	0	10.23
WSW	1.42	2.13	0	0	0	3.55
W	0.14	1.28	0	0	0	1.42
WNW	0.14	2.41	0	0	0	2.55
NW	0.71	4.83	0	0	0	5.54
NNW	4.4	9.23	0	0	0	13.63
Summary	16.61	83.38	0	0	0	100



Peace River Area Monitoring Program

Reno-B Station - January 2024

Summary of Hourly Averages

METHANE (CH4) in ppm

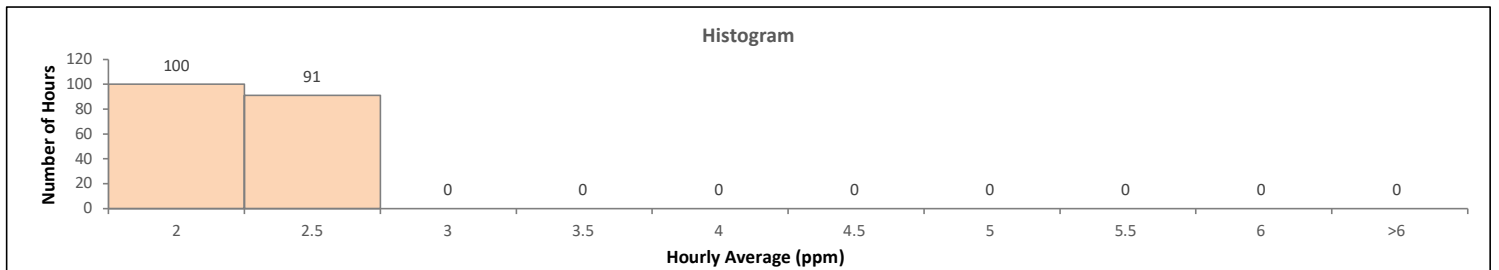
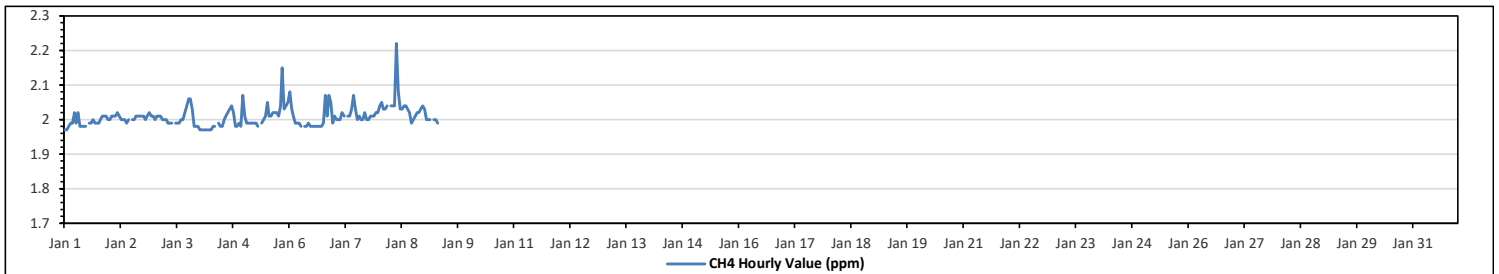
Maximum Hourly Value:	2.22	ppm	on Jan 8 at hr 9	Hours in Service:	744
Maximum Daily Value:	2.04	ppm	on Jan 8	Hours of Data:	191
Minimum Hourly Value:	1.97	ppm	on Jan 1 at hr 0	Hours of Missing Data:	539
Minimum Daily Value:	1.99	ppm	on Jan 4	Hours of Calibration:	14
Monthly Average:	NA	ppm		Operational Uptime:	27.6

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	
Jan 1	1.97	1.97	1.98	1.99	1.99	2.02	1.99	2.02	1.98	1.98	1.98	1.98	S	1.99	1.99	2.00	1.99	1.99	1.99	1.99	2.00	2.01	2.01	2.01	2.00	1.97	2.02	1.99
Jan 2	2.00	2.01	2.01	2.01	2.02	2.01	2.00	2.00	2.00	1.99	2.00	S	2.00	2.00	2.01	2.01	2.01	2.01	2.01	2.01	2.00	2.01	2.02	2.01	2.01	1.99	2.02	2.01
Jan 3	2.00	2.01	2.01	2.01	2.00	2.00	2.00	1.99	1.99	1.99	S	1.99	1.99	1.99	2.00	2.00	2.02	2.04	2.06	2.06	2.03	1.98	1.98	1.98	1.98	1.98	2.06	2.01
Jan 4	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.98	1.98	S	1.99	1.98	1.98	2.00	2.01	2.02	2.03	2.04	2.02	1.98	1.98	1.99	1.98	1.98	1.97	2.07	1.99	
Jan 5	2.01	1.99	1.99	1.99	1.99	1.99	1.99	1.98	S	1.99	2.00	2.01	2.05	2.01	2.01	2.02	2.02	2.02	2.01	2.04	2.15	2.03	2.04	2.05	1.98	2.15	2.02	
Jan 6	2.08	2.03	2.01	1.99	1.99	1.99	1.98	S	1.98	1.98	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.99	2.07	2.01	2.07	2.05	1.99	1.98	2.08	2.00	
Jan 7	2.01	2.00	2.00	2.00	2.02	2.01	S	2.01	2.01	2.03	2.07	2.00	2.01	2.00	2.01	2.00	2.00	2.02	2.00	2.01	2.01	2.01	2.02	2.02	2.00	2.07	2.01	
Jan 8	2.04	2.05	2.03	2.03	2.04	S	2.04	2.04	2.04	2.22	2.08	2.03	2.03	2.04	2.04	2.03	2.02	1.99	2.00	2.01	2.02	2.02	2.03	2.04	1.99	2.22	2.04	
Jan 9	2.03	2.00	2.00	2.00	S	2.00	2.00	1.99	C	C	C	C	C	C	X	X	X	X	X	X	X	X	X	X	1.99	2.03	NA	
Jan 10	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	-	-	-
Jan 11	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	-	-	-
Jan 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	X	-	-	-
Jan 13	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	-	-	-
Jan 14	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	-	-	-
Jan 15	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	-	-	-
Jan 16	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	-	-	-
Jan 17	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	-	-	-
Jan 18	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	-	-	-
Jan 19	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	-	-	-
Jan 20	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	-	-	-
Jan 21	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	-	-	-
Jan 22	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	-	-	-
Jan 23	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	-	-	-
Jan 24	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	-	-	-
Jan 25	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	-	-	-
Jan 26	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	-	-	-
Jan 27	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	-	-	-
Jan 28	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	-	-	-
Jan 29	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	-	-	-
Jan 30	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	-	-	-
Jan 31	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	-	-	-
Diurnal Maximum	2.08	2.05	2.03	2.03	2.04	2.02	2.04	2.04	2.04	2.22	2.08	2.03	2.05	2.04	2.04	2.03	2.01	2.03	2.04	2.06	2.07	2.15	2.07	2.05	2.07			
Diurnal Average	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.02	2.02	2.00	2.00	2.00	2.01	2.01	2.01	2.01	2.01	2.01	2.02	2.03	2.02	2.02	2.02			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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

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

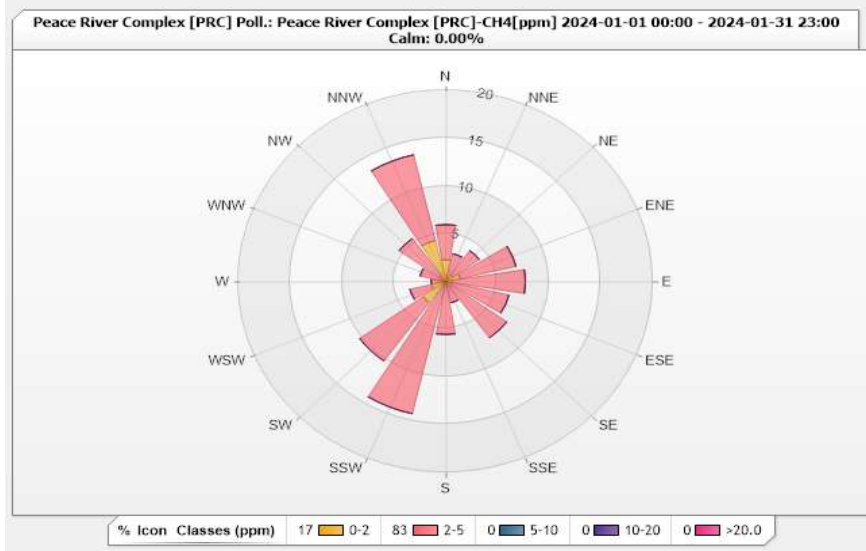


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-CH4[ppm] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 94.62%      Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	2.27	3.69	0	0	0	5.96
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ENE	1.42	5.54	0	0	0	6.96
E	0.57	7.1	0	0	0	7.67
ESE	0	6.25	0	0	0	6.25
SE	0.71	6.53	0	0	0	7.24
SSE	0.14	2.13	0	0	0	2.27
S	0.28	5.26	0	0	0	5.54
SSW	0.43	13.78	0	0	0	14.21
SW	2.7	7.53	0	0	0	10.23
WSW	1.42	2.13	0	0	0	3.55
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WNW	0.14	2.41	0	0	0	2.55
NW	0.71	4.83	0	0	0	5.54
NNW	4.4	9.23	0	0	0	13.63
Summary	16.61	83.38	0	0	0	100



**Peace River Area Monitoring Program**

**Reno-B Station - January 2024**

**Summary of Hourly Averages**

**NON-METHANE HYDROCARBONS (NMHC) in ppm**

Maximum Hourly Value:	0.00 ppm	on Jan 1 at hr 0	Hours in Service:	744
Maximum Daily Value:	0.00 ppm	on Jan 1	Hours of Data:	191
Minimum Hourly Value:	0.00 ppm	on Jan 1 at hr 0	Hours of Missing Data:	539
Minimum Daily Value:	0.00 ppm	on Jan 1	Hours of Calibration:	14
Monthly Average:	NA ppm		Operational Uptime:	27.6

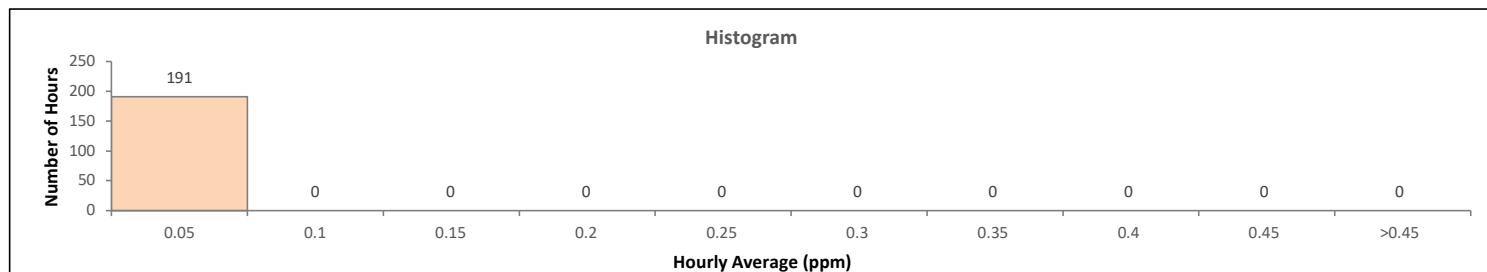
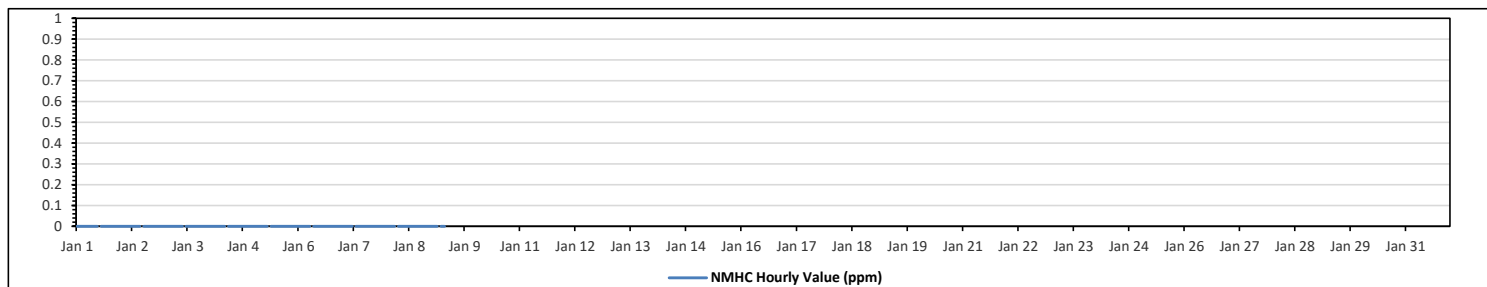
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average										
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23									
Jan 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Jan 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	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		
Jan 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	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		
Jan 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	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		
Jan 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Jan 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	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		
Jan 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	0.00	0.00	0.00	0.00	0.00	0.00		
Jan 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Jan 9	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	C	C	C	C	C	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0.00	0.00	NA
Jan 10	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	X	X	X	X	X	X	X	X	-	-	-
Jan 11	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	X	X	X	X	X	X	X	X	-	-	-
Jan 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	X	X	X	X	X	X	X	X	X	-	-	-
Jan 13	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	X	X	X	X	X	X	X	X	-	-	-
Jan 14	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	X	X	X	X	X	X	X	X	-	-	-
Jan 15	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	X	X	X	X	X	X	X	X	-	-	-
Jan 16	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	X	X	X	X	X	X	X	X	-	-	-
Jan 17	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	X	X	X	X	X	X	X	X	-	-	-
Jan 18	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	X	X	X	X	X	X	X	X	-	-	-
Jan 19	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	X	X	X	X	X	X	X	X	-	-	-
Jan 20	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	X	X	X	X	X	X	X	X	-	-	-
Jan 21	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	X	X	X	X	X	X	X	X	-	-	-
Jan 22	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	X	X	X	X	X	X	X	X	-	-	-
Jan 23	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	X	X	X	X	X	X	X	X	-	-	-
Jan 24	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	X	X	X	X	X	X	X	X	-	-	-
Jan 25	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	X	X	X	X	X	X	X	X	-	-	-
Jan 26	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	X	X	X	X	X	X	X	X	-	-	-
Jan 27	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	X	X	X	X	X	X	X	X	-	-	-
Jan 28	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	X	X	X	X	X	X	X	X	-	-	-
Jan 29	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	X	X	X	X	X	X	X	X	-	-	-
Jan 30	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	X	X	X	X	X	X	X	X	-	-	-
Jan 31	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	X	X	X	X	X	X	X	X	-	-	-
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	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	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	ND	No Data (Machine Not in Service)	Y	Routine Maintenance
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 Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

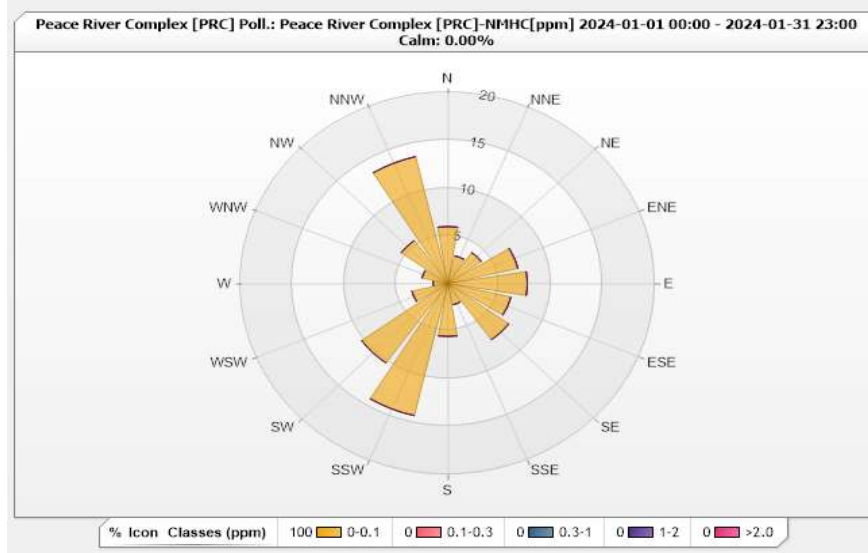


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-NMHC[ppm] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 94.62%      Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	5.97	0	0	0	0	5.97
NNE	2.98	0	0	0	0	2.98
NE	3.98	0	0	0	0	3.98
ENE	6.96	0	0	0	0	6.96
E	7.67	0	0	0	0	7.67
ESE	6.25	0	0	0	0	6.25
SE	7.24	0	0	0	0	7.24
SSE	2.27	0	0	0	0	2.27
S	5.54	0	0	0	0	5.54
SSW	14.2	0	0	0	0	14.2
SW	10.23	0	0	0	0	10.23
WSW	3.55	0	0	0	0	3.55
W	1.42	0	0	0	0	1.42
WNW	2.56	0	0	0	0	2.56
NW	5.54	0	0	0	0	5.54
NNW	13.64	0	0	0	0	13.64
Summary	100	0	0	0	0	100





**Peace River Area Monitoring Program**

**Reno-B Station - January 2024**

**Summary of Hourly Averages**

**RELATIVE HUMIDITY (RH) in %**

Maximum Hourly Value:	100 %	on Jan 2 at hr 15	Hours in Service:	744
Maximum Daily Value:	98.5 %	on Jan 3	Hours of Data:	729
Minimum Hourly Value:	44 %	on Jan 31 at hr 15	Hours of Missing Data:	15
Minimum Daily Value:	60.3 %	on Jan 31	Hours of Calibration:	0
Monthly Average:	81.0 %		Operational Uptime:	98.0

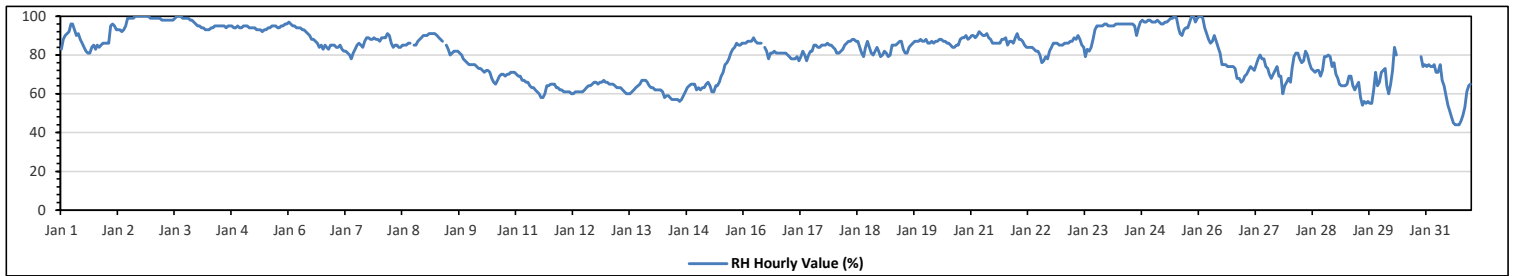
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
Jan 1	83	88	90	91	92	96	96	93	90	91	88	86	84	82	81	81	84	85	83	85	84	85	86	86	81	96	87.1	
Jan 2	86	86	95	96	95	93	93	93	92	93	95	99	99	99	99	99	100	100	100	100	100	100	100	99	86	100	96.3	
Jan 3	99	99	99	99	99	98	98	98	98	98	98	98	99	100	100	100	99	99	99	99	98	98	97	96	96	100	98.5	
Jan 4	95	95	94	94	93	93	93	94	94	95	95	95	95	95	95	94	95	95	95	94	94	95	94	94	93	95	94.4	
Jan 5	95	95	95	94	94	94	94	93	93	93	92	93	93	94	94	95	95	95	94	94	95	95	96	96	92	96	94.2	
Jan 6	97	96	95	95	94	94	94	93	93	92	91	90	88	88	87	86	84	85	83	85	84	83	85	85	83	97	89.5	
Jan 7	85	84	84	85	83	82	82	81	80	78	81	83	85	86	85	84	87	89	89	88	88	89	88	88	78	89	84.8	
Jan 8	87	89	89	89	91	90	86	84	85	85	84	84	85	85	85	86	86	K	85	85	87	88	89	90	84	91	86.7	
Jan 9	90	90	91	91	91	90	89	88	87	K	85	83	80	81	82	82	82	82	81	80	78	77	76	75	75	91	84.3	
Jan 10	75	75	75	74	73	73	72	71	72	72	71	68	66	65	67	69	70	69	70	70	71	71	71	71	65	75	70.8	
Jan 11	70	69	69	67	67	66	66	64	63	63	62	61	60	58	58	60	64	64	65	65	65	63	63	62	58	70	63.9	
Jan 12	62	61	61	61	61	60	60	61	61	61	61	61	62	63	64	64	65	66	66	65	66	66	67	66	60	67	63.0	
Jan 13	66	65	65	65	64	63	63	63	62	61	60	60	60	61	62	63	64	65	67	67	67	66	64	63	60	67	63.6	
Jan 14	63	62	62	62	62	61	58	59	59	58	57	57	57	57	56	57	59	61	63	64	65	65	65	62	56	65	60.5	
Jan 15	63	62	63	63	65	66	64	61	61	64	64	66	69	71	75	76	78	81	83	84	86	85	85	86	61	86	71.7	
Jan 16	86	86	87	87	87	89	87	86	86	86	K	84	82	78	81	81	82	81	81	81	81	81	81	80	78	89	83.5	
Jan 17	79	78	78	78	79	77	79	82	80	77	80	82	82	85	85	84	84	85	85	85	86	85	85	84	77	86	81.8	
Jan 18	83	81	81	82	83	85	86	87	87	88	88	87	87	84	81	79	84	87	84	81	80	82	84	82	79	88	83.9	
Jan 19	79	80	82	81	79	80	85	85	85	86	87	87	83	81	81	84	85	86	87	87	87	88	87	87	79	88	84.1	
Jan 20	88	86	86	87	86	87	87	88	88	87	87	86	86	85	84	84	85	85	88	89	89	90	88	89	84	90	86.9	
Jan 21	90	90	89	90	92	91	90	90	91	89	88	86	86	86	86	86	88	88	89	85	87	87	86	89	85	92	88.3	
Jan 22	91	88	88	87	85	84	84	84	84	83	82	82	80	76	77	79	78	82	84	86	86	86	85	85	76	91	83.6	
Jan 23	85	86	86	86	87	87	89	88	90	88	85	84	79	83	82	84	88	93	95	95	95	96	96	79	96	88.4		
Jan 24	95	95	95	95	96	96	96	96	96	96	96	96	96	96	95	90	94	97	98	97	97	98	98	97	90	98	95.9	
Jan 25	97	97	98	97	96	96	97	97	98	99	99	100	99	94	91	90	93	94	94	97	100	100	97	99	90	100	96.6	
Jan 26	100	100	99	94	91	88	86	87	90	87	84	81	75	75	74	74	74	74	74	73	68	68	66	67	66	100	81.3	
Jan 27	69	70	72	74	73	72	75	78	80	78	78	74	73	70	68	70	72	74	69	69	60	64	66	68	60	80	71.5	
Jan 28	66	73	79	81	81	78	76	77	82	80	76	73	72	71	72	72	69	72	79	79	80	79	74	76	66	82	75.7	
Jan 29	70	68	65	64	64	64	65	69	69	64	62	64	66	58	54	56	55	56	55	62	71	64	66	66	54	71	62.8	
Jan 30	71	72	73	64	60	65	72	84	80	P	P	P	P	P	P	P	P	P	P	P	P	P	79	74	75	60	84	NA
Jan 31	74	75	74	74	75	71	71	75	67	64	59	54	51	48	45	44	44	44	46	49	53	61	64	65	44	75	60.3	
Diurnal Maximum	100	100	99	99	99	98	98	98	98	99	99	100	99	100	100	100	100	100	100	100	100	100	100	99				
Diurnal Average	81.9	82.0	82.5	82.2	81.9	81.6	81.7	82.3	82.1	81.4	80.4	80.2	79.4	78.5	78.2	78.5	79.6	80.5	81.0	81.1	81.3	81.9	81.3	81.4				

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

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



**Peace River Area Monitoring Program**  
**Reno-B Station - January 2024**  
**Summary of Hourly Averages**  
**BAROMETRIC PRESSURE (BP) in millibar**

Maximum Hourly Value:	964	mb	on Jan 18 at hr 10	Hours in Service:	744
Maximum Daily Value:	962	mb	on Jan 18	Hours of Data:	729
Minimum Hourly Value:	922	mb	on Jan 31 at hr 22	Hours of Missing Data:	15
Minimum Daily Value:	928	mb	on Jan 31	Hours of Calibration:	0
Monthly Average:	941	mb		Operational Uptime:	98.0

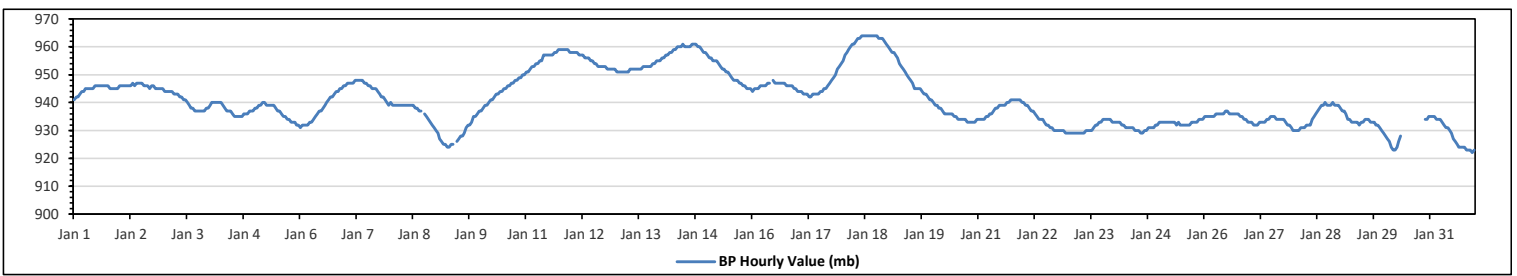
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
Jan 1	941	942	942	943	944	944	945	945	945	945	946	946	946	946	946	946	946	946	946	945	945	945	945	945	941	946	945	
Jan 2	946	946	946	946	946	946	946	947	946	947	947	947	946	946	946	945	946	946	945	945	945	945	945	945	945	947	946	
Jan 3	944	944	944	944	944	943	943	943	942	942	941	941	940	939	938	938	937	937	937	937	937	937	937	938	938	937	944	940
Jan 4	939	940	940	940	940	940	940	939	938	937	937	937	936	935	935	935	935	936	936	936	936	937	937	937	935	940	937	
Jan 5	938	938	939	939	940	940	939	939	939	939	939	938	937	937	936	935	935	934	934	933	933	933	932	932	932	940	937	
Jan 6	931	932	932	932	932	933	933	934	935	936	937	937	938	939	940	941	942	942	943	944	944	945	945	946	931	946	938	
Jan 7	946	947	947	947	947	948	948	948	948	948	947	947	946	946	945	945	945	944	943	942	942	941	940	939	939	948	945	
Jan 8	940	939	939	939	939	939	939	939	939	939	939	939	938	938	937	937	K	936	935	934	933	932	931	931	940	937		
Jan 9	930	929	927	926	925	925	924	924	925	925	K	926	927	928	928	929	931	932	932	933	935	935	936	937	924	937	929	
Jan 10	937	938	939	939	940	941	941	942	943	943	944	944	945	945	946	946	947	947	948	948	949	949	950	950	937	950	944	
Jan 11	951	951	952	953	953	954	954	955	955	957	957	957	957	957	957	958	958	959	959	959	959	959	959	958	951	959	956	
Jan 12	958	958	958	958	957	957	957	956	956	956	955	955	954	954	953	953	953	953	952	952	952	952	952	952	952	958	955	
Jan 13	951	951	951	951	951	951	951	952	952	952	952	952	952	952	953	953	953	953	953	954	954	955	955	955	951	955	952	
Jan 14	956	956	957	957	958	958	959	959	960	960	960	961	960	960	960	961	961	961	960	960	959	958	958	956	961	959	959	
Jan 15	957	956	956	955	955	955	954	953	952	952	951	951	950	949	948	948	948	947	947	946	946	945	945	945	944	948	946	
Jan 16	944	945	945	945	946	946	946	946	947	947	K	948	947	947	947	947	947	947	946	946	946	945	945	944	948	946	946	
Jan 17	944	944	944	943	943	943	942	942	943	943	943	943	944	944	945	945	946	947	948	949	950	952	953	954	942	954	946	
Jan 18	955	957	958	959	960	961	961	962	963	963	964	964	964	964	964	964	964	964	964	963	963	963	962	961	955	964	962	
Jan 19	960	959	958	958	957	956	954	953	952	951	950	949	948	947	945	945	945	944	943	943	942	941	941	941	941	960	949	
Jan 20	940	939	939	938	938	937	936	936	936	936	936	935	935	934	934	934	934	934	933	933	933	933	933	933	933	940	935	
Jan 21	934	934	934	934	935	935	936	936	937	938	938	939	939	939	939	940	940	941	941	941	941	941	941	941	934	941	938	
Jan 22	940	939	939	938	937	937	936	935	934	934	934	933	932	932	931	931	930	930	930	930	930	929	929	929	929	940	933	
Jan 23	929	929	929	929	929	929	929	929	930	930	930	930	931	932	932	933	933	934	934	934	934	934	933	933	929	934	931	
Jan 24	933	933	933	933	932	932	931	931	931	931	931	930	930	930	929	929	930	930	931	931	931	931	931	932	929	933	931	
Jan 25	933	933	933	933	933	933	933	933	933	932	933	932	932	932	932	932	932	933	933	933	933	933	934	934	932	934	933	
Jan 26	935	935	935	935	935	935	936	936	936	936	936	937	937	936	936	936	936	936	936	935	935	934	934	933	933	937	935	
Jan 27	933	933	932	932	932	933	933	933	933	934	934	935	935	935	934	934	934	934	934	932	932	932	931	930	930	935	933	
Jan 28	930	930	930	931	931	931	932	932	932	934	935	936	937	938	939	939	940	939	939	939	940	939	939	939	930	940	935	
Jan 29	938	937	937	936	934	934	933	933	933	933	932	933	933	934	934	933	933	933	932	932	931	930	929	929	929	938	933	
Jan 30	928	927	926	924	923	923	924	926	928	P	P	P	P	P	P	P	P	P	P	P	P	P	P	934	934	935	NA	
Jan 31	935	935	935	934	934	934	933	932	931	931	930	929	927	926	925	924	924	924	924	923	923	923	922	923	922	935	928	
Diurnal Maximum	960	959	958	959	960	961	961	962	963	963	964	964	964	964	964	964	964	964	964	963	963	963	962	961				
Diurnal Average	941	941	941	941	941	941	941	941	941	942	942	942	941	941	941	941	941	942	941	941	941	941	941	941				

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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 days is not met.  
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

Reno-B Station - January 2024

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

Maximum Hourly Value:	10.1 °C	on Jan 29 at hr 14	Hours in Service:	744
Maximum Daily Value:	6.7 °C	on Jan 29	Hours of Data:	729
Minimum Hourly Value:	-39.9 °C	on Jan 14 at hr 6	Hours of Missing Data:	15
Minimum Daily Value:	-37.4 °C	on Jan 14	Hours of Calibration:	0
Monthly Average:	-15.9 °C		Operational Uptime:	98.0

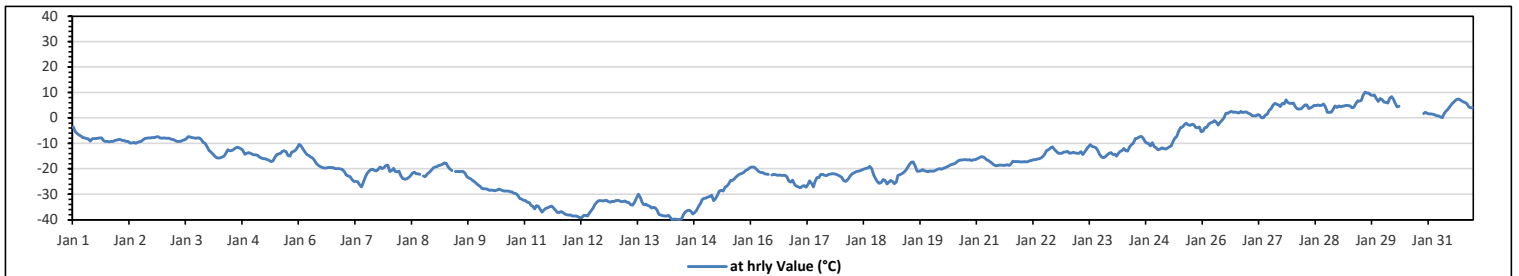
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average			
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23		
Jan 1	-3.5	-5.3	-6.1	-6.7	-7.1	-7.7	-7.9	-8.1	-8.2	-9.1	-8.2	-8.1	-8.1	-8	-7.8	-7.8	-8.8	-9.2	-9.2	-9.4	-9.2	-8.9	-8.7	-9.4	-3.5	-7.9			
Jan 2	-8.5	-8.5	-8.9	-8.9	-9.2	-9.3	-9.8	-9.8	-9.6	-9.9	-9.6	-9.4	-9.2	-8.6	-8.1	-8	-7.9	-7.8	-7.7	-7.7	-7.5	-7.3	-7.9	-8	-9.9	-7.3	-8.6		
Jan 3	-7.9	-8	-8	-8	-8.3	-8.5	-8.9	-9.2	-9.3	-9.2	-8.9	-8.6	-8.2	-7.3	-7.5	-7.7	-7.8	-8	-7.9	-7.9	-8.5	-9.6	-10	-11.2	-11.2	-7.3	-8.5		
Jan 4	-12.7	-13.4	-14.1	-15	-15.6	-15.8	-15.7	-15.4	-14.9	-13.8	-12.4	-12.8	-12.9	-12.5	-11.9	-11.5	-11.7	-12.1	-12.7	-14.2	-13.9	-13.6	-13.9	-14.3	-15.8	-11.5	-13.6		
Jan 5	-14.5	-14.5	-14.8	-15.4	-15.8	-16	-16	-16.4	-16.6	-17.2	-16.9	-15.5	-14.4	-14.1	-13.9	-13.2	-12.9	-13.3	-14.8	-14.9	-13.4	-13.1	-12.6	-11.5	-17.2	-11.5	-14.7		
Jan 6	-10.3	-10.9	-12.2	-13.4	-14.4	-14.8	-15.4	-15.6	-16.5	-17.7	-18.6	-19	-19.4	-19.7	-19.7	-19.5	-19.4	-19.5	-19.5	-19.9	-20	-20	-20.1	-20.3	-20.3	-10.3	-17.3		
Jan 7	-21	-22.4	-22.8	-23	-24.2	-25	-24.9	-25.1	-26.3	-27.1	-25.1	-23.4	-21.8	-20.9	-20.3	-20.2	-20.6	-20.8	-20.2	-19.3	-20	-19.5	-18.7	-18.6	-27.1	-18.6	-22.1		
Jan 8	-21.1	-20.6	-19.8	-21	-21.2	-20.9	-22.8	-23.8	-24.1	-24	-23.4	-22.7	-21.6	-21.3	-21.9	-21.9	-22.2	<b>K</b>	-22.8	-23	-22	-21.5	-20.6	-19.8	-24.1	-19.8	-21.9		
Jan 9	-19.3	-19.1	-18.7	-18.5	-18.2	-17.6	-17.9	-19.1	-20.1	-20.6	<b>K</b>	-21	-21.1	-21.1	-21.1	-21.1	-21.6	-23	-23.5	-23.9	-24.6	-25.1	-25.8	-26.3	-26.3	-17.6	-21.2		
Jan 10	-26.9	-27.7	-27.9	-27.9	-28.1	-28.4	-28.3	-28.4	-28.5	-28.3	-28	-28.2	-28.5	-28.7	-28.7	-28.7	-29	-29.1	-29.6	-29.7	-30.4	-31.6	-31.9	-32.3	-32.3	-26.9	-29.0		
Jan 11	-32.5	-33.1	-33.3	-34.3	-34.8	-35.8	-34.5	-34.7	-35.9	-37	-36.2	-35.5	-35.2	-34.9	-34.6	-35.3	-36.3	-37.1	-37.1	-36.8	-37.1	-37.7	-38	-38.1	-38.1	-32.5	-35.7		
Jan 12	-38.1	-38.6	-38.6	-38.6	-38.8	-39.2	-39.1	-38.2	-38.5	-37.6	-36.5	-35.5	-34	-33.1	-32.4	-32.5	-32.6	-32.5	-32.3	-32.8	-33.1	-32.7	-32.8	-32.8	-39.2	-32.3	-35.7		
Jan 13	-32.5	-32.3	-32.5	-32.9	-32.8	-32.6	<b>-39.1</b>	-33.3	-34.1	-34.2	-33.1	-31.5	-29.9	-31.2	-33.2	-34.1	-33.9	-34.4	-34.7	-35.3	-35.1	-35.2	-36.2	-37.8	-37.8	-29.9	-33.6		
Jan 14	-38.1	-38.4	-38.6	-38.5	-38.2	-39.1	<b>-39.9</b>	-39.8	-39.8	<b>-39.9</b>	<b>-39.9</b>	-39.6	-37.8	-36.9	-36.4	-36.3	-36.8	-37.7	-37.1	-36.3	-34.8	-33.6	-32.1	-31.6	<b>-39.9</b>	-31.6	<b>-37.4</b>		
Jan 15	-31.4	-31.1	-30.9	-30.3	-32.5	-31.8	-30.3	-28.7	-28.4	-28.7	-27.2	-26.9	-25.9	-24.5	-24.5	-24.1	-23.2	-22.6	-22	-21.8	-21.5	-20.7	-20.3	-19.6	-32.5	-19.6	-26.2		
Jan 16	-19.2	-19.2	-19.5	-20.3	-21	-21.5	-21.5	-21.9	-22	-22.2	<b>K</b>	-22.4	-22.2	-22.3	-22.6	-22.5	-22.6	-22.6	-22.6	-22.6	-23	-24.8	-25.2	-24.4	-26.1	-26.1	-19.2	-22.2	
Jan 17	-26.9	-27.1	-27.4	-26.9	-26.6	-27.2	-26.1	-24.7	-25.6	-27	-25	-23.4	-23.4	-22.2	-22.1	-22.6	-22.7	-22.2	-22	-21.9	-21.9	-22.1	-22.4	-22.8	-27.4	-21.9	-24.3		
Jan 18	-23.3	-24.5	-24.9	-24.4	-23.5	-22.5	-21.7	-21.4	-21.1	-20.9	-20.6	-20.3	-20.1	-19.8	-19.7	-19	-20	-22.3	-23.8	-25.1	-25.7	-25.4	-24.2	-24.5	-25.7	-19.0	-22.4		
Jan 19	-25.9	-25.3	-24.6	-25	-25.8	-25.2	-22.6	-22.3	-21.9	-21.4	-20.6	-19.5	-18.3	-17.4	-17.3	-18.9	-20.9	-20.9	-20.8	-20.3	-20.8	-20.9	-21.2	-20.8	-25.9	-17.3	-21.6		
Jan 20	-20.9	-20.9	-20.5	-20.2	-20	-20.2	-19.8	-19.5	-19.1	-18.8	-18.4	-18.2	-18	-17.4	-16.8	-16.5	-16.5	-16.4	-16.4	-16.5	-16.4	-16.7	-16.4	-16.4	-20.9	-16.4	-18.2		
Jan 21	-16	-15.6	-15.3	-15.3	-15.7	-16.3	-16.8	-17.3	-17.9	-18.5	-18.8	-18.7	-18.5	-18.6	-18.7	-18.5	-18.4	-18.7	-18.1	-17	-17.1	-17.1	-17.2	-17.3	-18.8	-15.3	-17.4		
Jan 22	-17.3	-17.2	-17.3	-17.2	-16.8	-16.6	-16.6	-16.3	-16.2	-16.1	-15.6	-15	-14.1	-12.7	-12.4	-11.7	-11.4	-12.3	-13.1	-13.9	-13.9	-13.8	-13.4	-13.4	-17.3	-11.4	-14.8		
Jan 23	-13.2	-13.8	-13.7	-13.5	-13.7	-13.8	-13.9	-13.3	-14.4	-13.5	-12.3	-11.4	-10.5	-11.2	-11.3	-11.6	-12.6	-14.3	-15.3	-15.7	-15.3	-14.5	-13.9	-13.6	-15.7	-10.5	-13.3		
Jan 24	-14.4	-14.3	-15	-13.8	-13.1	-12.7	-12	-12.8	-13	-11.3	-10.5	-9.8	-8.1	-8	-7.4	-7.2	-7.9	-9.3	-9.8	-9.9	-10.9	-9.7	-11.2	-11.8	-15.0	-7.2	-11.0		
Jan 25	-12.4	-12.2	-11.7	-12	-12.2	-11.9	-11.4	-11	-9.3	-7.9	-7.3	-5.4	-3.9	-3.6	-2.7	-2.1	-2.7	-2.9	-2.5	-2.7	-3.9	-3.8	-3.5	-5.5	-12.4	-2.1	-6.9		
Jan 26	-5.1	-3.9	-3.7	-2.5	-1.9	-1.6	-1.1	-1.7	-2.8	-1.7	-0.9	0	1.8	1.9	2.2	2.6	2.3	2.4	2.1	2	2.6	2.1	2.4	2.4	-5.1	2.6	0.0		
Jan 27	1.8	1.6	0.9	0.8	0.9	1.3	1.1	0.1	0.1	1.1	1.5	2.9	3.6	5	5.7	5.3	5.2	4.5	5.8	5.4	7.1	6.1	5.7	5.8	0.1	7.1	3.3		
Jan 28	5.9	4.4	3.6	3.5	3.6	4.4	5.2	5.1	3.8	4	4.4	5	4.9	5.1	4.9	5	5.4	4.3	2.3	2.2	3.3	3.3	4.8	4.1	2.2	5.9	4.2		
Jan 29	4.7	4.4	4.6	4.8	5	4.9	4.7	4	4.2	5.6	6.7	6.6	6.8	9	<b>10.1</b>	9.8	9.7	9.1	8.9	9	7.7	6.5	7.7	7.3	4.0	<b>10.1</b>	<b>6.7</b>		
Jan 30	6.3	6.2	5.9	7.8	8.4	7.3	5.8	4.4	4.6	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	1.7	2.2	1.8	1.7	8.4	NA
Jan 31	1.6	1.6	1.5	1.2	0.9	0.8	0.5	0.1	1.7	2.7	3.5	4.5	5.4	6.1	6.8	7.4	7.4	6.9	6.4	6.1	5.6	4.4	4	4.1	0.1	7.4	3.8		
Diurnal Maximum	6.3	6.2	5.9	7.8	8.4	7.3	5.8	5.1	4.6	5.6	6.7	6.6	6.8	9.0	10.1	9.8	9.7	9.1	8.9	9.0	7.7	6.5	7.7	7.3					
Diurnal Average	-15.9	-16.1	-16.3	-16.3	-16.5	-16.6	-16.5	-16.6	-16.8	-17.4	-16.4	-16.1	-15.5	-15.0	-14.8	-14.7	-15.0	-15.2	-15.7	-15.8	-15.9	-15.4	-15.2	-15.4					

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

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



**Peace River Area Monitoring Program**  
**Reno-B Station - January 2024**  
**Summary of Hourly Averages**  
**STATION TEMPERATURE (ST) in Degree Celsius**

Maximum Hourly Value:	24.4 °C	on Jan 12 at hr 0	Hours in Service:	744
Maximum Daily Value:	24.0 °C	on Jan 12	Hours of Data:	732
Minimum Hourly Value:	20.7 °C	on Jan 9 at hr 13	Hours of Missing Data:	12
Minimum Daily Value:	22.5 °C	on Jan 31	Hours of Calibration:	0
Monthly Average:	23.3 °C		Operational Uptime:	98.4

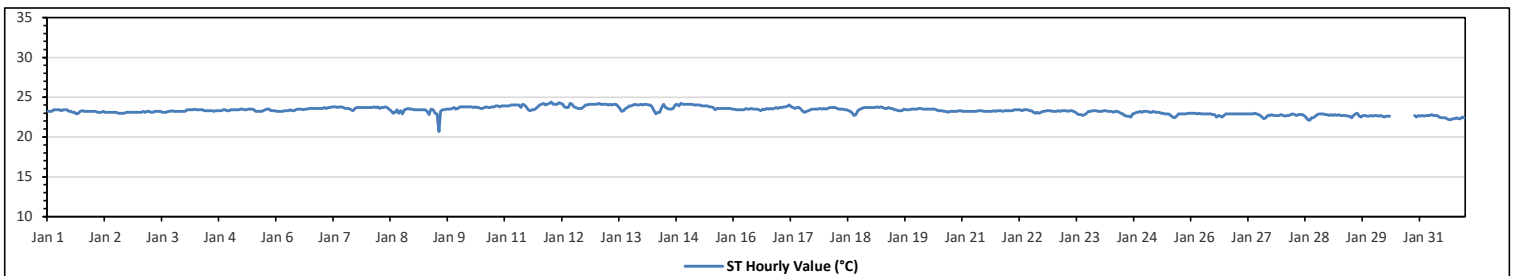
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23
Jan 1	23.2	23.2	23.2	23.4	23.4	23.4	23.4	23.3	23.4	23.4	23.4	23.2	23.2	23.1	23.1	22.9	23.0	23.2	23.3	23.2	23.2	23.2	23.2	23.2	22.9	23.4	23.2
Jan 2	23.2	23.2	23.1	23.1	23.1	23.2	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.0	23.0	23.0	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.0	23.2	23.1
Jan 3	23.1	23.1	23.2	23.1	23.2	23.2	23.1	23.1	23.2	23.2	23.2	23.2	23.1	23.1	23.1	23.2	23.2	23.3	23.2	23.2	23.2	23.2	23.2	23.2	23.1	23.3	23.2
Jan 4	23.2	23.4	23.4	23.4	23.4	23.5	23.4	23.4	23.4	23.4	23.3	23.3	23.3	23.3	23.3	23.2	23.2	23.3	23.3	23.3	23.3	23.4	23.4	23.3	23.2	23.5	23.3
Jan 5	23.4	23.4	23.4	23.4	23.4	23.5	23.5	23.4	23.4	23.4	23.5	23.5	23.4	23.2	23.2	23.2	23.3	23.4	23.5	23.5	23.5	23.4	23.3	23.3	23.2	23.5	23.4
Jan 6	23.2	23.2	23.2	23.2	23.3	23.3	23.3	23.4	23.3	23.3	23.4	23.5	23.5	23.5	23.4	23.5	23.5	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.2	23.6	23.4
Jan 7	23.6	23.7	23.6	23.7	23.7	23.8	23.8	23.8	23.7	23.8	23.8	23.7	23.6	23.6	23.6	23.4	23.3	23.6	23.7	23.7	23.7	23.7	23.7	23.7	23.3	23.8	23.7
Jan 8	23.7	23.7	23.7	23.8	23.7	23.8	23.6	23.7	23.7	23.8	23.7	23.5	23.3	23.0	23.1	23.4	23.0	23.3	22.9	23.4	23.5	23.6	23.5	23.5	22.9	23.8	23.5
Jan 9	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.2	22.8	23.5	23.4	23.0	22.9	20.7	23.2	23.4	23.4	23.5	23.5	23.6	23.7	23.5	23.6	20.7	23.7	23.7	23.3
Jan 10	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.7	23.8	23.7	23.7	23.6	23.6	23.7	23.8	23.7	23.7	23.8	23.8	23.9	23.8	23.9	23.8	23.9	23.6	23.9	23.8
Jan 11	23.9	23.9	23.9	24.0	24.0	24.0	24.0	24.0	23.7	24.1	24.0	23.8	23.4	23.3	23.4	23.4	23.6	23.8	24.0	24.1	24.2	24.0	24.1	24.2	23.3	24.2	23.9
Jan 12	24.4	24.1	24.1	24.1	24.3	24.2	24.1	23.8	23.7	23.7	24.2	24.1	23.8	23.7	23.6	23.6	23.8	24.0	24.0	24.1	24.1	24.1	24.1	24.1	23.6	24.4	24.0
Jan 13	24.1	24.2	24.1	24.1	24.1	24.1	24.0	24.1	24.0	24.1	24.1	23.9	23.6	23.2	23.3	23.6	23.7	23.9	23.9	24.0	24.1	24.0	24.0	24.1	23.2	24.2	23.9
Jan 14	24.0	24.1	24.1	24.0	24.0	23.8	23.3	22.9	23.1	23.1	23.7	24.1	23.7	23.6	23.5	23.5	23.6	24.0	24.1	23.9	24.2	24.1	24.1	24.1	22.9	24.2	23.8
Jan 15	24.1	24.1	24.1	24.0	24.0	24.0	24.0	23.9	23.9	23.9	23.9	23.8	23.8	23.7	23.4	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.4	24.1	23.8
Jan 16	23.5	23.4	23.4	23.4	23.4	23.4	23.6	23.5	23.5	23.6	23.5	23.5	23.5	23.4	23.3	23.5	23.4	23.6	23.5	23.6	23.5	23.6	23.6	23.7	23.6	23.3	23.7
Jan 17	23.7	23.7	23.8	23.8	23.9	24.0	23.8	23.7	23.6	23.7	23.7	23.5	23.2	23.1	23.2	23.3	23.4	23.5	23.5	23.5	23.6	23.5	23.6	23.5	23.1	24.0	23.6
Jan 18	23.5	23.6	23.7	23.7	23.7	23.7	23.6	23.5	23.5	23.5	23.4	23.4	23.3	23.2	23.0	22.7	22.8	23.3	23.5	23.6	23.7	23.7	23.7	23.7	22.7	23.7	23.5
Jan 19	23.7	23.7	23.7	23.8	23.7	23.8	23.7	23.6	23.6	23.7	23.6	23.6	23.4	23.4	23.3	23.3	23.5	23.4	23.4	23.4	23.5	23.5	23.5	23.5	23.3	23.8	23.5
Jan 20	23.5	23.6	23.6	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.4	23.3	23.3	23.3	23.2	23.2	23.1	23.2	23.2	23.2	23.2	23.2	23.2	23.3	23.1	23.6	23.4
Jan 21	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.3	23.3	23.3	23.2	23.2	23.2	23.2	23.2	23.3	23.2	23.3	23.3	23.3	23.3	23.3	23.2	23.2	23.3	23.2
Jan 22	23.3	23.3	23.3	23.4	23.4	23.4	23.4	23.3	23.4	23.4	23.4	23.4	23.3	23.3	23.1	23.0	23.1	23.0	23.1	23.2	23.2	23.3	23.3	23.3	23.2	23.0	23.4
Jan 23	23.2	23.2	23.3	23.2	23.3	23.3	23.3	23.2	23.3	23.3	23.2	23.1	22.9	22.8	22.8	22.7	22.8	23.0	23.2	23.2	23.3	23.3	23.3	23.2	22.7	23.3	23.1
Jan 24	23.2	23.2	23.3	23.3	23.2	23.2	23.2	23.1	23.2	23.2	23.1	23.0	22.9	22.7	22.6	22.6	22.5	22.9	23.0	23.1	23.1	23.2	23.1	23.2	22.5	23.3	23.0
Jan 25	23.2	23.2	23.1	23.1	23.2	23.1	23.1	23.1	23.0	23.0	22.9	22.9	22.9	22.7	22.5	22.4	22.6	22.9	22.9	22.9	22.9	22.9	22.9	23.0	22.4	23.2	22.9
Jan 26	23.0	23.0	23.0	22.9	23.0	22.9	22.9	22.9	22.9	22.9	22.9	22.8	22.8	22.5	22.5	22.4	22.6	22.5	22.7	22.9	22.9	22.9	22.9	22.9	22.5	23.0	22.8
Jan 27	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	23.0	22.9	22.8	22.7	22.5	22.3	22.4	22.4	22.7	22.7	22.8	22.7	22.7	22.7	22.7	22.7	22.3	23.0	22.8
Jan 28	22.7	22.6	22.7	22.7	22.8	22.9	22.8	22.7	22.8	22.8	22.8	22.7	22.5	22.2	22.1	22.4	22.4	22.6	22.8	22.9	22.9	22.9	22.9	22.8	22.1	22.9	22.7
Jan 29	22.7	22.8	22.7	22.8	22.7	22.8	22.7	22.7	22.7	22.7	22.7	22.6	22.6	22.4	22.7	22.9	23.0	22.6	22.5	22.7	22.7	22.6	22.6	22.6	22.4	23.0	22.7
Jan 30	22.7	22.7	22.6	22.7	22.6	22.5	22.6	22.6	22.6	P	P	P	P	P	P	P	P	P	P	P	P	P	22.7	22.5	22.7	NA	
Jan 31	22.6	22.7	22.6	22.7	22.7	22.7	22.8	22.7	22.7	22.7	22.5	22.4	22.4	22.4	22.3	22.2	22.2	22.3	22.3	22.4	22.3	22.3	22.3	22.2	22.2	22.8	22.5
Diurnal Maximum	24.4	24.2	24.1	24.1	24.3	24.2	24.1	24.1	24.0	24.1	24.2	24.1	23.8	23.7	23.8	23.7	23.7	24.0	24.1	24.1	24.2	24.1	24.1	24.2	23.3	24.2	23.9
Diurnal Average	23.4	23.4	23.4	23.4	23.4	23.4	23.3	23.3	23.3	23.3	23.4	23.3	23.2	23.0	23.1	23.1	23.1	23.3	23.3	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4

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

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



Peace River Area Monitoring Program

Reno-B Station - January 2024

Summary of Hourly Averages

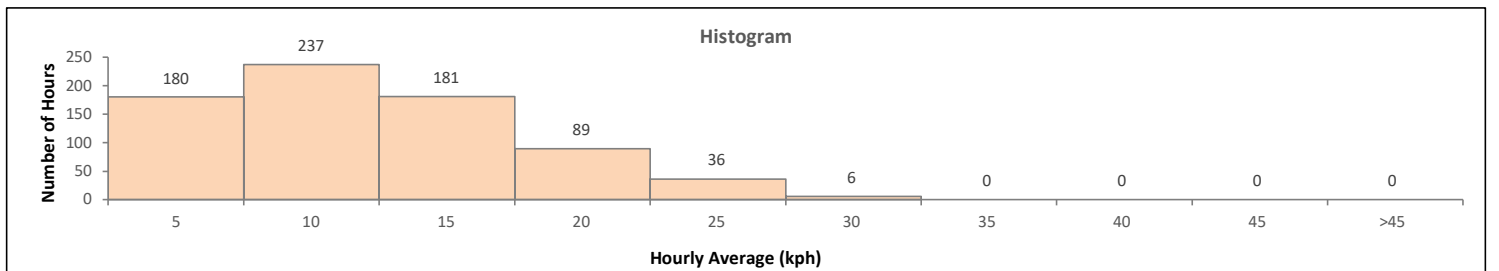
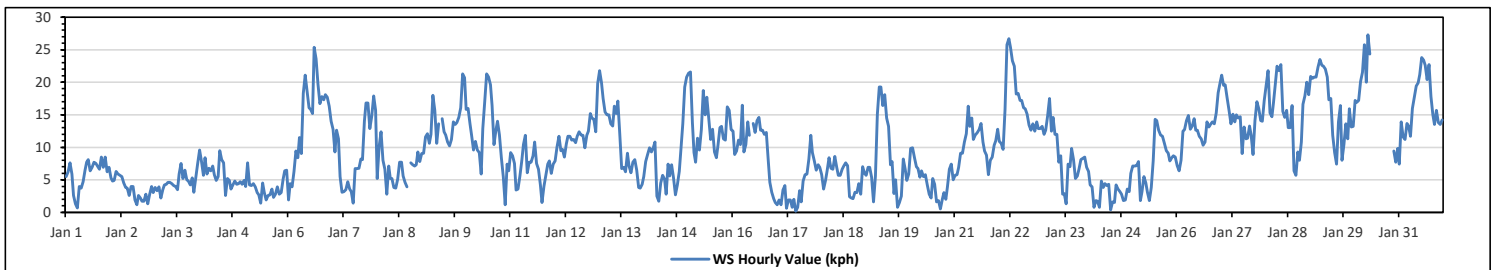
VECTOR WIND SPEED (VWS) in km/hr

Maximum Hourly Value:	27.3	kph	on Jan 30 at hr 7	Hours in Service:	744
Maximum Daily Value:	16.5	kph	on Jan 29	Hours of Data:	729
Minimum Hourly Value:	0.2	kph	on Jan 17 at hr 10	Hours of Missing Data:	15
Minimum Daily Value:	3.1	kph	on Jan 24	Hours of Calibration:	0
Monthly Average:	2.8	kph		Operational Uptime:	98.0

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		
Jan 1	5.5	6.2	7.6	5.9	2.6	1.3	0.7	4.0	3.7	4.7	6.5	7.7	8.1	6.4	6.9	7.7	7.5	7.0	6.6	8.5	6.9	8.5	6.2	6.9	0.7	8.5	6.0		
Jan 2	5.3	4.8	4.9	6.3	5.9	5.7	5.5	4.5	3.8	3.7	2.6	4.0	4.0	1.9	1.2	2.6	2.2	1.7	1.7	2.8	1.3	2.8	4.0	3.0	1.2	6.3	3.6		
Jan 3	3.8	3.3	3.9	2.2	3.5	4.2	4.3	4.6	4.6	4.4	4.1	4.0	3.5	5.9	7.5	5.2	6.5	5.0	4.8	4.2	5.3	3.1	5.3	7.5	2.2	7.5	4.6		
Jan 4	9.6	7.8	5.7	8.4	5.9	6.8	6.4	7.1	5.8	4.9	5.5	9.5	8.1	7.6	2.6	5.2	4.9	3.6	4.2	4.8	4.3	4.4	4.7	4.3	2.6	9.6	5.9		
Jan 5	4.9	4.0	7.6	4.2	4.1	4.4	3.9	3.0	2.7	1.4	4.5	3.1	1.9	2.6	2.7	3.6	2.3	2.8	3.9	2.8	3.0	5.1	6.4	6.5	1.4	7.6	3.8		
Jan 6	1.9	4.4	3.9	6.3	9.4	8.4	11.5	9.0	18.3	21.1	18.6	16.1	15.8	15.2	25.4	23.6	19.7	16.7	17.8	17.3	18.1	17.7	16.3	14.0	1.9	25.4	14.4		
Jan 7	12.8	9.3	12.6	11.3	5.5	3.1	3.2	3.5	4.7	3.6	3.2	1.4	6.7	6.7	6.8	8.2	8.1	14.0	16.8	16.8	12.9	14.8	17.9	15.7	1.4	17.9	9.2		
Jan 8	5.2	10.1	12.4	8.0	6.6	2.8	7.1	5.2	5.2	3.8	3.7	5.1	7.7	7.7	5.6	4.6	3.9	K	7.6	7.3	7.1	7.3	9.3	7.8	2.8	12.4	6.6		
Jan 9	9.0	9.1	11.6	12.1	10.6	12.0	18.0	15.7	10.6	13.6	K	14.4	12.4	11.9	10.8	10.2	11.2	13.9	13.5	13.8	14.6	16.1	21.3	20.7	9.0	21.3	13.4		
Jan 10	15.8	16.0	13.6	11.8	9.6	10.9	9.6	9.2	5.9	12.9	17.0	21.3	20.8	19.6	16.4	10.4	12.6	14.0	11.9	8.4	5.5	1.2	7.4	6.4	1.2	21.3	12.0		
Jan 11	9.2	8.7	7.5	3.4	3.6	5.6	8.0	10.4	11.8	6.1	7.7	7.7	8.7	10.8	7.5	6.6	4.2	1.5	4.0	5.7	7.4	7.9	6.0	7.4	1.5	11.8	7.0		
Jan 12	7.9	10.1	11.7	9.5	9.7	8.5	10.5	11.7	11.7	11.1	11.2	10.7	11.7	12.4	11.9	11.8	9.9	11.8	12.5	15.2	14.5	14.3	12.4	19.8	7.9	19.8	11.8		
Jan 13	21.8	19.9	17.5	15.4	15.0	15.0	13.6	13.3	16.3	15.2	17.1	12.1	6.7	6.9	6.2	9.1	7.1	6.1	7.7	8.1	6.5	3.8	3.7	4.3	3.7	21.8	11.2		
Jan 14	5.5	7.8	8.9	9.9	9.3	10.0	10.8	2.5	1.7	4.5	5.7	5.1	2.8	7.4	5.6	7.3	5.3	2.7	4.2	6.3	9.6	13.6	19.3	20.8	1.7	20.8	7.8		
Jan 15	21.4	21.6	13.8	9.2	7.7	11.4	9.6	12.7	18.7	15.0	17.7	14.5	11.2	12.8	9.3	8.4	10.3	13.0	13.2	11.3	11.1	16.2	15.7	12.7	7.7	21.6	13.3		
Jan 16	12.5	8.9	9.4	11.1	10.4	16.5	9.3	10.4	13.9	11.8	K	13.7	12.3	14.1	14.6	12.6	12.6	12.0	12.3	8.0	4.6	3.1	2.1	1.5	1.5	16.5	10.3		
Jan 17	1.2	1.9	1.2	3.4	4.1	0.6	1.9	1.9	0.8	2.0	0.2	0.8	3.3	1.6	4.8	5.8	5.9	8.2	11.8	9.2	7.9	6.5	7.3	6.9	0.2	11.8	4.1		
Jan 18	5.8	3.6	4.9	6.4	8.4	6.8	6.6	8.6	6.9	5.7	5.7	6.6	7.1	7.6	7.2	2.4	2.2	2.1	3.1	3.0	4.4	2.8	7.0	6.0	2.1	8.6	5.5		
Jan 19	5.7	6.9	6.9	5.4	1.6	5.6	15.1	19.3	19.3	16.4	18.1	14.5	13.2	7.3	7.8	2.9	5.0	0.8	1.5	2.5	8.2	6.6	4.9	5.9	0.8	19.3	8.4		
Jan 20	9.8	9.9	8.4	7.0	6.7	5.4	6.4	5.5	5.8	4.2	2.8	2.2	5.2	4.3	1.6	1.8	0.5	2.0	3.0	2.0	3.9	6.6	7.4	5.0	0.5	9.9	4.9		
Jan 21	5.7	5.8	6.9	9.1	9.1	10.8	12.1	16.3	13.2	14.5	11.2	11.9	12.2	12.7	13.7	10.8	9.4	8.8	5.8	8.0	8.5	10.3	11.0	12.8	5.7	16.3	10.4		
Jan 22	10.9	10.6	9.7	15.8	25.8	26.7	25.4	23.3	22.5	18.2	18.3	17.2	17.2	16.1	15.9	15.1	13.4	12.6	13.6	12.5	13.9	12.9	12.9	13.2	9.7	26.7	16.4		
Jan 23	12.0	12.6	14.8	17.5	12.5	14.6	12.0	12.0	7.7	8.7	2.8	2.9	1.3	7.4	7.0	9.8	8.1	5.2	5.6	6.6	8.1	8.3	8.5	6.9	1.3	17.5	8.9		
Jan 24	6.3	4.2	3.9	0.8	1.8	1.7	0.8	4.8	3.8	4.4	4.1	4.3	0.4	1.6	1.5	4.2	3.6	3.2	2.8	1.8	1.9	3.6	3.2	6.0	0.4	6.3	3.1		
Jan 25	7.1	7.1	7.2	7.8	1.8	3.2	5.5	4.5	3.1	1.8	3.8	7.9	14.3	14.1	12.6	11.9	11.7	10.6	9.5	9.1	7.9	8.4	8.7	8.5	1.8	14.3	7.8		
Jan 26	7.2	6.4	8.0	12.5	12.7	14.1	14.9	12.8	13.3	14.4	12.6	12.6	11.7	11.3	10.3	10.8	13.9	13.1	13.5	13.9	13.6	15.3	18.4	19.9	6.4	19.9	12.8		
Jan 27	21.1	19.5	19.6	17.6	15.7	13.6	15.1	13.9	15.0	14.5	14.7	9.0	13.1	11.3	11.4	13.3	11.9	8.9	14.1	17.0	15.9	14.1	14.0	17.2	8.9	21.1	14.6		
Jan 28	19.5	21.8	15.3	14.7	16.9	19.9	22.5	21.8	22.7	15.5	14.6	15.7	13.0	13.0	16.4	6.4	5.7	9.3	8.0	10.8	16.6	17.9	20.0	18.1	5.7	22.7	15.7		
Jan 29	20.9	20.6	20.8	20.8	22.3	23.5	22.6	22.5	22.0	20.8	17.3	17.5	11.8	9.2	7.4	13.9	16.4	8.0	10.4	13.6	11.3	15.9	13.1	13.2	7.4	23.5	16.5		
Jan 30	17.2	16.9	17.2	20.1	21.5	25.8	20.0	27.3	24.3	P	P	P	P	P	P	P	P	P	P	P	P	P	P	9.4	7.7	9.8	7.7	27.3	NA
Jan 31	7.4	13.9	11.6	11.2	13.7	13.3	11.7	16.0	17.7	19.4	19.9	21.2	23.8	23.4	22.6	20.4	22.7	17.8	15.0	13.5	15.7	13.8	13.5	14.2	7.4	23.8	16.4		
Diurnal Maximum	21.8	21.8	20.8	20.8	25.8	26.7	25.4	27.3	24.3	21.1	19.9	21.3	23.8	23.4	25.4	23.6	22.7	17.8	17.8	17.3	18.1	17.9	21.3	20.8					
Diurnal Average	10.0	10.1	10.0	9.8	9.5	10.1	10.5	10.9	10.9	10.9	9.9	9.7	9.8	9.7	9.7	9.4	8.9	8.6	8.2	8.7	8.8	9.0	9.4	10.2	10.4				

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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.

