



**WOOD BUFFALO
ENVIRONMENTAL ASSOCIATION**

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Wood Buffalo Environmental Association

JULY 2026 MONTHLY REPORT

CONTINUOUS MONITORING

August 31, 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association





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August 31, 2026

Director, Environmental Monitoring and Evaluation Branch
Alberta Environment and Protected Areas
11th Floor, Oxbridge Place
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Edmonton, Alberta T5K 2J6

RE: Monthly Ambient Air Quality Monitoring Report July 2026
Wood Buffalo Environmental Association

Enclosed is the July 2026 Ambient Air Quality Monitoring Report for the continuous ambient air quality monitoring stations of the Wood Buffalo Environmental Association (WBEA) regional air quality monitoring network. The WBEA works closely with Alberta Environment and Protected Areas (AB EPA) and funding for this work was provided by the Oil Sands Monitoring Program (OSM). It is independent of any position of the OSM Program.

The continuous ambient air quality monitoring network stations are:

AMS 01 – Bertha Ganter – Fort McKay	AMS 21 – Conklin
AMS 03 – Lower Camp (Meteorology)	AMS 22 – Janvier
AMS 04 – Buffalo Viewpoint	AMS 23 – Fort Hills
AMS 05 – Mannix	AMS 25 – Waskōw ohci Pimâtisiwin
AMS 06 – Patricia McInnes	AMS 27 – Jackfish 2/3
AMS 07 – Athabasca Valley	AMS 29 – Surmont 2
AMS 08 – Fort Chipewyan	AMS 30 – Ells River
AMS 09 – Barge Landing	AMS 31 – Blackrod
AMS 11 – Lower Camp (Air Quality)	AMS 32 – Pihew Point
AMS 13 – Fort McKay South	AMS 33 – Monday Creek
AMS 14 – Anzac	AMS 34 – Hangingstone Expansion
AMS 17 - Wapasu	AMS 505 – Sawbones Bay
AMS 18 – Stony Mountain	AMS 506 – Jackfish 1
AMS 19 – Firebag	AMS 508 – Kirby North
AMS 20 – MacKay River	



The WBEA submits this report on behalf of its members and for some members to satisfy the requirements contained in their EPEA Approvals (as amended):

Industry Operators		EPEA Approval No.
Athabasca Oil Operations		289664-01-00; 241311-01-00
Canadian Natural		153125-01-00; 20809-02-00; 149968-01-05; 224816-01-00; 237382-01-00; 308463-00-00
Cenovus Energy Inc.		48522-02-00; 206355-01-00
Chemtrade Logistics		404827-00-00
CNOOC International		137467-01-00, 236394-01-00
Connacher Oil and Gas Ltd.		240008-01-00
ConocoPhillips Company		48263-01-00
Greenfire Resources Operating Corporation		153105-01-00
Hammerstone Infrastructure Materials Ltd.		189942-01-00
Harvest Operations Corp.		246984-01-00
Imperial Oil Limited		46586-01-00
Inter Pipeline Limited		73203-02-00
IPC Canada Ltd.		301778-00-01
Keyera Energy Ltd.		187-03-03; 462683-00-00
MEG Energy Corp.		216466-01-00
Parsons Creek Aggregates		231302-00-00
PetroChina Canada Ltd.		254465-01-00
Suncor Energy Inc.		94-03-00; 80105-01-00; 151469-01-00; 48408-02-00
Surmont Energy		318401-00-00
Syncrude Canada Ltd.		26-03-00
Titan Tire Reclamation Corporation		364232-00-00
Government and Non-Government Organizations		
Alberta Energy Regulator		Health Canada
Alberta Environment and Protected Areas		Keyano College
Alberta Primary and Preventative Health Services		Parks Canada
Alberta Health Services		Regional Municipality of Wood Buffalo
Environment and Climate Change Canada		Lac La Biche County
Indigenous Communities		
Athabasca Chipewyan First Nation		Fort McKay Métis Nation
Chard Métis Nation		Fort McMurray 468 First Nation
Chipewyan Prairie Dene First Nation		Lakeland Métis Nation
Christina River Dene Nation Council		McMurray Métis
Conklin Métis		Mikisew Cree First Nation
Fort Chipewyan Métis Nation		Tthebatthie Denesųliné Nation (TDN)
Fort McKay First Nation		Willow Lake Métis Nation

Continuous Monitoring Network

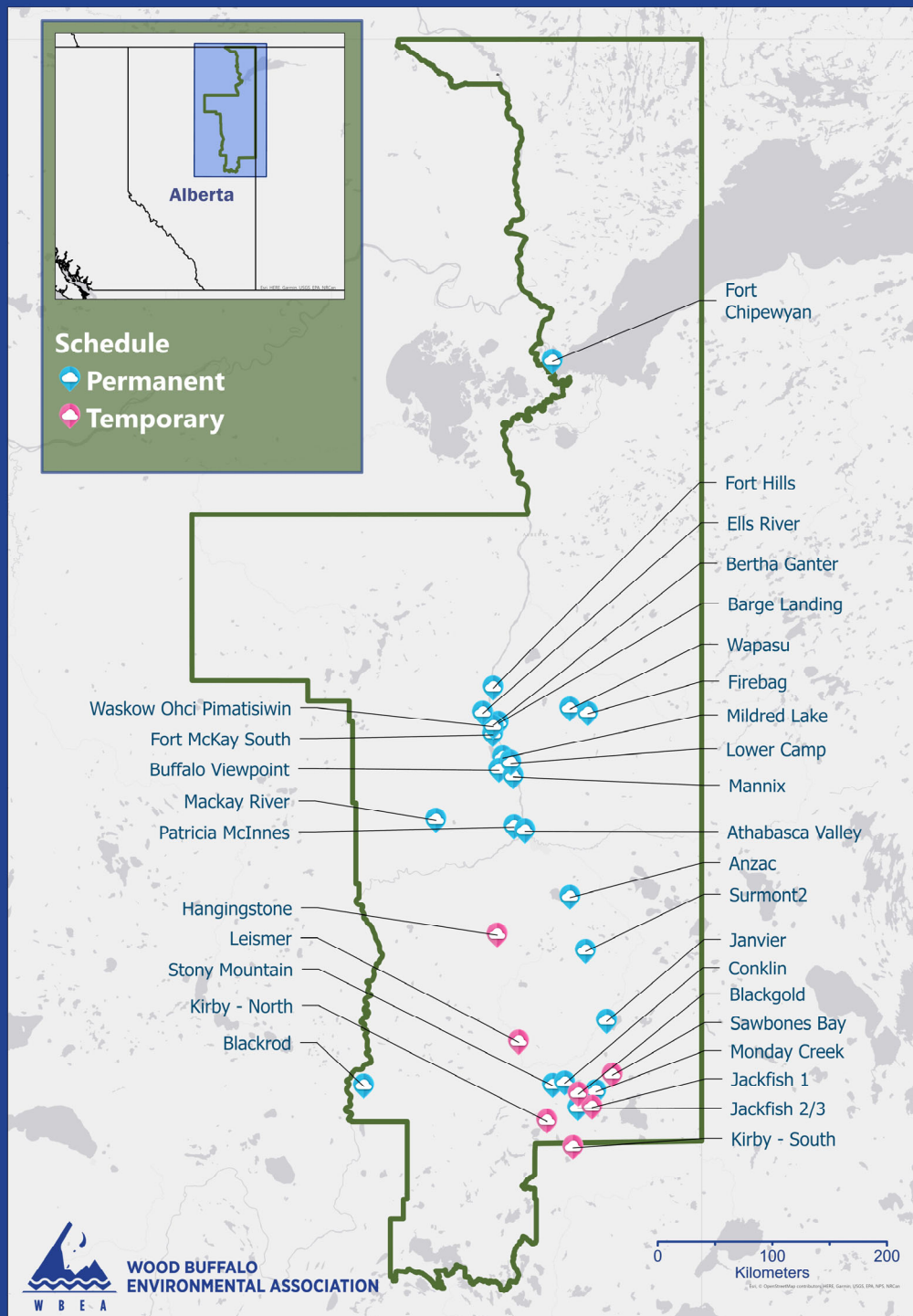


Figure 1. Map of WBEA Continuous Monitoring Network

The following operational notes are provided as per the Air Monitoring Directive requirements.

1.0 Concentrations in Excess of Alberta Ambient Air Quality Guidelines and Objectives

There were no ambient concentrations in excess of the Alberta Ambient Air Quality Objectives or Guidelines (AAAQO/AAAQG) as indicated in the Air Monitoring Directive Section RC 15-F for CO, NH₃, NO₂, O₃, and SO₂.

There were seven ambient ground-level concentrations in excess of the 1-hour H₂S objective reported to AB EPA; following data validation and processing, six exceedances were confirmed.

There were four hundred and fourteen ambient ground-level concentrations in excess of the 1-hour PM_{2.5} guideline reported to AB EPA; following data validation and processing, the exceedances were confirmed.

There were eighty-eight ambient ground-level concentrations in excess of the 24-hour PM_{2.5} objective reported to AB EPA; following data validation and processing, eighty-six exceedances were confirmed.

There were twenty-six ambient ground-level concentrations in excess of the 30-minute guideline reported to AB EPA; following data validation and processing, seven exceedances were confirmed.

A detailed summary of ambient concentrations in excess of the Alberta Ambient Air Quality Objectives (AAAQOs) and Ambient Air Quality Guidelines (AAAQGs), including site, parameter, date & time, reference number, exceedance period, reported and final concentration and status, are included in Appendix I of the report.

2.0 Data Processing and Validation

Concentrations reported in near real-time are raw values. The final values are determined after processing data for reporting. For all parameters, except PM_{2.5}, the final 5-minute data values are determined by subtracting the daily zero responses, interpolated to the time of each raw 5-minute value, from the raw 5-minute data values. The PM_{2.5} analyzers do not have the capability of performing zeros; therefore, the raw 5-minute values are validated through a comparison with associated parameters at the same, or a nearby, AMS. The final 5-minute data values are then rounded to one decimal place greater than the reporting precision indicated in the Air Monitoring Directive (AMD). The final 1-hour data values are calculated from final 5-minute data values and then rounded to reporting precision. The final 24-hour data values are calculated from the final 1-hour values.

After data processing and validation, NO₂ concentrations are re-calculated from baseline-corrected NO_x and NO concentrations. Specifically, the NO concentration is subtracted from the NO_x concentration to determine the NO₂ concentration.

2.1 Revisions to ETS Electronic Transfer System – Data and Monthly Reports

There were no revisions to historical data stored in the Electronic Transfer System with this monthly report.



3.0 Operational Status

3.1 Continuous Monitoring

In July 2026, there were 5 instances of monitoring instruments operating less than 90% of the time.

Station	Parameter	Details
AMS 7	TRS	The TRS analyzer at the Athabasca Valley AMS operated for less than 90% of July 2026, which is a contravention of the Air Monitoring Directive (AMD) (2016, as amended), Chapter 6, Clause DQ 4-C. This incident was verbally reported to Alberta Environment and Protected Areas (AEPA) on July 17, 2026 (reference number 456237). The daily spans for the TRS analyzers failed to meet the Air Monitoring Directive (AMD) performance criteria for multiple days starting on July 3, 2026. A maintenance visit was conducted during which the scrubber beads were replaced and instrument was calibrated. Following these correction actions, the span response continued to be outside criteria, and a slight baseline shift was observed. Further troubleshooting was performed on July 9, during which it was determined that the internal pump was not operating properly. The pump was replaced; however, the analyzer performance did not improve. As the issues persisted, the analyzer was subsequently replaced, and normal operations were restored on July 10 at 16:00 MST. During data validation, data were invalidated back to the last acceptable daily span from July 2, resulting in 174 hours of invalid data. The final operational uptime for July 2026 will be confirmed upon completion of the monthly data validation process.
AMS 3	AT/RH, WS/WD/VWS	The RH, AT, WS/WD/VWS at the 20-, 45-, 100-, and 163-meter elevations at Lower Camp Met Tower operated less than 90% of July 2026, which is a contravention of the Air Monitoring Directive (AMD) (2016, as amended), Chapter 6, Clause DQ 4-C. This incident was verbally reported to Alberta Environment and Protected Areas (AB EPA) on July 20, 2026 (reference number 456389). In July 2026, the Lower Camp Met Tower experienced a prolonged power outage after overhead power lines were damaged during a severe storm. Although temporary power was restored, the meteorological sensors remained offline due to a failed 24-volt power supply and suspected lightning-related damage to the data logger and/or tower-mounted equipment. Following data validation, at least 178 hours of data were invalidated for each sensor at the elevations noted above. The operational time for each sensor will be provided in the July 2026 monthly report.
AMS 18	PM _{2.5}	The PM_{2.5} analyzer at the Stony Mountain AMS operated for less than 90% of the time in July 2026, which is a contravention of the Air Monitoring Directive (AMD) (2016, as amended), Chapter 6, Clause DQ 4-C. This incident was verbally reported to Alberta Environment and Protected Areas (AB EPA) on August 12, 2026 (reference number 457466). Routine daily system checks identified intermittent communication failures between the PM_{2.5} analyzer and the station data logger, resulting in periods where valid PM_{2.5} data were not recorded. Throughout July, WBEA conducted troubleshooting activities to investigate the issue. These activities included remote analyzer reboots, installation of a smart plug to remotely reset power to the analyzer, and modifications to the data logger configuration. The communication issue was eventually resolved following the installation of a new data logger device. During the data validation process, 227 hours of data were invalidated which resulted in 69% operational time for the month of July.
AMS 13	TRS	The TRS analyzer at the Fort McKay South AMS operated for less than 90% of July 2026, which is a contravention of the Air Monitoring Directive (AMD) (2016, as amended), Chapter 6, Clause DQ 4-C. This incident was verbally reported to Alberta Environment and Protected Areas (AB EPA) on August 13, 2026 (reference number 457493). The daily QA checks for the TRS analyzer fell outside of AMD criteria on July 18 to 20. During the monthly calibration on July 20, the multi-point as-found response also fell out of AMD criteria. Data was invalidated back to the last acceptable span on July 17, resulting in 79 hours of downtime. Following the maintenance on July 20, a portable air conditioning (AC) unit was installed in the station to help maintain the temperature. The output of the AC unit was directed directly at the TRS analyzer causing a decrease in chamber temperature and affecting analyzer response. Maintenance was done on July 21 to move the AC unit and verify the response of the TRS analyzer. Data was invalidated to July 20, resulting in an additional 22 hours of downtime. During the month of July, there was a total of 101 hours of invalidated data; the final operational uptime for July 2026 was 86.0%.
AMS 8	TRS	The TRS analyzer at the Fort Chipewyan AMS operated for less than 90% of the time in July 2026, which is a contravention of the Air Monitoring Directive (AMD) (2016, as amended), Chapter 6, Clause DQ 4-C. This incident was verbally reported to Alberta Environment and Protected Areas (AB EPA) on August 20, 2026 (reference number 457802).



From July 17 through 24, the daily QA check failed to meet AMD operational criteria for multiple consecutive days. Remote QA check conducted on July 21 showed slow response times in reaching the target. During the routine calibration on July 24, the multi-point “as found” results did not meet AMD acceptance criteria. To address this, the SO₂ scrubber beads were replaced on July 24, which improved the TRS analyzer response. Following the replacement, a multi-point calibration was performed to verify the analyzer’s operation. During data validation, WBEA invalidated data back to the last good span check on July 16.

Following the maintenance, the low TRS span response persisted for a few days; however, remote QA checks on July 25 and 28 were within compliance. It is worth noting that during this period, the combination of high humidity and wildfire smoke likely affected the analyzer’s performance. In total, 207 hours were flagged as invalid data or maintenance resulting in 72% uptime for the month of July 2026.

3.2 Intermittent Monitoring

The results for time-integrated sampling of dustfall, precipitation, PAH, TSP, VOC, PM_{2.5} ECOC, PM_{2.5}, and PM₁₀ will be submitted in the 2026 Annual Report.

3.3 General Network Notes

The Ammonia (NH₃) analyzer currently operates on a 0 to 2500 ppb operating range with a detection level of 5 ppb in the WBEA network. In data processing, values less than five ppb have been considered below detection levels and are reported as zero.

Total hydrocarbon (THC), non-methane hydrocarbon (NMHC), and methane (CH₄) measurements are collected at some air monitoring stations in the WBEA network using the Thermo Environmental model 55i direct THC/CH₄/NMHC analyzer. This analyzer uses a Gas Chromatography (GC) based system, which resets the baseline value at the start of every run. This may cause the ambient background to indicate a response below the expected 1.8 ppm background level. When all measurable criteria indicate valid data during the QAQC and validation process, the data is reported without any additional flags. However, a response below the expected 1.8 ppm triggers an investigation of the analyzer to determine if there is an issue.

Monitoring notes, including changes to monitoring locations, methods, or equipment, and any reporting or monitoring irregularities, for the continuous monitoring stations, are provided on a station-by-station basis. Notes of each interrupted event are provided in chronological order, and meteorological parameters are mentioned last.

In December 2024, the Wood Buffalo Environmental Association began reporting the new Alberta Ambient Air Quality Guideline for Total Reduced Sulfur (TRS) which is a 30-minute average limit of 5 ppb to be used for odour management.

The WBEA is reporting PM_{2.5} exceedances of the Alberta Ambient Air Quality Guideline and Objective (AAAQG&O) as per the Alberta Environment and Protected Areas Temporary Airshed Wildfire Bulk Reporting Protocol, effective from April 1 to October 31. This protocol requires only monthly notification of exceedances of the 24-hour AAAQO, removing the requirement for immediate notification and 7-day follow-up reports during this period. Fort Hills and Ells River air monitoring stations are included in this protocol for wildfire-related exceedances; however, for exceedances not attributed to wildfire smoke,



these stations will continue to follow their site-specific reporting protocols as directed by the Alberta Energy Regulator.

Station 1, Bertha Ganter – Fort McKay

The NH₃ analyzer required additional time to stabilize to levels below ambient concentrations following the automated daily spans and routine monthly multipoint calibrations. Additional time is required for stabilization after exposure to high concentrations of NH₃ gas, and this is an inherent behavior in the NH₃ analyzer operations due to the properties of the NH₃ gas. Data for 1-2 hours following the daily spans have been reported as invalid for a total of 61 hours this month.

Failure to record data of the PM_{2.5} analyzer on July 5 and 12 resulted in 2 hours of invalid data.

Station power failures from July 8 to July 14 interrupted the normal operations of all air quality analyzers and precipitation collector for 3-27 hours.

Unstable operation due to dead converter of the H₂S analyzer on July 8 to 9 resulted in 15 hours of invalid data. Subsequent maintenance to reset the converter and verify daily QA response on July 9 resulted in additional 3 hours of downtime.

Maintenance to replace the zero-air generator interrupted the normal operation of the THC/NMHC/CH₄ analyzer on July 27 resulted in 2 hours of downtime.

Surface Leaf Wetness sensor operated out of range on July 8 and 28 resulting in 2 hours of invalid data.

Maintenance to replace the relative humidity and external temperature sensors on July 24 resulted in 1 hour of downtime.

Unstable operation due to inconsistent response of the relative humidity and external temperature sensors July 24 to 25 resulted in 25 hours of invalid data.

Maintenance due to station operator activity on July 25 interrupted the normal operations of WS/WD resulting in 1 hour of downtime.

Station 3, Lower Camp – Meteorology

Station power failure from July 8 to July 30 interrupted the normal operations of all meteorological sensors at 20-, 45-, 100- and 163-meter elevations for 456 hours.

Flatlines in the output signal of the vertical wind speed, wind speed, wind direction at 100-meter elevation throughout the month resulted in 296 hours of downtime.

Flatlines in the output signal of the vertical wind speed, wind speed, wind direction at 163-meter elevation throughout the month resulted in 296 hours of downtime.

Station 4, Buffalo Viewpoint

Cleaning of the manifold on July 31 interrupted the normal operation of all gaseous analyzers for 1 hour.



Unstable operations due to excessive baseline noise of the NO/NO₂/NO_x analyzer on July 15 to 17 resulted in 55 hours of invalid data.

Station 5, Mannix

Maintenance to reset station logger or modem on July 8 interrupted the normal operation of all gaseous analyzers for 1 hour.

Cleaning of the manifold on July 13 interrupted the normal operation of all gaseous analyzers for 1 hour.

Failure to record data of all meteorological sensors at all elevations on July 16 resulted in 1 hour of invalid data.

Flatline in the output signal of the vertical wind speed, wind speed, wind direction at 20-meter elevation throughout the month resulted in 1 hour of downtime.

Flatline in the output signal of the vertical wind speed, wind speed, wind direction at 90-meter elevation throughout the month resulted in 2 hours of downtime.

Station 6, Patricia McInnes

The NH₃ analyzer required additional time to stabilize to levels below ambient concentrations following the automated daily spans and routine monthly multipoint calibrations. NH₃ analyzers require additional time for stabilization after being exposed to high concentrations, this is due to the physical properties of the NH₃ gas. Data for 2-3 hours following each daily span has been reported as invalid for a total of 75 hours this month.

Analyzer failure due to a defective sample pump of the THC/NMHC/CH₄ analyzer on July 8 and 9 resulted in 29 hours of invalid data.

Maintenance to verify the daily QA check response of the TRS analyzer on July 9, 18, and 25 resulted in a total of 6 hours of downtime.

Maintenance to adjust the retention windows of the THC/NMHC/CH₄ analyzer on July 10 resulted in 3 hours of downtime.

Cleaning of the manifold on July 21 interrupted the normal operation of the NO/NO₂/NO_x, O₃, SO₂, THC/NMHC/CH₄, and TRS analyzers for 1 hour.

Station operator activities on July 22 and 23 interrupted the normal operation of the O₃ analyzers for 13 hours.

Maintenance to replace sample pump of the TRS analyzer on July 23 resulted in 11 hours of downtime.

Maintenance to replace the converter for the TRS analyzer on July 27 resulted in 13 hours of downtime.

The relative humidity sensor operated out of range on July 27 and 29 resulted in 7 hours of invalid data.



Note: Ambient conditions such as extreme cold and dry weather affected the span checks performance of the TRS analyzer, resulting in non-compliance with AMD daily QA/QC criteria on several days.

Station 7, Athabasca Valley

Analyzer failure due to inconsistent response of the TRS analyzer during daily QA checks from July 3 to 6 resulted in a total of 76 hours of invalid data.

Analyzer failure due to a defective sample pump of the TRS analyzer from July 6 to 9 resulted in a total of 67 hours of invalid data. Subsequent maintenance to recalibrate the TRS analyzer on July 9 resulted in 25 hours of downtime.

Station power failure on July 15 interrupted the normal operation of all air quality analyzers for 6 hours.

Maintenance to replace the TRS analyzer on July 20 resulted in 2 hours of downtime.

Unstable operations due to excessive baseline drift of the CO analyzer on July 23 resulted in 1 hour of invalid data.

Cleaning of the manifold on July 24 interrupted the normal operation of all gaseous analyzers for 1 hour.

Maintenance to replace the support gas cylinder of the THC/NMHC/CH₄ analyzer on July 31 resulted in 2 hours of downtime.

Station power failure on July 15 and 16 interrupted the normal operation of the barometric pressure for 18 hours.

Station 8, Fort Chipewyan

Station power failure on July 10 interrupted the normal operation of all air quality analyzers for 1 hour.

Unstable operation due to inconsistent response of the TRS analyzer on July 16-24 resulted in 194 hours of invalid data. Subsequent maintenance to verify the daily QA check response of TRS analyzer on July 17, 21, 23, 25, and 28 resulted in a total of 13 hours of downtime.

Cleaning of the manifold on July 23 interrupted the normal operation of the NO/NO₂/NO_x, O₃, SO₂ and TRS analyzers for 2 hours.

A flatline in the output signal of the wind sensor on July 7 resulted in 1 hour of invalid data.

Automated daily zero-response checks of the O₃ analyzer did not meet WBEA's QC acceptance criteria for the month of July. Therefore, the calibrator zeros of June, July and August multi-point calibrations were used to validate the analyzer baseline response.

Note: Ambient conditions such as high humidity, dry air, or wildfire smoke affected the span check performance of the TRS analyzer, resulting in non-compliance with AMD daily QA/QC criteria on several days for the month of July.



Station 9, Barge Landing

Analyzer failure due to inconsistent response of the NO/NO₂/NO_x analyzer on July 8 to 10 resulted in 51 hours of invalid data. Subsequent maintenance to recalibrate and adjust zero and span the NO/NO₂/NO_x analyzer on July 14 resulted in 6 hours of downtime.

Maintenance to verify the daily QA check response of the SO₂ analyzer on July 9 resulted in 1 hour of downtime.

Cleaning of the manifold on July 10 interrupted the normal operation of the SO₂, THC/NMHC/CH₄ and TRS analyzers for 2 hours.

Station power failure on July 13 interrupted the normal operation of all air quality analyzers for 4 hours.

Station power failure on July 13 interrupted the normal operation of the NO/NO₂/NO_x analyzer for 1 hour.

Cleaning of the manifold on July 28 interrupted the normal operation of the NO/NO₂/NO_x and TRS analyzers for 1 hour.

A flatline in the output signal of the wind sensor on July 21 resulted in 1 hour of invalid data.

Note: The daily span check for all gaseous analyzers was outside the 10% AMD criteria on July 9 due to issue in the station calibrator.

Note: Ambient conditions such as extreme cold and dry weather affected the span checks performance of the TRS analyzer, resulting in non-compliance with AMD daily QA/QC criteria on July 3-19.

Station 11, Lower Camp

Unstable operations due to excessive baseline drift of the THC/NMHC/CH₄ analyzer on July 16 and 17 resulted in 14 hours of invalid data.

Cleaning of the manifold on July 27 interrupted the normal operation of the H₂S analyzer for 1 hour.

A flatline in the output signal of the wind sensor on July 11 and 20 resulted in 3 hours of invalid data.

Station 13, Fort McKay South

Failure to record data of the PM_{2.5} analyzer on July 1 resulted in 1 hour of invalid data.

Unstable operation due to excessive baseline noise of the PM_{2.5} analyzer on July 5 to 7 resulted in 43 hours of invalid data.

Station power failure on July 13 interrupted the normal operation of all analyzers for 3 hours.

Recovery of the baseline after the power failure on July 13 for the THC/NMHC/CH₄ analyzer resulted in 1 hour of downtime



Unstable operation on July 17 to 20 due to the daily QA checks on July 18 to 20 and the monthly multi-point as-found response on July 20 falling outside of AMD criteria, resulting in 79 hours of invalid data.

Unstable operation due to temperature fluctuations of the TRS analyzer on July 20 to 21 resulted in 19 hours of invalid data. Subsequent maintenance to fix the issue and verify the response resulted in 3 hours of downtime on July 21.

Station 14, Anzac

Daily zeros and spans of all gaseous analyzers were not triggered on July 4-6 due to interruption in the station calibrator configuration. Subsequent maintenance to verify the daily QA check response of all gaseous analyzers on July 5 and 6 resulted in 1-2 hours of downtime.

Unstable operation due to deteriorating pump of the THC/NMHC/CH₄ analyzer on July 28 and 29 resulted in 30 hours of invalid data. Subsequent maintenance to replace the internal pump on July 29 resulted in additional 4 hours of downtime.

Station 17, Wapasu

An internal audit on July 28 and 29 interrupted the normal operations of all air quality analyzers for 1 to 3 hours.

The relative humidity sensor operated out of range throughout the month resulting in 21 hours of invalid data.

Flatline in the output signal of the wind sensor on July 20 and 21 resulted in 2 hours of invalid data.

Station 18, Stony Mountain

Unstable operation due to intermittent flatlining of the PM_{2.5} analyzer throughout the month resulted in 227 hours of invalid data. Subsequent maintenance to install new data logger dedicated exclusively to the PM_{2.5} analyzer resulted in additional 3 hours of downtime.

Unstable operation due to excessive baseline noise of the THC/NMHC/CH₄ analyzer on July 6 and 7 resulted in 29 hours of invalid data.

Cleaning of the manifold on July 10 interrupted the normal operation of the O₃, SO₂, THC/NMHC/CH₄, and TRS analyzers for 1 hour.

Maintenance to verify the daily QA check response of the TRS analyzer on July 17, 24 and 26 resulted in 3 hours of downtime. Subsequent maintenance to replace TRS analyzer on July 28 resulted in additional 4 hours of downtime.

Unstable operation due to inconsistent response of the THC/NMHC/CH₄ analyzer on July 20 and 21 resulted in 13 hours of invalid data. Subsequent maintenance to replace the pump and the actuator of the THC/NMHC/CH₄ analyzer on July 21 resulted in additional 7 hours of downtime.



Note: Ambient conditions such as high humidity, dry air, or wildfire smoke affected the span check performance of the TRS analyzer, resulting in non-compliance with AMD daily QA/QC criteria on several days for the month of July.

Station 19, Firebag

No operational issues to report.

Station 20, MacKay River

No operational issues to report.

Station 21, Conklin

Unstable operation due to excessive baseline drift of the THC/NMHC/CH₄ analyzer on July 2 resulted in 7 hours of invalid data.

Station power failure on July 12 interrupted the normal operation of NO/NO₂/NO_x analyzer for 1 hour.

Cleaning of the manifold on July 29 interrupted the normal operation of NO/NO₂/NO_x, O₃, SO₂ and THC/NMHC/CH₄ analyzers for 1 hour.

The relative humidity sensor operated out of range throughout the month resulted in 14 hours of invalid data.

Station 22, Janvier

Failure to record data of the PM_{2.5} on July 2 and 29 resulted in 47 hours of invalid data.

Failure to record data of all parameters on July 17 resulted in 1 hour of invalid data.

Maintenance to verify the daily QA check response of the TRS analyzer on July 19 and 25 resulted in 4 hours of downtime.

Maintenance to replace the support gas cylinder of the THC/NMHC/CH₄ analyzer on July 22 resulted in 2 hours of downtime.

Cleaning of the manifold on July 29 interrupted the normal operation of the O₃, SO₂, THC/NMHC/CH₄, and TRS analyzers for 2 hours.

A flatline in the output signal of the wind sensor on July 1 and 31 resulted in 2 hours of invalid data.

Note: Ambient conditions such as high humidity, dry air, or wildfire smoke affected the span check performance of the TRS analyzer, resulting in non-compliance with AMD daily QA/QC criteria on several days for the month of July.



Station 23, Fort Hills

Unstable operation due to flatline in analyzer output signal of the PM_{2.5} analyzer on July 29 resulted in 4 hours of invalid data.

Flatlines in the output signal of the wind sensor on July 18 and from July 31 to August 1 resulted in 2 hours of invalid data.

Station 25, Waskōw ohci Pimâtisiwin

Station power failure on July 2 and 13 interrupted the normal operation of H₂S and SO₂ analyzers for 7 hours.

Cleaning of the manifold on July 8 interrupted the normal operation of H₂S analyzer for 2 hours.

Station 27, Jackfish 2/3

Cleaning of the manifold on July 21 interrupted the normal operation of the NO/NO₂/NO_x and SO₂ analyzers for 1 hour.

Station 29, Surmont 2

Failure to record data of the PM_{2.5} on Jul 15, 17, and 28 resulted in 49 hours of invalid data.

Cleaning of the manifold on July 23 interrupted the normal operation of NO/NO₂/NO_x, SO₂, and THC/NMHC/CH₄ analyzers for 1 hour.

Intermittent flatlines in the output signal of the wind sensor throughout the month resulted in 36 hours of invalid data.

Station 30, Ells River

Station power failure on July 13 interrupted the normal operations all air quality analyzers for 5 hours.

Maintenance to replace sample pump of the NO/NO₂/NO_x analyzer on July 14 resulted in 6 hours of downtime.

Unstable operation due to flatline in analyzer output signal of the PM_{2.5} analyzer on July 11, 18 and 25 resulted in 49 hours of invalid data.

Maintenance to verify the daily QA check response of the TRS analyzer on July 19 resulted in 1 hour of downtime.

Intermittent flatlines in the output signal of the wind sensor throughout the month resulted in 4 hours of invalid data.

Note: Ambient conditions such as extreme cold and dry weather affected the span check performance of the TRS analyzer, resulting in non-compliance with AMD daily QA/QC criteria on July 3, 18 to 20 and 26.



Station 31, Blackrod

Unstable operation due to flatline in analyzer output signal of the H₂S analyzer on July 1, 3, 4 and 5 resulted in 7 hours of invalid data.

Cleaning of the manifold on July 28 interrupted the normal operation of the H₂S, SO₂ and THC analyzers for 2 hours.

Station 32, Pihew Point

Cleaning of the manifold on July 2 interrupted the normal operation of the H₂S analyzer for 1 hour.

Station power failure on July 8 interrupted the normal operation of H₂S, SO₂, and THC/NMHC/CH₄ analyzers for 2 hours.

An internal audit on July 22 interrupted the normal operations of all air quality analyzers for 2 to 3 hours.

Cleaning of the manifold on July 31 interrupted the normal operation of the SO₂ and THC/NMHC/CH₄ analyzers for 2 hours.

Flatline in the output signal of the wind sensor on July 20 resulted in 1 hour of invalid data.

Station 33, Monday Creek

Cleaning of the manifold on July 27 interrupted the normal operation of the H₂S and SO₂ analyzers for 2 hours.

Flatline in the output signal of the wind sensor on July 22 and 27 resulted in 2 hours of invalid data.

Station 34, Hangingstone Expansion

Station power failures throughout the month interrupted the normal operation of all air quality analyzers for a total of 6 hours.

Station 505, Sawbones Bay

Station power failure on July 3 interrupted the normal operation of all analyzers for 2 hours.

Cleaning of the manifold on July 29 interrupted the normal operation of the H₂S and SO₂ analyzers for 1 hour.

Station 506, Jackfish 1

Note: The Jackfish 1 portable station commenced monitoring on July 1, 2026. Install calibrations were completed in June 2026 and files are included with routine monthly calibration files, in the monthly calibration report for July 2026.



Maintenance to verify the daily QA check response of the H₂S analyzer on July 25 and 28 resulted in 4 hours of downtime.

Maintenance to perform multi-point verification check on the H₂S analyzer on July 29 resulted in 5 hours of downtime.

Cleaning of the manifold on July 30 interrupted the normal operation of the H₂S and SO₂ analyzers for 1 hour.

Unstable operation due to inconsistent response of the NO/NO₂/NO_x analyzer on July 30 and 31 resulted in 17 hours of invalid data. Subsequent maintenance to replace NO/NO₂/NO_x analyzer on July 31 resulted in 6 hours of downtime.

Intermittent flatlines in the output signal of the wind sensor throughout the month resulted in 5 hours of invalid data.

Note: The daily span check of NO/NO₂/NO_x analyzer was outside the 10% AMD criteria on July 16 due to issue in the station calibrator and station temperature.

Note: Ambient conditions such as high humidity, dry air, or wildfire smoke affected the span check performance of the H₂S analyzer, resulting in non-compliance with AMD daily QA/QC criteria on July 23, 25, 28 and 29.

Station 508, Kirby North

Note: The Kirby North portable station commenced monitoring between July 6 and 8, 2026. The install calibration files are included with the routine calibration files in July 2026 calibration report.

No operational issues to report.



If additional information is required, please contact the Wood Buffalo Environmental Association at (780) 799-4420.

Yours sincerely,

Wood Buffalo Environmental Association

The representative of the Person Responsible for this monitoring program is Dianne McIsaac, Operations Manager, WBEA.

Level one (L1) data review was completed by the Field Technicians responsible for each respective air monitoring station. Level two (L2) data validation, report preparation, and submission were completed by Denny Estador, Karina Fenwick, Parampreet Kaur and Shawn Jansen Van Beek of WBEA. The WBEA has retained the services of Air Resource Specialists (ARS) to conduct Level three (L3) review on its behalf. Contact information for WBEA staff is included below.

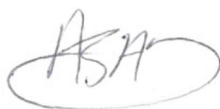
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I certify that I have reviewed and verified this report, and that the information is complete, accurate and representative of the monitoring results, reporting timeframe, and the specified analysis, summarization, and reporting requirements.



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R00_2607



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION
MONTHLY AIR MONITORING SUMMARY

	July 2026 Page 1 of 3 Created: Aug 27, 2026 13:15								
APPROVAL NUMBERS	REPORT DATE								
	MONTH	YEAR							
289664-00-00	7	2026							
241311-00-00	CONTINUOUS AMBIENT MONITORING								
20809-02-00									
149968-01-00				30-MIN AVERAGE		ONE-HOUR AVERAGE		24-HOUR AVERAGE	
237382-00-00	PARAMETER	STN. NO.	% TIME OPERATIONAL	MAXIMUM CONCENTRATION	NO. READINGS > REGULATION	MAXIMUM CONCENTRATION	NO. READINGS > REGULATION	MAXIMUM CONCENTRATION	NO. READINGS > REGULATION
240008-00-00	SO2(ppb)	1	99	-	-	20	0	2.9	0
48263-01-00	SO2(ppb)	4	100	-	-	16.8	0	1.9	0
224816-00-00	SO2(ppb)	5	100	-	-	26.9	0	2.7	0
151469-01-00	SO2(ppb)	6	100	-	-	11.4	0	1.8	0
189942-00-00	SO2(ppb)	7	99	-	-	10.1	0	2.2	0
206355-00-00	SO2(ppb)	8	100	-	-	1.7	0	0.5	0
46586-00-00	SO2(ppb)	9	99	-	-	20.0	0	2.1	0
73203-02-00	SO2(ppb)	11	100	-	-	24.5	0	4.0	0
216466-01-00	SO2(ppb)	13	100	-	-	28.9	0	3.5	0
137467-01-00	SO2(ppb)	14	100	-	-	5.3	0	0.6	0
236394-00-00	SO2(ppb)	17	100	-	-	30.1	0	3.5	0
254465-00-00	SO2(ppb)	18	100	-	-	2.4	0	0.6	0
094-03-00	SO2(ppb)	19	100	-	-	34.9	0	3.6	0
80105-01-00	SO2(ppb)	20	100	-	-	5.9	0	0.8	0
305529-00-00	SO2(ppb)	21	100	-	-	2.3	0	0.5	0
318401-00-00	SO2(ppb)	22	100	-	-	6.0	0	0.9	0
026-03-00	SO2(ppb)	23	100	-	-	12.2	0	2.1	0
364232-00-00	SO2(ppb)	25	99	-	-	19.2	0	2.6	0
228044-00-00	SO2(ppb)	27	100	-	-	24.9	0	4.6	0
247548-00-00	SO2(ppb)	29	100	-	-	5.3	0	1.1	0
231302-00-00	SO2(ppb)	30	99	-	-	16.3	0	2.8	0
246984-01-00	SO2(ppb)	31	100	-	-	2.9	0	0.9	0
153125-01-00	SO2(ppb)	32	99	-	-	117.2	0	12.0	0
	SO2(ppb)	33	100	-	-	9.1	0	1.6	0
	SO2(ppb)	34	99	-	-	15.6	0	4.2	0
	SO2(ppb)	505	100	-	-	30.4	0	9.4	0
	SO2(ppb)	506	100	-	-	12.4	0	2.4	0
	SO2(ppb)	508	100	-	-	6.7	0	1.5	0
	H2S(ppb)	1	93	-	-	5.3	0	1.4	0
	H2S(ppb)	4	100	-	-	6.6	0	0.8	0
	H2S(ppb)	5	100	-	-	11.4	3	2.1	0
	H2S(ppb)	11	100	-	-	9.9	0	2.2	0
	H2S(ppb)	17	100	-	-	1.6	0	0.6	0
	H2S(ppb)	19	100	-	-	5.0	0	0.5	0
	H2S(ppb)	20	100	-	-	1.3	0	0.7	0
	H2S(ppb)	23	100	-	-	2.4	0	1.0	0
	H2S(ppb)	25	99	-	-	4.9	0	1.3	0
	H2S(ppb)	27	100	-	-	2.6	0	0.5	0
	H2S(ppb)	29	100	-	-	0.9	0	0.4	0
	H2S(ppb)	31	99	-	-	0.9	0	0.3	0
	H2S(ppb)	32	99	-	-	16.5	2	2.5	0
	H2S(ppb)	33	100	-	-	0.7	0	0.2	0
	H2S(ppb)	34	99	-	-	2.5	0	0.7	0
	H2S(ppb)	505	100	-	-	2.2	0	0.9	0
	H2S(ppb)	506	99	-	-	15.9	1	1.4	0
	H2S(ppb)	508	100	-	-	0.6	0	0.3	0
	TRS(ppb)	1	96	5.9	1	5.1	-	1.5	-
	TRS(ppb)	6	96	5.6	1	4.4	-	1.1	-
	TRS(ppb)	7	76	6.1	1	4.7	-	1.2	-
	TRS(ppb)	8	72	0.9	0	0.9	-	0.3	-
	TRS(ppb)	9	99	7.9	2	5.6	-	1.3	-
	TRS(ppb)	13	86	8.4	2	8.1	-	1.5	-
	TRS(ppb)	14	100	1.6	0	1.4	-	0.8	-
	TRS(ppb)	18	99	0.9	0	0.9	-	0.5	-
	TRS(ppb)	21	100	0.9	0	0.9	-	0.3	-
	TRS(ppb)	22	99	1	0	0.9	-	0.3	-
	TRS(ppb)	23	100	2.8	0	2.8	-	1.2	-
	TRS(ppb)	30	99	4.3	0	4.1	-	0.7	-
	THC(ppm)	1	95	-	-	3.7	-	2.5	-
	THC(ppm)	4	100	-	-	3.3	-	2.3	-
	THC(ppm)	5	100	-	-	3.3	-	2.3	-
	THC(ppm)	6	96	-	-	3.8	-	2.3	-

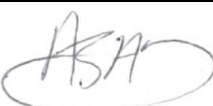
WOOD BUFFALO ENVIRONMENTAL ASSOCIATION
MONTHLY AIR MONITORING SUMMARY

July 2026
Page 2 of 3
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	July 2026 Page 2 of 3 Created: Aug 27, 2026 13:15								
APPROVAL NUMBERS	REPORT DATE								
	MONTH	YEAR							
289664-00-00	7	2026							
241311-00-00	CONTINUOUS AMBIENT MONITORING								
20809-02-00				30-MIN AVERAGE		ONE-HOUR AVERAGE		24-HOUR AVERAGE	
149968-01-00	PARAMETER	STN. NO.	% TIME OPERATIONAL	MAXIMUM CONCENTRATION	NO. READINGS > REGULATION	MAXIMUM CONCENTRATION	NO. READINGS > REGULATION	MAXIMUM CONCENTRATION	NO. READINGS > REGULATION
237382-00-00	THC(ppm)	7	99	-	-	2.6	-	2.3	-
48522-01-00	THC(ppm)	9	99	-	-	3.9	-	2.5	-
240008-00-00	THC(ppm)	11	98	-	-	3.2	-	2.5	-
48263-01-00	THC(ppm)	13	99	-	-	3.6	-	2.5	-
224816-00-00	THC(ppm)	14	95	-	-	2.4	-	2.1	-
151469-01-00	THC(ppm)	17	100	-	-	2.9	-	2.4	-
189942-00-00	THC(ppm)	18	93	-	-	2.3	-	2.1	-
206355-00-00	THC(ppm)	19	100	-	-	3.7	-	2.6	-
46586-00-00	THC(ppm)	20	100	-	-	3.2	-	2.5	-
73203-02-00	THC(ppm)	21	99	-	-	4.6	-	2.6	-
216466-01-00	THC(ppm)	22	99	-	-	2.7	-	2.2	-
137467-01-00	THC(ppm)	23	100	-	-	5.7	-	3.1	-
236394-00-00	THC(ppm)	29	100	-	-	2.6	-	2.4	-
254465-00-00	THC(ppm)	30	99	-	-	4.4	-	2.6	-
094-03-00	THC(ppm)	31	100	-	-	9.3	-	3.3	-
80105-01-00	THC(ppm)	32	99	-	-	3.5	-	2.3	-
305529-00-00	THC(ppm)	508	100	-	-	2.9	-	2.4	-
318401-00-00	O3(ppb)	1	99	-	-	70.0	0	29.6	-
026-03-00	O3(ppb)	4	100	-	-	47.9	0	29.3	-
364232-00-00	O3(ppb)	6	98	-	-	52.1	0	30.0	-
228044-00-00	O3(ppb)	7	99	-	-	49.0	0	29.6	-
247548-00-00	O3(ppb)	8	100	-	-	60.3	0	49.3	-
231302-00-00	O3(ppb)	13	100	-	-	65.8	0	24.2	-
246984-01-00	O3(ppb)	14	100	-	-	44.0	0	28.6	-
153125-01-00	O3(ppb)	17	100	-	-	62.7	0	39.9	-
	O3(ppb)	18	100	-	-	46.9	0	35.5	-
	O3(ppb)	21	100	-	-	48.6	0	30.1	-
	O3(ppb)	22	100	-	-	45.0	0	29.6	-
	NO2(ppb)	1	99	-	-	29.2	0	8.9	-
	NO2(ppb)	4	92	-	-	21.6	0	9.6	-
	NO2(ppb)	6	100	-	-	15.5	0	3.4	-
	NO2(ppb)	7	99	-	-	14.2	0	5.7	-
	NO2(ppb)	8	100	-	-	8.0	0	3.1	-
	NO2(ppb)	9	91	-	-	25.6	0	8.4	-
	NO2(ppb)	13	100	-	-	22.3	0	5.7	-
	NO2(ppb)	14	100	-	-	9.0	0	2.4	-
	NO2(ppb)	17	100	-	-	12.2	0	4.1	-
	NO2(ppb)	18	100	-	-	3.0	0	1.2	-
	NO2(ppb)	19	100	-	-	14.2	0	3.7	-
	NO2(ppb)	20	100	-	-	8.9	0	4.2	-
	NO2(ppb)	21	100	-	-	12.6	0	3.2	-
	NO2(ppb)	22	100	-	-	2.9	0	1.3	-
	NO2(ppb)	23	100	-	-	41.7	0	20.5	-
	NO2(ppb)	27	100	-	-	12.9	0	1.8	-
	NO2(ppb)	29	100	-	-	4.7	0	2.0	-
	NO2(ppb)	30	99	-	-	34.0	0	7.7	-
	NO2(ppb)	31	100	-	-	8.9	0	2.9	-
	NO2(ppb)	33	100	-	-	17.8	0	3.6	-
	NO2(ppb)	34	99	-	-	16.3	0	4.3	-
	NO2(ppb)	505	100	-	-	14.5	0	6.7	-
	NO2(ppb)	506	97	-	-	16.3	0	4.1	-
	NO2(ppb)	508	100	-	-	4.4	0	1.5	-
	CO(ppm)	7	99	-	-	1.2	0	0.6	-
	NH3(ppb)	1	90	-	-	17.1	0	1.5	-
	NH3(ppb)	6	90	-	-	159.1	0	7.2	-
	PM2.5(ug/m3)	1	96	-	-	234.4	22	89.7	7
	PM2.5(ug/m3)	4	100	-	-	340.3	59	98.0	8
	PM2.5(ug/m3)	6	100	-	-	192.1	12	77.9	4
	PM2.5(ug/m3)	7	99	-	-	218.2	17	84.4	5
	PM2.5(ug/m3)	8	100	-	-	350.4	62	97.7	8
	PM2.5(ug/m3)	9	99	-	-	298.0	51	95.3	8
	PM2.5(ug/m3)	13	94	-	-	251.4	36	91.2	8

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION
MONTHLY AIR MONITORING SUMMARY

July 2026
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APPROVAL NUMBERS REPORT DATE MONTH YEAR									
289664-00-00 241311-00-00 20809-02-00 149968-01-00 237382-00-00 48522-01-00 240008-00-00 48263-01-00 224816-00-00 151469-01-00 189942-00-00 206355-00-00 46586-00-00 73203-02-00 216466-01-00 137467-01-00 236394-00-00 254465-00-00 094-03-00 80105-01-00 305529-00-00 318401-00-00 026-03-00 364232-00-00 228044-00-00 247548-00-00 231302-00-00 246984-01-00 153125-01-00									
CONTINUOUS AMBIENT MONITORING									
			30-MIN AVERAGE		ONE-HOUR AVERAGE		24-HOUR AVERAGE		
PARAMETER	STN. NO.	% TIME OPERATIONAL	MAXIMUM CONCENTRATION	NO. READINGS > REGULATION	MAXIMUM CONCENTRATION	NO. READINGS > REGULATION	MAXIMUM CONCENTRATION	NO. READINGS > REGULATION	
PM2.5(ug/m3)	14	100	-	-	167.6	11	85.1	4	
PM2.5(ug/m3)	17	100	-	-	157.1	13	65.4	4	
PM2.5(ug/m3)	18	69	-	-	88.2	5	72.6	2	
PM2.5(ug/m3)	21	100	-	-	171	10	73.6	4	
PM2.5(ug/m3)	22	93	-	-	160.5	7	75.1	4	
PM2.5(ug/m3)	23	99	-	-	336.2	65	125.2	9	
PM2.5(ug/m3)	29	93	-	-	175.6	10	81.9	4	
PM2.5(ug/m3)	30	93	-	-	238.6	34	96.6	7	
WS(km/h)	1	100	-	-	-	-	-	-	
WS(km/h)	4	100	-	-	-	-	-	-	
WS(km/h)	5	100	-	-	-	-	-	-	
WS(km/h)	6	100	-	-	-	-	-	-	
WS(km/h)	7	100	-	-	-	-	-	-	
WS(km/h)	8	100	-	-	-	-	-	-	
WS(km/h)	9	100	-	-	-	-	-	-	
WS(km/h)	11	100	-	-	-	-	-	-	
WS(km/h)	13	100	-	-	-	-	-	-	
WS(km/h)	14	100	-	-	-	-	-	-	
WS(km/h)	17	100	-	-	-	-	-	-	
WS(km/h)	18	100	-	-	-	-	-	-	
WS(km/h)	19	100	-	-	-	-	-	-	
WS(km/h)	20	100	-	-	-	-	-	-	
WS(km/h)	21	100	-	-	-	-	-	-	
WS(km/h)	22	100	-	-	-	-	-	-	
WS(km/h)	23	100	-	-	-	-	-	-	
WS(km/h)	25	100	-	-	-	-	-	-	
WS(km/h)	27	100	-	-	-	-	-	-	
WS(km/h)	29	95	-	-	-	-	-	-	
WS(km/h)	30	99	-	-	-	-	-	-	
WS(km/h)	31	100	-	-	-	-	-	-	
WS(km/h)	32	100	-	-	-	-	-	-	
WS(km/h)	33	100	-	-	-	-	-	-	
WS(km/h)	34	100	-	-	-	-	-	-	
WS(km/h)	505	100	-	-	-	-	-	-	
WS(km/h)	506	99	-	-	-	-	-	-	
WS(km/h)	508	100	-	-	-	-	-	-	
									
SIGNATURE OF ASSOCIATION REPRESENTATIVE						FOR ALBERTA ENVIRONMENT USE ONLY			



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS01 BERTHA GANTER - FORT MCKAY JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT McKAY - BERTHA GANTER (AMS01)
JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	700	35	44	98.79	-	-	20.1	0	2.9	0
H2S(ppb) Average	661	34	83	93.41	-	-	5.3	0	1.4	0
TRS(ppb) Average	678	35	66	95.83	5.9	1	5.1	-	1.5	-
THC(ppm) Average	678	32	66	95.43	-	-	3.7	-	2.5	-
NMHC(ppm) Average	678	32	66	95.43	-	-	0.453	-	0.188	-
CH4(ppm) Average	678	32	66	95.43	-	-	3.7	-	2.4	-
O3 (ppb) Average	700	35	44	98.79	-	-	70	0	29.6	-
NO2 (ppb) Average	699	36	45	98.79	-	-	29.2	0	8.9	-
NO (ppb) Average	699	36	45	98.79	-	-	48.1	-	4.3	-
NOX (ppb) Average	699	36	45	98.79	-	-	62.1	-	10.8	-
NH3 (ppb) Average	632	41	112	90.46	-	-	17.1	0	1.5	-
PM2.5 (ug/m3) Average	711	0	33	95.56	-	-	234.4	22	89.7	7
Temperature 2 m (C) Average	718	0	26	96.51	-	-	32.1	-	23.2	-
Temperature 10 m (C) Average	718	0	26	96.51	-	-	31.3	-	23.4	-
Relative Humidity (%) Average	718	0	26	96.51	-	-	99.7	-	90	-
Wind Speed 10 m (km/h) Average	740	3	4	99.87	-	-	24	-	12	-
Wind Direction 10 m (deg) Average	740	3	4	99.87	-	-	-	-	-	-
Precipitation (mm) Total	737	0	7	99.06	-	-	10.9	-	20.2	-
Leaf Wetness (% of range) Average	742	0	2	99.73	-	-	73.8	-	23	-
Global Solar Radiation (W/m2) Average	744	0	0	100	-	-	911.1	-	332.7	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BERTHA GANTER FORT McKAY (AMS01)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	700	0.74	2	-	0	0	0	0.1	0.4	2	20.1
H2S (ppb) Average	661	0.41	0.5	-	0	0.1	0.1	0.3	0.5	0.9	5.3
TRS (ppb) Average	678	0.49	0.5	-	0.1	0.2	0.2	0.4	0.6	1	5.1
THC (ppm) Average	678	2.26	0.2	-	2	2	2.1	2.2	2.4	2.5	3.7
NMHC(ppm) Average	678	0.079	0.07	-	0	0	0	0.1	0.1	0.2	0.453
CH4(ppm) Average	678	2.18	0.2	-	2	2	2.1	2.1	2.3	2.4	3.7
O3 (ppb) Average	700	20.68	12.1	-	1.6	5	11.1	19.6	29	36.9	70
NO2 (ppb) Average	699	4.27	4.1	-	0	0.5	1.4	3.1	6	9.5	29.2
NO (ppb) Average	699	1.36	3.5	-	0	0	0	0.1	1.3	3.8	48.1
NOX (ppb) Average	699	5.63	6.6	-	0	0.5	1.5	3.4	7.6	12.9	62.1
NH3 (ppb) Average	632	0.17	1.4	-	0	0	0	0	0	0	17.1
PM2.5 (ug/m3) Average	711	21.29	32.9	-	1	2.8	5.5	9.6	20.4	57.2	234.4
Temperature 2 m (C) Average	718	18.4	4.5	-	8.2	12.9	14.9	18	21.6	25	32.1
Temperature 10 m (C) Average	718	18.51	4.1	-	9.2	13.3	15.4	18	21.2	24.4	31.3
Relative Humidity (%) Average	718	73.51	18.9	-	29.3	44.2	59.9	76.7	90.6	96.1	99.7
Wind Speed 10 m (km/h) Average	740	6.2	4	-	0	2	3	5	8	11	24
Wind Direction 10 m (deg) Average	740	-	-	-	-	-	-	-	-	-	-
Precipitation (mm) Total	737	-	-	81.87	-	-	-	-	-	-	-
Leaf Wetness (% of range) Average	742	8.86	14.9	-	0	0.4	0.9	1.8	9.1	29.9	73.8
Global Solar Radiation (W/m2) Average	744	218.01	253.4	-	0	0	1	115.6	363.6	654.2	911.1

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BERTHA GANTER FORT McKAY (AMS01)
JULY 2026

OPERATIONAL NOTES

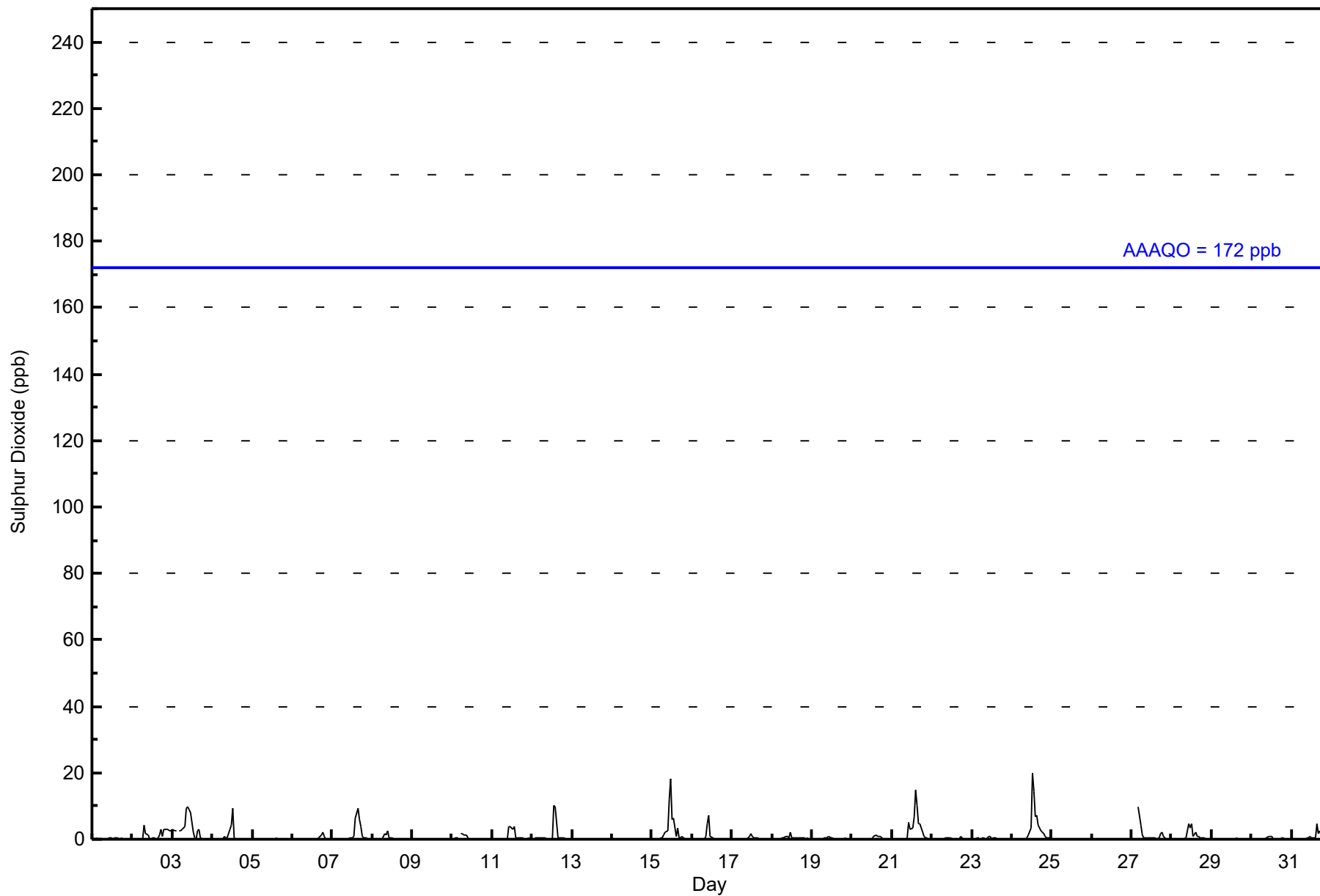
Parameter	Period Start	Period End	Duration (Hours)	Notes
AIR QUALITY ANALYZERS	08 Jul 2026 15:00	08 Jul 2026 19:00	5	Station power failure
H2S, TRS, PM2.5	13 Jul 2026 09:00	14 Jul 2026 10:00	26	Station power failure
O3, NO2	13 Jul 2026 09:00	13 Jul 2026 12:00	4	Station power failure
NH3	13 Jul 2026 09:00	13 Jul 2026 13:00	5	Station power failure
THC/NMHC/CH4	13 Jul 2026 09:00	14 Jul 2026 11:00	27	Station power failure
H2S	08 Jul 2026 20:00	09 Jul 2026 10:00	15	Unstable Operation - dead converter
H2S	09 Jul 2026 11:00	09 Jul 2026 13:00	3	Maintenance - verify daily QA response
THC/NMHC/CH4	27 Jul 2026 11:00	27 Jul 2026 12:00	2	Maintenance - zero air generator replaced
NH3	01 Jul 2026 06:00	31 Jul 2026 07:00	61	Stabilization after daily QA check
PM2.5	05 Jul 2026 09:00	05 Jul 2026 09:00	1	DAS Failure - data not recorded
PM2.5	12 Jul 2026 18:00	12 Jul 2026 18:00	1	DAS Failure - data not recorded
Relative Humidity, Temperature 2m and 10m	24 Jul 2026 13:00	24 Jul 2026 13:00	1	Maintenance - sensor replaced
Relative Humidity, Temperature 2m and 10m	24 Jul 2026 14:00	25 Jul 2026 14:00	25	Unstable Operation - inconsistent response
Wind Speed, Wind Direction	25 Jul 2026 14:00	25 Jul 2026 14:00	1	Maintenance - station operator activities
Precipitation Collector	08 Jul 2026 15:00	08 Jul 2026 18:00	4	Station power failure
Precipitation Collector	13 Jul 2026 09:00	13 Jul 2026 11:00	3	Station power failure
Surface Leaf Wetness	08 Jul 2026 15:00	08 Jul 2026 15:00	1	Sensor operated out of range
Surface Leaf Wetness	28 Jul 2026 23:00	28 Jul 2026 23:00	1	Sensor operated out of range

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																		Hours in Service: 744								
Maximum Value: 20.1 ppb on Jul 24 13:00 Maximum Daily Average: 2.9 ppb on Jul 24																		Hours of Data: 700								
Minimum Value: 0.0 ppb on Jul 2 02:00 Minimum Daily Average: 0.0 ppb on Jul 9																		Hours of Missing Data: 44								
Maximum Diurnal Average: 1.9 ppb at hour 12 Minimum Diurnal Average: 0.1 ppb at hour 4																		Hours of Calibration: 35								
Monthly Average: 0.74 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.4 P ₉₀ = 2.0 P ₉₉ = 9.9																		Percent Operational Time: 98.8								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.1	Z	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.3	0.3	0.2	0.2	0.3	0.4	0.2	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.4
2-Jul	0.1	0.0	Z	0.1	0.0	0.1	0.1	4.4	1.6	1.1	0.2	0.2	0.6	0.5	0.1	0.4	1.3	2.9	0.8	2.8	2.9	2.9	2.7	2.7	1.2	4.4
3-Jul	2.9	2.6	2.6	Z	2.4	2.5	3.0	3.7	9.3	9.6	8.8	8.0	2.3	0.5	0.2	2.4	2.9	0.4	0.1	0.1	0.0	0.0	0.0	0.0	2.8	9.6
4-Jul	0.0	0.0	0.0	0.1	Z	0.2	0.2	0.8	0.4	0.4	2.8	4.4	9.3	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.9	9.3
5-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.5
6-Jul	Z	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	0.0	0.0	0.3	1.4	2.0	0.9	0.2	0.1	0.1	0.0	0.2	2.0
7-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.1	0.2	0.3	0.4	0.9	6.2	9.5	6.1	3.9	0.7	0.6	0.3	0.1	0.1	0.1	1.3	9.5
8-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.1	1.9	1.4	2.7	0.4	0.5	0.5	0.1	PF	PF	PF	PF	PF	0.0	0.0	0.0	0.0	0.0	0.4	2.7
9-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-Jul	0.0	0.0	0.4	0.5	Z	1.5	1.5	1.3	1.1	0.5	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.5
11-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	3.8	3.9	2.8	4.0	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.8	4.0
12-Jul	Z	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	10.3	9.9	0.6	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.1	1.1	10.3
13-Jul	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	PF	PF	PF	PF	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
14-Jul	0.0	0.0	Z	0.1	0.0	0.0	0.1	0.1	0.1	0.1	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
15-Jul	0.1	0.1	0.1	Z	0.2	0.3	0.5	1.2	2.0	2.4	12.0	18.3	6.1	6.3	0.9	3.5	0.4	0.4	0.8	0.3	0.1	0.0	0.0	0.1	2.4	18.3
16-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.1	1.0	4.8	7.1	0.9	0.3	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.0	0.0	0.7	7.1
17-Jul	0.0	0.0	0.0	0.0	0.1	Z	0.1	0.2	0.2	0.2	0.9	1.6	0.7	0.2	0.3	0.5	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.2	1.6
18-Jul	Z	0.0	0.1	0.1	0.1	0.0	0.2	0.4	1.0	0.9	0.4	2.2	0.4	0.5	0.4	0.5	0.5	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.4	2.2
19-Jul	0.2	Z	0.2	0.1	0.1	0.1	0.1	0.3	0.5	0.5	0.7	0.4	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.7
20-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.8	1.1	0.8	1.0	0.7	0.4	0.2	0.2	0.1	0.1	0.0	0.2	1.1
21-Jul	0.1	0.0	0.1	Z	0.1	0.0	0.1	0.1	0.1	0.3	5.1	2.8	3.4	6.9	15.0	10.2	4.8	4.9	2.3	0.8	0.3	0.3	0.2	0.2	2.5	15.0
22-Jul	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.2	0.3	0.2	0.4	0.1	0.2	0.2	0.2	0.1	0.8	0.6	0.1	0.1	0.1	0.1	0.1	0.2	0.8
23-Jul	0.1	0.1	0.2	0.4	0.3	Z	0.3	0.3	0.2	0.5	0.8	0.6	0.2	0.2	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.8
24-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	1.3	3.5	20.1	14.4	6.7	7.3	4.4	2.6	2.0	1.5	1.0	0.6	0.4	0.3	2.9	20.1
25-Jul	0.3	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.3
26-Jul	0.1	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2
27-Jul	0.1	0.0	0.1	Z	9.7	4.3	1.4	0.6	0.3	0.3	0.2	0.4	0.3	0.2	0.3	0.1	0.4	1.7	2.2	0.8	0.3	0.2	0.2	0.1	1.0	9.7
28-Jul	0.1	0.0	0.0	0.1	Z	0.2	0.2	0.1	0.4	2.4	4.6	3.5	4.6	0.8	2.3	1.0	0.8	0.6	0.4	0.2	0.2	0.2	0.1	0.1	1.0	4.6
29-Jul	0.1	0.1	0.2	0.2	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.2
30-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.9	0.7	0.1	0.1	0.0	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.0	0.2	0.9
31-Jul	0.1	Z	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.5	0.6	0.7	0.4	0.3	0.4	4.7	1.7	2.4	1.3	0.8	0.4	0.3	0.1	0.1	0.7	4.7
																									Diurnal Average	
																									Diurnal Maximum	
Z - zerospan C - Calibration PF - Power Failure																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	695	99.29	99.29
11 - 20	5	0.71	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 700

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	55	36	16	10	8	11	32	123	107	58	39	37	38	38	46	39	693
11 - 20	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	55	36	16	10	8	11	33	125	107	58	39	37	38	38	46	39	696

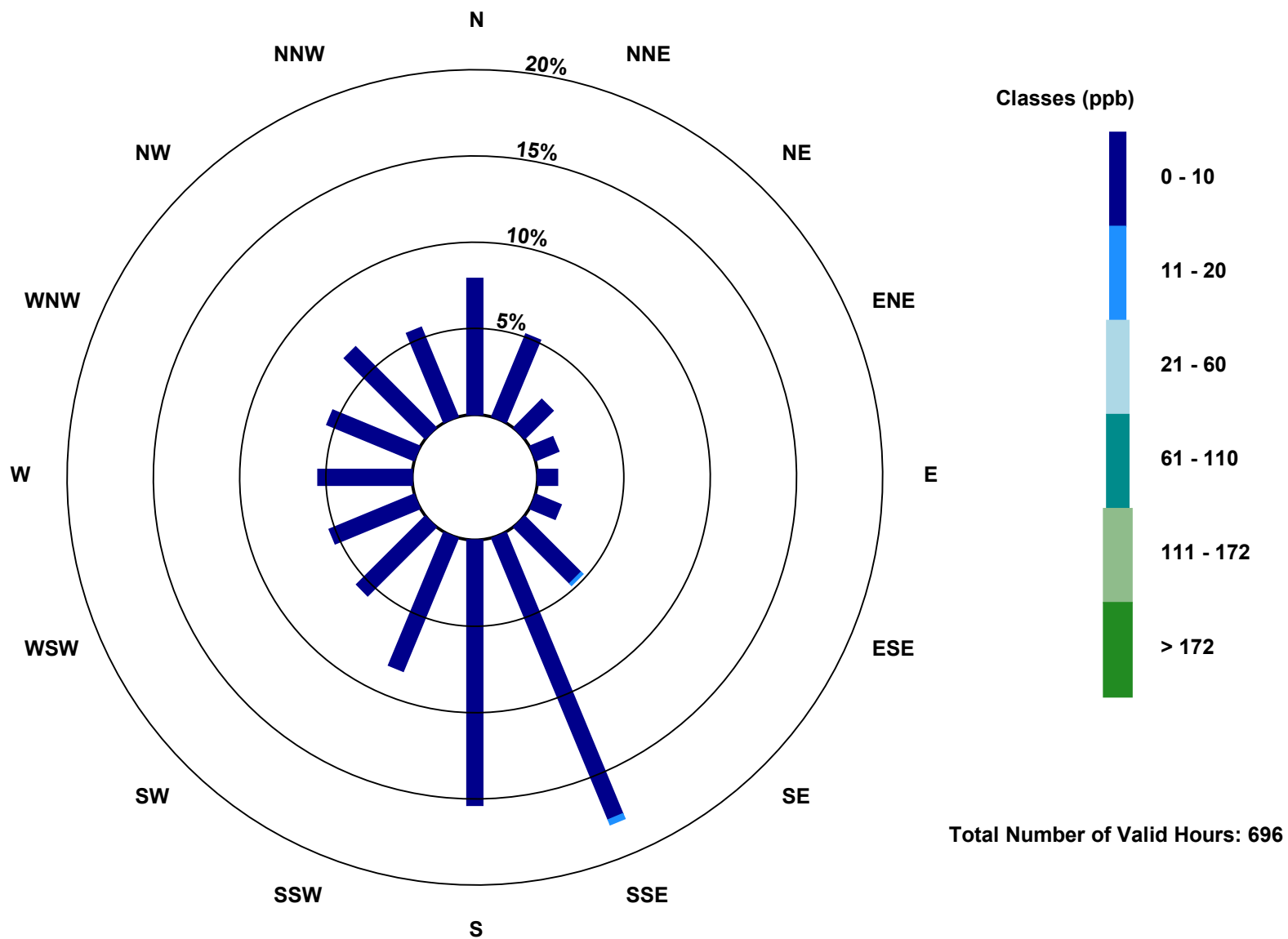
Total Number of Valid Hours: 696

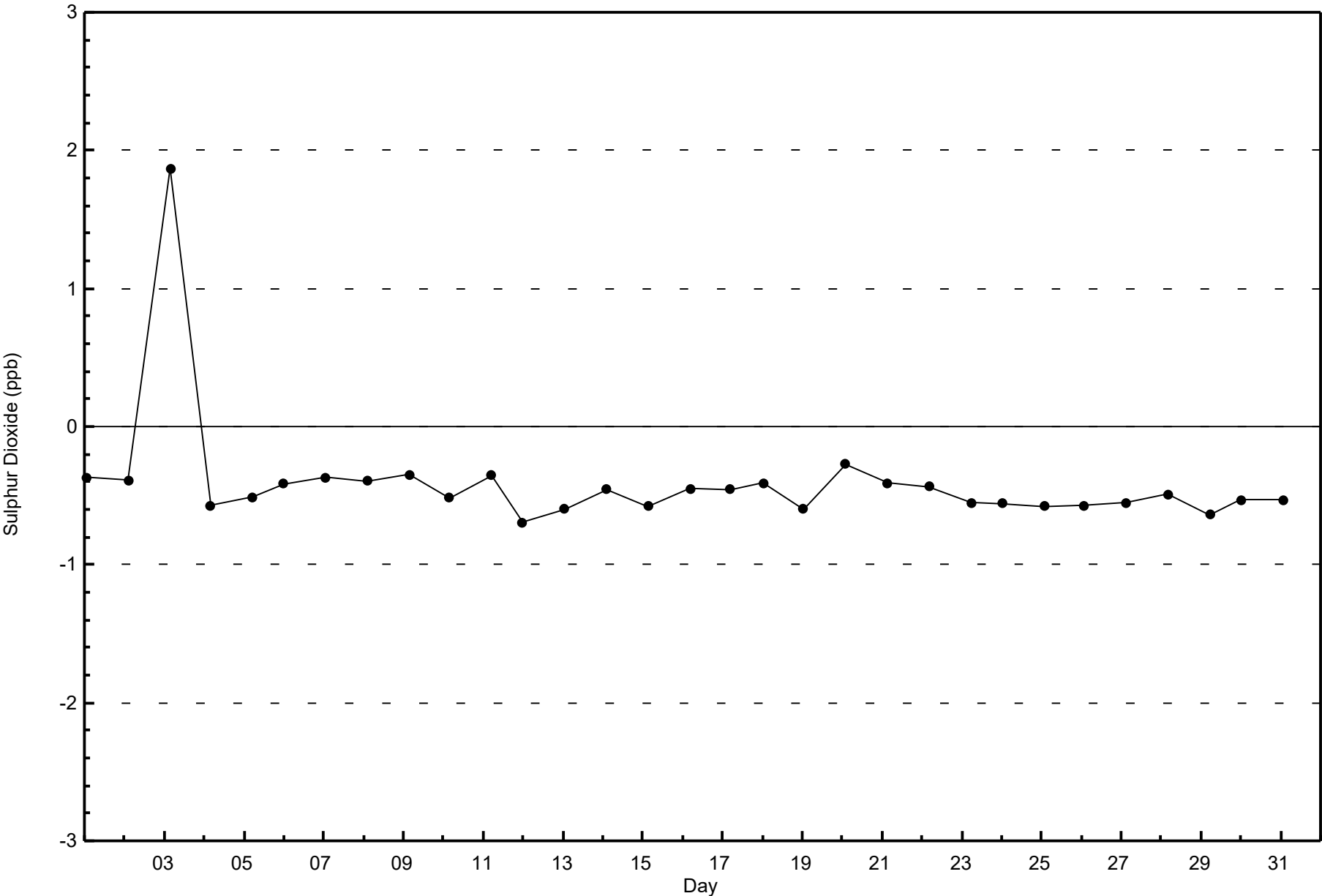
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Sulphur Dioxide (SO₂) - ppb
Fort McKay - Bertha Ganter

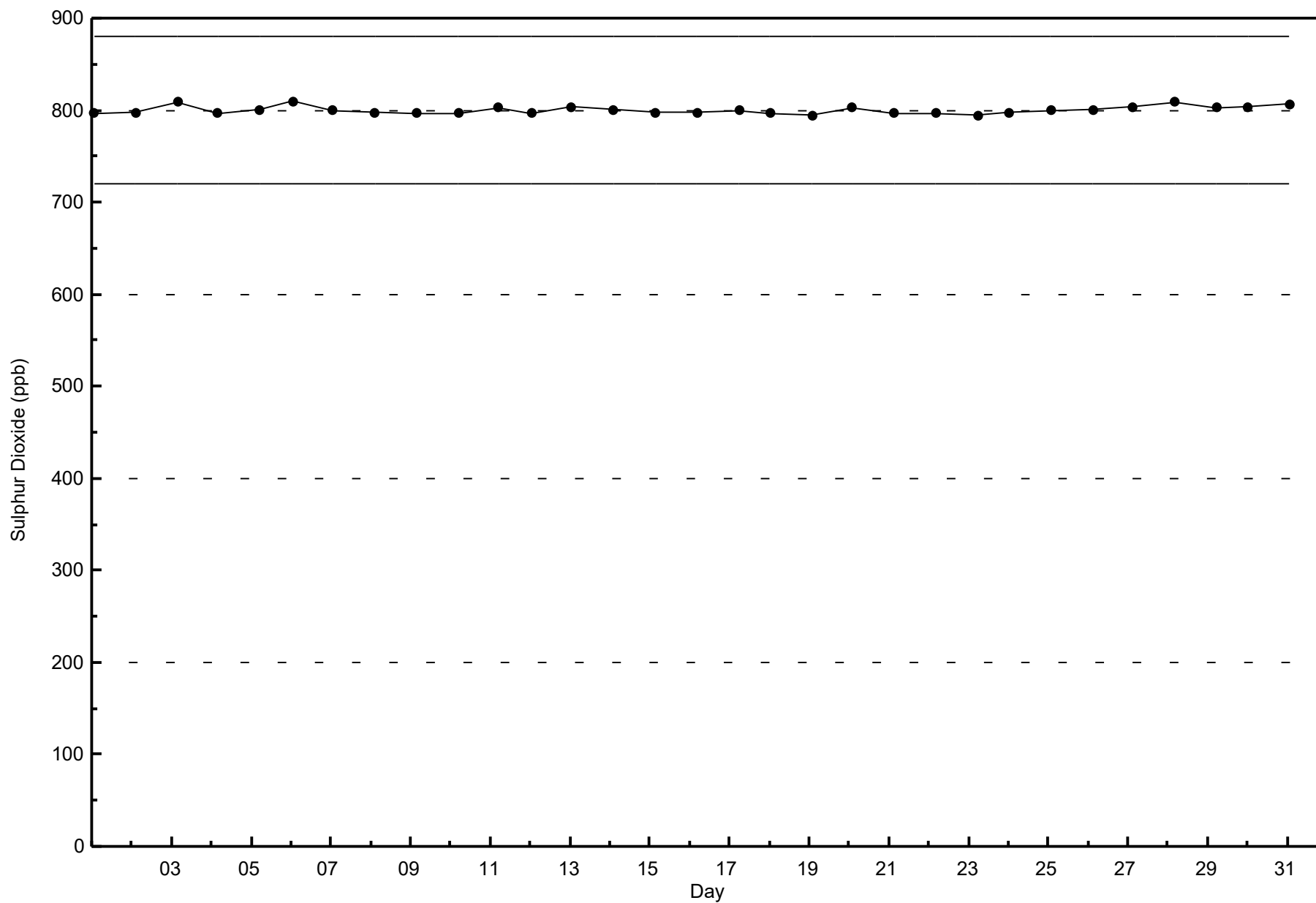






Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H₂S) - ppb

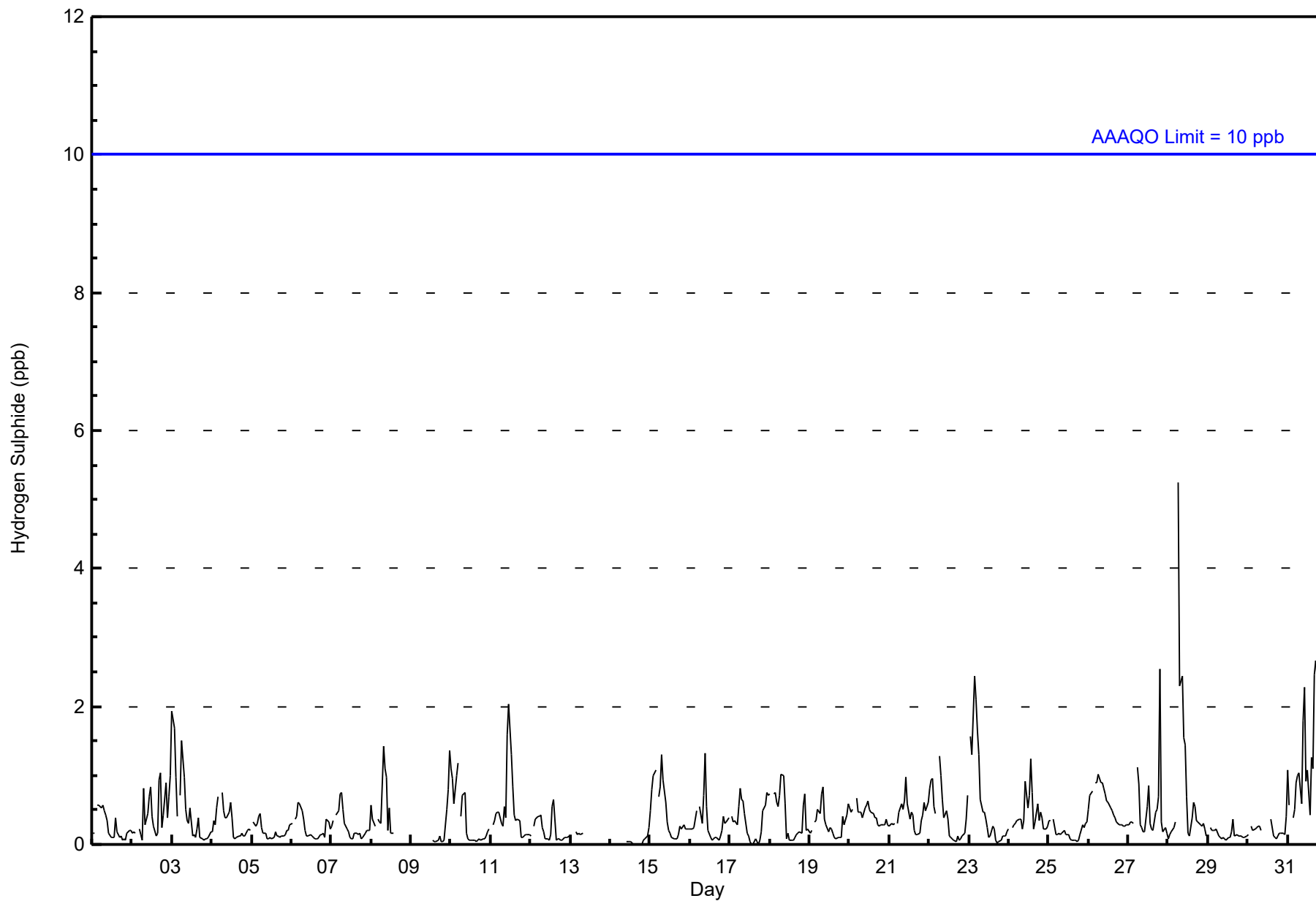
Fort McKay - Bertha Ganter - July 2026

Number of Exceedances (AAAQO): Maximum Value: 5.3 ppb on Jul 28 07:00																	1-hr: 0 24-hr: 0 Maximum Daily Average: 1.4 ppb on Jul 31		Hours in Service: 744 Hours of Data: 661 Hours of Missing Data: 83 Hours of Calibration: 34 Percent Operational Time: 93.4							
Minimum Value: 0.0 ppb on Jul 14 15:00 Maximum Diurnal Average: 0.8 ppb at hour 7 Monthly Average: 0.41 ppb																	Minimum Daily Average: 0.1 ppb on Jul 29 Minimum Diurnal Average: 0.2 ppb at hour 16 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.3 Q ₃ = 0.5 P ₉₀ = 0.9 P ₉₉ = 2.4									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.2	0.2	Z	0.6	0.6	0.5	0.6	0.5	0.4	0.3	0.2	0.1	0.1	0.1	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.6
2-Jul	0.2	0.2	0.2	Z	0.2	0.1	0.1	0.8	0.3	0.4	0.7	0.8	0.4	0.3	0.1	0.2	0.9	1.0	0.2	0.4	0.9	0.4	0.7	1.0	0.5	1.0
3-Jul	1.9	1.7	1.0	0.4	Z	0.7	1.5	1.0	0.5	0.3	0.3	0.5	0.1	0.2	0.1	0.2	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.5	1.9
4-Jul	0.2	0.3	0.3	0.5	0.7	Z	0.7	0.5	0.4	0.4	0.5	0.6	0.4	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.7
5-Jul	Z	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.4
6-Jul	0.3	Z	0.4	0.4	0.6	0.6	0.5	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.4	0.3	0.2	0.2	0.6
7-Jul	0.3	0.3	Z	0.4	0.5	0.7	0.8	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.8
8-Jul	0.6	0.4	0.3	Z	0.4	0.3	0.3	1.4	1.1	1.0	0.2	0.5	0.2	0.2	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	1.4
9-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	M	M	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.5	0.8	1.4	--	1.4
10-Jul	1.1	0.9	0.6	1.0	1.2	Z	0.4	0.7	0.8	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4	1.2
11-Jul	Z	0.3	0.3	0.4	0.5	0.5	0.3	0.3	0.6	0.4	1.6	2.0	1.3	0.8	0.4	0.3	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.5	2.0
12-Jul	0.1	Z	0.3	0.4	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.5	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6
13-Jul	0.1	0.1	Z	0.2	0.1	0.2	0.1	0.2	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	0.2
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	--	0.2
15-Jul	0.5	0.8	1.0	1.1	Z	0.7	0.8	1.3	0.9	0.6	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.3	0.2	0.2	0.2	0.5	1.3
16-Jul	0.2	0.2	0.2	0.4	0.5	Z	0.5	0.3	0.7	1.3	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.3	0.3	0.4	0.3	1.3
17-Jul	Z	0.4	0.3	0.4	0.3	0.5	0.8	0.7	0.6	0.4	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.5	0.6	0.7	0.7	0.3	0.8
18-Jul	0.7	Z	0.7	0.8	0.6	0.6	0.7	1.0	1.0	0.6	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.6	0.7	0.2	0.2	0.4	1.0
19-Jul	0.2	0.2	Z	0.3	0.3	0.5	0.4	0.7	0.8	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.4	0.3	0.4	0.6	0.3	0.8
20-Jul	0.5	0.5	0.5	Z	0.7	0.5	0.5	0.5	0.4	0.5	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.7
21-Jul	0.3	0.3	0.3	0.3	Z	0.3	0.5	0.6	0.5	0.6	1.0	0.6	0.4	0.5	0.4	0.2	0.1	0.2	0.2	0.4	0.4	0.6	0.5	0.6	0.4	1.0
22-Jul	0.8	0.9	1.0	0.5	0.5	Z	1.3	1.0	0.6	0.4	0.5	0.4	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.4	0.7	0.4	1.3
23-Jul	Z	1.6	1.3	2.4	2.1	1.6	1.3	0.6	0.5	0.5	0.4	0.2	0.1	0.1	0.3	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.6	2.4
24-Jul	0.2	Z	0.3	0.3	0.3	0.3	0.4	0.4	0.2	0.3	0.9	0.5	0.7	1.2	0.8	0.2	0.3	0.6	0.3	0.5	0.4	0.2	0.2	0.3	0.4	1.2
25-Jul	0.4	0.4	Z	0.4	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.3	0.2	0.3	0.3	0.2	0.4
26-Jul	0.5	0.7	0.8	Z	0.9	0.9	1.0	0.9	0.9	0.8	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	1.0
27-Jul	0.3	0.3	0.3	0.3	Z	1.1	0.9	0.3	0.2	0.2	0.2	0.6	0.8	0.3	0.2	0.2	0.5	0.5	0.7	2.5	0.3	0.2	0.2	0.2	0.5	2.5
28-Jul	0.1	0.1	0.2	0.3	0.3	Z	5.3	2.3	2.4	1.6	1.4	0.7	0.2	0.1	0.4	0.6	0.5	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.8	5.3
29-Jul	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
30-Jul	0.1	Z	0.3	0.2	0.2	0.2	0.3	0.3	0.2	C	C	C	C	C	0.4	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.4	0.2	0.4
31-Jul	1.1	0.6	Z	0.4	0.5	0.9	1.0	1.0	0.6	1.8	2.3	0.9	1.1	0.4	1.3	1.1	2.5	2.7	2.4	1.9	1.6	1.6	1.9	1.7	1.4	2.7
0.5 0.5 0.5 0.5 0.5 0.5 0.8 0.6 0.6 0.5 0.5 0.4 0.3 0.2 0.3 0.2 0.3 0.3 0.2 0.3 0.3 0.3 0.3 0.4																									Diurnal Average	
1.9 1.7 1.3 2.4 2.1 1.6 5.3 2.3 2.4 1.8 2.3 2.0 1.3 1.2 1.3 1.1 2.5 2.7 2.4 2.5 1.6 1.6 1.9 1.7																									Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation PF - Power Failure																										
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	658	99.55	99.55
3 - 4	2	0.30	99.85
5 - 7	1	0.15	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 661

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	54	36	16	9	7	10	31	125	88	54	39	33	34	39	42	37	654
3 - 4	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
5 - 7	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	54	36	16	9	7	10	31	127	89	54	39	33	34	39	42	37	657

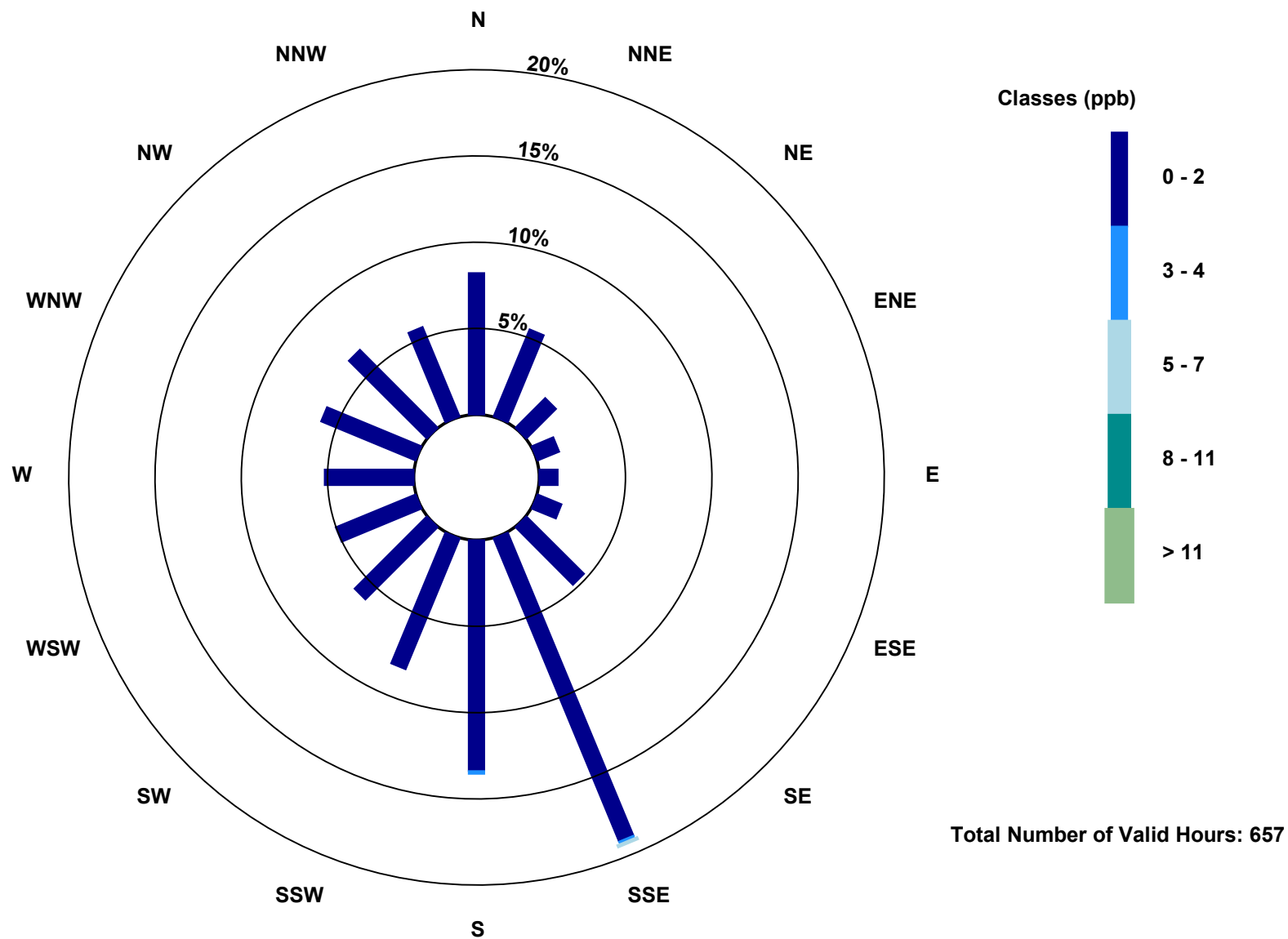
Total Number of Valid Hours: 657

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

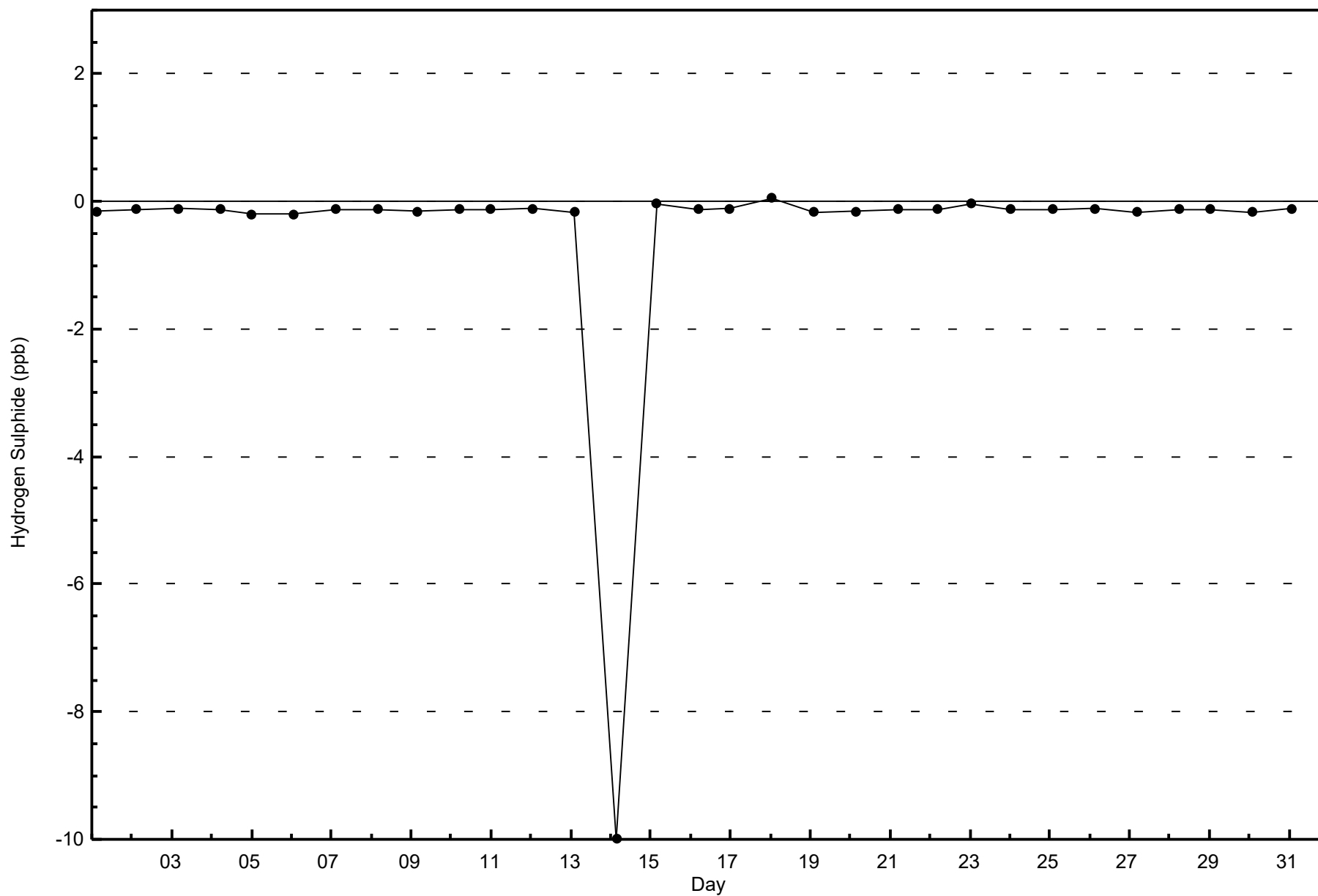
Hydrogen Sulphide (H_2S) - ppb
Fort McKay - Bertha Ganter





Wood Buffalo Environmental Association
Zero Responses

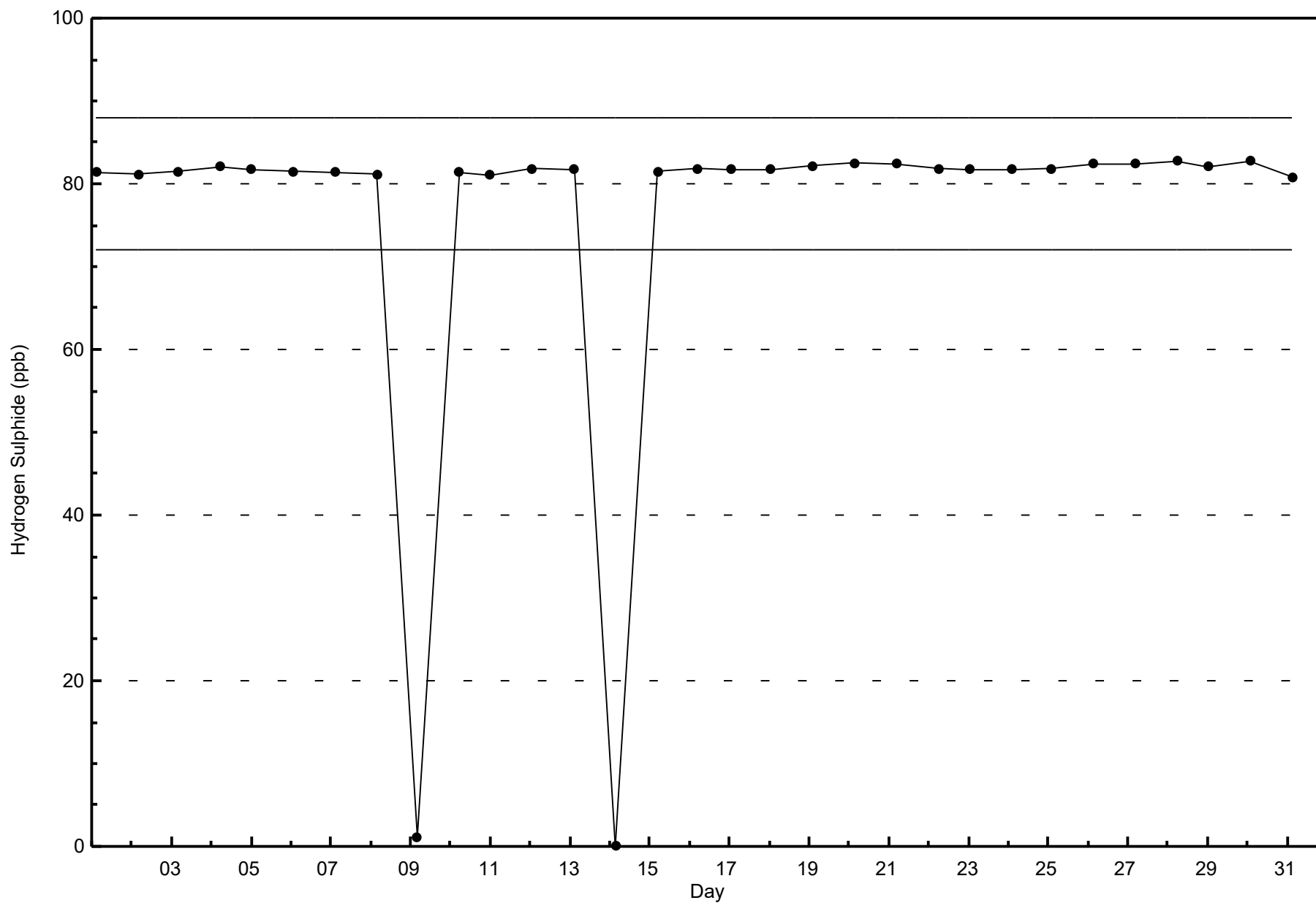
Hydrogen Sulphide (H₂S) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Span Responses

Hydrogen Sulphide (H₂S) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Fort McKay - Bertha Ganter - July 2026

Number of Exceedences (AAAQG): 30-Min: 1																			Periods in Service: 1488							
Maximum Value: 5.9 ppb on Jul 28 06:30 Maximum Daily Average: 1.5 ppb on Jul 31																			Periods of Valid Data: 1354							
Minimum Value: 0.1 ppb on Jul 14 16:30 Minimum Daily Average: 0.2 ppb on Jul 5																			Periods of Invalid Data: 134							
Maximum Diurnal Average: 0.8 ppb at hour 7 Minimum Diurnal Average: 0.3 ppb at hour 16																			Periods of Calibration: 70							
Monthly Average: 0.49 ppb Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.6 P ₉₀ = 1.0 P ₉₉ = 2.5																			Percent Operational Time: 95.7							
Day	Period Ending At (MST)																								Daily Average	Daily Maximum
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00		
1-Jul	0.2 0.2	0.2 0.3	Z SP	0.7 0.6	0.7 0.6	0.6 0.6	0.6 0.6	0.6 0.5	0.5 0.5	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.5 0.5	0.3 0.3	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3	0.7
2-Jul	0.3 0.2	0.3 0.3	0.3 0.3	Z SP	0.3 0.3	0.2 0.2	0.2 0.2	0.6 1.2	0.4 0.3	0.6 0.5	0.6 1.1	0.7 1.3	0.5 0.5	0.4 0.4	0.3 0.2	0.2 0.4	0.9 1.2	1.2 1.1	0.3 0.4	0.4 0.7	1.0 1.0	0.5 0.5	0.8 0.8	1.0 1.2	0.6	1.3
3-Jul	2.1 2.0	2.0 1.5	1.2 0.9	0.7 0.3	Z SP	0.5 0.9	1.6 1.6	1.1 1.1	0.7 0.5	0.5 0.4	0.4 0.4	0.5 0.7	PF 0.2	0.3 0.3	0.2 0.2	0.2 0.5	0.7 0.4	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	UO 0.2	0.2 0.2	0.3 0.3	0.6	2.1
4-Jul	0.3 0.3	0.5 0.4	0.5 0.4	0.6 0.7	0.8 0.7	Z SP	0.6 0.8	0.6 0.5	0.4 0.4	0.4 0.5	0.5 0.6	0.7 0.7	0.6 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.4	0.8
5-Jul	Z SP	0.4 0.3	0.3 0.3	0.3 0.4	0.4 0.4	0.5 0.5	0.3 0.2	0.2 0.2	0.2 0.2	0.1 0.1	0.2 0.1	0.1 0.1	0.1 0.2	0.1 0.1	0.2 0.3	0.2 0.1	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.2	0.5
6-Jul	0.3 0.3	Z SP	0.4 0.4	0.4 0.4	0.6 0.7	0.6 0.6	0.5 0.5	0.4 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.2 0.2	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.4 0.5	0.4 0.4	0.3 0.3	0.3	0.7
7-Jul	0.4 0.3	0.4 0.4	Z SP	0.5 0.5	0.5 0.6	0.6 0.7	0.6 0.6	0.5 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3	0.7
8-Jul	0.4 0.9	0.5 0.4	0.3 0.3	Z SP	0.4 0.4	0.4 0.3	0.3 0.5	1.3 1.7	1.5 0.8	0.8 1.3	0.4 0.2	0.5 0.7	0.3 0.2	0.2 0.3	0.4 PF	PF PF	PF PF	PF PF	PF 0.3	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.5	1.7
9-Jul	0.2 0.3	0.3 0.2	0.4 0.4	0.4 0.5	Z SP	0.3 0.3	0.5 0.4	0.2 0.3	0.2 0.2	0.2 0.2	UO 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.3 0.1	0.1 0.1	0.1 0.1	0.2 0.9	0.2 0.8	0.9 0.9	1.9 0.9	0.3	1.9
10-Jul	2.0 0.4	0.8 1.2	0.8 0.6	1.0 1.2	1.1 1.7	Z SP	0.5 0.4	0.4 1.2	1.0 0.6	0.3 0.2	0.2 0.1	0.1 0.1	0.1 0.2	0.2 0.1	0.1 0.1	0.1 0.2	0.1 0.2	0.2 0.2	0.1 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.4	0.4	2.0
11-Jul	Z SP	0.3 0.4	0.4 0.5	0.5 0.6	0.5 0.5	0.6 0.4	0.4 0.3	0.3 0.3	0.7 0.5	0.4 0.4	0.5 2.7	2.1 2.2	1.5 1.3	1.1 0.8	0.5 0.5	0.5 0.4	0.4 0.6	0.6 0.3	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.6	2.7
12-Jul	0.2 0.2	Z SP	0.3 0.3	0.4 0.5	0.4 0.4	0.4 0.4	0.4 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.3	0.9 0.5	1.1 0.5	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.1	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3	1.1
13-Jul	0.2 0.2	0.2 0.2	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	--	0.2
14-Jul	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	PF PF	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	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.4	--	0.4
15-Jul	0.5 0.7	0.8 1.0	1.1 1.1	1.1 1.2	Z SP	1.0 0.5	0.7 1.1	1.2 1.5	1.2 0.9	0.8 0.6	0.4 0.4	0.3 0.3	0.3 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.4 0.4	0.3 0.4	0.4 0.4	0.3 0.3	0.4 0.4	0.4 0.4	0.6	1.5



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb Fort McKay - Bertha Ganter - July 2026

Day	Period Ending At (MST)																								Daily Average	Daily Maximum
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00		
16-Jul	0.3 0.4	0.3 0.3	0.3 0.4	0.5 0.5	0.5 0.7	Z SP	0.8 0.4	0.4 0.4	0.7 1.0	1.2 1.7	0.7 0.6	0.4 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.5 0.5	0.4 0.4	0.5 0.4	0.5 0.5	0.4	1.7
17-Jul	Z SP	0.5 0.4	0.4 0.4	0.4 0.5	0.4 0.4	0.6 0.7	0.9 0.8	0.4 0.9	0.7 0.6	0.6 0.5	0.4 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.4 0.5	0.7 0.8	0.8 0.9	1.0 1.0	1.0 1.0	0.5	1.0
18-Jul	1.0 1.0	Z SP	0.9 1.0	0.9 0.8	0.8 0.7	0.6 0.7	0.8 0.8	0.9 1.2	1.3 0.9	1.1 0.4	0.2 0.2	0.3 0.4	0.3 0.2	0.2 0.3	0.3 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.6 0.8	1.1 0.7	0.3 0.3	0.3 0.4	0.6	1.3
19-Jul	0.3 0.3	0.3 0.3	Z SP	0.4 0.3	0.4 0.5	0.7 0.5	0.4 0.6	0.7 0.7	0.8 0.6	0.4 0.4	0.4 0.4	0.3 0.3	0.3 0.4	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.7	0.5 0.3	0.5 0.6	0.7 0.8	0.4	0.8
20-Jul	0.7 0.6	0.6 0.6	0.6 0.6	Z SP	0.8 0.7	0.6 0.5	0.6 0.6	0.6 0.5	0.5 0.5	0.6 0.6	0.6 0.7	0.7 0.7	0.6 0.6	0.5 0.6	0.5 0.6	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.5	0.4 0.3	0.5	0.8
21-Jul	0.4 0.3	0.3 0.4	0.4 0.4	0.4 0.4	Z SP	0.4 0.4	0.4 0.6	0.6 0.6	0.5 0.5	0.5 0.8	0.9 1.1	0.8 0.5	0.4 0.5	0.7 0.5	0.6 0.5	0.3 0.3	0.2 0.2	0.3 0.3	0.3 0.3	0.4 0.6	0.6 0.5	0.6 0.9	0.6 0.6	0.7 0.8	0.5	1.1
22-Jul	0.9 0.9	1.0 1.1	1.1 1.0	0.7 0.6	0.5 0.6	Z SP	1.2 1.3	1.1 1.0	0.8 0.6	0.5 0.4	0.4 0.6	0.6 0.4	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.4	0.2 0.2	0.2 0.2	0.3 0.3	0.3 0.3	0.5 0.5	0.7 1.0	0.5	1.3
23-Jul	Z SP	1.6 1.7	1.6 1.2	2.6 2.4	2.3 2.0	1.8 1.6	1.4 1.3	0.8 0.6	0.5 0.5	0.5 0.5	0.4 0.5	0.4 0.3	0.2 0.2	0.2 0.3	0.4 0.5	0.5 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.2 0.3	0.2 0.3	0.3 0.3	0.7	2.6
24-Jul	0.3 0.4	Z SP	0.3 0.3	0.3 0.4	0.4 0.5	0.5 0.4	0.5 0.5	0.5 0.5	0.3 0.3	0.3 0.6	1.1 1.0	0.7 0.6	0.6 1.1	1.6 1.1	1.0 0.7	0.4 0.3	0.3 0.6	0.8 0.7	0.5 0.4	0.6 0.7	0.6 0.4	0.4 0.3	0.3 0.3	0.3 0.4	0.5	1.6
25-Jul	0.5 0.5	0.5 0.5	Z SP	0.5 0.4	0.3 0.2	0.3 0.3	0.2 0.3	0.3 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.4 0.4	0.4 0.3	0.3 0.4	0.4 0.4	0.3	0.5
26-Jul	0.5 0.6	0.8 0.8	0.8 0.8	Z SP	0.9 0.8	0.9 1.0	1.1 1.0	0.9 0.9	0.9 0.8	0.8 0.7	0.8 0.7	0.7 0.7	0.6 0.6	0.6 0.5	0.6 0.5	0.5 0.4	0.5 0.4	0.4 0.3	0.4 0.3	0.4 0.3	0.4 0.4	0.4 0.3	0.3 0.3	0.3 0.3	0.6	1.1
27-Jul	0.3 0.4	0.4 0.4	0.4 0.4	0.4 0.4	Z SP	0.5 1.6	1.2 0.6	0.3 0.4	0.4 0.3	0.3 0.3	0.2 0.3	0.4 0.9	1.0 0.9	0.5 0.3	0.3 0.3	0.3 0.3	0.3 0.8	0.7 0.7	0.8 0.9	3.1 2.6	0.6 0.3	0.3 0.3	0.3 0.4	0.3 0.2	0.6	3.1
28-Jul	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.4	0.5 0.4	Z SP	5.9 4.4	2.5 2.2	2.2 2.8	1.8 1.5	1.8 1.4	1.1 0.5	0.3 0.3	0.2 0.2	0.5 0.5	0.7 0.7	0.7 0.6	0.6 0.4	0.3 0.6	0.4 0.4	0.4 0.4	0.5 0.3	0.3 0.3	0.3 0.2	0.9	5.9
29-Jul	Z SP	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.4 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.4 0.3	0.5 0.5	0.3 0.2	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3	0.5
30-Jul	0.2 0.2	Z SP	0.3 0.3	0.3 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	C C	C C	C C	C C	C C	0.3 0.2	0.2 0.1	0.1 0.2	0.1 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.7	0.3	0.7
31-Jul	1.3 1.1	0.7 0.5	Z SP	0.4 0.4	0.4 0.7	1.0 0.9	0.9 1.1	1.4 0.6	0.7 0.5	1.4 2.4	2.5 2.4	1.1 0.9	1.1 1.2	0.7 0.4	0.3 2.4	1.1 1.3	2.5 2.9	3.2 2.6	2.7 2.7	2.2 1.9	1.8 1.6	1.7 1.7	1.7 2.3	2.2 1.3	1.5	3.2
0.5 2.1																								Diurnal Average Diurnal Maximum		

Z - zerospan C - Calibration UO - Unstable Operation PF - Power Failure SP - Span
Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

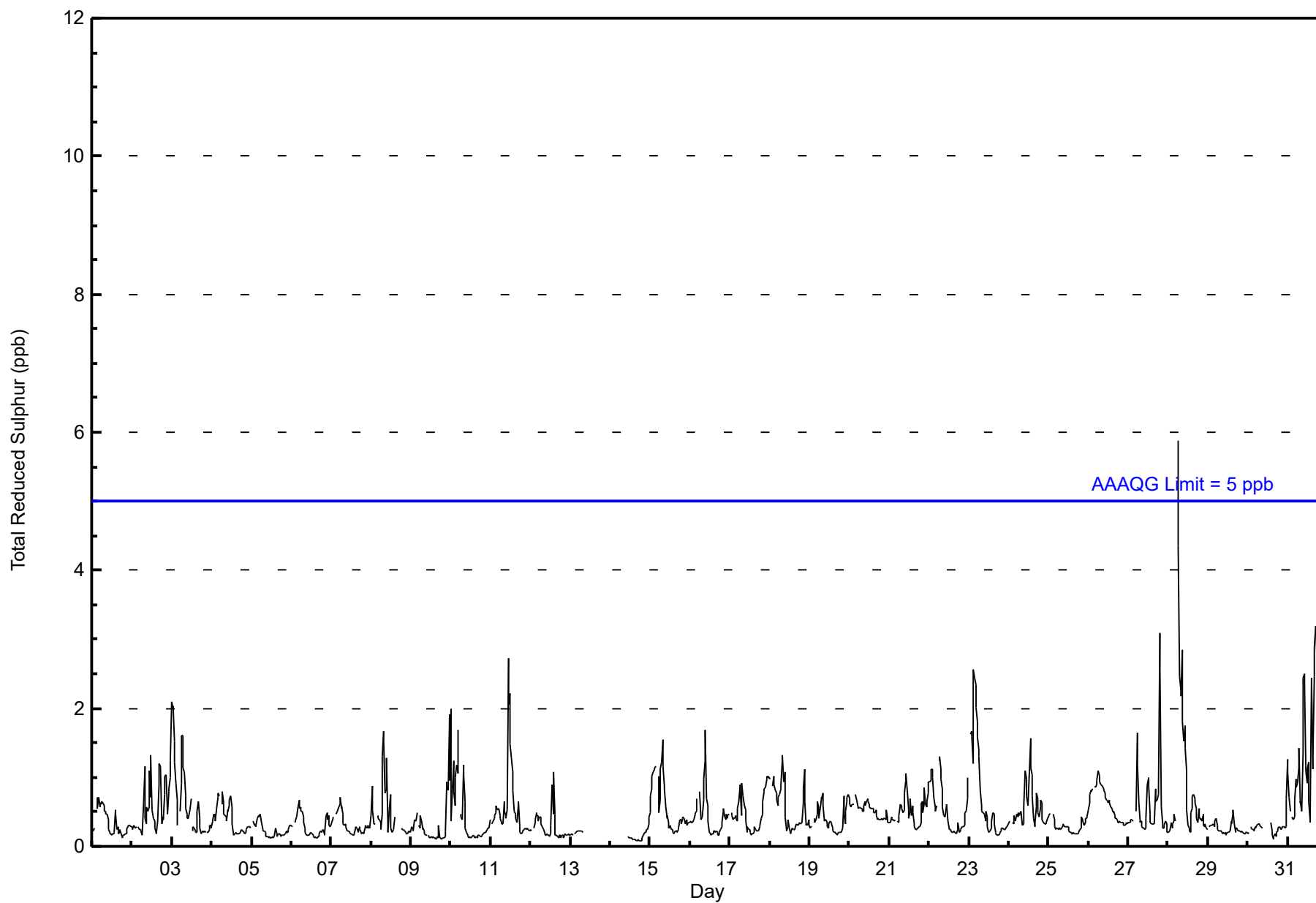
Fort McKay - Bertha Ganter - July 2026

Maximum Value: 5.1 ppb on Jul 28 07:00																	Maximum Daily Average: 1.5 ppb on Jul 31										Hours in Service: 744	
Minimum Value: 0.1 ppb on Jul 14 17:00																	Minimum Daily Average: 0.2 ppb on Jul 5										Hours of Data: 678	
Maximum Diurnal Average: 0.8 ppb at hour 7																	Minimum Diurnal Average: 0.3 ppb at hour 16										Hours of Missing Data: 66	
Monthly Average: 0.49 ppb																	Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.2 Median = 0.4 Q ₃ = 0.6 P ₉₀ = 1.0 P ₉₉ = 2.5										Hours of Calibration: 35	
																											Percent Operational Time: 95.8	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	0.2	0.2	Z	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.2	0.2	0.2	0.2	0.5	0.3	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3		
2-Jul	0.3	0.3	0.3	Z	0.3	0.2	0.2	0.9	0.4	0.5	0.8	1.0	0.5	0.4	0.2	0.3	1.1	1.2	0.4	0.6	1.0	0.5	0.8	1.1	0.6	1.2		
3-Jul	2.0	1.8	1.1	0.5	Z	0.7	1.6	1.1	0.6	0.4	0.4	0.6	0.2	0.3	0.2	0.4	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.6	2.0		
4-Jul	0.3	0.5	0.4	0.6	0.8	Z	0.7	0.5	0.4	0.4	0.5	0.7	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.8		
5-Jul	Z	0.3	0.3	0.4	0.4	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.5		
6-Jul	0.3	Z	0.4	0.4	0.6	0.6	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.5	0.4	0.3	0.3	0.6		
7-Jul	0.3	0.4	Z	0.5	0.5	0.7	0.6	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.7		
8-Jul	0.7	0.4	0.3	Z	0.4	0.4	0.4	1.5	1.2	1.1	0.3	0.6	0.2	0.2	PF	PF	PF	PF	PF	0.2	0.2	0.2	0.2	0.2	0.5	1.5		
9-Jul	0.2	0.2	0.4	0.4	Z	0.3	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.6	0.8	1.4	0.3	1.4		
10-Jul	1.2	1.0	0.7	1.1	1.4	Z	0.5	0.8	0.8	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.4	1.4		
11-Jul	Z	0.4	0.4	0.5	0.5	0.5	0.4	0.3	0.6	0.4	1.6	2.1	1.4	0.9	0.5	0.4	0.5	0.5	0.2	0.2	0.2	0.3	0.2	0.2	0.6	2.1		
12-Jul	0.2	Z	0.3	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.7	0.8	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.8		
13-Jul	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	0.2		
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.4	--	0.4		
15-Jul	0.6	0.9	1.1	1.1	Z	0.7	0.9	1.4	1.0	0.7	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.3	0.3	0.4	0.6	1.4		
16-Jul	0.4	0.3	0.4	0.5	0.6	Z	0.6	0.4	0.8	1.5	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.4	0.4	0.5	0.4	1.5		
17-Jul	Z	0.5	0.4	0.4	0.4	0.6	0.9	0.7	0.7	0.6	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.4	0.7	0.8	1.0	1.0	0.5	1.0		
18-Jul	1.0	Z	0.9	0.9	0.7	0.7	0.8	1.1	1.1	0.7	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.7	0.9	0.3	0.3	0.6	1.1		
19-Jul	0.3	0.3	Z	0.4	0.4	0.6	0.5	0.7	0.7	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.5	0.4	0.6	0.7	0.4	0.7		
20-Jul	0.7	0.6	0.6	Z	0.7	0.6	0.6	0.6	0.5	0.6	0.6	0.7	0.6	0.5	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.7		
21-Jul	0.4	0.4	0.4	0.4	Z	0.4	0.5	0.6	0.5	0.7	1.0	0.7	0.5	0.6	0.5	0.3	0.2	0.3	0.3	0.5	0.6	0.7	0.6	0.7	0.5	1.0		
22-Jul	0.9	1.0	1.1	0.6	0.5	Z	1.3	1.0	0.7	0.4	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.5	0.9	0.5	1.3		
23-Jul	Z	1.6	1.4	2.5	2.2	1.7	1.4	0.7	0.5	0.5	0.4	0.4	0.2	0.3	0.4	0.4	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.7	2.5		
24-Jul	0.4	Z	0.3	0.4	0.4	0.4	0.5	0.5	0.3	0.5	1.0	0.7	0.8	1.4	0.9	0.4	0.5	0.7	0.5	0.6	0.5	0.3	0.3	0.4	0.5	1.4		
25-Jul	0.5	0.5	Z	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.4	0.4	0.3	0.5		
26-Jul	0.6	0.8	0.8	Z	0.9	0.9	1.1	0.9	0.9	0.8	0.7	0.7	0.7	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.6	1.1		
27-Jul	0.3	0.4	0.4	0.4	Z	1.1	0.9	0.4	0.3	0.3	0.3	0.7	0.9	0.4	0.3	0.3	0.6	0.7	0.8	2.8	0.4	0.3	0.3	0.3	0.6	2.8		
28-Jul	0.2	0.3	0.3	0.3	0.4	Z	5.1	2.4	2.5	1.7	1.6	0.8	0.3	0.2	0.5	0.7	0.7	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.9	5.1		
29-Jul	Z	0.3	0.3	0.3	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5		
30-Jul	0.2	Z	0.3	0.2	0.3	0.3	0.3	0.3	0.3	C	C	C	C	C	0.3	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.5	0.3	0.5		
31-Jul	1.2	0.6	Z	0.4	0.6	0.9	1.0	1.0	0.6	1.9	2.4	1.0	1.2	0.5	1.4	1.2	2.7	2.9	2.7	2.0	1.7	1.7	2.0	1.7	1.5	2.9		
0.5 0.6 0.6 0.6 0.6 0.6 0.8 0.7 0.6 0.6 0.6 0.5 0.4 0.3 0.4 0.3 0.4 0.4 0.3 0.4 0.4 0.4 0.5																									Diurnal Average			
2.0 1.8 1.4 2.5 2.2 1.7 5.1 2.4 2.5 1.9 2.4 2.1 1.4 1.4 1.4 1.2 2.7 2.9 2.7 2.8 1.7 1.7 2.0 1.7																									Diurnal Maximum			
Z - zerospan C - Calibration PF - Power Failure																												
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA																												



Wood Buffalo Environmental Association
Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	672	99.12	99.12
3 - 4	5	0.74	99.85
5 - 7	1	0.15	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 678

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	54	36	16	9	7	10	31	125	93	57	41	36	34	40	42	37	668
3 - 4	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	5
5 - 7	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	54	36	16	9	7	10	31	128	96	57	41	36	34	40	42	37	674

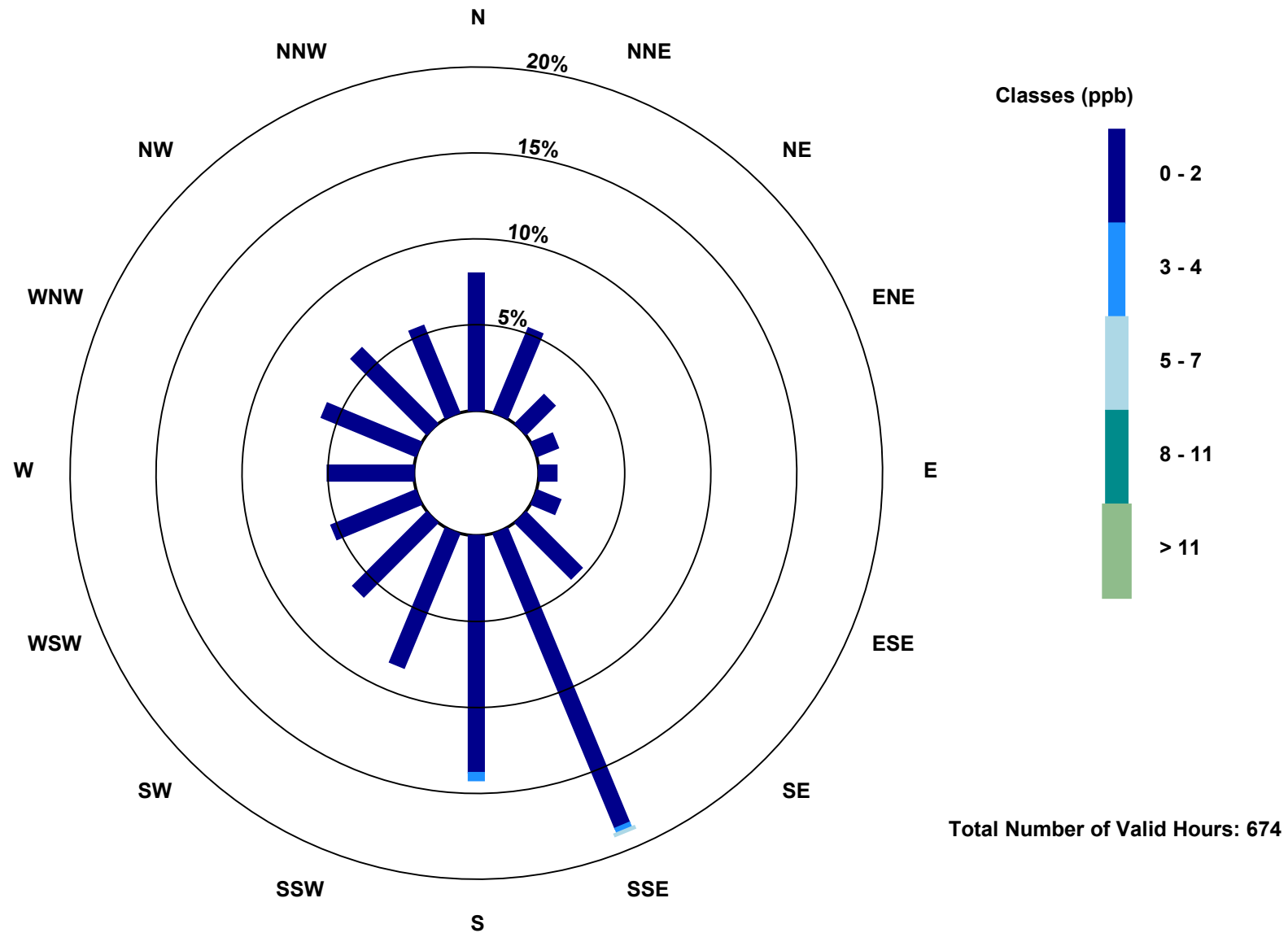
Total Number of Valid Hours: 674

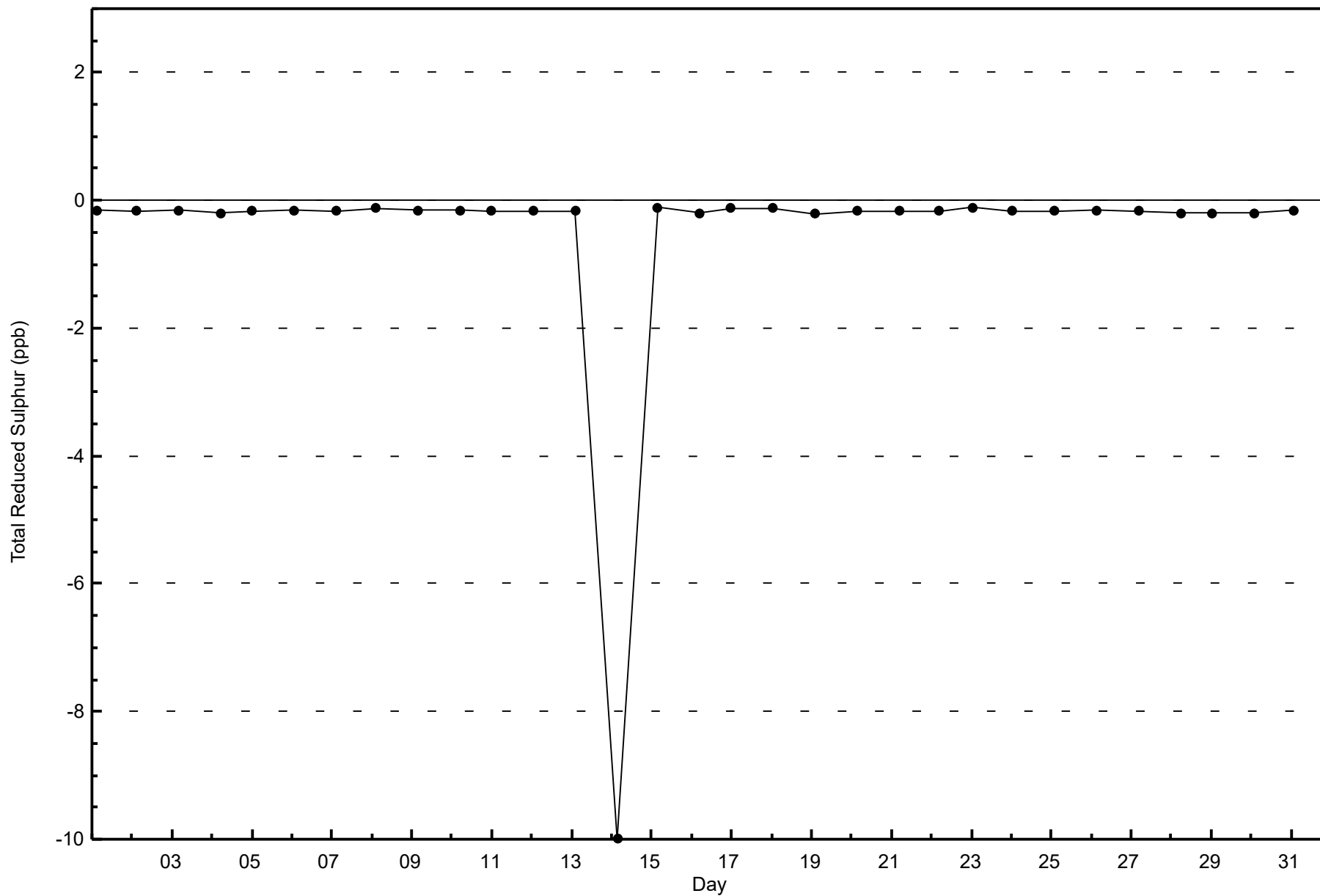
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Total Reduced Sulphur (TRS) - ppb
Fort McKay - Bertha Ganter

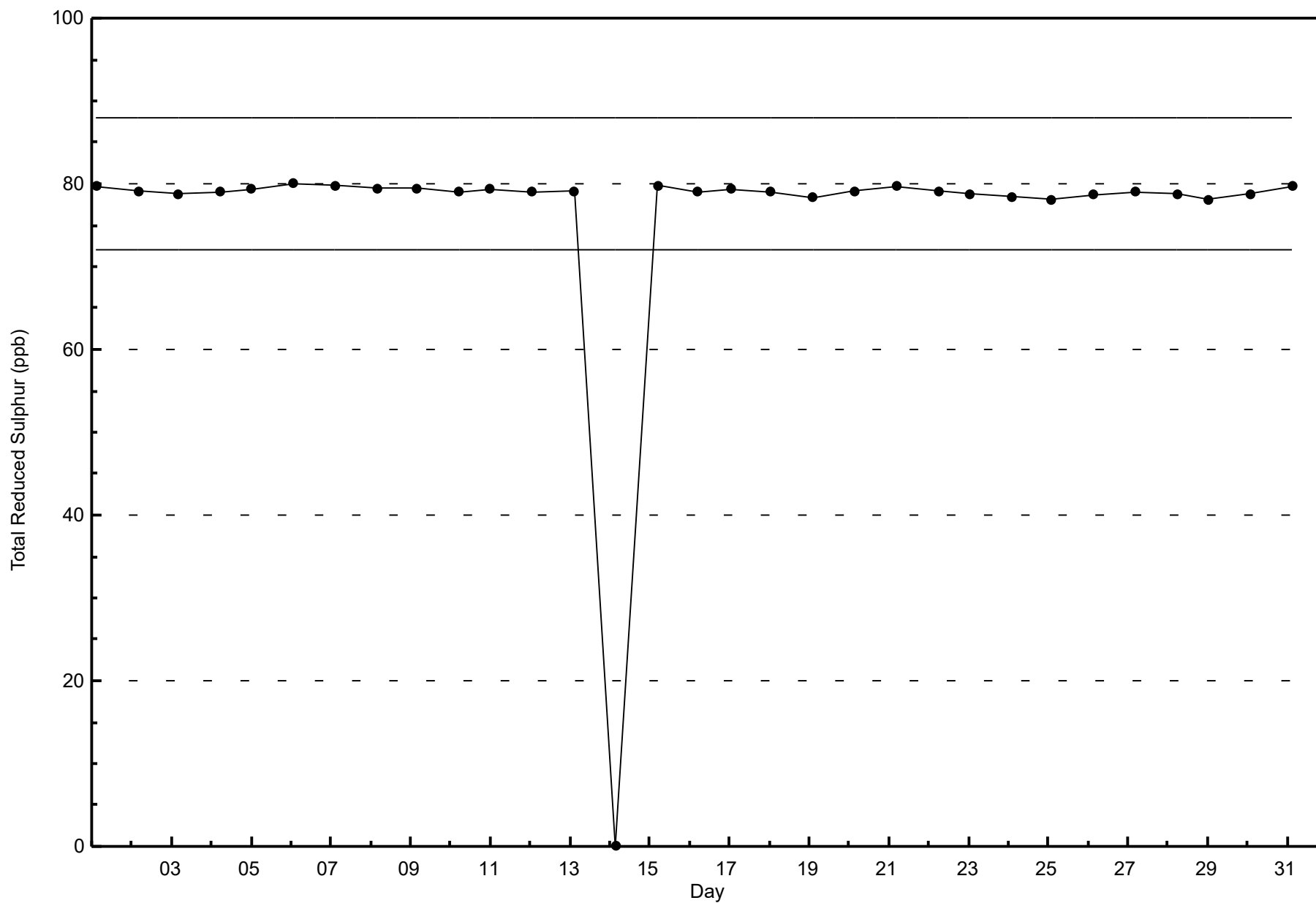






Wood Buffalo Environmental Association
Span Responses

Total Reduced Sulphur (TRS) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

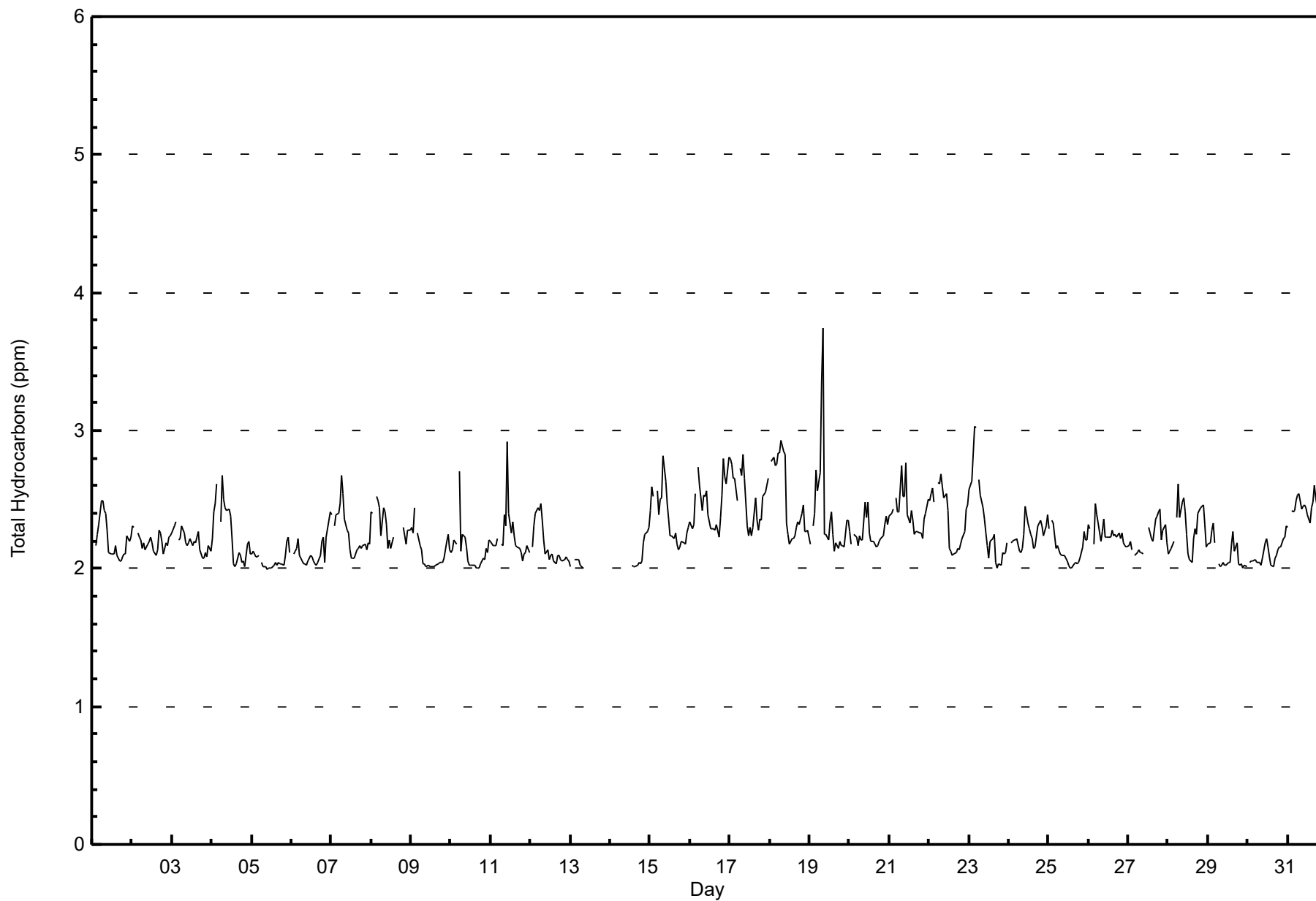
Fort McKay - Bertha Ganter - July 2026

Maximum Value: 3.7 ppm on Jul 19 09:00																			Maximum Daily Average: 2.5 ppm on Jul 17							Hours in Service: 744	
Minimum Value: 2.0 ppm on Jul 5 10:00																			Minimum Daily Average: 2.1 ppm on Jul 5							Hours of Data: 678	
Maximum Diurnal Average: 2.4 ppm at hour 9																			Minimum Diurnal Average: 2.2 ppm at hour 15							Hours of Missing Data: 66	
Monthly Average: 2.26 ppm																			Percentiles: P ₁ = 2.0 P ₁₀ = 2.0 Q ₁ = 2.1 Median = 2.2 Q ₃ = 2.4 P ₉₀ = 2.5 P ₉₉ = 2.8							Hours of Calibration: 32	
																										Percent Operational Time: 95.4	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	2.1	Z	2.2	2.2	2.3	2.5	2.5	2.4	2.4	2.3	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.5
2-Jul	2.3	2.3	Z	2.3	2.2	2.2	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.3	2.3	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3
3-Jul	2.3	2.3	2.3	Z	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.3	
4-Jul	2.2	2.4	2.5	2.6	Z	2.3	2.7	2.5	2.4	2.4	2.4	2.4	2.2	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.0	2.2	2.2	2.1	2.3	2.7	
5-Jul	2.1	2.1	2.1	2.1	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.1	2.2	
6-Jul	Z	2.1	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.0	2.2	2.3	2.4	2.1	2.4
7-Jul	2.4	Z	2.3	2.4	2.4	2.5	2.7	2.5	2.4	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.1	2.2	2.2	2.2	2.7	
8-Jul	2.4	2.4	Z	2.5	2.5	2.4	2.2	2.4	2.4	2.3	2.1	2.2	2.1	2.2	PF	PF	PF	PF	PF	PF	2.3	2.2	2.2	2.3	2.3	2.5	
9-Jul	2.3	2.3	2.4	Z	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.1	2.4	
10-Jul	2.1	2.1	2.2	2.2	Z	2.7	2.1	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.1	2.7	
11-Jul	2.2	2.2	2.2	2.2	2.2	Z	2.2	2.2	2.4	2.3	2.9	2.4	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.9	
12-Jul	Z	2.2	2.3	2.4	2.4	2.4	2.5	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.5	
13-Jul	2.0	Z	2.1	2.1	2.1	2.1	2.0	2.0	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	2.1	
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.3	2.3	PF	2.3	
15-Jul	2.4	2.6	2.5	Z	2.6	2.4	2.5	2.5	2.8	2.6	2.5	2.4	2.2	2.2	2.2	2.3	2.2	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.8	
16-Jul	2.3	2.3	2.3	2.5	Z	2.7	2.6	2.4	2.5	2.5	2.6	2.4	2.3	2.3	2.3	2.3	2.3	2.2	2.4	2.5	2.8	2.7	2.6	2.8	2.5	2.8	
17-Jul	2.8	2.8	2.7	2.7	2.5	Z	2.7	2.7	2.8	2.7	2.3	2.2	2.3	2.2	2.3	2.5	2.4	2.3	2.4	2.4	2.5	2.6	2.6	2.7	2.5	2.8	
18-Jul	Z	2.8	2.8	2.7	2.8	2.8	2.8	2.9	2.8	2.8	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.5	2.3	2.3	2.3	2.5	2.9	
19-Jul	2.2	Z	2.3	2.4	2.7	2.6	2.7	3.4	3.7	2.3	2.2	2.2	2.3	2.4	2.3	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.3	2.4	2.4	3.7	
20-Jul	2.3	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.5	2.4	2.5	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.3	2.3	2.5	
21-Jul	2.4	2.4	2.4	Z	2.5	2.4	2.4	2.7	2.5	2.5	2.8	2.4	2.3	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.2	2.4	2.4	2.5	2.4	2.8	
22-Jul	2.5	2.5	2.6	2.5	Z	2.6	2.6	2.7	2.6	2.5	2.5	2.4	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.4	2.5	2.4	2.7	
23-Jul	2.6	2.6	2.6	3.0	3.0	Z	2.6	2.5	2.4	2.4	2.3	2.2	2.1	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.3	3.0	
24-Jul	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.4	2.3	2.3	2.2	2.2	2.1	2.2	2.3	2.3	2.4	2.3	2.2	2.3	2.4	2.2	2.4	
25-Jul	2.3	Z	2.3	2.3	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.2	2.2	2.1	2.3	
26-Jul	2.3	2.3	Z	2.2	2.5	2.4	2.3	2.2	2.3	2.4	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.3	2.2	2.3	2.2	2.2	2.2	2.3	2.5	
27-Jul	2.2	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	M	M	2.3	2.3	2.2	2.2	2.4	2.4	2.4	2.4	2.2	2.3	2.3	2.2	2.2	2.4	
28-Jul	2.1	2.1	2.1	2.2	Z	2.4	2.6	2.4	2.5	2.5	2.4	2.2	2.1	2.1	2.0	2.2	2.3	2.2	2.4	2.4	2.4	2.5	2.3	2.2	2.3	2.6	
29-Jul	2.2	2.2	2.3	2.3	2.2	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.3	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	
30-Jul	Z	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.1	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.1	2.3	
31-Jul	2.3	Z	2.4	2.4	2.4	2.5	2.5	2.5	2.4	2.5	2.5	2.4	2.4	2.3	2.4	2.5	2.6	2.5	2.5	2.4	2.5	2.5	2.5	2.4	2.5	2.6	
2.3 2.3 2.3 2.4 2.4 2.4 2.4 2.4 2.4 2.3 2.3 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.3 2.3																								Diurnal Average			
2.8 2.8 2.8 3.0 3.0 2.8 2.8 3.4 3.7 2.8 2.9 2.5 2.4 2.4 2.4 2.5 2.6 2.5 2.5 2.5 2.8 2.7 2.6 2.8																								Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	92	13.57	13.57
2.1 - 3.0	584	86.14	99.71
3.1 - 10.0	2	0.29	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 678

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	4	1	0	0	0	0	0	3	10	13	12	11	12	10	10	5	91
2.1 - 3.0	50	35	16	10	8	10	32	121	91	42	28	24	22	27	34	31	581
3.1 - 10.0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	55	36	16	10	8	10	32	124	101	55	40	35	34	37	44	37	674

Total Number of Valid Hours: 674

Total Number of Hours: 744

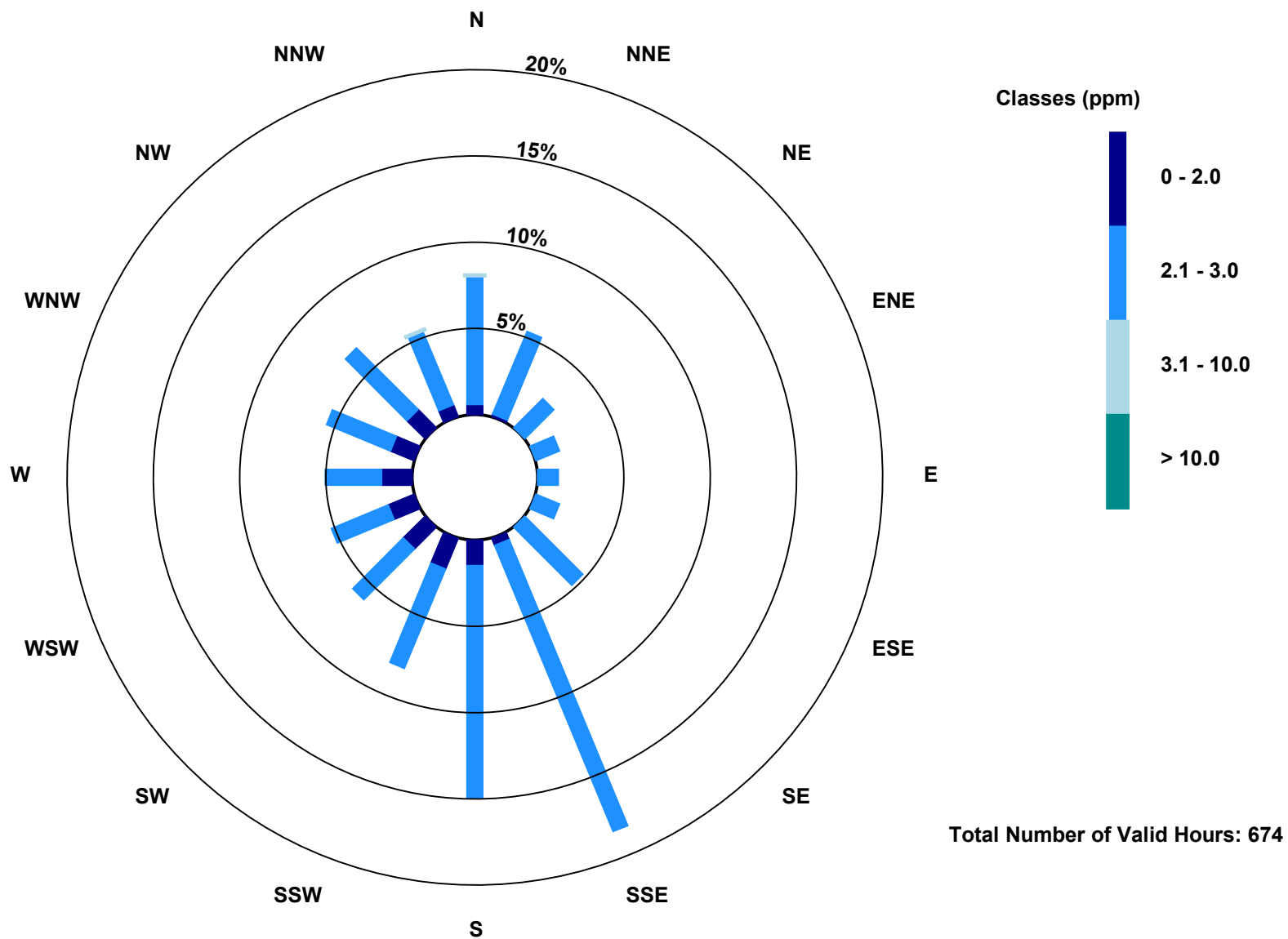


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Total Hydrocarbons (THC) - ppm

Fort McKay - Bertha Ganter



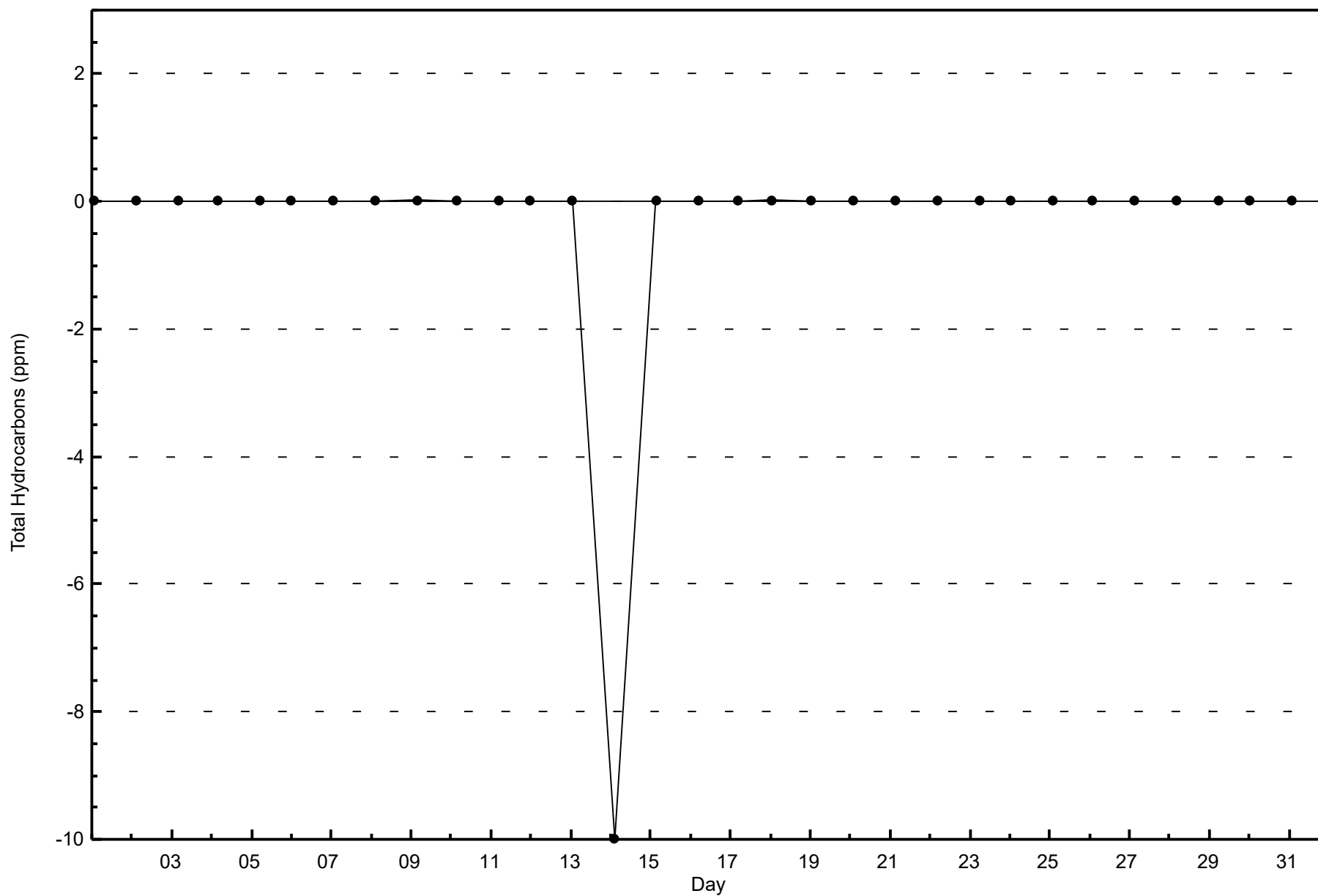


Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

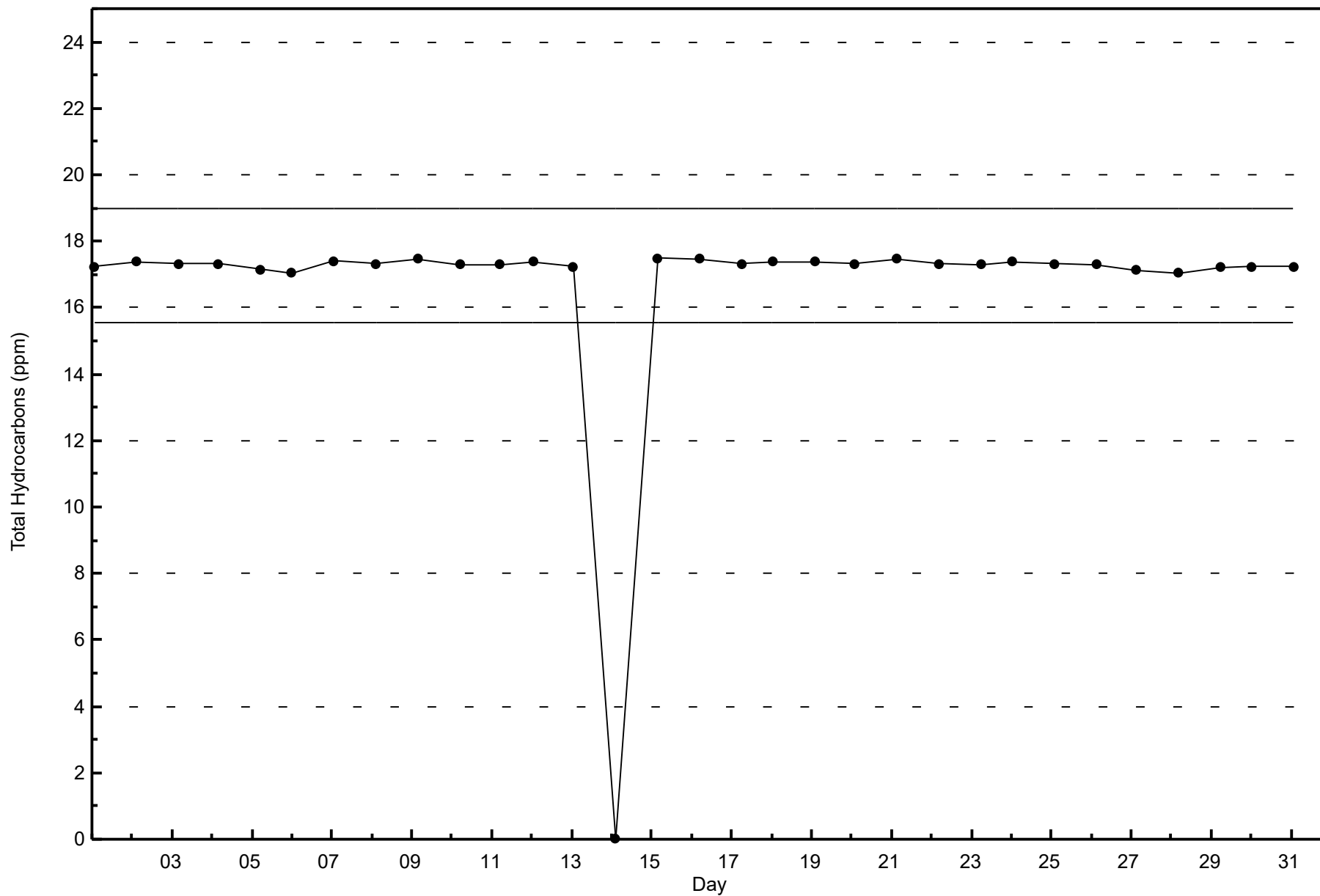
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Span Responses

Total Hydrocarbons (THC) - ppm
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

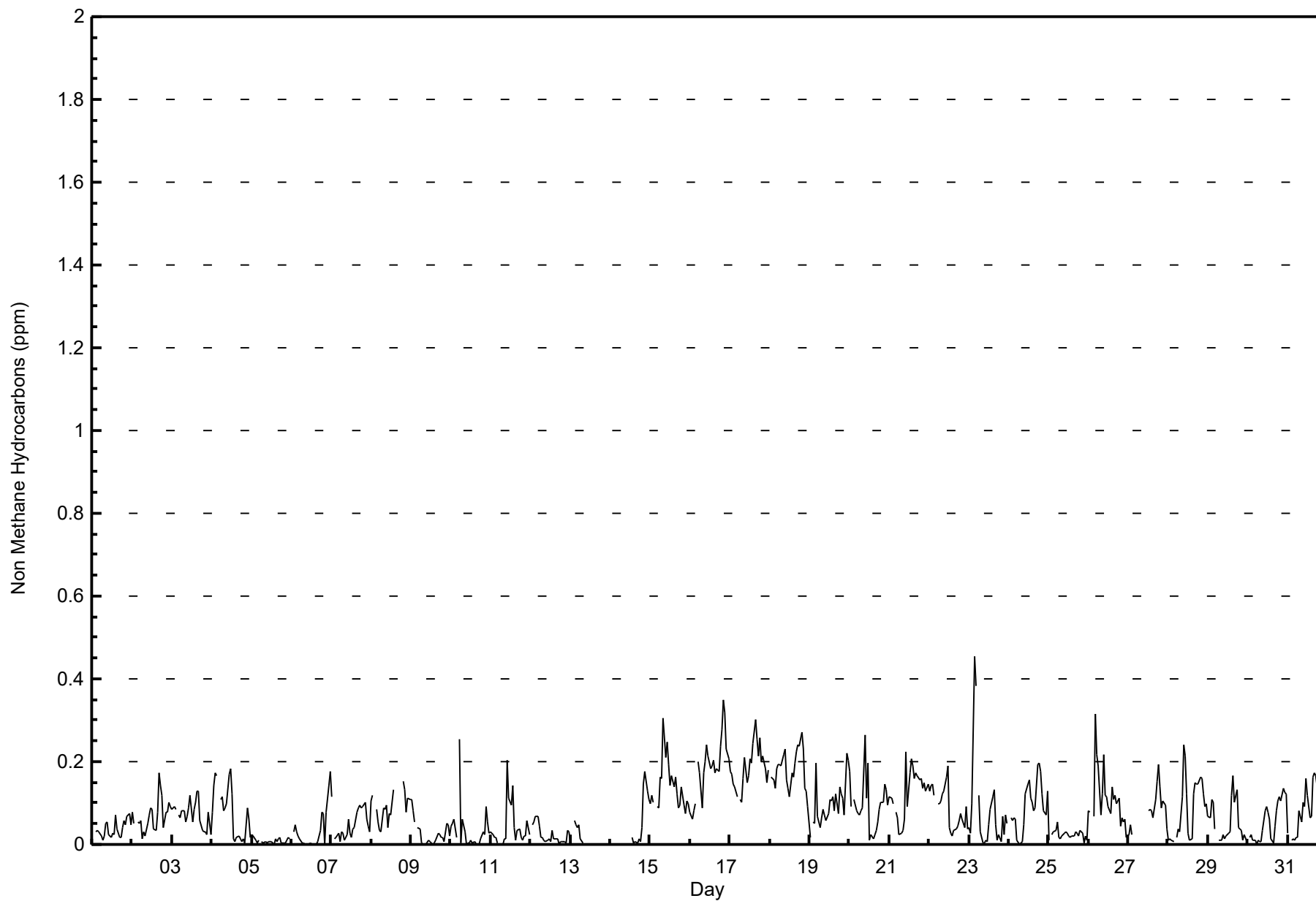
Fort McKay - Bertha Ganter - July 2026

Maximum Value: 0.453 ppm on Jul 23 04:00																		Maximum Daily Average: 0.188 ppm on Jul 16								Hours in Service: 744	
Minimum Value: 0.000 ppm on Jul 6 10:00																		Minimum Daily Average: 0.010 ppm on Jul 5								Hours of Data: 678	
Maximum Diurnal Average: 0.097 ppm at hour 11																		Minimum Diurnal Average: 0.049 ppm at hour 8								Hours of Missing Data: 66	
Monthly Average: 0.079 ppm																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.1 P ₉₀ = 0.2 P ₉₉ = 0.3								Hours of Calibration: 32	
																										Percent Operational Time: 95.4	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.004	Z	0.032	0.034	0.030	0.019	0.011	0.019	0.052	0.054	0.024	0.016	0.028	0.022	0.072	0.037	0.018	0.017	0.039	0.057	0.049	0.068	0.076	0.046	0.036	0.076	
2-Jul	0.079	0.049	Z	0.055	0.052	0.057	0.013	0.030	0.019	0.050	0.072	0.087	0.084	0.037	0.034	0.078	0.174	0.141	0.119	0.042	0.077	0.079	0.102	0.093	0.070	0.174	
3-Jul	0.084	0.090	0.086	Z	0.072	0.063	0.081	0.080	0.055	0.069	0.087	0.119	0.054	0.084	0.103	0.129	0.128	0.059	0.035	0.030	0.031	0.025	0.079	0.024	0.072	0.129	
4-Jul	0.077	0.142	0.174	0.166	Z	0.109	0.116	0.080	0.089	0.099	0.169	0.183	0.120	0.012	0.008	0.016	0.020	0.013	0.008	0.012	0.005	0.087	0.059	0.017	0.077	0.183	
5-Jul	0.025	0.021	0.011	0.005	0.010	Z	0.008	0.004	0.006	0.004	0.007	0.008	0.007	0.002	0.014	0.008	0.015	0.019	0.005	0.004	0.003	0.011	0.018	0.014	0.010	0.025	
6-Jul	Z	0.032	0.048	0.031	0.022	0.014	0.004	0.003	0.001	0.000	0.001	0.003	0.000	0.001	0.001	0.001	0.005	0.032	0.077	0.074	0.000	0.078	0.141	0.177	0.033	0.177	
7-Jul	0.114	Z	0.014	0.016	0.029	0.008	0.031	0.026	0.010	0.022	0.061	0.026	0.018	0.039	0.040	0.078	0.088	0.094	0.088	0.092	0.100	0.062	0.044	0.032	0.049	0.114	
8-Jul	0.104	0.118	Z	0.086	0.055	0.034	0.030	0.088	0.084	0.096	0.042	0.075	0.071	0.133	PF	PF	PF	PF	PF	0.153	0.131	0.079	0.111	0.109	0.089	0.153	
9-Jul	0.109	0.083	0.055	Z	0.041	0.036	0.004	0.000	0.000	0.000	0.010	0.008	0.004	0.002	0.004	0.012	0.028	0.025	0.016	0.018	0.006	0.049	0.049	0.022	0.025	0.109	
10-Jul	0.045	0.050	0.060	0.016	Z	0.255	0.004	0.063	0.029	0.001	0.002	0.004	0.009	0.002	0.006	0.000	0.000	0.000	0.014	0.029	0.023	0.091	0.053	0.026	0.034	0.255	
11-Jul	0.029	0.023	0.018	0.019	0.002	Z	0.000	0.000	0.015	0.013	0.205	0.111	0.095	0.142	0.041	0.009	0.035	0.037	0.017	0.011	0.022	0.019	0.059	0.023	0.041	0.205	
12-Jul	Z	0.048	0.053	0.068	0.067	0.044	0.017	0.016	0.011	0.008	0.010	0.014	0.008	0.032	0.015	0.012	0.012	0.001	0.008	0.007	0.008	0.005	0.035	0.030	0.023	0.068	
13-Jul	0.007	Z	0.058	0.047	0.042	0.047	0.013	0.002	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	0.058
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	C	C	0.019	0.002	0.007	0.003	0.013	0.007	0.040	0.147	0.175	0.127	0.110	--	0.175	
15-Jul	0.099	0.120	0.100	Z	0.091	0.087	0.163	0.159	0.304	0.210	0.247	0.192	0.144	0.166	0.139	0.164	0.124	0.089	0.093	0.138	0.094	0.074	0.106	0.098	0.139	0.304	
16-Jul	0.079	0.062	0.080	0.097	Z	0.202	0.173	0.087	0.174	0.200	0.240	0.212	0.182	0.189	0.205	0.174	0.184	0.176	0.239	0.277	0.350	0.319	0.229	0.206	0.188	0.350	
17-Jul	0.177	0.168	0.144	0.138	0.117	Z	0.107	0.102	0.159	0.209	0.151	0.167	0.207	0.197	0.244	0.303	0.255	0.214	0.257	0.199	0.213	0.182	0.150	0.180	0.184	0.303	
18-Jul	Z	0.162	0.155	0.134	0.182	0.192	0.192	0.190	0.216	0.232	0.157	0.135	0.116	0.174	0.163	0.198	0.224	0.239	0.236	0.272	0.230	0.134	0.130	0.093	0.181	0.272	
19-Jul	0.017	Z	0.055	0.050	0.196	0.069	0.040	0.063	0.085	0.070	0.058	0.074	0.107	0.105	0.115	0.081	0.123	0.076	0.138	0.123	0.111	0.073	0.219	0.202	0.098	0.219	
20-Jul	0.175	0.092	Z	0.109	0.083	0.076	0.073	0.080	0.088	0.263	0.112	0.198	0.010	0.024	0.015	0.022	0.036	0.056	0.086	0.103	0.102	0.146	0.131	0.097	0.094	0.263	
21-Jul	0.117	0.111	0.099	Z	0.079	0.066	0.025	0.026	0.035	0.060	0.225	0.091	0.172	0.206	0.189	0.159	0.173	0.165	0.155	0.161	0.134	0.149	0.128	0.146	0.125	0.225	
22-Jul	0.130	0.141	0.147	0.117	Z	0.100	0.099	0.104	0.121	0.127	0.162	0.190	0.041	0.027	0.019	0.032	0.037	0.045	0.058	0.074	0.060	0.041	0.092	0.039	0.087	0.190	
23-Jul	0.041	0.028	0.097	0.453	0.384	Z	0.120	0.030	0.003	0.003	0.010	0.006	0.049	0.084	0.116	0.132	0.047	0.010	0.024	0.007	0.069	0.025	0.070	0.050	0.081	0.453	
24-Jul	Z	0.065	0.058	0.065	0.060	0.011	0.000	0.002	0.007	0.047	0.121	0.146	0.155	0.113	0.102	0.080	0.089	0.192	0.196	0.178	0.121	0.082	0.072	0.129	0.091	0.196	
25-Jul	0.010	Z	0.023	0.032	0.036	0.053	0.016	0.012	0.019	0.026	0.031	0.028	0.021	0.017	0.019	0.020	0.030	0.028	0.019	0.032	0.027	0.003	0.020	0.011	0.023	0.053	
26-Jul	0.082	0.077	Z	0.068	0.314	0.216	0.190	0.072	0.121	0.218	0.119	0.115	0.092	0.074	0.140	0.109	0.120	0.098	0.111	0.045	0.066	0.055	0.061	0.017	0.112	0.314	
27-Jul	0.025	0.046	0.025	Z	0.001	0.000	0.000	0.000	0.000	0.000	M	M	0.083	0.085	0.082	0.064	0.109	0.151	0.195	0.138	0.090	0.107	0.095	0.037	0.063	0.195	
28-Jul	0.012	0.012	0.009	0.006	Z	0.018	0.036	0.029	0.114	0.240	0.213	0.121	0.026	0.009	0.014	0.121	0.148	0.146	0.144	0.164	0.161	0.121	0.090	0.097	0.089	0.240	
29-Jul	0.069	0.065	0.110	0.103	0.038	Z	0.009	0.009	0.010	0.023	0.012	0.022	0.026	0.030	0.120	0.165	0.101	0.131	0.041	0.037	0.035	0.009	0.023	0.008	0.052	0.165	
30-Jul	Z	0.016	0.023	0.010	0.010	0.000	0.009	0.007	0.006	0.032	0.083	0.092	0.080	0.060	0.014	0.004	0.044	0.081	0.105	0.114	0.106	0.135	0.125	0.122	0.056	0.135	
31-Jul	0.028	Z	0.010	0.015	0.010	0.016	0.018	0.080	0.054	0.101	0.090	0.158	0.118	0.066	0.068	0.162	0.173	0.166	0.138	0.137	0.163	0.131	0.122	0.063	0.091	0.173	
0.069 0.076 0.067 0.078 0.081 0.072 0.053 0.049 0.065 0.085 0.097 0.093 0.073 0.072 0.072 0.082 0.088 0.087 0.092 0.092 0.091 0.087 0.094 0.077																										Diurnal Average	
0.177 0.168 0.174 0.453 0.384 0.255 0.192 0.190 0.304 0.263 0.247 0.212 0.207 0.206 0.244 0.303 0.255 0.239 0.257 0.277 0.350 0.319 0.229 0.206																										Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	58	8.55	8.55
0.006 - 0.05	256	37.76	46.31
0.06 - 0.1	254	37.46	83.78
> 0.1	110	16.22	100.00

Total Number of Valid Hours: 678

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 0.005	6	3	1	1	2	1	3	4	7	8	5	4	2	3	4	4	58
0.006 - 0.05	17	4	7	1	1	5	7	38	42	21	23	19	19	16	25	10	255
0.06 - 0.1	24	17	5	5	4	2	14	55	40	23	5	10	8	16	10	14	252
> 0.1	8	12	3	3	1	2	8	27	12	3	7	2	5	2	5	9	109
Totals	55	36	16	10	8	10	32	124	101	55	40	35	34	37	44	37	674

Total Number of Valid Hours: 674

Total Number of Hours: 744



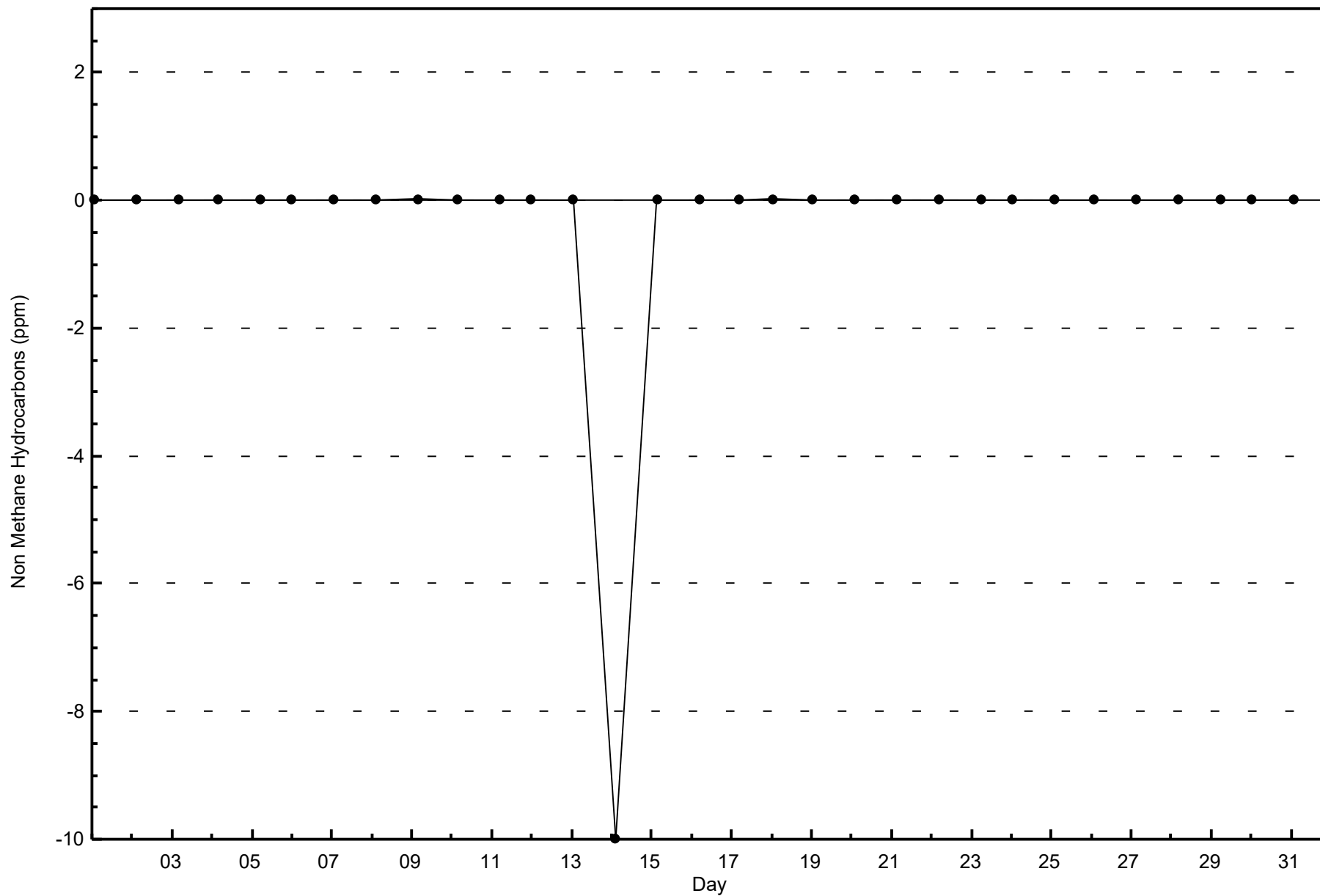
Non Methane Hydrocarbons (NMHC) - ppm
Fort McKay - Bertha Ganter

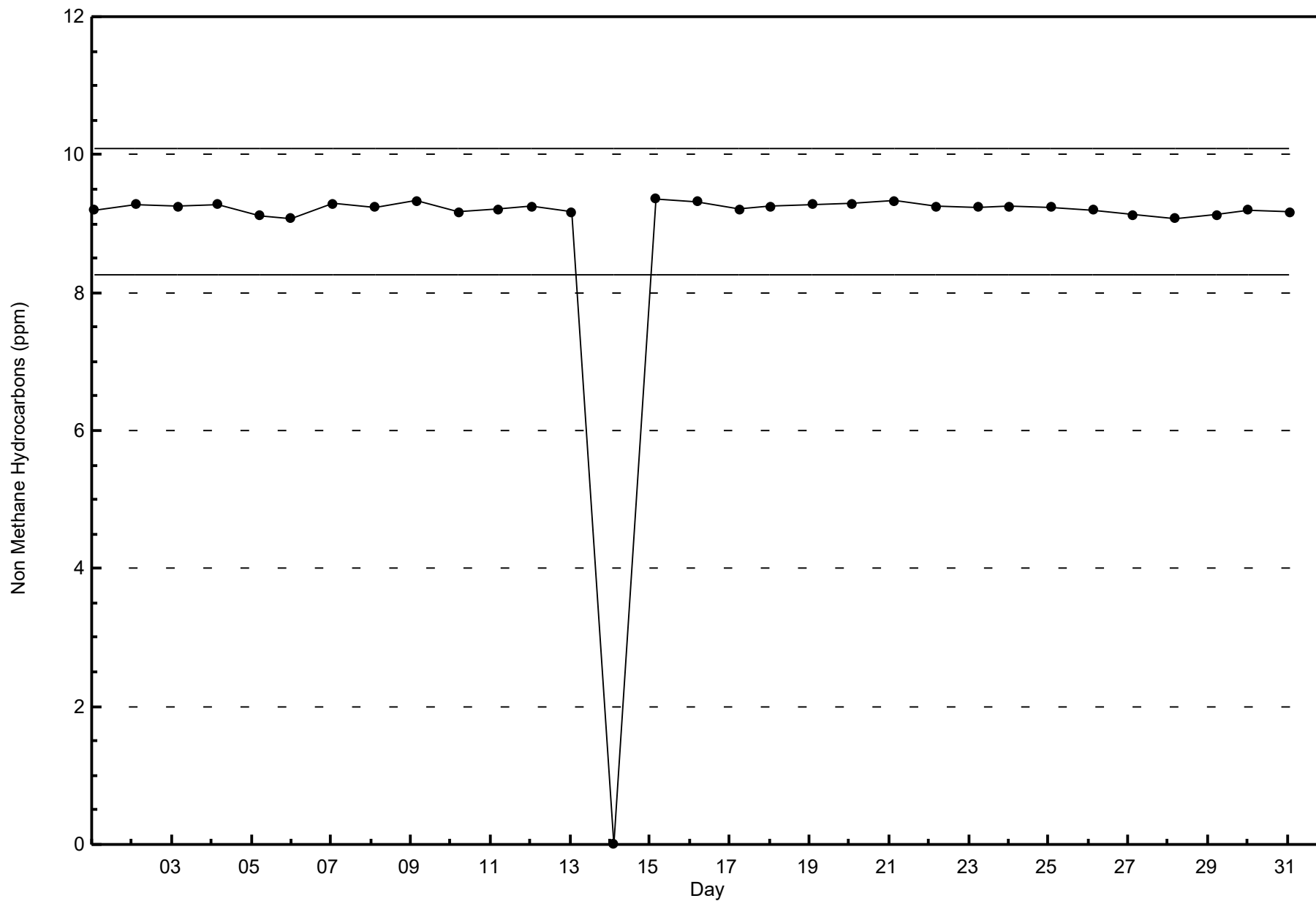




Wood Buffalo Environmental Association
Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm
Fort McKay - Bertha Ganter - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH₄) - ppm

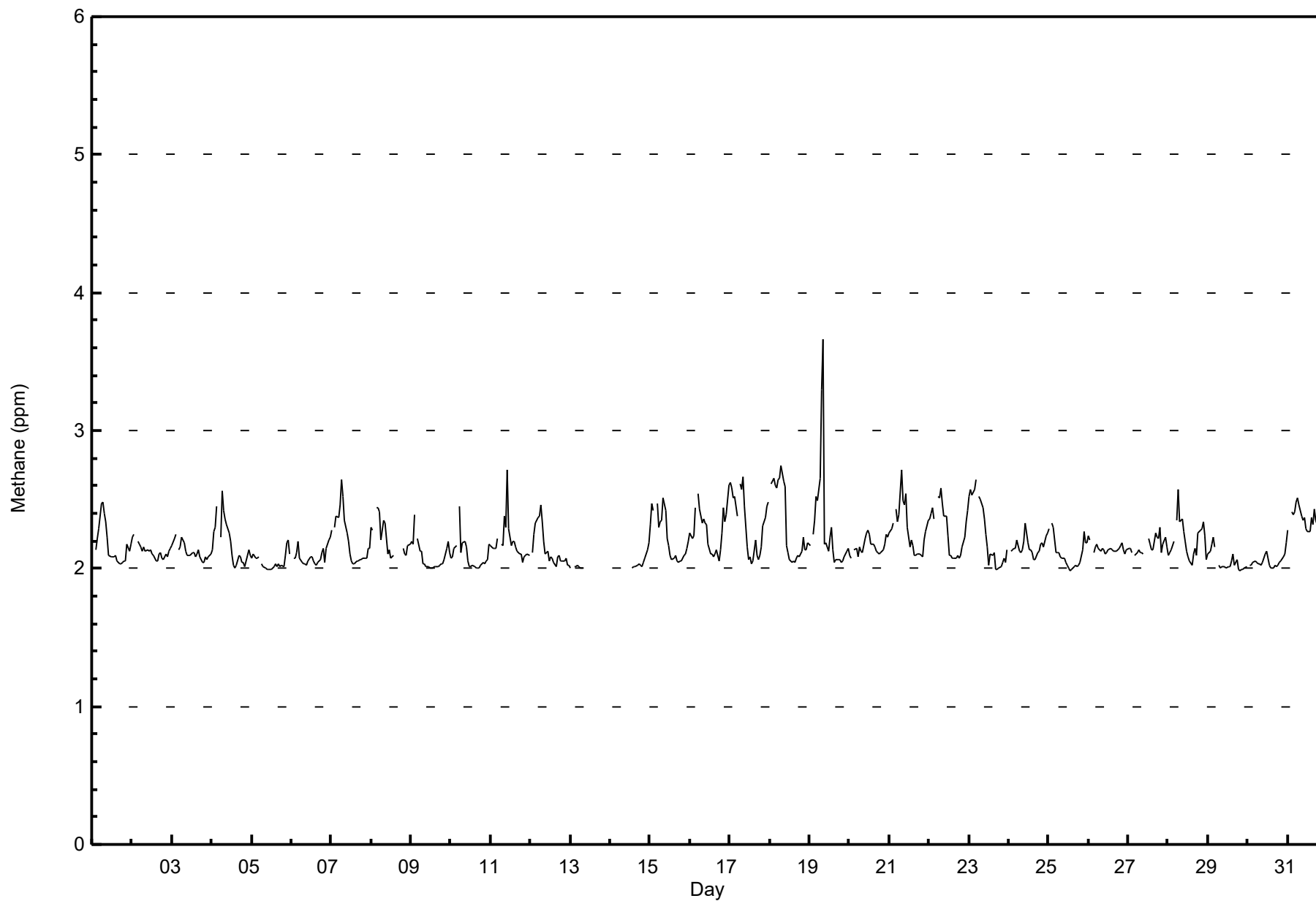
Fort McKay - Bertha Ganter - July 2026

Number of Exceedances (AAAQO): Maximum Value: 3.7 ppm on Jul 19 09:00																		1-hr: 0 24-hr: 0 Maximum Daily Average: 2.4 ppm on Jul 31																		Hours in Service: 744 Hours of Data: 678 Hours of Missing Data: 66 Hours of Calibration: 32 Percent Operational Time: 95.4			
Minimum Value: 2.0 ppm on Jul 29 20:00 Maximum Diurnal Average: 2.3 ppm at hour 9 Monthly Average: 2.18 ppm																		Minimum Daily Average: 2.0 ppm on Jul 29 Minimum Diurnal Average: 2.1 ppm at hour 16 Percentiles: P ₁ = 2.0 P ₁₀ = 2.0 Q ₁ = 2.1 Median = 2.1 Q ₃ = 2.3 P ₉₀ = 2.4 P ₉₉ = 2.7																					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jul	2.1	Z	2.1	2.2	2.3	2.5	2.5	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.2	2.2	2.5													
2-Jul	2.2	2.2	Z	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2													
3-Jul	2.2	2.2	2.3	Z	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.3													
4-Jul	2.1	2.3	2.3	2.4	Z	2.2	2.6	2.4	2.4	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.6													
5-Jul	2.1	2.1	2.1	2.1	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.1	2.2													
6-Jul	Z	2.1	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.1	2.2	2.2	2.1	2.2												
7-Jul	2.3	Z	2.3	2.4	2.4	2.5	2.6	2.5	2.4	2.3	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.6													
8-Jul	2.3	2.3	Z	2.4	2.4	2.4	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.1	PF	PF	PF	PF	PF	PF	2.1	2.1	2.1	2.2	2.2	2.4													
9-Jul	2.2	2.2	2.4	Z	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.1	2.4													
10-Jul	2.1	2.1	2.1	2.2	Z	2.5	2.1	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.5													
11-Jul	2.2	2.1	2.1	2.1	2.2	Z	2.2	2.2	2.4	2.3	2.7	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.7													
12-Jul	Z	2.1	2.3	2.3	2.4	2.4	2.5	2.3	2.2	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.5													
13-Jul	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	2.0													
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2													
15-Jul	2.3	2.5	2.4	Z	2.5	2.3	2.3	2.4	2.5	2.4	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.5													
16-Jul	2.3	2.2	2.2	2.4	Z	2.5	2.4	2.3	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.4	2.3	2.4	2.6	2.3	2.6													
17-Jul	2.6	2.6	2.5	2.5	2.4	Z	2.6	2.6	2.6	2.7	2.4	2.2	2.1	2.1	2.0	2.1	2.2	2.1	2.1	2.1	2.2	2.3	2.4	2.4	2.5	2.3	2.7												
18-Jul	Z	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.6	2.6	2.2	2.1	2.1	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.3	2.7													
19-Jul	2.2	Z	2.3	2.3	2.5	2.5	2.7	3.3	3.7	2.2	2.2	2.1	2.2	2.3	2.1	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.3	3.7													
20-Jul	2.1	2.1	Z	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.2	2.3													
21-Jul	2.3	2.3	2.3	Z	2.4	2.3	2.4	2.7	2.5	2.5	2.5	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.4	2.3	2.7													
22-Jul	2.4	2.4	2.4	2.4	Z	2.5	2.5	2.6	2.5	2.4	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.4	2.3	2.6													
23-Jul	2.5	2.6	2.5	2.6	2.6	Z	2.5	2.5	2.4	2.4	2.2	2.2	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.3	2.6													
24-Jul	Z	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.2	2.3													
25-Jul	2.3	Z	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.2	2.2	2.1	2.3													
26-Jul	2.2	2.2	Z	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.2													
27-Jul	2.1	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	M	M	2.2	2.2	2.1	2.1	2.3	2.2	2.2	2.3	2.1	2.2	2.2	2.2	2.2	2.3													
28-Jul	2.1	2.1	2.1	2.2	Z	2.4	2.6	2.3	2.4	2.3	2.2	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.3	2.3	2.3	2.3	2.2	2.1	2.2	2.6													
29-Jul	2.1	2.1	2.2	2.2	2.2	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2													
30-Jul	Z	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.2													
31-Jul	2.3	Z	2.4	2.4	2.4	2.5	2.5	2.5	2.4	2.4	2.4	2.3	2.3	2.3	2.4	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.4	2.5													
2.2																										Diurnal Average													
2.6																										Diurnal Maximum													
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																																							



Wood Buffalo Environmental Association
Hourly Averages

Methane (CH₄) - ppm
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Methane (CH₄) - ppm
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	137	20.21	20.21
2.1 - 3.0	539	79.50	99.71
3.1 - 10.0	2	0.29	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 678

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Methane (CH₄) - ppm
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	7	3	0	1	3	1	1	6	18	17	17	17	15	12	13	5	136
2.1 - 3.0	47	33	16	9	5	9	31	118	83	38	23	18	19	25	31	31	536
3.1 - 10.0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	55	36	16	10	8	10	32	124	101	55	40	35	34	37	44	37	674

Total Number of Valid Hours: 674

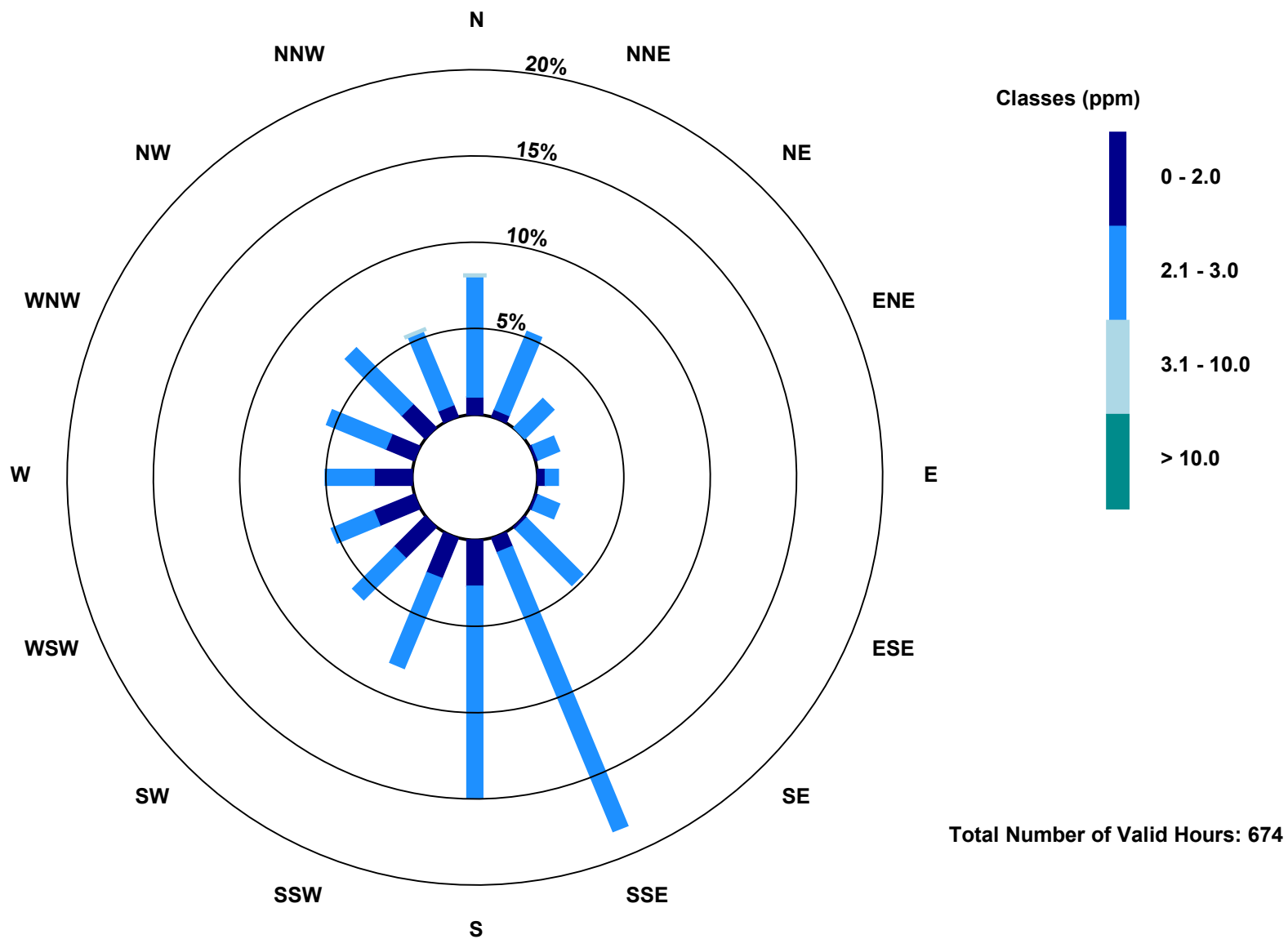
Total Number of Hours: 744



Wood Buffalo Environmental Association

Wind Rose Jul 2026

Methane (CH₄) - ppm
Fort McKay - Bertha Ganter



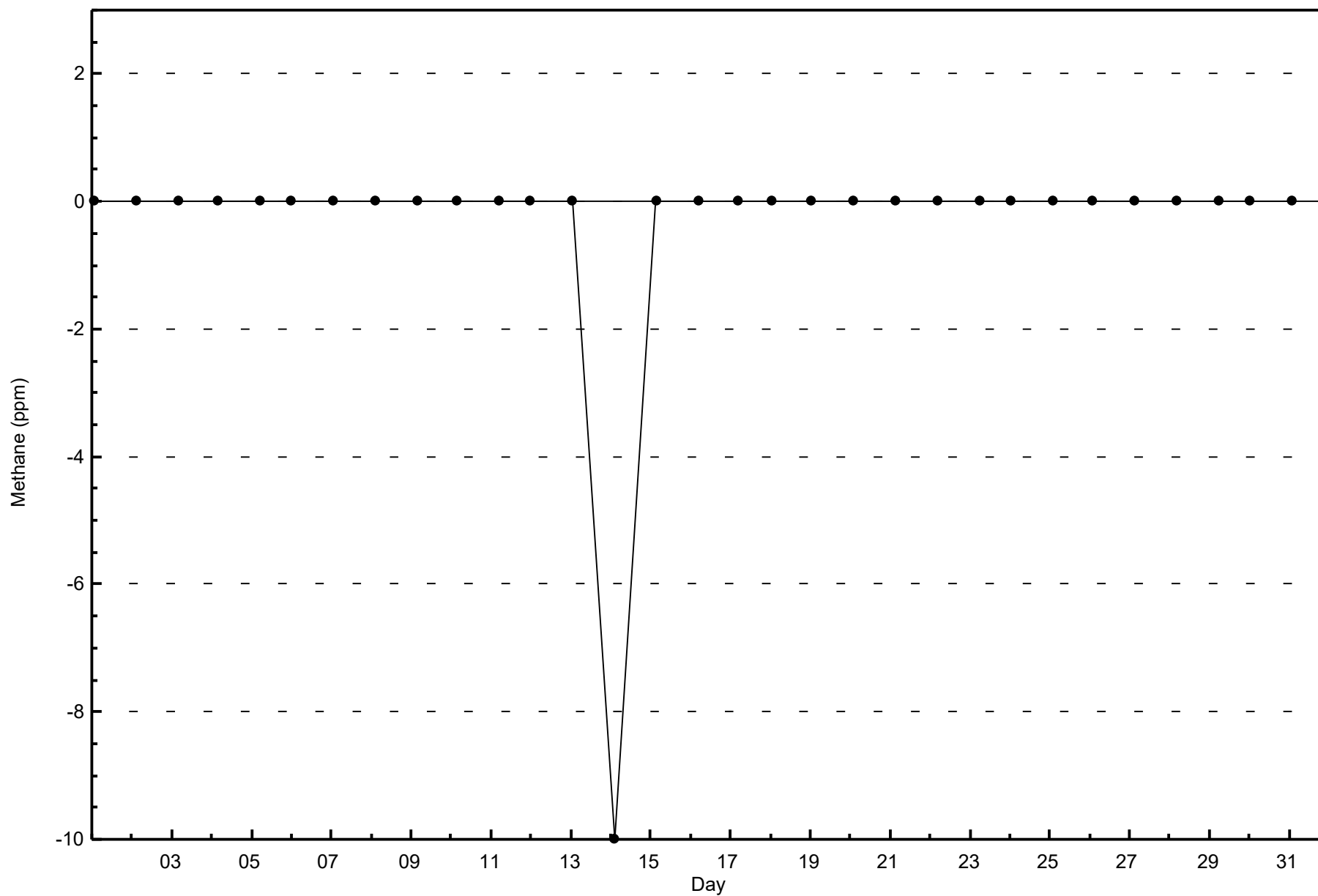


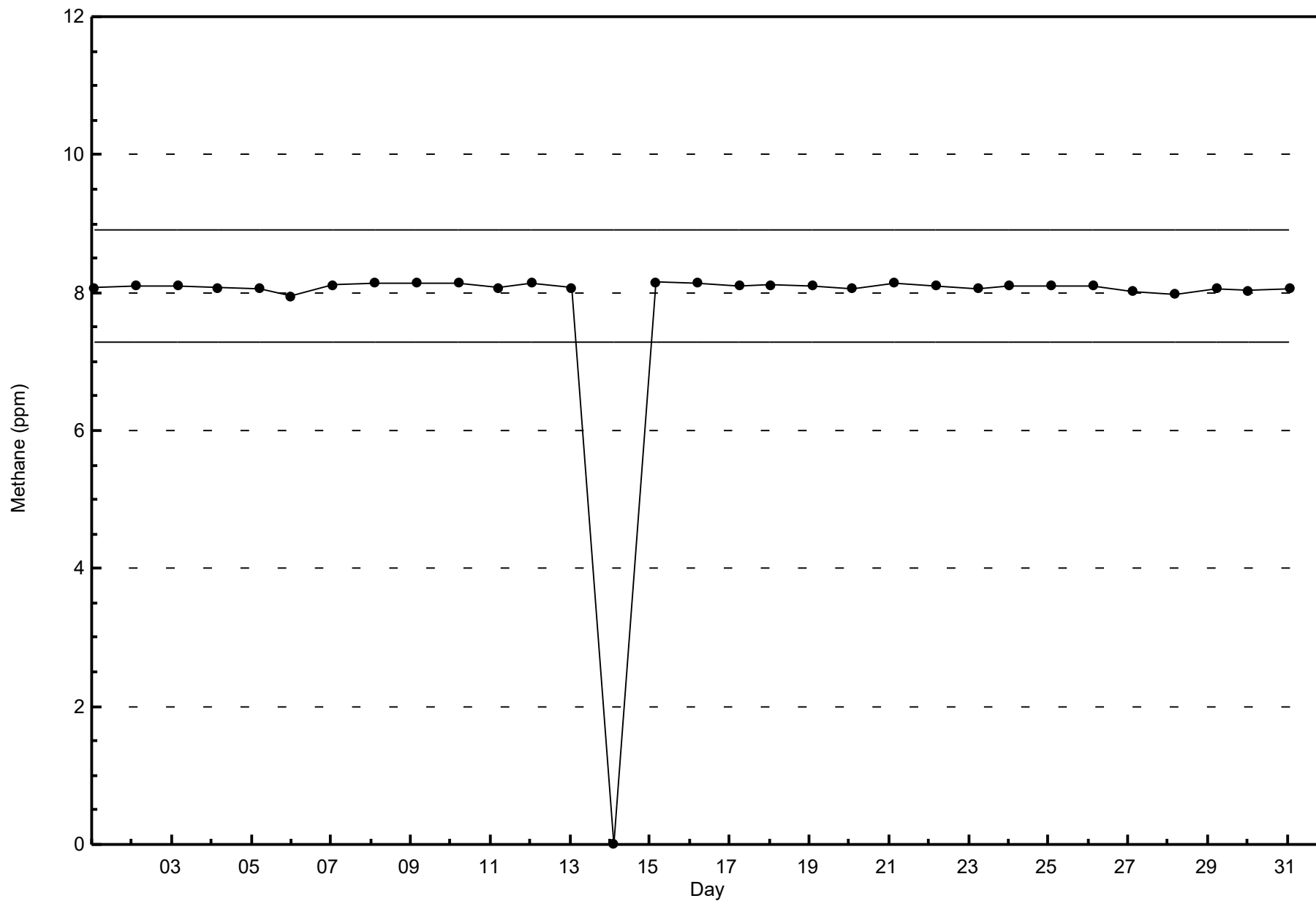
Wood Buffalo Environmental Association

Zero Responses

Methane (CH₄) - ppm

Fort McKay - Bertha Ganter - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

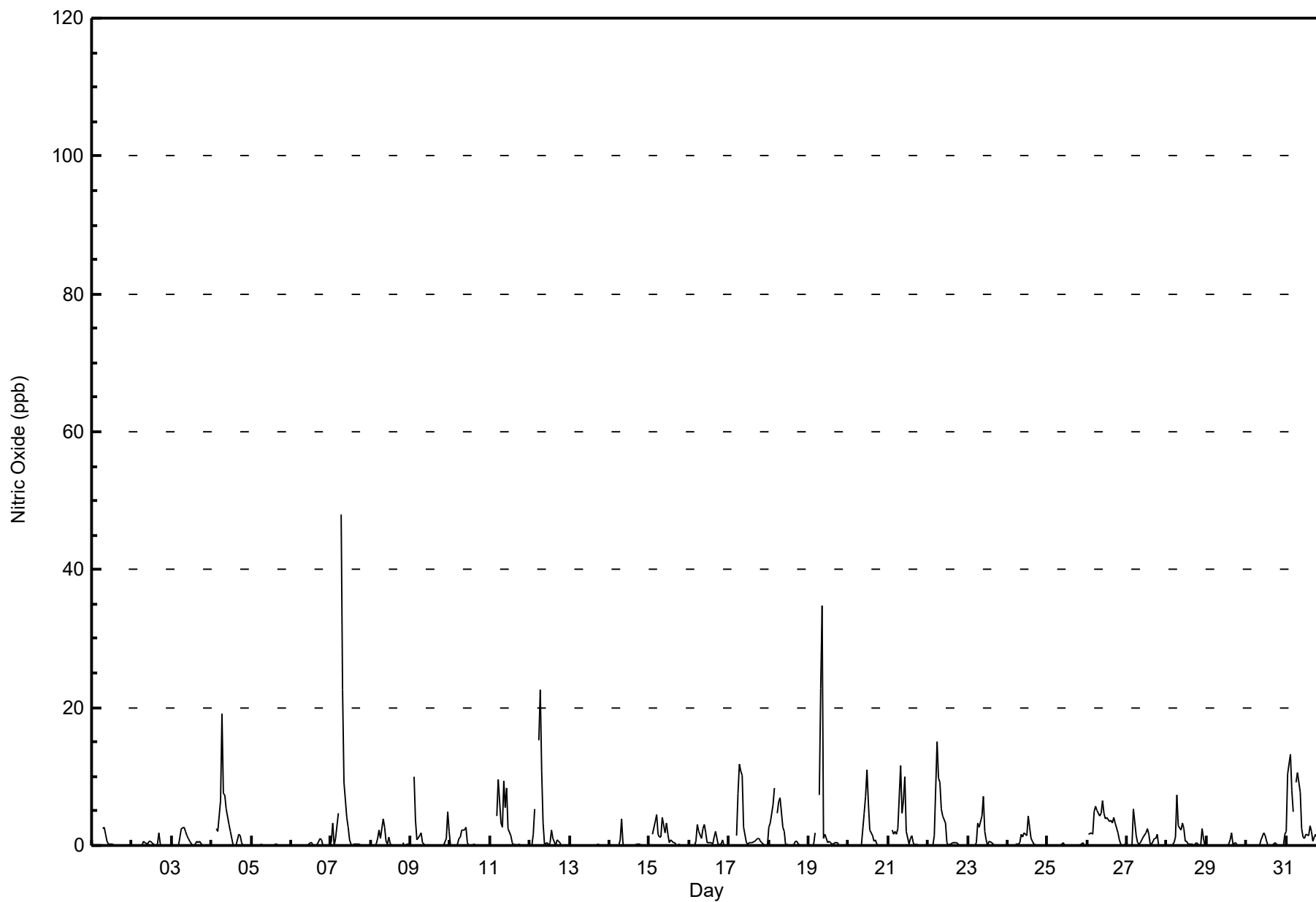
Fort McKay - Bertha Ganter - July 2026

Maximum Value: 48.1 ppb on Jul 7 07:00																			Maximum Daily Average: 4.3 ppb on Jul 7																			Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 1 01:00																			Minimum Daily Average: 0.0 ppb on Jul 13																			Hours of Data: 699	
Maximum Diurnal Average: 5.5 ppb at hour 7																			Minimum Diurnal Average: 0.1 ppb at hour 21																			Hours of Missing Data: 45	
Monthly Average: 1.36 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 1.3 P ₉₀ = 3.8 P ₉₉ = 15.1																			Hours of Calibration: 36	
																																						Percent Operational Time: 98.8	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jul	0.0	0.0	0.0	0.0	0.0	Z	2.5	2.6	1.6	0.7	0.2	0.2	0.3	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.6													
2-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.3	0.5	0.6	0.4	0.1	0.0	0.3	1.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.9													
3-Jul	0.0	Z	0.0	0.0	0.0	1.2	2.4	2.6	2.0	1.4	0.9	0.6	0.0	0.0	0.1	0.6	0.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.6													
4-Jul	0.0	0.0	Z	2.5	2.0	6.5	19.0	7.5	7.4	5.2	3.1	1.9	1.1	0.0	0.0	0.0	1.6	1.5	0.3	0.1	0.0	0.0	0.0	0.0	2.6	19.0													
5-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3													
6-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.0	0.0	0.0	0.1	1.0	0.8	0.0	0.0	0.0	0.0	0.0	0.1	1.0													
7-Jul	0.5	3.3	0.0	1.1	4.7	Z	48.1	22.6	9.2	4.0	2.7	0.7	0.1	0.0	0.1	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.3	48.1													
8-Jul	Z	0.0	0.0	0.3	1.0	2.2	0.9	3.8	2.7	0.6	0.2	1.3	0.2	0.1	PF	PF	PF	PF	PF	0.3	0.1	0.0	0.1	0.2	0.8	3.8													
9-Jul	0.1	Z	10.1	3.6	0.8	1.4	1.9	0.3	0.2	0.0	C	C	C	C	C	0.0	0.0	0.1	0.1	0.0	0.0	1.0	4.9	2.1	1.5	10.1													
10-Jul	0.0	0.0	Z	0.0	0.2	1.0	1.2	2.2	2.3	2.7	0.4	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.7													
11-Jul	0.0	0.0	0.0	Z	4.4	9.5	3.2	2.7	9.3	5.6	8.4	2.5	1.5	0.5	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.1	9.5													
12-Jul	0.0	0.0	1.6	5.3	Z	15.3	22.7	10.8	3.2	0.1	0.4	0.0	0.4	2.2	1.1	0.0	0.8	0.6	0.4	0.1	0.0	0.0	0.0	0.0	2.8	22.7													
13-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	PF	PF	PF	PF	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3													
14-Jul	Z	0.0	0.0	0.0	0.0	0.1	0.9	3.8	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.3	3.8													
15-Jul	0.1	Z	1.7	3.5	4.4	1.7	1.2	1.3	4.0	1.8	3.2	1.6	0.4	0.8	0.5	0.4	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	1.2	4.4													
16-Jul	0.0	0.0	Z	0.1	0.5	3.0	2.1	1.0	2.5	3.0	1.9	0.5	0.4	0.3	0.3	1.2	2.0	0.1	0.1	0.3	0.9	0.0	0.0	0.1	0.9	3.0													
17-Jul	0.1	0.0	0.0	Z	1.4	7.6	11.9	10.8	10.2	2.6	0.3	0.1	0.4	0.4	0.5	0.6	0.8	1.0	1.1	0.5	0.4	0.0	0.0	0.0	2.2	11.9													
18-Jul	2.6	3.2	5.9	8.4	Z	4.7	6.4	7.0	2.6	2.0	0.0	0.2	0.0	0.0	0.0	0.3	0.6	0.6	0.2	0.0	0.0	0.0	0.0	0.0	1.9	8.4													
19-Jul	0.0	0.0	0.0	0.1	1.9	Z	7.3	22.8	34.8	0.9	1.6	0.4	0.6	0.5	0.3	0.2	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.1	34.8													
20-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	4.6	7.1	10.9	6.1	2.2	1.4	0.6	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.5	10.9													
21-Jul	0.0	Z	2.1	1.7	2.1	1.6	2.5	11.5	4.7	6.6	10.1	1.9	0.2	1.0	1.4	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.1	11.5													
22-Jul	0.0	0.0	Z	0.1	1.4	15.1	9.8	9.1	5.2	4.2	3.3	0.5	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	2.2	15.1													
23-Jul	0.0	0.0	0.0	Z	0.1	0.5	3.2	2.7	4.2	7.1	2.0	0.9	0.0	0.6	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	7.1													
24-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.4	1.7	1.3	1.8	1.3	4.2	2.7	1.0	0.7	0.3	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.7	4.2													
25-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.4													
26-Jul	Z	1.7	1.8	1.6	4.8	5.7	5.1	4.2	4.7	6.5	4.7	3.9	4.2	3.5	3.6	3.2	4.0	3.3	1.9	0.8	0.2	0.0	0.0	0.1	3.0	6.5													
27-Jul	0.2	Z	0.0	0.0	5.4	1.4	0.3	0.1	0.4	0.9	1.3	1.9	2.3	1.5	0.2	0.2	1.1	1.1	1.5	0.1	0.0	0.0	0.1	0.0	0.9	5.4													
28-Jul	0.0	0.0	Z	0.1	0.4	1.2	7.3	2.8	2.3	3.3	2.4	0.7	0.6	0.1	0.2	0.2	0.1	0.2	0.3	0.0	0.0	2.4	1.1	0.0	1.1	7.3													
29-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.8	1.9	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.9													
30-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.8	1.8	1.5	0.6	0.1	0.0	0.1	0.2	0.3	0.2	0.1	0.0	0.0	0.0	1.5	0.3	1.8													
31-Jul	2.0	10.4	13.2	8.0	4.8	Z	9.1	10.6	7.7	2.5	1.2	1.0	1.7	1.5	2.8	1.9	0.6	1.2	1.6	0.5	0.1	0.0	0.2	0.0	3.6	13.2													
Diurnal Average																																							
Diurnal Maximum																																							
Z - zerospan C - Calibration PF - Power Failure																																							



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	694	99.28	99.28
21 - 40	4	0.57	99.86
41 - 80	1	0.14	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 699

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	49	36	14	10	8	11	35	125	105	56	39	36	40	39	49	38	690
21 - 40	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1	4
11 - 80	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	51	36	15	10	8	11	35	125	106	56	39	36	40	39	49	39	695

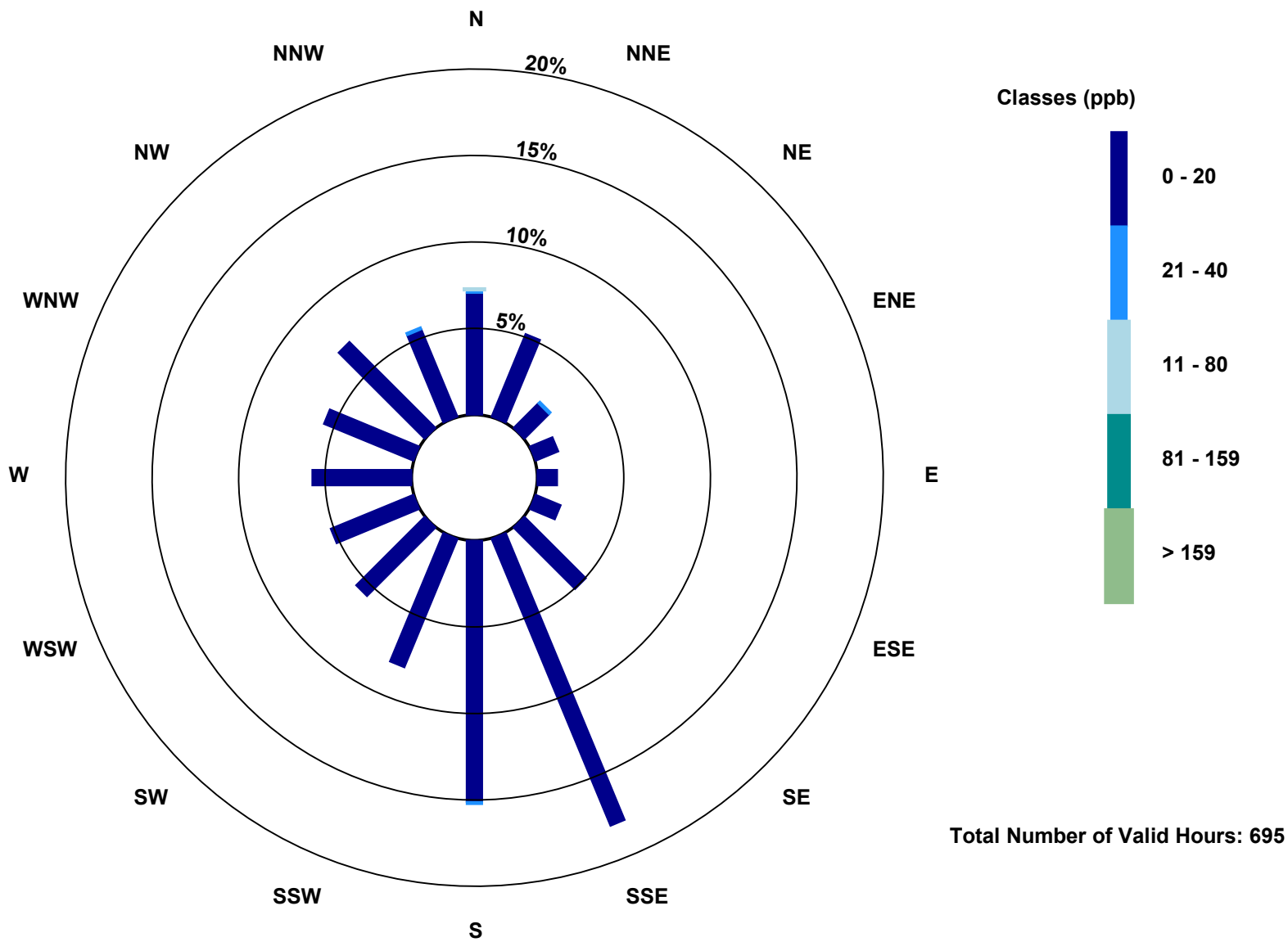
Total Number of Valid Hours: 695

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

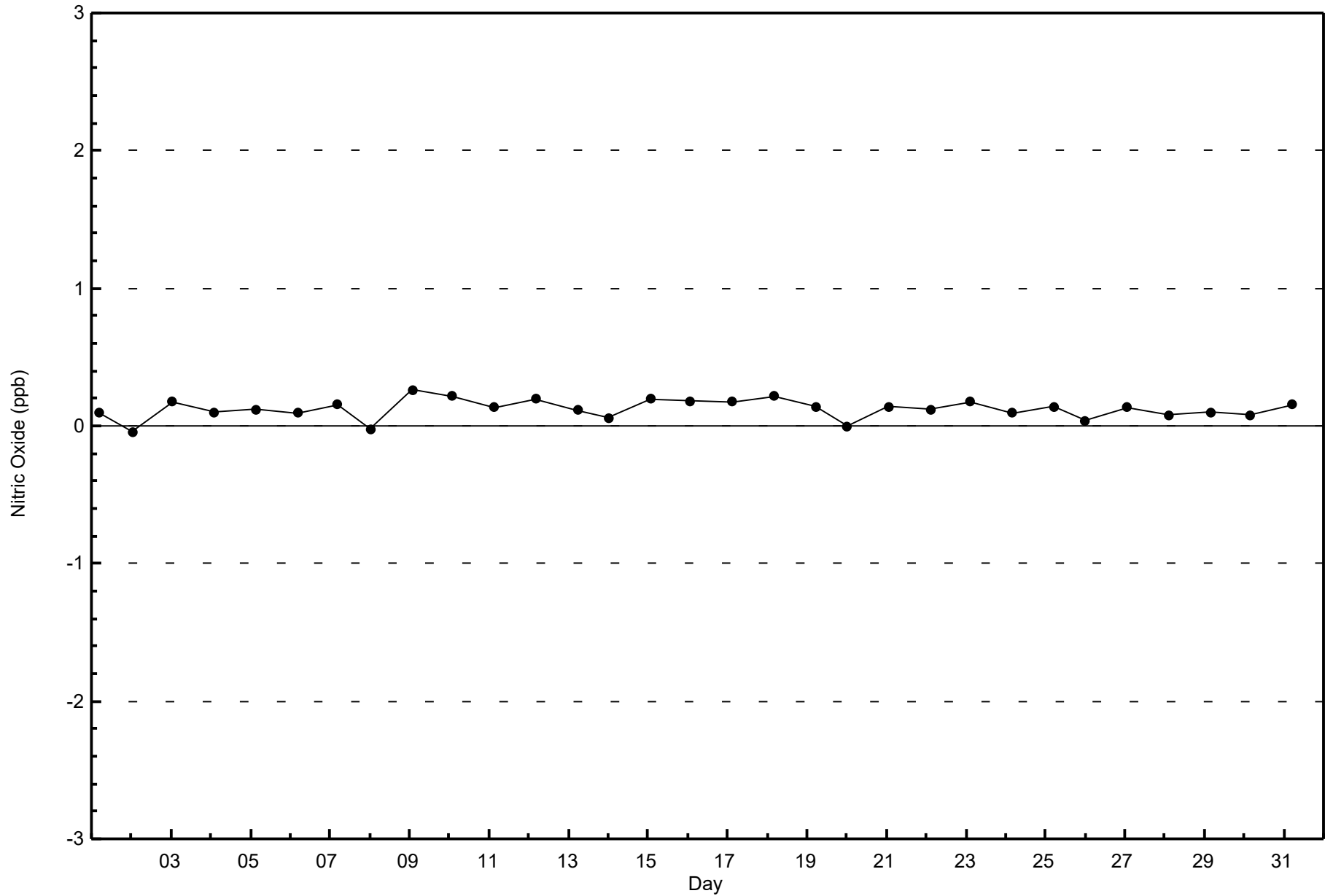
Nitric Oxide (NO) - ppb
Fort McKay - Bertha Ganter





Wood Buffalo Environmental Association
Zero Responses

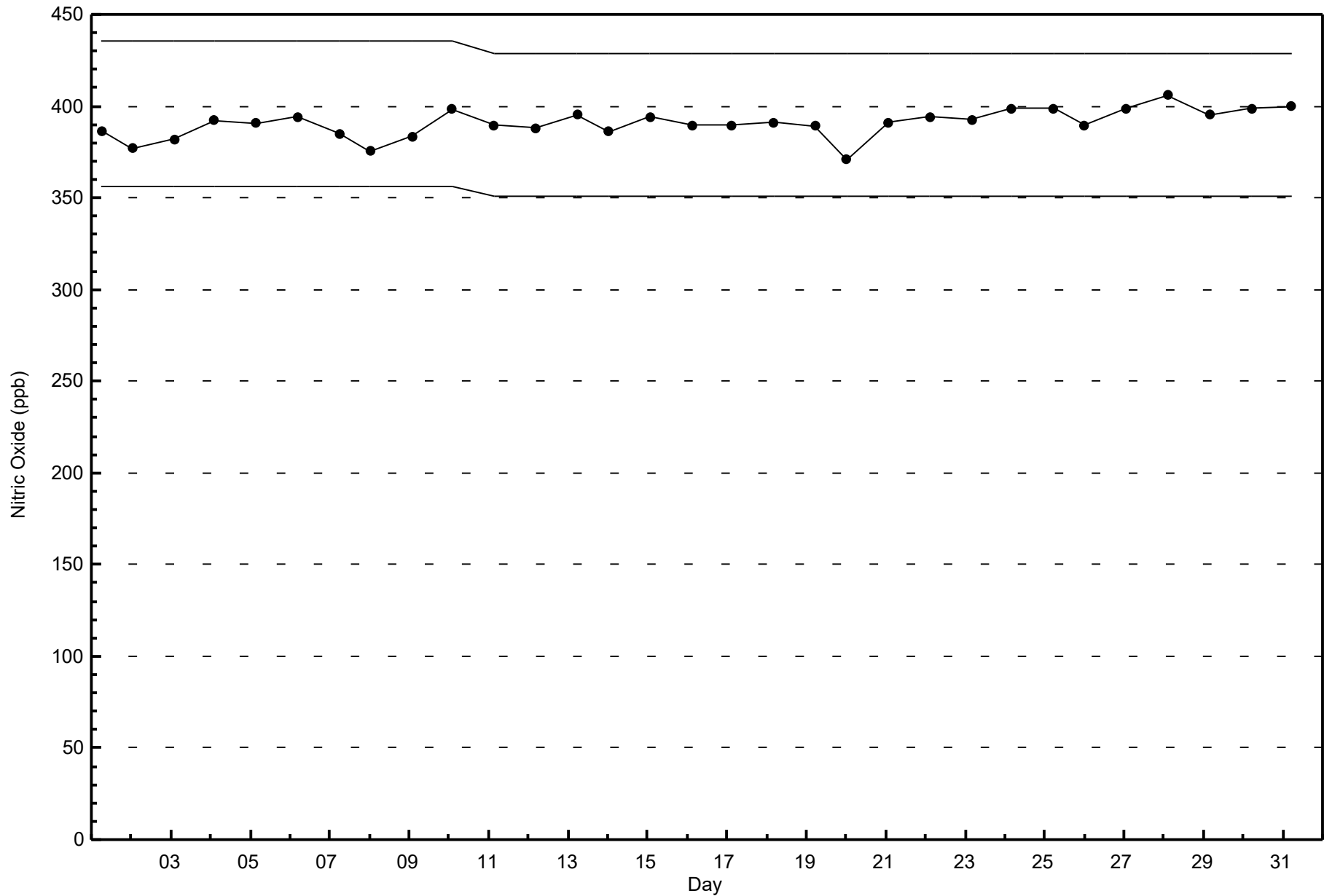
Nitric Oxide (NO) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

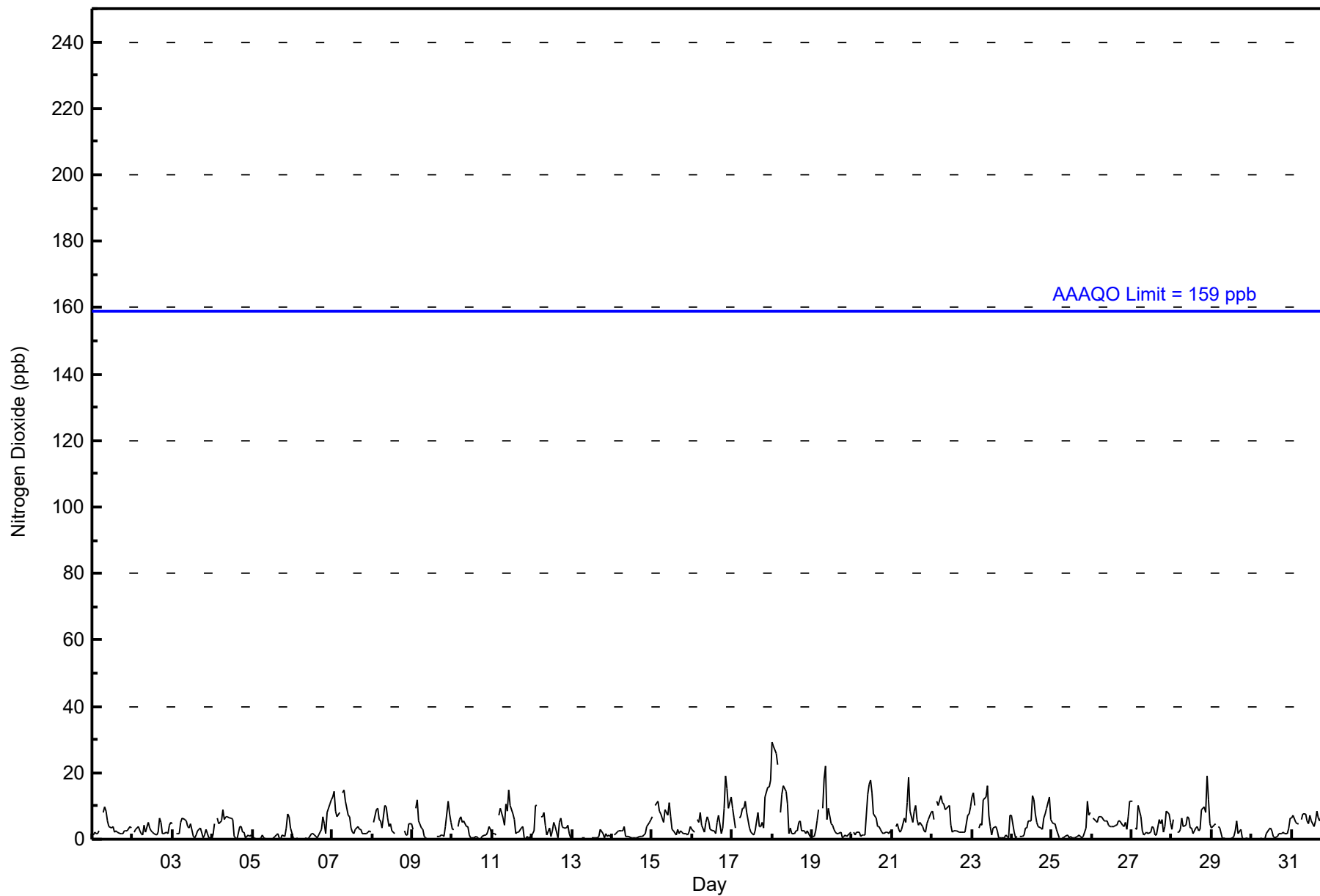
Fort McKay - Bertha Ganter - July 2026

Number of Exceedances (AAAQO): Maximum Value: 29.2 ppb on Jul 18 01:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 8.9 ppb on Jul 18							Hours in Service: 744 Hours of Data: 699	
Minimum Value: 0.0 ppb on Jul 4 16:00 Maximum Diurnal Average: 5.9 ppb at hour 9 Monthly Average: 4.27 ppb																			Minimum Daily Average: 0.7 ppb on Jul 13 Minimum Diurnal Average: 2.6 ppb at hour 20 Percentiles: P ₁ = 0.0 P ₁₀ = 0.5 Q ₁ = 1.4 Median = 3.1 Q ₃ = 6.0 P ₉₀ = 9.5 P ₉₉ = 18.5							Hours of Missing Data: 45 Hours of Calibration: 36 Percent Operational Time: 98.8	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	1.2	2.0	1.7	1.7	2.4	Z	8.1	9.6	8.3	5.7	3.9	3.6	3.7	2.3	2.7	2.2	1.6	1.8	1.5	2.4	2.6	2.4	3.8	3.3	3.4	9.6	
2-Jul	Z	2.3	3.0	3.7	2.7	1.9	1.3	4.2	2.3	5.1	3.4	2.7	2.2	1.6	1.1	2.2	6.4	4.9	1.5	1.8	2.3	1.6	4.3	5.1	2.9	6.4	
3-Jul	4.8	Z	1.6	1.8	1.8	5.2	6.3	5.8	5.5	4.0	3.4	4.6	0.8	0.3	1.2	2.4	3.1	3.2	0.6	1.2	3.1	1.5	0.6	0.5	2.8	6.3	
4-Jul	1.4	4.6	Z	6.2	4.5	5.4	8.7	5.9	6.9	6.9	6.5	6.4	6.1	0.7	0.3	0.0	3.9	3.9	2.3	2.2	0.3	1.2	0.9	1.1	3.8	8.7	
5-Jul	0.8	0.3	0.0	Z	0.0	0.3	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.8	1.3	1.7	0.5	0.2	1.2	0.8	3.4	7.5	6.7	3.4	1.3	7.5	
6-Jul	0.6	0.2	0.1	0.3	Z	0.1	0.0	0.1	0.5	0.1	0.6	1.6	1.8	1.1	0.7	0.5	1.2	2.9	6.6	4.7	1.7	8.1	10.4	12.0	2.4	12.0	
7-Jul	12.8	14.4	8.4	6.9	8.2	Z	14.0	14.9	11.6	7.2	6.7	3.5	2.0	1.5	2.8	4.0	3.0	3.0	1.9	1.7	1.7	2.0	2.5	2.2	6.0	14.9	
8-Jul	Z	5.2	8.7	9.3	6.0	5.3	3.2	10.0	9.9	6.2	4.0	4.6	2.6	1.7	PF	PF	PF	PF	PF	2.6	1.2	1.3	4.6	4.6	5.1	10.0	
9-Jul	3.1	Z	9.3	11.9	5.7	3.5	2.9	0.9	0.6	0.2	C	C	C	C	C	0.7	0.8	1.1	1.3	0.7	3.8	11.3	7.5	4.9	3.9	11.9	
10-Jul	3.0	3.0	Z	3.8	6.0	6.7	5.1	5.3	3.7	4.0	1.4	0.4	0.5	0.5	1.0	0.5	0.0	0.0	0.8	1.1	1.1	2.1	3.8	3.0	2.5	6.7	
11-Jul	1.9	1.7	1.3	Z	7.3	9.3	6.2	4.4	10.8	8.6	15.0	10.3	7.5	5.8	1.9	2.3	2.3	3.3	3.9	0.5	0.2	0.7	0.5	1.0	4.6	15.0	
12-Jul	1.6	2.7	10.0	10.1	Z	6.7	6.8	8.0	4.4	1.4	3.2	0.7	2.5	5.0	3.9	0.4	5.0	6.5	3.8	3.2	3.2	4.1	1.6	0.3	4.1	10.1	
13-Jul	0.1	0.0	0.0	0.0	0.1	Z	0.3	0.5	PF	PF	PF	PF	0.4	0.3	0.3	0.4	0.7	2.8	1.5	0.4	1.8	1.0	1.2	0.7	0.7	2.8	
14-Jul	Z	1.1	1.6	2.1	2.7	2.5	2.4	3.8	0.9	0.9	0.9	0.6	0.5	0.5	0.5	0.6	0.8	0.8	0.7	1.1	1.7	3.7	5.1	5.9	1.8	5.9	
15-Jul	6.6	Z	10.2	11.3	8.4	7.5	6.5	5.0	8.9	7.0	11.2	6.6	2.9	2.7	1.4	2.9	1.8	2.5	2.2	1.6	1.7	1.4	2.3	3.7	5.1	11.3	
16-Jul	2.8	2.2	Z	6.0	5.2	8.1	4.4	2.3	5.1	6.6	5.7	3.0	2.5	2.5	1.9	5.0	7.4	1.7	3.3	9.4	19.0	15.1	9.4	12.7	6.1	19.0	
17-Jul	9.4	6.2	3.4	Z	6.4	7.1	9.4	9.5	11.3	8.1	3.5	2.2	1.9	1.1	2.6	8.0	3.7	3.7	5.2	3.6	12.6	15.5	15.6	17.9	7.3	17.9	
18-Jul	29.2	27.8	26.0	22.3	Z	8.1	13.4	15.9	14.4	10.6	1.9	3.2	1.9	1.8	2.7	2.5	4.9	5.4	2.6	2.4	1.9	2.6	1.5	0.9	8.9	29.2	
19-Jul	0.8	1.0	2.7	5.4	9.1	Z	9.5	18.3	22.1	6.1	9.3	4.6	4.4	2.8	2.0	1.9	1.9	2.2	0.6	0.7	1.2	1.0	1.8	2.1	4.8	22.1	
20-Jul	Z	2.2	1.1	2.1	2.2	0.7	1.4	1.2	1.4	13.4	16.5	17.9	14.1	7.6	6.2	3.9	3.9	2.9	2.1	1.6	2.0	2.3	1.7	2.6	4.8	17.9	
21-Jul	1.6	Z	4.0	4.6	3.1	2.3	2.8	6.3	5.0	11.0	18.5	8.5	5.0	8.4	10.1	6.0	4.4	5.1	3.9	2.4	2.1	4.6	5.8	8.0	5.8	18.5	
22-Jul	8.6	5.9	Z	11.5	10.1	13.2	11.0	10.4	8.7	9.5	10.1	4.4	2.1	2.4	2.4	2.6	2.0	2.0	2.3	2.2	2.2	7.3	7.7	9.8	6.5	13.2	
23-Jul	12.7	14.0	10.1	Z	3.6	4.7	4.1	11.8	12.6	16.0	7.2	4.0	1.2	3.3	3.8	2.6	0.6	0.5	0.5	0.5	1.1	0.7	0.4	7.4	5.4	16.0	
24-Jul	7.3	2.0	0.6	0.9	Z	1.0	0.8	1.2	3.5	3.2	5.4	5.6	13.2	12.0	7.6	5.2	3.8	3.6	2.9	6.4	7.7	9.5	12.7	6.1	5.3	13.2	
25-Jul	5.2	4.7	4.7	3.0	0.6	Z	0.5	0.5	0.7	1.4	0.5	0.8	0.5	0.4	0.3	0.8	1.1	0.7	0.5	1.0	3.6	11.3	7.4	8.2	2.5	11.3	
26-Jul	Z	6.5	5.5	5.1	6.7	6.7	6.7	5.7	5.5	5.7	4.3	3.8	3.7	3.7	4.2	4.1	5.3	5.5	4.4	3.9	4.9	2.9	6.8	11.4	5.3	11.4	
27-Jul	11.6	Z	3.3	2.9	10.0	6.6	2.7	1.1	1.5	2.0	1.7	2.2	3.8	3.6	1.1	1.2	5.9	4.8	5.9	2.3	3.8	8.3	7.7	5.1	4.3	11.6	
28-Jul	3.0	5.8	Z	2.3	2.1	2.8	6.4	3.7	4.1	6.6	6.3	3.5	3.4	1.6	3.4	3.8	2.6	2.8	8.7	9.7	8.0	19.1	11.9	4.7	5.5	19.1	
29-Jul	3.4	4.2	4.8	Z	3.7	3.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.7	2.5	5.7	1.5	2.8	0.6	0.2	0.2	0.3	0.1	0.1	1.6	5.7	
30-Jul	0.0	0.0	0.0	0.1	Z	0.4	0.1	0.1	0.1	1.5	3.1	3.6	2.5	0.8	0.5	1.0	1.8	1.7	1.7	2.1	1.9	1.8	3.5	6.5	1.5	6.5	
31-Jul	6.3	7.0	5.2	4.8	4.7	Z	6.0	7.7	7.8	5.4	4.8	7.0	5.7	3.8	5.6	8.6	6.2	5.4	7.3	6.1	5.3	5.3	4.3	2.3	5.8	8.6	
5.4 4.9 4.9 5.4 4.7 4.8 4.9 5.6 5.9 5.5 5.5 4.1 3.3 2.7 2.6 2.8 2.9 2.9 2.7 2.6 3.5 5.1 5.0 5.1																										Diurnal Average	
29.2 27.8 26.0 22.3 10.1 13.2 14.0 18.3 22.1 16.0 18.5 17.9 14.1 12.0 10.1 8.6 7.4 6.5 8.7 9.7 19.0 19.1 15.6 17.9																										Diurnal Maximum	
Z - zerospan C - Calibration PF - Power Failure																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	694	99.28	99.28
21 - 40	5	0.72	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 699

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	50	36	15	10	8	11	35	125	106	56	39	36	40	38	46	39	690
21 - 40	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	5
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	51	36	15	10	8	11	35	125	106	56	39	36	40	39	49	39	695

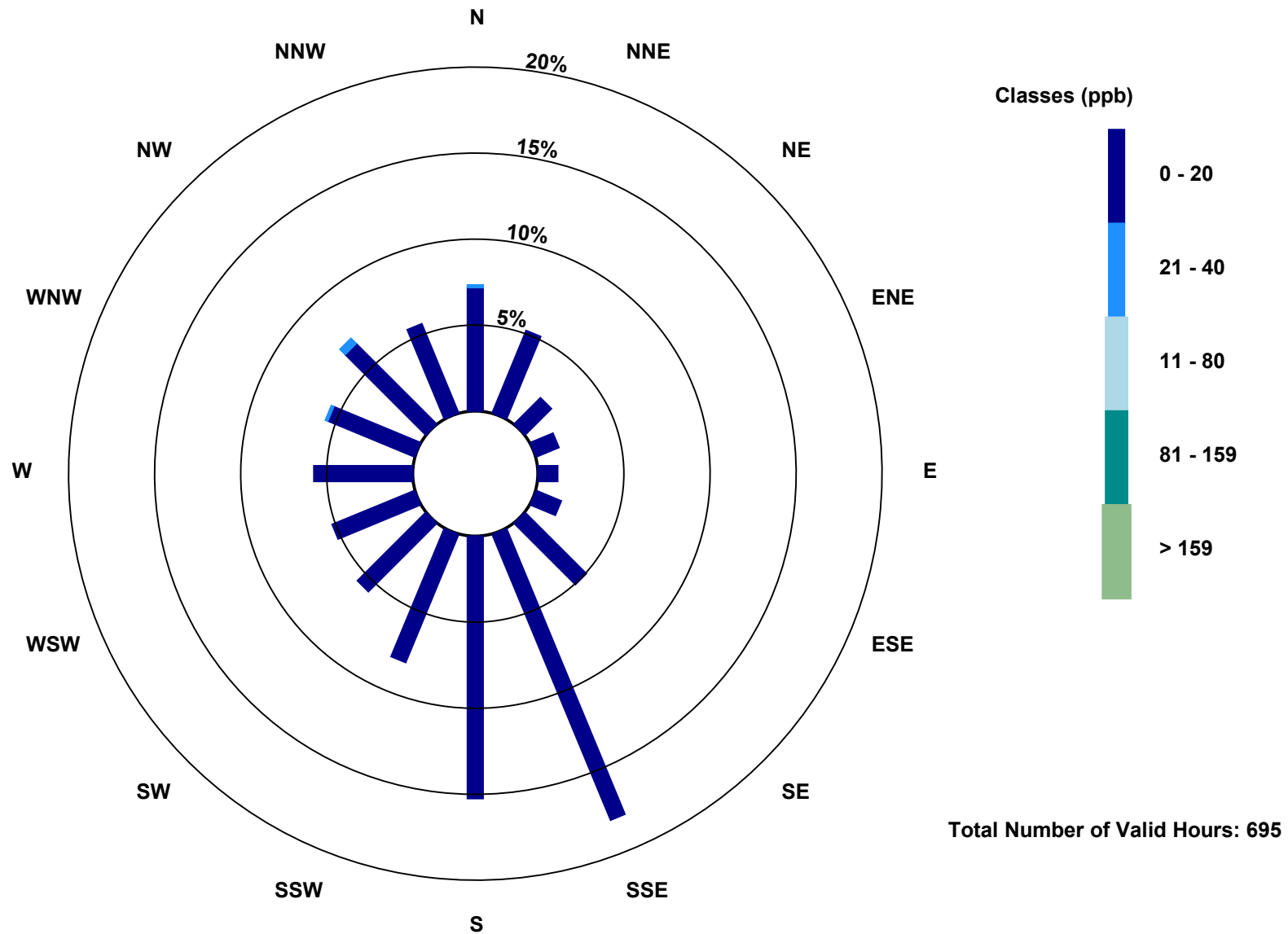
Total Number of Valid Hours: 695

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

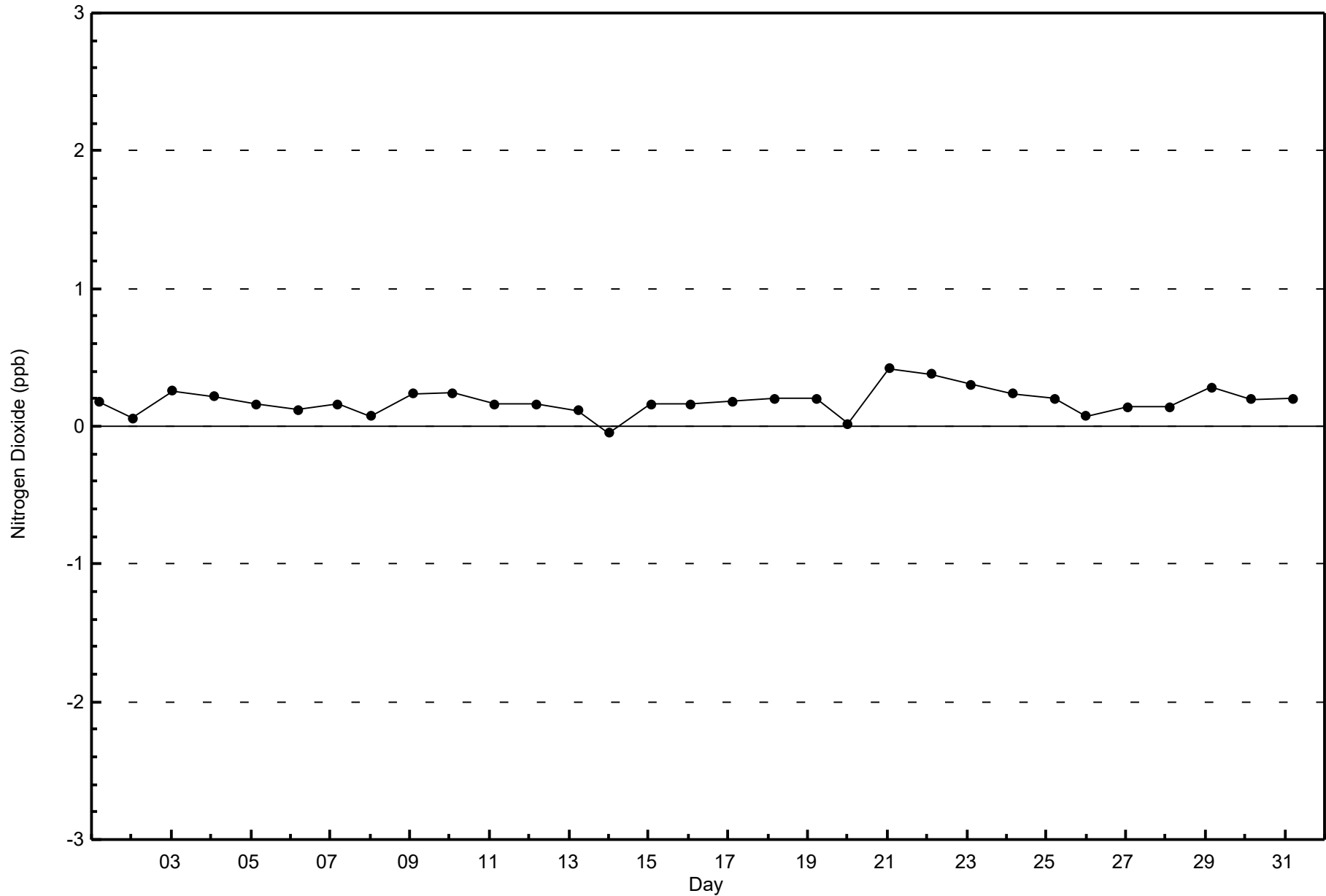
Nitrogen Dioxide (NO₂) - ppb
Fort McKay - Bertha Ganter





Wood Buffalo Environmental Association
Zero Responses

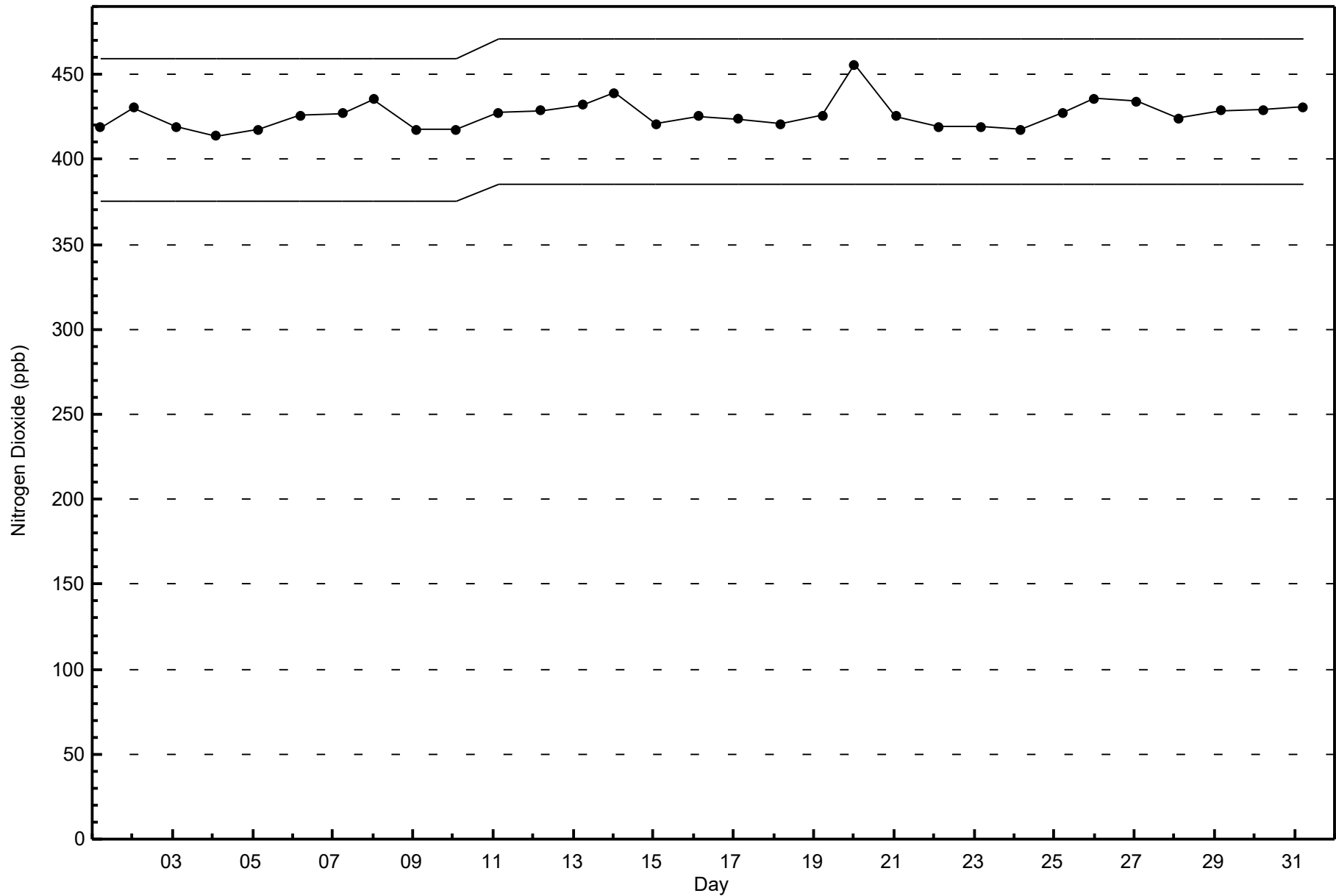
Nitrogen Dioxide (NO₂) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

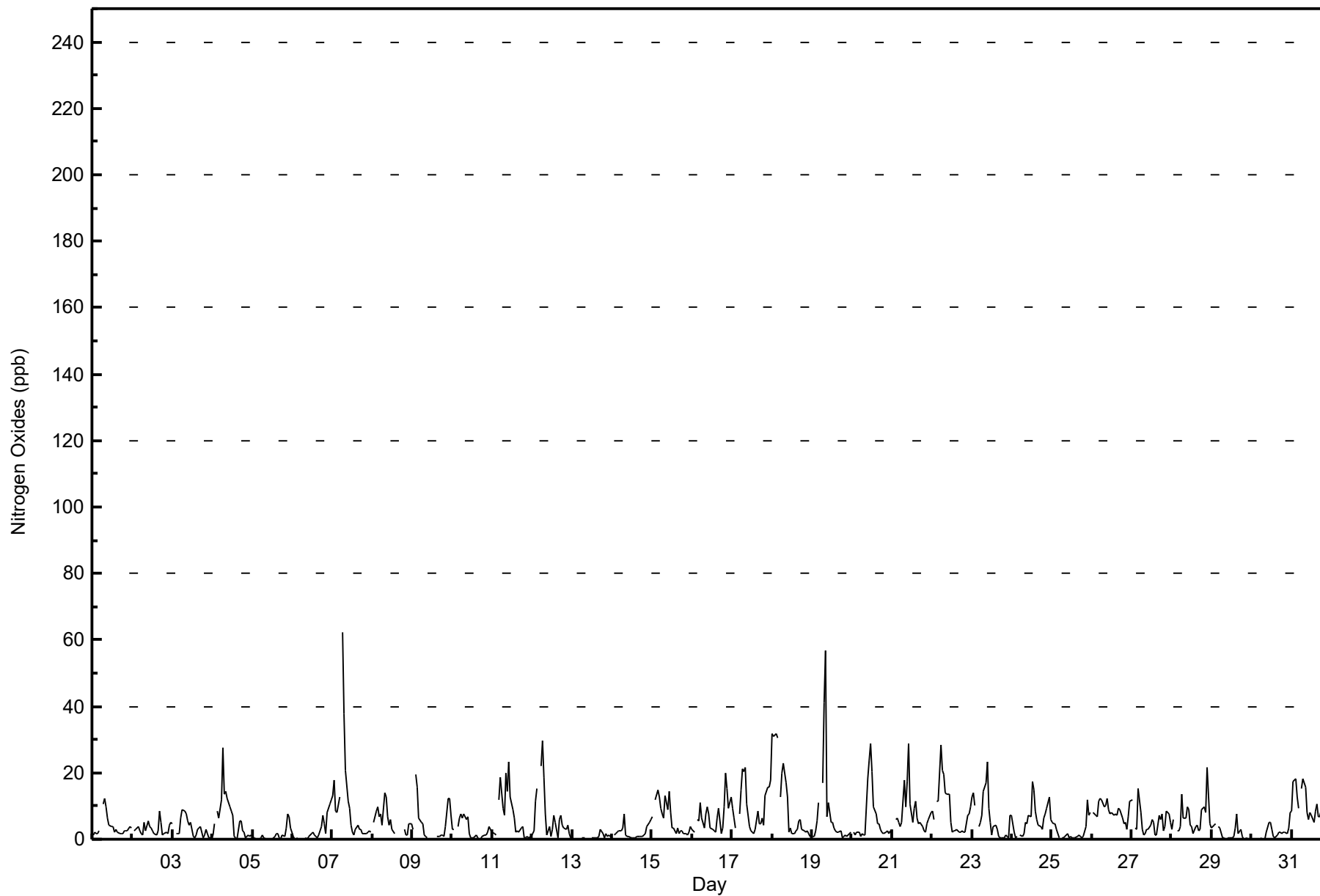
Fort McKay - Bertha Ganter - July 2026

Maximum Value: 62.1 ppb on Jul 7 07:00																		Maximum Daily Average: 10.8 ppb on Jul 18										Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 5 03:00																		Minimum Daily Average: 0.7 ppb on Jul 13										Hours of Data: 699	
Maximum Diurnal Average: 10.4 ppb at hour 7																		Minimum Diurnal Average: 2.7 ppb at hour 20										Hours of Missing Data: 45	
Monthly Average: 5.63 ppb																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.5 Q ₁ = 1.5 Median = 3.4 Q ₃ = 7.6 P ₉₀ = 12.9 P ₉₉ = 30.7										Hours of Calibration: 36	
																		Percent Operational Time: 98.8											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	1.2	2.0	1.7	1.7	2.4	Z	10.6	12.2	9.9	6.4	4.1	3.8	4.0	2.3	2.8	2.3	1.6	1.8	1.5	2.4	2.6	2.4	3.8	3.3	3.8	12.2			
2-Jul	Z	2.3	3.0	3.7	2.7	1.9	1.3	4.9	2.6	5.4	3.9	3.3	2.6	1.7	1.1	2.5	8.3	5.0	1.5	1.8	2.3	1.6	4.3	5.1	3.2	8.3			
3-Jul	4.8	Z	1.6	1.8	1.8	6.4	8.7	8.4	7.5	5.4	4.3	5.2	0.8	0.3	1.3	3.0	3.4	3.9	0.6	1.2	3.1	1.5	0.6	0.5	3.3	8.7			
4-Jul	1.4	4.6	Z	8.7	6.5	11.9	27.7	13.4	14.3	12.1	9.6	8.3	7.2	0.7	0.3	0.0	5.5	5.4	2.6	2.3	0.3	1.2	0.9	1.1	6.4	27.7			
5-Jul	0.8	0.3	0.0	Z	0.0	0.3	1.3	0.4	0.0	0.0	0.0	0.0	0.0	0.9	1.6	1.9	0.5	0.2	1.2	0.8	3.4	7.5	6.7	3.4	1.4	7.5			
6-Jul	0.6	0.2	0.1	0.3	Z	0.1	0.0	0.1	0.5	0.1	0.7	1.9	2.1	1.1	0.7	0.5	1.3	3.9	7.4	4.7	1.7	8.1	10.4	12.0	2.5	12.0			
7-Jul	13.3	17.7	8.4	8.0	12.9	Z	62.1	37.5	20.8	11.2	9.4	4.2	2.1	1.5	2.9	4.3	3.1	3.1	1.9	1.7	1.7	2.0	2.5	2.2	10.2	62.1			
8-Jul	Z	5.2	8.7	9.6	7.0	7.5	4.1	13.8	12.6	6.8	4.2	5.9	2.8	1.8	PF	PF	PF	PF	PF	2.9	1.3	1.3	4.7	4.8	5.8	13.8			
9-Jul	3.2	Z	19.4	15.5	6.5	4.9	4.8	1.2	0.8	0.2	C	C	C	C	C	0.7	0.8	1.2	1.4	0.7	3.8	12.3	12.4	7.0	5.4	19.4			
10-Jul	3.0	3.0	Z	3.8	6.2	7.7	6.3	7.5	6.0	6.7	1.8	0.4	0.5	0.5	1.1	0.5	0.0	0.0	0.8	1.1	1.1	2.1	3.8	3.0	2.9	7.7			
11-Jul	1.9	1.7	1.3	Z	11.7	18.8	9.4	7.1	20.1	14.2	23.4	12.8	9.0	6.3	2.0	2.4	2.3	3.5	3.9	0.5	0.2	0.7	0.5	1.0	6.7	23.4			
12-Jul	1.6	2.7	11.6	15.4	Z	22.0	29.5	18.8	7.6	1.5	3.6	0.7	2.9	7.2	5.0	0.4	5.8	7.1	4.2	3.3	3.2	4.1	1.6	0.3	7.0	29.5			
13-Jul	0.1	0.0	0.0	0.0	0.1	Z	0.3	0.5	PF	PF	PF	PF	0.4	0.3	0.3	0.4	0.7	3.1	1.5	0.4	1.8	1.0	1.2	0.7	0.7	3.1			
14-Jul	Z	1.1	1.6	2.1	2.7	2.6	3.3	7.6	1.2	1.0	1.0	0.6	0.5	0.5	0.5	0.7	1.0	1.0	0.9	1.2	1.7	3.7	5.1	6.0	2.1	7.6			
15-Jul	6.7	Z	11.9	14.8	12.8	9.2	7.7	6.3	12.9	8.8	14.4	8.2	3.3	3.5	1.9	3.3	1.9	2.6	2.4	1.6	1.7	1.4	2.3	3.7	6.2	14.8			
16-Jul	2.8	2.2	Z	6.1	5.7	11.1	6.5	3.3	7.6	9.6	7.6	3.5	2.9	2.8	2.2	6.2	9.4	1.8	3.4	9.7	19.9	15.1	9.4	12.8	7.0	19.9			
17-Jul	9.5	6.2	3.4	Z	7.8	14.7	21.3	20.3	21.5	10.7	3.8	2.3	2.3	1.5	3.1	8.6	4.5	4.7	6.3	4.1	13.0	15.5	15.6	17.9	9.5	21.5			
18-Jul	31.8	31.0	31.9	30.7	Z	12.8	19.8	22.9	17.0	12.6	1.9	3.4	1.9	1.8	2.7	2.8	5.5	6.0	2.8	2.4	1.9	2.6	1.5	0.9	10.8	31.9			
19-Jul	0.8	1.0	2.7	5.5	11.0	Z	16.8	41.1	56.9	7.0	10.9	5.0	5.0	3.3	2.3	2.1	2.3	2.6	0.6	0.7	1.2	1.0	1.8	2.1	8.0	56.9			
20-Jul	Z	2.2	1.1	2.1	2.2	0.7	1.5	1.2	1.4	18.0	23.6	28.8	20.2	9.8	7.6	4.5	4.7	3.0	2.1	1.6	2.0	2.3	1.7	2.6	6.3	28.8			
21-Jul	1.6	Z	6.1	6.3	5.2	3.9	5.3	17.8	9.7	17.6	28.6	10.4	5.2	9.4	11.5	6.4	4.5	5.2	3.9	2.4	2.1	4.6	5.8	8.0	7.9	28.6			
22-Jul	8.6	5.9	Z	11.6	11.5	28.3	20.8	19.5	13.9	13.7	13.4	4.9	2.2	2.5	2.6	2.9	2.3	2.3	2.5	2.2	2.2	7.3	7.7	9.8	8.6	28.3			
23-Jul	12.7	14.0	10.1	Z	3.7	5.2	7.3	14.5	16.8	23.1	9.2	4.9	1.2	3.9	4.2	2.8	0.6	0.5	0.5	0.5	1.1	0.7	0.4	7.4	6.3	23.1			
24-Jul	7.3	2.0	0.6	0.9	Z	1.1	0.9	1.6	5.2	4.5	7.2	6.9	17.4	14.7	8.6	5.9	4.1	3.7	2.9	6.5	7.7	9.5	12.7	6.1	6.0	17.4			
25-Jul	5.2	4.7	4.7	3.0	0.6	Z	0.5	0.5	0.8	1.8	0.5	0.8	0.5	0.4	0.3	0.8	1.1	0.7	0.5	1.0	3.7	11.7	7.4	8.2	2.6	11.7			
26-Jul	Z	8.2	7.3	6.7	11.5	12.4	11.8	9.9	10.2	12.2	9.0	7.7	7.9	7.2	7.8	7.3	9.3	8.8	6.3	4.7	5.1	2.9	6.8	11.5	8.4	12.4			
27-Jul	11.8	Z	3.3	2.9	15.4	8.0	3.0	1.2	1.9	2.9	3.0	4.1	6.1	5.1	1.3	1.4	7.0	5.9	7.4	2.4	3.8	8.3	7.8	5.1	5.2	15.4			
28-Jul	3.0	5.8	Z	2.4	2.5	4.0	13.7	6.5	6.4	9.9	8.7	4.2	4.0	1.7	3.6	4.0	2.7	3.0	9.0	9.7	8.0	21.5	13.0	4.7	6.6	21.5			
29-Jul	3.4	4.2	4.8	Z	3.7	3.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.9	3.3	7.6	1.7	3.2	0.6	0.2	0.2	0.3	0.1	0.1	1.7	7.6			
30-Jul	0.0	0.0	0.0	0.1	Z	0.4	0.1	0.1	0.1	2.3	4.9	5.1	3.1	0.9	0.5	1.1	2.0	2.0	1.9	2.2	1.9	1.8	3.5	8.0	1.8	8.0			
31-Jul	8.3	17.4	18.4	12.8	9.5	Z	15.1	18.3	15.5	7.9	6.0	8.0	7.4	5.3	8.4	10.5	6.8	6.6	8.9	6.6	5.4	5.3	4.5	2.3	9.4	18.4			
5.6 5.6 6.3 6.8 6.3 8.0 10.4 10.3 10.1 7.8 7.5 5.4 4.2 3.3 3.2 3.3 3.5 3.4 3.0 2.7 3.5 5.2 5.2 5.2																										Diurnal Average			
31.8 31.0 31.9 30.7 15.4 28.3 62.1 41.1 56.9 23.1 28.6 28.8 20.2 14.7 11.5 10.5 9.4 8.8 9.0 9.7 19.9 21.5 15.6 17.9																										Diurnal Maximum			
Z - zerospan C - Calibration PF - Power Failure																													



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	676	96.71	96.71
21 - 40	20	2.86	99.57
41 - 80	3	0.43	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 699

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	46	36	14	9	8	10	34	120	103	56	39	36	40	38	45	38	672
21 - 40	3	0	1	1	0	1	1	5	3	0	0	0	0	1	4	0	20
11 - 80	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	51	36	15	10	8	11	35	125	106	56	39	36	40	39	49	39	695

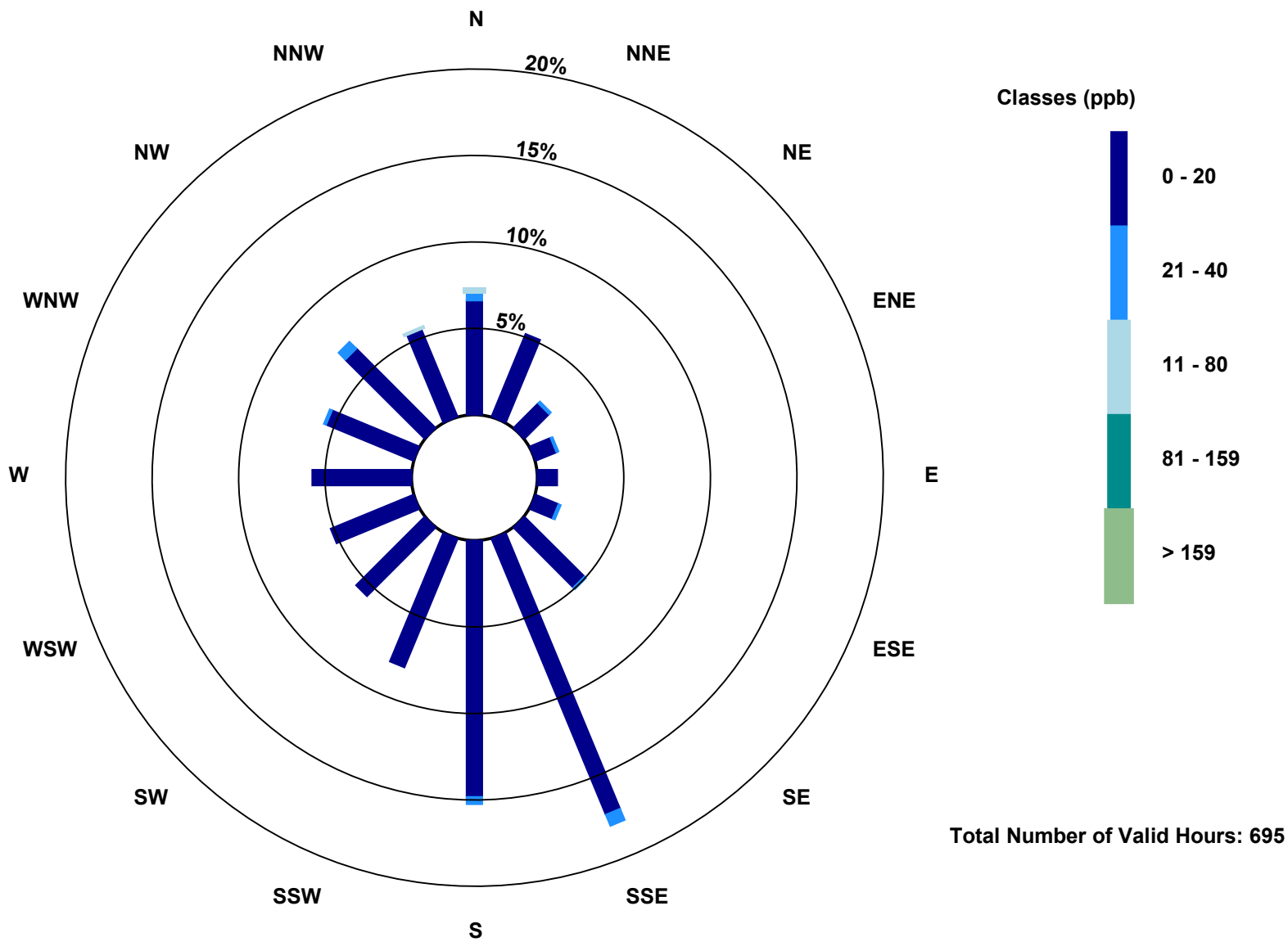
Total Number of Valid Hours: 695

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

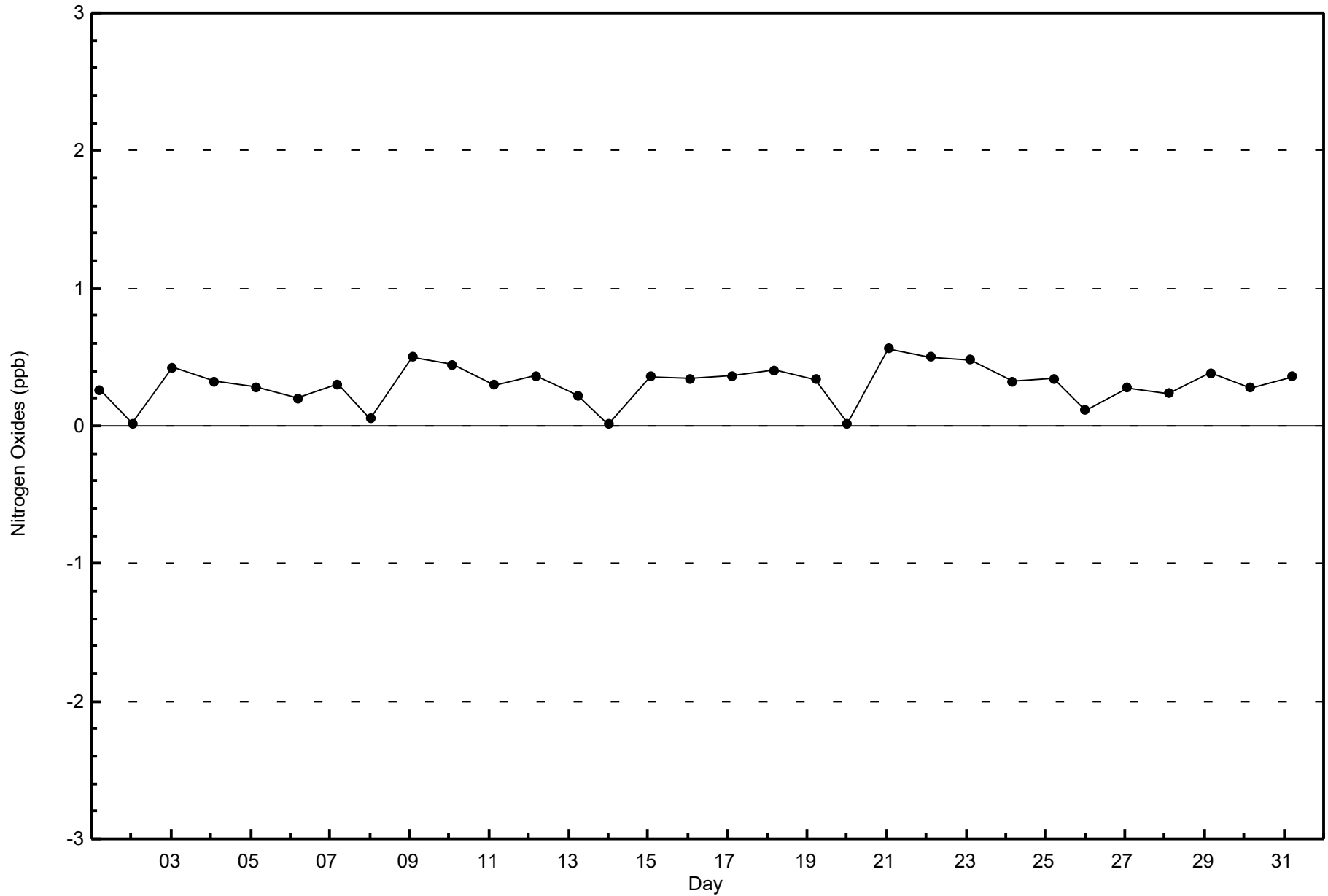
Nitrogen Oxides (NO_x) - ppb
Fort McKay - Bertha Ganter





Wood Buffalo Environmental Association
Zero Responses

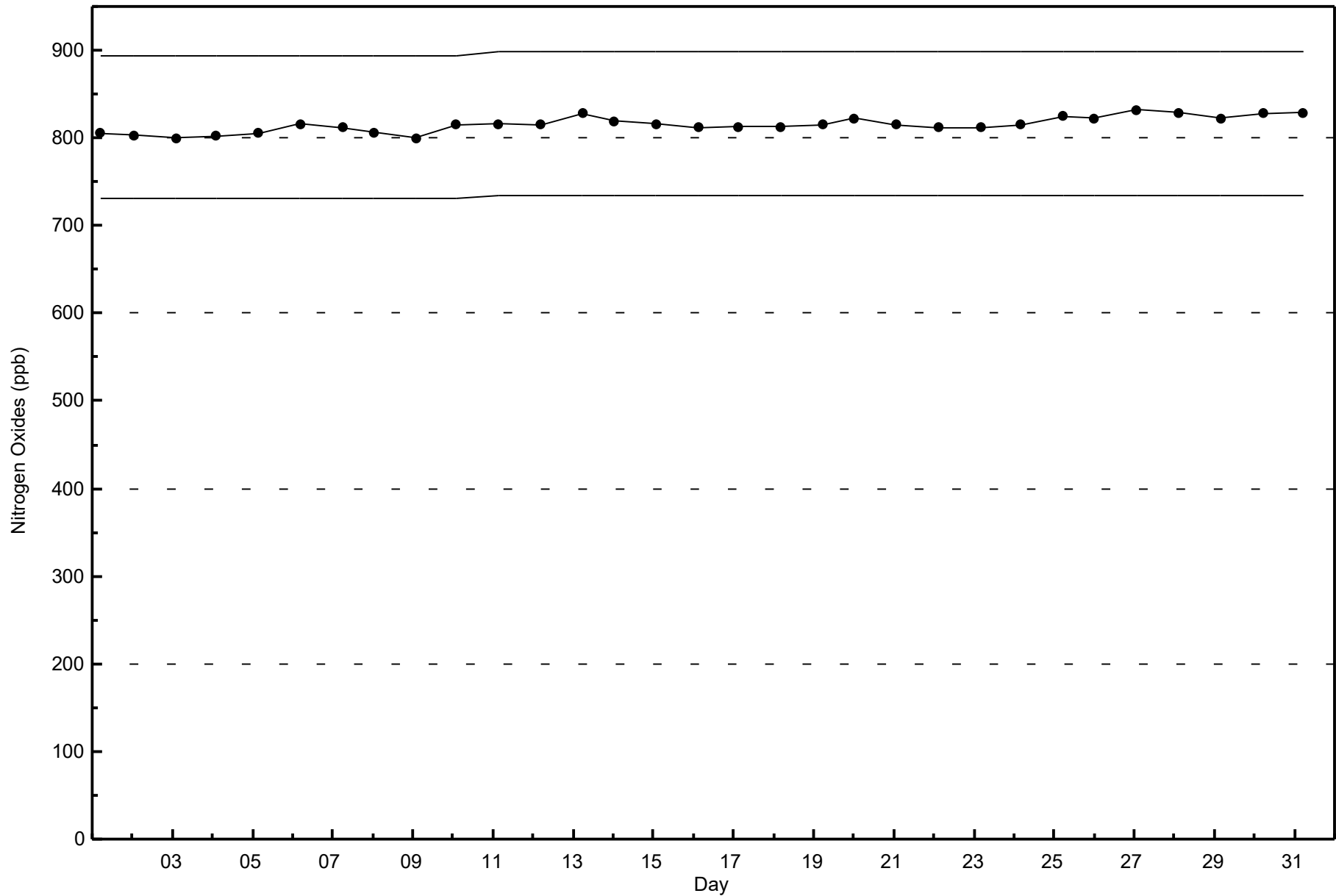
Nitrogen Oxides (NO_x) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O₃) - ppb

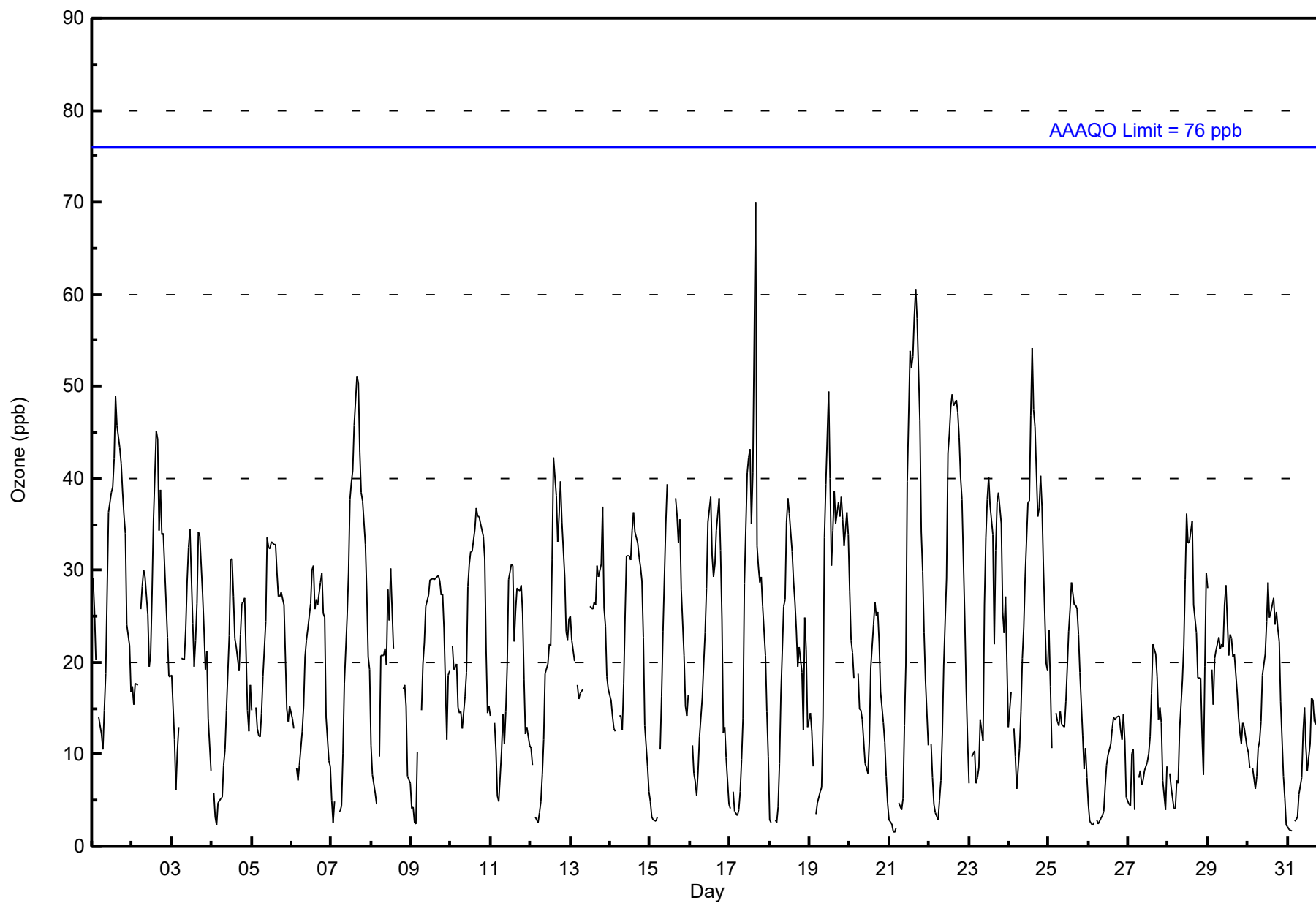
Fort McKay - Bertha Ganter - July 2026

Number of Exceedances (AAAQO): Maximum Value: 70.0 ppb on Jul 17 16:00																				1-hr: 0 Maximum Daily Average: 29.6 ppb on Jul 1					24-hr: 0 Minimum Daily Average: 8.2 ppb on Jul 26 Minimum Diurnal Average: 7.6 ppb at hour 5 Percentiles: P ₁ = 2.3 P ₁₀ = 5.0 Q ₁ = 11.1 Median = 19.6 Q ₃ = 29.0 P ₉₀ = 36.9 P ₉₉ = 52.1					Hours in Service: 744 Hours of Data: 700 Hours of Missing Data: 44 Hours of Calibration: 35 Percent Operational Time: 98.8	
Day	Hourly Period Ending At (MST)																				Daily Average	Daily Maximum									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jul	29.2	25.7	20.3	Z	14.0	12.2	10.6	14.9	18.7	27.4	36.4	38.5	39.0	42.1	49.0	45.7	43.3	41.7	38.6	36.0	34.1	24.1	21.8	16.9	29.6	49.0					
2-Jul	17.4	15.4	17.7	17.5	Z	25.8	28.2	30.0	29.4	25.1	19.5	20.9	27.4	35.4	45.2	44.2	34.3	38.7	33.8	34.0	26.6	22.7	18.4	18.5	27.2	45.2					
3-Jul	18.6	11.6	6.1	10.2	12.9	Z	20.4	20.3	23.6	28.9	32.5	34.4	24.3	19.6	22.4	26.4	34.2	33.7	27.4	23.6	19.2	21.1	13.9	8.2	21.5	34.4					
4-Jul	Z	5.8	3.2	2.3	4.7	5.2	5.3	8.9	10.5	14.7	22.9	31.2	31.2	27.1	22.6	21.7	19.1	23.1	26.4	26.5	27.0	14.8	12.5	17.5	16.7	31.2					
5-Jul	14.9	Z	15.1	12.8	12.0	11.9	14.5	18.4	24.3	33.6	32.4	32.3	33.0	32.8	32.8	29.8	27.1	27.2	27.7	26.3	20.6	14.9	13.5	15.2	22.8	33.6					
6-Jul	13.8	12.8	Z	8.5	7.2	8.8	12.6	15.2	20.6	22.4	23.6	26.4	30.1	30.5	25.8	26.9	26.3	28.6	29.7	25.4	24.8	14.0	9.3	8.7	19.7	30.5					
7-Jul	5.0	2.6	5.0	Z	3.8	3.9	4.4	10.1	17.7	25.0	29.8	37.6	39.5	40.8	45.8	51.1	50.3	42.9	38.4	37.5	32.8	27.4	20.6	19.2	25.7	51.1					
8-Jul	11.1	7.8	5.7	4.6	Z	9.8	20.7	20.7	21.5	19.6	28.0	24.5	30.2	21.5	PF	PF	PF	PF	PF	17.1	17.5	15.3	7.7	6.9	16.1	30.2					
9-Jul	4.2	4.2	2.6	2.4	10.2	Z	14.8	19.8	22.1	26.0	27.3	29.0	29.0	29.2	29.0	29.2	29.5	28.9	27.3	27.4	23.7	11.5	18.7	19.1	20.2	29.5					
10-Jul	Z	21.8	19.2	19.9	15.1	14.6	14.7	12.8	16.3	19.0	28.2	30.6	32.0	32.1	34.5	36.8	35.8	35.9	35.0	33.8	31.3	21.3	14.4	15.2	24.8	36.8					
11-Jul	14.1	Z	13.4	10.4	5.5	4.9	10.4	14.3	11.2	14.7	19.5	28.9	30.7	30.5	22.3	25.7	28.1	27.7	28.4	25.4	18.2	12.3	13.0	10.9	18.3	30.7					
12-Jul	10.7	8.8	Z	3.2	2.6	3.7	4.8	7.8	11.6	18.8	19.9	22.0	21.8	31.0	42.2	38.1	33.0	35.9	39.7	35.2	29.3	23.3	22.4	24.7	21.3	42.2					
13-Jul	25.0	22.4	20.1	Z	17.6	15.9	16.7	17.1	PF	PF	PF	PF	26.1	25.8	26.6	26.2	30.5	29.3	30.6	37.0	25.9	23.9	18.5	17.2	23.8	37.0					
14-Jul	15.8	14.1	12.8	12.6	Z	14.2	14.1	12.6	17.7	25.0	31.6	31.6	31.2	34.4	36.3	34.1	32.9	31.4	30.4	28.8	22.7	13.1	8.7	5.9	22.3	36.3					
15-Jul	4.9	3.3	2.9	2.8	3.1	Z	10.6	16.4	23.3	35.0	39.4	C	C	C	C	37.8	36.1	33.0	35.5	27.9	20.8	15.2	14.1	16.5	19.9	39.4					
16-Jul	Z	10.9	7.9	7.1	5.5	8.3	11.9	16.1	19.8	23.1	28.1	35.2	38.0	31.7	29.4	30.7	34.4	37.8	32.1	24.7	12.3	12.9	9.6	4.6	20.5	38.0					
17-Jul	4.1	Z	6.0	3.8	3.4	3.9	6.0	9.5	13.9	28.6	40.6	42.3	43.1	35.1	40.6	70.0	32.7	30.4	28.6	29.3	26.0	20.7	14.6	9.8	23.6	70.0					
18-Jul	2.9	2.6	Z	2.9	2.6	4.3	9.1	16.4	26.1	26.9	35.2	37.8	36.2	32.0	28.9	26.5	23.5	19.6	21.7	19.0	12.7	24.9	21.4	13.0	19.4	37.8					
19-Jul	14.4	12.5	8.7	Z	3.5	4.8	5.9	6.5	14.0	33.5	39.3	49.4	40.0	30.5	34.3	38.6	35.0	37.3	35.8	38.0	35.6	32.6	36.2	33.9	27.0	49.4					
20-Jul	27.7	22.4	21.0	18.2	Z	18.8	14.9	14.9	13.8	9.0	8.6	7.9	11.5	19.3	24.1	26.5	25.1	25.4	22.1	16.7	13.5	11.3	7.6	4.7	16.7	27.7					
21-Jul	2.9	2.4	1.7	1.6	2.0	Z	4.8	4.0	5.3	13.2	19.7	39.7	53.9	52.0	53.2	57.5	60.6	57.3	46.2	34.2	29.9	23.2	17.9	11.0	25.8	60.6					
22-Jul	Z	11.2	7.5	4.6	3.7	3.0	5.0	7.2	12.2	19.6	29.1	42.7	44.8	47.8	49.1	48.0	48.6	47.2	44.4	40.2	37.7	24.7	17.1	11.4	26.4	49.1					
23-Jul	6.8	Z	9.8	10.4	6.8	7.5	8.5	13.8	11.4	26.3	33.5	37.7	40.1	37.0	33.8	22.0	32.3	37.3	38.5	35.1	25.4	23.2	27.2	19.9	23.7	40.1					
24-Jul	13.0	16.8	Z	12.7	9.8	6.3	10.7	14.7	20.5	23.8	29.3	37.3	37.6	46.8	54.2	47.5	45.6	35.8	36.8	40.3	36.9	30.3	19.8	19.1	28.1	54.2					
25-Jul	23.5	17.3	10.7	Z	14.5	13.5	13.2	14.7	13.2	12.9	15.8	19.3	23.3	25.8	28.7	26.3	26.3	25.8	23.0	18.9	12.0	8.3	10.7	7.5	17.6	28.7					
26-Jul	4.5	2.8	2.3	2.6	Z	2.8	2.5	3.1	3.4	3.8	6.6	8.9	10.0	11.2	12.8	14.1	13.7	14.1	14.3	12.6	11.6	14.3	11.4	5.4	8.2	14.3					
27-Jul	4.5	4.5	10.1	10.5	3.9	Z	7.5	8.2	6.8	7.1	8.3	9.2	10.1	11.9	16.7	22.0	21.0	18.4	13.8	15.2	13.5	7.1	3.9	8.6	10.5	22.0					
28-Jul	Z	7.9	6.3	4.2	4.1	7.2	6.9	12.7	18.0	21.9	28.9	36.2	32.9	33.0	35.4	26.2	24.7	23.2	18.3	18.3	12.1	7.8	19.5	29.8	18.9	36.2					
29-Jul	28.0	Z	19.2	15.4	20.4	21.3	22.7	21.4	21.9	21.6	26.2	28.4	20.7	23.1	22.5	20.6	20.9	16.8	14.0	12.4	11.2	13.4	12.9	10.8	19.4	28.4					
30-Jul	10.3	8.5	Z	8.6	6.3	7.6	10.8	11.4	13.6	18.6	20.9	24.4	28.7	24.8	25.5	27.0	24.2	25.4	23.7	22.3	15.7	7.6	5.1	2.3	16.2	28.7					
31-Jul	2.2	1.9	1.7	Z	2.8	2.9	3.3	5.7	7.5	12.4	15.1	10.9	8.2	11.1	16.2	15.8	13.5	13.2	15.1	14.9	8.0	5.4	4.1	4.1	8.5	16.2					
12.7 10.7 9.9 8.4 7.6 9.3 11.2 13.5 16.3 21.2 25.9 29.5 30.1 30.2 32.4 33.1 31.4 30.8 29.2 26.9 22.2 17.5 15.1 13.4																										Diurnal Average					
29.2 25.7 21.0 19.9 20.4 25.8 28.2 30.0 29.4 35.0 40.6 49.4 53.9 52.0 54.2 70.0 60.6 57.3 46.2 40.3 37.7 32.6 36.2 33.9																										Diurnal Maximum					
Z - zerospan C - Calibration PF - Power Failure																															
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb																															



Wood Buffalo Environmental Association
Hourly Averages

Ozone (O₃) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ozone (O₃) - ppb
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	366	52.29	52.29
21 - 50	325	46.43	98.71
51 - 82	9	1.29	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 700

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Ozone (O₃) - ppb
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	26	23	9	5	0	4	13	55	56	35	24	26	24	27	27	12	366
21 - 50	30	9	7	5	8	7	17	65	47	26	17	13	12	14	19	26	322
51 - 82	0	1	0	0	0	0	3	4	0	0	0	0	0	0	0	0	8
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	56	33	16	10	8	11	33	124	103	61	41	39	36	41	46	38	696

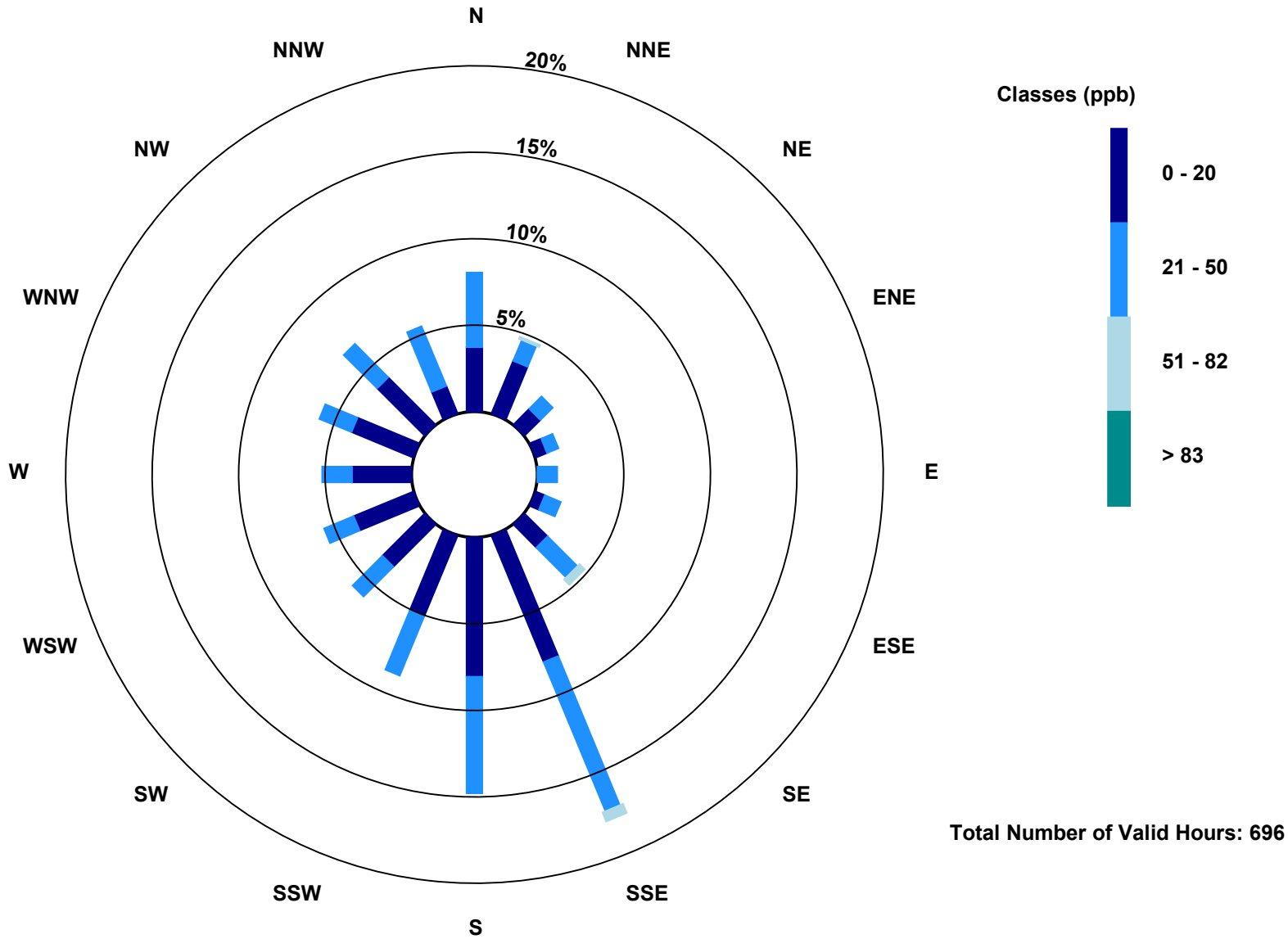
Total Number of Valid Hours: 696

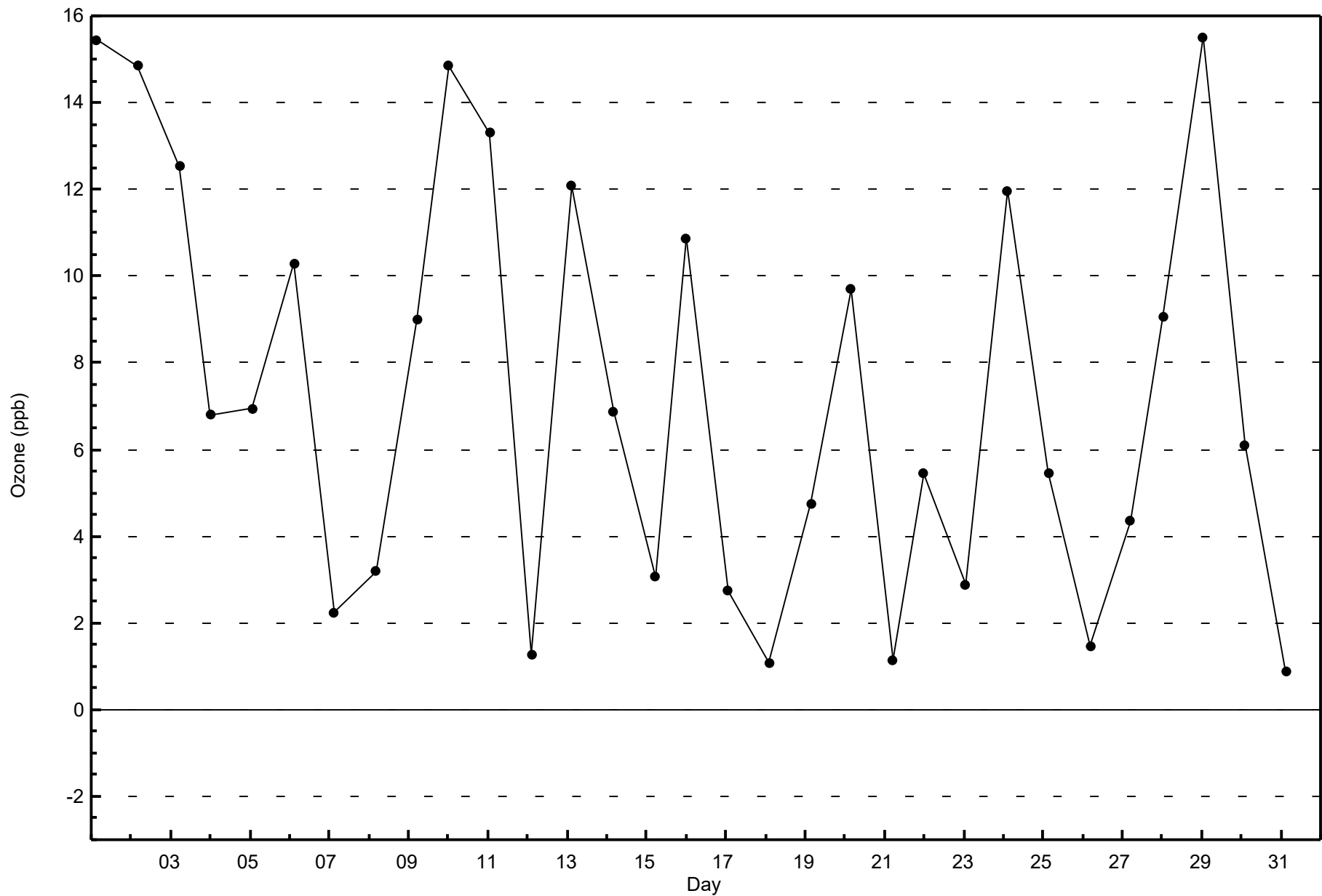
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Ozone (O₃) - ppb
Fort McKay - Bertha Ganter





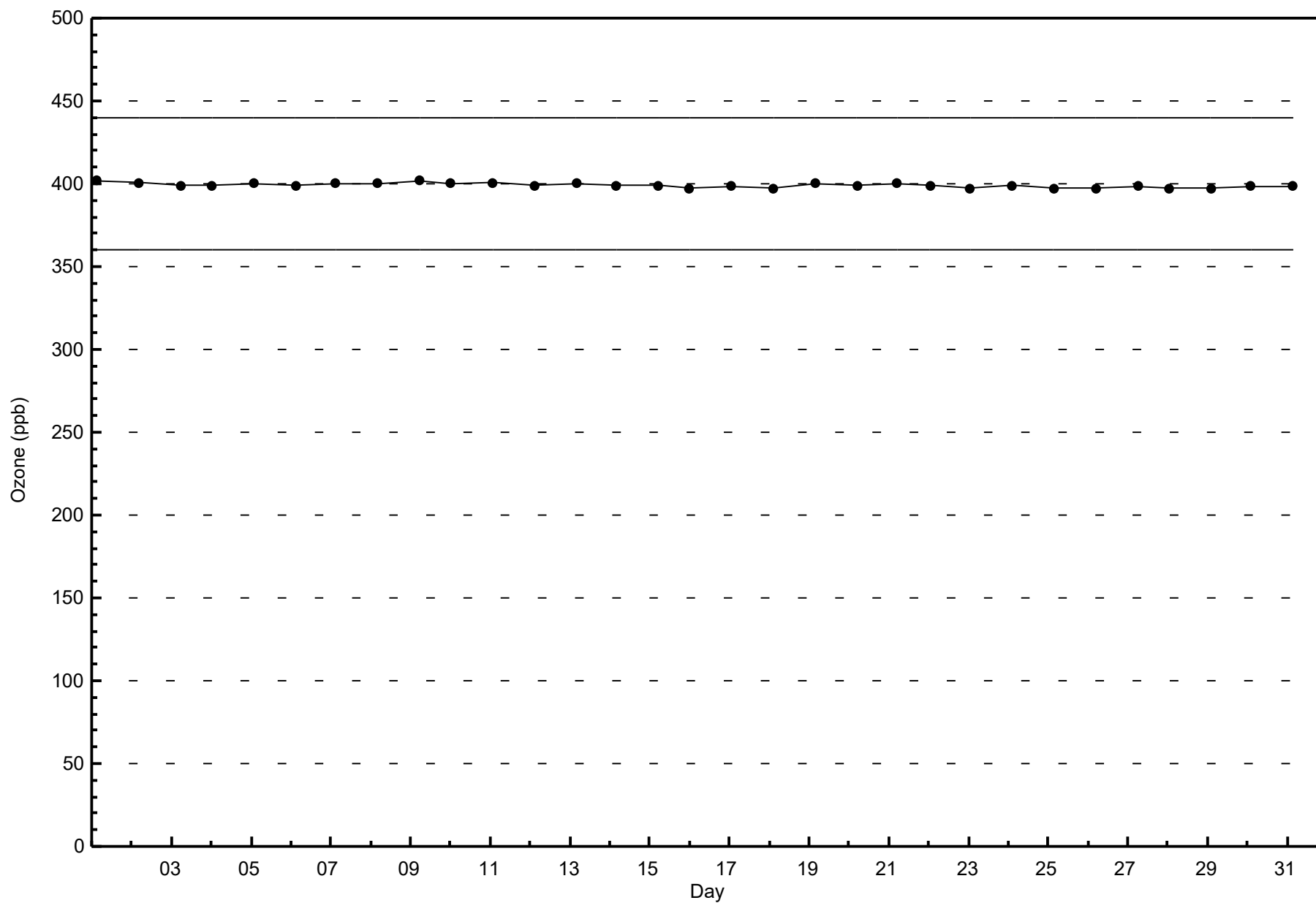


Wood Buffalo Environmental Association

Span Responses

Ozone (O₃) - ppb

Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

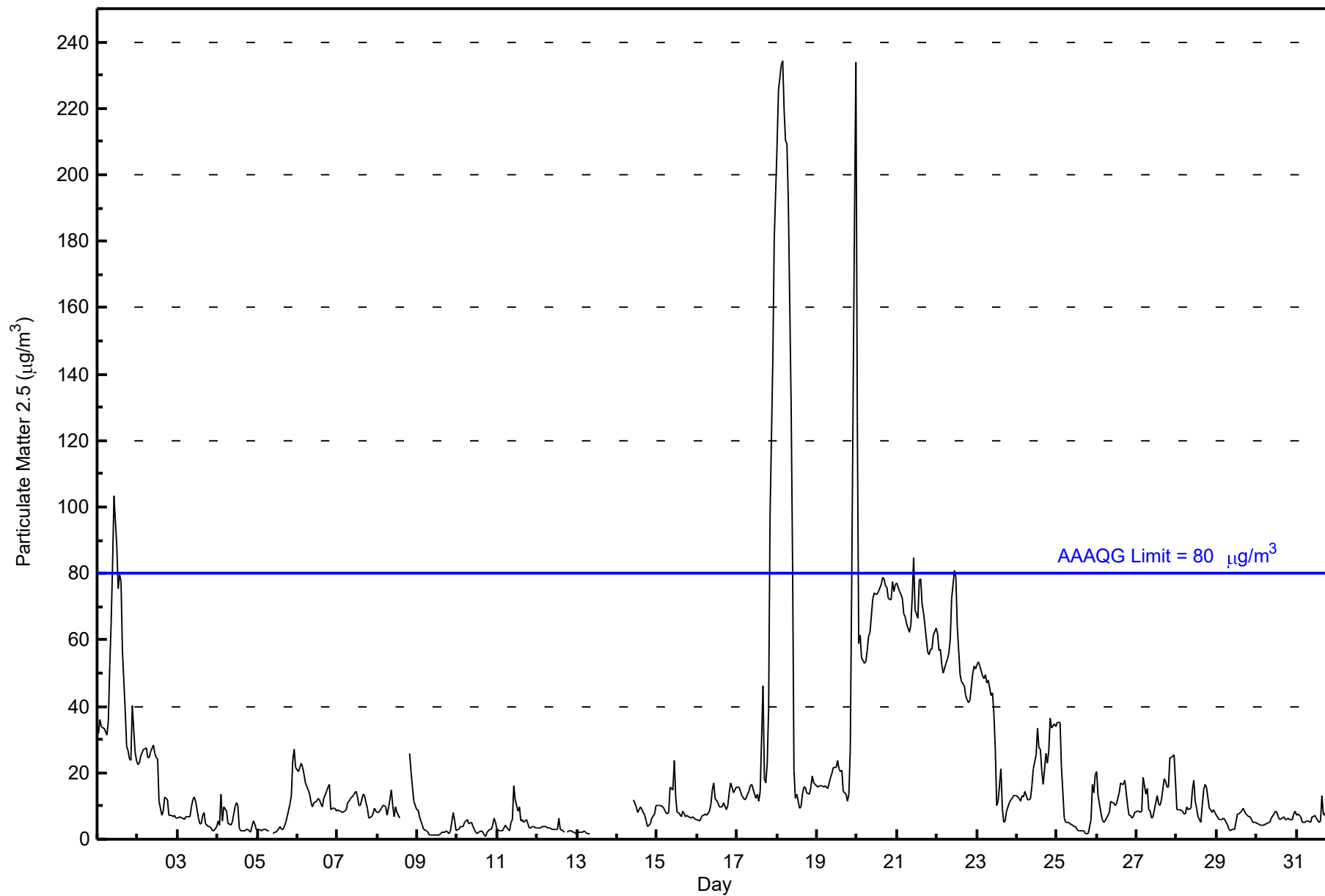
Fort McKay - Bertha Ganter - July 2026

Number of Exceedances (AAAQO): 1-hr: 22 24-hr: 7 Maximum Value: 234.4 µg/m³ on Jul 18 04:00 Maximum Daily Average: 89.7 µg/m³ on Jul 18																					Hours in Service: 744 Hours of Data: 711 Hours of Missing Data: 33 Hours of Calibration: 0 Percent Operational Time: 95.6					
Minimum Value: 1.0 µg/m³ on Jul 10 18:00 Maximum Diurnal Average: 29.5 µg/m³ at hour 24 Monthly Average: 21.29 µg/m³																					Minimum Daily Average: 3.0 µg/m³ on Jul 9 Minimum Diurnal Average: 14.8 µg/m³ at hour 19 Percentiles: P ₁ = 1.4 P ₁₀ = 2.8 Q ₁ = 5.5 Median = 9.6 Q ₃ = 20.4 P ₉₀ = 57.2 P ₉₉ = 207.6					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	31.6	35.9	34.1	33.3	33.4	31.3	35.4	52.2	65.3	82.5	103.2	88.0	75.5	79.7	77.7	56.9	38.6	27.9	26.8	24.3	23.8	40.1	26.2	23.6	47.8	103.2
2-Jul	22.6	23.0	25.0	27.0	27.1	27.4	24.6	24.8	26.2	28.5	25.9	24.7	24.1	11.5	7.3	8.7	12.7	12.5	11.7	7.2	7.4	6.7	7.1	6.4	17.9	28.5
3-Jul	6.2	6.8	6.4	6.2	5.9	6.7	6.8	6.8	9.8	12.0	12.7	11.5	6.3	4.7	4.6	7.3	8.3	4.9	3.8	3.6	3.2	2.4	2.6	3.8	6.4	12.7
4-Jul	5.4	4.1	13.7	5.4	9.8	8.4	4.7	4.5	4.4	5.2	9.9	11.0	10.2	3.2	2.7	2.4	2.7	2.8	3.1	2.6	2.2	5.4	4.8	3.1	5.5	13.7
5-Jul	3.0	3.0	2.7	2.8	2.8	2.8	2.7	2.7	DF	1.5	2.0	2.0	2.5	3.6	3.1	3.2	3.8	5.2	6.7	10.4	13.3	23.9	27.1	21.6	6.6	27.1
6-Jul	20.3	21.7	22.7	21.5	19.7	17.1	14.7	13.7	11.0	9.7	10.9	11.2	12.2	11.9	10.4	9.6	12.1	14.4	15.9	16.4	8.8	9.4	9.4	8.5	13.9	22.7
7-Jul	8.9	8.4	8.5	8.3	8.5	8.9	11.0	11.4	12.2	13.2	13.9	14.6	12.5	10.0	10.1	13.5	13.1	11.1	9.2	6.3	6.8	7.8	9.2	8.3	10.2	14.6
8-Jul	8.0	8.1	9.3	10.1	10.1	10.0	7.4	11.7	15.0	10.4	6.9	9.9	8.0	6.4	PF	PF	PF	PF	PF	26.0	20.1	15.5	11.5	9.1	11.2	26.0
9-Jul	8.7	6.7	5.7	4.0	3.0	2.4	2.2	1.4	1.2	1.2	1.1	1.1	1.2	1.3	1.7	2.0	2.3	2.6	2.1	1.9	2.6	8.2	5.4	2.6	3.0	8.7
10-Jul	2.9	3.1	3.8	3.9	5.2	5.7	5.7	4.6	4.9	3.8	2.9	2.2	1.9	2.3	2.5	2.2	1.4	1.0	2.3	2.8	2.9	4.4	6.2	5.1	3.5	6.2
11-Jul	2.8	2.4	2.5	2.5	3.6	4.1	3.0	2.7	5.3	5.8	16.1	11.9	8.3	9.7	5.7	5.9	5.3	5.8	4.5	3.4	3.2	3.7	3.7	3.4	5.2	16.1
12-Jul	3.2	3.3	3.6	3.8	3.9	3.6	3.5	3.5	3.5	2.9	2.9	2.8	2.9	6.2	3.0	2.3	2.2	DF	1.9	2.7	2.4	2.3	2.0	1.9	3.1	6.2
13-Jul	1.8	2.0	2.2	2.3	2.4	2.0	1.8	1.7	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	2.4
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	11.8
15-Jul	10.2	10.0	10.2	9.9	8.8	7.9	7.5	7.9	15.7	14.8	23.8	12.8	8.0	8.2	6.7	8.7	7.4	6.8	7.0	6.9	6.1	6.7	6.2	5.8	9.3	23.8
16-Jul	5.8	5.7	6.3	7.1	7.2	7.4	7.2	8.3	10.6	14.8	17.0	12.4	11.0	9.6	9.6	9.5	11.0	8.8	10.1	14.0	16.9	15.5	14.0	15.6	10.6	17.0
17-Jul	15.7	15.6	14.2	13.1	12.0	12.5	13.7	14.3	15.9	16.7	13.6	12.2	13.4	11.6	14.5	46.3	18.4	16.8	22.7	39.4	97.0	144.8	181.0	194.9	40.4	194.9
18-Jul	209.1	225.5	233.3	234.4	219.6	210.0	209.2	192.1	130.1	83.7	20.8	12.1	13.4	9.2	9.6	13.6	15.5	15.6	13.9	13.6	15.6	19.0	17.1	16.5	89.7	234.4
19-Jul	15.7	16.1	16.1	16.2	15.8	15.9	15.3	17.1	18.6	19.7	21.6	21.7	23.6	21.3	20.3	20.7	14.6	13.7	11.6	13.4	27.3	76.8	187.4	233.8	36.4	233.8
20-Jul	125.9	58.7	61.2	54.7	52.9	53.4	56.8	60.8	62.5	72.3	74.0	73.5	73.7	74.6	76.5	79.0	78.3	76.5	75.7	72.4	72.2	77.6	74.4	76.6	71.4	125.9
21-Jul	77.3	74.6	73.7	72.4	67.9	66.8	64.6	62.5	64.4	72.9	84.9	69.2	66.4	78.2	78.5	70.9	68.0	64.5	56.4	55.3	57.1	57.4	61.6	63.5	67.9	84.9
22-Jul	62.1	56.7	57.2	52.3	49.9	53.1	54.1	56.1	60.0	72.6	80.9	78.9	63.9	56.6	49.4	47.5	46.1	43.3	42.0	41.0	41.9	50.1	52.3	51.1	55.0	80.9
23-Jul	52.6	53.3	51.9	49.2	48.1	49.8	47.2	47.9	43.3	44.3	37.6	27.1	10.1	11.5	21.3	9.5	5.2	5.5	8.3	11.0	11.7	12.4	13.2	13.1	28.5	53.3
24-Jul	13.2	12.4	11.6	13.3	12.5	14.3	12.0	11.7	12.2	16.0	21.2	25.4	33.6	27.7	27.2	20.6	16.3	26.0	23.0	26.6	36.4	33.4	34.8	33.7	21.5	36.4
25-Jul	35.0	35.3	35.2	21.5	6.5	5.0	5.0	5.0	4.5	4.1	4.0	3.6	2.9	2.7	2.5	2.6	2.7	1.8	1.8	1.9	6.1	16.5	14.0	19.4	10.0	35.3
26-Jul	20.5	13.2	8.1	5.9	5.0	5.4	6.2	7.9	11.6	11.1	10.9	10.3	10.6	13.9	16.9	16.4	16.7	18.0	10.3	7.2	7.4	6.4	6.8	8.1	10.6	20.5
27-Jul	8.3	8.5	8.0	8.5	18.6	13.6	15.2	9.0	8.6	6.5	6.7	10.9	13.0	10.8	10.3	11.9	18.1	17.2	15.5	15.9	24.7	24.6	25.6	17.6	13.7	25.6
28-Jul	9.0	8.9	8.8	8.3	7.7	7.5	9.7	9.0	9.4	14.7	17.8	11.4	9.2	6.7	5.1	10.0	14.9	16.4	15.7	9.3	8.9	8.1	9.1	7.9	10.1	17.8
29-Jul	7.0	5.8	6.1	6.0	6.2	6.1	4.3	2.8	2.6	2.9	3.1	3.1	7.5	7.8	8.2	8.5	9.3	7.8	7.3	7.0	6.8	6.1	5.2	5.1	5.9	9.3
30-Jul	4.7	4.5	4.3	4.2	4.4	4.6	4.8	4.9	5.1	6.2	7.5	8.4	8.1	6.9	6.1	6.5	6.7	5.9	6.0	6.2	5.9	5.9	7.5	8.5	6.0	8.5
31-Jul	7.2	7.6	6.7	5.1	4.9	5.2	5.3	5.3	5.1	6.8	7.0	7.3	6.5	5.1	5.6	12.9	7.8	7.1	9.0	8.8	8.6	8.7	7.5	6.6	7.0	12.9
26.8 24.7 25.1 23.8 22.8 22.3 22.1 22.1 22.8 22.6 22.4 20.0 18.3 17.4 17.5 17.9 16.1 15.9 14.8 15.4 18.4 23.5 28.0 29.5																								Diurnal Average		
209.1 225.5 233.3 234.4 219.6 210.0 209.2 192.1 130.1 83.7 103.2 88.0 75.5 79.7 78.5 79.0 78.3 76.5 75.7 72.4 97.0 144.8 187.4 233.8																								Diurnal Maximum		
DF - DAS Failure PF - Power Failure Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 µg/m³ 24-hr 29 µg/m³																										



Wood Buffalo Environmental Association
Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Number of Hours	%	Cumulative %
0 - 5	177	24.89	24.89
6 - 15	306	43.04	67.93
16 - 25	82	11.53	79.47
26 - 80	124	17.44	96.91
> 81.0	22	3.09	100.00

Total Number of Valid Hours: 711

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (µg/m³)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	3	3	1	0	1	1	1	18	36	26	28	22	13	10	8	5	176
6 - 15	25	23	11	8	7	5	20	62	38	23	8	11	13	20	18	14	306
16 - 25	15	7	1	1	0	1	5	21	8	3	3	2	2	5	5	3	82
26 - 80	10	3	2	1	0	1	8	25	21	7	1	4	8	6	12	12	121
> 81.0	3	0	1	0	0	2	1	3	1	0	2	0	1	1	4	3	22
Totals	56	36	16	10	8	10	35	129	104	59	42	39	37	42	47	37	707

Total Number of Valid Hours: 707

Total Number of Hours: 744

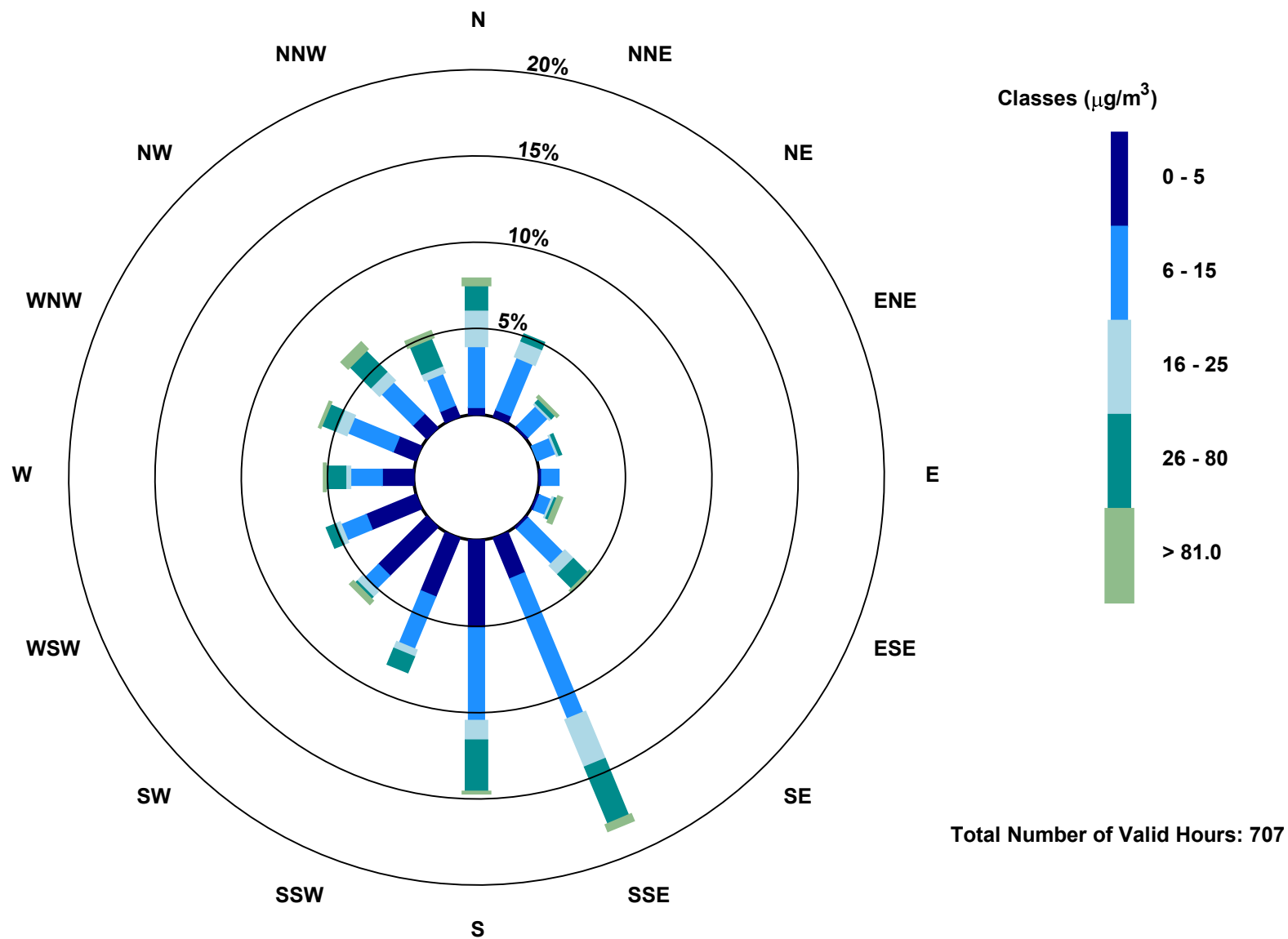


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$

Fort McKay - Bertha Ganter

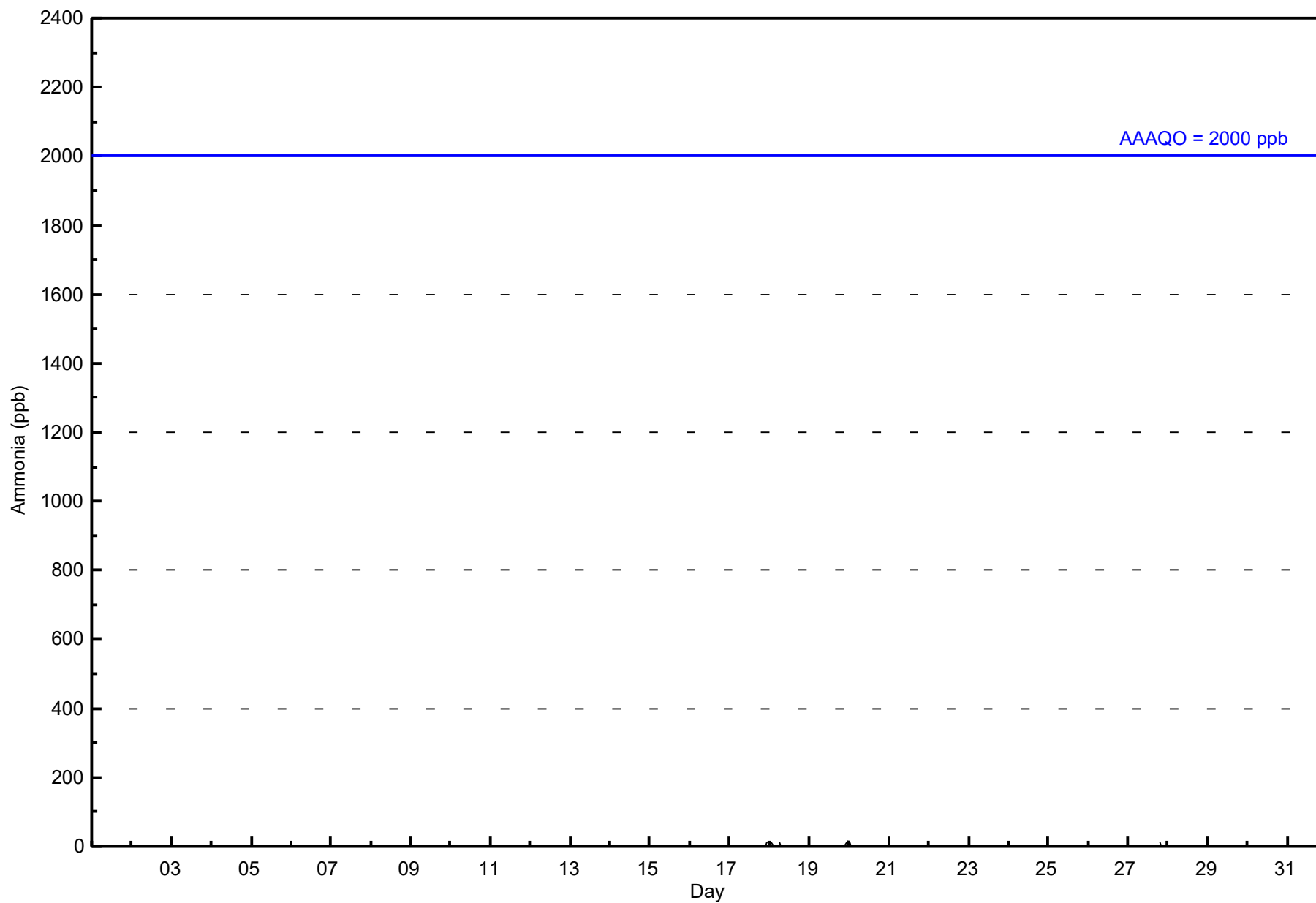


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Wood Buffalo Environmental Association
Hourly Averages

Ammonia (NH₃) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ammonia (NH₃) - ppb
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 5	623	98.58	98.58
6 - 10	4	0.63	99.21
11 - 15	4	0.63	99.84
16 - 20	1	0.16	100.00
21 - 25	0	0.00	100.00
> 26	0	0.00	100.00

Total Number of Valid Hours: 632

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Ammonia (NH₃) - ppb
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	51	32	14	8	8	10	32	114	96	52	31	29	36	34	40	32	619
6 - 10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	1	4
11 - 15	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	4
16 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
21 - 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	52	32	15	8	8	10	32	114	97	52	31	29	36	34	43	35	628

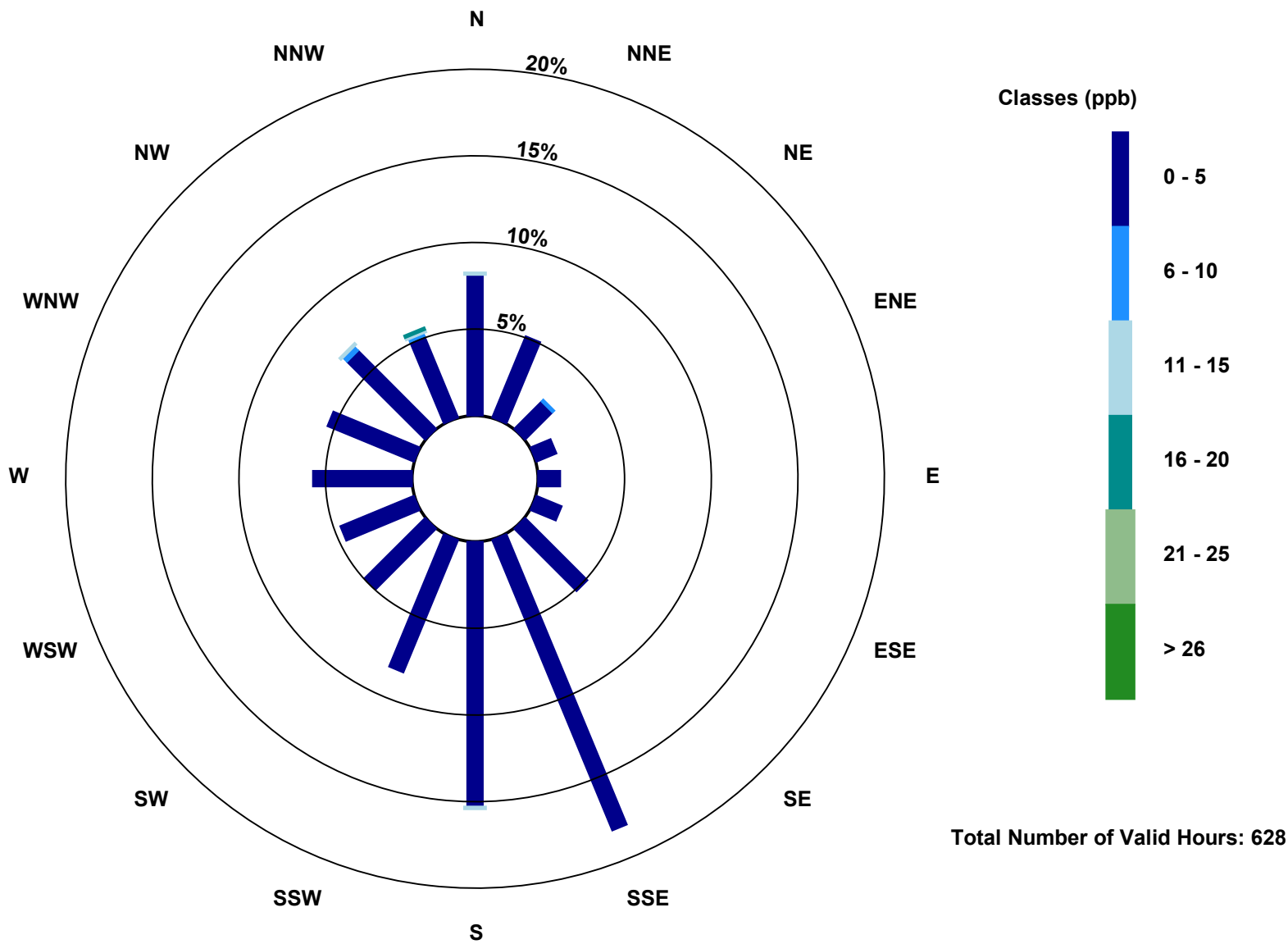
Total Number of Valid Hours: 628

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

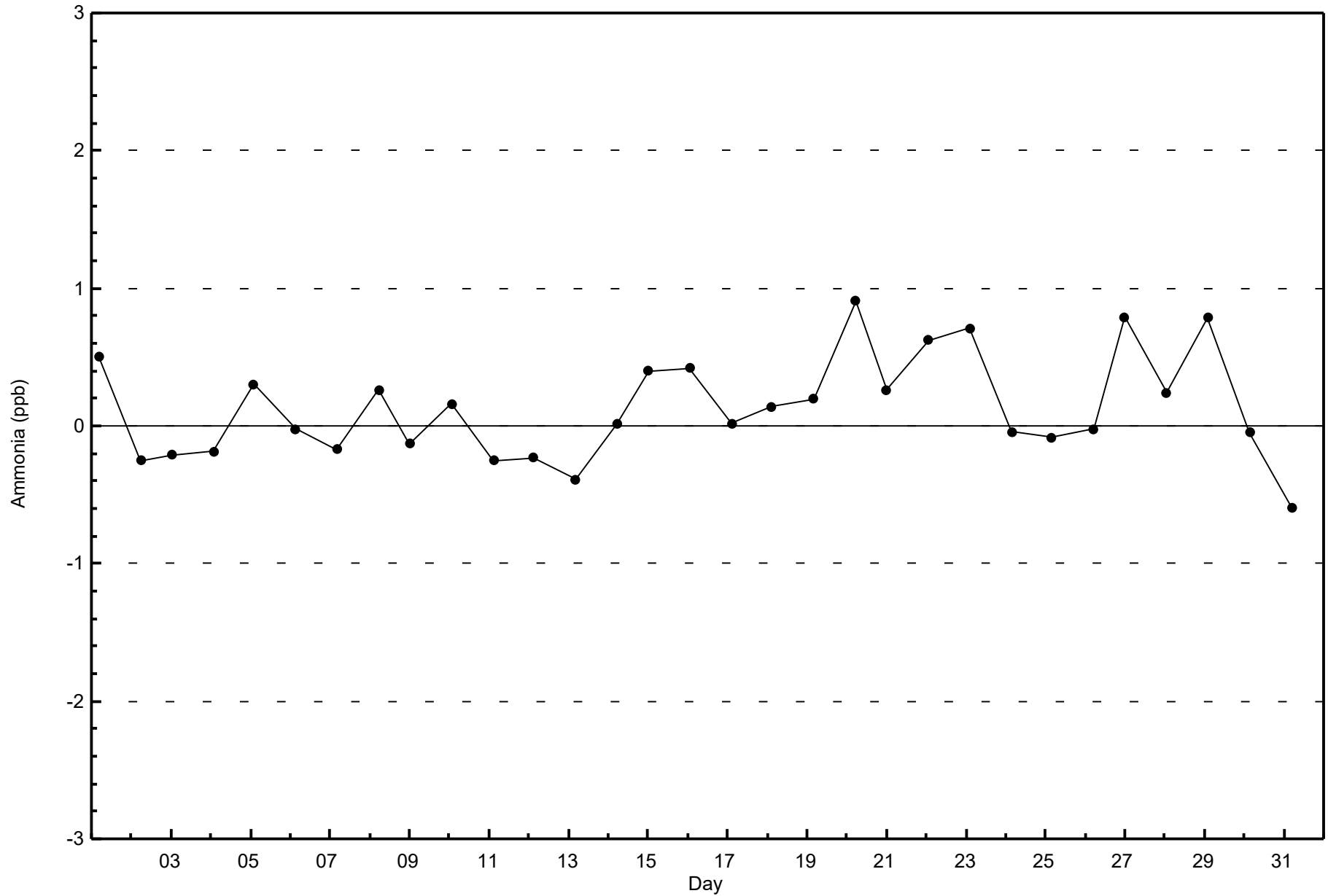
Ammonia (NH₃) - ppb
Fort McKay - Bertha Ganter





Wood Buffalo Environmental Association
Zero Responses

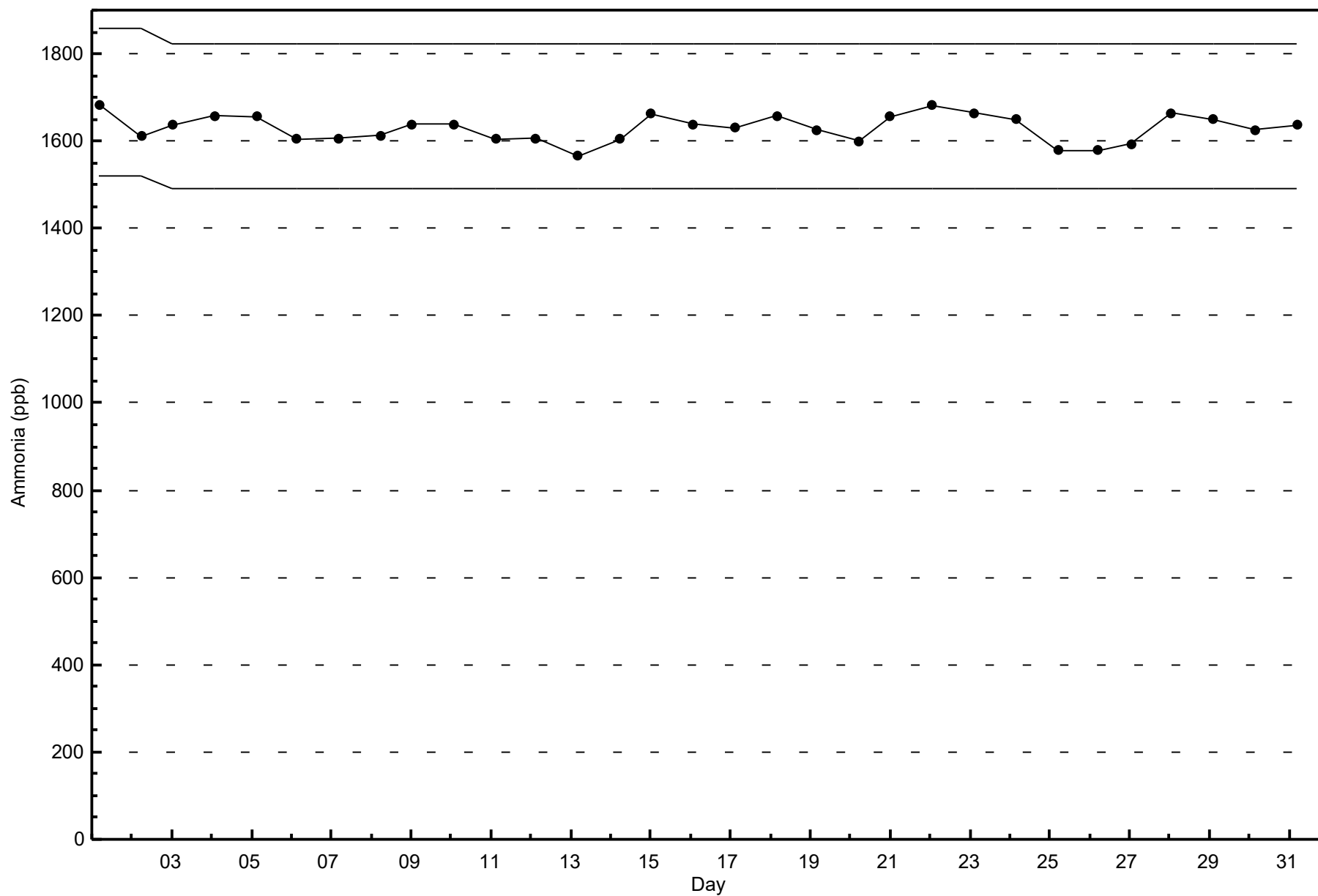
Ammonia (NH₃) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Span Responses

Ammonia (NH₃) - ppb
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 10m (AT10) - C

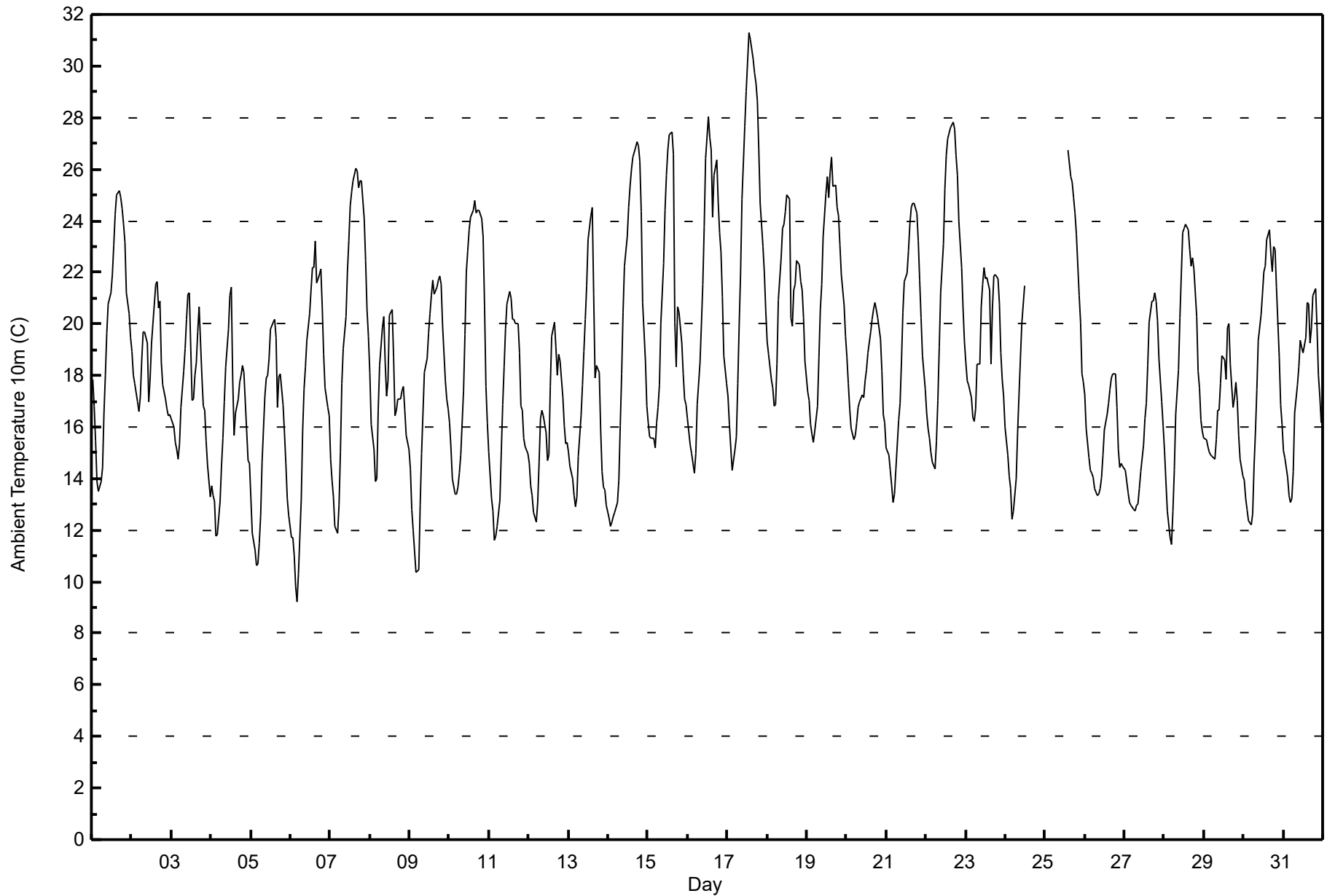
Fort McKay - Bertha Ganter - July 2026

Maximum Value: 31.3 C on Jul 17 14:00																				Maximum Daily Average: 23.4 C on Jul 17					Hours in Service: 744	
Minimum Value: 9.2 C on Jul 6 05:00																				Minimum Daily Average: 15.4 C on Jul 26					Hours of Data: 718	
Maximum Diurnal Average: 22.5 C at hour 15																				Minimum Diurnal Average: 13.4 C at hour 5					Hours of Missing Data: 26	
Monthly Average: 18.51 C																				Percentiles: P ₁ = 11.0 P ₁₀ = 13.3 Q ₁ = 15.4 Median = 18.0 Q ₃ = 21.2 P ₉₀ = 24.4 P ₉₉ = 28.5					Hours of Calibration: 0	
																									Percent Operational Time: 96.5	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	17.8	16.8	15.5	13.9	13.5	13.9	14.5	16.6	18.0	19.6	20.8	21.2	21.9	23.1	24.2	25.0	25.2	24.9	24.4	23.9	23.2	21.2	20.4	19.5	20.0	25.2
2-Jul	18.9	18.0	17.7	17.0	16.6	17.2	18.6	19.7	19.7	19.2	17.0	17.9	19.3	20.0	21.5	21.7	20.6	20.9	18.5	17.6	17.1	16.7	16.4	16.5	18.5	21.7
3-Jul	16.3	16.0	15.4	15.2	14.7	15.4	16.8	18.2	19.0	20.2	21.1	21.2	17.0	17.1	18.0	18.5	19.7	20.7	17.9	16.8	16.6	15.5	14.5	13.3	17.3	21.2
4-Jul	13.7	13.4	13.1	11.8	11.8	13.1	14.5	15.5	17.0	18.4	19.8	21.1	21.4	17.9	15.7	16.5	17.1	17.7	18.0	18.4	18.1	15.9	14.7	14.6	16.2	21.4
5-Jul	13.2	11.9	11.2	10.6	10.7	11.5	12.6	14.6	17.2	17.9	18.0	18.6	19.8	20.1	20.2	19.5	16.8	17.9	18.1	16.9	15.8	14.6	13.2	12.6	15.6	20.2
6-Jul	11.7	11.7	11.0	9.8	9.2	10.3	13.2	15.8	17.5	18.3	19.4	20.4	21.3	22.2	22.2	23.2	21.6	21.9	22.1	20.7	18.8	17.5	16.8	16.4	17.2	23.2
7-Jul	14.7	14.0	13.3	12.1	11.9	13.0	15.0	17.7	19.0	20.3	22.0	23.2	24.6	25.1	25.6	26.0	25.9	25.3	25.6	25.6	24.1	22.4	20.6	19.5	20.3	26.0
8-Jul	18.1	16.1	15.1	13.9	14.0	16.6	18.4	19.9	20.3	18.5	17.2	17.8	20.3	20.6	18.7	16.4	16.7	17.1	17.1	17.4	17.6	16.6	15.7	15.1	17.3	20.6
9-Jul	14.4	12.8	12.0	11.2	10.4	10.5	13.0	15.0	16.5	18.1	18.7	19.6	20.4	21.1	21.7	21.2	21.4	21.7	21.9	21.5	19.9	17.8	17.1	16.7	17.3	21.9
10-Jul	16.2	15.2	14.0	13.4	13.4	13.7	14.2	14.9	17.4	19.6	22.0	22.8	23.6	24.1	24.4	24.8	24.3	24.4	24.4	24.1	23.4	20.7	17.5	16.2	19.5	24.8
11-Jul	15.0	13.2	12.7	11.6	11.8	12.2	13.2	15.1	16.9	18.3	19.8	20.7	21.3	21.0	20.2	20.2	20.0	20.0	18.9	16.8	16.7	15.5	15.2	15.0	16.7	21.3
12-Jul	14.6	13.7	13.3	12.7	12.3	13.1	14.6	16.3	16.7	16.4	15.8	14.7	14.9	17.6	19.5	20.1	19.1	18.0	18.8	18.6	17.1	16.1	15.3	15.4	16.0	20.1
13-Jul	15.0	14.5	14.0	13.3	12.9	13.3	14.9	16.4	17.6	18.9	20.2	21.5	23.3	24.2	24.5	21.2	17.9	18.4	18.1	15.9	14.3	13.7	13.6	13.0	17.1	24.5
14-Jul	12.5	12.2	12.3	12.5	12.7	13.1	13.9	16.1	18.1	20.5	22.2	23.4	24.5	25.3	26.0	26.4	26.9	27.1	26.9	26.3	24.3	20.8	18.6	16.8	20.0	27.1
15-Jul	16.1	15.6	15.6	15.6	15.2	16.2	16.8	17.6	20.0	22.3	24.4	25.8	26.7	27.3	27.4	26.6	20.1	18.3	20.7	20.5	19.3	18.0	17.1	16.9	20.0	27.4
16-Jul	16.3	15.3	15.0	14.6	14.2	14.9	16.9	18.5	19.9	21.5	23.7	26.4	28.1	27.2	26.7	24.2	25.8	26.3	24.7	23.5	22.8	21.0	18.8	17.7	21.0	28.1
17-Jul	17.2	16.1	15.2	14.3	15.1	15.6	17.7	19.9	22.0	24.9	27.7	29.0	30.1	31.3	31.0	30.3	29.7	29.4	28.6	26.8	24.7	23.0	22.0	20.5	23.4	31.3
18-Jul	19.3	18.8	17.8	17.5	16.8	16.9	18.4	20.9	22.6	23.7	23.9	24.3	25.0	24.9	20.2	19.9	21.3	21.5	22.4	22.3	21.6	21.3	20.2	18.6	20.8	25.0
19-Jul	17.4	17.0	16.1	15.7	15.4	15.8	16.8	18.7	20.5	21.5	23.4	25.1	25.7	24.9	25.9	26.5	25.3	25.4	24.5	24.2	23.0	21.9	20.7	19.5	21.3	26.5
20-Jul	18.7	17.7	16.7	16.0	15.5	15.7	16.2	16.7	17.0	17.2	17.1	17.8	18.2	18.9	19.7	20.2	20.6	20.8	20.5	20.2	19.4	18.1	16.5	16.2	18.0	20.8
21-Jul	15.2	14.9	14.3	13.7	13.1	13.4	14.4	16.3	16.9	18.6	20.4	21.6	22.0	22.8	23.9	24.5	24.7	24.7	24.3	23.2	21.7	20.2	18.8	17.5	19.2	24.7
22-Jul	16.5	16.0	15.6	15.0	14.6	14.3	15.5	17.0	19.1	21.2	23.1	25.2	26.5	27.2	27.4	27.6	27.8	27.5	26.5	25.8	23.9	22.2	20.6	19.3	21.5	27.8
23-Jul	18.5	17.8	17.6	17.1	16.4	16.2	16.7	18.5	18.4	20.7	21.5	22.2	21.8	21.8	21.3	18.5	20.6	21.9	21.9	21.8	20.8	18.9	17.9	17.2	19.4	22.2
24-Jul	16.0	14.9	14.1	13.6	12.4	12.8	14.0	15.8	17.2	18.7	20.0	21.5	M	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	21.5
25-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	26.7	25.7	25.5	24.9	24.3	23.5	21.1	20.1	18.1	17.7	--	26.7
26-Jul	17.2	15.9	14.8	14.3	14.2	14.1	13.6	13.3	13.4	13.6	14.0	14.9	15.9	16.5	16.9	17.4	17.9	18.1	18.1	16.7	15.1	14.4	14.6	14.5	15.4	18.1
27-Jul	14.3	13.9	13.5	13.1	12.9	12.8	12.7	13.0	13.0	13.6	14.3	15.3	16.3	16.9	18.4	20.1	20.9	20.9	21.2	20.9	20.1	18.7	17.0	16.1	16.2	21.2
28-Jul	15.1	13.9	12.7	11.7	11.5	12.7	14.3	16.5	18.2	20.2	21.9	23.5	23.7	23.9	23.7	22.9	22.2	22.6	22.1	20.3	18.2	17.5	16.3	15.8	18.4	23.9
29-Jul	15.6	15.5	15.2	15.0	14.9	14.9	14.7	15.5	16.6	16.7	17.7	18.7	18.6	17.9	19.8	20.0	18.4	16.8	17.1	17.7	17.0	15.7	14.8	14.1	16.6	20.0
30-Jul	14.0	13.3	12.8	12.4	12.2	12.6	14.5	15.9	17.4	19.4	20.3	21.1	22.0	22.2	23.3	23.6	22.7	22.0	23.0	22.9	21.4	18.7	16.9	16.1	18.4	23.6
31-Jul	15.1	14.8	14.0	13.4	13.1	13.2	14.3	16.5	17.6	18.3	19.4	19.1	18.9	19.5	20.8	20.8	19.3	19.9	21.1	21.4	19.8	18.0	17.2	16.2	17.6	21.4
Diurnal Average																										
Diurnal Maximum																										
M - Maintenance																										
UO - Unstable Operation																										



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 10m (AT10) - C
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 10m (AT10) - C
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	2	0.28	0.28
10 - 20	462	64.35	64.62
> 20	254	35.38	100.00

Total Number of Valid Hours: 718

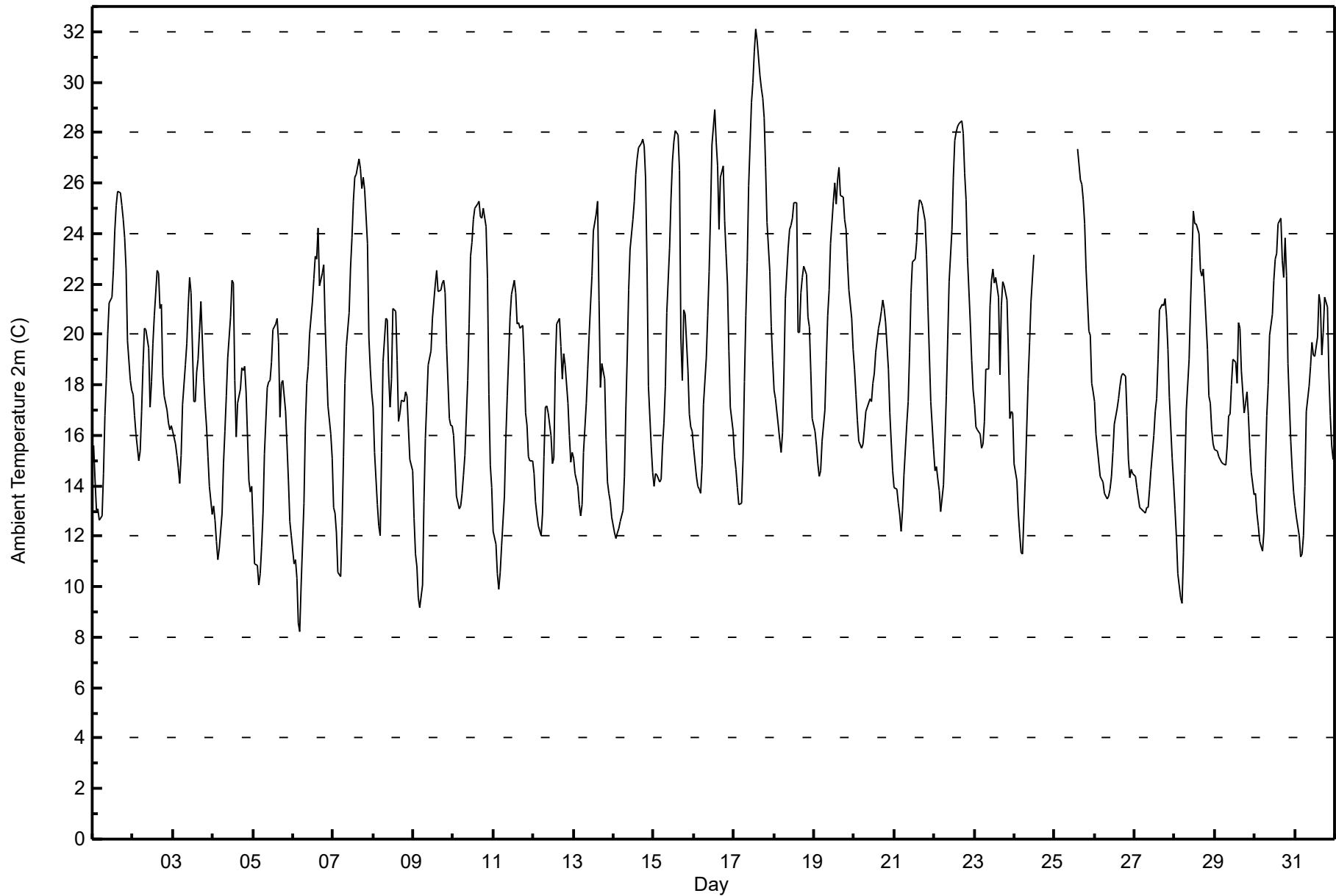
Total Number of Hours: 744

Maximum Value: 32.1 C on Jul 17 14:00															Maximum Daily Average: 23.2 C on Jul 17										Hours in Service: 744	
Minimum Value: 8.2 C on Jul 6 05:00															Minimum Daily Average: 15.5 C on Jul 5										Hours of Data: 718	
Maximum Diurnal Average: 23.1 C at hour 15															Minimum Diurnal Average: 12.6 C at hour 5										Hours of Missing Data: 26	
Monthly Average: 18.40 C															Percentiles: P ₁ = 10.0 P ₁₀ = 12.9 Q ₁ = 14.9 Median = 18.0 Q ₃ = 21.6 P ₉₀ = 25.0 P ₉₉ = 29.1										Hours of Calibration: 0	
																									Percent Operational Time: 96.5	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	15.6	14.3	13.0	13.1	12.6	12.8	14.5	16.8	18.2	20.0	21.3	21.5	22.5	24.1	25.1	25.7	25.6	25.1	24.5	23.8	22.6	19.8	18.2	17.8	19.5	25.7
2-Jul	17.6	16.8	16.1	15.0	15.4	16.9	18.8	20.2	20.2	19.5	17.1	18.1	19.6	20.7	22.5	22.4	21.0	21.2	18.4	17.6	17.0	16.5	16.2	16.4	18.4	22.5
3-Jul	16.2	15.7	15.2	14.7	14.1	15.2	17.2	18.8	19.6	21.1	22.3	21.7	17.3	17.3	18.5	19.0	20.1	21.3	18.3	17.2	16.3	15.1	14.0	12.9	17.5	22.3
4-Jul	13.2	12.6	11.8	11.1	11.5	12.9	14.9	16.2	17.6	19.1	20.7	22.2	22.0	18.2	15.9	17.3	17.9	18.7	18.6	18.7	17.7	14.2	13.8	14.0	16.3	22.2
5-Jul	12.4	10.9	10.9	10.0	10.5	11.6	12.9	15.3	17.9	18.1	18.2	18.9	20.2	20.4	20.6	19.7	16.7	18.1	18.2	17.0	15.6	14.2	12.6	12.0	15.5	20.6
6-Jul	10.9	11.1	10.3	8.6	8.2	10.1	13.3	16.4	18.1	18.7	20.0	21.3	22.2	23.1	23.0	24.2	21.9	22.4	22.8	20.5	18.7	17.1	16.0	15.1	17.3	24.2
7-Jul	13.1	12.9	12.2	10.6	10.4	12.4	15.2	18.1	19.5	20.9	22.7	23.8	25.3	26.2	26.3	26.9	26.6	25.8	26.2	25.8	23.6	19.9	18.6	17.7	20.0	26.9
8-Jul	17.1	15.3	13.3	12.4	12.1	15.3	18.9	20.6	20.6	18.4	17.1	18.2	21.0	20.9	19.0	16.6	16.9	17.4	17.3	17.7	17.6	16.3	15.0	14.6	17.1	21.0
9-Jul	12.7	11.3	10.8	9.6	9.2	10.1	13.4	15.9	17.3	18.8	19.4	20.6	21.3	22.0	22.5	21.7	21.8	22.0	22.2	21.6	19.6	16.6	16.4	16.4	17.2	22.5
10-Jul	16.0	14.9	13.6	13.1	13.2	13.7	14.5	15.2	18.2	20.4	23.1	23.6	24.6	25.0	25.2	25.3	24.7	24.6	25.0	24.3	22.2	17.6	14.8	13.9	19.4	25.3
11-Jul	12.2	11.7	10.5	9.9	10.5	11.7	13.6	15.9	17.6	19.1	20.7	21.6	22.2	21.6	20.4	20.5	20.3	20.4	18.9	16.9	16.4	15.1	15.0	15.0	16.6	22.2
12-Jul	14.5	13.4	12.8	12.4	12.0	12.9	15.2	17.1	17.2	16.9	16.0	14.9	15.1	18.6	20.4	20.6	19.5	18.2	19.2	18.8	17.3	16.0	14.9	15.3	16.2	20.6
13-Jul	15.1	14.5	14.0	13.3	12.8	13.3	15.3	17.3	18.6	20.0	21.2	22.3	24.1	24.8	25.3	21.4	17.9	18.8	18.2	15.9	14.1	13.7	13.4	12.7	17.4	25.3
14-Jul	12.1	11.9	12.1	12.3	12.6	13.0	14.4	17.0	19.2	21.7	23.4	24.5	25.3	26.3	27.0	27.4	27.6	27.7	27.5	26.2	22.7	18.0	15.5	14.5	20.0	27.7
15-Jul	14.0	14.5	14.4	14.1	14.3	15.6	16.5	17.9	20.9	23.4	25.4	26.8	27.6	28.1	27.9	26.5	19.9	18.2	21.0	20.8	18.6	16.8	16.3	16.2	19.8	28.1
16-Jul	15.5	14.4	14.0	13.9	13.7	14.8	17.2	19.1	20.7	22.5	24.8	27.5	28.9	27.6	26.7	24.2	26.2	26.7	24.5	23.2	22.0	19.3	17.1	16.1	20.9	28.9
17-Jul	15.1	14.6	13.9	13.3	13.3	15.0	18.1	20.7	22.9	25.9	29.2	30.0	31.2	32.1	31.7	30.3	29.8	29.4	28.6	26.6	24.4	22.5	20.3	19.0	23.2	32.1
18-Jul	17.8	17.4	16.4	15.9	15.3	16.1	18.5	21.4	23.4	24.2	24.3	24.6	25.2	25.2	20.1	20.1	21.6	22.3	22.7	22.3	20.7	20.3	18.6	16.7	20.5	25.2
19-Jul	16.2	15.6	14.9	14.4	14.6	15.8	17.0	18.9	20.8	21.8	23.6	25.3	26.0	25.2	26.1	26.6	25.5	25.5	24.5	24.2	22.9	21.7	20.6	19.4	21.1	26.6
20-Jul	18.6	17.6	16.6	15.8	15.5	15.7	16.3	17.0	17.1	17.4	17.3	18.1	18.5	19.3	20.2	20.5	20.9	21.4	21.0	20.5	18.6	16.9	15.7	14.6	18.0	21.4
21-Jul	13.9	13.8	13.3	12.9	12.2	13.0	14.4	16.4	17.3	19.3	21.6	22.9	23.0	23.7	24.9	25.3	25.3	25.1	24.5	23.1	21.1	19.2	17.4	15.4	19.1	25.3
22-Jul	14.6	14.8	14.3	13.8	13.0	14.0	15.7	17.5	19.8	22.1	24.2	26.3	27.7	28.0	28.2	28.4	28.5	28.0	26.4	25.4	23.0	20.5	19.0	17.8	21.3	28.5
23-Jul	17.2	16.3	16.2	16.0	15.5	15.7	16.5	18.6	18.6	21.2	22.1	22.6	22.0	22.3	21.5	18.4	21.1	22.1	21.9	21.4	19.3	16.7	16.9	16.9	19.0	22.6
24-Jul	14.9	14.2	12.9	12.1	11.4	11.3	14.4	16.3	18.2	19.7	21.3	23.2	M	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	23.2
25-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	27.3	26.1	25.9	25.4	24.4	22.6	20.2	20.0	18.1	17.7	--	27.3
26-Jul	17.3	16.0	14.9	14.4	14.3	14.1	13.7	13.5	13.6	13.9	14.4	15.4	16.5	17.1	17.4	18.0	18.4	18.5	18.3	16.8	15.1	14.3	14.7	14.5	15.6	18.5
27-Jul	14.4	13.9	13.6	13.2	13.1	13.0	12.9	13.1	13.1	13.9	14.7	16.0	17.0	17.4	19.0	21.0	21.2	21.2	21.4	20.7	19.4	17.5	15.1	14.1	16.2	21.4
28-Jul	13.1	12.0	10.5	9.6	9.3	11.3	14.5	17.0	19.0	21.2	23.0	24.9	24.4	24.4	24.0	22.6	22.3	22.6	21.6	19.4	17.6	17.3	16.2	15.7	18.1	24.9
29-Jul	15.5	15.4	15.1	15.0	15.0	14.9	14.8	15.6	16.8	16.9	18.0	19.0	18.9	18.1	20.4	20.3	18.6	16.9	17.3	17.8	16.8	15.5	14.5	13.7	16.7	20.4
30-Jul	13.7	12.9	12.4	11.8	11.4	12.2	14.7	16.8	18.0	20.0	20.8	22.1	23.0	23.2	24.4	24.6	22.9	22.2	23.8	22.3	18.9	15.8	14.7	13.8	18.2	24.6
31-Jul	13.2	12.7	12.0	11.2	11.3	12.0	14.0	17.0	18.0	18.7	19.7	19.2	19.1	19.9	21.6	21.2	19.2	20.1	21.5	21.1	18.5	16.8	15.6	15.1	17.0	21.6
																									Diurnal Average	
																									Diurnal Maximum	
M - Maintenance																										
UO - Unstable Operation																										



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	7	0.97	0.97
10 - 20	456	63.51	64.48
> 20	255	35.52	100.00

Total Number of Valid Hours: 718

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

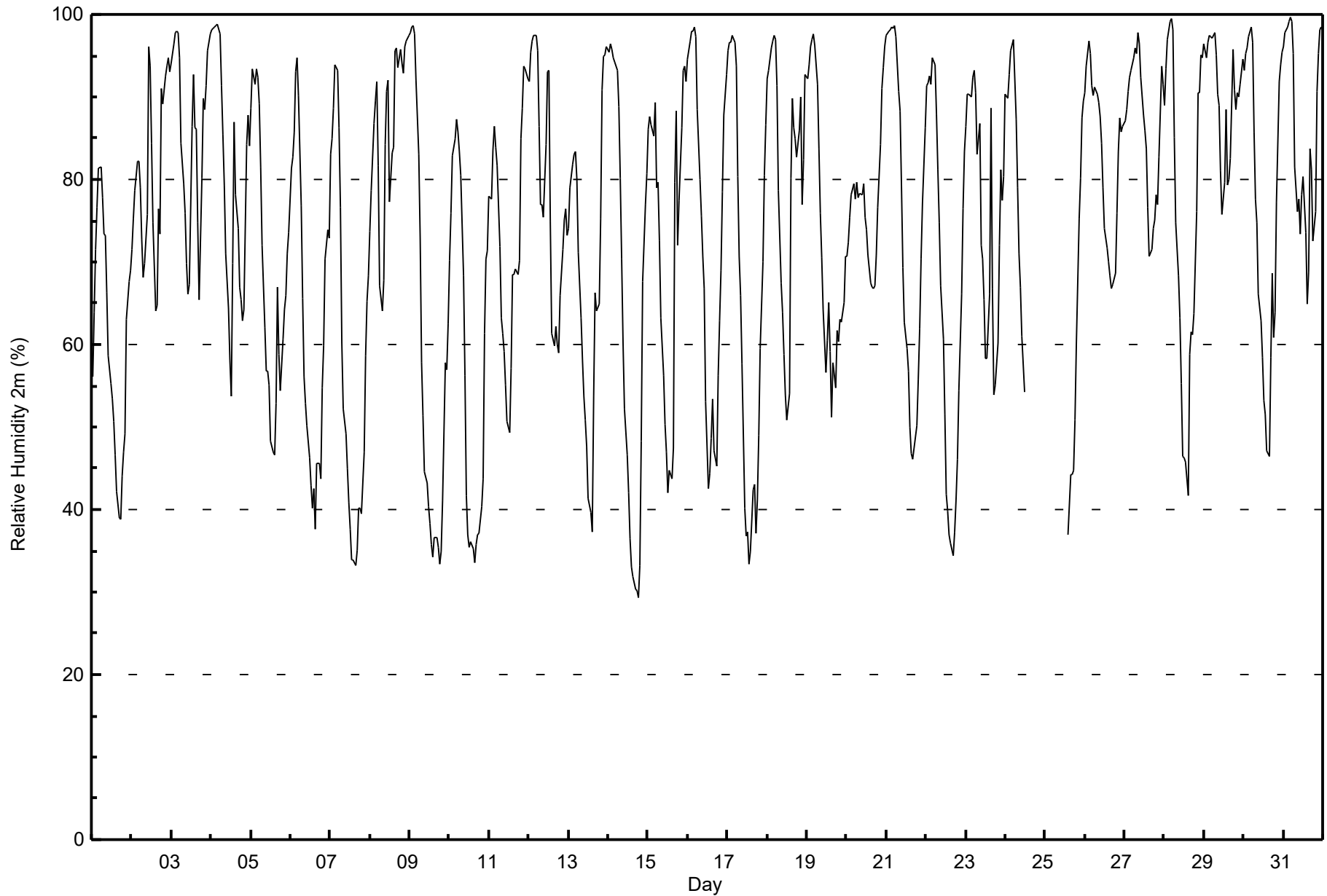
Fort McKay - Bertha Ganter - July 2026

Maximum Value: 99.7 % on Jul 31 05:00																				Maximum Daily Average: 90.0 % on Jul 29					Hours in Service: 744		
Minimum Value: 29.3 % on Jul 14 19:00																				Minimum Daily Average: 57.6 % on Jul 9					Hours of Data: 718		
Maximum Diurnal Average: 93.0 % at hour 5																				Minimum Diurnal Average: 55.5 % at hour 15					Hours of Missing Data: 26		
Monthly Average: 73.51 %																				Percentiles: P ₁ = 33.4 P ₁₀ = 44.2 Q ₁ = 59.9 Median = 76.7 Q ₃ = 90.6 P ₉₀ = 96.1 P ₉₉ = 98.7					Hours of Calibration: 0		
																									Percent Operational Time: 96.5		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	56.1	63.9	71.6	76.6	81.4	81.6	77.8	73.4	73.1	66.3	58.6	55.3	53.4	50.6	46.6	42.2	39.0	38.8	44.1	47.0	49.2	63.0	67.6	68.9	60.3	81.6	
2-Jul	71.5	75.2	78.7	82.3	82.1	78.9	72.8	68.2	69.8	75.8	96.0	93.7	84.4	74.8	64.0	64.8	76.5	73.3	91.0	89.1	92.5	93.7	94.8	93.1	80.7	96.0	
3-Jul	94.1	96.5	97.7	98.0	97.8	94.7	84.5	79.5	75.9	69.9	66.1	67.3	86.5	92.7	86.3	86.1	74.8	65.4	80.1	89.8	88.5	91.3	95.6	97.6	85.7	98.0	
4-Jul	98.1	98.3	98.5	98.7	98.9	97.7	91.3	85.5	79.4	71.0	64.4	58.2	53.7	69.8	86.9	78.2	74.1	66.9	65.5	62.9	64.3	84.2	87.9	84.0	79.9	98.9	
5-Jul	88.6	93.4	91.5	93.5	92.3	89.1	81.4	72.0	62.0	56.7	56.7	55.1	48.3	47.0	46.6	52.9	66.9	58.8	54.4	60.6	64.2	65.9	71.0	73.5	68.4	93.5	
6-Jul	81.3	82.7	85.7	93.0	94.7	90.2	76.8	65.7	56.1	52.9	50.1	46.2	42.8	40.2	42.5	37.6	45.6	45.5	43.8	54.8	59.9	70.4	73.8	72.8	62.7	94.7	
7-Jul	83.1	84.9	88.6	94.0	93.1	86.3	76.7	60.1	52.2	49.1	44.8	40.9	37.7	33.9	33.9	33.3	35.1	40.2	40.1	39.5	46.9	58.7	65.3	68.2	57.8	94.0	
8-Jul	73.7	78.7	86.7	89.6	91.8	81.6	67.2	64.1	67.8	84.3	90.7	92.0	77.3	83.3	83.9	95.5	96.0	93.6	95.7	94.0	92.9	96.1	96.8	97.4	86.3	97.4	
9-Jul	97.9	98.4	98.7	97.6	92.1	83.1	73.0	57.8	51.3	44.6	43.2	40.3	38.3	35.8	34.2	36.7	36.5	35.4	33.4	34.9	41.0	57.8	56.9	62.5	57.6	98.7	
10-Jul	70.1	76.0	82.8	84.9	87.3	85.7	83.4	80.5	68.3	56.3	41.7	36.9	35.5	36.2	35.3	33.5	35.8	36.9	37.2	40.3	43.7	61.4	70.3	71.4	58.0	87.3	
11-Jul	78.0	77.7	83.5	86.5	83.9	81.6	71.8	63.2	61.4	59.2	55.1	50.7	49.3	57.0	68.5	68.5	69.2	68.5	70.2	85.0	88.6	93.7	93.5	92.2	73.2	93.7	
12-Jul	91.9	95.4	96.8	97.4	97.4	95.6	86.5	77.0	77.0	75.5	84.2	93.0	93.2	74.9	61.4	59.8	62.2	59.9	59.0	66.0	71.5	75.0	76.4	73.3	79.2	97.4	
13-Jul	74.0	78.9	81.9	83.0	83.4	80.1	71.2	63.3	58.2	53.7	50.8	47.6	41.4	39.6	37.4	53.8	66.3	64.1	65.0	75.3	90.9	94.9	95.0	96.1	68.6	96.1	
14-Jul	95.5	96.5	95.7	94.7	94.2	93.2	88.8	80.1	70.3	60.2	52.2	46.6	42.0	36.4	33.1	31.8	30.3	30.1	29.3	33.2	48.3	67.7	77.0	80.7	62.8	96.5	
15-Jul	86.1	87.7	86.5	85.2	89.4	78.9	79.6	72.5	63.2	56.3	50.3	47.0	42.0	44.8	43.8	47.4	79.6	88.3	72.0	77.5	86.3	93.3	93.7	91.8	72.6	93.7	
16-Jul	94.6	96.9	97.9	98.0	98.5	97.3	88.4	80.0	75.5	70.6	66.9	53.1	42.5	44.4	48.7	53.4	47.0	45.2	56.3	62.9	68.9	78.5	87.7	92.7	72.8	98.5	
17-Jul	95.7	96.6	96.6	97.4	96.6	93.8	80.3	70.7	65.9	57.7	40.2	36.7	37.2	33.4	34.9	42.3	43.1	37.2	41.1	49.0	59.6	70.1	80.5	86.5	64.3	97.4	
18-Jul	92.2	93.2	95.9	96.8	97.5	97.0	91.3	78.7	67.4	64.0	58.9	53.9	50.8	54.1	80.2	89.8	86.3	85.0	82.7	86.0	90.0	77.0	82.3	92.7	81.0	97.5	
19-Jul	92.1	93.9	96.2	96.9	97.6	96.2	91.6	83.6	75.9	70.5	64.2	56.6	60.5	65.1	59.2	51.1	57.8	54.8	61.7	60.3	63.1	62.7	65.0	70.7	72.8	97.6	
20-Jul	70.6	72.3	75.4	78.1	79.5	77.6	79.6	77.9	78.3	78.1	79.6	75.5	74.0	70.8	67.4	66.9	66.7	67.1	70.9	76.6	84.2	91.0	93.6	96.1	77.0	96.1	
21-Jul	97.4	97.9	98.1	98.4	98.4	98.7	97.3	90.7	88.3	79.1	69.4	62.7	59.5	56.7	50.0	46.7	46.1	47.5	50.2	55.8	61.8	70.3	77.1	86.3	74.4	98.7	
22-Jul	91.4	91.7	92.5	91.4	94.7	93.9	88.0	81.1	74.8	67.1	60.7	51.6	41.9	39.9	37.0	35.9	34.4	37.3	41.2	46.1	54.5	66.1	76.5	83.4	65.5	94.7	
23-Jul	86.5	90.4	90.3	90.0	92.4	93.2	90.6	83.1	86.8	72.0	70.3	65.5	58.4	58.2	66.1	88.6	66.8	53.9	55.1	60.1	72.1	81.1	77.5	80.4	76.2	93.2	
24-Jul	90.3	89.9	92.6	95.5	96.3	97.0	87.3	79.0	71.0	67.0	61.1	54.3	M	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	97.0	
25-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	37.0	44.2	44.2	44.8	50.9	60.2	75.3	80.2	87.5	89.4	--	89.4
26-Jul	90.6	93.7	96.8	95.3	91.3	90.2	91.2	90.3	89.3	87.6	84.5	78.9	74.0	71.7	70.0	68.2	66.9	67.3	68.7	75.9	83.4	87.4	85.7	86.4	82.7	96.8	
27-Jul	87.1	88.4	90.7	92.3	93.2	94.7	95.9	95.2	97.9	96.4	92.4	87.8	86.0	83.7	76.7	70.7	71.5	74.1	75.0	78.1	77.0	82.6	93.7	91.6	86.4	97.9	
28-Jul	88.9	93.4	96.9	99.1	99.5	98.2	85.0	74.8	68.3	63.3	55.3	46.4	46.3	45.7	41.8	58.8	61.5	61.2	63.7	76.1	90.6	90.6	95.0	94.8	74.8	99.5	
29-Jul	96.4	94.7	96.6	97.5	97.4	97.1	97.8	95.1	90.3	88.9	81.1	75.7	79.7	88.4	79.3	80.0	82.5	95.8	90.8	88.5	90.5	90.0	91.6	94.5	90.0	97.8	
30-Jul	93.2	95.2	96.0	97.2	98.5	96.7	85.7	77.7	74.8	66.1	63.0	58.5	53.3	51.5	47.1	46.4	58.6	68.6	60.9	63.9	77.2	91.9	93.8	95.4	75.5	98.5	
31-Jul	96.1	97.8	98.5	99.2	99.7	99.2	95.2	81.5	76.2	77.6	73.3	78.2	80.3	73.6	65.0	68.8	83.7	81.1	72.5	76.0	90.6	95.2	98.2	98.4	85.7	99.7	
86.8 89.0 91.2 92.6 93.0 90.6 84.3 76.7 72.2 67.9 64.2 60.2 57.6 57.0 55.5 57.8 60.2 59.6 60.7 65.5 72.2 79.4 83.4 85.4																										Diurnal Average	
98.1 98.4 98.7 99.2 99.7 99.2 97.8 95.2 97.9 96.4 96.0 93.7 93.2 92.7 86.9 95.5 96.0 95.8 95.7 94.0 92.9 96.1 98.2 98.4																										Diurnal Maximum	
M - Maintenance UO - Unstable Operation																											



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Precipitation (PC) - mm

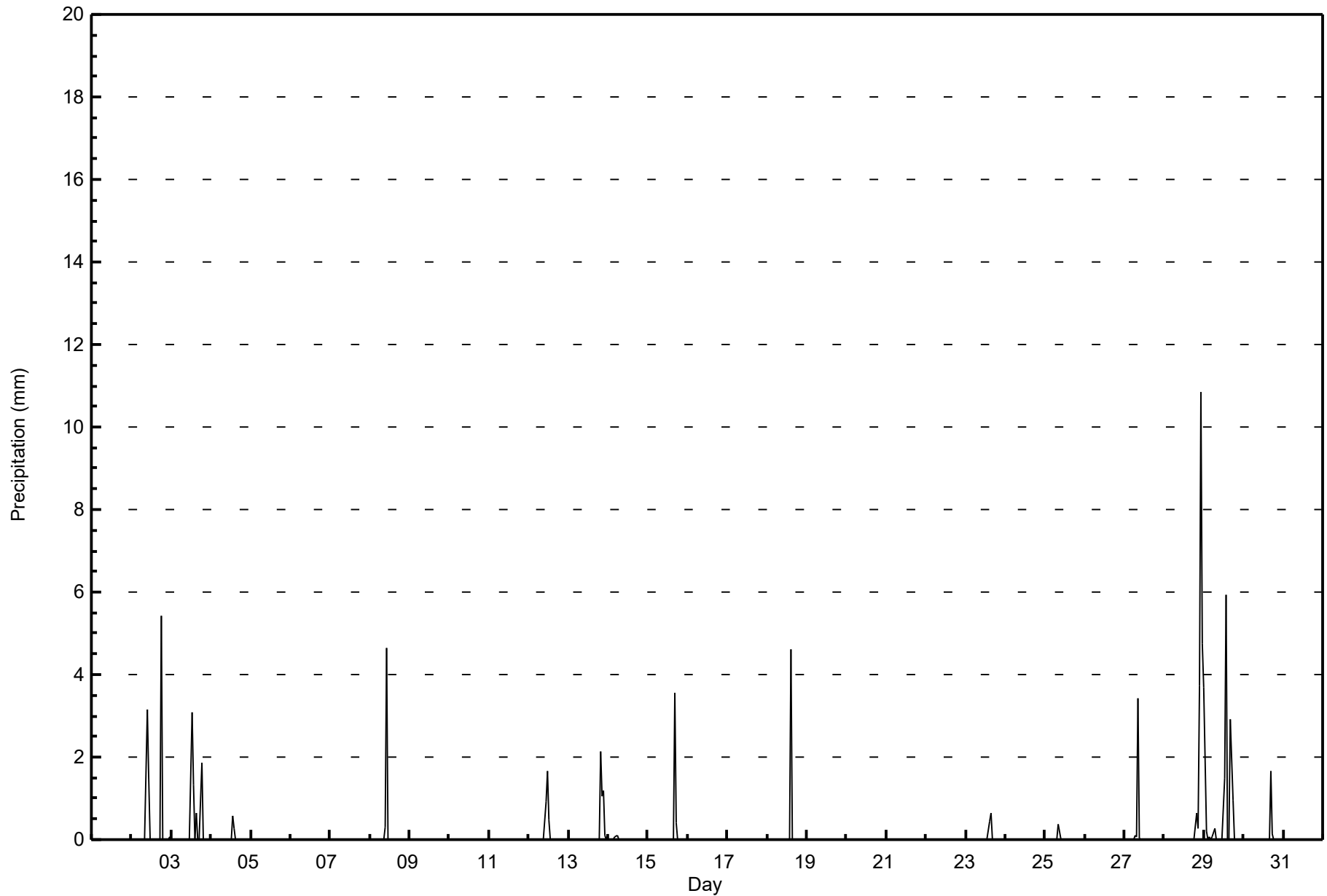
Fort McKay - Bertha Ganter - July 2026

Maximum Value: 10.9 mm on Jul 28 23:00																			Maximum Daily Total: 20.2 mm on Jul 28						Hours in Service: 744		
Minimum Value: 0.0 mm on Jul 1 01:00																			Minimum Daily Total: 0.0 mm on Jul 1						Hours of Data: 737		
Maximum Diurnal Total: 11.0 mm at hour 23																			Minimum Diurnal Total: 0.0 mm at hour 3						Hours of Missing Data: 7		
Monthly Total: 81.87 mm																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 3.6						Hours of Calibration: 0		
																									Percent Operational Time: 99.1		
Day	Hourly Period Ending At (MST)																								Daily Total	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.1	10.1	
3-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	1.3	0.0	0.7	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	6.9		
4-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9		
5-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
6-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
7-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
8-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	4.6	0.0	0.0	0.0	PF	PF	PF	PF	0.0	0.0	0.0	0.0	0.0	5.0		
9-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
10-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
11-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
12-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1		
13-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PF	PF	PF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	1.1	1.2	0.1	0.0	4.5		
14-Jul	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2		
15-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	4.0		
16-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
17-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
18-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6		
19-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
20-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
21-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
22-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
23-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1		
24-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
25-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4		
26-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
27-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	3.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6		
28-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.3	3.7	10.9	4.7	20.2		
29-Jul	3.7	0.2	0.0	0.1	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	1.5	5.9	0.0	0.0	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	15.6		
30-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.8		
31-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																											
Diurnal Maximum																											
PF - Power Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Precipitation (PC) - mm
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Precipitation (PC) - mm
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (mm)	Number of Hours	%	Cumulative %
0 - 0.3	705	95.66	95.66
0.4 - 0.5	4	0.54	96.20
0.6 - 0.7	4	0.54	96.74
0.8 - 1.4	5	0.68	97.42
1.5 - 10	16	2.17	99.59
> 10	1	0.14	99.73

Total Number of Valid Hours: 737

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Leaf Wetness (LW) - %

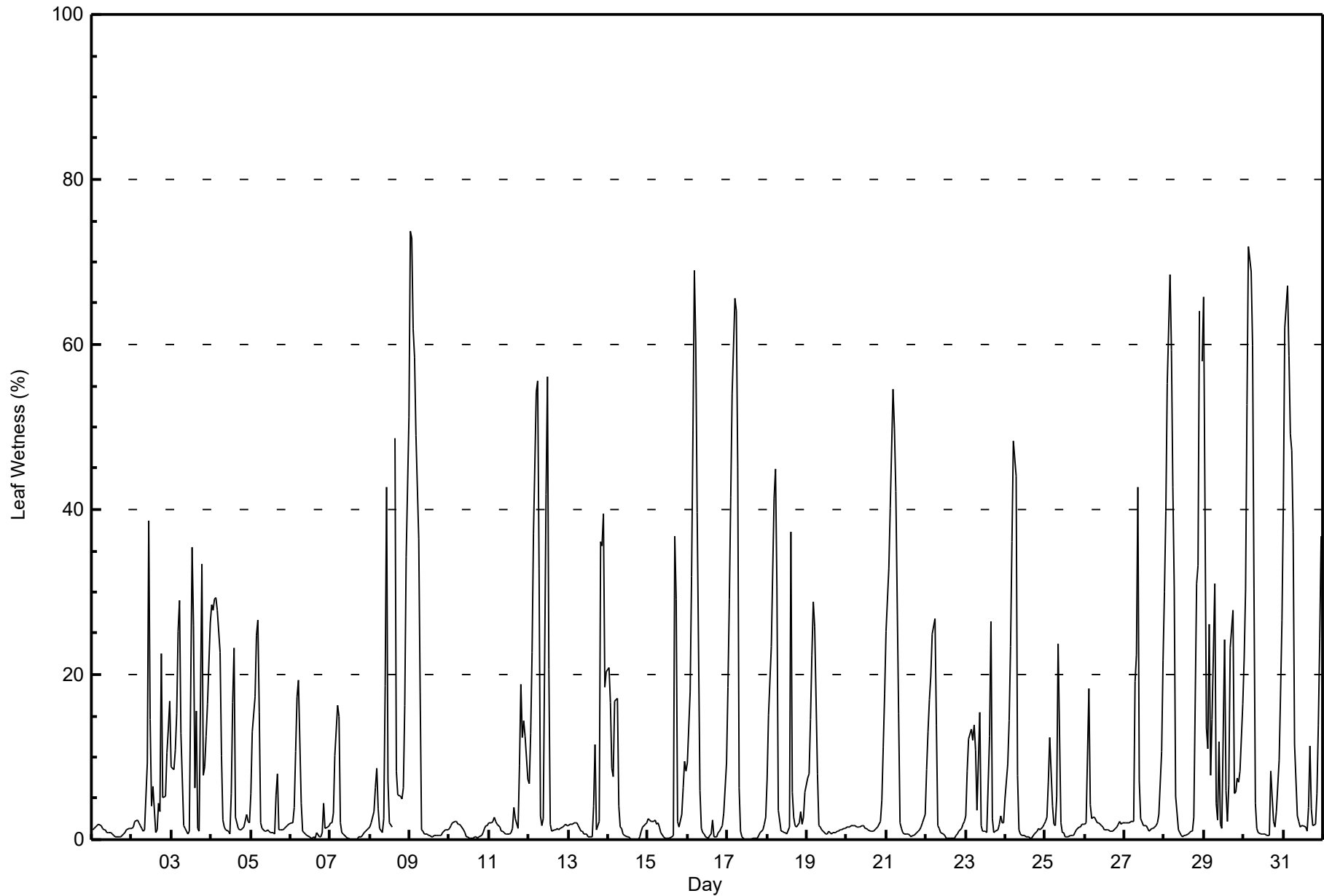
Fort McKay - Bertha Ganter - July 2026

Maximum Value: 73.8 % on Jul 9 01:00																			Maximum Daily Average: 23.0 % on Jul 28							Hours in Service: 744	
Minimum Value: 0.0 % on Jul 7 13:00																			Minimum Daily Average: 1.0 % on Jul 1							Hours of Data: 742	
Maximum Diurnal Average: 25.2 % at hour 5																			Minimum Diurnal Average: 2.4 % at hour 14							Hours of Missing Data: 2	
Monthly Average: 8.86 %																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.4 Q ₁ = 0.9 Median = 1.8 Q ₃ = 9.1 P ₉₀ = 29.9 P ₉₉ = 65.6							Hours of Calibration: 0	
																										Percent Operational Time: 99.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	1.1	1.3	1.5	1.7	1.8	1.7	1.4	1.1	1.1	0.9	0.8	0.8	0.7	0.5	0.4	0.3	0.3	0.4	0.5	0.6	0.8	1.2	1.3	1.4	1.0	1.8	
2-Jul	1.4	1.6	2.1	2.3	2.1	1.8	1.4	1.0	1.1	9.3	38.7	14.5	4.1	6.5	0.8	1.2	4.4	3.5	22.6	5.1	5.2	10.4	13.3	16.9	7.1	38.7	
3-Jul	8.8	8.5	10.9	15.2	25.2	28.9	12.9	1.7	1.3	0.9	0.7	1.1	35.5	26.0	6.3	15.6	1.4	1.1	33.4	7.9	8.8	12.5	16.4	26.3	12.8	35.5	
4-Jul	28.5	27.7	29.1	29.2	27.8	22.8	10.1	2.3	1.5	1.2	1.0	0.7	5.6	16.6	23.2	2.8	1.3	1.2	1.2	1.4	1.6	3.1	2.2	2.1	10.2	29.2	
5-Jul	5.5	13.1	17.2	24.8	26.6	15.5	2.0	1.4	1.0	1.1	1.1	1.0	0.8	0.8	0.7	5.4	7.9	1.2	1.1	1.3	1.4	1.6	1.7	1.9	5.7	26.6	
6-Jul	2.0	2.0	3.9	10.7	17.3	19.4	4.3	1.0	0.9	0.6	0.4	0.4	0.2	0.2	0.3	0.1	0.8	0.4	0.4	0.9	4.4	1.4	1.5	1.7	3.1	19.4	
7-Jul	2.1	2.1	3.2	10.2	16.2	14.9	2.1	0.8	0.6	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.4	0.8	1.1	1.3	1.4	2.4	16.2	
8-Jul	1.5	2.0	3.4	6.2	8.7	3.7	1.3	0.8	2.6	18.7	42.6	7.1	2.0	1.5	OR	48.6	8.4	5.4	5.3	4.8	6.3	16.3	34.3	51.2	12.3	51.2	
9-Jul	73.8	72.9	61.8	58.4	48.9	36.4	17.9	1.2	1.0	0.7	0.6	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.8	1.2	1.2	1.3	15.9	73.8	
10-Jul	1.4	1.6	2.1	2.2	2.1	1.9	1.8	1.7	1.2	0.8	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.5	0.8	1.3	1.7	1.7	1.1	2.2	
11-Jul	2.0	2.1	2.3	2.7	2.2	1.8	1.5	1.1	1.0	0.8	0.7	0.7	0.6	0.8	1.3	3.9	2.6	1.3	9.0	18.8	12.3	14.3	12.5	7.3	4.3	18.8	
12-Jul	6.8	12.8	22.7	37.1	54.3	55.6	32.8	3.0	1.6	2.6	41.9	56.1	20.7	1.9	1.0	1.2	1.2	1.3	1.2	1.4	1.5	1.6	1.8	1.7	15.1	56.1	
13-Jul	1.7	1.8	1.9	2.1	2.1	2.0	1.7	1.1	1.0	0.7	0.7	0.6	0.3	0.3	0.3	4.1	11.5	1.2	2.2	36.1	35.5	39.5	18.4	20.4	7.8	39.5	
14-Jul	20.8	16.7	8.7	7.6	16.7	17.1	4.0	1.5	1.3	0.7	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.3	0.9	1.5	1.9	2.1	4.3	20.8	
15-Jul	2.6	2.3	2.2	2.1	2.3	1.8	2.0	1.4	0.9	0.4	0.2	0.1	0.1	0.2	0.3	0.5	36.7	29.2	2.2	1.5	3.0	6.2	9.6	8.3	4.8	36.7	
16-Jul	9.3	18.0	31.9	49.5	69.0	60.1	39.7	6.0	1.3	0.9	0.7	0.4	0.2	0.5	0.7	2.3	0.3	0.4	0.9	1.1	1.3	1.8	3.3	9.3	12.9	69.0	
17-Jul	18.5	29.2	41.5	54.1	65.5	64.1	45.1	6.2	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.2	0.5	0.9	1.2	1.9	2.6	13.9	65.5	
18-Jul	7.3	15.1	23.4	32.5	41.4	44.9	30.7	3.6	1.1	1.1	0.9	0.8	0.7	1.5	37.3	5.8	2.8	1.7	1.5	2.1	3.5	1.9	2.6	5.8	11.2	44.9	
19-Jul	7.4	8.0	14.6	22.3	28.9	25.7	7.9	1.7	1.5	1.2	1.0	0.7	0.7	0.9	0.9	0.7	0.9	0.8	1.1	1.1	1.2	1.2	1.3	1.4	5.6	28.9	
20-Jul	1.5	1.5	1.6	1.7	1.7	1.6	1.6	1.5	1.5	1.6	1.7	1.4	1.4	1.2	1.1	1.0	1.0	1.1	1.3	1.6	2.3	4.8	11.1	17.6	2.7	17.6	
21-Jul	25.3	32.9	40.1	47.5	54.6	49.8	42.1	15.3	2.1	1.4	0.9	0.6	0.6	0.7	0.5	0.4	0.4	0.5	0.8	1.0	1.2	1.6	2.1	3.1	13.6	54.6	
22-Jul	8.5	13.1	17.0	19.8	24.9	26.8	13.9	1.6	1.3	0.9	0.7	0.4	0.2	0.2	0.2	0.2	0.1	0.2	0.5	0.7	1.0	1.4	1.8	2.3	5.7	26.8	
23-Jul	2.9	8.2	12.2	13.4	12.0	14.0	10.9	3.6	15.4	1.7	1.0	1.0	1.0	0.9	12.6	26.5	2.6	0.9	1.0	1.2	1.8	2.8	2.0	2.0	6.3	26.5	
24-Jul	4.8	9.1	14.3	23.4	36.1	48.3	44.0	7.8	1.2	0.7	0.6	0.5	0.4	0.3	0.3	0.1	0.2	0.7	0.9	1.1	1.3	1.2	1.6	1.9	8.4	48.3	
25-Jul	2.1	2.7	7.0	12.4	4.1	1.8	1.6	5.2	23.7	2.1	0.8	0.8	0.4	0.4	0.3	0.5	0.5	0.6	0.8	1.1	1.5	1.6	1.8	1.9	3.2	23.7	
26-Jul	1.9	2.1	18.4	4.2	2.6	2.7	2.6	2.0	2.0	1.9	1.7	1.5	1.2	1.2	1.2	1.1	1.1	1.1	1.3	1.6	1.9	2.1	1.9	2.0	2.5	18.4	
27-Jul	2.0	2.0	2.1	2.1	2.1	2.1	19.1	22.4	42.7	7.0	2.5	1.6	1.6	1.6	1.3	1.1	1.3	1.4	1.5	1.7	2.0	3.0	10.7	21.7	6.5	42.7	
28-Jul	30.0	39.8	55.3	68.4	59.2	42.8	30.5	5.2	1.2	0.9	0.6	0.3	0.5	0.5	0.6	0.9	1.0	1.0	2.8	31.0	33.2	64.1	OR	58.0	23.0	68.4	
29-Jul	65.7	13.6	11.0	26.1	7.8	14.6	31.0	4.5	2.4	11.9	1.8	1.4	24.3	5.9	2.3	6.6	23.3	27.7	5.6	5.7	7.5	6.9	8.3	16.4	13.8	65.7	
30-Jul	22.1	30.4	52.8	71.8	68.8	59.8	30.4	4.4	1.4	0.8	0.7	0.6	0.6	0.7	0.5	0.5	8.2	5.1	2.2	1.5	3.4	9.6	17.8	26.6	17.5	71.8	
31-Jul	40.9	62.0	67.1	58.7	49.1	47.0	37.2	11.5	2.9	2.2	1.5	1.7	1.8	1.5	1.0	4.0	11.4	3.8	1.7	1.9	5.5	13.9	24.5	36.7	20.4	67.1	
Diurnal Average																											
Diurnal Maximum																											
OR - Out of Range																											



Wood Buffalo Environmental Association
Hourly Averages

Leaf Wetness (LW) - %
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Leaf Wetness (LW) - %
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 0.3	64	8.63	8.63
0.4 - 0.5	43	5.80	14.42
0.6 - 0.7	38	5.12	19.54
0.8 - 1.4	159	21.43	40.97
1.5 - 10	248	33.42	74.39
> 10	180	24.26	98.65