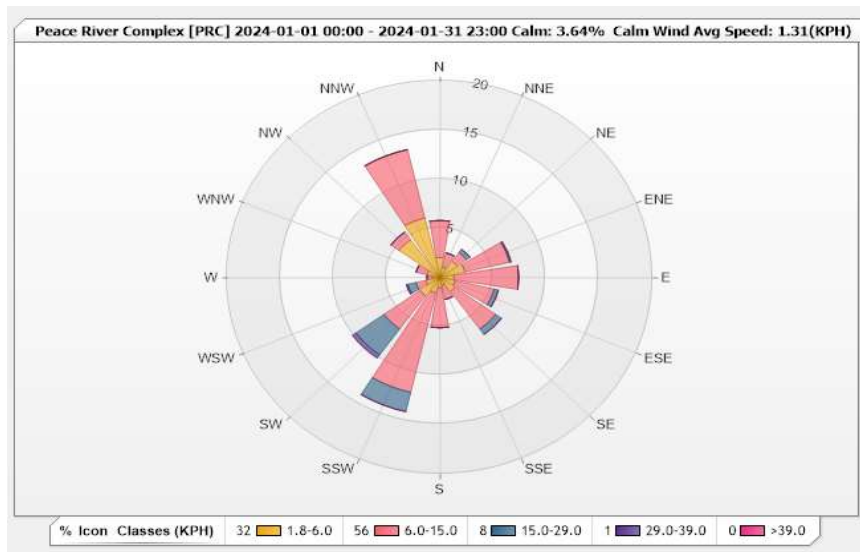


Station: Peace River Complex [PRC] Monitor: WDS [KPH] Monthly: 01-2024

Type: Wind Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm (WS<1.8kph): 3.64% Valid Data: 99.60%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	2.02	3.78	0	0	0	5.8
NNE	1.08	1.48	0	0	0	2.56
NE	2.02	1.08	0.4	0	0	3.5
ENE	2.43	4.32	0.13	0	0	6.88
E	1.35	6.07	0	0	0	7.42
ESE	1.48	3.78	0.4	0	0	5.66
SE	1.75	4.72	0.67	0	0	7.14
SSE	0.81	1.48	0	0	0	2.29
S	1.08	4.05	0	0	0	5.13
SSW	1.62	10.39	2.02	0	0	14.03
SW	2.29	4.18	3.24	0.4	0	10.11
WSW	1.35	0.94	0.81	0.13	0	3.23
W	0.67	0.54	0	0	0	1.21
WNW	1.21	1.08	0	0	0	2.29
NW	4.72	0.94	0	0	0	5.66
NNW	6.21	7.15	0	0	0	13.36
Summary	32.09	55.98	7.67	0.53	0	96.27



Peace River Area Monitoring Program

Reno-B Station - January 2024

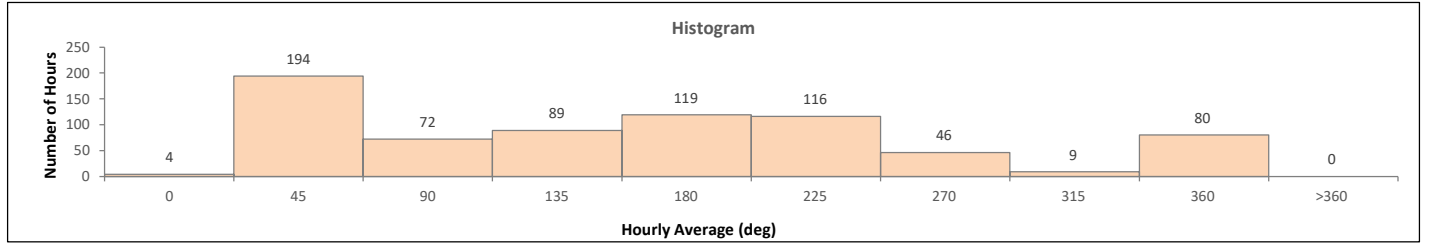
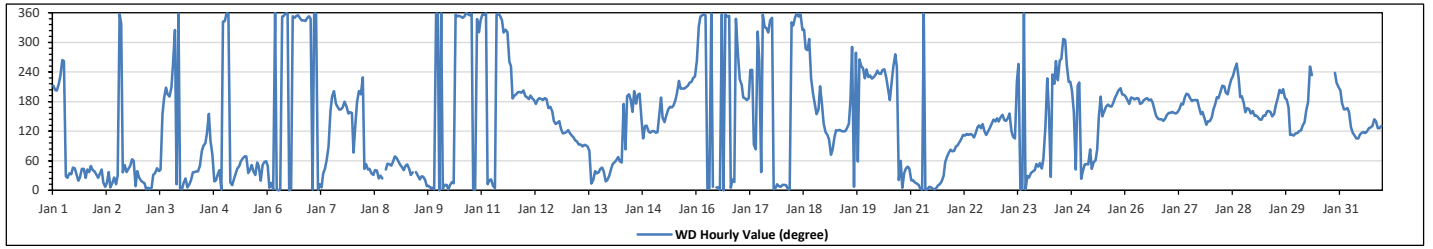
Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

Monthly Average:		113 (ESE) degree																		Hours of Service:		744			
																				Hours of Data:		729			
																				Hours of Missing Data:		15			
																				Hours of Calibration:		0			
																				Operational Uptime:		98.0			
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
Jan 1	SSW	SSW	SSW	SW	SW	W	W	NNE	NNE	NE	NNE	NE	NNE	NNE	NNE	NE	NE	NNE	NE	NE	NE	NE	NE	38	NE
Jan 2	NNE	NNE	NNE	NE	NNE	N	NNE	NE	N	NNE	NNE	NNE	NNE	N	NNW	NE	NE	NE	NE	ENE	ENE	N	NE	26	NNE
Jan 3	NNE	NNE	NNE	NNE	N	N	N	N	NNE	NE	NE	NE	NE	SSE	S	SSW	SSW	S	SSW	WSW	NW	NNE	N	11	NNE
Jan 4	N	NNE	NNE	N	NNE	NNE	NE	NE	NE	NE	E	E	E	ESE	SSE	E	ENE	NNE	NNE	NNE	NE	N	NNW	40	NE
Jan 5	NNW	N	N	NNE	N	NNE	NE	NE	NE	ENE	ENE	ENE	ENE	NE	NE	NE	NNE	NE	NE	NNE	NE	ENE	ENE	36	NE
Jan 6	NE	N	NNE	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	NNW	NNW	NNW	NNW	N	354	N
Jan 7	NNW	N	N	N	N	NNE	N	NNE	NE	ENE	E	SSE	S	SSW	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	152	SSE
Jan 8	ENE	SE	S	SSW	SSW	SW	NE	NE	NE	NE	NNE	NE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NE	ENE	ENE	63	ENE
Jan 9	ENE	ENE	NE	NE	NE	NE	NE	NNE	NE	K	NE	NNE	NNE	NNE	NNE	NNE	N	N	N	N	N	N	N	26	NNE
Jan 10	N	N	N	NNE	NNE	N	NNE	NNE	N	N	N	N	N	N	N	N	N	N	N	N	NNW	NNW	NNW	358	N
Jan 11	N	N	N	NNE	NNE	NNE	N	N	N	N	N	NNW	NW	NW	NW	W	WSW	S	S	SSW	SSW	SSW	SSW	332	NNW
Jan 12	S	S	S	S	S	S	S	S	S	S	S	S	S	SSE	SSE	SSE	SE	SE	SE	SE	SE	ESE	ESE	161	SSE
Jan 13	ESE	ESE	ESE	ESE	E	E	E	E	E	E	E	E	E	E	NNE	NNE	NE	NE	NE	NE	NNE	NNE	NNE	85	E
Jan 14	NE	NE	ENE	ENE	ENE	NE	S	E	S	SSW	S	SSE	SSW	S	S	SSW	SE	ESE	SE	SE	ESE	ESE	ESE	114	ESE
Jan 15	ESE	ESE	ESE	SSE	S	SE	SE	SSE	SSE	SSE	S	S	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	178	S
Jan 16	W	NNW	N	N	N	N	N	N	N	N	K	N	N	N	N	N	N	N	N	N	NNE	NNE	NNW	355	N
Jan 17	SW	SSW	S	S	S	S	WSW	WSW	E	E	NW	W	NE	N	NNW	NNW	NNW	NNW	N	N	N	N	N	350	N
Jan 18	NNE	NNE	N	N	N	NNW	NNW	N	N	N	N	NW	NW	WNW	WNW	NW	SW	SSW	S	SSE	SSW	S	SE	337	NNW
Jan 19	ESE	ESE	ESE	ENE	E	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	S	WNW	N	W	ENE	W	WSW	WSW	SW	WSW	128	SE
Jan 20	SW	SW	SW	SW	SW	WSW	SW	SW	WSW	WSW	SW	SSW	S	SW	WSW	W	WSW	NNE	ENE	N	NE	NE	NE	236	SW
Jan 21	NNE	NNE	NNE	NNE	NNE	N	N	N	N	N	N	N	N	N	N	N	N	NNE	NNE	ENE	ENE	ENE	ENE	19	NNE
Jan 22	E	E	E	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	ESE	ESE	ESE	SE	SE	SE	115	ESE
Jan 23	SE	SE	SE	SSE	SE	SE	SSE	SSE	ESE	ESE	ESE	SW	WSW	N	N	N	N	NNE	NNE	NE	NE	NE	NE	106	ESE
Jan 24	NE	NE	ENE	SE	SW	SSE	NNE	SW	SW	W	SW	W	NW	WNW	WSW	SW	SW	SSW	SSE	NE	SSW	SW	NNE	237	SW
Jan 25	NE	NE	NE	NE	E	NE	ENE	ENE	E	SE	S	SSE	SSE	S	SSE	S	S	SSW	SSW	SSW	SSW	SSW	S	159	SSE
Jan 26	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	SSE	SSE	SE	SE	SE	SE	170	SSE
Jan 27	SSE	SSE	SSE	SSE	SSE	SSE	S	S	S	SSW	SSW	S	S	S	S	S	S	SSE	SSE	SE	SE	SE	SE	165	SSE
Jan 28	SE	SSE	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	WSW	WSW	SW	S	S	SSE	SSE	SSE	SSE	SSE	191	S
Jan 29	SSE	SSE	SE	SE	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	S	SSW	SSW	S	S	SSE	ESE	ESE	ESE	ESE	155	SSE
Jan 30	ESE	ESE	ESE	SE	SE	SSE	S	WSW	SW	P	P	P	P	P	P	P	P	P	P	P	P	P	P	NA	NA
Jan 31	SSW	S	SSE	SSE	SSE	SSE	SE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	SE	SE	SE	129	SE

**C** Monthly Calibration      **S** Daily Zero-Span Check      **Q** Quality Assurance  
**K** Collection Error      **ND** 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.



**Peace River Area Monitoring Program**

**Reno-B Station - January 2024**

**Summary of Hourly Averages**

**VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector**

<b>WIND SPEED</b>					
Maximum Hourly Value:	27.3	kph	on Jan 30 at hr 7	Hours in Service:	744
Maximum Daily Value:	16.5	kph	on Jan 29	Hours of Data:	729
Minimum Hourly Value:	0.2	kph	on Jan 17 at hr 10	Hours of Missing Data:	15
Minimum Daily Value:	3.1	kph	on Jan 24	Hours of Calibration:	0
Monthly Average:	2.8	kph		Operational Uptime:	98.0

<b>WIND DIRECTION</b>	
Monthly Average:	113 degree (ESE)

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
Jan 1	5.5	6.2	7.6	5.9	2.6	1.3	0.7	4.0	3.7	4.7	6.5	7.7	8.1	6.4	6.9	7.7	7.5	7.0	6.6	8.5	6.9	8.5	6.2	6.9	0.7	8.5	6.0
Jan 2	SSW	SSW	SSW	SW	SW	W	W	NNE	NNE	NE	NNE	NE	NE	NNE	NNE	NE	NE	NE	NNE	NE	NE	NE	NE	1.2	6.3	3.8	
Jan 3	5.3	4.8	4.9	6.3	5.9	5.7	5.5	4.5	3.8	3.7	2.6	4.0	4.0	1.9	1.2	2.6	2.2	1.7	1.7	2.8	1.3	2.8	4.0	3.0	2.2	7.5	4.6
Jan 4	NNE	NNE	NNE	NE	NNE	N	NNE	NE	N	NNE	NNE	NNE	NNE	N	NNW	NE	NE	NE	NE	ENE	ENE	N	NE	2.6	9.6	5.9	
Jan 5	3.8	3.3	3.9	2.2	3.5	4.2	4.3	4.6	4.4	4.1	4.0	3.5	5.9	7.5	5.2	6.5	5.0	4.8	4.2	5.3	3.1	5.3	7.5	1.4	7.6	3.8	
Jan 6	NNE	NNE	NNE	NNE	N	N	N	N	NNE	NE	NE	NE	NE	SSE	S	SSW	SSW	S	SSW	WSW	NW	NNE	N	1.9	25.4	14.4	
Jan 7	9.6	7.8	5.7	8.4	5.9	6.8	6.4	7.1	5.8	4.9	5.5	9.5	8.1	7.6	2.6	5.2	4.9	3.6	4.2	4.8	4.3	4.4	4.7	1.4	17.9	9.2	
Jan 8	N	NNE	NNE	N	NNE	NNE	NE	NE	NE	NE	NE	E	E	E	ESE	SSE	E	ENE	NNE	NNE	NE	N	NNW	2.8	12.4	6.6	
Jan 9	4.9	4.0	7.6	4.2	4.1	4.4	3.9	3.0	2.7	1.4	4.5	3.1	1.9	2.6	2.7	3.6	2.3	2.8	3.9	2.8	3.0	5.1	6.4	9.0	21.3	13.4	
Jan 10	NNW	N	NNE	N	NNE	N	NNE	NE	NE	ENE	ENE	ENE	ENE	NE	NE	NE	NE	NE	NNE	NNE	NE	NE	ENE	1.2	21.3	12.0	
Jan 11	1.9	4.4	3.9	6.3	9.4	8.4	11.5	9.0	18.3	21.1	18.6	16.1	15.8	15.2	25.4	23.6	19.7	16.7	17.8	17.3	18.1	17.7	16.3	1.5	11.8	7.0	
Jan 12	NE	N	NNE	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	NNW	NNW	NNW	N	7.9	19.8	11.8	
Jan 13	12.8	9.3	12.6	11.3	5.5	3.1	3.2	3.5	4.7	3.6	3.2	1.4	6.7	6.7	6.8	8.2	8.1	14.0	16.8	16.8	12.9	14.8	17.9	3.7	21.8	11.2	
Jan 14	NNW	N	N	N	N	NNE	N	NNE	NE	ENE	E	SSE	S	SSW	S	SSE	SSE	SSE	SSE	S	SSE	SSE	SSE	1.7	20.8	7.8	
Jan 15	5.2	10.1	12.4	8.0	6.6	2.8	7.1	5.2	5.2	3.8	3.7	5.1	7.7	7.7	5.6	4.6	3.9	K	7.6	7.3	7.1	7.3	9.3	7.7	21.6	13.3	
Jan 16	ENE	SE	S	SSW	SSW	SW	NE	NE	NE	NE	NNE	NE	NE	NNE	NNE	NNE	NNE	K	NE	NE	NE	ENE	ENE	1.5	16.5	10.3	
Jan 17	9.0	9.1	11.6	12.1	10.6	12.0	18.0	15.7	10.6	13.6	K	14.4	12.4	11.9	10.8	10.2	11.2	13.9	13.5	13.8	14.6	16.1	21.3	0.2	11.8	4.1	
Jan 18	ENE	ENE	NE	NE	NE	NE	NE	NE	NNE	NE	K	NE	NNE	NNE	NNE	NNE	NNE	N	N	N	N	N	N	2.1	8.6	5.5	
Jan 19	15.8	16.0	13.6	11.8	9.6	10.9	9.6	9.2	5.9	12.9	17.0	21.3	20.8	19.6	16.4	10.4	12.6	14.0	11.9	8.4	5.5	1.2	7.4	0.8	19.3	8.4	
Jan 20	N	N	N	NNE	NNE	N	NNE	NNE	N	N	N	N	N	N	N	N	N	N	N	N	NNW	NW	NNW	0.5	9.9	4.9	
Jan 21	9.2	8.7	7.5	3.4	3.6	5.6	8.0	10.4	11.8	6.1	7.7	7.7	8.7	10.8	7.5	6.6	4.2	1.5	4.0	5.7	7.4	7.9	6.0	5.7	16.3	10.4	
Jan 22	N	N	N	NNE	NNE	NNE	N	N	N	N	N	NNW	NW	NW	NW	W	WSW	S	S	SSW	SSW	SSW	SSW	9.7	26.7	16.4	
Jan 23	7.9	10.1	11.7	9.5	9.7	8.5	10.5	11.7	11.1	11.2	10.7	11.7	12.4	11.9	11.8	9.9	11.8	12.5	15.2	14.5	14.3	12.4	19.8	6.4	19.9	12.8	
Jan 24	S	S	S	S	S	S	S	S	S	S	S	S	S	SSE	SSE	SSE	SE	SE	SE	SE	ESE	ESE	ESE	1.3	17.5	8.9	
Jan 25	21.8	19.9	17.5	15.4	15.0	15.0	13.6	13.3	16.3	15.2	17.1	12.1	6.7	6.9	6.2	9.1	7.1	6.1	7.7	8.1	6.5	3.8	3.7	8.9	22.7	15.7	
Jan 26	ESE	ESE	ESE	ESE	E	E	E	E	E	E	E	E	E	ENE	NNE	NE	NE	NE	NE	NE	NNE	NNE	NNE	5.7	22.7	15.7	
Jan 27	5.5	7.8	8.9	9.9	9.3	10.0	10.8	2.5	1.7	4.5	5.7	2.8	7.4	5.6	7.3	5.3	2.7	4.2	6.3	9.6	13.6	19.3	20.8	7.4	23.5	16.5	
Jan 28	NE	NE	ENE	ENE	ENE	ENE	NE	S	E	S	SSW	S	SSE	SSW	S	S	SSW	SE	ESE	SE	ESE	ESE	ESE	7.7	27.3	NA	
Jan 29	21.4	21.6	13.8	9.2	7.7	11.4	9.6	12.7	18.7	15.0	17.7	14.5	11.2	12.8	9.3	8.4	10.3	13.0	13.2	11.3	11.1	16.2	15.7	7.4	23.5	16.5	
Jan 30	ESE	ESE	ESE	SSE	S	SE	SE	SSE	SSE	SSE	SSE	S	S	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	7.7	27.3	NA	
Jan 31	12.5	8.9	9.4	11.1	10.4	16.5	9.3	10.4	13.9	11.8	K	13.7	12.3	14.1	14.6	12.6	12.0	12.3	8.0	4.6	3.1	2.1	1.5	7.4	23.8	16.4	
Jan 31	W	NNW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	NNE	NNE	NNW	8.9	21.1	14.6	
Jan 31	1.2	1.9	1.2	3.4	4.1	0.6	1.9	1.9	0.8	2.0	0.2	0.8	3.3	1.6	4.8	5.8	5.9	8.2	11.8	9.2	7.9	6.5	7.3	5.7	22.7	15.7	
Jan 31	SW	SSW	S	S	S	WSW	WSW	E	NW	W	NE	N	NNW	NNW	NW	NNW	N	N	N	N	N	N	N	7.4	23.8	16.4	
Jan 31	5.8	3.6	4.9	6.4	8.4	6.8	6.6	6.9	5.7	5.7	6.6	7.1	7.6	7.2	2.4	2.2	2.1	3.1	3.0	4.4	2.8	7.0	6.0	7.4	23.8	16.4	
Jan 31	NNE	NNE	N	N	N	NNW	NNW	N	N	N	N	NW	NW	WNW	WNW	NW	SW	SSW	S	SSE	SSE	SSW	S	7.4	23.8	16.4	
Jan 31	5.7	6.9	6.9	5.4	1.6	5.6	15.1	19.3	19.3	16.4	18.1	14.5	13.2	7.3	7.8	2.9	5.0	0.8	1.5	2.5	8.2	6.6	4.9	7.7	27.3	NA	
Jan 31	ESE	ESE	ESE	ENE	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	S	WNW	N	W	ENE	W	WSW	WSW	WSW	7.7	27.3	NA	
Jan 31	9.8	9.9	8.4	7.0	6.7	5.4	6.4	5.5	5.8	4.2	2.8	2.2	5.2	4.3	1.6	1.8	0.5	2.0	3.0	2.0	3.9	6.6	7.4	5.7	22.7	15.7	
Jan 31	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	SSW	SSW	S	SSW	WSW	WSW	NNE	N	NE	NE	NE	NE	NE	7.4	23.8	16.4	
Jan 31	5.7	5.8	6.9	9.1	9.1	10.8	12.1	16.3	13.2	14.5	11.2	11.9	12.2	12.7	13.7	10.8	9.4	8.8	5.8	8.0	8.5	10.3	11.0	7.4	23.5	16.5	
Jan 31	NNE	NNE	NNE	NNE	N	N	N	N	N	N	N	N	N	N	N	NNE	NNE	NNE	ENE	ENE	ENE	ENE	ENE	7.7	27.3	NA	
Jan 31	10.9	10.6	9.7	15.8	25.8	26.7	25.4	23.3	22.5	18.2	18.3	17.2	17.2	16.1	15.9	15.1	13.4	12.6	13.6	12.5	13.9	12.9	12.9	7.4	23.5	16.5	
Jan 31	E	E	E	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	SE	ESE	ESE	SE	SE	SE	SE	7.7	27.3	NA	
Jan 31	12.0	12.6	14.8	17.5	12.5	14.6	12.0	12.0	7.7	8.7	2.8	2.9	1.3	7.4	7.0	9.8	8.1	5.2	5.6	6.6	8.1	8.3	8.5	8.9	21.1	14.6	
Jan 31	SE	SE	SE	SSE	SE	SE	SSE	ESE	ESE	ESE	ESE	WSW	N	N	N	N	NNE	NNE	NE	NE	NE	NE	NE	8.9	21.1	14.6	
Jan 31	6.3	4.2	3.9	0.8	1.8	1.7	0.8	4.8	3.8	4.4	4.1	4.3	0.4	1.6	1.5	4.2	3.6	3.2	2.8	1.8	1.9	3.6	3.2	5.7	22.7	15.7	
Jan 31	NE	NE	ENE	SE	SW	SSE	NNE	SW	SW	W	SW	W	SW	WNW	WSW	WSW	SSW	SSE	NE	SSW	SSW	SSW	NNE	7.4	23.8	16.4	
Jan 31	7.1	7.1	7.2	7.8	1.8	3.2	5.5	4.5	3.1	1.8	3.8	7.9	14.3	14.1	12.6	11.9	11.7	10.6	9.5	9.1	7.9	8.4	8.7	7.4	23.8	16.4	
Jan 31	NE	NE	NE	NE	E	ENE	ENE	E	SE	S	SSE	SSE	S	S	SSE	S	S	SSW	SSW	SSW	SSW	SSW	S	7.4	23.8	16.4	
Jan 31	7.2	6.4	8.0	12.5	12.7	14.1	14.9	12.8	13.3	14.4	12.6	12.6	11.7	11.3	10.3	10.8	13.9	13.1	13.5	13.9	13.6	15.3	18.4	6.4	19.9	12.8	
Jan 31	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	SSE	SSE	SE	SE	SE	SE	SE	SSE	8.9	21.1	14.6	
Jan 31	21.1	19.5	19.6	17.6	15.7	13.6	15.1	13.9	15.0	14.5	14.7	9.0	13.1	11.3	11.4	13.3	11.9	8.9	14.1	17.0	15.9	14.1	14.0	7.4	23.8	16.4	
Jan 31	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	S	S	SSW	SSW	S	S	S	SSE	SSE	SSE	SE	SE	SE	SE	SE	7.4	23.8	16.4	
Jan 31	19.5	21.8	15.3	14.7	16.9	19.9	22.5	21.8	22.7	15.5	14.6	15.7	13.0	13.													



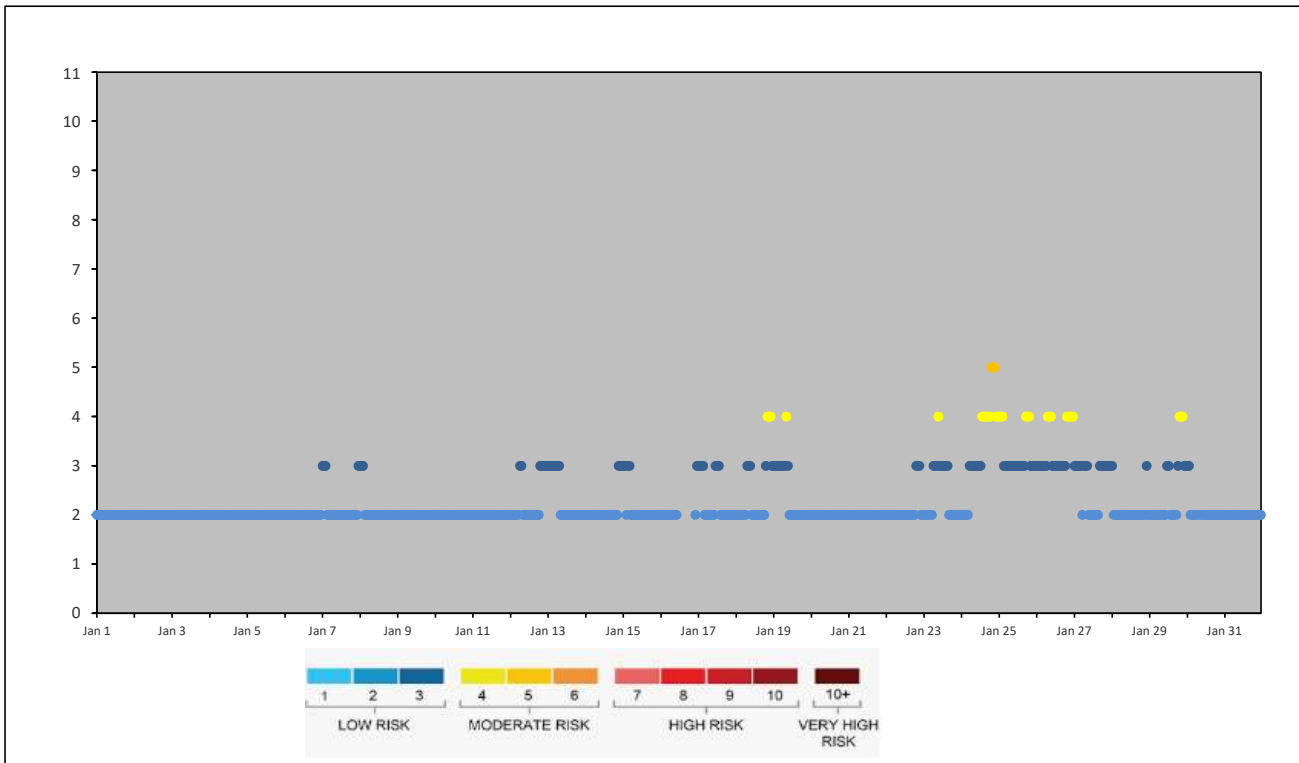
## AQHI GRIMSHAW STATION

# LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

AQHI - Grimshaw Station - January 2024

## AIR QUALITY HEALTH INDEX

Day	Hourly Period Starting at (MST)																							
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Jan 1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 7	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3
Jan 8	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 9	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 10	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 11	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 12	2	2	2	2	2	2	3	3	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3
Jan 13	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 14	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3
Jan 15	3	3	2	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 16	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3
Jan 17	3	3	3	3	2	2	2	2	2	2	3	3	3	2	2	2	2	2	2	2	2	2	2	2
Jan 18	2	2	2	2	2	2	2	2	3	3	3	2	2	2	2	2	2	2	2	3	4	4	4	3
Jan 19	3	3	3	3	3	3	3	3	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 20	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 21	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 22	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	2
Jan 23	2	2	2	2	2	2	3	3	3	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2
Jan 24	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	4	5	5	5	4	4
Jan 25	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	3	3	3	3
Jan 26	3	3	3	3	3	3	3	4	4	4	3	3	3	3	3	3	3	3	3	4	4	4	4	4
Jan 27	3	3	3	3	3	2	3	3	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3
Jan 28	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 29	2	2	2	2	2	2	2	2	2	2	3	3	2	2	2	2	2	2	3	4	4	4	3	3
Jan 30	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jan 31	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

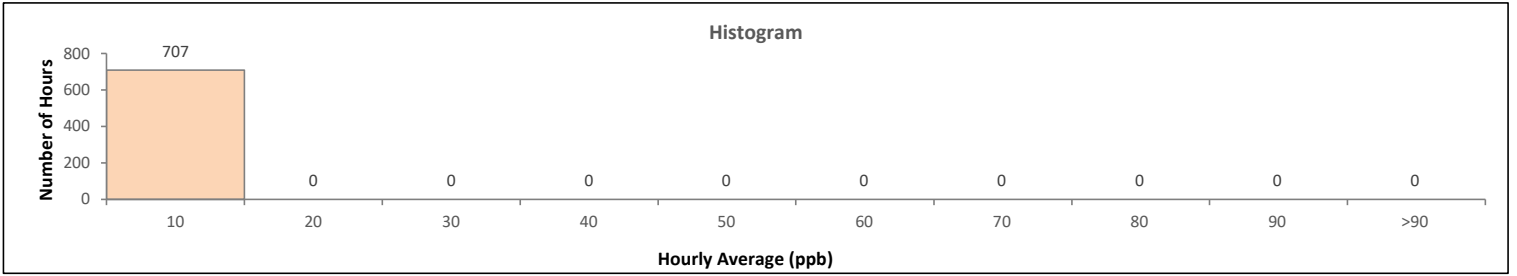
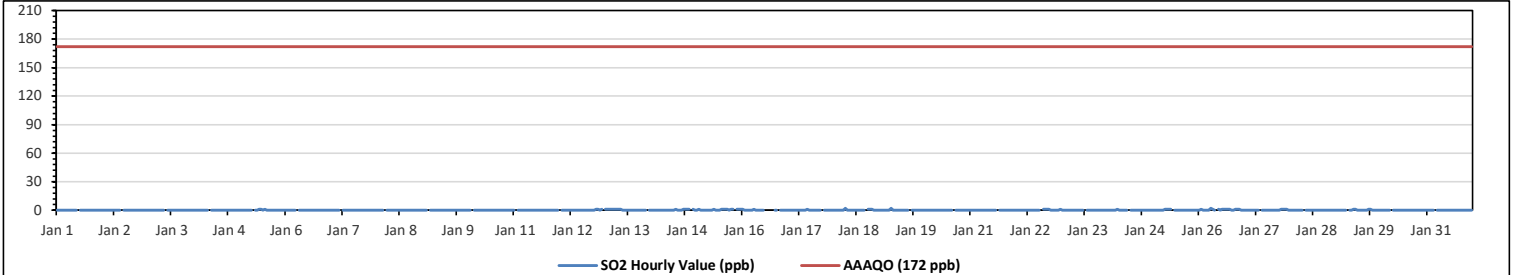


**Peace River Area Monitoring Program**  
**AQHI - Grimshaw Station - January 2024**  
**Summary of Hourly Averages**  
**SULPHUR DIOXIDE (SO<sub>2</sub>) in ppb**

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 Exceedence:					0				
Maximum Hourly Value:					2 ppb on Jan 18 at hr 6					Hours in Service:					744														
Maximum Daily Value:					0.6 ppb on Jan 26					Hours of Data:					707														
Minimum Hourly Value:					0 ppb on Jan 1 at hr 0					Hours of Missing Data:					0														
Minimum Daily Value:					0.0 ppb on Jan 1					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			
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
Jan 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		
Jan 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		
Jan 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Jan 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		
Jan 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		
Jan 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Jan 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		
Jan 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Jan 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		
Jan 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Jan 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Jan 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Jan 13	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4		
Jan 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3		
Jan 15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5		
Jan 16	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	1	0.1		
Jan 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	1	0.0		
Jan 18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.2		
Jan 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	2	0.1		
Jan 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Jan 21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Jan 22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Jan 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Jan 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0		
Jan 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	1	0.2		
Jan 26	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	2	0.6		
Jan 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2		
Jan 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		
Jan 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2		
Jan 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		
Jan 31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Diurnal Maximum	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
Diurnal Average	0.1	0.1	0.0	0.0	0.0	0.1	0.3	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1					

**C** Monthly Calibration      **S** Daily Zero-Span Check      **Q** Quality Assurance  
**K** Collection Error      **ND** 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.

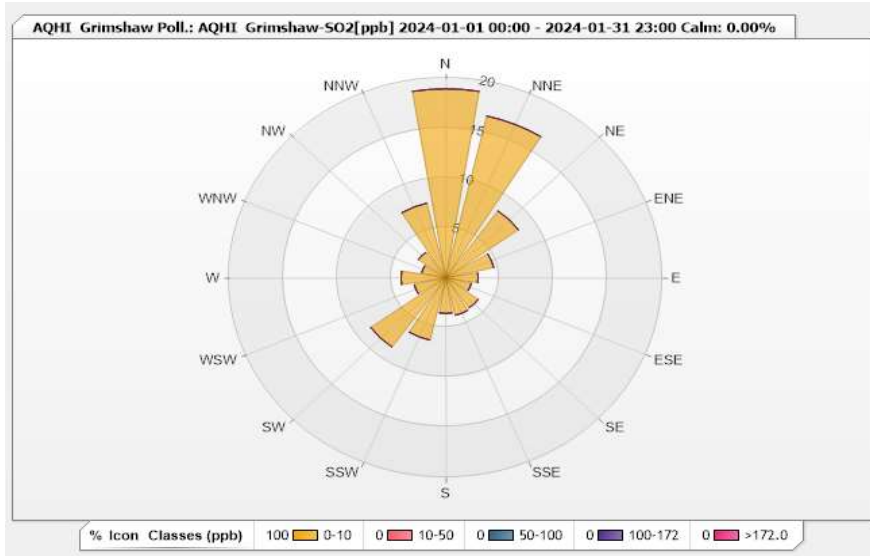


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-SO2[ppb] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 94.49%      Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	18.92	0	0	0	0	18.92
NNE	16.64	0	0	0	0	16.64
NE	8.25	0	0	0	0	8.25
ENE	4.55	0	0	0	0	4.55
E	2.99	0	0	0	0	2.99
ESE	2.42	0	0	0	0	2.42
SE	3.7	0	0	0	0	3.7
SSE	3.84	0	0	0	0	3.84
S	3.56	0	0	0	0	3.56
SSW	6.4	0	0	0	0	6.4
SW	8.53	0	0	0	0	8.53
WSW	2.99	0	0	0	0	2.99
W	4.13	0	0	0	0	4.13
WNW	2.28	0	0	0	0	2.28
NW	3.13	0	0	0	0	3.13
NNW	7.68	0	0	0	0	7.68
Summary	100	0	0	0	0	100



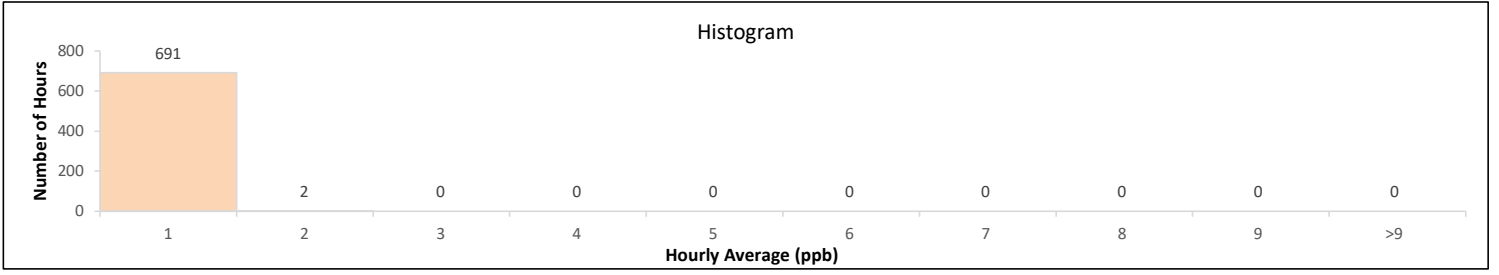
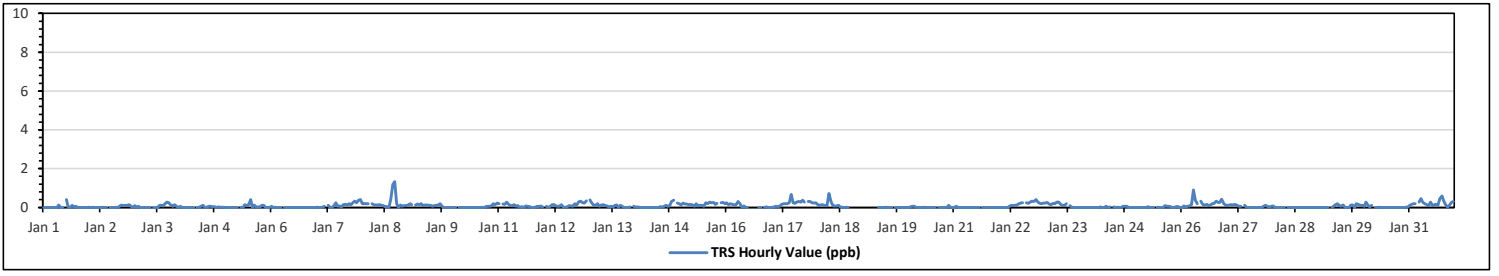
**Peace River Area Monitoring Program**  
**AQHI - Grimshaw Station - January 2024**  
**Summary of Hourly Averages**  
**TOTAL REDUCED SULPHUR (TRS) in ppb**

Maximum Hourly Value:	1.33	ppb	on Jan 8 at hr 17	Hours in Service:	744
Maximum Daily Value:	0.23	ppb	on Jan 8	Hours of Data:	693
Minimum Hourly Value:	0.00	ppb	on Jan 1 at hr 0	Hours of Missing Data:	14
Minimum Daily Value:	0.00	ppb	on Jan 21	Hours of Calibration:	37
Monthly Average:	0.08	ppb		Operational Uptime:	98.1

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
Jan 1	0	0	0	0	0	0	0	0	0.13	0	0	S	0.41	0	0.02	0.11	0.02	0.07	0	0	0	0	0	0	0.00	0.41	0.03
Jan 2	0.02	0	0.01	0	0	0	0	0.01	0	0	S	0	0	0	0.01	0	0.07	0.12	0.09	0.1	0.11	0.14	0.06	0	0.00	0.14	0.03
Jan 3	0.09	0	0.05	0	0	0	0	0	0	S	0	0	0	0.11	0.1	0.08	0.19	0.28	0.25	0.12	0.07	0.14	0.05	0	0.00	0.28	0.07
Jan 4	0.07	0	0	0	0	0	0	0	S	0	0.02	0.05	0.11	0	0.02	0.05	0.05	0.03	0.04	0	0.03	0.02	0.01	0.02	0.00	0.11	0.02
Jan 5	0	0	0	0	0	0	0	S	0.01	0	0.14	0.09	0.12	0.41	0	0.13	0.01	0.03	0.03	0.11	0.1	0	0	0	0.00	0.41	0.05
Jan 6	0.06	0	0.01	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.06	0.00
Jan 7	0.02	0	0	0.01	0.07	S	0.11	0	0	0.09	0.23	0.06	0.08	0.03	0.15	0.16	0.12	0.19	0.15	0.24	0.32	0.24	0.37	0.4	0.00	0.40	0.13
Jan 8	0.2	0.18	0.2	0.19	S	0.2	0.15	0.12	0.13	0.15	0.1	0.09	0.04	0.04	0	0.45	1.19	1.33	0.19	0	0.13	0.06	0.09	0.09	0.00	1.33	0.23
Jan 9	0.13	0.18	0.14	S	0.13	0.17	0.15	0.19	0.09	0.12	0.13	0.1	0.11	0.06	0.09	0.1	0.13	0.19	0.05	0	0	0	0	0	0.00	0.19	0.10
Jan 10	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.02	0	0.04	0.06	0.05	0.08	0.18	0.14	0.22	0.00	0.22	0.03
Jan 11	0.18	S	0.17	0.16	0.28	0.16	0.09	0.09	0.14	0.05	0.09	0	0.04	0	0.08	0.05	0.04	0.02	0	0.01	0.05	0.04	0.08	0.03	0.00	0.28	0.08
Jan 12	S	0.07	0	0.05	0.15	0.15	0.08	0.07	0.07	0.14	0.01	0.01	0.04	0.09	0.08	0.05	0.18	0.12	0.29	0.32	0.23	0.22	0.34	S	0.00	0.34	0.13
Jan 13	0.39	0.22	0.11	0.12	0.18	0.05	0.12	0.14	0.09	0.08	0.03	0.06	0.01	0.1	0.12	0.01	0.1	0.05	0	0	0.03	S	0.07	0.00	0.39	0.09	0.09
Jan 14	0.01	0.03	0.02	0	0	0	0	0	0	0	0	0	0	0.04	0.02	0.07	0.1	0.06	0.08	0.3	0.37	S	0.22	0.18	0.00	0.37	0.07
Jan 15	0.13	0.22	0.17	0.17	0.15	0.16	0.13	0.05	0.2	0.08	0.1	0.11	0.07	0.23	0.19	0.28	0.25	0.26	0.16	0.21	S	0.24	0.26	0.2	0.05	0.28	0.17
Jan 16	0.25	0.15	0.18	0.16	0.13	0.14	0.31	0.18	0.02	0.08	0.02	0	C	C	C	C	C	0	0	S	0.01	0.03	0	0	0.00	0.31	0.09
Jan 17	0.01	0.03	0.06	0.04	0.07	0.16	0.2	0.2	0.18	0.24	0.67	0.23	0.21	0.27	0.31	0.28	0.37	0.27	S	0.3	0.31	0.23	0.22	0.24	0.01	0.67	0.22
Jan 18	0.14	0.1	0.14	0.12	0.09	0.09	0.71	0.27	0.08	0.08	0.08	0.11	0.01	0.02	0	0.01	0	S	X	X	X	X	X	X	0.00	0.71	NA
Jan 19	X	X	X	X	X	X	X	X	0	0	0	0	0.02	0	0	0	S	0	0	0	0	0	0	0	0.00	0.02	NA
Jan 20	0	0.04	0.07	0.05	0	0	0	0	0.02	0	0	0	0	0	0	S	0	0	0	0	0	0.11	0.01	0	0.00	0.11	0.01
Jan 21	0	0.06	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.00	0.06	0.00
Jan 22	0	0	0	0	0	0.07	0.1	0.09	0.1	0.13	0.18	0.22	0.23	S	0.23	0.21	0.27	0.33	0.3	0.4	0.28	0.21	0.2	0.22	0.00	0.40	0.16
Jan 23	0.22	0.26	0.17	0.14	0.21	0.19	0.27	0.28	0.16	0.1	0.09	0.2	S	0.09	0.02	0	0	0	0	0	0	0	0	0	0.00	0.28	0.10
Jan 24	0	0	0	0	0	0.03	0	0	0.06	0	0.03	S	0.03	0	0.01	0	0	0.05	0.05	0.07	0	0	0	0	0.00	0.07	0.01
Jan 25	0	0	0	0	0	0	0.04	0	0	0	S	0.02	0	0	0.09	0.06	0.07	0.04	0	0.01	0.04	0.04	0	0	0.00	0.09	0.02
Jan 26	0	0.08	0.03	0.07	0.08	0.14	0.89	0.38	0.2	S	0.32	0.16	0.11	0.16	0.09	0.13	0.19	0.21	0.32	0.26	0.26	0.43	0.19	0.1	0.00	0.89	0.21
Jan 27	0.11	0.13	0.15	0.12	0.16	0.1	0.07	0.07	S	0.1	0.01	0	0	0	0	0	0	0	0	0.06	0.1	0.06	0.02	0.05	0.00	0.16	0.06
Jan 28	0.08	0.01	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.08	0.00
Jan 29	0	0	0	0	0	S	0	0.08	0.15	0.18	0.09	0.07	0.13	0	0	0	0.13	0.12	0	0.19	0.16	0.1	0.11	0.00	0.19	0.07	
Jan 30	0.07	0.27	0.12	0.03	0.1	S	0	0	0.02	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.00	0.07	0.27	0.03
Jan 31	0.09	0.16	0.18	0.18	S	0.27	0.46	0.26	0.18	0.14	0.09	0.27	0.09	0.14	0.16	0.1	0.45	0.58	0.34	0.14	0.02	0.1	0.26	0.3	0.02	0.58	0.22
Diurnal Maximum	0.39	0.27	0.20	0.19	0.28	0.27	0.89	0.38	0.20	0.24	0.67	0.27	0.41	0.41	0.31	0.45	1.19	1.33	0.34	0.40	0.37	0.43	0.37	0.40			
Diurnal Average	0.08	0.08	0.07	0.06	0.06	0.07	0.14	0.09	0.07	0.06	0.09	0.06	0.06	0.07	0.06	0.08	0.13	0.15	0.09	0.09	0.09	0.09	0.09	0.08			

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

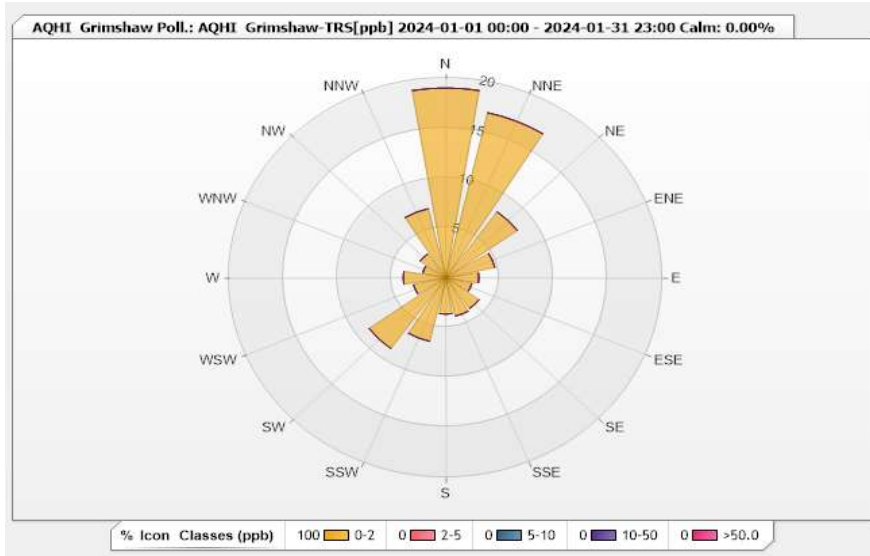


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-TRS[ppb] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 92.61%      Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	19.01	0	0	0	0	19.01
NNE	16.98	0	0	0	0	16.98
NE	8.13	0	0	0	0	8.13
ENE	4.64	0	0	0	0	4.64
E	3.05	0	0	0	0	3.05
ESE	2.47	0	0	0	0	2.47
SE	3.77	0	0	0	0	3.77
SSE	3.92	0	0	0	0	3.92
S	3.63	0	0	0	0	3.63
SSW	6.53	0	0	0	0	6.53
SW	8.71	0	0	0	0	8.71
WSW	3.05	0	0	0	0	3.05
W	3.92	0	0	0	0	3.92
WNW	2.18	0	0	0	0	2.18
NW	2.9	0	0	0	0	2.9
NNW	7.11	0	0	0	0	7.11
Summary	100	0	0	0	0	100



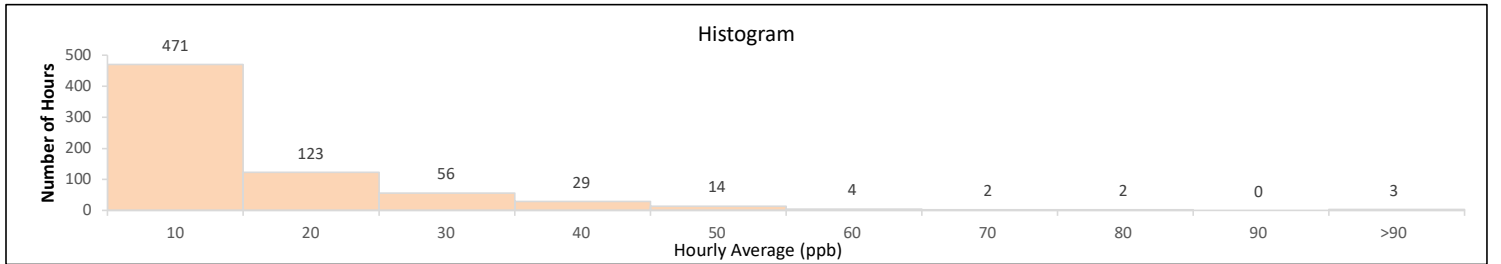
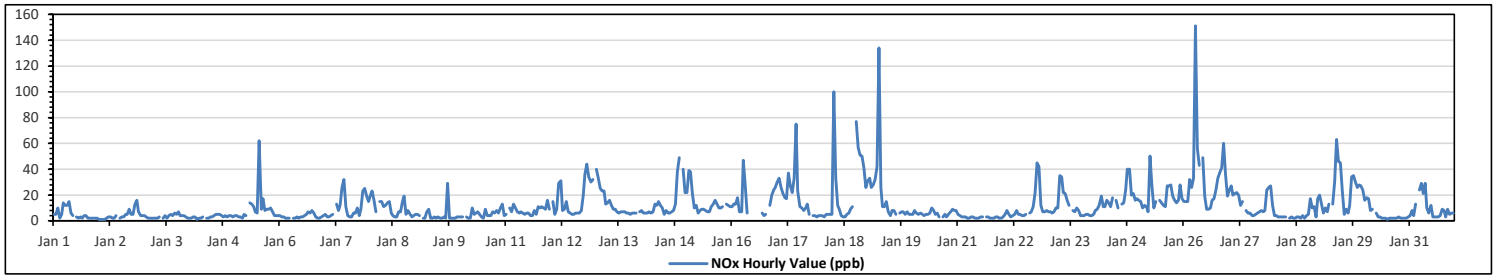
**Peace River Area Monitoring Program**  
**AQHI - Grimshaw Station - January 2024**  
**Summary of Hourly Averages**  
**OXIDES OF NITROGEN (NOx) in ppb**

Maximum Hourly Value:	151 ppb	on Jan 26 at hr 6	Hours in Service:	744
Maximum Daily Value:	33.3 ppb	on Jan 26	Hours of Data:	704
Minimum Hourly Value:	1 ppb	on Jan 2 at hr 0	Hours of Missing Data:	1
Minimum Daily Value:	2.7 ppb	on Jan 21	Hours of Calibration:	39
Monthly Average:	11.4 ppb		Operational Uptime:	99.9

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	
Jan 1	5	5	10	2	5	14	12	12	15	6	4	S	3	2	3	2	4	4	2	2	2	2	2	2	2	2	15	5.2
Jan 2	1	1	1	1	2	3	3	2	2	4	S	2	3	3	5	9	5	5	13	16	7	4	4	4	4	1	16	4.4
Jan 3	4	3	2	2	2	2	2	2	3	S	2	4	2	4	5	4	6	5	7	4	4	4	3	2	2	7	3.4	
Jan 4	2	2	3	3	1	2	2	3	S	2	2	3	3	4	4	5	5	4	3	4	4	3	4	3	1	5	3.1	
Jan 5	4	4	3	3	2	5	4	S	14	13	11	7	6	62	9	17	8	9	9	10	7	4	4	4	2	62	9.5	
Jan 6	4	3	3	2	2	S	2	2	3	2	3	3	4	5	7	6	8	6	3	2	2	3	4	4	2	8	3.5	
Jan 7	5	3	3	4	5	S	13	8	12	26	32	11	4	3	6	6	10	4	9	23	25	19	15	3	32	10.8		
Jan 8	20	23	16	7	S	15	15	11	12	14	15	6	4	3	3	7	7	15	19	5	8	5	3	4	3	23	10.3	
Jan 9	5	5	4	S	2	2	7	9	2	2	3	2	3	2	2	3	2	29	2	2	2	3	3	2	2	29	4.3	
Jan 10	3	3	S	3	2	2	10	5	6	7	5	3	2	9	4	4	7	6	8	6	10	13	4	2	13	5.5		
Jan 11	5	S	10	7	13	10	7	6	7	6	5	6	6	4	4	8	5	11	10	11	10	9	16	9	4	16	8.0	
Jan 12	S	15	5	9	29	31	8	9	15	7	6	5	5	6	6	6	8	20	36	44	34	30	32	S	5	44	16.6	
Jan 13	40	33	25	23	23	13	14	16	12	9	9	7	6	7	7	6	6	5	6	6	6	S	7	5	40	12.7		
Jan 14	8	6	6	6	7	6	7	13	12	15	12	10	5	8	6	6	7	8	13	38	49	S	40	22	5	49	13.5	
Jan 15	22	39	38	21	10	12	6	8	9	9	8	7	7	11	13	16	13	10	10	11	S	13	12	11	6	39	13.7	
Jan 16	11	13	13	18	7	7	47	28	6	C	C	C	C	C	C	C	6	4	5	S	12	20	24	26	4	47	NA	
Jan 17	30	33	26	21	18	17	37	27	22	33	75	23	11	10	8	10	13	5	S	4	4	3	4	4	3	75	19.0	
Jan 18	4	3	5	5	5	100	33	12	9	4	3	3	3	5	6	9	11	S	77	57	51	50	41	26	3	100	22.8	
Jan 19	31	33	26	28	32	42	134	26	11	11	15	7	4	8	8	5	S	6	7	7	5	7	5	5	4	134	20.1	
Jan 20	5	8	6	5	6	5	4	5	5	6	10	8	5	6	3	S	3	5	3	5	7	9	8	8	3	10	5.9	
Jan 21	5	4	3	3	3	2	2	3	3	2	2	2	3	3	S	3	3	2	2	3	3	2	2	2	2	5	2.7	
Jan 22	3	5	8	5	3	4	5	8	5	5	4	4	5	S	6	7	11	22	45	42	12	7	7	8	3	45	10.0	
Jan 23	7	7	6	7	10	10	35	34	22	21	16	12	S	8	7	10	8	4	4	4	5	5	4	4	4	35	10.9	
Jan 24	5	8	9	12	19	11	11	16	14	11	18	S	16	10	NRM	13	14	24	40	40	20	21	16	17	5	40	16.6	
Jan 25	16	15	10	12	11	7	50	27	10	15	S	16	14	12	11	27	27	28	19	16	14	16	28	17	7	50	18.2	
Jan 26	15	15	15	32	26	33	151	56	43	S	49	19	9	9	10	16	17	24	33	38	41	60	36	19	9	151	33.3	
Jan 27	24	27	20	21	22	20	12	15	S	8	6	6	4	4	5	6	7	8	7	8	24	26	27	12	4	27	13.9	
Jan 28	4	4	3	3	3	3	3	S	2	3	2	2	3	3	2	4	2	4	5	17	10	11	3	17	2	17	4.9	
Jan 29	20	13	6	10	7	13	S	13	30	63	46	45	23	5	9	6	12	34	35	30	26	28	27	24	5	63	22.8	
Jan 30	16	18	17	8	9	S	6	3	3	2	2	2	2	2	2	2	2	3	2	2	2	2	2	3	1	18	4.8	
Jan 31	4	8	4	13	S	24	29	21	29	10	6	12	3	3	3	3	4	9	8	3	9	5	6	6	3	29	9.7	
Diurnal Maximum	40	39	38	32	32	42	151	56	43	63	75	45	23	62	13	27	27	34	77	57	77	51	60	41	26			
Diurnal Average	10.9	12.0	10.2	9.9	9.9	11.1	25.4	14.5	11.7	11.5	13.3	8.5	5.7	7.6	5.7	7.7	7.9	11.1	14.3	14.8	13.9	13.2	13.3	9.7				

**C** Monthly Calibration      **S** Daily Zero-Span Check      **Q** Quality Assurance  
**K** Collection Error      **ND** 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.

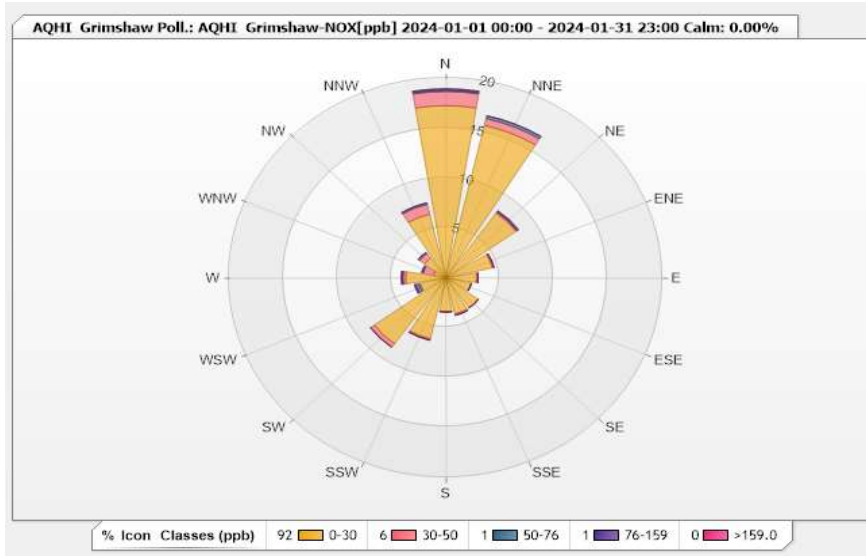


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-NOX[ppb] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 94.35%      Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	17.24	1.42	0.14	0.14	0	18.94
NNE	15.67	0.71	0.28	0	0	16.66
NE	7.98	0.14	0	0.14	0	8.26
ENE	4.42	0.14	0	0	0	4.56
E	2.85	0.14	0	0	0	2.99
ESE	2.42	0	0	0	0	2.42
SE	3.7	0	0	0	0	3.7
SSE	3.7	0.14	0	0	0	3.84
S	3.42	0	0	0	0	3.42
SSW	6.27	0.14	0	0	0	6.41
SW	8.12	0.43	0	0	0	8.55
WSW	2.42	0.14	0.28	0.14	0	2.98
W	3.7	0.28	0	0.14	0	4.12
WNW	1.14	1	0.14	0	0	2.28
NW	2.42	0.57	0.14	0	0	3.13
NNW	6.55	1	0.14	0	0	7.69
Summary	92.02	6.25	1.12	0.56	0	100





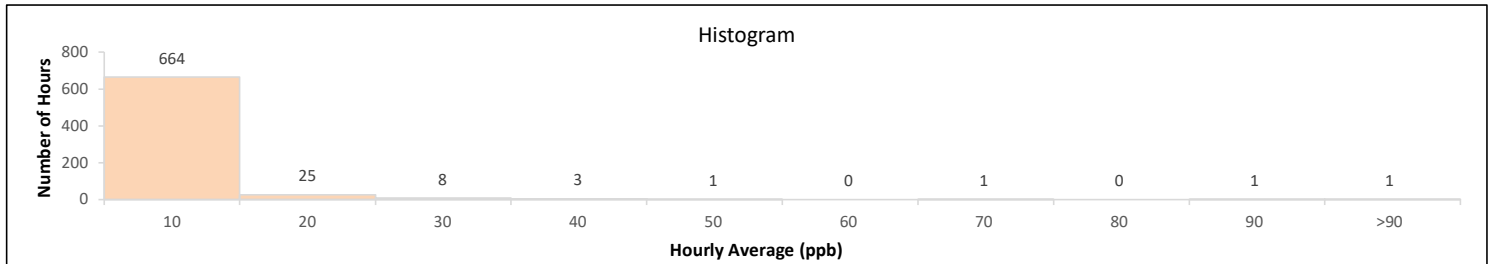
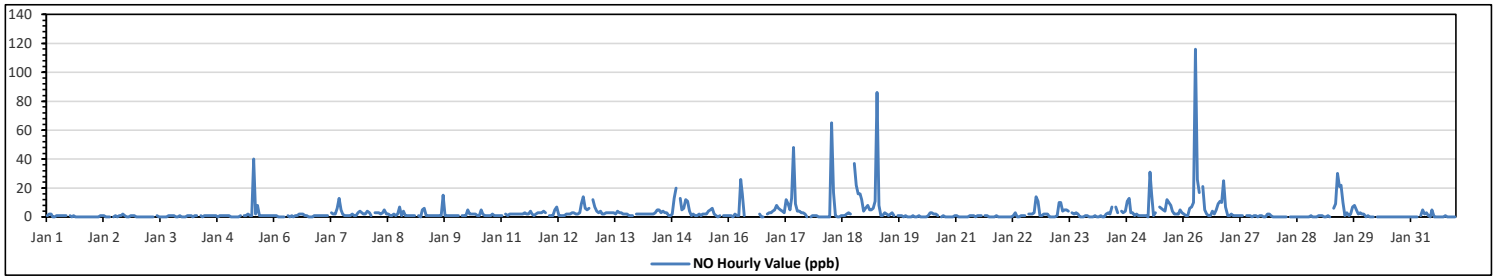
**Peace River Area Monitoring Program**  
**AQHI - Grimshaw Station - January 2024**  
**Summary of Hourly Averages**  
**NITRIC OXIDE (NO) in ppb**

Maximum Hourly Value:	116 ppb	on Jan 26 at hr 6	Hours in Service:	744
Maximum Daily Value:	12.6 ppb	on Jan 26	Hours of Data:	704
Minimum Hourly Value:	0 ppb	on Jan 1 at hr 3	Hours of Missing Data:	1
Minimum Daily Value:	0.0 ppb	on Jan 30	Hours of Calibration:	39
Monthly Average:	2.9 ppb		Operational Uptime:	99.9

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		
Jan 1	1	2	2	0	0	1	1	1	1	1	1	S	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0.6
Jan 2	0	0	0	0	1	1	1	0	0	0	S	0	1	0	1	1	2	1	0	0	1	1	1	0	0	0	2	0.5	
Jan 3	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	0	1	1	1	0	0	1	0	0	1	0.3		
Jan 4	0	0	1	1	1	0	1	1	S	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0.8	
Jan 5	1	0	0	0	0	0	1	S	1	1	2	1	1	40	2	8	1	1	1	1	1	1	1	1	1	0	40	2.9	
Jan 6	1	1	0	0	0	0	S	1	0	1	0	1	1	2	2	2	1	1	0	0	0	1	1	1	1	0	2	0.7	
Jan 7	1	1	1	1	1	S	3	2	2	6	13	5	2	1	1	1	1	2	1	1	3	4	3	2	1	13	2.5		
Jan 8	2	4	3	1	S	3	3	3	2	3	5	2	2	1	1	2	1	2	7	1	4	1	1	1	1	7	2.4		
Jan 9	1	1	1	S	1	0	5	6	1	1	1	1	1	1	1	1	15	1	1	1	1	1	1	1	0	15	2.0		
Jan 10	1	1	S	1	1	1	5	2	2	2	2	1	1	5	2	1	1	1	1	2	1	1	1	1	1	5	1.6		
Jan 11	1	S	2	1	2	2	2	2	2	2	2	3	2	2	2	4	2	1	2	3	3	4	3	1	4	2.3			
Jan 12	S	1	1	1	5	7	1	1	1	1	2	2	2	3	3	2	2	3	9	14	6	5	6	S	1	14	3.5		
Jan 13	12	7	4	3	4	2	2	3	3	3	3	3	2	4	3	3	2	2	2	1	1	S	2	1	12	3.1			
Jan 14	2	2	2	2	2	2	2	2	2	3	5	5	3	4	3	3	1	1	2	13	20	S	13	5	1	20	4.3		
Jan 15	6	12	11	4	1	2	1	2	1	2	2	2	2	4	5	6	2	1	0	1	S	1	1	1	0	12	3.0		
Jan 16	1	1	0	2	1	1	26	16	1	C	C	C	C	C	C	C	2	0	0	S	2	3	3	4	0	26	NA		
Jan 17	5	8	6	5	4	3	12	9	5	13	48	9	4	4	3	3	2	0	S	0	1	1	1	0	0	48	6.3		
Jan 18	0	0	0	0	0	0	65	17	1	0	0	1	1	1	2	3	2	S	37	22	16	16	12	4	0	65	8.7		
Jan 19	6	8	5	5	6	11	86	8	1	1	3	2	1	2	3	1	S	1	1	1	0	1	0	0	0	86	6.7		
Jan 20	0	1	0	0	1	0	0	0	0	1	3	3	2	2	1	S	0	1	0	0	0	0	0	0	1	0	3	0.7	
Jan 21	1	0	0	0	0	0	0	1	1	1	0	1	1	1	S	1	1	0	0	0	0	1	0	0	0	1	0.4		
Jan 22	0	0	0	0	0	0	1	3	0	0	1	1	1	S	2	2	2	3	14	11	1	1	2	2	0	14	2.0		
Jan 23	2	0	0	0	0	1	10	10	4	5	5	4	S	3	2	3	2	0	0	0	1	1	0	0	0	10	2.3		
Jan 24	0	1	0	0	1	0	0	2	3	2	7	S	7	3	NRM	4	3	4	11	13	3	3	1	2	0	13	3.2		
Jan 25	1	1	1	1	1	0	31	16	1	3	S	7	6	5	4	12	10	8	4	2	2	2	5	3	0	31	5.5		
Jan 26	2	1	1	6	7	10	116	26	17	S	21	5	2	1	1	4	2	5	9	11	10	25	7	1	1	116	12.6		
Jan 27	1	2	1	1	1	1	1	1	S	1	1	1	0	1	1	0	1	1	0	0	2	2	1	0	0	2	0.9		
Jan 28	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0.1		
Jan 29	1	1	0	0	1	0	S	6	9	30	21	22	10	1	3	1	2	7	8	5	2	3	2	2	0	30	6.0		
Jan 30	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0		
Jan 31	0	0	0	0	S	1	5	2	3	1	0	5	0	0	0	0	0	0	1	0	0	0	0	0	0	5	0.8		
Diurnal Maximum	12	12	11	6	7	11	116	26	17	30	48	22	10	40	5	12	10	15	37	22	20	25	13	5					
Diurnal Average	1.6	1.9	1.4	1.2	1.4	1.7	13.1	4.9	2.2	3.0	5.3	3.1	2.0	3.2	1.8	2.4	1.6	2.1	3.7	3.5	2.7	2.7	2.3	1.3					

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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.

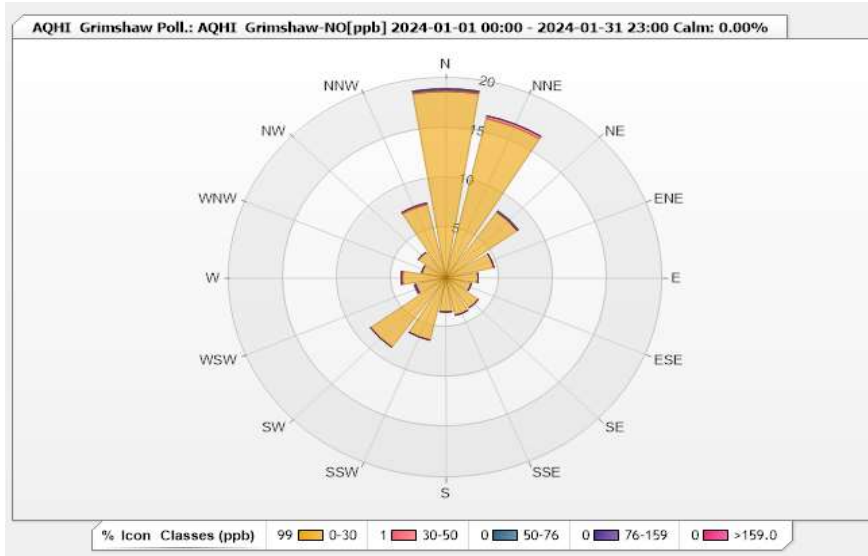


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-NO[ppb] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 94.35%      Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	18.66	0.14	0.14	0	0	18.94
NNE	16.38	0.28	0	0	0	16.66
NE	8.12	0	0	0.14	0	8.26
ENE	4.56	0	0	0	0	4.56
E	2.99	0	0	0	0	2.99
ESE	2.42	0	0	0	0	2.42
SE	3.7	0	0	0	0	3.7
SSE	3.85	0	0	0	0	3.85
S	3.42	0	0	0	0	3.42
SSW	6.41	0	0	0	0	6.41
SW	8.55	0	0	0	0	8.55
WSW	2.85	0	0	0.14	0	2.99
W	3.99	0.14	0	0	0	4.13
WNW	2.28	0	0	0	0	2.28
NW	3.13	0	0	0	0	3.13
NNW	7.55	0.14	0	0	0	7.69
Summary	98.86	0.7	0.14	0.28	0	100

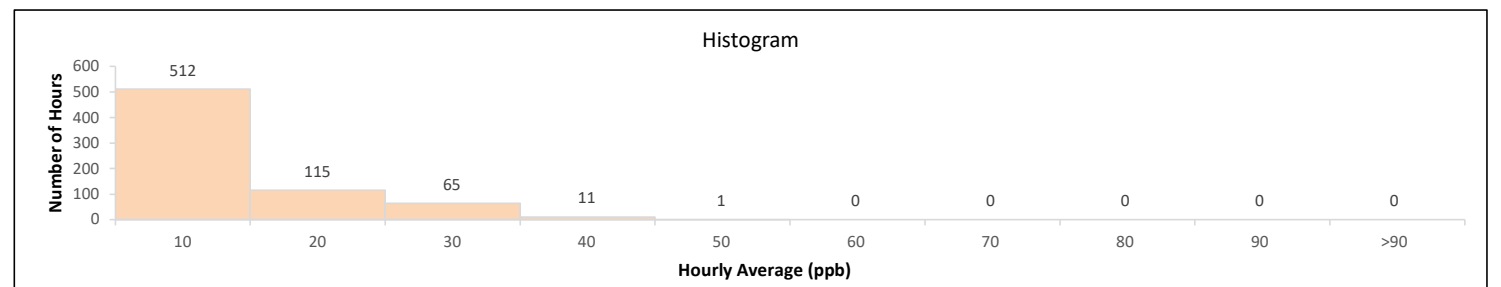
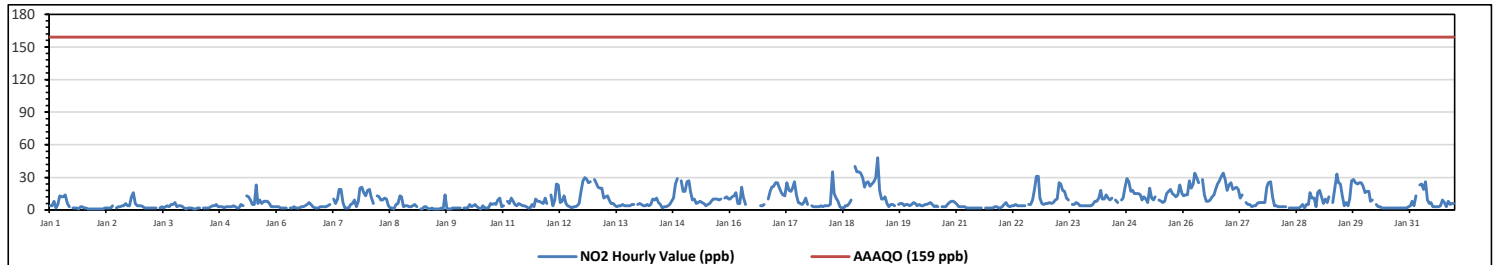


**Peace River Area Monitoring Program**  
**AQHI - Grimshaw Station - January 2024**  
**Summary of Hourly Averages**  
**NITROGEN DIOXIDE (NO<sub>2</sub>) in ppb**

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 159 ppb																													
Number of 1-Hour Exceedances: 0																													
Maximum Hourly Value: 48 ppb on Jan 19 at hr 6										Hours in Service: 744																			
Maximum Daily Value: 20.7 ppb on Jan 26										Hours of Data: 704																			
Minimum Hourly Value: 1 ppb on Jan 1 at hr 15										Hours of Missing Data: 1																			
Minimum Daily Value: 2.3 ppb on Jan 9										Hours of Calibration: 39																			
Monthly Average: 8.5 ppb										Operational Uptime: 99.9																			
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		
Jan 1	4	4	8	2	5	13	12	12	14	6	3	S	2	2	2	1	3	3	2	2	1	1	1	1	1	1	1	14	4.5
Jan 2	1	1	1	1	1	2	2	2	2	4	S	2	3	3	4	4	6	4	4	12	16	6	4	4	4	1	16	3.9	
Jan 3	4	3	2	2	2	2	2	2	2	2	S	2	3	2	3	4	3	5	7	3	4	4	3	2	2	7	3.1		
Jan 4	1	2	2	2	1	1	2	2	S	2	2	2	2	3	4	4	5	3	3	2	3	3	3	3	1	5	2.5		
Jan 5	3	4	3	2	2	5	4	S	13	12	9	5	5	23	6	9	6	8	8	8	6	3	3	3	2	23	6.5		
Jan 6	3	3	2	2	2	2	S	2	2	3	2	2	2	3	3	4	5	7	5	3	2	2	2	3	2	7	2.9		
Jan 7	3	3	3	4	5	S	10	6	10	19	19	7	2	2	2	5	6	9	3	8	20	21	16	13	2	21	8.5		
Jan 8	18	19	12	6	S	13	12	9	9	11	10	4	2	2	1	5	6	13	12	3	4	4	3	3	1	19	7.9		
Jan 9	4	5	3	S	1	1	3	3	1	1	2	1	1	1	1	2	1	14	1	1	1	2	2	2	1	14	2.3		
Jan 10	2	2	S	2	2	2	5	3	4	5	3	2	1	4	2	2	2	6	5	6	5	9	11	3	1	11	3.8		
Jan 11	4	S	8	6	11	8	5	4	6	5	4	4	3	2	2	5	3	10	8	8	7	6	11	6	2	11	5.9		
Jan 12	S	14	4	9	24	23	7	8	13	6	4	3	2	3	3	4	6	17	27	30	28	25	26	S	2	30	13.0		
Jan 13	28	25	21	20	20	11	12	13	9	6	6	4	3	4	4	5	4	4	4	4	5	5	S	5	3	28	9.7		
Jan 14	6	5	4	4	5	4	5	10	9	11	7	5	2	3	3	4	5	8	11	24	29	S	27	17	2	29	9.0		
Jan 15	17	26	27	17	9	10	6	7	8	7	6	4	5	6	8	10	10	10	9	10	S	11	12	10	4	27	10.7		
Jan 16	10	12	13	16	6	6	21	12	5	C	C	C	C	C	C	C	4	4	5	S	10	17	21	22	4	22	NA		
Jan 17	25	25	20	16	14	13	25	18	17	20	26	14	7	6	5	7	11	5	S	4	3	3	3	3	3	26	12.6		
Jan 18	4	3	4	4	4	5	35	15	11	8	3	2	2	4	4	6	9	S	40	35	35	34	30	21	2	40	13.8		
Jan 19	25	26	22	24	26	30	48	18	10	10	12	6	3	5	5	4	S	5	6	6	4	5	5	4	3	48	13.4		
Jan 20	5	7	6	4	5	4	4	5	5	6	7	5	3	4	3	S	3	3	3	5	7	8	8	7	3	8	5.1		
Jan 21	5	3	3	3	3	2	2	2	2	2	2	2	2	2	S	2	2	2	2	2	3	3	2	2	2	5	2.4		
Jan 22	3	5	7	4	3	4	4	5	4	4	4	4	4	S	5	5	9	19	31	11	6	5	6	3	31	8.0			
Jan 23	6	7	6	7	9	10	25	24	18	17	11	9	S	5	5	7	6	4	4	4	4	4	4	4	4	25	8.7		
Jan 24	5	8	8	11	18	10	10	14	11	9	11	S	9	7	NRM	9	11	21	29	26	17	18	15	15	5	29	13.3		
Jan 25	15	14	9	12	10	7	20	11	9	12	S	9	8	7	8	15	17	19	15	14	12	14	23	15	7	23	12.8		
Jan 26	13	14	14	27	20	24	34	30	25	S	28	14	8	8	9	12	14	19	24	27	31	34	28	18	8	34	20.7		
Jan 27	23	25	19	20	21	19	11	14	S	7	5	5	3	4	4	6	7	7	7	7	21	25	26	12	3	26	13.0		
Jan 28	4	4	3	3	3	3	S	2	2	2	2	2	2	2	3	5	2	5	5	16	11	11	3	16	2	16	4.9		
Jan 29	18	12	6	10	7	12	S	7	21	33	25	24	13	4	7	4	10	27	28	25	24	25	25	22	4	33	16.9		
Jan 30	16	17	17	8	9	S	5	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	17	4.7		
Jan 31	4	8	4	13	S	23	24	19	26	9	6	7	3	3	3	4	9	7	3	8	5	6	6	6	3	26	8.8		
Diurnal Maximum	28	26	27	27	26	30	48	30	26	33	28	24	13	23	9	15	17	27	40	35	35	34	30	22					
Diurnal Average	9.3	10.2	8.7	8.7	8.6	9.3	12.3	9.7	9.3	8.5	8.0	5.5	3.7	4.4	4.0	5.3	6.1	9.1	10.6	11.1	11.1	10.5	11.0	8.4					

**C** Monthly Calibration      **S** Daily Zero-Span Check      **Q** Quality Assurance  
**K** Collection Error      **ND** 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.

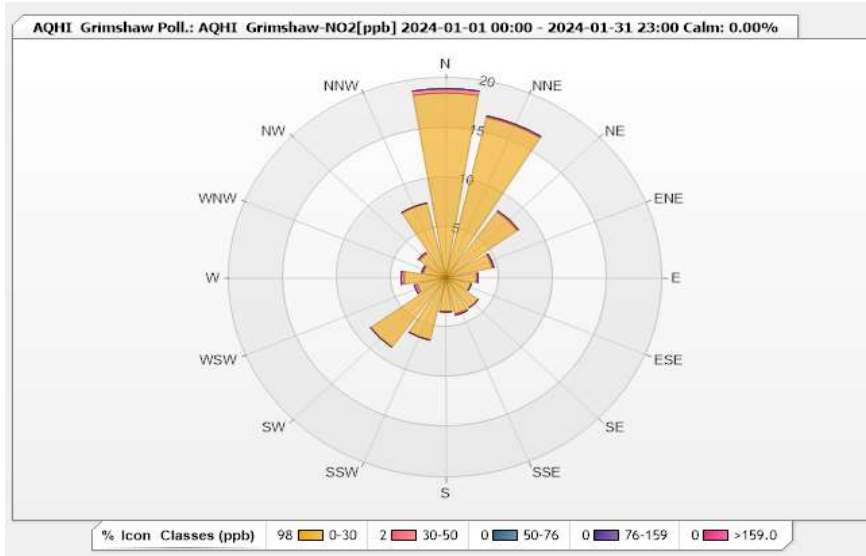


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-NO2[ppb] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 94.35%      Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	18.52	0.43	0	0	0	18.95
NNE	16.52	0.14	0	0	0	16.66
NE	8.12	0.14	0	0	0	8.26
ENE	4.42	0.14	0	0	0	4.56
E	2.85	0.14	0	0	0	2.99
ESE	2.42	0	0	0	0	2.42
SE	3.7	0	0	0	0	3.7
SSE	3.7	0.14	0	0	0	3.84
S	3.42	0	0	0	0	3.42
SSW	6.41	0	0	0	0	6.41
SW	8.55	0	0	0	0	8.55
WSW	2.71	0.28	0	0	0	2.99
W	3.85	0.28	0	0	0	4.13
WNW	2.14	0.14	0	0	0	2.28
NW	2.99	0.14	0	0	0	3.13
NNW	7.69	0	0	0	0	7.69
Summary	98.01	1.97	0	0	0	100



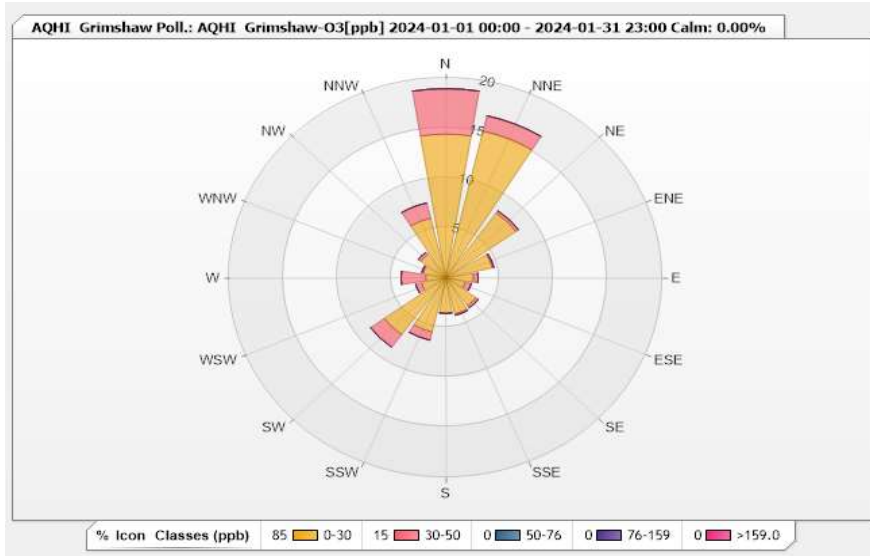


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-O3[ppb] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 94.35%      Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	14.39	4.56	0	0	0	18.95
NNE	15.1	1.57	0	0	0	16.67
NE	7.98	0.28	0	0	0	8.26
ENE	4.42	0.14	0	0	0	4.56
E	2.56	0.43	0	0	0	2.99
ESE	1.85	0.57	0	0	0	2.42
SE	3.42	0.28	0	0	0	3.7
SSE	3.7	0.14	0	0	0	3.84
S	3.56	0	0	0	0	3.56
SSW	5.56	0.85	0	0	0	6.41
SW	6.98	1.57	0	0	0	8.55
WSW	2.28	0.57	0	0	0	2.85
W	1.85	2.28	0	0	0	4.13
WNW	2.14	0.14	0	0	0	2.28
NW	2.85	0.28	0	0	0	3.13
NNW	6.13	1.57	0	0	0	7.7
Summary	84.77	15.23	0	0	0	100



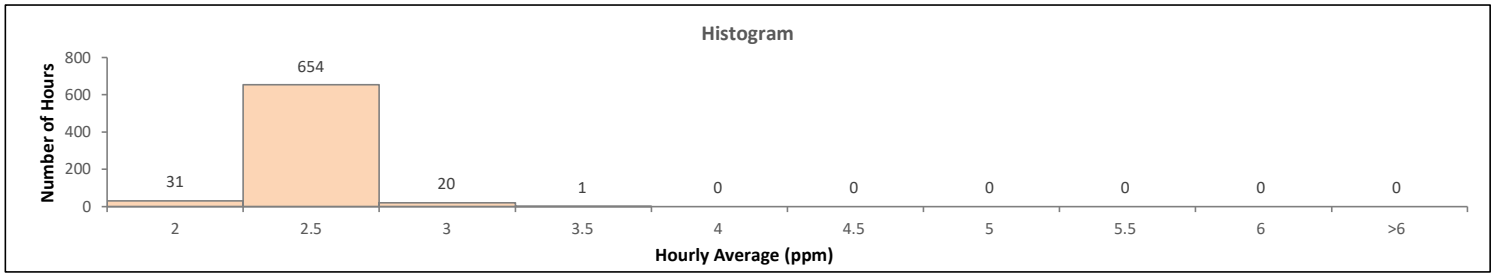
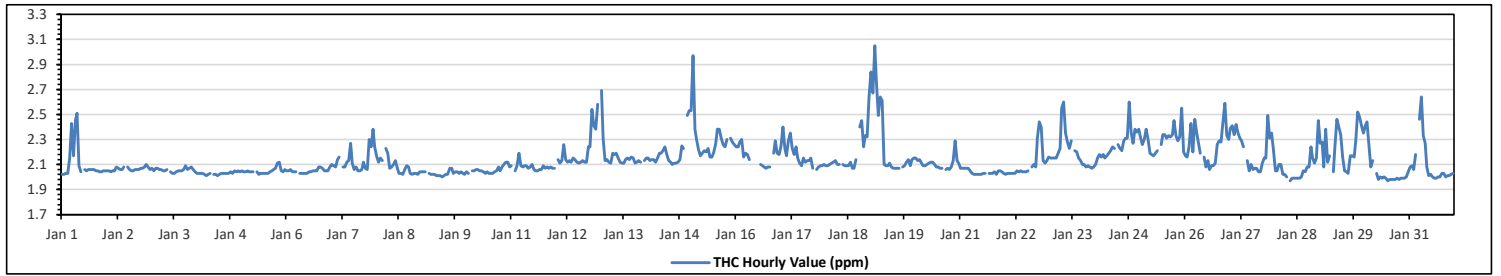
**Peace River Area Monitoring Program**  
**AQHI - Grimshaw Station - January 2024**  
**Summary of Hourly Averages**  
**TOTAL HYDROCARBONS (THC) in ppm**

Maximum Hourly Value:	3.05 ppm	on Jan 19 at hr 2	Hours in Service:	744
Maximum Daily Value:	2.30 ppm	on Jan 15	Hours of Data:	706
Minimum Hourly Value:	1.97 ppm	on Jan 28 at hr 8	Hours of Missing Data:	1
Minimum Daily Value:	2.03 ppm	on Jan 9	Hours of Calibration:	37
Monthly Average:	2.14 ppm		Operational Uptime:	99.9

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	
Jan 1	2.02	2.02	2.03	2.03	2.15	2.43	2.17	2.45	2.51	2.09	2.04	S	2.06	2.05	2.06	2.06	2.06	2.06	2.05	2.05	2.04	2.04	2.05	2.05	2.02	2.51	2.11	
Jan 2	2.05	2.05	2.04	2.05	2.05	2.08	2.07	2.06	2.06	2.08	S	2.08	2.06	2.05	2.05	2.06	2.06	2.06	2.07	2.07	2.08	2.10	2.08	2.06	2.04	2.10	2.06	
Jan 3	2.07	2.05	2.07	2.07	2.06	2.06	2.05	2.05	2.06	S	2.04	2.03	2.03	2.04	2.05	2.05	2.05	2.06	2.09	2.06	2.07	2.08	2.06	2.04	2.03	2.09	2.06	
Jan 4	2.03	2.03	2.03	2.03	2.02	2.01	2.02	2.03	S	2.02	2.02	2.01	2.02	2.03	2.03	2.03	2.03	2.03	2.04	2.03	2.05	2.04	2.05	2.04	2.01	2.05	2.03	
Jan 5	2.05	2.04	2.04	2.05	2.04	2.04	2.04	S	2.04	2.02	2.03	2.03	2.03	2.03	2.03	2.04	2.05	2.06	2.07	2.11	2.12	2.05	2.04	2.06	2.02	2.12	2.05	
Jan 6	2.05	2.05	2.06	2.04	2.04	2.04	S	2.03	2.03	2.03	2.03	2.03	2.04	2.04	2.05	2.05	2.05	2.08	2.08	2.07	2.05	2.05	2.05	2.08	2.03	2.08	2.05	
Jan 7	2.10	2.09	2.08	2.14	2.16	S	2.08	2.08	2.12	2.13	2.27	2.11	2.06	2.08	2.05	2.05	2.06	2.12	2.07	2.06	2.30	2.24	2.38	2.24	2.05	2.38	2.13	
Jan 8	2.17	2.12	2.15	2.13	S	2.23	2.19	2.07	2.08	2.10	2.13	2.07	2.03	2.03	2.02	2.06	2.09	2.08	2.03	2.02	2.03	2.03	2.02	2.04	2.02	2.23	2.08	
Jan 9	2.04	2.04	2.04	S	2.03	2.02	2.02	2.02	2.01	2.01	2.01	2.00	2.01	2.02	2.02	2.07	2.07	2.03	2.04	2.04	2.03	2.04	2.03	2.02	2.00	2.07	2.03	
Jan 10	2.04	2.03	S	2.05	2.05	2.06	2.06	2.05	2.05	2.04	2.03	2.04	2.03	2.03	2.03	2.04	2.05	2.08	2.05	2.08	2.10	2.12	2.12	2.08	2.03	2.12	2.06	
Jan 11	2.09	S	2.05	2.09	2.19	2.09	2.08	2.09	2.09	2.07	2.08	2.10	2.06	2.05	2.05	2.06	2.06	2.09	2.07	2.08	2.07	2.08	2.07	2.07	2.05	2.19	2.08	
Jan 12	S	2.14	2.11	2.13	2.26	2.14	2.12	2.13	2.12	2.15	2.14	2.12	2.11	2.12	2.13	2.12	2.12	2.24	2.24	2.54	2.41	2.38	2.58	S	2.11	2.58	2.21	
Jan 13	2.69	2.31	2.13	2.14	2.12	2.11	2.19	2.18	2.19	2.15	2.12	2.11	2.11	2.14	2.15	2.14	2.16	2.15	2.11	2.12	2.13	2.12	S	2.13	2.11	2.69	2.17	
Jan 14	2.15	2.15	2.13	2.14	2.14	2.12	2.15	2.19	2.21	2.24	2.18	2.13	2.12	2.10	2.11	2.11	2.12	2.14	2.25	2.23	S	2.49	2.53	2.10	2.53	2.19		
Jan 15	2.53	2.97	2.38	2.30	2.22	2.17	2.19	2.21	2.20	2.23	2.16	2.16	2.20	2.27	2.38	2.38	2.31	2.26	2.24	2.30	S	2.31	2.28	2.26	2.16	2.97	2.30	
Jan 16	2.24	2.24	2.28	2.30	2.16	2.19	2.18	2.14	C	C	C	C	C	2.10	2.09	2.08	2.07	2.08	2.08	S	2.19	2.29	2.19	2.18	2.07	2.30	2.17	
Jan 17	2.25	2.40	2.23	2.17	2.29	2.35	2.23	2.18	2.24	2.15	2.11	2.09	2.15	2.12	2.13	2.13	2.15	2.07	S	2.06	2.08	2.09	2.09	2.10	2.06	2.40	2.17	
Jan 18	2.09	2.09	2.10	2.11	2.12	2.13	2.10	2.10	NRM	2.10	2.09	2.09	2.09	2.12	2.07	2.07	2.14	S	2.40	2.45	2.24	2.33	2.32	2.14	2.07	2.64	2.18	
Jan 19	2.84	2.67	3.05	2.76	2.49	2.64	2.61	2.10	2.09	2.09	2.11	2.08	2.07	2.07	2.07	2.07	2.07	S	2.08	2.09	2.12	2.14	2.09	2.14	2.15	2.07	3.05	2.29
Jan 20	2.15	2.13	2.14	2.11	2.09	2.09	2.10	2.11	2.12	2.12	2.10	2.08	2.08	2.07	2.07	S	2.06	2.07	2.06	2.08	2.13	2.29	2.13	2.11	2.06	2.29	2.11	
Jan 21	2.07	2.07	2.07	2.07	2.07	2.05	2.03	2.02	2.02	2.02	2.02	2.02	2.03	2.03	S	2.03	2.03	2.03	2.04	2.02	2.05	2.05	2.04	2.03	2.02	2.07	2.04	
Jan 22	2.02	2.03	2.03	2.03	2.03	2.03	2.05	2.04	2.05	2.04	2.04	2.04	2.05	S	2.08	2.10	2.08	2.31	2.44	2.40	2.13	2.11	2.13	2.16	2.02	2.44	2.11	
Jan 23	2.15	2.15	2.15	2.15	2.19	2.23	2.55	2.60	2.35	2.28	2.23	2.29	S	2.21	2.20	2.15	2.13	2.10	2.10	2.08	2.09	2.08	2.07	2.08	2.07	2.07	2.60	2.20
Jan 24	2.10	2.15	2.18	2.16	2.18	2.15	2.17	2.19	2.21	2.24	2.23	S	2.26	2.23	2.21	2.29	2.31	2.31	2.60	2.36	2.27	2.38	2.36	2.38	2.10	2.60	2.26	
Jan 25	2.32	2.26	2.30	2.38	2.30	2.19	2.18	2.17	2.19	2.21	S	2.26	2.34	2.34	2.31	2.33	2.32	2.34	2.45	2.33	2.29	2.32	2.55	2.20	2.17	2.55	2.30	
Jan 26	2.17	2.16	2.24	2.43	2.20	2.46	2.35	2.28	2.19	S	2.16	2.08	2.13	2.06	2.09	2.09	2.11	2.26	2.29	2.28	2.44	2.59	2.33	2.30	2.06	2.59	2.25	
Jan 27	2.39	2.41	2.34	2.42	2.35	2.31	2.29	2.24	S	2.13	2.05	2.10	2.06	2.07	2.07	2.04	2.04	2.11	2.15	2.15	2.49	2.31	2.35	2.21	2.04	2.49	2.22	
Jan 28	2.05	2.05	2.10	2.10	2.02	2.02	2.00	S	1.97	1.99	1.99	1.99	1.99	1.99	2.00	2.05	2.04	2.08	2.08	2.24	2.15	2.11	2.15	2.45	1.97	2.45	2.07	
Jan 29	2.27	2.28	2.08	2.38	2.12	2.17	S	2.04	2.25	2.46	2.40	2.34	2.16	2.05	2.04	2.03	2.17	2.17	2.16	2.29	2.52	2.48	2.41	2.35	2.03	2.52	2.24	
Jan 30	2.41	2.44	2.26	2.08	2.13	S	2.03	1.98	2.00	1.99	2.00	1.99	1.97	1.98	1.98	1.98	1.99	1.98	1.99	1.99	1.99	1.99	2.00	2.04	1.97	2.44	2.05	
Jan 31	2.08	2.09	2.06	2.18	S	2.46	2.64	2.33	2.27	2.08	2.01	2.02	2.00	1.99	1.99	2.00	2.00	2.03	2.03	2.00	2.01	2.01	2.02	2.03	1.99	2.64	2.10	
Diurnal Maximum	2.84	2.97	3.05	2.76	2.49	2.64	2.64	2.60	2.51	2.46	2.40	2.34	2.34	2.34	2.38	2.38	2.32	2.34	2.60	2.54	2.52	2.59	2.58	2.64				
Diurnal Average	2.19	2.19	2.17	2.17	2.15	2.17	2.17	2.14	2.14	2.12	2.10	2.09	2.08	2.08	2.09	2.09	2.10	2.12	2.14	2.16	2.16	2.17	2.19	2.17				

**C** Monthly Calibration      **S** Daily Zero-Span Check      **Q** Quality Assurance  
**K** Collection Error      **ND** 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.

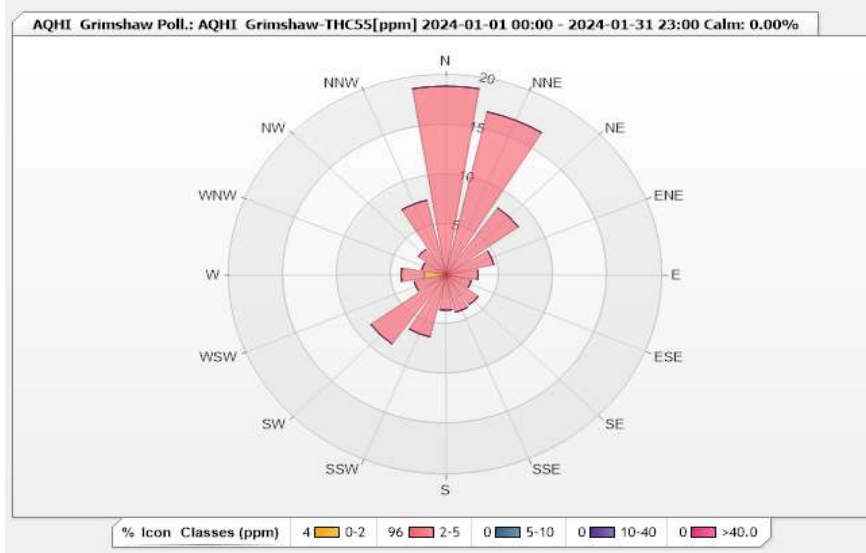


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-THC55[ppm] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 94.62%      Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	0	18.89	0	0	0	18.89
NNE	0	16.76	0	0	0	16.76
NE	0	8.24	0	0	0	8.24
ENE	0	4.55	0	0	0	4.55
E	0.14	2.84	0	0	0	2.98
ESE	0.43	1.99	0	0	0	2.42
SE	0	3.69	0	0	0	3.69
SSE	0.14	3.69	0	0	0	3.83
S	0	3.55	0	0	0	3.55
SSW	0	6.39	0	0	0	6.39
SW	0.57	7.95	0	0	0	8.52
WSW	0.43	2.56	0	0	0	2.99
W	1.99	2.13	0	0	0	4.12
WNW	0.14	2.13	0	0	0	2.27
NW	0	3.13	0	0	0	3.13
NNW	0	7.67	0	0	0	7.67
Summary	3.84	96.16	0	0	0	100





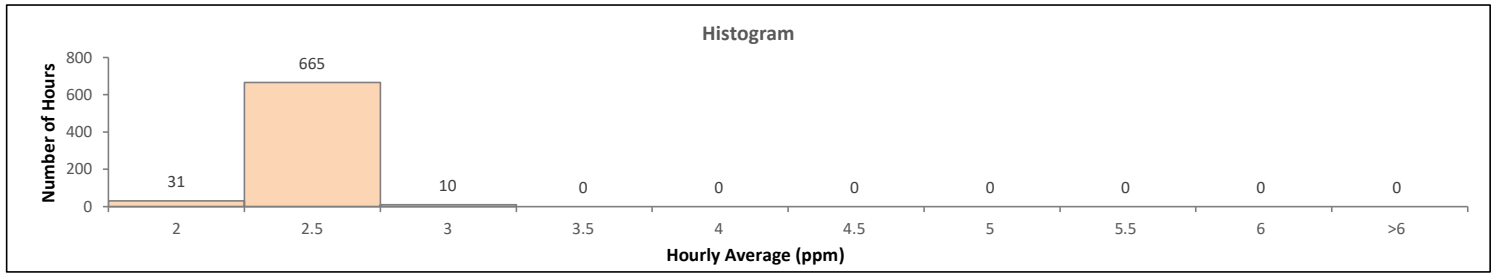
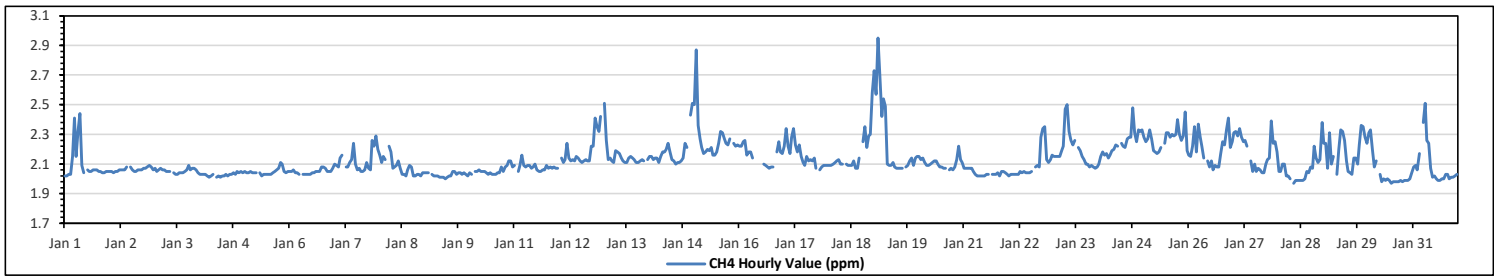
**Peace River Area Monitoring Program**  
**AQHI - Grimshaw Station - January 2024**  
**Summary of Hourly Averages**  
**METHANE (CH4) in ppm**

Maximum Hourly Value:	2.95 ppm	on Jan 19 at hr 2	Hours in Service:	744
Maximum Daily Value:	2.27 ppm	on Jan 25	Hours of Data:	706
Minimum Hourly Value:	1.97 ppm	on Jan 28 at hr 8	Hours of Missing Data:	1
Minimum Daily Value:	2.03 ppm	on Jan 9	Hours of Calibration:	37
Monthly Average:	2.13 ppm		Operational Uptime:	99.9

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	
Jan 1	2.02	2.02	2.03	2.03	2.15	2.41	2.15	2.32	2.44	2.09	2.04	S	2.06	2.05	2.05	2.06	2.06	2.06	2.05	2.05	2.04	2.04	2.05	2.05	2.02	2.44	2.10	
Jan 2	2.05	2.05	2.04	2.05	2.05	2.06	2.06	2.06	2.06	2.08	S	2.08	2.06	2.05	2.05	2.06	2.06	2.06	2.07	2.07	2.08	2.09	2.08	2.06	2.04	2.09	2.06	
Jan 3	2.07	2.05	2.06	2.07	2.06	2.06	2.05	2.05	2.05	S	2.04	2.03	2.03	2.04	2.04	2.04	2.05	2.06	2.09	2.06	2.07	2.07	2.06	2.04	2.03	2.09	2.05	
Jan 4	2.03	2.03	2.03	2.03	2.02	2.01	2.02	2.03	S	2.01	2.02	2.01	2.02	2.02	2.03	2.02	2.03	2.03	2.04	2.03	2.05	2.04	2.05	2.04	2.01	2.05	2.03	
Jan 5	2.05	2.04	2.04	2.05	2.04	2.04	2.04	S	2.04	2.02	2.03	2.03	2.03	2.03	2.03	2.04	2.05	2.06	2.07	2.11	2.10	2.05	2.04	2.05	2.02	2.11	2.05	
Jan 6	2.05	2.05	2.06	2.04	2.04	2.03	S	2.03	2.03	2.03	2.03	2.03	2.04	2.04	2.05	2.05	2.05	2.08	2.08	2.07	2.05	2.05	2.05	2.02	2.03	2.08	2.05	
Jan 7	2.10	2.09	2.08	2.14	2.16	S	2.08	2.08	2.11	2.13	2.24	2.10	2.06	2.07	2.05	2.05	2.06	2.11	2.07	2.06	2.26	2.22	2.29	2.20	2.05	2.29	2.12	
Jan 8	2.16	2.11	2.15	2.13	S	2.22	2.18	2.07	2.08	2.09	2.12	2.07	2.03	2.03	2.02	2.06	2.09	2.08	2.02	2.02	2.03	2.03	2.02	2.04	2.02	2.22	2.08	
Jan 9	2.04	2.04	2.04	S	2.03	2.02	2.02	2.02	2.01	2.01	2.01	2.00	2.01	2.02	2.02	2.05	2.05	2.03	2.04	2.04	2.03	2.04	2.08	2.05	2.02	2.00	2.05	2.03
Jan 10	2.04	2.03	S	2.05	2.05	2.06	2.05	2.05	2.05	2.04	2.03	2.04	2.03	2.03	2.03	2.04	2.04	2.08	2.05	2.08	2.09	2.12	2.12	2.08	2.03	2.12	2.06	
Jan 11	2.09	S	2.05	2.09	2.16	2.09	2.08	2.09	2.09	2.07	2.08	2.10	2.06	2.05	2.05	2.06	2.06	2.09	2.07	2.08	2.07	2.08	2.07	2.07	2.05	2.16	2.08	
Jan 12	S	2.14	2.11	2.13	2.24	2.14	2.12	2.13	2.12	2.15	2.14	2.12	2.11	2.12	2.13	2.12	2.12	2.22	2.22	2.41	2.35	2.32	2.42	S	2.11	2.42	2.19	
Jan 13	2.51	2.26	2.13	2.14	2.12	2.11	2.19	2.18	2.17	2.14	2.12	2.11	2.11	2.14	2.15	2.14	2.13	2.11	2.11	2.12	2.13	2.12	S	2.13	2.11	2.51	2.16	
Jan 14	2.15	2.15	2.13	2.14	2.14	2.11	2.15	2.18	2.18	2.20	2.24	2.18	2.13	2.12	2.10	2.11	2.12	2.14	2.24	2.21	S	2.43	2.51	2.10	2.51	2.18	2.16	
Jan 15	2.50	2.87	2.36	2.27	2.21	2.17	2.18	2.20	2.19	2.21	2.16	2.16	2.18	2.24	2.32	2.31	2.27	2.24	2.23	2.27	S	2.24	2.22	2.23	2.16	2.87	2.27	
Jan 16	2.22	2.22	2.25	2.26	2.16	2.18	2.18	2.14	C	C	C	C	C	2.10	2.09	2.08	2.07	2.08	2.08	S	2.18	2.25	2.18	2.17	2.07	2.26	2.16	
Jan 17	2.22	2.34	2.22	2.17	2.28	2.34	2.23	2.18	2.23	2.15	2.11	2.09	2.15	2.12	2.13	2.12	2.14	2.07	S	2.06	2.08	2.09	2.09	2.09	2.06	2.34	2.16	
Jan 18	2.09	2.09	2.10	2.11	2.12	2.13	2.10	2.10	NRM	2.10	2.09	2.09	2.12	2.07	2.07	2.14	S	2.25	2.35	2.21	2.29	2.30	2.59	2.07	2.58	2.16		
Jan 19	2.73	2.57	2.95	2.69	2.42	2.54	2.49	2.10	2.09	2.09	2.11	2.08	2.07	2.07	2.07	2.07	S	2.08	2.09	2.12	2.14	2.09	2.14	2.15	2.07	2.95	2.26	
Jan 20	2.15	2.13	2.14	2.11	2.09	2.09	2.10	2.11	2.12	2.12	2.10	2.08	2.08	2.07	2.07	S	2.06	2.07	2.06	2.08	2.13	2.22	2.13	2.11	2.06	2.22	2.11	
Jan 21	2.07	2.07	2.07	2.07	2.07	2.05	2.03	2.02	2.02	2.02	2.02	2.03	2.03	S	2.03	2.03	2.03	2.03	2.04	2.02	2.05	2.05	2.04	2.03	2.02	2.07	2.04	
Jan 22	2.02	2.03	2.03	2.03	2.03	2.03	2.05	2.04	2.05	2.04	2.04	2.04	2.05	S	2.08	2.09	2.08	2.28	2.34	2.35	2.13	2.11	2.13	2.16	2.02	2.35	2.10	
Jan 23	2.15	2.15	2.15	2.15	2.19	2.22	2.47	2.50	2.32	2.26	2.23	2.26	S	2.21	2.19	2.15	2.13	2.10	2.10	2.08	2.09	2.08	2.07	2.08	2.07	2.50	2.19	
Jan 24	2.10	2.15	2.18	2.16	2.17	2.14	2.16	2.19	2.20	2.23	2.22	S	2.24	2.22	2.21	2.27	2.28	2.28	2.48	2.31	2.25	2.33	2.32	2.33	2.10	2.48	2.24	
Jan 25	2.28	2.25	2.27	2.33	2.27	2.19	2.18	2.17	2.18	2.21	S	2.24	2.31	2.31	2.28	2.30	2.29	2.30	2.40	2.30	2.26	2.29	2.45	2.19	2.17	2.45	2.27	
Jan 26	2.16	2.15	2.22	2.35	2.18	2.37	2.28	2.22	2.14	S	2.12	2.08	2.12	2.06	2.09	2.08	2.08	2.17	2.25	2.23	2.33	2.41	2.21	2.25	2.06	2.41	2.20	
Jan 27	2.31	2.32	2.29	2.34	2.28	2.25	2.26	2.22	S	2.12	2.05	2.10	2.05	2.07	2.06	2.04	2.04	2.10	2.13	2.14	2.39	2.24	2.25	2.18	2.04	2.39	2.18	
Jan 28	2.05	2.05	2.10	2.10	2.02	2.02	2.00	S	1.97	1.99	1.99	1.99	1.99	1.99	2.00	2.05	2.04	2.08	2.07	2.22	2.14	2.11	2.13	2.38	1.97	2.38	2.06	
Jan 29	2.24	2.24	2.07	2.31	2.10	2.15	S	2.03	2.20	2.33	2.32	2.26	2.12	2.05	2.04	2.03	2.14	2.14	2.10	2.23	2.36	2.35	2.28	2.24	2.03	2.36	2.19	
Jan 30	2.31	2.33	2.20	2.08	2.12	S	2.03	1.98	2.00	1.99	2.00	1.99	1.97	1.98	1.98	1.98	1.98	1.99	1.99	1.99	1.99	1.99	2.00	2.04	1.97	2.33	2.04	
Jan 31	2.08	2.09	2.06	2.17	S	2.38	2.51	2.26	2.24	2.07	2.01	2.02	2.00	1.99	1.99	2.00	2.00	2.03	2.03	2.00	2.01	2.01	2.02	2.03	1.99	2.51	2.09	
Diurnal Maximum	2.73	2.87	2.95	2.69	2.42	2.54	2.51	2.50	2.44	2.33	2.32	2.26	2.31	2.31	2.32	2.31	2.29	2.30	2.48	2.41	2.39	2.41	2.45	2.58				
Diurnal Average	2.17	2.17	2.15	2.16	2.14	2.16	2.15	2.13	2.13	2.11	2.10	2.09	2.08	2.08	2.08	2.09	2.09	2.11	2.13	2.14	2.14	2.15	2.16	2.15				

**C** Monthly Calibration      **S** Daily Zero-Span Check      **Q** Quality Assurance  
**K** Collection Error      **ND** 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.

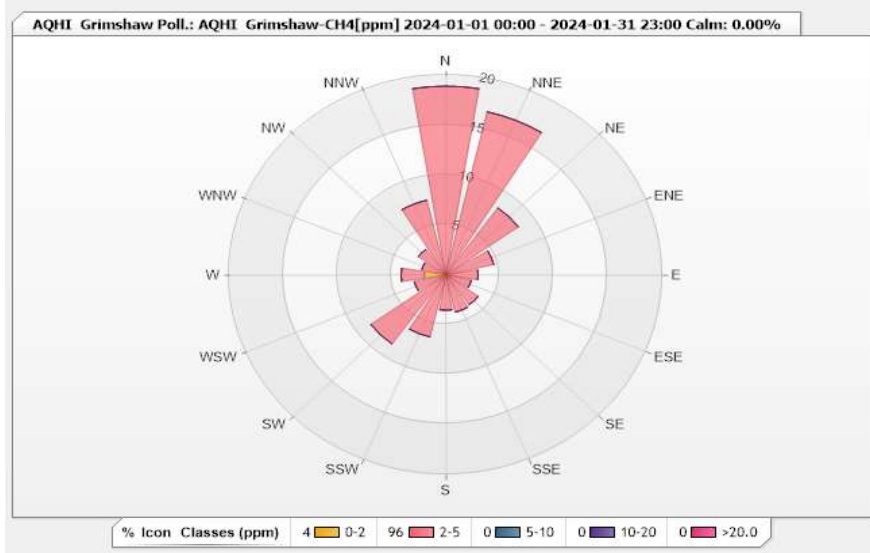


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-CH4[ppm] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 94.62%      Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	0	18.89	0	0	0	18.89
NNE	0	16.76	0	0	0	16.76
NE	0	8.24	0	0	0	8.24
ENE	0	4.55	0	0	0	4.55
E	0.14	2.84	0	0	0	2.98
ESE	0.43	1.99	0	0	0	2.42
SE	0	3.69	0	0	0	3.69
SSE	0.14	3.69	0	0	0	3.83
S	0	3.55	0	0	0	3.55
SSW	0	6.39	0	0	0	6.39
SW	0.57	7.95	0	0	0	8.52
WSW	0.43	2.56	0	0	0	2.99
W	1.99	2.13	0	0	0	4.12
WNW	0.14	2.13	0	0	0	2.27
NW	0	3.13	0	0	0	3.13
NNW	0	7.67	0	0	0	7.67
Summary	3.84	96.16	0	0	0	100



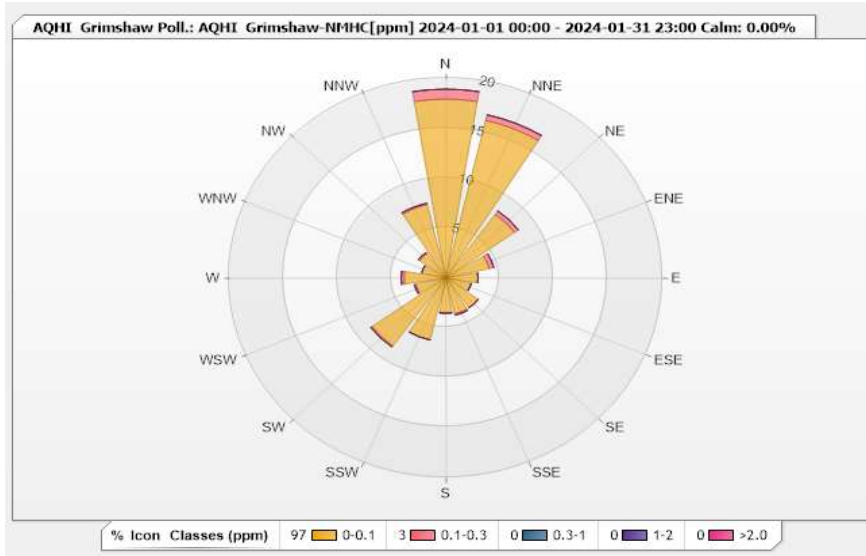


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-NMHC[ppm] Monthly: 01-2024

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 94.62%      Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	17.9	0.99	0	0	0	18.89
NNE	16.19	0.57	0	0	0	16.76
NE	7.81	0.43	0	0	0	8.24
ENE	4.12	0.43	0	0	0	4.55
E	2.98	0	0	0	0	2.98
ESE	2.41	0	0	0	0	2.41
SE	3.69	0	0	0	0	3.69
SSE	3.69	0.14	0	0	0	3.83
S	3.55	0	0	0	0	3.55
SSW	6.39	0	0	0	0	6.39
SW	8.38	0.14	0	0	0	8.52
WSW	2.84	0.14	0	0	0	2.98
W	3.84	0.28	0	0	0	4.12
WNW	2.27	0	0	0	0	2.27
NW	2.98	0.14	0	0	0	3.12
NNW	7.53	0.14	0	0	0	7.67
Summary	96.57	3.4	0	0	0	100



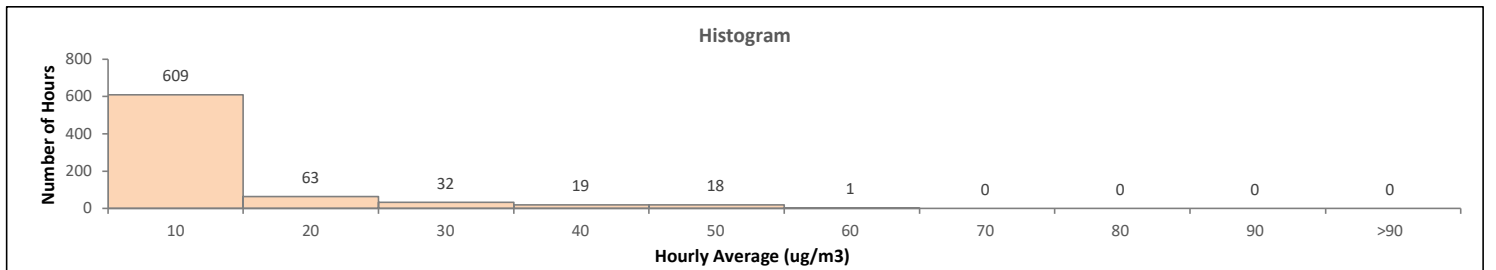
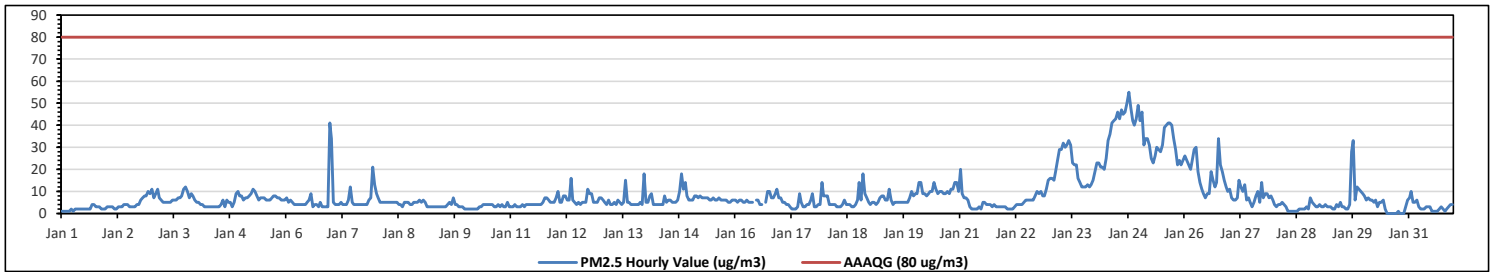
**Peace River Area Monitoring Program**  
**AQHI - Grimshaw Station - January 2024**  
**Summary of Hourly Averages**

**PARTICULATE MATTER 2.5 (PM<sub>2.5</sub>) in µg/m<sup>3</sup>**

Alberta Ambient Air Quality Guideline (AAAQG): 1-Hour 80 µg/m <sup>3</sup> , Alberta Ambient Air Quality Objective (AAAQO): 24-Hour 29 µg/m <sup>3</sup>																																															
Number of 1-Hour Exceedances: 0												Number of 24-Hour Exceedances: 2																																			
Maximum Hourly Value: 55 µg/m <sup>3</sup> on Jan 24 at hr 18												Hours in Service: 744																																			
Maximum Daily Value: 37.5 µg/m <sup>3</sup> on Jan 24												Hours of Data: 742																																			
Minimum Hourly Value: 0 µg/m <sup>3</sup> on Jan 30 at hr 12												Hours of Missing Data: 0																																			
Minimum Daily Value: 2 µg/m <sup>3</sup> on Jan 1												Hours of Calibration: 1																																			
Monthly Average: 8.3 µg/m <sup>3</sup>												Operational Uptime: 99.9																																			
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																				
Jan 1	1	1	1	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	4	2.0																				
Jan 2	3	3	3	3	2	2	3	3	3	4	4	4	3	3	3	3	4	4	6	7	8	8	10	9	2	10	4.4																				
Jan 3	11	7	9	11	7	6	5	5	5	5	5	6	6	6	7	7	8	11	12	10	7	9	8	6	5	12	7.5																				
Jan 4	5	5	4	4	3	3	3	3	3	3	3	3	3	3	4	6	3	6	5	5	3	5	9	10	8	3	10	4.5																			
Jan 5	8	6	7	7	8	9	11	10	8	6	7	7	7	6	6	6	7	8	8	7	7	6	6	6	6	6	11	7.3																			
Jan 6	7	5	6	5	4	4	4	4	4	4	4	5	6	9	3	4	4	3	5	3	3	3	3	41	3	41	6.0																				
Jan 7	34	5	4	4	4	5	4	4	4	4	6	12	5	4	4	4	4	4	4	4	6	7	21	13	4	34	7.1																				
Jan 8	9	7	5	5	5	5	5	5	5	5	5	5	4	4	3	5	5	5	4	4	5	5	5	6	3	9	5.0																				
Jan 9	5	6	5	3	3	3	3	3	3	3	3	3	3	3	3	4	5	4	7	4	4	3	3	3	2	7	3.7																				
Jan 10	2	2	2	2	2	2	2	3	3	4	4	4	4	4	4	4	3	3	4	3	3	3	5	3	2	5	3.1																				
Jan 11	3	3	4	3	3	3	4	3	4	4	4	4	4	4	4	4	4	4	5	7	6	5	5	5	3	7	4.3																				
Jan 12	7	10	5	5	8	8	6	6	16	6	5	4	5	4	5	5	5	11	9	9	5	5	5	7	4	16	6.7																				
Jan 13	7	6	5	4	6	4	4	5	4	6	5	4	5	15	5	5	4	4	4	4	4	5	4	18	4	18	5.7																				
Jan 14	5	5	8	9	4	4	4	4	4	4	8	5	6	6	5	5	5	6	10	18	11	14	8	6	4	18	6.8																				
Jan 15	6	6	8	8	7	8	7	7	7	7	6	6	7	6	6	7	6	6	6	6	5	5	6	6	5	8	6.5																				
Jan 16	6	5	6	6	5	5	6	5	5	5	C	6	6	4	4	5	10	10	7	7	9	11	7	4	11	6.4																					
Jan 17	7	5	5	4	4	3	2	2	3	9	5	3	3	4	4	6	9	3	3	4	4	14	8	2	14	4.8																					
Jan 18	8	8	4	4	4	4	3	3	3	4	6	4	4	4	3	3	4	6	14	6	18	9	7	5	3	18	5.8																				
Jan 19	4	5	5	4	5	7	8	8	6	6	11	6	4	5	5	5	5	5	5	5	5	7	10	8	4	11	6.0																				
Jan 20	9	9	14	14	9	9	8	9	10	10	14	11	9	10	10	9	9	10	9	11	11	14	14	10	8	14	10.5																				
Jan 21	20	9	7	7	6	3	2	2	2	2	3	2	5	5	4	4	4	3	4	3	3	3	3	2	20	4.5																					
Jan 22	3	2	2	2	2	3	4	4	4	4	5	6	6	6	6	6	8	10	9	10	8	8	11	15	2	15	6.0																				
Jan 23	16	16	15	19	24	29	29	32	30	31	33	31	23	22	22	16	14	12	12	12	13	12	13	15	12	33	20.5																				
Jan 24	19	23	23	21	21	20	25	33	36	41	42	43	46	43	47	45	46	50	55	48	42	40	43	49	19	55	37.5																				
Jan 25	42	46	31	34	34	31	25	23	26	30	29	28	31	39	40	41	41	40	34	29	22	24	22	24	22	46	31.9																				
Jan 26	26	24	22	20	24	29	30	19	14	11	9	7	9	9	19	15	12	14	34	22	19	15	12	10	7	34	17.7																				
Jan 27	11	7	6	6	7	15	12	10	13	6	7	5	3	5	8	10	5	14	7	9	9	7	8	6	3	15	8.2																				
Jan 28	4	3	4	4	5	4	3	1	1	1	1	1	1	2	2	2	2	3	2	7	5	4	3	3	1	7	2.8																				
Jan 29	4	3	3	4	3	3	2	2	4	3	5	3	3	2	2	4	28	33	6	12	11	10	9	2	33	6.8																					
Jan 30	8	6	7	6	6	5	6	3	5	5	6	2	0	0	0	0	0	0	1	0	0	0	3	6	0	8	3.1																				
Jan 31	7	10	5	5	6	3	2	2	3	3	3	1	1	1	1	2	3	2	1	2	3	4	4	1	10	3.2																					
Diurnal Maximum	42	46	31	34	34	31	30	33	36	41	42	43	46	43	47	45	46	50	55	48	42	40	43	49																							
Diurnal Average	9.9	8.3	7.6	7.5	7.5	7.8	7.5	7.3	7.6	8.6	7.5	7.2	7.8	7.9	7.7	7.7	9.8	10.5	8.8	8.4	8.4	9.3	10.3																								
C	Monthly Calibration											S	Daily Zero-Span Check											Q	Quality Assurance																						
K	Collection Error											ND	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.



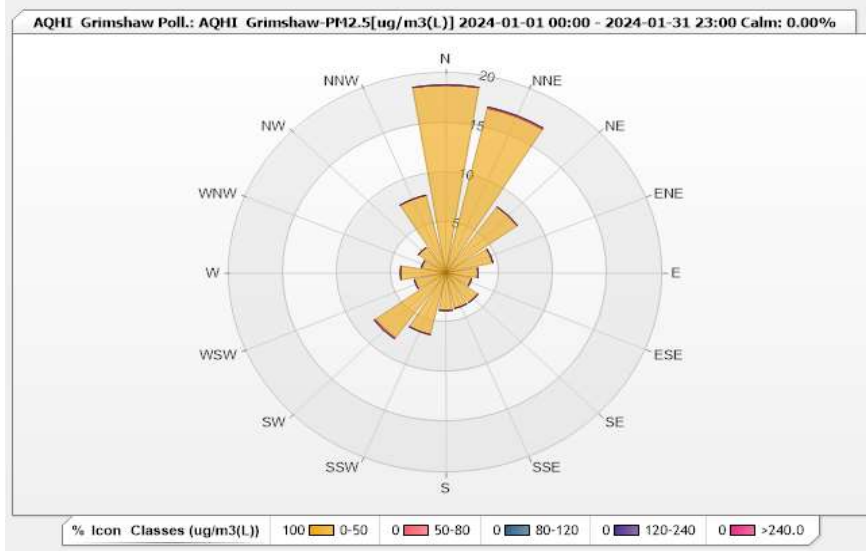
Station: AQHI Grimshaw Poll.: AQHI Grimshaw-PM2.5[ug/m3(L)] Monthly: 01-2024

.)]