Total Number of Valid Hours: 742

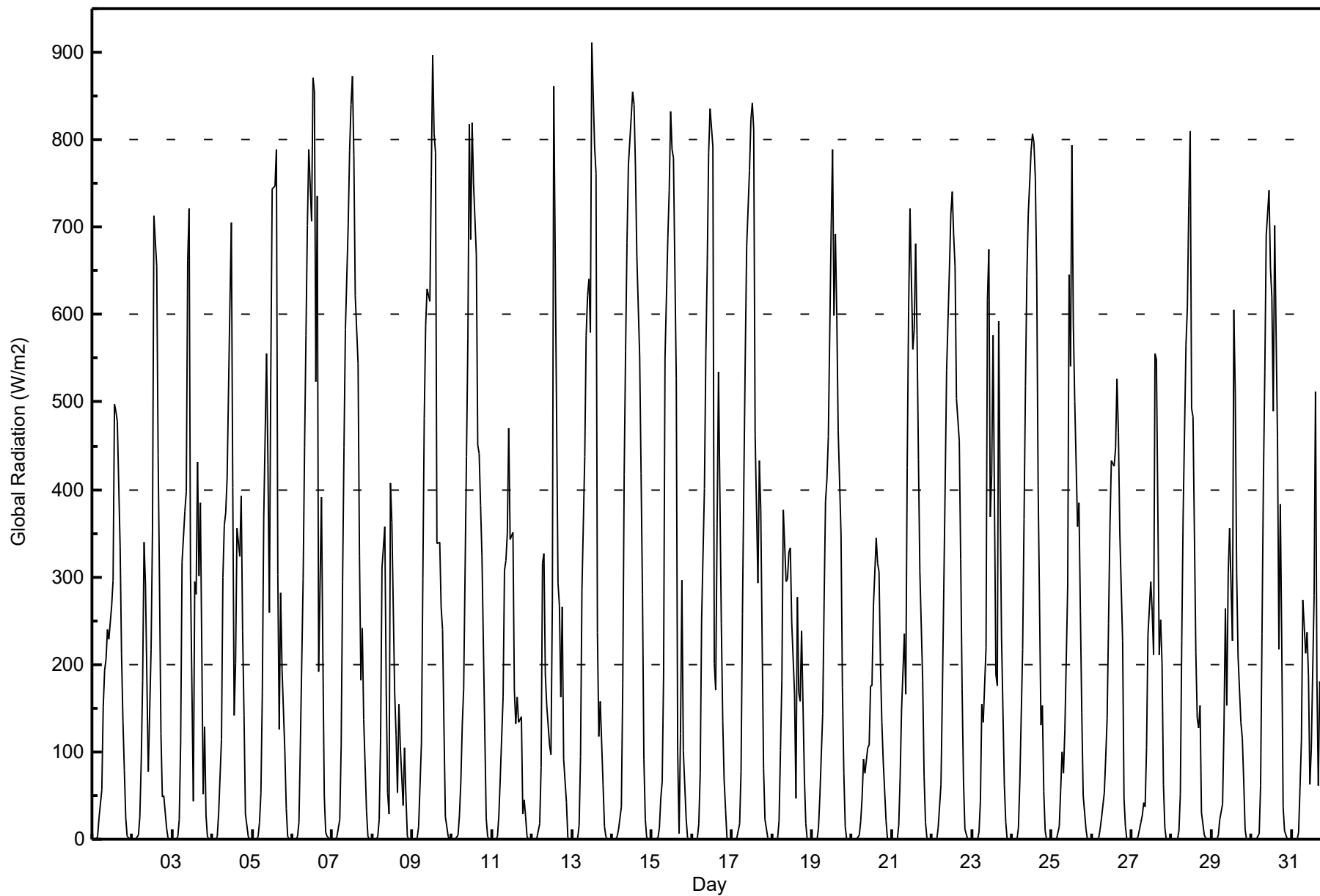
Total Number of Hours: 744

Maximum Value: 911.1 W/m2 on Jul 13 13:00																				Maximum Daily Average: 332.7 W/m2 on Jul 14										Hours in Service: 744	
Minimum Value: 0.0 W/m2 on Jul 1 01:00																				Minimum Daily Average: 103.3 W/m2 on Jul 20										Hours of Data: 744	
Maximum Diurnal Average: 553.1 W/m2 at hour 13																				Minimum Diurnal Average: 0.0 W/m2 at hour 1										Hours of Missing Data: 0	
Monthly Average: 218.01 W/m2																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 1.0 Median = 115.6 Q ₃ = 363.6 P ₉₀ = 654.2 P ₉₉ = 841.6										Hours of Calibration: 0	
																				Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																				Daily Average	Daily Maximum									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			21	22	23	24					
1-Jul	0.0	0.0	0.0	3.2	23.4	55.9	151.5	192.6	206.7	239.5	228.2	267.5	296.7	497.6	489.6	478.5	334.5	212.0	135.3	78.4	24.9	3.2	0.0	0.0	163.3	497.6					
2-Jul	0.0	0.0	0.0	4.9	26.2	88.6	182.7	339.5	290.7	76.6	145.8	218.0	353.6	712.8	654.6	439.8	288.6	120.7	48.8	49.2	13.4	2.3	0.0	0.0	169.0	712.8					
3-Jul	0.0	0.0	0.0	2.4	23.1	110.8	317.7	375.4	398.2	661.0	720.7	301.1	43.0	293.9	280.4	431.4	301.1	384.7	51.8	129.1	27.6	3.6	0.0	0.0	202.4	720.7					
4-Jul	0.0	0.0	0.0	3.8	30.7	115.0	299.6	359.7	373.4	413.5	613.9	705.5	401.9	141.5	201.5	356.1	323.6	393.4	238.6	141.1	28.8	3.1	0.0	0.0	214.4	705.5					
5-Jul	0.0	0.0	0.0	2.8	18.8	52.9	166.8	367.4	555.0	428.5	258.7	528.4	743.8	747.3	789.4	302.8	125.3	281.1	194.2	99.4	34.9	3.6	0.0	0.0	237.5	789.4					
6-Jul	0.0	0.0	0.0	2.8	19.5	106.0	298.7	448.0	576.4	701.9	789.5	707.3	870.3	855.6	524.1	736.4	192.4	390.8	210.4	50.0	7.7	2.8	0.0	0.0	312.1	870.3					
7-Jul	0.0	0.0	0.0	2.7	21.9	106.1	295.0	447.3	582.3	703.6	786.9	840.8	873.3	782.4	620.7	543.5	324.3	182.4	241.3	136.8	32.2	2.9	0.0	0.0	313.6	873.3					
8-Jul	0.0	0.0	0.0	2.6	22.5	116.2	311.2	357.1	171.4	53.0	28.4	406.9	363.0	166.8	119.4	53.6	154.2	106.0	39.2	104.5	48.2	3.7	0.0	0.0	109.5	406.9					
9-Jul	0.0	0.0	0.0	1.5	14.1	109.8	297.6	481.1	587.2	630.1	614.8	758.1	897.6	806.7	785.7	337.9	339.6	265.9	239.8	128.5	25.2	2.6	0.0	0.0	305.2	897.6					
10-Jul	0.0	0.0	0.0	4.5	27.9	66.5	130.1	173.0	438.6	573.6	817.7	686.6	819.5	749.9	668.1	450.1	441.3	381.2	323.5	122.9	24.4	3.2	0.0	0.0	287.6	819.5					
11-Jul	0.0	0.0	0.0	3.4	27.5	71.1	162.8	307.0	318.9	350.1	470.7	342.6	351.1	171.0	132.5	162.2	134.3	140.0	29.3	45.1	25.0	2.5	0.0	0.0	135.3	470.7					
12-Jul	0.0	0.0	0.0	1.9	17.4	81.7	315.0	326.5	188.1	153.5	108.2	97.1	273.6	861.2	671.4	293.2	267.9	162.3	266.4	91.9	42.0	1.6	0.0	0.0	175.9	861.2					
13-Jul	0.0	0.0	0.0	1.7	16.9	94.5	285.6	437.3	576.4	622.1	640.5	579.9	911.1	792.7	762.1	236.6	116.8	158.1	62.7	15.1	2.9	0.2	0.0	0.0	263.0	911.1					
14-Jul	0.0	0.0	0.0	2.6	10.5	36.7	178.8	416.7	559.2	683.0	770.8	825.7	855.0	840.8	768.9	666.9	552.9	419.0	280.1	92.3	22.6	2.2	0.0	0.0	332.7	855.0					
15-Jul	0.0	0.0	0.0	1.1	13.2	47.5	66.7	187.8	550.4	688.3	742.0	832.5	789.6	779.9	525.9	100.3	6.2	120.0	296.7	101.5	24.5	1.0	0.0	0.0	244.8	832.5					
16-Jul	0.0	0.0	0.0	1.0	18.2	75.7	251.6	401.2	555.7	657.4	785.2	835.3	791.4	200.8	171.0	360.8	535.4	246.2	135.8	68.0	33.9	2.2	0.0	0.0	255.3	835.3					
17-Jul	0.0	0.0	0.0	0.9	17.8	77.7	258.2	410.7	552.0	677.7	765.4	822.3	842.2	812.3	462.6	292.7	432.4	376.0	225.5	81.1	23.0	1.5	0.0	0.0	297.2	842.2					
18-Jul	0.0	0.0	0.0	1.5	20.8	101.9	182.5	377.2	294.9	298.1	327.8	332.8	247.6	166.3	46.9	277.7	167.8	157.9	237.6	69.2	17.8	0.4	0.0	0.0	138.6	377.2					
19-Jul	0.0	0.0	0.0	0.4	13.4	50.5	143.5	271.5	386.4	412.1	460.0	697.9	788.7	598.3	692.0	599.7	466.7	348.7	173.9	75.1	15.2	0.6	0.0	0.0	258.1	788.7					
20-Jul	0.0	0.0	0.0	0.1	4.3	20.5	47.7	92.5	75.5	104.5	108.7	174.8	175.2	266.1	344.3	315.0	305.6	200.6	133.1	88.0	21.6	0.7	0.0	0.0	103.3	344.3					
21-Jul	0.0	0.0	0.0	0.3	16.1	70.6	148.3	234.7	166.1	424.6	604.2	722.0	560.7	582.4	681.3	575.8	434.4	306.2	182.7	72.0	19.1	1.0	0.0	0.0	241.8	722.0					
22-Jul	0.0	0.0	0.0	0.5	13.4	62.5	168.9	285.9	409.0	536.4	652.0	715.4	741.3	691.4	654.6	503.8	456.0	319.9	172.5	66.8	11.7	0.4	0.0	0.0	269.3	741.3					
23-Jul	0.0	0.0	0.0	0.0	8.1	42.9	154.4	133.9	219.0	617.4	674.9	369.1	417.3	575.8	188.3	175.7	592.8	393.1	231.2	62.9	19.3	0.7	0.0	0.0	203.2	674.9					
24-Jul	0.0	0.0	0.0	0.1	13.5	65.2	218.2	365.5	519.1	644.7	714.6	786.8	807.2	796.3	757.1	643.5	404.1	130.6	152.6	54.9	10.1	0.1	0.0	0.0	295.2	807.2					
25-Jul	0.0	0.0	0.0	0.1	14.0	55.9	99.8	75.6	125.4	290.0	646.1	540.6	793.9	589.3	500.9	357.9	384.1	260.5	144.5	50.6	10.7	0.2	0.0	0.0	205.8	793.9					
26-Jul	0.0	0.0	0.0	0.0	2.1	10.7	24.9	53.9	94.1	138.9	245.6	357.2	433.9	426.9	447.9	526.7	465.8	351.2	227.3	47.3	15.3	0.2	0.0	0.0	161.2	526.7					
27-Jul	0.0	0.0	0.0	0.0	3.6	19.9	27.3	42.2	37.2	104.2	234.1	295.4	260.1	211.7	554.7	549.4	211.2	251.7	201.2	62.9	13.2	0.4	0.0	0.0	128.3	554.7					
28-Jul	0.0	0.0	0.0	0.0	9.8	51.1	227.2	371.7	565.2	608.6	724.5	810.2	493.0	483.6	214.8	138.6	127.1	152.6	30.5	4.2	0.8	0.0	0.0	0.0	208.9	810.2					
29-Jul	0.0	0.0	0.0	0.0	5.0	22.6	41.0	128.8	264.1	152.8	304.3	355.3	227.6	606.0	511.1	304.1	208.7	133.5	116.6	67.8	11.2	0.1	0.0	0.0	144.2	606.0					
30-Jul	0.0	0.0	0.0	0.0	5.7	60.8	235.1	411.0	534.8	690.9	742.9	653.4	619.2	488.9	701.5	458.8	216.6	382.5	228.4	36.7	10.3	0.1	0.0	0.0	269.9	742.9					
31-Jul	0.0	0.0	0.0	0.0	8.3	58.9	112.0	273.1	212.9	237.0	186.2	62.4	103.0	277.9	511.8	181.5	61.0	179.8	154.9	50.6	10.4	0.0	0.0	0.0	111.7	511.8					
																								Diurnal Average							
																								Diurnal Maximum							



Wood Buffalo Environmental Association
Hourly Averages

Global Radiation (GR) - W/m²
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Global Radiation (GR) - W/m2
Fort McKay - Bertha Ganter - July 2026

Concentration Ranges (W/m2)	Number of Hours	%	Cumulative %
0 - 20	261	35.08	35.08
21 - 100	96	12.90	47.98
101 - 300	162	21.77	69.76
301 - 600	134	18.01	87.77
601 - 900	90	12.10	99.87
> 900	1	0.13	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

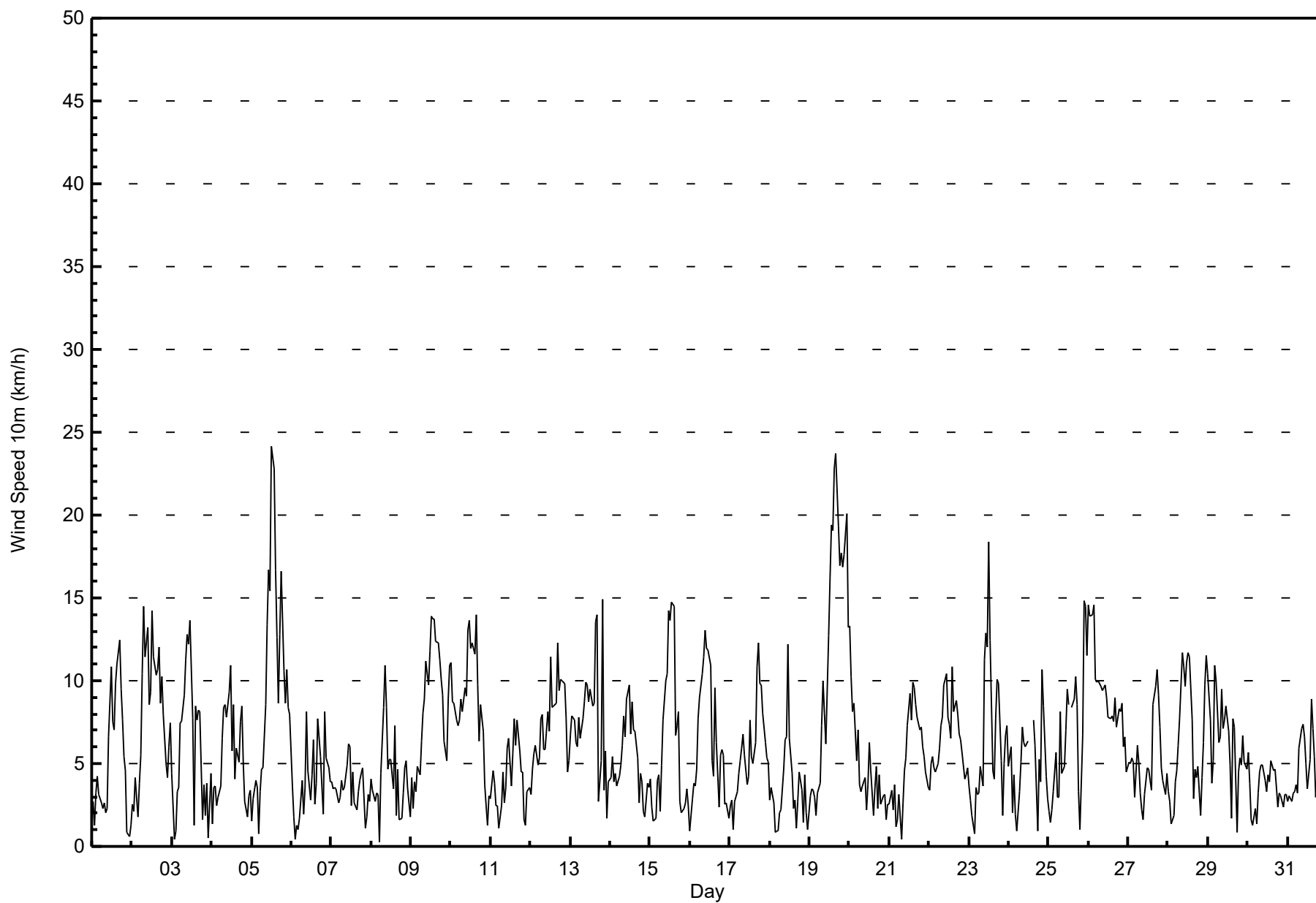
Fort McKay - Bertha Ganter - July 2026

Maximum Speed: 24 km/h on Jul 5 13:00																	Maximum Daily Speed Average: 11.3 km/h on Jul 19										Hours in Service: 744	
Minimum Speed Value: 0 km/h on Jul 8 06:00																	Minimum Daily Speed Average: 0.7 km/h on Jul 24										Hours of Data: 740	
Maximum Diurnal Speed Average: 3.8 km/h at hour 12																	Minimum Diurnal Speed Average: 0.5 km/h at hour 19										Hours of Missing Data: 4	
Monthly Average Velocity: 1.4 km/h 201.8 deg																	Percentiles: P ₁ = 1 P ₁₀ = 2 Q ₁ = 3 Median = 5 Q ₃ = 8 P ₉₀ = 11 P ₉₉ = 19										Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	N3	WNW1	NW3	NNW4	NW3	WNW3	NNW2	N3	N2	ESE2	SE7	SSE11	SSE8	S7	S10	SSE11	SSE12	S9	SSE8	S5	S5	ENE1	SSW1	SSE1	SSE3.0	SSE12		
2-Jul	SSE3	ESE2	SSE4	SE2	SE4	SE5	SE10	SSE14	SSE11	SSE13	S9	SSE9	SSE14	S11	SSW10	S11	SE12	SSE9	SSE10	SSE8	SSE5	SE4	SE6	SE7	SSE7.9	SSE14		
3-Jul	S4	WNW0	N1	SE3	SE4	SSE7	SSE8	SSE9	SSE11	SSE13	SSE12	SSE14	W8	SW1	SSE8	SSE8	SSE8	SSE8	SW2	E4	NE2	ESE4	NNW0	NW4	SSE4.7	SSE14		
4-Jul	WSW1	NW4	WSW4	SW2	S3	S4	SSE7	SSE8	SSE9	SSE8	SSE9	SSE11	SSW6	WSW9	SSW4	SSW6	SW5	S8	S8	SSW5	SW3	SW2	NNW3	SSW3	S4.2	SSE11		
5-Jul	SW2	WSW3	WNW4	WNW4	SW1	SSW3	SW5	WSW5	WNW9	NW13	NW17	NW15	NW24	NNW23	NNW17	N13	NW9	N13	NNW17	N11	NNW9	NW11	NW8	NW8	NW8.7	NW24		
6-Jul	WNW4	WSW2	S0	WNW1	W1	SW2	NW4	WNW2	NW4	NNW8	N5	NE3	E4	E6	WSW3	SSW4	N8	NE5	NE4	NW2	NW8	N5	NNW5	NW4	NNW2.1	NW8		
7-Jul	WNW4	W3	W4	WNW3	NW3	N3	N4	NE3	N4	N5	NNE6	N6	NE2	S4	ESE3	SE2	E3	S4	SSE4	SE5	E1	WNW2	NNW3	N3	N1.1	NNE6		
8-Jul	N4	NNW3	WNW3	WNW3	NW3	NW0	SSE4	SSE8	SSE11	S8	SSE5	SE5	SE5	NW3	WNW7	NE2	S5	E2	NNE2	S3	S5	S5	S4	WNW2	S1.7	SSE11		
9-Jul	SSW4	SSW2	S4	S3	SSW5	S4	SSE6	SW8	WSW9	WSW11	WSW10	SW12	SSW14	SSW14	SSW14	S12	S12	S11	SSW10	SSW9	S6	SSE5	S9	S11	SSW7.9	SSW14		
10-Jul	S11	SSE9	SSE9	SSE8	S7	SSE8	SSE9	S8	SSE10	SSW9	S13	S14	SSW12	S12	S12	S14	W10	WNW6	S9	SSW7	SSW4	SSW2	WSW1	NNW3	S7.4	S14		
11-Jul	W3	WNW5	SW4	SW2	SW2	SSW1	SSW2	SSE5	SE3	SE4	SSE6	S7	SSE4	S6	SSE8	SSE6	SSE8	S6	W5	NW5	N2	SW1	SSW3	SW4	S2.8	SSE8		
12-Jul	WSW3	S5	S6	S6	S5	SSE5	S8	S8	SW6	SSW6	SSW8	SSW7	SSE11	SSE8	S8	SW9	S12	S9	S10	S10	SSW10	SSW8	SW4	SW5	S7.0	S12		
13-Jul	WSW7	WSW8	WSW8	W6	WSW6	WSW8	WSW6	SW8	SSW9	SW10	SSW10	SW9	WSW10	W8	W9	NW14	NNW14	ESE3	NNW5	NW15	WNW3	WSW6	W2	W4	W5.7	NW15		
14-Jul	S4	S5	SSE4	S4	S4	S4	S5	SSW6	SSW8	SSW7	SW9	SW10	WSW7	SW9	SSW7	SSW7	SW5	S3	SW4	S4	S2	SSW2	S4	SSW4	SSW5.0	SW10		
15-Jul	S4	SSE2	WNW2	SSW2	S4	S4	SSW2	S5	SSE8	SSE10	SSE10	SSE14	SSE14	SSE15	SSE14	S7	WSW7	SE8	NNW3	WSW2	SW2	SSW3	SSW3	SSW2	SSE5.2	SSE15		
16-Jul	NNE1	WSW3	S4	SSE4	S5	S8	SSE9	SSE10	SSE11	SSE13	SSE12	S12	S11	SSW5	W4	NNE10	NE6	ENE2	NNW5	NNW6	NNW6	W3	WNW3	WNW2	S2.8	SSE13		
17-Jul	WSW2	W3	SSW1	SSW3	SSW3	SSE4	S5	SSE6	SE7	SE5	SE4	ESE4	SE8	E5	ENE5	NNE6	N11	NNE12	N10	N10	N8	N6	NNW5	NW5	NE1.7	NNE12		
18-Jul	NW3	NW4	NW3	WNW1	W1	SW1	NE2	ESE2	S5	SW6	S7	SE12	ESE7	W4	SW2	NNE3	SE1	SW3	NNW4	N3	ENE1	SSE4	SSE2	N1	SSE0.7	SE12		
19-Jul	NW3	WNW4	NW3	W3	SW2	SSW3	NNW4	NNW7	N10	N8	N6	N13	N16	N19	N19	N23	N24	N19	NNW17	N18	NNW17	NNW18	NNW20	NNW13	N11.3	N24		
20-Jul	N13	NNW10	NW8	NW9	WNW5	NW7	NNW4	WNW3	NW4	NNE4	N2	NW4	NNW6	N5	NW2	NNW4	NW5	ESE2	SE4	SSE3	SSW3	W3	NW2	W3	NNW3.4	N13		
21-Jul	W3	WSW3	WSW2	WSW4	WNW1	W2	NW3	NE0	SE3	SSE5	SSE5	SE7	SSE9	SSE8	SE10	SE10	SSE9	SSE8	S7	S7	S6	S5	S4	S4	SSE4.1	SE10		
22-Jul	SSW3	S5	S5	S5	SSW4	S5	SSE6	SSE7	SSE8	SSE10	SSE10	SSE8	SSW7	S7	S11	S8	S9	SSE8	SSE7	S6	S6	SSE4	SSE4	SSE5	S6.4	S11		
23-Jul	S4	SSE3	WSW2	SW1	NNW4	W3	WNW3	NNE5	N4	N11	N13	NNW12	NW18	NNW12	NNW5	WSW4	W8	WNW10	NW10	WNW5	W2	WNW5	WNW7	NW7	NW5.1	NW18		
24-Jul	WNW5	WNW6	NW2	W4	WNW2	WSW1	S3	SE5	SE7	SSE6	SSE6	SSE6	C	C	C	SSE8	SSE6	NE1	N5	NNW4	NNW11	N8	W4	W3	SW0.7	NNW11		
25-Jul	W2	SSE1	SSW2	S3	W6	WSW3	SW3	W8	WSW4	WSW5	WSW7	SW10	SW9	M	SW8	SSW9	SSW10	SW9	NW3	WSW1	N7	N15	N15	N11	W3.0	N15		
26-Jul	N15	N14	N14	N15	NNE10	NNE10	NNE10	NNE10	NNE9	NNE10	NNE10	NE9	NE8	NE8	NNE8	NNE8	NNE9	NNE7	NNE8	NNE8	NNE9	NNE6	ENE7	NE4	NNE9.1	N15		
27-Jul	ENE5	NE5	ESE5	SE5	SE3	SE6	ESE5	NNE3	NNE2	ENE2	SE3	SSE5	SSW5	WSW4	SSW3	SSE9	SSE10	SSE11	SSE9	S7	S5	SSW4	SSE3	SSW4	SSE3.6	SSE11		
28-Jul	S3	SSE3	SSE1	S2	SSE4	S5	SSE6	SSE8	SSE12	SSE11	SSE10	SSE11	SSE12	SSE11	SSE8	NNW3	N5	NNE4	N5	NNE2	NNE4	ENE6	NNE10	NNE12	SE3.2	SSE12		
29-Jul	ENE10	NNE8	NNE4	N5	NW11	NW10	WNW6	W7	WNW9	W7	WNW8	NW8	WNW7	NNE5	NE2	N8	NW7	SW1	W4	WSW5	W5	W7	W5	W5	NW4.5	NW11		
30-Jul	WNW6	W4	W2	SW1	SSE2	W1	WSW3	WSW5	WNW5	NW5	N4	E3	SE4	S4	SSE5	SSE5	N5	ENE4	E2	SSE3	S3	SW2	SSW3	SSW3	SW0.9	WNW6		
31-Jul	NW3	W3	S3	SW3	S3	S4	S3	S6	S7	SSE7	SSE7	S5	S3	SSE5	SSE9	SSE7	S5	SSE3	S5	SSW3	S1	WNW1	WNW3	NW4	S3.3	SSE9		
WNW1.1WNW1.2WSW1.1WSW1.2 SW1.4SSW2.0 S2.2 S3.0 S2.9 S2.7 S3.0 S3.8SSW2.8SSW2.1 S2.9 S1.8 SW1.3 SSE1.4WSW0.5WSW0.8WNW1.2 NW1.1 NW1.3WNW1.5																										Diurnal Average		
N15 N14 N14 N15 NW11 NW10 SE10 SSE14 SSE12 NW13 NW17 NW15 NW24NNW23 N19 N23 N24 N19 NNW17 N18 NNW17 NNW18 NNW20 NNW13																										Diurnal Maximum		
C - Calibration M - Maintenance																												
All monthly, daily, and diurnal averages have been calculated using vector methods																												



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Fort McKay - Bertha Ganter - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	398	53.78	53.78
6 - 11	273	36.89	90.68
12 - 19	64	8.65	99.32
20 - 28	5	0.68	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 740

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Fort McKay - Bertha Ganter - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	23	14	13	7	8	10	22	36	60	38	29	26	30	34	28	20	398
6 - 11	15	21	4	3	1	1	11	79	43	22	14	15	11	11	14	8	273
12 - 19	16	2	0	0	0	0	2	15	9	4	1	0	0	0	6	9	64
20 - 28	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	5
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	56	37	17	10	9	11	35	130	112	64	44	41	41	45	49	39	740

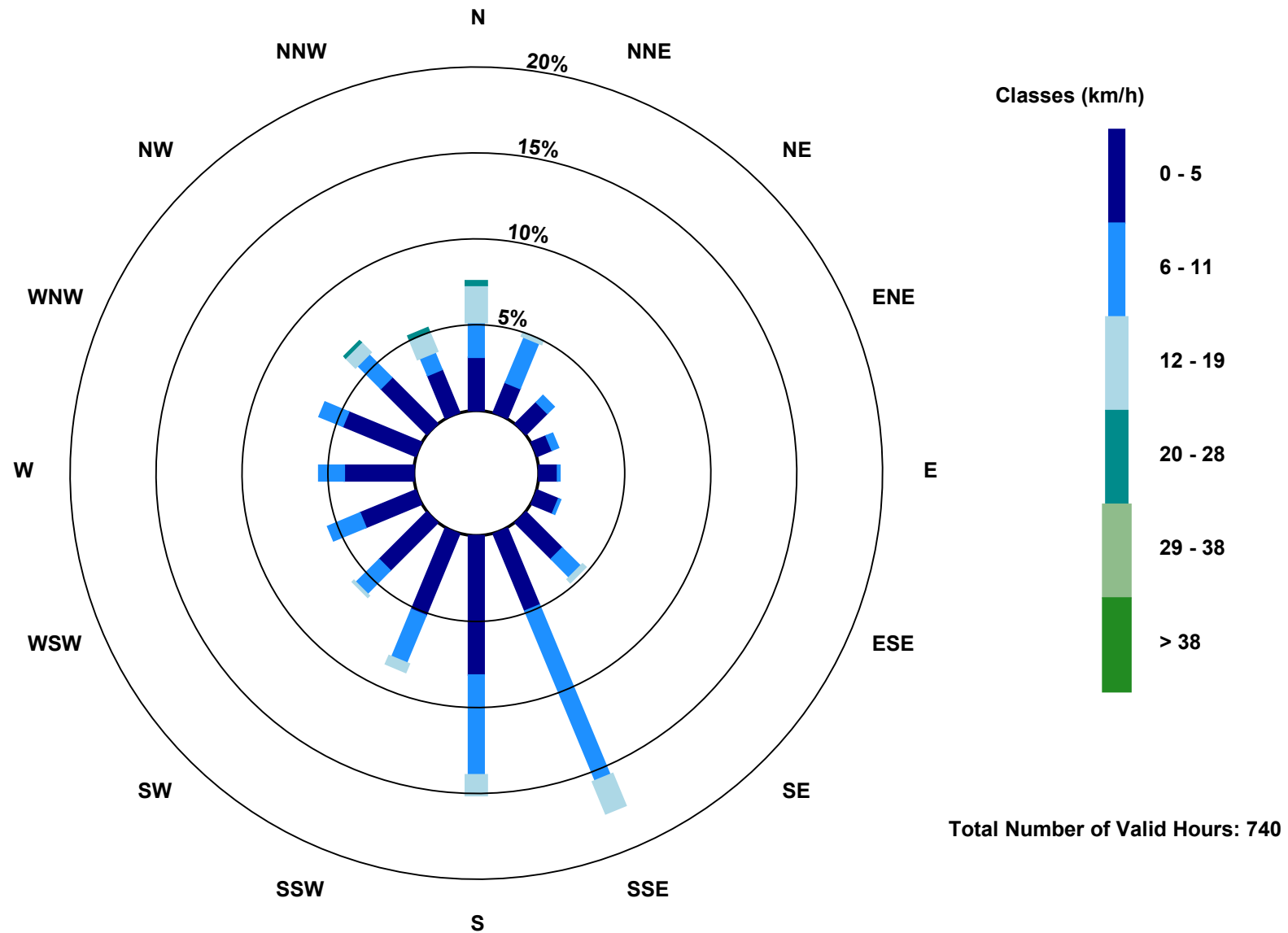
Total Number of Valid Hours: 740

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Fort McKay - Bertha Ganter





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Fort McKay - Bertha Ganter - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 8 km/h on Jul 12 13:00 Minimum Value: 0 km/h on Jul 1 01:00 Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 1 Median = 2 Q ₃ = 3 P ₉₀ = 4 P ₉₉ = 6																		Hours in Service: 744 Hours of Data: 740 Hours of Missing Data: 4 Hours of Calibration: 3 Percent Operational Time: 99.9							
Day	Hourly Period Ending At (MST)																								Daily Maximum
1-Jul	0	1	1	1	2	2	1	1	1	2	3	3	4	3	2	3	3	2	2	1	1	1	1	1	4
2-Jul	1	2	1	1	2	1	2	4	3	3	3	2	4	4	3	4	2	2	4	2	2	1	1	1	4
3-Jul	3	1	1	1	2	2	2	2	2	3	3	3	4	2	2	2	2	2	3	2	2	1	1	2	4
4-Jul	1	2	2	1	1	1	1	2	2	2	2	2	3	4	2	2	2	3	3	2	1	1	3	2	4
5-Jul	1	1	1	1	1	1	2	2	5	5	7	5	6	6	5	5	5	3	5	3	2	3	2	2	7
6-Jul	1	1	1	1	1	1	2	1	3	3	3	3	2	2	2	3	4	2	2	3	4	3	1	1	4
7-Jul	1	1	1	1	1	1	1	1	2	2	2	3	2	3	2	2	2	2	1	1	1	1	2	1	3
8-Jul	1	1	1	1	1	1	2	3	3	6	4	3	2	2	5	2	1	2	1	2	1	1	1	4	6
9-Jul	1	1	2	1	1	1	2	3	4	5	4	5	5	5	5	4	4	4	3	3	1	1	2	2	5
10-Jul	3	2	2	3	3	1	2	2	2	4	5	6	4	5	5	5	5	3	4	3	1	1	1	2	6
11-Jul	1	1	1	1	2	2	1	2	1	1	2	2	2	2	3	2	2	2	2	2	1	1	1	2	3
12-Jul	1	1	1	1	1	1	2	2	2	2	2	3	8	3	4	4	4	3	3	4	3	2	2	2	8
13-Jul	3	3	3	3	3	3	3	3	3	4	4	4	4	4	5	5	5	1	3	6	3	3	1	2	6
14-Jul	2	1	2	1	1	1	1	2	2	3	4	4	3	4	3	3	2	2	2	1	2	1	1	1	4
15-Jul	1	2	1	1	1	1	1	2	2	3	3	3	3	3	4	2	7	6	2	1	1	1	2	1	7
16-Jul	1	2	1	2	1	2	2	2	2	3	3	4	5	2	6	5	3	2	6	4	2	2	2	2	6
17-Jul	2	1	1	2	2	1	1	2	1	2	1	2	2	2	2	3	3	3	2	1	2	1	1	1	3
18-Jul	1	1	1	1	1	1	1	1	1	3	3	5	3	3	3	2	1	1	1	2	2	3	2	2	5
19-Jul	2	1	2	2	2	1	2	2	4	2	4	5	5	5	5	6	6	4	4	4	3	3	4	3	6
20-Jul	3	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	3
21-Jul	1	1	1	1	2	1	1	1	1	1	2	2	2	3	2	2	2	2	1	2	1	1	1	1	3
22-Jul	1	1	1	1	1	1	1	2	1	2	2	3	3	4	3	2	3	2	1	1	1	1	1	1	4
23-Jul	1	1	1	2	2	2	2	1	2	3	4	5	4	2	3	3	5	3	3	1	1	2	2	2	5
24-Jul	2	1	1	1	1	1	1	1	2	2	2	2	C	C	C	2	2	1	2	2	6	4	1	1	6
25-Jul	1	1	2	1	2	2	2	3	2	2	3	3	M	M	4	3	4	3	3	2	4	5	3	2	5
26-Jul	4	4	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	3	2	4
27-Jul	2	2	2	1	1	1	2	1	1	1	2	2	2	2	3	2	2	2	2	2	1	1	1	1	3
28-Jul	1	1	1	1	1	1	1	2	2	2	2	3	3	3	3	1	2	1	1	2	2	3	4	5	5
29-Jul	5	3	2	3	2	4	3	2	4	3	3	3	4	3	3	3	8	2	2	2	2	2	2	2	8
30-Jul	3	2	2	1	2	1	2	2	2	3	2	2	2	2	2	2	6	2	1	1	2	2	1	2	6
31-Jul	2	1	1	1	1	1	1	2	2	2	2	2	1	2	2	2	2	2	1	1	1	1	1	1	2
5 4 3 4 3 4 3 4 5 6 7 6 8 6 6 6 8 6 6 6 6 5 4 5 Diurnal Maximum																									
C - Calibration M - Maintenance																									



Wood Buffalo Environmental Association

Summary of Hour Averages

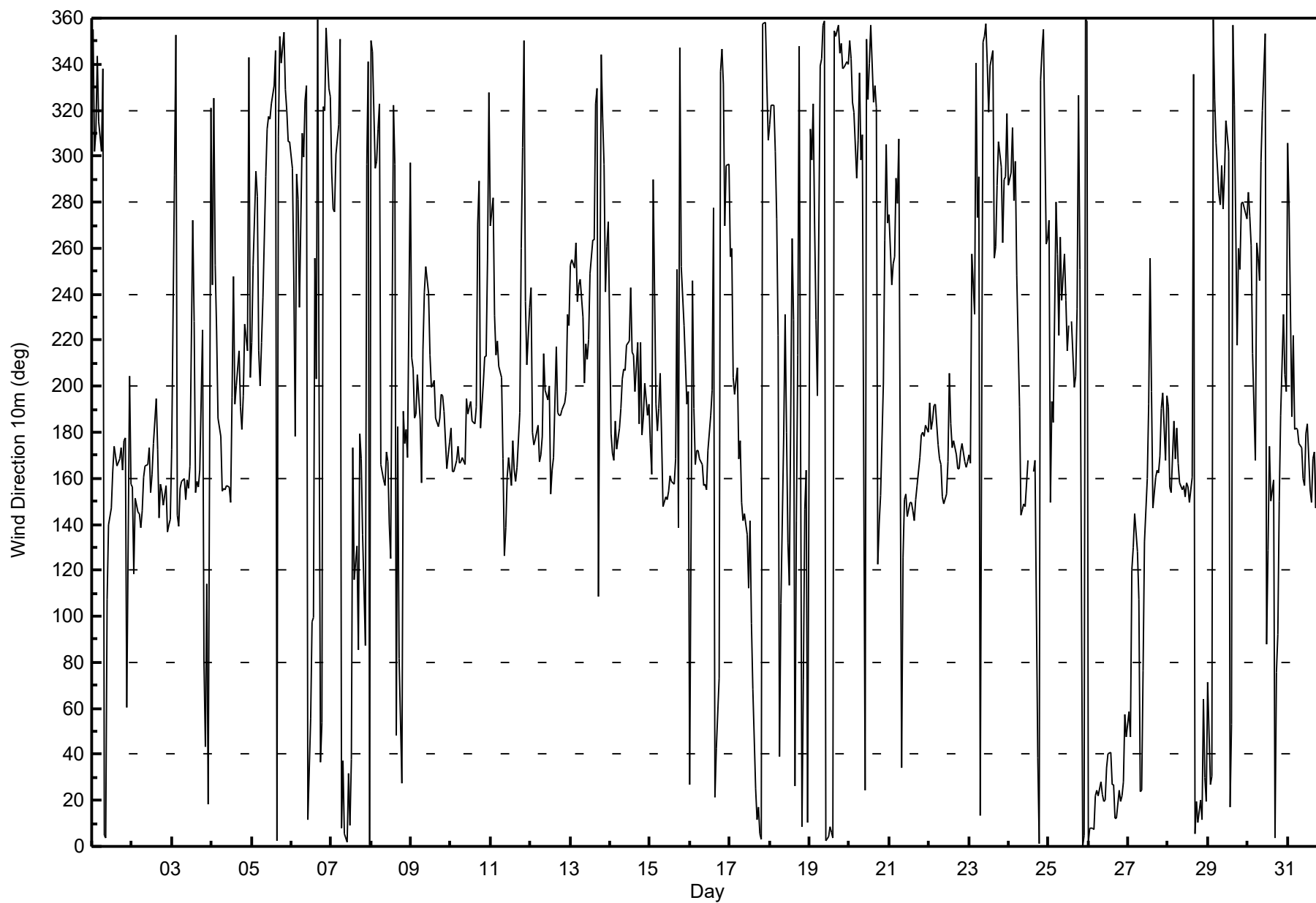
Wind Direction 10m (WD10) - deg Fort McKay - Bertha Ganter - July 2026

Direction of Maximum Speed: 323 deg on Jul 5 13:00																				Hours in Service:		744			
Direction of Maximum Daily Speed Average: 349.8 deg on Jul 19																				Hours of Data:		740			
Direction of Minimum Speed: 323 deg on Jul 8 06:00										Direction of Minimum Daily Speed Average: 0.7 deg on Jul 24										Hours of Missing Data:		4			
Monthly Average Direction: 201.8 deg																				Percent Operational Time:				99.9	
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	355	302	310	343	315	302	338	5	3	108	140	147	163	174	170	165	168	173	164	176	178	60	204	157	166.1
2-Jul	156	118	151	145	145	138	146	160	166	166	173	154	162	175	194	173	143	157	154	148	157	137	140	142	158.2
3-Jul	173	292	353	144	139	156	159	160	151	159	155	165	272	228	154	159	156	164	225	80	44	114	19	321	159.1
4-Jul	244	325	252	224	186	178	154	155	155	157	156	150	195	248	192	200	216	191	181	196	227	215	343	204	185.7
5-Jul	219	253	294	282	215	200	219	238	291	312	317	316	323	331	346	3	309	352	341	354	329	320	306	306	321.9
6-Jul	295	247	178	292	281	234	310	299	324	331	11	56	97	99	255	203	360	37	54	321	320	356	329	326	343.0
7-Jul	293	277	276	301	313	351	8	37	6	2	31	9	38	173	116	130	86	179	168	135	87	297	341	0	8.0
8-Jul	350	345	295	298	312	323	166	160	157	171	167	140	125	322	296	48	182	82	27	189	175	181	169	297	176.3
9-Jul	212	207	186	188	205	185	158	216	241	252	241	214	199	201	203	186	182	186	197	196	189	164	170	176	199.3
10-Jul	182	163	163	168	174	167	167	169	166	194	188	191	194	185	183	191	270	289	182	202	213	213	255	328	187.7
11-Jul	270	282	230	214	220	209	204	168	126	138	161	169	157	176	164	158	165	188	260	304	350	236	209	234	190.9
12-Jul	243	180	174	177	183	167	170	178	214	198	194	200	153	164	169	217	188	187	187	190	193	198	231	226	187.8
13-Jul	253	255	252	262	237	244	247	230	201	219	212	221	249	264	263	323	329	108	344	317	297	241	261	271	261.1
14-Jul	179	171	168	185	173	182	190	203	207	207	218	220	243	215	213	198	219	183	219	179	187	201	187	192	202.1
15-Jul	175	161	290	192	181	190	206	178	148	152	151	154	161	159	157	169	251	139	347	252	226	210	192	197	168.1
16-Jul	27	246	190	166	172	172	168	166	157	158	155	172	187	198	277	21	43	73	337	347	331	270	296	296	171.2
17-Jul	256	260	204	197	208	168	176	150	141	144	135	113	142	97	68	25	11	17	5	3	357	358	331	307	44.0
18-Jul	313	322	322	302	273	222	39	106	179	232	180	132	113	264	229	26	142	214	348	8	73	147	163	10	167.5
19-Jul	312	299	323	271	229	196	340	342	357	359	2	4	8	6	4	354	352	357	345	349	338	339	341	340	349.8
20-Jul	350	342	323	319	290	307	336	298	309	24	351	325	340	357	323	331	321	122	140	152	201	264	305	271	326.5
21-Jul	274	244	253	256	290	279	308	34	126	151	153	143	150	150	146	141	151	157	169	179	180	178	183	180	166.0
22-Jul	193	181	185	191	192	175	168	166	152	149	153	167	206	184	173	176	170	164	164	172	175	167	165	167	171.2
23-Jul	170	167	257	231	341	273	291	13	349	352	358	340	319	339	346	256	261	287	306	295	262	290	291	319	316.9
24-Jul	287	293	313	280	298	249	191	144	146	149	148	168	C	C	C	163	168	38	1	333	346	355	262	264	231.9
25-Jul	272	150	193	184	280	257	222	265	237	257	237	215	226	M	228	199	204	234	326	251	0	5	359	359	262.9
26-Jul	2	8	8	7	22	25	22	28	22	20	34	40	41	27	27	12	12	24	19	22	28	57	48	21.1	
27-Jul	58	48	120	130	144	128	108	24	25	76	132	160	192	256	198	147	161	163	162	170	190	197	168	196	150.8
28-Jul	191	157	154	185	168	182	167	158	155	157	152	158	156	150	161	336	6	19	10	20	12	64	30	20	134.6
29-Jul	71	27	31	359	324	306	284	279	296	277	292	316	302	17	53	357	322	218	260	251	280	280	278	273	312.3
30-Jul	285	274	261	214	168	262	256	246	298	320	353	88	129	174	150	159	4	75	92	150	188	231	205	198	217.1
31-Jul	306	277	187	222	181	182	181	175	173	160	157	179	184	155	150	168	172	147	181	195	179	292	303	322	177.9
282.4 281.8 243.7 239.5 223.4 197.7 182.2 180.1 176.5 184.3 174.7 171.0 193.4 193.0 184.0 174.1 214.8 164.0 251.1 254.0 295.1 305.6 305.7 295.5																									
Diurnal Average																									
C - Calibration M - Maintenance																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Fort McKay - Bertha Ganter - July 2026





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Fort McKay - Bertha Ganter - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 103 deg on Jul 20 15:00																			Hours in Service: 744 Hours of Data: 740 Hours of Missing Data: 4 Hours of Calibration: 3 Percent Operational Time: 99.9						
Minimum Value: 10 deg on Jul 21 22:00																									
Percentiles: P ₁ = 11 P ₁₀ = 15 Q ₁ = 19 Median = 31 Q ₃ = 51 P ₉₀ = 67 P ₉₉ = 94																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	24	61	11	17	27	31	33	31	34	56	18	17	25	22	19	19	17	16	14	13	14	52	64	69	69
2-Jul	51	52	13	75	40	14	16	16	18	17	20	19	17	23	35	33	16	19	16	13	19	19	13	14	75
3-Jul	49	96	75	24	27	14	18	20	16	17	20	20	50	82	19	21	15	23	98	39	73	32	98	30	98
4-Jul	83	58	23	38	27	27	19	13	14	23	17	16	58	53	35	44	51	32	27	33	35	59	59	62	83
5-Jul	62	51	34	30	82	34	51	53	47	20	19	22	16	20	26	29	29	20	23	23	15	14	16	13	82
6-Jul	25	59	94	73	78	90	51	91	92	42	73	88	67	49	91	76	39	40	41	58	49	32	31	18	94
7-Jul	13	19	22	21	30	27	23	42	48	46	40	57	94	60	70	95	54	32	23	22	46	38	47	19	95
8-Jul	14	14	23	24	16	73	39	24	16	50	82	48	32	66	52	65	27	59	39	48	21	15	27	89	89
9-Jul	22	44	25	24	25	31	20	42	60	53	54	42	37	35	38	25	22	26	28	29	17	14	16	17	60
10-Jul	17	16	12	17	25	15	13	16	22	32	31	33	30	42	32	32	54	49	27	33	24	33	65	45	65
11-Jul	29	20	21	22	44	77	55	25	35	25	28	26	43	24	14	16	14	26	46	35	52	69	49	52	77
12-Jul	59	16	15	15	12	16	17	22	39	37	27	41	51	33	58	45	24	23	24	24	26	24	57	52	59
13-Jul	56	60	53	62	56	61	62	51	39	41	44	51	54	65	64	19	24	37	62	22	76	44	74	51	76
14-Jul	45	15	30	19	23	20	25	39	35	42	49	40	60	43	53	46	61	92	55	22	54	27	15	18	92
15-Jul	12	53	30	28	16	22	50	33	18	20	16	15	17	16	16	18	60	76	73	66	62	66	49	59	76
16-Jul	84	46	24	52	13	15	18	16	13	15	16	26	43	31	74	39	43	64	76	33	17	71	68	65	84
17-Jul	42	44	94	77	45	14	22	28	15	20	43	55	22	45	38	28	19	19	16	14	17	20	19	11	94
18-Jul	46	41	29	27	45	71	61	51	22	59	55	29	36	55	91	73	96	40	32	27	53	49	58	83	96
19-Jul	74	26	46	39	64	49	60	23	17	20	36	24	25	27	26	25	25	24	23	25	15	18	20	23	74
20-Jul	26	27	14	13	35	14	54	29	17	36	45	34	29	44	103	50	39	71	24	39	29	12	64	23	103
21-Jul	36	35	38	19	58	59	39	82	28	27	29	28	19	28	18	15	13	13	12	14	12	10	11	17	82
22-Jul	11	15	11	11	11	13	14	15	14	14	15	49	50	77	20	32	20	18	11	13	11	22	13	12	77
23-Jul	16	19	71	95	26	61	37	24	64	26	27	27	17	26	48	64	55	42	20	33	37	16	20	22	95
24-Jul	19	18	73	18	27	81	36	28	26	40	46	40	C	C	C	26	29	87	25	34	26	24	16	33	87
25-Jul	53	25	56	47	53	70	68	52	64	73	53	41	56	M	53	31	32	49	84	67	24	21	21	17	84
26-Jul	16	18	16	15	22	22	21	22	21	22	23	32	36	44	35	35	35	36	25	19	19	26	38	41	44
27-Jul	45	40	29	21	35	19	33	35	52	55	42	39	47	51	68	19	16	15	13	13	14	20	11	15	68
28-Jul	15	17	41	67	14	20	15	19	16	17	19	21	17	16	19	24	21	20	20	74	36	41	30	31	74
29-Jul	44	32	65	32	14	22	37	41	30	42	39	30	48	50	87	41	62	79	53	55	40	47	43	42	87
30-Jul	44	51	91	74	62	92	72	62	55	74	73	71	60	47	59	56	79	60	36	39	49	45	32	17	92
31-Jul	58	32	29	27	18	20	27	22	17	16	18	25	25	19	18	25	17	35	23	26	93	55	28	16	93
84 96 94 95 82 92 72 91 92 74 82 88 94 82 103 95 96 92 98 74 93 71 98 89																									
Diurnal Maximum																									
C - Calibration M - Maintenance																									



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS03 LOWER CAMP METEOROLOGY JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - LOWER CAMP MET TOWER (AMS03)
JULY 2026

MONTHLY SUMMARY for
AMD SECTION III.B.1(c)

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
Temperature 20 m (C) Average	288	0	456	38.71	27.8	-	21.5	-
Temperature 45 m (C) Average	288	0	456	38.71	27.6	-	21.8	-
Temperature 100 m (C) Average	288	0	456	38.71	27.2	-	21.8	-
Temperature 163 m (C) Average	288	0	456	38.71	26.4	-	21.5	-
Relative Humidity 20 m (%) Average	288	0	456	38.71	100	-	83.3	-
Relative Humidity 45 m (%) Average	288	0	456	38.71	100	-	82.3	-
Relative Humidity 100 m (%) Average	288	0	456	38.71	98	-	82.2	-
Relative Humidity 163 m (%) Average	288	0	456	38.71	96.6	-	79.8	-
Wind Speed 20 m (km/h) Average	288	0	456	38.71	24	-	13.0	-
Wind Speed 45 m (km/h) Average	288	0	456	38.71	27	-	18.0	-
Wind Speed 100 m (km/h) Average	0	0	744	0	--	-	--	-
Wind Speed 163 m (km/h) Average	0	0	744	0	--	-	--	-
Wind Direction 20 m (deg) Average	288	0	456	38.71	-	-	-	-
Wind Direction 45 m (deg) Average	288	0	456	38.71	-	-	-	-
Wind Direction 100 m (deg) Average	0	0	744	0	-	-	-	-
Wind Direction 163 m (deg) Average	0	0	744	0	-	-	-	-
Vertical Wind Speed 20 m (km/h) Average	288	0	456	38.71	0.4	-	-0.1	-
Vertical Wind Speed 45 m (km/h) Average	288	0	456	38.71	1	-	0.2	-
Vertical Wind Speed 100 m (km/h) Average	0	0	744	0	--	-	--	-
Vertical Wind Speed 163 m (km/h) Average	0	0	744	0	--	-	--	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - LOWER CAMP MET TOWER (AMS03)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
Temperature 20 m (C) Average	288	19.34	3.6	-	12.4	14.7	16.7	19	21.7	24.7	27.8
Temperature 45 m (C) Average	288	19.37	3.5	-	12.3	14.9	16.7	19	21.8	24.6	27.6
Temperature 100 m (C) Average	288	19.4	3.3	-	12.1	15.2	17	19.1	21.8	24.2	27.2
Temperature 163 m (C) Average	288	18.87	3.2	-	11.6	14.9	16.6	18.6	21.3	23.4	26.4
Relative Humidity 20 m (%) Average	288	67.3	17.7	-	31.9	42.2	52.1	70.1	81.5	89.3	100
Relative Humidity 45 m (%) Average	288	65.03	17.4	-	31.4	41.4	50.6	67	79	87.5	100
Relative Humidity 100 m (%) Average	288	63.39	16.2	-	32.5	41.7	49.1	63.8	76.7	85.4	98
Relative Humidity 163 m (%) Average	288	61.44	15.6	-	32.3	40.8	47.4	60.9	74.4	82	96.6
Wind Speed 20 m (km/h) Average	288	7.3	5	-	0	2	4	7	10	14	24
Wind Speed 45 m (km/h) Average	288	10.2	6	-	1	3	5	9	14	19	27
Wind Speed 100 m (km/h) Average	0	--	--	-	--	0	0	0	0	0	--
Wind Speed 163 m (km/h) Average	0	--	--	-	--	0	0	0	0	0	--
Wind Direction 20 m (deg) Average	288	-	-	-	-	-	-	-	-	-	-
Wind Direction 45 m (deg) Average	288	-	-	-	-	-	-	-	-	-	-
Wind Direction 100 m (deg) Average	0	-	-	-	-	-	-	-	-	-	-
Wind Direction 163 m (deg) Average	0	-	-	-	-	-	-	-	-	-	-
Vertical Wind Speed 20 m (km/h) Average	288	-0.24	0.3	-	-1.4	-0.7	-0.4	-0.2	0	0.1	0.4
Vertical Wind Speed 45 m (km/h) Average	288	0.05	0.3	-	-0.9	-0.3	-0.1	0.1	0.2	0.4	1
Vertical Wind Speed 100 m (km/h) Average	0	--	--	-	--	0	0	0	0	0	--
Vertical Wind Speed 163 m (km/h) Average	0	--	--	-	--	0	0	0	0	0	--

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - LOWER CAMP MET TOWER (AMS03)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
ALL METEOROLOGICAL SENSORS, 20m	08 Jul 2026 11:00	30 Jul 2026 14:00	456	Station power failure
ALL METEOROLOGICAL SENSORS, 45m	08 Jul 2026 11:00	30 Jul 2026 14:00	456	Station power failure
ALL METEOROLOGICAL SENSORS, 100m	08 Jul 2026 11:00	30 Jul 2026 14:00	456	Station power failure
ALL METEOROLOGICAL SENSORS, 163m	08 Jul 2026 11:00	30 Jul 2026 14:00	456	Station power failure
Vertical Wind Speed, Wind Speed, Wind Direction at 100m	01 Jul 2026 01:00	01 Aug 2026 00:00	296	Flat line in sensor output signal
Vertical Wind Speed, Wind Speed, Wind Direction at 163m	01 Jul 2026 01:00	01 Aug 2026 00:00	296	Flat line in sensor output signal



Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 20m (AT20) - C

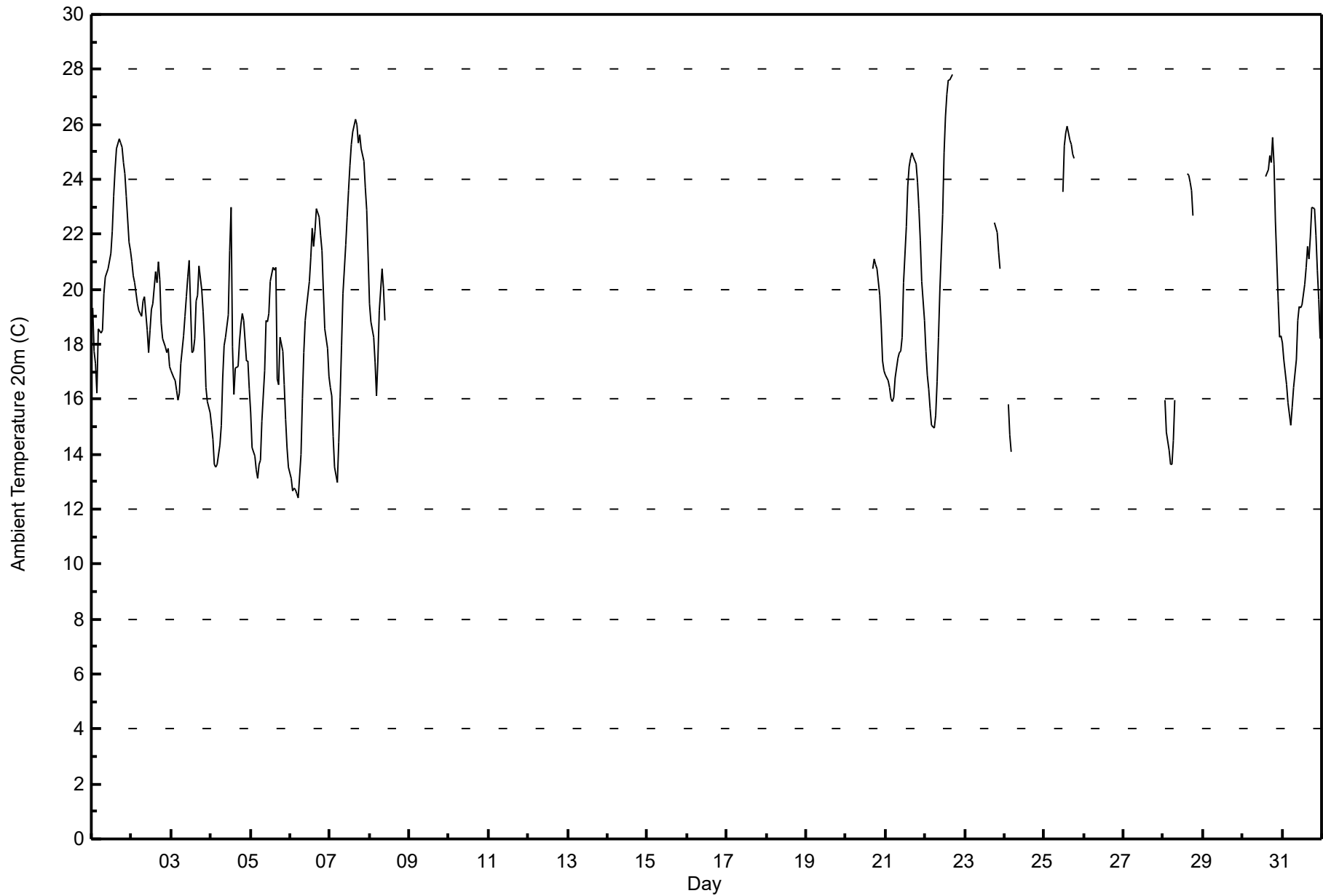
Lower Camp Met Tower - July 2026

Maximum Value: 27.8 C on Jul 22 17:00																				Maximum Daily Average: 21.5 C on Jul 1					Hours in Service: 744		
Minimum Value: 12.4 C on Jul 6 06:00																				Minimum Daily Average: 16.6 C on Jul 5					Hours of Data: 288		
Maximum Diurnal Average: 23.0 C at hour 16																				Minimum Diurnal Average: 15.1 C at hour 5					Hours of Missing Data: 456		
Monthly Average: 19.34 C																				Percentiles: P ₁ = 12.7 P ₁₀ = 14.7 Q ₁ = 16.7 Median = 19.0 Q ₃ = 21.7 P ₉₀ = 24.7 P ₉₉ = 27.2					Hours of Calibration: 0		
																									Percent Operational Time: 38.7		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	19.3	17.7	17.3	16.2	18.6	18.4	18.5	19.9	20.4	20.6	20.7	21.3	22.1	23.4	24.3	25.1	25.5	25.3	25.2	24.6	24.2	23.4	21.7	21.4	21.5	25.5	
2-Jul	21.0	20.5	20.3	19.5	19.2	19.1	19.0	19.6	19.7	18.5	17.7	18.5	19.3	19.5	20.6	20.2	21.0	20.3	18.7	18.2	17.9	17.7	17.8	17.2	19.2	21.0	
3-Jul	17.0	16.8	16.7	16.3	16.0	16.2	17.3	18.3	19.0	19.7	20.5	21.0	17.7	17.7	18.2	19.6	19.8	20.9	20.0	19.2	18.1	16.4	15.9	15.5	18.1	21.0	
4-Jul	15.1	14.5	13.6	13.6	13.6	14.4	15.0	16.8	17.9	18.2	19.1	21.4	23.0	17.9	16.2	17.1	17.2	18.1	18.7	19.1	18.8	17.4	17.4	16.4	17.1	23.0	
5-Jul	15.5	14.3	13.9	13.4	13.1	13.6	13.8	15.2	17.1	18.9	18.8	19.1	20.3	20.8	20.7	20.8	16.7	16.5	18.3	17.7	16.5	15.3	14.2	13.5	16.6	20.8	
6-Jul	13.1	12.7	12.8	12.7	12.6	12.4	14.0	16.0	17.7	18.9	19.4	20.3	21.1	22.2	21.6	22.1	22.9	22.6	21.9	21.4	19.9	18.6	17.9	16.8	18.0	22.9	
7-Jul	16.4	16.1	14.6	13.5	13.0	14.4	16.0	18.0	19.9	21.6	22.6	23.6	24.5	25.3	25.7	26.2	26.0	25.3	25.6	25.1	24.7	23.7	22.9	21.2	21.1	26.2	
8-Jul	19.5	18.8	18.3	17.3	16.1	17.4	19.2	20.7	20.1	18.9	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	20.7	
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	20.7	21.1	20.9	20.7	19.8	18.7	17.4	17.0	--	21.1
21-Jul	16.9	16.7	16.4	16.0	15.9	16.0	16.8	17.5	17.7	17.7	18.3	20.3	22.3	23.7	24.4	24.8	25.0	24.8	24.5	23.9	22.9	21.8	20.3	18.9	20.1	25.0	
22-Jul	17.7	16.9	16.4	15.6	15.1	15.0	15.4	16.6	18.3	20.0	22.7	25.0	26.3	27.1	27.6	27.6	27.8	PF	PF	PF	PF	PF	PF	PF	--	27.8	
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	22.4	22.0	21.4	20.7	PF	PF	--	22.4	
24-Jul	PF	PF	15.8	14.7	14.1	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	15.8	
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	23.5	25.2	25.7	25.9	25.4	25.3	24.9	24.8	PF	PF	PF	PF	PF	--	25.9	
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
28-Jul	PF	15.9	14.8	14.1	13.6	13.6	14.5	15.9	PF	PF	PF	PF	PF	PF	24.2	24.1	23.9	23.6	22.7	PF	PF	PF	PF	PF	--	24.2	
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	24.1	24.3	24.8	24.6	25.6	24.6	22.5	19.6	18.3	18.3	--	25.6	
31-Jul	18.0	17.5	16.5	15.9	15.4	15.1	15.7	16.4	17.5	18.9	19.4	19.3	19.4	20.2	20.8	21.6	21.1	21.9	23.0	22.9	22.0	20.7	19.6	18.2	19.0	23.0	
17.2 16.5 16.0 15.3 15.1 15.5 16.3 17.6 18.7 19.3 19.9 21.2 21.9 22.1 22.6 23.0 22.7 22.3 22.3 21.6 20.7 19.5 18.5 17.7																										Diurnal Average	
21.0 20.5 20.3 19.5 19.2 19.1 19.2 20.7 20.4 21.6 22.7 25.0 26.3 27.1 27.6 27.6 27.8 25.3 25.6 25.1 24.7 23.7 22.9 21.4																										Diurnal Maximum	
PF - Power Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 20m (AT20) - C
Lower Camp Met Tower - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 20m (AT20) - C
Lower Camp Met Tower - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	0	0.00	0.00
10 - 20	174	60.42	60.42
> 20	114	39.58	100.00

Total Number of Valid Hours: 288

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 45m (AT45) - C

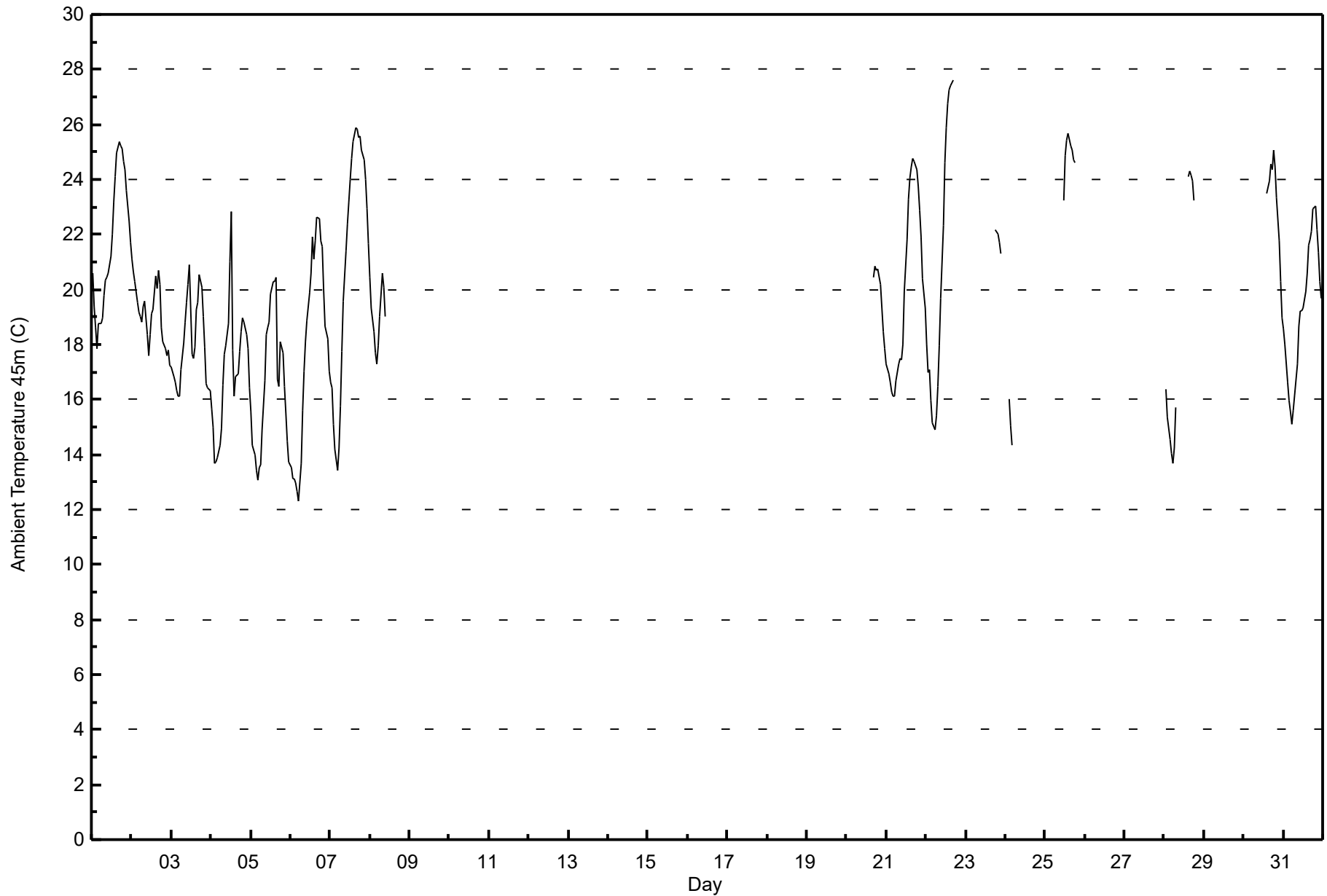
Lower Camp Met Tower - July 2026

Maximum Value: 27.6 C on Jul 22 17:00																				Maximum Daily Average: 21.8 C on Jul 1					Hours in Service: 744			
Minimum Value: 12.3 C on Jul 6 06:00																				Minimum Daily Average: 16.5 C on Jul 5					Hours of Data: 288			
Maximum Diurnal Average: 22.8 C at hour 16																				Minimum Diurnal Average: 15.4 C at hour 5					Hours of Missing Data: 456			
Monthly Average: 19.37 C																				Percentiles: P ₁ = 13.0 P ₁₀ = 14.9 Q ₁ = 16.7 Median = 19.0 Q ₃ = 21.8 P ₉₀ = 24.6 P ₉₉ = 26.8					Hours of Calibration: 0			
																				Percent Operational Time: 38.7								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	20.6	19.4	18.6	17.9	18.8	18.8	19.0	19.8	20.3	20.5	20.6	21.2	22.0	23.2	24.1	25.0	25.4	25.2	25.1	24.6	24.3	23.6	22.5	21.7	21.8	25.4		
2-Jul	21.1	20.7	20.3	19.5	19.2	19.0	18.8	19.4	19.6	18.4	17.6	18.4	19.1	19.3	20.5	20.0	20.7	20.2	18.6	18.1	17.8	17.6	17.8	17.2	19.1	21.1		
3-Jul	17.2	16.9	16.7	16.3	16.1	16.1	17.1	18.0	18.8	19.5	20.2	20.9	17.7	17.5	17.9	19.3	19.5	20.6	20.1	19.0	17.9	16.6	16.4	16.3	18.0	20.9		
4-Jul	15.7	15.0	13.7	13.7	13.9	14.3	14.9	16.5	17.7	18.0	18.7	21.0	22.8	17.8	16.1	16.8	17.0	17.8	18.4	18.9	18.8	18.4	17.9	16.4	17.1	22.8		
5-Jul	15.5	14.3	14.0	13.4	13.1	13.5	13.6	14.9	16.7	18.4	18.6	18.8	19.9	20.3	20.3	20.4	16.7	16.5	18.1	17.7	16.5	15.5	14.5	13.7	16.5	20.4		
6-Jul	13.5	13.1	13.1	13.0	12.7	12.3	13.7	15.6	17.0	18.1	18.9	19.9	20.6	21.9	21.1	21.7	22.6	22.6	21.7	21.5	20.0	18.6	18.2	17.0	17.9	22.6		
7-Jul	16.6	16.4	15.1	14.2	13.4	14.2	15.8	17.7	19.6	21.4	22.4	23.2	24.0	24.7	25.4	25.9	25.8	25.5	25.6	25.1	24.7	24.0	22.9	21.7	21.1	25.9		
8-Jul	20.4	19.3	18.5	17.7	17.3	18.0	19.0	20.6	20.1	19.0	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	20.6		
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--		
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--		
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--		
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--		
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--		
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--		
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--		
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--		
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--		
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--		
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--		
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	20.9		
21-Jul	17.3	16.9	16.6	16.3	16.1	16.1	16.7	17.3	17.5	17.5	18.0	19.9	21.8	23.3	24.1	24.5	24.8	24.6	24.4	23.7	22.9	21.9	20.4	19.3	20.1	24.8		
22-Jul	18.0	17.0	17.1	16.0	15.1	14.9	15.4	16.5	18.0	19.7	22.3	24.6	25.9	26.7	27.2	27.4	27.6	PF	PF	PF	PF	PF	PF	PF	--	27.6		
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	22.2	22.0	21.7	21.3	PF	PF	--	22.2		
24-Jul	PF	PF	16.0	15.1	14.4	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	16.0		
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	23.3	24.9	25.4	25.7	25.2	25.0	24.7	24.6	PF	PF	PF	PF	PF	--	25.7		
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--		
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--		
28-Jul	PF	16.4	15.4	14.5	14.0	13.7	14.2	15.7	PF	PF	PF	PF	PF	PF	24.1	24.3	24.1	23.9	23.2	PF	PF	PF	PF	PF	--	24.3		
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--		
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	23.5	23.9	24.5	24.4	25.0	24.5	23.3	21.8	20.3	19.0	--	25.0		
31-Jul	18.5	18.0	16.6	16.0	15.6	15.1	15.6	16.2	17.3	18.7	19.2	19.2	19.3	20.0	20.6	21.6	21.8	22.1	23.0	23.0	22.2	21.3	20.3	19.7	19.2	23.0		
17.7 16.9 16.3 15.7 15.4 15.5 16.2 17.3 18.4 19.0 19.7 20.9 21.6 21.8 22.4 22.8 22.6 22.2 22.2 21.6 20.9 20.0 19.1 18.2																										Diurnal Average		
21.1 20.7 20.3 19.5 19.2 19.0 19.0 20.6 20.3 21.4 22.4 24.6 25.9 26.7 27.2 27.4 27.6 25.5 25.6 25.1 24.7 24.0 22.9 21.7																										Diurnal Maximum		
PF - Power Failure																												



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 45m (AT45) - C
Lower Camp Met Tower - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 45m (AT45) - C
Lower Camp Met Tower - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	0	0.00	0.00
10 - 20	171	59.38	59.38
> 20	117	40.63	100.00

Total Number of Valid Hours: 288

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 100m (AT100) - C

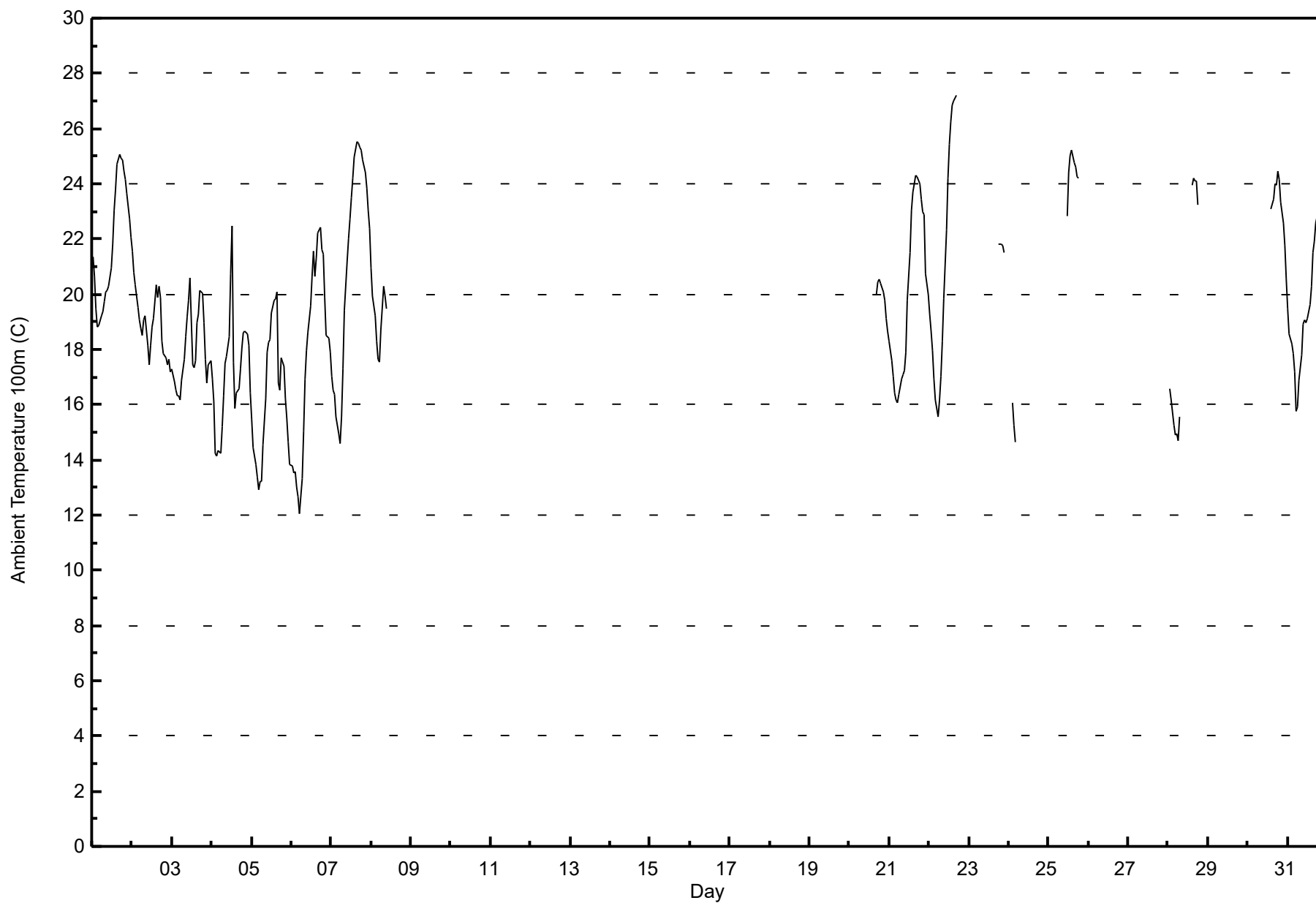
Lower Camp Met Tower - July 2026

Maximum Value: 27.2 C on Jul 22 17:00																				Maximum Daily Average: 21.8 C on Jul 1					Hours in Service: 744		
Minimum Value: 12.1 C on Jul 6 06:00																				Minimum Daily Average: 16.2 C on Jul 5					Hours of Data: 288		
Maximum Diurnal Average: 22.4 C at hour 16																				Minimum Diurnal Average: 15.7 C at hour 6					Hours of Missing Data: 456		
Monthly Average: 19.40 C																				Percentiles: P ₁ = 13.0 P ₁₀ = 15.2 Q ₁ = 17.0 Median = 19.1 Q ₃ = 21.8 P ₉₀ = 24.2 P ₉₉ = 26.3					Hours of Calibration: 0		
																									Percent Operational Time: 38.7		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	21.4	20.6	19.5	18.8	18.9	19.2	19.4	19.7	20.1	20.2	20.3	20.9	21.8	23.0	23.8	24.7	25.1	24.9	24.9	24.5	24.2	23.6	22.7	22.1	21.8	25.1	
2-Jul	21.6	20.8	20.3	19.5	19.1	18.8	18.5	19.1	19.2	18.2	17.4	18.2	18.8	19.1	20.3	19.9	20.3	19.9	18.3	17.8	17.7	17.4	17.6	17.2	19.0	21.6	
3-Jul	17.3	16.8	16.5	16.3	16.3	16.2	16.9	17.6	18.5	19.2	19.8	20.6	17.5	17.3	17.6	19.0	19.3	20.1	20.0	19.0	17.6	16.8	17.4	17.6	18.0	20.6	
4-Jul	16.9	16.1	14.3	14.1	14.4	14.2	15.2	16.3	17.5	17.7	18.5	20.7	17.5	17.5	15.9	16.4	16.6	17.3	18.0	18.6	18.7	18.5	18.1	16.4	17.1	22.5	
5-Jul	15.5	14.4	13.8	13.4	12.9	13.2	13.2	14.5	16.2	17.9	18.2	18.4	19.3	19.8	19.8	20.1	16.8	16.5	17.7	17.4	16.2	15.5	14.6	13.8	16.2	20.1	
6-Jul	13.8	13.5	13.6	13.0	12.6	12.1	13.3	15.1	16.9	18.0	18.6	19.6	20.6	21.6	20.6	21.3	22.2	22.4	21.6	21.5	19.9	18.5	18.4	17.9	17.8	22.4	
7-Jul	17.1	16.5	16.4	15.5	14.9	14.6	15.6	17.3	19.4	21.2	22.0	22.7	23.5	24.2	25.0	25.5	25.5	25.3	25.2	24.9	24.4	23.8	23.0	22.4	21.1	25.5	
8-Jul	21.0	19.9	19.2	18.3	17.7	17.5	18.7	20.3	19.9	19.5	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	21.0	
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	20.0	20.4	20.5	20.4	20.1	19.8	19.1	18.7	--	20.5
21-Jul	18.3	17.6	17.0	16.4	16.2	16.1	16.4	16.9	17.1	17.2	17.9	19.8	21.5	23.0	23.7	24.0	24.3	24.3	24.0	23.4	23.0	22.9	20.7	20.0	20.1	24.3	
22-Jul	19.3	18.6	18.0	16.9	16.1	15.5	16.2	17.0	18.3	19.8	22.3	24.2	25.4	26.2	26.8	27.0	27.2	PF	PF	PF	PF	PF	PF	PF	--	27.2	
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	21.8	21.8	21.8	21.5	PF	PF	--	21.8	
24-Jul	PF	PF	16.1	15.2	14.6	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	16.1	
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	22.8	24.4	25.0	25.2	24.8	24.6	24.3	24.2	PF	PF	PF	PF	PF	--	25.2	
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
28-Jul	PF	16.6	16.2	15.2	14.9	14.9	14.7	15.5	PF	PF	PF	PF	PF	PF	24.0	24.2	24.1	24.1	23.2	PF	PF	PF	PF	PF	--	24.2	
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	23.1	23.4	24.0	24.0	24.5	24.1	23.3	22.6	21.8	20.6	--	24.5	
31-Jul	19.5	18.5	18.2	17.9	17.2	15.8	15.9	16.9	17.8	18.9	19.1	19.0	19.1	19.6	20.3	21.5	21.9	22.6	22.9	22.9	22.3	21.9	21.1	20.1	19.6	22.9	
18.3 17.5 16.8 16.2 15.8 15.7 16.2 17.2 18.3 18.9 19.4 20.6 21.3 21.5 22.0 22.4 22.3 22.0 21.9 21.4 20.8 20.2 19.5 18.8																										Diurnal Average	
21.6 20.8 20.3 19.5 19.1 19.2 19.4 20.3 20.1 21.2 22.3 24.2 25.4 26.2 26.8 27.0 27.2 25.3 25.2 24.9 24.4 23.8 23.0 22.4																										Diurnal Maximum	
PF - Power Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 100m (AT100) - C
Lower Camp Met Tower - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 100m (AT100) - C
Lower Camp Met Tower - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	0	0.00	0.00
10 - 20	175	60.76	60.76
> 20	113	39.24	100.00

Total Number of Valid Hours: 288

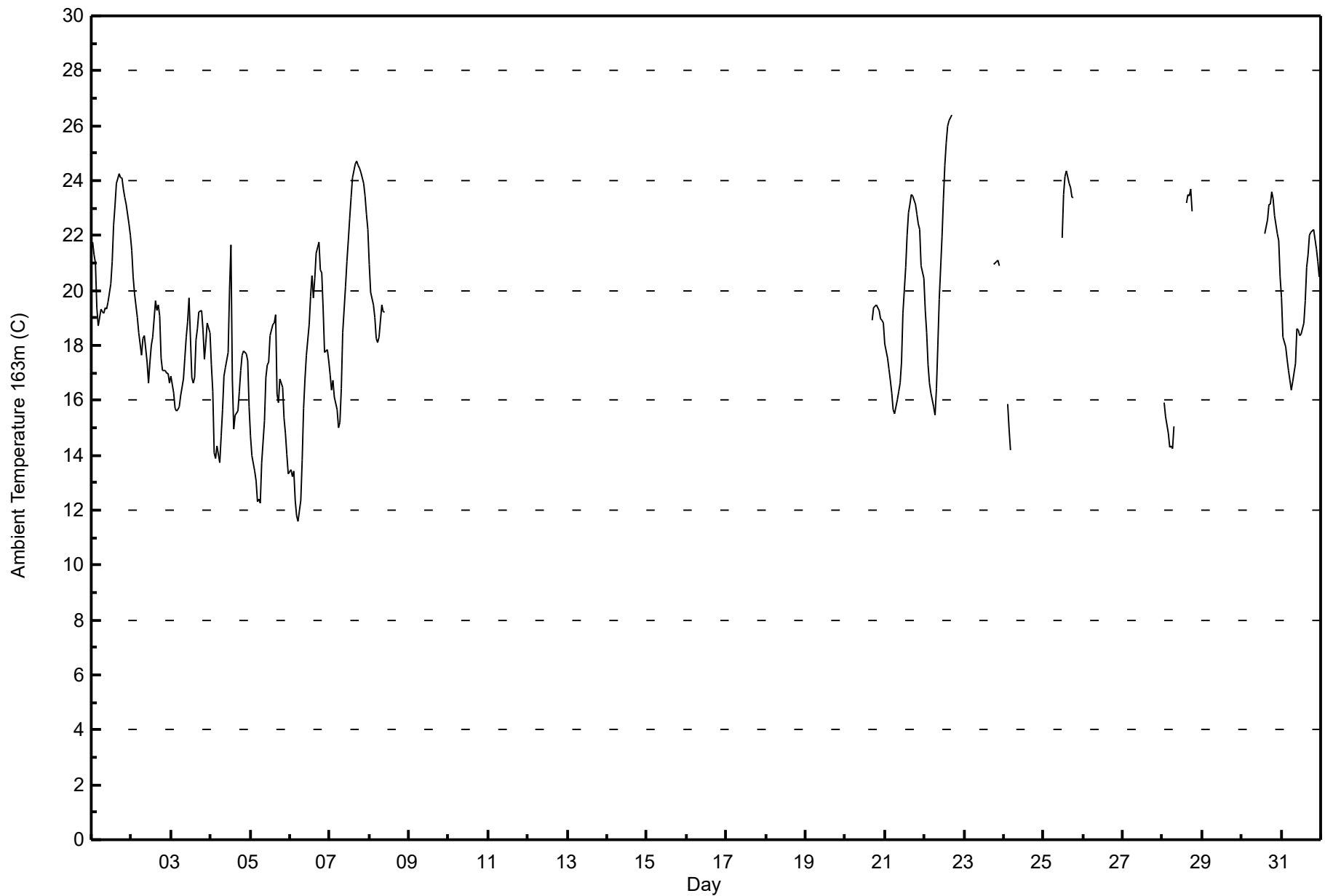
Total Number of Hours: 744

Maximum Value: 26.4 C on Jul 22 17:00										Maximum Daily Average: 21.5 C on Jul 1										Hours in Service: 744						
Minimum Value: 11.6 C on Jul 6 06:00										Minimum Daily Average: 15.4 C on Jul 5										Hours of Data: 288						
Maximum Diurnal Average: 21.6 C at hour 16										Minimum Diurnal Average: 15.5 C at hour 6										Hours of Missing Data: 456						
Monthly Average: 18.87 C										Percentiles: P ₁ = 12.3 P ₁₀ = 14.9 Q ₁ = 16.6 Median = 18.6 Q ₃ = 21.3 P ₉₀ = 23.4 P ₉₉ = 25.4										Hours of Calibration: 0						
																				Percent Operational Time: 38.7						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	21.8	21.3	21.0	19.4	18.7	19.3	19.2	19.2	19.4	19.3	19.6	20.2	21.1	22.4	23.1	23.9	24.2	24.1	24.1	23.7	23.4	23.1	22.4	22.0	21.5	24.2
2-Jul	21.5	20.5	19.9	19.0	18.5	18.1	17.6	18.3	18.4	17.4	16.6	17.4	18.0	18.3	19.6	19.3	19.5	19.1	17.5	17.1	17.1	17.0	17.0	16.6	18.3	21.5
3-Jul	16.9	16.3	15.7	15.6	15.7	15.7	16.2	16.8	17.6	18.3	18.9	19.8	16.9	16.6	16.8	18.2	18.6	19.2	19.3	18.6	17.5	18.1	18.8	18.4	17.5	19.8
4-Jul	17.3	16.3	14.1	13.9	14.3	13.7	14.7	15.7	16.9	17.2	17.7	20.0	21.7	16.8	14.9	15.4	15.6	16.3	17.1	17.7	17.8	17.7	17.4	15.8	16.5	21.7
5-Jul	14.7	14.0	13.4	13.1	12.3	12.4	12.3	13.7	15.2	16.8	17.3	17.4	18.3	18.7	18.8	19.1	16.2	15.9	16.8	16.5	15.4	14.8	14.0	13.3	15.4	19.1
6-Jul	13.5	13.2	13.4	12.4	11.8	11.6	12.3	13.8	15.7	16.8	17.6	18.8	19.8	20.5	19.7	20.4	21.4	21.8	20.7	20.6	19.3	17.8	17.8	17.4	17.0	21.8
7-Jul	16.9	16.4	16.7	16.1	15.7	15.0	15.2	16.4	18.5	20.1	21.1	21.8	22.6	23.4	24.1	24.6	24.7	24.6	24.4	24.3	23.9	23.5	22.8	22.2	20.6	24.7
8-Jul	20.9	20.0	19.5	19.0	18.3	18.1	18.3	19.5	19.2	19.2	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	20.9
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	18.9	19.4	19.4	19.5	19.2	19.0	18.9	18.8	--	19.5
21-Jul	18.1	17.6	17.2	16.8	16.3	15.7	15.5	16.0	16.3	16.6	17.4	19.2	20.9	22.0	22.8	23.2	23.5	23.5	23.2	22.8	22.4	22.2	20.9	20.4	19.6	23.5
22-Jul	19.3	18.5	17.3	16.6	16.3	15.8	15.5	16.4	18.0	19.7	22.0	23.4	24.6	25.4	26.0	26.2	26.4	PF	PF	PF	PF	PF	PF	PF	--	26.4
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	21.0	21.1	21.1	20.9	PF	PF	--	21.1
24-Jul	PF	PF	15.8	14.9	14.2	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	15.8
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	21.9	23.5	24.2	24.4	23.9	23.7	23.4	23.4	PF	PF	PF	PF	PF	--	24.4
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
28-Jul	PF	15.9	15.4	14.8	14.3	14.3	14.2	15.0	PF	PF	PF	PF	PF	PF	23.2	23.5	23.4	23.7	22.9	PF	PF	PF	PF	PF	--	23.7
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	22.1	22.6	23.1	23.1	23.6	23.3	22.7	22.1	21.8	20.5	--	23.6
31-Jul	19.7	18.3	18.0	17.5	17.1	16.7	16.4	16.7	17.3	18.6	18.6	18.3	18.4	18.8	19.6	20.9	21.3	22.0	22.1	22.2	21.9	21.5	21.0	20.5	19.3	22.2
																								Diurnal Average		
																								Diurnal Maximum		
PF - Power Failure																										



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 163m (AT163) - C
Lower Camp Met Tower - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 163m (AT163) - C
Lower Camp Met Tower - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	0	0.00	0.00
10 - 20	191	66.32	66.32
> 20	97	33.68	100.00

Total Number of Valid Hours: 288

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 20m (RH20) - %

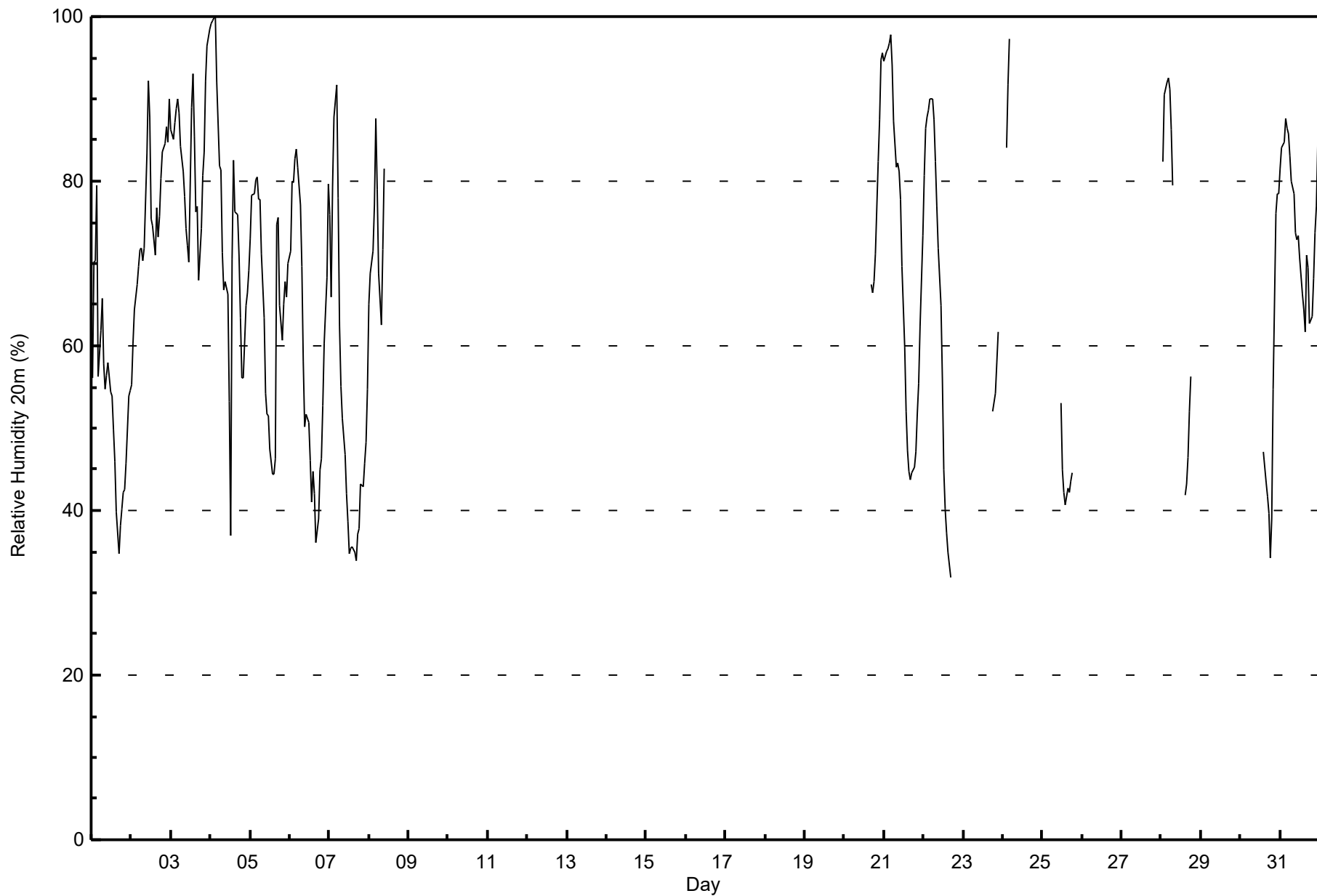
Lower Camp Met Tower - July 2026

Maximum Value: 100.0 % on Jul 4 04:00																				Maximum Daily Average: 83.3 % on Jul 3					Hours in Service: 744		
Minimum Value: 31.9 % on Jul 22 17:00																				Minimum Daily Average: 52.5 % on Jul 7					Hours of Data: 288		
Maximum Diurnal Average: 86.2 % at hour 4																				Minimum Diurnal Average: 51.0 % at hour 16					Hours of Missing Data: 456		
Monthly Average: 67.30 %																				Percentiles: P ₁ = 34.6 P ₁₀ = 42.2 Q ₁ = 52.1 Median = 70.1 Q ₃ = 81.5 P ₉₀ = 89.3 P ₉₉ = 99.2					Hours of Calibration: 0		
																									Percent Operational Time: 38.7		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	56.1	70.2	70.3	79.4	56.2	61.8	65.7	57.8	54.7	56.4	58.0	54.5	53.8	49.9	45.9	39.8	34.8	38.1	40.2	42.2	42.5	45.8	53.9	54.5	53.4	79.4	
2-Jul	55.2	60.4	64.4	67.4	69.7	71.7	71.8	70.4	71.9	83.4	92.2	87.9	75.4	74.6	71.1	76.8	73.3	75.7	80.3	83.6	84.5	86.5	84.7	90.0	75.9	92.2	
3-Jul	86.2	85.1	87.1	88.8	90.1	88.4	84.2	81.3	78.1	74.3	72.2	70.1	88.9	93.0	85.5	76.3	77.0	67.9	74.3	80.7	83.6	92.2	96.4	98.4	83.3	98.4	
4-Jul	99.2	99.4	99.8	100.0	92.0	81.9	81.3	71.4	66.7	67.8	66.2	53.3	36.9	70.5	82.5	76.2	75.9	70.8	63.5	56.1	56.1	65.0	66.4	69.2	73.7	100.0	
5-Jul	73.1	78.4	78.4	80.1	80.5	77.7	77.7	71.2	63.3	54.3	51.7	51.4	47.4	44.3	44.5	46.2	74.8	75.6	64.9	60.7	65.0	67.8	66.0	70.0	65.2	80.5	
6-Jul	71.5	79.9	79.9	82.7	83.8	81.8	77.2	69.7	58.1	50.2	51.7	50.7	46.2	41.1	44.7	42.0	36.1	39.0	44.9	46.3	52.8	60.3	68.3	79.7	59.9	83.8	
7-Jul	75.9	66.0	79.2	87.8	91.6	78.0	62.3	55.1	51.2	46.9	42.0	38.6	34.7	35.6	34.9	33.9	37.1	37.9	43.2	42.9	45.8	48.3	54.8	52.5	91.6		
8-Jul	65.2	68.8	71.5	77.1	87.6	79.0	68.9	62.6	71.8	81.5	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	87.6	
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	67.4	66.5	67.8	71.3	82.4	87.4	94.7	95.6	--	95.6
21-Jul	94.6	95.8	96.0	96.9	97.7	94.0	87.4	81.6	82.2	81.2	77.8	69.6	59.8	52.0	47.2	44.8	43.8	44.5	45.3	47.1	51.6	55.4	62.4	73.3	70.1	97.7	
22-Jul	80.7	86.4	87.8	88.7	90.1	90.1	87.4	82.4	77.0	71.9	65.0	55.9	45.0	40.2	37.3	35.0	31.9	PF	PF	PF	PF	PF	PF	PF	--	90.1	
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	52.0	54.2	58.0	61.6	PF	PF	--	61.6
24-Jul	PF	PF	84.0	91.7	97.3	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	97.3	
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	53.0	45.0	42.2	40.6	42.7	42.2	43.6	44.5	PF	PF	PF	PF	PF	--	53.0	
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
28-Jul	PF	82.4	90.5	92.1	92.6	91.2	86.3	79.5	PF	PF	PF	PF	PF	PF	41.9	43.2	46.5	52.1	56.2	PF	PF	PF	PF	PF	--	92.6	
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	47.1	43.4	41.7	39.7	34.3	39.1	54.7	76.1	78.4	78.5	--	78.5	
31-Jul	81.6	84.0	84.7	87.7	86.4	85.8	83.0	80.0	78.4	73.8	72.9	73.3	70.7	66.2	64.4	61.7	71.1	69.6	62.7	63.6	68.2	73.7	76.9	84.8	75.2	87.7	
76.3 79.7 82.6 86.2 85.8 81.8 77.8 71.9 68.5 67.4 65.0 59.9 54.9 55.4 53.0 51.0 53.6 55.4 54.9 57.3 61.9 68.1 72.4 77.2																									Diurnal Average		
99.2 99.4 99.8 100.0 97.7 94.0 87.4 82.4 82.2 83.4 92.2 87.9 88.9 93.0 85.5 76.8 77.0 75.7 80.3 83.6 84.5 92.2 96.4 98.4																									Diurnal Maximum		
PF - Power Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 20m (RH20) - %
Lower Camp Met Tower - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 20m (RH20) - %
Lower Camp Met Tower - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	20	6.94	6.94
40 - 60	80	27.78	34.72
60 - 80	107	37.15	71.88
80 - 100	80	27.78	99.65

Total Number of Valid Hours: 288

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 45m (RH45) - %

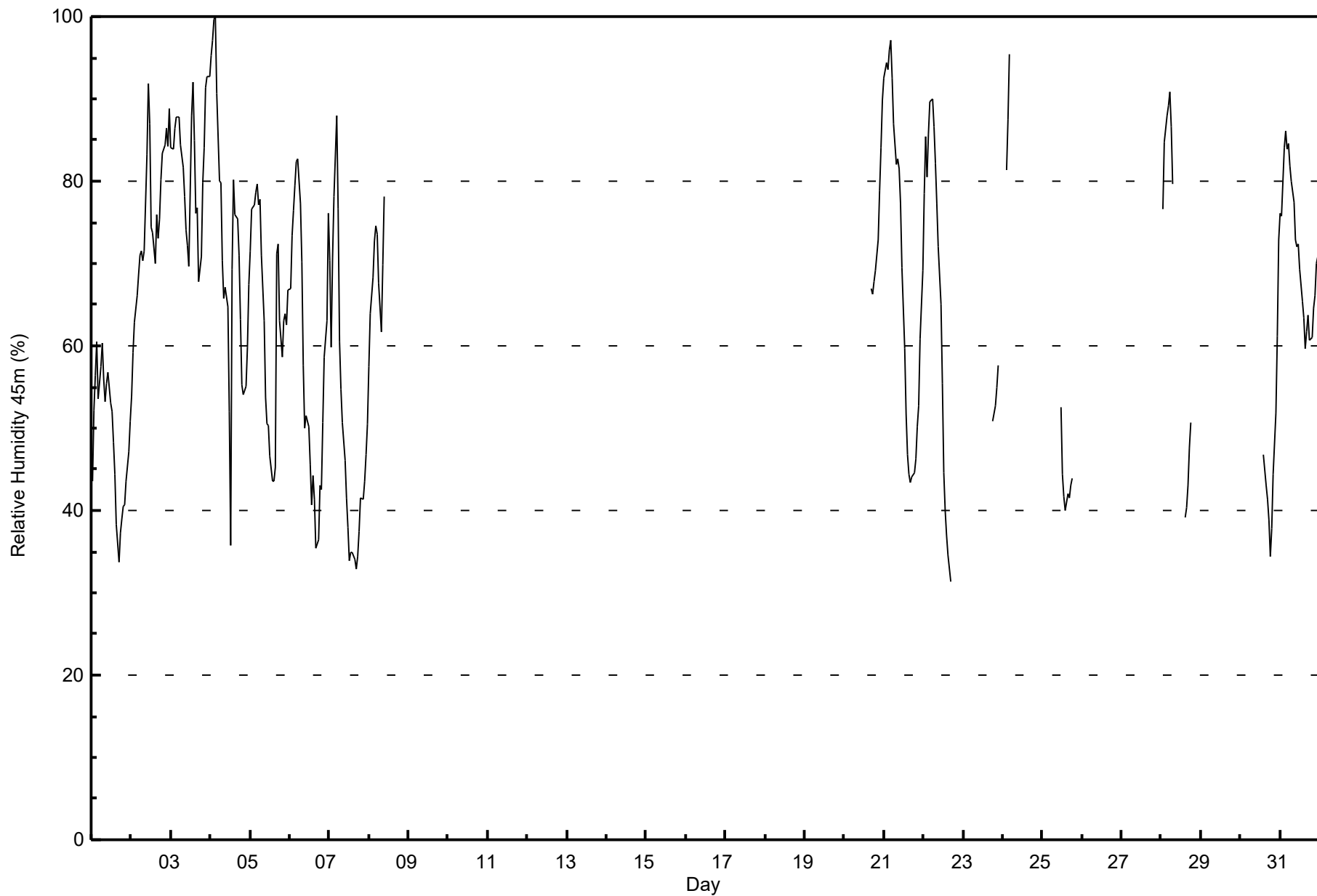
Lower Camp Met Tower - July 2026

Maximum Value: 100.0 % on Jul 4 04:00																				Maximum Daily Average: 82.3 % on Jul 3					Hours in Service: 744		
Minimum Value: 31.4 % on Jul 22 17:00																				Minimum Daily Average: 48.9 % on Jul 1					Hours of Data: 288		
Maximum Diurnal Average: 83.1 % at hour 5																				Minimum Diurnal Average: 50.1 % at hour 16					Hours of Missing Data: 456		
Monthly Average: 65.03 %																				Percentiles: P ₁ = 33.9 P ₁₀ = 41.4 Q ₁ = 50.6 Median = 67.0 Q ₃ = 79.0 P ₉₀ = 87.5 P ₉₉ = 97.1					Hours of Calibration: 0		
																									Percent Operational Time: 38.7		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	43.5	52.3	56.5	60.4	53.5	57.5	60.3	55.9	53.2	55.4	56.7	53.1	52.0	48.3	44.5	38.3	33.8	37.4	39.1	40.6	40.6	43.5	47.1	50.8	48.9	60.4	
2-Jul	53.8	59.2	62.8	66.1	68.7	71.0	71.5	70.3	71.6	83.2	91.9	86.9	74.5	73.8	70.0	75.9	73.1	75.4	80.1	83.4	84.3	86.4	84.3	88.8	75.3	91.9	
3-Jul	84.1	83.9	86.5	87.8	87.7	87.9	84.3	81.8	78.2	74.1	72.2	69.7	88.0	92.1	84.9	76.0	76.8	67.7	70.9	79.8	84.1	91.4	92.7	92.8	82.3	92.8	
4-Jul	95.2	97.1	99.6	100.0	90.7	80.0	79.8	70.4	65.7	67.1	64.7	52.0	35.7	69.3	80.1	75.9	75.5	71.0	63.2	55.3	54.0	55.0	59.9	67.4	71.9	100.0	
5-Jul	71.5	76.7	77.1	78.6	79.7	77.2	77.8	71.0	63.1	53.7	50.4	50.4	46.6	43.5	43.6	45.3	71.3	72.4	63.0	58.7	63.1	63.8	62.5	66.8	63.6	79.7	
6-Jul	67.0	73.4	76.5	79.5	82.3	82.7	77.3	70.2	57.7	50.1	51.5	50.1	45.5	40.6	44.3	41.4	35.5	36.5	43.0	42.5	50.6	58.6	63.1	76.2	58.2	82.7	
7-Jul	70.3	59.8	70.7	78.1	87.9	76.7	60.5	54.7	50.6	46.2	41.6	37.9	33.9	34.8	34.9	34.1	32.8	34.4	37.4	41.6	41.4	43.6	46.8	50.6	50.1	87.9	
8-Jul	57.4	63.9	68.3	72.7	74.6	73.5	67.6	61.7	69.8	78.1	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	78.1	
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	66.9	66.2	67.8	69.2	72.8	78.8	84.0	89.8	--	89.8
21-Jul	92.5	94.4	93.5	96.0	97.1	92.5	87.0	82.0	82.7	81.6	77.3	69.6	59.7	51.7	46.7	44.5	43.5	44.1	44.6	46.2	50.1	52.8	60.8	69.2	69.2	97.1	
22-Jul	78.5	85.4	80.6	85.7	89.7	90.0	86.6	82.1	77.2	72.0	65.0	55.5	44.5	40.0	36.9	34.6	31.4	PF	PF	PF	PF	PF	PF	PF	--	90.0	
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	50.8	52.7	54.9	57.6	PF	PF	--	57.6	
24-Jul	PF	PF	81.4	87.4	95.4	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	95.4	
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	52.5	44.4	41.7	40.0	42.1	41.6	43.0	43.9	PF	PF	PF	PF	PF	--	52.5	
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
28-Jul	PF	76.6	84.8	87.9	89.1	90.9	86.6	79.6	PF	PF	PF	PF	PF	PF	39.1	40.3	43.0	47.7	50.6	PF	PF	PF	PF	PF	--	90.9	
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	46.8	43.0	41.3	38.8	34.4	37.9	44.4	51.9	61.2	73.0	--	73.0	
31-Jul	76.2	75.7	84.0	86.2	83.9	84.7	81.9	80.0	77.5	72.9	72.0	72.3	69.3	65.4	63.5	59.7	61.6	63.8	60.6	61.0	64.6	66.1	70.1	70.9	71.8	86.2	
71.8 74.9 78.6 82.0 83.1 80.4 76.8 71.6 67.9 66.8 64.3 59.1 54.0 54.7 51.9 50.1 52.0 53.7 53.5 55.7 58.7 62.5 66.6 72.4																									Diurnal Average		
95.2 97.1 99.6 100.0 97.1 92.5 87.0 82.1 82.7 83.2 91.9 86.9 88.0 92.1 84.9 76.0 76.8 75.4 80.1 83.4 84.3 91.4 92.7 92.8																									Diurnal Maximum		
PF - Power Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 45m (RH45) - %
Lower Camp Met Tower - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 45m (RH45) - %
Lower Camp Met Tower - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	23	7.99	7.99
40 - 60	90	31.25	39.24
60 - 80	110	38.19	77.43
80 - 100	64	22.22	99.65

Total Number of Valid Hours: 288

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 100m (RH100) - %

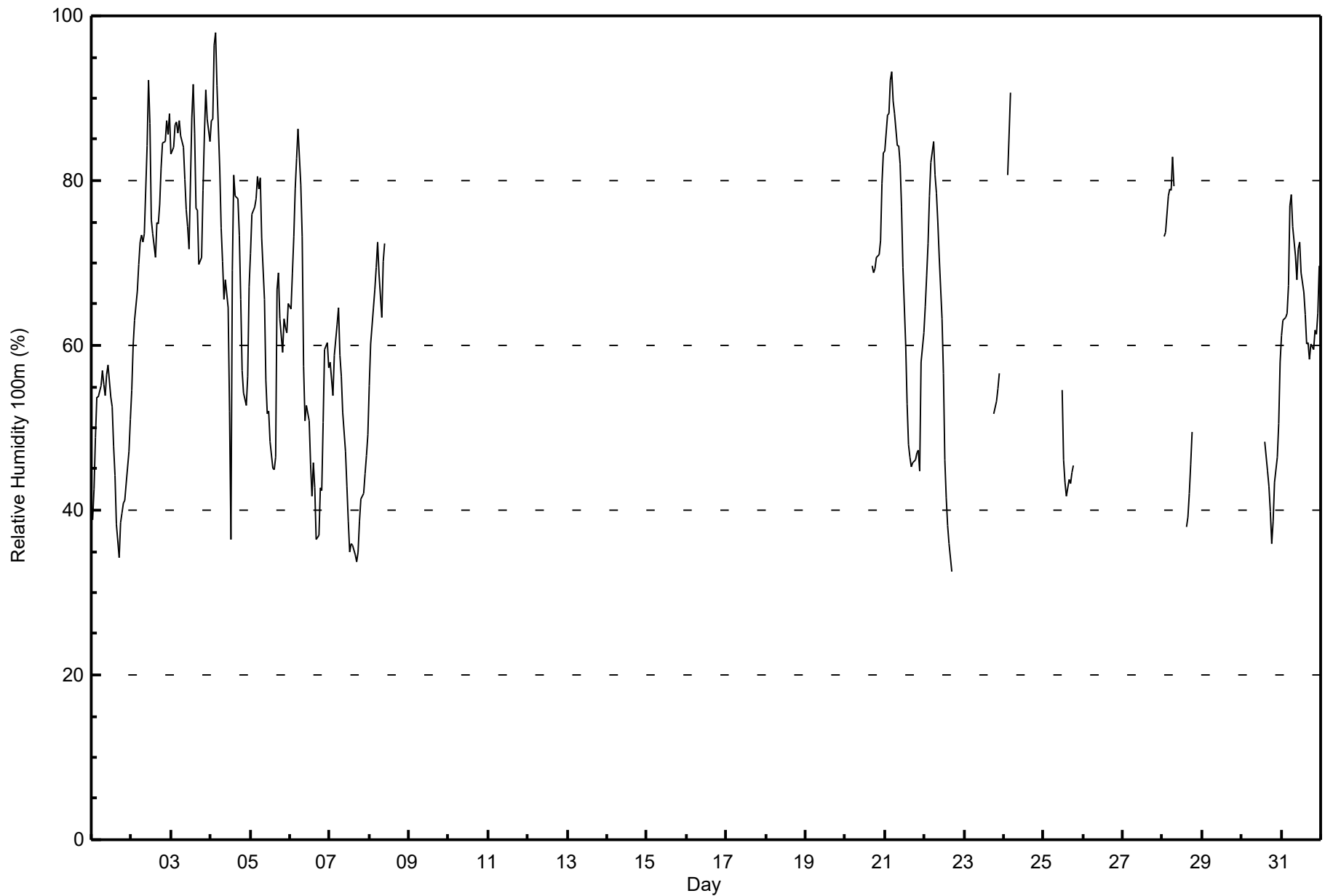
Lower Camp Met Tower - July 2026

Maximum Value: 98.0 % on Jul 4 04:00																				Maximum Daily Average: 82.2 % on Jul 3					Hours in Service: 744		
Minimum Value: 32.5 % on Jul 22 17:00																				Minimum Daily Average: 46.7 % on Jul 7					Hours of Data: 288		
Maximum Diurnal Average: 77.6 % at hour 5																				Minimum Diurnal Average: 50.9 % at hour 16					Hours of Missing Data: 456		
Monthly Average: 63.39 %																				Percentiles: P ₁ = 34.5 P ₁₀ = 41.7 Q ₁ = 49.1 Median = 63.8 Q ₃ = 76.7 P ₉₀ = 85.4 P ₉₉ = 92.4					Hours of Calibration: 0		
																									Percent Operational Time: 38.7		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	38.8	42.6	48.9	53.7	53.6	55.1	57.0	55.3	53.9	56.4	57.7	53.8	52.5	47.8	44.2	38.3	34.2	38.4	39.6	40.9	41.1	43.2	47.0	51.1	47.7	57.7	
2-Jul	54.5	60.1	63.0	66.7	69.8	72.5	73.3	72.5	73.5	84.2	92.2	87.0	75.3	73.6	70.7	74.8	74.7	77.1	81.5	84.6	84.8	87.3	85.6	88.1	76.1	92.2	
3-Jul	83.2	84.0	86.8	87.2	85.8	87.2	85.4	84.2	80.2	76.4	74.3	71.7	87.6	91.7	85.7	76.7	76.5	69.9	70.6	78.7	85.6	91.1	87.5	84.8	82.2	91.7	
4-Jul	87.2	87.4	96.4	98.0	91.5	81.4	74.2	70.2	65.7	68.0	64.6	52.1	36.5	69.2	80.6	78.2	77.8	73.4	65.6	57.0	54.2	52.8	56.3	67.2	71.1	98.0	
5-Jul	71.1	75.9	76.7	77.7	80.5	79.1	80.3	73.1	65.5	55.7	51.8	52.0	48.3	45.0	45.0	46.5	66.9	68.8	63.2	59.1	63.2	62.2	61.6	65.1	63.9	80.5	
6-Jul	64.4	68.8	73.3	79.1	82.6	86.3	79.6	73.2	57.5	50.9	52.7	50.9	45.6	41.7	45.8	42.7	36.5	36.9	42.8	42.4	50.6	59.5	60.3	57.3	57.6	86.3	
7-Jul	58.0	56.0	54.0	58.7	62.5	64.5	58.9	56.3	51.9	47.1	42.8	38.6	34.8	36.0	35.8	34.6	33.7	34.9	38.6	41.4	42.0	44.4	46.7	49.2	46.7	64.5	
8-Jul	55.2	60.2	64.6	66.8	69.5	72.5	68.7	63.3	70.2	72.3	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	72.5	
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	69.7	68.8	69.2	70.7	71.0	72.6	79.7	83.5	--	83.5
21-Jul	83.6	87.9	88.1	92.3	93.2	89.6	88.1	84.2	84.2	82.0	76.7	69.6	60.0	52.8	47.9	46.4	45.3	45.7	46.2	47.0	47.3	44.7	58.0	61.5	67.6	93.2	
22-Jul	64.8	68.5	72.3	78.2	82.3	84.8	80.8	78.4	74.9	70.7	63.2	56.6	46.1	41.5	38.1	35.9	32.5	PF	PF	PF	PF	PF	PF	PF	--	84.8	
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	51.6	53.2	54.8	56.6	PF	PF	--	56.6	
24-Jul	PF	PF	80.7	85.5	90.6	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	90.6	
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	54.6	46.1	43.3	41.6	43.7	43.2	44.6	45.4	PF	PF	PF	PF	PF	--	54.6	
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
28-Jul	PF	73.2	73.8	78.1	78.9	78.7	82.9	79.3	PF	PF	PF	PF	PF	PF	37.9	39.1	42.0	45.6	49.4	PF	PF	PF	PF	PF	--	82.9	
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	48.3	44.7	42.9	39.8	35.9	38.6	43.3	46.4	50.5	58.0	--	58.0	
31-Jul	61.2	63.0	63.4	63.9	67.4	77.0	78.4	74.3	70.9	68.0	71.6	72.5	68.9	66.5	63.7	60.1	60.3	58.3	60.2	59.5	61.9	61.4	63.9	69.6	66.1	78.4	
65.6 69.0 72.5 75.8 77.6 77.4 75.6 72.0 68.0 66.5 64.8 59.9 54.7 55.4 52.7 50.9 52.6 54.0 54.3 56.1 58.3 60.2 63.4 66.8																									Diurnal Average		
87.2 87.9 96.4 98.0 93.2 89.6 88.1 84.2 84.2 84.2 92.2 87.0 87.6 91.7 85.7 78.2 77.8 77.1 81.5 84.6 85.6 91.1 87.5 88.1																									Diurnal Maximum		
PF - Power Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 100m (RH100) - %
Lower Camp Met Tower - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 100m (RH100) - %
Lower Camp Met Tower - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	24	8.33	8.33
40 - 60	99	34.38	42.71
60 - 80	111	38.54	81.25
80 - 100	54	18.75	100.00

Total Number of Valid Hours: 288

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 163m (RH163) - %

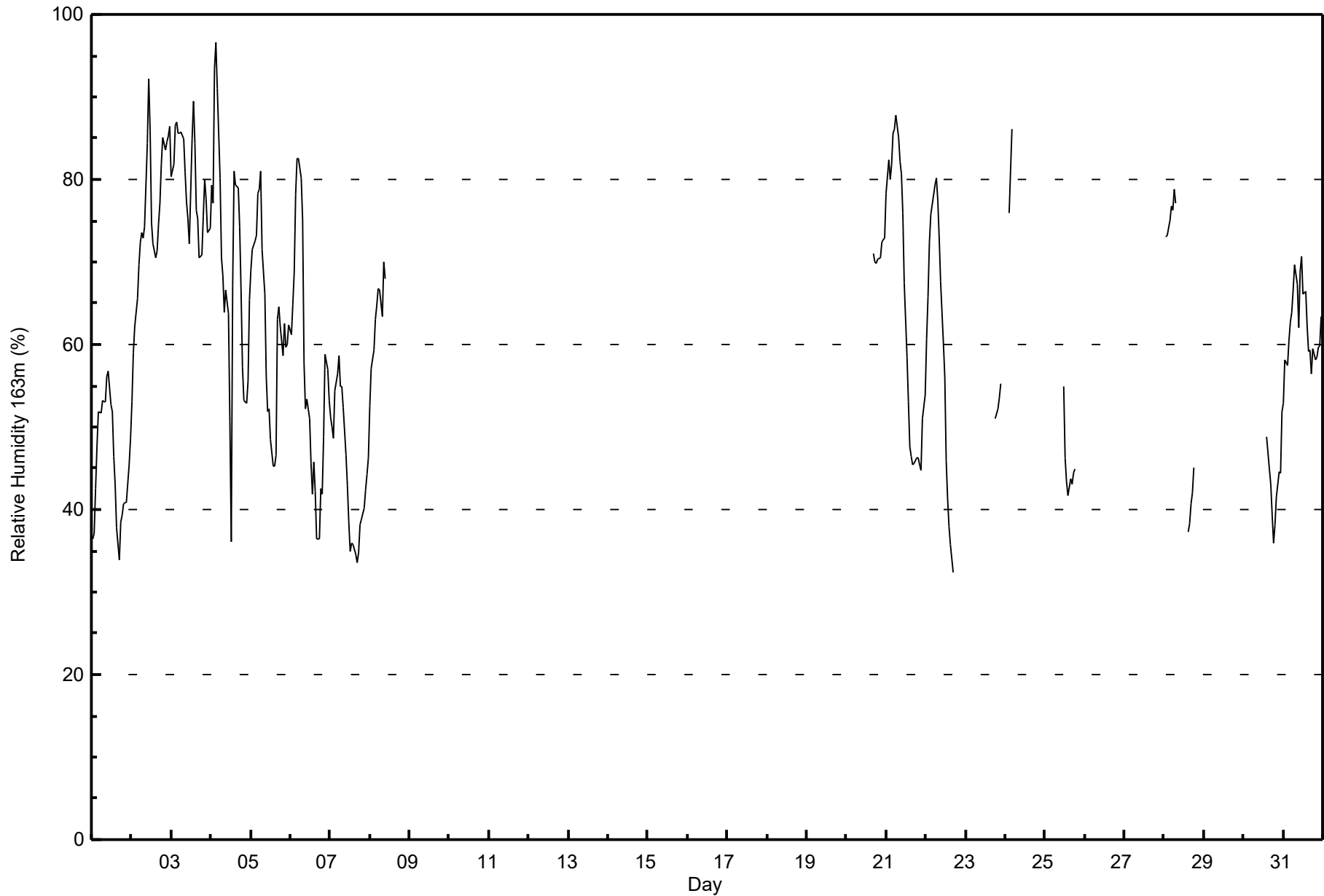
Lower Camp Met Tower - July 2026

Maximum Value: 96.6 % on Jul 4 04:00																				Maximum Daily Average: 79.8 % on Jul 3					Hours in Service: 744		
Minimum Value: 32.3 % on Jul 22 17:00																				Minimum Daily Average: 44.5 % on Jul 7					Hours of Data: 288		
Maximum Diurnal Average: 74.5 % at hour 5																				Minimum Diurnal Average: 50.5 % at hour 16					Hours of Missing Data: 456		
Monthly Average: 61.44 %																				Percentiles: P ₁ = 34.5 P ₁₀ = 40.8 Q ₁ = 47.4 Median = 60.9 Q ₃ = 74.4 P ₉₀ = 82.0 P ₉₉ = 91.1					Hours of Calibration: 0		
																									Percent Operational Time: 38.7		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	36.5	37.1	42.5	47.6	51.8	51.8	53.3	53.1	53.0	56.1	56.7	52.7	51.9	46.5	43.0	37.9	34.0	38.4	39.4	40.6	40.9	40.9	45.5	48.7	45.8	56.7	
2-Jul	53.1	59.0	62.2	65.6	69.7	72.4	73.6	73.0	74.3	84.5	92.3	85.9	74.7	72.2	70.5	71.4	74.6	77.2	81.8	85.1	83.5	84.6	85.2	86.4	75.5	92.3	
3-Jul	80.3	81.9	86.6	87.0	85.6	85.6	85.8	84.9	80.9	77.3	75.2	72.3	85.0	89.5	84.5	76.2	75.3	70.5	70.8	75.6	80.1	77.7	73.6	74.1	79.8	89.5	
4-Jul	79.3	77.2	93.4	96.6	91.0	80.2	70.6	68.4	63.8	66.6	63.7	50.6	36.1	67.1	81.1	79.3	78.9	74.3	66.4	57.3	53.2	52.9	55.6	65.4	69.5	96.6	
5-Jul	69.0	71.6	72.5	73.3	78.3	78.8	81.0	71.6	66.2	56.1	51.8	52.2	48.4	45.2	45.2	46.6	63.1	64.6	62.1	58.6	62.5	59.7	60.0	62.3	62.5	81.0	
6-Jul	61.2	64.9	68.7	78.2	82.6	82.5	80.2	75.0	57.8	52.3	53.4	51.0	45.6	41.9	45.8	42.1	36.5	36.4	42.5	41.9	48.7	58.8	56.9	53.3	56.6	82.6	
7-Jul	51.2	49.9	48.7	54.4	56.4	58.6	54.9	55.0	52.3	46.7	42.9	38.5	34.9	35.9	35.7	34.6	33.6	34.8	38.1	38.8	40.1	42.3	44.3	46.3	44.5	58.6	
8-Jul	52.6	57.2	59.3	63.1	64.7	66.7	66.6	63.4	69.9	67.9	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	69.9	
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	71.0	70.0	69.9	70.3	70.5	72.4	72.7	72.9	--	72.9
21-Jul	78.2	82.3	80.0	81.8	85.6	86.1	87.8	85.0	82.2	80.6	75.9	67.4	58.6	53.1	47.7	46.4	45.4	45.7	46.2	46.3	45.4	44.8	51.1	53.9	64.9	87.8	
22-Jul	60.6	65.7	72.3	75.7	77.0	79.4	80.2	77.4	72.9	67.6	60.2	56.1	45.9	41.3	38.0	35.8	32.3	PF	PF	PF	PF	PF	PF	PF	--	80.2	
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	51.0	52.1	53.5	55.3	PF	PF	--	55.3	
24-Jul	PF	PF	76.0	81.0	86.1	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	86.1	
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	55.0	46.3	43.4	41.7	43.7	43.0	44.5	44.9	PF	PF	PF	PF	PF	--	55.0	
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
28-Jul	PF	73.1	73.1	75.1	76.8	76.2	78.7	77.1	PF	PF	PF	PF	PF	PF	37.3	38.4	40.7	42.1	45.2	PF	PF	PF	PF	PF	--	78.7	
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	48.7	45.0	43.0	39.3	35.9	38.2	41.5	44.6	44.4	51.9	--	51.9	
31-Jul	52.8	58.2	57.5	60.5	62.7	64.0	66.6	69.7	67.2	62.0	68.9	70.7	66.1	66.4	62.1	59.2	59.3	56.4	59.5	58.2	58.5	59.7	59.9	63.4	62.1	70.7	
61.4 64.9 68.7 72.3 74.5 73.5 73.3 71.1 67.3 65.2 64.1 59.3 53.9 54.8 52.4 50.5 52.2 53.4 53.8 55.2 56.5 57.8 59.0 61.7																									Diurnal Average		
80.3 82.3 93.4 96.6 91.0 86.1 87.8 85.0 82.2 84.5 92.3 85.9 85.0 89.5 84.5 79.3 78.9 77.2 81.8 85.1 83.5 84.6 85.2 86.4																									Diurnal Maximum		
PF - Power Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 163m (RH163) - %
Lower Camp Met Tower - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 163m (RH163) - %
Lower Camp Met Tower - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	26	9.03	9.03
40 - 60	115	39.93	48.96
60 - 80	104	36.11	85.07
80 - 100	43	14.93	100.00

Total Number of Valid Hours: 288

Total Number of Hours: 744

Maximum Speed: 24 km/h on Jul 2 13:00										Maximum Daily Speed Average: 12.4 km/h on Jul 2										Hours in Service: 744						
Minimum Speed Value: 0 km/h on Jul 6 04:00										Minimum Daily Speed Average: 2.3 km/h on Jul 7										Hours of Data: 288						
Maximum Diurnal Speed Average: 7.4 km/h at hour 10										Minimum Diurnal Speed Average: 0.5 km/h at hour 21										Hours of Missing Data: 456						
Monthly Average Velocity: 3.0 km/h 153.6 deg										Percentiles: P ₁ = 0 P ₁₀ = 2 Q ₁ = 4 Median = 7 Q ₃ = 10 P ₉₀ = 14 P ₉₉ = 21										Percent Operational Time: 38.7						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jul	ENE1	NNW2	N1	NNW1	ESE9	ESE1	ESE3	SE8	SE12	SE12	ESE13	ESE13	ESE9	SE9	ESE8	SE11	SSE16	SSE15	SSE9	SE6	ESE8	ESE6	ESE4	ESE7	SE7.1	SSE16
2-Jul	ESE9	ESE8	SE9	ESE7	SE12	ESE13	SE16	SSE16	SE14	SSE19	SE12	SE13	S24	SSE14	SE15	SSE14	SE11	SE13	SE14	SE11	ESE8	SE8	SE15	SE14	SE12.4	S24
3-Jul	ESE11	ESE6	SE2	SE8	SE10	SSE12	SE13	SE13	SE13	SSE14	SE11	S13WSW17	E4	ESE10	ESE6	E4	SSE6	ENE2	NNW6	N4	NNW3	NNW3	NNW4	SE5.3	WSW17	
4-Jul	NNW4	N3	N2	SE4	S8	SSE8	SE8	ESE6	ESE5	SE10	SE8	ESE8	SSE11	SW21	SW6	WSW7	WSW6	WSW7	SW12	SW12	SW8	S5	S10	SW13	SSW5.0	SSW21
5-Jul	WSW9	SW8	WSW8	WSW9	NNW3	WSW6	SSW7	WSW12	WSW11	NW10	NW13	NW16	NW16	NNW18	NNW15	NNW12	NNW6	NNW2	NW4	NNW9	N7	NW8	NW9	NNW5	WNW7.1	NNW18
6-Jul	NNW5	NNW4	NE3	E0	NW2	ENE1	W3	WNW0	N7	N7	NNE3	NE4	NNE6	NNE3	WSW13	WSW12	WNW4	NNE5	NE4	NE2	NW9	WNW6	NNW4	NNW6	NNW2.8	WSW13
7-Jul	NNW5	N3	NNW3	NNW4	NNW2	N2	E1	ESE3	SW1	ESE2	S4	SE9	ESE7	ESE6	ENE4	E4	SE8	E4	E3	NNE1	NW2	ESE3	ESE8	ESE6	E2.3	SE9
8-Jul	NE1	SSE3	SE6	ESE2	NNW3	NNW3	E2	SSE8	SSE7	SSE20	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	SSE20
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	NNW5	N3	N2	NNW1	ESE1	NNE0	NNW1	ESE1	---	NNW5
21-Jul	ESE1	ESE1	NNE1	NE1	WNW0	ESE4	SE2	SW5	SE4	SE7	ESE6	E5	E4	NNE3	ESE2	SSW6	S7	S11	S13	S16	S13	S10	ESE3	ESE3	SSE4.0	S16
22-Jul	ESE7	SE9	ESE10	ESE9	ESE8	ESE8	SE10	SE8	SE7	SE8	ESE6	E4	SW3	WSW4	SSW7	S13	SSE11	PF	PF	PF	PF	PF	PF	PF	---	S13
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	NW10	NW10	NW9	WNW8	PF	PF	---	WNW10
24-Jul	PF	PF	N4	NNE2	WNW2	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	N4
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	SW17	WSW16	SW15	SW19	SW21	SW20	SW21	SW18	PF	PF	PF	PF	PF	---	SW21
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---
28-Jul	PF	SE7	ESE7	ESE6	ESE8	ESE7	ESE8	SE9	PF	PF	PF	PF	PF	PF	ESE4	ESE7	NE4	NE4	NW4	PF	PF	PF	PF	PF	---	SE9
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	NW5	WSW7	SW2	SW8	WSW3	SW7	SSW1	SE2	SE4	SE3	---	SW8
31-Jul	SE4	SE7	SE7	SE8	ESE9	ESE8	SE8	ESE9	SE10	SE9	SE9	SE10	SSE8	SE6	SE7	SE5	N4	ESE1	SE5	ESE5	ESE2	SE3	S0	N2	SE5.6	SE10
ESE1.6 SE2.4 ESE2.2 SE2.6 SE3.6 SE4.4 SE5.7 SSE6.2 SE5.7 SE7.4 SE5.3 SSE4.8 S4.8 S3.1 S2.6 S4.7 S2.9 S3.6SSW2.7SSW1.7 SW0.5 S1.1 SE2.1 SE1.6																								Diurnal Average		
ESE11 SE9 ESE10 ESE9 SE12 ESE13 SE16 SSE16 SE14 SSE20 NW13 SW17 S24 SSW21 SW19 SW21 SW20 SW21 SW18 S16 S13 S10 SE15 SE14																								Diurnal Maximum		
PF - Power Failure																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 20m (WS20) - km/h

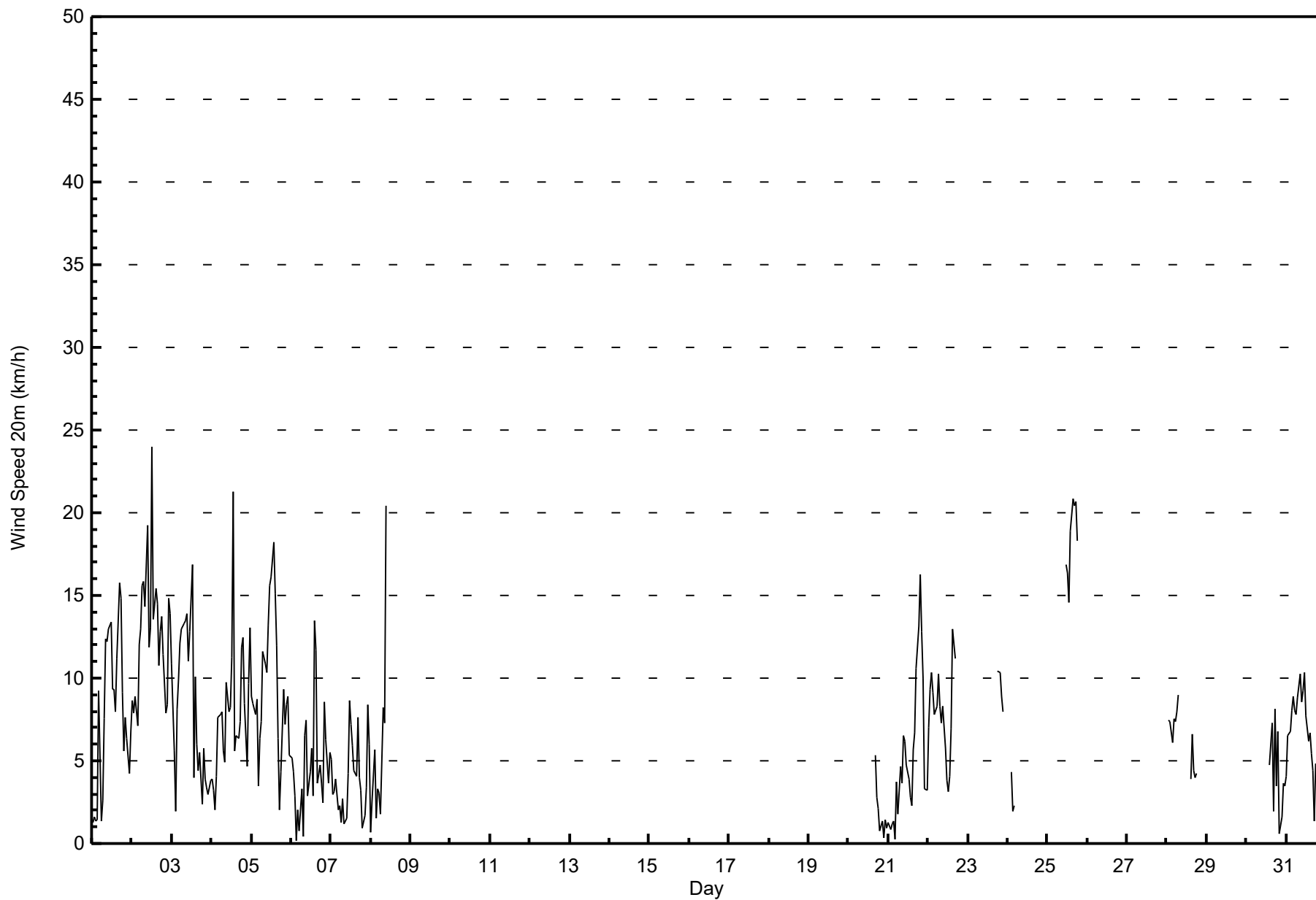
Lower Camp Met Tower - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 16 km/h on Jul 4 14:00																	Hours in Service: 744								
Minimum Value: 1 km/h on Jul 21 02:00																	Hours of Data: 288								
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 3 Q ₃ = 4 P ₉₀ = 5 P ₉₉ = 8																	Hours of Missing Data: 456								
																	Hours of Calibration: 0								
																	Percent Operational Time: 38.7								
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	1	1	1	1	2	3	3	3	5	5	5	5	4	3	3	5	5	5	3	2	2	2	3	3	5
2-Jul	2	2	3	3	4	4	5	5	4	8	4	6	5	4	5	4	3	5	5	4	2	3	6	5	8
3-Jul	3	3	1	2	3	3	3	3	3	3	4	4	7	4	4	3	2	4	3	3	1	1	1	2	7
4-Jul	2	2	2	2	4	2	2	2	2	4	3	3	4	16	4	3	3	3	4	3	2	3	4	3	16
5-Jul	4	4	4	4	2	3	3	3	4	6	6	6	7	7	6	5	6	2	3	4	4	3	2	2	7
6-Jul	2	1	1	1	2	1	2	2	3	3	3	2	2	3	7	5	3	2	3	2	4	4	1	2	7
7-Jul	1	1	2	2	2	2	2	2	1	2	2	3	3	3	3	3	4	1	2	1	1	3	3	3	4
8-Jul	2	2	2	2	1	1	1	3	4	8	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	8
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	2	1	1	1	1	1	1	2
21-Jul	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	4	3	3	2	3	3	2	4
22-Jul	2	2	2	2	2	2	2	2	2	2	3	2	3	3	5	5	4	PF	PF	PF	PF	PF	PF	PF	5
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	4	4	2	2	PF	PF	4
24-Jul	PF	PF	3	1	1	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	3
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	5	5	4	7	5	5	5	4	PF	PF	PF	PF	PF	7
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
28-Jul	PF	2	2	2	2	2	2	3	PF	PF	PF	PF	PF	PF	2	3	2	2	2	PF	PF	PF	PF	PF	3
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	3	3	3	4	3	2	2	1	1	2	4
31-Jul	2	2	3	3	3	3	4	3	3	3	3	3	2	2	2	3	3	2	2	2	1	1	1	1	4
Diurnal Maximum																									
PF - Power Failure																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 20m (WS20) - km/h
Lower Camp Met Tower - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 20m (WS20) - km/h
Lower Camp Met Tower - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	115	39.93	39.93
6 - 11	118	40.97	80.90
12 - 19	49	17.01	97.92
20 - 28	6	2.08	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

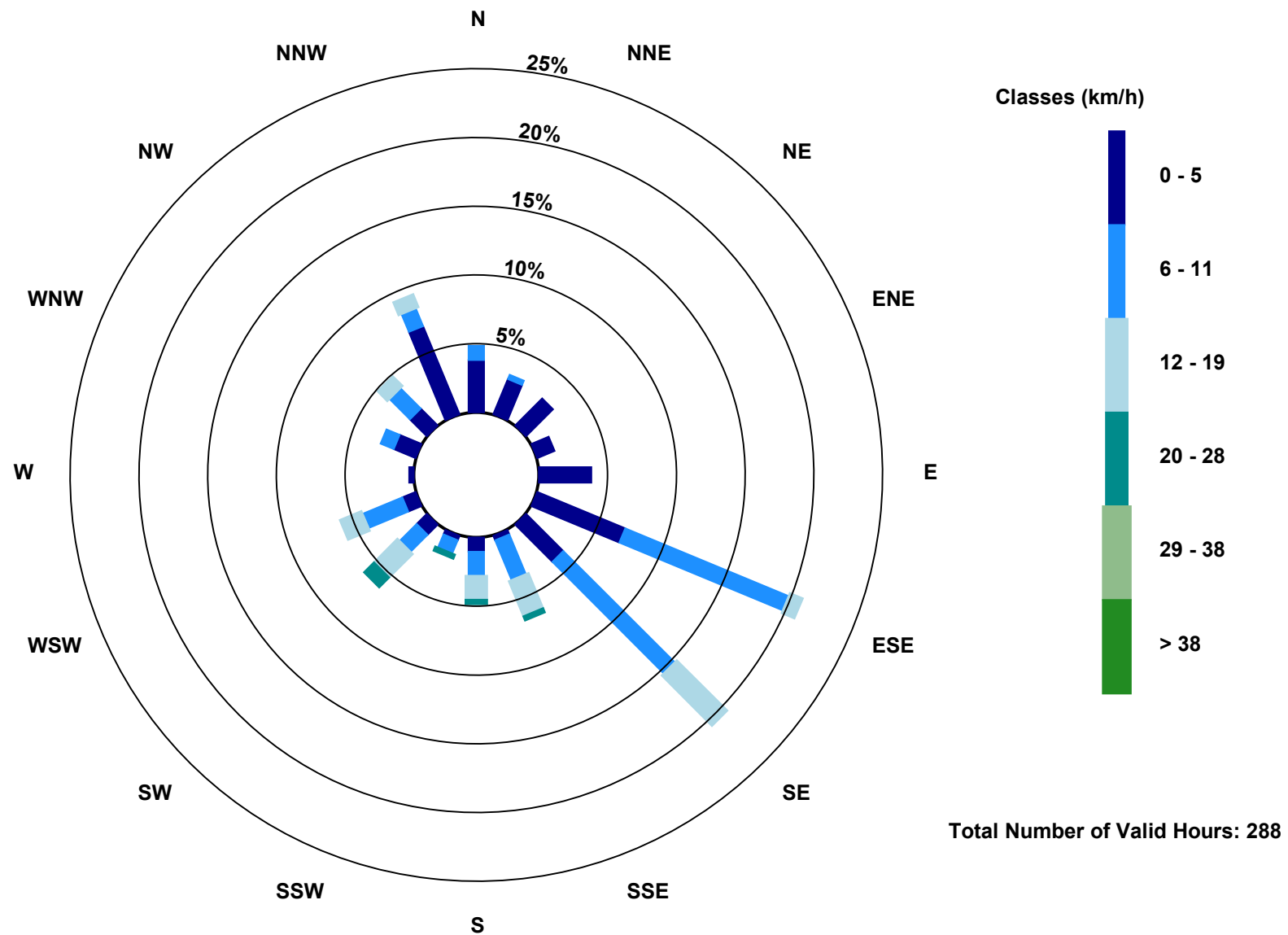
Total Number of Valid Hours: 288

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 20m (WS20) - km/h
Lower Camp Met Tower



Maximum Speed: 27 km/h on Jul 5 14:00												Maximum Daily Speed Average: 17.5 km/h on Jul 2												Hours in Service: 744			
Minimum Speed Value: 1 km/h on Jul 7 21:00												Minimum Daily Speed Average: 3.6 km/h on Jul 7												Hours of Data: 288			
Maximum Diurnal Speed Average: 9.3 km/h at hour 10												Minimum Diurnal Speed Average: 0.8 km/h at hour 21												Hours of Missing Data: 456			
Monthly Average Velocity: 4.3 km/h 150.2 deg												Percentiles: P ₁ = 1 P ₁₀ = 3 Q ₁ = 5 Median = 9 Q ₃ = 14 P ₉₀ = 19 P ₉₉ = 25												Percent Operational Time: 38.7			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Jul	ESE6	SE3	SE2	E3	ESE13	ESE7	ESE7	ESE13	ESE20	ESE19	ESE21	ESE21	ESE16	SE14	ESE12	ESE18	SSE19	SSE17	SSE11	SE9	SE11	SE9	ESE9	ESE12	SE11.8	ESE21	
2-Jul	ESE13	SE12	SE14	ESE12	ESE19	ESE19	SE24	SSE19	SE18	SSE24	SE17	SE20	S27	SSE16	SE20	SE17	SE16	ESE20	SE21	SE17	ESE12	ESE13	SE21	SE21	SE17.5	S27	
3-Jul	ESE18	ESE10	SSE3	SE11	SE14	SE15	SE17	SE17	SE16	SSE16	SE15	S15WSW22			E5	ESE15	ESE7	ESE7	SSE7	ENE4	N9	N6	NNE3	NNE1	NW4	SE7.4	WSW22
4-Jul	NNW5	NW3	NNW3	SSE5	SSW10	SSE9	ESE9	ESE7	ESE6	SE14	SE11	ESE11	SSE13	SW26	WSW8	WSW8	WSW9	WSW9	SW14	SW15	SW11	SSW11	S15	SW18	SSW6.8	SW26	
5-Jul	WSW14	SW14	WSW14	WSW14	W7	WSW9	SSW8	WSW14	WSW13	NNW15	NW20	NW22	NNW23	NNW27	NNW22	NNW18	NNW11	NW4	NW7	NNW15	N12	NW16	NW15	NNW10	WNNW11.0	NNW27	
6-Jul	NW10	NNW8	N3	SW2	NNW4	WSW1	W5	W1	N8	N10	N3	NE4	NNE6	N3WSW18WSW14			W5	NNE7	NE10	NE7	NW13	WNNW10	NNW6	NNW9	NW4.3	WSW18	
7-Jul	N8	NNE4	N4	NNW8	NNW4	N3	E3	ESE3	SW1	ESE2	SSE5	SE11	ESE11	ESE9	E6	E6	SE9	E6	ESE4	E3	W1	SE5	ESE12	ESE12	E3.6	ESE12	
8-Jul	ESE5	SE8	SE10	SE6	ESE3	NNE2	E3	SSE10	SSE8	SSE24	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	SSE24	
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---	
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---	
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---	
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---	
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---	
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---	
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---	
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---	
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---	
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---	
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---	
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	NNW7	N3	N2	N2	E1	SW2	WSW2	S2	---	NNW7	
21-Jul	SE3	SSE2	ESE2	NE1	SSW1	SE3	S2	SW5	SE5	SE8	ESE8	ESE5	ESE5	NNE3	SE3	SSW6	S7	S12	S14	S18	S17	S15	SE5	SE5	SSE5.4	S18	
22-Jul	SE11	SE12	SE11	SE12	SE12	SE12	SE13	SE10	ESE9	ESE10	ESE7	E4	WSW5	WSW5	SSW7	S14	SSE13	PF	PF	PF	PF	PF	PF	PF	---	S14	
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	WNNW15	WNNW16	WNNW14	WNNW15	PF	PF	---	WNNW16	
24-Jul	PF	PF	NNW8	NNE3	NW2	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	NNW8	
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	SW20WSW20			SW17	SW23	SW24	SW25	SW24	SW21	PF	PF	PF	PF	---	SW25	
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---	
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---	
28-Jul	PF	SSE8	SE8	SE7	SE10	SE10	ESE10	SE11	PF	PF	PF	PF	PF	PF	ESE8	ESE12	ENE9	ENE9	NNW5	PF	PF	PF	PF	PF	---	ESE12	
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	---	---	
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	NW5	WSW9	SW3	SW10	WSW5	SW9	SW2	SE1	SE5	SE8	---	SW10	
31-Jul	SE7	SE8	SE9	SE13	SE13	SE12	SE11	ESE13	SE15	SE13	SE13	SE13	S9	SE8	SE9	SE8	NE3	SE5	SE8	ESE9	ESE6	SE8	SE5	SE2	SE8.9	SE15	
ESE3.4 SE3.9 SE3.1 SE4.2 SE5.7 SE6.6 SE8.0 SE8.0 SE7.5 SE9.3 ESE7.5 SE6.4SSW6.2SSW3.5 S3.5 S5.4 S3.7 SSE4.6 S2.6SSW1.3 SW0.8SSW2.2 SE3.9 SE3.2																								Diurnal Average			
ESE18 SW14 SE14WSW14 ESE19 ESE19 SE24 SSE19 ESE20 SSE24 ESE21 NW22 S27NNW27 SW23 SW24 SW25 SW24 SW21 S18 S17 NW16 SE21 SE21																								Diurnal Maximum			
PF - Power Failure																											
All monthly, daily, and diurnal averages have been calculated using vector methods																											



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

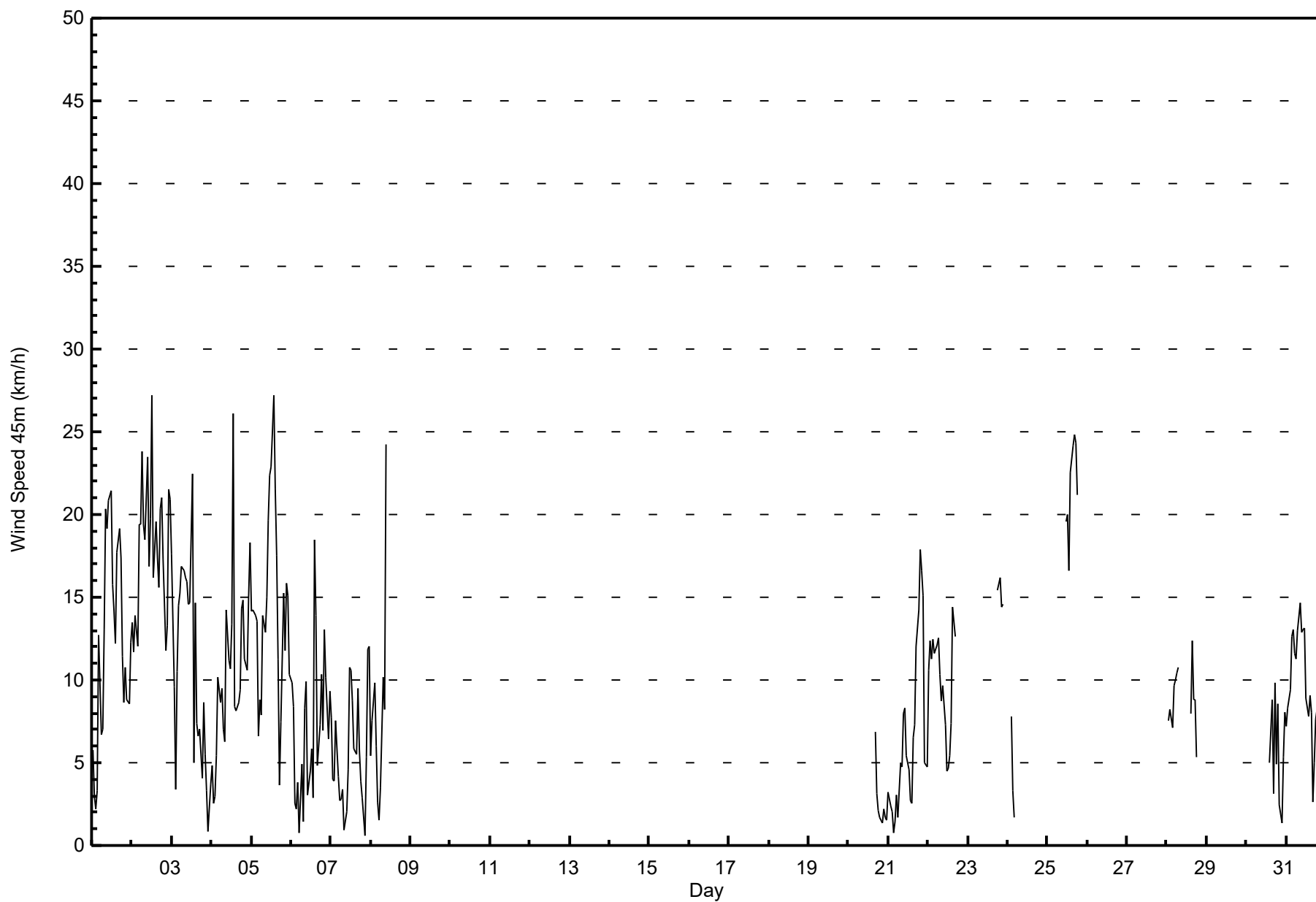
Wind Speed 45m (WS45) - km/h
Lower Camp Met Tower - July 2026

Number of Exceedances (AAAQO): Maximum Value: 16 km/h on Jul 4 14:00																	Hours in Service: 744								
Minimum Value: 1 km/h on Jul 21 04:00																	Hours of Data: 288								
Percentiles: P ₁ = 1 P ₁₀ = 2 Q ₁ = 2 Median = 3 Q ₃ = 4 P ₉₀ = 5 P ₉₉ = 9																	Hours of Missing Data: 456								
																	Hours of Calibration: 0								
																	Percent Operational Time: 38.7								
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	2	2	2	4	3	4	5	4	4	5	5	5	3	4	4	6	5	5	3	2	2	3	3	2	6
2-Jul	2	2	4	3	4	4	5	4	4	8	5	6	6	4	4	4	3	5	5	4	2	3	5	4	8
3-Jul	2	5	2	2	2	4	3	4	3	3	4	4	9	5	3	3	3	4	5	3	2	2	1	2	9
4-Jul	4	3	3	2	4	2	2	2	1	3	3	3	3	16	4	3	2	4	3	3	3	2	3	3	16
5-Jul	5	4	4	4	3	3	3	2	4	6	6	6	6	6	7	5	9	2	4	4	4	3	2	3	9
6-Jul	2	2	2	2	2	2	3	2	3	3	4	2	2	3	8	4	3	4	5	3	6	4	2	1	8
7-Jul	1	1	2	2	1	2	2	2	1	2	3	3	4	4	3	3	3	2	2	2	1	5	4	3	5
8-Jul	3	2	2	3	1	1	2	3	4	8	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	8
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	2	1	1	2	1	1	1	2
21-Jul	1	1	1	1	1	2	2	1	2	2	2	2	2	3	3	3	3	3	2	3	2	3	4	2	4
22-Jul	2	2	2	2	2	2	2	2	2	2	3	2	3	3	6	5	4	PF	PF	PF	PF	PF	PF	PF	6
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	5	4	2	3	PF	PF	5
24-Jul	PF	PF	4	1	1	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	4
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	4	4	4	6	4	5	5	4	PF	PF	PF	PF	PF	6
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
28-Jul	PF	1	2	2	2	1	2	3	PF	PF	PF	PF	PF	PF	2	4	3	2	3	PF	PF	PF	PF	PF	4
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	3	3	3	3	3	2	2	1	3	2	3
31-Jul	2	1	3	3	2	3	3	2	2	2	2	3	2	2	2	3	2	2	3	2	2	2	3	2	3
Diurnal Maximum																									
PF - Power Failure																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 45m (WS45) - km/h
Lower Camp Met Tower - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 45m (WS45) - km/h
Lower Camp Met Tower - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	79	27.43	27.43
6 - 11	98	34.03	61.46
12 - 19	84	29.17	90.63
20 - 28	27	9.38	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

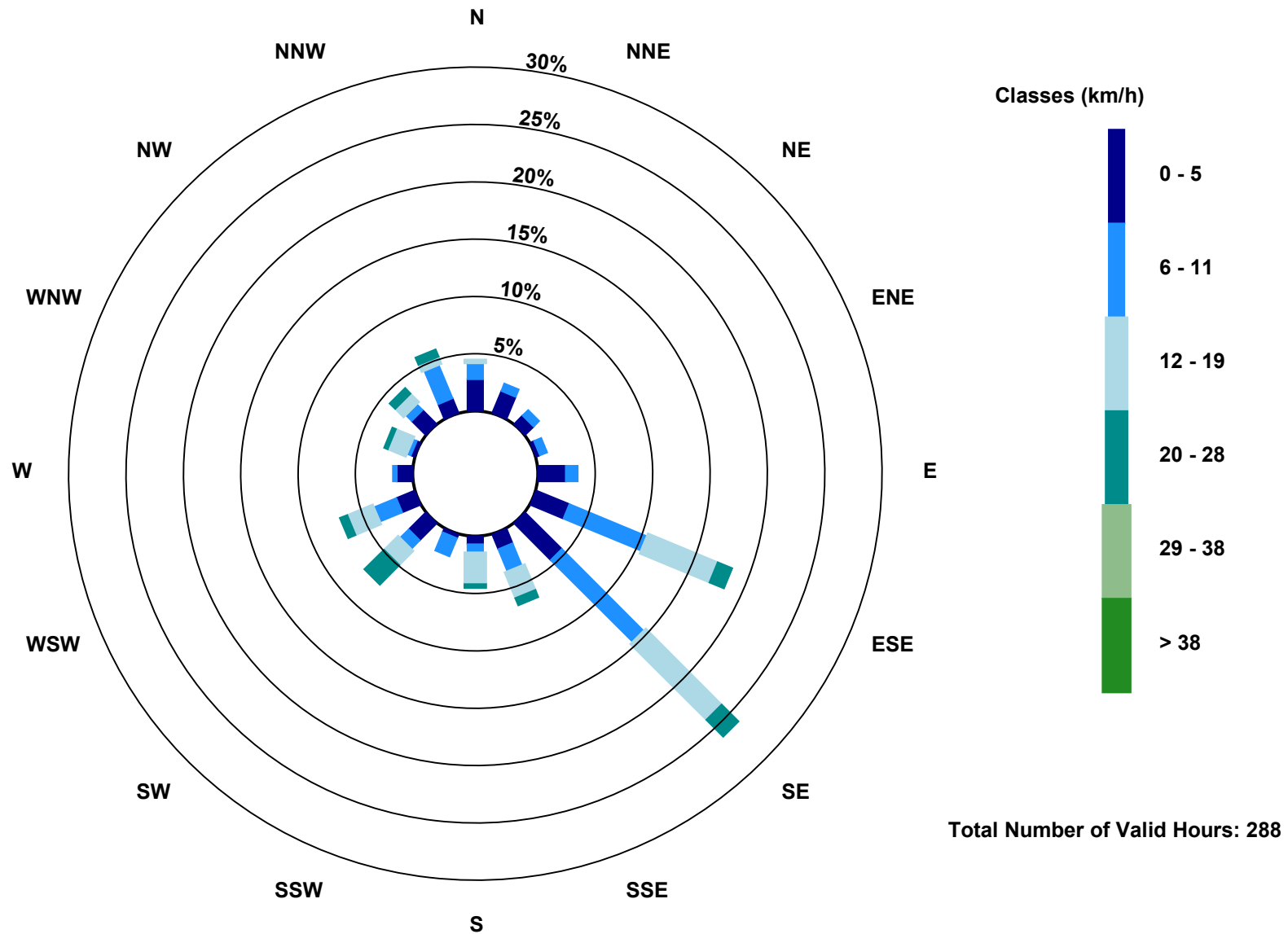
Total Number of Valid Hours: 288

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 45m (WS45) - km/h
Lower Camp Met Tower





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 100m (WS100) - km/h

Lower Camp Met Tower - July 2026

Maximum Speed: -- km/h on Jul 1 00:00										Maximum Daily Speed Average: 0.0 km/h on Jan 1										Hours in Service: 744							
Minimum Speed Value: -- km/h on Jul 1 00:00										Minimum Daily Speed Average: 0.0 km/h on Jan 1										Hours of Data: 0							
Maximum Diurnal Speed Average: -- km/h at hour 0										Minimum Diurnal Speed Average: -- km/h at hour 0										Hours of Missing Data: 744							
Monthly Average Velocity: -- km/h -- deg										Percentiles: P ₁ = 0 P ₁₀ = 0 Q ₁ = 0 Median = 0 Q ₃ = 0 P ₉₀ = 0 P ₉₉ = 0										Percent Operational Time: 0.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
2-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
3-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
4-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
5-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
6-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
7-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
8-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
21-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
22-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	----	----
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	PF	PF	UO	UO	UO	UO	PF	PF	PF	----	----
24-Jul	UO	PF	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
25-Jul	PF	PF	PF	PF	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	----	----
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
28-Jul	PF	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	----	----
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
-----																								Diurnal Average			
-----																								Diurnal Maximum			
UO - Unstable Operation PF - Power Failure																											
All monthly, daily, and diurnal averages have been calculated using vector methods																											



Wood Buffalo Environmental Association
Summary of Hour Standard Deviations

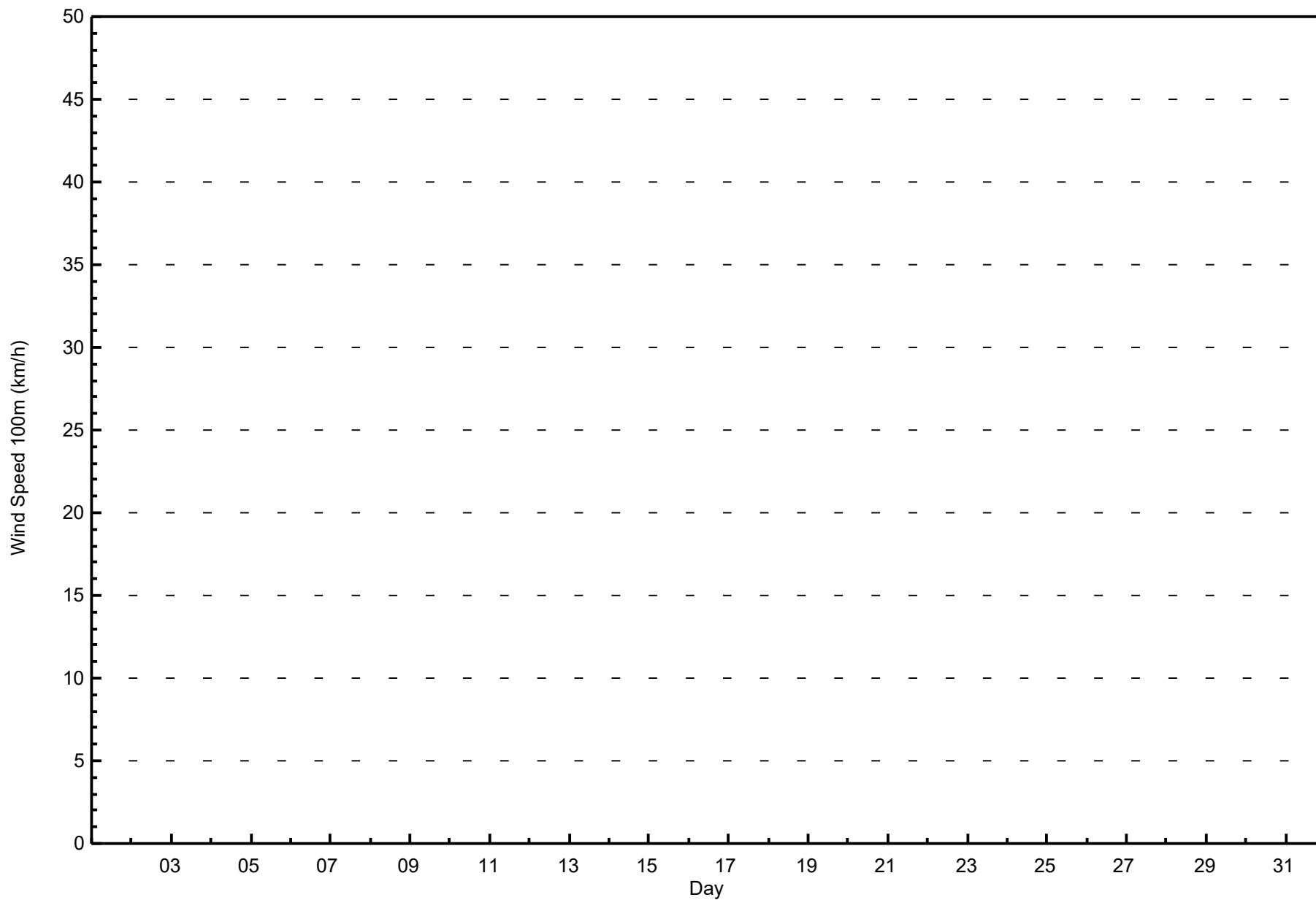
Wind Speed 100m (WS100) - km/h
Lower Camp Met Tower - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																	Hours in Service: 744								
Maximum Value: -- km/h on Jul 1 00:00																	Hours of Data: 0								
Minimum Value: -- km/h on Jul 1 00:00																	Hours of Missing Data: 744								
Percentiles: P ₁ = 0 P ₁₀ = 0 Q ₁ = 0 Median = 0 Q ₃ = 0 P ₉₀ = 0 P ₉₉ = 0																	Hours of Calibration: 0								
																	Percent Operational Time: 0.0								
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
2-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
3-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
4-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
5-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
6-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
7-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
8-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	--
21-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
22-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	--
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	PF	PF	UO	UO	UO	UO	PF	PF	--
24-Jul	UO	PF	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
25-Jul	PF	PF	PF	PF	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	--
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
28-Jul	PF	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	PF	PF	PF	PF	--
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
Diurnal Maximum																									
UO - Unstable Operation PF - Power Failure																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 100m (WS100) - km/h
Lower Camp Met Tower - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 100m (WS100) - km/h
Lower Camp Met Tower - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	0	0.00	0.00
6 - 11	0	0.00	0.00
12 - 19	0	0.00	0.00
20 - 28	0	0.00	0.00
29 - 38	0	0.00	0.00
> 38	0	0.00	0.00

Total Number of Valid Hours: 0

Total Number of Hours: 744

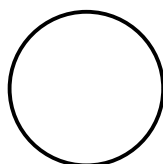


Wood Buffalo Environmental Association

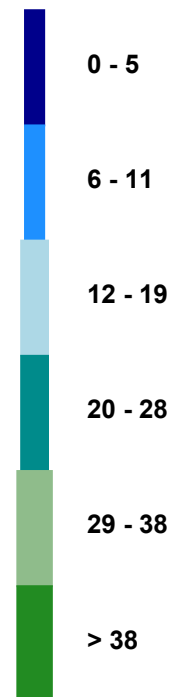
Wind Rose Jul 2026

Wind Speed 100m (WS100) - km/h

Lower Camp Met Tower



Classes (km/h)



Total Number of Valid Hours: 0



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 163m (WS163) - km/h

Lower Camp Met Tower - July 2026

Maximum Speed: -- km/h on Jul 1 00:00										Maximum Daily Speed Average: 0.0 km/h on Jan 1										Hours in Service: 744							
Minimum Speed Value: -- km/h on Jul 1 00:00										Minimum Daily Speed Average: 0.0 km/h on Jan 1										Hours of Data: 0							
Maximum Diurnal Speed Average: -- km/h at hour 0										Minimum Diurnal Speed Average: -- km/h at hour 0										Hours of Missing Data: 744							
Monthly Average Velocity: -- km/h -- deg										Percentiles: P ₁ = 0 P ₁₀ = 0 Q ₁ = 0 Median = 0 Q ₃ = 0 P ₉₀ = 0 P ₉₉ = 0										Percent Operational Time: 0.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
2-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
3-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
4-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
5-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
6-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
7-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
8-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
21-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
22-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	----	----
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	PF	PF	UO	UO	UO	UO	UO	UO	PF	----	----
24-Jul	UO	PF	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
25-Jul	PF	PF	PF	PF	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	----	----
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
28-Jul	PF	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	----	----
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	----	----
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
-----																								Diurnal Average			
-----																								Diurnal Maximum			
UO - Unstable Operation PF - Power Failure																											
All monthly, daily, and diurnal averages have been calculated using vector methods																											



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 163m (WS163) - km/h

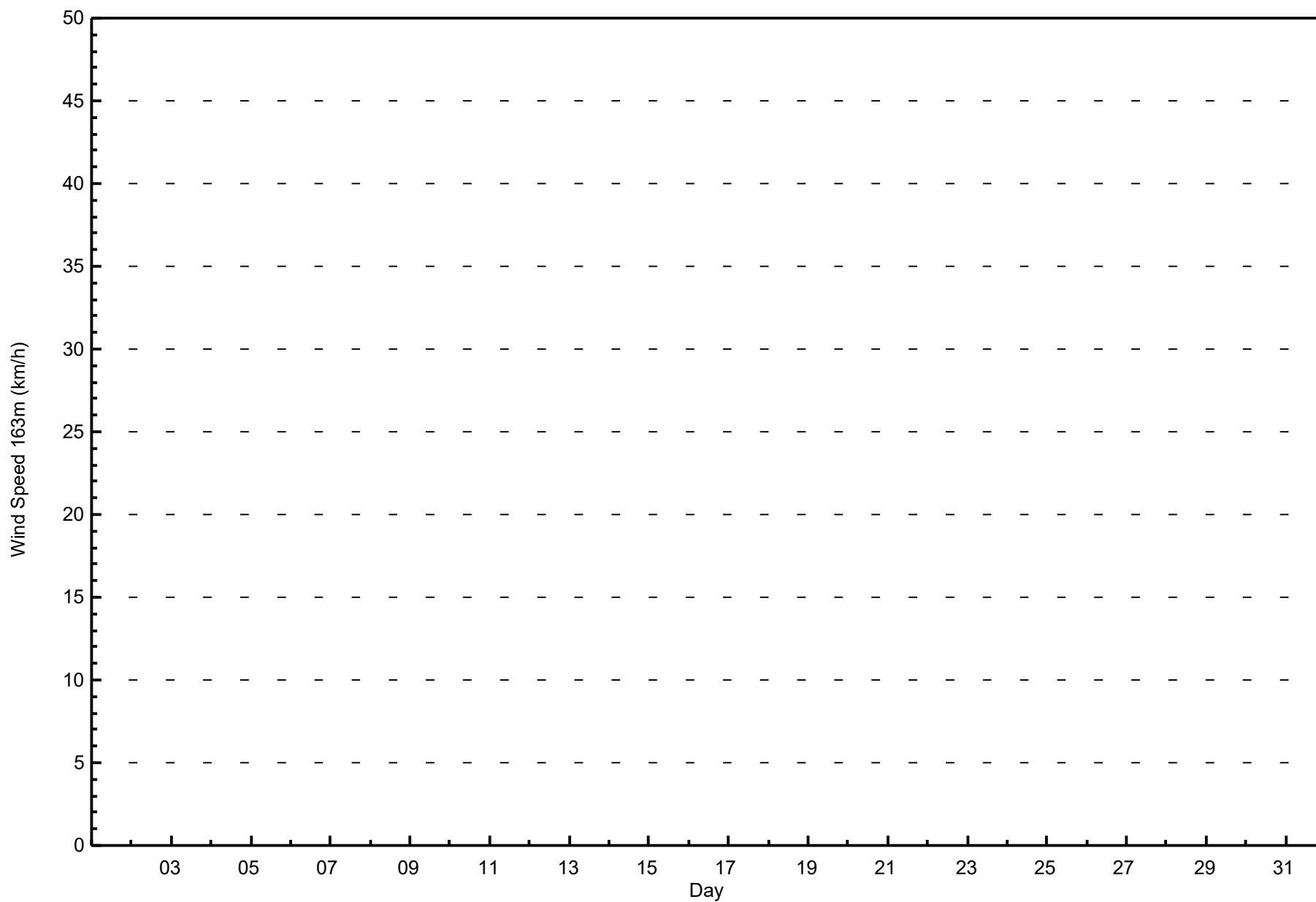
Lower Camp Met Tower - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																	Hours in Service: 744								
Maximum Value: -- km/h on Jul 1 00:00																	Hours of Data: 0								
Minimum Value: -- km/h on Jul 1 00:00																	Hours of Missing Data: 744								
Percentiles: P ₁ = 0 P ₁₀ = 0 Q ₁ = 0 Median = 0 Q ₃ = 0 P ₉₀ = 0 P ₉₉ = 0																	Hours of Calibration: 0								
																	Percent Operational Time: 0.0								
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
2-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
3-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
4-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
5-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
6-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
7-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
8-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	--
21-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
22-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	--
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	PF	PF	UO	UO	UO	UO	PF	PF	--
24-Jul	UO	PF	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
25-Jul	PF	PF	PF	PF	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	--
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
28-Jul	PF	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	PF	PF	PF	PF	--
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
-- --																									
Diurnal Maximum																									
UO - Unstable Operation PF - Power Failure																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 163m (WS163) - km/h
Lower Camp Met Tower - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 163m (WS163) - km/h
Lower Camp Met Tower - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	0	0.00	0.00
6 - 11	0	0.00	0.00
12 - 19	0	0.00	0.00
20 - 28	0	0.00	0.00
29 - 38	0	0.00	0.00
> 38	0	0.00	0.00

Total Number of Valid Hours: 0

Total Number of Hours: 744

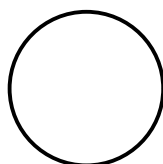


Wood Buffalo Environmental Association

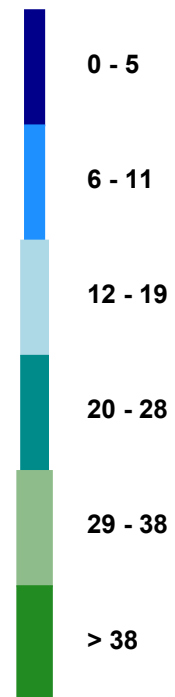
Wind Rose Jul 2026

Wind Speed 163m (WS163) - km/h

Lower Camp Met Tower



Classes (km/h)



Total Number of Valid Hours: 0



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 20m (WD20) - deg

Lower Camp Met Tower - July 2026

Direction of Maximum Speed: 170 deg on Jul 2 13:00																				Hours in Service:		744			
Direction of Maximum Daily Speed Average: 137.7 deg on Jul 2																				Hours of Data:		288			
Direction of Minimum Speed: 88 deg on Jul 6 04:00										Direction of Minimum Daily Speed Average: 2.3 deg on Jul 7										Hours of Missing Data:		456			
Monthly Average Direction: 153.6 deg																				Percent Operational Time:		38.7			
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	73	340	359	342	122	120	104	126	125	127	120	113	112	133	121	124	156	159	149	138	122	120	109	119	127.7
2-Jul	114	119	136	117	125	123	126	157	144	153	138	132	170	159	144	148	127	125	128	128	117	132	135	132	137.7
3-Jul	118	119	138	146	137	148	145	141	146	152	134	175	239	96	113	121	93	155	72	342	352	339	348	334	141.6
4-Jul	345	358	358	142	185	156	125	121	121	127	128	121	148	214	234	237	257	247	231	229	223	186	188	227	191.7
5-Jul	244	232	252	247	294	243	194	239	248	308	308	306	306	331	336	347	335	347	323	336	351	323	313	332	300.1
6-Jul	339	347	47	88	315	62	278	301	355	355	15	49	28	20	256	241	282	33	36	35	321	287	347	345	330.9
7-Jul	343	1	335	346	327	360	85	109	226	104	169	136	110	107	70	84	140	94	94	33	319	114	116	105	97.5
8-Jul	44	149	139	114	343	333	79	165	167	156	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	343	9	8	346	103	29	337	105	--
21-Jul	112	105	25	39	302	109	135	236	128	132	119	100	94	33	108	197	183	170	178	182	176	174	106	102	157.2
22-Jul	117	126	119	116	115	123	124	125	124	129	111	87	227	245	196	190	168	PF	PF	PF	PF	PF	PF	PF	--
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	304	305	305	292	PF	PF	--
24-Jul	PF	PF	351	26	297	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	233	237	225	233	232	236	231	231	PF	PF	PF	PF	PF	--
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
28-Jul	PF	141	121	117	120	112	120	132	PF	PF	PF	PF	PF	PF	109	108	55	48	324	PF	PF	PF	PF	PF	--
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	325	237	229	233	241	235	211	135	131	139	--
31-Jul	133	125	126	125	123	115	127	121	128	129	131	144	158	129	140	140	355	109	132	112	117	138	187	353	128.0
105.1 126.7 118.9 127.1 129.6 130.9 132.9 150.2 143.4 140.7 127.4 147.9 189.3 189.9 186.7 188.6 184.0 178.4 200.0 210.9 219.4 183.1 129.5 130.9																									
Diurnal Average																									
PF - Power Failure																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 20m (WD20) - deg

Lower Camp Met Tower - July 2026

Number of Exceedances (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 108 deg on Jul 31 23:00			Hours of Data:	288
Minimum Value: 7 deg on Jul 21 20:00			Hours of Missing Data:	456
			Hours of Calibration:	0
			Percent Operational Time:	38.7
Percentiles: P ₁ = 10 P ₁₀ = 14 Q ₁ = 18 Median = 24 Q ₃ = 44 P ₉₀ = 72 P ₉₉ = 102				

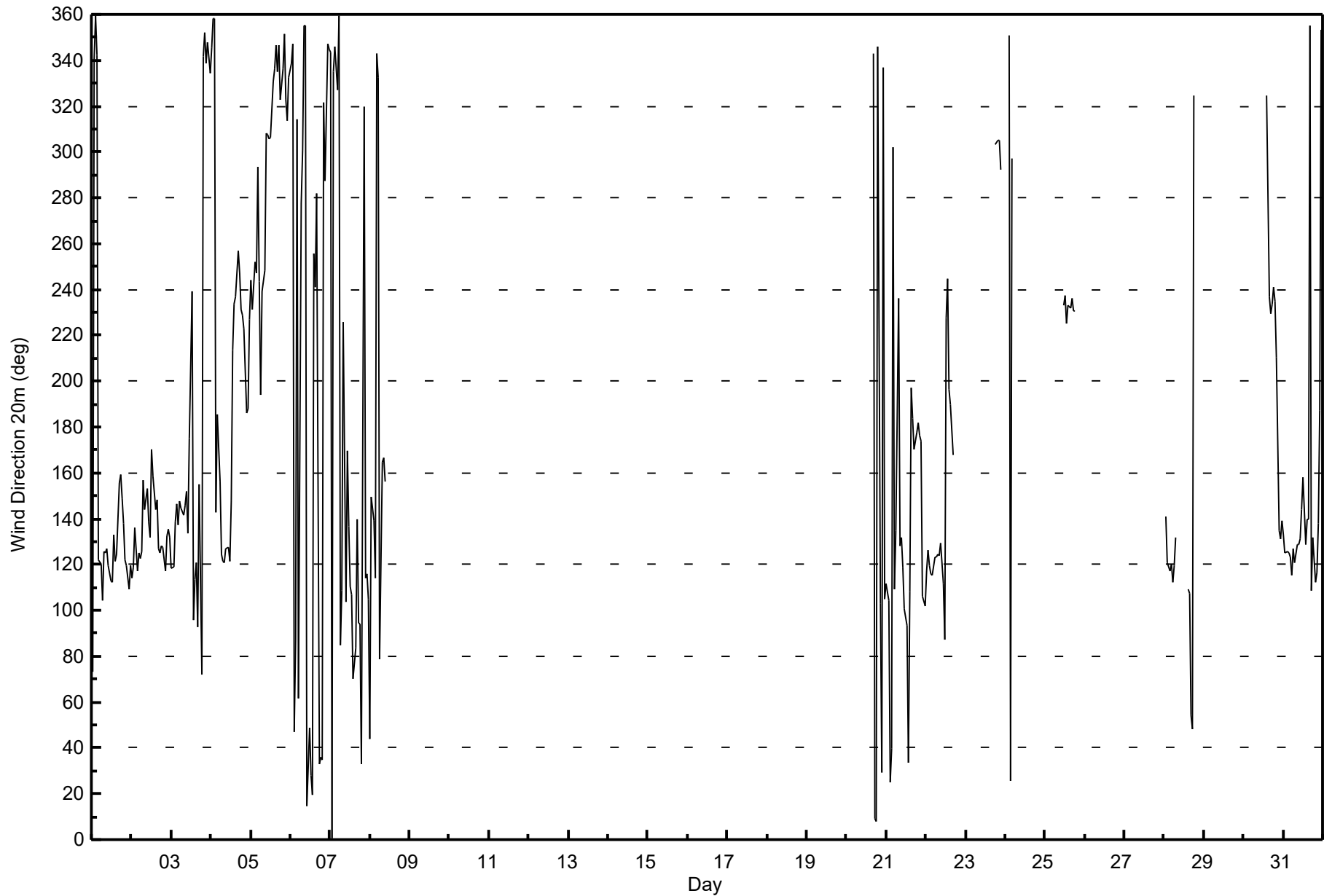
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	70	53	76	65	16	97	84	22	20	21	20	20	20	22	23	24	19	17	22	19	14	16	26	21	97	
2-Jul	14	16	17	20	17	16	17	24	14	18	17	20	18	24	18	15	18	18	18	18	18	18	19	17	24	
3-Jul	15	54	59	11	11	9	13	16	14	20	24	27	24	65	20	29	39	61	69	21	24	24	11	22	69	
4-Jul	23	57	86	26	22	23	15	22	20	19	22	25	20	40	64	30	29	28	18	13	15	30	22	17	86	
5-Jul	26	30	32	34	38	26	26	17	25	32	22	22	28	22	20	21	71	83	44	21	23	15	12	28	83	
6-Jul	22	25	40	103	68	84	56	102	20	27	75	52	24	86	49	21	82	30	79	42	33	39	22	13	103	
7-Jul	12	29	62	30	49	69	89	42	88	79	55	19	29	41	49	55	31	31	20	94	47	87	23	24	94	
8-Jul	103	52	19	74	16	21	63	28	51	14	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	103	
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	24	27	20	93	37	90	48	63	93
21-Jul	56	74	66	27	94	17	59	27	46	15	18	26	42	57	73	55	51	20	11	7	7	13	40	48	94	
22-Jul	12	12	11	13	13	13	12	14	14	14	38	44	80	71	70	24	24	PF	PF	PF	PF	PF	PF	PF	80	
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	21	19	14	21	PF	PF	21	
24-Jul	PF	PF	31	66	27	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	66	
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	19	21	15	17	13	13	12	10	PF	PF	PF	PF	PF	21	
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
28-Jul	PF	23	13	20	15	14	15	15	PF	PF	PF	PF	PF	PF	31	27	26	24	26	PF	PF	PF	PF	PF	31	
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	56	31	93	29	55	20	83	46	21	24	93	
31-Jul	34	12	16	16	16	16	26	16	16	16	18	13	16	18	19	35	32	77	29	28	37	20	108	54	108	
Diurnal Maximum																										

PF - Power Failure



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 20m (WD20) - deg
Lower Camp Met Tower - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 45m (WD45) - deg

Lower Camp Met Tower - July 2026

Direction of Maximum Speed: 329 deg on Jul 5 14:00 Direction of Maximum Daily Speed Average: 133.0 deg on Jul 2																				Hours in Service: 744						
Direction of Minimum Speed: 276 deg on Jul 7 21:00 Direction of Minimum Daily Speed Average: 3.6 deg on Jul 7																				Hours of Data: 288						
Monthly Average Direction: 150.2 deg																				Hours of Missing Data: 456						
																				Percent Operational Time: 38.7						
Day	Hourly Period Ending At (MST)																				Daily Average					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		21	22	23	24	
1-Jul	111	135	138	95	119	123	120	121	121	120	117	113	115	127	120	120	150	159	148	132	127	126	114	119	125.2	
2-Jul	113	124	129	117	122	122	124	151	139	148	133	127	171	156	143	145	125	122	124	124	117	122	131	128	133.0	
3-Jul	119	121	154	136	133	141	134	133	140	147	124	170	239	84	112	118	104	159	69	353	7	19	15	326	133.9	
4-Jul	331	325	343	162	196	163	123	119	119	124	124	123	150	216	237	239	255	248	230	228	226	196	190	230	195.4	
5-Jul	242	234	247	246	272	244	202	239	251	303	306	304	303	329	335	347	334	324	323	338	353	322	315	328	300.2	
6-Jul	324	330	359	221	292	247	271	275	352	349	7	49	24	4	253	243	270	33	46	48	317	284	340	347	324.1	
7-Jul	351	21	349	345	336	354	93	106	235	108	155	130	111	109	82	93	138	98	102	86	276	127	117	109	97.5	
8-Jul	112	127	128	125	105	27	93	164	162	156	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	334	354	4	349	86	219	248	173	--
21-Jul	139	147	111	40	195	138	182	236	124	125	117	111	104	29	132	195	183	171	178	183	178	177	136	128	161.1	
22-Jul	128	131	140	131	129	130	132	127	118	120	115	89	238	245	194	188	168	PF	PF	PF	PF	PF	PF	PF	--	
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	302	300	298	289	PF	PF	--	
24-Jul	PF	PF	340	17	316	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	233	237	226	232	229	234	229	229	PF	PF	PF	PF	PF	--	
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
28-Jul	PF	157	140	139	132	127	122	125	PF	PF	PF	PF	PF	PF	PF	113	109	73	67	346	PF	PF	PF	PF	PF	--
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	318	242	223	236	241	234	217	128	133	133	--	
31-Jul	143	141	131	129	129	126	129	123	129	129	128	142	170	130	134	134	40	128	126	117	120	128	138	139	130.9	
121.7 142.0 139.1 136.6 136.5 136.2 131.9 144.8 136.6 135.7 122.4 143.0 193.4 191.5 179.1 178.7 175.5 168.7 187.9 191.6 222.3 192.3 138.0 133.7																										
Diurnal Average																										
PF - Power Failure																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 45m (WD45) - deg

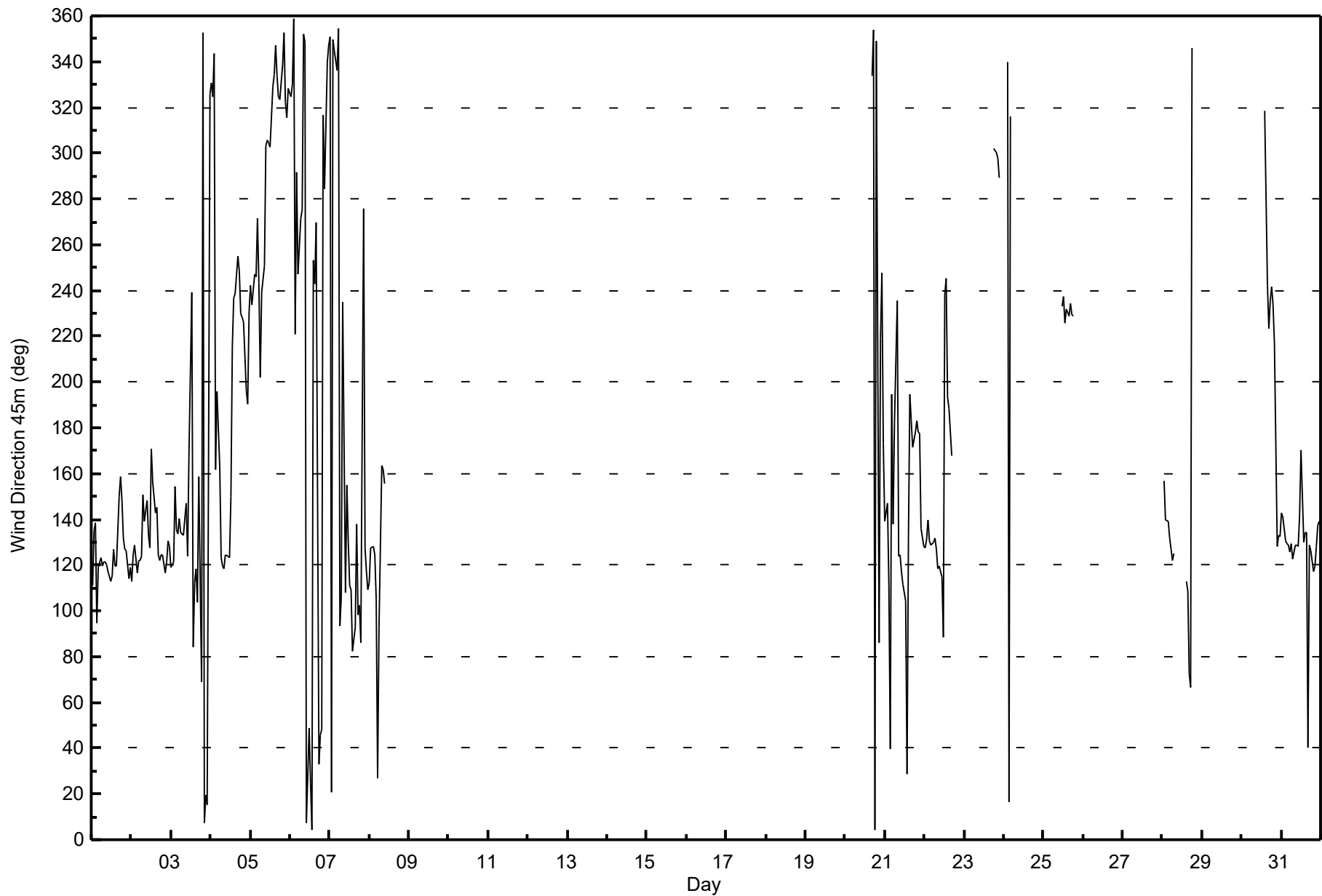
Lower Camp Met Tower - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 107 deg on Jul 7 21:00																		Hours in Service: 744							
Minimum Value: 5 deg on Jul 5 23:00																		Hours of Data: 288							
Percentiles: P ₁ = 6 P ₁₀ = 9 Q ₁ = 12 Median = 17 Q ₃ = 36 P ₉₀ = 63 P ₉₉ = 90																		Hours of Missing Data: 456							
																		Hours of Calibration: 0							
																		Percent Operational Time: 38.7							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	13	38	65	65	12	55	66	13	11	13	11	11	8	14	14	14	20	18	22	15	11	13	12	9	66
2-Jul	8	12	13	12	10	9	9	23	14	18	14	14	17	24	15	16	11	10	10	11	9	10	14	10	24
3-Jul	6	47	45	9	6	7	10	12	12	19	17	29	20	64	10	20	19	45	66	19	23	31	75	42	75
4-Jul	33	89	62	21	15	23	9	14	11	9	13	18	17	29	32	22	24	22	15	10	12	11	14	14	89
5-Jul	15	15	14	23	21	20	24	12	19	26	15	15	23	15	14	14	44	59	33	16	17	7	5	18	59
6-Jul	12	15	47	68	51	104	48	87	20	22	74	59	23	94	51	17	75	23	26	14	49	32	15	7	104
7-Jul	11	24	47	10	20	62	52	42	89	81	52	15	19	25	43	56	26	26	20	66	107	79	16	9	107
8-Jul	30	16	9	17	32	87	45	22	51	13	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	87
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	13	31	16	72	72	63	40	41	72
21-Jul	15	35	34	63	55	29	75	17	43	11	9	26	33	61	74	48	30	17	10	6	6	9	38	40	75
22-Jul	6	8	12	8	7	8	9	10	8	9	26	38	70	53	82	21	21	PF	PF	PF	PF	PF	PF	PF	82
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	16	13	9	11	PF	PF	16
24-Jul	PF	PF	23	35	51	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	51
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	14	16	13	12	9	9	8	7	PF	PF	PF	PF	PF	16
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
28-Jul	PF	28	15	18	11	9	8	12	PF	PF	PF	PF	PF	PF	14	16	17	9	41	PF	PF	PF	PF	PF	41
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	54	22	80	21	42	17	87	68	48	10	87
31-Jul	11	14	8	9	8	11	15	8	8	9	12	14	16	14	15	14	63	19	18	15	17	6	45	61	63
33 89 65 68 55 104 75 87 89 81 74 59 70 94 82 56 80 59 66 72 107 79 75 61																									
Diurnal Maximum																									
PF - Power Failure																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 45m (WD45) - deg
Lower Camp Met Tower - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 100m (WD100) - deg

Lower Camp Met Tower - July 2026

Direction of Maximum Speed: -- deg on Jul 1 00:00																				Hours in Service:		744				
Direction of Maximum Daily Speed Average: 0.0 deg on Jan 1																				Hours of Data:		0				
Direction of Minimum Speed: -- deg on Jul 1 00:00										Direction of Minimum Daily Speed Average: 0.0 deg on Jan 1										Hours of Missing Data:		744				
Monthly Average Direction: -- deg																				Percent Operational Time:		0.0				
Day	Hourly Period Ending At (MST)																								Daily Average	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
2-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
3-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
4-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
5-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
6-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
7-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
8-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
21-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
22-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	--
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	PF	PF	UO	UO	UO	UO	PF	PF	PF	--
24-Jul	UO	PF	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
25-Jul	PF	PF	PF	PF	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	--
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
28-Jul	PF	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	--
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
Diurnal Average																										
UO - Unstable Operation PF - Power Failure																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										



Wood Buffalo Environmental Association
Summary of Hour Standard Deviations

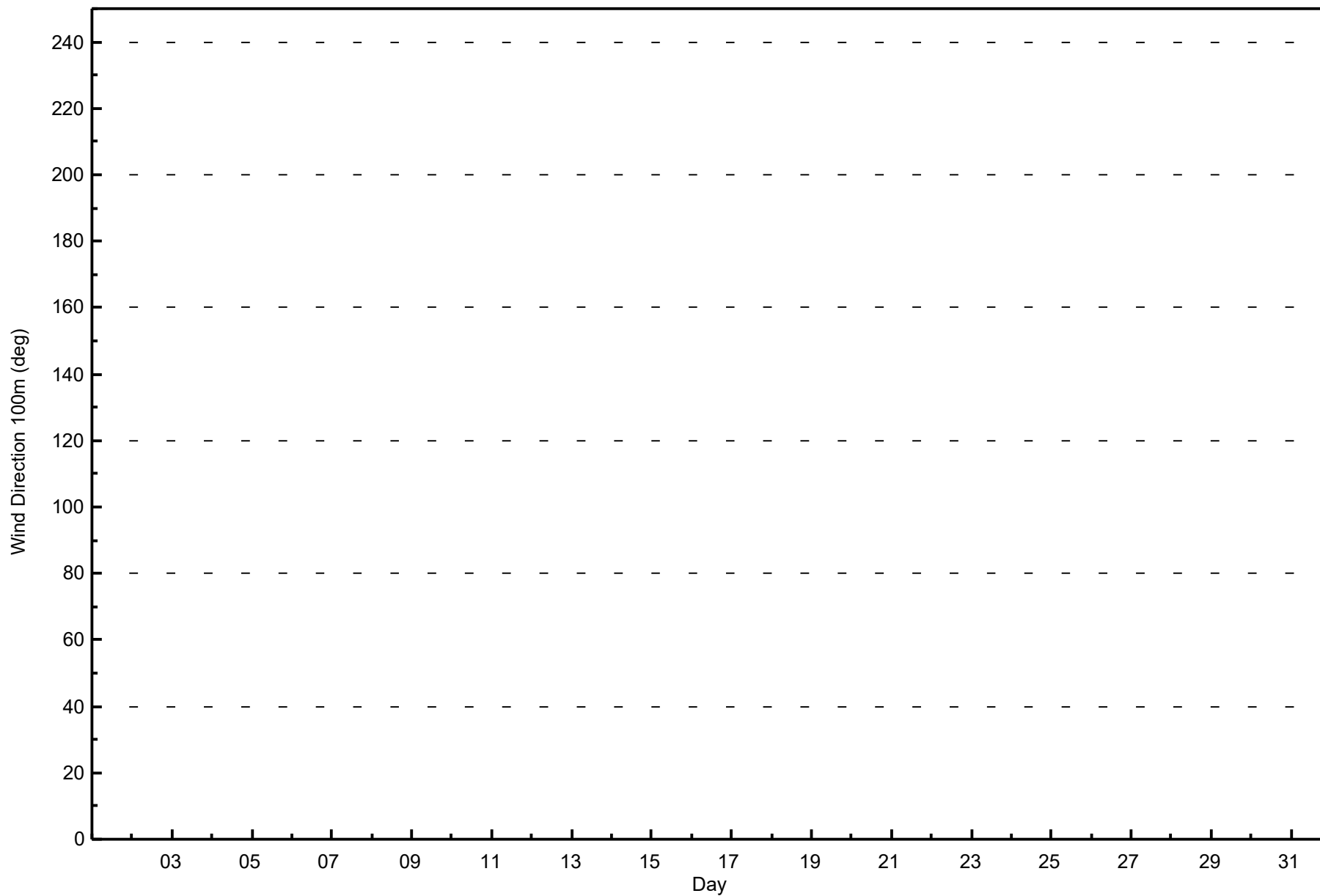
Wind Direction 100m (WD100) - deg
Lower Camp Met Tower - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																	Hours in Service: 744								
Maximum Value: -- deg on Jul 1 00:00																	Hours of Data: 0								
Minimum Value: -- deg on Jul 1 00:00																	Hours of Missing Data: 744								
Percentiles: P ₁ = 0 P ₁₀ = 0 Q ₁ = 0 Median = 0 Q ₃ = 0 P ₉₀ = 0 P ₉₉ = 0																	Hours of Calibration: 0								
																	Percent Operational Time: 0.0								
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
2-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
3-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
4-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
5-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
6-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
7-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
8-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	--
21-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
22-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	--
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	PF	PF	UO	UO	UO	UO	PF	PF	--
24-Jul	UO	PF	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
25-Jul	PF	PF	PF	PF	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	--
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
28-Jul	PF	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	PF	PF	PF	PF	--
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
Diurnal Maximum																									
UO - Unstable Operation PF - Power Failure																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 100m (WD100) - deg
Lower Camp Met Tower - July 2026





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 163m (WD163) - deg

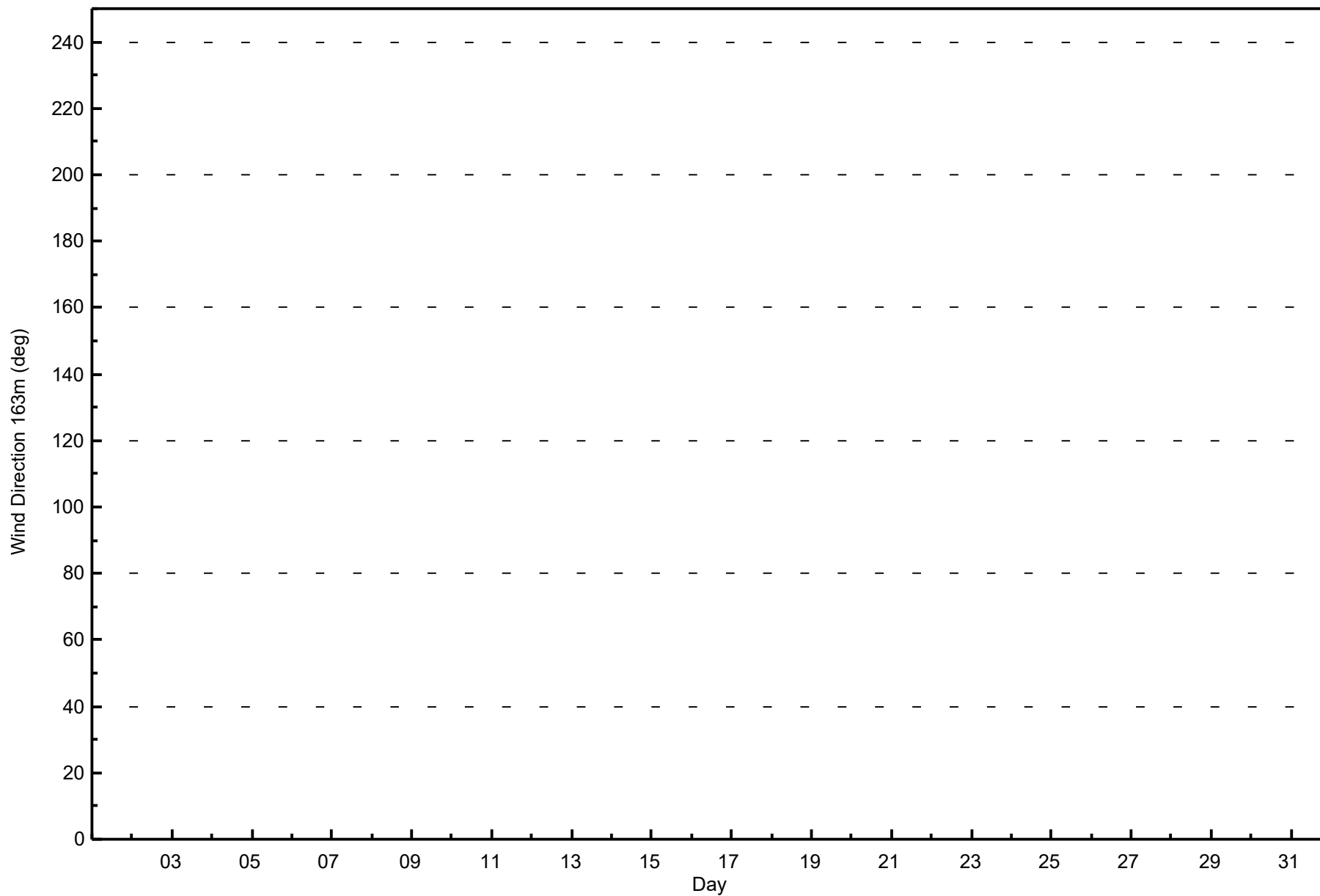
Lower Camp Met Tower - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																	Hours in Service: 744								
Maximum Value: -- deg on Jul 1 00:00																	Hours of Data: 0								
Minimum Value: -- deg on Jul 1 00:00																	Hours of Missing Data: 744								
Percentiles: P ₁ = 0 P ₁₀ = 0 Q ₁ = 0 Median = 0 Q ₃ = 0 P ₉₀ = 0 P ₉₉ = 0																	Hours of Calibration: 0								
																	Percent Operational Time: 0.0								
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
2-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
3-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
4-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
5-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
6-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
7-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
8-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	--
21-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
22-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	--
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	PF	PF	UO	UO	UO	UO	PF	PF	--
24-Jul	UO	PF	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
25-Jul	PF	PF	PF	PF	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	--
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
28-Jul	PF	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	PF	PF	PF	PF	--
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
-- --																									
Diurnal Maximum																									
UO - Unstable Operation PF - Power Failure																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 163m (WD163) - deg
Lower Camp Met Tower - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Vertical Wind Speed 20m (VW20) - km/h

Lower Camp Met Tower - July 2026

Maximum Value: 0.4 km/h on Jul 6 12:00																			Maximum Daily Average: -0.1 km/h on Jul 7						Hours in Service: 744		
Minimum Value: -1.4 km/h on Jul 2 13:00																			Minimum Daily Average: -0.5 km/h on Jul 2						Hours of Data: 288		
Maximum Diurnal Average: 0.0 km/h at hour 2																			Minimum Diurnal Average: -0.5 km/h at hour 13						Hours of Missing Data: 456		
Monthly Average: -0.24 km/h																			Percentiles: P ₁ = -1.2 P ₁₀ = -0.7 Q ₁ = -0.4 Median = -0.2 Q ₃ = 0.0 P ₉₀ = 0.1 P ₉₉ = 0.3						Hours of Calibration: 0		
																			Percent Operational Time: 38.7								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.1	0.0	0.1	0.1	-0.3	0.0	-0.1	-0.3	-0.4	-0.1	-0.5	-0.6	-0.3	-0.3	-0.2	-0.3	-0.7	-0.6	-0.1	-0.1	-0.2	0.1	0.1	-0.1	-0.2	0.1	
2-Jul	-0.3	-0.2	-0.4	-0.3	-0.4	-0.5	-0.6	-0.8	-0.5	-1.1	-0.5	-0.7	-1.4	-0.5	-0.8	-0.4	-0.3	-0.4	-0.5	-0.4	-0.3	-0.5	-0.6	-0.5	-0.5	-0.2	
3-Jul	-0.5	-0.3	-0.1	-0.4	-0.2	-0.6	-0.9	-0.8	-0.7	-0.8	-0.4	-0.7	-0.8	-0.1	-0.4	-0.4	-0.1	0.0	-0.1	-0.2	0.0	0.2	0.1	0.0	-0.3	0.2	
4-Jul	0.0	0.1	-0.1	0.1	-0.3	-0.3	-0.3	0.2	0.0	-0.3	0.0	-0.5	-0.5	-1.2	-0.1	-0.4	-0.5	-0.4	-0.6	-0.6	-0.4	0.0	-0.3	-0.6	-0.3	0.2	
5-Jul	-0.4	-0.3	-0.3	-0.4	-0.2	-0.3	-0.4	-1.0	-0.8	-0.3	-0.6	-0.8	-0.6	-0.3	-0.5	-0.3	-0.1	0.0	-0.1	-0.2	-0.3	-0.2	-0.3	-0.1	-0.4	0.0	
6-Jul	0.0	0.1	0.0	-0.1	-0.2	-0.1	-0.1	0.0	-0.1	-0.3	-0.1	0.4	-0.3	-0.1	-0.9	-0.8	0.0	0.1	0.0	0.0	0.0	-0.4	-0.3	0.0	-0.1	-0.1	0.4
7-Jul	-0.2	0.0	0.0	0.1	0.0	-0.2	0.0	0.2	0.3	0.2	-0.3	-0.5	-0.1	-0.2	0.0	-0.1	-0.4	0.0	0.0	0.0	0.1	-0.3	-0.4	0.1	-0.1	0.3	
8-Jul	0.1	0.1	0.0	0.0	0.1	-0.1	0.0	-0.3	-0.4	-0.9	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	0.1
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	0.1
21-Jul	0.0	0.0	0.0	0.1	0.0	0.0	-0.1	-0.4	0.0	-0.2	-0.3	0.0	-0.1	0.1	-0.1	-0.2	-0.2	-0.5	-0.7	-0.9	-0.5	0.1	0.1	0.1	-0.2	0.1	
22-Jul	0.3	0.1	0.1	0.0	-0.2	-0.2	-0.1	-0.3	-0.1	-0.2	0.2	0.3	0.1	-0.2	-0.3	-0.9	-0.6	PF	PF	PF	PF	PF	PF	PF	--	0.3	
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	-0.7	-0.6	-0.4	-0.4	PF	PF	--	-0.4
24-Jul	PF	PF	-0.1	0.0	0.0	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	0.0	
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	-1.2	-0.8	-0.7	-1.0	-1.1	-1.2	-1.1	-1.0	PF	PF	PF	PF	PF	--	-0.7	
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
28-Jul	PF	0.0	0.1	0.1	0.1	0.0	-0.3	-0.2	PF	PF	PF	PF	PF	PF	0.0	-0.4	0.0	0.0	-0.1	PF	PF	PF	PF	PF	--	0.1	
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	-0.1	-0.3	-0.1	-0.4	-0.1	-0.3	0.1	0.0	0.0	-0.1	--	0.1	
31-Jul	0.1	0.1	0.0	0.2	-0.2	-0.3	-0.5	-0.2	-0.6	-0.6	-0.3	-0.6	-0.2	-0.3	-0.2	-0.1	0.1	0.0	-0.1	0.1	0.0	0.0	0.0	0.1	-0.1	0.2	
																									Diurnal Average		
																									Diurnal Maximum		
PF - Power Failure																											



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Vertical Wind Speed 20m (VW20) - km/h

Lower Camp Met Tower - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.0 km/h on Jul 5 14:00																			Hours in Service: 744							
Minimum Value: 0.1 km/h on Jul 20 23:00																			Hours of Data: 288							
Percentiles: P ₁ = 0.2 P ₁₀ = 0.5 Q ₁ = 0.8 Median = 1.4 Q ₃ = 1.9 P ₉₀ = 2.4 P ₉₉ = 3.3																			Hours of Missing Data: 456							
																			Hours of Calibration: 0							
																			Percent Operational Time: 38.7							
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.4	0.5	0.3	0.5	1.1	1.3	1.3	1.8	2.9	2.9	3.0	3.0	2.1	2.0	2.1	2.7	2.3	1.9	1.8	1.1	1.0	0.8	0.7	1.3	3.0	
2-Jul	1.4	1.2	1.5	1.5	2.6	2.6	3.4	2.2	2.3	2.5	2.4	2.9	2.4	2.2	2.3	1.9	2.3	2.8	3.0	2.3	1.4	1.7	2.5	2.5	3.4	
3-Jul	1.9	1.4	0.7	0.8	1.2	1.4	2.1	2.3	1.9	1.8	2.3	1.6	2.5	1.6	2.2	1.6	1.5	1.5	1.3	1.2	0.9	0.5	0.2	0.5	2.5	
4-Jul	0.7	0.5	0.6	0.6	1.0	1.0	1.3	1.4	1.2	2.1	2.0	1.9	1.8	3.2	1.2	1.6	1.4	1.7	1.8	1.6	1.0	0.5	1.2	1.6	3.2	
5-Jul	1.7	1.5	1.8	1.5	1.1	1.3	1.3	1.8	2.1	2.7	2.9	3.3	3.7	4.0	3.3	2.5	1.8	1.0	1.2	2.2	1.6	1.7	1.3	1.0	4.0	
6-Jul	0.8	0.7	0.4	0.6	0.8	0.6	1.2	1.1	1.7	1.9	2.0	2.0	1.7	1.6	3.0	2.2	1.6	1.2	1.7	0.9	2.0	1.4	0.5	0.7	3.0	
7-Jul	0.7	0.5	0.4	0.4	0.4	0.5	0.8	1.2	1.3	1.4	1.6	2.0	2.1	2.0	1.8	1.6	1.5	0.7	0.4	0.5	0.6	1.4	1.6	1.2	2.1	
8-Jul	0.6	0.8	1.0	0.7	0.4	0.5	0.9	1.1	1.4	1.8	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	1.8	
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	1.1	0.9	0.2	0.2	0.2	0.3	0.1	0.2	1.1
21-Jul	0.2	0.2	0.2	0.2	0.2	0.6	0.6	1.0	1.2	1.3	1.3	1.6	1.6	2.0	1.7	1.8	1.6	1.4	1.3	1.4	1.2	1.2	0.8	0.5	2.0	
22-Jul	0.9	1.2	1.2	1.2	1.1	1.3	1.4	1.4	1.5	1.7	1.7	1.6	1.8	1.8	2.0	1.9	1.7	PF	PF	PF	PF	PF	PF	PF	2.0	
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	2.3	1.9	1.3	1.0	PF	PF	2.3	
24-Jul	PF	PF	0.8	0.3	0.2	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	0.8	
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	2.2	2.6	1.9	2.6	2.4	2.6	2.3	2.0	PF	PF	PF	PF	PF	2.6	
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
28-Jul	PF	0.8	0.9	0.9	0.7	1.1	1.4	1.7	PF	PF	PF	PF	PF	PF	1.2	1.5	1.0	0.9	0.6	PF	PF	PF	PF	PF	1.7	
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	1.8	1.9	1.6	1.6	0.8	0.9	0.4	0.2	0.3	0.6	1.9	
31-Jul	0.6	0.7	0.9	1.4	1.3	1.3	1.6	2.0	2.1	1.9	1.9	1.5	1.0	1.3	1.5	0.8	0.6	0.5	1.2	1.1	0.5	0.6	0.6	0.3	2.1	
1.9 1.5 1.8 1.5 2.6 2.6 3.4 2.3 2.9 2.9 3.0 3.3 3.7 4.0 3.3 2.7 2.6 2.8 3.0 2.3 2.0 1.7 2.5 2.5																										
Diurnal Maximum																										
PF - Power Failure																										



Wood Buffalo Environmental Association

Summary of Hour Averages

Vertical Wind Speed 45m (VW45) - km/h

Lower Camp Met Tower - July 2026

Maximum Value: 1.0 km/h on Jul 21 22:00																			Maximum Daily Average: 0.2 km/h on Jul 1						Hours in Service: 744	
Minimum Value: -0.9 km/h on Jul 5 14:00																			Minimum Daily Average: -0.1 km/h on Jul 5						Hours of Data: 288	
Maximum Diurnal Average: 0.2 km/h at hour 4																			Minimum Diurnal Average: 0.0 km/h at hour 21						Hours of Missing Data: 456	
Monthly Average: 0.05 km/h																			Percentiles: P ₁ = -0.8 P ₁₀ = -0.3 Q ₁ = -0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.4 P ₉₉ = 0.7						Hours of Calibration: 0	
																									Percent Operational Time: 38.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.3	0.1	0.1	0.2	-0.6	0.2	0.2	0.3	0.0	0.2	0.1	0.2	0.0	0.4	0.3	0.3	0.4	0.3	0.8	0.1	-0.1	0.1	0.2	0.1	0.2	0.8
2-Jul	-0.3	-0.2	-0.2	0.0	0.2	-0.1	0.0	0.1	0.3	0.0	0.4	0.3	-0.8	0.2	-0.3	0.4	0.1	0.2	0.1	0.2	-0.2	-0.1	0.1	0.1	0.0	0.4
3-Jul	-0.1	-0.2	-0.2	0.1	0.4	0.1	0.2	0.0	0.1	-0.2	0.2	0.1	0.2	-0.1	0.1	-0.1	-0.1	0.5	0.0	-0.2	-0.1	0.1	0.0	0.0	0.0	0.5
4-Jul	0.0	0.0	-0.1	0.1	0.1	0.1	-0.1	0.3	0.0	0.0	0.0	-0.1	0.1	0.2	0.4	-0.1	-0.2	0.1	0.4	0.2	0.3	0.5	0.5	0.4	0.1	0.5
5-Jul	0.6	0.9	0.7	0.4	0.2	0.3	0.0	-0.2	-0.2	0.0	-0.5	-0.8	-0.4	-0.9	-0.6	-0.8	-0.2	-0.2	0.1	-0.3	-0.2	-0.5	-0.4	-0.2	-0.1	0.9
6-Jul	-0.3	-0.2	0.0	0.0	-0.1	0.0	0.1	0.2	-0.5	-0.3	0.0	0.3	-0.5	0.1	-0.3	-0.2	0.2	0.0	0.0	-0.1	-0.2	0.0	-0.1	-0.3	-0.1	0.3
7-Jul	-0.3	-0.2	0.0	0.0	0.0	-0.2	-0.2	0.1	0.6	0.4	-0.4	0.0	-0.1	-0.2	-0.1	0.2	-0.1	0.0	-0.1	0.0	0.0	-0.6	-0.8	0.3	-0.1	0.6
8-Jul	0.2	0.2	0.3	0.2	0.1	0.2	-0.2	0.0	-0.1	0.0	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	0.3
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	-0.4	-0.1	-0.1	0.0	0.0	0.1	0.0	0.0	0.1
21-Jul	0.1	0.1	0.1	0.1	0.1	0.0	-0.1	0.1	0.2	0.0	-0.1	0.2	0.0	0.2	0.3	0.3	0.1	0.3	0.0	0.2	0.4	1.0	0.3	0.1	0.2	1.0
22-Jul	0.7	0.6	0.4	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.4	0.7	0.6	0.3	0.4	-0.1	-0.2	PF	PF	PF	PF	PF	PF	PF	--	0.7
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	-0.5	-0.5	-0.5	-0.3	PF	PF	--	-0.3
24-Jul	PF	PF	-0.1	-0.1	0.0	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	0.0
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	-0.2	0.5	0.2	0.3	0.3	0.2	0.7	0.1	PF	PF	PF	PF	PF	--	0.7
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
28-Jul	PF	0.4	0.2	0.4	0.6	0.2	-0.1	0.0	PF	PF	PF	PF	PF	PF	0.1	0.0	-0.2	-0.3	0.0	PF	PF	PF	PF	PF	--	0.6
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	-0.1	-0.2	0.3	0.1	0.1	0.2	0.1	0.1	0.2	0.0	--	0.3
31-Jul	0.4	0.1	0.3	0.7	0.5	-0.2	0.1	-0.3	-0.3	-0.3	0.0	0.0	0.0	-0.1	0.1	0.2	0.1	0.2	0.0	0.3	0.0	0.2	0.2	0.1	0.1	0.7
Diurnal Average																										
Diurnal Maximum																										
PF - Power Failure																										



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Vertical Wind Speed 45m (VW45) - km/h

Lower Camp Met Tower - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.8 km/h on Jul 5 13:00																			Hours in Service: 744							
Minimum Value: 0.2 km/h on Jul 20 20:00																			Hours of Data: 288							
Percentiles: P ₁ = 0.2 P ₁₀ = 0.6 Q ₁ = 0.9 Median = 1.3 Q ₃ = 1.8 P ₉₀ = 2.3 P ₉₉ = 3.0																			Hours of Missing Data: 456							
																			Hours of Calibration: 0							
																			Percent Operational Time: 38.7							
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.7	0.7	0.6	0.8	1.5	1.7	1.6	1.7	2.5	2.9	2.7	2.5	1.6	1.8	1.9	2.4	2.4	2.2	2.0	1.4	1.2	1.0	0.7	1.0	2.9	
2-Jul	1.1	1.3	1.7	1.6	2.2	2.2	3.0	2.2	2.1	2.4	2.4	2.6	2.6	2.3	2.0	1.9	2.0	2.4	2.5	2.0	1.0	1.6	2.1	2.0	3.0	
3-Jul	1.1	1.1	1.0	1.0	1.0	1.2	1.9	2.0	1.7	1.8	2.3	1.8	2.2	1.2	1.7	1.5	1.4	1.7	1.3	1.1	1.0	0.9	0.3	0.7	2.3	
4-Jul	0.7	0.6	0.6	0.8	1.3	1.2	1.1	1.4	1.0	1.6	1.7	1.7	1.9	2.9	1.4	1.6	1.3	1.8	1.9	1.6	1.0	0.5	1.2	1.4	2.9	
5-Jul	1.5	1.3	1.7	1.5	1.2	1.2	1.4	1.6	2.1	2.7	2.8	3.4	3.8	3.7	2.8	2.1	1.8	1.0	1.2	1.9	1.5	1.4	0.8	0.9	3.8	
6-Jul	0.9	0.7	0.5	0.8	0.8	0.7	1.3	1.2	1.5	1.9	1.9	2.0	1.6	1.8	2.4	2.2	1.7	1.0	1.7	0.7	1.8	1.4	0.3	0.6	2.4	
7-Jul	0.6	0.7	0.5	0.5	0.5	0.5	0.8	1.3	1.3	1.4	1.6	1.9	2.0	1.9	1.8	1.6	1.6	0.7	0.5	0.7	0.8	1.9	1.8	1.2	2.0	
8-Jul	0.9	1.1	1.0	1.1	0.6	0.6	0.8	1.4	1.8	1.7	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	1.8	
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	1.1	0.9	0.3	0.2	0.2	0.4	0.2	0.2	1.1
21-Jul	0.3	0.3	0.2	0.2	0.3	0.6	0.7	1.1	1.1	1.1	1.0	1.5	1.5	2.2	1.8	2.0	1.8	2.0	1.6	1.6	1.3	1.3	1.2	0.8	2.2	
22-Jul	0.8	1.0	1.2	1.1	1.0	1.2	1.3	1.4	1.1	1.2	1.6	1.7	2.1	1.9	2.3	2.4	2.2	PF	PF	PF	PF	PF	PF	PF	2.4	
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	2.1	2.0	1.3	1.0	PF	PF	2.1	
24-Jul	PF	PF	0.7	0.3	0.3	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	0.7	
25-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	2.4	2.7	2.4	2.4	2.4	2.3	2.4	2.2	PF	PF	PF	PF	PF	2.7	
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
28-Jul	PF	1.0	1.3	1.0	0.8	0.8	1.0	1.5	PF	PF	PF	PF	PF	PF	1.1	1.3	0.9	0.9	0.8	PF	PF	PF	PF	PF	1.5	
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	1.9	2.1	1.8	1.8	1.0	0.9	0.4	0.3	0.5	0.8	2.1	
31-Jul	1.1	1.0	0.9	1.3	1.1	1.2	1.6	1.5	1.6	1.5	1.6	1.3	1.2	1.3	1.2	0.8	0.7	0.9	1.3	1.2	0.7	0.7	0.8	0.6	1.6	
1.5 1.3 1.7 1.6 2.2 2.2 3.0 2.2 2.5 2.9 2.8 3.4 3.8 3.7 2.8 2.4 2.4 2.4 2.5 2.0 1.8 1.9 2.1 2.0																									Diurnal Maximum	
PF - Power Failure																										



Wood Buffalo Environmental Association

Summary of Hour Averages

Vertical Wind Speed 100m (VW100) - km/h

Lower Camp Met Tower - July 2026

Maximum Value: -- km/h on Jul 1 00:00																		Maximum Daily Average: -- km/h on Jun 30																		Hours in Service: 744	
Minimum Value: -- km/h on Jul 1 00:00																		Minimum Daily Average: -- km/h on Jun 30																		Hours of Data: 0	
Maximum Diurnal Average: -- km/h at hour 0																		Minimum Diurnal Average: -- km/h at hour 0																		Hours of Missing Data: 744	
Monthly Average: -- km/h																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0																		Hours of Calibration: 0	
																																				Percent Operational Time: 0.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24													
1-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--											
2-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--											
3-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--											
4-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--											
5-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--											
6-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--											
7-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--											
8-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--											
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--											
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--											
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--											
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--											
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--											
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--											
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--											
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--											
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--											
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--											
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--											
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	--	--											
21-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--											
22-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	--	--											
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	PF	PF	UO	UO	UO	UO	PF	PF	--	--											
24-Jul	UO	PF	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--											
25-Jul	PF	PF	PF	PF	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	--	--											
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--											
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--											
28-Jul	PF	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	PF	PF	PF	PF	--	--											
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--											
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--											
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--											
--																								Diurnal Average													
--																								Diurnal Maximum													
UO - Unstable Operation PF - Power Failure																																					



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Vertical Wind Speed 100m (VW100) - km/h

Lower Camp Met Tower - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																	Hours in Service: 744									
Maximum Value: -- km/h on Jul 1 00:00																	Hours of Data: 0									
Minimum Value: -- km/h on Jul 1 00:00																	Hours of Missing Data: 744									
																	Hours of Calibration: 0									
Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0																	Percent Operational Time: 0.0									
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
2-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
3-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
4-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
5-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
6-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
7-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
8-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	--
21-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
22-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	--
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
24-Jul	UO	PF	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
25-Jul	PF	PF	PF	PF	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	--
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
28-Jul	PF	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	--
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
-- --																										
Diurnal Maximum																										
UO - Unstable Operation PF - Power Failure																										



Wood Buffalo Environmental Association

Summary of Hour Averages

Vertical Wind Speed 163m (VW163) - km/h

Lower Camp Met Tower - July 2026

Maximum Value: -- km/h on Jul 1 00:00																		Maximum Daily Average: -- km/h on Jun 30								Hours in Service: 744	
Minimum Value: -- km/h on Jul 1 00:00																		Minimum Daily Average: -- km/h on Jun 30								Hours of Data: 0	
Maximum Diurnal Average: -- km/h at hour 0																		Minimum Diurnal Average: -- km/h at hour 0								Hours of Missing Data: 744	
Monthly Average: -- km/h																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0								Hours of Calibration: 0	
																										Percent Operational Time: 0.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
2-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
3-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
4-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
5-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
6-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
7-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
8-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
21-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
22-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	--	--	
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	PF	PF	UO	UO	UO	UO	PF	PF	--	--	
24-Jul	UO	PF	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
25-Jul	PF	PF	PF	PF	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	--	--	
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
28-Jul	PF	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	PF	PF	PF	PF	--	--	
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	--	
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
-- --																									Diurnal Average		
-- --																									Diurnal Maximum		
UO - Unstable Operation PF - Power Failure																											



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Vertical Wind Speed 163m (VW163) - km/h

Lower Camp Met Tower - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: -- km/h on Jul 1 00:00

Minimum Value: -- km/h on Jul 1 00:00

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.0 $Q_3 = 0.0$ $P_{90} = 0.0$ $P_{99} = 0.0$

Hours in Service: 744

Hours of Data: 0

Hours of Missing Data: 744

Hours of Calibration: 0

Percent Operational Time: 0.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
2-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
3-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
4-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
5-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
6-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
7-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
8-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
9-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
10-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
11-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
12-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
13-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
14-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
15-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
17-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
18-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
19-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
20-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	--
21-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
22-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	--
23-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	PF	PF	UO	UO	UO	UO	PF	PF	--
24-Jul	UO	PF	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
25-Jul	PF	PF	PF	PF	UO	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	--
26-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
27-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
28-Jul	PF	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	PF	PF	PF	PF	--
29-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	--
30-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
Diurnal Maximum																									
UO - Unstable Operation PF - Power Failure																									



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS04 BUFFALO VIEWPOINT JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BUFFALO VIEWPOINT (AMS04)

JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	707	36	37	99.87	16.8	0	1.9	0
H2S (ppb) Average	707	36	37	99.87	6.6	0	0.8	0
THC (ppm) Average	707	36	37	99.87	3.3	-	2.3	-
NMHC(ppm) Average	707	36	37	99.87	0.06	-	0.007	-
CH4(ppm) Average	707	36	37	99.87	3.3	-	2.3	-
O3(ppb) Average	707	36	37	99.87	47.9	0	29.3	-
NO2(ppb) Average	651	37	93	92.47	21.6	0	9.6	-
NO(ppb) Average	651	37	93	92.47	14.9	-	1.7	-
NOX(ppb) Average	651	37	93	92.47	35	-	11.3	-
PM2.5(ug/m3) Average	741	3	3	100	340.3	59	98	8
Temperature (C) Average	744	0	0	100	32.1	-	23.9	-
Relative Humidity (%) Average	744	0	0	100	97.3	-	84.8	-
Wind Speed 10 m (km/h) Average	744	0	0	100	22	-	13	-
Wind Direction 10 m (deg) Average	744	0	0	100	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BUFFALO VIEWPOINT (AMS04)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	707	0.3	1.2	-	0	0	0	0	0.1	0.4	16.8
H2S (ppb) Average	707	0.38	0.5	-	0	0.1	0.1	0.2	0.5	0.9	6.6
THC (ppm) Average	707	2.15	0.2	-	2	2	2	2.1	2.2	2.3	3.3
NMHC(ppm) Average	707	0.001	0.005	-	0	0	0	0	0	0	0.06
CH4(ppm) Average	707	2.15	0.2	-	2	2	2	2.1	2.2	2.3	3.3
O3(ppb) Average	707	21.98	9.5	-	1.6	9.7	15.3	21.6	28.3	35.2	47.9
NO2(ppb) Average	651	2.4	3.4	-	0	0.2	0.6	1.1	2.7	6.5	21.6
NO(ppb) Average	651	0.44	1.2	-	0	0	0	0.1	0.3	0.9	14.9
NOX(ppb) Average	651	2.84	4.1	-	0	0.4	0.7	1.2	3	7.2	35
PM2.5(ug/m3) Average	741	24.61	39.7	-	1.3	3	5.1	10.3	24.5	70.8	340.3
Temperature 2 m (C) Average	744	18.73	4.3	-	10.7	13.4	15.4	18.2	21.7	24.7	32.1
Relative Humidity (%) Average	744	69.25	17.9	-	26.7	43.1	56.2	71.5	83.6	92.8	97.3
Wind Speed 10 m (km/h) Average	744	7.6	4	-	1	4	5	7	10	14	22
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BUFFALO VIEWPOINT (AMS04)
JULY 2026

OPERATIONAL NOTES

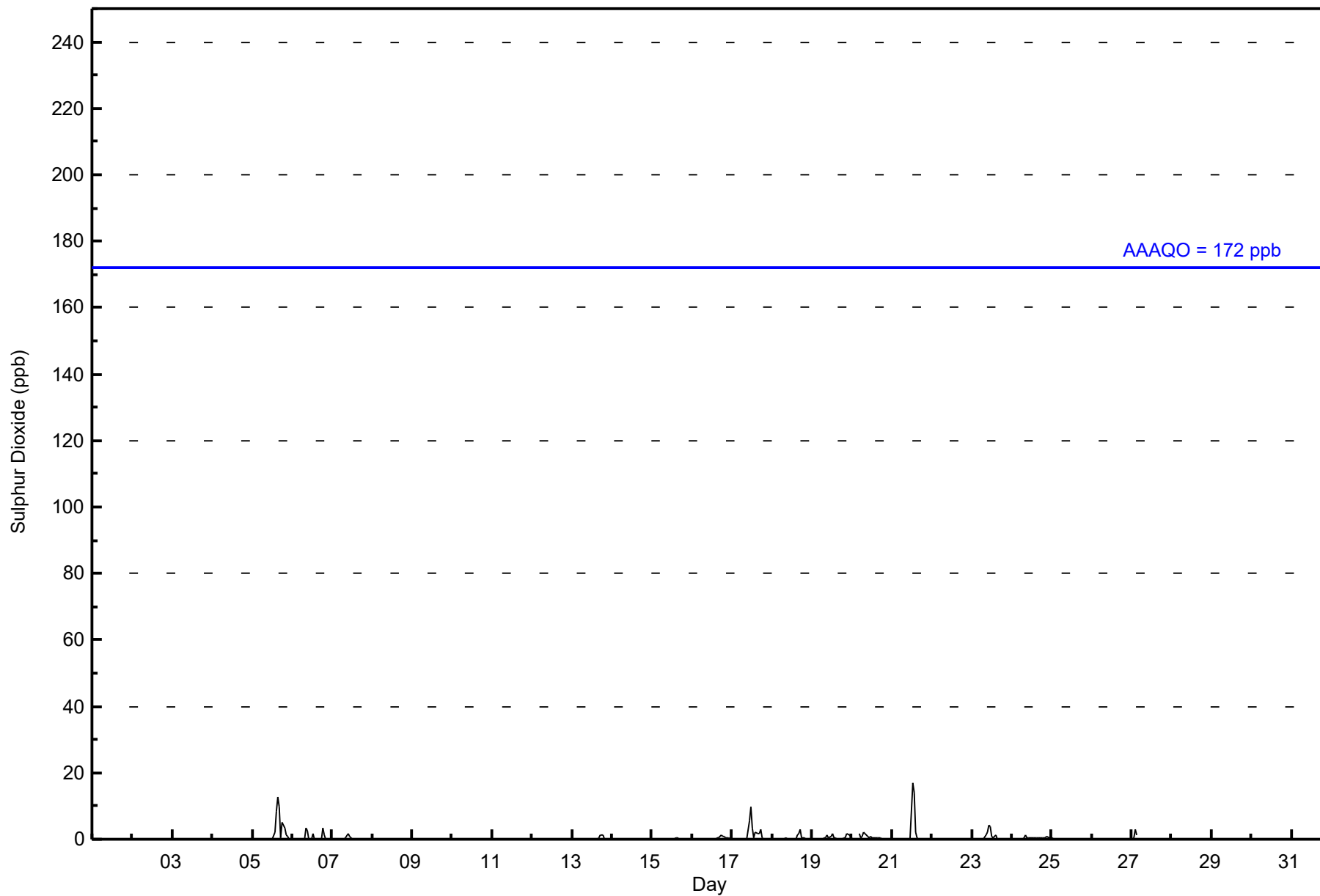
Parameter	Period Start	Period End	Duration (Hours)	Notes
ALL GASEOUS ANALYZERS	31 Jul 2026 14:00	31 Jul 2026 14:00	1	Maintenance - sample manifold cleaned
NO2	15 Jul 2026 03:00	17 Jul 2026 09:00	55	Unstable Operation - excessive baseline noise

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 16.8 ppb on Jul 21 13:00 Maximum Daily Average: 1.9 ppb on Jul 5																	Hours in Service: 744									
Minimum Value: 0.0 ppb on Jul 2 14:00 Minimum Daily Average: 0.0 ppb on Jul 14 Maximum Diurnal Average: 0.9 ppb at hour 13 Minimum Diurnal Average: 0.0 ppb at hour 1 Monthly Average: 0.30 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.1 P ₉₀ = 0.4 P ₉₉ = 4.8																	Hours of Data: 707									
																	Hours of Missing Data: 37									
																	Hours of Calibration: 36									
																	Percent Operational Time: 99.9									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.2	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
2-Jul	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2
4-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
5-Jul	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.3	8.4	12.9	9.6	0.5	4.9	3.3	1.2	0.7	0.2	0.2	1.9	12.9
6-Jul	0.1	Z	0.1	0.1	0.0	0.0	0.1	0.1	3.3	2.6	0.2	0.1	1.7	0.2	0.0	0.0	0.0	0.0	3.4	1.2	0.1	0.1	0.1	0.1	0.6	3.4
7-Jul	0.1	0.1	Z	0.2	0.1	0.2	0.2	0.1	0.4	1.7	0.7	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.2	1.7
8-Jul	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
9-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
10-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
11-Jul	Z	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2
12-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
13-Jul	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.3	1.2	0.0	0.1	0.0	0.0	0.0	0.1	1.3
14-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
16-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.2	0.4	1.1	1.0	0.7	0.4	0.2	0.3	0.2	0.2	1.1
17-Jul	Z	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.2	0.2	5.6	10.0	3.6	0.4	1.9	1.6	1.5	3.0	0.3	0.2	0.1	0.1	0.1	0.1	1.3	10.0
18-Jul	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.0	0.1	0.0	0.1	1.2	1.7	2.8	0.4	0.3	0.2	0.2	0.1	0.1	0.4	2.8
19-Jul	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.3	0.6	1.3	0.5	0.8	1.6	0.6	0.3	0.2	0.1	0.1	0.2	0.5	0.2	1.6	1.2	0.7	0.5	1.6
20-Jul	0.2	0.1	0.0	Z	1.7	0.6	0.8	2.0	1.5	1.0	0.6	0.7	0.6	0.4	0.3	0.4	0.4	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.5	2.0
21-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.0	16.8	14.0	2.0	0.3	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	1.5	16.8
22-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
23-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.3	2.2	4.3	3.7	1.0	0.3	1.1	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.7	4.3
24-Jul	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.4	1.1	0.6	0.6	0.5	0.4	0.2	0.2	0.3	0.3	0.4	0.4	0.3	0.3	1.0	0.5	0.4	0.4	1.1
25-Jul	0.2	0.1	Z	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
26-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
27-Jul	0.0	0.6	2.9	1.3	Z	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.9
28-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.1	C	C	C	C	C	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
29-Jul	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
30-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
31-Jul	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	M	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.2
0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.3 0.4 0.4 0.6 0.9 0.7 0.5 0.6 0.5 0.3 0.4 0.2 0.1 0.1 0.1 0.1 0.1																									Diurnal Average	
0.2 0.6 2.9 1.3 1.7 0.6 0.8 2.0 3.3 2.6 5.6 10.0 16.8 14.0 8.4 12.9 9.6 3.0 4.9 3.3 1.2 1.6 1.2 0.7																									Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Buffalo Viewpoint - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	704	99.58	99.58
11 - 20	3	0.42	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Buffalo Viewpoint - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	40	22	13	9	6	27	76	134	85	37	46	50	63	36	28	32	704
11 - 20	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	41	22	13	9	6	27	76	134	85	37	48	50	63	36	28	32	707

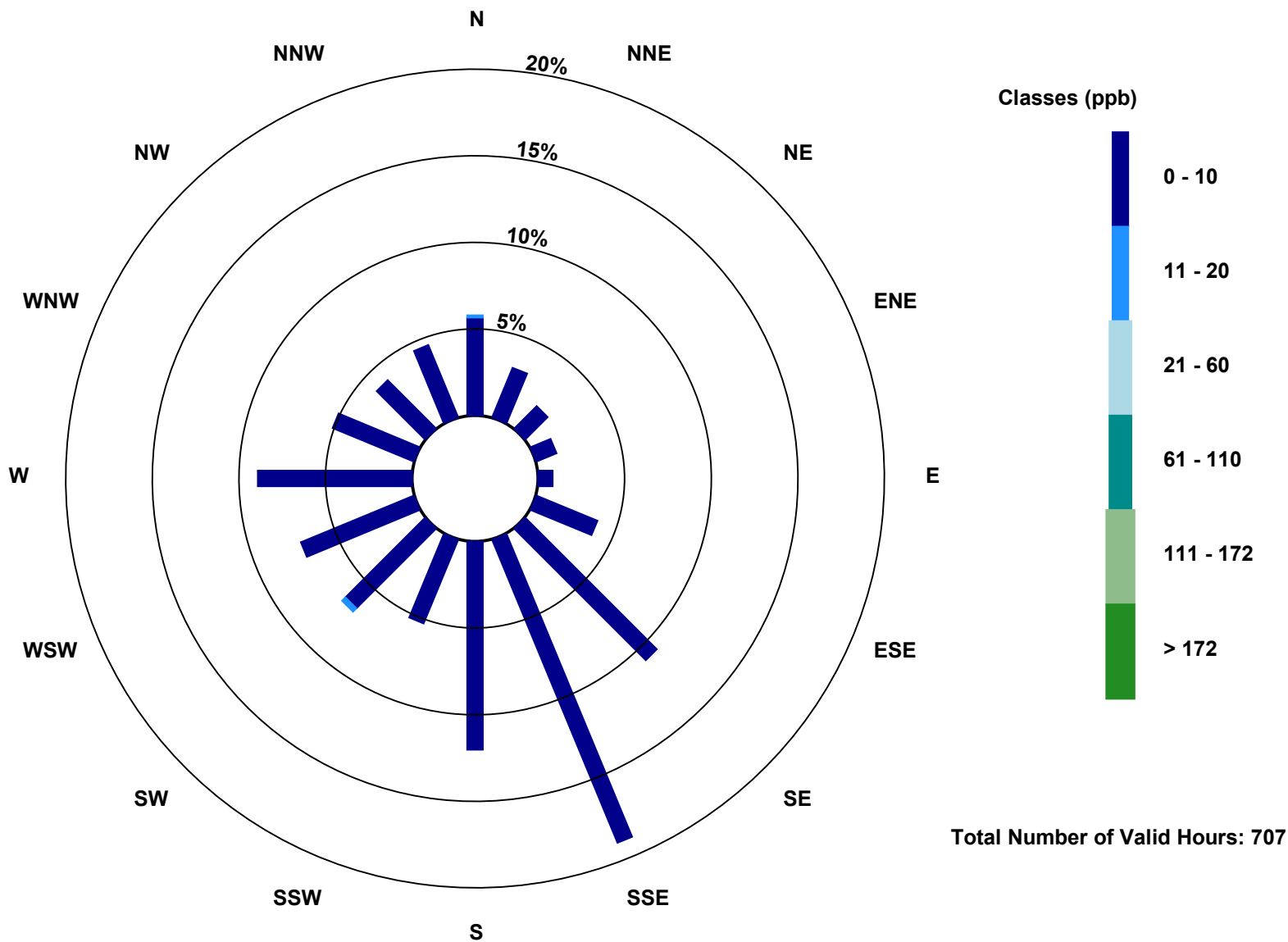
Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

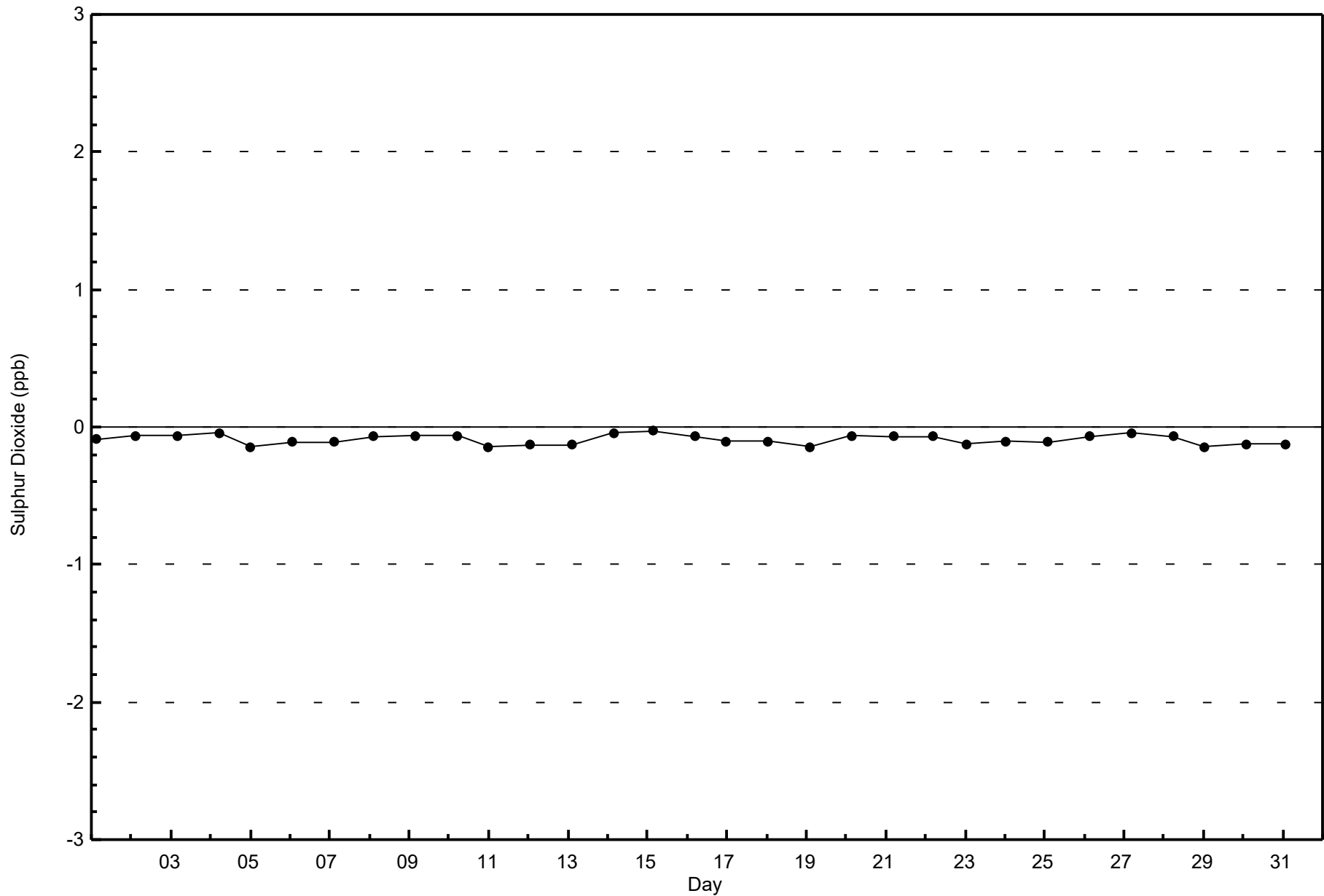
Sulphur Dioxide (SO₂) - ppb
Buffalo Viewpoint





Wood Buffalo Environmental Association
Zero Responses

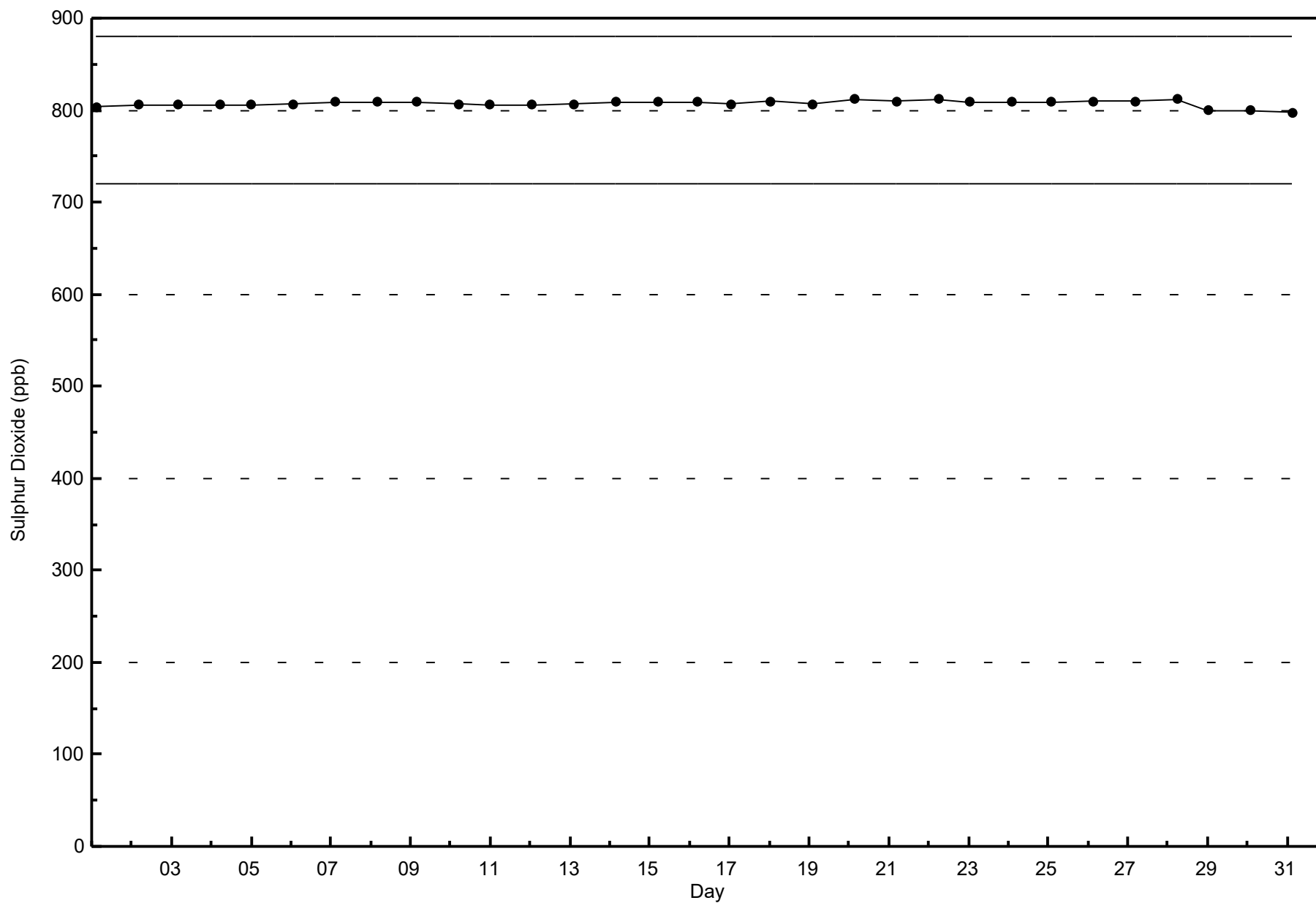
Sulphur Dioxide (SO₂) - ppb
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H₂S) - ppb

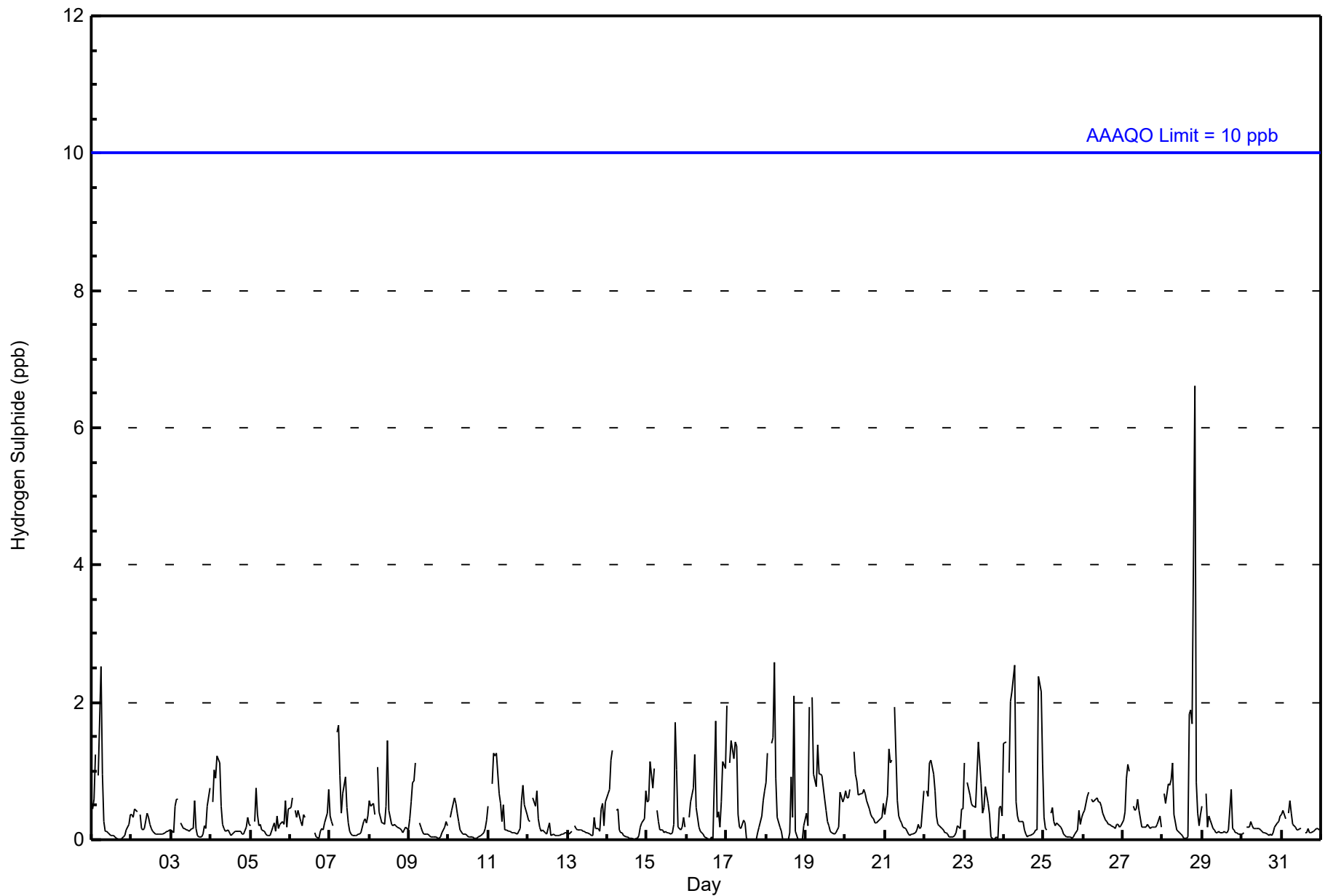
Buffalo Viewpoint - July 2026

Number of Exceedances (AAAQO): Maximum Value: 6.6 ppb on Jul 28 20:00																		1-hr: 0 24-hr: 0 Maximum Daily Average: 0.8 ppb on Jul 28										Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 36 Percent Operational Time: 99.9			
Minimum Value: 0.0 ppb on Jul 1 17:00 Maximum Diurnal Average: 0.9 ppb at hour 6 Monthly Average: 0.38 ppb																		Minimum Daily Average: 0.2 ppb on Jul 30 Minimum Diurnal Average: 0.1 ppb at hour 16 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.5 P ₉₀ = 0.9 P ₉₉ = 2.1													
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jul	0.5	0.6	1.3	Z	0.9	2.5	1.0	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.4	0.4	2.5				
2-Jul	0.4	0.3	0.5	0.4	Z	0.4	0.2	0.1	0.2	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.5				
3-Jul	0.1	0.1	0.5	0.6	0.6	Z	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.6	0.2	0.1	0.0	0.0	0.1	0.2	0.2	0.5	0.8	0.3	0.8					
4-Jul	Z	0.5	1.0	0.9	1.2	1.1	0.5	0.2	0.2	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	0.2	0.3	0.2	1.2					
5-Jul	0.2	Z	0.3	0.8	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.3	0.2	0.2	0.3	0.2	0.6	0.2	0.4	0.2	0.8					
6-Jul	0.5	0.6	Z	0.4	0.3	0.4	0.3	0.2	0.4	0.3	C	C	C	C	C	0.1	0.0	0.0	0.1	0.2	0.1	0.2	0.4	0.7	0.3	0.7					
7-Jul	0.3	0.3	0.2	Z	1.6	1.7	0.9	0.4	0.7	0.9	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.3	0.4	1.7					
8-Jul	0.6	0.5	0.5	0.4	Z	1.1	0.4	0.3	0.2	0.2	0.5	1.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.4	1.4					
9-Jul	0.3	0.6	0.8	0.9	1.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.2	0.2	1.1					
10-Jul	Z	0.3	0.4	0.6	0.5	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.2	0.6					
11-Jul	0.5	Z	0.8	1.3	1.2	1.3	0.7	0.5	0.3	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6	0.8	0.5	0.4	0.5	1.3					
12-Jul	0.3	0.3	Z	0.6	0.5	0.7	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.7					
13-Jul	0.1	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.2	0.1	0.5	0.5	0.2	0.6	0.2	0.6					
14-Jul	0.7	0.7	1.2	1.3	Z	0.4	0.5	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.7	0.3	1.3					
15-Jul	0.5	0.6	1.1	0.7	1.0	Z	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	1.7	1.0	0.2	0.2	0.2	0.3	0.2	0.4	1.7					
16-Jul	Z	0.3	0.5	0.7	0.7	1.2	0.5	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.3	0.4	0.2	0.5	1.1	1.0	0.4	1.7					
17-Jul	2.0	Z	1.1	1.4	1.2	1.4	1.4	0.4	0.2	0.2	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.6	0.7	0.5	2.0					
18-Jul	0.8	1.3	Z	1.4	1.5	2.6	0.9	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.9	0.3	2.1	0.1	0.0	0.0	0.0	0.0	0.2	0.6	2.6					
19-Jul	0.4	0.2	1.9	Z	2.1	1.0	0.8	1.4	0.9	1.0	0.9	0.6	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.7	0.6	0.6	0.6	2.1					
20-Jul	0.7	0.6	0.6	0.7	Z	1.3	1.0	0.9	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.6	1.3					
21-Jul	0.4	0.6	1.3	1.1	1.2	Z	1.9	0.6	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.7	0.4	1.9					
22-Jul	Z	0.7	0.6	1.1	1.2	0.9	0.7	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.4	0.5	0.4	1.2					
23-Jul	1.1	Z	0.8	0.6	0.5	0.5	0.5	0.5	1.4	1.1	0.8	0.4	0.5	0.8	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.3	0.5	1.4					
24-Jul	1.4	1.4	Z	1.0	2.0	2.2	2.5	0.5	0.4	0.3	0.3	0.3	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	2.4	2.1	1.1	0.8	2.5					
25-Jul	0.3	0.2	0.1	Z	0.4	0.5	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4	0.2	0.3	0.2	0.5					
26-Jul	0.4	0.4	0.6	0.7	Z	0.6	0.5	0.6	0.6	0.5	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.7					
27-Jul	0.3	0.4	0.9	1.1	1.0	Z	0.5	0.4	0.4	0.6	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.4	1.1					
28-Jul	Z	0.7	0.5	0.8	0.8	0.9	1.1	0.4	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	1.8	1.9	1.7	6.6	0.8	0.4	0.2	0.4	0.8	6.6					
29-Jul	0.5	Z	0.7	0.2	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.7					
30-Jul	0.1	0.1	Z	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.2	0.4					
31-Jul	0.4	0.4	0.3	Z	0.4	0.6	0.4	0.2	0.2	0.1	0.1	0.2	0.2	M	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.6					
0.5 0.5 0.7 0.8 0.9 0.9 0.6 0.3 0.3 0.3 0.3 0.2 0.2 0.1 0.1 0.1 0.2 0.3 0.2 0.3 0.2 0.3 0.4 0.4 Diurnal Average																															
2.0 1.4 1.9 1.4 2.1 2.6 2.5 1.4 1.4 1.1 0.9 1.4 0.7 0.8 0.6 0.9 1.8 2.1 1.7 6.6 0.8 2.4 2.1 1.1 Diurnal Maximum																															
Z - zerospan C - Calibration M - Maintenance																															
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																															



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Buffalo Viewpoint - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	703	99.43	99.43
3 - 4	3	0.42	99.86
5 - 7	1	0.14	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Buffalo Viewpoint - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	43	21	13	9	6	29	79	134	84	37	47	49	61	33	27	31	703
3 - 4	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	3
5 - 7	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	43	21	13	10	6	29	79	136	85	37	47	49	61	33	27	31	707

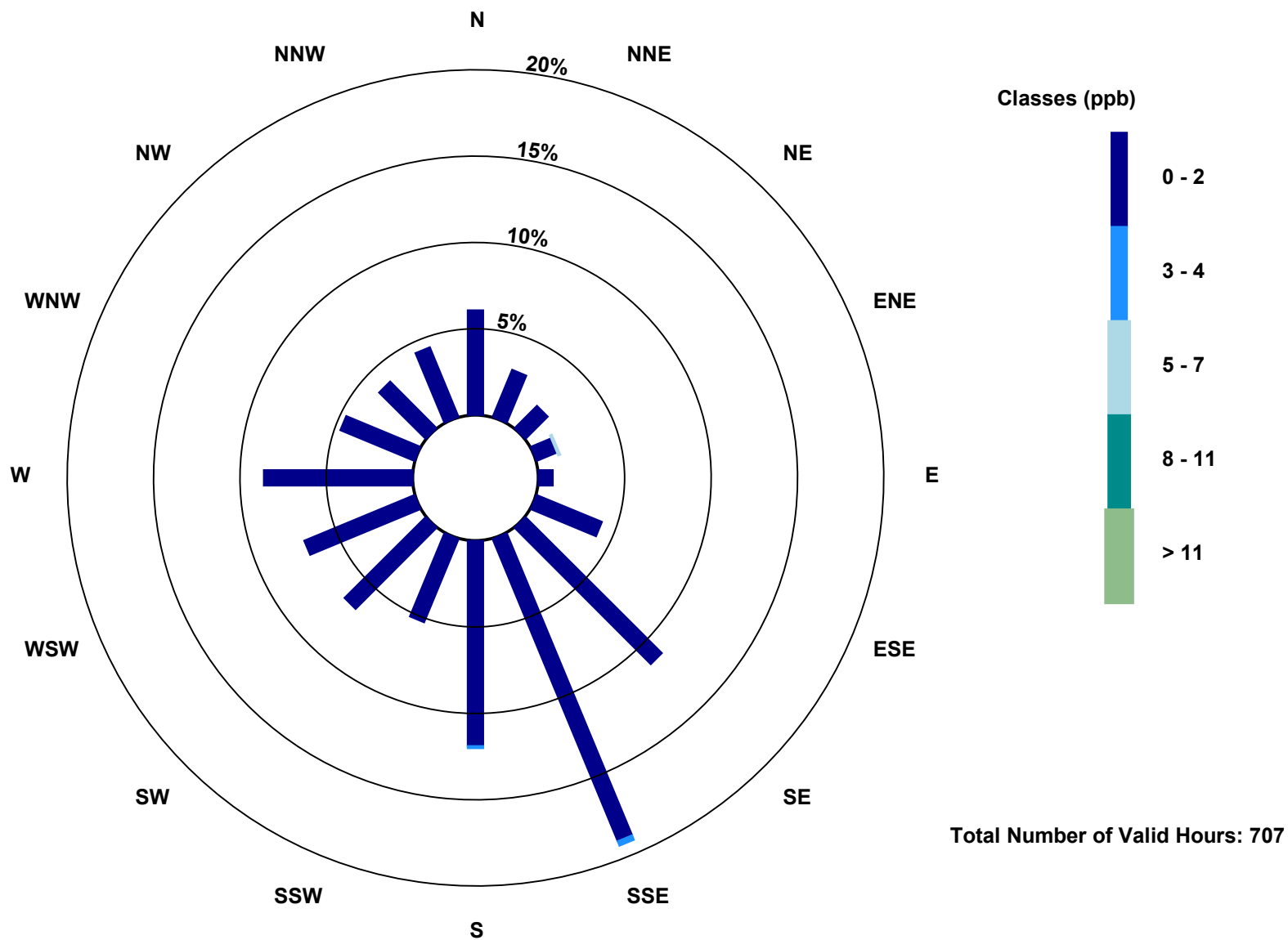
Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

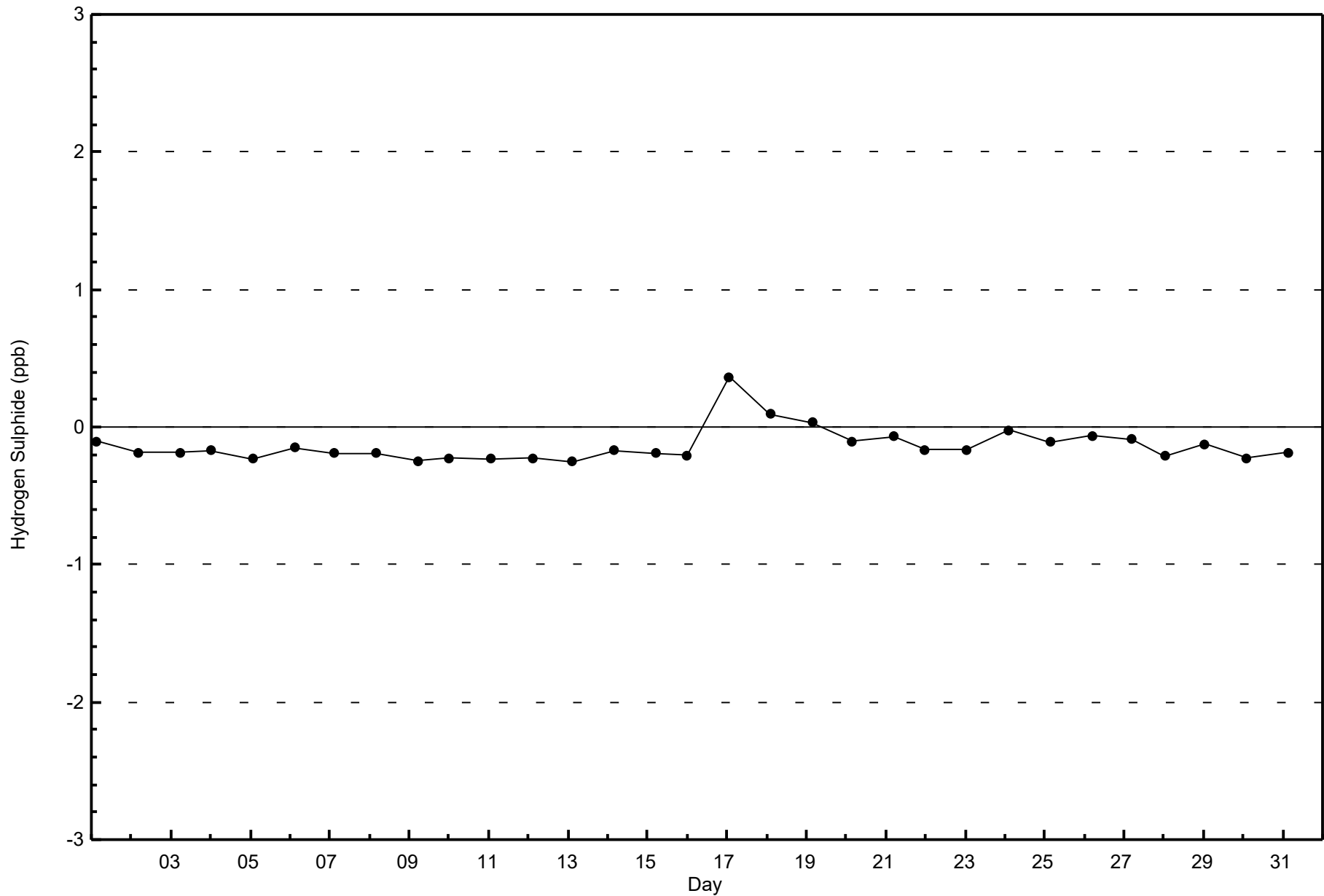
Hydrogen Sulphide (H₂S) - ppb
Buffalo Viewpoint





Wood Buffalo Environmental Association
Zero Responses

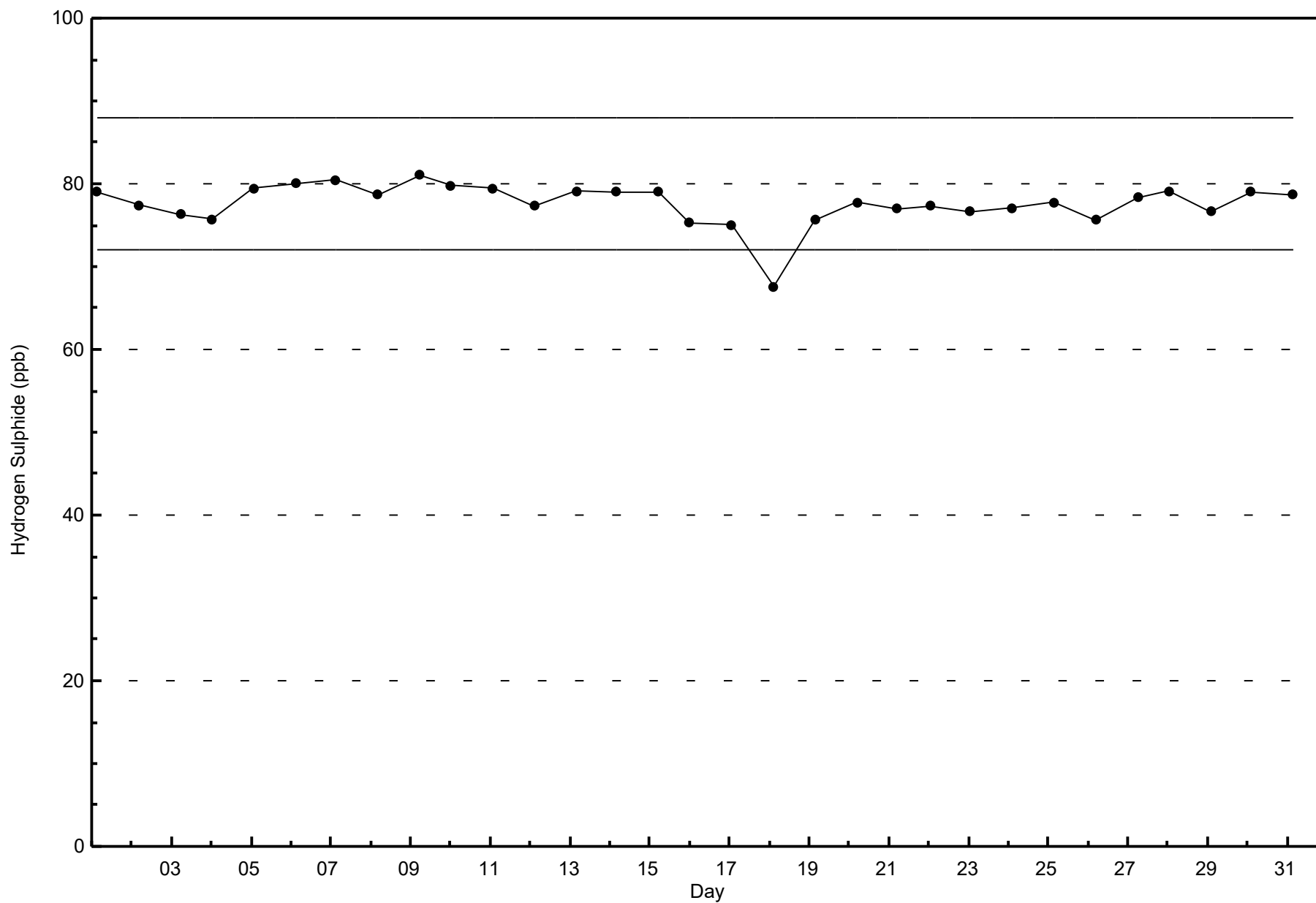
Hydrogen Sulphide (H₂S) - ppb
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Span Responses

Hydrogen Sulphide (H₂S) - ppb
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

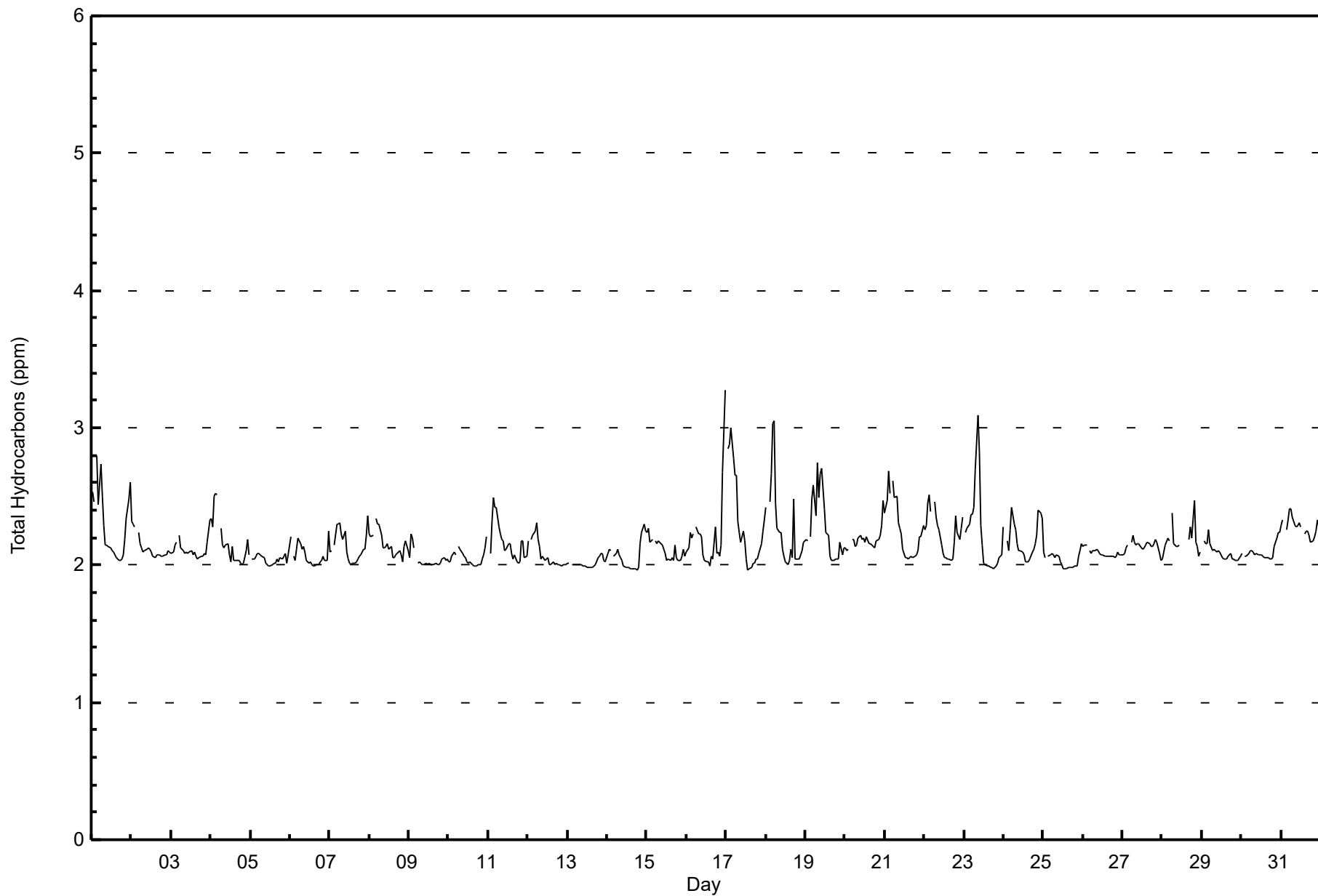
Buffalo Viewpoint - July 2026

Maximum Value: 3.3 ppm on Jul 17 00:00																	Maximum Daily Average: 2.3 ppm on Jul 17										Hours in Service: 744	
Minimum Value: 2.0 ppm on Jul 17 14:00																	Minimum Daily Average: 2.0 ppm on Jul 13										Hours of Data: 707	
Maximum Diurnal Average: 2.3 ppm at hour 6																	Minimum Diurnal Average: 2.0 ppm at hour 15										Hours of Missing Data: 37	
Monthly Average: 2.15 ppm																	Percentiles: P ₁ = 2.0 P ₁₀ = 2.0 Q ₁ = 2.0 Median = 2.1 Q ₃ = 2.2 P ₉₀ = 2.3 P ₉₉ = 2.8										Hours of Calibration: 36	
																											Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	2.5	2.5	Z	2.8	2.4	2.7	2.5	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.2	2.3	2.5	2.6	2.3	2.8		
2-Jul	2.3	2.3	2.3	Z	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3		
3-Jul	2.1	2.1	2.1	2.2	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.1	2.3		
4-Jul	2.3	2.3	2.5	2.5	2.5	Z	2.3	2.2	2.1	2.1	2.2	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.2	2.5		
5-Jul	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.1	2.0	2.1		
6-Jul	2.2	Z	2.1	2.0	2.1	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.3	2.1	2.3		
7-Jul	2.1	2.1	Z	2.1	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.4	2.1	2.4		
8-Jul	2.2	2.2	2.2	Z	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.2	2.1	2.2	2.3		
9-Jul	2.1	2.2	2.2	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.2		
10-Jul	2.0	2.0	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.2		
11-Jul	Z	2.1	2.3	2.5	2.4	2.4	2.3	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.0	2.1	2.0	2.0	2.0	2.2	2.2	2.1	2.1	2.2	2.5		
12-Jul	2.2	Z	2.2	2.2	2.2	2.3	2.2	2.1	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3		
13-Jul	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1		
14-Jul	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.3	2.3	2.1	2.3		
15-Jul	2.2	2.3	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.3		
16-Jul	2.1	2.1	2.2	2.2	2.2	Z	2.3	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.3	2.1	2.1	2.1	2.1	2.7	3.3	2.2	3.3		
17-Jul	Z	2.8	2.9	3.0	2.8	2.7	2.7	2.3	2.2	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.3	2.3	3.0		
18-Jul	2.4	Z	2.5	2.7	3.0	3.0	2.5	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.5	2.0	2.0	2.0	2.1	2.1	2.2	2.3	3.0		
19-Jul	2.2	2.2	Z	2.2	2.5	2.6	2.4	2.7	2.5	2.7	2.7	2.4	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.3	2.7		
20-Jul	2.1	2.1	2.1	Z	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.5	2.2	2.5		
21-Jul	2.4	2.5	2.7	2.5	Z	2.6	2.5	2.5	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.7		
22-Jul	2.3	2.3	2.5	2.5	2.4	Z	2.5	2.3	2.3	2.3	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.2	2.4	2.2	2.2	2.3	2.3	2.2	2.5		
23-Jul	Z	2.2	2.3	2.3	2.4	2.4	2.4	2.7	3.1	2.8	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	3.1		
24-Jul	2.3	Z	2.2	2.1	2.3	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.4	2.4	2.3	2.2	2.4		
25-Jul	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.0	2.2		
26-Jul	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1		
27-Jul	2.1	2.1	2.1	2.1	Z	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.1	2.0	2.1	2.2		
28-Jul	2.0	2.1	2.1	2.2	2.2	Z	2.4	2.2	2.1	2.1	2.1	C	C	C	C	C	2.2	2.3	2.2	2.5	2.2	2.1	2.1	2.1	2.2	2.5		
29-Jul	Z	2.2	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.3		
30-Jul	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.1	2.2		
31-Jul	2.3	2.3	Z	2.3	2.3	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	M	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4		
2.2 2.2 2.2 2.3 2.3 2.3 2.2 2.2 2.2 2.2 2.1 2.1 2.1 2.1 2.0 2.0 2.1 2.1 2.1 2.1 2.1 2.1 2.2 2.2																									Diurnal Average			
2.5 2.8 2.9 3.0 3.0 3.0 2.7 2.7 3.1 2.8 2.7 2.4 2.3 2.2 2.2 2.3 2.2 2.5 2.2 2.5 2.2 2.4 2.7 3.3																									Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance																												



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Buffalo Viewpoint - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	195	27.58	27.58
2.1 - 3.0	510	72.14	99.72
3.1 - 10.0	2	0.28	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Buffalo Viewpoint - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	9	2	2	0	0	4	10	10	23	16	25	37	27	15	8	7	195
2.1 - 3.0	32	20	11	9	6	23	66	124	62	21	23	13	36	21	20	23	510
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	41	22	13	9	6	27	76	134	85	37	48	50	63	36	28	32	707

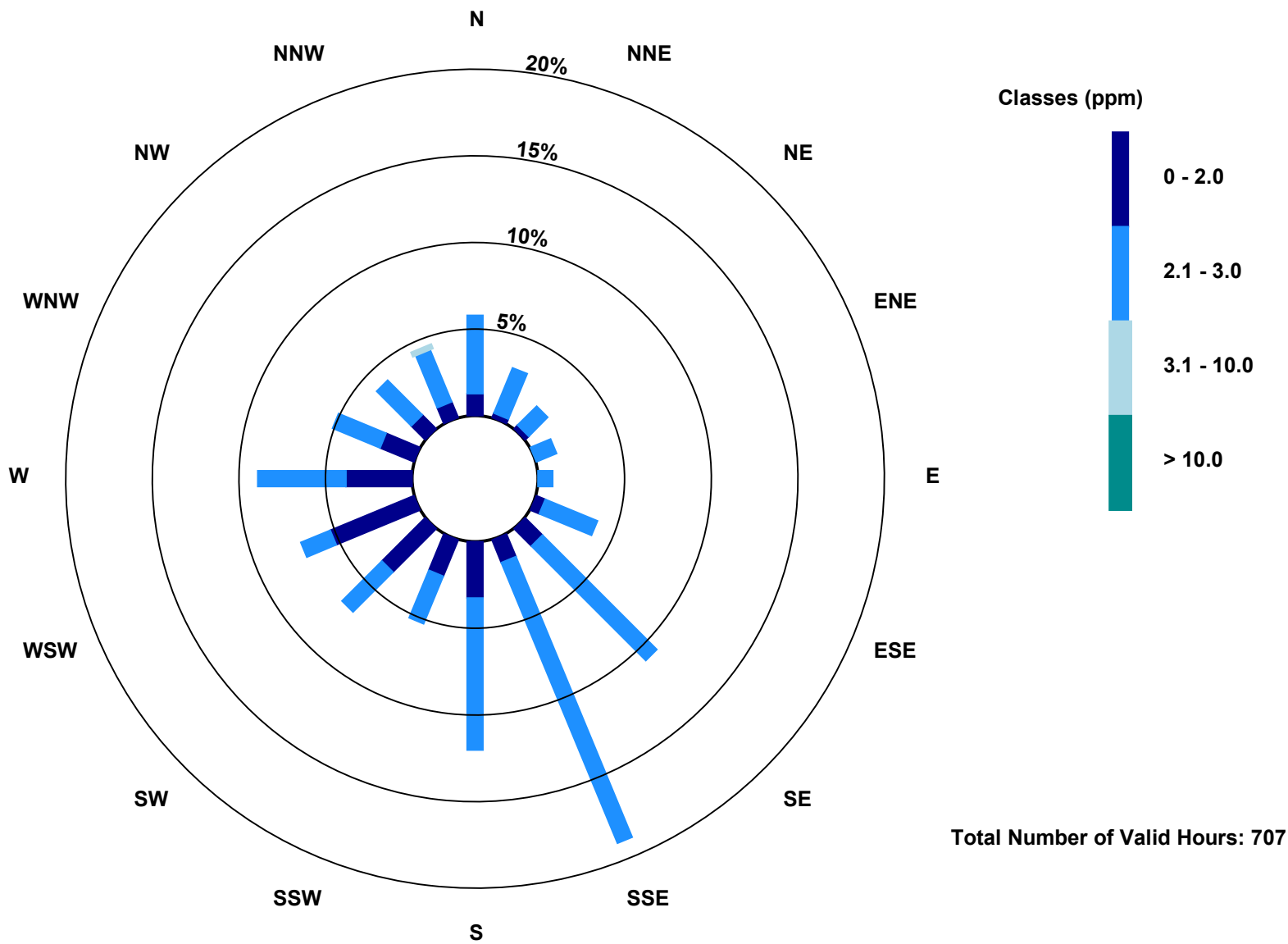
Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

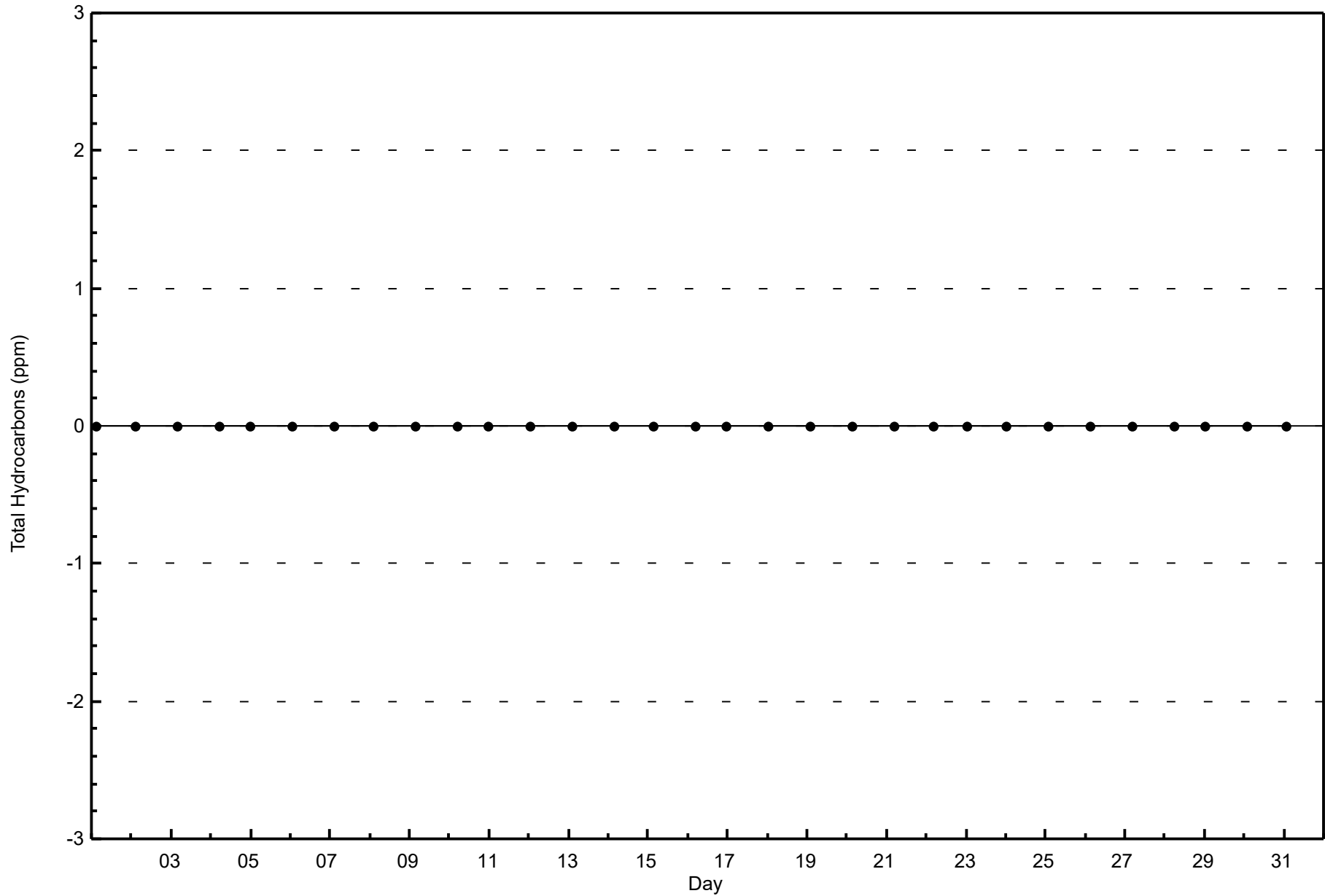
Total Hydrocarbons (THC) - ppm
Buffalo Viewpoint





Wood Buffalo Environmental Association
Zero Responses

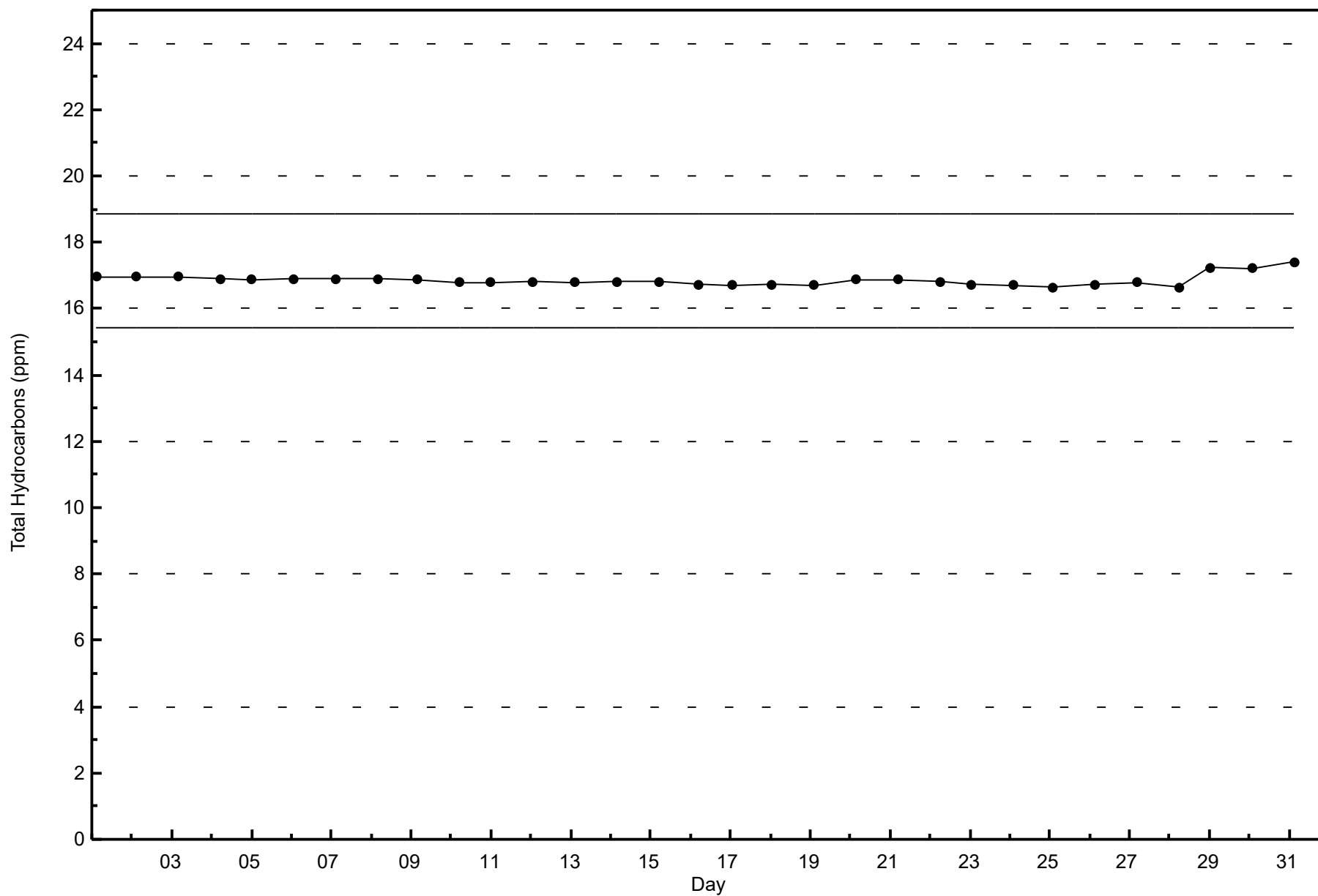
Total Hydrocarbons (THC) - ppm
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Span Responses

Total Hydrocarbons (THC) - ppm
Buffalo Viewpoint - July 2026



Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

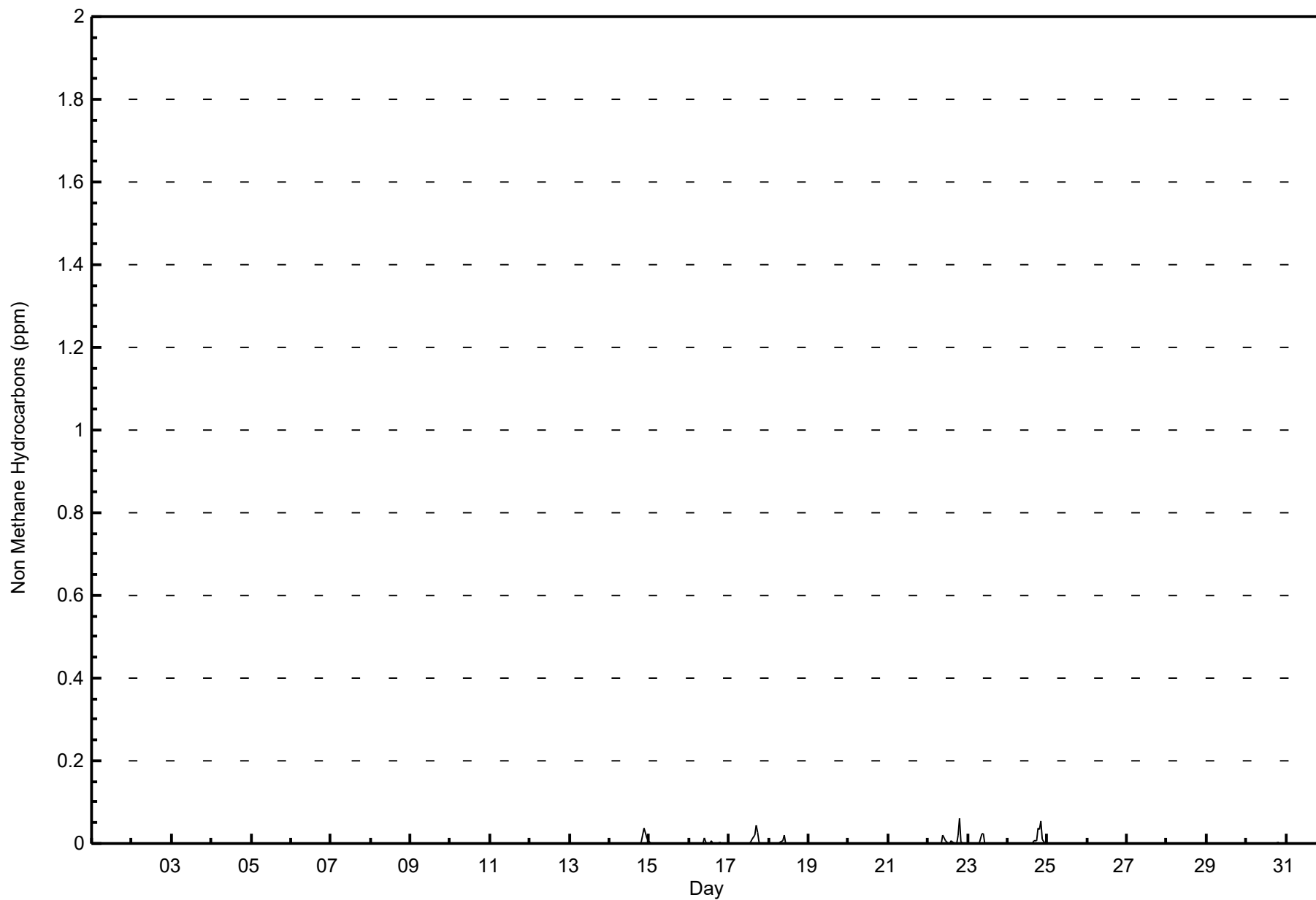
Buffalo Viewpoint - July 2026

[illegible]



Wood Buffalo Environmental Association
Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Buffalo Viewpoint - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	683	96.61	96.61
0.006 - 0.05	22	3.11	99.72
0.06 - 0.1	2	0.28	100.00
> 0.1	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Buffalo Viewpoint - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 0.005	41	22	13	9	6	27	68	129	80	36	48	49	62	36	26	31	683
0.006 - 0.05	0	0	0	0	0	0	7	5	4	1	0	1	1	0	2	1	22
0.06 - 0.1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
> 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	41	22	13	9	6	27	76	134	85	37	48	50	63	36	28	32	707

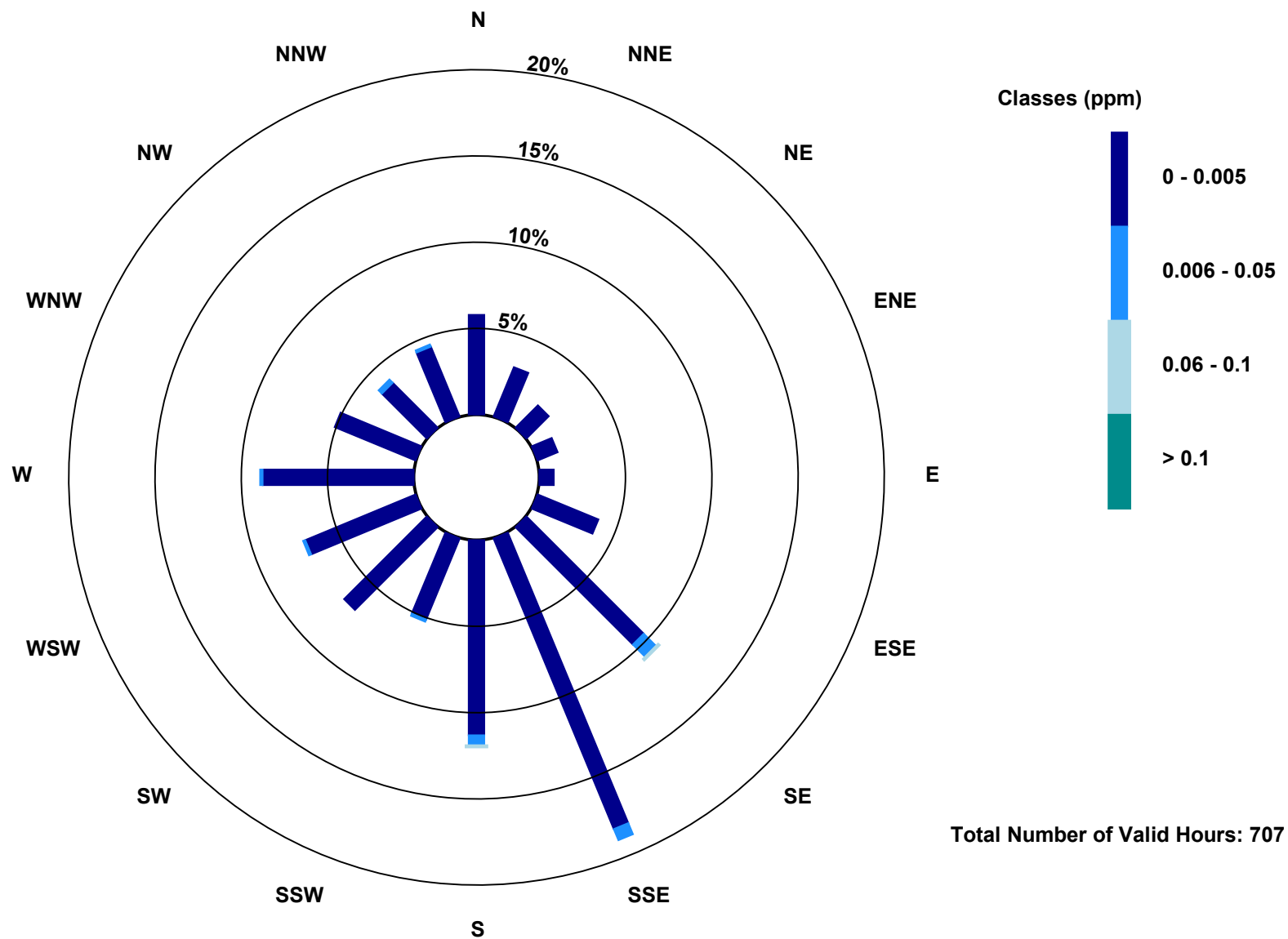
Total Number of Valid Hours: 707

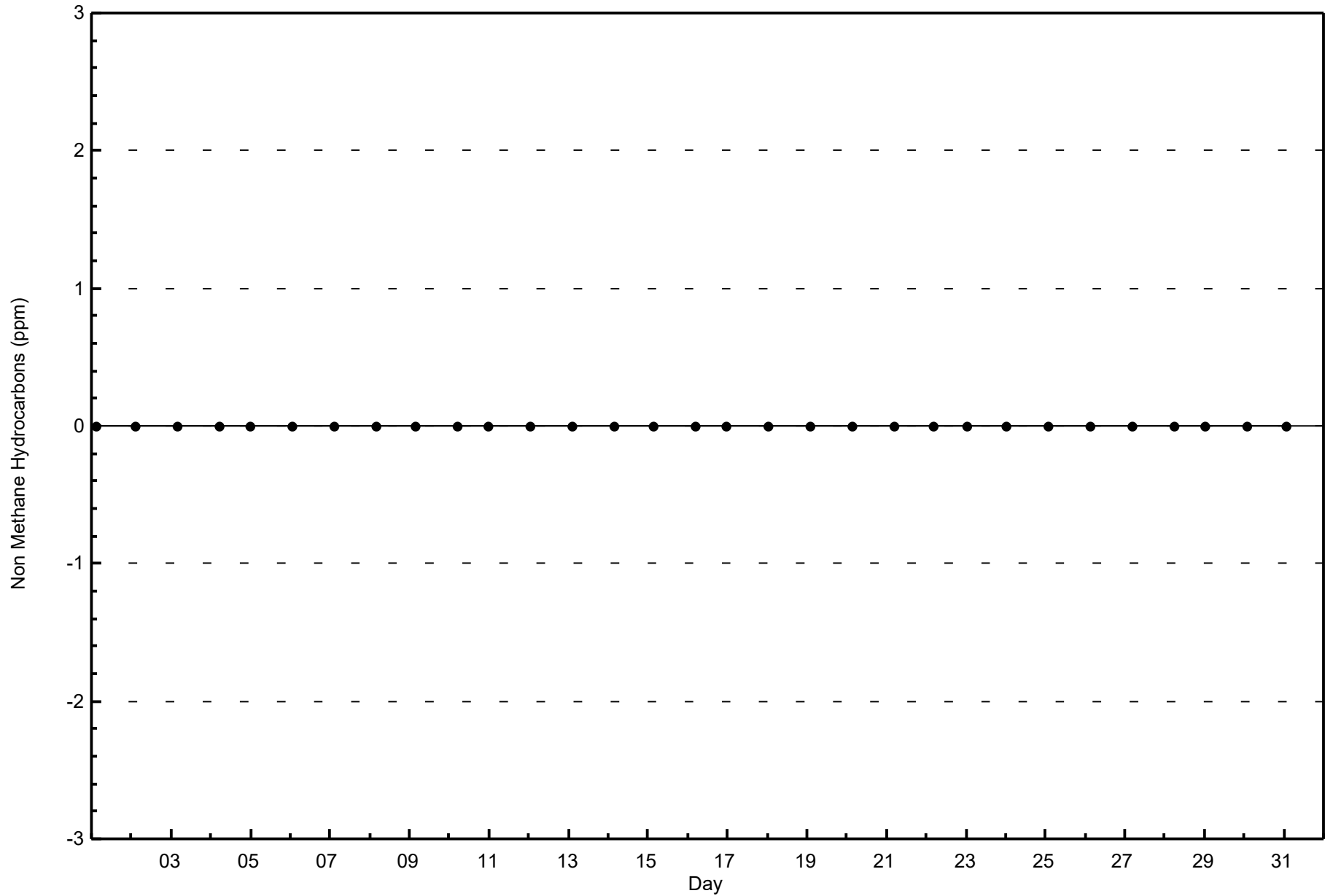
Total Number of Hours: 744

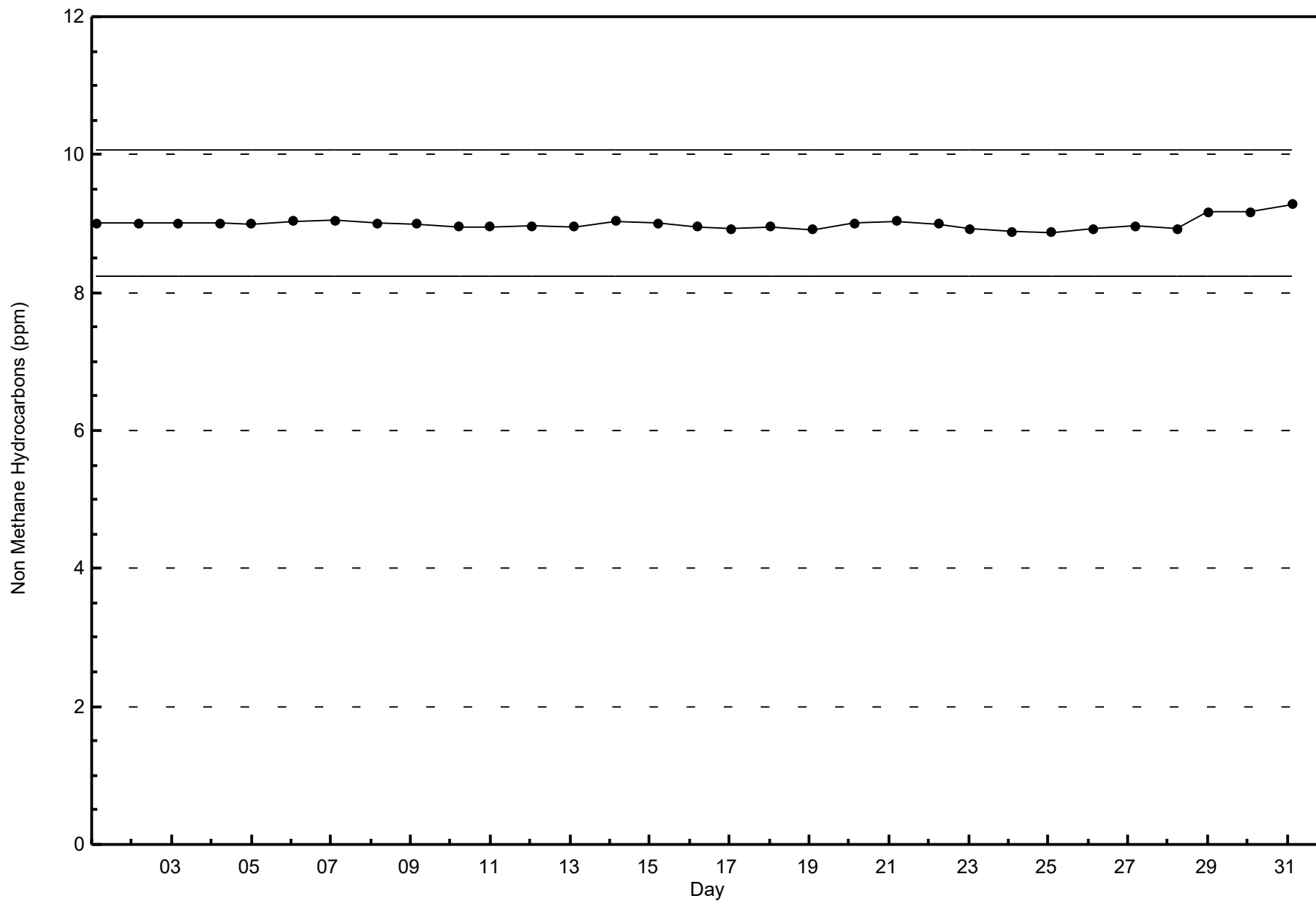


Wood Buffalo Environmental Association
Wind Rose Jul 2026

Non Methane Hydrocarbons (NMHC) - ppm
Buffalo Viewpoint









Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH₄) - ppm

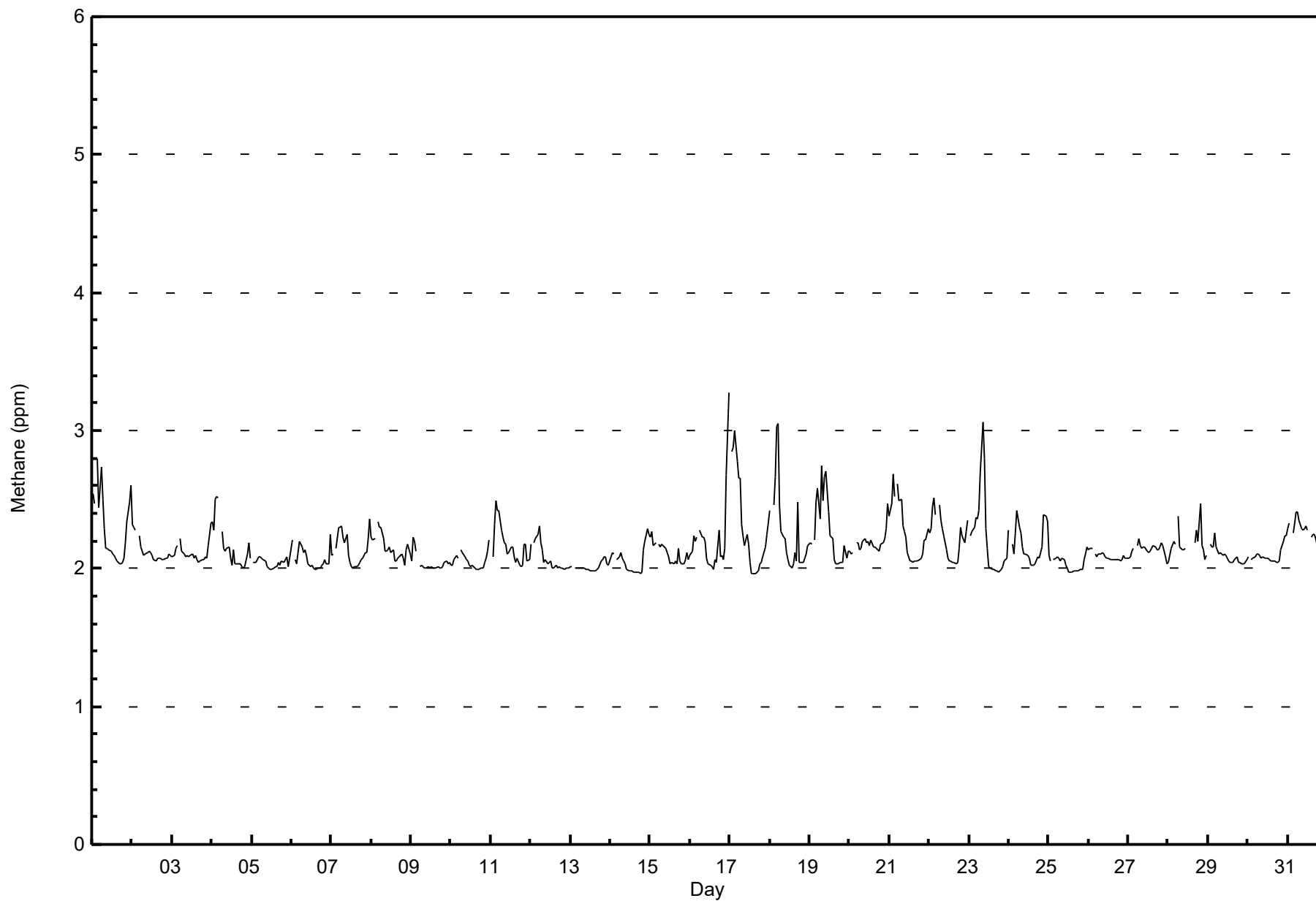
Buffalo Viewpoint - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.3 ppm on Jul 17 00:00 Maximum Daily Average: 2.3 ppm on Jul 17																		Hours in Service: 744								
Minimum Value: 2.0 ppm on Jul 17 14:00 Minimum Daily Average: 2.0 ppm on Jul 13 Maximum Diurnal Average: 2.3 ppm at hour 6 Minimum Diurnal Average: 2.0 ppm at hour 15 Monthly Average: 2.15 ppm Percentiles: P ₁ = 2.0 P ₁₀ = 2.0 Q ₁ = 2.0 Median = 2.1 Q ₃ = 2.2 P ₉₀ = 2.3 P ₉₉ = 2.8																		Hours of Data: 707								
																		Hours of Missing Data: 37								
																		Hours of Calibration: 36								
																		Percent Operational Time: 99.9								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	2.5	2.5	Z	2.8	2.4	2.7	2.5	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.2	2.3	2.5	2.6	2.3	2.8
2-Jul	2.3	2.3	2.3	Z	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3
3-Jul	2.1	2.1	2.1	2.2	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.1	2.3
4-Jul	2.3	2.3	2.5	2.5	2.5	Z	2.3	2.2	2.1	2.1	2.2	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.2	2.5
5-Jul	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.1	2.0	2.1
6-Jul	2.2	Z	2.1	2.0	2.1	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.3	2.1	2.3
7-Jul	2.1	2.1	Z	2.1	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.4	2.1	2.4
8-Jul	2.2	2.2	2.2	Z	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.2	2.1	2.2	2.3
9-Jul	2.1	2.2	2.2	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.2
10-Jul	2.0	2.0	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.2
11-Jul	Z	2.1	2.3	2.5	2.4	2.4	2.3	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.0	2.1	2.0	2.0	2.0	2.2	2.2	2.1	2.1	2.2	2.5
12-Jul	2.2	Z	2.2	2.2	2.2	2.3	2.2	2.1	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3
13-Jul	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1
14-Jul	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.2	2.1	2.3
15-Jul	2.2	2.3	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.3
16-Jul	2.1	2.1	2.2	2.2	2.2	Z	2.3	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.3	2.1	2.1	2.1	2.1	2.7	3.3	2.2	3.3
17-Jul	Z	2.8	2.9	3.0	2.8	2.7	2.7	2.3	2.2	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.3	2.3	3.0
18-Jul	2.4	Z	2.5	2.7	3.0	3.0	2.5	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.5	2.0	2.0	2.0	2.1	2.1	2.2	2.3	3.0
19-Jul	2.2	2.2	Z	2.2	2.5	2.6	2.4	2.7	2.5	2.7	2.7	2.4	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.3	2.7
20-Jul	2.1	2.1	2.1	Z	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.5	2.2	2.5
21-Jul	2.4	2.5	2.7	2.5	Z	2.6	2.5	2.5	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.7
22-Jul	2.3	2.3	2.5	2.5	2.4	Z	2.5	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.3	2.2	2.2	2.3	2.3	2.2	2.5
23-Jul	Z	2.2	2.3	2.3	2.4	2.4	2.4	2.7	3.1	2.8	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	3.1
24-Jul	2.3	Z	2.2	2.1	2.3	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.4	2.4	2.3	2.2	2.4
25-Jul	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.0	2.2
26-Jul	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
27-Jul	2.1	2.1	2.1	2.1	Z	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.0	2.1	2.2
28-Jul	2.0	2.1	2.1	2.2	2.2	Z	2.4	2.2	2.1	2.1	2.1	C	C	C	C	C	2.2	2.3	2.2	2.5	2.2	2.1	2.1	2.1	2.2	2.5
29-Jul	Z	2.2	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.3
30-Jul	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.1	2.2
31-Jul	2.3	2.3	Z	2.3	2.3	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	M	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4
																								Diurnal Average		
																								Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance																										



Wood Buffalo Environmental Association
Hourly Averages

Methane (CH₄) - ppm
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Methane (CH₄) - ppm
Buffalo Viewpoint - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	195	27.58	27.58
2.1 - 3.0	510	72.14	99.72
3.1 - 10.0	2	0.28	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Methane (CH₄) - ppm
Buffalo Viewpoint - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	9	2	2	0	0	4	10	10	23	16	25	37	27	15	8	7	195
2.1 - 3.0	32	20	11	9	6	23	66	124	62	21	23	13	36	21	20	23	510
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	41	22	13	9	6	27	76	134	85	37	48	50	63	36	28	32	707

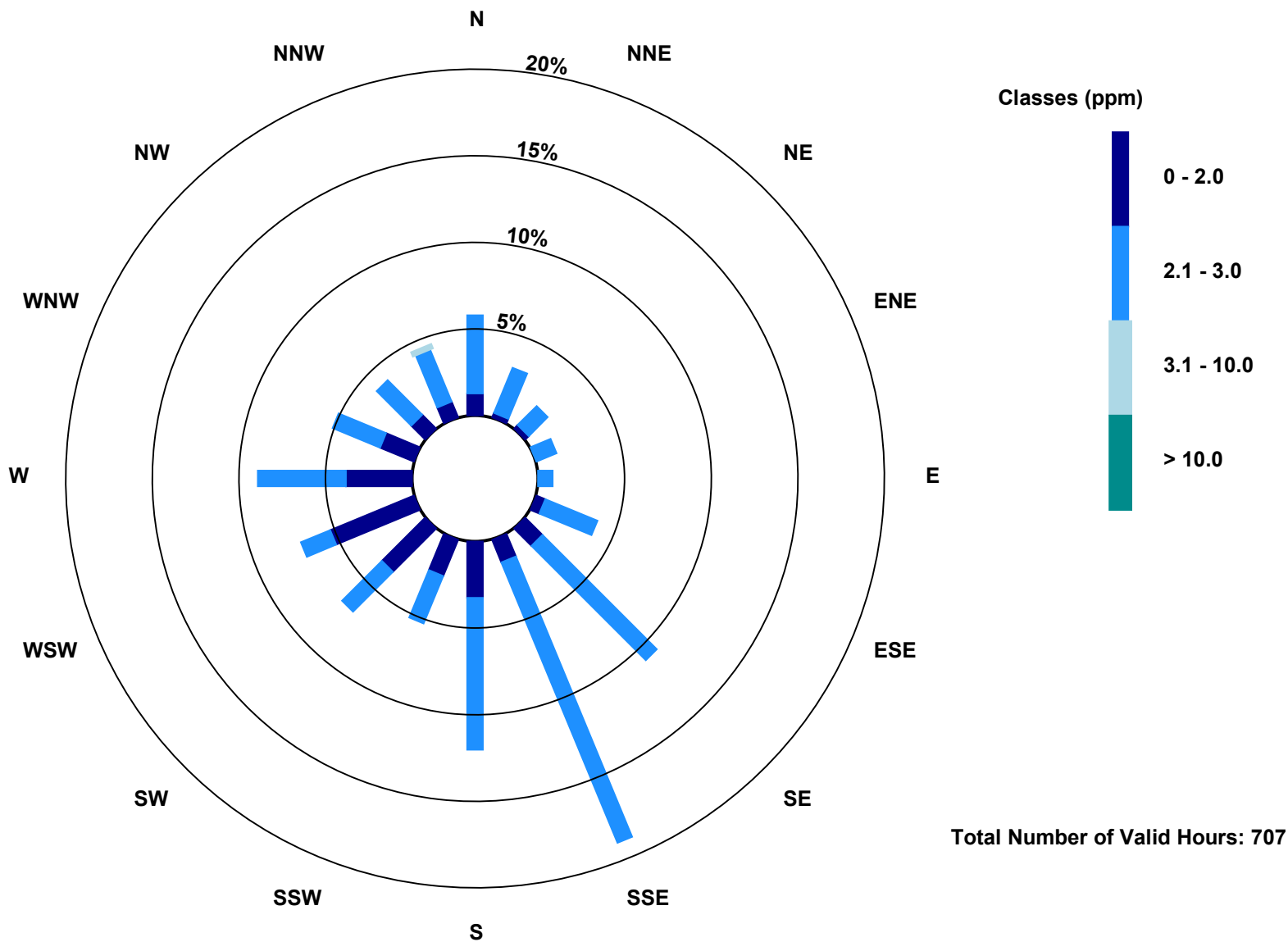
Total Number of Valid Hours: 707

Total Number of Hours: 744

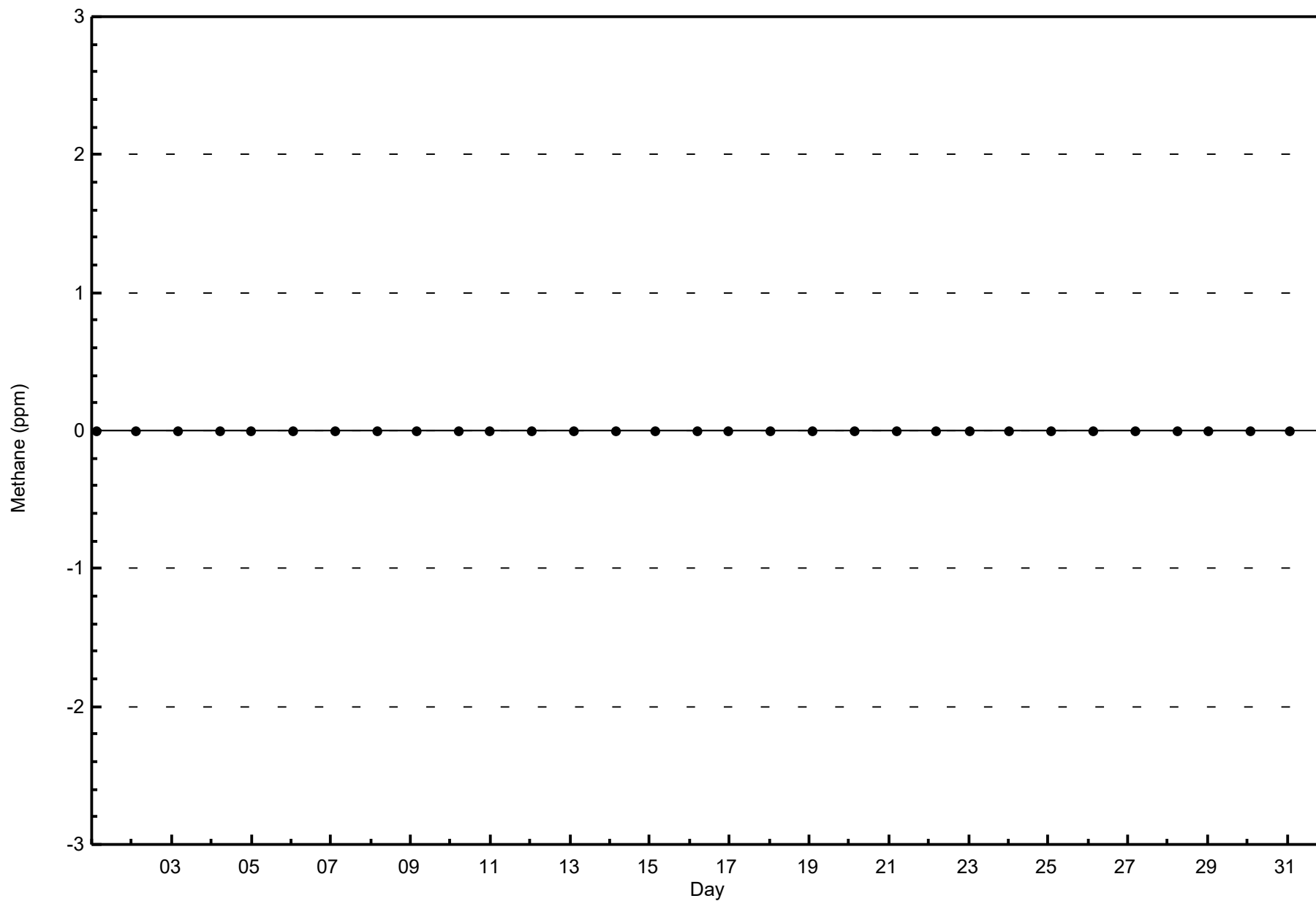


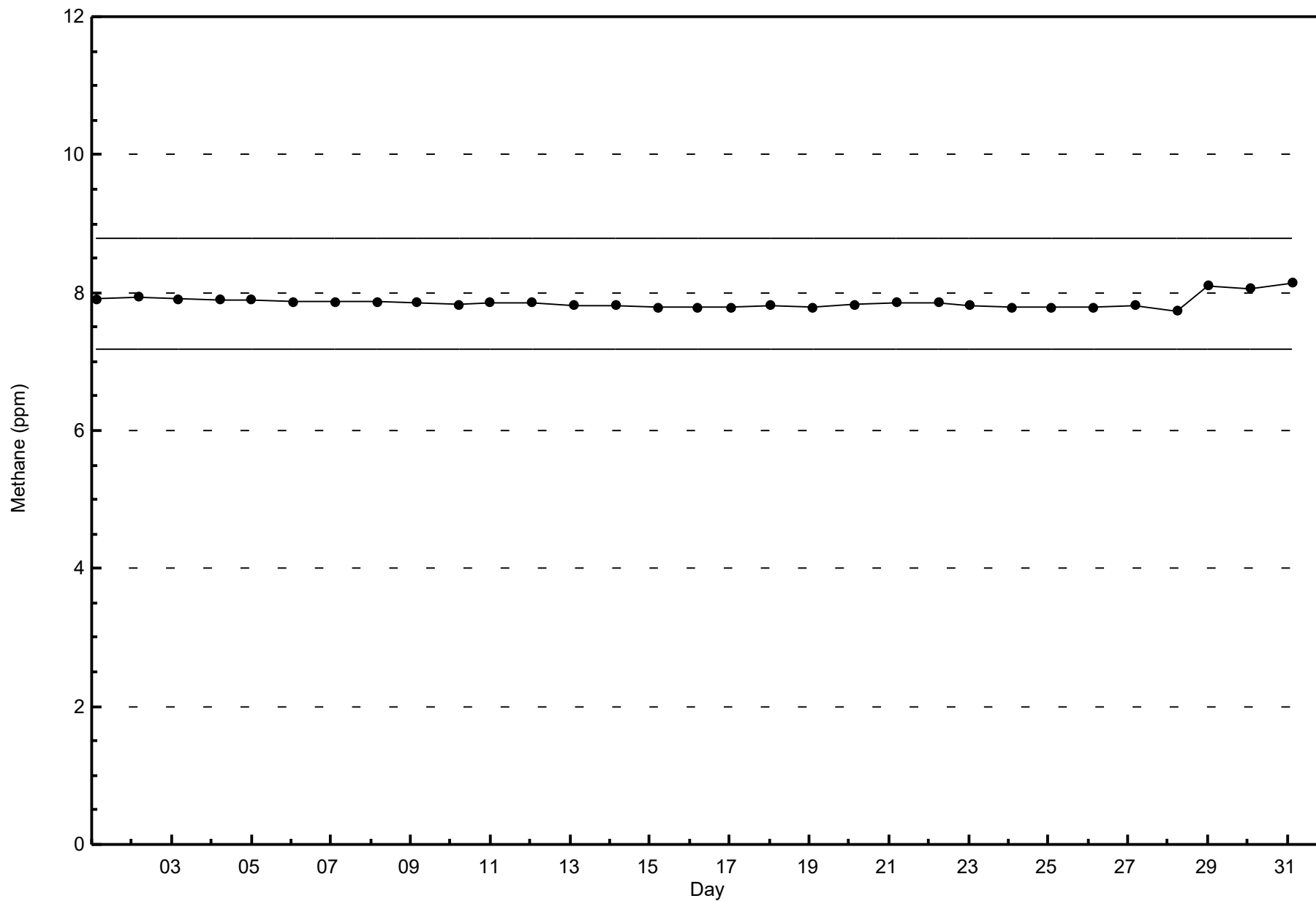
Wood Buffalo Environmental Association
Wind Rose Jul 2026

Methane (CH₄) - ppm
Buffalo Viewpoint



Total Number of Valid Hours: 707







Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

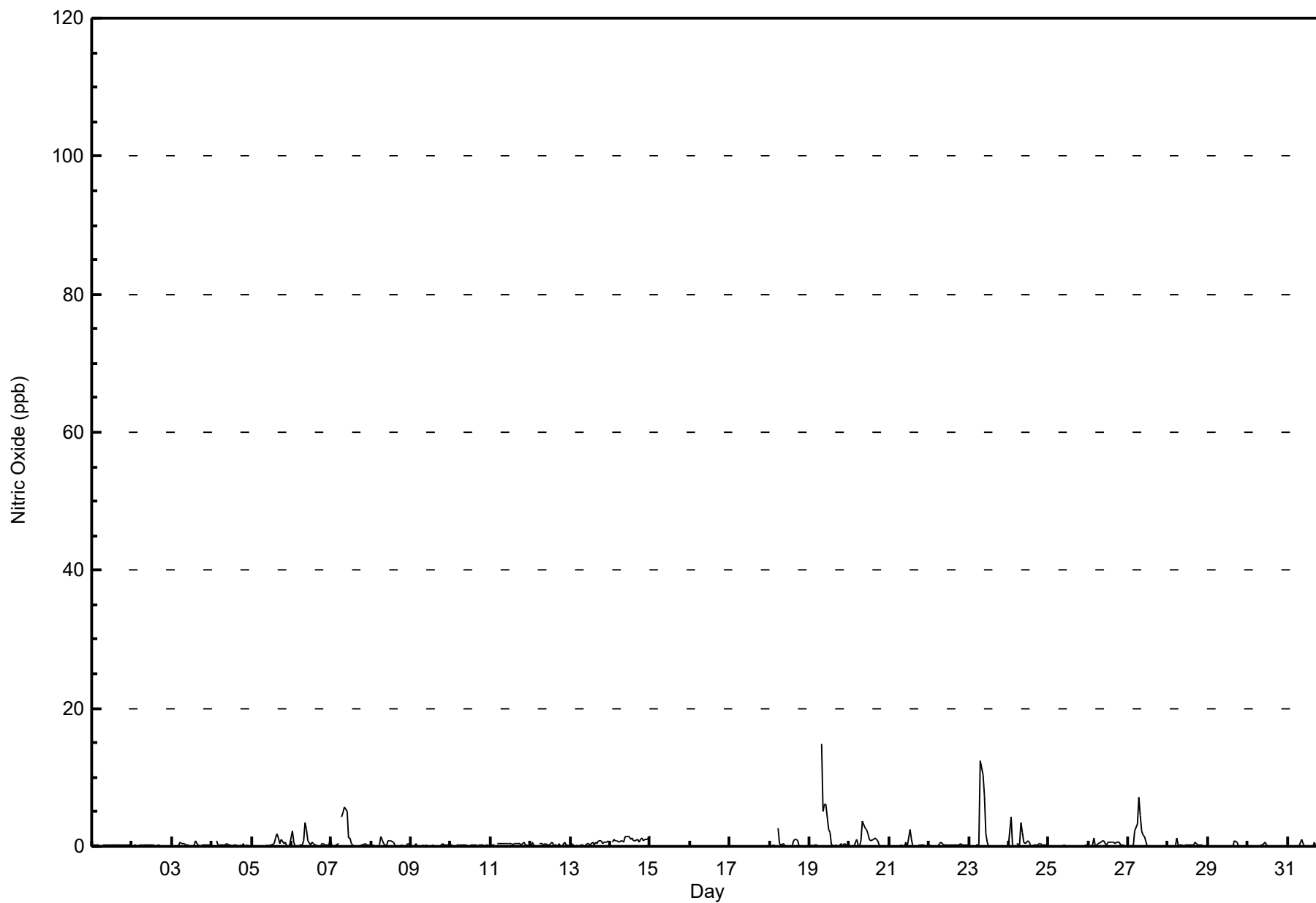
Buffalo Viewpoint - July 2026

Maximum Value: 14.9 ppb on Jul 19 08:00																			Maximum Daily Average: 1.7 ppb on Jul 19							Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 3 00:00																			Minimum Daily Average: 0.0 ppb on Jul 25							Hours of Data: 651	
Maximum Diurnal Average: 1.7 ppb at hour 8																			Minimum Diurnal Average: 0.1 ppb at hour 3							Hours of Missing Data: 93	
Monthly Average: 0.44 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.9 P ₉₉ = 5.9							Hours of Calibration: 37	
																										Percent Operational Time: 92.5	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.2	0.1	0.1	0.1	0.1	Z	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.3	
2-Jul	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.3	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.3	
3-Jul	0.0	Z	0.0	0.0	0.2	0.6	0.4	0.4	0.2	0.2	0.1	0.1	0.1	0.3	0.9	0.5	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.9	
4-Jul	0.0	0.1	Z	0.9	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.1	0.0	0.1	0.1	0.3	0.0	0.1	0.0	0.4	0.0	0.1	0.0	0.0	0.2	0.9	
5-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.3	0.0	0.1	0.2	0.3	1.2	1.8	1.2	0.4	1.0	0.3	0.6	0.1	0.1	0.1	0.3	1.8	
6-Jul	2.3	0.6	0.1	0.0	Z	0.1	0.3	0.8	3.5	2.4	0.8	0.3	0.7	0.3	0.2	0.1	0.1	0.1	0.4	0.4	0.3	0.2	0.1	1.2	0.7	3.5	
7-Jul	0.2	0.1	0.1	0.2	0.4	Z	4.2	4.9	5.8	5.2	1.2	1.3	0.5	0.2	0.1	0.0	0.0	0.1	0.1	0.2	0.3	0.2	0.1	0.2	1.1	5.8	
8-Jul	Z	0.2	0.0	0.0	0.0	0.1	1.3	0.4	0.3	0.1	0.8	0.9	0.8	0.6	0.2	0.0	0.0	0.0	0.3	0.0	0.0	0.1	0.4	0.3	0.3	1.3	
9-Jul	0.0	Z	0.0	0.4	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.2	0.2	0.1	0.1	0.4	
10-Jul	0.2	0.2	Z	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	
11-Jul	0.2	0.2	0.2	Z	0.3	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.3	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.5	0.2	0.2	0.1	0.3	0.5	
12-Jul	0.0	0.6	0.1	0.1	Z	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.5	0.6	0.3	0.1	0.0	0.3	0.0	0.0	0.6	0.2	0.1	0.0	0.3	0.6	
13-Jul	0.3	0.4	0.1	0.0	0.1	Z	0.2	0.2	0.1	0.3	0.4	0.4	0.2	0.6	0.2	0.5	0.5	0.8	0.9	0.5	0.6	0.6	0.5	0.9	0.4	0.9	
14-Jul	Z	0.7	1.0	0.8	0.8	0.6	0.9	0.9	0.7	1.3	1.4	1.3	1.0	1.2	0.8	0.8	1.0	0.6	0.9	1.2	0.8	1.0	0.9	1.4	1.0	1.4	
15-Jul	1.5	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	1.5	
16-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
17-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	C	C	C	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	--	0.0	
18-Jul	0.0	0.0	0.3	0.1	Z	2.7	0.3	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.8	1.0	1.1	0.8	0.0	0.0	0.0	0.0	0.0	0.1	0.3	2.7	
19-Jul	0.0	0.1	0.1	0.1	0.3	0.1	Z	14.9	5.1	6.1	6.2	2.4	2.0	0.3	0.2	0.0	0.2	0.1	0.2	0.3	0.0	0.5	0.1	0.0	1.7	14.9	
20-Jul	Z	0.0	0.0	0.0	1.1	0.2	0.1	0.7	3.6	2.6	2.5	1.8	1.0	0.9	1.1	1.3	1.0	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.8	3.6	
21-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.5	0.1	2.4	0.9	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	2.4	
22-Jul	0.1	0.1	Z	0.1	0.0	0.1	0.4	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.6	
23-Jul	0.1	0.1	0.1	Z	0.1	0.2	0.3	12.3	10.3	7.3	1.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	12.3	
24-Jul	0.1	4.2	0.3	0.0	Z	0.4	0.2	3.5	2.0	0.6	0.4	0.8	0.6	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.7	4.2	
25-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.2	
26-Jul	Z	0.1	0.2	1.2	0.0	0.1	0.4	0.6	0.9	0.9	0.4	0.2	0.6	0.5	0.5	0.6	0.4	0.5	0.7	0.2	0.1	0.1	0.0	0.0	0.4	1.2	
27-Jul	0.0	Z	0.1	0.0	2.3	3.2	7.2	4.4	2.2	1.7	1.4	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	7.2	
28-Jul	0.0	0.0	Z	0.0	0.0	1.2	0.3	0.1	0.3	0.1	0.3	0.1	0.1	0.1	0.2	0.2	0.6	0.4	0.3	0.1	0.2	0.1	0.1	0.1	0.2	1.2	
29-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.9	
30-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.2	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	
31-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.9	0.4	0.0	0.1	0.0	M	0.0	0.0	0.6	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.9	
Diurnal Average																									0.44		
Diurnal Maximum																									1.7		
Z - zerospan																											
C - Calibration																											
M - Maintenance																											
UO - Unstable Operation																											



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Buffalo Viewpoint - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	651	100.00	100.00
21 - 40	0	0.00	100.00
41 - 60	0	0.00	100.00
61 - 80	0	0.00	100.00
81 - 100	0	0.00	100.00
101 - 120	0	0.00	100.00
121 - 140	0	0.00	100.00
141 - 160	0	0.00	100.00
161 - 180	0	0.00	100.00
181 - 200	0	0.00	100.00
201 - 220	0	0.00	100.00
221 - 240	0	0.00	100.00
241 - 260	0	0.00	100.00
261 - 280	0	0.00	100.00
281 - 300	0	0.00	100.00
301 - 320	0	0.00	100.00
321 - 340	0	0.00	100.00
341 - 360	0	0.00	100.00
361 - 380	0	0.00	100.00
381 - 400	0	0.00	100.00
401 - 420	0	0.00	100.00
421 - 440	0	0.00	100.00
441 - 460	0	0.00	100.00
461 - 480	0	0.00	100.00
481 - 500	0	0.00	100.00
501 - 520	0	0.00	100.00
521 - 540	0	0.00	100.00
541 - 560	0	0.00	100.00
561 - 580	0	0.00	100.00
581 - 600	0	0.00	100.00
601 - 620	0	0.00	100.00
621 - 640	0	0.00	100.00
641 - 660	0	0.00	100.00
661 - 680	0	0.00	100.00
681 - 700	0	0.00	100.00
701 - 720	0	0.00	100.00
721 - 740	0	0.00	100.00
741 - 760	0	0.00	100.00
761 - 780	0	0.00	100.00
781 - 800	0	0.00	100.00
801 - 820	0	0.00	100.00
821 - 840	0	0.00	100.00
841 - 860	0	0.00	100.00
861 - 880	0	0.00	100.00
881 - 900	0	0.00	100.00
901 - 920	0	0.00	100.00
921 - 940	0	0.00	100.00
941 - 960	0	0.00	100.00
961 - 980	0	0.00	100.00
981 - 1000	0	0.00	100.00

Total Number of Valid Hours: 651

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Buffalo Viewpoint - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	42	22	11	9	4	27	78	113	68	33	47	49	59	34	27	28	651
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	42	22	11	9	4	27	78	113	68	33	47	49	59	34	27	28	651

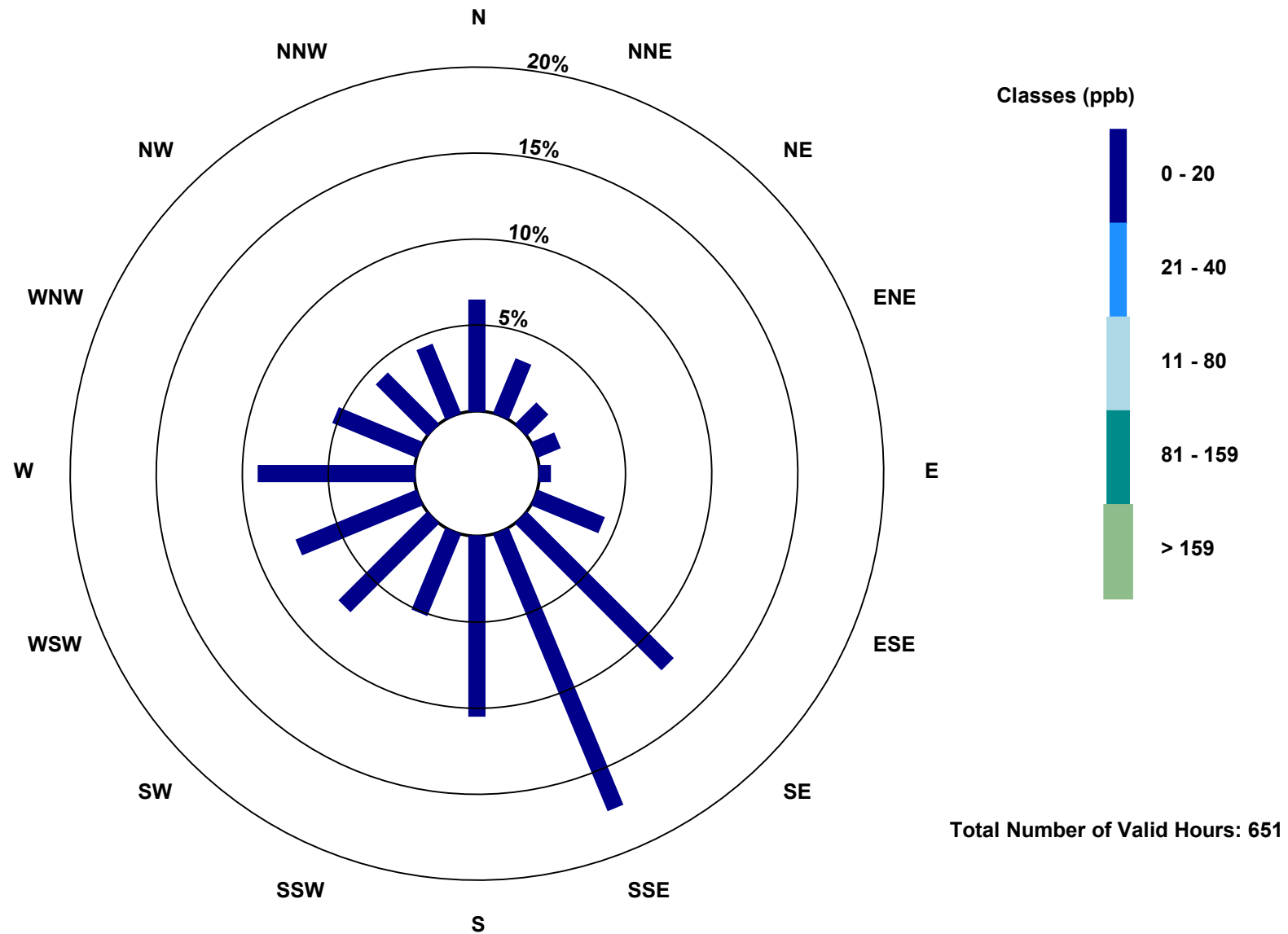
Total Number of Valid Hours: 651

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

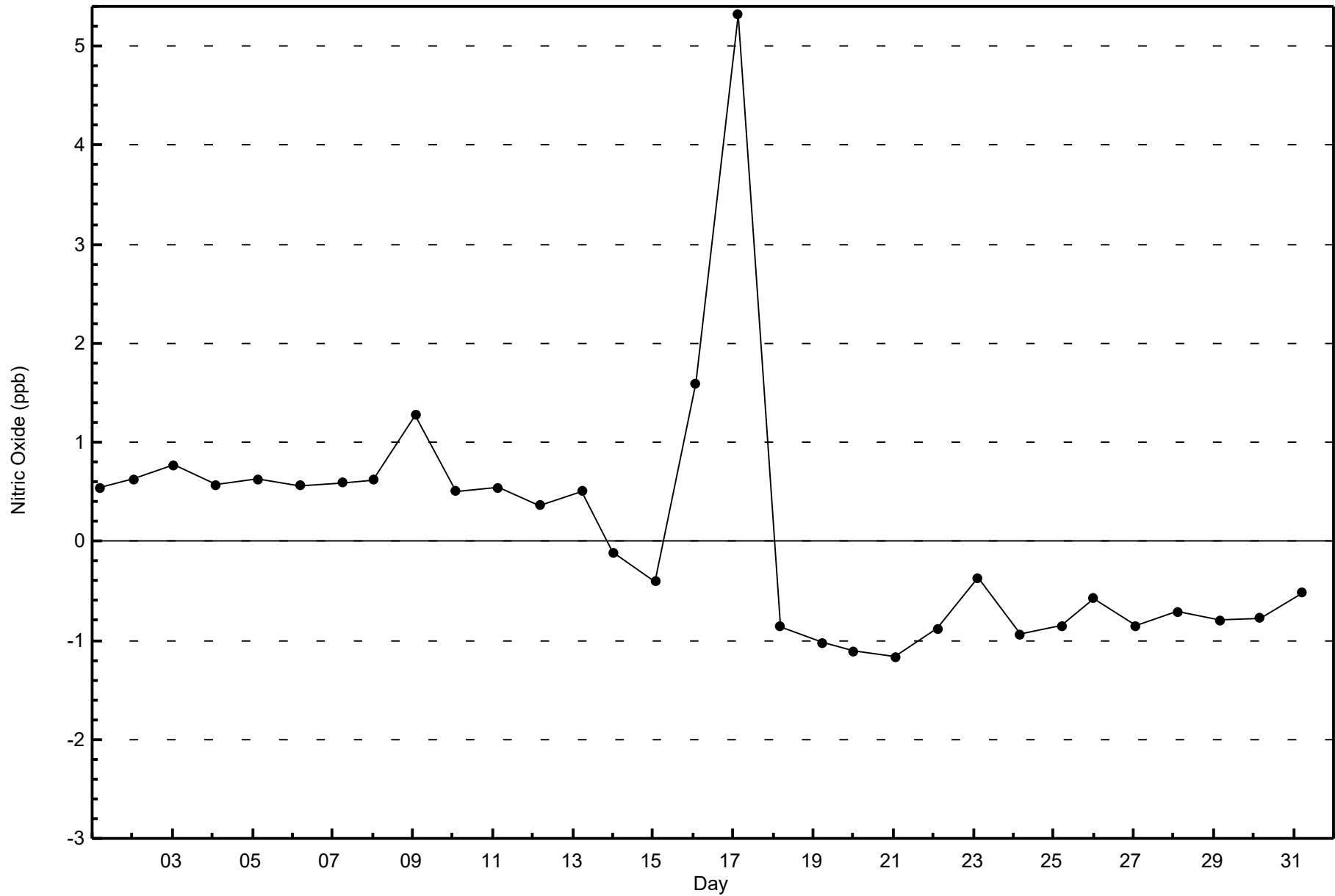
Nitric Oxide (NO) - ppb
Buffalo Viewpoint





Wood Buffalo Environmental Association
Zero Responses

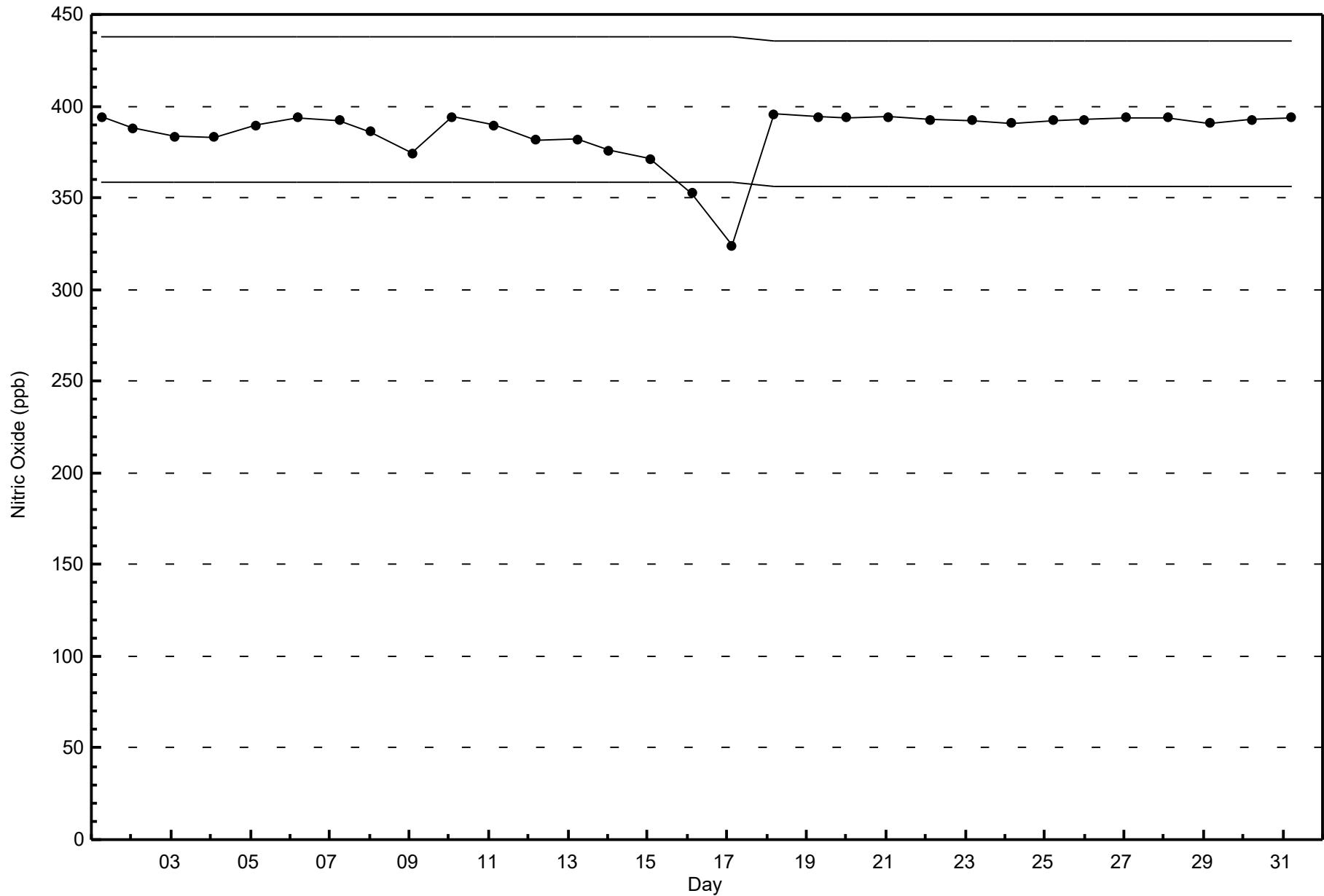
Nitric Oxide (NO) - ppb
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

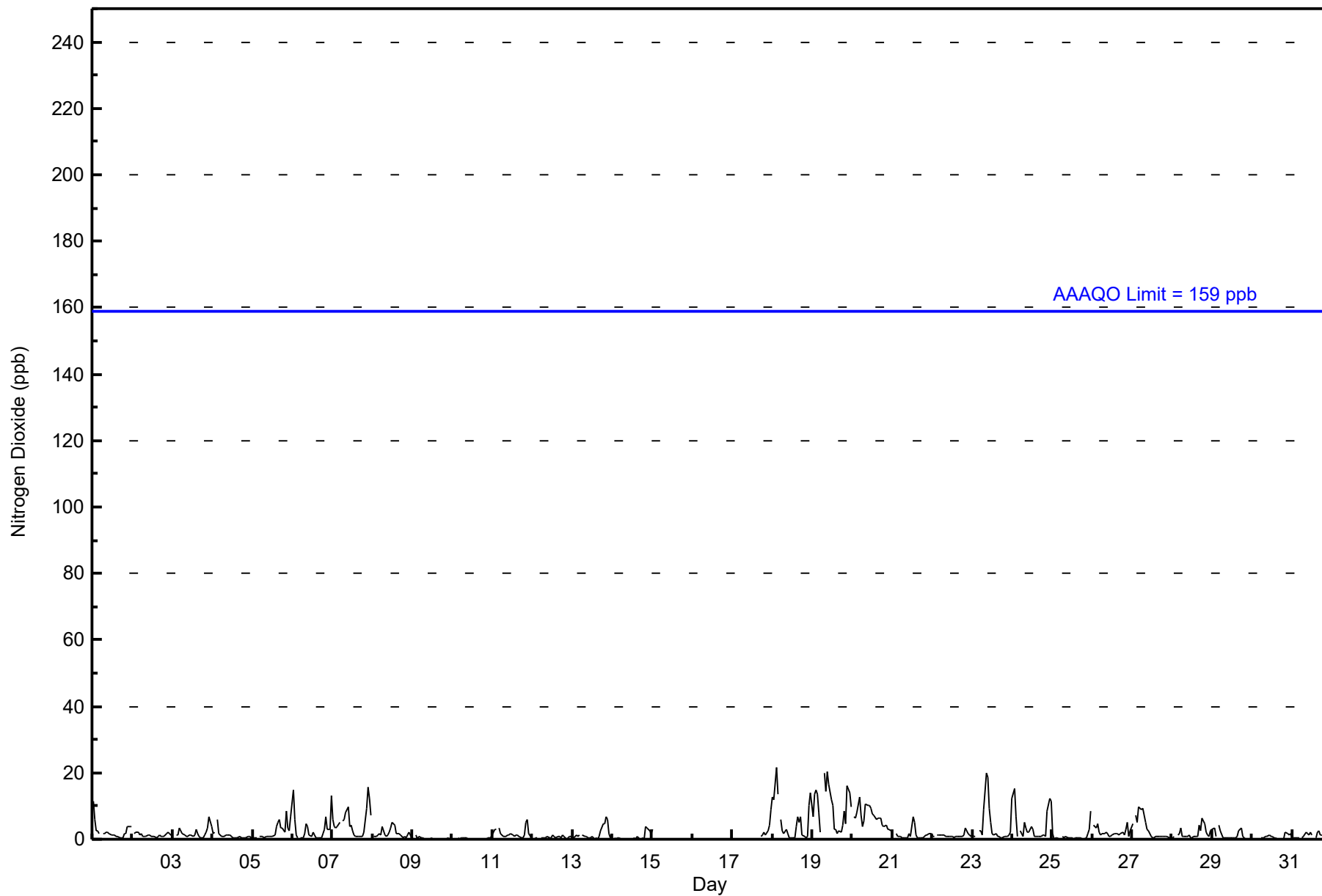
Buffalo Viewpoint - July 2026

Number of Exceedances (AAAQO): Maximum Value: 21.6 ppb on Jul 18 03:00																				1-hr: 0 Maximum Daily Average: 9.6 ppb on Jul 19				Hours in Service: 744 Hours of Data: 651 Hours of Missing Data: 93 Hours of Calibration: 37 Percent Operational Time: 92.5			
Minimum Value: 0.0 ppb on Jul 9 08:00 Maximum Diurnal Average: 3.8 ppb at hour 24 Monthly Average: 2.40 ppb																				Minimum Daily Average: 0.2 ppb on Jul 9 Minimum Diurnal Average: 1.3 ppb at hour 15 Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 0.6 Median = 1.1 Q ₃ = 2.7 P ₉₀ = 6.5 P ₉₉ = 15.8							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	11.6	5.9	2.5	2.6	1.6	Z	1.8	1.9	2.0	2.0	1.7	1.2	1.1	1.4	1.0	0.7	0.5	0.5	0.6	1.6	1.5	3.7	3.9	3.9	2.4	11.6	
2-Jul	Z	1.9	2.2	2.1	1.4	1.9	1.0	0.9	0.9	1.2	1.3	1.0	0.8	0.7	0.6	1.0	1.1	0.8	1.0	1.0	1.7	2.0	1.9	1.2	1.3	2.2	
3-Jul	0.9	Z	1.1	1.3	3.2	2.7	1.5	1.3	1.0	1.0	1.1	1.1	0.7	1.2	3.0	1.9	1.0	0.5	0.6	1.1	2.0	3.5	6.6	4.0	1.8	6.6	
4-Jul	1.6	2.2	Z	6.0	1.7	0.9	0.9	1.0	1.2	1.4	1.3	0.9	0.6	0.6	0.6	0.5	0.8	0.5	0.5	0.5	0.4	0.9	0.8	0.5	1.1	6.0	
5-Jul	0.6	0.5	0.6	Z	0.7	0.9	0.7	0.6	0.7	1.0	0.7	0.7	0.8	1.4	3.7	5.0	6.0	3.4	3.6	2.2	8.3	3.2	2.6	6.8	2.4	8.3	
6-Jul	14.8	5.8	1.4	0.6	Z	0.4	0.4	1.5	4.7	4.0	1.4	0.8	2.1	1.3	0.3	0.6	0.3	0.3	1.7	2.8	6.7	2.8	2.8	13.2	3.1	14.8	
7-Jul	5.9	3.9	3.3	3.8	5.1	Z	5.5	5.8	8.2	9.7	3.9	4.1	2.4	1.2	0.8	0.7	0.8	0.8	1.0	2.0	9.5	15.5	12.4	7.0	4.9	15.5	
8-Jul	Z	0.8	0.9	1.2	1.9	1.3	3.7	1.2	0.8	1.3	2.3	3.4	5.1	4.1	1.5	1.8	1.6	1.2	0.3	0.8	0.4	1.1	2.1	0.3	1.7	5.1	
9-Jul	0.6	Z	1.1	0.1	0.7	0.4	0.3	0.0	0.1	0.1	0.0	0.3	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.4	0.1	0.2	0.2	1.1	
10-Jul	0.0	0.1	Z	0.5	0.2	0.4	0.5	0.3	0.3	0.1	0.2	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.2	0.5	0.5	0.5	0.2	0.5	
11-Jul	1.2	2.9	2.9	Z	3.6	1.6	0.9	0.9	1.0	1.1	1.2	1.5	1.3	0.9	1.2	1.1	0.7	0.4	0.3	1.3	5.2	6.0	1.7	0.3	1.7	6.0	
12-Jul	0.2	0.0	0.6	0.3	Z	0.6	0.6	0.4	0.4	0.8	0.4	0.3	1.1	0.8	0.3	0.9	1.0	0.5	1.1	0.7	0.1	0.6	0.7	0.9	0.6	1.1	
13-Jul	0.5	0.3	1.2	0.8	1.2	Z	1.3	0.7	0.9	0.4	0.5	0.4	0.7	0.1	0.4	0.1	0.9	2.6	4.7	4.7	6.6	6.1	1.8	0.4	1.6	6.6	
14-Jul	Z	0.6	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.6	0.2	0.8	0.0	0.2	0.3	0.0	3.9	3.4	2.6	1.8	0.7	3.9	
15-Jul	2.8	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	2.8	
16-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
17-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	C	C	C	C	C	C	C	C	0.7	1.3	2.2	1.2	2.6	4.3	9.0	--	9.0
18-Jul	12.5	11.9	21.6	13.4	Z	6.1	2.4	1.9	2.9	1.6	0.6	0.5	0.3	0.6	3.8	6.6	4.9	6.7	1.4	0.8	0.5	0.7	10.2	14.0	5.5	21.6	
19-Jul	6.9	13.7	14.9	13.7	8.0	2.0	Z	20.1	14.3	20.2	16.6	11.9	10.2	2.9	2.8	1.5	2.5	2.2	4.3	8.4	4.6	16.0	14.1	9.6	9.6	20.2	
20-Jul	Z	6.6	6.5	8.0	12.5	7.3	3.9	5.6	10.4	10.1	10.0	9.2	7.5	7.3	6.1	6.2	6.3	6.2	4.4	4.0	4.2	3.1	2.8	2.5	6.6	12.5	
21-Jul	2.4	Z	1.7	0.9	0.8	0.7	0.5	0.6	0.5	0.6	1.9	0.9	6.7	5.1	1.1	0.6	0.5	0.5	0.6	0.8	1.4	1.3	1.6	1.6	1.4	6.7	
22-Jul	0.7	0.9	Z	1.3	1.2	1.2	1.3	1.4	0.9	0.9	0.8	0.9	0.7	0.6	0.7	0.7	0.8	0.7	0.9	1.3	3.3	1.9	1.3	1.0	1.1	3.3	
23-Jul	1.1	1.0	1.0	Z	2.7	2.6	1.4	9.0	20.0	18.8	9.2	5.0	1.7	1.3	1.8	1.0	0.7	0.5	0.3	1.0	0.8	1.0	1.1	2.1	3.7	20.0	
24-Jul	12.1	15.2	6.8	0.8	Z	2.7	1.0	5.0	3.5	2.1	2.2	3.7	2.9	1.0	0.7	0.8	0.8	0.9	1.1	1.3	0.8	8.4	12.1	11.5	4.2	15.2	
25-Jul	1.5	0.2	0.3	0.3	0.2	Z	0.9	0.6	0.8	0.5	0.4	0.4	0.3	0.2	0.3	0.5	0.3	0.3	0.2	0.2	0.5	1.5	2.9	8.4	0.9	8.4	
26-Jul	Z	4.3	3.4	4.5	2.0	1.2	1.7	1.5	2.1	1.6	0.8	0.8	1.3	1.5	1.8	1.7	1.2	1.9	2.2	1.4	3.0	5.2	1.0	2.7	2.1	5.2	
27-Jul	4.6	Z	7.3	5.1	9.7	9.1	9.5	7.2	5.0	3.0	2.4	0.7	0.6	0.5	0.7	0.9	0.8	0.8	0.7	0.9	0.7	1.0	0.5	0.3	3.1	9.7	
28-Jul	0.2	0.7	Z	1.4	1.5	3.4	0.8	0.7	1.0	0.7	1.1	0.6	0.5	0.7	1.0	0.9	4.2	2.7	6.3	4.8	2.3	1.4	0.8	2.4	1.7	6.3	
29-Jul	3.1	3.6	1.0	Z	4.1	2.5	0.5	0.6	0.5	0.5	0.4	0.6	0.4	0.4	0.3	0.7	2.7	3.3	0.8	0.4	0.2	0.1	0.1	0.1	1.2	4.1	
30-Jul	0.1	0.1	0.1	0.1	Z	0.3	0.5	0.3	0.8	0.7	1.4	0.8	0.9	0.6	0.3	0.2	0.2	0.2	0.0	0.1	2.0	1.5	1.1	1.8	0.6	2.0	
31-Jul	0.6	0.3	0.6	0.6	0.6	Z	0.6	0.8	2.2	1.6	1.4	2.1	1.3	M	0.5	2.0	2.7	1.2	1.1	0.9	1.9	1.8	1.3	1.2	1.2	2.7	
3.6 3.5 3.5 2.9 2.8 2.2 1.6 2.6 3.1 3.1 2.3 1.9 1.9 1.4 1.3 1.4 1.6 1.4 1.4 1.6 2.5 3.4 3.3 3.8																								Diurnal Average			
14.8 15.2 21.6 13.7 12.5 9.1 9.5 20.1 20.0 20.2 16.6 11.9 10.2 7.3 6.1 6.6 6.3 6.7 6.3 8.4 9.5 16.0 14.1 14.0																								Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Buffalo Viewpoint - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	650	99.85	99.85
21 - 40	1	0.15	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 651

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Buffalo Viewpoint - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	42	21	11	9	4	27	78	113	68	33	47	49	59	34	27	28	650
21 - 40	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	42	22	11	9	4	27	78	113	68	33	47	49	59	34	27	28	651

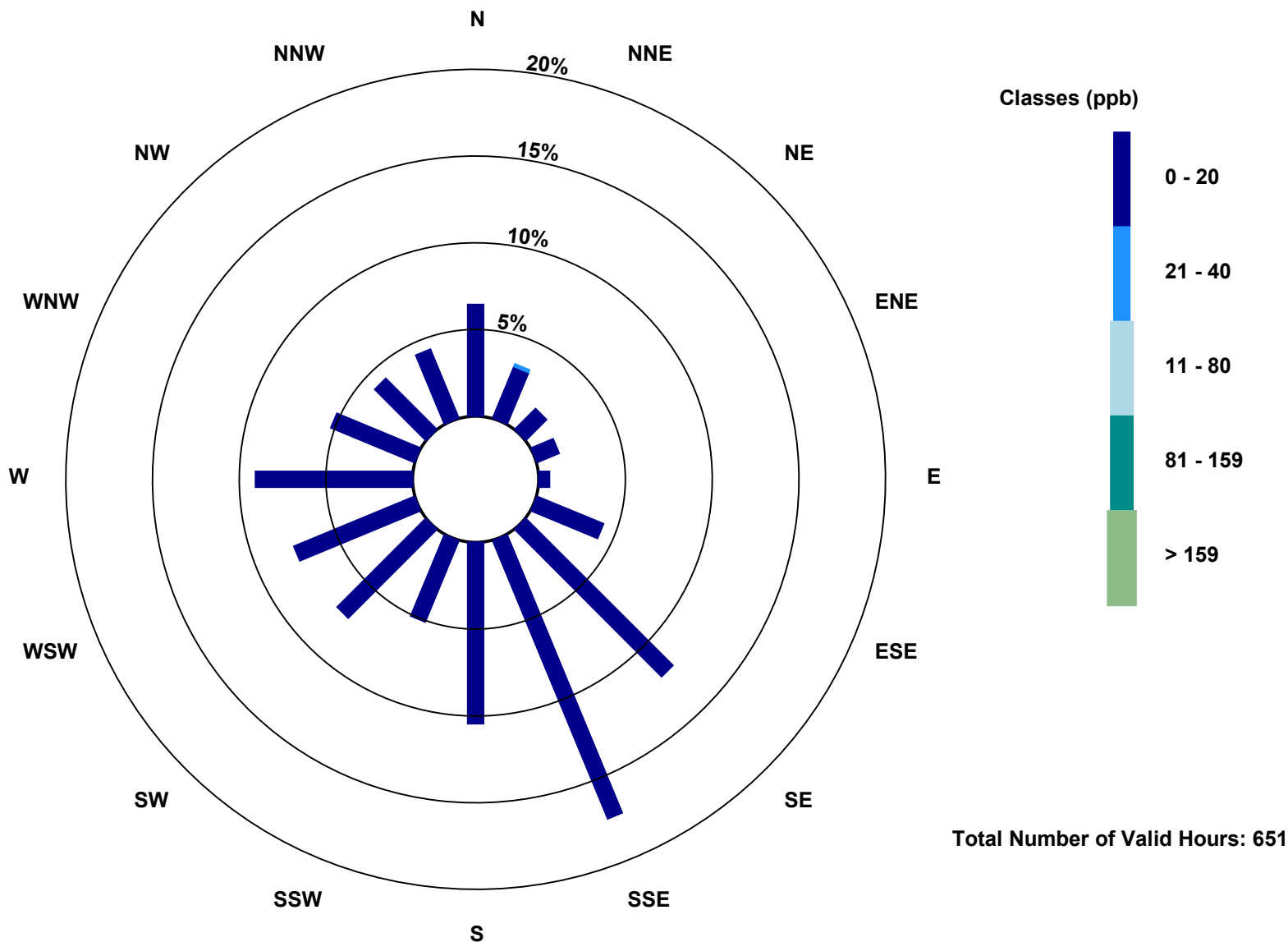
Total Number of Valid Hours: 651

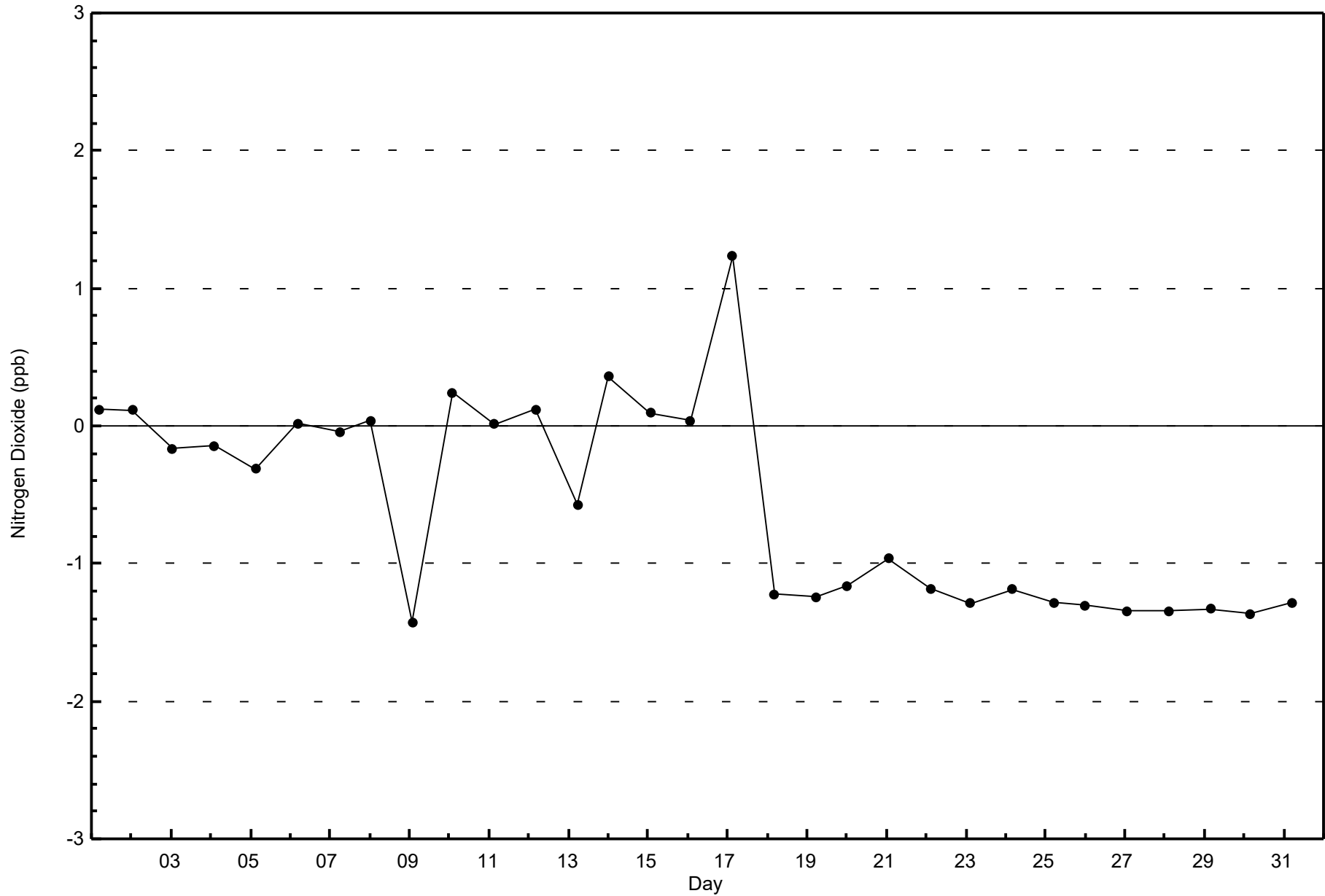
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Dioxide (NO₂) - ppb
Buffalo Viewpoint

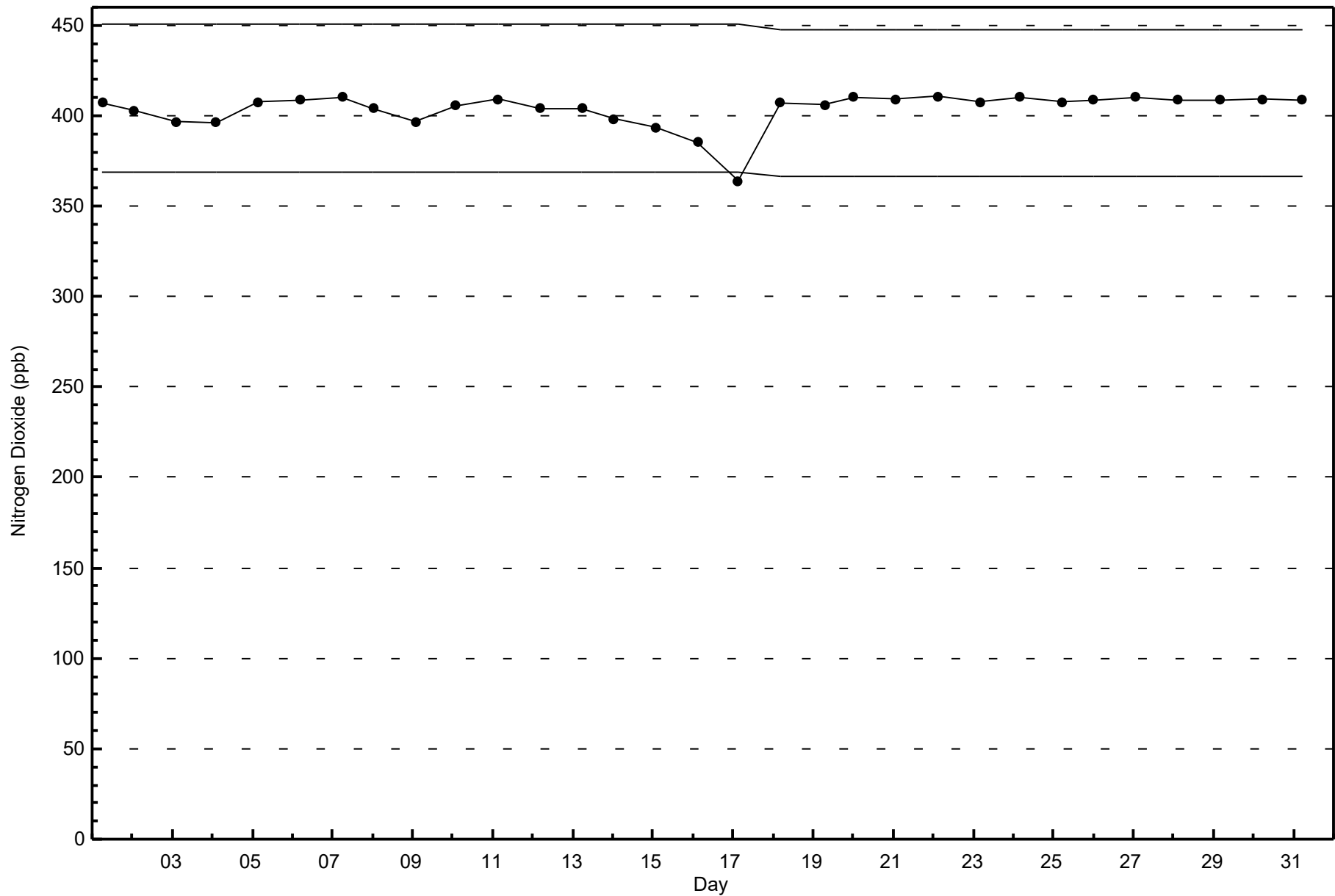






Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

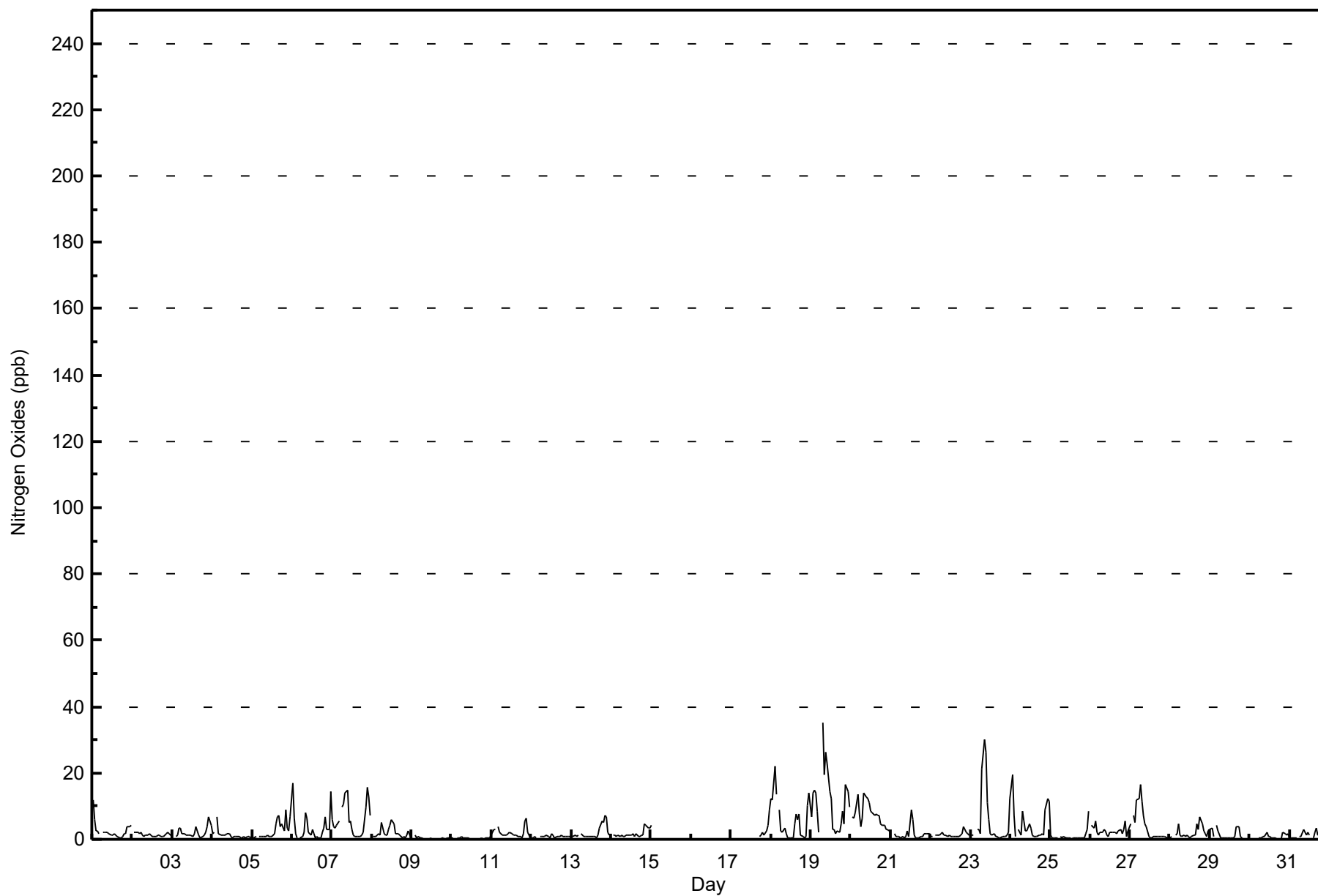
Buffalo Viewpoint - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 35.0 ppb on Jul 19 08:00 Maximum Daily Average: 11.3 ppb on Jul 19																				Hours in Service: 744 Hours of Data: 651							
Minimum Value: 0.0 ppb on Jul 30 19:00 Minimum Daily Average: 0.3 ppb on Jul 9 Maximum Diurnal Average: 4.5 ppb at hour 9 Minimum Diurnal Average: 1.6 ppb at hour 15 Monthly Average: 2.84 ppb Percentiles: P ₁ = 0.1 P ₁₀ = 0.4 Q ₁ = 0.7 Median = 1.2 Q ₃ = 3.0 P ₉₀ = 7.2 P ₉₉ = 20.3																				Hours of Missing Data: 93 Hours of Calibration: 37 Percent Operational Time: 92.5							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	11.8	6.0	2.6	2.7	1.7	Z	2.1	2.2	2.2	2.2	1.9	1.4	1.3	1.6	1.2	0.9	0.6	0.6	0.7	1.8	1.6	3.8	4.0	4.1	2.6	11.8	
2-Jul	Z	2.0	2.3	2.2	1.5	2.1	1.2	1.0	1.1	1.3	1.6	1.3	1.0	0.8	0.7	1.2	1.2	0.9	1.0	1.0	1.7	2.1	1.9	1.2	1.4	2.3	
3-Jul	0.9	Z	1.1	1.3	3.4	3.3	1.9	1.7	1.2	1.2	1.2	1.2	0.8	1.5	3.9	2.4	1.1	0.6	0.7	1.3	2.2	3.6	6.7	4.2	2.1	6.7	
4-Jul	1.6	2.3	Z	6.9	1.9	1.2	1.1	1.2	1.4	1.7	1.5	1.0	0.6	0.7	0.7	0.8	0.8	0.6	0.5	0.9	0.4	1.0	0.8	0.5	1.3	6.9	
5-Jul	0.6	0.5	0.6	Z	0.7	0.9	0.7	0.7	0.8	1.3	0.7	0.8	1.0	1.7	4.9	6.8	7.2	3.8	4.6	2.5	8.9	3.3	2.7	6.9	2.7	8.9	
6-Jul	17.1	6.4	1.5	0.6	Z	0.5	0.7	2.3	8.2	6.4	2.2	1.1	2.8	1.6	0.5	0.7	0.4	0.4	2.1	3.2	7.0	3.0	2.9	14.4	3.7	17.1	
7-Jul	6.1	4.0	3.4	4.0	5.5	Z	9.7	10.7	14.0	14.9	5.1	5.4	2.9	1.4	0.9	0.7	0.8	0.9	1.1	2.2	9.8	15.7	12.5	7.2	6.0	15.7	
8-Jul	Z	1.0	0.9	1.2	1.9	1.4	5.0	1.6	1.1	1.4	3.1	4.3	5.9	4.7	1.7	1.8	1.6	1.2	0.6	0.8	0.4	1.2	2.5	0.6	2.0	5.9	
9-Jul	0.6	Z	1.1	0.5	0.7	0.4	0.4	0.2	0.2	0.2	0.1	0.3	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.3	0.1	0.6	0.3	0.3	0.3	1.1	
10-Jul	0.2	0.3	Z	0.6	0.4	0.6	0.7	0.5	0.6	0.3	0.3	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.3	0.6	0.6	0.6	0.4	0.7	
11-Jul	1.4	3.1	3.1	Z	3.9	2.0	1.3	1.2	1.4	1.4	1.6	1.9	1.6	1.1	1.5	1.5	1.0	0.7	0.6	1.6	5.7	6.2	1.9	0.4	2.0	6.2	
12-Jul	0.2	0.6	0.7	0.4	Z	1.0	1.0	0.8	0.7	1.2	0.7	0.6	1.6	1.4	0.6	1.0	1.0	0.8	1.1	0.7	0.7	0.8	0.8	0.9	0.8	1.6	
13-Jul	0.8	0.7	1.3	0.8	1.3	Z	1.5	0.9	1.0	0.7	0.9	0.8	0.9	0.7	0.6	0.6	1.4	3.4	5.6	5.2	7.2	6.7	2.3	1.3	2.0	7.2	
14-Jul	Z	1.3	1.2	1.1	1.1	0.8	1.1	1.0	0.8	1.3	1.4	1.3	1.1	1.8	1.0	1.6	1.0	0.8	1.2	1.2	4.7	4.4	3.5	3.2	1.7	4.7	
15-Jul	4.3	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	4.3	
16-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
17-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	C	C	C	C	C	C	C	C	0.7	1.3	2.2	1.2	2.6	4.3	9.0	--	9.0
18-Jul	12.5	11.9	21.9	13.5	Z	8.8	2.7	2.0	3.3	1.6	0.6	0.5	0.3	0.6	4.6	7.6	6.0	7.5	1.4	0.8	0.5	0.7	10.2	14.1	5.8	21.9	
19-Jul	6.9	13.8	15.0	13.8	8.3	2.1	Z	35.0	19.4	26.3	22.8	14.3	12.2	3.2	3.0	1.5	2.7	2.3	4.5	8.7	4.6	16.5	14.2	9.6	11.3	35.0	
20-Jul	Z	6.6	6.5	8.0	13.6	7.5	4.0	6.3	14.0	12.7	12.5	11.0	8.5	8.2	7.2	7.5	7.3	7.0	4.6	4.0	4.2	3.1	2.8	2.5	7.4	14.0	
21-Jul	2.4	Z	1.7	0.9	0.8	0.7	0.5	0.8	0.5	0.7	2.4	1.0	9.1	6.0	1.2	0.6	0.6	0.6	0.7	0.9	1.6	1.5	1.7	1.8	1.7	9.1	
22-Jul	0.8	1.0	Z	1.4	1.2	1.3	1.7	2.0	1.2	1.1	1.0	1.1	0.9	0.8	0.9	0.9	1.0	0.9	1.1	1.6	3.6	2.2	1.5	1.2	1.3	3.6	
23-Jul	1.2	1.1	1.1	Z	2.8	2.8	1.7	21.3	30.3	26.1	11.1	5.7	1.7	1.3	1.8	1.0	0.7	0.5	0.3	1.0	0.8	1.0	1.1	2.1	5.2	30.3	
24-Jul	12.2	19.4	7.1	0.8	Z	3.1	1.2	8.5	5.5	2.7	2.6	4.5	3.5	1.1	0.8	0.9	1.0	1.1	1.4	1.6	1.1	8.7	12.3	11.6	4.9	19.4	
25-Jul	1.5	0.2	0.3	0.3	0.2	Z	0.9	0.6	0.9	0.6	0.5	0.4	0.3	0.2	0.3	0.5	0.3	0.3	0.2	0.2	0.5	1.6	3.0	8.6	1.0	8.6	
26-Jul	Z	4.4	3.6	5.7	2.0	1.3	2.1	2.1	3.0	2.5	1.2	1.0	1.9	2.0	2.3	2.3	1.6	2.4	2.9	1.6	3.1	5.3	1.0	2.7	2.5	5.7	
27-Jul	4.6	Z	7.4	5.1	12.0	12.3	16.7	11.6	7.2	4.7	3.8	0.7	0.6	0.5	0.8	1.0	0.8	0.8	0.7	0.9	0.7	1.0	0.5	0.3	4.1	16.7	
28-Jul	0.2	0.7	Z	1.4	1.5	4.6	1.1	0.8	1.3	0.8	1.4	0.7	0.6	0.8	1.2	1.1	4.8	3.1	6.6	4.9	2.5	1.5	0.9	2.5	2.0	6.6	
29-Jul	3.1	3.6	1.0	Z	4.1	2.5	0.5	0.6	0.5	0.5	0.4	0.6	0.4	0.4	0.3	0.7	3.6	3.9	0.9	0.4	0.2	0.1	0.1	0.1	1.2	4.1	
30-Jul	0.1	0.1	0.1	0.1	Z	0.3	0.5	0.3	0.9	0.9	2.0	1.0	0.9	0.6	0.3	0.2	0.2	0.2	0.0	0.1	2.0	1.5	1.1	1.8	0.7	2.0	
31-Jul	0.6	0.3	0.6	0.6	0.6	Z	0.6	0.8	3.1	2.0	1.4	2.2	1.3	M	0.5	2.0	3.3	1.2	1.1	0.9	2.0	1.9	1.4	1.2	1.3	3.3	
3.8 3.8 3.6 3.1 3.1 2.7 2.3 4.2 4.5 4.2 3.1 2.4 2.3 1.7 1.6 1.7 1.9 1.6 1.7 1.8 2.7 3.5 3.4 4.0																									Diurnal Average		
17.1 19.4 21.9 13.8 13.6 12.3 16.7 35.0 30.3 26.3 22.8 14.3 12.2 8.2 7.2 7.6 7.3 7.5 6.6 8.7 9.8 16.5 14.2 14.4																									Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation																											



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Buffalo Viewpoint - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	644	98.92	98.92
21 - 40	7	1.08	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 651

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Buffalo Viewpoint - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	41	21	11	9	4	27	78	113	68	33	47	49	59	33	26	25	644
21 - 40	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	3	7
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	42	22	11	9	4	27	78	113	68	33	47	49	59	34	27	28	651

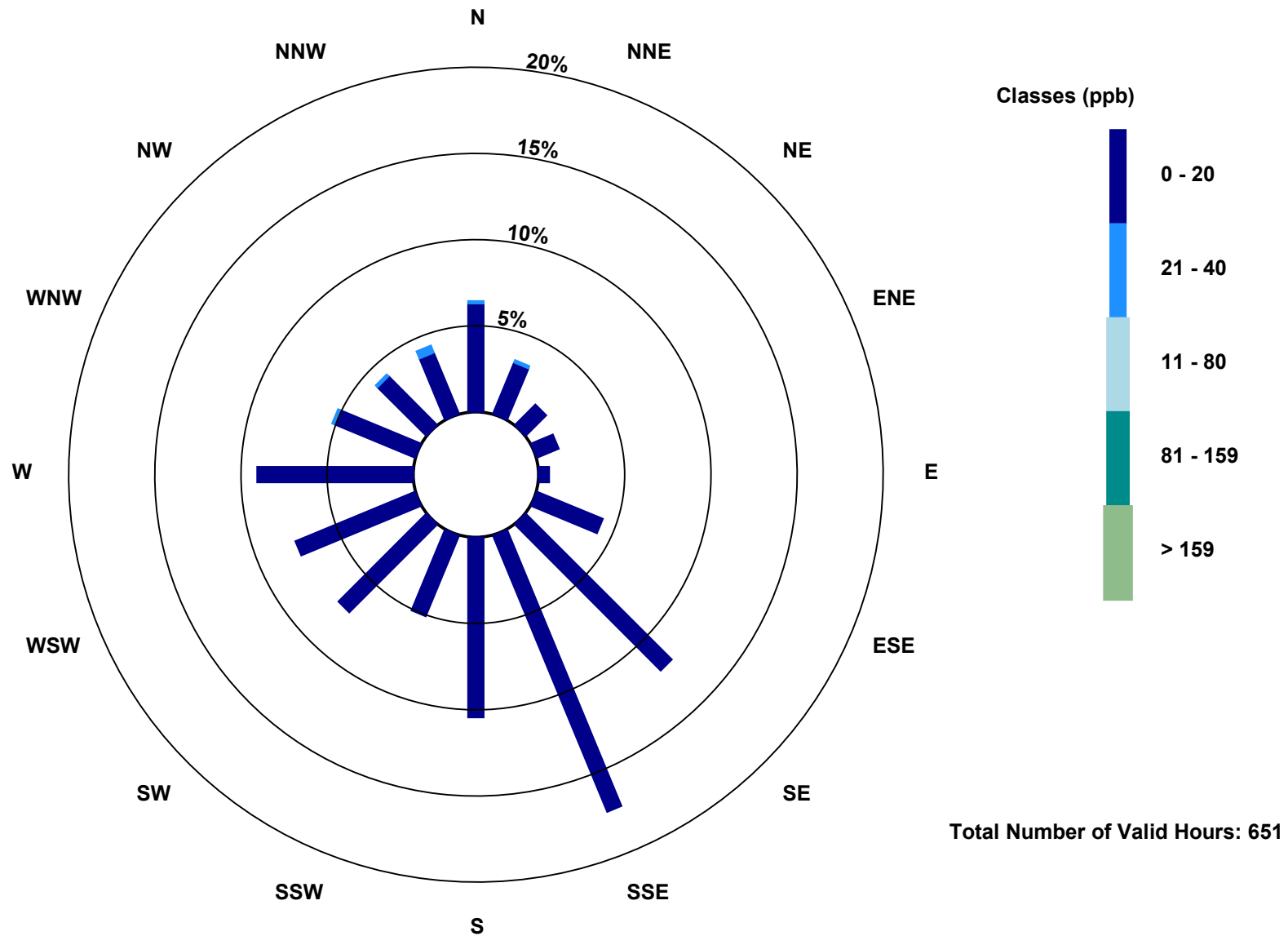
Total Number of Valid Hours: 651

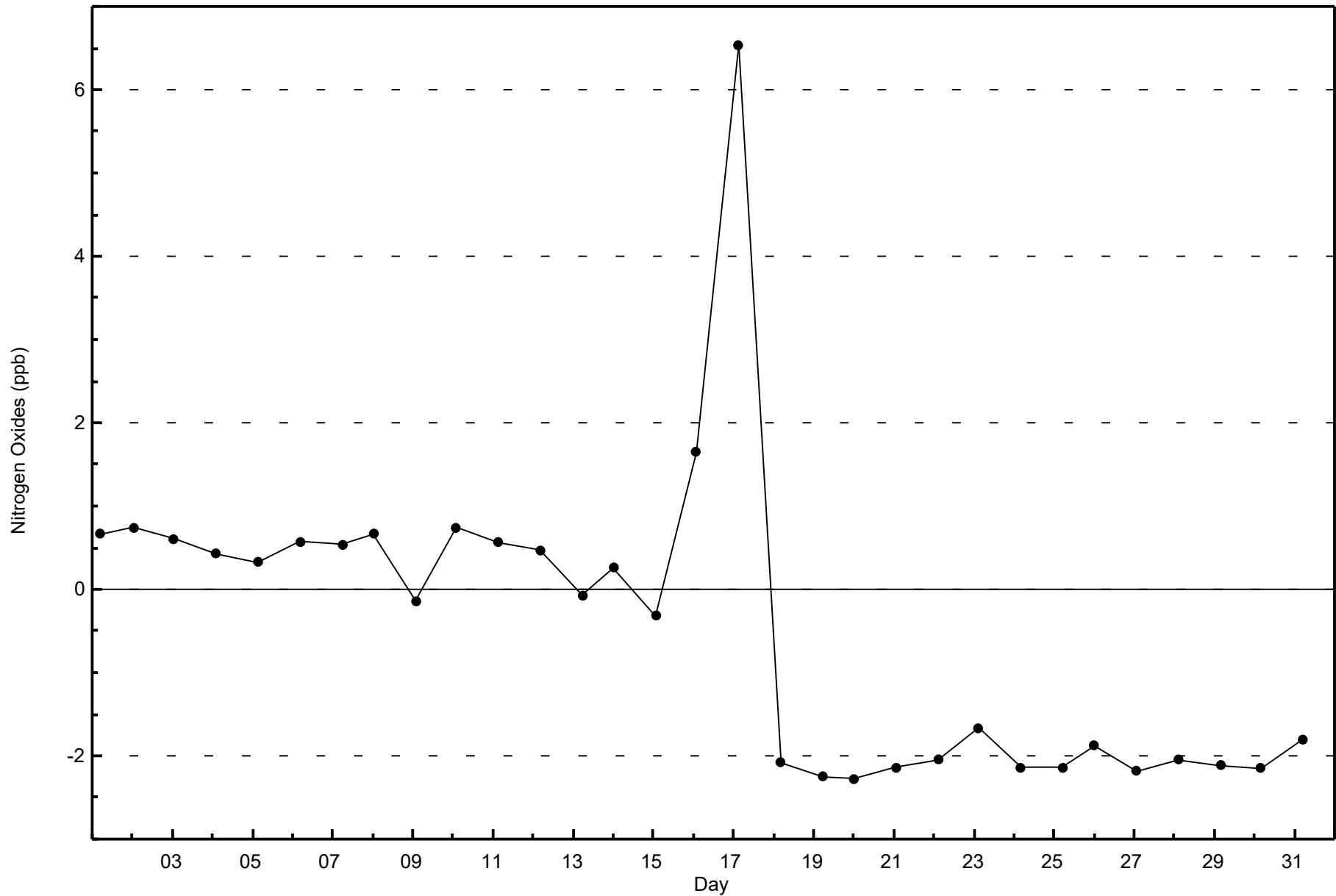
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Oxides (NO_x) - ppb
Buffalo Viewpoint