Type: Pollution Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm: 0.00%      Valid Data: 99.33%      Calm Avg: 0.00 [ug/m3(L)]

Direction	0-50	50-80	80-120	120-240	>240.0	Total
N	18.81	0	0	0	0	18.81
NNE	16.91	0.14	0	0	0	17.05
NE	8.12	0	0	0	0	8.12
ENE	4.47	0	0	0	0	4.47
E	2.98	0	0	0	0	2.98
ESE	2.44	0	0	0	0	2.44
SE	3.65	0	0	0	0	3.65
SSE	3.65	0	0	0	0	3.65
S	3.79	0	0	0	0	3.79
SSW	6.36	0	0	0	0	6.36
SW	7.98	0.14	0	0	0	8.12
WSW	2.98	0	0	0	0	2.98
W	4.19	0	0	0	0	4.19
WNW	2.3	0	0	0	0	2.3
NW	3.11	0	0	0	0	3.11
NNW	7.98	0	0	0	0	7.98
Summary	100	0.28	0	0	0	100



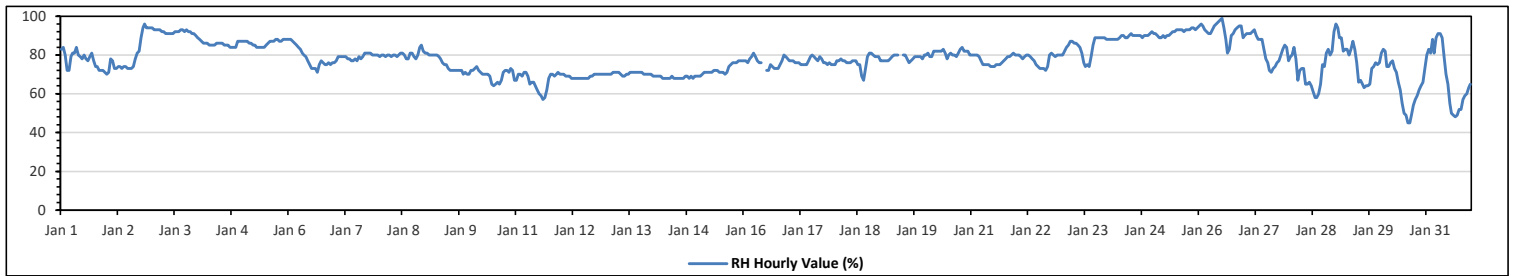
**Peace River Area Monitoring Program**  
**AQHI - Grimshaw Station - January 2024**  
**Summary of Hourly Averages**  
**RELATIVE HUMIDITY (RH) in %**

Maximum Hourly Value:	99 %	on Jan 26 at hr 12	Hours in Service:	744
Maximum Daily Value:	92.7 %	on Jan 26	Hours of Data:	740
Minimum Hourly Value:	45 %	on Jan 30 at hr 14	Hours of Missing Data:	4
Minimum Daily Value:	64.5 %	on Jan 30	Hours of Calibration:	0
Monthly Average:	78.0 %		Operational Uptime:	99.5

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																																																																				
Jan 1	83	84	80	72	72	79	81	81	84	80	79	78	80	78	77	79	81	77	74	74	72	72	72	71	71	84	77.5																																																																				
Jan 2	70	71	78	77	73	73	74	74	73	74	74	73	73	73	74	78	81	82	89	94	96	94	94	94	70	96	79.4																																																																				
Jan 3	94	93	93	93	93	92	92	91	91	91	91	91	92	92	92	93	93	92	93	92	92	91	91	90	90	94	92.0																																																																				
Jan 4	89	88	87	86	86	86	85	85	85	85	86	86	86	86	85	85	85	84	84	84	84	87	87	87	84	89	85.8																																																																				
Jan 5	87	87	87	86	86	85	85	84	84	84	84	84	85	86	87	87	88	88	88	87	87	88	88	88	84	88	86.2																																																																				
Jan 6	88	88	87	86	85	84	83	81	80	79	77	75	73	73	73	71	75	77	76	75	75	76	75	76	71	88	78.7																																																																				
Jan 7	76	77	79	79	79	79	78	78	77	77	78	77	79	78	79	81	81	81	81	80	80	80	80	80	76	81	78.9																																																																				
Jan 8	79	80	80	79	80	80	79	80	80	79	80	81	81	80	78	78	81	81	79	78	80	84	85	82	78	85	80.2																																																																				
Jan 9	81	81	80	80	80	80	79	78	76	75	75	73	72	72	72	72	72	72	72	70	71	70	70	70	70	81	75.1																																																																				
Jan 10	72	72	73	74	72	71	70	70	70	69	65	64	65	66	65	67	71	72	72	71	73	72	67	64	74	69.7																																																																					
Jan 11	67	70	70	69	71	71	69	65	66	66	64	62	60	59	57	58	62	68	70	70	69	70	71	70	57	71	66.4																																																																				
Jan 12	70	70	69	69	68	68	68	68	68	68	68	68	68	68	68	69	69	70	70	70	70	70	70	70	68	70	69.0																																																																				
Jan 13	70	70	70	71	71	71	70	69	69	70	70	71	71	71	71	71	71	71	71	70	70	70	70	70	69	71	70.4																																																																				
Jan 14	69	69	69	69	68	68	68	68	68	68	69	68	68	68	68	68	69	69	68	69	68	69	69	69	68	69	68.5																																																																				
Jan 15	69	69	70	71	71	71	71	71	72	72	72	71	71	71	70	71	74	75	76	76	76	77	77	77	69	77	72.5																																																																				
Jan 16	77	77	76	78	79	81	79	77	76	76	K	K	72	72	75	74	73	73	75	77	80	79	78	72	81	76.2																																																																					
Jan 17	77	77	77	76	76	75	75	75	75	75	77	79	80	79	78	77	79	78	76	75	76	75	75	75	75	80	76.6																																																																				
Jan 18	75	77	77	78	77	77	76	76	76	77	77	77	75	75	69	67	73	79	81	81	80	79	79	79	67	81	76.5																																																																				
Jan 19	77	77	77	77	77	78	79	80	80	80	K	K	80	80	78	76	77	78	79	79	79	78	78	80	76	80	78.4																																																																				
Jan 20	80	81	79	79	82	82	82	82	82	83	81	78	80	81	80	80	79	81	83	84	82	82	82	80	78	84	81.0																																																																				
Jan 21	80	80	80	80	79	77	75	75	75	75	74	74	74	75	75	75	76	77	78	79	79	80	81	80	74	81	77.2																																																																				
Jan 22	80	80	79	78	79	80	80	79	78	77	75	74	73	73	73	72	74	80	81	80	79	80	80	80	72	81	77.7																																																																				
Jan 23	80	82	84	85	87	87	86	86	85	84	81	76	74	75	74	79	85	89	89	89	89	89	88	74	89	83.8																																																																					
Jan 24	88	88	88	88	88	88	89	90	90	89	89	90	91	90	90	90	90	90	90	90	90	91	92	88	92	89.5																																																																					
Jan 25	91	91	90	89	89	90	89	90	90	91	92	92	93	93	93	93	92	93	93	93	94	94	93	89	94	91.8																																																																					
Jan 26	95	96	95	93	92	91	91	93	95	96	97	98	99	94	88	81	83	90	91	93	94	95	95	89	81	99	92.7																																																																				
Jan 27	90	91	91	91	92	93	90	88	88	88	83	78	76	72	71	73	74	76	77	80	83	85	84	77	71	93	83.0																																																																				
Jan 28	79	80	84	78	67	72	73	73	65	65	66	64	61	58	58	60	65	75	74	81	83	80	82	92	58	92	72.3																																																																				
Jan 29	96	94	89	89	82	83	83	80	83	87	83	76	66	67	65	63	64	64	65	73	74	76	75	76	63	96	77.2																																																																				
Jan 30	81	83	82	74	74	76	77	73	71	66	62	55	50	49	45	45	49	54	57	59	62	64	66	73	45	83	64.5																																																																				
Jan 31	80	83	81	88	81	89	91	91	89	79	70	65	55	50	49	48	49	52	52	57	59	60	63	65	48	91	68.6																																																																				
Diurnal Maximum	96	96	95	93	93	93	92	93	95	96	97	98	99	94	93	93	93	93	93	94	96	95	95	94																																																																							
Diurnal Average	80.3	80.8	80.7	80.1	79.3	79.9	79.7	79.1	78.8	78.3	77.3	75.9	74.9	74.3	73.5	73.5	75.1	77.0	77.5	78.5	78.7	79.4	79.5	79.3																																																																							
C	Monthly Calibration																							S	Daily Zero-Span Check																							Q	Quality Assurance																																														
K	Collection Error																							ND	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 days is not met.  
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



**Peace River Area Monitoring Program**  
**AQHI - Grimshaw Station - January 2024**  
**Summary of Hourly Averages**  
**BAROMETRIC PRESSURE (BP) in millibar**

Maximum Hourly Value:	967	mb	on Jan 18 at hr 11	Hours in Service:	744
Maximum Daily Value:	964	mb	on Jan 18	Hours of Data:	740
Minimum Hourly Value:	925	mb	on Jan 30 at hr 4	Hours of Missing Data:	4
Minimum Daily Value:	930	mb	on Jan 30	Hours of Calibration:	0
Monthly Average:	943	mb		Operational Uptime:	99.5

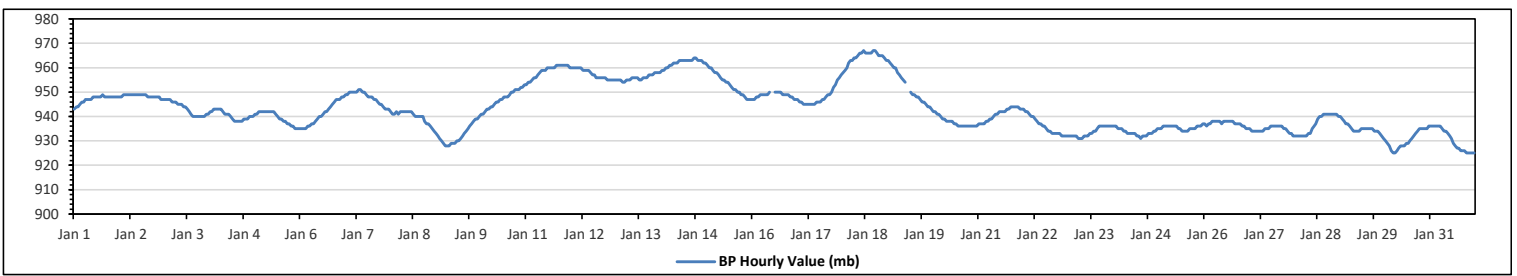
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23
Jan 1	943	944	944	945	946	946	947	947	947	947	948	948	948	948	948	949	948	948	948	948	948	948	948	948	943	949	947
Jan 2	948	948	949	949	949	949	949	949	949	949	949	949	949	949	949	948	948	948	948	948	948	948	948	947	947	949	948
Jan 3	947	947	947	947	946	946	946	945	945	945	944	944	943	942	941	940	940	940	940	940	940	940	941	941	940	947	943
Jan 4	942	942	943	943	943	943	943	942	941	941	941	940	939	938	938	938	938	938	939	939	939	940	940	940	938	943	940
Jan 5	941	941	942	942	942	942	942	942	942	942	942	941	940	939	939	938	938	937	937	936	936	935	935	935	935	942	939
Jan 6	935	935	935	935	936	936	937	937	938	939	940	940	941	942	942	943	944	945	946	947	947	947	948	948	935	948	941
Jan 7	949	949	950	950	950	950	951	951	951	950	950	949	948	948	948	947	947	946	945	945	944	943	943	943	943	951	948
Jan 8	942	941	941	942	941	942	942	942	942	942	942	941	940	940	940	940	940	940	938	937	937	936	935	934	934	942	940
Jan 9	933	932	931	930	929	928	928	928	929	929	929	930	930	931	932	933	934	935	936	937	938	939	939	940	938	940	933
Jan 10	941	941	942	943	943	944	944	945	946	946	947	947	948	948	948	949	950	950	951	951	951	952	952	953	941	953	947
Jan 11	953	954	954	955	956	956	957	958	959	959	959	960	960	960	960	960	961	961	961	961	961	961	961	960	953	961	959
Jan 12	960	960	960	960	960	960	959	959	959	959	958	957	956	956	956	956	956	956	955	955	955	955	955	955	955	960	957
Jan 13	955	955	955	954	954	955	955	955	956	956	956	956	955	955	955	956	956	956	957	957	957	958	958	958	954	958	956
Jan 14	959	959	960	960	961	961	962	962	962	963	963	963	963	963	963	963	964	964	964	963	963	963	962	962	959	964	962
Jan 15	961	960	960	959	958	958	957	956	955	955	954	954	953	952	951	951	950	950	949	949	949	948	947	947	947	961	953
Jan 16	947	947	948	948	949	949	949	949	949	950	K	K	950	950	950	950	949	949	949	949	948	948	947	947	947	950	949
Jan 17	947	946	946	945	945	945	945	945	945	945	946	946	946	947	947	948	949	949	950	952	953	955	956	957	945	957	948
Jan 18	958	959	960	962	963	963	964	964	965	966	966	967	966	966	966	966	967	967	966	965	965	965	964	963	958	967	964
Jan 19	963	962	961	960	960	958	957	956	955	954	K	K	950	949	949	948	948	947	946	946	945	944	944	943	943	963	952
Jan 20	942	942	941	941	940	939	939	938	938	938	938	937	937	936	936	936	936	936	936	936	936	936	936	936	936	942	938
Jan 21	937	937	937	937	938	938	939	939	940	941	941	942	942	942	942	943	943	944	944	944	944	944	943	943	937	944	941
Jan 22	943	942	942	941	940	940	939	938	937	937	936	936	935	934	934	933	933	933	933	933	932	932	932	932	932	944	936
Jan 23	932	932	932	932	932	931	931	931	932	932	932	933	933	934	934	935	936	936	936	936	936	936	936	936	931	936	934
Jan 24	936	936	935	935	935	934	934	933	933	933	933	933	932	932	931	932	932	932	933	933	933	934	934	935	931	936	933
Jan 25	935	935	936	936	936	936	936	936	936	936	935	935	934	934	934	934	935	935	935	935	936	936	936	937	934	937	935
Jan 26	937	936	937	937	938	938	938	938	938	937	938	938	938	938	938	938	937	937	937	937	936	935	935	935	935	938	937
Jan 27	935	934	934	934	934	934	934	934	935	935	935	936	936	936	936	936	936	936	935	935	934	933	932	932	932	936	935
Jan 28	932	932	932	932	932	932	933	933	933	935	936	937	939	940	940	941	941	941	941	941	941	941	941	940	932	941	937
Jan 29	940	939	938	937	937	936	935	934	934	934	934	934	934	935	935	935	935	934	934	934	933	933	932	931	931	940	935
Jan 30	930	929	928	926	925	925	926	927	928	928	928	929	929	930	931	932	933	934	935	935	935	935	936	925	936	930	930
Jan 31	936	936	936	936	936	936	935	934	934	933	932	931	929	928	927	927	926	926	926	925	925	925	925	925	925	936	930
Diurnal Maximum	963	962	961	962	963	964	964	965	966	966	967	966	966	966	966	967	967	966	965	965	965	964	963	963	963	963	963
Diurnal Average	944	944	944	944	944	944	943	944	944	943	943	943	943	943	943	944	944	944	944	943	943	943	943	943	943	943	943

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





Peace River Area Monitoring Program

AQHI - Grimshaw Station - January 2024

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

Maximum Hourly Value:	8.6 °C	on Jan 30 at hr 15	Hours in Service:	744
Maximum Daily Value:	5.4 °C	on Jan 30	Hours of Data:	744
Minimum Hourly Value:	-38.7 °C	on Jan 12 at hr 10	Hours of Missing Data:	0
Minimum Daily Value:	-36.9 °C	on Jan 14	Hours of Calibration:	0
Monthly Average:	-16.3 °C		Operational Uptime:	100.0

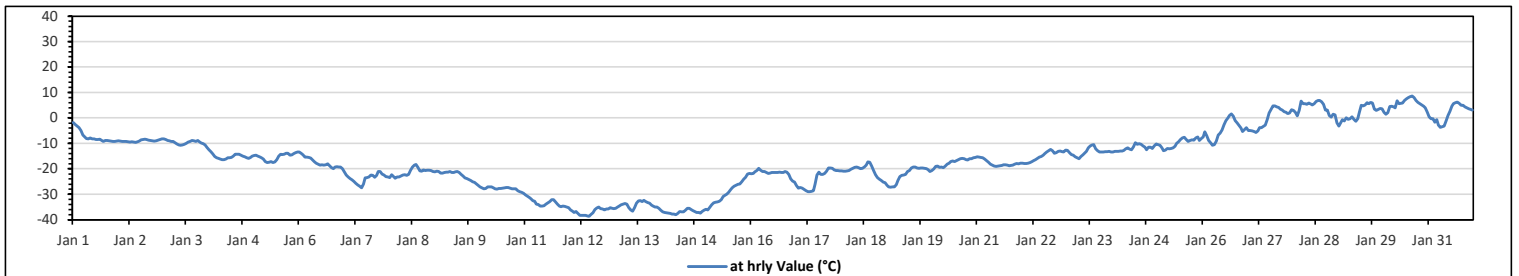
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
Jan 1	-1.8	-2.6	-3.2	-3.8	-4.9	-6.7	-7.5	-8.1	-8.2	-7.9	-8.2	-8.2	-8.5	-8.5	-8.3	-8.9	-9.3	-8.9	-8.8	-9	-9.1	-9.3	-9.2	-9.1	-9.3	-1.8	-7.4	
Jan 2	-9	-9.1	-9.3	-9.3	-9.3	-9.4	-9.5	-9.4	-9.5	-9.6	-9.4	-9.1	-8.6	-8.4	-8.3	-8.5	-8.7	-8.9	-9	-9.1	-9	-8.7	-8.4	-8.2	-9.6	-8.2	-9.0	
Jan 3	-8.2	-8.5	-8.8	-9	-9.2	-9.3	-9.7	-10.2	-10.7	-10.8	-10.7	-10.3	-9.9	-9.5	-9.2	-8.8	-9	-9.3	-8.9	-9.4	-9.8	-10.1	-10.6	-11.6	-11.6	-8.2	-9.6	
Jan 4	-12.5	-13.3	-14.1	-15.1	-15.7	-15.9	-16.2	-16.4	-16.4	-16.2	-15.7	-15.6	-15.5	-14.9	-14.2	-14.3	-14.3	-14.7	-15	-15.3	-15.7	-15.9	-15.5	-15	-16.4	-12.5	-15.1	
Jan 5	-14.8	-14.6	-14.9	-15.3	-15.6	-16.2	-17.1	-17.5	-17.4	-17.2	-17.5	-17.3	-16.3	-15	-14.3	-14.4	-14.2	-13.9	-13.8	-14.6	-14.5	-14	-13.6	-13.4	-17.5	-13.4	-15.3	
Jan 6	-13.4	-13.8	-14.5	-15.4	-15.4	-15.5	-15.8	-16.4	-17.1	-17.7	-18.2	-18.5	-18.4	-18.5	-18.4	-18	-18.8	-19.5	-20	-19.3	-19.1	-19.2	-19.3	-20	-20.0	-13.4	-17.5	
Jan 7	-21.2	-22.4	-23.2	-23.8	-24.3	-24.9	-25.6	-26.3	-26.8	-27.4	-25.9	-23.6	-23.4	-23.1	-22.5	-22.6	-23.3	-22.6	-21	-21.1	-22	-22.5	-23	-23.1	-27.4	-21.0	-23.6	
Jan 8	-23.4	-22.3	-23	-23.7	-23.2	-23.1	-22.8	-22.5	-22.3	-22.6	-22.1	-20.5	-19.3	-18.6	-18.3	-19.4	-20.8	-20.9	-20.4	-20.6	-20.5	-20.5	-20.6	-21	-23.7	-18.3	-21.4	
Jan 9	-21.2	-20.9	-21.1	-21.6	-21.6	-21.5	-21.3	-21.3	-21.1	-21.4	-21.5	-21.2	-21	-21.4	-22.1	-22.8	-23.6	-23.8	-24.2	-24.6	-25.1	-25.4	-25.9	-26.4	-26.4	-20.9	-22.6	
Jan 10	-27.1	-27.5	-27.9	-27.7	-27.1	-27	-27.1	-27.5	-27.8	-28	-27.7	-27.7	-27.6	-27.4	-27.4	-27.3	-27.3	-27.6	-27.8	-27.8	-27.8	-28.5	-29	-29.3	-29.6	-29.6	-27.0	-27.8
Jan 11	-30.2	-30.8	-31.2	-31.8	-32.5	-32.7	-33.8	-34	-34.7	-34.7	-34.5	-33.9	-33.4	-32.8	-32.2	-32.2	-33	-33.8	-34.6	-34.9	-34.6	-34.8	-35	-35.2	-35.2	-30.2	-33.4	
Jan 12	-36.1	-36.6	-37.1	-36.8	-37.5	-38.3	-38.3	-38.3	-38.5	-38.7	-37.9	-37.3	-36	-35.3	-35	-35.6	-35.7	-36.1	-35.8	-35.7	-35.2	-35.5	-35.6	-35.2	-38.7	-35.0	-36.7	
Jan 13	-35.5	-35	-34.6	-34.1	-33.8	-33.6	-33.8	-35.2	-36.1	-36.6	-35.2	-33.5	-32.6	-32.4	-32.9	-32.3	-32.8	-33.2	-33.5	-34.3	-34.6	-35	-35	-35.5	-36.6	-32.3	-34.2	
Jan 14	-36.3	-36.9	-37.1	-37.3	-37.4	-37.5	-37.7	-37.7	-38	-37.6	-36.7	-36.9	-36.9	-36.3	-35.5	-35.5	-36	-36.4	-36.7	-37.2	-37.1	-37.4	-36.7	-36.3	-38.0	-35.5	-36.9	
Jan 15	-35.9	-36.1	-35.1	-34.1	-33.4	-33.1	-33	-32.7	-32.1	-30.9	-30.4	-30	-29.3	-28.2	-27.5	-26.8	-26.4	-26.1	-25.9	-25.1	-24.1	-23.3	-22	-21.8	-36.1	-21.8	-29.3	
Jan 16	-21.9	-21.8	-21.2	-20.7	-19.8	-20.5	-21	-21.1	-21.5	-21.7	-21.6	-21.5	-21.4	-21.4	-21.5	-21.3	-21.4	-21.4	-21.1	-21.3	-22.2	-23.9	-24.8	-25.2	-25.2	-19.8	-21.7	
Jan 17	-26.6	-27.6	-27.3	-27.6	-28.1	-28.5	-29	-29	-28.8	-28.5	-26.1	-22.4	-21.3	-22.1	-22.1	-21.8	-20.9	-19.7	-19.6	-19.8	-20.4	-20.7	-20.7	-20.8	-29.0	-19.6	-24.1	
Jan 18	-20.8	-20.9	-20.9	-20.8	-20.6	-20.2	-19.8	-19.4	-19.2	-19.5	-20	-19.8	-19.2	-18.6	-17.3	-17.4	-18.9	-20.6	-22.3	-23.4	-24.1	-24.6	-25.2	-25.5	-25.5	-17.3	-20.8	
Jan 19	-26.5	-27.1	-27.2	-27.1	-27.1	-26.2	-24.5	-23	-22.6	-22.5	-22.1	-21	-20.7	-19.7	-19.3	-19.3	-19.6	-19.8	-19.7	-19.7	-19.8	-19.9	-20.3	-21	-27.2	-19.3	-22.3	
Jan 20	-20.7	-20.1	-19	-18.9	-19.4	-19.3	-19.5	-18.9	-18.2	-17.8	-17.2	-16.9	-17.2	-16.8	-16.4	-16.1	-15.9	-16	-16.4	-16.5	-16.1	-16	-15.7	-15.5	-20.7	-15.5	-17.5	
Jan 21	-15.3	-15.4	-15.5	-15.7	-16.2	-16.8	-17.4	-18.1	-18.5	-18.9	-19	-18.9	-18.8	-18.7	-18.4	-18.4	-18.6	-18.8	-18.7	-18.5	-18.2	-17.9	-18	-17.8	-19.0	-15.3	-17.8	
Jan 22	-17.8	-17.9	-17.9	-17.8	-17.5	-17.2	-16.7	-16.3	-15.9	-15.4	-15.1	-14.6	-14	-13.4	-12.9	-12.3	-12.9	-13.8	-13.6	-13.1	-13	-13.3	-13.4	-12.6	-17.9	-12.3	-14.9	
Jan 23	-12.7	-13.6	-14.4	-14.7	-15.2	-15.7	-16	-15.1	-14.5	-13.9	-13.1	-11.8	-10.9	-10.7	-10.5	-12.1	-12.9	-13.4	-13.4	-13.4	-13.3	-13.3	-13.2	-13.4	-16.0	-10.5	-13.4	
Jan 24	-13.4	-13.1	-13.1	-13.1	-13	-13	-12.7	-12.1	-11.7	-12.2	-12.4	-11.3	-9.7	-10.3	-10.1	-10.3	-11	-11.5	-12.5	-11.5	-11.5	-12	-10.9	-10.2	-13.4	-9.7	-11.8	
Jan 25	-10.5	-10.8	-11.8	-12.8	-12.6	-12	-12.1	-12	-11.7	-11.1	-9.9	-9.4	-8.5	-7.9	-7.6	-8.4	-9.2	-8.8	-8.6	-8.7	-7.9	-7.4	-8.9	-8.1	-12.8	-7.4	-9.9	
Jan 26	-7.4	-5.5	-6.9	-8.9	-9.7	-10.8	-10.5	-9.1	-6.7	-6	-4.7	-2.7	-1	-0.1	1	1.6	0.7	-1.1	-1.9	-2.9	-4	-5.4	-4.6	-3.8	-10.8	1.6	-4.6	
Jan 27	-5	-5	-5.1	-5.3	-5.6	-5.1	-3.8	-3.8	-3.3	-2.8	-0.6	2	3.3	4.7	4.8	4.3	4.1	3.5	3.1	2.5	2.2	1.7	2	3.2	-5.6	4.8	-0.2	
Jan 28	3	2.3	0.8	3	6.6	5.6	5.6	5.3	5.9	5.5	5.2	5.6	6.5	6.9	6.8	6.4	5.3	3.1	3.1	1	0.3	1.4	1.2	-1.9	-1.9	6.9	3.9	
Jan 29	-3.2	-1.8	-0.6	-1.2	0	-0.5	-0.3	0.4	-0.5	-1.4	-0.2	2.3	5	4.7	5.1	6	5.6	6.2	5.9	3.5	3	3.3	3.8	3.6	-3.2	6.2	2.0	
Jan 30	2.3	1.4	2.1	4.5	4.6	4.3	4	6.7	5.6	5.7	5.9	6.9	7.5	7.9	8.4	8.6	7.9	6.9	6.2	5.6	5.1	4.6	4	2.4	1.4	8.6	5.4	
Jan 31	0.5	-0.3	-0.3	-1.7	-0.7	-2.8	-3.7	-3.4	-3.1	-1.2	1	2.6	4.6	5.6	6	6.3	5.8	5	5	4.4	3.9	3.6	3.4	3.1	-3.7	6.3	1.8	
Diurnal Maximum	3.0	2.3	2.1	4.5	6.6	5.6	5.6	6.7	5.9	5.7	5.9	6.9	7.5	7.9	8.4	8.6	7.9	6.9	6.2	5.6	5.1	4.6	4.0	3.6				
Diurnal Average	-16.9	-17.0	-17.2	-17.3	-17.3	-17.5	-17.6	-17.5	-17.5	-17.4	-16.8	-16.0	-15.3	-14.9	-14.5	-14.5	-15.0	-15.3	-15.5	-15.8	-16.0	-16.1	-16.2	-16.3				

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

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



**Peace River Area Monitoring Program**  
**AQHI - Grimshaw Station - January 2024**  
**Summary of Hourly Averages**  
**STATION TEMPERATURE (ST) in Degree Celsius**

Maximum Hourly Value:	25.4 °C	on Jan 30 at hr 5	Hours in Service:	744
Maximum Daily Value:	22.9 °C	on Jan 30	Hours of Data:	744
Minimum Hourly Value:	20.1 °C	on Jan 16 at hr 18	Hours of Missing Data:	0
Minimum Daily Value:	20.9 °C	on Jan 18	Hours of Calibration:	0
Monthly Average:	21.5 °C		Operational Uptime:	100.0

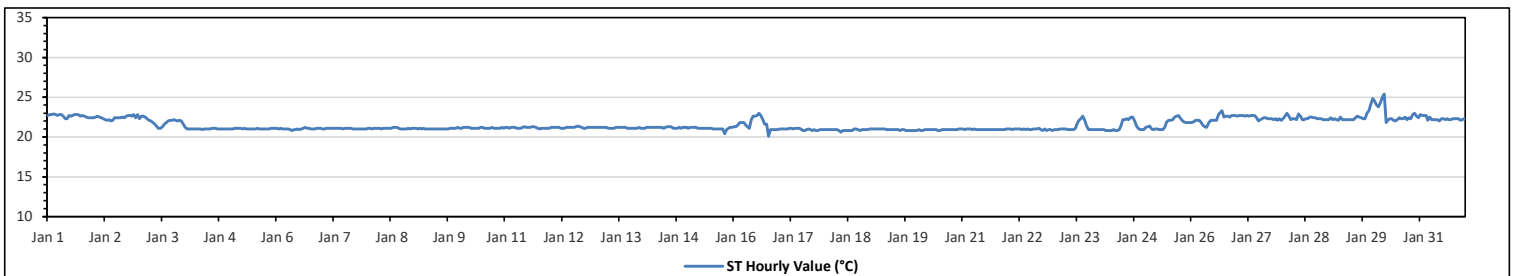
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
Jan 1	22.7	22.8	22.8	22.9	22.8	22.7	22.8	22.8	22.6	22.3	22.3	22.7	22.6	22.7	22.8	22.8	22.8	22.6	22.7	22.6	22.5	22.4	22.4	22.4	22.3	22.9	22.6	
Jan 2	22.4	22.5	22.6	22.5	22.4	22.3	22.2	22.1	22.2	22.0	22.1	22.4	22.4	22.4	22.4	22.5	22.4	22.6	22.7	22.7	22.6	22.8	22.4	22.8	22.0	22.8	22.4	
Jan 3	22.3	22.6	22.6	22.5	22.3	22.1	22.0	21.8	21.6	21.4	21.1	21.1	21.3	21.6	21.8	22.0	22.1	22.1	22.2	22.1	22.0	22.1	22.0	21.6	21.1	22.6	21.9	
Jan 4	21.2	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	20.9	21.0	21.0	21.0	21.0	21.1	21.1	21.1	21.0	21.0	21.0	21.0	21.0	21.0	21.0	20.9	21.2	21.0	
Jan 5	21.0	21.0	21.1	21.1	21.1	21.1	21.0	21.1	21.0	21.0	21.0	21.0	21.0	21.0	21.1	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.1	21.0	21.1	21.0	
Jan 6	21.1	21.0	21.1	21.0	21.0	21.0	20.9	20.8	20.9	20.9	21.0	20.9	21.0	21.0	21.1	21.2	21.1	21.1	21.0	21.0	21.0	21.0	21.1	21.1	21.1	21.0	21.0	
Jan 7	21.0	21.0	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.1	
Jan 8	21.1	21.1	21.0	21.1	21.1	21.1	21.1	21.0	21.1	21.1	21.1	21.1	21.1	21.2	21.2	21.2	21.1	21.0	21.0	21.0	21.0	21.1	21.1	21.0	21.1	21.0	21.1	
Jan 9	21.1	21.1	21.0	21.1	21.0	21.1	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.1	21.1	21.1	21.1	21.0	21.2	21.0	
Jan 10	21.1	21.1	21.2	21.2	21.2	21.2	21.1	21.1	21.1	21.1	21.1	21.2	21.2	21.1	21.1	21.1	21.1	21.2	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.2	21.1	
Jan 11	21.2	21.2	21.1	21.2	21.2	21.2	21.1	21.1	21.1	21.2	21.3	21.2	21.2	21.2	21.3	21.3	21.2	21.1	21.0	21.1	21.1	21.1	21.1	21.1	21.0	21.3	21.2	
Jan 12	21.2	21.2	21.2	21.2	21.2	21.1	21.1	21.1	21.2	21.2	21.2	21.2	21.2	21.3	21.4	21.3	21.2	21.1	21.1	21.2	21.2	21.2	21.2	21.1	21.1	21.4	21.2	
Jan 13	21.2	21.2	21.2	21.2	21.2	21.2	21.1	21.1	21.1	21.1	21.2	21.2	21.2	21.2	21.2	21.2	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.2	21.1	21.2	21.2	
Jan 14	21.1	21.1	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.1	21.2	21.1	21.2	21.3	21.3	21.3	21.1	21.1	21.1	21.2	21.1	21.2	21.2	21.1	21.3	21.2	
Jan 15	21.1	21.2	21.2	21.2	21.2	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.0	21.0	21.0	21.0	21.0	21.0	21.0	20.4	20.9	21.1	21.2	21.2	21.0	21.1	
Jan 16	21.3	21.3	21.5	21.8	21.8	21.8	21.5	21.3	21.1	22.2	22.6	22.6	22.7	23.0	22.7	22.2	21.6	21.6	20.1	20.9	20.9	20.9	20.9	20.9	20.8	21.1	21.0	
Jan 17	21.0	21.0	21.0	21.0	21.0	21.1	21.1	21.0	21.1	21.1	21.1	21.0	20.8	20.8	20.9	21.0	20.9	20.8	20.9	20.8	20.8	20.9	20.9	20.9	20.9	20.9	20.9	
Jan 18	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.8	20.6	20.8	20.8	20.8	20.8	20.8	20.8	21.0	21.0	20.9	20.8	20.9	20.9	20.9	20.9	21.0	20.6	21.0	20.9	
Jan 19	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.8	20.9	20.8	20.8	20.8	20.8	20.8	20.8	20.8	21.0	20.9	
Jan 20	20.8	20.9	20.8	20.8	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.8	20.8	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	21.0	21.0	20.8	21.0	
Jan 21	21.0	20.9	21.0	21.0	21.0	20.9	21.0	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	21.0	20.9	21.0	20.9	
Jan 22	21.0	21.0	20.9	21.0	21.0	21.0	21.0	20.9	21.0	20.9	21.0	20.9	20.9	21.0	21.0	21.0	21.1	20.9	20.8	21.0	20.8	20.9	20.9	20.8	20.8	21.1	20.9	
Jan 23	20.9	20.9	20.9	21.0	21.0	21.0	21.0	20.9	20.9	20.9	20.9	21.1	21.7	22.1	22.3	22.6	22.1	21.4	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	22.6	21.2
Jan 24	20.9	20.9	20.9	20.8	20.8	20.8	20.8	20.8	20.9	21.4	22.2	22.2	22.2	22.3	22.2	22.5	22.5	22.0	21.4	21.1	20.9	20.9	20.9	20.9	20.8	22.5	21.3	
Jan 25	21.2	21.3	21.4	21.0	20.9	21.0	21.0	20.9	20.9	21.2	21.9	22.1	22.1	22.2	22.5	22.6	22.7	22.4	22.1	21.9	21.8	21.8	21.8	20.9	22.7	21.7	21.7	
Jan 26	21.8	21.9	22.1	22.1	22.1	21.8	21.5	21.3	21.2	21.8	22.1	22.1	22.1	22.1	22.8	23.1	23.3	22.5	22.6	22.5	22.7	22.7	22.7	21.2	23.3	22.2		
Jan 27	22.6	22.7	22.7	22.7	22.6	22.7	22.6	22.7	22.7	22.7	22.4	22.0	22.2	22.3	22.4	22.4	22.3	22.3	22.3	22.2	22.3	22.1	22.3	22.1	22.0	22.7	22.4	
Jan 28	22.3	22.6	23.0	22.6	22.2	22.3	22.3	22.2	22.9	22.6	22.2	22.2	22.3	22.3	22.5	22.5	22.4	22.4	22.3	22.3	22.3	22.2	22.2	22.2	22.2	23.0	22.4	
Jan 29	22.2	22.4	22.2	22.3	22.2	22.1	22.5	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.4	22.6	22.5	22.4	22.3	22.3	23.0	23.3	24.1	24.8	22.1	24.8	22.5	
Jan 30	24.5	24.0	23.8	24.3	25.0	25.4	21.8	22.1	22.3	22.3	22.1	22.0	22.2	22.4	22.3	22.3	22.5	22.2	22.4	22.3	22.8	23.0	22.6	22.4	21.8	25.4	22.9	
Jan 31	22.8	22.7	22.7	22.7	22.1	22.5	22.2	22.2	22.2	22.2	22.0	22.3	22.3	22.2	22.3	22.2	22.2	22.3	22.3	22.3	22.3	22.1	22.2	22.3	22.0	22.8	22.3	
Diurnal Maximum	24.5	24.0	23.8	24.3	25.0	25.4	22.8	22.8	22.9	22.7	22.6	22.7	22.7	23.0	22.8	23.1	23.3	22.7	22.7	22.7	23.0	23.3	24.1	24.8	20.8	21.1	20.9	
Diurnal Average	21.5	21.5	21.6	21.5	21.5	21.4	21.3	21.3	21.4	21.4	21.4	21.5	21.6	21.6	21.7	21.6	21.5	21.4	21.4	21.4	21.4	21.5	21.5	21.5	21.5	21.5	21.5	

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

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



**Peace River Area Monitoring Program**  
**AQHI - Grimshaw Station - January 2024**  
**Summary of Hourly Averages**  
**VECTOR WIND SPEED (VWS) in km/hr**

Maximum Hourly Value:	36.2 kph	on Jan 30 at hr 15	Hours in Service:	744
Maximum Daily Value:	17.3 kph	on Jan 30	Hours of Data:	740
Minimum Hourly Value:	0.1 kph	on Jan 24 at hr 6	Hours of Missing Data:	4
Minimum Daily Value:	2.8 kph	on Jan 24	Hours of Calibration:	0
Monthly Average:	6.0 kph		Operational Uptime:	99.5

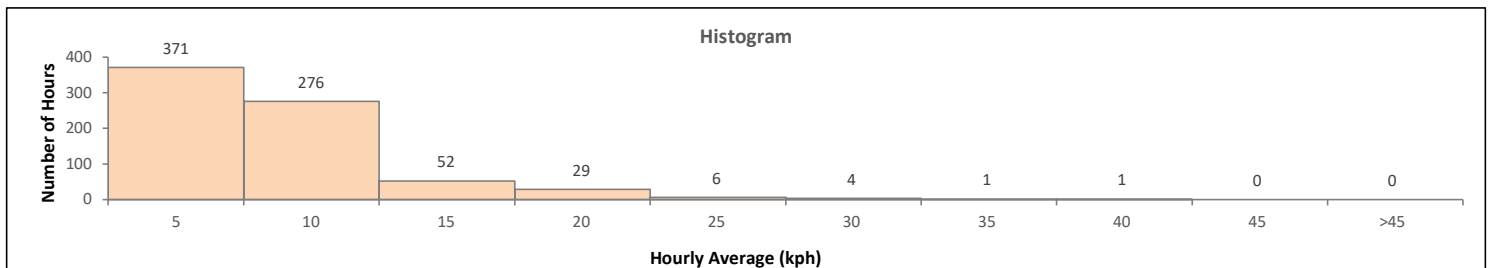
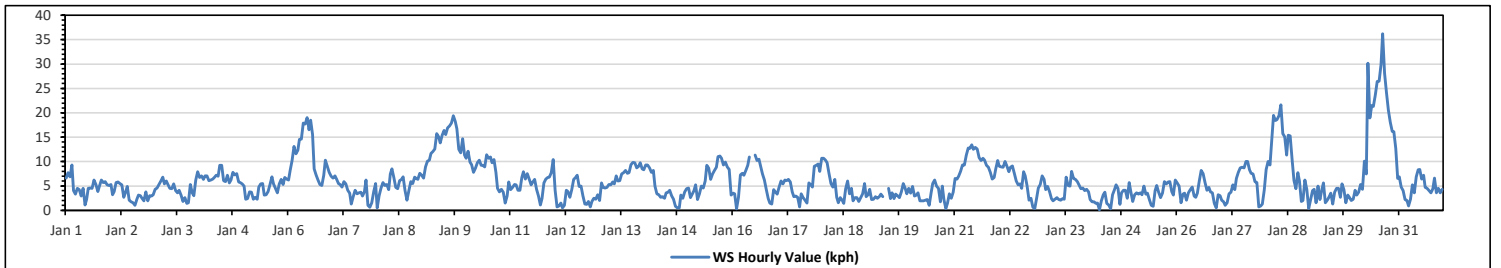
  

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23
Jan 1	6.6	7.7	6.9	9.3	4.0	3.3	4.5	4.2	2.9	4.5	1.1	2.3	4.5	4.6	4.5	6.2	5.3	3.9	5.0	6.2	5.7	5.9	5.2	5.1	1.1	9.3	5.0
Jan 2	5.3	3.2	3.9	5.7	5.8	5.5	5.2	2.7	3.8	4.9	2.1	1.7	1.6	1.0	2.3	3.1	3.0	2.5	1.9	3.8	1.9	3.0	2.9	3.2	1.0	5.8	3.3
Jan 3	4.3	4.6	5.3	6.0	6.8	5.4	6.0	5.3	4.5	4.4	5.4	4.0	3.6	4.1	3.1	1.8	2.6	1.4	1.6	5.3	3.6	3.0	6.2	7.9	1.4	7.9	4.4
Jan 4	6.7	7.1	6.3	7.1	7.1	6.1	6.2	6.4	6.7	7.2	7.0	9.2	9.2	6.1	5.9	7.2	5.6	6.2	7.8	7.3	7.5	5.8	5.7	5.4	5.4	9.2	6.8
Jan 5	5.0	2.3	2.4	3.8	3.7	2.3	2.7	2.3	4.8	5.4	5.5	3.1	3.2	3.9	5.3	6.9	5.4	4.5	3.6	5.4	6.3	5.3	6.7	6.4	2.3	6.9	4.4
Jan 6	6.2	8.2	10.2	13.1	11.6	12.3	14.5	14.6	17.9	17.7	19.0	16.5	18.5	15.5	8.5	7.3	6.2	5.3	5.1	7.2	10.3	9.0	7.8	7.0	5.1	19.0	11.2
Jan 7	6.6	7.1	6.4	5.5	5.3	4.8	5.9	5.4	4.1	3.5	1.3	2.8	4.1	3.4	3.6	3.7	2.9	3.8	6.2	1.0	0.6	1.6	3.8	5.5	0.6	7.1	4.1
Jan 8	0.5	3.0	4.6	5.7	5.1	5.3	4.2	7.4	8.5	6.7	4.7	4.4	6.1	6.3	6.9	4.0	2.1	4.0	5.9	5.5	6.8	6.5	6.3	7.6	0.5	8.5	5.3
Jan 9	7.2	6.6	8.9	10.1	10.3	11.7	12.0	12.6	15.7	15.1	13.8	15.4	16.4	15.5	16.9	17.3	17.9	19.4	18.2	16.7	12.5	11.8	14.7	11.3	6.6	19.4	13.7
Jan 10	10.7	12.1	9.9	9.4	7.8	8.6	9.7	10.3	9.2	9.2	8.9	11.4	10.7	10.9	9.7	10.4	7.8	4.5	3.8	4.3	3.7	1.5	2.9	5.8	1.5	12.1	8.1
Jan 11	4.2	4.7	5.3	5.2	4.1	4.1	6.7	7.9	6.4	7.5	6.4	5.2	5.9	6.3	4.3	2.9	1.1	2.4	5.6	6.4	6.7	6.8	7.7	10.4	1.1	10.4	5.6
Jan 12	4.1	0.7	0.9	1.5	0.5	1.0	4.1	3.9	2.7	4.2	6.3	6.7	7.2	4.9	5.0	2.9	1.3	1.2	1.8	0.7	1.8	2.5	2.3	3.2	0.5	7.2	3.0
Jan 13	2.0	5.6	4.7	4.6	4.7	5.3	5.2	5.8	5.4	7.1	6.0	6.1	7.4	7.7	8.2	7.6	7.7	9.4	9.8	9.7	8.7	9.0	9.7	8.5	2.0	9.8	6.9
Jan 14	8.3	9.3	9.3	8.7	7.8	8.2	5.0	3.4	3.2	2.7	2.8	2.5	3.6	3.7	4.1	3.0	2.3	0.8	0.5	3.1	2.5	3.8	4.4	4.5	0.5	9.3	4.3
Jan 15	4.6	2.6	3.4	4.0	5.2	2.2	3.4	5.0	4.6	6.0	9.2	8.6	6.3	7.4	8.2	8.8	11.0	11.1	10.7	9.3	9.9	8.9	8.4	3.1	2.2	11.1	6.7
Jan 16	3.5	3.4	0.3	2.7	7.3	7.6	7.2	8.2	9.2	10.9	K	K	11.3	10.2	10.5	9.1	7.4	6.2	4.2	2.4	1.5	1.3	4.2	3.8	0.3	11.3	6.0
Jan 17	3.3	4.8	6.0	5.4	6.2	6.1	6.3	5.8	3.8	2.8	2.9	2.7	0.7	3.4	2.6	2.1	1.5	5.6	5.2	4.8	9.0	9.2	9.5	8.0	0.7	9.5	4.9
Jan 18	10.7	10.7	10.3	9.7	7.5	5.5	4.8	6.3	2.7	1.6	2.6	2.1	1.4	4.4	6.0	3.4	4.5	1.9	2.6	2.6	1.8	2.6	3.4	5.5	1.4	10.7	4.8
Jan 19	2.8	3.2	4.3	2.2	2.3	2.8	2.5	2.8	3.3	2.8	K	K	4.5	2.4	3.6	2.4	3.3	3.0	2.6	3.8	5.5	4.5	3.4	4.5	2.2	5.5	3.3
Jan 20	3.5	4.9	2.9	3.1	3.6	1.9	1.9	1.9	2.1	2.2	1.0	3.6	5.5	6.2	5.0	4.5	1.7	5.0	2.2	0.4	1.4	3.4	2.5	3.7	0.4	6.2	3.1
Jan 21	6.5	6.4	7.0	8.0	9.3	9.3	11.3	12.8	12.7	13.4	12.5	12.9	12.6	10.8	10.2	10.7	10.3	9.2	8.8	7.8	6.4	6.7	8.5	10.2	6.4	13.4	9.8
Jan 22	9.0	8.9	8.8	10.0	9.0	7.9	8.8	9.1	7.6	6.0	5.2	5.4	4.5	7.9	7.1	5.0	2.1	2.5	0.6	0.4	2.6	4.6	5.3	7.1	0.4	10.0	6.1
Jan 23	6.3	4.2	4.9	3.9	2.4	1.9	2.3	2.6	2.2	2.1	2.4	2.3	6.8	5.1	5.0	8.0	6.5	6.3	5.9	5.2	4.4	4.6	4.0	4.3	1.9	8.0	4.3
Jan 24	3.8	2.2	1.7	1.7	1.4	1.5	0.1	1.9	3.2	3.7	1.4	1.1	0.3	3.2	4.2	5.2	4.5	1.2	3.6	4.1	4.1	2.5	5.7	3.9	0.1	5.7	2.8
Jan 25	1.8	3.2	3.6	3.3	3.6	3.2	5.0	3.3	3.5	2.2	1.0	0.8	4.0	5.1	3.7	2.6	3.5	5.9	5.4	5.8	5.9	3.9	3.1	6.2	0.8	6.2	3.7
Jan 26	5.6	5.0	1.6	3.3	3.5	2.1	3.6	4.2	4.8	2.9	2.7	3.5	6.0	8.2	7.5	5.7	4.1	4.7	3.8	3.6	1.4	0.5	3.2	3.0	0.5	8.2	3.9
Jan 27	2.1	1.7	1.0	1.6	3.4	3.7	5.2	4.2	6.5	7.8	8.7	8.8	8.7	10.0	10.0	8.3	7.6	7.4	5.9	5.7	0.7	0.9	1.3	4.1	0.7	10.0	5.2
Jan 28	8.4	10.0	9.3	14.9	19.5	18.4	18.6	19.4	21.6	15.7	15.1	11.3	15.4	15.3	10.5	6.1	4.4	7.7	6.0	1.8	2.0	6.2	4.3	0.4	0.4	21.6	10.9
Jan 29	2.2	4.0	4.3	1.6	5.0	2.2	4.2	5.6	1.6	2.1	2.7	3.5	1.3	3.7	4.5	4.5	2.7	5.4	4.2	1.6	3.1	2.7	2.0	2.3	1.3	5.6	3.2
Jan 30	4.1	3.1	3.7	5.3	4.3	10.1	7.4	30.1	18.9	21.5	21.3	23.6	26.4	26.5	29.9	36.2	28.1	24.1	20.5	18.0	16.2	16.1	12.7	6.5	3.1	36.2	17.3
Jan 31	6.9	4.8	4.0	2.2	2.0	0.9	2.3	5.2	3.6	6.9	8.3	8.4	6.4	7.2	4.7	4.5	4.0	3.6	4.4	6.6	3.6	4.5	3.6	4.3	0.9	8.4	4.7
Diurnal Maximum	10.7	12.1	10.3	14.9	19.5	18.4	18.6	30.1	21.6	21.5	21.3	23.6	26.4	26.5	29.9	36.2	28.1	24.1	20.5	18.0	16.2	16.1	14.7	11.3			
Diurnal Average	5.3	5.3	5.2	5.8	5.8	5.5	6.0	7.1	6.7	6.8	6.5	6.5	7.2	7.4	7.1	6.8	5.8	5.8	5.6	5.3	5.1	5.1	5.5	5.6			

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

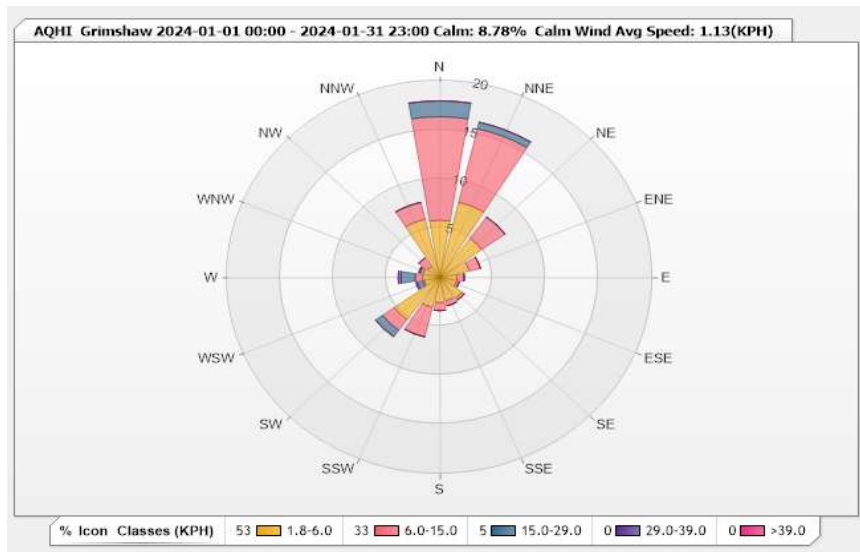


Station: AQHI Grimshaw Monitor: WDS [KPH] Monthly: 01-2024

Type: Wind Rose  
 Direction: Blowing From (Wind Frequency)  
 Time Base: 1 - Hour

Calm (WS<1.8kph): 8.78%      Valid Data: 99.46%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	5.81	10.54	1.62	0	0	17.97
NNE	7.84	7.7	0.68	0	0	16.22
NE	4.86	2.7	0	0	0	7.56
ENE	2.84	1.08	0	0	0	3.92
E	1.62	0.68	0	0	0	2.3
ESE	1.62	0.27	0	0	0	1.89
SE	2.57	0.27	0	0	0	2.84
SSE	2.43	0.54	0	0	0	2.97
S	2.57	0.81	0	0	0	3.38
SSW	3.11	3.11	0	0	0	6.22
SW	5.27	1.35	0.81	0	0	7.43
WSW	1.49	0.14	0.54	0.14	0	2.31
W	1.62	0.68	1.35	0.27	0	3.92
WNW	1.62	0.27	0.14	0	0	2.03
NW	1.35	1.08	0	0	0	2.43
NNW	6.08	1.76	0	0	0	7.84
Summary	52.7	32.98	5.14	0.41	0	91.23



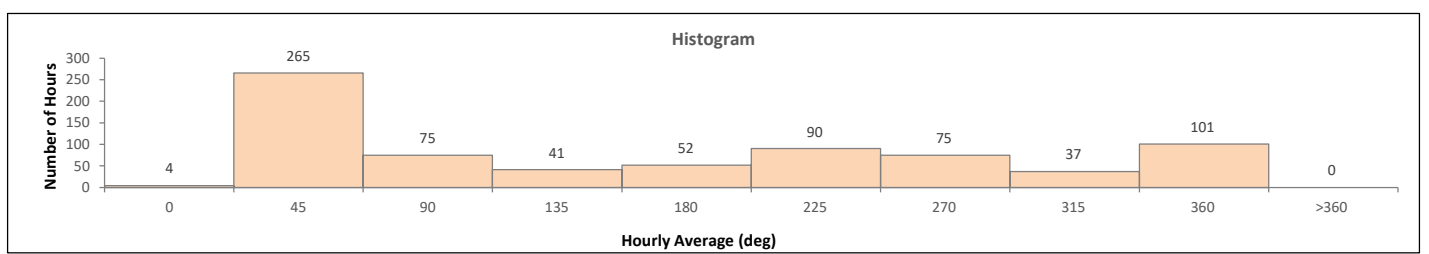
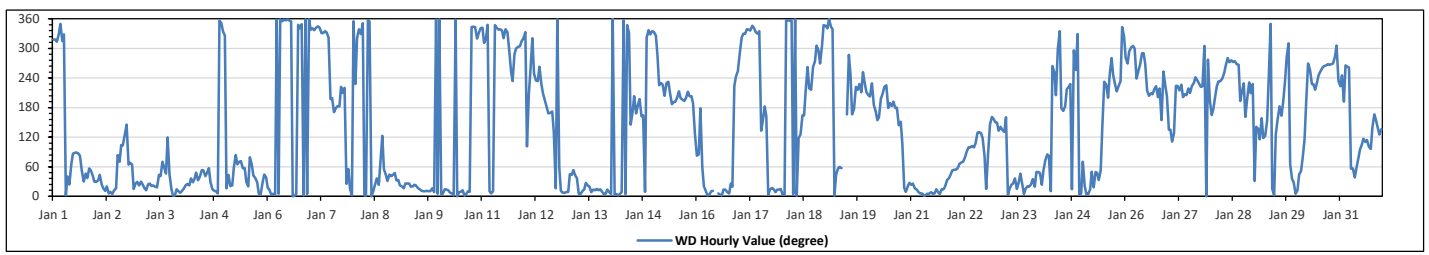
**Peace River Area Monitoring Program**  
**AQHI - Grimshaw Station - January 2024**  
**Summary of Hourly Averages**  
**WIND DIRECTION (VWD) in sector**

Monthly Average:	6 (N) degree	Hours in Service:	744
		Hours of Data:	740
		Hours of Missing Data:	4
		Hours of Calibration:	0
		Operational Uptime:	99.5

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
Jan 1	NW	NW	NW	NNW	N	NW	NNW	N	NE	NNE	ENE	E	E	E	E	NE	NNE	NE	NE	NE	NE	NE	NNE	30	NNE	
Jan 2	NNE	NNE	NE	NNE	NNE	NNE	NNE	N	N	N	NNE	NNE	E	ENE	ESE	ESE	ESE	SE	ENE	ENE	ENE	NNE	NNE	43	NE	
Jan 3	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NE	NE	ENE	ENE	NE	ESE	NE	NNE	N	N	NNE	N	28	NNE	
Jan 4	NNE	NNE	NNE	NNE	NNE	NE	NNE	NE	NE	NE	NE	NE	NE	NE	ENE	NNE	NNE	NNE	N	N	N	N	NNW	25	NNE	
Jan 5	NW	NNE	NE	NNE	NNE	ENE	E	ENE	ENE	ENE	ENE	NNE	NNE	ENE	ENE	NE	NE	NNE	N	N	NNE	NE	40	NE		
Jan 6	NNE	NNE	N	N	N	N	N	N	N	N	N	N	N	N	N	N	NNW	NNW	NNW	N	N	N	N	360	N	
Jan 7	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	SSW	SSW	S	S	S	S	SW	SSW	SW	NNE	NE	NNE	315	NNW	
Jan 8	N	SW	NW	NNW	NNW	N	N	N	N	N	NNE	NNE	NE	NNE	ENE	ESE	NE	NE	NNE	NE	NE	NE	NE	18	NNE	
Jan 9	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	N	N	NNE	N	N	NNE	N	N	N	17	NNE	
Jan 10	N	N	N	NNE	NNE	NNE	N	N	N	N	N	N	NNE	N	N	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	359	N	
Jan 11	NNW	NW	NW	NNW	N	N	N	NNW	NNW	NNW	NNW	NNW	NW	NNW	NNW	WNW	WSW	SW	WNW	WNW	WNW	WNW	NW	324	NW	
Jan 12	NNW	E	SSW	WSW	NW	WSW	SW	SW	W	SW	SSW	SSW	S	SSE	SSE	S	SE	NNE	N	ENE	NNE	N	N	242	WSW	
Jan 13	N	NE	NE	NE	NE	NE	N	N	NNE	NNE	NNE	NNE	N	NNE	NNE	NNE	NNE	NNE	N	N	N	N	NNE	18	NNE	
Jan 14	N	N	N	N	N	N	N	N	N	NNW	NNW	SE	SSE	SSW	SSE	S	SSW	SSE	SSE	N	NW	NNW	NNW	351	N	
Jan 15	NNW	NW	WNW	SW	SW	SW	SSW	SW	SW	SSW	S	S	S	SSW	SSW	SSW	S	SSW	SSW	SSW	SSW	S	SE	212	SSW	
Jan 16	E	E	S	ENE	NNE	NNE	N	N	NNE	K	K	N	N	N	NNE	NNE	N	NNE	NNE	N	NNE	NNE	SW	WSW	13	NNE
Jan 17	WNW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	SE	SSE	S	SSE	N	NNE	NNE	NNE	N	NNE	NNE	350	N	
Jan 18	N	N	N	N	N	N	N	N	N	ESE	SE	SSE	SSE	SSW	W	SW	W	W	NW	NNW	W	WNW	NNW	313	NW	
Jan 19	NNW	NNW	N	NNW	NNW	N	NE	ENE	ENE	K	K	SSE	WNW	WSW	SSE	S	SW	SW	SSW	WSW	SW	SSW	273	W		
Jan 20	SSW	SSW	SW	S	S	SSE	SSE	SSW	SSW	SW	SW	S	S	S	S	S	SE	SSE	ESE	NNE	N	NNE	NNE	180	S	
Jan 21	NNE	NNE	NNE	NNE	N	N	N	N	N	N	N	N	N	NNE	N	NNE	N	NNE	NNE	NNE	NE	NE	NE	15	NNE	
Jan 22	NE	NE	ENE	ENE	ENE	ENE	E	E	E	E	ESE	SE	SE	SE	ESE	E	NNE	E	SE	SSE	SSE	SSE	98	E		
Jan 23	SSE	SE	SE	SE	SE	SSE	N	NNE	NNE	NE	NNE	NNE	NE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NE	NE	NE	44	NE	
Jan 24	NE	NNE	NE	ENE	E	E	N	W	WSW	SSW	WNW	NNW	S	S	S	SW	SW	SW	NNE	WNW	WSW	NNW	N	316	NW	
Jan 25	ENE	NNE	N	N	NNE	NE	NNE	NE	NE	NNE	NE	SE	SW	SSW	WSW	W	WSW	SW	SSW	SW	SW	NNW	NW	332	NNW	
Jan 26	W	W	WNW	WNW	WNW	WNW	WSW	WSW	W	WNW	WNW	W	SSW	SSW	SSW	SSW	SW	SW	SSW	SW	SSW	SW	SSE	WSW	246	WSW
Jan 27	SE	SE	ESE	SE	SW	SW	SSW	SW	SSW	SSW	SSW	SW	SSW	SW	SW	WSW	SW	SW	SW	SSW	WNW	N	W	SSW	214	SSW
Jan 28	SSE	S	SSW	SW	SW	WSW	WSW	W	W	W	W	W	W	W	W	S	SSW	SW	SSE	SSW	SSW	SSW	SW	233	SW	
Jan 29	NNE	SE	SE	ESE	SSE	ESE	ESE	SW	N	NNE	N	SE	SSE	S	SSE	S	SW	W	NW	ENE	NE	NNE	N	115	ESE	
Jan 30	NNE	NE	NE	ENE	ESE	S	W	WSW	SW	SW	SW	SW	WSW	WSW	W	W	W	W	W	W	W	W	NW	SW	258	WSW
Jan 31	SW	WSW	S	W	W	W	NE	NE	ENE	ENE	E	ESE	ESE	ESE	ESE	E	E	SE	SSE	SSE	SE	SE	SE	123	ESE	

**C** Monthly Calibration      **S** Daily Zero-Span Check      **Q** Quality Assurance  
**K** Collection Error      **ND** 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.



**Peace River Area Monitoring Program**  
**AQHI - Grimshaw Station - January 2024**  
**Summary of Hourly Averages**

**VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector**

WIND SPEED	
Maximum Hourly Value:	36.2 kph on Jan 30 at hr 15
Maximum Daily Value:	17.3 kph on Jan 30
Minimum Hourly Value:	0.1 kph on Jan 24 at hr 6
Minimum Daily Value:	2.8 kph on Jan 24
Monthly Average:	6.0 kph
Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Hours of Calibration:	0
Operational Uptime:	99.5

WIND DIRECTION	
Monthly Average:	6 degree (N)

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	
Jan 1	6.6	7.7	6.9	9.3	4.0	3.3	4.5	4.2	2.9	4.5	1.1	2.3	4.5	4.6	4.5	6.2	5.3	3.9	5.0	6.2	5.7	5.9	5.2	5.1	1.1	9.3	5.0	
Jan 2	5.3	3.2	3.9	5.7	5.8	5.5	5.2	2.7	3.8	4.9	2.1	1.7	1.6	1.0	2.3	3.1	3.0	2.5	1.9	3.8	1.9	3.0	2.9	3.2	1.0	5.8	3.3	
Jan 3	4.3	4.6	5.3	6.0	6.8	5.4	6.0	5.3	4.5	4.4	5.4	4.0	3.6	4.1	3.1	1.8	2.6	1.4	1.6	5.3	3.6	3.0	6.2	7.9	1.4	7.9	4.4	
Jan 4	6.7	7.1	6.3	7.1	7.1	6.1	6.2	6.4	6.7	7.2	7.0	9.2	9.2	6.1	5.9	7.2	5.6	6.2	7.8	7.3	7.5	5.8	5.7	5.4	5.4	9.2	6.8	
Jan 5	5.0	2.3	2.4	3.8	3.7	2.3	2.7	2.3	4.8	5.4	5.5	3.1	3.2	3.9	5.3	6.9	5.4	4.5	3.6	5.4	6.3	5.3	6.7	6.4	2.3	6.9	4.4	
Jan 6	6.2	8.2	10.2	13.1	11.6	12.3	14.5	14.6	17.9	17.7	19.0	16.5	18.5	15.5	8.5	7.3	6.2	5.3	5.1	7.2	10.3	9.0	7.8	7.0	5.1	19.0	11.2	
Jan 7	6.6	7.1	6.4	5.5	5.3	4.8	5.9	5.4	4.1	3.5	1.3	2.8	4.1	3.4	3.6	3.7	2.9	3.8	6.2	1.0	0.6	1.6	3.8	5.5	0.6	7.1	4.1	
Jan 8	0.5	3.0	4.6	5.7	5.1	5.3	4.2	7.4	8.5	6.7	4.7	4.4	6.1	6.3	6.9	4.0	2.1	4.0	5.9	5.5	6.8	6.5	6.3	7.6	0.5	8.5	5.3	
Jan 9	7.2	6.6	8.9	10.1	10.3	11.7	12.0	12.6	15.7	15.1	13.8	15.4	16.4	15.5	16.9	17.3	17.9	19.4	18.2	16.7	12.5	11.8	14.7	11.3	6.6	19.4	13.7	
Jan 10	10.7	12.1	9.9	9.4	7.8	8.6	9.7	10.3	9.2	9.2	8.9	11.4	10.7	10.9	9.7	10.4	7.8	4.5	3.8	4.3	3.7	1.5	2.9	5.8	1.5	12.1	8.1	
Jan 11	4.2	4.7	5.3	5.2	4.1	4.1	6.7	7.9	6.4	7.5	6.4	5.2	5.9	6.3	4.3	2.9	1.1	2.4	5.6	6.4	6.7	6.8	7.7	10.4	1.1	10.4	5.6	
Jan 12	4.1	0.7	0.9	1.5	0.5	1.0	4.1	3.9	2.7	4.2	6.3	6.7	7.2	4.9	5.0	2.9	1.3	1.2	1.8	0.7	1.8	2.5	2.3	3.2	0.5	7.2	3.0	
Jan 13	2.0	5.6	4.7	4.6	4.7	5.3	5.2	5.8	5.4	7.1	6.0	6.1	7.4	7.7	8.2	7.6	7.7	9.4	9.8	9.7	8.7	9.0	9.7	8.5	2.0	9.8	6.9	
Jan 14	8.3	9.3	9.3	8.7	7.8	8.2	5.0	3.4	3.2	2.7	2.8	2.5	3.6	3.7	4.1	3.0	2.3	0.8	0.5	0.5	3.1	2.5	3.8	4.4	0.5	9.3	4.3	
Jan 15	4.6	2.6	3.4	4.0	5.2	2.2	3.4	5.0	4.6	6.0	9.2	8.6	6.3	7.4	8.2	8.8	11.0	11.1	10.7	9.3	9.9	8.9	8.4	3.1	2.2	11.1	6.7	
Jan 16	3.5	3.4	0.3	2.7	7.3	7.6	7.2	8.2	9.2	10.9	K	K	11.3	10.2	10.5	9.1	7.4	6.2	4.2	2.4	1.5	1.3	4.2	3.8	0.3	11.3	6.0	
Jan 17	E	E	S	ENE	NNE	N	N	N	NNE	N	N	N	N	N	NNE	NNE	N	N	NNE	N	NNE	N	NNE	N	13(NNE)	0.7	9.5	4.9
Jan 18	10.7	10.7	10.3	9.7	7.5	5.5	4.8	6.3	2.7	1.6	2.6	2.1	1.4	4.4	6.0	3.4	4.5	1.9	2.6	2.6	1.8	2.6	3.4	5.5	1.4	10.7	4.8	
Jan 19	2.8	3.2	4.3	2.2	2.3	2.8	2.5	2.8	3.3	2.8	K	K	4.5	2.4	3.6	2.4	3.3	3.0	2.6	3.8	5.5	4.5	3.4	4.5	2.2	5.5	3.3	
Jan 20	3.5	4.9	2.9	3.1	3.6	1.9	1.9	1.9	2.1	2.2	1.0	3.6	5.5	6.2	5.0	4.5	1.7	5.0	2.2	0.4	1.4	3.4	2.5	3.7	0.4	6.2	3.1	
Jan 21	6.5	6.4	7.0	8.0	9.3	9.3	11.3	12.8	12.7	13.4	12.5	12.9	12.6	10.8	10.2	10.7	10.3	9.2	8.8	7.8	6.4	6.7	8.5	10.2	6.4	13.4	9.8	
Jan 22	9.0	8.9	8.8	10.0	9.0	7.9	8.8	9.1	7.6	6.0	5.2	5.4	4.5	7.9	7.1	5.0	2.1	2.5	0.6	0.4	2.6	4.6	5.3	7.1	0.4	10.0	6.1	
Jan 23	6.3	4.2	4.9	3.9	2.4	1.9	2.3	2.6	2.2	2.1	2.4	2.3	6.8	5.1	5.0	8.0	6.5	6.3	5.9	5.2	4.4	4.6	4.0	4.3	1.9	8.0	4.3	
Jan 24	3.8	2.2	1.7	1.7	1.4	1.5	0.1	1.9	3.2	3.7	1.4	1.1	0.3	3.2	4.2	5.2	4.5	1.2	3.6	4.1	4.1	2.5	5.7	3.9	0.1	5.7	2.8	
Jan 25	1.8	3.2	3.6	3.3	3.6	3.2	5.0	3.3	3.5	2.2	1.0	0.8	4.0	5.1	3.7	2.6	3.5	5.9	5.4	5.8	5.9	3.9	3.1	6.2	0.8	6.2	3.7	
Jan 26	5.6	5.0	1.6	3.3	3.5	2.1	3.6	4.2	4.8	2.9	2.7	3.5	6.0	8.2	7.5	5.7	4.1	4.7	3.8	3.6	1.4	0.5	3.2	3.0	0.5	8.2	3.9	
Jan 27	2.1	1.7	1.0	1.6	3.4	3.7	5.2	4.2	6.5	7.8	8.7	8.8	8.7	10.0	10.0	8.3	7.6	7.4	5.9	5.7	0.7	0.9	1.3	4.1	0.7	10.0	5.2	
Jan 28	8.4	10.0	9.3	14.9	19.5	18.4	18.6	19.4	21.6	15.7	15.1	11.3	15.4	15.3	10.5	6.1	4.4	7.7	6.0	1.8	2.0	6.2	4.3	0.4	0.4	21.6	10.9	
Jan 29	2.2	4.0	4.3	1.6	5.0	2.2	4.2	5.6	1.6	2.1	2.7	3.5	1.3	3.7	4.5	4.5	2.7	5.4	4.2	1.6	3.1	2.7	2.0	2.3	1.3	5.6	3.2	
Jan 30	4.1	3.1	3.7	5.3	4.3	10.1	7.4	30.1	18.9	21.5	21.3	23.6	26.4	26.5	29.9	36.2	28.1	24.1	20.5	18.0	16.2	16.1	12.7	6.5	3.1	36.2	17.3	
Jan 31	6.9	4.8	4.0	2.2	2.0	0.9	2.3	5.2	3.6	6.9	8.3	8.4	6.4	7.2	4.7	4.5	4.0	3.6	4.4	6.6	3.6	4.5	3.6	4.3	0.9	8.4	4.7	
Jan 31	SW	WSW	S	W	W	W	NE	NE	ENE	ENE	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	123(ESE)			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	ND	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.

## END OF REPORT

This page, 143 of 143, ends the January 2024 Monthly Ambient Air Quality Monitoring Report.