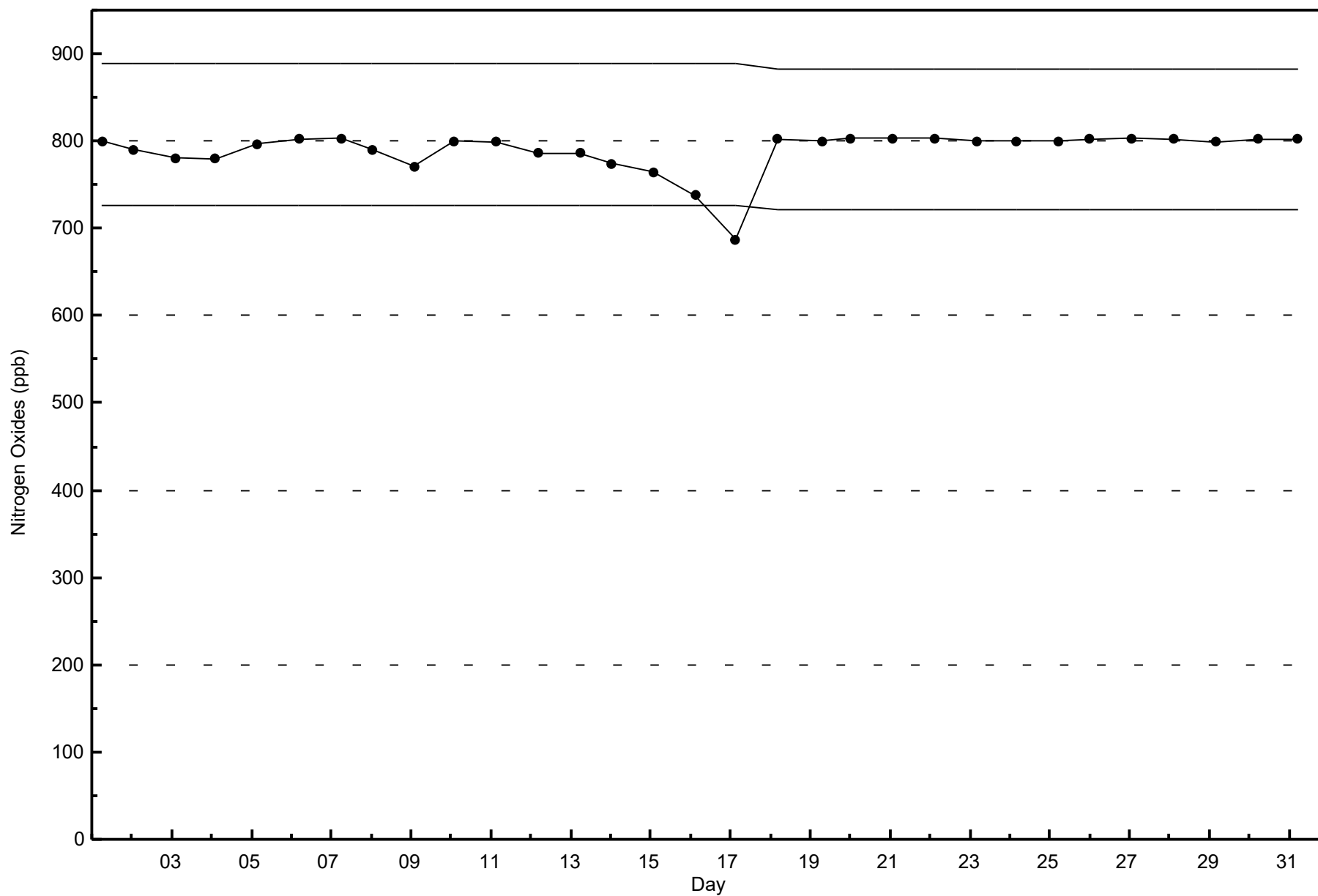






Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O₃) - ppb

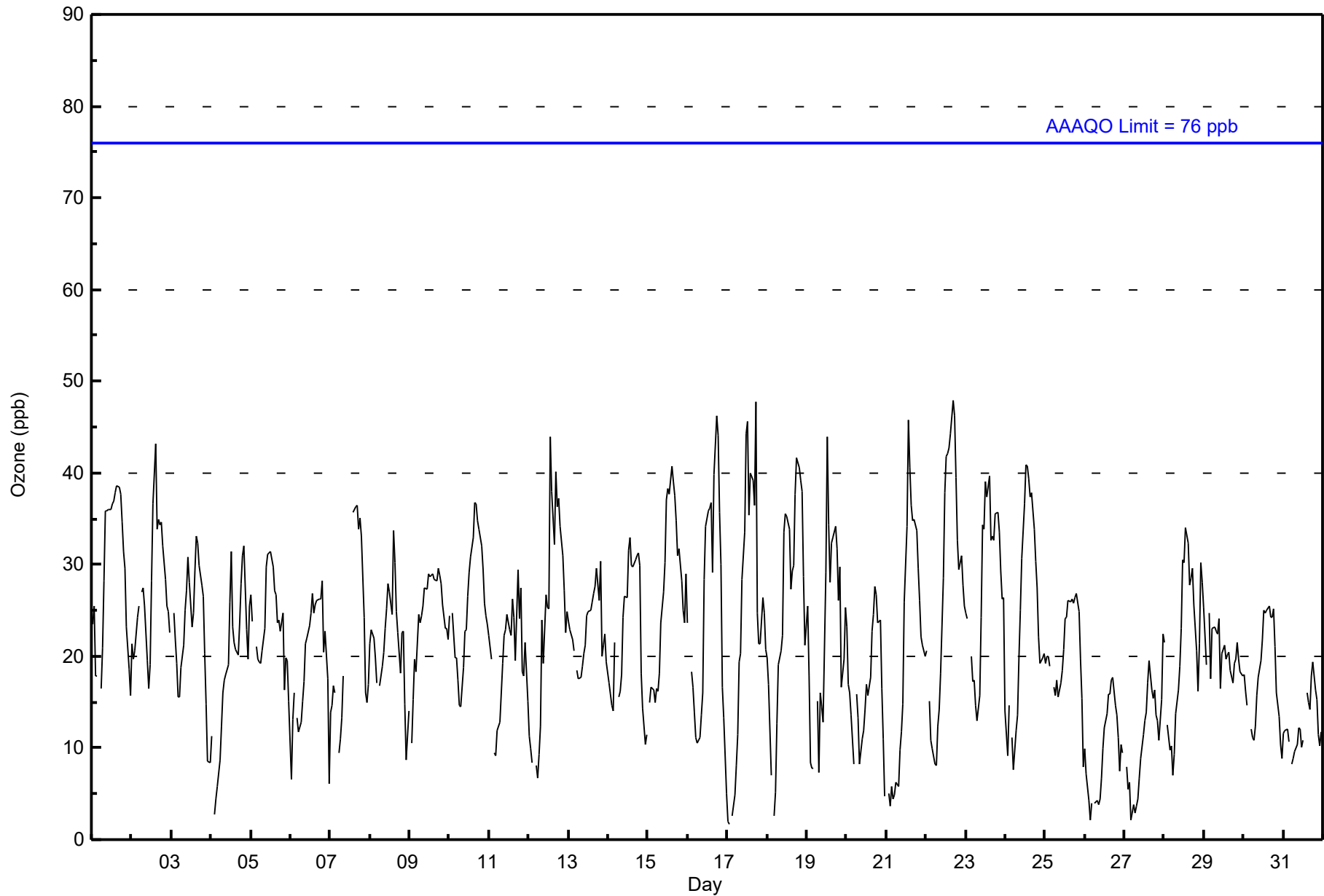
Buffalo Viewpoint - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 47.9 ppb on Jul 22 17:00 Maximum Daily Average: 29.3 ppb on Jul 1																				Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 36 Percent Operational Time: 99.9						
Minimum Value: 1.6 ppb on Jul 17 02:00 Maximum Diurnal Average: 30.5 ppb at hour 18 Monthly Average: 21.98 ppb										Minimum Daily Average: 9.6 ppb on Jul 26 Minimum Diurnal Average: 12.1 ppb at hour 5 Percentiles: P ₁ = 2.9 P ₁₀ = 9.7 Q ₁ = 15.3 Median = 21.6 Q ₃ = 28.3 P ₉₀ = 35.2 P ₉₉ = 44.3																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	23.5	25.5	17.8	17.8	Z	16.4	20.9	28.2	35.9	35.9	36.0	36.0	36.6	36.9	37.8	38.6	38.4	37.7	34.7	31.4	29.6	23.2	18.6	15.7	29.3	38.6
2-Jul	21.4	19.6	20.6	24.2	25.5	Z	27.1	27.5	25.5	19.5	16.5	19.1	28.2	36.6	43.2	33.8	34.9	34.3	34.6	32.0	28.3	25.5	24.8	22.5	27.2	43.2
3-Jul	Z	24.7	21.8	19.3	15.5	15.6	18.8	21.2	25.0	27.1	30.8	28.1	23.2	24.7	29.3	33.0	32.4	29.9	27.7	26.5	20.3	14.8	8.5	8.4	22.9	33.0
4-Jul	11.3	Z	2.7	4.4	5.8	8.7	12.4	16.0	17.3	18.0	19.1	26.0	31.4	23.2	21.6	20.8	20.1	23.7	28.0	31.0	32.1	22.9	19.7	25.5	19.2	32.1
5-Jul	26.7	23.8	Z	21.1	19.6	19.3	19.3	20.5	23.0	29.8	31.1	31.2	31.4	29.8	27.2	26.7	23.7	23.9	22.8	24.7	16.3	19.8	19.5	15.2	23.8	31.4
6-Jul	6.6	13.2	16.1	Z	13.3	11.7	12.9	15.1	17.2	21.3	22.0	23.3	24.8	26.8	24.7	25.7	26.1	26.3	26.2	28.3	20.5	22.7	17.6	6.1	19.5	28.3
7-Jul	13.9	14.6	16.7	16.0	Z	9.5	11.0	13.2	17.8	C	C	C	C	C	35.6	36.3	36.4	33.8	35.0	33.1	24.2	16.0	14.9	16.9	21.9	36.4
8-Jul	21.4	22.9	22.0	19.8	17.1	Z	16.8	18.9	20.4	23.0	25.1	27.9	27.1	24.6	33.7	30.1	24.9	22.6	18.2	22.6	22.7	14.8	8.7	14.0	21.7	33.7
9-Jul	Z	10.5	15.3	19.6	18.3	24.6	23.6	24.4	25.5	27.5	27.4	29.0	28.7	28.8	29.0	28.3	28.3	29.6	28.8	27.9	25.6	23.1	23.0	21.8	24.7	29.6
10-Jul	24.4	Z	24.7	19.8	19.8	17.4	14.6	14.5	18.7	22.7	22.8	26.5	29.2	30.8	33.0	36.7	36.6	34.7	33.9	32.0	29.4	25.8	24.5	23.6	25.9	36.7
11-Jul	22.3	19.6	Z	9.4	9.1	11.8	12.8	16.1	19.2	22.3	22.8	24.6	22.8	22.2	26.3	24.3	19.5	29.4	24.1	27.4	18.3	17.8	21.6	15.1	20.0	29.4
12-Jul	11.4	9.9	8.3	Z	8.1	6.7	9.3	12.4	23.9	19.2	26.7	25.3	25.2	43.9	37.9	32.2	40.1	36.3	37.2	34.2	30.9	27.1	22.6	24.9	24.1	43.9
13-Jul	23.8	22.8	21.8	20.6	Z	18.5	17.5	17.8	19.0	20.2	21.3	24.4	24.8	25.0	26.0	26.8	27.7	29.6	26.0	30.4	19.9	21.2	22.4	19.3	22.9	30.4
14-Jul	17.1	15.9	14.7	14.1	21.6	Z	15.6	16.1	18.1	24.2	26.6	26.4	31.5	32.9	30.0	29.7	30.4	30.9	31.3	29.9	18.2	14.4	10.4	11.5	22.2	32.9
15-Jul	Z	14.9	16.7	16.3	15.0	16.4	16.2	18.2	23.7	27.0	30.2	37.1	38.3	37.7	40.7	39.0	37.5	34.8	30.9	31.7	28.3	25.0	23.6	29.0	27.3	40.7
16-Jul	23.7	Z	18.4	16.7	13.9	11.1	10.5	11.1	13.6	16.0	28.4	34.1	35.9	36.1	36.7	29.1	39.9	46.2	44.0	35.7	30.0	16.6	13.3	5.0	24.6	46.2
17-Jul	2.0	1.6	Z	2.5	4.9	8.1	11.5	19.4	20.2	28.4	33.6	44.3	45.7	35.3	39.9	39.2	36.4	47.8	24.6	21.4	21.3	26.3	24.6	20.8	24.4	47.8
18-Jul	19.9	16.9	7.0	Z	2.6	5.2	12.7	19.1	20.6	22.3	33.6	35.6	35.2	33.8	27.2	29.2	29.9	37.7	41.6	40.6	39.2	37.9	28.7	21.2	26.0	41.6
19-Jul	25.5	17.9	8.5	7.8	7.8	Z	15.1	7.2	16.1	14.4	12.9	29.1	44.0	34.4	28.0	32.3	33.0	34.2	31.7	26.0	29.8	16.6	19.7	25.3	22.5	44.0
20-Jul	23.2	16.9	16.1	13.5	8.3	Z	15.8	13.3	8.2	10.9	11.9	14.2	17.0	15.7	17.7	22.7	24.6	27.6	26.7	23.7	23.9	16.4	11.0	4.7	16.7	27.6
21-Jul	Z	5.1	3.7	5.8	4.4	4.9	6.2	5.8	9.8	11.8	14.8	25.9	34.1	45.7	40.5	36.4	34.9	34.9	33.8	29.6	26.1	22.2	21.3	20.0	20.8	45.7
22-Jul	20.6	Z	15.1	10.9	9.9	8.3	8.1	12.3	14.2	18.2	28.6	37.9	41.8	42.1	42.8	44.3	47.9	46.2	39.6	32.6	29.4	31.0	27.7	25.5	27.6	47.9
23-Jul	24.7	24.1	Z	19.9	17.2	17.3	14.6	13.0	15.7	24.3	34.3	33.9	39.0	37.4	39.7	32.6	33.1	32.6	35.5	35.6	33.5	29.3	26.2	26.5	27.8	39.7
24-Jul	14.0	9.2	14.7	Z	11.2	7.7	11.9	13.6	19.8	24.9	30.6	36.7	40.9	40.7	39.3	37.4	37.8	33.8	30.3	27.4	22.1	19.3	19.9	20.3	24.5	40.9
25-Jul	19.2	20.0	19.9	19.0	Z	16.7	15.7	17.4	15.6	17.0	18.5	20.8	24.1	24.2	26.0	25.9	26.2	25.8	26.3	26.9	24.8	19.7	15.4	7.9	20.6	26.9
26-Jul	9.9	7.2	4.3	2.1	4.0	Z	3.9	4.3	3.9	4.4	6.7	9.9	12.3	13.7	15.9	15.9	17.3	17.7	14.7	13.6	11.1	7.5	10.4	9.4	9.6	17.7
27-Jul	Z	7.9	5.5	6.2	2.2	3.8	2.9	3.7	4.4	6.7	8.8	11.5	12.9	13.8	17.1	19.5	16.3	15.4	16.4	13.6	12.9	10.8	15.2	22.4	10.9	22.4
28-Jul	21.5	Z	12.6	9.8	10.2	7.0	9.4	13.8	16.4	18.9	23.1	30.6	30.2	34.0	32.4	27.8	28.5	29.6	25.7	20.5	16.2	21.3	30.3	28.1	21.6	34.0
29-Jul	25.3	19.1	Z	24.7	17.5	23.0	23.1	22.7	22.4	24.2	16.5	20.3	21.3	19.7	20.1	20.4	18.5	17.0	19.2	19.6	21.5	19.7	18.3	17.8	20.5	25.3
30-Jul	17.9	16.2	14.7	Z	12.1	11.1	10.8	12.4	15.8	17.7	19.5	21.9	25.0	24.7	24.9	25.5	24.2	24.3	25.1	21.0	16.0	13.4	10.3	8.9	18.0	25.5
31-Jul	11.7	11.9	12.1	10.6	Z	8.2	8.8	9.6	10.3	12.2	12.1	10.0	10.8	M	16.1	14.9	14.2	17.8	19.4	16.3	15.3	11.4	10.2	11.8	12.5	19.4
18.6 15.8 14.3 14.3 12.1 12.4 13.9 15.4 18.0 20.3 23.1 26.7 29.1 30.2 30.3 29.5 29.7 30.5 28.8 27.3 23.8 20.4 18.8 17.6																										Diurnal Average
26.7 25.5 24.7 24.7 25.5 24.6 27.1 28.2 35.9 35.9 36.0 44.3 45.7 45.7 43.2 44.3 47.9 47.8 44.0 40.6 39.2 37.9 30.3 29.0																										Diurnal Maximum
Z - zerospan C - Calibration M - Maintenance																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Ozone (O₃) - ppb
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ozone (O₃) - ppb
Buffalo Viewpoint - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	327	46.25	46.25
21 - 50	380	53.75	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Ozone (O₃) - ppb
Buffalo Viewpoint - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	25	17	7	3	2	6	35	82	38	9	10	13	32	12	14	22	327
21 - 50	19	4	6	7	3	22	39	57	44	26	39	35	30	25	14	10	380
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	44	21	13	10	5	28	74	139	82	35	49	48	62	37	28	32	707

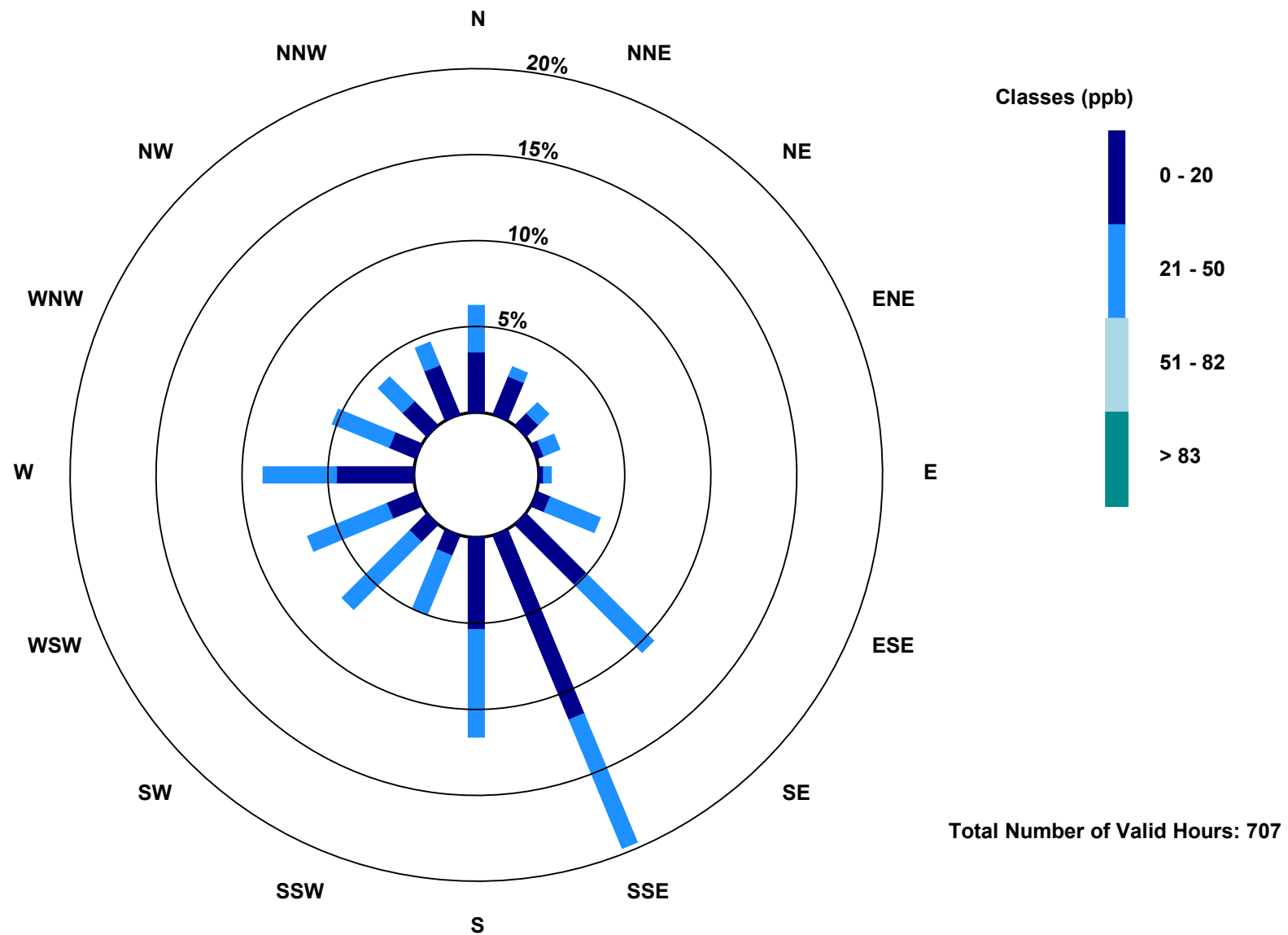
Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

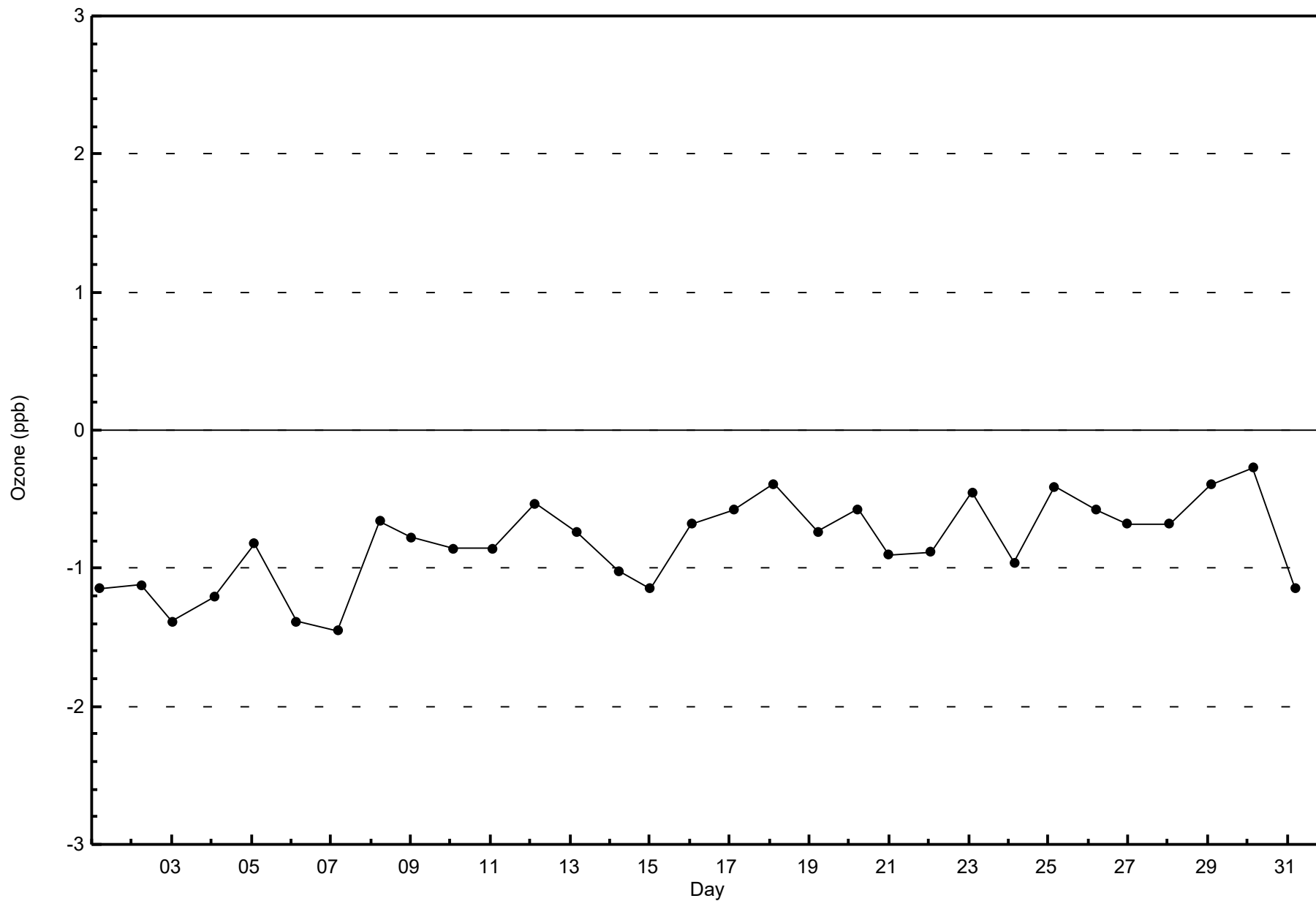
Ozone (O_3) - ppb
Buffalo Viewpoint





Wood Buffalo Environmental Association
Zero Responses

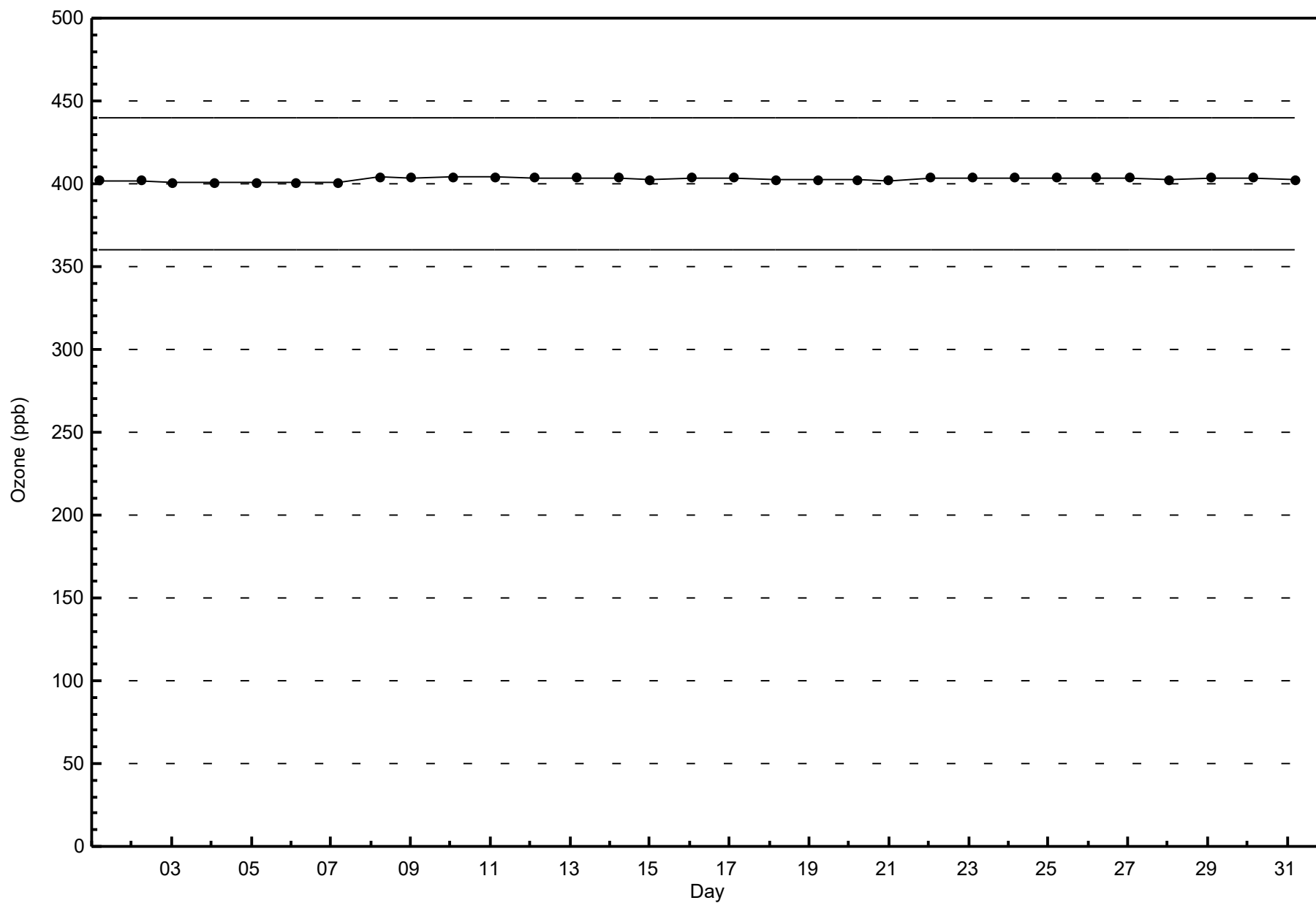
Ozone (O₃) - ppb
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Span Responses

Ozone (O₃) - ppb
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

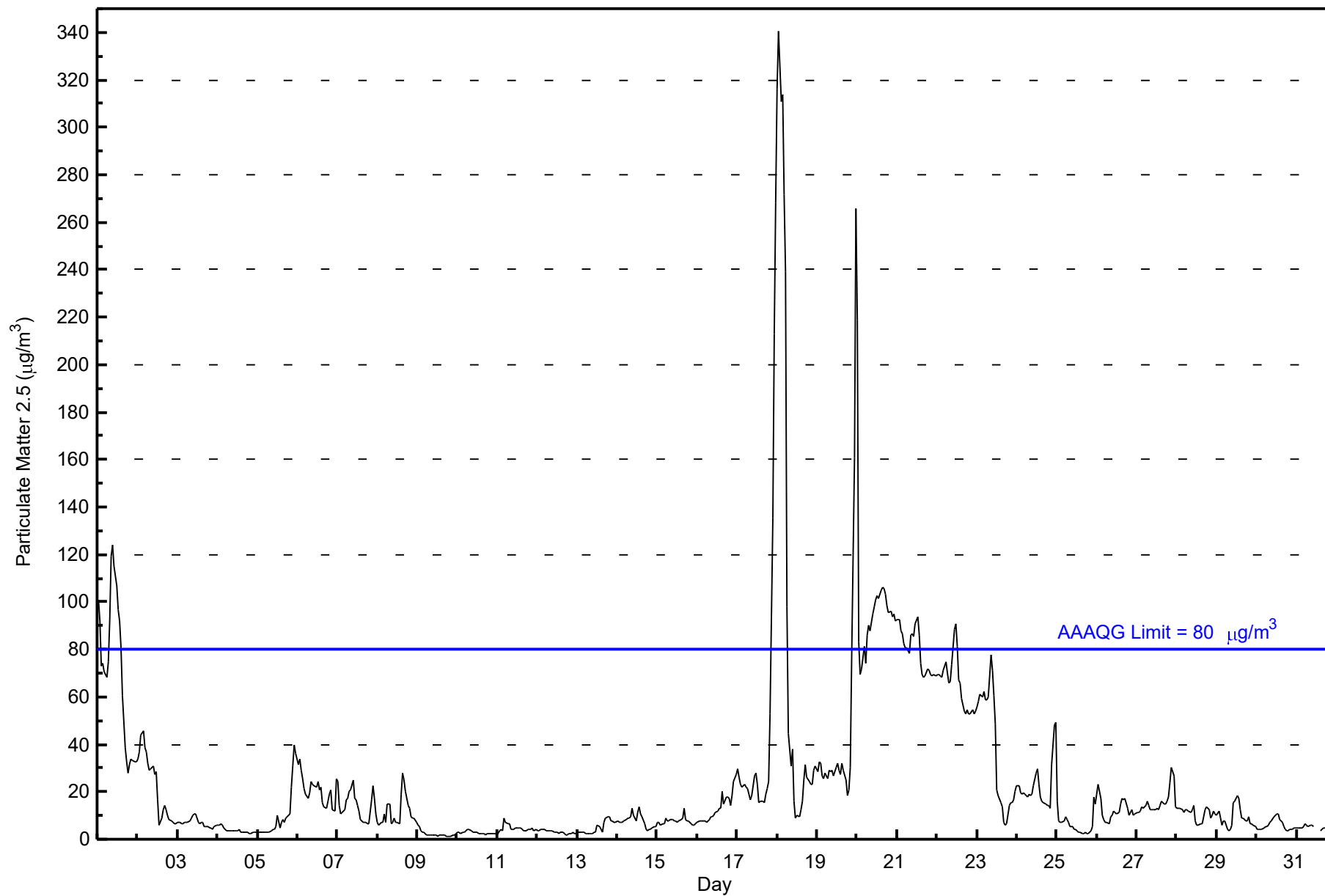
Buffalo Viewpoint - July 2026

Number of Exceedances (AAAQO): 1-hr: 59 24-hr: 8 Maximum Value: 340.3 µg/m³ on Jul 18 02:00 Maximum Daily Average: 98.0 µg/m³ on Jul 20																					Hours in Service: 744 Hours of Data: 741					
Minimum Value: 1.3 µg/m³ on Jul 9 20:00 Minimum Daily Average: 2.2 µg/m³ on Jul 9 Maximum Diurnal Average: 37.6 µg/m³ at hour 1 Minimum Diurnal Average: 16.6 µg/m³ at hour 19 Monthly Average: 24.61 µg/m³ Percentiles: P ₁ = 1.6 P ₁₀ = 3.0 Q ₁ = 5.1 Median = 10.3 Q ₃ = 24.5 P ₉₀ = 70.8 P ₉₉ = 230.9																					Hours of Missing Data: 3 Hours of Calibration: 3 Percent Operational Time: 100.0					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	101.1	91.8	73.2	74.4	70.8	68.2	74.7	92.4	119.1	124.0	115.3	106.8	96.9	92.1	80.8	60.8	38.7	32.5	28.0	31.2	33.6	33.0	32.8	32.8	71.0	124.0
2-Jul	33.8	37.0	44.2	45.4	38.6	37.0	32.2	29.1	29.8	30.8	27.6	28.2	16.8	6.1	8.8	12.3	14.2	12.3	10.0	8.2	7.5	7.0	6.4	6.6	22.1	45.4
3-Jul	7.0	6.8	6.6	6.8	7.2	7.1	6.9	7.9	8.9	10.1	10.5	10.5	7.3	6.3	7.3	7.0	5.5	5.3	5.1	4.5	4.7	4.2	5.1	6.0	6.9	10.5
4-Jul	5.7	6.0	6.3	6.0	4.9	3.7	3.4	3.3	3.5	3.5	3.7	3.5	3.4	4.0	2.9	2.8	2.9	2.9	3.0	2.6	2.4	2.7	2.9	2.8	3.7	6.3
5-Jul	2.7	2.9	3.1	3.1	3.2	3.2	3.2	3.2	3.4	4.4	4.4	5.3	10.4	5.0	7.1	8.2	6.9	8.9	9.5	11.0	22.2	30.8	39.6	36.1	9.9	39.6
6-Jul	31.4	33.7	28.8	25.5	21.2	18.9	17.0	19.6	24.5	22.9	22.5	21.7	24.5	20.5	22.0	15.2	13.5	12.9	16.1	19.1	20.7	12.2	11.9	25.5	20.9	33.7
7-Jul	24.4	14.5	10.9	11.2	12.7	16.8	17.2	20.0	21.0	25.2	17.1	16.4	14.3	11.6	8.4	7.2	6.8	7.0	6.5	6.6	16.9	22.7	17.4	10.4	14.3	25.2
8-Jul	7.2	6.2	6.8	7.1	10.9	7.2	14.9	14.6	6.3	7.1	9.1	7.3	7.0	6.5	18.7	27.7	24.8	20.0	14.2	12.8	9.6	8.8	8.7	7.0	11.3	27.7
9-Jul	5.9	5.1	3.8	2.9	2.8	2.0	1.8	1.6	1.6	1.7	1.6	1.5	1.4	1.9	1.6	1.8	1.9	1.5	1.3	1.3	1.4	1.7	1.8	2.4	2.2	5.9
10-Jul	2.9	2.8	2.5	3.0	3.1	3.4	3.9	4.0	3.7	3.0	3.1	2.9	2.7	2.5	2.1	2.1	2.1	2.0	2.1	2.2	2.1	2.4	2.4	2.3	2.7	4.0
11-Jul	2.0	3.7	4.1	3.6	8.9	7.2	6.7	6.7	4.0	4.0	4.2	4.7	5.0	4.6	4.8	4.3	3.7	3.8	4.0	4.2	4.2	4.7	3.9	3.9	4.6	8.9
12-Jul	3.7	3.8	4.0	4.1	4.0	3.6	3.4	3.5	3.5	3.4	3.2	3.2	3.1	2.7	3.0	2.9	2.5	2.0	2.0	2.3	2.6	3.1	2.7	2.6	3.1	4.1
13-Jul	3.0	3.2	3.1	2.9	2.7	2.6	2.4	2.4	2.4	2.6	2.7	3.2	5.6	5.2	4.1	3.2	7.2	8.7	9.4	9.8	7.6	7.9	7.4	7.4	4.9	9.8
14-Jul	7.5	7.1	7.1	7.3	7.8	8.2	8.6	8.7	9.7	12.9	10.3	7.6	11.0	13.4	10.4	9.7	6.5	3.9	3.7	3.9	4.2	4.9	5.2	5.5	7.7	13.4
15-Jul	7.0	7.2	6.0	6.5	6.3	8.6	7.8	7.7	8.2	8.1	7.6	7.8	7.1	7.5	8.1	8.7	13.0	8.4	7.8	7.9	6.8	5.8	6.1	6.7	7.6	13.0
16-Jul	7.4	7.4	7.6	7.7	8.0	7.9	7.3	8.3	9.8	9.6	10.2	11.1	11.7	12.9	13.1	20.4	14.6	17.5	18.1	17.1	14.4	18.6	24.2	27.6	13.0	27.6
17-Jul	29.7	26.3	23.1	21.8	23.1	22.0	21.6	19.2	16.6	18.5	26.7	28.1	23.4	15.3	16.3	16.2	15.3	18.8	21.1	24.2	52.8	135.0	212.9	268.4	45.7	268.4
18-Jul	316.4	340.3	310.7	314.1	271.6	239.0	97.7	44.6	30.6	38.1	16.1	8.7	10.1	9.4	12.5	16.3	24.7	31.6	26.1	24.2	22.9	23.3	28.9	30.7	95.4	340.3
19-Jul	28.6	32.6	32.2	26.7	25.4	27.7	25.4	28.9	28.7	29.2	26.6	30.1	32.1	29.3	27.3	32.1	29.0	24.6	18.2	20.7	30.2	77.1	160.8	266.0	45.4	266.0
20-Jul	218.7	83.1	69.3	71.5	81.3	73.9	86.0	90.3	87.6	94.9	98.1	100.9	102.7	101.6	105.2	106.2	105.8	103.3	98.8	95.8	95.9	93.9	94.9	92.2	98.0	218.7
21-Jul	92.6	92.6	88.0	86.4	82.3	80.7	80.7	78.4	86.0	86.4	85.1	90.6	93.5	86.0	74.1	69.2	68.3	69.1	71.7	71.1	69.5	68.9	69.5	68.9	79.6	93.5
22-Jul	69.3	69.3	68.6	68.5	71.1	74.8	69.8	66.1	66.5	73.3	88.5	90.6	81.2	67.3	65.8	59.4	54.1	52.6	54.8	52.9	53.0	54.6	53.1	54.2	65.8	90.6
23-Jul	55.7	58.1	61.0	60.1	62.5	58.9	58.5	60.1	78.0	71.2	60.4	48.8	20.5	18.6	15.5	13.5	7.3	5.8	6.3	14.2	15.3	15.2	16.6	20.1	37.6	78.0
24-Jul	22.5	22.3	19.7	18.8	19.3	19.0	17.7	19.1	18.2	19.2	22.2	27.9	29.6	22.9	17.7	15.8	15.6	15.1	14.4	14.4	13.2	31.6	47.9	49.2	22.2	49.2
25-Jul	16.0	7.8	7.1	7.2	7.8	9.5	8.5	7.0	5.3	5.1	4.4	4.2	3.5	2.8	2.9	2.6	2.4	2.7	2.6	2.2	3.3	5.2	17.8	15.1	6.4	17.8
26-Jul	18.8	23.1	17.2	10.0	8.3	7.1	7.1	6.3	9.4	10.3	11.9	11.5	10.6	11.4	14.8	17.0	16.5	17.3	13.0	9.8	11.0	12.6	10.0	10.5	12.3	23.1
27-Jul	11.5	11.6	12.2	13.5	13.3	14.1	16.2	14.0	12.6	12.2	12.7	12.6	12.9	12.7	14.0	15.8	15.0	15.1	16.1	17.7	24.0	30.4	26.7	13.9	15.4	30.4
28-Jul	12.9	12.8	13.3	12.5	11.2	12.7	12.2	11.7	11.0	12.5	14.4	7.5	5.9	6.0	6.6	6.5	9.7	12.5	13.7	12.7	8.9	9.9	11.7	10.7	10.8	14.4
29-Jul	10.2	11.6	8.7	6.0	7.8	7.8	4.3	3.5	3.9	6.0	15.3	15.9	18.5	17.3	12.3	9.0	8.7	8.0	7.7	9.8	6.5	6.5	6.0	5.5	9.0	18.5
30-Jul	4.3	3.9	3.9	4.4	4.8	5.4	5.6	6.0	7.2	7.9	9.3	9.9	10.5	10.5	8.5	7.2	5.5	4.3	3.3	3.5	3.9	4.1	4.5	4.8	6.0	10.5
31-Jul	4.7	4.7	4.8	5.0	5.1	6.4	5.8	5.6	5.9	5.9	5.3	C	C	C	3.6	4.0	4.7	4.6	4.6	3.8	4.1	4.2	4.4	4.4	4.8	6.4
37.6 33.5 30.9 30.4 29.3 27.9 23.5 22.4 23.4 24.6 24.2 24.3 22.8 20.5 19.4 18.9 17.7 17.3 16.6 16.8 18.6 24.0 30.5 35.5 316.4 340.3 310.7 314.1 271.6 239.0 97.7 92.4 119.1 124.0 115.3 106.8 102.7 101.6 105.2 106.2 105.8 103.3 98.8 95.8 95.9 135.0 212.9 268.4 Diurnal Average Diurnal Maximum																										
C - Calibration Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 µg/m³ 24-hr 29 µg/m³																										



Wood Buffalo Environmental Association
Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Buffalo Viewpoint - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Number of Hours	%	Cumulative %
0 - 5	200	26.99	26.99
6 - 15	266	35.90	62.89
16 - 25	98	13.23	76.11
26 - 80	118	15.92	92.04
> 81.0	59	7.96	100.00

Total Number of Valid Hours: 741

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Buffalo Viewpoint - July 2026

Concentration Ranges (µg/m ³)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	0	1	2	1	0	4	18	35	22	20	31	34	23	3	4	2	200
6 - 15	14	12	8	8	3	13	24	58	32	13	4	14	33	15	8	7	266
16 - 25	11	5	3	1	3	7	12	8	11	2	1	2	7	9	10	6	98
26 - 80	10	1	1	0	0	4	20	30	17	1	5	3	2	6	6	12	118
> 81.0	9	3	0	0	0	1	7	12	6	2	8	0	0	4	1	6	59
Totals	44	22	14	10	6	29	81	143	88	38	49	53	65	37	29	33	741

Total Number of Valid Hours: 741

Total Number of Hours: 744

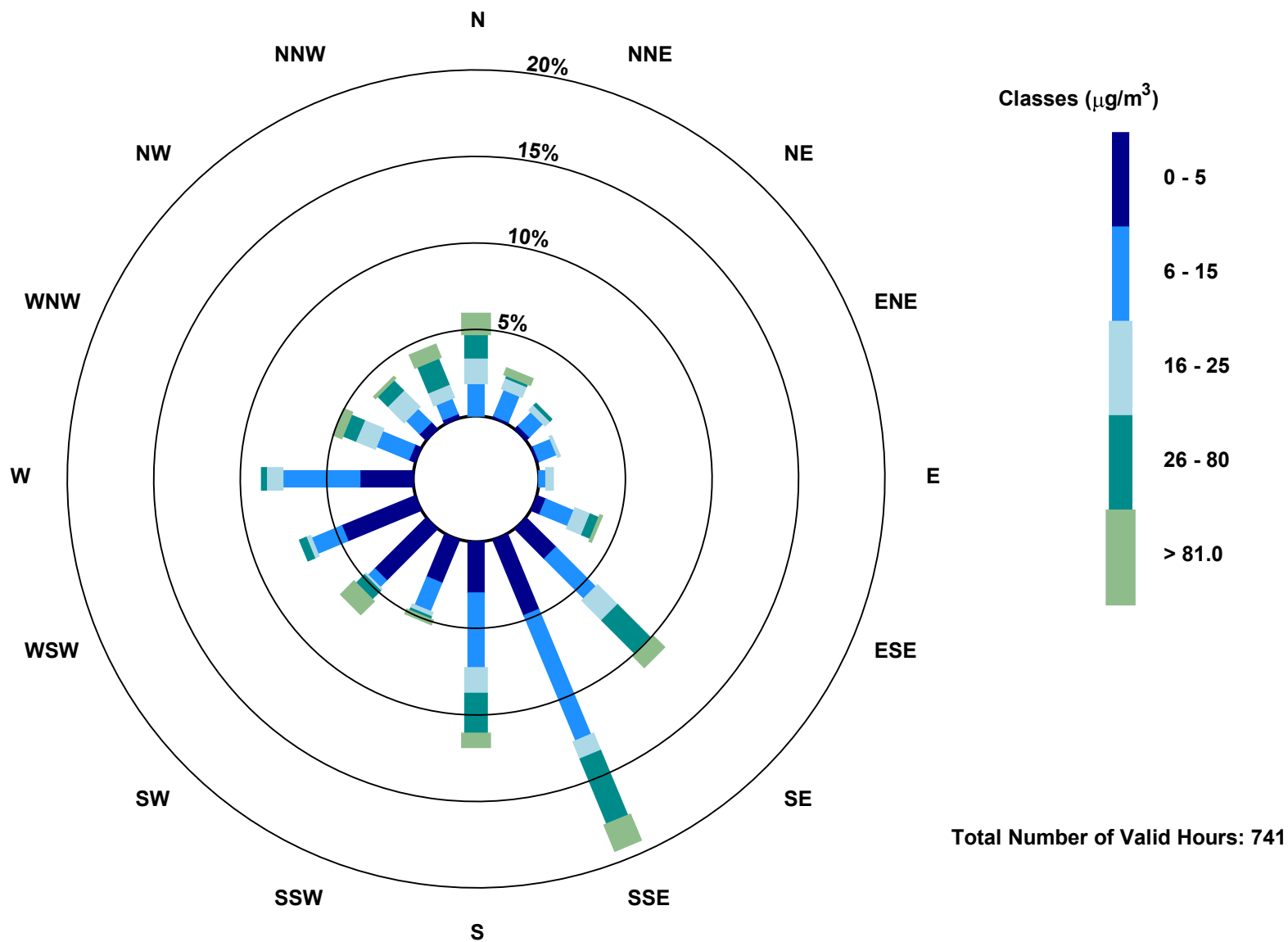


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$

Buffalo Viewpoint

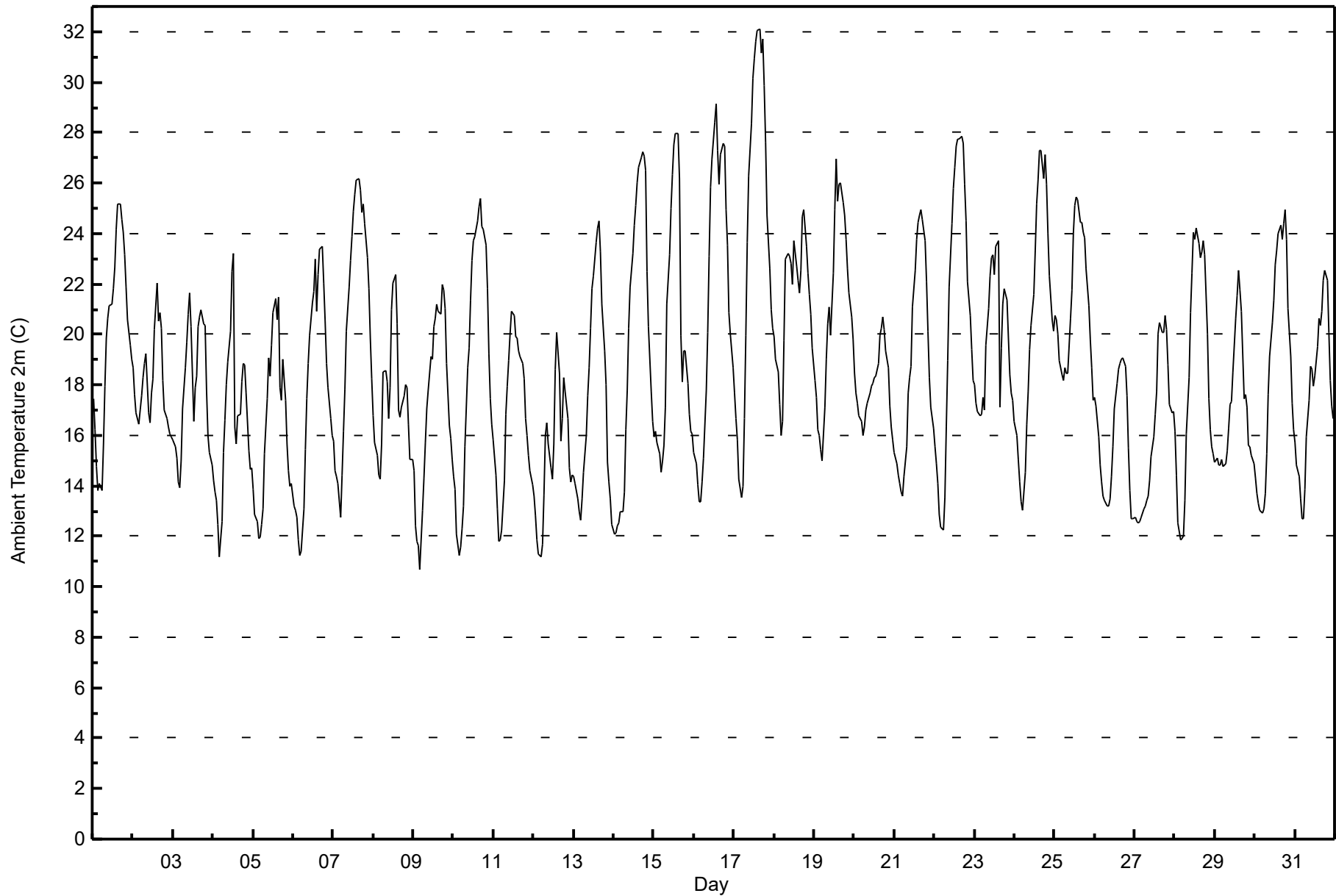


Maximum Value: 32.1 C on Jul 17 16:00																				Maximum Daily Average: 23.9 C on Jul 17					Hours in Service: 744				
Minimum Value: 10.7 C on Jul 9 05:00																				Minimum Daily Average: 15.2 C on Jul 12					Hours of Data: 744				
Maximum Diurnal Average: 23.0 C at hour 15																				Minimum Diurnal Average: 13.6 C at hour 5					Hours of Missing Data: 0				
Monthly Average: 18.73 C																				Percentiles: P ₁ = 11.6 P ₁₀ = 13.4 Q ₁ = 15.4 Median = 18.2 Q ₃ = 21.7 P ₉₀ = 24.7 P ₉₉ = 29.6					Hours of Calibration: 0				
																				Percent Operational Time: 100.0									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	17.5	16.2	14.7	13.8	14.1	13.8	15.7	18.0	19.9	20.6	21.1	21.2	21.8	22.6	24.2	25.2	25.2	24.6	24.0	23.2	21.9	20.6	19.6	19.0	19.9	25.2			
2-Jul	18.7	17.6	16.9	16.5	17.0	17.5	18.3	18.8	19.2	16.9	16.5	17.7	18.2	20.2	22.1	20.5	20.9	20.2	18.2	17.0	16.7	16.3	16.1	16.0	18.1	22.1			
3-Jul	15.8	15.6	15.1	14.2	13.9	15.0	17.0	18.7	19.7	20.8	21.7	20.3	16.5	17.9	18.3	20.3	20.7	21.0	20.4	20.3	17.8	16.0	15.3	14.8	17.8	21.7			
4-Jul	14.2	13.8	13.4	12.5	11.2	12.6	15.3	16.6	18.0	18.9	20.1	22.5	23.2	16.3	15.7	16.8	16.8	18.1	18.8	18.8	17.7	15.4	14.6	14.7	16.5	23.2			
5-Jul	13.9	12.8	12.6	11.9	12.0	12.5	13.1	15.3	17.4	19.1	18.3	19.6	20.8	21.4	20.6	21.5	17.9	17.4	19.0	17.4	15.6	14.6	14.0	14.1	16.4	21.5			
6-Jul	13.2	13.0	12.8	11.8	11.3	11.4	13.1	15.4	17.5	18.8	20.0	21.2	21.7	23.0	20.9	22.4	23.4	23.5	22.1	20.5	18.9	17.9	16.7	16.0	17.8	23.5			
7-Jul	15.8	14.6	14.4	14.1	12.8	14.4	16.2	17.8	20.2	21.9	23.0	23.9	24.9	25.6	26.1	26.2	25.8	24.9	25.2	24.4	23.0	21.8	19.9	18.2	20.6	26.2			
8-Jul	16.8	15.7	15.2	14.4	14.3	15.7	18.5	18.6	18.1	16.7	17.9	21.0	22.1	22.4	20.4	17.0	16.7	17.1	17.6	18.0	17.9	16.5	15.0	15.0	17.4	22.4			
9-Jul	14.6	12.4	11.8	11.6	10.7	13.0	14.3	15.7	17.1	17.8	19.2	19.0	20.3	20.6	21.2	20.9	20.8	22.0	21.8	21.0	18.9	16.4	15.9	15.1	17.2	22.0			
10-Jul	14.4	13.9	12.1	11.3	11.6	12.3	13.2	15.5	18.7	19.4	21.4	22.9	23.7	23.9	24.5	25.0	25.4	24.3	24.1	23.5	21.8	19.2	17.5	16.4	19.0	25.4			
11-Jul	15.9	14.4	13.1	11.8	11.9	12.3	14.2	16.9	18.0	18.9	20.0	20.9	20.7	19.9	19.8	19.3	19.1	18.8	18.2	16.7	16.0	15.2	14.6	14.1	16.7	20.9			
12-Jul	13.6	12.8	11.9	11.3	11.2	11.7	13.7	16.0	16.5	15.6	14.7	14.3	15.7	18.6	20.1	18.5	15.8	16.7	18.3	17.7	16.6	14.7	14.1	14.4	15.2	20.1			
13-Jul	14.4	14.1	13.5	13.0	12.7	13.5	14.5	16.0	17.6	18.7	20.3	21.8	22.3	23.7	24.2	24.5	23.3	21.2	19.3	18.0	14.9	14.2	13.5	12.5	17.6	24.5			
14-Jul	12.1	12.1	12.4	12.5	13.0	13.0	13.8	16.2	17.8	20.2	21.9	23.2	24.3	25.1	26.0	26.6	27.0	27.2	27.1	26.5	22.5	20.3	17.7	16.5	19.8	27.2			
15-Jul	15.9	16.2	15.7	15.3	14.5	15.0	15.6	17.1	21.2	23.2	25.0	26.4	27.5	27.9	28.0	26.2	20.0	18.1	19.4	19.3	18.0	16.8	16.1	16.0	19.8	28.0			
16-Jul	15.3	14.9	14.0	13.3	13.4	14.1	15.1	17.8	20.1	23.1	25.9	26.9	28.4	29.1	27.3	25.9	27.1	27.6	27.5	24.9	23.5	20.9	20.0	18.7	21.5	29.1			
17-Jul	17.7	16.7	15.8	14.3	13.6	14.0	16.7	20.0	23.7	26.3	28.4	30.1	30.9	31.6	32.0	32.1	31.1	31.7	29.9	27.6	24.7	22.6	21.0	20.3	23.9	32.1			
18-Jul	19.9	19.0	18.5	17.2	16.0	16.5	19.8	23.0	23.2	23.1	22.8	22.0	23.7	22.7	22.2	21.7	22.5	24.7	24.9	23.5	22.4	21.6	20.8	19.5	21.3	24.9			
19-Jul	18.2	17.5	16.2	16.0	15.4	15.0	17.1	19.0	20.4	21.1	20.0	22.4	25.0	26.9	25.3	25.9	26.0	25.2	24.7	23.8	22.6	21.6	20.7	19.8	21.1	26.9			
20-Jul	18.5	17.7	17.3	16.8	16.6	16.0	16.3	17.0	17.3	17.7	18.0	18.1	18.3	18.4	18.8	19.9	20.2	20.7	20.2	19.4	18.7	17.2	16.3	15.8	18.0	20.7			
21-Jul	15.3	14.9	14.4	14.1	13.8	13.6	14.4	15.6	17.7	18.3	18.7	21.1	22.5	23.8	24.5	24.7	24.9	24.6	23.7	22.1	20.1	18.3	17.1	16.3	18.9	24.9			
22-Jul	15.5	14.9	14.1	12.8	12.3	12.3	13.5	16.3	19.0	21.8	24.4	25.8	26.6	27.4	27.7	27.7	27.9	27.6	25.9	24.5	22.1	20.7	19.4	18.2	20.8	27.9			
23-Jul	18.0	17.3	16.9	16.8	16.8	17.5	17.0	19.6	21.0	22.3	23.1	23.1	22.4	23.5	23.7	17.1	19.5	21.2	21.8	21.4	19.9	18.4	17.7	17.4	19.7	23.7			
24-Jul	16.6	16.0	15.0	14.2	13.4	13.0	14.6	16.4	17.7	19.4	20.4	21.6	23.3	25.1	26.1	27.3	27.3	26.2	27.1	25.9	24.0	22.3	20.6	20.1	20.6	27.3			
25-Jul	20.7	20.6	20.0	19.0	18.4	18.2	18.7	18.4	18.5	20.6	21.7	24.0	25.1	25.5	25.3	24.5	24.5	24.1	23.8	22.6	21.2	19.8	18.7	17.4	21.3	25.5			
26-Jul	17.5	17.1	16.0	14.8	14.2	13.6	13.4	13.2	13.2	13.5	14.4	15.6	17.1	18.1	18.6	18.9	19.0	19.1	18.7	17.6	15.5	13.8	12.7	12.7	15.8	19.1			
27-Jul	12.8	12.6	12.5	12.6	12.7	13.1	13.2	13.4	13.6	14.2	15.2	16.0	16.8	17.8	20.0	20.5	20.1	20.1	20.8	20.2	18.8	17.2	16.9	17.0	16.2	20.8			
28-Jul	16.1	14.4	12.5	11.9	11.9	12.0	13.4	16.0	18.3	20.9	22.4	24.0	23.7	24.2	23.6	23.0	23.3	23.7	23.2	20.0	17.5	16.2	15.6	15.3	18.5	24.2			
29-Jul	14.9	15.1	14.8	14.8	15.1	14.7	14.9	15.4	16.3	17.2	17.3	18.5	20.6	21.5	22.5	21.8	20.9	17.5	17.6	17.1	15.6	15.5	15.2	14.9	17.1	22.5			
30-Jul	14.3	13.7	13.3	13.0	12.9	13.1	13.7	15.3	17.6	19.1	20.5	21.4	22.8	23.3	24.0	24.3	23.8	24.4	24.9	23.8	21.0	19.1	17.3	16.2	18.9	24.9			
31-Jul	15.7	14.8	14.4	13.5	12.7	12.7	13.9	16.0	17.4	18.7	18.6	18.0	18.3	19.5	20.7	20.4	20.9	22.2	22.5	22.1	20.1	18.2	17.2	16.7	17.7	22.5			
15.9 15.2 14.6 13.9 13.6 14.0 15.2 16.9 18.4 19.5 20.4 21.4 22.2 22.8 23.0 22.8 22.5 22.4 22.3 21.3 19.5 18.0 17.0 16.4																									Diurnal Average				
20.7 20.6 20.0 19.0 18.4 18.2 19.8 23.0 23.7 26.3 28.4 30.1 30.9 31.6 32.0 32.1 31.1 31.7 29.9 27.6 24.7 22.6 21.0 20.3																									Diurnal Maximum				



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Buffalo Viewpoint - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	0	0.00	0.00
10 - 20	468	62.90	62.90
> 20	276	37.10	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

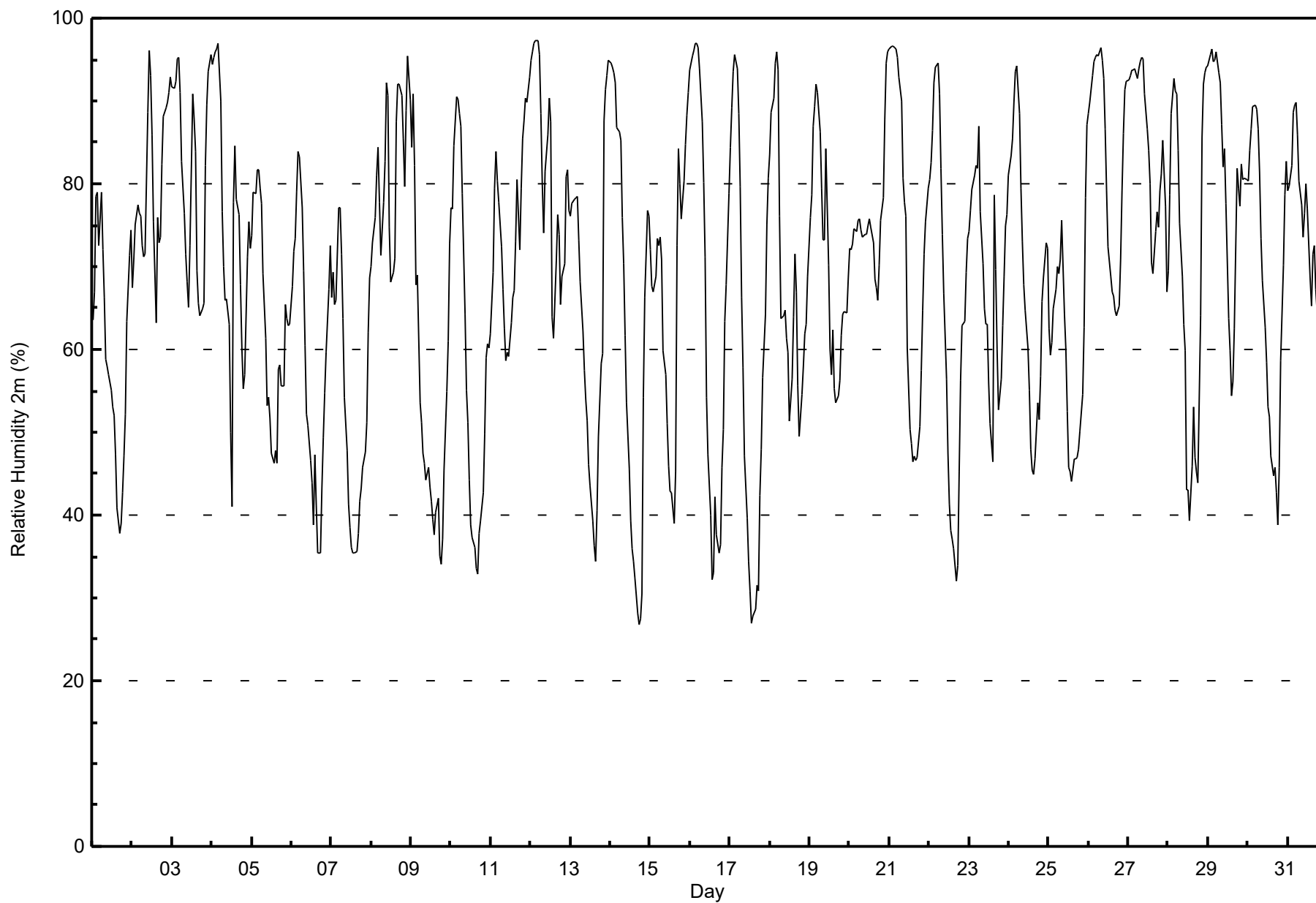
Buffalo Viewpoint - July 2026

Maximum Value: 97.3 % on Jul 12 04:00																				Maximum Daily Average: 84.8 % on Jul 27										Hours in Service: 744			
Minimum Value: 26.7 % on Jul 14 18:00																				Minimum Daily Average: 52.8 % on Jul 9										Hours of Data: 744			
Maximum Diurnal Average: 86.6 % at hour 5																				Minimum Diurnal Average: 52.3 % at hour 15										Hours of Missing Data: 0			
Monthly Average: 69.25 %																				Percentiles: P ₁ = 30.9 P ₁₀ = 43.1 Q ₁ = 56.2 Median = 71.5 Q ₃ = 83.6 P ₉₀ = 92.8 P ₉₉ = 96.6										Hours of Calibration: 0			
																														Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																				Daily Average	Daily Maximum											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24									
1-Jul	63.5	66.9	78.5	79.0	72.5	79.0	72.0	66.3	58.8	57.9	56.9	55.1	53.0	52.0	47.3	40.9	37.8	39.0	42.6	47.0	52.3	63.3	71.3	74.4	59.5	79.0							
2-Jul	67.5	70.8	75.1	77.5	76.5	76.2	72.5	71.2	71.6	88.7	96.1	93.0	86.0	75.5	63.2	76.0	72.9	73.6	82.3	88.1	89.1	89.8	91.0	92.9	79.9	96.1							
3-Jul	91.6	91.5	92.4	95.1	95.2	91.0	82.7	76.4	71.5	68.2	65.0	72.6	90.8	87.9	83.9	69.5	65.7	64.0	65.0	65.6	82.3	89.5	93.6	95.6	81.1	95.6							
4-Jul	94.4	95.3	95.9	96.2	96.9	89.9	76.6	69.9	65.9	66.1	63.0	50.0	41.1	77.8	84.6	78.1	76.2	67.8	60.2	55.2	57.0	71.2	75.5	72.1	74.0	96.9							
5-Jul	73.7	79.0	78.8	81.7	81.6	79.5	77.7	69.1	61.3	53.2	54.2	51.6	47.4	46.4	47.8	46.3	57.6	58.1	55.6	55.6	65.4	63.8	62.9	63.1	63.0	81.7							
6-Jul	67.6	71.8	73.4	78.9	83.9	83.1	77.1	69.4	60.4	52.2	50.8	46.6	43.8	38.8	47.3	41.1	35.4	35.5	43.2	49.3	54.7	59.7	67.3	72.6	58.5	83.9							
7-Jul	66.2	69.3	65.4	65.9	77.2	77.2	71.5	63.8	54.2	47.9	41.4	38.4	36.2	35.4	35.4	35.6	37.7	41.7	43.3	45.8	47.6	51.2	62.0	68.6	53.3	77.2							
8-Jul	70.0	72.9	75.9	81.0	84.4	77.8	71.3	77.8	82.8	92.2	90.7	74.8	68.2	69.2	71.0	87.4	92.1	92.1	90.7	85.4	79.6	88.8	95.5	90.2	81.7	95.5							
9-Jul	84.4	90.9	82.2	67.9	69.0	53.5	51.2	47.5	46.3	44.2	45.7	43.4	41.7	39.5	37.7	40.3	42.0	35.1	34.0	37.2	45.5	55.0	61.0	72.8	52.8	90.9							
10-Jul	77.1	77.0	84.6	90.6	90.1	88.5	86.9	78.9	64.3	55.2	51.2	44.2	38.8	37.3	36.1	33.5	33.0	37.8	39.3	42.7	49.9	58.9	60.7	60.2	59.0	90.6							
11-Jul	61.9	69.3	79.5	84.0	80.4	77.8	72.3	67.3	62.6	58.6	59.7	59.2	63.3	66.3	67.1	73.0	80.6	72.1	79.5	85.5	87.6	90.4	89.9	92.9	74.2	92.9							
12-Jul	94.9	96.0	97.0	97.3	97.3	95.7	88.4	79.9	74.0	81.5	86.0	90.4	87.5	63.8	61.4	70.7	76.3	73.9	65.4	68.8	70.4	80.8	81.6	76.8	81.5	97.3							
13-Jul	76.2	77.6	78.1	78.3	78.4	73.2	68.1	62.1	57.5	54.0	51.3	46.0	43.5	39.4	36.3	34.4	40.5	49.5	58.3	59.5	87.6	91.4	93.0	94.8	63.7	94.8							
14-Jul	94.7	94.1	93.4	92.2	86.7	86.2	85.2	75.9	70.4	61.6	53.5	45.6	39.4	35.9	34.4	32.3	28.1	26.7	27.5	30.6	54.3	66.2	76.7	76.2	61.2	94.7							
15-Jul	72.0	67.6	67.0	68.8	73.4	72.5	73.5	70.8	59.8	57.0	51.0	45.9	42.9	42.8	39.0	45.3	72.6	84.2	80.0	75.8	80.4	84.7	88.4	91.1	66.9	91.1							
16-Jul	93.7	95.5	96.1	96.9	97.0	96.5	93.9	87.4	80.2	71.2	54.2	47.4	40.0	32.2	33.0	42.3	37.7	35.4	36.4	45.7	50.3	63.4	67.8	78.8	65.5	97.0							
17-Jul	84.4	89.2	93.6	95.6	93.8	88.4	79.6	66.2	57.8	47.1	39.6	34.4	30.9	27.0	27.8	28.7	31.6	30.9	42.4	48.0	56.7	64.2	75.1	80.8	58.9	95.6							
18-Jul	83.5	88.6	90.4	94.5	95.9	93.8	76.0	63.8	64.1	64.7	61.3	59.7	51.3	56.4	64.0	71.5	67.0	55.6	49.5	54.5	58.0	61.9	63.1	68.8	69.1	95.9							
19-Jul	76.0	78.7	86.9	89.3	92.0	91.1	86.3	79.5	73.2	73.2	84.3	70.1	60.0	56.9	62.3	55.3	53.6	54.3	56.2	61.7	64.3	64.5	64.4	68.6	70.9	92.0							
20-Jul	72.2	72.1	72.8	74.6	74.3	75.6	75.7	74.5	73.6	73.9	74.0	74.9	75.8	74.8	72.8	68.5	67.5	65.9	70.2	75.5	78.3	87.8	94.6	96.0	75.7	96.0							
21-Jul	96.2	96.7	96.6	96.4	96.2	95.2	92.8	90.0	80.7	77.8	76.2	60.2	50.3	48.7	46.4	47.1	46.7	46.9	50.6	57.5	64.7	71.5	75.5	79.5	72.5	96.7							
22-Jul	80.4	82.5	86.5	92.2	94.1	94.5	90.9	81.9	73.9	66.9	56.4	47.5	41.4	38.1	37.1	35.9	32.1	33.9	45.3	56.3	62.9	63.4	69.4	73.4	64.0	94.5							
23-Jul	74.3	76.8	79.4	81.0	82.3	81.8	87.0	76.6	70.4	65.0	63.0	63.0	56.0	50.9	46.5	78.6	69.6	60.1	52.7	56.4	62.9	68.9	74.8	76.3	68.9	87.0							
24-Jul	80.9	83.4	85.4	89.8	93.6	94.2	88.5	79.5	73.0	67.7	64.7	60.1	55.1	47.9	45.4	44.9	46.8	53.6	51.4	56.8	65.7	68.7	72.8	72.2	68.4	94.2							
25-Jul	62.5	59.4	60.8	64.9	67.3	69.9	69.2	70.8	75.6	64.2	60.0	52.6	45.8	45.3	44.1	46.7	46.7	46.9	47.9	50.2	54.5	62.7	78.3	87.1	59.7	87.1							
26-Jul	88.5	89.8	93.0	94.7	95.2	95.6	95.4	96.4	95.0	92.7	86.6	79.1	72.3	68.8	66.9	66.4	64.8	64.1	65.3	70.9	79.1	86.1	91.4	92.3	82.9	96.4							
27-Jul	92.5	93.1	93.8	93.7	93.9	92.7	93.9	94.7	95.3	95.1	90.8	86.6	84.0	79.9	70.6	69.2	74.3	76.7	74.8	79.1	81.1	85.3	77.3	67.0	84.8	95.3							
28-Jul	69.6	78.6	88.5	92.8	91.2	90.8	84.1	75.3	68.9	63.1	59.8	43.1	43.0	39.2	46.0	53.0	47.0	45.2	43.9	64.1	85.6	92.0	93.4	94.1	68.8	94.1							
29-Jul	94.2	95.6	96.3	94.7	94.9	95.9	93.4	92.2	87.1	82.1	84.3	77.7	63.7	59.8	54.4	56.1	62.5	81.8	79.6	77.3	82.4	80.5	80.6	80.6	81.2	96.3							
30-Jul	80.3	84.0	86.6	89.3	89.5	88.9	86.6	81.4	73.3	68.3	62.7	58.5	53.0	51.9	47.2	44.7	45.7	42.7	38.9	45.7	58.6	70.2	78.6	82.8	67.1	89.5							
31-Jul	79.1	79.6	82.2	88.6	89.5	89.8	86.0	80.3	77.5	73.6	76.5	80.0	76.9	68.7	65.2	71.5	72.6	67.3	64.4	67.9	76.5	84.3	86.6	86.3	78.0	89.8							
79.5 81.7 84.1 85.9 86.6 85.0 80.9 75.4 70.3 67.3 64.9 59.7 55.6 53.4 52.3 54.3 55.3 55.2 56.0 60.0 67.3 73.5 77.9 80.0																										Diurnal Average							
96.2 96.7 97.0 97.3 97.3 96.5 95.4 96.4 95.3 95.1 96.1 93.0 90.8 87.9 84.6 87.4 92.1 92.1 90.7 88.1 89.1 92.0 95.5 96.0																										Diurnal Maximum							



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Buffalo Viewpoint - July 2026

Maximum Speed: 22 km/h on Jul 19 17:00														Maximum Daily Speed Average: 10.6 km/h on Jul 13										Hours in Service: 744		
Minimum Speed Value: 1 km/h on Jul 19 01:00														Minimum Daily Speed Average: 0.2 km/h on Jul 17										Hours of Data: 744		
Maximum Diurnal Speed Average: 3.7 km/h at hour 13														Minimum Diurnal Speed Average: 0.2 km/h at hour 21										Hours of Missing Data: 0		
Monthly Average Velocity: 2.1 km/h 222.4 deg														Percentiles: P ₁ = 2 P ₁₀ = 4 Q ₁ = 5 Median = 7 Q ₃ = 10 P ₉₀ = 14 P ₉₉ = 18										Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	SSE5	SSE4	S5	SE5	S4	SSE3	SSE4	SSE7	SE9	SE10	SE10	ESE12	SE9	SSE7	SSE9	SE10	SSE10	SSE9	SSE5	SSE5	SE4	SE4	SE4	SE4	SE6.4	ESE12
2-Jul	SSE4	SSE4	SSE4	SE4	SSE6	SE8	SE10	SSE9	SE10	SSE9	SSE8	SE10	S11	S9	SSW12	SE11	ESE11	SE9	SE10	SSE8	SSE8	SSE7	SSE8	SE9	SSE7.8	SSW12
3-Jul	SE8	S6	SE3	SE4	SSE4	SSE6	SSE7	SSE8	SSE9	SSE9	SE9	S6	WSW9	E3	SE8	S5	S5	SSW6	SSW6	ENE3	NE8	NE9	SE3	S3	SSE4.3	SSE9
4-Jul	SSE5	S5	WSW6	SSW5	S6	SSE4	SSE4	S4	SSE4	SSE7	SE7	SSE9	S8	SW14	WSW6	SW6	W8	SW7	WSW10	WSW8	SW5	SSE5	SSE6	WSW9	SSW4.9	SW14
5-Jul	WSW7	W7	W7	W7	W10	WSW7	SW6	SW6	NNW10	NW13	NNW14	NNW17	NW19	NNW18	NNW14	N11	NNW15	NNW10	NNW9	NNW16	N10	NNW14	NNW14	NNW13	NW9.6	NW19
6-Jul	NW9	W7	WSW6	WSW6	W7	WNW7	W7	WNW7	NW4	NW6	WNW5	NW5	WNW5	WNW9	W16	W9	W3	SSW4	NNE3	NE6	NW13	WNW8	N5	N6	WNW5.4	W16
7-Jul	NNE6	NNE5	NE7	NE7	SE2	E3	SE3	SSE1	NE2	E3	SE6	SE7	SE5	ESE5	SE3	S7	S5	ESE4	ESE5	ESE5	ESE5	SE4	SE4	ESE3.3	NE7	
8-Jul	SSE4	SSE5	SSE4	SSE3	SSW4	S3	SSE3	SSW4	SE6	SSE7	ESE5	ESE11	ESE7	SE6	WSW8	WNW2	SSE5	S6	SW6	W9	WSW6	SSE5	SSE5	WSW7	S3.6	ESE11
9-Jul	W7	S7	SSW9	S7	S6	SW11	SW11	WSW14	WSW15	WSW13	SSW12	SW15	SW15	SW14	SSW15	SSW12	S11	SSW12	SW14	SSW10	S6	S6	SSE7	S10	SW9.8	WSW15
10-Jul	S11	S8	SSE7	SSE7	SSE8	SSE9	SE8	SSE7	S8	SSW9	S9	S14	S14	SSW10	SSW10	SW15	SW13	SSW14	SSW11	S7	SSW5	S6	SSW6	SW5	S8.5	SW15
11-Jul	SW3	NNW3	WSW4	SE6	SSW2	SSE5	ESE1	SSE1	SSE3	SE4	SSE5	ESE4	SE8	SSE7	SSE6	SSE5	SSE4	S4	W6	NW9	NNE4	W5	SW7	SW4	S2.2	NW9
12-Jul	SSE4	SE5	SSE6	SSE6	S5	SSE5	S6	SSW6	WSW7	SW5	SW11	WSW7	ESE7	SSE9	S9	SW9	SSW8	SSW8	SW10	SW13	WSW10	SW11	SW10	WSW15	SSW6.5	WSW15
13-Jul	WSW19	WSW18	WSW16	WSW14	WSW14	WSW16	WSW14	WSW12	WSW12	WSW13	WSW12	WSW15	WSW15	WSW16	W17	WSW17	WNW12	NNE10	N7	NW12	NNW7	W7	S6	NW2	W10.6	WSW19
14-Jul	S4	S6	SSW7	SSW3	WSW8	WSW5	SW6	W7	W10	SW8	W14	W13	W11	W10	W7	WNW7	W7	W7	W6	SW4	SE6	SE6	SSE5	SE5	WSW5.4	W14
15-Jul	SSE5	SSE5	SSE6	S7	SSE8	SSE8	SSE8	SSE6	S6	S6	SSE8	SSE10	SSE10	SSE11	SE11	SSE6	W13	ESE14	SSE7	S6	S4	SE2	S5	S8	SSE6.4	ESE14
16-Jul	SSE5	SSW4	SSE7	SSE6	SSE6	SSE5	S7	SSE7	SSE9	SSE9	SSW11	SSW14	SW11	WSW8	WSW9	NNW8	NE8	ESE7	E4	NE6	NE7	NNW5	NW3	NNW4	S2.7	SSW14
17-Jul	WNW3	SW2	SSW3	SSE7	SSE7	S7	SSE5	S5	S2	WNW4	WNW4	NW4	W1	S4	S4	S6	SSE4	SE2	N9	N9	N10	NNE10	N8	N7	NE0.2	NNE10
18-Jul	NNE8	N6	NNE5	SSW2	S4	SSE4	SE4	SSE3	SW5	W10	S8	SE14	S8	W5	NNW4	N7	ENE4	ESE7	SE12	SE12	SE11	SE8	SE6	SSE5	SE3.0	SE14
19-Jul	NE1	NNE3	NNW3	NW2	SE2	SE2	NNW5	NNW9	NW7	N6	NNW6	WNW5	WNW7	N17	N17	N16	N22	N21	N19	N19	N16	NNW16	N17	N17	N10.0	N22
20-Jul	N17	N16	N16	N15	NNW14	NNW10	NNW8	NNW7	NW6	N5	N5	NNW6	NNW6	NNW7	WNW6	WNW6	WNW5	WNW3	SSE1	SSE3	SW4	SW4	SSE3	S4	NNW5.5	N17
21-Jul	S4	SSE4	S4	S2	SSE6	S3	SSE3	SSE3	SW1	SE4	SE4	SW4	SW6	SW5	SSW4	S5	S5	S6	S6	SSE5	S5	SSE5	SSE7	SE8	S4.1	SE8
22-Jul	SSE6	SSE6	S7	SSE7	S7	SSE7	S6	S5	S5	S4	SSW5	SW5	SW7	SW6	SW5	S8	S7	SSE6	SE5	SE5	SE5	SSE4	SE5	SSE5	S5.1	S8
23-Jul	SSE8	SSE7	S7	SSE6	ESE5	S5	SSE5	WNW3	NNW6	NW12	NNW16	NNW12	NNW18	NW14	NNW9	W5	W8	WNW12	WNW11	WNW8	W6	WNW7	WNW7	NW10	WNW5.2	NNW18
24-Jul	NNW9	NNW9	WNW7	NW3	NNW3	S3	S4	S4	SW6	SE5	ESE7	ESE8	ESE9	SE8	ESE9	ESE9	SE8	SE6	SSE7	S5	S6	NW7	WSW3	WSW7	SSE2.0	NNW9
25-Jul	W14	W16	WSW16	W12	W8	W9	W10	W18	W14	W16	WSW11	WSW12	WSW12	SW9	WSW11	SW11	SW10	WSW11	SW9	SW7	WNW2	NW7	NNE14	N10	W9.5	W18
26-Jul	N11	N13	N14	N12	N12	NNE10	N11	NNE10	NNE8	N10	N13	NNE10	N9	N9	N9	N9	NNE9	NNE8	NNE8	N9	NNE10	NNE11	NNE9	ENE7	N9.8	N14
27-Jul	NE6	ENE4	ENE2	E3	SE2	SE4	ESE6	SE2	NE2	NE2	S4	SSW4	W5	WNW6	NNW6	SSE2	SSE7	S7	S7	SSE5	SSE6	SE7	SW7	WSW10	SSE2.0	WSW10
28-Jul	WSW9	SE4	SSE6	SE6	SE6	SSE5	S5	S6	SSE7	SSE8	ESE9	S9	SSE7	SE8	ESE6	ESE4	ENE7	E10	ENE8	ENE4	NNE8	ENE10	NNE16	NE11	ESE4.3	NNE16
29-Jul	ENE17	S5	SSE8	SSW9	W14	WNW15	W15	W15	W15	W14	W12	W13	W18	WNW15	W13	WNW11	NW11	NW13	WNW10	W14	WSW11	W13	W12	W13	W9.9	W18
30-Jul	W14	W14	W15	W16	W12	W9	W9	W8	WNW9	WNW8	NW8	NW5	NW6	N7	WNW2	S3	SSW5	W4	WSW5	SW3	SE5	SSE5	SSE6	SE7	W5.5	W16
31-Jul	SSE6	SSE7	SE6	SSE6	SSE7	SSE5	SSE4	SSE4	SSE6	SSE6	SSE6	SSE7	SSE3	ESE5	SE5	ESE4	ESE2	SE5	SSE5	SSE4	SE4	SE4	SE3	SSE4	SSE4.7	SSE7
SW1.3 SW2.1 SW2.6SSW2.5SSW2.8SSW2.9SSW2.9 SW3.4 SW3.1 SW2.8 SW2.7SSW3.1 SW3.7WSW2.8WSW3.3 SW2.4 SW1.7SSW1.8 SW1.8 W1.2NNE0.2WNW0.4SSW0.5 SW1.4																								Diurnal Average		
WSW19WSW18WSW16 W16WSW14WSW16 W15 W18WSW15 W16NNW16 NW17 NW19NNW18 N17 WSW17 N22 N21 N19 N19 N16 NNW16 N17 N17																								Diurnal Maximum		
All monthly, daily, and diurnal averages have been calculated using vector methods																										



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

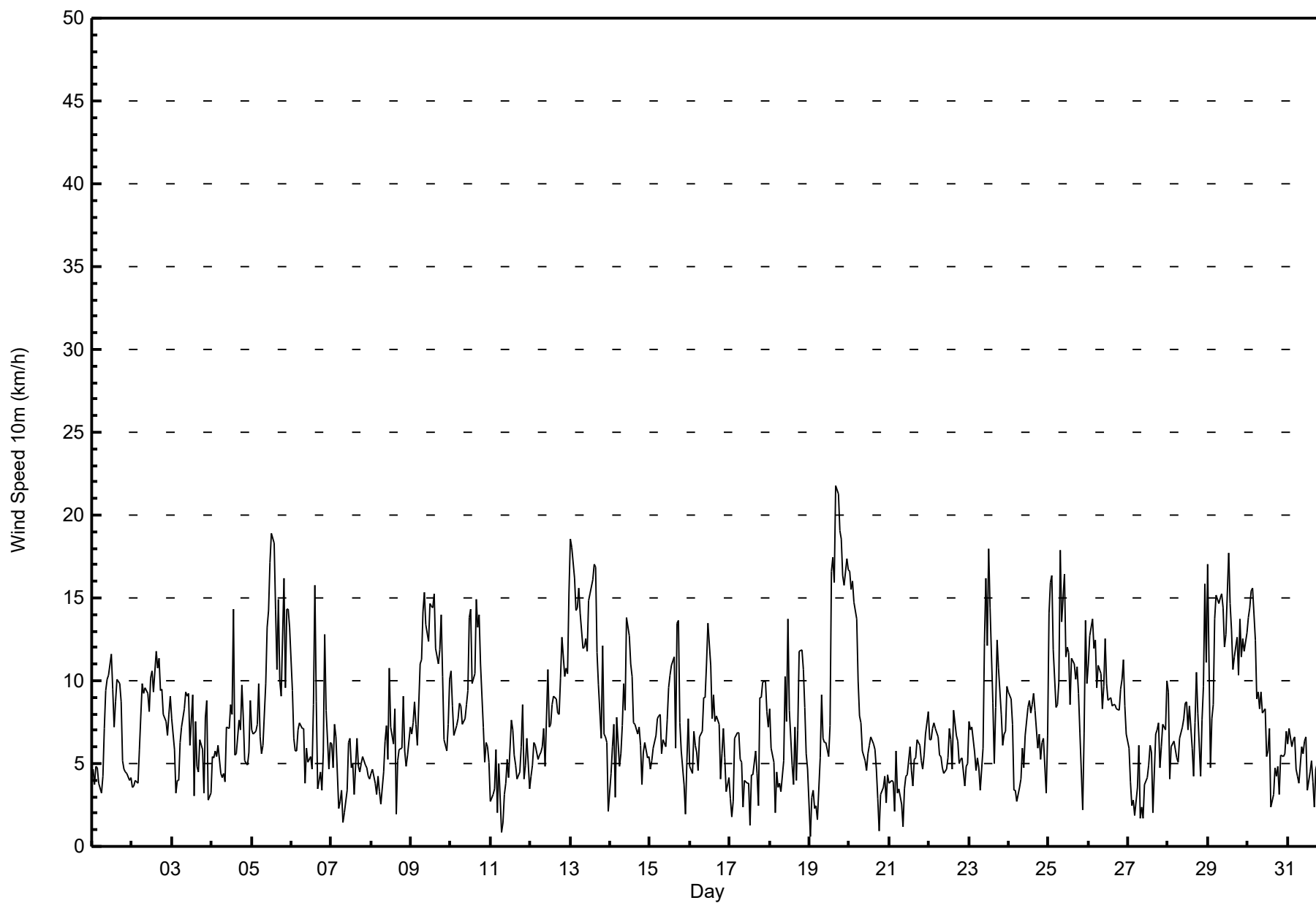
Wind Speed 10m (WS10) - km/h
Buffalo Viewpoint - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 9 km/h on Jul 15 17:00																	Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0									
Minimum Value: 0 km/h on Jul 30 22:00																										
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 2 Q ₃ = 3 P ₉₀ = 4 P ₉₉ = 6																										
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	1	1	1	1	1	1	1	3	3	3	3	3	3	3	3	4	3	3	1	1	1	1	1	1	1	4
2-Jul	1	1	1	2	2	3	3	3	3	4	3	4	4	3	4	4	3	4	3	3	2	2	2	2	3	4
3-Jul	2	2	1	1	1	2	2	3	3	3	3	4	5	3	3	2	2	2	2	3	2	1	1	1	1	5
4-Jul	1	1	1	2	1	1	1	1	2	2	2	3	4	9	2	2	2	2	4	2	2	1	1	1	2	9
5-Jul	2	3	3	2	2	2	2	3	3	5	4	5	6	5	4	4	5	3	3	5	3	4	4	4	4	6
6-Jul	3	2	2	2	2	2	2	2	2	3	2	2	2	5	5	3	2	2	3	2	5	3	1	1	1	5
7-Jul	1	1	1	1	1	1	1	1	2	1	2	3	3	3	3	3	2	1	2	1	1	1	1	1	1	3
8-Jul	1	1	1	1	1	1	1	1	3	4	2	3	3	2	8	2	2	2	2	2	1	1	1	1	3	8
9-Jul	1	1	2	2	2	3	4	4	5	4	4	5	5	5	5	4	3	4	5	3	2	3	2	4	4	5
10-Jul	3	3	2	2	2	2	2	2	2	3	3	5	5	4	4	5	4	4	3	2	1	1	1	1	1	5
11-Jul	2	2	1	2	3	1	2	1	1	1	2	2	2	3	2	1	1	2	3	4	2	3	2	2	2	4
12-Jul	1	2	1	1	1	1	2	2	3	2	3	4	3	4	4	3	4	3	4	6	4	3	2	4	4	6
13-Jul	5	5	5	4	4	4	4	3	4	4	4	5	5	5	5	5	5	4	4	4	3	3	3	2	5	5
14-Jul	2	2	2	2	3	2	2	3	3	2	4	3	3	4	3	2	2	2	2	1	1	1	1	1	1	4
15-Jul	1	2	2	2	2	2	2	2	2	2	3	3	4	4	4	3	9	5	2	3	2	2	2	3	3	9
16-Jul	1	2	1	1	1	1	2	2	3	3	3	4	4	3	2	4	2	3	1	2	3	1	2	1	1	4
17-Jul	1	2	2	1	2	1	1	1	1	1	1	1	2	2	3	3	2	2	3	2	2	2	2	1	3	3
18-Jul	1	2	2	2	1	1	1	2	1	4	5	5	3	3	3	3	2	2	5	4	3	3	2	2	5	5
19-Jul	1	1	2	1	2	1	2	3	2	2	1	2	3	5	5	6	6	6	5	5	4	5	5	5	6	6
20-Jul	5	4	4	4	5	3	2	2	2	2	1	2	2	2	2	2	2	1	1	1	1	1	1	1	1	5
21-Jul	1	1	1	2	1	2	1	2	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	2
22-Jul	2	2	1	1	1	1	1	1	1	1	2	2	2	3	3	3	2	2	1	1	1	1	2	2	2	3
23-Jul	2	2	3	2	2	1	1	3	2	5	5	4	5	5	3	7	3	4	3	3	1	1	2	3	7	7
24-Jul	3	2	2	1	2	2	1	1	2	2	2	2	3	3	3	3	3	2	2	1	1	2	2	2	3	3
25-Jul	3	4	5	4	3	3	4	5	4	4	4	4	4	2	3	3	3	3	3	3	2	3	4	3	5	5
26-Jul	3	3	4	4	3	3	3	3	2	3	3	3	3	3	3	3	2	3	2	2	3	3	4	2	4	4
27-Jul	2	1	1	1	1	1	2	2	2	2	2	1	2	2	2	2	2	3	2	1	1	1	2	3	3	3
28-Jul	3	2	2	2	1	1	1	2	2	3	3	3	2	3	2	1	3	2	3	2	2	5	5	5	5	5
29-Jul	8	2	3	4	4	4	3	4	4	4	5	5	5	5	4	4	4	6	3	6	4	3	3	3	8	8
30-Jul	4	3	3	3	3	3	3	3	3	2	2	2	3	2	2	2	2	2	2	1	1	0	1	1	1	4
31-Jul	1	2	2	1	2	1	1	1	2	2	2	2	1	2	2	1	2	1	2	1	1	1	1	1	1	2
8 5 5 4 5 4 4 5 5 5 5 5 6 9 8 7 9 6 5 6 5 5 5 5 5																										
Diurnal Maximum																										



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Buffalo Viewpoint - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Buffalo Viewpoint - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	247	33.20	33.20
6 - 11	377	50.67	83.87
12 - 19	118	15.86	99.73
20 - 28	2	0.27	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Buffalo Viewpoint - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	3	5	4	5	5	14	39	65	39	14	16	4	7	12	8	7	247
6 - 11	22	15	10	4	1	14	39	80	47	16	26	27	29	20	13	14	377
12 - 19	17	2	0	1	0	2	3	0	2	8	7	22	29	5	8	12	118
20 - 28	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	44	22	14	10	6	30	81	145	88	38	49	53	65	37	29	33	744

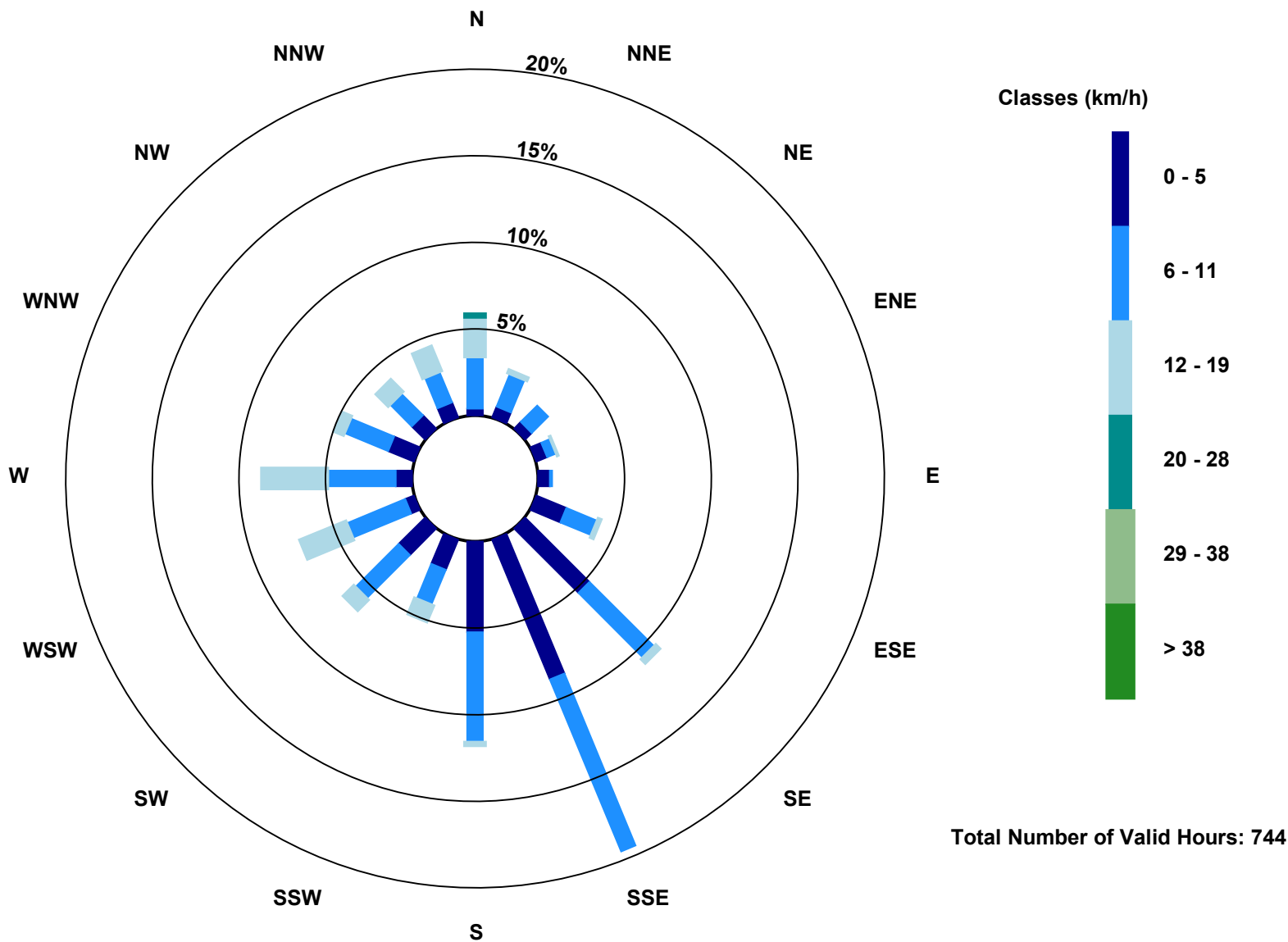
Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Buffalo Viewpoint





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Buffalo Viewpoint - July 2026

Direction of Maximum Speed: 355 deg on Jul 19 17:00																					Hours in Service:		744		
Direction of Maximum Daily Speed Average: 260.3 deg on Jul 13																					Hours of Data:		744		
Direction of Minimum Speed: 50 deg on Jul 19 01:00										Direction of Minimum Daily Speed Average: 0.2 deg on Jul 17											Hours of Missing Data:		0		
Monthly Average Direction: 222.4 deg																					Percent Operational Time:		100.0		
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	166	163	181	146	169	160	147	151	145	136	128	120	132	148	147	144	155	163	161	149	124	127	131	138	144.9
2-Jul	148	159	159	143	154	141	145	160	144	150	149	143	177	175	198	131	116	145	145	152	151	160	149	140	151.3
3-Jul	146	191	144	146	158	156	155	153	157	159	139	179	246	79	132	184	174	202	193	60	42	51	127	171	153.7
4-Jul	159	185	251	199	175	149	151	180	155	153	141	159	173	234	246	234	271	230	241	246	233	147	166	243	202.4
5-Jul	240	272	270	271	274	255	235	231	289	313	301	310	316	338	344	355	341	302	344	340	360	334	331	331	315.3
6-Jul	325	276	244	243	275	288	277	290	320	308	297	314	301	287	266	267	269	207	28	45	323	292	351	359	294.0
7-Jul	27	13	44	45	126	80	141	163	55	85	136	129	130	115	128	179	176	122	117	111	110	110	131	140	109.3
8-Jul	155	156	163	164	202	181	154	210	138	165	117	103	116	128	247	300	164	176	218	263	242	162	159	243	175.2
9-Jul	261	177	199	183	174	233	233	246	257	243	213	236	214	216	213	194	179	211	220	211	187	179	168	183	214.0
10-Jul	184	177	148	152	163	149	146	163	173	209	176	179	188	206	206	220	228	211	198	181	199	173	205	225	188.4
11-Jul	230	339	240	146	202	165	105	157	168	137	163	115	131	148	165	160	158	173	260	308	13	271	231	226	182.2
12-Jul	163	137	151	152	176	167	173	193	238	234	232	240	122	152	180	216	210	207	221	229	242	232	226	247	206.9
13-Jul	252	256	249	250	252	256	257	243	249	247	247	250	255	252	260	241	299	14	356	322	342	275	175	316	260.3
14-Jul	179	179	205	209	249	245	231	261	260	222	264	265	264	261	267	295	262	277	265	234	136	141	152	144	241.9
15-Jul	149	152	159	173	159	166	159	168	174	176	167	154	153	155	139	163	269	109	163	171	170	146	180	172	162.1
16-Jul	167	205	159	155	149	161	169	149	151	159	198	195	228	253	257	333	50	110	80	46	45	341	312	331	174.6
17-Jul	294	233	203	161	155	170	162	183	180	290	283	318	273	183	188	175	157	137	3	10	11	15	6	5	34.2
18-Jul	22	358	24	199	172	159	131	153	216	267	191	131	173	267	335	4	61	111	138	133	137	128	145	155	139.6
19-Jul	50	25	344	326	141	137	332	336	322	356	341	298	294	360	354	6	355	354	352	351	354	347	349	354	349.8
20-Jul	353	354	355	353	338	333	346	330	324	3	356	343	336	328	301	299	283	286	152	151	216	220	162	174	336.4
21-Jul	176	165	171	189	168	169	164	163	222	140	146	233	223	225	196	190	188	181	183	167	176	165	151	138	176.2
22-Jul	155	162	169	160	174	165	172	178	183	185	204	235	227	216	222	184	178	163	126	127	131	157	146	156	174.0
23-Jul	161	165	189	167	120	176	167	283	328	321	333	337	328	323	323	280	272	299	299	297	273	288	296	307	300.5
24-Jul	332	318	289	312	344	189	179	189	218	125	106	115	108	143	117	117	131	143	147	188	182	314	257	238	155.6
25-Jul	264	259	258	260	259	270	260	262	264	265	251	254	248	230	242	235	236	241	235	228	284	324	12	359	260.2
26-Jul	0	1	359	1	10	17	11	14	14	9	9	17	8	2	1	1	16	23	21	9	15	13	20	59	10.8
27-Jul	50	62	71	89	136	135	111	143	43	44	173	198	265	287	341	162	148	173	189	155	150	137	218	244	163.2
28-Jul	244	136	164	135	136	157	180	174	168	151	121	183	166	132	120	113	78	82	77	67	26	58	29	54	114.6
29-Jul	67	178	165	209	271	290	273	277	266	272	270	275	268	282	274	300	319	324	303	277	258	259	265	259	275.4
30-Jul	263	266	266	267	266	278	272	277	303	300	307	312	318	7	288	187	212	278	240	236	145	166	156	141	268.2
31-Jul	152	160	145	148	168	166	163	167	149	160	151	163	166	120	136	114	102	144	162	161	136	146	142	166	151.5
234.5 227.6 219.2 198.8 210.4 206.5 202.3 223.2 227.8 230.8 214.8 213.0 229.6 242.3 241.0 223.7 235.4 194.4 216.6 262.2 26.3 285.4 200.6 235.8																									
Diurnal Average																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

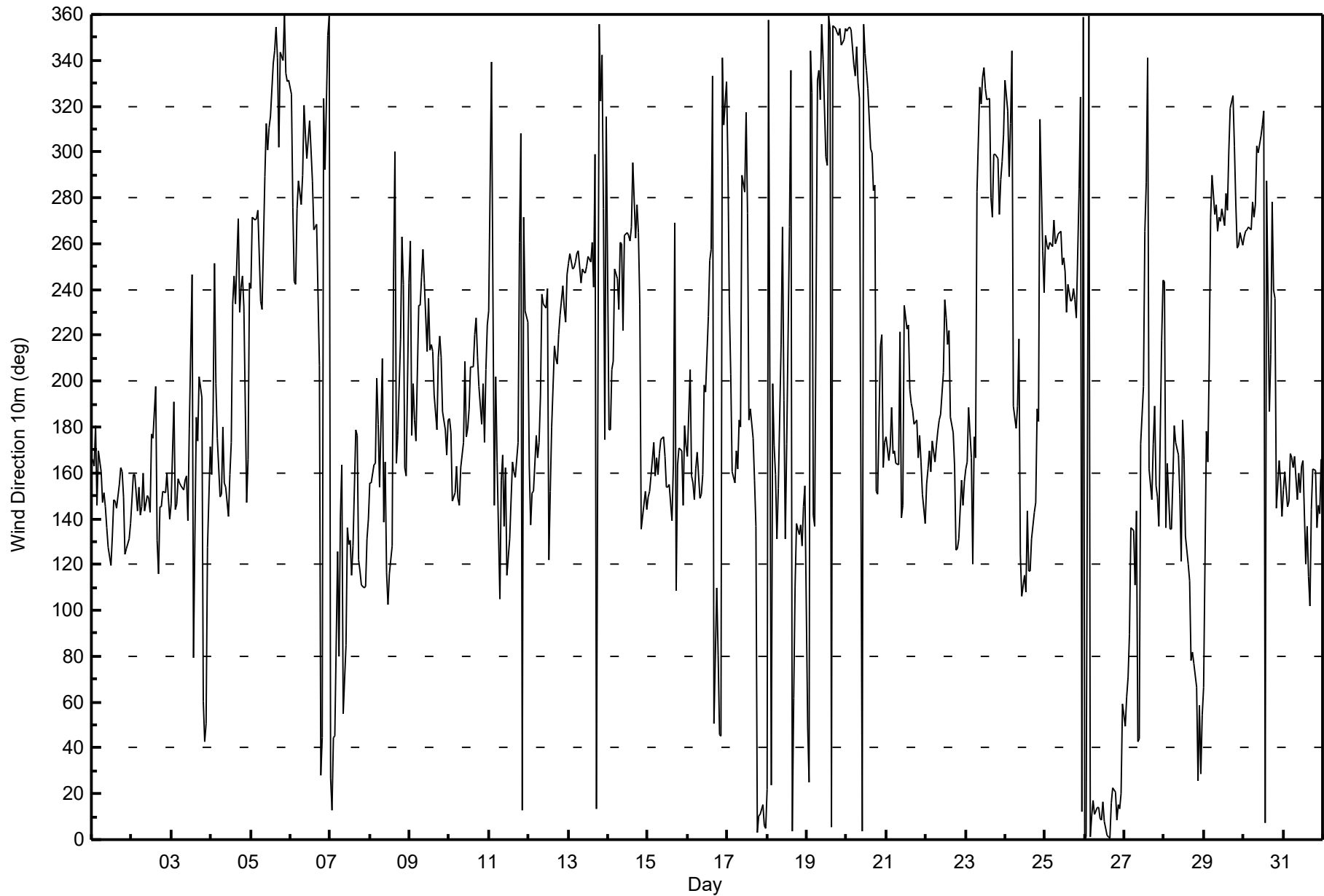
Buffalo Viewpoint - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 94 deg on Jul 17 13:00																									Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0
Minimum Value: 8 deg on Jul 30 22:00																									
Percentiles: P ₁ = 12 P ₁₀ = 18 Q ₁ = 23 Median = 29 Q ₃ = 37 P ₉₀ = 52 P ₉₉ = 86																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	28	35	11	25	21	26	31	33	37	33	28	25	33	39	39	37	37	36	30	32	26	21	21	26	39
2-Jul	34	38	32	31	35	32	33	34	34	33	36	35	33	35	30	29	26	35	36	34	31	33	33	31	38
3-Jul	35	29	33	38	37	32	35	40	37	39	39	57	30	70	34	47	52	32	34	74	17	12	40	26	74
4-Jul	22	33	18	34	26	25	25	36	48	35	39	40	42	27	29	35	19	37	26	23	29	16	17	20	48
5-Jul	24	23	27	26	17	23	26	44	30	28	26	24	25	23	26	28	24	25	28	21	24	19	19	20	44
6-Jul	19	21	26	24	29	30	22	27	55	52	69	57	58	45	16	29	70	53	77	32	22	28	14	16	77
7-Jul	15	20	11	9	52	29	40	86	73	66	49	44	73	83	78	47	44	26	30	21	16	18	18	29	86
8-Jul	33	36	41	34	23	42	64	35	52	56	44	22	29	37	76	87	41	35	35	18	21	29	22	47	87
9-Jul	27	16	26	33	38	22	22	22	21	24	31	26	29	29	24	30	31	31	20	22	30	31	35	33	38
10-Jul	29	34	28	26	32	29	27	34	33	31	34	33	33	50	26	23	25	22	27	28	18	13	21	26	50
11-Jul	67	51	26	16	78	30	77	76	51	44	43	47	37	35	28	28	38	37	18	25	30	31	21	60	78
12-Jul	35	31	25	16	19	24	29	33	27	38	20	50	32	45	40	38	29	26	26	22	21	18	19	20	50
13-Jul	19	18	20	20	19	20	22	26	22	24	26	24	26	25	22	23	45	28	36	23	45	53	51	86	86
14-Jul	46	25	16	59	23	37	27	31	23	26	20	25	27	28	37	35	39	29	17	21	20	9	15	21	59
15-Jul	35	43	32	29	23	23	23	34	34	38	41	38	39	41	35	37	50	30	35	40	33	82	47	44	82
16-Jul	42	31	21	16	25	28	30	31	32	35	28	27	28	38	17	52	31	27	43	29	39	25	46	22	52
17-Jul	46	59	60	28	18	22	18	24	79	44	50	49	94	59	70	44	37	71	22	19	17	15	14	11	94
18-Jul	12	24	20	61	23	31	43	49	19	26	52	32	42	57	57	34	46	29	36	32	32	33	42	59	61
19-Jul	91	43	29	60	94	91	35	20	26	20	19	28	33	24	23	28	24	24	23	22	22	21	21	22	94
20-Jul	21	22	22	21	24	20	22	24	27	27	30	27	28	24	28	34	37	56	54	25	25	25	28	25	56
21-Jul	29	24	24	80	16	46	29	59	82	52	41	53	40	50	70	52	45	33	34	30	23	15	15	14	82
22-Jul	26	20	13	15	22	17	19	23	32	41	46	56	32	64	64	38	40	36	23	22	22	28	33	35	64
23-Jul	39	38	40	36	47	28	40	67	38	29	22	26	22	25	29	75	29	24	24	23	17	21	19	22	75
24-Jul	21	20	22	48	35	56	29	35	26	56	38	37	30	48	35	32	34	38	32	35	11	41	60	26	60
25-Jul	14	15	17	21	32	18	18	17	18	17	24	25	23	23	23	21	21	21	21	30	90	39	22	21	90
26-Jul	22	23	22	25	22	23	22	23	23	23	24	27	28	23	23	24	27	29	25	22	20	19	26	20	29
27-Jul	26	32	49	41	55	47	28	81	27	80	47	46	48	34	50	84	32	34	31	26	16	16	36	19	84
28-Jul	23	48	24	18	27	23	19	28	34	39	34	44	44	39	35	27	13	17	16	65	20	37	21	35	65
29-Jul	24	56	32	39	25	25	17	19	17	19	22	26	20	25	26	31	25	27	23	20	19	17	14	17	56
30-Jul	17	15	14	13	16	25	25	26	27	29	30	47	51	28	89	77	47	32	31	38	15	8	11	13	89
31-Jul	25	30	33	26	38	34	33	35	27	36	28	32	31	43	35	28	72	32	34	33	26	26	33	23	72
91 59 60 80 94 91 77 86 82 80 69 57 94 83 89 87 72 71 77 74 90 82 60 86 Diurnal Maximum																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Buffalo Viewpoint - July 2026





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

**AMS05
MANNIX
JULY 2026**

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MANNIX (AMS05)

JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	706	35	38	99.6	26.9	0	2.7	0
H2S (ppb) Average	705	36	39	99.6	11	3	2.1	0
THC (ppm) Average	706	35	38	99.6	3.3	-	2.3	-
NMHC(ppm) Average	706	35	38	99.6	0.933	-	0.067	-
CH4(ppm) Average	706	35	38	99.6	3.1	-	2.3	-
Temperature 2 m (C) Average	743	0	1	99.87	31.8	-	23.9	-
Temperature 20 m (C) Average	743	0	1	99.87	31.7	-	24.6	-
Temperature 45 m (C) Average	743	0	1	99.87	31.4	-	25	-
Temperature 75 m (C) Average	743	0	1	99.87	30.9	-	25.1	-
Temperature 90 m (C) Average	743	0	1	99.87	30.9	-	25.2	-
Relative Humidity 2 m (%) Average	743	0	1	99.87	100	-	90	-
Relative Humidity 20 m (%) Average	743	0	1	99.87	95	-	85	-
Relative Humidity 45 m (%) Average	743	0	1	99.87	96	-	84	-
Relative Humidity 75 m (%) Average	743	0	1	99.87	98	-	86	-
Relative Humidity 90 m (%) Average	743	0	1	99.87	99	-	87	-
Wind Speed 20 m (km/h) Average	742	0	2	99.73	24	-	17	-
Wind Speed 45 m (km/h) Average	743	0	1	99.87	33	-	22	-
Wind Speed 75 m (km/h) Average	743	0	1	99.87	38	-	25	-
Wind Speed 90 m (km/h) Average	741	0	3	99.6	42	-	27	-
Wind Direction 20 m (deg) Average	742	0	2	99.73	-	-	-	-
Wind Direction 45 m (deg) Average	743	0	1	99.87	-	-	-	-
Wind Direction 75 m (deg) Average	743	0	1	99.87	-	-	-	-
Wind Direction 90 m (deg) Average	741	0	3	99.6	-	-	-	-
Vertical Wind Speed 20 m (km/h) Average	742	0	2	99.73	0.9	-	0.3	-
Vertical Wind Speed 45 m (km/h) Average	743	0	1	99.87	2.6	-	1.3	-
Vertical Wind Speed 75 m (km/h) Average	743	0	1	99.87	2.4	-	1.4	-
Vertical Wind Speed 90 m (km/h) Average	741	0	3	99.6	1.8	-	0.7	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MANNIX (AMS05)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	706	0.36	1.5	-	0	0	0	0	0.1	0.6	26.9
H2S (ppb) Average	705	0.53	1.1	-	0	0.1	0.1	0.2	0.4	1	11.4
THC (ppm) Average	706	2.08	0.2	-	1.9	1.9	2	2	2.1	2.2	3.3
NMHC(ppm) Average	706	0.013	0.048	-	0	0	0	0	0	0	0.933
CH4(ppm) Average	706	2.07	0.1	-	1.9	1.9	2	2	2.1	2.2	3.1
Temperature 2 m (C) Average	743	18.52	4.6	-	7.7	12.7	15.2	18	21.7	24.7	31.8
Temperature 20 m (C) Average	743	18.94	4	-	10.6	13.8	16	18.5	21.7	24.5	31.7
Temperature 45 m (C) Average	743	18.99	4	-	10.9	14	16	18.6	21.7	24.4	31.4
Temperature 75 m (C) Average	743	18.98	3.8	-	11.5	14.2	16.2	18.7	21.6	24.2	30.9
Temperature 90 m (C) Average	743	19.02	3.8	-	11.5	14.3	16.3	18.7	21.7	24.2	30.9
Relative Humidity 2 m (%) Average	743	74.1	18	-	35	48	60	76	90	97	100
Relative Humidity 20 m (%) Average	743	66.3	17	-	26	41	52	68	80	88	95
Relative Humidity 45 m (%) Average	743	64.3	17	-	26	40	51	66	77	87	96
Relative Humidity 75 m (%) Average	743	64	17	-	26	40	50	65	77	87	98
Relative Humidity 90 m (%) Average	743	63.5	17	-	26	40	50	64	77	86	99
Wind Speed 20 m (km/h) Average	742	9.6	4	-	1	5	6	9	12	15	24
Wind Speed 45 m (km/h) Average	743	13.7	6	-	1	6	9	13	18	22	33
Wind Speed 75 m (km/h) Average	743	15.4	8	-	1	6	9	15	21	26	38
Wind Speed 90 m (km/h) Average	741	16.5	8	-	1	7	10	16	22	27	42
Wind Direction 20 m (deg) Average	742	-	-	-	-	-	-	-	-	-	-
Wind Direction 45 m (deg) Average	743	-	-	-	-	-	-	-	-	-	-
Wind Direction 75 m (deg) Average	743	-	-	-	-	-	-	-	-	-	-
Wind Direction 90 m (deg) Average	741	-	-	-	-	-	-	-	-	-	-
Vertical Wind Speed 20 m (km/h) Average	742	-0.13	0.4	-	-1.3	-0.6	-0.3	-0.1	0.1	0.3	0.9
Vertical Wind Speed 45 m (km/h) Average	743	0.46	0.7	-	-2.1	-0.4	0	0.5	1	1.3	2.6
Vertical Wind Speed 75 m (km/h) Average	743	0.45	0.7	-	-2.3	-0.5	0.1	0.5	0.9	1.4	2.4
Vertical Wind Speed 90 m (km/h) Average	741	0.21	0.4	-	-1.2	-0.2	0	0.2	0.5	0.8	1.8

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MANNIX (AMS05)

JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
ALL GASEOUS ANALYZERS	08 Jul 2026 10:00	08 Jul 2026 10:00	1	Maintenance - station logger/modem reset
ALL GASEOUS ANALYZERS	13 Jul 2026 11:00	13 Jul 2026 12:00	2	Maintenance - sample manifold cleaned
ALL METEOROLOGICAL SENSORS	16 Jul 2026 23:00	16 Jul 2026 23:00	1	DAS Failure - data not recorded
Vertical Wind Speed, Wind Speed, Wind Direction 20m	04 Jul 2026 14:00	04 Jul 2026 14:00	1	Unstable Operation - flatline in analyzer output signal
Vertical Wind Speed, Wind Speed, Wind Direction 90m	15 Jul 2026 17:00	15 Jul 2026 17:00	1	Unstable Operation - flatline in analyzer output signal
Vertical Wind Speed, Wind Speed, Wind Direction 90m	28 Jul 2026 22:00	28 Jul 2026 22:00	1	Unstable Operation - flatline in analyzer output signal



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

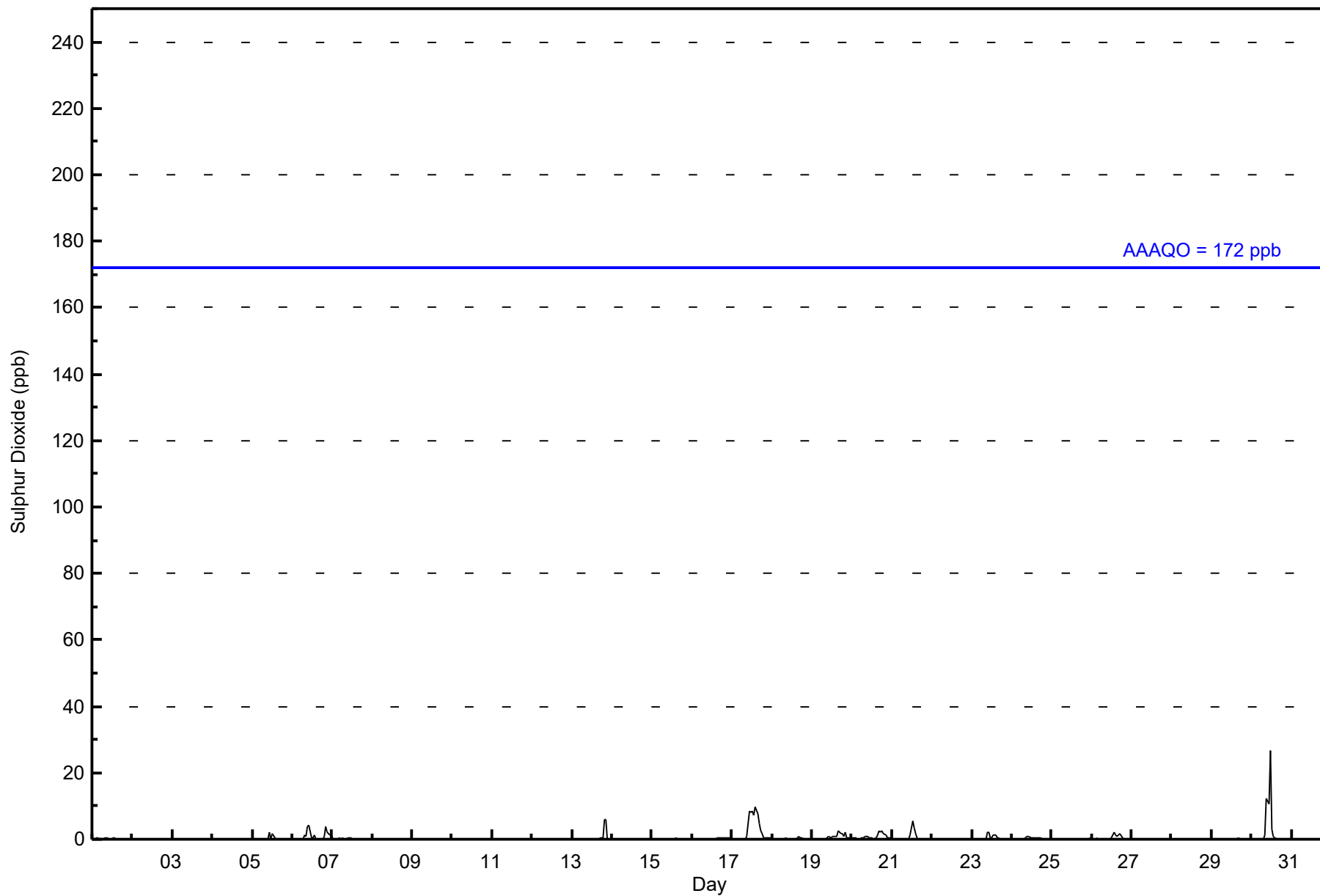
Mannix - July 2026

Number of Exceedances (AAAQO): Maximum Value: 26.9 ppb on Jul 30 12:00																				1-hr: 0 Maximum Daily Average: 2.7 ppb on Jul 17					24-hr: 0 Minimum Daily Average: 0.0 ppb on Jul 3 Minimum Diurnal Average: 0.0 ppb at hour 2 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.1 P ₉₀ = 0.6 P ₉₉ = 7.6					Hours in Service: 744 Hours of Data: 706 Hours of Missing Data: 38 Hours of Calibration: 35 Percent Operational Time: 99.6	
Minimum Value: 0.0 ppb on Jul 2 01:00 Maximum Diurnal Average: 1.4 ppb at hour 12 Monthly Average: 0.36 ppb																															
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jul	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3					
2-Jul	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1					
3-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
5-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	1.9	0.1	1.6	0.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.9					
6-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.0	3.9	4.4	0.3	0.3	1.1	0.2	0.0	0.0	0.1	0.2	0.9	3.7	2.3	1.2	1.3	1.0	4.4					
7-Jul	0.5	Z	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.5					
8-Jul	0.0	0.0	Z	0.0	0.0	0.1	0.2	0.1	0.0	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2					
9-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1					
10-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
11-Jul	0.0	Z	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1					
12-Jul	0.0	0.0	Z	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1					
13-Jul	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	M	M	0.1	0.1	0.0	0.1	0.1	0.3	0.2	5.9	5.8	0.2	0.0	0.0	0.6	5.9					
14-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1					
15-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2					
16-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.6	0.6	0.6	0.6	0.6	0.4	0.5	0.2	0.2	0.6					
17-Jul	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7	8.6	8.1	8.3	7.2	9.7	7.6	4.6	2.4	1.7	0.5	0.3	0.5	0.4	0.2	2.7	9.7					
18-Jul	0.2	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.4	0.7	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.7					
19-Jul	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.5	0.7	0.4	0.9	1.0	0.8	0.7	2.5	1.6	1.6	0.7	2.3	0.5	0.4	0.5	0.7	2.5					
20-Jul	0.4	0.4	0.3	0.6	Z	0.4	0.3	0.3	0.7	0.9	0.4	0.3	0.2	0.2	0.2	1.4	2.4	2.2	2.7	1.9	1.1	0.6	0.4	0.2	0.8	2.7					
21-Jul	0.1	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	1.1	5.7	3.6	1.5	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.5	5.7					
22-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
23-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.1	2.3	0.5	0.3	1.2	1.1	0.5	0.2	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.4	2.3					
24-Jul	0.0	0.1	Z	0.0	0.0	0.0	0.0	0.1	0.3	0.9	0.7	0.6	0.4	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.9					
25-Jul	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.4	0.1	0.4					
26-Jul	0.2	0.1	0.2	0.2	Z	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.5	1.9	1.3	0.8	1.3	1.7	0.3	0.1	0.1	0.0	0.0	0.0	0.4	1.9					
27-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1					
28-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1					
29-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4					
30-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	1.1	12.4	10.4	26.9	2.8	0.7	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	2.4	26.9					
31-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
0.1 0.0 0.1 0.1 0.0 0.1 0.1 0.1 0.2 0.8 1.1 1.4 0.7 0.6 0.5 0.4 0.4 0.3 0.3 0.4 0.5 0.2 0.1 0.1																										Diurnal Average					
0.5 0.4 0.3 0.6 0.2 0.4 0.3 1.2 1.1 12.4 10.4 26.9 8.3 7.2 9.7 7.6 4.6 2.4 2.7 5.9 5.8 2.3 1.2 1.3																										Diurnal Maximum					
Z - zerospan C - Calibration M - Maintenance																															
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																															



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Mannix - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	704	99.72	99.72
11 - 20	1	0.14	99.86
21 - 60	1	0.14	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Mannix - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	24	34	7	8	8	17	47	146	94	63	46	71	57	35	15	30	702
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	24	34	7	8	8	17	47	146	94	63	46	71	57	37	15	30	704

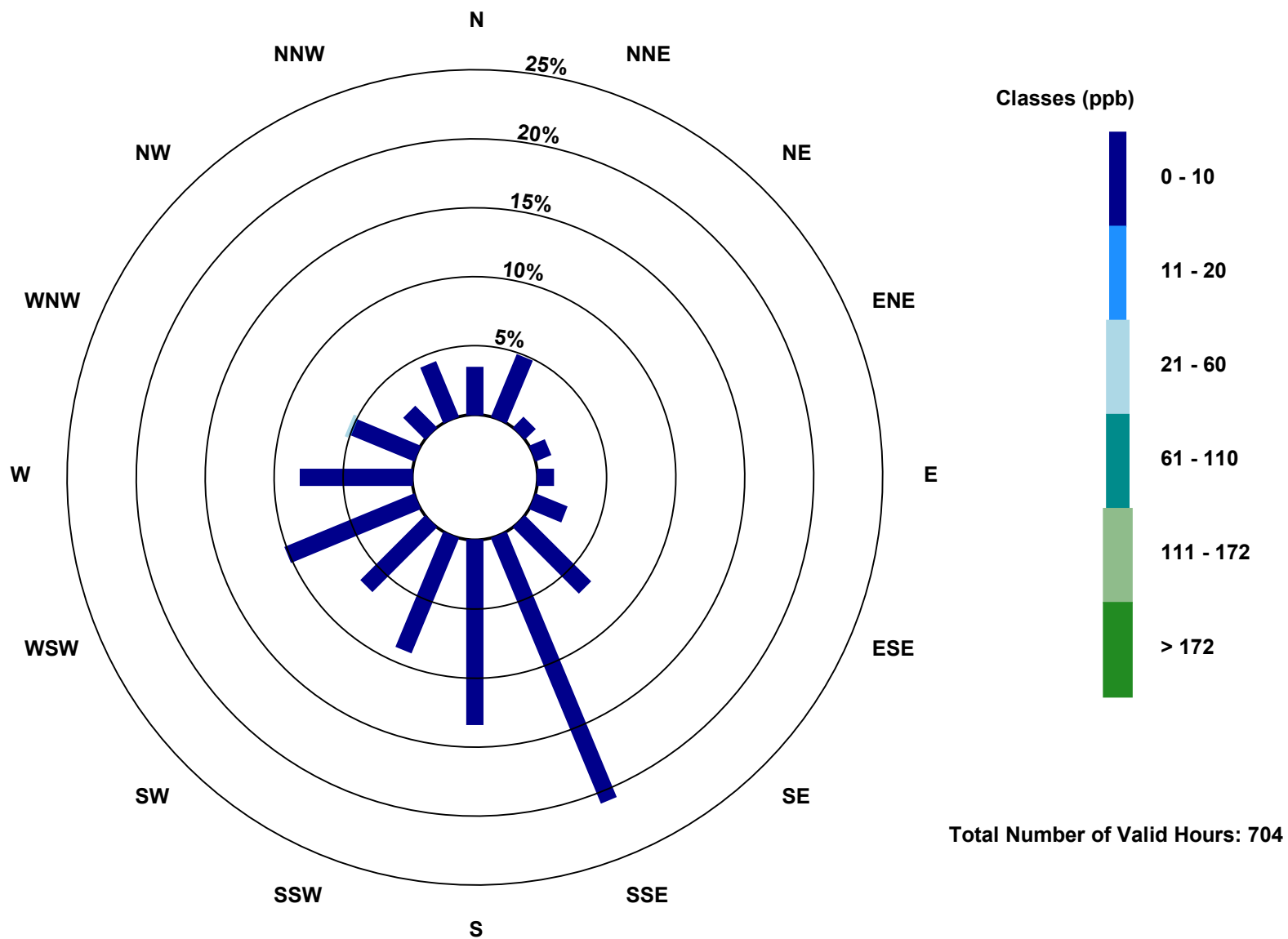
Total Number of Valid Hours: 704

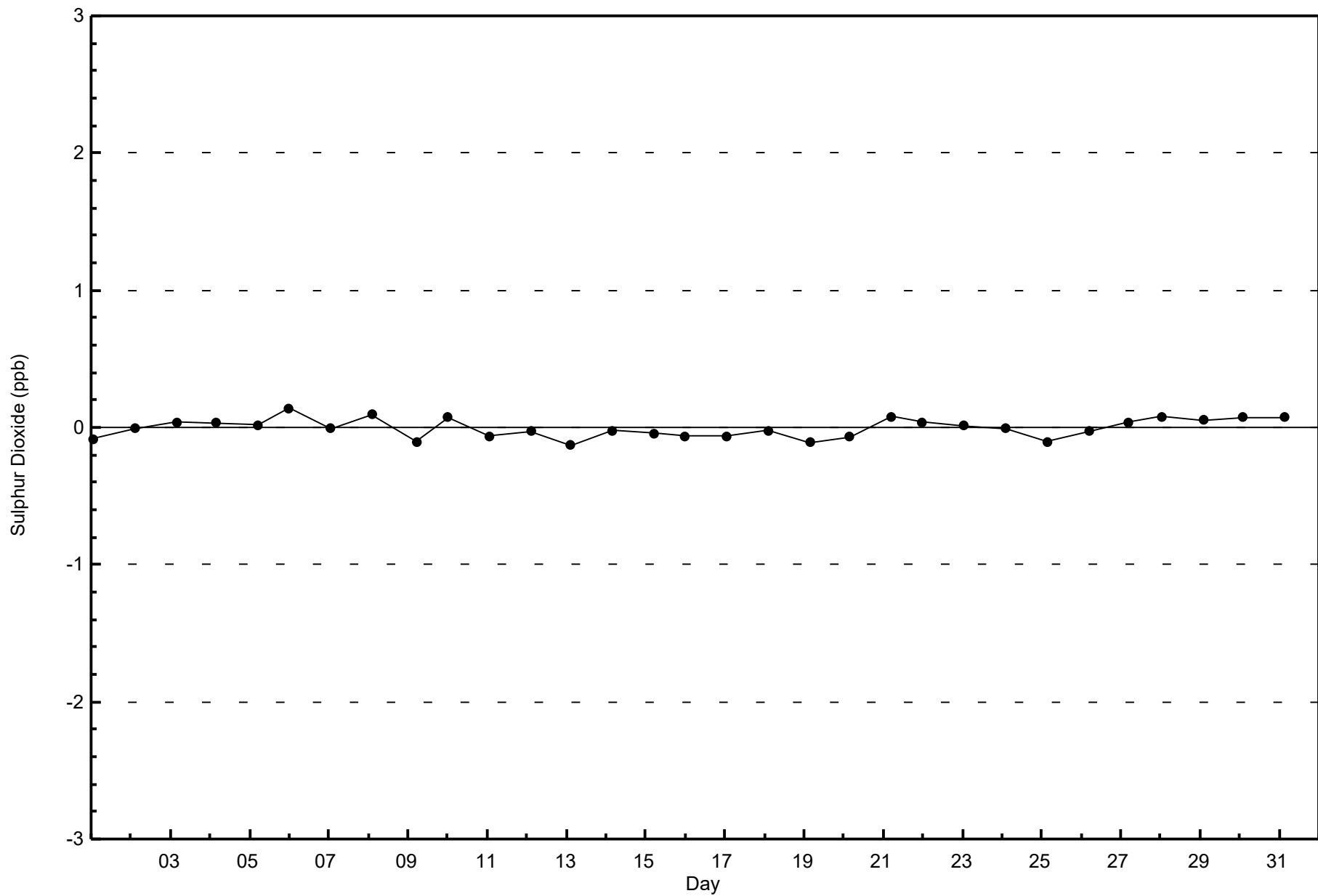
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Sulphur Dioxide (SO₂) - ppb
Mannix

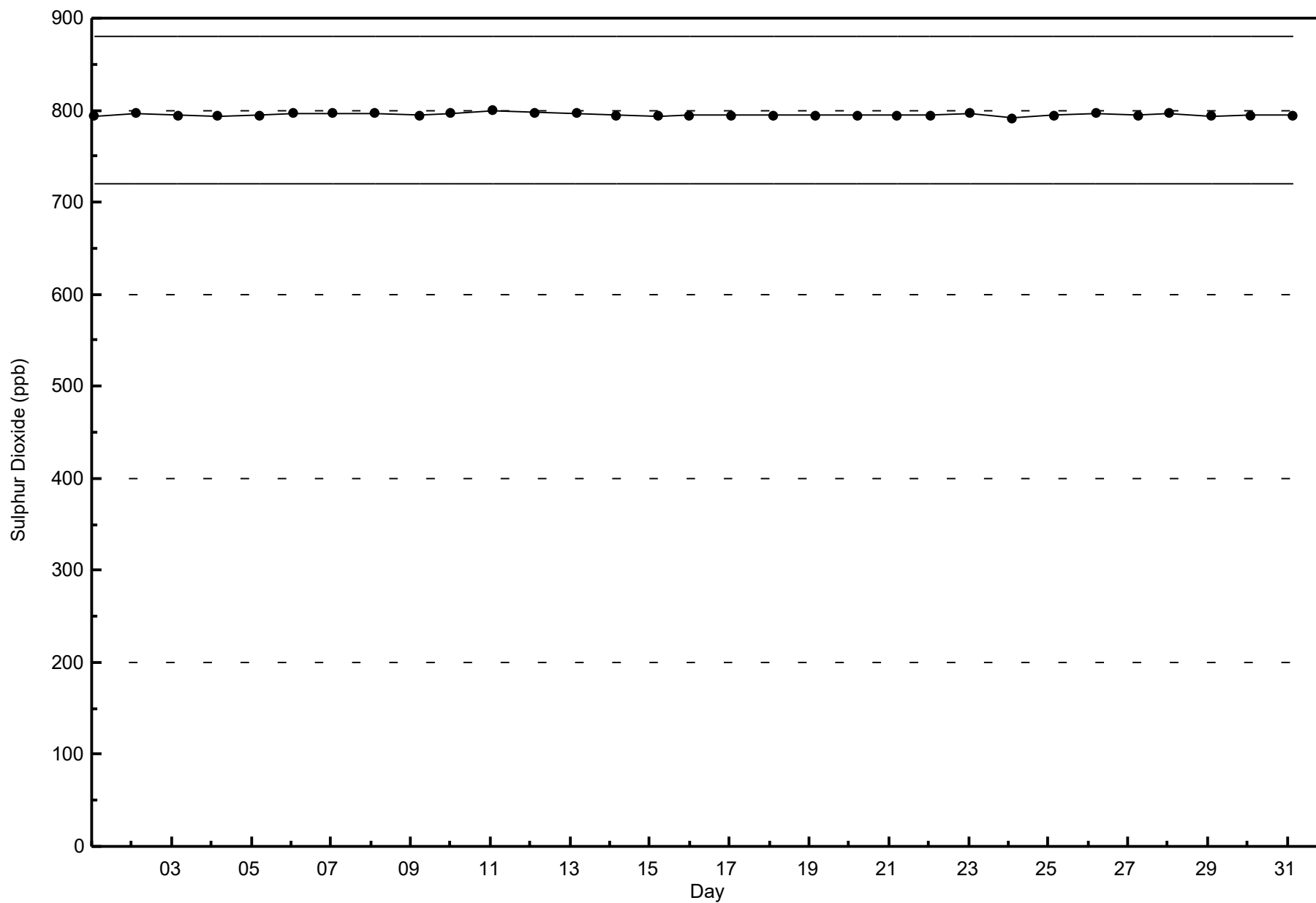






Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Mannix - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H₂S) - ppb

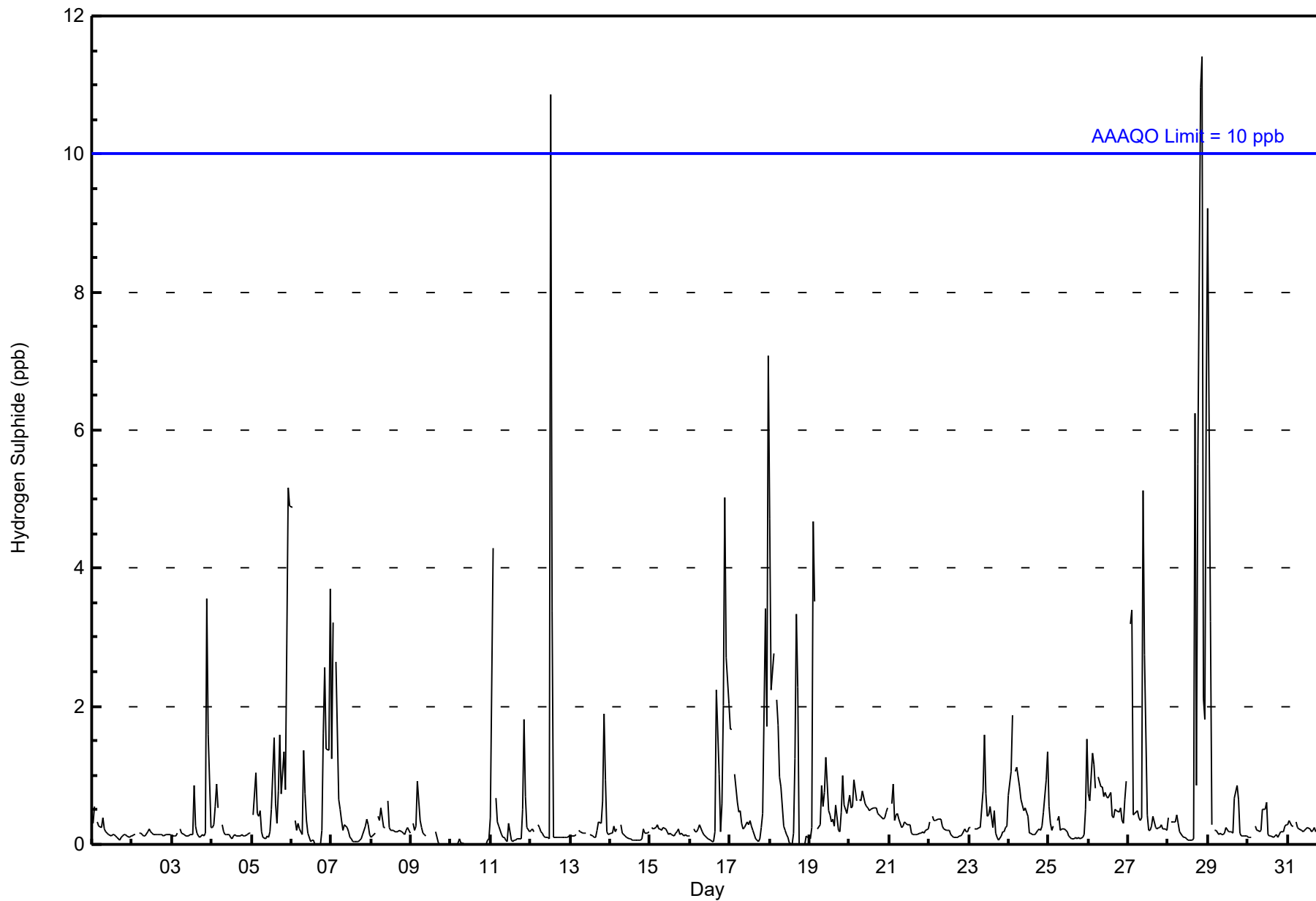
Mannix - July 2026

Number of Exceedances (AAAQO): Maximum Value: 11.4 ppb on Jul 28 21:00																				1-hr: 3 Maximum Daily Average: 2.1 ppb on Jul 28					24-hr: 0 Minimum Daily Average: 0.0 ppb on Jul 10 Minimum Diurnal Average: 0.2 ppb at hour 15 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 1.0 P ₉₉ = 5.5					Hours in Service: 744 Hours of Data: 705 Hours of Missing Data: 39 Hours of Calibration: 36 Percent Operational Time: 99.6	
Minimum Value: 0.0 ppb on Jul 6 16:00 Maximum Diurnal Average: 1.1 ppb at hour 1 Monthly Average: 0.53 ppb																															
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jul	0.3	0.5	Z	0.3	0.3	0.3	0.4	0.2	0.2	0.2	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	0.2	0.5					
2-Jul	0.1	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2					
3-Jul	0.1	0.1	0.1	0.2	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.9	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	3.6	1.6	0.2	0.4					
4-Jul	0.2	0.3	0.5	0.9	0.5	Z	0.3	0.2	0.2	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	0.2	0.2	0.2	0.2					
5-Jul	Z	0.4	1.0	0.5	0.4	0.5	0.2	0.1	0.1	0.1	0.1	0.2	0.5	1.5	0.6	0.3	0.8	1.6	0.7	1.4	0.8	2.9	5.2	4.9	1.1	5.2					
6-Jul	4.9	Z	0.3	0.2	0.3	0.2	0.1	1.4	0.7	0.3	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	1.6	2.6	1.4	1.4	3.7	0.9	4.9					
7-Jul	1.2	3.2	Z	2.7	0.7	0.5	0.3	0.2	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.4	0.3	0.1	0.5	3.2					
8-Jul	0.1	0.1	0.2	Z	0.4	0.3	0.5	0.3	0.2	M	0.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.6					
9-Jul	Z	0.3	0.2	0.3	0.9	0.3	0.2	0.2	0.1	0.1	C	C	C	C	C	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9					
10-Jul	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1					
11-Jul	0.4	4.3	Z	0.7	0.3	0.3	0.1	0.1	0.1	0.1	0.0	0.3	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.5	1.8	0.7	0.2	0.2	0.5	4.3					
12-Jul	0.2	0.2	0.2	Z	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	10.9	3.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7	10.9					
13-Jul	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	M	M	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.6	1.9	0.9	0.2	0.1	0.3	1.9					
14-Jul	0.2	0.2	0.3	0.2	0.2	Z	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.3					
15-Jul	Z	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.3					
16-Jul	0.1	Z	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.2	2.2	1.0	0.2	0.6	2.0	5.0	2.7	2.0	0.8	5.0					
17-Jul	1.7	1.7	Z	1.0	0.6	0.5	0.5	0.3	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.5	3.4	1.7	7.1	0.9	7.1					
18-Jul	4.7	2.2	2.8	Z	2.1	1.7	1.0	0.8	0.3	0.2	0.1	0.1	0.0	0.0	0.2	1.2	3.3	2.3	0.0	0.0	0.0	0.0	0.1	0.1	1.0	4.7					
19-Jul	0.1	0.2	4.7	3.5	Z	0.2	0.3	0.9	0.6	0.8	1.3	0.5	0.4	0.3	0.4	0.3	0.6	0.2	0.2	0.5	1.0	0.6	0.5	0.6	0.8	4.7					
20-Jul	0.7	0.5	0.5	0.9	0.6	Z	0.7	0.6	0.8	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.9					
21-Jul	Z	0.6	0.9	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.9					
22-Jul	0.3	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.4					
23-Jul	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.8	1.6	0.7	0.4	0.4	0.5	0.2	0.5	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	1.6					
24-Jul	0.7	1.0	1.9	Z	1.1	1.1	0.8	0.7	0.6	0.5	0.5	0.4	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.5	0.9	1.4	0.6	1.9					
25-Jul	0.6	0.3	0.2	0.3	Z	0.3	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	1.5	0.3	1.5					
26-Jul	0.7	0.6	1.3	1.2	0.8	Z	1.0	0.8	0.8	0.7	0.8	0.7	0.7	0.8	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.3	0.7	0.9	0.7	1.3					
27-Jul	Z	3.2	3.4	0.4	0.5	0.5	0.4	0.3	0.4	5.1	2.7	0.4	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.9	5.1					
28-Jul	0.4	Z	0.3	0.3	0.3	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	6.2	0.9	5.5	11.0	11.4	2.1	1.8	6.5	2.1	11.4					
29-Jul	9.2	3.2	0.3	Z	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.9	0.6	0.2	0.1	0.1	0.1	0.1	0.8	9.2					
30-Jul	0.1	0.1	0.1	Z	0.3	0.2	0.2	0.2	0.2	0.5	0.5	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.6					
31-Jul	0.3	0.3	0.3	0.3	Z	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3					
1.1 0.9 0.8 0.6 0.5 0.4 0.3 0.3 0.3 0.3 0.5 0.4 0.2 0.6 0.4 0.2 0.2 0.6 0.3 0.4 0.6 0.8 0.8 0.7 1.0 Diurnal Average																															
9.2 4.3 4.7 3.5 2.1 1.7 1.0 1.4 0.8 5.1 2.7 0.7 10.9 3.4 0.6 1.2 6.2 2.3 5.5 11.0 11.4 5.0 5.2 7.1 Diurnal Maximum																															
Z - zerospan C - Calibration M - Maintenance																															
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																															



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H_2S) - ppb
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Mannix - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	673	95.46	95.46
3 - 4	17	2.41	97.87
5 - 7	11	1.56	99.43
8 - 11	1	0.14	99.57
> 11	3	0.43	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Mannix - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	24	27	3	3	4	17	46	144	96	62	42	68	58	37	15	26	672
3 - 4	1	2	1	4	0	1	2	1	0	1	0	0	1	0	0	2	16
5 - 7	0	4	1	1	2	0	0	0	0	0	0	0	0	0	1	2	11
8 - 11	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
> 11	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3
Totals	25	34	5	9	8	18	48	145	96	63	42	68	59	37	16	30	703

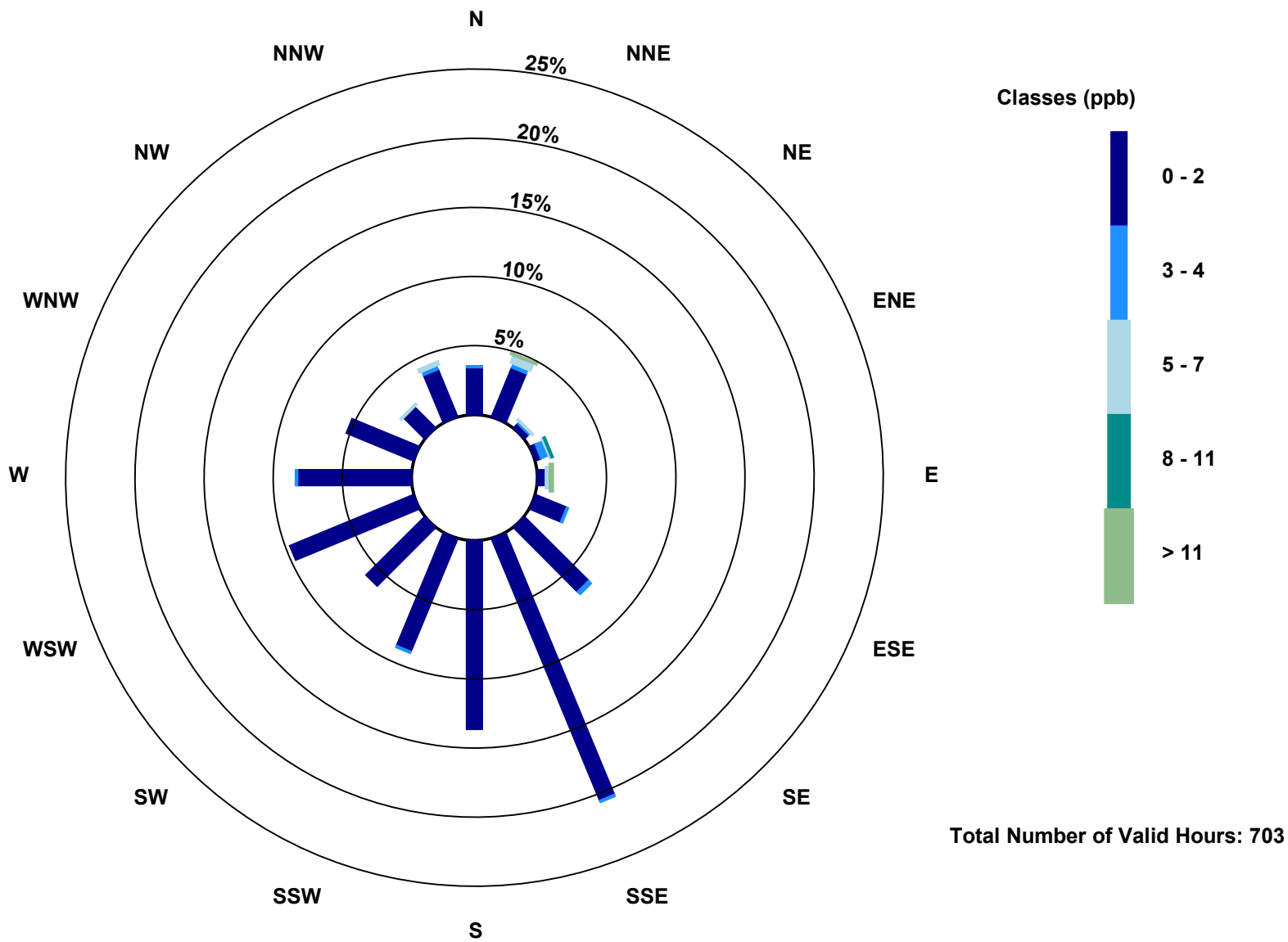
Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Hydrogen Sulphide (H₂S) - ppb
Mannix



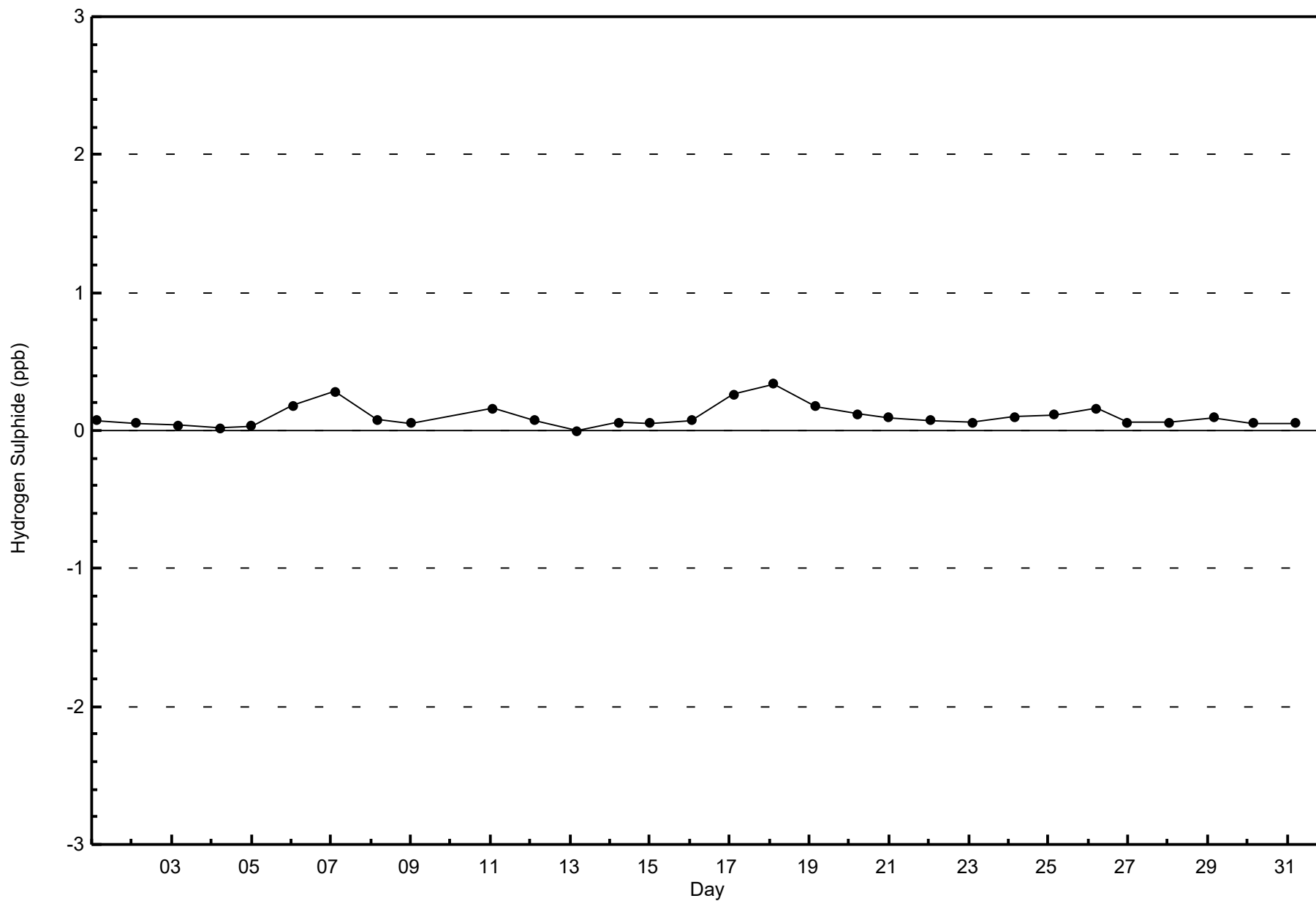


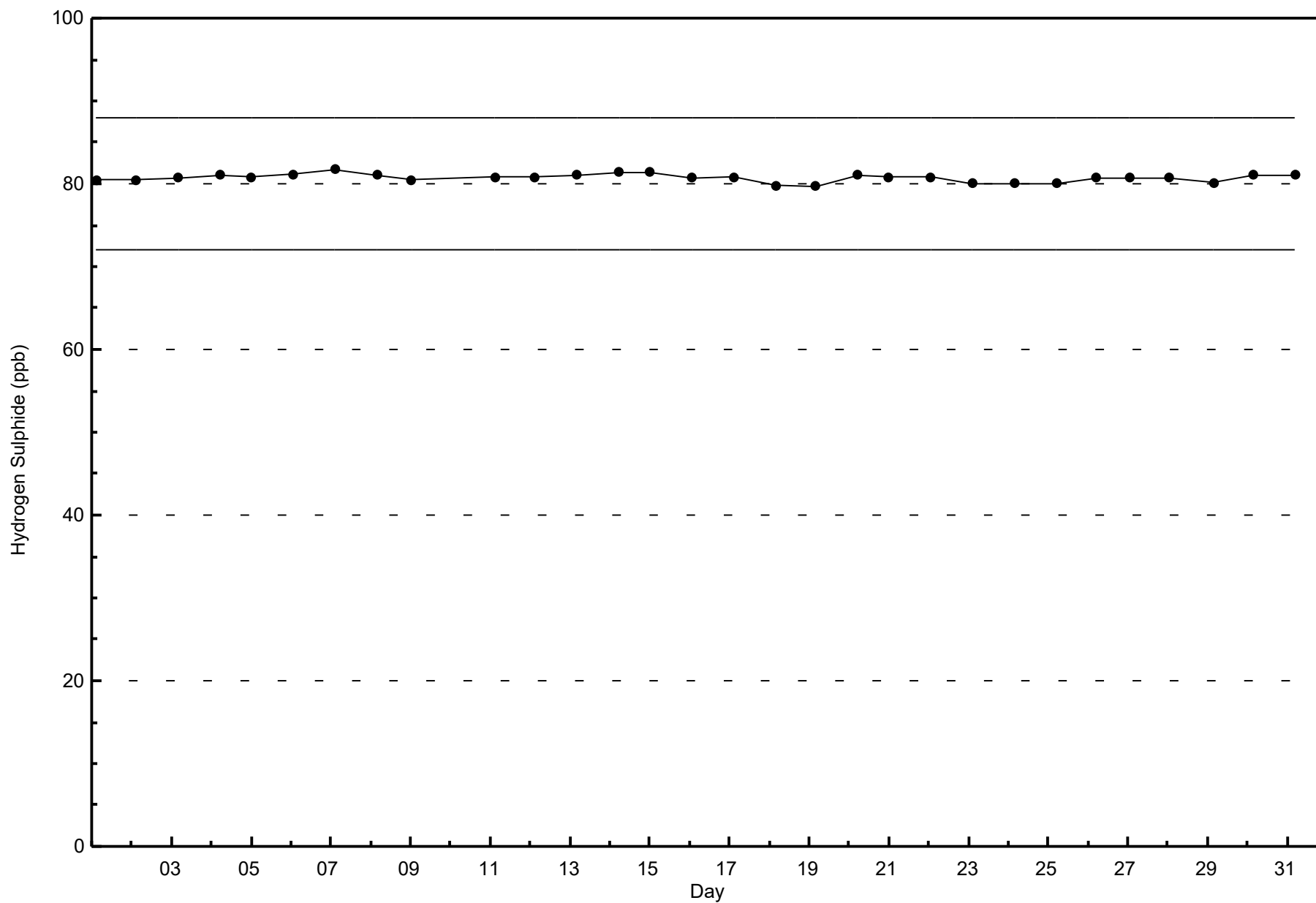
Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Mannix - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

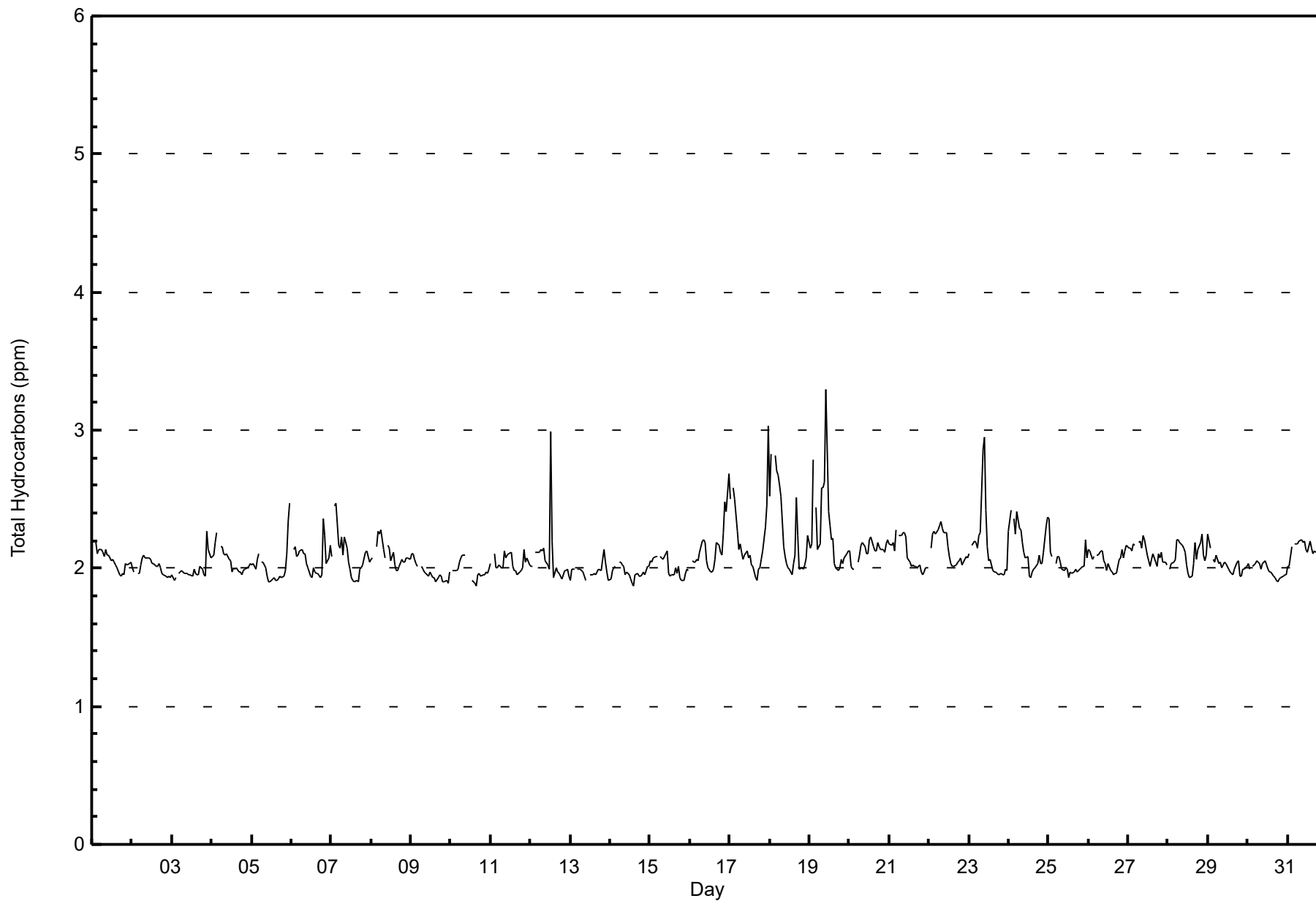
Mannix - July 2026

Maximum Value: 3.3 ppm on Jul 19 11:00																			Maximum Daily Average: 2.3 ppm on Jul 19																			Hours in Service: 744	
Minimum Value: 1.9 ppm on Jul 10 16:00																			Minimum Daily Average: 2.0 ppm on Jul 9																			Hours of Data: 706	
Maximum Diurnal Average: 2.2 ppm at hour 4																			Minimum Diurnal Average: 2.0 ppm at hour 16																			Hours of Missing Data: 38	
Monthly Average: 2.08 ppm																			Percentiles: P ₁ = 1.9 P ₁₀ = 1.9 Q ₁ = 2.0 Median = 2.0 Q ₃ = 2.1 P ₉₀ = 2.2 P ₉₉ = 2.8																			Hours of Calibration: 35	
																																						Percent Operational Time: 99.6	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jul	2.1	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.1	2.2													
2-Jul	2.0	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.2													
3-Jul	1.9	1.9	1.9	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.3	2.1	2.1	2.0	2.3													
4-Jul	2.1	2.1	2.2	2.3	Z	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3													
5-Jul	2.0	2.0	2.0	2.1	2.1	Z	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.3	2.5	2.0	2.5													
6-Jul	Z	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	2.4	2.2	2.0	2.1	2.2	2.1	2.4													
7-Jul	2.1	Z	2.4	2.5	2.2	2.2	2.2	2.1	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.5													
8-Jul	2.1	2.1	Z	2.2	2.3	2.2	2.3	2.1	2.1	M	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.3													
9-Jul	2.1	2.1	2.1	2.0	2.0	Z	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1													
10-Jul	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	C	C	C	C	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1													
11-Jul	2.0	Z	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.1													
12-Jul	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	3.0	2.2	1.9	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	1.9	2.1	3.0													
13-Jul	1.9	2.0	2.0	Z	2.0	2.0	2.0	2.0	1.9	1.9	M	M	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.1	2.1	2.0	2.0	1.9	2.0	2.1													
14-Jul	1.9	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0													
15-Jul	2.1	2.0	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.1													
16-Jul	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.1	2.3	2.5	2.4	2.7	2.1	2.7													
17-Jul	2.5	Z	2.6	2.5	2.3	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	1.9	1.9	2.0	2.0	2.1	2.1	2.3	2.5	3.0	2.2	3.0													
18-Jul	2.5	2.8	Z	2.8	2.7	2.7	2.6	2.5	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.5	2.2	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.8													
19-Jul	2.1	2.2	2.8	Z	2.4	2.1	2.2	2.6	2.6	2.6	3.3	2.4	2.3	2.2	2.2	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.3	3.3													
20-Jul	2.1	2.0	2.0	2.0	Z	2.0	2.1	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.2													
21-Jul	2.2	2.2	2.2	2.1	2.3	Z	2.2	2.2	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3													
22-Jul	Z	2.1	2.2	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.3													
23-Jul	2.1	Z	2.2	2.2	2.2	2.1	2.2	2.3	2.9	2.9	2.4	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.2	2.9													
24-Jul	2.3	2.4	Z	2.4	2.2	2.4	2.3	2.3	2.2	2.1	2.1	2.1	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.3	2.4	2.2	2.4													
25-Jul	2.4	2.1	2.1	Z	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.0	2.4													
26-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2													
27-Jul	2.1	2.1	2.1	2.2	2.2	Z	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.2													
28-Jul	Z	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	1.9	1.9	2.0	2.2	2.1	2.1	2.2	2.3	2.1	2.1	2.1	2.1	2.3													
29-Jul	2.2	2.1	Z	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	1.9	1.9	2.0	2.0	2.0	2.0	2.2													
30-Jul	2.0	2.0	Z	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1													
31-Jul	2.0	2.0	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2													
2.1 2.1 2.1 2.2 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.1 2.1 2.1 2.1 2.1																								Diurnal Average															
2.5 2.8 2.8 2.8 2.7 2.7 2.6 2.6 2.9 2.9 3.3 2.4 3.0 2.2 2.2 2.1 2.5 2.2 2.2 2.4 2.3 2.5 2.5 3.0																								Diurnal Maximum															
Z - zerospan		C - Calibration				M - Maintenance																																	



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Mannix - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	373	52.83	52.83
2.1 - 3.0	332	47.03	99.86
3.1 - 10.0	1	0.14	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Mannix - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	12	7	0	0	1	5	22	53	58	53	25	54	43	25	5	9	372
2.1 - 3.0	12	27	7	8	7	12	25	93	36	10	21	17	14	12	9	21	331
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	24	34	7	8	8	17	47	146	94	63	46	71	57	37	15	30	704

Total Number of Valid Hours: 704

Total Number of Hours: 744

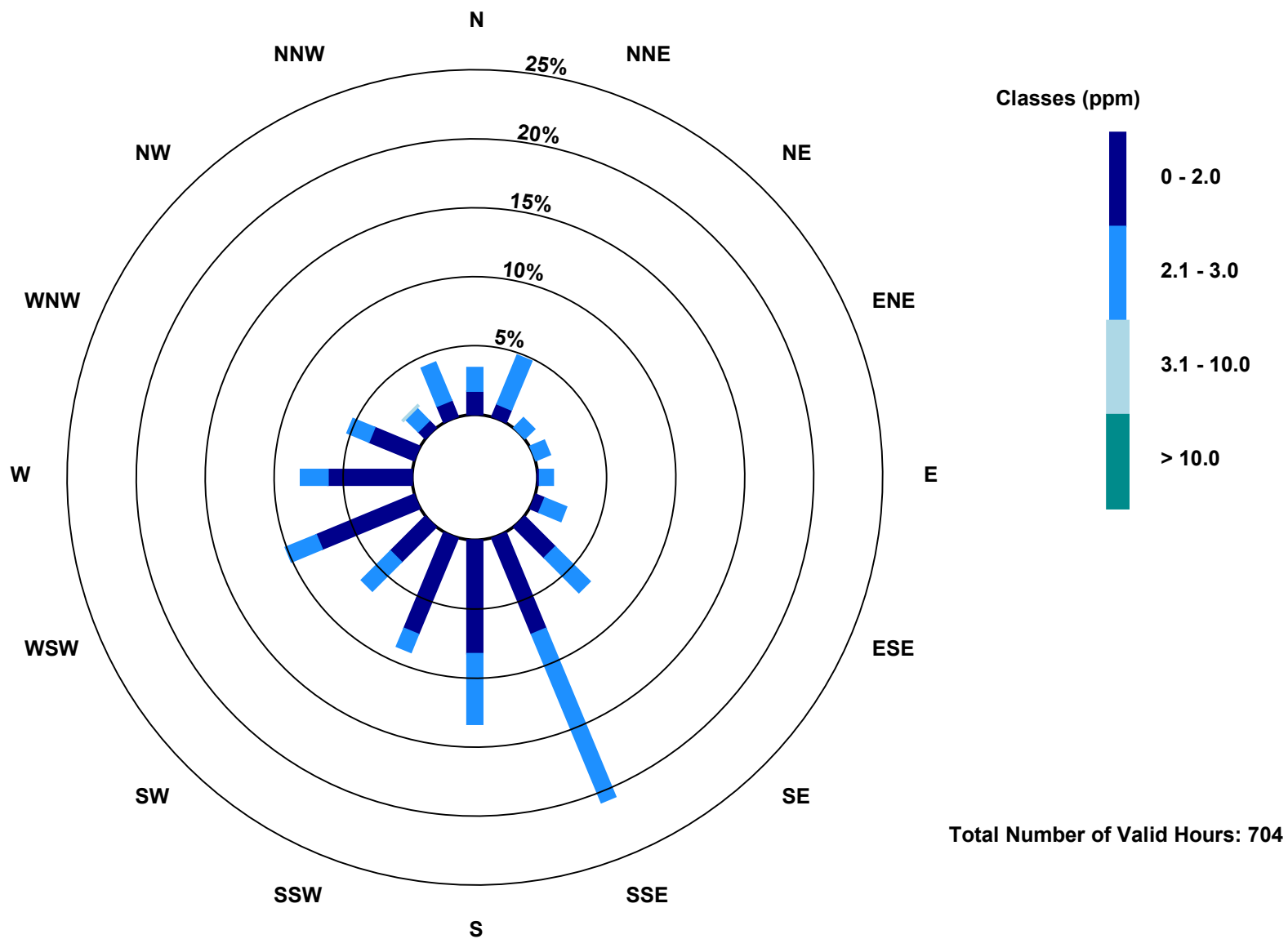


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Total Hydrocarbons (THC) - ppm

Mannix



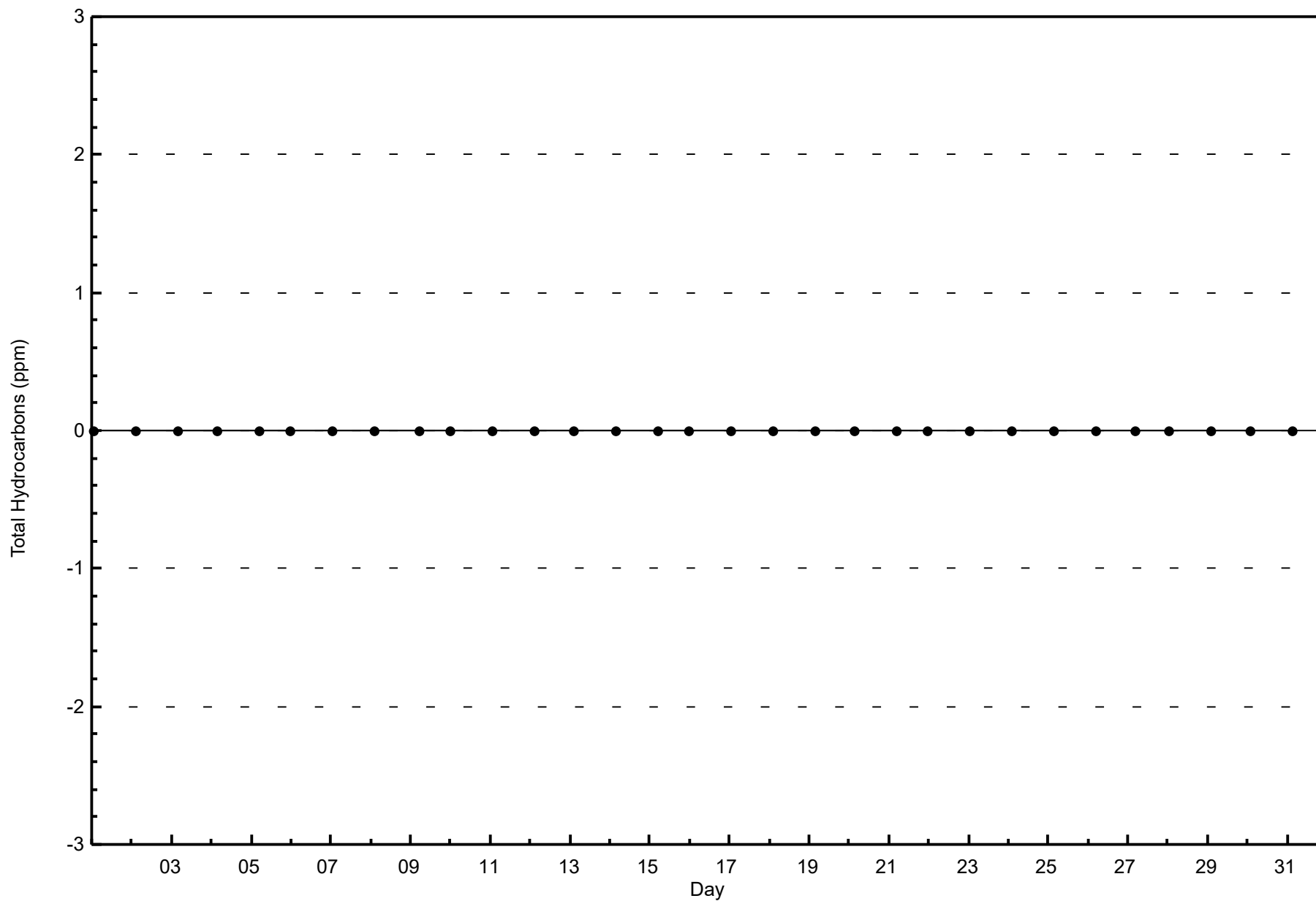


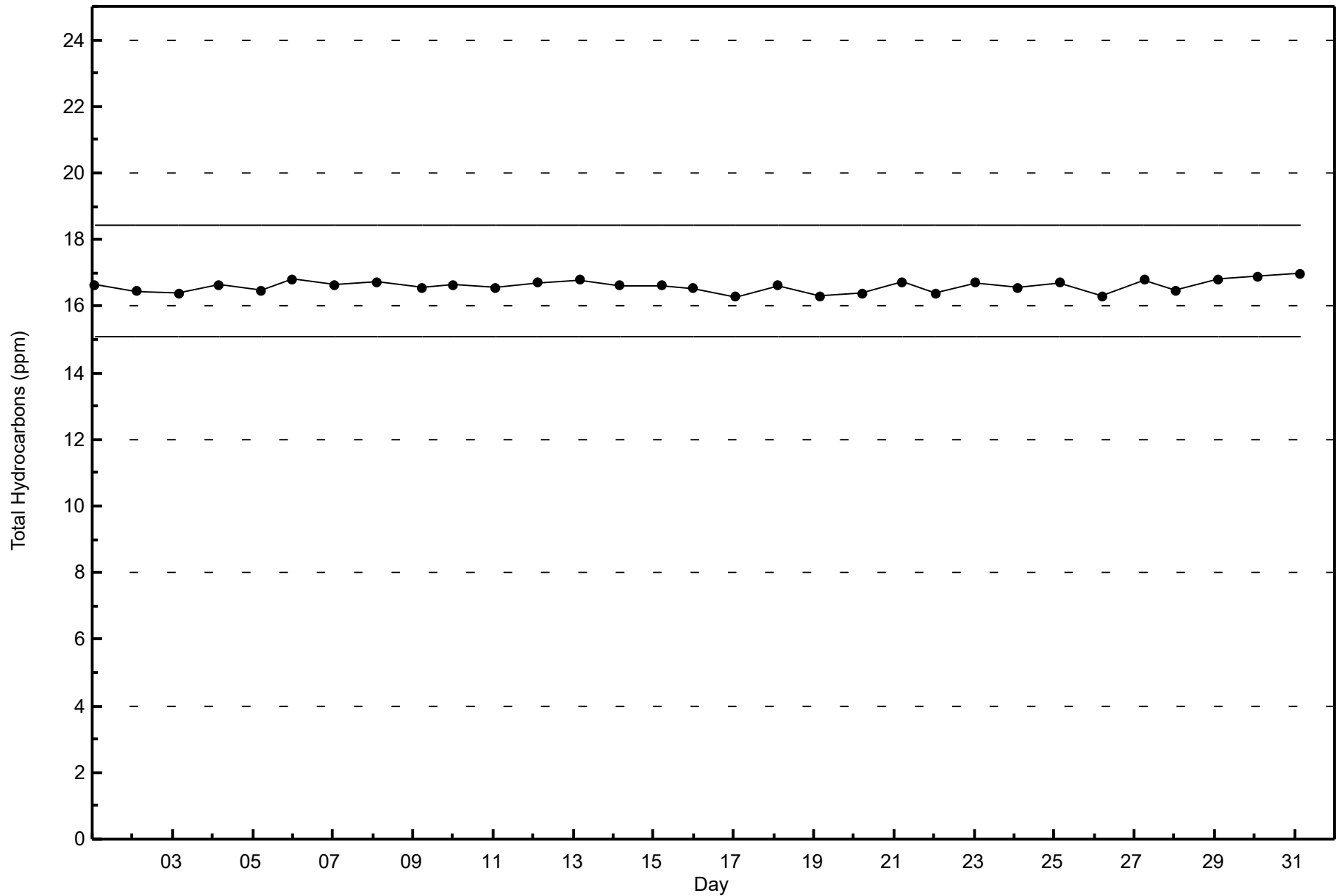
Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Mannix - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

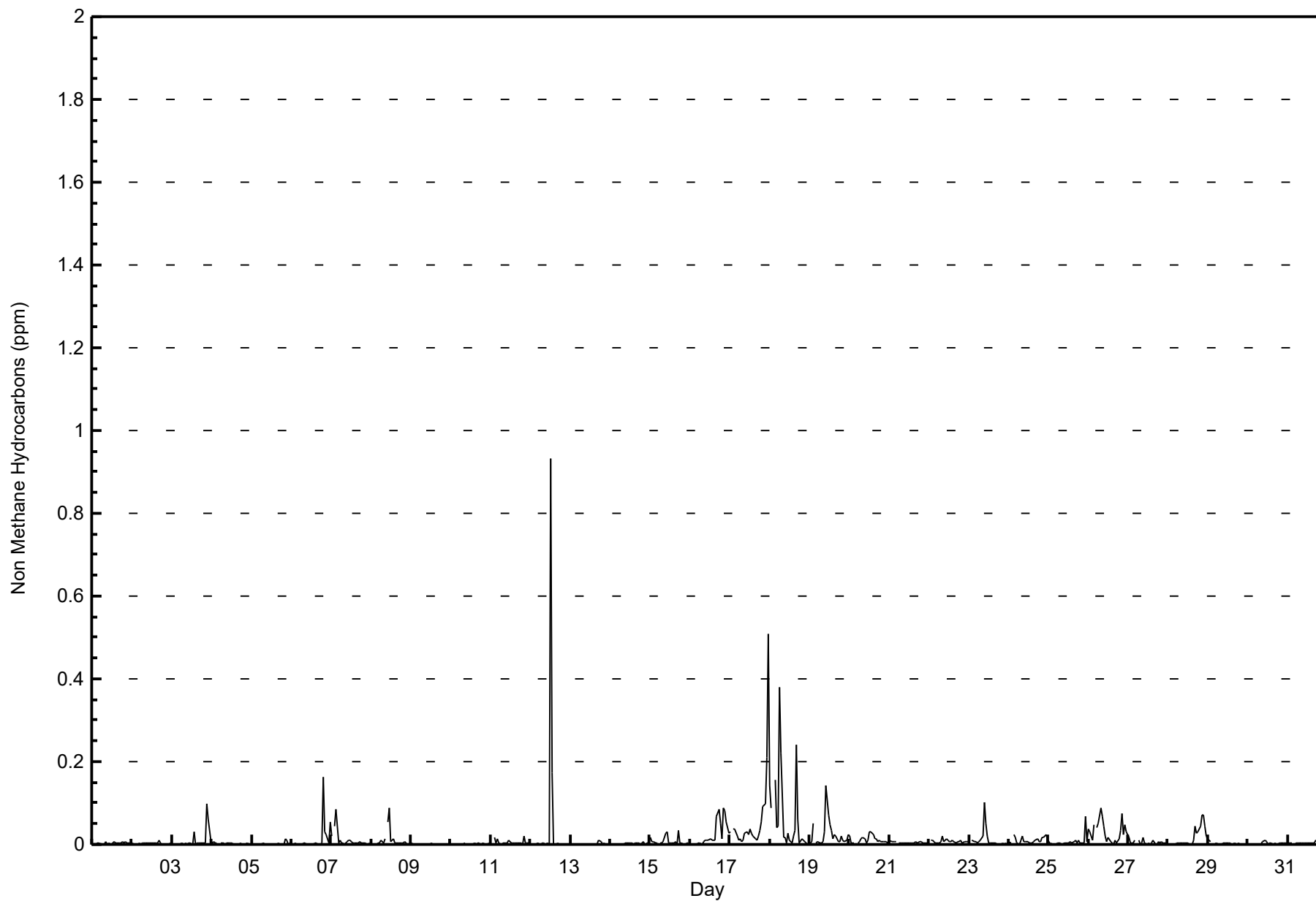
Mannix - July 2026

Maximum Value: 0.933 ppm on Jul 12 13:00																				Maximum Daily Average: 0.067 ppm on Jul 18					Hours in Service: 744		
Minimum Value: 0.000 ppm on Jul 10 02:00																				Minimum Daily Average: 0.001 ppm on Jul 9					Hours of Data: 706		
Maximum Diurnal Average: 0.039 ppm at hour 13																				Minimum Diurnal Average: 0.005 ppm at hour 15					Hours of Missing Data: 38		
Monthly Average: 0.013 ppm																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.2					Hours of Calibration: 35		
																				Percent Operational Time: 99.6							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.002	Z	0.001	0.003	0.005	0.002	0.001	0.001	0.005	0.002	0.003	0.001	0.005	0.006	0.004	0.003	0.003	0.004	0.008	0.003	0.006	0.004	0.003	0.004	0.003	0.008	
2-Jul	0.003	0.002	Z	0.001	0.002	0.002	0.005	0.004	0.002	0.003	0.003	0.004	0.002	0.004	0.002	0.003	0.010	0.005	0.000	0.001	0.001	0.002	0.001	0.002	0.003	0.010	
3-Jul	0.001	0.000	0.001	Z	0.001	0.001	0.002	0.002	0.003	0.002	0.003	0.002	0.000	0.031	0.001	0.002	0.004	0.004	0.004	0.002	0.004	0.097	0.061	0.005	0.010	0.097	
4-Jul	0.004	0.006	0.002	0.003	Z	0.002	0.004	0.002	0.001	0.003	0.003	0.002	0.003	0.000	0.001	0.001	0.001	0.002	0.002	0.001	0.001	0.002	0.001	0.001	0.002	0.006	
5-Jul	0.000	0.001	0.000	0.002	0.002	Z	0.002	0.002	0.001	0.001	0.000	0.001	0.001	0.002	0.000	0.001	0.002	0.001	0.001	0.001	0.013	0.011	0.001	0.003	0.002	0.013	
6-Jul	Z	0.001	0.003	0.001	0.000	0.001	0.001	0.002	0.002	0.001	0.002	0.001	0.001	0.002	0.003	0.002	0.001	0.000	0.004	0.162	0.032	0.023	0.002	0.056	0.013	0.162	
7-Jul	0.021	Z	0.044	0.085	0.002	0.012	0.004	0.002	0.001	0.006	0.011	0.009	0.006	0.002	0.003	0.003	0.003	0.005	0.005	0.002	0.002	0.001	0.001	0.003	0.010	0.085	
8-Jul	0.001	0.001	Z	0.001	0.005	0.003	0.010	0.003	0.012	M	0.054	0.089	0.007	0.013	0.005	0.003	0.003	0.003	0.005	0.002	0.005	0.002	0.001	0.002	0.010	0.089	
9-Jul	0.003	0.001	0.001	0.001	0.001	Z	0.001	0.001	0.001	0.000	0.001	0.001	0.002	0.000	0.001	0.001	0.001	0.001	0.001	0.000	0.001	0.000	0.001	0.003	0.001	0.003	
10-Jul	Z	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.002	C	C	C	C	0.001	0.002	0.002	0.003	0.002	0.000	0.003	0.001	0.001	0.001	0.005	0.001	0.005	
11-Jul	0.001	Z	0.016	0.004	0.014	0.002	0.002	0.004	0.004	0.003	0.003	0.012	0.003	0.003	0.003	0.004	0.002	0.004	0.004	0.001	0.019	0.003	0.002	0.002	0.005	0.019	
12-Jul	0.000	0.001	Z	0.001	0.002	0.002	0.002	0.002	0.003	0.002	0.002	0.001	0.933	0.174	0.000	0.001	0.002	0.001	0.002	0.001	0.001	0.000	0.001	0.002	0.049	0.933	
13-Jul	0.000	0.001	0.000	Z	0.000	0.000	0.001	0.001	0.001	0.001	M	M	0.001	0.001	0.001	0.001	0.000	0.010	0.005	0.001	0.004	0.000	0.001	0.001	0.001	0.010	
14-Jul	0.001	0.001	0.001	0.001	Z	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.003	0.002	0.001	0.002	0.003	0.003	0.002	0.003	0.007	0.001	0.002	0.007	0.002	0.007	
15-Jul	0.017	0.008	0.006	0.005	0.004	Z	0.003	0.004	0.008	0.029	0.031	0.004	0.003	0.003	0.005	0.006	0.001	0.034	0.003	0.003	0.001	0.002	0.002	0.002	0.008	0.034	
16-Jul	Z	0.001	0.001	0.002	0.001	0.003	0.004	0.002	0.006	0.010	0.012	0.010	0.013	0.010	0.010	0.009	0.067	0.084	0.050	0.015	0.089	0.082	0.054	0.028	0.024	0.089	
17-Jul	0.029	Z	0.036	0.039	0.020	0.011	0.015	0.007	0.010	0.029	0.032	0.025	0.036	0.028	0.022	0.014	0.011	0.020	0.033	0.054	0.090	0.097	0.209	0.509	0.060	0.509	
18-Jul	0.143	0.088	Z	0.158	0.041	0.043	0.381	0.221	0.018	0.016	0.005	0.027	0.011	0.003	0.021	0.033	0.240	0.061	0.003	0.012	0.009	0.007	0.003	0.002	0.067	0.381	
19-Jul	0.002	0.006	0.051	Z	0.003	0.005	0.002	0.002	0.006	0.030	0.143	0.070	0.047	0.034	0.013	0.025	0.021	0.007	0.005	0.020	0.009	0.007	0.012	0.024	0.024	0.143	
20-Jul	0.021	0.004	0.003	0.003	Z	0.004	0.005	0.015	0.018	0.012	0.005	0.010	0.030	0.030	0.025	0.013	0.013	0.008	0.010	0.008	0.006	0.007	0.005	0.004	0.011	0.030	
21-Jul	0.011	0.007	0.007	0.006	0.006	Z	0.004	0.002	0.003	0.004	0.004	0.005	0.004	0.002	0.002	0.003	0.006	0.003	0.008	0.006	0.005	0.004	0.002	0.002	0.005	0.011	
22-Jul	Z	0.009	0.011	0.007	0.003	0.005	0.005	0.008	0.019	0.008	0.013	0.012	0.007	0.008	0.009	0.006	0.004	0.006	0.007	0.009	0.004	0.007	0.006	0.007	0.008	0.019	
23-Jul	0.008	Z	0.010	0.008	0.008	0.004	0.006	0.012	0.021	0.102	0.052	0.021	0.002	0.003	0.003	0.002	0.003	0.002	0.001	0.002	0.002	0.001	0.002	0.001	0.012	0.102	
24-Jul	0.007	0.003	Z	0.024	0.019	0.004	0.002	0.011	0.020	0.007	0.006	0.008	0.005	0.004	0.005	0.006	0.011	0.015	0.007	0.008	0.017	0.017	0.025	0.009	0.010	0.025	
25-Jul	0.007	0.001	0.003	Z	0.002	0.003	0.003	0.002	0.001	0.002	0.004	0.004	0.004	0.005	0.004	0.006	0.009	0.004	0.009	0.004	0.003	0.003	0.066	0.007	0.007	0.066	
26-Jul	0.037	0.030	0.011	0.047	Z	0.042	0.051	0.089	0.068	0.043	0.021	0.008	0.019	0.006	0.003	0.001	0.009	0.004	0.013	0.036	0.076	0.024	0.046	0.031	0.031	0.089	
27-Jul	0.016	0.004	0.005	0.003	0.011	Z	0.010	0.001	0.005	0.018	0.002	0.002	0.002	0.001	0.005	0.012	0.001	0.002	0.008	0.005	0.005	0.002	0.003	0.004	0.005	0.018	
28-Jul	Z	0.001	0.001	0.001	0.001	0.004	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.001	0.010	0.043	0.026	0.032	0.043	0.071	0.071	0.042	0.022	0.017	0.071	
29-Jul	0.013	0.006	Z	0.001	0.001	0.002	0.001	0.001	0.001	0.003	0.004	0.002	0.003	0.003	0.002	0.001	0.004	0.001	0.003	0.001	0.002	0.001	0.000	0.000	0.002	0.013	
30-Jul	0.001	0.000	Z	0.001	0.000	0.001	0.001	0.002	0.001	0.006	0.010	0.008	0.001	0.002	0.003	0.001	0.003	0.002	0.001	0.005	0.002	0.003	0.004	0.002	0.003	0.010	
31-Jul	0.002	0.002	0.004	Z	0.002	0.003	0.005	0.004	0.005	0.003	0.003	0.002	0.004	0.003	0.003	0.004	0.005	0.010	0.009	0.011	0.005	0.003	0.002	0.002	0.004	0.011	
0.013 0.007 0.009 0.016 0.006 0.006 0.017 0.013 0.008 0.012 0.015 0.012 0.039 0.012 0.005 0.006 0.016 0.011 0.008 0.014 0.016 0.016 0.018 0.024																										Diurnal Average	
0.143 0.088 0.051 0.158 0.041 0.043 0.381 0.221 0.068 0.102 0.143 0.089 0.933 0.174 0.025 0.033 0.240 0.084 0.050 0.162 0.090 0.097 0.209 0.509																										Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance																											



Wood Buffalo Environmental Association
Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Mannix - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	472	66.86	66.86
0.006 - 0.05	202	28.61	95.47
0.06 - 0.1	23	3.26	98.73
> 0.1	9	1.27	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Mannix - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 0.005	9	1	0	1	0	3	32	109	72	49	34	60	49	27	8	17	471
0.006 - 0.05	14	21	7	2	6	10	13	35	22	14	12	10	8	9	5	13	201
0.06 - 0.1	1	10	0	3	1	3	1	0	0	0	0	1	0	1	2	0	23
> 0.1	0	2	0	2	1	1	1	2	0	0	0	0	0	0	0	0	9
Totals	24	34	7	8	8	17	47	146	94	63	46	71	57	37	15	30	704

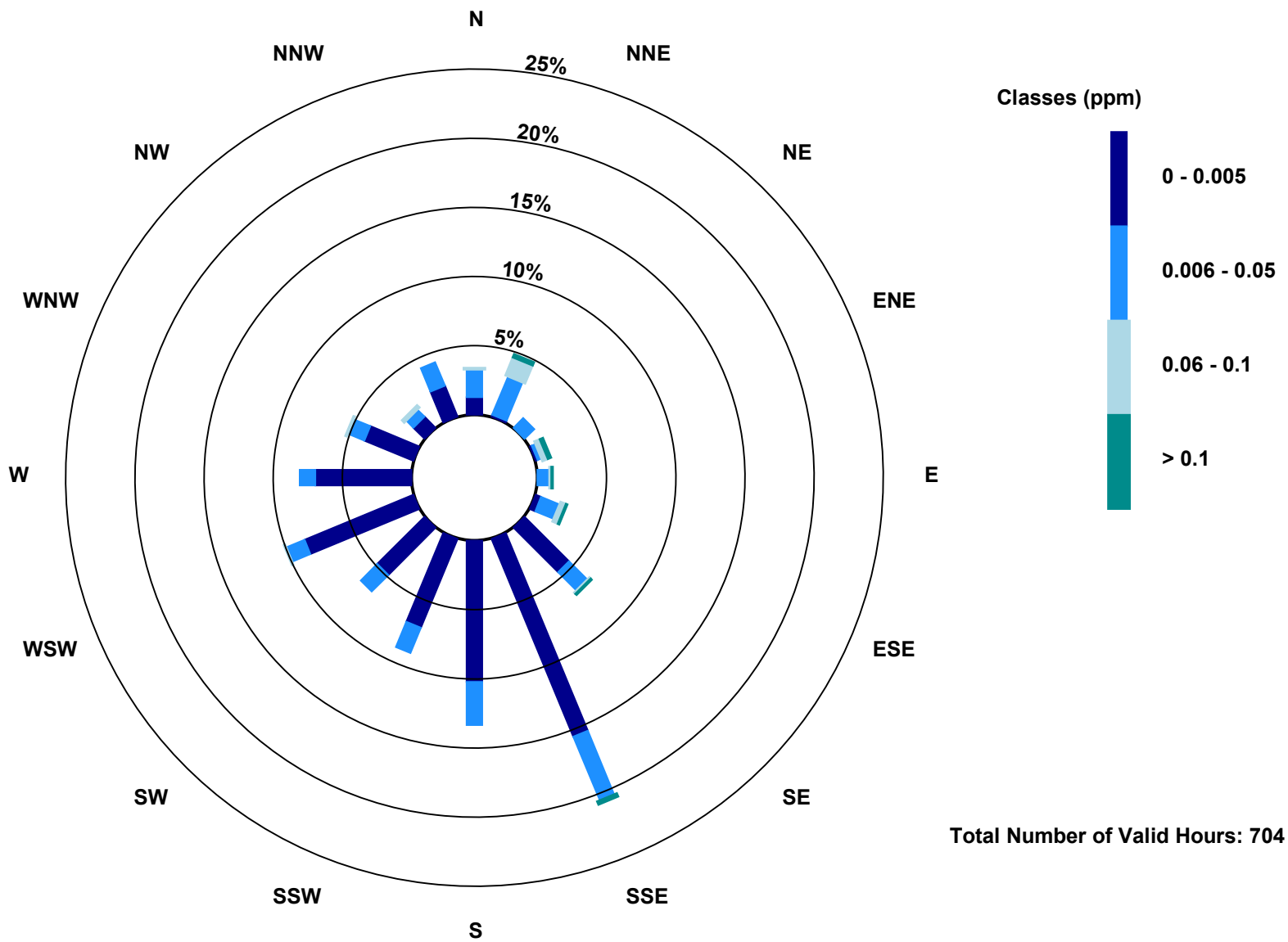
Total Number of Valid Hours: 704

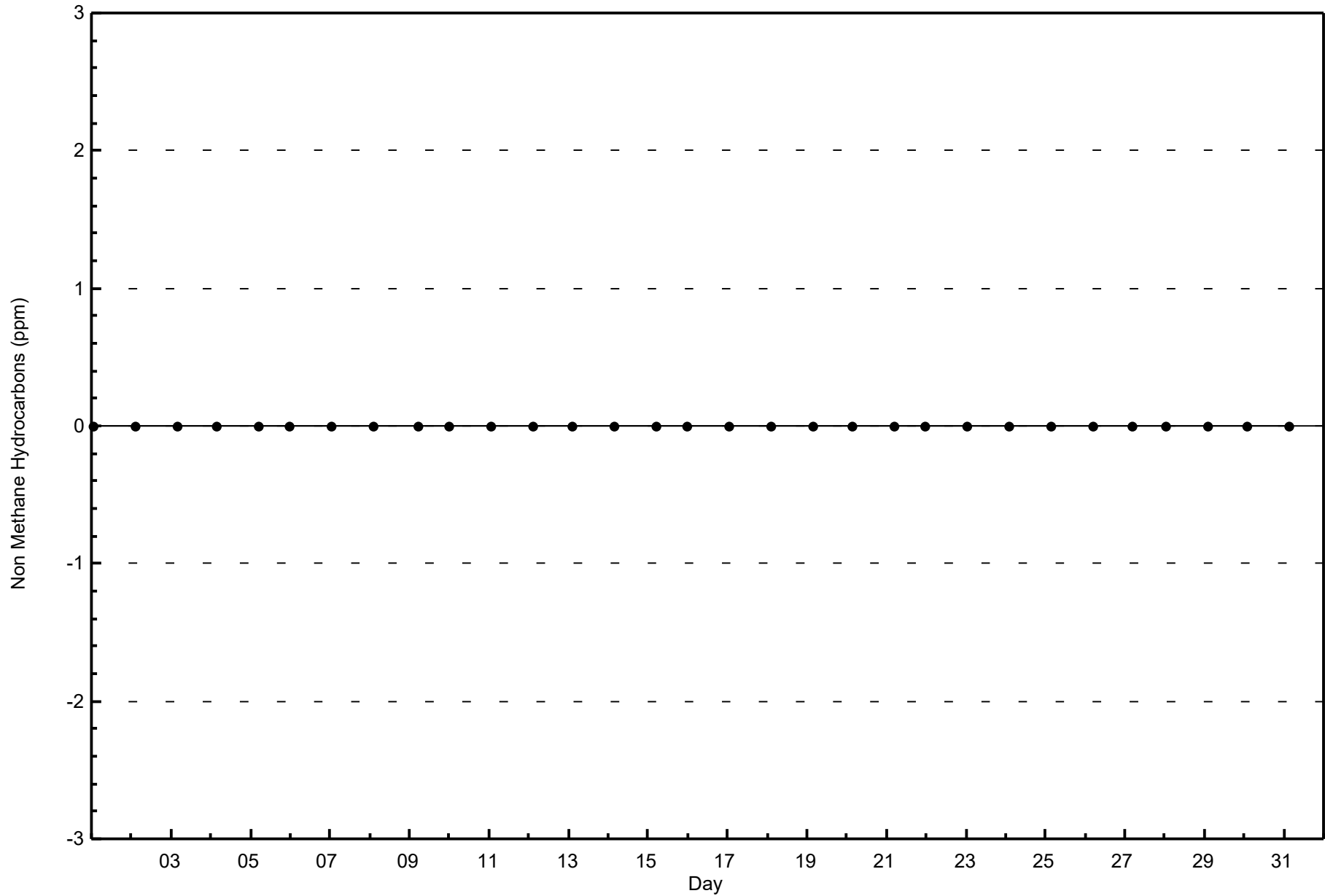
Total Number of Hours: 744

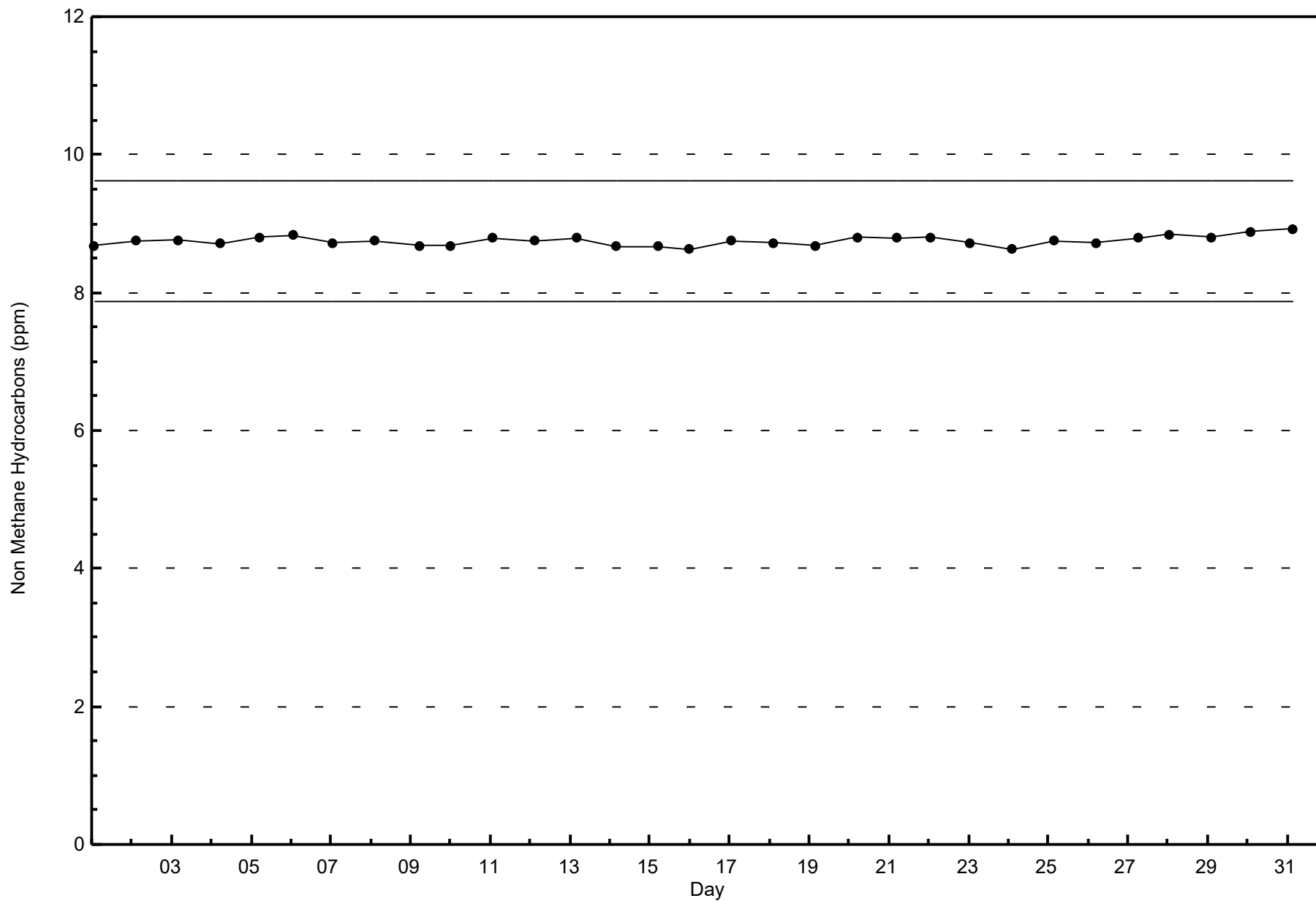


Wood Buffalo Environmental Association
Wind Rose Jul 2026

Non Methane Hydrocarbons (NMHC) - ppm
Mannix









Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH₄) - ppm

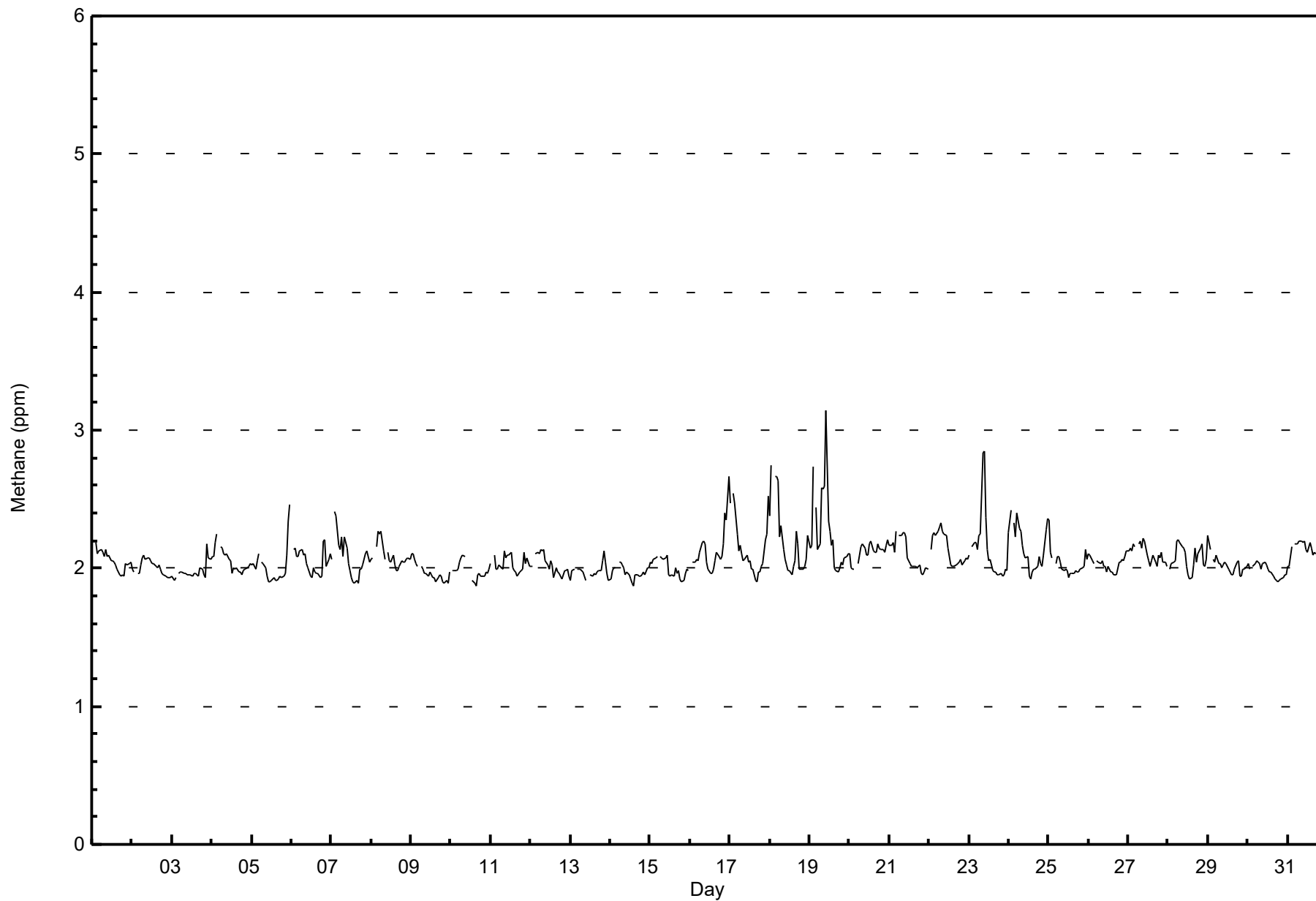
Mannix - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																			Hours in Service: 744							
Maximum Value: 3.1 ppm on Jul 19 11:00 Maximum Daily Average: 2.3 ppm on Jul 19																			Hours of Data: 706							
Minimum Value: 1.9 ppm on Jul 10 16:00 Minimum Daily Average: 2.0 ppm on Jul 14																			Hours of Missing Data: 38							
Maximum Diurnal Average: 2.1 ppm at hour 3 Minimum Diurnal Average: 2.0 ppm at hour 16																			Hours of Calibration: 35							
Monthly Average: 2.07 ppm Percentiles: P ₁ = 1.9 P ₁₀ = 1.9 Q ₁ = 2.0 Median = 2.0 Q ₃ = 2.1 P ₉₀ = 2.2 P ₉₉ = 2.7																			Percent Operational Time: 99.6							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	2.1	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.1	2.2
2-Jul	2.0	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.1
3-Jul	1.9	1.9	1.9	Z	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	2.2	2.1	2.1	2.0	2.2
4-Jul	2.1	2.1	2.2	2.3	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.3
5-Jul	2.0	2.0	2.0	2.1	2.1	Z	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.3	2.5	2.0	2.5
6-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	2.2	2.2	2.0	2.1	2.1	2.1	2.2
7-Jul	2.1	Z	2.4	2.4	2.2	2.1	2.2	2.1	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.4
8-Jul	2.1	2.1	Z	2.2	2.3	2.2	2.3	2.1	2.1	M	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.3
9-Jul	2.1	2.1	2.1	2.0	2.0	Z	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1
10-Jul	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	C	C	C	C	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1
11-Jul	2.0	Z	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.1
12-Jul	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.0	1.9	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.1
13-Jul	1.9	2.0	2.0	Z	2.0	2.0	2.0	2.0	1.9	1.9	M	M	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.1	2.1	2.0	2.0	1.9	2.0	2.1
14-Jul	1.9	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
15-Jul	2.0	2.0	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	1.9	2.0	1.9	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1
16-Jul	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.4	2.7	2.1	2.7
17-Jul	2.5	Z	2.5	2.5	2.3	2.1	2.2	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.2	2.3	2.5	2.1	2.5
18-Jul	2.4	2.7	Z	2.7	2.7	2.6	2.2	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.2	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.7
19-Jul	2.1	2.2	2.7	Z	2.4	2.1	2.2	2.6	2.6	2.6	3.1	2.3	2.3	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.3	3.1
20-Jul	2.1	2.0	2.0	2.0	Z	2.0	2.1	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.2
21-Jul	2.2	2.2	2.2	2.1	2.3	Z	2.2	2.2	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.1	2.3
22-Jul	Z	2.1	2.2	2.3	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.3
23-Jul	2.1	Z	2.2	2.2	2.2	2.1	2.2	2.2	2.8	2.8	2.4	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.1	2.8
24-Jul	2.3	2.4	Z	2.3	2.2	2.4	2.3	2.3	2.2	2.1	2.1	2.1	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.3	2.4	2.1	2.4
25-Jul	2.3	2.1	2.1	Z	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.3
26-Jul	2.1	2.1	2.1	2.0	Z	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.1
27-Jul	2.1	2.1	2.1	2.2	2.2	Z	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.2
28-Jul	Z	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	1.9	1.9	2.0	2.1	2.0	2.1	2.1	2.2	2.0	2.0	2.1	2.1	2.2
29-Jul	2.2	2.1	Z	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	1.9	1.9	2.0	2.0	2.0	2.0	2.2
30-Jul	2.0	2.0	Z	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1
31-Jul	2.0	2.0	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.2
2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.1 2.1																									Diurnal Average	
2.5 2.7 2.7 2.7 2.7 2.6 2.3 2.6 2.8 2.8 3.1 2.3 2.3 2.2 2.2 2.1 2.3 2.2 2.2 2.2 2.2 2.4 2.4 2.7																									Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance																										



Wood Buffalo Environmental Association
Hourly Averages

Methane (CH₄) - ppm
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Methane (CH₄) - ppm
Mannix - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	394	55.81	55.81
2.1 - 3.0	311	44.05	99.86
3.1 - 10.0	1	0.14	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Methane (CH₄) - ppm
Mannix - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	13	16	1	0	2	5	24	56	58	54	25	55	43	26	5	10	393
2.1 - 3.0	11	18	6	8	6	12	23	90	36	9	21	16	14	11	9	20	310
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	24	34	7	8	8	17	47	146	94	63	46	71	57	37	15	30	704

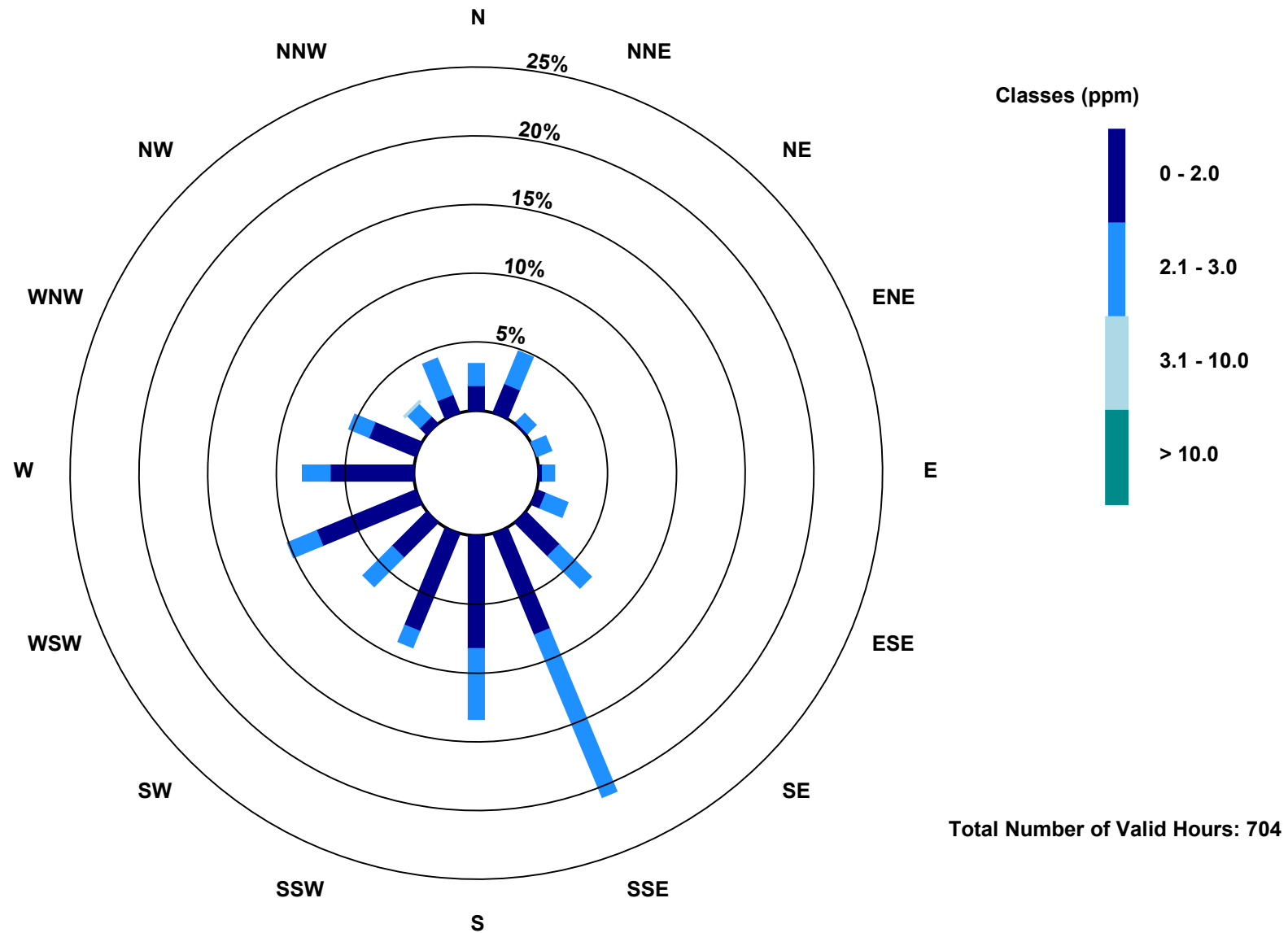
Total Number of Valid Hours: 704

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

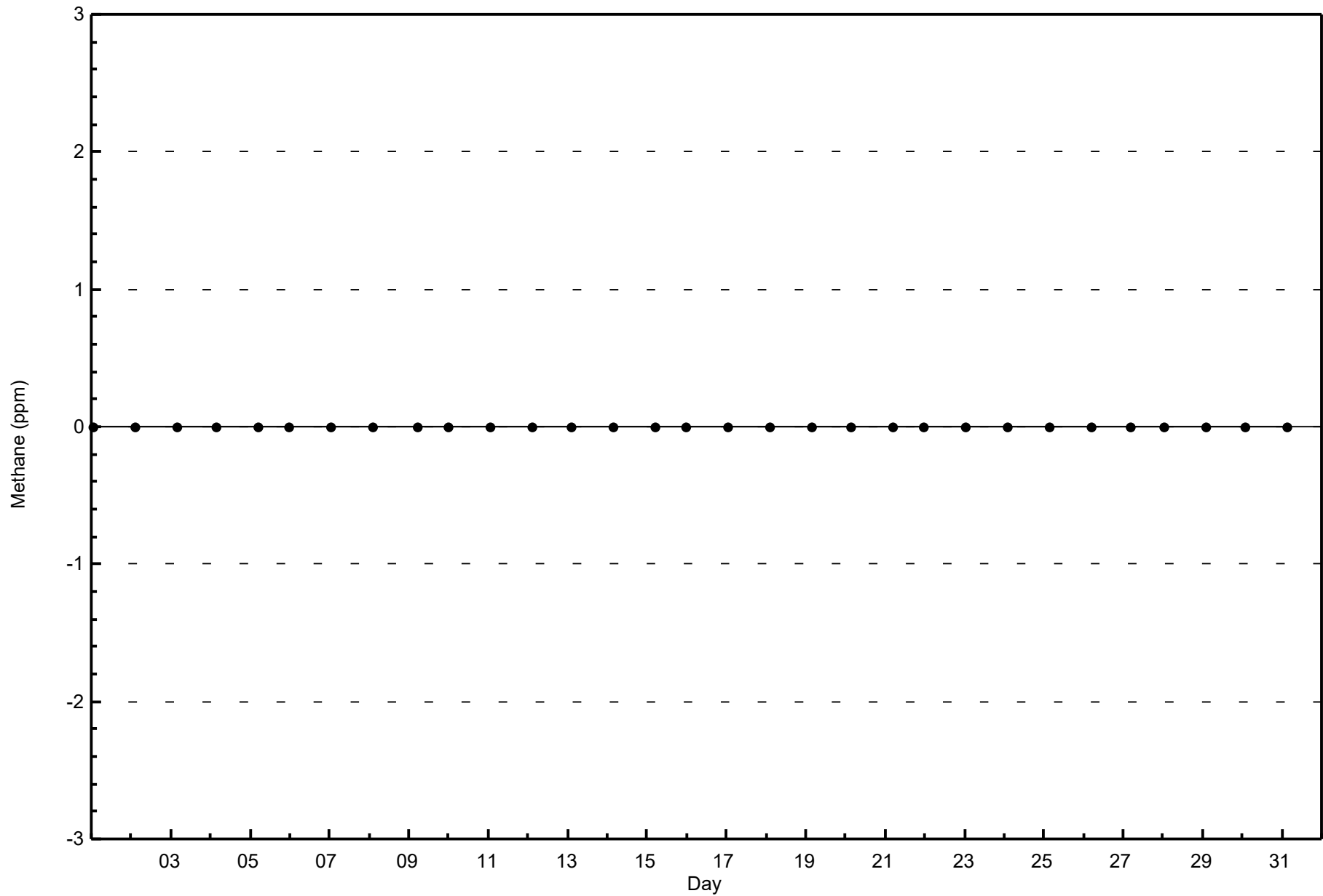
Methane (CH₄) - ppm
Mannix





Wood Buffalo Environmental Association
Zero Responses

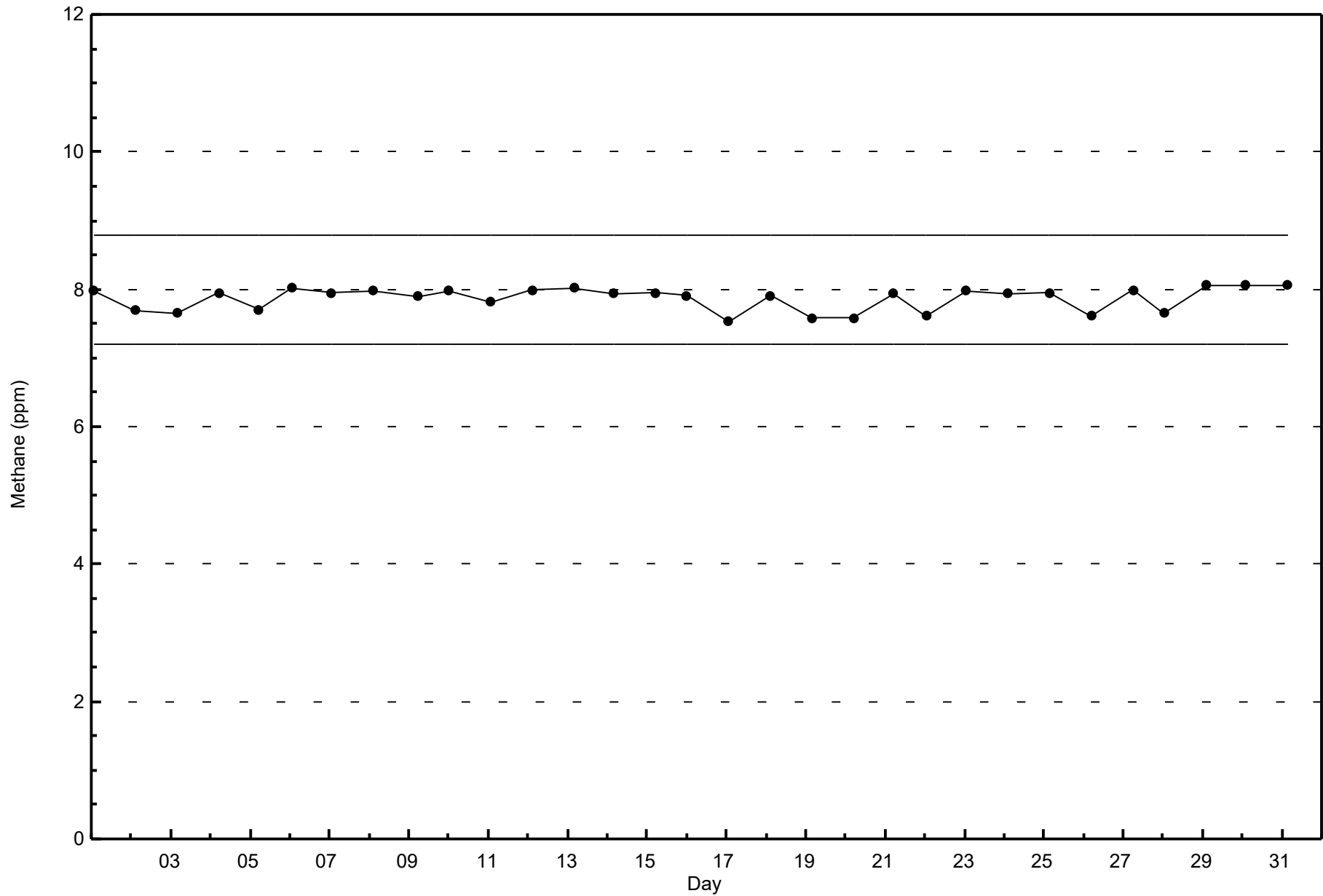
Methane (CH₄) - ppm
Mannix - July 2026





Wood Buffalo Environmental Association
Span Responses

Methane (CH₄) - ppm
Mannix - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

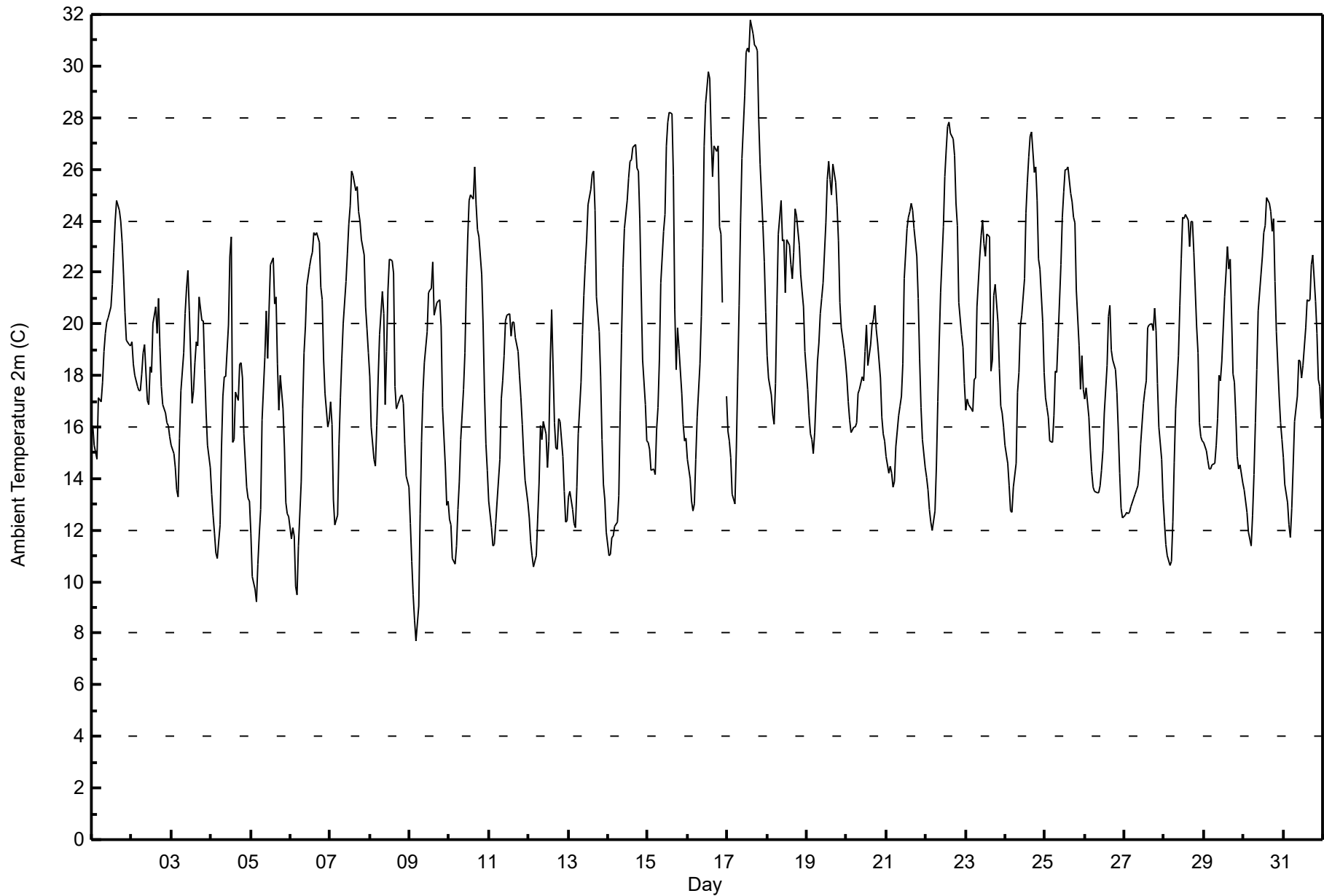
Mannix - July 2026

Maximum Value: 31.8 C on Jul 17 15:00																				Maximum Daily Average: 23.9 C on Jul 17					Hours in Service: 744			
Minimum Value: 7.7 C on Jul 9 05:00																				Minimum Daily Average: 14.5 C on Jul 12					Hours of Data: 743			
Maximum Diurnal Average: 23.4 C at hour 15																				Minimum Diurnal Average: 13.1 C at hour 4					Hours of Missing Data: 1			
Monthly Average: 18.52 C																				Percentiles: P ₁ = 10.0 P ₁₀ = 12.7 Q ₁ = 15.2 Median = 18.0 Q ₃ = 21.7 P ₉₀ = 24.7 P ₉₉ = 30.2					Hours of Calibration: 0			
																									Percent Operational Time: 99.9			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	16.0	15.3	15.0	14.7	17.1	17.0	17.8	18.9	19.6	20.1	20.2	20.7	21.5	22.8	24.0	24.8	24.4	24.0	23.2	21.9	20.4	19.4	19.2	19.2	19.9	24.8		
2-Jul	19.3	18.4	18.0	17.6	17.4	17.4	18.1	18.8	19.2	17.0	16.9	18.4	18.1	20.0	20.7	19.6	21.0	19.1	17.6	16.9	16.6	16.2	16.0	15.6	18.1	21.0		
3-Jul	15.3	15.0	14.5	13.6	13.3	15.6	17.4	18.9	20.4	21.4	22.1	20.5	16.9	17.4	18.5	19.3	19.1	21.0	20.1	20.1	18.2	16.5	15.3	14.4	17.7	22.1		
4-Jul	13.4	12.6	11.9	11.1	10.9	12.2	15.2	17.2	18.0	18.0	20.0	22.6	23.4	15.4	15.5	17.4	17.1	18.4	18.5	17.9	15.7	13.7	13.3	13.1	15.9	23.4		
5-Jul	11.9	10.2	9.7	9.2	10.7	11.8	12.8	16.3	18.7	20.5	18.7	20.6	22.3	22.6	20.8	21.0	18.5	16.7	18.0	16.7	15.2	13.1	12.7	12.5	15.9	22.6		
6-Jul	11.7	12.1	11.8	9.8	9.5	11.4	13.9	16.7	18.9	19.9	21.5	22.3	22.6	22.8	23.5	23.4	23.6	23.1	21.4	20.9	18.6	17.3	16.0	16.3	17.9	23.6		
7-Jul	17.0	16.1	13.2	12.2	12.6	15.4	17.1	18.6	20.0	21.6	22.7	23.9	24.6	25.9	25.7	25.2	25.3	24.4	24.0	23.3	22.7	20.7	19.8	18.9	20.5	25.9		
8-Jul	17.9	16.0	14.8	14.5	16.0	17.9	19.6	21.2	20.4	16.9	18.9	21.3	22.5	22.5	22.0	17.6	16.7	16.8	17.2	17.2	16.9	15.4	14.1	13.7	17.8	22.5		
9-Jul	12.3	10.8	9.5	8.5	7.7	9.1	12.7	15.5	17.3	18.5	19.7	21.2	21.3	21.4	22.4	20.3	20.8	20.9	20.9	19.9	16.7	14.5	12.9	13.1	16.2	22.4		
10-Jul	12.4	12.2	10.9	10.7	11.4	12.8	13.9	15.5	17.5	18.9	21.4	23.3	24.8	25.0	24.8	26.1	24.6	23.7	23.4	21.9	20.0	17.3	15.3	14.3	18.4	26.1		
11-Jul	13.2	12.1	11.4	11.4	12.2	13.1	14.8	17.1	17.8	18.7	20.1	20.3	20.4	19.5	20.1	20.1	19.5	18.9	18.0	17.2	16.1	14.9	13.9	13.1	16.4	20.4		
12-Jul	12.5	11.6	11.0	10.6	11.0	12.4	13.8	16.0	15.5	16.2	15.7	14.4	15.5	18.5	20.6	16.1	15.2	15.1	16.3	16.2	14.9	13.5	12.3	12.4	14.5	20.6		
13-Jul	13.3	13.5	12.8	12.3	12.1	13.7	15.7	17.8	19.6	21.1	22.3	23.3	24.6	25.2	25.8	25.9	24.4	21.1	19.7	17.9	15.5	13.7	13.2	11.9	18.2	25.9		
14-Jul	11.0	11.0	11.7	11.8	12.1	12.3	13.3	16.6	19.7	22.2	23.7	24.8	25.6	26.3	26.4	26.8	27.0	26.0	25.9	24.1	21.3	18.6	16.8	15.5	19.6	27.0		
15-Jul	15.4	15.2	14.3	14.4	14.1	15.9	16.7	18.6	21.6	23.6	24.3	26.9	27.8	28.2	28.1	25.8	20.5	18.2	19.9	19.0	17.3	16.1	15.5	15.6	19.7	28.2		
16-Jul	14.8	14.0	13.1	12.8	13.0	14.8	16.4	18.4	20.3	23.0	26.9	28.5	29.8	29.5	27.3	25.7	26.9	26.7	26.9	23.7	23.5	20.8	DF	17.2	21.5	29.8		
17-Jul	15.8	15.5	14.8	13.4	13.0	15.2	17.9	20.7	23.9	26.4	28.9	30.5	30.7	30.5	31.8	31.2	30.8	30.8	30.6	27.9	26.2	23.8	22.4	20.4	23.9	31.8		
18-Jul	18.8	17.9	17.2	16.5	16.1	17.7	20.7	23.5	24.8	23.2	23.3	21.2	23.3	23.0	22.3	21.7	22.8	24.5	24.2	23.1	21.9	21.3	20.7	18.9	21.2	24.8		
19-Jul	17.5	16.4	15.7	15.5	15.0	15.8	18.6	19.2	20.4	21.0	21.6	23.9	25.6	26.3	25.6	25.0	26.2	25.5	24.6	23.2	20.9	19.8	19.0	18.6	20.9	26.3		
20-Jul	17.9	17.0	16.3	15.8	16.0	16.0	16.2	17.3	17.5	17.9	17.8	18.9	20.0	18.4	19.2	20.0	20.2	20.7	19.8	19.3	17.9	16.4	15.7	15.5	17.8	20.7		
21-Jul	14.9	14.2	14.5	14.2	13.6	13.9	15.2	16.5	16.8	17.2	18.5	21.8	23.7	24.2	24.4	24.7	24.4	23.7	22.6	21.0	18.6	16.7	15.5	14.4	18.5	24.7		
22-Jul	14.1	13.6	12.8	12.3	12.0	12.7	14.5	17.0	19.2	21.2	23.8	25.7	26.8	27.7	27.8	27.4	27.2	26.5	24.7	23.8	20.9	19.6	19.1	17.7	20.3	27.8		
23-Jul	16.6	17.1	16.9	16.7	16.6	17.8	17.9	20.7	22.6	23.4	24.0	23.1	22.6	23.5	23.4	18.2	18.6	21.1	21.5	20.1	18.3	16.8	16.6	16.0	19.6	24.0		
24-Jul	15.3	14.6	13.7	12.7	12.7	13.7	14.6	17.3	18.1	19.9	20.3	21.8	24.3	25.5	26.5	27.3	27.4	25.9	26.1	24.8	22.5	22.1	20.1	18.1	20.2	27.4		
25-Jul	17.2	16.8	16.4	15.5	15.4	16.5	18.2	18.1	19.5	22.3	24.1	25.1	26.0	26.0	26.1	25.0	24.7	24.1	23.9	21.3	19.2	17.5	18.7	17.5	20.6	26.1		
26-Jul	17.1	17.5	16.4	15.2	14.3	13.7	13.5	13.4	13.4	13.7	14.3	15.1	16.5	18.4	20.3	20.7	19.0	18.6	18.2	17.4	15.9	14.2	12.9	12.5	15.9	20.7		
27-Jul	12.6	12.7	12.6	12.7	12.9	13.2	13.4	13.6	13.7	14.3	15.3	16.9	17.4	17.8	19.8	20.0	20.0	19.8	20.6	19.8	17.7	16.0	14.8	13.3	15.9	20.6		
28-Jul	12.3	11.5	11.0	10.7	10.8	12.3	14.6	16.7	18.8	20.7	22.5	24.1	24.1	24.2	24.0	23.0	24.0	24.0	22.8	19.9	18.9	16.2	15.6	15.4	18.3	24.2		
29-Jul	15.4	15.1	14.7	14.4	14.4	14.6	14.6	15.3	16.3	18.0	17.8	18.5	21.0	22.0	23.0	22.1	22.5	18.1	17.7	16.4	14.9	14.4	14.5	13.8	17.1	23.0		
30-Jul	13.6	13.1	12.7	11.9	11.4	12.6	14.1	16.2	18.2	20.5	21.9	22.6	23.5	23.8	24.9	24.7	24.3	23.6	24.1	21.7	19.7	17.2	16.2	15.5	18.7	24.9		
31-Jul	14.8	13.8	13.0	12.2	11.7	12.8	14.5	16.2	17.2	18.6	18.5	17.9	18.4	19.8	20.9	20.9	21.0	22.3	22.7	20.9	19.6	17.8	17.6	16.3	17.5	22.7		
Diurnal Average																												
Diurnal Maximum																												
DF - DAS Failure																												



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Mannix - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	8	1.08	1.08
10 - 20	466	62.72	63.80
> 20	269	36.20	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 20m (AT20) - C

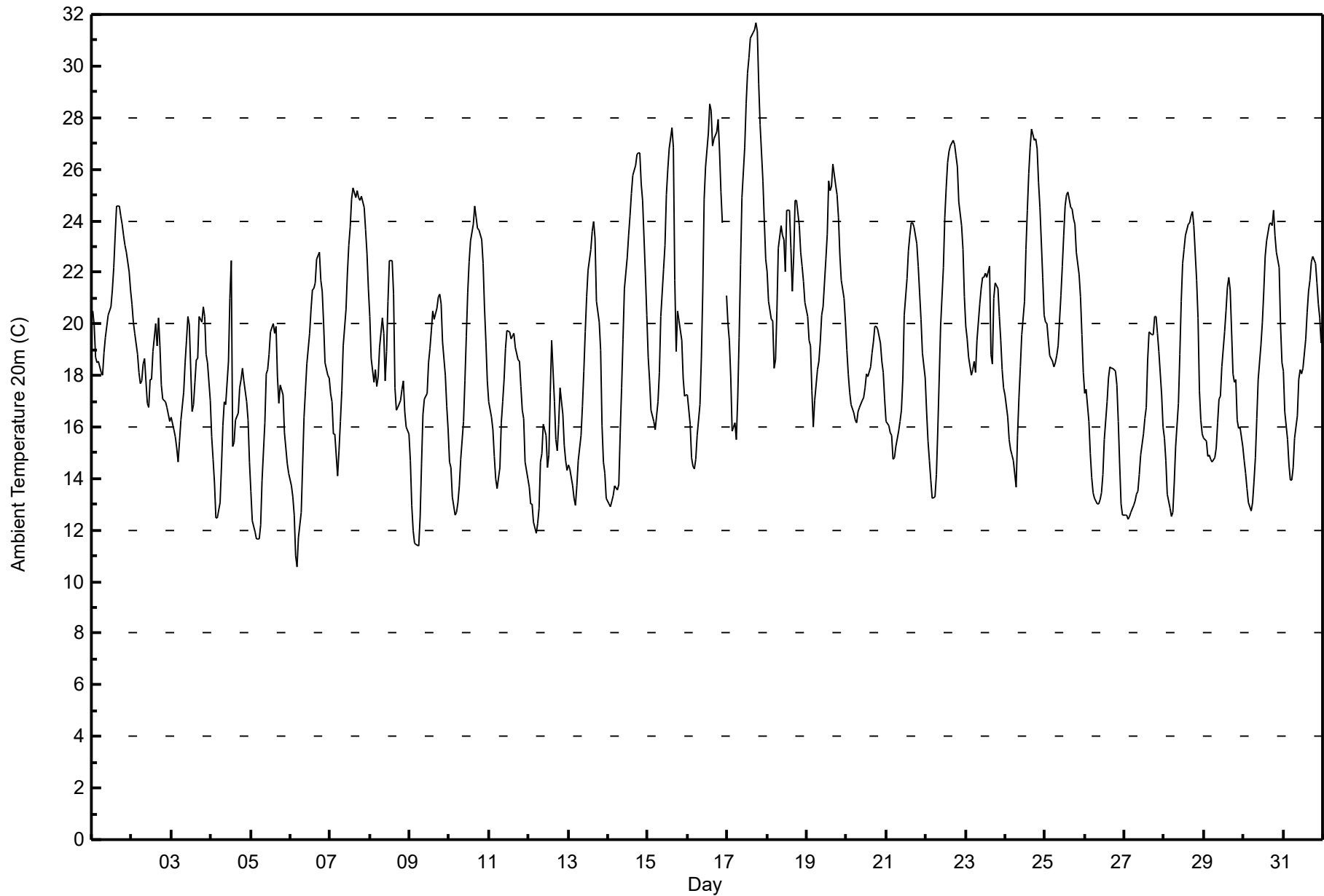
Mannix - July 2026

Maximum Value: 31.7 C on Jul 17 18:00																				Maximum Daily Average: 24.6 C on Jul 17					Hours in Service: 744	
Minimum Value: 10.6 C on Jul 6 05:00																				Minimum Daily Average: 14.9 C on Jul 12					Hours of Data: 743	
Maximum Diurnal Average: 22.5 C at hour 15																				Minimum Diurnal Average: 14.6 C at hour 5					Hours of Missing Data: 1	
Monthly Average: 18.94 C																				Percentiles: P ₁ = 11.7 P ₁₀ = 13.8 Q ₁ = 16.0 Median = 18.5 Q ₃ = 21.7 P ₉₀ = 24.5 P ₉₉ = 29.0					Hours of Calibration: 0	
																									Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	20.5	19.9	18.7	18.5	18.6	18.1	18.0	18.9	19.5	19.9	20.4	20.7	21.3	22.2	23.5	24.6	24.6	24.2	23.9	23.4	23.1	22.8	22.0	21.3	21.2	24.6
2-Jul	20.8	20.1	19.7	18.8	18.1	17.7	17.8	18.4	18.7	16.9	16.8	17.8	17.8	18.9	20.0	19.1	20.2	19.1	17.6	17.1	17.0	16.7	16.5	16.2	18.3	20.8
3-Jul	16.4	15.9	15.6	15.2	14.6	15.4	16.3	17.4	18.5	19.4	20.3	20.0	16.6	16.9	17.7	18.6	18.6	20.3	20.1	20.6	20.3	18.8	18.5	17.0	17.9	20.6
4-Jul	15.6	14.8	13.8	12.5	12.5	13.1	14.5	16.0	17.0	16.9	18.5	21.0	22.5	15.2	15.4	16.3	16.6	17.5	17.9	18.3	17.8	17.0	16.3	14.6	16.3	22.5
5-Jul	13.5	12.4	11.9	11.7	11.6	11.7	12.2	13.9	16.2	18.1	18.2	18.8	19.7	20.0	19.6	19.9	17.9	16.9	17.6	17.2	15.8	15.2	14.6	14.2	15.8	20.0
6-Jul	13.7	13.3	12.6	11.0	10.6	11.7	12.7	14.5	16.4	17.4	18.4	19.6	20.6	21.3	21.4	21.6	22.5	22.8	21.7	21.3	20.0	18.5	18.0	17.9	17.5	22.8
7-Jul	17.3	17.0	15.7	15.8	14.1	15.1	16.2	17.4	19.1	20.6	22.0	23.0	23.8	24.8	25.3	24.9	25.2	24.9	24.8	25.0	24.5	23.7	22.7	21.4	21.0	25.3
8-Jul	20.3	18.7	17.7	18.2	17.6	17.9	19.1	20.2	19.6	17.8	18.9	20.9	22.4	22.4	21.2	17.5	16.6	16.8	17.0	17.5	17.8	16.6	16.0	15.7	18.5	22.4
9-Jul	14.7	13.0	12.0	11.5	11.5	11.4	12.5	14.6	16.5	17.1	17.3	18.5	19.0	19.8	20.5	20.2	20.6	21.0	21.2	20.8	19.3	18.0	16.8	15.9	16.8	21.2
10-Jul	14.7	14.4	13.3	12.6	12.7	13.1	13.7	14.8	16.2	17.8	19.5	21.2	22.4	23.2	23.8	24.6	24.2	23.7	23.6	23.2	22.3	20.6	19.3	17.8	18.9	24.6
11-Jul	17.0	16.4	15.9	14.9	14.0	13.6	14.4	16.1	17.0	17.9	19.1	19.8	19.7	19.4	19.5	19.6	19.1	18.6	18.5	17.6	16.7	16.3	14.7	14.0	17.1	19.8
12-Jul	13.7	13.0	13.0	12.3	11.9	12.2	12.9	14.7	15.0	16.1	15.7	14.4	14.9	17.3	19.4	17.0	15.5	15.1	16.1	17.5	16.5	15.3	14.7	14.3	14.9	19.4
13-Jul	14.6	14.4	13.7	13.2	12.9	13.7	14.7	15.7	16.8	18.2	19.7	21.1	22.1	22.9	23.6	24.0	23.3	20.9	20.1	19.0	16.0	14.7	14.2	13.3	17.6	24.0
14-Jul	13.0	12.9	13.1	13.3	13.7	13.6	13.8	15.8	17.5	19.4	21.4	22.6	23.4	24.2	25.1	25.8	26.1	26.6	26.6	26.6	25.5	24.8	21.9	20.3	20.3	26.6
15-Jul	18.7	17.8	16.6	16.2	15.9	16.4	17.0	18.1	20.3	22.1	23.0	25.0	26.0	26.8	27.6	26.9	21.7	18.9	20.5	20.1	19.4	17.9	17.2	17.3	20.3	27.6
16-Jul	17.2	16.1	14.8	14.5	14.4	14.7	15.7	16.9	18.7	21.2	24.8	26.1	27.4	28.5	28.3	26.9	27.2	27.4	27.9	26.7	25.1	23.9	DF	21.1	22.0	28.5
17-Jul	20.0	19.4	17.9	15.8	16.2	15.5	17.1	19.5	22.3	24.9	26.9	28.5	29.7	30.3	31.1	31.3	31.4	31.7	31.4	29.3	27.7	25.6	24.0	22.5	24.6	31.7
18-Jul	22.0	20.9	20.2	20.1	18.3	18.6	20.5	22.9	23.8	23.4	23.3	22.0	24.4	24.4	23.0	21.3	22.6	24.8	24.8	23.8	22.8	22.2	21.7	20.8	22.2	24.8
19-Jul	20.3	19.4	19.1	17.4	16.0	17.0	18.2	18.5	19.3	20.3	20.7	22.5	23.5	25.5	25.2	25.3	26.2	25.4	25.0	24.1	22.7	21.7	21.0	20.0	21.4	26.2
20-Jul	19.0	18.0	17.4	16.9	16.5	16.3	16.1	16.6	16.8	17.1	17.1	17.5	18.1	18.0	18.3	18.9	19.3	19.9	19.9	19.8	19.3	18.6	18.1	17.1	17.9	19.9
21-Jul	16.2	16.1	15.8	15.7	14.8	14.8	15.2	15.8	16.2	16.6	17.9	20.4	21.8	22.8	23.4	23.9	23.9	23.8	23.1	22.2	21.2	20.2	18.9	17.9	19.1	23.9
22-Jul	16.6	15.5	14.7	13.9	13.2	13.3	14.2	15.9	17.9	19.9	22.2	24.2	25.3	26.2	26.7	26.9	27.1	26.9	26.5	26.1	24.7	23.8	22.9	21.1	21.1	27.1
23-Jul	19.9	19.4	18.7	18.0	18.2	18.5	18.1	19.3	20.8	21.4	21.8	21.8	22.0	21.8	22.3	18.8	18.5	21.0	21.6	21.4	20.3	19.4	18.2	17.5	19.9	22.3
24-Jul	17.3	16.4	15.5	15.1	14.9	14.7	13.6	15.7	17.1	18.4	19.6	20.9	22.9	24.4	25.8	26.9	27.5	27.1	27.2	26.8	25.5	24.5	21.8	20.3	20.8	27.5
25-Jul	20.1	20.0	19.4	18.7	18.6	18.3	18.5	18.7	19.2	21.1	22.2	23.4	24.6	25.0	25.1	24.5	24.5	24.1	23.9	22.8	21.9	21.0	19.6	18.1	21.4	25.1
26-Jul	17.3	17.5	16.2	15.0	14.0	13.4	13.2	13.0	13.0	13.2	13.5	14.1	15.5	17.0	17.9	18.3	18.3	18.3	18.2	17.6	16.2	14.6	13.0	12.6	15.5	18.3
27-Jul	12.6	12.6	12.4	12.6	12.7	13.0	13.1	13.4	13.5	14.1	14.9	15.7	16.3	16.8	18.6	19.7	19.6	19.6	20.3	20.3	19.6	18.9	17.3	16.0	16.0	20.3
28-Jul	15.6	14.7	13.4	12.8	12.5	12.7	13.8	15.2	16.9	18.8	20.9	22.3	22.9	23.5	23.8	23.9	24.2	24.4	23.8	21.7	20.2	17.4	16.3	15.7	18.6	24.4
29-Jul	15.6	15.5	14.8	14.9	14.7	14.6	14.8	15.2	16.1	17.1	17.2	18.3	19.7	20.5	21.4	21.8	21.3	18.0	17.8	17.9	16.2	16.0	16.0	15.3	17.1	21.8
30-Jul	14.7	14.2	13.6	13.1	12.7	13.1	13.9	14.8	16.3	17.9	19.2	20.1	21.3	22.6	23.2	23.9	23.9	23.8	24.4	23.4	22.8	22.2	19.9	18.5	18.9	24.4
31-Jul	18.2	16.6	15.5	14.5	13.9	14.0	14.4	15.6	16.4	17.9	18.2	18.0	18.3	19.4	20.4	21.3	21.7	22.4	22.6	22.4	21.6	20.8	20.2	19.3	18.5	22.6
Diurnal Average																										
Diurnal Maximum																										
DF - DAS Failure																										



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 20m (AT20) - C
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 20m (AT20) - C
Mannix - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	0	0.00	0.00
10 - 20	468	62.99	62.99
> 20	275	37.01	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 45m (AT45) - C

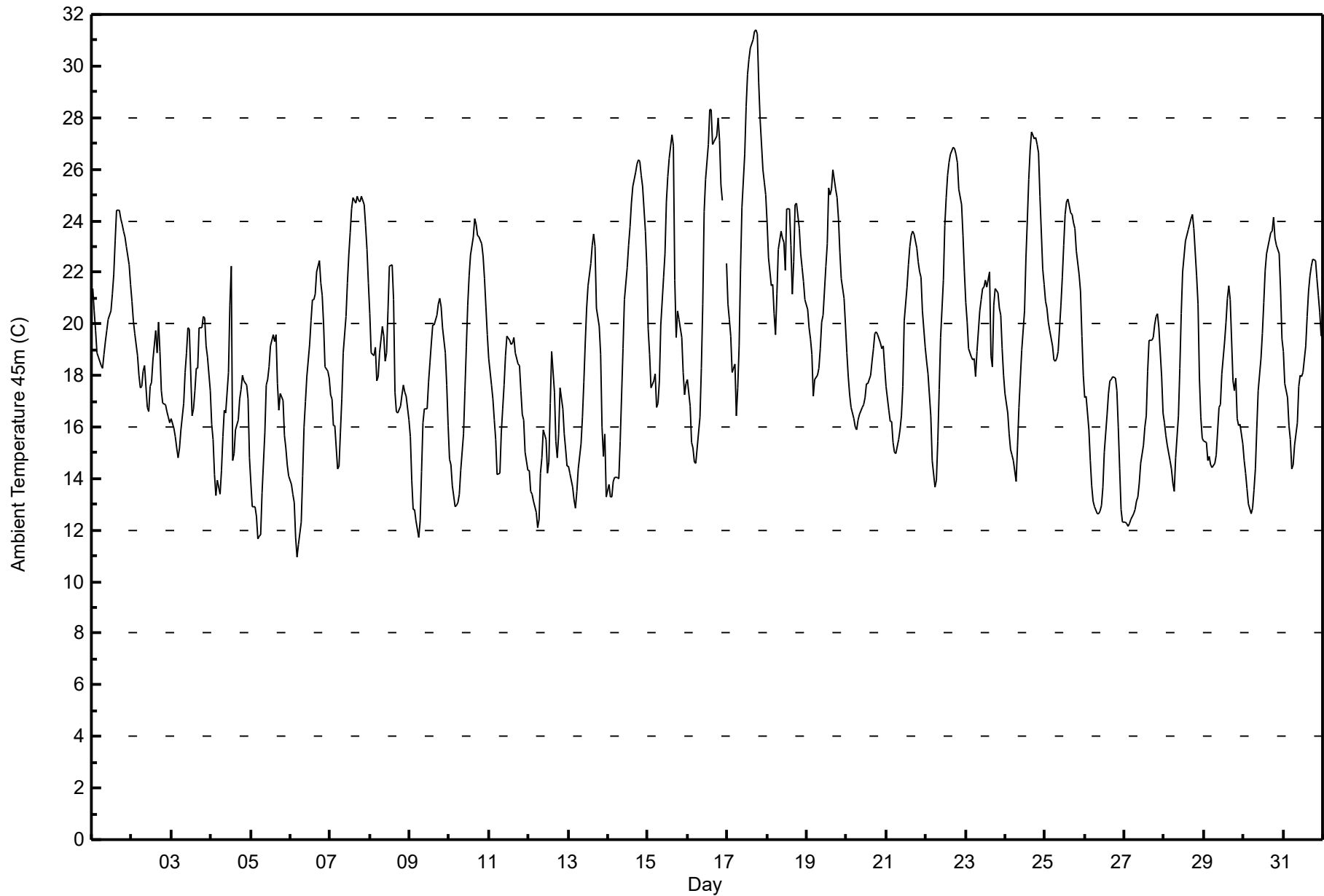
Mannix - July 2026

Maximum Value: 31.4 C on Jul 17 18:00																				Maximum Daily Average: 25.0 C on Jul 17					Hours in Service: 744				Hours of Data: 743
Minimum Value: 10.9 C on Jul 6 05:00																				Minimum Daily Average: 15.0 C on Jul 12					Hours of Missing Data: 1				Hours of Calibration: 0
Maximum Diurnal Average: 22.2 C at hour 15																				Minimum Diurnal Average: 14.9 C at hour 6					Percent Operational Time: 99.9				
Monthly Average: 18.99 C																				Percentiles: P ₁ = 12.1 P ₁₀ = 14.0 Q ₁ = 16.0 Median = 18.6 Q ₃ = 21.7 P ₉₀ = 24.4 P ₉₉ = 28.9									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	21.4	20.5	19.7	18.9	18.7	18.4	18.3	18.8	19.3	19.7	20.2	20.5	21.2	21.9	23.2	24.4	24.4	24.1	23.9	23.6	23.4	23.0	22.3	21.5	21.3	24.4			
2-Jul	20.9	20.1	19.6	18.8	18.0	17.5	17.6	18.2	18.4	16.8	16.6	17.6	17.7	18.6	19.7	18.9	20.1	18.9	17.4	16.9	16.8	16.6	16.4	16.1	18.1	20.9			
3-Jul	16.3	16.0	15.6	15.2	14.8	15.2	15.9	16.9	18.1	18.9	19.8	19.8	16.4	16.7	17.4	18.3	18.3	19.9	19.8	20.3	20.2	19.1	18.7	17.4	17.7	20.3			
4-Jul	16.1	15.5	14.2	13.3	13.9	13.4	14.3	15.6	16.6	16.6	18.1	20.7	22.2	14.7	15.0	15.9	16.2	17.1	17.5	18.0	17.8	17.6	17.1	14.8	16.3	22.2			
5-Jul	13.9	12.9	12.9	12.5	11.6	11.8	11.8	13.4	15.8	17.6	17.9	18.4	19.2	19.6	19.3	19.6	17.7	16.6	17.3	17.0	15.7	15.2	14.6	14.1	15.7	19.6			
6-Jul	13.8	13.4	13.0	11.7	10.9	11.4	12.3	14.1	16.0	17.0	17.9	19.2	20.1	20.9	20.9	21.2	22.0	22.4	21.6	21.1	20.0	18.3	18.2	17.9	17.3	22.4			
7-Jul	17.2	17.1	16.0	16.1	14.4	14.5	15.8	17.1	18.9	20.3	21.6	22.7	23.5	24.4	24.9	24.7	25.0	24.8	24.7	24.9	24.6	23.8	22.9	21.6	20.9	25.0			
8-Jul	20.4	18.9	18.8	19.1	17.8	17.9	18.8	19.9	19.5	18.5	18.8	20.5	22.3	22.3	20.9	17.4	16.6	16.5	16.8	17.2	17.6	17.4	17.2	16.2	18.6	22.3			
9-Jul	15.6	13.9	12.8	12.8	12.3	11.7	12.4	14.3	16.2	16.7	16.7	17.7	18.5	19.3	20.0	20.0	20.3	20.8	21.0	20.7	19.9	18.9	17.6	16.1	16.9	21.0			
10-Jul	14.7	14.5	13.7	12.9	12.9	13.0	13.4	14.3	15.7	17.4	19.1	20.7	21.9	22.7	23.4	24.1	23.9	23.4	23.4	23.1	22.6	21.8	20.6	19.6	18.9	24.1			
11-Jul	18.7	17.6	17.1	16.3	15.5	14.1	14.2	15.8	16.7	17.6	18.8	19.5	19.4	19.2	19.3	19.5	18.9	18.4	18.4	17.4	16.5	16.3	15.0	14.3	17.3	19.5			
12-Jul	14.3	13.5	13.4	13.1	12.7	12.1	12.4	14.2	14.8	15.9	15.5	14.2	14.6	16.9	18.9	17.4	15.5	14.8	15.7	17.5	16.7	15.8	15.1	14.5	15.0	18.9			
13-Jul	14.5	14.2	13.7	13.2	12.9	13.5	14.4	15.3	16.4	17.7	19.2	20.6	21.5	22.4	23.1	23.5	23.0	20.6	19.9	18.8	16.0	14.9	15.7	13.3	17.4	23.5			
14-Jul	13.8	13.3	13.3	13.9	14.1	14.0	14.0	15.4	17.2	19.1	20.9	22.2	23.0	23.8	24.7	25.3	25.9	26.2	26.4	26.3	25.7	25.3	23.6	22.2	20.4	26.4			
15-Jul	19.8	18.8	17.5	17.8	18.1	16.8	16.9	17.8	19.9	21.8	22.7	24.7	25.7	26.4	27.3	26.9	21.7	19.5	20.5	20.2	19.5	18.1	17.3	17.7	20.6	27.3			
16-Jul	17.9	16.8	15.4	15.2	14.6	14.6	15.2	16.4	18.3	20.8	24.3	25.6	26.9	28.3	28.3	27.0	27.1	27.3	28.0	27.1	25.4	24.8	DF	22.3	22.1	28.3			
17-Jul	20.8	20.2	19.6	18.1	18.4	16.4	17.5	19.1	22.1	24.5	26.6	28.4	29.7	30.3	30.7	31.0	31.4	31.4	31.2	29.3	27.9	26.0	25.5	25.0	25.0	31.4			
18-Jul	23.9	22.6	21.5	21.5	20.4	19.6	21.1	22.9	23.6	23.3	23.1	22.1	24.4	24.4	23.1	21.1	22.4	24.6	24.7	23.7	22.7	22.2	21.6	20.9	22.6	24.7			
19-Jul	20.5	19.8	19.4	18.8	17.2	17.8	18.0	18.3	19.1	20.1	20.3	22.2	23.1	25.3	25.0	25.2	26.0	25.2	24.9	24.1	22.8	21.7	21.0	20.0	21.5	26.0			
20-Jul	18.9	17.9	17.3	16.8	16.3	16.0	15.9	16.2	16.5	16.7	16.9	17.2	17.7	17.7	18.0	18.5	19.0	19.6	19.7	19.6	19.2	19.0	19.1	18.3	17.8	19.7			
21-Jul	17.6	16.7	16.2	16.2	15.4	15.0	15.0	15.5	15.9	16.4	17.6	20.1	21.4	22.3	23.0	23.4	23.6	23.5	23.0	22.4	22.0	21.8	20.5	19.1	19.3	23.6			
22-Jul	18.5	18.1	17.2	16.5	14.7	13.7	14.0	15.5	17.5	19.5	21.7	23.8	24.9	25.8	26.2	26.6	26.8	26.8	26.6	26.3	25.2	24.6	23.4	22.0	21.5	26.8			
23-Jul	20.8	20.0	19.1	18.7	18.6	18.6	18.0	18.9	20.5	21.0	21.4	21.4	21.7	21.4	22.0	18.8	18.3	20.7	21.4	21.2	20.6	20.3	19.0	18.0	20.0	22.0			
24-Jul	17.3	16.6	15.7	15.1	14.9	14.7	13.9	15.3	16.8	17.9	19.0	20.5	22.6	24.0	25.6	26.7	27.4	27.2	27.2	26.9	26.6	25.0	22.1	21.6	20.9	27.4			
25-Jul	20.9	20.6	20.1	19.7	19.1	18.6	18.5	18.6	18.9	20.7	21.8	23.1	24.3	24.7	24.8	24.3	24.2	23.9	23.7	22.8	21.9	21.3	19.5	18.0	21.4	24.8			
26-Jul	17.1	17.2	15.9	14.7	13.7	13.1	12.9	12.6	12.6	12.8	13.0	13.7	15.0	16.5	17.3	17.8	17.9	17.9	17.9	17.4	16.0	14.4	12.8	12.3	15.1	17.9			
27-Jul	12.3	12.3	12.1	12.2	12.4	12.6	12.8	13.2	13.3	13.8	14.6	15.3	16.0	16.4	18.2	19.4	19.4	19.5	20.0	20.3	20.4	19.8	17.9	16.5	15.9	20.4			
28-Jul	16.2	15.7	15.3	14.7	14.3	13.8	13.5	14.8	16.5	18.3	20.4	22.0	22.6	23.2	23.7	23.9	24.1	24.2	23.7	21.9	20.8	17.9	16.4	15.6	18.9	24.2			
29-Jul	15.5	15.4	14.7	14.9	14.6	14.4	14.6	14.9	15.8	16.7	16.9	18.0	19.3	20.1	21.0	21.5	20.9	17.8	17.4	17.9	16.3	16.0	16.1	15.3	16.9	21.5			
30-Jul	14.7	14.2	13.6	13.0	12.7	12.9	13.5	14.4	15.9	17.4	18.7	19.7	20.8	22.1	22.8	23.3	23.5	23.6	24.1	23.3	23.0	22.7	21.3	19.4	18.8	24.1			
31-Jul	18.9	17.7	17.1	16.1	15.5	14.4	14.5	15.3	16.2	17.6	18.0	17.9	18.1	19.2	20.3	21.3	21.9	22.3	22.5	22.4	21.8	21.1	20.5	19.5	18.8	22.5			
Diurnal Average																													
Diurnal Maximum																													
DF - DAS Failure																													



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 45m (AT45) - C
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 45m (AT45) - C
Mannix - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	0	0.00	0.00
10 - 20	469	63.12	63.12
> 20	274	36.88	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 75m (AT75) - C

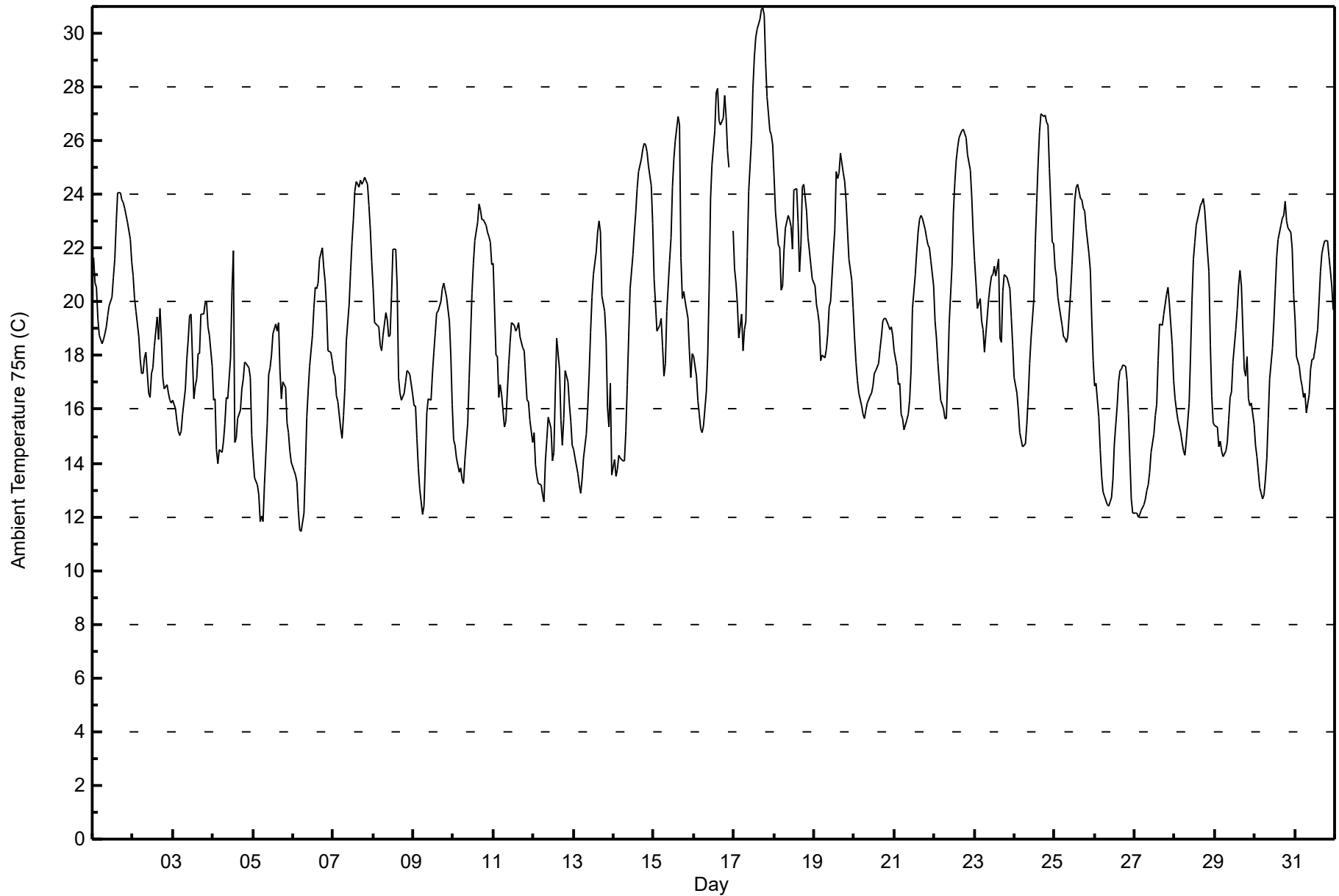
Mannix - July 2026

Maximum Value: 30.9 C on Jul 17 18:00																				Maximum Daily Average: 25.1 C on Jul 17					Hours in Service: 744	
Minimum Value: 11.5 C on Jul 6 06:00																				Minimum Daily Average: 14.9 C on Jul 26					Hours of Data: 743	
Maximum Diurnal Average: 21.8 C at hour 16																				Minimum Diurnal Average: 15.4 C at hour 6					Hours of Missing Data: 1	
Monthly Average: 18.98 C																				Percentiles: P ₁ = 12.1 P ₁₀ = 14.2 Q ₁ = 16.2 Median = 18.7 Q ₃ = 21.6 P ₉₀ = 24.2 P ₉₉ = 28.5					Hours of Calibration: 0	
																									Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	21.7	20.7	20.5	19.4	18.8	18.5	18.6	18.8	19.1	19.5	19.9	20.2	20.9	21.6	22.9	24.0	24.1	23.8	23.7	23.5	23.2	22.9	22.3	21.5	21.2	24.1
2-Jul	21.0	20.1	19.6	18.7	17.9	17.3	17.3	17.9	18.1	16.6	16.4	17.3	17.5	18.3	19.4	18.6	19.8	18.6	17.2	16.8	16.9	16.6	16.3	16.2	17.9	21.0
3-Jul	16.4	16.0	15.5	15.2	15.0	15.2	15.8	16.8	17.9	18.6	19.5	19.6	16.4	16.8	17.1	18.1	18.1	19.5	19.6	20.0	20.0	19.1	18.8	17.6	17.6	20.0
4-Jul	16.4	16.4	14.5	14.0	14.5	14.4	14.8	15.5	16.4	16.4	17.9	20.4	21.9	14.8	14.9	15.6	16.0	16.7	17.1	17.7	17.7	17.6	17.2	15.0	16.4	21.9
5-Jul	14.2	13.5	13.2	12.8	11.8	12.0	11.8	13.2	15.5	17.3	17.5	18.0	18.8	19.2	18.9	19.3	17.5	16.4	17.0	16.8	15.5	15.1	14.5	14.0	15.6	19.3
6-Jul	13.7	13.5	13.3	12.2	11.5	11.5	12.1	13.9	15.7	16.7	17.6	18.8	19.8	20.5	20.5	20.7	21.6	22.0	21.3	20.8	19.8	18.2	18.1	17.8	17.1	22.0
7-Jul	17.4	17.2	16.5	16.3	15.3	14.9	15.8	16.8	18.5	19.9	21.1	22.2	23.1	24.1	24.5	24.3	24.5	24.4	24.5	24.6	24.4	23.6	22.7	21.5	20.8	24.6
8-Jul	20.5	19.2	19.1	19.1	18.4	18.2	18.8	19.6	19.4	18.7	18.8	20.2	21.9	22.0	20.6	17.2	16.6	16.4	16.6	17.0	17.4	17.4	17.3	16.5	18.6	22.0
9-Jul	16.1	16.1	14.9	13.8	13.0	12.1	12.4	14.1	15.9	16.4	16.3	17.3	18.1	18.9	19.6	19.7	20.0	20.5	20.7	20.4	20.2	19.3	18.0	16.2	17.1	20.7
10-Jul	14.9	14.7	14.2	13.7	13.8	13.4	13.2	14.1	15.5	17.1	18.7	20.3	21.4	22.3	22.9	23.6	23.4	23.1	23.0	22.9	22.6	22.4	22.2	21.4	19.0	23.6
11-Jul	21.4	18.0	18.0	16.4	16.9	16.6	15.3	15.6	16.6	17.7	18.5	19.3	19.1	18.9	19.0	19.2	18.7	18.3	18.2	17.2	16.4	16.3	15.6	14.8	17.6	21.4
12-Jul	15.1	13.9	13.5	13.3	13.2	12.8	12.6	14.1	14.9	15.7	15.3	14.1	14.4	16.6	18.6	17.5	15.6	14.7	15.6	17.5	17.0	16.2	15.6	14.7	15.1	18.6
13-Jul	14.5	14.2	13.6	13.2	12.9	13.4	14.2	15.1	16.1	17.4	18.8	20.2	21.0	21.9	22.6	23.0	22.6	20.3	19.7	18.6	16.1	15.4	17.0	13.6	17.3	23.0
14-Jul	14.1	13.5	13.8	14.3	14.2	14.1	14.1	15.2	16.9	18.7	20.5	21.7	22.6	23.3	24.2	24.8	25.3	25.7	25.9	25.9	25.6	25.1	24.3	22.9	20.3	25.9
15-Jul	20.8	19.9	18.9	19.1	19.4	18.3	17.2	17.7	19.6	21.6	22.4	24.3	25.3	26.0	26.9	26.6	21.7	20.1	20.4	20.0	19.4	18.2	17.2	18.1	20.8	26.9
16-Jul	18.0	17.2	16.4	15.8	15.3	15.1	15.4	16.7	18.0	20.6	23.8	25.1	26.4	27.8	27.9	26.7	26.6	26.9	27.7	26.9	25.6	25.0	DF	22.6	22.1	27.9
17-Jul	21.2	20.7	19.9	18.7	19.5	18.2	19.0	19.3	21.7	24.1	26.1	27.9	29.1	29.8	30.2	30.5	30.9	30.9	30.7	28.9	27.6	26.4	26.2	25.9	25.1	30.9
18-Jul	24.6	23.3	22.1	22.0	20.4	20.6	21.9	22.8	23.2	23.1	22.8	21.9	24.2	24.2	23.0	21.1	22.1	24.3	24.4	23.4	22.4	21.9	21.4	20.9	22.6	24.6
19-Jul	20.6	19.9	19.6	19.2	17.8	18.0	17.9	18.2	18.8	19.8	20.0	21.9	22.7	24.8	24.6	24.8	25.5	24.8	24.5	23.7	22.7	21.6	20.8	19.8	21.3	25.5
20-Jul	18.7	17.8	17.1	16.6	16.1	15.8	15.7	16.0	16.2	16.5	16.6	16.9	17.4	17.4	17.7	18.2	18.7	19.3	19.4	19.4	19.1	19.0	19.1	18.8	17.6	19.4
21-Jul	18.2	17.6	16.9	17.0	15.8	15.7	15.2	15.6	15.8	16.4	17.4	19.8	21.0	21.9	22.6	23.0	23.2	23.1	22.7	22.4	22.1	22.0	21.6	20.6	19.5	23.2
22-Jul	19.3	18.7	17.8	17.0	16.3	16.0	15.7	15.7	17.2	19.2	21.4	23.4	24.4	25.3	25.8	26.1	26.4	26.4	26.3	26.1	25.5	24.9	23.9	22.6	21.7	26.4
23-Jul	21.6	20.7	19.7	20.1	19.3	19.0	18.1	18.8	20.1	20.6	20.9	21.0	21.3	21.0	21.6	18.7	18.5	20.4	21.0	20.9	20.7	20.5	19.5	18.4	20.1	21.6
24-Jul	17.2	16.6	15.9	15.2	14.9	14.6	14.7	15.5	16.4	17.7	18.7	20.1	22.2	23.7	25.2	26.3	27.0	26.9	26.9	26.7	26.6	25.0	22.2	22.2	20.8	27.0
25-Jul	21.3	20.9	20.2	19.8	19.1	18.7	18.7	18.5	18.7	20.4	21.4	22.6	23.8	24.3	24.4	23.9	23.8	23.5	23.4	22.7	21.8	21.2	19.3	17.8	21.3	24.4
26-Jul	16.9	17.0	15.7	14.5	13.5	12.9	12.7	12.5	12.4	12.5	12.7	13.4	14.7	16.1	17.0	17.4	17.5	17.6	17.6	17.1	15.8	14.2	12.6	12.2	14.9	17.6
27-Jul	12.1	12.1	12.0	12.1	12.2	12.4	12.6	13.0	13.2	13.6	14.4	15.1	15.8	16.2	17.8	19.2	19.1	19.5	19.9	20.3	20.5	19.9	18.4	17.1	15.8	20.5
28-Jul	16.4	15.9	15.6	15.1	14.8	14.4	14.3	14.9	16.2	18.1	20.1	21.6	22.2	22.8	23.3	23.6	23.7	23.9	23.4	21.9	21.1	18.4	16.5	15.5	18.9	23.9
29-Jul	15.4	15.3	14.6	14.8	14.4	14.2	14.4	14.8	15.6	16.5	16.6	17.8	19.0	19.7	20.6	21.2	20.6	17.5	17.2	18.0	16.4	16.1	16.2	15.5	16.8	21.2
30-Jul	14.7	14.2	13.7	13.1	12.7	12.8	13.4	14.2	15.6	17.1	18.3	19.3	20.5	21.7	22.3	22.8	23.1	23.2	23.7	23.0	22.8	22.6	22.0	20.3	18.6	23.7
31-Jul	19.3	18.0	17.6	17.2	16.9	16.4	16.6	15.9	16.5	17.5	17.9	17.9	18.2	18.9	20.0	21.1	21.8	22.1	22.3	22.3	21.7	21.2	20.6	19.7	19.1	22.3
Diurnal Average																										
Diurnal Maximum																										
DF - DAS Failure																										



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 75m (AT75) - C
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 75m (AT75) - C
Mannix - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	0	0.00	0.00
10 - 20	467	62.85	62.85
> 20	276	37.15	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 90m (AT90) - C

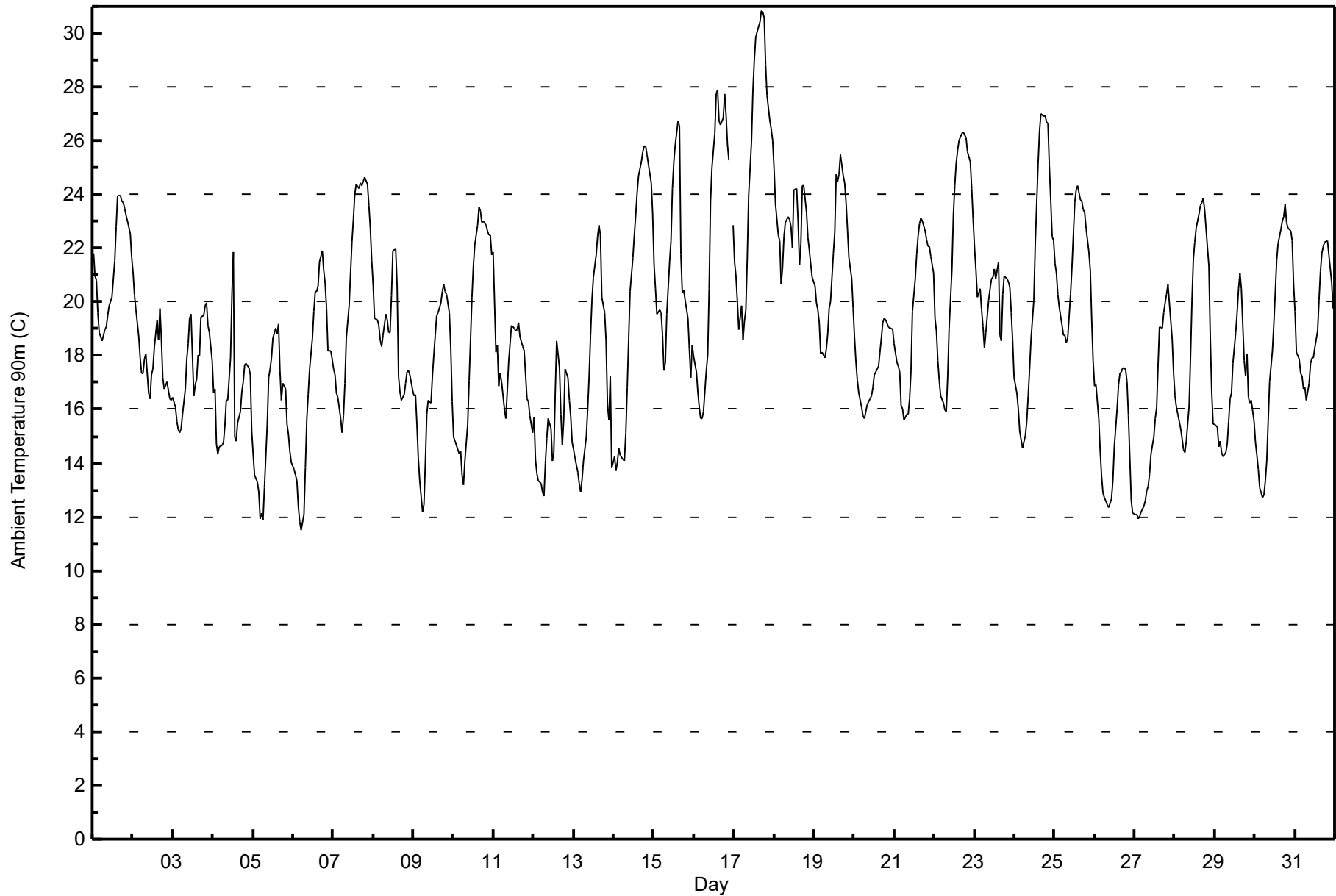
Mannix - July 2026

Maximum Value: 30.9 C on Jul 17 17:00																				Maximum Daily Average: 25.2 C on Jul 17					Hours in Service: 744				Hours of Data: 743
Minimum Value: 11.5 C on Jul 6 06:00										Minimum Daily Average: 14.8 C on Jul 26										Hours of Missing Data: 1				Hours of Calibration: 0					
Maximum Diurnal Average: 21.8 C at hour 16										Minimum Diurnal Average: 15.6 C at hour 6										Percent Operational Time: 99.9									
Monthly Average: 19.02 C										Percentiles: P ₁ = 12.1 P ₁₀ = 14.3 Q ₁ = 16.3 Median = 18.7 Q ₃ = 21.7 P ₉₀ = 24.2 P ₉₉ = 28.5																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	21.8	21.0	20.8	19.6	18.9	18.6	18.7	19.0	19.1	19.5	19.9	20.2	20.9	21.5	22.8	24.0	24.0	23.7	23.7	23.5	23.2	23.0	22.5	21.6	21.3	24.0			
2-Jul	21.1	20.2	19.7	18.7	17.9	17.3	17.3	17.9	18.1	16.6	16.4	17.3	17.5	18.3	19.4	18.6	19.8	18.6	17.2	16.8	17.0	16.7	16.4	16.3	18.0	21.1			
3-Jul	16.4	16.1	15.6	15.2	15.1	15.3	15.8	16.8	17.8	18.5	19.4	19.5	16.5	16.9	17.1	18.0	18.0	19.4	19.5	19.9	20.0	19.1	18.8	17.8	17.6	20.0			
4-Jul	16.6	16.7	14.7	14.3	14.6	14.7	14.8	15.4	16.3	16.3	17.9	20.3	21.8	15.0	14.8	15.5	15.9	16.6	17.0	17.7	17.7	17.6	17.3	15.2	16.4	21.8			
5-Jul	14.3	13.6	13.3	12.9	11.9	12.1	11.9	13.1	15.4	17.2	17.5	17.9	18.7	19.0	18.8	19.2	17.5	16.4	16.9	16.7	15.4	15.1	14.5	14.0	15.6	19.2			
6-Jul	13.7	13.6	13.4	12.4	11.8	11.5	12.1	13.8	15.6	16.6	17.5	18.7	19.6	20.4	20.4	20.6	21.5	21.9	21.2	20.7	19.7	18.2	18.2	17.8	17.1	21.9			
7-Jul	17.5	17.3	16.6	16.4	15.6	15.1	15.7	16.9	18.6	19.8	21.1	22.2	23.1	24.0	24.4	24.2	24.5	24.3	24.5	24.6	24.4	23.6	22.7	21.6	20.8	24.6			
8-Jul	20.6	19.4	19.3	19.1	18.6	18.4	18.8	19.6	19.3	18.9	18.9	20.2	21.9	21.9	20.6	17.2	16.7	16.3	16.6	17.0	17.4	17.4	17.3	16.7	18.7	21.9			
9-Jul	16.5	16.5	15.4	14.2	13.3	12.2	12.5	14.1	15.8	16.3	16.2	17.2	18.0	18.8	19.5	19.6	19.9	20.4	20.7	20.4	20.3	19.6	18.3	16.3	17.2	20.7			
10-Jul	15.0	14.8	14.6	14.3	14.4	13.6	13.2	14.1	15.4	17.1	18.6	20.2	21.3	22.1	22.8	23.5	23.4	23.0	23.0	22.9	22.7	22.5	22.5	21.8	19.0	23.5			
11-Jul	21.9	18.1	18.4	16.9	17.3	17.0	16.0	15.7	16.7	17.8	18.4	19.1	19.0	18.9	19.0	19.2	18.7	18.3	18.2	17.3	16.4	16.3	15.8	15.1	17.7	21.9			
12-Jul	15.7	14.1	13.6	13.3	13.2	12.9	12.8	14.0	14.9	15.7	15.3	14.1	14.4	16.6	18.5	17.5	15.8	14.6	15.6	17.5	17.2	16.4	15.7	14.8	15.2	18.5			
13-Jul	14.5	14.2	13.6	13.2	12.9	13.4	14.1	15.0	16.0	17.2	18.7	20.1	20.9	21.8	22.4	22.9	22.5	20.2	19.6	18.6	16.2	15.6	17.2	13.8	17.3	22.9			
14-Jul	14.3	13.7	14.0	14.5	14.3	14.1	14.1	15.1	16.8	18.6	20.4	21.6	22.5	23.2	24.1	24.7	25.2	25.6	25.8	25.8	25.5	25.1	24.4	23.3	20.3	25.8			
15-Jul	21.4	20.5	19.6	19.7	19.6	18.8	17.4	17.8	19.6	21.5	22.3	24.2	25.2	25.9	26.8	26.6	21.7	20.3	20.4	20.1	19.4	18.2	17.2	18.4	20.9	26.8			
16-Jul	18.0	17.4	16.6	16.1	15.7	15.7	15.9	17.4	18.0	20.5	23.8	25.0	26.3	27.7	27.9	26.8	26.6	26.9	27.7	26.9	25.8	25.3	DF	22.8	22.2	27.9			
17-Jul	21.5	21.0	20.0	19.0	19.9	18.6	19.3	19.7	21.6	24.0	25.9	27.8	29.0	29.8	30.1	30.4	30.9	30.8	30.6	28.9	27.7	26.7	26.4	26.0	25.2	30.9			
18-Jul	24.9	23.6	22.5	22.3	20.7	21.3	22.4	23.0	23.2	23.1	22.8	22.0	24.2	24.2	23.0	21.4	22.2	24.3	24.3	23.3	22.4	21.9	21.4	20.9	22.7	24.9			
19-Jul	20.6	20.0	19.7	19.3	18.1	18.1	17.9	18.2	18.8	19.7	20.0	21.8	22.6	24.8	24.5	24.8	25.5	24.7	24.4	23.7	22.7	21.7	20.8	19.8	21.3	25.5			
20-Jul	18.6	17.8	17.1	16.6	16.1	15.8	15.7	15.9	16.2	16.4	16.5	16.8	17.3	17.4	17.6	18.1	18.7	19.2	19.4	19.3	19.1	19.0	19.0	19.0	17.6	19.4			
21-Jul	18.4	17.8	17.6	17.4	16.1	16.0	15.6	15.8	15.8	16.4	17.5	19.6	20.9	21.7	22.4	22.9	23.1	23.0	22.6	22.3	22.1	22.1	21.7	21.1	19.6	23.1			
22-Jul	19.4	18.9	17.8	17.1	16.5	16.3	16.0	15.9	17.2	19.0	21.2	23.2	24.3	25.2	25.6	26.0	26.3	26.3	26.2	26.1	25.6	25.2	24.2	23.1	21.8	26.3			
23-Jul	22.0	21.2	20.2	20.5	19.7	19.1	18.3	18.9	20.1	20.5	20.8	20.9	21.3	20.9	21.5	18.8	18.6	20.3	20.9	20.9	20.8	20.6	19.6	18.5	20.2	22.0			
24-Jul	17.2	16.6	16.0	15.2	14.9	14.6	15.0	15.6	16.5	17.5	18.6	20.1	22.1	23.6	25.1	26.3	27.0	26.9	27.0	26.7	26.6	25.1	22.4	22.3	20.8	27.0			
25-Jul	21.4	21.1	20.3	19.8	19.1	18.8	18.7	18.5	18.7	20.3	21.3	22.5	23.7	24.2	24.3	23.8	23.8	23.4	23.3	22.8	21.9	21.2	19.3	17.8	21.2	24.3			
26-Jul	16.9	16.9	15.7	14.5	13.5	12.9	12.7	12.5	12.4	12.5	12.7	13.3	14.6	16.0	16.9	17.3	17.4	17.5	17.5	17.0	15.8	14.2	12.6	12.1	14.8	17.5			
27-Jul	12.1	12.1	11.9	12.0	12.2	12.4	12.6	13.0	13.2	13.6	14.4	15.0	15.7	16.1	17.6	19.1	19.0	19.6	20.0	20.3	20.6	20.0	18.6	17.3	15.8	20.6			
28-Jul	16.5	16.1	15.8	15.3	14.9	14.5	14.4	14.8	16.1	17.9	20.0	21.6	22.2	22.8	23.3	23.6	23.7	23.9	23.4	22.0	21.3	18.6	16.7	15.5	19.0	23.9			
29-Jul	15.5	15.4	14.6	14.8	14.4	14.2	14.4	14.7	15.6	16.4	16.6	17.7	18.9	19.6	20.5	21.1	20.5	17.8	17.2	18.1	16.4	16.2	16.4	15.6	16.8	21.1			
30-Jul	14.7	14.3	13.7	13.1	12.7	12.8	13.4	14.1	15.6	17.0	18.2	19.2	20.4	21.5	22.2	22.7	23.0	23.2	23.6	23.0	22.8	22.6	22.3	20.6	18.6	23.6			
31-Jul	19.6	18.1	17.9	17.3	17.2	16.7	16.8	16.3	17.0	17.7	17.9	17.9	18.3	18.9	20.1	21.1	21.8	22.0	22.2	22.3	21.7	21.3	20.7	19.8	19.2	22.3			
Diurnal Average																													
Diurnal Maximum																													
DF - DAS Failure																													



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 90m (AT90) - C
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 90m (AT90) - C
Mannix - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	0	0.00	0.00
10 - 20	467	62.85	62.85
> 20	276	37.15	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity (RH) - %

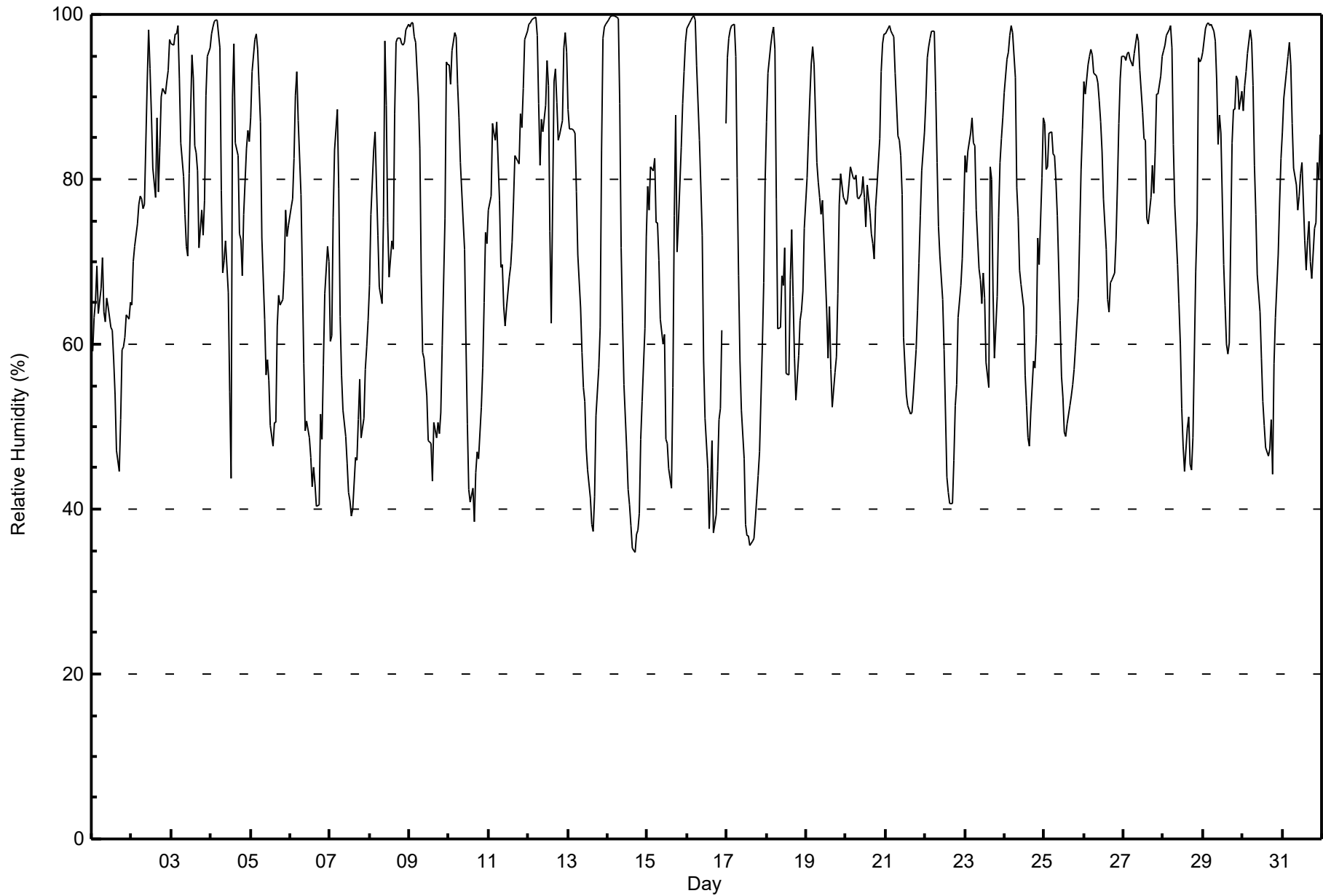
Mannix - July 2026

Maximum Value: 100 % on Jul 16 05:00										Maximum Daily Average: 90.4 % on Jul 12										Hours in Service: 744						
Minimum Value: 35 % on Jul 14 17:00										Minimum Daily Average: 56.4 % on Jul 7										Hours of Data: 743						
Maximum Diurnal Average: 92.4 % at hour 5										Minimum Diurnal Average: 56.8 % at hour 15										Hours of Missing Data: 1						
Monthly Average: 74.1 %										Percentiles: P ₁ = 37 P ₁₀ = 48 Q ₁ = 60 Median = 76 Q ₃ = 90 P ₉₀ = 97 P ₉₉ = 100										Hours of Calibration: 0						
																				Percent Operational Time: 99.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	59	63	65	69	64	67	70	64	63	66	65	62	62	58	54	47	45	51	59	60	61	63	63	65	61.0	70
2-Jul	65	70	72	75	77	78	78	76	77	92	98	93	88	81	78	87	79	84	90	91	90	92	93	97	83.4	98
3-Jul	96	96	98	98	99	92	84	80	76	72	71	81	95	92	84	83	81	72	76	73	77	90	95	96	85.7	99
4-Jul	98	99	99	99	99	96	79	69	70	73	66	54	44	90	96	84	83	73	73	68	76	84	86	85	80.9	99
5-Jul	87	93	97	98	96	91	87	73	63	56	58	56	50	48	51	51	62	66	65	65	69	76	73	74	71.0	98
6-Jul	77	78	83	90	93	87	78	68	58	49	51	49	46	43	45	43	40	41	51	48	58	66	72	70	61.8	93
7-Jul	60	61	75	84	89	79	63	56	52	49	46	42	41	39	40	46	46	51	56	49	51	57	60	63	56.4	89
8-Jul	67	76	84	86	79	73	67	65	76	97	89	75	68	72	71	88	97	97	97	96	96	97	98	99	83.7	99
9-Jul	99	99	99	97	97	90	84	68	59	58	54	48	48	48	43	50	49	50	49	52	60	75	94	94	69.4	99
10-Jul	94	91	96	98	97	92	88	82	75	72	60	50	42	41	43	39	44	47	46	52	57	65	73	72	67.3	98
11-Jul	76	78	87	86	85	87	78	69	70	65	62	64	68	70	72	77	83	82	82	88	86	91	97	98	79.2	98
12-Jul	99	99	99	99	100	97	89	82	87	86	89	94	91	74	62	92	93	89	85	85	87	96	98	95	90.4	100
13-Jul	88	86	86	86	86	78	71	64	59	55	53	47	45	41	38	37	41	51	57	62	84	97	98	99	67.2	99
14-Jul	99	100	100	100	100	100	99	89	72	63	55	47	42	40	38	35	35	37	37	39	48	53	62	73	65.2	100
15-Jul	79	76	82	81	82	75	75	70	63	60	61	48	48	45	43	55	76	88	71	75	84	89	93	97	71.5	97
16-Jul	98	99	99	100	100	99	94	85	79	73	58	51	45	38	42	48	37	39	45	51	52	62	DF	87	68.7	100
17-Jul	95	97	98	99	99	95	80	68	58	52	46	38	37	37	36	36	36	39	41	44	47	60	67	80	61.9	99
18-Jul	87	93	96	98	99	96	78	62	62	68	67	72	56	56	68	74	66	58	53	59	63	64	66	74	72.3	99
19-Jul	80	85	90	94	96	94	82	80	78	76	77	69	64	58	65	57	52	57	58	66	77	81	78	77	74.6	96
20-Jul	77	78	80	82	80	80	80	78	78	78	80	78	74	79	76	73	72	70	77	79	85	93	96	98	80.0	98
21-Jul	98	98	99	98	98	97	93	85	85	83	78	61	54	52	52	52	52	54	59	64	70	76	81	86	76.0	99
22-Jul	90	95	96	97	98	98	91	82	74	71	65	59	52	44	42	41	41	46	53	55	63	67	70	76	69.4	98
23-Jul	83	81	83	86	87	84	84	76	69	68	65	69	66	58	55	82	80	66	58	66	75	82	85	87	74.8	87
24-Jul	91	95	95	97	99	98	92	79	75	69	67	64	56	53	49	48	52	58	57	61	73	70	80	88	73.6	99
25-Jul	87	81	81	86	86	83	83	80	76	63	56	54	49	49	50	53	54	55	57	60	66	73	81	86	68.6	87
26-Jul	92	90	94	95	96	95	93	92	92	90	87	83	78	71	65	64	68	68	69	73	79	87	92	95	83.6	96
27-Jul	95	94	95	96	95	94	95	96	98	97	93	88	85	85	75	75	78	82	78	83	90	90	93	95	89.4	98
28-Jul	96	96	97	98	99	96	84	77	70	65	60	52	48	45	50	51	45	45	49	69	75	95	94	95	72.9	99
29-Jul	95	98	99	99	99	99	98	97	92	84	88	86	70	65	60	59	60	84	89	89	92	92	88	91	86.3	99
30-Jul	88	91	93	95	98	97	91	82	76	68	64	58	53	50	48	46	47	51	44	58	63	71	77	83	70.6	98
31-Jul	86	90	93	95	97	94	87	81	79	76	78	81	82	73	69	73	75	70	68	74	75	82	80	85	80.9	97
86.5 88.0 90.7 92.2 92.4 89.7 83.7 76.7 72.8 70.7 68.0 63.7 59.6 57.9 56.8 59.5 60.3 62.0 62.9 66.3 71.9 78.6 82.9 85.7																								Diurnal Average		
99 100 100 100 100 100 99 97 98 97 98 94 95 92 96 92 97 97 97 96 96 97 98 99																								Diurnal Maximum		
DF - DAS Failure																										



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity (RH) - %
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity (RH) - %
Mannix - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	21	2.83	2.83
40 - 60	166	22.34	25.17
60 - 80	237	31.90	57.07
80 - 100	319	42.93	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 20m (RH20) - %

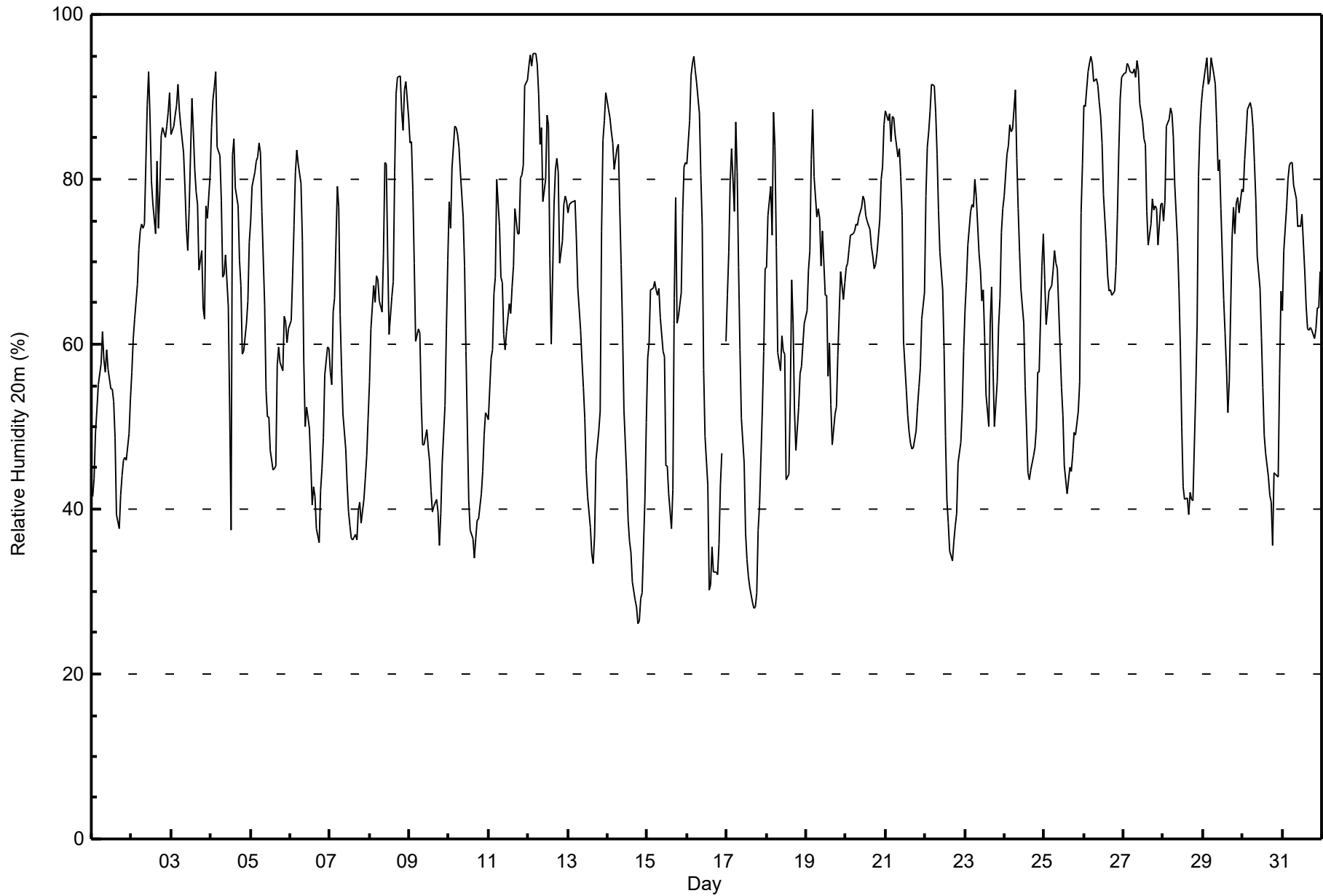
Mannix - July 2026

Maximum Value: 95 % on Jul 12 05:00										Maximum Daily Average: 84.7 % on Jul 27										Hours in Service: 744							
Minimum Value: 26 % on Jul 14 19:00										Minimum Daily Average: 49.3 % on Jul 7										Hours of Data: 743							
Maximum Diurnal Average: 81.5 % at hour 6										Minimum Diurnal Average: 52.2 % at hour 15										Hours of Missing Data: 1							
Monthly Average: 66.3 %										Percentiles: P ₁ = 29 P ₁₀ = 41 Q ₁ = 52 Median = 68 Q ₃ = 80 P ₉₀ = 88 P ₉₉ = 94										Hours of Calibration: 0							
																				Percent Operational Time: 99.9							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Jul	42	44	49	52	55	58	62	58	57	59	57	55	55	53	49	39	38	42	44	46	46	46	49	53	50.3	62	
2-Jul	57	61	63	67	72	74	75	74	75	89	93	87	80	77	73	82	74	79	85	86	85	86	88	91	78.0	93	
3-Jul	85	86	88	89	92	88	87	83	79	74	71	76	90	86	81	78	77	69	71	64	63	77	75	80	79.6	92	
4-Jul	86	90	91	93	84	83	77	68	68	71	65	52	37	83	85	79	77	70	67	59	59	63	65	72	72.7	93	
5-Jul	75	79	81	82	83	84	83	76	65	54	51	51	47	45	45	57	60	58	57	63	63	60	62	62	63.6	84	
6-Jul	63	68	74	81	83	82	79	72	58	50	52	50	46	40	43	41	38	36	42	45	49	56	60	60	57.0	83	
7-Jul	57	55	64	66	79	77	64	57	51	47	43	40	38	36	36	37	36	40	41	38	41	44	46	51	49.3	79	
8-Jul	55	62	67	65	68	68	65	64	71	82	82	71	61	66	68	81	90	92	93	88	86	91	92	88	75.7	93	
9-Jul	84	85	79	70	60	62	61	53	48	48	50	48	46	42	40	40	41	40	36	39	46	53	62	70	54.2	85	
10-Jul	77	74	81	86	86	85	84	81	75	70	59	50	41	37	36	34	37	39	39	42	45	49	52	51	58.8	86	
11-Jul	51	58	59	66	68	80	74	68	67	61	59	61	65	64	67	70	76	73	73	80	81	82	91	92	70.4	92	
12-Jul	94	95	94	95	95	94	90	84	86	77	80	88	87	70	60	77	81	82	81	70	72	77	78	77	82.7	95	
13-Jul	76	77	77	77	77	73	67	62	58	55	51	45	42	38	35	33	37	46	50	52	74	85	87	90	60.9	90	
14-Jul	88	87	86	84	81	84	84	77	70	62	52	44	39	36	35	31	29	28	26	26	29	30	41	51	54.2	88	
15-Jul	58	60	67	67	68	67	66	67	63	59	59	45	45	42	38	42	66	78	63	63	66	76	81	82	62.0	82	
16-Jul	82	87	92	94	95	93	92	88	81	74	57	49	43	30	31	35	32	32	32	36	43	47	DF	60	61.1	95	
17-Jul	66	71	80	84	76	87	81	69	59	51	46	37	34	32	31	29	28	28	30	37	41	52	59	69	53.2	87	
18-Jul	69	76	79	73	88	84	72	59	57	61	59	59	44	44	54	68	63	52	47	52	56	57	60	62	62.3	88	
19-Jul	64	69	71	82	88	80	75	76	75	69	74	66	66	56	60	53	48	51	52	59	64	69	65	67	66.8	88	
20-Jul	69	70	72	73	73	74	75	74	75	77	78	77	76	75	74	72	71	69	70	71	75	80	82	87	74.5	87	
21-Jul	88	87	88	85	88	87	85	83	84	80	76	60	54	51	49	48	47	48	49	52	55	57	63	66	68.0	88	
22-Jul	78	84	86	88	92	91	88	83	76	71	67	59	49	41	38	35	34	36	38	39	46	48	52	59	61.6	92	
23-Jul	64	68	72	76	77	77	80	78	71	69	65	67	61	54	50	62	67	57	50	55	62	66	74	77	66.6	80	
24-Jul	78	83	84	87	86	86	91	83	76	71	67	63	55	50	44	44	45	46	47	50	57	57	69	73	66.3	91	
25-Jul	68	62	64	66	67	69	71	70	69	59	55	51	45	44	42	45	45	47	49	49	52	55	76	82	58.5	82	
26-Jul	89	89	93	94	95	94	92	92	91	89	88	84	78	72	68	66	67	66	67	69	76	83	90	92	82.7	95	
27-Jul	93	93	94	94	93	93	93	92	94	93	89	87	85	84	76	72	75	78	76	77	76	72	77	77	84.7	94	
28-Jul	75	77	86	87	89	88	85	79	72	67	60	50	43	41	41	39	42	41	41	54	62	80	86	89	65.7	89	
29-Jul	91	94	95	91	92	95	93	92	87	81	82	77	65	61	57	52	56	73	77	73	77	78	76	79	78.8	95	
30-Jul	78	82	85	89	89	89	86	82	77	71	67	61	55	49	47	44	42	41	36	44	44	44	56	66	63.5	89	
31-Jul	64	71	77	80	82	82	82	79	78	74	74	74	76	69	65	62	62	62	62	61	62	64	64	69	70.6	82	
73.1		75.6	78.7	80.2	81.4	81.5	79.3	75.0	71.4	68.3	65.4	60.8	56.3	53.9	52.2	52.8	54.0	54.9	54.6	56.0	59.8	64.1	69.3	72.5	Diurnal Average		
94		95	95	95	95	95	93	92	94	93	93	88	90	86	85	82	90	92	93	88	86	91	92	92	Diurnal Maximum		
DF - DAS Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 20m (RH20) - %
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 20m (RH20) - %
Mannix - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	62	8.34	8.34
40 - 60	201	27.05	35.40
60 - 80	288	38.76	74.16
80 - 100	192	25.84	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 45m (RH45) - %

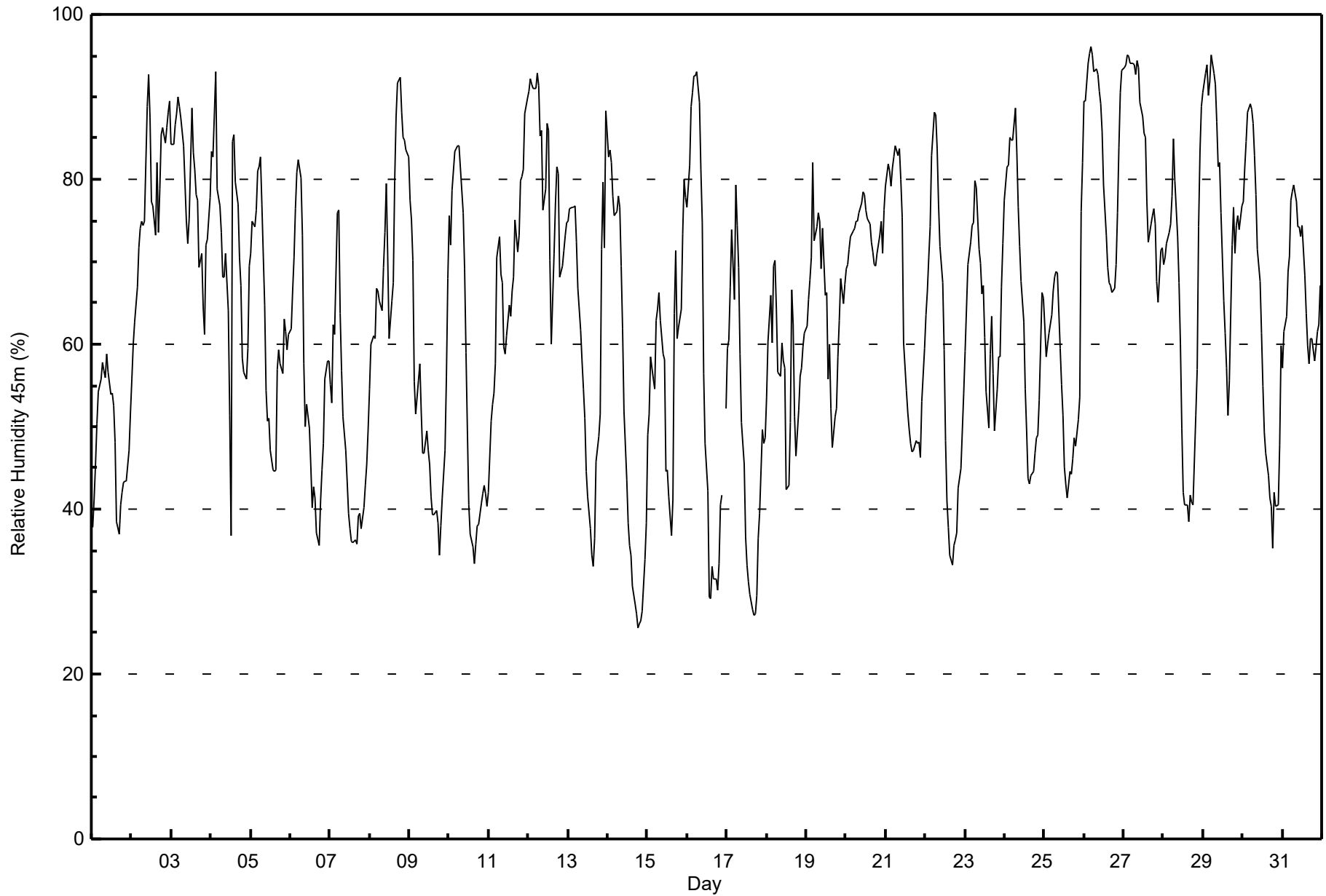
Mannix - July 2026

Maximum Value: 96 % on Jul 26 05:00																	Maximum Daily Average: 84.0 % on Jul 27										Hours in Service: 744	
Minimum Value: 26 % on Jul 14 19:00																	Minimum Daily Average: 48.4 % on Jul 7										Hours of Data: 743	
Maximum Diurnal Average: 78.4 % at hour 6																	Minimum Diurnal Average: 51.8 % at hour 15										Hours of Missing Data: 1	
Monthly Average: 64.3 %																	Percentiles: P ₁ = 28 P ₁₀ = 40 Q ₁ = 51 Median = 66 Q ₃ = 77 P ₉₀ = 87 P ₉₉ = 94										Hours of Calibration: 0	
																											Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	38	41	45	50	54	56	58	57	56	59	57	54	54	53	48	39	37	41	42	43	43	43	47	52	48.6	59		
2-Jul	56	60	63	67	72	74	75	74	75	89	93	87	77	77	73	82	74	79	86	86	84	86	88	89	77.7	93		
3-Jul	84	84	87	88	90	89	88	84	80	75	72	75	89	83	81	78	77	69	71	65	61	72	73	78	78.9	90		
4-Jul	83	83	88	93	79	77	74	68	68	71	64	51	37	85	86	80	77	70	67	58	57	56	60	69	70.8	93		
5-Jul	71	75	74	76	81	82	83	77	65	54	51	51	47	45	45	45	57	59	58	56	63	62	59	61	62.4	83		
6-Jul	62	66	70	76	81	82	80	73	58	50	53	50	45	40	43	41	37	36	41	45	48	56	58	58	56.2	82		
7-Jul	55	53	62	61	76	76	64	57	51	47	43	40	38	36	36	36	39	40	38	40	43	45	50	48.4	76			
8-Jul	55	60	61	61	67	67	65	64	69	74	80	71	61	65	68	80	88	92	92	88	85	85	83	83	73.4	92		
9-Jul	77	75	70	56	52	56	58	52	47	47	49	47	45	42	39	39	40	38	34	38	41	47	56	68	50.6	77		
10-Jul	76	72	79	83	84	84	84	81	76	69	59	49	41	37	35	33	36	38	38	41	42	43	42	40	56.8	84		
11-Jul	42	51	53	54	58	71	73	68	67	60	59	61	65	63	66	68	75	71	73	80	80	81	88	90	67.4	90		
12-Jul	91	92	92	91	91	93	91	85	86	76	79	87	86	70	60	71	77	81	81	68	69	71	73	75	80.7	93		
13-Jul	75	76	77	77	77	72	67	62	58	55	51	45	42	38	34	33	37	46	49	52	72	80	72	88	59.6	88		
14-Jul	83	84	82	78	76	76	78	77	70	62	52	44	38	36	34	31	28	27	26	26	26	28	34	38	51.4	84		
15-Jul	49	52	59	56	55	63	64	66	63	59	58	45	45	41	37	41	64	71	61	62	64	73	80	78	58.5	80		
16-Jul	77	82	89	90	93	93	93	89	81	75	56	48	42	29	29	33	31	32	30	33	41	42	DF	52	59.1	93		
17-Jul	59	61	67	74	65	79	74	69	59	51	45	37	33	31	30	28	27	27	29	37	39	50	48	49	48.7	79		
18-Jul	54	60	66	60	69	70	64	57	56	60	58	57	42	43	51	67	62	51	46	52	56	57	60	61	57.5	70		
19-Jul	62	65	68	71	82	73	74	76	75	69	74	66	66	56	60	52	47	51	52	59	63	68	65	67	65.1	82		
20-Jul	69	70	71	73	74	74	75	75	76	77	78	78	76	75	75	72	71	70	69	71	73	75	71	76	73.6	78		
21-Jul	79	82	81	79	81	83	84	83	84	80	75	60	54	52	50	48	47	47	48	48	48	46	53	60	64.7	84		
22-Jul	64	66	71	74	83	88	88	84	77	72	67	59	48	41	38	34	33	36	36	37	43	45	49	54	57.8	88		
23-Jul	59	64	70	72	74	75	80	79	72	70	66	67	61	54	50	59	63	56	49	55	58	58	67	72	64.7	80		
24-Jul	77	82	82	85	85	85	89	83	77	72	68	63	55	50	44	43	44	45	47	49	49	53	66	66	64.8	89		
25-Jul	62	58	60	61	63	66	68	69	69	60	55	51	45	43	41	45	44	46	49	48	51	54	76	82	57.0	82		
26-Jul	89	90	94	95	96	95	93	93	93	91	89	86	79	73	69	68	67	66	67	70	76	84	91	93	83.6	96		
27-Jul	94	94	95	95	94	94	94	93	94	94	89	88	86	85	77	72	75	76	76	75	68	65	71	72	84.0	95		
28-Jul	70	71	72	74	75	78	85	80	73	67	60	50	42	41	40	38	42	41	40	51	57	74	83	89	62.2	89		
29-Jul	90	93	94	90	92	95	93	92	87	81	82	76	65	61	57	51	56	72	77	71	74	76	74	77	78.2	95		
30-Jul	77	81	85	88	89	89	87	83	78	71	68	61	55	49	47	44	41	40	35	42	40	40	48	60	62.5	89		
31-Jul	57	62	63	69	71	77	79	79	77	74	74	73	74	68	64	60	58	61	61	58	60	61	62	67	67.1	79		
68.9		71.1	73.8	74.8	76.7	78.4	78.1	75.1	71.5	68.1	65.3	60.5	55.9	53.6	51.8	52.0	53.2	54.0	53.9	54.8	57.2	60.4	64.8	68.2	Diurnal Average			
94		94	95	95	96	95	94	93	94	94	93	88	89	85	86	82	88	92	92	88	85	86	91	93	Diurnal Maximum			
DF - DAS Failure																												



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 45m (RH45) - %
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 45m (RH45) - %
Mannix - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	69	9.29	9.29
40 - 60	231	31.09	40.38
60 - 80	296	39.84	80.22
80 - 100	147	19.78	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 75m (RH75) - %

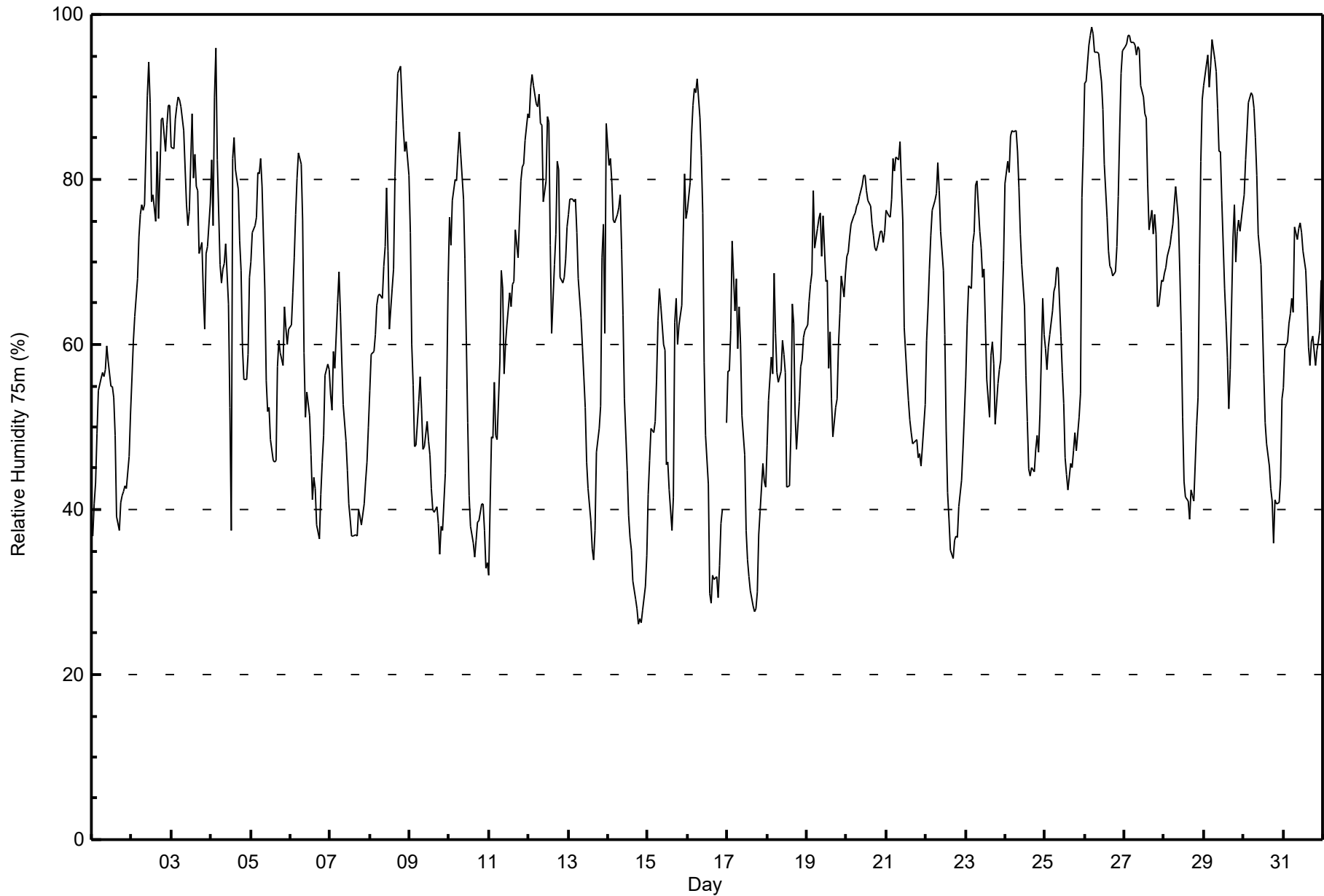
Mannix - July 2026

Maximum Value: 98 % on Jul 26 05:00																	Maximum Daily Average: 85.9 % on Jul 26										Hours in Service: 744					
Minimum Value: 26 % on Jul 14 19:00																	Minimum Daily Average: 46.6 % on Jul 17										Hours of Data: 743					
Maximum Diurnal Average: 75.8 % at hour 7																	Minimum Diurnal Average: 52.7 % at hour 16										Hours of Missing Data: 1					
Monthly Average: 64.0 %																	Percentiles: P ₁ = 28 P ₁₀ = 40 Q ₁ = 50 Median = 65 Q ₃ = 77 P ₉₀ = 87 P ₉₉ = 97										Hours of Calibration: 0					
																	Percent Operational Time: 99.9															
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24								
1-Jul	37	41	43	49	54	56	57	56	57	60	58	55	55	53	49	39	38	41	42	42	43	43	46	52	48.5	60						
2-Jul	56	60	63	68	73	76	77	76	77	90	94	89	77	78	75	83	75	81	87	87	83	87	89	89	78.8	94						
3-Jul	84	84	87	89	90	90	89	86	81	77	74	76	88	80	83	79	79	71	72	66	62	71	72	77	79.5	90						
4-Jul	82	74	90	96	82	70	67	69	70	72	65	52	38	83	85	81	79	73	69	60	56	56	59	68	70.6	96						
5-Jul	70	74	74	75	81	81	83	79	67	56	52	52	48	46	46	46	57	61	59	58	65	62	60	62	63.0	83						
6-Jul	62	66	70	76	80	83	82	75	59	51	54	51	47	41	44	42	38	36	42	46	49	56	58	57	57.0	83						
7-Jul	54	52	59	57	65	69	64	58	53	48	45	41	39	37	37	37	37	40	39	38	41	43	46	50	47.8	69						
8-Jul	54	59	59	61	65	66	66	66	69	72	79	71	62	67	69	80	87	93	94	90	86	83	84	81	73.5	94						
9-Jul	74	60	55	48	48	53	56	52	47	48	51	48	47	43	40	40	40	38	34	38	37	44	55	68	48.5	74						
10-Jul	75	72	77	80	80	83	86	83	78	70	61	51	42	38	36	34	36	39	39	41	41	37	33	33	56.0	86						
11-Jul	32	49	49	55	49	48	58	69	67	56	60	62	66	65	67	68	74	70	75	80	82	82	85	88	64.8	88						
12-Jul	88	91	93	91	89	89	90	87	87	77	80	88	87	72	61	70	73	82	81	68	68	68	70	74	80.2	93						
13-Jul	76	78	78	77	78	74	68	63	60	56	52	46	43	39	35	34	37	47	50	53	70	75	61	87	59.8	87						
14-Jul	82	83	80	75	75	76	77	78	72	64	53	45	39	37	35	31	29	28	26	27	26	28	31	34	51.2	83						
15-Jul	42	46	50	49	51	56	63	67	65	60	59	45	46	42	38	42	63	66	60	62	65	73	81	75	56.8	81						
16-Jul	76	80	85	89	91	91	92	87	83	76	58	49	43	30	29	32	32	32	29	33	38	40	DF	51	58.5	92						
17-Jul	57	57	62	73	64	68	59	65	60	51	47	38	34	32	30	28	28	28	30	37	40	46	43	43	46.6	73						
18-Jul	48	53	58	56	69	61	57	55	57	61	59	57	43	43	49	65	63	52	47	53	57	58	61	62	56.0	69						
19-Jul	62	65	67	69	79	72	74	75	76	71	76	68	68	57	61	53	49	52	53	60	64	68	66	69	65.6	79						
20-Jul	71	71	73	75	76	76	77	77	78	79	81	80	79	77	77	75	73	72	71	72	74	74	72	73	75.1	81						
21-Jul	76	76	75	78	83	81	83	82	85	80	75	62	56	53	51	49	48	48	48	46	47	45	48	53	63.6	85						
22-Jul	61	64	69	73	76	77	78	82	79	74	69	61	50	42	39	35	34	36	37	37	40	43	47	51	56.5	82						
23-Jul	56	63	67	67	72	74	79	80	74	72	68	69	63	56	51	59	60	58	50	55	57	58	64	70	64.2	80						
24-Jul	80	82	81	85	86	86	86	83	79	73	70	65	56	51	45	44	45	45	47	49	47	52	66	61	65.1	86						
25-Jul	60	57	60	61	64	66	67	69	69	61	57	53	46	44	42	46	45	47	49	47	51	54	78	84	57.4	84						
26-Jul	92	92	96	98	98	98	95	95	95	93	92	88	82	75	71	70	69	68	69	72	78	86	93	96	85.9	98						
27-Jul	96	96	97	97	97	97	96	95	96	96	91	90	88	87	80	74	76	73	76	73	65	65	68	68	84.9	97						
28-Jul	69	69	71	72	73	75	77	79	75	69	62	51	43	41	41	39	42	42	41	50	54	70	82	90	61.5	90						
29-Jul	91	94	95	91	94	97	95	93	89	83	83	77	67	63	58	52	57	73	77	70	74	75	74	77	79.1	97						
30-Jul	78	82	86	89	90	90	89	85	80	73	70	63	57	50	48	45	42	41	36	41	41	41	44	53	63.2	90						
31-Jul	55	60	60	62	64	66	64	74	73	74	75	74	71	69	65	60	58	60	61	57	59	60	62	68	64.6	75						
67.6 69.3 72.0 73.6 75.3 75.5 75.8 75.6 72.7 69.2 66.7 61.9 57.0 54.6 52.8 52.7 53.7 54.6 54.6 55.1 56.7 59.4 63.2 66.5 Diurnal Average																																
96 96 97 98 98 98 96 95 96 96 94 90 88 87 85 83 87 93 94 90 86 87 93 96 Diurnal Maximum																																
DF - DAS Failure																																



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 75m (RH75) - %
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 75m (RH75) - %
Mannix - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	71	9.56	9.56
40 - 60	237	31.90	41.45
60 - 80	292	39.30	80.75
80 - 100	143	19.25	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 90m (RH90) - %

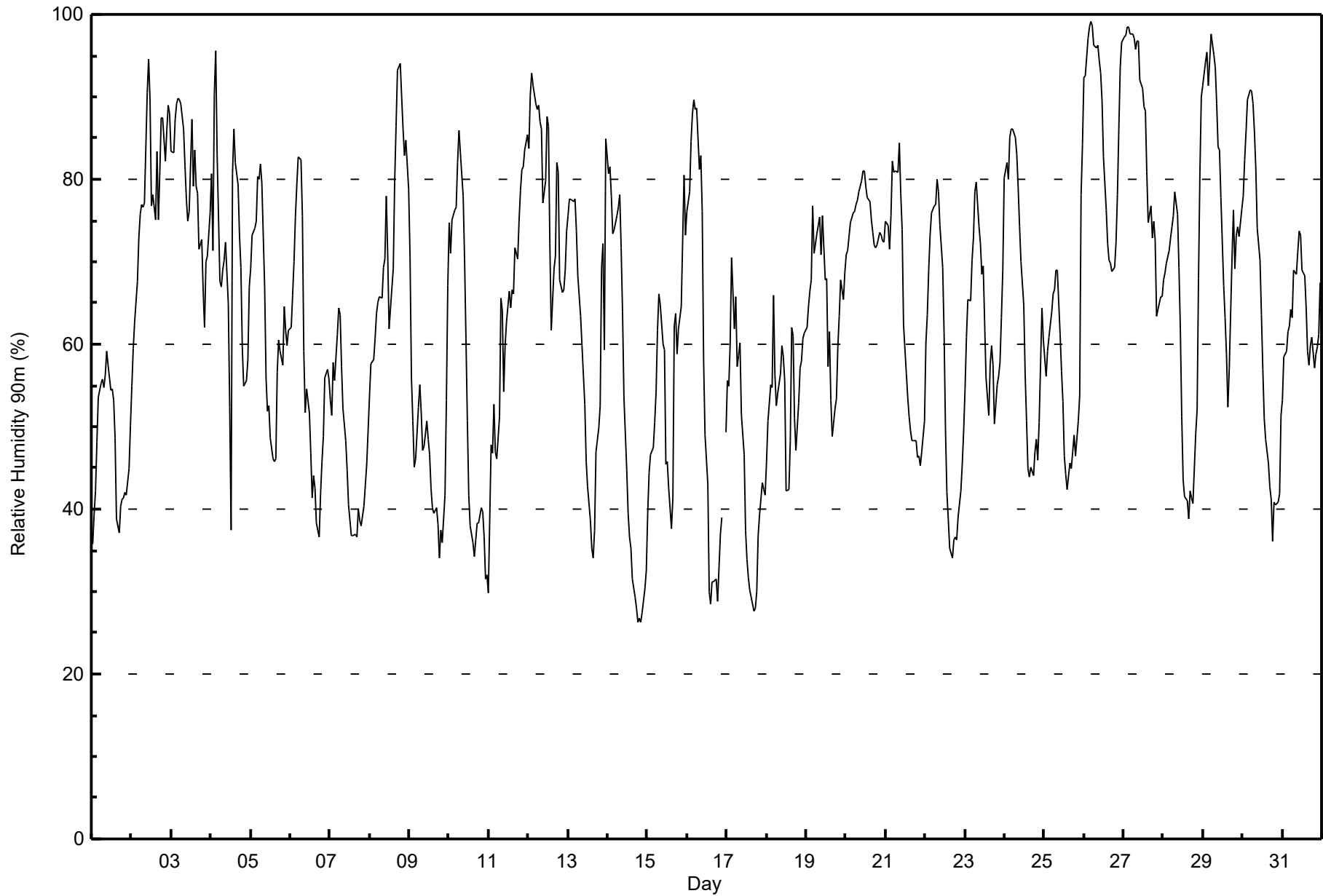
Mannix - July 2026

Maximum Value: 99 % on Jul 26 05:00														Maximum Daily Average: 86.7 % on Jul 26														Hours in Service: 744	
Minimum Value: 26 % on Jul 14 19:00														Minimum Daily Average: 45.6 % on Jul 17														Hours of Data: 743	
Maximum Diurnal Average: 74.9 % at hour 7														Minimum Diurnal Average: 52.5 % at hour 16														Hours of Missing Data: 1	
Monthly Average: 63.5 %														Percentiles: P ₁ = 28 P ₁₀ = 40 Q ₁ = 50 Median = 64 Q ₃ = 77 P ₉₀ = 86 P ₉₉ = 98														Hours of Calibration: 0	
																												Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
1-Jul	36	39	42	48	54	55	56	55	56	59	58	54	55	53	49	39	37	40	41	41	42	42	45	50	47.7	59			
2-Jul	55	59	63	68	73	76	77	77	77	90	95	90	77	78	75	83	75	81	87	87	82	86	89	88	78.7	95			
3-Jul	83	83	87	89	90	90	89	86	82	78	75	76	87	79	83	79	78	72	73	67	62	70	71	76	79.4	90			
4-Jul	81	71	90	96	83	68	67	69	70	72	65	52	37	81	86	82	79	73	69	60	55	56	58	67	70.3	96			
5-Jul	69	73	74	75	80	80	82	79	67	56	52	53	49	46	46	46	57	61	59	58	65	62	60	62	62.8	82			
6-Jul	62	66	70	75	79	83	82	76	59	52	55	52	47	41	44	43	38	37	42	46	49	56	57	56	56.9	83			
7-Jul	53	51	58	56	61	64	64	57	52	48	45	41	39	37	37	37	37	40	39	38	40	43	45	49	47.1	64			
8-Jul	54	58	58	61	64	65	66	66	69	70	78	71	62	67	69	80	86	93	94	90	86	83	85	79	73.0	94			
9-Jul	71	56	51	45	46	52	55	52	47	48	51	48	47	43	40	39	40	38	34	37	36	42	53	67	47.4	71			
10-Jul	75	71	75	76	77	82	86	83	78	70	61	51	42	38	36	34	36	38	38	40	40	37	31	32	55.3	86			
11-Jul	30	48	47	53	47	46	51	66	64	54	60	63	66	64	67	66	72	70	75	79	81	81	84	85	63.3	85			
12-Jul	84	90	93	91	89	88	89	87	86	77	80	88	86	72	62	69	71	82	81	68	66	67	69	74	79.5	93			
13-Jul	76	78	78	77	78	74	68	63	60	56	53	46	43	39	35	34	37	47	50	53	69	72	59	85	59.5	85			
14-Jul	81	82	78	73	74	76	77	78	72	64	53	45	39	37	35	32	29	28	26	27	26	28	30	33	50.9	82			
15-Jul	40	44	47	48	51	54	62	66	65	60	59	45	46	43	38	41	62	64	59	62	65	73	80	73	56.0	80			
16-Jul	76	79	85	88	90	88	89	81	83	76	58	49	43	30	28	31	31	32	29	33	37	39	DF	49	57.5	90			
17-Jul	56	55	60	71	62	66	57	59	60	52	47	37	34	32	30	28	28	28	30	37	39	43	42	42	45.6	71			
18-Jul	46	51	55	55	66	56	52	54	57	60	58	56	42	42	48	62	61	51	47	53	57	58	61	61	54.6	66			
19-Jul	62	65	66	68	77	71	73	74	75	71	76	68	68	57	62	53	49	52	53	60	63	68	65	69	65.2	77			
20-Jul	71	71	73	75	76	76	77	77	78	80	81	81	79	78	77	75	74	72	72	72	74	73	73	72	75.3	81			
21-Jul	75	74	72	76	82	81	81	81	84	78	74	62	56	54	51	50	48	48	48	46	46	45	47	51	63.0	84			
22-Jul	60	64	69	73	76	77	77	80	78	74	69	61	50	42	39	35	34	36	37	36	39	42	45	50	56.0	80			
23-Jul	55	61	65	65	70	73	78	80	74	72	68	69	63	56	51	58	60	58	50	55	56	58	63	69	63.7	80			
24-Jul	80	82	80	85	86	86	85	83	79	74	70	65	56	51	45	44	45	44	47	49	46	51	64	60	64.9	86			
25-Jul	58	56	59	61	64	66	67	69	69	61	57	53	46	44	42	46	45	47	49	46	51	54	78	84	57.2	84			
26-Jul	92	93	97	98	99	99	96	96	96	94	93	89	83	76	72	70	70	69	69	72	78	86	94	97	86.7	99			
27-Jul	97	97	98	98	98	98	97	96	97	97	92	91	89	88	81	75	77	73	75	73	63	64	66	66	85.2	98			
28-Jul	68	69	70	71	73	74	76	78	76	69	62	51	43	42	41	39	42	41	41	49	52	68	81	90	61.1	90			
29-Jul	91	94	95	91	94	98	95	94	89	84	84	78	67	63	59	52	57	71	76	69	73	74	73	76	79.1	98			
30-Jul	78	82	86	90	91	91	89	86	81	74	70	64	57	51	48	46	43	41	36	41	41	41	42	51	63.3	91			
31-Jul	53	59	59	62	62	64	63	69	68	71	74	73	69	68	64	59	57	60	61	57	59	60	61	67	63.4	74			
66.6		68.4	71.0	72.8	74.5	74.7	74.9	74.7	72.6	69.2	66.8	62.0	57.0	54.6	53.0	52.5	53.4	54.4	54.5	54.8	56.1	58.7	62.4	65.5	Diurnal Average				
97		97	98	98	99	99	97	96	97	97	95	91	89	88	86	83	86	93	94	90	86	86	94	97	Diurnal Maximum				
DF - DAS Failure																													



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 90m (RH90) - %
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 90m (RH90) - %
Mannix - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	77	10.36	10.36
40 - 60	241	32.44	42.80
60 - 80	286	38.49	81.29
80 - 100	139	18.71	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 20m (WS20) - km/h

Mannix - July 2026

Maximum Speed: 24 km/h on Jul 29 05:00																		Maximum Daily Speed Average: 14.0 km/h on Jul 13										Hours in Service: 744	
Minimum Speed Value: 1 km/h on Jul 17 13:00																		Minimum Daily Speed Average: 0.3 km/h on Jul 17										Hours of Data: 742	
Maximum Diurnal Speed Average: 5.3 km/h at hour 13																		Minimum Diurnal Speed Average: 1.9 km/h at hour 21										Hours of Missing Data: 2	
Monthly Average Velocity: 3.6 km/h 207.9 deg																		Percentiles: P ₁ = 1 P ₁₀ = 5 Q ₁ = 6 Median = 9 Q ₃ = 12 P ₉₀ = 15 P ₉₉ = 22										Percent Operational Time: 99.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
1-Jul	SE4	SE3	SSE5	SE5	SE11	SSE8	SSE7	SSE13	SE16	SSE14	SE15	SSE12	SSE9	S10	SSE10	SSE13	SSE15	S11	S7	S7	SSE6	SE8	SE9	SE10	SSE9.3	SE16			
2-Jul	SE11	SSE12	SE12	SE15	SE15	SE16	SE13	SSE12	SSE12	SSE16	SSE14	SE15	SSW14	SSE11	SSE12	SSE12	SE12	SE15	SE13	SSE10	SSE11	SSE12	SSE13	SE14	SSE12.7	SE16			
3-Jul	SSE13	SSE9	SSE6	SSE9	SSE9	SSE9	SSE11	SSE12	SSE12	SSE12	SE9	S9WSW15	ESE7	SE9	S5	SSE7	S6	SSE8	S5	SSE5	ENE4	SE8	SSE8	SSE7.4	WSW15				
4-Jul	S6	SSW3	WSW7	SW9	SW9	SSE5	SSE6	SSE6	SSE6	SSE11	SSE8	SSE9	S7	UO	WSW7	WSW8	WSW7	SW7WSW10WSW11	SW6	SSW8	SSW9WSW10				SSW6.0	WSW11			
5-Jul	WSW10	WSW6	SW9	W8	WSW5	SSW5	SW6	SW7	W10WNW13WNW17WNW18	NW20	NNW20	NNW17	NNW12	N13	W8	NNW9	NNW12	NNE10	NNW11	NNW12	NNW11				NW8.5	NW20			
6-Jul	NW10	WNW9	WSW8	WSW9	WSW6	WNW6	W6	WNW6	NNW7	NW6	NW8	WSW7	WNW6	WNW6WSW15	WSW9	W6	SW4	SE4	ENE7	NNW8WNW12	NNW5	NNE9			WNW5.3	WSW15			
7-Jul	NE9	ENE7	NE2	ESE4	SSE3	ESE1	SE4	SE5	ESE4	ESE5	E7	ESE6	ESE7	SSE6	SSE5	SSW5	SSW6	S5	SSE8	SE7	SE10	SE9	SE12	SSE13	SE4.9	SSE13			
8-Jul	SSE11	SSE9	SSE11	SE11	SE5	SSE7	SE7	S6	S5	SSW5	ESE11	E14	SE11	SE11	SW10	W8	SSW9	S10	SSW8WSW10	SW5	S8	S9	SW9	SSE6.4	E14				
9-Jul	WSW7	SW9	SW11WSW10	SW10	S7	SSW8WSW14WSW14	SW14	SSW17	SSW15	SW16	SW15	SSW17	SSW15	SSW12	SSW11	SW15	SSW11	S11	S13	S13	SSW16				SSW11.8	SSW17			
10-Jul	S12	S13	S11	S13	S14	S15	S12	S13	S14	S10	S12	S17	SSW15	SSW13	SSW12	SW17	SW16	SSW17	SSW14	SSW9	SSW10	SSW9	WSW8	W9	SSW11.9	SSW17			
11-Jul	WSW9	N2	SW4	SSW6	SSW5	S6	S2	S4	SSE5	SSE8	SSE9	SSE4	SSE12	S11	SSW6	S6	S7	SW6	W7WNW10	NNE5	WNW4WSW11	WSW9			SSW4.4	SSE12			
12-Jul	WSW10	S5	S7	S8	S7	S9	SSE10	S6	S5	SW6WSW13	W16	E6	SE9	S16	SSW13	S15	S13	S12	SW11WSW11WSW13	SW14WSW16					SSW8.2	WSW16			
13-Jul	W23	W24	W21	W19	W16WSW13WSW13	SW14WSW14WSW14WSW13	W24WSW24WSW22WSW22WSW23	W16	N12	N8	NW15	NNW12WNW10	SSW10	WSW6	W14.0	W24													
14-Jul	SSW8	SSW6	SSW6	S5	SSW6	S6	SSW6	SW9	WSW9WSW10WSW15	W15	W15WNW12	W6	SW7	WSW8	SSW5	WSW5	WSW2	SSE7	SSE9	S11	S13				SW6.4	W15			
15-Jul	SSE8	SSE9	SSE7	SSE10	SSE10	SSE8	SSE6	S5	SSE6	SSE7	SSE8	SSE14	SSE14	SSE15	SSE14	S9	W19	ESE16	ESE12	SSE11	S9	SSW7	SSE9	S14	SSE8.7	W19			
16-Jul	SSE9	S8	S7	S7	SSE6	SSE7	SSE7	SSE9	SSE10	SSE10	SSW12	SSW14	SSW13	W12WSW10	WNW9	ENE10	ESE8	SSE7	N2	ENE8	NNE6	DF	NW3		S4.4	SSW14			
17-Jul	NE1	WSW3	WSW3	SW7	S6	S7	SSE5	S3	SSW1	WSW1	SW4	WSW3	SE1	SE6	SSW6	S7	SSE6	SSW4	W3	NNE10	NNE12	NNE12	NNE11	NNE8	SSE0.3	NNE12			
18-Jul	NNE3	WSW4	NE3	SSE4	SW6	S7	SSE4	ESE4	SSW6	W13	SW10	SE13	SSE12	S8	NW6	N10	ENE8	ESE10	SSE22	SE19	SE15	SE15	SE11	SSE11	SSE5.9	SSE22			
19-Jul	SSE7	N1	NNE4	W5	S6	S5	NW5	N10	NNW7	NW7	NW9	NW8	W11	N12	N16	NNE22	N21	N19	N20	NNW19	N15	NNW13	NNW14	N16	NNW8.8	NNE22			
20-Jul	N20	N23	N20	N14	NNW15	NNW12	NNW9	NNW8	NNW7	NNW6	NNW7	NNW9	NW10	NW10WNW11	WNW8	W8	W6	WNW3	SW1	SW4	WSW5	W5	SW5		NNW7.9	N23			
21-Jul	SW4	SW5	SW4	SW3	SW7	SSW4	SW4	SW5	SSE4	SSE5	S3	W3	WSW5	SSW5	S6	S6	S8	S10	S10	S7	S9	SSW9	SSW7	S6	SSW5.3	S10			
22-Jul	S9	S10	SSE9	S10	S10	S8	S7	SSE5	SSE5	SSE5	SSE5	S6	S7	SSW9	SSW10	S9	S8	SSE8	SSE7	SSE9	SSE11	SSE11	SSE11	S10	S8.2	SSE11			
23-Jul	S12	SSE13	S10	SSE7	SSE7	SSE8	S7	SW3	WNW6WNW11	NNW15	NNW14	NNW15	NW17	N10	WNW7	W13WNW16WNW14	WNW9	W9WNW11WNW13WNW12							WNW5.6	NW17			
24-Jul	NNW9	WNW7	WNW7	NE2	N3	W1	WSW5	SSW3	SE4	SSE4	ESE6	ESE7	SSE8	SSE8	SE8	SSE8	SSE10	SSE10	SE11	SSE9	SSW9	W9	W8	SW8	S3.2	SE11			
25-Jul	WSW10	SW6	S6	S7	SW8	WSW8	SW7WSW14	W15	W16	W14	W15WSW16WSW12WSW16WSW15WSW14WSW15WSW12	WSW9	SSW4	W4	NNE15	N14									WSW8.8	WSW16			
26-Jul	NNE13	NNE12	NNE15	NNE13	NNE14	NNE15	NNE16	NNE19	NNE13	NNE15	NNE17	NNE12	NNE11	N9	NNW9	NNW9	NNE9	NNE9	NE10	NNE10	NNE13	NNE14	NNE10	NNE8	NNE11.9	NNE19			
27-Jul	NE7	ENE5	SE4	SE5	ESE6	ESE7	ESE9	SE5	N2	NE1	SSE4	SSW5	W5	WNW5	NW4	E2	S9	S9	S9	SSW7	S8	SSW9	SW8	SSW4	S2.9	SSW9			
28-Jul	S7	S10	S9	SSE8	SSE7	S9	SSE7	SSE7	SSE9	SSE8	SE8	SSE10	SSE10	SSE9	SSE9	SE10	E12	E14	E7	E10	NNE12	N13	NNE21	ENE10	SE5.7	NNE21			
29-Jul	ENE17	SSW8	S12	SSW14WSW24	W21	W20	W20	W19	W21	W15	W14	W23WNW18WNW15WNW17	NW14	NNW14WNW11WNW17	W16	W17	W17	W15							W13.8	WSW24			
30-Jul	W16	W13	W14	WSW6	SW7	W6	W7	W12	W12	WNW9	WNW7	WNW6	W6	WNW4	W5	SSW6	SSW6	W6	WSW3	SW5	SSW5	SSW6	SSW6	S5	W6.3	W16			
31-Jul	SSW5	S8	SSE9	SSE9	SSE11	SSE9	SSE8	SSE7	SSE9	SSE10	SSE9	S10	S5	SSE4	SSE7	SSE9	SSE7	SSE8	SSE8	SSE9	SSE11	SSE11	SSE10	SSE10		SSE8.4	SSE11		
SSW2.4SSW3.2SSW3.8 S4.7SSW4.8 S4.5 S4.1SSW3.8SSW3.5 SW4.1SSW3.7SSW4.2 SW5.3 SW4.0 SW4.9 SW4.5 SW3.7 S3.6SSW3.7 SW2.2 S1.9 SW2.5SSW2.7SSW3.1																										Diurnal Average			
W23 W24 W21 W19WSW24 W21 W20 W20 W19 W21WNW17 W24WSW24WSW22WSW22WSW23 N21 N19 SSE22 SE19 W16 W17 NNE21 WSW16																										Diurnal Maximum			
DF - DAS Failure UO - Unstable Operation																													
All monthly, daily, and diurnal averages have been calculated using vector methods																													



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 20m (WS20) - km/h

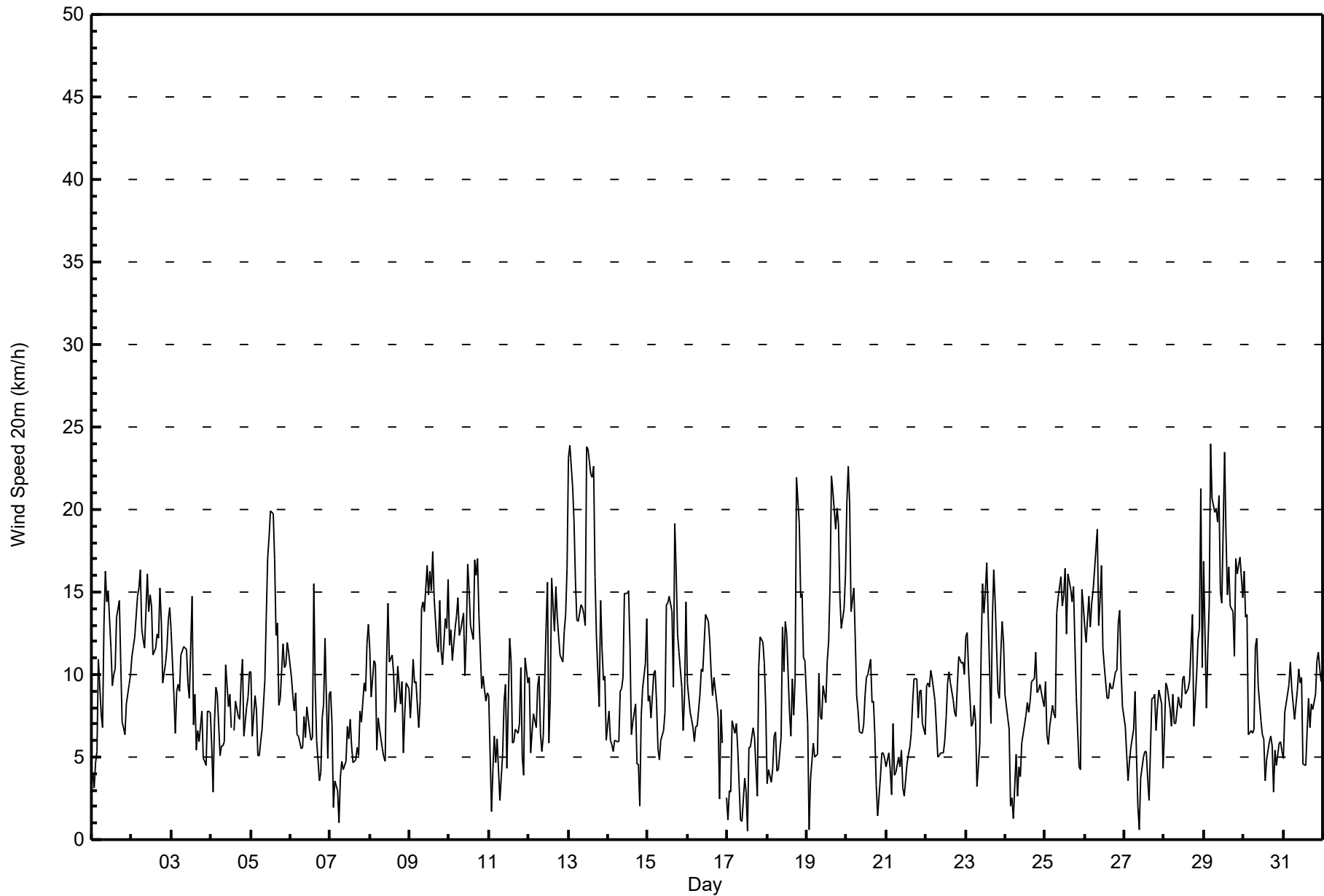
Mannix - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 15 km/h on Jul 15 17:00																	Hours in Service: 744 Hours of Data: 742 Hours of Missing Data: 2 Hours of Calibration: 0 Percent Operational Time: 99.7								
Minimum Value: 1 km/h on Jul 20 23:00																									
Percentiles: P ₁ = 1 P ₁₀ = 2 Q ₁ = 2 Median = 3 Q ₃ = 4 P ₉₀ = 6 P ₉₉ = 8																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	2	1	2	2	4	4	4	4	5	5	5	4	3	4	4	5	6	4	2	2	1	2	3	3	6
2-Jul	3	4	4	5	5	5	4	4	4	6	4	5	5	4	5	4	4	5	5	4	2	4	4	4	6
3-Jul	4	3	3	2	2	3	4	4	4	5	4	4	6	5	3	3	3	3	3	2	1	2	3	2	6
4-Jul	3	2	2	3	3	2	2	3	3	3	3	4	3	UO	3	3	2	4	4	3	2	1	2	2	4
5-Jul	2	2	2	3	3	2	3	3	4	6	6	6	7	8	7	5	6	3	4	5	3	5	4	4	8
6-Jul	4	2	2	3	4	5	4	3	4	3	4	4	4	4	6	4	3	4	3	2	5	4	2	3	6
7-Jul	2	2	1	1	2	1	2	2	2	2	3	3	4	4	3	2	2	2	2	3	3	4	4	3	4
8-Jul	3	2	2	3	2	2	3	3	4	5	4	3	4	4	10	6	3	4	3	3	2	1	2	3	10
9-Jul	2	2	3	2	2	2	4	5	5	6	7	7	7	7	7	6	5	5	6	4	2	4	3	6	7
10-Jul	4	4	3	4	4	4	4	4	5	4	4	6	6	5	6	8	6	6	5	3	3	2	1	1	8
11-Jul	1	3	1	2	2	2	2	2	3	3	3	4	5	4	2	2	2	2	2	4	2	3	2	2	5
12-Jul	2	2	2	1	1	3	5	3	3	3	5	6	4	4	6	6	7	5	5	4	7	5	3	5	7
13-Jul	6	6	5	4	4	4	5	6	5	4	5	7	7	7	8	7	8	5	3	5	4	4	3	3	8
14-Jul	2	2	2	2	2	2	2	4	3	4	5	4	5	4	4	4	4	3	3	2	1	1	2	3	5
15-Jul	2	3	3	3	2	3	2	2	3	3	4	5	5	5	6	4	15	8	4	6	3	2	3	6	15
16-Jul	3	2	2	2	2	3	4	3	4	4	5	6	5	5	4	4	3	4	3	2	4	3	DF	1	6
17-Jul	1	2	2	3	2	3	2	2	1	2	2	2	3	3	3	3	3	2	3	3	3	3	1	2	3
18-Jul	1	2	1	2	1	2	2	3	3	4	6	5	7	6	5	4	2	6	7	6	5	5	4	3	7
19-Jul	3	2	2	2	3	3	3	4	4	3	3	3	3	7	7	7	9	7	7	8	6	5	5	7	9
20-Jul	7	7	7	5	6	4	3	4	3	3	3	4	4	3	3	3	2	2	2	1	1	1	1	1	7
21-Jul	2	1	2	2	2	2	2	3	2	2	2	2	3	4	3	3	4	3	3	2	2	2	2	2	4
22-Jul	2	2	1	2	3	3	2	2	2	2	3	3	4	4	4	4	4	3	2	2	2	2	3	2	4
23-Jul	3	3	4	3	3	4	4	3	3	5	6	6	6	7	5	7	3	5	5	3	1	2	2	3	7
24-Jul	3	3	3	1	1	1	2	1	2	2	3	3	4	4	3	3	4	3	4	4	2	3	2	2	4
25-Jul	2	2	2	2	2	2	3	4	5	5	4	4	5	4	5	5	4	4	3	5	2	4	6	6	6
26-Jul	5	5	5	5	5	5	5	5	5	4	5	4	4	4	4	4	4	4	3	3	4	4	3	2	5
27-Jul	2	2	2	2	2	3	4	2	1	1	2	2	2	2	2	2	3	4	3	2	2	2	2	2	4
28-Jul	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	3	4	4	2	4	3	6	6	5	6
29-Jul	8	4	4	7	6	5	4	5	4	4	6	6	6	5	5	6	5	8	5	7	4	3	3	3	8
30-Jul	3	3	3	3	2	2	2	3	3	3	3	4	3	3	3	3	3	2	2	2	1	1	2	2	4
31-Jul	1	2	1	2	2	2	2	2	3	3	3	3	2	2	3	2	2	3	3	2	2	3	3	2	3
8 7 7 7 6 5 5 6 5 6 7 7 7 8 10 8 15 8 7 8 7 6 6 7																									
Diurnal Maximum																									
DF - DAS Failure UO - Unstable Operation																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 20m (WS20) - km/h
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 20m (WS20) - km/h
Mannix - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	126	16.98	16.98
6 - 11	393	52.96	69.95
12 - 19	199	26.82	96.77
20 - 28	24	3.23	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 742

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 20m (WS20) - km/h
Mannix - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	5	3	5	2	1	5	11	22	13	16	14	13	8	4	3	1	126
6 - 11	5	12	3	6	4	11	21	103	71	35	25	33	19	21	9	15	393
12 - 19	10	18	0	1	3	2	17	26	20	17	8	22	25	13	3	14	199
20 - 28	5	2	0	0	0	0	0	1	0	0	0	5	9	0	1	1	24
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	25	35	8	9	8	18	49	152	104	68	47	73	61	38	16	31	742

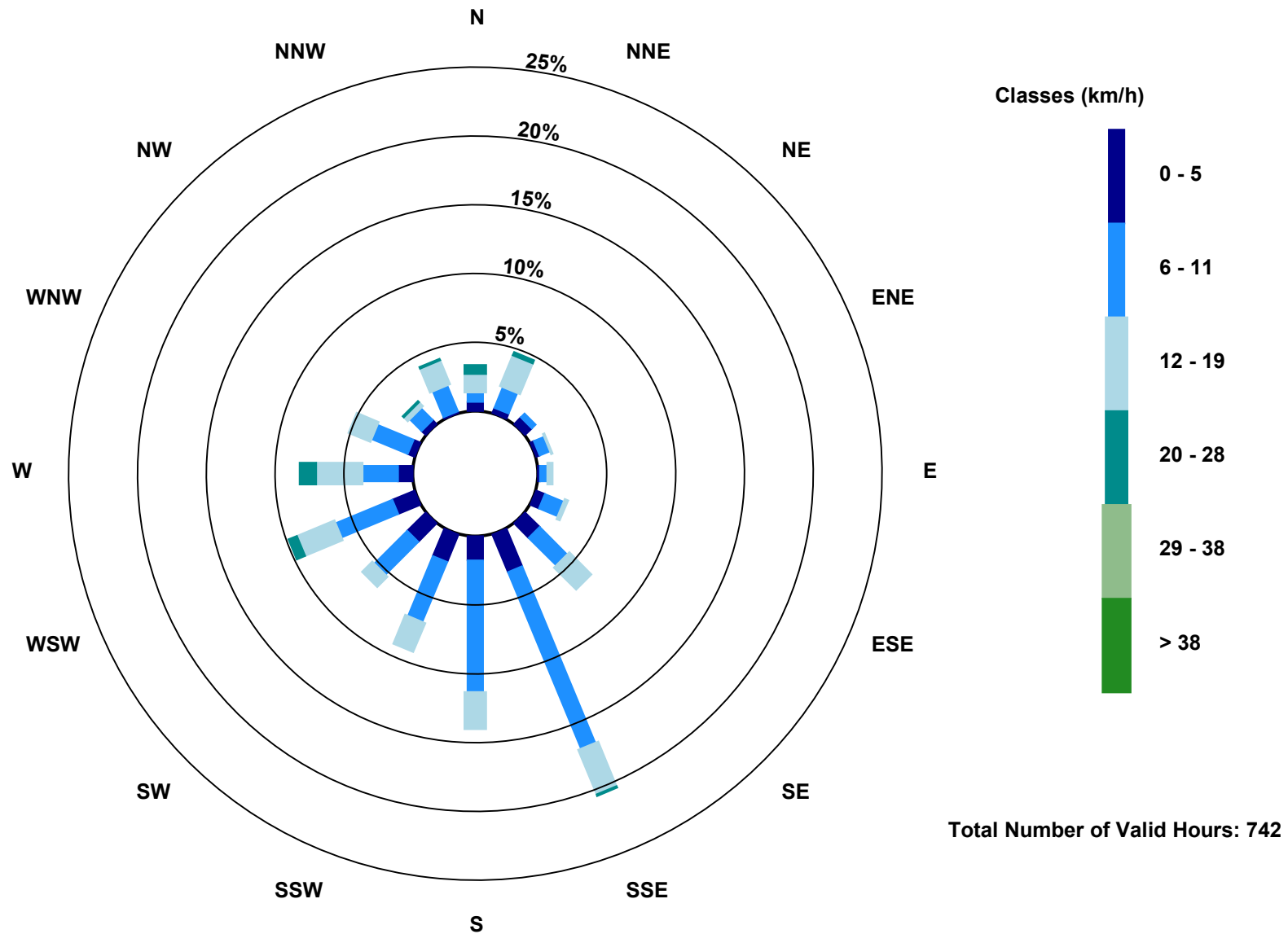
Total Number of Valid Hours: 742

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 20m (WS20) - km/h
Mannix





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 45m (WS45) - km/h

Mannix - July 2026

Maximum Speed: 33 km/h on Jul 20 02:00										Maximum Daily Speed Average: 18.9 km/h on Jul 10										Hours in Service: 744						
Minimum Speed Value: 1 km/h on Jul 27 10:00										Minimum Daily Speed Average: 0.9 km/h on Jul 17										Hours of Data: 743						
Maximum Diurnal Speed Average: 7.2 km/h at hour 13										Minimum Diurnal Speed Average: 2.8 km/h at hour 21										Hours of Missing Data: 1						
Monthly Average Velocity: 5.0 km/h 199.7 deg										Percentiles: P ₁ = 2 P ₁₀ = 6 Q ₁ = 9 Median = 13 Q ₃ = 18 P ₉₀ = 22 P ₉₉ = 30										Percent Operational Time: 99.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jul	SE9	ESE5	SE9	ESE7	ESE12	SE12	SE12	SE19	SE21	SE19	SE19	SE16	SSE12	SSE13	SSE14	SSE19	SSE20	SSE16	SSE12	SSE12	SE10	SE13	SE14	SE13	SE13.2	SE21
2-Jul	SE17	SE18	SE19	SE21	SE21	SE21	SE17	SSE16	SSE15	SSE22	SE18	SE19	S23	SSE16	SE16	SE16	SE16	SE21	SE18	SE13	SSE15	SE17	SE20	SE20	SE17.9	S23
3-Jul	SE18	SSE14	SSE10	SE14	SE15	SE14	SE16	SE15	SE15	SSE16	SE12	S13	SW20	E7	ESE11	SSE7	SSE8	S8	SSE10	S7	SSE7	E5	SE13	SSE14	SSE10.8	SW20
4-Jul	SSE13	S8WSW11	SW12	SW15	SSE8	SSE7	SSE7	SSE7	SSE13	SE10	SSE11	SSE10WSW18	WSW8WSW10	WSW9	SW10	SW13	SW14	SW9	SSW13	SSW17WSW16					SSW8.9	WSW18
5-Jul	WSW16WSW12WSW13	W14	W9	SW7	SSW9	SW9	W12WNW19WNW24WNW25WNW29	NW29	NNW24	NNW17	NNW20	W10	NNW14	NNW18	N14	NNW18	NW21	NW19	WNW13.3	WNW29						WNW29
6-Jul	NW17WNW14	W12WSW13	W11	W10	W7	WNW7	NW11	NW8WNW10	WSW8	WNW8	W8WSW18	SW11	WSW8	SSW6	SE6	NE9	NW13WNW17	NNW8	NNE12					WNW7.6	WSW18	
7-Jul	NE12	ENE11	ENE5	E8	SSE5	ESE2	SE5	SE6	ESE5	E5	E8	E7	E8	SSE8	SSE6	S7	S7	S8	SE11	ESE10	SE14	SE12	SE16	SE18	ESE6.9	SE18
8-Jul	SE18	SSE15	SE18	SE14	ESE7	SE11	ESE8	S8	SSE7	S7	E13	E16	ESE13	SE14	SSW12WSW10	S14	S17	SSW13	SW13	SW8	S9	SSE15	SW15	SSE9.1	SE18	
9-Jul	W10	SW16	SW21	SW20	SW18	SSW11	SSW14	SW18WSW19	SW19	SSW24	S24	SSW23	SSW22	SSW26	SSW22	S20	SSW17	SSW22	SSW18	S19	S24	S24	S27	SSW18.6	S27	
10-Jul	S20	S21	S20	S23	SSE23	SSE22	S18	S19	S18	S15	SSE16	S23	S22	SSW19	SSW19	SSW25	SSW24	SSW27	S22	S16	SSW17	SSW18	SW16WSW18	S18.9	SSW27	
11-Jul	WSW14	N5	SW3	S7	S8	SSE11	S4	S5	SSE6	SSE10	SSE12	SE5	SSE17	SSE14	SSW9	S8	S11	SSW10	WSW9WNW16	N7	WNW5WSW16WSW14			SSW5.6	SSE17	
12-Jul	WSW15	SSW10	SSW9	S11	S9	SSE12	SSE13	SSE8	S7	SW9	SW18WSW20	E6	SE10	SSE21	S20	S22	S20	S18	SW18WSW17WSW20	SW23WSW25				SSW12.2	WSW25	
13-Jul	WSW31WSW31WSW28WSW26WSW21WSW18WSW17	SW19	SW18	SW18WSW16WSW28WSW30WSW28WSW27	SW28	W20	N16	NNW12	NW23	NNW19WNW15	SW15	SW11	WSW18.3	WSW31										WSW18.3	WSW31	
14-Jul	SSW9	SSW12	SSW8	SSW8	SW10	SSW8	SSW10	SW11WSW11	SW12WSW18WSW18	W18	W15	WSW8	SSW10	SW11	SSW7	WSW6	WSW3	SSE8	SE11	SSE19	SSE23			SW8.9	SSE23	
15-Jul	SSE18	SSE16	SSE15	SE18	SSE18	SE15	SSE10	SSE7	SE8	SSE9	SSE10	SSE19	SSE18	SSE19	SSE19	SSE14	W23	ESE21	ESE16	SE15	SSE14	S12	SSE14	SSE22	SSE13.6	W23
16-Jul	SSE17	SSE14	SSE15	S13	SE11	SSE12	SSE10	SSE12	SE14	SSE14	S18	SSW22	SSW19WSW15WSW13WNW12	NE13	E10	SE10	NNW3	NE12	NE8	DF	ENE2			SSE7.3	SSW22	
17-Jul	ENE4	SSE4	SW1	SW7	S6	S13	S7	S4	SSW2	WSW2	SW5	WSW4	SSE1	SE7	S9	S9	SE8	SSW6	W3	NNE14	NNE17	N18	NE13	NNE9	SE0.9	N18
18-Jul	NE7	S5	ESE3	SE9	SSE7	SSE12	SE8	ESE6	SSW8WSW17	SSW14	SE17	SSE17	S11WNW10	N14	ENE8	ESE12	SSE29	SE25	SE20	SE18	ESE13	SE14		SE8.6	SSE29	
19-Jul	SE11	SE2	NE5	W3	S7	SSE11	NW8	NNW16	NNW12	NW11	NW14WNW12	W12	N17	N23	NNE30	N30	NNW28	NNW29	NNW28	N23	NNW20	NNW22	NNW24	NNW12.8	N30	
20-Jul	NNW31	NNW33	NNW30	NNW21	NNW23	NNW18	NNW14	NNW13	NNW10	NNW9	NNW10	NNW13	NW14	NW15WNW14WNW11	W10	W7	W5	WSW1	SW4	WSW7	W7	WSW8		NW11.7	NNW33	
21-Jul	SW7	WSW7	WSW6	W4	SW10	SW7	SW6	SW6	SSE5	SSE6	S4	WSW3	WSW5	SSW7	S8	S8	SSE11	S13	S14	S15	S19	S20	S18	S15	SSW8.2	S20
22-Jul	S14	S12	S13	S13	S16	S13	S9	SSE6	S6	SSE6	SSE7	SSE8	S11	S13	S14	S13	S11	SSE10	SE11	SSE14	SE18	SSE18	SE19	SSE17	SSE11.8	SE19
23-Jul	SSE20	SSE22	SSE18	S12	SE13	SSE15	S11	SW5	WNW7WNW15	NW23	NNW21	NNW22	NW25	NNW14	W9	W15	W21WNW19WNW13	W13WNW19WNW22WNW20						W7.5	NW25	
24-Jul	NNW16	NW13WNW12	NE3	N5	NNW3	WSW5	S3	SE5	SE5	ESE6	ESE8	SE10	SE11	SE9	SE11	SE14	SE14	SE15	SSE14	SSW15	W14	W11WSW15		S3.3	NNW16	
25-Jul	WSW16WSW11	SSW6	SSW8	SW13WSW13	SW12WSW19WSW18WSW19WSW16WSW17WSW20WSW16	SW21	SW20	SW18	SW19	SW16	SW14	SW6	SW21	SW20	SW18	SW19	SW16	SW14	SW6	W8	NNE22	N21		WSW12.1	NNE22	
26-Jul	NNE19	NNE17	N20	NNE18	NNE21	NNE20	NNE22	NNE24	NNE17	NNE19	NNE22	NNE15	NNE13	N12	NW12	NNW14	N12	NNE12	NNE13	NNE13	NNE19	NNE19	NNE14	NNE11	NNE16.1	NNE24
27-Jul	NNE9	NE6	ESE4	ESE6	ESE7	ESE8	ESE11	SE7	N3	N1	SE5	SSW6	W7	W7	WNW5	E3	SSE11	S16	S13	S12	SSW14	SSW17	SW15	SW9	S4.4	SSW17
28-Jul	SSW8	S9	S11	S10	S9	S13	SSE8	SSE9	SSE11	SE11	SE10	SSE12	SE13	SSE11	SSE12	SE13	ENE14	E17	E9	E14	NNE20	N21	N31	NE14	ESE6.4	N31
29-Jul	NE22	SSW13	S19	SSW23WSW32	W26	W23	W24WSW23	W24	W18	W19	W28	W23	W19	W21WNW20	NW22WNW16	W25WSW22	W22	W22	W20					W17.7	WSW32	
30-Jul	W21	W20	W19	W11	WSW9	W10	WSW9	W14	W15WNW12	WNW9	WNW8	W8	WNW5	W6	SSW9	SSW9	W7	SW4	SW9	SSW6	SSW7	S14	S13		WSW8.5	W21
31-Jul	SSW11	S10	SSE11	SSE16	SSE17	SSE15	SSE11	SSE9	SSE11	SSE12	SSE12	SSE16	S9	SE6	SE8	SSE12	SSE12	SSE11	SSE11	SE13	SE16	SE17	SE17	SE16	SSE12.1	SSE17
SSW3.4SSW5.1SSW5.7 S6.5 S6.5 S6.6 S5.5SSW4.9SSW4.3SSW5.2SSW4.8SSW5.7 SW7.2 SW5.6 SW6.4SSW6.0SSW5.1 S5.4 S5.3SSW3.4 S2.8 SW3.8SSW4.4SSW4.9																								Diurnal Average		
WSW31NNW33 NNW30 WSW26WSW32 W26 W23 NNE24 WSW23 W24 SSW24WSW28WSW30 NW29WSW27 NNE30 N30 NNW28 SSE29NNW28 N23 S24 N31 S27																								Diurnal Maximum		
DF - DAS Failure																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 45m (WS45) - km/h

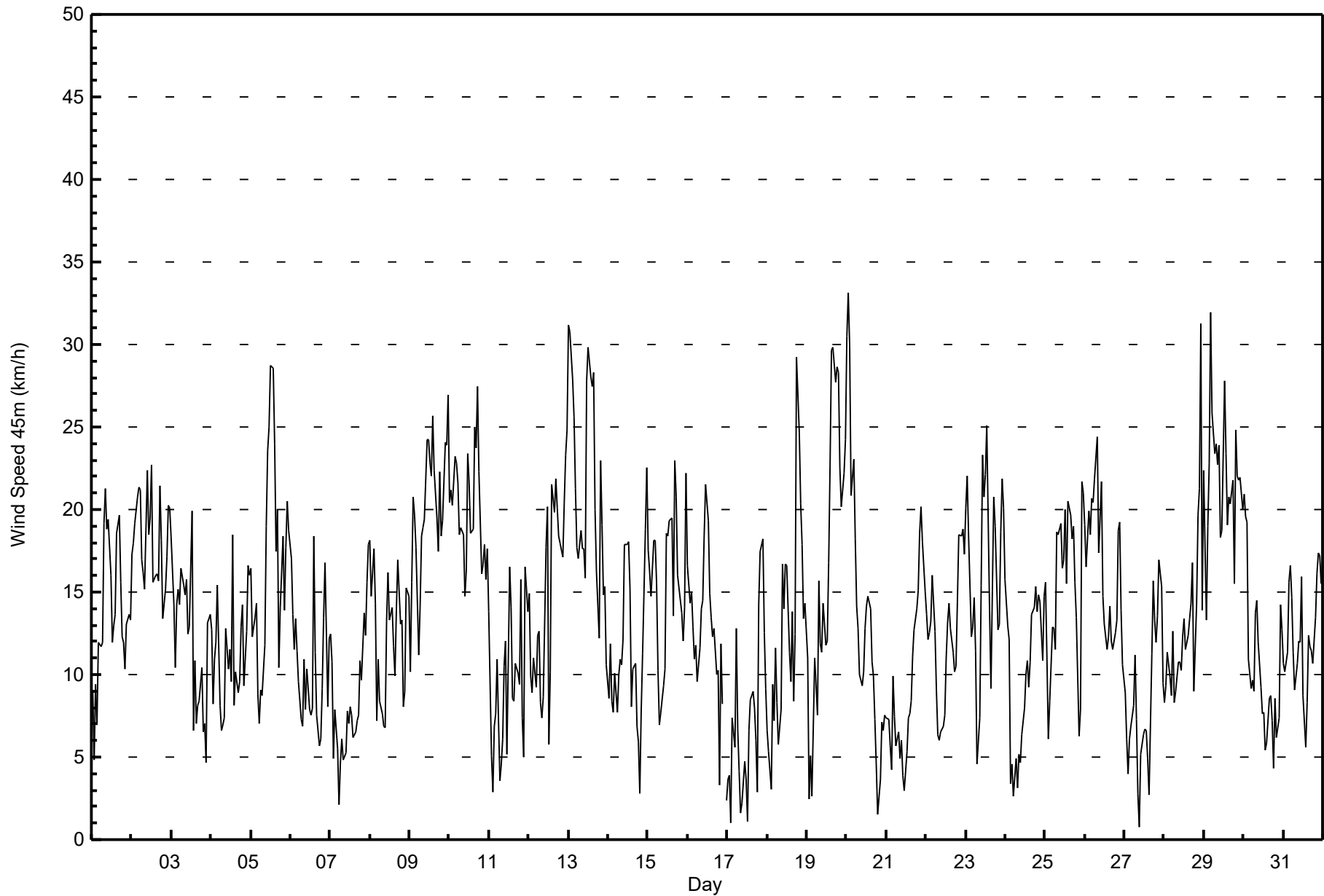
Mannix - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 17 km/h on Jul 15 17:00																	Hours in Service: 744								
Minimum Value: 1 km/h on Jul 20 23:00																	Hours of Data: 743								
Percentiles: P ₁ = 1 P ₁₀ = 2 Q ₁ = 2 Median = 3 Q ₃ = 4 P ₉₀ = 5 P ₉₉ = 8																	Hours of Missing Data: 1								
																	Hours of Calibration: 0								
																	Percent Operational Time: 99.9								
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	3	1	4	2	3	4	3	3	5	4	4	3	2	3	3	4	5	3	2	2	1	1	2	2	5
2-Jul	3	3	3	4	4	4	4	3	3	7	3	5	4	4	4	3	3	4	4	3	2	3	3	4	7
3-Jul	3	3	3	2	2	3	3	3	3	4	4	4	6	5	3	2	2	3	2	2	1	2	4	2	6
4-Jul	3	2	2	5	3	2	2	2	3	2	2	3	7	12	3	3	2	4	3	3	2	2	1	2	12
5-Jul	2	3	3	3	3	2	2	2	4	6	5	5	5	6	6	5	7	3	3	4	3	6	4	4	7
6-Jul	3	2	2	2	4	4	4	3	3	3	5	3	3	4	5	4	3	4	2	2	7	3	2	3	7
7-Jul	2	2	1	2	2	2	3	2	2	2	3	3	3	4	3	2	2	2	2	4	4	4	3	2	4
8-Jul	3	2	1	3	2	2	4	3	5	8	4	4	4	4	10	6	3	3	2	3	2	2	2	4	10
9-Jul	1	3	2	2	2	2	3	4	5	5	5	6	6	7	6	5	4	5	5	3	2	5	2	5	7
10-Jul	4	3	3	3	3	3	3	3	3	3	3	5	5	5	5	6	6	5	4	3	2	2	2	1	6
11-Jul	3	4	2	4	4	2	2	2	3	3	3	4	4	3	2	2	2	2	3	4	3	4	1	2	4
12-Jul	1	2	1	1	1	3	4	2	3	3	5	7	4	4	5	7	7	3	3	3	9	4	3	4	9
13-Jul	5	5	5	4	4	4	5	5	4	4	4	6	6	5	7	6	6	6	3	4	4	4	5	5	7
14-Jul	3	3	2	1	2	2	2	4	3	3	4	4	4	4	4	4	4	3	3	2	2	3	2	2	4
15-Jul	2	2	3	2	2	4	2	2	3	2	3	4	4	4	4	5	17	8	5	6	3	2	3	6	17
16-Jul	2	3	2	1	2	2	3	2	3	3	5	4	5	4	5	5	3	4	3	4	4	3	DF	2	5
17-Jul	1	2	2	3	1	3	1	2	1	2	2	2	3	3	4	2	3	2	4	3	3	2	2	2	4
18-Jul	2	3	1	3	1	2	5	3	3	4	6	6	9	7	6	4	2	8	5	6	4	4	4	3	9
19-Jul	4	2	2	2	4	5	3	5	4	2	2	3	2	8	7	6	8	6	6	6	5	5	5	8	8
20-Jul	6	6	6	5	6	4	3	3	3	2	3	3	3	2	2	2	2	2	1	1	1	1	1	2	6
21-Jul	3	1	1	2	1	3	3	4	2	1	2	2	2	4	4	3	3	2	2	2	1	1	2	1	4
22-Jul	1	2	2	1	2	3	2	1	2	2	2	3	4	4	3	4	3	2	2	3	2	2	2	2	4
23-Jul	3	2	3	6	3	4	5	3	3	6	4	5	7	6	4	9	3	4	4	2	2	3	2	2	9
24-Jul	3	3	3	1	1	1	2	1	2	3	3	3	4	4	3	3	3	4	4	3	2	4	1	2	4
25-Jul	3	3	2	3	2	2	3	4	5	4	4	4	5	3	4	4	3	3	3	5	3	6	5	7	7
26-Jul	5	5	4	4	6	4	4	4	5	3	4	3	4	4	3	3	3	3	3	3	3	3	3	2	6
27-Jul	2	2	2	2	3	2	4	3	1	1	2	2	2	2	2	2	3	3	2	2	2	1	2	4	4
28-Jul	1	1	1	2	1	1	2	1	2	2	3	3	3	4	3	3	4	4	3	6	3	8	6	6	8
29-Jul	8	6	4	6	5	4	3	3	4	4	6	6	5	4	4	5	4	9	4	6	4	3	3	2	9
30-Jul	3	3	3	4	2	3	2	3	3	3	3	4	3	4	3	4	4	2	3	2	1	1	3	1	4
31-Jul	2	1	2	2	2	2	1	2	2	2	2	2	3	2	2	2	2	2	2	3	2	3	3	3	3
8 6 6 6 6 5 5 5 5 8 6 7 9 12 10 9 17 9 6 6 9 8 6 8																									
Diurnal Maximum																									
DF - DAS Failure																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 45m (WS45) - km/h
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 45m (WS45) - km/h
Mannix - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	56	7.54	7.54
6 - 11	237	31.90	39.43
12 - 19	320	43.07	82.50
20 - 28	116	15.61	98.12
29 - 38	14	1.88	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 45m (WS45) - km/h
Mannix - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	4	0	2	3	3	5	6	4	6	1	6	7	4	3	0	2	56
6 - 11	1	4	3	2	8	12	26	46	35	27	19	18	20	8	4	4	237
12 - 19	7	16	5	1	4	5	56	62	37	18	25	31	15	15	8	15	320
20 - 28	5	7	1	0	0	1	9	9	16	12	7	12	16	5	5	11	116
29 - 38	2	1	0	0	0	0	0	1	0	0	0	4	0	1	1	4	14
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	19	28	11	6	15	23	97	122	94	58	57	72	55	32	18	36	743

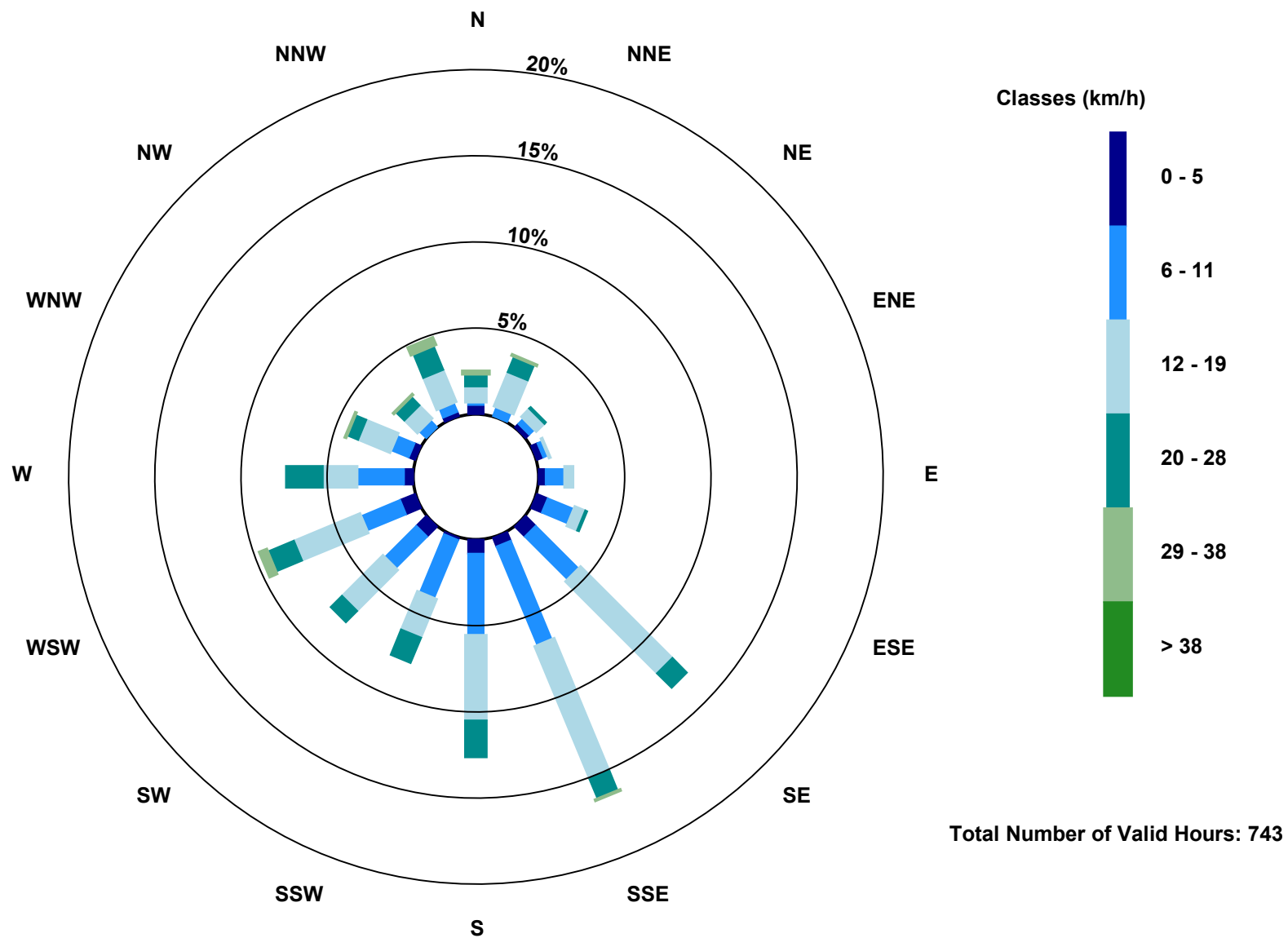
Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 45m (WS45) - km/h
Mannix