## Peace River Area Monitoring Program

# JANUARY 2024

## Ambient Air Monitoring Calibration Report

### - 842-B STATION-

### CAL-PRAMP-202401-01561

**Operation and Maintenance:**

Bureau Veritas Canada

**Data Validation and Report:**

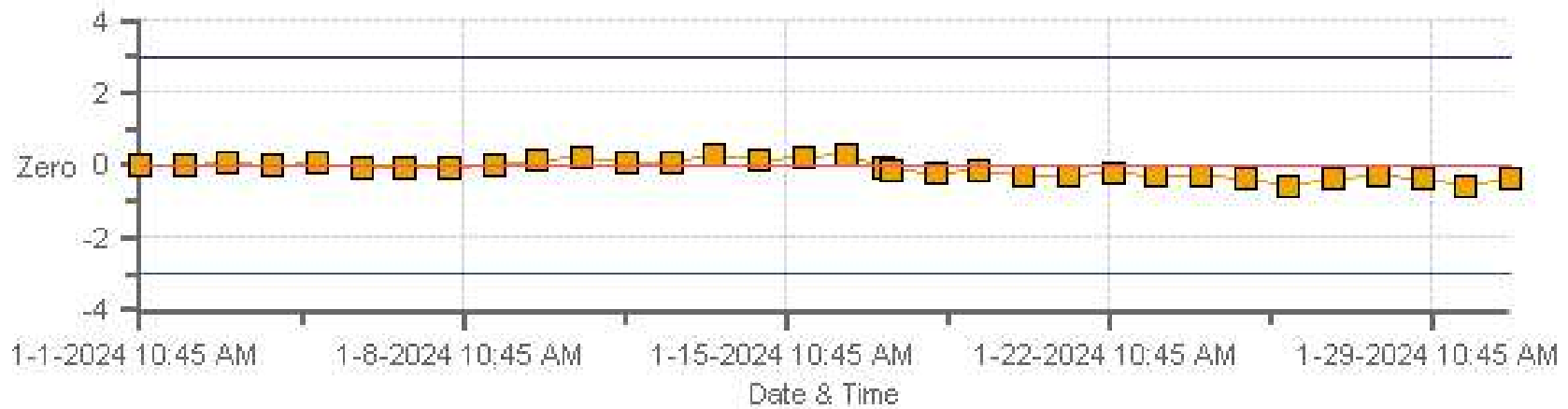
Bureau Veritas Canada

February 22, 2024



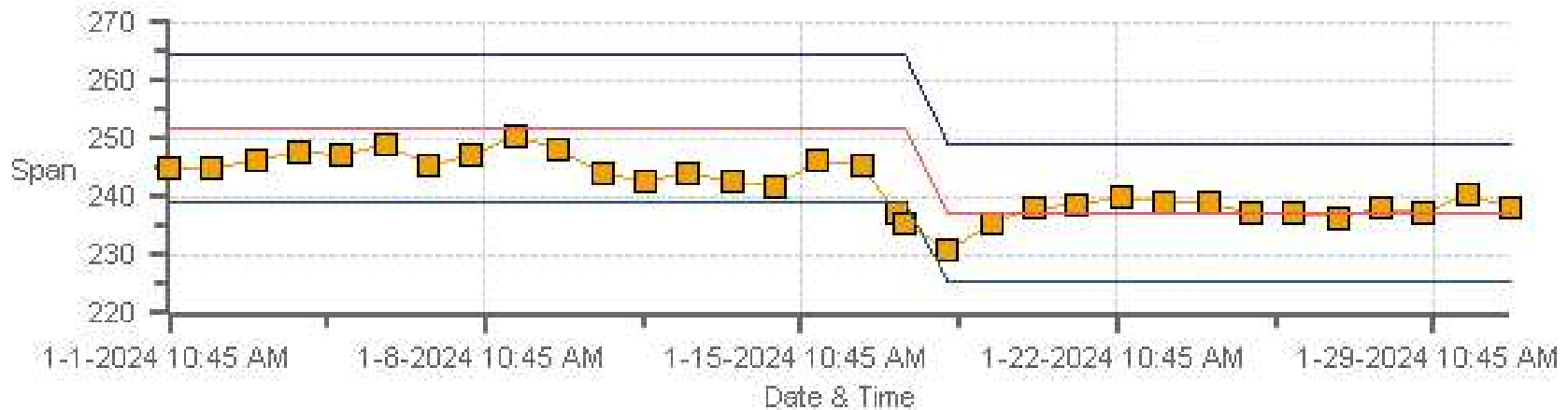
# DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: PRAMP 842-B Monthly: 01-2024 Type: SpanAndZero - Zero



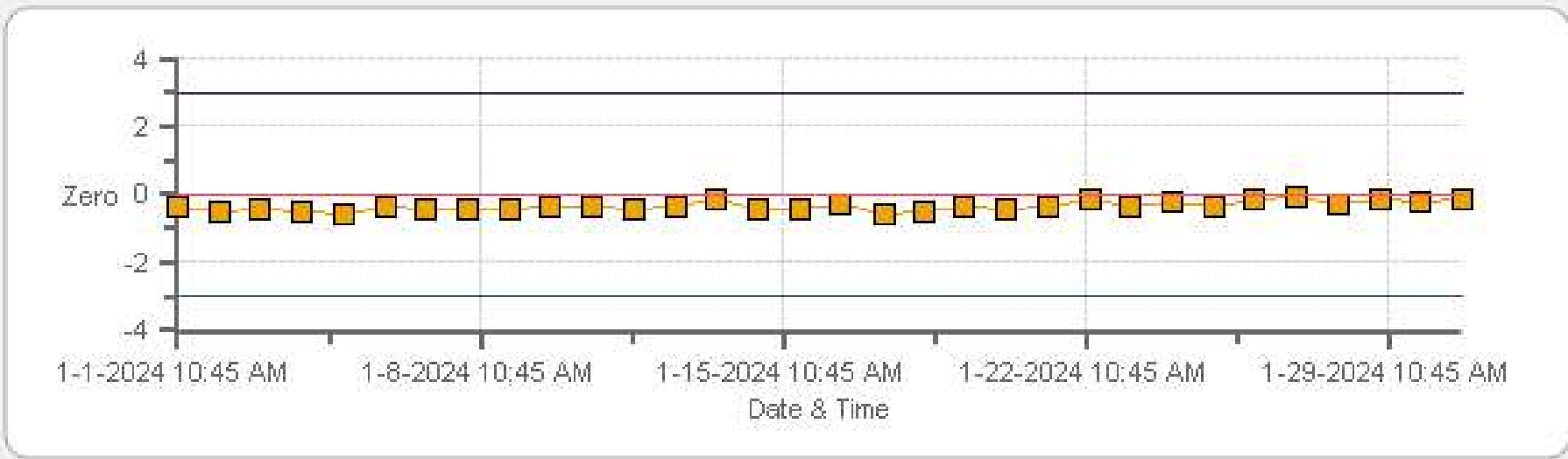
Zero Zero Ref Zero Low Zero High

SO2[ppb] Calibration: PRAMP 842-B Monthly: 01-2024 Type: SpanAndZero - Span



Span SpanRef Span Low Span High

TRS[ppb] Calibration: PRAMP 842-B Monthly: 01-2024 Type: SpanAndZero - Zero



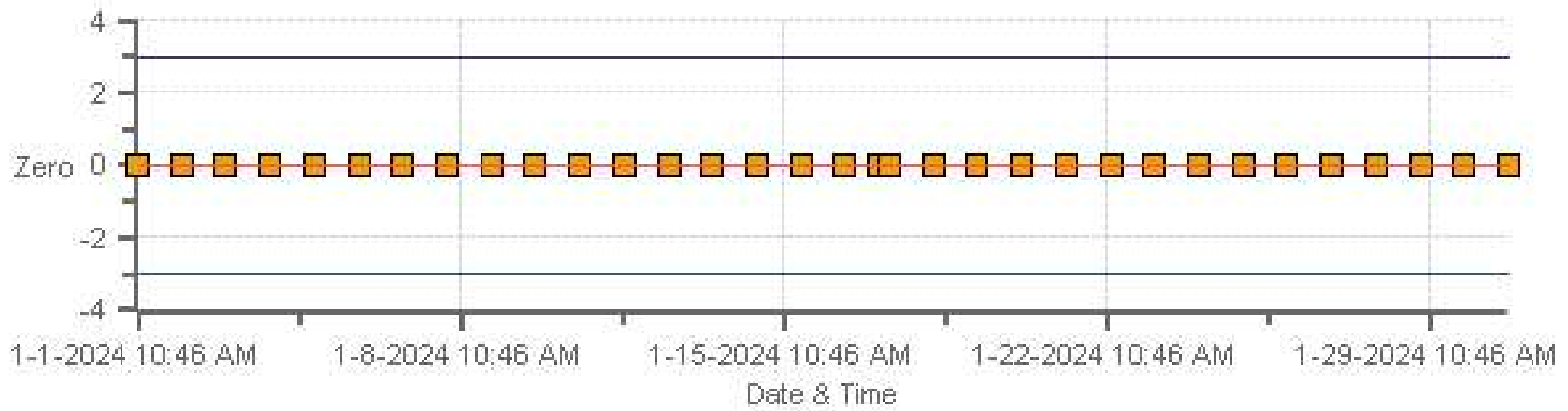
Zero Zero Ref Zero Low Zero High

TRS[ppb] Calibration: PRAMP 842-B Monthly: 01-2024 Type: SpanAndZero - Span



Span SpanRef Span Low Span High

THC55[ppm] Calibration: PRAMP 842-B Monthly: 01-2024 Type: SpanAndZero - Zero



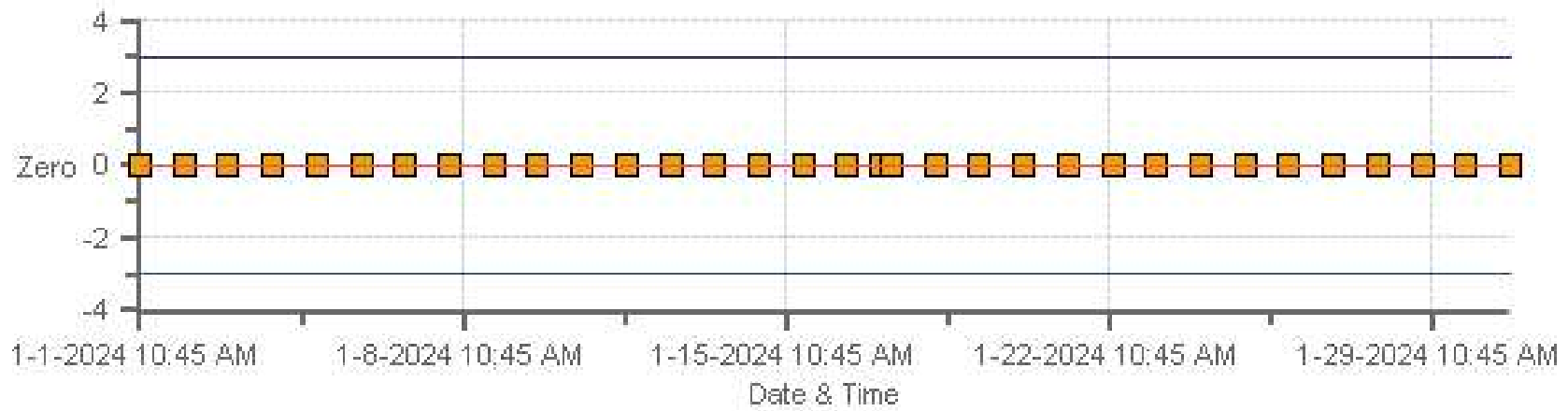
Zero Zero Ref Zero Low Zero High

THC55[ppm] Calibration: PRAMP 842-B Monthly: 01-2024 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

CH4[ppm] Calibration: PRAMP 842-B Monthly: 01-2024 Type: SpanAndZero -Zero



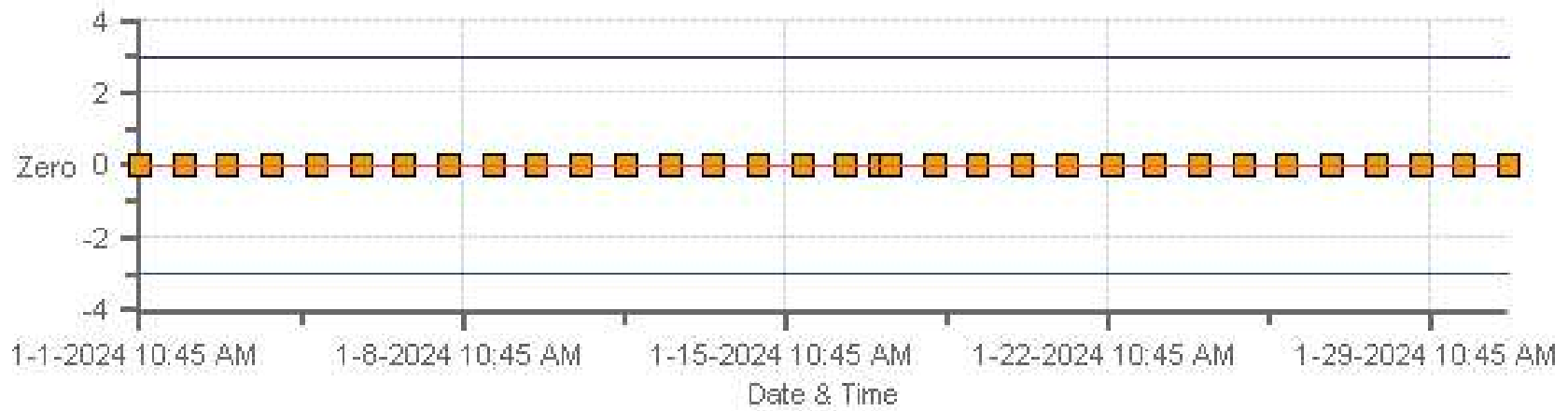
Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: PRAMP 842-B Monthly: 01-2024 Type: SpanAndZero -Span



Span Span Ref Span Low Span High

NMHC[ppm] Calibration: PRAMP 842-B Monthly: 01-2024 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: PRAMP 842-B Monthly: 01-2024 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

# MULTI-POINT CALIBRATION RECORDS

# SO2 Analyzer Calibration by Dilution



DATE:	17-Jan-2024	PREVIOUS CALIBRATION DATE:	05-Dec-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	0.998
CLIENT:	PRAMP	TEMPERATURE (°C):	23.1
LOCATION:	842b	BAROMETRIC (mBar):	943
PURPOSE:	Routine	START TIME (MST):	9:20
PERFORMED BY:	Chris Wesson	END TIME (MST):	13:46

## ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	500 ppb
SERIAL #	1200736629	FLOW (mL/min)	425
INITIAL		FINAL	
BKG/OFFSET	9	BKG/OFFSET	9.1
COEF/SLOPE	1.145	COEF/SLOPE	1.102
Expected (reference) Value	251.9	Expected (reference) Value	237.3

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Sabio
MODEL:	2010	MODEL:	2020EXP
ID:	58100720	ID:	18700921
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL107286	HIGH ID	n/a
CONC (ppm):	25.10	EXPIRY DATE	n/a
CYLINDER (psi):	700	LOW ID	n/a
EXPIRY DATE	27-Jan-2025	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		
4005	<del>60.80</del>	4005	0.00	0.3	0	<del>0.963</del>	<del>1.000</del>
3942	60.80	4003	381.23	396.2	381.4	0.963	1.000
3974	28.80	4003	180.58	n/a	182.2	n/a	0.991
3989	14.40	4003	90.29	n/a	90	n/a	1.003

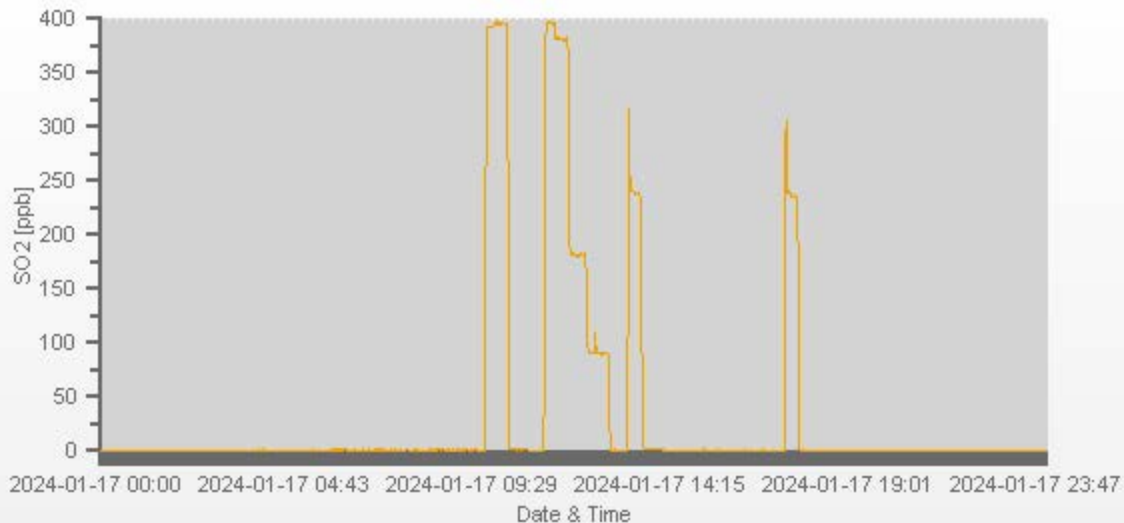
## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.001	0.0%

## COMMENTS:

Sample filter changed.  
12:31-12:34 = operator error. Low point restarted





# TRS Analyzer Calibration by Dilution



DATE:	17-Jan-2024	PREVIOUS CALIBRATION DATE:	05-Dec-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	0.991
CLIENT:	PRAMP	TEMPERATURE (°C):	23.1
LOCATION:	842b	BAROMETRIC (mBar):	943
PURPOSE:	Routine	START TIME (MST):	9:21
PERFORMED BY:	Chris Wesson	END TIME (MST):	15:45

## ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1200736630	FLOW (mL/min)	375
INITIAL		FINAL	
BKG/OFFSET	15.1	BKG/OFFSET	17
COEF/SLOPE	0.946	COEF/SLOPE	0.984
Expected (reference) Value	51.87	Expected (reference) Value	51.87

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Sabio
MODEL:	2010	MODEL:	2020EXP
ID:	58100720	ID:	18700921
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0002455	HIGH ID	n/a
CONC (ppm):	9.70	EXPIRY DATE	n/a
CYLINDER (psi):	2000	LOW ID	n/a
EXPIRY DATE	29-Sep-2026	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		
4005	<del>32.20</del>	4005	0.00	-0.12	0	<del>0.973</del>	<del>1.001</del>
3971	32.20	4003	78.03	80.11	77.93	0.973	1.001
3987	15.70	4003	38.04	n/a	37.6	n/a	1.012
3993	7.80	4001	18.91	n/a	17.93	n/a	1.055

## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.003	-0.5%

## COMMENTS:

TRS Converter CDNOVA CDN #583. Sample filter changed.  
 1st attempt failed at mid-point. Check high response and restart at adjusted zero.  
 2nd attempt fails at low - will replace beads

# TRS Analyzer Calibration by Dilution



DATE:	17-Jan-2024	PREVIOUS CALIBRATION DATE:	n/a
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	n/a
CLIENT:	PRAMP	TEMPERATURE (°C):	21.6
LOCATION:	842b	BAROMETRIC (mBar):	946
PURPOSE:	Install/Post-Repair	START TIME (MST):	16:14
PERFORMED BY:	Chris Wesson	END TIME (MST):	19:00

## ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1200736630	FLOW (mL/min)	375
INITIAL		FINAL	
BKG/OFFSET	17	BKG/OFFSET	15.1
COEF/SLOPE	0.984	COEF/SLOPE	0.95
Expected (reference) Value	51.87	Expected (reference) Value	50.57

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Sabio
MODEL:	2010	MODEL:	2020EXP
ID:	58100720	ID:	18700921
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0002455	HIGH ID	n/a
CONC (ppm):	9.70	EXPIRY DATE	n/a
CYLINDER (psi):	2000	LOW ID	n/a
EXPIRY DATE	29-Sep-2026	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:	16:38	SO2 Conc (ppb)	380
END TIME:	16:52	Analyzer Response (ppb)	0.1

## CALIBRATION:

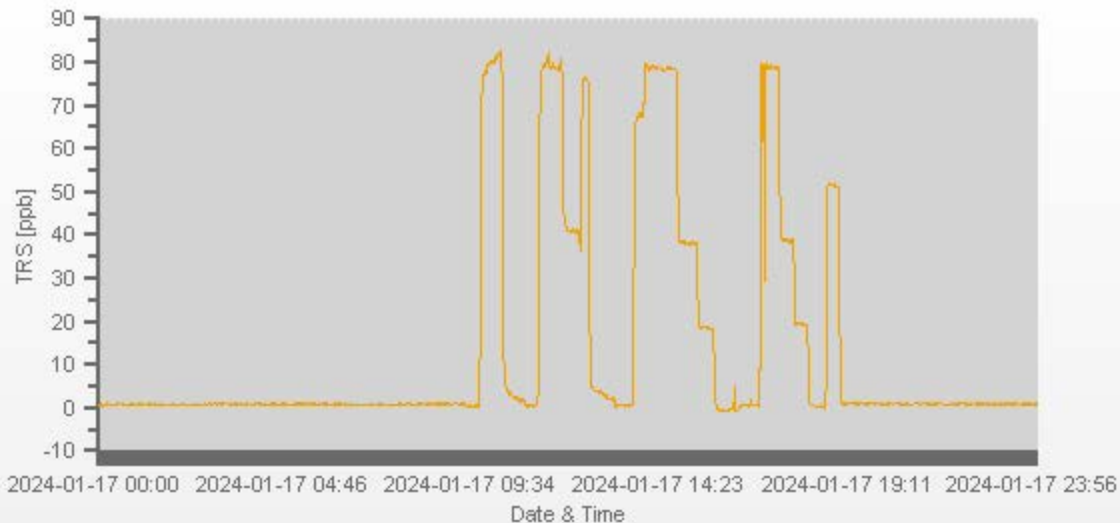
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
4005	<del>32.20</del>	4005	0.00	n/a	0	<del>n/a</del>	<del>1.000</del>
3971	32.20	4003	78.03	n/a	78.03	n/a	1.000
3987	15.70	4003	38.04	n/a	38.01	n/a	1.001
3993	7.80	4001	18.91	n/a	18.72	n/a	1.010

## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.001	-0.1%

## COMMENTS:

TRS Converter CDNOVA CDN #583 Post-repair after scrubber beads replaced 17:00 = daily ZS. Adjusted high restarted
---



# Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	17-Jan-2024	PREVIOUS CALIBRATION DATE:	06-Dec-2023	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	23.1		Thermo 55i	1501663728	1106
LOCATION:	842b	BAROMETRIC (mBar):	943	PARAMETER:	CH4	NMHC	THC
PURPOSE:	Routine	START TIME (MST):	9:20	RANGE (ppm):	20	20	40
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	12:46	PREVIOUS CF:	1.003	1.003	1.003

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	SABIO	MAKE:	Sabio	CYLINDER ID:	LL68768	HIGH ID:	n/a
MODEL:	2010	MODEL:	2020EXP	CH <sub>4</sub> /C <sub>3</sub> H <sub>8</sub> (ppm):	897.0   301.0	HIGH EXPIRY:	n/a
ID:	26801218	ID:	18700921	CYLINDER (psi):	1400	LOW ID:	n/a
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	115	EXPIRY DATE	08-Nov-2029	LOW EXPIRY:	n/a

## CALIBRATION PARAMETERS:

POINT (CH <sub>4</sub> /NMHC)	HIGH	MID	LOW	CH <sub>4</sub> EQUIVILANCE		
TARGET	14	7	3.5	C <sub>3</sub> H <sub>8</sub> as CH <sub>4</sub>		827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH <sub>4</sub>		1724.8

## EXPECTED (REFERENCE) VALUE:

INITIAL	CH <sub>4</sub>	NMHC	THC	FINAL	CH <sub>4</sub>	NMHC	THC
	9.66	10.85	20.51		9.53	10.64	20.18

## CALIBRATION:

FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC
3500	<del>X</del>	3500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>
3443	56.80	3500	14.56	13.43	27.99	14.35	13.31	27.66	14.62	13.45	28.07	1.014	1.009	1.012	0.996	0.999	0.997
3473	28.40	3501	7.28	6.71	13.99	n/a	n/a	n/a	7.21	6.73	13.93	n/a	n/a	n/a	1.009	0.998	1.004
3488	14.20	3502	3.64	3.36	6.99	n/a	n/a	n/a	3.59	3.36	6.95	n/a	n/a	n/a	1.013	0.999	1.006

## LINEAR REGRESSION ANALYSIS:

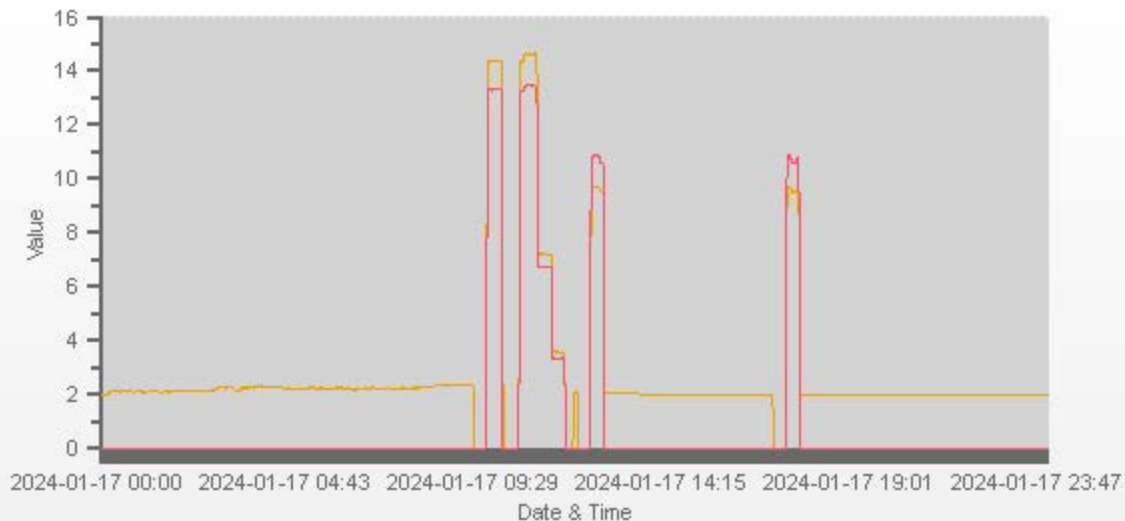
	CORRELATION	SLOPE	INTERCEPT
CH <sub>4</sub>	1.000	1.005	-0.2%
NMHC	1.000	1.001	0.0%
THC	1.000	1.003	-0.1%

## Comments:

H2 = AMA HG300 #190567058  
BV zero air

Use Zero Chrom?

No



CAL-PRAMP-202401-01561

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— CH4 [ppm] — NMHC [ppm]

# Meteorological System Checklist



Date:	January 17, 2024		
Technician:	Chris Wesson		
Station:	PRAMP 842b		
<b>Unit:</b>	<b>Make:</b>	<b>Model:</b>	<b>Serial #:</b>
Precipitation Sampler:	RM Young	52202	TB 15878
Temperature Sensor:	Rotronic	HC2A-S3	20370767
Barometric Pressure Sensor:	MetOne	92	Y23362
Relative Humidity Sensor:	Rotronic	HC2A-S3	20370767
Anemometer:	RM Young	05305AQ	174802
<b>AMBIENT TEMPERATURE SENSOR CHECK</b>			
Previous check date:	December 5, 2023		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	Traceable 20250-21 #230557122 Exp: Aug 17, 2025		
Reference Temperature (°C):	-23.7		
Station - Ambient Temperature (°C):	-24.6		
Temperature Difference (°C):	0.9		
<b>BAROMETRIC PRESSURE SENSOR CHECK</b>			
Previous check date:	December 5, 2023		
Reference Barometer ID:	Brunton ADC #231010, Exp: Oct 10, 2024		
Reference Pressure - Units/Reading:	millibar	942.9	
Station Pressure - Units/Reading:	millibar	942.6	
Pressure Tolerance +/- 15% of error:	801 - 1084	0.03%	
<b>RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK</b>			
Previous check date:	December 5, 2023		
Reference Hygrometer ID:	Traceable 20250-21 #230557122 Exp: Aug 17, 2025		
Reference Hygrometer % RH- Reading:	67.00		
Station Hygrometer % RH- Reading:	69.00		
RH Tolerance +/- 15% of difference:	56.95 - 77.05	-3.0%	
<b>ANEMOMETER - WIND SPEED &amp; WIND DIRECTION SENSOR CHECK</b>			
<b>WIND SPEED</b>		<b>WIND DIRECTION</b>	
Previous check date:	December 5, 2023	Previous check date:	December 5, 2023
Wind Speed Observed (kph):	0~5	Wind Direction Observed:	S
Wind speed on Data Logger (kph):	1.3	Wind Direction on Data Logger:	S
		Wind Direction Pass/Fail?:	Pass
Comments			
Precip not audited, too cold.			



# Meteorological Sensor Audit/Calibration

## Location Information

Company: PRAMP  
 Audit Location: 842b  
 Audit Date: August 3, 2023  
 Calibration Purpose: routine annual

Performed By: Chris Wesson  
 Reviewed By: Limin Li  
 Start/End Time (mst): 15:57 / 17:00  
 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:	05305AQ	Velocity Unit Output Range:	0-200
Serial #:	174802	Direction Voltage Output Range:	n/a
Previous Cal/Audit Date:	August 3, 2022	Direction Unit Output Range:	0-360

## Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# R9133 expires Oct 18, 2024

## 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	2	354	2.0	1.0	1.5
30	330	23	332	7.0	-2.0	4.5
60	300	59	303	1.0	-3.0	2.0
90	270	88	274	2.0	-4.0	3.0
120	240	118	242	2.0	-2.0	2.0
150	210	149	209	1.0	1.0	1.0
180	180	179	178	1.0	2.0	1.5
210	150	210	146	0.0	4.0	2.0
240	120	243	117	-3.0	3.0	3.0
270	90	274	89	-4.0	1.0	2.5
300	60	304	57	-4.0	3.0	3.5
330	30	334	29	-4.0	1.0	2.5
355	0	354	2	1.0	2.0	1.5
The audit meets AMD requirements.				Average Absolute Degrees Difference=		2.3

## Comments:

Declination = 15 deg East  
 Physical inspection completed, no issues  
 Potentiometer noisy. Replacement required.



**END OF REPORT**



## **Peace River Area Monitoring Program**

# **JANUARY 2024**

## **Ambient Air Monitoring Calibration Report**

### **- 986-C STATION-**

### **CAL-PRAMP-202401-01562**

**Operation and Maintenance:**

Bureau Veritas Canada

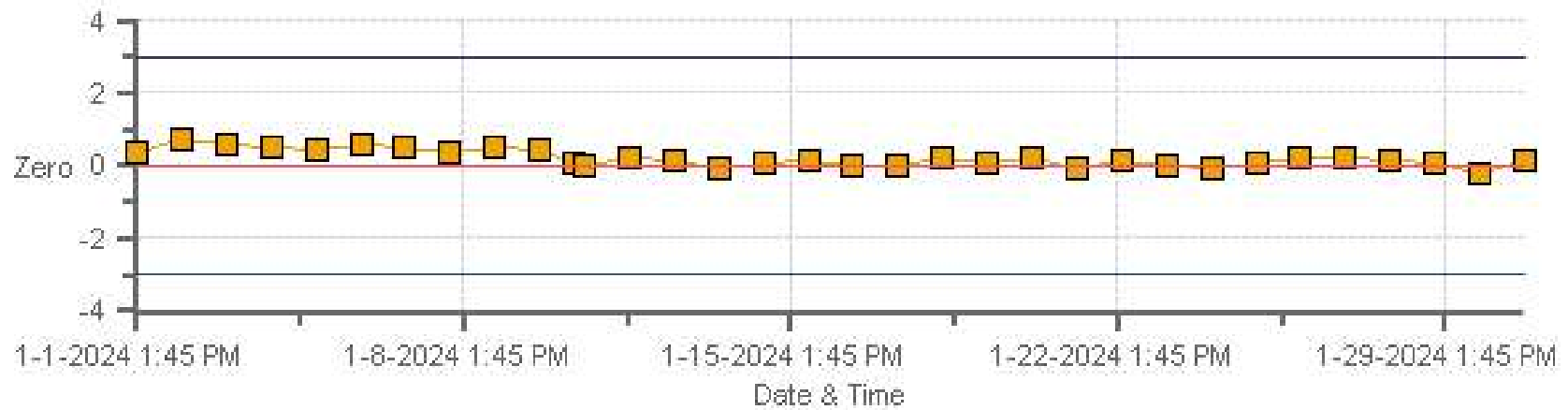
**Data Validation and Report:**

Bureau Veritas Canada

February 22, 2024

# DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: PRAMP 986-C Monthly: 01-2024 Type: SpanAndZero - Zero



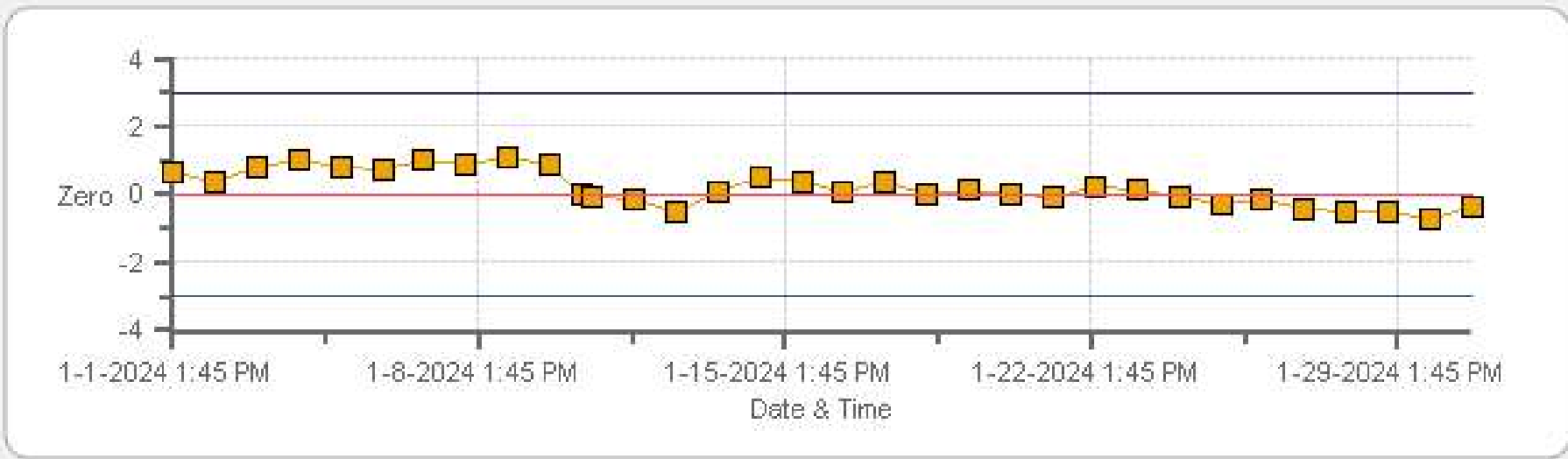
Zero Zero Ref Zero Low Zero High

SO2[ppb] Calibration: PRAMP 986-C Monthly: 01-2024 Type: SpanAndZero - Span



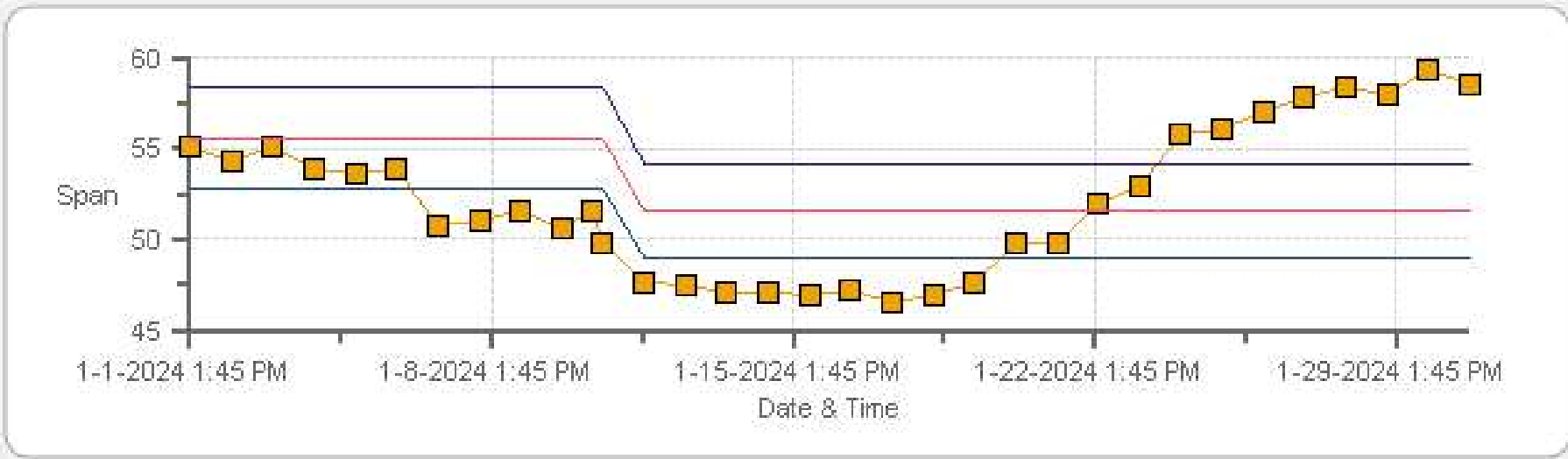
Span SpanRef Span Low Span High

TRS[ppb] Calibration: PRAMP 986-C Monthly: 01-2024 Type: SpanAndZero - Zero



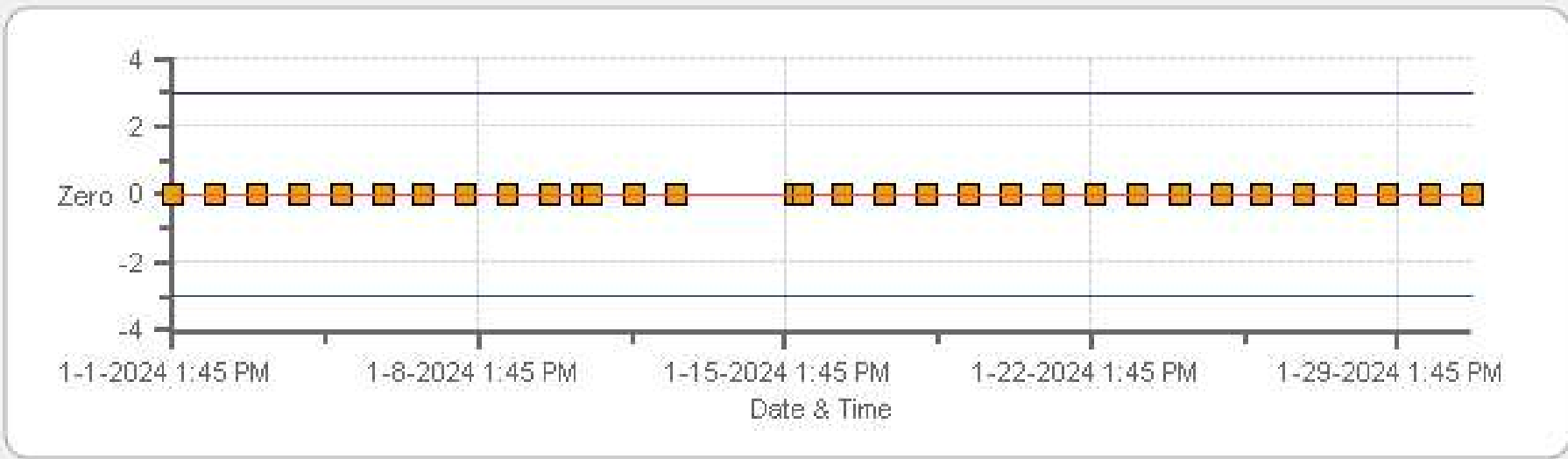
Zero Zero Ref Zero Low Zero High

TRS[ppb] Calibration: PRAMP 986-C Monthly: 01-2024 Type: SpanAndZero - Span



Span SpanRef Span Low Span High

THC55[ppm] Calibration: PRAMP 986-C Monthly: 01-2024 Type: SpanAndZero - Zero



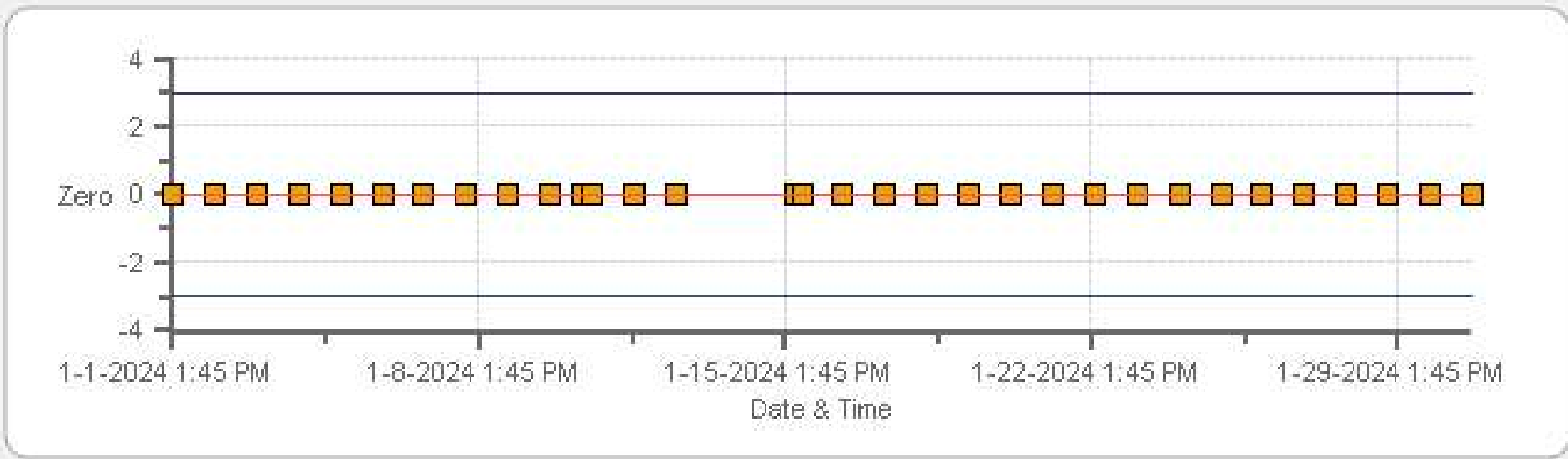
Zero Zero Ref Zero Low Zero High

THC55[ppm] Calibration: PRAMP 986-C Monthly: 01-2024 Type: SpanAndZero - Span



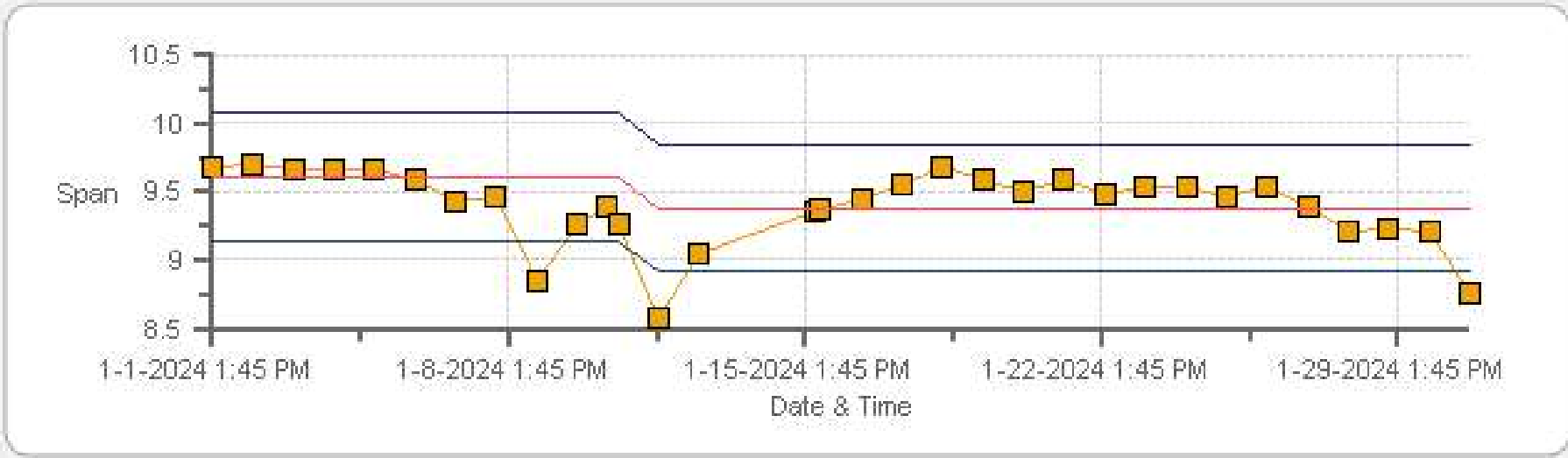
Span Span Ref Span Low Span High

CH4[ppm] Calibration: PRAMP 986-C Monthly: 01-2024 Type: SpanAndZero -Zero



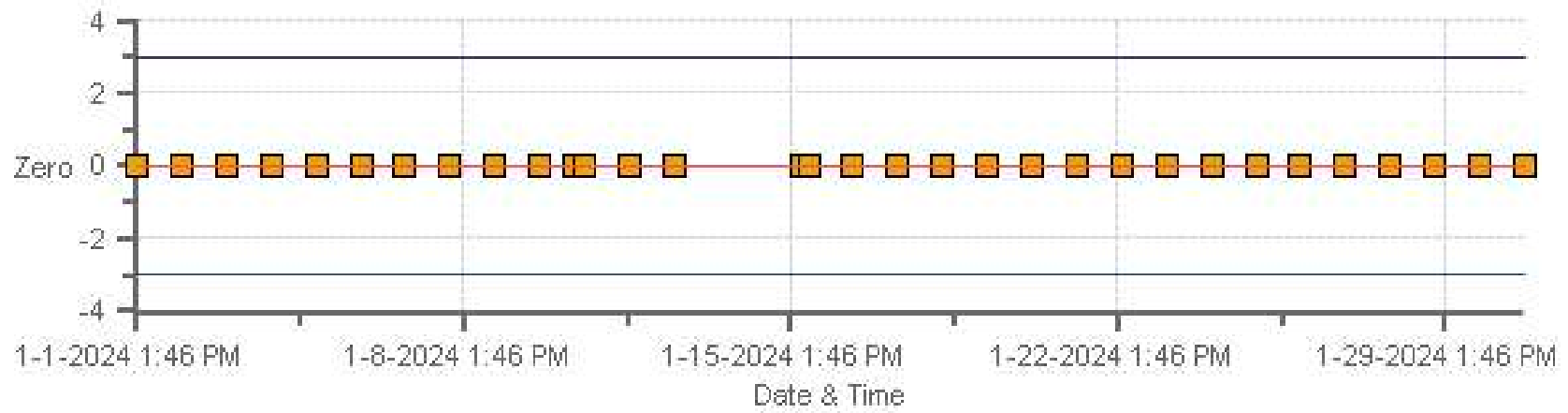
Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: PRAMP 986-C Monthly: 01-2024 Type: SpanAndZero -Span



Span Span Ref Span Low Span High

NMHC[ppm] Calibration: PRAMP 986-C Monthly: 01-2024 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: PRAMP 986-C Monthly: 01-2024 Type: SpanAndZero - Span



Span SpanRef Span Low Span High



# MULTI-POINT CALIBRATION RECORDS

# SO2 Analyzer Calibration by Dilution



DATE:	10-Jan-2024	PREVIOUS CALIBRATION DATE:	07-Dec-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	0.998
CLIENT:	PRAMP	TEMPERATURE (°C):	19.4
LOCATION:	986c	BAROMETRIC (mBar):	948
PURPOSE:	Routine	START TIME (MST):	16:47
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	21:36

## ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	500 ppb
SERIAL #	1193585646	FLOW (mL/min)	433
INITIAL		FINAL	
BKG/OFFSET	18.1	BKG/OFFSET	18.6
COEF/SLOPE	1.052	COEF/SLOPE	1.062
Expected (reference) Value	250.7	Expected (reference) Value	243.4

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL109693	HIGH ID	n/a
CONC (ppm):	25.00	EXPIRY DATE	n/a
CYLINDER (psi):	1400	LOW ID	n/a
EXPIRY DATE	02-Nov-2025	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:

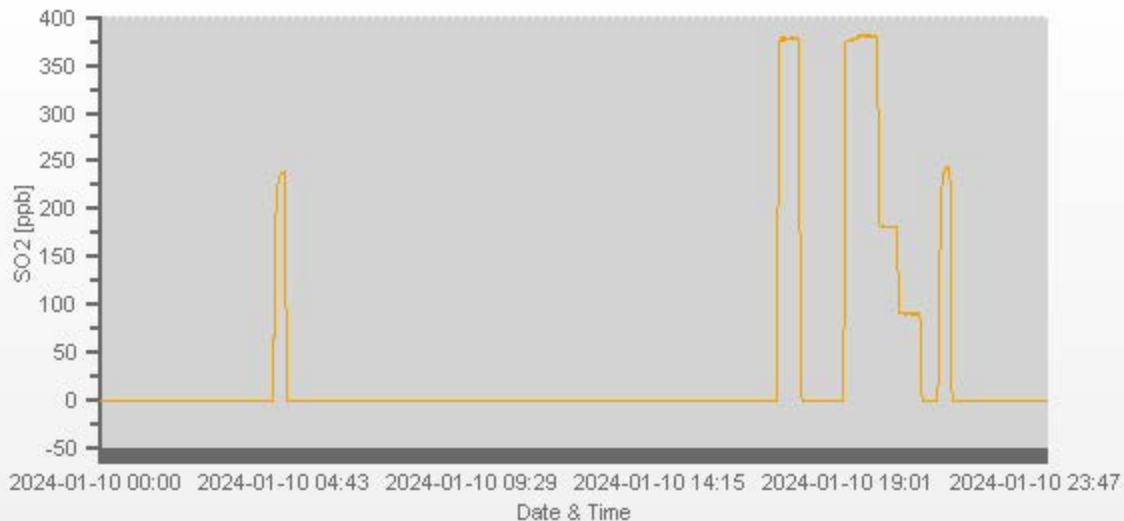
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
3999	<del>60.80</del>	3999	0.00	0.4	0	<del>1.005</del>	<del>0.998</del>
3939	60.80	4000	380.00	378.5	380.9	1.005	0.998
3971	28.80	4000	180.00	n/a	181.6	n/a	0.991
3985	14.40	3999	90.02	n/a	90.6	n/a	0.994

## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	0.1%

## COMMENTS:

Sample filter changed.



# TRS Analyzer Calibration by Dilution



DATE:	10-Jan-2024	PREVIOUS CALIBRATION DATE:	07-Dec-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	0.987
CLIENT:	PRAMP	TEMPERATURE (°C):	19.4
LOCATION:	986C	BAROMETRIC (mBar):	948
PURPOSE:	Routine	START TIME (MST):	16:47
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	21:36

## ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1191833341	FLOW (mL/min)	426
INITIAL		FINAL	
BKG/OFFSET	15.8	BKG/OFFSET	17.6
COEF/SLOPE	0.963	COEF/SLOPE	1.01
Expected (reference) Value	55.52	Expected (reference) Value	51.6

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL131374	HIGH ID	n/a
CONC (ppm):	10.09	EXPIRY DATE	n/a
CYLINDER (psi):	1800	LOW ID	n/a
EXPIRY DATE	03-Jan-2026	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:

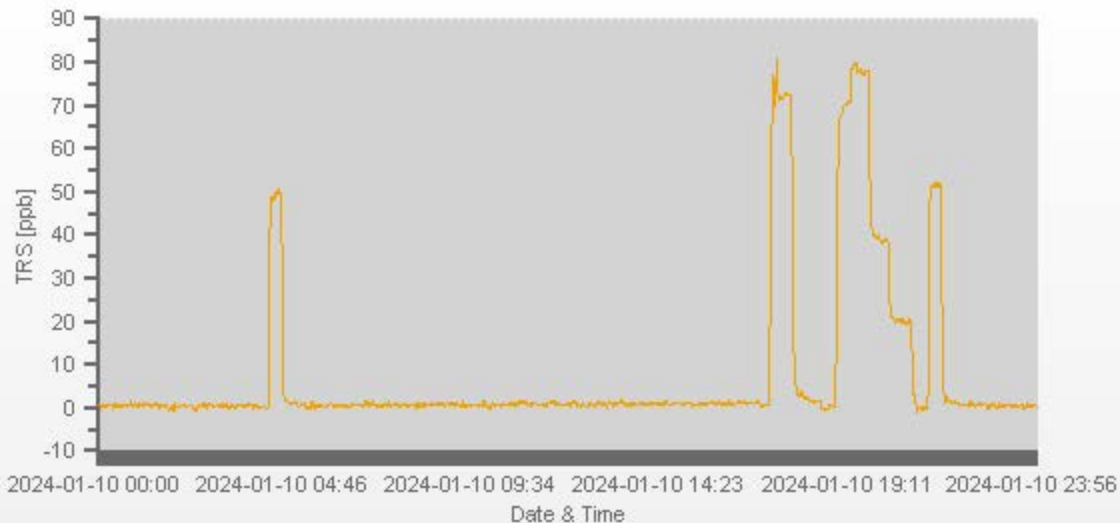
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
3999	<del>30.90</del>	3999	0.00	0.77	0	<del>1.084</del>	<del>1.000</del>
3969	30.90	4000	77.95	72.67	77.98	1.084	1.000
3985	15.10	4000	38.09	n/a	39.04	n/a	0.976
3992	7.50	3999	18.92	n/a	19.78	n/a	0.957

## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.998	0.5%

## COMMENTS:

TRS Converter CDNOVA CDN101 #530 17:14-17:22 Regulator flushed due to low response
---



# Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	10-Jan-2024	PREVIOUS CALIBRATION DATE:	07-Dec-2023	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	19.4		Thermo 55i	12208316589	1011
LOCATION:	986C	BAROMETRIC (mBar):	948	PARAMETER:	CH4	NMHC	THC
PURPOSE:	Removal/Shut-down	START TIME (MST):	16:42	RANGE (ppm):	20	20	40
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	18:40	PREVIOUS CF:	1.000	1.009	1.004

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	LL68768	HIGH ID:	n/a
MODEL:	2010	MODEL:	M701	CH <sub>4</sub> /C <sub>3</sub> H <sub>8</sub> (ppm):	897.0   301.0	HIGH EXPIRY:	n/a
ID:	26801218	ID:	4568	CYLINDER (psi):	1600	LOW ID:	n/a
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	Internal	EXPIRY DATE	08-Nov-2029	LOW EXPIRY:	n/a

## CALIBRATION PARAMETERS:

POINT (CH <sub>4</sub> /NMHC)	HIGH	MID	LOW	CH <sub>4</sub> EQUIVILANCE		
TARGET	14	7	3.5	C <sub>3</sub> H <sub>8</sub> as CH <sub>4</sub>		827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH <sub>4</sub>		1724.8

## EXPECTED (REFERENCE) VALUE:

INITIAL	CH <sub>4</sub>	NMHC	THC	FINAL	CH <sub>4</sub>	NMHC	THC
	9.61	11.01	20.62		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 <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC
3098	<del>X</del>	3098	0.00	0.00	0.00	0.00	0.00	0.00	n/a	n/a	n/a	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>
3049	50.30	3099	14.56	13.44	27.99	14.43	13.91	28.32	n/a	n/a	n/a	1.009	0.966	0.989	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	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	n/a

## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT	Comments:	
CH <sub>4</sub>	1.000	0.991	0.0%	H2 = AMA HG300 #191267063 PRAMP analyzer Unable to get 15mins stable for CH <sub>4</sub> . Shutdown Calibration Fails.	
NMHC	1.000	1.035	0.0%		
THC	1.000	1.012	0.0%		
				Use Zero Chrom?	No

# Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	10-Jan-2024	PREVIOUS CALIBRATION DATE:	n/a	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	21.2		Thermo 55i	12208316589	1090
LOCATION:	986C	BAROMETRIC (mBar):	948	PARAMETER:	CH4	NMHC	THC
PURPOSE:	Routine	START TIME (MST):	18:55	RANGE (ppm):	20	20	40
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	21:37	PREVIOUS CF:	n/a	n/a	n/a

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	LL68768	HIGH ID:	n/a
MODEL:	2010	MODEL:	M701	CH <sub>4</sub> /C <sub>3</sub> H <sub>8</sub> (ppm):	897.0   301.0	HIGH EXPIRY:	n/a
ID:	26801218	ID:	4568	CYLINDER (psi):	1600	LOW ID:	n/a
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	Internal	EXPIRY DATE:	08-Nov-2029	LOW EXPIRY:	n/a

## CALIBRATION PARAMETERS:

POINT (CH <sub>4</sub> /NMHC)	HIGH	MID	LOW	CH <sub>4</sub> EQUIVILANCE		
TARGET	14	7	3.5	C <sub>3</sub> H <sub>8</sub> as CH <sub>4</sub>		827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH <sub>4</sub>		1724.8

## EXPECTED (REFERENCE) VALUE:

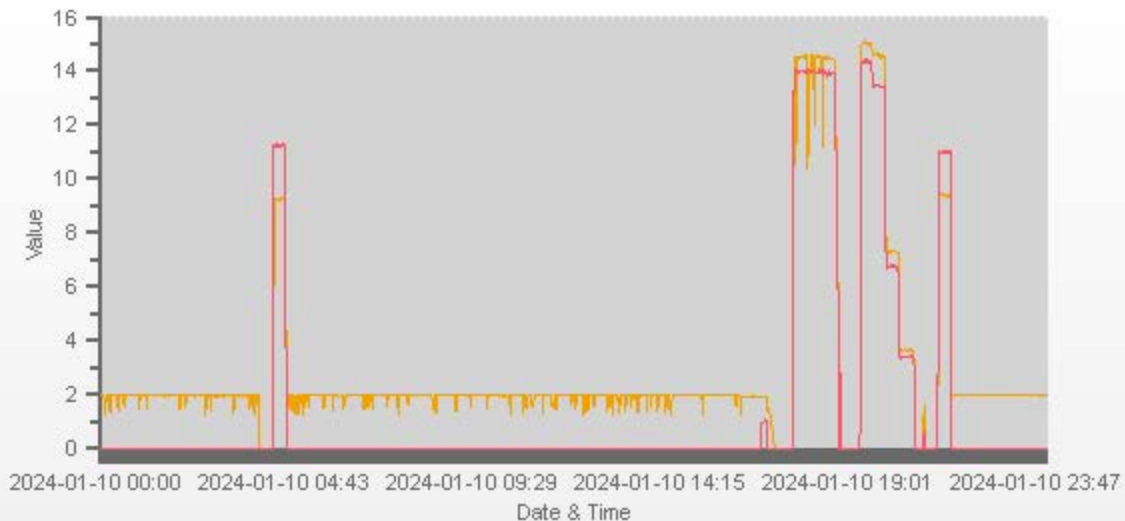
INITIAL	CH <sub>4</sub>	NMHC	THC	FINAL	CH <sub>4</sub>	NMHC	THC
	n/a	n/a	n/a		n/a	9.38	10.97

## CALIBRATION:

FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC
3099	<del>X</del>	3099	0.00	0.00	0.00	n/a	n/a	n/a	0.00	0.00	0.00	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>
3049	50.30	3099	14.56	13.44	27.99	n/a	n/a	n/a	14.54	13.43	27.97	n/a	n/a	n/a	1.001	1.000	1.001
3074	25.20	3099	7.29	6.73	14.03	n/a	n/a	n/a	7.30	6.76	14.07	n/a	n/a	n/a	0.999	0.996	0.997
3085	12.60	3098	3.65	3.37	7.01	n/a	n/a	n/a	3.65	3.41	7.06	n/a	n/a	n/a	1.000	0.987	0.994

## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT	Comments:	Sample
CH <sub>4</sub>	1.000	0.999	0.0%	H2 = AMA HG300 #191267063 filter changed Gas pressures adjusted	
NMHC	1.000	0.999	0.1%		
THC	1.000	0.999	0.1%		
				Use Zero Chrom?	No





# Meteorological System Checklist



Date:	January 11, 2024		
Technician:	Kevin Sebastian		
Station:	PRAMP 986c		
<b>Unit:</b>	<b>Make:</b>	<b>Model:</b>	<b>Serial #:</b>
Precipitation Sampler:	RM Young	52202	TB 16325
Temperature Sensor:	Rotronic	HC2-32	20626912
Barometric Pressure Sensor:	MetOne	092	Y23358
Relative Humidity Sensor:	Rotronic	HC2-S3	20626912
Anemometer:	RM Young	05305AQ	180340
<b>AMBIENT TEMPERATURE SENSOR CHECK</b>			
Previous check date:	December 7, 2023		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	FS 181341226 expires July 17, 2024		
Reference Temperature (°C):	-32.0		
Station - Ambient Temperature (°C):	-36.9		
Temperature Difference (°C):	4.9		
<b>BAROMETRIC PRESSURE SENSOR CHECK</b>			
Previous check date:	December 7, 2023		
Reference Barometer ID:	Brunton 05535 expires July 17, 2024		
Reference Pressure - Units/Reading:	millibar	960	
Station Pressure - Units/Reading:	millibar	957.6	
Pressure Tolerance +/- 15% of error:	816 - 1104	0.25%	
<b>RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK</b>			
Previous check date:	December 7, 2023		
Reference Hygrometer ID:	FS 181341226 expires July 17, 2024		
Reference Hygrometer % RH- Reading:	68.10		
Station Hygrometer % RH- Reading:	64.70		
RH Tolerance +/- 15% of difference:	57.89 - 78.32	5.0%	
<b>ANEMOMETER - WIND SPEED &amp; WIND DIRECTION SENSOR CHECK</b>			
<b>WIND SPEED</b>		<b>WIND DIRECTION</b>	
Previous check date:	December 7, 2023	Previous check date:	December 7, 2023
Wind Speed Observed (kph):	0~5	Wind Direction Observed:	W
Wind speed on Data Logger (kph):	3.3	Wind Direction on Data Logger:	W
		Wind Direction Pass/Fail?:	Pass
Comments			



# Meteorological Sensor Audit/Calibration

## Location Information

Company: PRAMP  
 Audit Location: 986C  
 Audit Date: August 3, 2023  
 Calibration Purpose: routine annual

Performed By: Chris Wesson  
 Reviewed By: Limin Li  
 Start/End Time (mst): 14:01 / 15:03  
 Weather Conditions: Rain fall heavy at times

## 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:	0-200
Serial #:	180340	Direction Voltage Output Range:	n/a
Previous Cal/Audit Date:	August 5, 2022	Direction Unit Output Range:	0-360

## Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# R9133 expires Oct 18, 2024

## 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	110.1	1.003
7000	129.0	128.9	129.3	0.999
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	2	354	2.0	1.0	1.5
30	330	31	331	-1.0	-1.0	1.0
60	300	60	301	0.0	-1.0	0.5
90	270	90	271	0.0	-1.0	0.5
120	240	119	240	1.0	0.0	0.5
150	210	148	207	2.0	3.0	2.5
180	180	178	178	2.0	2.0	2.0
210	150	208	148	2.0	2.0	2.0
240	120	240	122	0.0	-2.0	1.0
270	90	272	90	-2.0	0.0	1.0
300	60	301	60	-1.0	0.0	0.5
330	30	331	32	-1.0	-2.0	1.5
355	0	354	2	1.0	2.0	1.5
The audit meets AMD requirements.				Average Absolute Degrees Difference=		1.2

## Comments:

Declination = 15 deg East  
 Physical inspection completed, no issues

**END OF REPORT**



## Peace River Area Monitoring Program

# JANUARY 2024

## Ambient Air Monitoring Calibration Report

### - RENO-B STATION-

### CAL-PRAMP-202401-01563

**Operation and Maintenance:**

Bureau Veritas Canada

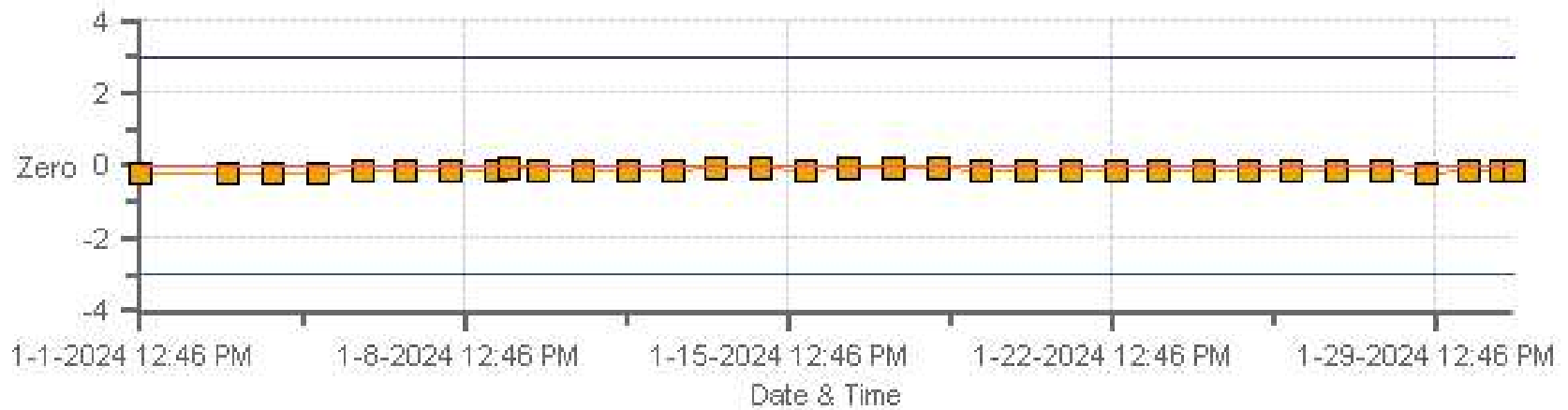
**Data Validation and Report:**

Bureau Veritas Canada

February 22, 2024

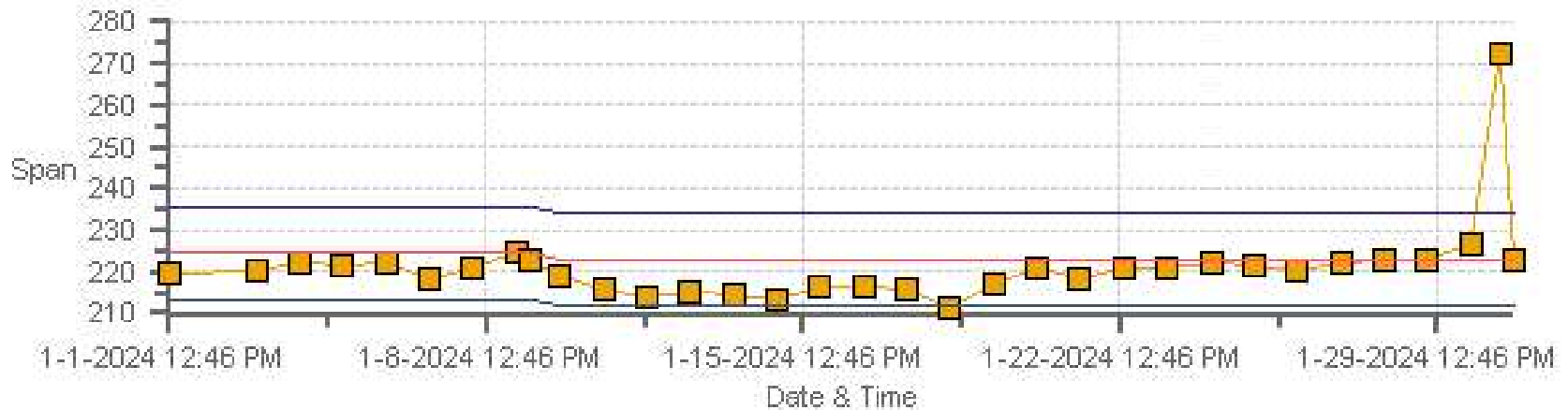
# DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO<sub>2</sub>[ppb] Calibration: PRAMP RENO-B Monthly: 01-2024 Type: SpanAndZero - Zero