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 75m (WS75) - km/h

Mannix - July 2026

Maximum Speed: 38 km/h on Jul 28 23:00														Maximum Daily Speed Average: 22.8 km/h on Jul 10														Hours in Service: 744	
Minimum Speed Value: 1 km/h on Jul 24 07:00														Minimum Daily Speed Average: 1.6 km/h on Jul 17														Hours of Data: 743	
Maximum Diurnal Speed Average: 7.9 km/h at hour 13														Minimum Diurnal Speed Average: 2.6 km/h at hour 21														Hours of Missing Data: 1	
Monthly Average Velocity: 5.6 km/h 208.7 deg														Percentiles: P ₁ = 2 P ₁₀ = 6 Q ₁ = 9 Median = 15 Q ₃ = 21 P ₉₀ = 26 P ₉₉ = 35														Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	ESE7	ESE5	SE8	ESE6	ESE9	SE9	SE11	SE20	SE17	SE18	SE19	SE17	SSE13	SSE14	SSE15	SSE20	SSE22	SSE18	SSE15	SSE15	SSE13	SE14	SE11	SE12	SE13.3	SSE22			
2-Jul	SE22	SSE24	SE24	SE21	SE22	SE17	SE15	SSE18	SSE16	SSE26	SSE20	SE19	S27	SSE17	SSE18	SE17	SE13	SE22	SE18	SSE17	SSE20	SSE22	SSE26	SE21	SSE19.7	S27			
3-Jul	SE17	SSE16	SSE14	SE18	SE19	SE18	SSE19	SSE16	SSE15	SSE17	SE11	S15	SW23	E2	ESE9	S7	SSE9	S9	SSE12	S7	SSE8	ESE5	SE15	SSE20	SSE12.1	SW23			
4-Jul	SSE18	SSW12	W11	WSW9	WSW15	S8	S5	SSE7	SSE7	SSE13	SE9	SSE12	SSE10	WSW30	WSW9	WSW10	WSW10	SW10	SW14	WSW15	WSW11	SSW12	SSW19	WSW22	SW10.1	WSW30			
5-Jul	WSW22	W19	W17	W19	W14	W9	SW11	SW10	W12	WNW20	WNW25	WNW26	NW30	NNW31	NNW26	NNW19	NNW24	WNW12	NNW15	NNW21	N16	NNW21	NNW24	NNW22	NW15.6	NNW31			
6-Jul	NW21	NW17	WNW13	W15	W17	WNW13	W9	WNW7	NNW11	NW8	WNW11	WSW8	WNW8	WNW9	WSW19	SW12	WSW8	SW6	SE7	ENE11	NNW14	WNW19	NNW9	NNE14	WNW8.5	NW21			
7-Jul	ENE14	E12	E8	ESE7	SE7	ESE4	SE4	SE5	ESE4	E6	E8	ESE7	E8	SSE7	SSE6	S7	SSW8	S8	SE12	ESE8	SE10	SE9	SE11	SE16	SE7.0	SE16			
8-Jul	SE24	SSE21	SE21	SE13	SE7	SE10	SE7	S8	SSE9	S7	E11	E14	ESE11	SE11	SW11	WSW11	S17	S21	SSW16	WSW15	SW9	SSW8	S15	WSW19	S9.6	SE24			
9-Jul	WNW14	WSW17	WSW30	WSW26	WSW24	SW15	SW18	WSW21	WSW22	SW21	SSW27	SSW27	SSW25	SSW24	SSW28	SSW26	S23	SSW21	SW26	SSW22	S25	S29	S32	S35	SSW22.1	S35			
10-Jul	S28	S27	S28	S32	S32	S27	S22	S22	S20	S16	S18	S26	SSW24	SSW20	SSW21	SSW27	SSW27	SSW32	SSW26	S20	SSW21	SW19	WSW23	WSW25	SSW22.8	S32			
11-Jul	W20	N5	S1	SSW5	S7	S12	S7	S5	SSE7	SSE12	SSE13	SSE5	SSE17	SSE16	SSW10	S10	S13	SSW13	WSW11	WNW18	N9	NW5	WSW19	W19	SSW6.1	W20			
12-Jul	WSW20	SW12	SW10	SSW10	SSW8	S12	SSE14	S9	SSW9	SW10	WSW20	WSW24	E5	SE10	SSE23	S24	S27	S24	S21	SW22	WSW23	WSW28	SW31	WSW32	SSW14.7	WSW32			
13-Jul	WSW38	WSW36	WSW33	WSW31	WSW26	WSW21	WSW19	SW20	WSW18	SW19	WSW17	WSW30	WSW32	WSW30	WSW30	WSW31	W21	N18	N14	NW25	NNW24	WNW19	SW18	WSW14	WSW20.7	WSW38			
14-Jul	SW6	SW15	WSW12	SW11	WSW13	SW9	SW12	SW12	WSW11	SW12	WSW19	WSW19	W18	WNW16	WSW8	SW11	SW11	SSW7	WSW6	WSW3	SSE7	SE11	SSE24	SSE27	SW10.0	SSE27			
15-Jul	SSE26	SSE23	SSE23	SSE25	SSE26	SSE25	SSE16	SSE9	SSE8	S10	SSE11	SSE20	SSE20	SSE21	SSE22	SSE16	W25	ESE17	ESE14	SE11	SSE15	SSE16	SSE18	SSE25	SSE16.6	SSE26			
16-Jul	SSE18	SSE19	S22	S16	SSE15	SSE17	SSE12	SSE13	SSE15	SSE16	S20	SSW24	SSW21	WSW16	WSW15	WNW14	ENE15	E9	SE12	N2	ENE15	ENE8	DF	ESE3	S9.3	SSW24			
17-Jul	E4	SSE6	S2	SSW6	SSW4	S9	SSW8	SSW6	SW2	WSW3	SW4	WSW3	SE1	SE6	S9	S9	SSE8	SSW6	WNW2	NNE17	NNE20	NNE21	ENE13	ENE8	SE1.6	NNE21			
18-Jul	E7	SSE10	SSE9	SSE12	S10	SSE17	SE11	SE6	SSW9	WSW19	SSW16	SE15	SSE17	S14	WNW10	N17	ENE10	SE13	SSE34	SE22	SE17	SE12	ESE9	SE12	SSE9.3	SSE34			
19-Jul	SE7	ESE4	ENE6	SSW4	S6	SSE13	NW7	N19	NNW13	NNW12	NW15	NW12	W12	N19	N26	NNE34	N34	N32	N33	N33	N28	NNW25	NNW27	N28	N14.9	NNE34			
20-Jul	N36	N38	N35	N25	NNW26	NNW21	NNW17	NNW14	NNW11	NNW10	NNW11	NNW13	NW14	NW15	WNW14	WNW11	W10	WNW7	WNW5	W2	WSW2	WSW7	W6	WSW4	NNW13.0	N38			
21-Jul	SW4	W8	WNW9	NNW5	WSW8	W9	W8	WSW8	SSE4	SSE5	S4	WSW3	WSW5	SSW8	S8	S9	S12	S13	S16	S19	S21	S22	S23	SSW20	SSW8.4	S23			
22-Jul	SSW11	SSW10	SW10	SSW8	S9	SSW9	SSW9	SSW8	S6	S7	S7	S8	S11	SSW15	S15	S14	S13	SSE11	SSE12	SSE17	SE24	SSE24	SSE25	SSE25	S11.8	SSE25			
23-Jul	SSE28	SSE29	SSE27	SSW15	SSE16	SSE20	S15	SW6	WNW7	WNW16	NNW25	NNW23	NNW24	NW26	NNW15	WNW9	W17	WNW22	WNW20	WNW15	WNW17	WNW21	WNW28	WNW26	W8.1	SSE29			
24-Jul	NNW19	NW16	NW16	NNE4	N6	NNW5	WSW1	S3	SE5	SSE4	ESE6	ESE7	SE10	SSE11	SE8	SE9	SSE14	SSE15	SE14	SSE16	SSW16	W17	WNW10	WSW16	S2.4	NNW19			
25-Jul	W21	W17	SW8	WSW9	WSW15	WSW18	WSW16	WSW22	W21	W21	WSW17	WSW18	WSW21	WSW17	SW22	SW21	WSW20	SW21	WSW17	WSW18	SW9	WNW11	NNE26	N25	WSW14.3	NNE26			
26-Jul	NNE24	NNE20	NNE22	NNE22	NNE24	NNE23	NNE24	NNE28	NNE20	NNE21	NNE23	NNE16	NNE14	N12	NNW12	NNW15	NNE13	NNE12	NNE13	NNE16	NNE22	NNE23	NE17	NE12	NNE18.2	NNE28			
27-Jul	NE10	ENE7	ESE3	ESE6	ESE7	ESE8	ESE9	SE6	NNE3	NE1	SSE6	SSW6	W7	WNW6	NW4	ESE2	SSE12	S19	S16	SSW15	SW16	SW19	WSW20	WSW17	SSW4.9	WSW20			
28-Jul	WSW12	SW9	SSW9	SW7	SSW5	SSW9	S7	SSE9	SSE11	SSE11	SSE10	SSE13	SSE14	SSE12	SSE13	SE13	E16	E16	E11	E18	NE26	NNE28	NNE38	NE17	ESE5.7	NNE38			
29-Jul	ENE26	SSW17	S24	SSW28	WSW36	W29	W27	W27	W25	W25	W21	W21	W29	W25	WNW20	W22	NW21	NW24	WNW17	WNW30	W27	W27	W27	W25	W20.2	WSW36			
30-Jul	W25	W24	W23	W15	WSW13	W13	W10	W14	W15	WNW12	WNW9	WNW8	W8	WNW5	W6	SSW9	SSW9	W7	SW5	SW10	SW7	SSW8	S18	S18	WSW9.9	W25			
31-Jul	SW15	SSW12	S8	S11	S11	S12	S9	SSE9	SSE11	SSE13	SSE14	SSE19	SSW13	SSE5	SE8	SSE16	SSE14	SSE14	SSE13	SE16	SE18	SSE21	SE24	SE20	SSE12.6	SE24			
SW4.1SSW6.1SSW6.8SSW6.9SSW6.7SSW6.0SSW5.3SSW4.6SSW5.6SSW5.2SSW6.3 SW7.9 SW6.3 SW6.6SSW6.4SSW5.7 S6.2 S5.9 SW3.9SSW2.6 SW3.9SSW5.1SSW6.3																										Diurnal Average			
WSW38 N38 N35 S32WSW36 W29 W27 NNE28 W25 SSE26 SSW27WSW30WSW32NNW31 WSW30 NNE34 N34 SSW32 SSE34 N33 N28 S29 NNE38 S35																										Diurnal Maximum			
DF - DAS Failure																													
All monthly, daily, and diurnal averages have been calculated using vector methods																													



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 75m (WS75) - km/h

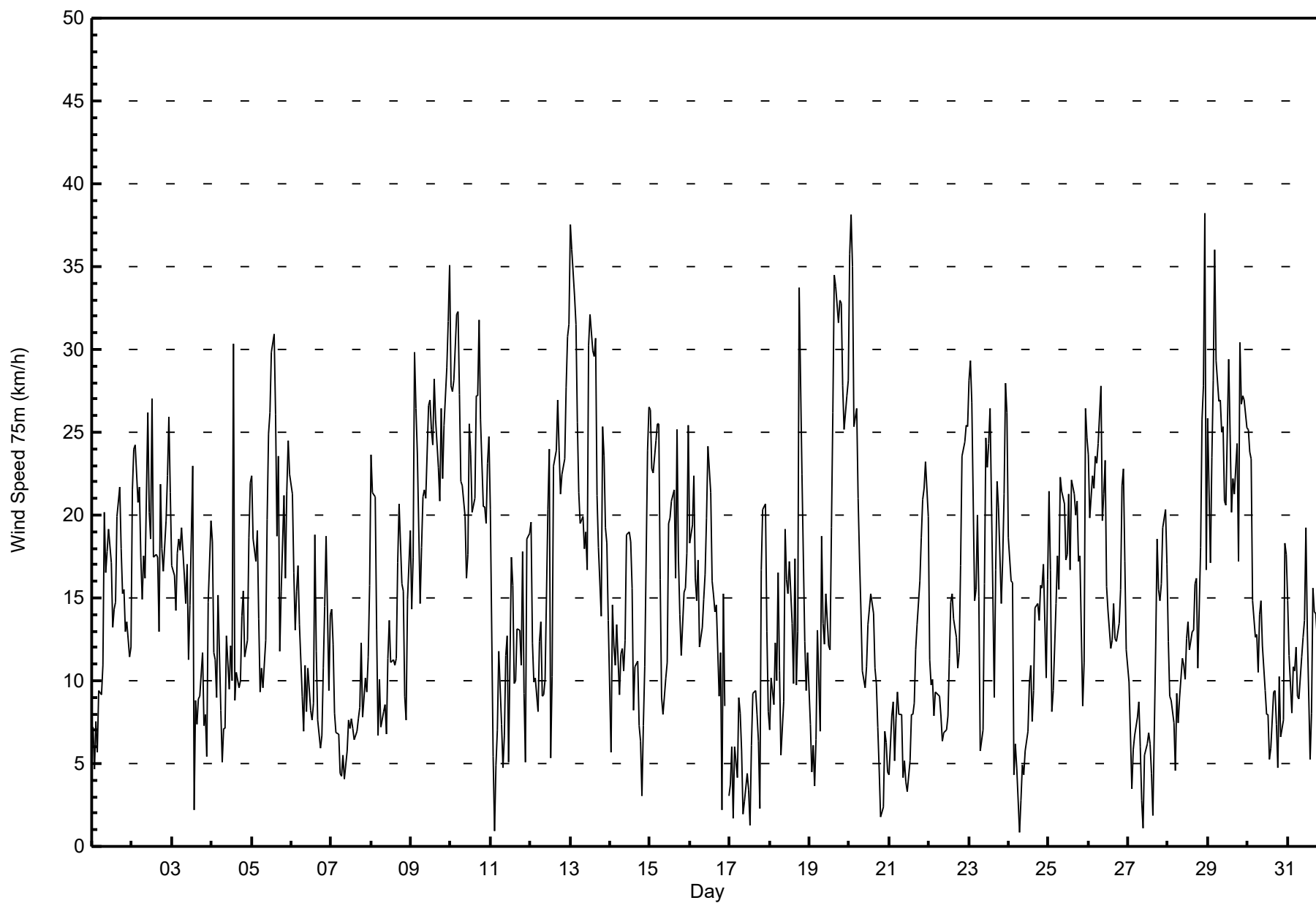
Mannix - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 20 km/h on Jul 4 14:00																	Hours in Service: 744 Hours of Data: 743 Hours of Missing Data: 1 Hours of Calibration: 0 Percent Operational Time: 99.9								
Minimum Value: 1 km/h on Jul 21 23:00 Percentiles: P ₁ = 1 P ₁₀ = 2 Q ₁ = 2 Median = 3 Q ₃ = 4 P ₉₀ = 6 P ₉₉ = 9																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	3	2	4	2	3	4	5	5	6	6	5	4	3	3	3	5	5	3	2	2	2	3	4	4	6
2-Jul	5	3	4	7	7	7	6	4	4	7	5	7	5	4	5	4	5	5	5	4	2	3	3	7	7
3-Jul	6	3	3	2	2	4	4	3	4	4	5	5	5	4	3	2	2	3	2	2	2	3	4	2	6
4-Jul	2	3	1	4	3	2	2	2	3	2	3	4	8	20	3	3	2	4	3	3	2	2	1	3	20
5-Jul	2	2	3	3	3	2	2	2	4	6	5	4	5	5	6	5	8	3	4	4	3	7	4	4	8
6-Jul	4	2	2	2	4	4	4	3	3	3	5	4	3	4	5	3	3	4	2	2	7	3	3	3	7
7-Jul	2	3	2	3	3	3	3	2	2	2	3	3	3	4	3	2	2	2	3	3	4	5	5	5	5
8-Jul	4	2	2	4	3	4	4	3	5	8	4	4	4	4	10	6	4	3	2	3	2	1	3	4	10
9-Jul	2	4	3	3	2	3	3	5	6	5	5	6	6	7	6	5	4	5	4	3	1	3	3	5	7
10-Jul	4	4	3	3	3	3	3	3	3	3	3	5	5	5	5	6	6	5	4	3	2	2	3	2	6
11-Jul	2	4	1	3	3	2	3	2	4	3	3	4	4	3	2	3	3	2	3	3	3	4	4	2	4
12-Jul	1	3	1	1	2	4	5	2	4	3	5	8	5	4	6	9	8	3	4	4	10	5	3	4	10
13-Jul	5	5	4	4	4	4	5	5	4	3	5	6	5	5	7	6	6	6	3	4	4	5	7	8	8
14-Jul	3	3	3	2	2	3	2	4	3	3	4	4	4	4	4	5	4	3	3	2	2	3	3	1	5
15-Jul	2	4	3	2	1	4	3	3	3	3	4	4	4	4	4	4	18	10	5	6	4	3	3	5	18
16-Jul	2	2	3	1	2	2	3	2	3	3	4	4	5	5	5	5	3	4	4	4	5	2	DF	1	5
17-Jul	2	2	2	3	1	4	2	2	2	2	2	2	3	4	4	2	3	2	4	3	2	2	3	2	4
18-Jul	2	3	3	2	2	2	5	3	3	5	7	7	9	8	6	4	3	9	5	10	6	6	4	5	10
19-Jul	4	3	2	1	4	5	4	5	5	3	3	3	3	9	7	6	7	6	6	6	6	6	5	8	9
20-Jul	6	5	6	5	6	4	4	4	3	2	3	3	2	2	2	2	2	2	1	1	1	1	1	1	6
21-Jul	3	1	1	2	3	2	3	4	2	2	2	2	2	4	4	3	3	2	2	1	1	1	1	2	4
22-Jul	2	1	1	2	3	2	1	1	2	2	3	3	4	4	3	4	3	2	2	3	2	2	2	2	4
23-Jul	2	2	3	7	4	3	6	4	3	6	4	5	7	7	4	9	3	4	4	3	2	3	2	3	9
24-Jul	3	3	3	2	2	3	1	2	2	3	3	3	4	4	3	4	4	5	7	3	2	6	1	3	7
25-Jul	4	3	3	4	2	2	3	4	5	4	4	3	4	4	4	4	3	3	3	4	2	7	5	7	7
26-Jul	5	5	4	4	5	3	4	3	5	3	4	3	4	4	3	3	3	3	2	2	3	2	2	3	5
27-Jul	2	2	2	3	3	2	4	4	1	1	2	2	2	2	2	2	3	2	2	2	2	1	2	4	4
28-Jul	2	2	2	2	1	1	2	1	2	2	3	4	4	4	3	4	3	4	3	8	3	9	5	7	9
29-Jul	8	8	4	6	5	4	4	3	4	3	6	7	5	4	4	5	4	9	4	6	4	3	4	3	9
30-Jul	3	3	3	4	3	3	3	3	3	3	3	3	3	4	3	4	3	3	3	2	1	1	3	3	4
31-Jul	2	2	2	3	3	2	2	2	2	2	2	2	3	2	3	3	2	2	3	3	2	4	2	3	4
8 8 6 7 7 7 6 5 6 8 7 8 9 20 10 9 18 10 7 10 10 9 7 8																									
Diurnal Maximum																									
DF - DAS Failure																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 75m (WS75) - km/h
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 75m (WS75) - km/h
Mannix - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	55	7.40	7.40
6 - 11	213	28.67	36.07
12 - 19	253	34.05	70.12
20 - 28	186	25.03	95.15
29 - 38	36	4.85	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 75m (WS75) - km/h
Mannix - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	2	2	1	0	3	8	4	5	6	4	4	8	1	3	2	2	55
6 - 11	2	0	1	6	8	15	27	27	30	26	20	17	12	15	2	5	213
12 - 19	7	8	3	4	5	2	29	63	23	14	14	30	17	16	6	12	253
20 - 28	5	17	1	1	0	0	13	31	22	20	8	19	21	9	5	14	186
29 - 38	7	2	0	0	0	0	0	2	5	1	1	13	2	1	1	1	36
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	23	29	6	11	16	25	73	128	86	65	47	87	53	44	16	34	743

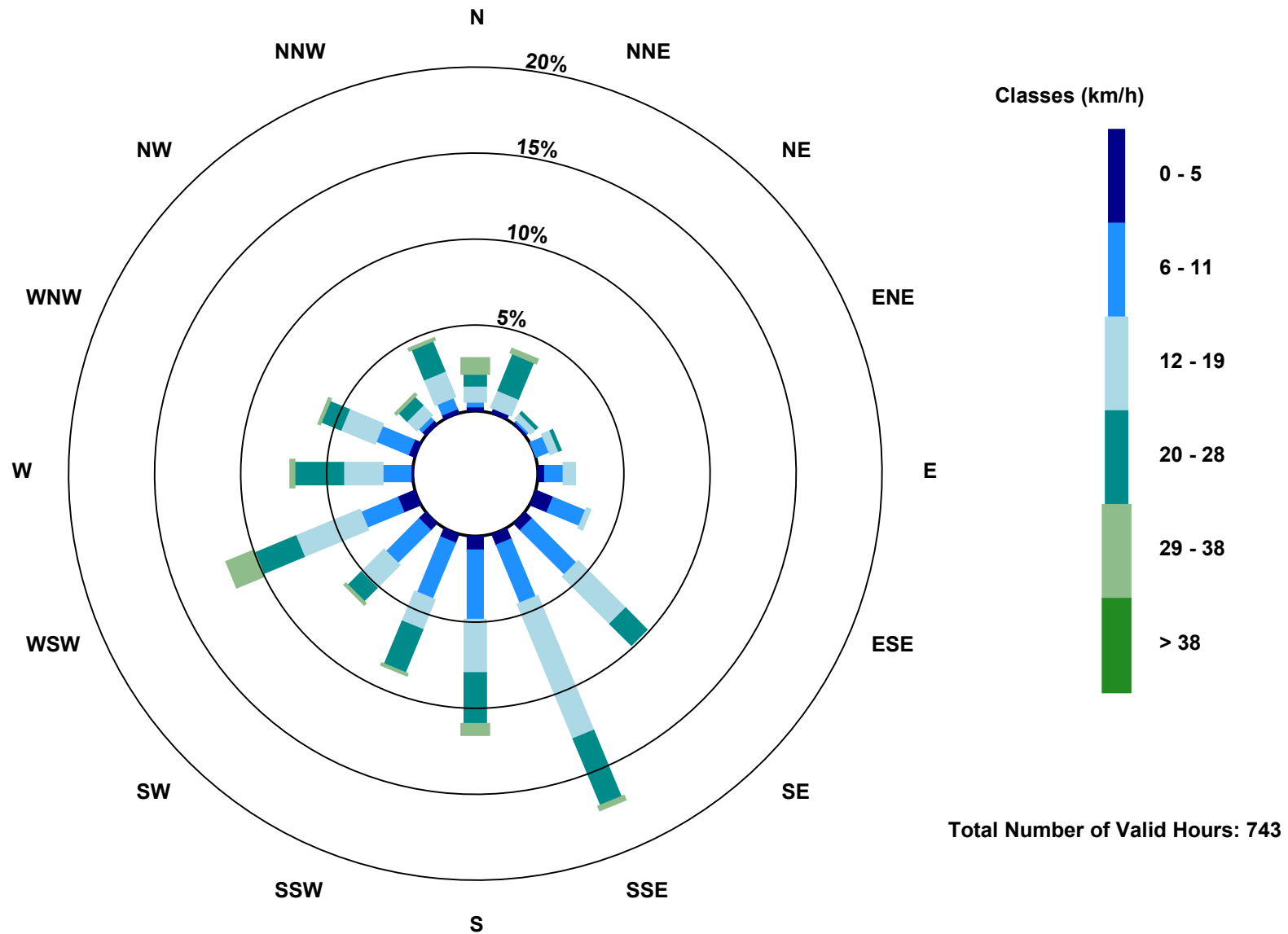
Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 75m (WS75) - km/h
Mannix





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 90m (WS90) - km/h

Mannix - July 2026

Maximum Speed: 42 km/h on Jul 28 23:00														Maximum Daily Speed Average: 23.9 km/h on Jul 10														Hours in Service: 744	
Minimum Speed Value: 1 km/h on Jul 24 07:00														Minimum Daily Speed Average: 1.9 km/h on Jul 17														Hours of Data: 741	
Maximum Diurnal Speed Average: 8.3 km/h at hour 13														Minimum Diurnal Speed Average: 2.6 km/h at hour 21														Hours of Missing Data: 3	
Monthly Average Velocity: 6.0 km/h 201.9 deg														Percentiles: P ₁ = 2 P ₁₀ = 7 Q ₁ = 10 Median = 16 Q ₃ = 22 P ₉₀ = 27 P ₉₉ = 37														Percent Operational Time: 99.6	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
1-Jul	ESE10	ESE9	ESE12	ESE11	ESE17	ESE13	SE14	SE23	SE22	SE21	SE22	SE19	SE14	SSE15	SSE15	SE20	SSE22	SSE19	SSE16	SSE16	SE14	SE16	SE17	SE17	SE15.9	SE23			
2-Jul	SE24	SE26	SE26	SE24	SE25	SE22	SE19	SE18	SE17	SE28	SE23	SE22	S28	SSE18	SE19	SE19	SE16	SE24	SE21	SE18	SE21	SE24	SE28	SE25	SE21.8	SE28			
3-Jul	SE20	SE18	SSE15	SE18	SE20	SE20	SE21	SE16	SE16	SSE17	SE13	SSE15	SW24	E5	ESE12	SSE7	SSE9	S9	SSE12	S8	SSE8	SE8	SE17	SE22	SSE13.3	SW24			
4-Jul	SSE21	SSW13	W11	SW8	SW14	S9	S5	SSE7	SSE7	SE13	SE10	SSE13	SSE11	SW26	WSW10	SW11	WSW10	SW11	SW15	SW16	SW13	SSW12	SSW19	WSW25	SSW10.3	SW26			
5-Jul	WSW25	WSW20	WSW19	W21	W16	W11	SW11	SW10	W13	WNW21	WNW26	WNW27	WNW31	NW32	NNW27	NNW19	NNW25	W13	NNW16	NNW22	N17	NW23	NW26	NW24	WNW17.0	NW32			
6-Jul	NW23	WNW18	W14	W17	W20	W16	W10	WNW7	NW11	NW8	WNW11	WSW9	WNW8	W9	WSW19	SW12	WSW8	SSW6	SE7	ENE11	NW15	WNW20	NNW10	NNE14	WNW9.2	NW23			
7-Jul	ENE14	E13	E10	ESE11	SE9	ESE7	SE5	SE7	ESE5	E6	E8	E8	E8	SE8	SSE7	S7	S8	SSE9	SE14	ESE11	ESE13	ESE13	ESE15	SE18	ESE8.7	SE18			
8-Jul	SE26	SE23	SE23	SE18	ESE12	SE13	ESE10	S9	SSE8	SE6	E16	E19	ESE14	ESE15	SSW13	WSW13	S18	S22	SSW17	WSW17	SW10	SSW8	S15	WSW22	SSE10.9	SE26			
9-Jul	WNW17	WSW16	SW32	WSW29	WSW27	SW17	SW21	SW23	WSW22	SW22	SSW27	S27	SSW26	SSW25	SSW29	SSW27	S24	S22	SSW28	SSW24	S27	S31	S34	S38	SSW23.3	S38			
10-Jul	S30	S30	S32	SSE35	S35	S29	S23	S23	S20	S16	SSE18	S25	S24	S21	SSW22	SSW28	SSW28	SSW33	S27	S22	SSW22	SW19	SW25	WSW26	S23.9	SSE35			
11-Jul	W20	NNW6	E2	S5	S7	SSE10	S6	S5	SE8	SE12	SSE13	SSE5	SSE17	SSE16	S11	S11	S14	SSW14	WSW12	WNW19	N10	NW5	WSW18	WSW22	SSW6.1	WSW22			
12-Jul	WSW22	SW14	SW11	SSW11	SW9	S11	SSE13	S10	SSW10	SW11	SW22	WSW27	E5	SE11	SSE23	S24	S28	S25	S22	SW25	WSW26	WSW31	SW34	WSW35	SSW15.8	WSW35			
13-Jul	WSW40	WSW38	WSW36	WSW34	WSW28	WSW23	WSW21	SW21	SW18	SW20	WSW17	WSW31	WSW33	SW31	WSW31	SW31	W22	N19	NNW15	NW27	NNW26	WNW22	SW19	SW15	WSW22.0	WSW40			
14-Jul	SW7	SW16	SW15	SW13	WSW15	SW10	SW13	SW13	WSW11	SW13	WSW19	WSW20	W19	W16	WSW9	SSW11	SW12	SSW8	SW7	SW3	SE7	SE11	SSE23	SSE27	SW10.7	SSE27			
15-Jul	SSE29	SE26	SSE26	SSE28	SSE25	SSE27	SSE19	SSE11	SSE9	SSE10	SSE12	SSE20	SSE20	SSE21	SSE22	SSE17	UO	ESE24	E22	ESE15	SE16	SSE16	SE19	SSE28	SSE19.3	SSE29			
16-Jul	SE18	SSE21	S23	S15	SSE13	SSE16	SSE13	SSE14	SSE15	SSE17	S20	S24	SSW22	WSW17	WSW16	NNW16	NE15	E11	SE13	N1	NE16	ENE9	DF	ESE6	SSE9.6	S24			
17-Jul	ESE5	SE7	SSE2	SSW6	SSW5	S7	SW8	SSW7	SW3	SW3	SW5	SW4	SSE2	SE7	S10	SSE10	SE9	S7	W2	NNE17	NNE21	NNE20	ENE13	E9	SE1.9	NNE21			
18-Jul	ESE10	SSE12	SE10	SE14	SSE12	SE20	SE16	ESE8	S9	WSW21	SSW17	SE22	SE21	SSE16	NNW10	N19	NE11	ESE15	SSE34	SE27	SE22	ESE18	ESE14	SE16	SE11.6	SSE34			
19-Jul	ESE10	ESE6	ENE6	S5	SSE7	SSE14	WNW7	NNW20	NNW14	NW12	NW16	NW13	W12	N20	NNW28	N36	N35	NNW33	NNW35	NNW35	N30	NNW27	NNW30	NNW30	NNW15.6	N36			
20-Jul	NNW38	NNW40	NNW37	N27	NNW28	NNW22	NNW19	NNW15	NNW11	NNW9	NNW11	NNW14	NW15	NW16	NNW14	NNW11	W10	W7	W5	WSW2	WSW2	WSW6	W6	WSW4	NW13.6	NNW40			
21-Jul	SSW3	WSW8	WNW8	NNW4	WSW6	WSW9	WSW9	WSW9	SSE4	SE5	S4	WSW4	SW6	SSW8	S8	S9	SSE12	SSE14	S16	S19	S21	S21	S23	SSW19	SSW8.3	S23			
22-Jul	SSW11	SW11	SW10	SSW8	SSW7	SW8	SSW9	SSW9	S7	S7	SSE7	SSE8	S12	S15	S15	S14	S13	SSE11	SE12	SE17	SE25	SE25	SE27	SSE29	SSE11.6	SSE29			
23-Jul	SSE31	SSE30	SSE29	SSW15	SSE15	SSE21	S16	SW6	WNW7	WNW16	NW26	NNW24	NNW25	NW28	NNW15	W7	W18	W23	W22	WNW16	WNW20	WNW23	WNW31	WNW29	W9.1	SSE31			
24-Jul	NNW20	NW18	WNW18	N5	N7	NNW5	E1	SSE3	SE6	SSE5	ESE7	ESE8	SE11	SE12	SE9	SE11	SE15	SE16	SE16	SE17	SSW16	W19	WNW10	WSW16	S2.5	NNW20			
25-Jul	WSW24	WSW19	SW10	WSW10	WSW16	WSW19	WSW17	WSW24	WSW23	WSW21	WSW18	WSW18	WSW22	WSW17	SW23	SW22	SW21	SW22	SW18	SW19	SW10	W13	N28	N25	WSW15.6	NNE28			
26-Jul	NNE25	NNE21	N23	N22	N24	N24	NNE25	NNE28	NNE20	NNE21	NNE23	NNE16	NNE14	N12	NW13	NNW15	N12	NNE12	NNE14	NNE16	NNE22	NNE24	NNE18	NNE12	N18.5	NNE28			
27-Jul	NE10	NE7	ESE4	ESE7	ESE7	ESE9	ESE12	ESE7	NNE3	ENE1	SE6	SSW7	WSW7	W6	WNW4	ESE2	SSE12	S19	S16	SSW16	SSW17	SW21	WSW23	WSW21	S5.3	WSW23			
28-Jul	SW15	SW10	SW9	SW8	SSW4	SSW8	S6	SSE9	SSE11	SE11	SE11	SE13	SE14	SE12	SE14	ESE15	ENE18	E20	E13	E21	NE27	UO	N42	NE17	ESE6.2	N42			
29-Jul	NE27	S18	S25	SSW30	WSW38	W31	W28	W28	WSW26	W26	W22	W22	WSW30	W26	W21	W23	WNW22	NW26	WNW19	W34	WSW29	W30	W30	W28	W21.7	WSW38			
30-Jul	W28	W27	W26	W17	WSW14	W14	W12	W14	W15	WNW12	WNW10	W8	W8	W5	WSW6	SSW10	SSW10	WSW7	SW5	SW11	SW7	SSW8	SSE18	S19	WSW10.9	W28			
31-Jul	SW18	SSW13	SSW8	S9	S9	S10	SSW8	SSE8	SSE10	SSE12	SSE14	SSE20	S14	SE5	SE9	SSE17	SSE14	SSE15	SE14	SE17	SE19	SE22	SE25	SE21	SSE12.4	SE25			
SSW4.5SSW6.7SSW7.5SSW7.3SSW7.2																								Diurnal Average					
WSW40NNW40NNW37 SSE35WSW38 W31 W28 W28WSW26 SE28 SSW27WSW31WSW33 NW32WSW31 N36 N35 NNW33 NNW35 NNW35 N30 S31 N42 S38																								Diurnal Maximum					
DF - DAS Failure UO - Unstable Operation																													
All monthly, daily, and diurnal averages have been calculated using vector methods																													



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 90m (WS90) - km/h

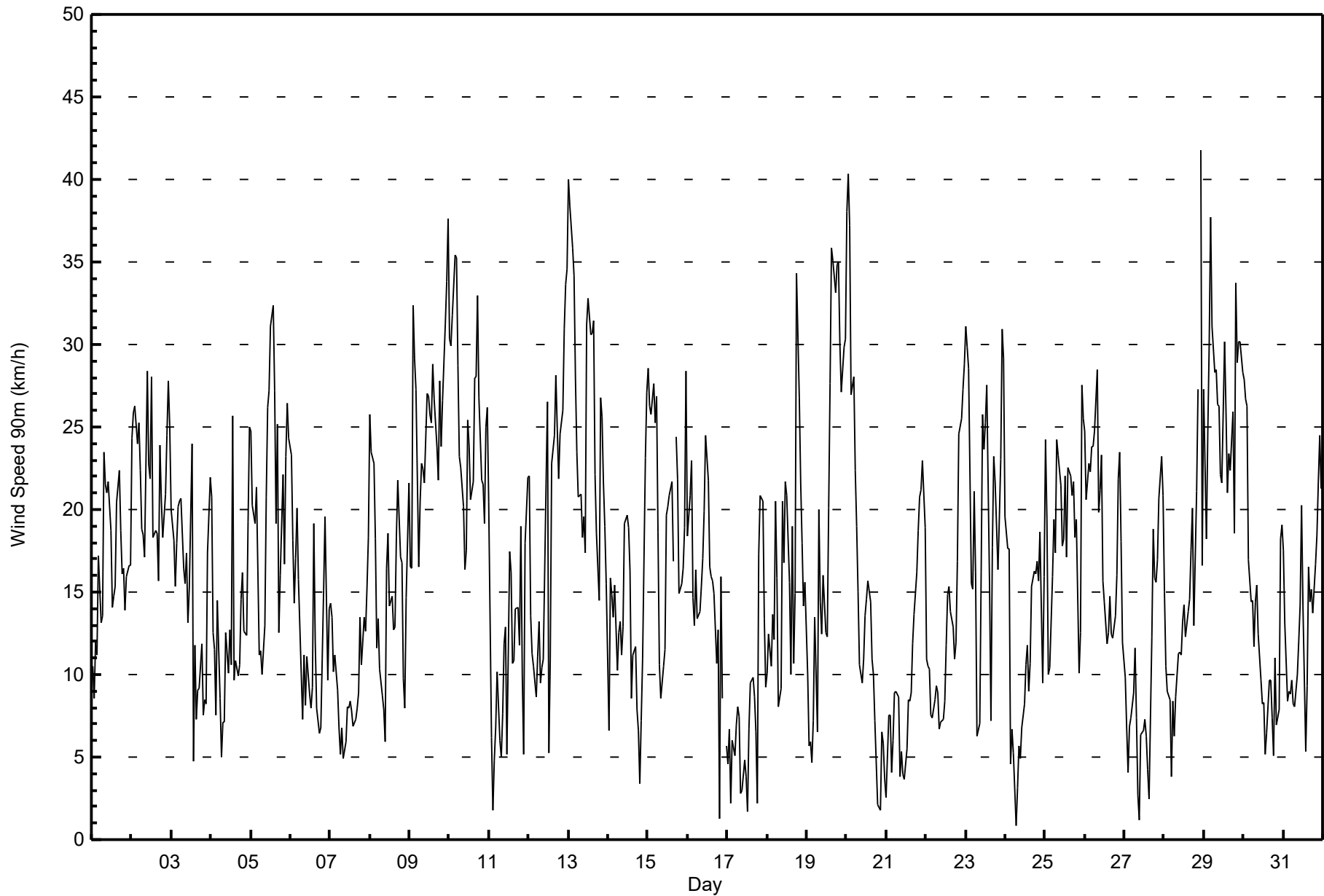
Mannix - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 14 km/h on Jul 4 14:00																		Hours in Service: 744 Hours of Data: 741 Hours of Missing Data: 3 Hours of Calibration: 0 Percent Operational Time: 99.6							
Minimum Value: 0 km/h on Jul 11 03:00																									
Percentiles: P ₁ = 1 P ₁₀ = 2 Q ₁ = 2 Median = 3 Q ₃ = 4 P ₉₀ = 5 P ₉₉ = 9																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	3	2	4	3	4	3	4	4	4	4	4	2	3	3	4	5	3	2	2	2	2	3	3	5	
2-Jul	3	3	3	5	5	5	4	4	3	6	3	5	4	3	4	4	4	3	4	3	2	2	3	5	
3-Jul	4	3	3	2	2	3	3	3	3	3	4	4	6	4	3	2	2	3	2	2	1	3	3	2	
4-Jul	2	3	1	4	3	3	2	2	3	2	2	3	8	14	3	3	2	4	3	3	2	2	2	3	
5-Jul	3	2	3	3	3	2	1	2	4	6	5	5	5	6	6	5	8	3	4	4	3	7	4	4	
6-Jul	4	2	2	2	4	3	4	3	3	3	4	4	3	5	5	3	3	4	2	2	8	3	3	2	
7-Jul	2	2	1	2	3	2	3	2	2	2	3	3	3	4	3	2	2	2	2	3	4	4	4	4	
8-Jul	3	1	1	2	3	3	4	3	5	6	4	3	4	4	11	6	4	3	2	3	2	1	3	5	
9-Jul	2	3	4	3	3	3	3	5	6	5	5	5	5	7	6	5	4	5	4	3	2	7	2	5	
10-Jul	4	4	3	3	3	3	3	3	3	3	3	5	5	5	5	6	6	5	4	3	2	2	4	2	
11-Jul	2	4	0	3	2	2	3	2	4	2	3	4	4	3	1	2	3	2	3	3	3	3	5	2	
12-Jul	1	3	1	2	2	4	4	2	4	3	5	8	5	4	6	8	7	3	4	4	10	5	3	4	
13-Jul	5	5	5	5	4	4	5	5	4	3	5	6	5	5	6	6	6	7	3	4	4	5	7	9	
14-Jul	3	4	3	2	2	3	2	3	3	3	4	4	4	4	4	5	4	3	3	2	2	3	3	1	
15-Jul	2	4	3	2	1	2	3	3	3	3	4	3	4	4	4	4	UO	10	6	6	4	2	3	6	
16-Jul	2	2	3	2	3	2	2	1	3	3	4	4	5	5	5	5	2	4	4	4	5	2	DF	1	
17-Jul	1	2	2	3	2	3	2	2	2	2	2	2	3	3	3	2	3	2	4	3	2	3	3	3	
18-Jul	2	3	2	3	2	3	4	2	3	5	7	7	10	8	5	4	3	9	4	7	4	5	4	3	
19-Jul	3	3	2	1	4	5	4	5	5	3	3	4	3	9	7	6	7	6	6	6	6	6	5	8	
20-Jul	6	5	6	6	7	4	4	4	3	2	3	3	2	2	2	2	2	2	1	1	1	1	1	1	
21-Jul	2	2	2	1	3	1	3	4	2	2	2	2	2	4	4	3	3	2	2	1	1	1	1	3	
22-Jul	2	1	1	2	2	3	1	2	2	2	2	3	4	3	3	3	2	2	1	3	2	1	2	2	
23-Jul	1	1	3	6	4	2	5	4	3	6	4	5	7	7	4	8	4	5	4	3	2	4	2	3	
24-Jul	3	3	3	2	3	3	1	2	2	3	3	3	4	4	3	3	3	5	5	3	2	7	2	4	
25-Jul	5	3	3	4	2	2	3	4	5	4	4	3	4	4	4	4	3	3	3	4	2	7	5	6	
26-Jul	5	4	4	4	5	3	4	3	5	2	4	3	3	4	3	3	3	3	2	2	2	2	2	3	
27-Jul	2	2	2	3	3	2	4	3	1	1	2	2	2	2	2	2	3	2	2	2	3	1	2	4	
28-Jul	3	3	1	2	1	1	1	1	2	2	2	3	3	4	3	3	4	4	4	8	2	UO	6	6	
29-Jul	9	8	4	6	5	4	4	4	4	3	6	7	5	4	4	5	4	10	4	6	3	4	4	3	
30-Jul	3	3	3	5	3	3	3	3	3	3	3	3	3	4	3	3	3	3	3	1	2	1	4	3	
31-Jul	2	2	2	2	2	1	2	2	2	2	2	2	3	2	2	3	2	2	3	3	2	3	2	3	
9 8 6 6 7 5 5 5 6 6 7 8 10 14 11 8 8 10 6 8 10 7 7 9																									
Diurnal Maximum																									
DF - DAS Failure UO - Unstable Operation																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 90m (WS90) - km/h
Mannix - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 90m (WS90) - km/h
Mannix - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	46	6.21	6.21
6 - 11	192	25.91	32.12
12 - 19	245	33.06	65.18
20 - 28	203	27.40	92.58
29 - 38	52	7.02	99.60
> 38	3	0.40	100.00

Total Number of Valid Hours: 741

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 90m (WS90) - km/h
Mannix - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	2	1	0	1	4	4	2	7	5	3	6	4	3	1	1	2	46
6 - 11	2	0	3	3	7	18	22	24	23	21	25	16	11	10	2	5	192
12 - 19	5	9	3	3	4	16	45	42	18	13	21	22	17	11	7	9	245
20 - 28	5	13	2	0	2	2	40	17	25	11	15	24	18	8	8	13	203
29 - 38	3	0	0	0	0	0	0	7	8	3	3	13	4	3	1	7	52
> 38	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
Totals	18	23	8	7	17	40	109	97	79	51	70	80	53	33	19	37	741

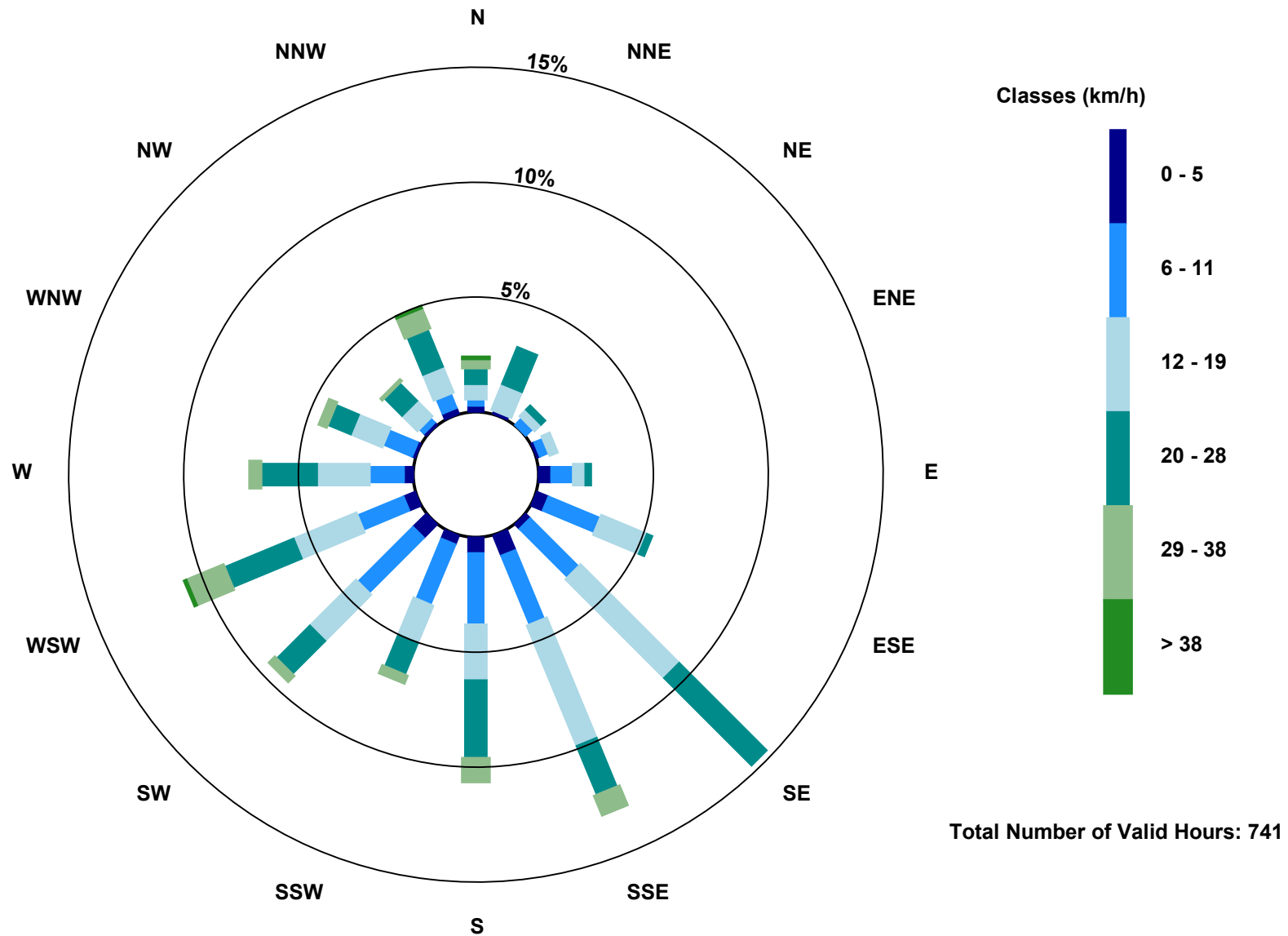
Total Number of Valid Hours: 741

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 90m (WS90) - km/h
Mannix





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 20m (WD20) - deg

Mannix - July 2026

Direction of Maximum Speed: 248 deg on Jul 29 05:00 Direction of Maximum Daily Speed Average: 260.6 deg on Jul 13																				Hours in Service: 744					
Direction of Minimum Speed: 136 deg on Jul 17 13:00 Direction of Minimum Daily Speed Average: 0.3 deg on Jul 17																				Hours of Data: 742					
Monthly Average Direction: 207.9 deg																				Hours of Missing Data: 2					
																				Percent Operational Time: 99.7					
Day	Hourly Period Ending At (MST)																							Daily Average	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	144	138	152	131	131	149	161	148	141	147	145	152	164	173	167	156	164	178	183	172	156	144	142	141	153.2
2-Jul	142	153	144	144	142	140	141	157	156	157	150	145	195	165	149	148	141	142	146	156	162	151	152	144	150.5
3-Jul	147	161	165	155	158	151	153	152	154	162	143	182	247	110	125	172	164	188	161	189	159	61	145	159	158.9
4-Jul	174	194	240	225	229	161	162	166	153	157	151	160	170	UO	249	248	257	235	241	243	227	193	199	250	207.6
5-Jul	253	238	232	262	248	206	214	227	272	298	293	302	311	334	345	348	350	280	340	345	14	336	327	331	308.6
6-Jul	325	287	249	240	252	285	263	287	328	310	311	258	301	288	256	243	264	222	146	64	327	290	337	22	286.3
7-Jul	46	63	45	109	167	118	140	146	120	113	93	107	102	166	158	195	195	183	155	128	137	143	146	152	133.1
8-Jul	151	154	152	146	132	155	125	183	169	193	102	100	124	135	224	267	195	186	207	241	217	172	170	233	166.3
9-Jul	250	236	233	240	221	180	209	245	250	228	212	200	218	221	212	210	192	199	222	212	187	183	181	192	213.6
10-Jul	185	183	179	179	174	170	176	180	179	186	176	179	199	201	210	216	216	208	202	193	199	211	240	261	194.3
11-Jul	253	9	227	193	199	172	170	183	160	158	164	157	168	173	208	181	188	217	261	301	14	290	247	249	205.3
12-Jul	240	191	187	170	169	171	168	173	174	229	242	260	97	132	170	199	180	182	180	220	244	258	231	250	203.8
13-Jul	260	262	259	262	263	257	247	235	244	237	251	262	249	248	249	245	269	8	356	314	340	291	212	245	260.6
14-Jul	195	200	201	175	211	182	193	235	258	237	252	260	281	288	259	224	241	205	248	245	162	157	173	174	224.1
15-Jul	162	152	154	161	163	156	166	169	149	164	159	158	158	166	165	173	275	111	117	150	175	194	160	171	161.8
16-Jul	162	185	175	176	153	166	161	151	151	162	192	203	210	269	253	295	62	102	153	355	59	19	DF	312	177.1
17-Jul	45	256	254	224	176	181	167	181	209	242	236	252	136	140	202	178	154	202	278	19	22	17	23	13	165.8
18-Jul	18	240	51	160	217	178	148	122	208	263	219	136	162	182	308	9	76	123	160	143	141	142	133	149	155.8
19-Jul	152	11	22	266	190	183	324	350	343	326	308	308	269	7	357	22	7	353	349	348	357	348	343	350	347.5
20-Jul	352	351	349	353	345	339	341	336	340	342	343	338	323	311	290	294	277	281	282	222	222	249	262	235	327.4
21-Jul	224	226	231	229	227	212	223	235	165	163	191	260	253	210	186	186	173	178	177	191	190	196	197	177	198.2
22-Jul	172	171	168	173	176	175	174	168	168	165	167	170	184	197	195	184	182	167	151	158	155	159	155	169	171.0
23-Jul	169	156	175	165	149	163	184	228	301	301	333	348	343	324	351	282	271	291	292	292	273	283	283	288	285.9
24-Jul	338	301	295	56	8	260	237	205	140	157	115	116	148	154	142	147	156	155	146	160	205	267	262	229	178.5
25-Jul	243	226	169	189	227	241	232	256	264	265	259	263	252	253	241	239	244	241	242	239	203	274	24	8	250.9
26-Jul	23	25	17	22	20	24	26	24	27	20	20	27	29	357	333	337	14	23	34	32	26	21	32	31	20.7
27-Jul	38	66	127	126	119	113	116	146	349	38	151	212	270	290	312	97	171	187	189	194	191	213	220	196	171.6
28-Jul	179	170	169	165	161	173	164	151	155	153	146	156	153	160	163	140	83	99	95	90	27	8	16	68	125.2
29-Jul	61	207	187	211	248	272	269	277	266	274	272	272	268	282	285	283	308	329	295	289	264	271	275	268	272.3
30-Jul	273	280	268	256	233	260	260	274	281	288	303	292	281	285	281	208	211	271	239	228	202	192	194	177	259.9
31-Jul	197	175	159	164	167	165	163	159	159	161	165	172	187	153	148	161	165	162	159	153	155	158	154	157	162.4
207.0 208.6 202.9 191.0 194.6 184.0 187.6 205.9 208.2 217.4 213.1 212.9 227.6 229.1 229.5 222.1 215.9 190.8 192.8 214.7 186.7 223.7 204.6 209.1																									
Diurnal Average																									
DF - DAS Failure UO - Unstable Operation																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

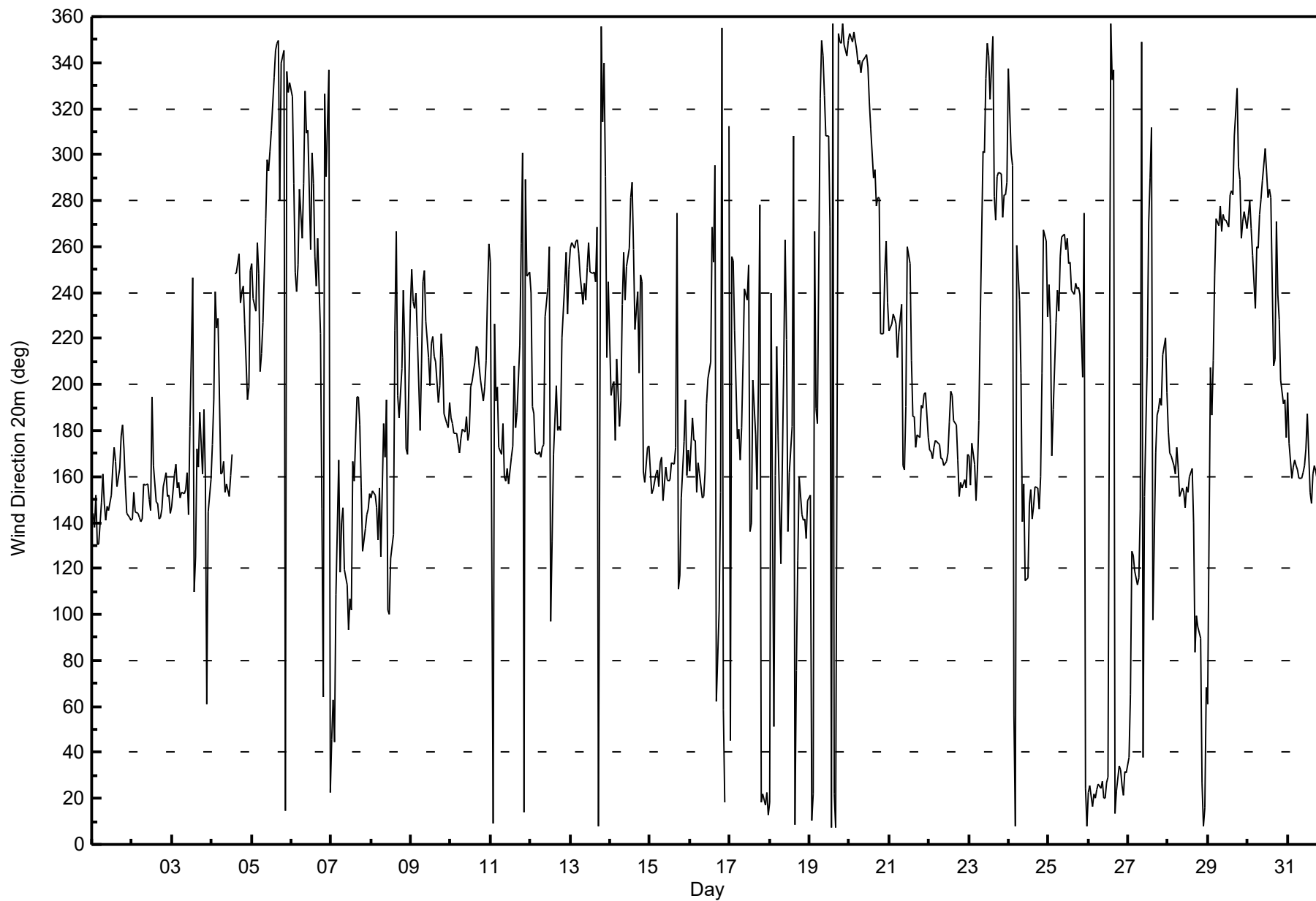
Wind Direction 20m (WD20) - deg
Mannix - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 103 deg on Jul 19 02:00																		Hours in Service: 744							
Minimum Value: 4 deg on Jul 14 22:00																		Hours of Data: 742							
Percentiles: P ₁ = 7 P ₁₀ = 11 Q ₁ = 14 Median = 19 Q ₃ = 26 P ₉₀ = 42 P ₉₉ = 78																		Hours of Missing Data: 2							
																		Hours of Calibration: 0							
																		Percent Operational Time: 99.7							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	29	18	17	11	13	27	21	12	12	13	13	14	14	16	17	16	15	15	15	12	13	9	10	10	29
2-Jul	11	13	12	11	12	11	12	16	14	16	14	15	19	26	15	13	13	11	12	14	10	11	11	11	26
3-Jul	12	21	17	10	10	13	16	15	18	24	24	32	29	73	21	29	20	32	15	25	32	26	17	11	73
4-Jul	18	42	14	12	15	22	16	25	20	15	19	24	36	UO	20	20	17	27	20	14	19	9	10	18	42
5-Jul	11	18	12	16	26	16	19	28	26	21	15	16	18	18	21	25	17	30	22	19	16	15	15	16	30
6-Jul	18	12	13	8	46	46	40	35	37	46	36	45	49	59	24	28	40	78	58	20	41	13	23	20	78
7-Jul	12	19	43	28	38	61	31	28	41	41	28	44	40	58	58	23	25	23	12	19	19	14	12	9	61
8-Jul	10	10	9	11	14	16	23	33	71	75	18	11	20	21	62	60	29	17	25	16	16	11	7	40	75
9-Jul	16	10	12	14	10	19	21	17	19	20	22	25	22	22	21	20	20	23	17	20	16	16	13	17	25
10-Jul	16	19	12	13	12	11	14	15	15	20	17	18	23	25	23	23	19	18	18	16	12	11	11	14	25
11-Jul	21	78	27	13	44	19	47	40	27	15	18	66	18	14	20	23	20	17	16	15	36	48	10	6	78
12-Jul	7	30	12	13	11	11	19	27	29	18	19	20	42	38	19	37	19	16	18	16	27	21	14	12	42
13-Jul	11	11	11	11	11	13	18	17	16	19	19	15	16	15	15	16	50	25	23	17	21	46	20	48	50
14-Jul	11	26	20	13	20	21	20	18	17	19	18	20	24	23	48	39	31	41	44	55	5	4	9	9	55
15-Jul	10	10	14	18	8	13	23	30	22	24	21	18	17	19	19	19	32	33	13	27	23	24	19	33	33
16-Jul	15	20	12	11	17	15	19	16	17	22	23	23	23	24	17	42	25	21	20	84	31	36	DF	51	84
17-Jul	82	53	58	18	19	18	14	35	78	98	55	69	99	39	43	28	25	36	59	15	11	11	7	9	99
18-Jul	50	71	23	38	7	15	41	42	31	17	43	15	47	63	64	26	24	29	11	13	12	12	16	12	71
19-Jul	17	103	57	59	31	34	37	17	23	20	18	29	22	41	20	16	19	19	16	16	18	19	16	16	103
20-Jul	15	14	15	16	16	16	18	22	28	30	25	22	22	17	17	20	19	23	29	56	15	13	12	19	56
21-Jul	26	19	22	40	10	52	42	39	18	16	50	55	49	53	45	33	24	16	13	14	11	10	10	13	55
22-Jul	8	6	5	8	11	12	14	21	25	28	32	39	38	31	24	24	22	19	13	8	8	8	10	8	39
23-Jul	12	10	35	35	19	22	24	51	42	21	20	21	23	17	22	62	12	13	13	14	9	8	8	15	62
24-Jul	15	26	33	41	48	60	12	42	27	65	37	32	31	28	26	20	22	18	13	30	13	27	17	11	65
25-Jul	11	21	24	31	21	10	15	17	19	14	15	16	17	21	15	13	13	11	12	14	33	74	24	18	74
26-Jul	19	17	16	19	16	17	15	12	18	14	17	21	26	32	30	27	27	25	18	17	14	13	14	17	32
27-Jul	20	31	37	33	30	33	23	23	35	100	26	40	29	21	49	84	17	17	18	19	18	10	13	33	100
28-Jul	14	8	7	9	11	10	12	16	17	19	23	26	19	20	20	25	18	12	17	26	22	37	14	32	37
29-Jul	23	68	20	26	11	15	9	11	11	11	16	25	14	16	18	22	18	25	18	14	11	8	8	9	68
30-Jul	9	13	11	32	17	20	19	16	14	24	38	42	51	76	51	36	31	32	52	16	14	8	12	12	76
31-Jul	18	15	7	9	9	9	9	14	11	12	12	17	23	20	17	13	13	12	12	10	9	8	11	9	23
82 103 58 59 48 61 47 51 78 100 55 69 99 76 64 84 50 78 59 84 41 74 24 51																									
Diurnal Maximum																									
DF - DAS Failure UO - Unstable Operation																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 20m (WD20) - deg
Mannix - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 45m (WD45) - deg

Mannix - July 2026

Direction of Maximum Speed: 345 deg on Jul 20 02:00																				Hours in Service:		744			
Direction of Maximum Daily Speed Average: 186.8 deg on Jul 10																				Hours of Data:		743			
Direction of Minimum Speed: 6 deg on Jul 27 10:00										Direction of Minimum Daily Speed Average: 0.9 deg on Jul 17										Hours of Missing Data:		1			
Monthly Average Direction: 199.7 deg																				Percent Operational Time:		99.9			
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	126	113	132	121	116	130	140	138	131	136	135	141	152	162	157	147	154	165	168	159	144	135	129	128	141.2
2-Jul	136	145	139	135	134	130	132	148	147	147	141	137	185	160	142	140	132	134	137	144	150	144	144	133	142.2
3-Jul	135	149	155	143	143	141	145	145	145	153	137	174	235	97	115	163	159	180	153	185	150	89	135	147	150.2
4-Jul	161	181	243	230	233	159	157	159	148	148	142	152	166	238	242	239	245	225	229	234	229	192	198	245	205.2
5-Jul	247	250	249	267	266	229	206	214	266	291	286	294	303	326	338	340	341	276	332	336	6	329	320	323	302.5
6-Jul	318	291	261	248	264	278	263	284	323	308	297	252	293	276	248	232	250	213	142	54	319	284	332	16	283.8
7-Jul	42	62	66	94	151	115	135	133	115	96	82	101	95	155	154	186	188	170	143	119	125	129	131	138	121.9
8-Jul	142	148	133	127	121	138	118	175	159	175	97	94	115	124	213	257	184	178	198	235	219	175	162	225	158.5
9-Jul	269	233	226	233	228	196	207	235	241	218	202	190	207	210	202	200	184	192	212	202	182	176	175	183	205.6
10-Jul	179	176	174	169	167	166	170	172	172	179	168	173	189	193	201	205	205	196	191	183	193	203	230	252	186.8
11-Jul	258	10	233	191	180	161	175	182	152	150	155	146	159	163	197	172	179	205	252	293	1	292	247	252	200.9
12-Jul	245	206	200	177	172	164	157	167	177	222	233	251	88	127	161	187	175	174	175	215	237	251	223	241	201.2
13-Jul	251	253	251	253	254	250	241	227	234	229	241	253	240	239	240	235	265	2	347	307	330	290	215	234	253.7
14-Jul	198	202	212	199	228	201	202	229	248	226	240	250	271	280	246	213	228	200	238	244	148	141	156	161	215.9
15-Jul	158	148	150	143	150	146	160	160	146	160	153	150	152	158	156	161	264	107	107	134	160	172	150	161	152.3
16-Jul	147	167	168	170	142	155	154	149	146	155	184	192	199	257	246	290	52	93	141	347	51	34	DF	77	164.6
17-Jul	67	167	235	221	186	173	176	183	205	252	225	237	149	132	190	173	145	193	278	12	15	9	35	30	125.2
18-Jul	54	170	121	140	161	153	133	117	197	254	207	125	149	172	303	359	61	118	150	134	130	128	120	133	141.8
19-Jul	132	125	40	272	180	167	314	341	335	322	305	303	262	3	350	13	360	346	343	341	349	341	336	343	342.9
20-Jul	347	345	343	348	339	333	334	331	335	334	336	330	314	305	284	287	269	276	278	237	226	240	275	238	323.4
21-Jul	233	242	247	280	223	225	229	235	156	149	183	251	242	204	180	179	164	170	169	178	179	181	183	175	191.8
22-Jul	174	174	176	177	170	174	170	165	169	157	159	162	177	190	187	176	173	158	143	147	144	147	145	151	164.2
23-Jul	155	150	163	171	142	152	177	214	294	295	326	339	333	317	342	278	264	281	284	285	276	282	286	289	277.4
24-Jul	331	307	293	35	3	340	243	181	134	142	105	110	141	146	132	136	146	146	134	149	198	262	271	241	176.2
25-Jul	251	248	198	210	231	250	234	249	255	257	250	253	243	243	231	228	235	232	233	231	214	274	14	1	247.3
26-Jul	15	17	8	14	12	15	16	16	18	12	13	18	19	349	326	331	7	15	26	24	17	14	25	26	12.3
27-Jul	32	53	119	115	109	103	108	132	352	6	145	200	261	280	297	101	162	180	181	188	196	213	227	228	177.3
28-Jul	213	183	177	182	170	170	159	148	150	145	139	148	142	149	151	127	75	91	84	79	24	5	8	52	114.4
29-Jul	52	194	180	203	242	266	261	270	258	265	263	264	260	275	278	277	300	320	290	281	257	262	269	263	264.2
30-Jul	266	274	264	260	244	264	258	266	276	284	297	286	273	285	264	200	202	263	228	222	205	193	170	173	251.3
31-Jul	210	185	158	159	158	156	158	151	150	155	155	164	179	146	138	153	161	152	149	142	143	146	143	145	155.4
200.2 200.5 197.9 187.7 190.6 176.7 181.8 197.3 200.9 208.9 205.5 202.8 216.8 224.4 219.8 210.8 204.3 182.2 183.5 206.6 181.4 214.5 194.4 200.7																									
Diurnal Average																									
DF - DAS Failure																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 45m (WD45) - deg

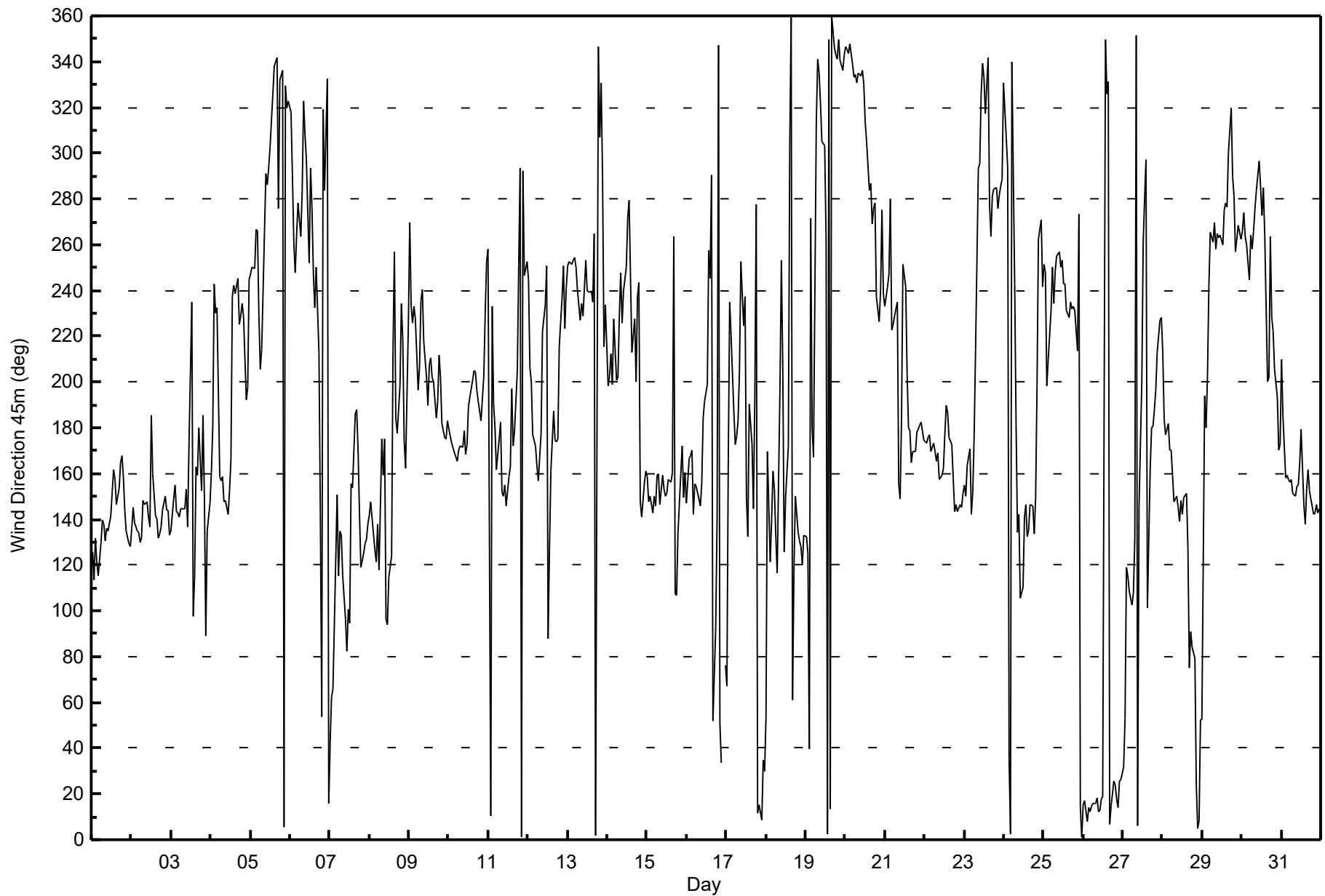
Mannix - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 92 deg on Jul 27 10:00																									Hours in Service: 744 Hours of Data: 743 Hours of Missing Data: 1 Hours of Calibration: 0 Percent Operational Time: 99.9
Minimum Value: 2 deg on Jul 15 00:00																									
Percentiles: P ₁ = 4 P ₁₀ = 6 Q ₁ = 9 Median = 13 Q ₃ = 20 P ₉₀ = 35 P ₉₉ = 76																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
1-Jul	18	10	9	8	9	12	10	7	7	9	8	9	9	11	13	10	10	9	7	6	7	4	4	5	18
2-Jul	8	7	7	7	7	7	7	12	9	12	11	11	13	21	9	8	8	6	8	9	5	6	7	6	21
3-Jul	7	17	15	6	5	7	8	8	13	18	19	27	28	76	18	24	11	24	10	21	22	34	7	6	76
4-Jul	7	25	8	12	16	26	12	18	15	7	11	16	33	17	20	17	12	20	15	10	13	9	6	16	33
5-Jul	8	7	7	12	15	23	10	20	21	15	11	12	13	12	16	17	11	29	14	14	13	10	8	9	29
6-Jul	11	9	11	7	21	20	29	25	29	35	25	36	44	41	20	20	36	64	57	15	41	10	27	16	64
7-Jul	9	12	13	15	22	53	22	20	35	39	25	36	35	42	49	15	19	17	8	16	13	10	8	6	53
8-Jul	6	5	5	4	9	11	19	27	69	78	14	8	17	18	63	56	24	11	21	11	9	17	3	40	78
9-Jul	15	14	7	8	4	18	13	12	14	13	16	13	16	15	14	12	12	16	10	12	11	13	8	9	18
10-Jul	8	13	6	5	5	5	8	7	8	11	10	11	16	18	13	15	11	8	8	8	7	10	8	9	18
11-Jul	12	45	50	12	35	9	43	41	19	8	13	66	13	9	12	20	13	12	13	9	30	51	7	6	66
12-Jul	6	23	10	14	17	6	10	21	28	14	15	15	48	35	14	33	14	10	13	10	21	17	10	8	48
13-Jul	7	7	8	8	8	9	15	12	12	14	15	11	12	12	10	13	49	23	18	12	18	43	13	34	49
14-Jul	12	12	21	15	12	20	13	13	12	16	13	17	22	17	43	28	21	32	40	48	5	4	4	2	48
15-Jul	5	8	7	8	5	6	13	25	17	18	14	12	12	14	13	10	42	34	11	19	16	16	12	30	42
16-Jul	8	15	6	6	10	7	10	6	9	17	12	12	16	19	15	41	22	19	15	87	27	20	DF	47	87
17-Jul	26	49	88	39	33	12	13	26	76	83	42	66	88	34	30	21	22	27	61	11	7	6	9	11	88
18-Jul	26	33	24	7	10	13	19	26	27	14	39	12	44	59	48	21	25	27	7	10	7	7	12	8	59
19-Jul	11	62	29	77	62	17	40	9	12	13	12	24	19	38	14	12	14	13	12	11	13	15	10	10	77
20-Jul	9	8	9	11	10	10	11	12	22	19	17	16	15	9	11	15	15	18	22	55	16	8	7	15	55
21-Jul	18	24	13	39	12	20	37	40	23	14	42	51	35	42	34	22	17	9	6	5	3	3	4	6	51
22-Jul	7	9	6	5	5	6	8	12	17	20	20	28	32	19	14	14	15	14	6	4	3	4	5	4	32
23-Jul	6	4	29	32	10	16	19	45	38	18	15	15	19	10	15	55	10	10	8	11	6	6	4	11	55
24-Jul	9	19	11	28	27	40	12	34	21	37	34	28	25	23	23	14	16	15	10	23	12	28	12	6	40
25-Jul	8	9	37	32	16	7	8	14	15	10	12	12	13	16	11	9	8	7	7	6	14	46	18	11	46
26-Jul	12	11	10	11	10	10	8	7	12	7	9	13	19	23	22	19	17	17	11	10	7	7	8	11	23
27-Jul	12	26	35	27	29	31	20	17	34	92	16	33	19	17	44	68	12	9	8	11	15	7	5	18	92
28-Jul	15	13	7	9	7	5	9	9	12	12	15	20	12	16	16	22	15	11	16	23	18	22	9	27	27
29-Jul	10	56	14	21	7	12	7	8	7	9	13	23	11	14	14	18	13	19	14	10	7	6	5	6	56
30-Jul	7	9	7	16	12	13	18	12	11	18	30	35	40	56	43	27	27	27	44	10	10	9	7	7	56
31-Jul	11	15	7	4	4	4	6	9	6	6	7	10	13	14	10	10	8	7	7	5	4	4	6	5	15
26 62 88 77 62 53 43 45 76 92 42 66 88 76 63 68 49 64 61 87 41 51 27 47																									
Diurnal Maximum																									
DF - DAS Failure																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 45m (WD45) - deg
Mannix - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 75m (WD75) - deg

Mannix - July 2026

Direction of Maximum Speed: 16 deg on Jul 28 23:00 Direction of Maximum Daily Speed Average: 192.3 deg on Jul 10																				Hours in Service: 744					
Direction of Minimum Speed: 249 deg on Jul 24 07:00 Direction of Minimum Daily Speed Average: 1.6 deg on Jul 17																				Hours of Data: 743					
Monthly Average Direction: 208.7 deg																				Hours of Missing Data: 1					
																				Percent Operational Time: 99.9					
Day	Hourly Period Ending At (MST)																				Daily Average				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		21	22	23	24
1-Jul	122	111	131	117	116	129	136	140	136	140	141	144	154	162	159	151	157	164	165	160	149	142	137	138	145.4
2-Jul	145	150	146	140	141	137	137	153	149	153	147	144	190	166	148	146	138	142	143	148	150	149	150	142	148.7
3-Jul	139	151	156	146	143	143	147	148	148	158	141	175	236	88	119	169	167	183	159	186	155	122	141	152	155.3
4-Jul	164	202	265	245	242	175	178	166	160	153	146	157	167	238	246	240	247	228	229	238	240	201	212	253	214.4
5-Jul	253	261	263	273	278	264	220	220	270	296	292	299	307	332	344	346	348	282	339	343	11	335	328	330	307.8
6-Jul	326	304	282	266	274	284	275	294	332	314	299	257	297	283	251	235	252	216	144	63	330	291	342	29	293.1
7-Jul	63	82	89	105	137	113	137	135	122	94	86	103	97	155	155	187	192	170	145	122	129	131	133	139	123.9
8-Jul	146	150	143	138	128	136	126	180	152	170	101	100	120	128	233	255	190	182	205	242	231	198	173	239	169.0
9-Jul	288	250	237	243	241	219	220	240	245	222	204	193	211	213	205	203	188	196	215	208	191	179	182	188	212.3
10-Jul	186	182	181	172	172	174	176	179	178	185	173	178	192	196	204	207	207	200	196	188	201	218	239	258	192.3
11-Jul	276	6	184	195	189	170	191	184	154	152	159	152	162	164	195	177	180	203	253	297	8	311	256	262	208.5
12-Jul	258	232	227	204	208	180	163	180	196	228	237	254	92	133	165	189	184	180	185	221	242	255	231	246	213.3
13-Jul	254	256	255	257	258	254	247	231	237	232	244	256	243	243	244	238	270	8	352	313	337	297	230	237	258.3
14-Jul	223	217	237	231	243	223	223	234	247	229	244	253	275	283	246	215	228	207	243	247	149	145	163	166	223.8
15-Jul	161	150	154	152	160	151	162	160	161	169	160	155	156	162	160	162	264	116	108	131	156	166	153	163	157.6
16-Jul	149	167	177	181	158	163	164	158	153	166	187	195	204	257	249	298	57	96	144	4	57	66	DF	118	170.4
17-Jul	90	157	182	207	207	182	210	209	219	250	230	241	138	139	190	175	150	196	291	20	25	27	68	78	123.9
18-Jul	96	158	149	148	173	150	138	126	197	255	209	133	155	176	301	6	61	125	154	141	137	130	121	135	149.7
19-Jul	130	118	58	193	170	165	313	350	342	331	317	314	271	11	357	20	6	353	350	349	357	348	346	352	352.6
20-Jul	355	354	351	356	345	340	344	339	344	342	342	337	320	312	290	292	272	282	283	259	252	249	273	257	333.5
21-Jul	228	265	282	328	252	259	260	254	159	150	188	249	242	207	186	183	170	173	175	182	184	185	188	192	200.2
22-Jul	205	212	214	208	190	213	200	193	187	171	169	169	182	194	190	179	176	162	148	148	144	147	148	154	172.5
23-Jul	159	156	166	195	156	154	184	220	302	302	333	346	339	325	347	287	272	285	288	290	289	295	298	300	279.4
24-Jul	339	321	306	18	2	346	249	171	145	154	108	116	146	152	136	137	151	151	137	155	207	268	294	254	189.5
25-Jul	260	260	234	238	244	258	250	254	260	260	253	255	248	247	235	233	238	235	239	240	234	283	20	9	255.1
26-Jul	22	24	15	19	19	20	21	21	24	20	20	26	24	357	333	340	14	22	32	31	23	22	34	37	19.4
27-Jul	41	60	122	122	112	107	115	131	23	49	153	207	261	284	307	104	167	188	187	198	214	225	242	248	194.1
28-Jul	239	224	211	223	196	197	179	157	157	151	147	154	148	153	154	130	81	93	87	85	38	18	16	54	107.0
29-Jul	61	196	187	208	246	271	266	274	263	268	267	266	263	277	282	281	304	323	297	284	262	266	274	267	267.5
30-Jul	271	280	271	270	258	274	267	274	281	290	301	290	279	289	264	206	207	267	231	229	217	208	172	187	256.8
31-Jul	225	211	189	177	179	173	184	163	154	159	159	168	192	152	142	158	165	155	152	146	143	147	146	145	163.3
214.3 209.3 210.0 204.3 207.9 191.5 198.4 206.7 209.0 212.9 211.8 208.8 220.3 229.0 223.9 213.0 207.0 188.3 188.2 214.4 192.3 226.8 204.4 212.1																									
Diurnal Average																									
DF - DAS Failure																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 75m (WD75) - deg

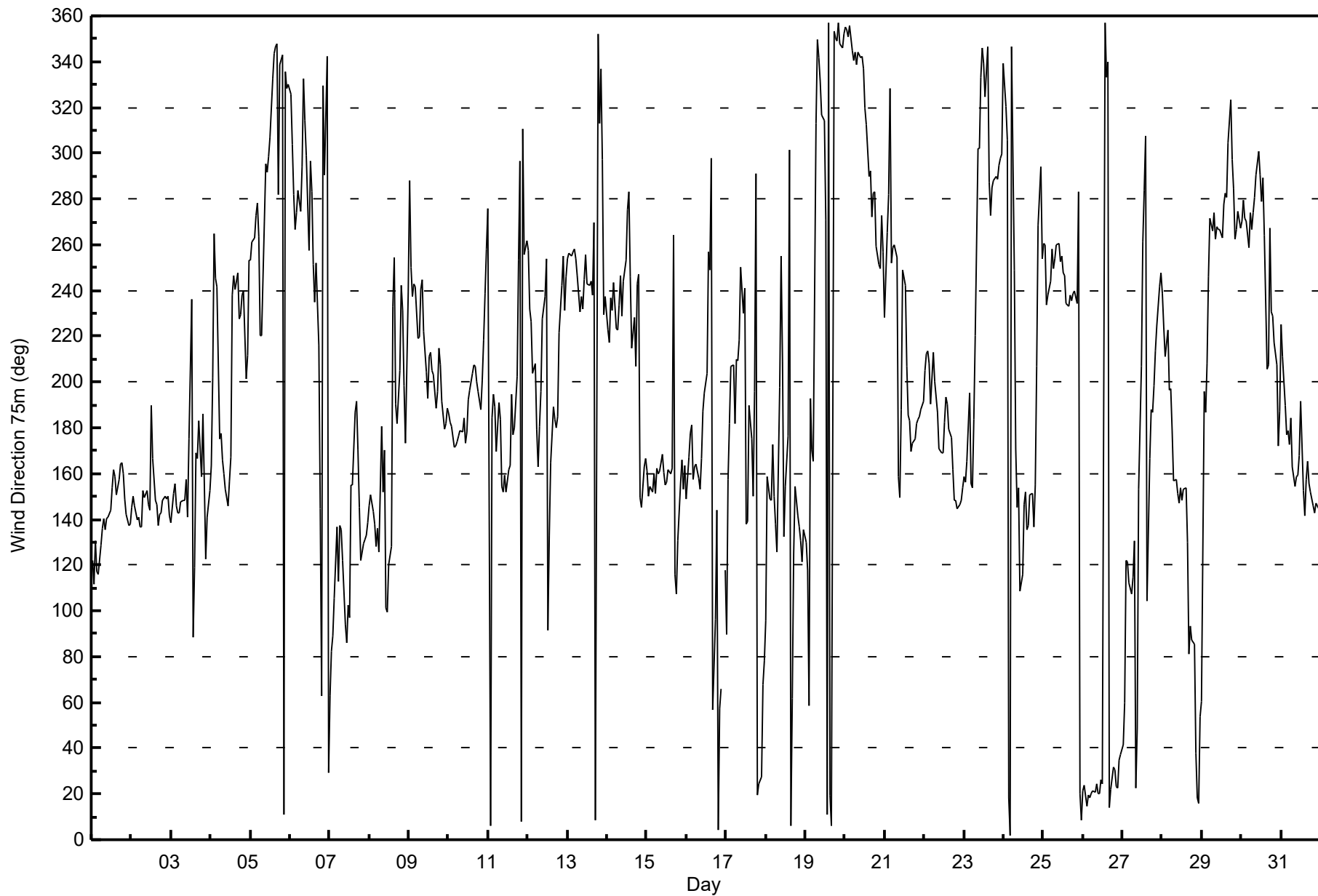
Mannix - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 96 deg on Jul 16 20:00																		Hours in Service: 744							
Minimum Value: 2 deg on Jul 21 23:00																		Hours of Data: 743							
Percentiles: P ₁ = 3 P ₁₀ = 6 Q ₁ = 8 Median = 12 Q ₃ = 19 P ₉₀ = 32 P ₉₉ = 73																		Hours of Missing Data: 1							
																		Hours of Calibration: 0							
																		Percent Operational Time: 99.9							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	19	16	15	15	13	14	11	6	11	10	8	8	10	10	12	9	9	7	4	4	5	8	10	11	19
2-Jul	6	5	5	9	8	10	10	10	9	10	10	13	11	18	9	7	10	5	9	8	5	4	5	8	18
3-Jul	9	14	12	4	3	6	7	6	12	15	18	24	27	80	19	21	10	19	9	18	15	29	7	5	80
4-Jul	5	29	12	16	13	18	23	14	18	8	11	14	29	16	21	14	12	17	13	9	7	12	8	13	29
5-Jul	6	6	4	11	13	19	9	16	18	14	11	12	13	11	14	16	9	26	13	12	11	10	7	7	26
6-Jul	9	9	12	6	13	13	22	21	28	36	24	35	40	35	21	17	36	70	55	12	43	11	28	17	70
7-Jul	8	13	11	15	14	26	21	18	33	33	21	30	31	42	44	13	16	14	8	16	15	15	12	9	44
8-Jul	5	4	3	9	14	11	18	25	57	73	15	10	18	18	64	47	19	10	21	10	8	19	3	38	73
9-Jul	11	18	5	6	3	15	10	11	13	11	15	13	15	12	13	11	11	16	9	11	10	11	8	8	18
10-Jul	7	11	5	4	3	5	7	7	8	10	9	10	13	17	11	14	10	7	8	6	6	11	5	11	17
11-Jul	5	26	72	22	37	8	30	35	17	7	12	58	11	7	13	18	11	10	13	11	26	51	6	5	72
12-Jul	4	19	11	14	15	12	9	17	24	13	13	10	57	32	12	30	13	10	13	9	16	13	7	7	57
13-Jul	5	6	7	7	6	8	14	12	12	13	14	9	11	11	10	12	49	22	16	11	17	42	14	22	49
14-Jul	37	8	12	14	9	14	11	13	12	16	13	15	21	15	44	27	21	27	37	45	5	5	4	3	45
15-Jul	3	7	6	6	4	3	8	20	21	16	11	10	10	12	11	8	47	34	13	19	13	12	7	29	47
16-Jul	5	10	4	5	10	5	9	7	8	16	11	11	14	17	16	40	20	18	16	96	25	20	DF	21	96
17-Jul	23	19	56	36	31	20	15	20	75	57	37	73	90	31	23	17	21	23	66	10	5	9	12	13	90
18-Jul	16	16	10	7	7	7	12	22	26	15	37	15	38	55	50	20	24	29	6	12	10	13	14	12	55
19-Jul	15	40	26	46	45	15	48	8	11	13	11	25	20	37	13	10	13	12	10	10	11	13	9	9	48
20-Jul	8	6	7	9	9	8	10	12	22	18	15	14	15	9	11	15	15	19	17	40	28	9	5	17	40
21-Jul	37	17	7	33	15	15	24	28	29	19	40	42	32	41	30	20	14	8	6	4	2	3	2	7	42
22-Jul	9	13	11	10	11	9	12	13	17	18	22	23	29	18	13	12	12	13	5	3	2	3	4	3	29
23-Jul	4	3	24	25	10	10	14	43	41	18	14	14	18	9	14	61	9	10	8	9	6	5	3	9	61
24-Jul	7	15	9	27	18	19	85	35	19	39	30	26	22	21	24	15	14	15	12	21	12	30	15	7	85
25-Jul	6	6	31	27	13	5	7	11	14	10	11	12	12	14	9	8	7	6	7	4	10	27	14	8	31
26-Jul	9	8	8	9	7	7	6	5	9	6	7	11	15	22	18	18	14	16	9	8	4	5	6	8	22
27-Jul	9	18	35	25	28	30	20	19	39	72	17	33	17	17	44	73	11	13	7	9	11	8	5	6	73
28-Jul	10	13	9	16	13	7	13	10	9	11	14	18	10	14	14	22	13	11	14	20	16	13	7	24	24
29-Jul	6	50	12	19	7	11	6	7	7	8	12	23	10	13	13	18	13	18	13	8	6	6	5	5	50
30-Jul	6	8	6	10	10	10	19	12	10	17	27	28	31	51	43	24	24	27	40	11	10	7	10	15	51
31-Jul	6	13	15	9	9	7	8	13	4	7	6	10	9	15	11	9	6	6	6	4	4	4	3	4	15
37 50 72 46 45 30 85 43 75 73 40 73 90 80 64 73 49 70 66 96 43 51 28 38																									
Diurnal Maximum																									
DF - DAS Failure																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 75m (WD75) - deg
Mannix - July 2026





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 90m (WD90) - deg

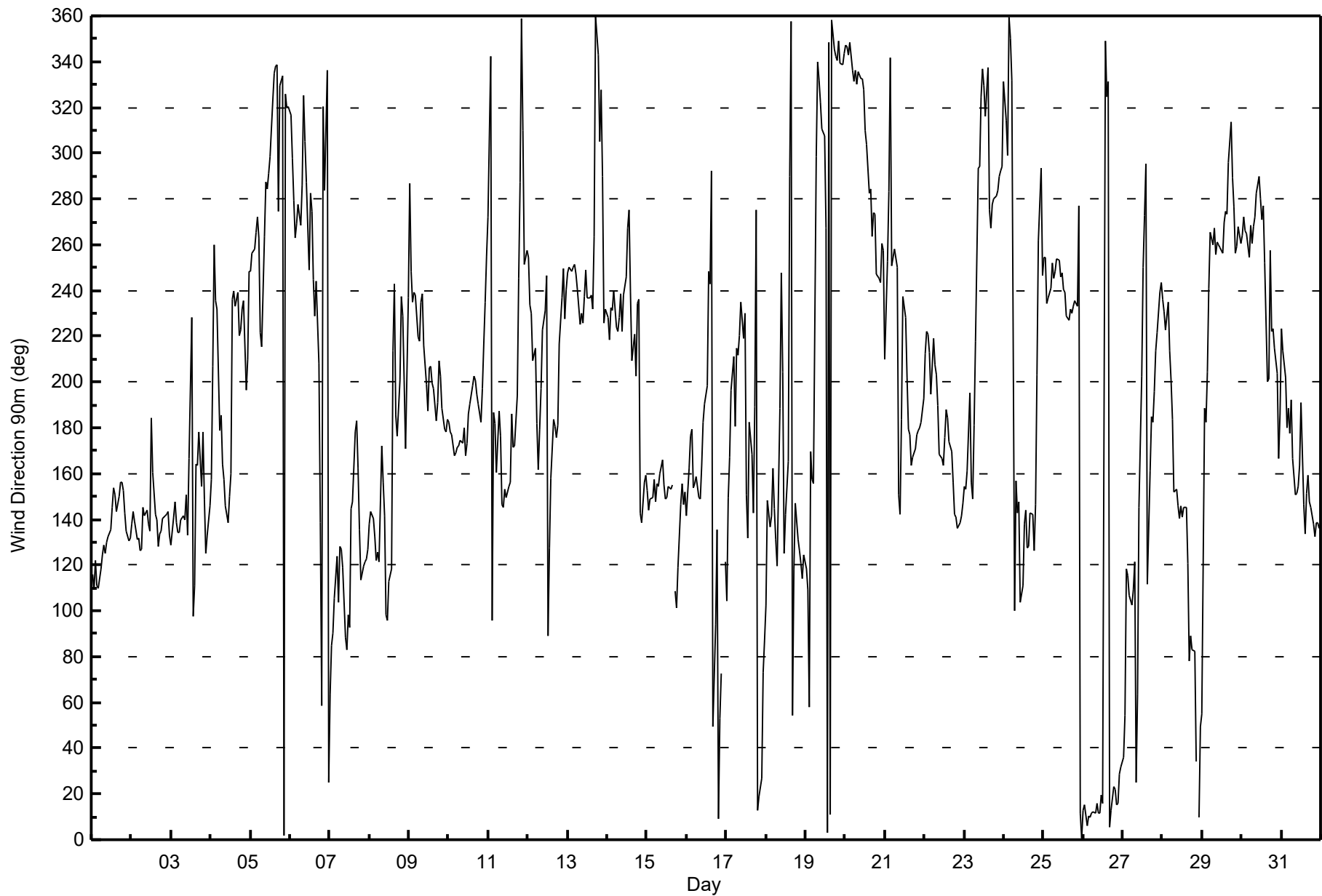
Mannix - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																		Hours in Service:		744					
Maximum Value: 97 deg on Jul 16 20:00																		Hours of Data:		741					
Minimum Value: 1 deg on Jul 21 23:00																		Hours of Missing Data:		3					
Percentiles: P ₁ = 2 P ₁₀ = 5 Q ₁ = 8 Median = 11 Q ₃ = 17 P ₉₀ = 30 P ₉₉ = 69																		Hours of Calibration:		0					
																		Percent Operational Time:		99.6					
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	13	8	7	8	7	9	7	4	7	7	6	8	10	9	11	8	9	7	5	4	4	5	4	8	13
2-Jul	5	5	4	7	6	7	7	10	9	10	9	12	11	17	9	6	8	5	8	7	4	3	4	7	17
3-Jul	6	15	11	3	3	4	7	6	11	14	16	23	25	82	16	21	9	19	9	17	13	20	4	4	82
4-Jul	6	27	11	23	15	15	24	15	19	9	10	13	27	12	20	14	11	17	13	9	5	13	8	11	27
5-Jul	5	6	4	10	11	15	9	15	16	13	11	12	12	10	14	16	8	25	13	12	12	9	6	7	25
6-Jul	8	9	12	5	10	10	20	20	27	37	23	35	37	36	20	16	34	55	56	12	45	12	28	17	56
7-Jul	8	13	7	9	7	15	15	15	29	32	23	29	28	39	42	13	14	14	7	13	11	10	9	6	42
8-Jul	4	3	3	4	7	5	12	25	63	69	11	8	14	14	63	41	17	9	20	9	7	17	4	36	69
9-Jul	10	19	4	5	3	13	8	10	13	11	14	13	15	12	13	10	11	16	8	11	9	12	8	7	19
10-Jul	6	10	5	3	3	5	7	6	7	9	9	10	12	16	11	13	10	7	7	6	7	10	5	10	16
11-Jul	6	27	47	25	31	14	15	23	15	6	12	60	11	7	14	17	10	10	13	12	26	50	5	5	60
12-Jul	4	16	9	14	13	15	9	15	22	12	12	9	59	29	13	28	12	9	14	9	14	12	6	6	59
13-Jul	5	6	6	6	6	8	14	11	10	13	13	9	10	10	10	11	48	22	17	10	18	40	14	20	48
14-Jul	35	6	8	12	8	11	10	11	12	14	12	14	19	14	44	27	18	23	35	41	5	5	4	2	44
15-Jul	3	6	6	6	4	2	7	16	20	15	12	9	10	11	10	8	UO	33	10	16	13	10	7	24	33
16-Jul	5	10	4	4	11	4	8	8	8	16	11	10	13	16	15	40	21	16	13	97	26	20	DF	12	97
17-Jul	15	16	51	30	29	24	15	18	49	56	35	72	89	25	24	16	17	21	67	9	5	11	13	12	89
18-Jul	10	15	9	10	8	4	6	17	26	15	36	12	34	52	52	19	26	27	6	11	7	9	10	8	52
19-Jul	10	34	31	38	28	16	49	9	11	13	10	24	21	35	13	9	13	12	10	10	10	13	9	9	49
20-Jul	8	6	7	9	8	8	9	12	23	18	15	13	14	9	10	15	14	21	17	31	37	8	6	11	37
21-Jul	73	18	6	32	22	9	19	21	31	19	38	37	32	42	28	19	13	8	5	4	2	2	1	8	73
22-Jul	10	13	12	11	14	9	10	13	18	19	20	23	28	17	13	11	12	13	4	3	2	2	4	2	28
23-Jul	5	4	21	18	13	9	12	40	45	18	13	14	18	8	14	65	8	9	7	8	6	4	3	8	65
24-Jul	7	13	8	30	17	31	75	28	18	36	26	24	21	21	21	14	13	15	10	21	13	28	17	6	75
25-Jul	5	6	25	25	12	4	6	10	13	9	10	11	10	13	8	8	7	5	6	4	9	24	12	8	25
26-Jul	9	8	8	8	6	7	5	5	9	5	7	11	14	24	18	18	14	17	8	7	3	4	5	8	24
27-Jul	10	17	32	22	24	27	17	16	45	68	15	32	17	16	50	81	10	15	6	10	10	8	5	4	81
28-Jul	7	10	11	14	16	7	18	11	8	10	12	17	10	13	13	20	13	11	13	18	15	UO	6	23	23
29-Jul	6	48	12	19	7	11	6	7	6	7	11	22	9	12	12	17	12	17	12	7	6	6	5	5	48
30-Jul	6	7	6	8	9	9	18	10	10	16	24	27	30	60	41	24	23	27	37	11	9	6	10	18	60
31-Jul	5	12	15	12	13	10	9	17	4	8	6	12	8	16	9	10	7	5	6	5	3	4	3	3	17
Diurnal Maximum																									
DF - DAS Failure UO - Unstable Operation																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 90m (WD90) - deg
Mannix - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Vertical Wind Speed 20m (VW20) - km/h

Mannix - July 2026

Maximum Value: 0.9 km/h on Jul 18 19:00																				Maximum Daily Average: 0.3 km/h on Jul 2					Hours in Service: 744	
Minimum Value: -1.3 km/h on Jul 20 02:00																				Minimum Daily Average: -0.8 km/h on Jul 26					Hours of Data: 742	
Maximum Diurnal Average: -0.1 km/h at hour 18																				Minimum Diurnal Average: -0.3 km/h at hour 21					Hours of Missing Data: 2	
Monthly Average: -0.13 km/h																				Percentiles: P ₁ = -1.2 P ₁₀ = -0.6 Q ₁ = -0.3 Median = -0.1 Q ₃ = 0.1 P ₉₀ = 0.3 P ₉₉ = 0.5					Hours of Calibration: 0	
																									Percent Operational Time: 99.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.0	-0.1	-0.2	-0.2	0.3	0.3	0.1	0.2	0.4	0.3	0.3	0.4	0.1	0.0	0.2	0.6	0.5	0.2	-0.1	0.0	-0.1	0.1	0.3	0.2	0.2	0.6
2-Jul	0.2	0.3	0.3	0.1	0.4	0.4	0.2	0.3	0.4	0.7	0.4	0.3	-0.1	0.2	0.4	0.3	0.2	0.5	0.4	0.3	0.3	0.3	0.5	0.3	0.3	0.7
3-Jul	0.2	0.0	0.0	0.1	0.2	0.1	0.3	0.2	0.3	0.4	0.4	0.1	-0.1	0.2	0.4	-0.1	0.2	0.1	0.2	0.0	0.0	-0.2	0.0	0.1	0.1	0.4
4-Jul	0.0	-0.2	-0.2	-0.3	-0.3	0.0	0.0	0.1	0.0	0.3	0.2	0.1	-0.1	UO	-0.1	-0.2	-0.1	0.1	0.0	0.0	-0.2	-0.2	-0.2	-0.2	-0.1	0.3
5-Jul	-0.2	-0.3	-0.2	-0.2	-0.2	-0.3	-0.3	-0.2	-0.4	-0.4	-0.2	-0.5	-0.8	-1.3	-1.2	-0.9	-0.9	-0.2	-0.4	-0.7	-0.9	-0.8	-0.9	-0.8	-0.5	-0.2
6-Jul	-0.7	-0.2	-0.1	-0.2	-0.2	-0.2	-0.1	-0.2	-0.5	-0.4	-0.6	-0.2	-0.2	-0.3	-0.1	-0.3	-0.1	-0.1	-0.1	-0.2	-0.7	-0.4	-0.5	-0.7	-0.3	-0.1
7-Jul	-0.7	-0.3	-0.2	-0.3	-0.2	-0.1	0.1	0.2	0.1	0.0	0.2	0.1	0.1	0.1	0.1	-0.3	-0.3	-0.1	0.0	0.5	0.4	0.3	0.2	0.1	0.0	0.5
8-Jul	0.2	0.1	0.2	0.2	0.2	0.1	0.3	-0.2	0.0	-0.1	0.4	0.5	0.5	0.4	0.0	-0.1	-0.1	0.1	0.0	-0.1	-0.2	0.0	0.2	0.0	0.1	0.5
9-Jul	-0.2	-0.2	-0.2	-0.2	-0.3	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.4	-0.1	0.1	0.1	-0.1	0.1	0.0	0.0	-0.1	-0.1	0.2	0.2	0.0	0.0	0.4
10-Jul	0.0	0.1	0.2	0.2	0.4	0.5	0.4	0.2	0.1	0.0	0.1	0.3	-0.2	-0.1	-0.1	0.0	-0.2	0.0	-0.1	-0.2	-0.3	-0.3	-0.2	-0.3	0.0	0.5
11-Jul	-0.3	-0.4	-0.2	-0.2	-0.2	0.0	0.0	-0.1	0.0	0.1	0.2	0.0	0.3	0.2	-0.1	0.0	-0.1	-0.2	-0.2	-0.5	-0.5	-0.4	-0.2	-0.2	-0.1	0.3
12-Jul	-0.2	-0.2	-0.2	-0.1	-0.1	0.2	0.3	0.0	0.0	-0.1	0.1	-0.1	-0.1	0.1	0.4	0.1	0.3	0.0	0.3	-0.1	-0.2	-0.1	-0.1	0.1	0.0	0.4
13-Jul	0.0	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0	0.0	-0.1	0.0	-0.2	0.3	0.2	0.2	0.1	-0.3	-0.8	-0.7	-0.9	-0.8	-0.4	-0.2	-0.3	-0.2	0.3
14-Jul	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.2	-0.3	-0.1	-0.2	-0.2	-0.2	-0.5	-0.3	-0.2	-0.1	-0.3	0.1	-0.2	-0.3	0.0	0.3	0.2	0.5	-0.1	0.5
15-Jul	0.2	0.0	0.0	0.1	0.1	0.0	-0.1	0.0	0.1	0.1	0.2	0.4	0.4	0.3	0.5	0.2	-0.4	0.7	0.6	0.4	0.1	-0.3	0.2	0.5	0.2	0.7
16-Jul	0.2	-0.1	0.1	0.0	0.0	0.2	0.1	0.3	0.3	0.2	0.3	0.1	0.0	-0.2	-0.2	-0.4	-0.1	0.2	0.0	-0.5	-0.3	-0.7	DF	-0.4	0.0	0.3
17-Jul	-0.2	-0.4	-0.3	-0.4	-0.1	0.0	-0.2	0.0	0.0	0.0	-0.1	-0.4	-0.2	-0.2	0.2	-0.1	0.0	-0.1	-0.3	-0.8	-0.9	-1.0	-0.9	-0.9	-0.3	0.2
18-Jul	-0.5	-0.5	-0.3	-0.1	-0.4	-0.1	-0.1	-0.1	-0.1	-0.2	-0.1	0.4	0.2	0.2	-0.4	-0.6	-0.1	0.4	0.9	0.4	0.5	0.5	0.5	0.2	0.0	0.9
19-Jul	0.2	-0.3	-0.5	-0.4	-0.3	-0.1	-0.5	-0.8	-0.4	-0.6	-0.6	-0.5	-0.3	-0.7	-0.8	-1.3	-1.1	-0.9	-1.3	-1.2	-0.9	-0.9	-1.0	-1.0	-0.7	0.2
20-Jul	-1.1	-1.3	-1.2	-0.8	-1.0	-0.9	-0.6	-0.5	-0.5	-0.5	-0.5	-0.6	-0.6	-0.7	-0.4	-0.4	-0.4	-0.4	-0.1	-0.3	-0.3	-0.3	-0.2	-0.3	-0.6	-0.1
21-Jul	-0.3	-0.3	-0.3	-0.2	-0.4	-0.2	-0.2	-0.2	0.0	0.0	-0.1	-0.4	-0.3	0.0	-0.1	-0.2	0.1	0.1	0.1	-0.1	-0.1	-0.2	-0.2	-0.1	-0.2	0.1
22-Jul	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	-0.1	0.1	0.1	-0.1	-0.1	-0.1	0.0	0.0	0.1	0.2	0.1	0.2	0.2	0.2	0.0	0.2
23-Jul	0.3	0.4	0.2	0.0	0.0	0.0	0.0	0.0	-0.4	-0.5	-0.9	-0.7	-1.0	-1.1	-0.8	-0.5	-0.4	-0.6	-0.5	-0.4	-0.2	-0.2	-0.2	-0.4	-0.3	0.4
24-Jul	-0.5	-0.5	-0.4	-0.2	-0.4	-0.2	-0.5	-0.1	0.1	-0.2	0.0	0.3	0.4	0.0	0.3	0.1	0.2	0.2	0.2	0.1	-0.3	-0.2	-0.3	-0.3	-0.1	0.4
25-Jul	-0.3	-0.3	-0.3	-0.2	-0.4	-0.3	-0.2	-0.1	0.0	-0.1	-0.2	-0.3	0.1	0.1	0.0	0.0	0.1	-0.1	0.0	-0.1	-0.3	-0.3	-1.1	-1.1	-0.2	0.1
26-Jul	-0.7	-0.8	-1.1	-0.7	-0.7	-0.9	-1.1	-1.3	-1.0	-1.0	-1.1	-0.8	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.7	-0.6	-0.9	-1.0	-0.8	-0.6	-0.8	-0.5
27-Jul	-0.5	-0.2	0.0	0.2	0.2	0.1	0.4	0.0	-0.4	-0.2	0.0	-0.2	-0.3	-0.3	-0.3	-0.1	0.2	0.0	-0.1	-0.2	-0.3	-0.3	-0.3	-0.3	-0.1	0.4
28-Jul	-0.2	0.0	0.0	-0.1	-0.1	0.1	-0.2	0.0	0.0	0.3	0.1	0.1	0.4	0.0	0.2	0.4	0.2	0.4	0.2	0.1	-1.0	-0.9	-1.2	0.0	0.0	0.4
29-Jul	-0.4	-0.2	0.1	0.1	0.0	-0.2	-0.4	-0.2	-0.1	-0.3	-0.2	-0.2	-0.3	-0.3	-0.2	-0.4	-0.7	-0.9	-0.4	-0.5	-0.1	-0.2	-0.2	-0.1	-0.3	0.1
30-Jul	-0.2	-0.3	-0.2	-0.2	-0.4	-0.3	-0.3	-0.2	-0.3	-0.4	-0.2	-0.4	-0.5	0.1	0.1	0.1	-0.1	-0.2	-0.3	-0.1	-0.3	-0.2	-0.2	-0.1	-0.2	0.1
31-Jul	-0.3	-0.1	0.0	0.2	0.2	0.2	0.0	0.0	0.1	0.2	0.2	0.2	-0.1	0.1	0.0	0.2	0.1	0.2	0.2	0.1	0.1	0.3	0.2	0.1	0.1	0.3
																									Diurnal Average	
																									Diurnal Maximum	
DF - DAS Failure																									UO - Unstable Operation	



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Vertical Wind Speed 20m (VW20) - km/h

Mannix - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.7 km/h on Jul 20 02:00																			Hours in Service: 744 Hours of Data: 742 Hours of Missing Data: 2 Hours of Calibration: 0 Percent Operational Time: 99.7						
Minimum Value: 0.2 km/h on Jul 20 23:00																									
Percentiles: P ₁ = 0.3 P ₁₀ = 0.6 Q ₁ = 0.9 Median = 1.4 Q ₃ = 1.9 P ₉₀ = 2.4 P ₉₉ = 3.3																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	0.7	0.5	0.8	0.7	1.6	1.4	1.0	1.9	2.2	2.0	2.0	1.8	1.3	1.6	1.7	2.2	2.1	1.7	1.1	0.8	0.6	1.0	1.3	1.3	2.2
2-Jul	1.5	1.6	1.8	2.0	2.2	2.2	1.9	1.8	1.7	2.2	2.0	2.2	2.5	2.0	1.8	1.8	1.7	2.2	2.0	1.5	1.2	1.6	1.9	1.9	2.5
3-Jul	1.8	1.1	0.8	1.1	1.0	1.5	1.8	1.7	1.9	2.1	2.0	1.5	2.1	1.6	1.6	1.1	1.1	1.5	1.1	0.9	0.5	0.7	1.0	0.8	2.1
4-Jul	0.8	0.4	0.6	0.8	0.9	0.9	0.9	1.2	1.1	1.5	1.4	1.7	1.4	UO	1.1	1.4	1.2	1.5	1.6	1.5	0.7	0.6	0.9	1.1	1.7
5-Jul	0.9	0.6	0.5	0.7	0.7	0.9	1.1	1.5	1.7	2.4	2.6	2.9	3.2	3.5	3.0	2.3	2.4	1.4	1.8	2.3	1.4	1.9	2.2	2.1	3.5
6-Jul	1.8	1.0	0.6	0.7	0.6	1.1	1.2	1.4	1.8	1.8	1.9	1.9	1.9	1.8	2.4	1.9	1.6	1.6	1.4	1.3	1.8	1.6	0.6	1.1	2.4
7-Jul	1.1	1.0	0.3	0.6	0.5	0.5	1.0	1.2	1.3	1.4	1.7	1.8	1.9	1.8	1.5	1.0	1.1	1.0	1.0	1.2	1.5	1.6	1.7	1.4	1.9
8-Jul	1.6	1.0	1.1	1.4	0.9	1.1	1.4	1.2	1.8	1.2	1.7	1.8	1.8	1.9	2.3	1.4	1.4	1.9	1.5	1.4	0.8	0.5	0.8	1.3	2.3
9-Jul	0.3	0.7	1.2	0.8	1.0	0.9	1.6	2.3	2.3	2.4	3.1	3.2	2.9	2.9	3.2	2.6	2.4	2.2	2.5	2.1	1.3	1.7	1.7	2.7	3.2
10-Jul	2.0	2.0	1.5	1.8	1.8	1.8	2.0	2.1	2.2	1.8	2.1	2.8	2.9	2.6	2.5	3.1	2.9	3.3	2.6	1.6	1.3	0.8	0.3	0.4	3.3
11-Jul	0.3	0.6	0.2	0.5	0.7	0.8	0.5	0.9	0.9	1.3	1.5	1.2	1.9	1.6	1.2	1.0	1.2	1.1	0.8	1.6	0.9	0.6	0.9	0.6	1.9
12-Jul	0.4	0.6	0.5	0.6	0.6	1.2	1.6	1.3	1.0	1.1	1.9	2.1	1.2	1.8	2.4	1.9	2.2	2.1	2.1	1.8	1.7	1.7	1.7	2.3	2.4
13-Jul	3.1	3.1	2.7	2.5	2.1	1.9	2.2	2.3	2.2	2.3	2.2	3.0	3.4	3.1	3.2	3.1	3.2	2.4	1.5	2.4	2.1	1.6	1.3	1.1	3.4
14-Jul	0.5	0.6	0.5	0.4	0.8	0.7	0.9	1.4	1.6	1.7	2.3	2.2	2.2	2.1	1.8	1.8	1.6	1.2	1.0	0.5	0.3	0.4	0.9	1.4	2.3
15-Jul	0.9	0.8	0.8	1.1	0.8	1.1	0.9	1.0	1.4	1.3	1.5	2.1	2.2	2.3	2.2	1.4	2.5	2.2	1.9	2.0	1.3	0.8	1.1	2.1	2.5
16-Jul	1.0	0.6	0.8	0.6	0.8	1.0	1.2	1.5	1.8	1.9	2.4	2.8	2.6	1.9	1.4	1.7	1.8	1.3	1.0	0.7	1.3	0.6	DF	0.3	2.8
17-Jul	0.3	0.4	0.3	0.5	0.5	1.0	0.8	0.9	1.0	1.3	1.3	1.3	1.5	1.6	1.6	1.4	1.2	1.0	1.0	1.4	1.5	1.3	0.8	0.6	1.6
18-Jul	0.5	0.5	0.3	0.4	0.3	0.7	0.8	1.0	1.1	1.7	2.0	2.2	2.5	2.6	1.4	1.8	1.3	1.9	2.8	2.5	2.2	2.2	1.7	1.4	2.8
19-Jul	1.0	0.4	0.4	0.5	0.7	0.7	1.1	1.8	1.6	1.4	1.7	1.8	1.8	2.8	3.0	3.4	3.7	3.3	3.4	3.3	2.6	2.1	2.4	3.0	3.7
20-Jul	3.4	3.7	3.4	2.6	2.7	2.2	1.8	1.8	1.5	1.4	1.4	1.7	1.9	1.8	1.6	1.5	1.3	1.1	0.6	0.3	0.2	0.2	0.2	0.4	3.7
21-Jul	0.4	0.4	0.3	0.2	0.6	0.6	0.9	0.9	0.7	0.8	1.0	1.2	1.5	1.7	1.7	1.5	1.4	1.6	1.4	1.0	1.0	0.9	0.7	0.5	1.7
22-Jul	0.8	0.8	0.6	1.0	1.2	1.1	0.9	0.9	1.2	1.3	1.4	1.5	2.0	2.1	2.0	1.7	1.6	1.2	0.9	0.9	1.1	0.9	1.2	0.9	2.1
23-Jul	1.4	1.5	1.6	1.0	1.0	1.4	1.1	1.1	1.4	2.2	2.9	2.6	2.7	3.0	2.0	1.6	1.4	2.2	2.0	1.3	0.6	0.7	1.2	1.3	3.0
24-Jul	1.5	1.1	0.8	0.3	0.4	0.4	0.6	1.0	1.3	1.4	1.6	1.7	1.8	1.8	1.7	1.7	1.6	1.4	1.7	1.3	0.9	1.2	0.5	0.5	1.8
25-Jul	0.7	0.5	0.7	0.7	0.8	0.7	0.9	1.9	2.1	2.3	2.0	2.1	2.4	2.0	2.3	2.2	2.0	2.0	1.7	1.2	0.5	0.8	2.3	2.3	2.4
26-Jul	2.5	2.0	2.1	2.3	2.4	2.4	2.3	2.6	2.2	2.1	2.6	2.2	2.1	2.1	2.0	2.2	2.0	1.8	1.7	1.7	2.0	1.9	1.6	1.2	2.6
27-Jul	1.2	1.0	0.7	0.9	1.1	1.2	1.4	1.0	0.5	0.6	0.9	1.2	1.1	1.1	1.6	1.5	1.3	1.5	1.6	1.0	0.8	0.9	0.8	0.6	1.6
28-Jul	0.5	0.6	0.6	0.5	0.5	1.0	0.9	1.3	1.4	1.6	1.6	1.6	1.8	1.6	1.4	1.5	1.8	1.8	1.2	1.6	1.7	2.1	3.2	2.2	3.2
29-Jul	2.4	1.7	2.1	2.6	3.1	2.5	2.0	2.2	2.2	2.2	2.1	2.3	2.6	2.6	2.2	2.2	2.5	2.5	1.8	2.3	1.8	1.5	1.4	1.4	3.1
30-Jul	1.5	1.7	1.6	1.1	0.8	1.0	1.2	1.6	1.8	1.8	1.8	1.7	1.8	1.7	1.8	1.7	1.4	1.1	0.8	0.9	0.3	0.3	0.5	0.6	1.8
31-Jul	0.4	0.6	0.6	0.9	1.0	1.1	0.9	1.0	1.1	1.2	1.2	1.4	0.8	1.0	1.1	1.0	0.9	1.1	1.0	1.1	1.1	1.1	1.3	0.9	1.4
3.4 3.7 3.4 2.6 3.1 2.5 2.3 2.6 2.3 2.4 3.1 3.2 3.4 3.5 3.2 3.4 3.7 3.3 3.4 3.3 2.6 2.2 3.2 3.0																									
Diurnal Maximum																									
DF - DAS Failure UO - Unstable Operation																									



Wood Buffalo Environmental Association

Summary of Hour Averages

Vertical Wind Speed 45m (VW45) - km/h

Mannix - July 2026

Maximum Value: 2.6 km/h on Jul 18 19:00																			Maximum Daily Average: 1.3 km/h on Jul 2										Hours in Service: 744	
Minimum Value: -2.1 km/h on Jul 20 02:00																			Minimum Daily Average: -0.6 km/h on Jul 19										Hours of Data: 743	
Maximum Diurnal Average: 0.6 km/h at hour 15																			Minimum Diurnal Average: 0.2 km/h at hour 21										Hours of Missing Data: 1	
Monthly Average: 0.46 km/h																			Percentiles: P ₁ = -1.5 P ₁₀ = -0.4 Q ₁ = 0.0 Median = 0.5 Q ₃ = 1.0 P ₉₀ = 1.3 P ₉₉ = 2.0										Hours of Calibration: 0	
																													Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Jul	1.0	0.2	0.8	0.2	1.0	1.3	1.0	1.0	0.8	1.1	1.1	1.5	0.8	1.0	1.1	1.9	1.7	1.4	0.8	0.8	0.6	0.8	0.9	0.8	1.0	1.9				
2-Jul	1.2	1.4	1.4	1.0	1.4	0.9	0.6	1.3	1.2	1.9	1.3	1.2	1.3	1.0	1.7	1.2	0.8	1.3	1.4	1.3	1.2	1.3	1.7	1.6	1.3	1.9				
3-Jul	1.3	1.1	0.7	1.0	1.1	1.1	1.4	1.0	1.1	1.4	1.5	0.9	0.3	0.7	0.9	0.7	1.0	0.9	1.2	0.5	0.7	0.2	0.9	1.1	0.9	1.5				
4-Jul	1.2	0.6	0.2	0.1	0.3	0.7	0.5	0.6	0.5	1.0	0.9	0.8	0.6	0.3	0.2	0.2	0.2	0.7	0.7	0.3	0.1	0.5	0.6	0.1	0.5	1.2				
5-Jul	0.0	0.0	0.1	-0.1	0.1	0.0	0.4	0.6	-0.2	-0.2	-0.1	-0.1	-0.5	-1.5	-1.6	-1.0	-1.2	0.0	-0.4	-1.1	-0.6	-1.2	-1.3	-1.1	-0.5	0.6				
6-Jul	-0.9	-0.3	0.1	0.1	0.0	0.2	0.4	0.1	-0.4	-0.3	-0.4	0.6	0.3	0.0	0.5	0.1	0.4	0.4	0.5	0.3	-0.5	-0.1	-0.3	-0.5	0.0	0.6				
7-Jul	-0.3	0.4	0.3	0.2	0.7	0.2	0.5	0.7	0.7	0.3	0.6	0.8	0.4	1.2	1.2	0.1	0.1	0.4	0.7	1.7	1.2	1.2	1.0	0.9	0.6	1.7				
8-Jul	1.3	1.1	1.3	0.9	0.9	0.5	1.1	0.5	0.8	0.3	0.8	0.7	1.5	1.5	0.3	0.5	0.8	1.2	0.8	0.3	0.1	0.5	1.2	0.5	0.8	1.5				
9-Jul	-0.1	0.1	0.4	0.2	0.2	0.6	0.6	0.5	0.3	0.5	1.1	2.0	1.3	1.0	1.2	1.2	1.6	1.1	0.8	0.8	1.2	1.6	1.7	1.6	0.9	2.0				
10-Jul	1.5	1.6	1.6	1.9	1.8	1.9	2.0	1.6	1.4	1.1	1.3	2.1	1.0	0.8	1.1	1.1	1.0	1.2	1.1	1.0	0.6	0.4	0.1	-0.2	1.2	2.1				
11-Jul	-0.1	-0.2	0.1	0.3	0.4	0.9	0.3	0.5	0.4	1.0	1.2	0.7	1.6	1.1	0.3	0.7	0.7	0.2	0.0	-0.3	-0.4	-0.1	0.0	-0.1	0.4	1.6				
12-Jul	0.0	0.4	0.3	0.7	0.4	1.0	1.4	0.7	0.7	0.4	0.4	0.1	0.3	0.9	1.8	1.3	1.7	1.5	1.6	0.6	0.1	0.0	0.6	0.1	0.7	1.8				
13-Jul	0.2	0.2	0.1	0.2	0.1	0.1	0.7	0.7	0.3	0.5	0.7	0.4	0.6	0.5	0.8	1.0	-0.2	-0.6	-0.9	-1.1	-1.2	-0.4	0.3	0.2	0.1	1.0				
14-Jul	0.2	0.3	0.2	0.2	0.1	0.3	0.3	0.2	0.6	0.4	0.3	0.1	-0.1	0.0	0.8	0.9	0.2	1.1	0.3	0.3	0.6	1.0	1.7	2.1	0.5	2.1				
15-Jul	1.6	1.1	1.2	1.6	1.4	1.1	0.6	0.6	0.7	1.0	1.3	2.0	1.9	1.7	2.3	1.3	0.0	1.3	1.1	1.7	1.0	0.5	1.3	2.3	1.3	2.3				
16-Jul	1.5	1.1	1.2	0.9	0.9	1.1	1.0	1.1	1.5	1.6	2.0	1.3	1.0	0.2	0.5	-0.1	0.1	0.9	0.8	-0.2	0.1	-0.2	DF	0.1	0.8	2.0				
17-Jul	0.0	0.3	0.0	0.1	0.3	0.7	0.4	0.6	0.5	0.7	0.7	0.1	0.4	0.3	1.1	0.7	1.0	0.3	0.1	-0.6	-0.8	-0.9	-0.4	-0.3	0.2	1.1				
18-Jul	0.0	0.3	0.2	0.8	0.5	0.8	0.8	0.4	0.6	0.3	0.7	1.1	1.3	1.0	-0.1	-0.6	0.3	1.0	2.6	1.5	1.2	1.0	1.7	1.0	0.8	2.6				
19-Jul	1.1	0.3	-0.2	-0.2	0.3	0.8	-0.5	-1.2	-0.6	-0.4	-0.4	-0.2	0.6	-0.3	-0.6	-1.3	-1.2	-1.4	-1.9	-1.8	-1.4	-1.4	-1.4	-1.4	-0.6	1.1				
20-Jul	-1.5	-2.1	-2.1	-0.9	-1.5	-1.2	-0.6	-0.3	-0.5	-0.2	-0.4	-0.5	-0.5	-0.5	0.1	-0.3	0.1	0.0	0.4	0.1	-0.1	0.0	-0.2	0.0	-0.5	0.4				
21-Jul	0.0	-0.1	0.0	-0.1	0.1	0.2	0.2	0.3	0.6	0.6	0.7	-0.1	0.3	0.7	0.7	0.6	1.0	1.2	1.1	1.0	1.3	1.6	1.4	0.9	0.6	1.6				
22-Jul	0.8	0.7	0.6	0.6	1.0	0.5	0.5	0.7	0.6	1.0	0.7	1.0	1.0	0.7	0.9	0.7	1.0	0.9	1.0	1.2	1.4	1.4	1.6	1.6	0.9	1.6				
23-Jul	1.7	1.9	1.7	0.7	1.0	1.1	0.9	0.7	0.0	-0.1	-1.2	-0.7	-1.3	-1.3	-1.0	-0.4	-0.1	-0.3	-0.4	-0.1	-0.1	-0.4	-0.6	-0.5	0.1	1.9				
24-Jul	-0.9	-0.5	-0.3	0.0	-0.2	0.0	0.0	0.4	0.5	0.0	0.7	0.9	1.6	0.8	1.4	1.0	1.1	1.2	1.3	1.0	0.5	0.0	-0.1	0.0	0.4	1.6				
25-Jul	0.0	-0.1	0.2	0.2	0.0	-0.3	0.1	0.3	0.2	0.6	0.5	0.1	0.5	0.6	0.9	0.7	0.3	0.3	0.4	0.3	0.1	-0.1	-1.1	-1.0	0.1	0.9				
26-Jul	-0.2	-0.5	-0.9	-0.6	-0.7	-0.8	-1.0	-1.1	-0.8	-1.0	-1.1	-0.5	-0.3	-0.4	-0.2	-0.3	-0.2	-0.1	-0.4	-0.2	-0.7	-0.9	-0.5	-0.2	-0.6	-0.1				
27-Jul	-0.1	0.2	0.4	0.9	0.9	0.5	1.2	0.9	0.0	0.2	0.5	0.6	0.3	0.1	0.3	0.4	1.2	1.1	0.8	0.7	0.5	0.2	0.3	0.1	0.5	1.2				
28-Jul	0.2	0.5	0.6	0.5	0.6	0.8	0.5	0.6	0.7	1.3	1.0	1.0	1.6	0.9	1.1	1.3	0.8	0.6	0.4	0.5	-0.9	-1.2	-2.0	-0.2	0.5	1.6				
29-Jul	-0.2	0.5	1.5	1.2	0.4	0.0	0.3	0.1	0.4	0.1	0.3	0.2	0.1	0.1	0.3	-0.1	-0.3	-1.2	-0.2	-0.3	0.2	0.0	0.0	0.0	0.1	1.5				
30-Jul	0.1	-0.1	0.3	0.1	-0.1	0.0	0.1	0.1	-0.1	-0.1	0.0	-0.4	-0.3	0.5	0.4	0.7	0.3	-0.1	0.1	0.4	0.1	0.3	1.1	0.9	0.2	1.1				
31-Jul	0.2	0.5	0.7	1.2	1.2	1.2	0.7	0.9	1.0	1.0	1.0	1.5	0.6	0.7	0.9	1.1	0.8	1.1	1.0	1.1	1.2	1.5	1.4	1.1	1.0	1.5				
0.3 0.3 0.4 0.4 0.5 0.5 0.5 0.5 0.4 0.5 0.6 0.6 0.6 0.6 0.5 0.6 0.5 0.5 0.6 0.5 0.4 0.2 0.2 0.4 0.4																									Diurnal Average					
1.7 1.9 1.7 1.9 1.8 1.9 2.0 1.6 1.5 1.9 2.0 2.1 1.9 1.7 2.3 1.9 1.7 1.5 2.6 1.7 1.4 1.6 1.7 2.3																									Diurnal Maximum					
DF - DAS Failure																														



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Vertical Wind Speed 45m (VW45) - km/h

Mannix - July 2026

Number of Exceedances (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.1 km/h on Jul 19 17:00																				Hours in Service: 744 Hours of Data: 743 Hours of Missing Data: 1 Hours of Calibration: 0 Percent Operational Time: 99.9					
Minimum Value: 0.1 km/h on Jul 20 23:00																									
Percentiles: P ₁ = 0.2 P ₁₀ = 0.5 Q ₁ = 0.9 Median = 1.6 Q ₃ = 2.1 P ₉₀ = 2.6 P ₉₉ = 3.5																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	1.0	0.7	1.0	1.0	1.8	1.6	1.2	1.8	2.2	1.9	2.1	2.2	1.6	1.7	2.0	2.4	2.1	1.6	1.0	0.7	0.4	0.4	0.7	1.0	2.4
2-Jul	1.2	1.6	1.6	1.9	2.0	2.1	2.0	1.9	1.8	2.1	2.0	2.4	2.3	2.1	2.1	1.9	2.0	1.8	1.8	1.7	1.1	1.6	1.9	1.6	2.4
3-Jul	1.6	0.9	1.0	1.0	0.8	1.4	2.0	1.7	2.2	2.3	2.6	1.4	1.6	1.8	1.8	1.4	1.3	1.9	1.3	1.0	0.5	1.1	0.7	0.9	2.6
4-Jul	0.9	0.7	0.5	0.4	0.4	0.8	0.7	1.3	1.3	1.5	1.8	2.2	2.1	1.9	1.2	1.9	1.3	1.9	1.8	1.6	0.6	0.3	0.5	1.0	2.2
5-Jul	0.6	0.6	0.5	0.6	0.8	0.7	1.0	1.7	2.0	2.7	2.6	3.0	3.5	3.7	3.1	2.7	2.5	1.5	2.2	2.5	1.6	2.1	2.1	1.9	3.7
6-Jul	1.7	0.8	0.5	0.5	0.6	1.2	1.4	1.8	2.3	2.3	2.3	2.7	2.4	2.4	2.6	2.2	2.1	2.0	1.1	1.4	1.5	1.3	0.6	1.0	2.7
7-Jul	0.8	0.9	0.5	0.7	0.9	0.7	1.2	1.5	1.7	1.8	2.2	2.3	2.5	2.6	2.3	1.3	1.5	1.3	1.2	1.5	1.5	1.8	1.8	1.3	2.6
8-Jul	1.6	1.0	0.7	0.9	1.2	0.9	1.6	1.5	2.3	1.2	1.5	1.9	2.0	2.3	2.4	1.5	1.1	1.5	1.4	1.3	0.7	0.4	0.4	1.5	2.4
9-Jul	0.4	0.6	1.0	0.5	0.7	1.1	1.7	2.6	2.5	2.5	2.9	3.3	3.0	2.8	3.0	2.5	2.3	2.1	2.3	1.9	0.9	1.3	1.3	2.4	3.3
10-Jul	2.0	1.9	1.3	1.3	1.4	1.5	1.9	1.8	2.0	1.9	2.2	2.9	3.0	2.6	2.4	3.2	2.9	2.9	2.3	1.4	0.9	0.5	0.3	0.5	3.2
11-Jul	0.6	0.8	0.2	0.3	0.7	0.6	0.6	1.1	1.1	1.3	1.7	1.5	1.8	1.6	1.0	1.0	1.1	1.0	0.6	1.2	0.9	0.6	0.6	0.6	1.8
12-Jul	0.3	0.5	0.5	0.7	0.5	0.9	1.2	1.3	0.9	1.2	1.9	2.1	1.4	2.1	2.7	1.9	2.0	1.8	1.9	1.7	1.6	1.8	1.4	2.3	2.7
13-Jul	3.1	3.0	2.8	2.6	2.1	2.2	2.5	2.6	2.3	2.5	2.6	3.3	3.5	3.3	3.4	3.3	3.0	2.5	1.6	2.0	2.1	1.4	0.9	1.0	3.5
14-Jul	0.5	0.5	0.5	0.7	0.9	0.7	0.7	1.5	2.1	2.1	2.3	2.4	2.4	2.6	2.5	2.3	2.0	1.8	1.3	0.8	0.2	0.4	0.4	0.6	2.6
15-Jul	0.9	0.7	0.7	0.8	0.6	1.3	1.1	1.0	1.6	1.5	1.9	2.4	2.5	2.5	2.5	1.5	2.5	2.2	2.3	2.3	1.4	0.8	1.0	2.1	2.5
16-Jul	0.7	0.6	0.7	0.5	0.7	0.9	1.1	1.3	1.7	1.9	2.5	2.6	2.5	2.4	1.7	1.7	1.8	1.6	1.0	1.0	1.3	0.6	DF	0.4	2.6
17-Jul	0.2	0.5	0.3	0.3	0.3	0.7	0.7	1.2	1.2	1.5	1.9	1.9	2.1	2.1	2.0	1.9	1.6	1.2	1.1	1.4	1.3	1.1	0.7	0.7	2.1
18-Jul	0.8	0.7	0.6	0.5	0.3	0.4	1.1	1.1	1.2	1.7	2.3	2.6	3.1	3.2	1.7	1.9	1.6	2.4	3.0	2.7	2.2	2.3	2.1	1.6	3.2
19-Jul	1.3	0.7	0.4	0.4	0.6	0.6	1.0	1.8	1.8	1.5	1.6	1.9	2.5	3.2	3.6	3.2	4.1	3.5	3.4	3.5	2.6	2.3	2.6	3.3	4.1
20-Jul	3.9	3.6	3.4	2.9	2.8	2.2	1.9	2.1	1.8	1.8	1.7	2.1	2.2	1.6	1.8	1.6	1.7	1.4	0.9	0.4	0.3	0.1	0.1	0.2	3.9
21-Jul	0.3	0.3	0.2	0.3	0.3	0.5	0.7	1.0	1.0	0.8	1.2	1.6	2.1	2.3	2.3	2.0	1.9	1.7	1.1	0.6	0.5	0.4	0.5	0.4	2.3
22-Jul	0.5	0.6	0.4	0.6	0.6	0.4	0.6	1.0	1.3	1.8	2.0	2.1	2.4	2.3	2.2	1.8	1.7	1.6	1.1	0.7	0.8	0.8	1.0	0.9	2.4
23-Jul	1.0	1.2	1.5	0.9	0.8	1.1	1.1	1.5	1.9	2.3	3.1	2.9	2.7	3.0	2.3	1.6	1.4	2.4	1.9	1.3	0.5	0.5	0.9	0.9	3.1
24-Jul	1.4	1.1	0.6	0.5	0.6	0.6	0.3	1.5	1.7	1.9	2.1	2.2	2.5	2.3	2.6	2.5	1.9	1.4	1.7	1.3	0.7	1.0	0.4	0.5	2.6
25-Jul	0.8	0.9	0.9	1.0	0.8	0.8	0.7	2.0	2.3	2.8	2.4	2.5	2.6	2.3	2.5	2.2	1.9	1.8	1.6	1.1	0.6	1.0	2.1	2.0	2.8
26-Jul	2.6	2.1	2.0	2.1	2.3	2.2	2.0	2.2	2.1	1.9	2.4	2.3	2.6	2.7	2.6	2.6	2.4	2.3	1.9	1.9	1.8	1.7	1.5	1.3	2.7
27-Jul	1.3	1.2	0.9	1.2	1.3	1.3	1.6	1.2	0.6	0.9	1.3	1.6	1.6	1.5	2.3	1.9	1.4	1.3	1.4	0.8	0.5	0.5	0.6	0.9	2.3
28-Jul	0.8	0.7	0.5	0.5	0.4	0.5	0.8	1.1	1.5	1.8	2.1	2.2	2.1	2.0	1.7	1.5	1.9	2.1	1.7	2.0	1.5	1.9	2.8	2.6	2.8
29-Jul	1.8	1.5	1.8	2.7	3.0	2.4	2.0	2.1	2.3	2.5	2.2	2.3	2.7	2.8	2.4	2.2	2.5	2.3	1.7	2.1	1.6	1.5	1.5	1.4	3.0
30-Jul	1.6	1.6	1.6	1.2	1.0	1.2	1.3	1.8	2.0	2.1	2.2	2.0	2.3	2.3	2.3	2.3	1.6	1.2	1.0	0.8	0.2	0.2	0.5	0.5	2.3
31-Jul	0.5	0.7	0.6	0.6	0.6	0.6	0.6	0.9	1.1	1.1	1.1	1.1	0.9	1.2	1.4	1.1	0.6	1.1	1.2	1.0	1.0	1.0	1.4	0.9	1.4
3.9 3.6 3.4 2.9 3.0 2.4 2.5 2.6 2.5 2.8 3.1 3.3 3.5 3.7 3.6 3.3 4.1 3.5 3.4 3.5 2.6 2.3 2.8 3.3																									
Diurnal Maximum																									
DF - DAS Failure																									



Wood Buffalo Environmental Association

Summary of Hour Averages

Vertical Wind Speed 75m (VW75) - km/h

Mannix - July 2026

Maximum Value: 2.4 km/h on Jul 16 11:00																		Maximum Daily Average: 1.4 km/h on Jul 10																		Hours in Service: 744	
Minimum Value: -2.3 km/h on Jul 28 23:00																		Minimum Daily Average: -0.8 km/h on Jul 26																		Hours of Data: 743	
Maximum Diurnal Average: 0.7 km/h at hour 15																		Minimum Diurnal Average: 0.1 km/h at hour 21																		Hours of Missing Data: 1	
Monthly Average: 0.45 km/h																		Percentiles: P ₁ = -1.4 P ₁₀ = -0.5 Q ₁ = 0.1 Median = 0.5 Q ₃ = 0.9 P ₉₀ = 1.4 P ₉₉ = 1.9																		Hours of Calibration: 0	
																																				Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24													
1-Jul	0.2	-0.1	0.2	0.1	-0.1	0.2	0.0	-0.5	-0.5	-0.5	-0.3	0.1	0.2	0.8	0.6	1.0	1.1	1.4	0.9	0.8	0.1	-0.2	-0.2	-0.2	0.2	1.4											
2-Jul	0.0	0.6	0.2	-0.5	-0.1	-0.7	-0.9	0.7	0.5	0.4	0.1	-0.2	1.4	0.6	0.9	0.2	-0.6	-0.2	0.2	0.4	0.4	0.3	0.5	-0.1	0.2	1.4											
3-Jul	-0.2	0.2	0.2	0.0	-0.1	0.1	0.4	0.0	0.2	1.0	0.6	0.7	1.0	0.2	-0.2	0.5	0.8	1.0	0.9	0.5	0.4	0.0	-0.2	0.5	0.4	1.0											
4-Jul	1.3	0.8	0.7	0.4	0.8	0.6	0.2	0.5	0.4	0.4	0.3	0.0	0.4	1.5	0.4	0.6	0.5	1.2	1.1	0.7	0.5	0.5	0.7	1.0	0.7	1.5											
5-Jul	1.0	0.8	0.9	0.7	0.7	0.4	0.6	0.6	0.6	0.7	1.3	1.5	1.0	-0.7	-1.0	-0.7	-1.0	0.5	-0.1	-0.7	-0.5	-0.7	-0.6	-0.6	0.2	1.5											
6-Jul	-0.3	0.4	0.6	0.7	0.7	0.7	0.9	0.2	-0.1	-0.3	-0.2	0.9	1.0	0.3	1.5	0.3	0.6	0.3	0.5	-0.1	0.1	0.9	-0.1	-0.7	0.4	1.5											
7-Jul	-0.6	-0.3	-0.1	0.1	0.2	-0.1	0.1	0.2	0.6	-0.2	0.0	0.5	-0.2	1.2	1.1	-0.1	0.0	0.1	-0.2	1.6	0.5	0.2	-0.5	-0.6	0.1	1.6											
8-Jul	0.2	0.4	0.1	-0.3	0.5	-0.3	0.6	0.2	0.2	0.0	-0.4	-1.0	0.8	0.6	0.1	0.9	0.9	1.3	1.0	0.9	0.5	0.4	1.1	1.2	0.4	1.3											
9-Jul	0.4	0.8	1.6	1.3	1.0	0.9	1.0	1.1	1.0	1.1	1.4	2.1	1.6	1.4	1.5	1.6	1.4	1.2	1.3	1.1	1.4	1.8	1.8	1.9	1.3	2.1											
10-Jul	1.9	1.7	1.9	2.1	1.9	1.8	1.9	1.4	1.3	1.1	1.1	2.0	0.9	0.7	1.2	1.5	1.3	1.4	1.3	1.2	0.7	0.8	1.0	1.0	1.4	2.1											
11-Jul	0.8	-0.2	0.1	0.3	0.3	0.9	0.4	0.4	0.3	0.6	0.7	0.4	1.2	0.9	0.4	0.6	0.8	0.5	0.5	0.7	-0.4	0.1	0.8	0.5	0.5	1.2											
12-Jul	0.8	0.7	0.3	0.5	0.3	0.9	0.9	0.6	0.5	0.7	1.1	1.1	-0.1	0.4	1.1	1.3	1.5	1.3	1.4	1.3	1.1	1.3	1.6	1.6	0.9	1.6											
13-Jul	1.8	1.8	1.8	1.5	1.4	1.1	1.7	1.5	1.3	1.2	1.3	1.7	1.8	1.6	2.2	1.9	0.9	-0.7	-0.9	0.0	-0.6	0.2	0.9	0.7	1.1	2.2											
14-Jul	0.2	0.5	0.4	0.4	0.7	0.5	0.6	0.7	1.1	0.7	0.9	1.0	0.7	0.7	1.5	1.4	0.5	1.4	0.8	0.5	0.0	0.1	1.6	1.8	0.8	1.8											
15-Jul	1.8	0.5	0.9	0.8	1.3	0.5	0.5	0.3	0.2	0.7	0.7	1.3	1.2	1.0	1.7	0.9	1.2	-0.9	0.1	0.6	0.4	0.6	0.6	0.8	0.7	1.8											
16-Jul	0.3	1.1	1.6	1.0	0.6	1.2	0.8	0.5	0.8	1.1	2.4	1.2	0.9	0.8	1.1	0.4	-0.6	0.3	0.2	-0.2	-0.5	-0.3	DF	0.1	0.6	2.4											
17-Jul	-0.2	0.3	0.1	0.3	0.2	0.5	0.2	0.3	0.5	1.0	1.0	0.3	0.2	-0.2	1.0	0.6	0.7	0.3	0.1	-0.9	-1.0	-0.8	-0.7	-0.4	0.1	1.0											
18-Jul	-0.2	0.2	0.0	0.2	0.5	0.4	0.0	-0.1	0.6	1.2	0.9	-0.1	0.1	0.6	0.5	-0.7	-0.4	-0.1	1.2	-0.4	-0.6	-0.4	0.8	-0.3	0.2	1.2											
19-Jul	0.1	0.0	-0.3	0.1	0.3	0.6	0.0	-0.9	-0.3	0.0	0.0	0.4	1.1	0.0	-0.2	-1.9	-1.2	-0.7	-1.4	-1.4	-1.1	-1.2	-1.1	-0.9	-0.4	1.1											
20-Jul	-1.2	-1.7	-1.8	-0.8	-1.2	-1.0	-0.3	0.0	-0.1	0.1	-0.1	0.1	0.2	0.1	0.9	0.2	0.5	0.2	0.6	0.3	0.0	0.3	0.2	0.2	-0.2	0.9											
21-Jul	0.2	0.2	0.1	0.0	0.3	0.5	0.5	0.6	0.3	0.1	0.6	0.0	0.5	0.8	0.5	0.5	0.7	1.1	1.2	1.3	1.4	1.6	1.9	1.2	0.7	1.9											
22-Jul	0.4	0.4	0.4	0.2	0.5	0.2	0.3	0.5	0.5	0.7	0.6	1.0	0.8	0.5	0.7	0.7	0.7	0.5	0.3	0.1	0.0	0.1	0.4	0.9	0.5	1.0											
23-Jul	1.2	1.3	1.7	0.7	0.7	0.7	0.9	0.5	0.1	0.6	-0.4	-0.2	-0.9	-0.5	-1.0	0.0	0.6	0.9	0.7	0.6	0.5	0.7	1.0	0.6	0.5	1.7											
24-Jul	-0.4	0.1	0.4	-0.1	-0.2	0.0	0.1	0.3	-0.2	-0.7	0.5	0.4	1.4	0.3	1.0	0.1	0.1	0.4	0.1	0.2	0.6	0.9	0.2	0.7	0.3	1.4											
25-Jul	1.0	0.8	0.4	0.5	0.5	0.6	0.8	1.2	1.1	1.7	1.5	0.8	1.3	1.4	1.6	1.5	1.0	0.9	1.2	0.9	0.2	0.3	-1.4	-0.8	0.8	1.7											
26-Jul	-0.5	-0.9	-1.1	-0.8	-1.0	-1.2	-1.5	-1.5	-1.0	-1.2	-1.3	-0.6	-0.7	-0.3	0.0	0.0	-0.1	-0.1	-0.5	-0.5	-0.9	-1.2	-1.0	-0.6	-0.8	0.0											
27-Jul	-0.5	-0.1	0.2	0.6	0.5	-0.2	0.4	0.6	0.1	0.1	0.1	0.7	0.7	0.5	0.6	0.4	0.9	1.3	1.0	0.7	0.6	0.8	1.1	0.8	0.5	1.3											
28-Jul	0.5	0.3	0.3	0.4	0.3	0.5	0.2	0.2	0.0	0.7	0.4	0.2	0.7	0.3	0.3	0.1	-0.4	-0.9	-0.3	-0.5	-1.4	-1.6	-2.3	-0.9	-0.1	0.7											
29-Jul	-0.9	0.8	1.4	1.7	1.9	1.2	1.3	1.1	1.4	1.4	1.3	1.5	1.5	1.5	1.2	1.1	0.8	-0.4	0.6	1.1	1.4	1.2	1.2	1.0	1.1	1.9											
30-Jul	1.2	0.9	1.5	0.9	0.2	0.5	0.6	0.8	0.6	0.7	0.3	-0.3	0.1	0.5	0.4	0.4	0.2	0.0	0.0	0.6	0.2	0.3	1.4	1.2	0.5	1.5											
31-Jul	0.7	0.5	0.3	0.6	0.6	0.6	0.3	0.4	0.6	0.5	0.7	1.4	0.8	0.2	0.1	0.7	0.7	0.6	0.4	0.0	-0.1	0.2	0.1	0.0	0.4	1.4											
		0.4	0.4	0.5	0.4	0.5	0.4	0.4	0.4	0.5	0.6	0.6	0.7	0.6	0.7	0.5	0.5	0.5	0.5	0.4	0.1	0.2	0.4	0.4	Diurnal Average												
		1.9	1.8	1.9	2.1	1.9	1.8	1.9	1.5	1.4	1.7	2.4	2.1	1.8	1.6	2.2	1.9	1.5	1.4	1.4	1.6	1.4	1.8	1.9	1.9	Diurnal Maximum											
DF - DAS Failure																																					



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Vertical Wind Speed 75m (VW75) - km/h

Mannix - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.0 km/h on Jul 19 17:00																				Hours in Service: 744 Hours of Data: 743 Hours of Missing Data: 1 Hours of Calibration: 0 Percent Operational Time: 99.9					
Minimum Value: 0.1 km/h on Jul 20 23:00																									
Percentiles: P ₁ = 0.2 P ₁₀ = 0.6 Q ₁ = 0.9 Median = 1.6 Q ₃ = 2.3 P ₉₀ = 2.9 P ₉₉ = 3.7																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	1.4	1.6	1.5	1.9	3.1	2.3	1.6	1.8	2.2	2.0	2.3	2.2	1.6	1.9	2.2	2.7	2.3	1.6	0.7	0.7	0.5	0.9	1.2	1.3	3.1
2-Jul	1.1	1.4	1.5	1.9	2.0	2.2	2.2	2.0	1.9	2.2	2.1	2.7	2.1	2.1	2.3	1.8	2.3	1.7	2.0	1.7	0.8	1.2	1.6	1.5	2.7
3-Jul	1.8	1.3	0.9	0.7	0.8	1.3	1.9	1.6	2.5	2.5	3.2	1.4	1.5	2.6	2.7	1.5	1.3	2.2	1.3	1.2	0.6	1.3	1.0	0.8	3.2
4-Jul	1.0	0.9	0.5	0.4	0.5	0.6	0.5	1.3	1.4	1.4	1.9	2.4	2.3	2.7	1.3	2.2	1.5	2.3	2.1	1.7	0.6	0.4	0.5	1.0	2.7
5-Jul	0.6	0.6	0.7	0.8	1.0	0.8	0.8	1.8	2.5	3.2	2.6	3.3	3.9	3.7	3.1	3.1	2.1	1.6	2.5	2.3	1.7	2.0	1.8	1.9	3.9
6-Jul	1.6	1.1	0.6	0.5	0.7	1.2	1.6	2.1	2.6	2.8	2.9	3.3	3.1	3.0	3.2	2.6	2.6	2.6	1.2	1.4	1.8	1.3	0.6	0.9	3.3
7-Jul	0.7	1.2	0.9	1.8	1.0	1.0	1.3	1.6	1.8	2.2	2.8	3.0	3.3	3.2	3.0	1.5	1.9	1.4	1.3	2.1	2.3	2.4	2.3	1.7	3.3
8-Jul	1.4	0.8	0.8	1.3	1.7	1.4	2.1	1.8	2.6	1.6	2.2	2.8	3.3	3.1	2.5	1.8	1.1	1.4	1.4	1.2	0.8	0.4	0.5	1.6	3.3
9-Jul	0.6	0.9	0.9	0.5	0.8	1.3	1.9	2.8	2.4	2.5	3.0	3.8	3.3	3.0	3.2	2.6	2.3	2.3	2.2	2.0	0.7	0.9	1.2	2.4	3.8
10-Jul	2.2	1.9	1.2	1.1	1.1	1.6	1.7	1.8	2.0	1.9	2.5	2.9	3.3	2.9	2.6	3.3	2.8	2.7	2.3	1.3	0.9	0.4	0.3	0.4	3.3
11-Jul	0.3	0.5	0.3	0.3	0.6	0.5	0.5	1.0	1.0	1.2	1.7	1.4	1.9	1.5	0.9	0.9	1.0	0.6	0.6	1.1	0.9	0.8	0.4	0.6	1.9
12-Jul	0.3	0.6	0.6	0.9	0.7	0.9	1.0	1.2	1.0	1.2	1.9	1.9	1.4	2.4	2.9	1.6	1.9	1.5	2.0	1.9	1.5	1.8	1.2	2.3	2.9
13-Jul	2.8	2.9	2.6	2.4	2.1	2.2	2.6	2.9	2.4	2.6	3.0	3.3	3.5	3.4	3.8	3.4	3.4	2.6	1.6	1.9	1.8	1.4	0.8	1.0	3.8
14-Jul	0.8	0.5	0.6	0.9	1.1	0.8	0.8	1.6	2.4	2.2	2.6	2.7	2.4	3.1	3.2	3.1	2.4	2.3	1.5	1.1	0.2	0.5	0.5	0.4	3.2
15-Jul	0.7	0.8	0.7	0.8	0.6	0.8	1.0	0.9	1.6	1.4	1.8	2.7	2.9	2.9	2.8	1.5	2.6	3.3	3.6	2.8	1.6	1.0	0.9	1.6	3.6
16-Jul	0.6	0.5	0.7	0.5	0.6	0.6	1.1	0.8	1.7	1.9	2.8	2.7	2.5	2.7	1.8	1.9	1.7	2.1	1.1	1.4	1.2	0.7	DF	0.8	2.8
17-Jul	0.8	0.4	0.5	0.4	0.2	0.4	0.4	1.0	1.3	1.7	2.2	2.3	2.7	2.5	2.5	2.3	2.0	1.5	1.2	1.4	1.1	1.0	1.0	1.1	2.7
18-Jul	1.6	0.7	0.7	0.6	0.3	0.6	1.3	1.5	1.2	2.0	2.3	3.0	3.3	3.9	2.3	1.6	1.6	2.6	2.7	2.9	2.2	2.7	3.0	2.0	3.9
19-Jul	1.8	0.7	0.4	0.6	0.8	0.6	0.8	1.3	1.7	1.6	1.5	2.1	2.6	3.3	3.8	3.0	4.0	3.5	3.3	3.3	2.4	1.9	2.6	3.3	4.0
20-Jul	3.7	3.2	3.1	2.8	2.6	2.0	2.0	2.2	2.1	2.2	1.8	2.3	2.4	1.6	2.1	1.9	2.0	1.7	1.1	0.6	0.3	0.2	0.1	0.2	3.7
21-Jul	0.4	0.4	0.2	0.3	0.3	0.5	0.8	0.9	0.9	0.8	1.2	1.9	2.5	3.0	2.8	2.7	2.3	1.9	0.8	0.4	0.2	0.2	0.2	0.6	3.0
22-Jul	0.7	0.7	0.7	0.7	0.6	0.3	0.4	0.8	1.2	1.8	2.1	2.6	2.8	2.8	2.5	2.0	2.0	1.9	0.9	0.4	0.7	0.6	0.6	0.8	2.8
23-Jul	0.9	0.8	1.0	0.8	0.6	0.9	0.9	1.4	2.3	2.4	3.1	3.2	2.5	3.0	2.6	1.9	1.5	2.4	2.1	1.5	0.6	0.7	0.9	1.0	3.2
24-Jul	1.1	1.2	0.7	0.7	0.7	0.7	0.4	1.6	1.8	2.4	2.8	2.8	3.0	2.8	3.3	2.9	2.1	1.6	2.1	1.6	0.8	1.2	0.6	0.5	3.3
25-Jul	0.9	1.2	1.1	1.3	1.0	0.7	0.7	2.0	2.4	2.8	2.7	2.5	2.5	2.4	2.6	2.4	2.0	1.8	1.7	1.0	0.8	1.2	2.0	1.8	2.8
26-Jul	2.3	1.9	1.8	1.8	1.8	2.0	1.7	1.9	2.1	1.7	2.3	2.7	2.8	3.2	3.1	2.9	3.0	2.7	2.3	1.8	1.1	1.2	1.2	1.1	3.2
27-Jul	1.3	1.3	1.1	1.6	1.5	1.6	2.3	1.5	0.8	1.1	1.6	1.8	2.0	1.7	2.7	2.0	1.4	1.0	1.2	0.9	0.6	0.6	0.8	1.1	2.7
28-Jul	1.0	0.9	0.7	0.7	0.5	0.5	0.6	0.9	1.4	1.9	2.3	2.5	2.6	2.2	1.9	1.9	2.1	2.8	2.3	2.5	1.2	1.4	2.1	3.0	3.0
29-Jul	1.7	1.6	1.8	2.8	2.8	2.2	2.1	2.1	2.1	2.5	2.1	2.5	2.7	2.9	2.6	2.4	2.8	2.3	1.7	2.1	1.4	1.5	1.6	1.5	2.9
30-Jul	1.5	1.6	1.8	1.4	1.1	1.2	1.4	1.9	2.1	2.4	2.7	2.5	3.1	2.7	2.9	2.9	1.9	1.5	1.1	0.7	0.3	0.1	0.5	0.6	3.1
31-Jul	0.6	0.9	0.9	0.7	0.7	0.5	0.4	0.6	0.7	0.9	0.9	1.0	0.7	1.2	1.7	1.1	0.4	1.0	1.1	0.8	0.9	0.9	0.9	0.7	1.7
Diurnal Maximum																									
DF - DAS Failure																									



Wood Buffalo Environmental Association

Summary of Hour Averages

Vertical Wind Speed 90m (VW90) - km/h

Mannix - July 2026

Maximum Value: 1.8 km/h on Jul 7 20:00																			Maximum Daily Average: 0.7 km/h on Jul 15										Hours in Service: 744	
Minimum Value: -1.2 km/h on Jul 20 03:00																			Minimum Daily Average: -0.2 km/h on Jul 26										Hours of Data: 741	
Maximum Diurnal Average: 0.4 km/h at hour 15																			Minimum Diurnal Average: 0.1 km/h at hour 21										Hours of Missing Data: 3	
Monthly Average: 0.21 km/h																			Percentiles: P ₁ = -0.9 P ₁₀ = -0.2 Q ₁ = 0.0 Median = 0.2 Q ₃ = 0.5 P ₉₀ = 0.8 P ₉₉ = 1.3										Hours of Calibration: 0	
																													Percent Operational Time: 99.6	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
1-Jul	0.2	0.0	0.0	0.2	0.1	0.0	-0.1	-0.3	-0.9	-0.5	-0.1	0.2	0.0	0.6	0.5	0.9	1.0	1.0	0.4	0.4	0.3	0.3	0.4	0.3	0.2	1.0				
2-Jul	0.9	1.0	1.1	0.1	0.4	-0.9	-0.9	0.7	0.5	0.6	0.3	-0.1	0.5	0.3	1.0	0.6	-0.5	0.5	0.5	0.8	0.7	0.7	1.0	0.4	0.4	1.1				
3-Jul	0.0	0.3	0.2	0.6	0.8	0.9	0.8	0.1	0.1	0.8	0.5	0.2	0.0	0.4	0.1	0.3	0.5	0.8	0.7	0.2	0.4	0.0	0.4	0.7	0.4	0.9				
4-Jul	1.0	0.2	0.2	0.0	0.0	0.2	0.0	0.3	0.2	0.2	0.1	-0.2	0.3	0.0	-0.1	0.1	0.0	0.8	0.4	0.0	0.0	0.1	0.0	0.1	0.2	1.0				
5-Jul	0.0	0.2	0.2	0.1	0.2	0.0	0.1	0.1	0.2	0.1	0.6	1.1	0.5	-0.6	-0.8	-0.5	-0.7	0.1	0.0	-0.5	0.0	-0.5	-0.6	-0.5	0.0	1.1				
6-Jul	-0.3	0.1	0.1	0.2	0.2	0.3	0.6	0.0	-0.1	-0.4	-0.4	0.5	0.8	0.0	0.6	-0.2	0.2	-0.1	0.5	0.2	0.2	0.4	-0.1	-0.2	0.1	0.8				
7-Jul	-0.1	0.2	0.2	0.0	0.2	-0.2	0.0	0.1	0.8	-0.1	0.4	0.7	0.2	1.2	0.9	-0.4	-0.5	-0.3	-0.1	1.8	0.4	0.3	-0.4	-0.8	0.2	1.8				
8-Jul	1.1	0.8	1.1	0.4	0.4	-0.3	0.5	-0.1	0.2	-0.2	0.0	-0.3	0.9	0.7	-0.3	0.5	0.3	0.5	0.3	0.2	0.0	0.0	0.4	0.3	0.3	1.1				
9-Jul	0.0	0.0	0.3	0.1	0.0	0.2	0.1	0.0	0.1	0.1	0.3	1.0	0.6	0.4	0.4	0.5	0.5	0.4	0.2	0.2	0.5	0.6	0.7	0.7	0.3	1.0				
10-Jul	0.9	0.8	0.9	1.2	0.9	0.8	1.1	0.7	0.5	0.5	0.6	1.3	0.0	-0.2	0.3	0.3	0.3	0.2	0.4	0.5	-0.1	-0.1	0.0	0.0	0.5	1.3				
11-Jul	0.2	-0.2	0.0	0.0	0.0	0.3	0.1	0.1	0.2	0.7	0.5	0.3	0.8	0.5	0.0	0.3	0.4	0.0	0.0	0.3	-0.3	-0.1	0.0	-0.2	0.2	0.8				
12-Jul	0.1	0.2	-0.1	0.0	-0.1	0.2	0.4	0.3	0.1	0.2	0.1	0.1	0.0	0.5	0.6	0.4	0.5	0.5	0.7	0.3	0.1	0.1	0.3	0.1	0.2	0.7				
13-Jul	0.3	0.2	0.3	0.3	0.4	0.2	0.8	0.5	0.6	0.3	0.4	0.4	0.2	0.2	0.8	0.3	0.0	-0.2	-0.6	-0.2	-0.4	-0.2	0.0	0.1	0.2	0.8				
14-Jul	-0.1	-0.1	-0.1	-0.1	0.1	0.0	0.0	0.0	0.5	0.0	-0.1	0.1	0.0	0.2	1.2	0.8	-0.1	0.9	0.5	0.3	0.0	0.3	0.9	1.0	0.3	1.2				
15-Jul	1.4	1.3	1.3	1.3	0.9	1.0	0.3	0.2	0.0	0.5	0.5	1.2	1.0	0.6	1.4	0.5	UO	0.0	0.5	0.9	0.3	0.1	0.7	0.9	0.7	1.4				
16-Jul	0.6	0.5	0.7	0.3	0.5	0.7	0.5	0.4	0.7	0.8	1.7	0.2	0.1	0.1	0.3	0.1	-0.1	0.6	0.3	-0.2	0.2	0.0	DF	0.1	0.4	1.7				
17-Jul	-0.1	0.2	0.1	0.0	0.0	0.1	-0.1	-0.2	0.4	0.9	0.7	0.2	0.2	-0.2	0.7	0.3	0.7	0.0	0.0	-0.4	-0.3	0.0	-0.3	-0.2	0.1	0.9				
18-Jul	0.0	0.2	0.0	0.4	0.2	0.8	0.4	-0.1	0.1	0.3	0.1	-0.1	0.0	0.3	0.2	-0.2	-0.1	0.3	1.1	-0.4	-0.7	-0.5	0.6	-0.3	0.1	1.1				
19-Jul	0.1	0.1	-0.1	0.0	0.2	0.4	-0.1	-0.7	-0.2	0.0	-0.2	0.3	0.4	0.7	0.5	-0.7	-0.2	0.0	-0.9	-1.0	-0.5	-0.8	-0.7	-0.3	-0.2	0.7				
20-Jul	-0.6	-1.1	-1.2	-0.2	-0.8	-0.9	-0.1	0.2	0.1	0.1	-0.1	0.2	0.0	0.0	0.5	-0.1	0.0	-0.1	0.4	0.1	-0.1	0.0	-0.1	0.0	-0.2	0.5				
21-Jul	0.0	0.0	-0.1	-0.1	0.0	0.1	0.1	0.3	0.3	0.1	0.3	-0.1	0.3	0.4	0.1	0.2	0.2	0.6	0.4	0.4	0.7	0.8	0.9	0.4	0.3	0.9				
22-Jul	0.0	0.0	0.0	-0.2	0.0	-0.1	-0.1	0.1	0.2	0.4	0.4	0.8	0.5	-0.2	-0.1	0.2	0.2	0.3	0.3	0.5	1.1	1.1	1.3	1.1	0.3	1.3				
23-Jul	1.0	1.1	1.5	0.1	0.7	0.9	0.3	0.1	-0.1	0.4	-0.2	0.0	-0.6	-0.5	-0.8	-0.3	0.0	0.3	0.1	0.2	0.1	0.1	0.2	0.1	0.2	1.5				
24-Jul	-0.2	0.1	0.2	0.0	-0.2	0.0	0.0	0.1	-0.3	-0.7	0.7	0.5	1.4	0.1	0.9	0.1	-0.1	0.3	0.3	0.2	-0.1	0.2	-0.1	0.1	0.2	1.4				
25-Jul	0.2	0.2	0.1	0.0	-0.1	-0.1	0.1	0.3	0.3	0.8	0.7	-0.1	0.2	0.6	0.6	0.5	0.0	0.0	0.3	0.2	-0.2	0.0	-0.5	0.0	0.2	0.8				
26-Jul	0.5	-0.2	-0.4	-0.1	-0.3	-0.4	-0.7	-0.6	-0.2	-0.6	-0.5	0.0	-0.2	0.0	0.0	0.0	0.3	0.4	0.0	0.1	0.0	-0.4	-0.3	-0.1	-0.2	0.5				
27-Jul	-0.1	0.1	0.2	0.7	0.6	0.1	0.6	0.7	0.3	0.1	0.0	0.4	0.4	0.1	0.7	0.4	0.4	0.5	0.4	0.1	0.0	0.0	0.2	0.1	0.3	0.7				
28-Jul	0.0	0.0	0.0	0.1	0.0	0.0	-0.1	0.0	-0.2	0.6	0.2	0.0	0.6	0.1	0.1	0.5	0.4	0.0	0.0	0.2	-0.3	UO	-1.1	-0.4	0.0	0.6				
29-Jul	0.1	0.2	0.5	0.6	0.3	0.3	0.4	0.4	0.3	0.5	0.5	0.8	0.5	0.7	0.6	0.5	0.4	-0.5	0.2	0.4	0.3	0.2	0.1	0.1	0.4	0.8				
30-Jul	0.3	0.2	0.8	0.5	-0.4	0.1	0.1	0.3	0.1	0.4	0.1	-0.5	0.0	0.3	0.1	-0.1	-0.3	-0.3	-0.3	0.1	-0.1	0.0	0.7	0.5	0.1	0.8				
31-Jul	0.0	0.0	-0.2	0.1	0.0	0.1	-0.1	0.1	0.3	0.2	0.5	0.9	0.3	0.0	0.1	0.4	0.2	0.5	0.3	0.4	0.5	0.8	1.2	0.8	0.3	1.2				
																									Diurnal Average					
																									Diurnal Maximum					
DF - DAS Failure																														
UO - Unstable Operation																														



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Vertical Wind Speed 90m (VW90) - km/h

Mannix - July 2026

Number of Exceedances (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.1 km/h on Jul 19 17:00																			Hours in Service: 744						
Minimum Value: 0.1 km/h on Jul 20 23:00																			Hours of Data: 741						
Percentiles: P ₁ = 0.2 P ₁₀ = 0.5 Q ₁ = 0.8 Median = 1.6 Q ₃ = 2.3 P ₉₀ = 2.8 P ₉₉ = 3.5																			Hours of Missing Data: 3						
																			Hours of Calibration: 0						
																			Percent Operational Time: 99.6						
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	1.2	1.0	1.5	1.3	2.1	2.1	1.6	1.6	2.3	1.9	2.3	2.2	1.6	2.0	2.3	2.8	2.3	1.6	0.8	0.6	0.5	0.6	0.7	1.0	2.8
2-Jul	0.9	1.3	1.5	1.9	2.1	2.1	2.1	1.9	1.9	2.0	2.0	2.7	2.1	2.1	2.3	1.7	2.2	1.6	2.1	1.6	0.7	1.0	1.5	1.3	2.7
3-Jul	1.6	0.9	0.9	0.7	0.6	1.1	1.8	1.6	2.6	2.7	3.1	1.4	1.4	1.7	2.0	1.4	1.2	2.2	1.3	1.3	0.5	1.2	0.7	0.7	3.1
4-Jul	1.1	0.9	0.5	0.3	0.4	0.8	0.5	1.1	1.4	1.4	1.8	2.5	2.4	1.6	1.3	2.2	1.5	2.4	2.1	1.7	0.5	0.4	0.6	0.9	2.5
5-Jul	0.5	0.6	0.6	0.8	0.8	0.7	0.7	1.8	2.5	3.2	2.5	3.2	3.9	3.3	3.0	3.1	2.0	1.5	2.5	2.2	1.7	1.9	1.7	1.9	3.9
6-Jul	1.6	1.2	0.6	0.5	0.6	1.0	1.6	1.9	2.5	2.7	2.9	3.1	3.1	2.9	3.3	2.7	2.6	2.4	1.2	1.3	1.7	1.2	0.6	0.9	3.3
7-Jul	0.6	1.0	0.7	1.1	1.1	0.9	1.1	1.6	1.8	2.0	2.5	2.8	3.1	3.1	2.8	1.4	1.8	1.4	1.1	1.9	2.1	2.3	2.2	1.7	3.1
8-Jul	1.3	0.7	0.8	0.9	1.6	1.1	1.9	1.8	2.7	1.6	1.4	1.8	2.8	2.7	2.7	1.9	1.1	1.3	1.3	1.2	0.7	0.4	0.5	1.6	2.8
9-Jul	0.6	1.0	0.7	0.6	0.8	1.3	1.8	2.8	2.4	2.7	2.9	3.8	3.4	3.0	3.4	2.6	2.3	2.3	2.1	1.8	0.6	1.4	1.1	2.3	3.8
10-Jul	2.1	1.8	1.1	1.0	1.0	1.6	1.8	1.7	2.0	1.9	2.5	3.0	3.4	2.8	2.7	3.4	2.7	2.5	2.1	1.3	0.9	0.4	0.3	0.3	3.4
11-Jul	0.7	1.1	0.2	0.3	0.6	0.4	0.3	0.9	0.9	1.1	1.7	1.3	1.9	1.6	0.8	0.9	0.9	0.5	0.6	1.1	0.8	0.6	0.3	0.4	1.9
12-Jul	0.2	0.5	0.6	0.9	0.8	0.8	0.9	1.2	0.9	1.2	1.8	2.1	1.3	2.4	3.1	1.7	1.9	1.4	1.9	1.9	1.3	1.8	1.1	2.2	3.1
13-Jul	2.9	2.9	2.7	2.6	2.3	2.3	2.8	2.8	2.6	2.6	3.1	3.5	3.5	3.5	3.8	3.3	3.1	2.7	1.6	1.8	1.7	1.1	0.7	0.9	3.8
14-Jul	0.9	0.5	0.8	1.0	1.2	0.9	0.8	1.5	2.2	2.2	2.7	2.7	2.5	3.0	3.2	3.0	2.5	2.4	1.6	1.0	0.2	0.4	0.3	0.4	3.2
15-Jul	0.6	0.6	0.6	0.5	0.4	0.7	1.0	0.9	1.6	1.5	1.7	2.9	3.1	3.1	2.9	1.6	UO	2.3	2.5	2.5	1.7	1.0	0.9	1.9	3.1
16-Jul	0.6	0.4	0.6	0.6	0.7	0.6	1.0	0.7	1.7	2.0	3.0	2.7	2.6	2.7	1.9	2.3	1.6	1.8	1.0	1.3	1.2	0.5	DF	0.7	3.0
17-Jul	0.4	0.4	0.5	0.3	0.1	0.3	0.2	0.8	1.2	1.6	2.2	2.1	2.8	2.4	2.7	2.3	2.1	1.6	1.2	1.4	1.0	1.1	1.0	1.2	2.8
18-Jul	1.0	0.7	0.7	0.5	0.3	0.5	1.0	1.3	1.1	1.9	2.6	2.8	3.2	3.8	2.2	1.5	1.3	2.5	2.8	2.8	2.2	2.7	2.7	1.9	3.8
19-Jul	1.6	0.7	0.4	0.4	0.7	0.7	0.7	1.1	1.7	1.5	1.5	2.0	2.4	3.1	3.7	2.9	4.1	3.4	3.1	3.2	2.3	1.7	2.5	3.3	4.1
20-Jul	3.6	3.2	3.0	2.9	2.5	1.9	1.9	2.1	2.1	2.2	1.7	2.3	2.3	1.6	2.0	1.8	1.9	1.6	1.1	0.6	0.3	0.3	0.1	0.2	3.6
21-Jul	0.3	0.4	0.2	0.3	0.3	0.5	0.7	0.8	0.9	0.7	1.2	1.8	2.4	2.9	2.8	2.7	2.4	2.0	0.8	0.3	0.2	0.2	0.2	0.4	2.9
22-Jul	0.6	0.7	0.9	0.7	0.5	0.3	0.4	0.7	1.1	1.6	2.0	2.6	2.9	2.7	2.6	2.1	2.1	1.9	0.8	0.5	0.7	0.7	0.7	0.7	2.9
23-Jul	0.6	0.7	1.2	0.6	0.7	0.7	0.7	1.2	2.0	2.4	3.1	3.0	2.5	2.8	2.5	1.8	1.5	2.3	2.0	1.3	0.6	0.6	0.8	0.9	3.1
24-Jul	1.0	1.2	0.6	0.8	0.7	0.7	0.3	1.4	1.8	2.3	2.6	2.6	2.8	2.6	3.3	2.9	2.1	1.5	2.2	1.3	0.8	1.2	0.7	0.6	3.3
25-Jul	1.1	1.3	1.3	1.4	1.1	0.7	0.7	2.1	2.4	2.8	2.8	2.7	2.5	2.5	2.6	2.4	2.1	1.7	1.7	0.9	0.8	1.2	1.8	1.7	2.8
26-Jul	2.3	1.8	1.8	1.7	1.7	2.1	1.7	1.8	2.1	1.6	2.4	2.8	2.7	3.1	3.1	3.0	3.0	2.9	2.3	1.8	0.9	1.1	0.9	1.1	3.1
27-Jul	1.3	1.3	1.0	1.6	1.5	1.5	1.8	1.5	0.9	1.0	1.5	1.8	1.9	1.7	2.5	1.8	1.3	0.9	1.0	1.0	0.5	0.6	1.0	1.1	2.5
28-Jul	0.8	0.9	0.8	0.7	0.6	0.3	0.5	0.7	1.5	1.9	2.2	2.5	2.7	2.3	2.0	1.9	1.8	2.2	2.1	2.0	1.2	UO	2.0	3.1	3.1
29-Jul	1.7	1.6	1.7	2.7	2.8	2.1	2.1	2.1	2.1	2.5	2.0	2.5	2.9	2.9	2.6	2.4	2.8	2.2	1.6	2.0	1.4	1.5	1.5	1.5	2.9
30-Jul	1.5	1.6	1.8	1.5	1.1	1.1	1.4	1.9	2.2	2.4	2.6	2.3	3.1	2.6	2.7	2.9	1.9	1.4	1.1	0.6	0.3	0.1	0.5	0.6	3.1
31-Jul	0.6	0.9	0.9	0.7	0.6	0.5	0.3	0.4	0.4	0.6	0.8	1.0	0.5	1.1	1.5	1.0	0.4	0.9	1.1	0.7	0.7	0.9	1.0	0.7	1.5
Diurnal Maximum																									
DF - DAS Failure UO - Unstable Operation																									



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS06
PATRICIA MCINNES
JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - PATRICIA McINNES (AMS06)
JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	704	39	40	99.87	-	-	11.4	0	1.8	0
TRS (ppb) Average	673	40	71	95.83	5.6	1	4.4	0	1.1	0
THC (ppm) Average	674	37	70	95.56	-	-	3.8	-	2.3	-
NMHC(ppm) Average	674	37	70	95.56	-	-	0.119	-	0.009	-
CH4(ppm) Average	674	37	70	95.56	-	-	3.8	-	2.3	-
O3 (ppb) Average	695	35	49	98.12	-	-	52.1	0	30	-
NO2 (ppb) Average	707	36	37	99.87	-	-	15.5	0	3.4	-
NO (ppb) Average	707	36	37	99.87	-	-	4.4	-	0.9	-
NOX (ppb) Average	707	36	37	99.87	-	-	17.4	-	4	-
NH3 (ppb) Average	626	43	118	89.92	-	-	159.1	0	7.2	-
PM2.5 (ug/m3) Average	742	2	2	100	-	-	192.1	12	77.9	4
Temperature 2 m (C) Average	744	0	0	100	-	-	32.1	-	23.7	-
Relative Humidity (%) Average	737	0	7	99.06	-	-	100	-	84	-
Wind Speed 10 m (km/h) Average	744	0	0	100	-	-	28	-	17	-
Wind Direction 10 m (deg) Average	744	0	0	100	-	-	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - PATRICIA McINNES (AMS06)

JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	704	0.3	0.8	-	0	0	0	0.1	0.3	0.5	11.4
TRS (ppb) Average	673	0.3	0.3	-	0	0.2	0.2	0.2	0.3	0.4	4.4
THC (ppm) Average	674	2.09	0.2	-	1.8	1.9	2	2	2.1	2.3	3.8
NMHC(ppm) Average	674	0.001	0.007	-	0	0	0	0	0	0	0.119
CH4(ppm) Average	674	2.09	0.2	-	1.8	1.9	2	2	2.1	2.3	3.8
O3 (ppb) Average	695	23.05	9.1	-	3.8	11.2	16.2	22.4	29.2	35.6	52.1
NO2 (ppb) Average	707	1.5	1.6	-	0	0.1	0.3	1.1	2.2	3.5	15.5
NO (ppb) Average	707	0.45	0.6	-	0	0	0.1	0.2	0.7	1.2	4.4
NOX (ppb) Average	707	1.96	2	-	0	0.2	0.5	1.4	2.8	4.3	17.4
NH3 (ppb) Average	626	0.31	6.4	-	0	0	0	0	0	0	159.1
PM2.5 (ug/m3) Average	742	15.98	21.4	-	1	2.5	4	7	16.1	54.2	192.1
Temperature 2 m (C) Average	744	18.57	4.6	-	9.4	12.9	15.2	18.1	21.8	24.8	32.1
Relative Humidity (%) Average	737	69.06	18.6	-	26.7	41.8	54.6	71.6	83.8	93	100
Wind Speed 10 m (km/h) Average	744	9	5	-	0	3	6	8	12	15	28
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - PATRICIA MCINNES (AMS06)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
TRS	09 Jul 2026 09:00	09 Jul 2026 10:00	2	Maintenance - verify daily QA response
TRS	18 Jul 2026 14:00	18 Jul 2026 15:00	2	Maintenance - verify daily QA response
TRS	23 Jul 2026 09:00	23 Jul 2026 19:00	11	Maintenance - replaced sample pump
TRS	25 Jul 2026 07:00	25 Jul 2026 08:00	2	Maintenance - verify daily QA response
TRS	27 Jul 2026 09:00	27 Jul 2026 21:00	13	Maintenance - replaced the converter
THC/NMHC/CH4	08 Jul 2026 06:00	09 Jul 2026 10:00	29	Analyzer Failure - sample pump failure
THC/NMHC/CH4	10 Jul 2026 10:00	10 Jul 2026 12:00	3	Maintenance - adjust retention windows
O3, NMHC,NOX,TRS, SO2	21 Jul 2026 11:00	21 Jul 2026 11:00	1	Maintenance - sample manifold cleaned
O3	22 Jul 2026 15:00	23 Jul 2026 03:00	13	Maintenance - station operator activities
NH3	01 Jul 2026 02:00	31 Jul 2026 03:00	75	Stabilization after daily QA check
Relative Humidity	27 Jul 2026 02:00	27 Jul 2026 07:00	6	Sensor operated out of range
Relative Humidity	29 Jul 2026 01:00	29 Jul 2026 01:00	1	Sensor operated out of range



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

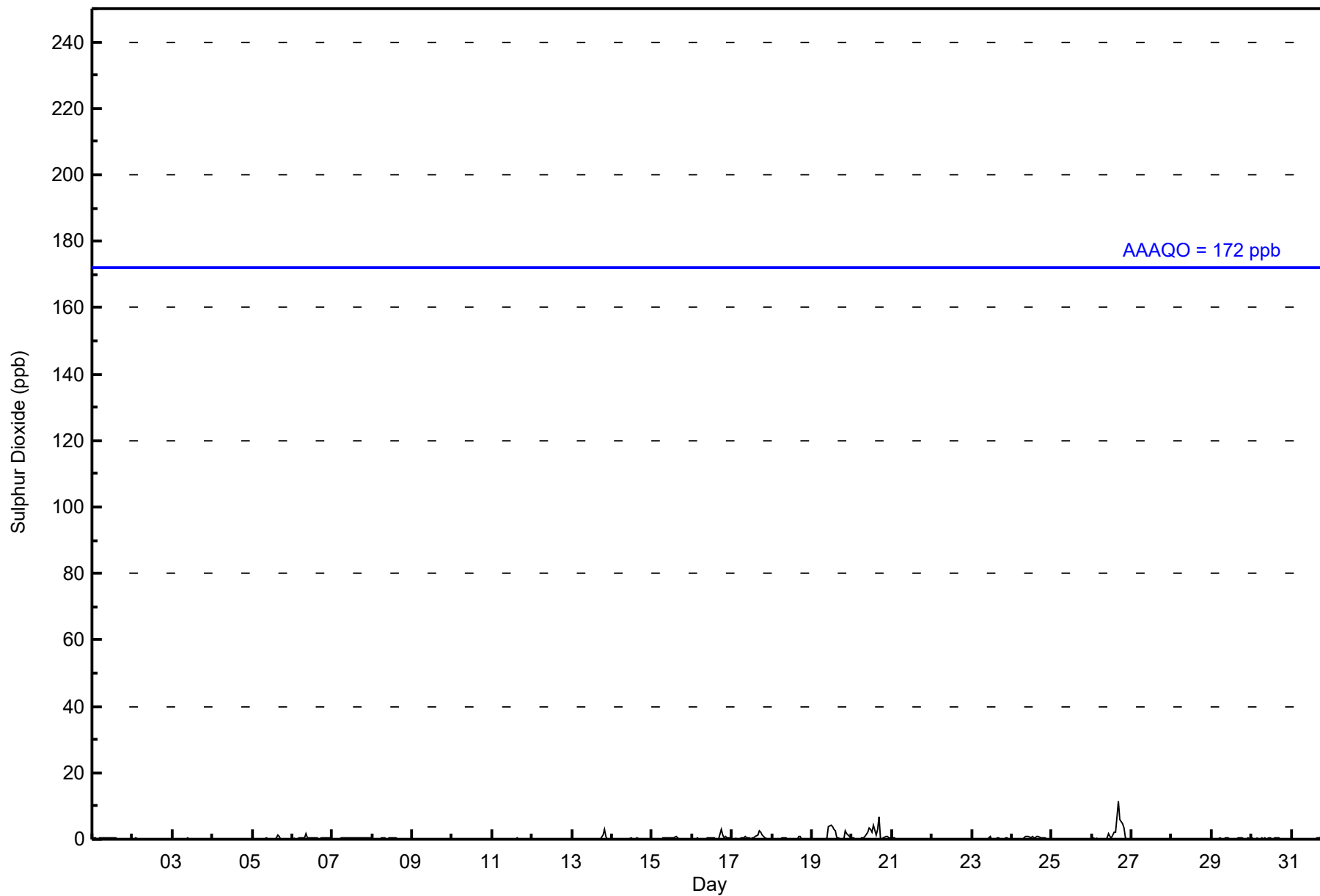
Patricia McInnes - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 11.4 ppb on Jul 26 17:00 Maximum Daily Average: 1.8 ppb on Jul 26																			Hours in Service: 744 Hours of Data: 704 Hours of Missing Data: 40 Hours of Calibration: 39 Percent Operational Time: 99.9							
Minimum Value: 0.0 ppb on Jul 1 18:00 Minimum Daily Average: 0.0 ppb on Jul 10 Maximum Diurnal Average: 0.9 ppb at hour 17 Minimum Diurnal Average: 0.1 ppb at hour 5 Monthly Average: 0.30 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.5 P ₉₉ = 3.9																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.3	0.3	0.3	Z	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.3	0.4	0.2	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.2	0.5
2-Jul	0.1	0.1	0.3	0.1	Z	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
3-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2
4-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1
5-Jul	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.3	1.4	0.7	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	1.4
6-Jul	0.1	0.2	Z	0.2	0.3	0.2	0.5	0.4	1.5	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.3	1.5
7-Jul	0.1	0.1	0.1	Z	0.2	0.3	0.2	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.2	0.3	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4
8-Jul	0.2	0.2	0.1	0.1	Z	0.4	0.4	0.6	0.2	0.2	0.4	0.4	0.4	0.3	0.3	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.2	0.6
9-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	C	C	C	C	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1
11-Jul	0.1	Z	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.2	0.1	0.2
12-Jul	0.1	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
13-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.1	2.8	0.7	0.2	0.2	0.2	0.3	2.8
14-Jul	0.1	0.0	0.1	0.1	Z	0.0	0.0	0.1	0.2	0.1	0.1	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.3
15-Jul	0.1	0.0	0.1	0.1	0.1	Z	0.3	0.4	0.5	0.4	0.4	0.4	0.4	0.5	0.7	0.4	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.2	0.7
16-Jul	Z	0.0	0.0	0.2	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	3.0	1.1	0.6	0.7	0.4	0.3	0.3	3.0
17-Jul	0.3	Z	0.3	0.2	0.2	0.3	0.3	0.4	0.9	0.4	0.2	0.2	0.4	0.5	0.7	1.2	2.5	2.3	1.5	0.8	0.2	0.1	0.0	0.2	0.6	2.5
18-Jul	0.0	0.0	Z	0.2	0.1	0.2	0.5	0.4	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.8	0.0	0.1	0.0	0.0	0.0	0.0	0.2	1.1
19-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.5	3.9	4.2	3.7	3.1	2.5	0.3	0.3	0.2	0.0	0.1	2.4	1.5	0.8	0.3	1.0	4.2
20-Jul	0.5	0.5	0.1	0.2	Z	0.3	0.4	0.4	0.7	1.9	3.2	3.1	2.3	4.3	1.2	3.1	6.6	0.3	0.1	0.4	0.8	0.7	0.5	0.6	1.4	6.6
21-Jul	0.6	0.6	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.0	M	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.6
22-Jul	Z	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.1
23-Jul	0.1	Z	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.2	0.6	1.0	0.2	0.1	0.2	0.2	0.4	0.2	0.2	0.2	0.3	0.5	0.1	0.1	0.2	1.0
24-Jul	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.4	0.8	1.0	0.7	0.5	0.6	0.5	0.6	1.0	0.9	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.4	1.0
25-Jul	0.1	0.1	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
26-Jul	0.2	0.3	0.1	0.2	Z	0.1	0.1	0.0	0.0	0.4	1.9	0.8	0.3	2.2	2.2	6.7	11.4	6.0	4.6	3.2	0.3	0.1	0.0	0.1	1.8	11.4
27-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.1	0.1	0.1	0.0	0.2
28-Jul	Z	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
29-Jul	0.0	Z	0.2	0.2	0.0	0.2	0.1	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.4	0.1	0.2	0.4
30-Jul	0.3	0.1	Z	0.2	0.2	0.1	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.0	0.1	0.2	0.3
31-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.4	0.4	0.7	0.5	0.3	0.2	0.2	0.1	0.2	0.7
Diurnal Average																										
Diurnal Maximum																										
Z - zerospan C - Calibration M - Maintenance																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Patricia McInnes - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	703	99.86	99.86
11 - 20	1	0.14	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Patricia McInnes - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	39	5	6	3	14	76	85	42	47	67	76	83	56	33	31	40	703
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	39	5	6	3	14	76	85	42	47	67	76	83	56	33	32	40	704

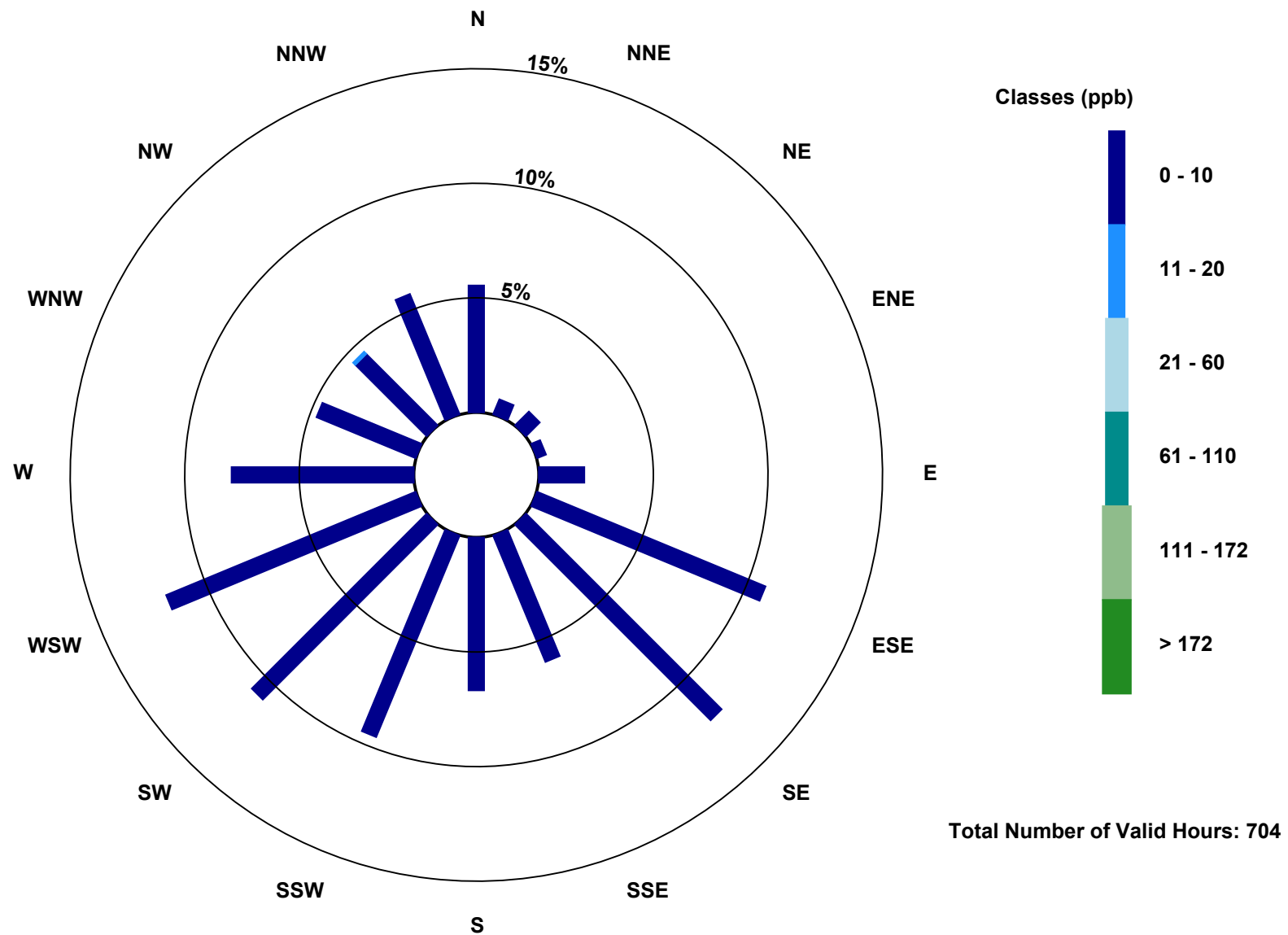
Total Number of Valid Hours: 704

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

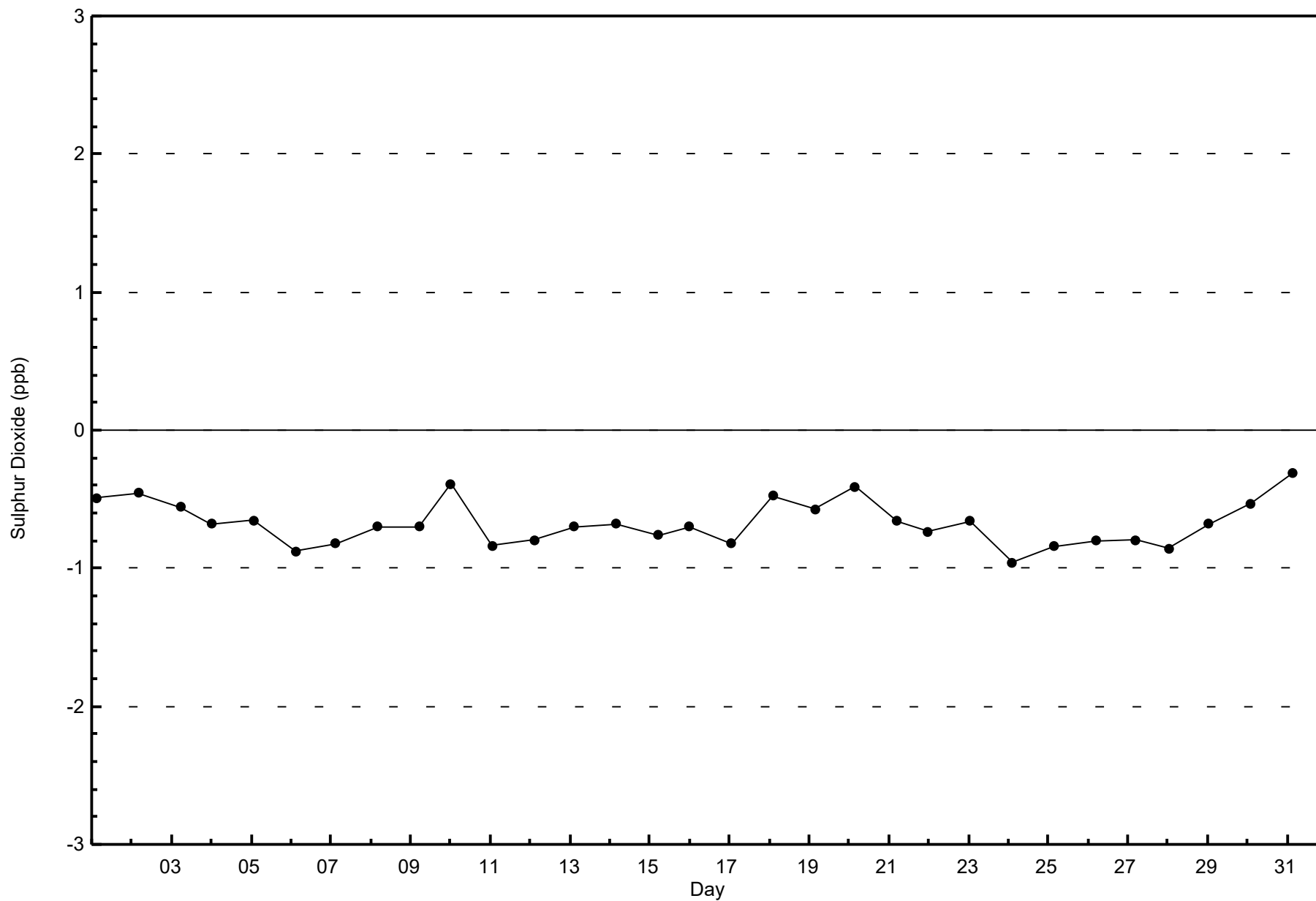
Sulphur Dioxide (SO₂) - ppb
Patricia McInnes





Wood Buffalo Environmental Association
Zero Responses

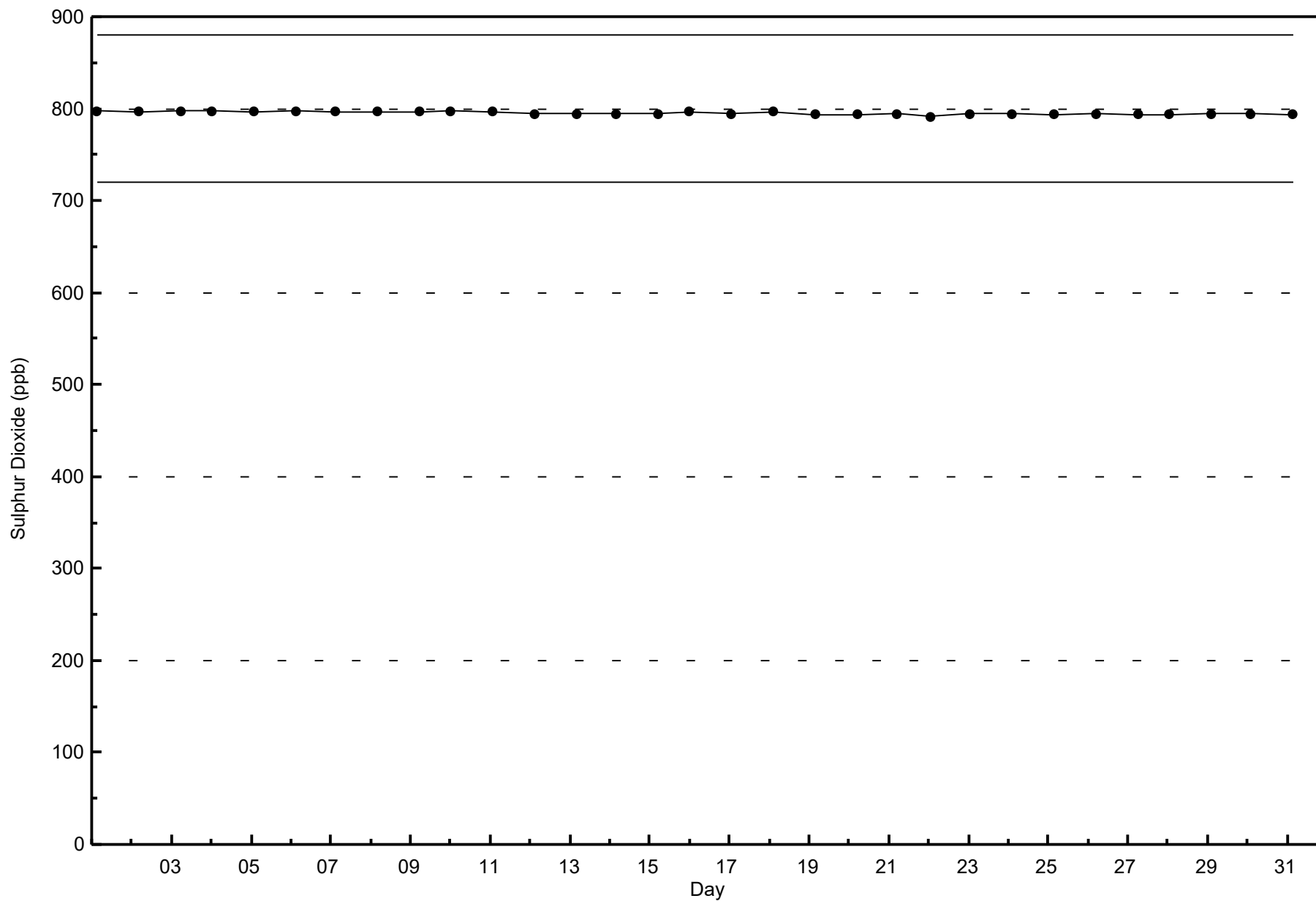
Sulphur Dioxide (SO₂) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Patricia McInnes - July 2026

Number of Exceedences (AAAQG): 30-Min: 1																			Periods in Service: 1488							
Maximum Value: 5.6 ppb on Jul 28 23:00 Maximum Daily Average: 1.1 ppb on Jul 26																			Periods of Valid Data: 1349							
Minimum Value: 0.0 ppb on Jul 28 16:00 Minimum Daily Average: 0.2 ppb on Jul 6																			Periods of Invalid Data: 139							
Maximum Diurnal Average: 0.4 ppb at hour 23 Minimum Diurnal Average: 0.2 ppb at hour 16																			Periods of Calibration: 79							
Monthly Average: 0.30 ppb Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.2 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.4 P ₉₉ = 1.9																			Percent Operational Time: 96.0							
Day	Period Ending At (MST)																								Daily Average	Daily Maximum
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00		
1-Jul	0.6 1.0	1.4 1.2	1.5 1.3	0.9 0.4	Z SP	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.3	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.4	1.5
2-Jul	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.2	0.3 0.2	Z SP	0.2 0.3	0.3 0.3	0.2 0.3	0.3 0.3	0.4 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.3 0.3	0.2 0.3	0.2 0.3	0.2 0.3	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.3	0.4
3-Jul	Z SP	0.2 0.3	0.3 0.4	0.4 0.3	0.3 0.3	0.3 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.4 0.3	0.4 0.4	0.3	0.4
4-Jul	0.5 0.4	Z SP	0.2 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.5
5-Jul	0.2 0.2	0.2 0.2	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.2	0.4 0.5	0.4 0.4	0.2	0.5	
6-Jul	0.3 0.3	0.2 0.3	0.3 0.2	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.2	0.3	
7-Jul	0.2 0.2	0.3 0.6	0.3 0.4	0.8 0.4	Z SP	0.4 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.2	0.8
8-Jul	0.2 0.2	0.2 0.2	0.3 0.5	0.5 0.3	0.3 0.3	Z SP	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.3	0.5
9-Jul	Z SP	0.1 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.1 0.1	0.1 0.1	0.2 M	M M	M 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.2	0.3
10-Jul	0.2 0.2	Z SP	0.3 0.4	0.5 0.4	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.2	0.5
11-Jul	0.2 0.1	0.2 0.2	Z SP	0.3 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.2	0.2 0.2	0.2	0.2	0.3
12-Jul	0.2 0.2	0.2 0.2	0.2 0.2	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.2	0.2
13-Jul	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	Z SP	0.2 0.3	0.2 0.2	0.2 0.3	0.2 0.3	0.3 0.3	0.3 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.5 0.4	0.6 0.7	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.3	0.7
14-Jul	0.2 0.2	0.3 0.2	0.3 0.2	0.2 0.2	0.2 0.2	Z SP	0.2 0.2	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.1	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.4 0.3	0.5 0.4	0.2 0.3	0.2	0.5
15-Jul	Z SP	0.3 0.4	0.4 0.4	0.5 0.4	0.3 0.4	0.4 0.4	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.3 PF	0.3 0.3	0.3 0.3	0.3 0.2	0.3 0.2	0.3 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3	0.5



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Patricia McInnes - July 2026

Day	Period Ending At (MST)																								Daily Average	Daily Maximum
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00		
16-Jul	0.3 0.3	Z SP	0.3 0.3	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.5 0.4	0.3	0.5
17-Jul	0.5 0.7	0.6 0.5	Z SP	0.5 0.6	0.6 0.3	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.3 0.2	0.2 0.2	0.3 0.3	0.3 0.4	0.3 0.3	0.4 0.4	0.4 0.5	0.3	0.7
18-Jul	0.5 0.5	0.7 0.7	0.6 0.8	Z SP	0.3 0.8	0.5 0.4	0.4 0.4	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.2 0.2	M M	M 0.4	0.3 0.3	0.4 1.2	0.9 0.5	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.4	1.2
19-Jul	0.3 0.5	0.6 0.5	0.6 0.6	0.3 0.2	Z SP	0.2 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.5 0.6	0.6 0.6	0.5 0.4	0.3 0.3	0.3 0.2	0.3 0.2	0.3 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3	0.6
20-Jul	0.4 0.5	0.5 0.5	0.4 0.4	0.4 0.5	0.5 0.5	Z SP	0.4 0.5	3.7 C	C C	C C	C C	C C	C C	C C	C C	C C	0.7 0.7	0.7 0.7	0.6 0.6	0.6 0.6	0.6 0.6	0.6 0.5	0.4 0.4	0.4 0.4	--	3.7
21-Jul	Z SP	0.4 0.4	0.4 0.4	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.3	0.2 0.2	0.2 0.3	0.3 0.3	M M	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.3 0.2	0.2 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3	0.4
22-Jul	0.3 0.3	Z SP	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.3
23-Jul	0.2 0.3	0.2 0.3	Z SP	0.2 0.2	0.3 0.3	0.3 0.2	0.2 0.2	0.2 M	M M	M M	M M	M M	M M	M M	M M	M M	M M	M M	M 0.5	0.3 0.3	0.3 0.3	0.3 0.5	0.3 0.2	0.3 0.2	--	0.5
24-Jul	0.3 0.3	0.4 0.4	0.4 0.3	Z SP	0.2 0.2	0.2 0.2	0.3 0.3	0.4 0.7	0.6 0.6	0.5 0.4	0.4 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3	0.7
25-Jul	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	Z SP	0.2 0.2	0.2 M	M M	0.3 0.3	0.3 0.4	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.1 0.2	0.5 0.5	0.2	0.5
26-Jul	0.3 0.3	0.4 0.4	0.8 0.9	1.0 0.8	0.8 1.1	Z SP	2.1 2.0	2.3 1.9	1.7 1.7	2.4 2.0	1.2 1.2	1.1 1.9	2.0 1.8	1.4 1.1	0.9 0.6	0.5 0.5	0.6 0.6	0.6 0.5	0.7 1.2	1.3 1.2	1.2 1.0	0.6 0.8	0.7 0.8	0.9 1.0	1.1	2.4
27-Jul	Z SP	0.8 0.8	0.3 0.3	0.2 0.2	0.2 0.1	0.2 0.1	0.1 0.1	0.1 0.1	M M	M M	M M	M M	M M	M M	M M	M M	M M	M M	M M	M M	M 0.5	0.3 0.3	0.4 0.3	0.3 0.3	--	0.8
28-Jul	0.3 0.2	Z SP	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.0 0.1	0.0 0.1	0.0 0.0	0.1 0.0	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.9 1.2	3.1 5.6	3.5 3.3	0.5	5.6
29-Jul	3.6 1.6	0.3 0.2	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.1 0.1	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.1	0.3	3.6
30-Jul	0.2 0.2	0.2 0.2	0.2 0.2	Z SP	0.3 0.3	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.3 0.2	0.3 0.2	0.3 0.3	0.3 0.3	0.2 0.2	0.2	0.3
31-Jul	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.2
																								Diurnal Average Diurnal Maximum		

Z - zerospan C - Calibration M - Maintenance PF - Power Failure SP - Span
Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

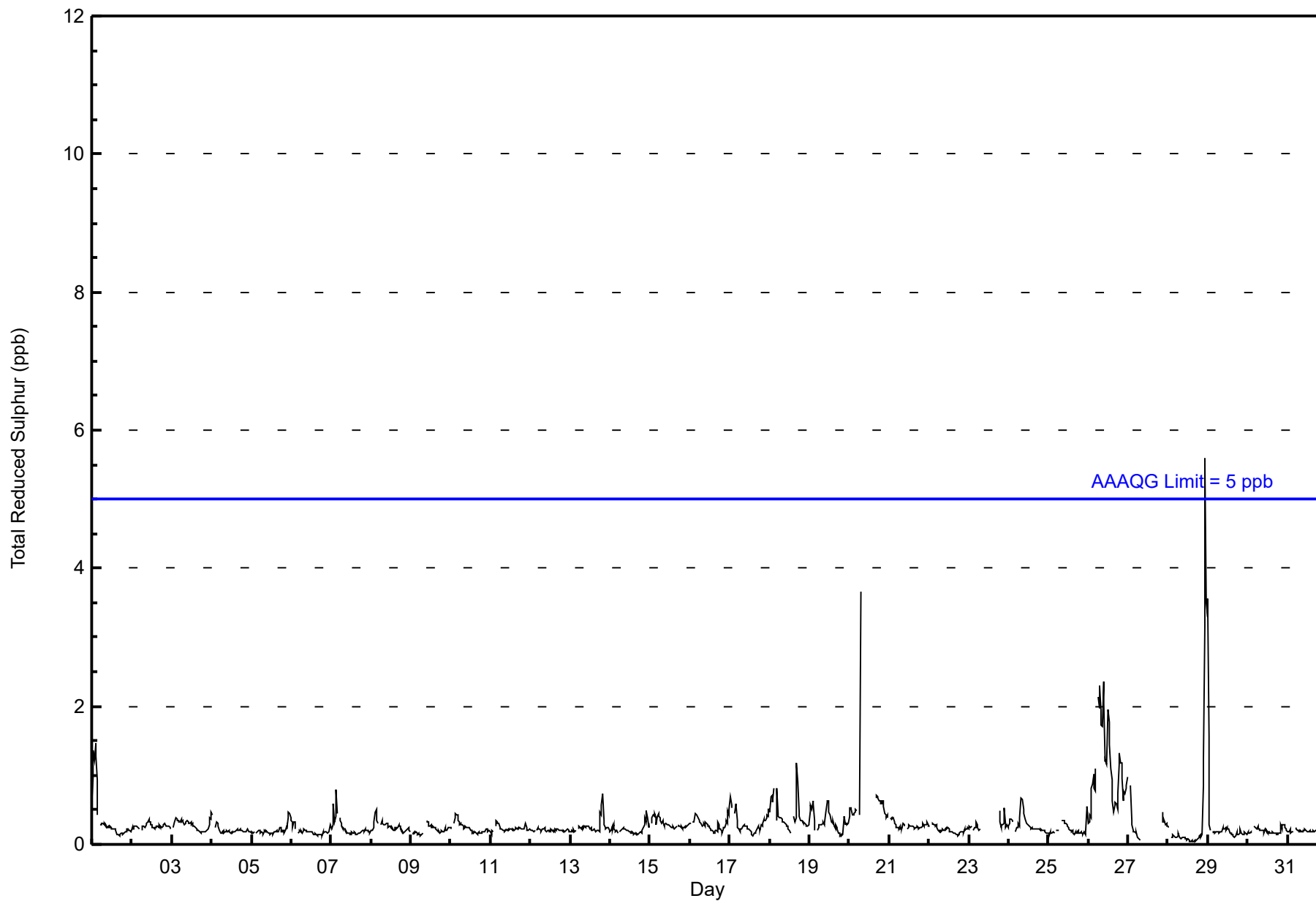
Patricia McInnes - July 2026

Maximum Value: 4.4 ppb on Jul 28 23:00																			Maximum Daily Average: 1.1 ppb on Jul 26							Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 28 14:00																			Minimum Daily Average: 0.2 ppb on Jul 6							Hours of Data: 673	
Maximum Diurnal Average: 0.4 ppb at hour 23																			Minimum Diurnal Average: 0.2 ppb at hour 16							Hours of Missing Data: 71	
Monthly Average: 0.30 ppb																			Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.2 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.4 P ₉₉ = 1.8							Hours of Calibration: 40	
																										Percent Operational Time: 95.8	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.8	1.3	1.4	0.7	Z	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	1.4	
2-Jul	0.2	0.2	0.3	0.3	0.2	Z	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	
3-Jul	Z	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.4	
4-Jul	0.4	Z	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	
5-Jul	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.2	0.4	
6-Jul	0.3	0.3	0.3	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	
7-Jul	0.2	0.4	0.4	0.6	Z	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	
8-Jul	0.2	0.2	0.4	0.4	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	
9-Jul	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.2	M	M	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	
10-Jul	0.2	Z	0.3	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	
11-Jul	0.2	0.2	Z	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	
12-Jul	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
13-Jul	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.6	0.3	0.2	0.2	0.2	0.3	0.6	
14-Jul	0.2	0.2	0.3	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.2	0.4	
15-Jul	Z	0.3	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.4	
16-Jul	0.3	Z	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.5	0.3	0.5	
17-Jul	0.6	0.6	Z	0.5	0.5	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.3	0.6	
18-Jul	0.5	0.7	0.7	Z	0.6	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	M	M	0.3	0.8	0.7	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.8	
19-Jul	0.4	0.5	0.6	0.3	Z	0.2	0.3	0.3	0.3	0.3	0.5	0.6	0.5	0.3	0.3	0.2	0.3	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.6	
20-Jul	0.5	0.5	0.4	0.5	0.5	Z	0.5	C	C	C	C	C	C	C	C	C	0.7	0.7	0.6	0.6	0.6	0.5	0.4	0.4	--	0.7	
21-Jul	Z	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.3	M	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	
22-Jul	0.3	Z	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	
23-Jul	0.2	0.3	Z	0.2	0.3	0.3	0.2	0.2	M	M	M	M	M	M	M	M	M	M	M	0.3	0.3	0.4	0.3	0.3	--	0.4	
24-Jul	0.3	0.4	0.3	Z	0.2	0.2	0.3	0.5	0.6	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.6	
25-Jul	0.1	0.2	0.2	0.2	Z	0.2	M	M	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.2	0.5	
26-Jul	0.3	0.4	0.8	0.9	0.9	Z	2.0	2.1	1.7	2.2	1.2	1.5	1.9	1.3	0.8	0.5	0.6	0.5	0.9	1.2	1.1	0.7	0.8	0.9	1.1	2.2	
27-Jul	Z	0.8	0.3	0.2	0.2	0.1	0.1	0.1	M	M	M	M	M	M	M	M	M	M	M	M	M	0.3	0.3	0.3	--	0.8	
28-Jul	0.3	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	1.0	4.4	3.4	4.4		
29-Jul	2.6	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.3	2.6	
30-Jul	0.2	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.3	
31-Jul	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
0.4 0.4 0.4 0.3 0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.3 0.3 0.4 0.4																										Diurnal Average	
2.6 1.3 1.4 0.9 0.9 0.4 2.0 2.1 1.7 2.2 1.2 1.5 1.9 1.3 0.8 0.5 0.8 0.7 0.9 1.2 1.1 1.0 4.4 3.4																										Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance																											
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA																											



Wood Buffalo Environmental Association
Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Patricia McInnes - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	670	99.55	99.55
3 - 4	3	0.45	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 673

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Patricia McInnes - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	37	4	5	2	14	75	82	36	42	73	75	81	56	33	27	28	670
3 - 4	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	3
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	38	4	6	2	14	75	83	36	42	73	75	81	56	33	27	28	673

Total Number of Valid Hours: 673

Total Number of Hours: 744

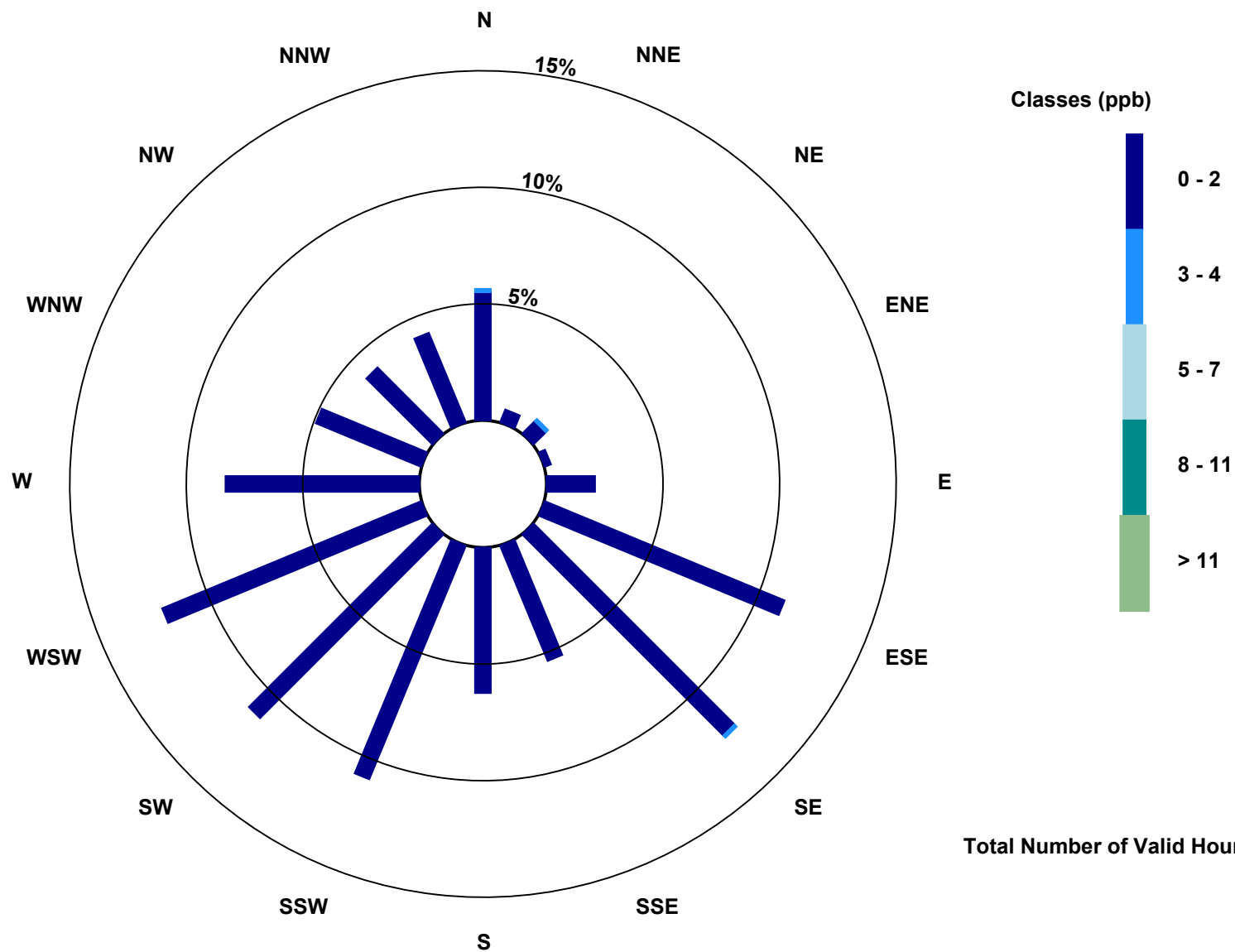


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Total Reduced Sulphur (TRS) - ppb

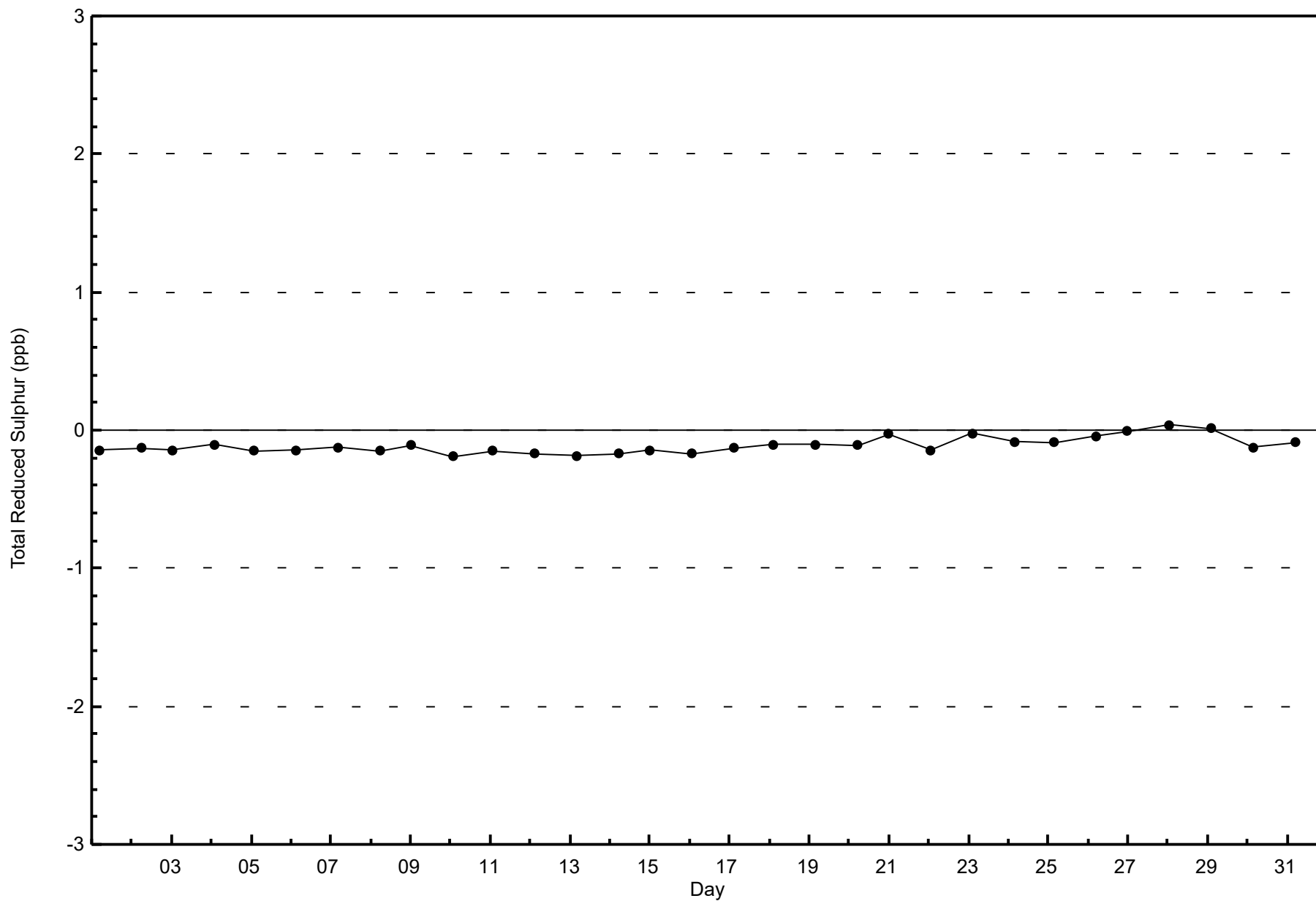
Patricia McInnes





Wood Buffalo Environmental Association
Zero Responses

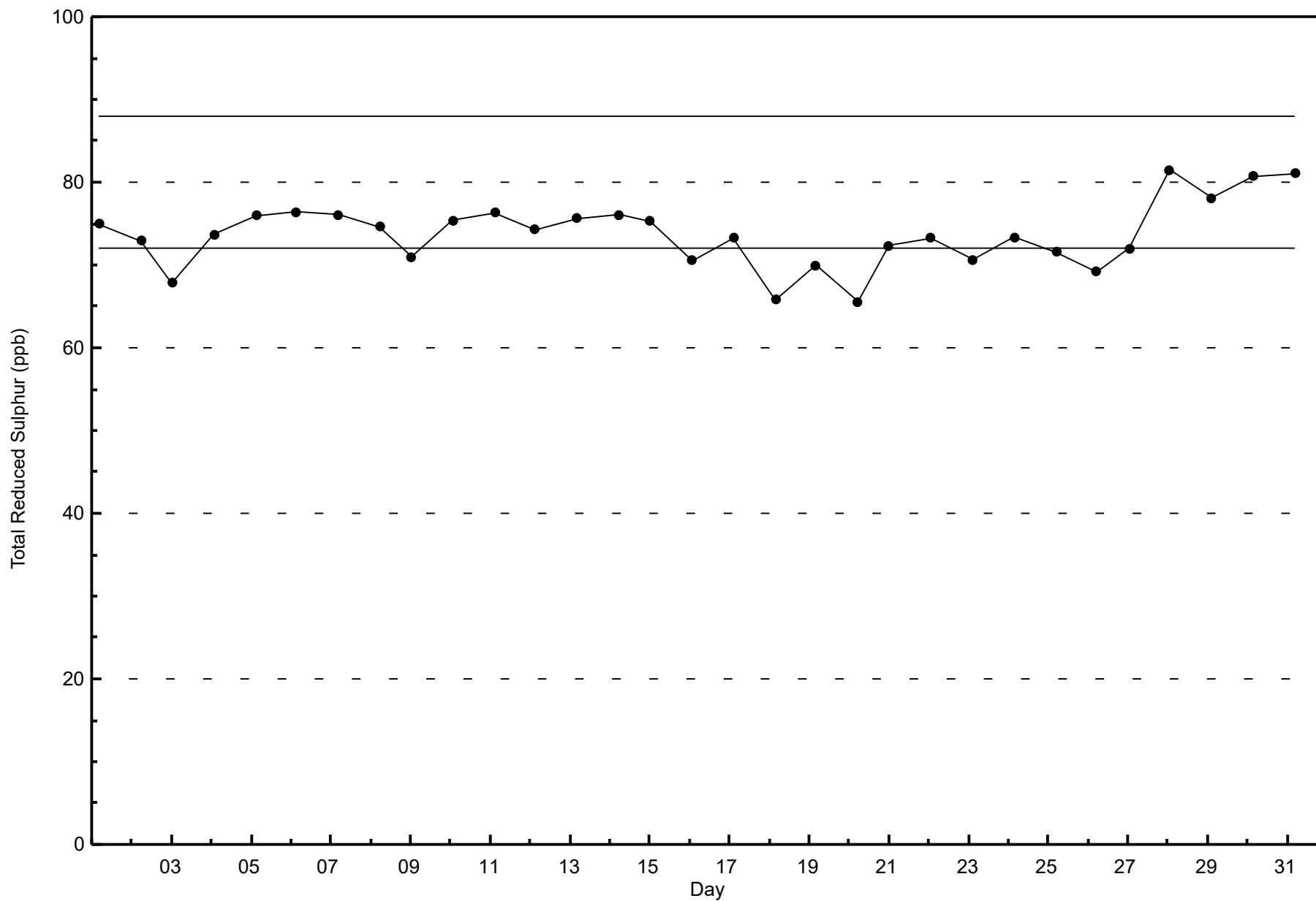
Total Reduced Sulphur (TRS) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Span Responses

Total Reduced Sulphur (TRS) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

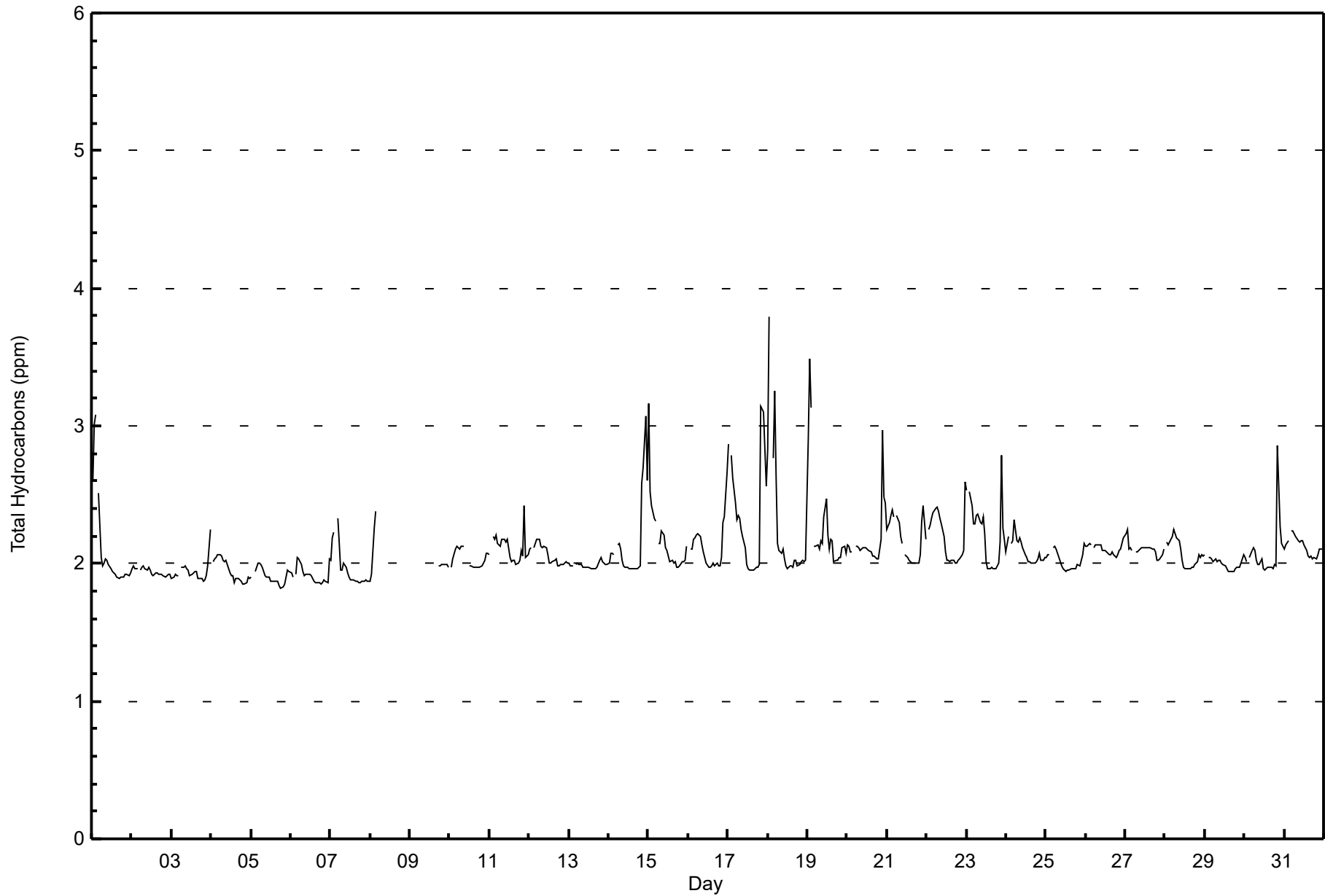
Patricia McInnes - July 2026

Maximum Value: 3.8 ppm on Jul 18 02:00																	Maximum Daily Average: 2.3 ppm on Jul 17										Hours in Service: 744	
Minimum Value: 1.8 ppm on Jul 5 19:00																	Minimum Daily Average: 1.9 ppm on Jul 5										Hours of Data: 674	
Maximum Diurnal Average: 2.3 ppm at hour 2																	Minimum Diurnal Average: 2.0 ppm at hour 18										Hours of Missing Data: 70	
Monthly Average: 2.09 ppm																	Percentiles: P ₁ = 1.9 P ₁₀ = 1.9 Q ₁ = 2.0 Median = 2.0 Q ₃ = 2.1 P ₉₀ = 2.3 P ₉₉ = 3.1										Hours of Calibration: 37	
																											Percent Operational Time: 95.6	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
1-Jul	2.6	3.0	3.1	Z	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	3.1		
2-Jul	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0		
3-Jul	1.9	1.9	1.9	1.9	1.9	Z	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	1.9	2.2		
4-Jul	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1		
5-Jul	1.9	Z	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	2.0	1.9	1.9	2.0			
6-Jul	1.9	1.9	Z	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0			
7-Jul	2.0	2.2	2.2	Z	2.3	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.3			
8-Jul	1.9	1.9	2.3	2.4	Z	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	2.4			
9-Jul	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	C	C	C	C	C	C	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0			
10-Jul	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	M	M	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1			
11-Jul	2.1	Z	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.4	2.0	2.1	2.1			
12-Jul	2.1	2.1	Z	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1			
13-Jul	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0			
14-Jul	2.0	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.6	2.7	3.1	2.6	2.1			
15-Jul	3.2	2.5	2.4	2.3	2.3	Z	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	3.2			
16-Jul	Z	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.3	2.7	2.1			
17-Jul	2.9	Z	2.8	2.6	2.4	2.3	2.3	2.3	2.2	2.2	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	3.1	3.1	2.8	2.6	2.3			
18-Jul	2.8	3.8	Z	2.8	3.3	2.6	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2			
19-Jul	2.9	3.5	3.1	Z	2.1	2.1	2.1	2.1	2.2	2.1	2.3	2.5	2.2	2.1	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.3			
20-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.2	3.0	2.5	2.4	2.2			
21-Jul	2.2	2.3	2.4	2.4	2.3	Z	2.4	2.3	2.2	2.2	M	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.4	2.2	2.2			
22-Jul	Z	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.6	2.2			
23-Jul	2.5	Z	2.5	2.4	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.8	2.3	2.2	2.2			
24-Jul	2.1	2.2	Z	2.1	2.2	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1			
25-Jul	2.0	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0			
26-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.2	2.1			
27-Jul	2.2	2.2	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1			
28-Jul	Z	2.2	2.1	2.2	2.2	2.3	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1			
29-Jul	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.0			
30-Jul	2.0	2.0	Z	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.9	2.3	2.2	2.1	2.1			
31-Jul	2.1	2.1	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1			
2.2 2.3 2.2 2.2 2.2 2.2 2.1 2.1 2.1 2.1 2.1 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.1 2.2 2.1 2.1																								Diurnal Average				
3.2 3.8 3.1 2.8 3.3 2.6 2.4 2.4 2.3 2.3 2.3 2.5 2.2 2.1 2.2 2.2 2.1 2.1 2.1 2.1 3.1 3.1 3.1 2.7																								Diurnal Maximum				
Z - zerospan C - Calibration M - Maintenance AF - Analyzer Failure																												



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Patricia McInnes - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	386	57.27	57.27
2.1 - 3.0	279	41.39	98.66
3.1 - 10.0	9	1.34	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 674

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Patricia McInnes - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	11	4	3	0	7	57	59	13	15	28	40	53	43	19	15	19	386
2.1 - 3.0	28	0	2	2	5	17	21	27	31	35	30	19	13	14	17	18	279
3.1 - 10.0	0	1	0	0	0	1	1	2	0	0	0	1	0	0	0	3	9
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	39	5	5	2	12	75	81	42	46	63	70	73	56	33	32	40	674

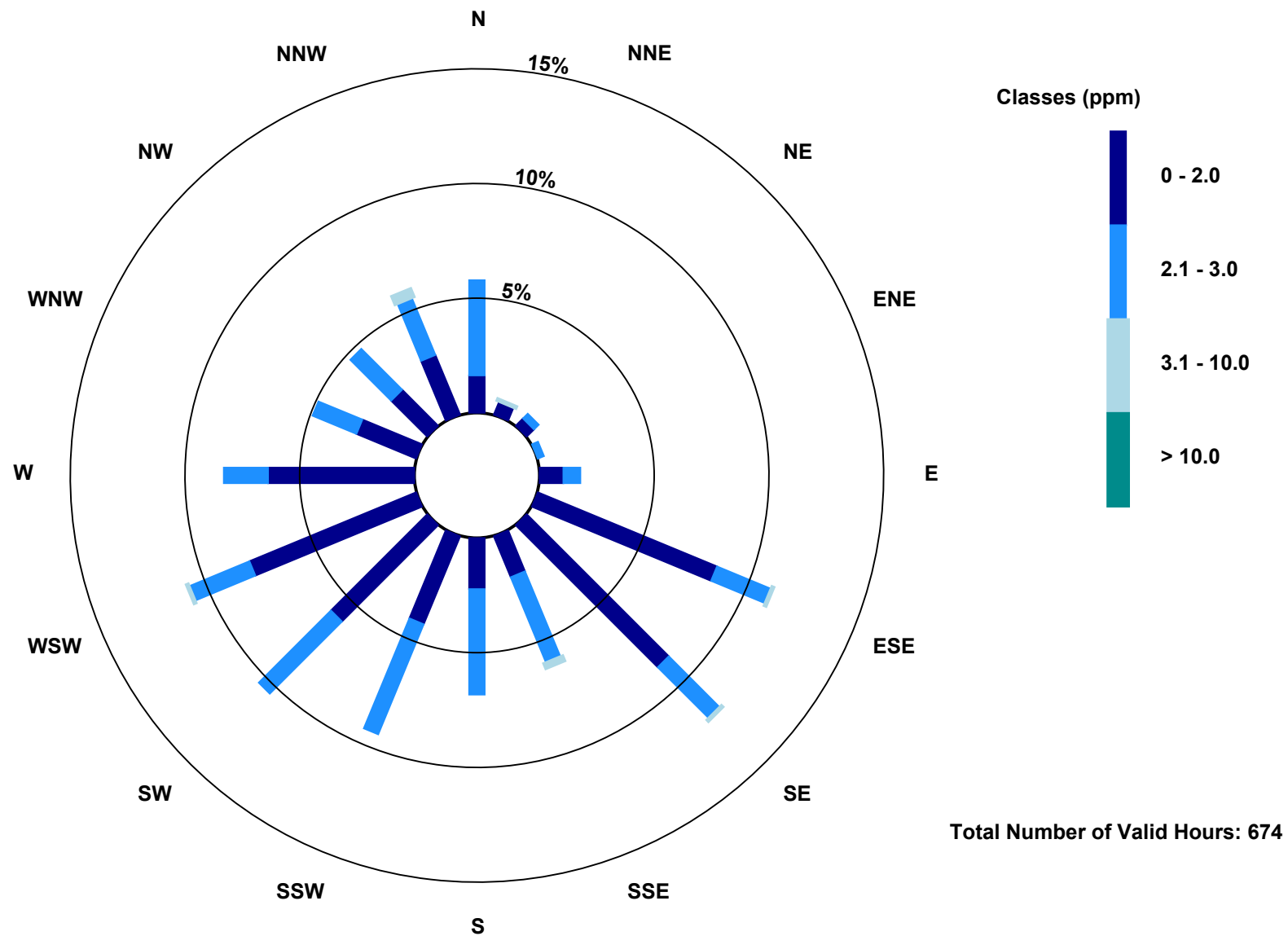
Total Number of Valid Hours: 674

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

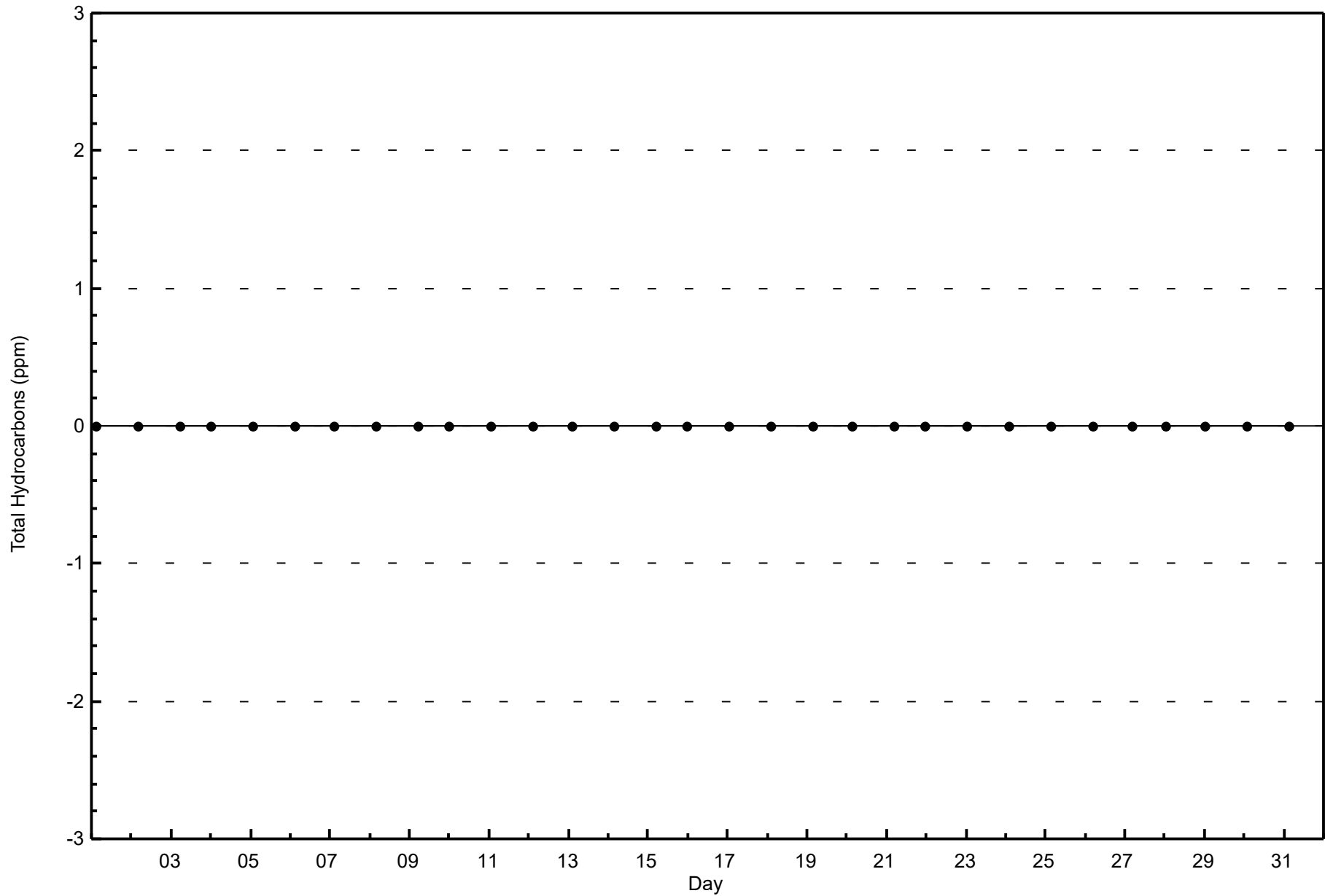
Total Hydrocarbons (THC) - ppm
Patricia McInnes





Wood Buffalo Environmental Association
Zero Responses

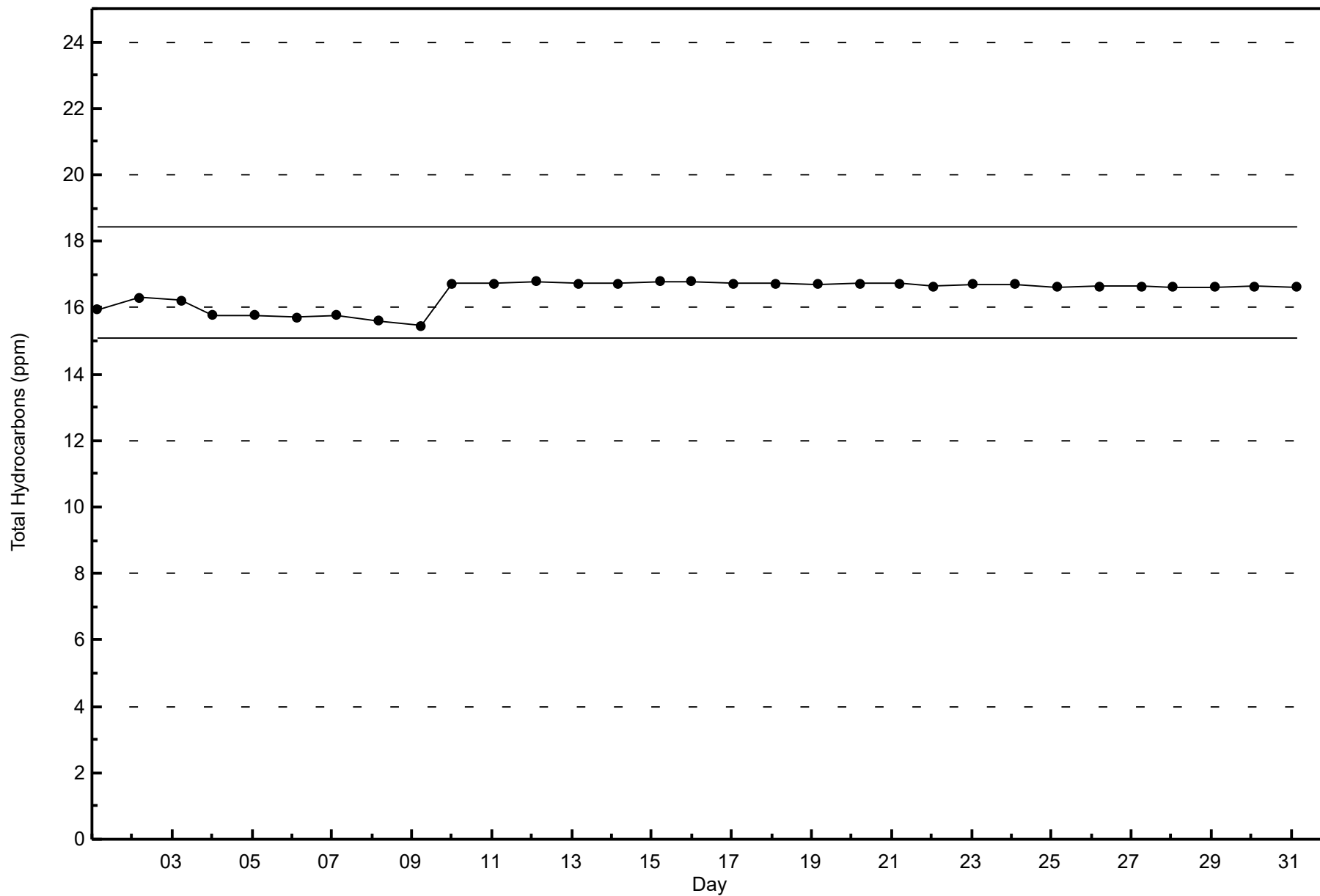
Total Hydrocarbons (THC) - ppm
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Span Responses

Total Hydrocarbons (THC) - ppm
Patricia McInnes - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

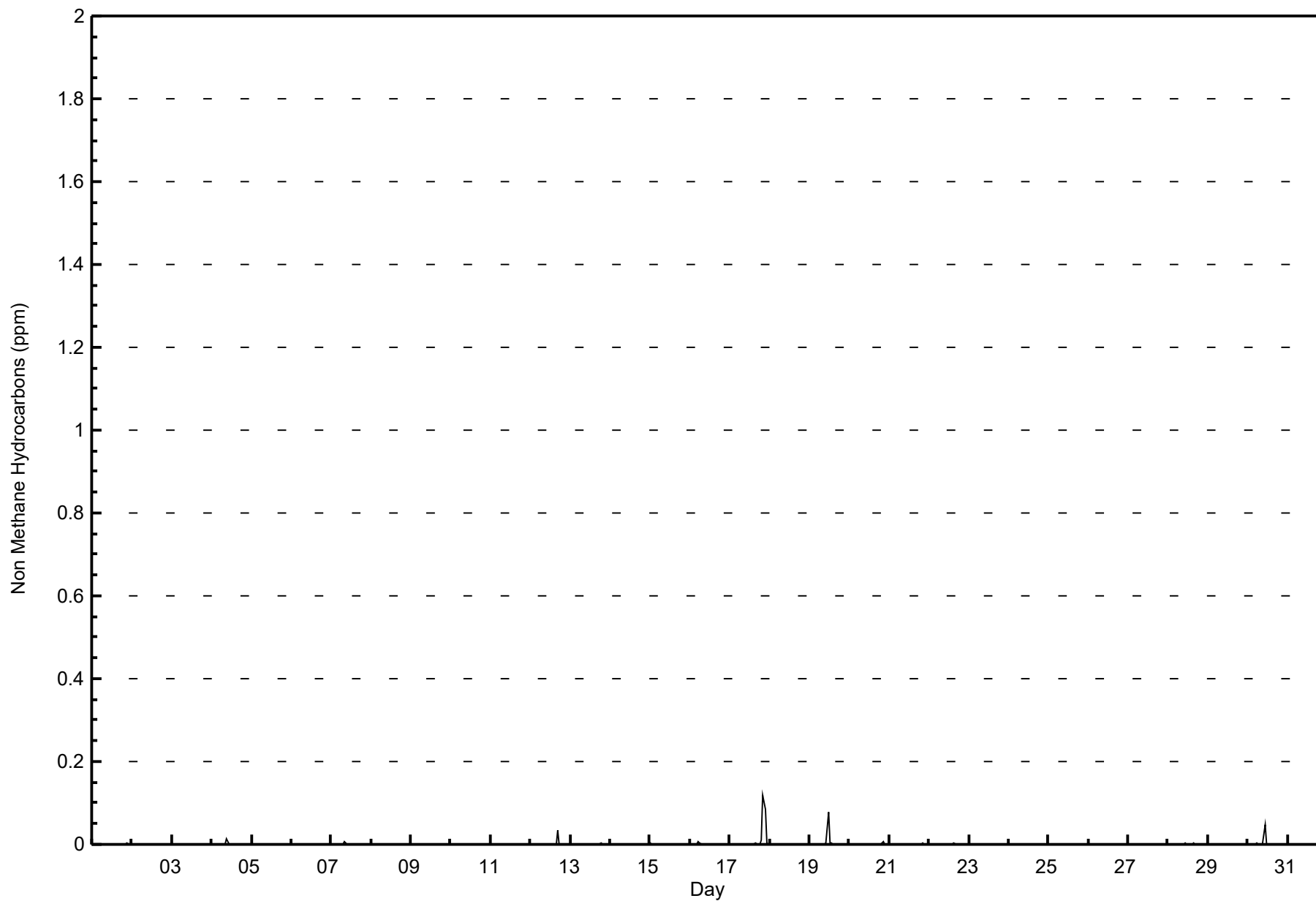
Patricia McInnes - July 2026

Maximum Value: 0.119 ppm on Jul 17 21:00																		Maximum Daily Average: 0.009 ppm on Jul 17								Hours in Service: 744	
Minimum Value: 0.000 ppm on Jul 1 01:00																		Minimum Daily Average: 0.000 ppm on Jul 2								Hours of Data: 674	
Maximum Diurnal Average: 0.004 ppm at hour 21																		Minimum Diurnal Average: 0.000 ppm at hour 2								Hours of Missing Data: 70	
Monthly Average: 0.001 ppm																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0								Hours of Calibration: 37	
																										Percent Operational Time: 95.6	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	
2-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
3-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
4-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
5-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
6-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
7-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
8-Jul	0.000	0.000	0.000	0.000	Z	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	0.000	
9-Jul	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	C	C	C	C	C	C	C	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
10-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	M	M	M	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
11-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
12-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
13-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	
14-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	
15-Jul	0.004	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
16-Jul	Z	0.000	0.000	0.000	0.000	0.008	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
17-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.009	0.119	0.084	0.003	0.000	0.000	0.000	
18-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
19-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.079	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
20-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	
21-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	M	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	
22-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.000	
23-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
24-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
25-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
26-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
27-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
28-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.001	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
29-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
30-Jul	0.000	0.000	Z	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
31-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000																										Diurnal Average	
0.004																										Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance AF - Analyzer Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Patricia McInnes - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	665	98.66	98.66
0.006 - 0.05	6	0.89	99.55
0.06 - 0.1	3	0.45	100.00
> 0.1	0	0.00	100.00

Total Number of Valid Hours: 674

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Patricia McInnes - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 0.005	39	5	5	2	12	75	78	40	46	62	70	73	55	32	32	39	665
0.006 - 0.05	0	0	0	0	0	0	3	1	0	1	0	0	0	1	0	0	6
0.06 - 0.1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	3
> 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	39	5	5	2	12	75	81	42	46	63	70	73	56	33	32	40	674

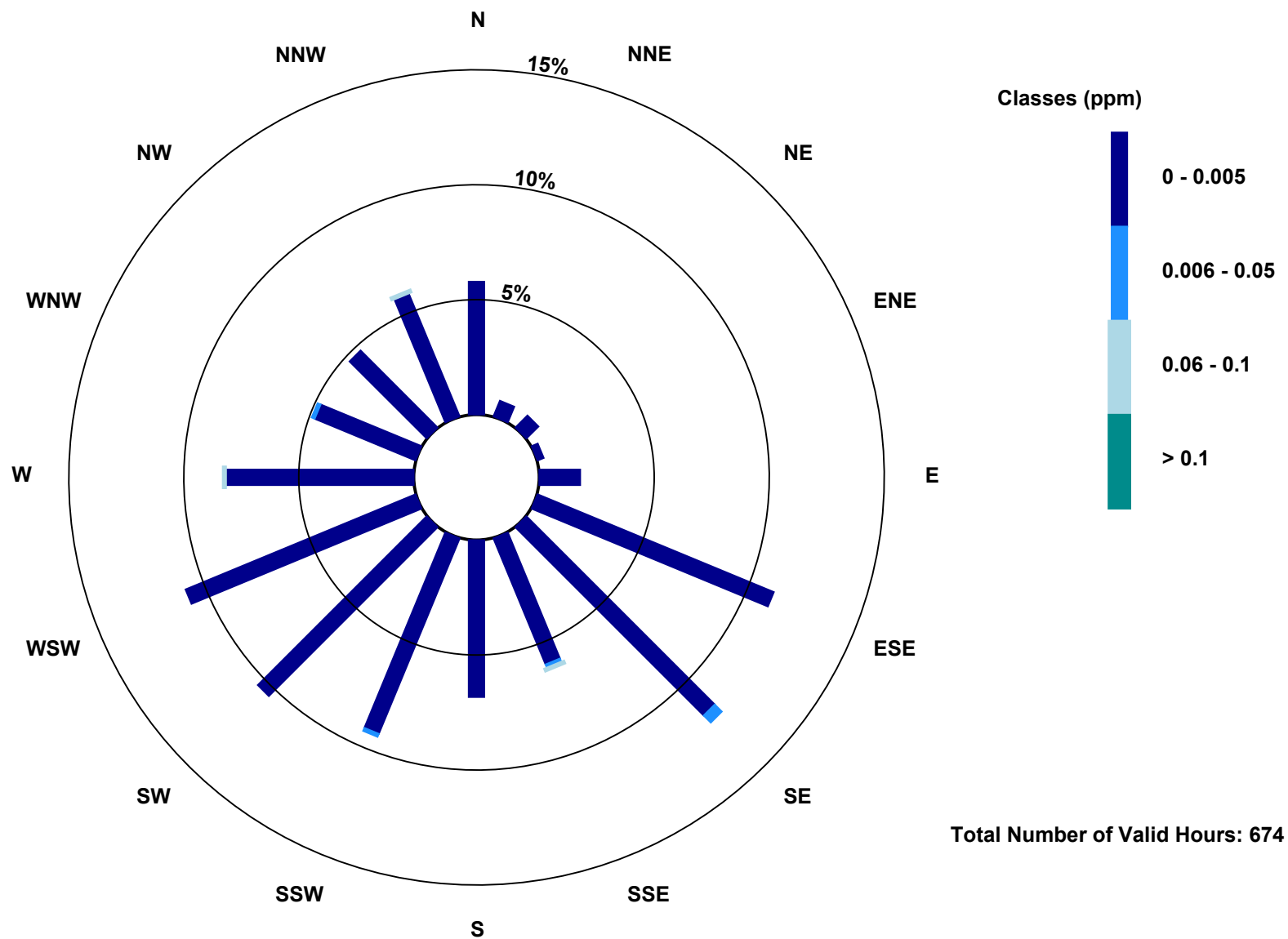
Total Number of Valid Hours: 674

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Non Methane Hydrocarbons (NMHC) - ppm
Patricia McInnes



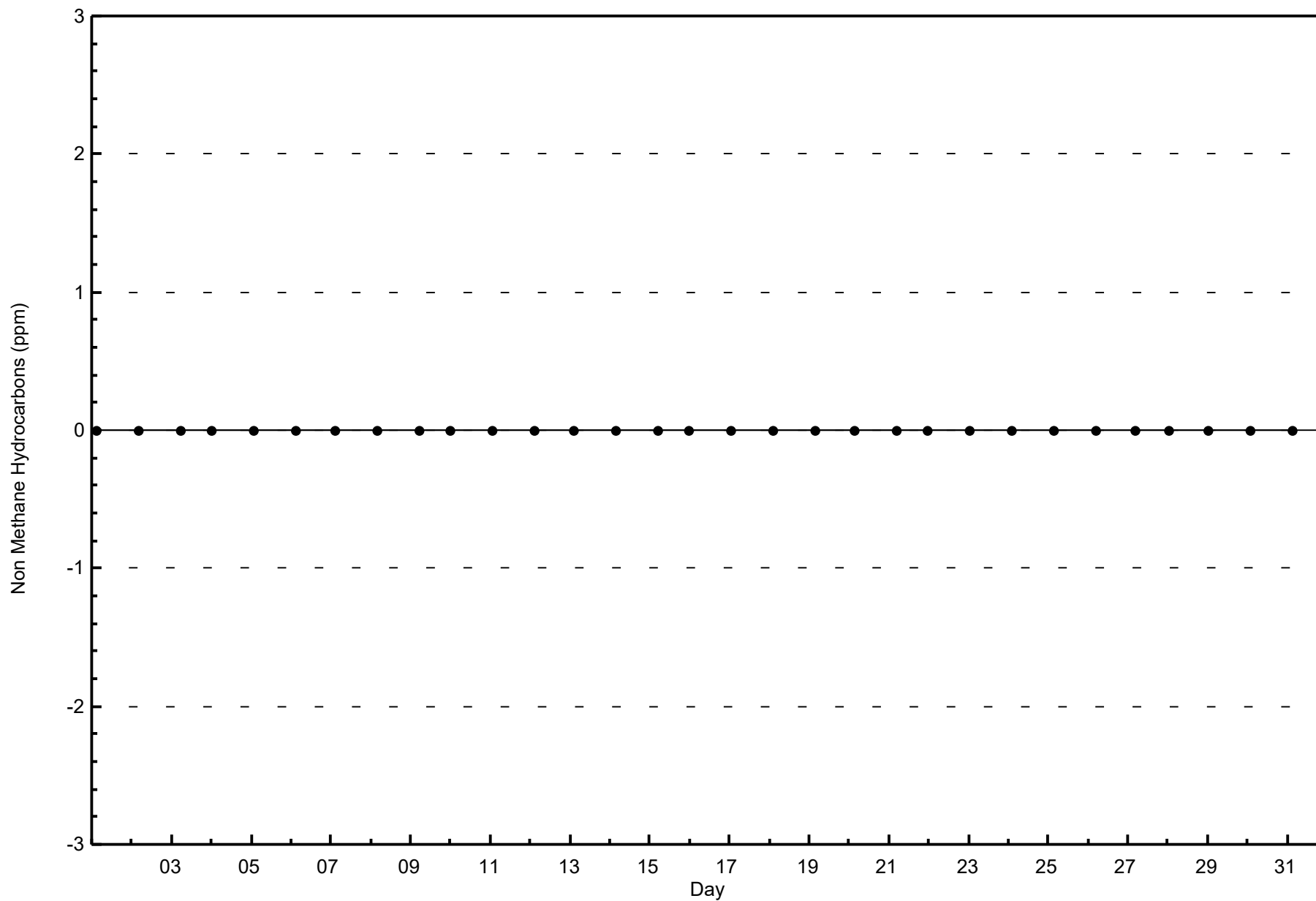


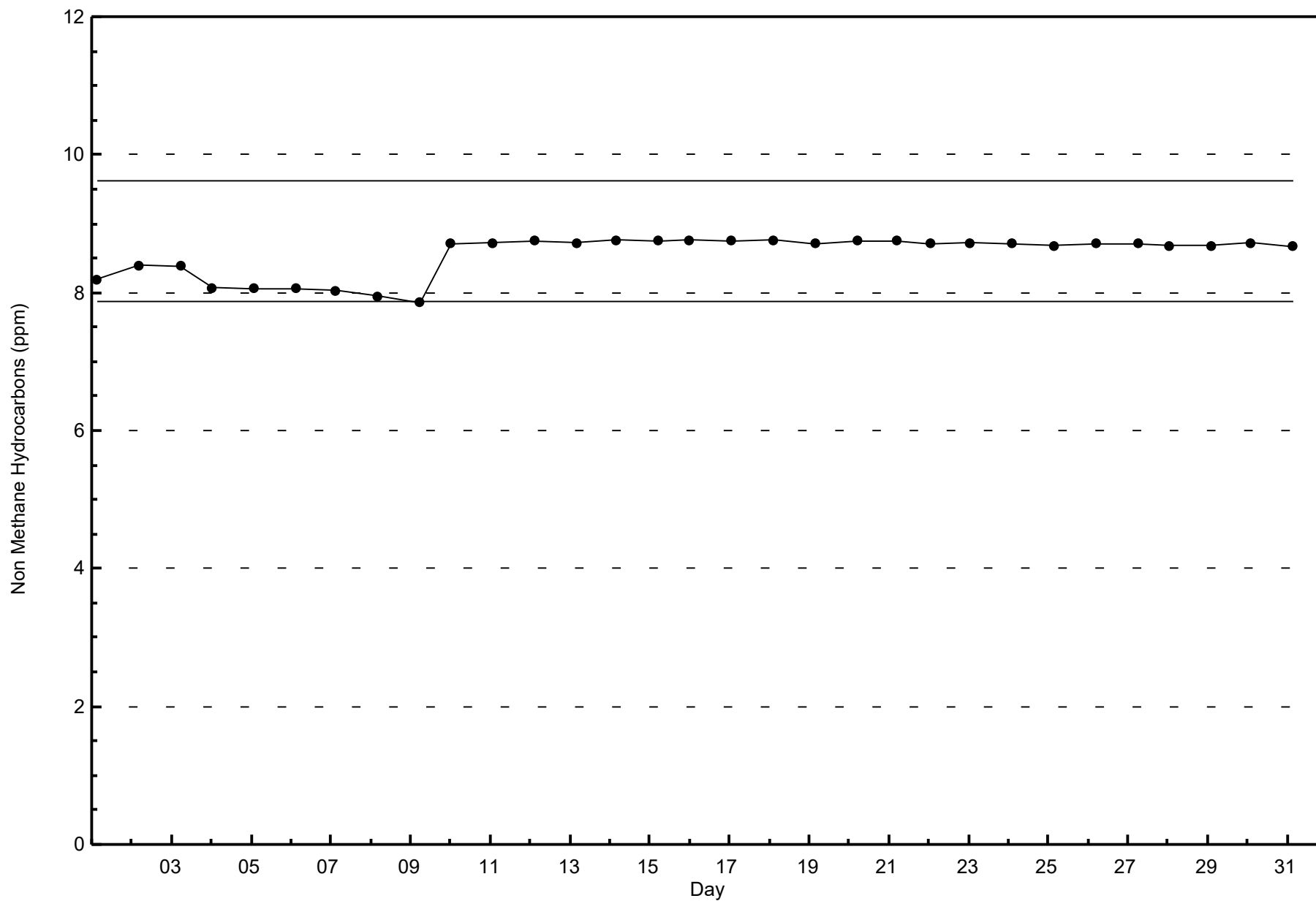
Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Patricia McInnes - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH₄) - ppm

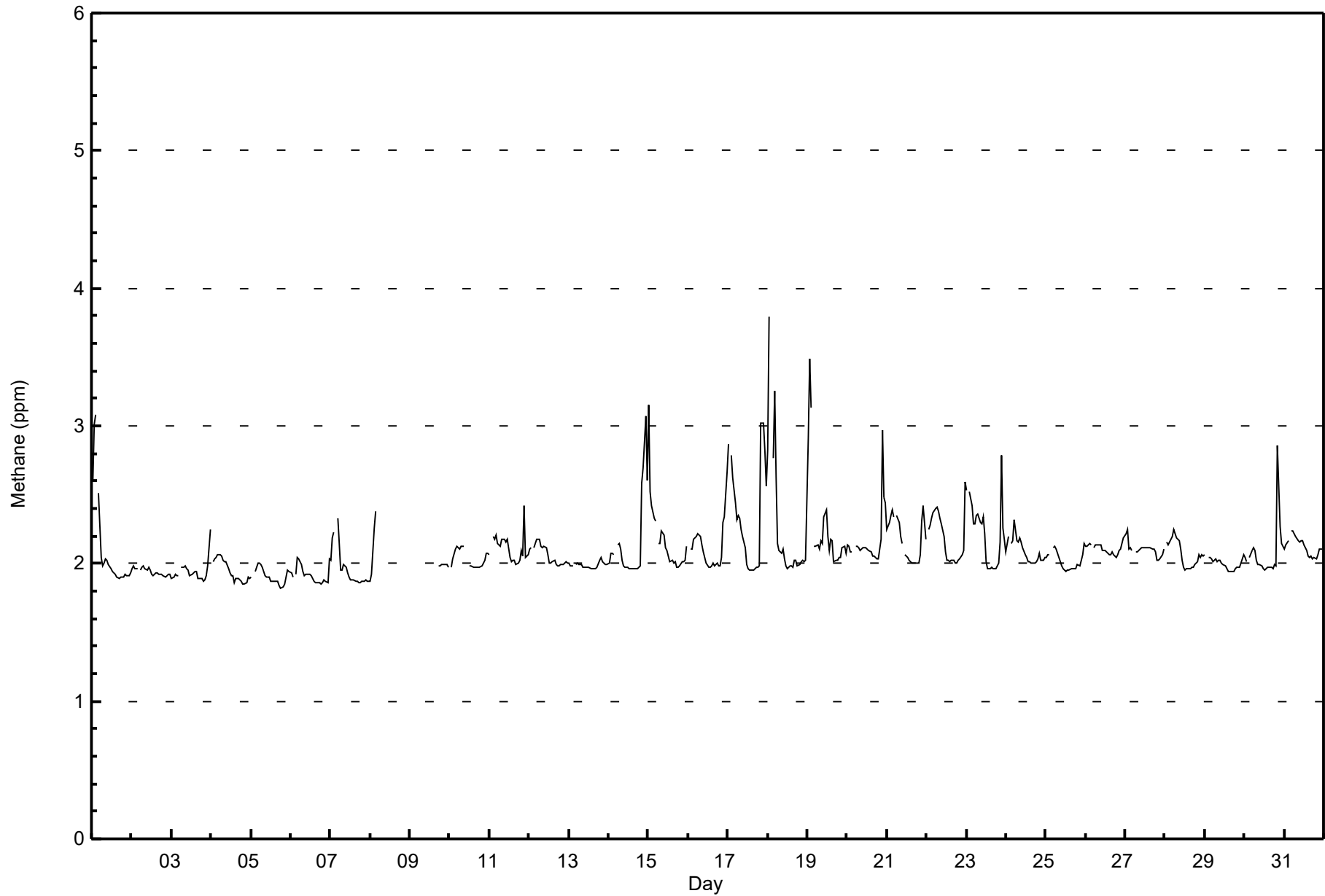
Patricia McInnes - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																	Hours in Service: 744									
Maximum Value: 3.8 ppm on Jul 18 02:00 Maximum Daily Average: 2.3 ppm on Jul 17																	Hours of Data: 674									
Minimum Value: 1.8 ppm on Jul 5 19:00 Minimum Daily Average: 1.9 ppm on Jul 5																	Hours of Missing Data: 70									
Maximum Diurnal Average: 2.3 ppm at hour 2 Minimum Diurnal Average: 2.0 ppm at hour 18																	Hours of Calibration: 37									
Monthly Average: 2.09 ppm Percentiles: P ₁ = 1.9 P ₁₀ = 1.9 Q ₁ = 2.0 Median = 2.0 Q ₃ = 2.1 P ₉₀ = 2.3 P ₉₉ = 3.0																	Percent Operational Time: 95.6									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	2.6	3.0	3.1	Z	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	3.1
2-Jul	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0
3-Jul	1.9	1.9	1.9	1.9	1.9	Z	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	1.9	2.2
4-Jul	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1
5-Jul	1.9	Z	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	2.0	1.9	1.9	2.0
6-Jul	1.9	1.9	Z	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0
7-Jul	2.0	2.2	2.2	Z	2.3	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.3
8-Jul	1.9	1.9	2.3	2.4	Z	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	2.4
9-Jul	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	C	C	C	C	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	--	2.0
10-Jul	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	M	M	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1
11-Jul	2.1	Z	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.4	2.0	2.1	2.1	2.4
12-Jul	2.1	2.1	Z	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2
13-Jul	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
14-Jul	2.0	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.6	2.7	3.1	2.6	2.1	3.1
15-Jul	3.2	2.5	2.4	2.3	2.3	Z	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	3.2
16-Jul	Z	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.3	2.7	2.1	2.7
17-Jul	2.9	Z	2.8	2.6	2.4	2.3	2.3	2.3	2.2	2.2	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	3.0	3.0	2.8	2.6	2.3	3.0
18-Jul	2.8	3.8	Z	2.8	3.3	2.6	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	3.8
19-Jul	2.9	3.5	3.1	Z	2.1	2.1	2.1	2.1	2.2	2.1	2.3	2.4	2.2	2.1	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.3	3.5
20-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.2	3.0	2.5	2.4	2.2	3.0
21-Jul	2.2	2.3	2.4	2.4	2.3	Z	2.4	2.3	2.2	2.2	M	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.4	2.2	2.2	2.4
22-Jul	Z	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.6	2.2	2.6
23-Jul	2.5	Z	2.5	2.4	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.8	2.3	2.2	2.2	2.8
24-Jul	2.1	2.2	Z	2.1	2.2	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.3
25-Jul	2.0	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1
26-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.2	2.1	2.2
27-Jul	2.2	2.2	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.2
28-Jul	Z	2.2	2.1	2.2	2.2	2.3	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.3
29-Jul	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
30-Jul	2.0	2.0	Z	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.9	2.3	2.2	2.1	2.1	2.9
31-Jul	2.1	2.1	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2
2.2 2.3 2.2 2.2 2.2 2.2 2.1 2.1 2.1 2.1 2.1 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.1 2.2 2.1 2.1																								Diurnal Average		
3.2 3.8 3.1 2.8 3.3 2.6 2.4 2.4 2.3 2.3 2.3 2.4 2.2 2.1 2.2 2.2 2.1 2.1 2.1 2.1 3.0 3.0 3.1 2.7																								Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance AF - Analyzer Failure																										



Wood Buffalo Environmental Association
Hourly Averages

Methane (CH₄) - ppm
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Methane (CH₄) - ppm
Patricia McInnes - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	386	57.27	57.27
2.1 - 3.0	281	41.69	98.96
3.1 - 10.0	7	1.04	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 674

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Methane (CH₄) - ppm
Patricia McInnes - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	11	4	3	0	7	57	59	13	15	28	40	53	43	19	15	19	386
2.1 - 3.0	28	0	2	2	5	17	21	28	31	35	30	19	13	14	17	19	281
3.1 - 10.0	0	1	0	0	0	1	1	1	0	0	0	1	0	0	0	2	7
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	39	5	5	2	12	75	81	42	46	63	70	73	56	33	32	40	674

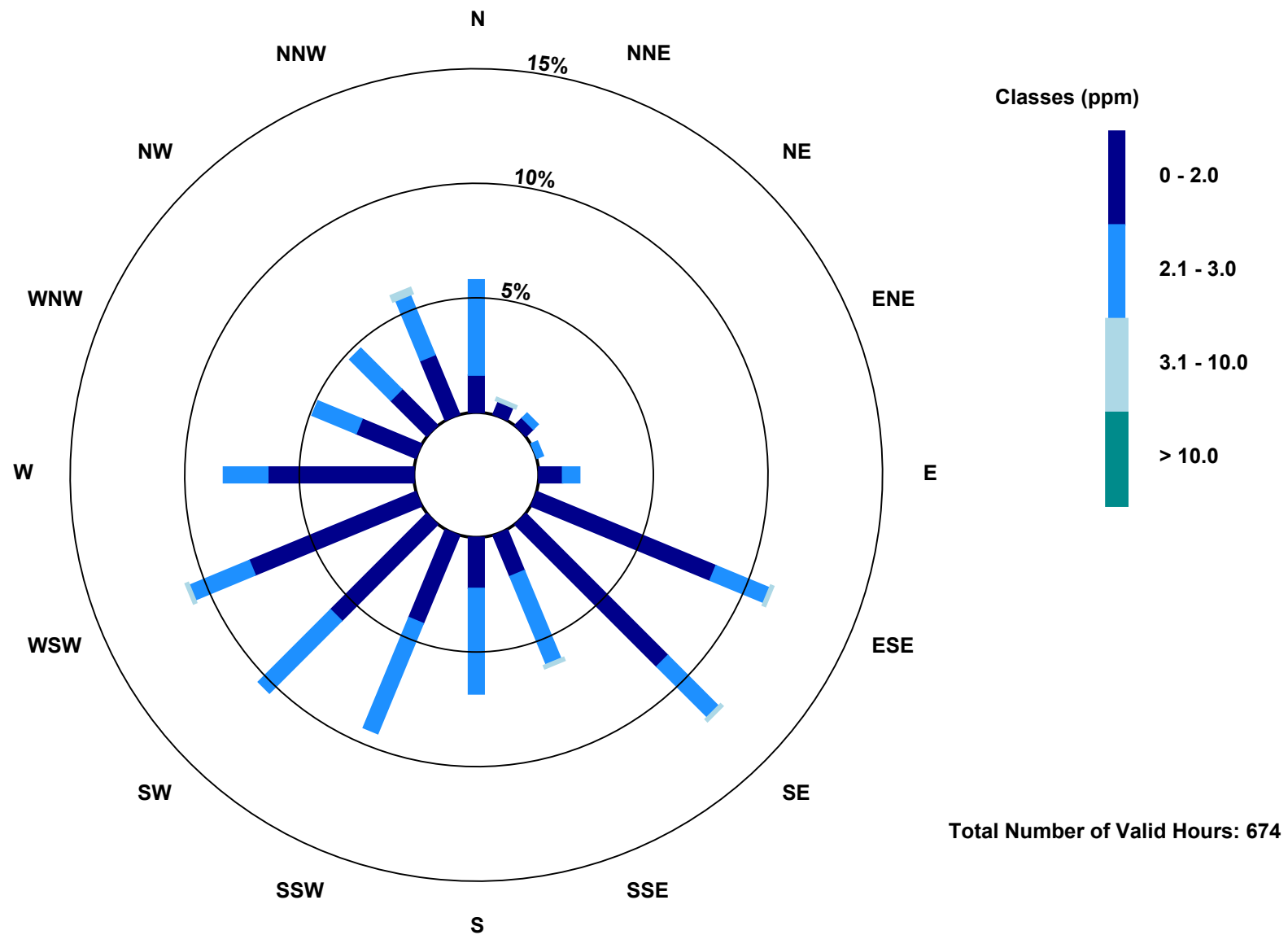
Total Number of Valid Hours: 674

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

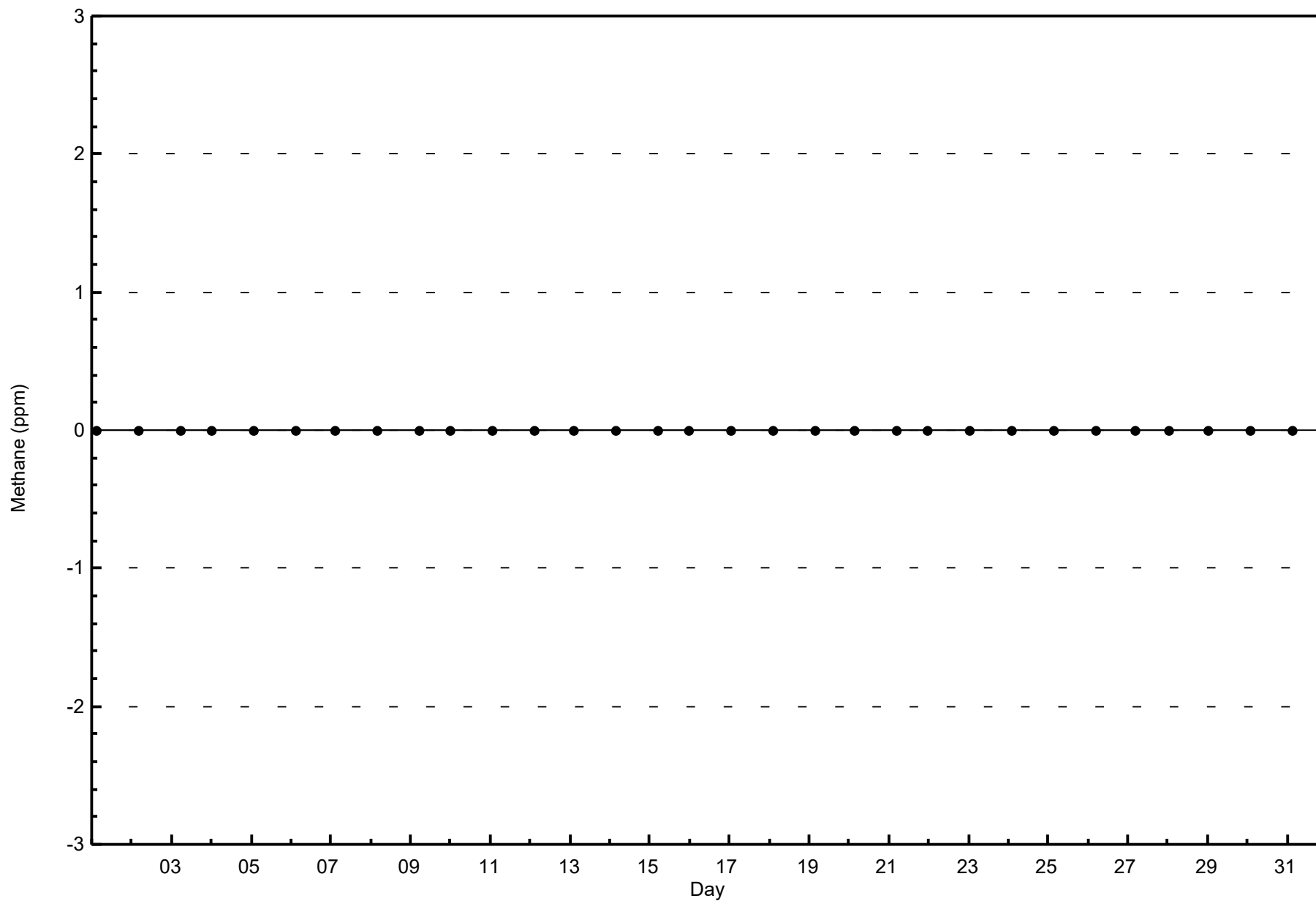
Methane (CH₄) - ppm
Patricia McInnes





Wood Buffalo Environmental Association
Zero Responses

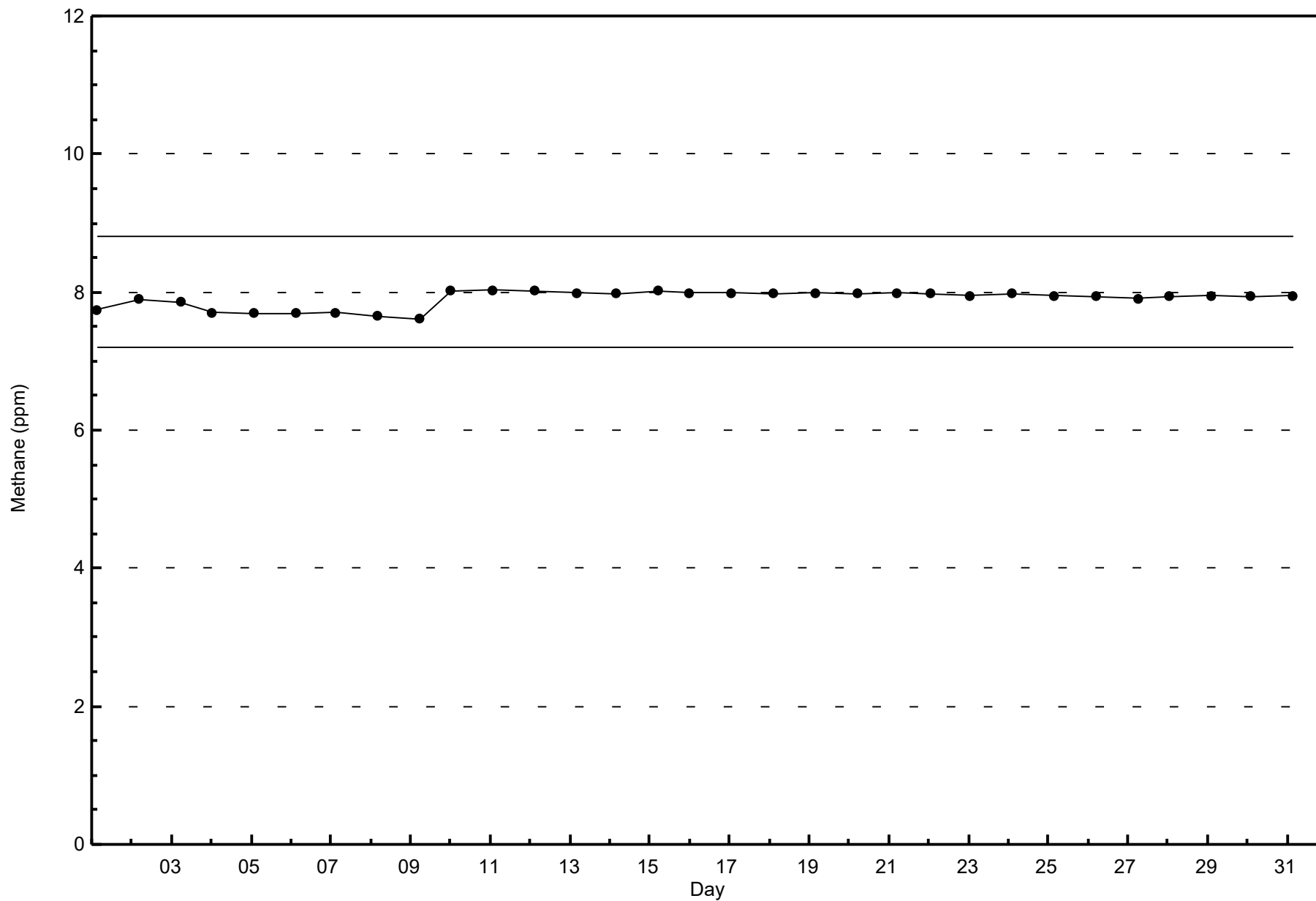
Methane (CH₄) - ppm
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Span Responses

Methane (CH₄) - ppm
Patricia McInnes - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O₃) - ppb

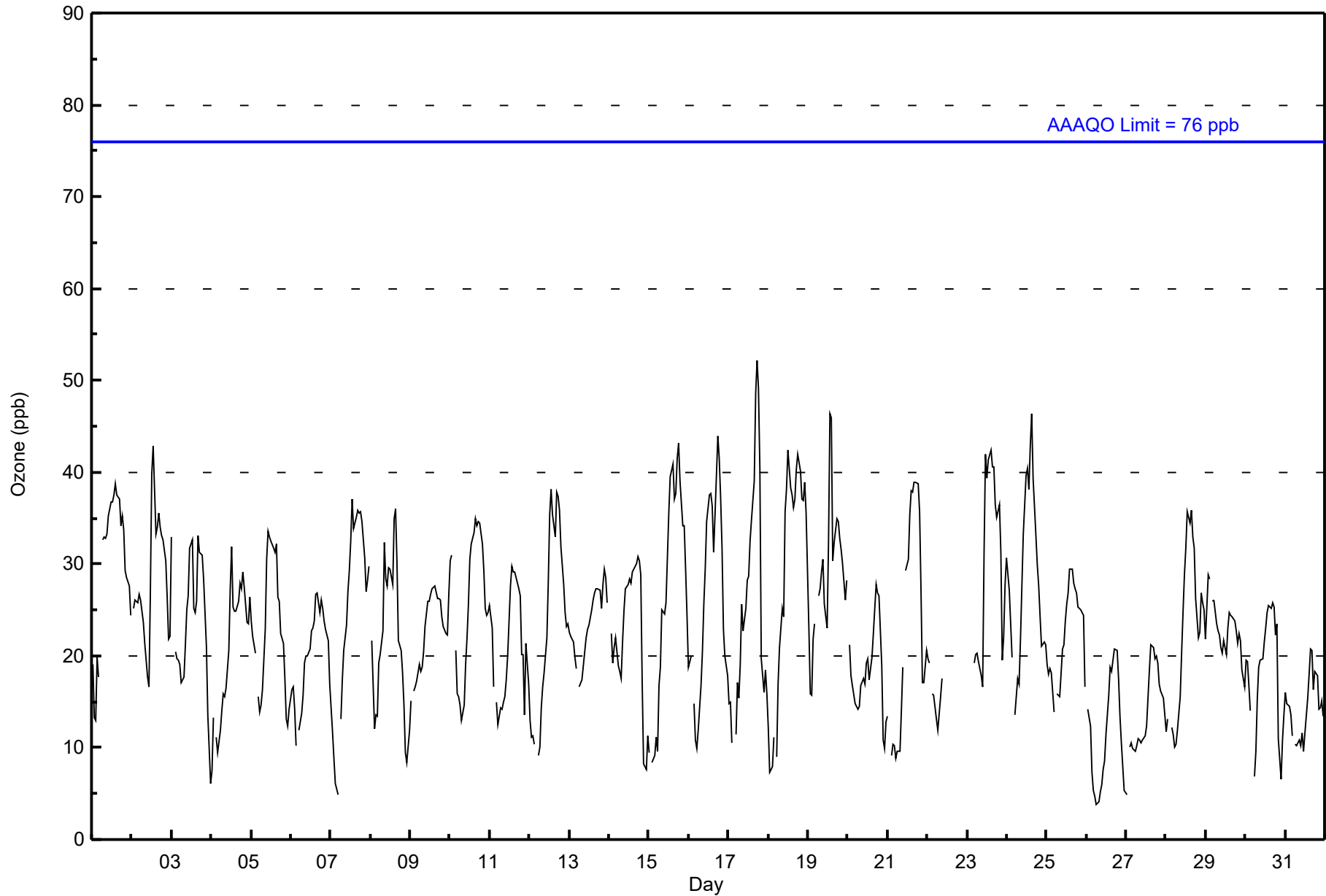
Patricia McInnes - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 52.1 ppb on Jul 17 18:00 Maximum Daily Average: 30.0 ppb on Jul 23																				Hours in Service: 744 Hours of Data: 695						
Minimum Value: 3.8 ppb on Jul 26 07:00 Minimum Daily Average: 11.3 ppb on Jul 26 Maximum Diurnal Average: 31.4 ppb at hour 17 Minimum Diurnal Average: 14.0 ppb at hour 6 Monthly Average: 23.05 ppb Percentiles: P ₁ = 5.3 P ₁₀ = 11.2 Q ₁ = 16.2 Median = 22.4 Q ₃ = 29.2 P ₉₀ = 35.6 P ₉₉ = 43.2																				Hours of Missing Data: 49 Hours of Calibration: 35 Percent Operational Time: 98.1						
Day	Hourly Period Ending At (MST)																				Daily Average	Daily Maximum				
1-Jul	19.0	13.2	13.0	19.8	17.7	Z	32.6	33.0	32.8	33.2	35.3	36.7	36.7	37.6	38.7	37.5	37.1	34.1	35.2	33.8	29.2	28.5	27.6	24.4	29.9	38.7
2-Jul	Z	25.2	26.1	25.7	26.7	26.1	24.8	23.6	21.3	17.7	16.6	26.8	39.8	42.9	33.3	34.0	35.5	34.0	33.1	32.7	30.4	26.5	21.9	22.2	28.1	42.9
3-Jul	33.0	Z	20.5	19.7	19.6	19.1	17.0	17.6	21.2	24.9	26.6	31.7	32.7	25.2	24.8	25.9	33.0	31.3	31.0	28.3	24.7	21.1	13.6	6.1	23.9	33.0
4-Jul	7.5	13.3	Z	11.1	9.5	11.8	14.0	15.9	15.5	16.4	20.6	27.4	31.9	25.3	24.9	24.8	25.9	27.9	27.2	29.1	27.5	23.7	23.5	26.4	20.9	31.9
5-Jul	23.9	22.1	20.3	Z	15.5	13.9	14.7	16.3	22.9	30.5	33.6	33.0	32.5	31.7	31.3	32.2	26.4	26.0	22.4	21.3	17.6	13.1	12.4	14.3	22.9	33.6
6-Jul	16.3	16.6	14.2	10.2	Z	11.8	13.7	15.8	19.2	19.9	20.0	20.8	22.7	23.1	23.8	26.7	26.9	24.8	26.1	25.2	23.7	22.9	21.6	17.0	20.1	26.9
7-Jul	14.3	11.7	8.8	6.1	4.8	Z	13.2	17.4	20.6	23.3	27.0	29.3	32.5	37.0	33.9	35.0	35.8	35.6	35.7	34.7	30.6	27.0	28.2	29.7	24.9	37.0
8-Jul	Z	21.7	12.1	13.6	13.4	19.3	20.2	22.7	32.3	28.4	27.6	29.5	29.5	27.8	35.0	35.9	30.3	21.7	20.6	18.2	14.7	9.4	8.4	11.8	21.9	35.9
9-Jul	15.1	Z	16.2	16.7	17.2	19.1	18.4	18.8	20.5	23.2	26.0	25.9	26.6	27.4	27.4	27.6	26.2	26.3	26.1	24.3	23.1	22.5	22.3	26.7	22.8	27.6
10-Jul	30.3	31.0	Z	20.7	15.9	15.5	14.7	12.9	14.6	19.1	21.9	25.6	30.5	32.2	33.4	35.0	34.1	34.6	34.4	32.2	29.2	25.2	24.5	24.7	25.7	35.0
11-Jul	25.4	23.1	16.7	Z	15.0	12.5	14.4	14.2	15.0	15.6	17.4	20.0	27.5	29.7	29.2	29.1	28.5	27.2	26.5	20.2	20.2	13.6	21.3	16.9	20.8	29.7
12-Jul	13.0	11.1	11.3	10.3	Z	9.1	10.1	14.3	16.6	18.2	21.9	28.1	35.3	38.2	35.4	32.9	37.9	37.3	35.9	31.9	27.8	24.8	23.1	23.5	23.8	38.2
13-Jul	22.6	22.2	21.5	19.9	18.6	Z	16.7	17.3	18.9	20.4	22.0	22.8	23.3	25.0	26.1	26.8	27.3	27.3	27.2	25.1	27.7	29.5	28.5	25.8	23.6	29.5
14-Jul	Z	22.4	19.2	20.9	21.9	18.9	18.3	17.5	21.5	24.9	27.2	27.8	28.4	27.8	29.1	29.5	30.0	30.9	30.4	28.8	17.2	8.2	7.7	11.2	22.6	30.9
15-Jul	9.5	Z	8.3	9.2	11.1	9.6	16.8	18.7	24.9	24.5	25.8	30.7	35.6	39.5	40.8	37.1	37.7	41.5	43.1	39.1	34.2	34.2	29.4	24.4	27.2	43.1
16-Jul	18.8	20.0	Z	14.8	10.9	9.9	12.0	16.8	20.4	25.6	29.4	34.6	37.5	37.7	36.4	31.3	35.4	43.9	41.5	37.2	31.7	22.8	20.0	17.9	26.4	43.9
17-Jul	14.8	14.9	10.5	Z	11.4	17.2	15.3	19.1	25.6	22.7	25.2	28.3	28.7	32.5	34.8	39.1	48.5	52.1	49.2	40.4	19.7	16.0	18.4	15.8	26.1	52.1
18-Jul	12.2	7.3	7.9	11.1	Z	8.9	16.9	20.9	25.1	24.3	35.6	38.2	42.4	38.3	37.5	36.1	37.1	40.3	42.0	40.1	37.1	36.9	38.9	35.6	29.2	42.4
19-Jul	22.9	15.9	15.7	21.8	23.5	Z	26.6	27.2	29.1	30.5	25.6	23.0	32.3	46.3	45.9	30.4	32.4	34.9	34.7	32.8	31.5	30.0	26.1	28.2	29.0	46.3
20-Jul	Z	21.2	17.9	16.7	14.8	14.5	14.3	14.5	16.8	17.5	17.0	19.3	19.7	17.4	19.8	22.5	25.2	27.8	26.8	26.6	18.9	10.8	10.0	12.8	18.4	27.8
21-Jul	13.4	Z	9.1	10.3	10.2	8.9	9.7	9.7	14.1	18.8	M	29.2	30.6	35.4	38.0	37.9	38.8	38.9	38.7	35.6	27.2	17.1	17.0	20.6	23.1	38.9
22-Jul	19.7	19.3	Z	15.9	15.7	13.2	11.8	13.7	15.6	17.6	C	C	C	C	M	M	M	M	M	M	M	M	M	M	--	19.7
23-Jul	M	M	M	Z	19.3	20.2	20.3	19.4	17.8	16.6	31.1	41.9	39.4	41.3	42.4	40.6	40.6	36.4	35.1	36.4	31.3	19.6	22.1	27.8	30.0	42.4
24-Jul	30.6	27.2	23.5	19.8	Z	13.5	17.6	16.9	21.8	27.7	33.2	39.6	40.4	38.2	42.8	46.4	39.3	33.1	29.9	27.6	24.3	21.1	21.6	21.2	28.6	46.4
25-Jul	19.1	17.9	18.6	18.1	13.9	Z	15.9	15.7	15.5	20.8	21.2	23.8	25.7	26.9	29.5	29.5	27.9	27.3	26.8	25.3	25.0	24.7	24.4	16.6	22.2	29.5
26-Jul	Z	14.2	12.3	7.3	5.3	4.7	3.8	4.1	5.1	6.0	7.6	8.6	11.5	15.6	18.8	18.3	19.5	20.7	20.6	17.6	13.4	10.5	7.9	5.3	11.3	20.7
27-Jul	4.8	Z	10.1	10.6	9.9	9.6	10.2	10.9	10.8	10.5	10.8	11.4	12.4	15.4	18.5	21.3	20.9	19.6	19.9	19.2	16.9	16.1	15.4	13.5	13.9	21.3
28-Jul	11.8	13.1	Z	12.2	11.4	10.1	10.4	11.9	15.6	20.2	24.8	28.8	31.8	35.7	34.4	35.8	33.0	31.8	26.2	22.0	22.5	26.8	25.8	25.1	22.7	35.8
29-Jul	21.7	28.8	28.3	Z	26.0	26.1	23.4	22.8	22.3	20.8	20.3	21.6	20.2	23.1	24.7	24.4	24.2	23.7	22.7	21.4	22.4	21.6	18.4	16.7	22.9	28.8
30-Jul	19.5	19.3	16.8	14.1	Z	6.9	9.7	15.2	18.8	19.6	19.7	21.5	23.1	24.8	25.5	25.1	25.8	25.3	22.3	23.4	11.0	6.6	10.8	13.6	18.2	25.8
31-Jul	16.0	14.7	14.4	13.6	11.4	Z	10.4	10.2	10.8	10.3	11.6	9.7	11.5	15.4	18.1	20.7	20.6	16.3	18.3	17.9	14.2	14.4	15.1	13.4	14.3	20.7
Diurnal Average																										
Diurnal Maximum																										
Z - zerospan C - Calibration M - Maintenance																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Ozone (O₃) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ozone (O₃) - ppb
Patricia McInnes - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	294	42.30	42.30
21 - 50	400	57.55	99.86
51 - 82	1	0.14	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 695

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Ozone (O₃) - ppb
Patricia McInnes - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	22	1	1	2	5	15	26	25	22	37	41	32	20	15	16	14	294
21 - 50	16	4	5	1	10	60	53	14	17	33	35	53	37	19	17	26	400
51 - 82	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	38	5	6	3	15	75	80	39	39	70	76	85	57	34	33	40	695

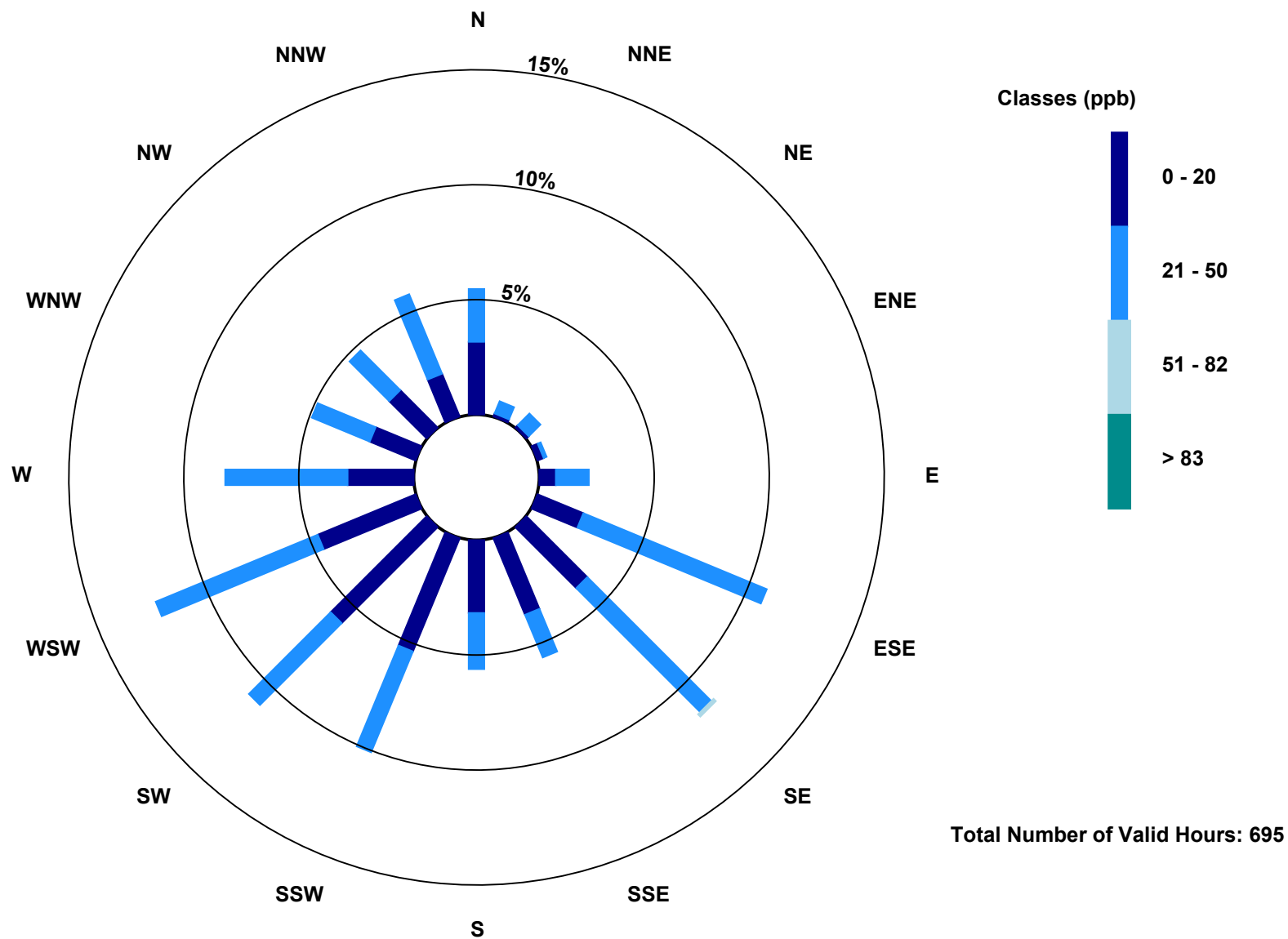
Total Number of Valid Hours: 695

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Ozone (O_3) - ppb
Patricia McInnes



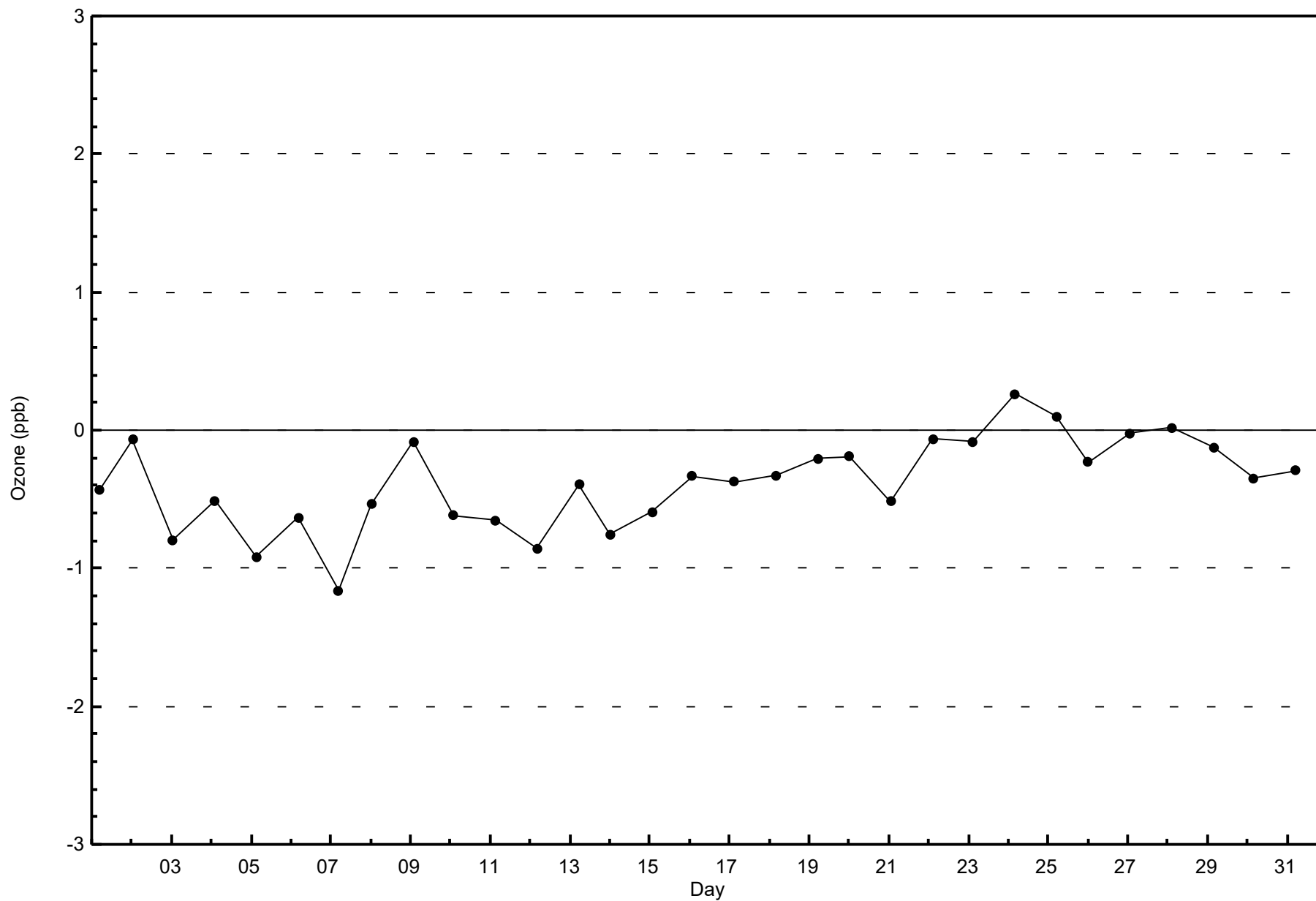


Wood Buffalo Environmental Association

Zero Responses

Ozone (O_3) - ppb

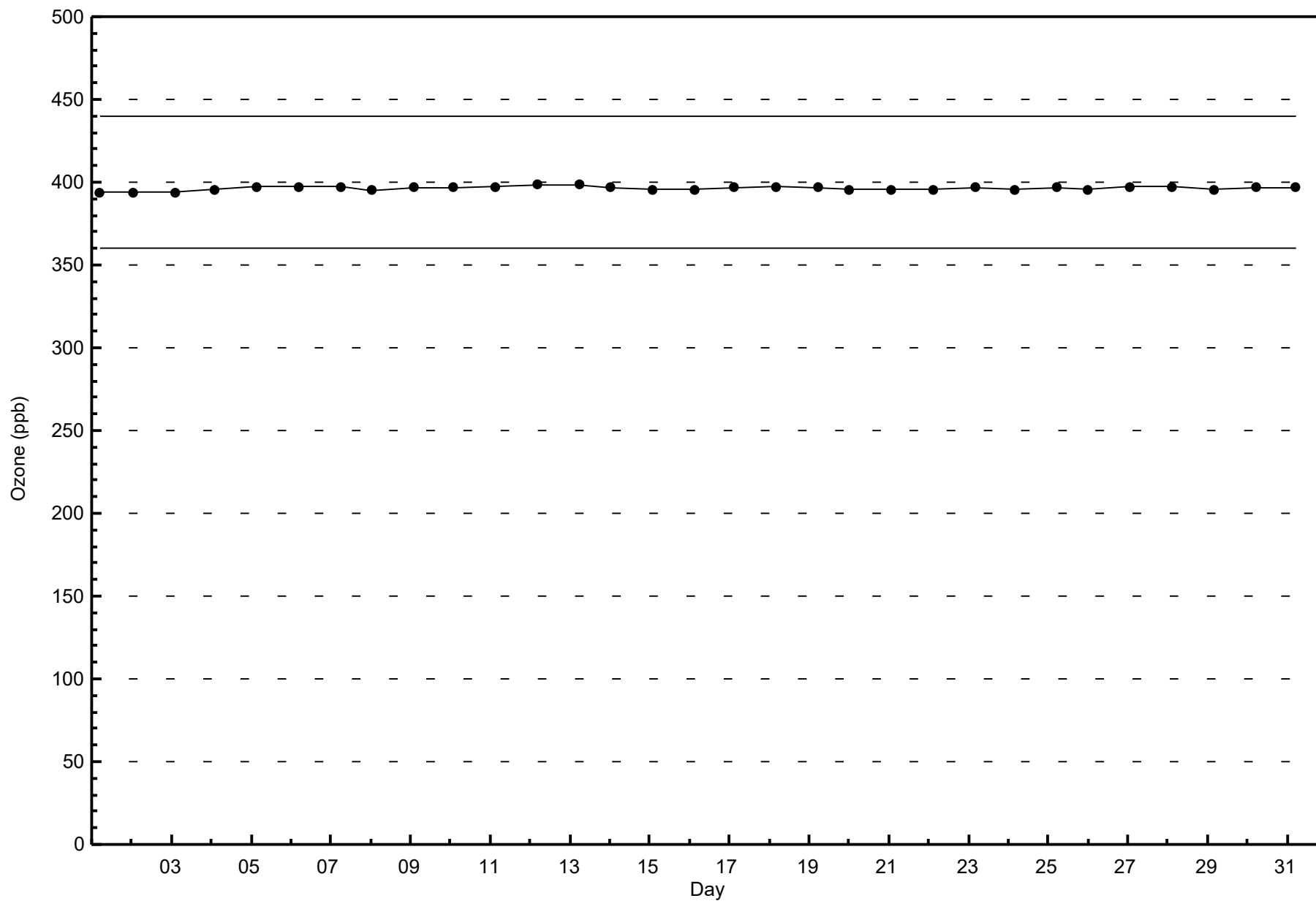
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Span Responses

Ozone (O₃) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

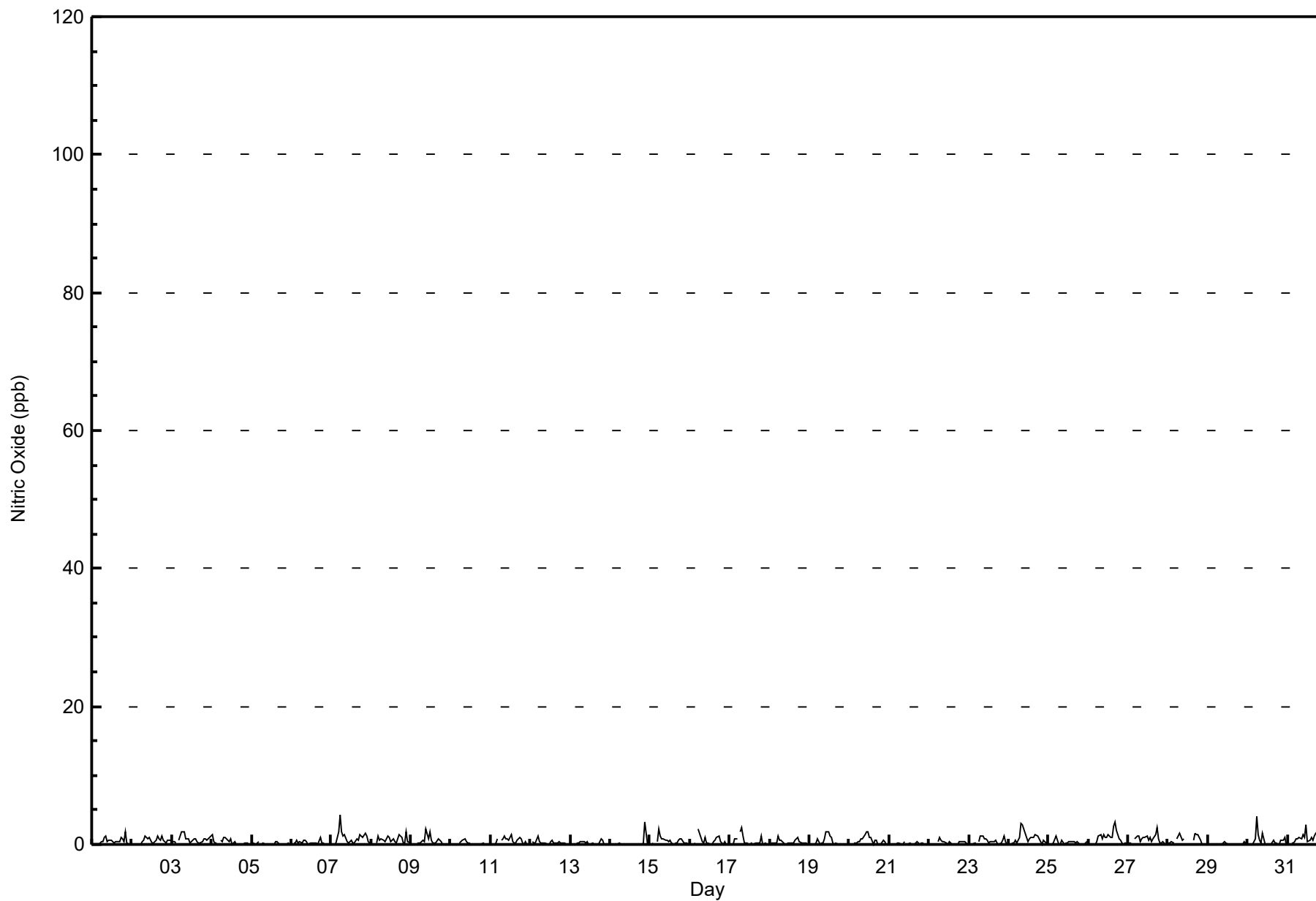
Patricia McInnes - July 2026

Maximum Value: 4.4 ppb on Jul 7 06:00																	Maximum Daily Average: 0.9 ppb on Jul 7										Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 1 03:00																	Minimum Daily Average: 0.1 ppb on Jul 29										Hours of Data: 707	
Maximum Diurnal Average: 0.9 ppb at hour 6																	Minimum Diurnal Average: 0.1 ppb at hour 2										Hours of Missing Data: 37	
Monthly Average: 0.45 ppb																	Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.7 P ₉₀ = 1.2 P ₉₉ = 2.6										Hours of Calibration: 36	
																											Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	0.0	Z	0.0	0.0	0.0	0.5	0.4	1.0	1.3	0.4	0.5	0.5	0.5	0.2	0.4	0.3	0.4	1.1	0.7	0.4	1.8	0.3	0.0	0.0	0.5	1.8		
2-Jul	0.0	0.0	Z	0.0	0.0	0.1	0.4	0.7	1.1	0.9	1.0	0.5	0.3	0.1	0.7	1.3	0.8	0.6	1.2	0.7	0.3	0.6	0.6	0.5	1.3			
3-Jul	0.4	0.5	0.3	Z	0.5	1.1	1.8	1.9	0.9	0.7	0.8	0.2	0.5	0.8	0.9	0.5	0.1	0.3	0.5	0.8	0.9	0.6	0.7	1.2	0.7	1.9		
4-Jul	1.3	0.3	0.2	0.2	Z	0.6	0.5	0.9	1.0	0.8	0.4	0.9	0.1	0.3	0.5	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.1	0.4	1.3		
5-Jul	0.2	0.1	0.1	0.2	0.3	Z	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.4		
6-Jul	Z	0.1	0.1	0.6	0.2	0.4	0.1	0.5	0.6	0.3	0.1	0.2	0.3	0.1	0.1	0.2	0.0	1.1	0.2	0.1	0.1	0.0	0.0	0.1	0.2	1.1		
7-Jul	0.0	Z	0.1	0.3	1.8	4.4	1.8	1.2	1.5	0.4	0.1	0.4	0.5	0.1	0.2	0.7	0.7	1.4	1.3	1.1	1.7	1.3	0.5	0.2	0.9	4.4		
8-Jul	0.0	0.0	Z	0.1	1.2	0.5	0.8	0.6	0.4	0.8	1.2	1.1	0.4	0.7	0.4	0.2	0.8	1.3	1.0	0.2	0.2	1.8	0.4	0.2	0.6	1.8		
9-Jul	0.1	0.1	0.1	Z	0.3	0.2	0.4	0.6	0.4	2.2	0.9	1.8	0.7	0.2	0.1	0.2	0.8	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.4	2.2		
10-Jul	0.0	0.0	0.0	0.0	Z	0.2	0.4	0.7	0.7	0.3	0.2	0.3	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.7		
11-Jul	0.0	0.0	0.1	0.1	0.7	Z	0.7	0.8	1.1	0.9	0.7	0.7	1.4	0.4	0.2	0.2	0.7	0.9	0.8	0.2	0.1	0.3	0.0	0.1	0.5	1.4		
12-Jul	Z	0.3	0.3	0.2	1.3	0.3	0.3	0.2	0.1	0.3	0.1	0.1	0.5	0.5	0.2	0.2	0.2	0.4	0.3	0.1	0.2	0.1	0.1	0.1	0.3	1.3		
13-Jul	0.0	Z	0.0	0.1	0.2	0.3	0.3	0.4	0.4	0.2	0.4	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.8	0.7	0.0	0.0	0.0	0.0	0.2	0.8		
14-Jul	0.0	0.1	Z	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.2	0.0	0.0	0.2	3.2		
15-Jul	0.0	0.0	0.2	Z	0.4	2.3	1.3	0.9	0.8	0.7	0.6	0.4	0.7	0.2	0.0	0.3	0.3	0.6	0.8	0.7	0.3	0.3	0.1	0.0	0.5	2.3		
16-Jul	0.0	0.1	0.0	0.1	Z	2.3	1.6	0.4	0.3	1.1	0.2	0.2	0.0	0.0	0.3	0.6	1.0	1.2	0.5	0.3	0.0	0.5	0.0	0.0	0.5	2.3		
17-Jul	0.0	0.0	0.0	0.8	0.7	Z	1.8	2.4	1.3	0.2	0.2	0.0	0.0	0.2	0.0	0.1	0.1	0.2	0.2	1.1	0.0	0.1	0.0	0.0	0.4	2.4		
18-Jul	Z	0.1	0.2	0.1	0.1	1.2	0.6	0.6	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.6	0.9	1.0	0.5	0.3	0.2	0.2	0.3	0.0	0.3	1.2		
19-Jul	0.0	Z	0.1	0.1	0.3	0.9	0.1	0.1	0.3	0.7	1.8	1.9	1.3	1.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.4	1.9		
20-Jul	0.0	0.0	Z	0.2	0.2	0.4	0.5	0.8	0.9	1.5	1.8	1.8	1.1	1.0	0.0	0.5	0.6	0.0	0.0	0.0	0.6	0.3	0.0	0.0	0.5	1.8		
21-Jul	0.0	0.0	0.0	Z	0.0	0.2	0.1	0.0	0.0	0.5	M	0.0	0.1	0.0	0.0	0.1	0.1	0.3	0.0	0.2	0.2	0.0	0.0	0.0	0.1	0.5		
22-Jul	0.0	0.0	0.0	0.0	Z	0.4	1.1	0.7	0.4	0.4	0.3	0.0	0.3	0.2	0.0	0.1	0.0	0.0	0.5	0.4	0.5	0.4	0.2	0.0	0.3	1.1		
23-Jul	0.0	0.1	0.0	0.1	0.3	Z	0.4	1.1	1.3	0.9	0.8	0.7	0.2	0.5	0.3	0.3	0.6	0.1	0.1	0.2	0.6	1.2	0.4	0.0	0.4	1.3		
24-Jul	Z	0.0	0.1	0.3	0.6	0.2	1.1	3.0	2.9	2.2	1.6	0.4	0.9	1.0	1.1	1.0	1.4	1.2	0.8	0.4	0.1	0.5	0.2	0.0	0.9	3.0		
25-Jul	0.0	Z	0.0	0.2	1.3	0.5	0.0	0.1	0.5	0.1	0.1	0.1	0.4	0.5	0.5	0.4	0.2	0.3	0.2	0.0	0.0	0.0	0.2	0.4	0.3	1.3		
26-Jul	0.2	0.0	Z	0.0	0.1	0.3	1.1	1.5	0.8	1.4	0.9	0.9	1.4	1.0	1.0	2.6	3.2	2.0	0.8	0.6	0.2	0.1	0.2	0.3	0.9	3.2		
27-Jul	0.1	0.2	0.1	Z	0.9	1.1	1.2	0.4	0.9	1.1	1.0	1.3	0.5	1.0	0.5	0.9	1.3	2.4	0.8	0.2	0.2	0.4	0.1	0.0	0.7	2.4		
28-Jul	0.1	0.2	0.3	0.3	Z	0.8	1.3	1.7	0.7	0.8	C	C	C	C	C	0.5	1.6	1.4	1.4	0.7	0.1	0.0	0.0	0.0	0.7	1.7		
29-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.3	0.0	0.1	0.3		
30-Jul	Z	0.0	0.0	0.1	0.8	4.0	1.3	0.5	0.1	1.6	0.1	0.0	0.0	0.0	0.1	0.7	0.2	0.1	0.0	0.0	0.6	0.7	1.0	0.0	0.5	4.0		
31-Jul	0.0	Z	0.1	0.2	0.4	0.8	0.8	1.0	0.8	1.3	1.0	2.8	0.3	0.6	1.1	0.7	1.2	1.5	1.8	0.9	1.0	0.9	0.1	0.2	0.8	2.8		
																										Diurnal Average		
																										Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance																												



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Patricia McInnes - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Patricia McInnes - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	38	4	6	3	12	78	83	36	48	75	78	86	54	32	33	41	707
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	38	4	6	3	12	78	83	36	48	75	78	86	54	32	33	41	707

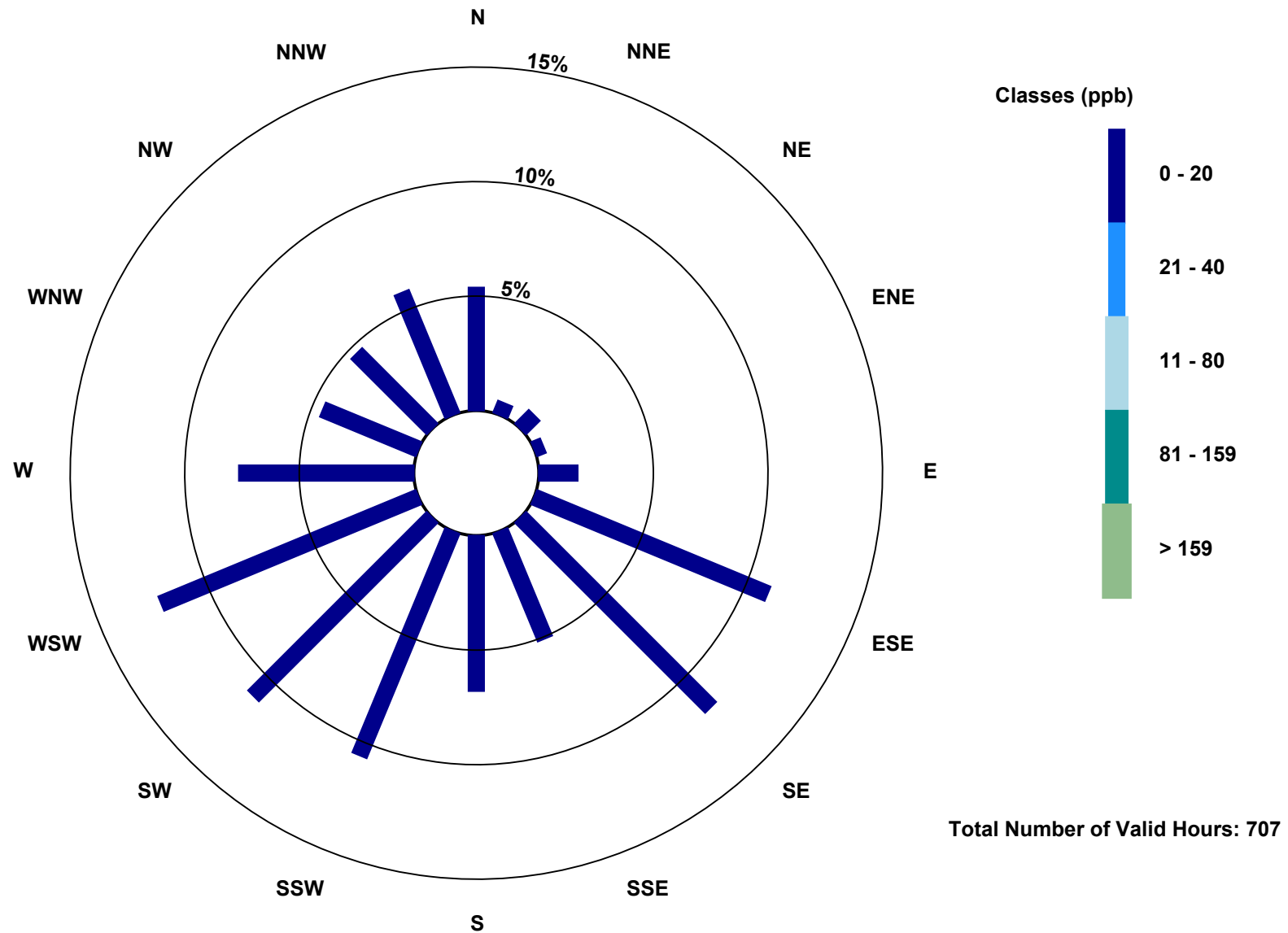
Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

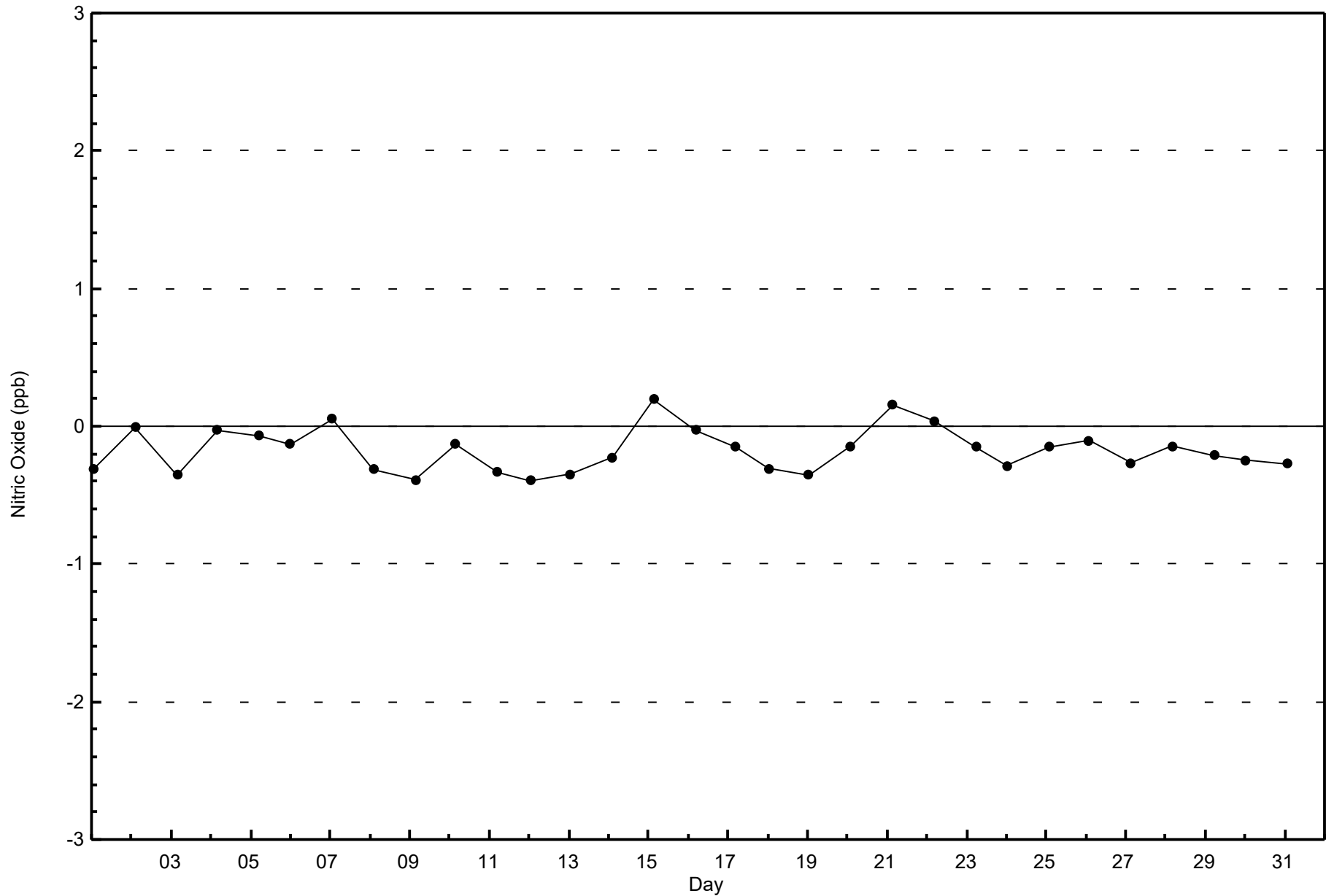
Nitric Oxide (NO) - ppb
Patricia McInnes





Wood Buffalo Environmental Association
Zero Responses

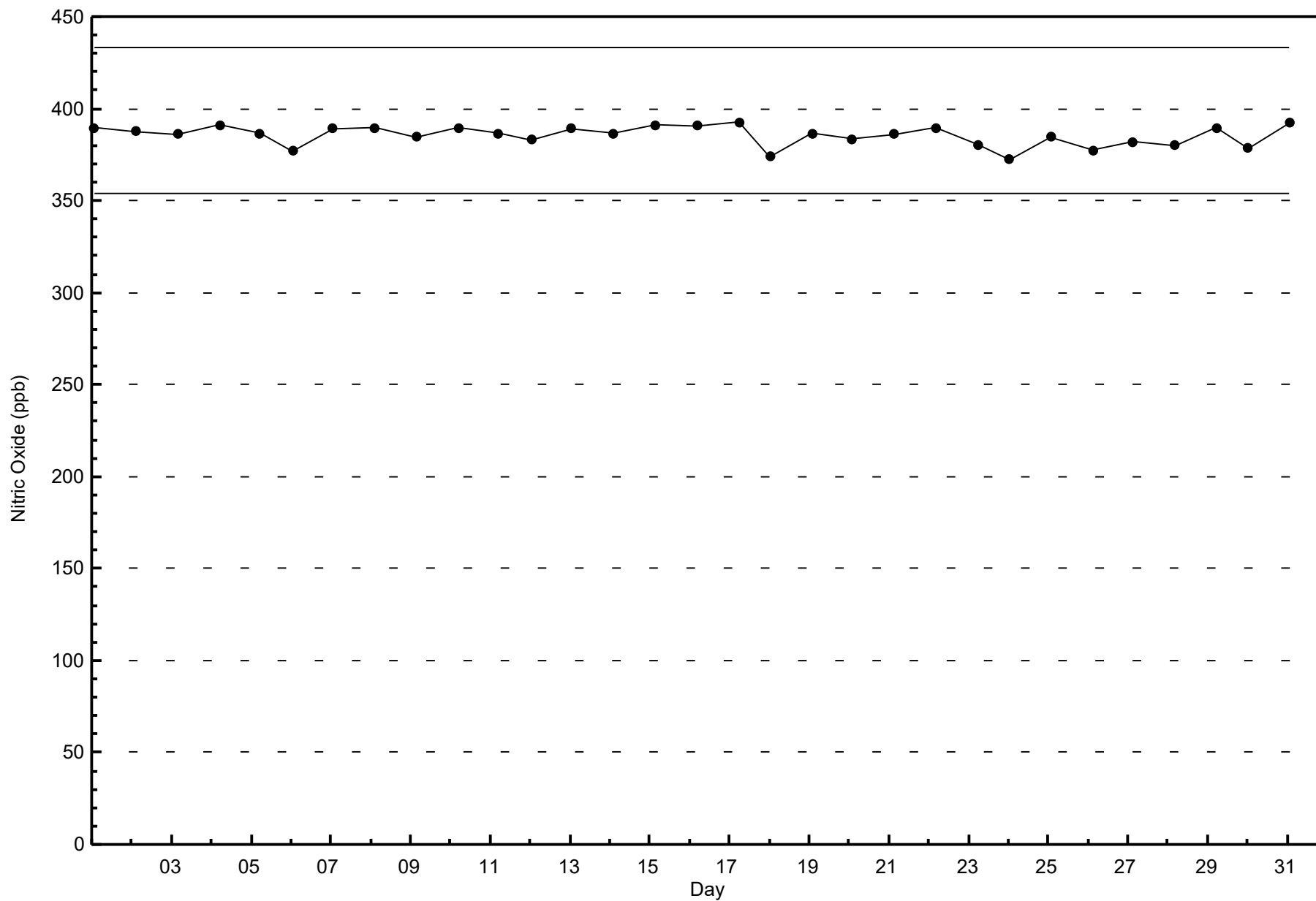
Nitric Oxide (NO) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

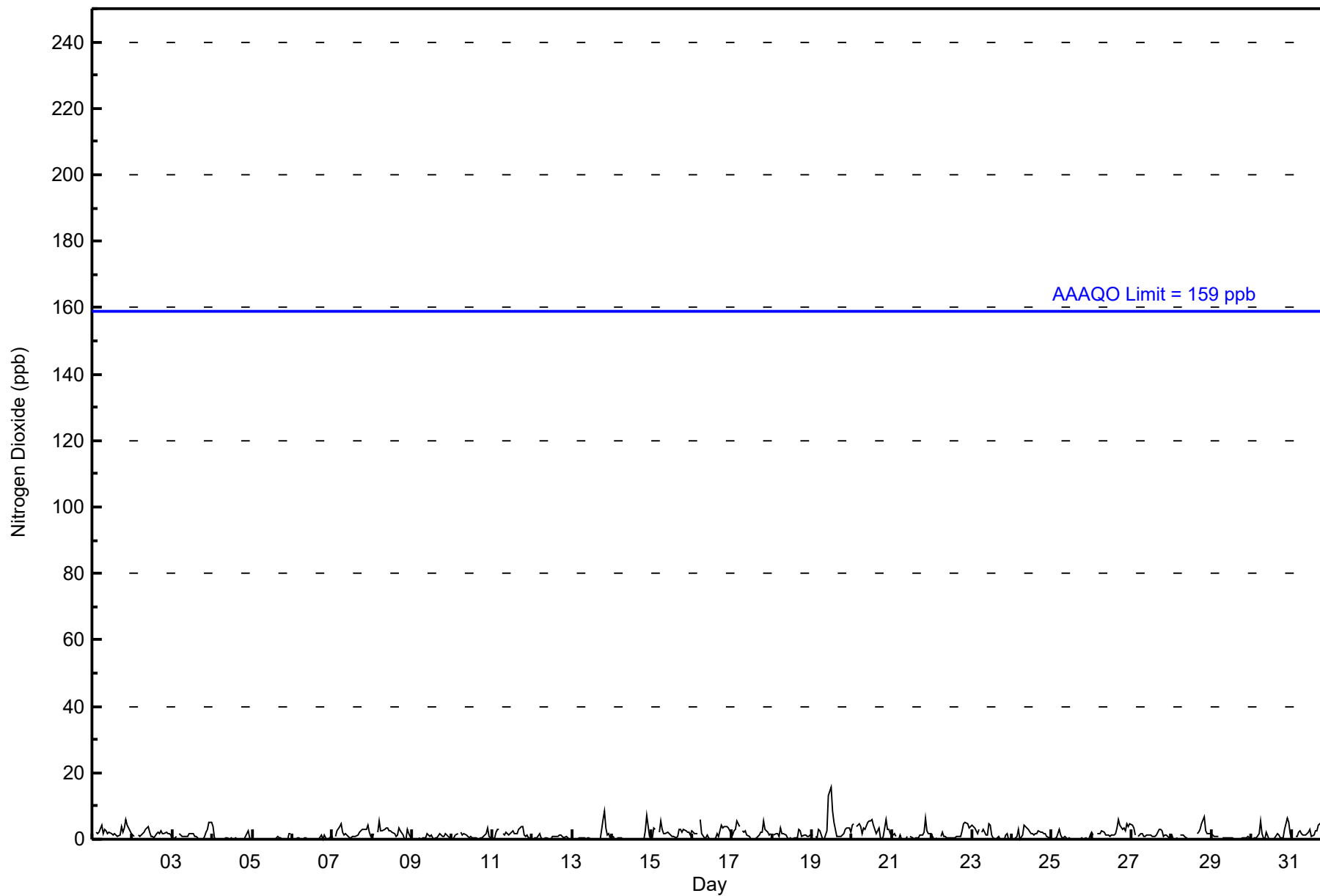
Patricia McInnes - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 15.5 ppb on Jul 19 12:00 Maximum Daily Average: 3.4 ppb on Jul 20																		Hours in Service: 744								
Minimum Value: 0.0 ppb on Jul 3 01:00 Minimum Daily Average: 0.2 ppb on Jul 5 Maximum Diurnal Average: 2.4 ppb at hour 22 Minimum Diurnal Average: 0.8 ppb at hour 15 Monthly Average: 1.50 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.3 Median = 1.1 Q ₃ = 2.2 P ₉₀ = 3.5 P ₉₉ = 6.3																		Hours of Data: 707								
																		Hours of Missing Data: 37								
																		Hours of Calibration: 36								
																		Percent Operational Time: 99.9								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	2.7	Z	2.3	1.8	2.2	4.2	1.9	2.8	2.7	1.7	2.2	1.7	1.4	1.7	1.4	0.9	1.3	3.9	2.2	3.3	6.0	4.4	2.6	1.9	2.5	6.0
2-Jul	1.2	1.0	Z	1.4	0.8	1.1	1.7	2.2	3.1	3.7	2.3	0.9	0.9	0.6	1.7	2.2	1.7	2.4	1.9	1.7	2.2	1.9	1.7	1.1	1.7	3.7
3-Jul	0.0	0.4	0.8	Z	1.6	1.1	0.7	0.8	0.8	0.8	1.7	1.7	1.5	0.9	1.0	0.4	0.0	0.0	0.2	0.8	2.2	2.9	5.1	5.2	1.3	5.2
4-Jul	4.0	0.6	0.0	0.2	Z	0.1	0.0	0.2	0.6	0.3	0.1	0.4	0.1	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.8	2.5	0.4	0.1	0.5	4.0
5-Jul	0.0	0.0	0.0	0.0	0.2	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.6	0.3	0.0	0.0	0.0	0.0	1.8	1.6	0.2	1.8
6-Jul	Z	0.1	0.2	0.4	0.5	0.0	0.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	1.1	0.0	1.2	0.5	0.0	0.6	1.3	0.3	1.3
7-Jul	0.6	Z	0.8	2.7	3.8	4.7	2.1	1.4	1.6	1.0	0.6	0.6	0.7	0.8	0.8	1.4	2.3	2.6	2.9	2.9	2.8	4.4	2.2	0.7	1.9	4.7
8-Jul	0.4	1.8	Z	2.0	5.3	2.5	2.6	3.1	3.3	3.6	2.4	2.4	2.0	1.5	1.0	1.2	3.3	2.5	1.1	0.2	0.1	3.0	1.5	0.0	2.0	5.3
9-Jul	0.0	0.0	0.0	Z	0.5	0.2	0.3	0.6	0.3	1.8	0.7	1.3	0.5	0.1	0.3	0.3	1.7	1.3	0.7	1.0	1.9	0.9	0.6	0.2	0.7	1.9
10-Jul	0.1	0.6	1.3	1.7	Z	2.1	1.4	1.6	1.3	0.8	0.5	0.7	0.4	0.3	0.4	0.0	0.2	0.5	0.6	1.3	1.9	3.2	0.7	0.4	1.0	3.2
11-Jul	0.2	0.5	2.0	2.8	2.9	Z	1.6	1.2	2.0	1.8	1.3	1.7	2.4	1.8	1.6	1.6	3.0	3.9	3.8	1.3	0.8	1.3	0.3	0.6	1.8	3.9
12-Jul	Z	0.4	0.3	0.4	1.5	0.3	0.2	0.2	0.3	0.4	0.2	0.1	0.9	1.0	0.7	0.9	1.4	1.3	0.8	0.6	0.9	0.6	0.2	0.2	0.6	1.5
13-Jul	0.1	Z	0.2	0.2	0.4	0.4	0.3	0.3	0.2	0.3	0.4	0.1	0.2	0.2	0.1	0.1	0.1	0.0	5.9	8.3	3.5	1.4	1.5	0.4	1.1	8.3
14-Jul	0.8	0.6	Z	0.4	0.5	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	7.3	0.9	0.3	0.6	7.3
15-Jul	0.6	3.4	2.9	Z	2.2	5.3	3.0	1.8	1.9	2.3	1.6	1.4	1.0	0.7	0.5	1.0	3.0	3.1	2.2	2.8	2.5	2.0	2.3	1.2	2.1	5.3
16-Jul	2.4	1.7	1.7	1.7	Z	6.0	1.9	0.3	0.3	1.4	0.3	0.2	0.0	0.0	0.6	1.8	0.8	4.2	3.2	3.8	4.0	3.8	3.3	1.5	2.0	6.0
17-Jul	1.1	2.6	3.0	5.4	3.8	Z	2.7	2.2	2.6	1.1	0.8	0.0	0.0	0.1	0.0	0.7	1.3	2.0	2.1	5.5	3.0	2.0	1.3	1.8	2.0	5.5
18-Jul	Z	1.3	1.7	1.7	1.0	3.4	1.7	1.6	1.4	0.3	0.0	0.5	0.1	0.4	0.5	0.5	2.9	2.5	0.8	1.3	1.2	1.0	0.8	1.4	1.2	3.4
19-Jul	1.4	Z	1.0	0.5	3.0	2.7	0.2	0.2	1.3	2.6	13.3	15.5	8.3	5.0	3.1	1.0	0.8	1.0	1.1	1.7	2.9	3.3	3.2	2.0	3.3	15.5
20-Jul	4.3	4.7	Z	3.9	4.7	3.9	1.8	3.6	3.0	5.0	5.6	5.4	5.9	4.4	1.7	2.7	3.4	0.5	0.0	0.8	5.9	3.1	3.0	1.6	3.4	5.9
21-Jul	1.0	1.5	0.9	Z	0.1	1.4	0.2	0.1	0.2	0.8	M	0.7	0.4	0.2	0.4	0.5	0.6	1.3	1.1	2.1	6.3	2.6	1.5	1.5	1.2	6.3
22-Jul	1.0	0.1	0.2	0.5	Z	0.8	2.0	1.0	0.9	0.5	0.6	0.3	0.5	0.5	0.5	0.9	0.7	1.0	2.6	4.7	5.1	4.7	3.2	4.0	1.6	5.1
23-Jul	4.2	3.7	3.2	1.9	3.1	Z	2.0	3.1	1.1	1.1	4.8	4.4	1.1	0.3	0.2	0.6	0.9	0.0	0.0	0.0	1.4	1.6	0.2	0.0	1.7	4.8
24-Jul	Z	0.2	0.3	0.7	2.8	0.2	1.4	4.3	3.9	3.6	3.1	1.6	1.7	1.2	1.6	1.9	2.4	2.2	2.1	1.9	1.7	0.8	0.5	0.1	1.7	4.3
25-Jul	0.2	Z	0.4	0.3	2.9	1.4	0.5	0.3	0.8	0.0	0.3	0.2	0.1	0.0	0.0	0.2	0.1	0.1	0.3	0.0	0.4	0.0	0.1	1.3	0.4	2.9
26-Jul	2.0	1.4	Z	1.8	1.6	1.5	2.5	2.3	1.2	1.3	1.1	0.9	1.3	1.3	1.6	3.5	5.9	4.2	3.1	3.3	2.6	4.5	4.0	4.7	2.5	5.9
27-Jul	4.1	3.6	1.1	Z	1.0	1.5	1.6	0.9	1.0	1.4	1.1	1.1	0.7	0.8	0.9	1.4	2.8	2.8	2.5	1.0	1.4	1.2	0.5	0.9	1.5	4.1
28-Jul	1.2	0.2	0.2	0.3	Z	1.3	1.1	1.2	0.4	0.5	C	C	C	C	C	1.5	2.1	3.0	4.5	6.6	2.6	1.6	1.8	1.8	1.8	6.6
29-Jul	1.9	0.7	0.7	0.7	0.7	Z	0.5	0.6	0.4	0.4	0.5	0.4	0.4	0.2	0.2	0.2	0.1	0.2	0.4	0.4	0.6	0.3	0.8	0.2	0.5	1.9
30-Jul	Z	0.3	0.3	0.4	1.6	5.6	1.9	0.6	0.2	2.0	0.1	0.2	0.1	0.1	0.4	1.6	1.1	0.5	0.3	0.6	2.8	6.3	4.9	1.5	1.5	6.3
31-Jul	0.5	Z	0.7	0.7	2.0	2.4	1.9	1.4	1.3	1.9	2.2	3.1	0.8	1.2	2.4	2.4	4.3	4.5	4.1	3.3	3.7	2.2	1.3	1.7	2.2	4.5
1.4 1.3 1.0 1.3 2.0 2.1 1.3 1.3 1.2 1.4 1.6 1.6 1.1 0.9 0.8 1.0 1.6 1.7 1.6 2.0 2.4 2.4 1.7 1.3 Diurnal Average																										
4.3 4.7 3.2 5.4 5.3 6.0 3.0 4.3 3.9 5.0 13.3 15.5 8.3 5.0 3.1 3.5 5.9 4.5 5.9 8.3 6.3 7.3 5.1 5.2 Diurnal Maximum																										
Z - zerospan C - Calibration M - Maintenance																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Patricia McInnes - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Patricia McInnes - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	38	4	6	3	12	78	83	36	48	75	78	86	54	32	33	41	707
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	38	4	6	3	12	78	83	36	48	75	78	86	54	32	33	41	707

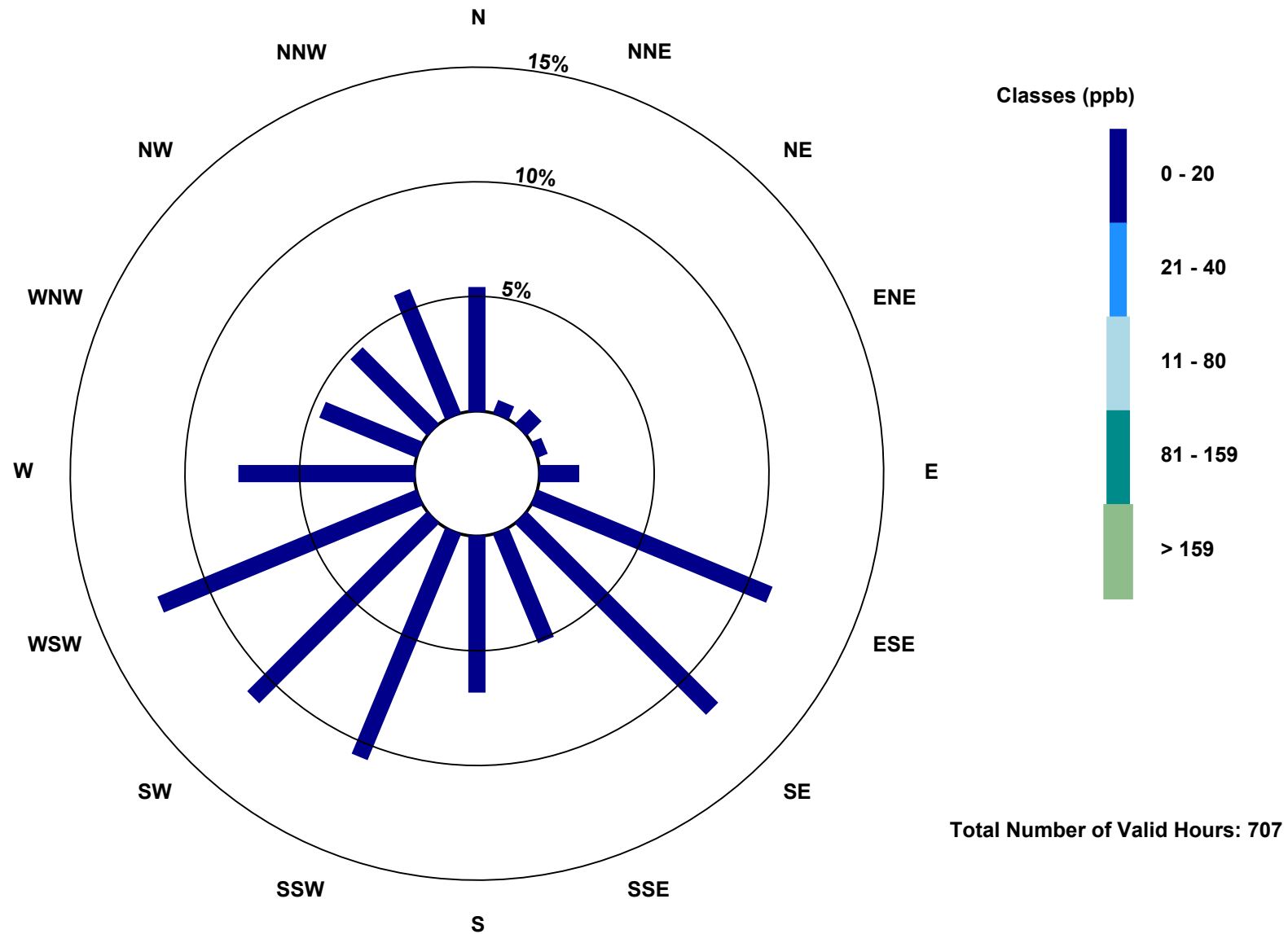
Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

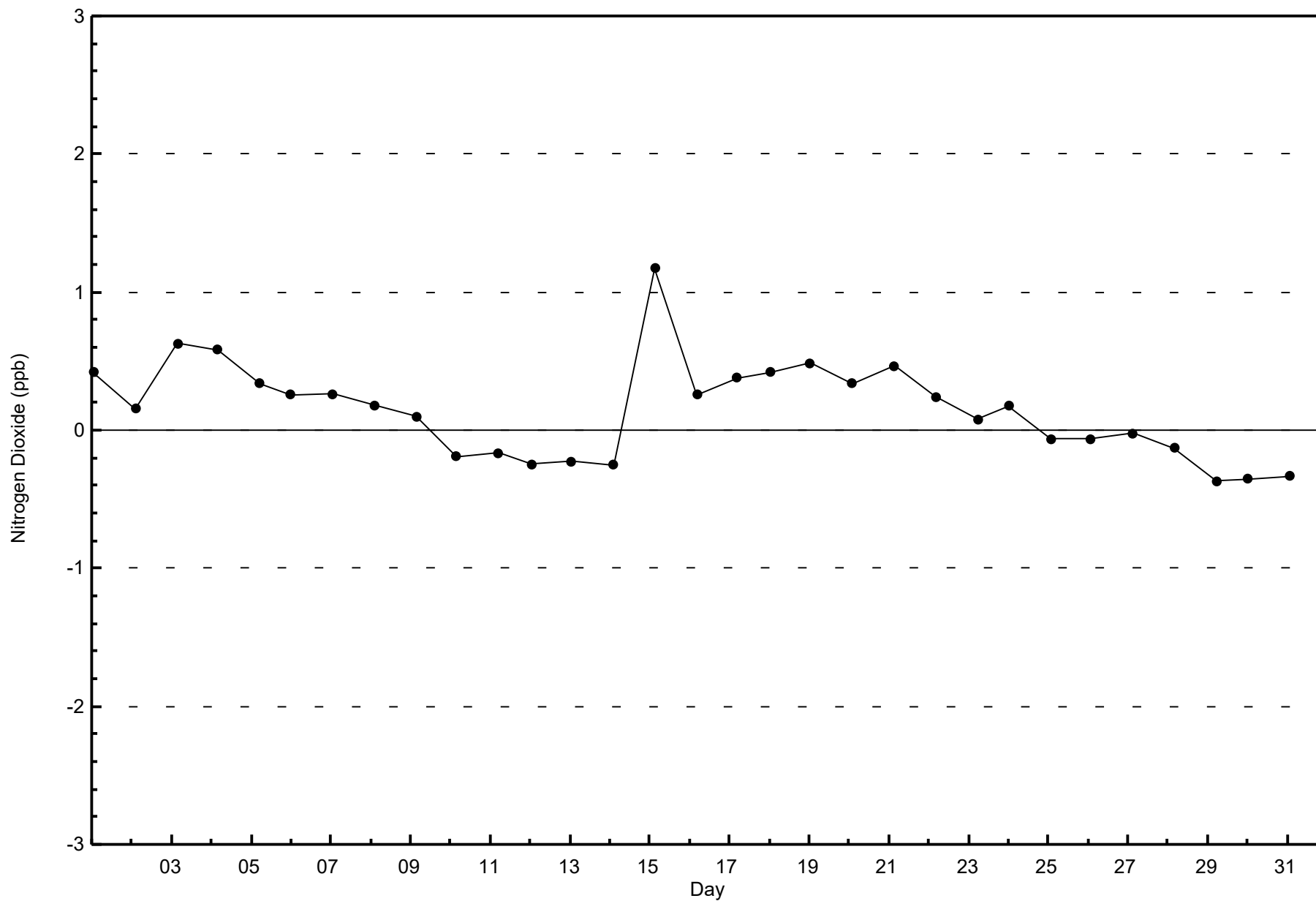
Nitrogen Dioxide (NO₂) - ppb
Patricia McInnes





Wood Buffalo Environmental Association
Zero Responses

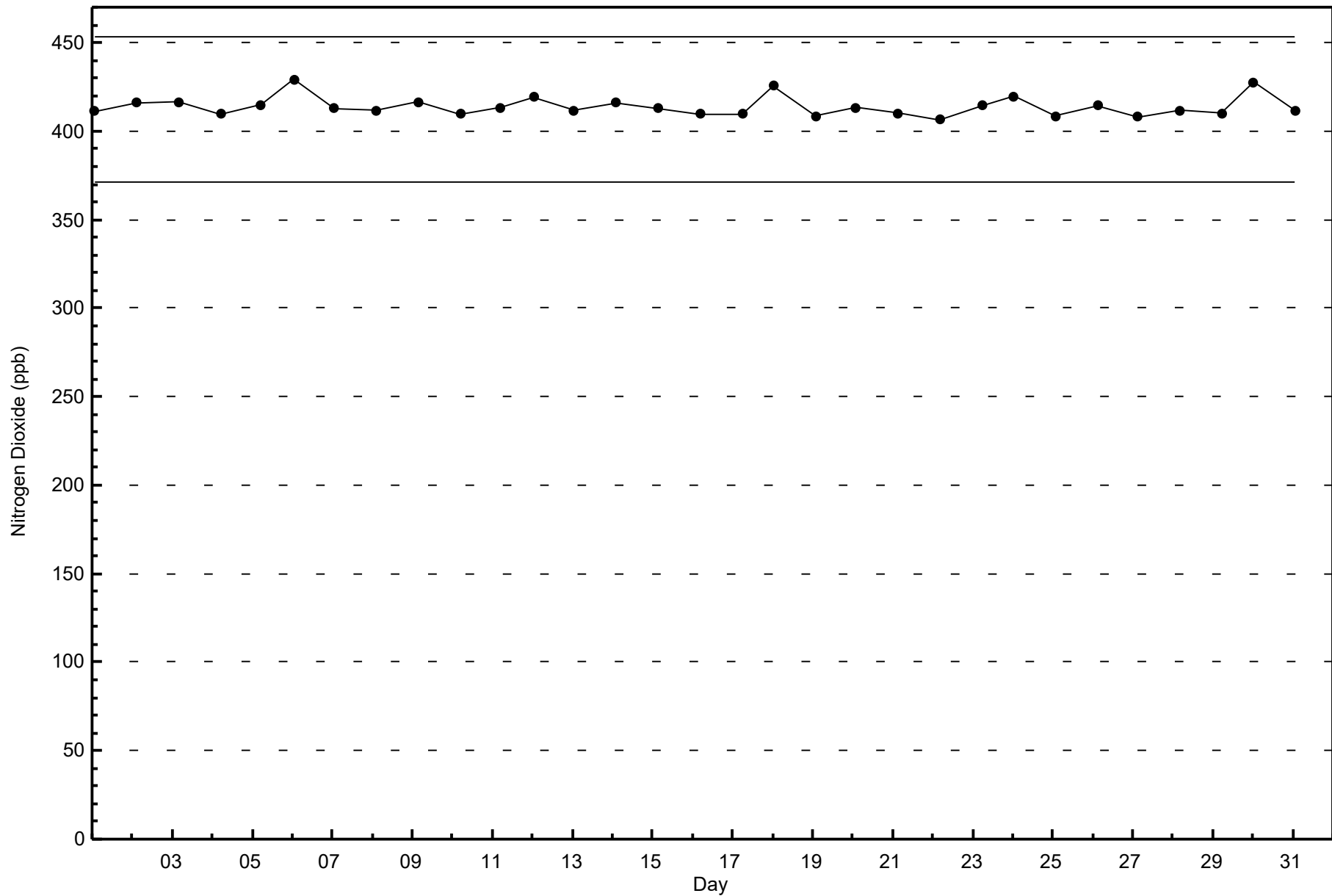
Nitrogen Dioxide (NO₂) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

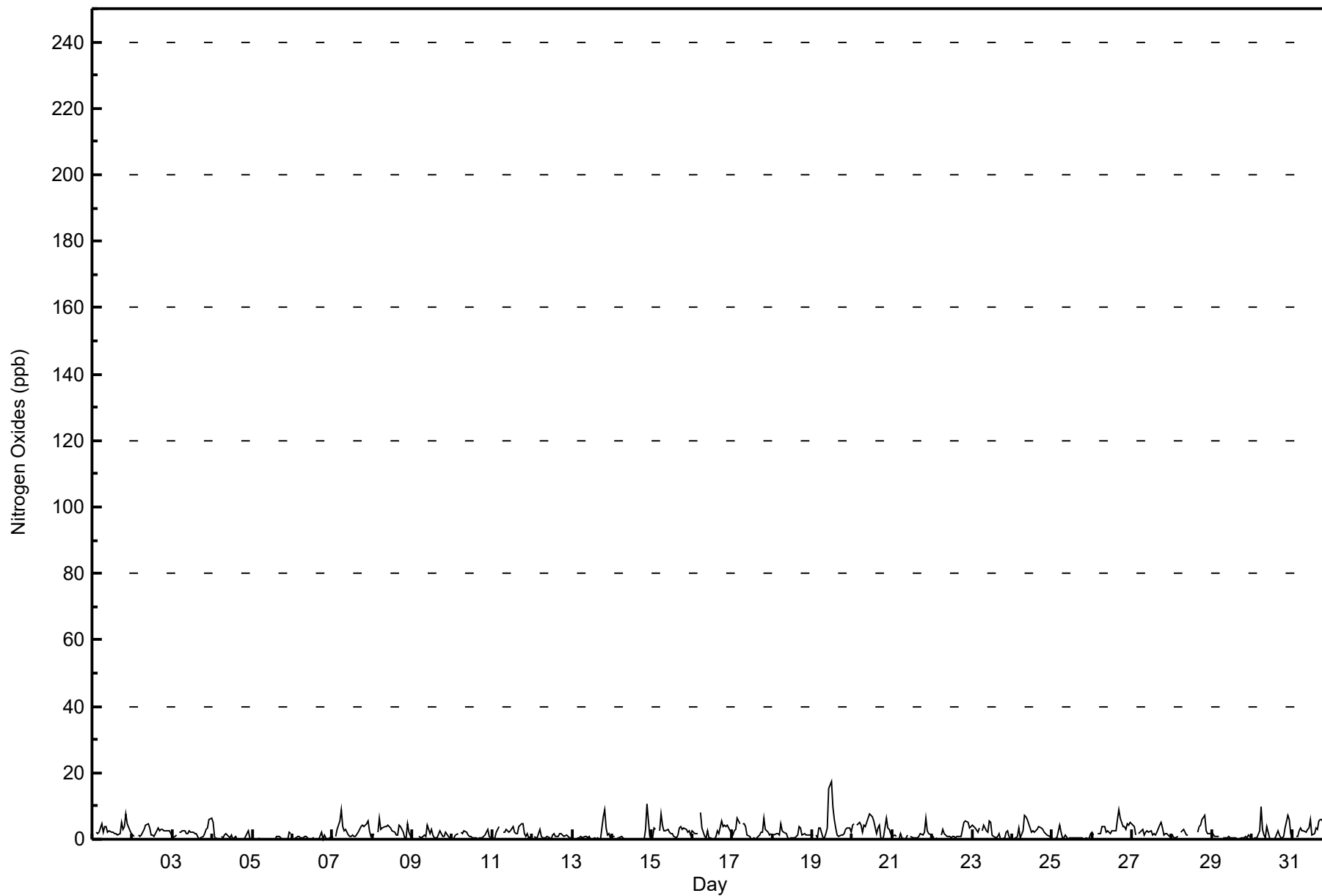
Patricia McInnes - July 2026

Maximum Value: 17.4 ppb on Jul 19 12:00																				Maximum Daily Average: 4.0 ppb on Jul 20					Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 4 16:00																				Minimum Daily Average: 0.4 ppb on Jul 5					Hours of Data: 707	
Maximum Diurnal Average: 3.0 ppb at hour 6																				Minimum Diurnal Average: 1.1 ppb at hour 3					Hours of Missing Data: 37	
Monthly Average: 1.96 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 0.5 Median = 1.4 Q ₃ = 2.8 P ₉₀ = 4.3 P ₉₉ = 9.0					Hours of Calibration: 36	
																									Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	2.7	Z	2.3	1.8	2.2	4.7	2.3	3.8	4.0	2.1	2.7	2.2	1.9	1.9	1.8	1.2	1.7	5.0	2.9	3.7	7.8	4.7	2.6	1.9	2.9	7.8
2-Jul	1.2	1.0	Z	1.4	0.8	1.2	2.1	2.9	4.2	4.6	3.3	1.4	1.2	0.7	2.4	3.5	2.5	3.0	3.1	2.4	2.5	2.5	2.3	1.6	2.3	4.6
3-Jul	0.4	0.9	1.1	Z	2.1	2.2	2.5	2.7	1.7	1.5	2.5	1.9	2.0	1.7	1.9	0.9	0.1	0.3	0.7	1.6	3.1	3.5	5.8	6.4	2.1	6.4
4-Jul	5.3	0.9	0.2	0.4	Z	0.7	0.5	1.1	1.6	1.1	0.5	1.3	0.2	0.5	1.0	0.0	0.0	0.0	0.1	0.1	1.0	2.6	0.4	0.2	0.9	5.3
5-Jul	0.2	0.1	0.1	0.2	0.5	Z	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.9	1.0	0.8	0.4	0.0	0.0	0.0	0.0	2.0	1.7	0.4	2.0
6-Jul	Z	0.2	0.3	1.0	0.7	0.4	0.3	0.8	0.9	0.3	0.1	0.2	0.3	0.1	0.2	0.2	0.0	2.2	0.2	1.3	0.6	0.0	0.6	1.4	0.5	2.2
7-Jul	0.6	Z	0.9	3.0	5.6	9.1	3.9	2.6	3.1	1.4	0.7	1.0	1.2	0.9	1.0	2.1	3.0	4.0	4.2	4.0	4.5	5.7	2.7	0.9	2.9	9.1
8-Jul	0.4	1.8	Z	2.1	6.5	3.0	3.4	3.7	3.7	4.4	3.6	3.5	2.4	2.2	1.4	1.4	4.1	3.8	2.1	0.4	0.3	4.8	1.9	0.2	2.7	6.5
9-Jul	0.1	0.1	0.1	Z	0.8	0.4	0.7	1.2	0.7	4.0	1.6	3.1	1.2	0.3	0.4	0.5	2.5	1.9	1.0	1.1	1.9	0.9	0.6	0.2	1.1	4.0
10-Jul	0.1	0.6	1.3	1.7	Z	2.3	1.8	2.3	2.0	1.1	0.7	1.0	0.4	0.4	0.5	0.0	0.2	0.5	0.6	1.4	2.0	3.2	0.7	0.4	1.1	3.2
11-Jul	0.2	0.5	2.1	2.9	3.6	Z	2.3	2.0	3.1	2.7	2.0	2.4	3.8	2.2	1.8	1.8	3.7	4.8	4.6	1.5	0.9	1.6	0.3	0.7	2.2	4.8
12-Jul	Z	0.7	0.6	0.6	2.8	0.6	0.5	0.4	0.4	0.7	0.3	0.2	1.4	1.5	0.9	1.1	1.6	1.7	1.1	0.7	1.1	0.7	0.3	0.3	0.9	2.8
13-Jul	0.1	Z	0.2	0.3	0.6	0.7	0.6	0.7	0.6	0.5	0.8	0.1	0.2	0.4	0.1	0.2	0.1	0.0	6.7	9.0	3.5	1.4	1.5	0.4	1.2	9.0
14-Jul	0.8	0.7	Z	0.4	0.5	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	10.5	0.9	0.3	0.8	10.5
15-Jul	0.6	3.4	3.1	Z	2.6	7.6	4.3	2.7	2.7	3.0	2.2	1.8	1.7	0.9	0.5	1.3	3.3	3.7	3.0	3.5	2.8	2.3	2.4	1.2	2.6	7.6
16-Jul	2.4	1.8	1.7	1.8	Z	8.3	3.5	0.7	0.6	2.5	0.5	0.4	0.0	0.0	0.9	2.4	1.8	5.4	3.7	4.1	4.0	4.3	3.3	1.5	2.4	8.3
17-Jul	1.1	2.6	3.0	6.2	4.5	Z	4.5	4.6	3.9	1.3	1.0	0.0	0.0	0.3	0.0	0.8	1.4	2.2	2.3	6.6	3.0	2.1	1.3	1.8	2.4	6.6
18-Jul	Z	1.4	1.9	1.8	1.1	4.6	2.3	2.2	1.6	0.4	0.1	0.6	0.3	0.6	0.8	1.1	3.8	3.5	1.3	1.6	1.4	1.2	1.1	1.4	1.6	4.6
19-Jul	1.4	Z	1.1	0.6	3.3	3.6	0.3	0.3	1.6	3.3	15.1	17.4	9.6	6.0	3.3	1.1	0.9	1.1	1.2	1.8	3.0	3.3	3.2	2.0	3.7	17.4
20-Jul	4.3	4.7	Z	4.1	4.9	4.3	2.3	4.4	3.9	6.5	7.4	7.2	7.0	5.4	1.7	3.2	4.0	0.5	0.0	0.8	6.5	3.4	3.0	1.6	4.0	7.4
21-Jul	1.0	1.5	0.9	Z	0.1	1.6	0.3	0.1	0.2	1.3	M	0.7	0.5	0.2	0.4	0.6	0.7	1.6	1.1	2.3	6.5	2.6	1.5	1.5	1.2	6.5
22-Jul	1.0	0.1	0.2	0.5	Z	1.2	3.1	1.7	1.3	0.9	0.9	0.3	0.8	0.7	0.5	1.0	0.7	1.0	3.1	5.1	5.6	5.1	3.4	4.0	1.8	5.6
23-Jul	4.2	3.8	3.2	2.0	3.4	Z	2.4	4.2	2.4	2.0	5.6	5.1	1.3	0.8	0.5	0.9	1.5	0.1	0.1	0.2	2.0	2.8	0.6	0.0	2.1	5.6
24-Jul	Z	0.2	0.4	1.0	3.4	0.4	2.5	7.3	6.8	5.8	4.7	2.0	2.6	2.2	2.7	2.9	3.8	3.4	2.9	2.3	1.8	1.3	0.7	0.1	2.7	7.3
25-Jul	0.2	Z	0.4	0.5	4.2	1.9	0.5	0.4	1.3	0.1	0.4	0.3	0.5	0.5	0.5	0.6	0.3	0.4	0.5	0.0	0.4	0.0	0.3	1.7	0.7	4.2
26-Jul	2.2	1.4	Z	1.8	1.7	1.8	3.6	3.8	2.0	2.7	2.0	1.8	2.7	2.3	2.6	6.1	9.1	6.2	3.9	3.9	2.8	4.6	4.2	5.0	3.4	9.1
27-Jul	4.2	3.8	1.2	Z	1.9	2.6	2.8	1.3	1.9	2.5	2.1	2.4	1.2	1.8	1.4	2.3	4.1	5.2	3.3	1.2	1.6	1.6	0.6	0.9	2.3	5.2
28-Jul	1.3	0.4	0.5	0.6	Z	2.1	2.4	2.9	1.1	1.3	C	C	C	C	C	2.0	3.7	4.4	5.9	7.3	2.7	1.6	1.8	1.8	2.4	7.3
29-Jul	1.9	0.7	0.7	0.7	0.7	Z	0.5	0.6	0.5	0.5	0.8	0.5	0.5	0.3	0.3	0.2	0.2	0.2	0.4	0.4	0.7	0.4	1.1	0.2	0.6	1.9
30-Jul	Z	0.3	0.3	0.5	2.4	9.6	3.2	1.1	0.3	3.6	0.2	0.2	0.1	0.1	0.5	2.3	1.3	0.6	0.3	0.6	3.4	7.0	5.9	1.5	2.0	9.6
31-Jul	0.5	Z	0.8	0.9	2.4	3.2	2.7	2.4	2.1	3.2	3.2	5.9	1.1	1.8	3.5	3.1	5.5	6.0	5.9	4.2	4.7	3.1	1.4	1.9	3.0	6.0
1.5 1.3 1.1 1.5 2.4 3.0 2.0 2.1 1.9 2.1 2.2 2.2 1.5 1.2 1.2 1.5 2.1 2.4 2.1 2.4 2.7 2.9 1.9 1.4																									Diurnal Average	
5.3 4.7 3.2 6.2 6.5 9.6 4.5 7.3 6.8 6.5 15.1 17.4 9.6 6.0 3.5 6.1 9.1 6.2 6.7 9.0 7.8 10.5 5.9 6.4																									Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Patricia McInnes - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Patricia McInnes - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	38	4	6	3	12	78	83	36	48	75	78	86	54	32	33	41	707
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	38	4	6	3	12	78	83	36	48	75	78	86	54	32	33	41	707

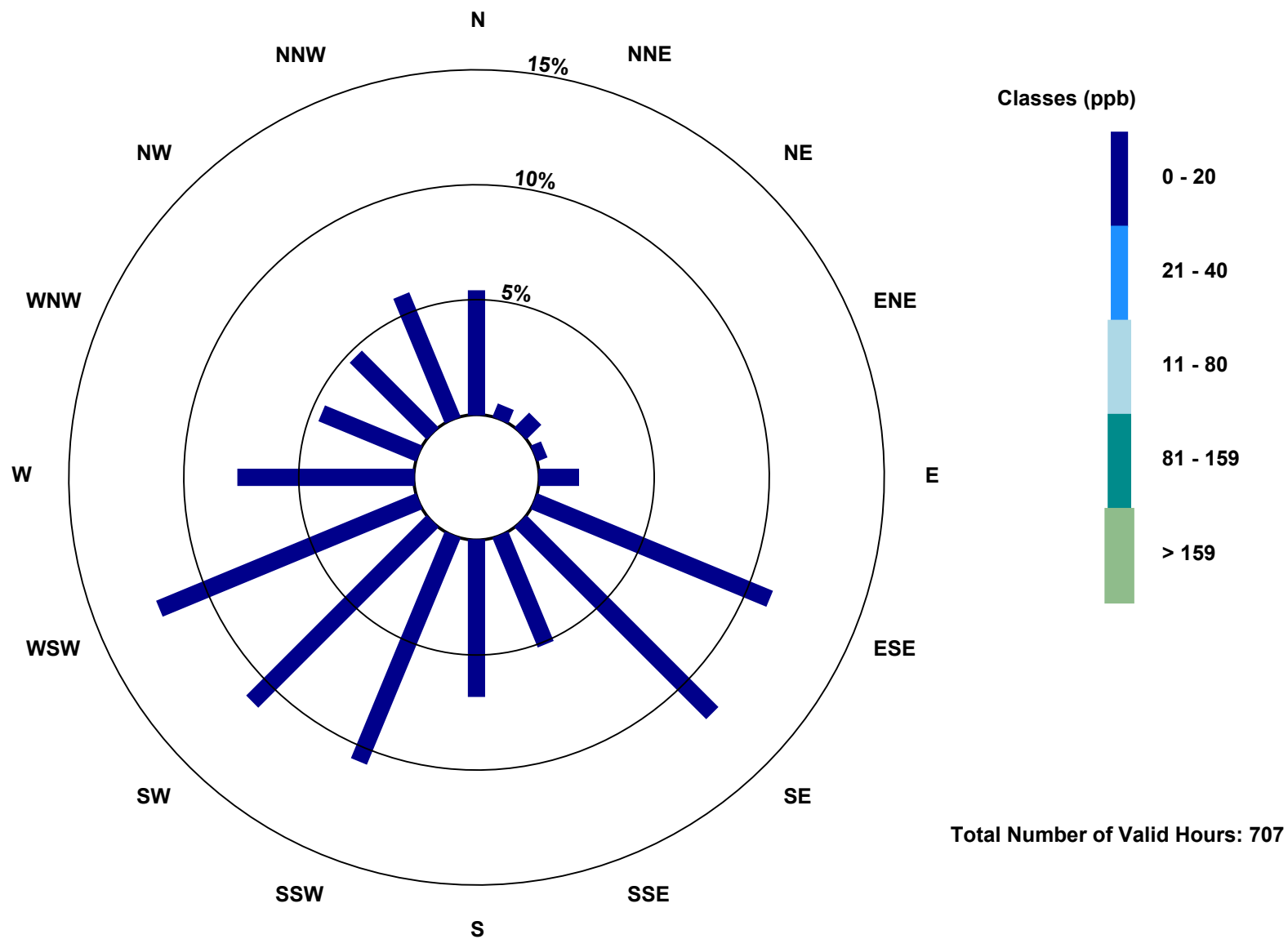
Total Number of Valid Hours: 707

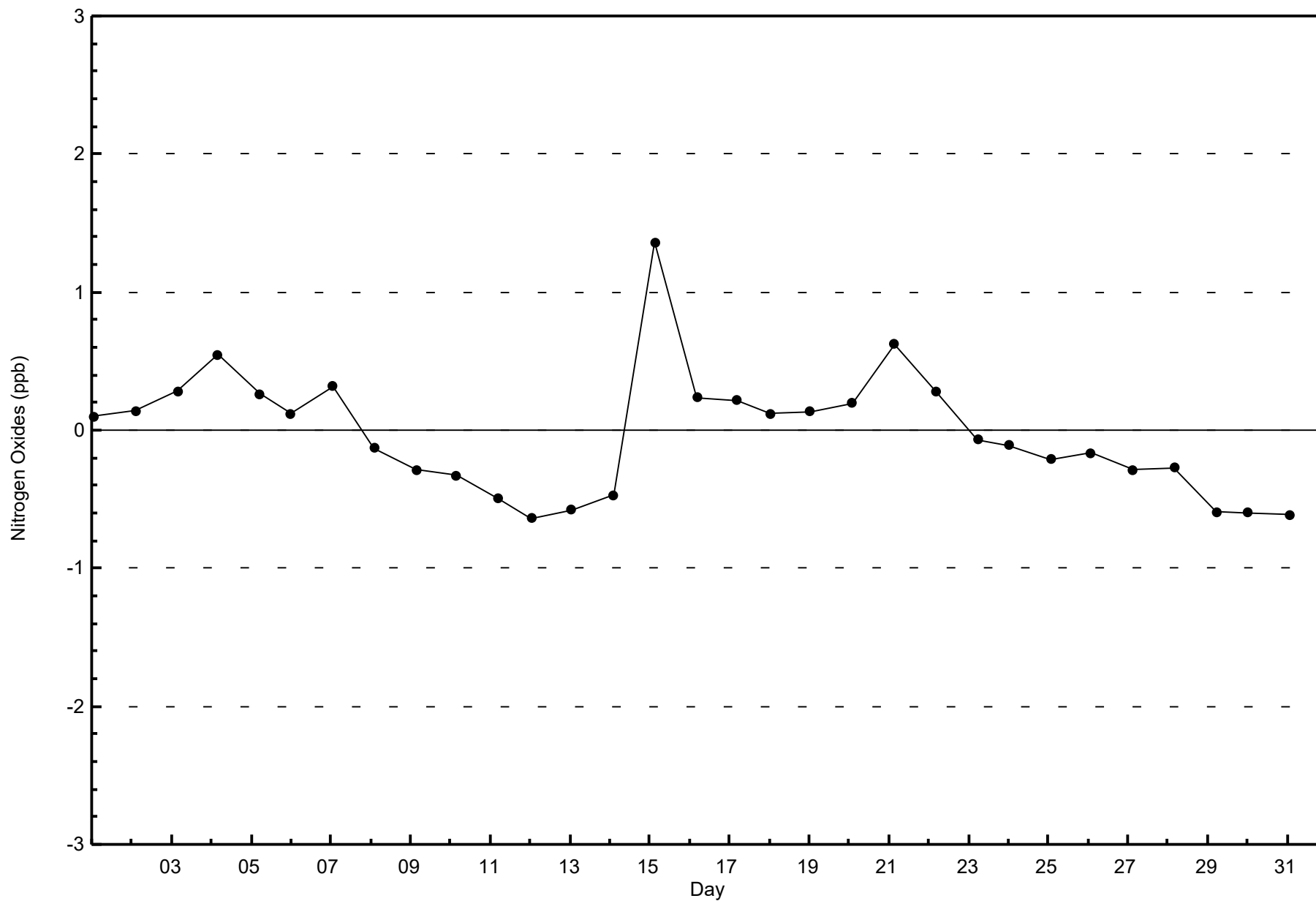
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Oxides (NO_x) - ppb
Patricia McInnes

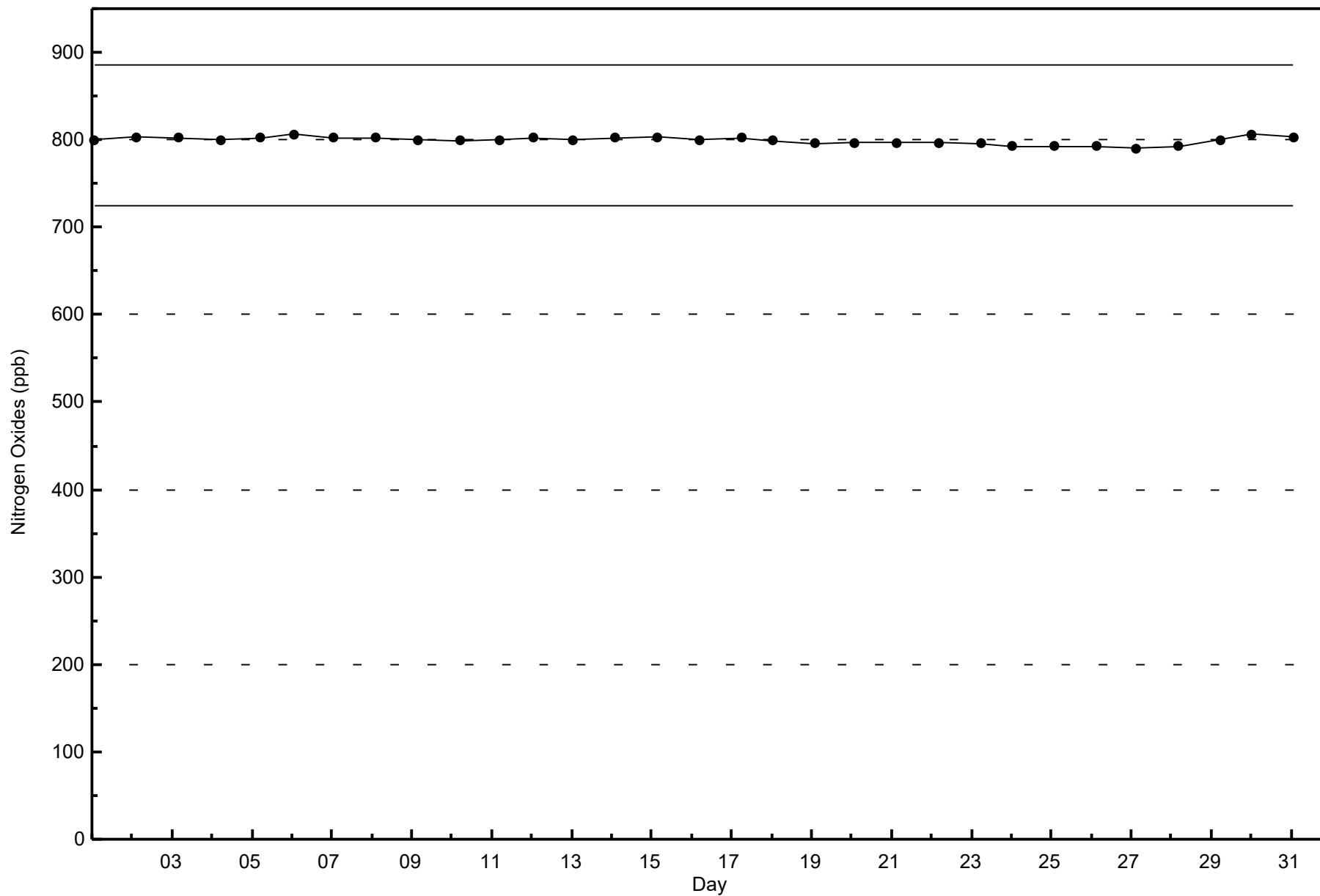






Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ammonia (NH₃) - ppb

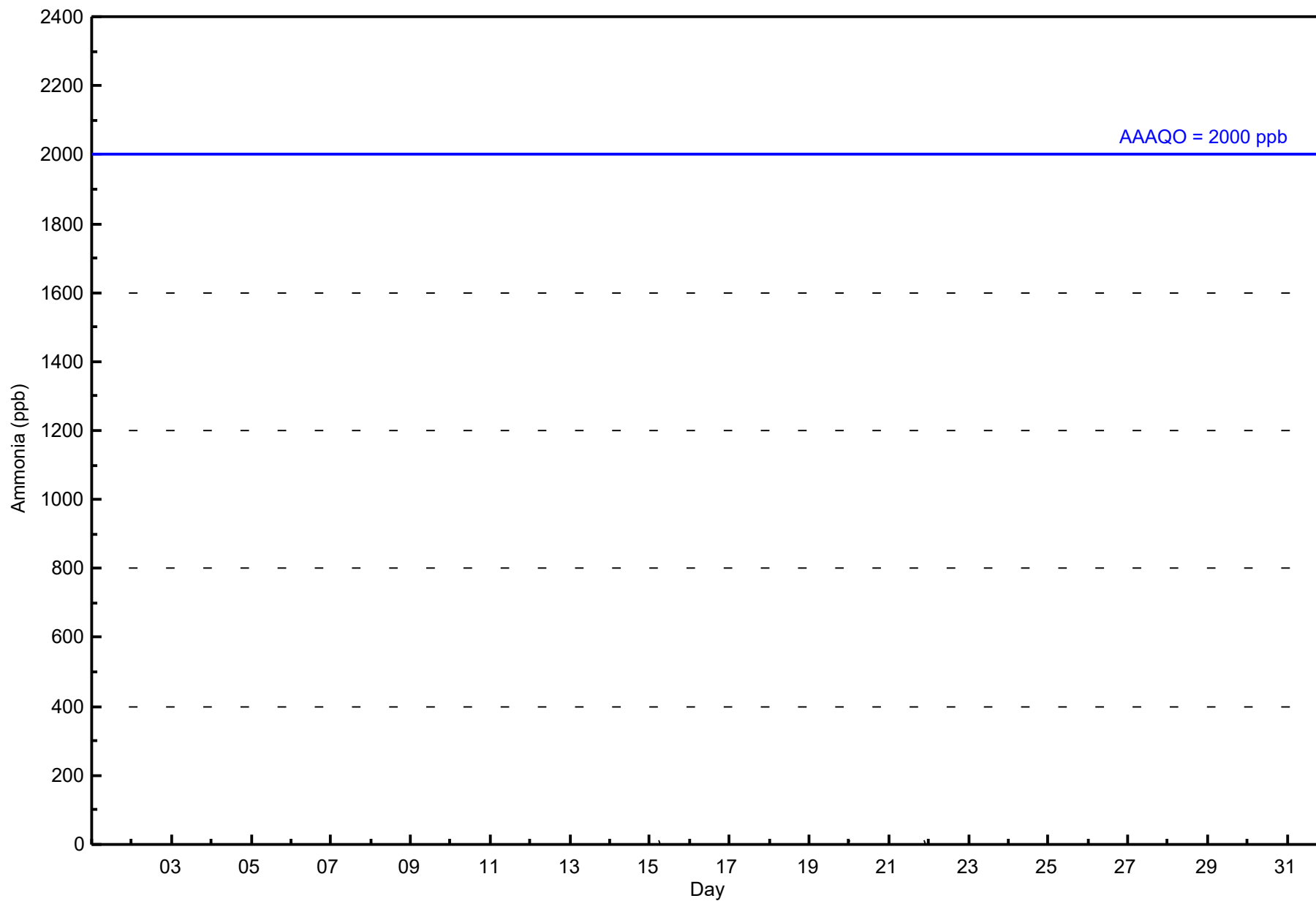
Patricia McInnes - July 2026

Number of Exceedences (AAAQO): 1-hr: 0 Maximum Value: 12.3 ppb on Jul 20 01:00 Minimum Value: 0.0 ppb on Jul 1 04:00 Maximum Diurnal Average: 0.8 ppb at hour 6 Monthly Average: 0.05 ppb																				Maximum Daily Average: 0.6 ppb on Jul 20 Minimum Daily Average: 0.0 ppb on Jul 1 Minimum Diurnal Average: 0.0 ppb at hour 2 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0																				Hours in Service: 744 Hours of Data: 625 Hours of Missing Data: 119 Hours of Calibration: 44 Percent Operational Time: 89.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																	
1-Jul	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jul	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
3-Jul	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jul	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
5-Jul	0.0	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
6-Jul	0.0	0.0	0.0	0.0	0.0	Z	RE	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
7-Jul	Z	RE	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
8-Jul	0.0	Z	RE	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
9-Jul	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
10-Jul	0.0	0.0	0.0	Z	RE	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
11-Jul	0.0	0.0	0.0	0.0	Z	RE	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
12-Jul	0.0	0.0	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
13-Jul	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
14-Jul	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
15-Jul	0.0	0.0	Z	RE	RE	10.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	10.7															
16-Jul	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
17-Jul	0.0	0.0	0.0	0.0	Z	RE	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
18-Jul	0.0	0.0	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
19-Jul	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
20-Jul	12.3	Z	RE	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	12.3															
21-Jul	0.0	0.0	Z	RE	RE	RE	0.0	0.0	C	C	C	C	C	C	C	C	C	C	C	C	C	10.6	0.0	0.0	--	10.6															
22-Jul	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
23-Jul	0.0	0.0	0.0	0.0	Z	RE	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
24-Jul	0.0	0.0	0.0	0.0	0.0	Z	RE	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
25-Jul	Z	RE	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
26-Jul	0.0	Z	RE	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
27-Jul	0.0	0.0	Z	RE	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
28-Jul	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
29-Jul	0.0	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
30-Jul	0.0	0.0	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
31-Jul	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
0.5 0.0 0.0 0.0 0.0 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.3 0.0 0.0																										Diurnal Average															
12.3 0.0 0.0 0.0 0.0 10.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 10.6 0.0 0.0																										Diurnal Maximum															
Z - zerospan C - Calibration RE - Recovery																																									
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 2000 ppb																																									



Wood Buffalo Environmental Association
Hourly Averages

Ammonia (NH_3) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ammonia (NH₃) - ppb
Patricia McInnes - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 5	622	99.52	99.52
6 - 10	0	0.00	99.52
11 - 15	3	0.48	100.00
16 - 20	0	0.00	100.00
21 - 25	0	0.00	100.00
> 26	0	0.00	100.00

Total Number of Valid Hours: 625

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Ammonia (NH₃) - ppb
Patricia McInnes - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	32	4	5	2	12	70	76	29	37	58	68	77	51	32	33	36	622
6 - 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 15	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
16 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	33	4	5	2	12	70	76	30	37	58	69	77	51	32	33	36	625

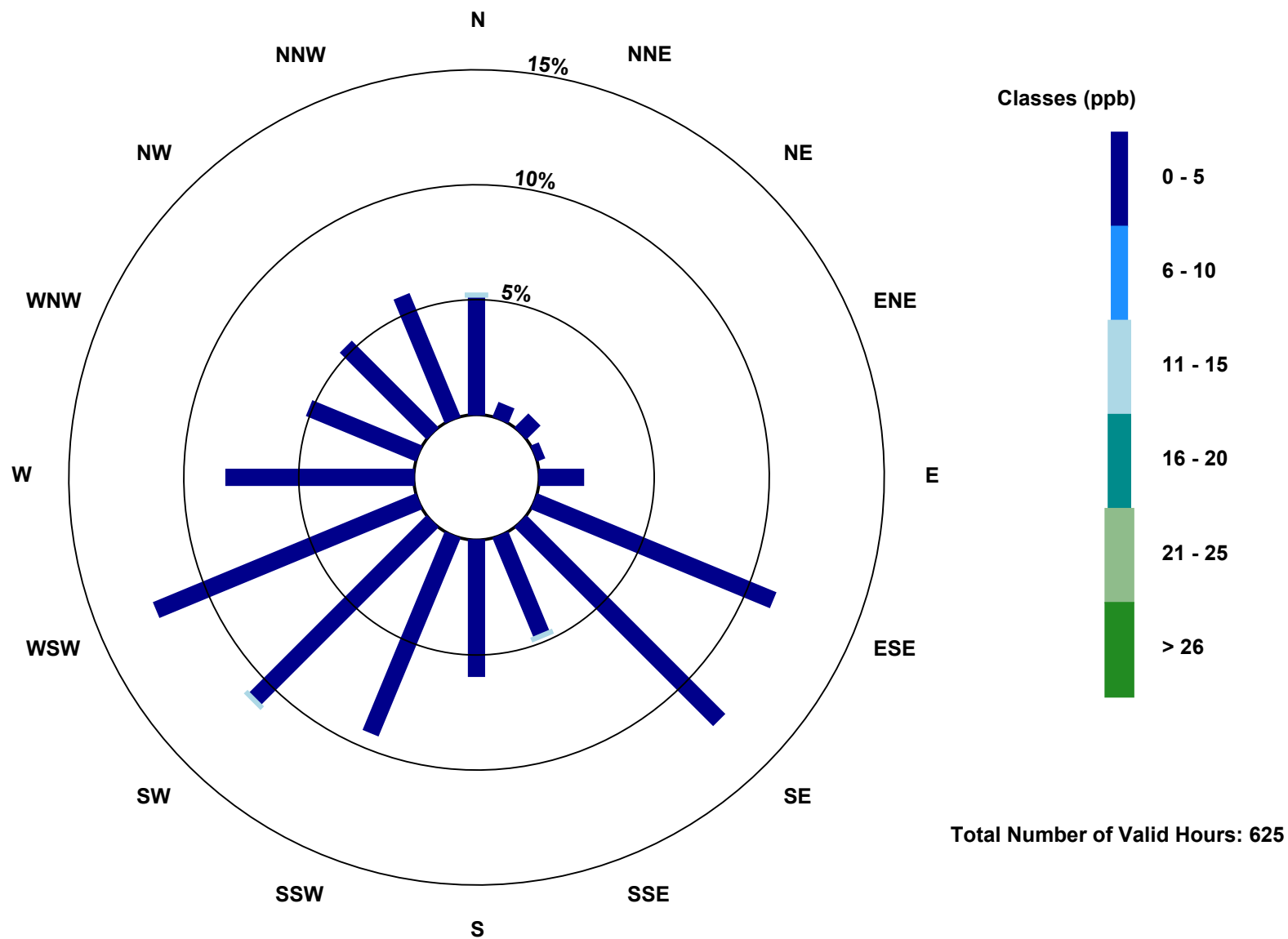
Total Number of Valid Hours: 625

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Ammonia (NH_3) - ppb
Patricia McInnes



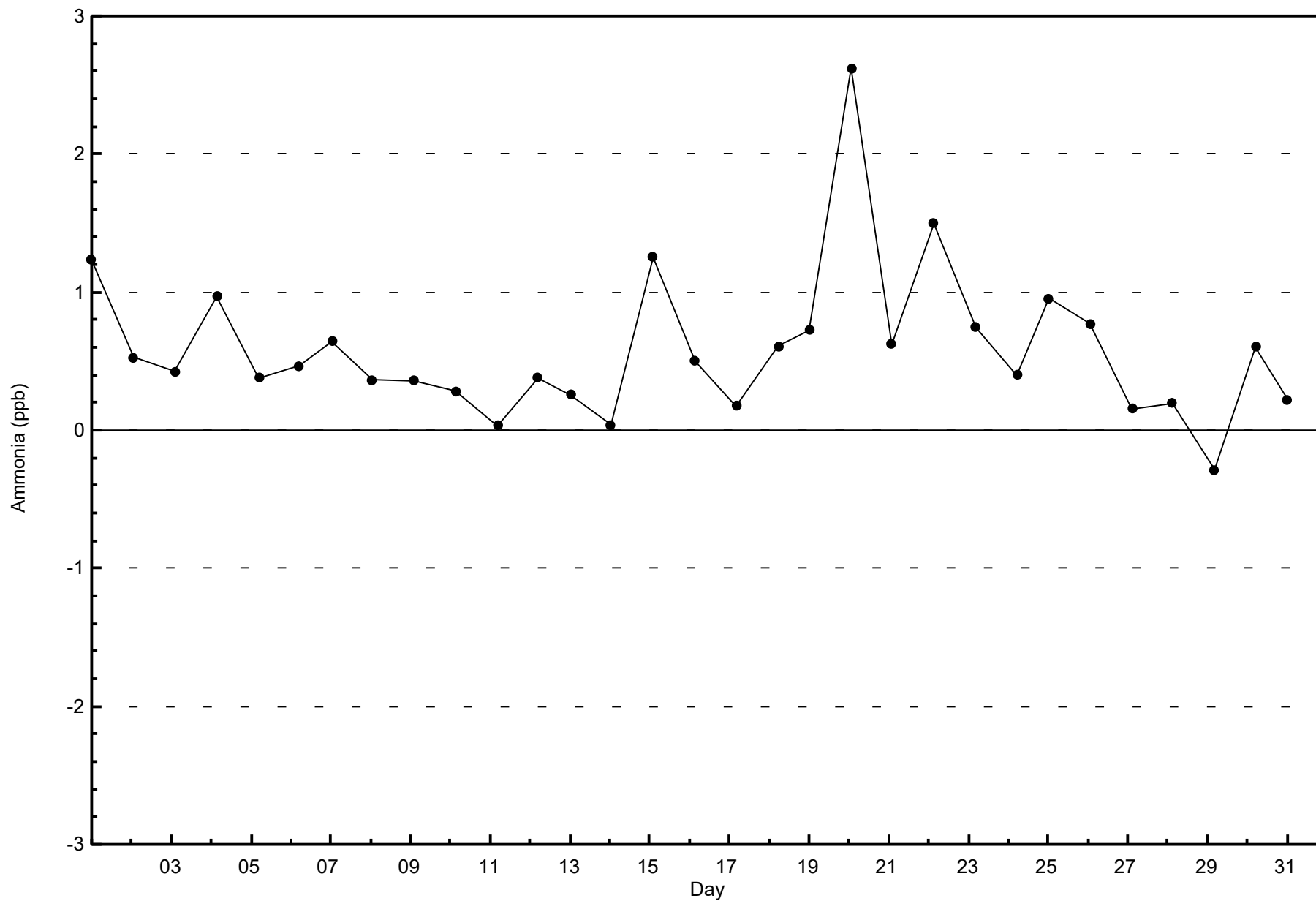


Wood Buffalo Environmental Association

Zero Responses

Ammonia (NH_3) - ppb

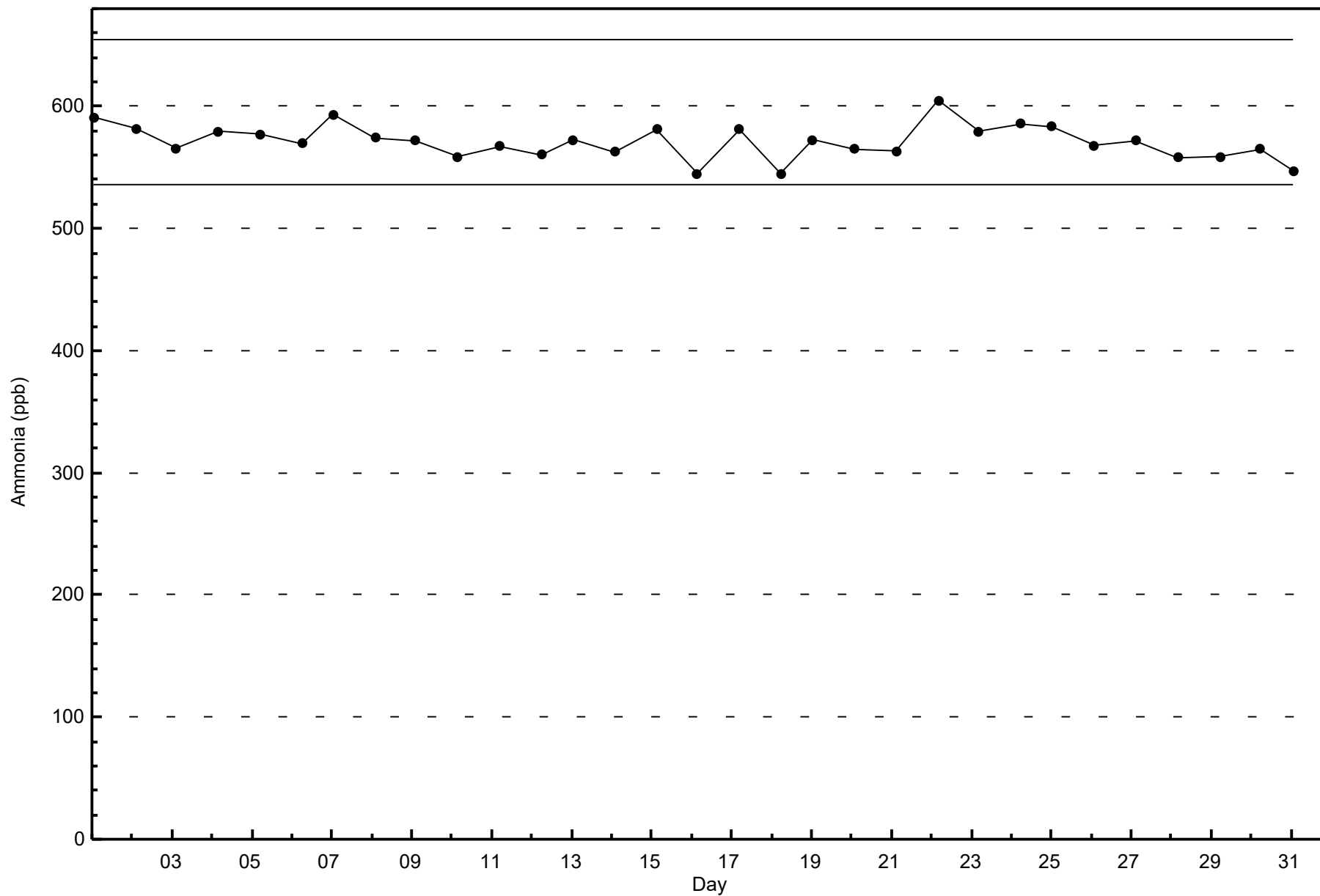
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Span Responses

Ammonia (NH₃) - ppb
Patricia McInnes - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

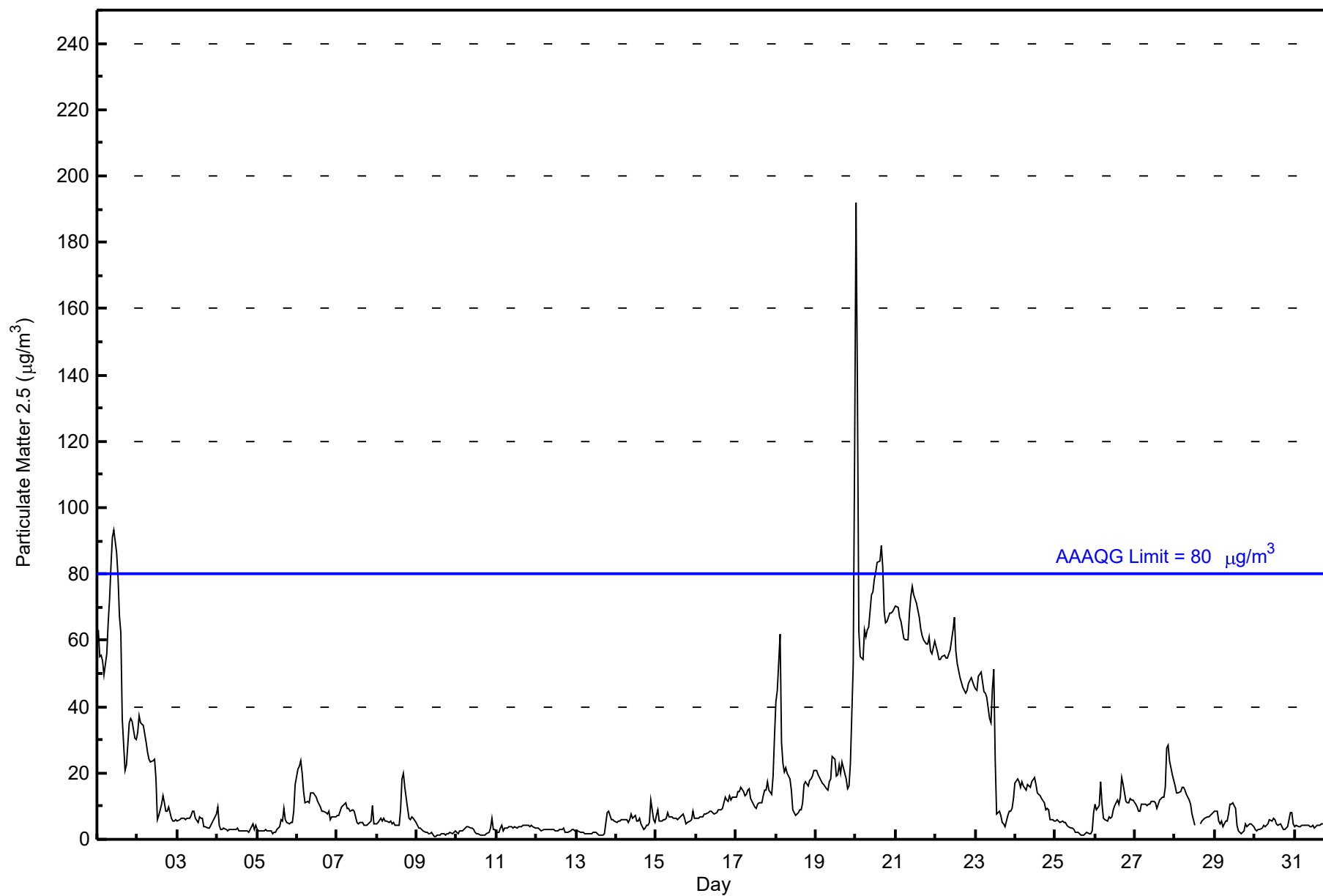
Patricia McInnes - July 2026

Number of Exceedances (AAAQO): 1-hr: 12 24-hr: 4																				Hours in Service: 744						
Maximum Value: 192.1 µg/m³ on Jul 20 01:00																				Maximum Daily Average: 77.9 µg/m³ on Jul 20		Hours of Data: 742				
Minimum Value: 1.0 µg/m³ on Jul 9 11:00																				Minimum Daily Average: 2.0 µg/m³ on Jul 9		Hours of Missing Data: 2				
Maximum Diurnal Average: 22.4 µg/m³ at hour 1																				Minimum Diurnal Average: 12.4 µg/m³ at hour 19		Hours of Calibration: 2				
Monthly Average: 15.98 µg/m³																				Percentiles: P ₁ = 1.3 P ₁₀ = 2.5 Q ₁ = 4.0 Median = 7.0 Q ₃ = 16.1 P ₉₀ = 54.2 P ₉₉ = 83.7		Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	63.1	55.1	55.4	53.8	49.7	56.0	65.3	72.3	82.8	91.1	93.3	86.6	79.0	67.4	62.4	36.6	20.6	22.4	28.7	35.3	36.5	35.4	30.5	29.9	54.6	93.3
2-Jul	32.4	37.4	35.0	34.2	32.0	29.3	26.3	24.2	23.3	23.6	23.9	18.3	6.0	7.2	10.5	13.1	10.9	8.6	8.3	9.6	6.4	5.6	5.7	5.7	18.2	37.4
3-Jul	5.4	6.1	6.4	6.5	6.5	6.1	6.2	6.5	7.1	8.4	8.4	6.5	5.1	6.6	6.3	6.3	3.8	3.7	3.5	3.3	4.0	4.9	6.1	7.6	5.9	8.4
4-Jul	9.7	4.1	3.2	3.0	3.2	2.9	2.6	2.8	3.1	3.1	2.8	2.9	3.3	2.6	2.7	2.5	2.4	2.5	2.5	2.1	3.1	4.5	3.0	4.1	3.3	9.7
5-Jul	2.9	2.5	2.5	2.6	2.7	2.9	2.6	2.6	2.6	1.9	2.2	2.1	2.8	4.0	6.0	5.6	9.2	6.1	5.0	4.7	5.0	5.0	8.6	16.4	4.5	16.4
6-Jul	21.0	22.2	23.8	19.7	14.5	11.2	11.4	11.0	14.1	14.1	13.8	12.8	11.5	10.6	9.9	8.3	8.6	8.2	7.6	8.4	6.1	6.6	6.8	7.0	12.1	23.8
7-Jul	7.1	7.1	8.4	9.6	10.5	10.9	9.5	9.3	8.3	8.8	8.6	6.8	5.0	4.8	5.2	5.1	4.3	4.3	4.1	4.5	5.5	10.2	4.8	4.5	7.0	10.9
8-Jul	4.5	5.1	6.2	5.7	6.3	5.6	5.5	5.3	5.6	4.5	4.9	4.4	4.4	4.4	8.7	18.4	19.8	15.8	9.3	6.3	6.0	6.7	6.4	5.2	7.3	19.8
9-Jul	4.1	3.5	3.2	2.8	2.7	2.2	2.0	1.7	1.6	2.2	1.0	1.0	1.2	1.1	1.3	1.5	1.6	1.4	1.8	1.7	2.3	1.8	2.1	2.7	2.0	4.1
10-Jul	2.2	1.9	2.4	2.6	2.8	3.4	3.7	3.8	3.5	3.2	2.8	2.2	1.6	1.5	1.3	1.2	1.3	1.2	1.7	2.2	3.5	6.2	2.9	2.8	2.6	6.2
11-Jul	2.1	2.0	3.2	4.1	2.6	3.4	3.5	3.6	3.8	3.7	3.5	3.6	3.4	3.7	3.8	3.7	4.1	4.3	4.3	4.1	3.8	4.2	3.7	3.5	3.6	4.3
12-Jul	3.3	3.4	2.9	2.4	2.8	2.9	2.8	3.0	3.1	3.0	2.9	2.6	2.4	2.7	3.0	2.9	3.4	2.1	1.9	2.2	2.6	2.8	2.8	2.7	2.8	3.4
13-Jul	2.5	2.5	2.3	2.1	2.2	1.9	1.6	1.6	1.7	1.9	2.1	2.1	1.9	1.5	1.4	1.4	1.4	1.6	8.2	8.6	7.1	6.0	6.1	5.6	3.2	8.6
14-Jul	5.2	5.4	5.6	5.8	6.0	6.1	5.8	5.1	6.1	7.5	6.3	7.2	5.4	5.7	6.4	4.5	2.9	3.4	4.1	4.3	5.3	12.0	5.7	5.1	5.7	12.0
15-Jul	7.1	9.0	5.4	5.5	5.8	6.1	6.3	7.8	6.8	6.6	6.5	6.4	6.1	6.1	6.8	7.1	7.7	6.4	4.7	5.0	5.6	5.9	8.6	6.2	6.5	9.0
16-Jul	6.4	6.4	6.9	6.8	6.9	7.5	7.5	7.9	8.6	8.5	8.1	7.8	8.2	9.0	8.8	8.8	9.1	12.6	11.7	11.5	13.1	12.0	12.6	12.7	9.2	13.1
17-Jul	12.9	14.4	14.3	15.7	14.3	13.2	13.6	14.7	15.4	12.2	10.8	9.9	9.3	10.4	10.9	11.1	13.1	15.0	15.0	17.4	15.0	13.7	19.1	30.8	14.3	30.8
18-Jul	41.6	44.7	61.7	29.4	23.0	20.4	21.8	19.8	18.4	14.9	8.9	7.9	7.4	8.0	8.7	8.8	10.9	16.7	17.4	16.3	17.9	18.3	18.9	20.8	20.1	61.7
19-Jul	20.7	19.6	18.5	17.7	17.0	16.7	15.1	14.8	17.3	18.2	24.8	24.2	19.2	19.4	22.4	20.1	23.5	19.8	18.1	15.3	16.0	23.0	52.6	116.1	24.6	116.1
20-Jul	192.1	135.0	62.6	54.9	54.2	63.2	61.0	62.9	64.0	73.7	74.5	78.4	80.6	83.3	83.9	88.6	82.1	68.8	65.4	65.8	68.3	68.4	68.7	69.6	77.9	192.1
21-Jul	70.3	69.8	67.0	65.8	63.0	60.4	60.0	60.1	68.1	73.2	76.4	73.8	71.3	69.3	66.9	63.4	61.6	60.3	58.8	58.8	60.9	56.6	55.8	59.5	64.6	76.4
22-Jul	58.2	56.3	54.2	54.3	55.2	55.4	54.7	54.6	56.1	57.3	63.0	67.1	56.9	52.8	50.9	48.7	45.8	44.8	43.9	44.8	46.8	48.6	47.5	46.3	52.7	67.1
23-Jul	45.5	45.0	49.0	50.5	47.6	44.6	44.1	42.8	36.5	35.3	45.4	51.4	24.3	7.5	8.6	7.4	5.1	4.5	3.8	7.1	8.6	8.5	9.2	12.4	26.9	51.4
24-Jul	16.9	18.4	17.5	15.8	17.4	16.1	14.7	16.5	16.3	15.5	17.4	18.8	16.4	14.0	13.4	13.3	12.4	10.9	8.8	9.3	8.9	6.0	6.0	5.6	13.6	18.8
25-Jul	5.7	5.8	5.4	5.2	5.4	5.2	5.1	4.4	3.9	3.3	3.2	2.9	2.0	2.1	2.3	1.3	1.2	1.2	1.5	2.2	1.8	1.8	2.4	8.3	3.5	8.3
26-Jul	10.5	9.0	10.1	17.3	10.5	6.5	5.7	5.6	6.6	6.5	6.9	8.9	10.4	11.7	10.5	12.6	18.5	16.3	11.2	11.0	11.0	12.5	11.8	11.8	10.6	18.5
27-Jul	10.4	9.6	8.6	8.5	10.5	10.7	10.6	10.3	10.4	10.7	11.4	11.6	10.8	9.1	10.5	11.8	12.8	12.8	15.5	27.6	28.6	23.8	19.6	17.6	13.5	28.6
28-Jul	16.1	14.1	14.0	14.5	15.7	15.8	15.0	13.6	11.9	10.8	7.8	6.0	4.1	C	C	4.7	5.6	5.8	6.5	6.8	6.6	7.3	7.4	7.8	9.9	16.1
29-Jul	8.5	8.6	5.3	4.9	5.6	4.0	5.7	5.5	7.4	10.8	10.6	11.0	9.4	4.2	2.6	2.0	1.6	2.4	4.5	3.6	4.1	4.6	4.5	3.8	5.6	11.0
30-Jul	2.8	2.7	2.9	3.1	3.5	4.2	3.8	4.4	4.6	5.7	5.7	6.3	5.9	4.8	4.3	4.6	4.0	3.1	3.1	3.2	4.0	7.9	8.0	4.5	4.5	8.0
31-Jul	4.0	4.2	3.8	3.9	4.1	4.3	4.4	4.4	4.1	3.7	3.6	4.3	3.4	4.4	4.4	4.4	4.8	4.8	4.7	4.9	5.1	5.0	4.7	4.9	4.3	5.1
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration																										
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 µg/m³ 24-hr 29 µg/m³																										



Wood Buffalo Environmental Association
Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Patricia McInnes - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Number of Hours	%	Cumulative %
0 - 5	280	37.74	37.74
6 - 15	270	36.39	74.12
16 - 25	70	9.43	83.56
26 - 80	110	14.82	98.38
> 81.0	12	1.62	100.00

Total Number of Valid Hours: 742

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Patricia McInnes - July 2026

Concentration Ranges (µg/m³)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	1	0	2	0	3	16	25	14	16	41	49	59	27	15	5	7	280
6 - 15	31	4	4	3	9	29	40	15	16	19	16	21	26	13	12	12	270
16 - 25	3	1	0	0	1	15	7	4	1	5	6	5	3	5	5	9	70
26 - 80	2	0	0	0	1	15	14	10	16	12	13	4	2	1	7	13	110
> 81.0	3	0	0	0	0	4	0	0	0	0	0	0	0	1	4	0	12
Totals	40	5	6	3	14	79	86	43	49	77	84	89	58	35	33	41	742

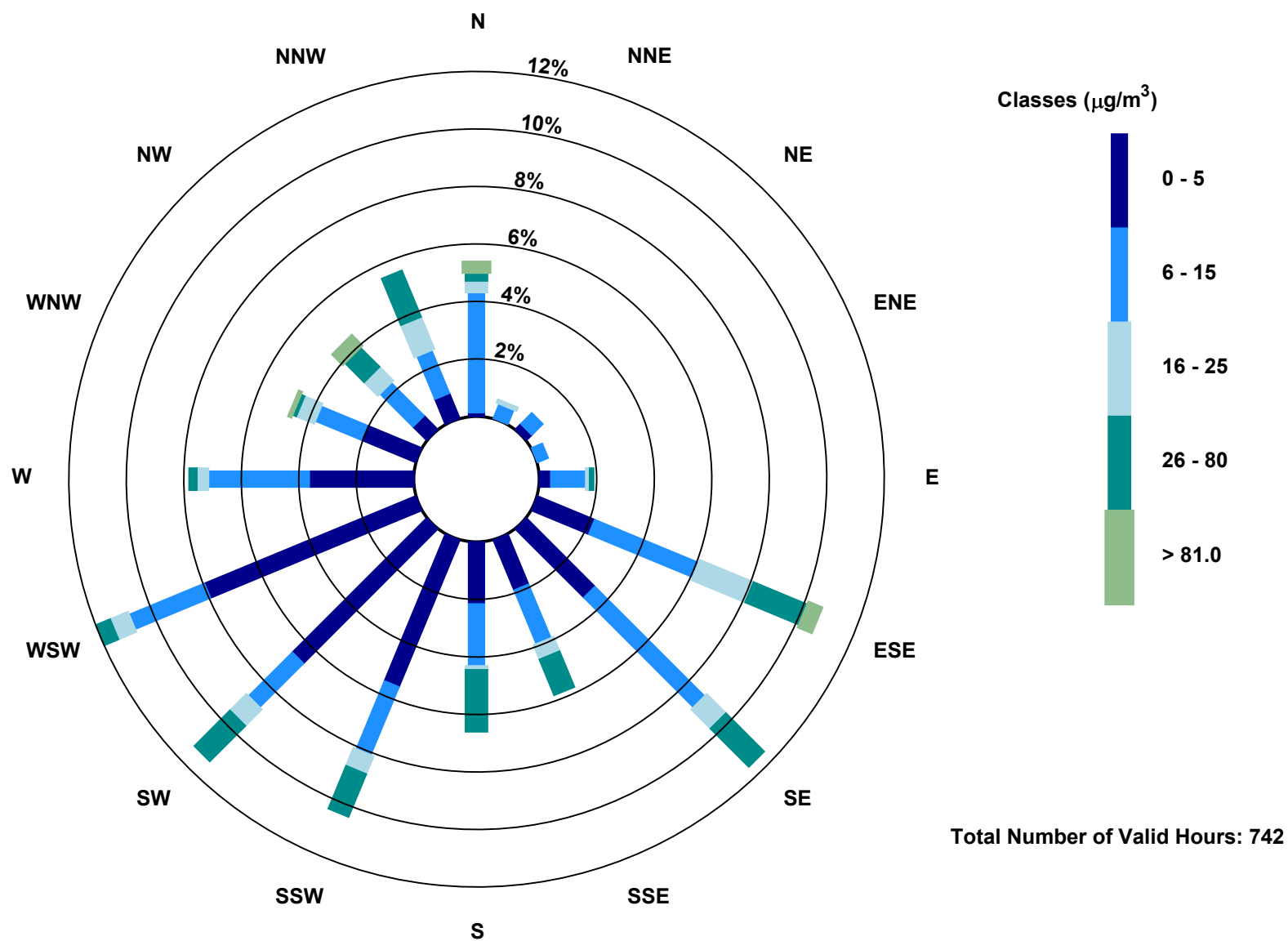
Total Number of Valid Hours: 742

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Patricia McInnes





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

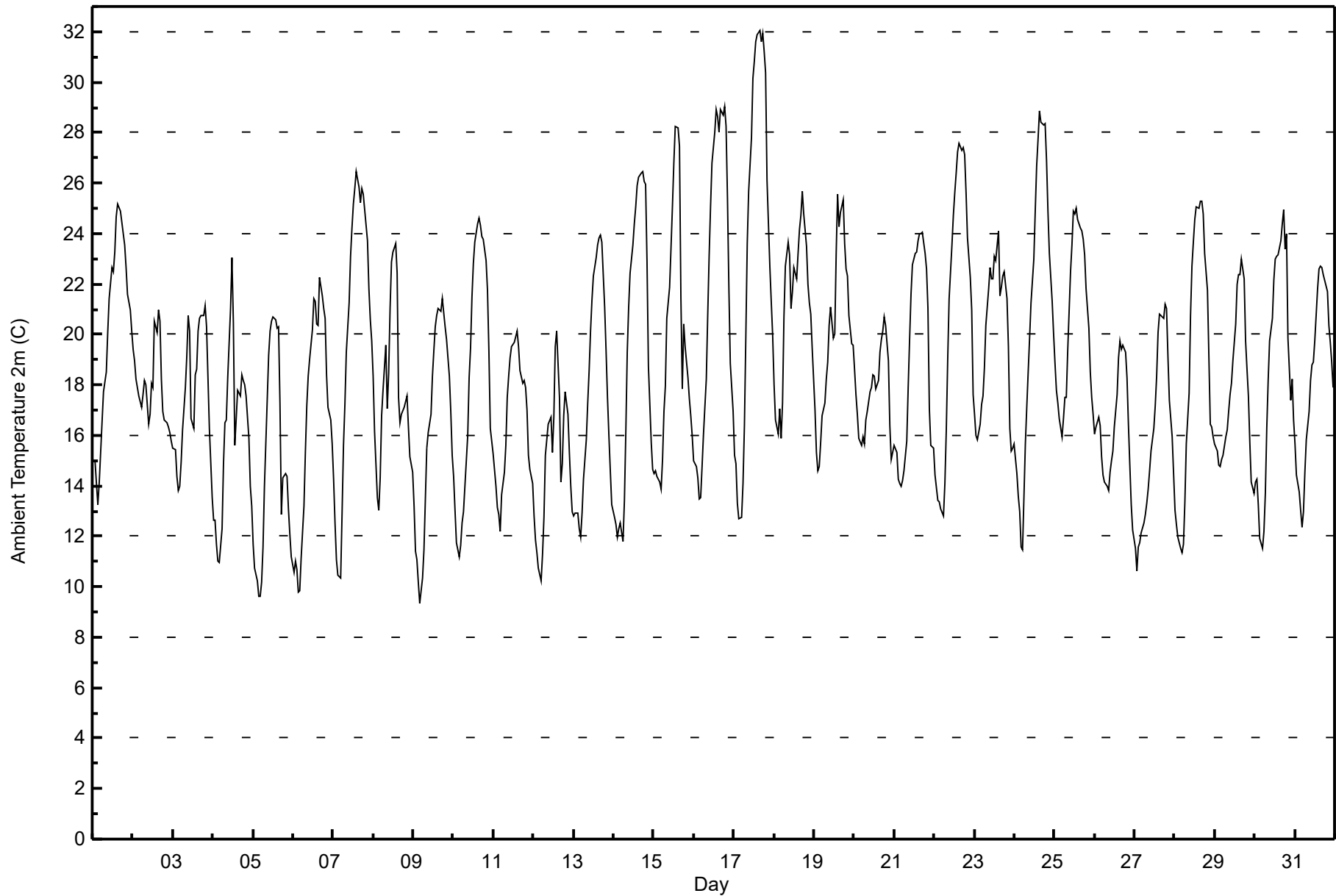
Patricia McInnes - July 2026

Maximum Value: 32.1 C on Jul 17 16:00																				Maximum Daily Average: 23.7 C on Jul 17					Hours in Service: 744	
Minimum Value: 9.4 C on Jul 9 05:00																				Minimum Daily Average: 14.8 C on Jul 5					Hours of Data: 744	
Maximum Diurnal Average: 23.2 C at hour 15																				Minimum Diurnal Average: 13.1 C at hour 5					Hours of Missing Data: 0	
Monthly Average: 18.57 C																				Percentiles: P ₁ = 10.2 P ₁₀ = 12.9 Q ₁ = 15.2 Median = 18.1 Q ₃ = 21.8 P ₉₀ = 24.8 P ₉₉ = 30.3					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																				Daily Average	Daily Maximum				
1-Jul	15.0	15.0	14.1	13.3	14.2	16.5	17.7	18.1	18.5	20.1	21.4	22.6	22.5	23.3	24.7	25.2	24.9	24.4	24.0	23.5	22.6	21.6	20.9	20.1	20.2	25.2
2-Jul	19.4	19.0	18.2	17.6	17.3	17.1	17.6	18.2	18.0	16.4	16.8	18.0	17.9	20.5	20.1	21.0	20.5	18.2	16.9	16.6	16.5	16.3	16.1	15.7	17.9	21.0
3-Jul	15.5	15.4	14.4	13.8	14.0	14.9	16.2	17.9	19.1	20.7	20.1	16.7	16.3	18.4	18.6	20.1	20.7	20.8	20.8	21.1	20.3	18.3	16.3	13.5	17.7	21.1
4-Jul	12.6	12.6	11.7	11.0	10.9	12.3	14.9	16.5	16.6	18.3	21.1	23.1	20.5	15.6	16.7	17.8	17.6	18.4	18.2	18.0	17.6	15.9	14.0	13.2	16.0	23.1
5-Jul	11.7	10.7	10.2	9.6	9.6	10.2	11.6	14.0	17.4	19.2	20.2	20.5	20.7	20.6	20.2	20.3	17.3	12.9	14.3	14.5	14.4	13.1	12.1	11.2	14.8	20.7
6-Jul	10.6	11.0	10.7	9.8	9.8	11.2	13.2	15.3	17.2	18.3	19.0	20.2	21.4	21.3	20.4	20.3	22.3	21.5	21.0	20.6	18.4	17.1	16.6	15.7	16.8	22.3
7-Jul	14.3	12.5	11.0	10.4	10.3	12.9	15.6	17.2	19.3	21.2	23.1	24.2	25.2	25.8	26.4	25.8	25.2	25.8	25.6	25.0	23.7	21.8	20.6	19.8	20.1	26.4
8-Jul	18.4	16.2	13.5	13.0	14.3	16.8	17.8	19.6	17.0	18.5	21.1	22.9	23.2	23.6	22.4	17.5	16.5	16.8	17.1	17.4	17.6	16.3	15.1	14.6	17.8	23.6
9-Jul	13.2	11.4	11.1	10.2	9.4	10.4	11.5	13.5	15.5	16.1	16.8	18.3	19.4	20.3	20.7	21.0	20.9	21.4	20.8	20.3	19.8	18.3	17.0	15.2	16.4	21.4
10-Jul	14.4	13.0	11.8	11.2	11.6	12.5	13.0	14.0	16.0	18.3	19.5	21.5	22.8	23.7	24.4	24.6	24.3	23.9	23.8	22.9	21.7	19.4	16.3	15.8	18.4	24.6
11-Jul	15.3	14.0	13.1	12.9	12.2	13.6	14.6	15.6	17.5	18.4	19.1	19.5	19.7	19.9	20.1	19.5	18.6	18.1	18.2	17.9	17.0	15.2	14.7	14.1	16.6	20.1
12-Jul	12.8	11.9	11.3	10.7	10.2	11.3	12.8	15.2	15.8	16.5	16.7	15.3	16.8	19.5	20.1	17.5	14.2	14.9	16.8	17.7	16.8	15.3	14.0	13.0	14.9	20.1
13-Jul	12.8	12.9	12.9	12.3	12.0	12.9	14.3	15.8	17.3	18.6	20.2	21.3	22.3	23.1	23.5	23.9	23.9	23.6	21.1	19.3	17.5	16.0	14.6	13.3	17.7	23.9
14-Jul	12.7	12.5	12.0	12.3	12.5	11.8	13.5	16.2	19.3	21.1	22.4	23.5	24.4	25.0	25.9	26.2	26.4	26.5	26.1	26.0	22.9	18.7	15.7	14.6	19.5	26.5
15-Jul	14.5	14.6	14.4	14.1	13.9	15.1	16.9	18.0	20.6	21.9	23.4	25.1	26.8	28.3	28.2	27.4	21.5	17.9	20.4	19.5	18.3	17.5	16.8	16.0	19.6	28.3
16-Jul	15.0	14.8	14.3	13.5	13.5	14.8	16.1	18.2	20.8	23.1	25.0	26.8	28.0	28.9	28.6	28.0	28.9	28.7	29.0	28.2	25.4	21.8	18.8	16.9	22.0	29.0
17-Jul	15.2	14.9	13.3	12.7	12.8	14.1	16.4	19.9	23.6	25.7	27.8	30.2	30.8	31.6	31.9	32.1	31.6	31.9	31.2	30.4	26.1	22.7	21.3	20.0	23.7	32.1
18-Jul	18.0	16.6	16.0	17.1	15.9	17.3	20.7	22.7	23.7	23.2	21.0	21.7	22.6	22.2	23.2	24.2	24.7	25.7	24.8	23.5	22.0	21.3	20.8	19.5	21.2	25.7
19-Jul	17.0	15.3	14.6	14.8	15.7	16.8	17.3	18.2	18.9	20.3	21.1	19.8	20.0	23.2	25.5	24.3	24.8	25.4	23.6	22.6	22.3	20.7	19.6	19.6	20.1	25.5
20-Jul	18.6	17.6	16.9	15.9	15.6	15.9	15.7	16.6	17.0	17.7	17.9	18.4	18.3	17.9	18.2	19.3	19.8	20.1	20.7	20.3	19.0	16.4	15.1	15.3	17.7	20.7
21-Jul	15.6	15.3	14.3	14.1	14.0	14.2	14.6	15.8	17.9	19.8	21.6	22.8	23.2	23.3	23.7	24.0	24.0	24.1	23.2	22.6	21.0	17.1	15.6	15.5	19.1	24.1
22-Jul	14.4	13.9	13.4	13.4	13.1	12.8	14.1	16.2	19.0	21.4	23.5	24.7	25.6	26.4	27.3	27.6	27.3	27.4	27.1	25.6	23.8	22.3	21.0	17.6	20.8	27.6
23-Jul	16.8	16.0	15.8	16.4	17.3	17.6	18.7	20.4	21.8	22.7	22.2	22.2	23.1	22.9	24.1	21.5	21.9	22.3	22.5	21.4	19.5	16.3	15.4	15.5	19.8	24.1
24-Jul	15.7	14.5	13.6	13.0	11.6	11.5	15.7	17.1	18.5	19.8	21.2	23.0	24.9	26.7	27.7	28.9	28.4	28.3	28.4	26.9	24.9	23.2	21.3	20.0	21.0	28.9
25-Jul	18.9	17.8	17.3	16.7	15.9	16.6	17.5	17.5	19.4	22.5	23.6	24.9	24.8	25.0	24.5	24.2	24.1	23.7	23.1	21.8	20.2	18.5	17.5	16.9	20.5	25.0
26-Jul	16.1	16.3	16.7	16.4	15.2	14.4	14.2	14.0	13.8	14.5	15.0	15.4	16.4	17.6	19.1	19.7	19.4	19.6	19.3	18.3	16.4	14.8	13.3	12.2	16.2	19.7
27-Jul	11.5	10.6	11.6	11.8	12.1	12.5	12.9	13.3	13.9	14.6	15.4	16.3	17.2	18.4	20.1	20.8	20.7	20.7	21.2	21.0	19.1	17.4	15.9	14.5	16.0	21.2
28-Jul	13.0	12.5	12.0	11.5	11.3	11.7	13.4	15.7	17.7	20.8	22.7	23.7	24.5	25.1	25.0	25.3	25.3	24.8	23.2	21.8	19.1	16.5	16.3	16.0	18.7	25.3
29-Jul	15.7	15.4	14.8	14.8	15.0	15.2	15.9	16.2	16.9	17.6	18.1	19.0	20.4	22.0	22.4	22.4	23.0	22.2	19.7	18.6	17.5	15.7	14.2	13.7	17.8	23.0
30-Jul	14.2	14.2	13.3	11.9	11.5	12.2	13.7	16.3	18.2	19.8	20.6	22.1	23.0	23.1	23.1	23.7	24.4	24.9	23.4	24.0	19.8	17.4	18.2	16.6	18.7	24.9
31-Jul	15.7	14.4	13.8	13.1	12.3	13.0	14.5	15.8	17.0	18.2	18.8	18.9	19.7	21.8	22.6	22.7	22.7	22.4	22.2	21.7	20.4	19.7	18.9	17.9	18.3	22.7
Diurnal Average																										
Diurnal Maximum																										



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Patricia McInnes - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	5	0.67	0.67
10 - 20	459	61.69	62.37
> 20	280	37.63	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

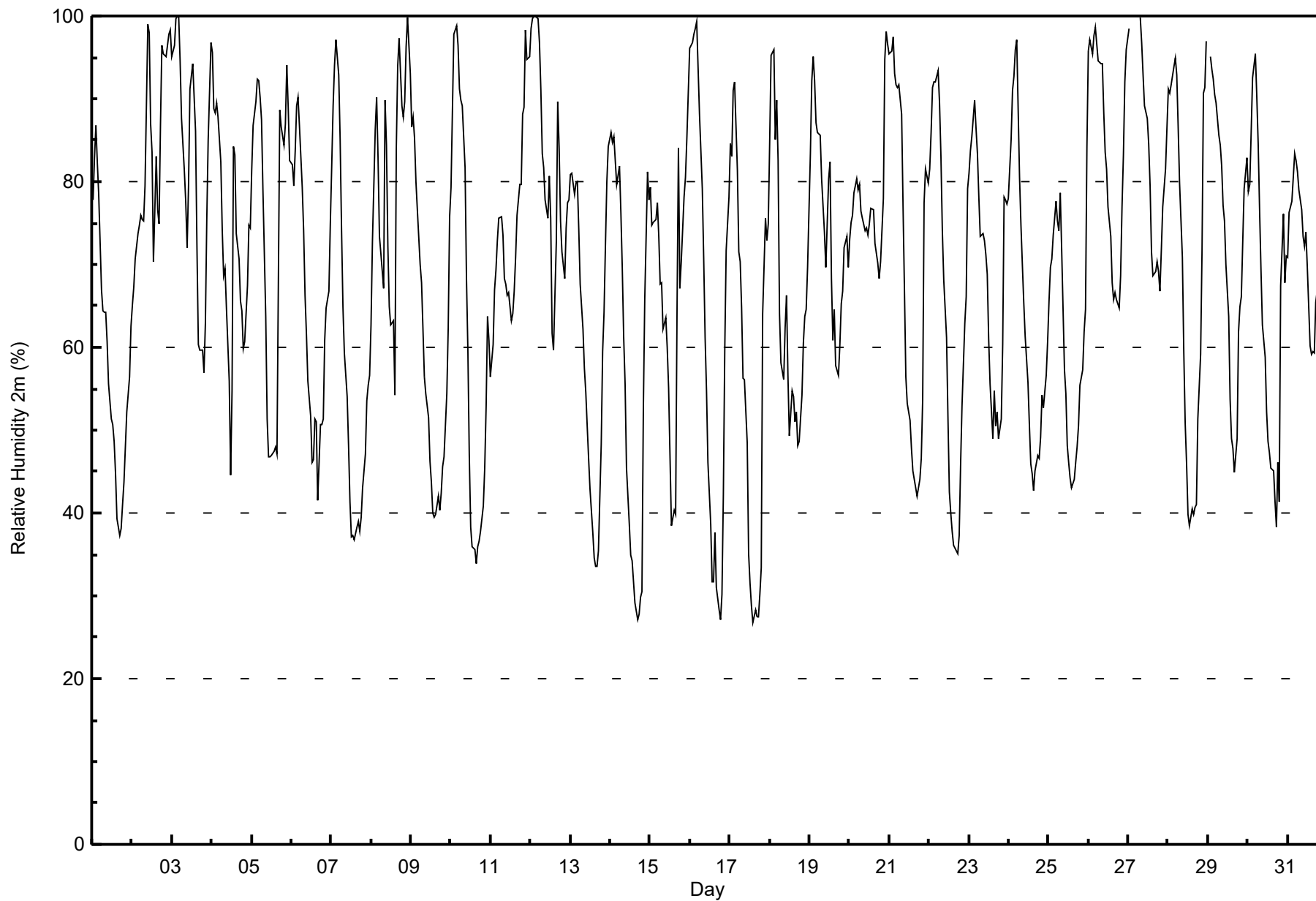
Patricia McInnes - July 2026

Maximum Value: 100.0 % on Jul 3 04:00																				Maximum Daily Average: 84.0 % on Jul 26				Hours in Service: 744			
Minimum Value: 26.7 % on Jul 17 15:00																				Minimum Daily Average: 56.5 % on Jul 17				Hours of Data: 737			
Maximum Diurnal Average: 88.2 % at hour 4																				Minimum Diurnal Average: 51.6 % at hour 15				Hours of Missing Data: 7			
Monthly Average: 69.06 %																				Percentiles: P ₁ = 28.5 P ₁₀ = 41.8 Q ₁ = 54.6 Median = 71.6 Q ₃ = 83.8 P ₉₀ = 93.0 P ₉₉ = 99.6				Hours of Calibration: 0			
																				Percent Operational Time: 99.1							
Day	Hourly Period Ending At (MST)																				Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			21	22	23	24	
1-Jul	77.7	82.8	86.7	82.4	78.5	67.0	64.4	64.2	64.2	60.8	55.5	51.3	50.7	48.7	44.7	39.3	37.2	38.1	41.1	43.8	48.0	52.2	56.4	62.6	58.3	86.7	
2-Jul	65.1	67.4	70.8	73.8	74.7	76.0	75.4	75.3	79.5	99.1	98.0	87.0	83.5	70.4	83.0	76.7	75.0	86.8	96.5	95.4	95.1	96.4	97.7	98.3	83.2	99.1	
3-Jul	95.0	96.5	99.7	100.0	99.8	94.5	87.6	81.3	77.6	72.1	79.4	91.2	94.2	90.2	86.2	72.1	60.4	59.6	59.7	57.0	62.8	75.4	85.1	96.7	82.3	100.0	
4-Jul	95.5	88.9	88.3	89.4	87.8	82.4	74.2	68.6	69.5	64.7	56.0	44.7	54.7	84.2	83.3	73.7	70.6	65.5	64.4	59.9	60.7	67.5	74.7	74.5	72.7	95.5	
5-Jul	81.4	86.7	89.6	92.4	92.2	90.1	87.5	79.0	63.7	51.4	46.7	46.8	47.0	47.5	48.0	47.1	67.9	88.7	86.6	84.5	87.0	94.1	88.9	82.6	74.1	94.1	
6-Jul	82.0	79.5	83.8	89.2	90.3	86.8	79.3	74.1	66.2	61.5	55.9	51.7	46.1	46.4	51.3	51.1	41.6	50.6	50.7	51.4	60.8	64.7	66.8	74.9	64.9	90.3	
7-Jul	81.8	89.2	94.1	97.2	92.9	85.1	74.2	64.9	59.3	54.1	48.2	41.4	37.1	37.3	36.8	38.4	39.0	37.7	39.5	43.1	47.1	53.6	55.5	56.7	58.5	97.2	
8-Jul	62.7	72.8	86.3	90.2	82.8	73.3	71.4	67.2	89.9	84.4	72.2	64.9	62.7	63.3	54.3	83.9	93.9	97.3	89.1	87.8	89.7	96.4	99.8	93.0	80.4	99.8	
9-Jul	86.6	87.8	85.2	80.0	76.5	70.1	67.7	62.2	56.4	54.4	51.4	46.3	43.8	40.1	39.6	39.8	42.0	40.4	42.4	45.6	46.7	54.4	62.4	75.7	58.2	87.8	
10-Jul	79.4	88.6	97.8	98.8	96.4	91.3	89.9	89.2	81.6	68.3	59.7	47.0	38.3	35.9	35.5	34.0	36.0	36.7	37.8	40.9	45.4	52.9	63.7	60.8	62.7	98.8	
11-Jul	56.5	60.3	66.9	69.3	72.8	75.6	75.8	73.6	68.4	67.6	66.2	66.7	63.2	64.1	66.8	70.9	76.0	79.6	79.7	88.2	88.9	98.2	94.8	95.1	74.4	98.2	
12-Jul	98.5	99.7	100.0	100.0	99.6	96.8	91.1	83.4	81.6	77.7	75.6	80.7	75.6	61.8	59.7	72.6	89.7	84.1	75.2	71.6	68.3	74.4	77.4	77.8	82.2	100.0	
13-Jul	80.9	81.0	78.5	79.8	79.9	74.2	67.6	62.2	57.5	54.6	50.5	46.7	42.9	37.7	34.6	33.6	33.5	35.4	48.3	59.4	64.2	72.4	79.9	84.2	60.0	84.2	
14-Jul	85.9	84.7	85.4	82.6	79.7	81.9	76.2	69.5	61.3	55.5	45.5	38.7	34.9	34.2	31.6	29.2	27.2	27.8	29.9	30.4	52.5	65.8	81.2	77.8	57.1	85.9	
15-Jul	79.3	74.7	75.0	75.4	77.5	73.4	67.7	67.8	62.1	63.6	60.0	55.1	46.7	38.5	40.3	39.8	64.5	84.0	67.1	70.4	78.2	80.4	85.2	90.8	67.4	90.8	
16-Jul	96.2	96.9	97.8	98.5	99.3	93.7	88.2	79.2	70.7	61.2	54.7	46.0	38.7	31.7	31.7	37.7	31.0	28.2	27.2	30.2	42.1	59.7	71.6	78.2	62.1	99.3	
17-Jul	84.7	83.1	91.0	92.0	81.4	71.6	70.4	64.7	56.3	56.2	48.5	35.1	31.5	28.8	26.7	28.3	27.5	27.5	30.1	33.4	64.1	75.6	72.9	74.9	56.5	92.0	
18-Jul	84.8	95.3	96.0	85.1	89.9	82.6	64.0	58.1	56.1	62.3	66.3	56.6	49.3	54.7	54.0	51.0	52.3	48.1	48.6	54.2	60.6	63.7	64.6	69.6	65.3	96.0	
19-Jul	83.5	92.2	95.0	92.2	87.0	86.0	85.6	80.4	77.2	74.0	69.7	80.3	82.4	68.3	60.9	64.5	57.8	56.6	60.4	65.3	66.8	72.0	73.4	69.7	75.1	95.0	
20-Jul	73.1	75.0	75.9	78.7	80.3	79.0	79.6	76.5	75.6	74.1	74.5	73.5	74.9	76.7	76.6	72.6	71.4	70.1	68.3	70.3	78.0	94.7	98.2	96.7	77.7	98.2	
21-Jul	95.5	95.7	97.4	93.0	91.7	91.4	91.7	88.2	77.2	67.0	56.4	53.3	51.2	47.8	45.1	44.1	43.0	42.1	44.1	46.6	53.8	77.5	81.5	79.8	69.0	97.4	
22-Jul	81.6	86.0	91.3	92.1	92.1	93.4	89.6	83.1	74.0	68.2	61.3	51.5	42.6	39.9	37.8	36.0	35.4	35.1	37.3	45.8	52.8	62.9	66.1	79.2	64.0	93.4	
23-Jul	81.1	83.8	85.4	89.8	86.4	83.3	78.1	73.4	73.8	72.9	71.2	68.8	61.0	55.6	48.9	54.7	50.5	52.1	49.0	51.3	60.3	78.2	77.7	77.3	69.4	89.8	
24-Jul	77.9	85.1	91.1	92.8	95.9	97.1	80.5	74.7	70.0	65.4	61.4	55.8	50.7	46.0	44.7	42.6	45.0	46.9	46.6	49.2	54.2	52.7	56.6	60.7	64.3	97.1	
25-Jul	65.5	69.7	70.6	73.6	77.6	75.3	74.0	78.7	71.8	57.3	54.4	48.1	46.1	44.3	43.1	44.0	46.0	47.9	50.5	55.5	57.3	61.8	64.6	84.3	60.9	84.3	
26-Jul	95.7	97.1	95.5	97.7	98.6	96.6	94.6	94.3	94.2	88.3	83.6	81.5	77.0	73.4	67.8	65.7	66.5	65.7	64.8	68.7	76.9	83.2	92.0	95.9	84.0	98.6	
27-Jul	98.4	OR	OR	OR	OR	OR	OR	99.8	96.8	92.9	89.2	87.6	84.5	79.5	71.5	68.6	69.1	70.3	69.1	66.8	71.7	77.0	81.5	86.5	81.2	99.8	
28-Jul	91.1	90.7	91.7	93.9	95.0	92.9	86.6	79.8	70.8	59.4	50.9	46.0	39.9	38.5	40.4	39.8	40.7	41.1	51.3	59.2	71.6	90.6	91.3	96.9	68.8	96.9	
29-Jul	OR	95.1	93.5	92.3	90.4	89.5	85.6	84.4	81.8	77.1	75.3	69.9	63.7	53.7	49.1	47.8	45.0	48.9	61.9	64.9	66.1	72.6	79.2	82.9	72.6	95.1	
30-Jul	78.9	79.6	85.9	92.6	95.5	90.4	84.5	76.7	69.3	62.7	58.9	52.2	48.6	47.3	45.5	45.1	41.4	38.3	46.2	41.3	67.4	76.0	67.8	70.9	65.1	95.5	
31-Jul	70.9	76.2	77.7	80.6	83.4	82.5	81.2	79.0	76.7	73.4	72.2	73.8	69.7	60.2	59.2	59.5	59.3	65.4	66.8	66.3	72.5	73.8	75.1	78.9	72.3	83.4	
Diurnal Average																											
Diurnal Maximum																											
OR - Out of Range																											



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Patricia McInnes - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Patricia McInnes - July 2026

Maximum Speed: 28 km/h on Jul 18 12:00														Maximum Daily Speed Average: 15.5 km/h on Jul 29														Hours in Service: 744	
Minimum Speed Value: 0 km/h on Jul 18 05:00														Minimum Daily Speed Average: 1.6 km/h on Jul 17														Hours of Data: 744	
Maximum Diurnal Speed Average: 4.2 km/h at hour 14														Minimum Diurnal Speed Average: 1.6 km/h at hour 22														Hours of Missing Data: 0	
Monthly Average Velocity: 3.0 km/h 222.7 deg														Percentiles: P ₁ = 1 P ₁₀ = 3 Q ₁ = 6 Median = 8 Q ₃ = 12 P ₉₀ = 15 P ₉₉ = 23														Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
1-Jul	NNW1	E1	ESE2	ESE3	SSE1	ESE4	ESE10	ESE11	ESE14	ESE16	ESE17	ESE16	ESE16	ESE13	ESE15	SE14	SE13	SSE9	SE11	SE7	ESE5	ESE6	SE7	ESE8	ESE9.0	ESE17			
2-Jul	ESE8	SE7	ESE10	SE13	SE14	SE16	SE12	ESE10	SE13	ESE8	ESE14	SSE11	SW10	S9	ESE11	ESE12	ESE14	SE14	SE11	SE10	SE7	SE9	SE10	SE9	SE10.2	SE16			
3-Jul	SE12	SE8	SE6	SE6	SE8	SE10	SE12	SE10	SE9	ESE11	SE7	SE8	WNW2	ESE8	ESE9	SSW5	WSW12	SW10	SW8	S7	SE7	SE6	SE4	SE4	SE6.2	WSW12			
4-Jul	SSW5	SSW6	WSW2	WSW5	SSW6	SSW7	SSW7	SSW6	S7	SSE6	SE6	ESE7	SW11	WSW6	SE5	WNW6	WNW8	SW9	WSW12	W10	SW6	SSW5	SW7	WSW11	SW5.2	WSW12			
5-Jul	SW10	WSW12	WSW8	SW7	SW7	SW7	SW10	WSW12	W15	WNW18	NW21	NW22	NNW19	NNW17	N12	N11	W12	W10	W12	W15	W9	WNW7	NW8	NW9	WNW9.3	NW22			
6-Jul	WNW8	NW6	WSW5	SW8	WSW9	WSW6	W6	W5	NW7	WNW8	WNW10	NW8	WNW9	WNW7	W10	WSW11	W5	SSW11	SW6	SSW6	W8	NW12	NW3	WNW2	W5.9	NW12			
7-Jul	WSW3	WNW4	WNW1	WNW1	WSW1	ESE3	ESE6	SE5	ESE8	ESE7	ESE9	ESE9	ESE8	SE7	ESE11	ESE12	SE9	ESE10	ESE10	ESE11	ESE10	ESE7	SE9	SE11	ESE6.2	ESE12			
8-Jul	SE8	SE4	SE2	ESE4	ESE3	SE6	SE8	ESE4	ENE5	NE3	E11	E12	SE11	SE11	WSW16	WSW15	SSW9	S9	SW12	WSW11	WSW7	SSW3	SSW5	WSW10	S3.8	WSW16			
9-Jul	WSW12	WSW10	WSW12	WSW11	SW10	WSW16	SW13	WSW15	SW14	SW20	SW19	SW21	SSW19	SW20	SSW18	SSW16	SSW13	SSW13	SSW14	SSW8	S8	SSW8	SSW11	SSW16	SW13.4	SW21			
10-Jul	SW16	S6	SSW5	S5	SSE7	SSE8	S7	S7	SSW8	SW11	SW9	SSW11	SSW13	SW14	SW13	SW21	SW21	SW19	SW14	SSW8	SSW6	SW5	WSW7	WSW8	SSW9.8	SW21			
11-Jul	WSW9	SW5	S2	SSW4	SSW2	SSE5	S4	SSW5	S4	SSW6	SW4	SE8	SSE9	SE5	WSW2	SW3	SSE7	SE3	SSW0	WNW3	NW3	WNW7	W10	W8	SSW3.1	W10			
12-Jul	WSW6	SW10	WSW11	SW9	S6	SSW8	SSW8	SW11	SW11	SW11	WSW12	W10	ESE10	SE12	SSE12	WSW4	SSW4	S10	SSW12	SSW11	SW8	SW8	WSW11	SW14	SW7.8	SW14			
13-Jul	WSW16	W17	WSW17	WSW16	WSW15	WSW16	SW16	WSW17	WSW17	WSW18	WSW22	WSW24	WSW23	WSW23	WSW24	WSW24	WSW22	W19	NNE13	N10	N8	NNW12	SSW5	SW11	WSW14.2	WSW24			
14-Jul	W5	WSW4	SSW7	SSW6	SW12	SW9	SW9	WSW10	W13	W13	W16	W16	WNW14	W12	WSW8	WSW10	SW12	WSW10	WSW8	WSW4	NW2	SE2	WSW2	SSW2	WSW7.8	W16			
15-Jul	SSE2	SSE4	SSE4	SSE6	SSE2	SSE5	SE6	SE3	S6	SE6	SE10	ESE11	ESE10	SE15	SE15	SE14	W12	E12	ESE12	SE10	S7	SE7	SE5	NW3	SE6.1	SE15			
16-Jul	E4	S4	S5	SSW5	SSE4	SE4	SSE5	S9	SSW11	SSW13	SSW12	SSW14	WSW17	WSW15	W15	W7	N11	NE7	SE6	S4	SSW6	N2	W3	WNW4	SW4.4	WSW17			
17-Jul	NW3	W3	W4	SSW1	SSW4	SW5	SSW5	S5	SSE4	S5	WSW3	NW5	NW7	NNW6	N1	SSE7	S8	SE7	SSE6	SE5	SSE1	NNW5	NNW5	NW4	SW1.6	S8			
18-Jul	W2	NNW2	NW0	SSE4	SE0	SSE3	SE6	ESE6	SSE2	W15	SW16	ESE28	SE27	SSE12	NNE5	NNE7	NE10	SE15	ESE20	ESE17	ESE12	ESE12	E9	ESE4	SE6.4	ESE28			
19-Jul	ESE2	NNE2	NNW3	WSW6	ESE4	SW3	NNW9	N13	WNW5	WNW8	NNW6	W8	WSW10	WSW14	NW12	NNW18	N12	N17	NNW17	NNW16	NNW14	NNW8	NNW10	N10	NNW7.4	NNW18			
20-Jul	N15	N14	N14	N12	NNW12	NNW9	NW8	NNW10	NW11	NNW10	NNW9	NW9	NW10	NW11	NW12	NW9	NW6	NW6	NNW3	NNW2	SE3	W3	WSW3	SW3	NNW7.6	N15			
21-Jul	SSW1	SSW3	SSW3	WSW6	WSW4	SW4	SW8	SW10	WSW7	NNW2	S2	ESE5	SSE6	SSW8	SSW6	S8	S6	SSE6	S7	S5	S4	SW3	SW4	SW5	SSW4.3	SW10			
22-Jul	SSW5	S6	S6	SSW7	SW9	SSW6	SSW6	SSW6	S7	S7	S8	SSW10	SW11	SW10	S8	S8	SW7	SSW5	SE7	SE8	ESE8	SE6	SE6	SSE4	S6.2	SW11			
23-Jul	SSE4	S3	SSE5	S3	S7	SSE7	SSE5	SSE2	WNW6	NW8	NNW13	NNW15	NNW18	NNW18	NNW12	NNW18	NNW14	NNW15	NNW11	WNW10	WNW6	W5	W7	WNW10	NW5.9	NNW18			
24-Jul	WNW11	NW8	WNW7	W3	SW3	W4	NE2	SE5	ESE7	ESE6	ESE7	ESE10	ESE11	ESE11	E12	ESE12	ESE12	ESE12	ESE11	SW2	WSW5	WSW9	WSW9	WSW12	SE2.6	ESE12			
25-Jul	SW10	SW9	SSW5	SSW7	SSE5	SSW8	SW11	WSW9	SW6	W9	SW8	SW12	WSW16	WSW13	WSW16	WSW14	WSW15	WSW12	WSW10	WSW9	WSW9	WSW10	WNW9	NNW11	WSW9.1	WSW16			
26-Jul	NNW13	N10	N8	N13	N14	N15	N12	N13	N14	N16	N15	N14	N12	N12	N11	NNW11	NNW11	NNW13	N12	N9	N8	N9	N9	N6	N11.4	N16			
27-Jul	N5	N5	ENE6	E7	E7	ESE5	E8	SE6	ESE7	SE4	SSE3	WSW4	S4	WSW5	ENE7	ESE7	E6	ESE6	S6	SW9	SW8	SW10	SW9	SSW6	SE2.3	SW10			
28-Jul	SSW6	SW10	SW12	SW12	SW9	SSW6	S6	S6	S8	SSE7	SSE8	S8	SE8	SE10	E12	E14	E14	E12	E8	NNE8	NW11	N16	N11	NE7	SE2.8	N16			
29-Jul	SE4	SSW14	SSW14	SW20	WSW24	W22	W23	W17	W19	W22	W20	W21	W19	W21	W22	W20	W22	WNW21	NNW13	W7	W12	W13	W11	W12	W15.5	WSW24			
30-Jul	W12	WNW13	W9	WSW9	WNW2	SE4	S5	W7	W7	NW7	WNW8	NW8	NW3	WNW7	N2	NE5	WNW2	WNW5	NW6	NNW4	SSE1	S3	SSW5	SW7	W4.1	WNW13			
31-Jul	SW9	SW7	SW8	SSW7	SSW6	S6	S7	S7	S5	SSE5	SSE8	SSW4	SW4	SSE4	SE6	SE8	SE7	ESE7	ESE9	ESE7	ESE7	ESE9	SE9	SE7	SSE5.2	ESE9			
WSW3.2WSW3.6 SW3.2 SW4.0SSW3.7SSW3.7SSW3.7 SW3.7 SW3.8WSW3.8 SW3.4 SW2.7 SW3.7 SW4.2 SW2.6 SW2.7 SW3.4SSW2.6 S2.2SSW2.0 SW1.8WSW1.6 SW2.3WSW3.4																										Diurnal Average			
WSW16 W17WSW17 SW20WSW24 W22 W23WSW17 W19 W22WSW22 ESE28 SE27WSW23WSW24WSW24WSW22WNW21 ESE20 ESE17NNW14 N16 N11 SSW16																										Diurnal Maximum			
All monthly, daily, and diurnal averages have been calculated using vector methods																													



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

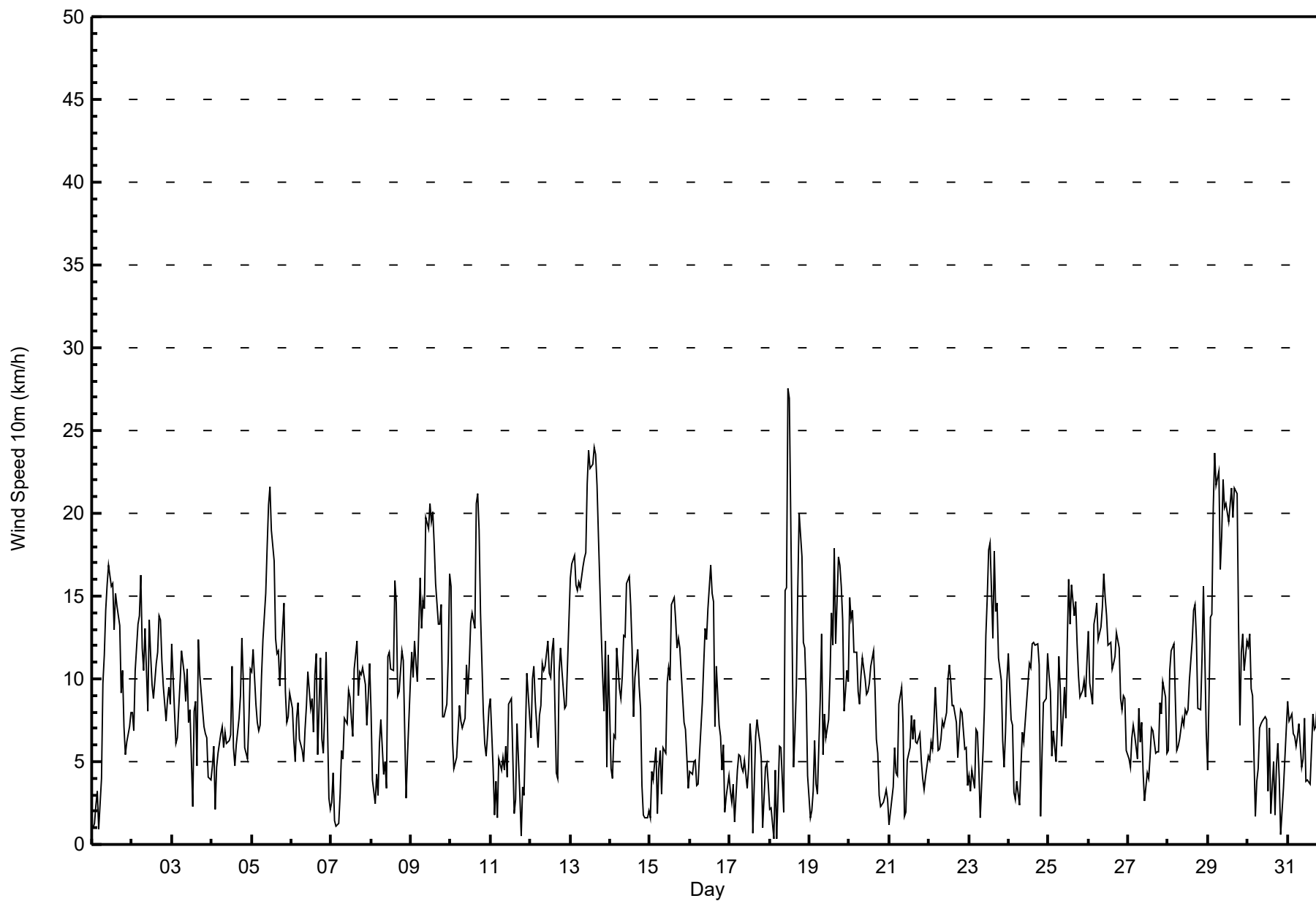
Patricia McInnes - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 16 km/h on Jul 15 17:00																	Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0								
Minimum Value: 0 km/h on Jul 21 22:00																									
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 2 Q ₃ = 3 P ₉₀ = 4 P ₉₉ = 7																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	1	1	1	1	1	2	3	3	3	3	4	4	4	3	4	3	3	3	3	2	1	1	1	2	4
2-Jul	1	2	2	3	3	4	4	3	3	4	3	5	3	3	3	3	4	3	4	3	2	2	2	4	5
3-Jul	4	2	1	1	2	2	3	2	3	3	2	4	2	4	3	3	2	3	2	2	1	1	2	1	4
4-Jul	1	1	2	3	2	1	2	2	2	2	2	3	11	6	2	3	2	4	2	3	1	1	2	2	11
5-Jul	2	2	1	2	1	2	2	2	3	5	5	5	5	4	4	4	8	5	2	2	2	2	1	1	8
6-Jul	1	1	2	2	3	3	2	2	3	4	3	3	4	5	5	4	3	4	2	2	2	3	3	2	5
7-Jul	1	1	1	1	1	2	2	1	2	2	3	3	3	3	4	3	2	2	2	2	2	1	1	2	4
8-Jul	2	2	1	1	1	2	2	3	4	2	3	3	2	3	5	5	3	3	3	2	3	1	1	2	5
9-Jul	3	1	2	2	2	3	2	3	3	5	5	6	5	5	5	5	4	4	4	2	2	2	4	9	9
10-Jul	6	4	1	1	2	2	2	2	2	3	2	4	4	4	5	4	5	5	4	3	2	1	1	1	6
11-Jul	1	2	1	1	1	1	2	2	1	2	2	5	3	3	2	2	2	1	2	2	3	3	2	1	5
12-Jul	2	2	2	3	2	2	2	3	2	2	3	4	4	3	3	9	5	3	3	3	3	2	2	2	9
13-Jul	3	3	3	3	3	3	3	4	4	5	5	5	5	6	6	5	5	4	4	2	2	3	3	2	6
14-Jul	3	1	2	2	2	3	2	3	3	3	4	4	4	4	5	4	3	3	2	2	1	1	1	1	5
15-Jul	2	1	1	1	2	1	2	3	2	2	2	3	3	5	4	4	16	7	3	3	2	2	2	4	16
16-Jul	3	2	2	2	1	1	1	3	3	3	3	4	4	4	3	2	3	3	1	1	2	3	2	1	4
17-Jul	2	2	1	2	2	1	1	1	1	2	1	2	3	3	3	3	4	2	2	1	2	1	1	1	4
18-Jul	1	1	1	2	1	1	2	2	3	5	6	10	11	7	5	2	3	6	5	4	3	2	3	1	11
19-Jul	1	1	1	3	2	3	3	3	2	2	3	3	2	3	5	4	3	4	3	3	3	2	3	2	5
20-Jul	5	3	3	4	3	3	2	2	2	2	2	2	2	2	2	3	2	2	2	1	2	1	1	2	5
21-Jul	1	2	1	2	2	1	2	2	2	2	1	3	3	3	2	3	2	2	2	2	1	0	1	1	3
22-Jul	3	1	1	3	3	2	2	2	2	2	2	3	3	4	3	3	3	2	2	1	2	2	1	1	4
23-Jul	1	1	1	5	2	2	2	1	2	3	3	3	4	4	3	8	4	3	2	3	1	1	2	1	8
24-Jul	2	1	2	2	1	2	1	2	2	2	2	3	3	3	3	3	3	2	4	2	1	1	2	2	4
25-Jul	2	2	2	2	2	2	3	4	2	3	3	4	3	3	3	3	4	3	2	1	1	1	2	2	4
26-Jul	3	2	2	3	3	3	3	3	3	4	4	3	3	3	3	3	3	3	2	2	2	2	2	1	4
27-Jul	1	1	2	2	1	2	2	2	2	1	1	2	3	3	3	3	2	1	2	2	2	2	2	1	3
28-Jul	2	2	2	3	2	1	1	2	2	2	3	3	3	3	3	3	4	3	2	2	6	4	4	4	6
29-Jul	4	4	4	5	5	5	5	5	4	4	4	5	5	4	5	5	5	5	5	1	3	2	1	2	5
30-Jul	2	2	2	3	1	1	2	3	2	3	3	3	3	2	2	3	2	3	1	1	1	1	1	2	3
31-Jul	2	2	1	1	2	1	2	2	1	1	2	1	1	1	2	2	1	2	2	2	1	2	2	1	2
Diurnal Maximum																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Patricia McInnes - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Patricia McInnes - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	182	24.46	24.46
6 - 11	363	48.79	73.25
12 - 19	170	22.85	96.10
20 - 28	29	3.90	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Patricia McInnes - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	5	2	3	1	2	13	19	24	18	25	14	16	11	11	9	9	182
6 - 11	14	2	3	2	6	46	52	17	31	38	48	35	17	20	19	13	363
12 - 19	21	1	0	0	7	18	15	2	0	14	16	30	21	3	3	19	170
20 - 28	0	0	0	0	0	2	1	0	0	0	6	8	9	1	2	0	29
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	40	5	6	3	15	79	87	43	49	77	84	89	58	35	33	41	744

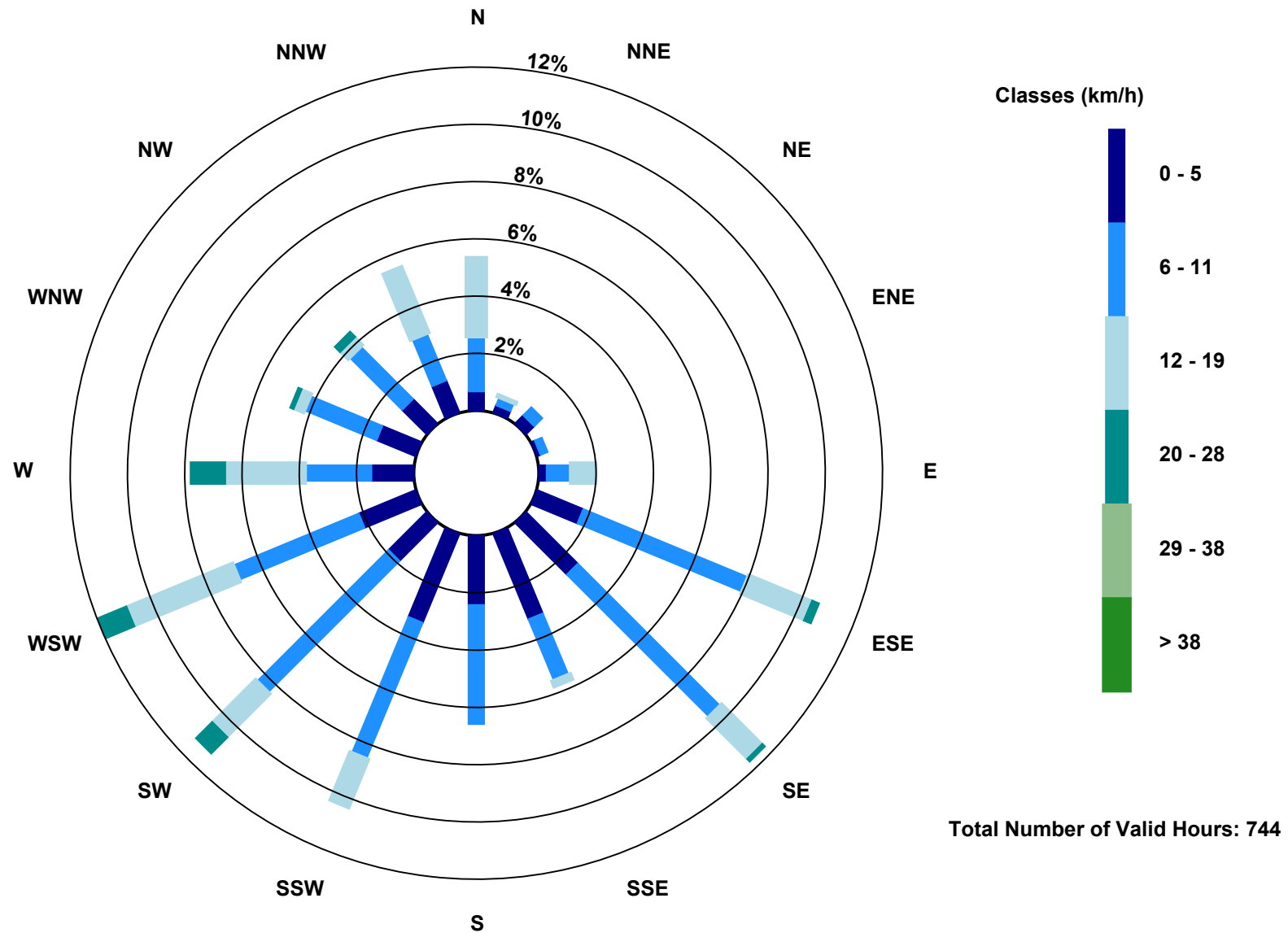
Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Patricia McInnes





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Patricia McInnes - July 2026

Direction of Maximum Speed: 114 deg on Jul 18 12:00																				Hours in Service:		744			
Direction of Maximum Daily Speed Average: 263.6 deg on Jul 29																				Hours of Data:		744			
Direction of Minimum Speed: 133 deg on Jul 18 05:00										Direction of Minimum Daily Speed Average: 1.6 deg on Jul 17										Hours of Missing Data:		0			
Monthly Average Direction: 222.7 deg																				Percent Operational Time:		100.0			
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	340	92	115	121	147	114	108	117	119	120	120	116	121	117	112	130	133	152	146	142	118	120	126	115	122.5
2-Jul	123	128	120	125	131	128	140	123	124	122	120	163	219	171	123	112	120	131	126	125	137	136	132	128	131.5
3-Jul	125	143	135	133	131	129	127	137	137	111	133	145	295	123	117	199	240	228	218	185	129	130	136	137	146.1
4-Jul	203	213	238	250	201	205	210	197	191	164	142	116	215	249	129	293	288	236	249	261	222	211	233	242	221.4
5-Jul	235	241	242	221	229	217	227	240	264	294	313	325	328	332	350	350	266	268	262	261	279	298	307	306	284.8
6-Jul	302	315	254	228	245	256	280	274	326	299	303	309	291	300	266	239	259	193	228	197	259	306	324	288	272.4
7-Jul	249	282	287	299	256	106	103	132	121	120	105	111	113	145	123	119	131	111	113	121	119	116	134	131	121.5
8-Jul	133	145	127	109	115	129	125	109	72	46	87	91	126	141	244	258	195	188	225	237	241	194	210	239	173.8
9-Jul	241	243	239	238	230	242	234	243	236	234	235	220	212	226	212	206	195	202	206	193	178	196	193	211	220.9
10-Jul	217	178	198	176	165	161	175	191	201	222	230	208	209	215	223	233	222	223	215	203	199	217	243	246	212.3
11-Jul	246	231	182	196	192	162	172	208	188	192	231	143	163	142	245	218	155	143	194	292	323	291	281	262	207.9
12-Jul	244	227	237	230	179	203	212	225	232	222	254	271	114	143	153	241	209	187	196	213	217	228	241	232	215.0
13-Jul	251	261	254	251	242	242	235	239	244	237	239	250	250	254	246	242	258	268	14	359	6	333	200	230	253.6
14-Jul	274	245	195	213	230	227	230	240	265	260	261	274	283	273	248	243	236	257	254	241	316	145	244	200	250.7
15-Jul	159	155	154	147	154	149	130	138	179	138	128	120	118	125	130	130	269	89	103	130	170	145	125	313	133.3
16-Jul	89	173	173	199	148	139	165	188	194	210	207	212	245	250	262	281	5	52	124	170	209	3	265	285	215.9
17-Jul	308	266	275	212	209	220	209	190	168	183	245	321	320	332	4	165	175	132	156	145	152	343	338	313	218.6
18-Jul	272	338	325	152	133	158	128	107	163	261	228	114	130	163	29	31	46	127	121	117	119	104	100	120	124.9
19-Jul	121	29	345	257	114	231	341	2	295	288	334	277	257	258	320	347	356	352	339	336	344	339	337	353	328.9
20-Jul	359	355	352	354	343	336	326	328	324	346	333	322	316	304	311	314	312	312	331	334	129	273	239	230	330.7
21-Jul	210	206	203	250	244	215	231	224	241	340	189	121	154	200	212	171	183	148	188	176	175	214	219	215	201.8
22-Jul	211	190	174	200	217	199	197	200	179	185	187	211	217	215	169	178	215	199	134	127	122	134	139	147	184.6
23-Jul	158	189	155	178	188	168	167	167	288	320	342	344	345	334	332	345	336	332	331	301	294	271	272	282	320.1
24-Jul	296	308	302	264	224	278	41	131	114	109	110	111	110	107	100	116	104	104	119	216	247	240	244	246	132.4
25-Jul	234	225	192	213	167	212	220	250	233	267	226	236	241	245	250	240	245	249	250	257	240	247	290	337	242.7
26-Jul	339	359	358	354	358	5	6	355	351	2	8	11	5	354	358	338	324	334	2	356	351	352	349	4	355.2
27-Jul	3	359	76	83	95	113	88	136	120	125	164	251	190	251	68	110	96	119	191	233	225	233	232	205	145.9
28-Jul	196	229	235	231	220	192	184	188	190	166	158	169	137	125	99	98	98	92	101	32	318	351	1	38	141.8
29-Jul	144	207	208	225	246	271	268	278	265	271	259	271	280	269	266	266	267	291	331	267	279	263	259	259	263.6
30-Jul	279	285	268	255	293	132	183	262	281	310	288	324	319	282	352	41	302	286	309	341	158	185	192	219	278.6
31-Jul	226	219	220	207	205	183	187	188	175	151	157	194	214	148	125	129	136	109	110	115	120	120	126	140	159.4
244.2 239.8 226.6 218.6 212.4 202.2 199.7 215.3 220.8 238.2 230.3 220.4 225.1 230.7 221.3 226.0 230.5 203.3 186.3 206.3 217.8 245.7 234.1 239.3																									
Diurnal Average																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

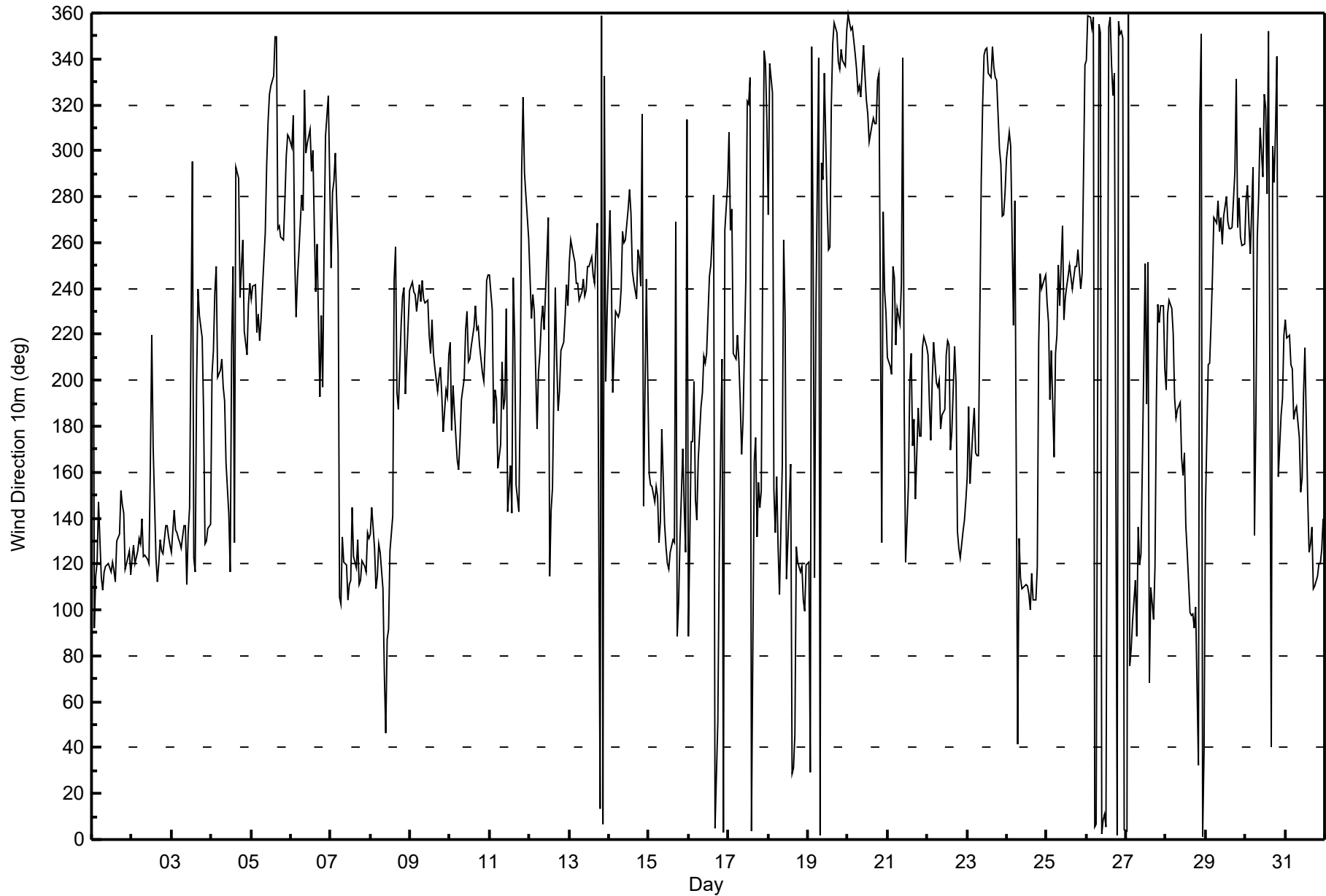
Patricia McInnes - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 103 deg on Jul 17 15:00																									Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0
Minimum Value: 8 deg on Jul 11 00:00																									
Percentiles: P ₁ = 9 P ₁₀ = 13 Q ₁ = 15 Median = 20 Q ₃ = 31 P ₉₀ = 56 P ₉₉ = 84																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	72	75	49	42	72	25	16	15	13	14	14	17	16	18	20	18	15	19	16	16	14	12	11	11	75
2-Jul	13	14	12	13	15	15	20	17	14	33	14	48	31	31	20	19	18	15	19	16	17	15	16	18	48
3-Jul	17	19	15	10	14	14	16	19	24	24	39	30	83	28	23	51	14	21	23	23	15	12	8	14	83
4-Jul	20	21	73	36	18	20	22	26	23	25	38	37	67	65	48	35	33	45	15	12	17	14	15	9	73
5-Jul	10	10	14	17	21	18	13	13	19	21	19	16	20	17	21	17	41	32	11	9	17	15	11	8	41
6-Jul	15	24	25	17	16	55	42	52	38	35	26	34	47	54	36	22	56	27	30	23	31	18	70	61	70
7-Jul	43	21	64	53	76	32	22	27	22	31	26	34	50	57	32	19	17	17	15	13	13	11	13	13	76
8-Jul	11	27	20	15	27	17	16	69	77	66	16	18	16	25	33	17	24	27	15	12	15	30	18	16	77
9-Jul	11	11	9	10	17	10	11	12	14	13	16	19	21	20	22	25	21	25	20	21	16	25	19	27	27
10-Jul	25	22	16	17	14	14	19	21	22	21	21	24	25	26	26	16	17	18	17	19	18	15	8	8	26
11-Jul	12	40	85	55	70	21	24	24	30	26	52	66	25	26	83	56	20	40	78	31	32	16	10	14	85
12-Jul	22	14	15	21	34	21	22	18	14	18	21	23	32	21	23	82	74	21	23	20	22	32	20	10	82
13-Jul	10	11	10	11	11	12	15	13	15	20	16	17	17	18	16	15	19	15	36	19	19	24	72	13	72
14-Jul	68	46	18	51	11	39	20	18	16	27	20	19	18	27	58	43	26	22	17	39	52	66	13	18	68
15-Jul	63	21	21	16	77	18	17	87	29	31	16	22	33	21	19	17	97	52	17	18	19	16	21	70	97
16-Jul	53	65	25	27	41	31	22	21	21	20	23	23	18	21	13	22	23	34	21	24	20	89	68	32	89
17-Jul	39	80	42	75	25	18	23	28	32	35	61	57	40	56	103	65	51	30	27	17	65	22	18	28	103
18-Jul	52	31	82	29	88	20	18	22	79	11	51	21	22	32	61	34	19	26	14	13	14	16	16	17	88
19-Jul	75	62	31	57	54	73	24	15	39	25	19	25	11	12	43	20	20	17	11	11	16	17	20	15	75
20-Jul	16	15	14	17	16	20	15	17	14	18	16	21	18	14	15	22	34	29	41	76	62	25	13	41	76
21-Jul	72	57	48	17	26	30	15	13	25	77	82	65	54	43	54	32	44	31	20	18	20	10	10	13	82
22-Jul	18	17	15	23	18	21	21	21	22	26	28	27	28	29	36	30	30	37	30	12	11	16	12	20	37
23-Jul	30	14	27	77	18	24	27	71	32	36	16	14	16	16	22	16	22	13	15	14	8	14	14	13	77
24-Jul	14	10	15	74	46	19	56	25	30	43	37	31	24	24	18	21	18	14	17	77	16	10	30	11	77
25-Jul	10	17	39	22	33	16	17	19	25	25	46	29	14	20	15	11	12	11	10	9	9	12	32	13	46
26-Jul	12	14	14	15	16	15	13	15	15	17	16	18	21	20	26	23	17	14	20	19	14	14	13	12	26
27-Jul	17	26	19	16	19	29	16	19	18	32	55	54	73	60	33	32	33	21	32	18	13	10	13	21	73
28-Jul	21	11	11	11	21	21	23	29	29	31	31	39	30	28	17	17	16	15	19	16	42	19	58	58	58
29-Jul	66	17	18	16	14	13	14	14	13	13	13	15	17	15	16	15	15	33	17	14	11	9	9	10	66
30-Jul	12	11	28	18	77	21	30	50	33	32	35	45	81	36	77	56	84	68	29	13	91	16	14	19	91
31-Jul	14	18	13	18	21	18	18	19	25	30	20	47	26	52	31	15	15	16	14	15	12	13	12	13	52
75 80 85 77 88 73 56 87 79 77 82 66 83 65 103 82 97 68 78 77 91 89 72 70																									
Diurnal Maximum																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Patricia McInnes - July 2026





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS07 ATHABASCA VALLEY JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ATHABASCA VALLEY (AMS07)
JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	701	36	43	99.06	-	-	10.1	0	2.2	0
TRS (ppb) Average	531	36	213	76.21	6.1	1	4.7	0	1.2	0
THC (ppm) Average	700	35	44	98.79	-	-	2.6	-	2.3	-
NMHC (ppm) Average	700	35	44	98.79	-	-	0.173	-	0.042	-
CH4(ppm) Average	700	35	44	98.79	-	-	2.6	-	2.3	-
O3 (ppb) Average	703	34	41	99.06	-	-	49	0	29.6	-
NO2 (ppb) Average	701	36	43	99.06	-	-	14.2	0	5.7	-
NO (ppb) Average	701	36	43	99.06	-	-	10.9	-	2.7	-
NOX (ppb) Average	701	36	43	99.06	-	-	19.6	-	7.3	-
PM2.5 (ug/m3) Average	736	2	8	99.19	-	-	218.2	17	84.4	5
CO(ppm) Average	701	35	43	98.92	-	-	1.2	0	0.6	-
Temperature 2 m (C) Average	744	0	0	100	-	-	32.2	-	23.9	-
Relative Humidity (%) Average	744	0	0	100	-	-	99.3	-	81.8	-
Barometric Pressure (inHg) Average	726	0	18	97.58	-	-	29.2	-	29.2	-
Wind Speed 10 m (km/h) Average	744	0	0	100	-	-	33	-	17	-
Wind Direction 10 m (deg) Average	744	0	0	100	-	-	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ATHABASCA VALLEY (AMS07)

JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	701	0.25	0.7	-	0	0	0	0.1	0.2	0.4	10.1
TRS (ppb) Average	531	0.29	0.4	-	0	0.1	0.1	0.2	0.3	0.5	4.7
THC (ppm) Average	700	2.13	0.1	-	2	2	2.1	2.1	2.2	2.3	2.6
NMHC (ppm) Average	700	0.005	0.019	-	0	0	0	0	0	0	0.173
CH4(ppm) Average	700	2.13	0.1	-	2	2	2.1	2.1	2.2	2.2	2.6
O3 (ppb) Average	703	20.68	9.6	-	2.6	8.6	13.1	20.1	27	34.4	49
NO2 (ppb) Average	701	3.35	2.2	-	0.3	1.2	1.8	2.8	4.5	6.4	14.2
NO (ppb) Average	701	1.12	1.4	-	0	0.1	0.3	0.7	1.3	2.9	10.9
NOX (ppb) Average	701	4.47	3.1	-	0.3	1.5	2.4	3.6	5.9	8.8	19.6
PM2.5 (ug/m3) Average	736	16.69	22.7	-	1.1	2.8	4.4	7.4	16.7	54.1	218.2
CO(ppm) Average	701	0.15	0.1	-	0	0	0.1	0.1	0.2	0.4	1.2
Temperature 2 m (C) Average	744	19.42	4.3	-	11.3	14.2	16.2	18.9	22.2	25.3	32.2
Relative Humidity (%) Average	744	69.14	16.5	-	26.3	43	57.9	72.4	82.4	88.2	99.3
Barometric Pressure (inHg) Average	726	28.94	0.1	-	28.6	28.8	28.9	28.9	29	29.2	29.2
Wind Speed 10 m (km/h) Average	744	8.3	5	-	0	3	5	7	11	15	33
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ATHABASCA VALLEY (AMS07)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
TRS	03 Jul 2026 07:00	06 Jul 2026 10:00	76	Analyzer Failure - inconsistent response
TRS	06 Jul 2026 15:00	09 Jul 2026 09:00	67	Analyzer Failure - inconsistent response
TRS	09 Jul 2026 10:00	10 Jul 2026 10:00	25	Maintenance - replaced analyzer
TRS	20 Jul 2026 10:00	20 Jul 2026 11:00	2	Maintenance - replaced analyzer
AIR QUALITY ANALYZERS	15 Jul 2026 17:00	15 Jul 2026 22:00	6	Station power failure
CO	23 Jul 2026 19:00	23 Jul 2026 19:00	1	Unstable Operations - excessive baseline drift
ALL GASEOUS ANALYZERS	24 Jul 2026 11:00	24 Jul 2026 11:00	1	Maintenance - sample manifold cleaned
THC/NMHC/CH4	31 Jul 2026 09:00	31 Jul 2026 10:00	2	Maintenance - replaced support gas cylinder
Barometric Pressure	15 Jul 2026 17:00	16 Jul 2026 10:00	18	Station power failure



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

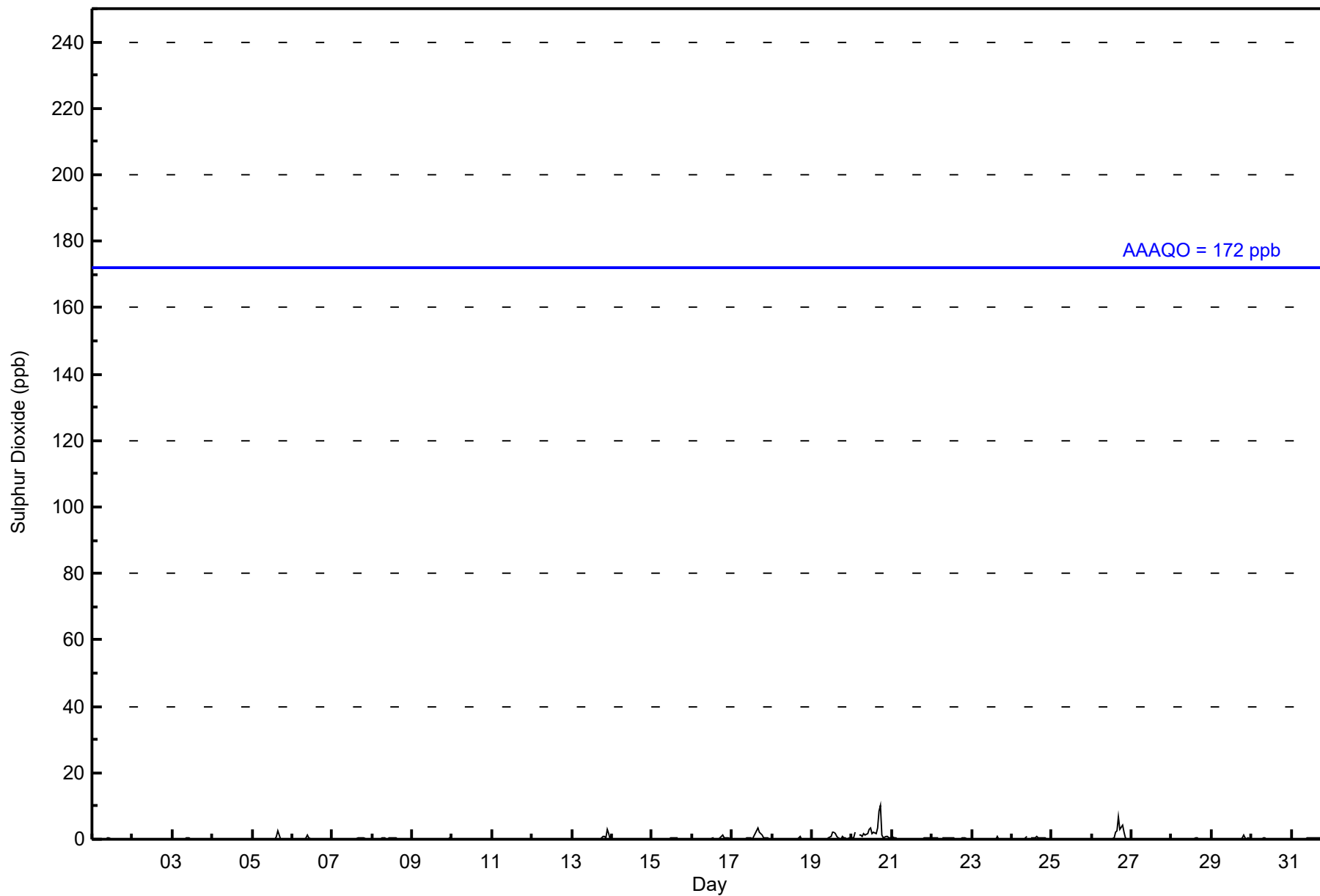
Athabasca Valley - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 10.1 ppb on Jul 20 18:00 Maximum Daily Average: 2.2 ppb on Jul 20																		Hours in Service: 744								
Minimum Value: 0.0 ppb on Jul 3 01:00 Minimum Daily Average: 0.0 ppb on Jul 27 Maximum Diurnal Average: 0.7 ppb at hour 17 Minimum Diurnal Average: 0.1 ppb at hour 4 Monthly Average: 0.25 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.4 P ₉₉ = 3.1																		Hours of Data: 701								
																		Hours of Missing Data: 43								
																		Hours of Calibration: 36								
																		Percent Operational Time: 99.1								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2-Jul	0.0	0.1	0.1	Z	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
4-Jul	0.0	0.1	0.0	0.0	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.5	1.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	
6-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.1	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
7-Jul	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1
8-Jul	0.1	0.1	0.1	Z	0.1	0.2	0.2	0.4	0.1	0.2	0.2	0.3	0.4	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1
9-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.1	0.1	0.3
10-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-Jul	Z	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2
12-Jul	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13-Jul	0.0	0.0	Z	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.7	0.7	0.3	3.1	1.5	0.2	0.3	3.1
14-Jul	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1
15-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.6	0.5	0.2	PF	PF	PF	PF	PF	PF	0.1	0.1	--	0.6
16-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.8	1.1	0.6	0.4	0.3	0.2	0.2	0.2	0.2
17-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.2	1.0	1.7	3.4	2.1	1.6	1.3	0.6	0.3	0.2	0.2	0.2	0.2	0.6
18-Jul	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.3	0.7	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.7
19-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.6	0.8	2.3	2.1	1.7	0.7	0.3	0.1	0.8	0.3	0.2	0.1	0.3	0.3	0.5	2.3
20-Jul	0.4	0.2	2.1	Z	1.2	1.5	1.0	1.5	1.2	1.7	3.0	3.4	1.9	2.0	1.7	3.5	8.5	10.1	1.3	0.5	0.9	0.8	0.6	0.5	2.2	10.1
21-Jul	0.8	0.4	0.2	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.8
22-Jul	0.2	0.3	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.3
23-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	C	C	C	C	C	0.1	0.1	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
24-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.8	M	0.4	0.5	0.3	0.5	0.8	0.6	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.3	0.8
25-Jul	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1
26-Jul	0.1	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.9	2.5	6.7	3.0	4.2	2.0	0.3	0.1	0.1	0.0	0.9	6.7
27-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
28-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.2
29-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.1	0.4	0.1	0.2	0.1	0.1	1.1
30-Jul	0.1	Z	0.2	0.1	0.1	0.2	0.2	0.2	0.2	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	0.2
31-Jul	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.6	0.4	0.2	0.2	0.1	0.1	0.2	0.6
Diurnal Average																										
Diurnal Maximum																										
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Athabasca Valley - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	701	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Athabasca Valley - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	11	9	9	28	44	148	81	26	41	95	58	37	8	17	52	37	701
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	9	9	28	44	148	81	26	41	95	58	37	8	17	52	37	701

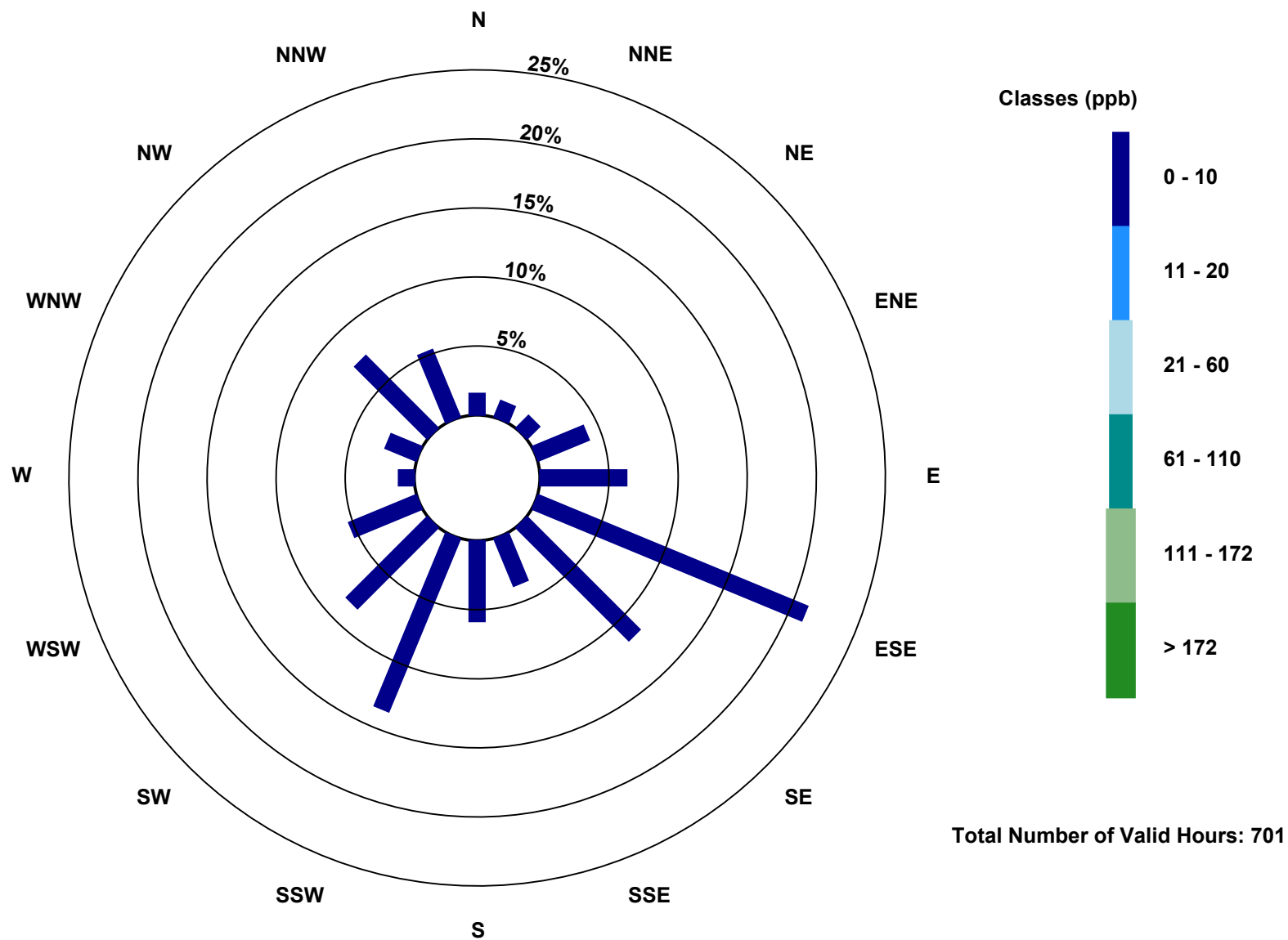
Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

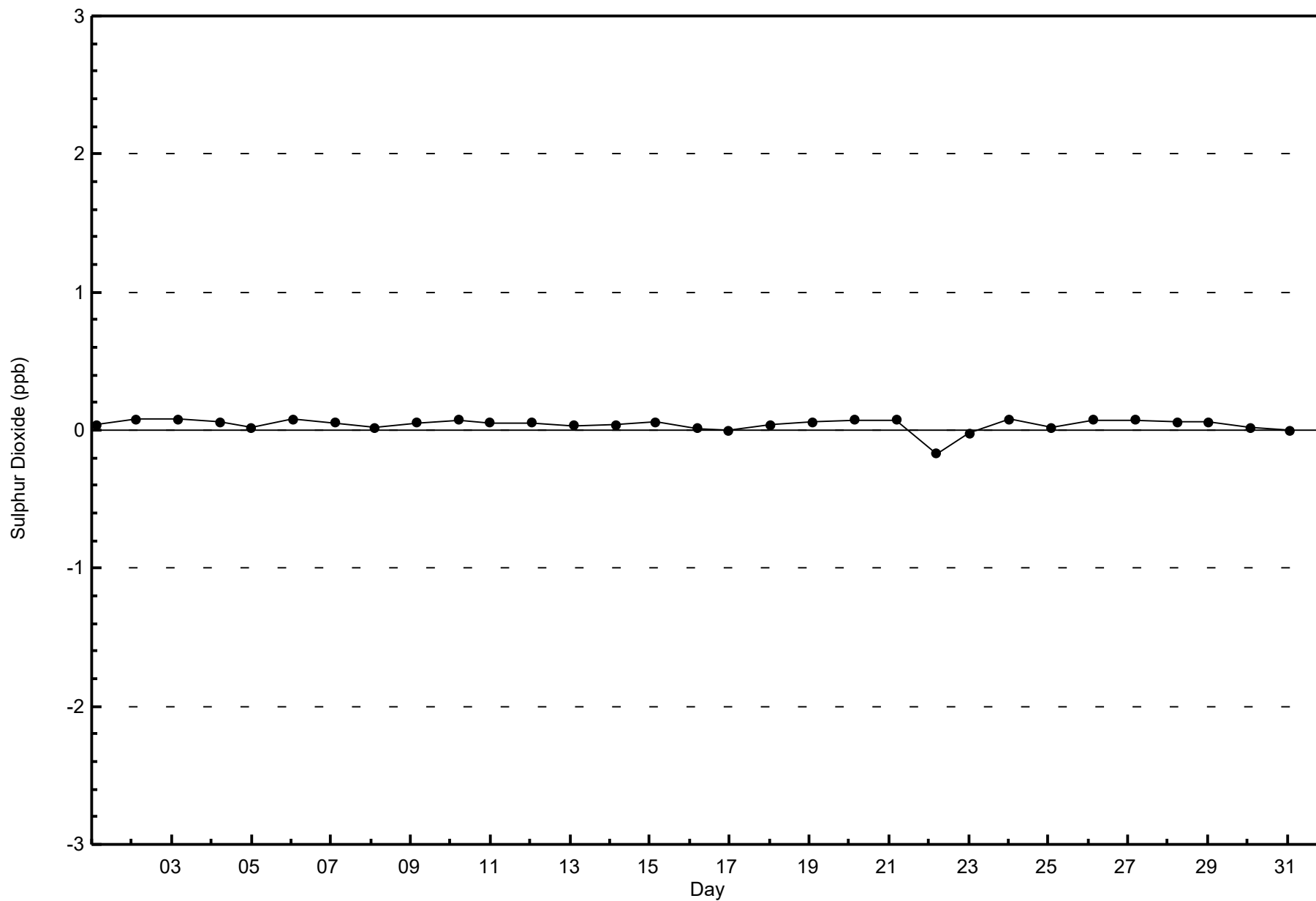
Sulphur Dioxide (SO₂) - ppb
Athabasca Valley





Wood Buffalo Environmental Association
Zero Responses

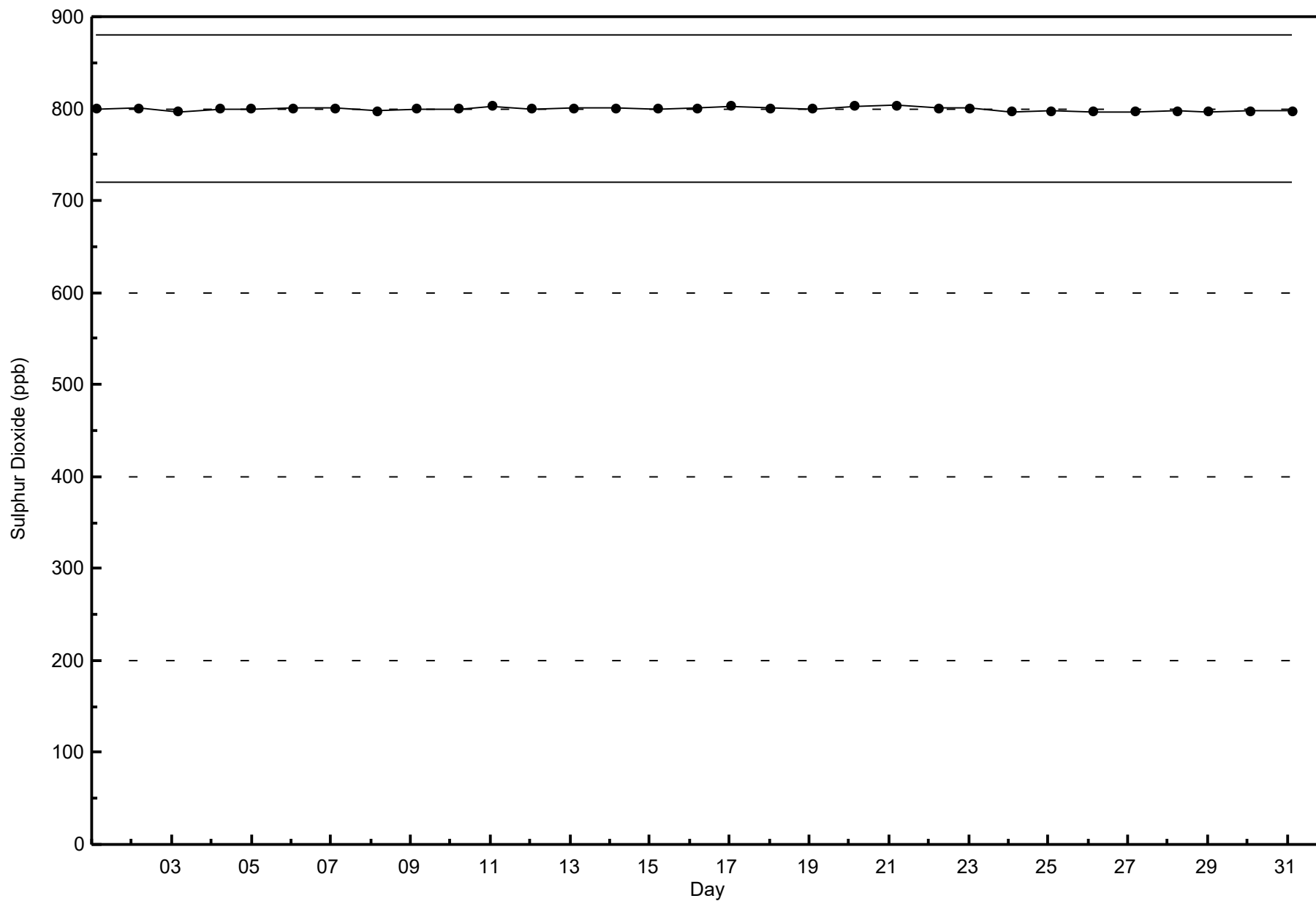
Sulphur Dioxide (SO₂) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Athabasca Valley - July 2026

Number of Exceedences (AAAQG): 30-Min: 1 Maximum Value: 6.1 ppb on Jul 28 23:00 Maximum Daily Average: 1.2 ppb on Jul 26																			Periods in Service: 1488 Periods of Valid Data: 1064 Periods of Invalid Data: 424 Periods of Calibration: 72 Percent Operational Time: 76.3							
Minimum Value: 0.0 ppb on Jul 23 18:30 Minimum Daily Average: 0.1 ppb on Jul 25 Maximum Diurnal Average: 0.5 ppb at hour 23 Minimum Diurnal Average: 0.2 ppb at hour 18 Monthly Average: 0.29 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.5 P ₉₉ = 2.2																										
Day	Period Ending At (MST)																								Daily Average	Daily Maximum
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00		
1-Jul	0.2 0.3	0.3 0.3	0.4 0.5	Z SP	0.8 0.8	0.8 0.8	0.7 0.6	0.5 0.4	0.4 0.2	0.2 0.1	0.1 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.0	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.1	
2-Jul	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	Z SP	0.4 0.4	0.3 0.3	0.1 0.1	0.1 0.1	0.1 0.2	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	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	
3-Jul	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.2 0.2	Z SP	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	
4-Jul	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	
5-Jul	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	
6-Jul	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF C	C C	C C	C C	C C	AF C	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	
7-Jul	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	
8-Jul	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	
9-Jul	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	AF AF	M M	M M	M M	M M	M M	M M	M M	M M	M M	M M	M M	M M	M M	M M	M M	M M	
10-Jul	M M	M M	M M	M M	M M	M M	M M	M M	M M	M C	C C	C C	C C	C C	C C	0.2 0.2	0.1 0.1	0.1 0.2	0.1 0.1	0.1 0.2	0.1 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	
11-Jul	0.2 0.2	Z SP	0.3 0.3	0.4 0.3	0.4 0.5	0.5 0.5	0.5 0.5	0.4 0.3	0.3 0.2	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	
12-Jul	0.2 0.2	0.2 0.2	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.1 0.2	0.2 0.1	0.1 0.2	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 0.2	0.1 0.1	0.2 0.1	0.2 0.1	0.1 0.1	0.1 0.1	0.2 0.1	
13-Jul	0.1 0.1	0.1 0.1	0.1 0.1	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.2 0.2	0.2 0.3	0.2 0.2	0.4 0.4	0.3 0.2	0.2 0.2	0.2 0.2	
14-Jul	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	Z SP	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.2	0.2 0.2	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	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.3	
15-Jul	0.3 0.3	0.3 0.3	0.4 0.4	0.4 0.5	0.5 0.5	Z SP	0.5 0.4	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 PF	PF PF	PF PF	PF PF	PF PF	PF PF	0.2 0.3	0.2 0.2	0.2 0.2	



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Athabasca Valley - July 2026

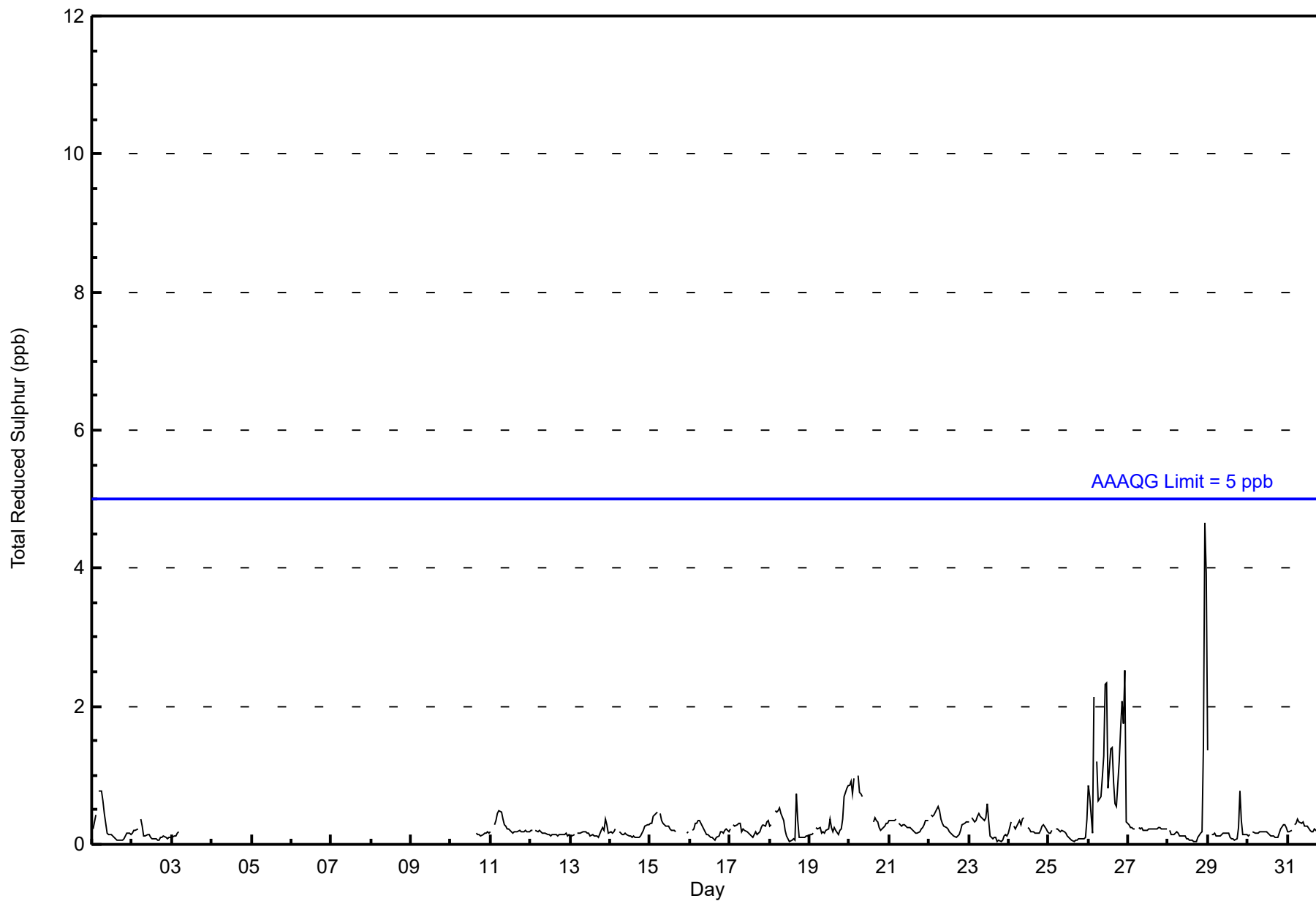
Day	Period Ending At (MST)																								Daily Average	Daily Maximum	
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00			
16-Jul	Z SP	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.3 0.4	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.4	
17-Jul	0.2 0.2	Z SP	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.4 0.3	0.2	0.4
18-Jul	0.3 0.3	0.3 0.3	Z SP	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.4	0.4 0.3	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.0	0.1 0.1	0.0 0.1	0.0 1.2	0.2 0.1	0.6 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	0.2	1.2
19-Jul	0.1 0.1	0.2 0.1	0.2 0.2	Z SP	0.2 0.2	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.4 0.4	0.3 0.2	0.2 0.2	0.3 0.2	0.1 0.3	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.5	0.6 0.8	1.0 0.6	0.9 0.8	0.3	1.0	
20-Jul	0.8 0.9	1.0 0.8	0.6 0.8	0.9 1.0	Z SP	1.1 0.9	0.7 0.7	0.7 0.8	0.8 M	M M	M M	C C	C C	C C	0.3 0.4	0.4 0.4	0.3 0.3	0.4 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.3	--	1.1	
21-Jul	0.4 0.4	0.3 0.3	0.4 0.3	0.3 0.4	0.3 0.4	Z SP	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.3 0.3	0.4 0.3	0.3	0.4	
22-Jul	Z SP	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.5	0.6 0.5	0.5 0.5	0.4 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.2 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3	0.6	
23-Jul	0.3 0.3	Z SP	0.4 0.4	0.3 0.3	0.3 0.3	0.4 0.4	0.5 0.4	0.4 0.4	0.4 0.4	0.3 0.4	0.3 0.5	0.6 0.6	0.3 0.4	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.0	0.1 0.1	0.1 0.0	0.1 0.1	0.1 0.1	0.2 0.1	0.1 0.1	0.2	0.6	
24-Jul	0.1 0.2	0.3 0.4	Z SP	0.3 0.2	0.2 0.2	0.2 0.3	0.4 0.3	0.3 0.3	0.3 0.5	0.5 0.3	M M	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2	0.5	
25-Jul	0.2 0.2	0.2 0.2	0.2 0.2	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 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 0.6	0.1	0.6	
26-Jul	1.0 0.7	0.8 0.5	0.2 0.2	2.0 2.3	Z SP	1.6 0.9	0.6 0.6	0.7 0.7	0.8 1.1	1.3 1.3	2.4 2.3	2.7 2.0	1.0 0.7	1.3 1.4	1.3 1.5	1.1 0.6	0.6 0.6	0.5 0.6	1.0 1.4	1.6 1.7	1.9 2.2	2.0 1.5	2.7 2.3	0.4 0.3	1.2	2.7	
27-Jul	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	Z SP	0.3 0.2	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.3	
28-Jul	Z SP	0.2 0.2	0.1 0.1	0.1 0.1	0.1 0.2	0.2 0.2	0.2 0.2	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	0.0 0.1	0.0 0.0	0.0 0.1	0.0 0.1	0.1 0.1	0.2 0.2	0.3 0.1	0.4 2.5	3.2 6.1	3.9 4.0	0.5	6.1	
29-Jul	2.2 0.5	Z SP	0.1 0.1	0.1 0.2	0.2 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.3	0.2 0.9	0.6 0.2	0.4 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.2	2.2	
30-Jul	0.1 0.1	0.1 0.1	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	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 0.2	0.2 0.2	0.3 0.3	0.3 0.3	0.3 0.2	0.2	0.3	
31-Jul	0.2 0.2	0.2 0.2	0.2 0.2	Z SP	0.3 0.3	0.3 0.3	0.4 0.4	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.2 0.2	0.3 0.2	0.3 0.2	0.3	0.4	
																								Diurnal Average			
																								Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance AF - Analyzer Failure PF - Power Failure SP - Span																											
Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb																											

Maximum Value: 4.7 ppb on Jul 28 23:00																			Maximum Daily Average: 1.2 ppb on Jul 26						Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 28 17:00																			Minimum Daily Average: 0.1 ppb on Jul 25						Hours of Data: 531	
Maximum Diurnal Average: 0.5 ppb at hour 23																			Minimum Diurnal Average: 0.2 ppb at hour 18						Hours of Missing Data: 213	
Monthly Average: 0.29 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.5 P ₉₉ = 2.1						Hours of Calibration: 36	
																									Percent Operational Time: 76.2	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.2	0.3	0.4	Z	0.8	0.8	0.6	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.8
2-Jul	0.2	0.2	0.2	0.2	Z	0.4	0.3	0.1	0.1	0.2	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	0.4
3-Jul	0.1	0.1	0.1	0.2	0.2	Z	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	0.2
4-Jul	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--
5-Jul	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--
6-Jul	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	C	C	C	C	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--
7-Jul	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--
8-Jul	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--
9-Jul	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	--
10-Jul	M	M	M	M	M	M	M	M	M	M	C	C	C	C	C	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
11-Jul	0.2	Z	0.3	0.4	0.4	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
12-Jul	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2
13-Jul	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.4	0.3	0.2	0.4
14-Jul	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.3
15-Jul	0.3	0.3	0.4	0.4	0.5	Z	0.5	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	PF	PF	PF	PF	PF	PF	0.2	0.2
16-Jul	Z	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4
17-Jul	0.2	Z	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2
18-Jul	0.3	0.3	Z	0.5	0.5	0.5	0.5	0.5	0.3	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.7	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.7
19-Jul	0.1	0.1	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.4	0.7	0.8	0.8	0.8	0.3
20-Jul	0.8	0.9	0.7	1.0	Z	1.0	0.7	0.7	0.7	M	M	C	C	C	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.5
21-Jul	0.4	0.3	0.3	0.3	0.4	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.4
22-Jul	Z	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.3
23-Jul	0.3	Z	0.4	0.3	0.3	0.4	0.5	0.4	0.4	0.4	0.4	0.6	0.4	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2
24-Jul	0.2	0.3	Z	0.3	0.2	0.3	0.4	0.3	0.4	0.4	M	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.4
25-Jul	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.1	0.4
26-Jul	0.9	0.7	0.2	2.1	Z	1.2	0.6	0.7	1.0	1.3	2.3	2.3	0.8	1.4	1.4	0.9	0.6	0.6	1.2	1.7	2.1	1.7	2.5	0.3	1.2	2.5
27-Jul	0.3	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
28-Jul	Z	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.2	1.4	4.7	3.9	0.5	4.7
29-Jul	1.4	Z	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.8	0.3	0.1	0.1	0.1	0.2	1.4
30-Jul	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.3
31-Jul	0.2	0.2	0.2	Z	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.4
																								Diurnal Average		
																								Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance AF - Analyzer Failure PF - Power Failure																										
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA																										



Wood Buffalo Environmental Association
Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Athabasca Valley - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	528	99.44	99.44
3 - 4	2	0.38	99.81
5 - 7	1	0.19	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 531

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Athabasca Valley - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	10	9	6	21	32	123	58	17	27	58	44	34	5	12	41	31	528
3 - 4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	9	6	21	32	123	58	17	27	58	44	34	5	12	42	32	531

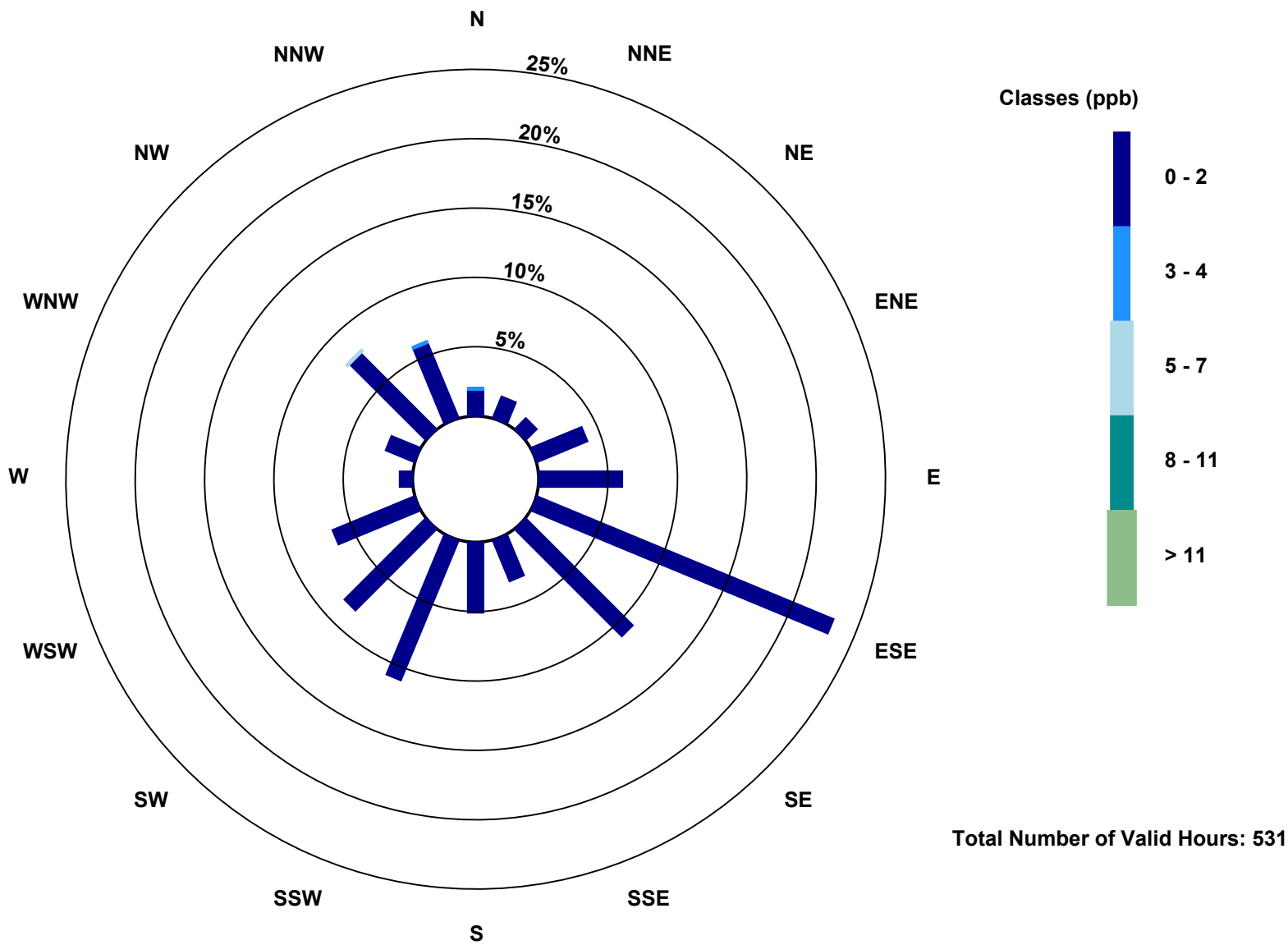
Total Number of Valid Hours: 531

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Total Reduced Sulphur (TRS) - ppb
Athabasca Valley

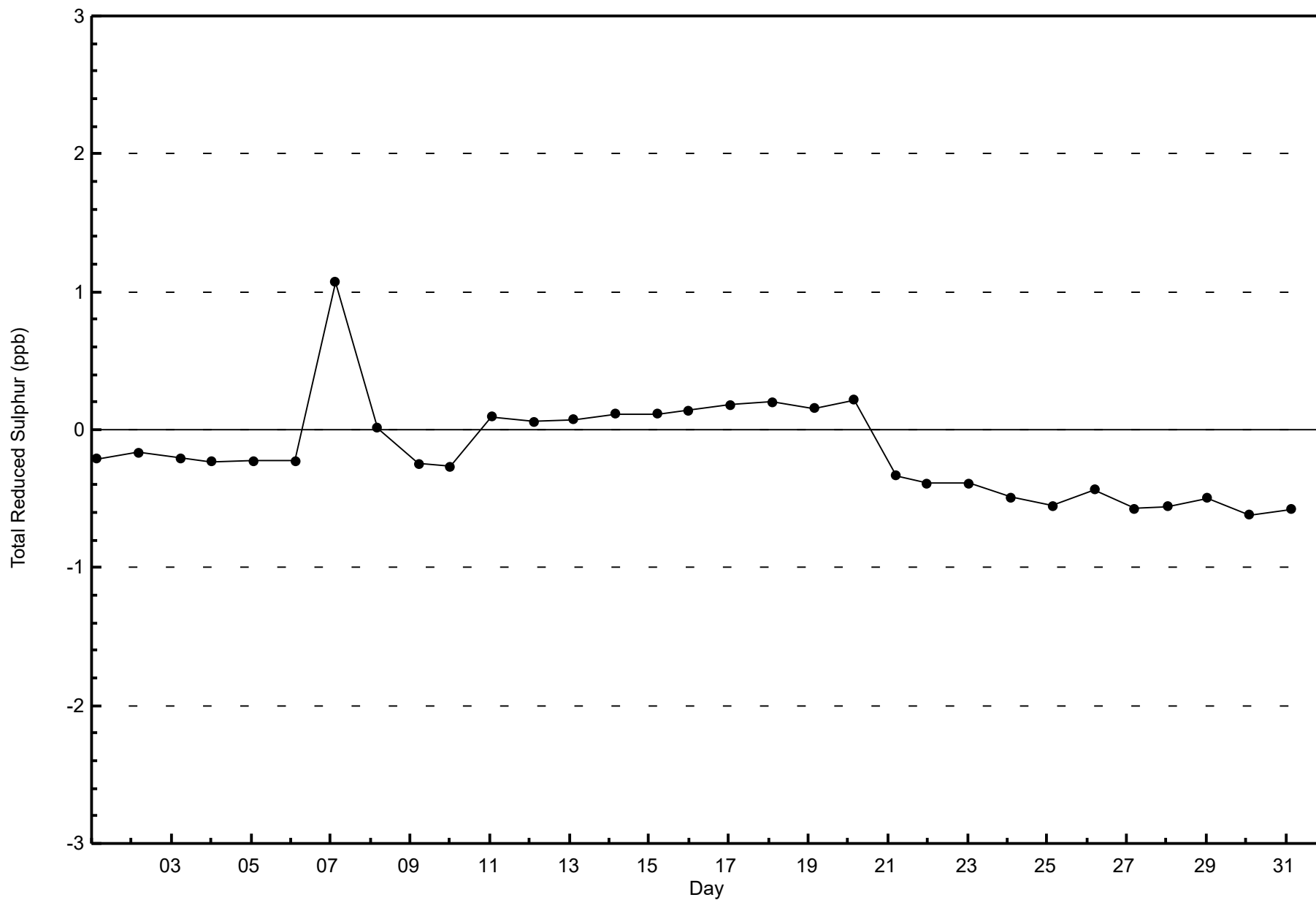


Total Number of Valid Hours: 531



Wood Buffalo Environmental Association
Zero Responses

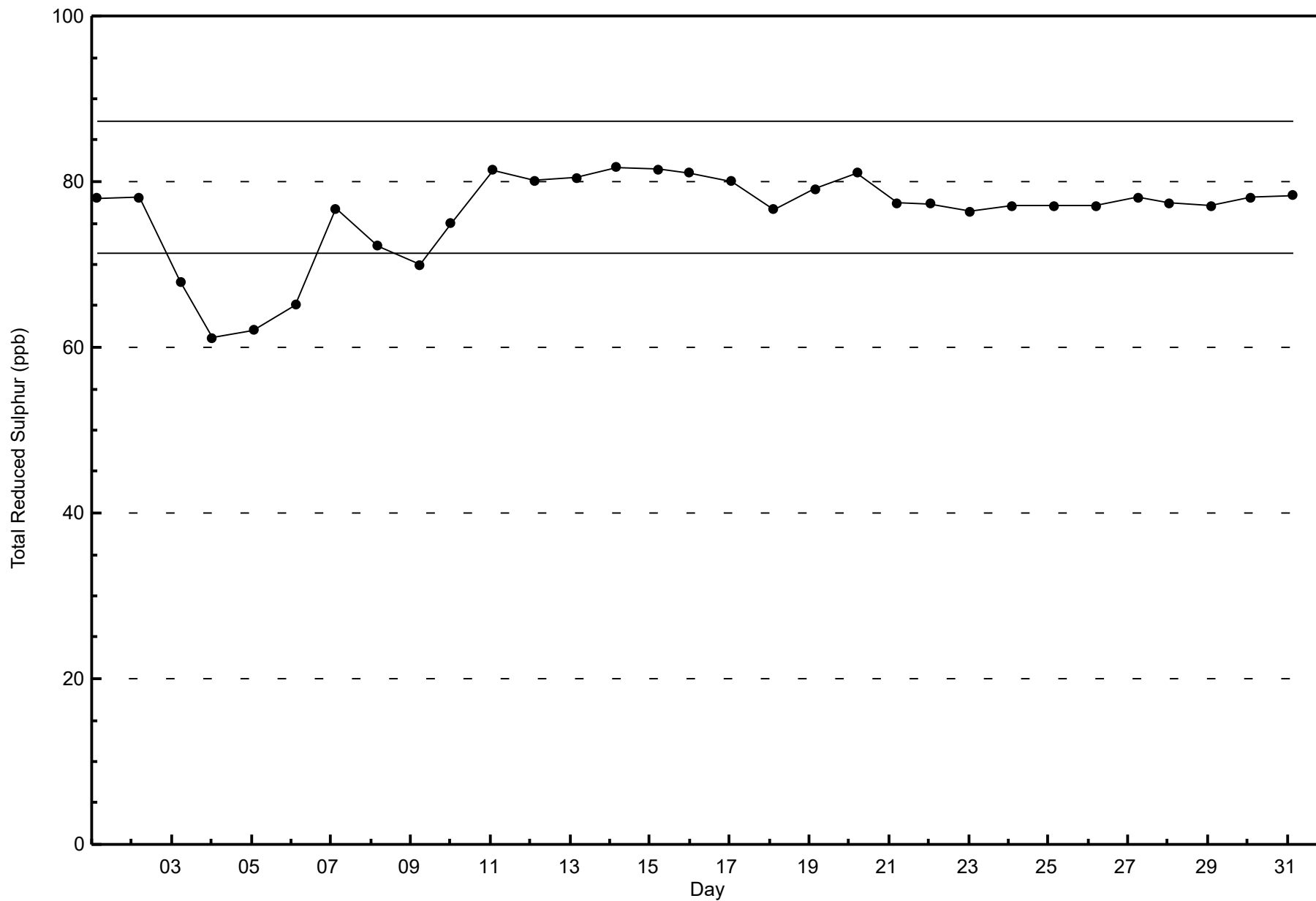
Total Reduced Sulphur (TRS) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Span Responses

Total Reduced Sulphur (TRS) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

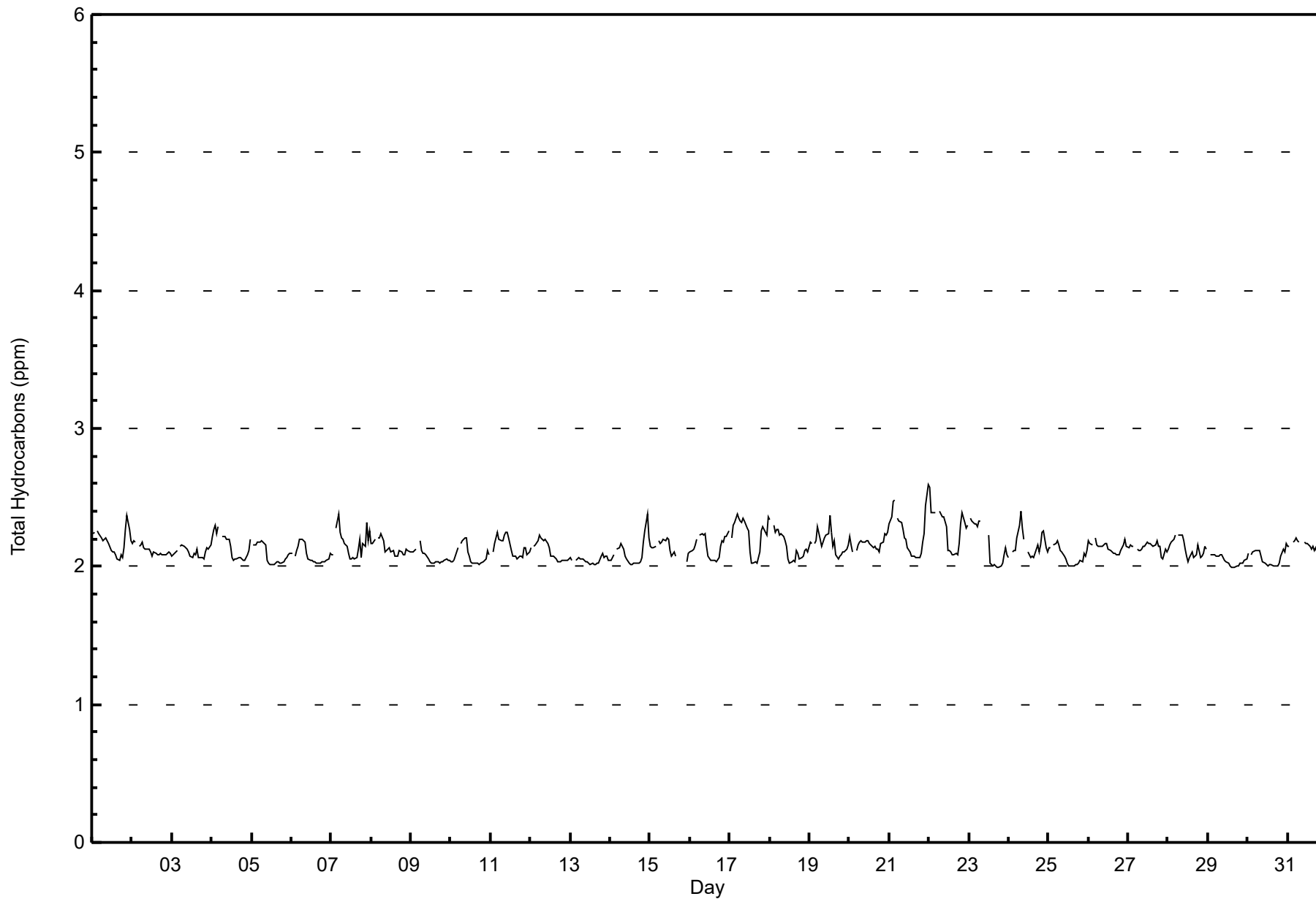
Athabasca Valley - July 2026

Maximum Value: 2.6 ppm on Jul 22 00:00																		Maximum Daily Average: 2.3 ppm on Jul 22																		Hours in Service: 744	
Minimum Value: 2.0 ppm on Jul 29 16:00																		Minimum Daily Average: 2.0 ppm on Jul 29																		Hours of Data: 700	
Maximum Diurnal Average: 2.2 ppm at hour 5																		Minimum Diurnal Average: 2.1 ppm at hour 17																		Hours of Missing Data: 44	
Monthly Average: 2.13 ppm																		Percentiles: P ₁ = 2.0 P ₁₀ = 2.0 Q ₁ = 2.1 Median = 2.1 Q ₃ = 2.2 P ₉₀ = 2.3 P ₉₉ = 2.4																		Hours of Calibration: 35	
																																				Percent Operational Time: 98.8	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24													
1-Jul	2.2	2.2	Z	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.3	2.4	2.3	2.2	2.2	2.4										
2-Jul	2.2	2.2	2.2	Z	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2										
3-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2										
4-Jul	2.2	2.3	2.3	2.2	2.3	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.2	2.1	2.3										
5-Jul	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2										
6-Jul	2.1	Z	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2										
7-Jul	2.1	2.1	Z	2.3	2.4	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.3	2.2	2.3	2.2	2.4										
8-Jul	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2										
9-Jul	2.1	2.1	2.1	2.1	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.2										
10-Jul	2.0	2.0	2.0	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2										
11-Jul	Z	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2										
12-Jul	2.1	Z	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2										
13-Jul	2.1	2.0	Z	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1										
14-Jul	2.0	2.1	2.1	Z	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.4	2.2	2.1	2.4										
15-Jul	2.1	2.1	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	PF	PF	PF	PF	PF	PF	PF	2.0	2.1	--	2.2										
16-Jul	2.1	2.1	2.1	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.1	2.3										
17-Jul	Z	2.2	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.3	2.3	2.2	2.2	2.4	2.4										
18-Jul	2.3	Z	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3										
19-Jul	2.2	2.2	Z	2.2	2.2	2.3	2.2	2.1	2.2	2.2	2.2	2.2	2.4	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.4										
20-Jul	2.2	2.2	2.1	Z	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2										
21-Jul	2.3	2.4	2.5	2.5	Z	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.4	2.6	2.2	2.6										
22-Jul	2.6	2.4	2.4	2.4	2.4	Z	2.4	2.4	2.4	2.4	2.4	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.4	2.3	2.3	2.3	2.3	2.6										
23-Jul	Z	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	C	C	C	C	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.4										
24-Jul	2.1	Z	2.1	2.1	2.1	2.2	2.3	2.4	2.3	2.2	M	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.3	2.3	2.1	2.1	2.2	2.4											
25-Jul	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2										
26-Jul	2.2	2.2	2.2	Z	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.2										
27-Jul	2.1	2.2	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2										
28-Jul	2.1	2.2	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2										
29-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1										
30-Jul	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.2										
31-Jul	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.2	2.2	M	M	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.4	2.2	2.2	2.3	2.2	2.4										
2.2																								Diurnal Average													
2.6																								Diurnal Maximum													
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																																					



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Athabasca Valley - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	138	19.71	19.71
2.1 - 3.0	562	80.29	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 700

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Athabasca Valley - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	2	1	1	0	0	3	5	7	10	33	25	18	5	5	13	10	138
2.1 - 3.0	9	8	8	28	44	143	76	19	31	62	33	19	3	12	39	28	562
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	9	9	28	44	146	81	26	41	95	58	37	8	17	52	38	700

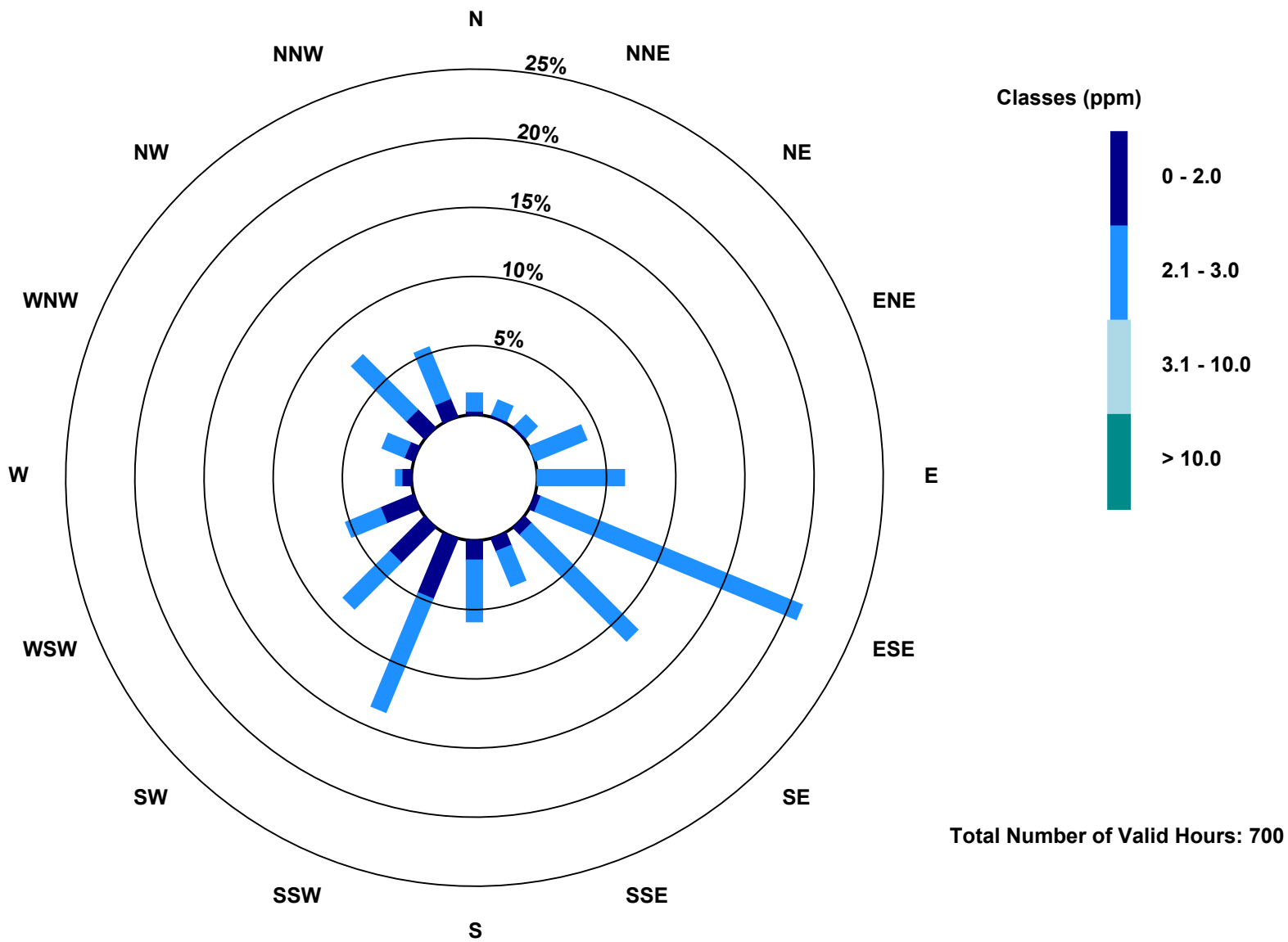
Total Number of Valid Hours: 700

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

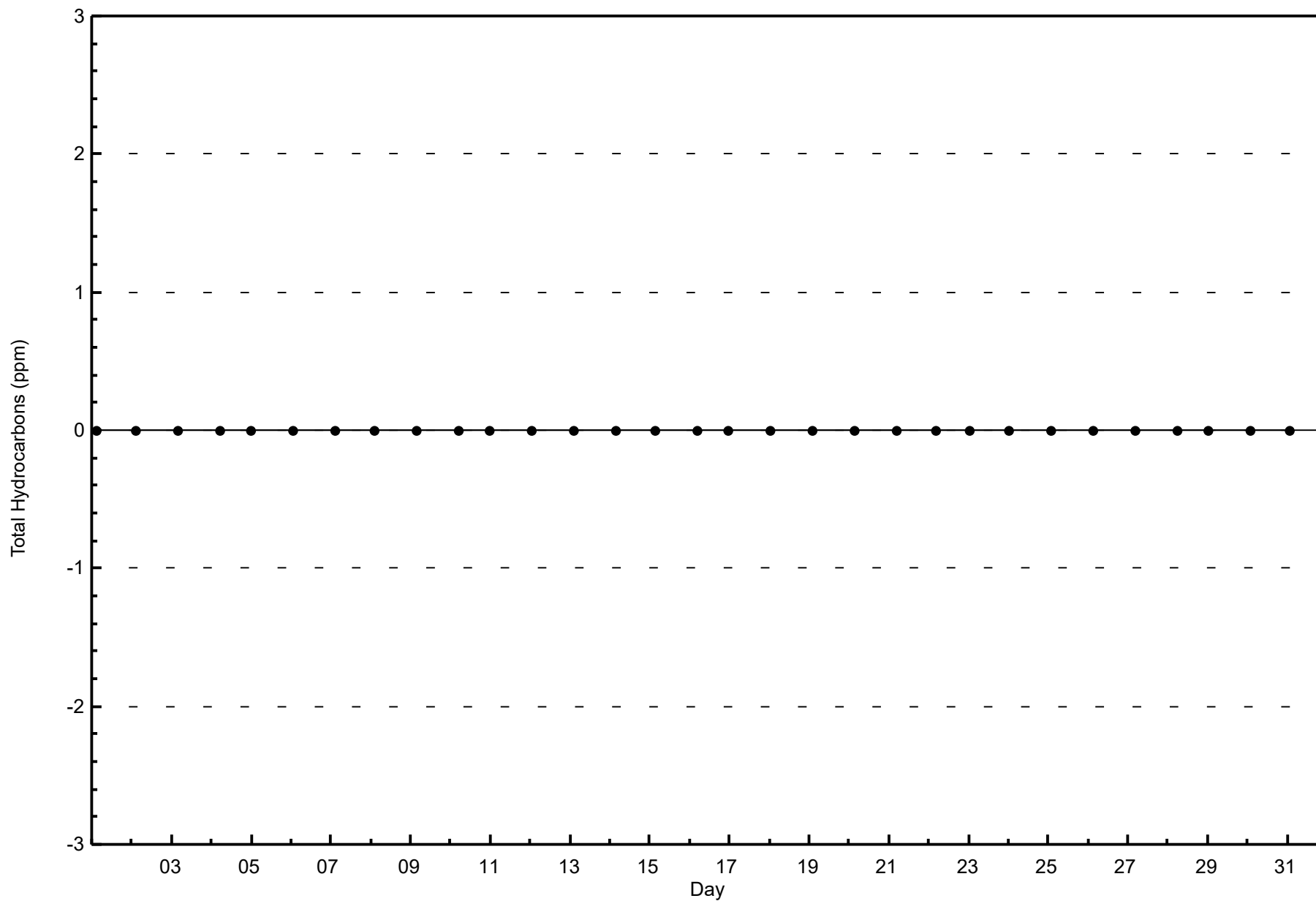
Total Hydrocarbons (THC) - ppm
Athabasca Valley





Wood Buffalo Environmental Association
Zero Responses

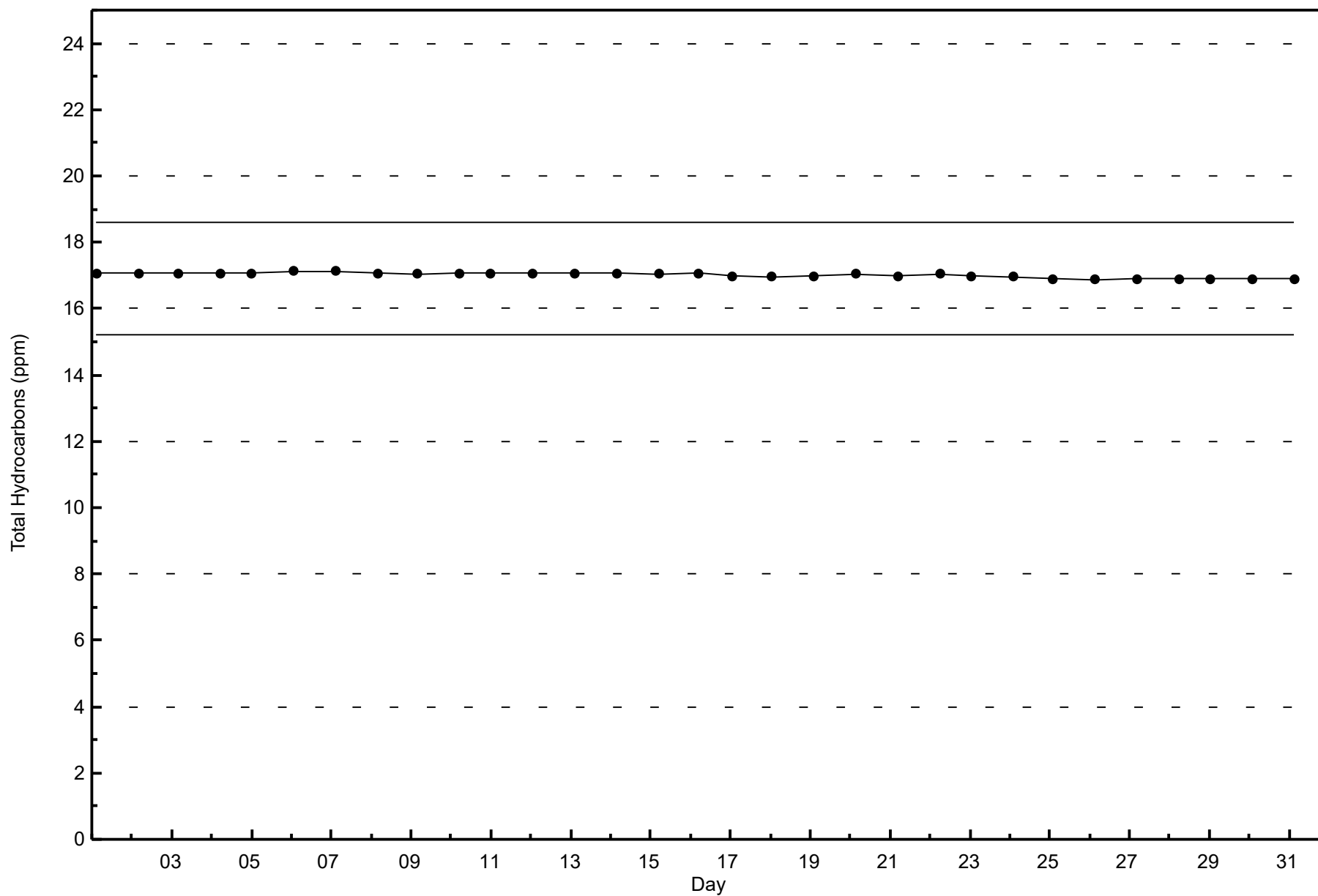
Total Hydrocarbons (THC) - ppm
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Span Responses

Total Hydrocarbons (THC) - ppm
Athabasca Valley - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

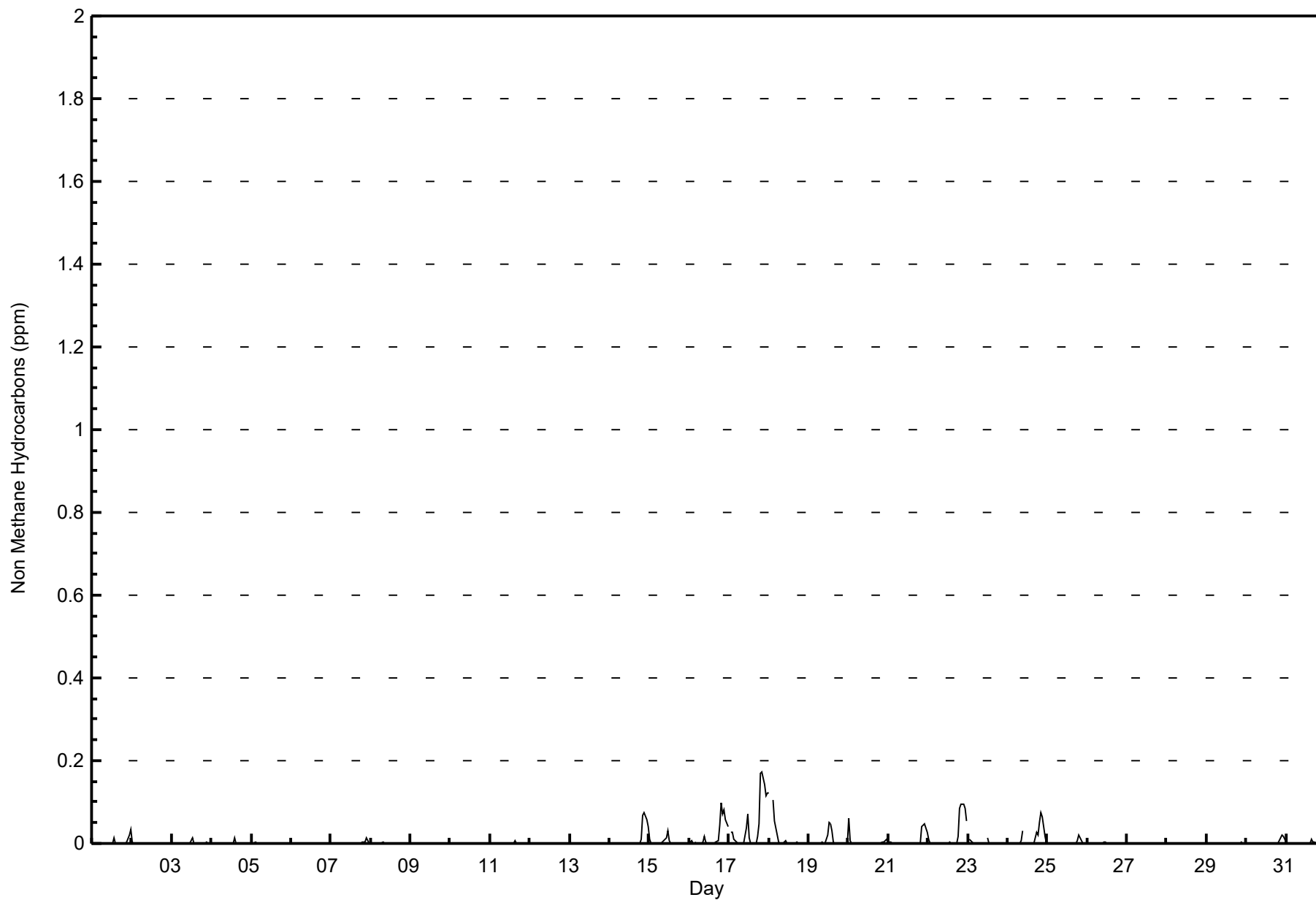
Athabasca Valley - July 2026

Maximum Value: 0.173 ppm on Jul 17 21:00																			Maximum Daily Average: 0.042 ppm on Jul 17							Hours in Service: 744	
Minimum Value: 0.000 ppm on Jul 1 01:00																			Minimum Daily Average: 0.000 ppm on Jul 6							Hours of Data: 700	
Maximum Diurnal Average: 0.022 ppm at hour 21																			Minimum Diurnal Average: 0.000 ppm at hour 7							Hours of Missing Data: 44	
Monthly Average: 0.005 ppm																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.1							Hours of Calibration: 35	
																										Percent Operational Time: 98.8	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.000	0.001	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.022	0.034	0.003	0.034	
2-Jul	0.002	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	
3-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.001	0.000	0.001	0.012	
4-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.013	
5-Jul	Z	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	
6-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
7-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.002	0.004	0.014	0.006	0.001	0.001	0.014	
8-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.003	
9-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
10-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
11-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	
12-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
13-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
14-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.067	0.074	0.059	0.039	0.011	0.074	
15-Jul	0.010	0.001	0.001	0.000	Z	0.000	0.000	0.000	0.002	0.012	0.012	0.029	0.006	0.000	0.000	0.000	PF	PF	PF	PF	PF	PF	0.001	0.001	--	0.029	
16-Jul	0.000	0.008	0.000	0.002	0.005	Z	0.000	0.001	0.003	0.017	0.003	0.000	0.000	0.000	0.001	0.000	0.003	0.008	0.045	0.099	0.072	0.081	0.057	0.041	0.019	0.099	
17-Jul	Z	0.026	0.028	0.010	0.004	0.001	0.000	0.000	0.000	0.001	0.039	0.071	0.013	0.000	0.000	0.000	0.001	0.018	0.046	0.168	0.173	0.141	0.114	0.121	0.042	0.173	
18-Jul	0.122	Z	0.104	0.053	0.038	0.019	0.003	0.002	0.000	0.005	0.007	0.001	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.016	0.122	
19-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.020	0.050	0.048	0.031	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.050	
20-Jul	0.060	0.005	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.004	0.005	0.005	0.012	0.004	0.060	
21-Jul	0.004	0.005	0.001	0.001	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.042	0.044	0.046	0.026	0.007	0.046	
22-Jul	0.010	0.001	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.001	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.017	0.085	0.095	0.094	0.084	0.055	0.019	0.095	
23-Jul	Z	0.011	0.008	0.001	0.000	0.000	0.001	0.001	C	C	C	C	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.014	
24-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.029	M	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.022	0.053	0.074	0.063	0.017	0.000	0.013	0.074	
25-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.022	0.005	0.000	0.000	0.000	0.001	0.022	
26-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.004	
27-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002	
28-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	
29-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.004	
30-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.022	0.018	0.010	0.002	0.022	
31-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	M	M	0.000	0.000	0.000	0.000	0.000	0.009	0.003	0.004	0.001	0.013	0.119	0.036	0.004	0.000	0.009	0.119	
0.008 0.002 0.006 0.003 0.002 0.001 0.000 0.000 0.001 0.002 0.002 0.004 0.003 0.002 0.001 0.001 0.000 0.002 0.005 0.015 0.022 0.019 0.014 0.011																										Diurnal Average	
0.122 0.026 0.104 0.053 0.038 0.019 0.003 0.003 0.008 0.029 0.039 0.071 0.050 0.048 0.031 0.009 0.003 0.026 0.046 0.168 0.173 0.141 0.114 0.121																										Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Athabasca Valley - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	618	88.29	88.29
0.006 - 0.05	59	8.43	96.71
0.06 - 0.1	21	3.00	99.71
> 0.1	2	0.29	100.00

Total Number of Valid Hours: 700

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Athabasca Valley - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 0.005	11	8	9	24	35	131	64	19	34	87	54	35	7	17	48	35	618
0.006 - 0.05	0	0	0	3	7	12	12	5	4	7	4	0	1	0	3	1	59
0.06 - 0.1	0	1	0	1	2	3	5	2	2	0	0	2	0	0	1	2	21
> 0.1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
Totals	11	9	9	28	44	146	81	26	41	95	58	37	8	17	52	38	700

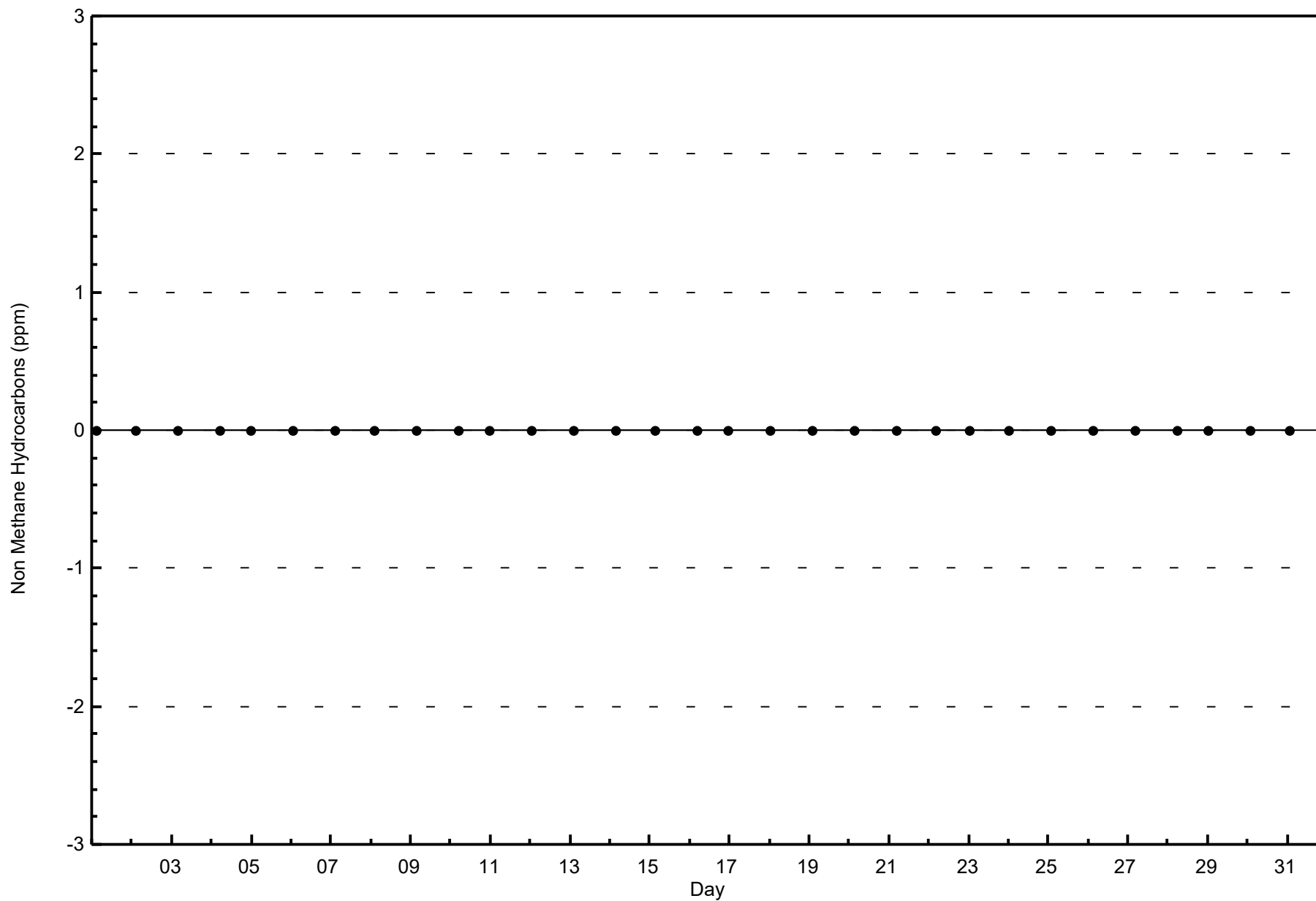
Total Number of Valid Hours: 700

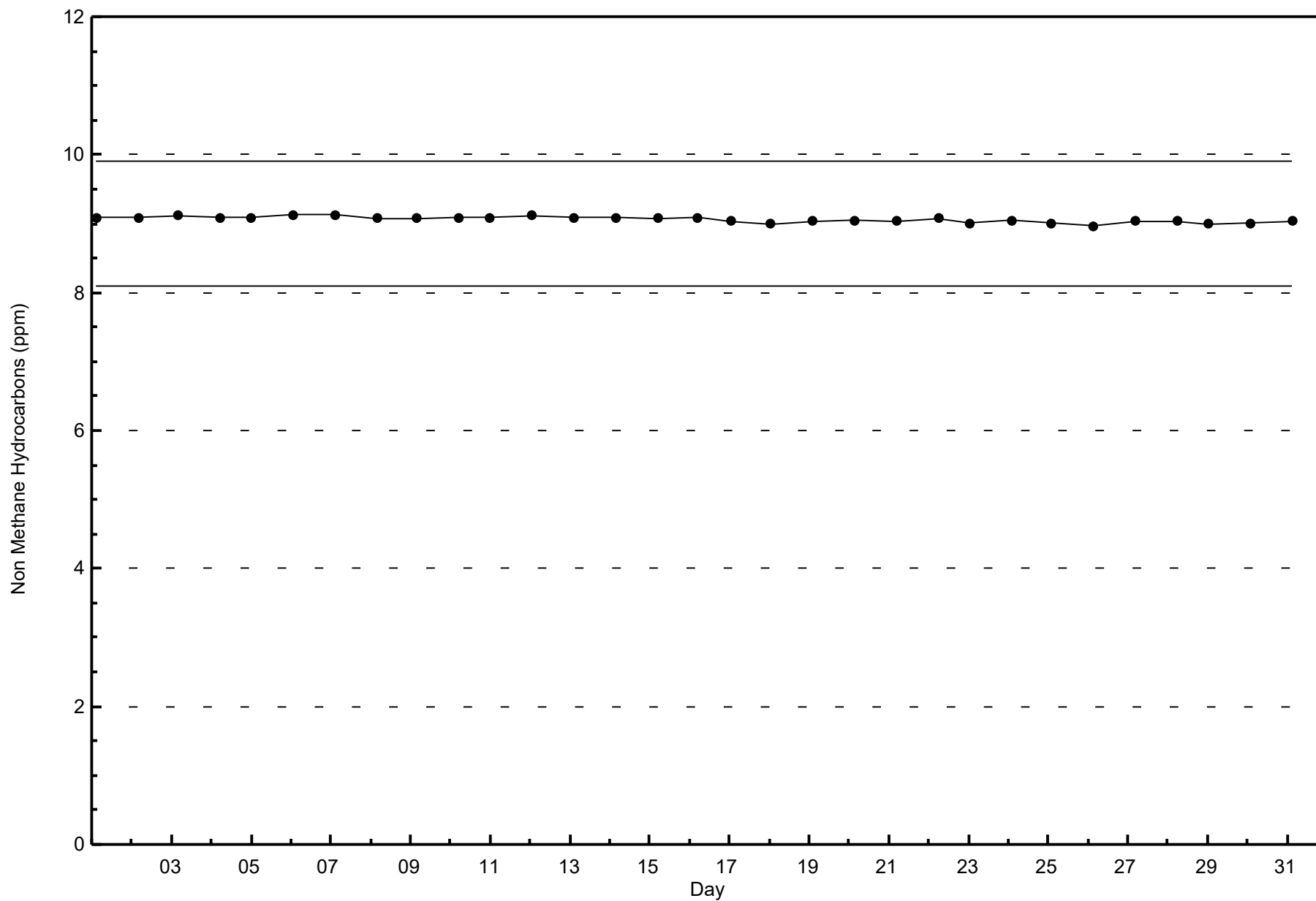
Total Number of Hours: 744



Non Methane Hydrocarbons (NMHC) - ppm
Athabasca Valley









Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH₄) - ppm

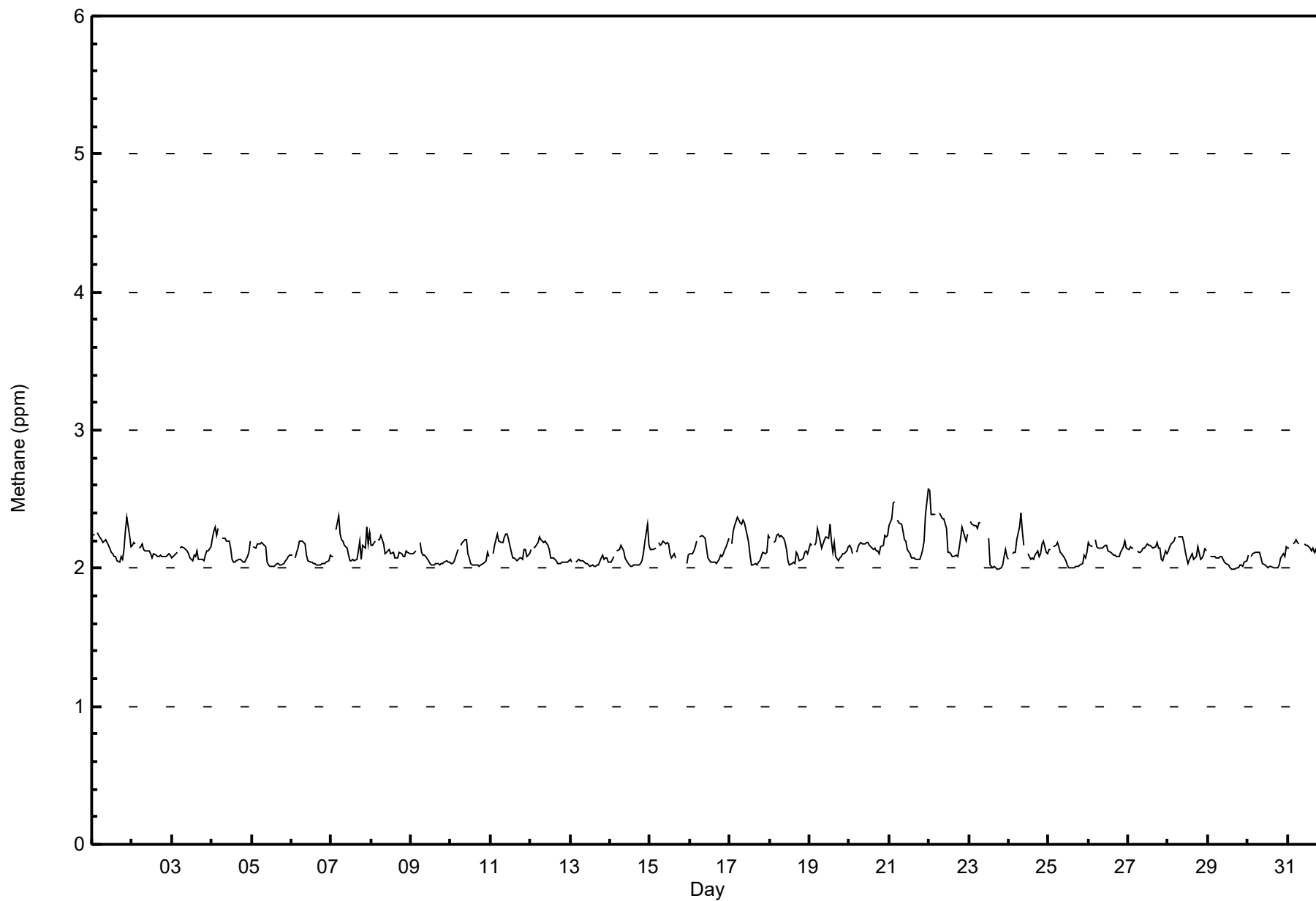
Athabasca Valley - July 2026

Number of Exceedances (AAAQO): Maximum Value: 2.6 ppm on Jul 22 00:00																	1-hr: 0 24-hr: 0 Maximum Daily Average: 2.3 ppm on Jul 22																	Hours in Service: 744 Hours of Data: 700 Hours of Missing Data: 44 Hours of Calibration: 35 Percent Operational Time: 98.8			
Minimum Value: 2.0 ppm on Jul 29 16:00 Maximum Diurnal Average: 2.2 ppm at hour 5 Monthly Average: 2.13 ppm																	Minimum Daily Average: 2.0 ppm on Jul 29 Minimum Diurnal Average: 2.1 ppm at hour 17 Percentiles: P ₁ = 2.0 P ₁₀ = 2.0 Q ₁ = 2.1 Median = 2.1 Q ₃ = 2.2 P ₉₀ = 2.2 P ₉₉ = 2.4																				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum											
1-Jul	2.2	2.2	Z	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.3	2.4	2.2	2.2	2.2	2.4									
2-Jul	2.2	2.2	2.2	Z	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2									
3-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2										
4-Jul	2.2	2.3	2.3	2.2	2.3	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.2	2.1	2.3									
5-Jul	Z	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2									
6-Jul	2.1	Z	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2									
7-Jul	2.1	2.1	Z	2.3	2.4	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.3	2.2	2.3	2.2	2.4										
8-Jul	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2									
9-Jul	2.1	2.1	2.1	2.1	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.2										
10-Jul	2.0	2.0	2.0	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2									
11-Jul	Z	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2									
12-Jul	2.1	Z	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2									
13-Jul	2.1	2.0	Z	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1									
14-Jul	2.0	2.1	2.1	Z	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.3	2.2	2.1	2.3										
15-Jul	2.1	2.1	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	PF	PF	PF	PF	PF	PF	PF	2.0	2.1	--	2.2										
16-Jul	2.1	2.1	2.1	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.2										
17-Jul	Z	2.2	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.3	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.4										
18-Jul	2.2	Z	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3										
19-Jul	2.2	2.2	Z	2.2	2.2	2.3	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3										
20-Jul	2.2	2.1	2.1	Z	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2										
21-Jul	2.3	2.4	2.5	2.5	Z	2.3	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.6	2.2	2.6											
22-Jul	2.6	2.4	2.4	2.4	2.4	Z	2.4	2.4	2.4	2.4	2.4	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.2	2.2	2.3	2.6										
23-Jul	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	C	C	C	C	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.3										
24-Jul	2.1	Z	2.1	2.1	2.1	2.2	2.3	2.4	2.3	2.2	M	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.4										
25-Jul	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2										
26-Jul	2.2	2.2	2.2	Z	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.2										
27-Jul	2.1	2.2	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2										
28-Jul	2.1	2.2	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2										
29-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1										
30-Jul	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.2										
31-Jul	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.2	M	M	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.2	2.3	2.2	2.3										
2.2																								Diurnal Average													
2.6																								Diurnal Maximum													
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																																					



Wood Buffalo Environmental Association
Hourly Averages

Methane (CH₄) - ppm
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Methane (CH₄) - ppm
Athabasca Valley - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	141	20.14	20.14
2.1 - 3.0	559	79.86	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 700

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Methane (CH₄) - ppm
Athabasca Valley - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	2	1	1	0	0	4	5	8	10	34	25	18	5	5	13	10	141
2.1 - 3.0	9	8	8	28	44	142	76	18	31	61	33	19	3	12	39	28	559
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	9	9	28	44	146	81	26	41	95	58	37	8	17	52	38	700

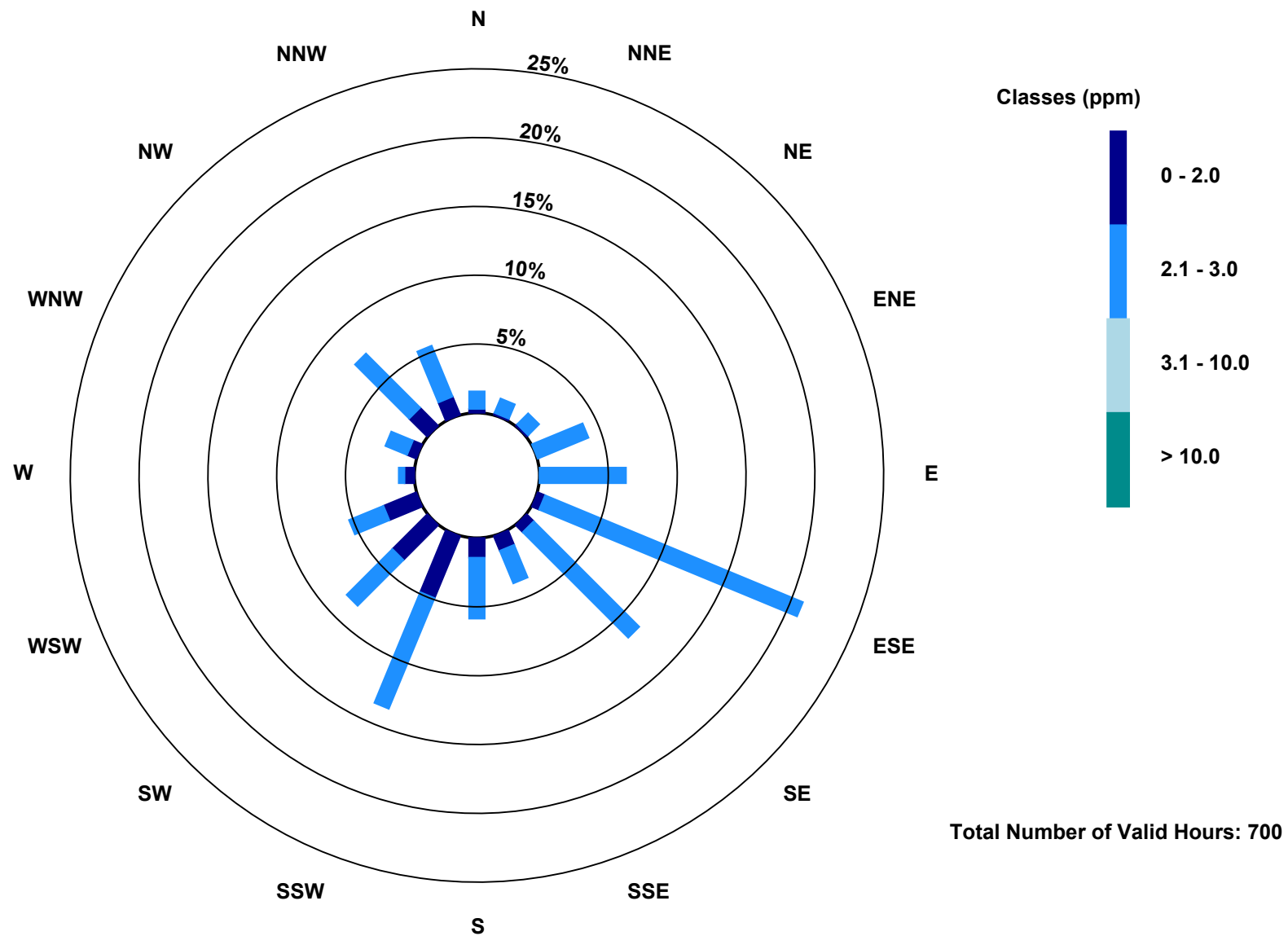
Total Number of Valid Hours: 700

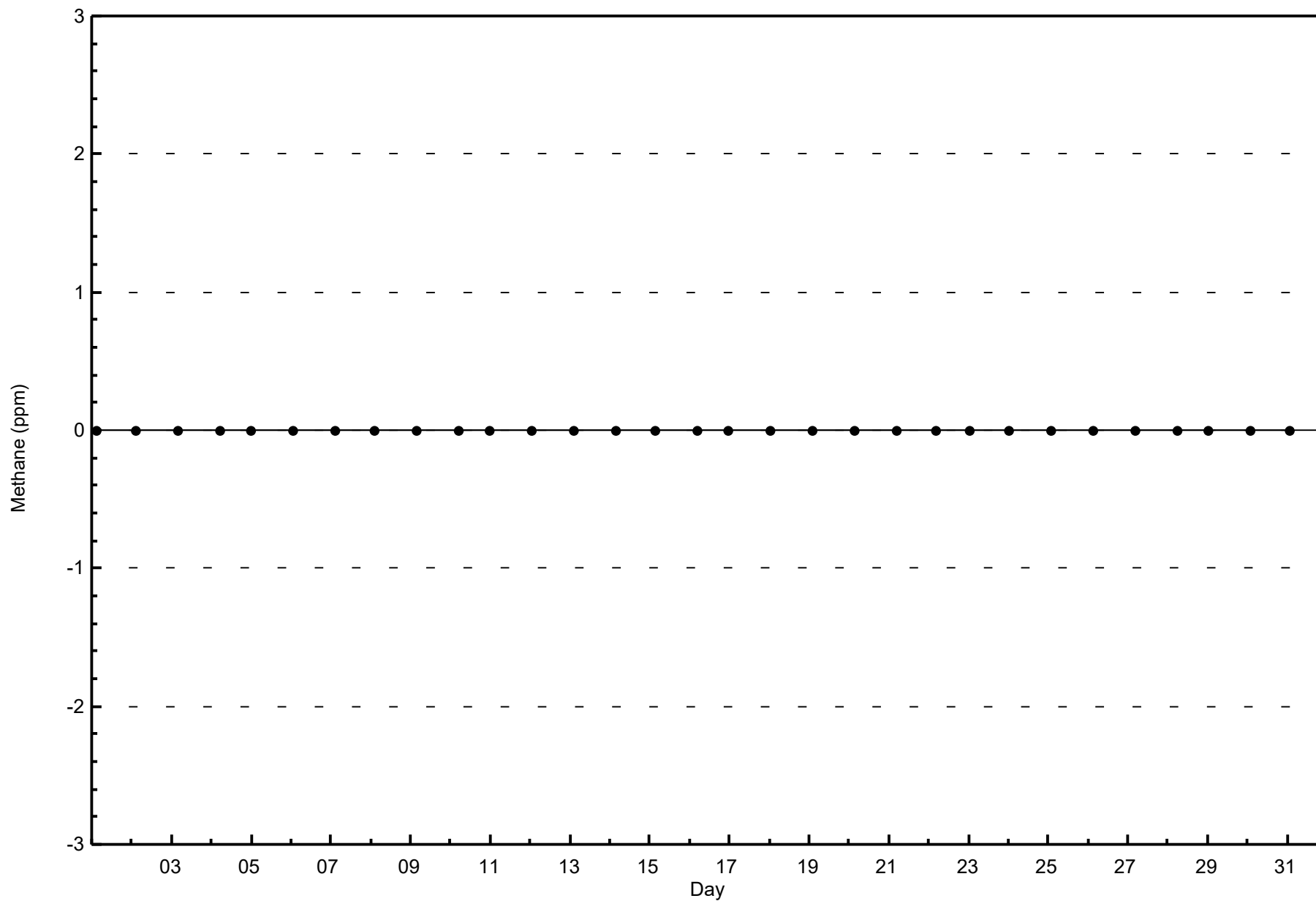
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Methane (CH₄) - ppm
Athabasca Valley

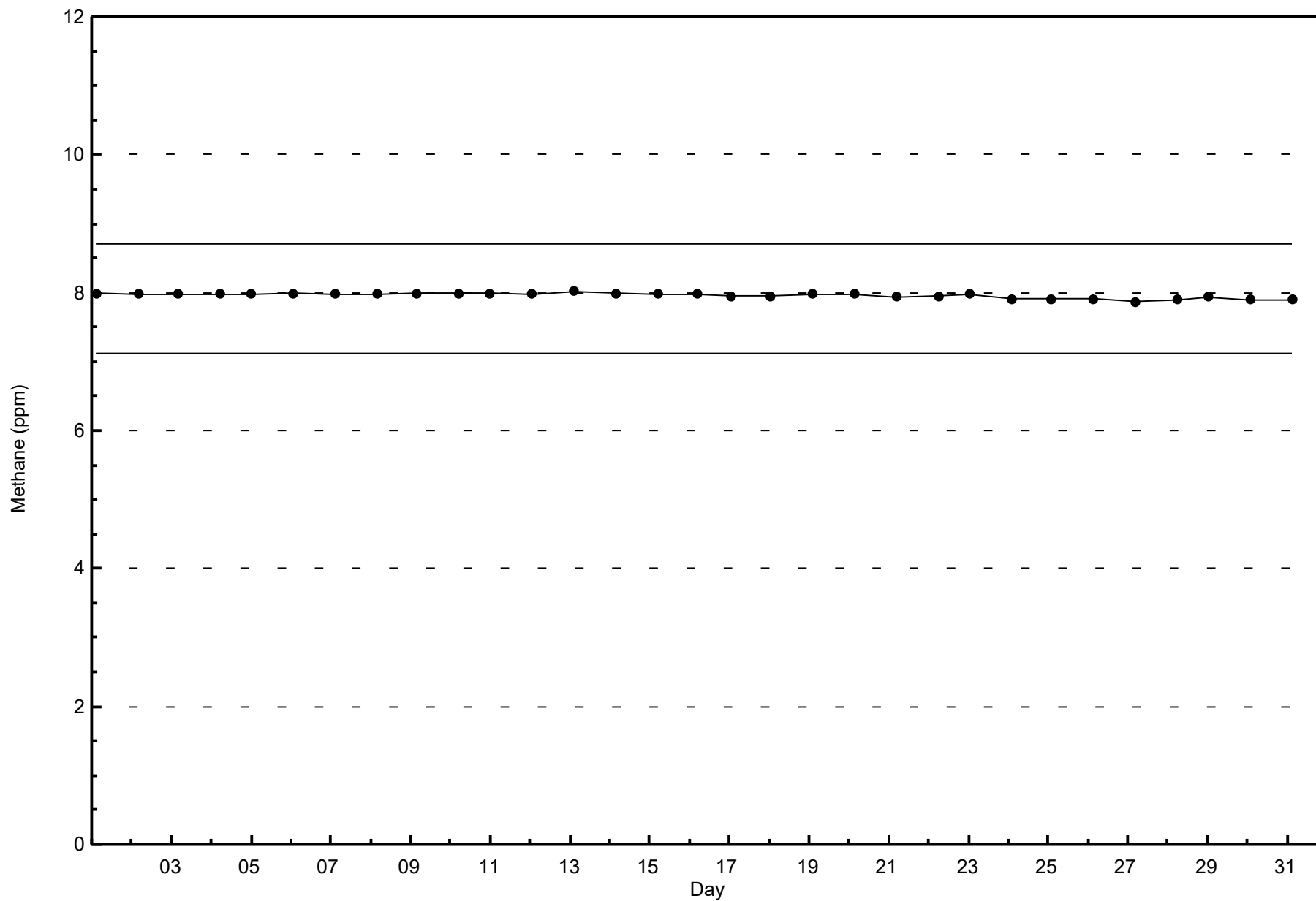






Wood Buffalo Environmental Association
Span Responses

Methane (CH₄) - ppm
Athabasca Valley - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O₃) - ppb

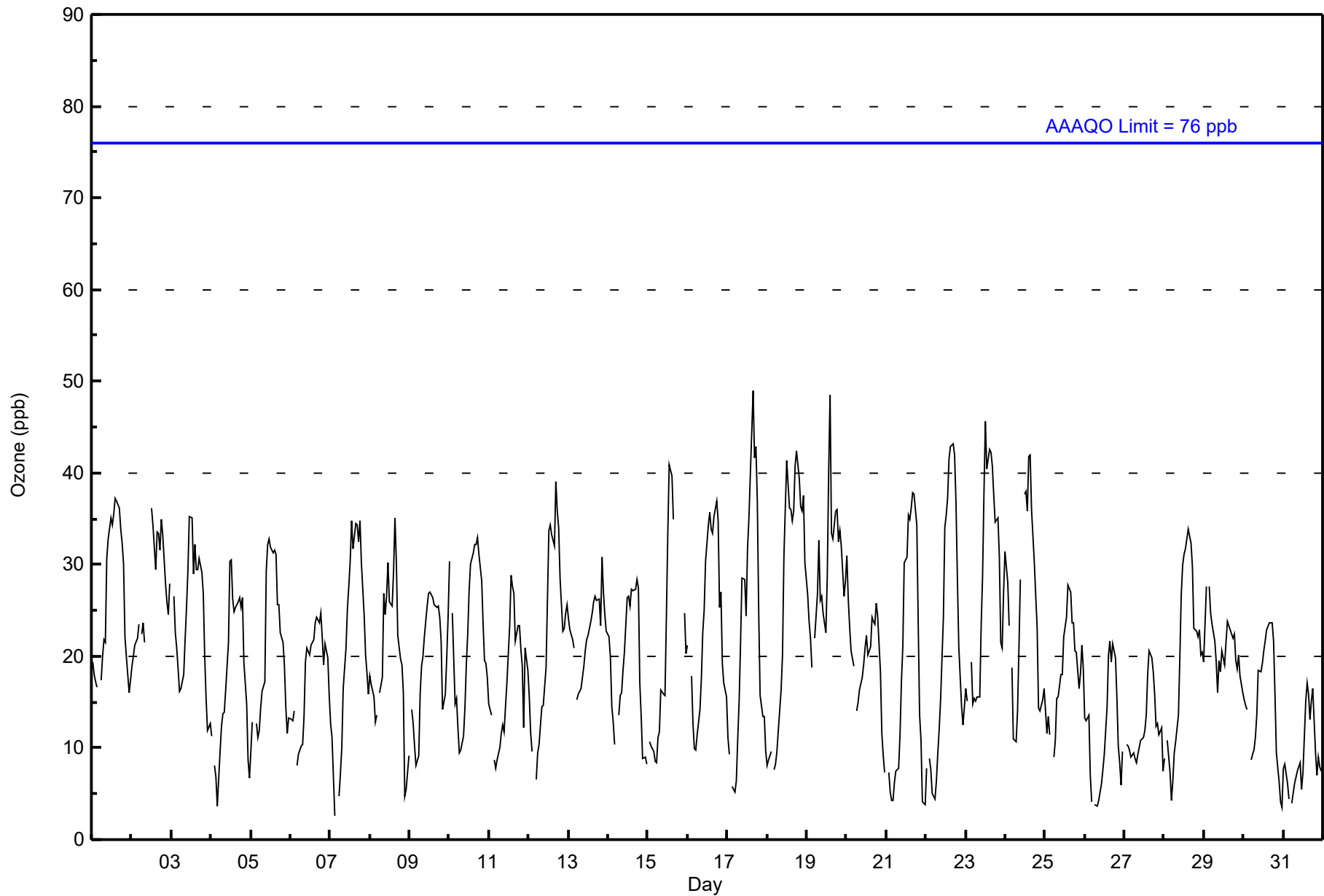
Athabasca Valley - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 49.0 ppb on Jul 17 16:00 Maximum Daily Average: 29.6 ppb on Jul 19																				Hours in Service: 744							
Minimum Value: 2.6 ppb on Jul 7 04:00 Minimum Daily Average: 9.2 ppb on Jul 31 Maximum Diurnal Average: 30.9 ppb at hour 16 Minimum Diurnal Average: 10.7 ppb at hour 6 Monthly Average: 20.68 ppb Percentiles: P ₁ = 4.2 P ₁₀ = 8.6 Q ₁ = 13.1 Median = 20.1 Q ₃ = 27.0 P ₉₀ = 34.4 P ₉₉ = 42.4																				Hours of Data: 703							
																				Hours of Missing Data: 41							
																				Hours of Calibration: 34							
																				Percent Operational Time: 99.1							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	19.3	18.0	17.3	16.6	Z	17.4	19.9	21.8	21.6	30.6	32.8	35.1	34.3	35.5	37.3	36.9	36.2	33.8	32.3	30.0	22.1	20.0	15.9	17.4	26.2	37.3	
2-Jul	18.9	19.9	21.1	22.0	23.5	Z	22.5	23.6	21.6	C	C	C	36.2	34.3	29.5	33.6	33.4	31.6	34.9	33.2	27.9	26.0	24.5	27.9	27.3	36.2	
3-Jul	Z	26.5	22.6	20.9	18.6	16.2	16.5	18.0	21.8	25.2	29.3	35.3	35.1	29.0	32.2	29.4	29.4	30.7	29.2	26.9	20.1	15.4	11.9	12.7	24.0	35.3	
4-Jul	11.3	Z	8.1	6.9	3.6	9.5	12.4	13.7	13.9	16.4	21.4	30.4	30.5	26.3	24.9	25.3	25.9	26.3	25.3	26.3	19.4	14.8	8.7	6.7	17.7	30.5	
5-Jul	9.6	12.9	Z	12.6	11.2	12.0	14.3	16.1	17.3	29.2	32.2	32.8	31.9	31.3	31.5	31.1	25.6	25.7	22.5	21.5	19.0	14.3	11.5	13.3	20.8	32.8	
6-Jul	13.1	13.0	14.1	Z	8.1	9.3	10.3	10.4	13.4	19.3	20.9	20.1	21.2	21.5	21.9	23.7	24.3	23.6	24.7	22.2	19.0	21.4	19.8	15.8	17.9	24.7	
7-Jul	12.7	11.1	6.9	2.6	Z	4.7	7.1	10.1	16.5	20.8	25.2	27.7	30.4	34.8	31.7	34.4	34.3	32.5	34.8	30.2	24.4	20.1	18.1	15.8	21.2	34.8	
8-Jul	17.9	17.0	15.6	12.8	13.5	Z	16.1	17.6	26.9	24.6	26.6	30.3	26.0	25.5	29.3	35.1	30.2	22.2	19.7	19.1	16.0	4.7	5.5	9.2	20.0	35.1	
9-Jul	Z	14.2	12.6	10.3	8.1	9.2	15.8	18.9	20.0	22.1	25.5	26.8	27.0	26.8	26.3	25.6	25.3	25.5	24.3	21.6	14.2	15.9	19.8	24.4	20.0	27.0	
10-Jul	30.3	Z	24.7	14.7	15.4	12.2	9.4	9.8	11.2	14.3	19.0	22.4	27.1	30.1	31.3	32.1	32.1	33.0	31.1	28.2	23.5	19.5	19.2	17.6	22.1	33.0	
11-Jul	14.7	13.5	Z	8.7	7.7	8.6	10.1	11.6	12.5	11.7	14.4	17.0	23.3	28.9	27.6	26.9	21.7	23.3	23.4	20.7	18.8	12.2	20.8	18.5	17.3	28.9	
12-Jul	15.6	11.6	9.6	Z	6.6	9.4	10.4	12.5	14.5	14.6	18.8	26.3	33.7	34.4	33.2	32.1	39.0	35.9	34.0	28.5	22.8	23.0	24.7	25.6	22.5	39.0	
13-Jul	24.1	22.8	21.9	21.0	Z	15.2	15.9	16.5	17.7	19.0	20.6	21.8	22.2	23.8	24.6	25.9	26.6	26.1	26.2	23.3	30.8	27.0	24.6	22.7	22.6	30.8	
14-Jul	22.1	19.9	14.4	12.8	10.4	Z	13.6	15.8	16.1	18.4	20.5	26.4	26.6	25.5	27.3	27.1	27.2	28.4	27.5	17.1	13.4	8.9	9.0	8.2	19.0	28.4	
15-Jul	Z	10.6	10.2	9.6	8.6	8.3	11.2	11.8	16.4	15.9	15.7	24.2	33.3	40.8	39.7	34.9	PF	PF	PF	PF	PF	PF	PF	24.8	20.3	--	40.8
16-Jul	21.2	Z	17.8	12.6	10.0	9.8	11.4	14.1	17.5	22.6	25.0	30.3	34.4	35.7	33.8	33.4	35.2	37.0	34.8	25.3	27.0	19.2	17.1	15.6	23.5	37.0	
17-Jul	11.1	9.4	Z	5.8	5.2	6.4	10.9	15.1	21.4	28.5	28.4	24.4	31.8	35.0	39.7	49.0	41.6	42.9	36.9	24.7	15.7	13.4	13.4	9.6	22.6	49.0	
18-Jul	8.1	8.8	9.7	Z	7.7	8.3	9.6	11.9	16.3	20.1	30.8	36.1	41.3	36.2	36.0	34.8	35.8	40.8	42.4	39.4	36.3	35.8	37.5	30.2	26.7	42.4	
19-Jul	26.7	23.7	22.0	18.8	Z	22.0	26.8	32.6	26.1	26.5	24.7	22.6	28.7	40.1	48.5	33.4	32.7	35.9	36.0	32.5	33.7	32.1	26.6	28.2	29.6	48.5	
20-Jul	31.0	26.3	23.1	20.6	18.9	Z	14.1	15.0	16.3	17.7	19.1	20.9	22.3	20.2	21.1	24.2	23.8	23.4	25.8	24.4	18.4	11.5	9.2	7.3	19.8	31.0	
21-Jul	Z	7.3	5.2	4.3	4.2	6.3	7.5	7.8	11.5	17.2	21.0	30.2	30.7	35.4	34.9	36.2	37.8	37.6	34.3	23.7	13.5	10.8	4.2	3.8	18.5	37.8	
22-Jul	7.8	Z	8.8	7.7	5.0	4.4	6.4	9.5	12.1	15.3	24.2	34.0	35.4	37.2	41.4	42.9	43.2	42.0	36.8	28.5	21.1	14.5	12.5	14.6	22.0	43.2	
23-Jul	16.5	15.1	Z	19.4	14.8	15.4	15.1	15.6	15.6	23.3	28.7	37.8	45.7	40.3	42.5	42.3	40.8	37.5	34.6	35.0	30.8	21.6	21.0	26.9	27.7	45.7	
24-Jul	31.5	28.1	23.3	Z	18.7	10.9	10.6	14.0	20.8	28.4	M	37.7	38.0	35.8	41.7	42.0	36.0	30.2	26.5	23.1	14.4	14.0	15.3	16.5	25.3	42.0	
25-Jul	14.1	11.6	13.4	11.4	Z	9.0	10.8	15.4	15.6	17.9	18.0	22.1	23.1	24.2	27.7	27.0	23.7	23.6	20.6	20.4	16.5	18.2	21.2	18.7	18.4	27.7	
26-Jul	13.2	12.9	13.6	7.0	4.2	Z	3.8	3.6	4.2	5.2	6.1	7.7	9.3	14.4	20.1	21.6	19.4	21.3	19.8	15.5	10.2	8.4	6.0	9.6	11.2	21.6	
27-Jul	Z	10.4	10.3	9.8	8.9	9.4	8.9	8.4	9.4	10.0	10.8	11.1	11.8	13.6	18.0	20.6	19.9	18.2	15.9	12.3	12.7	11.4	12.2	7.5	12.2	20.6	
28-Jul	8.9	Z	10.8	7.3	4.3	6.3	9.5	10.7	13.5	19.9	26.6	30.0	31.1	31.7	33.9	33.1	32.4	29.8	23.1	22.8	22.1	22.9	20.1	20.4	20.5	33.9	
29-Jul	19.4	27.6	Z	27.6	24.7	23.5	21.6	19.3	16.0	19.5	18.2	20.6	19.1	21.5	23.8	23.3	22.9	22.0	22.5	19.5	18.6	20.2	17.9	16.1	21.1	27.6	
30-Jul	15.2	14.6	14.2	Z	8.7	9.4	9.7	11.2	13.6	18.5	18.3	19.2	20.6	21.7	22.8	23.6	23.7	23.6	21.7	15.9	9.4	6.3	4.2	3.5	15.2	23.7	
31-Jul	7.8	8.3	6.1	4.4	Z	3.9	5.1	6.1	7.5	7.9	8.5	5.5	7.2	15.1	17.1	15.8	13.2	15.2	16.4	9.5	7.1	9.1	7.9	7.4	9.2	17.1	
Diurnal Average																											
Diurnal Maximum																											
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Ozone (O₃) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ozone (O₃) - ppb
Athabasca Valley - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	357	50.78	50.78
21 - 50	346	49.22	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Ozone (O₃) - ppb
Athabasca Valley - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	5	7	5	11	13	102	65	15	22	44	12	10	4	8	21	13	357
21 - 50	6	2	4	18	32	45	13	13	14	51	47	27	4	10	35	25	346
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	9	9	29	45	147	78	28	36	95	59	37	8	18	56	38	703

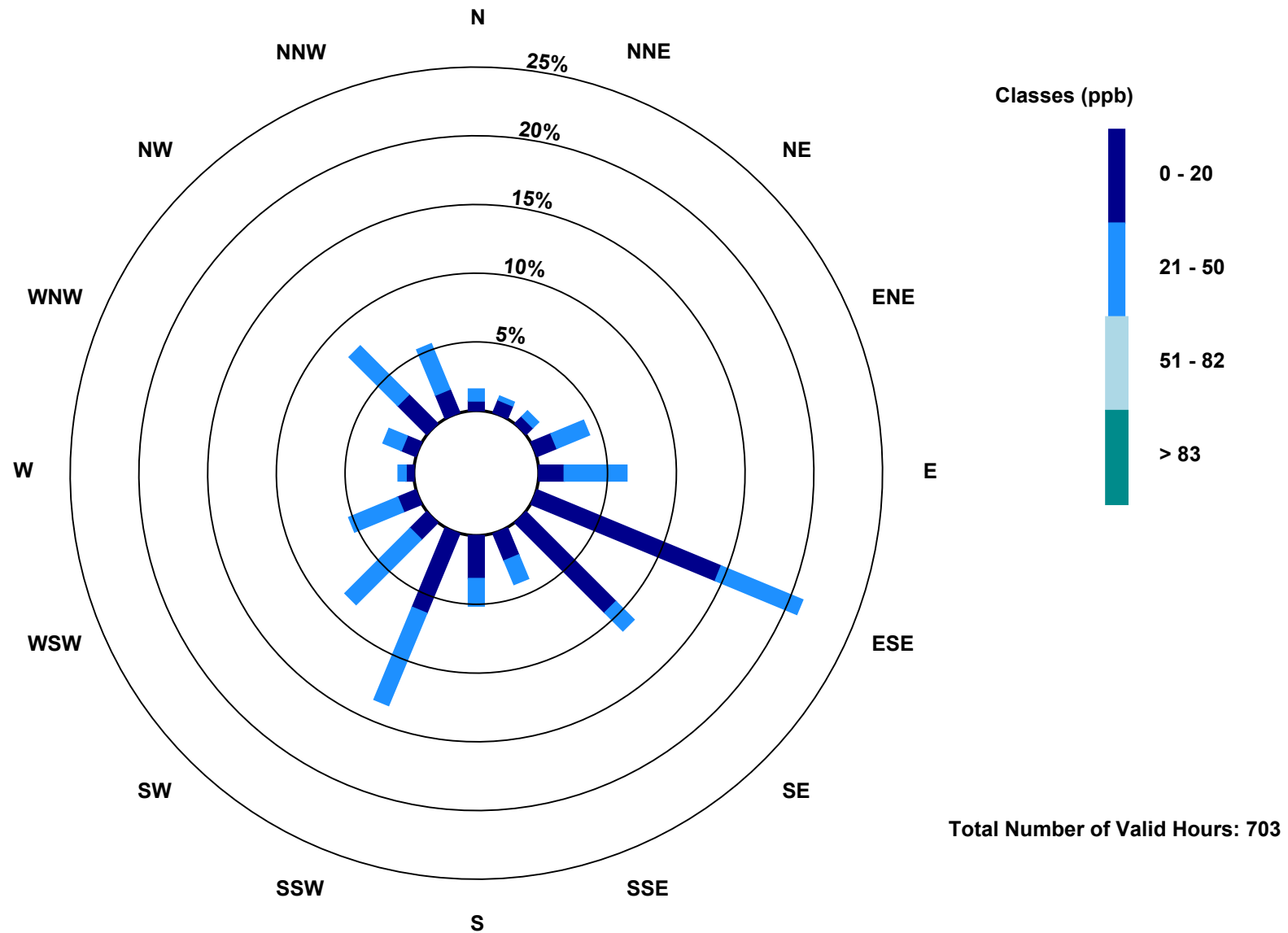
Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

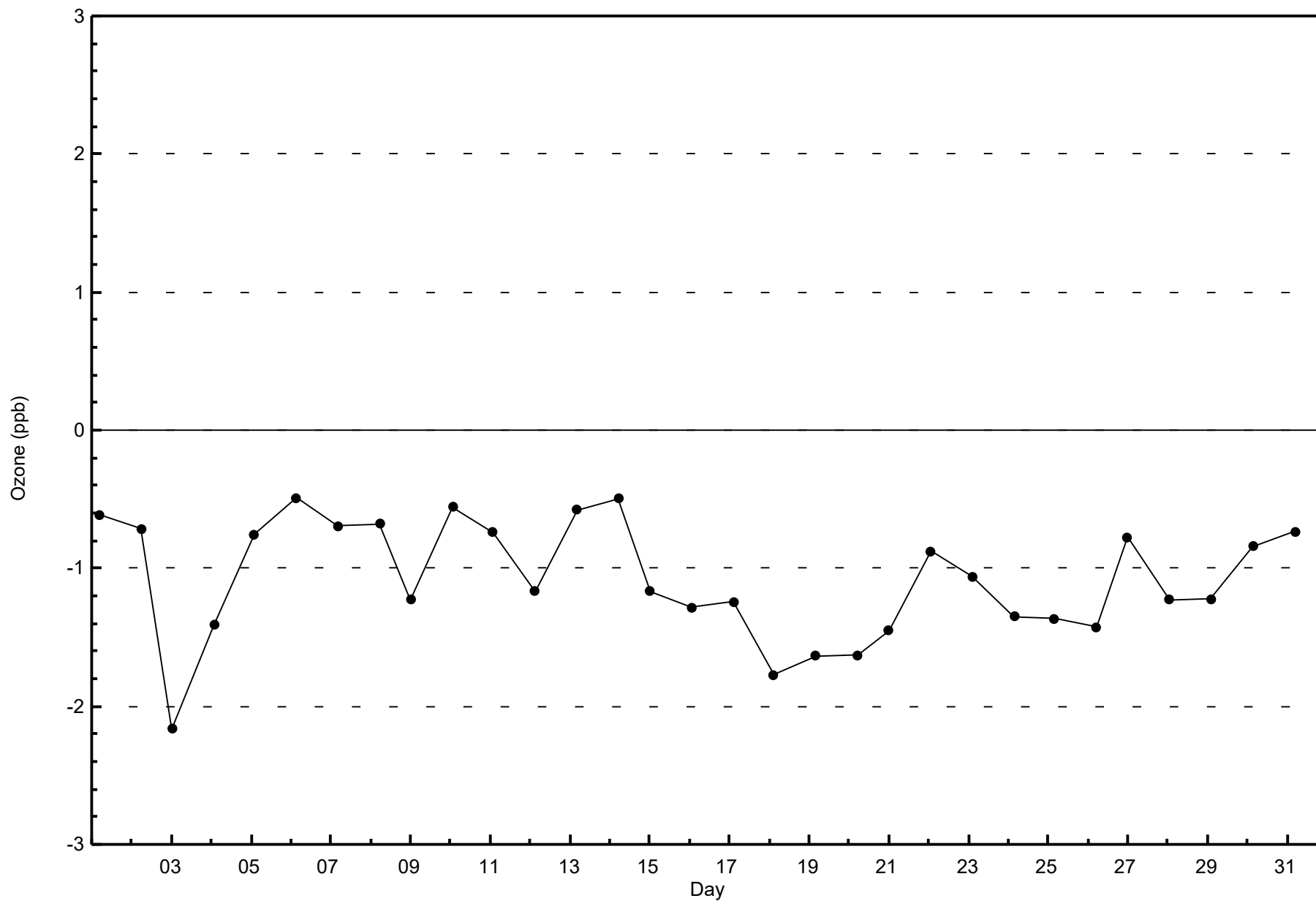
Ozone (O₃) - ppb
Athabasca Valley





Wood Buffalo Environmental Association
Zero Responses

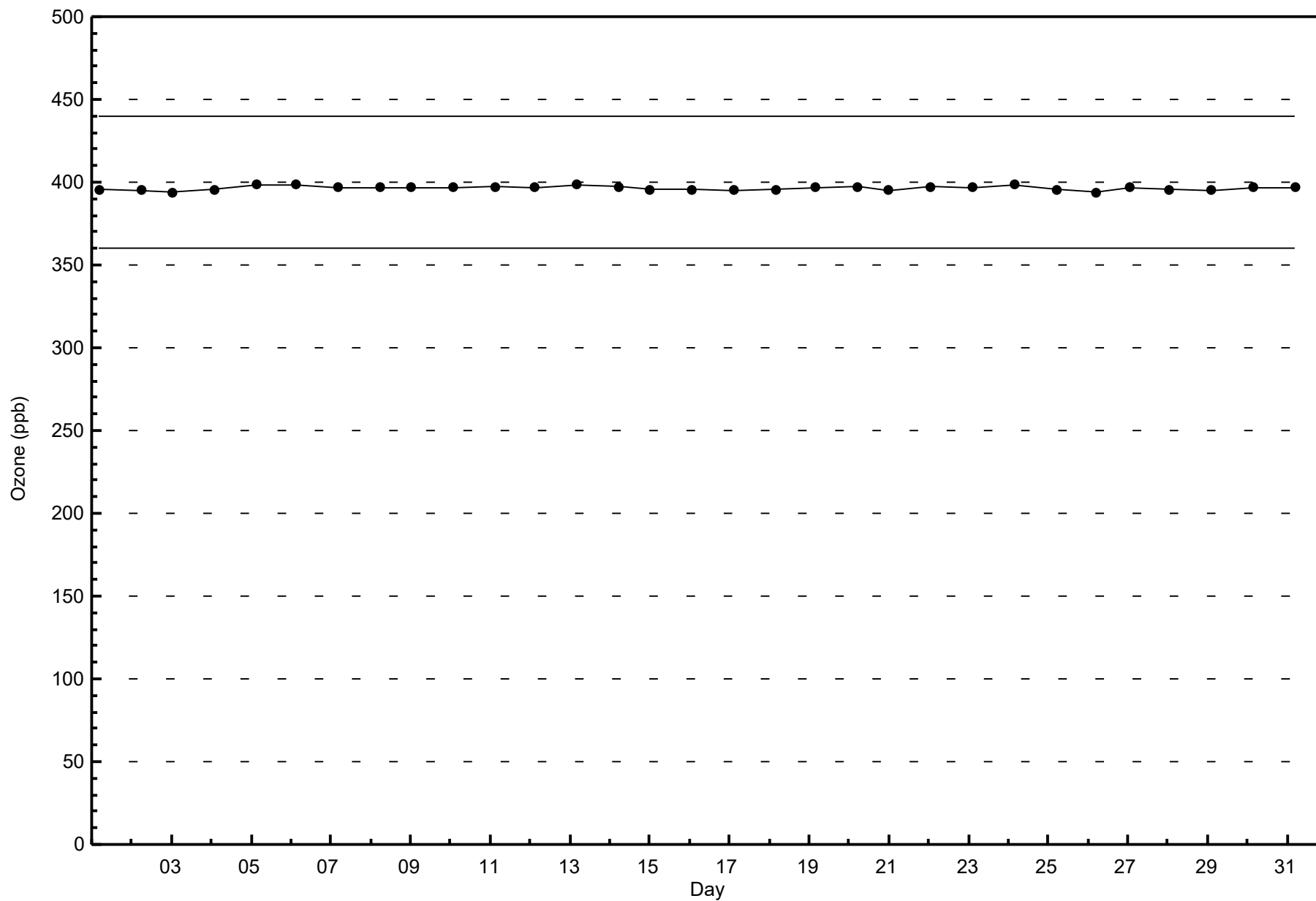
Ozone (O₃) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Span Responses

Ozone (O₃) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

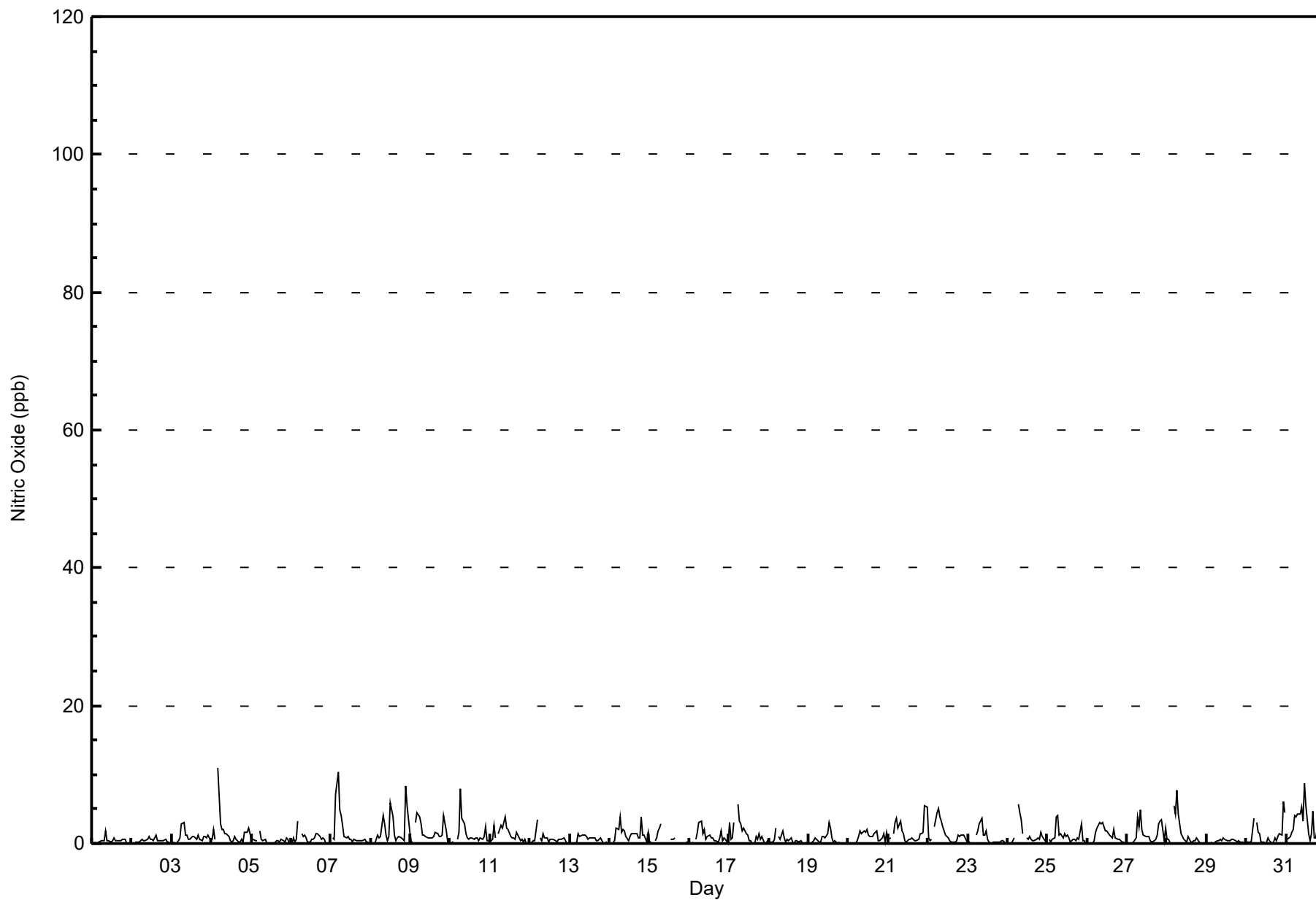
Athabasca Valley - July 2026

Maximum Value: 10.9 ppb on Jul 4 05:00																			Maximum Daily Average: 2.7 ppb on Jul 31						Hours in Service: 744		
Minimum Value: 0.0 ppb on Jul 8 00:00																			Minimum Daily Average: 0.3 ppb on Jul 29						Hours of Data: 701		
Maximum Diurnal Average: 2.7 ppb at hour 7																			Minimum Diurnal Average: 0.3 ppb at hour 1						Hours of Missing Data: 43		
Monthly Average: 1.12 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.3 Median = 0.7 Q ₃ = 1.3 P ₉₀ = 2.9 P ₉₉ = 6.0						Hours of Calibration: 36		
																									Percent Operational Time: 99.1		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	Z	0.2	0.1	0.1	0.2	0.5	0.4	0.5	1.9	0.4	0.3	0.2	0.4	0.7	0.3	0.4	0.3	0.4	0.6	0.6	0.6	0.1	0.0	0.1	0.4	1.9	
2-Jul	0.0	Z	0.2	0.1	0.2	0.4	0.6	0.5	0.4	0.7	1.0	0.7	0.6	0.5	1.2	0.5	0.4	0.4	0.3	0.4	0.6	0.2	0.2	0.1	0.4	1.2	
3-Jul	0.1	0.1	Z	0.1	0.4	0.9	2.9	3.0	1.3	1.2	0.6	0.7	1.0	0.9	0.8	0.7	1.3	0.6	0.4	1.0	1.1	0.8	1.1	0.5	0.9	3.0	
4-Jul	0.6	2.0	0.6	Z	10.9	2.9	1.9	2.0	1.5	1.4	1.1	0.4	0.2	0.4	1.0	0.6	0.2	0.3	0.6	0.3	1.5	1.7	2.2	1.4	1.5	10.9	
5-Jul	0.6	0.6	0.3	0.5	Z	1.9	0.6	0.5	0.7	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.2	0.6	0.3	0.1	0.8	0.6	0.0	0.4	1.9	
6-Jul	0.1	0.9	0.1	0.6	3.2	Z	1.5	1.1	1.3	0.9	0.2	0.3	0.6	0.6	0.9	1.5	1.4	0.9	0.7	0.7	0.7	0.1	0.1	0.1	0.8	3.2	
7-Jul	Z	0.8	0.5	7.2	10.4	4.9	4.1	2.7	1.1	0.8	0.9	0.6	0.5	0.3	0.5	0.4	0.5	0.4	0.3	0.5	0.7	0.2	0.2	0.0	1.7	10.4	
8-Jul	0.0	Z	0.0	0.5	1.1	0.9	1.0	4.1	2.8	1.2	0.5	1.0	5.8	3.8	1.2	0.4	0.7	0.9	0.7	0.7	0.5	8.3	5.5	1.6	1.9	8.3	
9-Jul	0.2	0.2	Z	3.1	4.5	3.8	2.9	1.2	1.2	0.9	0.7	0.8	0.8	0.8	1.0	1.6	1.4	1.1	1.0	1.2	4.1	1.8	0.1	0.1	1.5	4.5	
10-Jul	0.0	0.2	0.2	Z	0.6	1.6	7.9	3.6	2.9	1.5	0.8	0.5	0.8	0.8	0.6	0.8	0.7	0.5	0.8	0.6	1.1	2.5	0.5	0.5	1.3	7.9	
11-Jul	0.3	0.6	2.6	0.7	Z	1.5	2.7	2.3	3.0	3.9	2.2	2.1	1.1	0.8	0.7	0.7	1.7	0.7	0.5	0.7	0.3	0.6	0.1	0.1	1.3	3.9	
12-Jul	0.1	0.3	0.4	0.5	3.5	Z	0.9	0.4	1.4	0.9	0.8	0.3	0.6	0.7	0.7	0.5	0.3	0.6	0.5	0.6	0.8	0.4	0.1	0.1	0.7	3.5	
13-Jul	Z	0.0	0.0	0.1	0.3	1.4	1.1	1.2	1.2	1.2	1.1	0.7	0.7	0.8	0.9	0.8	0.4	0.5	0.9	0.4	0.0	0.0	0.3	0.0	0.6	1.4	
14-Jul	0.0	Z	0.1	0.4	2.2	2.0	3.8	1.7	2.1	1.7	1.1	0.5	0.9	1.5	1.3	1.4	1.5	0.9	0.7	3.9	1.1	1.3	0.3	1.6	1.4	3.9	
15-Jul	0.2	0.3	Z	0.4	0.7	1.9	2.2	2.9	C	C	C	C	C	C	0.6	0.6	0.9	PF	PF	PF	PF	PF	PF	0.2	0.1	-	2.9
16-Jul	0.0	0.1	0.2	Z	0.7	1.6	3.0	3.3	1.4	2.0	0.6	1.0	1.3	0.9	0.9	0.4	0.5	0.1	0.8	1.9	0.4	0.8	0.6	0.1	1.0	3.3	
17-Jul	3.0	0.7	0.8	3.0	Z	5.6	3.2	2.8	1.8	2.2	1.4	1.1	0.4	0.4	0.0	0.1	1.1	0.7	1.4	0.6	1.0	0.0	0.0	0.4	1.4	5.6	
18-Jul	0.2	0.2	0.2	0.7	2.3	Z	1.0	0.7	1.8	0.8	0.2	0.6	0.4	0.7	0.3	0.1	0.3	0.5	0.2	0.3	0.1	0.0	0.0	0.2	0.5	2.3	
19-Jul	Z	0.1	0.1	0.4	0.8	0.6	0.3	0.1	1.1	1.1	0.7	1.4	3.0	2.2	0.7	0.2	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.6	3.0	
20-Jul	0.0	Z	0.0	0.0	0.0	0.5	1.0	1.9	1.4	1.7	1.6	2.1	1.2	1.0	1.0	1.3	1.6	1.8	0.3	0.4	0.9	1.4	0.3	1.6	1.0	2.1	
21-Jul	0.7	0.9	Z	1.3	3.0	3.7	2.2	3.2	1.9	1.5	0.4	0.2	0.5	0.7	0.8	0.7	0.5	0.5	0.5	1.4	1.5	1.6	5.4	5.4	1.7	5.4	
22-Jul	0.8	0.4	0.6	Z	2.3	4.6	5.2	3.8	3.3	2.5	1.2	1.1	0.9	0.5	0.2	0.2	0.2	0.5	1.1	1.1	1.2	1.3	0.8	0.3	1.5	5.2	
23-Jul	0.1	0.1	0.1	0.1	Z	1.1	1.8	2.8	3.7	1.2	1.2	1.8	0.7	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.4	0.3	0.1	0.1	0.7	3.7	
24-Jul	0.0	0.0	0.1	0.4	0.8	Z	5.7	4.4	3.4	1.5	M	0.8	0.5	1.1	0.5	0.5	0.5	0.6	0.7	0.7	1.7	1.1	0.4	0.3	1.2	5.7	
25-Jul	Z	0.6	0.3	0.5	0.8	3.9	4.0	1.1	1.4	0.7	1.4	1.0	1.3	0.8	0.3	0.6	0.6	0.4	0.7	0.6	2.9	0.4	0.5	0.0	1.1	4.0	
26-Jul	0.0	Z	0.0	0.0	0.3	1.7	2.3	3.0	2.9	3.0	2.5	1.9	1.8	1.3	1.0	0.8	2.0	0.7	0.7	0.6	0.5	0.2	0.2	0.0	1.2	3.0	
27-Jul	0.0	0.0	Z	0.1	0.3	0.8	3.9	2.4	4.9	2.1	1.1	1.1	1.1	1.1	0.4	0.2	0.3	0.7	1.3	2.7	3.3	3.6	0.4	2.2	1.5	4.9	
28-Jul	0.7	0.6	0.3	Z	5.4	4.3	7.7	4.3	1.5	1.0	0.7	0.4	0.2	1.1	0.3	0.2	0.4	0.3	0.7	0.2	0.0	0.0	0.1	0.0	1.3	7.7	
29-Jul	0.1	0.0	0.0	0.1	Z	0.3	0.3	0.4	0.7	0.5	0.7	0.6	0.5	0.4	0.4	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.0	0.3	0.7	
30-Jul	0.1	0.2	0.1	0.3	3.8	Z	3.1	1.7	1.4	0.3	0.1	0.1	0.2	0.8	0.3	0.1	0.1	0.8	0.4	1.0	1.3	1.3	6.0	4.4	1.2	6.0	
31-Jul	Z	0.7	0.9	1.7	2.0	4.0	3.9	4.3	4.3	5.3	3.3	8.7	5.5	1.5	0.4	1.4	4.6	0.7	0.8	3.2	3.6	0.9	0.9	0.3	2.7	8.7	
																								Diurnal Average			
																								Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Athabasca Valley - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	701	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Athabasca Valley - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	10	9	9	27	45	151	76	28	40	91	58	37	7	18	56	39	701
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	9	9	27	45	151	76	28	40	91	58	37	7	18	56	39	701

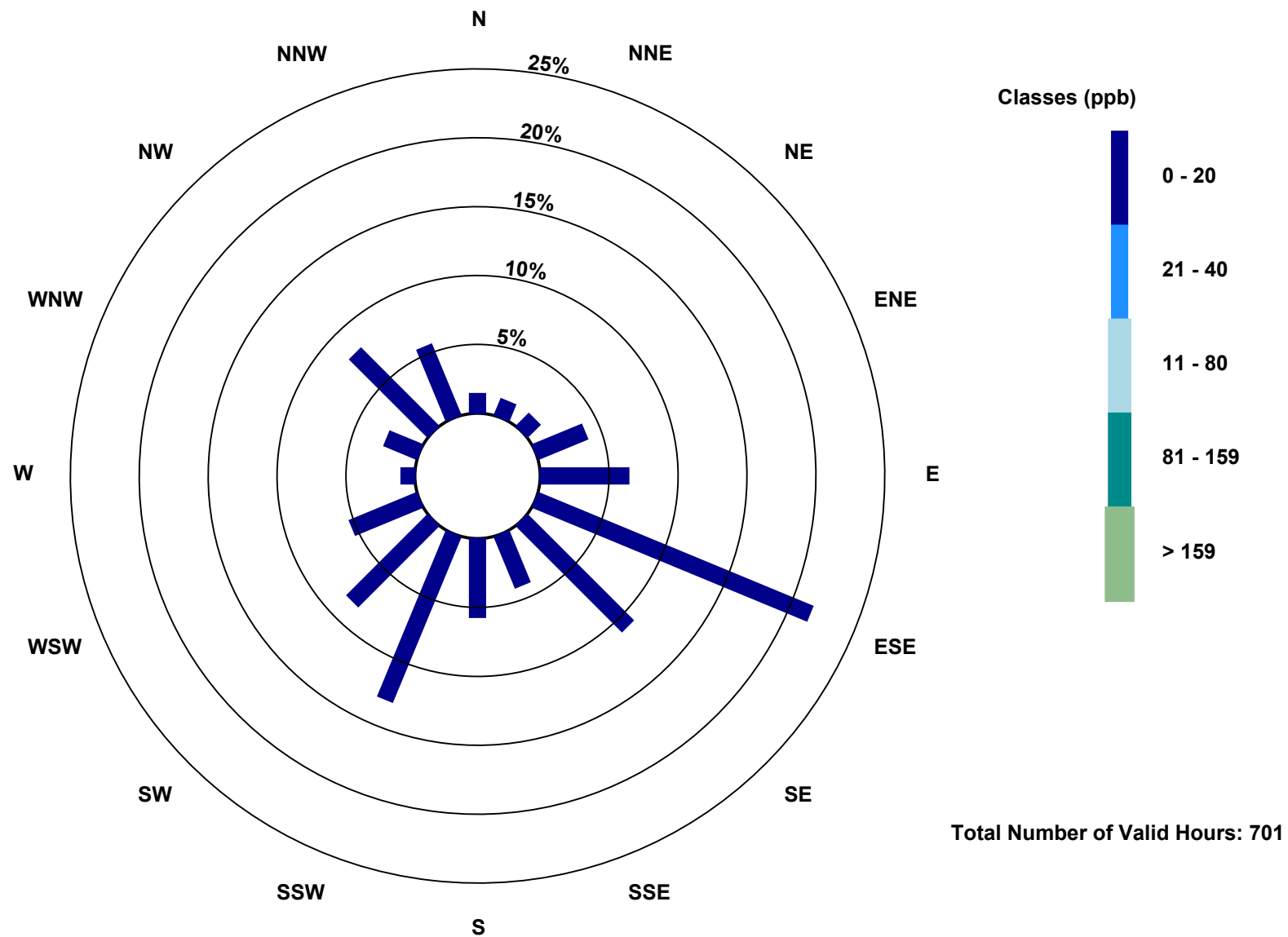
Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

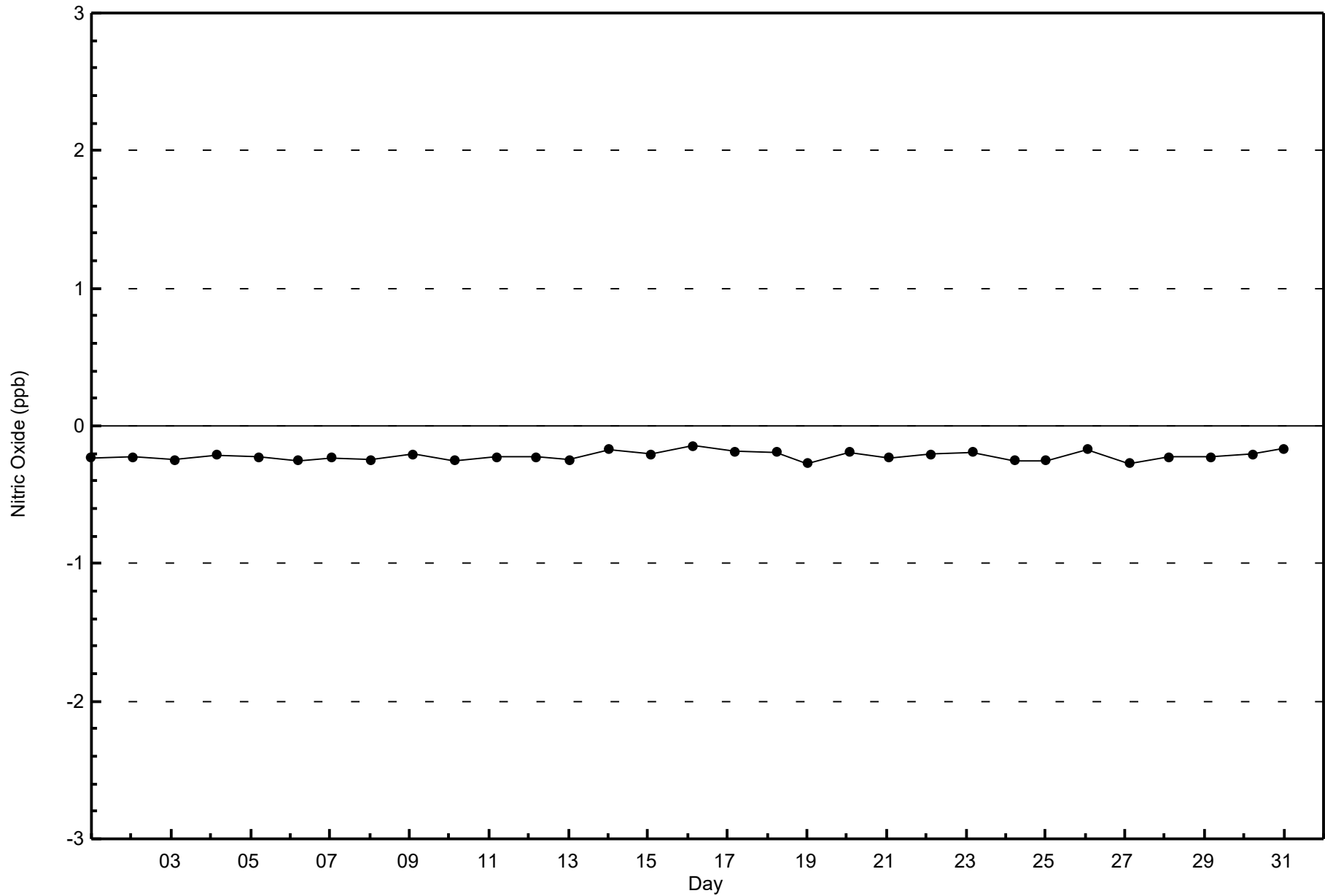
Nitric Oxide (NO) - ppb
Athabasca Valley





Wood Buffalo Environmental Association
Zero Responses

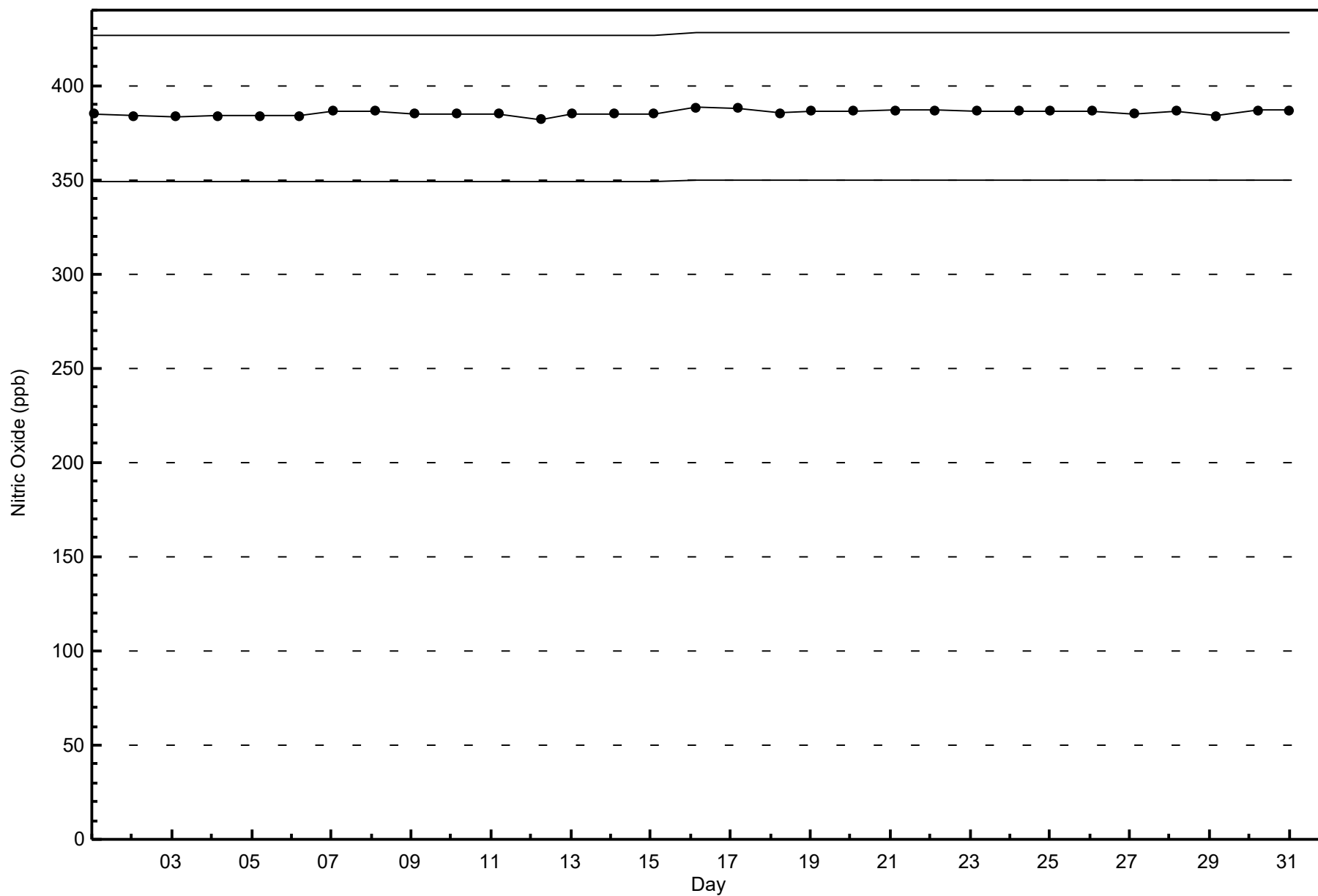
Nitric Oxide (NO) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

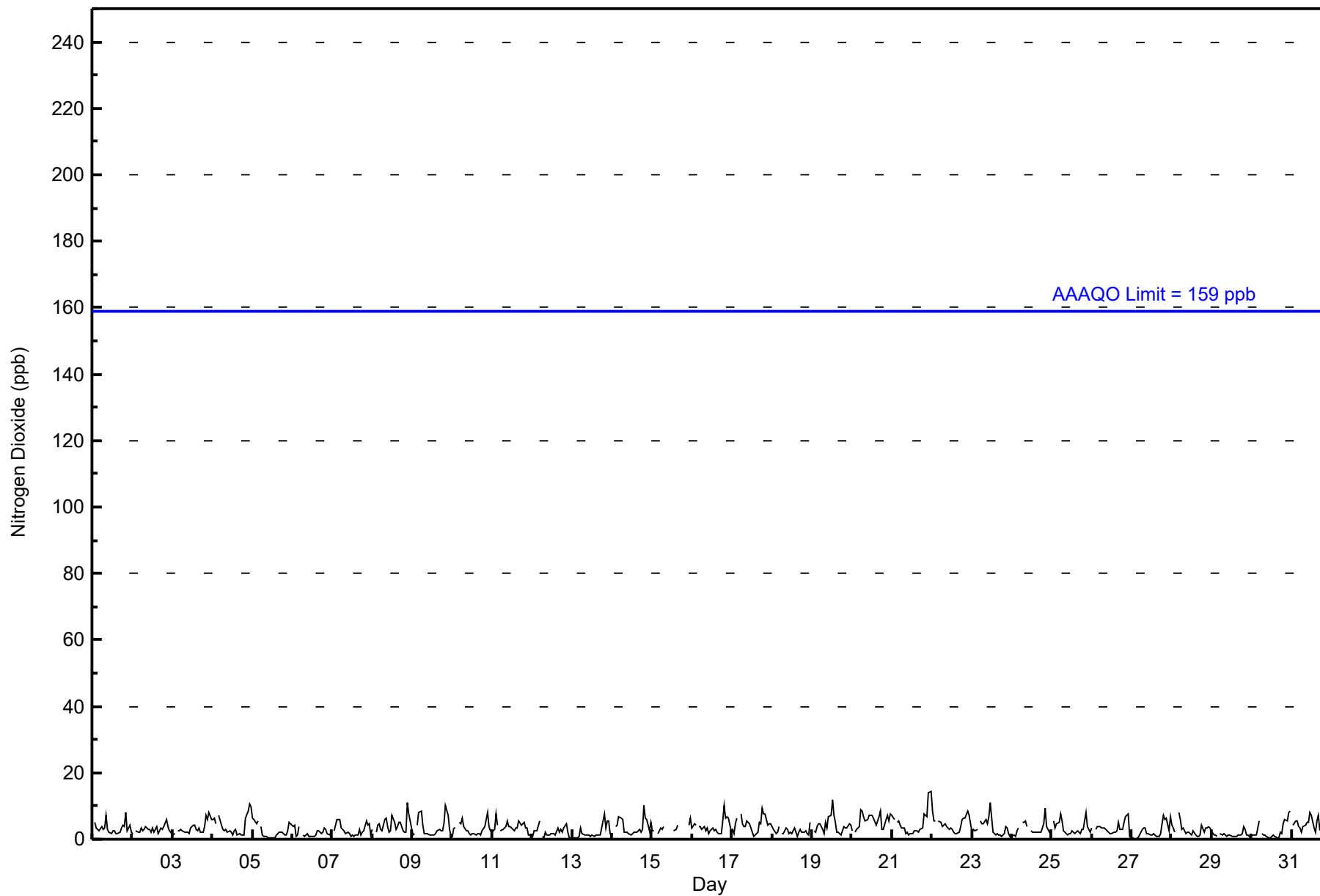
Athabasca Valley - July 2026

Number of Exceedances (AAAQO): Maximum Value: 14.2 ppb on Jul 22 00:00																				1-hr: 0 Maximum Daily Average: 5.7 ppb on Jul 20					24-hr: 0 Minimum Daily Average: 1.4 ppb on Jul 29 Minimum Diurnal Average: 2.1 ppb at hour 15 Percentiles: P ₁ = 0.4 P ₁₀ = 1.2 Q ₁ = 1.8 Median = 2.8 Q ₃ = 4.5 P ₉₀ = 6.4 P ₉₉ = 10.1					Hours in Service: 744 Hours of Data: 701 Hours of Missing Data: 43 Hours of Calibration: 36 Percent Operational Time: 99.1	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jul	Z	5.0	3.5	3.0	2.6	3.7	2.8	3.2	7.4	3.1	2.2	1.8	2.4	2.5	1.7	1.6	2.1	3.3	4.2	4.0	8.2	2.4	4.1	2.3	3.4	8.2					
2-Jul	1.6	Z	2.7	2.3	2.3	3.2	2.5	2.9	3.9	3.1	2.8	2.2	3.2	2.1	4.0	1.8	2.6	3.2	3.1	3.8	6.0	3.8	2.4	2.1	2.9	6.0					
3-Jul	1.4	1.7	Z	2.5	2.6	2.9	2.5	2.2	2.3	2.1	1.7	3.4	4.4	4.4	2.9	2.5	3.2	2.0	2.2	3.9	7.2	6.1	8.2	5.9	3.4	8.2					
4-Jul	6.1	6.2	4.6	Z	7.4	4.2	2.8	2.7	3.1	2.3	2.5	2.0	1.2	2.6	3.1	1.4	1.5	1.1	1.3	1.3	6.4	8.3	10.7	9.6	4.0	10.7					
5-Jul	6.3	5.8	4.5	5.3	Z	3.7	1.2	0.7	0.8	0.5	0.3	0.4	0.4	0.5	1.2	1.8	2.0	2.3	2.1	1.4	1.4	2.6	5.0	4.8	2.4	6.3					
6-Jul	4.0	4.2	0.9	1.3	3.7	Z	1.3	0.8	1.3	1.6	1.0	0.7	0.8	1.0	1.4	2.5	2.7	1.8	2.0	3.3	2.9	1.9	1.3	2.4	1.9	4.2					
7-Jul	Z	2.4	4.4	6.0	5.9	3.5	2.9	2.4	1.7	2.0	1.6	1.0	1.1	0.8	1.1	1.3	2.8	1.3	2.2	2.7	5.7	4.4	4.6	1.2	2.7	6.0					
8-Jul	2.8	Z	2.0	4.3	4.6	3.0	2.5	6.0	6.3	3.7	2.0	2.7	7.1	4.9	3.1	3.9	5.1	5.2	2.5	2.1	2.3	11.1	7.5	3.2	4.3	11.1					
9-Jul	1.1	1.8	Z	4.4	8.1	8.5	4.2	1.5	1.7	1.5	1.3	1.1	1.2	1.3	1.5	2.4	2.9	2.6	2.7	4.5	10.2	7.1	2.9	0.9	3.3	10.2					
10-Jul	0.7	3.3	3.4	Z	4.9	4.8	6.3	3.9	2.5	2.5	1.7	1.2	1.6	1.7	1.4	1.8	1.6	1.2	2.4	3.7	5.9	8.2	3.9	2.7	3.1	8.2					
11-Jul	2.2	2.9	7.5	4.4	Z	2.7	2.9	3.5	3.8	5.4	3.9	3.7	3.1	2.7	3.4	3.2	5.7	4.3	4.7	4.9	3.2	3.5	1.4	1.4	3.7	7.5					
12-Jul	1.0	2.6	2.4	2.4	5.3	Z	0.9	0.6	2.3	1.3	1.3	1.7	1.6	1.6	1.4	3.4	2.3	3.0	2.2	3.2	4.7	2.2	0.6	0.3	2.1	5.3					
13-Jul	Z	0.4	0.4	0.5	1.0	3.3	1.5	1.2	1.2	1.3	1.2	0.8	1.1	1.0	1.2	1.2	1.1	1.2	5.5	7.6	3.2	5.6	5.6	1.9	2.1	7.6					
14-Jul	1.6	Z	3.8	4.4	6.8	6.2	6.0	2.2	2.0	2.1	1.5	1.2	1.8	2.1	2.2	2.3	2.9	2.3	2.8	10.0	6.4	6.1	2.7	4.9	3.7	10.0					
15-Jul	2.6	2.5	Z	1.7	2.6	3.5	3.0	3.9	C	C	C	C	C	2.5	2.9	4.4	PF	PF	PF	PF	PF	PF	4.1	6.5	--	6.5					
16-Jul	3.3	4.6	4.1	Z	4.0	3.9	3.1	3.8	2.5	3.5	1.9	2.5	3.2	2.4	3.1	2.3	1.8	1.8	5.7	10.1	6.2	6.9	6.2	2.6	3.9	10.1					
17-Jul	2.9	1.6	4.5	6.4	Z	7.6	4.5	3.7	3.7	5.6	4.6	3.2	2.0	0.7	1.1	2.0	5.1	4.8	9.4	7.5	7.6	4.4	4.5	4.7	4.4	9.4					
18-Jul	3.9	3.0	1.7	2.2	3.7	Z	1.7	1.7	3.6	2.8	1.9	2.1	1.6	3.6	2.0	1.0	2.2	2.9	2.0	2.2	2.4	1.8	1.2	5.2	2.5	5.2					
19-Jul	Z	2.4	2.3	3.7	4.7	4.7	3.0	1.5	4.9	3.4	6.7	7.0	11.7	7.3	5.2	2.1	2.3	1.2	2.7	4.0	3.6	3.4	4.8	4.4	4.2	11.7					
20-Jul	2.6	Z	2.0	2.9	3.9	8.9	8.3	6.6	5.7	5.9	7.4	7.1	7.0	6.2	4.2	5.5	6.8	8.4	3.1	2.8	6.1	7.1	5.6	7.6	5.7	8.9					
21-Jul	7.1	6.1	Z	5.0	5.5	4.1	3.4	3.3	1.8	2.2	1.3	1.5	1.9	2.5	2.6	2.5	2.3	2.8	3.6	7.7	7.3	6.9	14.1	14.2	4.8	14.2					
22-Jul	8.3	5.3	5.6	Z	5.5	5.0	4.0	4.3	4.6	3.8	3.0	3.5	3.1	2.1	1.6	1.8	2.2	3.7	6.1	6.2	6.2	8.5	7.4	4.8	4.6	8.5					
23-Jul	2.3	3.1	2.5	2.9	Z	5.6	4.5	4.5	6.1	4.6	6.8	11.2	6.4	2.0	1.2	1.9	1.4	1.1	1.0	1.8	4.0	3.3	1.6	1.0	3.5	11.2					
24-Jul	0.9	1.2	1.0	2.5	3.3	Z	5.1	5.0	5.5	3.8	M	2.5	2.0	2.0	2.3	2.2	2.1	2.0	3.4	4.5	9.4	3.7	2.0	2.0	3.1	9.4					
25-Jul	Z	5.4	3.4	4.7	5.2	7.8	5.5	2.4	2.1	1.2	1.7	1.7	2.6	2.3	1.5	2.4	2.2	1.8	2.9	3.1	8.1	4.0	3.1	2.1	3.4	8.1					
26-Jul	3.4	Z	3.1	3.7	3.7	3.9	3.6	3.4	3.0	2.6	2.2	1.8	1.8	2.0	2.3	2.5	4.9	2.9	3.0	5.0	6.7	7.2	7.5	0.9	3.5	7.5					
27-Jul	0.4	0.4	Z	0.3	0.5	2.0	3.1	3.6	3.2	1.9	1.8	1.3	1.3	1.6	1.1	0.9	1.0	1.8	4.5	7.4	5.9	6.2	2.5	6.9	2.6	7.4					
28-Jul	4.3	3.6	2.1	Z	8.1	5.8	3.1	3.2	1.9	2.2	2.1	1.5	1.3	2.4	1.1	0.8	1.0	1.4	4.2	2.0	3.5	3.5	3.9	3.2	2.9	8.1					
29-Jul	2.4	1.2	1.2	1.0	Z	1.7	1.3	1.8	1.3	1.0	1.2	1.2	1.0	1.0	0.9	1.0	1.2	1.1	1.5	3.8	3.0	1.1	1.2	0.6	1.4	3.8					
30-Jul	1.4	1.4	1.4	1.2	5.4	Z	1.9	1.2	1.4	0.8	0.6	0.5	0.7	1.3	1.0	0.6	0.6	2.0	1.6	4.5	5.8	5.6	8.1	8.6	2.5	8.6					
31-Jul	Z	4.2	5.5	5.5	4.0	3.5	2.3	3.7	4.3	4.9	5.0	7.9	7.0	3.3	2.1	5.7	7.4	2.8	3.3	7.3	6.6	3.4	3.6	2.3	4.6	7.9					
																									Diurnal Average						
																									Diurnal Maximum						
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																															
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																															



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Athabasca Valley - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	701	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Athabasca Valley - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	10	9	9	27	45	151	76	28	40	91	58	37	7	18	56	39	701
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	9	9	27	45	151	76	28	40	91	58	37	7	18	56	39	701

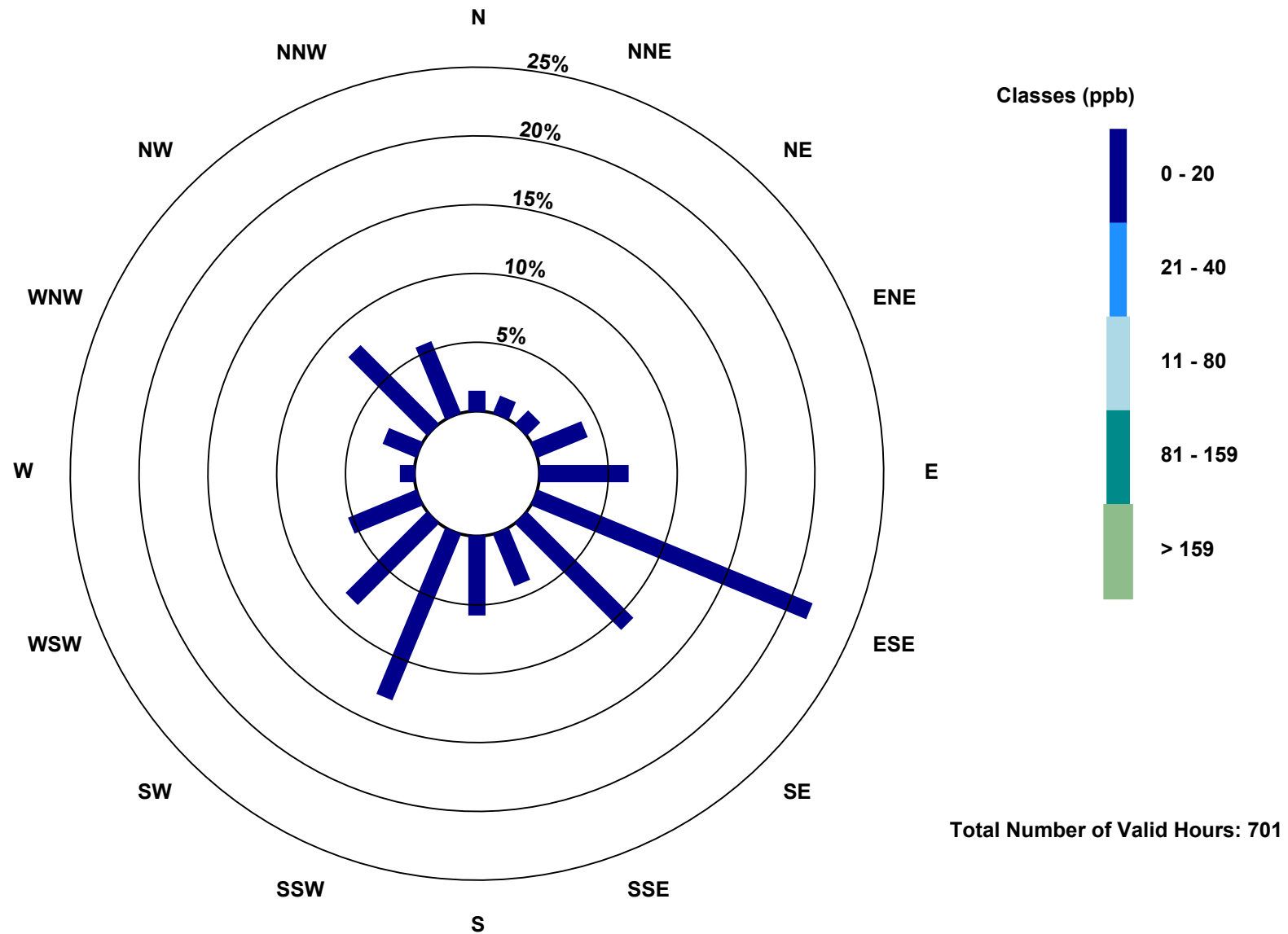
Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

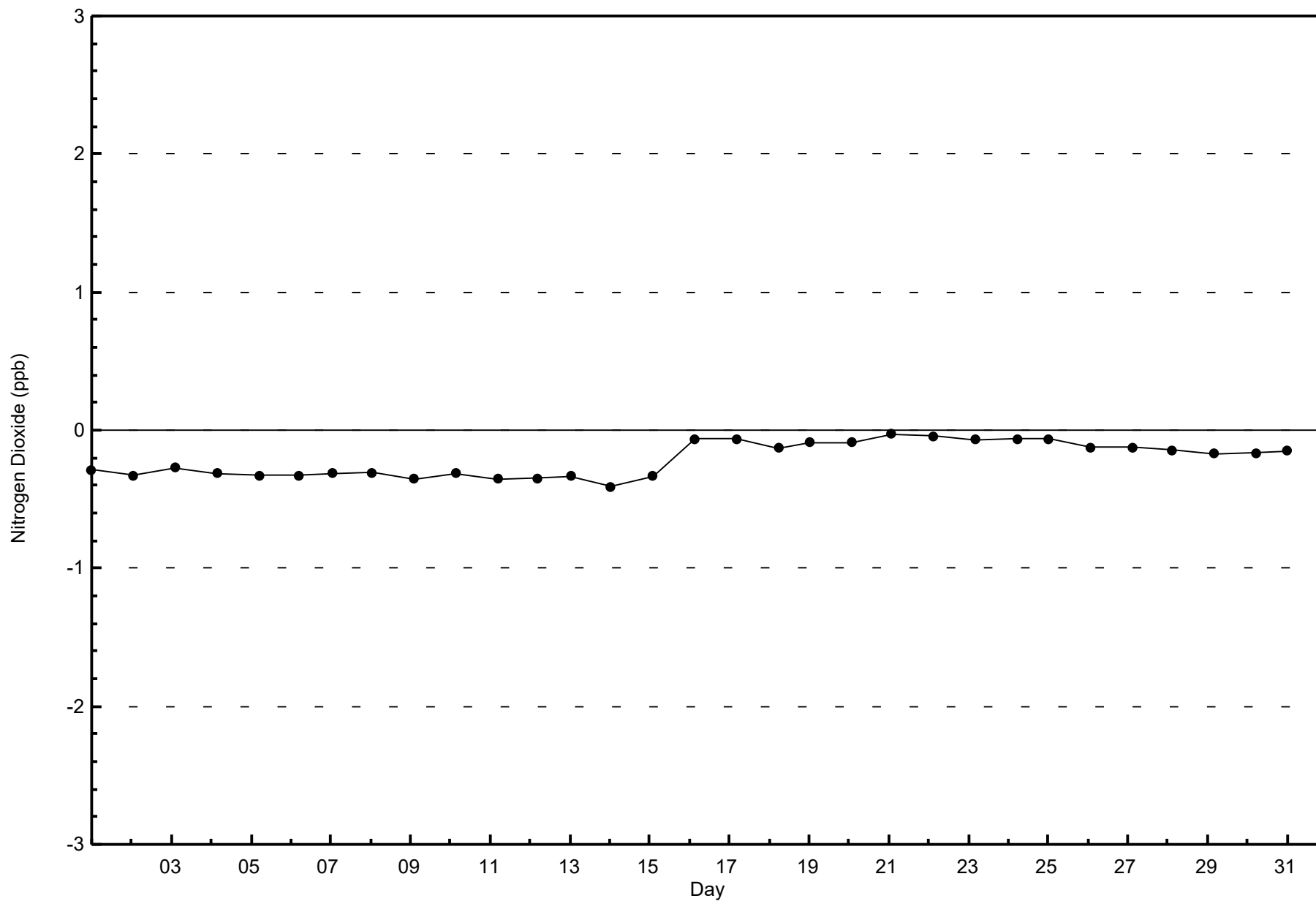
Nitrogen Dioxide (NO₂) - ppb
Athabasca Valley





Wood Buffalo Environmental Association
Zero Responses

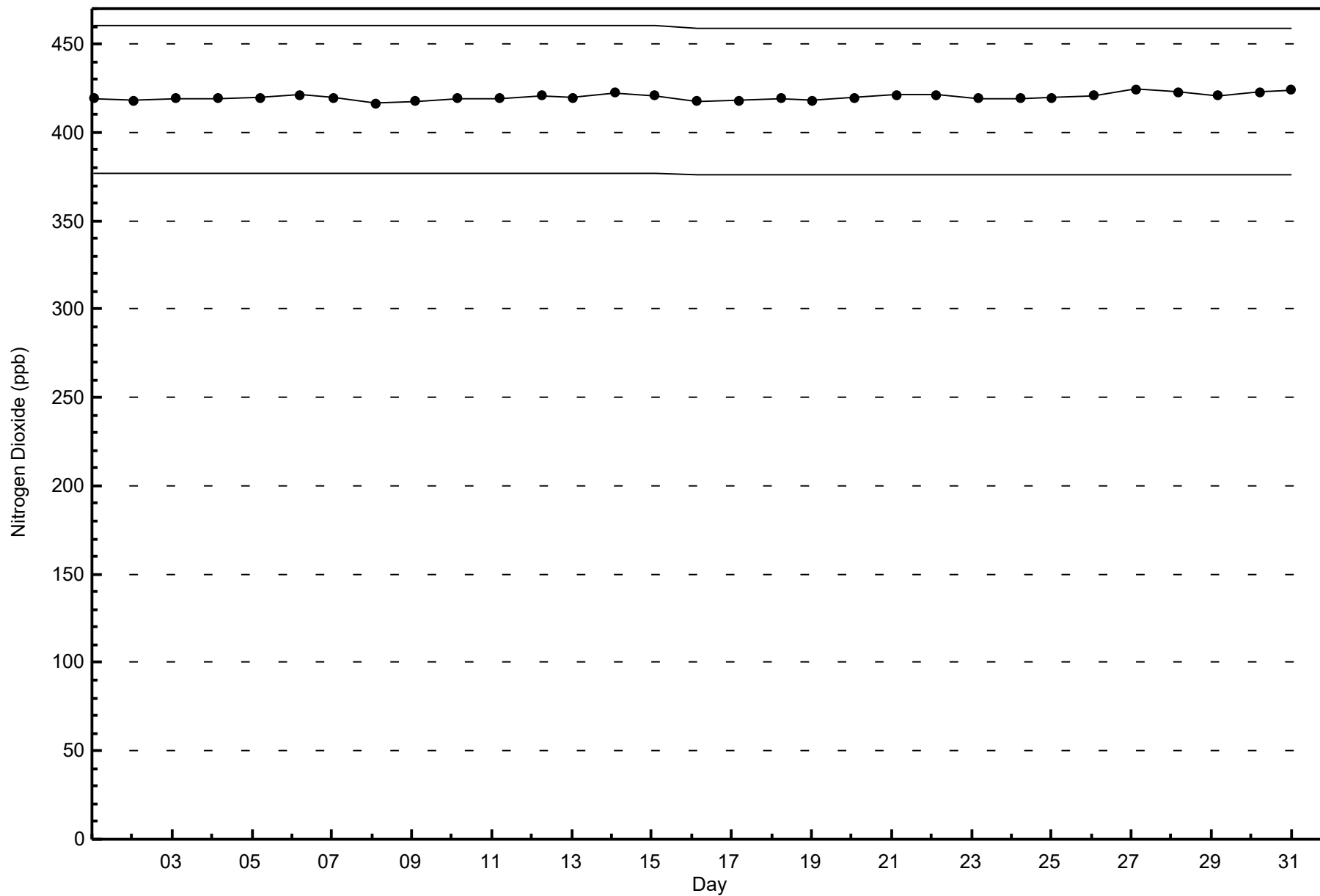
Nitrogen Dioxide (NO₂) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

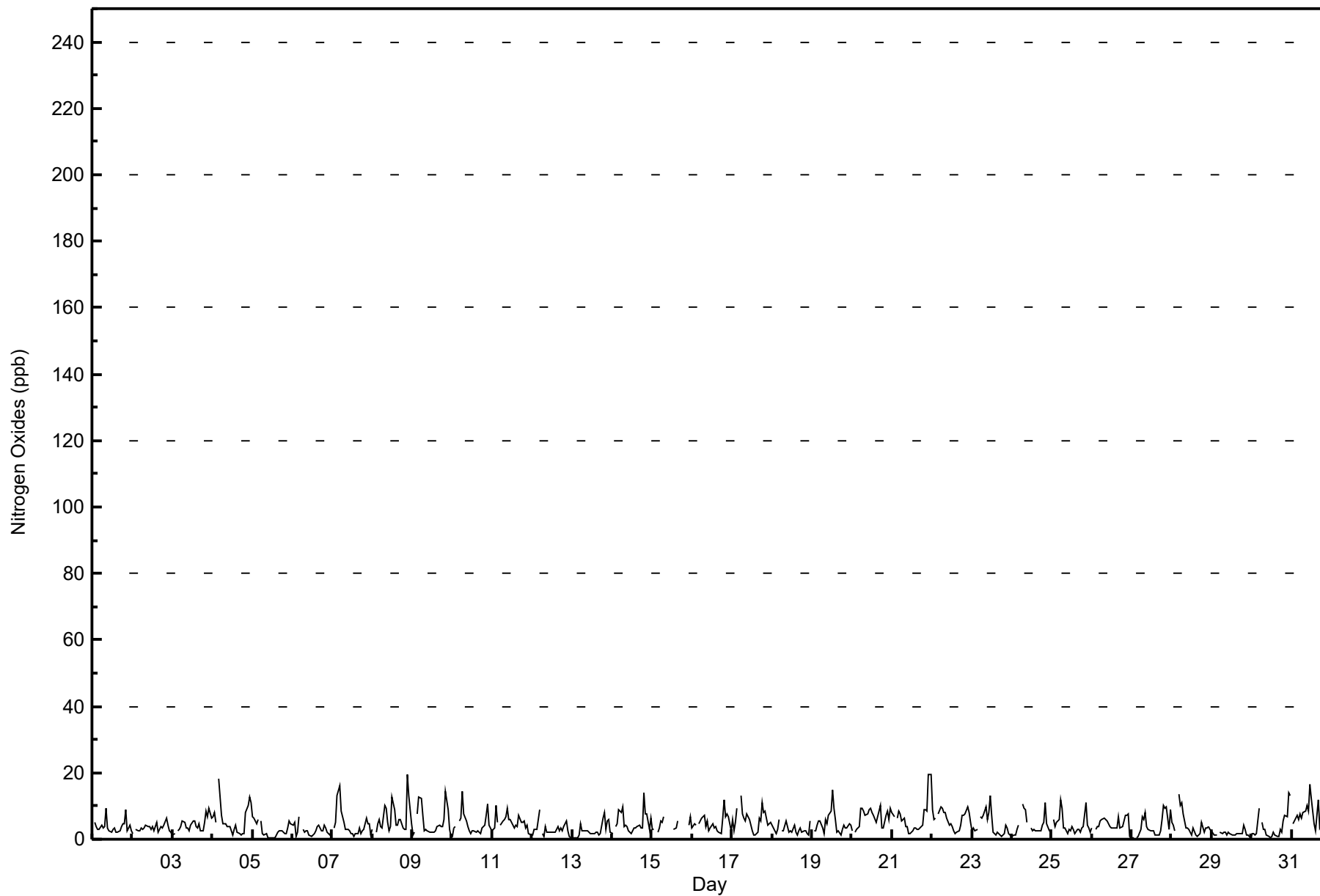
Athabasca Valley - July 2026

Maximum Value: 19.6 ppb on Jul 22 00:00																			Maximum Daily Average: 7.3 ppb on Jul 31							Hours in Service: 744			
Minimum Value: 0.3 ppb on Jul 5 11:00																			Minimum Daily Average: 1.8 ppb on Jul 29							Hours of Data: 701			
Maximum Diurnal Average: 6.8 ppb at hour 5																			Minimum Diurnal Average: 2.7 ppb at hour 15							Hours of Missing Data: 43			
Monthly Average: 4.47 ppb																			Percentiles: P ₁ = 0.4 P ₁₀ = 1.5 Q ₁ = 2.4 Median = 3.6 Q ₃ = 5.9 P ₉₀ = 8.8 P ₉₉ = 14.3							Hours of Calibration: 36			
																										Percent Operational Time: 99.1			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
1-Jul	Z	5.2	3.6	3.1	2.8	4.2	3.2	3.7	9.3	3.5	2.5	2.0	2.8	3.2	2.0	2.0	2.4	3.7	4.8	4.6	8.8	2.5	4.1	2.4	3.8	9.3			
2-Jul	1.6	Z	2.9	2.4	2.5	3.6	3.1	3.4	4.3	3.8	3.8	2.9	3.8	2.6	5.2	2.3	3.0	3.6	3.4	4.2	6.6	4.0	2.6	2.2	3.4	6.6			
3-Jul	1.5	1.8	Z	2.6	3.0	3.8	5.4	5.2	3.6	3.3	2.3	4.1	5.4	5.3	3.7	3.2	4.5	2.6	2.6	4.9	8.3	6.9	9.3	6.4	4.3	9.3			
4-Jul	6.7	8.2	5.2	Z	18.3	7.1	4.7	4.7	4.6	3.7	3.6	2.4	1.4	3.0	4.1	2.0	1.7	1.4	1.9	1.6	7.9	10.0	12.9	11.0	5.6	18.3			
5-Jul	6.9	6.4	4.8	5.8	Z	5.6	1.8	1.2	1.5	0.5	0.3	0.4	0.4	0.5	1.3	2.1	2.4	2.5	2.7	1.7	1.5	3.4	5.6	4.8	2.8	6.9			
6-Jul	4.1	5.1	1.0	1.9	6.9	Z	2.8	1.9	2.6	2.5	1.2	1.0	1.4	1.6	2.3	4.0	4.1	2.7	2.7	4.0	3.6	2.0	1.4	2.5	2.8	6.9			
7-Jul	Z	3.2	4.9	13.2	16.3	8.4	7.0	5.1	2.8	2.8	2.5	1.6	1.6	1.1	1.6	1.7	3.3	1.7	2.5	3.2	6.4	4.6	4.8	1.2	4.4	16.3			
8-Jul	2.8	Z	2.0	4.8	5.7	3.9	3.5	10.1	9.1	4.9	2.5	3.7	12.9	8.7	4.3	4.3	5.8	6.1	3.2	2.8	2.8	19.4	13.0	4.8	6.1	19.4			
9-Jul	1.3	2.0	Z	7.5	12.6	12.3	7.1	2.7	2.9	2.4	2.0	1.9	2.0	2.1	2.5	4.0	4.3	3.7	3.7	5.7	14.3	8.9	3.0	1.0	4.8	14.3			
10-Jul	0.7	3.5	3.6	Z	5.5	6.4	14.2	7.5	5.4	4.0	2.5	1.7	2.4	2.5	2.0	2.6	2.3	1.7	3.2	4.3	7.0	10.7	4.4	3.2	4.4	14.2			
11-Jul	2.5	3.5	10.1	5.1	Z	4.2	5.6	5.8	6.8	9.3	6.1	5.8	4.2	3.5	4.1	3.9	7.4	5.0	5.2	5.6	3.5	4.1	1.5	1.5	5.0	10.1			
12-Jul	1.1	2.9	2.8	2.9	8.8	Z	1.8	1.0	3.7	2.2	2.1	2.0	2.2	2.3	2.1	3.9	2.6	3.6	2.7	3.8	5.5	2.6	0.7	0.4	2.8	8.8			
13-Jul	Z	0.4	0.4	0.6	1.3	4.7	2.6	2.4	2.4	2.5	2.3	1.5	1.8	1.8	2.1	2.0	1.5	1.7	6.4	8.0	3.2	5.6	5.9	1.9	2.7	8.0			
14-Jul	1.6	Z	3.9	4.8	9.0	8.2	9.8	3.9	4.1	3.8	2.6	1.7	2.7	3.6	3.5	3.7	4.4	3.2	3.5	13.9	7.5	7.4	3.0	6.5	5.1	13.9			
15-Jul	2.8	2.8	Z	2.1	3.3	5.4	5.2	6.8	C	C	C	C	C	C	3.1	3.5	5.3	PF	PF	PF	PF	PF	PF	4.3	6.6	--	6.8		
16-Jul	3.3	4.7	4.3	Z	4.7	5.5	6.1	7.1	3.9	5.5	2.5	3.5	4.5	3.3	4.0	2.7	2.3	1.9	6.5	12.0	6.6	7.7	6.8	2.7	4.9	12.0			
17-Jul	5.9	2.3	5.3	9.4	Z	13.2	7.7	6.5	5.5	7.8	6.0	4.3	2.4	1.1	1.1	2.1	6.2	5.5	10.8	8.1	8.6	4.4	4.5	5.1	5.8	13.2			
18-Jul	4.1	3.2	1.9	2.9	6.0	Z	2.7	2.4	5.4	3.6	2.1	2.7	2.0	4.3	2.3	1.1	2.5	3.4	2.2	2.5	2.5	1.8	1.2	5.4	3.0	6.0			
19-Jul	Z	2.5	2.4	4.1	5.5	5.3	3.3	1.6	6.0	4.5	7.4	8.4	14.7	9.5	5.9	2.3	2.6	1.3	2.8	4.1	3.6	3.4	4.8	4.4	4.8	14.7			
20-Jul	2.6	Z	2.0	2.9	3.9	9.4	9.3	8.5	7.1	7.6	9.0	9.2	8.2	7.2	5.2	6.8	8.4	10.2	3.4	3.2	7.0	8.5	5.9	9.2	6.7	10.2			
21-Jul	7.8	7.0	Z	6.3	8.5	7.8	5.6	6.5	3.7	3.7	1.7	1.7	2.4	3.2	3.4	3.2	2.8	3.3	4.1	9.1	8.8	8.5	19.5	19.6	6.4	19.6			
22-Jul	9.1	5.7	6.2	Z	7.8	9.6	9.2	8.1	7.9	6.3	4.2	4.6	4.0	2.6	1.8	2.0	2.4	4.2	7.2	7.3	7.4	9.8	8.2	5.1	6.1	9.8			
23-Jul	2.4	3.2	2.6	3.0	Z	6.7	6.3	7.3	9.8	5.8	8.0	13.0	7.1	2.1	1.3	2.1	1.6	1.2	1.1	1.9	4.4	3.6	1.7	1.1	4.2	13.0			
24-Jul	0.9	1.2	1.1	2.9	4.1	Z	10.8	9.4	8.9	5.3	M	3.3	2.5	3.1	2.8	2.7	2.6	2.6	4.1	5.2	11.1	4.8	2.4	2.3	4.3	11.1			
25-Jul	Z	6.0	3.7	5.2	6.0	11.7	9.5	3.5	3.5	1.9	3.1	2.7	3.9	3.1	1.8	3.0	2.8	2.2	3.6	3.7	11.0	4.4	3.6	2.1	4.4	11.7			
26-Jul	3.4	Z	3.1	3.7	4.0	5.6	5.9	6.4	5.9	5.6	4.7	3.7	3.6	3.3	3.3	3.3	6.9	3.6	3.7	5.6	7.2	7.4	7.7	0.9	4.7	7.7			
27-Jul	0.4	0.4	Z	0.4	0.8	2.8	7.0	6.0	8.1	4.0	2.9	2.4	2.4	2.7	1.5	1.1	1.3	2.5	5.8	10.1	9.2	9.8	2.9	9.1	4.1	10.1			
28-Jul	5.0	4.2	2.4	Z	13.5	10.1	10.8	7.5	3.4	3.2	2.8	1.9	1.5	3.5	1.4	1.0	1.4	1.7	4.9	2.2	3.5	3.5	4.0	3.2	4.2	13.5			
29-Jul	2.5	1.2	1.2	1.1	Z	2.0	1.6	2.2	2.0	1.5	1.9	1.8	1.5	1.4	1.3	1.6	1.7	1.5	1.8	4.1	3.2	1.3	1.4	0.6	1.8	4.1			
30-Jul	1.5	1.6	1.5	1.5	9.2	Z	5.0	2.9	2.8	1.1	0.7	0.6	0.9	2.1	1.3	0.7	0.7	2.8	2.0	5.5	7.1	6.9	14.1	13.0	3.7	14.1			
31-Jul	Z	4.9	6.4	7.2	6.0	7.5	6.2	8.0	8.6	10.2	8.3	16.6	12.5	4.8	2.5	7.1	12.0	3.5	4.1	10.5	10.2	4.3	4.5	2.6	7.3	16.6			
3.3 3.6 3.4 4.1 6.8 6.7 6.0 5.1 5.2 4.2 3.5 3.8 4.0 3.3 2.7 2.9 3.6 3.2 3.9 5.5 6.6 6.1 5.5 4.6																								Diurnal Average					
9.1 8.2 10.1 13.2 18.3 13.2 14.2 10.1 9.8 10.2 9.0 16.6 14.7 9.5 5.9 7.1 12.0 10.2 10.8 13.9 14.3 19.4 19.5 19.6																								Diurnal Maximum					
Z - zerospan				C - Calibration				M - Maintenance				PF - Power Failure																	



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Athabasca Valley - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	701	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Athabasca Valley - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	10	9	9	27	45	151	76	28	40	91	58	37	7	18	56	39	701
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	9	9	27	45	151	76	28	40	91	58	37	7	18	56	39	701

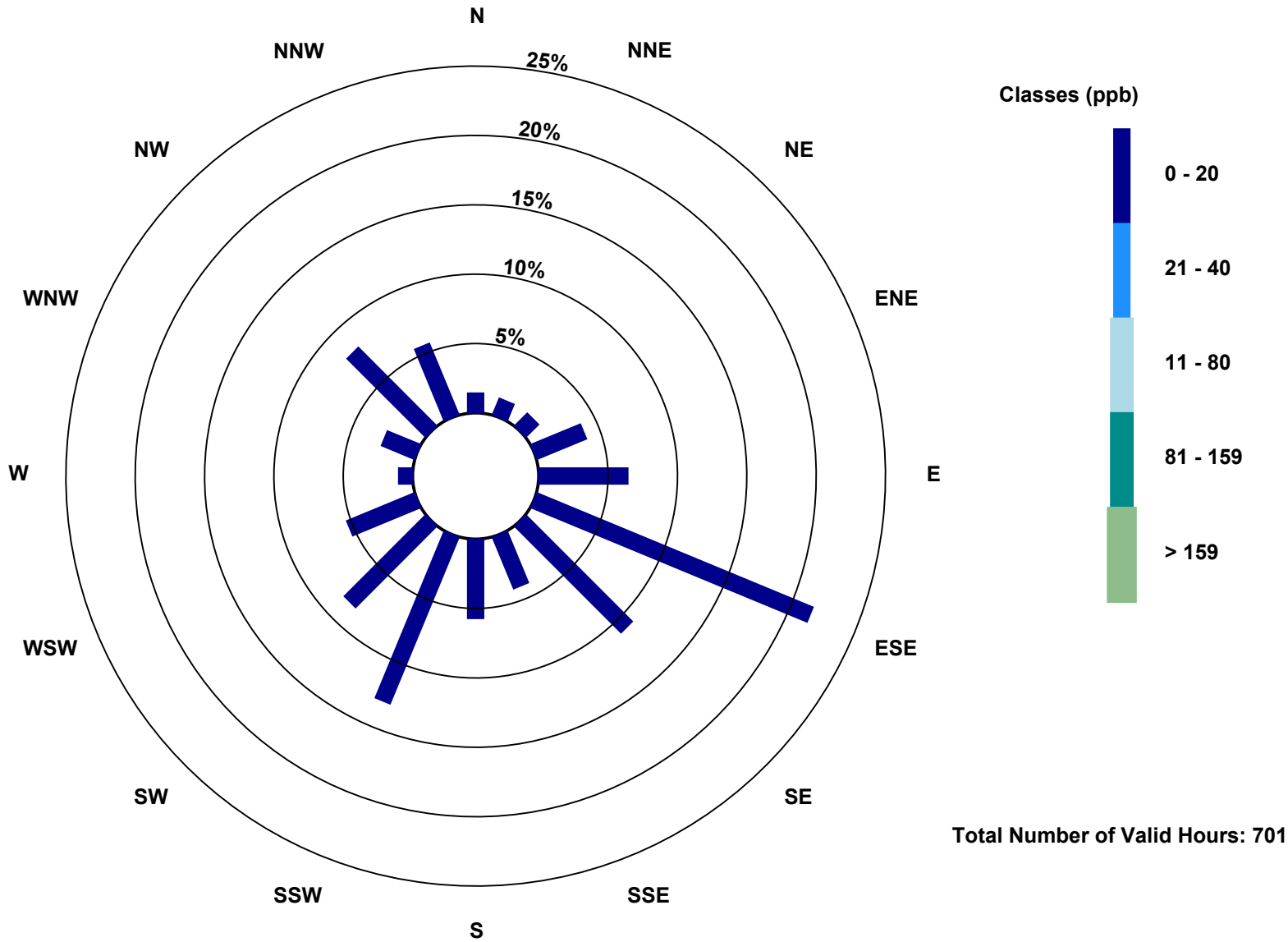
Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

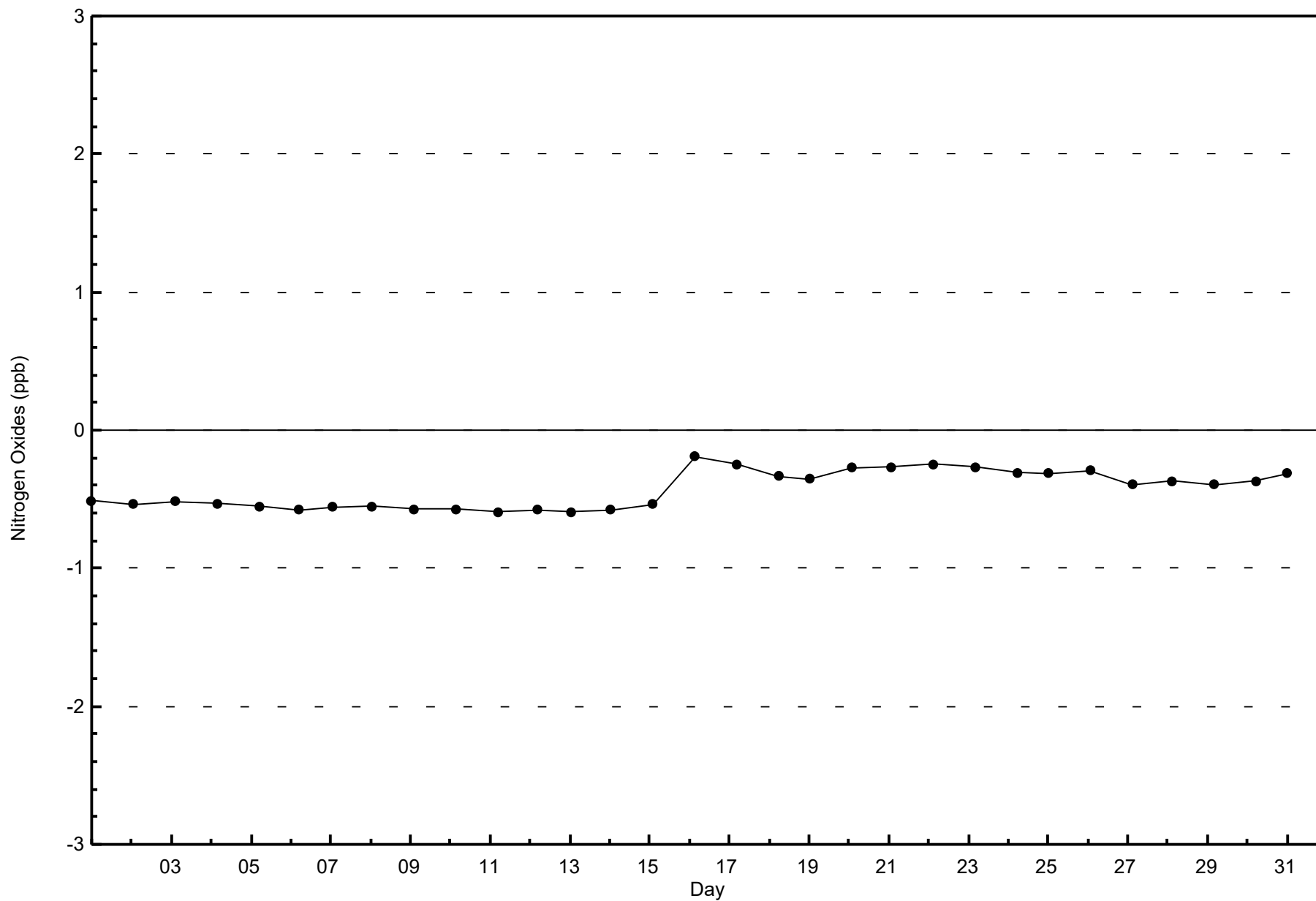
Nitrogen Oxides (NO_x) - ppb
Athabasca Valley





Wood Buffalo Environmental Association
Zero Responses

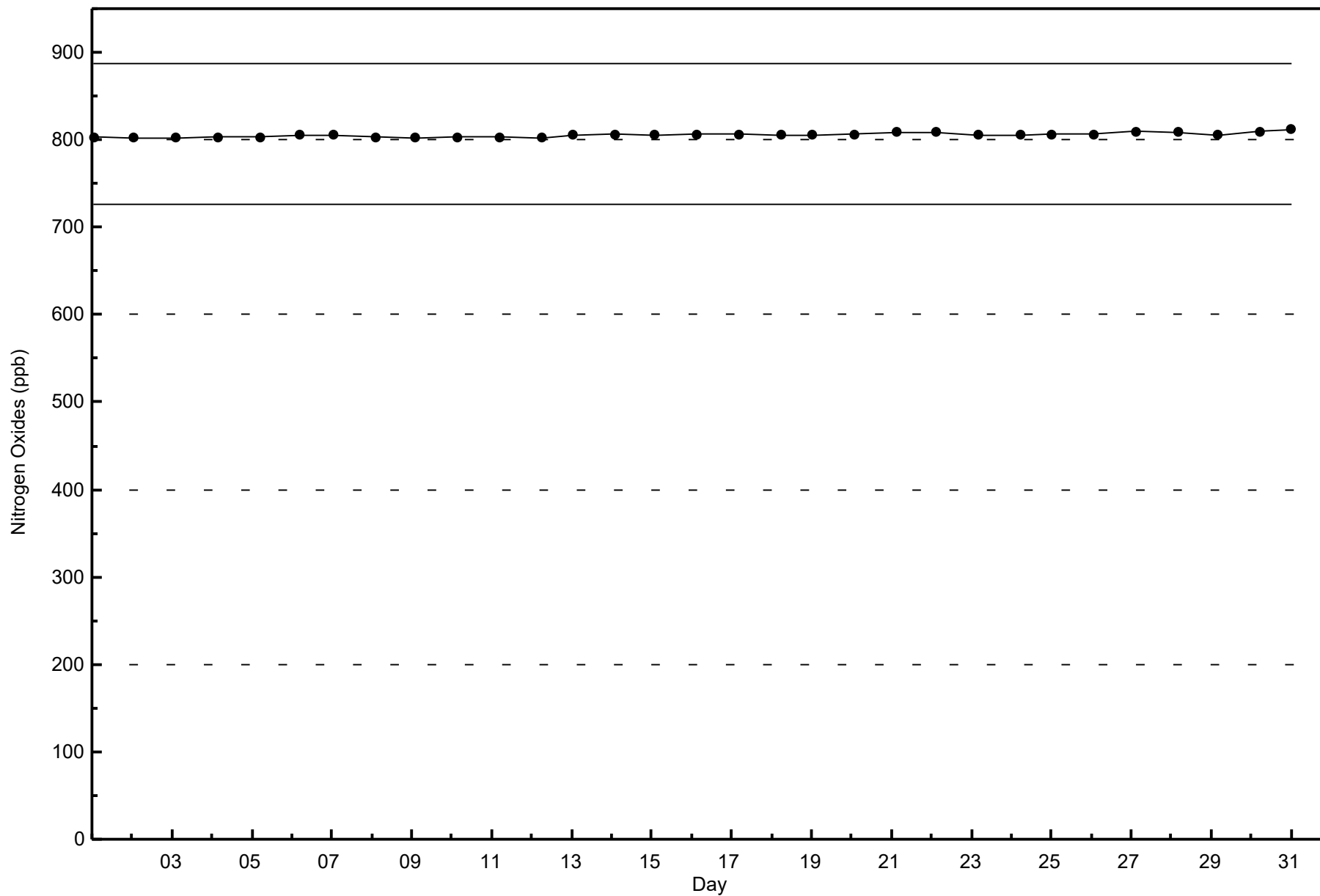
Nitrogen Oxides (NO_x) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

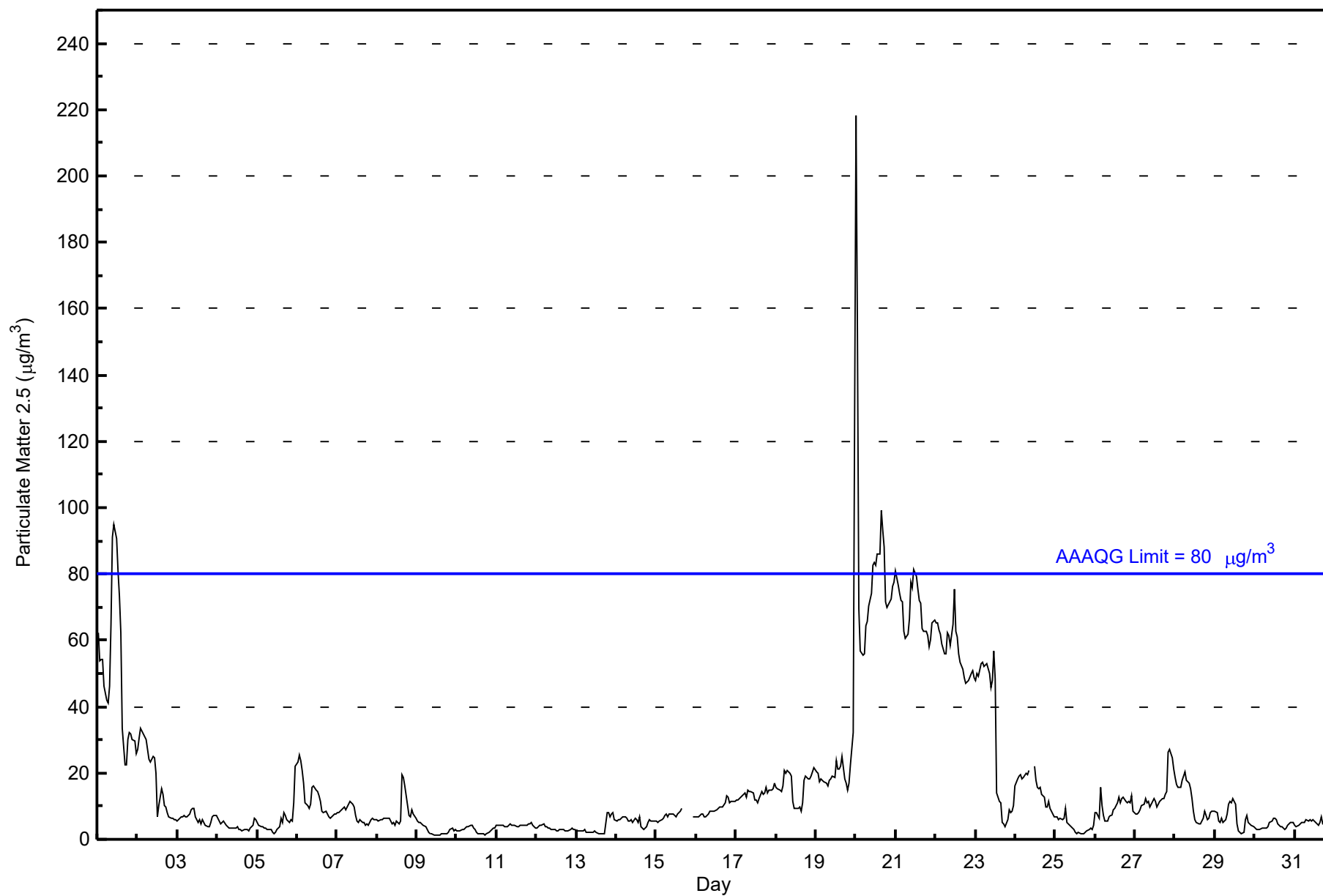
Athabasca Valley - July 2026

Number of Exceedances (AAAQO): 1-hr: 17 24-hr: 5 Maximum Value: 218.2 µg/m³ on Jul 20 01:00 Minimum Value: 1.1 µg/m³ on Jul 9 12:00 Maximum Diurnal Average: 23.0 µg/m³ at hour 1 Monthly Average: 16.69 µg/m³																					Hours in Service: 744 Hours of Data: 736 Hours of Missing Data: 8 Hours of Calibration: 2 Percent Operational Time: 99.2					
Maximum Daily Average: 84.4 µg/m³ on Jul 20 Minimum Daily Average: 2.7 µg/m³ on Jul 9 Minimum Diurnal Average: 13.2 µg/m³ at hour 20 Percentiles: P ₁ = 1.6 P ₁₀ = 2.8 Q ₁ = 4.4 Median = 7.4 Q ₃ = 16.7 P ₉₀ = 54.1 P ₉₉ = 89.8																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	62.4	53.8	54.0	54.2	46.1	41.9	41.2	46.4	65.0	91.0	95.0	90.7	81.0	73.4	62.3	33.6	22.3	22.5	30.0	32.0	31.8	30.1	29.6	25.9	50.7	95.0
2-Jul	27.1	30.5	33.3	31.8	30.8	30.2	27.3	24.4	23.5	25.1	24.7	19.8	6.6	10.2	15.2	13.7	10.2	9.6	8.2	6.7	6.4	6.2	6.0	5.8	18.1	33.3
3-Jul	5.7	6.2	6.7	6.9	7.3	6.7	6.8	7.6	8.9	9.3	9.4	6.8	5.1	5.9	4.9	5.8	5.0	4.2	4.0	3.9	5.0	7.0	7.0	7.1	6.4	9.4
4-Jul	6.2	5.3	4.8	4.9	5.4	4.1	3.6	3.5	3.5	3.5	3.5	3.5	3.7	3.1	3.1	2.6	3.1	2.9	2.8	2.7	3.3	4.4	6.5	5.9	4.0	6.5
5-Jul	4.9	4.1	3.6	3.7	3.4	3.3	3.0	2.9	2.8	2.3	1.9	2.2	2.8	4.0	6.3	5.0	8.0	7.2	5.9	5.1	5.8	5.7	10.9	21.8	5.3	21.8
6-Jul	23.1	25.3	23.8	20.8	16.8	10.9	10.0	9.3	10.5	15.5	16.1	14.9	14.2	13.0	11.3	8.6	7.9	8.3	7.6	6.6	6.5	6.9	7.7	7.8	12.7	25.3
7-Jul	7.9	7.9	8.3	8.8	9.7	8.9	9.9	10.6	11.3	10.8	9.8	7.2	5.3	5.0	5.8	5.1	5.1	4.3	4.5	4.4	5.8	6.1	5.9	5.9	7.3	11.3
8-Jul	5.8	5.6	6.1	5.9	6.1	6.2	6.2	6.5	5.4	4.7	4.9	4.4	5.5	4.8	5.7	19.5	18.8	16.2	10.1	7.3	6.8	8.7	7.5	6.4	7.7	19.5
9-Jul	5.5	5.2	4.9	4.9	4.4	4.0	3.2	2.2	1.8	1.7	1.3	1.1	1.1	1.3	1.4	1.7	1.7	1.7	1.7	2.1	2.8	3.3	2.6	2.8	2.7	5.5
10-Jul	2.6	2.4	2.7	3.1	2.9	3.2	3.8	4.0	4.2	4.2	3.4	2.9	2.1	1.7	1.7	1.6	1.7	1.3	1.8	2.1	2.7	3.1	3.4	3.6	2.8	4.2
11-Jul	4.1	4.1	4.1	4.2	4.1	4.0	4.0	4.0	4.5	4.4	4.3	4.2	3.7	3.8	4.1	4.1	4.1	4.2	4.3	4.8	4.5	5.2	4.2	3.5	4.2	5.2
12-Jul	3.5	4.0	4.4	4.1	4.6	3.9	3.7	3.2	3.4	3.1	3.0	2.8	2.6	2.7	2.8	3.2	3.0	2.5	2.4	2.7	3.2	3.2	3.2	2.9	3.2	4.6
13-Jul	2.7	2.5	2.5	2.4	2.5	2.8	2.3	1.9	2.0	2.0	2.2	2.4	2.2	1.8	1.7	1.6	1.6	1.8	8.1	7.9	6.7	7.6	7.9	6.0	3.5	8.1
14-Jul	5.7	5.8	6.0	6.5	6.8	6.7	6.3	5.5	5.7	6.0	5.1	6.2	5.8	5.2	6.7	4.0	3.1	3.4	3.9	5.1	5.8	5.7	5.5	5.6	5.5	6.8
15-Jul	5.6	5.2	5.4	6.1	6.4	7.0	7.6	6.9	7.6	7.8	7.8	7.3	6.6	7.4	8.6	9.2	PF	PF	PF	PF	PF	PF	6.7	6.6	7.0	9.2
16-Jul	6.7	6.9	7.4	7.5	7.5	6.9	6.7	7.5	8.4	8.4	8.6	8.3	9.1	9.4	9.7	9.8	9.8	11.2	13.0	12.7	11.2	11.6	11.5	11.4	9.2	13.0
17-Jul	11.8	11.9	12.4	12.9	13.7	13.8	12.9	14.8	14.6	14.3	13.8	11.8	11.7	11.2	12.3	14.4	13.5	13.8	15.9	13.9	14.7	15.0	15.1	16.8	13.6	16.8
18-Jul	15.7	15.1	14.8	14.2	16.0	20.6	20.1	20.6	20.1	19.2	11.6	9.2	9.2	9.2	9.7	8.5	10.8	17.9	19.2	18.3	18.2	19.2	20.1	21.4	15.8	21.4
19-Jul	20.3	19.9	17.3	18.1	17.8	17.5	17.1	16.3	17.7	18.2	19.1	18.8	23.5	21.1	21.1	22.1	25.1	18.2	16.9	14.9	17.0	22.5	32.1	127.4	24.2	127.4
20-Jul	218.2	152.6	69.6	56.7	55.7	56.0	64.5	65.8	70.3	74.3	82.8	83.4	82.7	86.1	86.0	99.4	93.4	88.1	71.6	69.8	71.6	72.5	76.3	77.4	84.4	218.2
21-Jul	81.0	76.6	74.0	72.2	71.7	62.6	60.5	61.9	66.7	77.7	75.9	81.2	79.1	75.6	71.9	71.4	63.6	62.7	62.7	61.3	58.0	60.3	65.2	66.1	69.2	81.2
22-Jul	65.0	65.3	63.3	61.8	58.9	56.1	55.8	62.4	61.5	58.3	65.0	75.5	62.7	61.0	55.9	53.3	51.3	48.9	46.9	47.3	47.8	50.1	50.7	48.7	57.2	75.5
23-Jul	48.0	49.8	49.3	52.9	53.2	52.0	52.7	53.0	50.0	45.9	47.9	56.9	48.2	13.8	11.2	10.8	5.3	4.9	4.0	6.1	8.9	8.1	8.3	10.2	31.3	56.9
24-Jul	16.3	18.0	19.2	19.3	18.2	18.5	20.0	19.7	20.9	C	C	22.1	17.9	15.8	15.1	15.6	13.4	12.5	9.6	9.8	11.2	9.2	7.6	6.8	15.3	22.1
25-Jul	6.8	6.7	6.0	6.2	6.0	6.3	9.3	5.2	4.7	3.8	3.5	2.9	2.3	1.8	2.0	1.8	1.8	1.8	2.3	2.5	2.9	3.3	2.9	4.3	4.0	9.3
26-Jul	8.1	8.3	6.4	15.6	10.4	7.4	5.6	5.7	6.6	7.3	7.0	8.8	9.3	10.9	12.8	11.1	12.5	12.7	11.3	10.9	11.5	11.1	13.3	8.3	9.7	15.6
27-Jul	7.8	7.6	7.8	9.0	10.1	10.6	12.2	11.0	11.3	9.9	10.4	12.1	11.6	9.9	10.6	11.6	12.2	12.4	13.5	14.3	26.3	27.2	24.6	21.2	13.1	27.2
28-Jul	18.8	16.7	15.8	15.8	17.7	19.1	20.2	18.0	17.0	15.1	12.4	8.4	6.1	5.2	4.5	4.7	5.5	6.4	8.4	6.1	6.4	8.1	8.3	8.7	11.4	20.2
29-Jul	8.3	8.1	5.5	5.2	6.2	5.1	5.9	7.5	10.7	11.5	11.1	12.1	10.4	4.6	2.4	2.1	1.8	2.2	5.7	7.1	5.2	4.6	4.4	3.6	6.3	12.1
30-Jul	3.3	3.0	2.9	2.8	3.2	3.5	3.4	3.4	4.0	5.2	5.7	6.3	6.5	5.8	4.5	3.8	3.6	3.4	3.0	3.4	4.1	5.1	5.1	5.1	4.2	6.5
31-Jul	4.1	4.0	4.1	4.6	5.0	5.1	5.0	5.7	5.5	6.1	5.5	6.0	5.7	4.8	4.2	4.9	6.8	4.8	4.7	5.2	5.1	5.0	5.1	5.5	5.1	6.8
23.0 20.6 17.6 17.5 17.1 16.3 16.5 16.7 17.7 18.9 19.1 19.4 17.6 15.8 15.3 15.0 14.2 13.7 13.5 13.2 13.9 14.5 15.0 18.1																								Diurnal Average		
218.2 152.6 74.0 72.2 71.7 62.6 64.5 65.8 70.3 91.0 95.0 90.7 82.7 86.1 86.0 99.4 93.4 88.1 71.6 69.8 71.6 72.5 76.3 127.4																								Diurnal Maximum		
C - Calibration PF - Power Failure																										
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 µg/m³ 24-hr 29 µg/m³																										



Wood Buffalo Environmental Association
Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Athabasca Valley - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Number of Hours	%	Cumulative %
0 - 5	253	34.38	34.38
6 - 15	286	38.86	73.23
16 - 25	79	10.73	83.97
26 - 80	101	13.72	97.69
> 81.0	17	2.31	100.00

Total Number of Valid Hours: 736

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Athabasca Valley - July 2026

Concentration Ranges (µg/m³)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	2	0	0	9	10	36	32	17	20	53	35	16	4	3	11	5	253
6 - 15	7	9	6	14	15	73	28	7	10	30	12	15	4	8	23	25	286
16 - 25	0	0	1	3	9	19	11	1	5	6	7	3	0	2	8	4	79
26 - 80	1	1	2	3	8	33	14	4	6	6	6	3	0	2	10	2	101
> 81.0	1	0	0	0	2	3	0	0	0	0	0	0	0	3	5	3	17
Totals	11	10	9	29	44	164	85	29	41	95	60	37	8	18	57	39	736

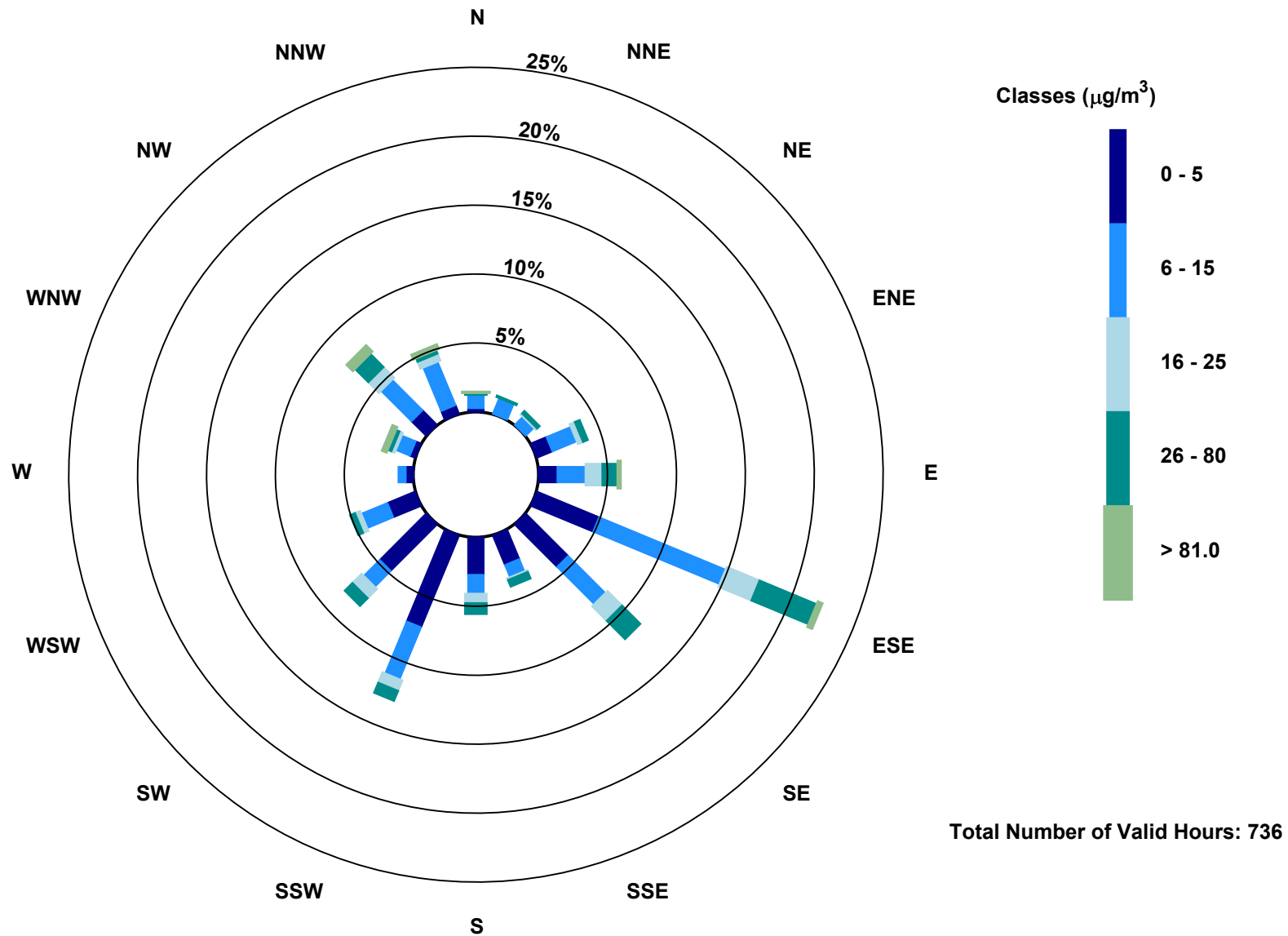
Total Number of Valid Hours: 736

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Athabasca Valley





Wood Buffalo Environmental Association

Summary of Hour Averages

Carbon Monoxide (CO) - ppm

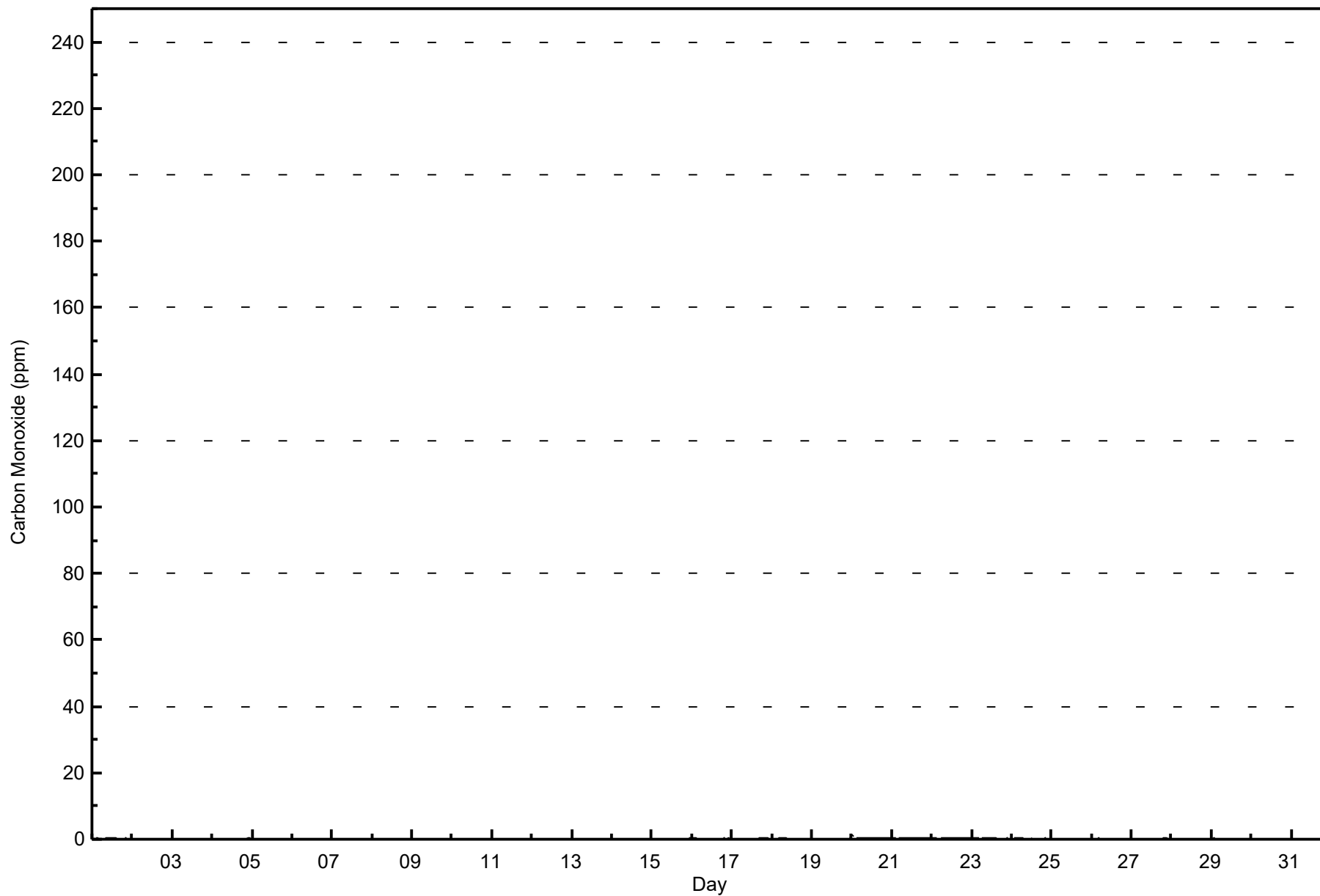
Athabasca Valley - July 2026

Number of Exceedances (AAAQO): Maximum Value: 1.2 ppm on Jul 20 01:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 0.6 ppm on Jul 20																			Hours in Service: 744 Hours of Data: 701 Hours of Missing Data: 43 Hours of Calibration: 35 Percent Operational Time: 98.9			
Minimum Value: 0.0 ppm on Jul 6 15:00 Maximum Diurnal Average: 0.2 ppm at hour 2 Monthly Average: 0.15 ppm																			Minimum Daily Average: 0.0 ppm on Jul 9 Minimum Diurnal Average: 0.1 ppm at hour 16 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.4 P ₉₉ = 0.6																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																	
1-Jul	0.3	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2															
2-Jul	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1															
3-Jul	0.1	0.1	0.1	Z	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	0.2	0.1	0.1	0.1	0.1	0.1															
4-Jul	0.0	0.1	0.1	0.1	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.3															
5-Jul	0.2	0.2	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2															
6-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.2															
7-Jul	0.1	Z	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1															
8-Jul	0.1	0.1	Z	0.1	0.1	0.1	0.1	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	0.0	0.1	0.1	0.1	0.1	0.1															
9-Jul	0.0	0.1	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1															
10-Jul	0.0	0.0	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2															
11-Jul	0.1	0.1	0.2	0.1	0.1	Z	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	0.2															
12-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1															
13-Jul	0.0	Z	0.1	0.1	0.0	0.1	0.0	0.1	0.1	C	C	C	C	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1															
14-Jul	0.1	0.1	Z	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2															
15-Jul	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	PF	PF	PF	PF	PF	PF	0.3	0.3	--	0.3															
16-Jul	0.3	0.2	0.2	0.2	Z	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.3															
17-Jul	0.2	0.2	0.2	0.2	0.2	Z	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.4															
18-Jul	Z	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2															
19-Jul	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.2	0.7															
20-Jul	1.2	0.9	Z	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.2															
21-Jul	0.5	0.5	0.5	Z	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.5															
22-Jul	0.4	0.4	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.5															
23-Jul	0.4	0.4	0.4	0.4	0.4	Z	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.1	UO	0.2	0.2	0.2	0.1	0.1	0.3	0.4															
24-Jul	Z	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	UO	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.2	0.3															
25-Jul	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1															
26-Jul	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2															
27-Jul	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2															
28-Jul	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2															
29-Jul	0.2	0.2	0.2	0.2	0.2	Z	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2															
30-Jul	Z	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1															
31-Jul	0.1	Z	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2															
Diurnal Average																																									
Diurnal Maximum																																									
Z - zerospan C - Calibration UO - Unstable Operation PF - Power Failure																																									
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm																																									



Wood Buffalo Environmental Association
Hourly Averages

Carbon Monoxide (CO) - ppm
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Carbon Monoxide (CO) - ppm
Athabasca Valley - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.3	625	89.16	89.16
0.4 - 0.5	64	9.13	98.29
0.6 - 0.7	10	1.43	99.71
0.8 - 1.4	2	0.29	100.00
1.5 - 10	0	0.00	100.00
> 10	0	0.00	100.00

Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Carbon Monoxide (CO) - ppm
Athabasca Valley - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 0.3	8	8	7	27	43	137	69	26	36	84	51	32	8	13	41	35	625
0.4 - 0.5	1	0	1	2	2	15	7	2	5	5	6	3	0	4	9	2	64
0.6 - 0.7	1	1	0	0	0	0	2	1	0	0	0	0	0	0	4	1	10
0.8 - 1.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
1.5 - 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	9	8	29	45	152	78	29	41	89	57	35	8	17	55	39	701

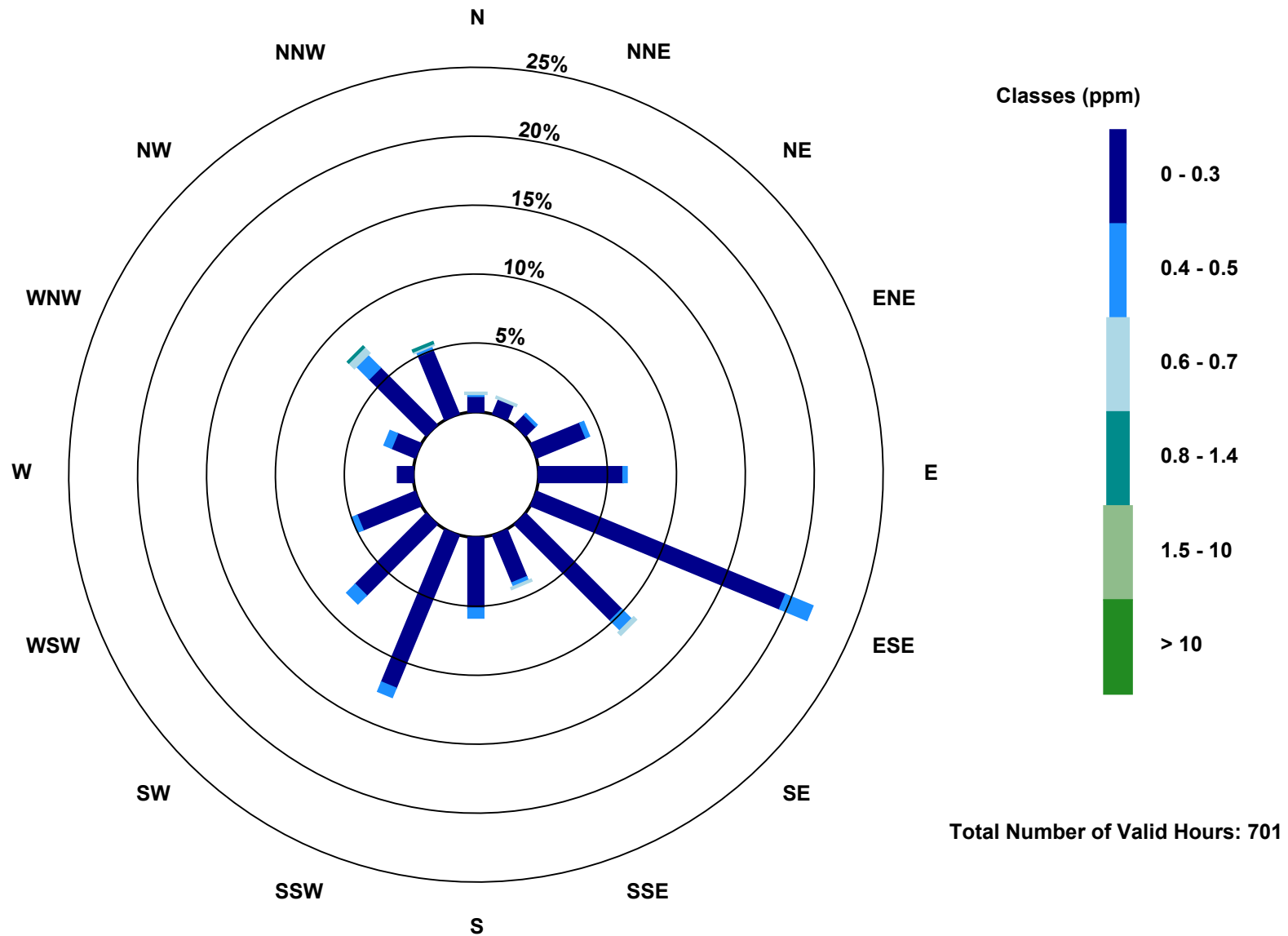
Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

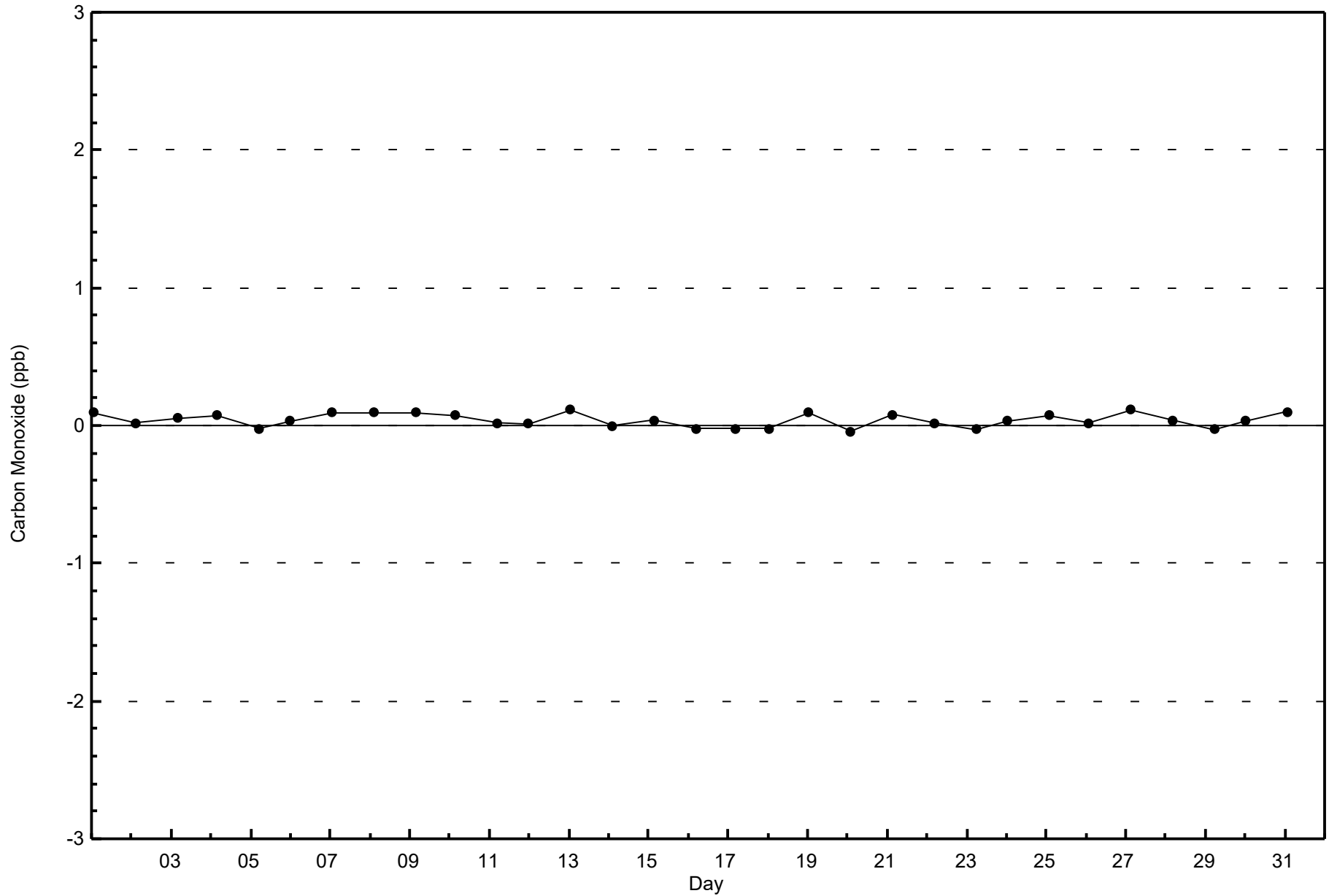
Carbon Monoxide (CO) - ppm
Athabasca Valley





Wood Buffalo Environmental Association
Zero Responses

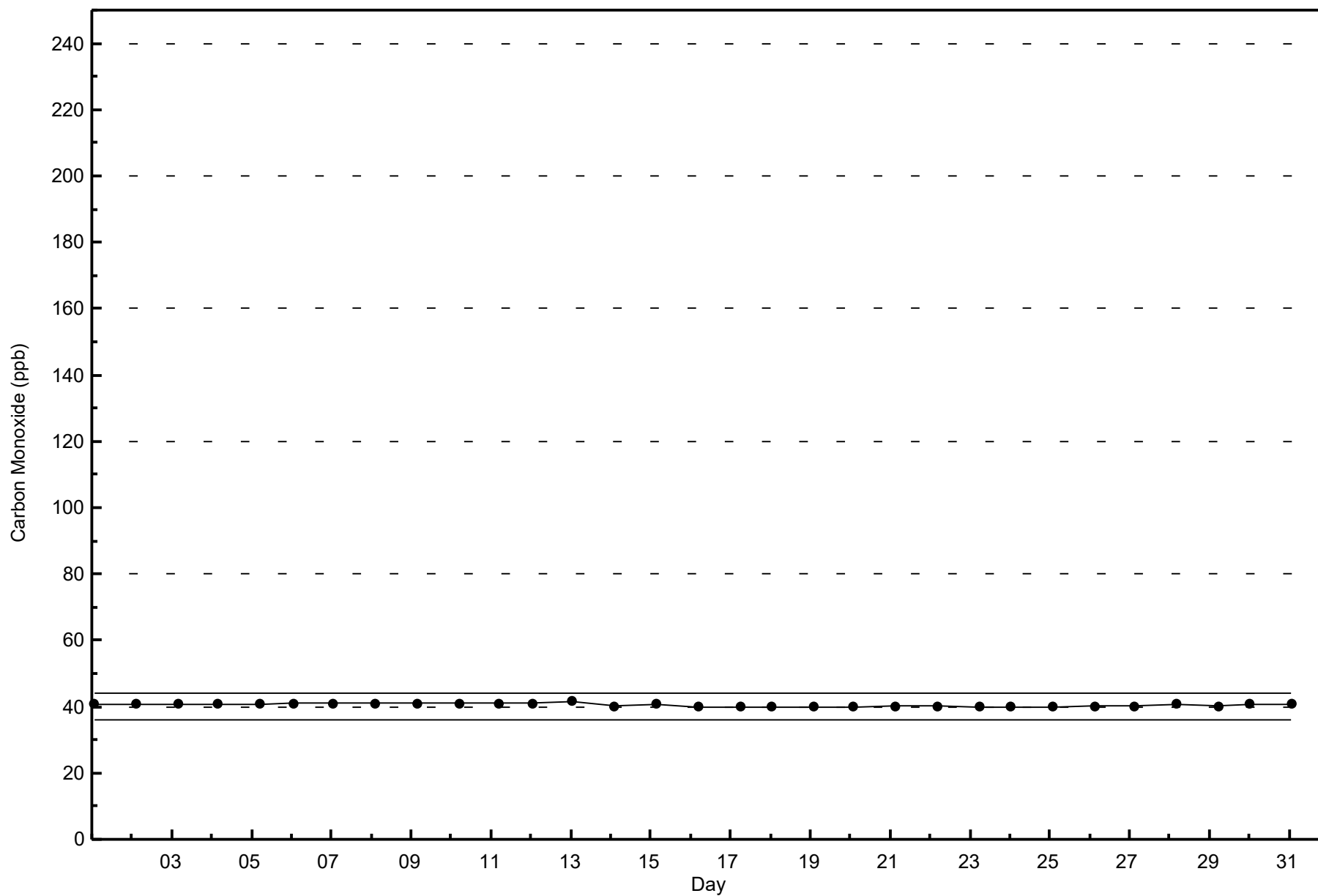
Carbon Monoxide (CO) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Span Responses

Carbon Monoxide (CO) - ppb
Athabasca Valley - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

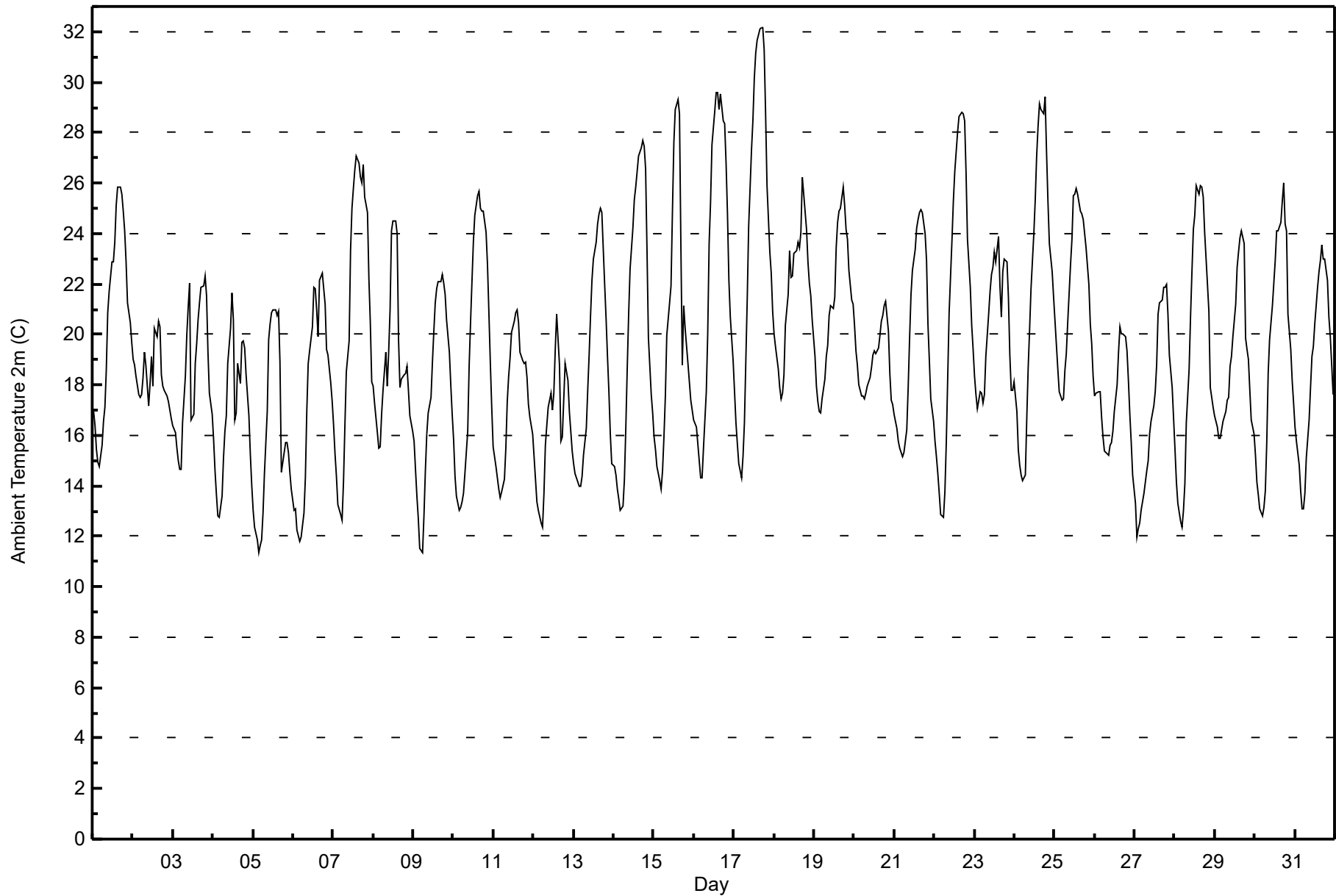
Athabasca Valley - July 2026

Maximum Value: 32.2 C on Jul 17 17:00																				Maximum Daily Average: 23.9 C on Jul 17					Hours in Service: 744			
Minimum Value: 11.3 C on Jul 9 06:00																				Minimum Daily Average: 16.0 C on Jul 5					Hours of Data: 744			
Maximum Diurnal Average: 23.8 C at hour 15																				Minimum Diurnal Average: 14.4 C at hour 5					Hours of Missing Data: 0			
Monthly Average: 19.42 C																				Percentiles: P ₁ = 12.0 P ₁₀ = 14.2 Q ₁ = 16.2 Median = 18.9 Q ₃ = 22.2 P ₉₀ = 25.3 P ₉₉ = 29.6					Hours of Calibration: 0			
																									Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																				Daily Average	Daily Maximum						
1-Jul	17.0	16.4	15.4	14.9	14.8	15.6	16.6	17.1	18.6	20.9	21.7	22.9	22.9	23.7	25.1	25.8	25.8	25.5	24.9	24.1	22.9	21.2	20.5	19.7	20.6	25.8		
2-Jul	19.0	18.8	18.3	17.6	17.5	17.6	18.3	19.3	18.8	17.2	18.1	19.2	17.9	20.2	19.9	20.5	20.3	18.4	17.9	17.8	17.5	17.3	17.0	16.7	18.4	20.5		
3-Jul	16.4	16.1	15.5	15.0	14.6	14.6	16.5	18.3	20.0	21.1	22.0	16.6	16.8	18.8	19.6	20.6	21.2	21.9	21.9	22.3	21.6	19.3	17.7	16.8	18.5	22.3		
4-Jul	15.8	14.6	13.6	12.8	12.8	13.6	15.1	16.2	16.8	18.8	20.3	21.6	20.6	16.6	16.9	18.8	18.1	19.7	19.7	19.5	18.4	16.8	15.3	14.0	16.9	21.6		
5-Jul	13.1	12.3	11.9	11.4	11.6	11.8	12.9	14.5	17.0	19.8	20.4	20.9	21.0	21.0	20.7	20.9	18.9	14.6	14.9	15.7	15.7	15.4	14.6	13.8	16.0	21.0		
6-Jul	13.1	13.1	12.3	12.0	11.8	12.0	12.9	14.3	16.9	18.8	19.3	20.3	21.9	21.8	21.0	19.9	22.2	22.4	21.8	21.2	19.4	19.2	18.1	17.4	17.6	22.4		
7-Jul	16.4	15.3	14.4	13.2	12.8	12.7	14.2	16.4	18.5	19.7	23.3	25.0	25.8	26.5	27.1	26.8	26.2	26.0	26.7	25.5	24.8	22.2	20.4	18.2	20.8	27.1		
8-Jul	17.9	17.3	16.1	15.5	15.6	16.8	17.8	19.3	18.0	19.3	21.0	24.1	24.5	24.5	24.0	19.8	17.9	18.2	18.4	18.5	18.7	17.8	16.8	16.2	18.9	24.5		
9-Jul	15.7	14.7	13.6	12.7	11.5	11.3	12.8	14.6	16.1	16.9	17.5	18.9	20.1	21.3	21.8	22.1	22.1	22.4	22.1	21.6	20.6	19.3	18.0	16.8	17.7	22.4		
10-Jul	15.8	14.4	13.6	13.0	13.2	13.4	13.7	14.5	16.2	18.7	20.5	22.1	23.6	24.7	25.5	25.6	25.0	24.9	24.9	24.1	22.8	20.8	18.9	17.1	19.5	25.6		
11-Jul	15.5	14.8	14.3	13.9	13.5	13.8	14.3	15.5	17.3	18.4	19.1	20.1	20.5	20.9	21.0	20.5	19.3	19.0	18.8	18.9	18.3	17.2	16.7	16.0	17.4	21.0		
12-Jul	15.2	14.3	13.4	13.0	12.6	12.4	13.7	15.6	16.4	17.1	17.7	17.0	17.7	19.4	20.8	18.8	15.8	16.0	17.4	18.9	18.2	17.0	16.2	15.4	16.2	20.8		
13-Jul	14.9	14.5	14.1	14.0	14.0	14.4	15.2	16.2	17.8	19.2	20.7	22.2	23.0	23.7	24.4	24.8	25.0	24.8	22.0	20.7	19.2	17.7	16.1	14.9	18.9	25.0		
14-Jul	14.8	14.4	13.9	13.5	13.0	13.2	14.3	16.3	18.7	20.8	22.6	24.2	25.4	25.9	26.5	27.0	27.4	27.7	27.5	26.6	23.3	19.9	17.6	16.9	20.5	27.7		
15-Jul	15.9	15.4	14.8	14.2	13.8	14.6	15.9	17.6	20.0	21.3	21.9	24.8	27.6	28.9	29.3	28.8	23.5	18.8	21.1	20.2	18.8	18.1	17.4	17.0	20.0	29.3		
16-Jul	16.6	16.4	15.6	15.0	14.3	14.3	15.5	17.7	20.0	23.6	25.2	27.5	28.9	29.6	29.6	28.9	29.5	28.4	28.4	26.8	24.8	22.2	20.7	18.9	22.4	29.6		
17-Jul	17.7	16.5	15.6	14.9	14.3	15.2	16.5	19.0	21.4	24.3	27.3	28.5	30.1	31.2	31.7	32.1	32.2	32.2	31.3	28.7	25.9	23.3	22.4	20.9	23.9	32.2		
18-Jul	20.0	19.5	18.6	17.9	17.4	17.7	18.4	20.4	21.6	23.3	22.3	22.3	23.2	23.3	23.7	23.4	24.1	26.2	25.6	24.1	22.9	22.0	21.5	20.6	21.7	26.2		
19-Jul	19.1	17.9	17.3	17.0	16.9	17.5	18.2	19.1	19.6	20.8	21.1	21.0	21.5	23.4	24.5	24.9	25.0	25.9	25.1	24.2	23.7	22.5	21.4	21.2	21.2	25.9		
20-Jul	20.3	19.4	18.8	18.0	17.5	17.5	17.5	17.6	17.9	18.3	18.7	19.2	19.4	19.3	19.5	20.0	20.5	20.7	21.1	21.3	20.1	18.4	17.4	17.2	19.0	21.3		
21-Jul	16.8	16.3	15.8	15.5	15.3	15.1	15.3	16.2	17.9	19.8	21.6	22.5	23.4	24.2	24.6	24.8	24.9	24.8	24.0	23.0	20.4	18.9	17.4	16.6	19.8	24.9		
22-Jul	15.8	15.2	14.5	13.7	12.9	12.8	13.7	15.7	18.3	20.9	23.7	25.3	26.5	27.2	28.0	28.6	28.8	28.7	28.5	26.4	23.8	21.9	20.4	19.4	21.3	28.8		
23-Jul	18.4	17.6	17.0	17.7	17.7	17.3	17.6	19.1	20.8	21.7	22.4	22.7	23.3	22.9	23.9	21.9	20.7	22.5	23.0	22.9	21.5	19.2	17.8	17.8	20.3	23.9		
24-Jul	18.1	16.9	15.5	14.8	14.4	14.2	14.4	16.7	18.7	20.2	21.8	24.0	25.3	27.1	28.3	29.1	28.9	28.7	29.4	27.2	25.3	23.6	22.5	21.5	21.9	29.4		
25-Jul	20.5	19.6	18.6	17.8	17.4	17.4	18.6	19.2	20.5	22.8	23.8	25.5	25.6	25.8	25.6	24.9	24.8	24.6	24.0	23.5	22.0	20.4	19.6	18.4	21.7	25.8		
26-Jul	17.6	17.7	17.7	17.7	16.7	15.9	15.4	15.3	15.2	15.6	15.7	16.2	16.9	18.0	19.3	20.3	20.0	20.0	19.9	19.4	18.2	16.8	15.7	14.4	17.3	20.3		
27-Jul	13.3	12.0	12.3	12.5	13.0	13.7	14.2	14.6	15.0	16.0	16.5	17.2	17.7	18.8	20.8	21.2	21.4	21.9	21.9	22.0	20.8	19.2	17.9	16.7	17.1	22.0		
28-Jul	15.4	14.2	13.3	12.6	12.3	13.0	14.1	16.5	18.6	20.7	22.5	24.2	24.7	25.9	25.6	25.9	25.8	25.5	24.0	22.0	20.9	17.9	17.5	17.1	19.6	25.9		
29-Jul	16.8	16.3	15.9	15.9	16.2	16.6	16.9	17.4	17.5	18.7	19.1	19.9	21.2	22.7	23.3	23.8	24.1	23.6	19.8	19.4	19.0	17.8	16.6	16.1	18.9	24.1		
30-Jul	15.2	14.2	13.6	13.1	12.8	13.1	13.8	15.7	18.4	19.8	21.1	22.1	22.9	24.1	24.1	24.4	25.3	26.0	24.4	24.1	20.8	19.4	18.2	17.3	19.3	26.0		
31-Jul	16.3	15.8	14.8	13.8	13.1	13.1	13.7	15.1	16.6	17.9	19.1	19.5	20.4	21.9	22.5	22.9	23.6	23.0	23.0	22.2	20.7	19.9	18.8	17.6	18.6	23.6		
Diurnal Average																												
Diurnal Maximum																												



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Athabasca Valley - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	0	0.00	0.00
10 - 20	440	59.14	59.14
> 20	304	40.86	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Barometric Pressure (BP) - inHg

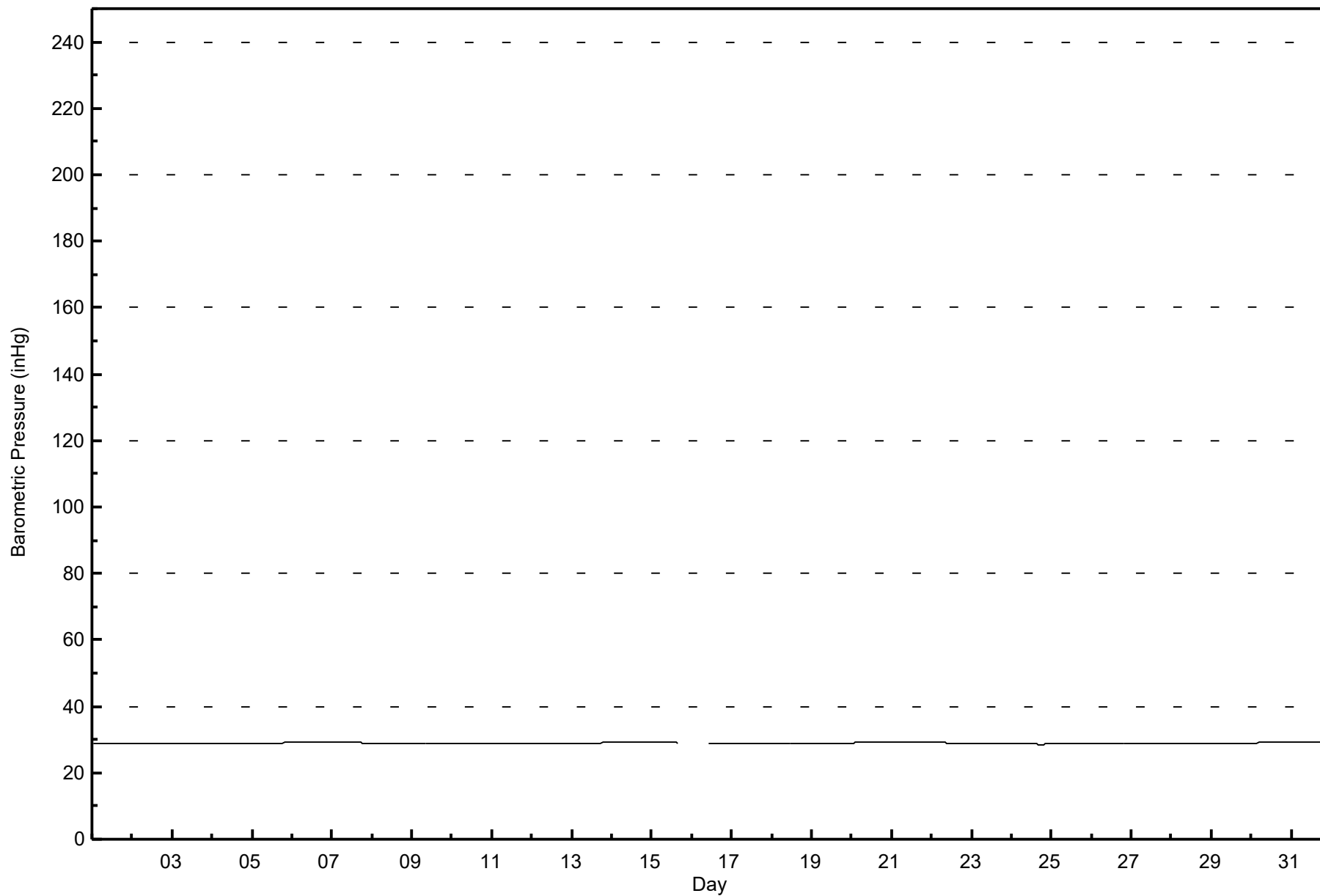
Athabasca Valley - July 2026

Maximum Value: 29.2 inHg on Jul 14 09:00																				Maximum Daily Average: 29.2 inHg on Jul 14				Hours in Service: 744		
Minimum Value: 28.6 inHg on Jul 24 19:00																				Minimum Daily Average: 28.7 inHg on Jul 24				Hours of Data: 726		
Maximum Diurnal Average: 29.0 inHg at hour 9																				Minimum Diurnal Average: 28.9 inHg at hour 19				Hours of Missing Data: 18		
Monthly Average: 28.94 inHg																				Percentiles: P ₁ = 28.6 P ₁₀ = 28.8 Q ₁ = 28.9 Median = 28.9 Q ₃ = 29.0 P ₉₀ = 29.2 P ₉₉ = 29.2				Hours of Calibration: 0		
																								Percent Operational Time: 97.6		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	28.8	28.8	28.8	28.8	28.9	28.9	28.8	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9
2-Jul	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9
3-Jul	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9
4-Jul	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9
5-Jul	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.0	29.1
6-Jul	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2
7-Jul	29.1	29.1	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.2
8-Jul	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0
9-Jul	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	29.0
10-Jul	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.8	28.9
11-Jul	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9
12-Jul	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9
13-Jul	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.0	29.1
14-Jul	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2
15-Jul	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.0	29.0	PF	PF	PF	PF	PF	PF	PF	PF	PF	29.2
16-Jul	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9
17-Jul	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
18-Jul	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	29.0	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	29.0
19-Jul	28.8	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	29.0	29.0	28.8
20-Jul	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2
21-Jul	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2
22-Jul	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0
23-Jul	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.7	28.7	28.7	28.7	28.7	28.7	28.8	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8
24-Jul	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.7
25-Jul	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8
26-Jul	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
27-Jul	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	29.0	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0
28-Jul	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.7	28.7	28.9	29.0
29-Jul	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	29.0	28.8	29.0
30-Jul	29.0	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
31-Jul	29.1	29.1	29.1	29.1	29.1	29.1	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.1	29.2
28.9 28.9 28.9 29.0 29.0 29.0 29.0 29.0 29.0 29.0 29.0 29.0 28.9 28.9 28.9 28.9 28.9 28.9 28.9 28.9 28.9 28.9 28.9 28.9 28.9 28.9																										Diurnal Average
29.2 29.2																										Diurnal Maximum
PF - Power Failure																										



Wood Buffalo Environmental Association
Hourly Averages

Barometric Pressure (BP) - inHg
Athabasca Valley - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

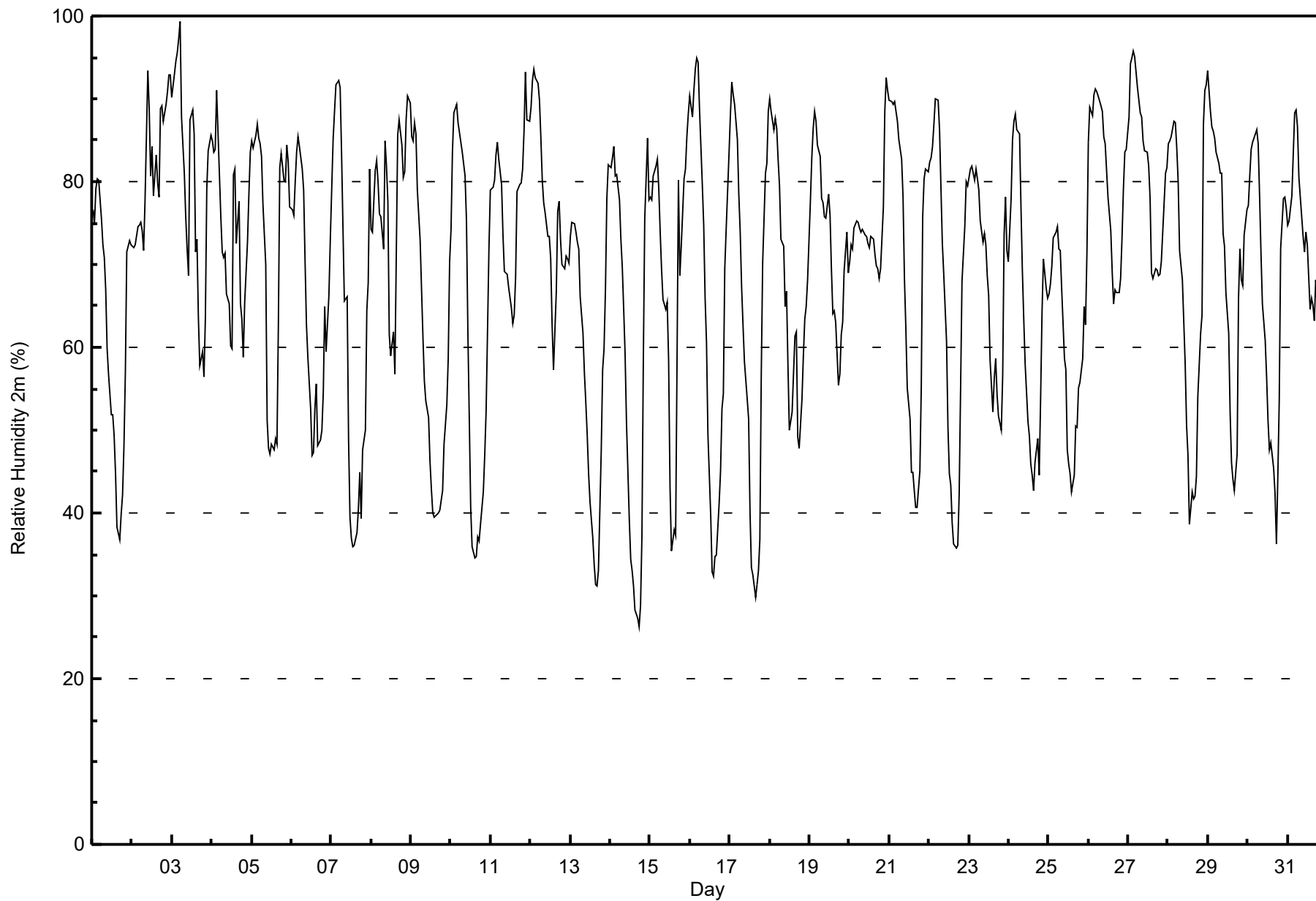
Athabasca Valley - July 2026

Maximum Value: 99.3 % on Jul 3 06:00																			Maximum Daily Average: 81.8 % on Jul 2						Hours in Service: 744		
Minimum Value: 26.3 % on Jul 14 18:00																			Minimum Daily Average: 57.2 % on Jul 13						Hours of Data: 744		
Maximum Diurnal Average: 85.6 % at hour 4																			Minimum Diurnal Average: 51.5 % at hour 16						Hours of Missing Data: 0		
Monthly Average: 69.14 %																			Percentiles: P ₁ = 31.3 P ₁₀ = 43.0 Q ₁ = 57.9 Median = 72.4 Q ₃ = 82.4 P ₉₀ = 88.2 P ₉₉ = 94.5						Hours of Calibration: 0		
																									Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	76.7	75.0	79.1	80.4	80.1	75.4	72.3	70.9	67.0	59.9	56.8	51.9	51.9	49.3	44.8	38.3	36.7	39.9	42.2	48.2	57.0	71.5	72.9	72.4	61.3	80.4	
2-Jul	72.3	72.0	72.3	74.5	74.8	75.1	74.1	71.8	77.7	93.5	88.6	80.7	84.2	78.4	83.2	79.9	78.2	88.8	89.2	87.3	89.3	90.9	92.9	92.9	81.8	93.5	
3-Jul	90.2	93.1	94.5	95.7	97.4	99.3	87.9	81.0	75.7	71.8	68.6	87.5	88.6	85.7	71.5	73.0	63.8	57.8	59.4	56.5	63.6	79.2	83.7	85.6	79.6	99.3	
4-Jul	84.9	83.6	83.9	91.1	85.9	75.8	71.6	70.8	71.4	66.4	65.3	60.2	59.9	80.8	81.6	72.6	77.6	65.2	63.4	58.8	65.5	72.7	78.5	83.6	73.8	91.1	
5-Jul	84.9	84.1	85.5	87.0	85.3	84.6	83.0	77.4	69.9	51.2	47.7	47.1	48.3	47.6	49.0	48.3	62.8	81.7	83.3	80.1	80.0	84.4	82.4	76.9	71.4	87.0	
6-Jul	76.7	75.9	80.0	83.6	85.4	84.3	81.5	79.0	70.6	62.6	58.8	52.6	46.9	47.3	52.5	55.6	48.1	48.8	50.0	54.5	64.8	59.4	66.2	73.1	64.9	85.4	
7-Jul	79.2	85.1	88.4	91.7	92.1	91.4	83.6	74.6	65.7	66.2	48.9	39.5	37.0	35.9	36.2	37.6	40.4	44.9	39.4	47.6	49.9	64.4	67.8	81.6	62.0	92.1	
8-Jul	74.3	74.0	81.3	82.6	80.1	76.0	75.8	71.8	84.9	81.9	77.6	61.5	59.0	61.9	56.7	71.1	85.7	87.5	84.4	80.5	81.2	87.5	90.3	89.5	77.4	90.3	
9-Jul	85.5	84.9	87.1	85.8	79.0	72.8	67.0	61.2	55.9	53.6	51.6	46.3	42.9	40.1	39.6	39.6	40.1	40.3	41.6	42.7	48.4	53.1	58.7	70.3	57.8	87.1	
10-Jul	74.3	83.5	88.4	89.4	87.1	86.0	84.7	83.5	80.7	75.2	61.9	51.3	40.7	35.9	34.6	34.8	37.0	36.6	38.6	42.5	47.0	52.3	62.1	71.8	61.7	89.4	
11-Jul	79.1	79.3	80.2	83.3	84.8	82.8	79.6	73.6	69.1	69.1	68.8	67.3	64.7	62.8	63.9	68.6	78.8	79.7	79.8	81.5	86.0	93.3	87.5	87.2	77.1	93.3	
12-Jul	89.0	92.2	93.5	92.6	91.9	89.8	85.3	80.2	77.5	76.2	73.4	73.3	70.7	62.7	57.3	66.8	76.5	77.6	73.1	70.0	69.5	71.0	70.8	70.2	77.1	93.5	
13-Jul	73.3	75.0	74.9	74.0	72.7	71.9	66.1	61.8	56.9	53.4	49.6	44.8	41.4	37.0	33.7	31.4	31.2	33.1	47.5	57.3	59.8	66.9	77.9	82.0	57.2	82.0	
14-Jul	81.6	83.0	84.3	80.8	80.8	77.8	73.0	69.6	64.5	59.2	50.8	39.2	34.5	33.0	31.2	28.2	27.3	26.3	28.8	37.3	58.7	75.6	85.3	77.9	57.9	85.3	
15-Jul	78.2	77.8	80.6	81.8	82.8	79.2	73.9	69.4	65.8	64.5	65.5	58.5	43.3	35.4	38.0	37.3	58.4	80.2	68.7	72.2	80.4	81.5	85.5	88.2	68.6	88.2	
16-Jul	90.4	87.8	91.0	93.5	94.9	94.5	88.9	79.7	74.7	65.9	60.5	49.5	39.7	32.8	32.3	34.8	35.0	41.2	45.1	52.5	54.4	69.5	74.2	83.2	65.2	94.9	
17-Jul	88.0	92.1	90.5	89.4	85.0	78.5	73.9	67.2	62.7	58.3	53.7	51.4	40.0	33.5	32.6	29.9	31.3	33.1	36.8	56.6	70.2	81.1	82.1	88.5	62.8	92.1	
18-Jul	90.0	88.5	86.3	87.6	86.4	82.8	79.5	73.0	72.2	65.0	66.8	58.0	50.0	52.1	56.9	61.3	61.9	49.2	47.9	53.7	58.9	63.4	64.9	68.2	67.7	90.0	
19-Jul	77.7	82.9	86.5	88.4	87.3	84.4	83.0	78.0	77.5	75.7	75.6	78.5	75.9	69.3	64.1	64.4	63.1	55.4	56.8	61.6	63.1	69.1	73.8	69.0	73.4	88.4	
20-Jul	70.3	72.4	71.9	74.5	75.2	75.1	74.4	73.9	74.2	73.5	73.3	72.6	72.0	73.5	73.0	71.2	69.8	69.5	68.3	69.5	77.0	88.4	92.6	91.0	74.9	92.6	
21-Jul	89.8	89.7	89.3	89.6	88.5	87.4	85.0	82.7	78.2	68.3	62.4	55.1	51.4	44.9	44.9	42.6	40.6	40.7	45.2	55.3	75.7	80.4	81.5	81.1	68.8	89.8	
22-Jul	82.4	82.9	84.2	87.0	90.0	89.8	86.2	79.3	72.5	68.8	60.7	50.3	44.7	43.4	38.7	36.2	35.8	36.1	42.3	54.9	67.9	74.5	80.1	79.5	65.3	90.0	
23-Jul	80.5	81.6	81.9	80.2	81.5	80.3	79.0	75.2	72.7	73.7	72.3	68.7	66.3	58.4	52.2	56.2	58.7	54.2	51.7	50.0	56.6	73.5	78.1	71.8	69.0	81.9	
24-Jul	70.3	78.0	85.1	87.3	88.1	86.3	85.8	77.1	69.3	63.4	57.9	51.1	49.4	46.0	44.6	42.7	46.2	48.9	44.5	53.7	64.0	70.7	67.2	66.0	64.3	88.1	
25-Jul	66.4	67.6	69.9	73.2	74.0	74.6	71.9	71.6	67.1	58.7	57.2	47.6	46.0	44.8	42.6	44.6	50.5	50.3	55.1	55.7	58.6	64.9	62.6	71.3	60.3	74.6	
26-Jul	84.7	88.9	88.0	90.5	91.3	90.8	90.3	89.1	88.5	85.4	84.6	81.4	78.2	74.1	69.2	65.3	66.9	66.6	66.7	68.3	73.2	79.2	83.6	83.9	80.4	91.3	
27-Jul	87.9	94.3	94.9	95.7	95.1	91.4	89.8	88.3	87.8	85.0	83.7	83.5	81.9	77.9	68.9	68.3	69.5	69.3	68.7	68.8	70.3	73.9	81.0	81.7	81.6	95.7	
28-Jul	84.6	84.9	85.5	87.3	87.2	84.1	79.9	71.7	68.1	63.1	58.0	50.5	46.9	38.6	42.5	41.7	42.0	44.4	54.1	61.7	63.9	86.9	91.0	91.7	67.1	91.7	
29-Jul	93.4	88.4	86.6	86.1	85.2	83.5	82.2	81.1	81.0	73.7	72.2	66.6	61.8	52.2	46.2	44.1	42.7	47.2	65.9	71.8	68.2	67.5	73.6	76.6	70.7	93.4	
30-Jul	77.0	80.7	83.9	84.8	85.7	86.2	84.5	78.4	71.4	65.3	60.9	56.5	51.2	47.6	48.5	45.4	42.3	36.3	44.4	53.6	71.8	78.0	78.1	76.7	66.2	86.2	
31-Jul	74.7	75.3	78.4	83.4	88.2	88.6	86.7	80.5	75.8	73.3	71.5	74.0	72.4	64.6	65.9	65.1	63.2	68.2	65.8	72.8	81.4	81.0	84.8	89.5	76.0	89.5	
80.9 82.4 84.1 85.6 85.3 83.2 80.0 75.6 72.5 68.4 64.7 59.9 56.2 53.1 51.5 51.5 53.6 54.8 56.4 60.6 67.0 74.4 77.8 79.8																										Diurnal Average	
93.4 94.3 94.9 95.7 97.4 99.3 90.3 89.1 88.5 93.5 88.6 87.5 88.6 85.7 83.2 79.9 85.7 88.8 89.2 87.3 89.3 93.3 92.9 92.9																										Diurnal Maximum	



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Athabasca Valley - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Athabasca Valley - July 2026

Maximum Speed: 33 km/h on Jul 18 12:00										Maximum Daily Speed Average: 15.2 km/h on Jul 29										Hours in Service: 744							
Minimum Speed Value: 0 km/h on Jul 14 22:00										Minimum Daily Speed Average: 0.6 km/h on Jul 17										Hours of Data: 744							
Maximum Diurnal Speed Average: 4.5 km/h at hour 6										Minimum Diurnal Speed Average: 0.7 km/h at hour 22										Hours of Missing Data: 0							
Monthly Average Velocity: 2.1 km/h 179.5 deg										Percentiles: P ₁ = 1 P ₁₀ = 3 Q ₁ = 5 Median = 7 Q ₃ = 11 P ₉₀ = 15 P ₉₉ = 23										Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	ENE3	ESE5	ESE3	ESE4	ESE5	ESE5	ESE5	ESE5	SSE8	ESE9	E11	E13	ESE11	E10	E11	E12	ESE11	ESE7	ESE6	E4	NE2	E4	E4	ESE8	ESE6.6	E13	
2-Jul	ESE8	ESE8	ESE8	ESE11	ESE14	ESE13	ESE12	ESE9	ESE13	ESE11	ESE13	SE12	SSW10	E6	ESE8	E9	ESE11	ESE11	ESE11	ESE10	SSE5	ESE9	ESE12	ESE12	ESE9.6	ESE14	
3-Jul	ESE14	ESE11	ESE8	ESE8	ESE7	ESE8	ESE11	ESE11	E10	E11	ESE7	ESE10	NW3	ESE9	ESE9	E7	SSW10	SSW9	SSW6	SSE6	ESE6	ESE6	SSE5	SE4	ESE6.7	ESE14	
4-Jul	SE6	SE7	SE4	SSW3	SE3	ESE5	ESE5	ESE6	ESE6	ESE4	NW2	NW5	SW15	SE2	SSE5	SSW1	NNW6	SW5	SW11	SW10	SSW5	SSE3	ESE4	SE3	S2.7	SW15	
5-Jul	ESE4	SE6	ESE6	SE6	SE5	SE6	S7	SSW11	SSW12	W20WNW23	NW23	NW21	NW19	NW12	NNW9	WSW12	W7	SSW7	SW11	SW7	W4	WNW5	NW8	W5.3	WNW23		
6-Jul	WSW6	WNW3	SSW11	S8	SE5	SSW8	SSW9	SSW9	ENE5	NE1	NW6	NNW6	NE5	WNW3	SW10	SSW10	S5	SSW8	SSW8	SSW6	SSW8	NW6	SSW2	SE2	SSW3.7	SSW11	
7-Jul	S2	SSW4	ESE1	ESE2	ESE4	ESE5	ESE4	E3	NNE4	WNW5	ENE7	ESE7	ENE7	ENE7	E9	E11	E7	ENE9	E8	E7	ESE6	E4	E4	NE5	E4.4	E11	
8-Jul	SE2	SE3	ESE5	E4	ESE5	ESE6	E6	SE2	ENE4	NNW2	NNW7	ENE8	ESE10	SE8	SW12	WSW17	S8	SSE8	SSW9	SSW8	SW6	SE3	SE3	SSW6	SSE3.1	WSW17	
9-Jul	S5	S4	SSW6	SSW6	SE7	ESE8	SSW9	SW11	SSW12	SSW14	SW18	SSW19	SW18	SW16	SSW16	S14	SSE12	S14	S12	SSE9	SSE7	S5	SSE7	SSW11	SSW9.7	SSW19	
10-Jul	SSW14	SE8	SSE8	SSE4	SE9	ESE9	ESE10	ESE10	E7	NNW2	SW4	SSW6	SW9	SSW10	SSW9	SW14	SSW20	SSW17	SSW10	SSW6	S5	S7	ESE3	S5	S6.4	SSW20	
11-Jul	SSE5	S5	SE4	SE5	ESE8	ESE10	SE9	ESE6	ESE5	ESE5	ENE1	ESE8	ESE5	E7	SSE2	ESE6	SE6	ESE2	WSW4	SSW4	SSW2	WSW4	WSW8	SSW6	SE3.8	ESE10	
12-Jul	SSW6	SE4	SE6	ESE7	SE5	SE8	SE5	S7	S8	SSW8	SW11	WSW13	E7	SE14	SE11	SW9	WSW6	SE12	S11	SSE7	SSE5	S8	SW12	SW18	S6.0	SW18	
13-Jul	SW23	SW21	SW21	SW20	SW16	ESE5	SSW13	SSW14	SSW12	SSW13	SSW17	SW22	SW19	SW21	SW22	SW22	SW22	WSW21	N11	NNW7	NNW12	NW12	SSE4	SE7	SW12.6	SW23	
14-Jul	WSW2	W4	SE5	SE6	SE6	ESE6	ESE6	S8	SSW9	SSW12	SSW15	WSW16	WSW13	SSW15	SSW13	SSW13	SSW11	SSW9	SSW7	S4	WSW1	NNE0	SE1	SE5	SSW6.2	WSW16	
15-Jul	ESE6	ESE6	ESE9	ESE9	ESE7	ESE9	ESE9	SE9	ENE3	ESE8	ESE8	ESE9	ESE10	ESE14	E16	ESE12	W20	ENE8	SE7	SE8	SSE7	SE5	SE6	NNW1	ESE6.6	W20	
16-Jul	ENE2	SE6	SE9	SE6	ESE7	ESE8	ESE9	ESE9	ESE8	E3	SW6	SSW10	SSW12	SW14	SW10	W10	NNW8	NW7	SW4	SSE5	SE5	ENE2	SSE1	ENE3	SSE2.8	SW14	
17-Jul	SW1	S3	SE2	SE3	ESE5	ESE5	ESE5	ESE2	ENE7	ENE4	SSW2	WSW5	NW5	NNW7	NNW6	WNW4	SSW8	SSW4	S6	SSW3	S1	NNW2	NW1	S1	SSE0.6	SSW8	
18-Jul	ESE1	ESE3	ESE6	ESE4	ESE6	SE6	ESE7	E4	WSW4	SSW7	SSW10	ESE33	ESE31	SE9	N5	NNW8	NNW9	ESE12	ESE18	E12	E12	E8	E9	SE6	ESE6.9	ESE33	
19-Jul	SE3	NE1	E2	SSW9	ESE3	SW2	NNW12	NNW7	SW8	SW8	SW5	SW9	SW12	SSW16	SSW15	NNW15	NW6	NNW15	NW19	NW13	NW15	NW8	WNW7	NW17	WNW5.1	NW19	
20-Jul	NNW21	NW20	NW24	NW18	NW19	NW12	NW13	NW11	WNW12	NW10	NNW7	NW9	NW10	WNW15	WNW15	WNW12	NNW8	N6	N5	NNE3	NW0	SSE1	SE2	SE3	NW9.8	NW24	
21-Jul	SE6	ESE6	SE5	ESE4	ESE6	SE6	SE6	SE5	SSW7	SSW9	WSW2	NW4	WSW7	SW7	SW8	SSW8	SSW7	S6	S7	S4	S3	SSE2	SSE4	SE4	S4.0	SSW9	
22-Jul	SE5	ESE8	ESE7	ESE7	ESE9	ESE8	ESE8	ESE7	ESE5	NE2	SE2	SSW8	SW7	SW5	SW4	SW4	WSW3	SSW3	ENE4	ESE6	E5	E3	SE4	ESE5	SE3.5	ESE9	
23-Jul	ESE6	SE7	SE7	ESE4	ESE7	SE12	SE9	ESE5	ENE6	NNW5	NW12	NW16	NNW11	NW22	NW14	NW20	NW14	NW14	NW12	WNW12	WSW7	WSW3	SSW5	WSW10	NW4.0	NW22	
24-Jul	WNW9	NW7	SW7	S5	SSW4	ESE3	ESE7	E6	E6	E6	SE6	E8	ENE12	E12	E13	E14	ENE14	ENE11	ESE7	SE8	SE4	S5	SSW7	S5	E4.5	ENE14	
25-Jul	ESE4	ESE7	ESE8	ESE7	ESE8	ESE6	SE5	SW7	SSW6	S8	SSW10	SSW13	SSW15	SSW12	SW15	SW13	SW10	SW11	SSW8	SW7	S6	SE3	WSW6	WNW6	SSW6.0	SSW15	
26-Jul	NW10	N8	NNE7	NW17	NW18	NNW14	NNW17	NW17	NNW17	NNW15	NW18	NW17	NW15	NW15	NW13	NNW11	NNW11	NNW13	NW14	NW11	NW9	NNW9	NNW8	N7	NNW12.8	NW18	
27-Jul	NNE7	NNE7	NNE5	N5	NNE4	ESE3	E6	S6	ESE6	ENE2	NNW3	SSW7	SSW6	SSW7	NE5	NNW4	NNE4	ENE4	SE7	SE7	S5	S5	ESE2	SE4	ESE1.4	SE7	
28-Jul	SE4	SE6	SE7	SE6	SE7	ESE7	ESE7	ESE4	ENE2	NE5	N3	NE4	NNE3	E9	ENE15	ENE15	ENE17	ENE8	E4	NNW8	WNW14	NW18	NW13	N4	ENE3.5	NW18	
29-Jul	S8	S12	S13	SSW19	SW21	WSW19	WSW19	WSW17	SW18	WSW24	WSW19	WSW23	WSW21	WSW21	WSW27	WSW22	WSW23	W23	NNW14	WNW5	WSW9	SW13	WSW11	SW10	WSW15.2	WSW27	
30-Jul	SSW5	SSE8	SSE4	S9	SSE5	SSW7	SSW9	SSW9	SW2	NW6	NNW7	NNW6	NNW5	SW7	WSW5	NW5	N3	S6	WSW9	W4	SSW2	SE3	SSE3	SE6	SSW2.6	WSW9	
31-Jul	SE7	SE8	SE6	SE8	ESE9	ESE10	ESE10	ESE9	ESE7	ESE5	SE6	SE4	ENE2	N2	WNW3	W3	ESE6	E7	E7	SE4	SE4	ESE6	ESE4	ESE5	ESE5.1	ESE10	
S1.9 SE2.9 SE3.5 SSE3.5 SE3.7 SE4.5 SE3.9 SSE3.3 SSE2.5SSW1.8 SW2.7 SW2.6 SW2.8 SW3.1 SW3.1WSW2.4 SW2.9SSW2.2 S2.0 S2.0SSW1.7 S0.7 S1.7 S1.9																										Diurnal Average	
SW23 SW21 NW24 SW20 SW21WSW19WSW19 NW17 SW18WSW24WNW23 ESE33 ESE31 NW22WSW27 SW22WSW23 W23 NW19 NW13 NW15 NW18 NW13 SW18																										Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using vector methods																											



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

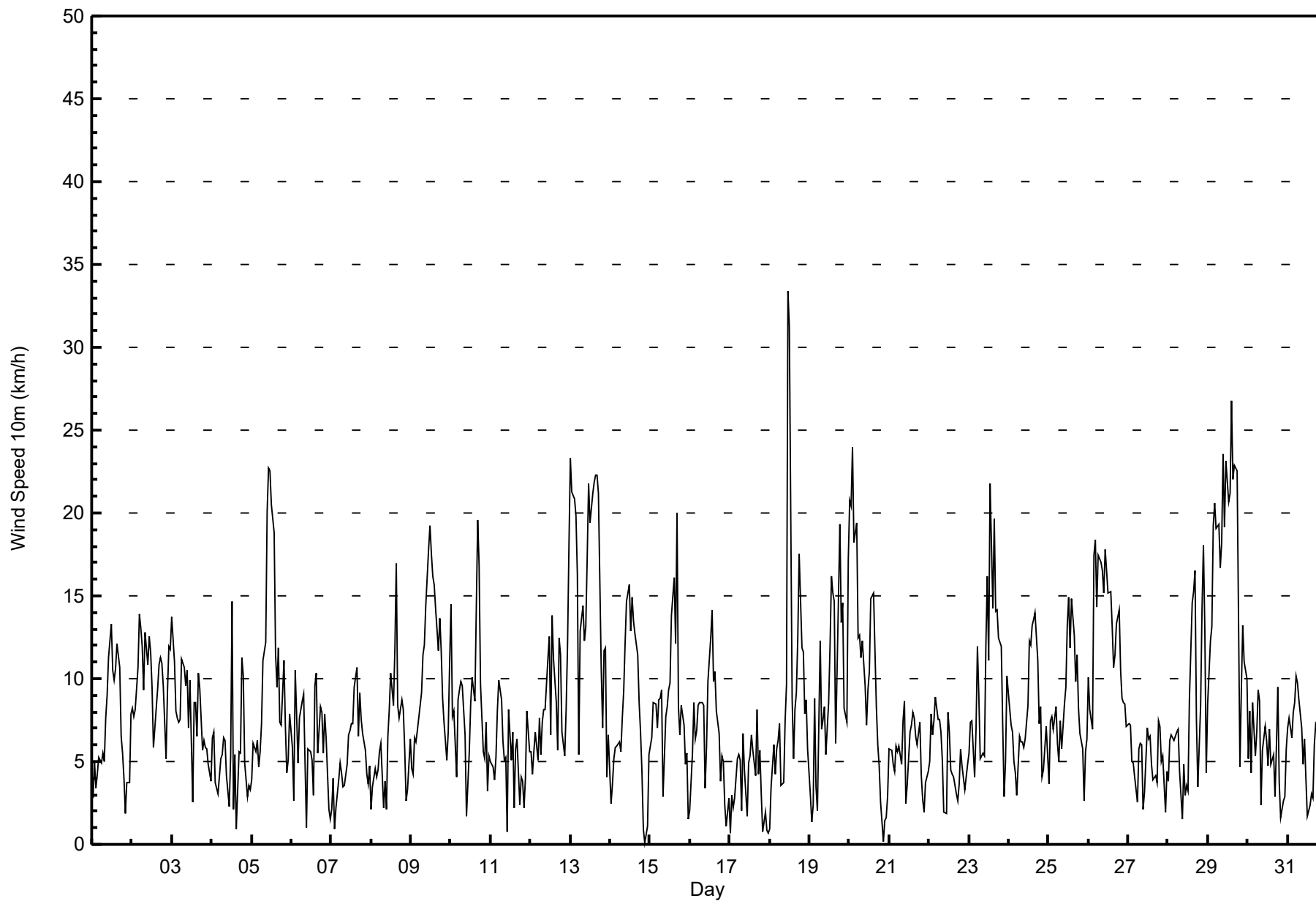
Wind Speed 10m (WS10) - km/h
Athabasca Valley - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																		Hours in Service: 744							
Maximum Value: 25 km/h on Jul 15 17:00																		Hours of Data: 744							
Minimum Value: 1 km/h on Jul 22 17:00																		Hours of Missing Data: 0							
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 2 Q ₃ = 3 P ₉₀ = 4 P ₉₉ = 9																		Hours of Calibration: 0							
																		Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Jul	2	1	2	2	1	2	2	2	2	3	3	4	4	3	3	4	3	3	2	2	2	1	2	2	4
2-Jul	2	2	2	3	3	3	3	3	3	3	4	4	3	2	2	3	3	3	3	3	2	3	3	3	4
3-Jul	3	2	2	1	2	2	3	3	3	3	3	6	2	3	3	2	4	3	2	1	2	2	1	1	6
4-Jul	2	1	3	2	1	1	2	2	1	2	1	1	13	3	2	1	2	3	2	3	1	1	2	2	13
5-Jul	2	1	2	1	1	2	2	3	3	5	6	6	5	4	4	4	9	8	2	3	3	2	2	2	9
6-Jul	2	1	3	3	1	4	2	3	2	2	3	2	2	4	6	3	2	4	2	2	2	3	3	2	6
7-Jul	1	2	1	1	1	1	1	2	2	1	2	2	3	3	4	3	2	3	2	2	2	2	2	1	4
8-Jul	1	1	1	1	1	1	2	6	9	2	2	2	3	2	9	9	3	2	2	2	3	1	2	2	9
9-Jul	3	2	3	2	1	2	3	3	3	4	5	6	4	4	4	4	3	4	4	3	2	2	3	6	6
10-Jul	8	3	2	2	2	2	2	2	2	1	1	1	3	3	3	4	6	4	3	2	1	1	2	3	8
11-Jul	3	2	1	2	2	3	2	2	2	2	2	3	2	3	2	3	2	2	1	2	1	3	5	1	5
12-Jul	1	1	1	2	1	2	2	3	2	3	4	4	4	4	4	10	11	3	3	2	2	2	5	4	11
13-Jul	4	3	4	4	5	2	5	3	3	3	4	6	5	5	5	5	5	5	4	3	5	5	3	4	6
14-Jul	3	2	2	1	1	1	2	2	2	2	3	5	4	4	3	3	3	3	2	1	1	1	1	2	5
15-Jul	2	2	3	2	3	2	2	2	2	2	2	3	3	5	5	4	25	7	2	2	2	2	2	3	25
16-Jul	3	2	2	2	2	2	2	2	2	1	2	3	3	5	2	3	2	2	2	3	3	3	2	1	5
17-Jul	1	2	1	1	1	1	2	2	2	1	1	1	2	1	2	2	2	2	2	2	1	1	1	1	2
18-Jul	1	2	1	1	1	1	2	1	3	3	5	11	8	7	3	3	2	7	5	3	3	2	2	1	11
19-Jul	2	1	2	5	2	2	3	4	2	3	2	2	2	3	4	7	4	5	5	2	4	2	2	5	7
20-Jul	7	4	4	4	4	2	2	3	2	2	2	2	3	2	2	3	2	1	1	1	1	2	1	1	7
21-Jul	1	1	1	1	1	1	1	2	2	2	1	2	2	2	2	2	2	1	1	2	2	1	1	2	2
22-Jul	1	2	1	1	1	1	1	1	2	2	3	2	2	1	1	1	1	1	1	2	2	1	1	2	3
23-Jul	2	1	3	6	3	3	3	2	1	2	4	4	3	3	4	10	4	4	3	3	2	1	3	3	10
24-Jul	4	2	2	2	1	1	1	2	2	3	3	3	3	4	3	3	3	2	3	3	2	4	3	2	4
25-Jul	1	2	2	1	2	1	2	4	2	2	2	4	3	3	3	4	2	3	2	2	2	1	2	2	4
26-Jul	4	3	2	4	3	4	4	4	4	3	3	3	3	3	3	3	2	3	2	2	2	2	3	1	4
27-Jul	1	2	2	1	1	1	2	1	2	2	1	2	2	2	3	2	1	1	2	2	1	1	1	2	3
28-Jul	2	1	1	1	1	1	2	2	1	2	2	2	3	3	3	3	3	2	2	2	10	4	5	2	10
29-Jul	4	4	4	5	5	4	6	5	4	6	5	5	5	5	6	5	6	8	5	3	4	2	2	2	8
30-Jul	3	2	3	3	2	2	2	2	2	2	2	3	3	2	2	2	2	2	2	2	1	2	1	1	3
31-Jul	1	1	1	2	2	2	2	2	1	1	2	1	1	1	1	2	2	2	2	1	2	2	1	2	2
Diurnal Maximum																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Athabasca Valley - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Athabasca Valley - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	237	31.85	31.85
6 - 11	347	46.64	78.49
12 - 19	128	17.20	95.70
20 - 28	30	4.03	99.73
29 - 38	2	0.27	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Athabasca Valley - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	7	7	9	14	12	50	39	18	19	15	10	10	4	8	8	7	237
6 - 11	4	3	0	10	27	99	46	11	17	54	25	10	2	3	15	21	347
12 - 19	0	0	0	6	6	13	4	1	5	25	15	9	0	6	28	10	128
20 - 28	0	0	0	0	0	0	0	0	0	1	10	8	3	1	6	1	30
29 - 38	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	10	9	30	45	164	89	30	41	95	60	37	9	18	57	39	744

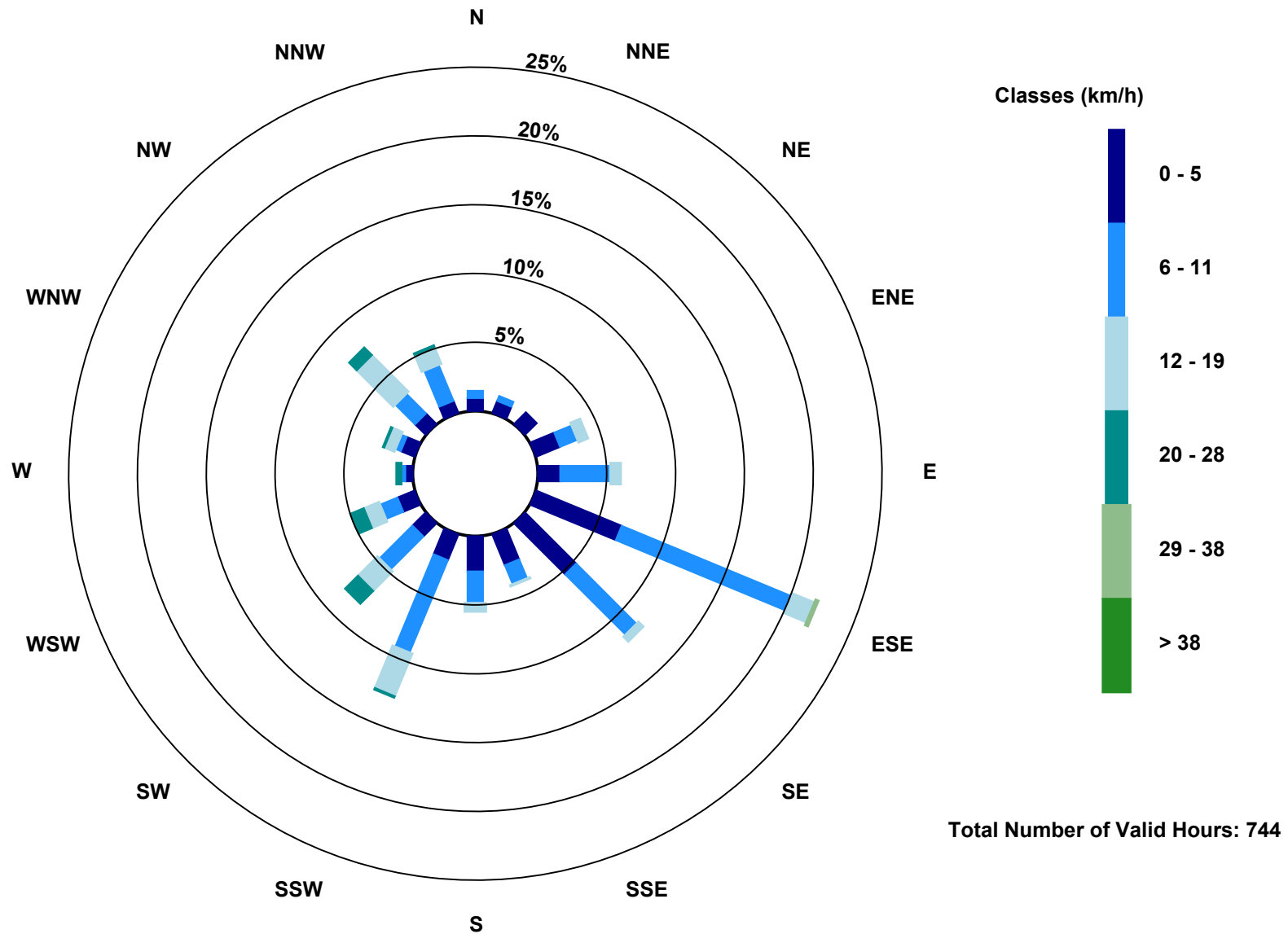
Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Athabasca Valley





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Athabasca Valley - July 2026

Direction of Maximum Speed: 105 deg on Jul 18 12:00 Direction of Maximum Daily Speed Average: 242.2 deg on Jul 29																				Hours in Service: 744					
Direction of Minimum Speed: 25 deg on Jul 14 22:00 Direction of Minimum Daily Speed Average: 0.6 deg on Jul 17																				Hours of Data: 744					
																				Hours of Missing Data: 0					
Monthly Average Direction: 179.5 deg																				Percent Operational Time: 100.0					
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	72	123	102	119	104	116	118	105	148	102	90	93	103	94	94	98	107	114	103	88	56	86	85	106	102.3
2-Jul	106	106	123	118	112	115	116	105	109	108	106	137	209	80	110	91	112	106	108	108	153	119	113	112	114.0
3-Jul	110	123	119	120	116	111	112	110	99	86	116	109	323	109	112	95	196	205	202	161	114	113	150	133	122.0
4-Jul	126	135	124	194	128	120	119	113	117	121	305	307	235	124	151	203	331	216	226	228	195	160	118	141	172.7
5-Jul	120	130	120	125	127	134	187	198	211	274	289	305	324	311	326	341	238	263	192	227	236	280	288	320	272.0
6-Jul	245	299	206	188	142	211	200	194	59	37	317	346	41	292	222	197	186	192	205	205	206	311	205	143	210.6
7-Jul	185	206	107	103	122	114	115	86	17	301	70	102	77	64	93	80	98	69	92	91	105	99	98	53	88.3
8-Jul	124	142	103	101	114	105	96	128	72	345	337	75	109	126	235	239	170	158	197	210	215	141	145	195	159.1
9-Jul	185	174	194	195	125	117	202	217	212	211	218	210	218	214	208	183	162	171	173	160	153	171	159	205	192.4
10-Jul	209	133	158	159	129	113	121	119	99	342	216	199	217	213	208	214	212	211	206	201	180	169	115	174	182.2
11-Jul	165	182	125	140	114	122	129	122	115	118	63	106	114	85	150	123	141	111	243	198	194	242	252	202	139.9
12-Jul	200	143	134	117	127	128	132	190	190	197	232	252	86	129	126	221	258	145	175	159	162	179	233	223	178.0
13-Jul	234	229	229	230	219	110	202	206	200	202	203	221	227	221	224	226	235	245	351	341	329	314	158	142	227.2
14-Jul	251	263	132	132	130	116	117	187	192	205	202	246	237	202	201	207	211	203	201	181	255	25	138	124	197.5
15-Jul	112	122	116	122	119	113	117	130	71	115	120	111	103	108	99	103	263	73	141	133	152	133	134	327	118.3
16-Jul	70	129	125	130	108	110	114	112	104	83	220	212	212	223	225	264	341	324	226	160	138	68	165	60	164.2
17-Jul	236	181	146	127	112	106	103	104	65	63	193	238	318	331	334	296	209	198	178	198	169	344	317	183	158.8
18-Jul	105	122	103	112	118	124	109	81	245	195	208	105	114	138	352	343	333	115	111	94	101	80	86	133	109.0
19-Jul	136	46	84	199	117	220	330	328	229	219	222	220	218	209	206	335	319	334	320	313	321	316	298	323	286.3
20-Jul	329	322	322	322	317	317	310	309	303	322	345	315	311	290	294	303	332	8	357	30	313	152	129	128	317.9
21-Jul	124	112	124	107	123	145	137	140	201	207	248	306	238	224	224	194	198	188	184	189	187	147	162	141	177.4
22-Jul	129	121	114	117	123	120	116	103	116	55	129	210	216	236	234	232	252	196	78	107	94	86	130	121	133.9
23-Jul	120	131	128	122	122	125	130	105	62	330	323	324	337	315	321	324	326	323	322	283	256	237	192	238	319.2
24-Jul	292	306	220	179	206	109	104	79	92	79	132	84	76	79	80	82	75	72	110	127	132	190	203	184	100.9
25-Jul	120	117	118	117	116	111	129	218	193	187	196	206	211	213	232	224	217	221	208	221	187	129	252	294	196.7
26-Jul	322	350	12	322	320	334	327	326	328	331	320	323	319	322	323	331	327	331	323	316	320	329	344	11	327.8
27-Jul	14	21	24	11	12	115	84	180	106	76	301	208	205	205	43	347	18	63	142	143	189	176	117	137	106.4
28-Jul	144	132	133	134	129	112	111	122	63	35	5	38	22	82	67	68	70	76	82	343	301	318	306	355	56.3
29-Jul	169	187	185	201	228	248	249	249	232	250	237	249	256	257	251	244	248	263	342	300	251	231	238	234	242.2
30-Jul	204	149	153	181	163	192	193	195	233	320	336	333	346	215	253	310	353	187	257	279	205	129	167	135	212.9
31-Jul	128	131	125	124	118	117	115	119	114	112	127	146	68	359	293	265	110	82	101	144	135	107	112	107	116.8
170.9 145.9 143.2 154.5 134.0 124.6 136.3 159.5 158.7 211.5 233.7 218.7 221.9 216.8 219.3 240.5 229.4 195.7 186.6 184.9 200.3 185.7 183.4 174.4																									
Diurnal Average																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