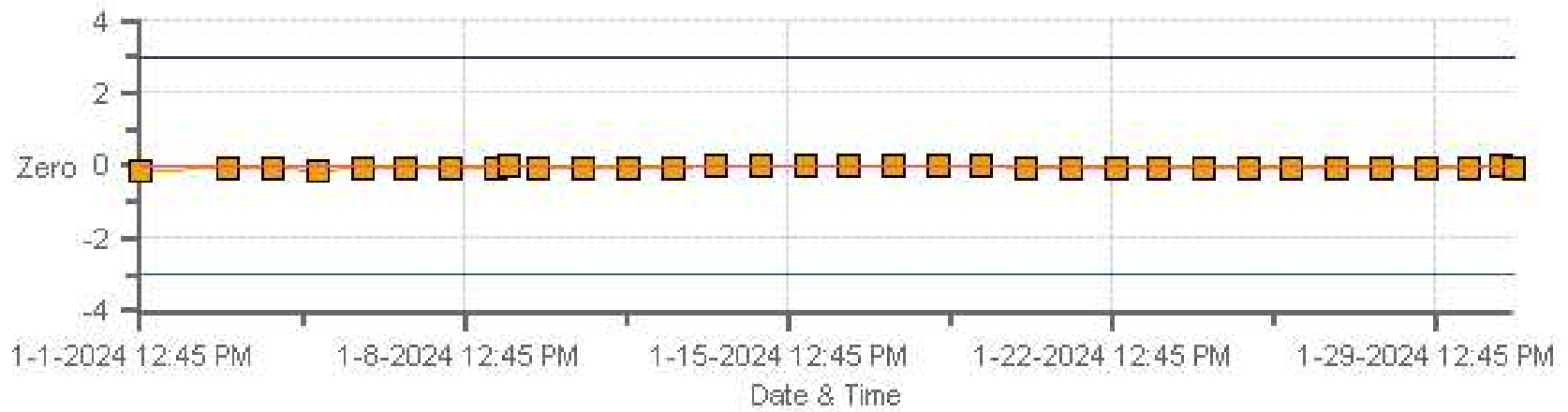
Zero Zero Ref Zero Low Zero High

SO<sub>2</sub>[ppb] Calibration: PRAMP RENO-B Monthly: 01-2024 Type: SpanAndZero - Span



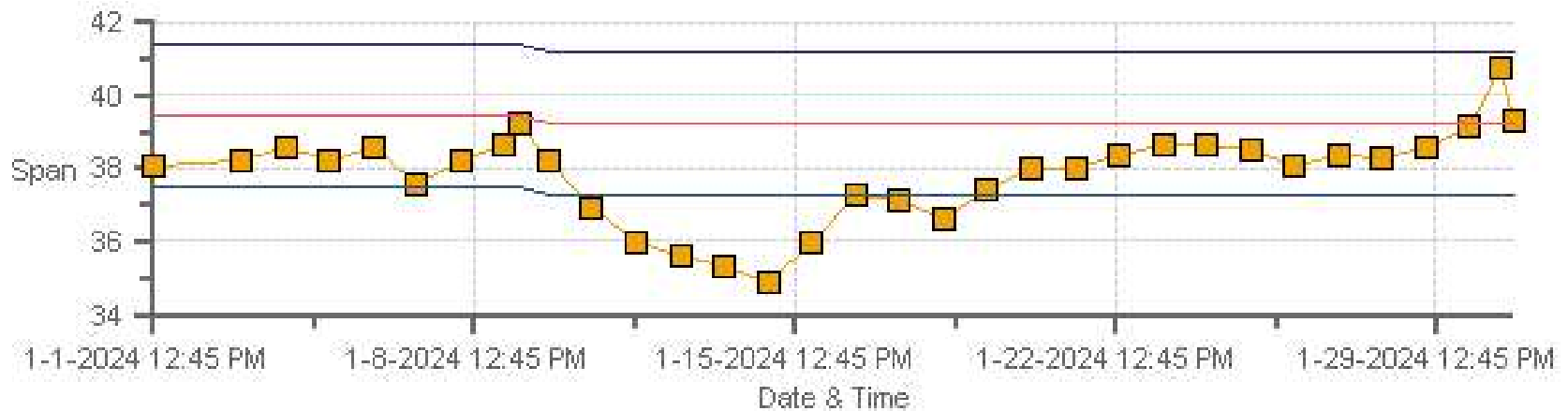
Span Span Ref Span Low Span High

TRS[ppb] Calibration: PRAMP RENO-B Monthly: 01-2024 Type: SpanAndZero - Zero



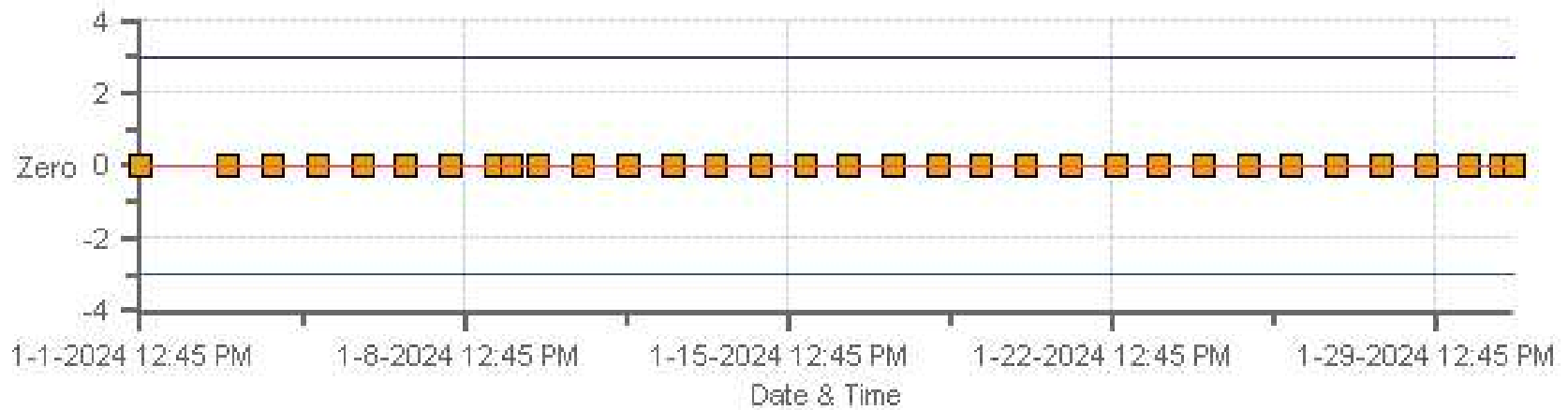
Zero Zero Ref Zero Low Zero High

TRS[ppb] Calibration: PRAMP RENO-B Monthly: 01-2024 Type: SpanAndZero - Span



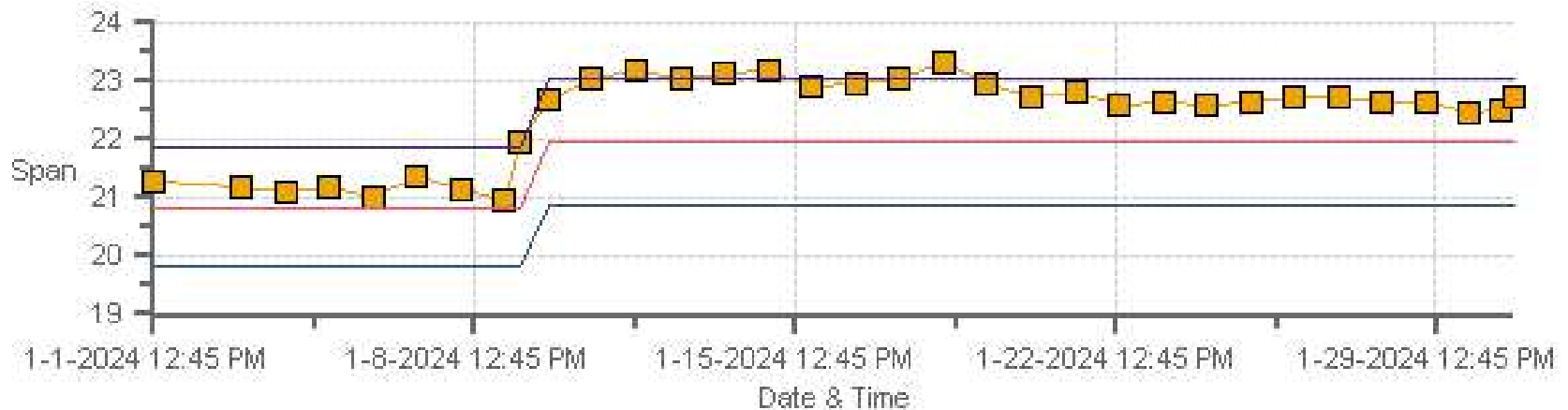
Span Span Ref Span Low Span High

THC55[ppm] Calibration: PRAMP RENO-B Monthly: 01-2024 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

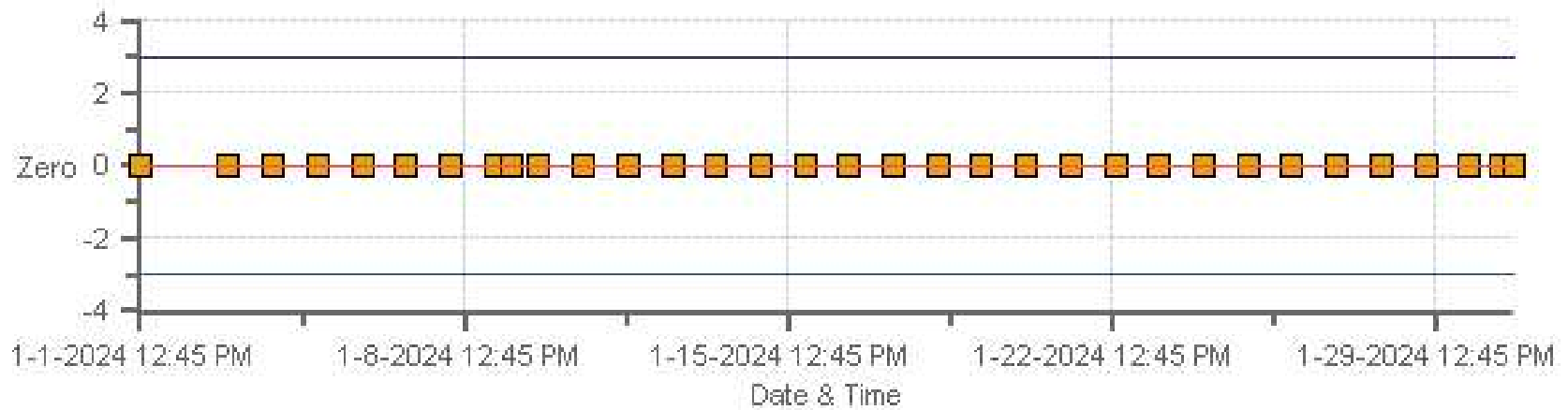
THC55[ppm] Calibration: PRAMP RENO-B Monthly: 01-2024 Type: SpanAndZero - Span



Span SpanRef Span Low Span High



CH4[ppm] Calibration: PRAMP RENO-B Monthly: 01-2024 Type: SpanAndZero - Zero



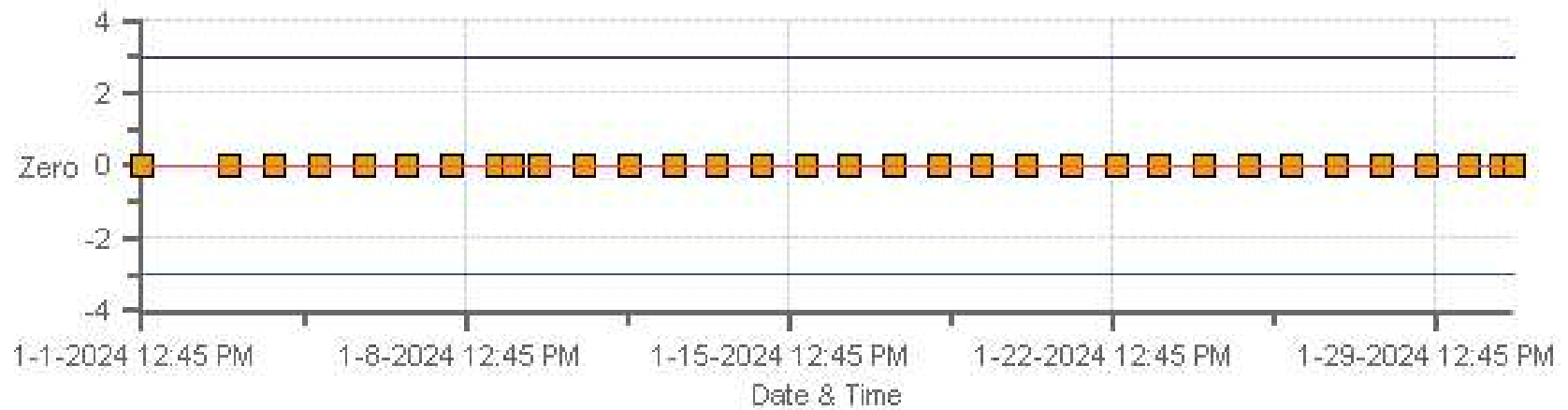
Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: PRAMP RENO-B Monthly: 01-2024 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

NMHC[ppm] Calibration: PRAMP RENO-B Monthly: 01-2024 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: PRAMP RENO-B Monthly: 01-2024 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

# MULTI-POINT CALIBRATION RECORDS

# SO2 Analyzer Calibration by Dilution



DATE:	09-Jan-2024	PREVIOUS CALIBRATION DATE:	01-Dec-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	0.998
CLIENT:	PRAMP	TEMPERATURE (°C):	22.2
LOCATION:	Reno-B	BAROMETRIC (mBar):	925
PURPOSE:	Routine	START TIME (MST):	08:05
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	12:27

## ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	500 ppb
SERIAL #	12101910505	FLOW (mL/min)	432
INITIAL		FINAL	
BKG/OFFSET	1.39	BKG/OFFSET	1.39
COEF/SLOPE	0.955	COEF/SLOPE	0.952
Expected (reference) Value	224.4	Expected (reference) Value	222.8

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL109693	HIGH ID	n/a
CONC (ppm):	25.00	EXPIRY DATE	n/a
CYLINDER (psi):	1400	LOW ID	n/a
EXPIRY DATE	02-Nov-2025	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:

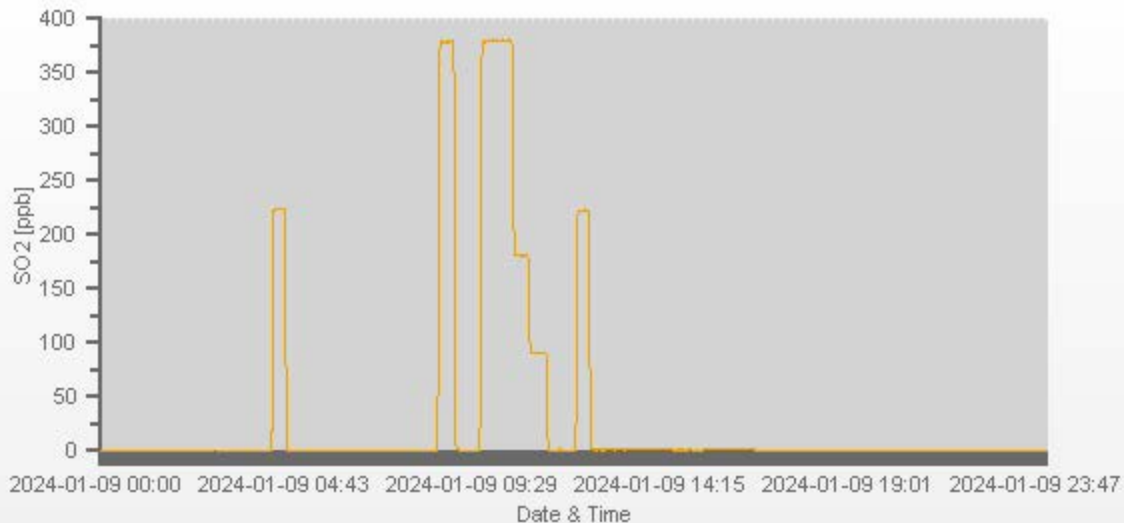
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
3999	<del>60.80</del>	3999	0.00	-0.2	0	<del>1.002</del>	<del>0.999</del>
3939	60.80	4000	380.00	379.2	380.4	1.002	0.999
3971	28.80	4000	180.00	n/a	180.6	n/a	0.997
3985	14.40	3999	90.02	n/a	89.8	n/a	1.002

## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.001	0.0%

## COMMENTS:

Sample filter changed
-----------------------



# TRS Analyzer Calibration by Dilution



DATE:	09-Jan-2024	PREVIOUS CALIBRATION DATE:	01-Dec-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	0.998
CLIENT:	PRAMP	TEMPERATURE (°C):	22.5
LOCATION:	Reno-B	BAROMETRIC (mBar):	925
PURPOSE:	Routine	START TIME (MST):	08:05
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	12:27

## ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	12101910504	FLOW (mL/min)	390
INITIAL		FINAL	
BKG/OFFSET	1.14	BKG/OFFSET	1.15
COEF/SLOPE	0.932	COEF/SLOPE	0.941
Expected (reference) Value	39.46	Expected (reference) Value	39.22

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL131374	HIGH ID	n/a
CONC (ppm):	10.09	EXPIRY DATE	n/a
CYLINDER (psi):	1800	LOW ID	n/a
EXPIRY DATE	03-Jan-2026	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:

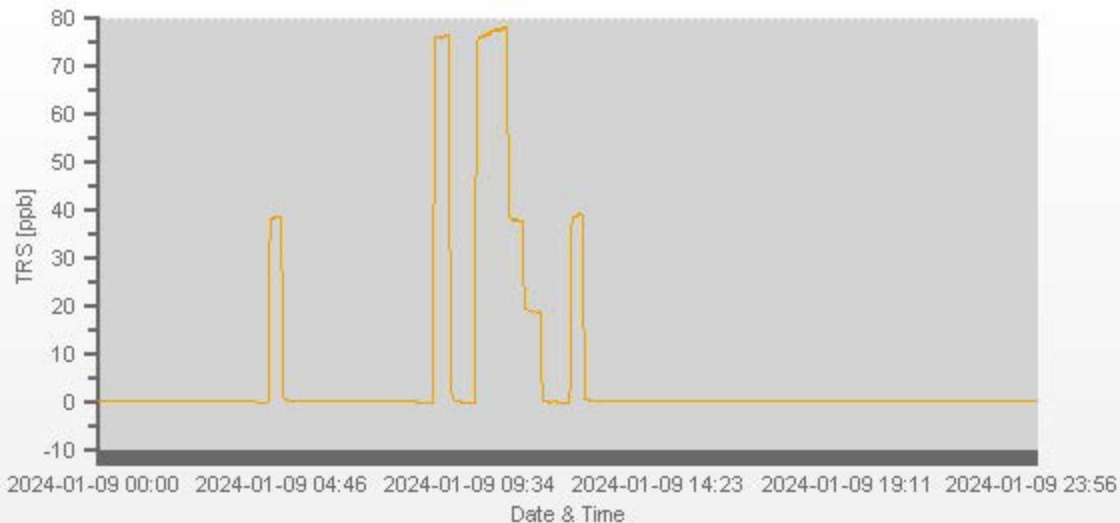
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
3999	<del>30.90</del>	3999	0.00	-0.09	0	<del>1.018</del>	<del>0.998</del>
3969	30.90	4000	77.95	76.45	78.08	1.018	0.998
3985	15.10	4000	38.09	n/a	38.04	n/a	1.001
3992	7.50	3999	18.92	n/a	18.88	n/a	1.002

## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	-0.1%

## COMMENTS:

TRS Converter CDNOVA CDN-101 #590. Sample Filter Changed
---



# Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	09-Jan-2024	PREVIOUS CALIBRATION DATE:	01-Dec-2023	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	22.5		Thermo 55i	12101910497	1106
LOCATION:	Reno-B	BAROMETRIC (mBar):	925	PARAMETER:	CH4	NMHC	THC
PURPOSE:	Routine	START TIME (MST):	08:05	RANGE (ppm):	20	20	40
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	12:54	PREVIOUS CF:	1.001	1.000	1.001

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	LL68768	HIGH ID:	n/a
MODEL:	2010	MODEL:	M701	CH <sub>4</sub> /C <sub>3</sub> H <sub>8</sub> (ppm):	897.0   301.0	HIGH EXPIRY:	n/a
ID:	26701218	ID:	5004	CYLINDER (psi):	1600	LOW ID:	n/a
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	Internal	EXPIRY DATE:	11-Aug-2029	LOW EXPIRY:	n/a

## CALIBRATION PARAMETERS:

POINT (CH <sub>4</sub> /NMHC)	HIGH	MID	LOW	CH <sub>4</sub> EQUIVILANCE		
TARGET	14	7	3.5	C <sub>3</sub> H <sub>8</sub> as CH <sub>4</sub>		827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH <sub>4</sub>		1724.8

## EXPECTED (REFERENCE) VALUE:

INITIAL	CH <sub>4</sub>	NMHC	THC	FINAL	CH <sub>4</sub>	NMHC	THC
	9.83	11.01	20.84		10.30	11.65	21.95

## CALIBRATION:

FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC
3099	<del>X</del>	3099	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>
3049	50.30	3099	14.56	13.44	27.99	14.38	13.46	27.84	14.62	13.51	28.13	1.012	0.998	1.006	0.996	0.994	0.995
3074	25.20	3099	7.29	6.73	14.03	n/a	n/a	n/a	7.39	6.86	14.26	n/a	n/a	n/a	0.987	0.981	0.984
3085	12.60	3098	3.65	3.37	7.01	n/a	n/a	n/a	3.75	3.53	7.29	n/a	n/a	n/a	0.973	0.954	0.962

## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
CH <sub>4</sub>	1.000	1.003	0.2%
NMHC	1.000	1.003	0.4%
THC	1.000	1.003	0.3%

## Comments:

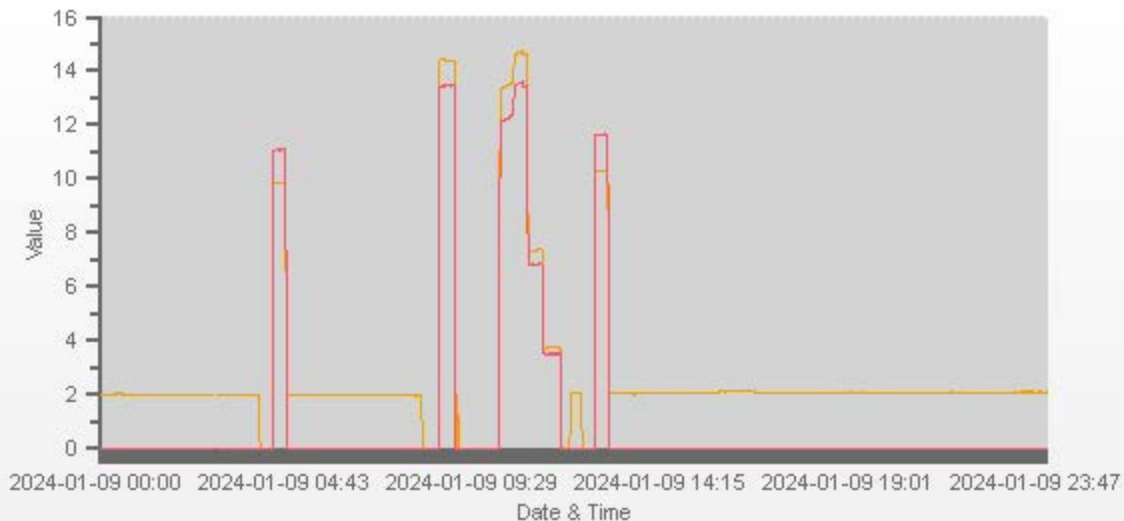
Sample filter changed  
H2 Dessicant Changed

Use Zero Chrom?

No



Station: PRAMP RENO-B Daily: 2024-00-09 Type: AVG 1 Min. [1 Min.]



CAL-PRAMP-202401-01563

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CH4 [ppm] NMHC [ppm]

# Meteorological System Checklist



Date:	January 9, 2024		
Technician:	Kevin Sebastian		
Station:	PRAMP Reno		
<b>Unit:</b>	<b>Make:</b>	<b>Model:</b>	<b>Serial #:</b>
Precipitation Sampler:	RM Young	52202	TB 15877
Temperature Sensor:	Rotronic	HC2-S3	20467597
Barometric Pressure Sensor:	MetOne	92	A17940
Relative Humidity Sensor:	Rotronic	HC2-S3	20467597
Anemometer:	RM Young	05305AQ	174795
<b>AMBIENT TEMPERATURE SENSOR CHECK</b>			
Previous check date:	December 1, 2023		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	FS 181341226 expires July 17, 2024		
Reference Temperature (°C):	-20.8		
Station - Ambient Temperature (°C):	-21.0		
Temperature Difference (°C):	0.2		
<b>BAROMETRIC PRESSURE SENSOR CHECK</b>			
Previous check date:	December 1, 2023		
Reference Barometer ID:	Equipment ID - 05535 Brunton Expiry - July 17 2024		
Reference Pressure - Units/Reading:	millibar	926	
Station Pressure - Units/Reading:	millibar	927	
Pressure Tolerance +/- 15% of error:	787 - 1065	-0.11%	
<b>RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK</b>			
Previous check date:	December 1, 2023		
Reference Hygrometer ID:	FS 181341226 expires July 17, 2024		
Reference Hygrometer % RH- Reading:	80.10		
Station Hygrometer % RH- Reading:	83.00		
RH Tolerance +/- 15% of difference:	68.09 - 92.12	-3.6%	
<b>ANEMOMETER - WIND SPEED &amp; WIND DIRECTION SENSOR CHECK</b>			
<b>WIND SPEED</b>		<b>WIND DIRECTION</b>	
Previous check date:	December 1, 2023	Previous check date:	December 1, 2023
Wind Speed Observed (kph):	10~20	Wind Direction Observed:	NE
Wind speed on Data Logger (kph):	15.2	Wind Direction on Data Logger:	NE
		Wind Direction Pass/Fail?:	Pass
Comments			
Precip not checked = too cold			



# Meteorological Sensor Audit/Calibration

## Location Information

Company: PRAMP  
 Audit Location: Reno-B  
 Audit Date: August 1, 2023  
 Calibration Purpose: routine annual

Performed By: Chris Wesson  
 Reviewed By: Limin Li  
 Start/End Time (mst): 09:54 / 11:18  
 Weather Conditions: Mainly cloudy with drizzle

## 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:	0-200
Serial #:	174795	Direction Voltage Output Range:	n/a
Previous Cal/Audit Date:	November 23, 2022	Direction Unit Output Range:	0-360

## Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# R9133 expires Oct 18, 2024

## 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	184.6	0.999
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	1	354	1.0	1.0	1.0
30	330	30	332	0.0	-2.0	1.0
60	300	60	302	0.0	-2.0	1.0
90	270	89	272	1.0	-2.0	1.5
120	240	120	241	0.0	-1.0	0.5
150	210	149	211	1.0	-1.0	1.0
180	180	181	182	-1.0	-2.0	1.5
210	150	211	150	-1.0	0.0	0.5
240	120	241	120	-1.0	0.0	0.5
270	90	271	90	-1.0	0.0	0.5
300	60	301	60	-1.0	0.0	0.5
330	30	331	29	-1.0	1.0	1.0
355	0	354	1	1.0	1.0	1.0
The audit meets AMD requirements.				Average Absolute Degrees Difference=		0.9

## Comments:

Declination = 15 deg East  
 Physical inspection completed, no issues

**END OF REPORT**



## **Peace River Area Monitoring Program**

# **JANUARY 2024**

## **Ambient Air Monitoring Calibration Report**

### **- AQHI - GRIMSHAW STATION-**

### **CAL-PRAMP-202401-01689**

**Operation and Maintenance:**

Bureau Veritas Canada

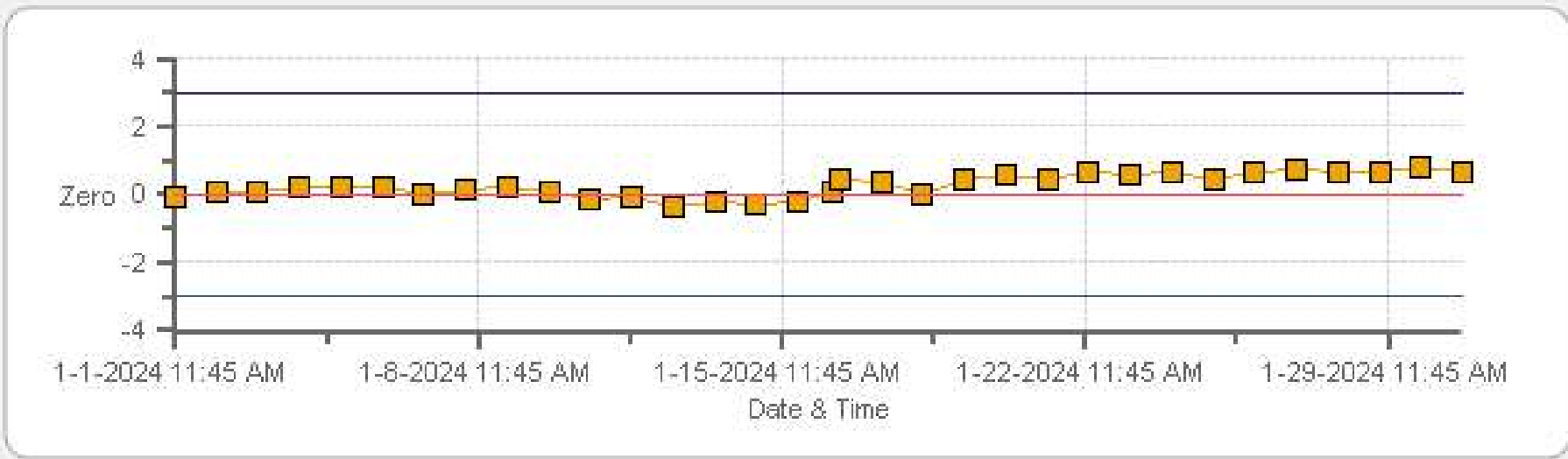
**Data Validation and Report:**

Bureau Veritas Canada

February 22, 2024

# DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: AQHI Grimshaw Monthly: 01-2024 Type: SpanAndZero - Zero



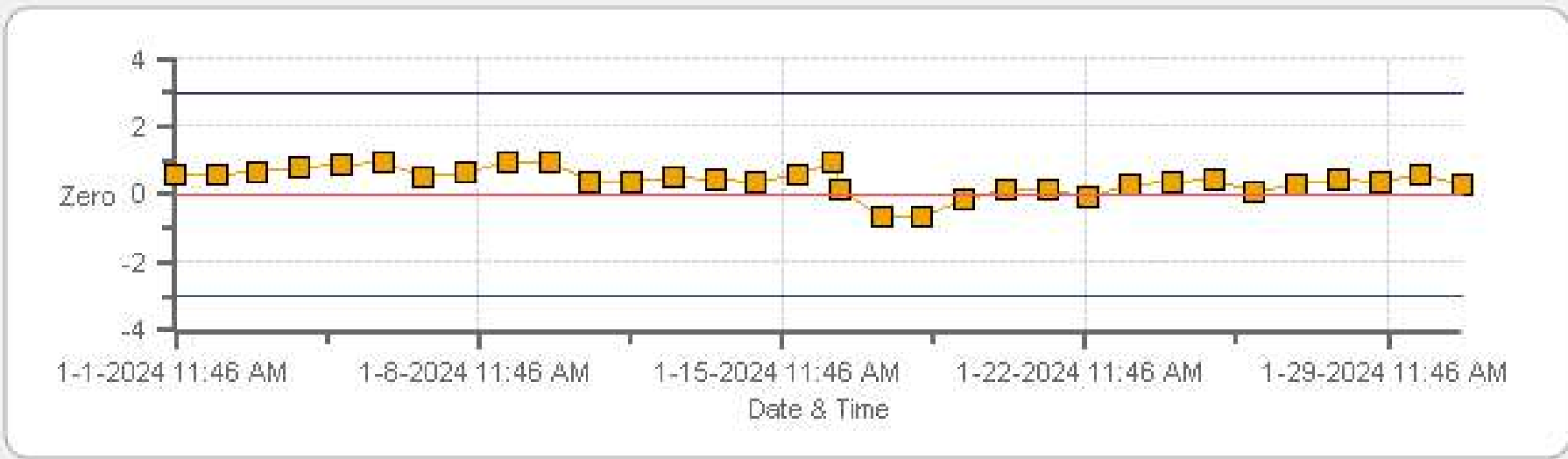
Zero Zero Ref Zero Low Zero High

SO2[ppb] Calibration: AQHI Grimshaw Monthly: 01-2024 Type: SpanAndZero - Span



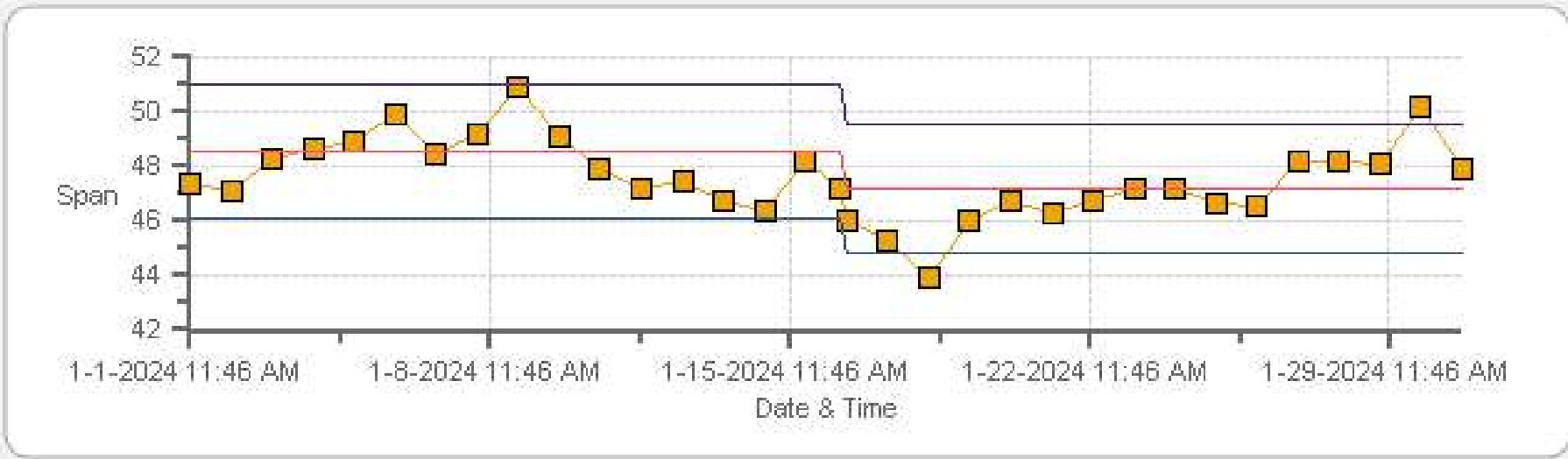
Span Span Ref Span Low Span High

TRS[ppb] Calibration: AQHI Grimshaw Monthly: 01-2024 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

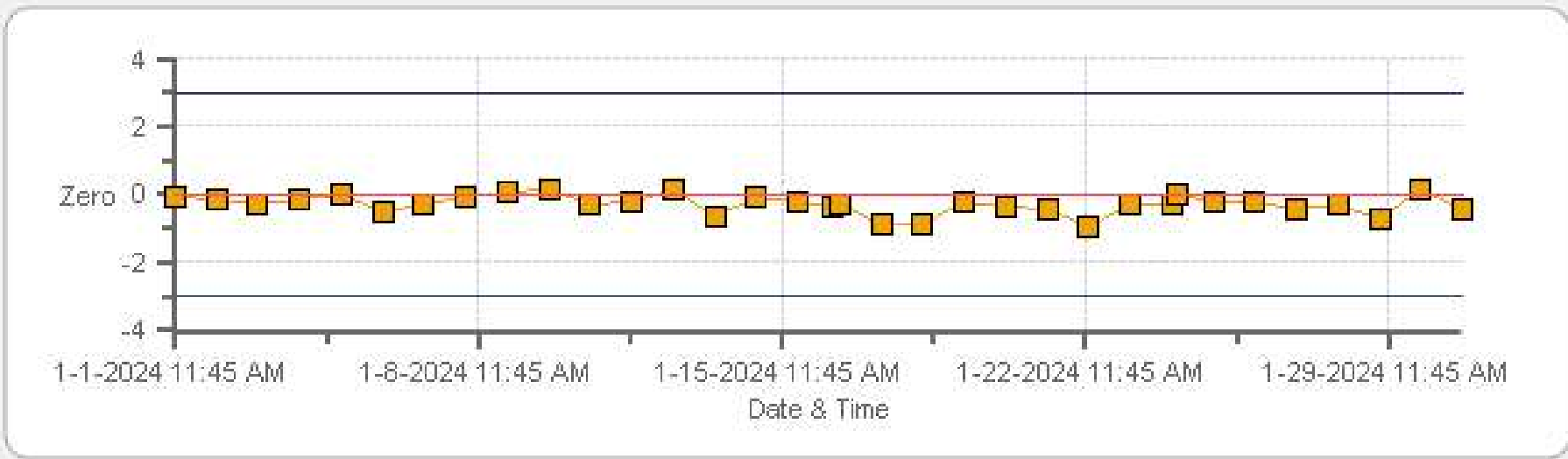
TRS[ppb] Calibration: AQHI Grimshaw Monthly: 01-2024 Type: SpanAndZero - Span



Span SpanRef Span Low Span High

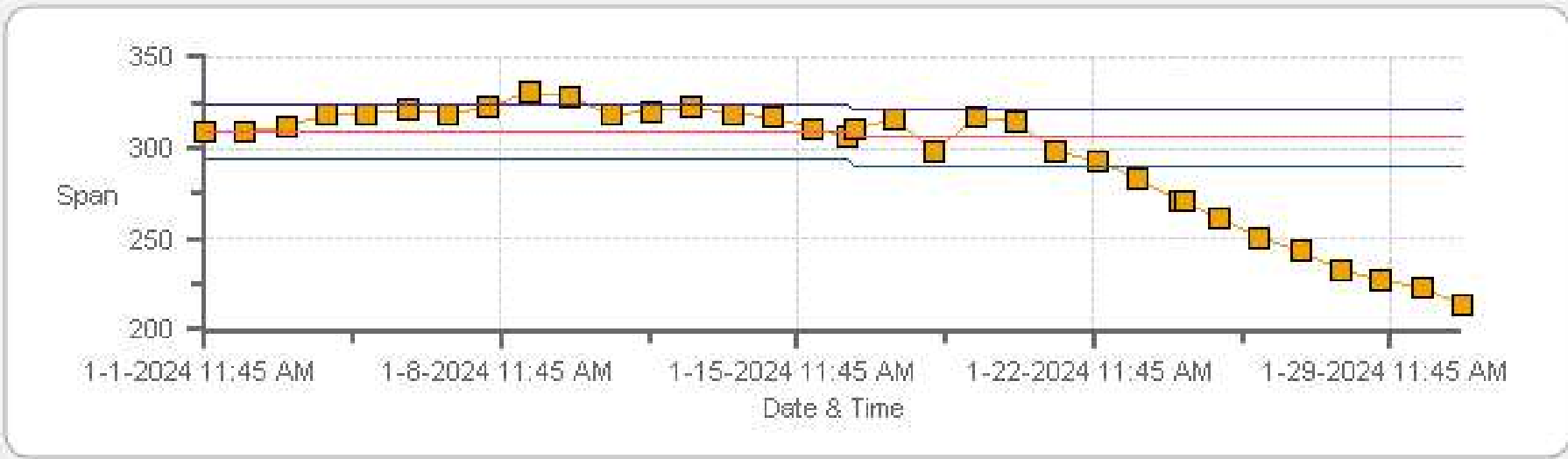


NOX[ppb] Calibration: AQHI Grimshaw Monthly: 01-2024 Type: SpanAndZero - Zero



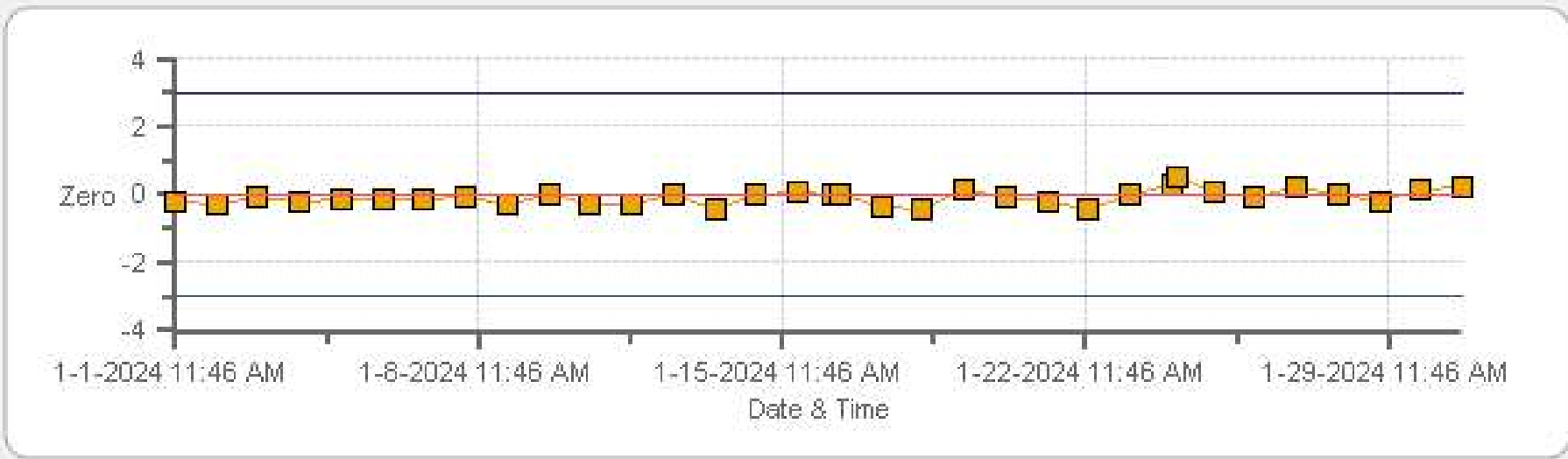
Zero Zero Ref Zero Low Zero High

NOX[ppb] Calibration: AQHI Grimshaw Monthly: 01-2024 Type: SpanAndZero - Span



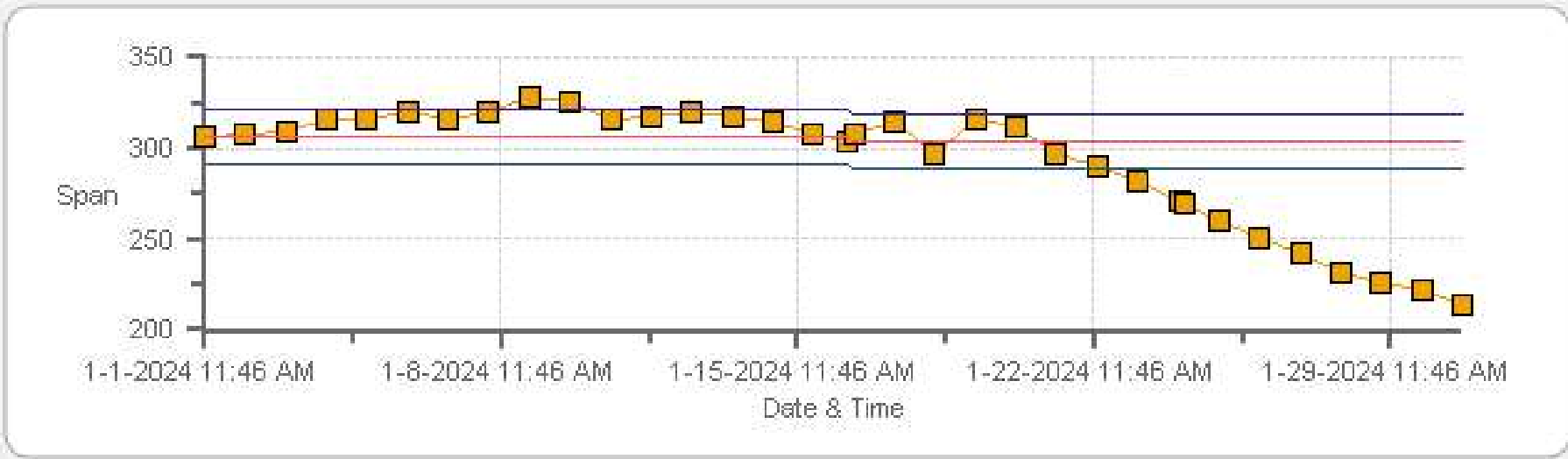
Span Span Ref Span Low Span High

NO2[ppb] Calibration: AQHI Grimshaw Monthly: 01-2024 Type: SpanAndZero - Zero



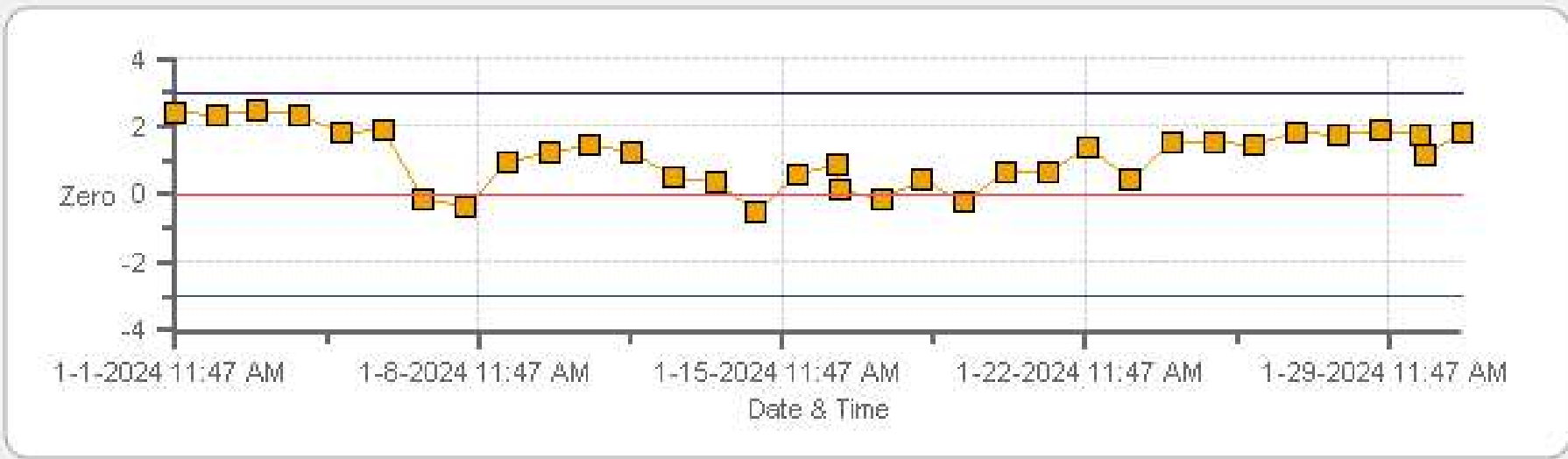
Zero Zero Ref Zero Low Zero High

NO2[ppb] Calibration: AQHI Grimshaw Monthly: 01-2024 Type: SpanAndZero - Span



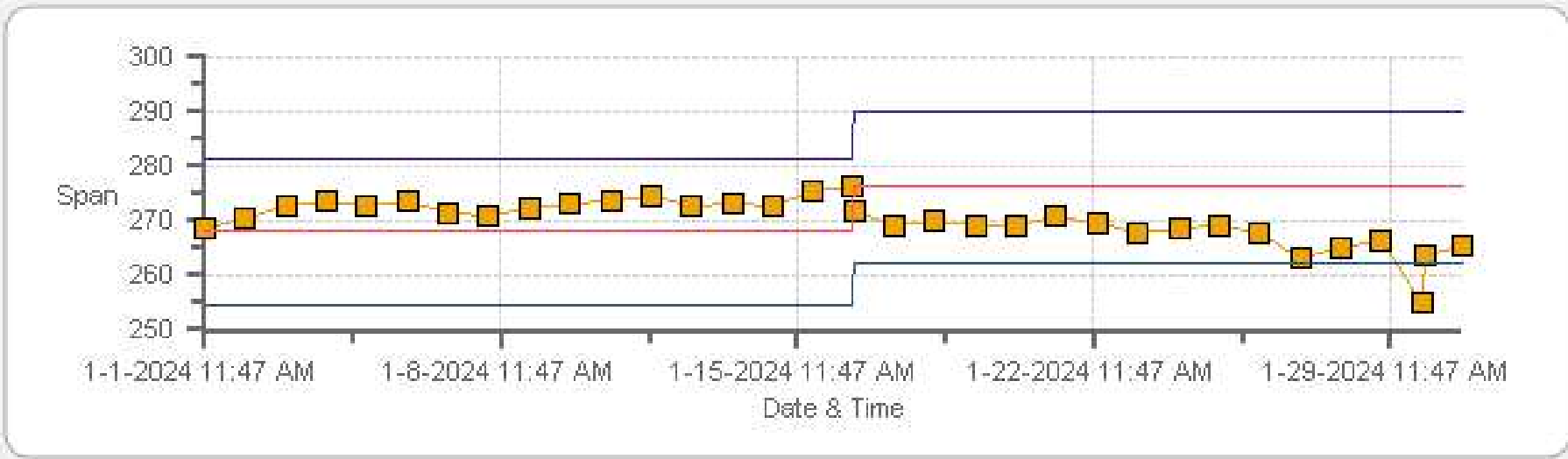
Span Span Ref Span Low Span High

O3[ppb] Calibration: AQHI Grimshaw Monthly: 01-2024 Type: SpanAndZero -Zero



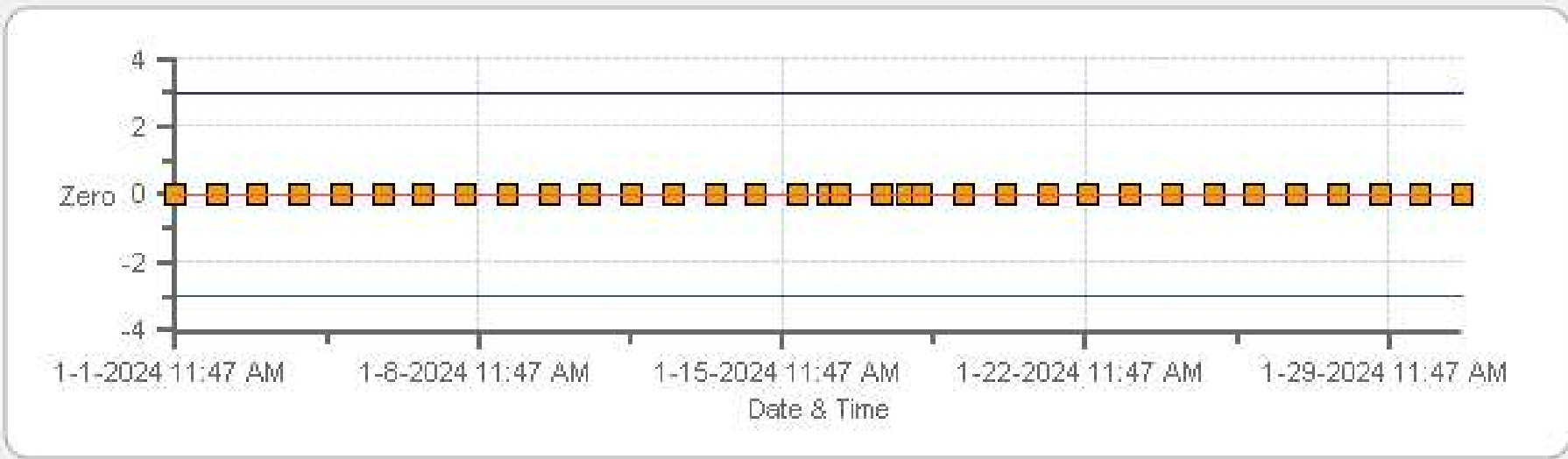
Zero Zero Ref Zero Low Zero High

O3[ppb] Calibration: AQHI Grimshaw Monthly: 01-2024 Type: SpanAndZero -Span



Span SpanRef Span Low Span High

THC55[ppm] Calibration: AQHI Grimshaw Monthly: 01-2024 Type: SpanAndZero - Zero



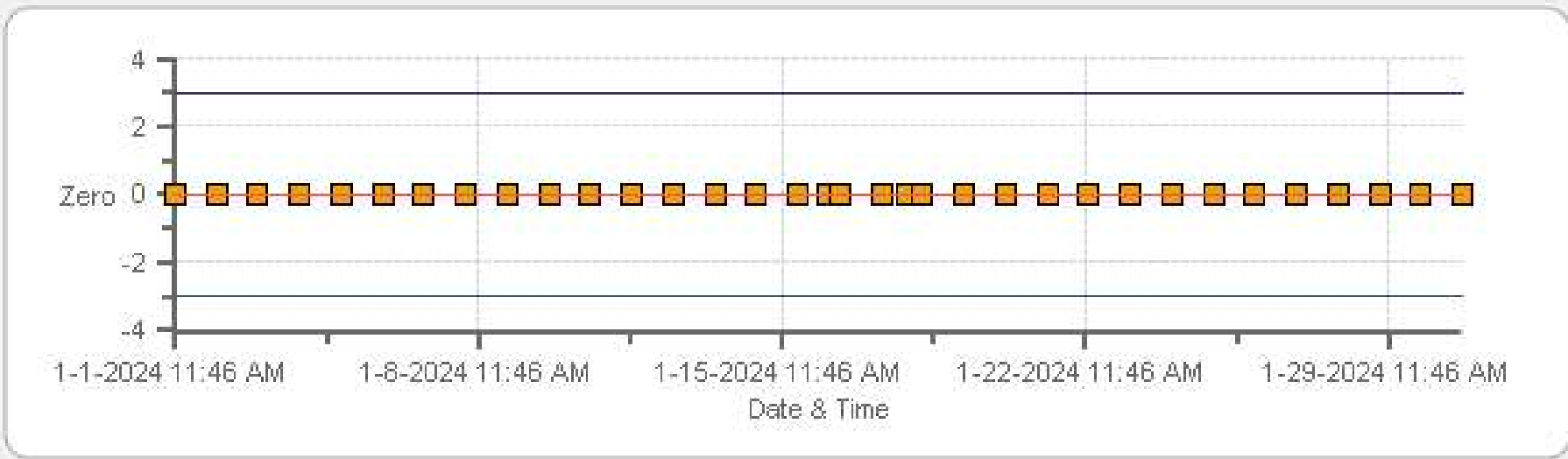
Zero Zero Ref Zero Low Zero High

THC55[ppm] Calibration: AQHI Grimshaw Monthly: 01-2024 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

CH4[ppm] Calibration: AQHI Grimshaw Monthly: 01-2024 Type: SpanAndZero - Zero



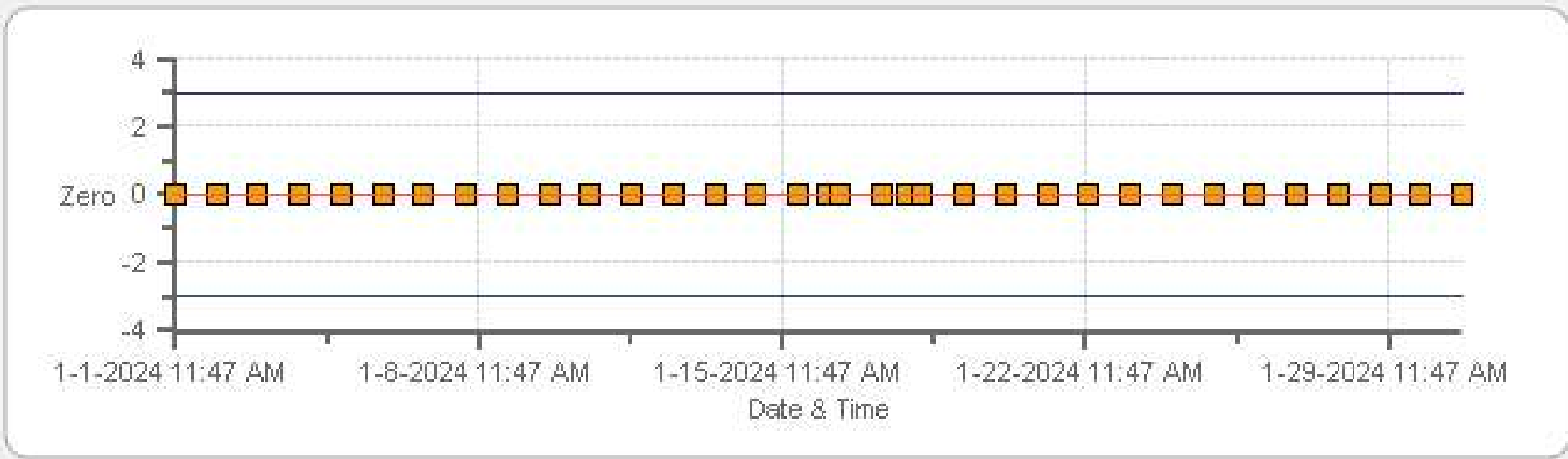
Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: AQHI Grimshaw Monthly: 01-2024 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

NMHC[ppm] Calibration: AQHI Grimshaw Monthly: 01-2024 Type: SpanAndZero - Zero



NMHC[ppm] Calibration: AQHI Grimshaw Monthly: 01-2024 Type: SpanAndZero - Span



# MULTI-POINT CALIBRATION RECORDS

# SO2 Analyzer Calibration by Dilution



DATE:	16-Jan-2024	PREVIOUS CALIBRATION DATE:	12-Dec-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	22.5
LOCATION:	Grimshaw	BAROMETRIC (mBar):	950
PURPOSE:	Routine	START TIME (MST):	11:47
PERFORMED BY:	Chris Wesson	END TIME (MST):	16:21

## ANALYZER:

MAKE/MODEL	Teledyne T100	RANGE	500 ppb
SERIAL #	722	FLOW (mL/min)	947
INITIAL		FINAL	
BKG/OFFSET	32.8	BKG/OFFSET	31.9
COEF/SLOPE	0.94	COEF/SLOPE	0.904
Expected (reference) Value	255.6	Expected (reference) Value	241.6

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Sabio
MODEL:	2010	MODEL:	2020EXP
ID:	58100720	ID:	18700921
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL107286	HIGH ID	n/a
CONC (ppm):	25.10	EXPIRY DATE	n/a
CYLINDER (psi):	700	LOW ID	n/a
EXPIRY DATE	27-Jan-2025	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		
4001	<del>60.80</del>	4001	0.00	-0.3	0	<del>0.964</del>	<del>1.000</del>
3941	60.80	4002	381.33	395.3	381.2	0.964	1.000
3974	28.80	4003	180.58	n/a	179.4	n/a	1.007
3989	14.40	4003	90.29	n/a	89.6	n/a	1.008

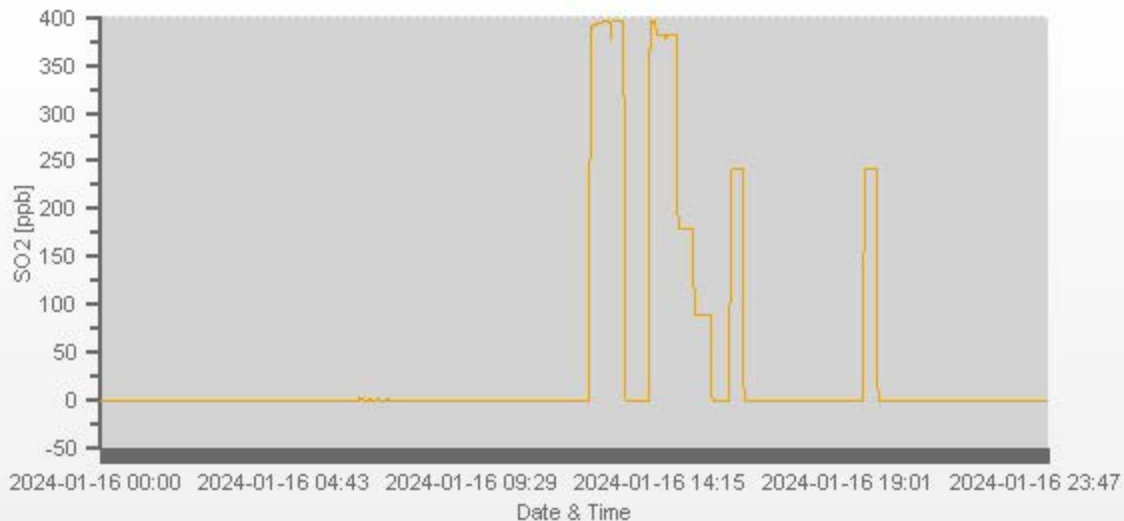
## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.000	-0.1%

## COMMENTS:

Sample filter changed.  
12:55 = start scrubber check for TRS





# TRS Analyzer Calibration by Dilution



DATE:	16-Jan-2024	PREVIOUS CALIBRATION DATE:	12-Dec-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	0.998
CLIENT:	PRAMP	TEMPERATURE (°C):	22.4
LOCATION:	Grimshaw	BAROMETRIC (mBar):	950
PURPOSE:	Routine	START TIME (MST):	11:47
PERFORMED BY:	Chris Wesson	END TIME (MST):	16:21

## ANALYZER:

MAKE/MODEL	Teledyne T100U	RANGE	100 ppb
SERIAL #	132	FLOW (mL/min)	548
INITIAL		FINAL	
BKG/OFFSET	60.1	BKG/OFFSET	63
COEF/SLOPE	0.726	COEF/SLOPE	0.693
Expected (reference) Value	48.5	Expected (reference) Value	47.17

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Sabio
MODEL:	2010	MODEL:	2020EXP
ID:	58100720	ID:	18700921
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0002455	HIGH ID	n/a
CONC (ppm):	9.70	EXPIRY DATE	n/a
CYLINDER (psi):	2000	LOW ID	n/a
EXPIRY DATE	29-Sep-2026	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:	12:55	SO2 Conc (ppb)	380
END TIME:	13:10	Analyzer Response (ppb)	0.1

## CALIBRATION:

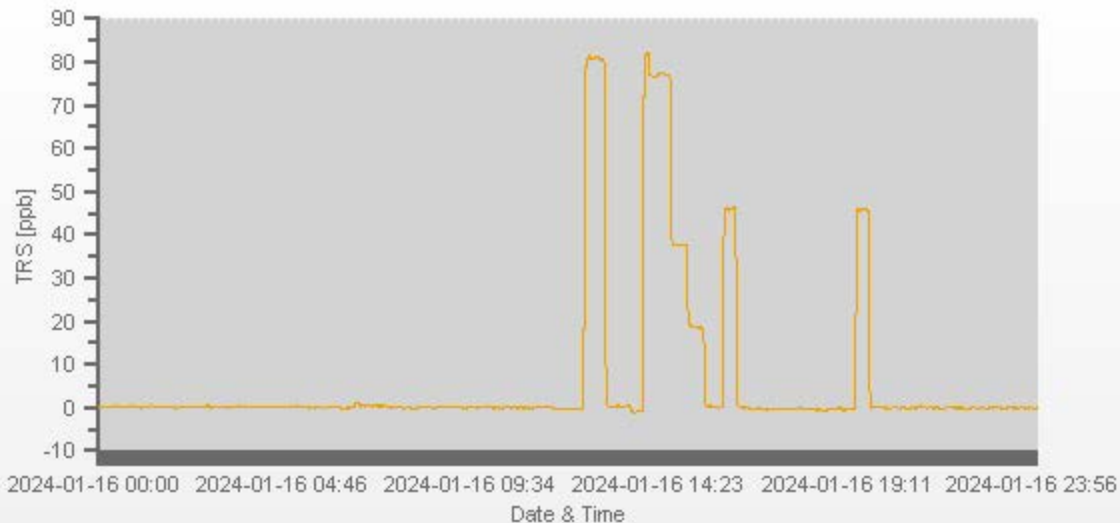
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
4001	<del>32.20</del>	4001	0.00	0.65	0	<del>0.960</del>	<del>1.001</del>
3970	32.20	4002	78.05	81.94	78	0.960	1.001
3987	15.70	4003	38.04	n/a	38.54	n/a	0.987
3995	7.80	4003	18.90	n/a	19.23	n/a	0.983

## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.999	0.2%

## COMMENTS:

Converter, CDNova CDN-101 #576.  
 Seperate scrubber check performed as high as-found not expected.