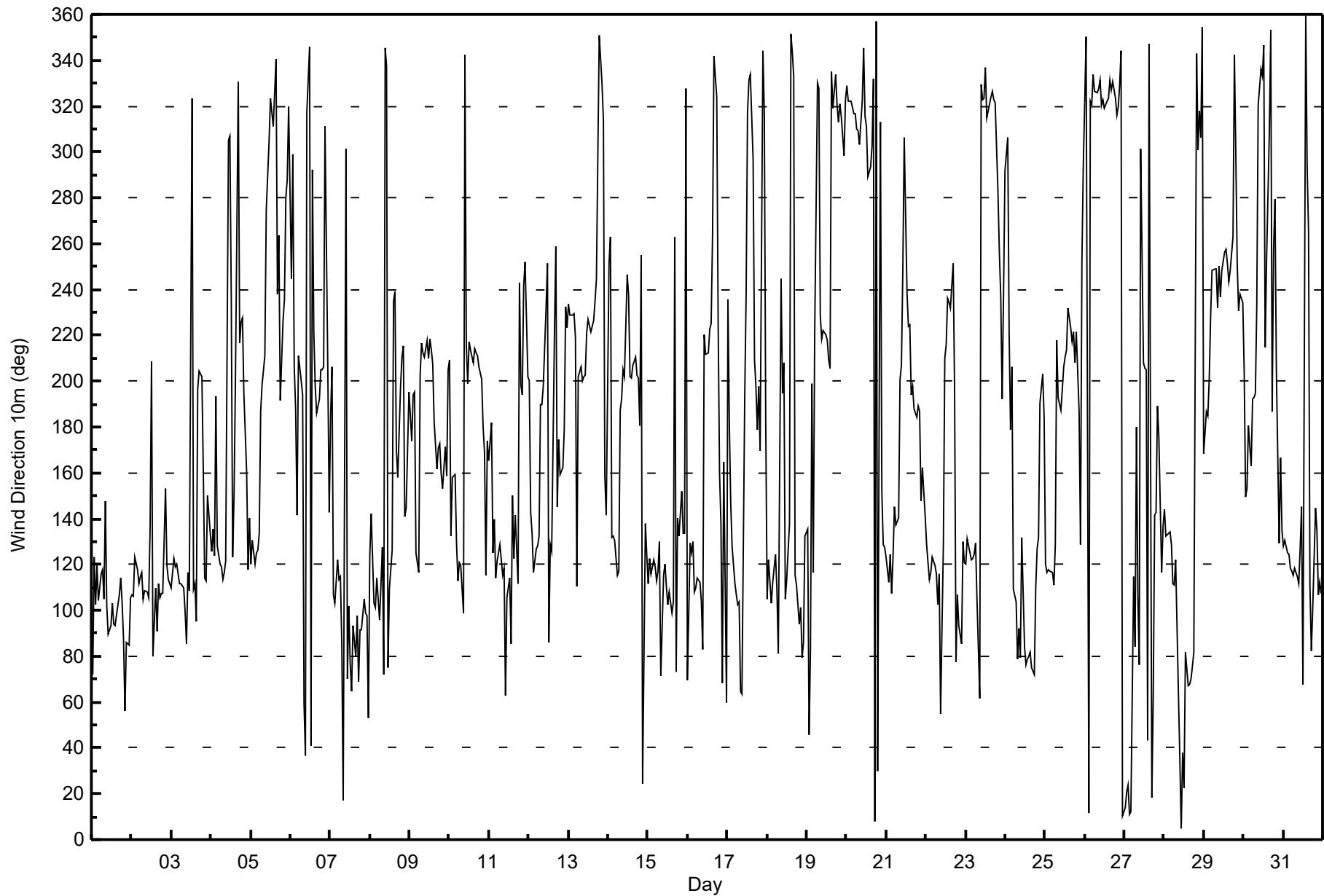
Athabasca Valley - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 101 deg on Jul 6 10:00																		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0							
Minimum Value: 8 deg on Jul 26 05:00																									
Percentiles: P ₁ = 10 P ₁₀ = 14 Q ₁ = 17 Median = 24 Q ₃ = 41 P ₉₀ = 66 P ₉₉ = 93																									
Day	Hourly Period Ending At (MST)																							Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		24
1-Jul	71	25	52	32	23	32	28	31	24	24	22	22	26	23	23	25	21	41	35	48	43	21	33	16	71
2-Jul	16	20	17	16	14	15	16	22	19	16	18	46	18	43	32	23	27	17	22	19	35	18	15	15	46
3-Jul	14	19	17	13	16	16	16	21	30	26	49	57	80	30	21	37	34	14	18	26	25	20	25	33	80
4-Jul	16	15	62	55	32	19	30	23	26	58	66	21	37	84	46	90	36	65	15	16	14	58	46	41	90
5-Jul	59	12	20	18	19	28	26	14	19	19	19	18	16	15	23	21	57	64	30	22	32	39	43	18	64
6-Jul	49	63	11	41	22	33	15	12	45	101	43	47	52	67	44	32	55	36	11	14	21	38	92	68	101
7-Jul	75	59	76	38	36	25	38	81	57	15	52	43	37	40	34	22	37	11	25	26	24	28	51	31	81
8-Jul	64	32	24	26	28	29	38	83	66	83	44	26	24	30	36	25	40	31	18	18	23	31	62	25	83
9-Jul	68	54	49	31	17	19	28	15	15	17	14	16	15	18	17	26	23	22	23	18	16	47	29	35	68
10-Jul	29	30	14	32	18	15	14	11	32	68	41	21	27	23	30	21	13	15	19	27	22	13	58	61	68
11-Jul	33	23	33	40	21	15	18	23	29	41	92	29	54	41	69	54	42	67	27	20	71	82	61	24	92
12-Jul	24	24	15	17	21	20	27	29	19	23	21	23	78	26	25	59	75	22	29	22	31	21	31	11	78
13-Jul	10	10	11	11	26	43	32	14	19	16	13	16	16	18	15	14	17	18	26	28	21	35	80	42	80
14-Jul	82	67	32	31	15	15	26	16	14	12	13	21	26	14	12	12	14	15	12	35	90	98	81	28	98
15-Jul	25	24	18	20	28	19	20	17	78	29	18	24	28	25	20	21	82	66	43	24	19	33	28	93	93
16-Jul	77	57	18	22	16	13	15	13	20	55	40	17	15	24	17	23	24	14	40	39	56	70	81	70	81
17-Jul	100	66	55	44	21	14	46	87	19	16	90	18	32	20	27	44	16	69	41	44	93	54	78	94	100
18-Jul	94	36	23	33	24	22	19	48	44	34	53	16	18	58	70	25	16	69	18	18	15	20	19	26	94
19-Jul	67	83	62	20	53	68	17	51	18	36	29	20	16	9	18	33	41	20	11	10	17	24	20	16	83
20-Jul	17	12	10	12	9	15	10	17	11	22	21	22	23	13	14	16	16	20	21	38	87	67	72	49	87
21-Jul	23	18	19	24	17	24	15	35	14	14	70	61	28	24	18	27	26	20	10	45	53	71	28	23	71
22-Jul	24	14	13	11	12	13	12	18	34	95	86	16	20	32	36	31	23	61	47	25	32	48	35	39	95
23-Jul	34	20	23	86	37	16	20	35	23	41	22	14	22	11	19	18	17	18	14	19	38	79	71	24	86
24-Jul	37	38	25	46	31	57	18	26	33	45	45	29	23	23	19	18	13	13	37	25	45	70	45	44	70
25-Jul	41	15	17	17	17	24	34	58	24	19	22	16	14	18	17	12	12	12	14	20	25	77	52	45	77
26-Jul	14	25	17	11	8	18	15	15	17	19	11	12	13	11	14	19	14	16	9	10	15	19	22	12	25
27-Jul	12	24	27	19	27	60	42	18	25	80	47	19	15	19	68	59	40	47	32	23	18	23	79	29	80
28-Jul	47	10	11	10	12	15	20	38	91	37	66	74	60	45	9	10	10	16	62	22	27	21	46	59	91
29-Jul	45	18	21	17	14	15	15	14	14	15	16	15	15	21	15	20	17	31	18	50	35	15	17	16	50
30-Jul	62	18	60	24	22	16	20	13	84	36	33	43	61	27	43	25	73	39	26	33	69	68	50	17	84
31-Jul	13	13	16	13	13	12	12	17	18	37	25	45	80	55	32	49	35	18	18	30	38	19	29	28	80
100 83 76 86 53 68 46 87 91 101 92 74 80 84 70 90 82 69 62 50 93 98 92 94																									
Diurnal Maximum																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Athabasca Valley - July 2026





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS08 FORT CHIPEWYAN JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT CHIPEWYAN (AMS08)
JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	706	35	38	99.6	-	-	1.7	0	0.5	0
TRS (ppb) Average	508	28	236	72.04	0.9	0	0.9	-	0.3	-
O3(ppb) Average	706	35	38	99.6	-	-	60.3	0	49.3	-
NO2(ppb) Average	705	36	39	99.6	-	-	8	0	3.1	-
NO(ppb) Average	705	36	39	99.6	-	-	3.9	-	0.6	-
NOX(ppb) Average	705	36	39	99.6	-	-	9.9	-	3.7	-
PM2.5(ug/m3) Average	741	2	3	99.87	-	-	350.4	62	97.7	8
Temperature 2 m (C) Average	744	0	0	100	-	-	28.8	-	23.5	-
Relative Humidity (%) Average	744	0	0	100	-	-	100	-	95.2	-
Wind Speed 10 m (km/h) Average	743	0	1	99.87	-	-	40	-	22	-
Wind Direction 10 m (deg) Average	743	0	1	99.87	-	-	-	-	-	-
PC(mm) Total	744	0	0	100	-	-	24.1	-	24.8	-
Leaf Wetness (% of range) Average	744	0	0	100	-	-	59.5	-	22.4	-
Global Solar Radiation (W/m2) Average	744	0	0	100	-	-	877.4	-	350.6	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT CHIPEWYAN (AMS08)

JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2(ppb) Average	706	0.11	0.2	-	0	0	0	0.1	0.1	0.2	1.7
TRS (ppb) Average	508	0.19	0.1	-	0	0.1	0.1	0.2	0.2	0.4	0.9
O3(ppb) Average	706	30.2	10	-	9.4	17.1	22.7	30	36.6	43.6	60.3
NO2(ppb) Average	705	0.8	1	-	0.1	0.2	0.3	0.5	0.8	1.6	8
NO(ppb) Average	705	0.12	0.3	-	0	0	0.1	0.1	0.1	0.1	3.9
NOX(ppb) Average	705	0.92	1.1	-	0.2	0.3	0.4	0.6	0.9	1.6	9.9
PM2.5(ug/m3) Average	741	24.14	38.8	-	1	2.8	4.9	8.7	21.2	72.5	350.4
Temperature 2 m (C) Average	744	19.11	3.5	-	10	14.7	16.6	19.2	21.5	23.8	28.8
Relative Humidity (%) Average	744	73.91	16.1	-	35.9	50.9	60.9	76.6	87.3	94	100
Wind Speed 10 m (km/h) Average	743	12.9	6	-	1	5	9	12	16	22	40
Wind Direction 10 m (deg) Average	743	-	-	-	-	-	-	-	-	-	-
Precipitation (mm) Total	744	-	-	95	-	-	-	0	0	0	24.1
Leaf Wetness (% of range) Average	744	4.12	8.4	-	0.1	0.6	0.8	1.2	1.8	12.7	59.5
Global Solar Radiation (W/m2) Average	744	236.82	269	-	0	0	1.7	115.1	428.2	690.5	877.4

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT CHIPEWYAN (AMS08)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
SO2, TRS, NO/NO2/NOX, O3, PM2.5	10 Jul 2026 20:00	10 Jul 2026 20:00	1	Station power failure
TRS	16 Jul 2026 02:00	17 Jul 2026 08:00	31	Unstable Operation - inconsistent response
TRS	17 Jul 2026 09:00	17 Jul 2026 10:00	2	Maintenance - verify daily QA response
TRS	17 Jul 2026 11:00	21 Jul 2026 09:00	95	Unstable Operation - inconsistent response
TRS	21 Jul 2026 10:00	21 Jul 2026 14:00	5	Maintenance - verify daily QA response
TRS	21 Jul 2026 15:00	23 Jul 2026 09:00	43	Unstable Operation - inconsistent response
TRS	23 Jul 2026 10:00	23 Jul 2026 10:00	1	Maintenance - verify daily QA response
TRS	23 Jul 2026 11:00	24 Jul 2026 11:00	25	Unstable Operation - inconsistent response
TRS	25 Jul 2026 08:00	25 Jul 2026 09:00	2	Maintenance - verify daily QA response
TRS	28 Jul 2026 09:00	28 Jul 2026 11:00	3	Maintenance - verify daily QA response
SO2, NO/NO2/NOX, O3	23 Jul 2026 09:00	23 Jul 2026 10:00	2	Maintenance - sample manifold cleaned
TRS	23 Jul 2026 10:00	23 Jul 2026 10:00	1	Maintenance - sample manifold cleaned
Wind Speed, Wind Direction	07 Jul 2026 05:00	07 Jul 2026 05:00	1	Flat line in sensor output signal



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

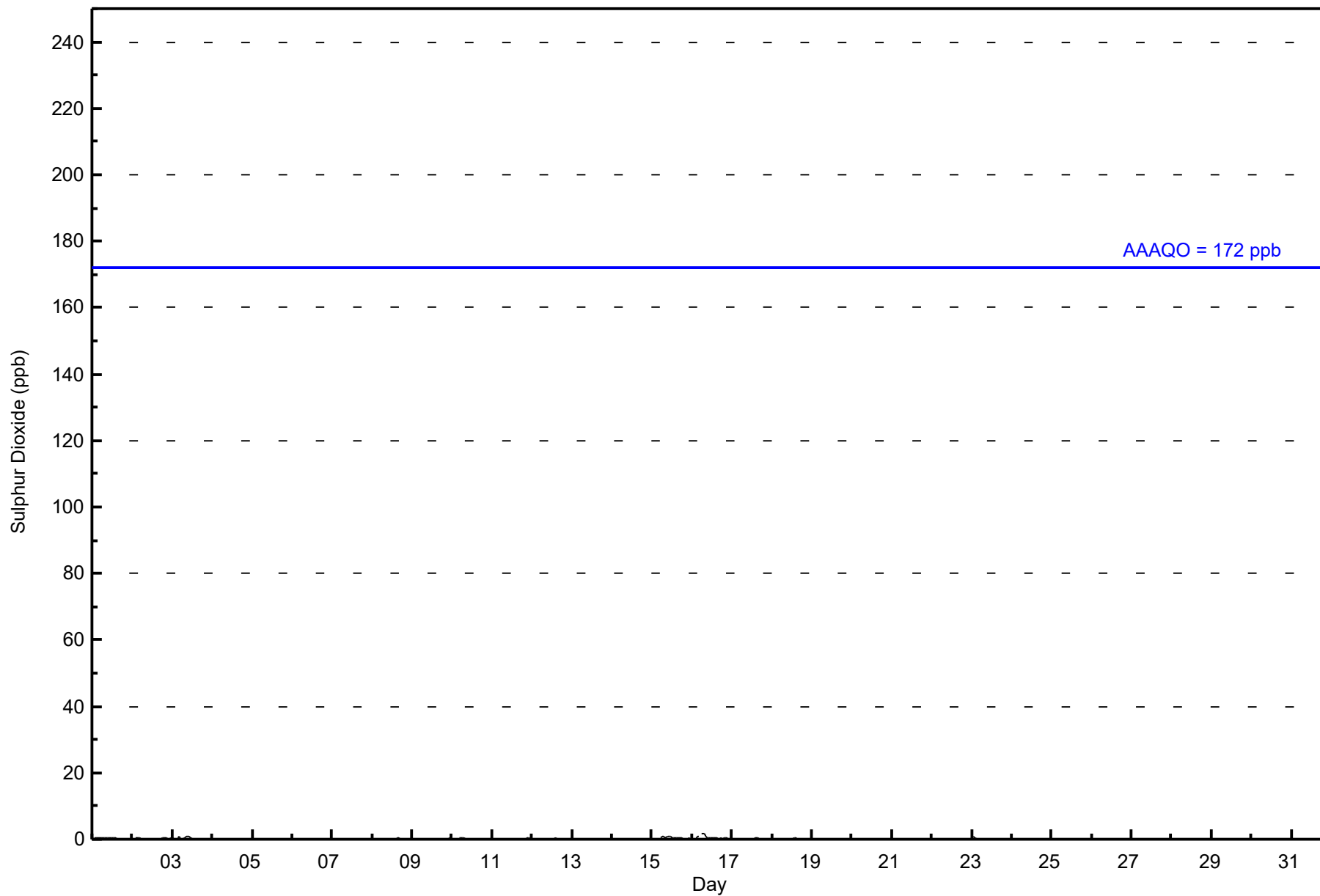
Fort Chipewyan - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																			Hours in Service: 744								
Maximum Value: 1.7 ppb on Jul 16 07:00 Maximum Daily Average: 0.5 ppb on Jul 16																			Hours of Data: 706								
Minimum Value: 0.0 ppb on Jul 20 17:00 Minimum Daily Average: 0.0 ppb on Jul 29																			Hours of Missing Data: 38								
Maximum Diurnal Average: 0.2 ppb at hour 7 Minimum Diurnal Average: 0.1 ppb at hour 1																			Hours of Calibration: 35								
Monthly Average: 0.11 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.1 P ₉₀ = 0.2 P ₉₉ = 0.9																			Percent Operational Time: 99.6								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	Z	0.3	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.4
2-Jul	0.2	Z	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.5	0.3	0.1	0.1	0.3	0.2	0.5
3-Jul	0.3	0.1	Z	0.5	0.9	0.2	0.1	0.3	0.9	0.8	0.7	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.9
4-Jul	0.1	0.1	0.1	Z	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	0.1	0.1	0.1
5-Jul	0.1	0.0	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
6-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
7-Jul	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	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
8-Jul	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.5	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.5
9-Jul	0.1	0.0	Z	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.4	0.1	0.1	0.1	0.4
10-Jul	0.0	0.0	0.0	Z	0.5	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	PF	0.1	0.0	0.0	0.1	0.1	0.1	0.5
11-Jul	Z	0.2	0.1	0.1	0.2	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	0.3	0.3	0.1	0.1	0.3
12-Jul	0.1	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.6
13-Jul	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
14-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	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
15-Jul	0.1	0.1	0.1	0.1	Z	0.3	0.7	0.7	0.4	0.9	0.7	0.7	0.6	0.5	0.5	0.4	0.4	0.4	0.5	0.2	0.1	0.2	0.2	0.2	0.4	0.9	
16-Jul	0.2	0.1	0.1	0.7	0.9	Z	1.7	1.5	0.9	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	1.7	
17-Jul	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	
18-Jul	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
19-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
20-Jul	0.1	0.1	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	
21-Jul	0.0	0.0	0.0	0.0	Z	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	0.1	0.1
22-Jul	0.1	0.1	0.1	0.1	0.1	Z	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	0.0	0.0	0.1	0.1
23-Jul	Z	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	M	M	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
24-Jul	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
25-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
26-Jul	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
27-Jul	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1
28-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1
29-Jul	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
30-Jul	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
31-Jul	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.6	1.2	1.3	0.2	1.3	
0.1 0.1 0.1 0.1 0.2 0.1 0.2 0.2 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																									Diurnal Average		
0.3 0.6 0.4 0.7 0.9 0.4 1.7 1.5 0.9 0.9 0.7 0.7 0.6 0.5 0.6 0.5 0.4 0.4 0.5 0.5 0.3 0.6 1.2 1.3																									Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Fort Chipewyan - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	706	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Fort Chipewyan - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	10	8	17	66	101	39	34	46	38	57	52	56	56	53	37	35	705
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	8	17	66	101	39	34	46	38	57	52	56	56	53	37	35	705

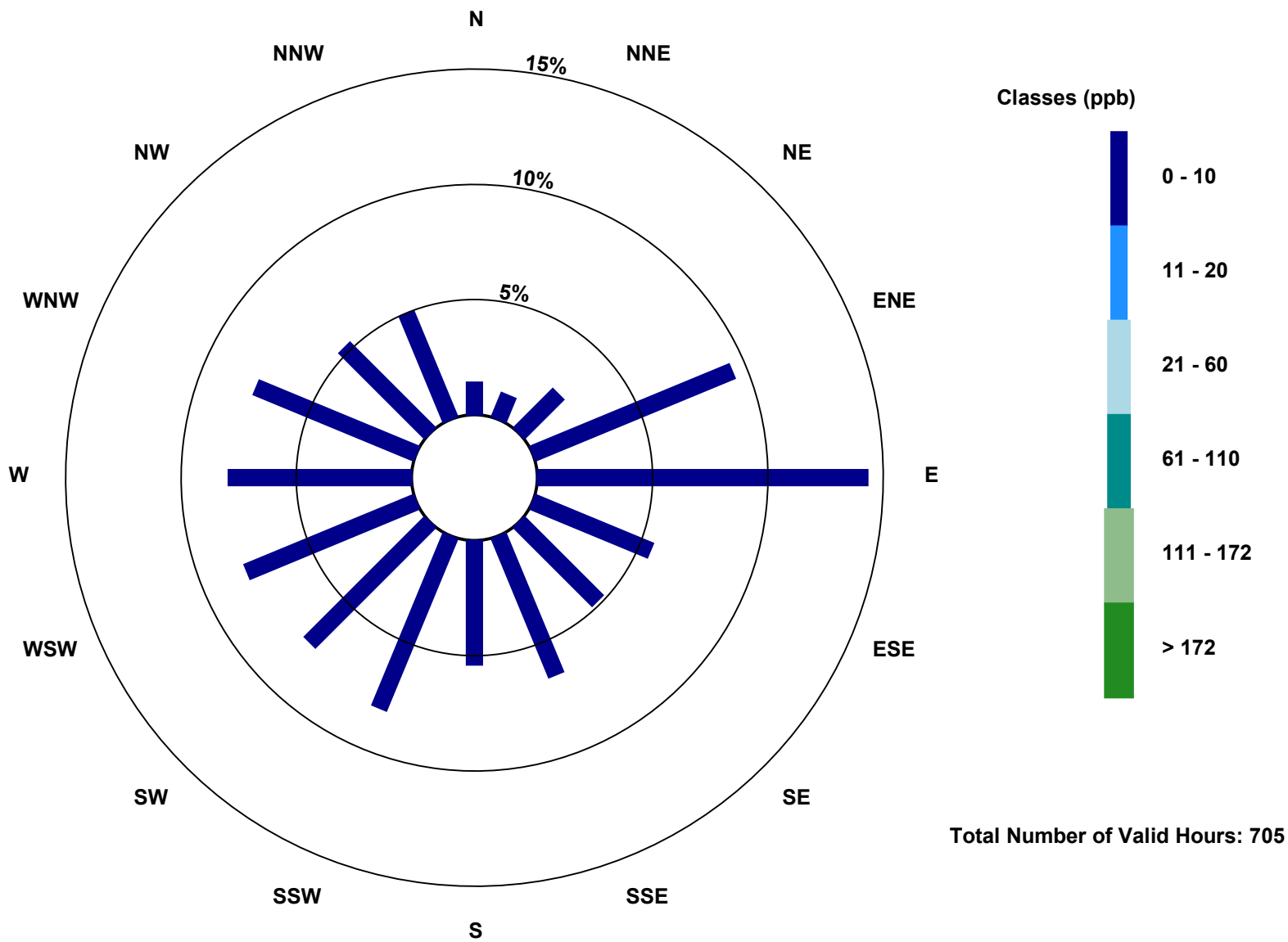
Total Number of Valid Hours: 705

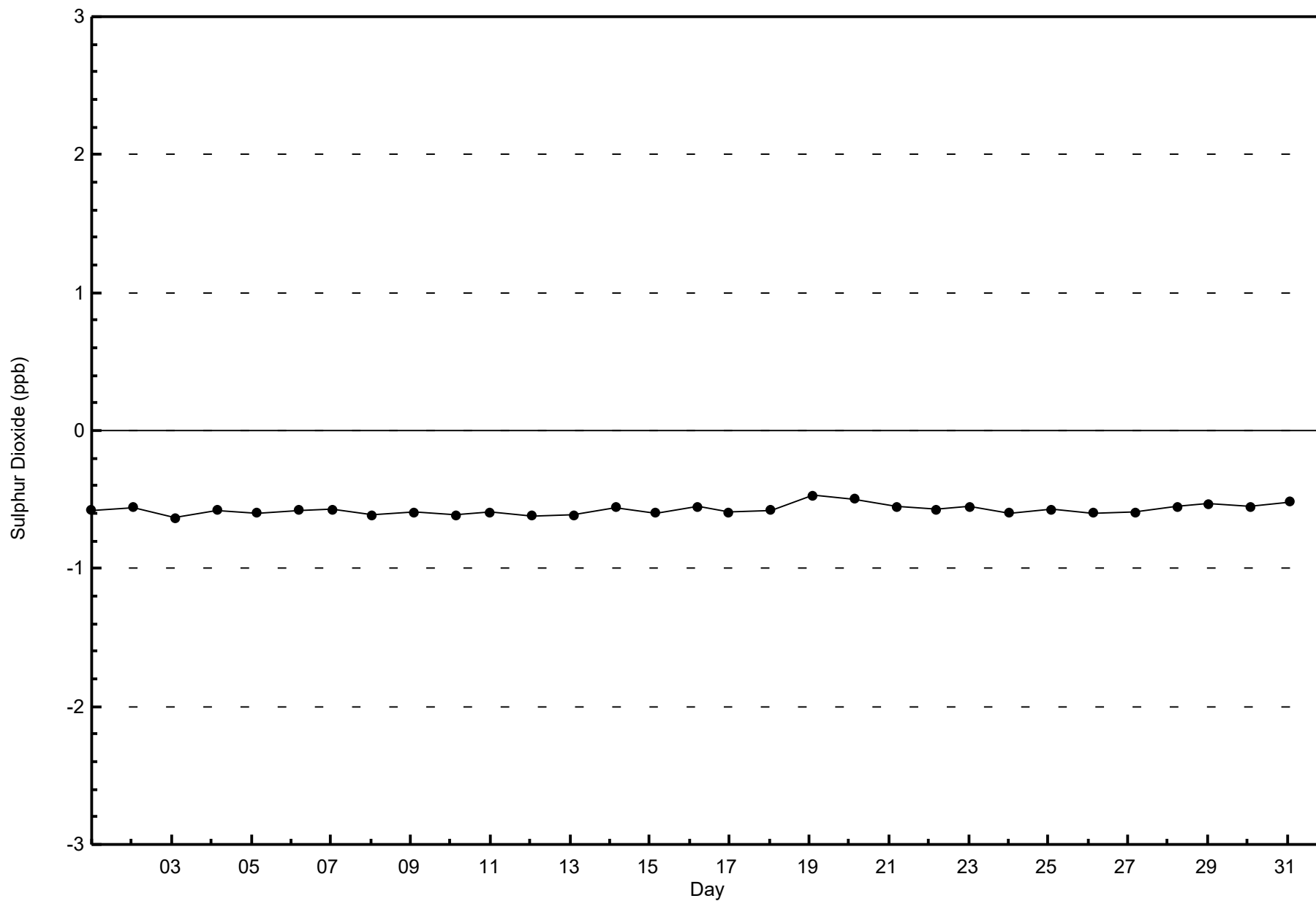
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Sulphur Dioxide (SO₂) - ppb
Fort Chipewyan

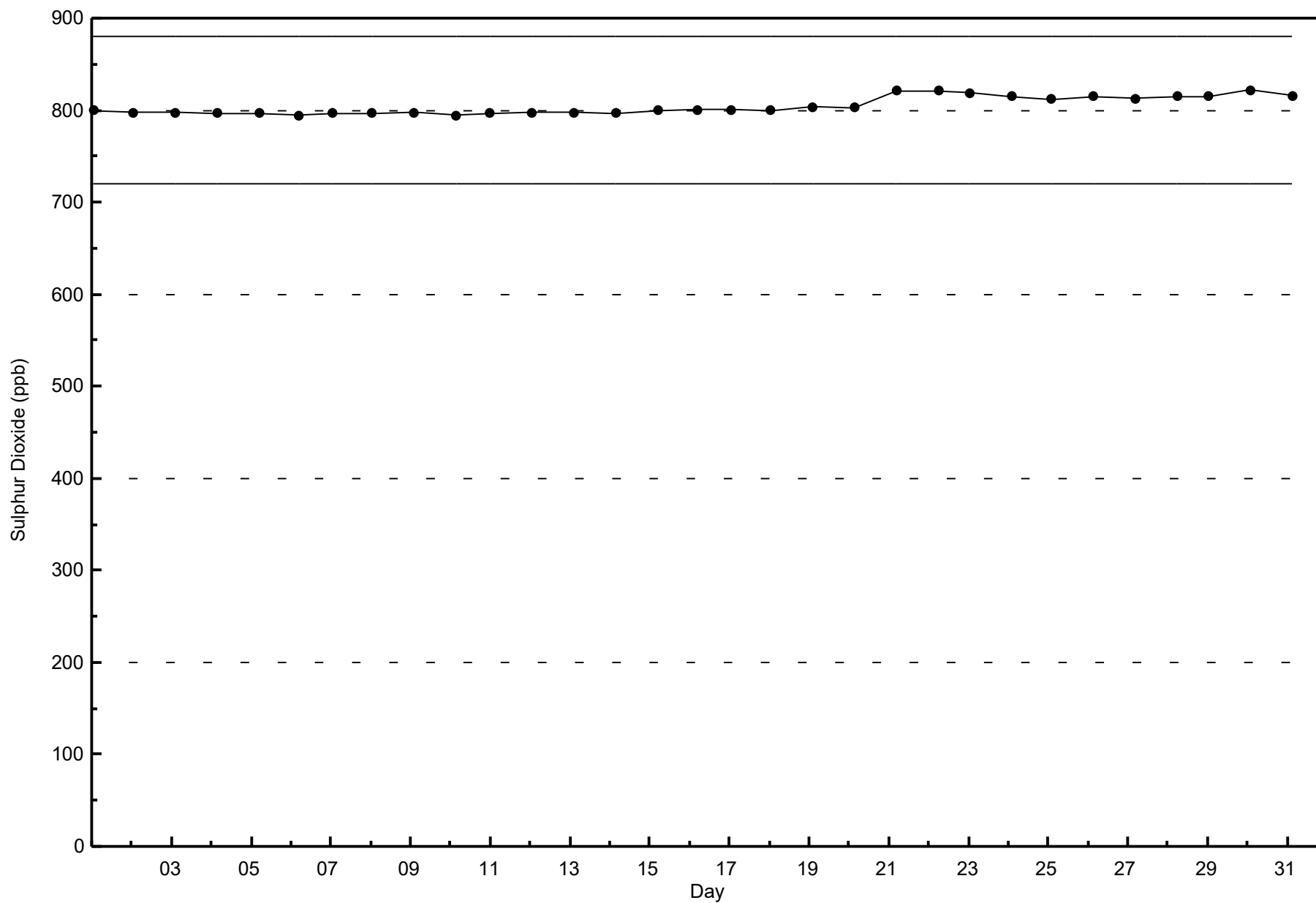






Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Fort Chipewyan - July 2026

Number of Exceedences (AAAQG): 30-Min: 0																		Periods in Service: 1488								
Maximum Value: 0.9 ppb on Jul 4 05:30 Maximum Daily Average: 0.3 ppb on Jul 5																		Periods of Valid Data: 1016								
Minimum Value: 0.0 ppb on Jul 1 00:30 Minimum Daily Average: 0.0 ppb on Jul 3																		Periods of Invalid Data: 472								
Maximum Diurnal Average: 0.4 ppb at hour 6 Minimum Diurnal Average: 0.1 ppb at hour 20																		Periods of Calibration: 56								
Monthly Average: 0.19 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.2 P ₉₀ = 0.4 P ₉₉ = 0.6																		Percent Operational Time: 72.0								
Day	Period Ending At (MST)																								Daily Average	Daily Maximum
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00		
1-Jul	0.0 0.0	Z SP	0.2 0.2	0.2 0.1	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.2 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 0.1	0.1 0.1	0.1 0.2	0.1 0.2	0.1	0.2	
2-Jul	0.1 0.1	0.2 0.2	Z SP	0.3 0.3	0.3 0.3	0.4 0.5	0.4 0.3	0.3 0.2	0.2 0.2	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	0.1 0.1	0.1 0.0	0.0 0.0	0.0 0.0	0.2	0.5	
3-Jul	0.0 0.0	0.0 0.0	0.0 0.0	Z SP	0.3 0.3	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.1 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0	0.0	0.3	
4-Jul	0.0 0.1	0.1 0.0	0.1 0.1	0.1 0.1	Z SP	0.9 0.8	0.6 0.5	0.5 0.5	0.5 0.4	0.3 0.2	0.2 0.2	0.1 0.1	0.1 0.1	0.1 0.0	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.9	
5-Jul	0.2 0.3	0.2 0.3	0.3 0.3	0.4 0.3	0.2 0.3	Z SP	0.5 0.7	0.7 0.6	0.6 0.5	0.4 0.3	0.3 0.3	0.4 0.4	0.2 0.4	0.5 0.4	0.4 0.3	0.3 0.4	0.3 0.3	0.3 0.2	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.3	0.7	
6-Jul	Z SP	0.4 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.5 0.5	0.4 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.2 0.1	0.2 0.2	0.1 0.1	0.2 0.2	0.2 0.1	0.1 0.1	0.2	0.5	
7-Jul	0.1 0.2	Z SP	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.1 0.1	0.1 0.1	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.2	0.2	
8-Jul	0.1 0.2	0.1 0.1	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.1 0.2	0.2 0.2	0.1 0.1	0.1 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	
9-Jul	0.1 0.1	0.1 0.1	0.1 0.1	Z SP	0.4 0.5	0.6 0.5	0.5 0.5	0.4 0.4	0.3 0.3	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.2 0.2	0.1 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.2	0.6		
10-Jul	0.1 0.1	0.1 0.2	0.1 0.1	0.2 0.2	Z SP	0.5 0.5	0.5 0.4	0.4 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	PF PF	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.5	
11-Jul	0.2 0.2	Z SP	0.4 0.4	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.4	
12-Jul	0.2 0.2	0.2 0.2	Z SP	0.5 0.5	0.4 0.4	0.5 0.4	0.4 0.4	0.4 0.3	0.4 0.4	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.4 0.3	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.2 0.1	0.2 0.1	0.2 0.2	0.1 0.1	0.2	0.5	
13-Jul	0.2 0.2	0.2 0.2	0.3 0.3	Z SP	0.7 0.7	0.7 0.5	0.6 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.1	0.1 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3	0.7	
14-Jul	0.2 0.2	0.2 0.3	0.3 0.2	0.2 0.2	Z SP	0.5 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.5	
15-Jul	0.2 0.2	0.2 0.2	0.3 0.3	0.3 0.3	0.3 0.4	Z SP	0.6 0.6	0.6 0.5	0.5 0.4	0.4 0.4	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.2	0.6	



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Fort Chipewyan - July 2026

Day	Period Ending At (MST)																								Daily Average	Daily Maximum	
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00			
16-Jul	Z SP	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
17-Jul	UO	UO	UO	UO	UO	UO	UO	UO	M M	M	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
18-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
19-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
20-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
21-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	M M	M	M	M	M	M	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
22-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
23-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	M M	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
24-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	C C	C	C	C	C	C	0.7 0.5	0.3 0.5	0.2 0.3	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	--	0.7
25-Jul	0.1 0.1	0.1 0.0	0.0 0.0	Z SP	0.1 0.1	0.2 0.2	0.1 M	M M	M 0.5	0.5 0.5	0.5 0.5	0.4 0.4	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.0	0.0 0.1	0.2 0.1	0.2 0.3	0.3 0.3	0.3 0.3	0.2	0.5
26-Jul	0.3 0.3	0.3 0.3	0.2 0.3	0.2 0.2	Z SP	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	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	0.1 0.1	0.2	0.3
27-Jul	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.2 0.8	Z SP	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.0 0.1	0.1 0.1	0.0 0.1	0.1 0.1	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.1	0.8
28-Jul	Z SP	0.2 0.2	0.3 0.3	0.3 0.3	0.4 0.4	0.3 0.3	0.3 0.2	0.2 0.2	M M	M M	M M	M 0.5	0.5 0.5	0.5 0.4	0.3 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.0	0.1 0.0	0.1 0.0	0.0 0.0	0.0 0.0	0.0 0.1	0.2	0.5
29-Jul	0.0 0.0	Z SP	0.0 0.1	0.2 0.2	0.2 0.2	0.1 0.2	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	0.0 0.1	0.1 0.1	0.0 0.0	0.0 0.1	0.0 0.0	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	0.2
30-Jul	0.1 0.1	0.1 0.1	Z SP	0.2 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	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	0.0 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.2	0.3
31-Jul	0.1 0.1	0.1 0.1	0.1 0.1	Z SP	0.3 0.3	0.3 0.3	0.4 0.4	0.4 0.4	0.3 0.3	0.2 0.2	0.2 0.2	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	0.1 0.1	0.1 0.2	0.2 0.2	0.3 0.3	0.2	0.4
Diurnal Average																											
Diurnal Maximum																											
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation PF - Power Failure SP - Span																											
Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb																											



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

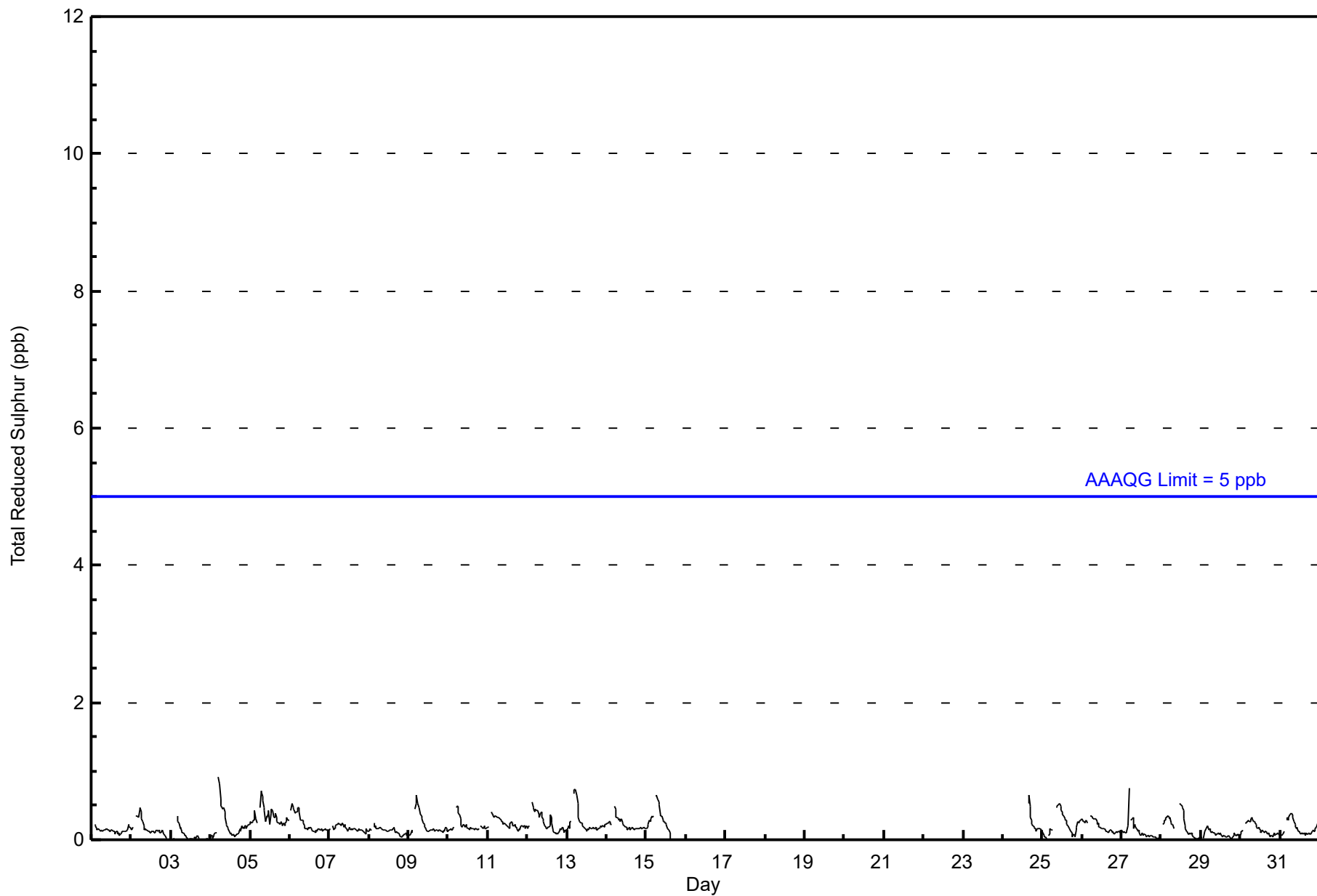
Fort Chipewyan - July 2026

Maximum Value: 0.9 ppb on Jul 4 06:00										Maximum Daily Average: 0.3 ppb on Jul 5										Hours in Service: 744							
Minimum Value: 0.0 ppb on Jul 1 01:00										Minimum Daily Average: 0.0 ppb on Jul 3										Hours of Data: 508							
Maximum Diurnal Average: 0.4 ppb at hour 6										Minimum Diurnal Average: 0.1 ppb at hour 20										Hours of Missing Data: 236							
Monthly Average: 0.19 ppb										Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.2 P ₉₀ = 0.4 P ₉₉ = 0.6										Hours of Calibration: 28							
																				Percent Operational Time: 72.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.0	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	
2-Jul	0.1	0.2	Z	0.3	0.3	0.5	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.5	
3-Jul	0.0	0.0	0.0	Z	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	
4-Jul	0.0	0.0	0.1	0.1	Z	0.9	0.5	0.5	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.9	
5-Jul	0.2	0.3	0.3	0.4	0.2	Z	0.6	0.7	0.5	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.7	
6-Jul	Z	0.5	0.5	0.4	0.4	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.5	
7-Jul	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	
8-Jul	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	
9-Jul	0.1	0.1	0.1	Z	0.5	0.6	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.6	
10-Jul	0.1	0.1	0.1	0.2	Z	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	PF	0.2	0.2	0.2	0.2	0.2	0.5	
11-Jul	0.2	Z	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.4	
12-Jul	0.2	0.2	Z	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.5	
13-Jul	0.2	0.2	0.3	Z	0.7	0.7	0.6	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.7	
14-Jul	0.2	0.2	0.2	0.2	Z	0.5	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	
15-Jul	0.2	0.2	0.3	0.3	0.3	Z	0.6	0.6	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	
16-Jul	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
17-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	M	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
18-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
19-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
20-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
21-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	M	M	M	M	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
22-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
23-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
24-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	C	C	C	C	C	0.6	0.3	0.2	0.2	0.1	0.2	0.2	0.2	--	0.6	
25-Jul	0.1	0.1	0.0	Z	0.1	0.2	0.1	M	M	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.5	
26-Jul	0.3	0.3	0.3	0.2	Z	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	
27-Jul	0.1	0.1	0.1	0.1	0.4	Z	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.4	
28-Jul	Z	0.2	0.3	0.3	0.4	0.3	0.2	0.2	M	M	M	0.5	0.5	0.5	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.5	
29-Jul	0.0	Z	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	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	0.2	
30-Jul	0.1	0.1	Z	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	
31-Jul	0.1	0.1	0.1	Z	0.3	0.3	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.4	
																									Diurnal Average		
																									Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation PF - Power Failure																											
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA																											



Wood Buffalo Environmental Association
Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Fort Chipewyan - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	508	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 508

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Fort Chipewyan - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	7	4	11	36	63	27	28	40	38	47	39	41	36	46	22	22	507
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	7	4	11	36	63	27	28	40	38	47	39	41	36	46	22	22	507

Total Number of Valid Hours: 507

Total Number of Hours: 744



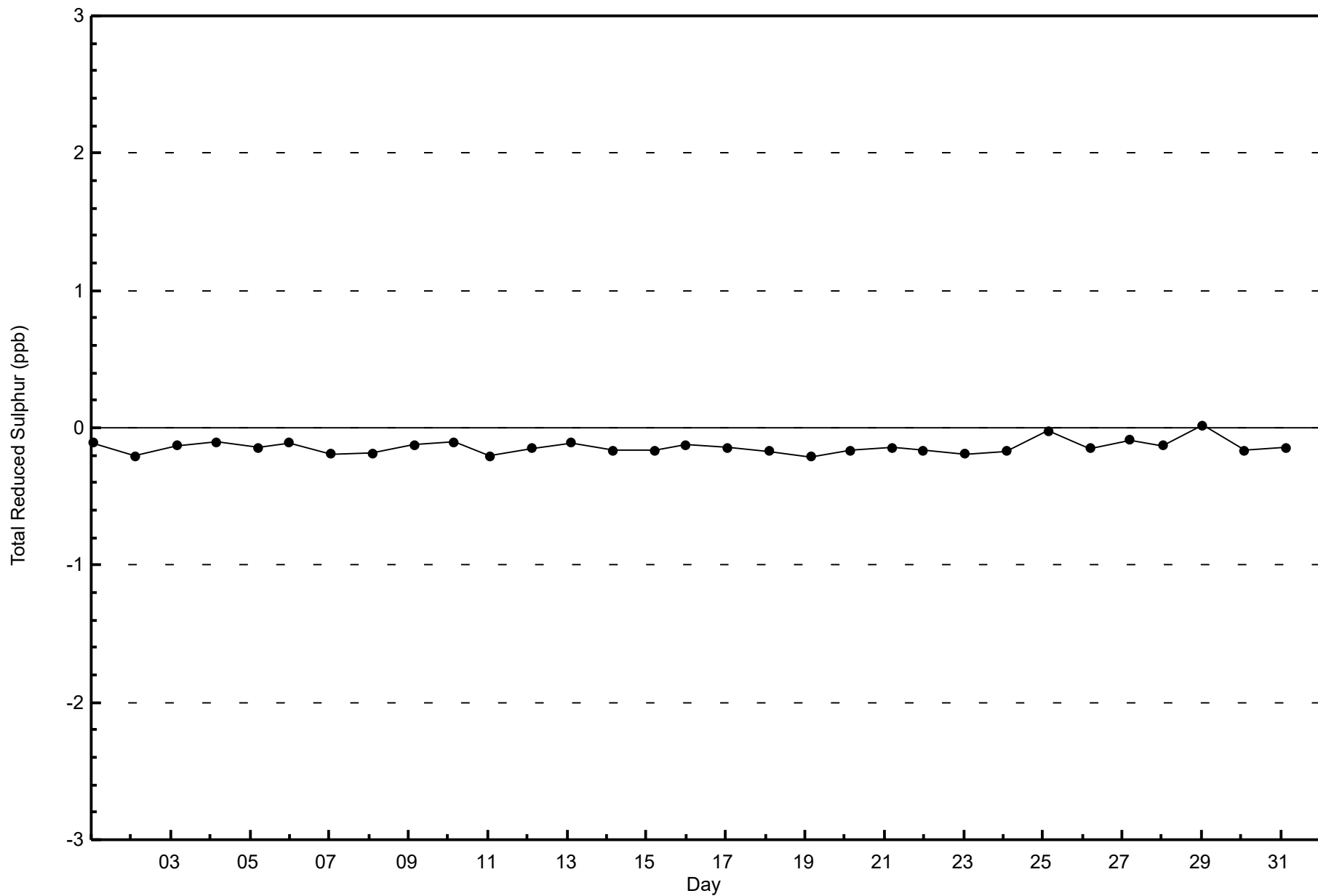
Total Reduced Sulphur (TRS) - ppb
Fort Chipewyan





Wood Buffalo Environmental Association
Zero Responses

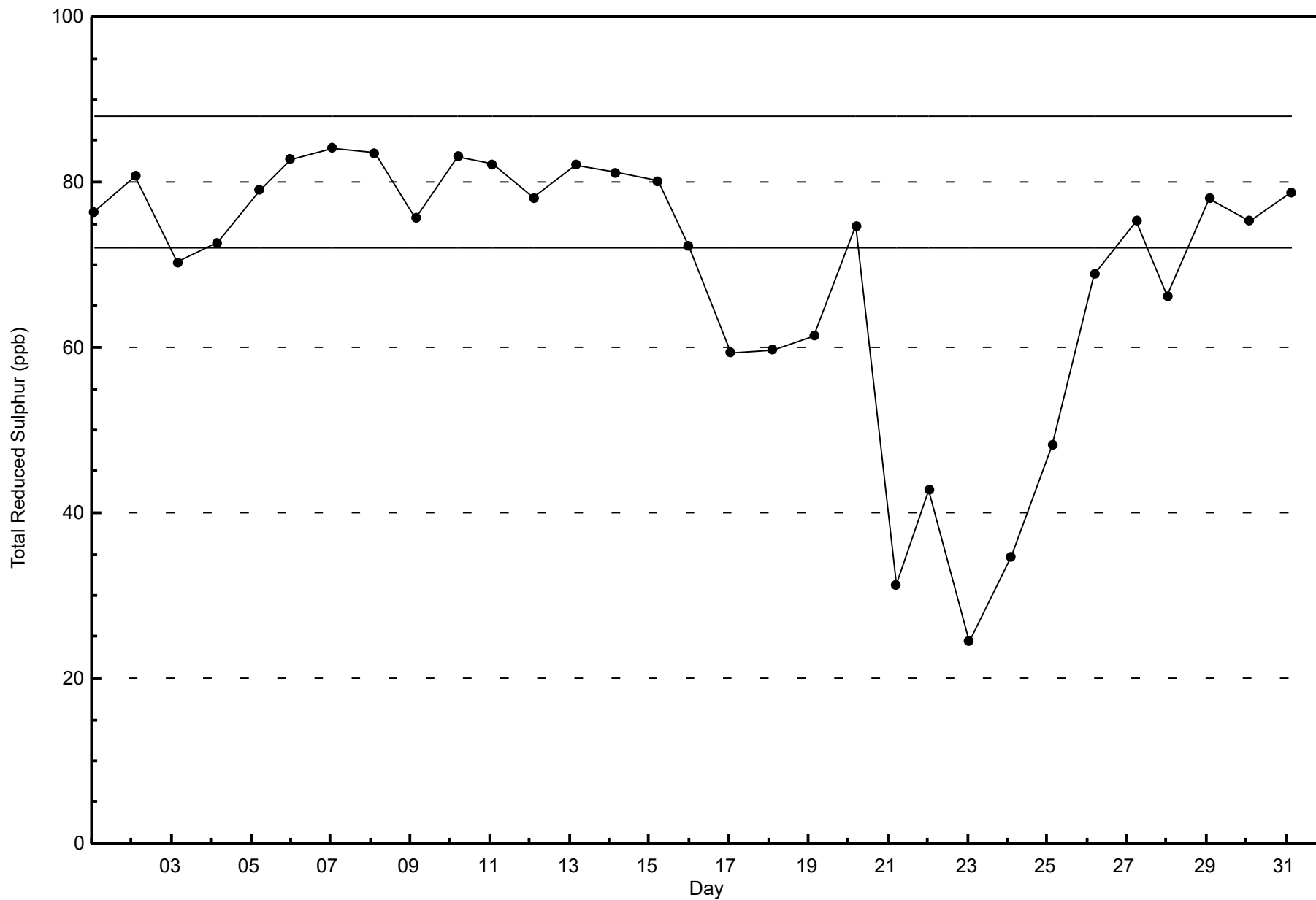
Total Reduced Sulphur (TRS) - ppb
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association
Span Responses

Total Reduced Sulphur (TRS) - ppb
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

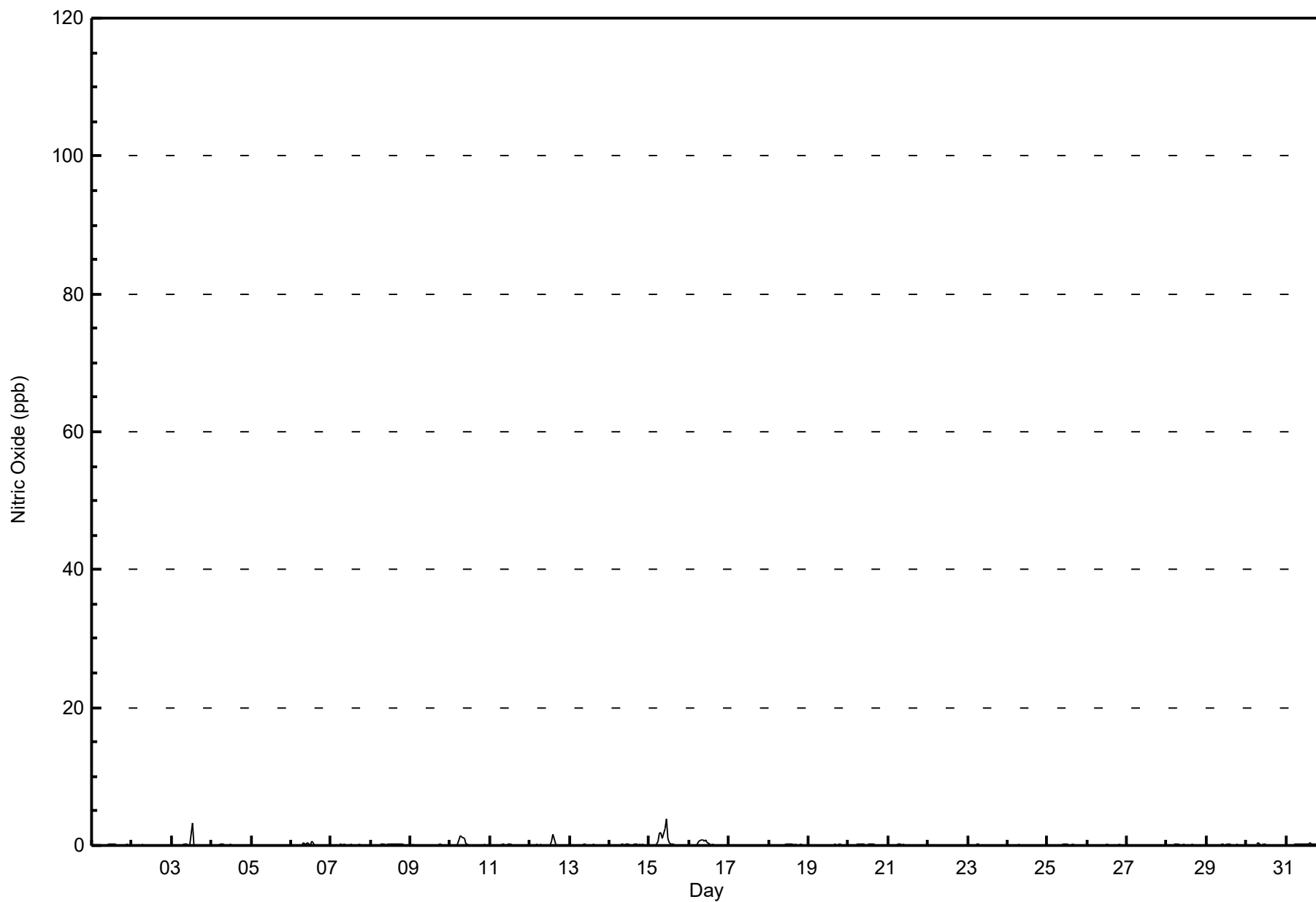
Fort Chipewyan - July 2026

Maximum Value: 3.9 ppb on Jul 15 11:00																		Maximum Daily Average: 0.6 ppb on Jul 15										Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 15 23:00																		Minimum Daily Average: 0.0 ppb on Jul 22										Hours of Data: 705	
Maximum Diurnal Average: 0.3 ppb at hour 11																		Minimum Diurnal Average: 0.1 ppb at hour 1										Hours of Missing Data: 39	
Monthly Average: 0.12 ppb																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.1 P ₉₀ = 0.1 P ₉₉ = 1.1										Hours of Calibration: 36	
																												Percent Operational Time: 99.6	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
2-Jul	0.0	0.1	0.0	0.0	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1			
3-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	3.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
4-Jul	0.1	Z	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	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1			
5-Jul	0.0	0.0	Z	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	0.0	0.1	0.1	0.0	0.1			
6-Jul	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.3	0.2	0.2	0.3	0.1	0.6	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1			
7-Jul	0.1	0.0	0.0	0.0	Z	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	0.0	0.1	0.1				
8-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
9-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1			
10-Jul	0.1	Z	0.1	0.1	0.3	0.8	1.3	1.1	1.1	0.2	0.3	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	PF	0.1	0.1	0.1	0.1	0.3			
11-Jul	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1				
12-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	1.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
13-Jul	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1				
14-Jul	0.1	Z	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	0.1	0.1	0.1				
15-Jul	0.1	0.1	Z	0.1	0.2	0.5	1.8	1.9	1.0	2.4	3.9	1.1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0				
16-Jul	0.0	0.0	0.0	Z	0.1	0.3	0.6	0.9	0.8	0.6	0.8	0.5	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0				
17-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0				
18-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.1	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				
19-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	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				
20-Jul	0.1	Z	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	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
21-Jul	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1				
22-Jul	0.0	0.1	0.1	Z	0.1	0.0	0.1	0.0	0.1	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
23-Jul	0.0	0.1	0.1	0.1	Z	0.2	0.1	0.2	M	M	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1				
24-Jul	0.1	0.1	0.1	0.1	0.1	Z	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				
25-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
26-Jul	0.1	Z	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	0.0	0.0	0.1				
27-Jul	0.0	0.0	Z	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	0.1	0.1				
28-Jul	0.1	0.1	0.1	Z	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1				
29-Jul	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.3	0.2	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				
30-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.3	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				
31-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.3	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2				
Diurnal Average																													
Diurnal Maximum																													
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																													



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Fort Chipewyan - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	705	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Fort Chipewyan - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	9	7	17	66	102	42	35	45	39	54	48	57	58	53	37	36	705
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	9	7	17	66	102	42	35	45	39	54	48	57	58	53	37	36	705

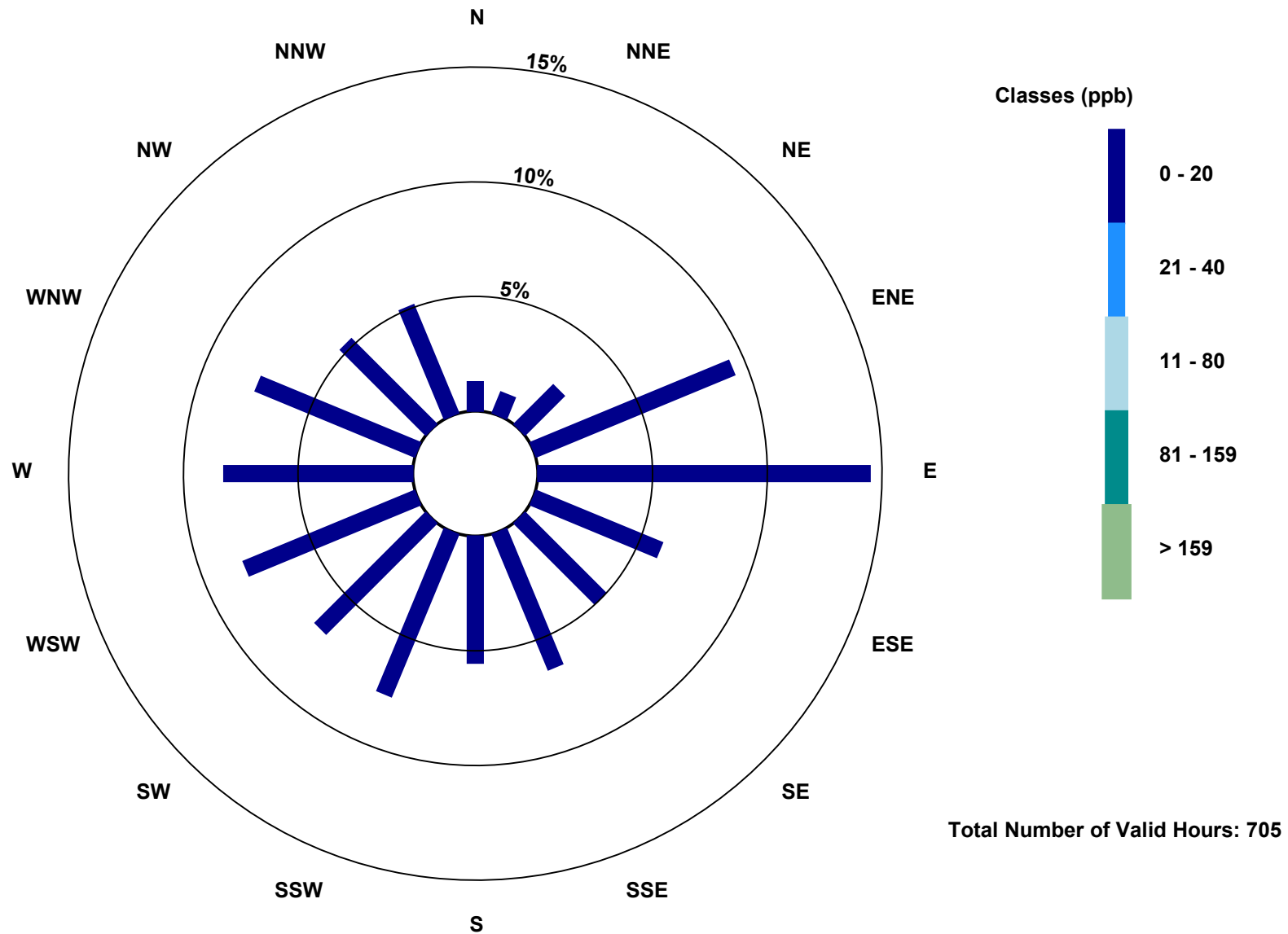
Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

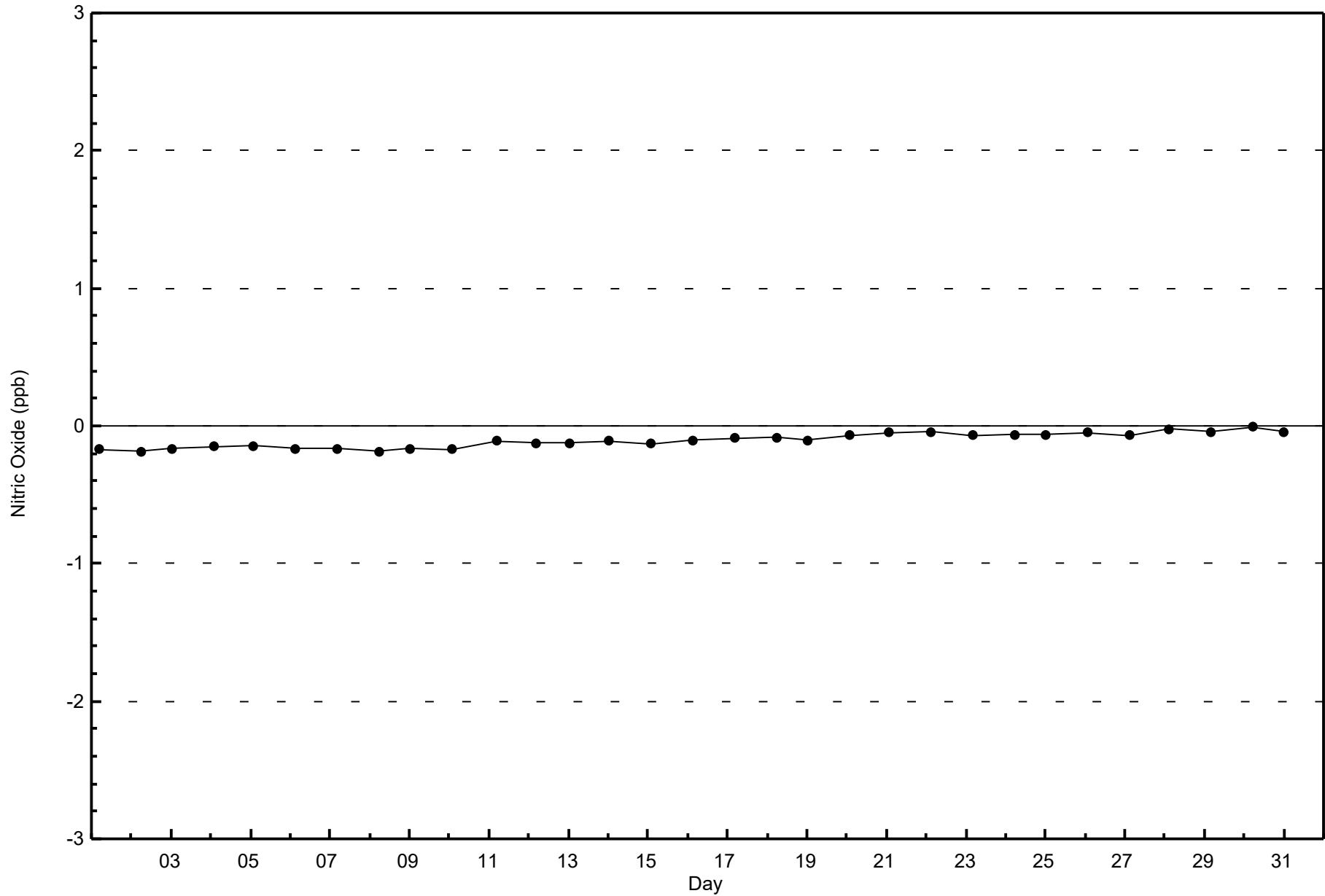
Nitric Oxide (NO) - ppb
Fort Chipewyan





Wood Buffalo Environmental Association
Zero Responses

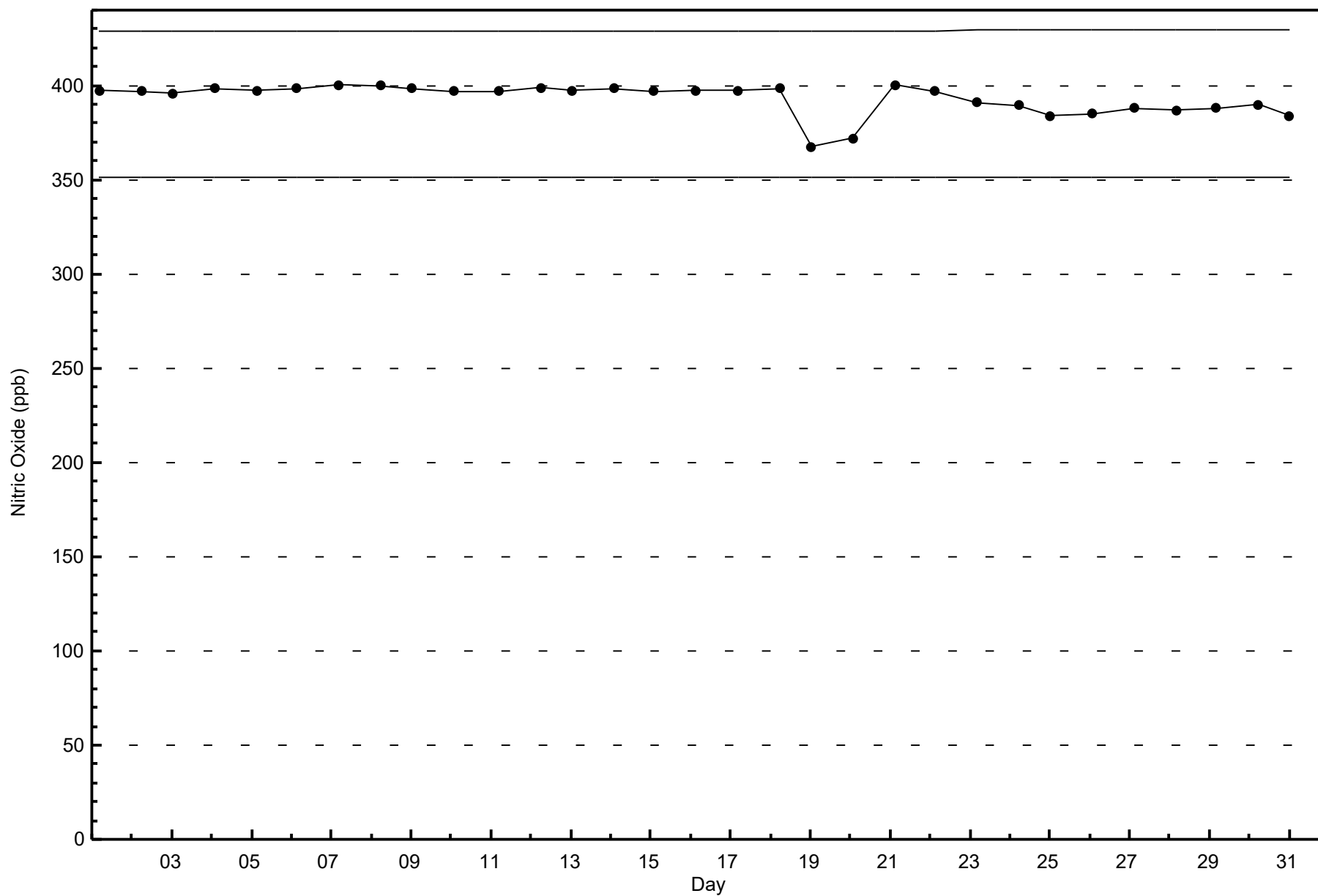
Nitric Oxide (NO) - ppb
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

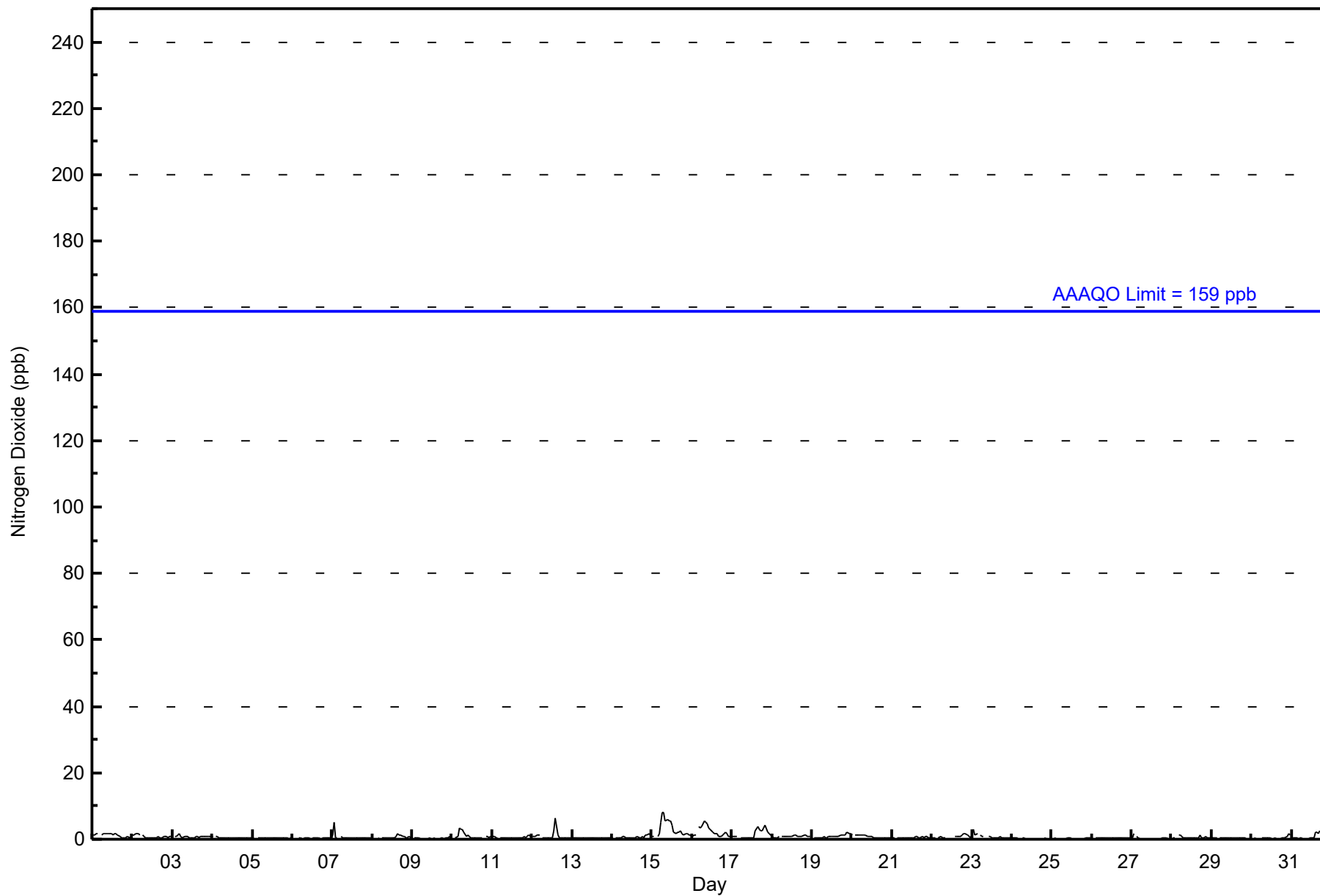
Fort Chipewyan - July 2026

Number of Exceedances (AAAQO): Maximum Value: 8.0 ppb on Jul 15 07:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 3.1 ppb on Jul 15						Hours in Service: 744 Hours of Data: 705	
Minimum Value: 0.1 ppb on Jul 31 10:00 Maximum Diurnal Average: 1.0 ppb at hour 8 Monthly Average: 0.80 ppb																			Minimum Daily Average: 0.2 ppb on Jul 25 Minimum Diurnal Average: 0.6 ppb at hour 1 Percentiles: P ₁ = 0.2 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.5 Q ₃ = 0.8 P ₉₀ = 1.6 P ₉₉ = 5.5						Hours of Missing Data: 39 Hours of Calibration: 36 Percent Operational Time: 99.6	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	1.2	1.4	1.8	1.6	Z	1.4	1.5	1.6	1.6	1.5	1.5	1.5	1.4	1.5	1.6	1.1	0.7	0.6	0.3	0.3	0.4	1.0	0.6	1.0	1.2	1.8
2-Jul	1.1	1.2	1.8	1.6	1.3	Z	1.2	0.7	0.5	0.4	0.4	0.3	0.4	0.3	0.3	0.7	0.6	0.6	0.5	0.7	0.7	0.6	0.8	0.9	0.8	1.8
3-Jul	Z	0.9	0.8	1.1	1.8	0.8	0.6	1.0	1.0	0.7	0.6	0.5	0.3	0.4	0.8	0.7	0.6	0.8	0.8	0.9	0.9	0.8	0.8	0.8	0.8	1.8
4-Jul	0.7	Z	0.9	0.7	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.6	0.4	0.5	0.4	0.4	0.5	0.5	0.4	0.4	0.3	0.5	0.9
5-Jul	0.3	0.3	Z	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.6	0.6	0.5	0.4	0.3	0.2	0.3	0.4	0.6
6-Jul	0.2	0.2	0.2	Z	0.3	0.3	0.2	0.5	0.4	0.4	0.6	0.2	0.4	0.6	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.5	0.3	0.6
7-Jul	1.2	5.0	0.6	0.6	Z	0.7	0.5	0.4	0.4	0.4	0.3	0.4	0.5	0.4	0.3	0.3	0.4	0.6	0.6	0.5	0.4	0.5	0.4	0.3	0.7	5.0
8-Jul	0.2	0.2	0.2	0.2	0.3	Z	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.6	1.0	1.7	1.3	1.4	1.0	0.7	0.5	0.5	0.7	0.5	0.6	1.7
9-Jul	Z	0.5	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.4	0.2	0.3	0.3	0.8	0.5	0.3	0.8
10-Jul	0.2	Z	0.3	0.7	3.2	3.1	3.0	2.3	1.0	1.1	0.8	0.5	0.3	0.3	0.5	0.4	0.3	0.3	0.6	PF	0.9	0.8	0.5	0.7	1.0	3.2
11-Jul	0.7	0.7	0.6	0.6	Z	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.3	0.5	0.5	0.5	0.8	0.5	0.7	1.1	0.8	0.5	1.1
12-Jul	0.8	1.0	1.0	1.2	1.3	Z	0.6	0.4	0.4	0.3	0.3	0.3	0.5	2.4	6.3	1.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.9	6.3
13-Jul	Z	0.4	0.5	0.5	0.5	0.4	0.5	0.4	0.5	0.4	0.3	0.4	0.3	0.4	0.6	0.5	0.6	0.5	0.4	0.4	0.4	0.5	0.3	0.3	0.4	0.6
14-Jul	0.4	Z	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.5	0.9	0.6	1.4	1.1	1.7	0.8	0.7	1.7
15-Jul	0.7	0.8	Z	0.8	1.8	5.2	8.0	8.0	5.5	5.9	5.7	5.4	4.4	2.2	1.9	2.1	2.2	2.5	1.6	1.3	1.5	1.5	1.2	1.1	3.1	8.0
16-Jul	1.0	1.1	1.1	Z	3.7	3.5	3.9	5.5	5.2	4.6	3.6	2.8	2.2	1.9	1.7	1.5	0.9	0.9	1.3	1.5	2.2	1.8	1.0	0.8	2.3	5.5
17-Jul	0.8	0.8	0.7	0.7	Z	0.6	0.5	0.6	0.6	0.5	0.6	0.6	0.6	0.6	2.7	3.8	2.9	2.6	2.5	3.2	4.4	2.3	1.6	1.3	1.5	4.4
18-Jul	0.9	0.6	0.6	0.5	0.8	Z	0.9	0.8	0.8	0.8	0.7	0.7	0.9	1.1	1.4	0.9	0.9	0.7	1.0	1.3	1.2	0.9	0.7	0.7	0.9	1.4
19-Jul	Z	0.6	0.6	0.6	0.5	0.5	0.5	0.7	0.6	0.6	0.7	0.8	0.7	0.8	0.7	0.7	0.9	1.2	1.2	1.2	1.4	2.0	1.8	1.6	0.9	2.0
20-Jul	1.4	Z	1.1	1.3	1.3	1.4	1.4	1.3	1.1	0.8	0.7	0.7	0.7	0.5	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.6	0.8	1.4
21-Jul	0.6	0.6	Z	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.5	0.7	0.7	0.6	0.6	0.7	0.6	0.7	0.7	0.5	0.5	0.6	0.7
22-Jul	0.6	0.5	0.4	Z	0.6	0.7	0.5	0.6	0.5	C	C	C	C	C	0.7	0.7	0.7	0.8	1.3	1.8	1.6	1.2	0.7	0.6	0.8	1.8
23-Jul	1.2	2.9	1.4	1.5	Z	1.4	0.9	1.0	M	M	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.7	0.6	0.4	0.3	0.3	0.4	0.3	0.8	2.9
24-Jul	0.3	0.3	0.3	0.3	0.2	Z	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.6
25-Jul	Z	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.4	0.3	0.3	0.3	0.2	0.4
26-Jul	0.3	Z	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.3	0.4
27-Jul	0.3	1.5	Z	1.0	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.2	0.3	1.5
28-Jul	0.2	0.3	0.3	Z	1.1	1.4	0.8	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.6	0.4	1.3	0.6	0.3	0.7	0.5	0.4	0.4	0.5	1.4
29-Jul	0.3	0.3	0.3	0.3	Z	0.3	0.3	0.4	0.4	0.5	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.5
30-Jul	0.2	0.2	0.3	0.2	0.2	Z	0.3	0.5	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.4	0.5	0.8	1.8	1.1	0.4	1.8
31-Jul	Z	0.5	0.3	0.4	0.2	0.3	0.3	0.2	0.2	0.1	0.2	0.3	0.3	0.4	2.2	2.0	1.9	2.4	2.2	2.4	1.8	4.2	5.6	6.5	1.5	6.5
0.6 0.9 0.7 0.7 0.9 1.0 1.0 1.0 0.8 0.8 0.8 0.7 0.6 0.6 0.9 0.8 0.7 0.8 0.7 0.8 0.9 0.8 0.9 0.8 0.8																								Diurnal Average		
1.4 5.0 1.8 1.6 3.7 5.2 8.0 8.0 5.5 5.9 5.7 5.4 4.4 2.4 6.3 3.8 2.9 2.6 2.5 3.2 4.4 4.2 5.6 6.5																								Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Fort Chipewyan - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	705	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Fort Chipewyan - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	9	7	17	66	102	42	35	45	39	54	48	57	58	53	37	36	705
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	9	7	17	66	102	42	35	45	39	54	48	57	58	53	37	36	705

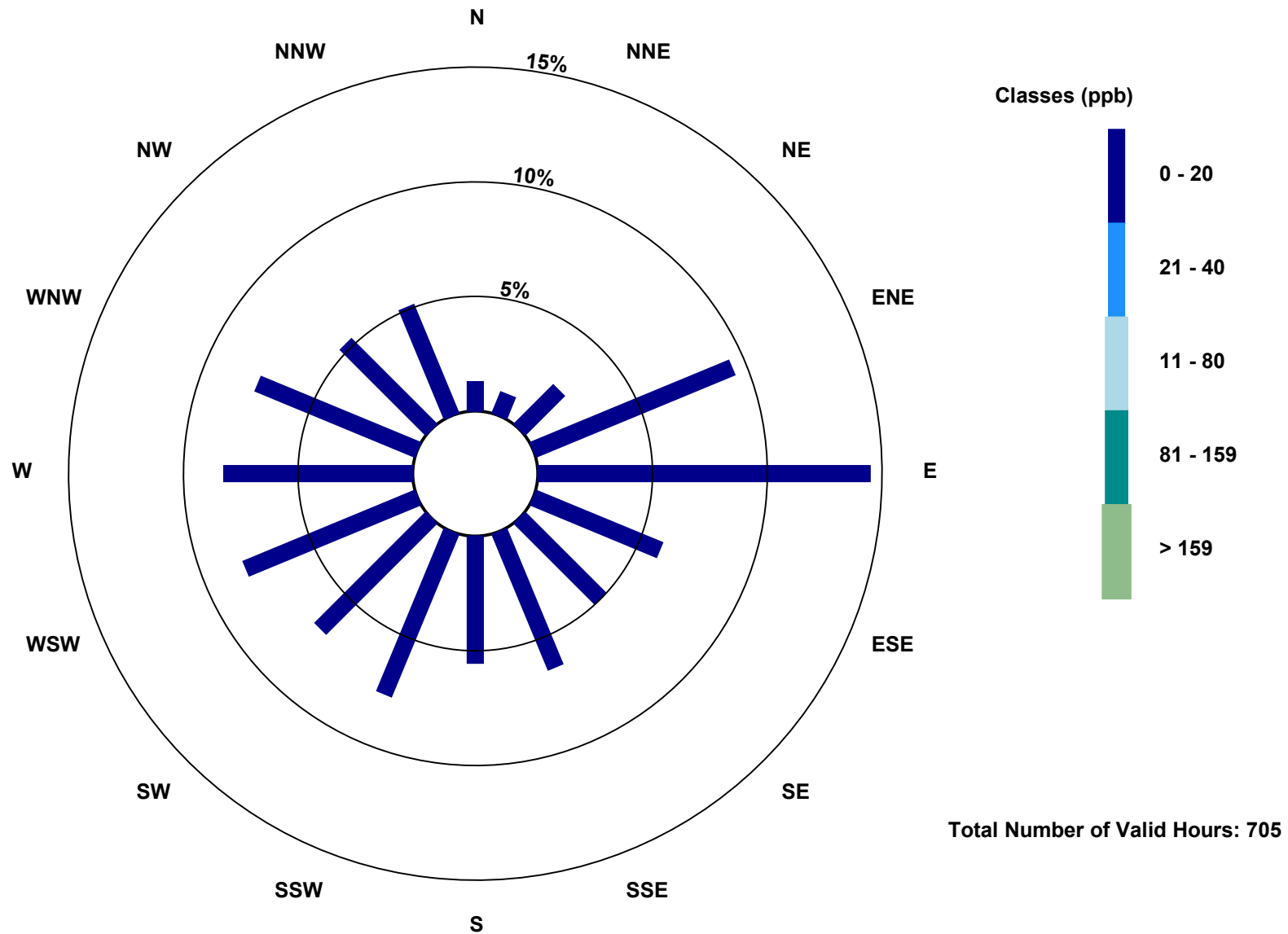
Total Number of Valid Hours: 705

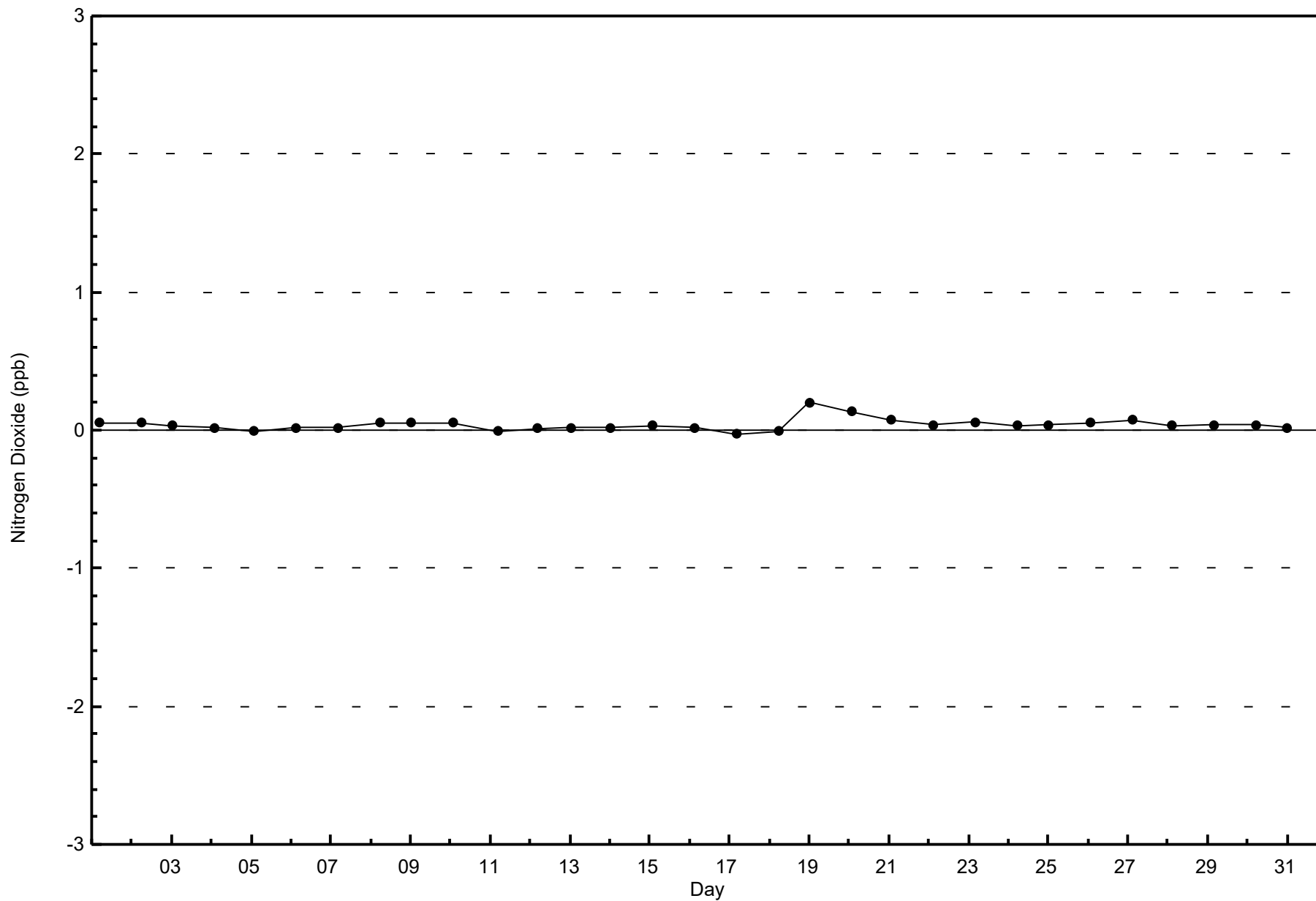
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Dioxide (NO₂) - ppb
Fort Chipewyan

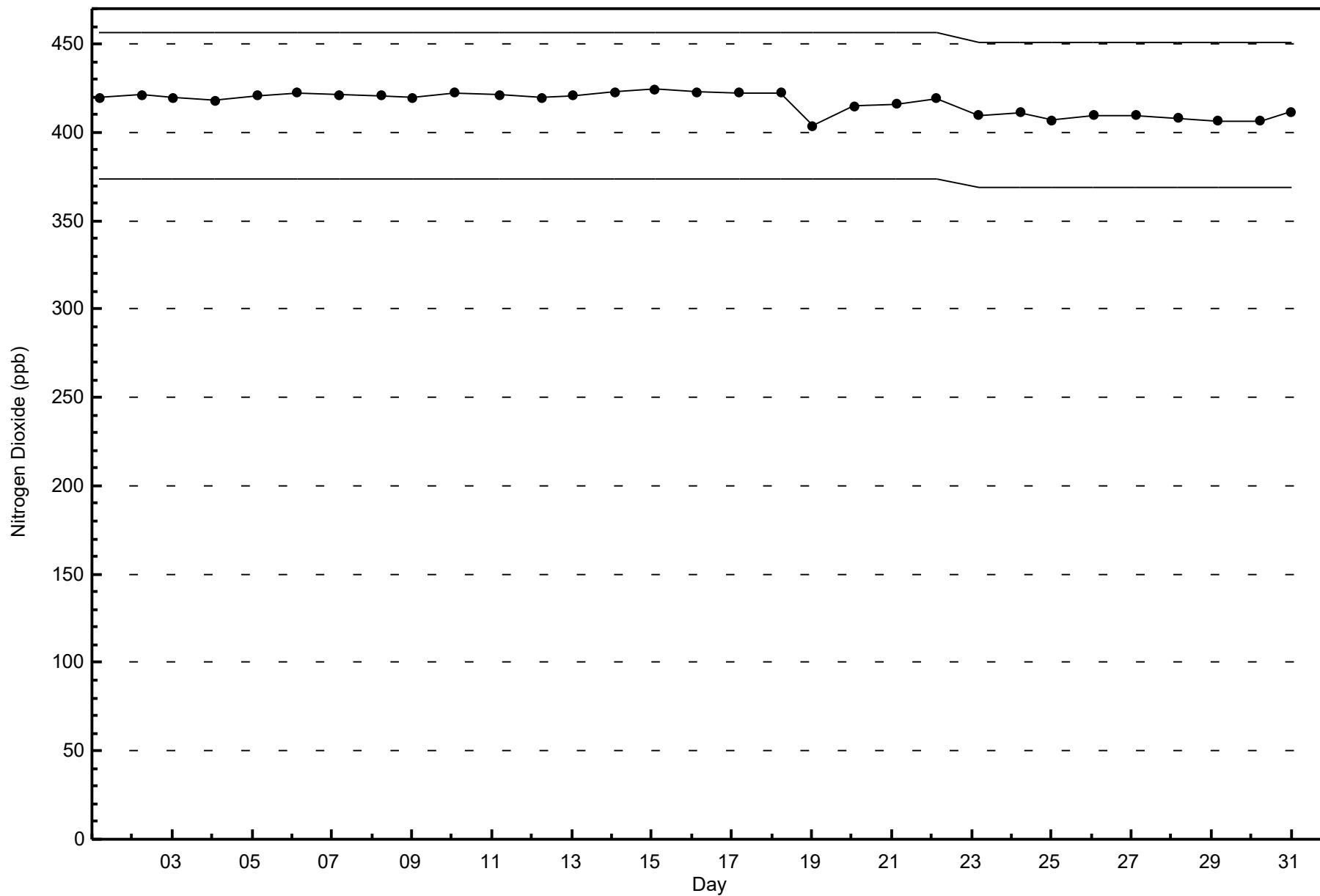






Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

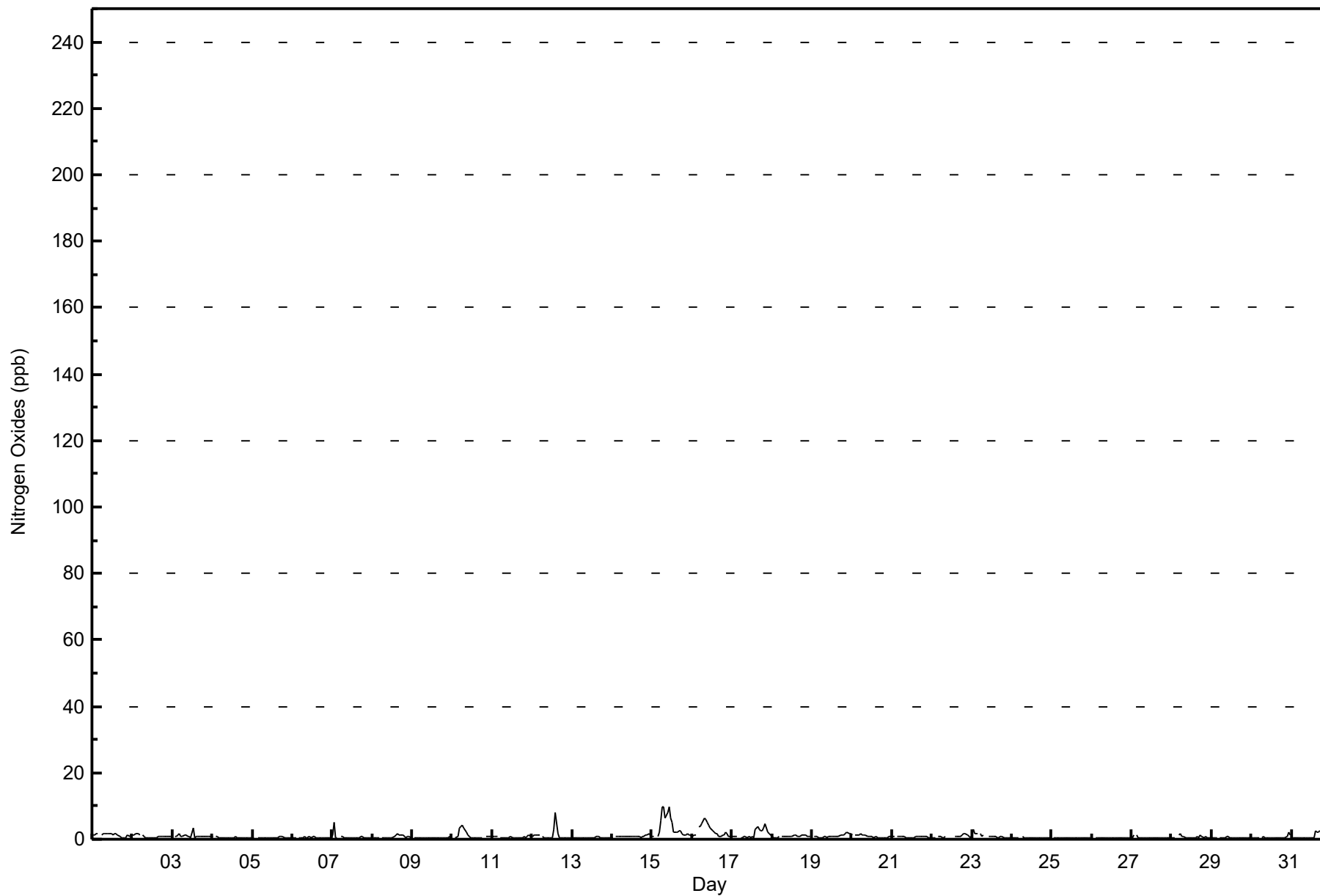
Fort Chipewyan - July 2026

Maximum Value: 9.9 ppb on Jul 15 08:00																		Maximum Daily Average: 3.7 ppb on Jul 15																		Hours in Service: 744	
Minimum Value: 0.2 ppb on Jul 25 17:00																		Minimum Daily Average: 0.3 ppb on Jul 24																		Hours of Data: 705	
Maximum Diurnal Average: 1.2 ppb at hour 8																		Minimum Diurnal Average: 0.7 ppb at hour 1																		Hours of Missing Data: 39	
Monthly Average: 0.92 ppb																		Percentiles: P ₁ = 0.3 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.6 Q ₃ = 0.9 P ₉₀ = 1.6 P ₉₉ = 6.5																		Hours of Calibration: 36	
																																				Percent Operational Time: 99.6	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24													
1-Jul	1.2	1.4	1.8	1.6	Z	1.4	1.6	1.7	1.7	1.6	1.6	1.6	1.5	1.6	1.7	1.2	0.8	0.6	0.4	0.4	0.5	1.1	0.7	1.1	1.3	1.8											
2-Jul	1.1	1.3	1.8	1.6	1.4	Z	1.3	0.8	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.8	0.7	0.7	0.6	0.8	0.8	0.7	0.8	1.0	0.8	1.8											
3-Jul	Z	1.0	0.9	1.2	1.9	0.9	0.7	1.1	1.2	0.8	0.7	0.6	3.5	0.5	0.9	0.7	0.7	0.9	0.9	1.0	1.0	0.9	0.9	0.9	1.0	3.5											
4-Jul	0.8	Z	1.0	0.8	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.7	0.5	0.5	0.4	0.4	0.6	0.6	0.4	0.4	0.3	0.5	1.0											
5-Jul	0.3	0.3	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.7	0.7	0.6	0.4	0.4	0.3	0.3	0.4	0.7											
6-Jul	0.3	0.3	0.3	Z	0.4	0.4	0.3	0.8	0.6	0.6	0.9	0.3	1.0	1.0	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.4	0.5	0.5	1.0											
7-Jul	1.3	5.0	0.6	0.6	Z	0.8	0.6	0.5	0.5	0.5	0.4	0.5	0.6	0.5	0.4	0.4	0.5	0.7	0.7	0.6	0.5	0.5	0.5	0.4	0.8	5.0											
8-Jul	0.3	0.3	0.3	0.3	0.4	Z	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.7	1.1	1.9	1.4	1.5	1.1	0.8	0.6	0.6	0.8	0.6	0.7	1.9											
9-Jul	Z	0.6	0.6	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.3	0.4	0.4	0.9	0.5	0.4	0.9											
10-Jul	0.3	Z	0.4	0.8	3.5	3.9	4.3	3.4	2.1	1.3	1.1	0.6	0.4	0.4	0.5	0.5	0.4	0.4	0.6	PF	1.0	0.9	0.6	0.8	1.3	4.3											
11-Jul	0.8	0.8	0.7	0.7	Z	0.6	0.5	0.5	0.5	0.5	0.5	0.7	0.6	0.4	0.4	0.4	0.6	0.6	0.5	0.9	0.6	0.8	1.2	0.9	0.6	1.2											
12-Jul	0.9	1.1	1.1	1.3	1.4	Z	0.7	0.5	0.5	0.4	0.4	0.4	0.6	2.9	7.9	1.6	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	1.1	7.9											
13-Jul	Z	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.4	0.4	0.4	0.5	0.7	0.6	0.7	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.7											
14-Jul	0.5	Z	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.6	0.7	0.7	0.6	0.6	0.9	0.7	0.6	1.0	0.7	1.5	1.2	1.8	0.9	0.8	1.8											
15-Jul	0.8	0.9	Z	0.9	2.0	5.7	9.8	9.9	6.5	8.3	9.6	6.5	4.9	2.3	2.0	2.2	2.3	2.6	1.6	1.3	1.5	1.5	1.2	1.1	3.7	9.9											
16-Jul	1.0	1.1	1.1	Z	3.8	3.8	4.5	6.4	6.0	5.2	4.4	3.3	2.4	2.0	1.8	1.6	1.0	0.9	1.4	1.5	2.2	1.8	1.0	0.8	2.6	6.4											
17-Jul	0.8	0.8	0.7	0.7	Z	0.6	0.6	0.7	0.7	0.6	0.7	0.6	0.7	0.6	2.8	3.9	3.0	2.7	2.5	3.3	4.5	2.3	1.6	1.3	1.6	4.5											
18-Jul	0.9	0.6	0.6	0.5	0.8	Z	0.9	0.9	0.8	0.9	0.8	0.8	1.0	1.2	1.5	1.0	1.0	0.8	1.1	1.4	1.3	1.0	0.8	0.8	0.9	1.5											
19-Jul	Z	0.7	0.7	0.7	0.6	0.6	0.6	0.8	0.7	0.6	0.8	0.8	0.7	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.5	2.1	1.9	1.7	1.0	2.1											
20-Jul	1.5	Z	1.2	1.4	1.4	1.5	1.5	1.4	1.2	0.9	0.8	0.8	0.8	0.6	0.8	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.7	0.9	1.5											
21-Jul	0.7	0.7	Z	0.7	0.7	0.7	0.7	0.8	0.6	0.6	0.5	0.5	0.5	0.6	0.8	0.8	0.7	0.7	0.7	0.6	0.7	0.7	0.6	0.6	0.7	0.8											
22-Jul	0.6	0.6	0.5	Z	0.7	0.7	0.6	0.6	0.6	C	C	C	C	C	0.7	0.7	0.7	0.8	1.3	1.8	1.6	1.2	0.7	0.6	0.8	1.8											
23-Jul	1.2	3.0	1.5	1.6	Z	1.6	1.0	1.2	M	M	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.7	0.7	0.5	0.4	0.4	0.5	0.4	0.9	3.0											
24-Jul	0.4	0.4	0.4	0.4	0.3	Z	0.7	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.7											
25-Jul	Z	0.3	0.4	0.3	0.2	0.2	0.3	0.3	0.3	0.5	0.6	0.5	0.3	0.3	0.2	0.4	0.2	0.3	0.3	0.3	0.5	0.4	0.4	0.4	0.3	0.6											
26-Jul	0.4	Z	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.5											
27-Jul	0.3	1.5	Z	1.1	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.4	0.3	0.3	0.4	1.5											
28-Jul	0.3	0.4	0.4	Z	1.2	1.6	1.0	0.7	0.6	0.5	0.6	0.4	0.4	0.3	0.3	0.7	0.4	1.4	0.7	0.3	0.7	0.5	0.5	0.5	0.6	1.6											
29-Jul	0.4	0.4	0.4	0.4	Z	0.4	0.4	0.5	0.5	0.8	0.6	0.4	0.5	0.4	0.4	0.4	0.5	0.4	0.5	0.4	0.4	0.3	0.3	0.3	0.4	0.8											
30-Jul	0.3	0.3	0.4	0.3	0.3	Z	0.4	0.8	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.5	0.6	0.9	1.9	1.2	0.5	1.9											
31-Jul	Z	0.6	0.4	0.5	0.3	0.4	0.5	0.3	0.3	0.3	0.3	0.5	0.4	0.6	2.5	2.2	2.1	2.7	2.4	2.5	1.9	4.3	5.7	6.6	1.7	6.6											
0.7 1.0 0.7 0.8 1.0 1.2 1.2 1.2 1.0 1.0 1.0 0.8 0.9 0.7 1.1 0.9 0.8 0.8 0.8 0.8 0.9 0.9 0.9 0.9																								Diurnal Average													
1.5 5.0 1.8 1.6 3.8 5.7 9.8 9.9 6.5 8.3 9.6 6.5 4.9 2.9 7.9 3.9 3.0 2.7 2.5 3.3 4.5 4.3 5.7 6.6																								Diurnal Maximum													
Z - zerospan		C - Calibration				M - Maintenance				PF - Power Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Fort Chipewyan - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	705	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Fort Chipewyan - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	9	7	17	66	102	42	35	45	39	54	48	57	58	53	37	36	705
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	9	7	17	66	102	42	35	45	39	54	48	57	58	53	37	36	705

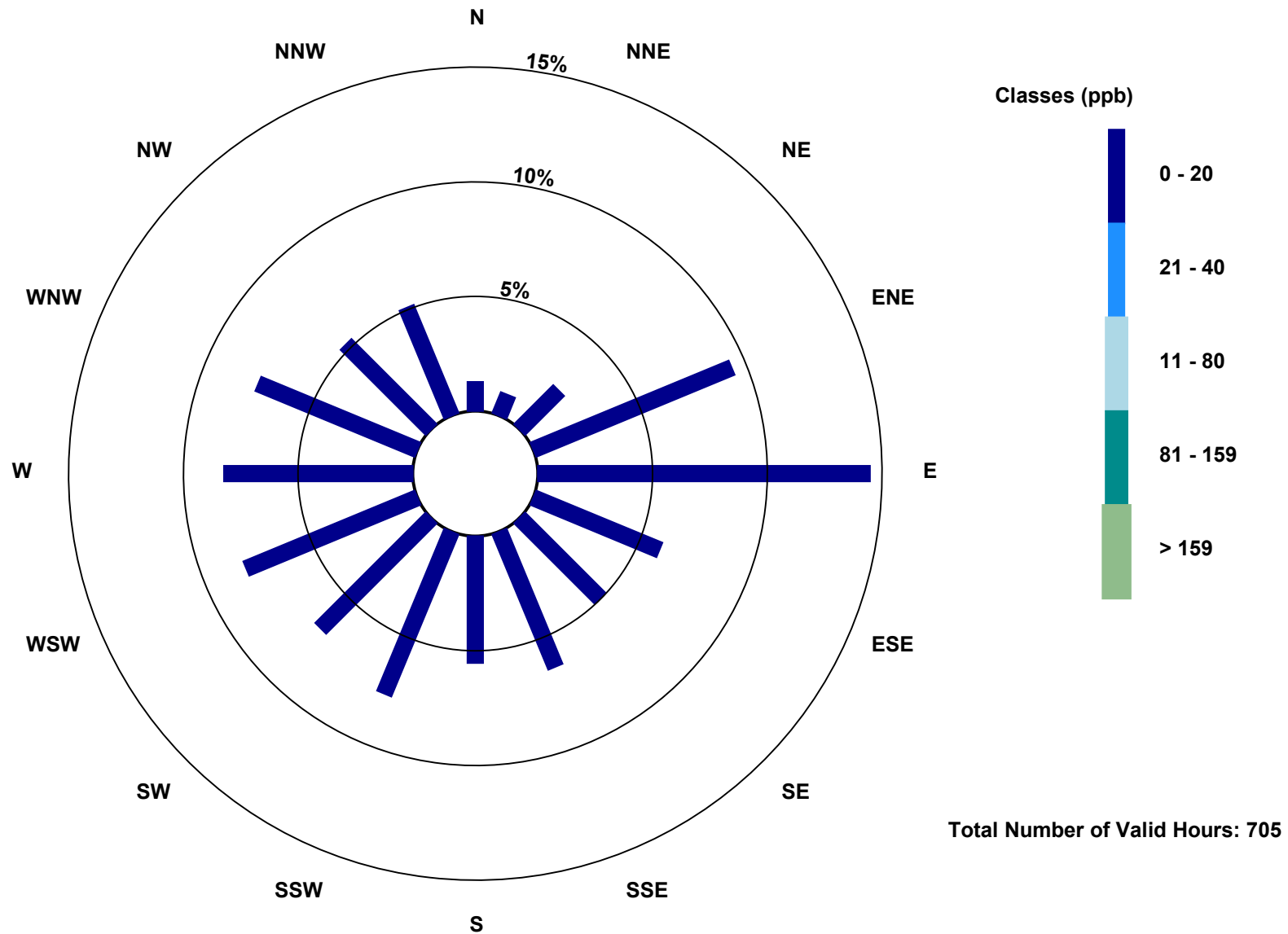
Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

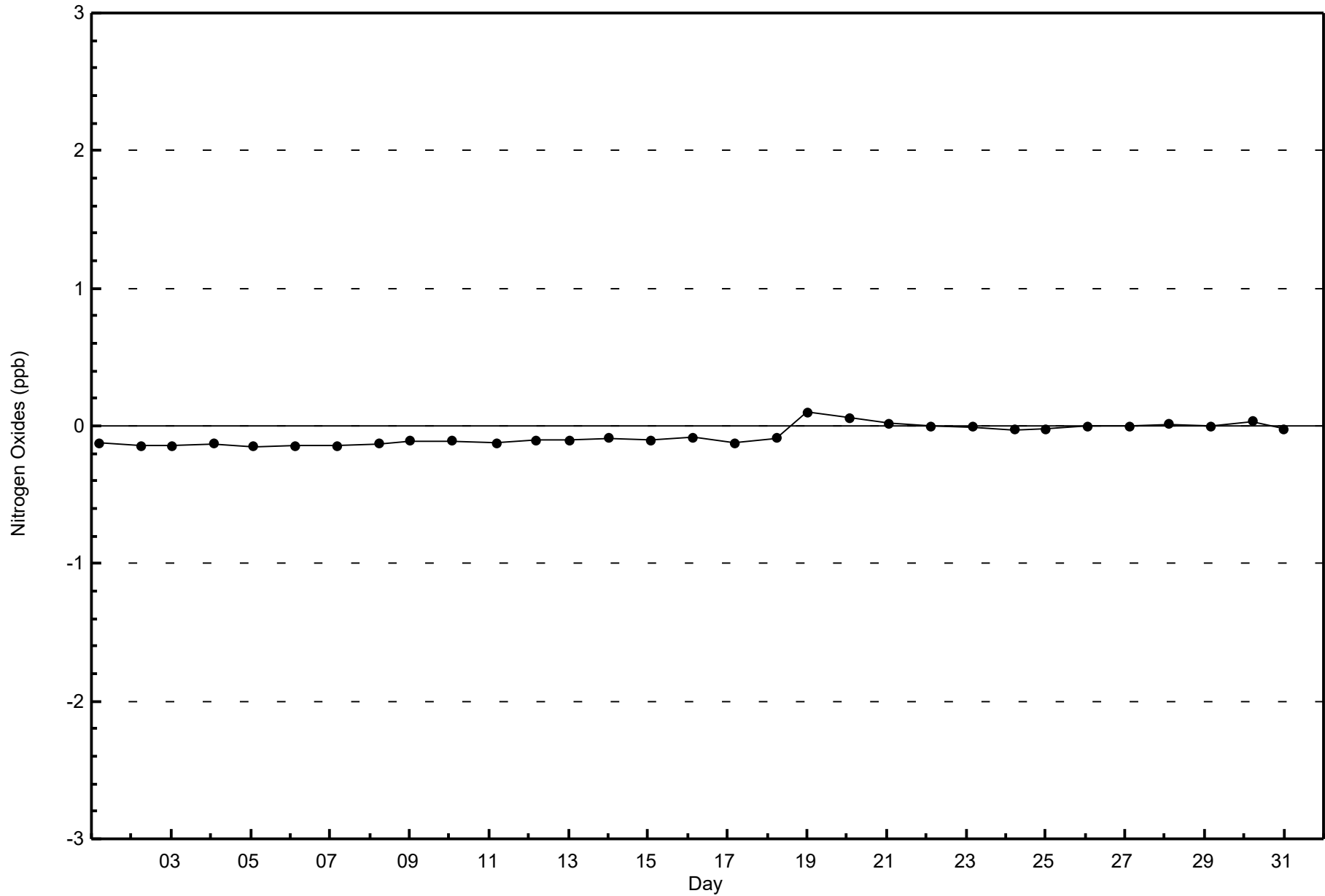
Nitrogen Oxides (NO_x) - ppb
Fort Chipewyan





Wood Buffalo Environmental Association
Zero Responses

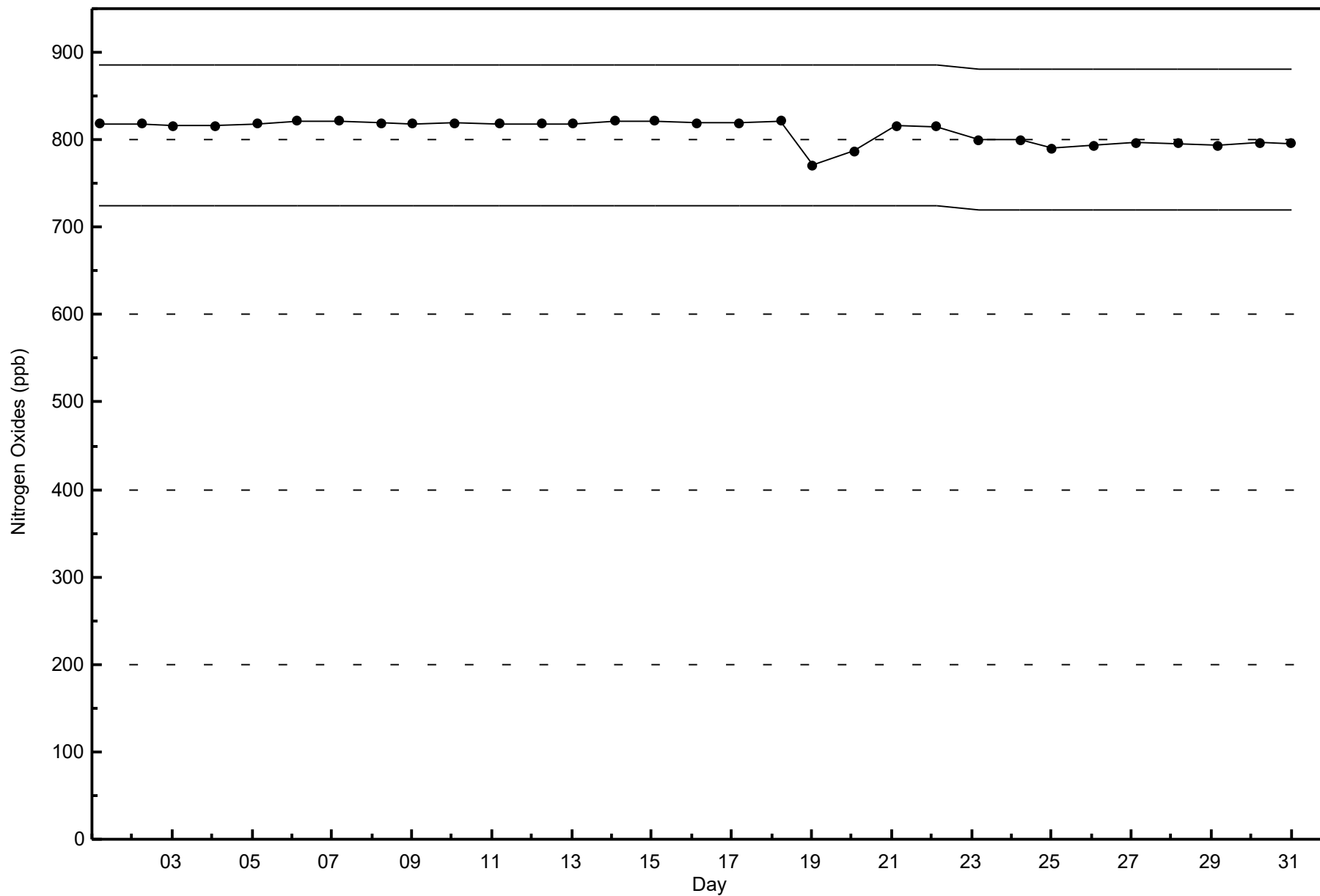
Nitrogen Oxides (NO_x) - ppb
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O₃) - ppb

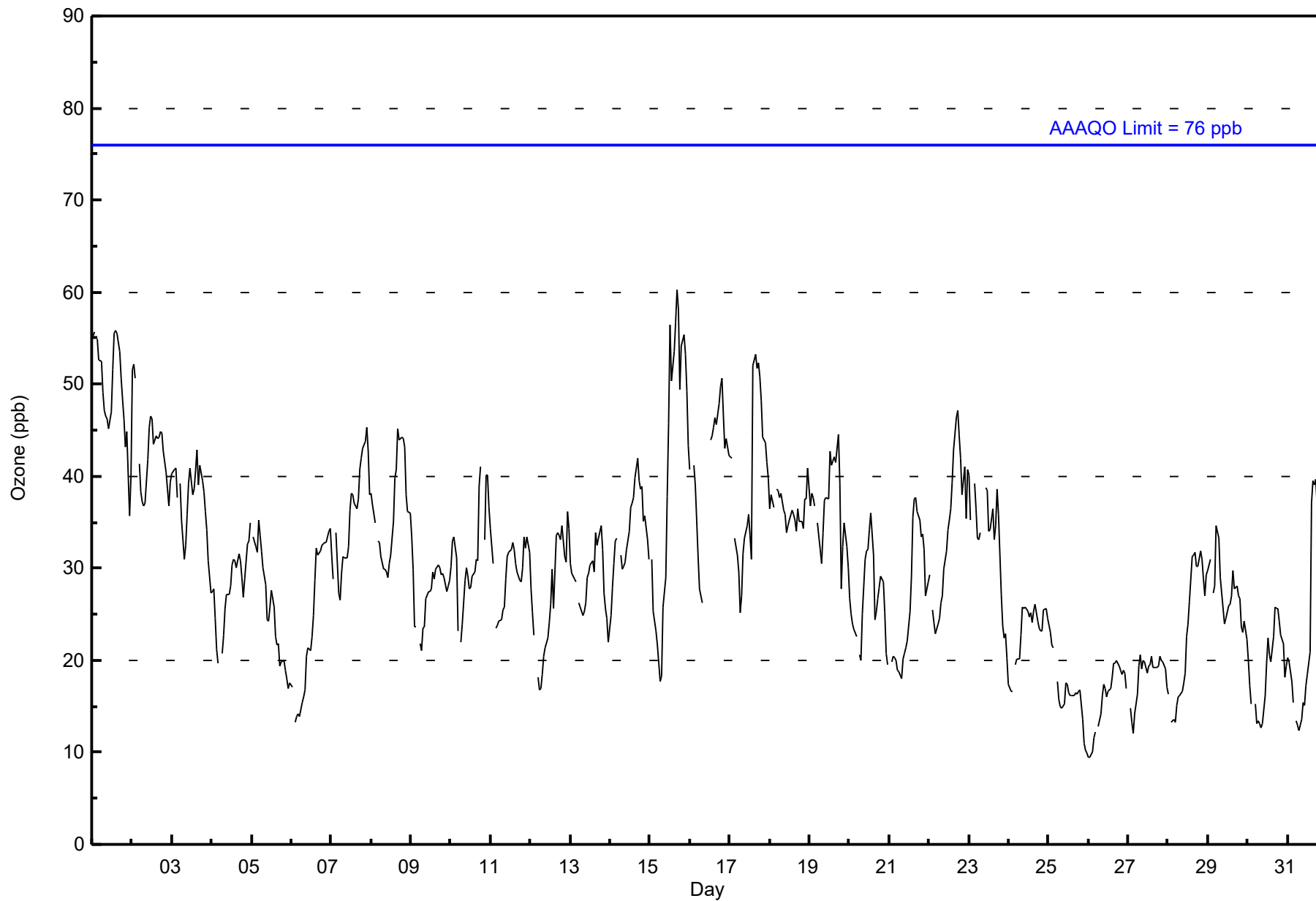
Fort Chipewyan - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 60.3 ppb on Jul 15 17:00 Minimum Value: 9.4 ppb on Jul 26 02:00 Maximum Diurnal Average: 35.5 ppb at hour 18 Monthly Average: 30.20 ppb																				Hours in Service: 744 Hours of Data: 706 Hours of Missing Data: 38 Hours of Calibration: 35 Percent Operational Time: 99.6						
Maximum Daily Average: 49.3 ppb on Jul 1 Minimum Daily Average: 16.0 ppb on Jul 26 Minimum Diurnal Average: 24.9 ppb at hour 8 Percentiles: P ₁ = 12.0 P ₁₀ = 17.1 Q ₁ = 22.7 Median = 30.0 Q ₃ = 36.6 P ₉₀ = 43.6 P ₉₉ = 55.5																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	55.2	55.7	Z	55.0	52.6	52.5	49.2	47.2	46.5	46.2	45.2	46.9	51.6	55.5	55.8	55.5	53.6	50.7	48.3	46.3	43.2	44.8	35.7	40.0	49.3	55.8
2-Jul	51.6	52.1	50.6	Z	41.4	38.3	37.2	36.7	37.1	41.7	45.3	46.5	46.2	43.5	44.4	44.1	44.2	44.9	44.7	42.6	40.4	38.5	36.7	39.3	43.0	52.1
3-Jul	40.2	40.7	40.9	37.6	Z	39.3	35.3	31.0	32.6	35.8	39.2	41.0	38.0	38.6	40.5	42.9	39.0	41.2	39.6	38.3	36.2	34.2	30.8	27.3	37.4	42.9
4-Jul	27.4	27.7	24.6	21.2	19.7	Z	20.8	22.7	25.6	27.1	27.1	28.1	30.4	30.9	30.8	30.0	31.6	30.8	28.9	26.9	28.9	32.7	32.9	35.0	27.9	35.0
5-Jul	Z	33.4	32.4	31.7	35.3	33.6	31.9	30.1	28.3	24.4	24.3	25.7	27.6	25.8	22.5	21.7	21.9	19.4	19.8	20.0	18.9	18.0	16.9	17.6	25.3	35.3
6-Jul	17.1	Z	13.2	13.9	14.2	13.9	15.4	16.0	16.8	20.4	21.4	21.0	22.5	24.9	28.7	32.1	31.4	31.9	32.5	32.7	32.8	32.7	34.0	34.3	24.1	34.3
7-Jul	31.4	28.8	Z	33.9	27.3	26.6	29.5	31.2	31.1	31.1	32.3	36.4	38.2	38.1	37.0	36.4	37.5	40.8	42.0	43.0	43.8	45.3	42.8	38.0	35.8	45.3
8-Jul	38.1	36.9	34.9	Z	32.9	32.8	31.3	29.9	30.0	29.7	29.0	30.4	31.5	35.0	39.8	40.7	45.1	43.9	44.2	44.1	43.2	38.0	36.2	36.0	36.2	45.1
9-Jul	33.4	29.9	23.6	23.6	Z	21.8	21.1	23.4	23.6	26.8	27.4	27.4	27.7	29.6	28.9	29.9	30.3	30.0	29.4	29.4	29.0	27.4	28.1	28.7	27.4	33.4
10-Jul	30.2	32.9	33.3	31.1	23.1	Z	22.0	23.9	28.7	30.0	29.2	27.7	27.9	29.1	29.6	30.9	30.8	38.9	41.1	PF	33.2	40.1	40.2	36.5	31.4	41.1
11-Jul	34.4	30.4	Z	23.5	23.8	24.3	24.5	25.5	25.7	28.8	31.2	31.7	32.1	32.9	32.0	30.5	29.6	28.7	28.5	30.0	33.5	32.2	33.3	31.7	29.5	34.4
12-Jul	27.7	25.2	22.8	Z	18.2	16.8	17.0	18.5	20.4	21.3	22.4	24.0	26.1	29.9	25.6	33.5	33.9	33.5	33.1	34.7	31.2	30.7	36.1	34.4	26.8	36.1
13-Jul	30.5	29.5	28.8	28.5	Z	26.2	25.8	24.9	25.3	26.2	29.0	29.5	30.3	30.8	29.6	33.9	32.5	33.2	34.6	32.1	27.3	25.6	24.6	22.0	28.7	34.6
14-Jul	24.8	27.9	30.5	33.0	33.2	Z	31.4	29.9	30.1	30.7	32.1	34.1	36.6	37.1	37.7	39.8	41.9	39.6	38.6	39.0	35.1	35.7	33.1	30.9	34.0	41.9
15-Jul	Z	30.9	25.4	23.2	21.7	19.7	17.7	18.3	25.8	29.0	37.8	45.8	56.4	50.4	53.5	56.7	60.3	58.1	49.4	54.1	55.4	53.3	49.2	43.4	40.7	60.3
16-Jul	40.7	Z	41.3	39.0	35.2	31.3	27.7	26.2	C	C	C	C	43.9	44.4	45.3	46.4	45.5	47.9	49.8	50.6	46.7	43.1	44.1	42.2	41.7	50.6
17-Jul	42.1	41.9	Z	33.2	31.4	29.6	25.1	27.0	31.6	33.3	34.6	35.8	33.6	30.9	52.1	53.3	51.7	52.3	50.8	48.2	44.2	43.6	41.5	39.8	39.5	53.3
18-Jul	36.5	38.0	36.6	Z	38.7	38.4	37.7	38.1	36.3	35.8	33.9	34.6	35.2	36.3	35.9	35.2	34.0	36.5	35.1	35.1	34.3	37.5	37.6	40.9	36.4	40.9
19-Jul	36.7	38.2	37.8	36.8	Z	35.0	32.0	30.6	33.9	37.4	37.7	37.5	42.8	41.2	41.7	42.1	41.5	44.6	39.1	27.8	32.4	35.0	32.3	30.1	36.7	44.6
20-Jul	26.7	25.0	23.9	23.4	22.6	Z	20.5	20.0	25.0	31.0	31.9	32.0	34.2	36.1	31.4	24.5	25.3	26.7	27.9	29.1	28.6	25.2	20.8	19.6	26.6	36.1
21-Jul	Z	19.8	20.4	20.3	19.9	18.9	18.8	18.0	20.1	20.7	21.3	22.1	25.3	29.2	35.6	37.6	37.6	36.1	35.2	33.4	33.7	32.1	27.0	28.6	26.6	37.6
22-Jul	29.3	Z	25.4	24.1	22.9	23.9	24.6	26.3	27.0	29.9	31.8	34.2	35.2	36.4	39.4	42.9	46.3	47.2	44.4	41.9	38.0	41.0	35.4	40.7	34.3	47.2
23-Jul	40.1	35.2	Z	39.2	36.4	33.2	33.0	33.9	M	M	38.7	38.5	34.0	34.1	36.5	33.1	34.6	38.6	35.9	27.2	23.8	22.5	22.8	20.4	32.9	40.1
24-Jul	17.4	16.6	16.6	Z	19.5	20.2	20.2	22.7	25.7	25.7	25.8	25.3	24.7	25.2	24.2	25.3	26.2	24.3	23.6	23.2	23.2	25.5	25.6	24.6	23.1	26.2
25-Jul	23.7	23.0	21.7	21.3	Z	17.6	15.7	15.0	14.8	15.2	17.5	17.3	16.4	16.2	16.1	16.1	16.4	16.4	16.7	16.8	13.6	10.9	10.2	9.9	16.5	23.7
26-Jul	9.5	9.4	10.1	11.6	12.2	Z	12.9	14.1	16.1	17.4	16.9	16.1	16.7	16.9	18.2	19.7	19.7	20.1	19.4	18.9	18.4	19.0	18.7	17.0	16.0	20.1
27-Jul	Z	14.7	13.3	12.0	14.1	16.4	19.3	20.5	19.0	20.0	19.8	18.6	19.4	19.5	20.4	19.3	19.2	19.2	19.4	20.4	20.0	19.9	19.1	17.0	18.3	20.5
28-Jul	16.3	Z	13.3	13.6	13.2	15.1	16.0	16.2	16.7	17.5	18.5	22.6	23.9	26.5	31.3	31.4	31.7	30.3	30.2	31.8	31.0	28.8	26.9	29.3	23.1	31.8
29-Jul	29.7	31.0	Z	27.4	28.0	34.6	33.3	29.0	27.4	25.6	23.9	24.6	25.9	26.1	27.0	29.7	27.7	28.1	27.0	26.7	23.6	23.0	24.3	22.2	27.2	34.6
30-Jul	20.0	17.2	15.3	Z	15.2	13.1	13.4	13.1	12.6	13.2	16.2	19.7	22.5	20.5	19.9	22.5	25.8	25.7	25.6	24.3	22.7	21.8	18.2	19.4	19.0	25.8
31-Jul	20.3	19.9	17.7	15.4	Z	13.4	13.0	12.3	13.6	15.4	15.1	17.2	18.4	20.9	37.0	39.5	39.1	39.6	36.7	33.6	31.4	24.7	20.9	19.7	23.2	39.6
30.8 30.1 26.2 26.9 26.1 26.4 24.9 24.9 25.8 27.2 28.5 29.7 31.5 32.0 33.8 34.7 35.0 35.5 34.6 33.4 32.2 31.7 30.2 29.6																										Diurnal Average
55.2 55.7 50.6 55.0 52.6 52.5 49.2 47.2 46.5 46.2 45.3 46.9 56.4 55.5 55.8 56.7 60.3 58.1 50.8 54.1 55.4 53.3 49.2 43.4																										Diurnal Maximum
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Ozone (O₃) - ppb
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ozone (O₃) - ppb
Fort Chipewyan - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	143	20.25	20.26
21 - 50	535	75.78	96.03
51 - 82	28	3.97	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Ozone (O₃) - ppb
Fort Chipewyan - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	7	0	5	9	10	9	4	4	4	9	9	5	12	18	24	14	143
21 - 50	2	7	13	53	82	26	30	42	33	45	42	54	43	34	11	17	534
51 - 82	1	0	0	4	8	5	3	0	3	0	0	0	0	0	0	4	28
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	7	18	66	100	40	37	46	40	54	51	59	55	52	35	35	705

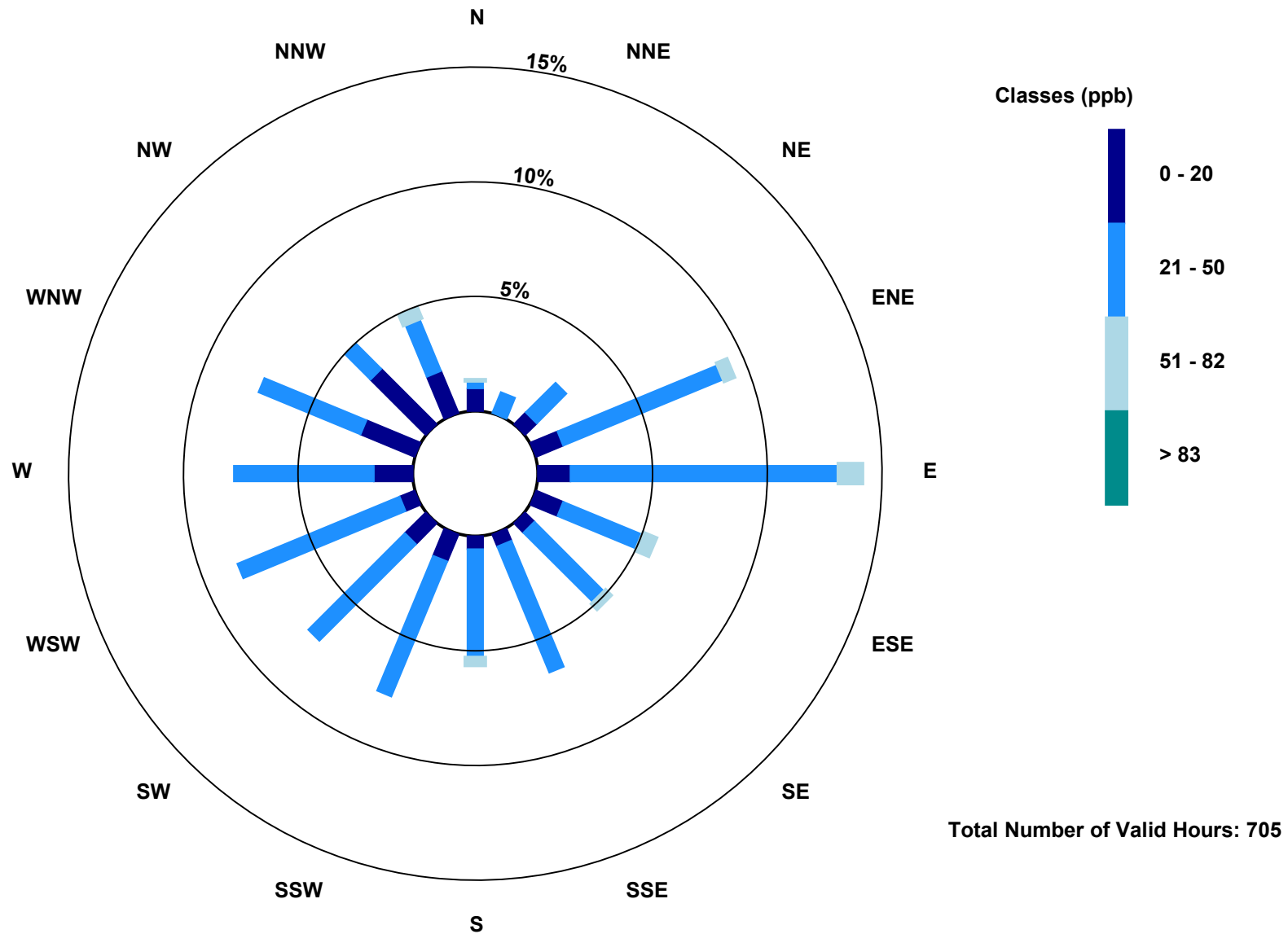
Total Number of Valid Hours: 705

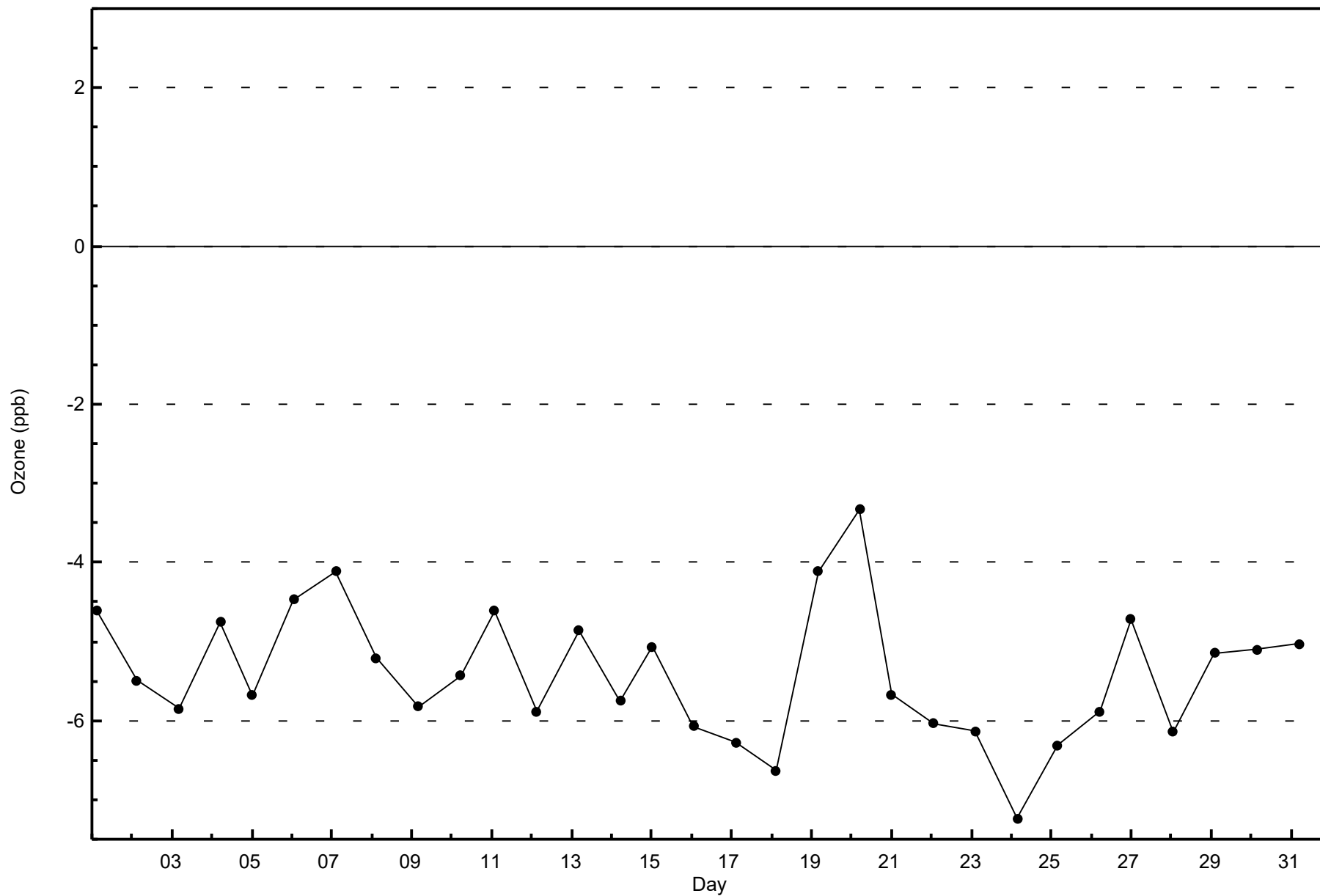
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Ozone (O_3) - ppb
Fort Chipewyan

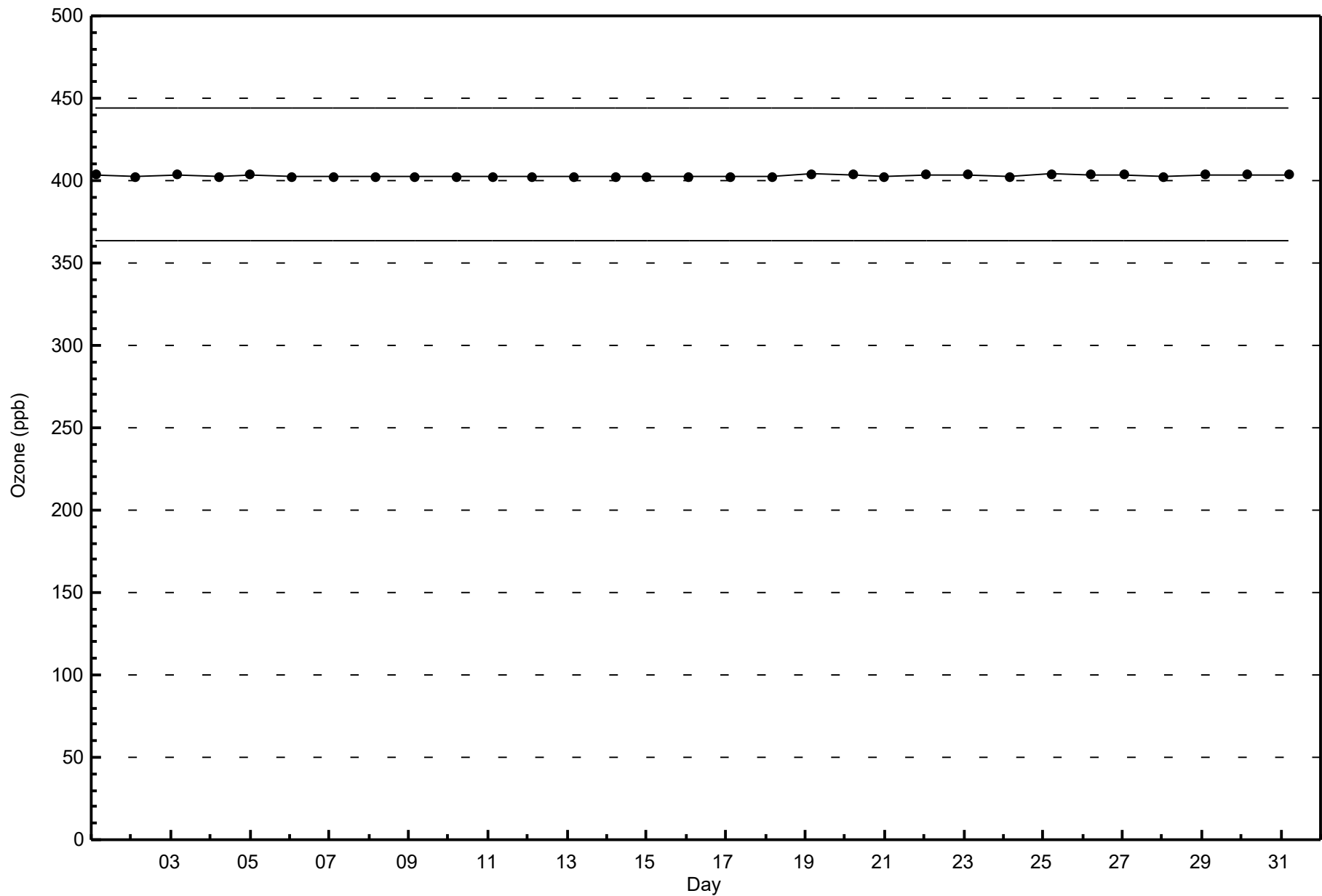






Wood Buffalo Environmental Association
Span Responses

Ozone (O₃) - ppb
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

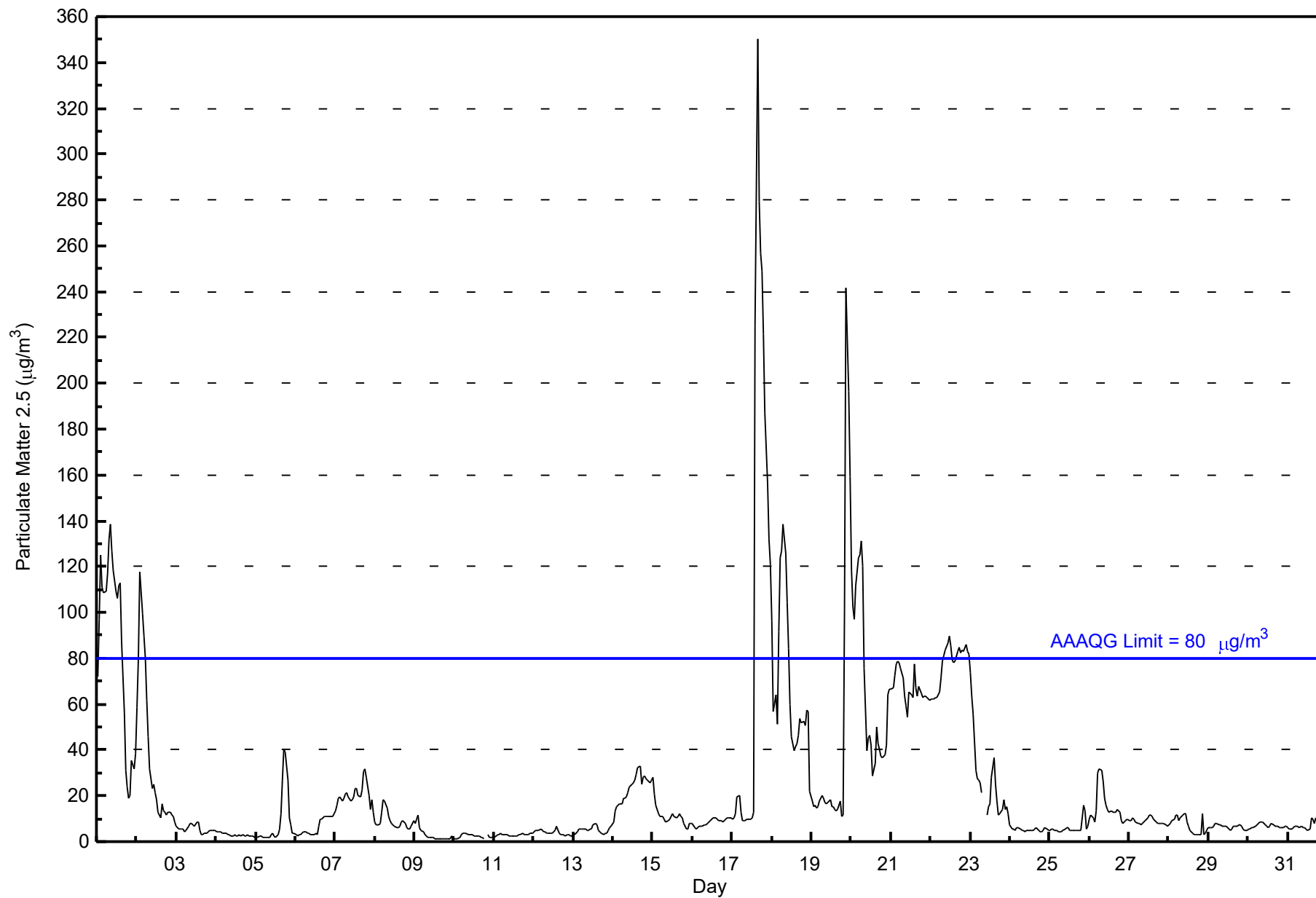
Fort Chipewyan - July 2026

Number of Exceedances (AAAQO): 1-hr: 62 24-hr: 8 Maximum Value: 350.4 µg/m³ on Jul 17 16:00 Minimum Value: 1.0 µg/m³ on Jul 9 16:00 Maximum Diurnal Average: 29.4 µg/m³ at hour 16 Monthly Average: 24.14 µg/m³																					Hours in Service: 744 Hours of Data: 741 Hours of Missing Data: 3 Hours of Calibration: 2 Percent Operational Time: 99.9					
Minimum Daily Average: 2.4 µg/m³ on Jul 10 Minimum Diurnal Average: 18.1 µg/m³ at hour 14 Percentiles: P ₁ = 1.2 P ₁₀ = 2.8 Q ₁ = 4.9 Median = 8.7 Q ₃ = 21.2 P ₉₀ = 72.5 P ₉₉ = 192.9																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	71.7	97.1	125.2	111.3	108.3	109.3	117.2	132.1	138.5	126.7	118.6	109.3	106.1	111.8	113.1	87.4	56.3	31.2	23.6	19.1	20.2	35.3	31.5	38.2	85.0	138.5
2-Jul	58.6	79.8	117.7	99.5	89.7	80.2	61.6	45.5	32.0	23.4	25.0	21.5	18.1	12.7	10.3	16.3	13.3	12.7	11.7	12.8	13.0	11.6	10.8	8.3	36.9	117.7
3-Jul	6.9	5.6	5.2	5.5	5.3	4.3	5.0	6.7	7.8	8.0	7.2	6.9	8.7	8.2	5.0	3.0	3.2	3.4	3.9	4.4	4.7	4.6	5.1	5.0	5.6	8.7
4-Jul	4.4	4.1	4.4	4.3	3.9	3.8	3.5	3.1	3.0	2.7	2.7	2.8	2.6	2.7	2.8	2.7	3.0	2.6	2.7	3.0	2.7	2.5	2.3	2.1	3.1	4.4
5-Jul	2.1	2.1	2.2	2.5	1.9	1.9	1.8	1.7	1.8	2.7	3.5	2.5	2.0	3.0	5.6	12.2	27.0	40.2	38.9	26.9	10.5	7.1	3.6	3.8	8.6	40.2
6-Jul	3.1	2.7	2.8	3.1	3.7	4.4	4.1	3.9	3.6	3.2	3.3	3.2	3.4	3.3	6.4	9.7	9.9	11.1	11.2	11.2	10.7	10.8	11.1	12.5	6.4	12.5
7-Jul	13.5	15.6	18.8	19.8	17.4	19.1	20.9	21.3	19.7	17.9	18.6	19.3	22.9	23.2	20.1	19.3	22.9	30.3	31.7	28.3	19.9	13.8	18.1	12.6	20.2	31.7
8-Jul	8.3	7.4	7.5	8.2	12.7	18.1	17.5	14.4	11.2	9.3	8.1	7.2	6.9	6.1	5.9	6.6	8.4	9.3	7.8	5.9	5.8	5.6	6.9	9.3	8.9	18.1
9-Jul	7.8	9.7	11.3	6.3	4.8	4.2	3.1	2.2	2.1	1.7	1.6	1.6	1.3	1.2	1.1	1.0	1.1	1.0	1.1	1.1	1.2	1.3	2.6	2.0	3.0	11.3
10-Jul	1.4	1.4	1.3	1.8	3.2	3.5	3.6	3.4	3.0	3.1	3.1	2.9	2.5	2.3	2.5	2.3	2.1	1.7	1.0	PF	2.9	2.0	1.6	1.7	2.4	3.6
11-Jul	2.0	2.6	3.0	3.2	3.4	3.2	3.0	2.8	2.8	2.6	2.5	2.3	2.2	2.5	2.7	2.8	3.3	3.4	3.1	2.9	3.3	3.2	3.9	3.8	2.9	3.9
12-Jul	4.1	4.6	4.8	5.0	5.4	4.9	4.5	4.0	3.6	3.5	3.8	3.7	4.0	5.0	6.5	3.8	2.8	3.3	3.2	2.7	2.9	2.8	2.4	2.3	3.9	6.5
13-Jul	2.8	3.3	4.2	5.7	5.8	5.4	5.7	5.4	5.1	5.1	5.7	5.4	7.5	8.1	7.1	4.7	4.3	3.7	3.3	3.6	4.0	4.7	6.2	6.9	5.1	8.1
14-Jul	8.4	13.6	15.1	15.9	16.2	16.7	18.7	19.1	19.3	21.6	23.6	24.8	25.6	26.6	29.5	32.3	32.9	25.2	28.1	28.9	27.4	26.9	25.3	27.0	22.9	32.9
15-Jul	28.1	20.5	15.6	12.4	11.1	10.7	11.1	9.5	8.7	9.1	9.8	10.8	12.3	11.0	10.4	11.1	12.1	11.2	10.6	8.1	5.7	5.7	7.9	8.1	11.3	28.1
16-Jul	8.1	5.8	5.8	6.4	6.8	6.7	7.0	7.5	7.6	7.6	8.5	9.1	10.1	10.5	10.2	10.0	9.1	9.1	8.6	8.9	9.7	10.2	10.1	10.3	8.5	10.5
17-Jul	10.1	10.2	12.3	19.4	20.3	12.9	9.3	9.2	9.4	9.7	9.8	9.8	10.5	13.1	224.9	350.4	279.7	256.6	248.7	221.4	187.5	156.4	132.0	120.7	97.7	350.4
18-Jul	96.6	56.9	64.0	51.3	91.5	124.0	126.7	138.2	125.6	104.2	84.5	59.8	45.7	39.8	41.6	42.4	46.5	53.4	51.9	52.5	50.4	57.6	56.5	22.1	70.1	138.2
19-Jul	17.4	15.3	15.7	14.7	15.1	17.6	19.9	18.6	17.1	16.4	17.1	18.2	15.0	15.1	13.8	13.5	14.2	17.6	11.0	11.4	101.6	241.8	196.5	159.1	42.2	241.8
20-Jul	118.2	102.4	96.7	111.7	123.8	124.8	131.1	120.3	75.5	39.4	45.4	46.3	42.0	28.9	34.4	50.2	42.9	40.3	37.4	36.4	38.0	42.4	64.3	66.8	69.2	131.1
21-Jul	66.2	67.3	72.5	77.6	78.7	78.2	75.5	71.2	63.3	59.2	54.2	65.4	63.9	62.8	77.3	67.0	63.4	67.5	64.8	62.7	63.5	63.5	62.9	61.9	67.1	78.7
22-Jul	62.2	62.0	62.4	62.9	62.7	65.4	71.2	78.7	81.0	83.7	86.6	89.5	85.2	79.3	77.9	78.5	83.1	84.5	82.4	83.5	83.1	85.8	83.0	81.7	77.4	89.5
23-Jul	74.0	63.6	55.6	31.3	27.2	26.7	25.8	21.2	C	C	11.6	15.5	16.5	27.9	36.6	24.8	17.6	11.7	12.0	13.7	18.3	14.3	15.5	12.0	26.1	74.0
24-Jul	7.2	5.6	5.7	5.0	6.1	6.1	5.6	5.1	4.6	4.5	4.8	4.7	4.6	4.8	4.9	5.7	6.1	4.9	4.1	4.2	4.9	6.1	5.5	5.1	5.2	7.2
25-Jul	5.1	5.3	5.2	5.0	4.7	4.4	4.4	4.3	4.8	5.5	6.1	6.0	4.7	4.6	4.6	4.9	4.9	5.0	5.2	4.7	15.8	13.7	5.2	6.7	5.9	15.8
26-Jul	9.5	11.5	10.1	8.3	13.6	30.0	31.6	31.0	26.3	19.2	15.7	13.9	13.0	13.5	13.1	12.9	12.6	14.2	12.6	9.1	8.1	8.3	9.1	9.8	14.9	31.6
27-Jul	9.1	9.4	10.1	9.8	8.8	7.9	7.7	7.5	8.1	8.4	9.2	10.2	11.6	11.7	10.9	9.5	8.7	8.1	8.1	7.8	7.6	7.7	7.2	7.0	8.8	11.7
28-Jul	7.1	7.9	9.3	10.0	11.3	11.9	9.4	10.5	11.8	12.4	12.3	8.7	6.7	5.1	3.6	3.3	3.3	3.1	3.3	3.1	12.4	3.3	3.8	5.0	7.4	12.4
29-Jul	6.0	6.3	6.3	6.8	7.8	8.0	7.2	7.1	6.7	6.5	6.7	6.5	5.5	5.1	5.5	6.8	6.6	6.8	7.2	7.1	6.7	5.5	4.7	5.1	6.4	8.0
30-Jul	5.6	5.6	6.1	6.2	6.6	7.2	7.8	8.5	8.4	8.5	7.3	7.0	6.4	6.6	7.8	7.5	6.7	6.9	6.7	6.4	6.2	6.3	6.9	6.6	6.9	8.5
31-Jul	6.1	5.6	5.7	5.9	6.6	6.6	6.6	6.2	6.4	6.3	6.3	5.8	5.0	5.3	10.5	10.0	7.8	10.6	9.5	9.7	9.4	7.5	9.6	15.4	7.7	15.4
23.6 22.9 25.2 23.8 25.3 26.7 26.7 26.5 24.0 21.1 20.1 19.4 18.5 18.1 26.0 29.4 26.3 25.5 24.4 23.4 24.5 28.0 26.2 23.8																								Diurnal Average		
118.2 102.4 125.2 111.7 123.8 124.8 131.1 138.2 138.5 126.7 118.6 109.3 106.1 111.8 224.9 350.4 279.7 256.6 248.7 221.4 187.5 241.8 196.5 159.1																								Diurnal Maximum		
C - Calibration PF - Power Failure																										
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 µg/m³ 24-hr 29 µg/m³																										



Wood Buffalo Environmental Association
Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Fort Chipewyan - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Number of Hours	%	Cumulative %
0 - 5	223	30.09	30.09
6 - 15	285	38.46	68.56
16 - 25	63	8.50	77.06
26 - 80	109	14.71	91.77
> 81.0	61	8.23	100.00

Total Number of Valid Hours: 741

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Fort Chipewyan - July 2026

Concentration Ranges (µg/m³)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	0	0	13	11	23	6	8	17	16	36	24	19	17	23	8	2	223
6 - 15	9	5	1	27	32	25	14	24	24	13	16	16	15	27	17	20	285
16 - 25	0	1	2	13	18	1	7	0	0	0	2	5	7	2	3	1	62
26 - 80	0	1	2	7	18	4	6	5	1	8	8	19	19	3	7	1	109
> 81.0	1	1	0	12	13	7	3	2	0	1	3	1	1	0	3	13	61
Totals	10	8	18	70	104	43	38	48	41	58	53	60	59	55	38	37	740

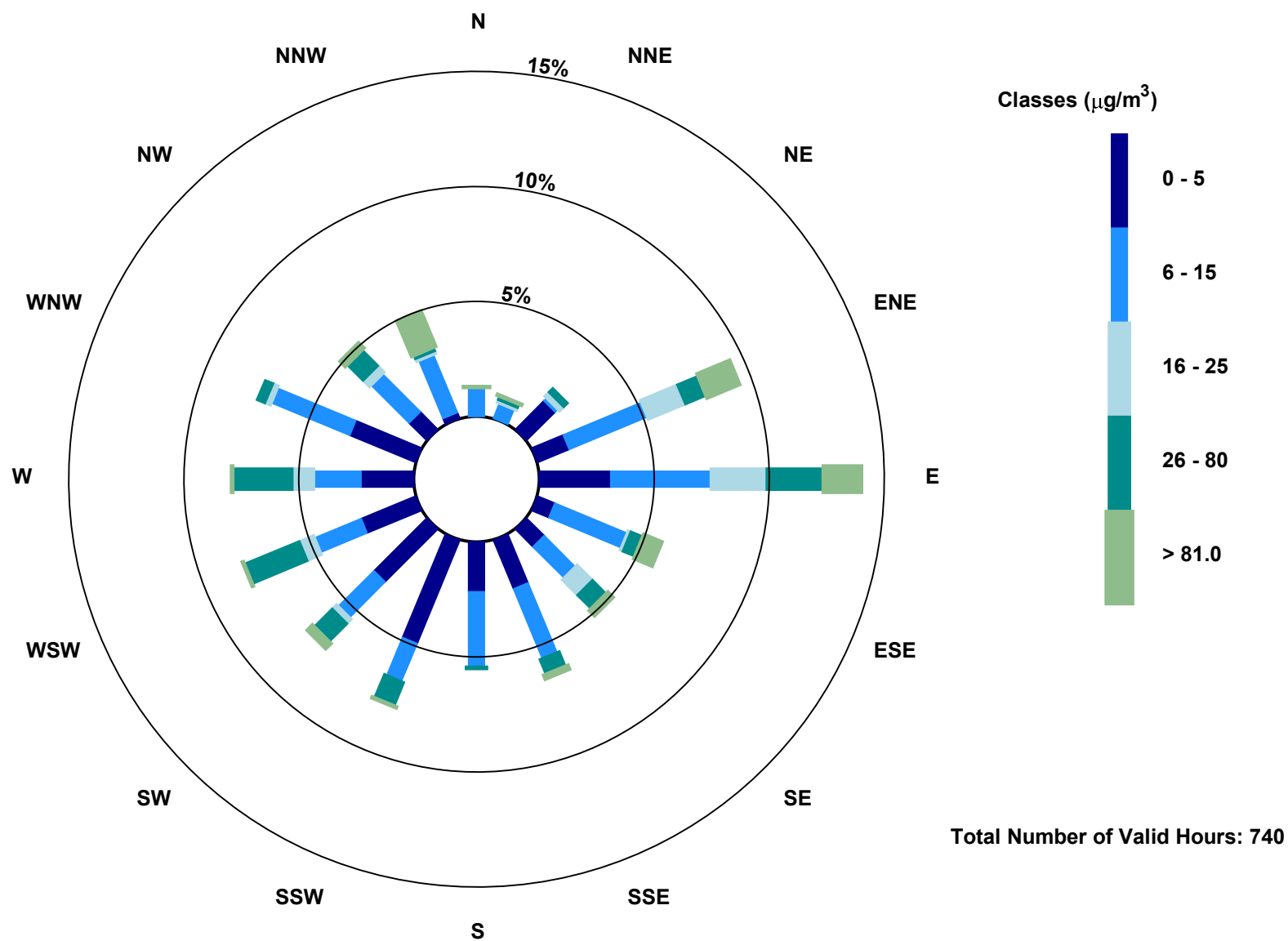
Total Number of Valid Hours: 740

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Fort Chipewyan





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

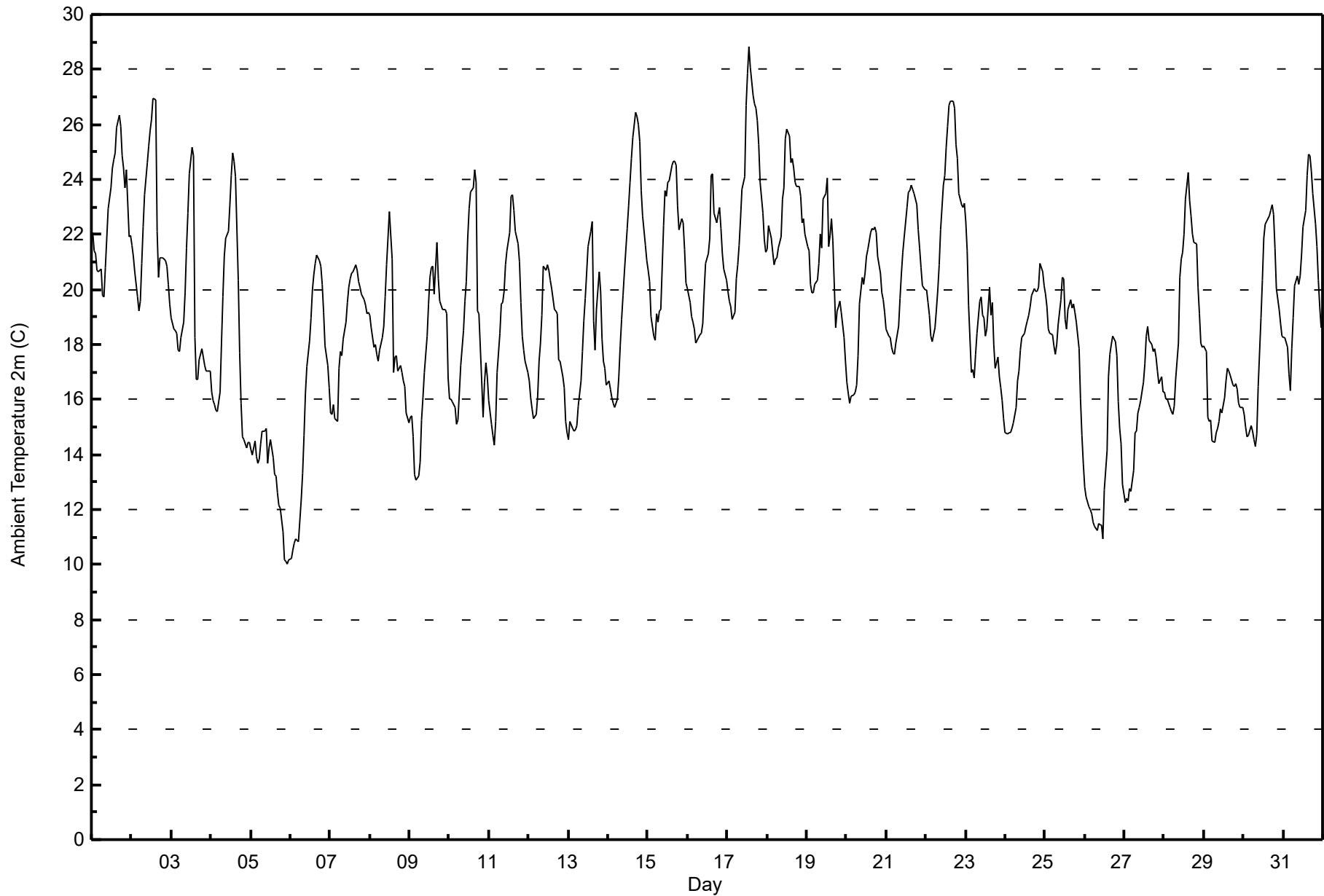
Fort Chipewyan - July 2026

Maximum Value: 28.8 C on Jul 17 14:00																				Maximum Daily Average: 23.5 C on Jul 17					Hours in Service: 744	
Minimum Value: 10.0 C on Jul 5 23:00																				Minimum Daily Average: 13.1 C on Jul 5					Hours of Data: 744	
Maximum Diurnal Average: 21.9 C at hour 15																				Minimum Diurnal Average: 16.3 C at hour 5					Hours of Missing Data: 0	
Monthly Average: 19.11 C																				Percentiles: P ₁ = 10.9 P ₁₀ = 14.7 Q ₁ = 16.6 Median = 19.2 Q ₃ = 21.5 P ₉₀ = 23.8 P ₉₉ = 26.8					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	22.1	21.4	21.3	20.7	20.6	20.8	19.8	19.7	20.8	21.9	23.0	23.7	24.4	24.7	24.9	25.9	26.4	25.9	24.9	24.4	23.7	24.4	21.9	22.0	22.9	26.4
2-Jul	21.6	21.2	20.7	19.7	19.2	19.6	20.9	22.3	23.5	24.6	25.2	25.8	26.2	26.9	26.9	22.1	20.4	21.2	21.2	21.2	21.1	20.8	20.2	19.5	22.2	26.9
3-Jul	19.0	18.6	18.5	18.4	17.8	17.7	18.3	18.8	19.9	21.5	22.8	24.2	25.2	24.9	18.2	16.7	16.7	17.5	17.9	17.6	17.2	17.0	17.0	17.0	19.1	25.2
4-Jul	16.3	16.0	15.8	15.6	15.6	16.3	18.1	19.8	21.2	21.9	22.1	23.1	24.1	24.9	24.6	24.1	20.3	17.7	15.8	14.6	14.5	14.3	14.4	14.4	18.6	24.9
5-Jul	14.2	14.0	14.5	14.0	13.7	13.8	14.4	14.8	14.9	15.0	13.7	14.3	14.5	13.9	13.3	13.2	12.6	12.1	12.0	11.2	10.2	10.1	10.0	10.2	13.1	15.0
6-Jul	10.2	10.5	10.8	10.9	10.9	10.8	12.3	13.3	14.7	16.2	17.2	18.2	19.0	20.0	20.6	20.9	21.2	21.1	20.8	20.2	19.2	17.9	17.3	16.4	16.3	21.2
7-Jul	15.5	15.4	15.8	15.3	15.2	17.1	17.8	17.6	18.2	18.8	19.5	20.1	20.4	20.6	20.7	20.9	20.7	20.3	20.1	19.8	19.6	19.4	19.1	19.2	18.6	20.9
8-Jul	19.1	18.6	17.9	18.0	17.6	17.4	17.8	18.3	18.7	19.7	20.9	21.8	22.8	21.1	17.0	17.6	17.6	17.0	17.3	17.0	16.7	16.5	15.5	15.1	18.2	22.8
9-Jul	15.4	15.4	14.7	13.3	13.1	13.2	13.7	15.3	16.0	17.0	18.3	19.5	20.4	20.8	20.8	19.8	21.7	20.4	19.6	19.4	19.3	19.3	19.1	16.8	17.6	21.7
10-Jul	16.0	16.0	15.9	15.7	15.1	15.2	16.2	17.2	18.5	19.6	20.3	21.9	23.0	23.5	23.7	24.3	23.9	19.2	19.1	16.7	15.4	16.6	17.4	16.8	18.6	24.3
11-Jul	15.9	15.1	14.7	14.4	15.2	17.0	18.4	19.5	19.5	20.0	20.9	21.4	22.0	23.4	23.4	22.9	22.1	21.6	21.0	19.5	18.3	17.8	17.4	17.0	19.1	23.4
12-Jul	16.7	16.1	15.7	15.3	15.5	16.1	17.4	18.1	19.1	20.8	20.7	20.9	20.7	20.4	20.1	19.3	19.2	19.1	17.4	17.4	16.8	16.4	15.2	14.8	17.9	20.9
13-Jul	14.5	15.2	15.0	14.9	14.9	15.0	15.8	16.7	17.7	18.9	19.7	20.6	21.5	22.1	22.5	18.8	17.8	19.3	20.6	19.9	18.2	17.4	17.1	16.6	17.9	22.5
14-Jul	16.7	16.4	16.1	15.8	15.7	16.0	16.8	18.0	18.9	19.8	20.6	22.2	23.0	23.9	24.8	25.5	26.4	26.3	26.0	25.4	23.6	22.7	21.6	21.1	21.0	26.4
15-Jul	20.7	20.3	19.0	18.3	18.1	19.1	18.8	19.2	19.3	22.3	23.6	23.4	23.9	24.0	24.5	24.7	24.6	24.5	23.0	22.2	22.6	22.4	21.5	20.3	21.7	24.7
16-Jul	20.0	19.5	19.0	18.8	18.5	18.1	18.2	18.3	18.4	18.8	19.9	21.0	21.3	21.8	24.1	24.2	22.8	22.4	22.7	23.0	22.2	21.3	20.8	20.3	20.7	24.2
17-Jul	19.9	19.6	19.4	18.9	19.2	20.4	20.9	21.6	22.6	23.6	24.1	26.7	27.9	28.8	28.1	27.0	26.8	26.6	26.1	25.3	23.9	22.8	21.8	21.4	23.5	28.8
18-Jul	21.4	22.3	21.9	21.4	20.9	21.1	21.1	21.5	21.9	23.3	23.7	25.5	25.8	25.6	24.6	24.8	24.4	23.9	23.7	23.8	23.4	22.4	22.6	22.0	23.0	25.8
19-Jul	21.6	21.4	20.2	19.9	19.9	20.2	20.3	20.9	22.0	21.5	23.3	23.5	24.1	21.6	22.0	22.6	21.8	18.6	19.2	19.3	19.6	19.2	18.3	17.4	20.8	24.1
20-Jul	16.6	16.2	15.9	16.1	16.2	16.3	16.5	17.6	19.5	20.4	20.2	20.6	21.2	21.5	22.0	22.2	22.2	22.3	22.1	21.2	20.6	19.9	19.6	19.2	19.4	22.3
21-Jul	18.6	18.3	18.3	17.9	17.7	17.7	18.1	18.7	19.7	20.6	21.4	21.9	23.0	23.6	23.6	23.8	23.6	23.5	23.1	22.2	21.5	20.8	20.2	20.0	20.7	23.8
22-Jul	20.0	19.5	19.1	18.3	18.1	18.6	19.3	20.0	20.9	22.2	23.8	24.2	25.1	26.0	26.7	26.8	26.9	26.6	25.3	24.8	23.5	23.1	23.0	23.2	22.7	26.9
23-Jul	22.5	21.4	19.4	17.0	17.1	16.8	17.6	18.4	19.6	19.7	19.1	19.0	18.3	18.6	20.1	19.1	19.5	18.0	17.1	17.5	16.9	16.4	16.0	15.3	18.3	22.5
24-Jul	14.8	14.7	14.8	14.8	15.0	15.2	15.7	16.7	17.0	17.8	18.3	18.4	18.7	18.8	19.1	19.4	19.8	20.0	20.0	19.9	20.1	21.0	20.7	20.1	17.9	21.0
25-Jul	19.8	19.4	18.6	18.4	18.4	18.0	17.6	18.0	18.7	19.6	20.4	20.4	18.9	18.6	19.3	19.6	19.3	19.5	19.2	18.8	17.8	16.0	14.7	13.7	18.4	20.4
26-Jul	12.8	12.4	12.1	12.0	11.9	11.5	11.4	11.2	11.5	11.4	11.5	10.9	12.7	14.2	16.8	17.7	18.0	18.3	18.1	17.6	15.9	15.0	14.4	12.9	13.8	18.3
27-Jul	12.3	12.4	12.3	12.8	12.7	13.4	14.8	14.9	15.5	15.7	16.0	16.6	17.3	18.3	18.6	18.1	18.0	17.8	17.5	17.0	16.6	16.6	16.8	16.3	15.8	18.6
28-Jul	16.3	16.0	16.0	15.7	15.6	15.4	15.7	16.7	18.1	20.4	21.1	21.3	22.0	23.3	24.2	23.2	22.7	22.0	21.7	21.7	20.1	19.1	18.1	17.9	19.4	24.2
29-Jul	18.0	17.7	15.3	15.2	15.2	14.5	14.4	14.8	15.0	15.2	15.7	15.5	16.1	16.7	17.1	17.0	16.9	16.5	16.5	16.6	16.4	15.9	15.7	15.7	16.0	18.0
30-Jul	15.5	15.0	14.6	14.7	15.1	14.8	14.5	14.3	14.7	16.5	19.0	20.3	21.9	22.4	22.5	22.7	22.9	23.1	22.7	21.5	20.1	19.3	18.8	18.3	18.5	23.1
31-Jul	18.3	18.3	17.9	16.9	16.3	17.9	19.0	20.1	20.5	20.2	20.5	21.3	22.3	22.9	24.2	24.9	24.8	24.3	23.5	22.4	21.6	20.4	19.4	18.6	20.7	24.9
17.5 17.2 16.8 16.4 16.3 16.6 17.2 17.8 18.6 19.5 20.2 20.9 21.5 21.9 21.9 21.6 21.4 20.9 20.5 20.0 19.2 18.8 18.2 17.7																										Diurnal Average
22.5 22.3 21.9 21.4 20.9 21.1 21.1 22.3 23.5 24.6 25.2 26.7 27.9 28.8 28.1 27.0 26.9 26.6 26.1 25.4 23.9 24.4 23.0 23.2																										Diurnal Maximum



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Fort Chipewyan - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	0	0.00	0.00
10 - 20	443	59.54	59.54
> 20	301	40.46	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

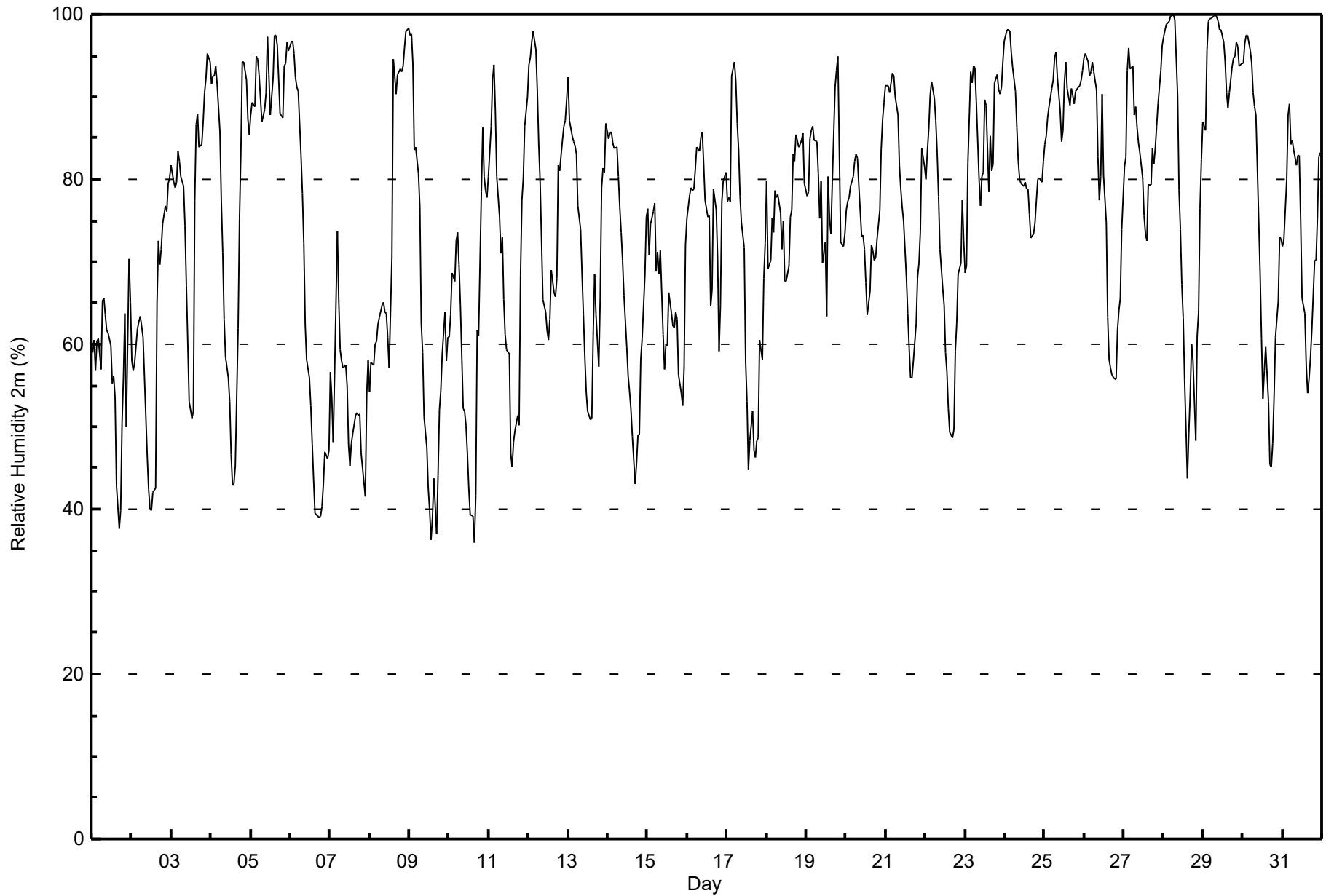
Fort Chipewyan - July 2026

Maximum Value: 100.0 % on Jul 28 07:00																			Maximum Daily Average: 95.2 % on Jul 29																			Hours in Service: 744	
Minimum Value: 35.9 % on Jul 10 16:00																			Minimum Daily Average: 53.3 % on Jul 7																			Hours of Data: 744	
Maximum Diurnal Average: 85.5 % at hour 5																			Minimum Diurnal Average: 62.5 % at hour 15																			Hours of Missing Data: 0	
Monthly Average: 73.91 %																			Percentiles: P ₁ = 39.2 P ₁₀ = 50.9 Q ₁ = 60.9 Median = 76.6 Q ₃ = 87.3 P ₉₀ = 94.0 P ₉₉ = 99.4																			Hours of Calibration: 0	
																																						Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jul	59.0	60.6	56.8	60.3	60.7	57.0	65.3	65.6	63.6	61.7	61.3	59.9	55.2	56.1	53.5	42.8	37.7	39.9	50.6	56.1	63.7	50.1	70.4	65.1	57.2	70.4													
2-Jul	58.0	56.8	57.8	61.8	62.7	63.3	62.2	60.8	56.2	46.5	42.4	40.1	39.8	42.1	42.6	64.9	72.6	69.7	71.5	74.5	76.8	76.1	79.4	80.1	60.8	80.1													
3-Jul	81.6	79.7	78.9	79.7	83.4	82.1	80.4	79.1	74.4	67.0	60.2	53.1	51.0	51.9	77.4	86.7	88.0	83.9	84.3	87.0	90.5	92.2	95.3	94.2	78.4	95.3													
4-Jul	91.6	92.6	92.6	93.8	91.5	85.8	77.3	71.2	63.0	58.6	55.9	53.0	46.6	42.9	43.1	45.3	61.8	75.2	83.3	94.3	94.3	92.0	87.3	85.5	74.1	94.3													
5-Jul	87.8	89.4	88.9	94.9	94.5	92.7	89.8	86.9	88.5	90.5	97.2	92.7	87.8	92.3	97.4	97.4	96.4	92.2	88.0	87.5	93.7	94.1	96.6	95.6	92.2	97.4													
6-Jul	96.6	96.8	95.2	92.3	91.1	90.6	83.0	78.4	72.2	62.4	58.2	55.9	52.5	48.0	43.6	39.4	39.3	39.0	39.1	40.3	43.1	46.9	46.0	47.1	62.4	96.8													
7-Jul	56.5	53.5	48.1	56.2	73.8	65.3	59.4	57.9	57.1	57.4	55.0	47.9	45.3	47.9	49.2	51.4	51.8	51.4	51.5	46.7	43.2	41.4	53.8	58.2	53.3	73.8													
8-Jul	54.3	57.9	57.5	60.0	60.3	62.4	63.2	64.7	65.0	64.0	63.8	60.9	57.2	70.4	94.5	92.6	90.4	92.7	93.3	93.0	93.7	95.9	97.9	98.2	75.2	98.2													
9-Jul	97.5	97.6	94.2	83.5	83.9	80.7	76.6	62.5	59.1	51.1	47.5	42.5	39.9	36.3	39.1	43.8	36.9	44.1	52.0	54.4	58.8	64.0	57.9	60.9	61.0	97.6													
10-Jul	60.9	63.6	68.7	67.6	72.5	73.5	69.7	64.7	52.2	51.8	50.2	46.7	42.5	39.4	39.1	35.9	41.7	61.7	61.0	78.5	86.2	80.4	78.7	77.7	61.0	86.2													
11-Jul	80.4	86.5	92.1	93.9	88.4	80.4	75.4	71.0	73.1	65.4	61.2	59.3	58.8	46.8	45.2	48.1	49.5	51.3	50.2	68.3	77.4	80.2	86.4	90.0	70.0	93.9													
12-Jul	93.8	94.8	96.7	98.0	95.7	90.9	84.5	79.9	72.9	65.5	63.9	61.7	60.5	63.1	69.0	66.3	65.8	67.9	81.7	81.0	84.8	86.5	87.2	89.7	79.2	98.0													
13-Jul	92.3	87.1	85.2	84.6	84.0	83.1	76.7	74.0	68.5	63.6	58.4	54.2	51.8	50.8	51.0	61.4	68.5	63.6	57.3	65.6	79.1	81.4	80.9	86.7	71.2	92.3													
14-Jul	84.9	85.6	85.8	84.4	83.7	83.9	80.3	76.6	73.6	70.2	65.9	59.7	56.1	54.3	52.0	48.8	43.1	45.5	48.9	48.9	58.1	60.6	68.5	75.3	66.4	85.8													
15-Jul	76.5	70.9	74.5	76.1	77.1	68.9	71.2	68.5	71.3	61.2	57.0	60.1	59.9	66.2	63.7	62.3	62.0	64.0	63.1	56.3	54.0	52.6	57.2	72.1	65.3	77.1													
16-Jul	75.3	78.2	79.0	78.6	78.7	81.1	84.0	83.5	85.1	85.8	81.8	77.5	75.5	75.6	64.6	66.6	78.8	76.2	70.4	59.2	64.8	77.3	79.8	80.9	76.6	85.8													
17-Jul	77.4	77.7	77.3	92.6	94.2	91.9	86.8	83.6	78.0	74.8	71.7	57.9	53.1	44.8	48.3	51.8	47.2	46.3	48.3	48.7	60.5	58.1	68.0	72.2	67.1	94.2													
18-Jul	79.9	69.2	70.2	75.2	73.5	78.7	77.8	78.1	75.9	71.6	74.9	67.6	67.5	69.4	75.5	76.3	83.0	82.1	85.4	83.8	84.3	84.7	85.7	79.5	77.1	85.7													
19-Jul	78.0	78.5	84.9	85.9	86.4	84.8	84.5	80.6	75.3	79.8	69.8	72.4	63.4	80.4	75.2	73.3	79.7	91.3	93.3	94.9	83.5	72.4	71.9	73.5	79.7	94.9													
20-Jul	76.3	77.2	77.7	79.1	80.3	82.2	83.1	82.6	79.2	73.1	73.2	71.4	67.4	63.5	66.5	72.0	71.3	70.1	70.4	72.8	76.3	83.7	87.3	89.3	76.1	89.3													
21-Jul	91.3	91.3	90.6	91.7	92.9	92.6	90.0	87.7	81.6	78.8	76.6	74.8	68.1	63.7	59.5	55.9	55.9	58.0	62.5	68.1	69.9	73.7	83.7	81.5	76.7	92.9													
22-Jul	80.0	83.4	86.1	90.2	91.9	89.9	87.1	83.2	77.9	71.5	66.8	64.8	59.0	56.6	52.2	49.3	48.6	49.7	59.2	62.6	68.6	69.8	77.5	72.6	70.8	91.9													
23-Jul	68.7	69.4	82.0	93.0	91.8	93.8	93.6	89.5	80.1	76.8	80.3	80.9	89.7	89.0	78.5	85.2	81.0	81.8	91.8	92.7	90.9	90.3	91.2	94.3	85.7	94.3													
24-Jul	96.8	98.1	98.2	98.0	95.5	93.6	90.7	86.3	82.1	80.0	79.5	79.2	79.7	78.8	78.8	75.8	72.8	73.3	74.8	77.5	80.0	80.2	79.6	82.2	83.8	98.2													
25-Jul	84.2	85.3	87.5	88.8	91.0	92.1	94.7	95.4	92.4	88.4	84.5	86.0	91.7	94.3	91.1	89.1	91.0	90.2	89.1	90.7	91.2	91.4	92.0	93.2	90.2	95.4													
26-Jul	94.7	95.3	94.3	92.5	93.1	94.3	93.0	90.8	82.6	77.4	80.4	90.3	80.5	74.7	63.3	58.2	57.1	56.3	55.8	55.7	61.7	64.1	65.7	73.8	76.9	95.3													
27-Jul	81.5	82.8	93.2	95.9	93.4	93.8	87.8	88.8	86.3	84.4	83.2	80.2	75.5	73.4	72.6	79.3	79.3	83.7	81.9	83.8	86.4	89.1	93.3	96.3	85.2	96.3													
28-Jul	97.3	98.1	98.8	99.2	99.9	99.9	100.0	99.3	90.1	78.6	74.0	67.4	63.1	55.6	43.7	49.1	53.9	60.1	58.0	48.2	61.0	63.9	76.5	82.3	75.7	100.0													
29-Jul	87.0	85.9	95.6	99.1	99.5	99.6	99.8	99.9	99.6	99.1	98.1	98.2	96.6	94.3	90.5	88.7	90.5	93.8	94.8	94.9	96.7	96.0	93.7	94.0	95.2	99.9													
30-Jul	94.1	96.4	97.4	97.5	95.7	94.1	90.5	88.9	87.7	81.5	68.7	60.6	53.3	56.7	59.7	53.1	45.4	45.0	48.0	53.7	60.9	65.3	73.1	72.7	72.5	97.5													
31-Jul	71.8	72.7	79.8	87.8	89.1	84.3	84.7	83.6	81.7	82.9	82.9	75.0	65.5	63.8	57.5	54.1	55.8	58.3	61.8	70.2	70.1	75.3	82.6	83.2	73.9	89.1													
80.8 81.1 82.8 84.9 85.5 84.1 82.0 79.5 75.7 71.7 69.2 66.2 63.1 62.7 62.5 63.4 64.4 66.4 68.4 70.6 74.3 75.2 78.9 80.6																										Diurnal Average													
97.5 98.1 98.8 99.2 99.9 99.9 100.0 99.9 99.6 99.1 98.1 98.2 96.6 94.3 97.4 97.4 96.4 93.8 94.8 94.9 96.7 96.0 97.9 98.2																										Diurnal Maximum													



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %
Fort Chipewyan - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	14	1.88	1.88
40 - 60	157	21.10	22.98
60 - 80	263	35.35	58.33
80 - 100	309	41.53	99.87

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Leaf Wetness (LW) - %

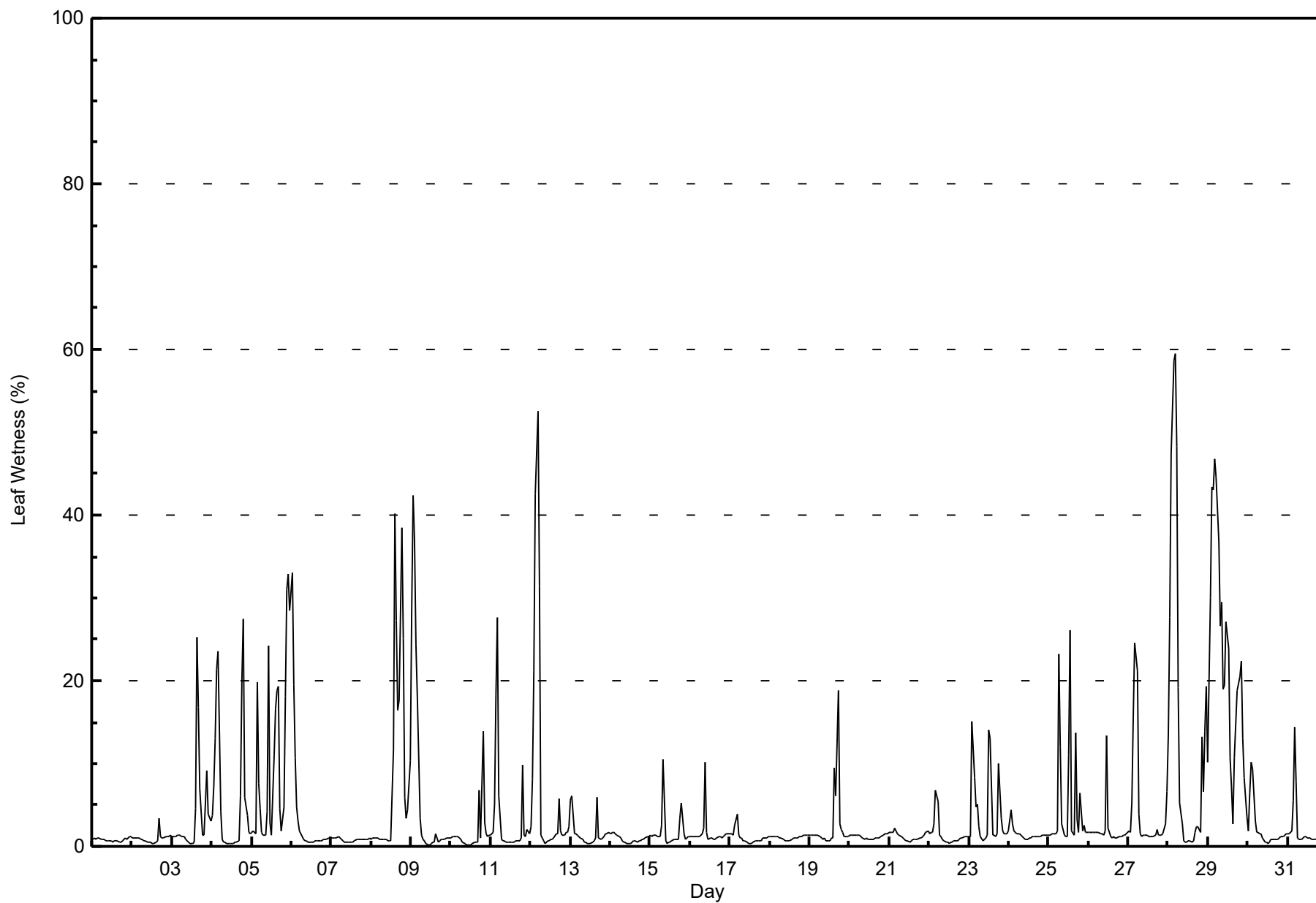
Fort Chipewyan - July 2026

Maximum Value: 59.5 % on Jul 28 05:00																			Maximum Daily Average: 22.4 % on Jul 29							Hours in Service: 744	
Minimum Value: 0.1 % on Jul 10 12:00																			Minimum Daily Average: 0.8 % on Jul 7							Hours of Data: 744	
Maximum Diurnal Average: 10.3 % at hour 5																			Minimum Diurnal Average: 1.7 % at hour 10							Hours of Missing Data: 0	
Monthly Average: 4.12 %																			Percentiles: P ₁ = 0.3 P ₁₀ = 0.6 Q ₁ = 0.8 Median = 1.2 Q ₃ = 1.8 P ₉₀ = 12.7 P ₉₉ = 43.2							Hours of Calibration: 0	
																										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Jul	0.9	0.9	0.9	1.0	1.0	0.9	0.9	0.9	0.7	0.7	0.7	0.6	0.6	0.6	0.7	0.6	0.5	0.6	0.7	0.8	0.9	0.9	1.1	1.1	0.8	1.1	
2-Jul	1.0	1.0	1.0	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.4	0.4	0.3	0.5	0.7	3.3	1.3	1.0	1.1	1.1	1.1	1.2	1.4	0.9	3.3	
3-Jul	1.3	1.2	1.2	1.4	1.3	1.4	1.2	1.1	0.9	0.6	0.5	0.3	0.4	0.5	4.6	25.2	16.7	7.0	1.4	1.3	5.1	9.2	3.8	3.1	3.8	25.2	
4-Jul	3.7	7.3	13.0	21.3	23.6	4.3	0.9	0.6	0.5	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.8	6.1	20.0	27.5	5.9	3.7	1.7	1.5	6.0	27.5	
5-Jul	1.7	1.8	1.5	19.8	7.6	4.7	1.6	1.3	1.4	4.3	24.2	2.9	1.3	11.0	16.6	18.9	19.3	4.5	1.9	4.8	18.1	31.0	33.0	28.5	10.9	33.0	
6-Jul	33.0	19.5	10.7	4.7	3.1	1.8	1.2	0.9	0.7	0.6	0.6	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.9	1.0	1.0	3.6	33.0	
7-Jul	1.1	1.1	1.0	1.1	1.2	0.9	0.8	0.7	0.5	0.5	0.5	0.4	0.5	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.8	1.2	
8-Jul	0.9	1.0	1.0	1.0	1.0	0.9	0.9	0.8	0.9	0.8	0.7	0.7	0.7	11.8	40.1	27.3	16.5	17.7	38.6	25.1	5.9	3.4	4.4	10.3	8.8	40.1	
9-Jul	28.8	42.5	36.8	24.4	18.0	3.4	1.3	0.8	0.6	0.4	0.2	0.2	0.3	0.4	0.5	1.5	0.6	0.7	0.8	0.9	0.9	1.0	1.0	1.1	7.0	42.5	
10-Jul	1.1	1.1	1.2	1.2	1.1	1.0	0.8	0.6	0.3	0.2	0.2	0.1	0.2	0.3	0.5	0.5	0.5	6.8	1.0	13.9	2.8	1.6	1.3	1.3	1.6	13.9	
11-Jul	1.3	1.6	5.1	18.4	27.6	6.2	0.8	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.8	1.0	9.9	1.3	1.2	2.0	1.5	3.5	27.6	
12-Jul	2.3	8.2	21.1	42.6	52.5	31.4	1.3	1.1	0.7	0.4	0.7	0.7	0.8	0.9	1.0	1.5	1.5	5.7	1.9	1.3	1.4	1.7	1.6	2.3	7.7	52.5	
13-Jul	5.6	6.2	1.6	1.5	1.4	1.2	1.0	0.8	0.6	0.5	0.4	0.4	0.4	0.6	0.6	1.1	6.0	0.9	0.9	1.0	1.2	1.4	1.5	1.7	1.6	6.2	
14-Jul	1.6	1.6	1.6	1.6	1.4	1.2	1.0	0.7	0.6	0.5	0.4	0.3	0.4	0.5	0.6	0.7	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.2	0.9	1.6	
15-Jul	1.3	1.2	1.3	1.3	1.2	1.1	1.1	2.5	10.5	0.6	0.4	0.5	0.5	0.7	0.8	0.8	0.9	0.9	3.4	5.3	1.5	0.9	1.0	1.2	1.7	10.5	
16-Jul	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.5	2.1	10.2	1.8	0.9	0.9	1.0	0.9	0.9	1.0	1.1	1.1	1.1	1.1	1.4	1.5	1.5	1.6	10.2	
17-Jul	1.5	1.5	1.4	2.6	3.9	1.4	1.1	0.9	0.7	0.6	0.5	0.3	0.3	0.4	0.5	0.6	0.6	0.6	0.7	0.7	0.9	1.0	1.1	1.1	1.0	3.9	
18-Jul	1.3	1.1	1.1	1.2	1.2	1.1	1.0	1.0	0.9	0.8	0.7	0.7	0.7	0.8	1.0	1.0	1.0	1.1	1.2	1.2	1.4	1.4	1.4	1.3	1.1	1.4	
19-Jul	1.3	1.3	1.4	1.4	1.4	1.3	1.2	1.0	0.8	0.9	0.7	0.7	0.7	1.1	1.0	9.5	6.2	18.8	2.7	2.0	1.6	1.3	1.2	1.3	2.5	18.8	
20-Jul	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.0	0.9	1.0	0.8	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.2	1.3	1.5	1.5	1.5	1.1	1.5	
21-Jul	1.7	1.6	1.7	2.1	1.9	1.6	1.4	1.2	0.9	0.8	0.7	0.6	0.6	0.7	0.8	0.8	0.8	0.9	1.0	1.1	1.2	1.3	1.6	1.8	1.2	2.1	
22-Jul	1.6	1.7	1.7	2.7	6.8	5.5	1.3	1.1	0.8	0.7	0.5	0.4	0.4	0.5	0.6	0.7	0.6	0.7	0.9	1.0	1.1	1.1	1.2	1.2	1.4	6.8	
23-Jul	1.1	1.1	15.0	8.3	4.8	5.1	2.4	1.1	0.7	0.8	1.0	1.4	14.1	13.1	1.4	1.3	1.2	1.5	10.0	3.5	1.9	1.5	1.5	1.6	4.0	15.0	
24-Jul	1.8	4.4	2.6	1.8	1.7	1.6	1.5	1.3	1.2	1.0	0.9	0.9	1.0	1.1	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.5	4.4	
25-Jul	1.4	1.4	1.5	1.5	1.5	1.9	23.3	12.0	2.8	1.3	1.3	1.2	11.0	26.1	1.8	1.4	13.8	3.3	1.7	6.4	1.9	2.6	1.7	1.6	5.2	26.1	
26-Jul	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.5	1.4	1.9	13.5	2.3	1.2	1.1	1.1	1.0	1.1	1.1	1.1	1.3	1.3	1.4	1.5	2.0	13.5	
27-Jul	1.8	1.7	5.3	15.6	24.5	21.1	3.9	1.5	1.2	1.3	1.4	1.3	1.2	1.1	1.2	1.3	1.3	2.0	1.4	1.3	1.4	1.5	2.7	6.6	4.3	24.5	
28-Jul	13.5	27.6	47.4	58.6	59.5	48.3	19.1	5.3	2.7	0.6	0.5	0.6	0.6	0.6	0.6	0.7	1.6	2.5	2.4	1.6	13.3	6.6	13.9	19.3	14.5	59.5	
29-Jul	10.2	30.0	43.3	43.1	46.8	44.6	36.7	26.6	29.5	19.0	19.4	27.2	23.9	10.6	7.0	2.8	10.6	18.9	19.7	20.5	22.4	13.1	8.3	3.6	22.4	46.8	
30-Jul	1.9	6.4	10.1	9.3	3.1	1.7	1.7	1.6	1.5	1.1	0.6	0.5	0.4	0.6	0.8	0.9	0.8	0.8	0.9	1.0	1.1	1.2	1.4	1.5	2.1	10.1	
31-Jul	1.5	1.5	1.9	5.5	14.4	7.8	1.0	0.9	0.8	1.0	1.2	1.1	1.0	1.0	0.9	0.9	0.9	0.9	1.0	1.1	1.2	1.3	1.5	1.5	2.2	14.4	
4.2 5.9 7.7 9.7 10.3 6.7 3.7 2.4 2.2 1.7 2.1 2.0 2.2 2.9 2.9 3.5 3.6 3.6 4.0 4.6 3.3 3.2 3.2 3.4																										Diurnal Average	
33.0 42.5 47.4 58.6 59.5 48.3 36.7 26.6 29.5 19.0 24.2 27.2 23.9 26.1 40.1 27.3 19.3 18.9 38.6 27.5 22.4 31.0 33.0 28.5																										Diurnal Maximum	



Wood Buffalo Environmental Association
Hourly Averages

Leaf Wetness (LW) - %
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Leaf Wetness (LW) - %
Fort Chipewyan - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 0.3	16	2.15	2.15
0.4 - 0.5	53	7.12	9.27
0.6 - 0.7	87	11.69	20.97
0.8 - 1.4	324	43.55	64.52
1.5 - 10	156	20.97	85.48
> 10	88	11.83	97.31

Total Number of Valid Hours: 744

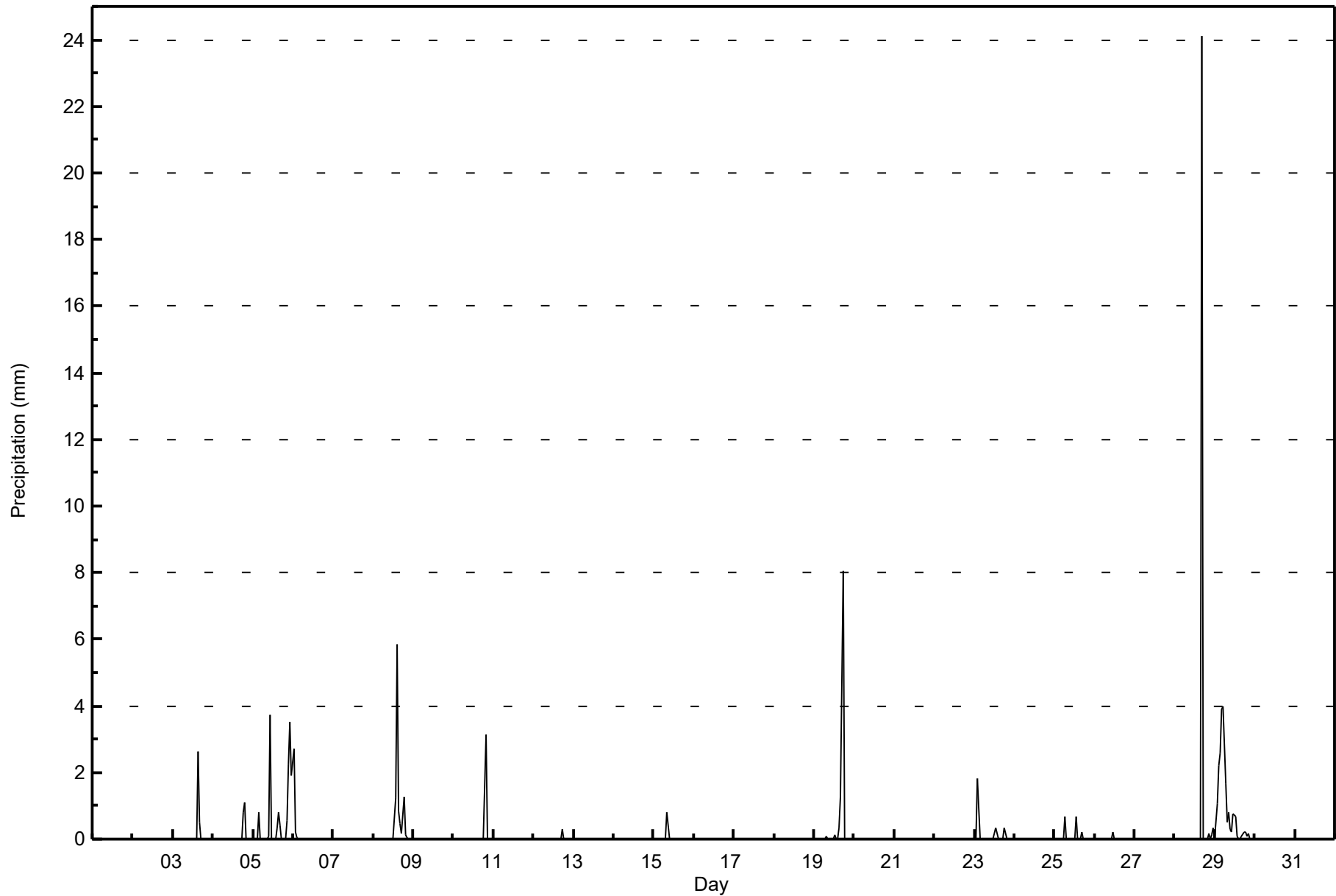
Total Number of Hours: 744

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Wood Buffalo Environmental Association
Hourly Averages

Precipitation (PC) - mm
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Precipitation (PC) - mm
Fort Chipewyan - July 2026

Concentration Ranges (mm)	Number of Hours	%	Cumulative %
0 - 0.3	708	95.16	95.16
0.4 - 0.5	4	0.54	95.70
0.6 - 0.7	4	0.54	96.24
0.8 - 1.4	12	1.61	97.85
1.5 - 10	15	2.02	99.87
> 10	1	0.13	100.00

Total Number of Valid Hours: 744

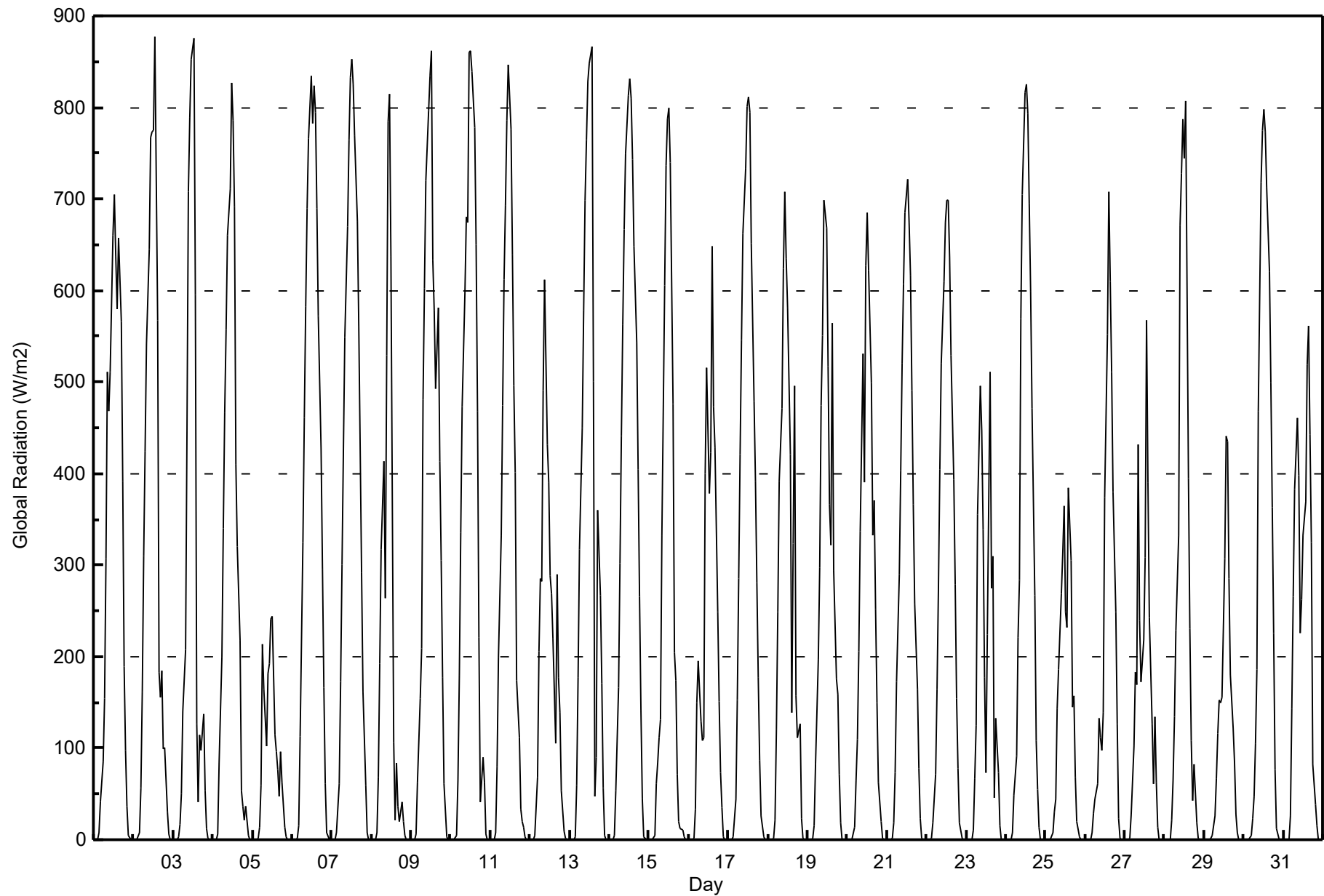
Total Number of Hours: 744

Maximum Value: 877.4 W/m2 on Jul 2 14:00																				Maximum Daily Average: 350.6 W/m2 on Jul 7					Hours in Service: 744				
Minimum Value: 0.0 W/m2 on Jul 1 02:00																				Minimum Daily Average: 80.1 W/m2 on Jul 5					Hours of Data: 744				
Maximum Diurnal Average: 629.0 W/m2 at hour 12																				Minimum Diurnal Average: 0.0 W/m2 at hour 1					Hours of Missing Data: 0				
Monthly Average: 236.82 W/m2																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 1.7 Median = 115.1 Q ₃ = 428.2 P ₉₀ = 690.5 P ₉₉ = 851.1					Hours of Calibration: 0				
																				Percent Operational Time: 100.0									
Day	Hourly Period Ending At (MST)																				Daily Average	Daily Maximum							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			21	22	23	24			
1-Jul	0.0	0.0	0.6	8.2	40.8	85.9	153.6	307.4	511.5	467.9	511.6	661.2	704.6	637.5	579.5	657.8	565.5	392.5	189.1	97.5	36.8	5.1	0.2	0.0	275.6	704.6			
2-Jul	0.0	0.0	0.1	7.1	57.2	161.1	309.5	423.4	542.3	645.8	767.0	773.4	774.3	877.4	567.7	183.7	154.9	184.1	98.4	100.2	30.4	6.5	0.0	0.0	277.7	877.4			
3-Jul	0.0	0.0	0.0	2.9	16.8	50.4	140.5	206.8	446.9	708.2	788.8	852.9	875.0	595.6	126.7	41.1	114.1	97.9	137.3	53.3	11.8	1.8	0.0	0.0	219.5	875.0			
4-Jul	0.0	0.0	0.2	6.5	83.3	200.3	339.8	467.4	557.5	659.9	710.7	827.1	785.0	690.7	410.5	320.3	218.2	54.0	37.0	21.1	36.1	4.0	0.0	0.0	267.9	827.1			
5-Jul	0.0	0.0	0.0	1.4	13.9	59.9	212.9	164.6	101.6	181.2	192.8	240.5	244.1	113.7	96.8	75.9	47.5	95.5	63.3	13.7	3.6	0.5	0.0	0.0	80.1	244.1			
6-Jul	0.0	0.0	0.0	1.3	14.9	112.4	324.2	460.3	583.4	690.0	766.5	834.9	782.0	823.0	794.9	689.8	572.5	426.4	295.6	165.7	60.5	7.1	0.2	0.0	350.2	834.9			
7-Jul	0.0	0.0	0.3	7.4	61.7	172.2	300.9	427.0	548.4	669.6	764.7	833.3	853.0	825.1	768.2	675.3	560.3	427.8	291.6	161.6	59.3	7.7	0.2	0.0	350.6	853.0			
8-Jul	0.0	0.0	0.2	7.4	69.3	192.6	318.0	413.8	264.1	529.9	784.1	815.3	637.2	106.8	21.2	83.2	36.0	19.8	40.6	19.9	5.1	0.3	0.0	0.0	181.9	815.3			
9-Jul	0.0	0.0	0.1	5.5	63.2	153.5	208.7	480.4	603.2	720.6	795.8	834.3	862.5	633.6	578.1	492.9	581.2	413.5	305.2	176.7	60.4	3.6	0.0	0.0	332.2	862.5			
10-Jul	0.0	0.0	0.1	5.2	65.4	179.3	335.0	472.7	598.6	680.6	673.8	860.8	861.8	838.3	778.4	649.4	468.3	221.6	41.6	89.5	63.2	6.0	0.1	0.0	328.7	861.8			
11-Jul	0.0	0.0	0.1	7.2	78.6	199.1	333.2	474.6	611.6	692.4	785.5	845.9	777.0	639.3	496.3	400.6	174.4	111.1	33.9	19.2	13.8	2.9	0.0	0.0	279.0	845.9			
12-Jul	0.0	0.0	0.0	5.2	69.1	205.6	285.8	282.0	490.5	611.3	432.1	390.0	288.8	268.6	219.4	105.4	289.6	177.6	139.3	53.7	9.8	1.8	0.0	0.0	180.2	611.3			
13-Jul	0.0	0.0	0.0	2.8	59.3	177.4	317.3	449.6	578.2	698.0	763.5	828.2	848.8	866.6	499.8	47.8	89.8	360.7	267.4	171.0	56.4	4.1	0.0	0.0	295.3	866.6			
14-Jul	0.0	0.0	0.0	3.9	53.8	166.6	301.5	440.6	562.4	666.5	749.6	812.5	831.3	809.9	742.4	648.9	543.6	404.0	265.1	141.8	44.3	3.7	0.1	0.0	341.4	831.3			
15-Jul	0.0	0.0	0.0	4.6	60.6	83.2	110.7	131.4	332.1	605.0	736.4	786.7	799.4	739.1	475.4	205.1	174.1	71.1	20.2	12.6	11.0	2.5	0.0	0.0	223.4	799.4			
16-Jul	0.0	0.0	0.0	2.2	33.2	149.4	195.4	129.8	107.9	111.7	399.1	515.5	378.4	423.1	649.0	473.4	429.3	249.2	150.8	72.9	35.0	3.8	0.0	0.0	187.9	649.0			
17-Jul	0.0	0.0	0.0	3.1	43.6	151.9	285.8	421.4	545.8	662.5	733.0	800.9	811.4	795.1	651.2	478.3	391.3	280.2	177.1	86.7	26.7	2.7	0.0	0.0	306.2	811.4			
18-Jul	0.0	0.0	0.0	1.9	21.5	120.0	248.5	391.8	472.0	623.4	707.5	634.7	581.6	420.8	138.8	322.7	495.3	157.6	111.7	126.0	22.5	2.2	0.0	0.0	233.4	707.5			
19-Jul	0.0	0.0	0.0	1.7	15.6	81.6	196.8	297.4	474.2	550.3	698.7	668.4	517.2	365.8	321.3	564.9	294.1	175.6	159.2	71.7	18.0	0.6	0.0	0.0	228.0	698.7			
20-Jul	0.0	0.0	0.0	0.7	13.3	64.0	109.3	205.6	337.6	530.8	390.9	627.3	685.6	623.0	498.2	332.6	370.5	251.2	149.4	62.7	19.5	1.5	0.0	0.0	219.7	685.6			
21-Jul	0.0	0.0	0.0	1.2	18.0	73.7	171.9	289.5	402.7	520.5	607.3	685.1	722.3	674.1	615.8	491.2	365.7	257.4	165.1	77.0	22.2	1.5	0.0	0.0	256.8	722.3			
22-Jul	0.0	0.0	0.0	1.2	17.6	71.8	164.9	274.2	404.9	520.8	610.4	674.0	698.9	698.6	635.4	529.8	393.6	279.2	153.3	77.3	17.9	1.1	0.0	0.0	259.4	698.9			
23-Jul	0.0	0.0	0.0	0.2	10.4	66.4	124.8	354.8	495.2	446.5	339.2	177.1	73.0	224.5	511.6	274.6	309.2	46.0	132.9	72.5	15.6	0.4	0.0	0.0	153.1	511.6			
24-Jul	0.0	0.0	0.0	0.3	7.3	49.4	92.0	221.9	284.0	569.7	704.3	816.3	824.8	793.9	696.0	599.3	471.2	267.6	109.0	55.5	14.0	0.7	0.0	0.0	274.1	824.8			
25-Jul	0.0	0.0	0.0	0.3	7.0	30.0	43.8	142.9	186.2	268.1	312.6	364.6	248.6	231.1	385.0	305.7	144.2	157.0	68.4	19.7	2.6	0.2	0.0	0.0	121.6	385.0			
26-Jul	0.0	0.0	0.0	0.3	8.3	28.7	43.9	60.7	133.2	111.2	97.8	139.3	373.8	552.4	708.4	610.4	511.7	380.0	248.3	126.9	23.2	0.9	0.0	0.0	173.3	708.4			
27-Jul	0.0	0.0	0.0	1.4	27.7	102.7	182.5	168.7	431.4	238.8	171.9	217.6	307.4	567.9	390.6	242.3	126.2	60.4	133.5	63.3	13.1	0.5	0.0	0.0	143.6	567.9			
28-Jul	0.0	0.0	0.0	0.6	21.1	64.9	133.5	228.1	332.2	671.9	727.1	787.3	743.8	807.5	394.5	230.1	108.0	42.8	82.5	18.0	1.2	0.0	0.0	0.0	224.8	807.5			
29-Jul	0.0	0.0	0.0	0.0	1.1	5.2	25.7	67.3	116.1	152.8	150.3	155.4	306.0	440.4	434.3	285.9	179.8	121.4	83.7	26.7	8.0	0.2	0.0	0.0	106.7	440.4			
30-Jul	0.0	0.0	0.0	0.2	5.0	22.2	48.0	105.8	186.3	468.0	718.4	774.9	797.1	773.5	712.5	620.5	499.1	362.6	225.3	75.8	12.3	0.5	0.0	0.0	267.0	797.1			
31-Jul	0.0	0.0	0.0	0.4	26.5	143.2	265.9	383.4	461.1	398.3	226.2	262.5	332.0	368.8	519.1	561.7	442.4	325.2	82.0	38.3	15.1	0.3	0.0	0.0	202.2	561.7			
																								Diurnal Average					
																								Diurnal Maximum					



Wood Buffalo Environmental Association
Hourly Averages

Global Radiation (GR) - W/m²
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Global Radiation (GR) - W/m2
Fort Chipewyan - July 2026

Concentration Ranges (W/m2)	Number of Hours	%	Cumulative %
0 - 20	256	34.41	34.41
21 - 100	99	13.31	47.72
101 - 300	140	18.82	66.53
301 - 600	134	18.01	84.54
601 - 900	115	15.46	100.00
> 900	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Fort Chipewyan - July 2026

Maximum Speed: 40 km/h on Jul 15 20:00										Maximum Daily Speed Average: 20.7 km/h on Jul 2										Hours in Service: 744						
Minimum Speed Value: 1 km/h on Jul 10 20:00										Minimum Daily Speed Average: 2.6 km/h on Jul 28										Hours of Data: 743						
Maximum Diurnal Speed Average: 4.1 km/h at hour 12										Minimum Diurnal Speed Average: 1.3 km/h at hour 18										Hours of Missing Data: 1						
Monthly Average Velocity: 2.2 km/h 145.6 deg										Percentiles: P ₁ = 2 P ₁₀ = 5 Q ₁ = 9 Median = 12 Q ₃ = 16 P ₉₀ = 22 P ₉₉ = 31										Percent Operational Time: 99.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jul	E21	E22	ESE20	ESE16	ESE21	ESE20	ENE19	ENE17	E21	ENE17	E15	E21	E21	E20	E21	ENE24	ENE24	ENE26	ENE24	E19	E9	SE12	S4	SE10	E17.4	ENE26
2-Jul	SE20	SE23	SE21	SE21	SSE21	SSE16	SSE16	SSE17	SE20	SE27	SE32	SE33	SE32	SSE27	S22	SW29	SSW27	S23	S18	S16	SE13	SE21	SSE19	SSE20	SSE20.7	SE33
3-Jul	SSE18	SSE20	SSE16	SSE22	SSE20	SSE18	SSE19	S24	SSE22	SSE24	S22	S19	SSE19	SSW21	W21	SW16	WSW6	SE14	SE18	SSE18	SSE17	SSE16	S12	SSW13	SSE16.2	S24
4-Jul	SSW11	S11	S9	S7	SSW11	SSW9	SSW8	SSW7	S6	SSW9	SSW10	SSE9	SE7	SSE6	SSW6	SW6	WSW21	WSW20	W16	WNW9	WNW8	W9	W9	WSW9	SW7.3	WSW21
5-Jul	WSW10	WSW9	WSW9	WSW14	WSW14	WSW13	SW16	SW12	SSW12	WSW8	WNW16	WNW16	WNW18	WNW16	WNW17	NW19	NW20	NW20	NW20	NW22	NW16	NW16	NW19	NW17	WNW12.6	NW22
6-Jul	NW16	WNW13	WNW14	WNW13	WNW11	WNW12	NW12	WNW11	NW12	NW13	WNW15	WNW13	WNW13	WNW12	WNW13	WNW15	WNW11	NNW10	NNW8	NNW7	N5	N7	NNE8	NNE9	NW10.4	NW16
7-Jul	ENE3	ENE5	ENE5	ENE3	UO	E2	SE6	ESE8	E8	E10	E11	E13	E14	E17	E20	E24	E27	ENE30	ENE28	ENE30	ENE30	ENE28	ENE28	E31	E16.0	E31
8-Jul	E34	E31	E24	E28	E30	E28	E23	E29	E32	E30	E30	ENE31	ENE30	ESE21	S15	SSE16	SSW18	S4	SE15	ESE18	SSE10	SW14	W7	WSW3	E17.1	E34
9-Jul	SSE10	S14	SSW16	SW12	SW12	SSW16	SSW13	SW20	SW19	WSW18	SSW14	SSW18	SW19	SW18	SW10	SW11	SSE5	E9	E15	E18	E23	E24	SE15	SW20	SSW9.8	E24
10-Jul	SW12	S14	S23	S24	SSW21	SSW18	SSW18	SSW18	SW17	SSW13	SW9	SW7	SW12	WSW11	WNW10	W8	SSE11	S23	SE14	NNW1	NE10	E21	E26	ESE23	S9.9	E26
11-Jul	ESE13	SE8	S8	SSW6	SSW5	SSW3	S4	ESE5	SE9	ESE9	ESE9	E10	E10	S3	W7	W8	WNW6	NW5	WNW3	SSE13	SSE21	SSE14	SSE15	S11	SSE5.5	SSE21
12-Jul	SSW10	S10	S8	SSW8	SSW8	SSW10	SSW8	SW9	SSW10	SSW10	SSW12	SSW15	SSW20	S20	SSW23	SW24	WSW14	WSW14	WSW12	SSW13	SSW12	SW16	SW12	SW12	SSW12.3	SW24
13-Jul	SW12	W14	W15	W16	W13	W15	W16	W16	W13	WSW15	WSW16	W17	WSW17	W18	WSW16	W16	WSW15	W10	W7	SSW10	SW12	WSW11	WSW11	WSW11	WSW13.5	W18
14-Jul	WSW13	WSW12	W14	W14	W16	W12	W12	WSW11	WSW14	WSW15	W15	WSW13	WSW14	WSW15	WSW14	W10	WSW10	SW11	SW8	SW4	SSE3	E4	E5	E7	WSW9.5	W16
15-Jul	E7	SE9	SE7	SE7	SSE8	SSE8	SE9	SSW8	E6	SE8	SSE11	ESE11	ESE13	E14	E11	E9	E10	ESE4	SSW10	S40	S24	S9	SW3	SSE7	SE8.2	S40
16-Jul	SE10	ESE17	ESE18	SE17	SE16	SE14	SSE10	S9	SSE5	NNE2	E6	ESE8	ESE5	ESE5	SSE5	E9	E12	E12	E10	ENE7	ENE5	ENE5	ENE5	ENE7	ESE8.1	ESE18
17-Jul	ENE5	ENE5	ENE9	ENE8	ENE9	E12	ESE9	E11	E8	E8	ESE8	SW7	NW9	NNW9	NNW11	NNW11	NNW11	NNW9	N6	NNE5	ENE5	ENE7	ENE11	ENE11	NE4.6	E12
18-Jul	ENE13	E21	E21	E19	ENE19	E25	E26	E29	E29	E26	E23	E19	E19	E16	E11	ESE4	E9	E3	E4	NE4	E7	E7	ENE13	ENE25	E16.3	E29
19-Jul	ENE30	ENE27	ENE21	ENE21	ENE18	E16	E10	NNE11	NE15	ENE24	NE17	ENE18	ENE16	E20	E16	ESE11	ESE12	E19	SW2	WNW6	NW13	NNW18	NNW19	NNW16	ENE12.3	ENE30
20-Jul	NNW14	NW13	NNW14	NNW11	NNW11	NW10	NNW11	NNW8	NE5	E10	E14	ESE10	ESE9	ESE9	SE7	SW10	SW10	SW10	WSW9	WSW8	WSW9	WSW10	W11	W10	WNW2.9	E14
21-Jul	W9	W7	W8	W9	W10	W10	W11	W10	W12	W13	WSW13	WSW13	WSW13	WSW13	W14	W11	W10	W9	WSW8	WSW7	WSW8	SW6	SSW7	SSW5	WSW9.4	WSW14
22-Jul	SSW5	SW8	SSW10	SW8	WSW8	WSW9	WSW9	W11	W10	W10	SW12	SW13	SW11	SSW9	SSW9	SW8	SSW6	SSE3	SE5	ESE4	ENE6	E7	ESE15	ESE18	SSW5.3	ESE18
23-Jul	SE15	SSW13	WNW13	NNE9	NE3	WNW7	WNW11	WNW10	W9	W15	WNW15	WNW9	WSW10	W13	W18	W19	W22	NW12	WNW11	NW13	NW13	NW13	NW15	NW15	WNW9.7	W22
24-Jul	NW14	NW10	NW7	NW6	NNW6	N5	N5	NE9	ENE14	E15	E18	E21	E23	E25	ENE24	ENE25	ENE23	ENE23	NE20	NE19	NE19	E30	E32	E30	ENE14.4	E32
25-Jul	ENE27	ENE17	NE12	ENE18	ENE18	NE12	NE11	NE9	NE5	NNW3	SW4	ESE9	E14	E12	E11	E11	E9	E11	ENE12	ENE10	NNW11	NNW14	NNW15	NNW15	ENE9.1	ENE27
26-Jul	NNW17	NNW17	NNW16	NNW16	NW13	NW13	NW14	NNW14	NW12	NW11	NW10	NNW10	NNW11	W13	WNW9	NW9	NW7	WNW7	NW5	NNW5	N6	N8	N8	NNW7	NW10.0	NNW17
27-Jul	NNW3	N6	ENE2	SW2	WSW7	SW6	S4	SE10	ESE12	E16	E14	ESE13	ESE15	E16	ENE16	ENE19	ENE17	ENE12	ENE10	ENE10	NE4	N3	SW5	WSW5	E6.3	ENE19
28-Jul	WSW7	W8	SW6	SSW6	SW9	WSW9	W4	SW7	SW7	S7	SE6	ESE11	ESE11	SE10	SSW9	ESE8	E9	E9	NE12	NE9	ENE5	NE9	ENE9	ENE15	ESE2.6	ENE15
29-Jul	ENE17	SSE10	NNW5	NNW8	NNE13	NNE13	NNW6	NNW10	NNW11	NNW10	NW9	NNW12	NNW12	NNW13	NNW14	NNW13	NNW12	NNW11	WNW8	W10	W9	W11	W15	WNW13	NW7.8	ENE17
30-Jul	WNW11	WNW8	WNW8	W10	WNW12	WNW10	NW12	WNW12	WNW9	W9	NNW10	NNW10	WSW9	WSW11	WSW13	WSW12	W10	W7	SW7	SW5	SSW2	SSW1	SE2	SSE3	W7.4	WSW13
31-Jul	SE3	ESE3	ESE4	SSE3	SW5	SSW2	S4	S4	ESE5	ESE9	E7	ESE7	SSE10	SSE9	SSE11	S13	S14	S14	SSE8	S9	S14	S15	S14	SSW12	SSE7.2	S15
ESE3.2 SE3.5 SSE2.2 SSE2.1 S2.3 S1.9SSW1.6 S1.8 SE2.6 SE3.1 SE3.3 SE4.1 SE3.9 SSE3.8SSW3.1 SW2.7SSW1.9 SE1.3 ESE1.8 SE2.3 ESE2.3 ESE2.6 E1.8 ESE2.0																								Diurnal Average		
E34 E31 E24 E28 E30 E28 ENE26 E29 E32 E30 SE32 SE33 SE32 SSE27 ENE24 SW29 SSW27 ENE30 ENE28 S40 ENE30 E30 E32 E31																								Diurnal Maximum		
UO - Unstable Operation																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

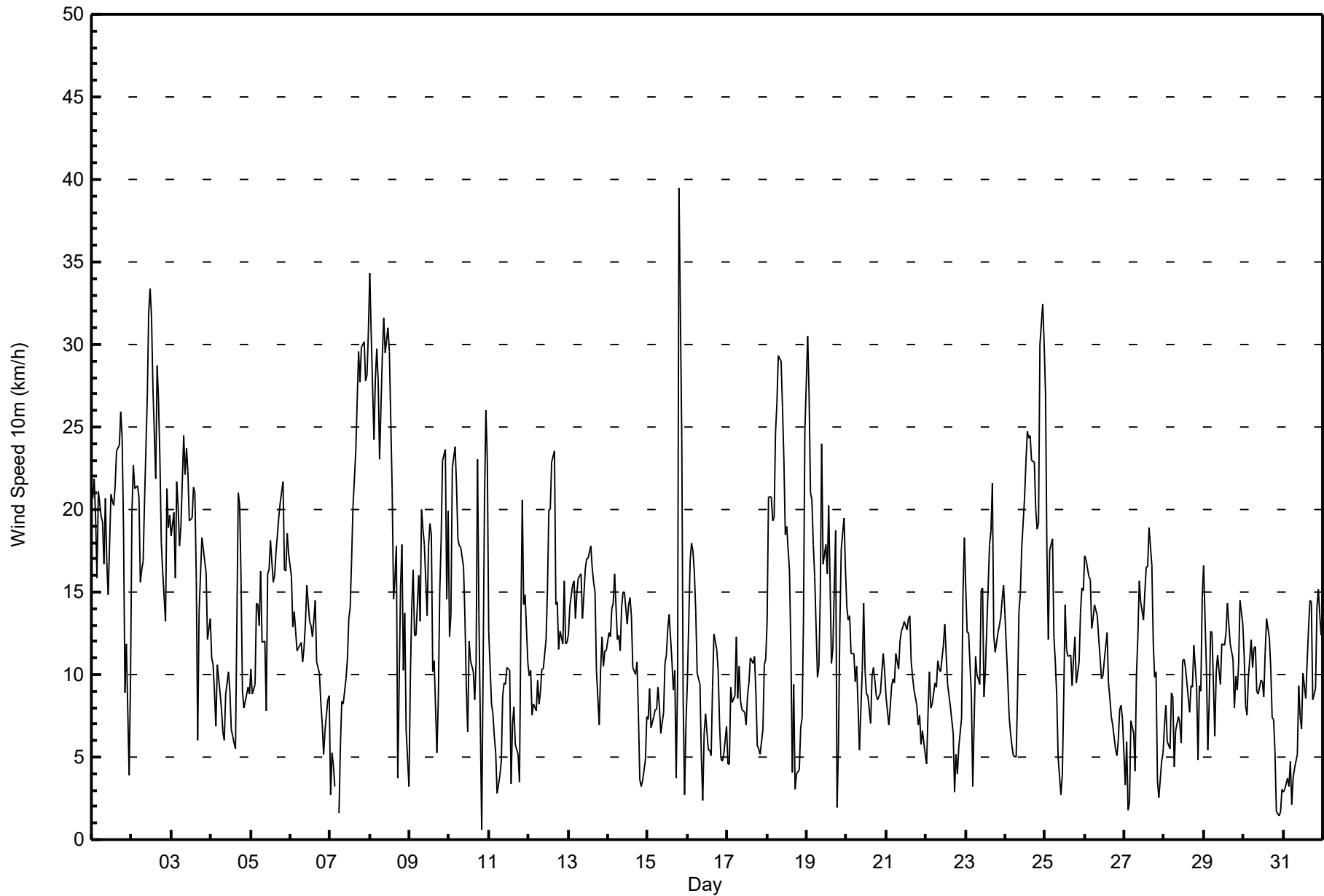
Wind Speed 10m (WS10) - km/h
Fort Chipewyan - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 15 km/h on Jul 15 20:00																		Hours in Service: 744 Hours of Data: 743 Hours of Missing Data: 1 Hours of Calibration: 0 Percent Operational Time: 99.9								
Minimum Value: 1 km/h on Jul 31 00:00																										
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 3 Q ₃ = 4 P ₉₀ = 5 P ₉₉ = 7																										
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	5	2	3	2	2	2	5	3	2	2	2	3	2	2	3	4	3	3	3	4	3	3	3	3	6	6
2-Jul	2	3	3	2	2	2	3	3	3	4	4	5	5	4	4	7	5	6	3	5	4	2	2	4	7	7
3-Jul	3	3	3	4	3	2	4	3	4	4	3	4	4	7	5	4	3	3	2	3	2	3	2	3	7	7
4-Jul	2	2	2	2	2	2	1	1	1	2	2	2	3	2	3	2	9	6	4	2	2	2	3	2	9	9
5-Jul	2	2	2	4	3	3	4	4	3	4	5	5	5	5	5	6	7	7	7	7	5	5	5	5	7	7
6-Jul	5	3	3	4	3	3	4	3	4	4	4	4	4	4	5	5	4	4	3	3	1	1	1	3	5	5
7-Jul	2	1	1	2	UO	1	2	1	1	1	1	1	1	2	2	2	2	4	5	4	4	4	3	4	5	5
8-Jul	3	3	4	2	2	2	2	4	3	3	3	4	4	6	7	5	4	4	3	4	2	3	3	3	7	7
9-Jul	2	3	2	3	3	2	2	4	4	4	3	4	5	5	3	6	2	5	2	2	2	3	3	8	8	
10-Jul	4	4	3	3	3	3	2	2	3	3	4	2	3	3	3	3	6	9	2	5	2	5	2	4	9	9
11-Jul	2	2	1	1	1	1	1	2	1	2	1	1	2	2	2	2	2	1	1	10	2	3	3	2	10	10
12-Jul	2	2	1	1	2	2	2	2	2	2	2	3	3	5	4	4	4	4	3	2	2	3	3	3	5	5
13-Jul	2	3	4	4	3	4	4	4	3	4	4	4	4	5	4	4	4	3	3	2	3	2	2	2	5	5
14-Jul	2	3	3	3	3	4	4	3	4	4	3	3	4	4	4	3	3	3	2	2	1	1	1	1	4	4
15-Jul	1	2	2	1	2	2	2	3	4	4	2	3	2	2	2	2	5	2	8	15	6	10	2	3	15	15
16-Jul	2	2	2	2	2	3	2	2	1	2	2	1	1	2	1	3	2	2	1	2	1	1	1	2	3	3
17-Jul	2	2	1	1	1	1	2	3	1	1	1	2	3	4	4	4	3	3	2	1	1	1	1	1	4	4
18-Jul	3	2	2	2	2	3	2	2	2	2	2	2	1	2	5	1	2	2	2	1	4	2	7	4	7	7
19-Jul	4	3	3	3	5	3	2	3	6	5	5	7	6	3	4	3	2	13	2	2	5	6	7	5	13	13
20-Jul	5	4	4	3	3	2	3	2	2	3	2	1	1	1	1	2	2	2	2	2	2	2	2	2	5	5
21-Jul	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	2	2	2	1	1	1	1	1	3	3
22-Jul	1	2	2	1	1	2	2	2	2	3	2	3	2	1	1	2	1	1	1	1	1	1	4	2	4	4
23-Jul	2	3	4	4	2	4	3	3	3	4	5	3	3	3	5	5	6	6	4	4	5	4	5	5	6	6
24-Jul	4	4	2	2	2	1	1	3	2	2	2	2	2	2	3	3	3	4	4	3	3	4	4	3	4	4
25-Jul	4	5	3	3	3	2	2	2	3	1	2	5	1	2	1	1	2	2	2	2	5	4	6	5	6	6
26-Jul	5	5	5	5	5	4	5	5	5	4	3	3	3	4	4	4	3	3	2	2	1	1	1	1	5	5
27-Jul	2	2	1	2	1	1	2	2	2	2	2	2	2	2	2	2	2	3	2	2	1	2	1	1	3	3
28-Jul	1	1	1	1	2	2	2	2	2	2	2	3	2	2	2	2	1	2	2	3	3	3	2	3	3	3
29-Jul	2	6	1	2	4	6	2	3	4	4	3	3	3	4	4	4	3	3	2	3	3	2	3	3	6	6
30-Jul	3	2	2	2	3	2	3	3	3	3	3	3	3	4	3	3	3	2	2	1	2	1	1	1	4	4
31-Jul	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	3	4	3	1	1	3	3	2	2	4	4
5 6 5 5 5 6 5 5 6 5 5 7 6 7 7 7 9 13 8 15 6 10 7 8																										
Diurnal Maximum																										
UO - Unstable Operation																										



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Fort Chipewyan - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Fort Chipewyan - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	80	10.77	10.77
6 - 11	288	38.76	49.53
12 - 19	260	34.99	84.52
20 - 28	91	12.25	96.77
29 - 38	23	3.10	99.87
> 38	1	0.13	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Fort Chipewyan - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	4	2	4	13	5	9	3	7	7	7	8	2	1	1	2	5	80
6 - 11	6	4	6	13	33	17	15	15	12	27	22	29	32	27	10	20	288
12 - 19	0	2	7	20	26	12	10	17	12	19	19	27	26	27	23	13	260
20 - 28	0	0	1	18	27	5	7	9	9	5	3	2	2	0	3	0	91
29 - 38	0	0	0	6	13	0	3	0	0	0	1	0	0	0	0	0	23
> 38	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Totals	10	8	18	70	104	43	38	48	41	58	53	60	61	55	38	38	743

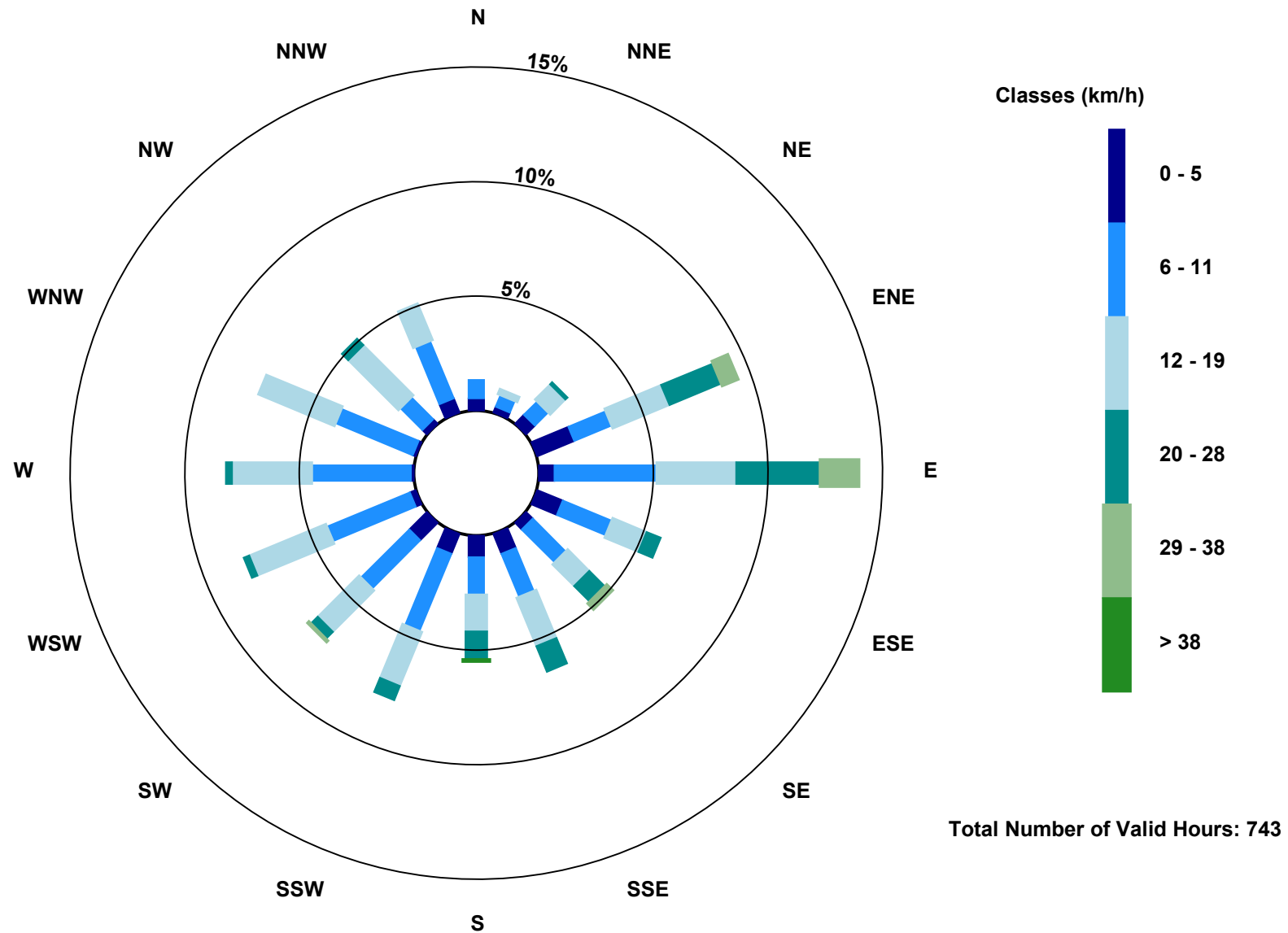
Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Fort Chipewyan





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Fort Chipewyan - July 2026

Direction of Maximum Speed: 181 deg on Jul 15 20:00 Direction of Maximum Daily Speed Average: 157.7 deg on Jul 2																				Hours in Service: 744					
Direction of Minimum Speed: 333 deg on Jul 10 20:00 Direction of Minimum Daily Speed Average: 2.6 deg on Jul 28																				Hours of Data: 743					
																				Hours of Missing Data: 1					
Monthly Average Direction: 145.6 deg																				Percent Operational Time: 99.9					
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	87	91	113	108	121	102	69	68	83	77	89	85	81	81	83	77	72	72	76	82	97	146	170	125	88.3
2-Jul	140	143	142	143	151	155	167	150	145	141	140	141	144	168	171	214	194	188	182	191	141	136	154	158	157.7
3-Jul	148	153	160	166	158	147	163	171	164	168	171	172	168	193	260	235	243	141	143	151	148	154	176	192	168.7
4-Jul	199	189	188	185	196	210	212	196	177	209	211	147	144	153	201	231	246	241	261	297	299	274	273	258	222.1
5-Jul	249	257	240	245	242	241	224	224	194	244	301	299	300	295	293	303	317	318	311	308	313	310	309	308	285.8
6-Jul	308	292	291	294	291	291	310	303	307	306	293	302	292	292	289	288	303	334	331	342	355	359	14	16	306.9
7-Jul	77	78	59	70	UO	83	145	108	100	91	92	97	94	91	89	85	79	72	65	66	70	70	77	81	79.9
8-Jul	84	86	84	82	83	83	79	80	80	79	79	78	71	110	184	158	197	176	125	116	158	216	267	254	94.8
9-Jul	167	188	213	233	224	210	211	217	224	237	211	209	214	233	220	227	166	99	96	95	92	98	146	224	193.4
10-Jul	218	183	178	181	192	199	194	197	218	208	214	219	225	254	282	263	162	172	142	333	50	88	97	108	180.0
11-Jul	123	138	169	209	200	199	191	112	128	115	106	95	92	187	259	271	293	306	295	159	168	159	164	175	156.8
12-Jul	192	190	191	198	196	198	210	214	208	196	199	196	197	187	199	217	237	248	238	205	201	216	231	231	208.4
13-Jul	235	261	266	272	274	268	265	261	274	258	252	260	255	260	255	264	257	261	263	211	224	241	245	251	256.8
14-Jul	257	258	260	262	265	260	262	253	251	248	260	249	258	256	255	264	247	223	224	230	155	95	86	85	252.4
15-Jul	83	131	135	129	151	156	130	192	97	143	167	121	109	94	89	82	85	108	211	181	172	183	216	160	143.5
16-Jul	125	117	115	133	138	139	150	169	154	26	86	103	104	104	159	89	95	90	84	71	77	73	71	64	112.6
17-Jul	73	76	64	73	69	98	112	91	85	93	121	215	315	330	333	328	332	335	356	26	71	69	61	68	49.4
18-Jul	76	95	94	86	76	82	79	84	82	83	86	83	86	85	85	112	91	89	89	56	91	84	72	70	83.2
19-Jul	71	76	64	65	69	80	82	22	52	72	55	71	58	87	94	107	120	82	220	303	320	333	338	334	59.8
20-Jul	329	325	334	345	339	326	332	344	55	94	98	110	112	116	137	215	233	231	251	258	253	254	266	274	301.2
21-Jul	275	280	275	263	271	271	275	277	262	260	255	257	247	245	259	262	263	271	248	241	244	231	212	211	258.4
22-Jul	199	214	211	219	242	252	255	263	261	259	219	228	218	193	198	223	202	164	138	109	78	87	113	112	206.5
23-Jul	141	202	299	26	45	290	301	303	265	278	289	285	252	260	266	272	271	309	292	307	323	316	309	310	287.1
24-Jul	310	319	313	313	330	358	356	48	69	84	91	85	81	82	78	73	67	61	54	48	53	85	84	83	66.2
25-Jul	78	66	52	65	62	45	48	51	42	346	217	106	88	88	95	90	99	86	76	72	343	344	337	336	58.3
26-Jul	333	332	330	331	322	324	325	329	324	322	309	287	284	277	299	322	312	287	318	329	351	11	10	341	321.9
27-Jul	337	0	75	226	245	226	169	138	120	98	97	106	109	92	78	72	68	69	61	68	35	2	214	257	90.6
28-Jul	245	265	221	209	226	256	273	225	220	174	142	107	121	125	198	105	92	83	54	42	59	48	60	58	121.2
29-Jul	60	158	329	333	15	32	333	341	344	337	316	299	303	294	291	294	287	286	283	279	277	276	281	286	310.8
30-Jul	288	284	292	281	284	296	308	296	299	280	292	297	255	248	245	248	261	260	225	233	192	210	129	149	272.9
31-Jul	144	105	113	150	221	210	176	189	106	112	98	110	149	163	160	182	174	191	168	177	174	184	188	192	166.6
107.6 135.3 152.6 151.7 169.2 169.6 191.9 173.4 135.9 136.0 144.6 135.3 140.7 161.9 205.7 222.4 201.4 130.2 109.5 126.1 113.8 108.4 100.5 105.5																									
Diurnal Average																									
UO - Unstable Operation																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

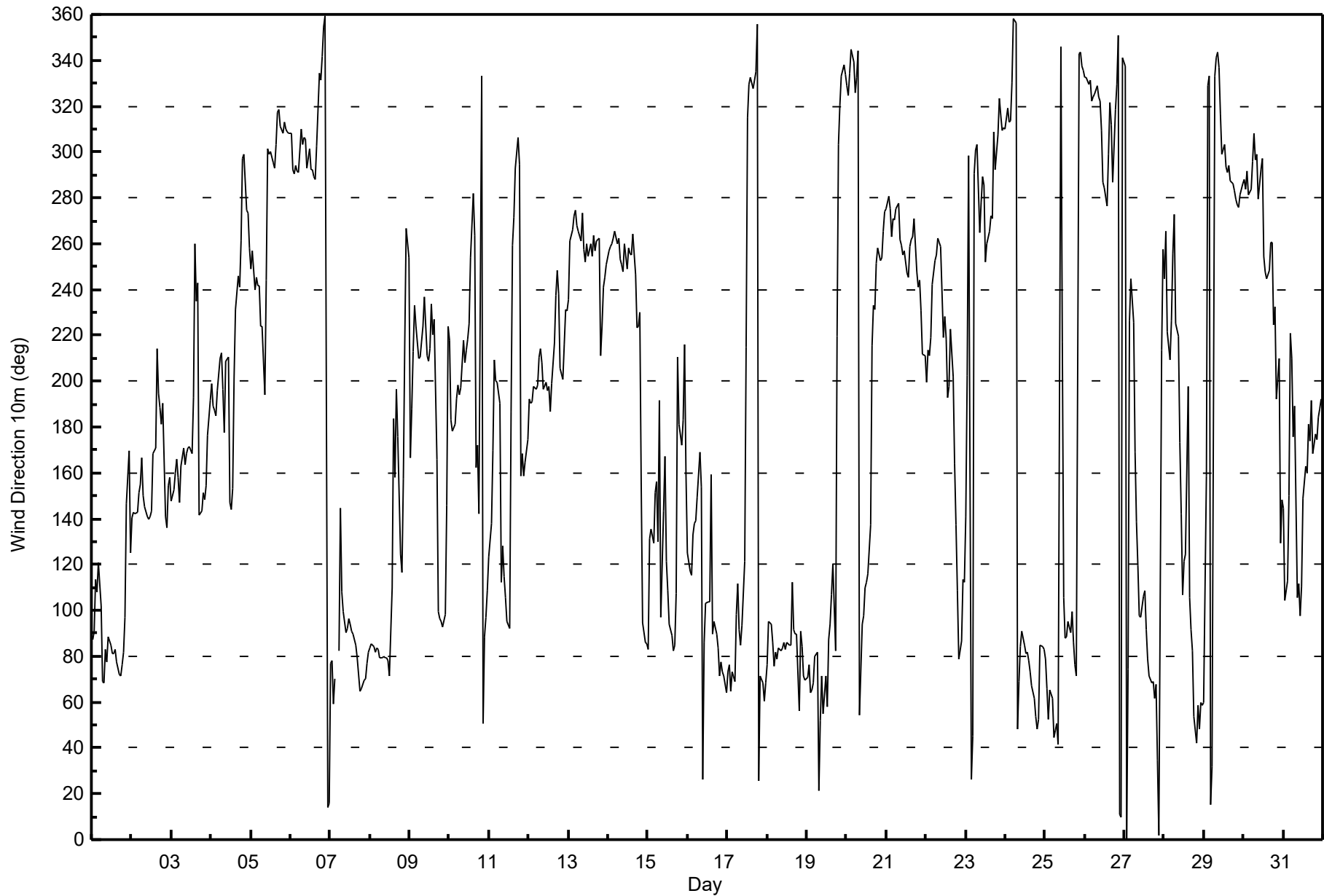
Fort Chipewyan - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 94 deg on Jul 15 22:00																		Hours in Service: 744							
Minimum Value: 4 deg on Jul 23 00:00																		Hours of Data: 743							
																		Hours of Missing Data: 1							
Percentiles: P ₁ = 5 P ₁₀ = 7 Q ₁ = 10 Median = 16 Q ₃ = 22 P ₉₀ = 34 P ₉₉ = 67																		Hours of Calibration: 0							
																		Percent Operational Time: 99.9							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	15	5	11	12	7	8	15	10	8	10	11	9	5	5	5	8	9	8	6	24	19	11	66	27	66
2-Jul	6	6	6	6	7	10	10	11	9	11	11	11	12	13	13	14	12	9	13	9	16	10	8	10	16
3-Jul	9	9	11	11	13	9	13	9	11	12	10	15	16	26	16	19	43	14	12	11	10	14	13	12	43
4-Jul	10	13	12	11	12	14	13	17	23	17	18	26	38	35	40	29	18	16	19	22	17	15	16	13	40
5-Jul	13	13	19	16	15	14	14	16	19	50	21	19	19	20	19	22	28	24	23	22	23	20	20	20	50
6-Jul	20	17	16	19	16	17	21	22	24	25	22	27	26	32	29	22	32	33	30	25	15	8	8	31	33
7-Jul	47	14	16	51	UO	50	35	16	10	7	7	6	6	7	5	5	7	8	10	8	8	7	7	7	51
8-Jul	5	7	7	5	5	5	6	5	6	6	5	7	9	47	21	14	13	74	12	16	21	32	23	75	75
9-Jul	11	10	13	17	14	10	12	10	13	17	19	16	14	17	25	31	32	62	4	5	5	7	24	13	62
10-Jul	22	9	8	8	9	10	9	12	13	15	37	42	22	27	27	35	47	15	15	94	13	12	6	8	94
11-Jul	13	19	16	18	14	20	18	28	10	10	13	10	9	69	38	18	18	17	34	40	8	12	11	12	69
12-Jul	12	11	11	12	13	12	11	11	12	13	12	12	9	9	10	9	18	17	17	18	8	10	12	12	18
13-Jul	13	15	15	15	15	16	15	16	18	21	18	16	19	16	17	17	17	20	35	12	11	13	12	13	35
14-Jul	12	13	13	13	14	18	20	19	20	20	18	22	18	18	20	22	22	13	12	33	32	9	10	9	33
15-Jul	25	17	31	12	17	16	17	46	57	43	13	25	10	8	6	6	31	30	65	21	9	94	64	25	94
16-Jul	12	9	9	8	8	9	18	11	37	39	19	10	18	29	37	30	7	5	6	11	13	19	5	13	39
17-Jul	7	19	5	6	7	12	12	6	7	8	19	49	41	39	31	30	23	23	24	31	17	8	5	12	49
18-Jul	6	6	9	6	6	6	5	4	5	5	5	4	4	6	8	25	9	69	65	23	24	17	13	10	69
19-Jul	9	6	10	9	9	12	23	22	28	11	21	29	36	6	9	19	15	30	63	46	26	24	25	23	63
20-Jul	23	24	22	19	23	20	20	22	47	19	7	10	10	8	33	13	15	15	17	13	11	12	14	14	47
21-Jul	13	14	13	15	15	16	16	20	16	17	18	18	19	19	18	19	18	18	16	13	11	13	7	11	20
22-Jul	16	8	11	9	12	12	13	14	16	22	13	18	15	10	13	27	13	46	31	39	15	15	19	4	46
23-Jul	22	33	38	39	67	25	19	23	26	18	25	39	18	15	19	16	16	34	21	24	25	24	23	21	67
24-Jul	21	24	24	18	20	25	30	28	11	13	8	6	7	7	9	9	10	11	11	10	12	10	6	7	30
25-Jul	8	12	12	10	10	13	14	16	35	61	50	44	5	10	9	7	21	9	12	9	33	23	24	22	61
26-Jul	20	21	23	24	27	24	26	26	27	26	24	16	23	23	35	45	38	34	43	24	16	10	12	16	45
27-Jul	46	18	52	51	13	21	42	15	15	9	9	13	11	8	9	8	9	12	12	10	29	85	28	26	85
28-Jul	24	19	22	11	9	18	35	21	21	23	51	19	17	33	14	24	12	21	12	10	52	14	14	10	52
29-Jul	10	54	20	18	22	38	45	20	22	25	23	18	21	19	19	18	16	16	18	14	16	15	15	16	54
30-Jul	16	18	17	15	15	16	19	17	19	24	32	29	37	25	23	21	21	27	18	7	59	62	18	15	62
31-Jul	18	18	17	34	7	46	26	34	17	6	10	27	10	14	18	19	14	11	10	6	6	6	8	9	46
47 54 52 51 67 50 45 46 57 61 51 49 41 69 40 45 47 74 65 94 59 94 66 75																									
Diurnal Maximum																									
UO - Unstable Operation																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Fort Chipewyan - July 2026





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS09 BARGE LANDING JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BARGE LANDING (AMS09)
JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	703	34	41	99.06	-	-	20	0	2.1	0
TRS(ppb) Average	699	37	45	98.92	7.9	2	5.6	0	1.3	0
THC(ppm) Average	704	34	40	99.19	-	-	3.9	-	2.5	-
NMHC(ppm) Average	704	34	40	99.19	-	-	0.396	-	0.123	-
CH4(ppm) Average	704	34	40	99.19	-	-	3.9	-	2.4	0
NO2 (ppb) Average	645	36	99	91.53	-	-	25.6	0	8.4	-
NO (ppb) Average	645	36	99	91.53	-	-	38.1	-	7.4	-
NOX (ppb) Average	645	36	99	91.53	-	-	63.7	-	13.7	-
PM2.5(ug/m3) Average	737	3	7	99.46	-	-	298	51	95.3	8
Temperature (C) Average	744	0	0	100	-	-	33.4	-	23.8	-
Relative Humidity (%) Average	744	0	0	100	-	-	100	-	92.2	-
Barometric Pressure (inHg) Average	744	0	0	100	-	-	29.1	-	29.1	-
Wind Speed 20 m (km/h) Average	743	0	1	99.87	-	-	26	-	14	-
Wind Direction 20 m (deg) Average	743	0	1	99.87	-	-	0	-	0	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BARGE LANDING (AMS09)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

							Percentile					
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max	
SO2 (ppb) Average	703	0.5	1.6	-	0	0	0	0.1	0.2	0.9	20	
TRS(ppb) Average	699	0.53	0.5	-	0.1	0.2	0.3	0.4	0.6	0.9	5.6	
THC(ppm) Average	704	2.22	0.2	-	1.9	2	2.1	2.2	2.3	2.5	3.9	
NMHC(ppm) Average	704	0.035	0.058	-	0	0	0	0	0	0.1	0.396	
CH4(ppm) Average	704	2.19	0.2	-	1.9	2	2.1	2.1	2.3	2.4	3.9	
NO2 (ppb) Average	645	4.97	4.4	-	0	0.3	1.8	3.9	6.9	10.6	25.6	
NO (ppb) Average	645	2.3	4.7	-	0	0	0.1	0.5	2.2	6.1	38.1	
NOX (ppb) Average	645	7.27	7.8	-	0	0.5	2	4.6	10.2	17.5	63.7	
PM2.5(ug/m3) Average	737	24.76	36.3	-	1.9	4.1	6.9	11.8	23.9	63.8	298	
Temperature (C) Average	744	18.72	4.8	-	8.6	13	14.8	18.2	22	25.7	33.4	
Relative Humidity (%) Average	744	73.08	20.4	-	27.9	41.9	58	75.9	91.4	98.5	100	
Barometric Pressure (inHg) Average	744	28.84	0.1	-	28.5	28.7	28.8	28.8	28.9	29	29.1	
Wind Speed 20 m (km/h) Average	743	8.9	4	-	0	4	6	8	11	15	26	
Wind Direction 20 m (deg) Average	743	221.8	-	-	-	-	-	-	-	-	-	

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BARGE LANDING (AMS09)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
AIR QUALITY ANALYZERS	13 Jul 2026 09:00	13 Jul 2026 12:00	4	Station power failure
NO2	08 Jul 2026 07:00	10 Jul 2026 09:00	51	Analyzer Failure - inconsistent response
NO2	14 Jul 2026 11:00	14 Jul 2026 16:00	6	Maintenance - analyzer recalibration
NO2, TRS	28 Jul 2026 11:00	28 Jul 2026 12:00	2	Maintenance - sample manifold cleaned
SO2	09 Jul 2026 09:00	09 Jul 2026 09:00	1	Maintenance - verify daily QA response
SO2, THC, TRS	10 Jul 2026 15:00	10 Jul 2026 16:00	2	Maintenance - sample manifold cleaned
Wind Speed, Wind Direction	21 Jul 2026 01:00	21 Jul 2026 01:00	1	Flat line in sensor output signal



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

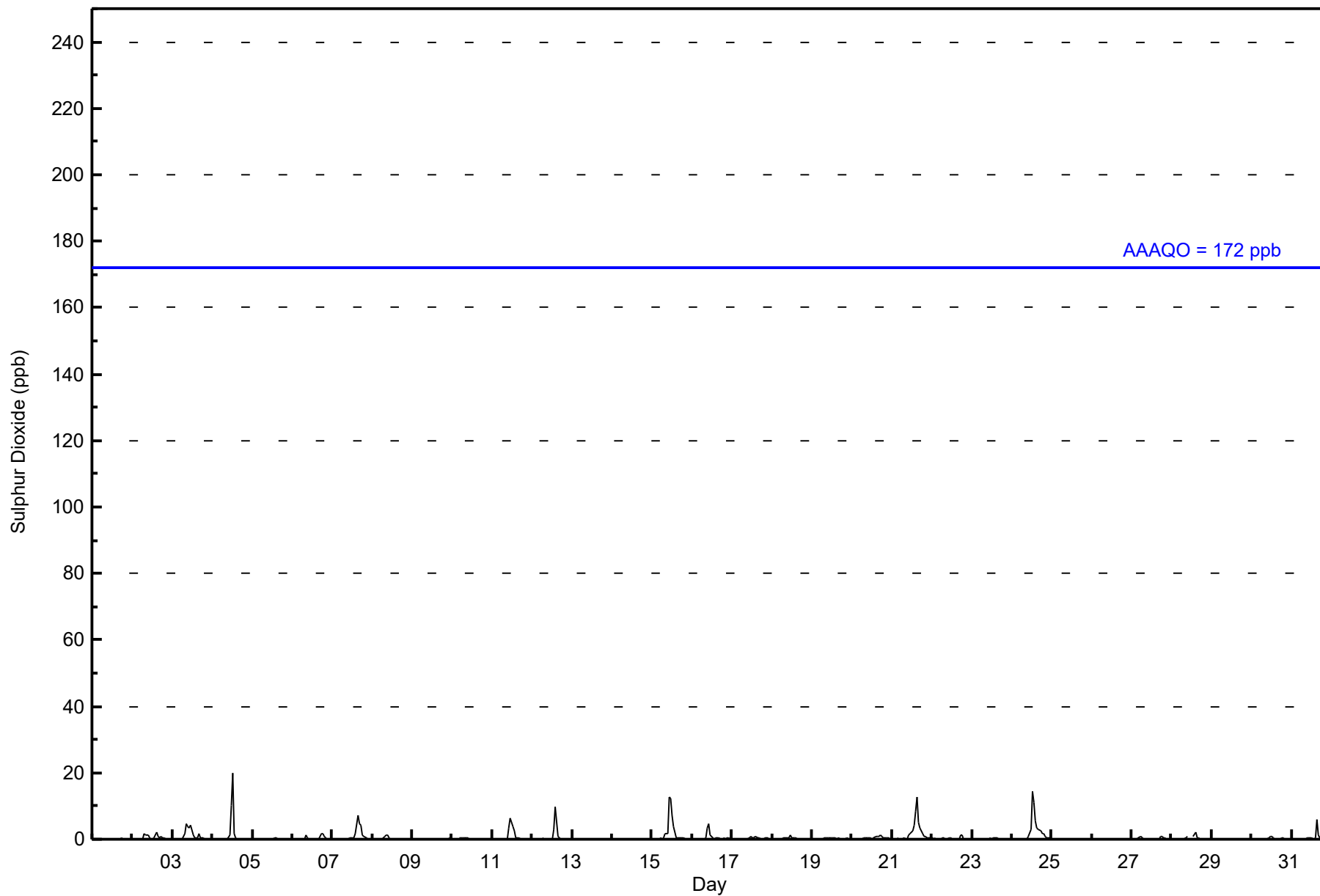
Barge Landing - July 2026

Number of Exceedances (AAAQO): Maximum Value: 20.0 ppb on Jul 4 13:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 2.1 ppb on Jul 24										Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 1 03:00 Maximum Diurnal Average: 1.8 ppb at hour 13 Monthly Average: 0.50 ppb																			Minimum Daily Average: 0.0 ppb on Jul 25 Minimum Diurnal Average: 0.0 ppb at hour 3 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.9 P ₉₉ = 9.6										Hours of Data: 703	
																													Hours of Missing Data: 41	
																													Hours of Calibration: 34	
																													Percent Operational Time: 99.1	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Jul	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
2-Jul	0.0	Z	0.0	0.1	0.0	0.0	0.0	1.8	1.3	1.5	0.3	0.1	0.1	0.6	2.0	0.9	0.6	1.0	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1				
3-Jul	0.0	0.0	Z	0.1	0.0	0.0	0.2	1.9	4.6	4.0	3.3	4.3	1.3	0.4	0.2	0.4	1.6	0.6	0.3	0.2	0.1	0.1	0.0	0.0	0.0	1.0				
4-Jul	0.0	0.1	0.0	Z	0.0	0.1	0.1	0.0	0.0	0.0	1.1	10.2	20.0	1.8	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5				
5-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0				
6-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.1	1.1	0.3	0.2	0.1	0.1	0.0	0.1	0.0	0.2	1.6	1.6	0.9	0.2	0.1	0.0	0.1	0.1	0.3				
7-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.4	0.5	1.9	7.0	4.6	4.3	1.2	0.8	0.3	0.1	0.0	0.0	0.9	7.0				
8-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.8	1.2	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2				
9-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.3				
10-Jul	0.0	0.1	0.2	Z	0.2	0.2	0.2	0.5	0.6	0.3	0.1	0.0	0.0	0.0	M	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1				
11-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	3.3	6.2	3.8	2.7	0.4	0.6	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.8				
12-Jul	0.1	0.1	0.0	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.2	2.9	9.6	0.9	0.3	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.7				
13-Jul	Z	0.1	0.0	0.1	0.1	0.1	0.0	0.1	PF	PF	PF	PF	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
14-Jul	0.0	Z	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1				
15-Jul	0.1	0.1	Z	0.1	0.1	0.3	0.2	0.3	1.6	1.6	12.9	12.3	7.0	3.9	0.5	0.3	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.0	0.0	1.9				
16-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.6	3.5	4.8	1.4	0.5	0.2	0.3	0.2	0.3	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.6				
17-Jul	0.2	0.1	0.0	0.1	Z	0.2	0.1	0.1	0.1	0.2	0.4	0.8	0.6	0.4	0.6	0.6	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.3					
18-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.2	0.3	0.4	0.2	1.3	0.3	0.2	0.3	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.2				
19-Jul	Z	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2				
20-Jul	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	1.0	0.8	0.9	1.1	0.8	0.4	0.4	0.3	0.3	0.1	0.4					
21-Jul	0.2	0.2	Z	0.2	0.2	0.1	0.1	0.2	0.2	0.1	1.2	1.6	2.7	4.1	8.3	12.7	5.1	3.6	1.6	0.9	0.7	0.5	0.4	0.3	0.3	2.0				
22-Jul	0.2	0.2	0.2	Z	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.2	0.1	0.1	1.2	1.4	0.2	0.1	0.0	0.1	0.1	0.3					
23-Jul	0.0	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.0	0.2	0.1	0.4	0.1	0.4	0.6	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1					
24-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.8	2.9	14.4	10.8	5.3	3.3	2.9	2.4	1.9	1.5	0.7	0.3	0.3	0.1	2.1					
25-Jul	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
26-Jul	0.0	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0					
27-Jul	0.0	0.0	Z	0.0	0.3	0.9	0.6	0.2	0.2	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.7	0.6	0.5	0.3	0.2	0.1	0.0	0.2					
28-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.7	C	C	C	0.9	1.9	0.5	0.4	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.3					
29-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0					
30-Jul	0.0	0.0	0.0	0.1	0.0	Z	0.0	0.0	0.1	0.1	0.6	0.8	1.0	0.5	0.2	0.0	0.0	0.1	0.6	0.3	0.1	0.1	0.0	0.0	0.2					
31-Jul	Z	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.3	0.4	0.4	0.3	0.2	0.3	5.9	1.2	0.5	0.4	0.3	0.2	0.3	0.2	0.2	0.5					
0.0 0.1 0.0 0.1 0.1 0.1 0.1 0.2 0.5 0.5 1.1 1.5 1.8 1.0 1.2 1.2 0.7 0.6 0.4 0.3 0.1 0.1 0.1 0.1																									Diurnal Average					
0.2 0.2 0.2 0.2 0.3 0.9 0.6 1.9 4.6 4.0 12.9 12.3 20.0 10.8 9.6 12.7 5.1 4.3 1.9 1.5 0.7 0.5 0.4 0.3																									Diurnal Maximum					
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																														
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																														



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Barge Landing - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Barge Landing - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	697	99.15	99.15
11 - 20	6	0.85	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Barge Landing - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	32	40	21	18	13	27	50	93	74	65	76	55	25	30	33	44	696
11 - 20	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	6
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	32	40	21	18	13	27	50	95	75	68	76	55	25	30	33	44	702

Total Number of Valid Hours: 702

Total Number of Hours: 744

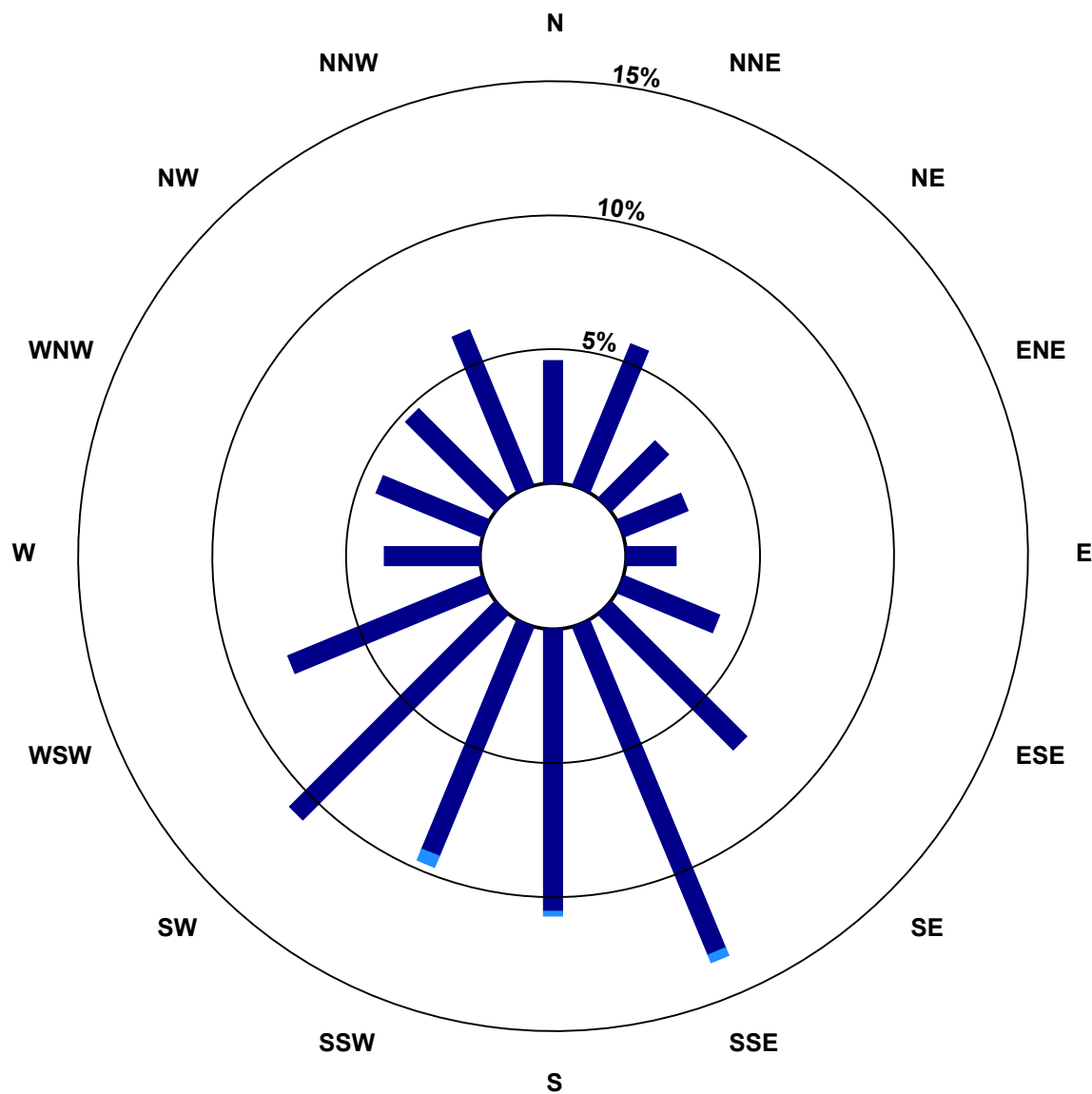


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Sulphur Dioxide (SO₂) - ppb

Barge Landing



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

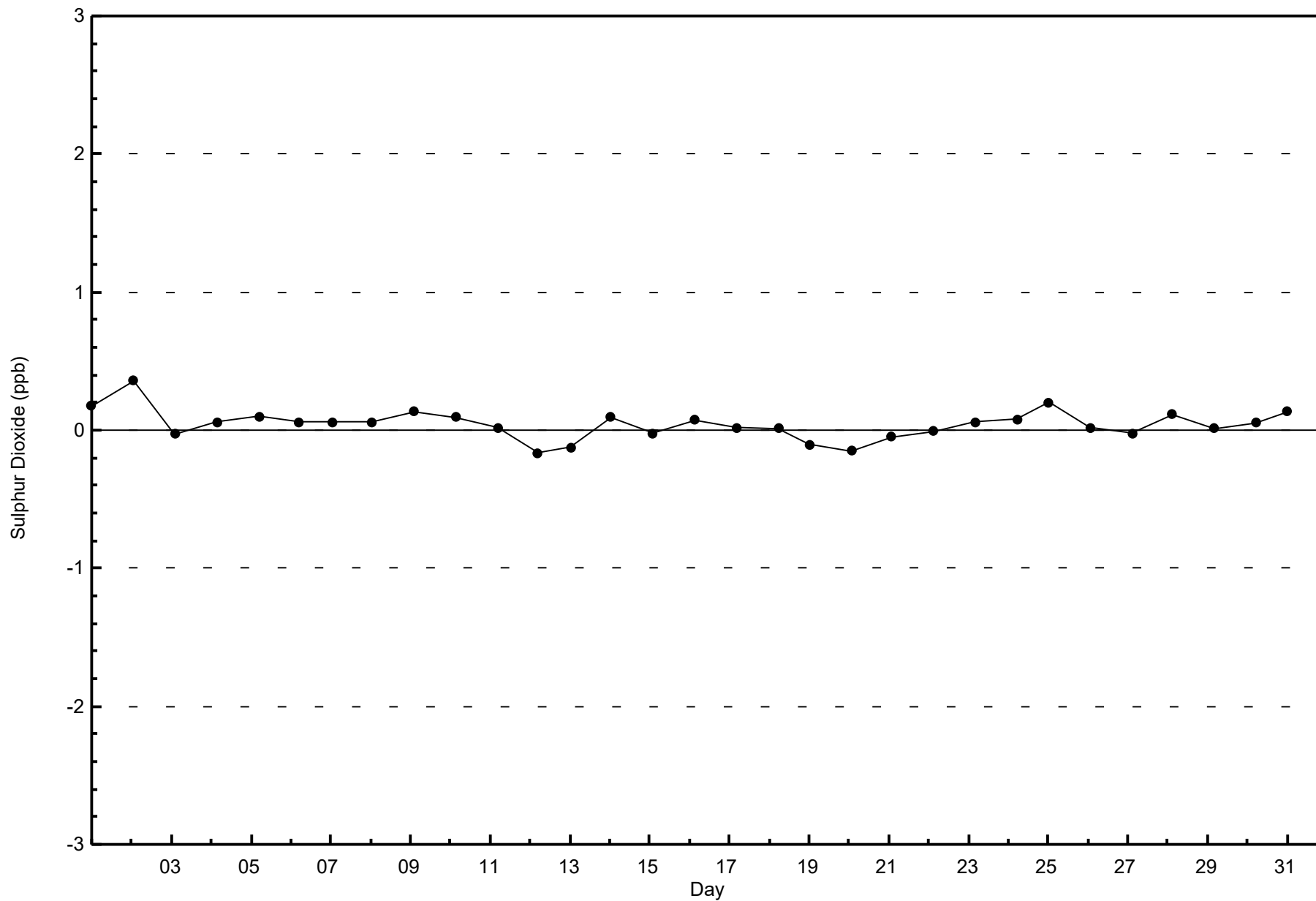
> 172

Total Number of Valid Hours: 702



Wood Buffalo Environmental Association
Zero Responses

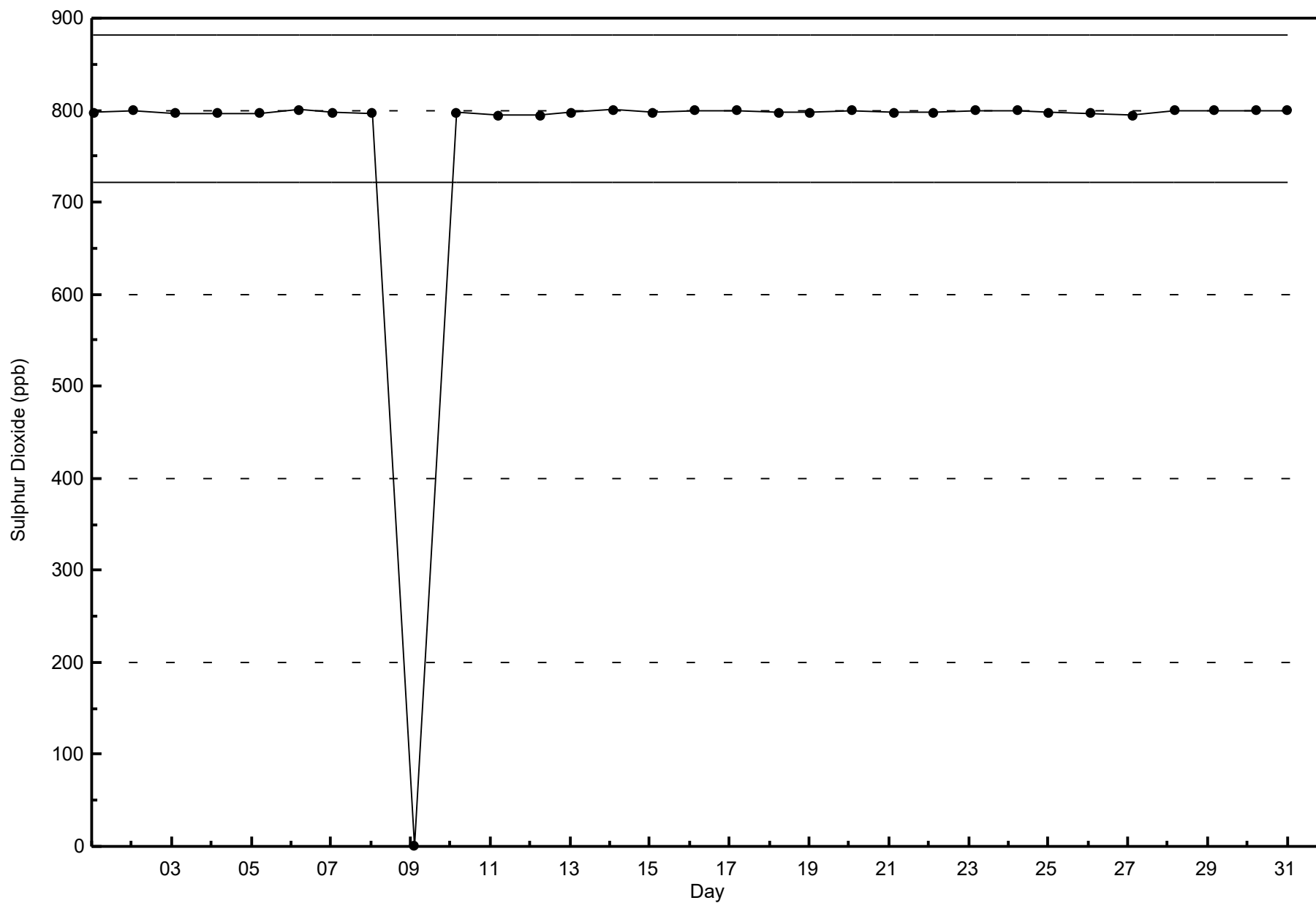
Sulphur Dioxide (SO₂) - ppb
Barge Landing - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Barge Landing - July 2026





Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Barge Landing - July 2026

Number of Exceedences (AAAQG): 30-Min: 2																		Periods in Service: 1488											
Maximum Value: 7.9 ppb on Jul 28 06:30																		Maximum Daily Average: 1.3 ppb on Jul 31						Periods of Valid Data: 1399					
Minimum Value: 0.1 ppb on Jul 25 20:00																		Minimum Daily Average: 0.3 ppb on Jul 25						Periods of Invalid Data: 89					
Maximum Diurnal Average: 1.0 ppb at hour 6																		Minimum Diurnal Average: 0.3 ppb at hour 19						Periods of Calibration: 73					
Monthly Average: 0.53 ppb																		Percentiles: P ₁ = 0.2 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.4 Q ₃ = 0.6 P ₉₀ = 1.0 P ₉₉ = 2.4						Percent Operational Time: 98.9					
Day	Period Ending At (MST)																								Daily Average	Daily Maximum			
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00					
1-Jul	0.3 0.3	Z SP	0.4 0.4	0.5 0.9	0.7 0.7	0.7 0.8	0.8 0.8	0.8 0.7	0.6 0.6	0.6 0.4	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.4 0.4	0.3 0.3	0.3 0.3	0.4 0.3	0.3 0.3	0.4 0.9			
2-Jul	0.3 0.2	0.3 0.2	Z SP	0.5 0.5	0.5 0.4	0.4 0.4	0.3 0.3	0.3 0.7	0.8 0.6	0.7 0.6	0.6 0.7	0.9 0.6	0.4 0.5	0.4 0.4	0.3 0.4	0.5 0.5	0.5 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.4 0.9				
3-Jul	0.3 0.3	0.3 0.3	0.2 0.2	Z SP	0.7 0.7	0.7 0.5	0.7 0.9	1.5 1.4	0.8 0.7	0.7 0.7	0.6 0.5	0.5 0.5	PF 0.3	0.3 0.3	0.2 0.2	0.2 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.1	0.2 0.2	0.1 0.1	0.4 1.5			
4-Jul	0.2 0.2	0.2 0.3	0.4 0.4	0.4 0.5	Z SP	0.9 0.9	0.9 0.9	0.8 0.9	0.7 0.6	0.5 0.6	0.5 0.6	0.6 0.4	0.5 0.2	0.3 0.2	0.3 0.2	0.2 0.2	0.2 0.3	0.2 0.3	0.2 0.2	0.2 0.2	0.3 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.4 0.9				
5-Jul	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.4 0.4	Z SP	0.7 0.6	0.5 0.4	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.3 0.4	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.3 0.3	0.3 0.3	0.6 0.8	0.5 0.6	0.6 0.5	0.4 0.9					
6-Jul	Z SP	0.5 0.5	0.6 0.5	0.5 0.5	0.6 0.5	0.6 0.6	0.6 0.6	0.5 0.4	0.4 0.3	0.3 0.3	0.2 0.3	0.2 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.3	0.3 0.4	0.4 0.4	0.3 0.6					
7-Jul	0.4 0.4	Z SP	0.7 0.7	0.7 0.6	0.7 0.7	0.8 0.9	0.8 0.8	0.5 0.4	0.4 0.5	C C	C C	C C	C C	C C	C 0.4	0.4 0.4	0.4 0.4	0.4 UO	0.3 0.3	0.2 UO	0.3 0.4	0.4 0.3	0.3 0.3	0.2 0.2	-- 0.9				
8-Jul	0.2 0.4	0.4 0.4	Z SP	0.6 0.9	0.8 0.7	0.6 0.5	0.3 0.3	0.4 0.6	0.8 1.0	0.6 0.6	0.8 0.4	0.7 0.3	0.4 0.3	0.3 PF	0.3 0.3	0.3 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.1	0.2 0.3	0.4 0.3	0.4 0.3	0.4 1.0				
9-Jul	0.3 0.3	0.3 0.4	0.4 0.3	Z SP	0.5 0.5	0.4 0.4	0.4 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.3 0.4	0.4 0.2	0.2 0.2	0.2 0.2	0.2 0.4	0.9 0.6	0.7 0.7	0.3 1.4	0.3 1.4					
10-Jul	3.2 1.5	0.8 0.6	0.4 0.4	0.9 0.8	Z SP	0.6 0.8	1.1 1.0	1.0 1.0	0.6 0.6	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 M	M 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.4	0.3 0.3	0.3 0.3	0.4 0.4	0.5 3.2				
11-Jul	0.4 0.4	0.4 0.4	0.4 0.4	0.5 0.5	0.5 0.6	Z SP	0.6 0.6	0.6 0.7	0.6 0.7	0.7 0.5	1.9 1.8	2.1 3.1	1.2 1.7	0.9 1.0	0.7 0.8	0.5 0.6	0.8 0.8	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.7 3.1				
12-Jul	Z SP	0.5 0.5	0.5 0.9	1.1 1.6	2.7 2.5	1.4 1.1	0.8 0.6	0.6 0.5	0.4 0.4	0.4 0.3	0.3 0.3	0.3 0.3	0.6 0.5	0.8 0.8	0.6 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.6 2.7				
13-Jul	0.2 0.3	Z SP	0.5 0.5	0.5 0.4	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	PF PF	PF PF	PF PF	PF PF	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.5				
14-Jul	0.3 0.3	0.2 0.2	Z SP	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.3	0.3 0.2	0.3 0.2	0.3 0.2	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.3 0.4	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.3 0.5				
15-Jul	0.7 1.1	1.2 0.9	0.5 0.4	Z SP	1.8 3.7	3.8 2.2	1.5 1.2	0.7 0.7	0.8 0.7	0.8 0.6	0.5 0.5	0.5 0.4	0.7 0.6	0.5 0.4	0.4 0.4	0.3 0.3	0.3 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.4 0.3	0.3 0.3	0.7 3.8				



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Barge Landing - July 2026

Day	Period Ending At (MST)																								Daily Average	Daily Maximum
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00		
16-Jul	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	Z SP	1.0 0.9	0.9 0.8	0.7 0.6	0.7 0.8	1.0 1.4	0.7 0.5	0.4 0.4	0.4 0.4	0.3 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.4	0.5 0.4	0.4 0.5	0.6 0.7	0.7 0.7	0.5	1.4
17-Jul	0.9 0.9	1.0 0.9	0.7 0.6	0.6 0.5	0.5 0.5	Z SP	1.3 1.1	1.0 0.8	0.7 0.5	0.4 0.4	0.3 0.2	0.2 0.3	0.2 0.2	0.2 0.2	0.3 0.4	0.3 0.3	0.2 0.3	0.3 0.3	0.4 0.5	0.6 0.7	0.8 0.9	1.0 1.0	0.9 0.8	0.6	1.3	
18-Jul	Z SP	1.1 1.1	1.1 1.2	1.2 1.3	1.4 1.3	1.2 0.9	0.9 0.9	1.0 1.5	1.1 1.3	0.9 0.5	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.5 0.8	0.5 0.4	0.3 0.3	0.3 0.3	0.6	1.5
19-Jul	0.3 0.3	Z SP	0.9 0.9	1.0 1.0	1.0 0.9	0.8 0.7	0.6 0.6	0.7 0.9	1.3 1.1	0.7 0.6	0.5 0.5	0.4 0.4	0.4 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.3	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.4 0.5	0.6 0.7	0.6	1.3
20-Jul	0.6 0.6	0.6 0.7	Z SP	0.9 0.9	0.8 0.8	0.7 0.6	0.6 0.7	0.7 0.9	0.8 0.8	0.8 1.0	0.9 1.0	0.9 0.8	0.7 0.7	0.7 0.7	0.6 0.5	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.6	1.0
21-Jul	0.4 0.4	0.4 0.4	0.4 0.4	Z SP	0.6 0.7	0.8 0.9	0.9 0.7	0.7 0.9	0.9 0.9	0.8 0.8	0.9 0.9	0.8 0.6	0.4 0.5	0.5 0.4	0.3 0.5	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.4 0.5	0.5	0.9
22-Jul	0.5 0.5	0.5 0.7	0.9 1.0	1.2 1.3	Z SP	1.3 1.3	1.4 1.3	1.5 1.1	0.7 0.6	0.5 0.4	0.5 0.4	0.5 0.3	0.3 0.3	0.3 0.2	0.3 0.3	0.3 0.3	0.3 0.4	0.3 0.3	0.3 0.3	0.2 0.7	0.3 0.3	1.1 0.8	0.4 0.2	0.2 0.2	0.6	1.5
23-Jul	0.3 0.4	0.5 0.6	0.9 1.0	0.9 0.9	0.9 1.1	Z SP	1.5 1.6	1.5 1.1	0.9 0.8	0.8 0.7	0.6 0.4	0.4 0.3	0.3 0.2	0.3 0.5	0.4 0.4	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.4	0.5	1.6
24-Jul	Z SP	0.7 0.6	0.6 0.5	0.5 0.5	0.4 0.5	0.5 0.5	0.4 0.6	0.5 0.3	0.3 0.3	0.3 0.4	0.7 0.7	0.6 0.5	0.5 0.8	1.4 1.4	1.1 1.0	0.6 0.5	0.5 0.7	0.7 0.7	0.5 0.6	0.7 0.7	0.6 0.5	0.4 0.4	0.5 0.5	0.5 0.4	0.6	1.4
25-Jul	0.5 0.4	Z SP	0.6 0.7	0.5 0.4	0.4 0.3	0.3 0.3	0.3 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.2 0.2	0.3 0.3	0.4 0.5	0.3	0.7
26-Jul	0.5 0.7	0.8 0.8	Z SP	1.0 0.9	0.9 0.9	1.0 1.0	1.0 1.0	1.0 0.9	1.0 0.9	1.0 0.8	0.8 0.8	0.8 0.7	0.6 0.6	0.6 0.5	0.5 0.5	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.7	1.0
27-Jul	0.4 0.4	0.5 0.5	0.5 0.4	Z SP	0.5 0.5	0.7 1.7	1.3 0.5	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.6 0.9	1.0 0.9	0.6 0.4	0.3 0.3	0.3 0.6	0.6 0.6	0.4 0.4	0.8 1.5	1.1 0.7	0.6 0.6	0.7 0.6	0.4 0.3	0.6	1.7	
28-Jul	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	Z SP	0.5 7.7	7.9 3.2	3.3 3.0	2.8 3.0	1.9 1.6	1.1 M	M 0.7	0.5 0.4	0.4 0.5	0.8 1.0	0.6 0.6	0.3 0.3	0.4 0.3	0.3 0.3	0.4 0.4	0.5 0.5	0.5 0.5	0.3 0.3	1.2	7.9	
29-Jul	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.4 0.3	Z SP	0.5 0.4	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.3 0.3	0.3 0.3	0.4 0.5	0.4 0.3	0.4 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3	0.5	
30-Jul	Z SP	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.3	0.4 0.4	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.4 0.4	0.5 0.4	0.4 0.4	0.3 0.3	0.2 0.2	0.2 0.2	0.3 0.3	0.3 0.3	0.4 0.4	0.4 0.4	0.5 0.6	0.5 0.5	0.5 0.5	0.5 0.5	0.4	0.6
31-Jul	0.5 0.6	Z SP	0.8 0.8	0.9 1.4	1.7 2.3	2.1 1.9	1.7 1.8	1.9 1.5	1.1 1.0	2.0 2.6	2.4 1.7	1.0 1.2	1.0 0.9	0.8 0.8	0.5 1.1	1.0 0.6	1.2 1.3	1.5 2.4	1.7 1.3	1.4 1.5	1.6 1.9	2.1 1.4	0.8 0.5	0.5 0.7	1.3	2.6
0.5 0.5 0.6 0.7 0.8 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.4 0.4 0.4 0.4 0.4 0.3 0.4 0.4 0.4 0.4 0.4 0.4																								Diurnal Average		
3.2 1.2 1.2 1.6 3.7 7.7 7.9 3.3 3.0 2.6 2.4 3.1 2.1 1.4 1.1 1.0 1.3 2.4 1.7 1.5 1.9 2.1 1.0 1.4																								Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation PF - Power Failure SP - Span																										
Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb																										



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

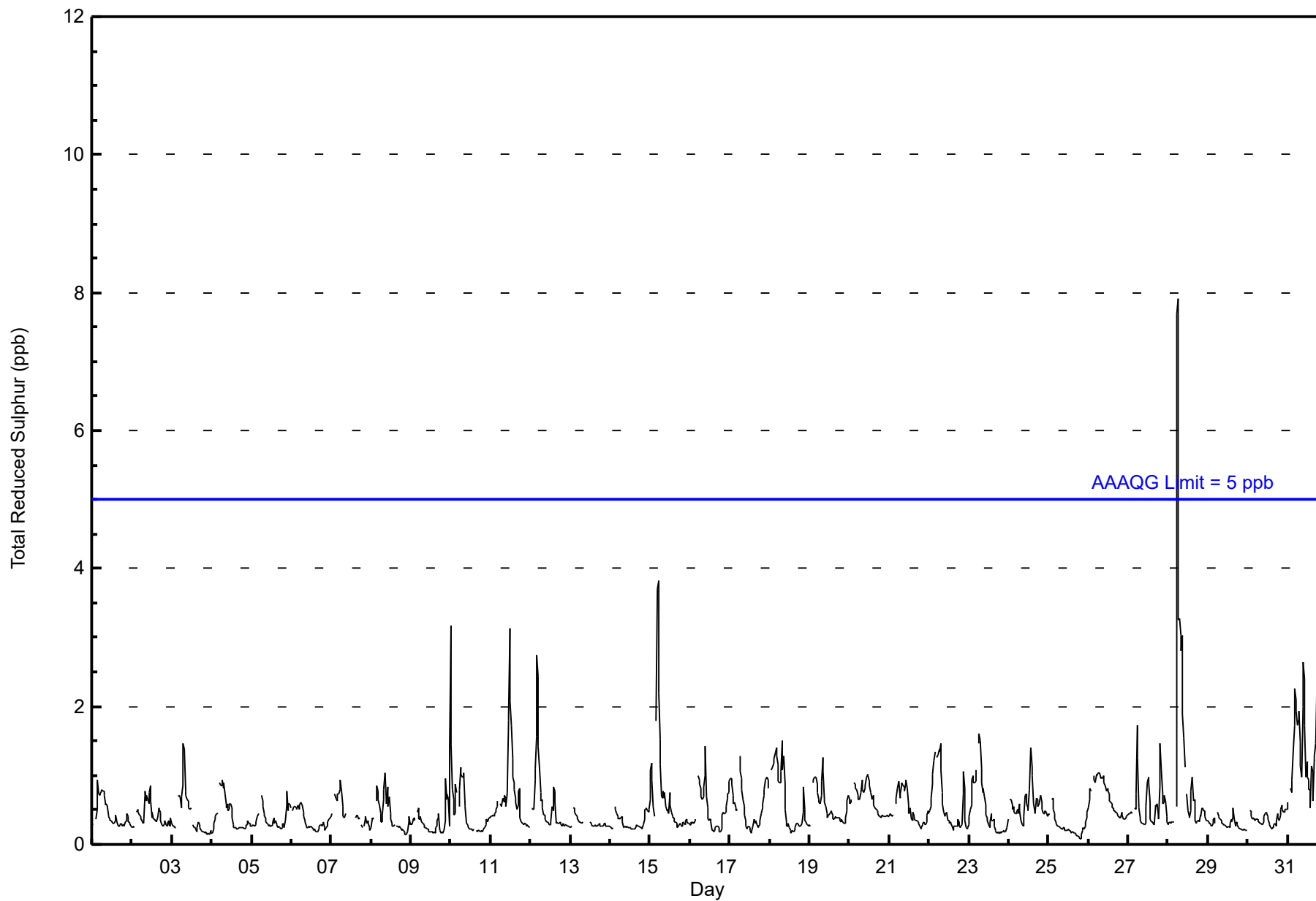
Barge Landing - July 2026

Maximum Value: 5.6 ppb on Jul 28 07:00																		Maximum Daily Average: 1.3 ppb on Jul 31										Hours in Service: 744	
Minimum Value: 0.1 ppb on Jul 25 20:00																		Minimum Daily Average: 0.3 ppb on Jul 25										Hours of Data: 699	
Maximum Diurnal Average: 1.0 ppb at hour 6																		Minimum Diurnal Average: 0.3 ppb at hour 19										Hours of Missing Data: 45	
Monthly Average: 0.53 ppb																		Percentiles: P ₁ = 0.2 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.4 Q ₃ = 0.6 P ₉₀ = 0.9 P ₉₉ = 2.5										Hours of Calibration: 37	
																												Percent Operational Time: 98.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
1-Jul	0.3	Z	0.4	0.7	0.7	0.8	0.8	0.7	0.6	0.5	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.8			
2-Jul	0.2	0.3	Z	0.5	0.4	0.4	0.3	0.5	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.7			
3-Jul	0.3	0.3	0.2	Z	0.7	0.6	0.8	1.4	0.7	0.7	0.6	0.5	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	1.4			
4-Jul	0.2	0.3	0.4	0.4	Z	0.9	0.9	0.9	0.6	0.6	0.5	0.6	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.9			
5-Jul	0.3	0.3	0.3	0.4	0.4	Z	0.7	0.5	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.7	0.5	0.6	0.4	0.7			
6-Jul	Z	0.5	0.6	0.5	0.5	0.6	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.6			
7-Jul	0.4	Z	0.7	0.6	0.7	0.9	0.8	0.5	0.4	C	C	C	C	C	C	0.4	0.4	0.4	0.3	0.2	0.3	0.4	0.3	0.2	--	0.9			
8-Jul	0.3	0.4	Z	0.7	0.7	0.5	0.3	0.5	0.9	0.6	0.7	0.6	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.9			
9-Jul	0.3	0.4	0.4	Z	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.3	0.8	0.7	0.8	0.3	0.8			
10-Jul	2.3	0.7	0.4	0.8	Z	0.7	1.1	1.0	0.8	0.4	0.3	0.2	0.2	0.2	M	M	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	2.3			
11-Jul	0.4	0.4	0.4	0.5	0.6	Z	0.6	0.6	0.7	0.6	1.3	2.5	1.9	1.1	0.8	0.6	0.5	0.8	0.4	0.3	0.3	0.3	0.3	0.3	0.3	2.5			
12-Jul	Z	0.5	0.7	1.3	2.6	1.3	0.7	0.6	0.4	0.4	0.3	0.3	0.3	0.5	0.8	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	2.6			
13-Jul	0.2	Z	0.5	0.4	0.4	0.3	0.3	0.3	PF	PF	PF	PF	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5			
14-Jul	0.3	0.2	Z	0.5	0.4	0.4	0.4	0.4	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.5	0.5	0.5	0.3	0.5			
15-Jul	0.9	1.1	0.5	Z	2.7	3.0	1.3	0.7	0.7	0.7	0.5	0.4	0.7	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.7	3.0			
16-Jul	0.3	0.3	0.3	0.4	Z	1.0	0.8	0.7	0.8	1.2	0.6	0.4	0.4	0.3	0.2	0.2	0.3	0.3	0.2	0.3	0.5	0.5	0.6	0.7	0.5	1.2			
17-Jul	0.9	0.9	0.6	0.6	0.5	Z	1.2	0.9	0.6	0.4	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.5	0.6	0.9	1.0	0.9	0.6	1.2			
18-Jul	Z	1.1	1.1	1.3	1.3	1.0	0.9	1.3	1.2	0.7	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.7	0.4	0.3	0.3	0.6	1.3			
19-Jul	0.3	Z	0.9	1.0	0.9	0.7	0.6	0.8	1.2	0.6	0.5	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.7	0.6	1.2			
20-Jul	0.6	0.6	Z	0.9	0.8	0.7	0.6	0.8	0.8	0.8	0.9	1.0	0.9	0.7	0.7	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.6	1.0			
21-Jul	0.4	0.4	0.4	Z	0.6	0.9	0.8	0.8	0.9	0.8	0.9	0.7	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.5	0.5	0.9			
22-Jul	0.5	0.6	1.0	1.3	Z	1.3	1.4	1.3	0.7	0.4	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.5	0.9	0.3	0.2	0.6	1.4			
23-Jul	0.3	0.5	1.0	0.9	1.0	Z	1.5	1.3	0.8	0.7	0.5	0.4	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	1.5			
24-Jul	Z	0.6	0.5	0.5	0.4	0.5	0.5	0.4	0.3	0.3	0.7	0.6	0.6	1.4	1.1	0.5	0.6	0.7	0.6	0.7	0.6	0.4	0.5	0.4	0.6	1.4			
25-Jul	0.4	Z	0.7	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.3	0.7			
26-Jul	0.6	0.8	Z	1.0	0.9	1.0	1.0	1.0	1.0	0.9	0.8	0.8	0.8	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7	1.0			
27-Jul	0.4	0.5	0.5	Z	0.5	1.2	0.9	0.4	0.3	0.3	0.3	0.7	0.9	0.5	0.3	0.3	0.4	0.6	0.4	1.1	0.9	0.6	0.7	0.4	0.6	1.2			
28-Jul	0.3	0.3	0.3	0.3	Z	4.1	5.6	3.2	2.9	1.7	M	M	0.4	0.4	0.9	0.8	0.5	0.3	0.3	0.4	0.5	0.5	0.5	0.3	1.2	5.6			
29-Jul	0.3	0.3	0.3	0.3	0.3	Z	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.5			
30-Jul	Z	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.3	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.5			
31-Jul	0.6	Z	0.8	1.2	2.0	2.0	1.8	1.7	1.1	2.3	2.1	1.1	1.0	0.8	0.8	0.8	1.3	1.9	1.5	1.4	1.7	1.8	0.6	0.6	1.3	2.3			
0.5 0.5 0.6 0.7 0.8 1.0 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.4 0.4 0.4 0.4 0.4 0.3 0.4 0.4 0.4 0.4 0.4																								Diurnal Average					
2.3 1.1 1.1 1.3 2.7 4.1 5.6 3.2 2.9 2.3 2.1 2.5 1.9 1.4 1.1 0.8 1.3 1.9 1.5 1.4 1.7 1.8 1.0 0.9																								Diurnal Maximum					
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																													
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA																													



Wood Buffalo Environmental Association
Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Barge Landing - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Barge Landing - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	691	98.86	98.86
3 - 4	7	1.00	99.86
5 - 7	1	0.14	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 699

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Barge Landing - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	31	39	20	18	13	30	48	92	71	68	75	59	22	27	34	43	690
3 - 4	0	0	0	0	0	0	0	3	2	2	0	0	0	0	0	0	7
5 - 7	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	31	39	20	18	13	30	48	95	74	70	75	59	22	27	34	43	698

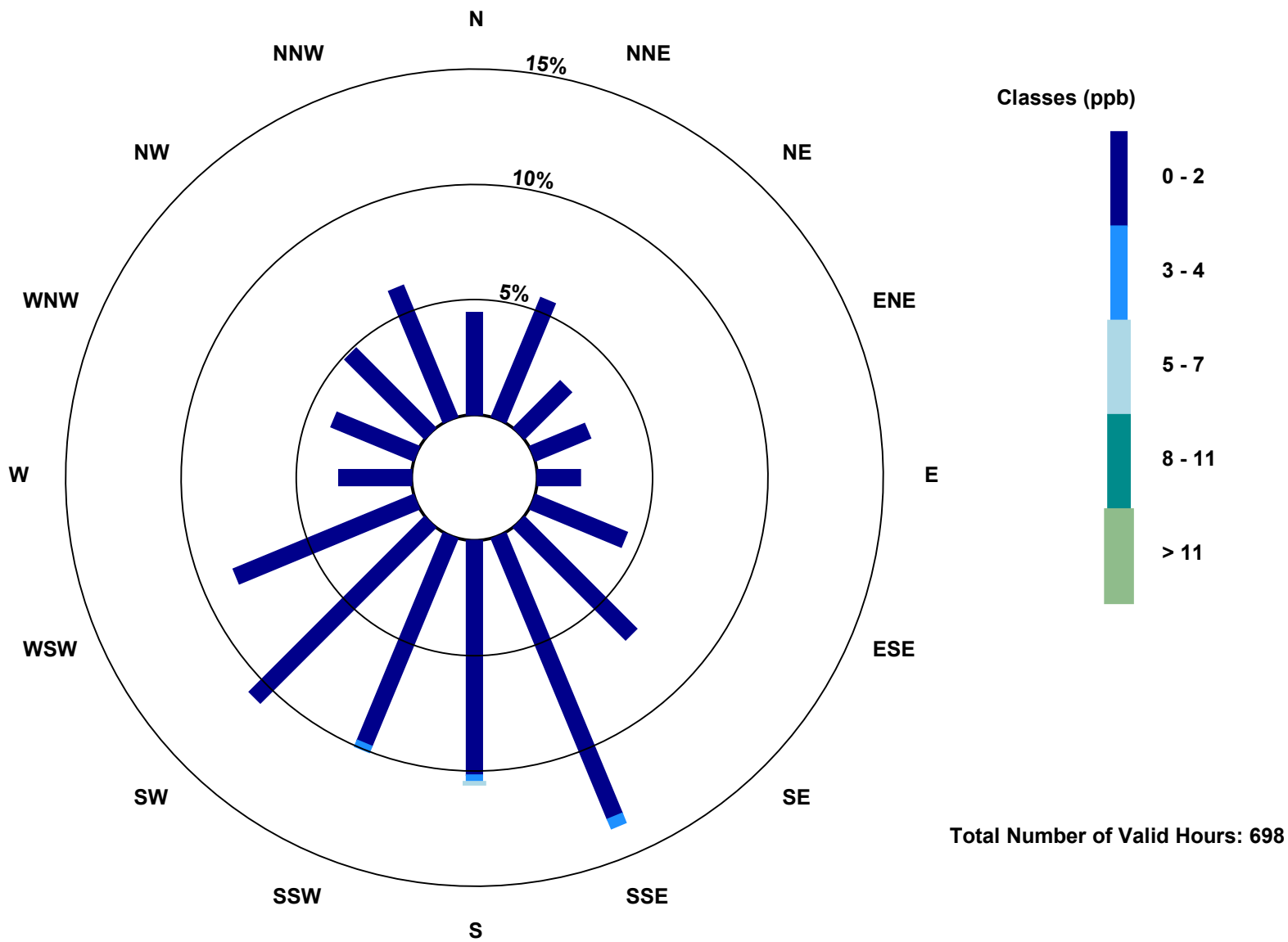
Total Number of Valid Hours: 698

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

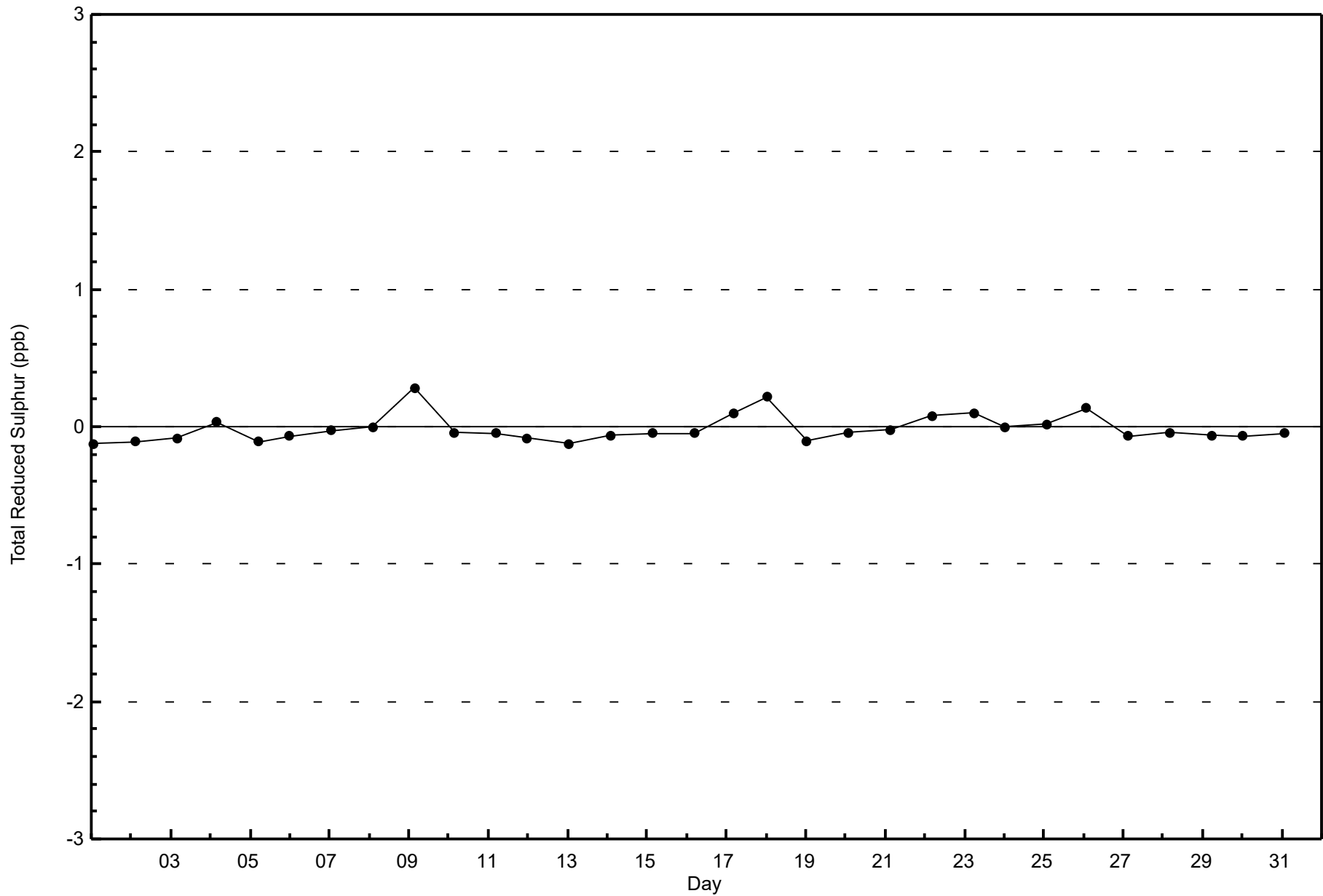
Total Reduced Sulphur (TRS) - ppb
Barge Landing

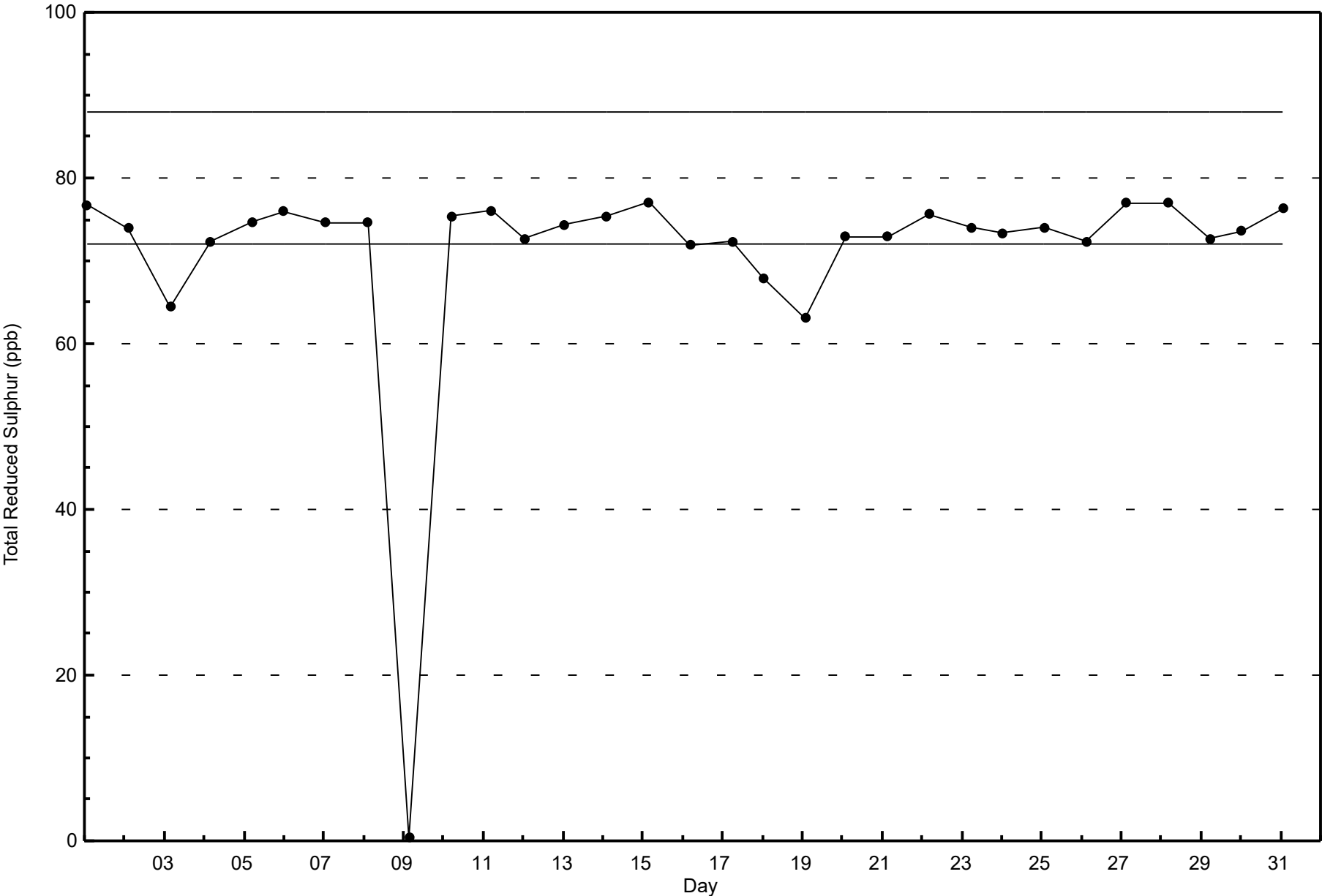




Wood Buffalo Environmental Association
Zero Responses

Total Reduced Sulphur (TRS) - ppb
Barge Landing - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

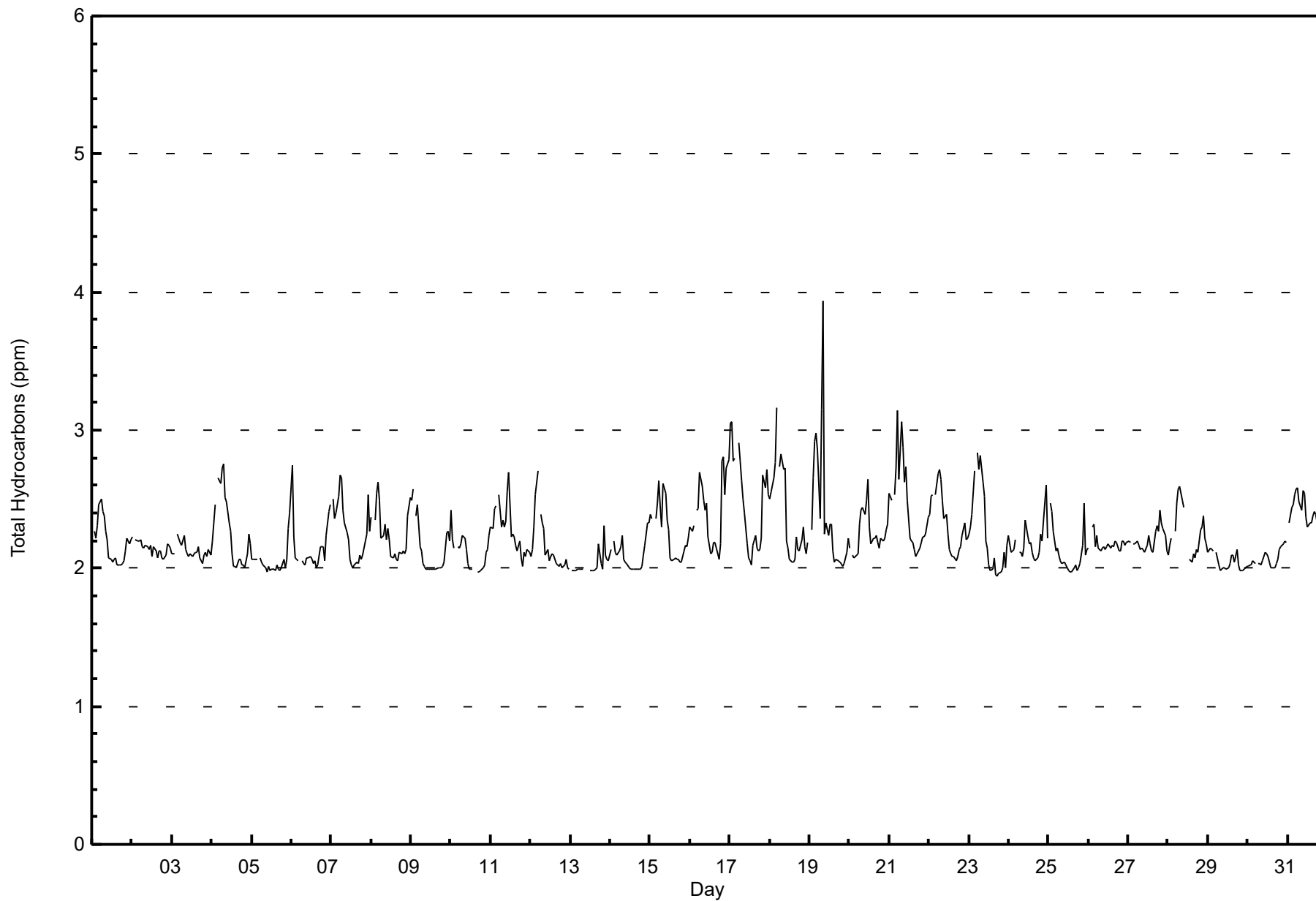
Barge Landing - July 2026

Maximum Value: 3.9 ppm on Jul 19 09:00																			Maximum Daily Average: 2.5 ppm on Jul 17										Hours in Service: 744	
Minimum Value: 1.9 ppm on Jul 23 18:00																			Minimum Daily Average: 2.0 ppm on Jul 13										Hours of Data: 704	
Maximum Diurnal Average: 2.4 ppm at hour 6																			Minimum Diurnal Average: 2.1 ppm at hour 19										Hours of Missing Data: 40	
Monthly Average: 2.22 ppm																			Percentiles: P ₁ = 2.0 P ₁₀ = 2.0 Q ₁ = 2.1 Median = 2.2 Q ₃ = 2.3 P ₉₀ = 2.5 P ₉₉ = 3.0										Hours of Calibration: 34	
																													Percent Operational Time: 99.2	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Jul	Z	2.3	2.2	2.3	2.5	2.5	2.4	2.4	2.3	2.2	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.5			
2-Jul	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.2			
3-Jul	2.1	2.1	Z	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3			
4-Jul	2.2	2.3	2.5	Z	2.7	2.6	2.7	2.8	2.5	2.5	2.3	2.3	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.3	2.2	2.3	2.8	2.8			
5-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.3	2.4	2.1	2.4	2.4			
6-Jul	2.7	2.2	2.1	2.1	2.1	Z	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.2	2.2	2.2	2.1	2.2	2.4	2.5	2.1	2.7	2.7			
7-Jul	Z	2.5	2.4	2.4	2.5	2.7	2.7	2.4	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.5	2.3	2.3	2.7	2.7			
8-Jul	2.4	Z	2.3	2.5	2.6	2.5	2.2	2.2	2.3	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.5	2.2	2.6	2.6			
9-Jul	2.5	2.6	Z	2.4	2.5	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.3	2.2	2.1	2.6	2.6			
10-Jul	2.4	2.2	2.1	Z	2.2	2.1	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	M	M	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.4	2.4			
11-Jul	2.3	2.3	2.4	2.5	Z	2.5	2.3	2.3	2.3	2.3	2.6	2.7	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.0	2.1	2.1	2.1	2.1	2.3	2.7	2.7			
12-Jul	2.1	2.1	2.3	2.5	2.7	Z	2.4	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.2	2.7	2.7			
13-Jul	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	PF	PF	PF	PF	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.0	2.3	2.1	2.1	2.1	2.0	2.3			
14-Jul	2.1	Z	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.3	2.1	2.3	2.3			
15-Jul	2.4	2.4	Z	2.4	2.5	2.6	2.5	2.3	2.6	2.5	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.2	2.2	2.3	2.6	2.6			
16-Jul	2.3	2.3	2.3	Z	2.4	2.4	2.7	2.6	2.5	2.4	2.5	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.8	2.8	2.5	2.7	2.8	2.4	2.8	2.8			
17-Jul	3.1	3.1	2.8	2.8	Z	2.9	2.8	2.6	2.5	2.4	2.2	2.1	2.1	2.0	2.2	2.2	2.2	2.1	2.1	2.2	2.7	2.6	2.7	2.5	2.5	3.1	3.1			
18-Jul	2.5	2.5	2.7	2.8	3.2	Z	2.7	2.8	2.7	2.7	2.2	2.1	2.1	2.0	2.0	2.1	2.2	2.1	2.1	2.2	2.3	2.2	2.1	2.2	2.4	3.2	3.2			
19-Jul	Z	2.3	2.6	2.9	3.0	2.9	2.4	3.1	3.9	2.3	2.3	2.2	2.3	2.3	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.2	2.4	3.9	3.9				
20-Jul	2.1	Z	2.1	2.1	2.1	2.1	2.3	2.4	2.4	2.4	2.5	2.6	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.6	2.6			
21-Jul	2.5	2.5	Z	2.5	2.7	3.1	2.6	3.1	2.9	2.6	2.7	2.5	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.4	2.4	3.1	3.1			
22-Jul	2.4	2.5	2.5	Z	2.5	2.7	2.7	2.6	2.5	2.4	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.2	2.3	2.7	2.7			
23-Jul	2.2	2.3	2.4	2.7	Z	2.8	2.7	2.8	2.6	2.5	2.2	2.1	2.0	2.0	2.0	2.1	2.0	1.9	2.0	2.0	2.0	2.1	2.0	2.2	2.2	2.8	2.8			
24-Jul	2.2	2.1	2.1	2.1	2.2	Z	2.1	2.1	2.1	2.1	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.6	2.2	2.2	2.6	2.6			
25-Jul	Z	2.5	2.4	2.3	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.5	2.1	2.1	2.1	2.5	2.5			
26-Jul	2.1	Z	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.3			
27-Jul	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.3	2.3	2.3	2.4	2.3	2.3	2.2	2.1	2.2	2.4	2.4			
28-Jul	2.1	2.2	2.2	Z	2.3	2.5	2.6	2.6	2.5	2.4	C	C	C	2.1	2.0	2.1	2.1	2.1	2.1	2.3	2.3	2.4	2.2	2.2	2.3	2.6	2.6			
29-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1			
30-Jul	2.0	2.0	2.0	2.1	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.2	2.2			
31-Jul	Z	2.3	2.4	2.5	2.5	2.6	2.6	2.5	2.4	2.6	2.5	2.4	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.3	2.4	2.4	2.3	2.3	2.4	2.6	2.6			
2.3 2.3 2.3 2.3 2.4 2.4 2.3 2.4 2.4 2.3 2.2 2.2 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.2 2.2 2.2 2.2 2.2																										Diurnal Average				
3.1 3.1 2.8 2.9 3.2 3.1 2.8 3.1 3.9 2.7 2.7 2.7 2.3 2.3 2.3 2.4 2.4 2.4 2.4 2.3 2.8 2.8 2.6 2.7 2.8																										Diurnal Maximum				
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																														



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Barge Landing - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Barge Landing - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	153	21.73	21.73
2.1 - 3.0	544	77.27	99.01
3.1 - 10.0	7	0.99	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Barge Landing - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	3	1	1	0	1	0	0	4	5	19	39	33	16	11	9	11	153
2.1 - 3.0	29	39	20	18	11	27	50	91	69	47	37	22	9	19	24	31	543
3.1 - 10.0	0	0	0	0	1	0	0	0	1	2	0	1	0	0	0	2	7
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	32	40	21	18	13	27	50	95	75	68	76	56	25	30	33	44	703

Total Number of Valid Hours: 703

Total Number of Hours: 744

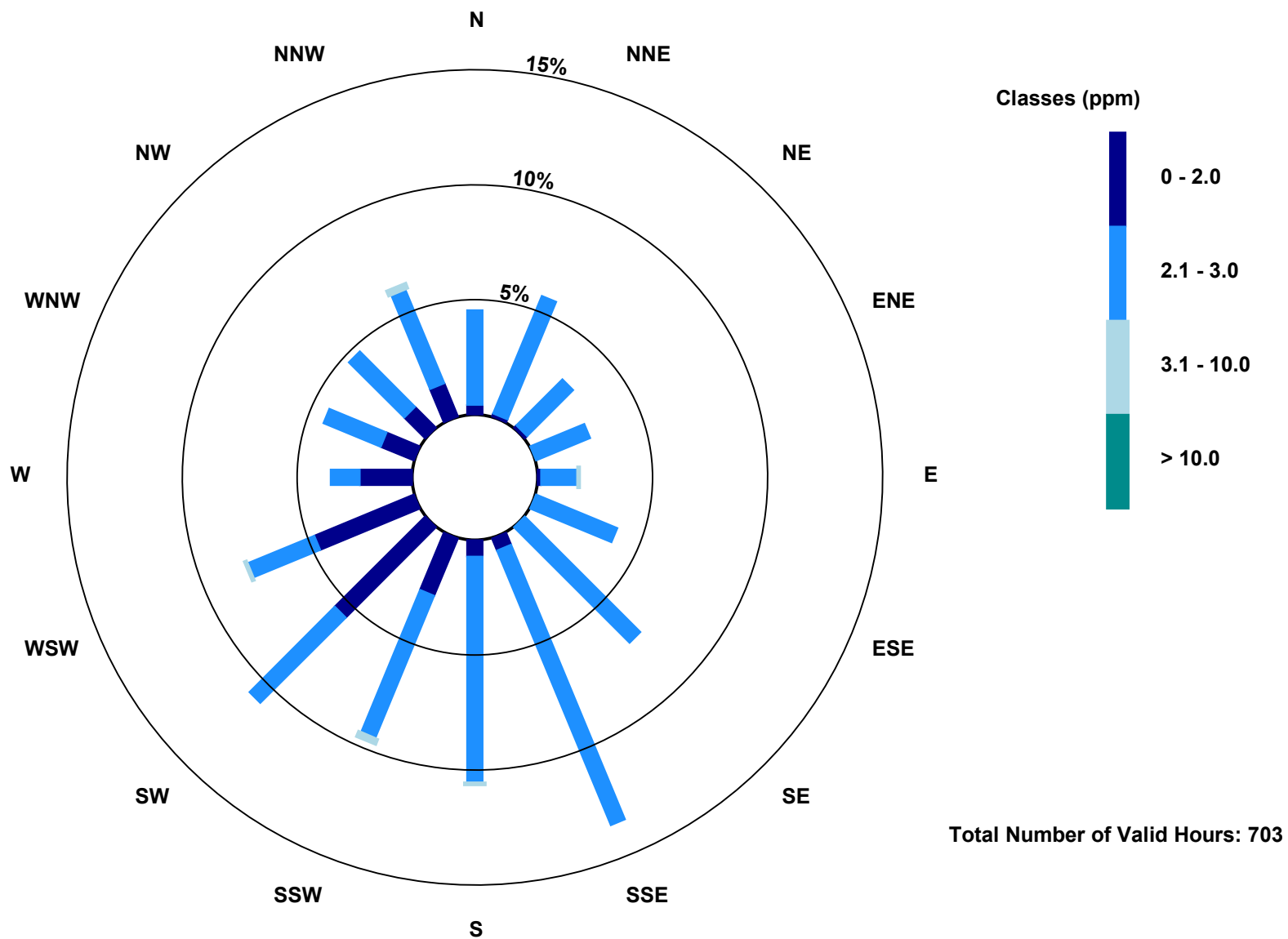


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Total Hydrocarbons (THC) - ppm

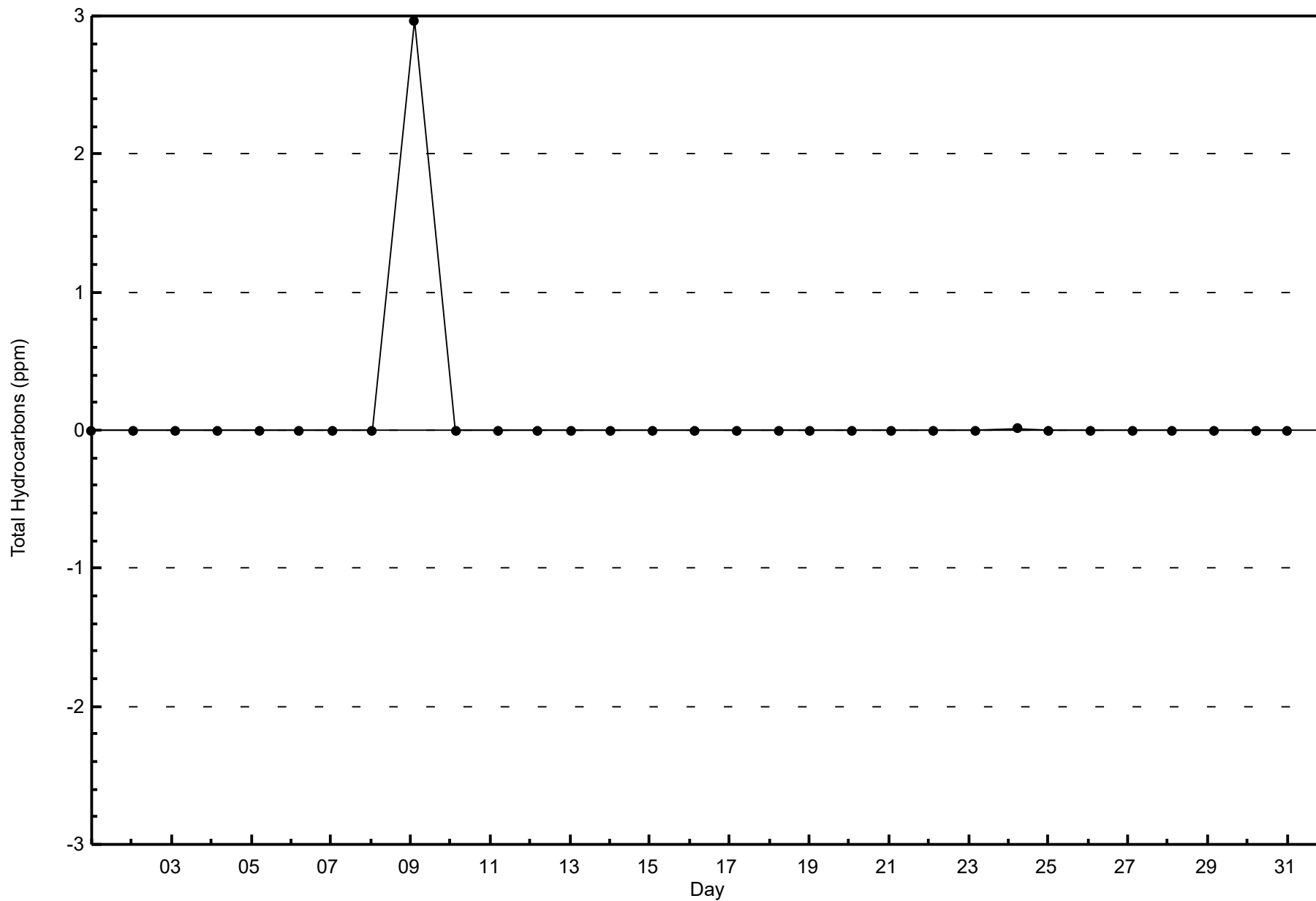
Barge Landing





Wood Buffalo Environmental Association
Zero Responses

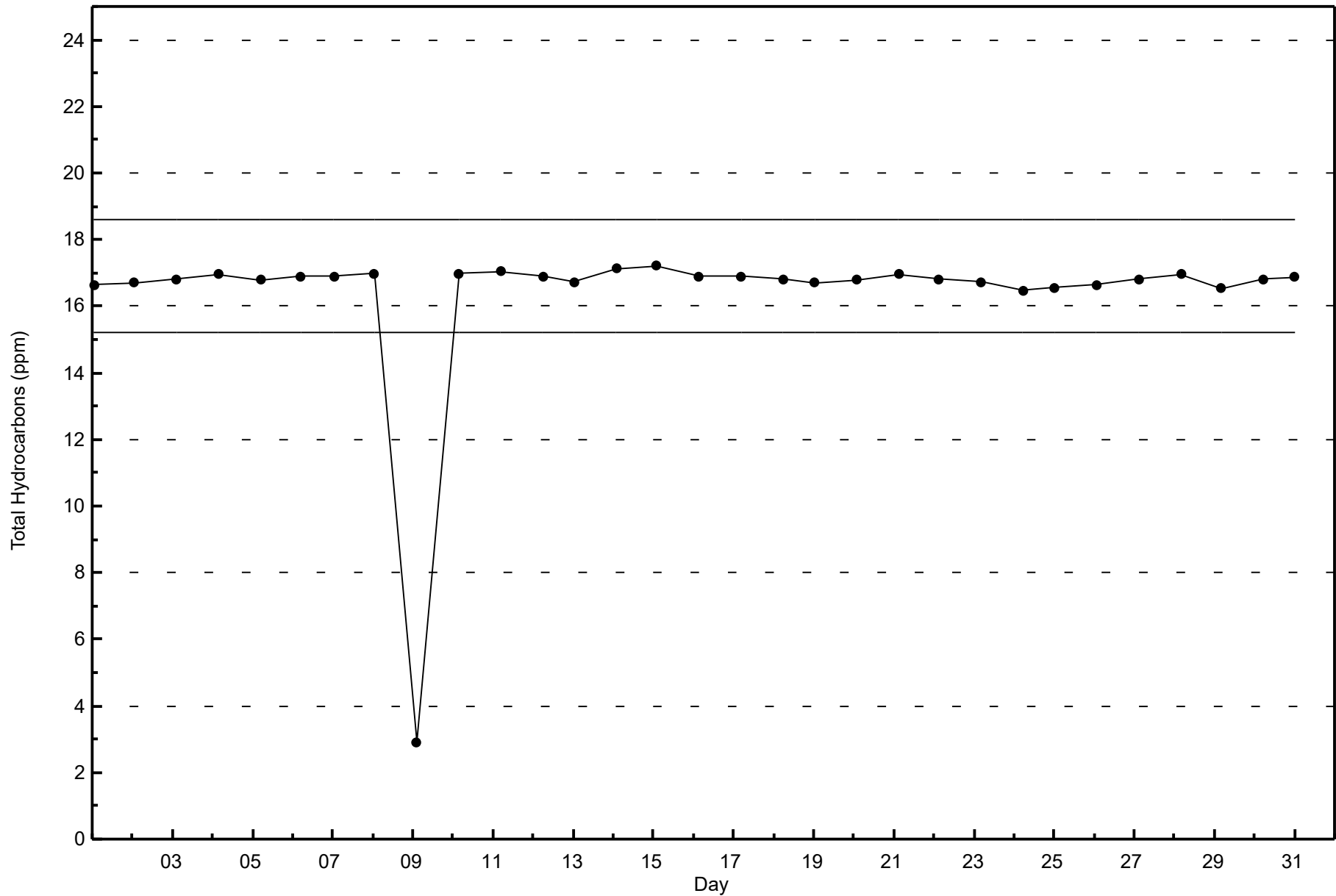
Total Hydrocarbons (THC) - ppm
Barge Landing - July 2026





Wood Buffalo Environmental Association
Span Responses

Total Hydrocarbons (THC) - ppm
Barge Landing - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

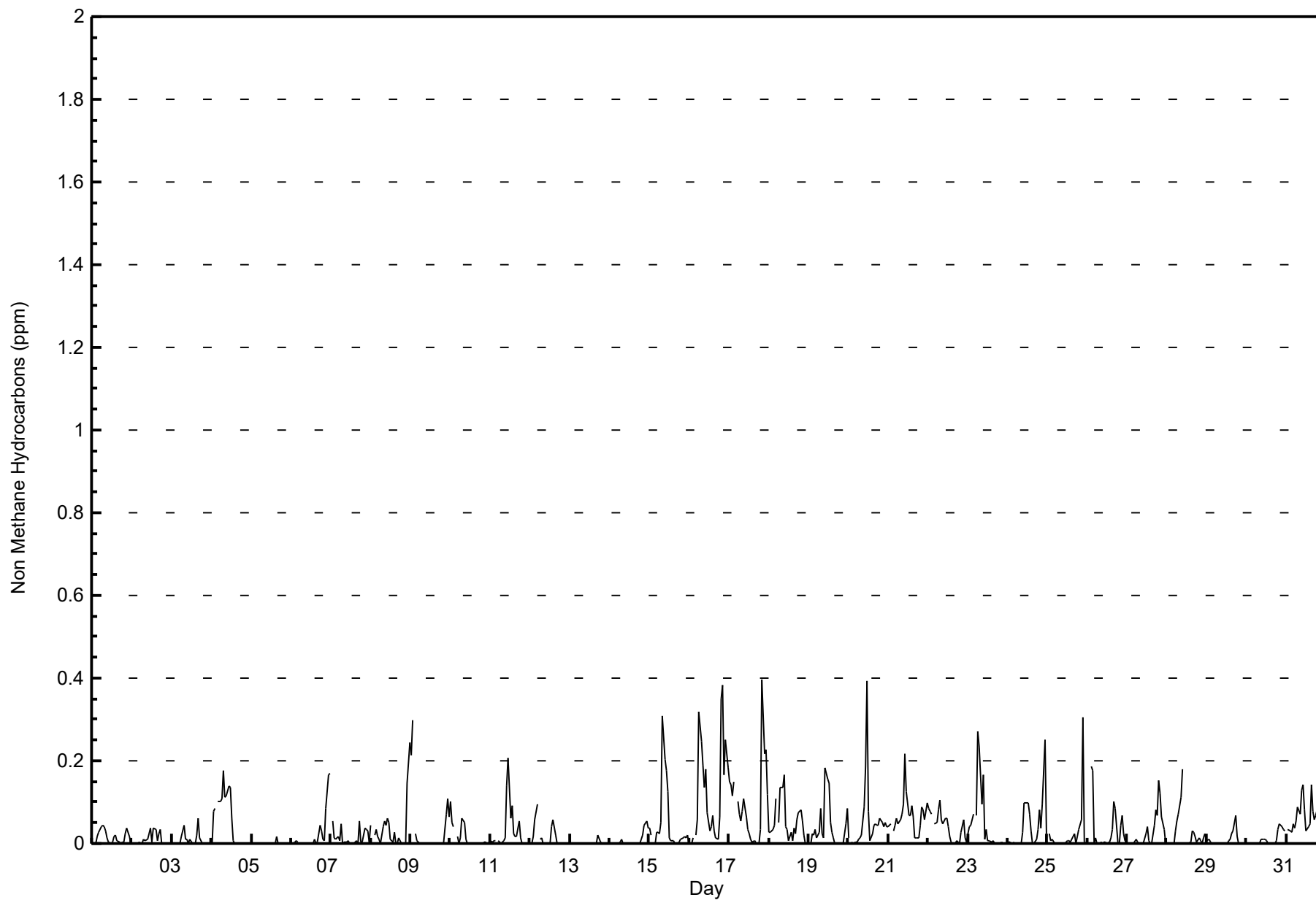
Barge Landing - July 2026

Maximum Value: 0.396 ppm on Jul 17 21:00																				Maximum Daily Average: 0.123 ppm on Jul 16					Hours in Service: 744	
Minimum Value: 0.000 ppm on Jul 1 03:00																				Minimum Daily Average: 0.001 ppm on Jul 5					Hours of Data: 704	
Maximum Diurnal Average: 0.060 ppm at hour 11																				Minimum Diurnal Average: 0.015 ppm at hour 19					Hours of Missing Data: 40	
Monthly Average: 0.035 ppm																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.1 P ₉₉ = 0.3					Hours of Calibration: 34	
																									Percent Operational Time: 99.2	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	Z	0.001	0.000	0.018	0.027	0.040	0.045	0.041	0.029	0.014	0.003	0.002	0.004	0.018	0.020	0.006	0.002	0.001	0.003	0.003	0.023	0.038	0.016	0.000	0.015	0.045
2-Jul	0.000	Z	0.000	0.000	0.002	0.000	0.000	0.011	0.007	0.011	0.024	0.037	0.003	0.036	0.035	0.006	0.024	0.035	0.000	0.000	0.000	0.000	0.001	0.000	0.010	0.037
3-Jul	0.000	0.000	Z	0.000	0.000	0.001	0.016	0.044	0.009	0.010	0.001	0.010	0.000	0.000	0.000	0.019	0.061	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.061
4-Jul	0.000	0.079	0.084	Z	0.103	0.102	0.110	0.176	0.111	0.116	0.139	0.137	0.060	0.008	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.053	0.176
5-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.018
6-Jul	0.001	0.000	0.004	0.007	0.004	Z	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000	0.010	0.000	0.005	0.044	0.029	0.009	0.006	0.083	0.166	0.169	0.023	0.169
7-Jul	Z	0.056	0.012	0.009	0.017	0.007	0.047	0.000	0.003	0.005	0.008	0.001	0.000	0.000	0.001	0.008	0.000	0.056	0.003	0.002	0.038	0.033	0.030	0.003	0.015	0.056
8-Jul	0.043	Z	0.022	0.035	0.016	0.012	0.001	0.039	0.055	0.045	0.061	0.051	0.012	0.004	0.029	0.000	0.001	0.013	0.002	0.001	0.000	0.001	0.146	0.244	0.036	0.244
9-Jul	0.214	0.297	Z	0.025	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.070	0.109	0.065	0.034	0.297
10-Jul	0.101	0.052	0.041	Z	0.018	0.000	0.015	0.062	0.050	0.010	0.000	0.000	0.000	0.000	M	M	0.000	0.000	0.001	0.001	0.002	0.002	0.000	0.000	0.017	0.101
11-Jul	0.005	0.004	0.007	0.008	Z	0.007	0.001	0.003	0.006	0.015	0.140	0.207	0.061	0.093	0.023	0.016	0.017	0.054	0.012	0.000	0.000	0.000	0.000	0.000	0.029	0.207
12-Jul	0.000	0.000	0.018	0.058	0.094	Z	0.011	0.013	0.000	0.000	0.000	0.000	0.000	0.041	0.057	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.094
13-Jul	Z	0.000	0.000	0.001	0.001	0.000	0.000	0.000	PF	PF	PF	PF	0.000	0.000	0.001	0.000	0.001	0.019	0.002	0.000	0.000	0.000	0.000	0.000	0.001	0.019
14-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.002	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.011	0.021	0.044	0.053	0.037	0.008	0.053
15-Jul	0.039	0.020	Z	0.001	0.026	0.028	0.023	0.050	0.308	0.202	0.175	0.126	0.014	0.007	0.006	0.000	0.001	0.001	0.002	0.009	0.014	0.017	0.014	0.021	0.048	0.308
16-Jul	0.001	0.000	0.014	Z	0.019	0.057	0.319	0.246	0.192	0.136	0.178	0.076	0.032	0.039	0.068	0.029	0.013	0.010	0.064	0.349	0.382	0.166	0.250	0.183	0.123	0.382
17-Jul	0.148	0.143	0.115	0.149	Z	0.103	0.072	0.053	0.078	0.110	0.063	0.035	0.024	0.010	0.002	0.005	0.000	0.000	0.034	0.396	0.216	0.228	0.120	0.091	0.396	
18-Jul	0.027	0.027	0.034	0.043	0.109	Z	0.052	0.135	0.137	0.167	0.040	0.033	0.008	0.026	0.007	0.037	0.024	0.058	0.073	0.080	0.055	0.019	0.000	0.000	0.052	0.167
19-Jul	Z	0.000	0.022	0.020	0.035	0.013	0.027	0.084	0.024	0.013	0.182	0.156	0.146	0.050	0.028	0.014	0.002	0.000	0.000	0.000	0.000	0.001	0.047	0.085	0.041	0.182
20-Jul	0.014	Z	0.003	0.000	0.003	0.004	0.010	0.014	0.020	0.088	0.185	0.392	0.079	0.008	0.025	0.044	0.047	0.046	0.043	0.061	0.050	0.041	0.050	0.040	0.055	0.392
21-Jul	0.042	0.048	Z	0.030	0.045	0.060	0.046	0.057	0.070	0.094	0.217	0.126	0.066	0.069	0.092	0.065	0.015	0.013	0.015	0.045	0.090	0.080	0.058	0.097	0.067	0.217
22-Jul	0.085	0.079	0.072	Z	0.048	0.049	0.083	0.107	0.059	0.047	0.060	0.062	0.040	0.016	0.003	0.001	0.002	0.006	0.003	0.000	0.026	0.057	0.014	0.005	0.040	0.107
23-Jul	0.023	0.040	0.046	0.071	Z	0.068	0.271	0.235	0.096	0.166	0.009	0.033	0.008	0.008	0.003	0.005	0.000	0.000	0.000	0.001	0.005	0.001	0.000	0.001	0.047	0.271
24-Jul	0.003	0.004	0.001	0.002	0.004	Z	0.000	0.000	0.000	0.027	0.097	0.097	0.099	0.073	0.032	0.001	0.000	0.010	0.035	0.082	0.037	0.094	0.249	0.024	0.042	0.249
25-Jul	Z	0.022	0.007	0.011	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.004	0.008	0.006	0.004	0.017	0.023	0.002	0.018	0.034	0.057	0.303	0.004	0.001	0.023	0.303
26-Jul	0.006	Z	0.187	0.178	0.001	0.012	0.001	0.002	0.005	0.002	0.003	0.003	0.001	0.003	0.013	0.034	0.102	0.086	0.002	0.001	0.044	0.067	0.025	0.006	0.034	0.187
27-Jul	0.000	0.000	Z	0.000	0.000	0.009	0.003	0.000	0.000	0.000	0.000	0.025	0.041	0.007	0.000	0.000	0.044	0.080	0.067	0.154	0.121	0.063	0.035	0.001	0.028	0.154
28-Jul	0.000	0.000	0.000	Z	0.001	0.031	0.054	0.070	0.112	0.181	C	C	C	0.000	0.005	0.031	0.027	0.016	0.004	0.013	0.008	0.000	0.013	0.023	0.029	0.181
29-Jul	0.008	0.011	0.004	0.000	Z	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.010	0.024	0.031	0.069	0.016	0.000	0.000	0.000	0.000	0.000	0.008	0.069
30-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.011	0.011	0.009	0.007	0.001	0.000	0.000	0.001	0.000	0.007	0.033	0.048	0.039	0.035	0.029	0.010	0.048
31-Jul	Z	0.035	0.030	0.029	0.046	0.038	0.056	0.087	0.070	0.130	0.142	0.082	0.032	0.042	0.048	0.142	0.077	0.057	0.066	0.094	0.077	0.060	0.029	0.037	0.065	0.142
0.030 0.035 0.028 0.027 0.024 0.025 0.041 0.050 0.048 0.053 0.060 0.059 0.025 0.018 0.017 0.018 0.017 0.022 0.015 0.033 0.048 0.048 0.051 0.038																										Diurnal Average
0.214 0.297 0.187 0.178 0.109 0.103 0.319 0.246 0.308 0.202 0.217 0.392 0.146 0.093 0.092 0.142 0.102 0.086 0.073 0.349 0.396 0.303 0.250 0.244																										Diurnal Maximum
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																										



Wood Buffalo Environmental Association
Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm
Barge Landing - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Barge Landing - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	314	44.60	44.60
0.006 - 0.05	243	34.52	79.12
0.06 - 0.1	110	15.63	94.74
> 0.1	37	5.26	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Barge Landing - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 0.005	7	17	9	9	5	9	25	18	14	36	56	36	22	16	18	17	314
0.006 - 0.05	12	14	11	8	7	13	20	41	31	16	18	11	2	10	12	16	242
0.06 - 0.1	5	2	1	1	1	5	5	32	22	14	1	8	1	2	1	9	110
> 0.1	8	7	0	0	0	0	0	4	8	2	1	1	0	2	2	2	37
Totals	32	40	21	18	13	27	50	95	75	68	76	56	25	30	33	44	703

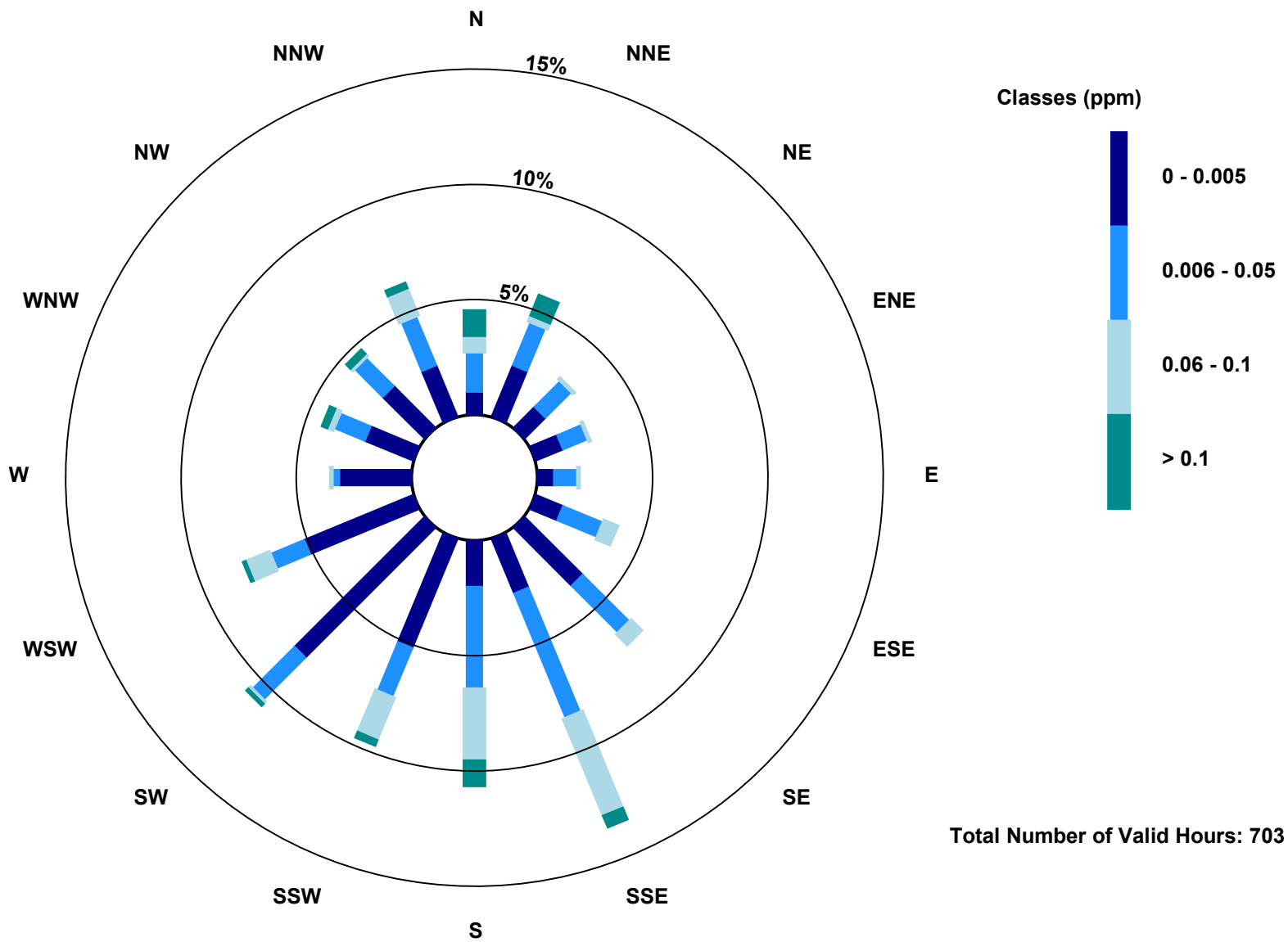
Total Number of Valid Hours: 703

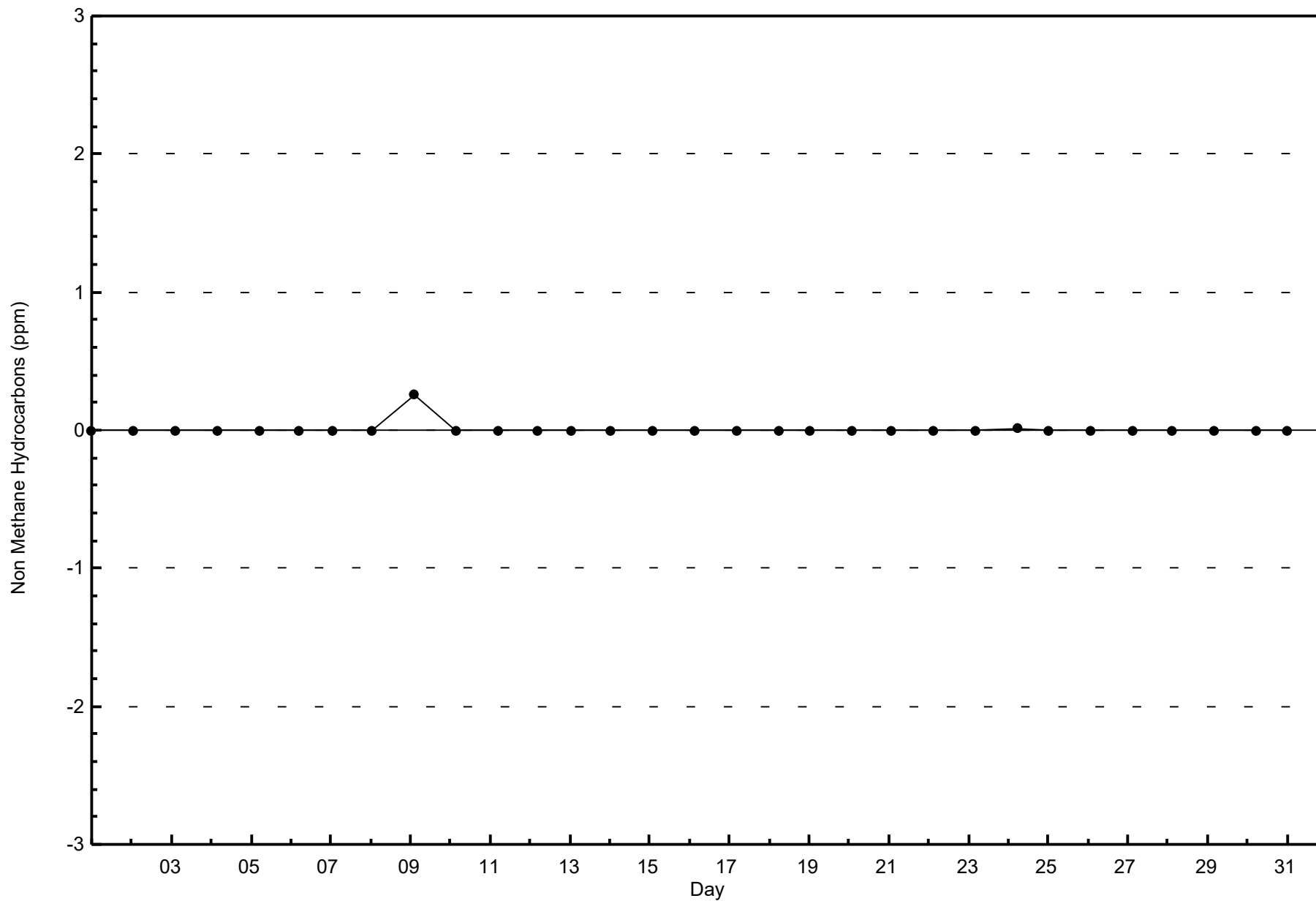
Total Number of Hours: 744

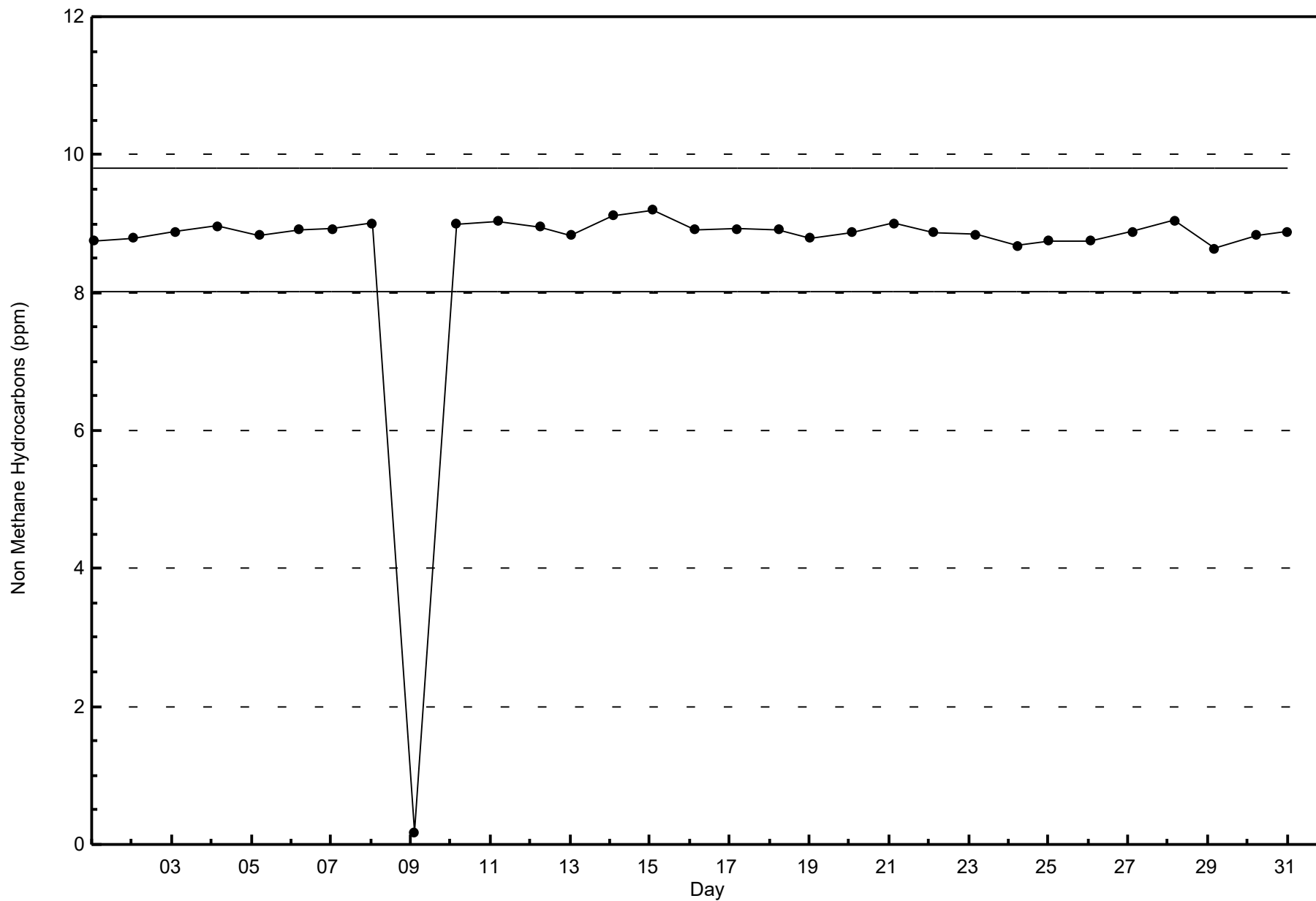


Wood Buffalo Environmental Association
Wind Rose Jul 2026

Non Methane Hydrocarbons (NMHC) - ppm
Barge Landing









Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH₄) - ppm

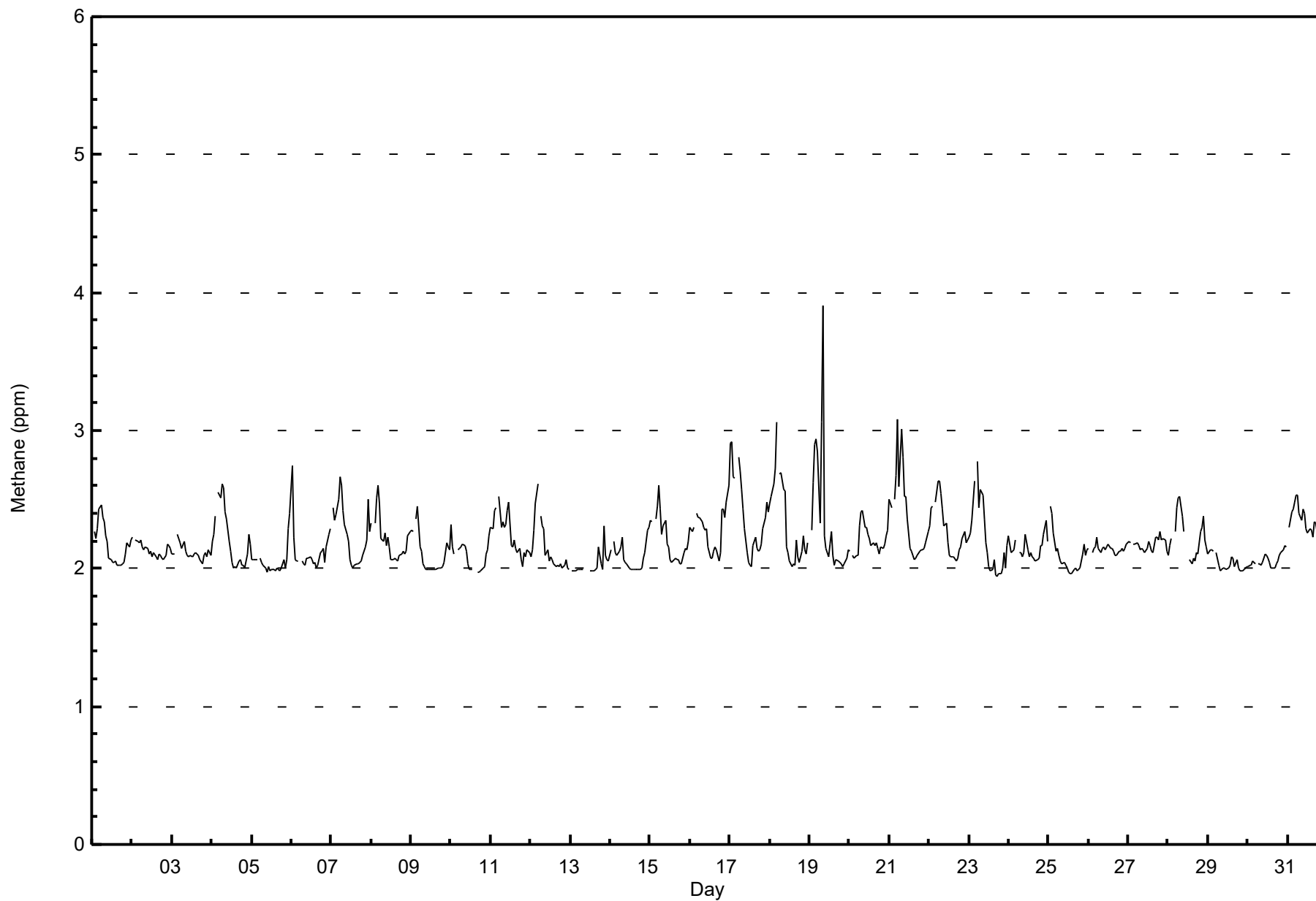
Barge Landing - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																		Hours in Service: 744									
Maximum Value: 3.9 ppm on Jul 19 09:00 Maximum Daily Average: 2.4 ppm on Jul 17																		Hours of Data: 704									
Minimum Value: 1.9 ppm on Jul 23 18:00 Minimum Daily Average: 2.0 ppm on Jul 13																		Hours of Missing Data: 40									
Maximum Diurnal Average: 2.4 ppm at hour 6 Minimum Diurnal Average: 2.1 ppm at hour 19																		Hours of Calibration: 34									
Monthly Average: 2.19 ppm Percentiles: P ₁ = 2.0 P ₁₀ = 2.0 Q ₁ = 2.1 Median = 2.1 Q ₃ = 2.3 P ₉₀ = 2.4 P ₉₉ = 2.9																		Percent Operational Time: 99.2									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	Z	2.3	2.2	2.3	2.4	2.5	2.4	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.2	2.5
2-Jul	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.2
3-Jul	2.1	2.1	Z	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.3
4-Jul	2.2	2.2	2.4	Z	2.6	2.5	2.6	2.6	2.4	2.4	2.2	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.3	2.2	2.2	2.6	2.6
5-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.3	2.4	2.0	2.4	2.4
6-Jul	2.7	2.2	2.1	2.1	2.1	Z	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.2	2.2	2.3	2.1	2.7	2.7
7-Jul	Z	2.4	2.3	2.4	2.5	2.7	2.6	2.4	2.3	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.5	2.3	2.2	2.7	2.7
8-Jul	2.3	Z	2.3	2.5	2.6	2.5	2.2	2.2	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.6	2.6
9-Jul	2.3	2.3	Z	2.4	2.5	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.1	2.1	2.5	2.5
10-Jul	2.3	2.2	2.1	Z	2.1	2.1	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	M	M	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.3	2.3
11-Jul	2.3	2.3	2.4	2.4	Z	2.5	2.3	2.3	2.3	2.3	2.4	2.5	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.2	2.5	2.5
12-Jul	2.1	2.1	2.3	2.5	2.6	Z	2.4	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.6	2.6
13-Jul	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	PF	PF	PF	PF	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.3	2.1	2.1	2.1	2.0	2.3	2.3
14-Jul	2.1	Z	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.3	2.3	2.1	2.3	2.3
15-Jul	2.4	2.3	Z	2.4	2.5	2.6	2.4	2.2	2.3	2.3	2.2	2.2	2.1	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.6	2.6
16-Jul	2.3	2.3	2.3	Z	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.4	2.4	2.4	2.5	2.6	2.3	2.6
17-Jul	2.9	2.9	2.7	2.7	Z	2.8	2.7	2.6	2.4	2.3	2.1	2.0	2.0	2.0	2.2	2.2	2.2	2.1	2.1	2.2	2.3	2.4	2.5	2.4	2.4	2.9	2.9
18-Jul	2.5	2.5	2.6	2.7	3.1	Z	2.7	2.7	2.6	2.6	2.2	2.1	2.1	2.0	2.0	2.0	2.2	2.1	2.0	2.1	2.2	2.1	2.1	2.2	2.3	3.1	3.1
19-Jul	Z	2.3	2.6	2.9	2.9	2.8	2.3	3.1	3.9	2.2	2.1	2.1	2.2	2.3	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.4	3.9	3.9
20-Jul	2.1	Z	2.1	2.1	2.1	2.1	2.3	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.2	2.2	2.3	2.2	2.4	2.4
21-Jul	2.5	2.4	Z	2.5	2.7	3.1	2.6	3.0	2.8	2.5	2.5	2.4	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.4	3.1	3.1
22-Jul	2.3	2.4	2.5	Z	2.5	2.6	2.6	2.5	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.2	2.3	2.6	2.6
23-Jul	2.2	2.3	2.3	2.6	Z	2.8	2.4	2.6	2.5	2.4	2.2	2.1	2.0	2.0	2.0	2.1	2.0	1.9	2.0	2.0	2.0	2.1	2.0	2.2	2.2	2.8	2.8
24-Jul	2.2	2.1	2.1	2.1	2.2	Z	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.4	2.2	2.1	2.4	2.4
25-Jul	Z	2.4	2.4	2.3	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.4	2.4
26-Jul	2.1	Z	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.2
27-Jul	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.1	2.3	2.3
28-Jul	2.1	2.2	2.2	Z	2.3	2.4	2.5	2.5	2.4	2.3	C	C	C	2.1	2.0	2.1	2.0	2.1	2.1	2.3	2.3	2.4	2.2	2.2	2.2	2.5	2.5
29-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1
30-Jul	2.0	2.0	2.0	2.1	2.0	Z	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.2	2.2
31-Jul	Z	2.3	2.4	2.4	2.5	2.5	2.5	2.4	2.3	2.4	2.4	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.5	2.5
2.3 2.3 2.3 2.3 2.4 2.4 2.3 2.3 2.3 2.2 2.2 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.2 2.2 2.2 2.2 2.2																										Diurnal Average	
2.9 2.9 2.7 2.9 3.1 3.1 2.7 3.1 3.9 2.6 2.5 2.5 2.3 2.3 2.3 2.2 2.3 2.3 2.3 2.4 2.4 2.4 2.5 2.6																										Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Methane (CH₄) - ppm
Barge Landing - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Methane (CH₄) - ppm
Barge Landing - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	166	23.58	23.58
2.1 - 3.0	534	75.85	99.43
3.1 - 10.0	4	0.57	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Methane (CH₄) - ppm
Barge Landing - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	3	1	3	0	1	0	0	4	7	21	40	35	16	13	10	12	166
2.1 - 3.0	29	39	18	18	11	27	50	91	68	46	36	21	9	17	23	30	533
3.1 - 10.0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2	4
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	32	40	21	18	13	27	50	95	75	68	76	56	25	30	33	44	703

Total Number of Valid Hours: 703

Total Number of Hours: 744

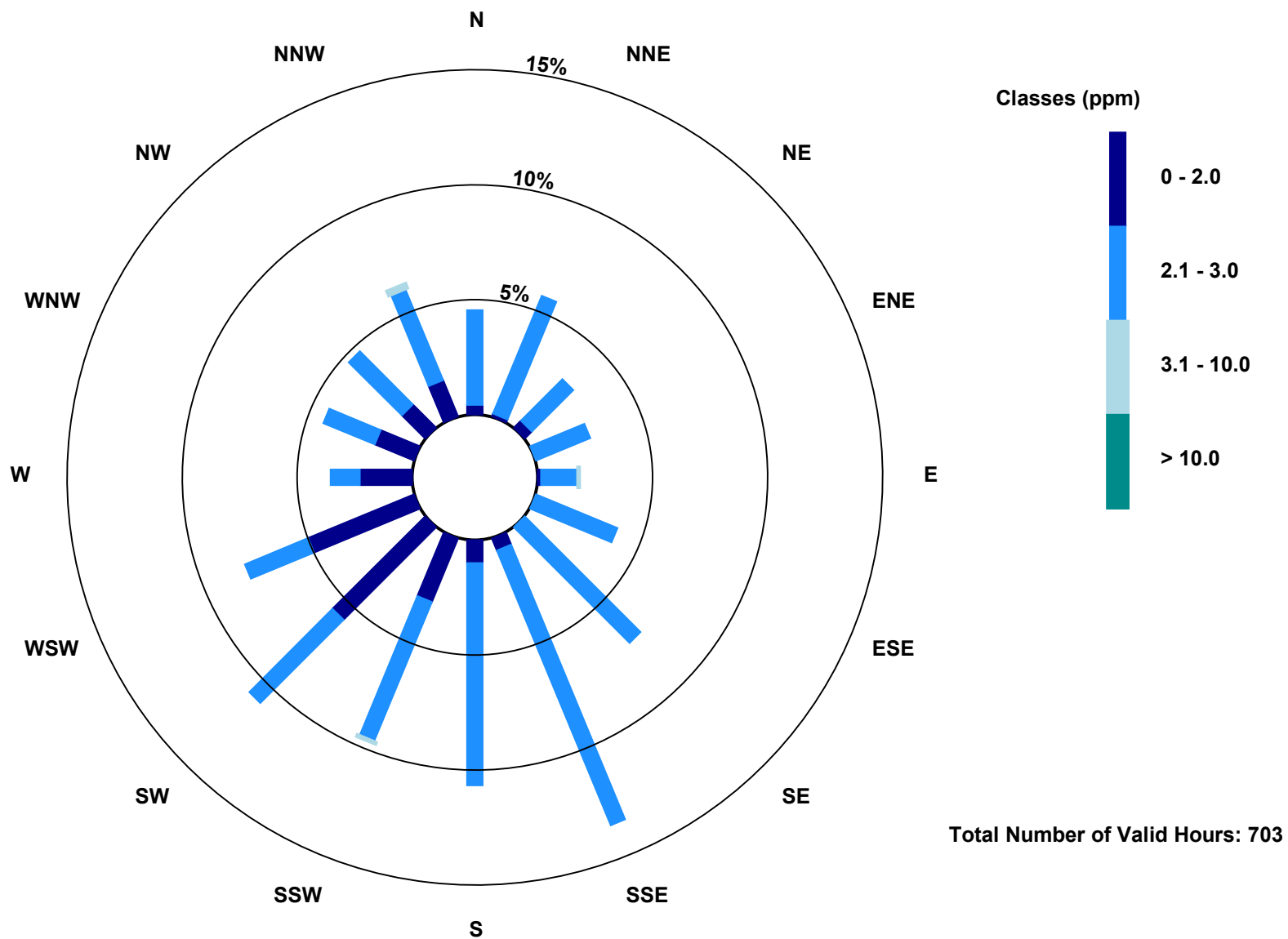


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Methane (CH₄) - ppm

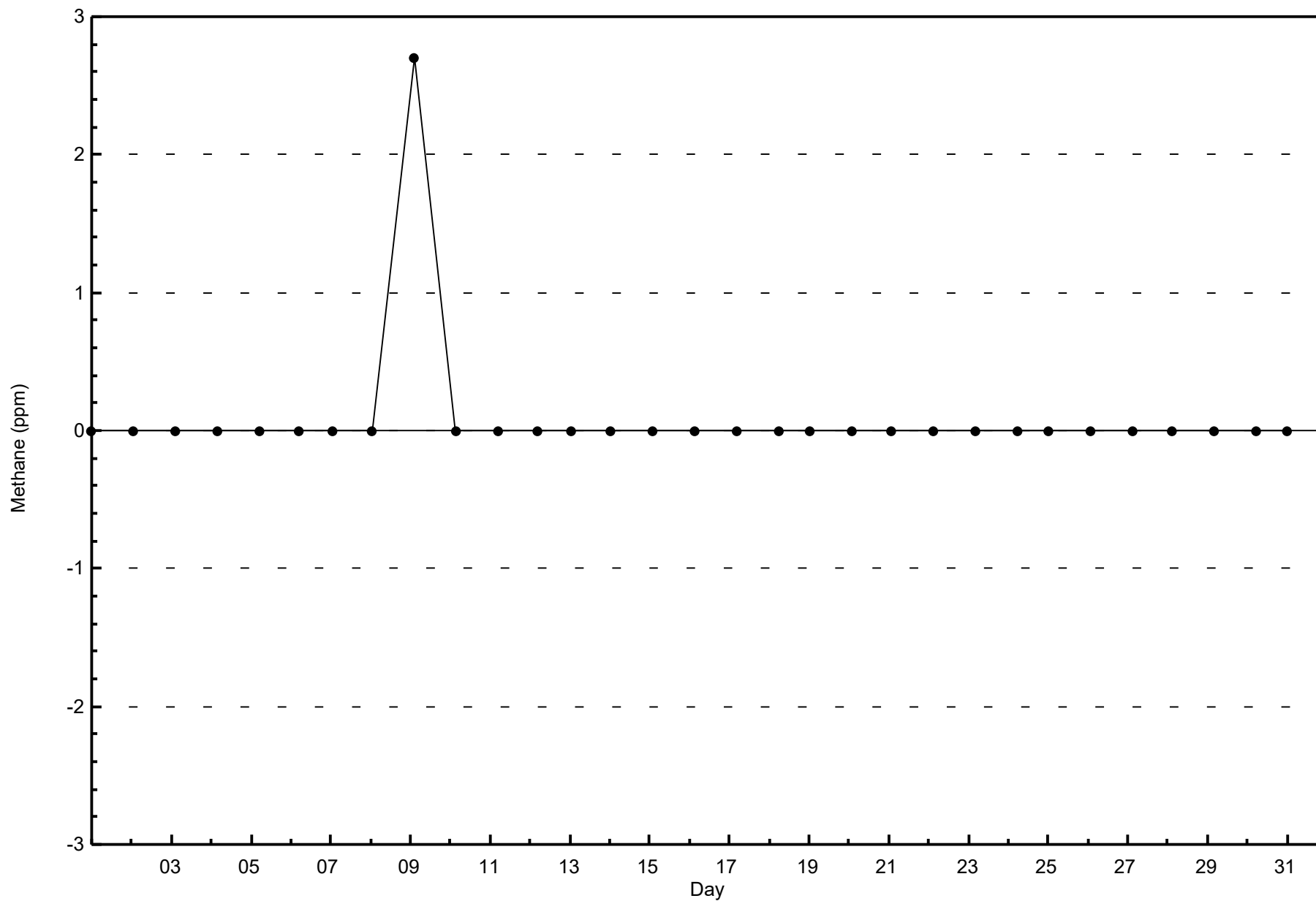
Barge Landing





Wood Buffalo Environmental Association
Zero Responses

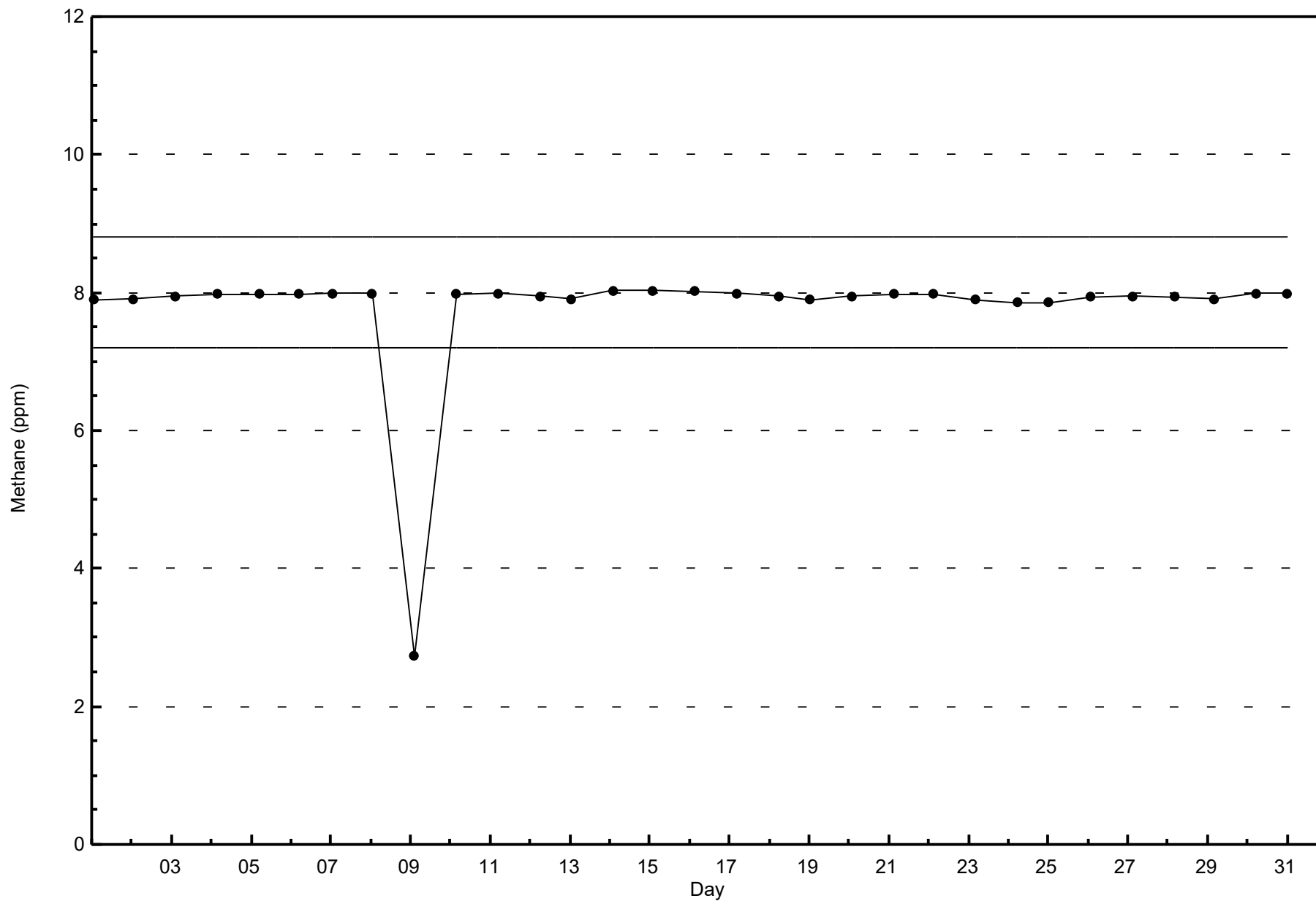
Methane (CH₄) - ppm
Barge Landing - July 2026





Wood Buffalo Environmental Association
Span Responses

Methane (CH₄) - ppm
Barge Landing - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

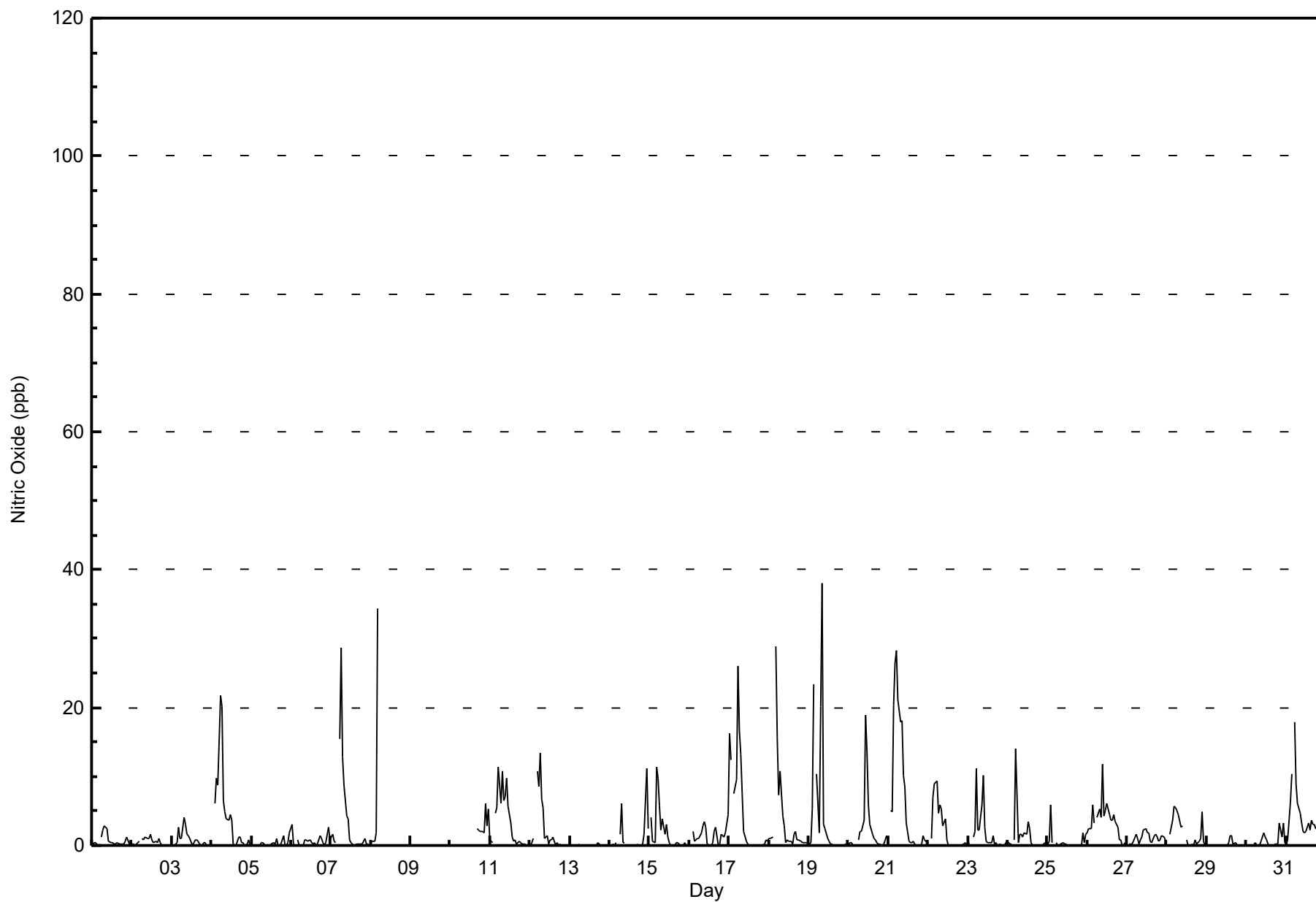
Barge Landing - July 2026

Maximum Value: 38.1 ppb on Jul 19 09:00																				Maximum Daily Average: 7.4 ppb on Jul 21					Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 2 22:00																				Minimum Daily Average: 0.0 ppb on Jul 13					Hours of Data: 645	
Maximum Diurnal Average: 8.8 ppb at hour 6																				Minimum Diurnal Average: 0.4 ppb at hour 20					Hours of Missing Data: 99	
Monthly Average: 2.30 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.5 Q ₃ = 2.2 P ₉₀ = 6.1 P ₉₉ = 24.9					Hours of Calibration: 36	
																				Percent Operational Time: 91.5						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.1	0.4	0.4	0.1	Z	1.1	2.3	2.8	2.7	2.5	0.6	0.4	0.4	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.7	1.3	0.3	0.3	0.8	2.8
2-Jul	0.2	0.2	0.1	0.4	0.7	Z	1.0	0.8	1.1	1.0	1.1	1.6	0.8	0.5	0.6	0.4	1.0	0.4	0.1	0.0	0.0	0.0	0.0	0.1	0.5	1.6
3-Jul	Z	0.0	0.3	0.5	2.6	1.0	1.0	4.1	3.1	1.6	1.4	1.1	0.1	0.4	0.8	0.7	0.7	0.2	0.0	0.4	0.4	0.0	0.1	0.0	0.9	4.1
4-Jul	0.1	Z	6.1	9.8	8.7	21.8	20.2	6.5	4.9	3.9	3.7	4.4	3.6	0.2	0.0	0.0	1.2	1.2	0.5	0.4	0.0	0.2	0.7	0.1	4.3	21.8
5-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.1	0.3	0.3	1.0	0.0	0.0	0.2	1.5	0.0	0.1	0.5	1.9	0.3	1.9
6-Jul	3.1	0.2	0.0	Z	0.8	0.0	0.0	0.1	0.7	0.7	0.5	0.8	0.5	0.2	0.4	0.1	0.1	1.5	1.0	0.4	0.1	0.4	2.5	0.9	0.7	3.1
7-Jul	1.3	1.7	0.5	0.5	Z	15.5	28.6	12.8	8.8	4.2	3.9	0.7	0.3	0.1	0.0	0.2	0.1	0.1	0.2	0.2	1.0	0.2	0.2	0.0	3.5	28.6
8-Jul	0.3	0.5	0.5	1.9	34.4	Z	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	34.4
9-Jul	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	--
10-Jul	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	C	C	C	C	C	C	C	2.5	2.3	1.9	2.1	1.8	6.1	2.8	5.2	6.1
11-Jul	0.9	0.4	Z	4.7	5.5	11.4	6.1	10.9	6.5	7.1	9.8	5.8	3.3	1.2	0.6	0.9	0.3	0.6	0.4	0.1	0.2	0.2	0.0	0.3	3.4	11.4
12-Jul	0.0	0.4	0.9	Z	10.7	8.5	13.4	6.7	5.6	1.1	1.4	0.1	0.8	0.8	1.2	0.0	0.4	0.1	0.2	0.0	0.0	0.0	0.0	0.0	2.3	13.4
13-Jul	0.0	0.0	0.0	0.0	Z	0.2	0.0	0.0	PF	PF	PF	PF	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
14-Jul	0.0	0.1	0.2	0.0	0.4	Z	1.7	6.1	0.5	0.5	M	M	M	M	M	M	0.3	0.0	0.0	0.0	0.3	1.6	11.2	2.5	--	11.2
15-Jul	Z	4.1	0.6	0.5	11.5	9.8	5.6	2.3	3.9	1.6	3.0	1.2	0.4	0.0	0.0	0.0	0.5	0.3	0.2	0.0	0.0	0.4	0.0	0.1	2.0	11.5
16-Jul	0.2	Z	2.0	0.6	0.8	0.9	0.9	1.9	2.8	3.5	2.6	0.1	0.0	0.0	0.4	2.0	2.7	0.0	0.2	1.6	1.4	1.2	1.9	4.6	1.4	4.6
17-Jul	16.2	12.4	Z	7.6	9.6	26.0	16.7	13.3	7.4	2.1	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.8	0.6	4.9	26.0
18-Jul	1.1	1.0	1.2	Z	29.0	15.7	7.4	10.7	4.2	2.8	0.4	0.8	0.6	0.6	0.2	1.7	2.0	0.9	0.8	0.7	0.5	0.4	0.4	0.4	3.6	29.0
19-Jul	0.2	0.4	5.3	23.4	Z	10.4	1.9	20.2	38.1	3.0	2.3	0.9	0.6	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	4.7	38.1
20-Jul	0.3	0.3	0.3	0.0	0.0	Z	0.7	2.1	2.0	3.7	19.0	13.7	5.9	3.1	1.6	1.0	0.7	0.4	0.2	0.3	0.0	0.1	0.7	1.4	2.5	19.0
21-Jul	Z	5.1	4.9	20.3	26.4	28.2	21.1	17.8	18.0	10.3	8.4	3.4	0.7	0.5	0.5	0.6	0.1	0.0	0.0	0.0	0.1	1.4	0.8	0.5	7.4	28.2
22-Jul	0.3	Z	1.0	6.9	9.0	9.3	4.7	6.0	5.4	2.9	3.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.2	2.2	9.3
23-Jul	0.2	0.3	Z	1.1	2.1	11.1	2.3	2.2	6.0	10.1	2.6	0.6	0.4	0.4	0.3	1.4	0.2	0.3	0.0	0.1	0.0	0.0	0.0	0.5	1.8	11.1
24-Jul	0.6	0.3	0.1	Z	0.8	14.0	0.4	1.6	1.7	1.2	1.9	1.6	3.4	2.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.5	1.4	14.0
25-Jul	0.2	0.6	6.0	0.5	Z	0.3	0.1	0.0	0.1	0.5	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	1.8	0.3	1.7	0.5	6.0
26-Jul	1.9	2.5	2.5	5.8	3.2	Z	4.0	5.3	4.2	11.8	4.3	5.2	6.0	4.5	3.6	3.7	4.4	3.4	2.5	0.9	0.7	0.0	0.1	0.4	3.5	11.8
27-Jul	Z	0.2	0.2	0.3	0.6	1.6	1.0	0.2	0.7	1.2	2.2	2.4	1.8	1.9	0.6	0.5	1.4	1.6	1.1	0.5	0.8	1.3	1.1	0.5	1.0	2.4
28-Jul	0.3	Z	1.5	3.7	5.7	5.6	5.1	4.5	2.7	2.8	M	M	0.8	0.0	0.0	0.2	0.0	0.9	0.3	0.5	1.1	4.9	0.7	0.0	2.0	5.7
29-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.4	1.4	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.4
30-Jul	0.0	0.0	0.0	Z	0.3	0.4	0.0	0.0	0.1	0.6	1.8	1.2	0.9	0.1	0.0	0.0	0.0	0.3	0.2	0.1	3.2	1.2	3.3	0.4	0.6	3.3
31-Jul	0.2	0.9	6.3	10.4	Z	18.0	8.9	6.2	4.6	3.2	2.0	1.9	2.1	3.2	2.2	3.6	3.0	3.1	2.5	2.3	6.4	8.9	3.0	0.3	4.5	18.0
1.1 1.3 1.7 4.1 7.1 8.8 5.6 5.2 5.0 3.1 3.1 2.0 1.2 0.8 0.6 0.7 0.8 0.6 0.4 0.4 0.6 1.1 1.1 0.8																									Diurnal Average	
16.2 12.4 6.3 23.4 34.4 28.2 28.6 20.2 38.1 11.8 19.0 13.7 6.0 4.5 3.6 3.7 4.4 3.4 2.5 2.3 6.4 8.9 11.2 5.2																									Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance AF - Analyzer Failure PF - Power Failure																										



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Barge Landing - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Barge Landing - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	635	98.45	98.45
21 - 40	10	1.55	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 645

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Barge Landing - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	29	37	21	18	11	29	50	78	68	58	57	55	21	28	32	43	635
21 - 40	1	0	0	0	2	0	1	0	2	1	1	0	0	1	0	1	10
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	30	37	21	18	13	29	51	78	70	59	58	55	21	29	32	44	645

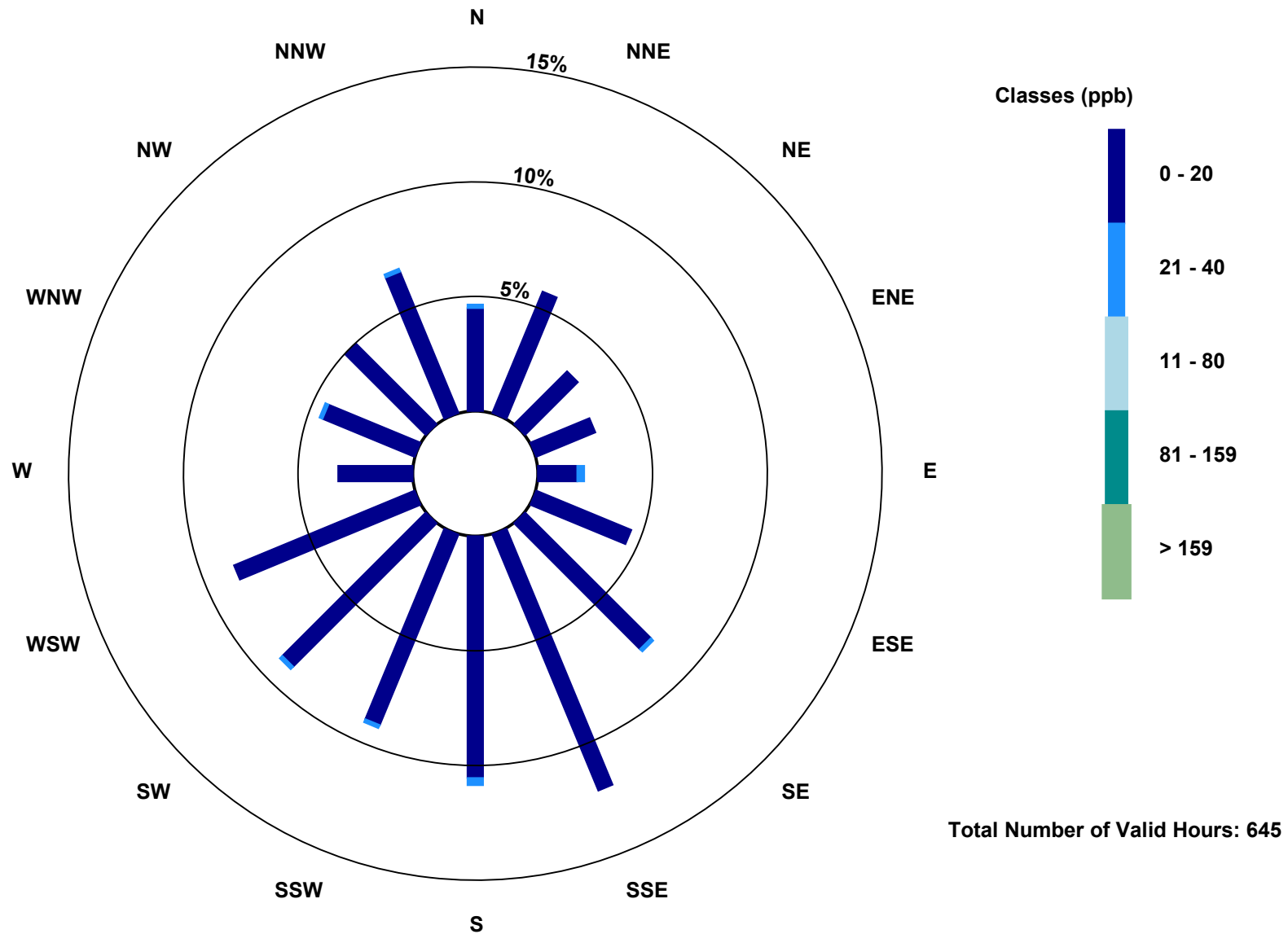
Total Number of Valid Hours: 645

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

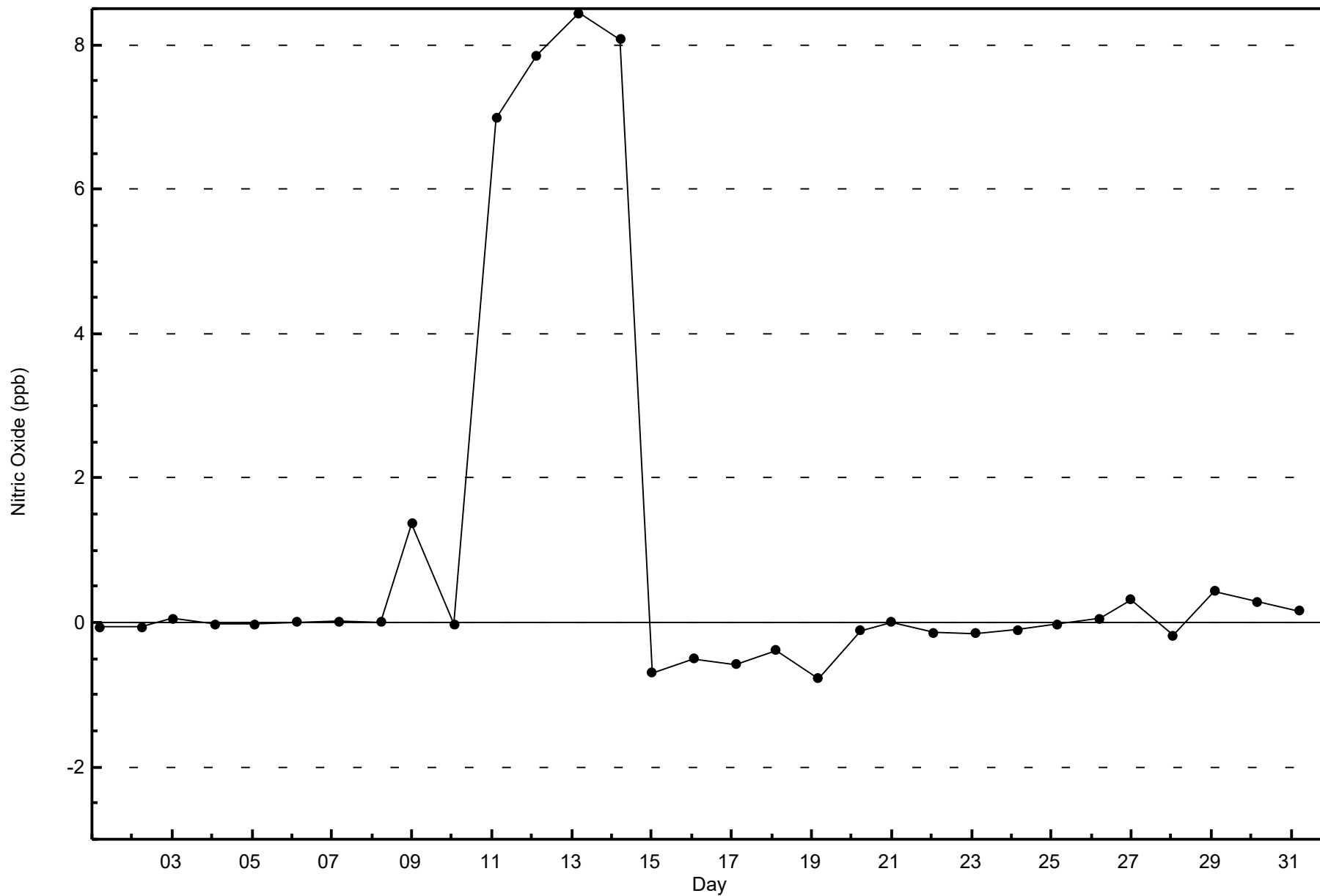
Nitric Oxide (NO) - ppb
Barge Landing





Wood Buffalo Environmental Association
Zero Responses

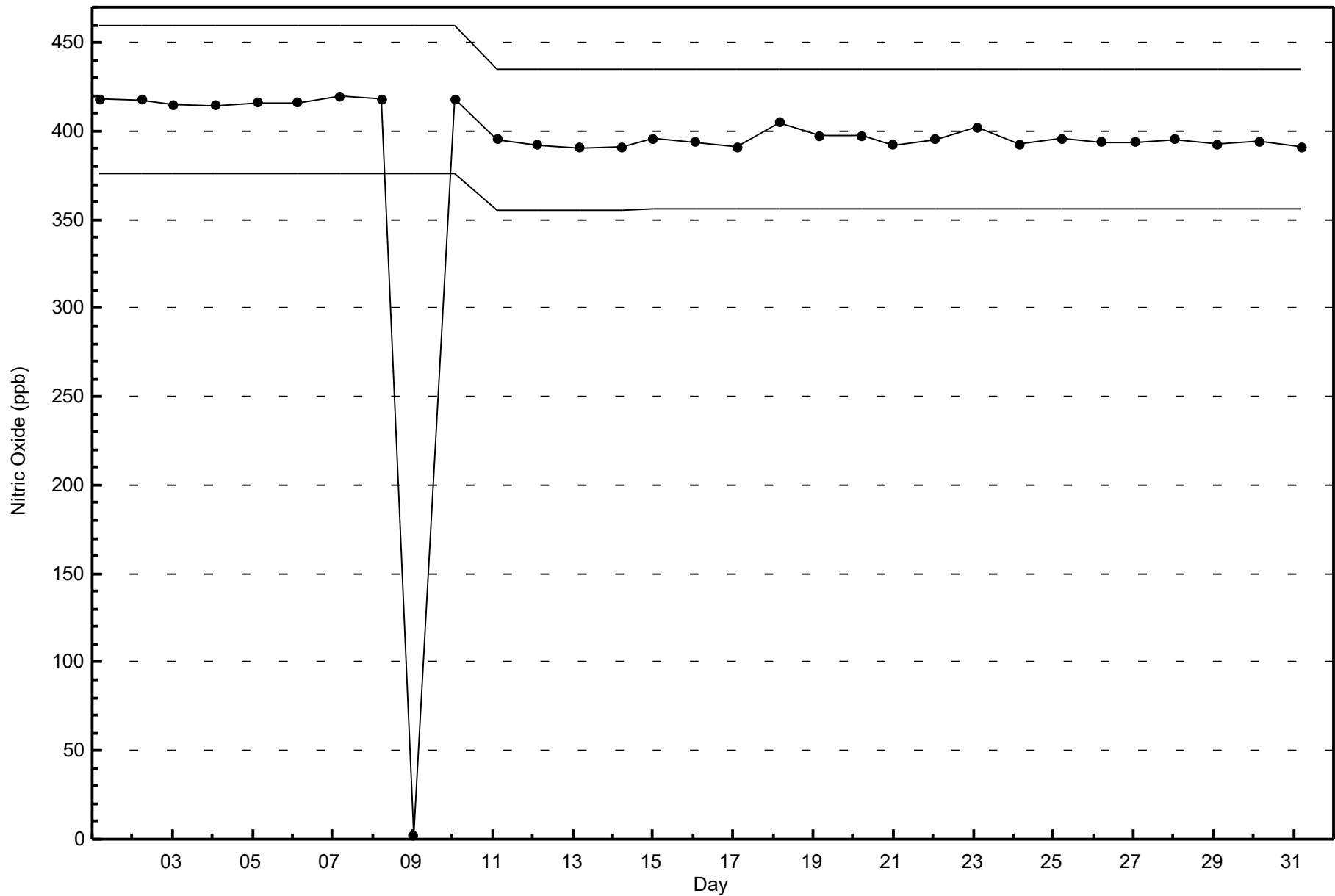
Nitric Oxide (NO) - ppb
Barge Landing - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Barge Landing - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

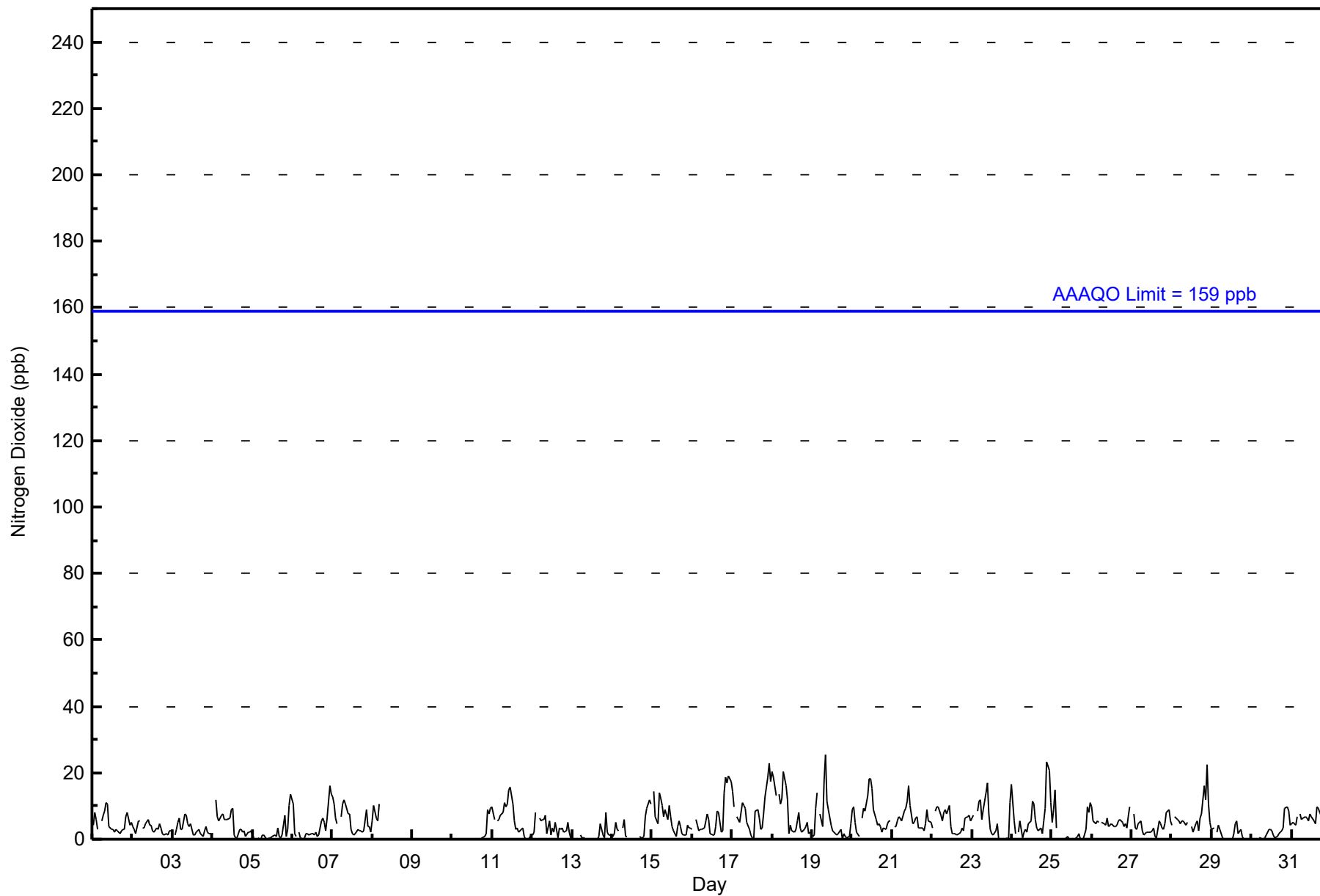
Barge Landing - July 2026

Number of Exceedances (AAAQO): Maximum Value: 25.6 ppb on Jul 19 09:00																			1-hr: 0 Maximum Daily Average: 8.4 ppb on Jul 17						Hours in Service: 744 Hours of Data: 645			
Minimum Value: 0.0 ppb on Jul 10 17:00 Maximum Diurnal Average: 7.1 ppb at hour 22 Monthly Average: 4.97 ppb																			Minimum Daily Average: 1.2 ppb on Jul 13 Minimum Diurnal Average: 2.5 ppb at hour 19 Percentiles: P ₁ = 0.0 P ₁₀ = 0.3 Q ₁ = 1.8 Median = 3.9 Q ₃ = 6.9 P ₉₀ = 10.6 P ₉₉ = 19.9						Hours of Missing Data: 99 Hours of Calibration: 36 Percent Operational Time: 91.5			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	4.3	8.1	6.0	2.8	Z	5.5	7.1	8.5	11.2	10.7	4.0	2.8	3.0	2.2	2.8	2.4	1.8	2.4	2.9	3.0	6.9	8.1	4.4	5.0	5.0	11.2		
2-Jul	3.8	2.9	1.9	5.6	5.7	Z	3.5	3.5	4.7	5.9	4.3	4.1	2.7	2.2	3.6	2.8	4.6	3.6	1.9	1.3	1.6	1.2	2.5	2.4	3.3	5.9		
3-Jul	Z	1.1	2.8	5.2	6.3	3.0	2.8	7.8	7.4	4.6	3.8	4.7	1.2	1.4	2.2	2.5	3.0	1.8	1.0	2.4	4.0	2.0	1.6	1.6	3.2	7.8		
4-Jul	1.8	Z	11.9	6.8	5.3	7.3	7.7	6.1	5.9	5.9	6.5	8.9	9.3	1.3	0.6	0.3	3.1	3.1	2.0	2.4	0.9	2.3	2.0	2.5	4.5	11.9		
5-Jul	1.3	0.6	Z	0.3	0.2	0.2	1.3	1.1	0.2	0.2	0.6	0.3	0.7	1.1	0.9	3.5	0.9	0.3	1.4	7.4	0.7	2.8	10.2	13.4	2.2	13.4		
6-Jul	10.6	1.8	1.0	Z	2.0	0.3	0.2	0.4	1.6	1.7	1.4	1.9	1.8	1.1	2.0	0.7	1.3	5.4	6.2	4.9	2.4	6.5	16.1	13.6	3.7	16.1		
7-Jul	12.9	10.5	6.3	4.7	Z	6.7	10.6	11.8	10.4	7.5	7.8	2.8	1.8	1.3	1.5	3.0	2.4	2.7	2.1	2.6	8.7	3.9	3.9	2.2	5.6	12.9		
8-Jul	5.7	10.3	6.2	5.3	10.8	Z	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	10.8		
9-Jul	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	--		
10-Jul	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	C	C	C	C	C	C	C	0.0	0.0	0.6	0.8	1.5	8.7	7.8	9.4	--	9.4	
11-Jul	9.9	5.8	Z	5.4	5.9	7.1	8.1	10.9	9.6	10.5	14.9	15.7	10.5	5.7	2.8	3.4	2.3	3.1	3.2	0.8	0.2	0.2	0.2	1.3	6.0	15.7		
12-Jul	1.4	2.2	8.0	Z	6.2	5.3	6.1	5.8	7.1	1.9	5.6	1.2	3.3	2.3	5.1	0.3	3.3	3.0	3.3	2.1	2.7	5.2	2.2	0.6	3.7	8.0		
13-Jul	0.5	0.2	0.1	0.1	Z	1.1	0.3	0.5	PF	PF	PF	PF	0.0	0.0	0.0	0.2	0.9	4.6	1.1	0.3	8.1	2.1	1.2	1.1	1.2	8.1		
14-Jul	0.9	1.8	5.0	3.0	2.6	Z	3.3	6.0	0.8	0.9	M	M	M	M	M	M	0.7	0.4	0.3	0.9	6.6	9.4	11.7	10.5	--	11.7		
15-Jul	Z	14.5	6.8	4.5	14.0	12.4	10.3	6.8	8.9	6.0	10.3	6.6	3.8	2.6	0.9	4.0	5.4	3.8	1.8	1.3	1.1	4.4	3.4	3.4	6.0	14.5		
16-Jul	3.1	Z	5.8	4.2	2.7	3.1	3.1	3.5	5.5	7.7	5.8	1.6	1.2	1.1	3.9	8.5	7.9	2.0	2.6	14.1	18.5	17.1	19.1	17.2	6.9	19.1		
17-Jul	14.5	9.9	Z	6.6	5.1	8.0	11.1	10.2	9.3	5.0	2.9	1.4	0.5	0.2	8.5	8.8	6.4	3.0	3.3	7.6	12.9	18.6	22.7	17.3	8.4	22.7		
18-Jul	20.5	18.5	13.1	Z	13.6	10.7	12.2	20.5	16.1	11.7	1.5	4.1	2.5	2.3	3.0	5.6	8.0	3.4	2.3	3.1	3.7	5.0	1.8	2.0	8.1	20.5		
19-Jul	0.9	1.3	9.2	13.8	Z	7.5	3.9	17.9	25.6	11.3	9.0	4.2	2.6	2.2	1.9	1.4	1.5	2.9	0.1	1.8	0.8	0.4	1.0	4.8	5.5	25.6		
20-Jul	8.8	9.6	4.9	2.1	0.9	Z	6.4	9.3	8.4	13.1	18.4	18.4	15.1	8.8	5.8	4.2	4.7	4.0	2.3	3.6	2.9	4.5	5.3	5.6	7.3	18.4		
21-Jul	Z	3.7	4.0	5.3	6.9	6.4	5.6	8.3	9.3	11.6	16.2	10.1	4.6	5.2	6.2	6.7	3.6	3.5	3.2	2.5	4.7	8.9	5.5	5.2	6.4	16.2		
22-Jul	3.6	Z	8.3	9.6	9.8	7.0	5.6	8.2	8.9	7.6	10.1	4.0	1.6	1.6	1.5	1.1	1.7	2.0	3.3	2.7	6.4	6.9	7.2	5.3	5.4	10.1		
23-Jul	6.5	7.4	Z	8.6	11.4	11.7	5.9	9.0	14.1	17.1	7.7	3.0	1.7	1.4	2.5	4.6	0.1	0.0	0.0	0.2	0.2	0.4	0.0	11.2	5.4	17.1		
24-Jul	16.7	5.4	1.8	Z	2.0	5.3	0.3	2.0	2.9	2.1	4.5	5.3	11.3	10.7	6.1	3.4	2.7	3.2	1.5	5.6	9.2	23.3	20.9	10.9	6.8	23.3		
25-Jul	5.2	8.7	14.9	3.5	Z	0.0	0.0	0.0	0.0	0.8	0.0	0.1	0.0	0.0	0.0	0.8	1.7	0.0	0.0	0.0	3.1	9.9	8.2	11.2	3.0	14.9		
26-Jul	9.6	5.6	4.7	5.4	5.2	Z	5.1	4.5	4.2	6.3	3.7	4.1	4.5	3.9	4.0	4.2	5.7	6.1	5.1	3.7	4.7	3.6	6.7	9.9	5.2	9.9		
27-Jul	Z	7.7	3.3	3.0	4.7	5.3	2.6	1.2	1.9	2.0	2.3	2.2	2.7	3.5	0.9	0.6	5.4	4.5	3.5	3.0	4.7	7.9	8.8	5.7	3.8	8.8		
28-Jul	4.4	Z	6.7	5.9	5.4	4.5	5.7	5.5	4.1	5.1	M	M	4.0	2.3	4.6	5.7	2.7	6.4	7.5	16.0	12.0	22.5	10.8	5.0	7.0	22.5		
29-Jul	2.8	3.2	Z	2.3	4.4	3.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	1.6	4.6	5.7	1.8	2.9	0.9	0.1	0.0	0.0	0.0	0.1	1.5	5.7		
30-Jul	0.0	0.0	0.0	Z	0.3	0.3	0.1	0.2	0.3	1.2	3.0	2.9	2.6	1.3	0.5	0.7	1.6	2.1	2.6	3.3	9.2	9.7	8.6	4.4	2.4	9.7		
31-Jul	4.6	5.0	4.2	6.6	Z	7.7	6.1	6.2	6.7	6.3	5.7	7.8	6.7	5.7	4.5	9.7	9.3	8.1	7.2	7.9	10.2	10.3	10.0	5.0	7.0	10.3		
6.2 5.8 5.7 5.0 5.7 5.4 4.8 6.3 6.9 6.1 6.0 4.7 3.7 2.7 3.0 3.5 3.3 3.0 2.5 3.6 5.1 7.1 7.0 6.5																									Diurnal Average			
20.5 18.5 14.9 13.8 14.0 12.4 12.2 20.5 25.6 17.1 18.4 18.4 15.1 10.7 8.5 9.7 9.3 8.1 7.5 16.0 18.5 23.3 22.7 17.3																									Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance AF - Analyzer Failure PF - Power Failure																												
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																												



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Barge Landing - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Barge Landing - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	638	98.91	98.91
21 - 40	7	1.09	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 645

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Barge Landing - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	28	36	21	17	13	28	51	78	70	59	58	55	21	29	32	42	638
21 - 40	2	1	0	1	0	1	0	0	0	0	0	0	0	0	0	2	7
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	30	37	21	18	13	29	51	78	70	59	58	55	21	29	32	44	645

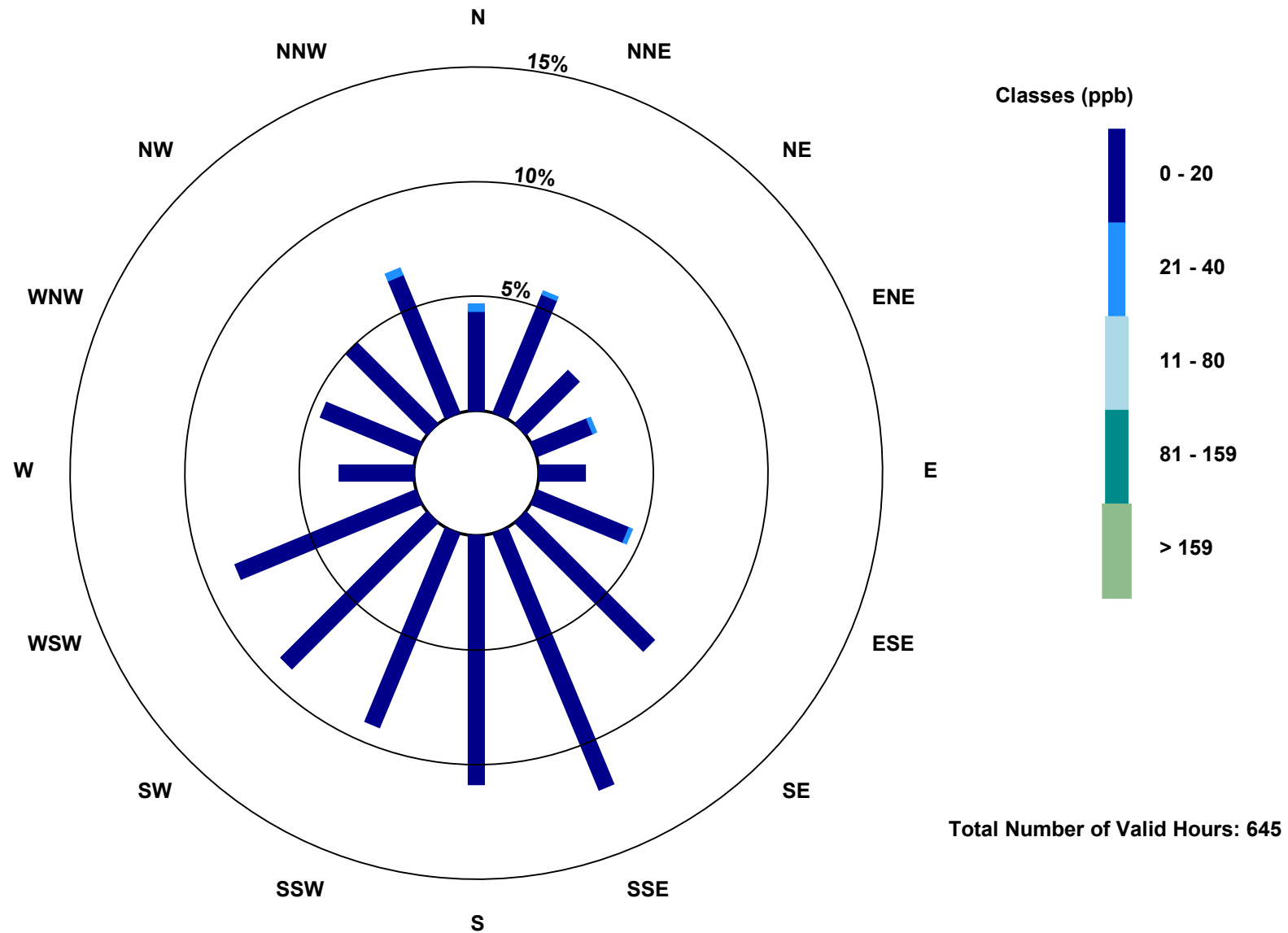
Total Number of Valid Hours: 645

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

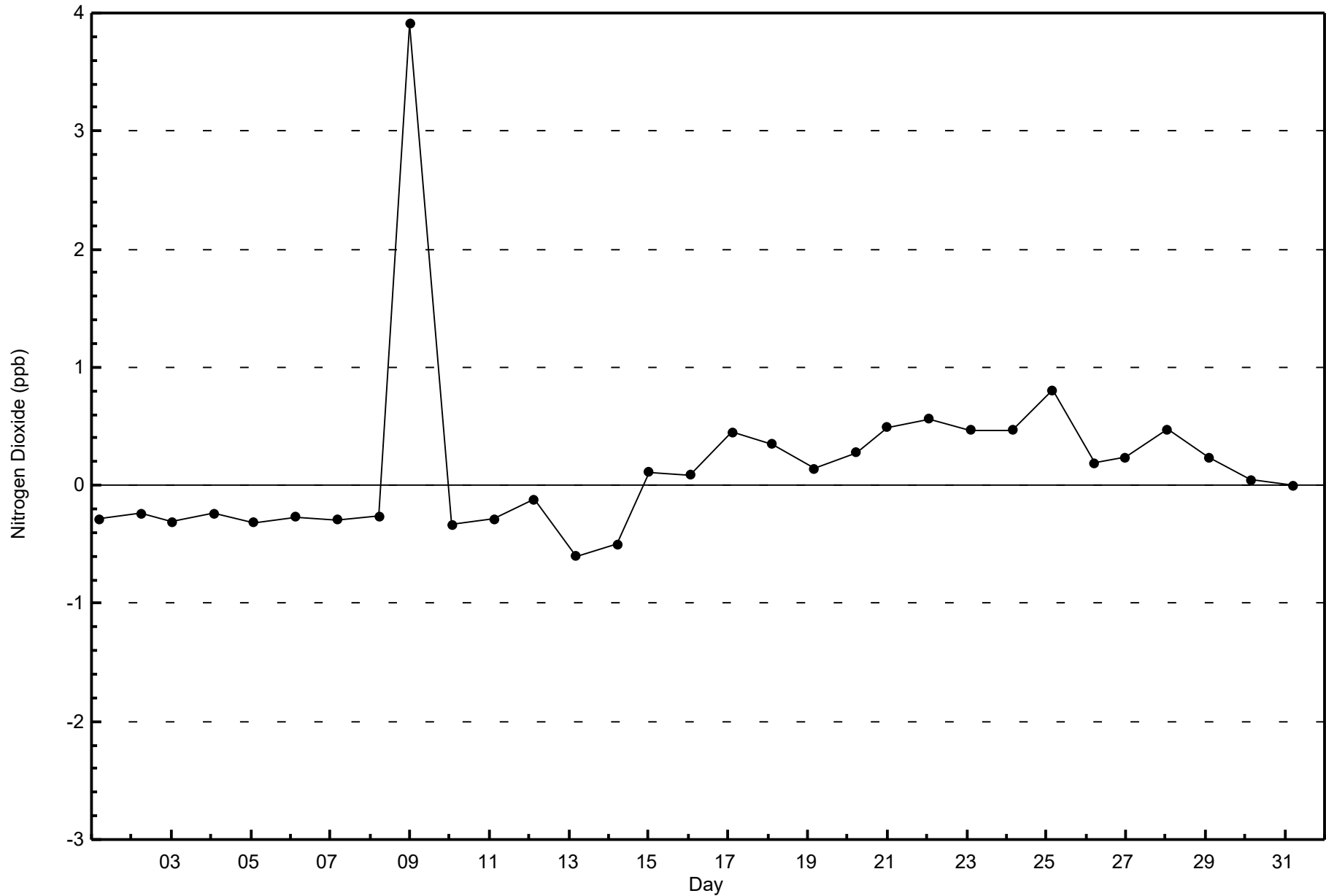
Nitrogen Dioxide (NO₂) - ppb
Barge Landing





Wood Buffalo Environmental Association
Zero Responses

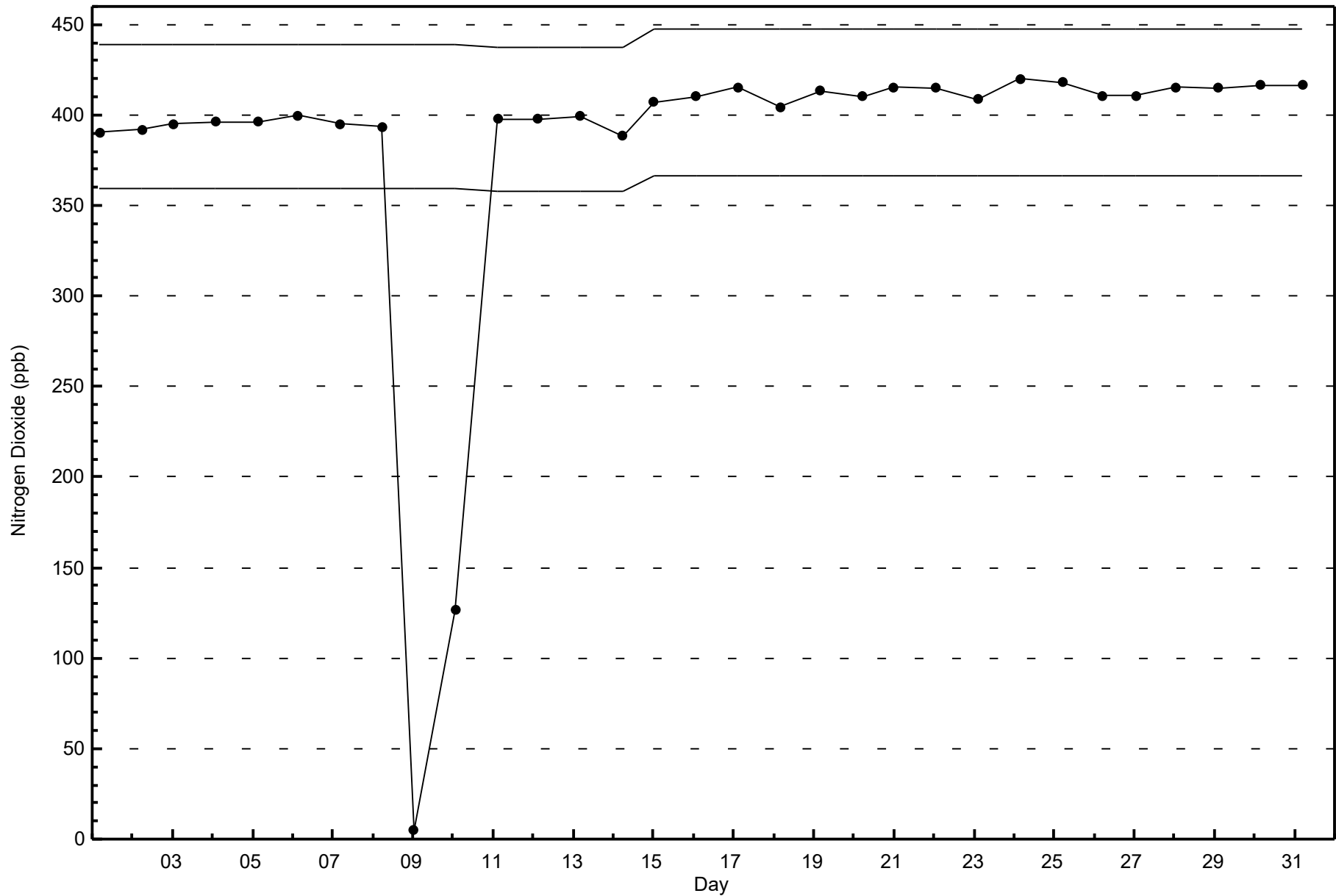
Nitrogen Dioxide (NO₂) - ppb
Barge Landing - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Barge Landing - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

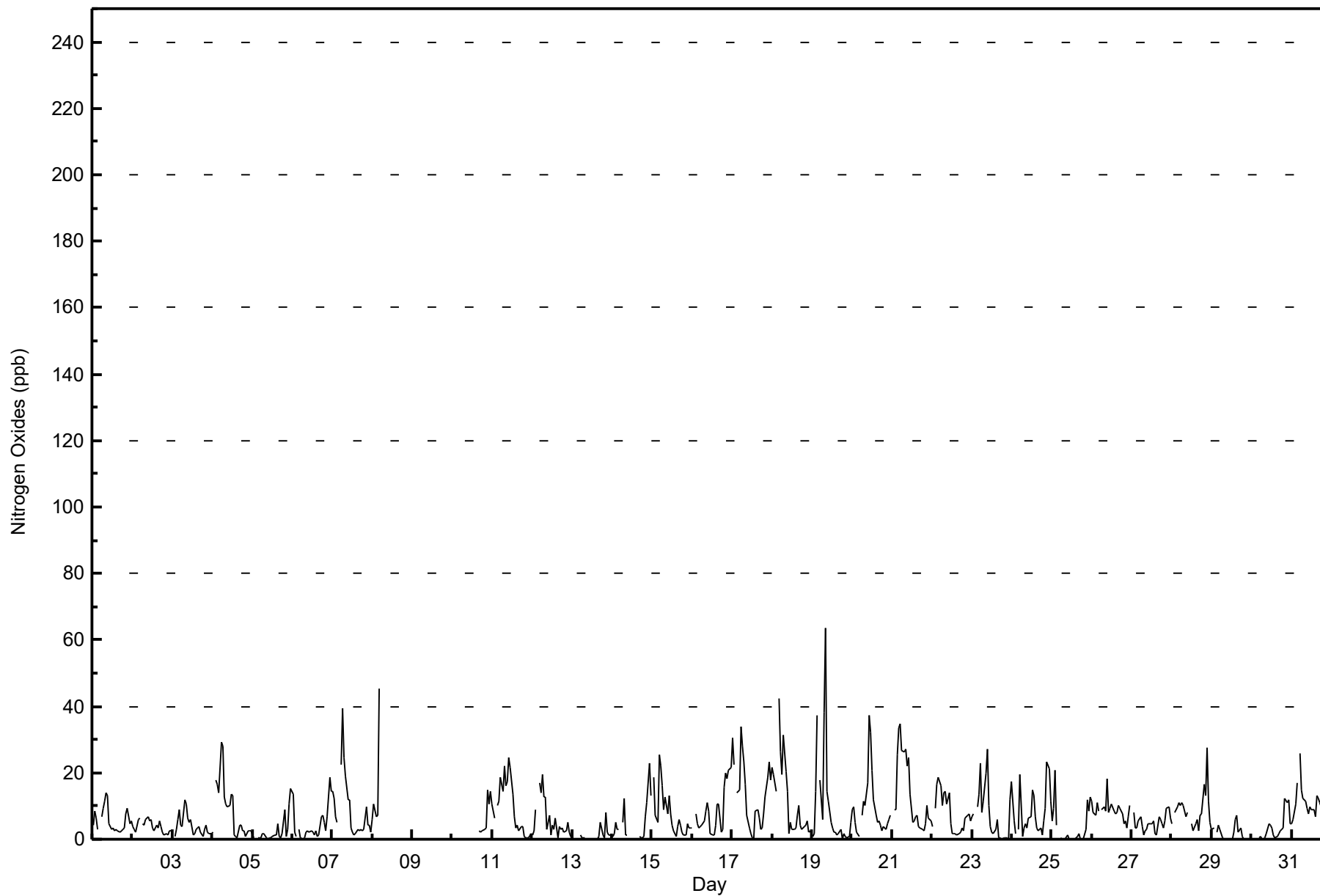
Barge Landing - July 2026

Maximum Value: 63.7 ppb on Jul 19 09:00																		Maximum Daily Average: 13.7 ppb on Jul 21										Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 13 13:00																		Minimum Daily Average: 1.2 ppb on Jul 13										Hours of Data: 645	
Maximum Diurnal Average: 14.2 ppb at hour 6																		Minimum Diurnal Average: 3.0 ppb at hour 19										Hours of Missing Data: 99	
Monthly Average: 7.27 ppb																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.5 Q ₁ = 2.0 Median = 4.6 Q ₃ = 10.2 P ₉₀ = 17.5 P ₉₉ = 36.0										Hours of Calibration: 36	
																												Percent Operational Time: 91.5	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	4.4	8.5	6.4	2.9	Z	6.6	9.4	11.3	13.9	13.2	4.6	3.2	3.4	2.4	3.1	2.7	2.0	2.6	3.1	3.2	7.6	9.4	4.7	5.3	5.8	13.9			
2-Jul	4.0	3.1	2.0	6.0	6.4	Z	4.5	4.3	5.8	6.9	5.4	5.7	3.5	2.7	4.2	3.2	5.6	4.0	2.0	1.3	1.6	1.2	2.5	2.5	3.8	6.9			
3-Jul	Z	1.1	3.1	5.7	8.9	4.0	3.8	11.9	10.5	6.2	5.2	5.8	1.3	1.8	3.0	3.2	3.7	2.0	1.0	2.8	4.4	2.0	1.7	1.6	4.1	11.9			
4-Jul	1.9	Z	18.0	16.6	14.0	29.1	27.9	12.6	10.8	9.8	10.2	13.3	12.9	1.5	0.6	0.3	4.3	4.3	2.5	2.8	0.9	2.5	2.7	2.6	8.8	29.1			
5-Jul	1.3	0.6	Z	0.3	0.2	0.2	1.7	1.5	0.2	0.2	0.6	0.3	0.8	1.4	1.2	4.5	0.9	0.3	1.6	8.9	0.7	2.9	10.7	15.3	2.5	15.3			
6-Jul	13.7	2.0	1.0	Z	2.8	0.3	0.2	0.5	2.3	2.4	1.9	2.7	2.3	1.3	2.4	0.8	1.4	6.9	7.2	5.3	2.5	6.9	18.6	14.5	4.3	18.6			
7-Jul	14.2	12.2	6.8	5.2	Z	22.2	39.2	24.6	19.2	11.7	11.7	3.5	2.1	1.4	1.5	3.2	2.5	2.8	2.3	2.8	9.7	4.1	4.1	2.2	9.1	39.2			
8-Jul	6.0	10.8	6.7	7.2	45.2	Z	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	45.2			
9-Jul	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	--		
10-Jul	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	C	C	C	C	C	C	C	2.5	2.3	2.5	2.9	3.3	14.8	10.6	14.6	--	14.8		
11-Jul	10.8	6.2	Z	10.1	11.4	18.5	14.2	21.8	16.1	17.6	24.7	21.5	13.8	6.9	3.4	4.3	2.6	3.7	3.6	0.9	0.4	0.4	0.2	1.6	9.3	24.7			
12-Jul	1.4	2.6	8.9	Z	16.9	13.8	19.5	12.5	12.7	3.0	7.0	1.3	4.1	3.1	6.3	0.3	3.7	3.1	3.5	2.1	2.7	5.2	2.2	0.6	5.9	19.5			
13-Jul	0.5	0.2	0.1	0.1	Z	1.3	0.3	0.5	PF	PF	PF	PF	0.0	0.0	0.0	0.2	0.9	5.0	1.1	0.3	8.1	2.1	1.2	1.1	1.2	8.1			
14-Jul	0.9	1.9	5.2	3.0	3.0	Z	5.0	12.1	1.3	1.4	M	M	M	M	M	M	1.0	0.4	0.3	0.9	6.9	11.0	22.9	13.0	--	22.9			
15-Jul	Z	18.6	7.4	5.0	25.5	22.2	15.9	9.1	12.8	7.6	13.3	7.8	4.2	2.6	0.9	4.0	5.9	4.1	2.0	1.3	1.1	4.8	3.4	3.5	8.0	25.5			
16-Jul	3.3	Z	7.8	4.8	3.5	4.0	4.0	5.4	8.3	11.2	8.4	1.7	1.2	1.1	4.3	10.5	10.6	2.0	2.8	15.7	19.9	18.3	21.0	21.8	8.3	21.8			
17-Jul	30.7	22.3	Z	14.2	14.7	34.0	27.8	23.5	16.7	7.1	3.4	1.6	0.5	0.2	8.5	8.8	6.4	3.0	3.3	7.6	12.9	18.8	23.5	17.9	13.4	34.0			
18-Jul	21.6	19.5	14.3	Z	42.6	26.4	19.6	31.2	20.3	14.5	1.9	4.9	3.1	2.9	3.2	7.3	10.0	4.3	3.1	3.8	4.2	5.4	2.2	2.4	11.7	42.6			
19-Jul	1.1	1.7	14.5	37.2	Z	17.9	5.8	38.1	63.7	14.3	11.3	5.1	3.2	2.3	2.1	1.4	1.5	2.9	0.1	1.8	0.8	0.4	1.1	5.0	10.1	63.7			
20-Jul	9.1	9.9	5.2	2.1	0.9	Z	7.1	11.4	10.4	16.8	37.4	32.1	21.0	11.9	7.4	5.2	5.4	4.4	2.5	3.9	2.9	4.6	6.0	7.0	9.8	37.4			
21-Jul	Z	8.8	8.9	25.6	33.3	34.6	26.7	26.1	27.3	21.9	24.6	13.5	5.3	5.7	6.7	7.3	3.7	3.5	3.2	2.5	4.8	10.3	6.3	5.7	13.7	34.6			
22-Jul	3.9	Z	9.3	16.5	18.8	16.3	10.3	14.2	14.3	10.5	13.9	4.8	1.6	1.6	1.5	1.1	1.7	2.0	3.3	2.7	6.4	7.1	7.5	5.5	7.6	18.8			
23-Jul	6.7	7.7	Z	9.7	13.5	22.8	8.2	11.2	20.1	27.2	10.3	3.6	2.1	1.8	2.8	6.0	0.3	0.3	0.0	0.3	0.2	0.4	0.0	11.7	7.3	27.2			
24-Jul	17.3	5.7	1.9	Z	2.8	19.3	0.7	3.6	4.6	3.3	6.4	6.9	14.7	13.1	6.6	3.4	2.7	3.2	1.5	5.6	9.2	23.4	21.4	11.4	8.2	23.4			
25-Jul	5.4	9.3	20.9	4.0	Z	0.3	0.1	0.0	0.1	1.3	0.1	0.2	0.1	0.0	0.0	0.8	1.8	0.0	0.0	0.0	3.2	11.7	8.5	12.9	3.5	20.9			
26-Jul	11.5	8.1	7.2	11.2	8.4	Z	9.1	9.8	8.4	18.1	8.0	9.3	10.5	8.4	7.6	7.9	10.1	9.5	7.6	4.6	5.4	3.6	6.8	10.3	8.8	18.1			
27-Jul	Z	7.9	3.5	3.3	5.3	6.9	3.6	1.4	2.6	3.2	4.5	4.6	4.5	5.4	1.5	1.1	6.8	6.1	4.6	3.5	5.5	9.2	9.9	6.2	4.8	9.9			
28-Jul	4.7	Z	8.2	9.6	11.1	10.1	10.8	10.0	6.8	7.9	M	M	4.8	2.3	4.6	5.9	2.7	7.3	7.8	16.5	13.1	27.4	11.5	5.0	9.0	27.4			
29-Jul	2.8	3.2	Z	2.3	4.4	3.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	2.0	6.0	7.1	2.1	3.3	0.9	0.1	0.0	0.0	0.0	0.1	1.7	7.1			
30-Jul	0.0	0.0	0.0	Z	0.6	0.7	0.1	0.2	0.4	1.8	4.8	4.1	3.5	1.4	0.5	0.7	1.6	2.4	2.8	3.4	12.4	10.9	11.9	4.8	3.0	12.4			
31-Jul	4.8	5.9	10.5	16.9	Z	25.7	15.0	12.4	11.3	9.5	7.7	9.7	8.8	8.9	6.7	13.3	12.3	11.2	9.7	10.2	16.6	19.2	13.0	5.3	11.5	25.7			
7.3 7.1 7.4 9.1 12.8 14.2 10.4 11.5 11.9 9.2 9.1 6.7 4.9 3.5 3.6 4.2 4.0 3.7 3.0 4.1 5.8 8.2 8.1 7.3																										Diurnal Average			
30.7 22.3 20.9 37.2 45.2 34.6 39.2 38.1 63.7 27.2 37.4 32.1 21.0 13.1 8.5 13.3 12.3 11.2 9.7 16.5 19.9 27.4 23.5 21.8																										Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance AF - Analyzer Failure PF - Power Failure																													



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Barge Landing - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Barge Landing - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	600	93.02	93.02
21 - 40	42	6.51	99.53
41 - 80	3	0.47	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 645

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Barge Landing - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	25	34	21	15	11	27	47	75	62	54	57	52	21	27	31	41	600
21 - 40	5	3	0	3	0	2	4	3	8	5	1	3	0	2	1	2	42
11 - 80	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	3
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	30	37	21	18	13	29	51	78	70	59	58	55	21	29	32	44	645

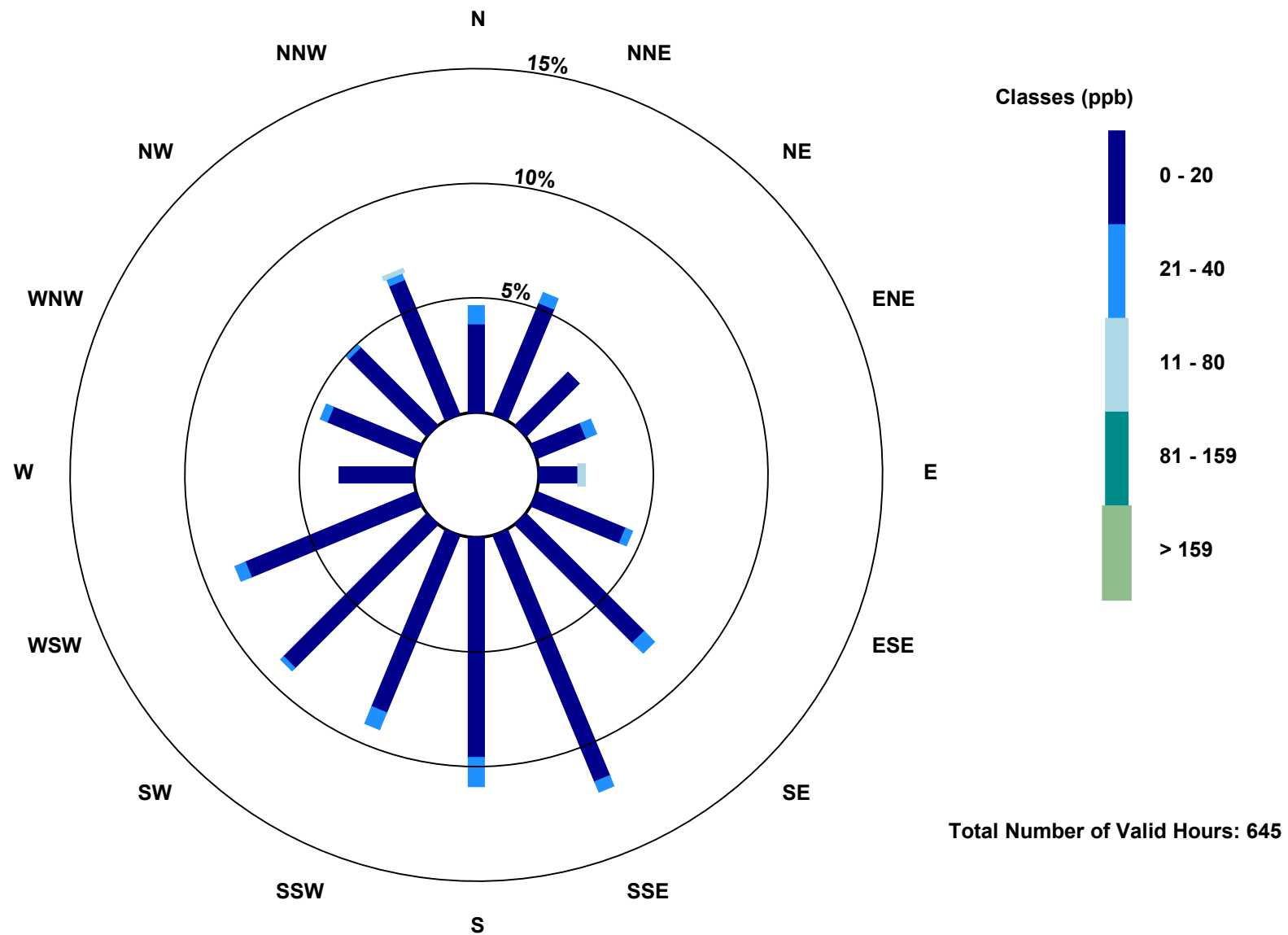
Total Number of Valid Hours: 645

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

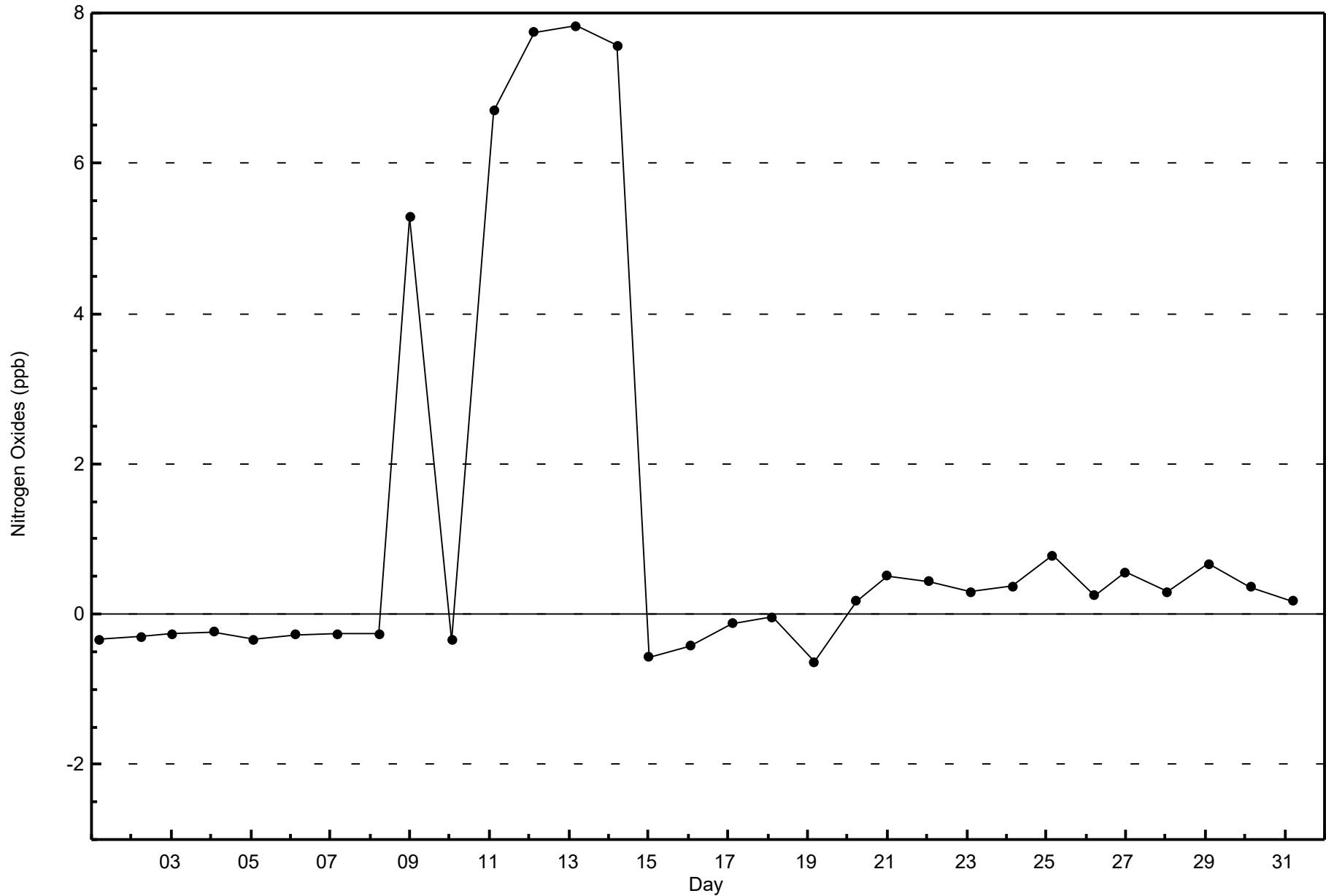
Nitrogen Oxides (NO_x) - ppb
Barge Landing





Wood Buffalo Environmental Association
Zero Responses

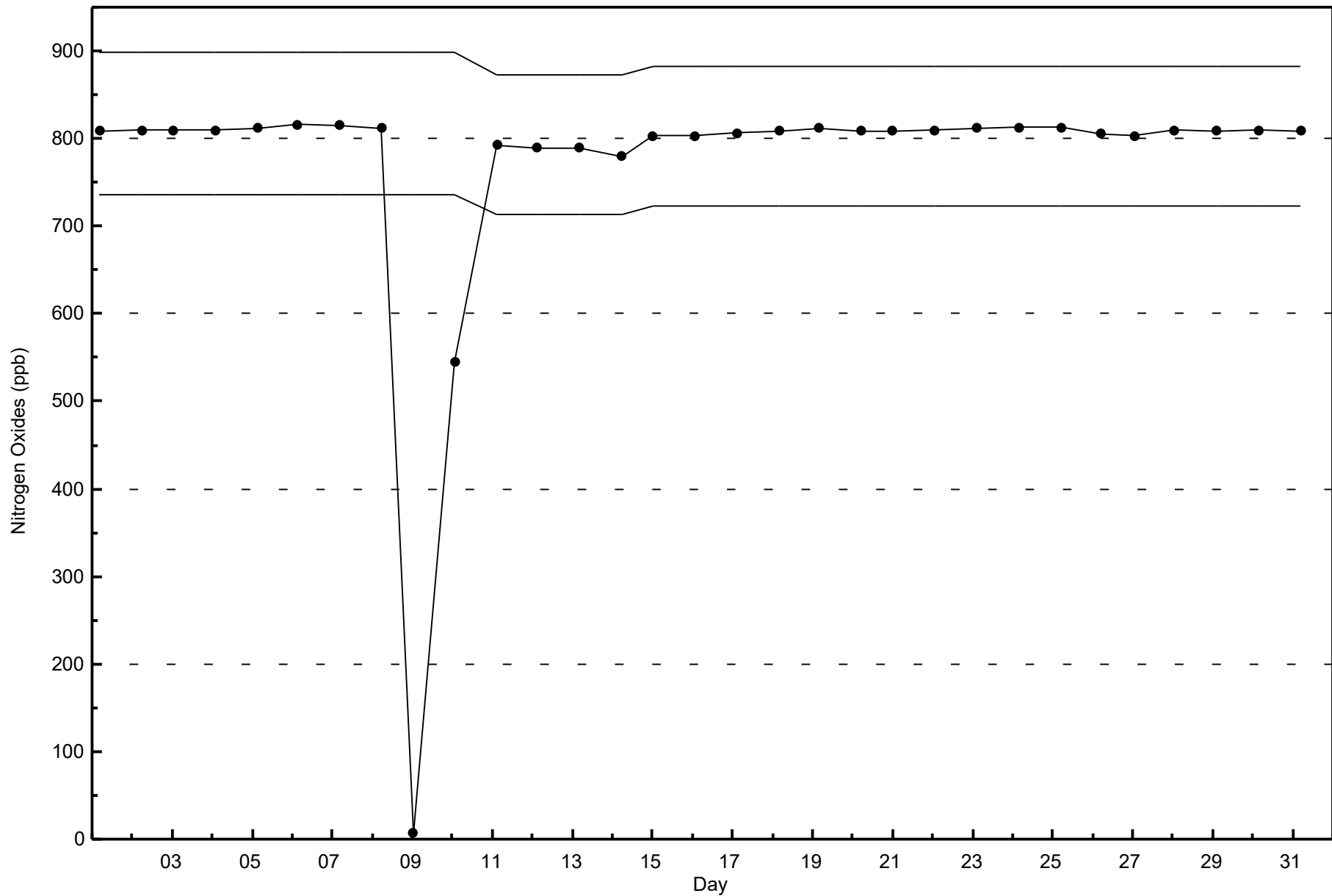
Nitrogen Oxides (NO_x) - ppb
Barge Landing - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Barge Landing - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

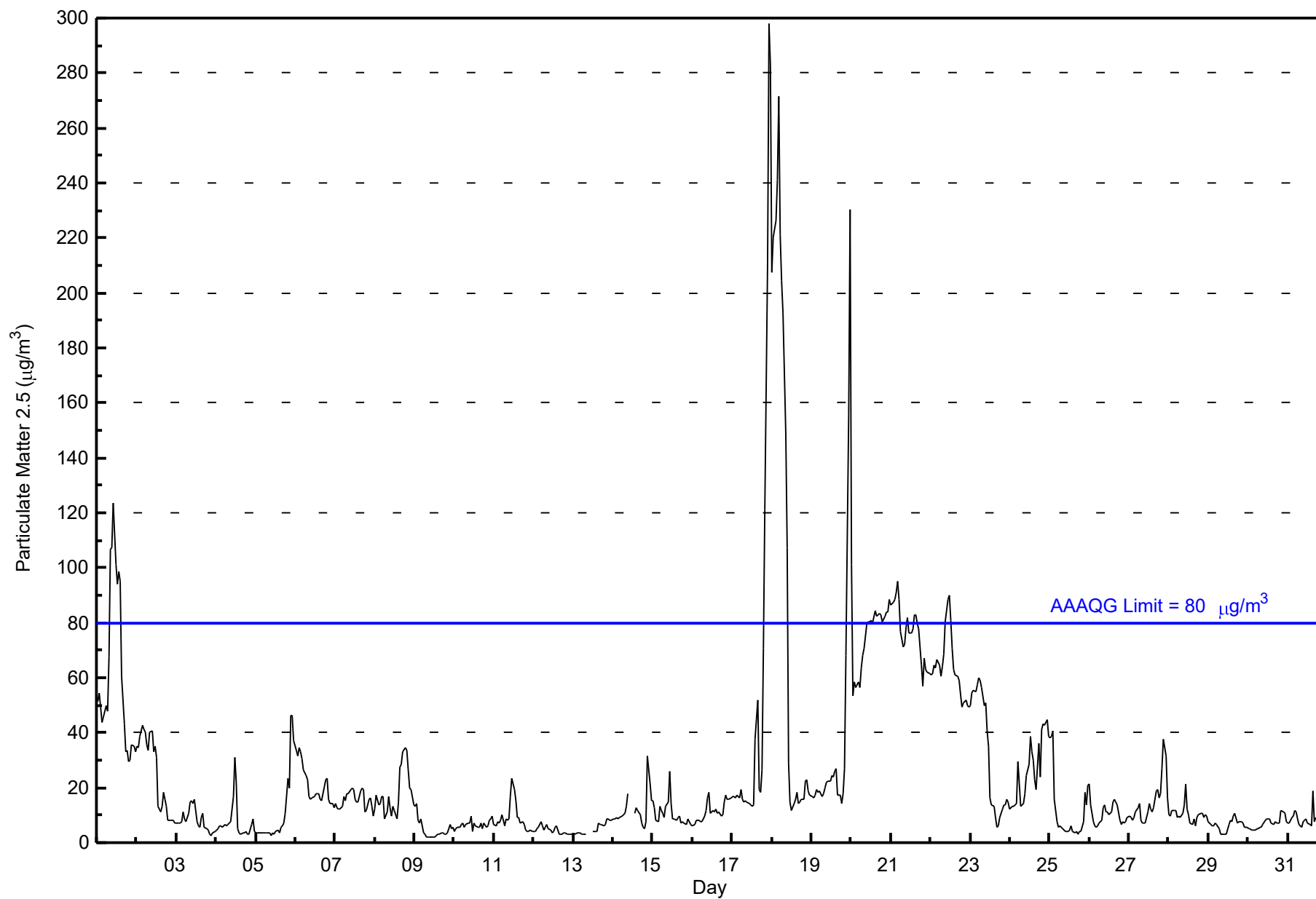
Barge Landing - July 2026

Number of Exceedances (AAAQO): 1-hr: 51 24-hr: 8 Maximum Value: 298.0 µg/m³ on Jul 17 23:00 Maximum Daily Average: 95.3 µg/m³ on Jul 18																					Hours in Service: 744 Hours of Data: 737					
Minimum Value: 1.9 µg/m³ on Jul 9 10:00 Minimum Daily Average: 4.4 µg/m³ on Jul 12 Maximum Diurnal Average: 33.8 µg/m³ at hour 24 Minimum Diurnal Average: 17.3 µg/m³ at hour 19 Monthly Average: 24.76 µg/m³ Percentiles: P ₁ = 2.6 P ₁₀ = 4.1 Q ₁ = 6.9 Median = 11.8 Q ₃ = 23.9 P ₉₀ = 63.8 P ₉₉ = 217.1																					Hours of Missing Data: 7 Hours of Calibration: 3 Percent Operational Time: 99.5					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	51.3	54.6	49.2	43.8	45.5	49.7	48.0	67.9	107.0	107.4	123.6	101.2	94.3	98.8	95.3	60.5	43.0	33.3	33.7	29.6	30.1	35.8	35.3	33.1	61.3	123.6
2-Jul	34.8	34.8	38.6	42.6	41.1	40.2	35.8	33.5	40.1	40.9	33.3	34.9	31.0	13.4	11.2	13.2	18.5	15.8	13.4	8.2	8.0	7.9	8.0	6.9	25.2	42.6
3-Jul	7.0	7.4	7.2	7.5	11.2	8.8	7.8	10.6	14.8	15.3	14.1	15.9	7.9	5.9	5.5	9.1	10.5	5.8	5.0	4.5	3.0	2.8	3.4	4.2	8.1	15.9
4-Jul	4.4	5.3	5.9	6.1	5.4	6.7	6.3	6.8	7.1	7.6	16.9	31.1	22.0	4.9	3.4	2.9	3.5	3.6	3.8	3.3	3.0	6.5	8.5	4.0	7.5	31.1
5-Jul	3.7	3.5	3.5	3.6	3.7	3.7	3.6	3.7	3.3	2.5	3.3	3.1	4.0	4.7	3.6	5.7	6.2	7.3	10.7	23.2	19.7	46.3	46.1	37.1	10.7	46.3
6-Jul	33.6	31.4	34.4	33.3	30.6	26.6	24.2	22.6	16.7	15.8	16.4	16.8	18.0	17.8	17.9	15.8	15.4	20.5	22.6	23.2	15.7	14.1	14.3	12.9	21.3	34.4
7-Jul	14.0	12.5	12.2	12.4	13.4	16.7	15.3	17.8	18.0	19.1	20.0	19.4	15.8	14.7	14.8	18.6	19.7	19.5	11.2	11.9	15.6	16.0	13.0	9.8	15.5	20.0
8-Jul	12.0	17.3	13.7	14.0	16.9	16.6	8.6	11.0	16.5	12.8	9.7	13.0	11.8	8.5	14.9	27.6	28.6	33.1	34.7	33.4	26.5	19.8	19.4	13.6	18.1	34.7
9-Jul	13.4	14.2	8.0	7.2	8.6	3.6	3.1	2.2	2.0	1.9	1.9	2.0	2.1	2.4	2.9	2.9	3.3	3.4	3.1	3.0	3.3	6.4	5.3	5.7	4.7	14.2
10-Jul	4.3	5.2	5.8	5.6	6.8	7.0	5.8	6.8	7.3	6.9	9.6	4.3	6.9	6.2	5.7	5.4	7.1	4.9	7.0	5.4	5.9	8.2	8.9	9.4	6.5	9.6
11-Jul	6.5	6.1	7.6	7.2	8.4	10.4	6.2	8.5	8.2	8.7	16.9	23.6	19.4	15.1	9.2	9.0	7.2	7.8	6.4	4.7	4.1	4.2	4.4	4.2	8.9	23.6
12-Jul	4.1	4.2	5.2	5.7	7.4	5.9	4.8	5.6	6.4	5.0	4.7	3.8	3.9	5.7	6.2	3.2	3.0	3.1	3.3	3.5	3.2	3.0	2.8	2.9	4.4	7.4
13-Jul	2.9	3.1	3.3	3.3	3.3	3.1	2.9	2.9	PF	PF	PF	PF	4.0	4.1	4.3	6.9	6.6	6.4	6.0	6.7	8.8	8.6	8.0	8.0	5.2	8.8
14-Jul	8.5	8.4	9.0	8.9	9.0	9.5	10.0	10.8	13.1	17.9	C	C	C	10.7	12.5	11.5	10.0	7.1	5.6	5.3	7.5	31.3	21.4	15.0	11.6	31.3
15-Jul	15.1	12.8	8.3	7.4	13.1	11.9	10.7	9.2	13.2	14.7	26.2	14.4	8.7	8.8	8.3	9.3	9.7	7.3	7.4	6.9	6.5	8.5	7.8	6.5	10.5	26.2
16-Jul	6.0	6.7	7.9	8.4	8.3	7.8	7.6	9.4	11.7	16.0	18.6	10.9	11.8	11.0	12.4	10.8	11.2	9.6	10.3	15.0	17.3	15.9	15.6	16.1	11.5	18.6
17-Jul	16.7	16.7	16.3	17.2	16.5	19.3	15.7	14.6	15.1	14.9	14.4	13.5	13.2	13.9	37.5	52.0	19.5	18.5	26.5	70.7	120.8	211.5	298.0	282.7	56.5	298.0
18-Jul	207.5	220.3	226.1	241.1	271.6	221.1	204.3	192.8	148.9	107.5	28.8	14.8	11.6	14.5	15.9	18.1	14.1	15.0	15.6	16.0	22.6	22.7	18.7	17.5	95.3	271.6
19-Jul	16.7	16.2	17.1	19.2	18.2	18.9	16.8	18.0	20.0	22.0	22.4	22.5	24.2	23.9	25.8	26.9	17.3	17.4	14.2	17.7	26.8	68.2	155.8	230.5	36.5	230.5
20-Jul	101.4	53.5	58.3	56.5	58.3	56.3	63.7	68.2	70.8	79.8	80.2	80.4	80.9	80.1	84.2	82.5	83.0	83.4	82.9	80.5	82.3	83.7	83.7	88.4	76.0	101.4
21-Jul	86.5	87.5	88.7	91.1	95.2	88.5	76.6	71.2	72.0	78.5	82.0	76.3	76.3	77.7	83.0	82.9	79.7	77.7	64.3	56.7	66.9	63.0	61.8	61.8	76.9	95.2
22-Jul	61.2	61.6	64.7	63.8	66.5	64.8	60.5	64.0	68.8	80.2	88.7	90.1	81.0	70.5	63.2	61.1	60.3	58.8	53.9	49.2	50.8	52.1	49.9	49.5	64.0	90.1
23-Jul	49.8	54.3	55.5	55.1	57.7	60.2	58.8	56.4	49.9	50.8	40.8	35.1	16.1	13.6	13.3	9.3	5.6	6.2	8.9	12.0	13.7	13.8	15.6	14.7	32.0	60.2
24-Jul	12.1	13.2	13.0	13.7	14.3	29.6	13.0	13.7	14.1	17.6	24.2	28.2	38.8	33.1	29.8	22.7	19.2	36.3	23.8	41.2	43.1	42.6	45.0	38.8	25.9	45.0
25-Jul	38.2	38.8	40.4	15.8	7.4	5.8	6.1	5.8	5.0	4.3	4.1	4.2	4.6	6.0	3.9	3.8	4.3	2.8	4.1	3.9	7.8	18.2	13.5	20.9	11.2	40.4
26-Jul	21.5	13.6	7.6	6.1	5.4	6.1	7.0	8.3	12.7	13.6	11.3	11.0	10.1	11.3	14.8	15.5	14.7	13.8	7.9	6.6	7.5	6.9	7.7	9.2	10.4	21.5
27-Jul	9.5	8.9	8.4	8.9	11.3	12.8	14.2	8.3	7.3	7.0	7.3	11.3	14.3	12.2	10.9	12.7	18.9	19.6	16.5	17.7	27.1	37.4	31.6	16.4	14.6	37.4
28-Jul	9.9	9.8	11.7	11.7	11.8	9.2	9.9	9.4	10.7	13.7	21.2	12.0	10.1	7.2	6.5	8.5	6.2	9.3	10.0	10.9	10.9	9.1	10.0	9.5	10.4	21.2
29-Jul	7.9	6.4	6.2	6.2	6.9	6.6	5.2	3.0	2.9	3.0	3.2	3.1	6.5	8.0	7.8	9.7	10.7	6.9	7.8	7.7	7.7	6.9	5.6	5.4	6.3	10.7
30-Jul	5.3	5.0	4.7	4.7	4.7	5.1	5.3	5.4	5.6	6.8	8.0	8.6	8.8	8.7	7.0	6.4	7.4	7.1	7.3	7.3	11.6	11.1	10.5	7.4	7.1	11.6
31-Jul	6.9	7.3	9.1	9.5	11.6	11.0	8.6	6.6	5.8	7.6	8.1	8.9	7.1	6.5	5.9	18.7	7.8	9.3	8.1	8.9	13.1	11.5	7.1	6.6	8.8	18.7
28.2 27.1 27.3 27.0 28.7 27.2 24.7 25.0 26.5 26.7 26.2 24.6 22.2 20.0 20.6 20.7 18.5 18.4 17.3 19.2 22.3 28.8 33.4 33.8																									Diurnal Average	
207.5 220.3 226.1 241.1 271.6 221.1 204.3 192.8 148.9 107.5 123.6 101.2 94.3 98.8 95.3 82.9 83.0 83.4 82.9 80.5 120.8 211.5 298.0 282.7																									Diurnal Maximum	
C - Calibration PF - Power Failure																										
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 µg/m³ 24-hr 29 µg/m³																										



Wood Buffalo Environmental Association
Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Barge Landing - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Barge Landing - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Number of Hours	%	Cumulative %
0 - 5	117	15.88	15.88
6 - 15	336	45.59	61.47
16 - 25	103	13.98	75.44
26 - 80	135	18.32	93.76
> 81.0	46	6.24	100.00

Total Number of Valid Hours: 737

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Barge Landing - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	1	1	1	3	1	1	1	3	8	20	31	26	10	4	3	3	117
6 - 15	11	22	14	9	7	17	26	57	40	33	29	20	11	14	13	13	336
16 - 25	10	9	4	4	3	3	7	11	10	6	5	7	1	5	6	12	103
26 - 80	7	7	2	3	0	7	17	24	18	12	5	4	2	6	9	12	135
> 81.0	4	1	1	0	2	3	3	3	5	3	4	4	1	1	4	6	45
Totals	33	40	22	19	13	31	54	98	81	74	74	61	25	30	35	46	736

Total Number of Valid Hours: 736

Total Number of Hours: 744



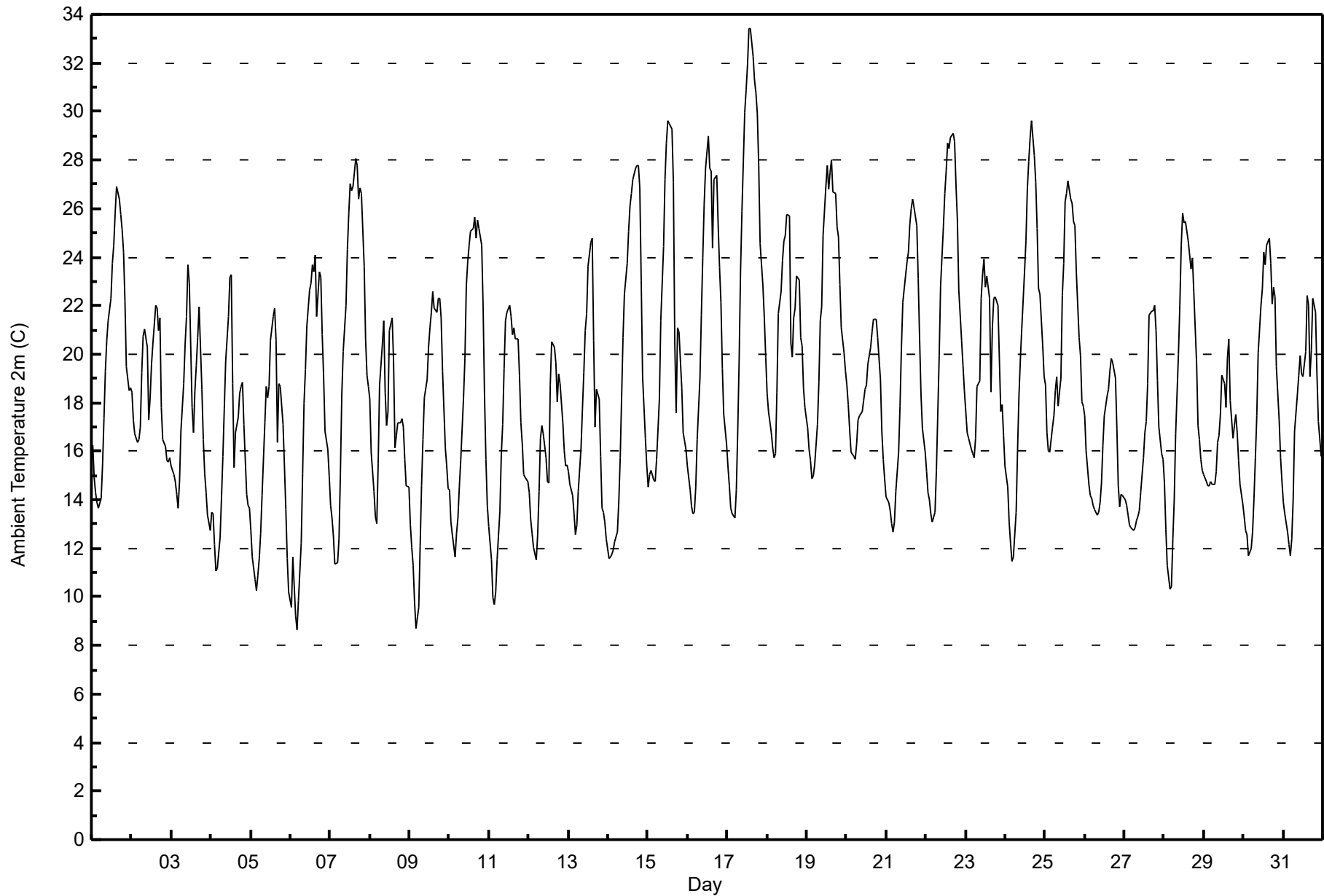
Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Barge Landing





Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Barge Landing - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Barge Landing - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	9	1.21	1.21
10 - 20	460	61.83	63.04
> 20	275	36.96	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

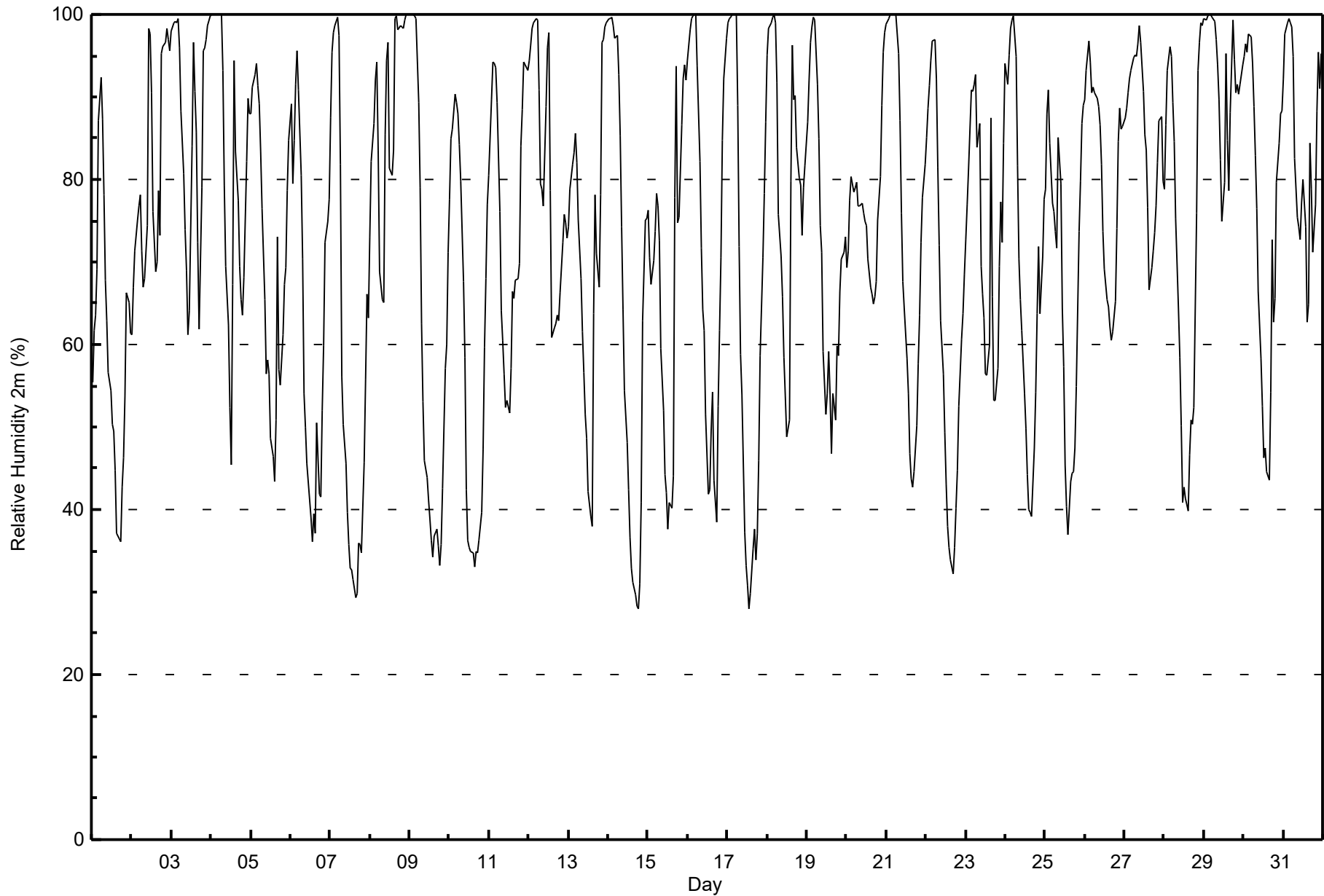
Barge Landing - July 2026

Maximum Value: 100.0 % on Jul 4 01:00																			Maximum Daily Average: 92.2 % on Jul 29										Hours in Service: 744	
Minimum Value: 27.9 % on Jul 14 19:00																			Minimum Daily Average: 57.5 % on Jul 7										Hours of Data: 744	
Maximum Diurnal Average: 93.5 % at hour 5																			Minimum Diurnal Average: 54.1 % at hour 15										Hours of Missing Data: 0	
Monthly Average: 73.08 %																			Percentiles: P ₁ = 30.9 P ₁₀ = 41.9 Q ₁ = 58.0 Median = 75.9 Q ₃ = 91.4 P ₉₀ = 98.5 P ₉₉ = 100.0										Hours of Calibration: 0	
																													Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Jul	55.5	61.6	63.5	69.2	87.2	92.4	87.3	78.2	67.8	62.9	56.6	54.3	50.3	49.5	44.7	37.1	36.4	36.1	42.7	46.3	53.7	66.3	65.2	61.3	59.4	92.4				
2-Jul	61.3	67.0	71.3	75.0	76.8	78.1	71.3	66.9	67.9	74.4	98.3	97.7	90.5	76.1	68.8	70.1	78.6	73.2	95.2	96.1	96.6	98.3	96.9	95.6	80.9	98.3				
3-Jul	98.0	98.9	99.1	99.1	99.5	96.0	88.4	80.7	73.9	69.0	61.2	64.1	84.0	96.6	90.7	85.8	72.4	61.9	79.0	95.5	95.9	97.0	98.7	99.8	86.9	99.8				
4-Jul	100.0	100.0	100.0	100.0	100.0	100.0	100.0	93.3	79.2	69.5	62.3	52.4	45.5	67.3	94.4	83.5	77.5	69.5	65.4	63.5	68.1	82.1	89.9	88.0	81.3	100.0				
5-Jul	87.9	91.2	92.7	94.0	91.4	89.2	83.5	76.5	65.4	56.5	58.1	56.5	48.6	46.5	43.3	50.8	73.1	56.9	55.1	61.2	67.4	69.3	78.6	84.7	69.9	94.0				
6-Jul	89.2	79.6	84.8	91.5	95.6	90.8	80.5	70.4	54.0	50.0	45.6	41.1	39.0	36.2	39.4	37.1	50.5	41.9	41.6	52.1	59.9	72.4	75.0	77.6	62.3	95.6				
7-Jul	87.5	95.4	97.9	98.7	99.6	97.5	81.9	56.1	50.3	45.6	39.7	35.8	32.9	32.8	31.6	29.4	29.8	36.0	35.8	34.8	45.8	55.8	66.1	63.3	57.5	99.6				
8-Jul	73.1	82.2	86.8	92.0	94.3	83.5	68.8	65.5	65.0	85.4	94.4	96.6	81.3	80.5	83.5	99.6	99.9	98.1	98.6	98.6	98.2	99.3	100.0	100.0	88.6	100.0				
9-Jul	100.0	100.0	100.0	99.9	99.5	89.2	79.0	62.5	53.0	45.9	44.0	41.2	38.9	36.3	34.3	36.7	37.7	35.6	33.3	35.8	42.6	57.1	60.0	71.3	59.7	100.0				
10-Jul	77.6	84.9	86.0	90.4	89.3	87.9	84.3	79.7	67.5	58.5	42.4	36.2	35.4	34.9	34.8	33.0	35.0	34.7	36.3	39.6	47.3	59.7	68.0	76.9	59.2	90.4				
11-Jul	80.4	89.7	94.3	94.1	93.5	89.3	76.1	64.1	60.4	56.4	52.4	53.3	51.6	57.2	66.5	65.5	67.7	67.9	69.9	84.1	88.4	94.3	94.0	93.3	75.2	94.3				
12-Jul	94.4	96.3	98.2	99.1	99.5	99.4	90.9	79.4	78.8	76.7	88.9	95.9	97.7	78.7	60.8	62.0	62.5	63.6	62.9	66.3	72.3	75.7	74.8	72.9	81.2	99.5				
13-Jul	74.3	78.8	81.9	83.2	85.5	82.1	75.1	68.0	61.5	56.6	51.5	48.6	42.3	39.2	38.0	63.8	78.1	71.0	67.0	78.2	96.7	97.0	98.5	99.0	71.5	99.0				
14-Jul	99.5	99.5	99.6	98.6	97.0	97.5	92.8	85.3	74.2	64.2	54.4	48.1	42.3	36.6	32.9	31.1	29.6	28.3	27.9	31.0	40.9	62.8	75.1	75.2	63.5	99.6				
15-Jul	76.3	70.5	67.3	70.2	73.7	78.2	76.8	72.5	59.5	52.1	44.2	42.0	37.6	40.8	40.1	44.1	77.8	93.8	74.7	75.4	86.6	92.2	94.0	92.1	68.0	94.0				
16-Jul	94.4	98.2	99.4	99.9	100.0	100.0	93.7	82.2	71.8	64.2	61.6	51.4	41.9	42.4	49.5	54.2	43.6	38.5	52.6	61.7	70.5	84.7	92.3	97.2	72.7	100.0				
17-Jul	98.9	99.4	99.7	100.0	100.0	100.0	89.0	71.9	58.8	53.9	37.3	33.3	30.8	28.0	29.9	35.3	37.7	34.0	37.1	45.9	58.7	70.6	78.2	87.0	63.1	100.0				
18-Jul	95.1	98.3	99.0	99.7	100.0	99.0	91.7	75.8	70.6	65.8	58.6	53.8	48.7	50.9	79.8	96.2	89.7	90.2	83.9	80.1	79.3	73.2	78.9	81.6	80.8	100.0				
19-Jul	87.0	92.0	96.6	98.5	99.7	99.4	91.5	84.9	74.4	71.2	59.2	51.5	54.1	59.1	53.9	46.8	54.0	50.9	59.8	58.7	66.5	70.4	71.1	73.0	71.8	99.7				
20-Jul	69.3	71.3	77.5	80.4	78.4	79.0	79.6	76.8	76.7	77.2	75.9	75.0	74.4	70.3	67.0	66.1	64.8	65.7	67.7	75.1	80.4	88.9	95.4	97.9	76.3	97.9				
21-Jul	98.8	99.6	99.9	100.0	100.0	100.0	100.0	95.2	87.1	75.9	67.7	64.5	58.3	54.1	46.8	43.8	42.6	44.5	50.2	57.7	63.6	72.3	77.8	81.9	74.3	100.0				
22-Jul	85.0	88.7	91.4	94.4	96.8	97.0	92.3	81.4	72.0	63.0	56.4	49.3	43.0	38.0	35.5	33.8	32.3	35.5	40.2	44.8	52.6	60.8	63.7	68.4	63.2	97.0				
23-Jul	72.7	77.0	81.4	90.8	90.7	91.5	92.8	83.9	86.7	69.5	66.1	63.3	56.5	56.2	59.9	87.5	65.8	53.3	53.2	57.1	69.5	77.3	72.4	84.4	73.3	92.8				
24-Jul	94.0	91.6	95.2	98.3	99.3	99.8	95.0	81.6	70.4	65.4	61.7	54.1	49.8	44.3	40.1	39.6	39.1	47.5	54.3	63.8	71.9	63.8	70.7	77.6	69.5	99.8				
25-Jul	78.8	88.0	90.8	84.3	77.1	76.1	73.7	71.7	85.1	79.5	64.3	57.2	45.5	40.4	37.0	43.4	44.5	44.6	47.5	54.9	73.7	79.9	86.8	89.0	67.2	90.8				
26-Jul	89.7	93.2	96.8	94.3	90.4	91.2	90.5	89.8	88.9	86.6	81.9	73.7	69.1	65.4	64.6	62.2	60.5	61.6	65.3	74.1	84.5	88.7	86.2	86.5	80.7	96.8				
27-Jul	87.4	88.6	90.6	92.3	93.2	94.7	95.1	94.9	96.5	98.7	96.5	90.7	85.3	83.5	76.7	66.5	69.4	71.4	73.5	76.8	82.0	87.1	87.7	79.9	85.8	98.7				
28-Jul	78.9	86.6	93.2	96.2	94.9	89.2	84.6	75.2	64.5	58.4	50.2	40.8	42.6	41.3	39.8	46.5	50.8	50.3	52.4	76.0	93.2	96.6	98.9	98.7	70.8	98.9				
29-Jul	99.5	99.4	99.9	100.0	100.0	99.7	99.1	96.9	93.9	89.7	82.4	74.9	79.7	95.3	84.8	78.6	88.2	99.3	94.6	90.5	91.5	90.3	91.5	93.9	92.2	100.0				
30-Jul	94.9	96.4	95.4	97.6	97.2	94.0	88.8	82.8	76.5	66.5	58.3	52.5	46.3	47.4	44.5	43.5	54.2	72.6	62.7	65.6	79.7	84.4	88.0	88.3	74.1	97.6				
31-Jul	92.2	97.7	99.0	99.5	99.0	98.4	94.8	82.5	75.4	74.2	72.7	77.1	79.9	74.2	62.7	65.0	84.5	78.9	71.2	76.9	88.2	95.4	91.1	95.2	84.4	99.5				
86.2 89.1 91.3 92.9 93.5 92.3 86.7 78.3 71.9 67.2 62.7 58.9 55.6 54.8 54.1 56.1 59.0 58.3 59.7 65.1 73.1 79.5 82.8 84.9																									Diurnal Average					
100.0 100.0 100.0 100.0 100.0 100.0 100.0 96.9 96.5 98.7 98.3 97.7 97.7 96.6 94.4 99.6 99.9 99.3 98.6 98.6 98.2 99.3 100.0 100.0																									Diurnal Maximum					



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Barge Landing - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Barometric Pressure (BP) - inHg

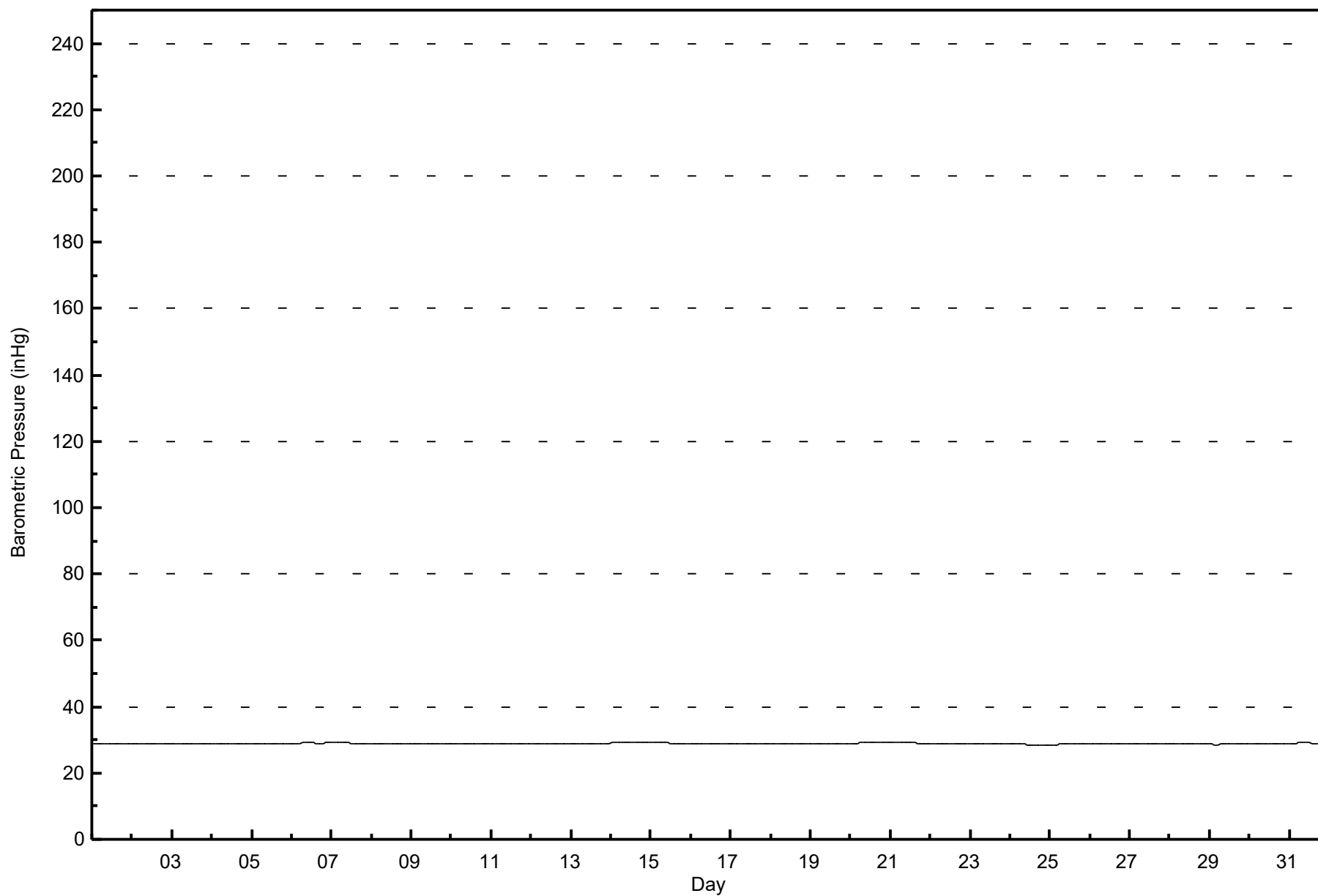
Barge Landing - July 2026

Maximum Value: 29.1 inHg on Jul 14 12:00																				Maximum Daily Average: 29.1 inHg on Jul 14					Hours in Service: 744	
Minimum Value: 28.5 inHg on Jul 24 18:00																				Minimum Daily Average: 28.6 inHg on Jul 24					Hours of Data: 744	
Maximum Diurnal Average: 28.9 inHg at hour 9																				Minimum Diurnal Average: 28.8 inHg at hour 19					Hours of Missing Data: 0	
Monthly Average: 28.84 inHg																				Percentiles: P ₁ = 28.5 P ₁₀ = 28.7 Q ₁ = 28.8 Median = 28.8 Q ₃ = 28.9 P ₉₀ = 29.0 P ₉₉ = 29.1					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	28.7	28.7	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8
2-Jul	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8
3-Jul	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8
4-Jul	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8
5-Jul	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	28.9
6-Jul	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.1
7-Jul	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.1
8-Jul	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.7	28.8	28.8	28.8	28.8	28.8	28.9
9-Jul	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8
10-Jul	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8	28.8	28.7	28.8
11-Jul	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8
12-Jul	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8
13-Jul	28.7	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	28.9
14-Jul	29.0	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
15-Jul	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	28.9	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0
16-Jul	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9
17-Jul	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9
18-Jul	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8	28.9
19-Jul	28.7	28.6	28.7	28.6	28.6	28.7	28.7	28.6	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.7
20-Jul	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
21-Jul	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.1
22-Jul	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9
23-Jul	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.6	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.7
24-Jul	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.6
25-Jul	28.5	28.5	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8	28.8	28.7
26-Jul	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9
27-Jul	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9
28-Jul	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.6	28.8
29-Jul	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.8	28.7
30-Jul	28.8	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9
31-Jul	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	29.0	29.0
28.8 28.8 28.8 28.8 28.8 28.9 28.9 28.9 28.9 28.9 28.9 28.9 28.8 28.8 28.8 28.8 28.8 28.8 28.8 28.8 28.8 28.8 28.8 28.8																										Diurnal Average
29.1 29.1																										Diurnal Maximum



Wood Buffalo Environmental Association
Hourly Averages

Barometric Pressure (BP) - inHg
Barge Landing - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 20m (WS20) - km/h

Barge Landing - July 2026

Maximum Speed: 26 km/h on Jul 19 17:00																		Maximum Daily Speed Average: 12.3 km/h on Jul 26										Hours in Service: 744	
Minimum Speed Value: 0 km/h on Jul 21 08:00																		Minimum Daily Speed Average: 1.7 km/h on Jul 24										Hours of Data: 743	
Maximum Diurnal Speed Average: 4.9 km/h at hour 14																		Minimum Diurnal Speed Average: 0.6 km/h at hour 1										Hours of Missing Data: 1	
Monthly Average Velocity: 2.5 km/h 201.1 deg																		Percentiles: P ₁ = 1 P ₁₀ = 4 Q ₁ = 6 Median = 8 Q ₃ = 11 P ₉₀ = 15 P ₉₉ = 21										Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	ESE7	SE5	SSE6	ENE2	N3	NNW6	N3	NNE2	NE2	ESE5	SE12	SE11	SSE9	SW7	S9	SSE14	SSE17	S12	S9	S8	SE6	ESE9	ESE9	ESE10	SE5.7	SSE17			
2-Jul	SE9	SE9	SE12	ESE11	ESE13	SE11	SE13	SSE14	SSE12	SSE17	SSE12	SE13	SSE19	S14	SSE10	SSE10	SE14	SE13	SSE13	SE12	SE10	SE8	SE11	SE13	SE11.8	SSE19			
3-Jul	SSE6	S1	SE7	ESE7	ESE9	SE10	SSE10	SSE11	SSE11	S13	SSE13	SSE16	WSW12	SSW2	SE8	SE8	S8	S10	WSW6	ENE9	ENE9	E9	ESE6	NE0	SSE6.3	SSE16			
4-Jul	ENE4	NNW8	ESE4	SSW6	SSW7	S4	SE5	SSE7	S8	S7	SSE9	S9	SSW8	WSW17	SSW6	SSW8	SW8	SSW10	SSW12	SW8	WSW7	SSW6	NNE2	SSE4	SSW5.3	WSW17			
5-Jul	SW7	SW9	W6	W7	WSW8	SSW6	SSW7	SW9	W11	NNW14	NW18	NNW16	NW23	NNW21	NNW17	N15	WNW9	NNW15	NNW15	N12	NNW11	NW11	NW8	NW6	NW9.0	NW23			
6-Jul	WNW6	W6	SW3	W5	WNW6	WSW9	WSW3	W4	SSW1	NNW7	N7	NNW8	WNW6	WNW3	WSW3	SW4	N9	ENE10	ENE8	ENE6	NW8	NNE9	N5	NNE7	NNW3.1	ENE10			
7-Jul	NNW6	NNW6	NW5	NNW6	NNW9	NNE4	N4	ENE4	NNW4	NW6	N7	NNE5	NE7	W6	W7	NW5	NW6	WSW3	SE6	ESE8	ESE6	E8	E6	SE6	N2.4	NNW9			
8-Jul	NNW2	SE3	SE6	NNE2	E6	SE4	SSE4	S8	SSE14	SSE12	SSE7	ESE9	ESE9	NNE1	WNW9	NNE2	S6	SW2	NW2	SW5	SSW8	S9	SSE10	NW4	SSE3.7	SSE14			
9-Jul	SSE4	S8	S10	S8	SW6	SW8	S9	SW14	WSW18	WSW21	WSW17	SW18	SW18	SW20	SW20	SSW15	SSW15	SSW16	SW15	SSW14	SSW10	SSE12	SSE14	SSE14	SSW12.1	WSW21			
10-Jul	S13	SSE14	SSE12	SSE12	SSE12	SSE11	SSE12	SSE10	S11	SSW13	SSW17	SW19	SW14	SSW17	SSW15	SSW19	W16	W9	SSW9	SW11	SW7	SW8	SW8	NW5	SSW10.1	SSW19			
11-Jul	WNW3	NW6	SW5	SW6	SSW6	WSW4	SW3	S5	WSW3	S3	SSE5	SSW4	SW3	SSW7	SSE10	SSE7	SSE10	S8	WSW9	NW6	N3	WSW6	SW6	SSW6	SSW3.8	SSE10			
12-Jul	SW8	S6	S8	S9	S9	S6	S9	S9	SSW9	SW11	SSW11	SSW10	SE13	SSW6	SSW11	SW12	SSW17	S13	S13	SSW14	SSW17	SW14	WSW13	WSW14	SSW10.1	SSW17			
13-Jul	WSW17	WSW19	WSW19	WSW13	SW10	SW10	SW9	SW15	SW14	SW13	SSW15	SW17	WSW16	WSW17	WSW17	NW13	NNW14	NNE5	NW7	WNW14	NW7	SW10	SW8	SW6	WSW10.4	WSW19			
14-Jul	SSW8	SSW8	S6	SSW9	SW8	SSW7	SSW9	SSW9	SW11	SW10	SW15	SW16	WSW13	SW12	SW12	SW11	SW10	SSW9	SW7	S6	S8	SE8	SE9	SE10	SSW8.3	SW16			
15-Jul	SE10	ESE10	ESE9	SE8	SSE10	S7	S6	S9	SSW7	S9	S10	SSE14	SSE16	S16	S16	SSE11	SW11	ESE19	SSW2	SW3	SSW5	S8	S8	SSE7	SSE8.5	ESE19			
16-Jul	SE5	SSW2	S7	SE8	SE11	SSE12	S10	SSE11	SSE12	S12	S12	SSW15	SSW15	SSW9	WNW3	NNE14	ENE16	ESE9	NNW7	NNE7	NNW6	WNW3	N4	WSW2	SSE3.8	ENE16			
17-Jul	S1	WSW6	WSW5	S7	S5	S7	SSW6	SSW5	SSW4	WSW5	WNW1	WNW4	WSW4	WNW6	NE7	NNE8	NNE13	NNE16	NNE15	NNE12	N7	NNE10	N10	NNW7	N2.6	NNE16			
18-Jul	NNW7	NW6	NNW7	N4	E8	ESE6	E2	ESE3	WSW6	SW11	SSW8	ESE19	ESE12	WSW7	SW4	NE4	E6	SSE4	NNW4	ESE2	SE10	ESE11	SE8	E7	ESE2.7	ESE19			
19-Jul	NE7	NE4	NNE7	WNW1	N2	S6	NW5	NNW10	NNW9	NNW8	N7	NNE15	NNE20	NNE22	N24	N24	NNW26	N21	NNW18	NNW18	NNW16	NNW16	NNW16	NNW17	N12.0	NNW26			
20-Jul	N20	NNW15	NNW8	NW10	WNW6	NW5	NNW4	WNW3	WNW5	N4	NNE5	WNW5	NW7	NW6	WNW6	NW5	NW4	WSW2	SSE2	SSE4	SSE6	SW4	W3	NW2	NW4.2	N20			
21-Jul	UO	SSW5	WSW1	S3	SE2	SSW3	SW1	SSW0	SW2	SE5	S3	SW8	SSW8	SSW6	WSW7	SSW6	SSW6	SSW7	SSE8	SSE9	S10	SSE10	SSE10	SSE9	S4.9	S10			
22-Jul	SSE8	SSE9	S8	S7	SSE8	SSE8	SSE7	SSE8	S8	S8	S8	S11	SW10	SSW11	SW10	SSW10	S10	SSE9	SSE10	SE11	SE12	SE9	SE11	SE11	S8.5	SE12			
23-Jul	SE9	SE10	SSW3	ESE5	ENE6	ENE2	NW4	NNW6	NNW5	N9	NNW14	NNW10	NW19	NNW11	NW6	WSW6	WSW17	W18	WNW13	W9	WSW8	W8	WNW9	NNW9	WNW5.2	NNW19			
24-Jul	WNW7	NW7	NNW6	W5	WNW4	NW3	SSW5	SSE5	SSE5	SW5	SSW5	S5	SSW4	SSE5	SSE7	SSE9	SSE7	NE1	NNW6	NNW9	NNW13	N10	NNE3	WSW8	W1.7	NNW13			
25-Jul	WSW8	S4	S6	SSW7	WSW10	SW6	SW7	SW11	SW10	SW10	SW10	SW15	SW15	SW16	SW16	SW15	SSW16	SW15	WNW5	SW5	N8	N15	N14	N13	WSW6.9	SW16			
26-Jul	N13	N15	N16	NNE17	NNE16	NNE13	NNE15	NNE15	NNE13	NNE12	NNE14	NNE13	NNE11	NNE11	NNE12	NNE10	N10	N9	NE11	NE11	NE13	NE12	NE12	NE10	NNE12.3	NNE17			
27-Jul	NE9	NE7	ESE6	SE6	SE5	ESE8	E8	ENE4	ENE4	E4	ESE4	S6	SW8	WSW8	WSW6	SSW8	SSE10	SSE13	SSE10	S10	S9	S8	S9	SW11	SSE4.4	SSE13			
28-Jul	SW9	SW7	SSE5	S7	S9	SSW8	S8	SSE8	SSE11	S10	SSE9	S10	SSE12	SE12	SSE10	ENE2	NE6	NE10	NE12	ENE7	NE15	ENE18	NE18	NNE25	ESE4.1	NNE25			
29-Jul	ENE23	NE15	ENE5	ENE2	NW10	WNW13	W13	WSW15	W13	W14	W14	WNW7	W11	NNE5	E3	N6	WNW7	W3	SW7	WSW11	W11	WSW14	WSW12	WSW8	W5.5	ENE23			
30-Jul	W7	WSW10	WSW8	W7	WSW8	WSW9	WSW10	WSW9	SW6	WNW5	NW4	NW3	NW3	WSW8	W6	SW5	W4	E9	E8	ESE6	SE8	SSE7	SSE9	SSE10	SW3.7	WSW10			
31-Jul	SSW3	WSW4	S4	SSE7	SSE10	SSE9	SSE8	SSE8	S9	SSE9	SSE8	SSE9	S6	SSE5	SSE8	S8	SSE8	SE5	SSE7	SSE4	SE6	ESE8	SE9	NNE1	SSE6.1	SSE10			
SSE0.6 SW1.3 S2.2 S2.5 S2.7 S3.5 S3.5SSW4.3SSW4.5 SW4.6SSW4.1SSW4.5 SW4.4 SW4.9 SW3.9SSW2.3 SW2.6 S2.1 SW1.2SSW1.1 S0.9 SE1.6 SE1.4 SE0.7																								Diurnal Average					
ENE23 WSW19 WSW19 NNE17 NNE16 WNW13 NNE15 WSW15 WSW18 WSW21 NW18 ESE19 NW23 NNE22 N24 N24 NNW26 N21 NNW18 NNW18 SSW17 ENE18 NE18 NNE25																								Diurnal Maximum					
UO - Unstable Operation																													
All monthly, daily, and diurnal averages have been calculated using vector methods																													



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

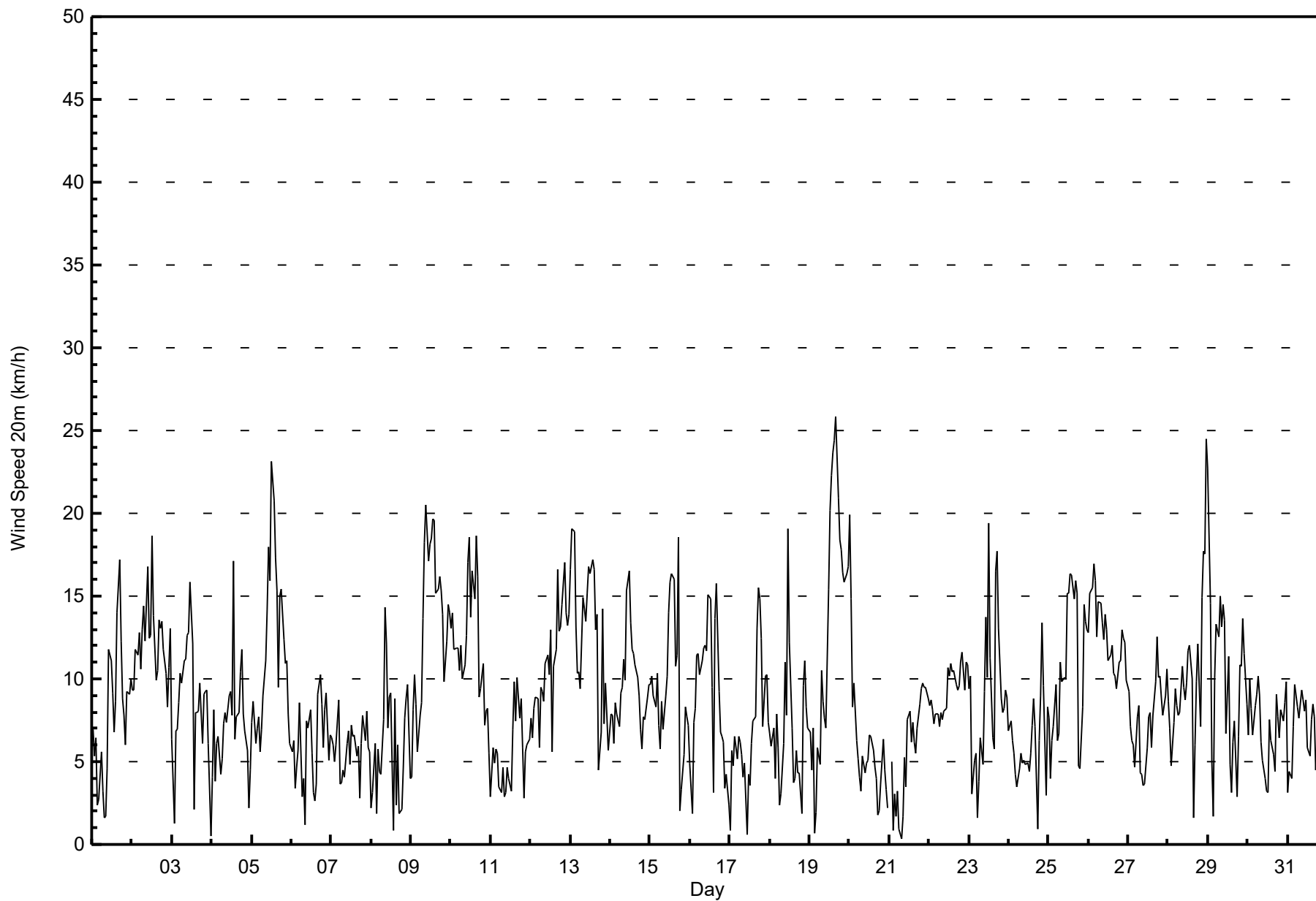
Wind Speed 20m (WS20) - km/h
Barge Landing - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																		Hours in Service: 744							
Maximum Value: 13 km/h on Jul 15 17:00																		Hours of Data: 743							
Minimum Value: 1 km/h on Jul 20 21:00																		Hours of Missing Data: 1							
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 2 Q ₃ = 4 P ₉₀ = 5 P ₉₉ = 8																		Hours of Calibration: 0							
																		Percent Operational Time: 99.9							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	1	1	1	1	1	2	2	1	1	2	3	3	4	2	3	4	4	4	3	1	1	1	1	2	4
2-Jul	1	2	1	1	2	2	3	4	3	4	3	3	5	4	3	4	3	4	3	2	3	1	1	2	5
3-Jul	3	2	1	1	2	3	3	3	3	4	4	4	9	3	3	2	3	3	5	2	2	2	2	3	9
4-Jul	3	4	1	1	1	1	1	2	2	2	2	2	4	6	2	3	2	3	3	2	2	1	4	1	6
5-Jul	2	1	2	3	3	2	2	3	3	5	5	5	7	6	5	5	6	4	5	4	4	4	1	1	7
6-Jul	1	2	3	2	1	3	1	2	2	3	3	3	3	2	3	3	4	3	2	3	4	3	1	2	4
7-Jul	1	1	1	1	2	2	1	1	2	2	3	3	3	3	2	2	2	1	2	2	1	1	3	2	3
8-Jul	2	2	1	1	1	1	2	3	4	8	4	3	2	2	6	2	2	1	1	2	2	2	1	5	8
9-Jul	2	1	2	1	5	4	2	4	6	7	6	6	6	5	6	5	4	5	5	4	2	2	3	2	7
10-Jul	3	2	2	2	3	2	3	2	3	4	5	6	5	6	7	6	5	4	5	3	2	1	1	2	7
11-Jul	1	1	2	1	2	1	1	2	1	1	2	2	2	3	3	2	2	2	2	2	2	1	2	2	3
12-Jul	2	2	2	2	1	1	3	3	2	3	3	3	9	3	3	5	5	3	3	5	5	3	3	3	9
13-Jul	4	4	4	4	3	4	3	4	4	4	5	5	6	5	6	4	5	2	3	7	5	5	3	3	7
14-Jul	3	2	2	2	2	2	2	3	3	3	5	4	4	4	4	3	4	3	2	1	1	1	1	1	5
15-Jul	1	1	1	1	1	1	1	2	2	3	3	4	4	5	5	4	13	9	3	2	1	2	2	2	13
16-Jul	1	2	2	2	1	2	2	2	3	3	4	4	4	3	8	7	5	3	5	4	3	2	3	2	8
17-Jul	2	2	2	3	3	2	2	1	1	1	1	2	2	2	2	4	4	4	4	3	2	2	2	2	4
18-Jul	1	1	1	1	2	3	1	1	1	4	4	4	5	5	4	3	2	2	1	3	2	3	2	3	5
19-Jul	1	2	2	3	2	2	4	2	3	3	4	5	6	6	7	7	7	7	5	5	5	4	4	6	7
20-Jul	7	5	3	3	2	2	3	1	1	2	2	2	1	2	1	2	1	1	1	1	1	1	1	1	7
21-Jul	UO	2	1	1	1	1	1	1	1	2	2	3	3	2	3	3	3	2	2	2	2	1	1	1	3
22-Jul	1	1	1	1	1	1	1	2	2	2	2	3	3	3	3	4	3	3	2	1	1	2	1	2	4
23-Jul	1	2	3	2	1	2	2	2	3	4	4	3	6	4	3	4	5	5	4	3	1	3	3	3	6
24-Jul	1	2	1	2	1	2	1	1	2	3	2	2	3	3	3	4	3	1	3	2	4	3	1	2	4
25-Jul	2	1	1	2	2	3	3	3	4	3	3	4	4	5	4	4	4	5	3	2	3	5	4	4	5
26-Jul	5	4	4	5	5	4	4	4	4	4	4	4	3	4	3	4	4	3	3	3	3	3	3	2	5
27-Jul	2	3	2	1	2	1	2	1	2	1	2	2	2	2	3	3	3	3	3	2	1	1	1	2	3
28-Jul	2	1	1	1	2	2	2	2	3	3	2	4	4	3	3	2	1	3	3	3	3	3	5	6	6
29-Jul	9	7	2	2	3	4	3	3	4	4	4	3	3	2	2	4	9	5	3	5	3	3	3	3	9
30-Jul	4	3	3	2	2	2	2	2	2	2	2	2	2	2	2	3	4	3	1	1	1	1	1	1	4
31-Jul	2	1	1	2	2	1	1	2	2	2	2	1	2	1	2	2	2	1	2	1	1	2	2	2	2
9 7 4 5 5 4 4 4 4 6 8 6 6 9 6 8 7 13 9 5 7 5 5 5 6																		Diurnal Maximum							
UO - Unstable Operation																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 20m (WS20) - km/h
Barge Landing - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 20m (WS20) - km/h
Barge Landing - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	159	21.40	21.40
6 - 11	402	54.10	75.50
12 - 19	168	22.61	98.12
20 - 28	14	1.88	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 20m (WS20) - km/h
Barge Landing - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	9	12	5	9	3	6	9	13	11	17	12	14	6	13	15	5	159
6 - 11	12	9	10	7	10	21	34	59	60	41	45	27	13	12	16	26	402
12 - 19	8	16	7	2	0	4	11	26	10	17	20	20	6	5	3	13	168
20 - 28	4	3	0	1	0	0	0	0	0	0	2	1	0	0	1	2	14
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	33	40	22	19	13	31	54	98	81	75	79	62	25	30	35	46	743

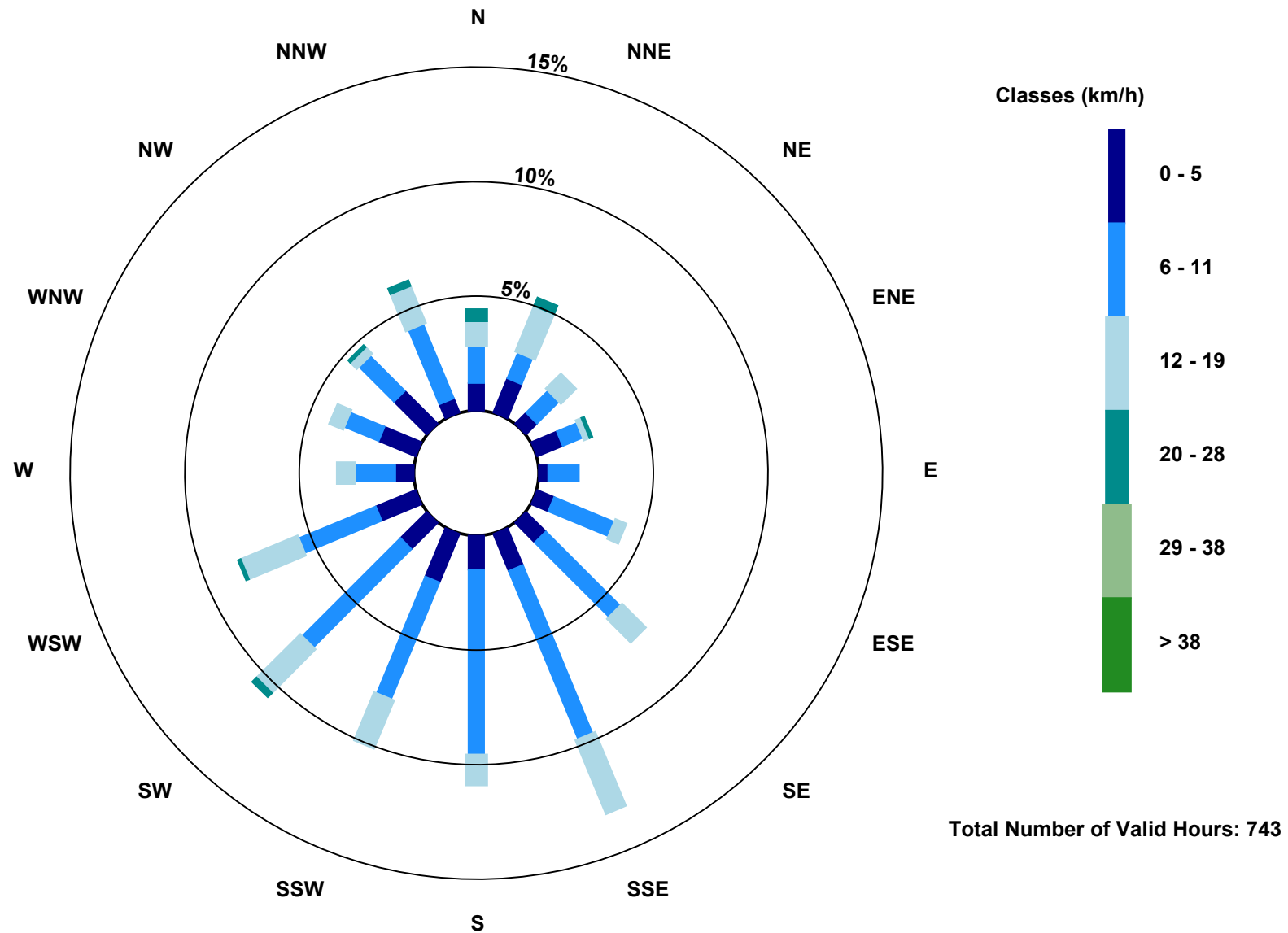
Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 20m (WS20) - km/h
Barge Landing





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 20m (WD20) - deg

Barge Landing - July 2026

Direction of Maximum Speed: 345 deg on Jul 19 17:00 Direction of Maximum Daily Speed Average: 24.3 deg on Jul 26																				Hours in Service: 744					
Direction of Minimum Speed: 209 deg on Jul 21 08:00 Direction of Minimum Daily Speed Average: 1.7 deg on Jul 24																				Hours of Data: 743					
																				Hours of Missing Data: 1					
Monthly Average Direction: 201.1 deg																				Percent Operational Time: 99.9					
Day	Hourly Period Ending At (MST)																				Daily Average				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		21	22	23	24
1-Jul	118	138	150	63	351	330	351	20	37	114	137	145	157	222	172	153	154	169	171	174	146	102	112	120	144.5
2-Jul	124	127	129	122	121	129	135	156	158	160	168	142	152	185	162	156	140	138	147	138	140	136	127	127	143.4
3-Jul	157	177	124	117	120	142	154	155	162	169	157	152	252	202	136	143	173	186	250	77	78	90	102	47	147.8
4-Jul	60	339	107	197	208	170	145	168	175	169	153	176	209	241	195	206	216	211	208	218	237	194	22	155	197.0
5-Jul	229	227	268	268	255	210	204	224	269	293	307	302	308	331	339	0	291	337	340	355	333	322	325	314	307.2
6-Jul	299	279	233	267	284	249	246	266	193	341	355	346	299	298	252	218	2	60	58	73	313	17	349	23	331.1
7-Jul	348	328	319	339	344	23	3	73	334	316	354	23	46	265	279	316	309	257	134	113	103	86	90	128	6.1
8-Jul	348	125	139	30	96	127	160	176	158	160	165	113	115	16	289	16	177	225	310	214	206	181	155	305	159.3
9-Jul	159	183	191	187	232	218	189	228	249	250	245	214	221	222	217	200	195	194	214	213	192	151	161	165	208.6
10-Jul	171	158	157	147	167	157	162	165	186	205	208	214	217	204	199	213	262	279	211	215	226	218	218	315	198.8
11-Jul	294	304	232	216	208	252	222	180	253	185	161	202	236	198	163	156	161	173	241	305	6	258	221	205	209.4
12-Jul	230	191	188	182	172	178	180	190	200	216	192	205	139	198	209	230	200	190	190	201	208	220	243	237	201.2
13-Jul	243	247	244	250	227	230	234	226	222	230	213	234	244	249	255	321	342	26	317	302	312	226	232	231	249.6
14-Jul	195	194	188	213	215	201	206	213	227	226	228	232	245	236	228	233	223	213	222	191	177	142	138	129	211.1
15-Jul	129	120	119	135	147	176	184	169	194	175	171	154	159	172	172	163	236	115	209	218	194	173	191	165	162.2
16-Jul	124	201	188	142	146	159	172	168	162	174	183	203	211	208	289	28	65	106	344	13	343	303	358	256	162.8
17-Jul	184	241	241	190	177	177	193	204	204	248	292	291	241	301	51	26	25	18	13	12	10	12	355	342	353.9
18-Jul	340	326	344	357	98	123	81	107	239	234	195	112	107	247	219	55	92	148	331	109	127	123	129	100	120.7
19-Jul	48	52	21	300	355	181	315	330	337	342	6	27	33	13	7	357	345	350	340	348	339	338	333	343	355.2
20-Jul	351	348	329	323	295	311	329	299	297	354	26	298	305	313	299	306	318	253	164	152	164	227	277	319	319.8
21-Jul	UO	207	238	171	144	208	224	209	236	143	170	232	192	213	254	200	192	193	162	165	170	162	158	155	183.8
22-Jul	147	167	181	183	162	160	151	165	178	174	175	189	216	193	218	192	185	167	153	144	135	144	143	141	169.0
23-Jul	143	137	206	106	72	73	311	330	340	351	336	331	307	329	320	247	254	269	289	278	251	274	291	331	298.6
24-Jul	285	315	327	278	286	316	200	149	168	215	203	181	208	149	154	158	159	42	333	330	332	0	27	251	262.7
25-Jul	252	171	174	197	237	227	232	235	228	235	224	227	231	233	236	214	210	227	303	227	1	2	356	359	239.0
26-Jul	354	359	3	12	26	29	21	20	28	24	30	27	33	26	31	25	2	8	38	34	40	50	48	50	24.3
27-Jul	52	38	105	138	137	120	101	57	71	82	120	191	236	245	252	200	165	155	161	183	174	175	183	217	159.7
28-Jul	217	220	166	172	187	194	186	168	164	180	166	175	161	144	158	77	35	48	40	59	52	58	40	31	118.5
29-Jul	65	49	59	65	314	291	267	257	273	261	265	296	271	21	97	355	300	275	231	246	259	251	254	251	280.5
30-Jul	266	245	252	264	251	249	254	240	225	289	313	316	321	243	261	224	268	88	100	110	145	155	162	162	227.8
31-Jul	205	256	187	150	155	155	151	164	171	165	160	167	184	147	164	190	151	133	162	161	131	117	126	20	158.9
159.5 219.8 187.4 183.2 180.5 186.7 188.1 196.9 207.3 215.3 203.8 198.5 220.1 234.2 223.2 211.1 218.5 171.8 229.2 199.9 174.2 134.7 142.3 134.9																									
Diurnal Average																									
UO - Unstable Operation																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 20m (WD20) - deg

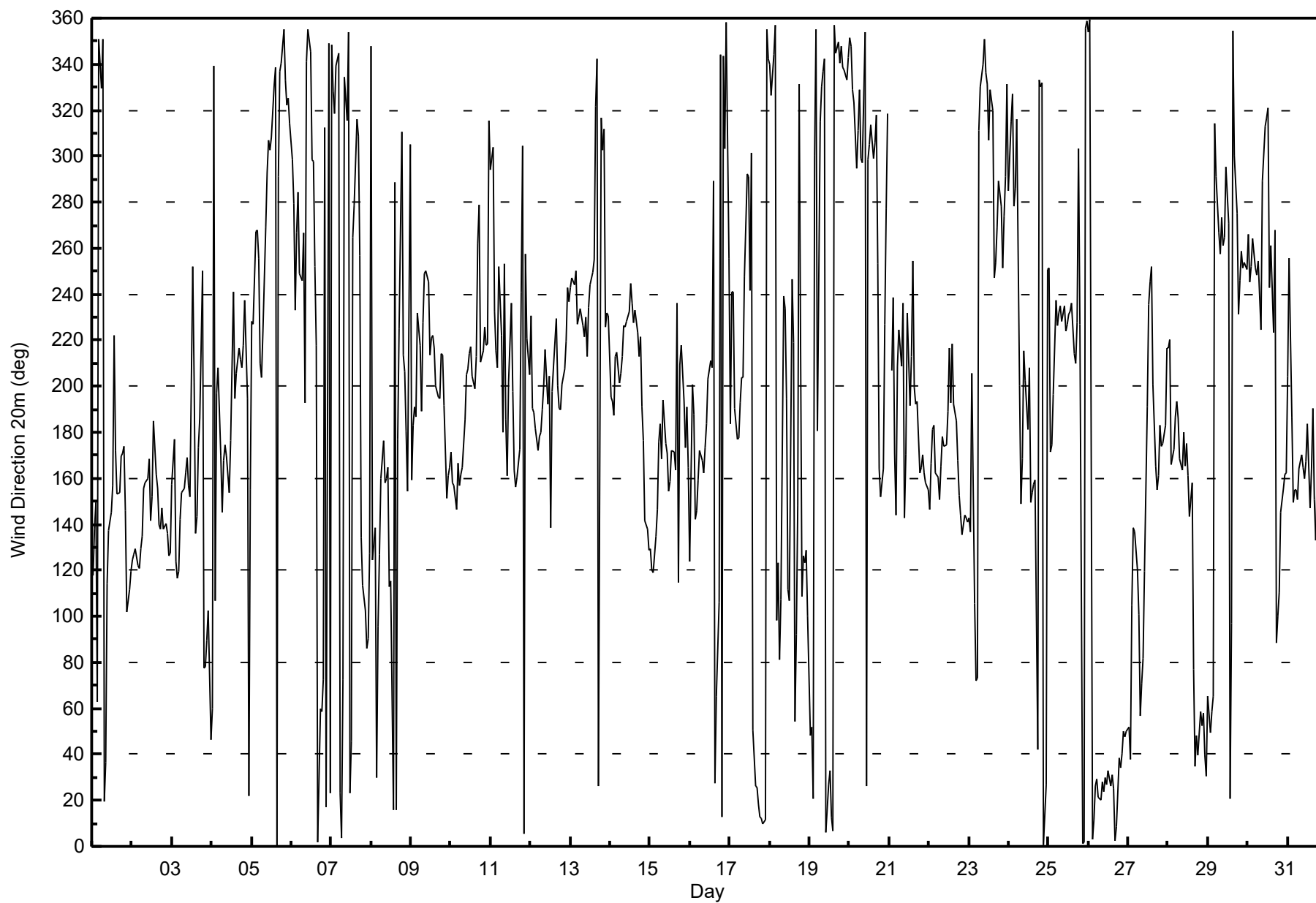
Barge Landing - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 102 deg on Jul 17 11:00																		Hours in Service: 744 Hours of Data: 743 Hours of Missing Data: 1 Hours of Calibration: 0 Percent Operational Time: 99.9							
Minimum Value: 5 deg on Jul 23 00:00																									
Percentiles: P ₁ = 6 P ₁₀ = 12 Q ₁ = 16 Median = 22 Q ₃ = 34 P ₉₀ = 57 P ₉₉ = 90																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	8	18	11	49	55	24	43	74	58	48	14	16	26	40	34	20	15	16	16	13	15	7	7	8	74
2-Jul	8	16	7	8	9	10	15	20	19	16	17	17	14	26	24	34	15	16	14	13	13	17	9	9	34
3-Jul	57	91	14	9	7	16	18	23	22	27	26	21	51	91	23	21	25	21	70	17	12	13	16	84	91
4-Jul	77	25	44	20	14	33	31	23	22	26	23	30	44	31	22	23	29	24	20	19	15	19	72	63	77
5-Jul	18	10	30	24	19	21	25	21	25	24	18	18	19	21	19	23	35	17	22	20	19	13	11	12	35
6-Jul	25	28	64	42	39	15	69	41	89	37	38	36	55	73	98	92	27	20	20	54	41	18	36	23	98
7-Jul	16	16	11	13	8	28	27	37	62	35	42	80	43	60	32	59	37	58	24	16	8	9	49	27	80
8-Jul	83	67	8	65	12	24	49	38	17	48	57	44	18	87	66	74	24	77	30	40	15	14	8	73	87
9-Jul	39	12	14	18	30	31	19	22	18	19	21	23	24	20	23	22	19	19	19	19	19	11	12	15	39
10-Jul	13	9	12	10	19	10	14	18	29	23	22	22	31	23	28	24	31	29	35	23	14	14	17	58	58
11-Jul	50	10	22	19	25	35	39	27	67	50	44	58	58	27	15	17	15	28	22	28	69	12	27	26	69
12-Jul	15	20	16	17	13	22	20	25	22	20	19	29	53	58	36	26	19	19	21	20	18	15	15	15	58
13-Jul	15	15	14	18	22	27	24	17	18	20	24	19	23	25	40	24	23	41	36	29	46	39	27	47	47
14-Jul	27	23	28	14	18	19	17	20	21	26	22	17	25	27	33	26	27	30	20	21	8	10	9	7	33
15-Jul	5	9	7	15	7	17	30	17	38	33	24	22	25	23	23	15	53	52	78	42	25	8	32	30	78
16-Jul	25	79	26	9	8	12	19	17	20	23	31	23	26	22	82	42	17	26	55	51	31	58	45	41	82
17-Jul	90	41	34	34	27	14	21	26	40	27	102	51	68	41	45	57	16	15	14	14	16	13	11	9	102
18-Jul	7	23	7	29	11	26	45	52	19	21	45	14	20	59	89	69	36	36	29	88	14	15	23	42	89
19-Jul	27	49	28	88	79	30	60	17	32	30	50	34	31	29	19	20	18	20	15	19	15	14	14	18	88
20-Jul	19	20	21	15	25	25	74	30	18	37	33	29	16	24	27	37	36	65	33	13	9	25	36	37	74
21-Jul	UO	30	89	36	57	25	66	96	74	37	83	38	34	48	34	49	57	28	15	12	8	6	6	8	96
22-Jul	6	12	12	12	8	8	13	17	24	26	35	28	30	30	28	35	35	27	16	8	6	11	6	5	35
23-Jul	8	7	80	44	35	81	21	22	72	43	25	24	17	22	42	71	19	18	20	18	9	15	28	20	81
24-Jul	19	28	18	21	17	36	32	28	49	54	54	68	68	64	44	42	39	92	17	11	13	25	36	13	92
25-Jul	11	35	31	34	15	46	20	18	21	20	24	19	22	21	18	19	19	20	37	37	25	16	18	18	46
26-Jul	18	18	16	16	16	17	14	14	16	18	17	20	21	23	22	27	29	31	22	16	16	14	15	17	31
27-Jul	17	23	25	16	18	13	19	19	28	27	40	32	25	23	45	33	24	14	17	14	8	10	17	10	45
28-Jul	12	11	23	11	16	20	18	24	23	26	29	34	28	22	19	66	31	14	14	44	16	14	16	15	66
29-Jul	22	20	39	78	18	16	19	15	19	16	19	35	29	48	79	48	68	77	29	26	14	15	16	26	79
30-Jul	51	19	34	18	18	18	16	22	28	50	69	83	90	31	40	53	55	18	11	14	13	23	9	10	90
31-Jul	51	12	27	7	11	11	11	20	16	17	16	17	17	28	27	25	15	13	15	17	18	10	6	83	83
90 91 89 88 79 81 74 96 89 54 102 83 90 91 98 92 68 92 78 88 69 58 72 84																									
Diurnal Maximum																									
UO - Unstable Operation																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 20m (WD20) - deg
Barge Landing - July 2026





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS11 LOWER CAMP JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - LOWER CAMP (AMS11)
JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	709	35	35	100	24.5	0	4	0
H2S (ppb) Average	708	35	36	99.87	9.9	0	2.2	0
THC (ppm) Average	695	35	49	98.12	3.2	-	2.5	-
CH4(ppm) Average	695	35	49	98.12	3.2	-	2.5	-
NMHC(ppm) Average	695	35	49	98.12	0.07	-	0.006	-
Temperature (C) Average	744	0	0	100	32	-	23.9	-
Relative Humidity (%) Average	744	0	0	100	99.4	-	85.2	-
Barometric Pressure (inHg) Average	744	0	0	100	29.3	-	29.3	-
Wind Speed 10 m (km/h) Average	741	0	3	99.6	24	-	14	-
Wind Direction 10 m (deg) Average	741	0	3	99.6	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - LOWER CAMP (AMS11)

JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	709	0.93	2.2	-	0	0	0.1	0.3	0.6	2.2	24.5
H2S (ppb) Average	708	0.9	1.1	-	0	0.1	0.2	0.5	1.1	2.2	9.9
THC (ppm) Average	695	2.22	0.2	-	2	2	2.1	2.2	2.3	2.5	3.2
CH4(ppm) Average	695	2.22	0.2	-	2	2	2.1	2.2	2.3	2.5	3.2
NMHC(ppm) Average	695	0.002	0.005	-	0	0	0	0	0	0	0.07
Temperature 2 m (C) Average	744	19.39	4.1	-	11.1	14.2	16.2	18.9	22.1	25.4	32
Relative Humidity (%) Average	744	71.35	17.7	-	25.3	43.2	59.2	74.6	85.2	93.1	99.4
Barometric Pressure (inHg) Average	744	29.01	0.1	-	28.7	28.8	28.9	29	29.1	29.2	29.3
Wind Speed 10 m (km/h) Average	741	8.1	5	-	0	2	5	8	11	15	24
Wind Direction 10 m (deg) Average	741	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - LOWER CAMP (AMS11)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
THC/NMHC/CH4	16 Jul 2026 15:00	16 Jul 2026 21:00	7	Unstable Operation - excessive baseline drift
THC/NMHC/CH4	17 Jul 2026 16:00	17 Jul 2026 22:00	7	Unstable Operation - excessive baseline drift
H2S	27 Jul 2026 11:00	27 Jul 2026 11:00	1	Maintenance - sample manifold cleaned
Wind Speed, Wind Direction	11 Jul 2026 03:00	11 Jul 2026 04:00	2	Flat line in sensor output signal
Wind Speed, Wind Direction	20 Jul 2026 21:00	20 Jul 2026 21:00	1	Flat line in sensor output signal



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

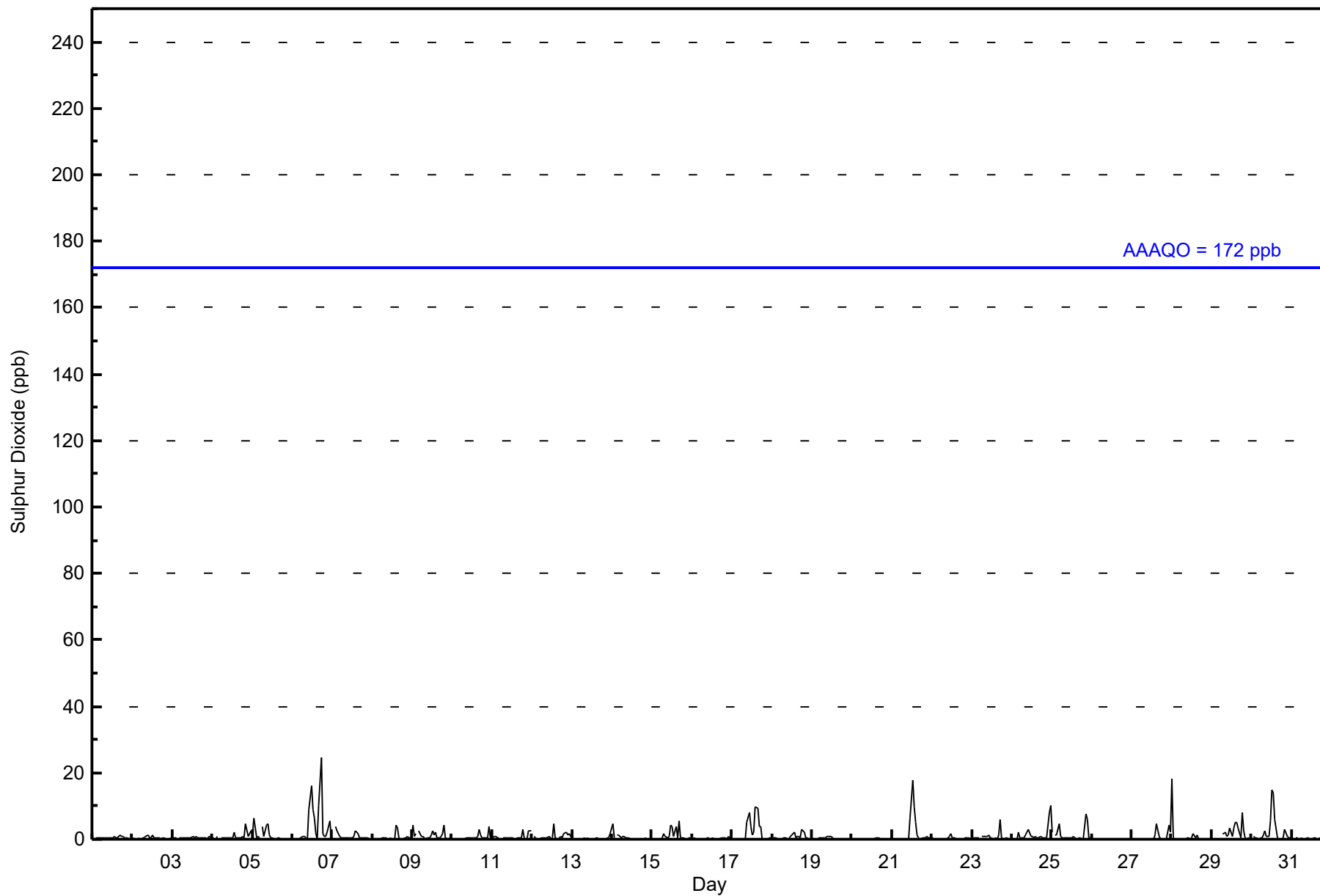
Lower Camp - July 2026

Number of Exceedances (AAAQO): Maximum Value: 24.5 ppb on Jul 6 18:00																		1-hr: 0 24-hr: 0 Maximum Daily Average: 4.0 ppb on Jul 6										Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 5 23:00 Maximum Diurnal Average: 2.0 ppb at hour 13 Monthly Average: 0.93 ppb																		Minimum Daily Average: 0.0 ppb on Jul 26 Minimum Diurnal Average: 0.2 ppb at hour 6 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.3 Q ₃ = 0.6 P ₉₀ = 2.2 P ₉₉ = 10.2										Hours of Data: 709	
																												Hours of Missing Data: 35	
																												Hours of Calibration: 35	
																												Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	0.6	Z	0.4	0.4	0.3	0.2	0.4	0.4	0.4	0.4	0.3	0.3	1.0	0.3	0.6	1.3	0.8	0.7	0.3	0.3	0.3	0.2	0.2	0.2	0.5	1.3			
2-Jul	0.2	0.2	Z	0.2	0.2	0.1	0.2	0.4	0.7	1.1	0.6	0.6	1.2	0.4	0.4	0.3	0.3	0.2	0.5	0.3	0.2	0.2	0.2	0.4	0.4	1.2			
3-Jul	0.2	0.2	0.5	Z	0.3	0.3	0.3	0.4	0.3	0.6	0.5	0.4	0.7	0.5	0.8	0.5	0.4	0.4	0.3	0.3	0.2	0.1	0.7	0.4	0.4	0.8			
4-Jul	0.6	0.2	0.2	0.7	Z	0.4	0.3	0.4	0.5	0.3	0.2	0.3	0.3	2.0	0.3	0.4	0.2	0.2	0.7	0.3	4.6	1.0	1.8	2.6	0.8	4.6			
5-Jul	1.1	6.6	0.5	0.8	0.6	Z	3.7	1.0	4.4	4.7	1.2	0.4	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.1	1.2	6.6			
6-Jul	Z	0.1	0.0	0.0	0.1	0.2	0.9	1.0	0.5	0.2	9.1	16.2	8.7	6.5	1.7	0.2	10.3	24.5	1.6	0.9	0.7	2.2	5.7	0.5	4.0	24.5			
7-Jul	0.2	Z	3.6	2.4	0.9	0.4	0.3	0.3	0.3	0.5	0.3	0.3	0.3	1.1	2.6	1.6	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.7	3.6			
8-Jul	0.1	0.2	Z	0.1	0.1	0.1	0.3	0.3	0.4	0.2	0.2	0.2	0.1	0.2	4.1	3.3	0.5	0.2	0.1	0.2	0.2	1.0	0.3	0.3	0.5	4.1			
9-Jul	4.3	0.8	1.6	Z	2.6	0.8	0.9	0.4	0.1	0.2	0.4	1.1	2.7	1.2	2.2	0.6	0.5	0.7	1.8	4.0	0.4	0.2	0.3	0.2	1.2	4.3			
10-Jul	0.2	0.2	0.1	0.2	0.1	Z	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.6	3.2	1.3	0.4	0.5	0.6	0.3	3.9	0.6	0.6	3.9			
11-Jul	0.3	0.8	0.8	0.5	0.4	Z	0.4	0.6	0.6	0.4	0.4	0.3	0.2	0.2	0.2	0.3	0.2	0.4	2.8	0.3	0.2	0.1	2.6	2.7	0.7	2.8			
12-Jul	Z	0.9	0.3	0.1	0.2	0.2	0.4	0.5	0.3	0.4	0.7	0.2	0.6	4.6	0.5	0.2	0.5	0.8	0.3	1.6	1.9	1.4	1.8	1.0	0.8	4.6			
13-Jul	0.2	Z	0.1	0.1	0.0	0.0	0.1	0.3	0.1	0.3	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.4	1.5	0.2	1.5			
14-Jul	4.5	0.5	Z	1.2	1.1	0.6	0.7	1.1	0.3	0.5	0.4	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.5	0.1	0.1	0.1	0.5	4.5			
15-Jul	0.1	0.0	0.0	Z	0.1	0.1	0.2	1.9	1.0	0.5	0.9	4.2	3.9	1.0	4.0	0.6	5.6	0.4	0.3	0.2	0.1	0.1	0.3	0.2	1.1	5.6			
16-Jul	0.2	0.2	0.1	0.1	Z	0.1	0.1	0.2	0.1	0.5	0.3	0.2	0.4	0.0	0.0	0.0	0.0	0.2	0.6	0.5	0.3	0.2	0.9	0.2	0.2	0.9			
17-Jul	0.0	0.1	0.0	0.0	0.0	Z	0.0	0.1	0.2	5.1	8.0	3.8	1.1	2.1	9.7	9.2	3.9	3.7	0.1	0.0	0.1	0.2	0.2	0.2	2.1	9.7			
18-Jul	Z	0.3	0.4	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.8	1.4	1.9	0.3	0.9	0.7	0.4	3.1	1.9	0.4	0.2	0.1	0.2	0.6	3.1			
19-Jul	0.1	0.1	0.1	Z	0.3	0.3	0.3	0.3	0.4	0.8	0.6	0.7	0.5	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.8			
20-Jul	0.0	0.1	Z	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.4	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.5			
21-Jul	0.0	0.0	0.0	Z	0.2	0.1	0.0	0.0	0.0	0.0	0.0	6.6	17.6	9.7	5.0	1.1	0.3	0.2	0.2	0.5	0.5	0.6	0.6	0.4	1.9	17.6			
22-Jul	0.2	0.1	0.1	0.0	Z	0.1	0.1	0.2	0.2	0.2	0.7	1.5	0.5	0.3	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.3	1.5			
23-Jul	0.2	0.3	0.3	0.4	0.3	Z	0.7	0.8	0.9	1.0	1.1	0.4	0.3	0.2	0.3	0.2	1.4	6.1	0.5	0.2	0.5	0.2	0.2	0.1	0.7	6.1			
24-Jul	Z	0.0	0.0	0.1	2.0	0.5	0.2	0.4	1.4	1.9	3.1	0.9	0.7	0.6	1.0	0.4	0.5	0.8	0.5	0.6	0.4	0.4	8.2	10.2	1.5	10.2			
25-Jul	2.3	Z	1.1	1.4	4.6	0.8	0.6	0.3	0.3	0.2	0.3	0.3	0.4	0.8	0.5	0.2	0.3	0.2	0.2	0.1	7.8	6.0	0.5	0.3	1.3	7.8			
26-Jul	0.2	0.2	Z	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2			
27-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.0	1.3	4.8	0.7	0.0	0.0	0.0	0.2	0.1	4.3	2.3	0.7	4.8		
28-Jul	18.4	0.4	0.1	0.1	Z	0.1	0.0	0.1	0.2	0.4	0.2	0.2	0.6	1.6	0.4	1.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	1.1	18.4			
29-Jul	0.0	0.1	0.0	0.1	0.0	Z	1.5	1.6	2.0	0.9	1.4	3.3	0.9	3.4	5.1	5.3	3.4	0.2	7.9	2.5	0.3	0.2	0.2	0.2	1.8	7.9			
30-Jul	Z	0.7	0.4	0.3	0.2	0.3	0.4	1.2	2.7	1.0	0.8	5.3	14.9	14.1	5.7	0.2	0.2	0.1	0.2	0.2	0.2	3.1	0.7	0.4	0.3	2.3	14.9		
31-Jul	0.4	Z	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.5	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.5			
1.3 0.5 0.4 0.4 0.6 0.2 0.4 0.5 0.6 0.8 1.1 1.6 2.0 1.8 1.6 1.1 1.2 1.4 0.8 0.6 0.8 0.5 1.1 0.8																								Diurnal Average					
18.4 6.6 3.6 2.4 4.6 0.8 3.7 1.9 4.4 5.1 9.1 16.2 17.6 14.1 9.7 9.2 10.3 24.5 7.9 4.0 7.8 6.0 8.2 10.2																								Diurnal Maximum					
Z - zerospan C - Calibration																													
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																													



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Lower Camp - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Lower Camp - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	703	99.15	99.15
11 - 20	5	0.71	99.86
21 - 60	1	0.14	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Lower Camp - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	45	23	11	18	12	35	163	69	46	24	18	40	75	36	50	35	700
11 - 20	0	0	0	1	0	0	1	0	0	1	0	0	0	0	1	1	5
21 - 60	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	45	23	12	19	12	35	164	69	46	25	18	40	75	36	51	36	706

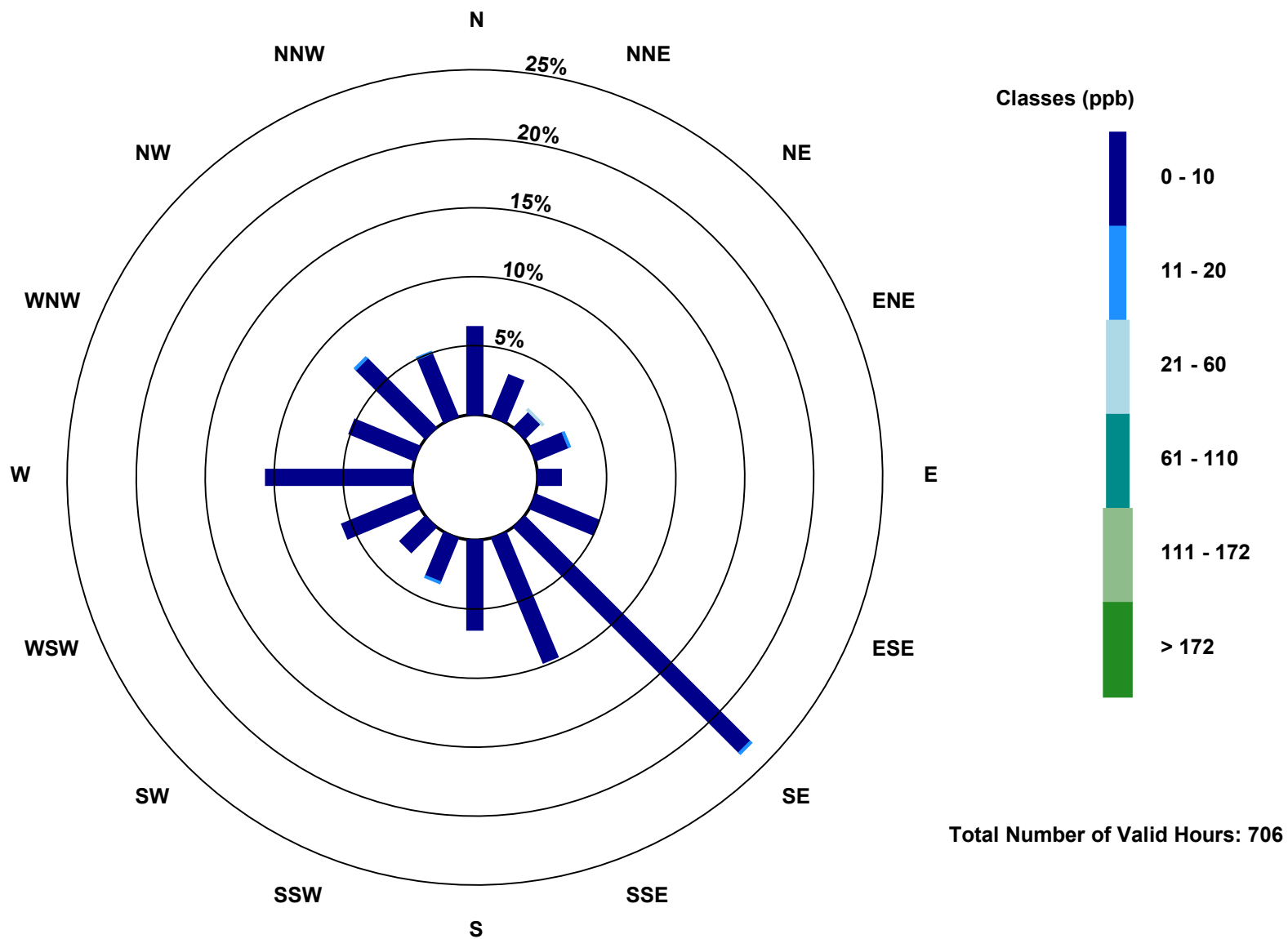
Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

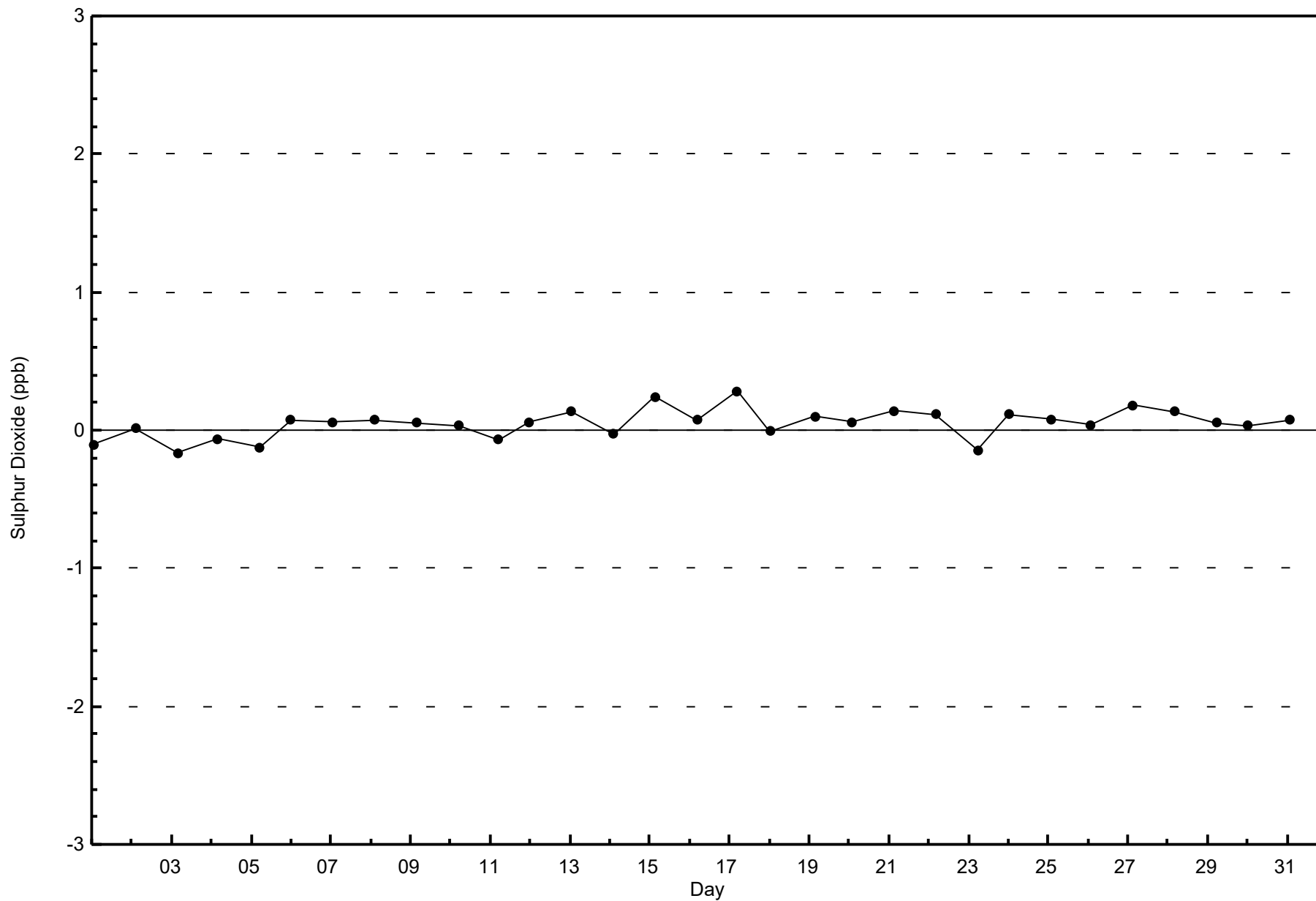
Sulphur Dioxide (SO₂) - ppb
Lower Camp





Wood Buffalo Environmental Association
Zero Responses

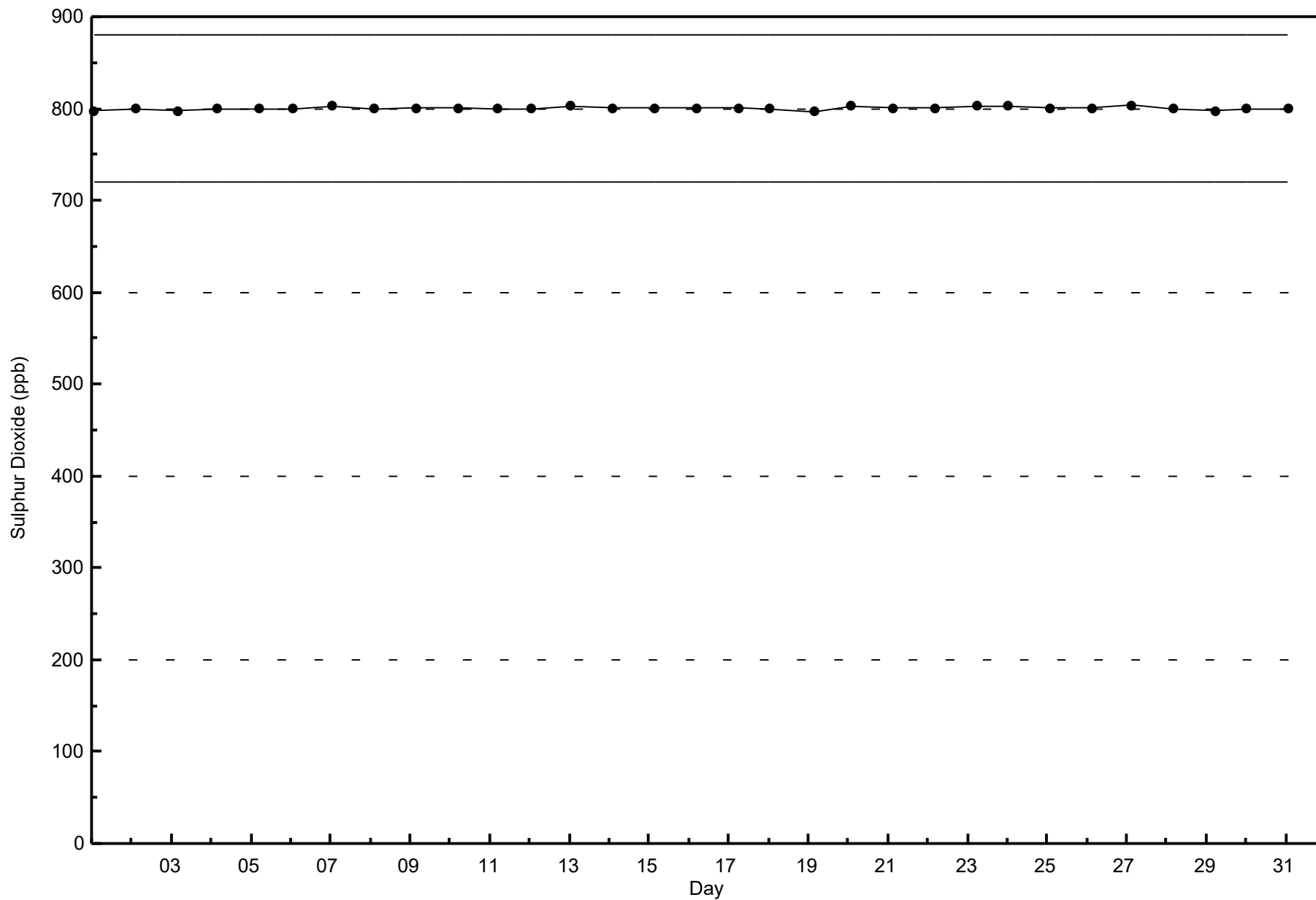
Sulphur Dioxide (SO₂) - ppb
Lower Camp - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Lower Camp - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H₂S) - ppb

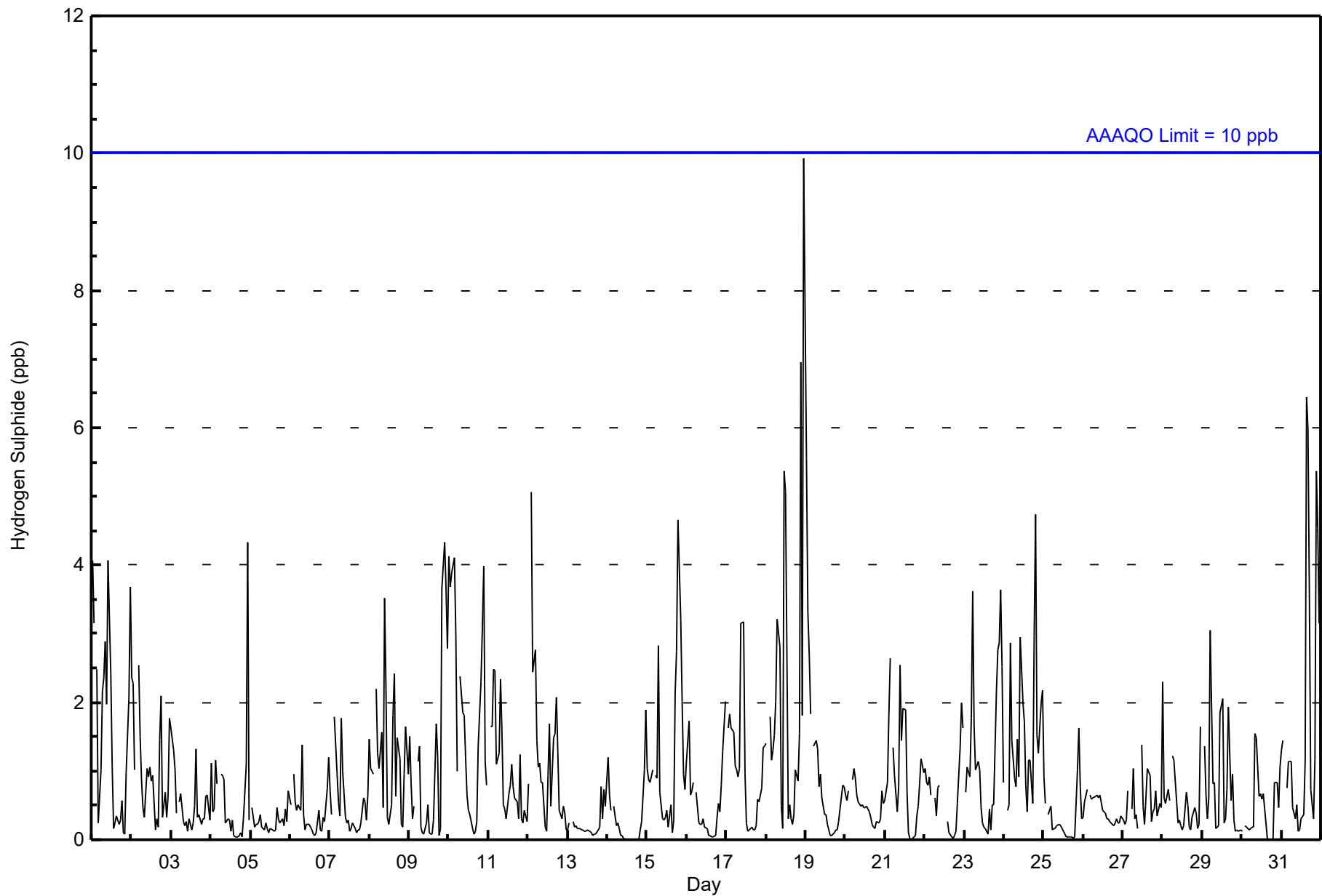
Lower Camp - July 2026

Number of Exceedances (AAAQO): Maximum Value: 9.9 ppb on Jul 19 00:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 2.2 ppb on Jul 18																			Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 14 12:00 Maximum Diurnal Average: 1.5 ppb at hour 24 Monthly Average: 0.90 ppb																			Minimum Daily Average: 0.2 ppb on Jul 13 Minimum Diurnal Average: 0.4 ppb at hour 14 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.5 Q ₃ = 1.1 P ₉₀ = 2.2 P ₉₉ = 5.1																			Hours of Data: 708	
																																						Hours of Missing Data: 36	
																																						Hours of Calibration: 35	
																																						Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jul	4.1	3.2	Z	2.5	0.2	1.0	2.2	2.4	2.9	2.0	4.1	2.4	1.1	0.2	0.2	0.4	0.2	0.3	0.6	0.1	0.1	1.0	2.1	3.7	1.6	4.1													
2-Jul	2.4	2.3	1.0	Z	2.5	1.5	0.9	0.5	0.3	1.0	0.9	1.1	0.9	0.9	0.1	0.3	0.2	1.5	2.1	0.3	0.7	0.3	0.6	1.8	1.0	2.5													
3-Jul	1.6	1.3	1.0	0.4	Z	0.5	0.7	0.3	0.2	0.3	0.1	0.3	0.1	0.3	0.5	1.3	0.3	0.4	0.2	0.3	0.3	0.6	0.6	0.3	0.5	1.6													
4-Jul	1.1	0.4	0.4	1.2	0.8	Z	1.0	0.9	0.9	0.2	0.3	0.3	0.1	0.3	0.1	0.0	0.1	0.1	0.1	0.0	0.3	1.1	4.3	0.3	0.6	4.3													
5-Jul	Z	0.5	0.2	0.2	0.2	0.3	0.4	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.5	0.3	0.2	0.3	0.2	0.4	0.3	0.7	0.3	0.7													
6-Jul	0.5	Z	0.9	0.6	0.4	0.5	0.4	1.4	0.4	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.4	0.1	0.1	0.3	0.3	0.7	1.2	0.4	1.4													
7-Jul	0.7	0.4	Z	1.8	1.0	0.5	0.3	1.8	1.0	0.3	0.2	0.3	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.6	0.6	0.3	0.7	0.5	1.8													
8-Jul	1.5	1.0	1.0	Z	2.2	1.3	1.0	1.6	0.5	3.5	2.2	0.3	0.2	0.5	1.8	2.4	0.6	1.5	1.2	0.2	0.2	1.0	1.6	1.0	1.2	3.5													
9-Jul	1.5	0.8	0.3	0.5	Z	1.1	1.4	0.2	0.1	0.1	0.2	0.5	0.1	0.1	0.1	0.3	1.7	1.2	0.1	0.2	3.7	4.3	3.6	2.8	1.1	4.3													
10-Jul	4.1	3.7	3.9	4.1	3.0	1.0	Z	2.4	1.8	1.8	1.2	0.6	0.4	0.4	0.2	0.1	0.1	0.3	1.4	2.3	3.1	4.0	1.1	0.8	1.8	4.1													
11-Jul	Z	1.6	1.6	2.5	2.5	1.1	1.3	2.3	1.6	0.5	0.4	0.3	0.7	0.8	1.1	0.8	0.6	0.5	0.3	1.2	0.3	0.2	0.4	0.3	1.0	2.5													
12-Jul	0.8	Z	5.1	2.4	2.8	1.5	1.1	1.1	0.8	0.8	0.2	0.1	0.9	1.7	0.5	1.5	1.5	2.1	1.3	0.4	0.3	0.5	0.4	0.1	1.2	5.1													
13-Jul	0.1	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.8	0.3	0.7	0.5	0.2	0.8													
14-Jul	1.2	0.7	0.4	Z	0.5	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	1.0	1.9	0.3	1.9													
15-Jul	1.0	0.9	0.8	1.0	Z	0.9	0.9	2.8	0.7	0.3	0.3	0.3	0.4	0.2	0.5	0.1	0.3	2.1	2.8	4.7	3.2	2.0	1.0	0.7	1.2	4.7													
16-Jul	1.1	1.7	0.7	0.7	0.8	Z	0.7	0.3	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.1	0.3	0.5	0.4	0.8	1.3	2.0	0.6	2.0													
17-Jul	Z	1.6	1.8	1.6	1.6	1.1	1.0	0.9	1.0	3.1	3.2	1.0	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.6	0.5	0.7	1.3	1.4	1.0	3.2													
18-Jul	1.4	Z	1.8	1.2	1.3	1.5	2.0	3.2	2.8	0.5	0.2	5.4	5.1	0.3	0.5	0.3	0.2	0.4	1.0	0.9	1.5	6.9	1.8	9.9	2.2	9.9													
19-Jul	5.5	3.3	2.7	1.8	Z	1.4	1.4	1.3	0.8	1.0	0.6	0.4	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.8	0.8	1.0	5.5													
20-Jul	0.7	0.6	0.7	Z	0.9	1.0	0.9	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.7	0.5	0.5	1.0													
21-Jul	0.6	0.8	1.8	2.6	Z	1.3	0.9	0.4	0.8	2.5	1.4	1.9	1.9	0.7	0.1	0.0	0.0	0.0	0.1	0.3	0.5	0.8	1.2	1.0	0.9	2.6													
22-Jul	1.0	0.8	0.8	0.9	0.7	Z	0.6	0.3	0.8	0.8	C	C	C	C	0.3	0.1	0.0	0.0	0.1	0.1	0.5	1.3	2.0	1.6	0.7	2.0													
23-Jul	Z	0.7	1.1	0.9	1.8	3.6	1.6	1.0	1.1	1.0	0.5	0.3	0.2	0.2	0.1	0.5	0.1	0.5	0.5	2.2	2.8	2.9	3.6	2.5	1.3	3.6													
24-Jul	0.8	Z	0.4	0.5	2.9	1.4	0.9	0.8	1.5	0.9	2.9	2.0	1.7	0.8	0.4	1.2	1.2	0.5	3.0	4.7	1.5	1.3	2.0	2.2	1.5	4.7													
25-Jul	0.9	0.5	Z	0.4	0.5	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.6	0.8	0.3	0.3	1.6													
26-Jul	0.3	0.6	0.7	Z	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.7													
27-Jul	0.3	0.2	0.3	0.7	Z	0.5	1.0	0.3	0.4	0.2	M	1.4	0.5	0.2	0.6	1.0	0.9	0.3	0.4	0.4	0.7	0.3	0.5	0.5	0.5	1.4													
28-Jul	2.3	0.6	0.5	0.7	0.6	Z	1.2	1.2	0.6	0.2	0.3	0.2	0.1	0.2	0.7	0.5	0.2	0.1	0.3	0.5	0.4	0.2	0.2	1.6	0.6	2.3													
29-Jul	Z	1.4	0.7	0.3	0.6	3.1	0.8	0.8	0.2	0.2	0.2	1.9	2.0	0.2	0.3	0.7	1.9	0.6	1.0	0.3	0.1	0.1	0.1	0.1	0.8	3.1													
30-Jul	0.1	Z	0.2	0.2	0.1	0.2	0.2	0.2	1.5	1.5	0.6	0.7	0.6	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.5	1.0	0.5	1.5													
31-Jul	1.3	1.4	Z	0.8	1.1	1.1	1.1	0.5	0.3	0.5	0.1	0.2	0.3	0.4	1.2	6.5	6.0	3.6	0.7	0.3	1.2	5.4	4.5	3.2	1.8	6.5													
1.4 1.2 1.2 1.2 1.2 1.1 0.9 1.0 0.8 0.8 0.8 0.8 0.7 0.4 0.4 0.6 0.6 0.6 0.6 0.7 0.9 1.3 1.3 1.5																										Diurnal Average													
5.5 3.7 5.1 4.1 3.0 3.6 2.2 3.2 2.9 3.5 4.1 5.4 5.1 1.7 1.8 6.5 6.0 3.6 3.0 4.7 3.7 6.9 4.5 9.9																										Diurnal Maximum													
Z - zerospan C - Calibration M - Maintenance																																							
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																																							



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Lower Camp - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Lower Camp - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	654	92.37	92.37
3 - 4	42	5.93	98.31
5 - 7	11	1.55	99.86
8 - 11	1	0.14	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Lower Camp - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	45	23	12	18	11	30	145	61	40	22	17	40	74	31	45	37	651
3 - 4	1	0	0	0	0	4	9	7	6	3	0	0	2	6	3	1	42
5 - 7	1	0	0	0	0	1	4	3	0	0	0	0	0	0	2	0	11
8 - 11	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	47	23	12	18	11	35	159	71	46	25	17	40	76	37	50	38	705

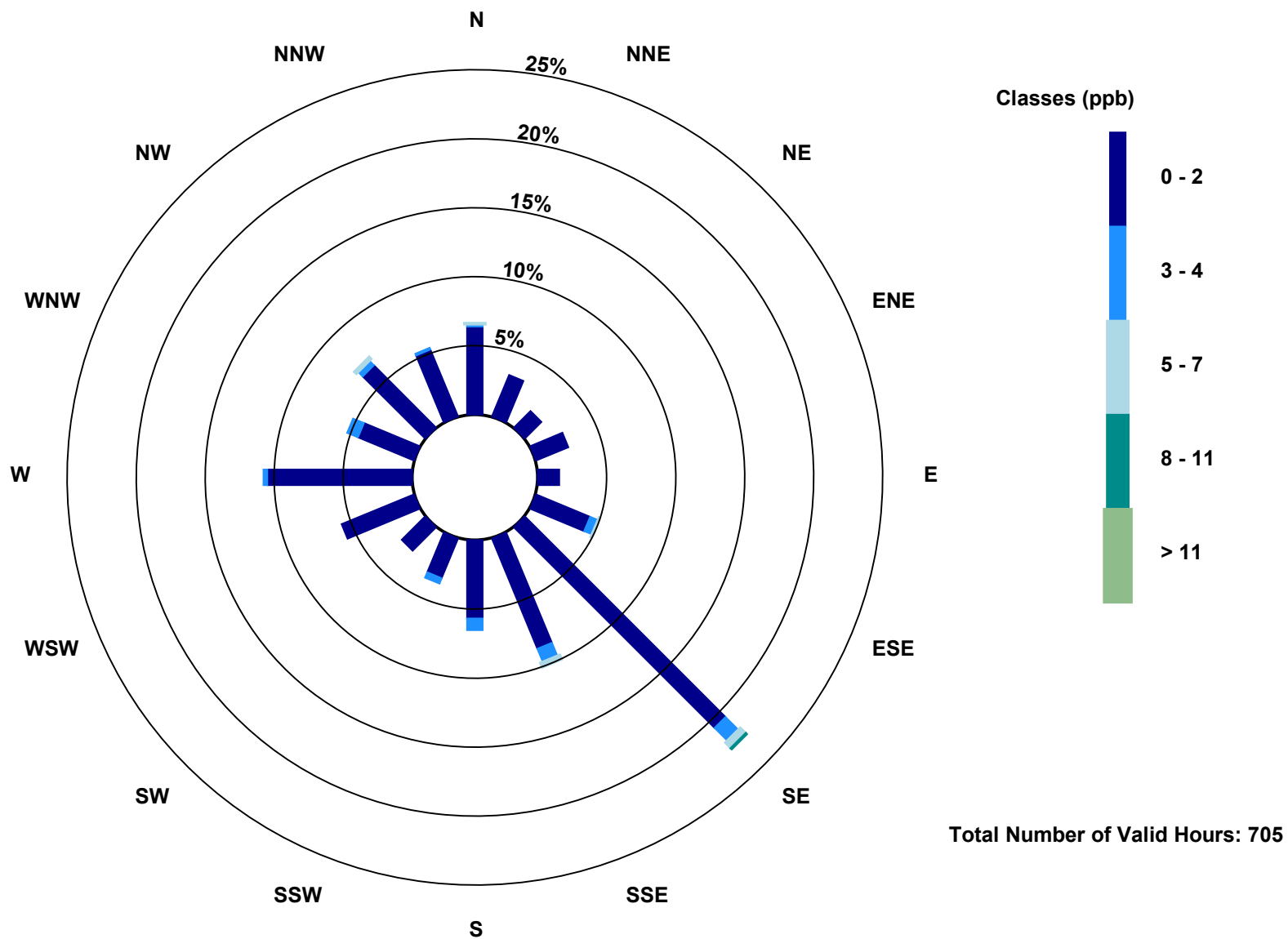
Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

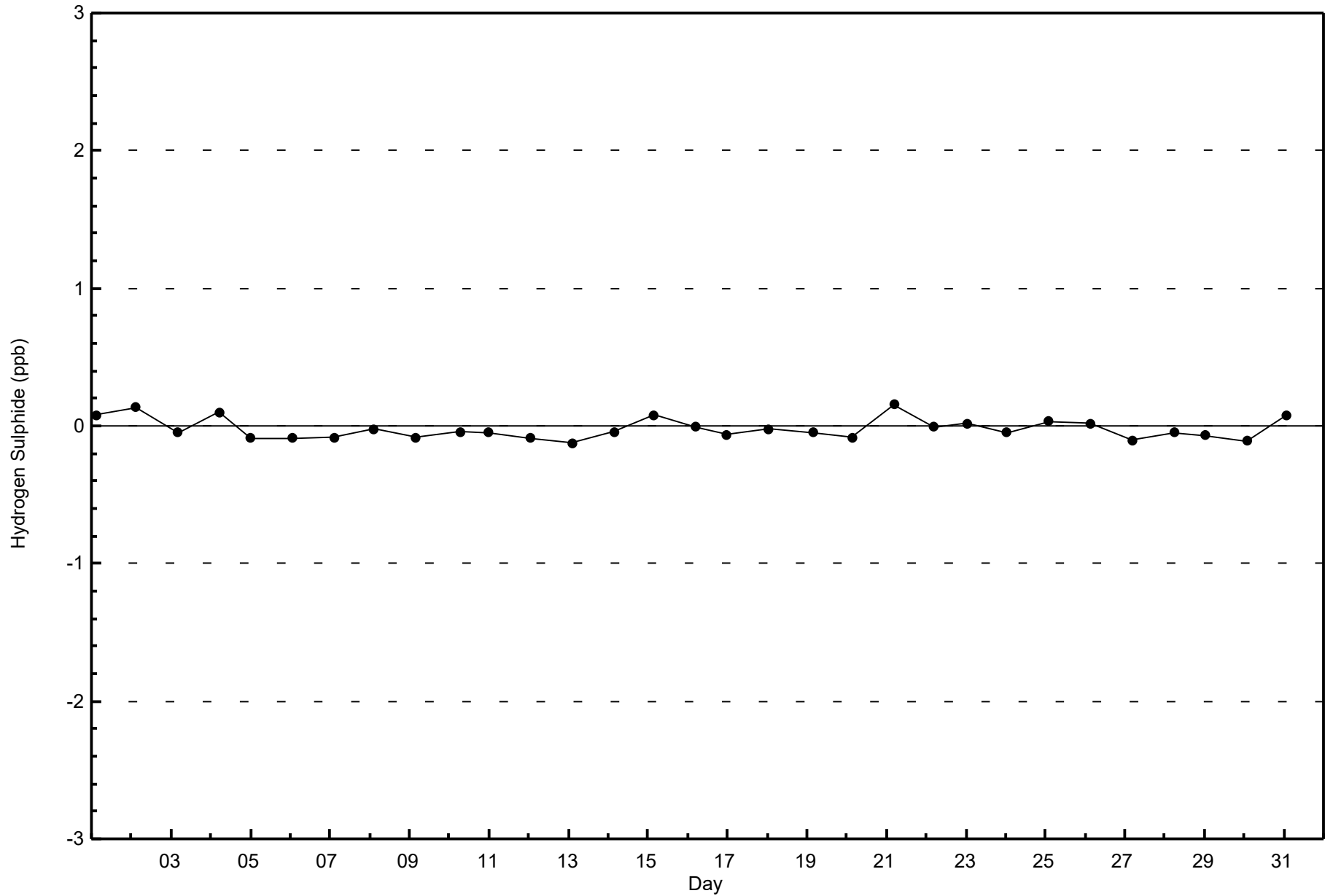
Hydrogen Sulphide (H_2S) - ppb
Lower Camp





Wood Buffalo Environmental Association
Zero Responses

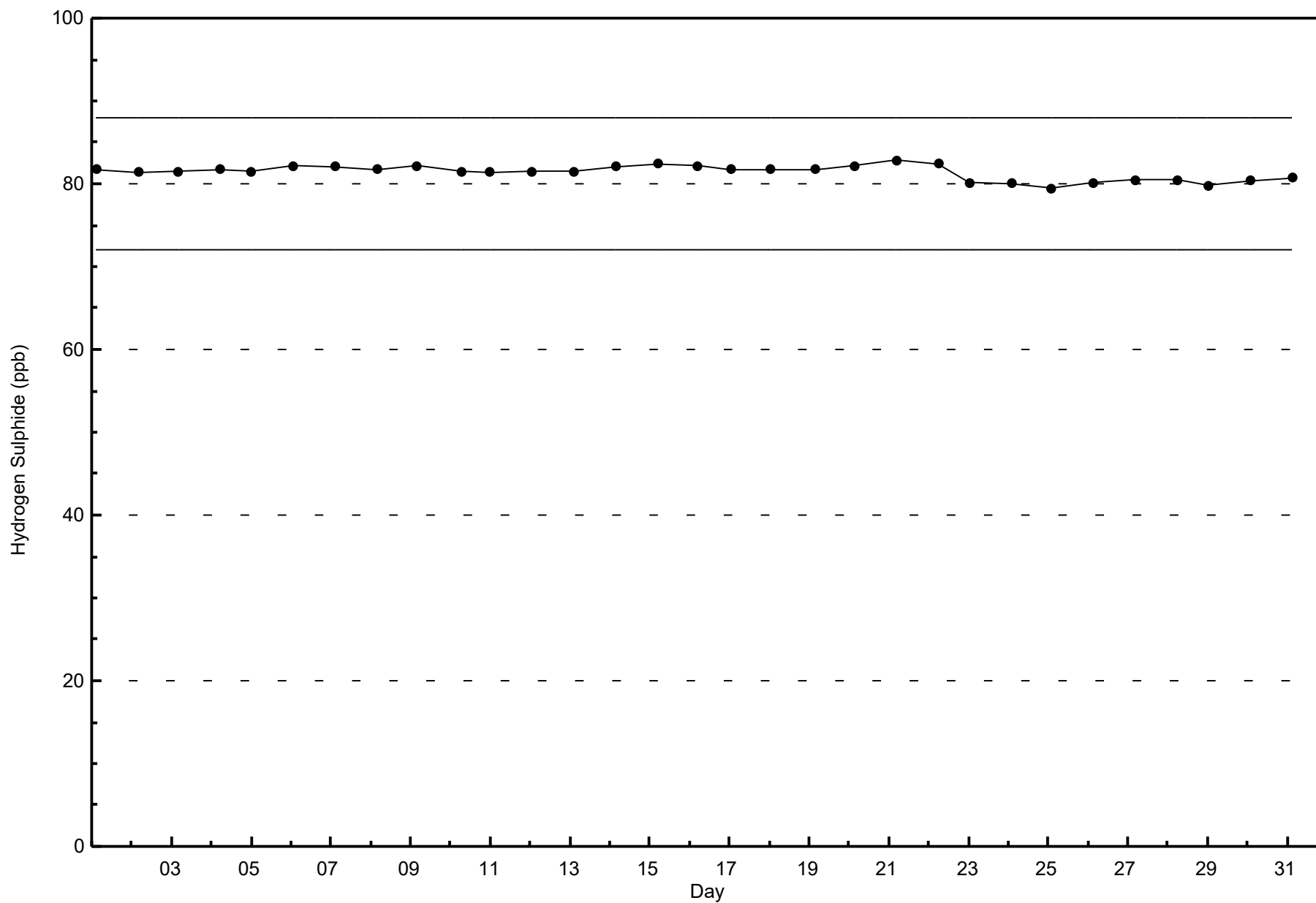
Hydrogen Sulphide (H₂S) - ppb
Lower Camp - July 2026





Wood Buffalo Environmental Association
Span Responses

Hydrogen Sulphide (H₂S) - ppb
Lower Camp - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

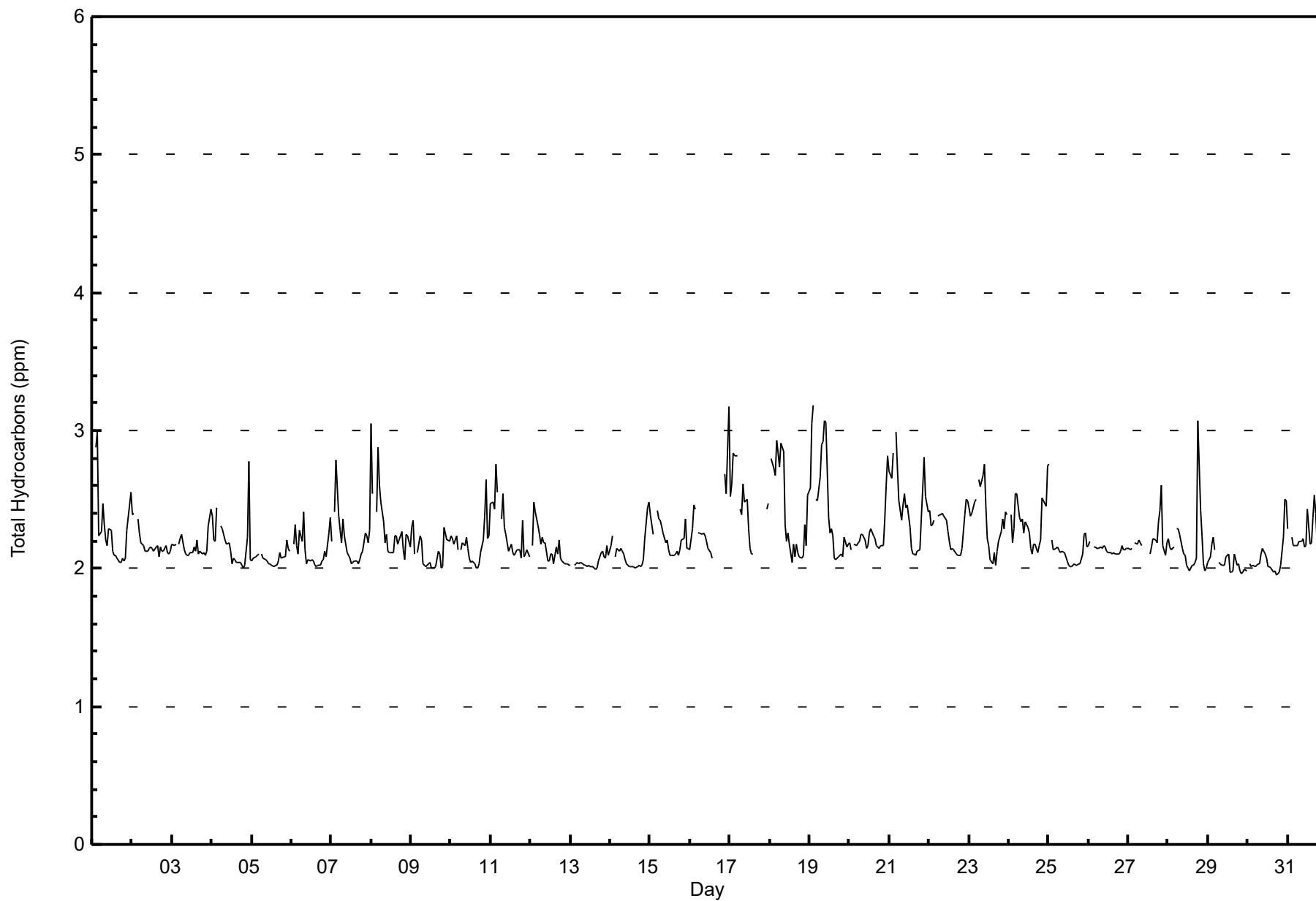
Lower Camp - July 2026

Maximum Value: 3.2 ppm on Jul 19 03:00																			Maximum Daily Average: 2.5 ppm on Jul 19										Hours in Service: 744	
Minimum Value: 2.0 ppm on Jul 30 18:00																			Minimum Daily Average: 2.0 ppm on Jul 29										Hours of Data: 695	
Maximum Diurnal Average: 2.4 ppm at hour 3																			Minimum Diurnal Average: 2.1 ppm at hour 15										Hours of Missing Data: 49	
Monthly Average: 2.22 ppm																			Percentiles: P ₁ = 2.0 P ₁₀ = 2.0 Q ₁ = 2.1 Median = 2.2 Q ₃ = 2.3 P ₉₀ = 2.5 P ₉₉ = 3.0										Hours of Calibration: 35	
																													Percent Operational Time: 98.1	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
1-Jul	2.8	Z	2.9	3.0	2.2	2.3	2.5	2.3	2.2	2.2	2.3	2.3	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.3	2.5	2.5	2.3	3.0				
2-Jul	2.4	2.4	Z	2.4	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.2	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.4				
3-Jul	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.4	2.2	2.4				
4-Jul	2.4	2.2	2.2	2.4	Z	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.8	2.1	2.2	2.8				
5-Jul	2.0	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2				
6-Jul	Z	2.2	2.3	2.2	2.1	2.3	2.2	2.4	2.1	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.3	2.4	2.1	2.4				
7-Jul	2.2	Z	2.4	2.8	2.4	2.3	2.2	2.4	2.2	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.3	2.2	2.2	2.3	2.2	2.8				
8-Jul	3.0	2.5	Z	2.4	2.9	2.6	2.5	2.3	2.2	2.3	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.1	2.1	2.2	2.2	2.2	2.2	2.3	3.0				
9-Jul	2.3	2.3	2.1	Z	2.1	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.3	2.2	2.2	2.2	2.1	2.3				
10-Jul	2.2	2.2	2.2	2.2	2.1	Z	2.1	2.2	2.2	2.2	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.2	2.4	2.6	2.2	2.2	2.2	2.6				
11-Jul	2.5	2.5	2.4	2.8	2.6	Z	2.4	2.5	2.3	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.1	2.1	2.1	2.1	2.3	2.8				
12-Jul	Z	2.2	2.5	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.0	2.1	2.1	2.0	2.2	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.2	2.5				
13-Jul	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.0	2.2				
14-Jul	2.2	2.2	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.4	2.5	2.1	2.5				
15-Jul	2.4	2.3	2.2	Z	2.4	2.4	2.4	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.4	2.1	2.1	2.4				
16-Jul	2.1	2.3	2.5	2.4	Z	2.3	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	UO	UO	UO	UO	UO	UO	UO	UO	2.7	2.5	3.2	--	3.2			
17-Jul	2.5	2.6	2.8	2.8	2.8	Z	2.4	2.4	2.6	2.5	2.5	2.3	2.1	2.1	2.1	2.1	UO	UO	UO	UO	UO	UO	UO	2.4	2.5	--	2.8			
18-Jul	Z	2.8	2.7	2.7	2.9	2.8	2.7	2.9	2.9	2.3	2.2	2.3	2.2	2.0	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.3	2.2	2.5	2.4	2.9				
19-Jul	2.6	3.1	3.2	Z	2.5	2.5	2.7	2.9	2.9	3.1	3.1	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.5	3.2				
20-Jul	2.2	2.1	Z	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.1	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.4	2.6	2.8	2.2	2.8				
21-Jul	2.7	2.7	2.8	Z	3.0	2.7	2.5	2.4	2.5	2.5	2.4	2.5	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.6	2.8	2.5	2.4	2.5	3.0			
22-Jul	2.4	2.3	2.3	2.3	Z	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.5	2.5	2.3	2.5				
23-Jul	2.4	2.4	2.4	2.5	2.5	Z	2.6	2.6	2.7	2.8	2.4	2.2	2.2	2.1	2.0	2.1	2.0	2.1	2.2	2.3	2.4	2.3	2.4	2.4	2.3	2.8				
24-Jul	Z	2.4	2.2	2.3	2.5	2.5	2.4	2.3	2.4	2.3	2.3	2.3	2.3	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.5	2.5	2.5	2.7	2.3	2.7				
25-Jul	2.8	Z	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.2	2.1	2.8				
26-Jul	2.2	2.2	Z	2.2	2.2	2.1	2.1	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2				
27-Jul	2.1	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.2	C	C	C	C	2.1	2.2	2.2	2.2	2.2	2.3	2.4	2.6	2.2	2.1	2.2	2.2	2.6				
28-Jul	2.2	2.2	2.1	2.2	Z	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	3.1	2.4	2.2	2.0	2.0	2.0	2.2	3.1				
29-Jul	2.0	2.1	2.2	2.2	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2				
30-Jul	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.5	2.5	2.5	2.1	2.5				
31-Jul	2.3	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.4	2.2	2.2	2.4	2.5	2.4	2.2	2.1	2.2	2.3	2.5	3.0	2.3	3.0					
2.4 2.3 2.4 2.4 2.3 2.3 2.3 2.3 2.3 2.2 2.2 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.2 2.3 2.3 2.3																										Diurnal Average				
3.0 3.1 3.2 3.0 3.0 2.8 2.7 2.9 2.9 3.1 3.1 2.5 2.4 2.3 2.2 2.4 2.5 2.4 3.1 2.4 2.6 2.8 2.8 3.2																										Diurnal Maximum				
Z - zerospan C - Calibration UO - Unstable Operation																														



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Lower Camp - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Lower Camp - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	124	17.84	17.84
2.1 - 3.0	565	81.29	99.14
3.1 - 10.0	6	0.86	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 695

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Lower Camp - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	3	1	2	3	0	3	5	4	0	4	12	15	49	12	7	4	124
2.1 - 3.0	40	22	10	15	12	32	155	65	46	21	6	25	23	21	40	29	562
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	6
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	43	23	12	18	12	35	160	69	46	25	18	40	73	35	49	34	692

Total Number of Valid Hours: 692

Total Number of Hours: 744

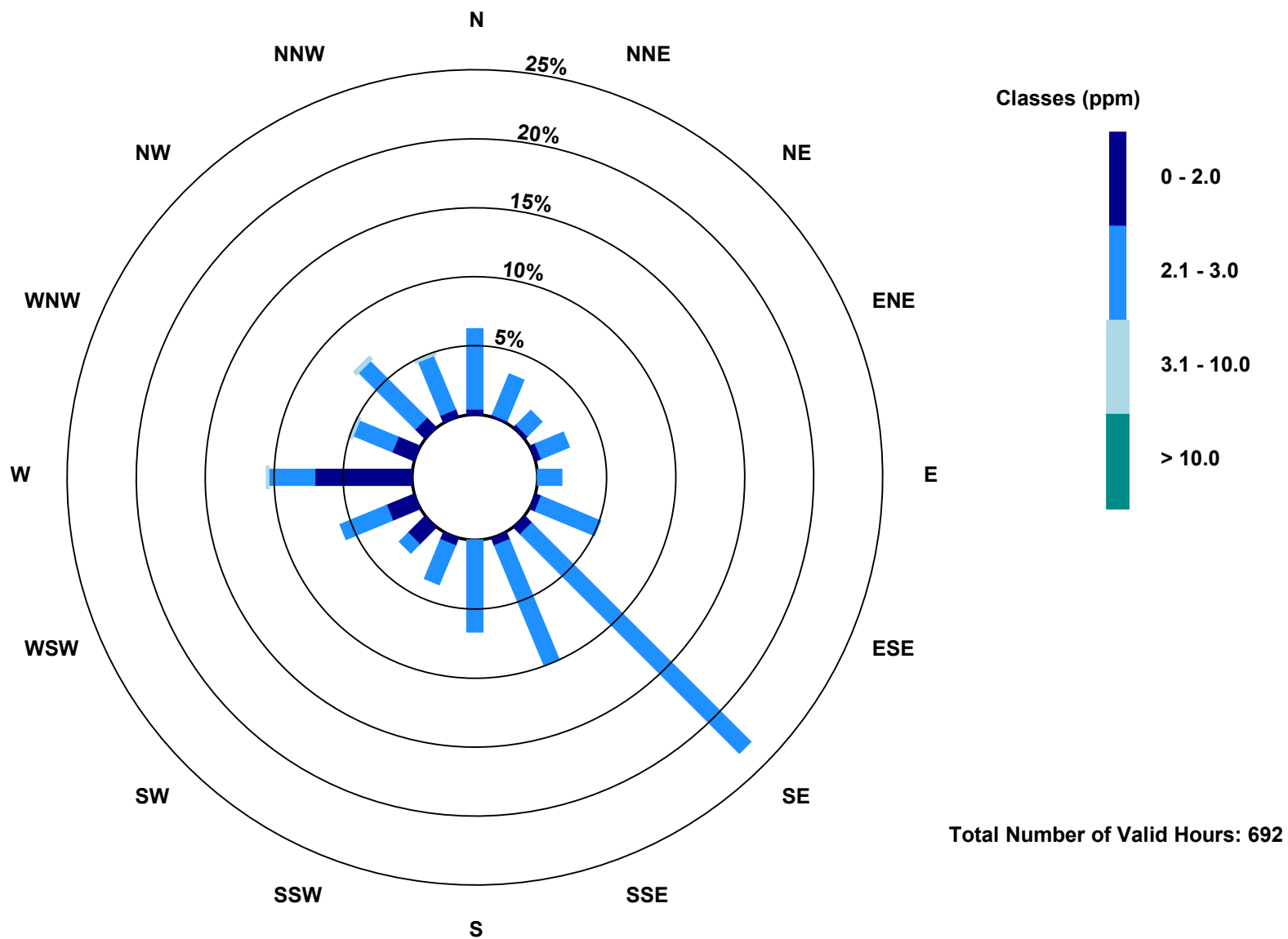


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Total Hydrocarbons (THC) - ppm

Lower Camp



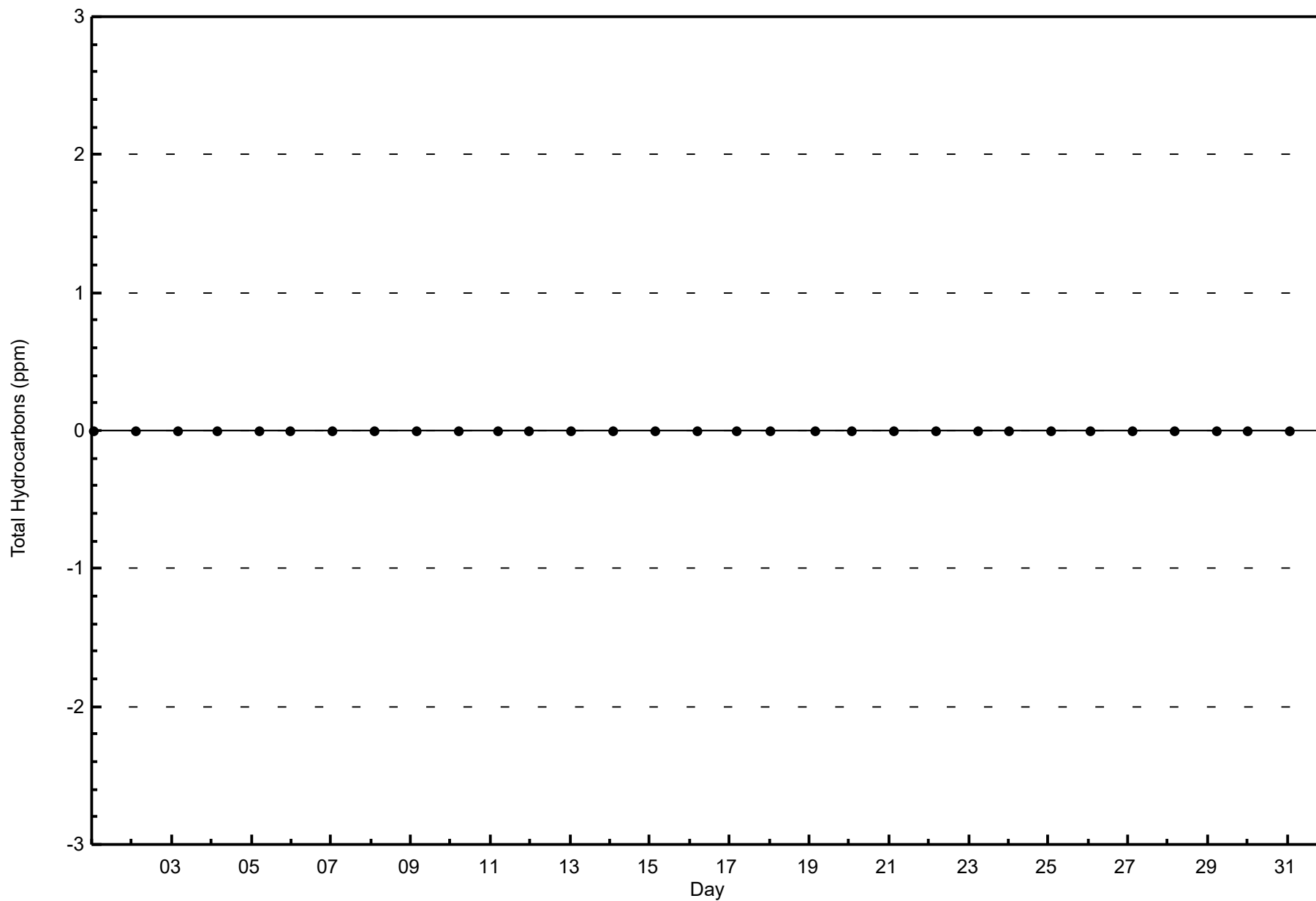


Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

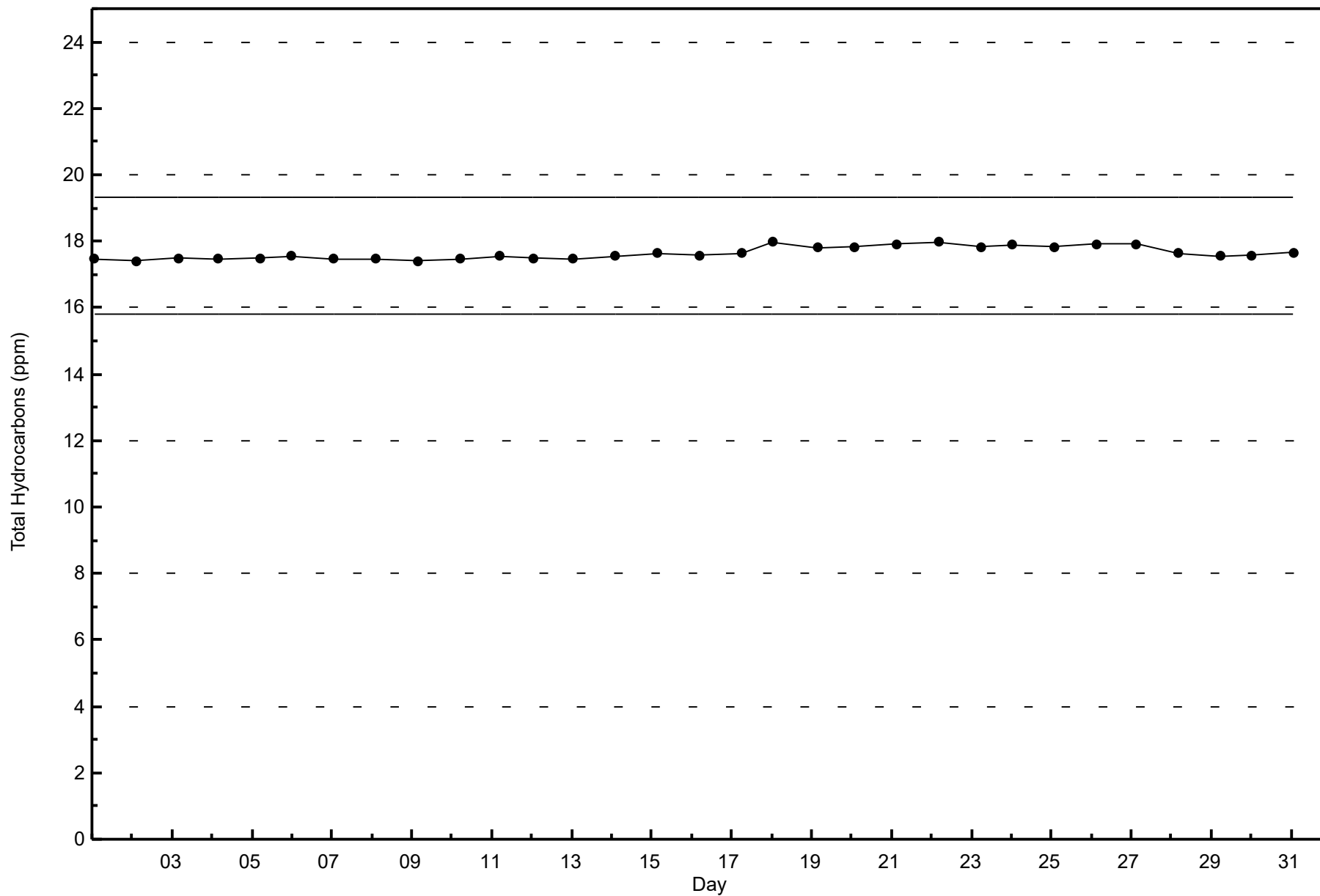
Lower Camp - July 2026





Wood Buffalo Environmental Association
Span Responses

Total Hydrocarbons (THC) - ppm
Lower Camp - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH₄) - ppm

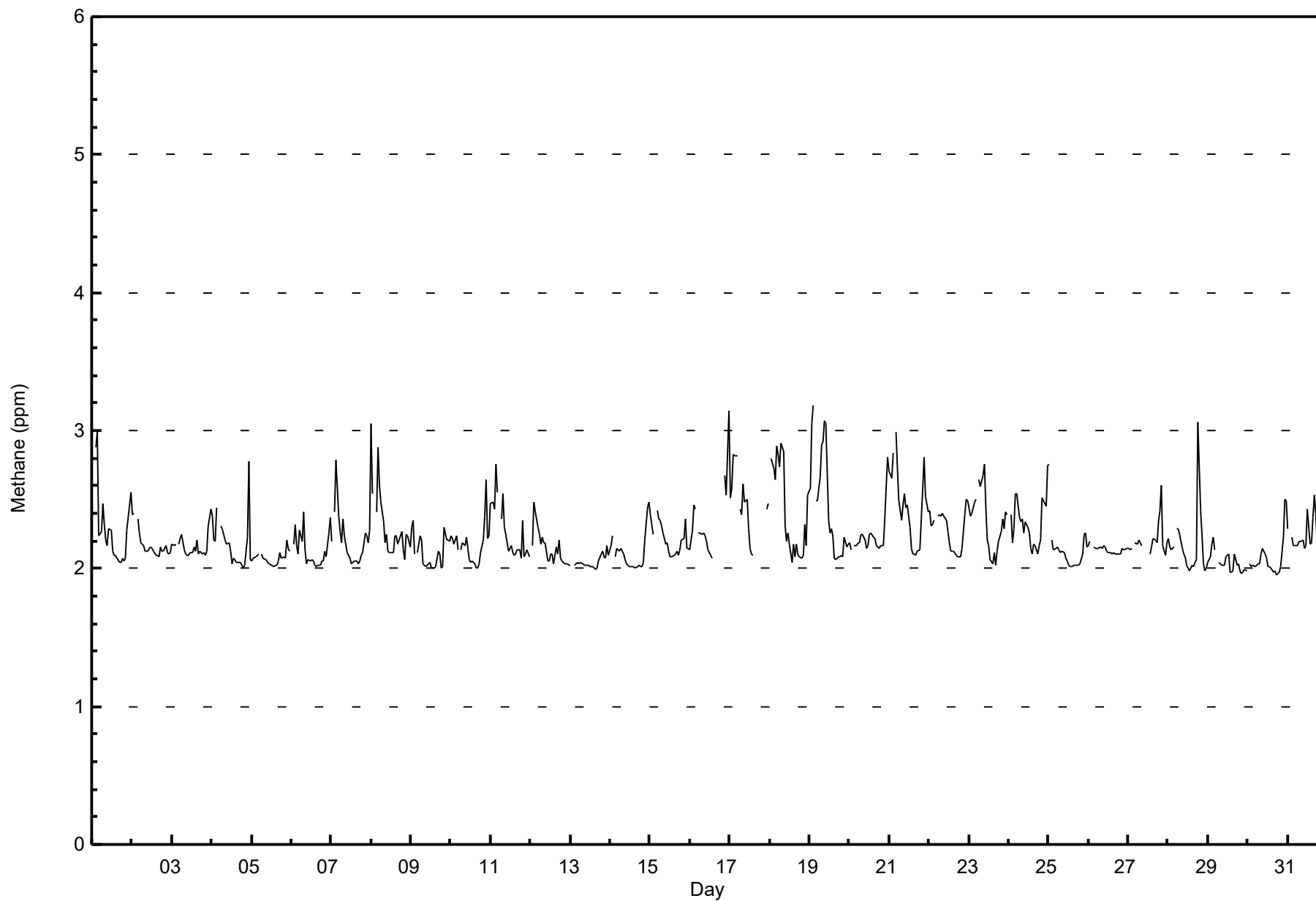
Lower Camp - July 2026

Number of Exceedances (AAAQO): Maximum Value: 3.2 ppm on Jul 19 03:00																		1-hr: 0 24-hr: 0 Maximum Daily Average: 2.5 ppm on Jul 19																		Hours in Service: 744 Hours of Data: 695 Hours of Missing Data: 49 Hours of Calibration: 35 Percent Operational Time: 98.1			
Minimum Value: 2.0 ppm on Jul 30 18:00 Maximum Diurnal Average: 2.4 ppm at hour 3 Monthly Average: 2.22 ppm																		Minimum Daily Average: 2.0 ppm on Jul 29 Minimum Diurnal Average: 2.1 ppm at hour 15 Percentiles: P ₁ = 2.0 P ₁₀ = 2.0 Q ₁ = 2.1 Median = 2.2 Q ₃ = 2.3 P ₉₀ = 2.5 P ₉₉ = 3.0																					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jul	2.8	Z	2.9	3.0	2.2	2.3	2.5	2.3	2.2	2.2	2.3	2.3	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.1	2.3	2.5	2.5	2.3	3.0													
2-Jul	2.4	2.4	Z	2.4	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.2	2.4													
3-Jul	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.4	2.2	2.4													
4-Jul	2.4	2.2	2.2	2.4	Z	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.8	2.1	2.2	2.8													
5-Jul	2.0	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2													
6-Jul	Z	2.2	2.3	2.2	2.1	2.3	2.2	2.4	2.1	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.3	2.4	2.1	2.4													
7-Jul	2.2	Z	2.4	2.8	2.4	2.3	2.2	2.4	2.2	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.3	2.2	2.2	2.3	2.2	2.8													
8-Jul	3.0	2.5	Z	2.4	2.9	2.6	2.5	2.3	2.2	2.3	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.1	2.1	2.2	2.2	2.2	2.3	3.0													
9-Jul	2.3	2.3	2.1	Z	2.1	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.3	2.2	2.2	2.2	2.1	2.3													
10-Jul	2.2	2.2	2.2	2.2	2.1	Z	2.1	2.2	2.2	2.2	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.2	2.4	2.6	2.2	2.2	2.2	2.6													
11-Jul	2.5	2.5	2.4	2.8	2.6	Z	2.4	2.5	2.3	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.1	2.1	2.1	2.3	2.8													
12-Jul	Z	2.2	2.5	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.0	2.1	2.1	2.0	2.2	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.2	2.5													
13-Jul	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.0	2.2	2.2													
14-Jul	2.2	2.2	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.4	2.5	2.1	2.5													
15-Jul	2.4	2.3	2.2	Z	2.4	2.4	2.4	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.4	2.1	2.1	2.4													
16-Jul	2.1	2.3	2.5	2.4	Z	2.3	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	UO	UO	UO	UO	UO	UO	UO	2.7	2.5	3.1	--	3.1													
17-Jul	2.5	2.6	2.8	2.8	2.8	Z	2.4	2.4	2.6	2.5	2.5	2.3	2.1	2.1	2.1	UO	UO	UO	UO	UO	UO	2.4	2.5	--	--	2.8													
18-Jul	Z	2.8	2.7	2.6	2.9	2.8	2.7	2.9	2.9	2.3	2.2	2.3	2.2	2.0	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.3	2.2	2.5	2.4	2.9													
19-Jul	2.6	3.1	3.2	Z	2.5	2.5	2.7	2.9	2.9	3.1	3.0	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.5	3.2													
20-Jul	2.2	2.1	Z	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.1	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.4	2.6	2.8	2.2	2.8													
21-Jul	2.7	2.7	2.8	Z	3.0	2.7	2.5	2.4	2.5	2.5	2.4	2.5	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.6	2.8	2.5	2.4	2.5	3.0												
22-Jul	2.4	2.3	2.3	2.3	Z	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.5	2.5	2.3	2.5													
23-Jul	2.4	2.4	2.4	2.5	2.5	Z	2.6	2.6	2.7	2.8	2.4	2.2	2.2	2.1	2.0	2.1	2.0	2.1	2.2	2.3	2.4	2.3	2.4	2.4	2.3	2.8													
24-Jul	Z	2.4	2.2	2.3	2.5	2.5	2.4	2.3	2.4	2.3	2.3	2.3	2.3	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.5	2.5	2.5	2.7	2.3	2.7													
25-Jul	2.8	Z	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.2	2.1	2.8													
26-Jul	2.2	2.2	Z	2.2	2.2	2.1	2.1	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2												
27-Jul	2.1	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.2	2.2	C	C	C	C	2.1	2.2	2.2	2.2	2.2	2.3	2.4	2.6	2.2	2.1	2.2	2.2	2.6												
28-Jul	2.2	2.2	2.1	2.2	Z	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	3.1	2.4	2.2	2.0	2.0	2.2	3.1													
29-Jul	2.0	2.1	2.2	2.2	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2												
30-Jul	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.5	2.5	2.1	2.5													
31-Jul	2.3	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.4	2.2	2.2	2.4	2.5	2.4	2.2	2.1	2.2	2.3	2.5	3.0	2.3	3.0													
2.4 2.3 2.4 2.4 2.3 2.3 2.3 2.3 2.3 2.2 2.2 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.2 2.3 2.3 2.3																										Diurnal Average													
3.0 3.1 3.2 3.0 3.0 2.8 2.7 2.9 2.9 3.1 3.0 2.5 2.4 2.3 2.2 2.4 2.5 2.4 3.1 2.4 2.6 2.8 2.8 3.1																										Diurnal Maximum													
Z - zerospan C - Calibration UO - Unstable Operation																																							



Wood Buffalo Environmental Association
Hourly Averages

Methane (CH₄) - ppm
Lower Camp - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Methane (CH₄) - ppm
Lower Camp - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	129	18.56	18.56
2.1 - 3.0	561	80.72	99.28
3.1 - 10.0	5	0.72	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 695

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Methane (CH₄) - ppm
Lower Camp - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	3	2	2	3	0	4	7	5	0	4	12	15	49	12	7	4	129
2.1 - 3.0	40	21	10	15	12	31	153	64	46	21	6	25	23	21	41	29	558
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	5
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	43	23	12	18	12	35	160	69	46	25	18	40	73	35	49	34	692

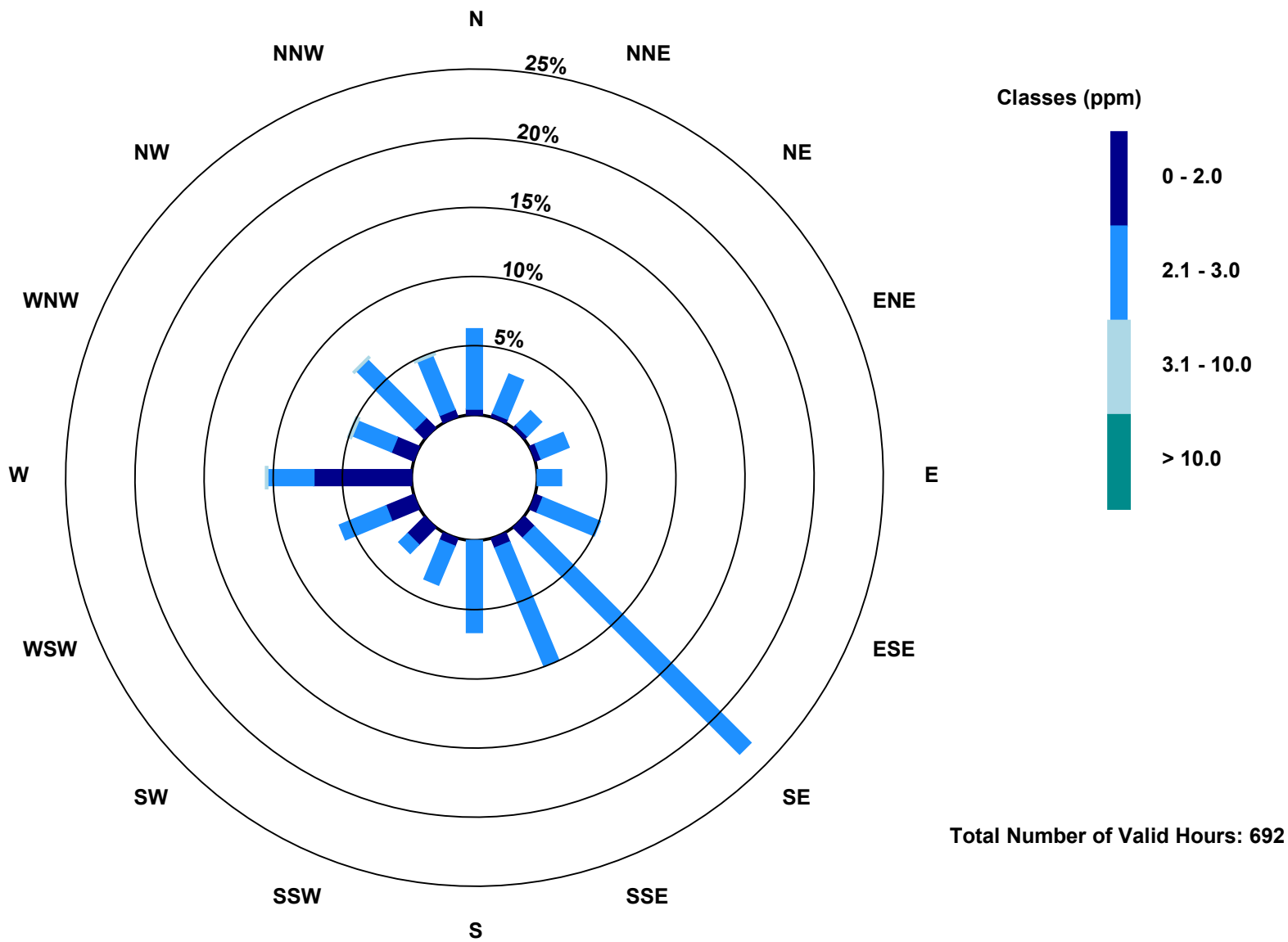
Total Number of Valid Hours: 692

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Methane (CH₄) - ppm
Lower Camp

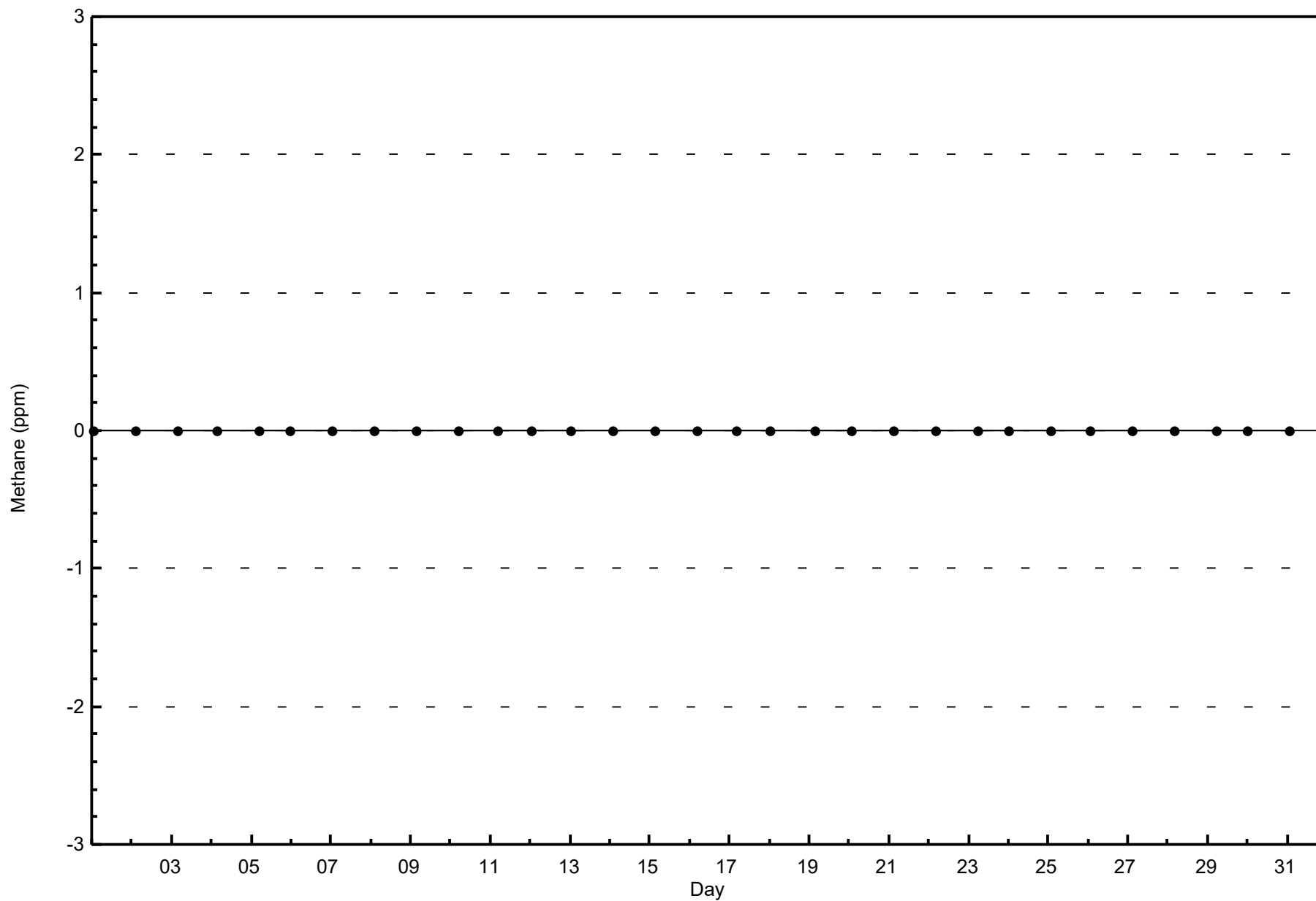


Total Number of Valid Hours: 692



Wood Buffalo Environmental Association
Zero Responses

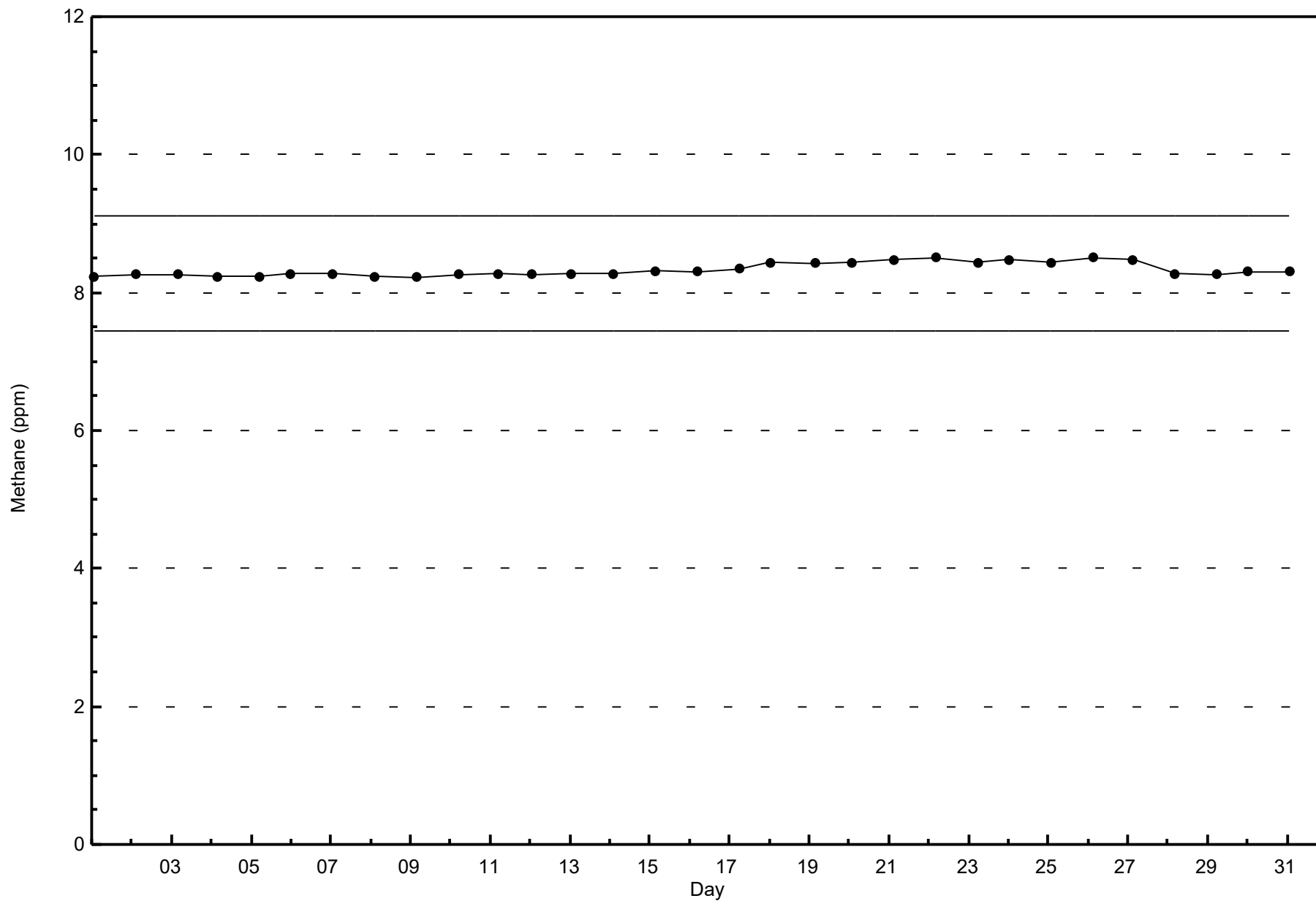
Methane (CH₄) - ppm
Lower Camp - July 2026





Wood Buffalo Environmental Association
Span Responses

Methane (CH₄) - ppm
Lower Camp - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

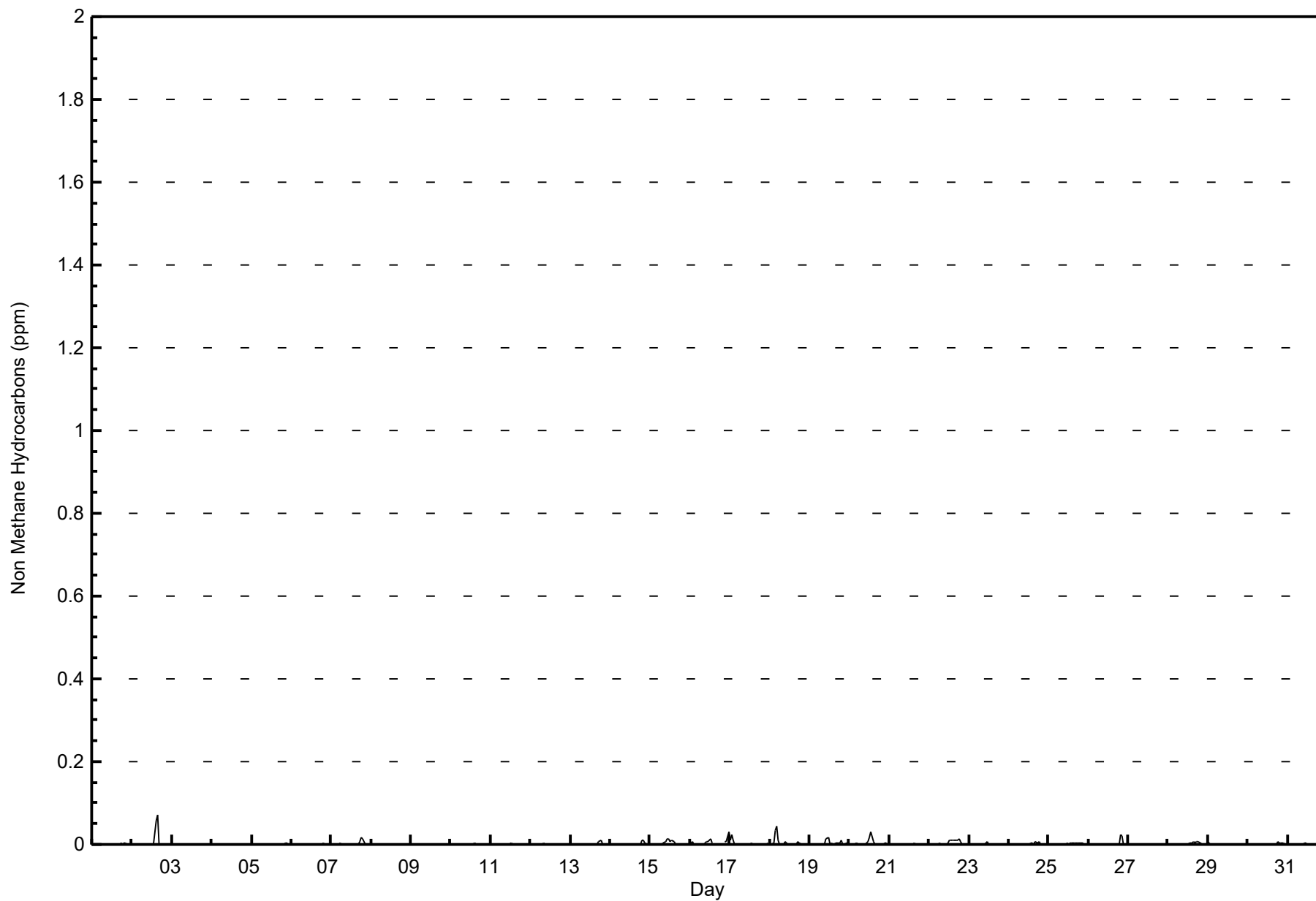
Lower Camp - July 2026

Maximum Value: 0.070 ppm on Jul 2 16:00																		Maximum Daily Average: 0.006 ppm on Jul 2										Hours in Service: 744	
Minimum Value: 0.000 ppm on Jul 1 01:00																		Minimum Daily Average: 0.000 ppm on Jul 9										Hours of Data: 695	
Maximum Diurnal Average: 0.004 ppm at hour 16																		Minimum Diurnal Average: 0.000 ppm at hour 8										Hours of Missing Data: 49	
Monthly Average: 0.002 ppm																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0										Hours of Calibration: 35	
																												Percent Operational Time: 98.1	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.001	0.002	0.002	0.000	0.003	0.002	0.000	0.000	0.000	0.001	0.003			
2-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.057	0.070	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.006	0.070			
3-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.002	0.002	0.000	0.002			
4-Jul	0.000	0.001	0.000	0.000	Z	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001			
5-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.004	0.003	0.000	0.000	0.000	0.004			
6-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.000	0.000	0.000	0.000	0.003			
7-Jul	0.001	Z	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.006	0.017	0.014	0.001	0.002	0.000	0.000	0.002	0.017			
8-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001			
9-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
10-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.000	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002			
11-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.001	0.000	0.001	0.002	0.002	0.001	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.002			
12-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.003	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003			
13-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.005	0.009	0.001	0.000	0.000	0.000	0.000	0.001	0.009			
14-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.010	0.011	0.004	0.002	0.000	0.001	0.011			
15-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.002	0.006	0.013	0.014	0.006	0.009	0.008	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.003	0.014			
16-Jul	0.000	0.007	0.000	0.000	Z	0.000	0.000	0.000	0.001	0.003	0.006	0.006	0.013	0.003	UO	UO	UO	UO	UO	UO	UO	UO	0.007	0.007	0.029	--	0.029		
17-Jul	0.011	0.024	0.010	0.000	0.000	Z	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.001	UO	UO	UO	UO	UO	UO	UO	0.002	0.002	0.000	--	0.024		
18-Jul	Z	0.002	0.005	0.035	0.043	0.010	0.000	0.000	0.000	0.008	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.005	0.043		
19-Jul	0.000	0.000	0.000	Z	0.001	0.000	0.000	0.000	0.000	0.000	0.014	0.017	0.001	0.002	0.001	0.001	0.004	0.002	0.004	0.010	0.001	0.001	0.003	0.004	0.003	0.017			
20-Jul	0.001	0.000	Z	0.000	0.003	0.000	0.002	0.000	0.001	0.002	0.002	0.006	0.017	0.029	0.006	0.000	0.000	0.000	0.001	0.001	0.001	0.003	0.002	0.001	0.003	0.029			
21-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.002			
22-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.002	0.002	0.002	0.000	0.000	0.002	0.010	0.009	0.012	0.011	0.010	0.010	0.013	0.007	0.000	0.000	0.000	0.000	0.004	0.013			
23-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.001	0.004	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.007			
24-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.005	0.001	0.007	0.005	0.005	0.001	0.000	0.000	0.000	0.000	0.001	0.007			
25-Jul	0.000	Z	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002	0.003	0.004	0.003	0.003	0.004	0.003	0.002	0.003	0.000	0.000	0.000	0.001	0.004			
26-Jul	0.000	0.001	Z	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.023	0.022	0.001	0.000	0.000	0.002	0.023			
27-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	C	C	C	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.001			
28-Jul	0.001	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.001	0.003	0.004	0.006	0.003	0.008	0.006	0.002	0.000	0.000	0.000	0.002	0.008			
29-Jul	0.007	0.001	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007			
30-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.005	0.005	0.003	0.002	0.001	0.000	0.001	0.005			
31-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.008	0.000	0.000	0.000	0.000	0.001	0.008			
		0.001	0.001	0.001	0.001	0.002	0.001	0.000	0.000	0.000	0.001	0.002	0.002	0.002	0.002	0.004	0.004	0.001	0.002	0.002	0.003	0.002	0.001	0.001	0.001	Diurnal Average			
		0.011	0.024	0.010	0.035	0.043	0.010	0.002	0.002	0.003	0.008	0.014	0.017	0.017	0.029	0.057	0.070	0.010	0.010	0.017	0.023	0.022	0.007	0.007	0.029	Diurnal Maximum			
Z - zerospan		C - Calibration						UO - Unstable Operation																					



Wood Buffalo Environmental Association
Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm
Lower Camp - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Lower Camp - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	642	92.37	92.37
0.006 - 0.05	51	7.34	99.71
0.06 - 0.1	2	0.29	100.00
> 0.1	0	0.00	100.00

Total Number of Valid Hours: 695

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Lower Camp - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 0.005	40	21	12	15	10	31	152	60	42	22	18	40	70	31	46	29	639
0.006 - 0.05	3	2	0	3	2	4	8	7	4	3	0	0	3	4	3	5	51
0.06 - 0.1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
> 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	43	23	12	18	12	35	160	69	46	25	18	40	73	35	49	34	692

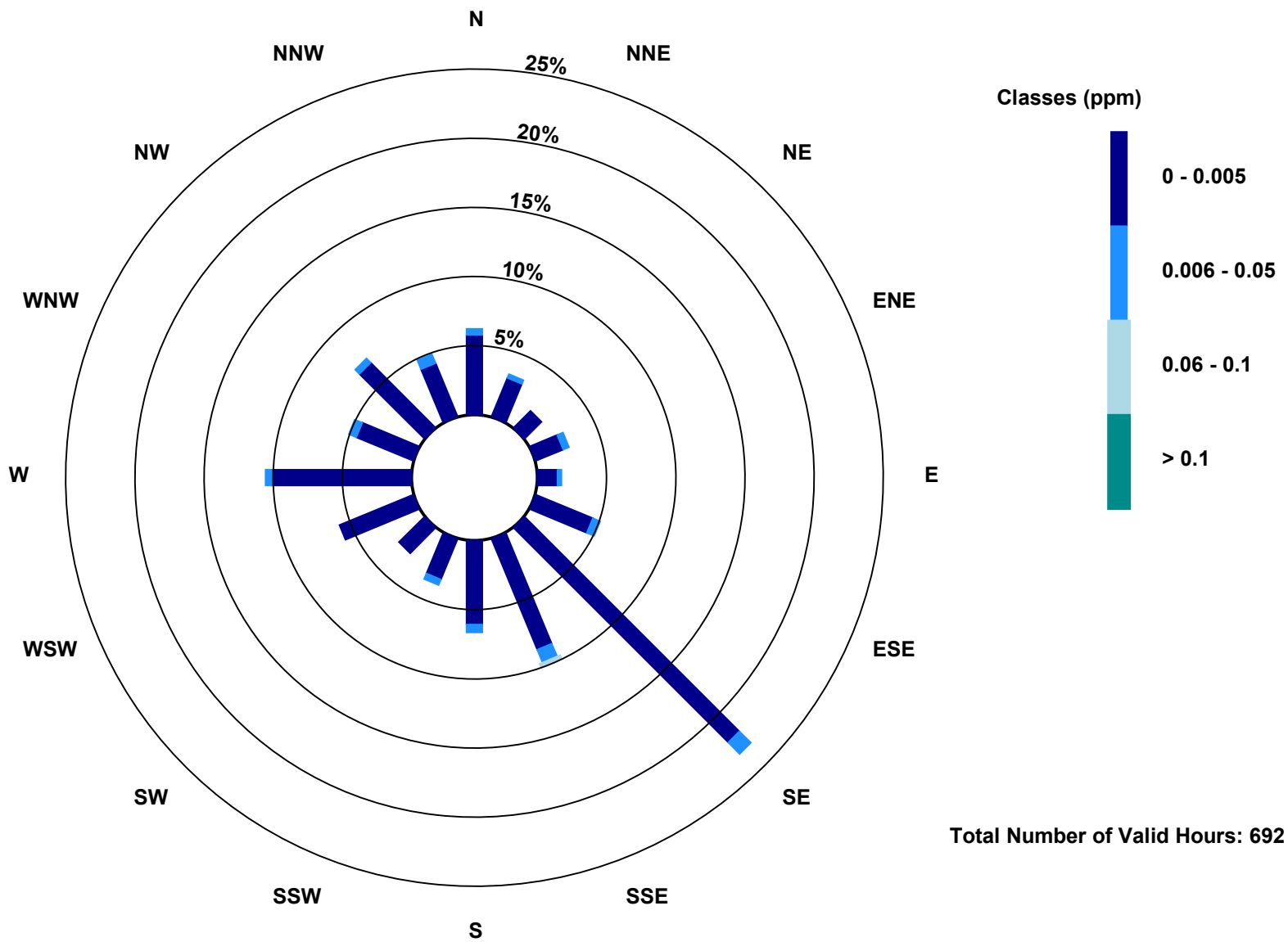
Total Number of Valid Hours: 692

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Non Methane Hydrocarbons (NMHC) - ppm
Lower Camp



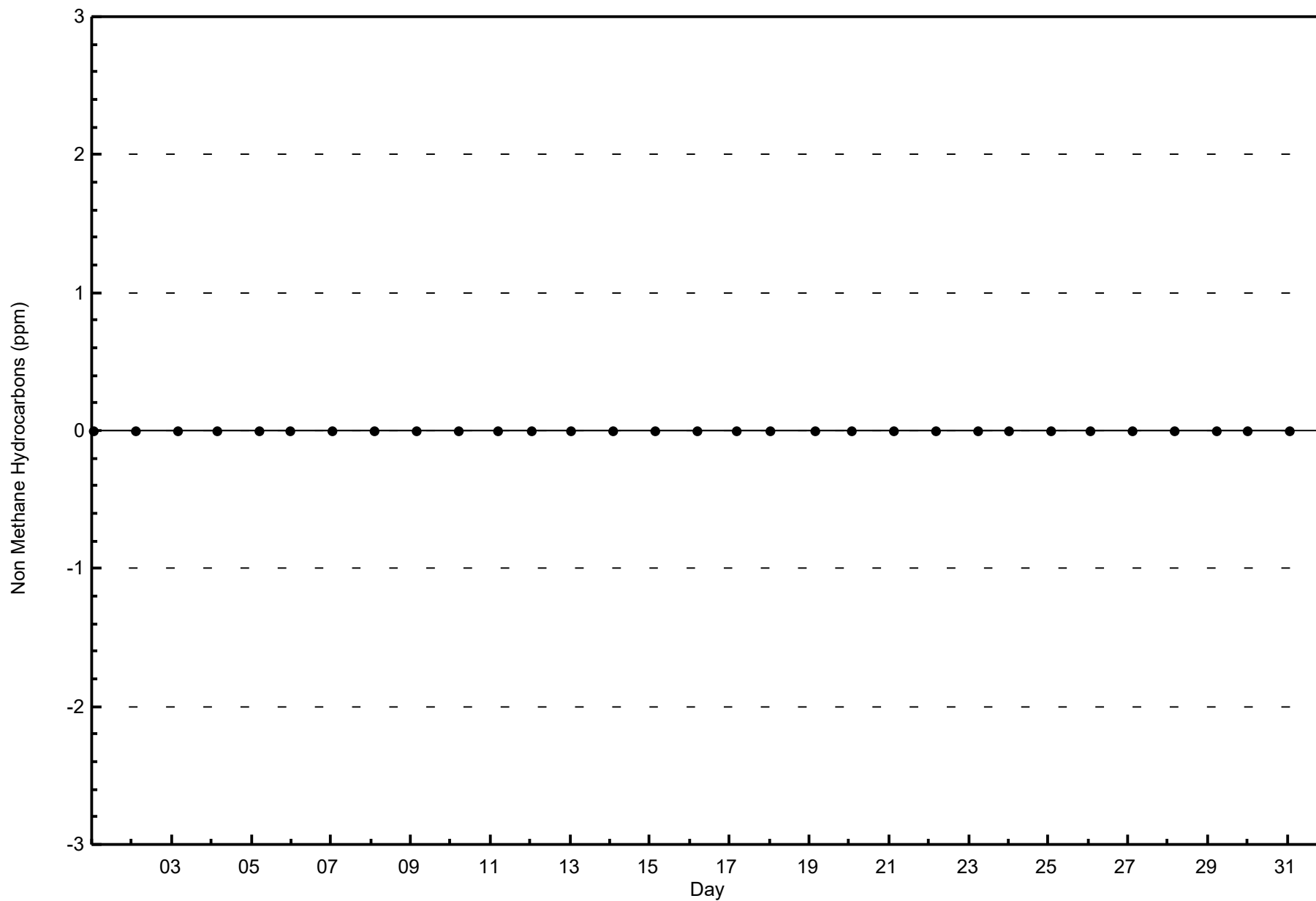


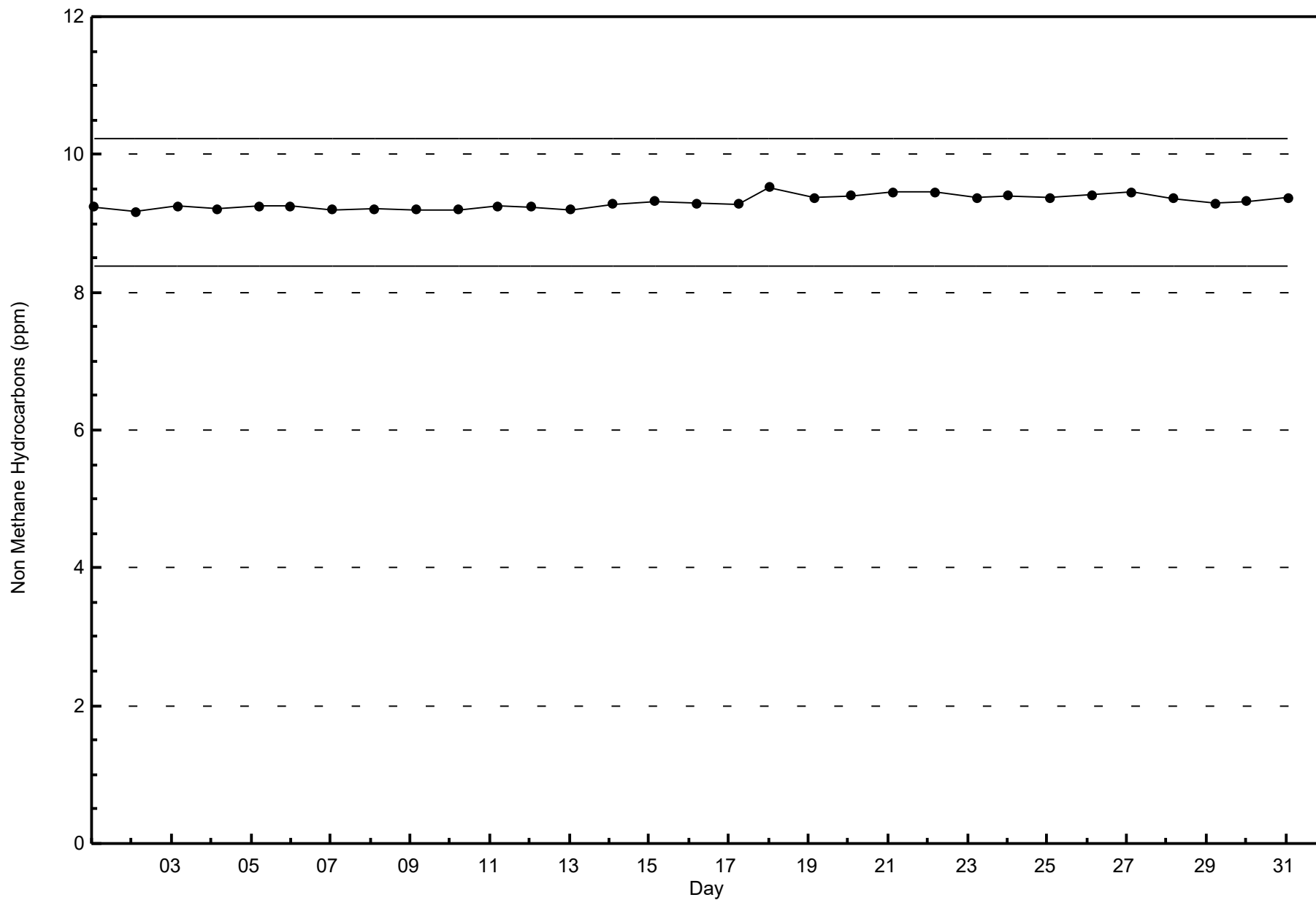
Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Lower Camp - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

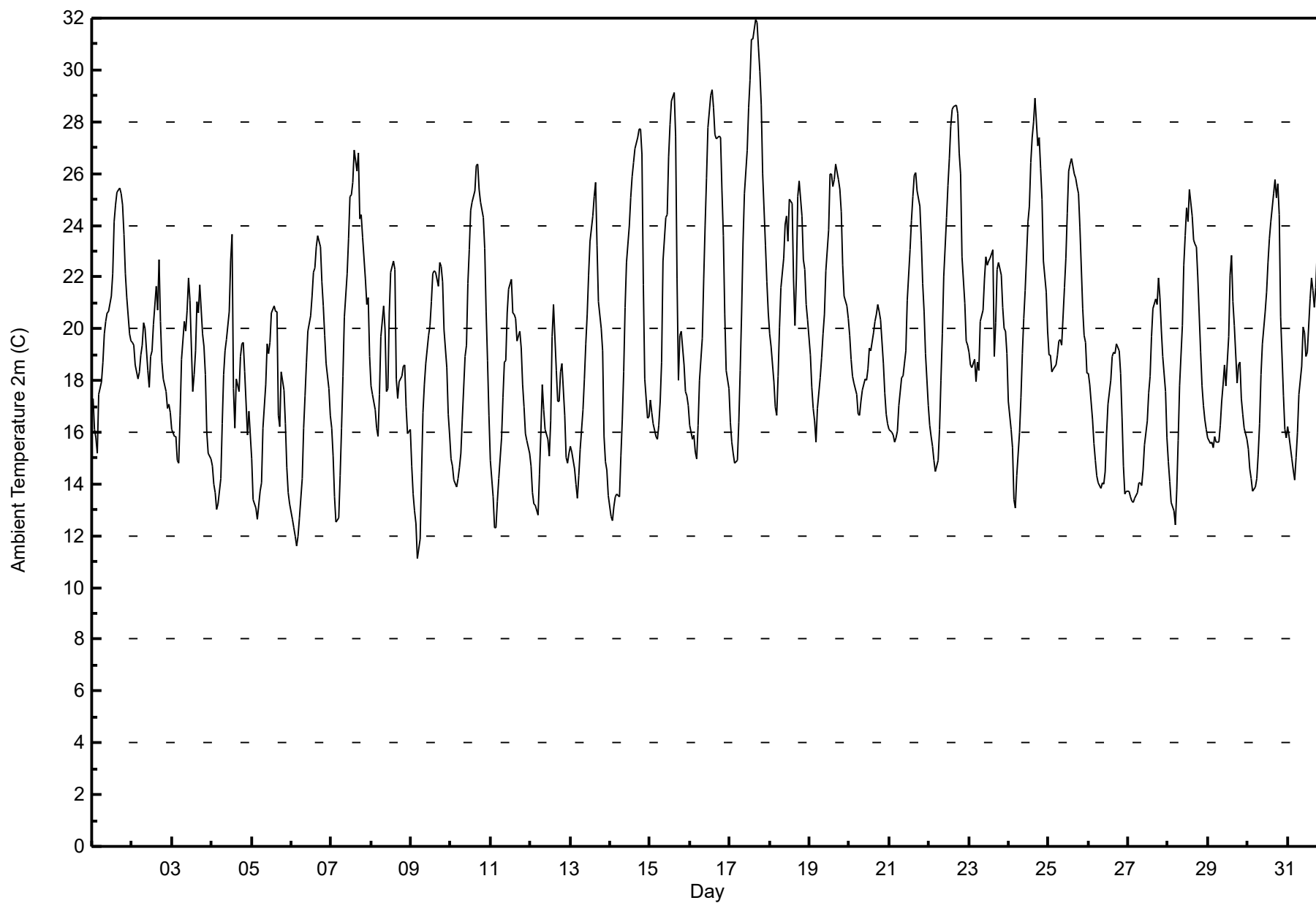
Lower Camp - July 2026

Maximum Value: 32.0 C on Jul 17 16:00																				Maximum Daily Average: 23.9 C on Jul 17					Hours in Service: 744					Hours of Data: 744				
Minimum Value: 11.1 C on Jul 9 05:00																				Minimum Daily Average: 16.2 C on Jul 12					Hours of Missing Data: 0					Hours of Calibration: 0				
Maximum Diurnal Average: 23.6 C at hour 15																				Minimum Diurnal Average: 14.7 C at hour 5					Percent Operational Time: 100.0									
Monthly Average: 19.39 C																				Percentiles: P ₁ = 12.4 P ₁₀ = 14.2 Q ₁ = 16.2 Median = 18.9 Q ₃ = 22.1 P ₉₀ = 25.4 P ₉₉ = 29.2														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24										
1-Jul	17.3	16.1	15.8	15.2	17.5	17.9	18.7	19.8	20.3	20.6	20.7	21.3	22.1	24.1	24.8	25.3	25.4	25.2	24.8	23.7	22.1	21.2	19.8	19.5	20.8	25.4								
2-Jul	19.5	19.3	18.6	18.0	18.3	19.0	19.3	20.2	20.0	18.4	17.7	18.9	19.2	20.2	21.6	20.7	22.7	20.3	18.7	18.1	17.6	16.9	17.1	16.7	19.0	22.7								
3-Jul	16.1	15.9	15.8	14.9	14.8	16.7	18.8	20.3	19.9	20.7	22.0	21.1	17.6	18.2	19.1	21.0	20.6	21.7	19.8	19.3	18.2	16.0	15.2	15.0	18.3	22.0								
4-Jul	14.7	14.0	13.7	13.0	13.2	14.2	16.3	18.2	19.1	19.6	20.7	22.6	23.6	17.7	16.1	18.1	17.6	18.9	19.4	19.5	18.3	15.9	16.8	15.9	17.4	23.6								
5-Jul	15.0	13.4	13.1	12.6	13.2	13.7	14.1	16.1	17.8	19.4	19.1	19.5	20.6	20.9	20.6	20.7	16.6	16.2	18.3	17.6	16.3	14.7	13.7	13.2	16.5	20.9								
6-Jul	12.6	12.3	12.0	11.6	12.0	12.7	14.2	16.2	17.4	18.7	19.9	20.5	21.3	22.2	22.3	23.2	23.6	23.1	21.8	20.9	19.7	18.7	17.7	16.7	18.0	23.6								
7-Jul	16.2	15.1	13.5	12.6	12.7	14.3	16.2	18.2	20.5	22.1	23.5	25.1	25.2	25.7	26.9	26.1	26.8	24.2	24.4	23.5	21.9	20.9	21.2	18.9	20.6	26.9								
8-Jul	17.8	17.5	16.9	16.2	15.8	17.5	19.7	20.9	20.0	17.6	17.7	20.6	22.2	22.6	22.3	18.1	17.3	18.0	18.2	18.6	18.6	17.0	15.9	16.1	18.5	22.6								
9-Jul	14.7	13.6	13.0	12.5	11.1	11.9	14.4	16.7	17.8	18.7	19.7	20.1	21.0	22.1	22.2	22.2	21.7	22.6	22.4	21.8	20.0	18.5	16.7	15.9	18.0	22.6								
10-Jul	15.0	14.7	14.1	13.9	14.2	14.6	15.2	16.5	18.9	19.4	21.7	23.1	24.6	24.9	25.3	26.3	26.3	25.4	24.9	24.3	23.1	20.7	18.8	16.7	20.1	26.3								
11-Jul	14.9	13.5	12.3	12.3	13.3	14.2	15.8	17.4	18.7	18.7	20.6	21.6	21.9	20.6	20.6	20.4	19.5	19.9	19.3	17.8	17.0	16.0	15.7	15.2	17.4	21.9								
12-Jul	14.7	13.7	13.2	13.2	12.8	14.4	16.0	17.9	16.9	16.1	15.7	15.1	16.5	19.7	20.9	18.4	17.2	17.2	18.4	18.6	16.7	15.0	14.8	15.2	16.2	20.9								
13-Jul	15.4	15.2	14.6	14.0	13.4	14.3	15.3	16.9	18.1	19.4	20.6	22.1	23.4	24.3	25.1	25.6	23.2	21.0	20.0	19.2	15.8	14.9	14.5	13.6	18.3	25.6								
14-Jul	12.7	12.6	13.1	13.5	13.6	13.5	15.1	16.5	18.3	20.8	22.6	23.9	25.0	25.9	26.4	27.0	27.4	27.7	27.7	26.7	21.7	18.1	16.5	16.6	20.1	27.7								
15-Jul	17.2	16.8	16.3	15.8	15.8	16.3	17.2	18.7	22.6	24.3	24.4	26.6	27.9	28.8	29.1	27.5	21.9	18.0	19.7	19.9	18.6	17.6	17.4	17.0	20.6	29.1								
16-Jul	16.3	15.7	15.9	15.2	15.0	16.2	18.0	19.6	21.9	23.9	25.8	27.8	29.0	29.2	28.5	27.5	27.3	27.4	27.4	25.3	23.6	20.6	18.4	17.7	22.2	29.2								
17-Jul	16.4	15.6	15.2	14.8	14.9	16.4	18.4	20.6	23.3	25.2	26.9	28.5	29.6	31.2	31.2	32.0	31.8	30.9	29.9	28.7	26.0	23.2	21.8	20.6	23.9	32.0								
18-Jul	19.8	19.3	18.0	17.0	16.7	18.2	20.1	21.6	22.7	24.0	24.4	23.4	25.0	24.8	21.9	20.1	22.0	25.1	25.7	24.4	22.7	22.3	20.9	20.3	21.7	25.7								
19-Jul	19.0	17.8	16.9	16.4	15.6	16.9	18.1	18.9	19.8	20.5	22.2	23.8	26.0	26.0	25.5	25.7	26.4	25.8	25.4	24.5	22.5	21.3	20.9	20.4	21.5	26.4								
20-Jul	19.8	18.8	18.1	17.9	17.4	16.7	16.7	17.2	17.6	18.0	18.0	18.4	19.2	19.1	19.9	20.3	20.6	21.0	20.7	20.4	18.6	17.5	16.7	16.3	18.5	21.0								
21-Jul	16.1	16.0	15.9	15.6	15.8	16.0	17.0	18.1	18.2	18.7	19.1	21.1	23.0	24.2	25.1	25.9	26.0	25.3	24.7	23.4	21.7	20.7	19.1	17.0	20.2	26.0								
22-Jul	16.3	15.9	15.5	14.9	14.5	14.9	16.1	18.0	19.8	22.0	24.3	25.5	26.6	27.8	28.5	28.6	28.6	28.3	26.8	26.0	22.8	21.0	19.5	19.4	21.7	28.6								
23-Jul	19.1	18.6	18.5	18.8	17.9	18.7	18.4	20.3	20.7	21.9	22.8	22.5	22.6	22.7	23.0	18.9	20.3	22.3	22.6	22.1	20.8	20.0	19.9	19.1	20.5	23.0								
24-Jul	17.2	16.1	15.4	13.4	13.1	14.3	16.0	17.4	19.0	20.4	21.5	24.1	24.8	26.4	27.4	28.0	28.9	27.1	27.4	26.2	25.0	22.6	21.4	19.9	21.4	28.9								
25-Jul	19.0	19.0	18.4	18.4	18.6	19.0	19.5	19.6	19.4	21.6	22.7	24.5	26.1	26.4	26.6	26.0	25.8	25.5	25.2	23.9	20.7	19.7	19.5	18.3	21.8	26.6								
26-Jul	18.3	17.8	16.5	15.6	14.9	14.3	14.1	13.8	14.1	14.0	14.5	15.9	17.1	18.0	18.9	19.1	19.1	19.4	19.1	18.3	16.6	14.7	13.6	13.7	16.3	19.4								
27-Jul	13.7	13.5	13.4	13.3	13.4	13.7	14.0	14.1	14.0	14.5	15.5	16.4	17.5	18.2	19.7	20.8	21.2	20.9	21.9	21.2	20.0	18.9	17.6	15.8	16.8	21.9								
28-Jul	14.9	14.1	13.3	13.0	12.4	13.8	15.7	17.8	20.1	22.5	23.6	24.7	24.1	25.4	24.3	23.5	23.3	23.2	21.9	19.1	17.8	17.0	16.5	16.1	19.1	25.4								
29-Jul	15.8	15.6	15.6	15.4	15.9	15.6	15.6	16.3	17.2	17.8	18.6	17.8	19.7	22.1	22.8	21.0	20.1	17.9	18.6	18.7	17.3	16.7	16.2	15.8	17.7	22.8								
30-Jul	15.4	14.6	14.2	13.7	13.9	14.2	15.1	16.3	18.2	19.4	20.7	21.5	22.6	23.5	24.1	25.2	25.8	25.1	25.6	24.4	20.4	17.4	16.1	15.8	19.3	25.8								
31-Jul	16.2	15.8	15.0	14.5	14.1	15.0	16.0	17.5	18.5	20.1	19.9	18.9	19.1	21.2	22.0	21.5	20.8	21.6	23.0	22.3	20.0	18.5	17.9	16.7	18.6	23.0								
16.3 15.7 15.2 14.8 14.7 15.5 16.6 18.0 19.1 20.0 20.9 21.8 22.7 23.4 23.6 23.4 23.1 22.8 22.7 21.9 20.1 18.5 17.7 16.9																									Diurnal Average									
19.8 19.3 18.6 18.8 18.6 19.0 20.1 21.6 23.3 25.2 26.9 28.5 29.6 31.2 31.2 32.0 31.8 30.9 29.9 28.7 26.0 23.2 21.8 20.6																									Diurnal Maximum									



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Lower Camp - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Lower Camp - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	0	0.00	0.00
10 - 20	450	60.48	60.48
> 20	294	39.52	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

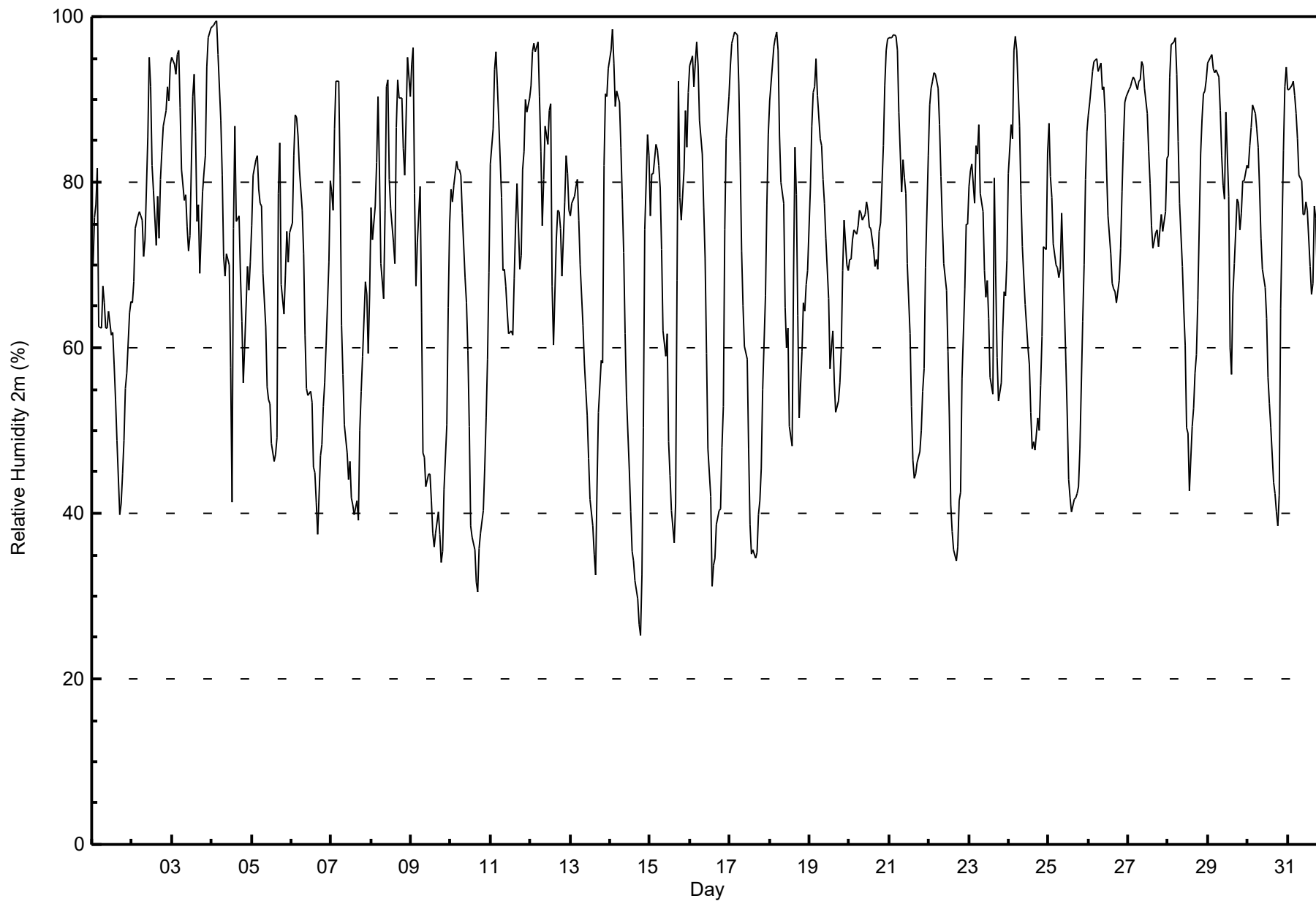
Lower Camp - July 2026

Maximum Value: 99.4 % on Jul 4 04:00																				Maximum Daily Average: 85.2 % on Jul 3										Hours in Service: 744			
Minimum Value: 25.3 % on Jul 14 19:00																				Minimum Daily Average: 54.7 % on Jul 9										Hours of Data: 744			
Maximum Diurnal Average: 88.6 % at hour 4																				Minimum Diurnal Average: 53.9 % at hour 15										Hours of Missing Data: 0			
Monthly Average: 71.35 %																				Percentiles: P ₁ = 32.6 P ₁₀ = 43.2 Q ₁ = 59.2 Median = 74.6 Q ₃ = 85.2 P ₉₀ = 93.1 P ₉₉ = 98.0										Hours of Calibration: 0			
																														Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24									
1-Jul	69.9	75.7	77.2	81.8	62.5	62.4	67.4	65.4	62.4	62.3	64.5	61.6	61.8	57.9	53.7	48.7	39.9	41.2	44.8	48.8	55.2	56.9	64.3	65.5	60.5	81.8							
2-Jul	65.4	68.0	74.4	75.9	76.5	76.0	75.4	71.1	73.1	85.4	95.2	91.6	82.0	79.0	72.4	78.4	73.1	80.3	83.8	86.8	88.6	91.5	89.8	94.2	80.3	95.2							
3-Jul	95.0	94.3	93.0	95.4	96.0	89.0	81.5	77.8	78.5	74.6	71.7	73.5	90.4	93.1	86.1	75.2	77.3	69.0	78.8	81.2	83.3	93.9	97.5	98.6	85.2	98.6							
4-Jul	98.8	98.9	99.3	99.4	95.4	87.5	80.8	71.0	68.7	71.3	70.0	57.7	41.4	74.5	86.7	75.3	75.9	68.7	63.3	55.7	60.2	69.9	66.9	70.4	75.3	99.4							
5-Jul	74.7	80.8	82.7	83.2	79.1	77.4	77.1	69.0	62.6	55.3	53.8	53.3	48.5	46.2	47.1	49.1	78.7	84.7	67.6	64.0	68.8	74.0	70.4	73.8	67.6	84.7							
6-Jul	75.1	83.2	88.1	87.8	85.6	81.6	76.7	71.4	61.6	55.2	54.2	54.8	53.4	45.6	45.0	41.4	37.5	47.0	48.2	52.9	55.8	60.3	70.3	80.1	63.0	88.1							
7-Jul	78.8	76.5	86.5	92.2	92.2	80.8	62.6	56.8	50.8	47.3	44.1	46.2	41.8	40.9	39.9	41.5	39.1	50.1	54.8	59.0	68.0	66.5	59.4	66.4	60.1	92.2							
8-Jul	77.0	73.0	77.1	82.4	90.3	81.3	70.1	65.9	76.6	91.5	92.4	80.3	76.7	72.8	70.1	86.6	92.4	90.1	90.2	84.1	80.9	87.7	95.0	90.3	82.3	95.0							
9-Jul	94.2	96.3	78.6	67.4	72.7	79.6	64.2	47.3	46.8	43.2	44.7	44.7	41.6	37.7	35.9	37.6	40.2	37.5	34.1	35.5	42.8	50.7	65.0	75.0	54.7	96.3							
10-Jul	79.2	77.7	79.7	82.5	81.5	81.5	80.9	76.3	68.4	65.4	59.7	50.4	38.5	37.2	35.6	31.7	30.5	35.8	37.6	40.3	45.5	51.5	58.7	69.1	58.1	82.5							
11-Jul	82.3	86.4	93.5	95.7	91.6	87.5	78.1	69.4	69.4	67.5	64.4	61.7	62.0	61.5	68.3	74.8	79.9	69.5	71.2	81.5	83.7	89.9	88.5	90.1	77.9	95.7							
12-Jul	91.7	95.8	96.9	95.8	96.9	90.3	83.8	74.8	80.3	86.8	84.5	88.7	89.5	67.5	60.3	73.1	76.5	76.4	74.5	68.6	77.7	83.2	81.0	76.7	82.1	96.9							
13-Jul	76.0	77.5	78.3	79.5	80.4	75.4	69.9	62.7	58.1	54.9	51.9	46.6	41.7	38.5	35.0	32.6	43.2	52.3	58.5	58.1	82.1	90.7	90.4	93.8	63.7	93.8							
14-Jul	95.9	98.4	94.4	89.2	91.1	89.7	84.2	78.0	71.5	61.6	54.0	45.3	40.1	35.4	34.2	31.9	29.6	26.7	25.3	32.6	50.4	74.2	85.8	83.2	62.6	98.4							
15-Jul	76.0	81.0	81.0	84.7	83.8	82.1	79.3	71.9	62.0	59.0	61.7	48.7	44.6	40.4	36.4	41.2	68.2	92.3	78.2	75.4	81.6	88.7	84.3	90.8	70.5	92.3							
16-Jul	94.1	95.3	91.4	94.5	96.9	94.1	87.5	83.4	76.9	70.8	59.3	47.8	42.0	31.2	33.7	34.5	38.7	40.4	40.5	48.0	52.9	74.3	85.3	90.3	66.8	96.9							
17-Jul	94.1	96.7	97.5	98.2	97.8	91.8	82.5	71.7	65.1	60.2	58.6	47.8	38.6	35.0	35.6	34.6	35.3	39.9	41.5	45.4	54.9	66.3	77.2	85.8	64.7	98.2							
18-Jul	89.8	92.0	96.5	97.4	98.2	95.9	85.7	80.0	77.5	64.9	60.0	62.3	50.5	48.1	68.6	84.3	78.4	63.9	51.5	59.5	65.4	64.5	67.6	69.3	73.8	98.2							
19-Jul	79.3	86.9	90.8	91.6	94.9	90.6	85.2	84.3	80.4	77.5	73.2	65.9	57.5	60.0	62.1	55.9	52.3	53.5	55.7	59.8	69.3	75.5	69.9	69.4	72.6	94.9							
20-Jul	70.7	70.7	73.1	74.2	73.7	74.8	76.6	76.3	75.5	76.1	77.6	76.6	74.6	74.4	71.9	69.8	70.7	69.6	74.0	75.1	84.4	91.6	95.9	97.3	76.9	97.3							
21-Jul	97.5	97.4	97.7	97.8	97.7	95.9	88.4	78.9	82.8	80.5	78.7	70.2	61.7	52.9	46.5	44.2	44.8	46.0	47.4	49.9	54.7	57.5	69.7	83.3	71.8	97.8							
22-Jul	89.2	91.3	92.2	93.3	93.1	91.3	86.9	80.8	75.1	70.2	66.9	59.4	51.7	41.0	37.9	35.6	34.2	35.9	41.5	42.5	56.3	67.1	75.0	74.9	66.0	93.3							
23-Jul	79.5	81.4	82.2	77.4	84.3	83.4	87.0	78.6	76.4	69.3	66.1	68.2	63.6	56.4	54.4	80.4	68.9	58.7	53.5	55.8	62.0	66.8	66.3	70.4	70.5	87.0							
24-Jul	81.1	86.9	85.3	96.0	97.6	95.9	86.8	78.4	72.2	68.7	65.2	60.1	57.9	52.2	47.8	48.6	47.7	51.5	50.0	55.5	61.4	72.2	71.9	83.6	69.8	97.6							
25-Jul	87.2	80.7	78.2	72.5	70.0	69.7	68.5	69.4	76.2	64.6	58.4	51.7	44.0	41.9	40.2	41.7	41.8	42.4	43.3	47.8	63.2	70.0	80.4	86.0	62.1	87.2							
26-Jul	88.2	89.7	93.3	94.7	94.8	94.9	93.3	94.4	91.2	91.5	88.3	81.5	75.9	71.3	67.8	67.2	66.8	65.4	68.2	72.0	78.9	84.9	89.6	90.3	83.1	94.9							
27-Jul	91.1	91.5	92.1	92.7	92.3	91.1	92.3	92.4	94.5	94.0	91.4	88.3	83.8	79.8	74.7	72.0	73.9	74.3	72.2	74.3	76.1	74.1	76.4	82.9	84.1	94.5							
28-Jul	83.2	92.8	96.6	97.0	97.5	93.1	84.9	77.4	69.8	64.6	60.4	50.3	49.6	42.7	50.5	52.8	57.0	59.2	65.7	83.3	87.6	90.7	91.0	92.5	74.6	97.5							
29-Jul	94.3	95.0	95.4	93.8	93.3	93.6	92.8	88.7	83.3	79.6	78.0	88.4	78.3	60.0	56.9	66.5	70.2	78.0	77.5	74.3	76.3	80.2	80.2	82.0	81.5	95.4							
30-Jul	81.7	84.4	86.6	89.3	88.4	86.5	84.3	79.2	73.2	69.4	67.3	63.6	56.4	53.3	50.3	43.7	42.4	40.2	38.5	42.2	64.8	83.9	91.5	93.9	68.9	93.9							
31-Jul	91.2	91.1	91.7	92.1	90.5	88.3	85.2	80.8	80.2	76.2	76.1	77.5	76.6	69.9	66.5	67.9	77.1	75.6	68.6	72.7	80.9	84.6	88.3	93.4	81.0	93.4							
84.6 86.7 87.8 88.6 88.3 85.6 80.6 74.9 72.3 69.7 67.5 63.4 58.6 54.8 53.9 55.4 57.5 58.6 58.1 60.7 68.2 75.3 78.8 82.7																										Diurnal Average							
98.8 98.9 99.3 99.4 98.2 95.9 93.3 94.4 94.5 94.0 95.2 91.6 90.4 93.1 86.7 86.6 92.4 92.3 90.2 86.8 88.6 93.9 97.5 98.6																										Diurnal Maximum							



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Lower Camp - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Barometric Pressure (BP) - inHg

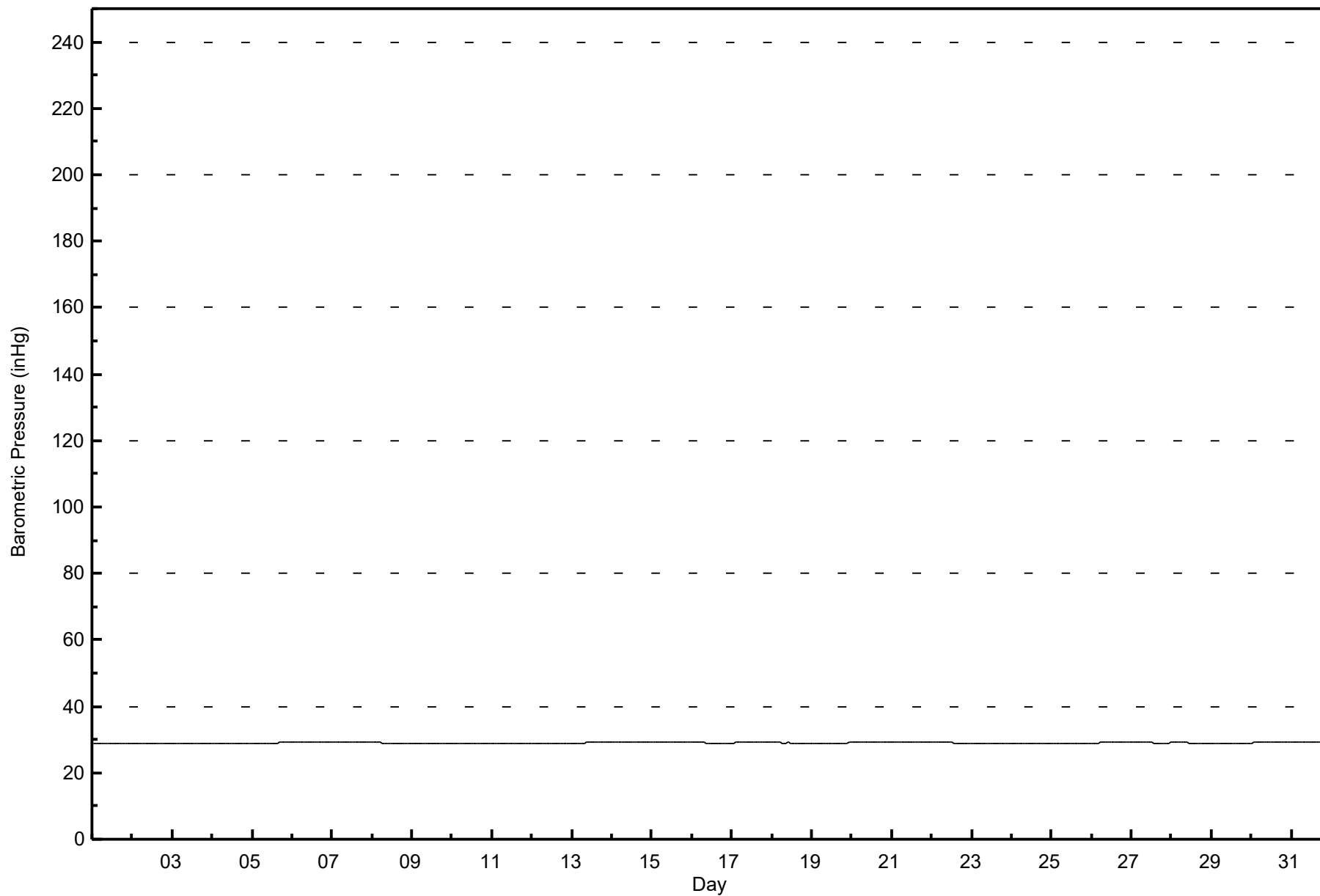
Lower Camp - July 2026

Maximum Value: 29.3 inHg on Jul 20 23:00																				Maximum Daily Average: 29.3 inHg on Jul 14					Hours in Service: 744	
Minimum Value: 28.7 inHg on Jul 24 19:00																				Minimum Daily Average: 28.7 inHg on Jul 24					Hours of Data: 744	
Maximum Diurnal Average: 29.0 inHg at hour 9																				Minimum Diurnal Average: 29.0 inHg at hour 19					Hours of Missing Data: 0	
Monthly Average: 29.01 inHg																				Percentiles: P ₁ = 28.7 P ₁₀ = 28.8 Q ₁ = 28.9 Median = 29.0 Q ₃ = 29.1 P ₉₀ = 29.2 P ₉₉ = 29.3					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0
2-Jul	28.9	28.9	28.9	29.0	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
3-Jul	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.0
4-Jul	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	29.0	29.0	29.0	29.0	29.0
5-Jul	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.1	29.2	29.0	29.2
6-Jul	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2
7-Jul	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2	29.2
8-Jul	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.1
9-Jul	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0
10-Jul	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9
11-Jul	28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	29.0	29.0	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0
12-Jul	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0
13-Jul	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.0	29.2
14-Jul	29.2	29.2	29.2	29.2	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.2	29.3	29.3	29.3	29.3	29.3	29.3
15-Jul	29.3	29.3	29.3	29.3	29.3	29.3	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2	29.3
16-Jul	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	29.0	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.1
17-Jul	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.1
18-Jul	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.1	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	29.0	29.1
19-Jul	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.1	28.9
20-Jul	29.1	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.2	29.2	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.2	29.3
21-Jul	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.2	29.3
22-Jul	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	29.0	29.1
23-Jul	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9
24-Jul	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8
25-Jul	28.7	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.8	28.9
26-Jul	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.1	29.0	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.0
27-Jul	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.1
28-Jul	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	29.0	29.1
29-Jul	28.8	28.8	28.8	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	28.9	29.0
30-Jul	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2	29.2	29.2	29.1	29.2
31-Jul	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2	29.2
29.0 29.0																									Diurnal Average	
29.3 29.3																									Diurnal Maximum	



Wood Buffalo Environmental Association
Hourly Averages

Barometric Pressure (BP) - inHg
Lower Camp - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Lower Camp - July 2026

Maximum Speed: 24 km/h on Jul 13 02:00										Maximum Daily Speed Average: 12.8 km/h on Jul 13										Hours in Service: 744						
Minimum Speed Value: 0 km/h on Jul 3 03:00										Minimum Daily Speed Average: 1.9 km/h on Jul 27										Hours of Data: 741						
Maximum Diurnal Speed Average: 2.9 km/h at hour 7										Minimum Diurnal Speed Average: 0.4 km/h at hour 1										Hours of Missing Data: 3						
Monthly Average Velocity: 1.5 km/h 205.7 deg										Percentiles: P ₁ = 1 P ₁₀ = 2 Q ₁ = 5 Median = 8 Q ₃ = 11 P ₉₀ = 15 P ₉₉ = 20										Percent Operational Time: 99.6						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	NW2	WNW3	WNW4	SSE0	SE7	SE4	SE2	SE11	SE17	SE17	SE18	SE19	SE16	SE11	SE11	SE15	SSE10	SSE7	SSE7	SSE3	SE5	SE5	ESE4	SE7	SE7.7	SE19
2-Jul	ESE7	SE5	SE6	SE6	SE13	SE16	SE21	SSE11	SSE11	SSE12	SE12	SE17	S10	SSE10	SSE11	SSE9	SE13	SE17	SE16	SE12	ESE8	SE8	SE11	SE12	SE11.1	SE21
3-Jul	ESE10	ESE4	WNW0	SSE5	SE7	SE9	SE12	SE13	SE11	SSE10	SE13	S7WSW14	ESE5	SE14	SE8	SE9	SSE6	ENE2	N6	N6	NNW4	W4	WNW4	SE4.8	SE14	
4-Jul	NW3	NNE2	N2	SSE2	SSW6	SSE5	SE10	SE8	SE8	SE13	SE12	SE11	SSE7WSW15	WSW4	W6	WNW9	W6	WSW9	W11	WSW6	SSW5	SSW6WSW11	SSW4.0	WSW15		
5-Jul	WSW10	WSW8	W7	W9	WNW7	W7	SW4	W9	W11	NW14	NW17	NW18	NW20	NNW19	NNW15	N12	NNW7	NNE2	NW6	N10	NNE8	NW8	NW9	NW6	NW8.2	NW20
6-Jul	NNW5	N3	SE3	WSW1	NW3	NW2	W7	NNW4	N7	N8	NNE3	ENE4	NE6	NNE3	W15	W11	NW5	NE8	ENE10	NE3	NW8	WNW9	N3	NNW5	NNW3.3	W15
7-Jul	NNW4	N2	WNW4	WNW3	N2	NNE3	NNE3	NE3	NNW2	E3	SSE5	SE11	ESE11	ESE10	SE8	ESE6	SE7	ESE4	ENE2	NW1	NNW2	SE2	ESE6	ESE4	ESE2.5	ESE11
8-Jul	WNW3	SSE3	SSE6	SE4	NW4	NNW4	NE3	S4	S5	SSE9	ESE7	ESE12	E6	SE6	WSW7	NW4	S2	SSE5	S5	W11	WSW8	S3	SSE4	WSW6	S2.4	ESE12
9-Jul	WSW3	SE3	SW8	WSW8	SSE2	SE8	S5WSW17	W19	W18	SW12	SW11	SW13	SW13	SW14	SSW12	S9	SSW9	SW10	SW10	S6	S9	S8	S9	SW8.1	W19	
10-Jul	S9	S9	SSE9	S11	SSE11	SSE8	SE10	SSE9	SSE11	S8	SSE11	SSE11	SSW11	SSW10	SSW9	SW13	SW16	SSW12	SSW10	S7	SSW5	SSW7	WSW3	WNW2	S8.2	SW16
11-Jul	SE1	SE1	UO	UO	SE2	SE5	E2	SE4	SE8	E7	SE7	SE8	SSE8	S8	SE6	SE6	S5	SSW5	W6	NW8	NNW3	W5	WSW8	WSW8	SSE2.5	S8
12-Jul	S3	SSE4	SSE4	SSE6	SSE4	SSE6	SE11	SSE8	SSE6	S3WSW12	W14	SE8	SE10	SSE9	S9	SSW7	S7	SSE9	SW9WSW10WSW10WSW11WSW17	SSW5.6	WSW17	W12.8	W24	SSW5.6	WSW17	
13-Jul	W22	W24	W19	W16	W14	W17	W15WSW11	W14	W12	W14	W18	W22	W21	W19	W20	NW12	NNE9	NNW6	NW11	NNW7	W9	SSW2	SW4	W12.8	W24	
14-Jul	SSW2	SSE2	SSE2	S3	SSE3	S4	S3	WSW7WSW12WSW10	W15	W16	W14	W12	W11	W9WNW10	WNW8	W8	W4	SE4	ESE2	E2	SE3	WSW5.2	W16	WSW5.2	W16	
15-Jul	SE8	SE9	SE7	SE10	SE12	SE13	SE7	SSE6	SE10	SE9	SE11	SSE10	SSE10	SSE11	SSE10	S7	W17	SE22	SE14	SE7	ESE1	WNW1	SSE5	SSE9	SSE8.0	SE22
16-Jul	S3	SSW1	S6	SSE5	SE7	SE8	SE11	SE15	SE14	SE14	S9	SSW10	SW10	W10	W9	NNW6	ENE8	SE9	SE4	NW5	W1	W4	WNW1	WNW4	SSE3.7	SE15
17-Jul	E1	NNW1	SE1	SE3	SE5	SE8	SE11	SE9	SE9	SE8	SE9	SE5	NE4	ENE4	NE5	SE7	SE5	N6	N10	NNW9	NW6	WNW4	NNW5	NW5	ESE2.0	SE11
18-Jul	WNW5	WNW3	E1	E1	ESE2	SE5	E2	NNW4	N5WNW11	WSW6	SE21	SE13	SW5	NW8	NW5	WNW2	ESE2	SSE12	SE15	SE18	SE19	SE11	SE6	SE3.6	SE21	
19-Jul	NW3	W4	WNW5	WNW5	SW1	SE4	NNW6	NNW8	NW7	NW5	NW9	WNW8	N9	N16	N16	NNE19	N20	N17	N17	N16	N7	NW8	NNW10	N13	NNW8.3	N20
20-Jul	N17	N14	N12	NNE13	NNW13	NNW10	NW8	NW8	NNW7	N8	N7	N8	NNW9	NNW9	NW7	NW6	N6	NNE4	NE3	NNW2	UO	ENE1	WNW1	ESE2	NNW7.1	N17
21-Jul	ESE1	SSE1	SE1	ESE1	ESE1	SE3	SE2	WSW3	SE7	SE8	SE8	ESE5	SE7	ESE0	S4	S5	SSW4	S6	S5	S6	S6	S6	SE4	ESE2	SSE3.4	SE8
22-Jul	SE5	SE8	SE7	SE7	SE6	SE8	SE10	SE9	SE10	SE10	SE9	ESE4	SE4	W2	S7	S7	S6	SSE7	SSE5	SSE5	SE7	SE6	SE6	SE8	SSE6.6	SE10
23-Jul	SE10	SSE11	S7	SSE8	SE5	ESE3	SSW2	NE3	N6	NW13	NNW15	N12	NNW14	NNW15	N8	W5	W13	NW15	NW13	NW14	NW9WNW10WNW16	NW14	NW14	NW5.5	WNW16	
24-Jul	NW6	NW6	N4	WSW1	W4	ENE1	ENE3	ESE4	ESE7	SE9	SE8	SE10	SE10	SE10	SE9	SE11	SE10	SSE7	SSE7	SSE6	WSW3	NW6	WSW6	S2	SE3.5	SE11
25-Jul	SE2	SSE2	SSW2	SSW3	WSW7WSW12WSW10	W17	W11	W14	W13	W15	W15	W13WSW17WSW18	W17WSW17WSW16	W7	S1	WNW5	NNW9	N11						W9.2	WSW18	
26-Jul	N9	N11	N15	N13	NNE11	NNE11	NNE11	NE11	NNE12	NNE14	NE12	NNE9	N10	N10	N11	N9	N8	NNE10	NNE12	NNE10	N8	N7	ENE6	NNE10.0	N15	
27-Jul	ENE8	ENE6	E7	ENE6	ENE4	E5	E9	ENE2	N5	NNE3	NNE3	N3	W5	W8	NNW6	ESE5	SSE8	SSE7	SSE6	S5	S5	SSW6	SSW4	S3	ESE1.9	E9
28-Jul	SSW4	SSE5	SE6	SSE5	SE6	SE8	SE10	SE12	SE12	SE12	SE14	SE13	SE10	SE10	SE6	ESE9	ENE5	ENE5	NNW4	NNW2	NW7	NE5	NNE13	ENE9	ESE5.4	SE14
29-Jul	ENE14	SW4	S7	S7	W15WNW20WNW18	W19	W20WNW16WNW15	NW11WNW11WNW20WNW15WNW14	NW12	NW13	WNW8	W15	W18	W17	W14	W14	WNW11.5	W20	WNW5.8	W15				WNW11.5	W20	
30-Jul	W15	W12	W10	W9	W9	W9	W9	W10	NW10	NW11	NNE6	NW3	NW5	NNW5	NNW6	WNW8	SW3	W9	W5	WSW6	SW1	ESE2	ESE2	ENE1	WNW5.8	W15
31-Jul	SSE3	SE5	SE7	SE9	SE9	SE10	SE11	SE11	SE11	SE10	SE9	SSE7	SSE5	SE8	SE7	SSE4	N3	ESE1	SE4	SE5	SE2	ESE1	NW1	WNW2	SE5.5	SE11
W0.4 SW1.0SSW1.4 S1.9 S2.0 SSE2.5 SSE2.9 S2.5 S2.2 S1.9 S2.3 SSE2.7 SW2.2WSW2.3WSW2.3 SW2.0WSW1.9 S1.2SSW1.3 W2.1 W1.1WSW2.0 W1.3WSW1.3																								Diurnal Average		
W22 W24 W19 W16 W15WNW20 SE21 W19 W20 W18 SE18 SE21 W22 W21 W19 W20 N20 SE22 N17 N16 SE18 SE19WNW16WSW17																								Diurnal Maximum		
UO - Unstable Operation																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

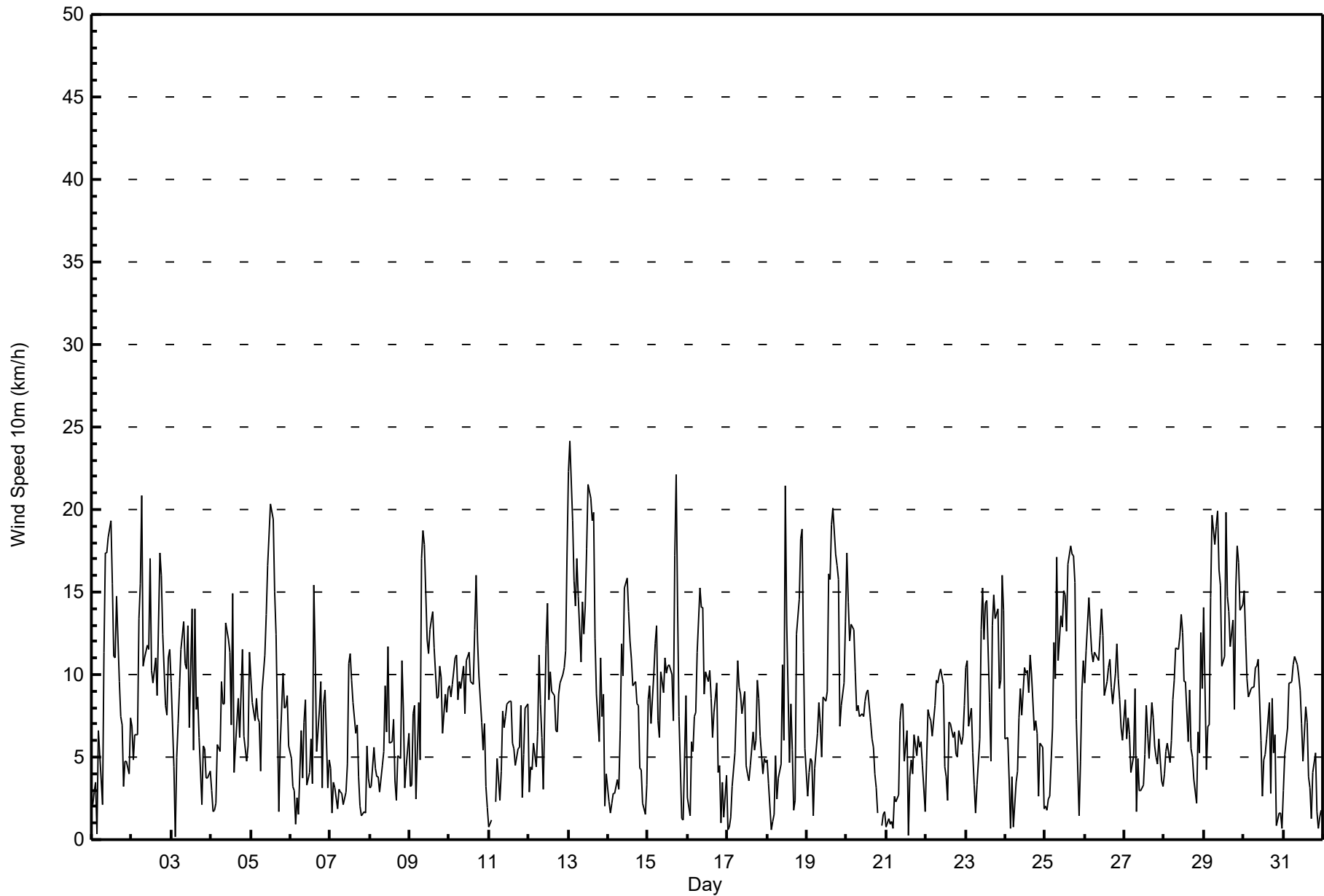
Wind Speed 10m (WS10) - km/h
Lower Camp - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																	Hours in Service: 744								
Maximum Value: 12 km/h on Jul 15 17:00																	Hours of Data: 741								
Minimum Value: 1 km/h on Jul 3 23:00																	Hours of Missing Data: 3								
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 2 Q ₃ = 3 P ₉₀ = 4 P ₉₉ = 7																	Hours of Calibration: 0								
																	Percent Operational Time: 99.6								
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Jul	1	1	1	3	2	2	2	3	3	4	3	3	3	3	2	5	4	3	3	2	2	1	1	3	5
2-Jul	2	2	2	4	4	3	4	5	5	5	4	4	5	5	4	3	2	4	4	4	2	2	4	3	5
3-Jul	3	3	1	2	2	2	2	3	4	5	3	3	6	4	2	3	2	3	3	2	2	1	1	1	6
4-Jul	2	2	2	2	3	3	2	2	1	3	3	3	3	9	3	3	2	3	4	3	3	1	2	3	9
5-Jul	4	4	4	4	2	2	2	3	3	4	4	4	6	6	4	4	7	2	3	3	4	3	2	2	7
6-Jul	1	1	2	2	2	3	2	2	2	3	3	2	1	2	6	4	3	3	3	3	4	4	1	1	6
7-Jul	1	2	2	1	1	2	2	1	2	1	2	2	3	4	3	2	3	2	1	1	1	2	3	2	4
8-Jul	1	1	2	2	1	1	1	2	3	4	3	2	2	5	10	4	2	2	2	2	2	2	1	5	10
9-Jul	1	2	2	3	1	3	3	5	5	4	5	5	4	6	6	5	4	4	4	4	2	4	3	4	6
10-Jul	3	3	3	4	4	3	3	3	3	3	4	4	4	4	4	5	5	4	4	3	1	2	2	2	5
11-Jul	2	1	UO	UO	2	2	2	2	2	2	2	3	3	3	2	2	2	2	2	3	2	2	2	3	3
12-Jul	2	2	2	2	2	3	3	3	2	2	4	4	4	3	3	4	3	3	3	6	4	5	4	4	6
13-Jul	4	5	4	3	3	4	3	4	4	4	4	5	5	5	5	5	6	3	1	4	4	4	3	1	6
14-Jul	1	1	1	1	1	1	2	4	3	3	4	4	4	4	3	4	3	2	2	2	1	2	2	3	4
15-Jul	2	2	2	3	3	3	3	2	2	2	3	3	3	4	4	3	12	7	4	6	2	1	2	5	12
16-Jul	2	2	2	2	2	2	3	3	2	3	4	4	5	4	3	8	3	3	3	3	2	2	2	2	8
17-Jul	2	1	2	2	2	2	2	1	2	1	2	2	1	1	1	3	2	3	3	2	1	1	1	1	3
18-Jul	1	2	1	1	1	2	3	1	1	4	5	6	7	4	4	4	2	2	5	6	5	5	3	3	7
19-Jul	2	1	1	2	1	2	2	2	2	1	2	2	4	5	5	6	5	5	5	5	3	2	2	6	6
20-Jul	4	5	3	4	3	3	2	2	2	2	2	2	2	2	2	2	2	1	1	1	UO	1	1	1	5
21-Jul	1	1	1	1	2	1	1	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	1	2
22-Jul	2	3	2	2	2	2	2	2	1	2	2	2	3	3	3	3	3	2	1	1	2	1	2	2	3
23-Jul	3	3	3	2	2	3	2	2	2	4	4	4	7	4	3	6	3	5	3	5	2	2	3	4	7
24-Jul	2	1	2	2	1	2	2	1	2	2	2	2	2	3	3	3	3	2	2	2	2	3	1	1	3
25-Jul	2	2	2	2	3	6	4	4	4	3	3	4	4	4	5	4	4	4	4	3	1	3	2	3	6
26-Jul	2	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	3
27-Jul	2	2	2	2	2	3	3	2	1	2	1	1	3	2	2	2	2	2	2	2	2	2	1	1	3
28-Jul	1	1	2	1	1	2	2	2	3	2	3	4	3	3	3	4	2	2	2	4	2	5	5	5	5
29-Jul	5	2	2	3	3	4	4	4	4	4	3	3	6	4	4	5	4	9	5	4	3	3	3	3	9
30-Jul	3	3	3	2	2	2	2	3	3	3	2	2	2	3	2	3	3	3	2	2	1	2	2	2	3
31-Jul	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1	1	1	2
5 5 4 4 4 6 4 5 5 5 5 6 7 9 10 8 12 9 5 6 5 5 5 6																									
Diurnal Maximum																									
UO - Unstable Operation																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Lower Camp - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Lower Camp - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	244	32.93	32.93
6 - 11	346	46.69	79.62
12 - 19	138	18.62	98.25
20 - 28	13	1.75	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 741

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Lower Camp - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	10	9	8	12	8	25	35	28	20	12	7	7	11	20	16	16	244
6 - 11	25	10	3	7	4	11	98	44	27	12	5	22	27	12	23	16	346
12 - 19	13	6	1	1	0	1	36	2	0	2	6	12	35	6	11	6	138
20 - 28	1	0	0	0	0	0	3	0	0	0	0	0	6	2	1	0	13
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	49	25	12	20	12	37	172	74	47	26	18	41	79	40	51	38	741

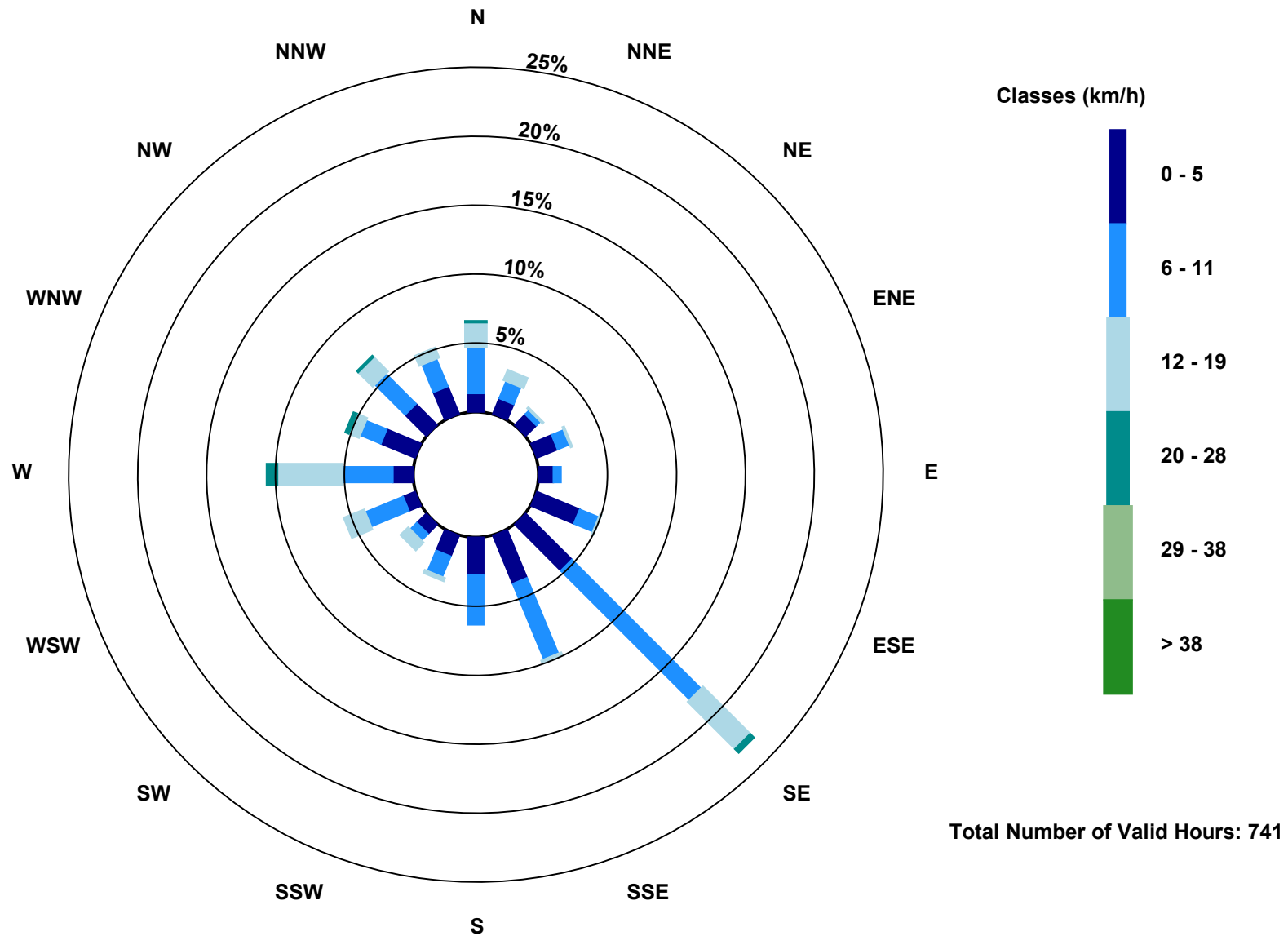
Total Number of Valid Hours: 741

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Lower Camp





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Lower Camp - July 2026

Direction of Maximum Speed: 269 deg on Jul 13 02:00																				Hours in Service:		744			
Direction of Maximum Daily Speed Average: 272.6 deg on Jul 13																				Hours of Data:		741			
Direction of Minimum Speed: 297 deg on Jul 3 03:00										Direction of Minimum Daily Speed Average: 1.9 deg on Jul 27										Hours of Missing Data:		3			
Monthly Average Direction: 205.7 deg																				Percent Operational Time:		99.6			
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	308	286	297	163	138	146	144	127	130	131	130	124	125	136	131	133	159	164	154	156	134	128	123	126	134.7
2-Jul	113	128	141	125	134	136	137	157	150	157	142	137	182	147	150	154	139	137	136	134	117	135	139	138	140.6
3-Jul	121	105	297	155	145	144	144	140	145	149	138	189	256	115	131	132	130	147	62	352	8	327	271	284	143.7
4-Jul	313	12	356	149	205	156	142	139	140	137	134	131	160	237	256	264	284	261	237	260	243	204	201	246	198.9
5-Jul	256	247	259	259	284	259	225	261	269	317	309	318	309	339	348	0	343	12	324	351	18	321	309	326	310.3
6-Jul	346	354	127	247	306	318	277	336	4	8	23	68	46	29	277	270	318	40	62	50	321	288	351	337	339.1
7-Jul	341	10	282	297	351	15	32	47	328	96	148	138	118	115	126	116	137	119	68	311	334	145	117	121	109.6
8-Jul	288	161	148	141	307	341	46	169	177	156	121	115	85	130	245	307	176	166	182	267	254	188	148	250	177.8
9-Jul	252	143	232	250	152	130	174	258	271	263	220	232	224	218	222	211	186	192	221	221	183	174	178	175	219.5
10-Jul	170	170	168	169	167	159	146	161	157	169	149	158	193	196	200	219	235	212	195	184	198	208	254	300	183.7
11-Jul	135	133	UO	UO	132	128	94	124	140	97	136	133	158	179	127	139	172	210	274	322	342	268	254	255	166.5
12-Jul	179	159	151	153	155	148	139	148	154	188	251	263	127	142	158	182	206	172	149	230	251	242	240	257	194.6
13-Jul	264	269	270	269	265	267	269	257	262	267	269	267	270	266	263	260	319	14	329	324	343	262	200	231	272.6
14-Jul	194	155	164	170	164	177	177	249	258	255	266	260	266	267	268	281	294	289	273	274	129	119	101	138	257.0
15-Jul	146	145	146	137	144	139	124	151	131	138	136	147	164	166	168	189	275	127	146	137	106	290	168	151	149.5
16-Jul	171	198	189	147	142	139	140	135	140	140	177	197	214	276	272	346	69	126	141	319	263	279	282	299	163.8
17-Jul	82	335	131	138	140	131	137	139	143	144	145	130	46	59	54	142	136	5	8	328	308	297	333	324	108.2
18-Jul	301	292	95	90	119	129	90	346	358	284	244	129	141	223	313	320	290	117	153	138	138	131	126	140	142.8
19-Jul	314	281	295	293	224	141	333	336	316	315	318	297	352	6	3	33	360	357	351	356	3	322	333	350	347.0
20-Jul	4	355	355	13	340	331	324	322	327	350	352	352	334	335	322	319	6	14	34	337	UO	72	300	111	347.0
21-Jul	111	155	133	104	116	133	124	255	135	139	136	110	126	116	177	182	202	172	180	190	178	176	129	116	154.7
22-Jul	131	146	144	141	146	143	140	140	140	141	140	122	144	260	181	180	171	155	158	156	141	137	138	142	147.2
23-Jul	143	147	175	151	137	116	207	51	1	324	340	353	332	333	358	273	270	307	311	309	305	286	298	310	314.2
24-Jul	326	317	354	251	271	62	76	110	121	128	136	140	129	138	132	126	140	159	154	151	243	314	258	186	139.3
25-Jul	131	161	198	200	239	255	253	264	280	279	263	262	266	259	257	254	259	253	254	265	187	302	337	354	263.8
26-Jul	351	358	2	9	26	31	25	33	35	18	22	47	28	350	352	355	3	4	32	27	19	358	4	73	16.5
27-Jul	74	76	86	63	70	100	95	68	2	32	33	8	272	281	345	110	152	158	161	174	187	211	205	183	107.3
28-Jul	195	152	144	152	141	135	138	137	135	137	131	138	143	137	126	121	75	73	328	339	309	43	16	71	122.9
29-Jul	76	220	175	180	279	301	288	281	272	283	283	322	300	285	292	299	319	325	292	276	262	275	270	274	284.8
30-Jul	273	271	279	266	270	268	260	266	318	305	15	306	308	333	329	283	235	268	273	257	218	119	117	67	282.5
31-Jul	153	141	146	145	144	142	142	141	137	138	141	155	156	133	145	148	353	119	140	129	141	115	321	299	141.4
262.9 216.3 201.2 172.2 179.3 158.5 152.5 184.3 179.0 183.5 174.5 164.6 215.6 247.8 248.1 229.0 255.4 173.9 200.3 276.4 259.6 247.6 260.3 256.1																									
Diurnal Average																									
UO - Unstable Operation																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

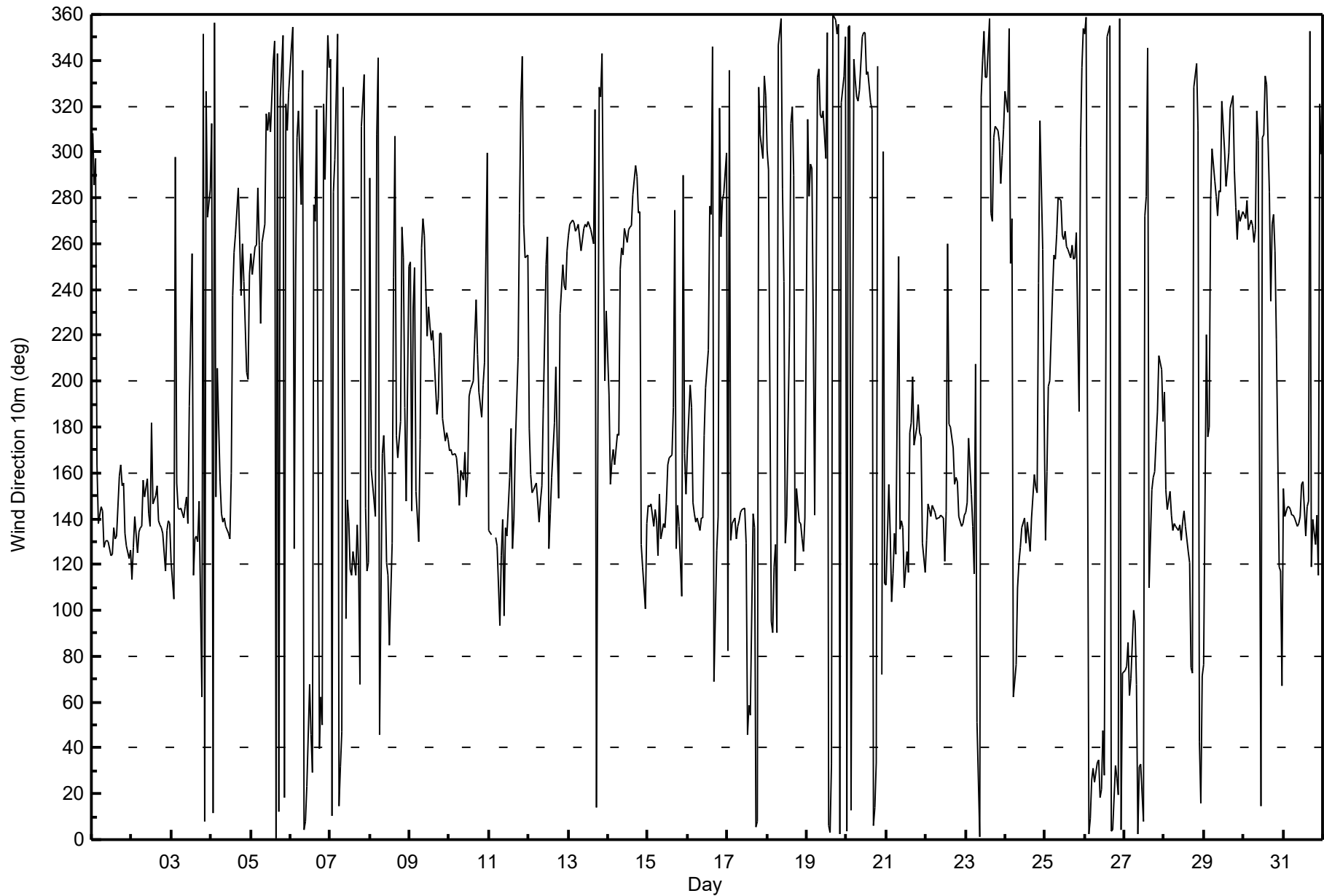
Wind Direction 10m (WD10) - deg
Lower Camp - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 103 deg on Jul 22 14:00																			Hours in Service: 744						
Minimum Value: 8 deg on Jul 17 11:00																			Hours of Data: 741						
Percentiles: P ₁ = 11 P ₁₀ = 15 Q ₁ = 19 Median = 27 Q ₃ = 42 P ₉₀ = 68 P ₉₉ = 94																			Hours of Missing Data: 3						
																			Hours of Calibration: 0						
																			Percent Operational Time: 99.6						
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	47	23	41	93	23	41	83	12	12	13	12	11	9	15	13	15	35	38	37	66	24	18	28	15	93
2-Jul	20	34	30	38	15	13	10	36	28	31	26	18	36	31	29	31	10	12	12	17	14	20	25	21	38
3-Jul	15	82	93	24	17	15	15	15	23	34	15	45	22	64	11	33	17	39	81	31	32	37	20	24	93
4-Jul	37	79	68	45	39	39	12	12	10	11	10	18	36	36	84	47	17	50	34	15	22	21	32	20	84
5-Jul	43	39	37	32	17	22	43	25	23	25	15	16	23	23	23	21	76	98	34	26	27	15	13	27	98
6-Jul	35	45	42	91	70	79	43	50	29	26	69	70	20	67	46	26	51	12	20	52	49	28	36	16	91
7-Jul	22	60	41	26	57	33	40	26	52	36	59	12	21	32	37	37	27	38	50	62	51	98	38	29	98
8-Jul	67	38	21	62	23	29	43	38	57	32	37	12	30	45	73	83	73	30	38	18	16	36	23	63	83
9-Jul	74	48	35	19	48	15	44	18	15	18	37	42	32	39	33	40	40	40	32	32	28	25	28	29	74
10-Jul	27	29	27	29	29	46	37	32	26	39	27	37	42	46	44	38	28	34	34	32	24	22	66	96	96
11-Jul	95	74	UO	UO	34	29	52	39	12	29	20	16	30	38	30	25	33	35	39	17	75	19	23	33	95
12-Jul	74	37	51	22	29	36	18	38	38	60	19	17	53	26	32	37	45	42	28	40	23	24	23	14	74
13-Jul	12	13	13	13	14	13	16	27	17	22	17	17	16	18	16	18	43	33	22	19	40	37	82	43	82
14-Jul	47	76	61	27	47	30	47	46	17	25	18	19	22	26	23	25	30	25	20	58	11	47	54	54	76
15-Jul	17	18	26	19	13	14	23	31	15	17	16	25	33	37	35	36	43	17	21	74	95	82	41	47	95
16-Jul	88	76	42	29	17	22	14	12	13	13	43	40	46	24	30	75	37	22	72	65	83	29	91	41	91
17-Jul	96	86	81	33	22	16	12	11	10	9	8	34	18	31	27	41	34	46	28	14	20	35	18	20	96
18-Jul	15	50	80	40	51	32	60	30	24	23	65	17	52	74	43	41	92	63	29	19	13	13	18	47	92
19-Jul	74	22	26	37	57	72	19	19	21	21	16	22	39	22	23	19	23	23	23	27	29	25	14	23	74
20-Jul	20	23	23	18	22	15	16	15	18	31	22	22	21	20	21	39	29	30	23	62	UO	92	51	40	92
21-Jul	62	62	64	60	81	44	64	63	18	12	12	24	21	99	83	63	78	35	35	29	28	29	41	53	99
22-Jul	28	25	22	21	28	23	17	15	11	11	13	73	76	103	52	44	45	35	26	29	16	17	16	17	103
23-Jul	19	21	47	25	39	75	84	53	42	18	24	21	27	19	26	82	16	21	15	15	12	19	11	23	84
24-Jul	19	24	78	90	12	86	61	26	16	15	17	13	16	21	23	15	19	32	33	28	68	35	22	83	90
25-Jul	68	80	66	67	50	63	23	15	24	17	20	20	23	23	20	16	16	17	16	28	87	70	19	21	87
26-Jul	22	21	20	23	21	21	19	18	22	20	21	20	31	25	26	25	30	29	23	17	22	23	27	28	31
27-Jul	19	31	19	23	50	42	19	87	27	59	37	40	63	22	43	37	27	29	32	28	32	24	37	47	87
28-Jul	34	23	17	29	19	18	15	14	16	12	11	22	22	24	30	30	26	33	58	82	26	91	31	48	91
29-Jul	33	62	35	34	22	13	14	14	13	14	15	21	26	14	18	24	15	21	35	15	13	12	13	15	62
30-Jul	14	16	19	18	17	15	14	21	21	19	41	81	63	70	46	28	81	24	32	18	85	72	65	79	85
31-Jul	76	15	21	13	15	21	19	14	16	16	18	26	30	14	22	37	64	68	39	25	66	85	82	46	85
96 86 93 93 81 86 84 87 57 60 69 81 76 103 84 83 92 98 81 82 95 98 91 96																									
Diurnal Maximum																									
UO - Unstable Operation																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Lower Camp - July 2026





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
CALIBRATION REPORT

AMS13 FORT MCKAY SOUTH JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT MCKAY SOUTH (AMS13)
JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	706	35	38	99.6	-	-	28.9	0	3.5	0
TRS(ppb) Average	609	31	135	86.02	8.4	2	8.1	0	1.5	0
THC(ppm) Average	705	35	39	99.46	-	-	3.6	-	2.5	-
NMHC(ppm) Average	705	35	39	99.46	-	-	0.62	-	0.235	-
CH4(ppm) Average	705	35	39	99.46	-	-	3.1	-	2.3	-
O3(ppb) Average	707	34	37	99.6	-	-	65.8	0	24.2	-
NO2(ppb) Average	705	36	39	99.6	-	-	22.3	0	5.7	-
NO(ppb) Average	705	36	39	99.6	-	-	37	-	5	-
NOX(ppb) Average	705	36	39	99.6	-	-	46.6	-	9.9	-
PM2.5(ug/m3) Average	697	0	47	93.68	-	-	251.4	36	91.2	8
ET(C) Average	744	0	0	100	-	-	32.5	-	22.8	-
RH(%) Average	744	0	0	100	-	-	99.8	-	87.3	-
WS(km/h) Average	744	0	0	100	-	-	22	-	11	-
WD(deg) Average	744	0	0	100	-	-	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT MCKAY SOUTH (AMS13)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2(ppb) Average	706	0.68	2.3	-	0	0	0	0.1	0.3	1.3	28.9
TRS(ppb) Average	609	0.74	0.5	-	0.3	0.4	0.5	0.6	0.8	1.2	8.1
THC(ppm) Average	705	2.2	0.2	-	1.9	2	2	2.1	2.3	2.5	3.6
NMHC(ppm) Average	705	0.107	0.086	-	0	0	0.1	0.1	0.1	0.2	0.62
CH4(ppm) Average	705	2.09	0.2	-	1.9	1.9	2	2	2.2	2.3	3.1
O3(ppb) Average	707	17.44	12.9	-	0.3	1.4	6.2	16.1	26.8	35.4	65.8
NO2(ppb) Average	705	3.35	3.1	-	0	0.5	1	2.5	4.6	7.3	22.3
NO(ppb) Average	705	1.36	3.4	-	0	0	0.1	0.2	1.1	3.4	37
NOX(ppb) Average	705	4.71	5.6	-	0	0.5	1.2	3.1	6.1	10.3	46.6
PM2.5(ug/m3) Average	697	22.42	34.3	-	1.3	3.3	5.6	9.3	21.3	62.3	251.4
Temperature 2 m (C) Average	744	18.12	5	-	7.3	11.9	14.4	17.9	21.5	25.2	32.5
Relative Humidity (%) Average	744	73.97	19.4	-	28.2	43.2	60.1	77.2	90.7	96.9	99.8
Wind Speed 10 m (km/h) Average	744	6.2	4	-	0	2	3	6	9	12	22
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT MCKAY SOUTH (AMS13)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
AIR QUALITY ANALYZERS	13 Jul 2026 09:00	13 Jul 2026 11:00	3	Station power failure
THC/NMHC/CH4	13 Jul 2026 12:00	13 Jul 2026 12:00	1	Recovery
TRS	17 Jul 2026 05:00	20 Jul 2026 11:00	79	Unstable Operation - inconsistent response
TRS	20 Jul 2026 16:00	21 Jul 2026 10:00	19	Unstable Operation - inconsistent response
TRS	21 Jul 2026 11:00	21 Jul 2026 13:00	3	Maintenance - station operator activities
PM2.5	01 Jul 2026 09:00	01 Jul 2026 09:00	1	DAS Failure - data not recorded
PM2.5	05 Jul 2026 17:00	07 Jul 2026 11:00	43	Unstable Operation - inconsistent response



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

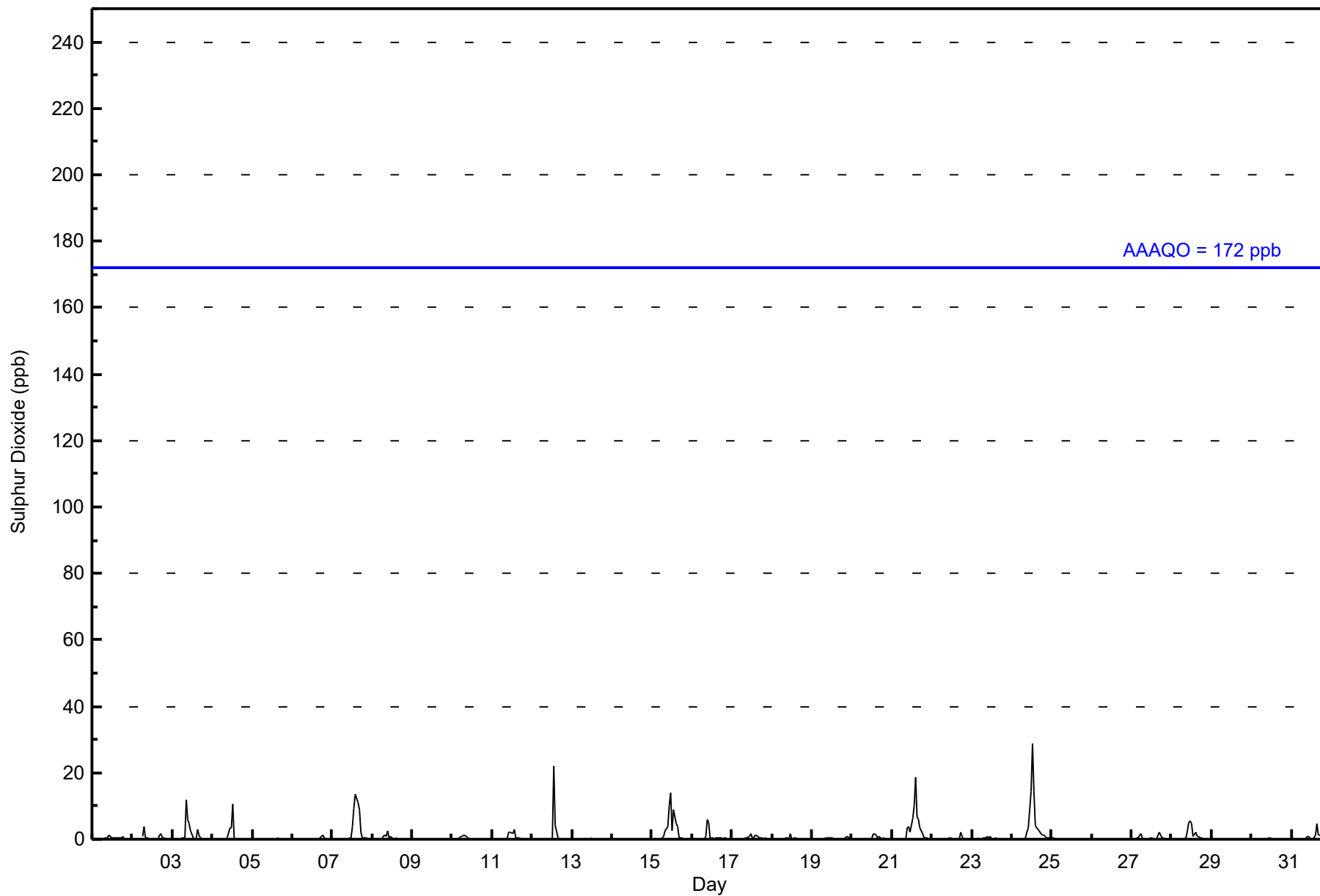
Fort McKay South - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 28.9 ppb on Jul 24 13:00 Maximum Daily Average: 3.5 ppb on Jul 24																			Hours in Service: 744							
Minimum Value: 0.0 ppb on Jul 6 02:00 Minimum Daily Average: 0.0 ppb on Jul 29 Maximum Diurnal Average: 2.5 ppb at hour 14 Minimum Diurnal Average: 0.0 ppb at hour 3 Monthly Average: 0.68 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 1.3 P ₉₉ = 11.7																			Hours of Data: 706							
																			Hours of Missing Data: 38							
																			Hours of Calibration: 35							
																			Percent Operational Time: 99.6							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.2	0.2	0.1	0.1	Z	0.1	0.2	0.2	0.3	0.3	1.1	0.6	0.3	0.3	0.6	0.6	0.2	0.2	0.7	0.1	0.2	0.2	0.1	0.1	0.3	1.1
2-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.9	3.9	0.5	0.6	C	C	C	C	0.1	0.1	1.3	1.6	0.4	0.3	0.1	0.0	0.0	0.1	0.5	3.9
3-Jul	Z	0.1	0.1	0.0	0.0	0.0	0.2	0.3	11.8	5.8	4.6	2.7	0.4	0.2	0.1	2.8	1.2	0.3	0.2	0.1	0.1	0.1	0.0	0.0	1.4	11.8
4-Jul	0.0	Z	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.5	3.3	3.2	10.8	0.5	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.9	10.8
5-Jul	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.3
6-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.9	1.2	0.4	0.1	0.1	0.1	0.1	0.2	1.2
7-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.2	0.1	0.1	0.2	0.4	0.6	3.7	9.1	13.4	10.8	8.7	2.2	0.4	0.4	0.3	0.2	0.1	0.1	2.2	13.4
8-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.2	1.4	1.0	2.6	0.3	1.0	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.3	2.6
9-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
10-Jul	0.0	Z	0.1	0.1	0.6	0.8	0.8	1.3	0.8	0.3	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	0.3	1.3
11-Jul	0.1	0.0	Z	0.1	0.0	0.1	0.2	0.2	0.2	0.3	2.3	2.2	1.9	3.2	0.4	0.5	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.5	3.2
12-Jul	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.2	22.1	4.3	0.4	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	1.2	22.1
13-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.1	PF	PF	PF	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.2
14-Jul	0.0	0.0	0.0	0.0	0.0	Z	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	0.0	0.0	0.0	0.0	0.1	0.1
15-Jul	Z	0.1	0.0	0.0	0.0	0.1	0.5	1.1	2.3	3.6	10.1	14.2	2.4	8.8	4.5	3.7	0.4	0.5	0.5	0.2	0.1	0.0	0.0	0.1	2.3	14.2
16-Jul	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.2	1.0	6.1	5.1	0.4	0.4	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.7	6.1
17-Jul	0.0	0.1	Z	0.1	0.0	0.1	0.2	0.2	0.3	0.4	0.9	1.5	0.5	0.5	1.2	0.8	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.4	1.5
18-Jul	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.4	0.4	0.2	1.6	0.2	0.4	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.2	1.6
19-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.1	0.3	0.3	0.5	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.7	0.2	0.1	0.2	0.7
20-Jul	0.1	0.0	0.0	0.1	0.1	Z	0.1	0.1	0.0	0.1	0.1	0.1	0.4	1.7	1.1	0.4	1.0	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.3	1.7
21-Jul	0.0	0.0	0.1	0.1	Z	0.1	0.1	0.1	0.1	3.2	4.0	2.0	6.5	10.2	18.5	6.8	5.9	3.6	1.8	0.3	0.2	0.2	0.2	0.1	2.8	18.5
22-Jul	0.1	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.5	0.5	0.2	0.1	0.1	0.1	0.1	1.9	0.8	0.1	0.1	0.1	0.1	0.1	0.2	1.9
23-Jul	0.1	0.1	Z	0.3	0.1	0.1	0.2	0.3	0.3	0.6	0.4	0.7	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7
24-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.3	2.1	3.3	14.3	28.9	14.5	4.4	3.3	2.8	1.7	1.4	1.4	1.0	0.5	0.2	0.3	3.5	28.9
25-Jul	0.4	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.4
26-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1
27-Jul	Z	0.0	0.0	0.2	0.6	1.6	0.3	0.1	0.1	0.1	0.1	0.4	0.3	0.1	0.1	0.1	1.9	1.3	0.6	0.2	0.1	0.1	0.1	0.0	0.4	1.9
28-Jul	0.1	Z	0.1	0.0	0.0	0.0	0.1	0.1	0.4	2.7	5.1	5.5	4.7	0.8	2.1	0.8	0.7	0.5	0.2	0.1	0.1	0.0	0.0	0.0	1.1	5.5
29-Jul	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
30-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.3
31-Jul	0.0	0.0	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.6	0.7	0.4	0.2	0.3	1.3	4.5	1.3	1.2	0.7	0.3	0.1	0.1	0.1	0.1	0.5	4.5
																									Diurnal Average	
																									Diurnal Maximum	
Z - zerospan C - Calibration PF - Power Failure																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Fort McKay South - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	696	98.58	98.58
11 - 20	8	1.13	99.72
21 - 60	2	0.28	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Fort McKay South - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	54	30	17	7	8	14	31	72	67	87	76	75	51	39	30	38	696
11 - 20	0	0	0	0	0	2	1	3	1	0	1	0	0	0	0	0	8
21 - 60	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	54	30	17	7	8	16	32	77	68	87	77	75	51	39	30	38	706

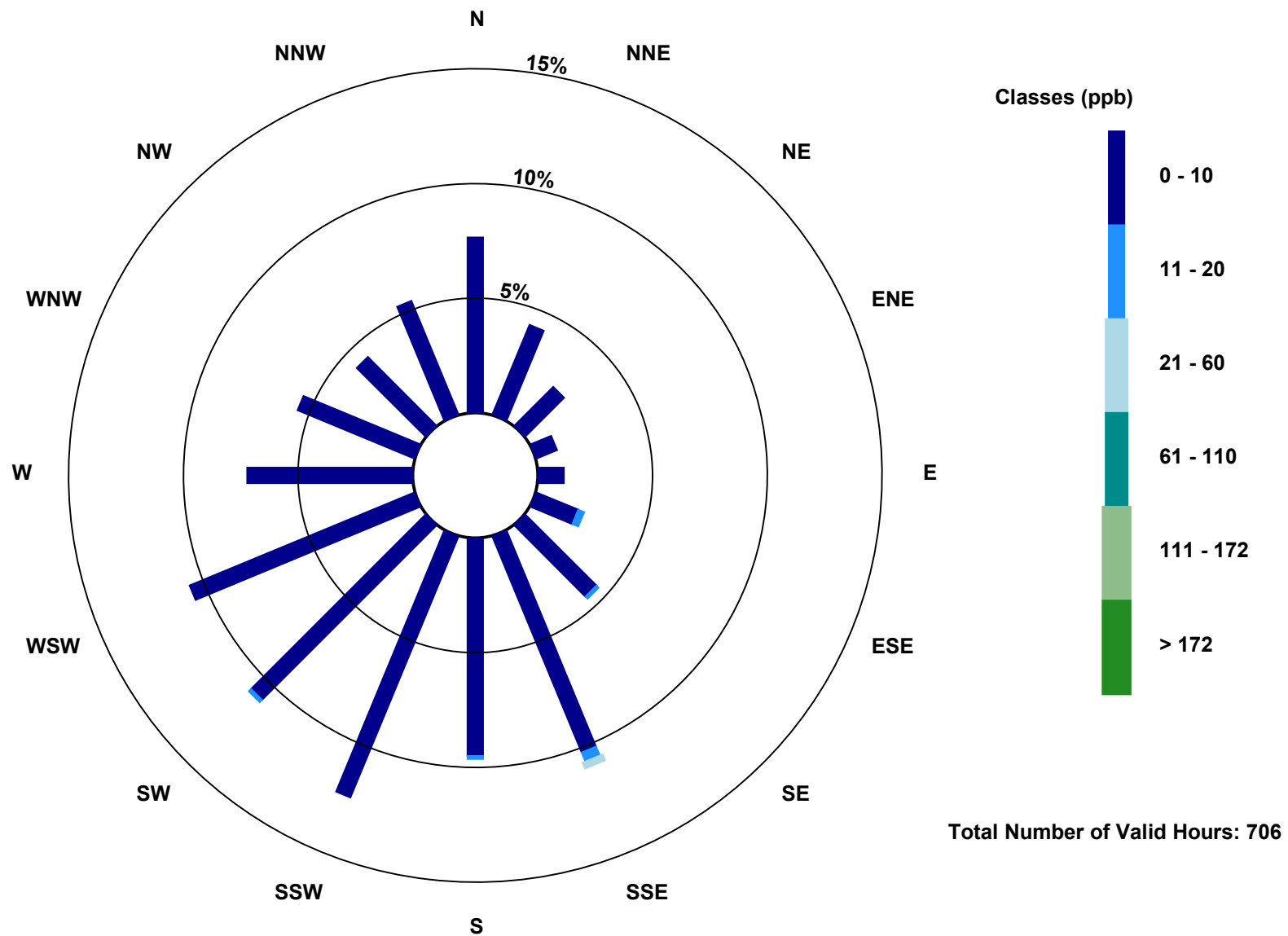
Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

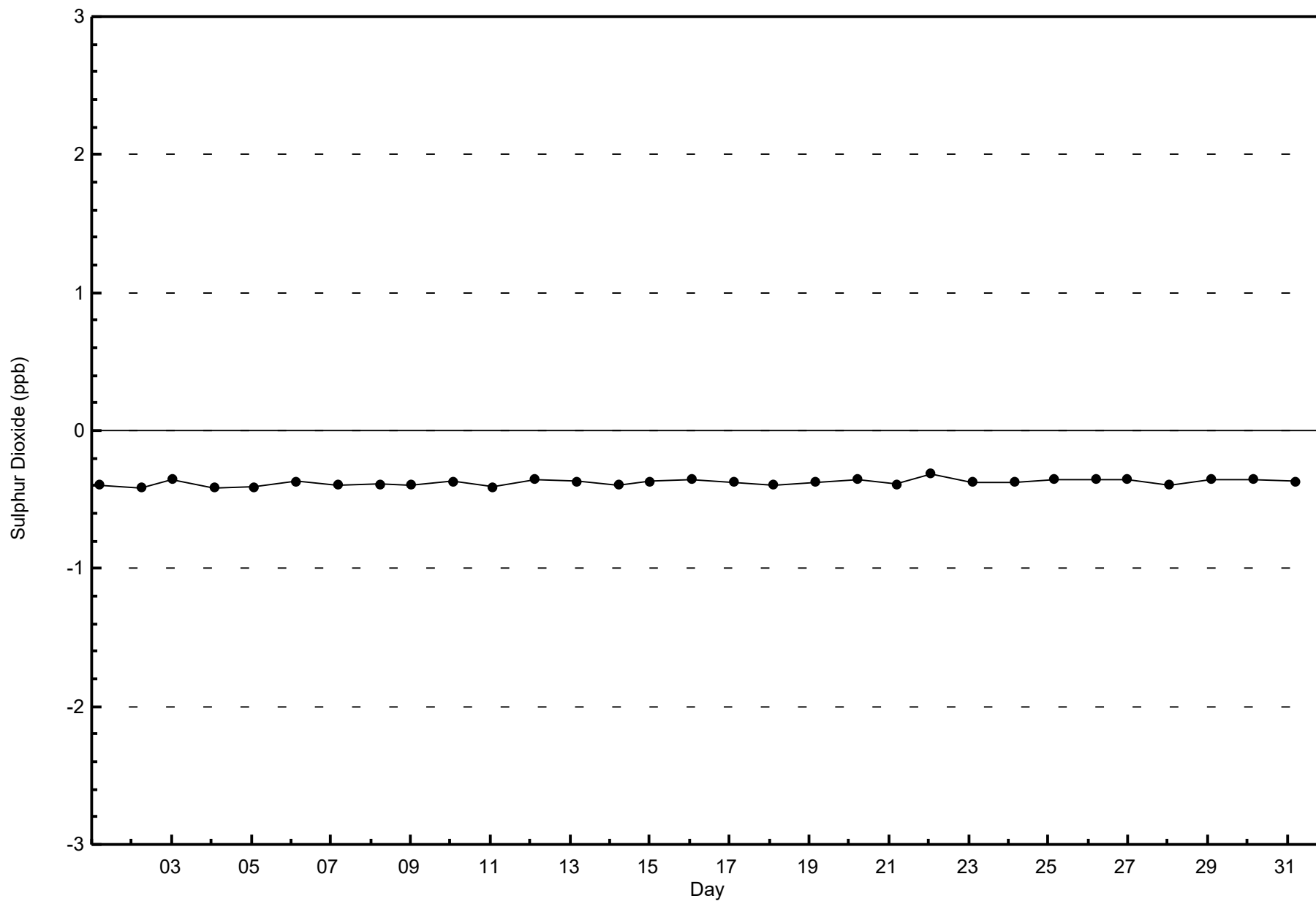
Sulphur Dioxide (SO₂) - ppb
Fort McKay South





Wood Buffalo Environmental Association
Zero Responses

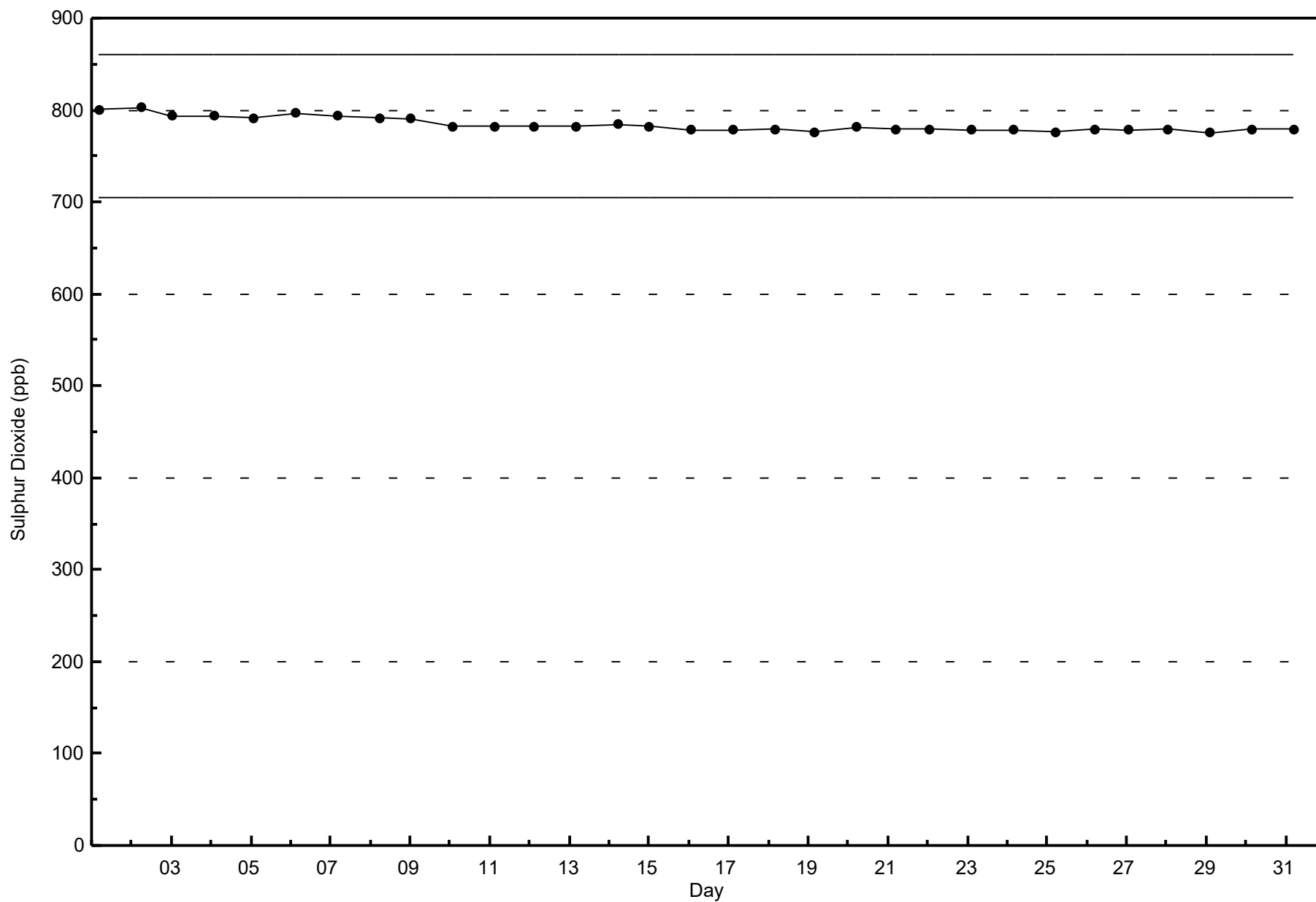
Sulphur Dioxide (SO₂) - ppb
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Fort McKay South - July 2026





Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Fort McKay South - July 2026

Number of Exceedences (AAAQG): 30-Min: 2																		Periods in Service:		1488						
Maximum Value: 8.4 ppb on Jul 27 18:30																		Maximum Daily Average: 1.5 ppb on Jul 31		Periods of Valid Data:		1216				
Minimum Value: 0.3 ppb on Jul 1 18:00																		Minimum Daily Average: 0.5 ppb on Jul 13		Periods of Invalid Data:		272				
Maximum Diurnal Average: 0.9 ppb at hour 19																		Minimum Diurnal Average: 0.6 ppb at hour 22		Periods of Calibration:		63				
Monthly Average: 0.74 ppb																		Percentiles: P ₁ = 0.4 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.8 P ₉₀ = 1.2 P ₉₉ = 3.1		Percent Operational Time:		86.0				
Day	Period Ending At (MST)																								Daily Average	Daily Maximum
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00		
1-Jul	0.8 1.0	1.2 1.5	1.6 2.1	2.1 2.1	1.5 1.3	Z SP	0.9 1.0	1.0 0.9	0.7 0.7	0.6 0.5	0.9 0.8	0.6 0.5	0.5 0.5	0.5 0.6	0.8 0.6	0.5 0.5	0.4 0.4	0.4 0.3	0.4 0.3	0.3 0.4	0.4 0.5	0.5 0.5	0.5 0.5	0.6 0.6	0.8	2.1
2-Jul	Z SP	0.8 0.7	0.7 0.7	0.7 0.7	0.7 0.6	0.6 0.6	0.5 1.1	1.8 0.8	0.5 0.5	0.7 0.7	1.2 0.8	0.6 1.8	1.2 0.5	0.6 0.5	0.4 0.4	0.4 0.6	0.8 0.9	1.1 0.8	0.6 1.6	1.1 1.2	1.3 0.9	0.8 0.8	1.0 0.9	0.9 1.0	0.8	1.8
3-Jul	1.9 1.5	Z SP	1.2 0.9	0.9 0.8	0.8 0.7	0.9 1.1	1.4 1.7	1.1 0.9	0.8 0.7	0.7 0.6	0.6 0.6	0.7 0.7	DF 0.4	0.5 0.5	0.4 0.4	0.6 0.9	0.7 0.5	0.4 0.4	0.4 0.5	0.5 0.4	0.5 0.5	0.5 0.5	0.5 0.5	0.6 0.6	0.7	1.9
4-Jul	0.6 0.6	0.6 0.6	Z SP	1.0 1.0	0.8 0.9	1.0 1.0	1.2 1.1	0.8 0.7	0.7 0.7	0.9 1.0	1.0 1.0	0.8 0.9	0.5 0.6	0.5 0.5	0.5 0.6	0.6 0.6	0.5 0.6	0.5 0.6	0.5 0.5	0.5 0.5	0.5 0.6	0.6 0.5	0.5 0.6	0.8 0.6	0.7	1.2
5-Jul	0.6 0.6	0.5 0.5	0.6 0.6	Z SP	0.6 0.6	0.6 0.7	0.6 0.5	0.6 0.5	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.5	0.5 0.4	0.5 0.5	0.4 0.4	0.5 0.4	0.5 0.4	0.4 0.5	0.4 0.5	0.5 0.5	0.6 0.6	0.5 0.5	0.5	0.7
6-Jul	0.6 0.6	0.5 0.6	0.6 0.7	0.6 0.6	Z SP	0.7 0.7	0.6 0.5	0.5 0.5	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.5	0.4 0.5	0.5 0.4	0.4 0.5	0.5 0.5	0.5 0.5	0.5 0.6	0.5	0.7
7-Jul	0.6 0.6	0.7 0.6	0.7 0.8	0.8 0.8	0.8 0.8	Z SP	1.0 0.8	0.8 0.6	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.6	0.7 0.7	0.7 0.7	0.7 0.7	0.7 0.6	0.6 0.6	0.6 0.6	0.6 0.6	0.7 0.6	0.7 0.8	0.7 0.7	0.7 0.7	0.7 0.7	0.6	1.0
8-Jul	Z SP	0.8 0.7	0.8 1.1	0.9 0.9	0.8 0.8	0.7 0.6	0.7 1.0	1.4 2.2	1.9 0.9	0.8 1.4	0.6 0.6	2.0 1.1	0.6 0.5	0.5 0.5	0.7 DF	0.6 0.6	0.5 0.5	0.5 0.6	0.5 0.5	0.5 0.5	0.5 0.4	0.4 0.4	0.5 0.4	0.5 0.5	0.8	2.2
9-Jul	0.6 0.7	Z SP	1.0 0.7	0.6 0.6	0.8 0.6	0.6 0.6	0.6 0.6	0.6 0.5	0.5 0.5	0.5 0.5	0.4 0.5	0.4 0.5	0.4 0.5	0.4 0.5	0.5 0.6	0.5 0.9	1.1 0.5	0.9 0.5	0.4 0.4	0.5 0.4	0.5 0.7	0.9 1.0	0.5 3.8	2.9 0.6	0.7	3.8
10-Jul	0.8 2.1	1.2 1.2	Z SP	1.3 1.5	1.3 2.0	3.2 1.1	0.7 0.5	0.7 0.9	1.1 0.5	0.5 0.5	0.5 0.5	0.4 0.4	0.4 0.5	0.5 0.5	0.5 0.4	0.4 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.6	0.7 0.6	0.7 0.6	0.7 0.9	0.8	3.2
11-Jul	0.7 0.9	1.0 0.9	1.0 0.9	Z SP	1.3 1.3	1.2 1.1	1.1 0.9	1.2 1.2	1.0 0.9	0.9 1.3	3.1 2.5	3.1 1.8	1.5 1.4	1.1 0.6	0.5 0.5	0.5 0.6	0.7 1.0	0.8 0.5	0.4 0.4	0.4 0.4	0.4 0.5	0.4 0.4	0.4 0.4	0.4 0.4	1.0	3.1
12-Jul	0.4 0.4	0.4 0.4	0.4 0.4	0.6 0.5	Z SP	0.6 0.6	0.5 0.5	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.8	0.5 1.6	1.4 1.0	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.5	1.6
13-Jul	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.5 0.5	Z SP	0.5 0.5	0.5 0.5	PF PF	PF PF	PF PF	0.9 0.5	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.5	0.4 0.4	0.4 0.5	0.4 0.5	0.4 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.4	0.5	0.9
14-Jul	Z SP	0.5 0.5	0.6 0.5	0.4 0.4	0.6 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.5	0.4 0.6	0.5 0.6	0.6 0.6	1.0 0.8	1.2	0.5	1.2
15-Jul	1.1 1.2	Z SP	1.0 1.1	1.1 1.2	1.3 1.1	0.8 0.7	0.9 0.9	0.9 1.8	1.5 1.2	0.8 0.7	0.8 0.7	0.6 0.6	0.6 0.5	0.6 0.5	0.5 0.5	0.4 0.5	0.4 0.5	0.5 0.6	1.0 0.8	0.6 0.6	0.5 0.5	0.4 0.4	0.4 0.6	0.5 0.5	0.8	1.8



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Fort McKay South - July 2026

Day	Period Ending At (MST)																								Daily Average	Daily Maximum	
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00			
16-Jul	0.4 0.4	0.4 0.4	Z SP	0.5 0.4	0.5 0.8	0.9 1.2	0.7 0.5	0.5 0.8	1.0 1.2	1.5 0.8	0.8 0.7	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.5	0.5 0.6	0.6 0.6	0.6 0.6	0.6 0.7	0.6	1.5	
17-Jul	0.7 0.8	0.7 0.7	0.6 0.6	Z SP	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	--	0.8
18-Jul	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	--	--
19-Jul	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	--	--
20-Jul	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO C	C C	C C	C C	C C	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	--	--
21-Jul	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	UO UO	M M	M M	M M	1.0 1.1	1.0 0.9	0.8 0.7	0.7 0.7	0.7 0.6	0.6 1.2	1.2 2.0	0.6 0.6	0.6 0.6	0.6 0.7	0.8 0.9	--	2.0	
22-Jul	1.1 1.2	1.2 1.0	Z SP	0.9 0.8	0.8 0.7	0.8 0.7	0.9 1.3	1.5 1.0	0.6 0.6	0.6 0.6	0.8 1.1	0.9 0.7	0.6 0.6	0.6 0.6	0.6 0.5	0.6 0.5	0.5 0.9	0.7 0.5	0.7 0.5	0.5 0.5	0.6 0.5	0.6 0.6	0.6 0.6	0.7 0.8	0.7	1.5	
23-Jul	0.9 0.7	0.6 0.6	0.7 2.4	Z SP	1.2 1.3	1.3 1.5	1.5 1.3	1.3 0.9	0.8 0.9	0.9 0.9	0.8 0.8	0.8 0.6	0.6 0.5	0.5 0.5	0.6 0.6	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.5 0.4	0.7	2.4	
24-Jul	0.4 0.4	0.5 0.4	0.4 0.4	0.4 0.4	Z SP	0.5 0.5	0.8 0.7	0.6 0.5	0.5 0.7	1.3 1.4	1.3 1.1	1.0 1.0	1.6 1.9	1.6 1.5	1.4 1.0	0.7 0.7	1.0 1.4	1.3 1.3	1.2 1.1	0.9 0.8	0.8 0.7	0.6 0.6	0.5 0.5	0.5 0.7	0.9	1.9	
25-Jul	0.8 0.8	0.8 0.7	0.6 0.6	0.6 0.6	0.5 0.5	Z SP	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.6	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.4	0.5 0.4	0.5 0.5	0.4 0.4	0.5 0.4	0.4 0.4	0.5 0.6	0.6 0.6	0.5	0.8	
26-Jul	Z SP	0.9 0.9	0.9 1.0	1.0 1.1	1.1 1.2	1.2 1.2	1.2 1.2	1.2 1.1	1.1 1.1	1.3 1.1	1.0 1.0	0.9 0.9	0.9 0.8	0.8 0.8	0.7 0.7	0.7 0.7	0.6 0.6	0.6 0.6	0.6 0.5	0.6 0.5	0.6 0.6	0.5 0.5	0.6 0.6	0.6 0.6	0.9	1.3	
27-Jul	0.6 0.6	Z SP	0.6 0.6	0.5 0.6	0.6 0.6	1.4 1.3	0.7 0.6	0.5 0.5	0.6 0.6	0.5 0.4	0.4 0.4	0.6 1.0	1.2 1.0	0.7 0.5	0.5 0.6	0.7 1.1	1.3 3.7	8.4 7.7	3.4 0.7	0.7 0.7	0.6 0.5	0.5 0.5	0.5 0.4	1.1	8.4		
28-Jul	0.5 0.4	0.5 0.4	Z SP	0.5 0.4	0.4 0.4	0.5 1.2	1.7 3.1	3.2 1.4	1.6 3.1	2.6 2.6	1.2 0.9	0.9 0.7	0.8 0.6	0.5 0.6	0.8 0.9	1.0 0.9	0.9 0.9	0.8 0.6	0.6 0.5	0.6 0.6	0.6 0.5	0.5 0.5	0.5 0.5	0.6 0.5	1.0	3.2	
29-Jul	0.5 0.6	0.6 0.6	0.6 0.6	Z SP	0.6 0.6	0.6 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.6	0.6 0.6	0.6 0.6	0.7 0.7	0.7 0.6	0.6 0.6	0.6 0.6	0.6 0.5	0.6 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.6	0.7	
30-Jul	0.4 0.4	0.4 0.4	0.5 0.4	0.4 0.4	Z SP	0.5 0.4	0.4 0.4	0.5 0.5	0.5 0.5	0.5 0.6	0.6 0.7	0.7 0.6	0.6 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.5 0.4	0.4 0.4	0.4 0.4	0.5 0.5	0.5 0.5	0.4 0.4	0.5 0.6	0.7 0.9	0.5	0.9	
31-Jul	1.2 1.1	0.6 0.7	0.6 0.5	0.4 0.5	0.6 0.5	Z SP	0.8 0.9	1.5 1.2	0.7 1.4	4.5 1.8	3.0 2.5	1.1 1.0	1.2 1.0	0.6 0.6	3.0 2.4	1.7 2.9	3.3 2.6	2.2 2.5	3.5 2.7	2.6 2.0	1.6 1.2	1.2 1.1	1.3 1.1	0.6 0.5	1.5	4.5	
0.7 2.1 0.7 1.5 0.8 2.4 0.8 2.1 0.8 2.0 0.9 3.2 0.9 3.1 0.9 3.2 0.8 3.1 0.9 4.5 0.9 3.1 0.8 3.1 0.7 3.1 0.6 1.9 0.7 1.6 0.7 3.0 0.6 2.9 0.7 3.3 0.7 3.7 0.9 8.4 0.7 3.4 0.6 2.0 0.6 1.2 0.6 3.8 0.7 2.9																								Diurnal Average	Diurnal Maximum		

Z - zerospan C - Calibration M - Maintenance DF - DAS Failure UO - Unstable Operation PF - Power Failure
SP - Span
Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

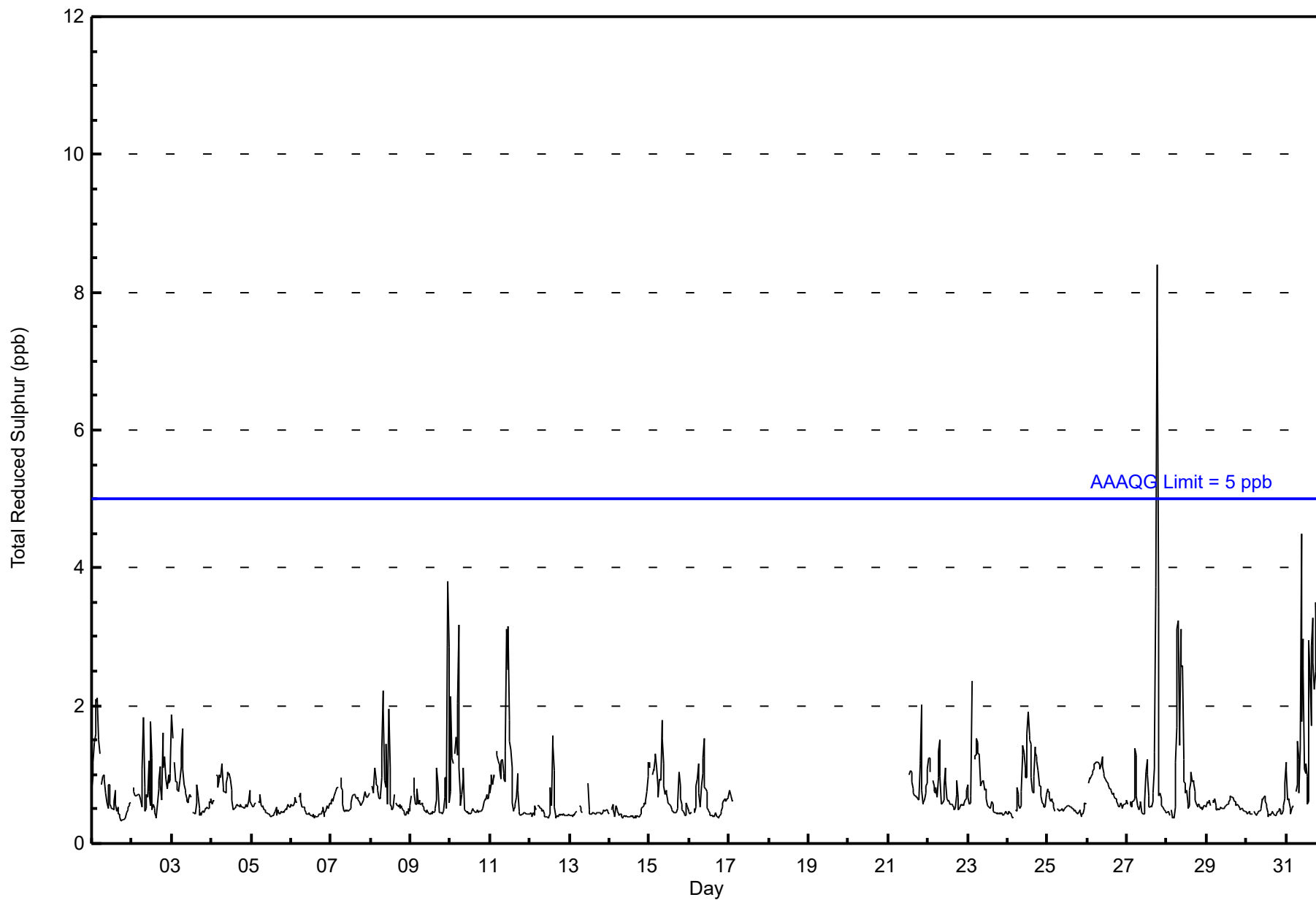
Fort McKay South - July 2026

Maximum Value: 8.1 ppb on Jul 27 19:00																			Maximum Daily Average: 1.5 ppb on Jul 31							Hours in Service: 744	
Minimum Value: 0.3 ppb on Jul 1 20:00																			Minimum Daily Average: 0.5 ppb on Jul 13							Hours of Data: 609	
Maximum Diurnal Average: 0.9 ppb at hour 19																			Minimum Diurnal Average: 0.6 ppb at hour 22							Hours of Missing Data: 135	
Monthly Average: 0.74 ppb																			Percentiles: P ₁ = 0.4 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.8 P ₉₀ = 1.2 P ₉₉ = 2.7							Hours of Calibration: 31	
																										Percent Operational Time: 86.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.9	1.3	1.8	2.1	1.4	Z	0.9	1.0	0.7	0.5	0.9	0.6	0.5	0.5	0.7	0.5	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.6	0.8	2.1	
2-Jul	Z	0.8	0.7	0.7	0.7	0.6	0.8	1.3	0.5	0.7	1.0	1.2	0.9	0.5	0.4	0.5	0.9	1.0	1.1	1.2	1.1	0.8	0.9	1.0	0.8	1.3	
3-Jul	1.7	Z	1.0	0.8	0.8	1.0	1.5	1.0	0.8	0.6	0.6	0.7	0.4	0.5	0.4	0.7	0.6	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.7	1.7	
4-Jul	0.6	0.6	Z	1.0	0.9	1.0	1.1	0.8	0.7	0.9	1.0	1.0	0.7	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.7	0.7	1.1	
5-Jul	0.6	0.5	0.6	Z	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.6	
6-Jul	0.6	0.5	0.6	0.6	Z	0.7	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.6	0.5	0.7	
7-Jul	0.6	0.6	0.7	0.8	0.8	Z	0.9	0.7	0.5	0.5	0.5	0.5	0.5	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.6	0.9	
8-Jul	Z	0.8	0.9	0.9	0.8	0.7	0.8	1.8	1.4	1.1	0.6	1.5	0.5	0.5	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.8	1.8	
9-Jul	0.6	Z	0.8	0.6	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.6	1.0	0.7	0.4	0.4	0.6	1.0	2.2	1.7	0.7	2.2	
10-Jul	1.5	1.2	Z	1.4	1.7	2.1	0.6	0.8	0.8	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.8	0.8	2.1	
11-Jul	0.8	0.9	1.0	Z	1.3	1.2	1.0	1.2	1.0	1.1	2.8	2.5	1.4	0.8	0.5	0.5	0.8	0.6	0.4	0.4	0.4	0.4	0.4	0.4	1.0	2.8	
12-Jul	0.4	0.4	0.4	0.5	Z	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.6	1.1	1.2	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	1.2	
13-Jul	0.4	0.4	0.4	0.4	0.5	Z	0.5	0.5	PF	PF	PF	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.5	0.7	
14-Jul	Z	0.5	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.7	1.1	0.5	1.1	
15-Jul	1.1	Z	1.0	1.1	1.2	0.7	0.9	1.3	1.3	0.8	0.8	0.6	0.6	0.5	0.5	0.4	0.4	0.5	0.9	0.6	0.5	0.4	0.5	0.5	0.8	1.3	
16-Jul	0.4	0.4	Z	0.5	0.7	1.0	0.6	0.7	1.1	1.2	0.8	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.6	0.6	0.7	0.6	1.2	
17-Jul	0.7	0.7	0.6	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	0.7	
18-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
19-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
20-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	C	C	C	C	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
21-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	M	M	1.0	1.0	0.8	0.7	0.7	0.6	1.2	1.4	0.6	0.7	0.9	--	1.4	
22-Jul	1.2	1.1	Z	0.9	0.7	0.7	1.1	1.2	0.6	0.6	1.0	0.8	0.6	0.6	0.6	0.5	0.5	0.8	0.6	0.5	0.6	0.6	0.6	0.7	0.7	1.2	
23-Jul	0.8	0.6	1.5	Z	1.2	1.4	1.4	1.1	0.9	0.9	0.8	0.7	0.5	0.5	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7	1.5	
24-Jul	0.4	0.5	0.4	0.4	Z	0.5	0.8	0.5	0.6	1.4	1.2	1.0	1.8	1.5	1.2	0.7	1.2	1.3	1.1	0.8	0.8	0.6	0.5	0.6	0.9	1.8	
25-Jul	0.8	0.7	0.6	0.6	0.5	Z	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.5	0.6	0.5	0.8	
26-Jul	Z	0.9	1.0	1.0	1.1	1.2	1.2	1.2	1.1	1.2	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.6	0.5	0.6	0.5	0.6	0.6	0.9	1.2	
27-Jul	0.6	Z	0.6	0.6	0.6	1.3	0.6	0.5	0.6	0.4	0.4	0.8	1.1	0.6	0.5	0.6	0.9	2.5	8.1	2.1	0.7	0.5	0.5	0.5	1.1	8.1	
28-Jul	0.4	0.4	Z	0.4	0.4	0.9	2.4	2.3	2.4	2.6	1.1	0.8	0.7	0.5	0.8	1.0	0.9	0.7	0.5	0.6	0.5	0.5	0.5	0.5	1.0	2.6	
29-Jul	0.6	0.6	0.6	Z	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.7	
30-Jul	0.4	0.4	0.4	0.4	Z	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.5	0.4	0.4	0.4	0.5	0.4	0.4	0.5	0.5	0.4	0.5	0.8	0.5	0.8	
31-Jul	1.1	0.6	0.6	0.5	0.5	Z	0.8	1.4	1.0	3.1	2.8	1.0	1.1	0.6	2.7	2.3	2.9	2.4	3.1	2.3	1.4	1.2	1.2	0.6	1.5	3.1	
Diurnal Average																											
Diurnal Maximum																											
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation PF - Power Failure																											
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA																											



Wood Buffalo Environmental Association
Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Fort McKay South - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	600	98.52	98.52
3 - 4	8	1.31	99.84
5 - 7	0	0.00	99.84
8 - 11	1	0.16	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 609

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Fort McKay South - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	29	27	14	6	5	12	26	68	64	83	69	69	49	33	23	23	600
3 - 4	0	0	0	0	0	0	1	4	2	1	0	0	0	0	0	0	8
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	29	27	14	6	5	12	27	72	67	84	69	69	49	33	23	23	609

Total Number of Valid Hours: 609

Total Number of Hours: 744



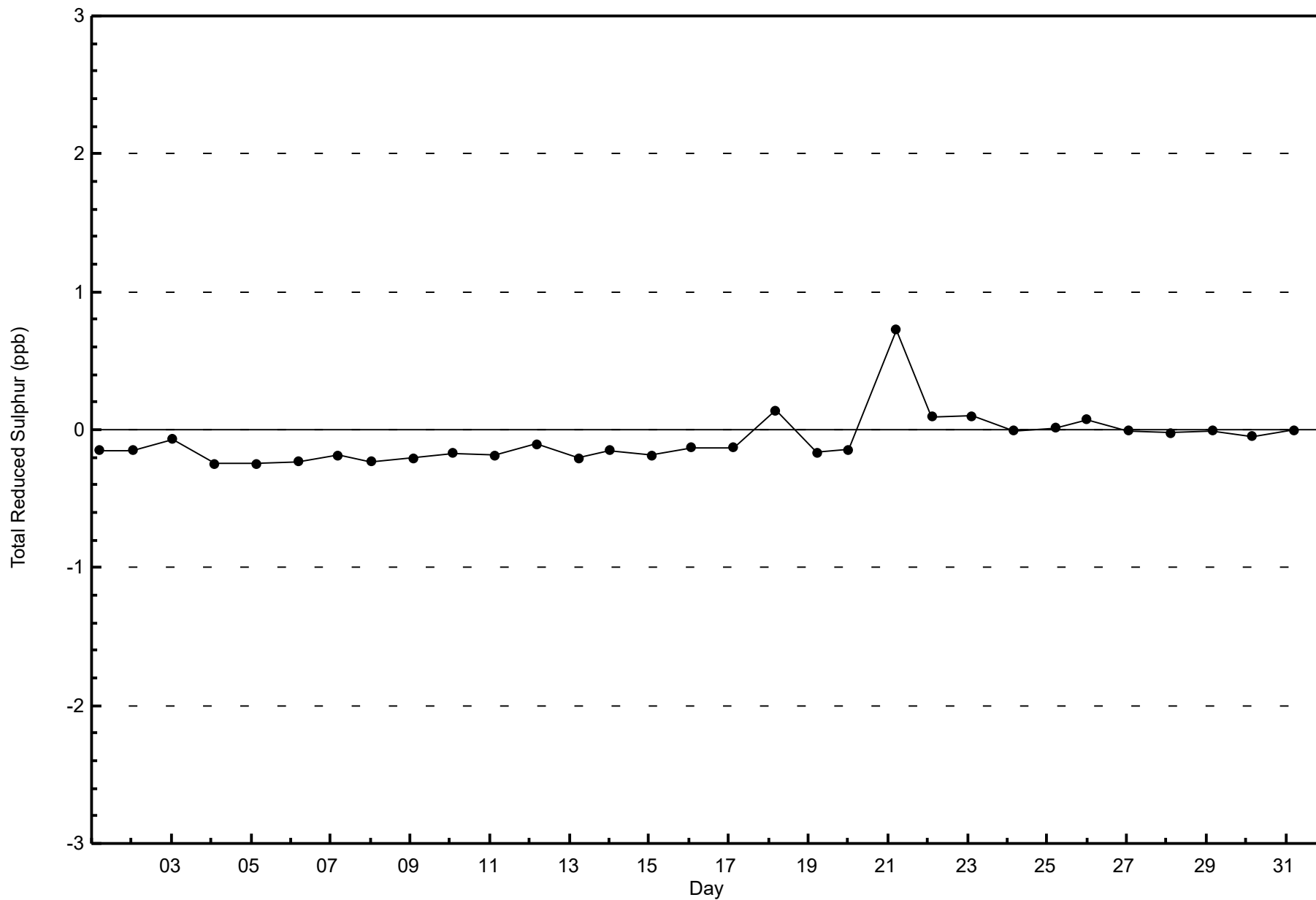
Total Reduced Sulphur (TRS) - ppb
Fort McKay South





Wood Buffalo Environmental Association
Zero Responses

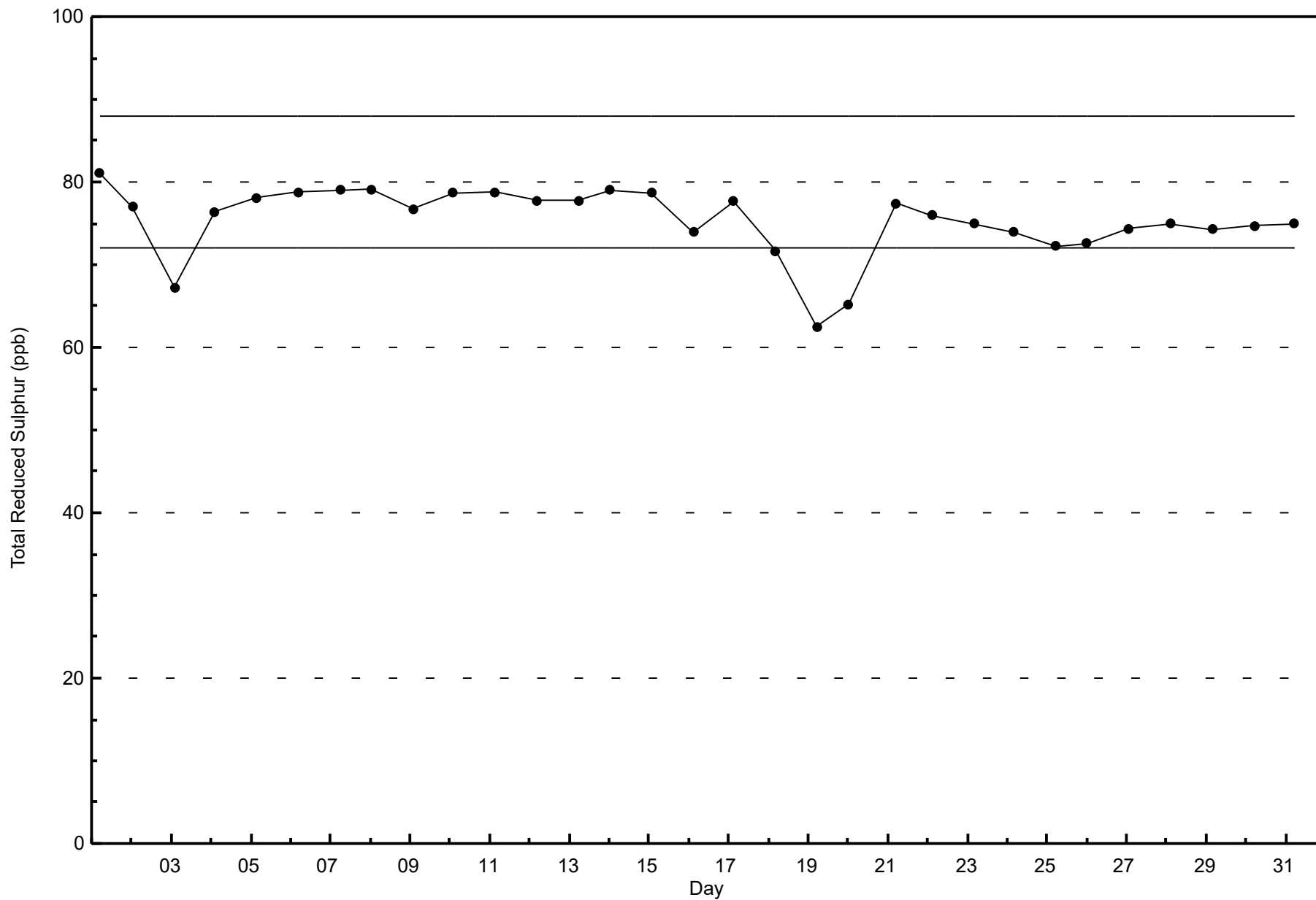
Total Reduced Sulphur (TRS) - ppb
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Span Responses

Total Reduced Sulphur (TRS) - ppb
Fort McKay South - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

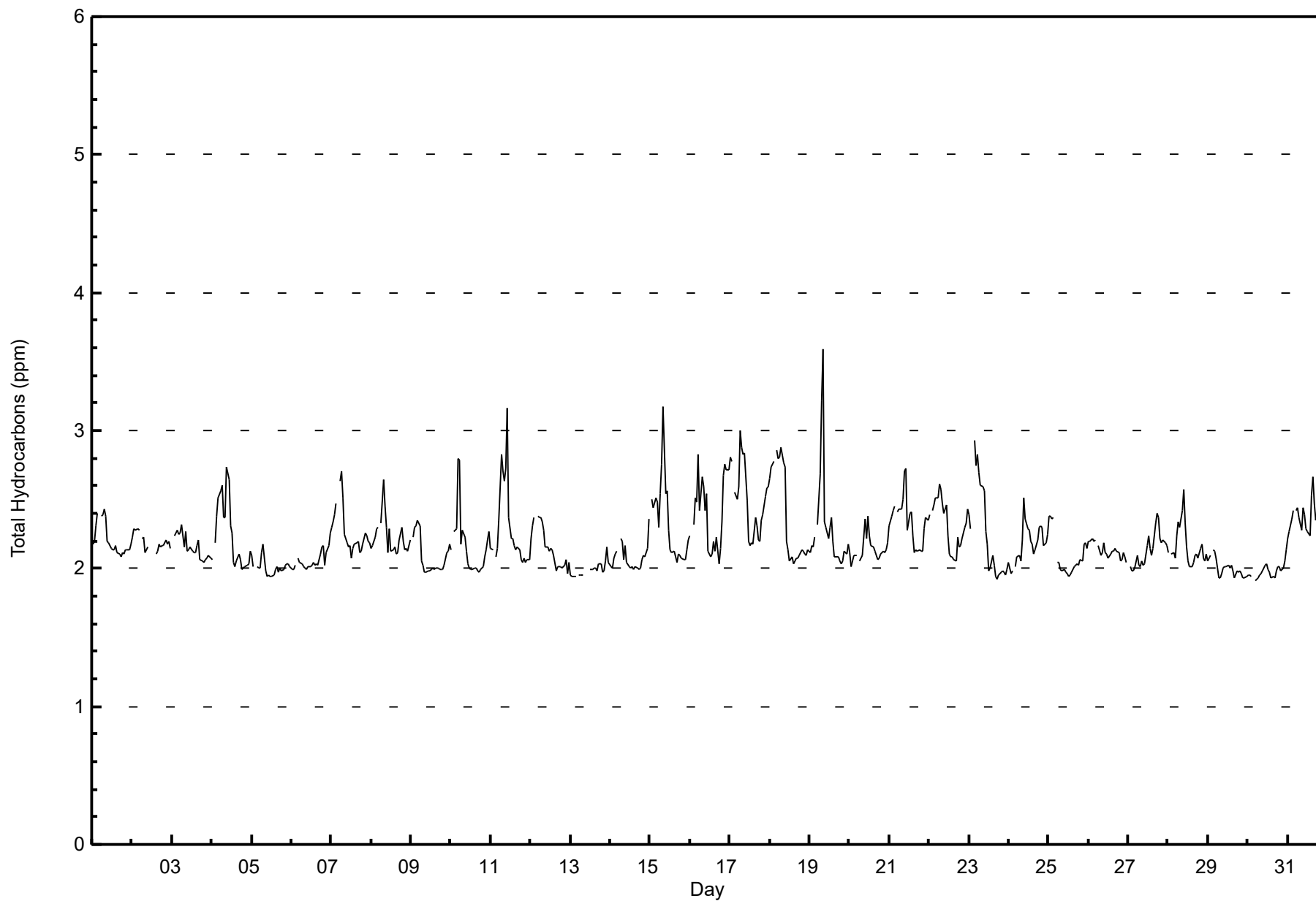
Fort McKay South - July 2026

Maximum Value: 3.6 ppm on Jul 19 09:00																			Maximum Daily Average: 2.5 ppm on Jul 17																			Hours in Service: 744	
Minimum Value: 1.9 ppm on Jul 30 05:00																			Minimum Daily Average: 2.0 ppm on Jul 30																			Hours of Data: 705	
Maximum Diurnal Average: 2.4 ppm at hour 9																			Minimum Diurnal Average: 2.1 ppm at hour 18																			Hours of Missing Data: 39	
Monthly Average: 2.20 ppm																			Percentiles: P ₁ = 1.9 P ₁₀ = 2.0 Q ₁ = 2.0 Median = 2.1 Q ₃ = 2.3 P ₉₀ = 2.5 P ₉₉ = 2.9																			Hours of Calibration: 35	
																																						Percent Operational Time: 99.5	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jul	2.2	2.2	2.3	2.4	Z	2.4	2.4	2.4	2.4	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.4													
2-Jul	2.2	2.3	2.3	2.3	2.3	Z	2.2	2.2	2.1	2.2	C	C	C	C	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.3													
3-Jul	Z	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.3	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.2	2.3												
4-Jul	2.1	Z	2.2	2.4	2.5	2.6	2.6	2.4	2.4	2.7	2.6	2.3	2.3	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.7													
5-Jul	2.1	2.0	Z	2.0	2.0	2.0	2.1	2.2	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2													
6-Jul	2.0	2.0	2.0	Z	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.0	2.1	2.2	2.3	2.1	2.3													
7-Jul	2.3	2.3	2.4	2.5	Z	2.6	2.7	2.5	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.2	2.3	2.2	2.2	2.2	2.2	2.7													
8-Jul	2.1	2.2	2.2	2.3	2.3	Z	2.3	2.6	2.5	2.3	2.1	2.3	2.1	2.1	2.2	2.1	2.1	2.2	2.3	2.2	2.1	2.1	2.1	2.2	2.2	2.6													
9-Jul	Z	2.2	2.3	2.3	2.3	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.3													
10-Jul	2.1	Z	2.3	2.3	2.8	2.8	2.2	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.3	2.2	2.8													
11-Jul	2.1	2.1	Z	2.1	2.1	2.4	2.8	2.7	2.6	2.7	3.2	2.4	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.0	2.1	2.0	2.1	2.1	2.3	3.2													
12-Jul	2.2	2.3	2.4	Z	2.4	2.4	2.4	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.2	2.4													
13-Jul	1.9	1.9	1.9	1.9	Z	2.0	2.0	2.0	PF	PF	PF	RE	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.0	2.0	2.2													
14-Jul	2.0	2.0	2.1	2.1	2.1	Z	2.2	2.2	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.4	2.1	2.4													
15-Jul	Z	2.5	2.4	2.5	2.5	2.3	2.5	2.8	3.2	2.5	2.6	2.3	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	3.2													
16-Jul	2.2	Z	2.3	2.5	2.5	2.8	2.4	2.7	2.6	2.4	2.5	2.1	2.1	2.1	2.2	2.1	2.2	2.0	2.1	2.3	2.7	2.8	2.7	2.7	2.4	2.8													
17-Jul	2.8	2.8	Z	2.5	2.5	2.6	3.0	2.9	2.8	2.8	2.5	2.2	2.2	2.2	2.2	2.4	2.3	2.2	2.2	2.3	2.4	2.5	2.6	2.6	2.5	3.0													
18-Jul	2.7	2.7	2.8	Z	2.9	2.8	2.8	2.9	2.8	2.7	2.2	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.9													
19-Jul	2.1	2.2	2.2	2.2	Z	2.3	2.7	3.2	3.6	2.3	2.3	2.2	2.3	2.4	2.2	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.3	3.6													
20-Jul	2.1	2.0	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.4	2.2	2.4	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.4													
21-Jul	2.3	2.4	2.4	2.4	Z	2.4	2.4	2.4	2.5	2.7	2.7	2.3	2.4	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.4	2.4	2.3	2.7													
22-Jul	2.4	Z	2.4	2.5	2.5	2.5	2.6	2.6	2.5	2.4	2.5	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.3	2.6													
23-Jul	2.4	2.3	Z	2.9	2.7	2.8	2.7	2.6	2.6	2.6	2.3	2.2	2.0	2.0	2.1	2.0	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.3	2.9													
24-Jul	2.0	2.0	2.0	Z	2.0	2.1	2.1	2.1	2.2	2.5	2.4	2.3	2.3	2.2	2.2	2.1	2.1	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.5													
25-Jul	2.4	2.4	2.4	2.4	Z	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.1	2.1	2.4													
26-Jul	2.2	2.2	2.2	2.2	2.2	Z	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.2													
27-Jul	Z	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.2	2.2	2.1	2.1	2.1	2.1	2.3	2.4	2.2	2.2	2.2	2.2	2.2	2.1	2.4													
28-Jul	2.1	Z	2.1	2.1	2.1	2.2	2.3	2.3	2.4	2.6	2.3	2.2	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.6													
29-Jul	2.1	2.1	Z	2.1	2.1	2.1	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.1													
30-Jul	1.9	2.0	1.9	Z	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1													
31-Jul	2.2	2.3	2.4	2.4	Z	2.4	2.4	2.4	2.3	2.4	2.4	2.3	2.3	2.2	2.5	2.7	2.5	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.4	2.7													
2.2 2.2 2.2 2.3 2.3 2.4 2.3 2.3 2.4 2.3 2.3 2.2 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.2 2.2 2.2 2.2 2.2																										Diurnal Average													
2.8 2.8 2.8 2.9 2.9 2.8 3.0 3.2 3.6 2.8 3.2 2.4 2.4 2.4 2.5 2.7 2.5 2.4 2.4 2.4 2.7 2.8 2.7 2.7																										Diurnal Maximum													
Z - zerospan			C - Calibration			PF - Power Failure			RE - Recovery																														



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Fort McKay South - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	193	27.38	27.38
2.1 - 3.0	508	72.06	99.43
3.1 - 10.0	4	0.57	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Fort McKay South - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	7	6	5	3	5	2	2	2	1	28	29	36	28	16	12	11	193
2.1 - 3.0	46	24	12	4	3	14	28	75	67	59	47	39	23	23	18	26	508
3.1 - 10.0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	4
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	54	30	17	7	8	16	32	77	68	87	76	75	51	39	30	38	705