# NOx Calibration by Dilution/Gas-Phase Titration



CALIBRATION:				ANALYZER:			
DATE:	16-Jan-2024	PREVIOUS CALIBRATION DATE:	12-Dec-2023	MAKE/MODEL:	Teledyne T200	PREVIOUS CF.	
CLIENT:	PRAMP	TEMPERATURE (°C):	21.0	SERIAL #:	837	NOx	0.997
LOCATION:	Grimshaw	BAROMETRIC (mBar):	950	FLOW (mL/min)	446	NO	1.001
PURPOSE:	Routine	START TIME (MST):	08:46	RANGE (ppb)	500	NO2	1.001
PERFORMED BY:	Chris Wesson	END TIME (MST):	15:18	GPT FOR O3?		Yes	

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Sabio	CYLINDER ID:	EY0001013	HIGH ID:	n/a
MODEL:	2010	MODEL:	2020EXP	NO/NOx (PPM):	49.2   49.4	HIGH EXPIRY:	n/a
ID:	26701218	ID:	18700921	CYLINDER (psi):	1100	LOW ID:	n/a
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a	EXPIRY DATE	11-Nov-2029	LOW EXPIRY:	n/a

CALIBRATION SETTINGS:							
INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
BKG/OFFSET:	0.6	-0.4	n/a	BKG/OFFSET:	1.3	0.1	n/a
SLOPE/COEF/CE:	0.996	0.994	0.996	SLOPE/COEF/CE:	1.007	1.011	0.996

EXPECTED (REFERENCE) VALUE:							
INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
	309.1	2.8	306.3		305.9	1.8	304.1

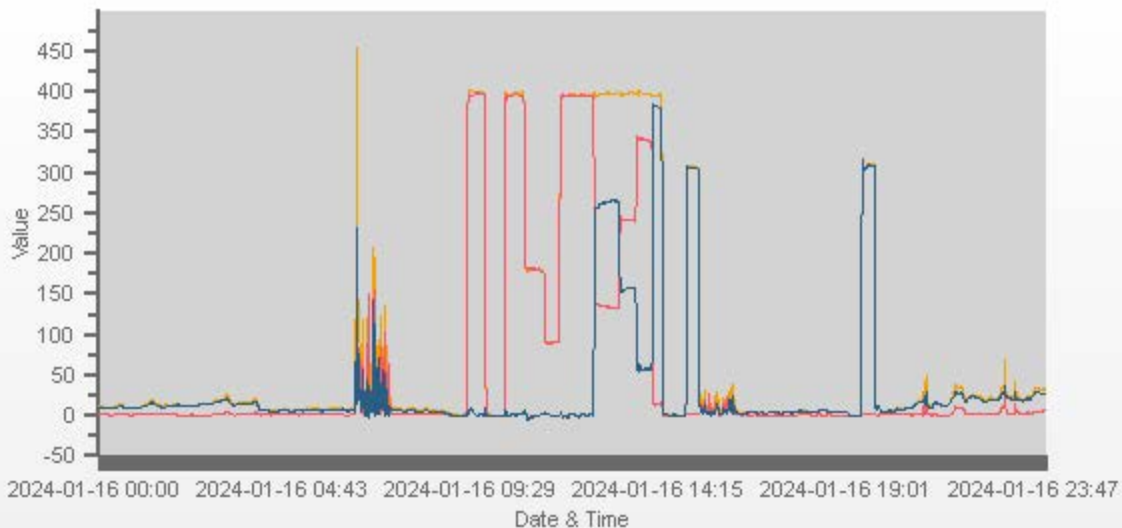
POINT	NO TARGET (PPB)	NO2 TARGET (PPB)	NO2 RANGE	O3 POINT
HIGH	395	250	240-275	n/a
MID	180	154	150-157	Mid
LOW	90	54	50-58	Low
EXTRA 1	n/a	340	300-370	High

FLOW RATE			CONCENTRATION (ppb)									CORRECTION FACTOR (CF.)					
(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
4999	<del>4999</del>	4999	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	<del>0.996</del>	<del>0.995</del>	<del>0.999</del>	<del>1.000</del>	<del>0.998</del>	<del>0.999</del>
4960	40.10	5000	394.6	396.2	1.6	396.3	398.2	1.8	394.7	397.1	2.4	0.996	0.995	0.999	1.000	0.998	0.999
4982	18.30	5000	180.1	180.8	0.7	n/a	n/a	n/a	178.3	179.1	0.9	n/a	n/a	0.999	1.010	1.010	0.999
4990	9.10	4999	89.6	89.9	0.4	n/a	n/a	n/a	89.9	90.0	0.1	n/a	n/a	0.999	0.996	0.999	0.999

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	40.10	5000	0	393.5	394.6	1.2	<del>260.9</del>	<del>263.2</del>	<del>0.991</del>	<del>100.88%</del>
AS-FOUND HIGH	40.10	5000	270	132.6	397.0	264.4	260.9	263.2	0.991	100.88%
ADJUSTED HIGH	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MID	40.10	5000	160	241.1	397.2	156.2	152.4	155	0.983	101.71%
LOW	40.10	5000	60	338.4	395.9	57.5	55.1	56.3	0.979	102.18%
NO2 adjustment not required.									AVERAGE:	101.59%

LINEAR REGRESSION ANALYSIS:				COMMENTS:
	CORRELATION	SLOPE	INTERCEPT	
NO	1.000	1.000	-0.06%	
NOx	1.000	1.002	-0.11%	
NO2	1.000	1.005	0.24%	

Sample filter changed.  
Extra point for O3. Setpoint = 380, NO drop (O3) = 378.6



CAL-PRAMP-202401-01689

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

# Ozone Calibration by Direct GPT



DATE:	16-Jan-2024	PREVIOUS CALIBRATION DATE:	12-Dec-2023
PARAMETER:	O3	PREVIOUS CORRECTION FACTOR:	1.003
CLIENT:	PRAMP	TEMPERATURE (°C):	22.7
LOCATION:	Grimshaw	BAROMETRIC (mBar):	950
PURPOSE:	Routine	START TIME (MST):	14:31
PERFORMED BY:	Chris Wesson	END TIME (MST):	18:27

## ANALYZER:

MAKE/MODEL	Teledyne T400	RANGE	500 ppb
SERIAL #	824	FLOW (mL/min)	764
INITIAL		FINAL	
BKG/OFFSET	-2.1	BKG/OFFSET	-1.3
COEF/SLOPE	0.988	COEF/SLOPE	0.979
Expected (reference) Value	268	Expected (reference) Value	276.3

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Sabio
MODEL:	2010	MODEL:	2020EXP
ID:	26701218	ID:	18700921
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION METHOD:		Direct GPT	
GPT DATE:	16-Jan-2024	GPT END TIME:	14:30

## CALIBRATION PARAMETERS:

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

## CALIBRATION:

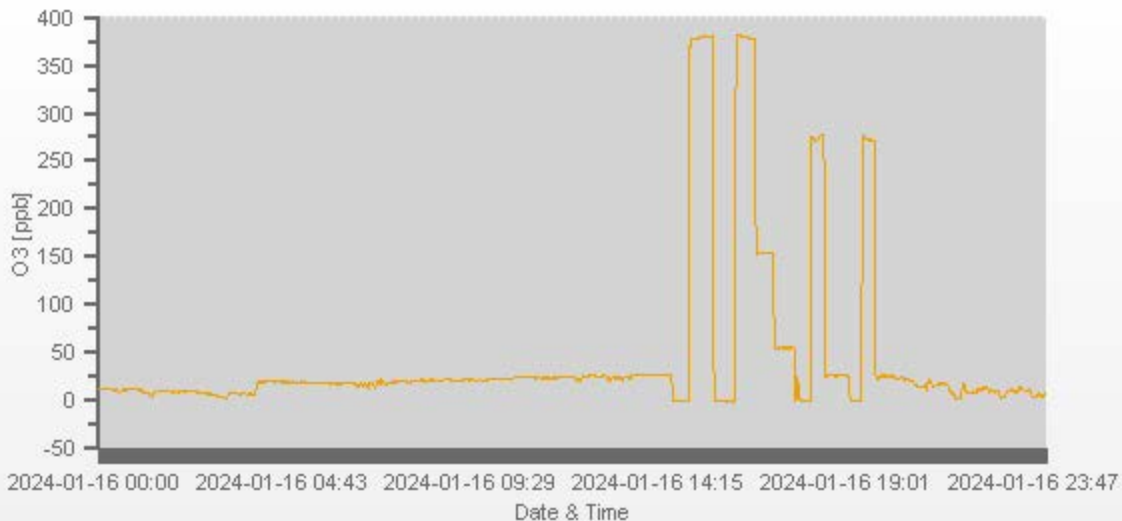
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
5000	<del>          </del>	5000	0.0	0.4	0.0	<del>          </del>	<del>          </del>
5000	<del>          </del>	5000	378.6	380.8	378.7	0.995	1.000
5000	<del>          </del>	5000	152.4	n/a	154.9	n/a	0.984
5000	<del>          </del>	5000	55.1	n/a	56.0	n/a	0.984

## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.999	0.2%

## COMMENTS:

Sample filter changed



# Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	16-Jan-2024	PREVIOUS CALIBRATION DATE:	12-Dec-2023	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	21.0		Thermo 55i	1191032505	1123
LOCATION:	Grimshaw	BAROMETRIC (mBar):	950	PARAMETER:	CH4	NMHC	THC
PURPOSE	Routine	START TIME (MST):	08:46	RANGE (ppm):	20	20	40
PERFORMED BY:	Chris Wesson	END TIME (MST):	12:31	PREVIOUS CF:	1.000	1.000	1.000

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Sabio	CYLINDER ID:	LL68768	HIGH ID:	n/a
MODEL:	2010	MODEL:	2020EXP	CH <sub>4</sub> /C <sub>3</sub> H <sub>8</sub> (ppm):	897.0   301.0	HIGH EXPIRY:	n/a
ID:	26701218	ID:	18700921	CYLINDER (psi):	1500	LOW ID:	n/a
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	115	EXPIRY DATE	08-Nov-2029	LOW EXPIRY:	n/a

## CALIBRATION PARAMETERS:

POINT (CH <sub>4</sub> /NMHC)	HIGH	MID	LOW	CH <sub>4</sub> EQUIVILANCE		
TARGET	14	7	3.5	C <sub>3</sub> H <sub>8</sub> as CH <sub>4</sub>		827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH <sub>4</sub>		1724.8

## EXPECTED (REFERENCE) VALUE:

INITIAL	CH <sub>4</sub>	NMHC	THC	FINAL	CH <sub>4</sub>	NMHC	THC
	9.59	11.16	20.75		9.65	11.08	20.73

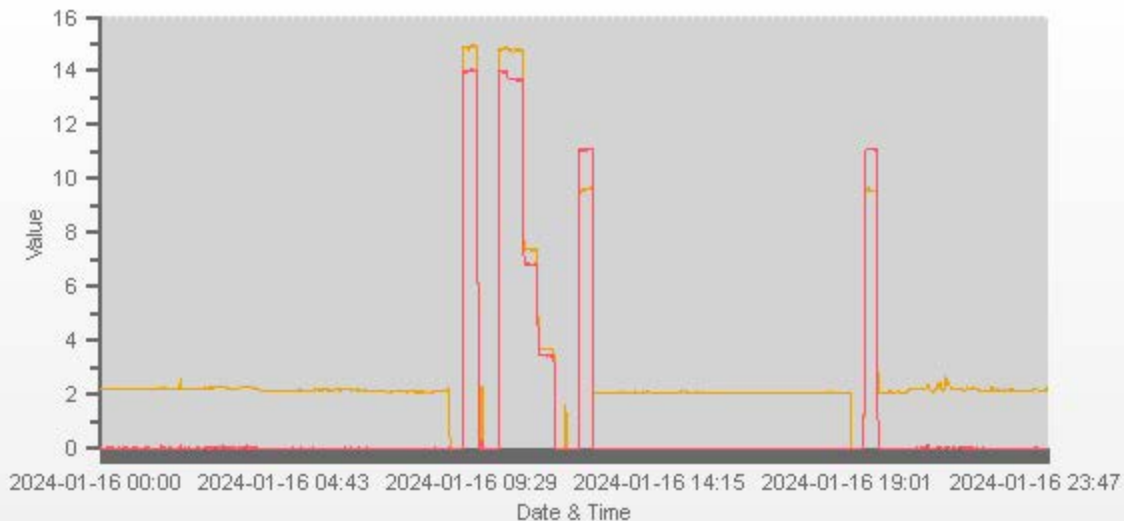
## CALIBRATION:

FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC
3255	<del>X</del>	3255	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.00	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>
3201	53.80	3255	14.83	13.68	28.51	14.92	14.01	28.93	14.76	13.67	28.45	0.994	0.977	0.985	1.004	1.001	1.002
3227	26.90	3254	7.42	6.84	14.26	n/a	n/a	n/a	7.37	6.83	14.20	n/a	n/a	n/a	1.006	1.002	1.004
3240	13.50	3253	3.72	3.44	7.16	n/a	n/a	n/a	3.73	3.46	7.18	n/a	n/a	n/a	0.998	0.993	0.997

## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT	Comments: H2 = AMA HG300 #190567059	
CH <sub>4</sub>	1.000	0.995	0.0%		
NMHC	1.000	0.998	0.0%		
THC	1.000	0.997	0.0%		
				Use Zero Chrom?	Yes





CAL-PRAMP-202401-01689



# Teledyne T640 Audit/Calibration

<b>Date/Previous Audit Date:</b>	January 16, 2024	December 12, 2023	<b>Weather Conditions:</b>	Cloudy/Overcast	
<b>Company:</b>	PRAMP		<b>Start Time (mst):</b>	15:10	
<b>Station:</b>	Grimshaw		<b>End Time (mst):</b>	15:35	
<b>Parameter:</b>	PM 2.5		<b>Performed By/Reviewer:</b>	Chris Wesson	Limin Li
<b>Instrument Data:</b>					
<b>Make/Model:</b>	Teledyne T640		<b>Serial Number:</b>	318	
<b>Owner:</b>	PRAMP		<b>Alarms (detail in comments):</b>	Yes	
<b>Reference Standards/I.D./Expiry Date:</b>					
<b>Flow Standard:</b> Deltacal DC1 #201587, Exp Dec 19, 2024			<b>Temperature:</b> Deltacal DC1 #201587, Exp Dec 19, 2024		
<b>Digital Manometer:</b> Deltacal DC1 #201587, Exp Dec 19, 2024			<b>Pressure:</b> Deltacal DC1 #201587, Exp Dec 19, 2024		
<b>DIAGNOSTICS:</b>					
Ambient Pressure (mmHg)	711.6	Ambient Temp (°C)	-19.8	ASC Heater Duty (%)	0.0
Box Temp (°C)	25.9	Current PMT HV (V)	1526	LED Temp (°C)	34.55
P3 Value	46	PMT Setting (V)	1532	Pump PWM (%)	78
Sample Flow (L/min)	5.00	Sample RH (%RH)	4.1	Sample Temp (°C)	23.3
<b>Item:</b>	<b>As-found</b>		<b>As-left</b>		<b>Tolerance</b>
	<b>Reference</b>	<b>T640x</b>	<b>Reference</b>	<b>T640x</b>	
Zero Test (Leak Check)	PM10	0.0	0	0.0	0.0 to 0.2
	PM2.5	0.0	0	0.0	
Ambient Pressure (mmHg)	708.6	711.6	n/a	n/a	+/- 10 mm Hg
Ambient Temperature (°C)	-20.10	-19.8	n/a		+/- 2°C
Sample Flow (L/min)	5.01	5	n/a	n/a	+/- 5% of T640x (e.g., 4.75 – 5.25 lpm)
<b>Additional Monthly Maintenance :</b>					<b>Completed</b>
Inlet cleaned?					Yes
Sample tubing inspected (inner and outer)?					Yes
<b>Comments:</b>					
<p>Alert: 12/30/2023: Perform span dust check.  Alert: 01/07/2024: Check pump (&gt;80%)  Pump getting weak, replacement needed</p>					

# Meteorological System Checklist



Date:	January 16, 2024		
Technician:	Chris Wesson		
Station:	PRAMP Grimshaw		
<b>Unit:</b>	<b>Make:</b>	<b>Model:</b>	<b>Serial #:</b>
Temperature Sensor:	Vaisala	HMP155	N2910506
Barometric Pressure Sensor:	MetOne	92	A2397
Relative Humidity Sensor:	Vaisala	HMP155	N2910506
Anemometer:	RM Young	05305AQ	174801
<b>AMBIENT TEMPERATURE SENSOR CHECK</b>			
Previous check date:	December 12, 2023		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	Traceable 20250-21 #230557122 Exp: Aug 17, 2025		
Reference Temperature (°C):	-21.5		
Station - Ambient Temperature (°C):	-21.5		
Temperature Difference (°C):	0.0		
<b>BAROMETRIC PRESSURE SENSOR CHECK</b>			
Previous check date:	December 12, 2023		
Reference Barometer ID:	Brunton ADC #231010, Exp: Oct 10, 2024		
Reference Pressure - Units/Reading:	millibar	948.8	
Station Pressure - Units/Reading:	millibar	950	
Pressure Tolerance +/- 15% of error:	806 - 1091	-0.13%	
<b>RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK</b>			
Previous check date:	December 12, 2023		
Reference Hygrometer ID:	Traceable 20250-21 #230557122 Exp: Aug 17, 2025		
Reference Hygrometer % RH- Reading:	72.50		
Station Hygrometer % RH- Reading:	78.60		
RH Tolerance +/- 15% of difference:	61.63 - 83.38	-8.4%	
<b>ANEMOMETER - WIND SPEED &amp; WIND DIRECTION SENSOR CHECK</b>			
<b>WIND SPEED</b>		<b>WIND DIRECTION</b>	
Previous check date:	December 12, 2023	Previous check date:	December 12, 2023
Wind Speed Observed (kph):	10~20	Wind Direction Observed:	N
Wind speed on Data Logger (kph):	11.5	Wind Direction on Data Logger:	N
		Wind Direction Pass/Fail?:	Pass
Comments			
No issues			



# Meteorological Sensor Audit/Calibration

## Location Information

**Company:** PRAMP  
**Audit Location:** Grimshaw  
**Audit Date:** August 2, 2023  
**Calibration Purpose:** routine annual

**Performed By:** Chris Wesson  
**Reviewed By:** Limin Li  
**Start/End Time (mst):** 14:55 / 16:16  
**Weather Conditions:** Mainly cloudy with sunny breaks

## 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:	0-200
Serial #:	174801	Direction Voltage Output Range:	n/a
Previous Cal/Audit Date:	July 12, 2022	Direction Unit Output Range:	0-360

## Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# R9133 expires Oct 18, 2024

## 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	2	354	2.0	1.0	1.5
30	330	29	333	1.0	-3.0	2.0
60	300	58	300	2.0	0.0	1.0
90	270	88	271	2.0	-1.0	1.5
120	240	119	237	1.0	3.0	2.0
150	210	149	206	1.0	4.0	2.5
180	180	178	177	2.0	3.0	2.5
210	150	206	148	4.0	2.0	3.0
240	120	238	119	2.0	1.0	1.5
270	90	272	87	-2.0	3.0	2.5
300	60	304	57	-4.0	3.0	3.5
330	30	333	30	-3.0	0.0	1.5
355	0	354	1	1.0	1.0	1.0
The audit meets AMD requirements.				Average Absolute Degrees Difference=		2.0

## Comments:

Declination = 15 deg East  
 Horizontal bearings replaced.  
 Potentiometer noisy. Replacement required.

**END OF REPORT**



## Peace River Area Monitoring Program

# JANUARY 2024

## Ambient Air Monitoring Calibration Report

### - PEACE RIVER COMPLEX (PRC) STATION-

### CAL-PRAMP-202401-01698

**Operation and Maintenance:**

Bureau Veritas Canada

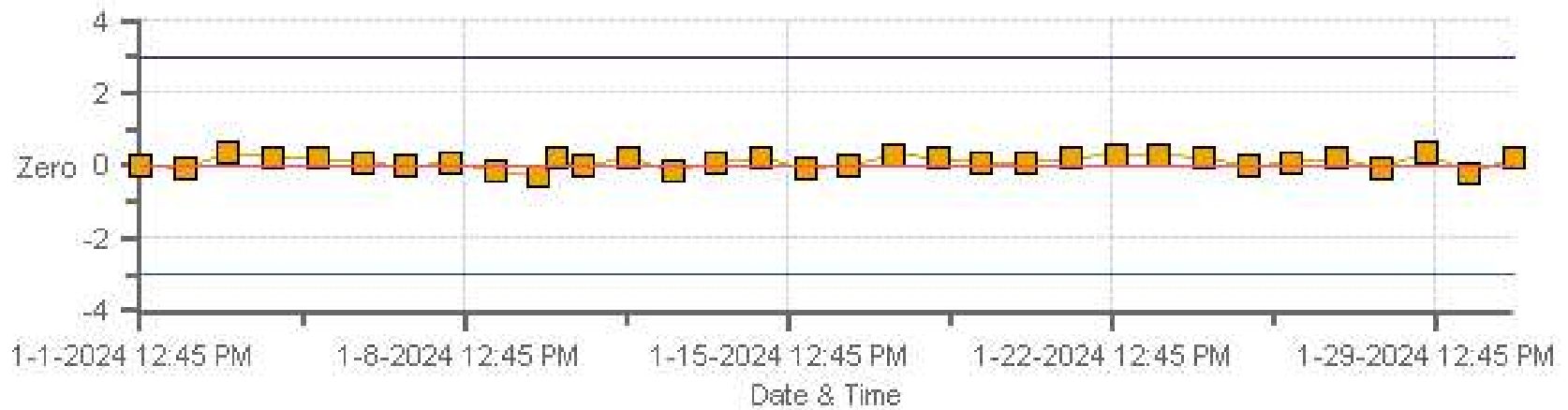
**Data Validation and Report:**

Bureau Veritas Canada

February 22, 2024

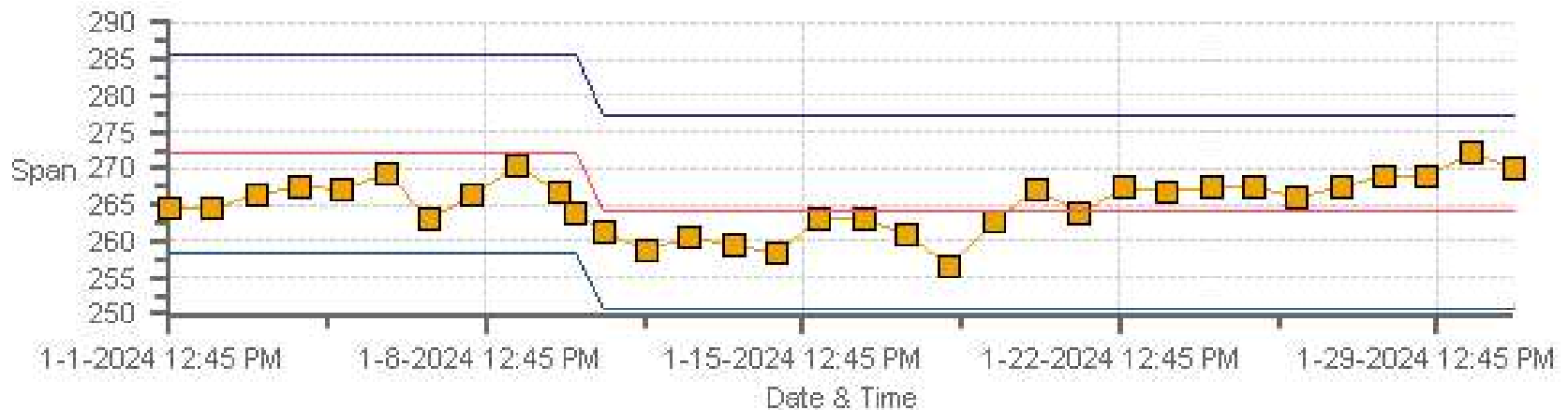
# DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: Peace River Complex [PRC] Monthly: 01-2024 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

SO2[ppb] Calibration: Peace River Complex [PRC] Monthly: 01-2024 Type: SpanAndZero - Span

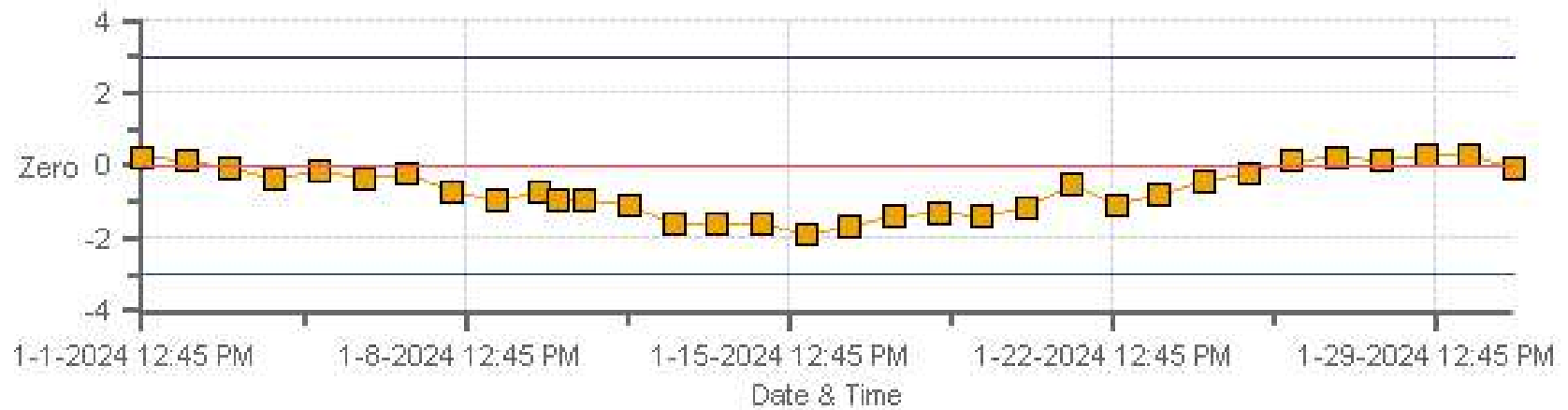


Span SpanRef Span Low Span High



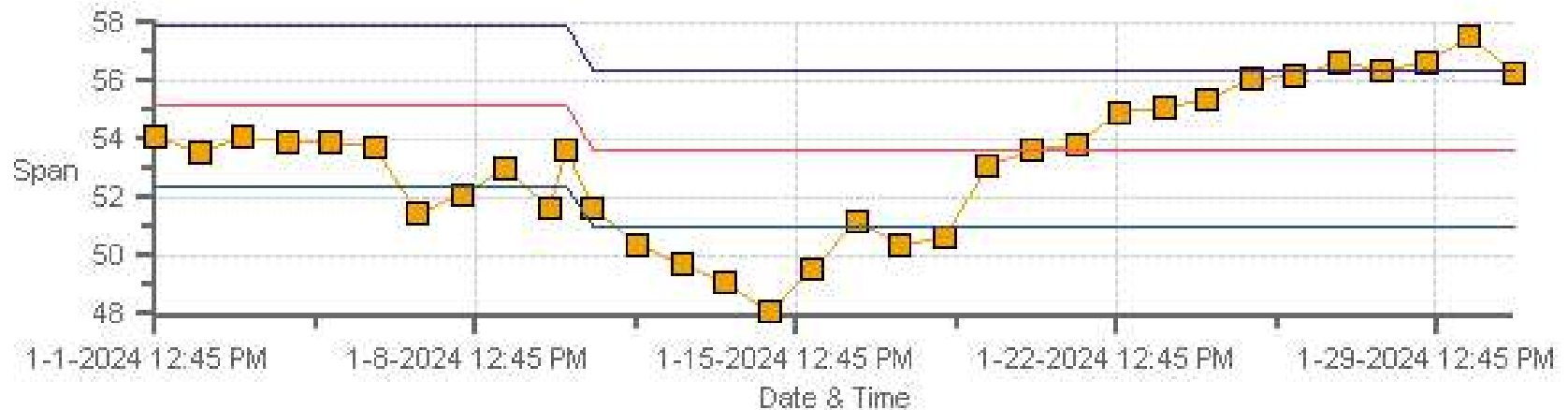


TRS[ppb] Calibration: Peace River Complex [PRC] Monthly: 01-2024 Type: SpanAndZero - Zero



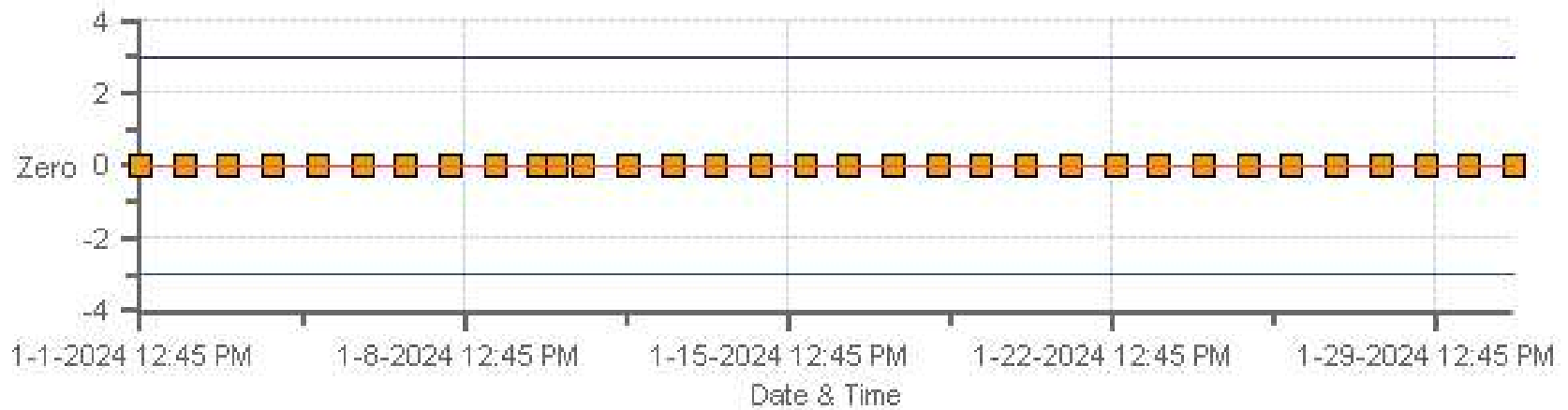
Zero Zero Ref Zero Low Zero High

TRS[ppb] Calibration: Peace River Complex [PRC] Monthly: 01-2024 Type: SpanAndZero - Span



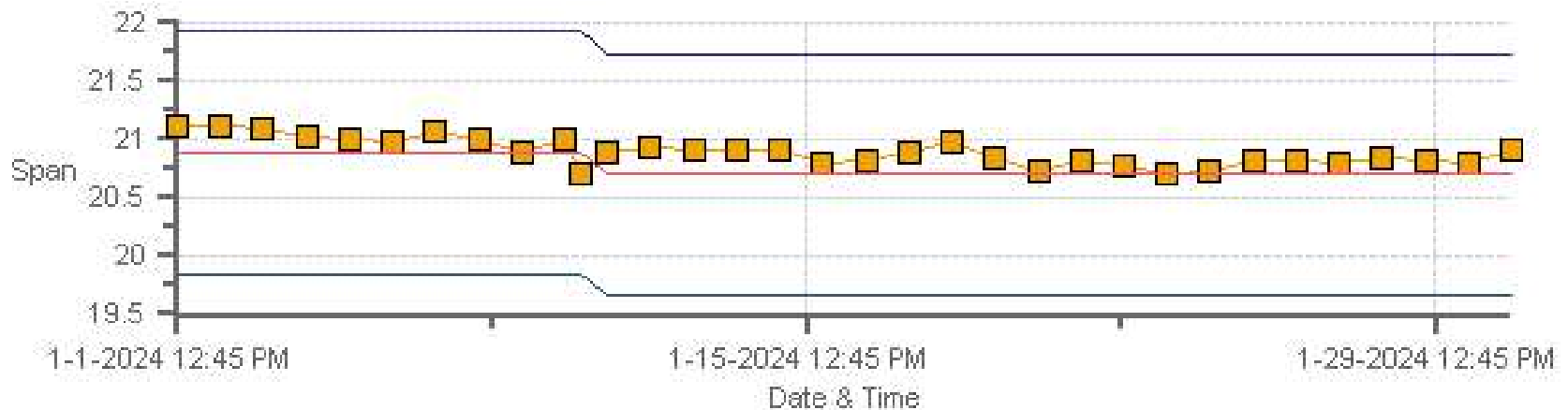
Span SpanRef Span Low Span High

THC55(ppm) Calibration: Peace River Complex [PRC] Monthly: 01-2024 Type: SpanAndZero - Zero



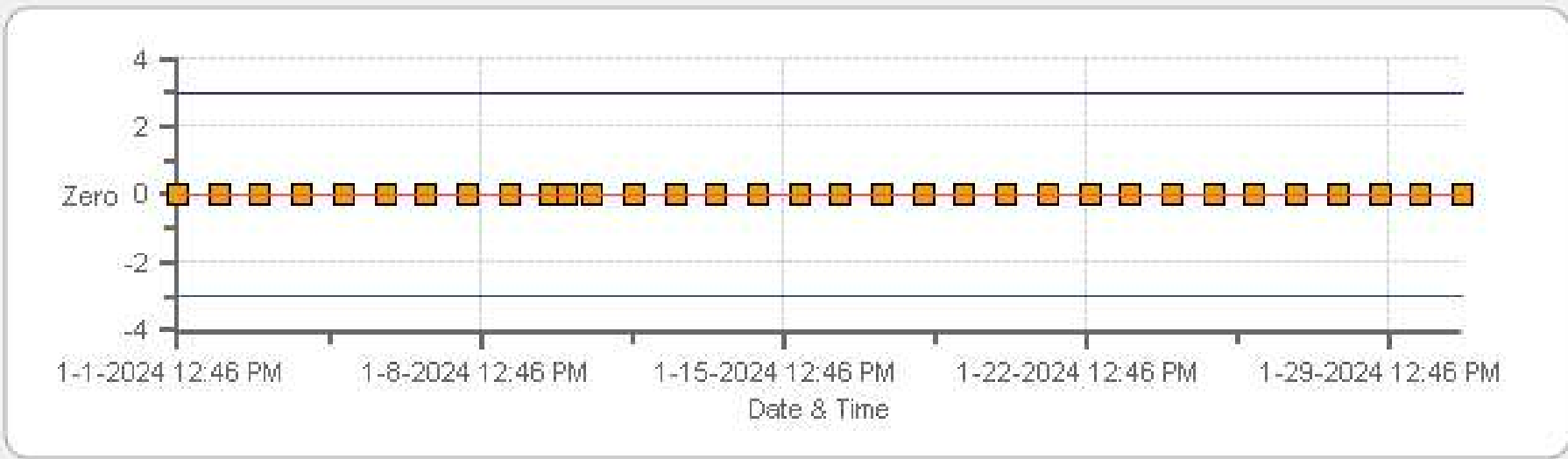
Zero Zero Ref Zero Low Zero High

THC55(ppm) Calibration: Peace River Complex [PRC] Monthly: 01-2024 Type: SpanAndZero - Span



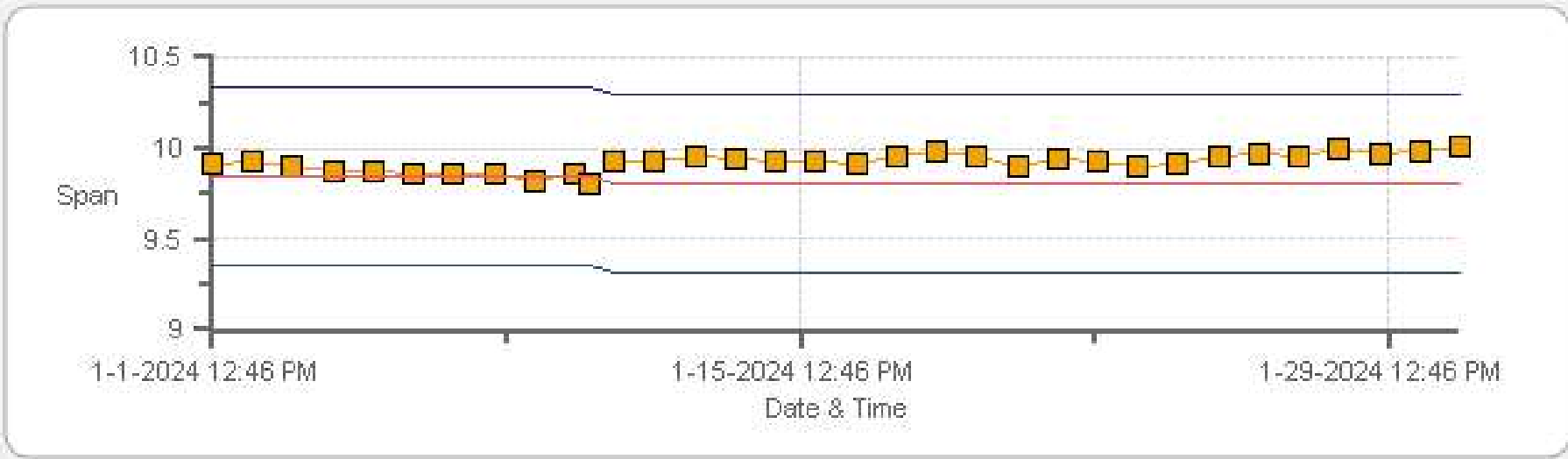
Span Span Ref Span Low Span High

CH4[ppm] Calibration: Peace River Complex [PRC] Monthly: 01-2024 Type: SpanAndZero - Zero



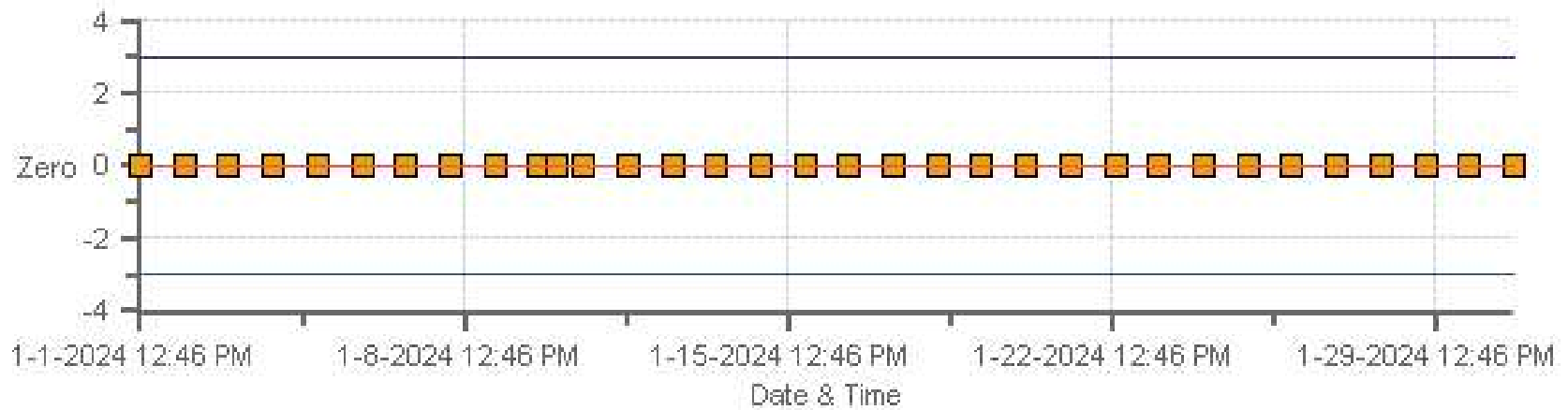
Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: Peace River Complex [PRC] Monthly: 01-2024 Type: SpanAndZero - Span



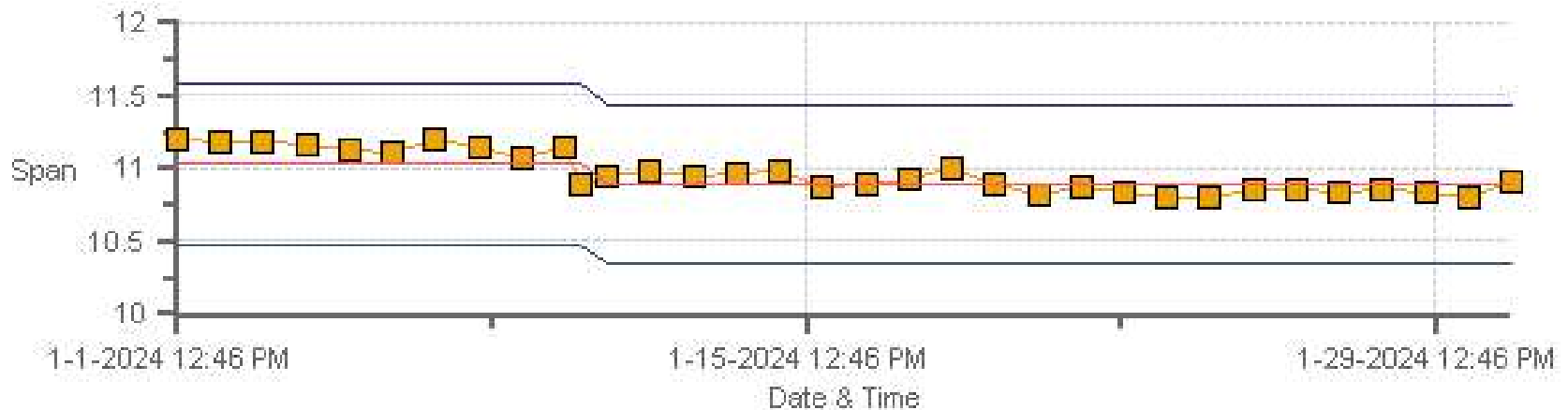
Span SpanRef Span Low Span High

NMHC[ppm] Calibration: Peace River Complex [PRC] Monthly: 01-2024 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: Peace River Complex [PRC] Monthly: 01-2024 Type: SpanAndZero - Span



Span SpanRef Span Low Span High

# MULTI-POINT CALIBRATION RECORDS

# SO2 Analyzer Calibration by Dilution



DATE:	10-Jan-2024	PREVIOUS CALIBRATION DATE:	06-Dec-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	0.995
CLIENT:	PRAMP	TEMPERATURE (°C):	21.0
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	943
PURPOSE:	Routine	START TIME (MST):	08:10
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	12:25

## ANALYZER:

MAKE/MODEL	Thermo 43i	RANGE	500 ppb
SERIAL #	1034746225	FLOW (mL/min)	441
INITIAL		FINAL	
BKG/OFFSET	20.2	BKG/OFFSET	20.1
COEF/SLOPE	1.151	COEF/SLOPE	1.145
Expected (reference) Value	272	Expected (reference) Value	264

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	5004
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL109693	HIGH ID	n/a
CONC (ppm):	25.00	EXPIRY DATE	n/a
CYLINDER (psi):	1400	LOW ID	n/a
EXPIRY DATE	02-Nov-2025	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		
3999	<del>60.80</del>	3999	0.00	0.2	0	<del>0.994</del>	<del>0.999</del>
3939	60.80	4000	380.00	382.5	380.5	0.994	0.999
3970	28.80	3999	180.05	n/a	181.5	n/a	0.992
3986	14.40	4000	90.00	n/a	89.9	n/a	1.001

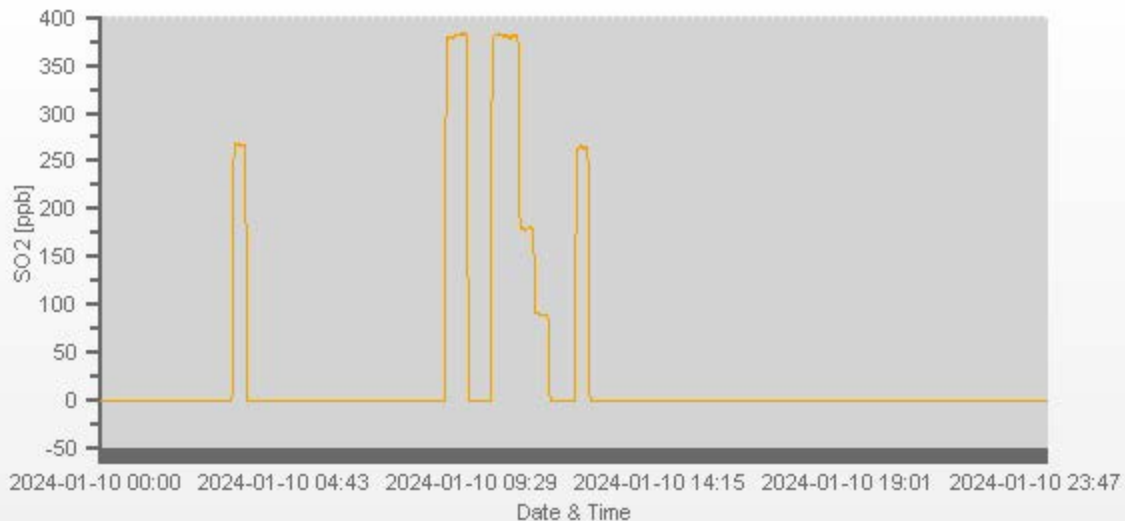
## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	0.0%

## COMMENTS:

Sample filter changed.

SO2[ppb] Station: Peace River Complex [PRC] Daily: 2024-00-10 Type: AVG 1 Min. [1 Min.]



CAL-PRAMP-202401-01698



# H2S Analyzer Calibration by Dilution



DATE:	10-Jan-2024	PREVIOUS CALIBRATION DATE:	06-Dec-2023
PARAMETER:	H2S	PREVIOUS CORRECTION FACTOR:	0.998
CLIENT:	PRAMP	TEMPERATURE (°C):	21.0
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	943
PURPOSE:	Routine	START TIME (MST):	08:09
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	12:25

## ANALYZER:

MAKE/MODEL	Thermo 450i	RANGE	100 ppb
SERIAL #	1308857354	FLOW (mL/min)	930
INITIAL		FINAL	
BKG/OFFSET	15.7	BKG/OFFSET	16.1
COEF/SLOPE	1.091	COEF/SLOPE	1.084
Expected (reference) Value	38.2	Expected (reference) Value	36.2

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL131374	HIGH ID	n/a
CONC (ppm):	10.09	EXPIRY DATE	n/a
CYLINDER (psi):	1800	LOW ID	n/a
EXPIRY DATE	03-Jan-2026	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:

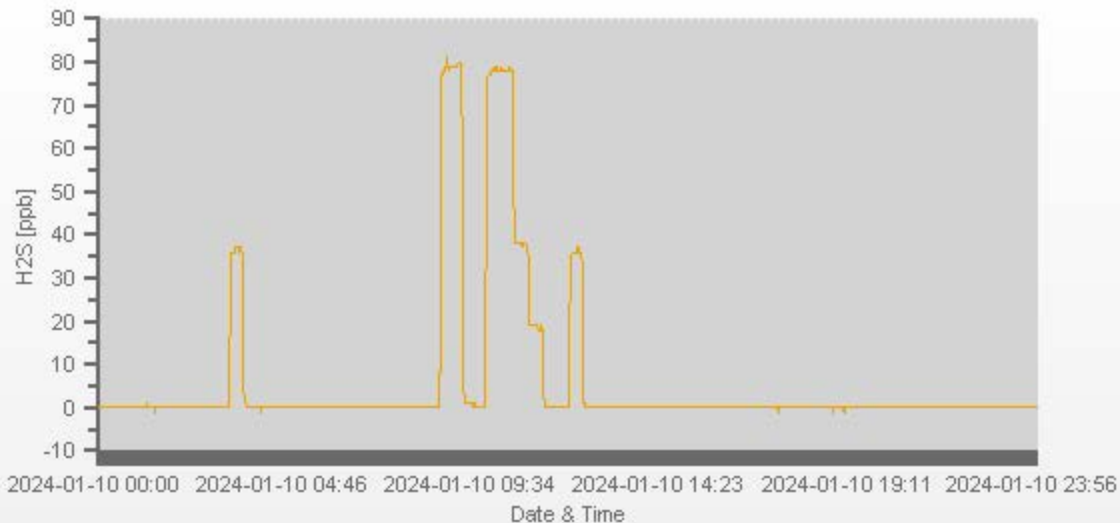
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
3999	<del>30.90</del>	3999	0.00	0.3	0	<del>0.982</del>	<del>0.998</del>
3969	30.90	4000	77.95	79.7	78.1	0.982	0.998
3984	15.10	3999	38.10	n/a	38	n/a	1.003
3993	7.50	4000	18.92	n/a	18.8	n/a	1.006

## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	-0.1%

## COMMENTS:

Sample filter changed



# TRS Analyzer Calibration by Dilution



DATE:	10-Jan-2024	PREVIOUS CALIBRATION DATE:	06-Dec-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	21.0
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	943
PURPOSE:	Routine	START TIME (MST):	08:09
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	12:25

## ANALYZER:

MAKE/MODEL	Thermo 450i	RANGE	100 ppb
SERIAL #	1034746224	FLOW (mL/min)	701
INITIAL		FINAL	
BKG/OFFSET	28.2	BKG/OFFSET	30.1
COEF/SLOPE	1.083	COEF/SLOPE	1.134
Expected (reference) Value	55.14	Expected (reference) Value	53.65

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL131374	HIGH ID	n/a
CONC (ppm):	10.09	EXPIRY DATE	n/a
CYLINDER (psi):	1800	LOW ID	n/a
EXPIRY DATE	03-Jan-2026	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:

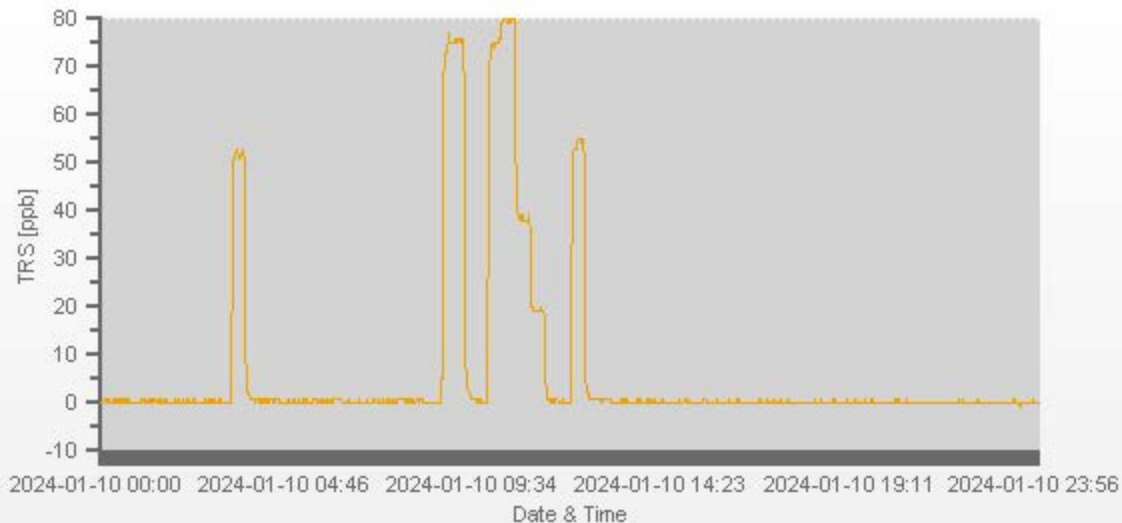
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
3999	<del>30.90</del>	3999	0.00	-0.6	0	<del>1.034</del>	<del>0.996</del>
3969	30.90	4000	77.95	74.79	78.22	1.034	0.996
3984	15.10	3999	38.10	n/a	37.28	n/a	1.022
3993	7.50	4000	18.92	n/a	18.14	n/a	1.043

## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.006	-0.5%

## COMMENTS:

TRS Converter CDNOVA CDN-101 #516
-----------------------------------



# Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	10-Jan-2024	PREVIOUS CALIBRATION DATE:	06-Dec-2023	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	21.0		Thermo 55i	1034745845	1096
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	943	PARAMETER:	CH4	NMHC	THC
PURPOSE:	Routine	START TIME (MST):	08:10	RANGE (ppm):	20	20	40
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	12:25	PREVIOUS CF:	0.997	0.997	0.997

## CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	LL68768	HIGH ID:	n/a
MODEL:	2010	MODEL:	M701	CH <sub>4</sub> /C <sub>3</sub> H <sub>8</sub> (ppm):	897.0   301.0	HIGH EXPIRY:	n/a
ID:	26801218	ID:	4568	CYLINDER (psi):	1600	LOW ID:	n/a
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	Internal	EXPIRY DATE	08-Nov-2029	LOW EXPIRY:	n/a

## CALIBRATION PARAMETERS:

POINT (CH <sub>4</sub> /NMHC)	HIGH	MID	LOW	CH <sub>4</sub> EQUIVILANCE		
TARGET	14	7	3.5	C <sub>3</sub> H <sub>8</sub> as CH <sub>4</sub>		827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH <sub>4</sub>		1724.8

## EXPECTED (REFERENCE) VALUE:

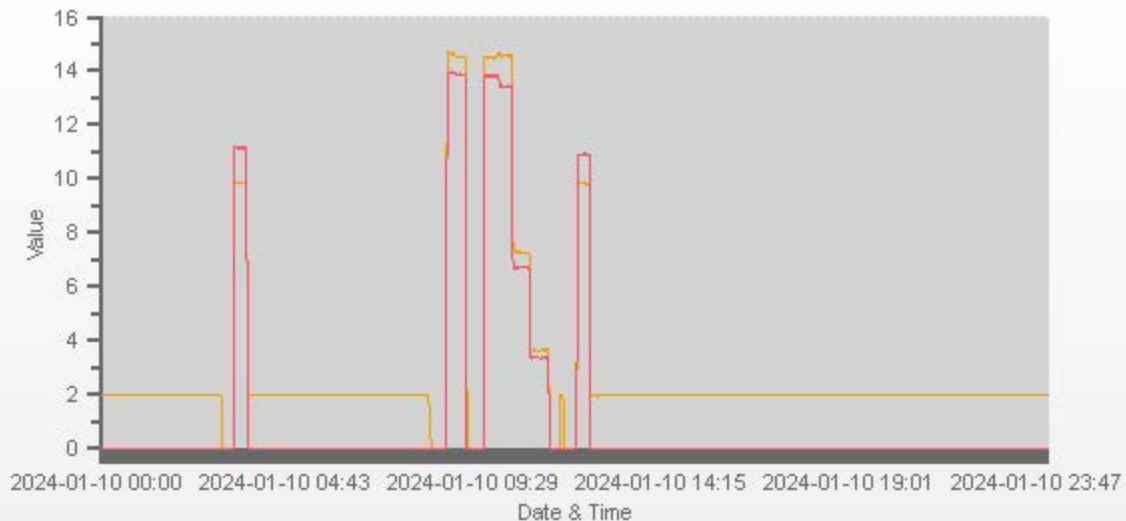
INITIAL	CH <sub>4</sub>	NMHC	THC	FINAL	CH <sub>4</sub>	NMHC	THC
	9.85	11.03	20.88		9.80	10.89	20.70

## CALIBRATION:

FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC	CH <sub>4</sub>	NMHC	THC
3099	<del>X</del>	3099	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>
3049	50.30	3099	14.56	13.44	27.99	14.53	13.88	28.41	14.58	13.42	28.00	1.002	0.968	0.985	0.999	1.001	1.000
3074	25.10	3099	7.27	6.70	13.97	n/a	n/a	n/a	7.28	6.74	14.02	n/a	n/a	n/a	0.998	0.995	0.996
3085	12.60	3098	3.65	3.37	7.01	n/a	n/a	n/a	3.67	3.38	7.05	n/a	n/a	n/a	0.994	0.996	0.995

## LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT	Comments:	
CH <sub>4</sub>	1.000	1.001	0.0%	Filter Change - No Issues H2 = AMA HG300 #211067076	
NMHC	1.000	0.999	0.1%		
THC	1.000	1.000	0.1%		
				Use Zero Chrom?	No



CAL-PRAMP-202401-01698

# Meteorological System Checklist



Date:	January 10, 2024		
Technician:	Kevin Sebastian		
Station:	Peace River Compliance		
<b>Unit:</b>	<b>Make:</b>	<b>Model:</b>	<b>Serial #:</b>
Precipitation Sampler:	RM Young	52202	TB 16325
Temperature Sensor:	Rotronic	HC2-S3	20558318
Barometric Pressure Sensor:	MetOne	092	B19577
Relative Humidity Sensor:	Rotronic	HC2-S3	20558318
Anemometer:	RM Young	05305VK	129612
<b>AMBIENT TEMPERATURE SENSOR CHECK</b>			
Previous check date:	December 6, 2023		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	F.S. 181341226 expires July 17, 2024		
Reference Temperature (°C):	-28.1		
Station - Ambient Temperature (°C):	-29.0		
Temperature Difference (°C):	0.9		
<b>BAROMETRIC PRESSURE SENSOR CHECK</b>			
Previous check date:	December 6, 2023		
Reference Barometer ID:	Brunton 05535 Expires July 17, 2024		
Reference Pressure - Units/Reading:	millibar	942.3	
Station Pressure - Units/Reading:	millibar	945	
Pressure Tolerance +/- 15% of error:	801 - 1084	-0.29%	
<b>RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK</b>			
Previous check date:	December 6, 2023		
Reference Hygrometer ID:	F.S. 181341226 expires July 17, 2024		
Reference Hygrometer % RH- Reading:	70.10		
Station Hygrometer % RH- Reading:	72.20		
RH Tolerance +/- 15% of difference:	59.59 - 80.62	-3.0%	
<b>ANEMOMETER - WIND SPEED &amp; WIND DIRECTION SENSOR CHECK</b>			
<b>WIND SPEED</b>		<b>WIND DIRECTION</b>	
Previous check date:	December 6, 2023	Previous check date:	December 6, 2023
Wind Speed Observed (kph):	10~20	Wind Direction Observed:	SW
Wind speed on Data Logger (kph):	13.4	Wind Direction on Data Logger:	SW
		Wind Direction Pass/Fail?:	Pass
Comments			
No issues.			



# Meteorological Sensor Audit/Calibration

## Location Information

**Company:** PRAMP  
**Audit Location:** PRC Compliance  
**Audit Date:** August 3, 2023  
**Calibration Purpose:** routine annual

**Performed By:** Chris Wesson  
**Reviewed By:** Limin Li  
**Start/End Time (mst):** 10:40 / 11:32  
**Weather Conditions:** Mainly cloudy with drizzle

## 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 #:	129612	Direction Voltage Output Range:	0-1
Previous Cal/Audit Date:	August 17, 2022	Direction Unit Output Range:	0-360

## Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# R9133 expires Oct 18, 2024

### 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	0.1	0.1	-
1000	18.4	18.6	18.5	0.994
2000	36.9	37.1	37.0	0.995
3000	55.3	55.5	55.4	0.997
4000	73.7	74.0	73.8	0.998
5000	92.2	92.5	92.4	0.997
6000	110.6	111.0	111.0	0.996
7000	129.0	129.6	129.6	0.995
8000	147.4	148.0	148.3	0.995
9000	165.9	166.7	166.6	0.995
10000	184.3	185.3	185.3	0.995
The audit meets AMD requirements.			Average Correction Factor=	0.996

### 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	352	0.0	3.0	1.5
30	330	31	328	-1.0	2.0	1.5
60	300	59	298	1.0	2.0	1.5
90	270	90	270	0.0	0.0	0.0
120	240	120	240	0.0	0.0	0.0
150	210	151	210	-1.0	0.0	0.5
180	180	180	180	0.0	0.0	0.0
210	150	211	150	-1.0	0.0	0.5
240	120	241	120	-1.0	0.0	0.5
270	90	271	91	-1.0	-1.0	1.0
300	60	299	59	1.0	1.0	1.0
330	30	328	29	2.0	1.0	1.5
355	0	353	1	2.0	1.0	1.5
The audit meets AMD requirements.				Average Absolute Degrees Difference=		0.8

### Comments:

Declination = 15 deg East  
Physical inspection completed, bearings replaced



**END OF REPORT**

List of SOPs

MONITOR	SOP
SULPHUR DIOXIDE (SO <sub>2</sub> )	Bureau Veritas EMS SOP-00209: Ambient Sulphur Monitoring
HYDROGEN SULPHIDE (H <sub>2</sub> S)	Bureau Veritas EMS SOP-00209: Ambient Sulphur Monitoring
TOTAL REDUCED SULPHUR (TRS)	Bureau Veritas EMS SOP-00209: Ambient Sulphur Monitoring
TOTAL HYDROCARBONS (THC), METHANE (CH <sub>4</sub> ), NON-METHANE(NMHC)	Bureau Veritas EMS SOP-00001: Methane, Non-Methane Hydrocarbon Analyzer Monitoring
OXIDES OF NITROGEN (NO <sub>x</sub> ), NITRIC OXIDE (NO) & NITROGEN DIOXIDE (NO <sub>2</sub> )	Bureau Veritas EMS SOP-00213: Ambient NO/NO <sub>2</sub> /NO <sub>x</sub> Monitoring
OZONE (O <sub>3</sub> )	Bureau Veritas EMS SOP-00212: Ambient O <sub>3</sub> Monitoring
PARTICULATE MATTER < 2.5 MICRONS (PM <sub>2.5</sub> )	Bureau Veritas EMS SOP-00015: Teledyne API PM Monitor Model T640
WIND SPEED (WS) & WIND DIRECTION (WD)	Bureau Veritas EMS SOP-00013: RM Young Wind Monitor Calibration



## **Peace River Area Monitoring Program**

# **JANUARY 2024**

## **Monthly Ambient Air Quality Monitoring Integrated Sampling Report**

**PRAMP-202401-INTEGRATED**

February 26, 2024

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Peace River Area Monitoring Program  
Suite 91, 305 – 4625 Varsity Drive NW  
Calgary, AB, T3A 0Z9  
Phone #: 780-226-7068 / 587-225-2248  
E-mail: [prampotech@prampairshed.ca](mailto:prampotech@prampairshed.ca)  
[www.prampairshed.ca](http://www.prampairshed.ca)

**February 26, 2024**

Alberta Environment and Protected Areas (EPA)  
11th Floor, Oxbridge Place  
9820 106 Street  
Edmonton, AB, T5K 2J6

**RE: PRAMP –January 2024 Monthly Ambient Air Quality Monitoring Integrated Sampling Report**

Enclosed is the January 2024 Monthly Ambient Air Quality Monitoring Integrated Sampling Report for the Peace River Area Monitoring Program’s (PRAMP) regional air quality monitoring network. This report summarizes monitoring data for samples collected using integrated methods, including volatile organic compounds (NMHC canister sampling program), hydrogen sulphide, and sulphur dioxide (passive sampling program).

The representative of the Person Responsible for this monitoring program is

PRAMP Airshed  
Michael Bisaga / Lily Lin, Technical Program Managers  
Suite 91, 305 – 4625 Varsity Drive NW  
Calgary, AB, T3A 0Z9  
Phone #: 780-226-7068 / 587-225-2248  
E-mail: [prampotech@prampairshed.ca](mailto:prampotech@prampairshed.ca)

This report has been prepared, reviewed and submitted by Michael Bisaga & Lily Lin of the PRAMP Airshed. This report is also submitted on behalf of the industrial member companies to satisfy the requirements of the facility Operating Approvals.

## NETWORK STATION SUMMARY

### Listing of Integrated Sampling Stations

- 986-C Station
- 842-B Station
- Reno-B Station
- Peace River Complex (PRC) Station

Station Name	986-C	842-B	Reno-B	PRC
Station ID	1562	1561	1563	1698
Coordinates	56.36980, -116.92500	56.27406, -116.98129	55.86936, -117.05739	56.38257, -116.769283
NMHC Canister (VOCs)	√	√	√	
Passives: 2-Month exposure (PACs)	√			
Passives: 1-Month Exposure (H <sub>2</sub> S, SO <sub>2</sub> )				√

### Listing of Passives: 1-Month Exposure Sampling Sites

Site ID	Latitude	Longitude
1	56.377841	-116.787142
2	56.378638	-116.780496
3	56.382958	-116.783813
4	56.377044	-116.794220
7	56.384796	-116.780488
8	56.388710	-116.771234
9	56.388943	-116.756205
10	56.388642	-116.797817
11	56.383771	-116.841165
12	56.388962	-116.885263
13	56.390972	-116.822083
14	56.424825	-116.853181

### List of Contractors who performed the air monitoring activities

Sampling Program	Monitoring Activities Conducted By	Sample Analysis Conducted By	Data/Report Prepared By	Electronic Submission Conducted By
NMHC Canister (VOCs)	Bureau Veritas	InnoTech Alberta Inc	PRAMP	PRAMP
Passives: PACs	PRAMP	ECCC	AEP	AEP
Passives: H <sub>2</sub> S, SO <sub>2</sub>	PRAMP	Bureau Veritas	PRAMP	PRAMP

## Monitoring Notes during the Month of January 2024

- **NMHC Canister Sampling Program - Volatile Organic Compounds (VOCs)**
  - The canister sampling program collects a 1-hour sample of air when the continuously measured non-methane hydrocarbon (NMHC) concentration reaches a specified trigger point. The current trigger point is 0.3 ppm for non-methane hydrocarbons. The trigger point is based on real-time monitoring data that are averaged over a 5-minute period.
  - One canister event was recorded in January. The canister system was triggered at the Reno-B station on January 14 at 08:05, at concentration of 0.45ppm.
  
- **Passive Polycyclic Aromatic Compounds (PACs) Sampling Program**
  - The PAC sampling program began in November 2019, and is designed to collect a 2-month integrated sample.
  - The sample media for sampling period of January and February were installed on December 31, 2023. They are scheduled to be removed by the end February.
  
- **Passives H<sub>2</sub>S and SO<sub>2</sub> Sampling Program**
  - There were no exceedances of the AAAQOs for all monitored parameters at any of the passive stations during this month.
  - The passive sample filters were installed at the stations on January 29 and were removed on February 1.

## 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

There were no deviations from authorized monitoring methods.



## Certification

The 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

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

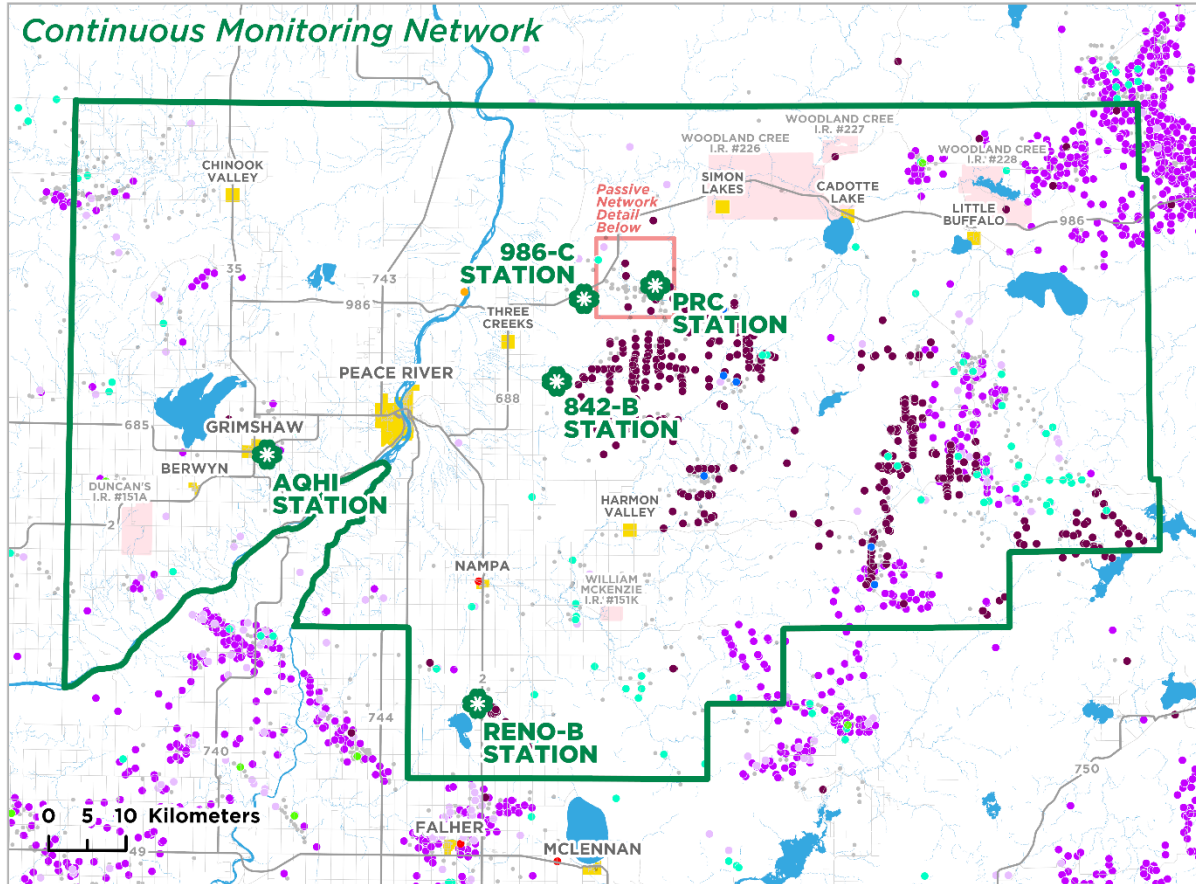
I certify that I have reviewed and verified this report and that the information is complete, accurate and representative of the monitoring results, reporting timeframe and the specified analysis, summarization and reporting requirements. I also certify that at the time of this report's submission, all air data have been electronically uploaded to Alberta ETS as required by the AMD.



Michael Bisaga, Technical Program Manager, PRAMP Airshed

February 26, 2024

## Map of PRAMP Continuous Monitoring and Integrated Sampling Network



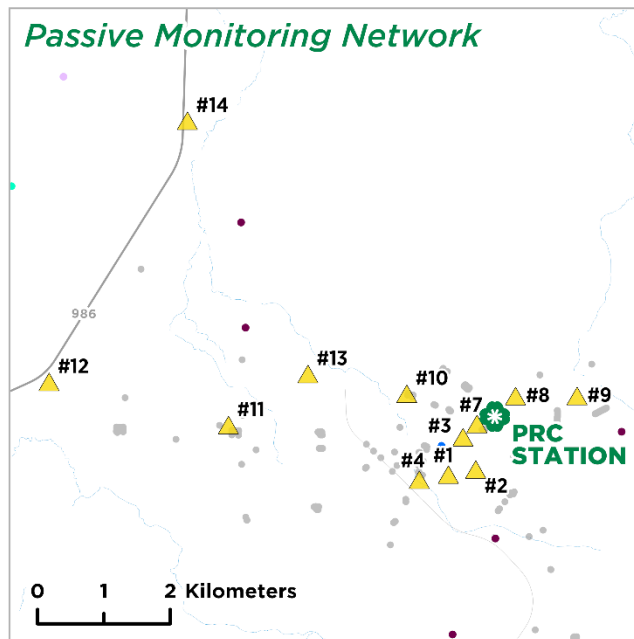
### Legend

- PRAMP Boundary
- Populated Place
- First Nation
- ✱ Continuous Monitoring Station
- ▲ Passive Monitoring Station

### Industrial Facilities

- In-Situ Oil Sands
- Heavy Oil/Bitumen Well or Battery
- Conventional Oil Well or Battery
- Natural Gas Well or Battery
- Gas Plant or Gas Processing
- Compressor Station or Pipeline
- Agricultural Storage and Transfer
- Pulp and Paper
- Well (Not Associated with Batteries)

Service Layer Credit: Esri, CGIAR, USGS, Esri, USGS



## INTEGRATED SAMPLING RESULTS SUMMARY

- **NMHC analytical results**

- Reno January 14, 2024 – NMHC canister collection

Sample Date/Time	2024-01-14 @08:05							
Canister Sample	Non-methane Hydrocarbon							
Method	NA-025		Method	NA-024		Method	AC-058	
Maximum Reading (ppmv)	2.4	Methane	Maximum Reading (ppmv)	-	-	Maximum Reading (ppmv)	4.37	n-Butane

**Note:** “-“ indicates all readings were below the detectable limit.

- Reno January 14, 2024 – Blank canister collection

Sample Date/Time	2024-01-14 @08:05							
Canister Sample	Non-methane Hydrocarbon - BLANK							
Canister ID	A47802							
Maximum Reading (ppmv)	-	-	Maximum Reading (ppmv)	-	-	Maximum Reading (ppmv)	0.12	Cyclohexane

**Note:** “-“ indicates all readings were below the detectable limit.

- **Passive analytical results**

	H <sub>2</sub> S		SO <sub>2</sub>	
<b>Minimum (ppb)</b>	0.15	#1	0.2	#9
<b>Maximum (ppb)</b>	0.73	#8	0.6	#1
<b>Average (ppb)</b>	0.32	-	0.37	-

## ANALYTICAL SAMPLING RESULTS

## NMHC Canisters – VOCs

PEACE RIVER AREA MONITORING PROGRAM

Reno-B Station - January 2024

Volatile Organic Compounds (VOCs) Results

Sample Date/Time Canister Sample Canister ID		2024-01-14 @08:05 Non-methane Hydrocarbon 32192									
Method		NA-025		Method		NA-024		Method		AC-058	
Maximum Reading (ppmv)		2.4 Methane		Maximum Reading (ppmv)		- -		Maximum Reading (ppmv)		4.37 n-Butane	
Parameter	Result (ppmv)	RDL (ppmv)	Parameter	Result (ppbv)	RDL (ppbv)	Parameter	Result (ppbv)	RDL (ppbv)			
1-Butene	< 0.15	0.15	2,5-Dimethylthiophene	< 0.5	0.5	1,1,1-Trichloroethane	< 0.03	0.03			
Acetylene	< 0.12	0.12	2-Ethylthiophene	< 0.3	0.3	1,1,2,2-Tetrachloroethane	< 0.03	0.03			
cis-2-Butene	< 0.06	0.06	2-Methylthiophene	< 0.3	0.3	1,1,2-Trichloroethane	< 0.03	0.03			
Ethane	< 0.2	0.2	3-Methylthiophene	< 0.5	0.5	1,1-Dichloroethane	< 0.03	0.03			
Ethylacetylene	< 0.09	0.09	Butyl mercaptan	< 0.5	0.5	1,1-Dichloroethylene	< 0.03	0.03			
Ethylene	< 0.11	0.11	Carbon disulphide	< 0.3	0.3	1,2,3-Trimethylbenzene	< 0.08	0.07			
Isobutane	< 0.2	0.2	Carbonyl sulphide	< 0.5	0.5	1,2,4-Trichlorobenzene	< 0.5	0.4			
Isobutylene	< 0.2	0.2	Dimethyl disulphide	< 0.3	0.3	1,2,4-Trimethylbenzene	0.08	0.04			
Methane	2.4	0.2	Dimethyl sulphide	< 0.3	0.3	1,2-Dibromoethane	< 0.03	0.03			
n-Butane	< 0.3	0.3	Ethyl mercaptan	< 0.5	0.5	1,2-Dichlorobenzene	< 0.05	0.04			
n-Propane	< 0.11	0.11	Ethyl sulphide	< 0.5	0.5	1,2-Dichloroethane	0.06	0.04			
Propylene	< 0.2	0.2	Hydrogen sulphide	< 0.2	0.2	1,2-Dichloropropane	< 0.05	0.04			
Propyne	< 0.2	0.2	Isobutyl mercaptan	< 0.5	0.5	1,3,5-Trimethylbenzene	< 0.05	0.04			
trans-2-Butene	< 0.14	0.14	Isopropyl mercaptan	< 0.2	0.2	1,3-Butadiene	< 0.05	0.04			
			Methyl mercaptan	< 0.3	0.3	1,3-Dichlorobenzene	< 0.6	0.5			
			Pentyl mercaptan	< 0.6	0.6	1,4-Dichlorobenzene	< 0.6	0.5			
			Propyl mercaptan	< 0.6	0.6	1,4-Dioxane	< 0.8	0.7			
			tert-Butyl mercaptan	< 0.5	0.5	1-Butene/Isobutylene	0.41	0.08			
			Thiophene	< 0.3	0.3	1-Hexene/2-Methyl-1-pentene	0.19	0.09			
						1-Pentene	< 0.05	0.04			
						2,2,4-Trimethylpentane	< 0.03	0.03			
						2,2-Dimethylbutane	0.1	0.03			
						2,3,4-Trimethylpentane	< 0.03	0.03			
						2,3-Dimethylbutane	< 0.14	0.12			
						2,3-Dimethylpentane	0.09	0.03			
						2,4-Dimethylpentane	0.08	0.04			
						2-Methylheptane	< 0.03	0.03			
						2-Methylhexane	0.12	0.04			
						2-Methylpentane	0.26	0.03			
						3-Methylheptane	< 0.05	0.04			
						3-Methylhexane	0.14	0.03			
						3-Methylpentane	0.12	0.03			
						Acetone	1.4	0.5			
						Acrolein	< 0.5	0.4			
						Benzene	0.17	0.04			
						Benzyl chloride	< 0.5	0.4			
						Bromodichloromethane	< 0.05	0.04			
						Bromoform	< 0.03	0.03			
						Bromomethane	< 0.03	0.03			
						Carbon disulfide	< 0.03	0.03			
						Carbon tetrachloride	0.06	0.03			
						Chlorobenzene	< 0.03	0.03			
						Chloroethane	< 0.03	0.03			
						Chloroform	< 0.03	0.03			
						Chloromethane	0.51	0.05			
						cis-1,2-Dichloroethene	< 0.03	0.03			
						cis-1,3-Dichloropropene	< 0.05	0.04			
						cis-2-Butene	< 0.05	0.04			
						cis-2-Pentene	< 0.03	0.03			
						Cyclohexane	0.2	0.05			
						Cyclopentane	1.4	0.03			
						Dibromochloromethane	< 0.03	0.03			
						Ethanol	1.1	0.7			
						Ethyl acetate	< 0.5	0.4			
						Ethylbenzene	0.11	0.04			
						Freon-11	0.23	0.03			
						Freon-113	0.06	0.03			
						Freon-114	< 0.05	0.04			



PEACE RIVER AREA MONITORING PROGRAM

Reno-B Station - January 2024

Volatile Organic Compounds (VOCs) Results

Sample Date/Time Canister Sample Canister ID		2024-01-14 @08:05 Non-methane Hydrocarbon 32192						
Method		NA-025		Method NA-024		Method AC-058		
Maximum Reading (ppmv)		2.4	Methane	Maximum Reading (ppmv) - -		Maximum Reading (ppmv) 4.37 n-Butane		
Parameter	Result (ppmv)	RDL (ppmv)	Parameter	Result (ppbv)	RDL (ppbv)	Parameter	Result (ppbv)	RDL (ppbv)
						Freon-12	0.51	0.04
						Hexachloro-1,3-butadiene	< 0.5	0.39
						Isobutane	2.58	0.04
						Isopentane	0.92	0.05
						Isoprene	< 0.03	0.03
						Isopropyl alcohol	< 0.5	0.4
						Isopropylbenzene	< 0.06	0.05
						m,p-Xylene	< 0.06	0.05
						m-Diethylbenzene	< 0.03	0.03
						m-Ethyltoluene	0.06	0.04
						Methyl butyl ketone	< 0.6	0.52
						Methyl ethyl ketone	< 0.5	0.4
						Methyl isobutyl ketone	< 0.5	0.4
						Methyl methacrylate	< 0.12	0.10
						Methyl tert butyl ether	< 0.05	0.04
						Methylcyclohexane	0.09	0.03
						Methylcyclopentane	0.11	0.07
						Methylene chloride	< 0.5	0.4
						n-Butane	4.37	0.03
						n-Decane	< 0.09	0.08
						n-Dodecane	< 0.5	0.4
						n-Heptane	0.21	0.05
						n-Hexane	0.24	0.04
						n-Nonane	< 0.06	0.05
						n-Octane	0.11	0.03
						n-Pentane	0.68	0.1
						n-Propylbenzene	< 0.09	0.08
						n-Undecane	< 0.8	0.7
						Naphthalene	< 0.5	0.4
						o-Ethyltoluene	0.05	0.03
						o-Xylene	0.11	0.04
						p-Diethylbenzene	< 0.03	0.03
						p-Ethyltoluene	< 0.06	0.05
						Styrene	< 0.06	0.05
						Tetrachloroethylene	< 0.03	0.03
						Tetrahydrofuran	< 0.5	0.4
						Toluene	< 0.05	0.04
						trans-1,2-Dichloroethylene	< 0.09	0.08
						trans-1,3-Dichloropropylene	< 0.03	0.03
						trans-2-Butene	< 0.05	0.04
						trans-2-Pentene	< 0.03	0.03
						Trichloroethylene	< 0.03	0.03
						Vinyl acetate	< 0.5	0.4
						Vinyl chloride	< 0.03	0.03

**PEACE RIVER AREA MONITORING PROGRAM**

Reno-B Station - January 2024

Volatile Organic Compounds (VOCs) Results

Sample Date/Time Canister Sample Canister ID			2024-01-14 @08:05 Non-methane Hydrocarbon - BLANK A47802					
Method	NA-025		Method	NA-024		Method	AC-058	
Maximum Reading (ppmv)	-	-	Maximum Reading (ppmv)	-	-	Maximum Reading (ppmv)	0.12	Cyclohexane
Parameter	Result (ppmv)	RDL (ppmv)	Parameter	Result (ppbv)	RDL (ppbv)	Parameter	Result (ppbv)	RDL (ppbv)
1-Butene	< 0.10	0.1	2,5-Dimethylthiophene	< 0.3	0.3	1,1,1-Trichloroethane	< 0.02	0.02
Acetylene	< 0.08	0.08	2-Ethylthiophene	< 0.2	0.2	1,1,2,2-Tetrachloroethane	< 0.02	0.02
cis-2-Butene	< 0.04	0.04	2-Methylthiophene	< 0.2	0.2	1,1,2-Trichloroethane	< 0.02	0.02
Ethane	< 0.1	0.1	3-Methylthiophene	< 0.3	0.3	1,1-Dichloroethane	< 0.02	0.02
Ethylacetylene	< 0.06	0.06	Butyl mercaptan	< 0.3	0.3	1,1-Dichloroethylene	< 0.02	0.02
Ethylene	< 0.07	0.07	Carbon disulphide	< 0.2	0.2	1,2,3-Trimethylbenzene	< 0.05	0.05
Isobutane	< 0.1	0.1	Carbonyl sulphide	< 0.3	0.3	1,2,4-Trichlorobenzene	< 0.3	0.3
Isobutylene	< 0.1	0.1	Dimethyl disulphide	< 0.2	0.2	1,2,4-Trimethylbenzene	0.05	0.03
Methane	< 0.1	0.1	Dimethyl sulphide	< 0.2	0.2	1,2-Dibromoethane	< 0.02	0.02
n-Butane	< 0.2	0.2	Ethyl mercaptan	< 0.3	0.3	1,2-Dichlorobenzene	< 0.03	0.03
n-Propane	< 0.07	0.07	Ethyl sulphide	< 0.3	0.3	1,2-Dichloroethane	< 0.03	0.03
Propylene	< 0.1	0.1	Hydrogen sulphide	< 0.1	0.1	1,2-Dichloropropane	< 0.03	0.03
Propyne	< 0.1	0.1	Isobutyl mercaptan	< 0.3	0.3	1,3,5-Trimethylbenzene	< 0.03	0.03
trans-2-Butene	< 0.09	0.09	Isopropyl mercaptan	< 0.1	0.1	1,3-Butadiene	< 0.03	0.03
			Methyl mercaptan	< 0.2	0.2	1,3-Dichlorobenzene	< 0.4	0.4
			Pentyl mercaptan	< 0.4	0.4	1,4-Dichlorobenzene	< 0.4	0.4
			Propyl mercaptan	< 0.4	0.4	1,4-Dioxane	< 0.5	0.5
			tert-Butyl mercaptan	< 0.3	0.3	1-Butene/Isobutylene	< 0.06	0.06
			Thiophene	< 0.2	0.2	1-Hexene/2-Methyl-1-pentene	< 0.07	0.07
						1-Pentene	< 0.03	0.03
						2,2,4-Trimethylpentane	< 0.02	0.02
						2,2-Dimethylbutane	< 0.02	0.02
						2,3,4-Trimethylpentane	< 0.02	0.02
						2,3-Dimethylbutane	< 0.09	0.09
						2,3-Dimethylpentane	< 0.02	0.02
						2,4-Dimethylpentane	< 0.03	0.03
						2-Methylheptane	< 0.02	0.02
						2-Methylhexane	< 0.03	0.03
						2-Methylpentane	< 0.02	0.02
						3-Methylheptane	< 0.03	0.03
						3-Methylhexane	< 0.02	0.02
						3-Methylpentane	< 0.02	0.02
						Acetone	< 0.4	0.4
						Acrolein	< 0.3	0.3
						Benzene	0.07	0.03
						Benzyl chloride	< 0.3	0.3
						Bromodichloromethane	< 0.03	0.03
						Bromoform	< 0.02	0.02
						Bromomethane	< 0.02	0.02
						Carbon disulfide	< 0.02	0.02
						Carbon tetrachloride	< 0.02	0.02
						Chlorobenzene	< 0.02	0.02
						Chloroethane	< 0.02	0.02
						Chloroform	< 0.02	0.02
						Chloromethane	< 0.04	0.04
						cis-1,2-Dichloroethene	< 0.02	0.02
						cis-1,3-Dichloropropene	< 0.03	0.03
						cis-2-Butene	< 0.03	0.03
						cis-2-Pentene	< 0.02	0.02
						Cyclohexane	<b>0.12</b>	0.04
						Cyclopentane	< 0.02	0.02
						Dibromochloromethane	< 0.02	0.02
						Ethanol	< 0.5	0.5
						Ethyl acetate	< 0.3	0.3
						Ethylbenzene	< 0.03	0.03
						Freon-11	< 0.02	0.02
						Freon-113	< 0.02	0.02
						Freon-114	< 0.03	0.03





PEACE RIVER AREA MONITORING PROGRAM

Reno-B Station - January 2024

Volatile Organic Compounds (VOCs) Results

Sample Date/Time Canister Sample Canister ID	2024-01-14 @08:05 Non-methane Hydrocarbon - BLANK A47802							
Method	NA-025		Method	NA-024		Method	AC-058	
Maximum Reading (ppmv)	-	-	Maximum Reading (ppmv)	-	-	Maximum Reading (ppmv)	0.12	Cyclohexane
Parameter	Result (ppmv)	RDL (ppmv)	Parameter	Result (ppbv)	RDL (ppbv)	Parameter	Result (ppbv)	RDL (ppbv)
						Freon-12	< 0.03	0.03
						Hexachloro-1,3-butadiene	< 0.3	0.30
						Isobutane	< 0.03	0.03
						Isopentane	< 0.04	0.04
						Isoprene	< 0.02	0.02
						Isopropyl alcohol	< 0.3	0.3
						Isopropylbenzene	< 0.04	0.04
						m,p-Xylene	< 0.04	0.04
						m-Diethylbenzene	< 0.02	0.02
						m-Ethyltoluene	< 0.03	0.03
						Methyl butyl ketone	< 0.4	0.40
						Methyl ethyl ketone	< 0.3	0.3
						Methyl isobutyl ketone	< 0.3	0.3
						Methyl methacrylate	< 0.08	0.08
						Methyl tert butyl ether	< 0.03	0.03
						Methylcyclohexane	< 0.02	0.02
						Methylcyclopentane	< 0.05	0.05
						Methylene chloride	< 0.3	0.3
						n-Butane	0.05	0.02
						n-Decane	< 0.06	0.06
						n-Dodecane	< 0.3	0.3
						n-Heptane	0.12	0.04
						n-Hexane	0.12	0.03
						n-Nonane	< 0.04	0.04
						n-Octane	< 0.02	0.02
						n-Pentane	0.04	0.0
						n-Propylbenzene	< 0.06	0.06
						n-Undecane	< 0.5	0.5
						Naphthalene	< 0.3	0.3
						o-Ethyltoluene	< 0.02	0.02
						o-Xylene	0.07	0.03
						p-Diethylbenzene	< 0.02	0.02
						p-Ethyltoluene	< 0.04	0.04
						Styrene	< 0.04	0.04
						Tetrachloroethylene	< 0.02	0.02
						Tetrahydrofuran	< 0.3	0.3
						Toluene	< 0.03	0.03
						trans-1,2-Dichloroethylene	< 0.06	0.06
						trans-1,3-Dichloropropylene	< 0.02	0.02
						trans-2-Butene	< 0.03	0.03
						trans-2-Pentene	< 0.02	0.02
						Trichloroethylene	< 0.02	0.02
						Vinyl acetate	< 0.3	0.3
						Vinyl chloride	< 0.02	0.02

## Passives



PEACE RIVER AREA MONITORING PROGRAM

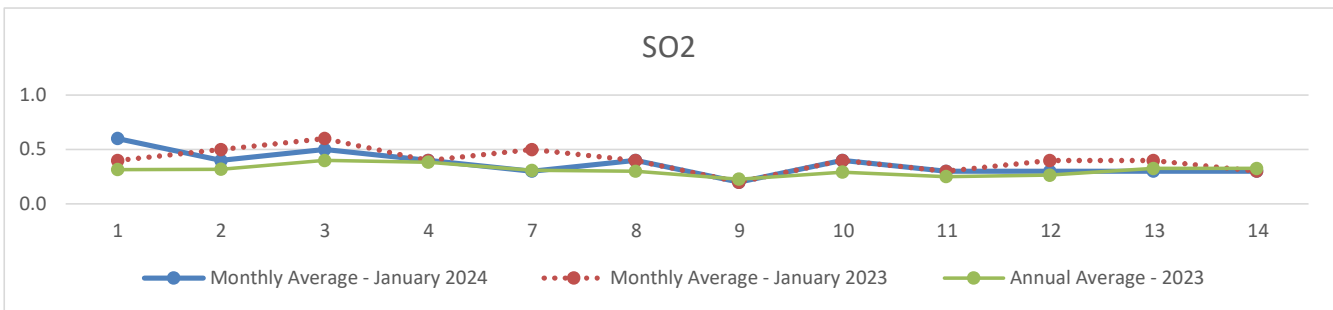
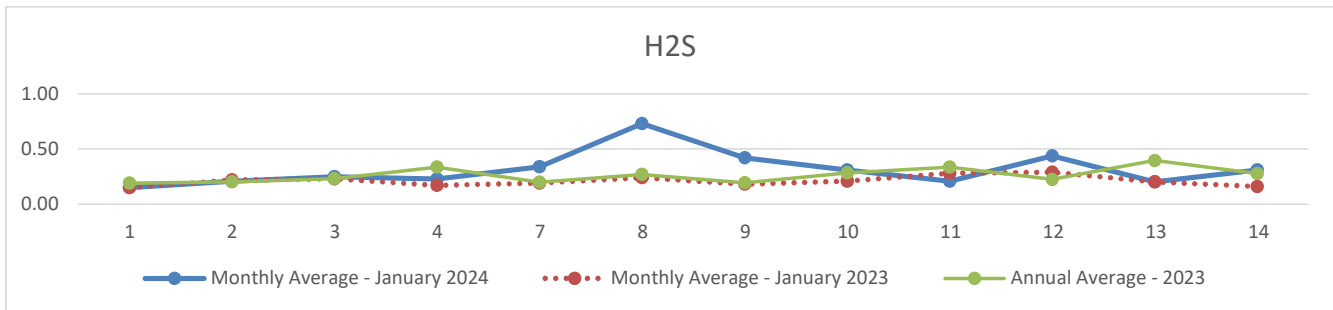
PRC Site - January 2024

Passive Results

	H <sub>2</sub> S		SO <sub>2</sub>	
Minimum (ppb)	0.15	#1	0.2	#9
Maximum (ppb)	0.73	#8	0.6	#1
Average (ppb)	0.32	-	0.37	-

No.	Calculated Value	Calculated Value
1	0.15	0.6
2	0.21	0.4
3	0.25	0.5
4	0.23	0.4
7	0.34	0.3
8	0.73	0.4
9	0.42	0.2
10	0.31	0.4
11	0.21	0.3
12	0.44	0.3
13	0.20	0.3
14	0.31	0.3
Reportable Detection Limit (RDL)	<b>0.02</b>	<b>0.1</b>



End of Report



## **Peace River Area Monitoring Program**

# **JANUARY 2024**

## **Ambient Air Monitoring**

## **Certified Laboratory Analysis Report**

### **LAB-PRAMP-202401**

**Operation and Maintenance:**

Bureau Veritas Canada

**Data Validation and Report:**

Peace River Area Monitoring Program

February 26, 2024

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## NMHC Canister Analytical Results







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

EAS CANISTER  
 Sample ID: 24010094-002 Priority: Normal



Customer ID: PRAMP  
 Cust Samp ID: PRAMP\_Reno-20240114-Blank

Date Received- Lab Use Only  
**RECEIVED**  
 JAN 17 2024

<b>Client Contact Details:</b> Contact: <u>Karla Ressor, Michael Bisaga/ Lily Lin</u> Company: <u>PRAMP Airshed</u> PO#: <input type="checkbox"/> 842b Station <input type="checkbox"/> 986c Station <input type="checkbox"/> Reno Station Address: <input type="checkbox"/> 842b (Lat. 56.27406N, Long. 116.98129W) <input type="checkbox"/> 986c (Lat. 56.36988N, Long. 116.925636W) <input checked="" type="checkbox"/> Reno (Lat. 55.86936N, Long. 117.05739W) Telephone: <u>403-8072995, 780-2667068/587-2252248</u> Email: <u>karla@prampairshed.ca, pramptech@prampairshed.ca</u>	<b>RUSH (Surcharge)</b> <input type="checkbox"/> 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: <u>Graham Knox</u> Phone: <u>780-632-8403</u> Cell: <u>780-632-1519</u> Email: <u>Graham.Knox@innotechalberta.ca</u>
--	---

Sample ID (PRAMP station_yyyymmdd) <small>(Find Sample ID from BV's email)</small>	Canister ID <small>(Find canister ID from canister tag)</small>	Sample Description	Date/Time Canister Triggered <small>(Find Date/Time from BV's email)</small>		Analysis Requested
			Date (yyyy/mm/dd)	Time (24 Hr) (MST)	
PRAMP_842b- _____	A47802	<input type="checkbox"/> Methane Trigger	20240114	0810	* C1C4 Air, VOC Full, RSC Air  * Unknowns to be reported  * Carbon Isotopic Analysis (if sample is collected from Methane trigger)
PRAMP_986c- _____		<input type="checkbox"/> NMHC Trigger			
PRAMP_Reno- <u>20240114</u>		<input type="checkbox"/> Methane Blank <input checked="" type="checkbox"/> NMHC Blank <input type="checkbox"/> Expired Canister – No further analysis is required.			

**Sample Collection:**  
 Collected By JM (Name) of PRAMP (Company) on 01-15-2024 1420 (Date/Time) (MST).



Canister ID: 32192

This cleaned canister meets or exceeds TO-15 Method Specifications

Proofed by: ISR on: OCT 24 2023

Evacuated: NOV 16 2023 Recertified: \_\_\_\_\_

(Use within: 3 months from evacuation or recertification date)

Laboratory Contact Number: 780-632-8403

Sample ID: Reno Sample 01-14-2024-0810

Sampled By: JM

Starting Vacuum: -27.4 "Hg

End Vacuum: -2 "Hg/psig *JMP*

Sample ID: 24010094-001 Priority: Normal



Customer ID: PRAMP

Cust Samp ID: PRAMP\_Reno-20240114



Canister ID: A47802

This cleaned canister meets or exceeds TO-15 Method Specifications

Proofed by: ISR on: SEP 11 2023

Evacuated: NOV 16 2023 Recertified: \_\_\_\_\_

(Use within: 3 months from evacuation or recertification date)

Laboratory Contact Number: 780-632-8403

Sample ID: Reno Blank 01-14-2024-0810

Sampled By: JM

Starting Vacuum: -27.4 "Hg

End Vacuum: 28 "Hg/psig *JMP*



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

# ENVIRONMENTAL ANALYTICAL SERVICES

## TEST REPORT

<p><b>RESULTS:</b> Karla Reesor                      403 807 2995 Peace River Area Monitoring Program Committee</p> <p><b>INVOICE:</b> Office Manager</p>	<p style="text-align: center;"><b>CLIENT SAMPLE ID</b> PRAMP_Reno-20240114</p> <p><b>MATRIX:</b> Ambient Air</p> <p><b>CANISTER ID:</b> 32192</p> <p><b>PRIORITY:</b> Normal</p> <p><b>DESCRIPTION:</b> NMHC Trigger</p> <p><b>DATE SAMPLED:</b> 14-Jan-24    8:10                      <b>DATE RECEIVED:</b> 17-Jan-24</p> <p><b>REPORT CREATED:</b> 13-Feb-24                      <b>REPORT NUMBER:</b> 24010094</p> <p style="text-align: right;"><b>VERSION</b>                      <b>Version 01</b></p>
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Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
24010094-001	1-Butene	K, T, U	< 0.15	ppmv	0.15	NA-025	18-Jan-24
24010094-001	Acetylene	K, T, U	< 0.12	ppmv	0.12	NA-025	18-Jan-24
24010094-001	n-Butane	K, T, U	< 0.3	ppmv	0.3	NA-025	18-Jan-24
24010094-001	cis-2-Butene	K, T, U	< 0.06	ppmv	0.06	NA-025	18-Jan-24
24010094-001	Ethane	K, T, U	< 0.2	ppmv	0.2	NA-025	18-Jan-24
24010094-001	Ethylacetylene	K, T, U	< 0.09	ppmv	0.09	NA-025	18-Jan-24
24010094-001	Ethylene	K, T, U	< 0.11	ppmv	0.11	NA-025	18-Jan-24
24010094-001	Isobutane	K, T, U	< 0.2	ppmv	0.2	NA-025	18-Jan-24
24010094-001	Isobutylene	K, T, U	< 0.2	ppmv	0.2	NA-025	18-Jan-24
24010094-001	Methane		2.4	ppmv	0.2	NA-025	18-Jan-24
24010094-001	n-Propane	K, T, U	< 0.11	ppmv	0.11	NA-025	18-Jan-24
24010094-001	Propylene	K, T, U	< 0.2	ppmv	0.2	NA-025	18-Jan-24
24010094-001	Propyne	K, T, U	< 0.2	ppmv	0.2	NA-025	18-Jan-24
24010094-001	trans-2-Butene	K, T, U	< 0.14	ppmv	0.14	NA-025	18-Jan-24
24010094-001	2,5-Dimethylthiophene	K, T, U	< 0.5	ppbv	0.5	NA-024	18-Jan-24
24010094-001	2-Ethylthiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Jan-24
24010094-001	2-Methylthiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Jan-24

Report certified by: Andrea Conner, Admin Assistant                      On behalf of: Adam Malcolm, Manager, Chemical Testing

Date: February 13, 2024                      Inquiries: (780) 632 8403                      E-mail: EAS.Results@innotechalberta.ca

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <https://directory.cala.ca/>                      LAB-PRAMP-202401

<b>CLIENT SAMPLE ID</b>	<b>CANISTER ID</b>	<b>Matrix</b>	<b>DATE SAMPLED</b>
PRAMP_Reno-20240114	32192	Ambient Air	14-Jan-24 8:10
<b>DESCRIPTION:</b>	NMHC Trigger		
<b>REPORT NUMBER:</b>	24010094	<b>REPORT CREATED:</b>	13-Feb-24
			<b>VERSION</b> Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
24010094-001	3-Methylthiophene	K, T, U	< 0.5	ppbv	0.5	NA-024	18-Jan-24
24010094-001	Butyl mercaptan	K, T, U	< 0.5	ppbv	0.5	NA-024	18-Jan-24
24010094-001	Carbon disulphide	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Jan-24
24010094-001	Carbonyl sulphide	K, T, U	< 0.5	ppbv	0.5	NA-024	18-Jan-24
24010094-001	Dimethyl disulphide	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Jan-24
24010094-001	Dimethyl sulphide	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Jan-24
24010094-001	Ethyl mercaptan	K, T, U	< 0.5	ppbv	0.5	NA-024	18-Jan-24
24010094-001	Ethyl sulphide	K, T, U	< 0.5	ppbv	0.5	NA-024	18-Jan-24
24010094-001	Hydrogen sulphide	K, T, U	< 0.2	ppbv	0.2	NA-024	18-Jan-24
24010094-001	Isobutyl mercaptan	K, T, U	< 0.5	ppbv	0.5	NA-024	18-Jan-24
24010094-001	Isopropyl mercaptan	K, T, U	< 0.2	ppbv	0.2	NA-024	18-Jan-24
24010094-001	Methyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Jan-24
24010094-001	Pentyl mercaptan	K, T, U	< 0.6	ppbv	0.6	NA-024	18-Jan-24
24010094-001	Propyl mercaptan	K, T, U	< 0.6	ppbv	0.6	NA-024	18-Jan-24
24010094-001	tert-Butyl mercaptan	K, T, U	< 0.5	ppbv	0.5	NA-024	18-Jan-24
24010094-001	Thiophene/sec-Butyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Jan-24
24010094-001	1,1,1-Trichloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	1,1,2,2-Tetrachloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	1,1,2-Trichloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	1,1-Dichloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	1,1-Dichloroethylene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	1,2,3-Trimethylbenzene	K, T, U	< 0.08	ppbv	0.08	AC-058	25-Jan-24
24010094-001	1,2,4-Trichlorobenzene	K, T, U	< 0.5	ppbv	0.5	AC-058	25-Jan-24
24010094-001	1,2,4-Trimethylbenzene	I	0.08	ppbv	0.05	AC-058	25-Jan-24
24010094-001	1,2-Dibromoethane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24

Report certified by: Andrea Conner, Admin Assistant

Date: February 13, 2024

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <https://directory.cala.ca/> LAB-PRAMP-202401

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

<b>CLIENT SAMPLE ID</b>	<b>CANISTER ID</b>	<b>Matrix</b>	<b>DATE SAMPLED</b>
PRAMP_Reno-20240114	32192	Ambient Air	14-Jan-24 8:10
<b>DESCRIPTION:</b>	NMHC Trigger		
<b>REPORT NUMBER:</b>	24010094	<b>REPORT CREATED:</b>	13-Feb-24
			<b>VERSION</b> Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
24010094-001	1,2-Dichlorobenzene	K, T, U	< 0.05	ppbv	0.05	AC-058	25-Jan-24
24010094-001	1,2-Dichloroethane	I	0.06	ppbv	0.05	AC-058	25-Jan-24
24010094-001	1,2-Dichloropropane	K, T, U	< 0.05	ppbv	0.05	AC-058	25-Jan-24
24010094-001	1,3,5-Trimethylbenzene	K, T, U	< 0.05	ppbv	0.05	AC-058	25-Jan-24
24010094-001	1,3-Butadiene	K, T, U	< 0.05	ppbv	0.05	AC-058	25-Jan-24
24010094-001	1,3-Dichlorobenzene	K, T, U	< 0.6	ppbv	0.6	AC-058	25-Jan-24
24010094-001	1,4-Dichlorobenzene	K, T, U	< 0.6	ppbv	0.6	AC-058	25-Jan-24
24010094-001	1,4-Dioxane	K, T, U	< 0.8	ppbv	0.8	AC-058	25-Jan-24
24010094-001	1-Butene/Isobutylene		0.41	ppbv	0.09	AC-058	25-Jan-24
24010094-001	1-Hexene/2-Methyl-1-pentene	I	0.19	ppbv	0.11	AC-058	25-Jan-24
24010094-001	1-Pentene	K, T, U	< 0.05	ppbv	0.05	AC-058	25-Jan-24
24010094-001	2,2,4-Trimethylpentane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	2,2-Dimethylbutane	I	0.10	ppbv	0.03	AC-058	25-Jan-24
24010094-001	2,3,4-Trimethylpentane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	2,3-Dimethylbutane	K, T, U	< 0.14	ppbv	0.14	AC-058	25-Jan-24
24010094-001	2,3-Dimethylpentane	I	0.09	ppbv	0.03	AC-058	25-Jan-24
24010094-001	2,4-Dimethylpentane	I	0.08	ppbv	0.05	AC-058	25-Jan-24
24010094-001	2-Methylheptane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	2-Methylhexane	I	0.12	ppbv	0.05	AC-058	25-Jan-24
24010094-001	2-Methylpentane		0.26	ppbv	0.03	AC-058	25-Jan-24
24010094-001	3-Methylheptane	K, T, U	< 0.05	ppbv	0.05	AC-058	25-Jan-24
24010094-001	3-Methylhexane	I	0.14	ppbv	0.03	AC-058	25-Jan-24
24010094-001	3-Methylpentane	I	0.12	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Acetone		1.4	ppbv	0.6	AC-058	25-Jan-24
24010094-001	Acrolein	K, T, U	< 0.5	ppbv	0.5	AC-058	25-Jan-24

Report certified by: Andrea Conner, Admin Assistant

Date: February 13, 2024

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <https://directory.cala.ca/> LAB-PRAMP-202401

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

<b>CLIENT SAMPLE ID</b>	<b>CANISTER ID</b>	<b>Matrix</b>	<b>DATE SAMPLED</b>
PRAMP_Reno-20240114	32192	Ambient Air	14-Jan-24 8:10
<b>DESCRIPTION:</b>	NMHC Trigger		
<b>REPORT NUMBER:</b>	24010094	<b>REPORT CREATED:</b>	13-Feb-24
			<b>VERSION</b> Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
24010094-001	Benzene	I	0.17	ppbv	0.05	AC-058	25-Jan-24
24010094-001	Benzyl chloride	K, T, U	< 0.5	ppbv	0.5	AC-058	25-Jan-24
24010094-001	Bromodichloromethane	K, T, U	< 0.05	ppbv	0.05	AC-058	25-Jan-24
24010094-001	Bromoform	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Bromomethane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Carbon disulfide	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Carbon tetrachloride	I	0.06	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Chlorobenzene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Chloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Chloroform	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Chloromethane		0.51	ppbv	0.06	AC-058	25-Jan-24
24010094-001	cis-1,2-Dichloroethene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	cis-1,3-Dichloropropene	K, T, U	< 0.05	ppbv	0.05	AC-058	25-Jan-24
24010094-001	cis-2-Butene	K, T, U	< 0.05	ppbv	0.05	AC-058	25-Jan-24
24010094-001	cis-2-Pentene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Cyclohexane	I	0.20	ppbv	0.06	AC-058	25-Jan-24
24010094-001	Cyclopentane		1.40	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Dibromochloromethane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Ethanol	I	1.1	ppbv	0.8	AC-058	25-Jan-24
24010094-001	Ethyl acetate	K, T, U	< 0.5	ppbv	0.5	AC-058	25-Jan-24
24010094-001	Ethylbenzene	I	0.11	ppbv	0.05	AC-058	25-Jan-24
24010094-001	Freon-11		0.23	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Freon-113	I	0.06	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Freon-114	K, T, U	< 0.05	ppbv	0.05	AC-058	25-Jan-24
24010094-001	Freon-12		0.51	ppbv	0.05	AC-058	25-Jan-24

Report certified by: Andrea Conner, Admin Assistant

On behalf of: Adam Malcolm, Manager, Chemical Testing

Date: February 13, 2024

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <https://directory.cala.ca/> LAB-PRAMP-202401

<b>CLIENT SAMPLE ID</b>	<b>CANISTER ID</b>	<b>Matrix</b>	<b>DATE SAMPLED</b>
PRAMP_Reno-20240114	32192	Ambient Air	14-Jan-24 8:10
<b>DESCRIPTION:</b>	NMHC Trigger		
<b>REPORT NUMBER:</b>	24010094	<b>REPORT CREATED:</b>	13-Feb-24
			<b>VERSION</b> Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
24010094-001	Hexachloro-1,3-butadiene	K, T, U	< 0.5	ppbv	0.5	AC-058	25-Jan-24
24010094-001	Isobutane		2.58	ppbv	0.05	AC-058	25-Jan-24
24010094-001	Isopentane		0.92	ppbv	0.06	AC-058	25-Jan-24
24010094-001	Isoprene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Isopropyl alcohol	K, T, U	< 0.5	ppbv	0.5	AC-058	25-Jan-24
24010094-001	Isopropylbenzene	K, T, U	< 0.06	ppbv	0.06	AC-058	25-Jan-24
24010094-001	m,p-Xylene	K, T, U	< 0.06	ppbv	0.06	AC-058	25-Jan-24
24010094-001	m-Diethylbenzene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	m-Ethyltoluene	I	0.06	ppbv	0.05	AC-058	25-Jan-24
24010094-001	Methyl butyl ketone	K, T, U	< 0.6	ppbv	0.6	AC-058	25-Jan-24
24010094-001	Methyl ethyl ketone	K, T, U	< 0.5	ppbv	0.5	AC-058	25-Jan-24
24010094-001	Methyl isobutyl ketone	K, T, U	< 0.5	ppbv	0.5	AC-058	25-Jan-24
24010094-001	Methyl methacrylate	K, T, U	< 0.12	ppbv	0.12	AC-058	25-Jan-24
24010094-001	Methyl tert butyl ether	K, T, U	< 0.05	ppbv	0.05	AC-058	25-Jan-24
24010094-001	Methylcyclohexane	I	0.09	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Methylcyclopentane	I	0.11	ppbv	0.08	AC-058	25-Jan-24
24010094-001	Methylene chloride	K, T, U	< 0.5	ppbv	0.5	AC-058	25-Jan-24
24010094-001	n-Butane		4.37	ppbv	0.03	AC-058	25-Jan-24
24010094-001	n-Decane	K, T, U	< 0.09	ppbv	0.09	AC-058	25-Jan-24
24010094-001	n-Dodecane	K, T, U	< 0.5	ppbv	0.5	AC-058	25-Jan-24
24010094-001	n-Heptane	I	0.21	ppbv	0.06	AC-058	25-Jan-24
24010094-001	n-Hexane	I	0.24	ppbv	0.05	AC-058	25-Jan-24
24010094-001	n-Octane	I	0.11	ppbv	0.03	AC-058	25-Jan-24
24010094-001	n-Pentane		0.68	ppbv	0.06	AC-058	25-Jan-24
24010094-001	n-Propylbenzene	K, T, U	< 0.09	ppbv	0.09	AC-058	25-Jan-24

Report certified by: Andrea Conner, Admin Assistant

Date: February 13, 2024

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <https://directory.cala.ca/> LAB-PRAMP-202401

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

<b>CLIENT SAMPLE ID</b>	<b>CANISTER ID</b>	<b>Matrix</b>	<b>DATE SAMPLED</b>
PRAMP_Reno-20240114	32192	Ambient Air	14-Jan-24 8:10
<b>DESCRIPTION:</b>	NMHC Trigger		
<b>REPORT NUMBER:</b>	24010094	<b>REPORT CREATED:</b>	13-Feb-24
			<b>VERSION</b> Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
24010094-001	n-Undecane	K, T, U	< 0.8	ppbv	0.8	AC-058	25-Jan-24
24010094-001	Naphthalene	K, T, U	< 0.5	ppbv	0.5	AC-058	25-Jan-24
24010094-001	n-Nonane	K, T, U	< 0.06	ppbv	0.06	AC-058	25-Jan-24
24010094-001	o-Ethyltoluene	I	0.05	ppbv	0.03	AC-058	25-Jan-24
24010094-001	o-Xylene	I	0.11	ppbv	0.05	AC-058	25-Jan-24
24010094-001	p-Diethylbenzene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	p-Ethyltoluene	K, T, U	< 0.06	ppbv	0.06	AC-058	25-Jan-24
24010094-001	Styrene	K, T, U	< 0.06	ppbv	0.06	AC-058	25-Jan-24
24010094-001	Tetrachloroethylene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Tetrahydrofuran	K, T, U	< 0.5	ppbv	0.5	AC-058	25-Jan-24
24010094-001	Toluene	K, T, U	< 0.05	ppbv	0.05	AC-058	25-Jan-24
24010094-001	trans-1,2-Dichloroethylene	K, T, U	< 0.09	ppbv	0.09	AC-058	25-Jan-24
24010094-001	trans-1,3-Dichloropropylene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	trans-2-Butene	K, T, U	< 0.05	ppbv	0.05	AC-058	25-Jan-24
24010094-001	trans-2-Pentene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Trichloroethylene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-001	Vinyl acetate	K, T, U	< 0.5	ppbv	0.5	AC-058	25-Jan-24
24010094-001	Vinyl chloride	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24



<b>CLIENT SAMPLE ID</b>	<b>CANISTER ID</b>	<b>Matrix</b>	<b>DATE SAMPLED</b>
PRAMP_Reno-20240114-Blank	A47802	Ambient Air	14-Jan-24 8:10
<b>DESCRIPTION:</b>	NMHC Blank		
<b>REPORT NUMBER:</b>	24010094	<b>REPORT CREATED:</b>	13-Feb-24
			<b>VERSION</b> Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
24010094-002	1-Butene	K, T, U	< 0.10	ppmv	0.10	NA-025	18-Jan-24
24010094-002	Acetylene	K, T, U	< 0.08	ppmv	0.08	NA-025	18-Jan-24
24010094-002	n-Butane	K, T, U	< 0.2	ppmv	0.2	NA-025	18-Jan-24
24010094-002	cis-2-Butene	K, T, U	< 0.04	ppmv	0.04	NA-025	18-Jan-24
24010094-002	Ethane	K, T, U	< 0.1	ppmv	0.1	NA-025	18-Jan-24
24010094-002	Ethylacetylene	K, T, U	< 0.06	ppmv	0.06	NA-025	18-Jan-24
24010094-002	Ethylene	K, T, U	< 0.07	ppmv	0.07	NA-025	18-Jan-24
24010094-002	Isobutane	K, T, U	< 0.1	ppmv	0.1	NA-025	18-Jan-24
24010094-002	Isobutylene	K, T, U	< 0.1	ppmv	0.1	NA-025	18-Jan-24
24010094-002	Methane	K, T, U	< 0.1	ppmv	0.1	NA-025	18-Jan-24
24010094-002	n-Propane	K, T, U	< 0.07	ppmv	0.07	NA-025	18-Jan-24
24010094-002	Propylene	K, T, U	< 0.1	ppmv	0.1	NA-025	18-Jan-24
24010094-002	Propyne	K, T, U	< 0.1	ppmv	0.1	NA-025	18-Jan-24
24010094-002	trans-2-Butene	K, T, U	< 0.09	ppmv	0.09	NA-025	18-Jan-24
24010094-002	2,5-Dimethylthiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Jan-24
24010094-002	2-Ethylthiophene	K, T, U	< 0.2	ppbv	0.2	NA-024	18-Jan-24
24010094-002	2-Methylthiophene	K, T, U	< 0.2	ppbv	0.2	NA-024	18-Jan-24
24010094-002	3-Methylthiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Jan-24
24010094-002	Butyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Jan-24
24010094-002	Carbon disulphide	K, T, U	< 0.2	ppbv	0.2	NA-024	18-Jan-24
24010094-002	Carbonyl sulphide	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Jan-24
24010094-002	Dimethyl disulphide	K, T, U	< 0.2	ppbv	0.2	NA-024	18-Jan-24
24010094-002	Dimethyl sulphide	K, T, U	< 0.2	ppbv	0.2	NA-024	18-Jan-24
24010094-002	Ethyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Jan-24
24010094-002	Ethyl sulphide	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Jan-24

Report certified by: Andrea Conner, Admin Assistant

Date: February 13, 2024

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <https://directory.cala.ca/> LAB-PRAMP-202401

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

<b>CLIENT SAMPLE ID</b> PRAMP_Reno-20240114-Blank	<b>CANISTER ID</b> A47802	<b>Matrix</b> Ambient Air	<b>DATE SAMPLED</b> 14-Jan-24 8:10
<b>DESCRIPTION:</b> NMHC Blank			
<b>REPORT NUMBER:</b> 24010094	<b>REPORT CREATED:</b> 13-Feb-24		<b>VERSION</b> Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
24010094-002	Hydrogen sulphide	K, T, U	< 0.1	ppbv	0.1	NA-024	18-Jan-24
24010094-002	Isobutyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Jan-24
24010094-002	Isopropyl mercaptan	K, T, U	< 0.1	ppbv	0.1	NA-024	18-Jan-24
24010094-002	Methyl mercaptan	K, T, U	< 0.2	ppbv	0.2	NA-024	18-Jan-24
24010094-002	Pentyl mercaptan	K, T, U	< 0.4	ppbv	0.4	NA-024	18-Jan-24
24010094-002	Propyl mercaptan	K, T, U	< 0.4	ppbv	0.4	NA-024	18-Jan-24
24010094-002	tert-Butyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	18-Jan-24
24010094-002	Thiophene/sec-Butyl mercaptan	K, T, U	< 0.2	ppbv	0.2	NA-024	18-Jan-24
24010094-002	1,1,1-Trichloroethane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	1,1,2,2-Tetrachloroethane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	1,1,2-Trichloroethane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	1,1-Dichloroethane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	1,1-Dichloroethylene	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	1,2,3-Trimethylbenzene	K, T, U	< 0.05	ppbv	0.05	AC-058	25-Jan-24
24010094-002	1,2,4-Trichlorobenzene	K, T, U	< 0.3	ppbv	0.3	AC-058	25-Jan-24
24010094-002	1,2,4-Trimethylbenzene	I	0.05	ppbv	0.03	AC-058	25-Jan-24
24010094-002	1,2-Dibromoethane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	1,2-Dichlorobenzene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	1,2-Dichloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	1,2-Dichloropropane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	1,3,5-Trimethylbenzene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	1,3-Butadiene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	1,3-Dichlorobenzene	K, T, U	< 0.4	ppbv	0.4	AC-058	25-Jan-24
24010094-002	1,4-Dichlorobenzene	K, T, U	< 0.4	ppbv	0.4	AC-058	25-Jan-24
24010094-002	1,4-Dioxane	K, T, U	< 0.5	ppbv	0.5	AC-058	25-Jan-24

Report certified by: Andrea Conner, Admin Assistant

Date: February 13, 2024

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <https://directory.cala.ca/> LAB-PRAMP-202401

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

<b>CLIENT SAMPLE ID</b>	<b>CANISTER ID</b>	<b>Matrix</b>	<b>DATE SAMPLED</b>
PRAMP_Reno-20240114-Blank	A47802	Ambient Air	14-Jan-24 8:10
<b>DESCRIPTION:</b>	NMHC Blank		
<b>REPORT NUMBER:</b>	24010094	<b>REPORT CREATED:</b>	13-Feb-24
			<b>VERSION</b> Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
24010094-002	1-Butene/Isobutylene	K, T, U	< 0.06	ppbv	0.06	AC-058	25-Jan-24
24010094-002	1-Hexene/2-Methyl-1-pentene	K, T, U	< 0.07	ppbv	0.07	AC-058	25-Jan-24
24010094-002	1-Pentene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	2,2,4-Trimethylpentane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	2,2-Dimethylbutane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	2,3,4-Trimethylpentane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	2,3-Dimethylbutane	K, T, U	< 0.09	ppbv	0.09	AC-058	25-Jan-24
24010094-002	2,3-Dimethylpentane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	2,4-Dimethylpentane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	2-Methylheptane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	2-Methylhexane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	2-Methylpentane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	3-Methylheptane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	3-Methylhexane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	3-Methylpentane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	Acetone	K, T, U	< 0.4	ppbv	0.4	AC-058	25-Jan-24
24010094-002	Acrolein	K, T, U	< 0.3	ppbv	0.3	AC-058	25-Jan-24
24010094-002	Benzene	I	0.07	ppbv	0.03	AC-058	25-Jan-24
24010094-002	Benzyl chloride	K, T, U	< 0.3	ppbv	0.3	AC-058	25-Jan-24
24010094-002	Bromodichloromethane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	Bromoform	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	Bromomethane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	Carbon disulfide	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	Carbon tetrachloride	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	Chlorobenzene	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24

Report certified by: Andrea Conner, Admin Assistant

Date: February 13, 2024

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <https://directory.cala.ca/> LAB-PRAMP-202401

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

<b>CLIENT SAMPLE ID</b>	<b>CANISTER ID</b>	<b>Matrix</b>	<b>DATE SAMPLED</b>
PRAMP_Reno-20240114-Blank	A47802	Ambient Air	14-Jan-24 8:10
<b>DESCRIPTION:</b>	NMHC Blank		
<b>REPORT NUMBER:</b>	24010094	<b>REPORT CREATED:</b>	13-Feb-24
			<b>VERSION</b> Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
24010094-002	Chloroethane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	Chloroform	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	Chloromethane	K, T, U	< 0.04	ppbv	0.04	AC-058	25-Jan-24
24010094-002	cis-1,2-Dichloroethene	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	cis-1,3-Dichloropropene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	cis-2-Butene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	cis-2-Pentene	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	Cyclohexane	I	0.12	ppbv	0.04	AC-058	25-Jan-24
24010094-002	Cyclopentane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	Dibromochloromethane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	Ethanol	K, T, U	< 0.5	ppbv	0.5	AC-058	25-Jan-24
24010094-002	Ethyl acetate	K, T, U	< 0.3	ppbv	0.3	AC-058	25-Jan-24
24010094-002	Ethylbenzene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	Freon-11	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	Freon-113	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	Freon-114	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	Freon-12	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	Hexachloro-1,3-butadiene	K, T, U	< 0.3	ppbv	0.3	AC-058	25-Jan-24
24010094-002	Isobutane	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	Isopentane	K, T, U	< 0.04	ppbv	0.04	AC-058	25-Jan-24
24010094-002	Isoprene	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	Isopropyl alcohol	K, T, U	< 0.3	ppbv	0.3	AC-058	25-Jan-24
24010094-002	Isopropylbenzene	K, T, U	< 0.04	ppbv	0.04	AC-058	25-Jan-24
24010094-002	m,p-Xylene	K, T, U	< 0.04	ppbv	0.04	AC-058	25-Jan-24
24010094-002	m-Diethylbenzene	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24

Report certified by: Andrea Conner, Admin Assistant

Date: February 13, 2024

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <https://directory.cala.ca/> LAB-PRAMP-202401

<b>CLIENT SAMPLE ID</b>	<b>CANISTER ID</b>	<b>Matrix</b>	<b>DATE SAMPLED</b>
PRAMP_Reno-20240114-Blank	A47802	Ambient Air	14-Jan-24 8:10
<b>DESCRIPTION:</b>	NMHC Blank		
<b>REPORT NUMBER:</b>	24010094	<b>REPORT CREATED:</b>	13-Feb-24
			<b>VERSION</b> Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
24010094-002	m-Ethyltoluene	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	Methyl butyl ketone	K, T, U	< 0.4	ppbv	0.4	AC-058	25-Jan-24
24010094-002	Methyl ethyl ketone	K, T, U	< 0.3	ppbv	0.3	AC-058	25-Jan-24
24010094-002	Methyl isobutyl ketone	K, T, U	< 0.3	ppbv	0.3	AC-058	25-Jan-24
24010094-002	Methyl methacrylate	K, T, U	< 0.08	ppbv	0.08	AC-058	25-Jan-24
24010094-002	Methyl tert butyl ether	K, T, U	< 0.03	ppbv	0.03	AC-058	25-Jan-24
24010094-002	Methylcyclohexane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	Methylcyclopentane	K, T, U	< 0.05	ppbv	0.05	AC-058	25-Jan-24
24010094-002	Methylene chloride	K, T, U	< 0.3	ppbv	0.3	AC-058	25-Jan-24
24010094-002	n-Butane	I	0.05	ppbv	0.02	AC-058	25-Jan-24
24010094-002	n-Decane	K, T, U	< 0.06	ppbv	0.06	AC-058	25-Jan-24
24010094-002	n-Dodecane	K, T, U	< 0.3	ppbv	0.3	AC-058	25-Jan-24
24010094-002	n-Heptane	I	0.12	ppbv	0.04	AC-058	25-Jan-24
24010094-002	n-Hexane	I	0.12	ppbv	0.03	AC-058	25-Jan-24
24010094-002	n-Octane	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	n-Pentane	I	0.04	ppbv	0.04	AC-058	25-Jan-24
24010094-002	n-Propylbenzene	K, T, U	< 0.06	ppbv	0.06	AC-058	25-Jan-24
24010094-002	n-Undecane	K, T, U	< 0.5	ppbv	0.5	AC-058	25-Jan-24
24010094-002	Naphthalene	K, T, U	< 0.3	ppbv	0.3	AC-058	25-Jan-24
24010094-002	n-Nonane	K, T, U	< 0.04	ppbv	0.04	AC-058	25-Jan-24
24010094-002	o-Ethyltoluene	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	o-Xylene	I	0.07	ppbv	0.03	AC-058	25-Jan-24
24010094-002	p-Diethylbenzene	K, T, U	< 0.02	ppbv	0.02	AC-058	25-Jan-24
24010094-002	p-Ethyltoluene	K, T, U	< 0.04	ppbv	0.04	AC-058	25-Jan-24
24010094-002	Styrene	K, T, U	< 0.04	ppbv	0.04	AC-058	25-Jan-24

Report certified by: Andrea Conner, Admin Assistant

Date: February 13, 2024

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <https://directory.cala.ca/> LAB-PRAMP-202401

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

E-mail: EAS.Results@innotechalberta.ca

<b>CLIENT SAMPLE ID</b> PRAMP_Reno-20240114-Blank		<b>CANISTER ID</b> A47802	<b>Matrix</b> Ambient Air	<b>DATE SAMPLED</b> 14-Jan-24 8:10
<b>DESCRIPTION:</b>	NMHC Blank			
<b>REPORT NUMBER:</b>	24010094	<b>REPORT CREATED:</b>	13-Feb-24	<b>VERSION</b> Version 01

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
24010094-002	Tetrachloroethylene	K, T, U	< 0.02 ppbv	0.02	AC-058	25-Jan-24
24010094-002	Tetrahydrofuran	K, T, U	< 0.3 ppbv	0.3	AC-058	25-Jan-24
24010094-002	Toluene	K, T, U	< 0.03 ppbv	0.03	AC-058	25-Jan-24
24010094-002	trans-1,2-Dichloroethylene	K, T, U	< 0.06 ppbv	0.06	AC-058	25-Jan-24
24010094-002	trans-1,3-Dichloropropylene	K, T, U	< 0.02 ppbv	0.02	AC-058	25-Jan-24
24010094-002	trans-2-Butene	K, T, U	< 0.03 ppbv	0.03	AC-058	25-Jan-24
24010094-002	trans-2-Pentene	K, T, U	< 0.02 ppbv	0.02	AC-058	25-Jan-24
24010094-002	Trichloroethylene	K, T, U	< 0.02 ppbv	0.02	AC-058	25-Jan-24
24010094-002	Vinyl acetate	K, T, U	< 0.3 ppbv	0.3	AC-058	25-Jan-24
24010094-002	Vinyl chloride	K, T, U	< 0.02 ppbv	0.02	AC-058	25-Jan-24

Report certified by: Andrea Conner, Admin Assistant

Date: February 13, 2024

InnoTech's ISO/IEC 17025:2017 scope of accreditation can be located at <https://directory.cala.ca/> LAB-PRAMP-202401

On behalf of: Adam Malcolm, Manager, Chemical Testing

Inquiries: (780) 632 8403

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
24010094	01	13-Feb-24	Report created

**Methods**

<b>Method</b>	<b>Description</b>
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

**List of Analytical Method IDs within InnoTech's ISO/IEC 17025:2017 CALA Scope of Accreditation**

Method ID	Description
AC-013	Mercury in Waters by Cold Vapor Atomic Fluorescence Detection (CVAFS)
AC-020	Ion Chromatographic Procedures using the Dionex ICS 3000 and 5000 Systems
AC-021	Elemental Analysis Methodology of Filter-collected Airborne Particulate Matter (PM) by ICP-MS
AC-026	Ion Chromatographic Procedures using the Dionex ICS 3000 and 5000 Systems
AC-029	Procedure for the Equilibration and Weighing of Membrane Filters and PUFs on the Mettler Toledo Micro Balance
AC-035	Analysis of Glyphosate, Aminomethylphosphonic Acid and Glufosinate in Water
AC-038	Trace Metal Analysis of Water Samples by ICP-MS
AC-048	Specific Conductance (Conductivity Meter Method)
AC-049	pH (Meter Method)
AC-054	Alkalinity Total and Phenolphthalein
AC-058	Determination of Volatile Organic Compounds in Ambient Air by Gas Chromatography Mass Spectrometry
AC-060	Trace Metal Analysis of Soil Sediment and Industrial Waste Samples by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)
AC-061	Trace Metal Analysis for Biological Samples by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)
AC-065	Analysis of Naphthenic Acids in Water by HPLC-Orbitrap-MS analysis
AC-074	Pesticides in Water
AC-079	Alkylated PAH in Soil and Sediment
AC-080	Alkylated PAH in Water (SPE Extraction)
NA-006	Determination of BTEX, F1 Hydrocarbons and F2, F3 and F4 Hydrocarbons in Water
NA-024	Analysis of Reduced Sulfur Compounds in Air



## 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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Canada T9C 1T4  
(780) 632-8211

## ENVIRONMENTAL ANALYTICAL SERVICES

### TEST REPORT

Page 16 of 18

### Order Comments

24010094

Send results to [pramptech@prampairshed.ca](mailto:pramptech@prampairshed.ca)



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Vegreville, Alberta  
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## ENVIRONMENTAL ANALYTICAL SERVICES

### TEST REPORT

Page 17 of 18

### Sample Comments



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## ENVIRONMENTAL ANALYTICAL SERVICES

### TEST REPORT

Page 18 of 18

### **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.*

## Passive Sampling Analytical Results





Your Project #: 2023/12/29-2024/02/01  
Site Location: PEACE RIVER COMPLEX

**Attention: Michael and Lily**

Peace River Area Monitoring Program Committee  
Three Creeks  
Suite 91, 305 –  
4625 Varsity Drive NW  
Calgary, AB  
CANADA T3A0Z9

**Report Date: 2024/02/14**  
Report #: R3463093  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BUREAU VERITAS JOB #: C407735**

**Received: 2024/02/05, 08:00**

Sample Matrix: Air  
# Samples Received: 12

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
H2S Passive Analysis	12	2024/02/06	2024/02/09	PTC SOP-00150	Passive H2S in ATM
SO2 Passive Analysis	12	2024/02/05	2024/02/09	PTC SOP-00149	Passive SO2 in ATM

This report shall not be reproduced except in full, without the written approval of the laboratory.  
Results relate only to the items tested.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key 

Rowena Geron  
Customer Service Associate  
14 Feb 2024 08:35:14

Please direct all questions regarding this Certificate of Analysis to:  
Customer Service Passives,  
Email: PassiveAir@bureauveritas.com  
Phone# (780) 378-8500

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Branko Banjac, General Manager responsible for Alberta Petroleum laboratory operations.



BUREAU  
VERITAS

Bureau Veritas Job #: C407735  
Report Date: 2024/02/14

Peace River Area Monitoring Program Committee  
Client Project #: 2023/12/29-2024/02/01  
Site Location: PEACE RIVER COMPLEX

### RESULTS OF CHEMICAL ANALYSES OF AIR

Bureau Veritas ID		CIP524	CIP525	CIP526	CIP527	CIP528	CIP529	CIP530		
Sampling Date		2023/12/29 08:00	2023/12/29 08:00	2023/12/29 08:00	2023/12/29 08:00	2023/12/29 08:00	2023/12/29 08:00	2023/12/29 08:00		
	UNITS	1	2	3	4	7	8	9	RDL	QC Batch

Passive Monitoring										
Calculated H2S	ppb	0.15	0.21	0.25	0.23	0.34	0.73	0.42	0.02	B275961
Calculated SO2	ppb	0.6	0.4	0.5	0.4	0.3	0.4	0.2	0.1	B274831
RDL = Reportable Detection Limit										

Bureau Veritas ID		CIP531	CIP532	CIP533	CIP534	CIP535		
Sampling Date		2023/12/29 08:00	2023/12/29 08:00	2023/12/29 08:00	2023/12/29 08:00	2023/12/29 11:00		
	UNITS	10	11	12	13	14	RDL	QC Batch

Passive Monitoring									
Calculated H2S	ppb	0.31	0.21	0.44	0.20	0.31	0.02	B275961	
Calculated SO2	ppb	0.4	0.3	0.3	0.3	0.3	0.1	B274831	
RDL = Reportable Detection Limit									





**BUREAU  
VERITAS**

Bureau Veritas Job #: C407735  
Report Date: 2024/02/14

Peace River Area Monitoring Program Committee  
Client Project #: 2023/12/29-2024/02/01  
Site Location: PEACE RIVER COMPLEX

### GENERAL COMMENTS

Results relate only to the items tested.



### QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
B274831	OZ	Spiked Blank	Calculated SO2			101	%	90 - 110
B274831	OZ	Method Blank	Calculated SO2		<0.1		ppb	
B275961	YYA	Spiked Blank	Calculated H2S			100	%	90 - 110

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.



BUREAU  
VERITAS

Bureau Veritas Job #: C407735  
Report Date: 2024/02/14

Peace River Area Monitoring Program Committee  
Client Project #: 2023/12/29-2024/02/01  
Site Location: PEACE RIVER COMPLEX

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

---

Steven Gloux, Senior Analyst

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Branko Banjac, General Manager responsible for Alberta Petroleum laboratory operations.

End of Report