Total Number of Valid Hours: 705

Total Number of Hours: 744

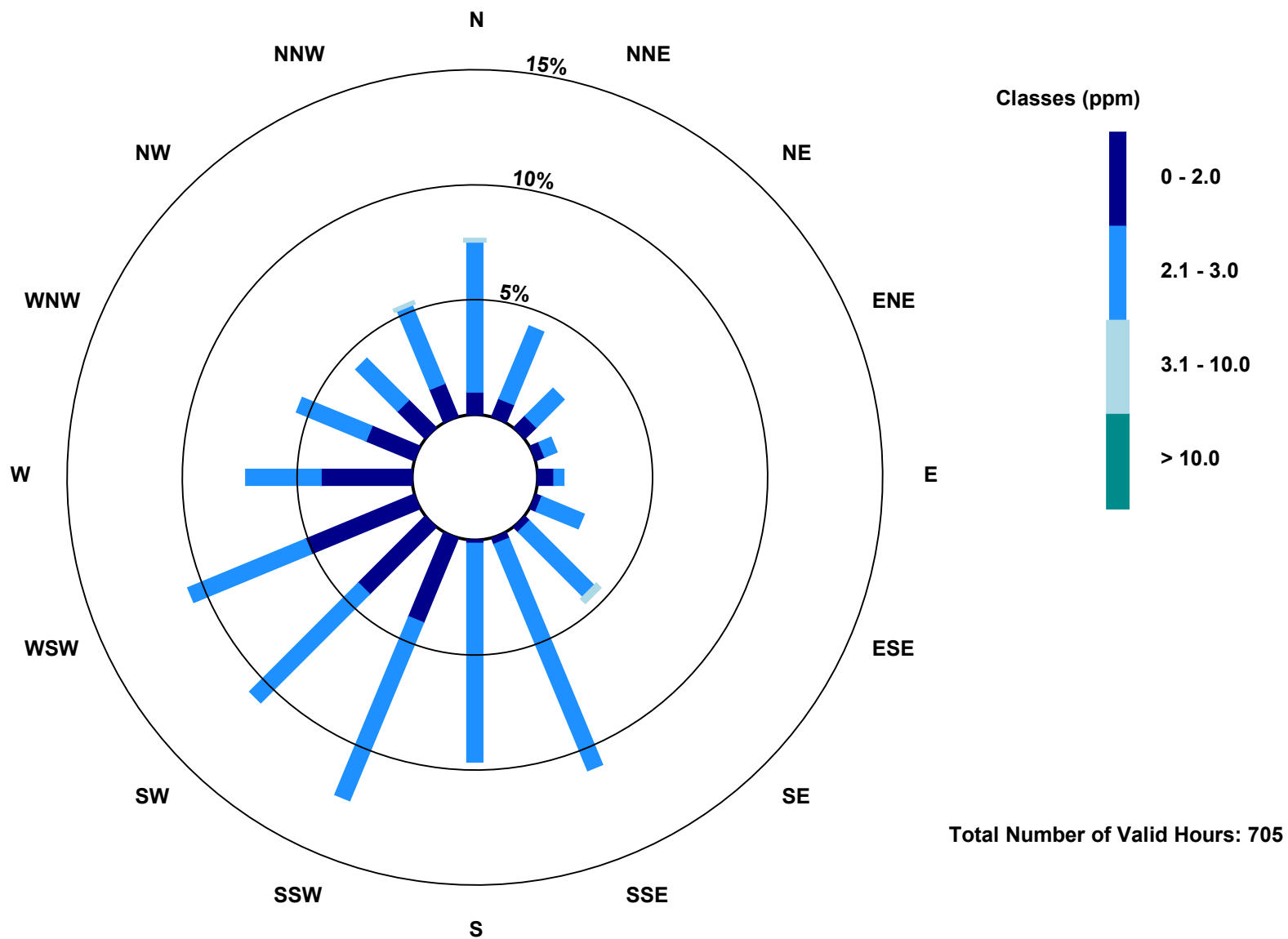


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Total Hydrocarbons (THC) - ppm

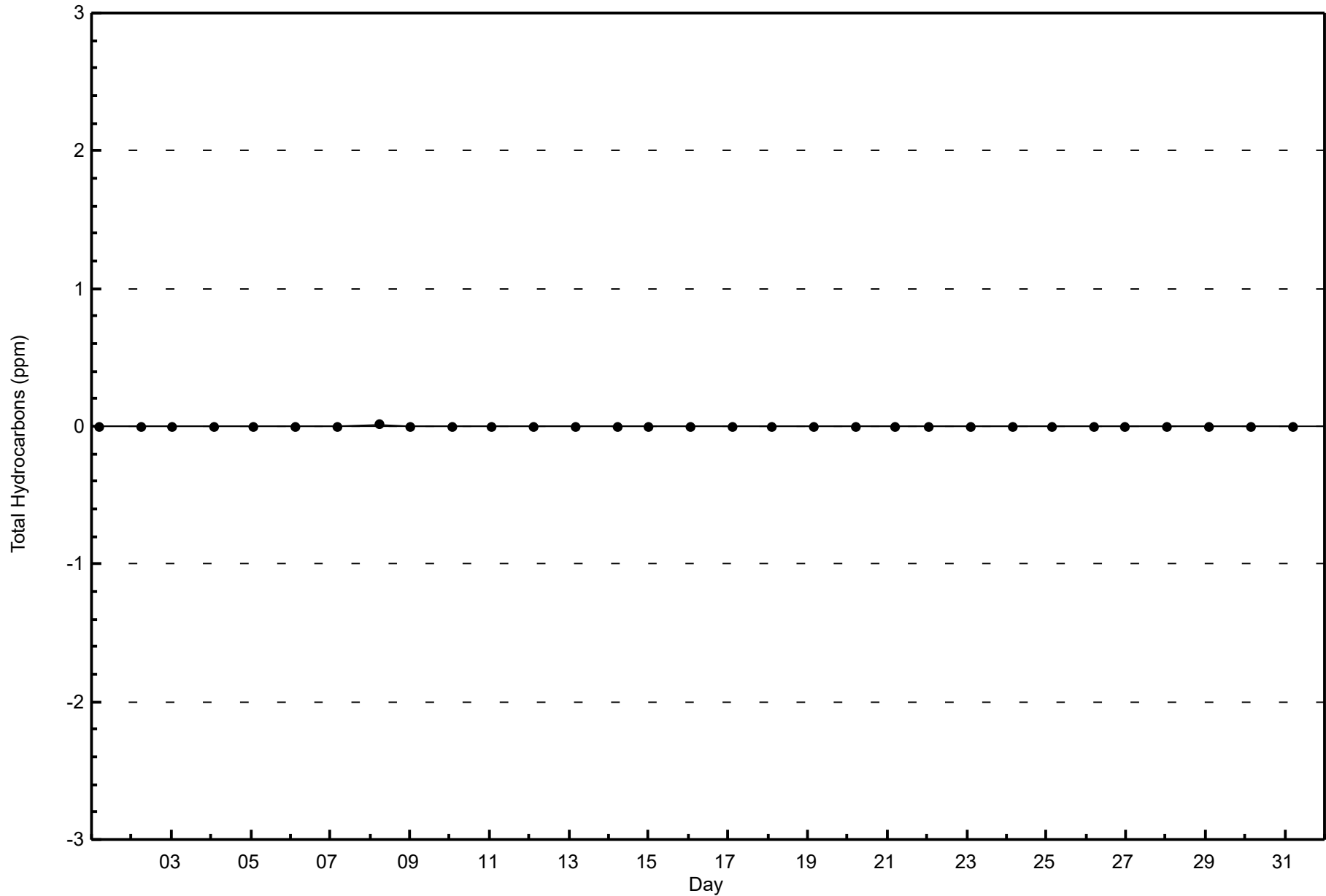
Fort McKay South





Wood Buffalo Environmental Association
Zero Responses

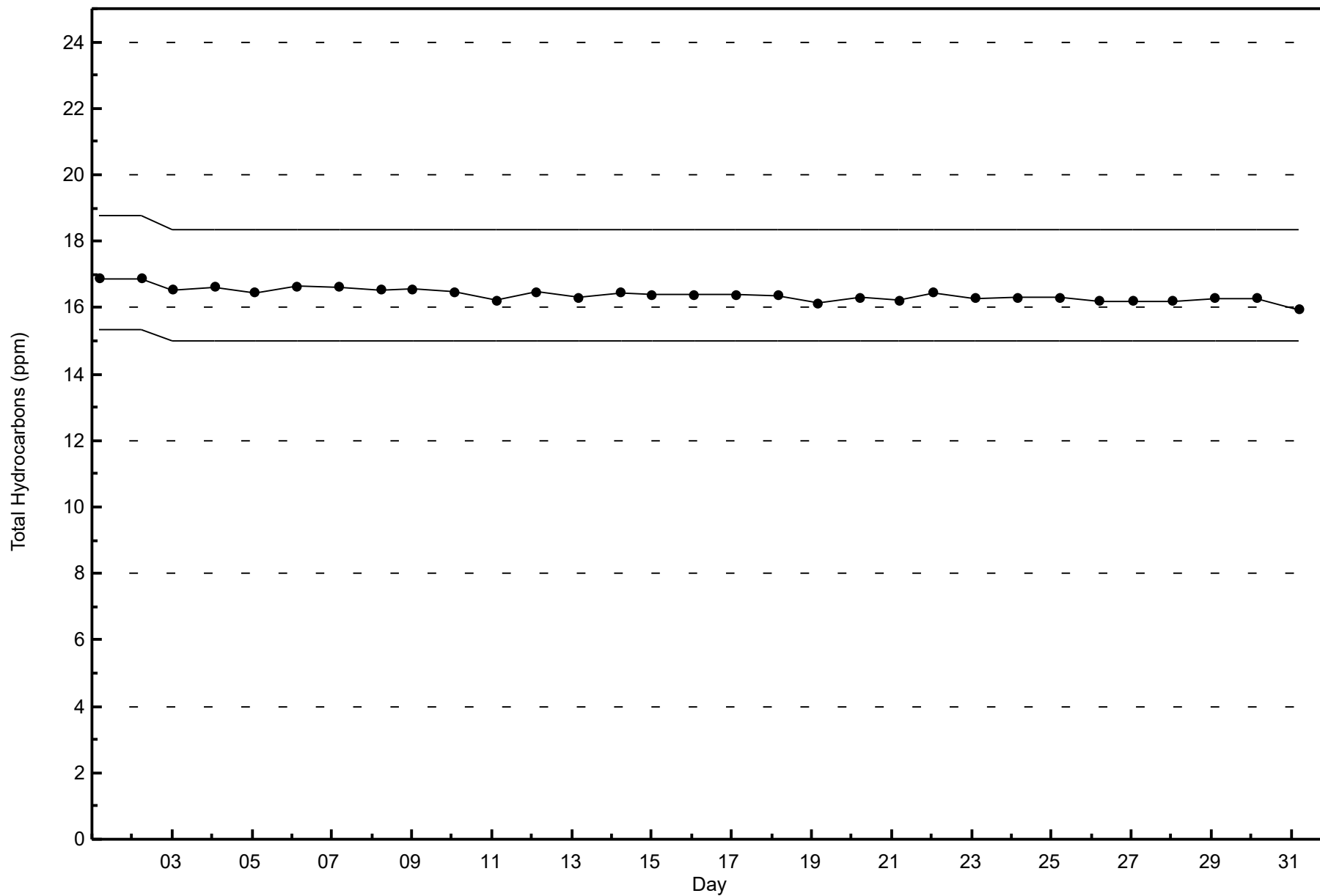
Total Hydrocarbons (THC) - ppm
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Span Responses

Total Hydrocarbons (THC) - ppm
Fort McKay South - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

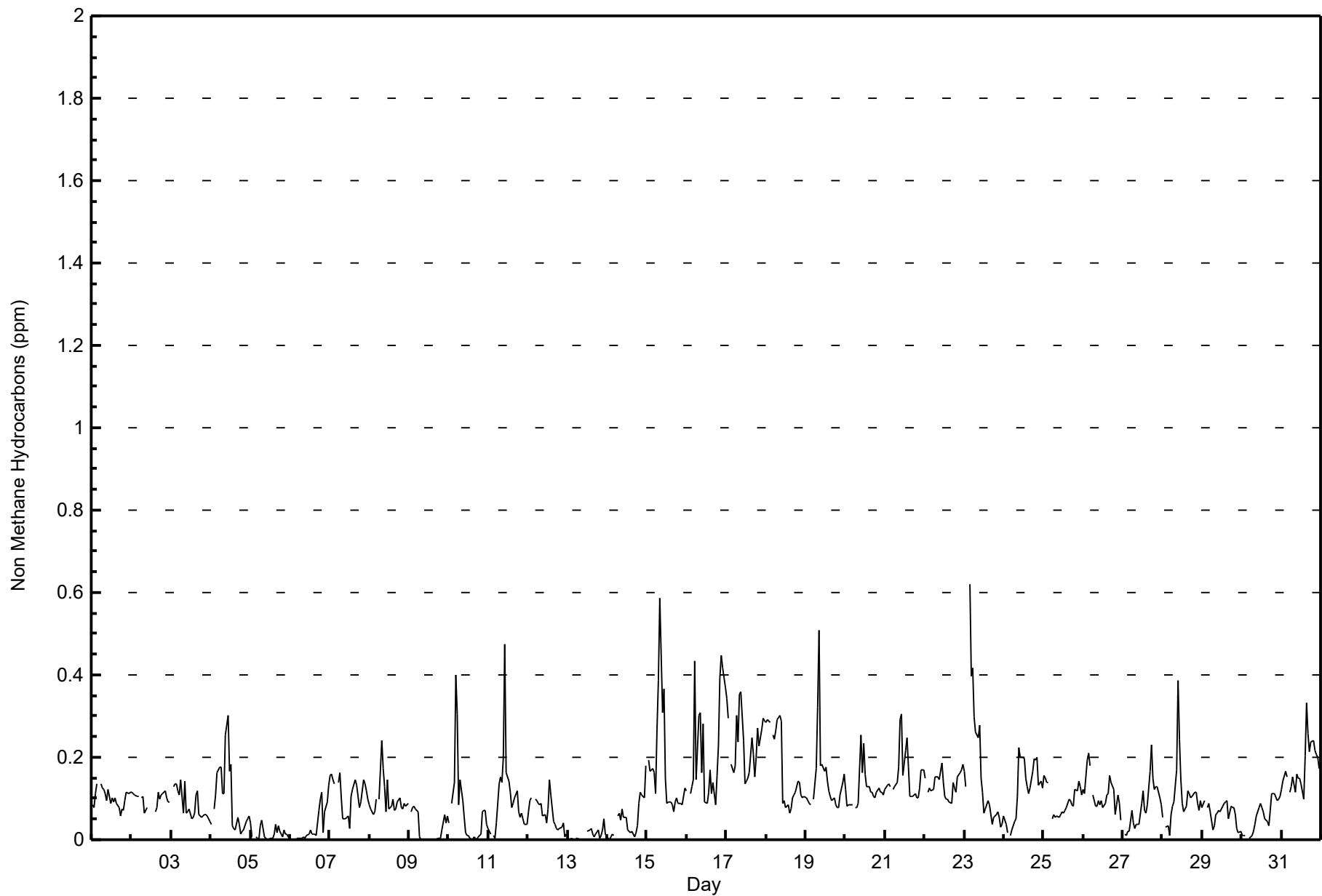
Fort McKay South - July 2026

Maximum Value: 0.620 ppm on Jul 23 04:00																		Maximum Daily Average: 0.235 ppm on Jul 17										Hours in Service: 744	
Minimum Value: 0.000 ppm on Jul 6 03:00																		Minimum Daily Average: 0.013 ppm on Jul 13										Hours of Data: 705	
Maximum Diurnal Average: 0.147 ppm at hour 10																		Minimum Diurnal Average: 0.084 ppm at hour 14										Hours of Missing Data: 39	
Monthly Average: 0.107 ppm																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.1 P ₉₀ = 0.2 P ₉₉ = 0.4										Hours of Calibration: 35	
																												Percent Operational Time: 99.5	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	0.086	0.079	0.111	0.135	Z	0.137	0.127	0.123	0.113	0.093	0.122	0.090	0.101	0.092	0.100	0.088	0.077	0.057	0.076	0.071	0.094	0.114	0.110	0.115	0.100	0.137			
2-Jul	0.116	0.111	0.109	0.105	0.106	Z	0.101	0.106	0.065	0.078	C	C	C	C	0.068	0.079	0.116	0.099	0.109	0.112	0.120	0.102	0.093	0.091	0.099	0.120			
3-Jul	Z	0.128	0.136	0.135	0.118	0.107	0.146	0.064	0.141	0.063	0.068	0.073	0.051	0.056	0.063	0.110	0.119	0.062	0.054	0.057	0.061	0.060	0.059	0.046	0.086	0.146			
4-Jul	0.037	Z	0.075	0.108	0.164	0.178	0.176	0.110	0.113	0.255	0.300	0.165	0.184	0.034	0.026	0.025	0.054	0.038	0.013	0.019	0.024	0.045	0.051	0.057	0.098	0.300			
5-Jul	0.041	0.006	Z	0.005	0.003	0.002	0.034	0.047	0.006	0.003	0.001	0.001	0.002	0.003	0.015	0.038	0.019	0.035	0.020	0.008	0.025	0.014	0.015	0.007	0.015	0.047			
6-Jul	0.002	0.001	0.000	Z	0.004	0.002	0.003	0.005	0.007	0.005	0.011	0.013	0.024	0.013	0.013	0.013	0.010	0.071	0.097	0.116	0.018	0.068	0.093	0.131	0.031	0.131			
7-Jul	0.156	0.159	0.146	0.136	Z	0.141	0.163	0.103	0.051	0.050	0.055	0.059	0.027	0.106	0.122	0.145	0.132	0.104	0.077	0.091	0.147	0.134	0.118	0.098	0.110	0.163			
8-Jul	0.086	0.075	0.062	0.069	0.097	Z	0.100	0.239	0.172	0.128	0.067	0.144	0.073	0.082	0.098	0.071	0.075	0.091	0.101	0.078	0.074	0.088	0.080	0.088	0.097	0.239			
9-Jul	Z	0.069	0.080	0.081	0.076	0.068	0.006	0.001	0.000	0.001	0.001	0.001	0.001	0.000	0.001	0.000	0.000	0.004	0.004	0.004	0.023	0.062	0.040	0.057	0.025	0.081			
10-Jul	0.040	Z	0.089	0.139	0.401	0.306	0.085	0.146	0.095	0.054	0.018	0.010	0.010	0.005	0.000	0.005	0.003	0.001	0.006	0.015	0.069	0.070	0.071	0.036	0.073	0.401			
11-Jul	0.026	0.015	Z	0.009	0.004	0.040	0.135	0.153	0.140	0.200	0.474	0.164	0.143	0.116	0.079	0.090	0.103	0.119	0.066	0.056	0.066	0.051	0.039	0.038	0.101	0.474			
12-Jul	0.067	0.094	0.101	Z	0.098	0.094	0.089	0.083	0.087	0.057	0.062	0.042	0.073	0.146	0.107	0.045	0.037	0.028	0.025	0.026	0.032	0.040	0.006	0.015	0.063	0.146			
13-Jul	0.006	0.001	0.002	0.002	Z	0.003	0.002	0.002	PF	PF	PF	RE	0.019	0.024	0.027	0.015	0.006	0.012	0.022	0.005	0.011	0.022	0.050	0.013	0.013	0.050			
14-Jul	0.005	0.002	0.008	0.013	0.011	Z	0.057	0.064	0.048	0.076	0.055	0.053	0.025	0.022	0.016	0.019	0.006	0.017	0.035	0.088	0.115	0.109	0.103	0.180	0.049	0.180			
15-Jul	Z	0.192	0.165	0.172	0.164	0.111	0.269	0.387	0.585	0.310	0.367	0.150	0.089	0.093	0.090	0.086	0.068	0.092	0.101	0.088	0.088	0.084	0.103	0.125	0.173	0.585			
16-Jul	0.119	Z	0.114	0.128	0.145	0.433	0.145	0.302	0.309	0.163	0.283	0.093	0.090	0.114	0.171	0.112	0.138	0.085	0.155	0.230	0.392	0.448	0.418	0.370	0.215	0.448			
17-Jul	0.343	0.295	Z	0.184	0.164	0.178	0.303	0.238	0.352	0.359	0.242	0.134	0.142	0.149	0.164	0.247	0.206	0.151	0.199	0.272	0.228	0.266	0.293	0.287	0.235	0.359			
18-Jul	0.285	0.292	0.286	Z	0.254	0.245	0.264	0.292	0.300	0.288	0.089	0.095	0.079	0.083	0.066	0.076	0.103	0.109	0.115	0.144	0.138	0.108	0.102	0.104	0.170	0.300			
19-Jul	0.101	0.095	0.088	0.086	Z	0.097	0.172	0.322	0.508	0.180	0.182	0.165	0.176	0.142	0.120	0.106	0.094	0.100	0.084	0.076	0.079	0.108	0.138	0.159	0.147	0.508			
20-Jul	0.122	0.083	0.083	0.084	0.086	Z	0.078	0.079	0.087	0.254	0.164	0.233	0.159	0.128	0.127	0.116	0.114	0.104	0.103	0.114	0.125	0.115	0.114	0.110	0.121	0.254			
21-Jul	0.123	0.132	0.137	0.130	Z	0.121	0.130	0.138	0.175	0.293	0.306	0.157	0.219	0.247	0.177	0.107	0.104	0.106	0.111	0.103	0.102	0.125	0.170	0.170	0.156	0.306			
22-Jul	0.151	Z	0.117	0.127	0.119	0.120	0.154	0.152	0.153	0.145	0.185	0.140	0.106	0.099	0.099	0.091	0.086	0.138	0.126	0.116	0.153	0.163	0.169	0.183	0.134	0.185			
23-Jul	0.166	0.128	Z	0.620	0.396	0.418	0.299	0.260	0.247	0.278	0.148	0.117	0.063	0.074	0.096	0.084	0.060	0.037	0.053	0.061	0.068	0.055	0.030	0.039	0.165	0.620			
24-Jul	0.059	0.036	0.018	Z	0.009	0.022	0.045	0.050	0.105	0.223	0.199	0.200	0.196	0.148	0.128	0.111	0.125	0.167	0.197	0.194	0.201	0.131	0.141	0.125	0.123	0.223			
25-Jul	0.156	0.151	0.140	0.138	Z	0.052	0.062	0.053	0.056	0.055	0.062	0.067	0.066	0.072	0.079	0.097	0.094	0.085	0.080	0.121	0.119	0.143	0.129	0.110	0.095	0.156			
26-Jul	0.121	0.113	0.192	0.209	0.180	Z	0.109	0.081	0.080	0.096	0.085	0.096	0.079	0.089	0.109	0.113	0.157	0.140	0.123	0.060	0.084	0.108	0.088	0.049	0.111	0.209			
27-Jul	Z	0.014	0.011	0.019	0.021	0.070	0.040	0.028	0.036	0.038	0.036	0.089	0.120	0.070	0.064	0.084	0.167	0.231	0.151	0.121	0.128	0.129	0.101	0.083	0.081	0.231			
28-Jul	0.054	Z	0.032	0.034	0.011	0.061	0.081	0.093	0.169	0.387	0.246	0.147	0.090	0.068	0.083	0.118	0.111	0.103	0.106	0.114	0.115	0.087	0.071	0.096	0.108	0.387			
29-Jul	0.078	0.096	Z	0.078	0.088	0.068	0.025	0.033	0.060	0.064	0.070	0.069	0.083	0.086	0.093	0.095	0.052	0.080	0.079	0.078	0.061	0.026	0.017	0.021	0.065	0.096			
30-Jul	0.012	0.011	0.009	Z	0.003	0.005	0.010	0.022	0.036	0.059	0.078	0.087	0.077	0.066	0.050	0.045	0.035	0.071	0.113	0.112	0.111	0.094	0.097	0.105	0.057	0.113			
31-Jul	0.123	0.141	0.167	0.154	Z	0.116	0.129	0.154	0.115	0.159	0.148	0.149	0.136	0.098	0.202	0.333	0.258	0.214	0.239	0.241	0.218	0.205	0.202	0.173	0.177	0.333			
0.099 0.097 0.095 0.119 0.113 0.123 0.114 0.127 0.147 0.147 0.142 0.103 0.090 0.084 0.086 0.089 0.088 0.089 0.092 0.096 0.106 0.109 0.107 0.106																										Diurnal Average			
0.343 0.295 0.286 0.620 0.401 0.433 0.303 0.387 0.585 0.387 0.474 0.233 0.219 0.247 0.202 0.333 0.258 0.231 0.239 0.272 0.392 0.448 0.418 0.370																										Diurnal Maximum			
Z - zerospan C - Calibration PF - Power Failure RE - Recovery																													



Wood Buffalo Environmental Association
Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Fort McKay South - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	46	6.52	6.52
0.006 - 0.05	136	19.29	25.82
0.06 - 0.1	381	54.04	79.86
> 0.1	142	20.14	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Fort McKay South - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 0.005	1	0	0	0	0	0	0	0	0	9	9	10	6	4	4	3	46
0.006 - 0.05	3	6	4	3	4	1	2	1	5	22	28	21	16	9	6	5	136
0.06 - 0.1	34	17	9	3	3	10	22	49	42	45	31	34	28	22	16	16	381
> 0.1	16	7	4	1	1	5	8	27	21	11	8	10	1	4	4	14	142
Totals	54	30	17	7	8	16	32	77	68	87	76	75	51	39	30	38	705

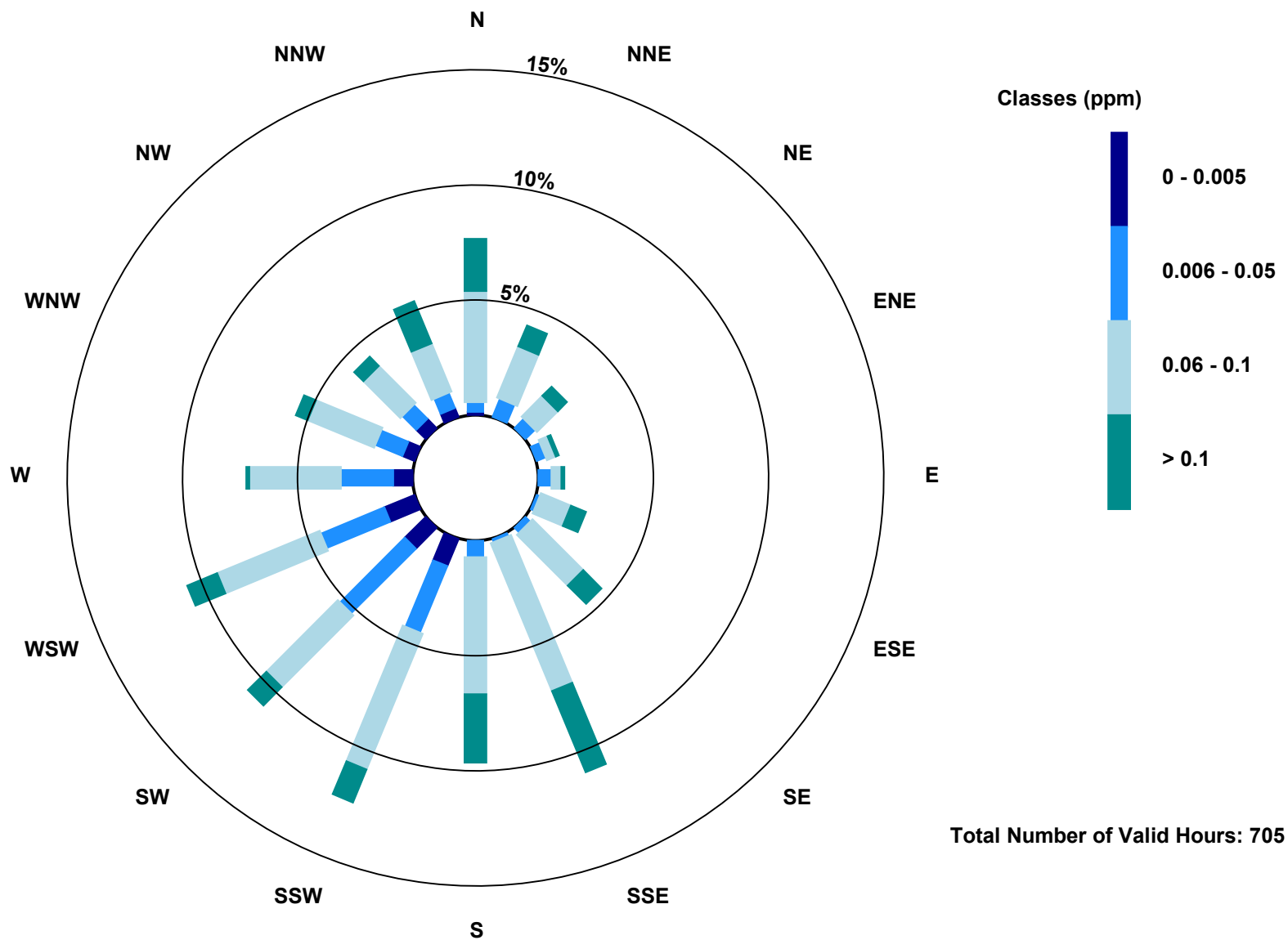
Total Number of Valid Hours: 705

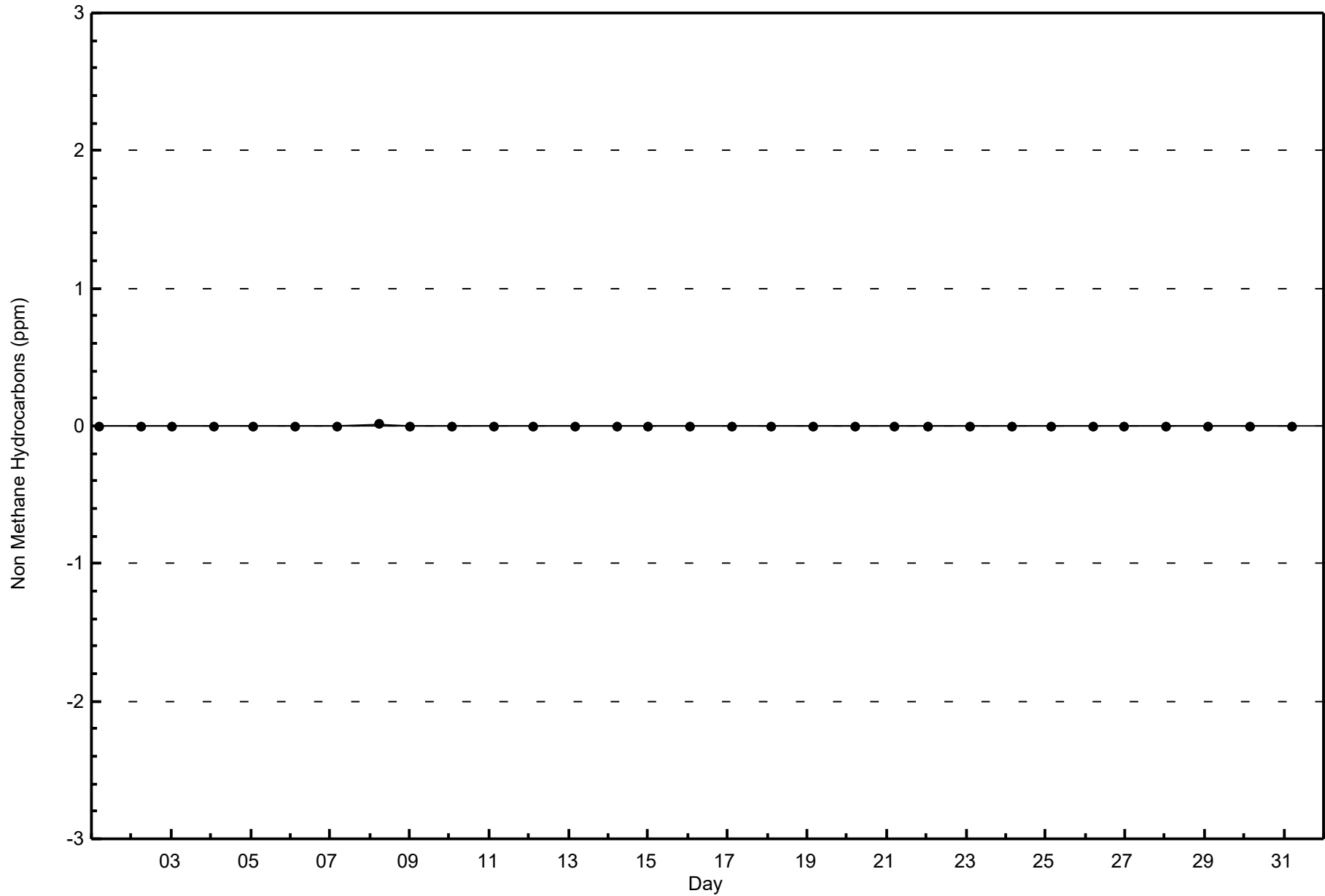
Total Number of Hours: 744

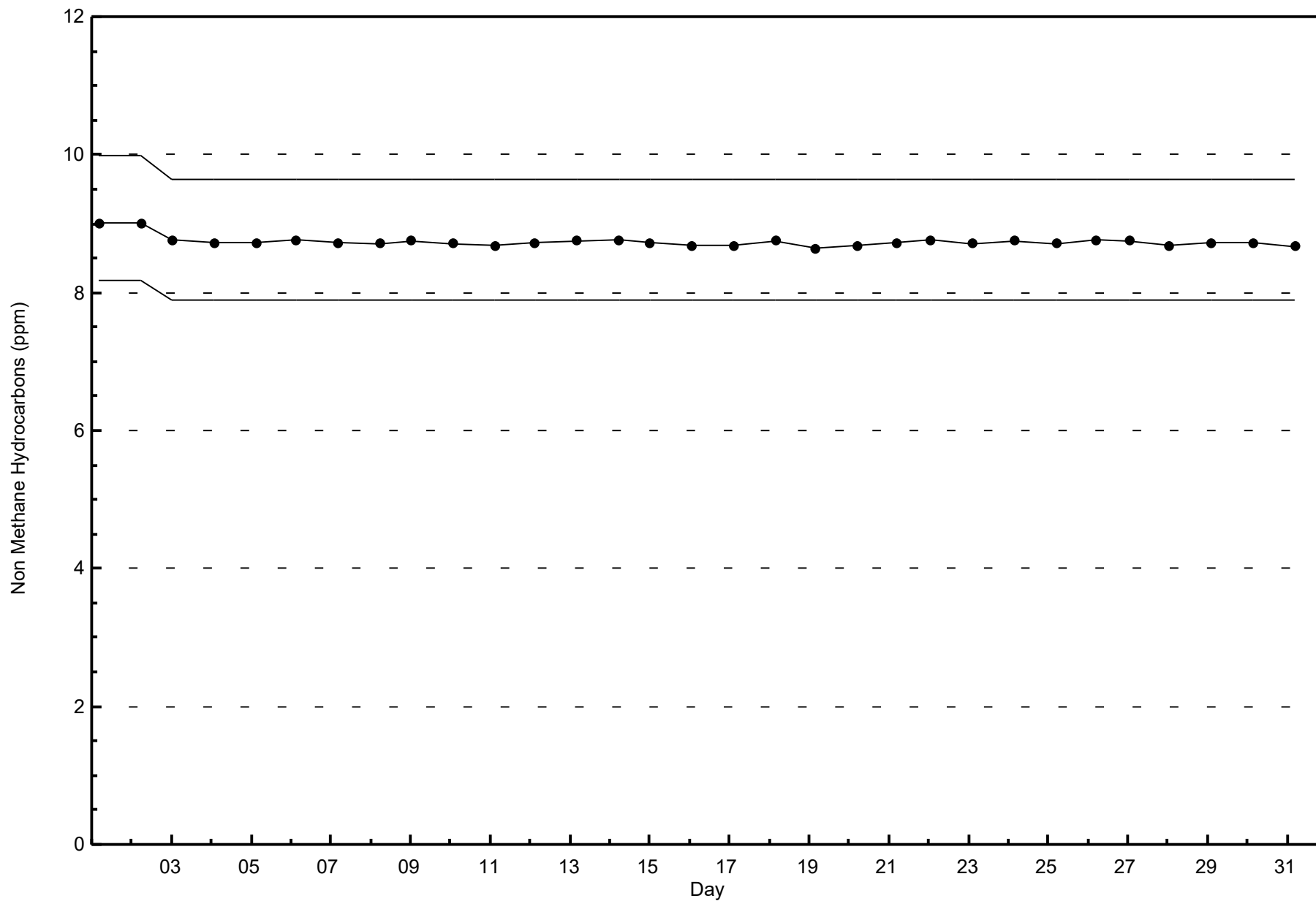


Wood Buffalo Environmental Association
Wind Rose Jul 2026

Non Methane Hydrocarbons (NMHC) - ppm
Fort McKay South









Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH₄) - ppm

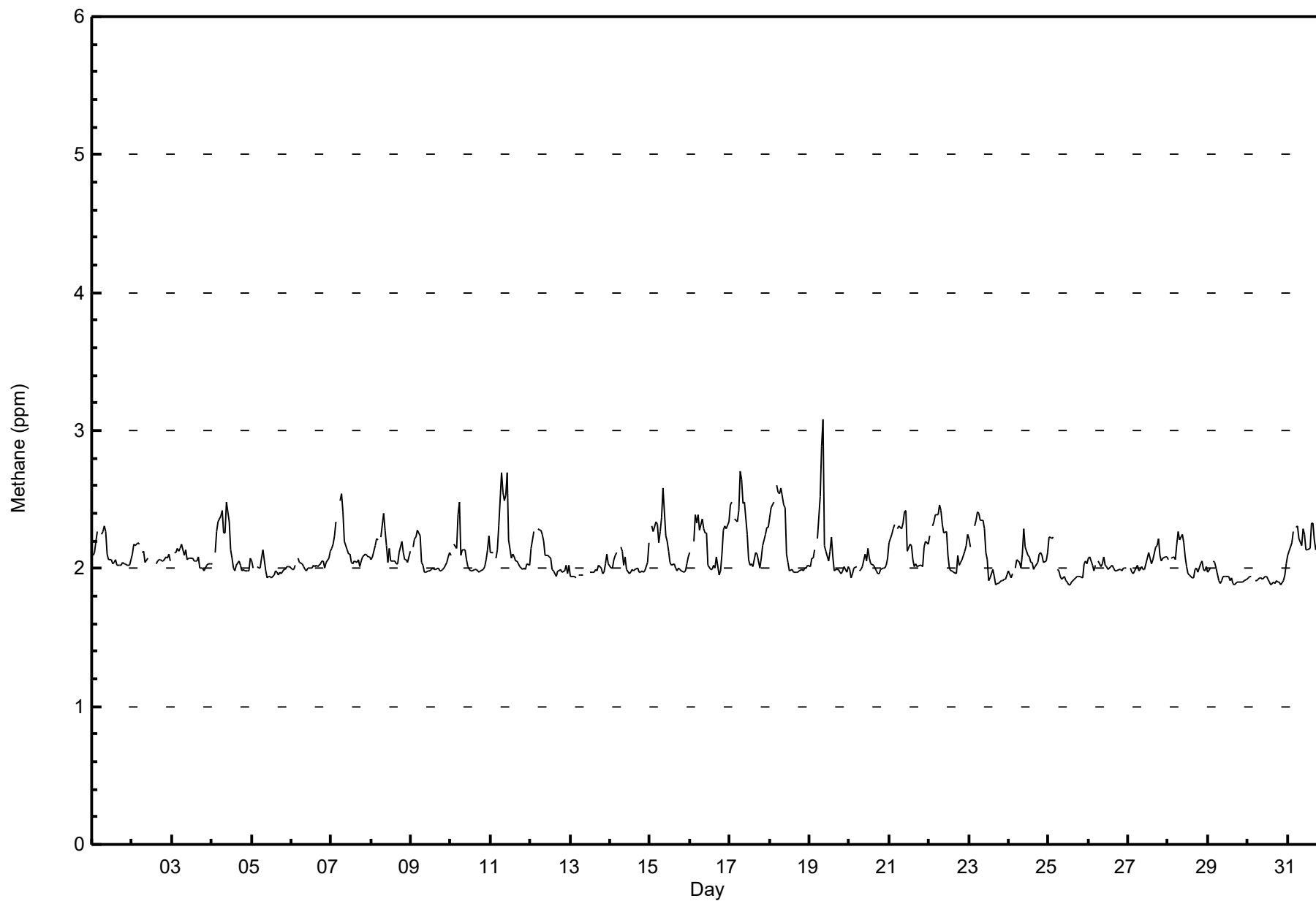
Fort McKay South - July 2026

Number of Exceedances (AAAQO):										1-hr: 0 24-hr: 0										Hours in Service: 744									
Maximum Value: 3.1 ppm on Jul 19 09:00										Maximum Daily Average: 2.3 ppm on Jul 17										Hours of Data: 705									
Minimum Value: 1.9 ppm on Jul 30 21:00										Minimum Daily Average: 1.9 ppm on Jul 30										Hours of Missing Data: 39									
Maximum Diurnal Average: 2.2 ppm at hour 6										Minimum Diurnal Average: 2.0 ppm at hour 18										Hours of Calibration: 35									
Monthly Average: 2.09 ppm										Percentiles: P ₁ = 1.9 P ₁₀ = 1.9 Q ₁ = 2.0 Median = 2.0 Q ₃ = 2.2 P ₉₀ = 2.3 P ₉₉ = 2.6										Percent Operational Time: 99.5									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	2.1	2.1	2.2	2.3	Z	2.2	2.3	2.3	2.3	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1				
2-Jul	2.1	2.2	2.2	2.2	2.2	Z	2.1	2.1	2.0	2.1	C	C	C	C	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1				
3-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1				
4-Jul	2.0	Z	2.1	2.3	2.3	2.4	2.4	2.3	2.3	2.5	2.3	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1				
5-Jul	2.1	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
6-Jul	2.0	2.0	2.0	Z	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.0				
7-Jul	2.1	2.2	2.2	2.3	Z	2.5	2.5	2.4	2.2	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2				
8-Jul	2.1	2.1	2.2	2.2	2.2	Z	2.2	2.4	2.3	2.2	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.0	2.1	2.1				
9-Jul	Z	2.2	2.2	2.2	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1				
10-Jul	2.1	Z	2.2	2.1	2.4	2.5	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1				
11-Jul	2.1	2.1	Z	2.1	2.1	2.3	2.7	2.6	2.5	2.5	2.7	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2				
12-Jul	2.1	2.2	2.3	Z	2.3	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1				
13-Jul	1.9	1.9	1.9	1.9	Z	1.9	2.0	2.0	PF	PF	PF	RE	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0				
14-Jul	2.0	2.0	2.1	2.1	2.1	Z	2.2	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0				
15-Jul	Z	2.3	2.3	2.3	2.3	2.2	2.3	2.4	2.6	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.6				
16-Jul	2.1	Z	2.2	2.4	2.3	2.4	2.3	2.4	2.3	2.3	2.3	2.0	2.0	2.0	2.0	2.0	2.1	1.9	2.0	2.1	2.3	2.3	2.3	2.3	2.2				
17-Jul	2.5	2.5	Z	2.4	2.3	2.4	2.7	2.6	2.5	2.5	2.3	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.2	2.3	2.3	2.3				
18-Jul	2.4	2.4	2.5	Z	2.6	2.6	2.5	2.6	2.5	2.4	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2				
19-Jul	2.0	2.1	2.1	2.1	Z	2.2	2.5	2.9	3.1	2.2	2.1	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2				
20-Jul	2.0	1.9	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0				
21-Jul	2.2	2.2	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.4	2.4	2.1	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.2	2.2				
22-Jul	2.2	Z	2.3	2.3	2.4	2.4	2.5	2.4	2.3	2.3	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.2	2.2	2.2				
23-Jul	2.2	2.2	Z	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.1	2.1	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1				
24-Jul	2.0	1.9	2.0	Z	2.0	2.1	2.0	2.0	2.1	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.1				
25-Jul	2.2	2.2	2.2	2.2	Z	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.0	2.0				
26-Jul	2.1	2.1	2.0	2.0	2.0	Z	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
27-Jul	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.0	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1				
28-Jul	2.1	Z	2.1	2.1	2.1	2.2	2.3	2.2	2.2	2.2	2.1	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1				
29-Jul	2.0	2.0	Z	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9				
30-Jul	1.9	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9				
31-Jul	2.1	2.1	2.2	2.3	Z	2.3	2.3	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.3	2.3	2.2	2.1	2.2	2.2	2.2	2.2	2.3	2.4	2.2				
2.1 2.1 2.1 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.1 2.1 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.1 2.1																								Diurnal Average					
2.5 2.5 2.5 2.4 2.6 2.6 2.7 2.9 3.1 2.5 2.7 2.2 2.2 2.2 2.3 2.3 2.2 2.2 2.2 2.2 2.3 2.3 2.4																								Diurnal Maximum					
Z - zerospan C - Calibration PF - Power Failure RE - Recovery																													



Wood Buffalo Environmental Association
Hourly Averages

Methane (CH₄) - ppm
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Methane (CH₄) - ppm
Fort McKay South - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	361	51.21	51.21
2.1 - 3.0	343	48.65	99.86
3.1 - 10.0	1	0.14	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Methane (CH₄) - ppm
Fort McKay South - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	28	20	13	5	5	7	11	21	14	51	39	47	34	26	19	21	361
2.1 - 3.0	25	10	4	2	3	9	21	56	54	36	37	28	17	13	11	17	343
3.1 - 10.0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	54	30	17	7	8	16	32	77	68	87	76	75	51	39	30	38	705

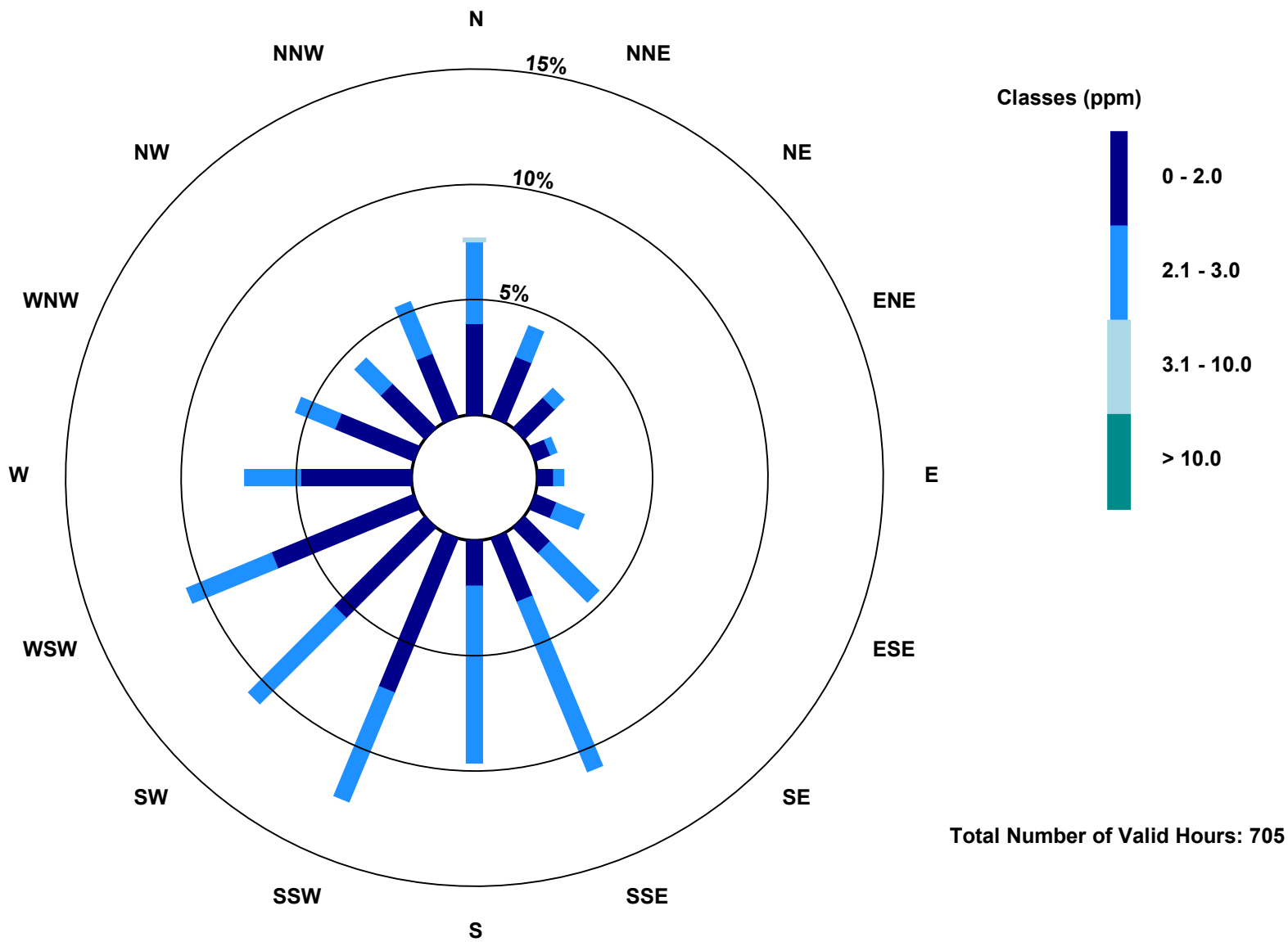
Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

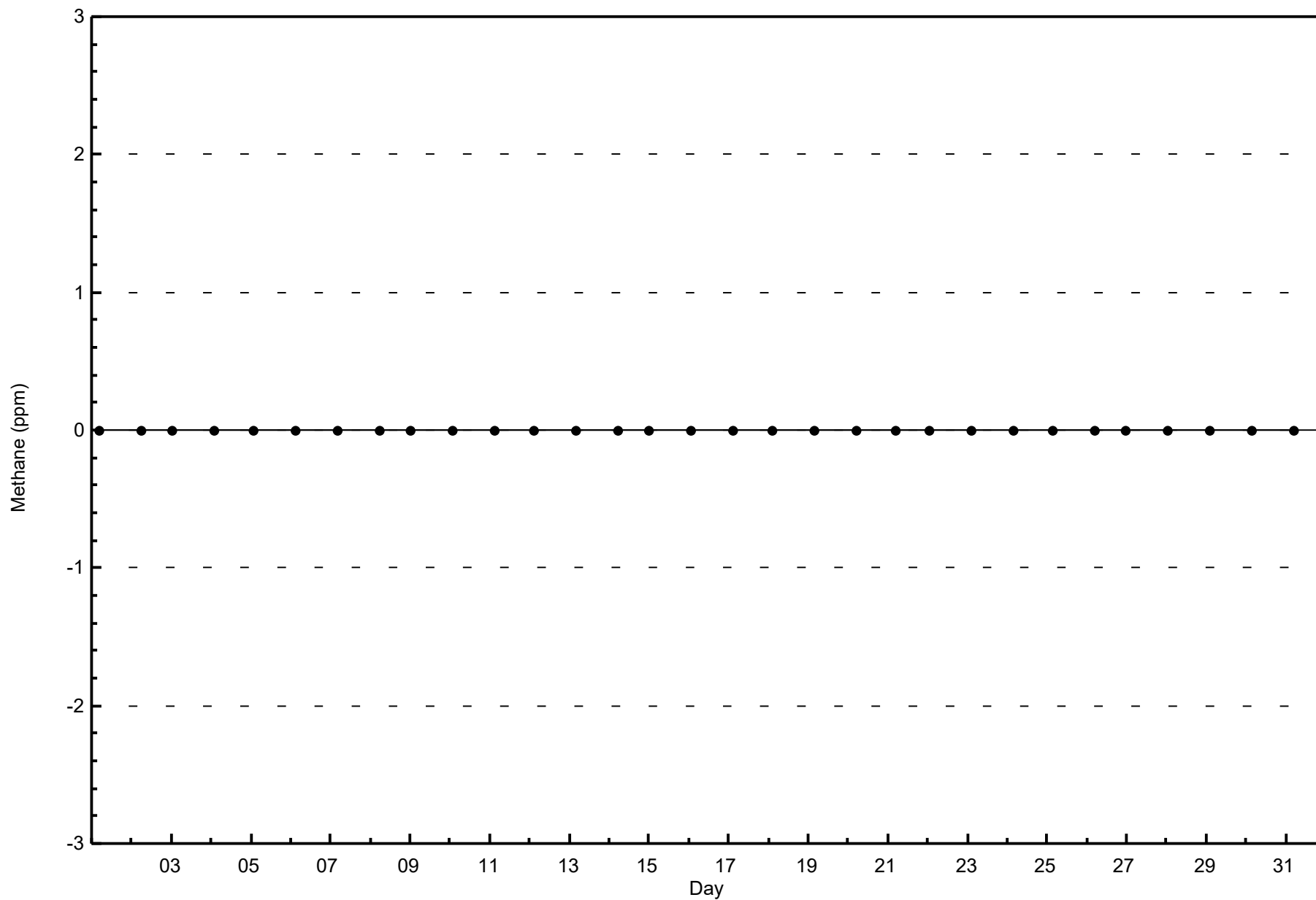
Methane (CH₄) - ppm
Fort McKay South





Wood Buffalo Environmental Association
Zero Responses

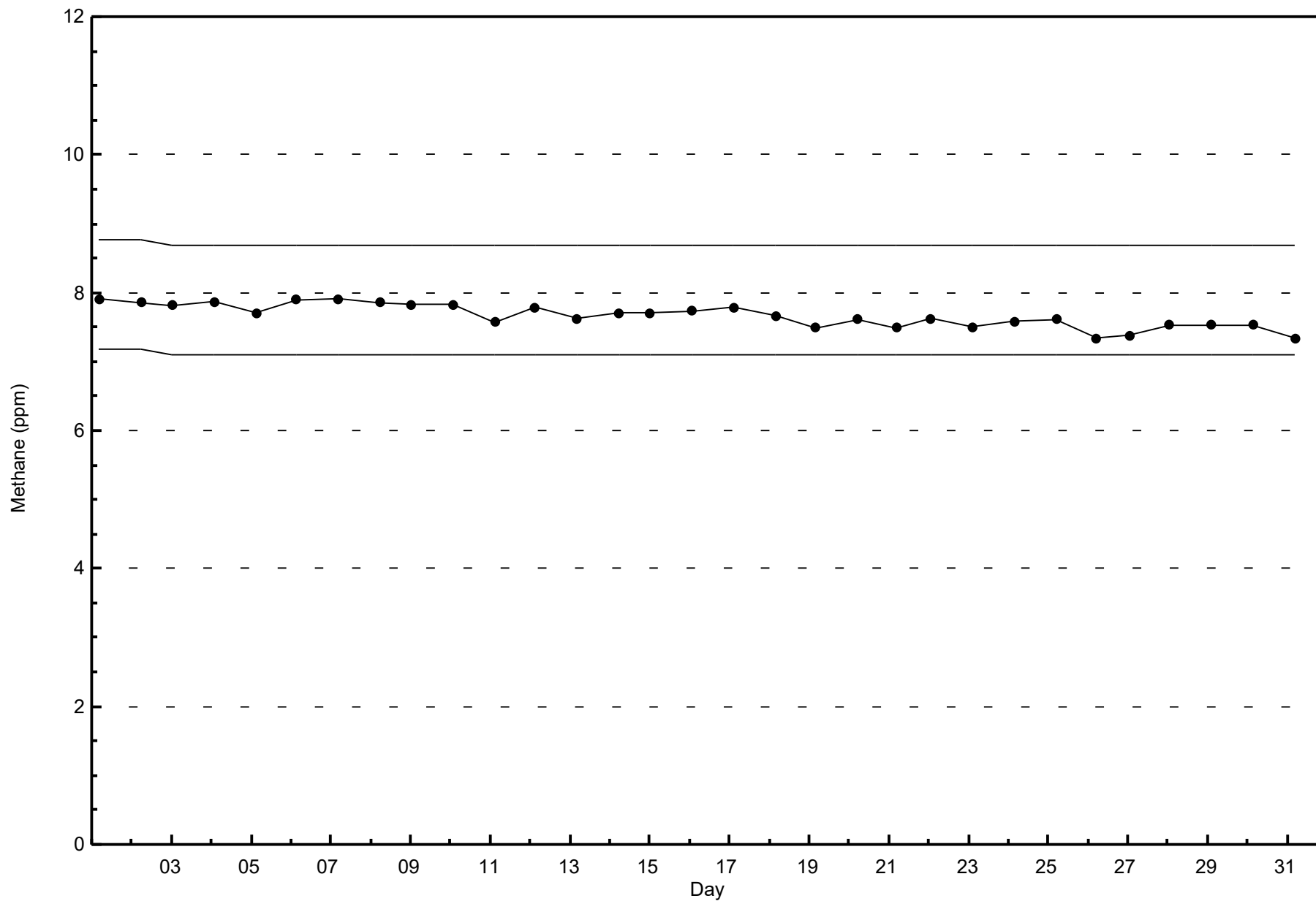
Methane (CH₄) - ppm
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Span Responses

Methane (CH₄) - ppm
Fort McKay South - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O₃) - ppb

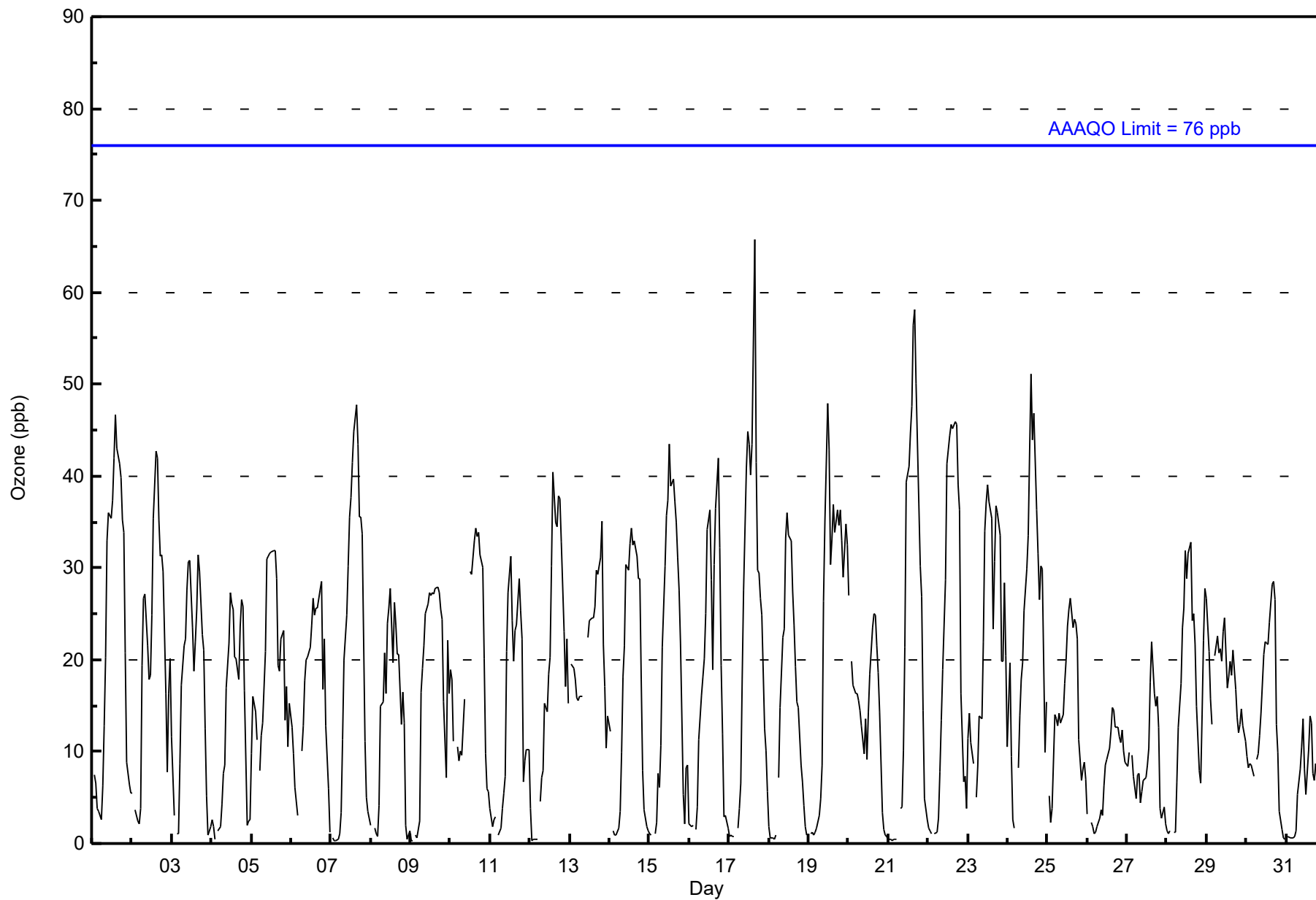
Fort McKay South - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 65.8 ppb on Jul 17 16:00 Maximum Daily Average: 24.2 ppb on Jul 24																				Hours in Service: 744 Hours of Data: 707						
Minimum Value: 0.3 ppb on Jul 9 01:00 Minimum Daily Average: 5.4 ppb on Jul 31 Maximum Diurnal Average: 31.2 ppb at hour 16 Minimum Diurnal Average: 3.8 ppb at hour 5 Monthly Average: 17.44 ppb Percentiles: P ₁ = 0.4 P ₁₀ = 1.4 Q ₁ = 6.2 Median = 16.1 Q ₃ = 26.8 P ₉₀ = 35.4 P ₉₉ = 47.5																				Hours of Missing Data: 37 Hours of Calibration: 34 Percent Operational Time: 99.6						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jul	Z	7.5	6.6	3.8	3.5	2.7	6.3	12.9	20.3	32.9	36.1	35.4	37.4	41.9	46.7	43.0	41.3	39.8	35.3	33.9	20.7	8.9	6.3	5.4	23.0	46.7
2-Jul	5.4	Z	3.6	2.5	2.1	3.8	19.3	26.6	27.1	21.5	17.8	18.2	24.9	35.4	42.8	41.9	35.2	31.3	31.4	29.6	16.3	7.8	16.3	20.2	20.9	42.8
3-Jul	11.5	3.1	Z	1.0	1.0	8.7	17.3	21.4	22.3	27.6	30.7	30.8	23.5	18.7	22.0	25.5	31.5	29.5	22.7	21.0	12.5	5.1	0.9	1.8	17.0	31.5
4-Jul	2.6	1.9	0.4	Z	1.4	1.8	4.3	7.7	8.5	17.0	21.9	27.2	26.2	25.4	20.4	20.1	17.9	23.6	26.5	25.8	16.7	2.0	2.5	2.6	13.2	27.2
5-Jul	9.7	16.0	14.3	11.3	Z	7.9	11.7	13.2	20.8	31.0	31.3	31.5	31.8	31.9	31.8	28.9	19.4	18.7	22.3	23.2	13.4	17.1	10.6	15.3	20.1	31.9
6-Jul	12.6	9.7	6.2	4.5	3.0	Z	10.0	12.8	17.6	20.0	20.3	21.4	23.8	26.6	24.8	25.7	25.6	27.6	28.6	16.7	22.3	12.9	6.0	1.2	16.5	28.6
7-Jul	Z	0.7	0.3	0.3	0.5	1.1	3.4	11.2	20.0	24.9	30.3	35.5	37.6	41.5	44.8	47.8	43.5	35.6	35.5	33.6	11.1	5.1	3.5	2.8	20.5	47.8
8-Jul	2.0	Z	1.7	1.1	0.8	4.1	14.9	15.5	20.7	16.3	23.9	25.6	27.7	19.7	26.3	23.8	20.6	20.6	12.9	16.5	13.1	2.1	0.5	1.4	13.5	27.7
9-Jul	0.3	0.3	Z	0.9	0.6	2.5	16.4	19.0	21.5	25.0	26.0	27.3	27.0	27.2	27.1	27.8	27.8	27.3	25.5	24.4	15.4	7.2	22.1	16.4	18.0	27.8
10-Jul	19.0	17.8	11.2	Z	10.6	9.0	10.1	9.7	15.7	C	C	C	29.6	29.2	33.0	34.3	33.3	33.8	31.4	30.1	20.2	9.8	5.9	5.7	20.0	34.3
11-Jul	3.9	1.9	2.6	2.9	Z	1.0	1.7	3.8	5.5	7.3	20.8	27.3	31.3	24.2	19.9	23.2	23.8	28.9	25.3	22.3	6.8	9.0	10.2	10.2	13.6	31.3
12-Jul	3.9	0.3	0.4	0.4	0.5	Z	4.5	7.2	7.9	15.3	14.3	18.5	20.2	30.2	40.5	34.9	34.4	37.8	37.5	32.7	23.0	17.0	22.3	15.3	18.2	40.5
13-Jul	Z	19.5	19.0	17.8	15.9	15.5	15.9	16.1	PF	PF	PF	22.4	24.2	24.5	24.6	25.9	29.8	29.3	31.1	35.0	21.7	17.0	10.4	13.9	21.5	35.0
14-Jul	12.1	Z	1.3	0.9	0.9	1.7	3.6	9.9	18.1	21.5	30.3	29.8	32.6	34.3	32.5	32.9	31.3	28.9	28.8	17.9	7.9	3.7	1.8	1.3	16.7	34.3
15-Jul	1.0	0.9	Z	1.0	2.2	7.6	6.0	10.6	21.3	30.2	35.7	37.4	43.5	38.9	39.6	37.3	34.9	31.2	27.6	21.7	5.3	2.1	8.3	8.6	19.7	43.5
16-Jul	2.2	1.8	2.0	Z	1.6	4.0	11.3	16.1	18.1	20.1	25.0	34.2	36.3	28.7	18.9	30.3	36.5	42.0	32.2	19.4	12.0	2.9	3.1	1.7	17.4	42.0
17-Jul	0.7	1.0	0.8	0.7	Z	1.8	3.9	6.6	17.9	27.6	40.8	44.9	43.4	40.2	43.5	65.8	41.5	29.7	29.4	26.7	24.9	12.4	10.1	5.6	22.6	65.8
18-Jul	1.8	0.6	0.6	0.5	0.9	Z	7.2	14.8	22.4	23.4	33.3	36.1	33.5	33.0	27.4	23.7	19.3	15.4	14.8	8.6	6.8	4.1	1.9	1.0	14.4	36.1
19-Jul	Z	1.0	1.2	0.9	1.3	1.7	3.0	4.9	8.5	26.4	35.1	47.9	42.9	30.3	33.1	36.8	33.8	36.3	34.6	36.3	32.9	29.0	34.8	32.5	23.7	47.9
20-Jul	27.0	Z	19.9	17.3	16.4	16.4	15.5	14.4	12.8	9.8	13.5	9.1	14.4	18.4	23.5	25.0	24.9	21.5	18.7	14.3	3.4	1.5	0.9	0.7	14.8	27.0
21-Jul	0.5	0.5	0.4	0.4	0.4	0.5	Z	3.8	3.9	10.1	21.4	39.4	41.1	44.7	47.6	56.4	58.2	50.0	37.0	30.2	26.8	14.5	4.9	2.6	21.5	58.2
22-Jul	1.7	1.4	1.0	Z	1.1	1.2	2.7	7.8	13.5	18.9	28.7	41.3	42.9	44.4	45.6	45.2	46.0	45.6	39.0	36.3	16.3	6.7	7.3	3.8	21.7	46.0
23-Jul	11.5	14.1	11.0	8.7	Z	5.0	8.3	13.9	13.6	22.0	34.0	37.0	39.1	37.2	35.3	23.3	30.6	36.7	36.0	33.5	19.9	19.9	28.4	20.4	23.5	39.1
24-Jul	10.5	19.7	9.5	2.6	1.6	Z	8.2	13.9	17.9	19.6	25.4	30.0	33.5	42.7	51.1	44.0	46.8	36.4	31.6	26.5	30.2	29.9	9.9	15.4	24.2	51.1
25-Jul	Z	5.1	2.2	3.9	14.1	13.6	12.8	14.2	13.2	14.0	17.4	19.9	23.7	25.4	26.7	23.6	24.4	23.9	22.3	11.2	6.8	8.1	8.9	7.0	14.9	26.7
26-Jul	3.3	Z	2.2	1.8	1.0	1.3	1.8	2.8	3.6	3.1	6.3	8.5	9.1	10.3	12.3	14.8	14.5	12.7	12.7	11.6	11.0	12.3	10.1	8.8	7.6	14.8
27-Jul	8.4	9.9	Z	9.5	7.3	4.9	7.5	7.6	4.4	5.7	6.8	7.2	8.5	10.4	17.6	21.9	16.3	14.9	16.0	12.7	3.9	2.8	3.9	2.1	9.1	21.9
28-Jul	1.4	1.0	1.3	Z	1.2	1.3	6.7	12.7	17.3	23.5	25.6	31.8	28.8	31.6	32.7	24.3	25.0	21.6	15.0	7.9	6.6	14.0	22.1	27.8	16.6	32.7
29-Jul	26.6	20.8	15.7	13.0	Z	20.4	22.5	20.8	21.3	19.8	23.0	24.5	16.9	18.1	19.8	18.3	21.1	16.7	13.8	12.0	12.9	14.6	12.9	11.1	18.1	26.6
30-Jul	9.5	8.2	8.7	8.5	7.4	Z	9.2	9.8	11.7	14.1	20.7	22.0	21.8	21.7	24.0	28.3	28.6	26.6	13.0	10.0	3.6	1.5	0.6	0.5	13.5	28.6
31-Jul	Z	0.8	0.6	0.6	0.6	0.8	1.4	5.3	8.1	10.5	13.5	8.0	5.3	10.3	13.9	13.1	7.6	6.9	8.7	4.8	1.5	0.8	0.8	0.7	5.4	13.9
7.6 6.4 5.4 4.5 3.8 5.4 8.9 11.8 15.2 19.3 24.5 27.7 28.5 28.9 30.6 31.2 29.8 28.4 25.7 22.1 14.4 9.7 9.3 8.5 Diurnal Average																										
27.0 20.8 19.9 17.8 16.4 20.4 22.5 26.6 27.1 32.9 40.8 47.9 43.5 44.7 51.1 65.8 58.2 50.0 39.0 36.3 32.9 29.9 34.8 32.5 Diurnal Maximum																										
Z - zerospan C - Calibration PF - Power Failure																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Ozone (O₃) - ppb
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ozone (O₃) - ppb
Fort McKay South - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	428	60.54	60.54
21 - 50	275	38.90	99.43
51 - 82	4	0.57	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Ozone (O₃) - ppb
Fort McKay South - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	21	20	10	8	3	6	7	30	57	41	53	60	35	33	21	23	428
21 - 50	31	10	7	0	4	9	25	49	18	40	20	18	14	8	7	15	275
51 - 82	0	1	0	0	0	1	0	0	0	2	0	0	0	0	0	0	4
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	52	31	17	8	7	16	32	79	75	83	73	78	49	41	28	38	707

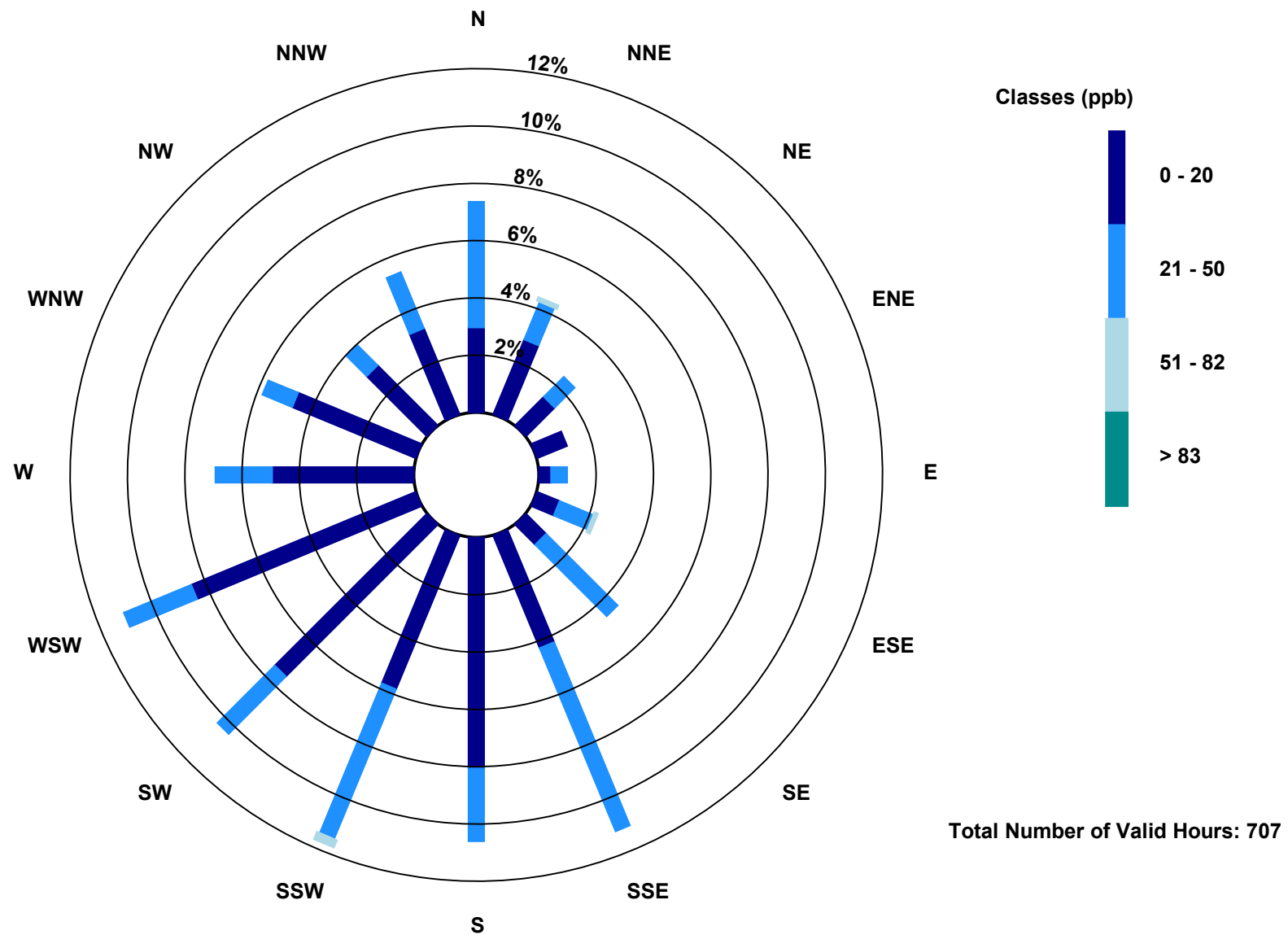
Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

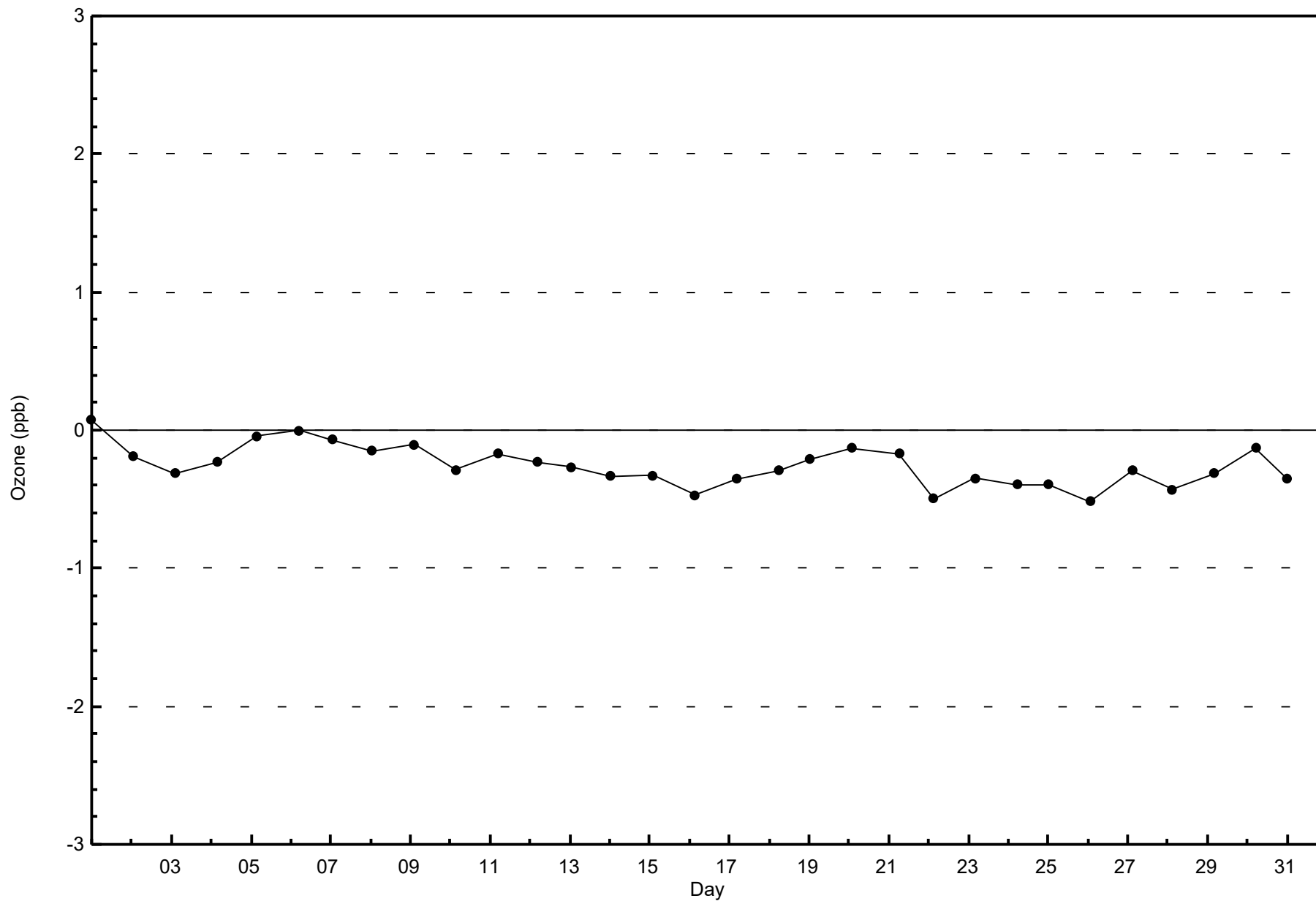
Ozone (O_3) - ppb
Fort McKay South





Wood Buffalo Environmental Association
Zero Responses

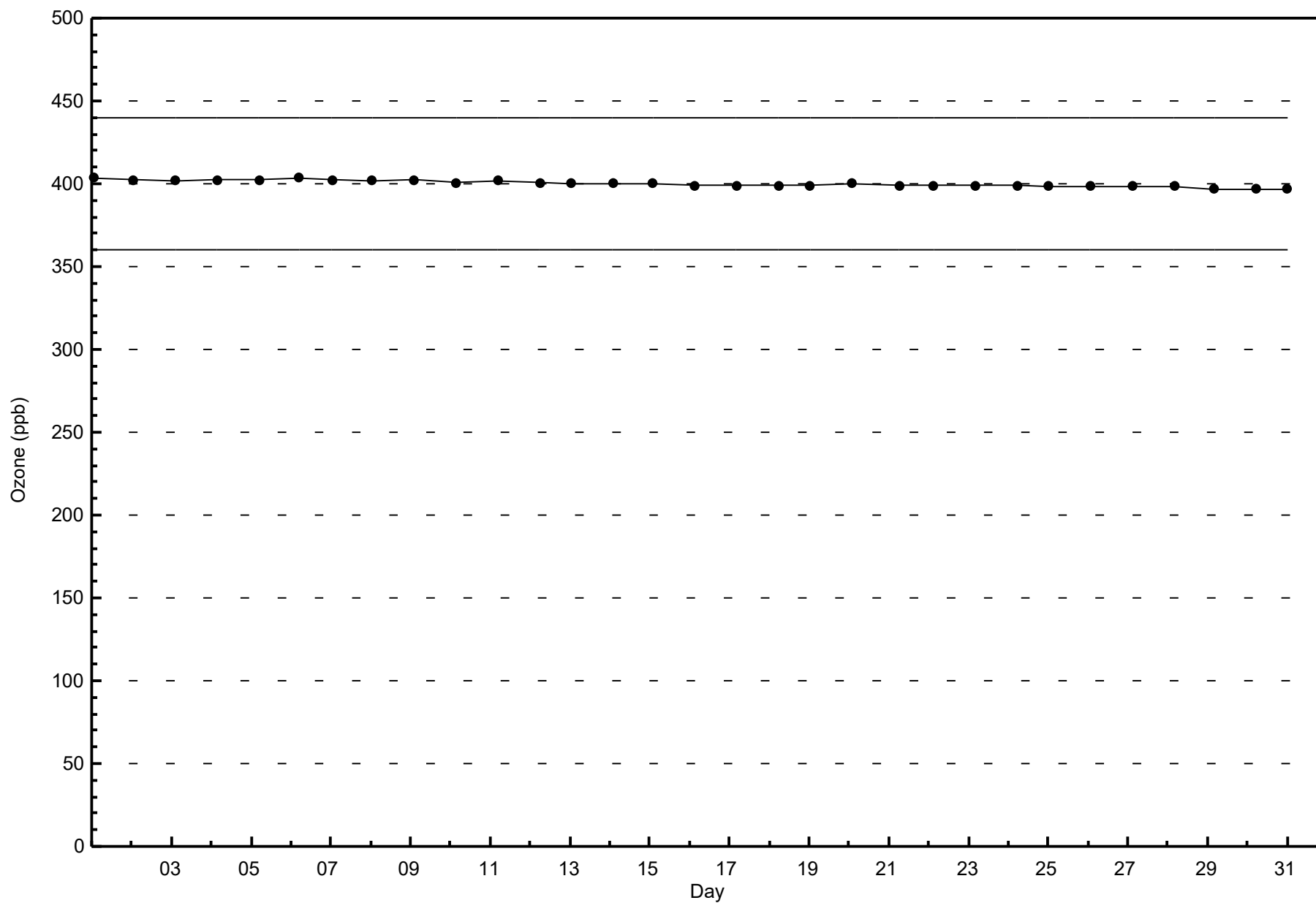
Ozone (O₃) - ppb
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Span Responses

Ozone (O₃) - ppb
Fort McKay South - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

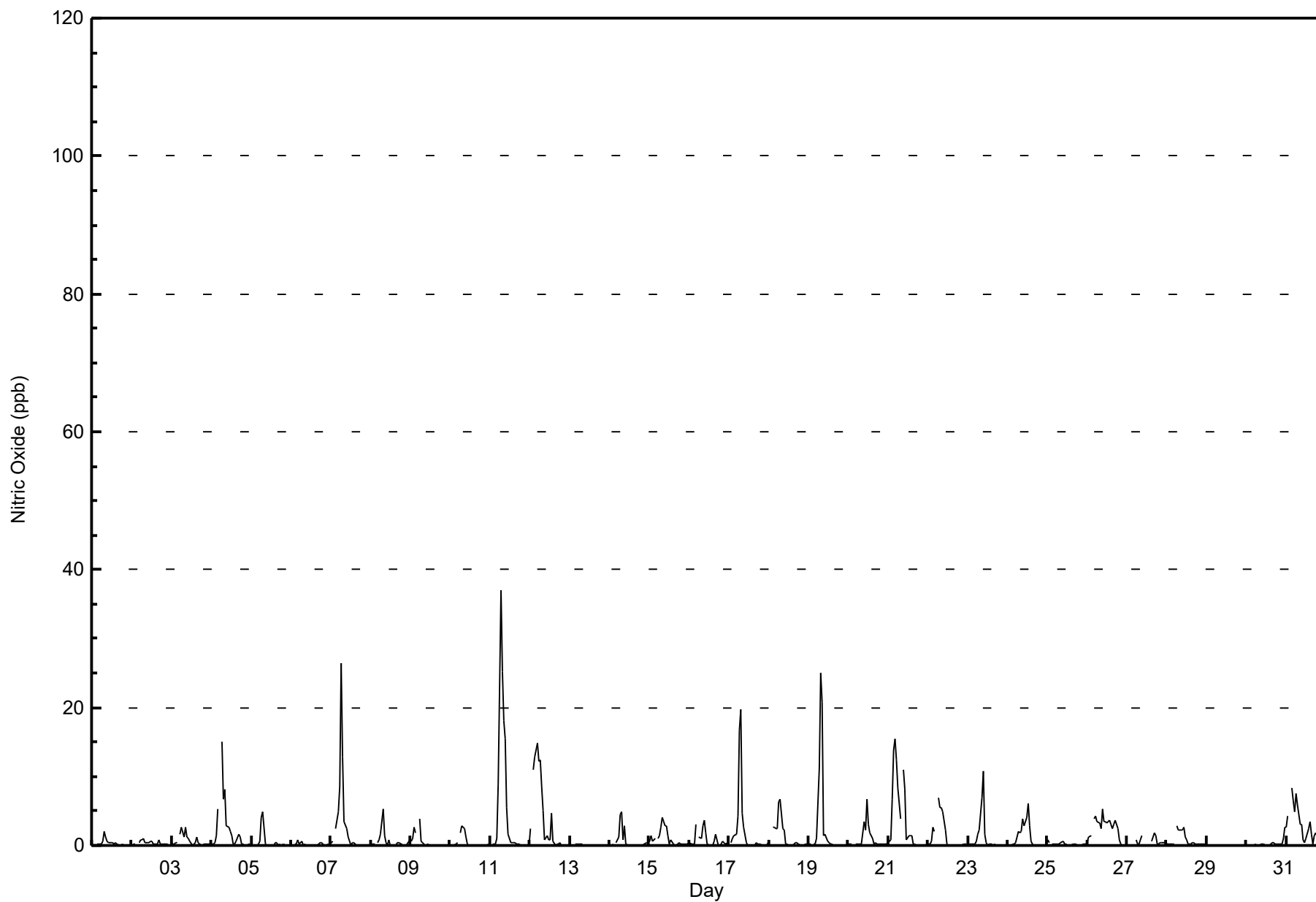
Fort McKay South - July 2026

Maximum Value: 37.0 ppb on Jul 11 07:00																				Maximum Daily Average: 5.0 ppb on Jul 11						Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 1 20:00																				Minimum Daily Average: 0.0 ppb on Jul 29						Hours of Data: 705	
Maximum Diurnal Average: 5.8 ppb at hour 7																				Minimum Diurnal Average: 0.1 ppb at hour 22						Hours of Missing Data: 39	
Monthly Average: 1.36 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 1.1 P ₉₀ = 3.4 P ₉₉ = 16.6						Hours of Calibration: 36	
																										Percent Operational Time: 99.6	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.1	0.1	Z	0.1	0.2	0.2	0.6	2.0	1.3	0.6	0.4	0.4	0.4	0.3	0.4	0.2	0.1	0.0	0.2	0.0	0.0	0.1	0.1	0.1	0.3	2.0	
2-Jul	0.1	0.1	0.2	Z	0.5	0.8	0.7	1.1	0.3	0.4	0.4	0.7	0.6	0.3	0.2	0.1	0.8	0.3	0.1	0.2	0.2	0.1	0.1	0.1	0.4	1.1	
3-Jul	0.1	0.2	0.3	0.5	Z	1.6	2.7	1.2	2.7	1.2	0.9	0.7	0.0	0.1	0.3	1.1	0.4	0.2	0.0	0.2	0.2	0.1	0.2	0.2	0.7	2.7	
4-Jul	0.2	0.2	0.4	1.5	5.3	Z	15.1	6.6	8.1	2.8	2.6	2.0	1.5	0.1	0.1	0.6	1.7	1.1	0.2	0.2	0.0	0.1	0.1	0.1	2.2	15.1	
5-Jul	Z	0.1	0.1	0.1	0.1	0.7	4.0	4.9	0.2	0.1	0.0	0.0	0.0	0.0	0.3	0.4	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.5	4.9	
6-Jul	0.0	Z	0.2	0.2	0.8	0.3	0.6	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.4	0.2	0.0	0.1	0.1	0.3	0.2	0.8	
7-Jul	0.4	0.5	Z	2.5	4.8	8.5	26.5	12.9	3.4	2.4	1.3	0.7	0.0	0.3	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	26.5	
8-Jul	0.1	0.1	0.1	Z	0.4	0.8	1.7	5.3	1.5	0.3	0.1	0.8	0.1	0.0	0.0	0.0	0.3	0.5	0.3	0.1	0.0	0.0	0.2	0.7	0.6	5.3	
9-Jul	0.6	1.1	2.6	1.9	Z	3.8	0.7	0.5	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	3.8	
10-Jul	0.0	0.0	0.1	0.2	0.4	Z	1.8	2.8	2.4	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	2.8	
11-Jul	Z	0.3	0.2	0.2	1.1	9.0	37.0	25.2	18.2	15.5	5.5	1.7	0.5	0.4	0.4	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.1	0.1	5.0	37.0	
12-Jul	2.5	Z	10.9	12.8	14.8	12.2	12.4	8.6	5.0	0.9	1.4	0.7	0.8	4.6	0.5	0.0	0.3	0.1	0.4	0.0	0.0	0.0	0.0	0.1	3.9	14.8	
13-Jul	0.1	0.1	Z	0.1	0.1	0.3	0.2	0.3	PF	PF	PF	0.0	0.0	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	
14-Jul	0.0	0.0	0.2	Z	0.4	1.1	4.5	4.9	0.9	2.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.7	4.9	
15-Jul	0.7	1.4	0.7	1.1	Z	1.0	1.4	2.7	4.1	2.8	2.9	1.4	0.2	0.7	0.3	0.0	0.0	0.2	0.4	0.2	0.2	0.2	0.2	0.2	1.0	4.1	
16-Jul	0.3	0.2	0.2	0.2	3.1	Z	1.3	1.1	2.8	3.7	1.8	0.3	0.0	0.0	0.0	0.6	1.6	0.0	0.0	0.1	0.5	0.4	0.3	0.3	0.8	3.7	
17-Jul	Z	0.4	1.1	1.5	1.5	4.3	16.7	19.8	4.6	2.6	0.4	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.2	0.1	0.0	0.0	0.1	0.2	2.4	19.8	
18-Jul	0.7	Z	2.6	2.7	2.4	2.5	6.2	6.7	2.4	2.3	0.1	0.2	0.0	0.0	0.0	0.2	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.2	1.3	6.7	
19-Jul	0.2	0.3	Z	0.2	0.3	1.0	11.2	25.1	20.7	1.4	1.7	0.6	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	2.8	25.1	
20-Jul	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	3.5	2.2	6.7	3.1	1.8	0.9	0.2	0.4	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.9	6.7	
21-Jul	0.4	0.8	6.6	13.8	15.5	12.4	8.4	3.8	Z	10.9	8.1	0.9	1.4	1.4	1.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	3.8	15.5	
22-Jul	0.3	0.2	0.6	2.7	2.0	Z	6.9	5.6	5.4	4.8	2.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	1.4	6.9	
23-Jul	Z	0.1	0.2	0.1	0.2	0.7	1.5	2.3	6.9	10.9	1.6	0.4	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	1.1	10.9	
24-Jul	0.1	Z	0.1	0.1	0.2	0.4	2.0	1.8	2.0	3.8	2.9	4.0	6.0	2.8	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.2	6.0	
25-Jul	0.8	0.3	Z	0.3	0.1	0.2	0.3	0.2	0.5	0.6	0.2	0.1	0.0	0.0	0.0	0.2	0.3	0.2	0.1	0.0	0.1	0.2	0.2	0.2	0.2	0.8	
26-Jul	0.4	1.2	1.5	Z	3.9	4.3	3.4	3.2	2.5	5.3	3.5	3.5	3.2	3.6	3.1	2.5	3.1	3.6	2.4	0.8	0.3	0.1	0.1	0.1	2.4	5.3	
27-Jul	0.1	0.1	0.1	0.0	Z	0.8	0.2	0.2	0.8	1.5	C	C	C	C	C	0.7	1.9	1.3	0.2	0.3	0.5	0.4	0.4	0.4	0.5	1.9	
28-Jul	0.2	0.3	0.2	0.2	0.2	Z	2.9	2.2	2.3	2.3	2.7	1.2	0.8	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.8	2.9	
29-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
30-Jul	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.5	0.4	0.2	0.2	0.1	0.2	0.3	1.0	2.6	0.3	2.6	
31-Jul	2.7	4.2	Z	8.4	6.4	4.9	7.4	5.8	3.0	3.1	0.9	0.5	1.1	2.5	3.4	1.7	0.2	1.5	1.9	0.8	0.3	0.1	0.1	0.3	2.7	8.4	
Diurnal Average																											
Diurnal Maximum																											
Z - zerospan C - Calibration PF - Power Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Fort McKay South - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	700	99.29	99.29
21 - 40	5	0.71	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Fort McKay South - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	53	30	16	6	8	14	31	79	70	86	80	74	52	37	29	35	700
21 - 40	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	5
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	54	31	16	6	8	15	31	79	70	86	80	74	52	37	29	37	705

Total Number of Valid Hours: 705

Total Number of Hours: 744



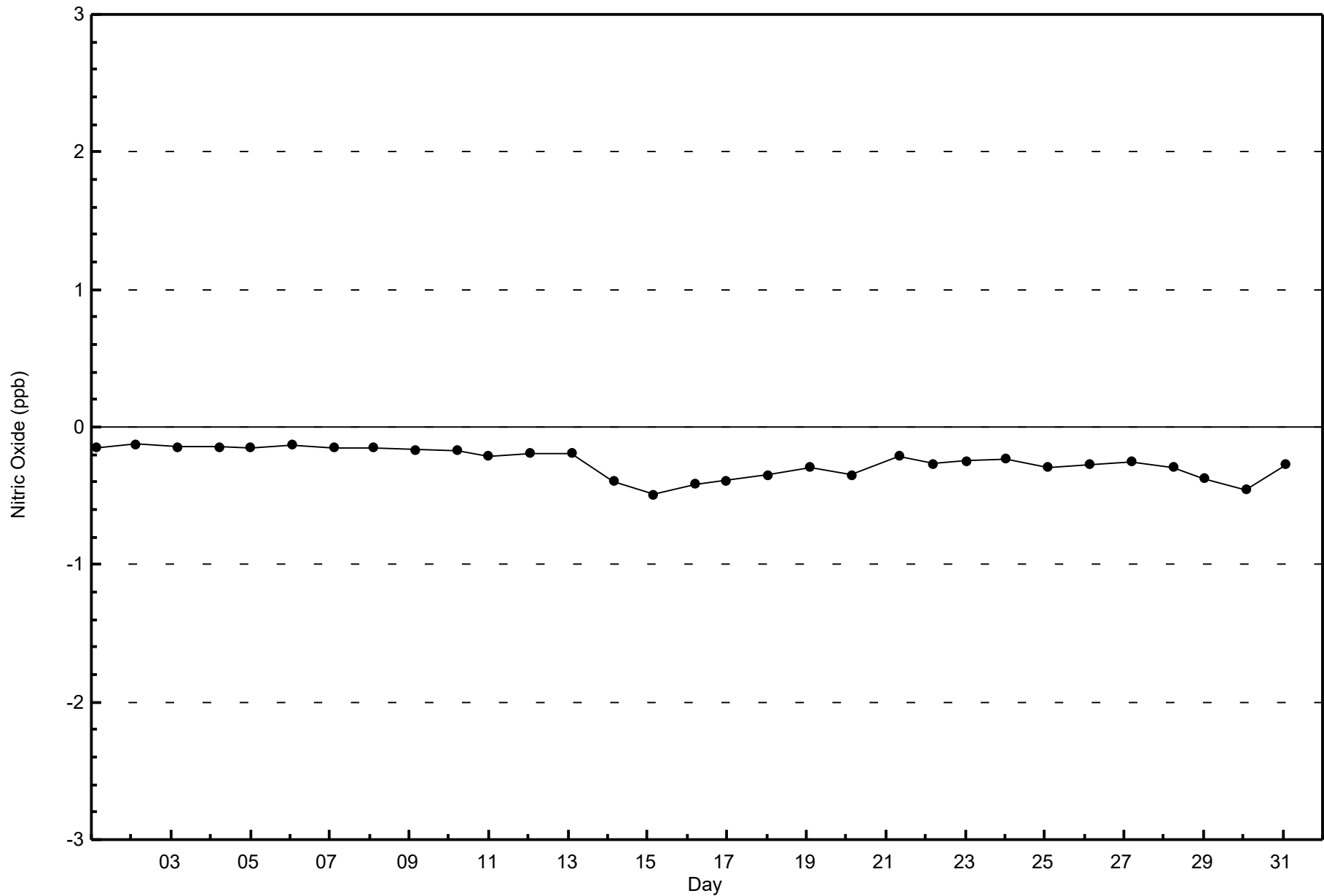
Nitric Oxide (NO) - ppb
Fort McKay South





Wood Buffalo Environmental Association
Zero Responses

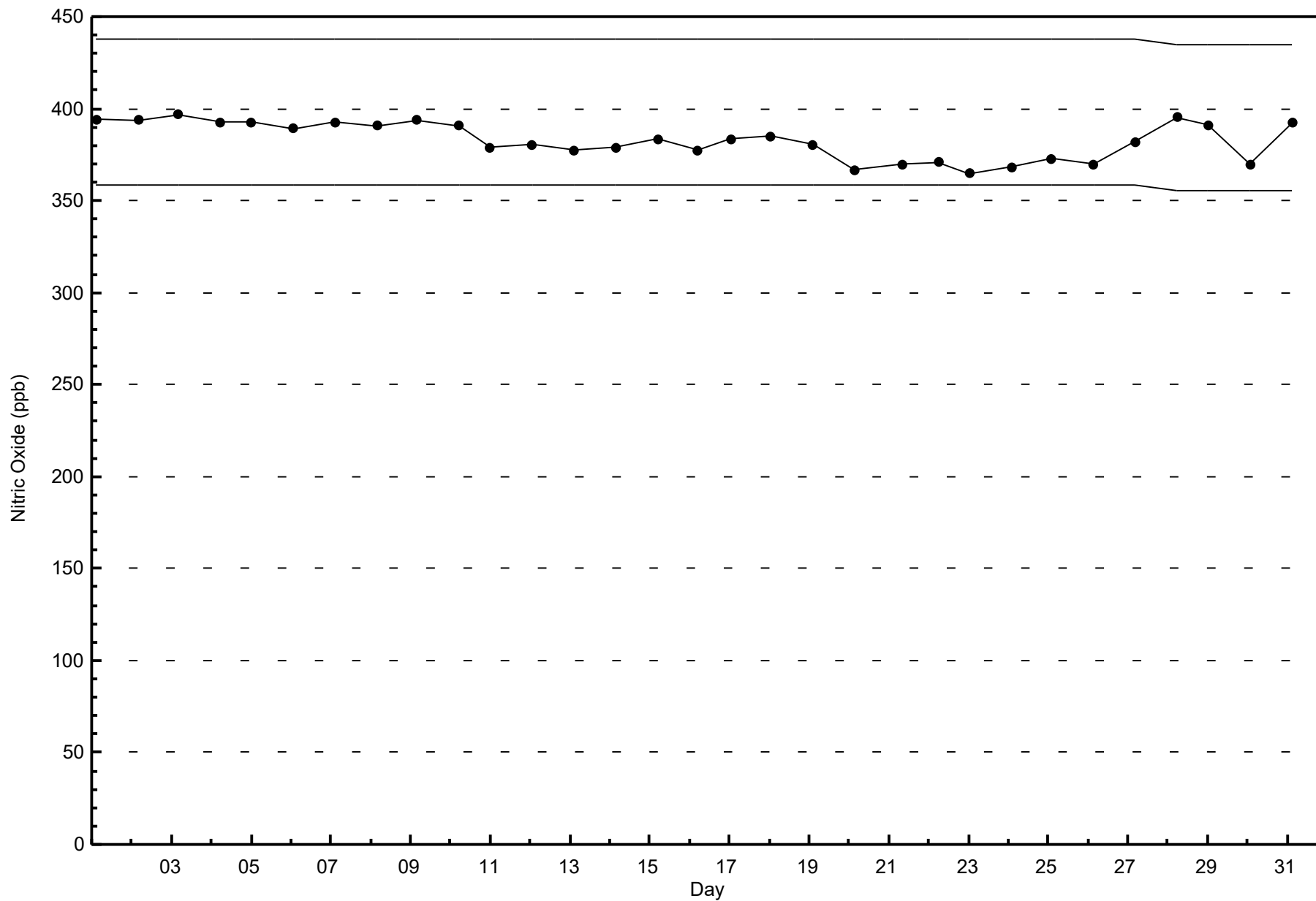
Nitric Oxide (NO) - ppb
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Fort McKay South - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

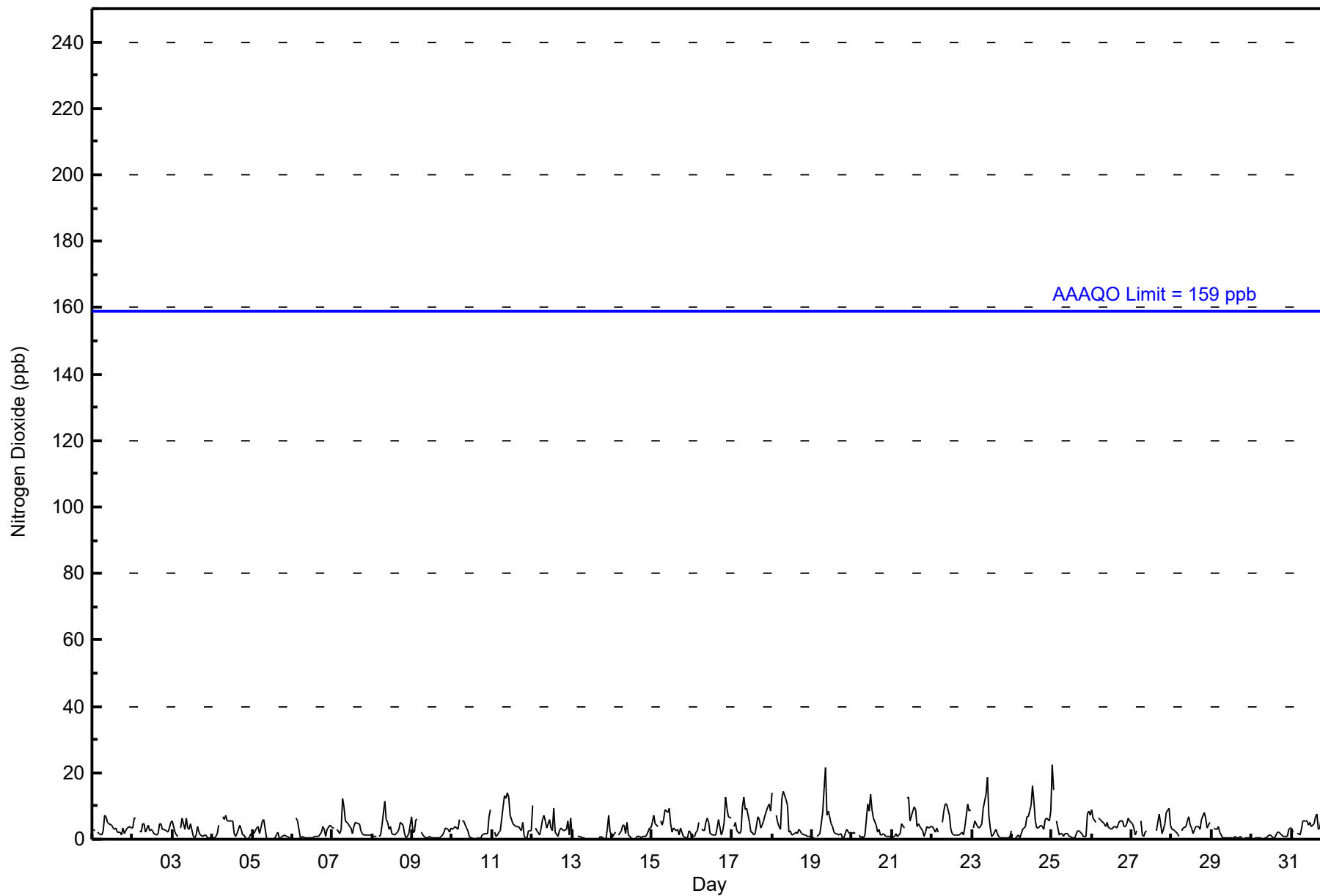
Fort McKay South - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 22.3 ppb on Jul 25 01:00 Maximum Daily Average: 5.7 ppb on Jul 17																		Hours in Service: 744								
Minimum Value: 0.0 ppb on Jul 10 18:00 Minimum Daily Average: 1.0 ppb on Jul 13 Maximum Diurnal Average: 5.8 ppb at hour 10 Minimum Diurnal Average: 2.1 ppb at hour 20 Monthly Average: 3.35 ppb Percentiles: P ₁ = 0.1 P ₁₀ = 0.5 Q ₁ = 1.0 Median = 2.5 Q ₃ = 4.6 P ₉₀ = 7.3 P ₉₉ = 13.9																		Hours of Data: 705								
																		Hours of Missing Data: 39								
																		Hours of Calibration: 36								
																		Percent Operational Time: 99.6								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	3.1	2.7	Z	2.3	1.5	1.1	2.5	7.1	6.6	5.2	4.8	4.2	3.5	2.8	3.6	2.3	2.0	1.2	3.5	1.8	2.5	3.4	3.8	3.4	3.3	7.1
2-Jul	3.2	6.5	6.5	Z	2.7	2.3	4.6	4.7	2.1	4.3	2.7	3.0	2.5	1.5	1.3	1.7	4.5	4.7	3.1	3.0	2.6	2.3	3.6	5.1	3.4	6.5
3-Jul	5.3	2.3	1.3	0.7	Z	3.6	6.4	2.8	6.5	3.3	3.0	4.5	0.9	0.6	1.3	3.8	2.1	1.4	0.7	1.1	1.4	0.6	0.4	0.3	2.4	6.5
4-Jul	0.4	0.6	0.8	1.6	4.3	Z	6.7	5.8	7.3	5.4	5.7	5.4	5.7	1.5	0.7	1.7	4.3	2.8	1.1	1.2	0.4	0.2	0.7	1.6	2.9	7.3
5-Jul	Z	1.8	3.4	3.8	1.9	3.5	5.5	6.0	0.6	0.2	0.2	0.2	0.2	0.3	1.1	2.2	0.4	0.5	0.7	1.4	0.8	1.0	0.4	0.4	1.6	6.0
6-Jul	0.3	Z	6.2	5.7	3.1	0.6	1.0	0.3	0.5	0.4	0.4	0.4	0.6	0.7	0.7	0.7	0.8	2.2	4.0	2.8	0.9	3.0	4.4	3.8	1.9	6.2
7-Jul	3.3	3.2	Z	2.9	1.8	2.8	12.2	9.6	5.6	4.8	3.7	3.2	1.8	3.8	5.2	4.6	4.5	2.5	1.8	1.3	1.2	1.2	1.2	1.1	3.6	12.2
8-Jul	0.9	0.7	0.7	Z	0.9	1.3	4.4	11.5	6.1	5.1	3.1	3.9	1.8	1.3	1.9	2.3	3.1	4.9	4.4	1.6	0.5	0.7	1.8	6.8	3.0	11.5
9-Jul	2.3	2.1	5.9	5.8	Z	2.3	1.3	0.8	0.5	0.4	0.7	0.5	0.6	0.4	0.4	0.3	0.5	1.0	1.4	2.0	3.4	3.0	2.0	3.2	1.8	5.9
10-Jul	3.0	3.5	4.0	3.0	6.1	Z	5.6	5.7	3.5	2.4	0.7	0.5	0.3	0.2	0.2	0.3	0.5	0.0	1.3	1.7	1.8	1.8	6.8	8.8	2.7	8.8
11-Jul	Z	2.3	1.0	1.3	2.0	2.7	9.6	13.1	12.3	13.8	12.5	7.4	4.5	4.3	3.7	3.9	3.7	2.5	5.1	0.8	0.4	0.3	2.7	2.5	4.9	13.8
12-Jul	10.0	Z	3.3	2.5	1.1	3.2	6.0	7.3	5.6	3.6	5.8	3.6	2.5	9.2	2.3	1.0	2.7	3.2	3.1	2.5	3.1	5.6	1.3	6.4	4.1	10.0
13-Jul	1.2	0.9	Z	0.8	0.8	0.9	0.6	0.5	PF	PF	PF	0.1	0.0	0.0	0.0	0.0	0.0	1.0	0.6	0.1	0.0	2.9	7.0	2.2	1.0	7.0
14-Jul	0.9	1.9	2.0	Z	1.2	2.7	4.2	4.3	1.6	5.1	1.4	0.3	0.2	0.2	0.2	0.7	0.9	0.5	1.0	0.7	0.8	1.4	3.6	3.5	1.7	5.1
15-Jul	4.9	7.0	4.5	3.9	Z	5.5	4.4	6.0	8.8	8.1	9.2	4.8	2.2	3.3	2.4	3.0	1.1	3.2	2.2	1.0	0.6	0.5	2.5	2.3	4.0	9.2
16-Jul	0.8	0.8	2.0	2.5	5.1	Z	3.0	2.4	5.0	6.5	5.1	1.7	1.2	1.1	1.2	3.2	5.8	1.2	2.5	5.0	12.9	9.3	6.7	6.2	4.0	12.9
17-Jul	Z	4.0	5.0	2.7	1.7	2.6	9.8	12.5	9.0	9.2	4.9	2.3	2.0	1.3	1.7	6.8	6.0	3.4	4.3	5.7	7.3	9.9	10.7	8.4	5.7	12.5
18-Jul	13.9	Z	7.3	5.2	3.7	3.0	12.2	14.5	11.7	10.0	2.0	2.5	1.3	1.6	2.1	1.7	2.8	2.5	1.6	1.2	1.1	1.0	1.0	0.7	4.5	14.5
19-Jul	0.6	0.4	Z	0.7	1.4	1.9	8.2	15.2	21.7	7.3	8.6	4.6	3.9	2.1	1.9	1.6	1.1	1.8	0.4	0.5	1.9	3.1	1.7	2.0	4.0	21.7
20-Jul	1.6	2.2	1.6	Z	1.4	0.6	0.7	0.6	1.2	10.6	8.5	13.4	9.1	6.5	4.4	2.1	3.1	1.4	1.1	1.6	0.9	1.0	0.8	0.8	3.3	13.4
21-Jul	0.6	1.0	1.8	1.0	1.1	1.6	4.5	3.4	Z	12.4	12.8	5.6	8.6	9.7	9.0	4.0	4.5	3.7	2.5	1.0	2.0	3.7	3.5	3.9	4.4	12.8
22-Jul	3.8	2.9	2.3	3.4	2.0	Z	5.2	8.3	10.4	10.7	7.3	3.1	1.8	1.4	1.4	1.1	1.1	1.5	2.0	1.4	4.0	10.4	8.5	8.7	4.5	10.7
23-Jul	Z	3.6	5.4	3.9	3.5	3.7	4.7	9.2	13.7	18.6	7.0	3.6	1.0	1.4	3.0	1.8	0.7	0.5	0.5	0.5	0.5	0.4	0.5	1.0	3.9	18.6
24-Jul	2.4	Z	0.6	0.9	1.2	0.4	3.0	3.3	3.9	6.7	6.8	10.2	16.1	11.3	5.7	3.3	3.5	4.1	3.9	3.0	5.9	6.2	5.5	8.6	5.1	16.1
25-Jul	22.3	14.8	Z	5.6	1.3	1.7	1.6	1.0	1.8	1.6	0.7	0.7	0.5	0.4	0.5	2.6	2.5	2.2	1.7	1.0	0.8	7.5	8.5	7.3	3.9	22.3
26-Jul	8.9	6.5	5.0	Z	6.4	6.1	5.3	4.7	4.0	5.2	3.4	3.3	3.1	3.7	3.7	3.5	4.6	5.6	5.5	3.8	3.8	4.7	6.4	5.7	4.9	8.9
27-Jul	4.5	3.2	1.3	2.5	Z	5.6	1.3	0.9	2.3	2.4	C	C	C	C	C	2.4	7.6	4.7	1.6	2.9	4.7	8.0	9.4	4.3	3.9	9.4
28-Jul	3.1	3.0	2.6	1.7	0.9	Z	2.6	3.4	4.0	5.3	6.6	4.2	3.6	1.7	3.7	3.9	3.8	2.8	5.8	8.2	6.3	3.3	4.3	5.1	3.9	8.2
29-Jul	Z	3.2	3.1	3.1	3.9	2.3	0.4	0.3	0.4	0.4	0.5	0.5	0.4	0.5	0.9	0.4	0.3	0.8	0.2	0.2	0.3	0.3	0.3	0.3	1.0	3.9
30-Jul	0.4	Z	0.4	0.4	0.5	0.4	0.2	0.2	0.3	0.5	1.2	1.1	0.7	0.4	0.5	2.0	2.0	1.7	1.1	1.0	0.7	1.0	2.8	3.3	1.0	3.3
31-Jul	3.2	2.1	Z	1.7	1.7	1.2	3.1	5.5	5.3	5.7	4.4	5.0	3.9	4.6	6.7	7.5	3.1	3.6	6.4	3.7	1.8	0.9	0.8	0.7	3.6	7.5
4.0 3.2 3.1 2.7 2.3 2.4 4.5 5.5 5.6 5.8 4.6 3.5 2.8 2.6 2.4 2.5 2.7 2.4 2.4 2.1 2.4 3.2 3.7 3.8																								Diurnal Average		
22.3 14.8 7.3 5.8 6.4 6.1 12.2 15.2 21.7 18.6 12.8 13.4 16.1 11.3 9.0 7.5 7.6 5.6 6.4 8.2 12.9 10.4 10.7 8.8																								Diurnal Maximum		
Z - zerospan C - Calibration PF - Power Failure																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Fort McKay South - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	703	99.72	99.72
21 - 40	2	0.28	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Fort McKay South - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	53	31	16	6	8	15	31	79	70	86	80	73	52	37	29	37	703
21 - 40	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	54	31	16	6	8	15	31	79	70	86	80	74	52	37	29	37	705

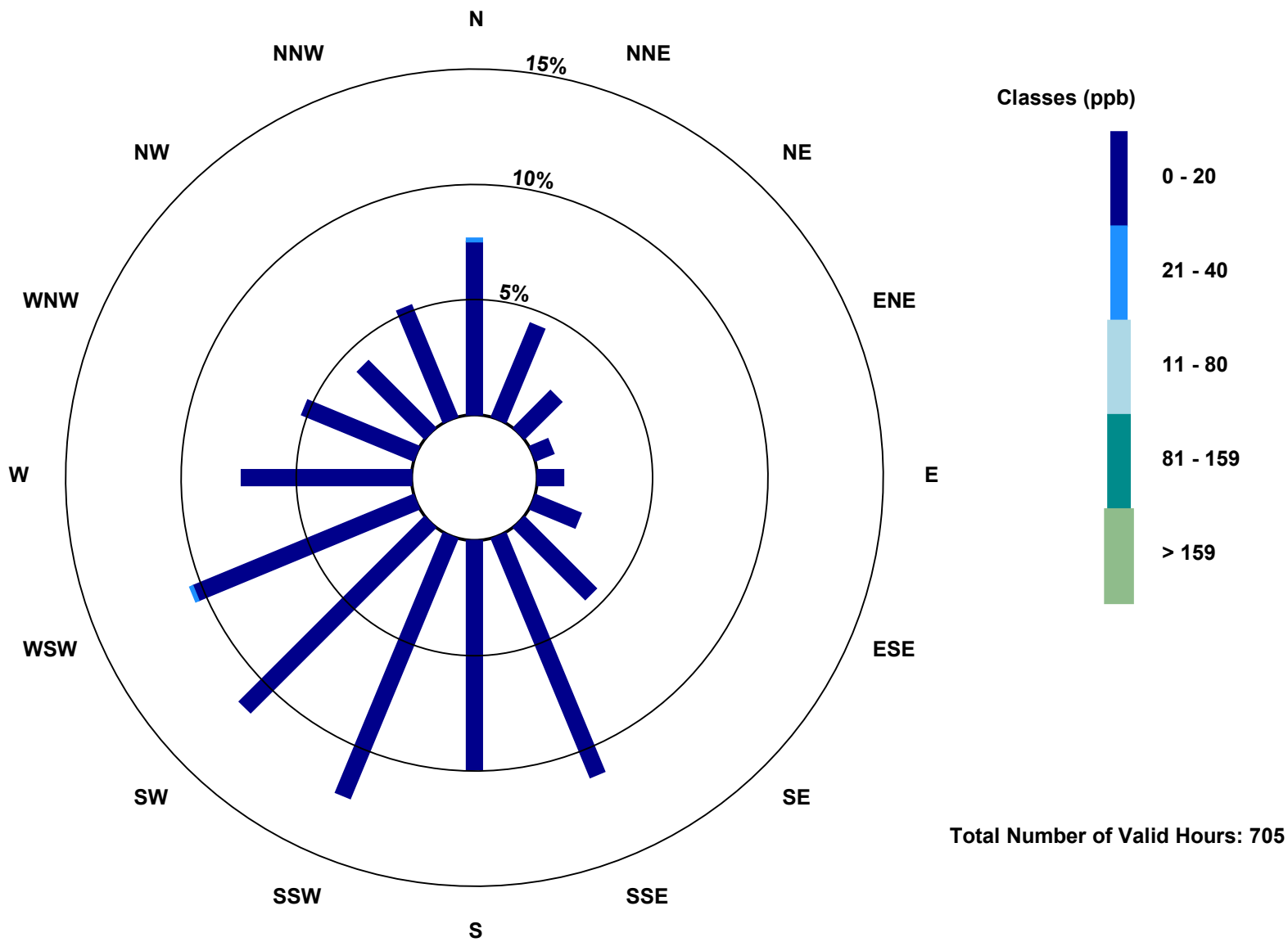
Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

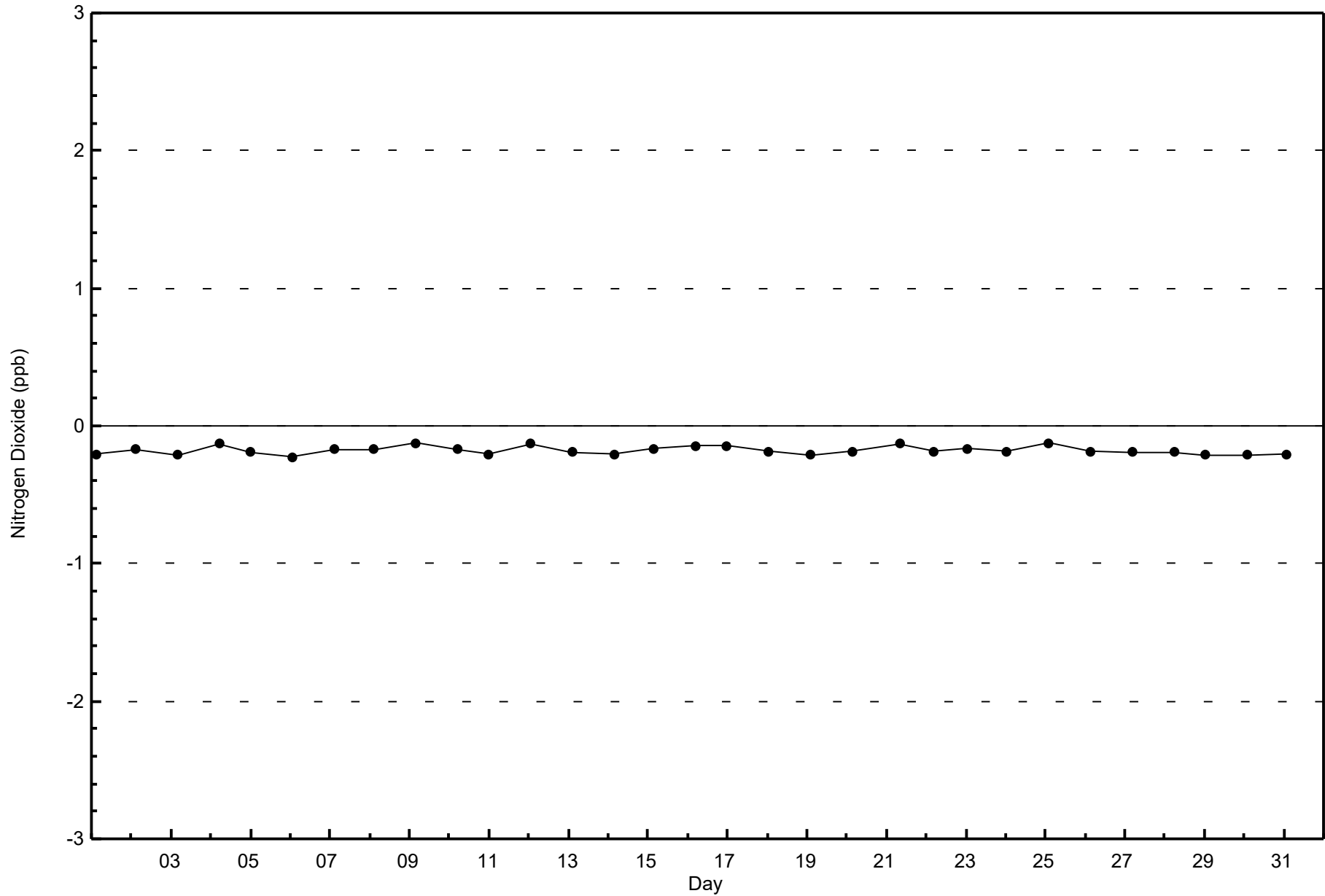
Nitrogen Dioxide (NO₂) - ppb
Fort McKay South

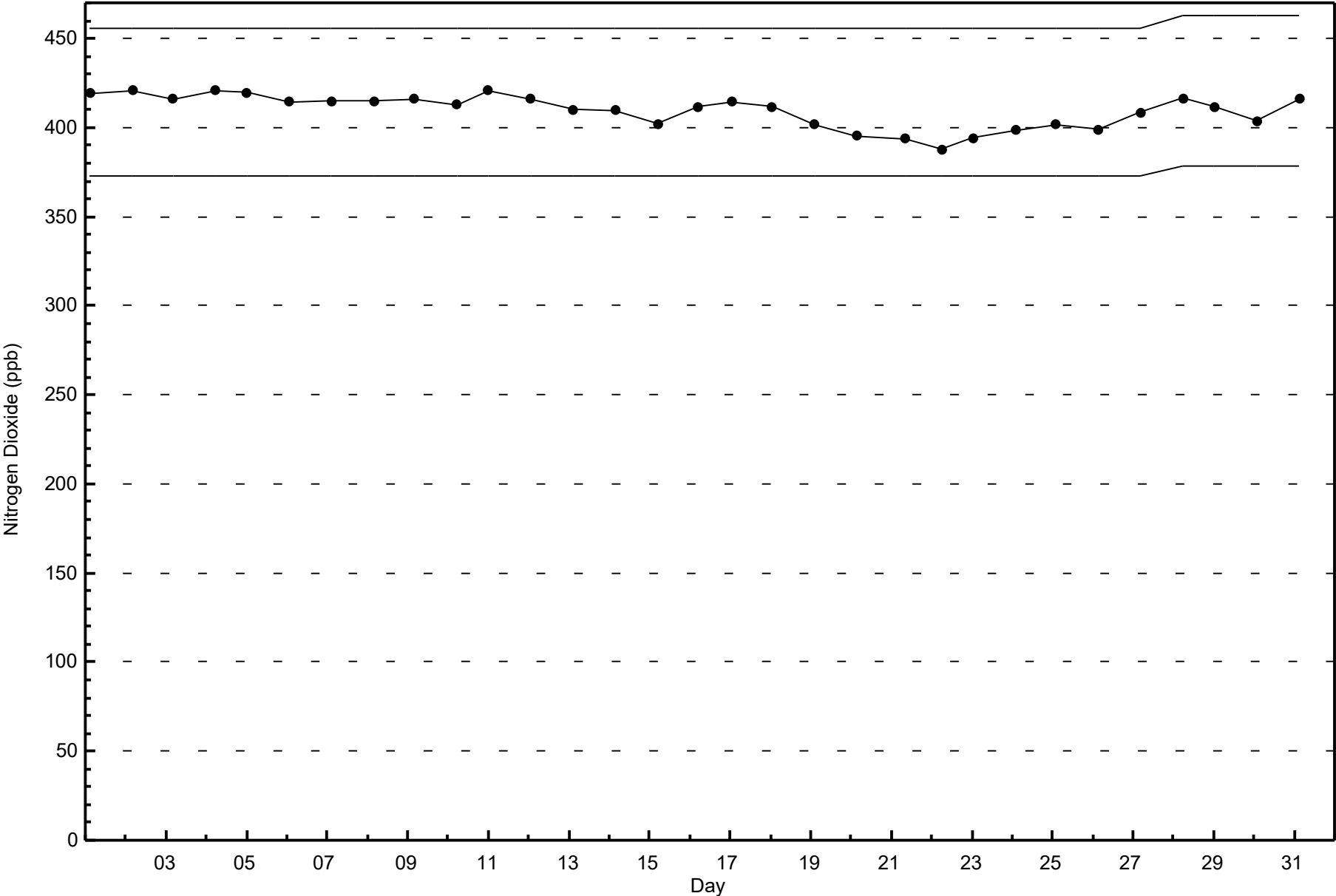




Wood Buffalo Environmental Association
Zero Responses

Nitrogen Dioxide (NO₂) - ppb
Fort McKay South - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

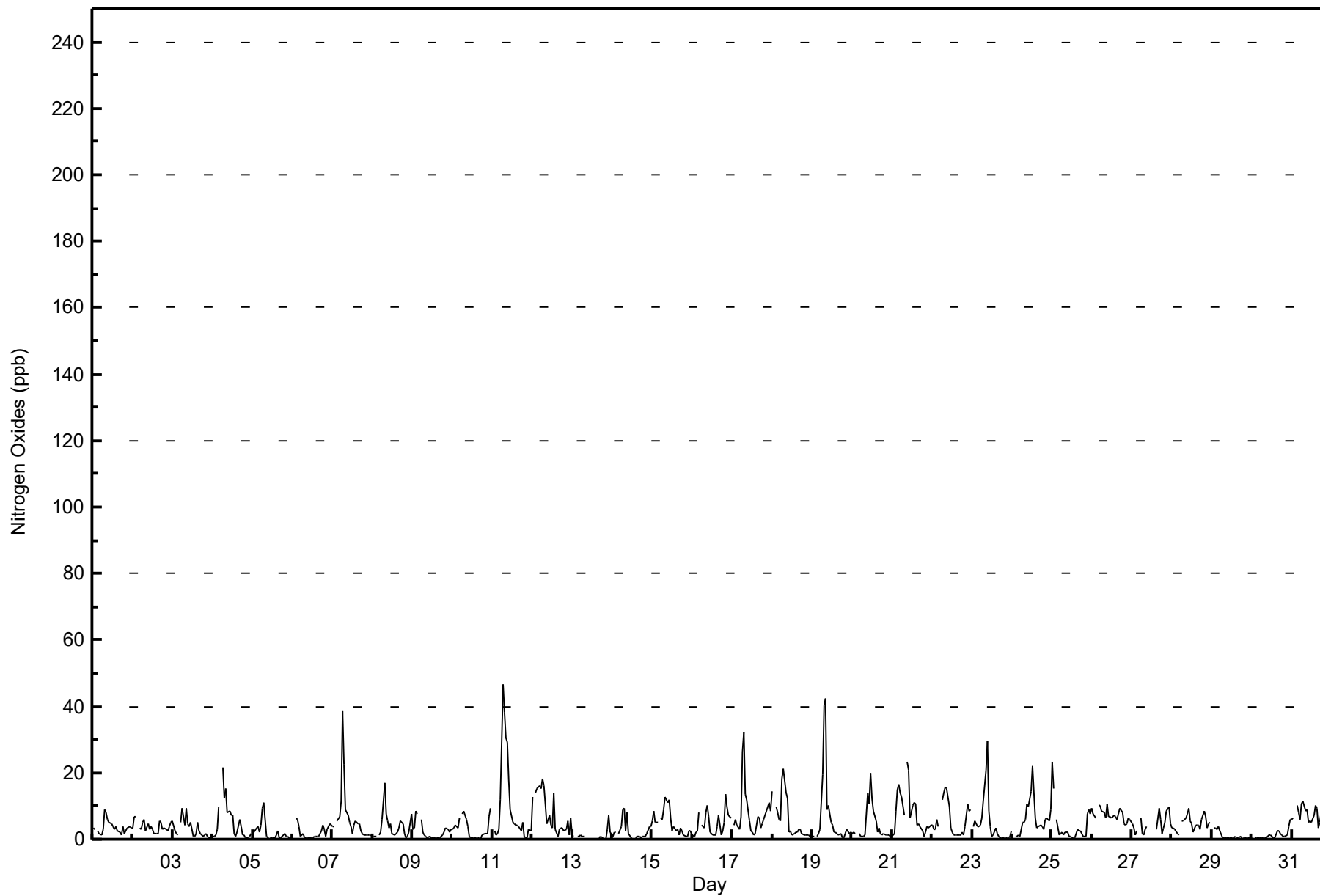
Fort McKay South - July 2026

Maximum Value: 46.6 ppb on Jul 11 07:00																				Maximum Daily Average: 9.9 ppb on Jul 11					Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 10 18:00																				Minimum Daily Average: 1.0 ppb on Jul 29					Hours of Data: 705	
Maximum Diurnal Average: 10.6 ppb at hour 8																				Minimum Diurnal Average: 2.2 ppb at hour 20					Hours of Missing Data: 39	
Monthly Average: 4.71 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.5 Q ₁ = 1.2 Median = 3.1 Q ₃ = 6.1 P ₉₀ = 10.3 P ₉₉ = 29.5					Hours of Calibration: 36	
																				Percent Operational Time: 99.6						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	3.2	2.8	Z	2.4	1.7	1.3	3.1	9.1	7.9	5.8	5.2	4.6	3.9	3.1	4.0	2.5	2.1	1.2	3.7	1.8	2.5	3.5	3.9	3.5	3.6	9.1
2-Jul	3.3	6.6	6.7	Z	3.2	3.1	5.3	5.8	2.4	4.7	3.1	3.7	3.1	1.8	1.5	1.8	5.3	5.0	3.2	3.2	2.8	2.4	3.7	5.2	3.8	6.7
3-Jul	5.4	2.5	1.6	1.2	Z	5.2	9.1	4.0	9.2	4.5	3.9	5.2	0.9	0.7	1.6	4.9	2.5	1.6	0.7	1.3	1.6	0.7	0.6	0.5	3.0	9.2
4-Jul	0.6	0.8	1.2	3.1	9.6	Z	21.8	12.4	15.4	8.2	8.3	7.4	7.2	1.6	0.8	2.3	6.0	3.9	1.3	1.4	0.4	0.3	0.8	1.7	5.1	21.8
5-Jul	Z	1.9	3.5	3.9	2.0	4.2	9.5	10.9	0.8	0.3	0.2	0.2	0.2	0.3	1.4	2.6	0.4	0.6	0.8	1.5	0.9	1.1	0.5	0.4	2.1	10.9
6-Jul	0.3	Z	6.4	5.9	3.9	0.9	1.6	0.4	0.6	0.4	0.5	0.4	0.6	0.7	0.7	0.8	0.8	2.6	4.4	3.0	0.9	3.1	4.5	4.1	2.1	6.4
7-Jul	3.7	3.7	Z	5.4	6.6	11.3	38.7	22.5	9.0	7.2	5.0	3.9	1.8	4.1	5.7	4.7	4.5	2.5	1.8	1.3	1.2	1.2	1.2	1.1	6.5	38.7
8-Jul	1.0	0.8	0.8	Z	1.3	2.1	6.1	16.8	7.6	5.4	3.2	4.7	1.9	1.3	1.9	2.3	3.4	5.4	4.7	1.7	0.5	0.7	2.0	7.5	3.6	16.8
9-Jul	2.9	3.2	8.5	7.7	Z	6.1	2.0	1.3	0.8	0.5	0.8	0.5	0.6	0.4	0.4	0.3	0.5	1.0	1.4	2.0	3.4	3.0	2.0	3.2	2.3	8.5
10-Jul	3.0	3.5	4.1	3.2	6.5	Z	7.4	8.5	5.9	3.7	0.9	0.5	0.3	0.2	0.2	0.3	0.5	0.0	1.3	1.7	1.8	1.8	6.8	9.1	3.1	9.1
11-Jul	Z	2.6	1.2	1.5	3.1	11.7	46.6	38.3	30.5	29.3	18.0	9.1	5.0	4.7	4.1	4.3	4.0	2.6	5.1	0.8	0.4	0.3	2.8	2.6	9.9	46.6
12-Jul	12.5	Z	14.2	15.3	15.9	15.4	18.4	15.9	10.6	4.5	7.2	4.3	3.3	13.8	2.8	1.0	3.0	3.3	3.5	2.5	3.1	5.6	1.3	6.5	8.0	18.4
13-Jul	1.3	1.0	Z	0.9	0.9	1.2	0.8	0.8	PF	PF	PF	0.1	0.0	0.0	0.0	0.0	0.0	1.0	0.6	0.1	0.0	2.9	7.0	2.2	1.0	7.0
14-Jul	0.9	1.9	2.2	Z	1.6	3.8	8.7	9.2	2.5	8.0	1.6	0.3	0.2	0.2	0.2	0.7	0.9	0.5	1.0	0.7	0.9	1.6	3.9	3.9	2.4	9.2
15-Jul	5.6	8.4	5.2	5.0	Z	6.5	5.8	8.7	12.9	10.9	12.1	6.2	2.4	4.0	2.7	3.0	1.1	3.4	2.6	1.2	0.8	0.7	2.7	2.5	5.0	12.9
16-Jul	1.1	1.0	2.2	2.7	8.2	Z	4.3	3.5	7.8	10.2	6.9	2.0	1.2	1.1	1.2	3.8	7.4	1.2	2.5	5.1	13.4	9.7	7.0	6.5	4.8	13.4
17-Jul	Z	4.4	6.1	4.2	3.2	6.9	26.5	32.3	13.6	11.8	5.3	2.3	2.0	1.3	1.7	6.8	6.4	3.6	4.5	5.8	7.3	9.9	10.8	8.6	8.0	32.3
18-Jul	14.6	Z	9.9	7.9	6.1	5.5	18.4	21.2	14.1	12.3	2.1	2.7	1.3	1.6	2.1	1.9	3.2	2.8	1.8	1.3	1.2	1.1	1.1	0.9	5.9	21.2
19-Jul	0.8	0.7	Z	0.9	1.7	2.9	19.4	40.3	42.4	8.7	10.3	5.2	4.3	2.3	2.0	1.6	1.1	1.8	0.4	0.5	1.9	3.1	1.8	2.1	6.8	42.4
20-Jul	1.7	2.3	1.7	Z	1.5	0.7	0.8	0.7	1.4	14.1	10.7	20.1	12.2	8.3	5.3	2.3	3.5	1.6	1.2	1.8	1.1	1.2	1.1	1.1	4.2	20.1
21-Jul	1.0	1.8	8.4	14.8	16.6	14.0	12.9	7.2	Z	23.3	20.9	6.5	10.0	11.1	10.4	4.2	4.6	3.7	2.5	1.0	2.0	3.7	3.6	4.0	8.2	23.3
22-Jul	4.1	3.1	2.9	6.1	4.0	Z	12.1	13.9	15.8	15.5	9.6	3.4	1.9	1.4	1.4	1.1	1.1	1.5	2.0	1.4	4.0	10.5	8.6	8.9	5.8	15.8
23-Jul	Z	3.7	5.6	4.0	3.7	4.4	6.2	11.5	20.6	29.5	8.6	4.0	1.0	1.5	3.2	1.9	0.8	0.5	0.5	0.5	0.5	0.5	0.5	1.0	5.0	29.5
24-Jul	2.5	Z	0.7	1.0	1.4	0.8	5.0	5.1	5.9	10.5	9.7	14.2	22.1	14.1	6.3	3.5	3.6	4.1	3.9	3.0	5.9	6.2	5.6	8.8	6.3	22.1
25-Jul	23.1	15.1	Z	5.9	1.4	1.9	1.9	1.2	2.3	2.2	0.9	0.8	0.5	0.4	0.5	2.8	2.8	2.4	1.8	1.0	0.9	7.7	8.7	7.5	4.1	23.1
26-Jul	9.3	7.7	6.5	Z	10.3	10.4	8.7	7.9	6.5	10.5	6.9	6.8	6.3	7.3	6.8	6.0	7.7	9.2	7.9	4.6	4.1	4.8	6.5	5.8	7.3	10.5
27-Jul	4.6	3.3	1.4	2.5	Z	6.4	1.5	1.1	3.1	3.9	C	C	C	C	C	3.1	9.5	6.0	1.8	3.2	5.2	8.4	9.8	4.7	4.4	9.8
28-Jul	3.3	3.3	2.8	1.9	1.1	Z	5.5	5.6	6.3	7.6	9.3	5.4	4.4	1.9	4.0	4.2	4.1	3.1	6.1	8.5	6.6	3.5	4.5	5.2	4.7	9.3
29-Jul	Z	3.3	3.2	3.2	4.0	2.4	0.4	0.4	0.5	0.4	0.5	0.5	0.4	0.5	0.9	0.4	0.3	0.8	0.2	0.2	0.3	0.3	0.3	0.3	1.0	4.0
30-Jul	0.4	Z	0.5	0.5	0.6	0.5	0.3	0.3	0.3	0.6	1.4	1.2	0.7	0.4	0.5	2.5	2.4	1.9	1.3	1.1	0.9	1.3	3.8	5.9	1.3	5.9
31-Jul	5.9	6.3	Z	10.1	8.1	6.1	10.5	11.3	8.3	8.8	5.3	5.5	5.0	7.1	10.1	9.2	3.3	5.1	8.3	4.5	2.1	1.0	0.9	1.0	6.2	11.3
4.5 3.7 4.3 4.7 4.8 5.2 10.3 10.6 9.1 8.8 6.2 4.4 3.5 3.2 2.8 2.8 3.1 2.7 2.7 2.2 2.5 3.3 3.8 4.1																									Diurnal Average	
23.1 15.1 14.2 15.3 16.6 15.4 46.6 40.3 42.4 29.5 20.9 20.1 22.1 14.1 10.4 9.2 9.5 9.2 8.3 8.5 13.4 10.5 10.8 9.1																									Diurnal Maximum	
Z - zerospan C - Calibration PF - Power Failure																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Fort McKay South - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	687	97.45	97.45
21 - 40	16	2.27	99.72
41 - 80	2	0.28	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Fort McKay South - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	51	30	15	5	8	12	31	75	68	86	80	73	52	37	29	35	687
21 - 40	2	1	1	1	0	3	0	4	2	0	0	1	0	0	0	1	16
11 - 80	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	54	31	16	6	8	15	31	79	70	86	80	74	52	37	29	37	705

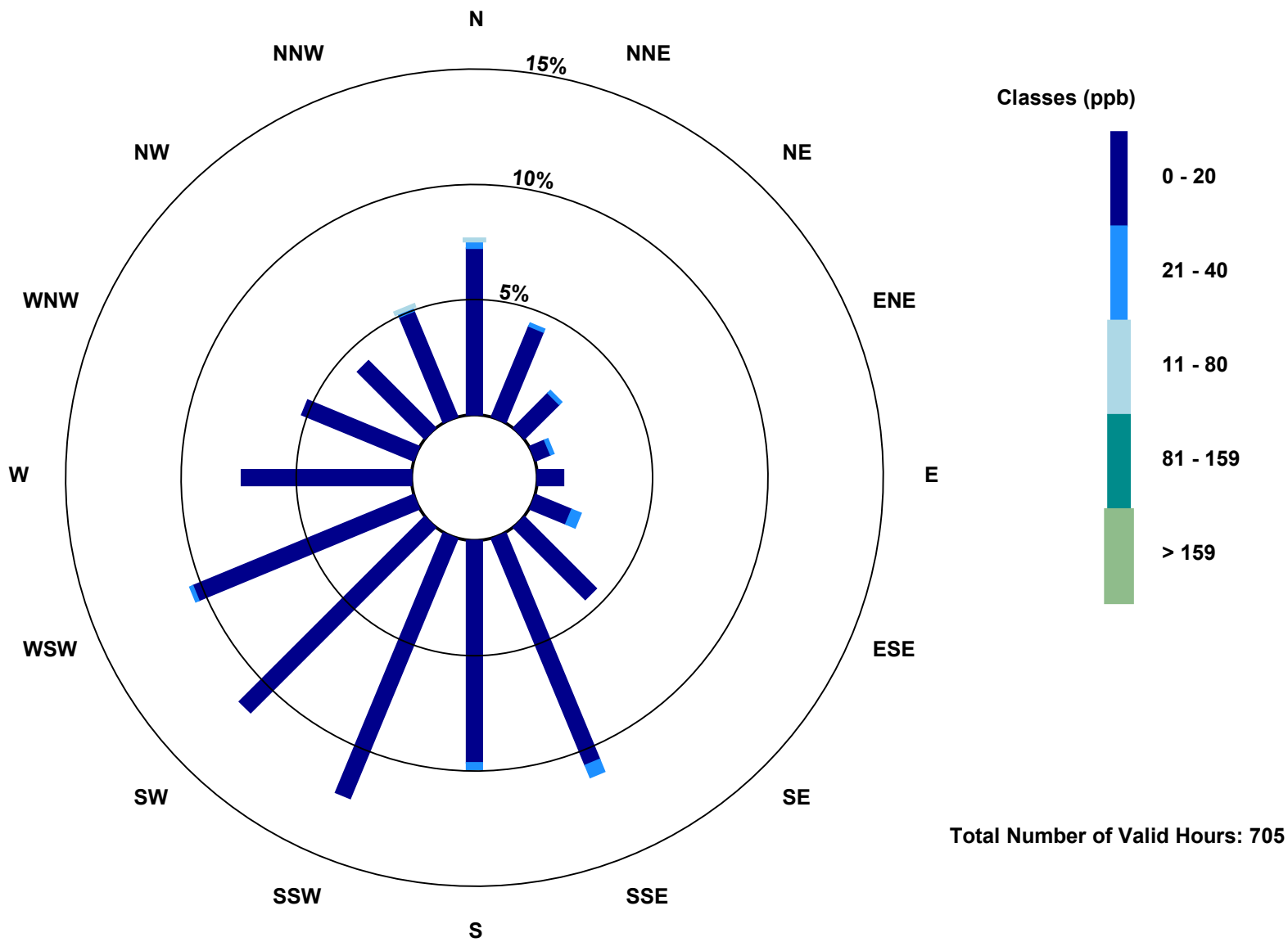
Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

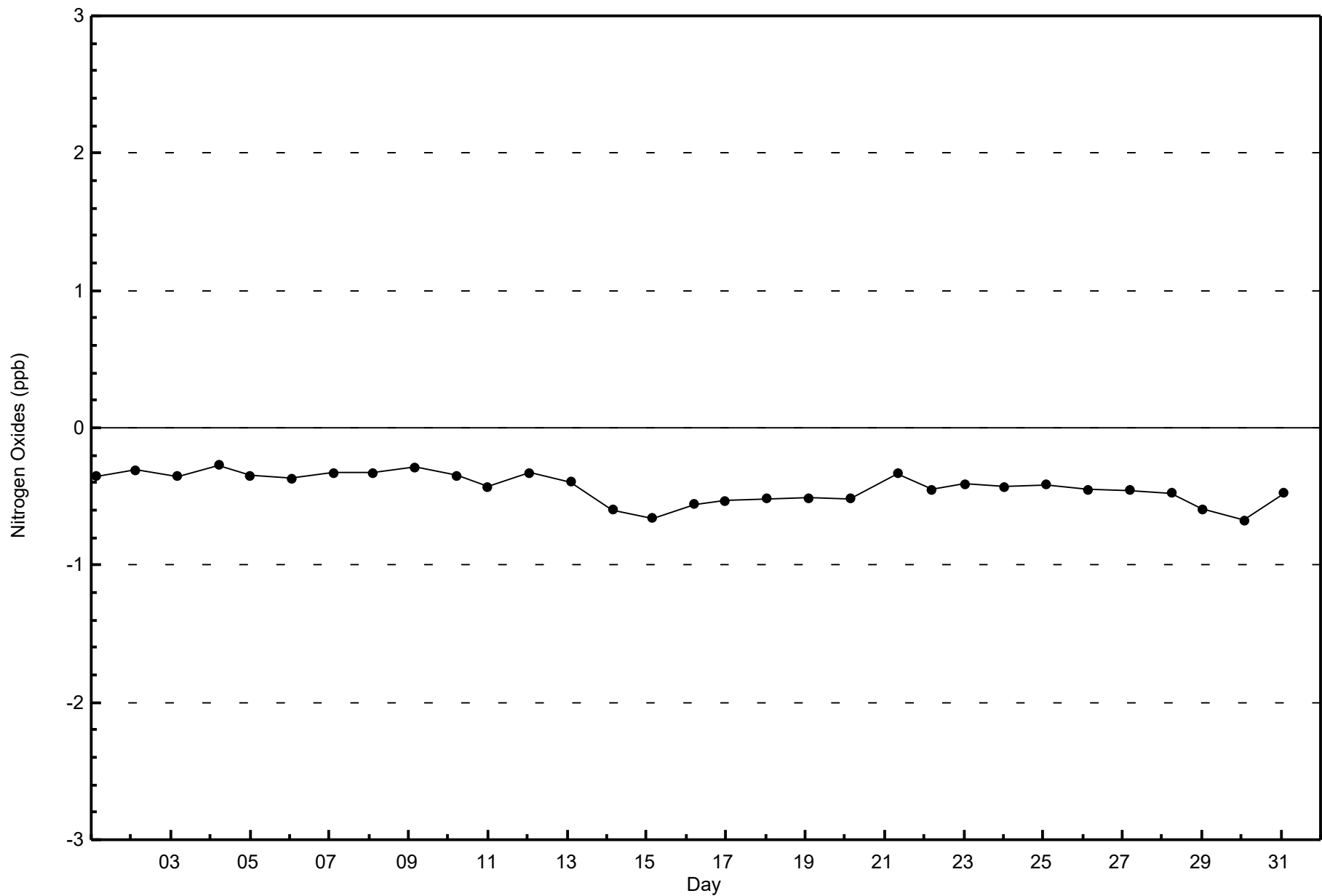
Nitrogen Oxides (NO_x) - ppb
Fort McKay South





Wood Buffalo Environmental Association
Zero Responses

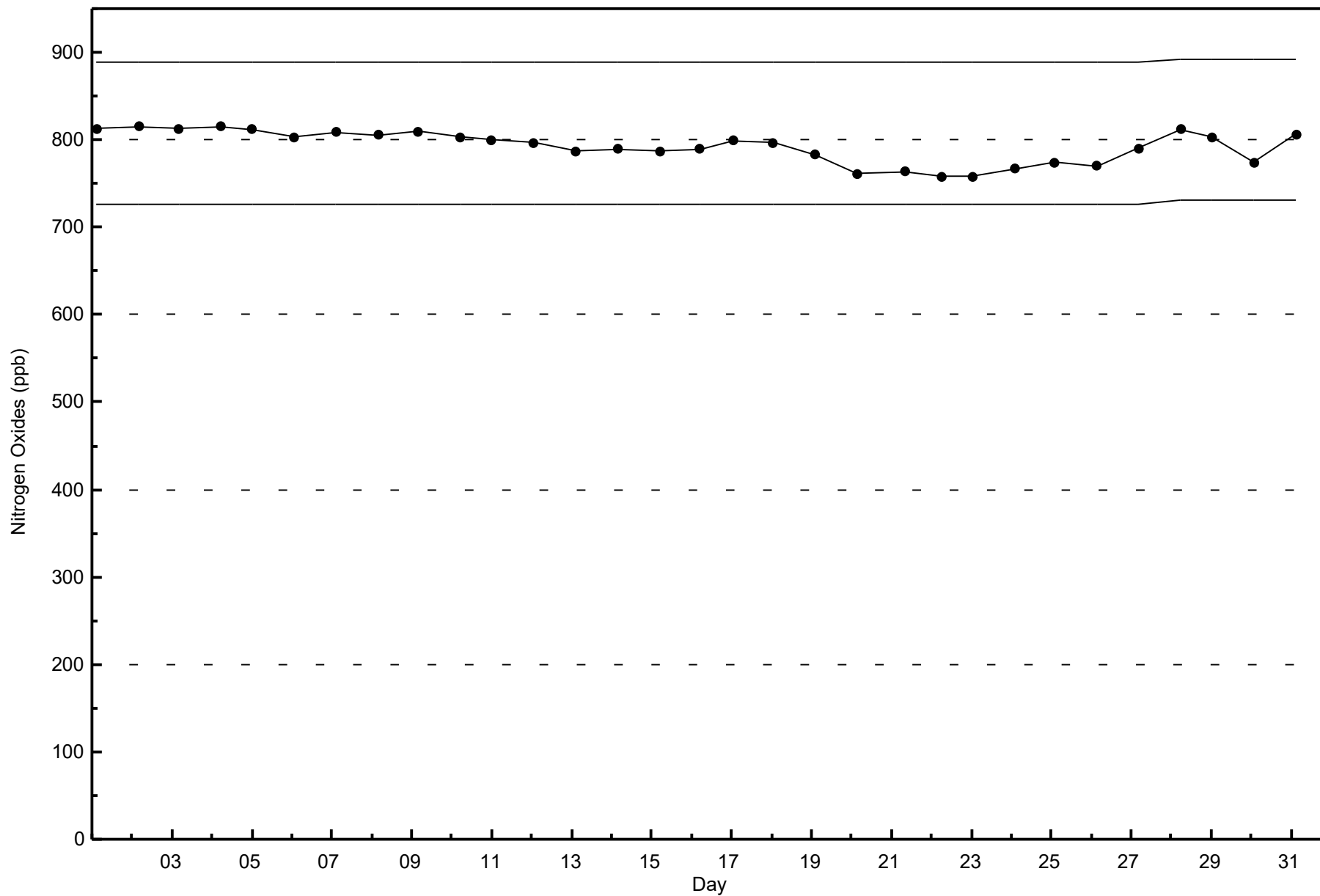
Nitrogen Oxides (NO_x) - ppb
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Fort McKay South - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

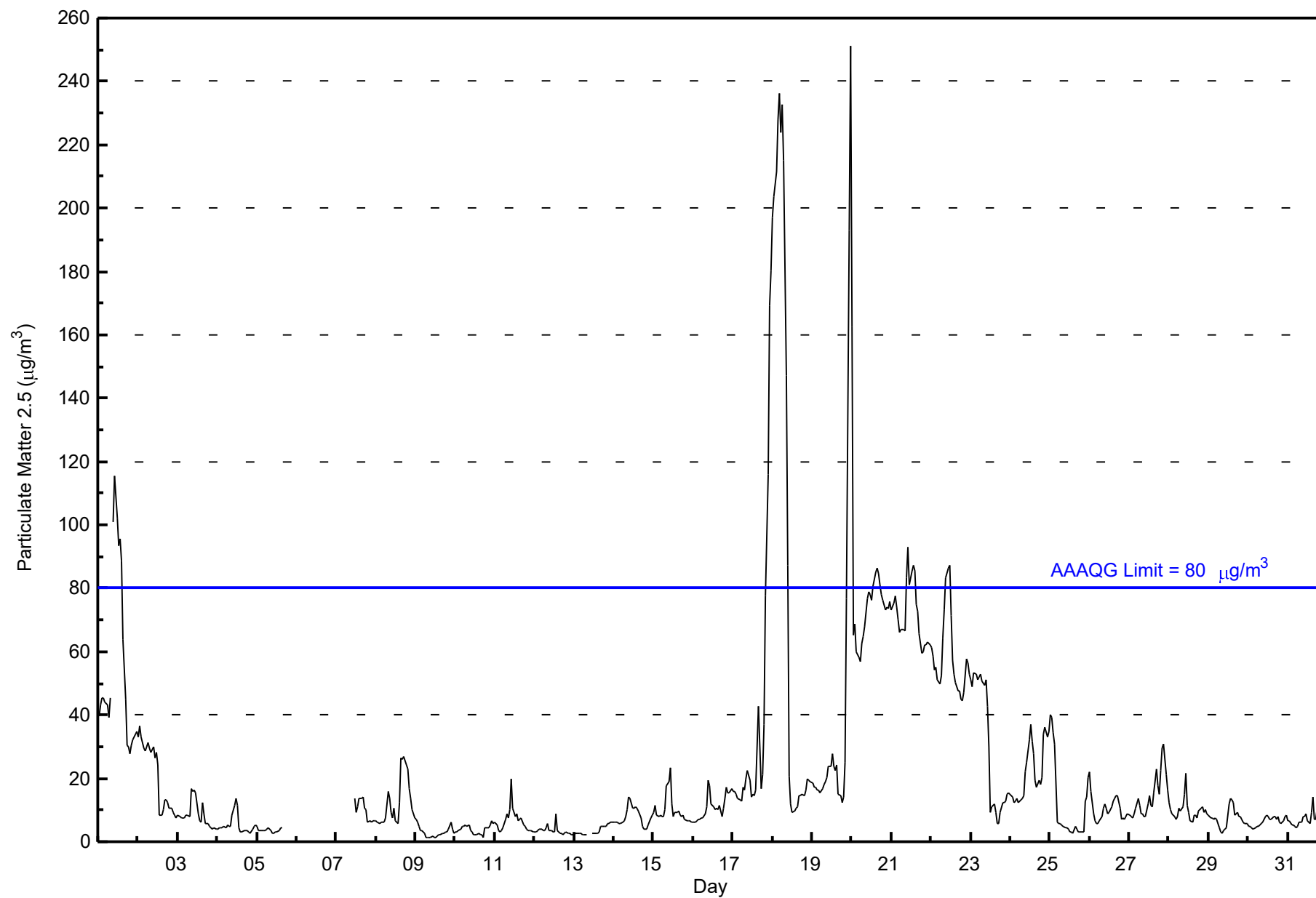
Fort McKay South - July 2026

Number of Exceedances (AAAQO): 1-hr: 36 24-hr: 8 Maximum Value: 251.4 µg/m³ on Jul 20 00:00 Maximum Daily Average: 91.2 µg/m³ on Jul 18																					Hours in Service: 744 Hours of Data: 697 Hours of Missing Data: 47 Hours of Calibration: 0 Percent Operational Time: 93.7					
Minimum Value: 1.3 µg/m³ on Jul 10 18:00 Minimum Daily Average: 3.0 µg/m³ on Jul 9 Maximum Diurnal Average: 30.5 µg/m³ at hour 24 Minimum Diurnal Average: 15.6 µg/m³ at hour 19 Monthly Average: 22.42 µg/m³ Percentiles: P ₁ = 1.5 P ₁₀ = 3.3 Q ₁ = 5.6 Median = 9.3 Q ₃ = 21.3 P ₉₀ = 62.3 P ₉₉ = 204.0																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	39.6	43.1	45.4	45.4	44.1	43.4	39.3	45.2	DF	100.8	115.3	102.3	93.5	95.6	88.6	63.9	45.0	30.3	30.1	27.8	30.6	32.3	33.9	35.0	55.2	115.3
2-Jul	33.1	36.7	33.0	29.4	28.5	30.0	31.3	29.7	28.2	30.0	26.4	28.0	24.4	8.2	8.2	10.3	13.2	13.3	12.4	10.5	10.4	9.2	8.3	7.7	20.9	36.7
3-Jul	8.2	8.1	7.4	7.4	7.5	8.2	8.3	7.9	16.6	15.7	16.2	15.6	8.8	6.7	6.0	12.2	8.7	5.7	5.6	4.7	4.4	3.9	4.3	3.9	8.4	16.6
4-Jul	4.0	4.5	4.4	4.5	4.8	4.6	5.2	5.0	5.0	8.3	11.3	13.6	11.7	4.4	3.0	2.9	3.6	3.7	3.7	3.2	2.7	3.9	4.7	5.5	5.3	13.6
5-Jul	4.8	3.4	3.5	3.6	3.5	3.5	3.9	4.4	3.4	2.5	2.7	2.9	3.1	3.7	4.2	4.5	UO	UO	UO	UO	UO	UO	UO	UO	--	4.8
6-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
7-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	13.7	9.3	11.2	13.5	13.5	13.9	10.5	9.9	6.3	6.5	6.2	6.7	6.6	--	13.9
8-Jul	6.5	6.2	5.8	6.1	6.2	6.4	7.6	15.7	13.7	9.4	7.3	10.6	6.7	5.6	12.4	26.5	26.0	27.1	24.3	22.8	16.6	13.6	10.1	7.6	12.5	27.1
9-Jul	6.9	6.3	4.6	3.6	3.7	2.7	1.5	1.5	1.4	1.3	1.5	1.3	1.5	1.7	2.2	2.3	2.8	2.7	3.2	3.3	4.1	6.2	3.9	2.5	3.0	6.9
10-Jul	2.9	3.2	3.4	4.1	4.8	4.8	5.3	4.9	5.2	3.5	2.9	2.3	2.1	2.4	2.6	2.4	2.2	1.3	4.6	4.6	4.5	5.4	6.8	5.7	3.8	6.8
11-Jul	6.1	5.1	3.7	3.2	3.4	4.5	6.8	8.6	7.4	10.2	19.8	10.7	8.0	8.8	6.6	7.0	7.4	5.4	5.0	3.9	3.7	3.6	3.4	3.2	6.5	19.8
12-Jul	3.1	3.3	3.7	3.9	3.8	3.7	3.6	4.4	5.9	3.7	3.4	3.2	3.2	8.7	3.3	2.6	2.5	2.4	2.6	3.1	2.9	2.5	2.2	2.2	3.5	8.7
13-Jul	2.4	2.6	2.7	2.6	2.6	2.4	2.1	2.1	PF	PF	PF	2.6	2.6	2.7	2.9	3.2	5.1	4.7	4.7	5.0	5.8	5.9	6.4	6.0	3.7	6.4
14-Jul	6.2	6.3	6.2	5.9	5.8	6.1	6.5	7.7	10.2	14.3	13.7	10.5	10.6	10.9	10.5	9.9	7.7	4.7	4.1	4.0	4.1	5.3	7.4	8.2	7.8	14.3
15-Jul	9.3	11.5	8.2	8.1	8.4	8.1	7.8	10.1	17.4	18.8	23.3	12.0	7.9	9.1	9.2	9.5	8.2	8.1	8.3	6.8	6.4	6.8	6.6	6.0	9.8	23.3
16-Jul	6.2	6.1	6.6	7.2	7.1	7.6	7.7	8.8	11.2	19.4	17.5	11.8	11.1	10.1	10.8	10.1	11.4	7.8	10.5	13.8	17.1	15.3	15.3	16.6	11.1	19.4
17-Jul	16.0	16.0	14.8	13.9	13.3	13.0	17.3	16.2	19.7	22.5	19.3	14.0	14.8	14.6	16.1	42.6	29.8	16.8	21.0	36.9	77.4	115.9	169.1	180.5	38.8	180.5
18-Jul	197.0	203.7	211.3	227.9	236.3	224.1	232.8	215.1	147.1	87.1	20.6	11.8	9.4	9.7	10.8	11.0	14.7	14.5	15.2	14.5	16.2	19.6	19.3	19.1	91.2	236.3
19-Jul	18.5	17.2	17.2	16.2	16.3	15.4	16.9	18.3	19.1	20.1	23.8	24.0	27.6	23.9	22.3	24.1	14.8	14.6	12.5	14.0	25.1	76.5	193.0	251.4	38.4	251.4
20-Jul	162.8	65.3	68.8	60.0	58.4	56.7	62.4	64.7	67.7	76.8	78.8	78.1	76.4	80.6	85.0	86.3	84.6	81.1	77.8	76.1	73.1	74.2	73.8	75.8	76.9	162.8
21-Jul	73.1	75.6	77.5	73.9	70.2	66.0	66.8	67.2	66.5	83.5	92.8	81.1	85.6	87.4	85.6	74.8	72.8	65.5	59.3	59.8	62.0	62.2	62.9	62.1	72.3	92.8
22-Jul	61.2	58.6	54.4	55.1	51.2	50.0	52.2	64.3	73.1	83.1	86.4	87.0	71.3	57.4	52.9	50.1	47.4	47.6	44.9	44.4	47.1	57.9	56.3	53.0	58.6	87.0
23-Jul	51.0	48.8	53.3	52.9	51.1	51.8	52.8	50.6	49.6	51.1	42.9	30.0	9.4	10.9	11.8	9.2	5.8	5.7	9.2	12.4	12.4	12.7	15.1	15.6	29.8	53.3
24-Jul	14.9	13.9	12.5	12.9	13.6	12.5	13.2	13.5	14.5	21.9	24.9	32.1	37.0	31.9	27.9	19.2	17.0	19.2	18.1	20.5	33.8	36.0	32.9	34.9	22.0	37.0
25-Jul	39.9	39.4	34.2	30.9	6.4	5.6	5.7	5.3	4.8	4.4	4.3	3.9	3.1	2.9	2.7	5.0	3.8	3.1	3.3	3.1	3.1	12.7	14.0	20.3	10.9	39.9
26-Jul	22.0	15.7	8.6	6.6	5.6	5.7	6.5	8.0	10.4	11.7	10.8	8.9	9.3	10.9	12.8	13.8	14.7	14.6	10.7	7.2	7.5	7.2	8.0	8.9	10.3	22.0
27-Jul	8.4	8.0	7.7	8.9	10.7	13.7	11.3	8.8	8.7	7.7	7.9	11.8	14.6	11.4	11.1	15.6	23.0	17.8	14.9	22.4	29.6	30.8	21.3	16.3	14.3	30.8
28-Jul	12.2	10.3	8.7	8.1	6.9	7.9	10.5	9.6	10.9	15.2	21.5	11.4	9.0	6.5	6.1	8.2	8.3	7.6	9.9	10.7	10.9	9.4	10.3	9.0	10.0	21.5
29-Jul	8.3	7.6	7.4	7.2	7.6	7.2	4.6	3.1	2.8	3.4	3.9	4.3	11.7	13.6	13.1	12.4	8.2	9.3	8.1	7.9	6.9	6.2	5.6	5.6	7.3	13.6
30-Jul	5.0	4.7	4.4	4.2	4.5	4.7	5.0	5.2	5.6	6.3	7.9	8.2	7.9	7.1	6.9	8.1	7.9	7.2	7.7	6.3	5.9	6.5	7.8	8.3	6.4	8.3
31-Jul	6.8	6.7	5.4	5.3	5.0	4.6	4.9	6.1	6.2	7.9	7.9	8.7	6.4	5.8	9.3	14.0	7.2	7.2	10.6	10.1	8.6	7.7	7.1	7.2	7.4	14.0
28.8 25.4 25.0 24.8 23.8 23.3 24.1 24.6 23.4 26.4 25.5 21.9 19.9 18.8 18.6 19.2 17.8 15.8 15.6 16.1 18.6 22.6 28.2 30.5																								Diurnal Average		
197.0 203.7 211.3 227.9 236.3 224.1 232.8 215.1 147.1 100.8 115.3 102.3 93.5 95.6 88.6 86.3 84.6 81.1 77.8 76.1 77.4 115.9 193.0 251.4																								Diurnal Maximum		
DF - DAS Failure UO - Unstable Operation PF - Power Failure Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 µg/m³ 24-hr 29 µg/m³																										



Wood Buffalo Environmental Association
Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Fort McKay South - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Number of Hours	%	Cumulative %
0 - 5	173	24.82	24.82
6 - 15	302	43.33	68.15
16 - 25	65	9.33	77.48
26 - 80	121	17.36	94.84
> 81.0	36	5.16	100.00

Total Number of Valid Hours: 697

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Fort McKay South - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	1	2	3	0	0	0	1	7	14	39	35	33	20	7	6	5	173
6 - 15	20	21	8	6	4	10	18	38	33	27	34	23	23	22	6	9	302
16 - 25	13	1	1	1	1	3	8	10	8	1	3	2	3	1	5	4	65
26 - 80	13	4	0	1	1	1	3	14	18	20	8	15	4	3	6	10	121
> 81.0	3	0	2	0	0	0	2	10	3	2	1	3	0	3	2	5	36
Totals	50	28	14	8	6	14	32	79	76	89	81	76	50	36	25	33	697

Total Number of Valid Hours: 697

Total Number of Hours: 744



Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Fort McKay South





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

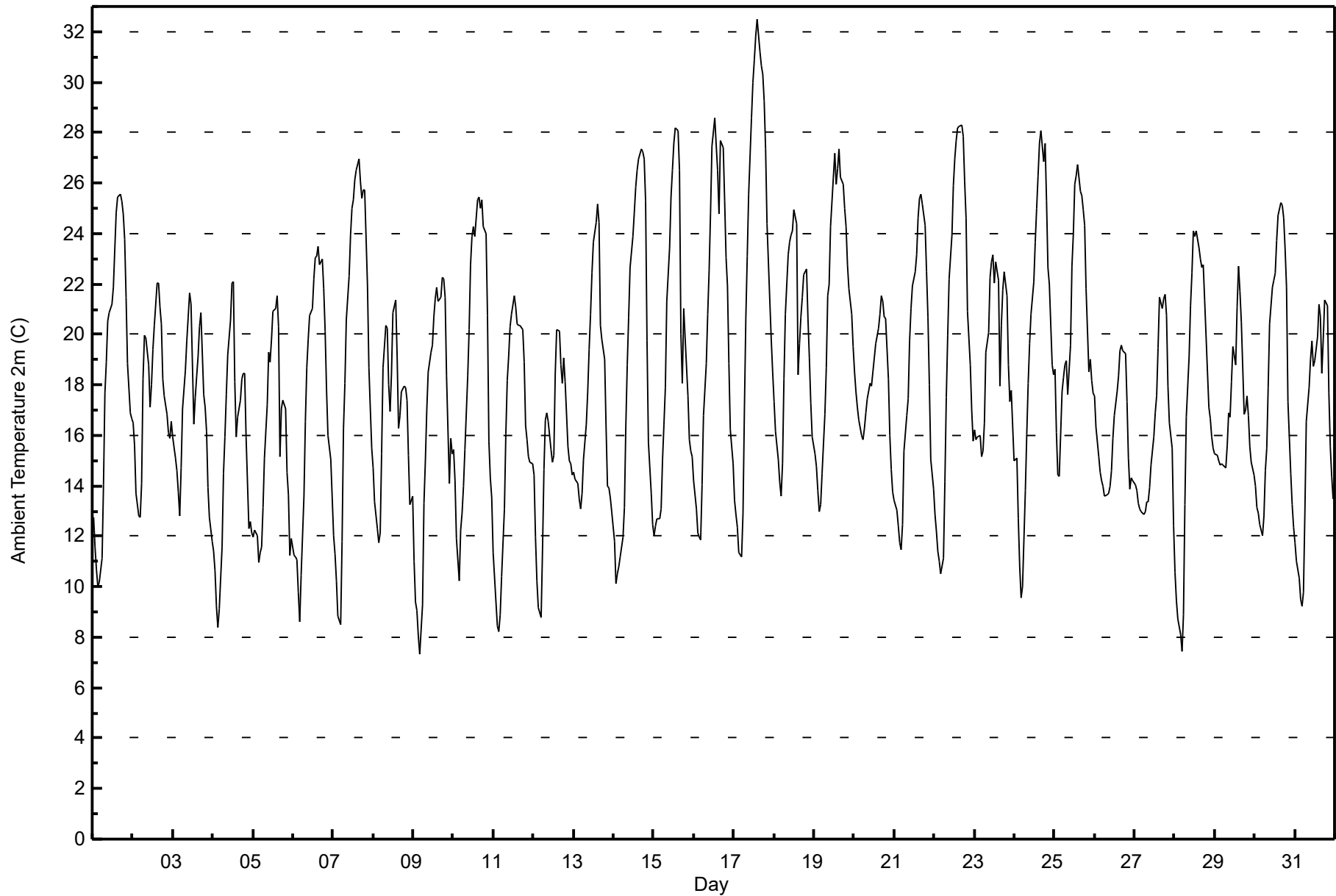
Fort McKay South - July 2026

Maximum Value: 32.5 C on Jul 17 15:00																			Maximum Daily Average: 22.8 C on Jul 17						Hours in Service: 744			
Minimum Value: 7.3 C on Jul 9 05:00																			Minimum Daily Average: 15.4 C on Jul 4						Hours of Data: 744			
Maximum Diurnal Average: 23.3 C at hour 15																			Minimum Diurnal Average: 11.7 C at hour 5						Hours of Missing Data: 0			
Monthly Average: 18.12 C																			Percentiles: P ₁ = 8.6 P ₁₀ = 11.9 Q ₁ = 14.4 Median = 17.9 Q ₃ = 21.5 P ₉₀ = 25.2 P ₉₉ = 29.0						Hours of Calibration: 0			
																									Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	12.8	11.6	10.7	10.0	10.2	11.1	14.0	17.7	18.9	20.5	20.9	21.2	21.9	23.4	24.8	25.5	25.6	25.3	24.8	23.8	21.5	18.9	16.9	16.7	18.7	25.6		
2-Jul	16.5	15.6	13.7	12.8	12.7	14.1	18.2	20.0	19.9	18.8	17.1	18.0	19.4	20.4	22.0	22.1	21.1	20.4	18.3	17.6	16.8	16.1	15.9	16.6	17.7	22.1		
3-Jul	15.9	15.1	14.6	13.7	12.8	14.7	17.0	18.6	19.7	20.7	21.7	21.2	16.4	17.5	18.4	19.1	20.3	20.8	17.6	17.1	16.2	13.9	12.8	11.8	17.0	21.7		
4-Jul	11.4	10.6	9.3	8.4	9.1	11.6	14.5	15.9	17.6	19.2	20.6	22.0	22.1	18.1	16.0	16.7	17.4	18.3	18.4	18.4	16.0	12.3	12.6	12.1	15.4	22.1		
5-Jul	12.0	12.3	12.0	11.0	11.3	11.6	13.1	15.1	17.2	19.3	18.9	19.8	20.9	21.0	21.5	20.3	15.2	17.1	17.4	17.1	14.5	13.6	11.3	11.9	15.6	21.5		
6-Jul	11.2	11.2	11.1	9.8	8.6	10.5	13.6	16.6	18.7	19.8	20.8	21.0	22.2	23.0	23.1	23.5	22.8	23.0	21.8	20.1	17.8	16.0	15.0	13.5	17.3	23.5		
7-Jul	12.0	11.3	10.2	8.8	8.5	11.8	16.3	18.1	20.6	22.3	23.9	25.0	25.3	26.1	26.5	26.9	26.0	25.4	25.7	25.7	21.9	18.7	17.1	15.5	19.6	26.9		
8-Jul	14.7	13.4	12.3	11.8	12.1	15.2	18.7	20.4	20.3	18.0	16.9	18.5	20.9	21.4	19.1	16.3	16.8	17.7	18.0	17.9	17.4	15.2	13.2	13.6	16.7	21.4		
9-Jul	11.0	9.4	9.1	8.1	7.3	9.3	13.3	15.0	17.0	18.5	19.3	19.5	20.7	21.4	21.9	21.3	21.5	22.3	22.2	21.5	18.3	14.1	15.9	15.2	16.4	22.3		
10-Jul	15.4	14.2	11.9	10.3	12.2	12.9	14.0	15.4	18.3	20.2	22.8	23.9	24.3	23.9	25.3	25.5	25.0	25.3	24.3	24.0	20.8	15.7	14.3	13.5	18.9	25.5		
11-Jul	11.4	9.4	8.4	8.2	8.9	10.4	13.1	16.0	18.2	19.1	20.3	20.8	21.5	21.1	20.4	20.4	20.4	20.2	18.9	16.4	15.8	15.2	14.9	14.9	16.0	21.5		
12-Jul	14.4	11.9	10.2	9.2	8.8	11.5	14.7	16.6	16.9	16.5	15.5	14.9	15.2	18.4	20.2	20.2	18.8	18.0	19.1	18.1	15.5	15.0	14.9	14.4	15.4	20.2		
13-Jul	14.6	14.3	14.1	13.5	13.1	13.7	15.0	16.4	17.7	19.4	20.8	22.4	23.6	24.5	25.1	24.5	20.4	19.8	19.0	16.3	14.0	13.9	13.5	13.0	17.6	25.1		
14-Jul	11.8	10.1	10.5	10.8	11.2	12.0	13.1	16.4	18.8	20.7	22.6	23.9	24.8	25.9	26.5	27.0	27.3	27.2	27.0	25.3	19.7	15.7	13.7	12.5	18.9	27.3		
15-Jul	12.0	12.4	12.7	12.7	13.1	15.1	16.5	17.9	21.3	23.4	25.5	26.5	27.6	28.2	28.1	26.5	20.0	18.1	21.0	19.9	17.5	15.8	15.4	15.1	19.3	28.2		
16-Jul	14.2	13.1	12.1	12.0	11.9	14.1	16.8	18.8	20.8	22.5	24.8	27.5	28.6	27.5	26.5	24.8	27.7	27.4	25.3	23.0	21.9	18.9	16.2	14.9	20.5	28.6		
17-Jul	13.4	12.9	12.4	11.4	11.2	12.9	17.0	20.6	23.1	25.5	28.6	30.0	30.9	31.9	32.5	31.2	30.7	30.3	29.3	27.4	24.4	21.3	19.8	18.5	22.8	32.5		
18-Jul	17.3	16.2	15.0	14.1	13.6	14.9	18.2	20.8	23.1	23.7	23.9	24.1	25.0	24.4	18.4	19.6	20.7	21.5	22.3	22.6	20.6	19.0	17.3	15.9	19.7	25.0		
19-Jul	15.3	14.8	13.8	13.0	13.3	14.5	16.8	18.7	21.5	22.0	24.3	26.2	27.2	25.9	26.6	27.4	26.2	25.9	25.0	24.3	22.8	21.8	20.8	19.5	21.1	27.4		
20-Jul	18.5	17.7	17.1	16.6	16.0	15.8	16.3	16.9	17.5	18.0	17.9	18.5	19.1	19.6	20.3	20.8	21.6	21.3	20.7	20.6	18.2	16.0	14.7	13.7	18.1	21.6		
21-Jul	13.4	13.0	12.4	11.8	11.5	12.5	15.4	16.8	17.4	19.8	21.0	21.9	22.5	23.2	24.6	25.4	25.6	25.2	24.3	22.5	20.7	18.0	15.1	13.8	18.7	25.6		
22-Jul	12.9	12.2	11.4	11.0	10.5	11.1	14.2	17.5	19.9	22.2	24.0	25.9	27.0	27.7	28.2	28.3	28.3	27.8	26.1	24.6	20.9	18.8	17.0	15.8	20.1	28.3		
23-Jul	16.2	15.8	16.0	16.0	15.1	15.4	16.5	19.3	20.1	22.2	22.9	23.2	22.1	22.9	22.2	18.0	20.3	21.8	22.5	21.5	18.8	17.4	17.8	16.4	19.2	23.2		
24-Jul	15.0	15.1	12.7	10.8	9.6	10.0	13.8	16.1	18.1	19.6	20.8	22.1	23.6	25.0	26.3	27.6	28.1	26.9	27.6	25.3	22.6	22.0	18.8	18.4	19.8	28.1		
25-Jul	18.6	16.1	14.5	14.4	17.8	18.3	18.8	18.9	17.6	19.6	22.7	24.0	25.9	26.3	26.8	25.7	25.5	24.9	24.3	21.8	18.5	19.0	18.2	17.7	20.7	26.8		
26-Jul	17.6	16.3	15.2	14.6	14.2	14.0	13.6	13.6	13.7	14.0	14.6	15.9	16.8	17.7	18.3	19.4	19.6	19.4	19.3	17.4	15.1	13.9	14.3	14.2	15.9	19.6		
27-Jul	14.0	13.8	13.3	13.1	13.0	12.9	13.0	13.3	13.4	13.9	14.8	16.0	16.9	17.5	19.5	21.5	21.0	21.4	21.6	20.8	17.9	16.5	15.5	12.4	16.1	21.6		
28-Jul	10.6	9.5	8.7	8.1	7.5	8.9	13.3	16.7	19.1	21.2	22.4	24.1	23.9	24.1	23.4	23.0	22.6	22.7	21.4	18.5	17.1	16.7	15.9	15.5	17.3	24.1		
29-Jul	15.3	15.2	15.0	14.8	14.9	14.8	14.7	15.6	16.9	16.7	18.1	19.5	18.8	21.1	22.7	21.7	20.5	16.8	17.0	17.6	16.8	15.6	14.9	14.4	17.1	22.7		
30-Jul	14.0	13.1	12.9	12.5	12.0	12.8	14.6	15.5	17.9	20.4	21.9	22.1	22.4	23.7	24.7	25.2	25.1	24.6	23.4	21.9	17.3	14.5	13.2	12.3	18.3	25.2		
31-Jul	11.8	11.0	10.3	9.5	9.2	9.8	12.9	16.5	17.9	19.0	19.7	18.7	18.9	19.9	21.2	20.7	18.5	19.8	21.3	21.1	17.7	15.5	14.4	13.5	16.2	21.3		
14.0 13.2 12.4 11.7 11.7 12.8 15.2 17.1 18.7 19.9 21.0 21.9 22.5 23.0 23.3 23.1 22.6 22.5 22.1 21.0 18.6 16.6 15.5 14.8																										Diurnal Average		
18.6 17.7 17.1 16.6 17.8 18.3 18.8 20.8 23.1 25.5 28.6 30.0 30.9 31.9 32.5 31.2 30.7 30.3 29.3 27.4 24.4 22.0 20.8 19.5																										Diurnal Maximum		



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Fort McKay South - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	27	3.63	3.63
10 - 20	453	60.89	64.52
> 20	264	35.48	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

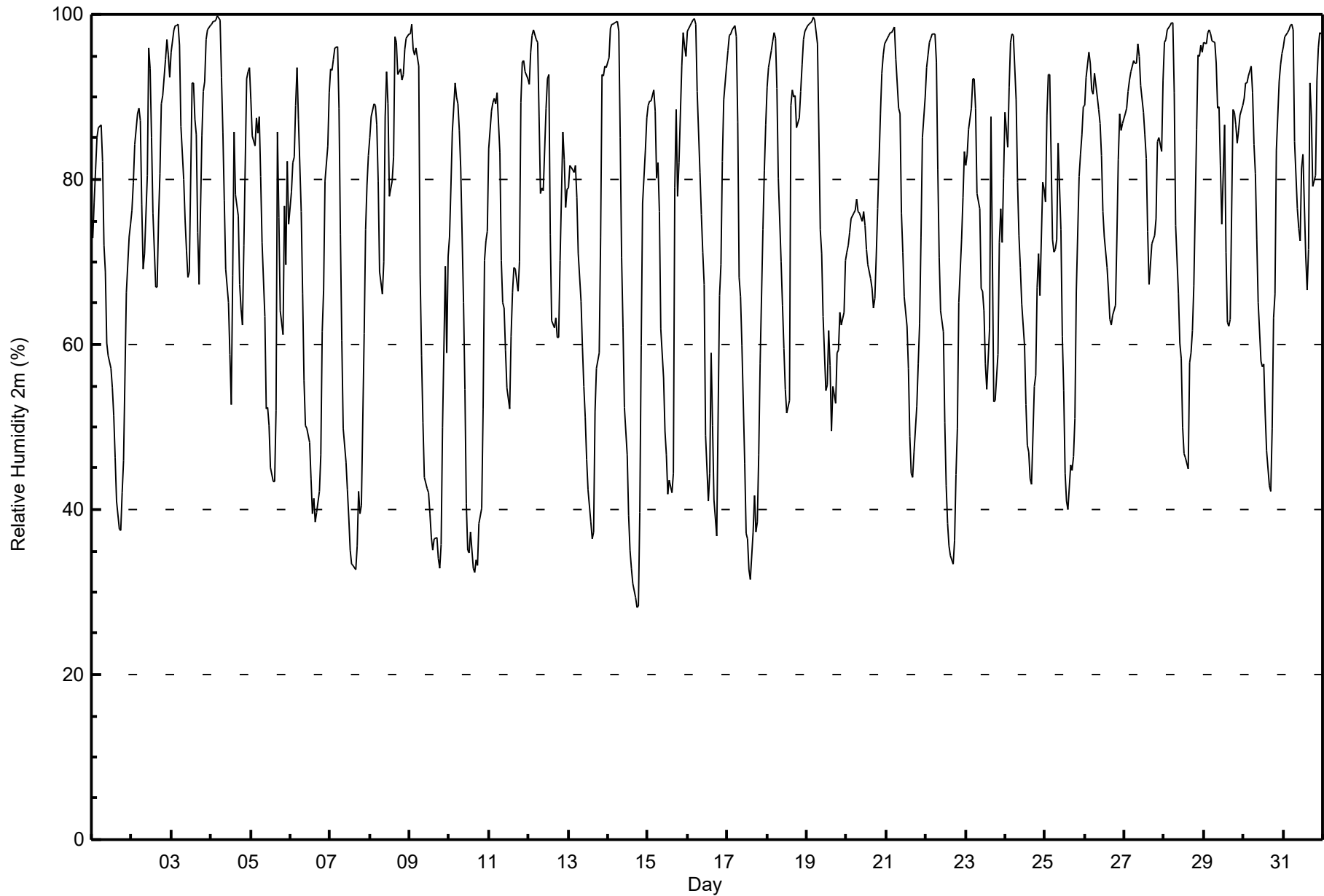
Fort McKay South - July 2026

Maximum Value: 99.8 % on Jul 4 05:00																				Maximum Daily Average: 87.3 % on Jul 3					Hours in Service: 744	
Minimum Value: 28.2 % on Jul 14 18:00																				Minimum Daily Average: 59.1 % on Jul 9					Hours of Data: 744	
Maximum Diurnal Average: 93.3 % at hour 4																				Minimum Diurnal Average: 54.7 % at hour 15					Hours of Missing Data: 0	
Monthly Average: 73.97 %																				Percentiles: P ₁ = 32.8 P ₁₀ = 43.2 Q ₁ = 60.1 Median = 77.2 Q ₃ = 90.7 P ₉₀ = 96.9 P ₉₉ = 99.2					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	72.9	77.3	81.1	85.0	86.3	86.6	82.1	72.1	68.8	60.2	58.7	57.2	54.8	51.4	46.3	41.0	37.6	37.4	42.1	45.9	56.1	66.2	73.1	74.6	63.1	86.6
2-Jul	76.3	79.6	84.3	87.9	88.6	87.2	76.9	69.1	71.0	80.6	96.0	93.4	85.1	75.9	66.9	66.9	75.1	80.8	89.2	90.2	94.7	97.0	95.2	92.3	83.3	97.0
3-Jul	95.4	98.1	98.7	98.7	98.8	96.4	86.5	80.0	75.0	71.4	68.2	68.9	91.7	91.8	87.4	85.4	73.6	67.3	85.3	90.6	91.9	96.9	98.2	98.7	87.3	98.8
4-Jul	98.8	99.2	99.1	99.3	99.8	99.3	92.3	85.7	77.4	69.1	65.0	58.8	52.7	68.3	85.7	78.1	75.5	67.3	64.2	62.3	72.1	92.1	93.0	93.5	81.2	99.8
5-Jul	89.6	85.2	84.1	87.4	85.5	87.6	80.3	72.3	63.4	52.2	52.3	50.2	45.0	43.4	43.3	52.1	85.7	75.4	64.1	61.3	76.8	69.7	82.2	74.5	69.3	89.6
6-Jul	78.5	82.1	82.7	89.0	93.6	87.2	76.1	66.1	55.6	50.1	49.9	48.2	43.7	39.5	41.4	38.5	39.6	42.2	46.6	61.5	66.6	79.8	84.1	90.6	63.9	93.6
7-Jul	93.4	93.3	94.6	95.9	96.1	88.7	73.3	60.6	49.8	45.8	42.4	39.0	35.1	33.4	33.2	32.7	35.6	42.1	39.5	40.5	61.3	73.8	79.3	82.8	60.9	96.1
8-Jul	85.2	87.6	89.2	89.0	86.7	79.9	68.8	66.1	70.0	87.7	93.0	89.1	78.0	79.9	82.8	97.3	96.5	92.7	93.4	92.1	92.7	95.8	97.1	97.6	87.0	97.6
9-Jul	97.6	98.8	95.7	95.2	95.9	93.7	68.6	58.6	50.5	43.9	42.6	42.0	39.5	36.6	35.1	36.4	36.6	34.1	32.9	35.7	49.9	69.4	58.9	70.6	59.1	98.8
10-Jul	73.1	79.1	85.7	91.8	90.1	89.2	85.9	81.3	65.1	54.5	40.7	35.1	34.7	37.4	33.0	32.4	33.9	33.3	38.2	40.2	52.1	70.2	72.6	73.7	59.3	91.8
11-Jul	83.7	88.3	89.4	89.8	89.1	90.5	83.2	70.2	65.0	64.4	59.3	54.7	52.2	61.0	66.3	69.4	69.2	66.4	70.1	89.4	94.3	94.4	93.0	92.3	76.9	94.4
12-Jul	91.5	95.5	97.5	98.1	97.0	96.6	87.6	78.4	79.0	78.7	88.7	92.1	92.8	73.4	62.9	62.0	63.2	60.9	60.8	70.2	85.8	82.4	76.6	78.8	81.3	98.1
13-Jul	79.0	81.7	81.1	80.9	81.6	77.9	71.0	65.3	59.7	55.0	51.2	46.1	42.3	38.5	36.5	37.3	51.9	57.2	59.0	73.1	92.6	92.6	93.8	93.6	66.6	93.8
14-Jul	94.8	98.2	98.9	98.8	98.9	99.1	98.1	85.0	70.5	62.1	52.3	46.7	39.3	35.1	32.9	31.0	29.4	28.2	28.4	39.7	59.8	77.1	83.5	87.4	65.6	99.1
15-Jul	89.1	89.6	89.5	90.8	88.3	80.1	82.0	76.1	61.9	55.9	49.5	46.6	41.9	43.6	42.1	44.4	79.0	88.4	78.0	82.1	93.7	97.7	96.2	95.0	74.2	97.7
16-Jul	97.9	98.7	98.9	99.4	99.5	98.8	90.7	80.9	75.8	71.1	67.3	49.0	41.1	44.5	59.0	50.1	41.1	36.8	51.6	65.9	69.7	82.1	89.7	93.7	73.1	99.5
17-Jul	95.6	97.4	97.7	98.1	98.6	97.3	87.0	68.1	65.7	59.8	45.5	37.2	36.5	32.7	31.6	37.4	41.8	37.3	38.5	46.6	57.6	73.9	81.0	86.7	64.6	98.6
18-Jul	91.2	93.6	95.5	96.8	97.8	97.0	91.1	80.1	70.0	64.7	59.5	54.6	51.6	53.3	89.0	90.9	90.0	90.1	86.4	87.5	90.7	93.8	96.9	98.0	83.8	98.0
19-Jul	98.7	98.8	99.0	99.2	99.6	99.4	96.4	85.6	73.9	71.0	63.4	54.4	55.1	61.6	57.4	49.5	54.9	52.8	59.0	59.3	63.9	62.3	63.8	70.1	72.9	99.6
20-Jul	71.3	72.1	73.6	75.3	75.9	76.3	77.6	76.2	76.0	74.9	76.1	74.4	71.6	69.6	67.9	66.7	64.3	65.6	70.6	76.4	88.0	92.8	95.0	96.4	76.0	96.4
21-Jul	96.7	97.4	97.9	97.8	98.1	98.6	94.6	88.6	88.0	75.9	71.2	65.8	62.3	57.1	48.8	44.4	43.9	47.0	52.6	57.5	62.5	73.0	85.0	90.1	74.8	98.6
22-Jul	93.5	95.0	96.6	97.2	97.7	97.6	94.3	81.2	70.4	64.1	61.6	50.5	42.9	38.3	35.7	34.4	33.4	36.2	44.2	49.9	65.1	72.7	77.8	83.4	67.2	97.7
23-Jul	81.6	83.0	86.1	88.7	92.3	92.2	88.7	78.2	76.4	66.8	66.5	64.1	57.6	54.6	61.9	87.7	70.9	53.0	53.3	58.8	72.4	76.5	72.4	80.1	73.5	92.3
24-Jul	88.2	83.9	91.3	96.6	97.6	97.5	89.6	79.6	73.3	69.4	64.9	59.8	52.7	47.8	47.0	43.7	43.1	54.9	56.2	66.9	71.1	65.9	79.7	78.8	70.8	97.6
25-Jul	77.3	87.7	92.7	92.7	72.8	71.2	71.5	72.7	84.4	73.9	61.1	54.4	44.4	40.9	40.0	45.4	44.8	46.4	51.1	66.5	80.3	83.0	85.4	88.8	67.9	92.7
26-Jul	89.1	92.3	95.4	94.1	90.8	90.4	92.9	89.9	88.5	86.7	82.9	76.2	73.1	69.3	66.5	63.0	62.3	63.5	64.8	72.8	82.4	88.0	86.0	86.8	81.2	95.4
27-Jul	87.9	88.7	90.7	92.1	93.1	94.3	94.1	94.0	96.4	94.9	91.4	88.2	85.4	82.5	73.8	67.4	72.2	72.8	73.3	75.3	84.6	85.0	83.3	92.0	85.5	96.4
28-Jul	96.6	97.0	98.1	98.7	99.0	98.9	90.4	74.4	66.1	60.2	58.3	50.0	46.8	46.3	44.9	57.8	59.0	61.7	67.1	86.1	95.1	94.9	96.2	95.4	76.6	99.0
29-Jul	96.7	96.4	97.8	98.2	97.6	96.8	96.6	94.0	88.7	88.8	81.7	74.6	86.5	71.1	62.7	62.1	63.0	88.4	88.1	86.6	84.3	85.9	87.8	89.1	86.0	98.2
30-Jul	89.8	91.7	91.6	92.5	93.8	90.6	84.2	80.7	72.8	65.1	58.0	57.4	57.6	51.8	47.1	42.9	42.2	49.8	63.3	66.0	83.5	91.9	93.9	95.2	73.1	95.2
31-Jul	96.2	97.3	97.8	98.1	98.7	98.8	98.1	84.6	76.4	74.1	72.5	81.3	83.1	70.7	66.5	71.6	91.8	87.6	79.2	80.5	92.0	95.9	97.7	97.7	87.0	98.8
88.6 90.5 92.0 93.3 92.9 91.5 85.5 77.3 71.8 67.5 64.2 60.0 57.3 54.9 54.7 55.5 58.1 58.6 61.0 67.0 76.9 83.0 85.4 87.7																									Diurnal Average	
98.8 99.2 99.1 99.4 99.8 99.4 98.1 94.0 96.4 94.9 96.0 93.4 92.8 91.8 89.0 97.3 96.5 92.7 93.4 92.1 95.1 97.7 98.2 98.7																									Diurnal Maximum	



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Fort McKay South - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Fort McKay South - July 2026

Maximum Speed: 22 km/h on Jul 5 14:00										Maximum Daily Speed Average: 9.8 km/h on Jul 19										Hours in Service: 744						
Minimum Speed Value: 0 km/h on Jul 17 00:00										Minimum Daily Speed Average: 0.8 km/h on Jul 7										Hours of Data: 744						
Maximum Diurnal Speed Average: 3.5 km/h at hour 12										Minimum Diurnal Speed Average: 1.3 km/h at hour 19										Hours of Missing Data: 0						
Monthly Average Velocity: 1.9 km/h 220.8 deg										Percentiles: P ₁ = 1 P ₁₀ = 2 Q ₁ = 3 Median = 6 Q ₃ = 9 P ₉₀ = 12 P ₉₉ = 17										Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jul	W1	WSW2	WSW2	WNW2	NW2	WSW2	NW2	N3	N3	SE5	SSE8	SSE10	SSE9	SSE8	SSE10	SSE12	SSE13	S12	SSE9	SSE7	SSW3	WSW1	WSW1	SW2	SSE3.9	SSE13
2-Jul	S2	SSW2	W1	WSW2	SSW2	S1	SSE7	SSE15	SSE12	SSE13	S11	SSE9	S15	S12	SSW11	S10	SSE12	SSE8	SE9	SSE7	S3	S3	SSE6	SSE9	S7.1	S15
3-Jul	SSW4	NW2	W1	SSW2	S2	SSE5	SSE7	SSE12	SSE12	SSE13	SE13	SSE12	WSW8	WSW1	SSE8	SE7	S8	S8	W3	NNE3	NE2	NE1	WNW2	WNW3	S4.2	SSE13
4-Jul	W2	WNW3	SW3	SSW4	S4	SSW2	SSE3	SSE7	SSE7	SSE6	SSE7	SSE8	SW3WSW11	SW5	SW7	SW6	SSW9	SSW10	SW5	WSW4	SW3	NNW1	W3	SSW4.1	WSW11	
5-Jul	WSW6	WSW8	WSW7	W6	W4	SW4	SW6	SW7	WSW8	NW10	NW13	NW15	NNW17	NNW22	N16	NNE12	W6	NW5	NNW10	N9	NNW6	NW7	NW7	NW7	NW6.7	NNW22
6-Jul	WNW6	WNW3	WSW6	W3	WNW2	WSW4	WNW4	N1	NNE4	NNW6	NE4	ESE4	E4	NE5	SW8	SSW10	W2	NE8	E4	W3	WNW6	NW4	NNW4	NW4	NW1.5	SSW10
7-Jul	NW3	W2	WSW2	WSW2	W2	NNW3	NNE4	ESE2	NNE4	N5	NNE8	NNE5	S3	SE5	ESE8	ESE6	SSE6	SE4	SE5	SE4	S1	W2	NW2	WNW2	E0.8	ESE8
8-Jul	WNW2	W2	WSW2	WNW2	WNW2	W1	SSW2	SSE6	SSE9	S7	SSW3	SE6	SE6	NNW2	WNW8	N1	S5	SSW3	NW1	SW4	S4	SSW4	S4	WNW2	SSW2.1	SSE9
9-Jul	WSW4	SW4	SSW5	SW3	NW2	SSE1	SW7	SW10WSW12WSW14	SW14	SW14	SW13	SW14	SSW17	SSW15	SSW14	SSW13	SSW13	SSW10	SSW6	SSW7	S10	S11			SSW9.2	SSW17
10-Jul	S11	S9	SSE6	SSW5	S9	S4	SSE7	SE5	S10	SW12	SSW16	SSW16	SSW15	SSW12	SSW17	SSW14WSW10	W7	SSW10	SSW9	WSW4	WSW5	WSW6	W5	SSW8.4	SSW17	
11-Jul	WNW3	SW1	WSW3	S3	W2	SSW1	NNW2	ESE3	ENE2	ESE4	SE6	SE6	SE4	SSE9	S8	SSE7	SSE7	SSW7	W5	NW4	WNW1	W4	WSW7	WSW8	S2.3	SSE9
12-Jul	SW3	S3	SSW3	S4	SSW3	S4	S8	SSW7	SW6	S6	SSW9	SW8	SSE10	SSE11	S12	SW10	SSW14	SSW9	SSW10	SSW13	SSW10	SSW7	SW7	SW7	SSW7.1	SSW14
13-Jul	SW10WSW12WSW11WSW10	SW9	SW12WSW12WSW11	SW11	SW11	SW11	SW12WSW11WSW14WSW13	WNW9	NNW12	NE5	NNW5	NW9	WSW2	SW9	W2	WSW6									WSW7.9	WSW14
14-Jul	SW3	SW3	SSW2	W2	SW2	SSE2	S4	SW4	SW8	SW9	SW11	SW11WSW11	SW9	SW8	SW8	SSW7	SSW8	SSW7	SSW4	SW3	SW3	SW3	SSW2	SW5.3	SW11	
15-Jul	S2	SSE2	SW1	SW2	SSW5	S6	S2	S6	SE6	SE9	SSE10	SSE14	SE12	SSE17	SSE15	S9	WSW8	SSE6	W3	SSW4	W2	SSW2	SSW5	SSW2	S5.3	SSE17
16-Jul	SW1	SW1	SSW4	SSW3	S5	S8	S9	S10	SSE9	SSE12	SSE9	SSW12	SSW13	SSW5	WNW4	N9	NE6	ESE5	NNW5	NNW4	NNW4	WSW3	WNW3	NW0	S3.0	SSW13
17-Jul	WSW3	W1	SSW1	SW3	SW2	S3	SSE5	S4	SE6	ESE6	E4	ESE5	ESE8	ESE7	NE6	NNE7	N10	NNE11	N10	N8	N7	NNW5	NNW6	NNW4	NE2.0	NNE11
18-Jul	NNW4	NW3	WNW1	WSW2	SSW2	SW1	NE2	NE2	SSE2	WSW9	SSW8	SE11	SE4	WSW6	W3	N4	SSW2	SW3	NNW3	N3	S1	ENE1	SW3	WNW2	SW1.2	SE11
19-Jul	NW3	W2	NW2	W2	S3	SW3	N4	NNW7	N6	N5	N4	N10	NNE15	N18	N20	N20	N21	N18	N16	N16	NNW12	NNW14	N17	NNW14	N9.8	N21
20-Jul	N12	N10	NNW9	NNW7	WNW7	NW7	NNW5	NW4	NW4	NNE5	N6	NNW4	NNW6	N5	WNW4	WNW4	NW4	WSW3	S2	SE1	WSW3	WSW2	SW1	W2	NNW3.8	N12
21-Jul	WSW2	WNW1	SW2	WSW2	WSW2	NW1	NNE2	E2	ENE3	S3	SSE6	SSE8	SSE7	SE5	S5	SSW5	SSW3	SE5	S6	S9	SSW8	S5	SSW4	SSW3	S3.2	S9
22-Jul	SSW3	SW3	WSW3	SW3	SW3	SSW4	S3	SSE5	SSW6	S5	SSE8	SSW6	SSW10	SSW9	SSW8	S10	S9	S9	SSE7	SSE6	SSW4	S3	S4	S2	S5.2	S10
23-Jul	S6	S5	SW4	SSW2	NW3	WSW2	N1	N5	N6	N10	N12	N9	NNW15	NNW11	N6	WSW6	W9WNW12	W7	W5	W5	WNW6	WNW7	NW6		NW4.4	NNW15
24-Jul	WNW6	WNW8	W2	WNW3	S3	SW3	SSW3	SSE4	SE6	ESE6	ESE7	SE7	SSE8	SSE9	ESE9	SE8	SE8	SSE3	N3	NNW4	NNW7	NNW7	WSW3	W6	SSE1.5	ESE9
25-Jul	WSW5	NNW1	SSW2	SSW5	WSW9	WSW9	WSW6WSW11	WSW9	WSW8	WSW9WSW10WSW12	SW10	SW10	SSW11	SW12	SW11	W4	WSW3	WNW3	N10	N13	N11				WSW5.7	N13
26-Jul	N13	N13	N14	NNE12	NE10	NNE10	NE8	NNE11	NNE10	NNE10	NNE11	NNE11	NE8	NNE10	N11	N10	NNE10	N9	NNE8	NNE10	NNE9	NNE7	NE6	NE5	NNE9.6	N14
27-Jul	ENE5	E5	E4	ENE1	SE3	ESE4	E4	NNE2	NNE2	ENE2	ENE2	ESE2	SW3	WSW5	W3	S7	SSE8	S10	S9	S6	SSW5	SW5	SW5	WSW1	SSE2.3	S10
28-Jul	SW2	S2	SE1	WSW1	SW3	S4	S6	SSE8	SSE9	SSE9	SE8	SSE10	SSE10	SSE11	SE6	NNW2	N5	N5	NNW5	NW3	N4	ENE4	NNE10	NNE10	SE2.0	SSE11
29-Jul	NE10	N5	NNE3	N4	NW8	WNW8	W9	W9	W10	W9	W8	WNW7	WNW6	WNW7	NW6	W7	NW7	WNW5	W7	WSW7	W7	W10	WSW8	WSW9	WNW5.8	W10
30-Jul	WSW9	W7	W8	W5	W4	W5	W4	WSW6	WNW6	WNW2	N4	SSE1	E3	NE4	NNE3	SW5	SSW8	NNE2	W1	SSW3	SW2	SW2	SW3	SSW3	WSW2.6	WSW9
31-Jul	SW1	W2	SW2	WSW2	SW3	SW4	SSW2	SSE4	S6	SSE8	SSE6	S4	SE2	SSE5	SSE8	S6	SSW4	S2	S3	WSW1	SW2	WSW1	WSW2	WNW2	S2.7	SSE8
W2.0 W1.8WSW1.9WSW2.0WSW2.1 SW2.2SSW1.9SSW2.7 S2.6SSW2.8 S2.8 S3.5SSW3.1SSW2.6SSW3.0SSW2.7SSW2.7SSW2.0 SW1.3WSW1.5 W1.8 W1.9 W2.2 W2.2																										Diurnal Average
N13 N13 N14 NNE12 NE10 SW12WSW12 SSE15 SSE12WSW14 SSW16 SSW16NNW17 NNW22 N20 N20 N21 N18 N16 N16 NNW12 NNW14 N17 NNW14																										Diurnal Maximum
All monthly, daily, and diurnal averages have been calculated using vector methods																										

All monthly, daily, and diurnal averages have been calculated using vector methods



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

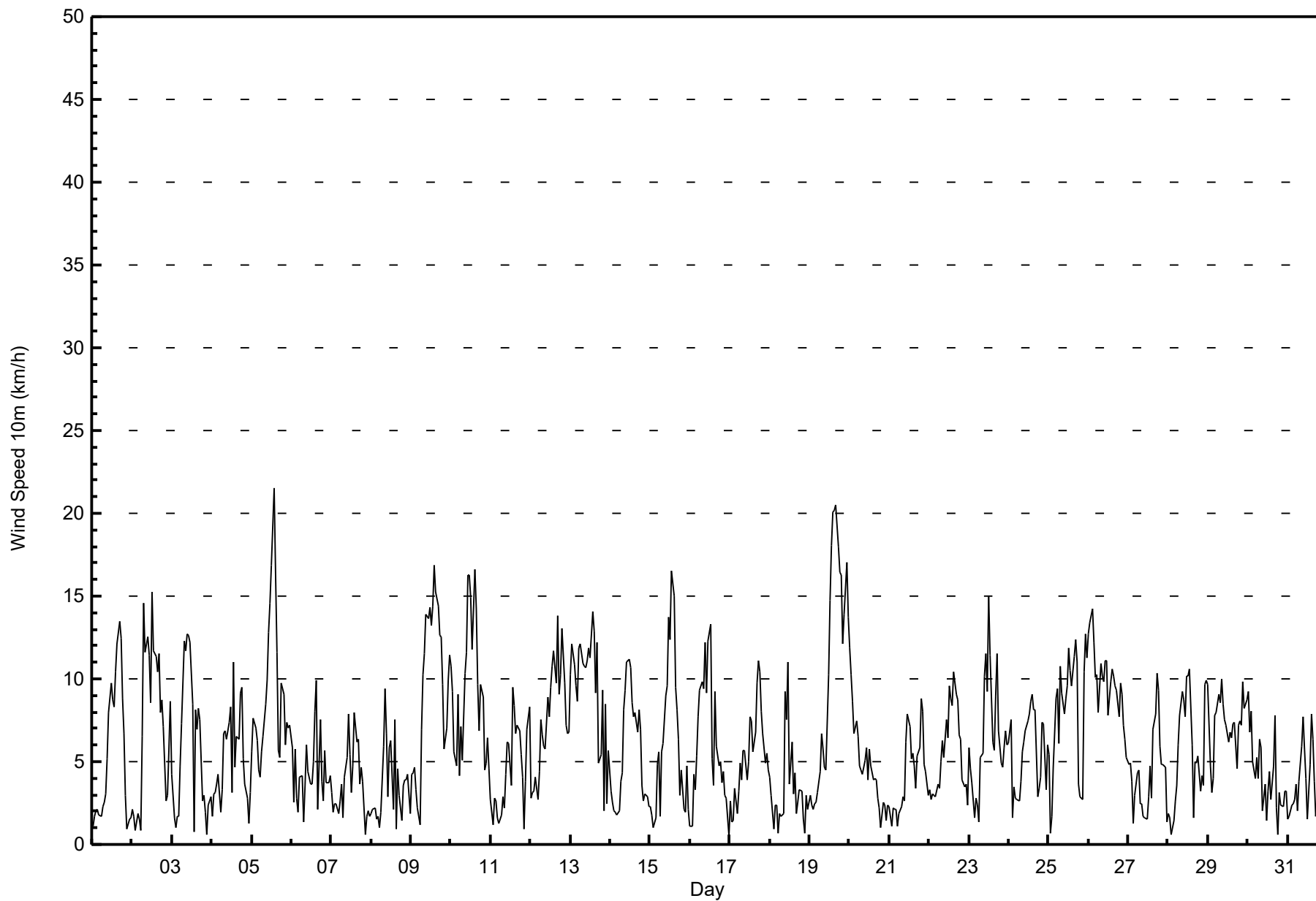
Wind Speed 10m (WS10) - km/h
Fort McKay South - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																	Hours in Service: 744								
Maximum Value: 6 km/h on Jul 15 17:00																	Hours of Data: 744								
Minimum Value: 0 km/h on Jul 22 23:00																	Hours of Missing Data: 0								
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 1 Median = 2 Q ₃ = 3 P ₉₀ = 4 P ₉₉ = 5																	Hours of Calibration: 0								
																	Percent Operational Time: 100.0								
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	1	1	1	1	2	1	1	1	1	2	2	3	3	2	3	3	3	3	2	1	1	1	1	1	3
2-Jul	1	2	1	1	1	1	4	4	3	3	3	3	5	3	3	3	3	3	3	3	1	1	2	2	5
3-Jul	3	1	1	1	1	2	2	3	3	3	4	4	4	2	2	3	2	2	3	1	1	1	1	2	4
4-Jul	1	2	1	1	1	1	1	2	2	2	2	2	3	4	2	2	2	3	3	2	1	1	2	1	4
5-Jul	2	2	2	2	2	2	2	3	3	4	5	6	6	6	5	4	2	2	4	3	2	2	1	2	6
6-Jul	1	2	2	2	2	2	2	2	2	3	2	3	3	3	4	3	3	3	2	4	3	2	1	1	4
7-Jul	1	1	1	1	1	1	1	1	2	3	2	3	3	3	3	3	2	1	1	1	1	1	1	1	3
8-Jul	1	1	1	1	1	1	2	3	3	4	3	3	2	2	5	1	1	2	1	2	1	1	1	3	5
9-Jul	1	1	1	2	1	1	3	4	4	5	4	5	5	5	5	5	4	4	4	3	1	3	2	2	5
10-Jul	3	2	2	1	3	2	2	1	4	4	5	5	5	5	5	5	5	3	3	3	1	1	1	2	5
11-Jul	1	1	2	2	1	1	1	1	1	1	2	2	2	3	2	1	2	2	2	2	1	1	3	3	3
12-Jul	2	1	1	1	1	1	2	2	2	2	3	3	3	3	3	3	4	3	3	5	2	2	2	2	5
13-Jul	3	4	4	4	3	4	4	4	4	4	4	4	4	5	5	5	4	2	3	4	2	3	1	2	5
14-Jul	2	1	1	1	1	2	2	2	3	3	4	4	4	3	3	3	3	4	3	2	1	1	1	1	4
15-Jul	1	1	1	1	1	1	1	2	2	3	3	3	3	4	4	3	6	4	3	2	1	1	3	2	6
16-Jul	1	1	2	1	2	1	2	2	2	3	3	4	4	3	5	4	3	2	5	2	2	1	1	1	5
17-Jul	2	1	1	2	1	1	1	1	1	1	2	3	2	2	2	2	2	3	2	2	1	1	1	1	3
18-Jul	1	1	2	1	1	1	1	1	1	4	4	4	3	2	5	2	1	1	1	1	2	1	1	1	5
19-Jul	1	2	1	2	2	2	2	2	2	2	2	4	5	5	5	6	6	5	4	4	3	4	4	4	6
20-Jul	3	3	2	1	2	2	2	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	3
21-Jul	1	1	2	1	1	1	1	1	1	2	2	3	2	2	2	2	2	2	2	1	1	1	1	1	3
22-Jul	1	1	1	1	1	1	1	1	2	2	3	3	4	4	3	3	3	2	1	1	1	1	0	1	4
23-Jul	1	1	3	2	2	2	2	2	3	3	4	4	5	4	2	3	4	4	3	2	1	1	2	2	5
24-Jul	2	2	2	1	1	2	1	2	2	2	2	3	3	3	3	3	2	2	2	1	4	3	2	1	4
25-Jul	2	1	1	2	3	3	3	4	3	3	3	4	4	4	3	3	4	3	3	1	2	4	3	3	4
26-Jul	4	4	4	4	3	3	2	3	3	3	3	3	3	3	3	3	3	3	2	3	2	2	2	2	4
27-Jul	2	2	1	1	1	1	1	1	1	1	1	1	2	2	2	3	2	2	2	1	1	1	1	2	3
28-Jul	1	1	1	1	1	1	1	2	2	2	3	4	3	3	2	1	1	1	1	2	2	2	4	4	4
29-Jul	5	3	1	2	2	2	3	3	3	3	3	3	3	4	4	3	5	3	2	2	2	3	3	3	5
30-Jul	3	3	3	3	3	3	2	3	2	2	2	2	2	2	2	3	3	3	1	2	1	1	1	1	3
31-Jul	1	1	1	1	1	1	1	1	2	2	2	1	1	2	2	2	2	1	1	1	1	1	2	1	2
Diurnal Maximum																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Fort McKay South - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Fort McKay South - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	371	49.87	49.87
6 - 11	296	39.78	89.65
12 - 19	73	9.81	99.46
20 - 28	4	0.54	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Fort McKay South - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	20	12	9	8	8	8	14	13	39	47	50	39	38	26	20	20	371
6 - 11	19	17	8	0	0	8	16	52	33	28	27	35	17	15	10	11	296
12 - 19	12	3	0	0	0	0	2	14	4	15	8	7	0	0	2	6	73
20 - 28	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	54	32	17	8	8	16	32	79	76	90	85	81	55	41	32	38	744

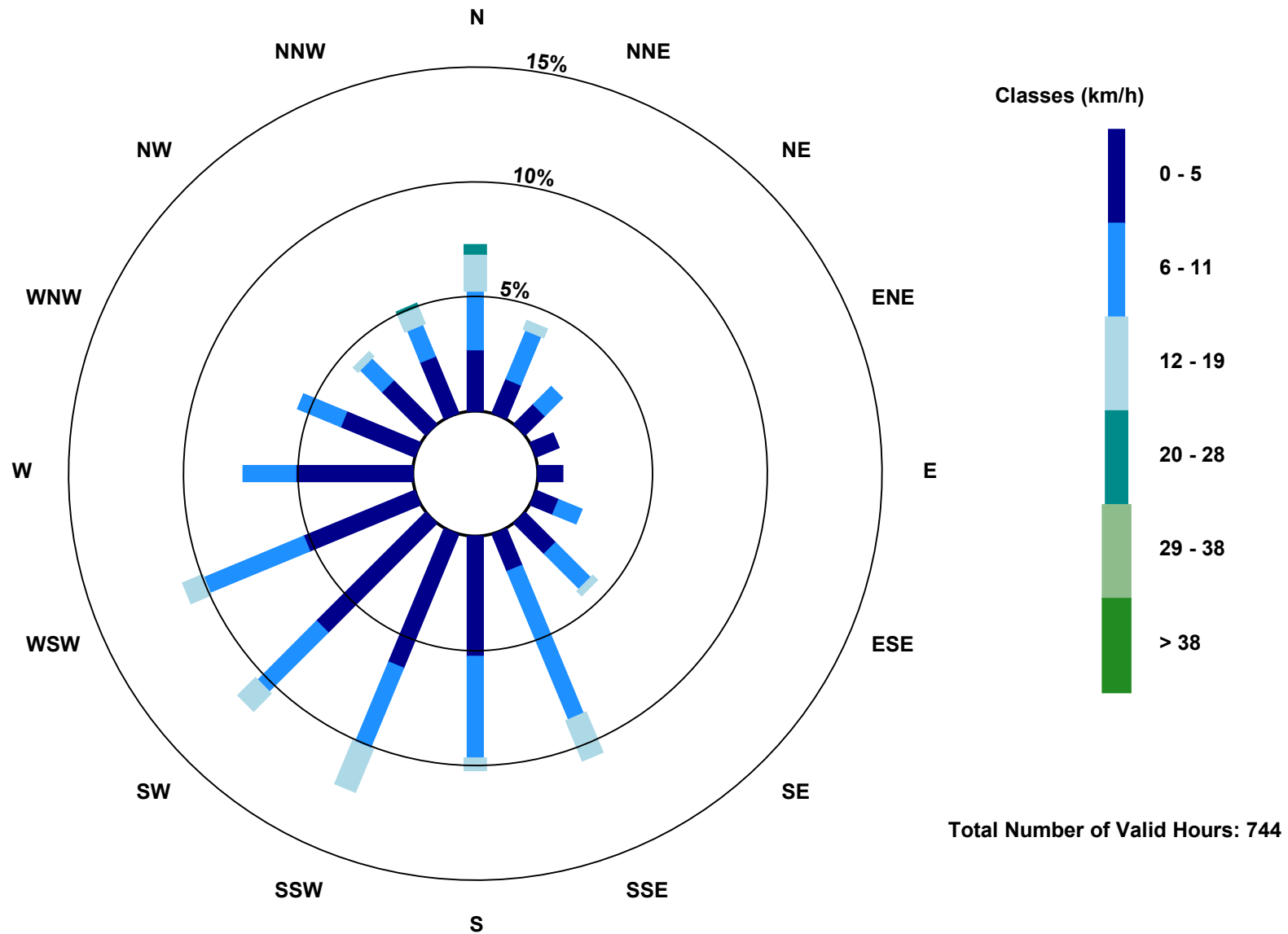
Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Fort McKay South





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Fort McKay South - July 2026

Direction of Maximum Speed: 343 deg on Jul 5 14:00 Direction of Maximum Daily Speed Average: 356.4 deg on Jul 19																				Hours in Service: 744					
Direction of Minimum Speed: 314 deg on Jul 17 00:00 Direction of Minimum Daily Speed Average: 0.8 deg on Jul 7																				Hours of Data: 744					
Monthly Average Direction: 220.8 deg																				Hours of Missing Data: 0					
																				Percent Operational Time: 100.0					
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	270	254	256	302	309	252	326	11	10	126	150	153	161	165	159	151	156	174	166	163	202	254	241	224	165.2
2-Jul	186	194	275	256	198	185	154	158	166	167	174	156	173	190	201	184	147	167	145	158	174	185	167	162	170.0
3-Jul	192	306	268	205	186	167	159	162	160	160	141	158	256	258	165	136	170	184	263	29	44	49	288	292	169.2
4-Jul	261	295	227	201	183	192	157	165	167	166	156	148	232	245	221	227	222	204	204	218	237	216	340	259	203.1
5-Jul	257	252	258	261	271	214	222	227	247	318	315	323	329	343	2	17	279	307	343	356	333	320	305	316	314.0
6-Jul	289	287	255	264	302	252	298	352	33	345	50	107	81	42	227	203	265	43	88	263	302	308	342	325	307.5
7-Jul	310	259	250	244	271	336	15	109	17	9	12	22	177	140	106	113	161	137	136	124	191	277	316	301	79.9
8-Jul	295	272	244	289	282	269	206	157	165	186	196	133	128	341	288	359	187	206	322	223	188	200	187	287	198.2
9-Jul	238	218	211	216	323	162	216	231	241	241	225	223	224	215	204	196	193	199	204	205	200	192	187	187	211.8
10-Jul	190	184	168	203	184	185	167	143	176	224	201	205	199	196	194	211	248	264	192	199	245	240	248	273	203.1
11-Jul	289	223	252	190	260	211	336	113	72	108	140	132	124	160	169	157	168	192	268	311	293	261	255	250	189.6
12-Jul	233	190	196	191	204	172	175	196	215	190	203	223	158	162	186	226	203	197	202	201	194	205	231	218	197.7
13-Jul	235	242	240	248	232	236	247	237	229	229	231	235	245	239	239	290	339	45	346	310	238	223	268	258	248.6
14-Jul	229	223	195	274	232	166	184	217	223	217	231	235	245	236	229	229	210	199	195	209	226	216	222	212	221.8
15-Jul	170	153	230	220	193	189	180	174	132	140	159	149	144	153	163	176	244	153	281	196	267	208	205	213	169.1
16-Jul	235	232	209	199	190	182	176	172	150	156	160	198	202	212	301	1	54	118	334	339	341	241	302	314	185.6
17-Jul	252	276	209	231	225	190	159	180	127	121	86	121	119	116	54	13	11	12	9	7	356	343	339	333	40.1
18-Jul	334	311	298	242	210	235	38	34	158	246	196	139	139	247	266	349	192	228	348	358	181	68	234	282	234.8
19-Jul	316	281	311	273	191	234	10	343	11	354	353	10	15	10	6	6	357	1	355	355	346	345	351	348	356.4
20-Jul	357	349	344	340	303	315	329	309	324	14	5	333	342	3	282	294	312	243	170	128	238	252	232	269	328.6
21-Jul	243	289	214	257	254	324	29	88	64	171	155	151	165	137	176	208	195	145	174	189	197	181	197	197	177.2
22-Jul	195	220	240	223	226	194	183	165	196	186	150	210	213	204	212	179	184	172	159	165	193	182	188	177	189.5
23-Jul	181	182	215	196	313	244	352	8	2	357	358	351	329	338	356	258	269	291	281	275	274	288	287	306	311.6
24-Jul	296	296	267	297	187	232	200	156	137	118	115	146	153	148	121	126	135	153	8	331	338	346	257	261	154.7
25-Jul	254	327	210	196	256	255	246	252	247	253	244	241	242	236	225	210	218	232	266	249	303	1	358	356	252.3
26-Jul	3	11	11	13	35	32	35	19	27	31	29	20	46	15	5	10	13	6	28	24	22	30	41	49	21.2
27-Jul	59	90	97	60	141	123	98	18	27	61	76	119	226	254	273	188	152	174	175	190	208	221	216	242	164.1
28-Jul	224	171	135	242	227	183	169	156	160	168	130	153	159	147	146	330	7	359	344	318	350	66	14	23	135.4
29-Jul	48	3	27	352	319	291	268	265	278	268	272	296	292	285	306	279	317	299	260	245	268	262	257	254	285.2
30-Jul	256	262	265	277	275	279	263	243	283	288	4	152	87	37	29	217	195	33	271	204	231	225	215	213	255.2
31-Jul	236	268	221	243	228	221	197	156	171	163	153	179	146	157	156	183	193	188	188	256	233	258	245	296	186.4
267.9 267.4 251.9 254.7 242.0 225.7 203.1 192.0 190.0 194.1 180.2 182.2 199.7 204.3 202.1 206.6 208.7 200.6 232.0 243.9 270.8 270.5 276.5 279.4																									
Diurnal Average																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

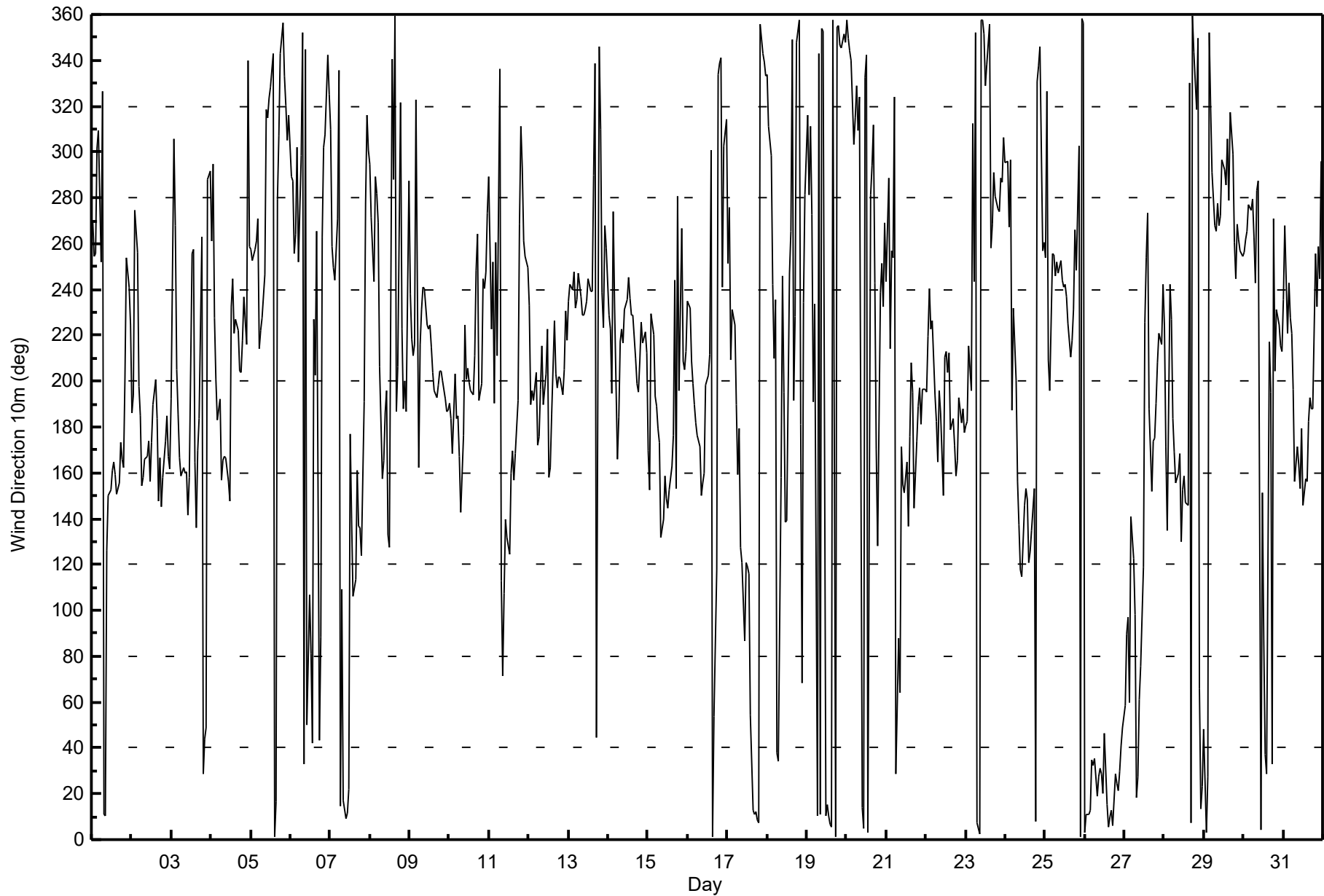
Fort McKay South - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 100 deg on Jul 30 12:00																			Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0						
Minimum Value: 8 deg on Jul 10 23:00																									
Percentiles: P ₁ = 11 P ₁₀ = 17 Q ₁ = 22 Median = 30 Q ₃ = 46 P ₉₀ = 68 P ₉₉ = 92																									
Day	Hourly Period Ending At (MST)																							Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		24
1-Jul	39	32	23	35	31	28	33	57	31	43	20	18	17	18	19	19	16	16	14	10	30	49	47	25	57
2-Jul	24	62	30	39	73	86	19	18	17	23	14	20	20	22	25	40	21	17	29	17	38	28	17	18	86
3-Jul	44	52	66	37	44	13	18	19	21	19	24	37	35	87	20	27	15	21	82	42	81	96	30	41	96
4-Jul	62	41	28	22	27	48	35	17	18	33	27	26	70	39	33	30	33	33	25	29	16	25	77	40	77
5-Jul	19	19	26	28	39	42	27	34	38	37	27	32	28	22	24	28	34	39	19	21	22	15	14	18	42
6-Jul	20	65	28	76	69	59	55	93	71	53	72	74	72	64	67	33	79	28	42	80	46	51	28	11	93
7-Jul	29	45	25	24	35	20	26	75	53	51	29	67	93	73	32	49	27	27	22	21	82	33	47	43	93
8-Jul	28	31	43	19	25	57	76	37	23	46	89	41	30	72	76	91	30	61	58	42	24	11	13	81	91
9-Jul	24	22	12	21	50	78	32	27	30	30	34	28	29	27	24	18	16	24	21	20	12	8	12	10	78
10-Jul	13	11	19	24	20	78	14	21	25	25	24	25	24	26	24	27	50	50	21	18	16	12	8	43	78
11-Jul	42	64	30	57	53	74	62	41	51	26	30	24	49	13	14	15	19	20	23	44	73	43	22	24	74
12-Jul	69	20	27	16	41	14	18	29	33	32	20	27	28	22	23	30	21	22	22	18	15	24	24	21	69
13-Jul	23	23	29	29	28	24	30	37	30	35	32	34	36	35	38	52	23	35	48	33	68	22	63	34	68
14-Jul	67	51	74	45	54	67	25	51	28	27	30	33	40	46	48	44	46	45	27	23	20	21	26	37	74
15-Jul	24	29	59	68	18	15	82	27	25	26	25	18	23	19	20	19	55	63	61	29	48	63	48	70	82
16-Jul	83	71	21	25	11	9	14	17	20	18	27	26	24	26	66	48	43	41	69	52	47	36	53	91	91
17-Jul	31	65	79	25	53	16	20	43	23	25	60	47	30	31	40	19	18	19	16	15	15	16	12	13	79
18-Jul	42	36	53	15	27	77	66	96	66	32	45	29	85	40	88	48	70	38	30	19	79	95	28	42	96
19-Jul	29	36	60	62	75	35	29	24	25	35	50	25	22	21	21	22	22	20	19	19	18	19	18	17	75
20-Jul	20	19	17	20	20	19	29	23	29	30	37	36	30	48	58	58	48	45	47	52	24	11	55	42	58
21-Jul	20	69	46	33	33	70	78	56	44	75	30	27	33	38	49	57	71	68	24	10	11	15	11	12	78
22-Jul	11	17	20	24	25	16	21	31	31	42	30	53	35	40	42	28	22	21	13	18	14	18	10	23	53
23-Jul	14	21	59	86	67	58	84	37	40	28	25	31	23	29	42	59	33	31	30	30	16	16	20	27	86
24-Jul	12	19	78	29	32	40	51	34	34	46	34	35	38	31	30	29	26	68	28	28	19	24	22	19	78
25-Jul	24	92	66	33	28	32	47	27	27	30	34	32	33	33	31	21	25	24	71	37	69	17	18	18	92
26-Jul	19	21	21	22	25	21	24	18	22	23	22	23	36	26	24	23	27	23	25	18	20	23	24	28	36
27-Jul	33	34	41	89	38	29	30	44	45	55	77	93	59	39	81	47	28	18	15	21	14	15	16	71	93
28-Jul	25	58	77	82	20	29	11	18	20	26	29	32	21	21	18	78	25	15	15	64	42	61	23	44	82
29-Jul	45	58	43	44	20	27	28	31	30	30	33	41	40	58	55	35	53	48	25	24	29	26	27	24	58
30-Jul	25	38	34	54	67	56	52	37	50	86	78	100	68	52	84	75	33	93	69	32	30	27	25	16	100
31-Jul	51	34	35	33	14	19	33	21	21	18	23	28	64	26	21	23	29	53	32	39	20	35	46	29	64
83 92 79 89 75 86 84 96 71 86 89 100 93 87 88 91 79 93 82 80 82 96 77 91																									
Diurnal Maximum																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Fort McKay South - July 2026





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

**AMS14
ANZAC
JULY 2026**

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ANZAC (AMS14)
JULY 2026

MONTHLY SUMMARY for
AMD SECTION III.B.1(c)

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	708	34	36	99.73	-	-	5.3	0	0.6	0
TRS(ppb) Average	707	36	37	99.87	1.6	0	1.4	-	0.8	-
THC(ppm) Average	676	33	68	95.3	-	-	2.4	-	2.1	-
NMHC(ppm) Average	676	33	68	95.3	-	-	0.007	-	0	-
CH4(ppm) Average	676	33	68	95.3	-	-	2.4	-	2.1	-
NO2(ppb) Average	706	36	38	99.73	-	-	9	0	2.4	-
NO(ppb) Average	706	36	38	99.73	-	-	8.1	-	0.8	-
NOX(ppb) Average	706	36	38	99.73	-	-	17.1	-	2.6	-
O3(ppb) Average	709	34	35	99.87	-	-	44	0	28.6	-
PM2.5(ug/m3) Average	743	1	1	100	-	-	167.6	11	85.1	4
AT 2m(C) Average	744	0	0	100	-	-	31.1	-	23.7	-
RH(%) Average	744	0	0	100	-	-	99.9	-	90.4	-
WS(km/h) Average	744	0	0	100	-	-	31	-	19	-
WD(deg) Average	744	0	0	100	-	-	-	-	-	-
Leaf Wetness (% of range) Average	744	0	0	100	-	-	71	-	17.3	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ANZAC (AMS14)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2(ppb) Average	708	0.2	0.3	-	0	0	0	0.1	0.2	0.4	5.3
TRS(ppb) Average	707	0.45	0.1	-	0.3	0.4	0.4	0.4	0.5	0.6	1.4
THC(ppm) Average	676	2.03	0.1	-	1.9	1.9	2	2	2.1	2.1	2.4
NMHC (ppm) Average	676	0	0	-	0	0	0	0	0	0	0.007
CH4(ppm) Average	676	2.03	0.1	-	1.9	1.9	2	2	2.1	2.1	2.4
NO2(ppb) Average	706	1.29	0.9	-	0.2	0.6	0.8	1	1.5	2.3	9
NO(ppb) Average	706	0.18	0.5	-	0	0	0.1	0.1	0.1	0.3	8.1
NOX(ppb) Average	706	1.48	1.2	-	0.3	0.6	0.8	1.1	1.7	2.6	17.1
O3(ppb) Average	709	22.56	8.2	-	3	11.2	16.5	22.9	28.1	33.5	44
PM2.5(ug/m3) Average	743	14.9	21.7	-	0.9	2.3	3.4	6.2	14.5	51	167.6
Temperature 2 m (C) Average	744	17.94	4.5	-	8.3	12.1	14.5	17.5	21.1	23.9	31.1
Relative Humidity (%) Average	744	71.72	18.8	-	28.1	44.7	56.7	74.5	87.8	94.9	99.9
Wind Speed 20 m (km/h) Average	744	10.3	5	-	0	5	7	10	13	17	31
Wind Direction 20 m (deg) Average	744	230.4	-	-	-	-	-	-	-	-	-
Leaf Wetness (% of range) Average	744	4.94	12.2	-	0	0	0	0	0	18.1	71

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ANZAC (AMS14)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
SO2	05 Jul 2026 10:00	05 Jul 2026 10:00	1	Maintenance - verify daily QA response
NO/NO2/NOX	06 Jul 2026 11:00	06 Jul 2026 12:00	2	Maintenance - verify daily QA response
O3	06 Jul 2026 11:00	06 Jul 2026 11:00	1	Maintenance - verify daily QA response
SO2, TRS, THC/NMHC/CH4	06 Jul 2026 10:00	06 Jul 2026 10:00	1	Maintenance - verify daily QA response
THC/NMHC/CH4	28 Jul 2026 05:00	29 Jul 2026 10:00	30	Unstable Operation - AMD non-compliance
THC/NMHC/CH4	29 Jul 2026 11:00	29 Jul 2026 14:00	4	Maintenance- replaced internal pump



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

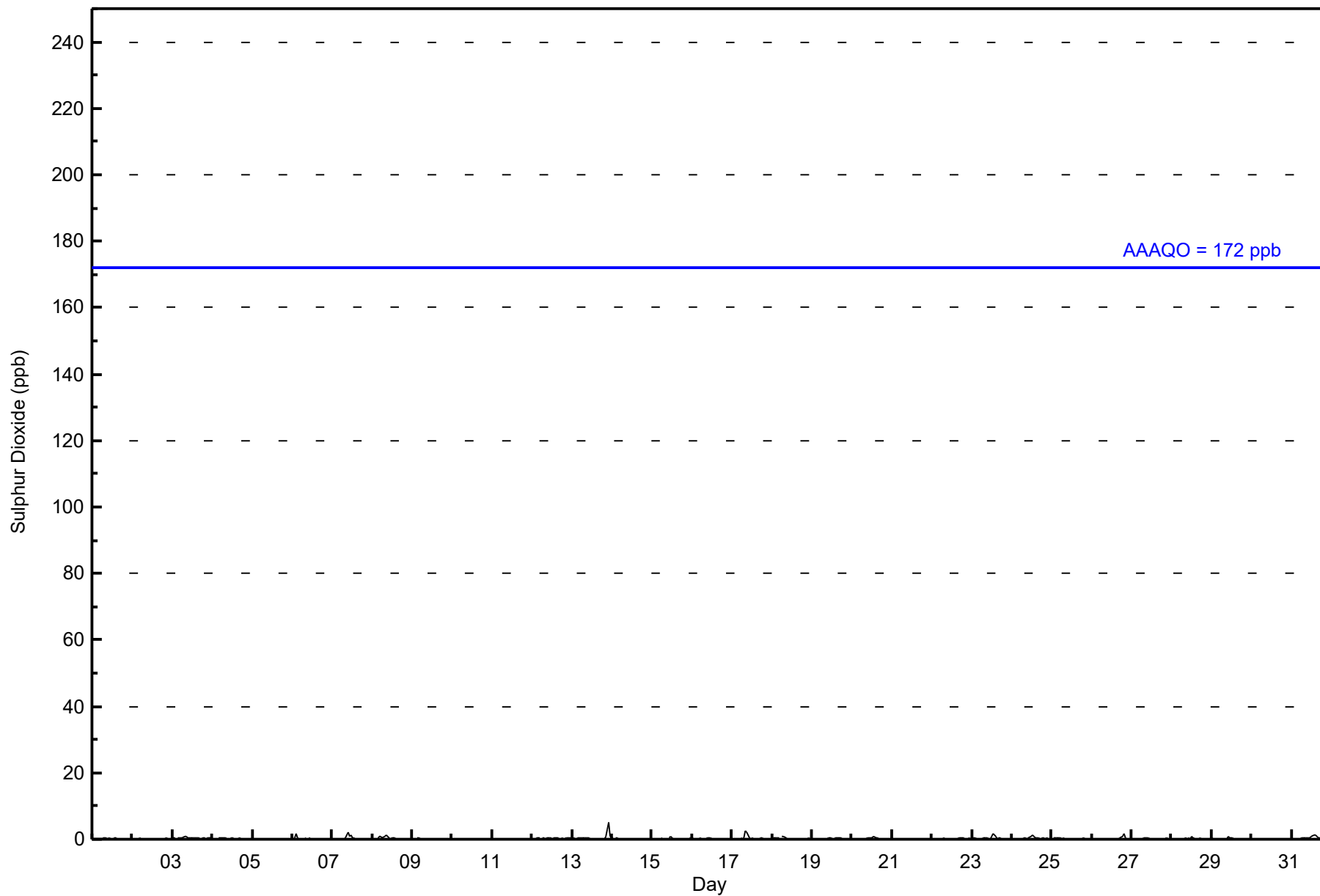
Anzac - July 2026

Number of Exceedances (AAAQO): Maximum Value: 5.3 ppb on Jul 13 23:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 0.6 ppb on Jul 13																			Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 1 02:00 Maximum Diurnal Average: 0.3 ppb at hour 10 Monthly Average: 0.20 ppb																			Minimum Daily Average: 0.0 ppb on Jul 10 Minimum Diurnal Average: 0.1 ppb at hour 1 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.4 P ₉₉ = 1.5																			Hours of Data: 708	
																																						Hours of Missing Data: 36	
																																						Hours of Calibration: 34	
																																						Percent Operational Time: 99.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.1	0.5	0.1	0.2	0.2	0.3	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5													
2-Jul	0.1	Z	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.3												
3-Jul	0.2	0.3	Z	0.3	0.4	0.4	0.4	0.8	0.7	0.6	0.5	0.6	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.4	0.8													
4-Jul	0.2	0.2	0.2	Z	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.2	0.3												
5-Jul	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	M	0.1	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.2													
6-Jul	0.1	0.4	1.7	0.4	0.2	Z	0.2	0.2	0.6	M	0.4	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.2	1.7													
7-Jul	Z	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.3	2.0	0.7	1.1	0.3	0.4	0.2	0.1	0.1	0.2	0.1	0.0	0.0	0.1	0.2	0.0	0.3	2.0													
8-Jul	0.0	Z	0.1	0.1	0.8	0.8	0.6	0.8	1.2	0.7	0.4	0.1	0.3	0.4	0.2	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.2	0.1	0.3	1.2													
9-Jul	0.1	0.2	Z	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2													
10-Jul	0.1	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1													
11-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.1	0.0	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.2													
12-Jul	0.2	0.2	0.2	0.3	0.3	Z	0.3	0.2	0.2	0.4	0.4	0.3	0.2	0.5	0.3	0.5	0.1	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.5													
13-Jul	Z	0.3	0.2	0.3	0.2	0.2	0.4	0.3	0.3	0.2	0.3	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.8	3.0	5.3	1.0	0.6	5.3													
14-Jul	0.6	Z	0.3	0.3	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6													
15-Jul	0.0	0.0	Z	0.1	0.0	0.0	0.3	C	C	C	0.3	1.0	0.5	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.4	0.2	1.0													
16-Jul	0.2	0.2	0.2	Z	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.3													
17-Jul	0.0	0.1	0.1	0.0	Z	0.2	0.2	0.4	2.7	2.2	0.5	0.1	0.4	0.0	0.1	0.0	0.1	0.2	0.3	0.2	0.1	0.1	0.0	0.1	0.4	2.7													
18-Jul	0.2	0.3	0.4	0.4	0.3	Z	0.9	0.7	0.4	0.2	0.1	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.2	0.9													
19-Jul	Z	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.6	0.5	0.2	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.6													
20-Jul	0.0	Z	0.1	0.0	0.1	0.1	0.1	0.0	0.2	0.3	0.3	0.5	0.6	1.0	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0													
21-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1													
22-Jul	0.1	0.0	0.0	Z	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.2	0.1	0.2	0.3	0.1	0.2	0.3													
23-Jul	0.2	0.3	0.3	0.2	Z	0.1	0.2	0.2	0.3	0.2	0.1	0.1	1.0	1.8	0.7	0.1	0.2	0.6	0.1	0.1	0.1	0.1	0.0	0.1	0.3	1.8													
24-Jul	0.1	0.0	0.0	0.1	0.1	Z	0.2	0.4	0.3	0.1	0.5	0.9	1.5	0.9	0.5	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	1.5													
25-Jul	Z	0.3	0.3	0.4	0.3	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.0	0.2	0.3	0.2	0.0	0.0	0.0	0.2	0.4													
26-Jul	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.9	1.5	0.4	0.1	0.1	0.1	0.2	1.5													
27-Jul	0.1	0.1	Z	0.1	0.1	0.2	0.1	0.6	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.6													
28-Jul	0.1	0.1	0.1	Z	0.1	0.2	0.2	0.1	0.2	0.2	0.3	0.2	0.8	0.3	0.2	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.8													
29-Jul	0.2	0.1	0.2	0.2	Z	0.0	0.1	0.1	0.2	0.0	0.7	0.6	0.6	0.2	0.1	0.0	0.1	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.2	0.7													
30-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1													
31-Jul	Z	0.1	0.1	0.1	0.2	0.2	0.4	0.3	0.3	0.4	0.4	0.6	0.9	1.2	1.1	0.9	0.6	0.5	0.4	0.3	0.4	0.3	0.3	0.4	0.5	1.2													
0.1 0.1 0.2 0.1 0.2 0.1 0.2 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.2 0.2 0.1 0.1 0.1 0.2 0.1 0.2 0.3 0.1																										Diurnal Average													
0.6 0.4 1.7 0.4 0.8 0.8 0.9 0.8 2.7 2.2 0.7 1.1 1.5 1.8 1.1 0.9 0.6 0.6 0.9 1.5 0.8 3.0 5.3 1.0																										Diurnal Maximum													
Z - zerospan C - Calibration M - Maintenance																																							
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																																							



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Anzac - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Anzac - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	708	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Anzac - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	6	4	2	5	8	38	77	80	37	28	45	48	117	126	51	36	708
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	6	4	2	5	8	38	77	80	37	28	45	48	117	126	51	36	708

Total Number of Valid Hours: 708

Total Number of Hours: 744

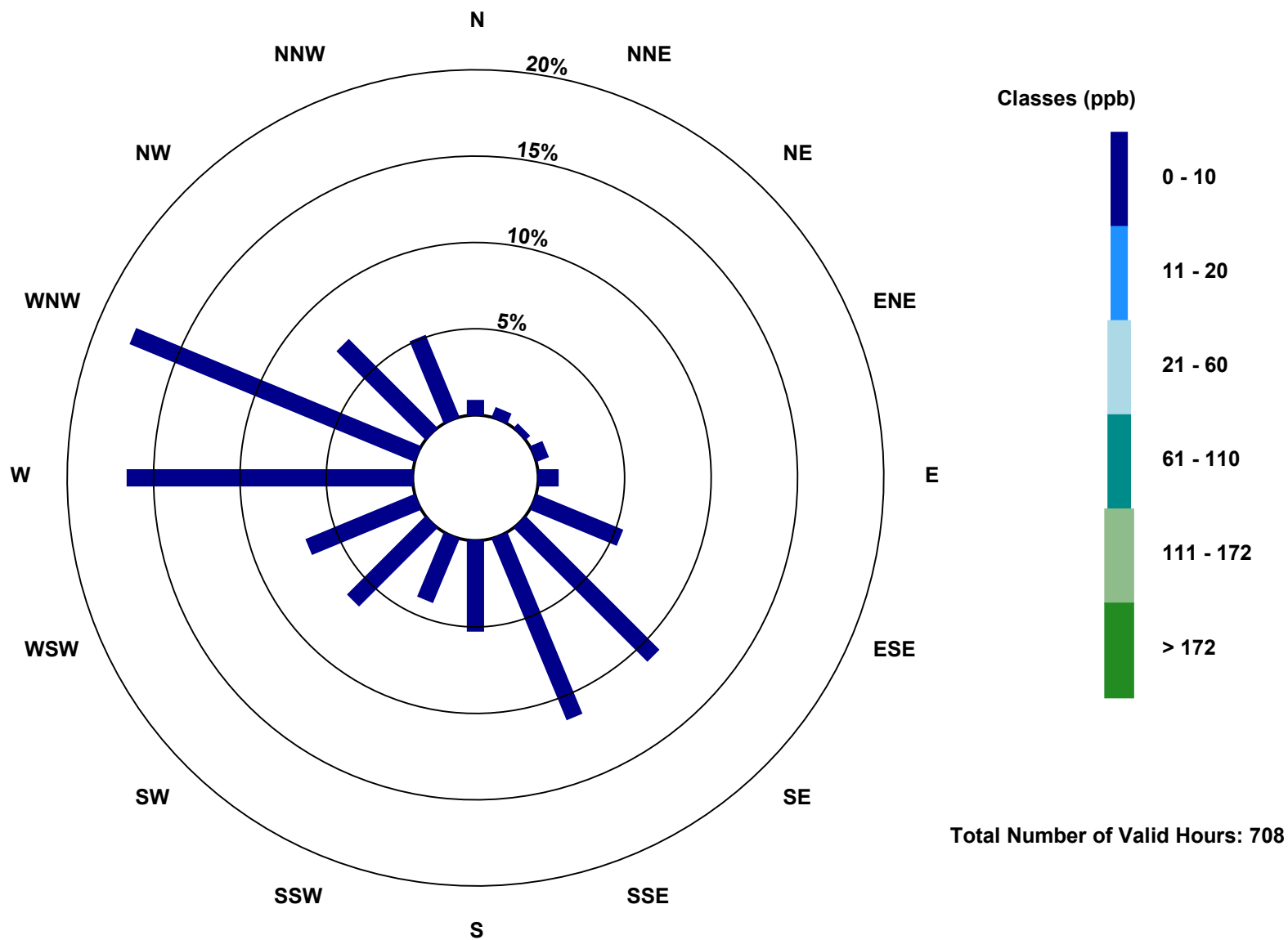


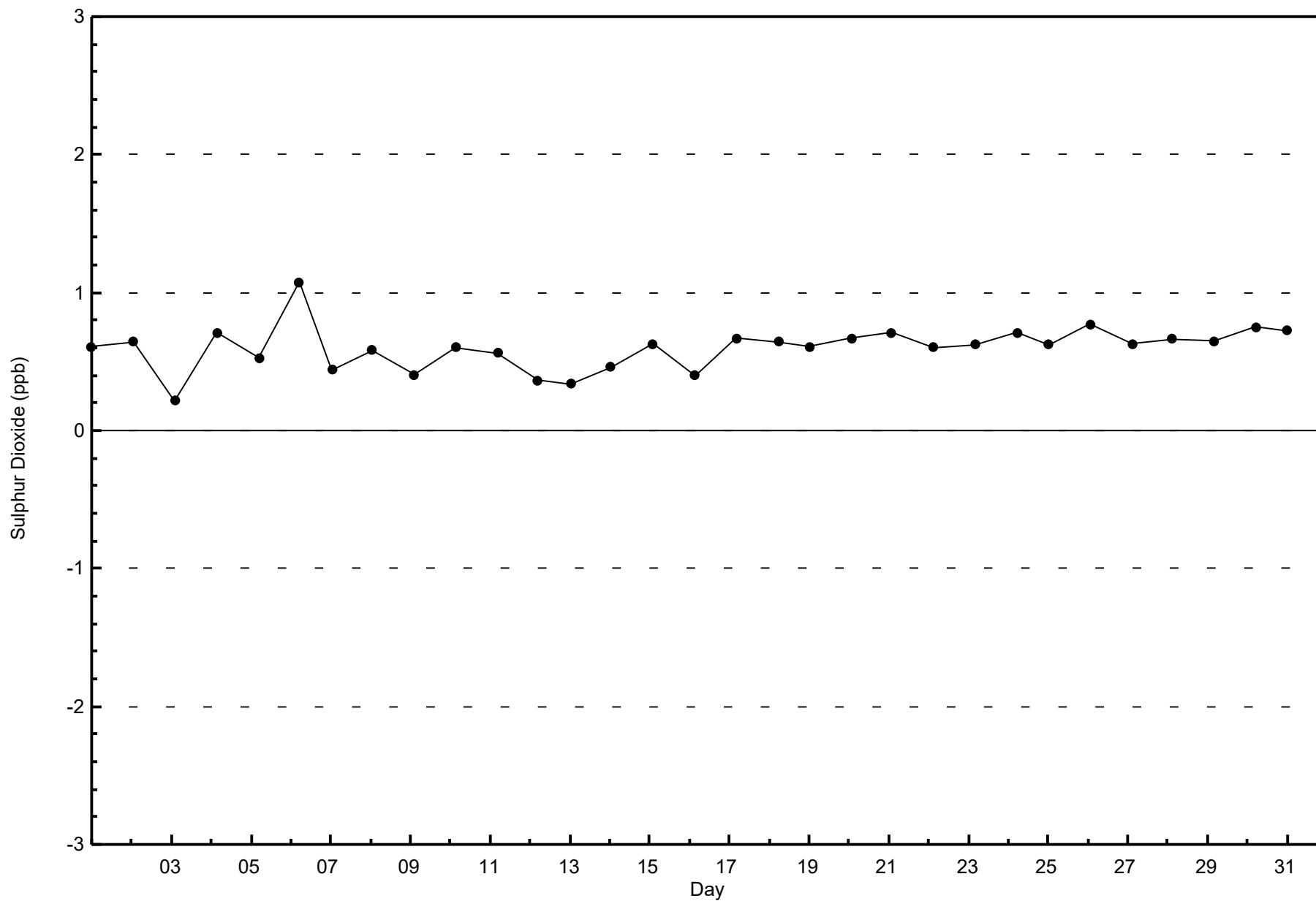
Wood Buffalo Environmental Association

Wind Rose Jul 2026

Sulphur Dioxide (SO₂) - ppb

Anzac

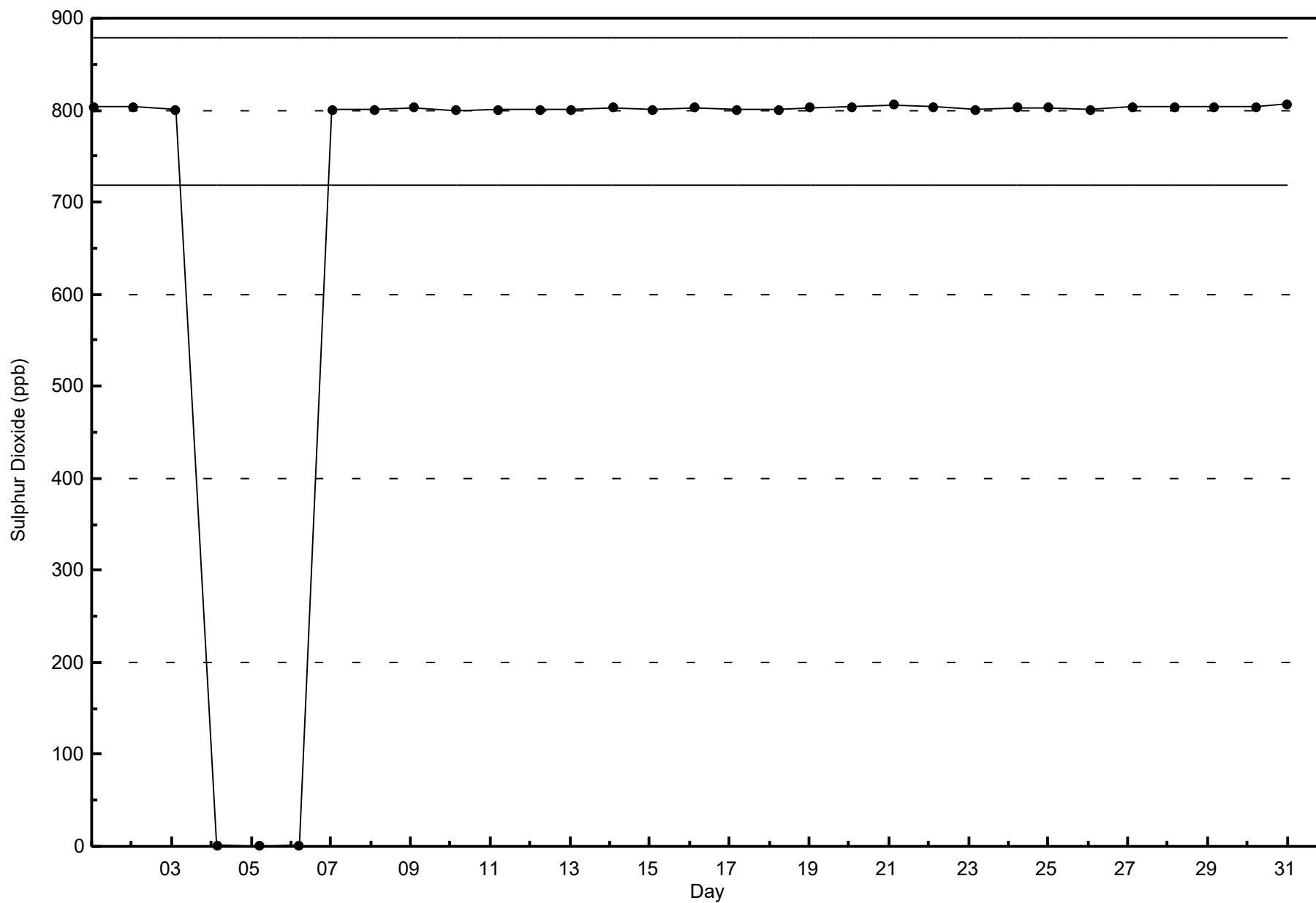






Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Anzac - July 2026





Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Anzac - July 2026

Number of Exceedences (AAAQG): 30-Min: 0																		Periods in Service: 1488											
Maximum Value: 1.6 ppb on Jul 29 01:00																		Maximum Daily Average: 0.8 ppb on Jul 20						Periods of Valid Data: 1411					
Minimum Value: 0.3 ppb on Jul 28 06:00																		Minimum Daily Average: 0.3 ppb on Jul 28						Periods of Invalid Data: 77					
Maximum Diurnal Average: 0.5 ppb at hour 9																		Minimum Diurnal Average: 0.4 ppb at hour 3						Periods of Calibration: 72					
Monthly Average: 0.45 ppb																		Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.4 Median = 0.4 Q ₃ = 0.5 P ₉₀ = 0.6 P ₉₉ = 1.1						Percent Operational Time: 99.7					
	Period Ending At (MST)																								Daily Average	Daily Maximum			
Day	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00					
1-Jul	0.3 0.3	Z SP	0.6 0.8	0.9 0.6	0.5 0.4	0.4 0.4	0.5 0.6	0.5 0.7	0.6 0.4	0.5 0.7	0.6 0.5	0.4 0.4	0.4 0.4	0.5 0.4	0.4 0.5	0.4 0.3	0.4 0.4	0.4 0.3	0.4 0.4	0.4 0.6	0.9 0.9	0.9 0.7	0.5 0.4	0.4 0.4	0.5	0.9			
2-Jul	0.4 0.4	0.4 0.4	Z SP	0.4 0.6	1.1 0.5	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.6 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.5	0.4 0.5	0.4 0.8	0.4 0.4	0.4 0.7	0.7 1.2	1.0 1.2	1.0 0.5	0.4 0.4	0.4 0.4	0.5	1.2			
3-Jul	0.4 0.4	1.0 0.7	0.5 0.5	Z SP	0.5 0.5	0.5 0.9	0.4 0.4	0.6 0.6	0.6 0.6	0.6 0.5	0.4 0.4	PF 0.3	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.3	0.4 0.4	0.4 0.4	0.4 0.3	0.3 0.4	0.3 0.4	0.4 0.4	0.5 0.4	0.4 0.4	0.5	1.0			
4-Jul	0.4 0.3	0.3 0.3	0.3 0.4	0.3 0.3	Z SP	0.4 0.3	0.4 0.4	0.3 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.3	0.3 0.4	0.4 0.4	0.3 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.3	0.3 0.4	0.4 0.4	0.4	0.4			
5-Jul	0.4 0.4	0.4 0.4	0.4 0.3	0.4 0.4	0.3 0.4	Z SP	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4	0.4			
6-Jul	Z SP	0.4 0.4	0.4 0.4	0.4 0.4	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	M M	M 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4	0.5			
7-Jul	0.4 0.6	Z SP	0.4 0.5	0.5 0.5	0.5 0.5	0.5 0.4	0.5 0.5	0.7 0.5	0.5 0.5	0.5 0.5	C C	C C	C C	C C	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.6 0.5	0.4 0.4	0.5	0.7			
8-Jul	0.4 0.4	0.4 0.5	Z SP	0.5 0.5	0.5 0.6	0.6 0.5	0.5 0.5	0.5 0.5	0.7 0.7	0.6 0.5	0.5 0.5	0.4 0.5	0.6 0.4	0.4 0.5	0.4 0.4	0.5 0.5	0.4 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.4 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.5	0.7			
9-Jul	0.4 0.4	0.5 0.5	0.4 0.4	Z SP	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.3	0.4 0.3	0.3 0.4	0.3 0.3	0.3 0.4	0.3 0.3	0.3 0.4	0.4 0.3	0.3 0.3	0.4 0.4	0.4 0.4	0.4 0.4	0.4	0.5			
10-Jul	0.4 0.4	0.5 0.4	0.4 0.4	0.5 0.7	Z SP	0.5 0.4	0.5 0.5	0.5 0.5	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4	0.7			
11-Jul	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	Z SP	0.3 0.3	0.3 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.5 0.5	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.3	0.3 0.3	0.4 0.4	0.4	0.5			
12-Jul	Z SP	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.5	0.4 0.5	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.3	0.4	0.5			
13-Jul	0.4 0.4	Z SP	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.4	0.4 0.4	0.4 0.3	0.3 0.3	0.4 0.4	0.5 0.5	0.5 0.6	0.5 0.4	0.4	0.6			
14-Jul	0.5 0.5	0.4 0.4	Z SP	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4	0.5			
15-Jul	0.4 0.4	0.4 0.4	0.5 0.6	Z SP	0.5 0.4	0.4 0.4	0.4 0.5	0.9 0.8	0.7 0.9	0.8 0.9	0.9 0.7	0.5 0.6	0.6 0.5	0.5 0.4	0.5 0.5	0.5 0.5	0.5 0.5	0.4 0.5	0.5 0.5	0.6 0.5	0.5 0.6	0.5 0.5	0.5 0.5	0.5 0.5	0.5	0.9			



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

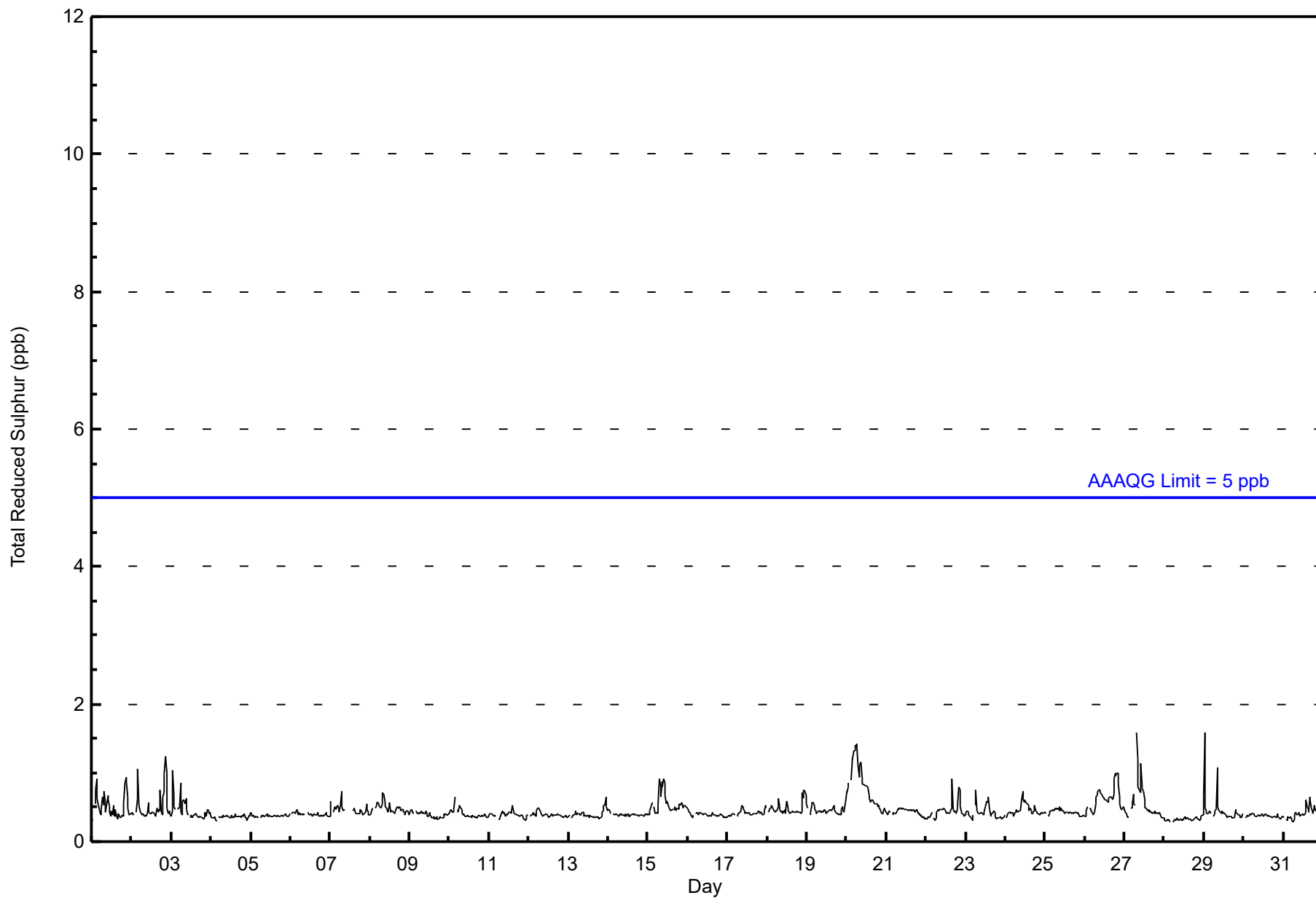
Anzac - July 2026

Day	Period Ending At (MST)																								Daily Average	Daily Maximum	
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00			
16-Jul	0.5 0.4	0.4 0.4	0.4 0.4	0.3 0.4	Z SP	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.3	0.4 0.4	0.4	0.5	
17-Jul	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	Z SP	0.4 0.4	0.4 0.4	0.4 0.5	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.5 0.5	0.4	0.5
18-Jul	Z SP	0.4 0.5	0.5 0.5	0.5 0.5	0.5 0.4	0.4 0.4	0.5 0.5	0.6 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.5 0.4	0.6 0.5	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.7	0.6 0.7	0.7 0.7	0.5	0.7	
19-Jul	0.5 0.5	Z SP	0.4 0.4	0.5 0.6	0.6 0.5	0.5 0.5	0.4 0.4	0.5 0.5	0.4 0.4	0.4 0.4	0.4 0.5	0.4 0.4	0.4 0.4	0.4 0.4	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.5 0.5	0.5 0.4	0.4 0.6	0.5	0.6	
20-Jul	0.7 0.7	0.8 0.9	Z SP	0.9 1.2	1.2 1.3	1.3 1.4	1.4 1.4	1.1 0.9	1.1 1.2	1.2 0.9	0.8 0.8	0.8 0.8	0.8 0.7	0.6 0.6	0.6 0.6	0.6 0.6	0.5 0.5	0.6 0.5	0.6 0.5	0.5 0.5	0.5 0.5	0.4 0.4	0.4 0.4	0.5 0.5	0.8	1.4	
21-Jul	0.4 0.4	0.4 0.4	0.5 0.4	Z SP	0.4 0.4	0.4 0.4	0.4 0.5	0.4 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.4 0.5	0.4 0.5	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.4	0.3 0.3	0.4	0.5	
22-Jul	0.3 0.3	0.3 0.4	0.4 0.3	0.4 0.4	Z SP	0.4 0.3	0.4 0.4	0.5 0.5	0.4 0.5	0.5 0.5	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.5	0.9 0.5	0.4 0.4	0.4 0.4	0.5 0.5	0.8 0.8	0.5 0.4	0.4 0.4	0.4 0.4	0.4	0.4	0.9	
23-Jul	0.4 0.4	0.5 0.4	0.4 0.4	0.4 0.3	0.3 0.4	Z SP	0.5 0.8	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.5 0.6	0.6 0.6	0.4 0.5	0.4 0.4	0.5 0.4	0.4 0.3	0.4 0.3	0.4 0.3	0.3 0.4	0.4 0.3	0.3 0.4	0.4	0.4	0.8	
24-Jul	Z SP	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.5 0.4	0.4 0.5	0.4 0.4	0.6 0.7	0.6 0.6	0.6 0.5	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4	0.5	0.7	
25-Jul	0.4 0.4	Z SP	0.4 0.4	0.4 0.5	0.5 0.4	0.5 0.4	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4	0.4	0.5	
26-Jul	0.4 0.4	0.4 0.5	Z SP	0.5 0.5	0.4 0.4	0.4 0.4	0.4 0.5	0.7 0.7	0.7 0.8	0.7 0.7	0.7 0.7	0.7 0.6	0.6 0.6	0.6 0.6	0.7 0.7	0.6 0.7	0.6 0.7	0.6 0.7	0.9 1.0	1.0 1.0	0.7 0.8	0.5 0.6	0.5 0.5	0.6	1.0		
27-Jul	0.5 0.4	0.4 0.4	0.4 0.4	Z SP	0.5 0.5	0.5 0.7	0.6 0.5	M 1.6	1.2 0.8	0.7 0.7	1.1 0.8	0.8 0.7	0.6 0.5	0.5 0.5	0.4 0.5	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.3	0.3 0.3	0.5	1.6	
28-Jul	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	Z SP	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.4 0.4	0.3 0.4	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.3 0.3	0.3 0.3	0.3 0.4	0.4 0.4	0.3	0.4	
29-Jul	0.7 1.6	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	Z SP	0.4 0.4	0.4 0.5	1.1 0.5	0.5 0.5	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.3	0.3 0.3	0.5 0.4	0.4 0.4	0.4 0.4	0.3 0.4	0.3 0.4	0.3	0.4	1.6	
30-Jul	Z SP	0.3 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.4	0.4 0.4	0.3 0.3	0.4	0.4	0.4	
31-Jul	0.4 0.3	Z SP	0.3 0.3	0.4 0.4	0.3 0.4	0.3 0.3	0.3 0.3	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.6 0.5	0.5 0.4	0.6 0.6	0.5 0.4	0.4 0.5	0.5 0.4	0.5 0.6	0.6 0.4	0.4 0.4	0.4	0.4	0.6	
0.4 0.4 0.4 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.5 0.4 0.4 0.4 0.4																								Diurnal Average			
1.6 1.0 0.8 1.2 1.3 1.4 1.4 1.6 1.2 1.2 1.1 0.8 0.8 0.8 0.6 0.7 0.9 0.8 1.0 1.0 1.2 1.0 0.7 0.7																								Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance PF - Power Failure SP - Span																											
Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Anzac - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Anzac - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	707	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Anzac - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	6	4	2	5	9	35	79	81	34	28	47	48	118	126	49	36	707
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	6	4	2	5	9	35	79	81	34	28	47	48	118	126	49	36	707

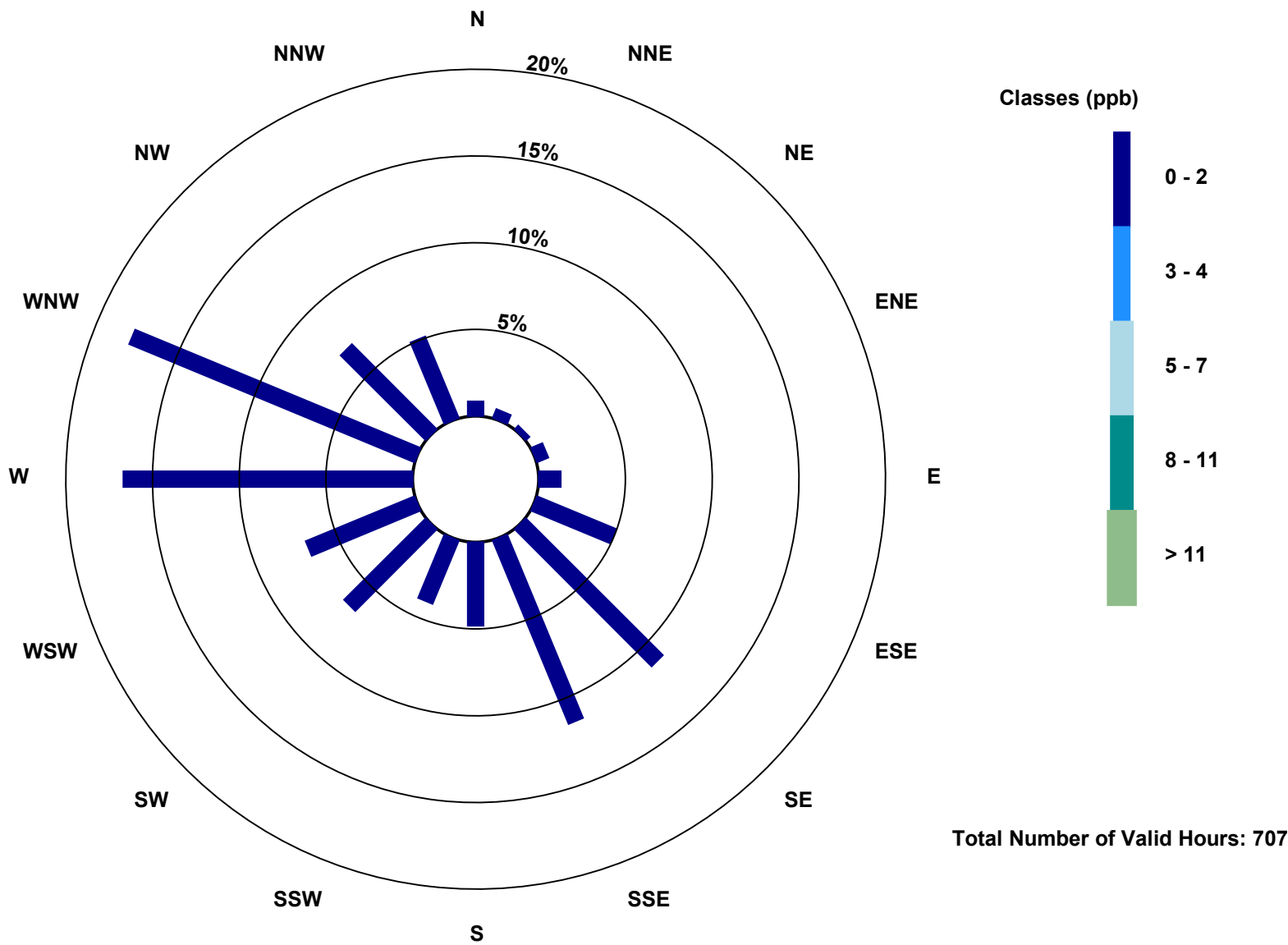
Total Number of Valid Hours: 707

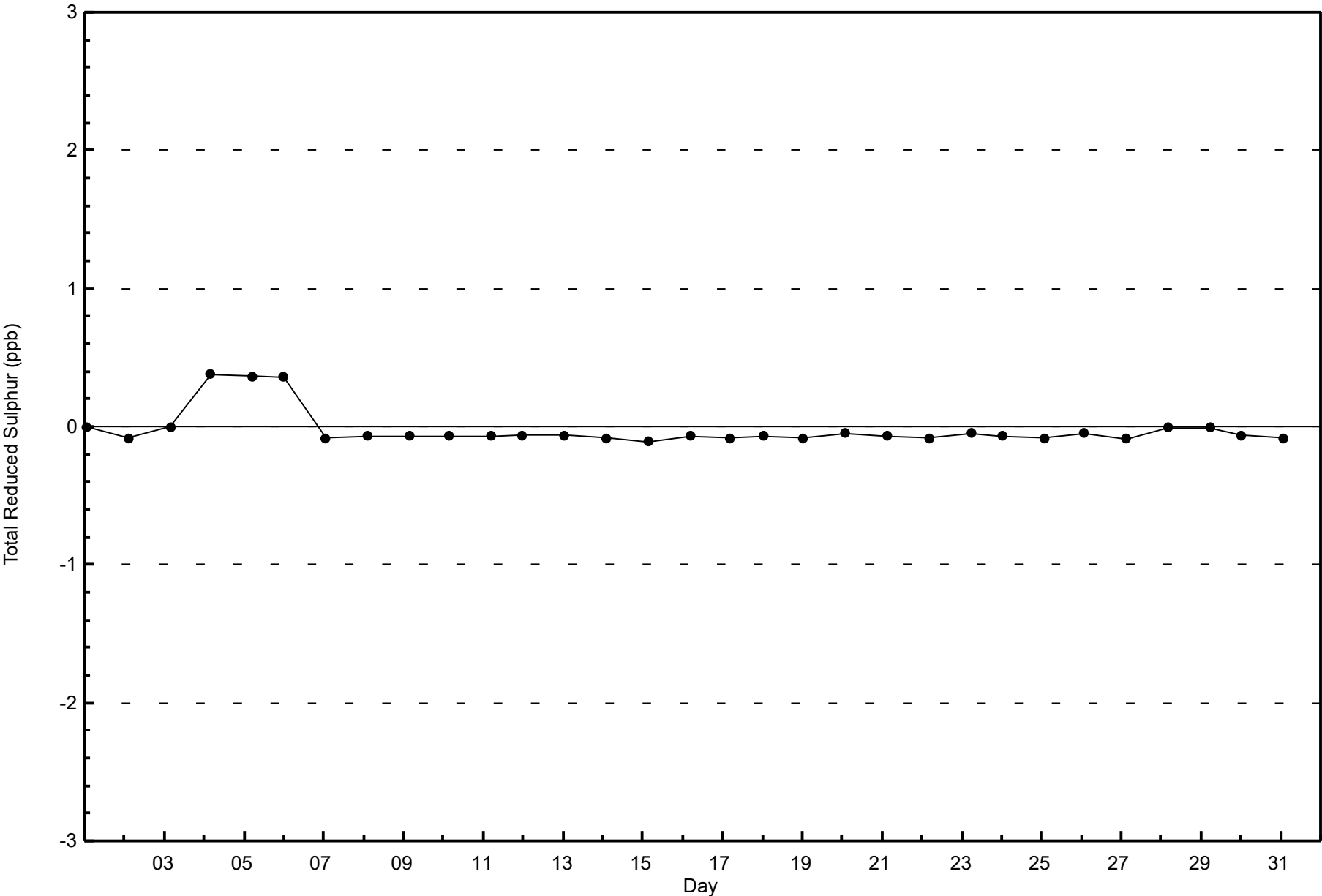
Total Number of Hours: 744

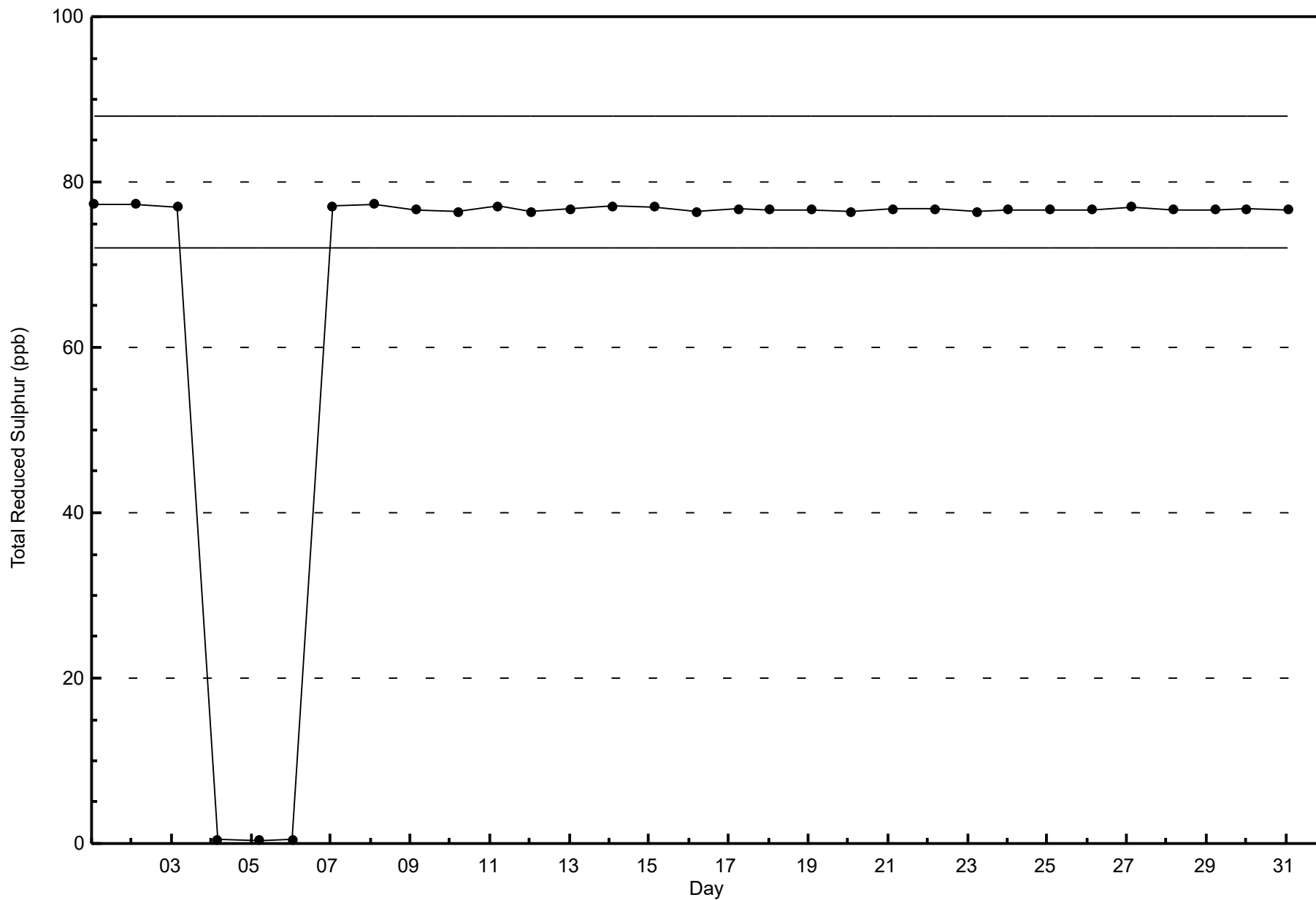


Wood Buffalo Environmental Association
Wind Rose Jul 2026

Total Reduced Sulphur (TRS) - ppb
Anzac









Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

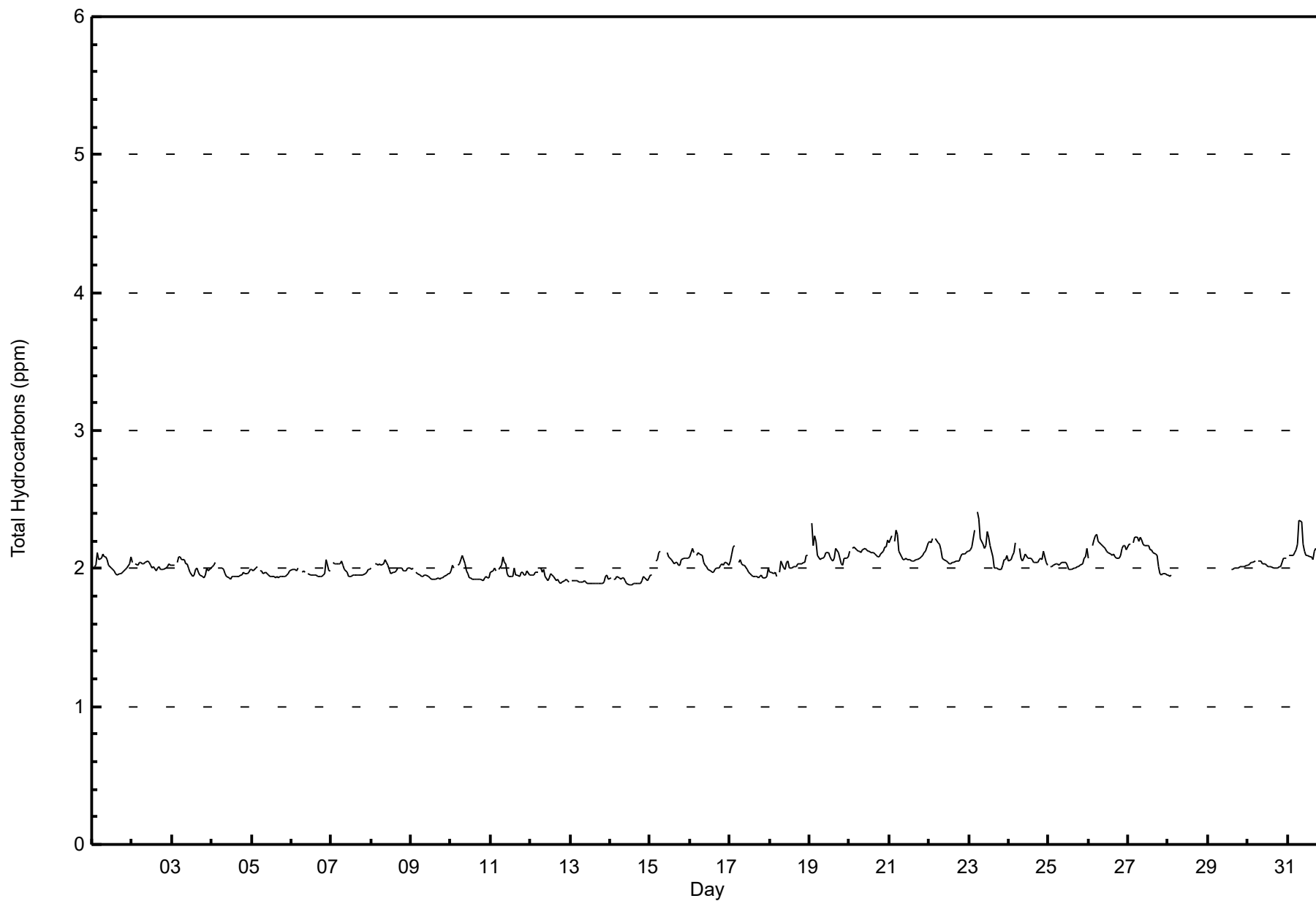
Anzac - July 2026

Maximum Value: 2.4 ppm on Jul 23 06:00																			Maximum Daily Average: 2.1 ppm on Jul 26						Hours in Service: 744	
Minimum Value: 1.9 ppm on Jul 14 13:00																			Minimum Daily Average: 1.9 ppm on Jul 13						Hours of Data: 676	
Maximum Diurnal Average: 2.1 ppm at hour 6																			Minimum Diurnal Average: 2.0 ppm at hour 16						Hours of Missing Data: 68	
Monthly Average: 2.03 ppm																			Percentiles: P ₁ = 1.9 P ₁₀ = 1.9 Q ₁ = 2.0 Median = 2.0 Q ₃ = 2.1 P ₉₀ = 2.1 P ₉₉ = 2.3						Hours of Calibration: 33	
																									Percent Operational Time: 95.3	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
2-Jul	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
3-Jul	2.0	2.0	Z	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1
4-Jul	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5-Jul	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	
6-Jul	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	M	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.0	2.0	2.1
7-Jul	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
8-Jul	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
9-Jul	2.0	2.0	Z	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0
10-Jul	2.0	2.0	2.0	Z	2.0	2.0	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1
11-Jul	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
12-Jul	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0
13-Jul	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
14-Jul	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
15-Jul	1.9	2.0	Z	2.0	2.1	2.1	2.1	C	C	C	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
16-Jul	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
17-Jul	2.1	2.1	2.2	2.2	Z	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	
18-Jul	2.0	2.0	2.0	2.0	1.9	Z	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1
19-Jul	Z	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.3
20-Jul	2.1	Z	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2
21-Jul	2.2	2.2	Z	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.3
22-Jul	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
23-Jul	2.1	2.1	2.2	2.3	Z	2.4	2.4	2.2	2.2	2.1	2.2	2.3	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.4
24-Jul	2.1	2.1	2.1	2.1	2.2	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.2
25-Jul	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1
26-Jul	2.1	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.2
27-Jul	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2
28-Jul	2.0	1.9	2.0	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	2.0
29-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	M	M	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
30-Jul	2.0	2.0	2.0	2.0	2.1	Z	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1
31-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.4
Diurnal Average																										
Diurnal Maximum																										
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation																										



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Anzac - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Anzac - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	438	64.79	64.79
2.1 - 3.0	238	35.21	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 676

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Anzac - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	3	3	1	1	5	16	44	54	21	21	29	37	89	76	23	15	438
2.1 - 3.0	3	1	1	4	1	14	30	25	16	7	12	8	21	46	28	21	238
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	6	4	2	5	6	30	74	79	37	28	41	45	110	122	51	36	676

Total Number of Valid Hours: 676

Total Number of Hours: 744

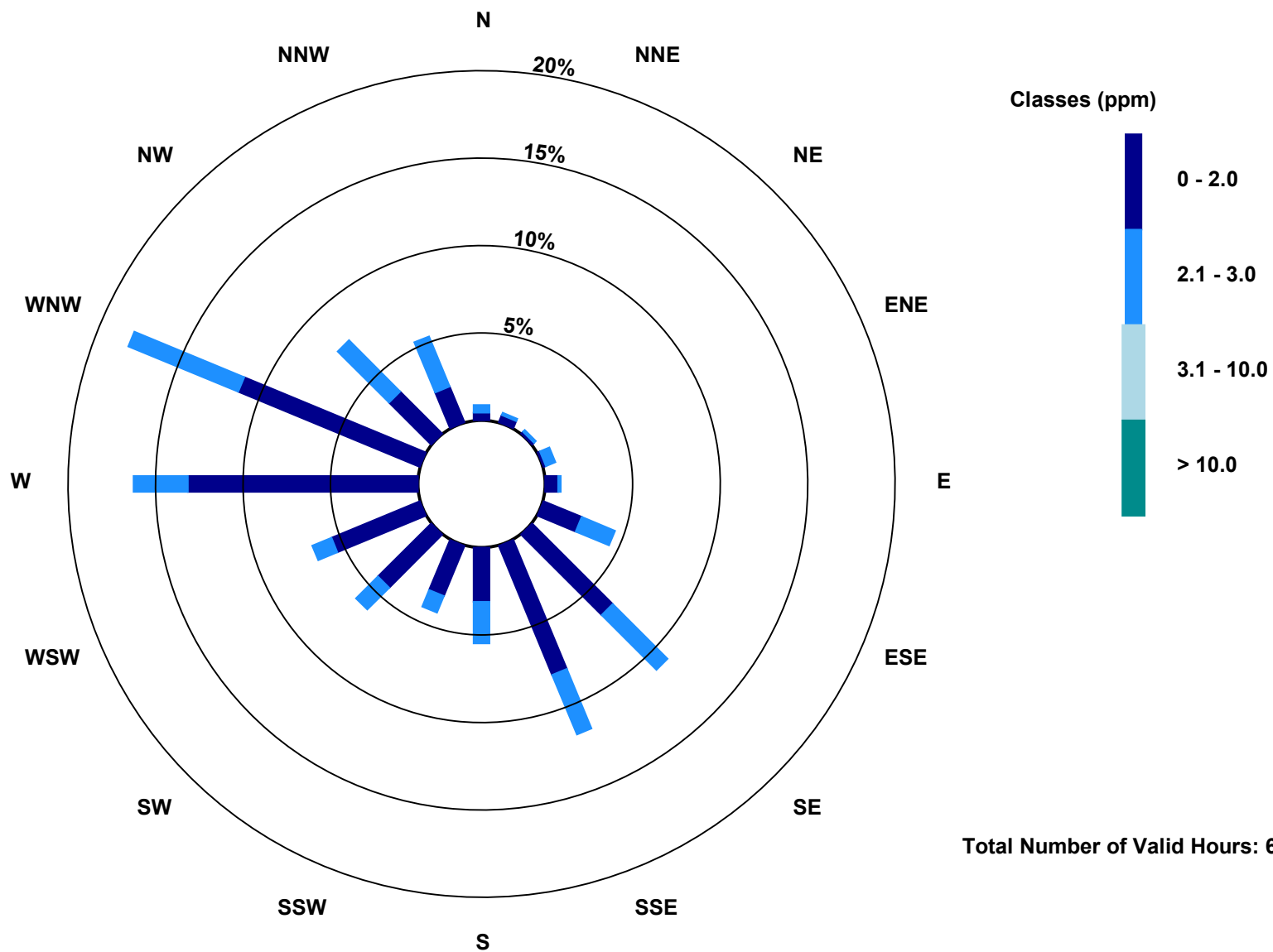


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Total Hydrocarbons (THC) - ppm

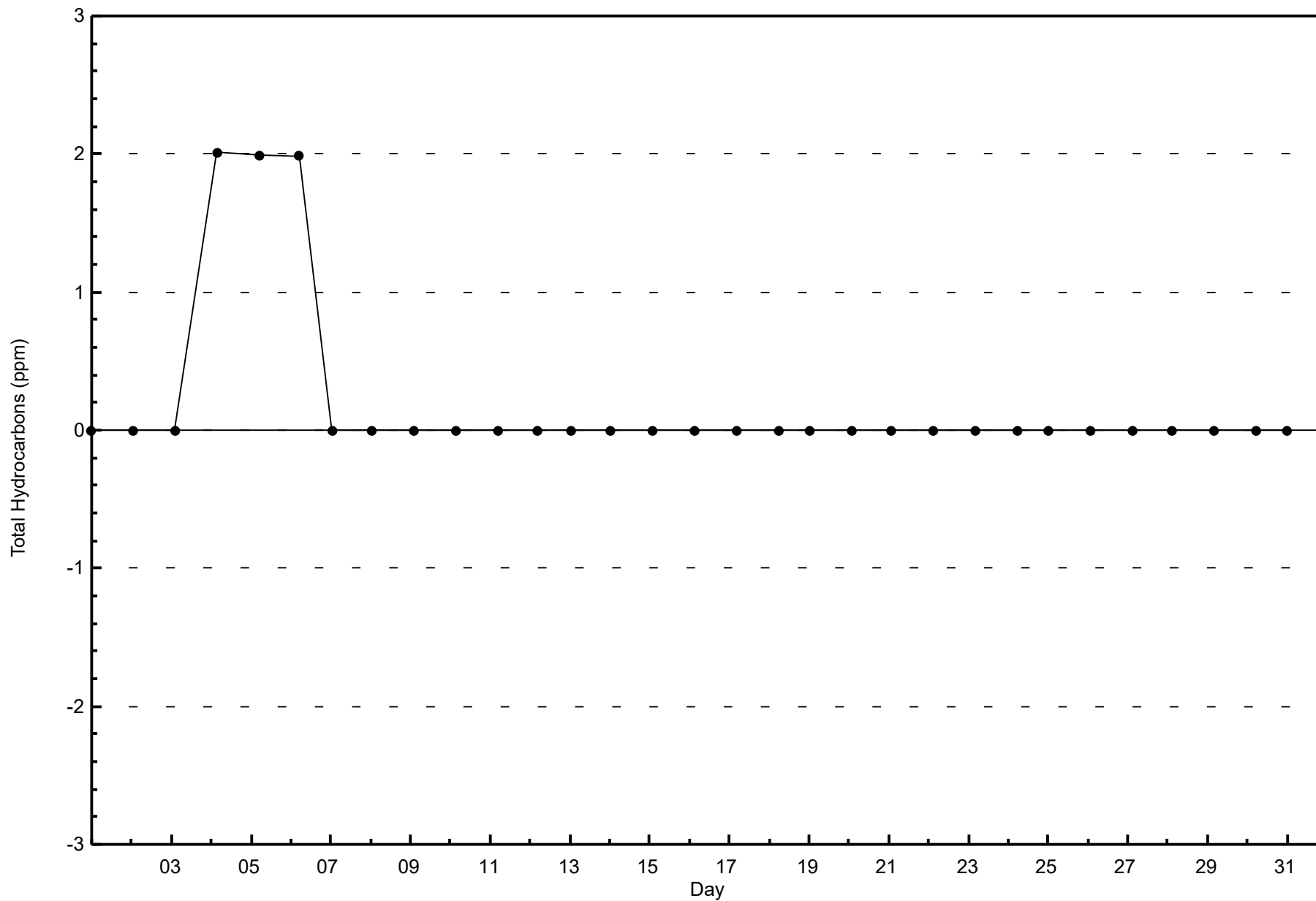
Anzac

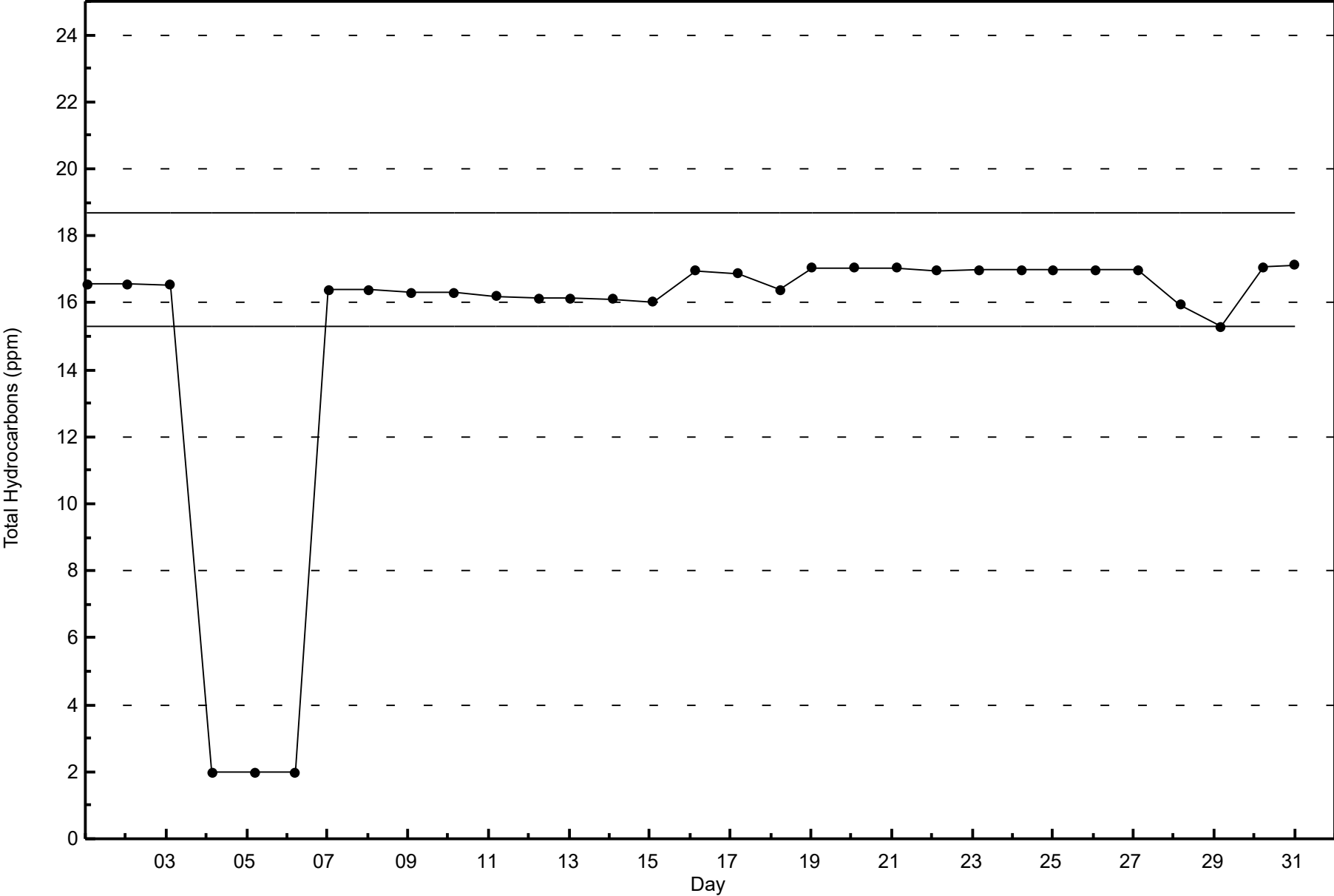




Wood Buffalo Environmental Association
Zero Responses

Total Hydrocarbons (THC) - ppm
Anzac - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

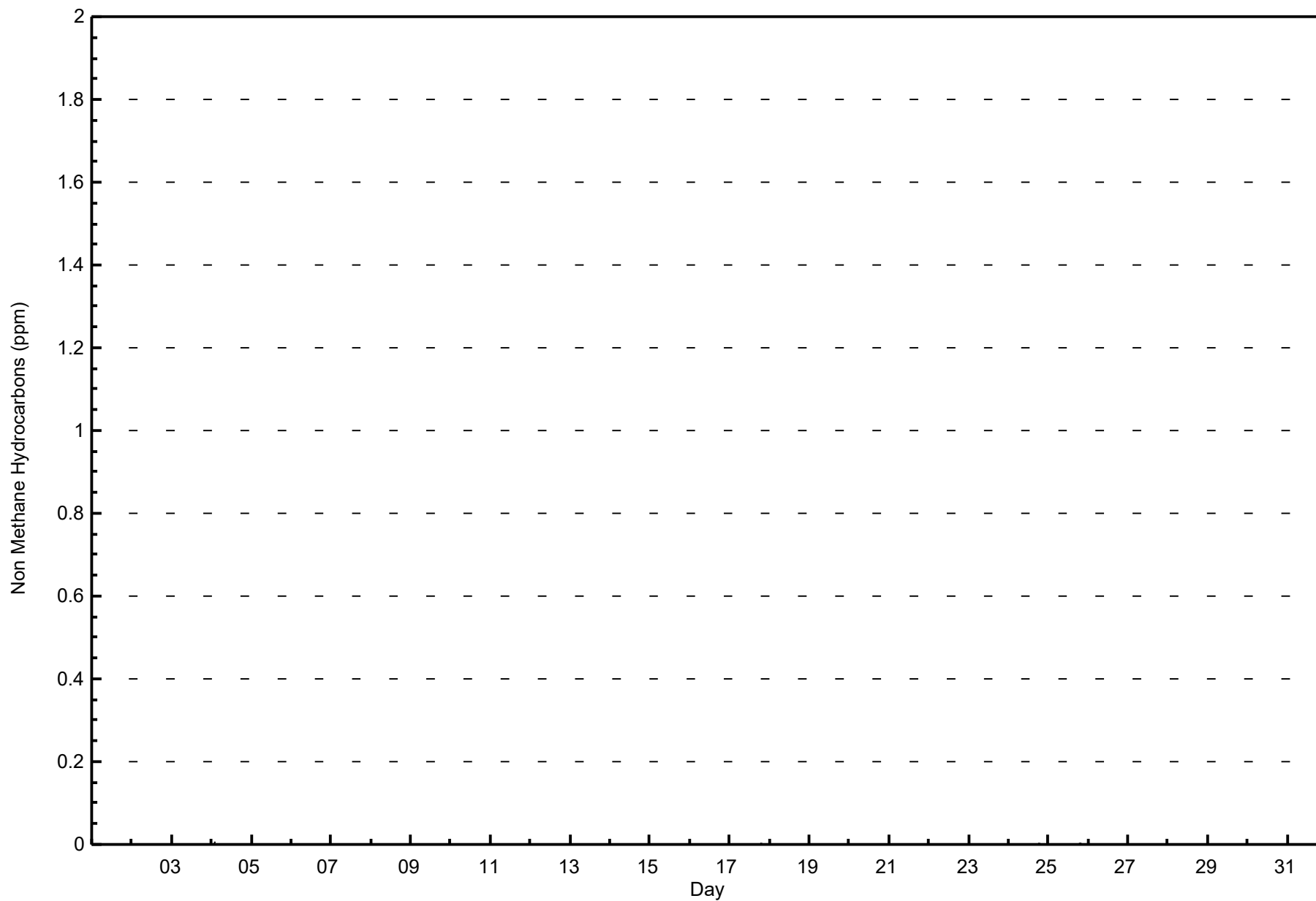
Anzac - July 2026

Maximum Value: 0.007 ppm on Jul 4 03:00																				Maximum Daily Average: 0.000 ppm on Jul 4					Hours in Service: 744				
Minimum Value: 0.000 ppm on Jul 1 02:00																				Minimum Daily Average: 0.000 ppm on Jul 1					Hours of Data: 676				
Maximum Diurnal Average: 0.000 ppm at hour 3																				Minimum Diurnal Average: 0.000 ppm at hour 1					Hours of Missing Data: 68				
Monthly Average: 0.000 ppm																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0					Hours of Calibration: 33				
																									Percent Operational Time: 95.3				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
2-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
3-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
4-Jul	0.000	0.000	0.007	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007		
5-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
6-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	M	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
7-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
8-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
9-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
10-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
11-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
12-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
13-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
14-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
15-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	C	C	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
16-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
17-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.004			
18-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
19-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
20-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
21-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
22-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
23-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
24-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.002			
25-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.003			
26-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
27-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
28-Jul	0.000	0.000	0.000	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO			
29-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	M	M	M	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
30-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
31-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
0.000																									Diurnal Average				
0.000																									Diurnal Maximum				
Z - zerospan																									C - Calibration				
M - Maintenance																									UO - Unstable Operation				



Wood Buffalo Environmental Association
Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm
Anzac - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Anzac - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	675	99.85	99.85
0.006 - 0.05	1	0.15	100.00
0.06 - 0.1	0	0.00	100.00
> 0.1	0	0.00	100.00

Total Number of Valid Hours: 676

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Anzac - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 0.005	6	4	2	5	6	30	74	79	37	28	40	45	110	122	51	36	675
0.006 - 0.05	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
0.06 - 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	6	4	2	5	6	30	74	79	37	28	41	45	110	122	51	36	676

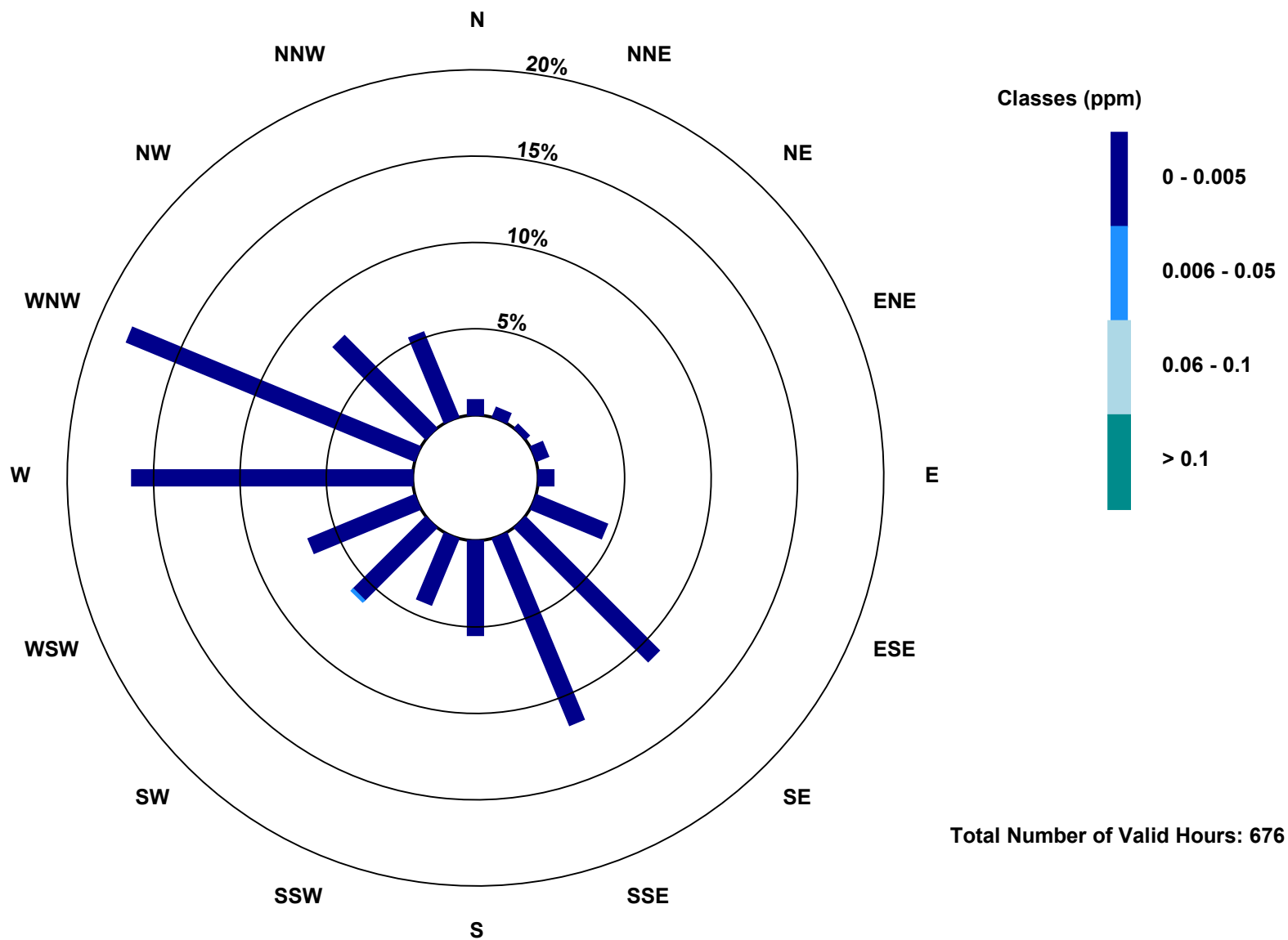
Total Number of Valid Hours: 676

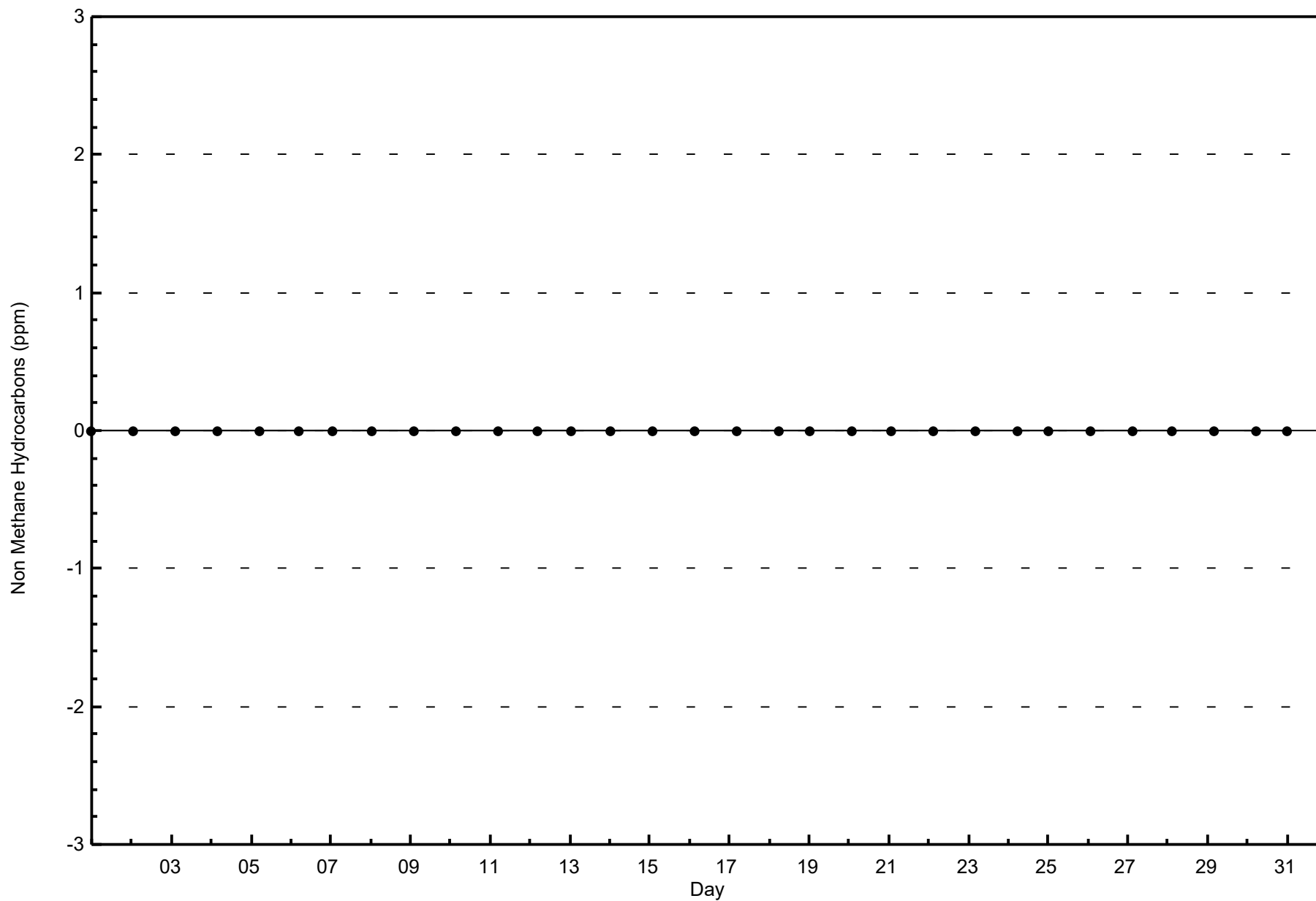
Total Number of Hours: 744

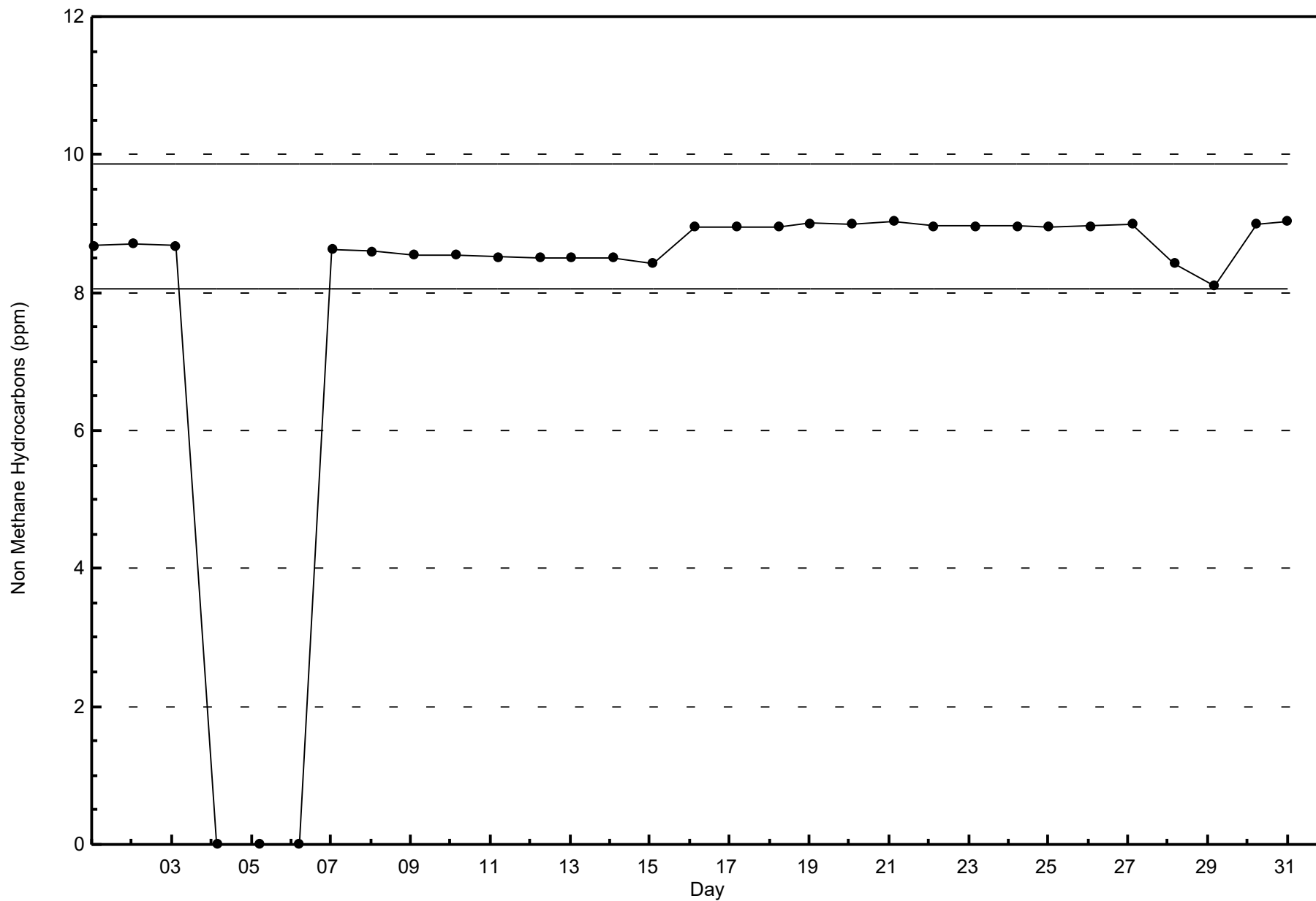


Wood Buffalo Environmental Association
Wind Rose Jul 2026

Non Methane Hydrocarbons (NMHC) - ppm
Anzac









Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH₄) - ppm

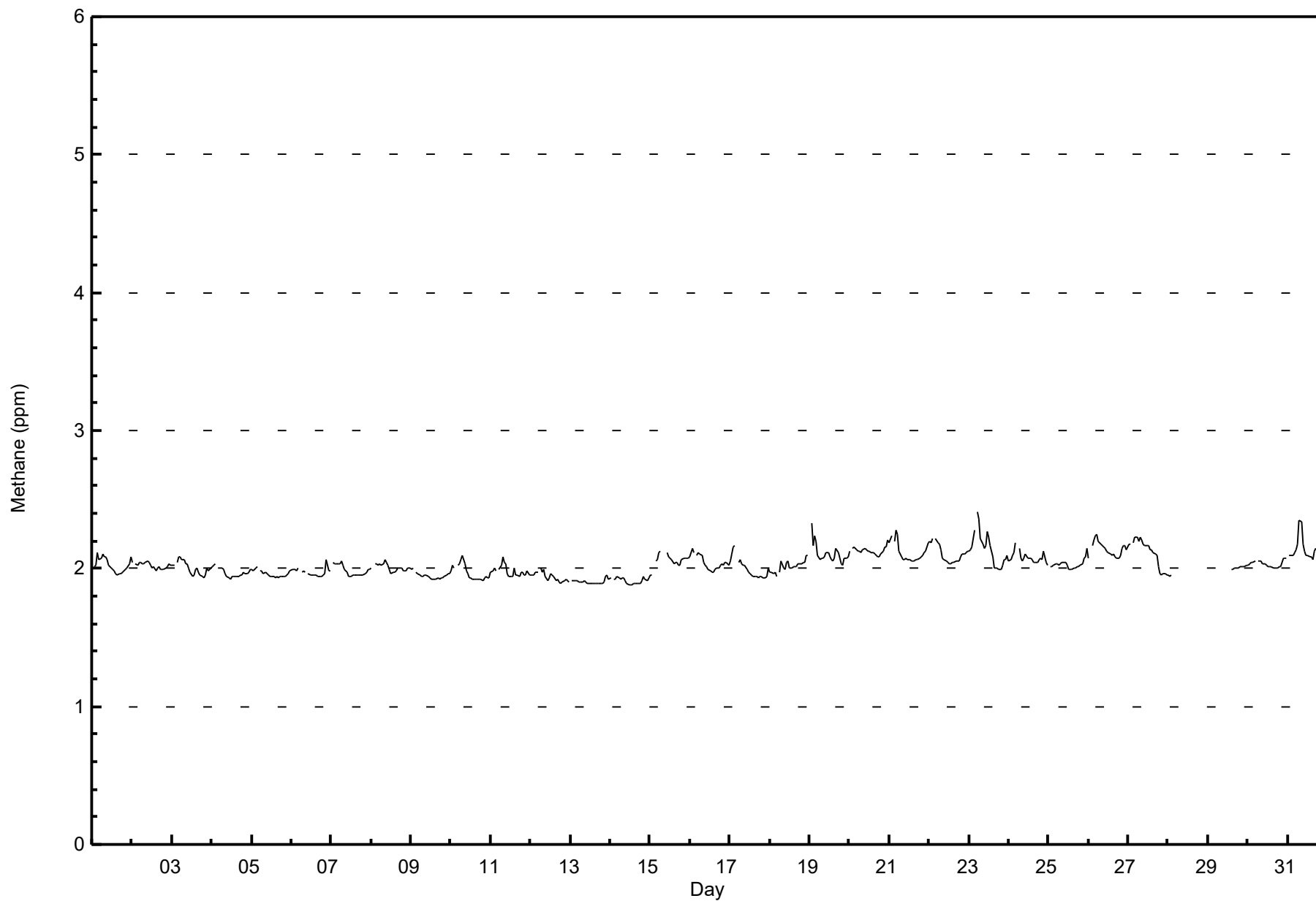
Anzac - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.4 ppm on Jul 23 06:00 Maximum Daily Average: 2.1 ppm on Jul 26																				Hours in Service: 744 Hours of Data: 676 Hours of Missing Data: 68 Hours of Calibration: 33 Percent Operational Time: 95.3							
Minimum Value: 1.9 ppm on Jul 14 13:00 Minimum Daily Average: 1.9 ppm on Jul 13 Maximum Diurnal Average: 2.1 ppm at hour 6 Minimum Diurnal Average: 2.0 ppm at hour 16 Monthly Average: 2.03 ppm Percentiles: P ₁ = 1.9 P ₁₀ = 1.9 Q ₁ = 2.0 Median = 2.0 Q ₃ = 2.1 P ₉₀ = 2.1 P ₉₉ = 2.3																											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Jul	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	
2-Jul	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
3-Jul	2.0	2.0	Z	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1
4-Jul	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5-Jul	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0
6-Jul	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	M	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.0
7-Jul	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
8-Jul	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
9-Jul	2.0	2.0	Z	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.0
10-Jul	2.0	2.0	2.0	Z	2.0	2.0	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.0
11-Jul	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0
12-Jul	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0
13-Jul	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
14-Jul	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
15-Jul	1.9	2.0	Z	2.0	2.1	2.1	2.1	C	C	C	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
16-Jul	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0
17-Jul	2.1	2.1	2.2	2.2	Z	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.2	2.0
18-Jul	2.0	2.0	2.0	2.0	1.9	Z	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.0
19-Jul	Z	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.3	2.1
20-Jul	2.1	Z	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.0
21-Jul	2.2	2.2	Z	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.3	2.0
22-Jul	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.0
23-Jul	2.1	2.1	2.2	2.3	Z	2.4	2.4	2.2	2.2	2.1	2.2	2.3	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.4	2.0
24-Jul	2.1	2.1	2.1	2.1	2.2	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.2	2.0
25-Jul	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.0
26-Jul	2.1	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.0
27-Jul	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0
28-Jul	2.0	1.9	2.0	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	2.0
29-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	M	M	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
30-Jul	2.0	2.0	2.0	2.0	2.1	Z	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.0
31-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.4	2.0
2.0 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0																								Diurnal Average			
2.2 2.3 2.2 2.3 2.3 2.4 2.4 2.4 2.4 2.3 2.2 2.2 2.3 2.2 2.2 2.1 2.1 2.2 2.1 2.1 2.1 2.1 2.2 2.2 2.2 2.2 2.2																								Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation																											



Wood Buffalo Environmental Association
Hourly Averages

Methane (CH₄) - ppm
Anzac - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Methane (CH₄) - ppm
Anzac - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	438	64.79	64.79
2.1 - 3.0	238	35.21	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 676

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Methane (CH₄) - ppm
Anzac - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	3	3	1	1	5	16	44	54	21	21	29	37	89	76	23	15	438
2.1 - 3.0	3	1	1	4	1	14	30	25	16	7	12	8	21	46	28	21	238
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	6	4	2	5	6	30	74	79	37	28	41	45	110	122	51	36	676

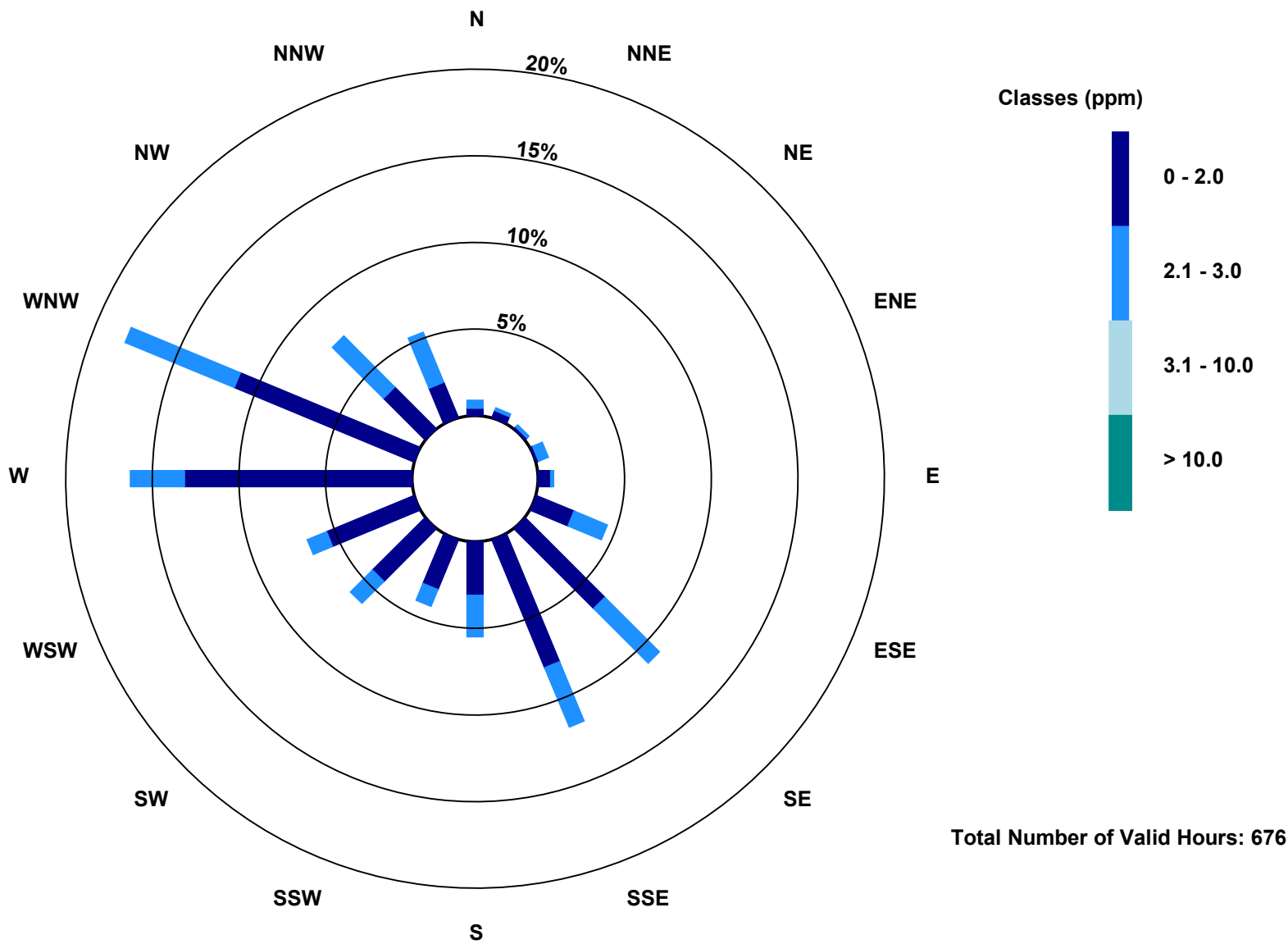
Total Number of Valid Hours: 676

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

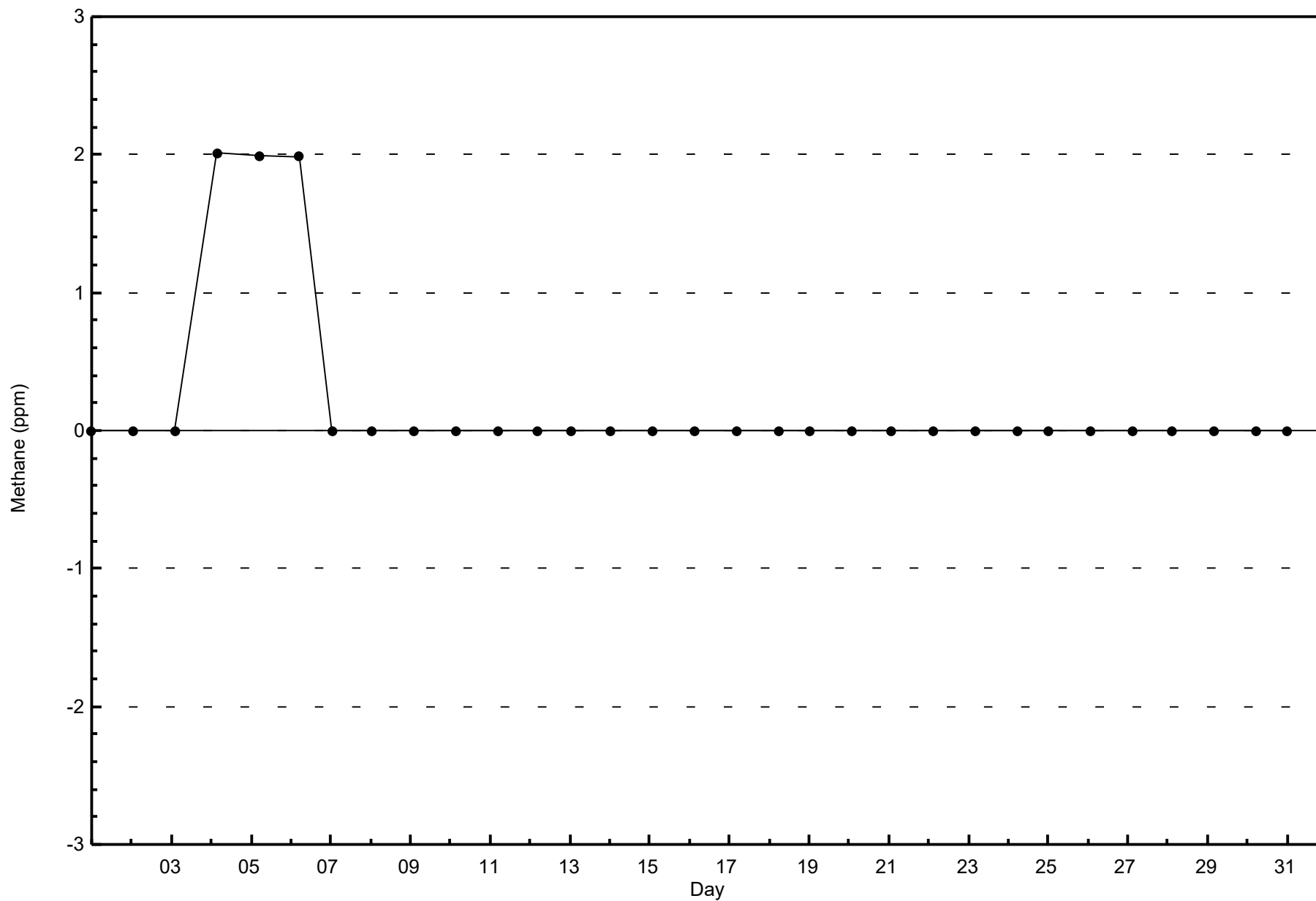
Methane (CH₄) - ppm
Anzac





Wood Buffalo Environmental Association
Zero Responses

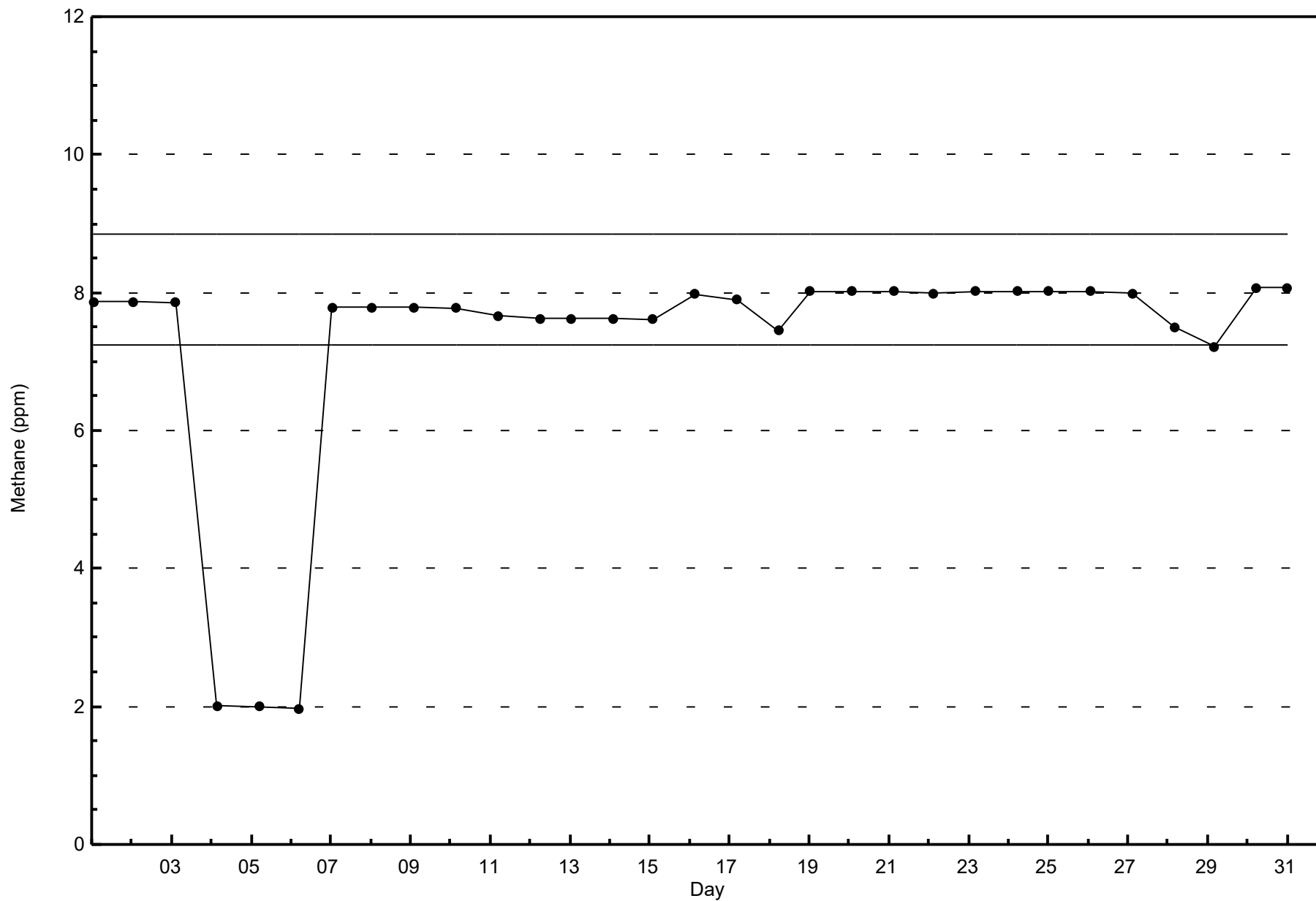
Methane (CH₄) - ppm
Anzac - July 2026





Wood Buffalo Environmental Association
Span Responses

Methane (CH₄) - ppm
Anzac - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

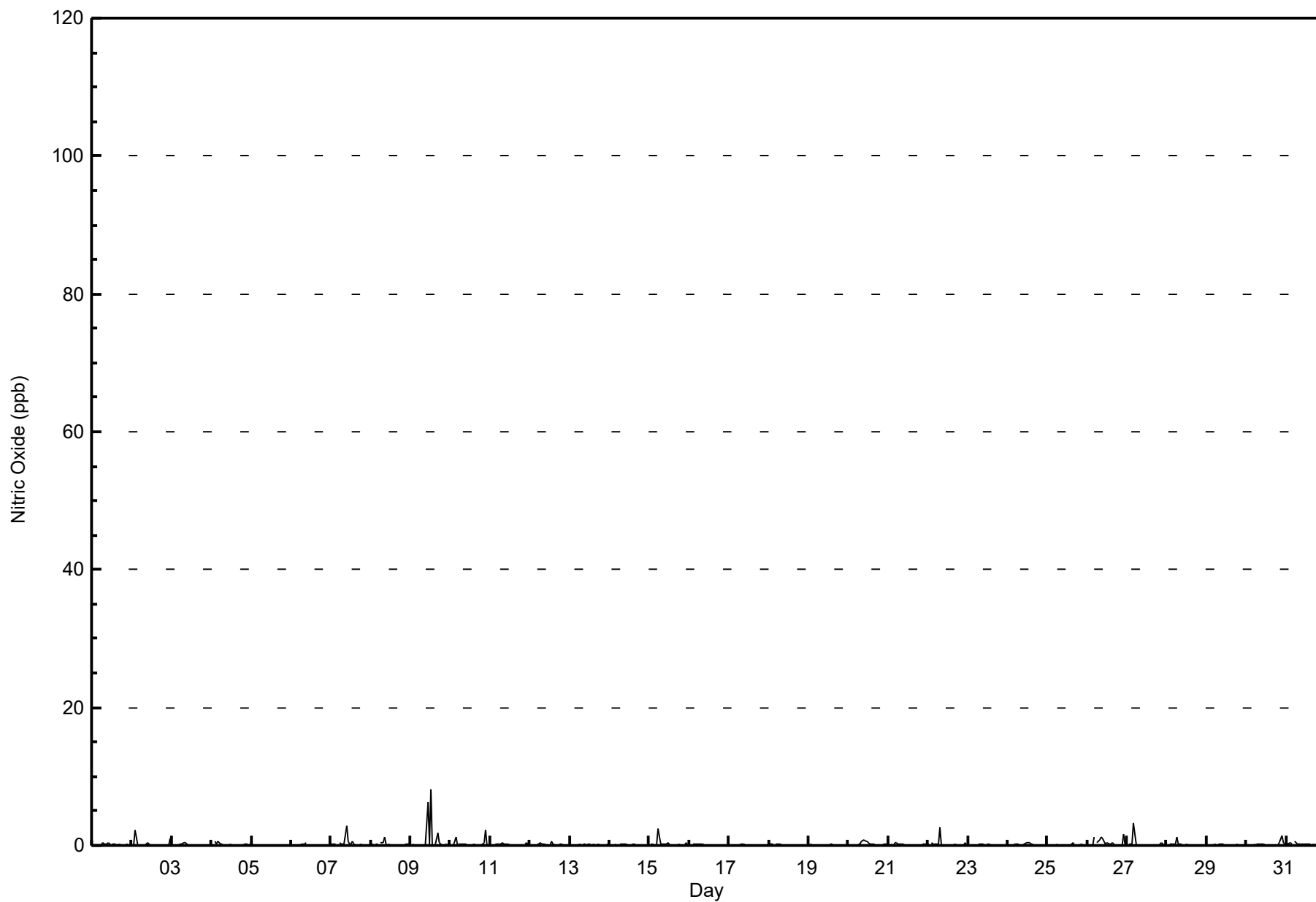
Anzac - July 2026

Maximum Value: 8.1 ppb on Jul 9 13:00										Maximum Daily Average: 0.8 ppb on Jul 9										Hours in Service: 744						
Minimum Value: 0.0 ppb on Jul 24 03:00										Minimum Daily Average: 0.1 ppb on Jul 5										Hours of Data: 706						
Maximum Diurnal Average: 0.4 ppb at hour 11										Minimum Diurnal Average: 0.1 ppb at hour 20										Hours of Missing Data: 38						
Monthly Average: 0.18 ppb										Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.1 P ₉₀ = 0.3 P ₉₉ = 2.2										Hours of Calibration: 36						
																				Percent Operational Time: 99.7						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.0	0.0	0.0	0.1	Z	0.2	0.3	0.1	0.2	0.2	0.5	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.5
2-Jul	0.0	0.0	2.2	0.0	0.1	Z	0.1	0.0	0.1	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	1.0	0.2	2.2
3-Jul	Z	0.0	0.0	0.0	0.1	0.2	0.2	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
4-Jul	0.1	Z	0.6	0.1	0.7	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.7
5-Jul	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
6-Jul	0.1	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.2	0.4	M	M	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.4
7-Jul	0.1	0.1	0.2	0.2	Z	0.4	0.2	0.2	0.3	2.8	0.6	0.3	0.2	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.3	2.8
8-Jul	0.1	0.1	0.1	0.2	0.2	Z	0.3	0.4	1.2	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	1.2
9-Jul	Z	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	6.3	0.1	8.1	0.1	0.1	0.1	1.8	0.4	0.1	0.1	0.1	0.2	0.1	0.0	0.8	8.1
10-Jul	0.0	Z	0.0	1.2	0.1	0.2	0.3	0.3	0.3	0.2	0.1	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.4	2.2	0.1	0.1	0.3	2.2
11-Jul	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.4	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.5	0.1	0.1	0.5
12-Jul	0.0	0.0	0.0	Z	0.1	0.2	0.3	0.1	0.2	0.1	0.1	0.1	0.0	0.6	0.2	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.6
13-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
14-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.2	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	0.2	0.1	0.2
15-Jul	Z	0.3	0.2	0.1	0.3	2.4	1.1	0.1	0.1	0.3	0.2	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.1	0.3	2.4
16-Jul	0.1	Z	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.2
17-Jul	0.1	0.0	Z	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
18-Jul	0.4	0.1	0.1	Z	0.1	0.2	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
19-Jul	0.0	0.1	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
20-Jul	0.0	0.0	0.0	0.1	0.1	Z	0.2	0.3	0.6	0.8	0.6	0.5	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.8
21-Jul	Z	0.2	0.1	0.1	0.3	0.5	0.3	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	0.2	0.2	0.1	0.5
22-Jul	0.3	Z	0.3	0.2	0.2	0.2	0.2	2.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.4	0.1	0.2	2.6
23-Jul	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
24-Jul	0.0	0.0	0.0	Z	0.2	0.2	0.1	0.1	0.1	0.0	0.3	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.4
25-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.3	0.0	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.3
26-Jul	0.0	0.0	0.1	0.1	1.2	Z	0.4	0.8	1.3	0.9	0.6	0.3	0.4	0.2	0.2	0.5	0.3	0.1	0.0	0.1	0.1	0.1	1.6	0.2	0.4	1.6
27-Jul	Z	0.3	0.3	0.2	3.3	0.1	0.1	C	C	C	C	C	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.1	0.1	0.3	3.3
28-Jul	0.1	Z	0.1	0.1	0.1	0.2	1.2	0.1	0.2	0.0	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	1.2
29-Jul	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
30-Jul	0.1	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	1.4	0.4	0.2	0.2	1.4
31-Jul	0.1	0.1	0.4	0.1	Z	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	2.8	0.3	0.1	0.3	2.8
0.1 0.1 0.2 0.1 0.3 0.3 0.2 0.3 0.2 0.3 0.4 0.1 0.4 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.3 0.2 0.1																								Diurnal Average		
0.4 0.3 2.2 1.2 3.3 2.4 1.2 2.6 1.3 2.8 6.3 0.5 8.1 0.7 0.2 0.5 1.8 0.4 0.2 0.1 0.5 2.8 1.6 1.0																								Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance																										



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Anzac - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Anzac - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	706	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Anzac - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	5	3	3	4	9	40	77	80	37	25	47	47	117	125	50	37	706
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	5	3	3	4	9	40	77	80	37	25	47	47	117	125	50	37	706

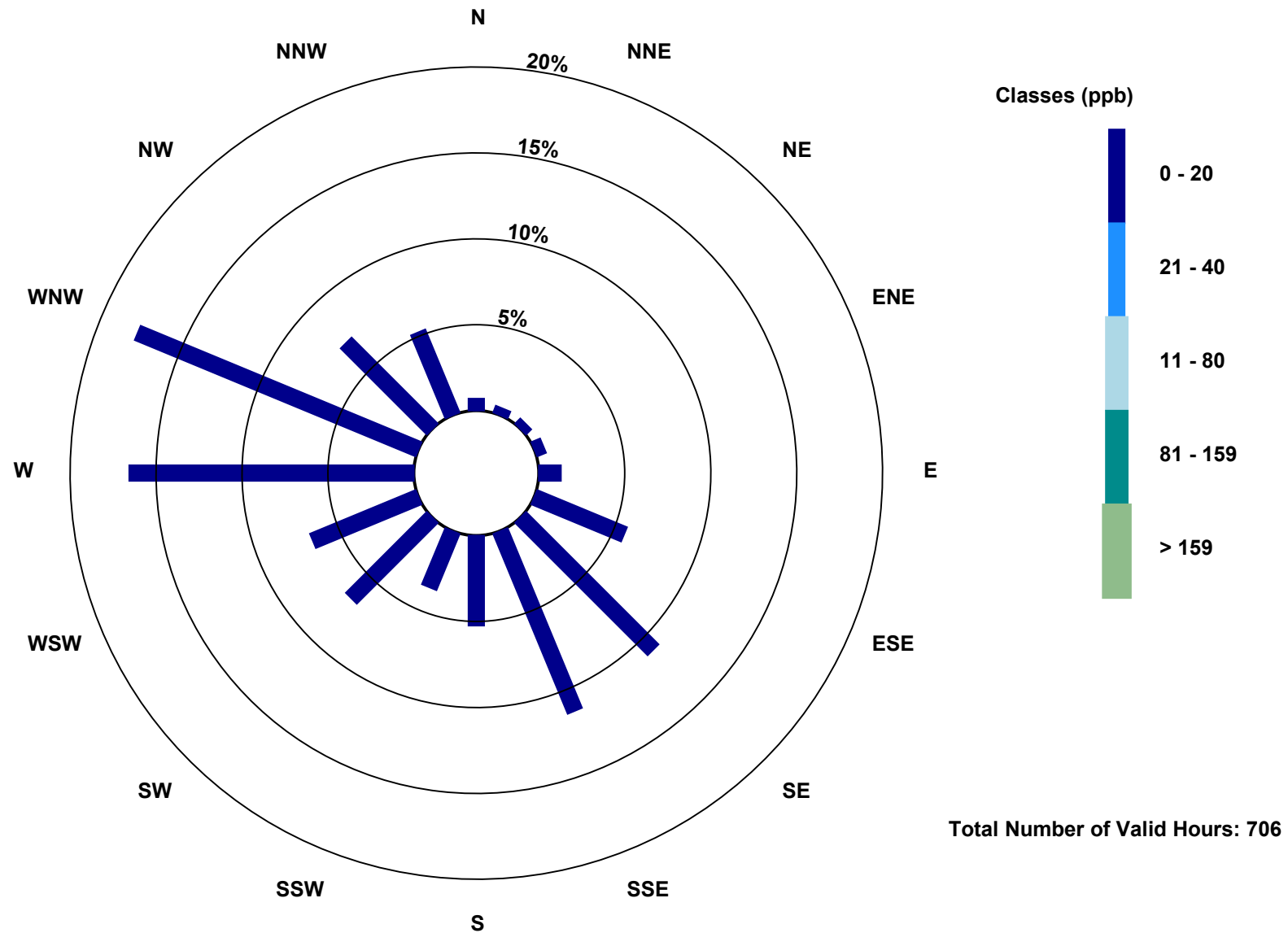
Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

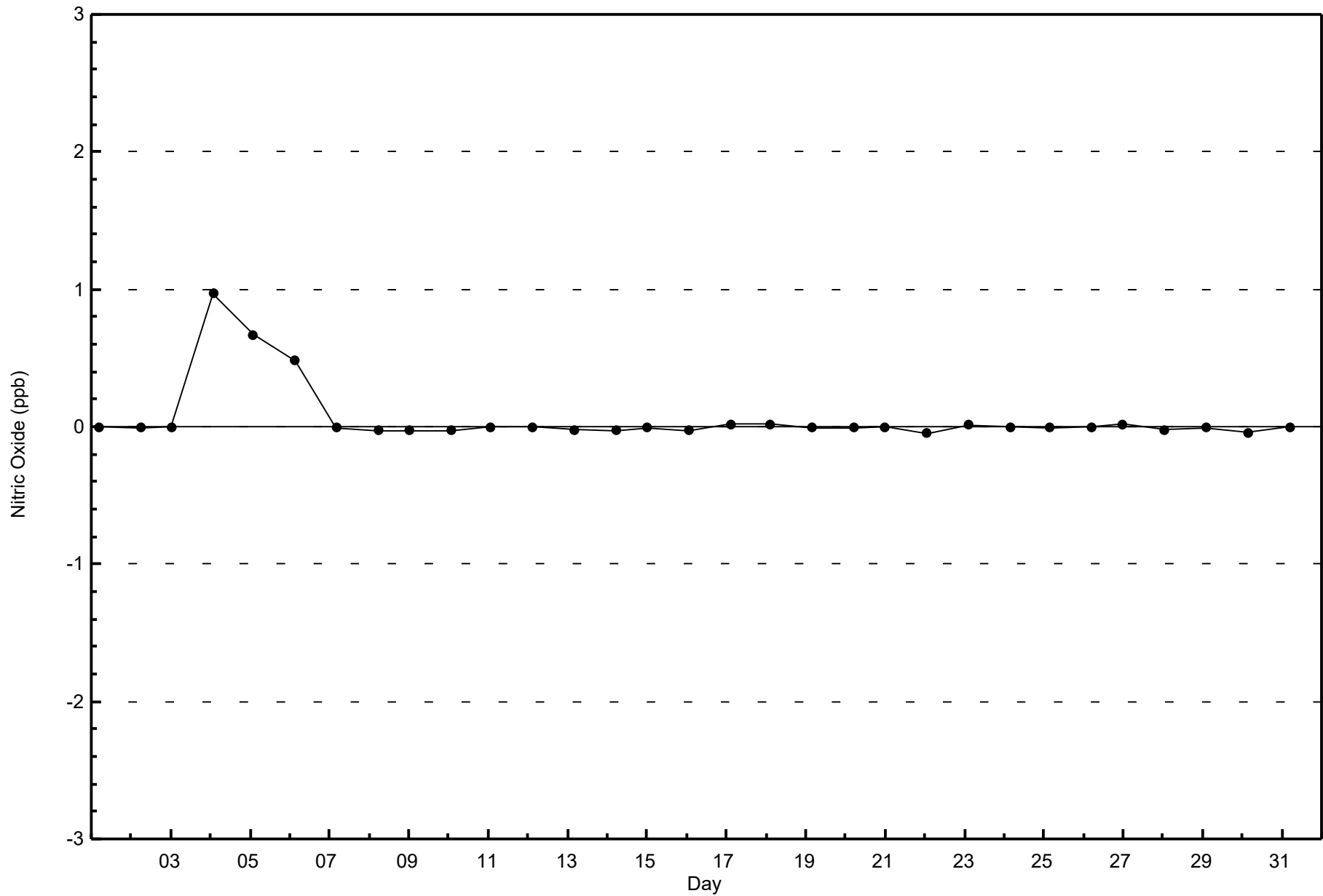
Nitric Oxide (NO) - ppb
Anzac





Wood Buffalo Environmental Association
Zero Responses

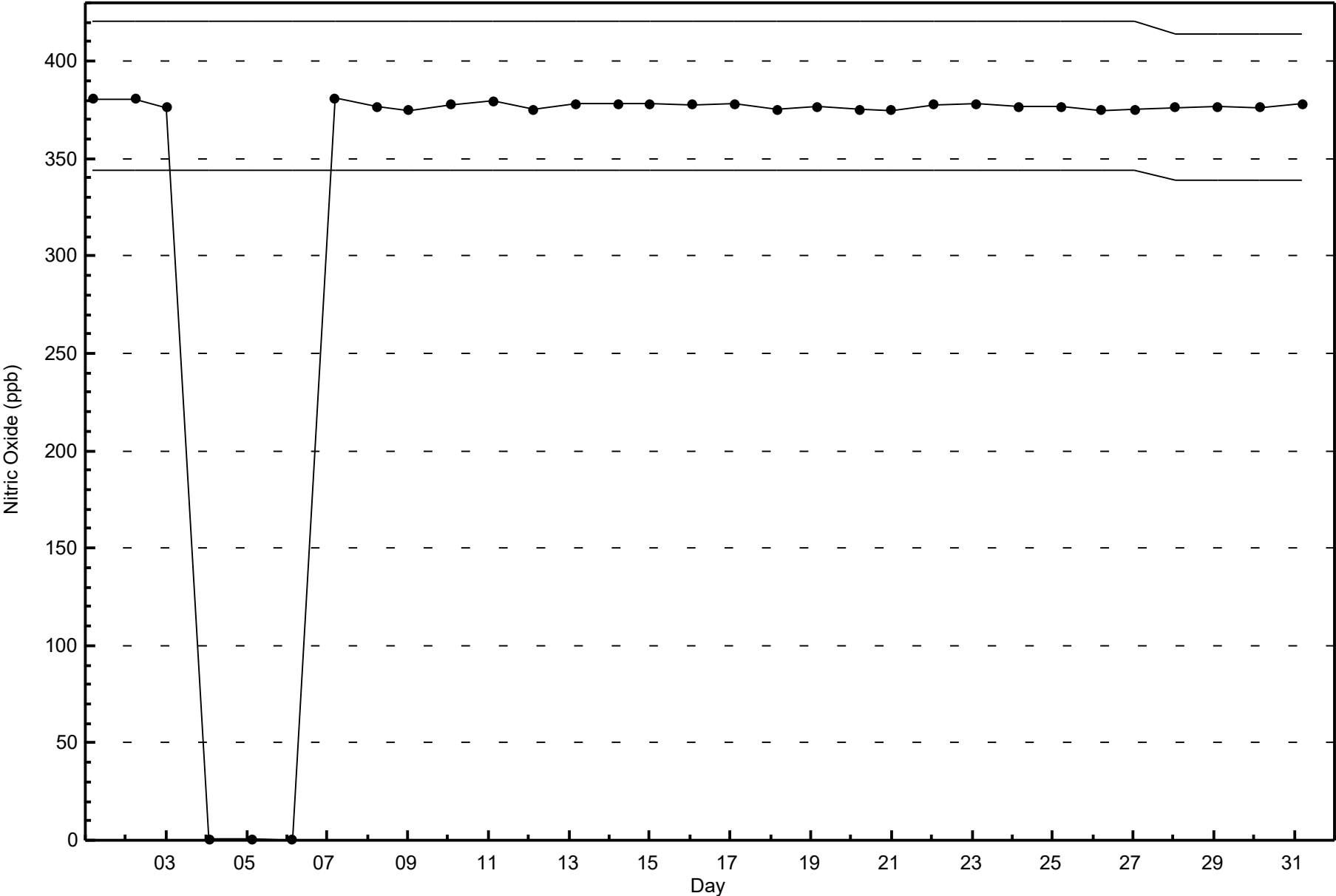
Nitric Oxide (NO) - ppb
Anzac - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Anzac - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

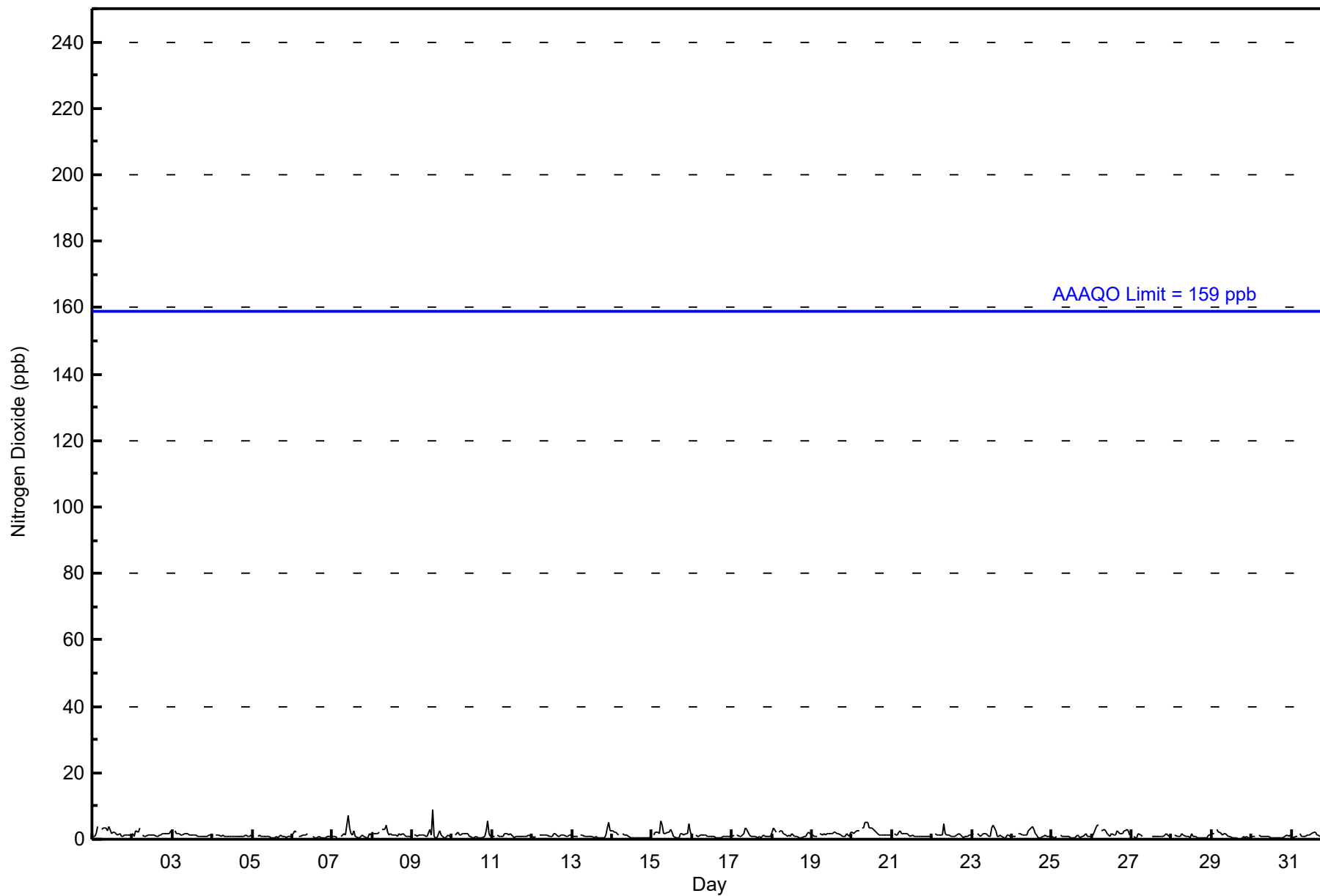
Anzac - July 2026

Number of Exceedances (AAAQO):										1-hr: 0 24-hr: 0										Hours in Service: 744									
Maximum Value: 9.0 ppb on Jul 9 13:00										Maximum Daily Average: 2.4 ppb on Jul 20										Hours of Data: 706									
Minimum Value: 0.2 ppb on Jul 29 17:00										Minimum Daily Average: 0.7 ppb on Jul 30										Hours of Missing Data: 38									
Maximum Diurnal Average: 1.7 ppb at hour 10										Minimum Diurnal Average: 0.8 ppb at hour 18										Hours of Calibration: 36									
Monthly Average: 1.29 ppb										Percentiles: P ₁ = 0.3 P ₁₀ = 0.6 Q ₁ = 0.8 Median = 1.0 Q ₃ = 1.5 P ₉₀ = 2.3 P ₉₉ = 4.6										Percent Operational Time: 99.7									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	1.0	1.0	1.6	3.8	Z	3.1	3.6	3.2	3.2	2.5	3.7	1.6	2.1	2.2	1.6	1.1	1.6	0.8	0.8	1.3	1.1	1.2	1.4	1.3	1.9	3.8			
2-Jul	1.5	0.8	2.7	2.3	3.2	Z	1.2	1.0	1.0	1.3	1.4	1.1	1.1	1.1	1.0	1.0	1.1	1.4	1.8	1.9	1.8	1.6	1.6	2.7	1.5	3.2			
3-Jul	Z	2.4	1.7	1.9	1.5	1.3	1.2	1.9	1.9	1.6	1.2	1.2	1.3	1.1	1.3	0.9	0.8	0.9	0.8	0.7	0.9	0.9	1.3	1.2	1.3	2.4			
4-Jul	0.8	Z	1.3	1.1	1.2	1.0	1.1	0.9	0.8	0.8	0.9	1.0	0.7	0.7	0.9	1.0	1.0	0.9	0.7	0.8	1.4	1.0	0.7	1.3	1.0	1.4			
5-Jul	0.9	0.8	Z	0.9	1.1	1.0	1.0	0.9	0.8	0.7	0.7	0.5	0.4	0.6	0.7	0.6	0.8	1.1	0.8	0.9	0.6	0.9	0.8	1.0	0.8	1.1			
6-Jul	1.9	2.4	2.3	Z	0.9	1.0	1.2	1.2	1.4	1.7	M	M	0.8	0.5	0.5	0.6	0.7	0.4	0.5	0.6	0.6	0.7	0.7	0.7	1.0	2.4			
7-Jul	0.9	0.7	0.7	0.6	Z	0.9	1.1	1.6	1.4	7.0	3.6	1.9	1.3	2.5	1.0	0.6	0.6	0.9	1.2	0.8	0.5	0.6	1.5	1.2	1.4	7.0			
8-Jul	2.2	1.8	1.8	1.6	2.0	Z	2.9	2.8	4.3	2.3	1.3	1.8	1.1	1.1	1.1	0.9	1.9	1.3	1.6	1.1	1.0	0.9	0.9	0.7	1.7	4.3			
9-Jul	Z	1.4	1.3	1.0	1.1	1.1	1.2	1.1	0.9	0.9	2.8	1.1	9.0	0.8	0.5	0.4	2.7	1.4	0.7	0.6	0.6	1.1	0.8	0.7	1.4	9.0			
10-Jul	0.8	Z	1.2	2.3	1.2	1.2	1.8	1.6	1.7	1.5	1.0	0.7	0.6	0.5	0.9	0.6	0.6	0.4	0.5	0.9	2.7	5.4	1.8	0.8	1.3	5.4			
11-Jul	0.8	0.9	Z	1.3	1.0	0.9	1.0	1.5	1.5	1.8	1.4	1.7	0.7	0.6	0.7	1.0	0.8	0.8	0.8	0.8	1.0	0.7	1.2	1.0	1.0	1.8			
12-Jul	0.9	0.6	0.7	Z	1.2	1.2	1.4	1.2	1.4	1.1	1.0	0.9	0.8	1.9	1.7	0.7	0.9	1.1	1.4	1.1	1.0	0.7	1.1	1.2	1.1	1.9			
13-Jul	1.3	0.9	0.8	0.9	Z	1.4	1.3	0.8	0.8	0.8	0.8	0.8	0.7	0.4	0.7	0.4	0.5	0.6	0.6	0.4	1.2	3.4	4.9	2.7	1.2	4.9			
14-Jul	2.5	2.0	2.0	1.5	1.3	Z	1.7	1.3	1.2	1.1	0.9	0.6	0.6	0.4	0.5	0.6	0.5	0.4	0.3	0.3	0.3	0.4	0.6	0.9	1.0	2.5			
15-Jul	Z	1.3	2.0	2.1	1.8	5.3	4.2	1.7	1.7	2.0	2.3	2.8	2.0	0.7	0.4	0.4	0.6	1.5	1.5	1.2	1.8	1.6	4.5	2.0	2.0	5.3			
16-Jul	1.3	Z	1.1	0.8	1.0	1.3	1.2	1.4	1.2	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.6	0.4	0.8	0.7	0.7	0.9	0.8	1.0	0.9	1.4			
17-Jul	0.9	1.3	Z	1.2	0.9	0.9	1.2	1.6	3.2	2.9	1.4	0.8	0.8	0.7	0.7	0.6	0.7	0.6	1.0	1.3	0.8	0.8	0.8	1.0	1.1	3.2			
18-Jul	2.2	3.4	2.1	Z	2.0	2.4	2.4	1.8	1.1	0.8	1.1	0.9	1.9	0.9	1.0	0.8	0.5	0.6	0.6	0.8	0.9	1.6	2.2	1.5	1.5	3.4			
19-Jul	1.2	0.9	0.9	1.0	Z	1.8	1.3	1.5	1.4	1.6	1.8	1.9	1.9	2.2	2.1	1.6	1.9	1.2	0.9	0.9	0.9	1.5	1.0	2.3	1.5	2.3			
20-Jul	2.3	1.8	2.0	2.6	2.7	Z	3.6	3.4	5.1	5.0	3.5	3.3	3.3	3.1	2.3	1.9	1.3	1.3	1.4	1.1	1.1	1.1	1.3	1.1	2.4	5.1			
21-Jul	Z	1.5	1.2	1.1	2.1	2.6	1.7	1.6	1.5	1.6	1.3	1.0	1.2	0.9	1.0	1.0	0.9	0.9	0.9	0.8	0.7	0.8	0.8	0.9	1.2	2.6			
22-Jul	0.9	Z	1.7	1.3	1.1	1.1	1.3	4.6	1.6	1.4	1.2	0.8	0.8	0.8	0.9	1.1	1.6	1.1	0.8	0.6	0.8	0.8	1.3	1.1	1.2	4.6			
23-Jul	1.2	1.9	Z	1.7	1.3	1.0	1.3	1.7	1.5	1.3	0.8	0.9	3.3	4.2	2.6	0.9	0.9	1.1	0.7	0.4	0.6	1.3	1.1	0.8	1.4	4.2			
24-Jul	0.9	0.9	1.0	Z	1.6	1.7	1.3	1.2	1.2	1.1	2.4	3.6	3.8	3.1	1.9	1.2	0.6	0.6	0.8	0.9	1.2	0.9	0.8	0.7	1.5	3.8			
25-Jul	0.9	0.5	0.6	0.7	Z	1.3	0.9	1.0	1.0	0.9	0.8	0.6	0.6	0.5	0.6	1.2	0.8	0.5	0.9	1.0	1.5	0.8	0.9	0.9	0.8	1.5			
26-Jul	0.9	1.3	3.2	4.2	4.2	Z	2.5	2.8	2.4	1.9	1.3	1.0	1.5	1.4	1.3	2.4	2.3	1.6	1.8	2.6	2.6	2.9	2.6	1.1	2.2	4.2			
27-Jul	Z	0.9	0.6	0.6	1.7	1.4	0.8	C	C	C	C	C	0.9	0.7	0.7	0.7	0.8	0.8	1.0	0.9	1.3	1.5	0.9	0.9	1.0	1.7			
28-Jul	0.7	Z	1.1	0.8	0.9	1.0	1.8	1.1	0.9	0.8	0.8	0.6	1.6	0.8	0.7	0.4	0.4	0.3	0.3	0.3	0.3	0.4	1.1	1.2	0.8	1.8			
29-Jul	1.8	1.9	Z	2.9	2.1	2.1	1.3	1.6	1.8	1.1	1.0	0.7	0.5	0.5	0.3	0.3	0.2	0.2	0.5	0.9	0.5	0.7	0.5	0.6	1.0	2.9			
30-Jul	0.8	0.8	0.7	Z	1.2	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.8	1.2	0.8	1.1	0.7	1.2			
31-Jul	0.7	0.6	0.8	0.7	Z	1.6	1.0	1.0	0.8	1.2	1.2	1.3	1.6	2.0	2.1	1.4	1.2	0.8	0.9	0.6	0.4	3.1	1.2	0.9	1.2	3.1			
																								Diurnal Average					
																								Diurnal Maximum					
Z - zerospan C - Calibration M - Maintenance																													
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																													



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Anzac - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Anzac - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	706	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Anzac - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	5	3	3	4	9	40	77	80	37	25	47	47	117	125	50	37	706
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	5	3	3	4	9	40	77	80	37	25	47	47	117	125	50	37	706

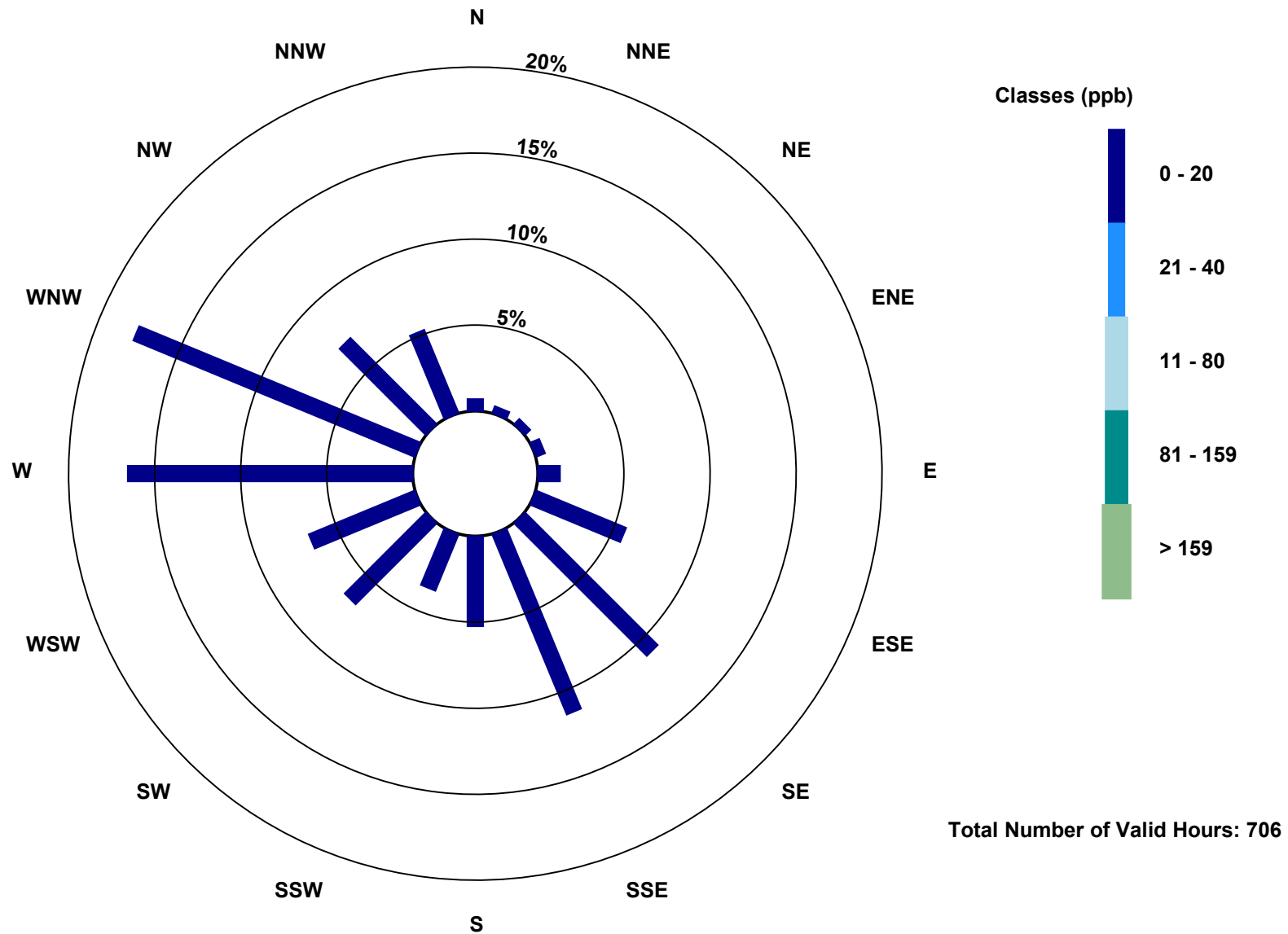
Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

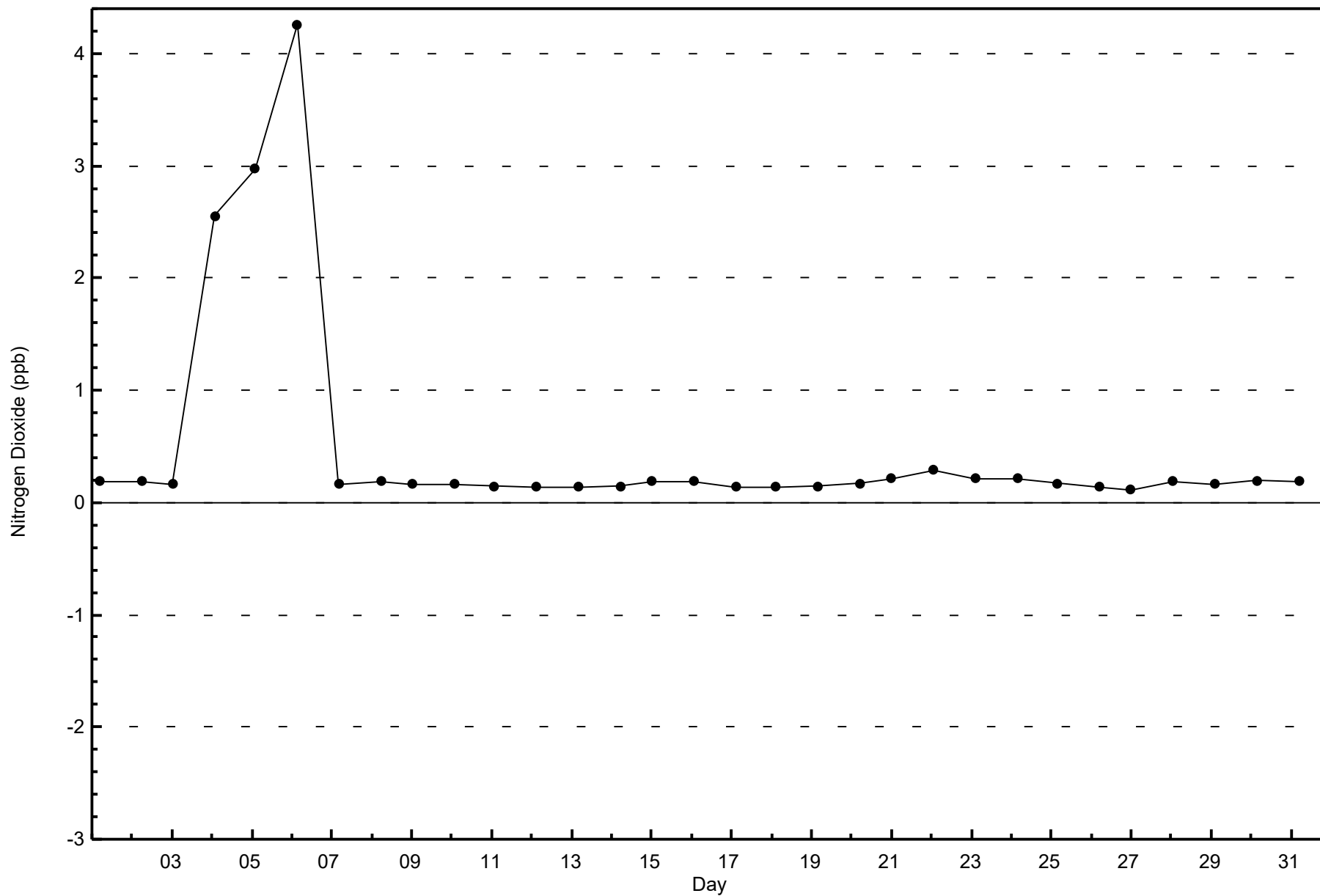
Nitrogen Dioxide (NO₂) - ppb
Anzac





Wood Buffalo Environmental Association
Zero Responses

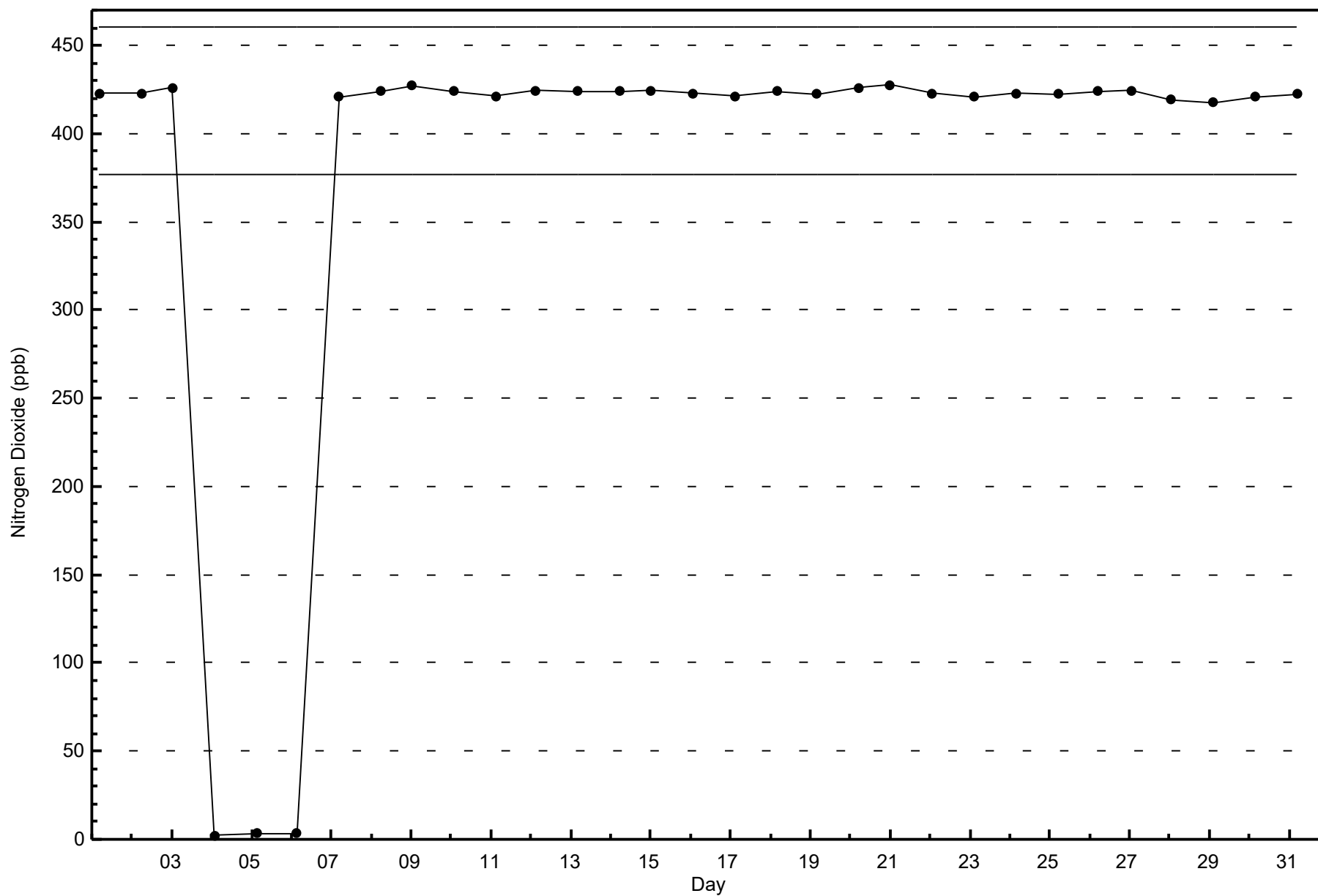
Nitrogen Dioxide (NO₂) - ppb
Anzac - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Anzac - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

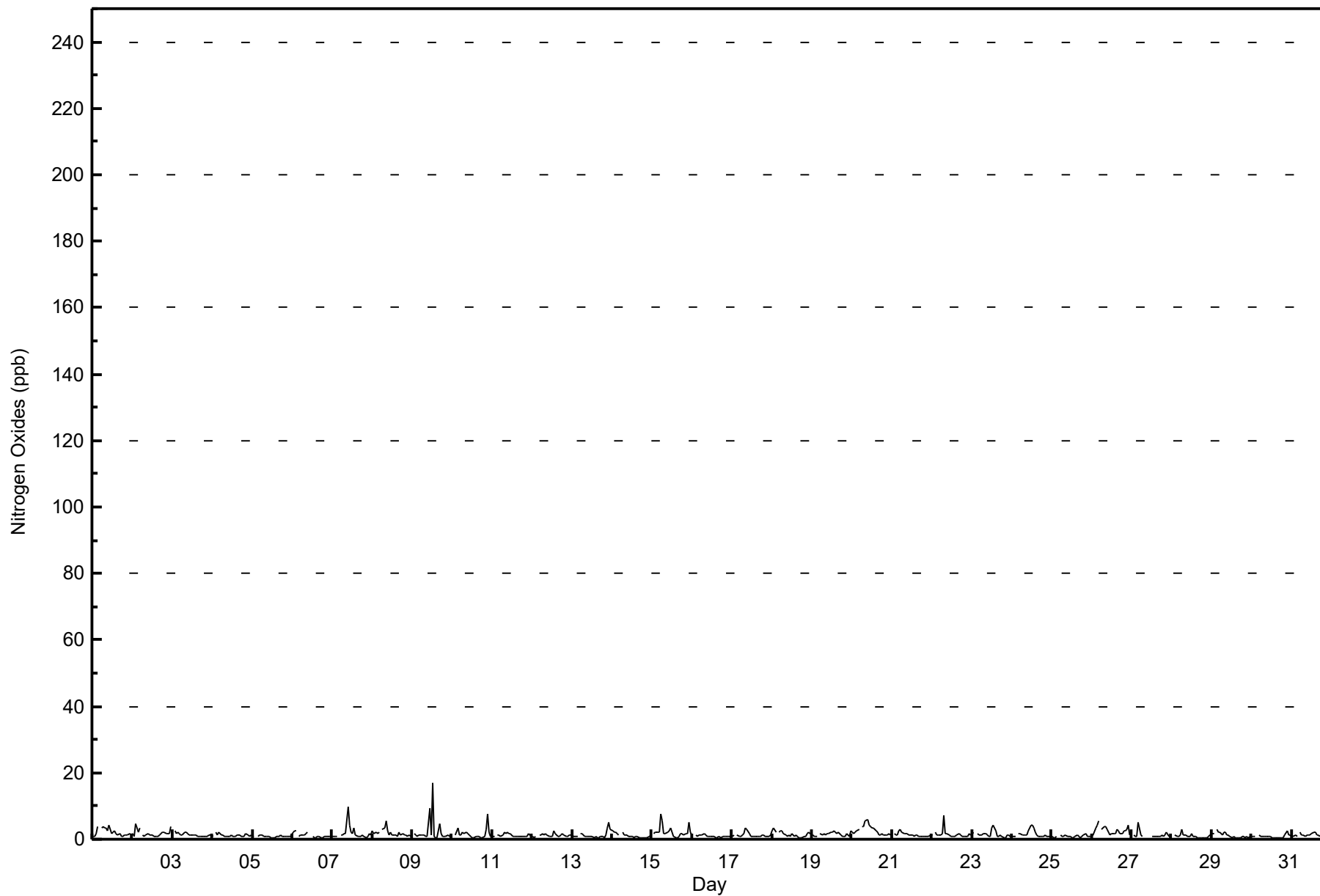
Anzac - July 2026

Maximum Value: 17.1 ppb on Jul 9 13:00																			Maximum Daily Average: 2.6 ppb on Jul 20										Hours in Service: 744	
Minimum Value: 0.3 ppb on Jul 29 18:00																			Minimum Daily Average: 0.9 ppb on Jul 30										Hours of Data: 706	
Maximum Diurnal Average: 1.9 ppb at hour 10																			Minimum Diurnal Average: 0.9 ppb at hour 18										Hours of Missing Data: 38	
Monthly Average: 1.48 ppb																			Percentiles: P ₁ = 0.4 P ₁₀ = 0.6 Q ₁ = 0.8 Median = 1.1 Q ₃ = 1.7 P ₉₀ = 2.6 P ₉₉ = 5.8										Hours of Calibration: 36	
																			Percent Operational Time: 99.7											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Jul	1.0	1.0	1.6	3.9	Z	3.3	3.9	3.3	3.4	2.7	4.2	1.7	2.3	2.4	1.8	1.2	1.7	0.8	0.8	1.4	1.1	1.3	1.5	1.3	2.1	4.2				
2-Jul	1.5	0.8	4.9	2.3	3.3	Z	1.3	1.0	1.1	1.6	1.5	1.2	1.1	1.1	1.0	1.0	1.1	1.5	1.9	2.0	1.8	1.6	1.6	3.7	1.7	4.9				
3-Jul	Z	2.4	1.7	1.9	1.6	1.5	1.4	2.3	2.2	1.8	1.3	1.3	1.3	1.1	1.4	0.9	0.8	0.9	0.8	0.7	0.9	0.9	1.3	1.2	1.4	2.4				
4-Jul	0.9	Z	1.9	1.2	1.9	1.2	1.2	1.0	0.9	0.8	0.9	1.1	0.7	0.7	1.0	1.1	1.1	1.0	0.7	0.8	1.6	1.1	0.8	1.4	1.1	1.9				
5-Jul	1.0	0.9	Z	1.0	1.2	1.1	1.1	1.0	0.9	0.7	0.7	0.5	0.4	0.6	0.8	0.7	0.8	1.2	0.8	0.9	0.6	1.0	0.8	1.0	0.9	1.2				
6-Jul	2.0	2.5	2.4	Z	1.0	1.1	1.4	1.4	1.6	2.1	M	M	0.9	0.5	0.5	0.7	0.8	0.5	0.5	0.6	0.7	0.8	0.8	0.8	1.1	2.5				
7-Jul	1.0	0.8	0.9	0.8	Z	1.3	1.3	1.8	1.7	9.8	4.2	2.2	1.5	3.2	1.1	0.7	0.7	1.0	1.3	0.9	0.5	0.7	1.6	1.3	1.8	9.8				
8-Jul	2.3	1.9	1.9	1.8	2.2	Z	3.2	3.2	5.5	2.6	1.4	2.0	1.2	1.2	1.2	1.0	2.0	1.4	1.7	1.2	1.1	1.0	1.1	0.9	1.9	5.5				
9-Jul	Z	1.6	1.4	1.0	1.1	1.1	1.3	1.2	1.0	1.0	9.1	1.2	17.1	0.9	0.6	0.5	4.5	1.8	0.8	0.7	0.7	1.3	0.9	0.7	2.2	17.1				
10-Jul	0.8	Z	1.2	3.5	1.3	1.4	2.1	1.9	2.0	1.7	1.1	0.7	0.6	0.6	1.1	0.7	0.7	0.5	0.5	1.0	3.1	7.6	1.9	0.9	1.6	7.6				
11-Jul	0.9	1.0	Z	1.4	1.1	1.0	1.2	1.9	1.7	2.0	1.5	1.8	0.7	0.6	0.7	1.0	0.9	0.8	0.8	0.8	1.0	0.8	1.7	1.1	1.1	2.0				
12-Jul	0.9	0.6	0.7	Z	1.3	1.4	1.7	1.3	1.6	1.2	1.1	1.0	0.8	2.5	1.9	0.8	0.9	1.2	1.5	1.2	1.0	0.7	1.1	1.2	1.2	2.5				
13-Jul	1.3	0.9	0.8	0.9	Z	1.5	1.5	0.9	0.9	0.9	0.9	1.0	0.9	0.5	0.9	0.5	0.6	0.7	0.7	0.5	1.3	3.5	5.0	2.8	1.3	5.0				
14-Jul	2.6	2.1	2.1	1.6	1.4	Z	1.9	1.4	1.4	1.2	1.0	0.7	0.7	0.5	0.6	0.7	0.6	0.5	0.4	0.4	0.4	0.5	0.7	1.1	1.1	2.6				
15-Jul	Z	1.6	2.2	2.2	2.1	7.7	5.3	1.8	1.8	2.3	2.5	3.2	2.2	0.8	0.5	0.5	0.7	1.6	1.6	1.3	1.9	1.7	4.9	2.1	2.3	7.7				
16-Jul	1.4	Z	1.2	1.0	1.2	1.4	1.4	1.6	1.3	0.8	0.8	0.8	0.8	0.8	0.6	0.6	0.7	0.5	0.9	0.8	0.7	0.9	0.8	1.0	1.0	1.6				
17-Jul	1.0	1.3	Z	1.2	0.9	1.0	1.3	1.7	3.4	3.0	1.5	0.8	0.8	0.8	0.8	0.7	0.7	0.7	1.1	1.4	0.9	0.9	0.9	1.1	1.2	3.4				
18-Jul	2.6	3.5	2.2	Z	2.1	2.6	2.6	1.9	1.2	0.8	1.2	0.9	1.9	0.9	1.1	0.8	0.5	0.6	0.6	0.8	0.9	1.6	2.2	1.5	1.5	3.5				
19-Jul	1.2	1.0	0.9	1.0	Z	1.8	1.3	1.6	1.4	1.7	1.9	2.0	2.0	2.3	2.2	1.7	2.0	1.3	1.0	0.9	0.9	1.5	1.0	2.4	1.5	2.4				
20-Jul	2.3	1.8	2.0	2.7	2.8	Z	3.8	3.7	5.7	5.8	4.1	3.8	3.6	3.4	2.4	2.0	1.4	1.4	1.5	1.2	1.2	1.2	1.5	1.3	2.6	5.8				
21-Jul	Z	1.7	1.3	1.2	2.4	3.1	2.0	1.7	1.6	1.7	1.4	1.1	1.3	1.0	1.1	1.1	1.0	1.0	1.0	0.9	0.8	0.9	1.0	1.1	1.4	3.1				
22-Jul	1.2	Z	2.0	1.5	1.3	1.3	1.5	7.2	1.7	1.5	1.3	0.9	0.9	0.9	1.0	1.2	1.7	1.2	0.9	0.7	0.8	0.8	1.7	1.2	1.5	7.2				
23-Jul	1.3	2.0	Z	1.8	1.4	1.1	1.4	1.8	1.6	1.4	0.9	1.0	3.5	4.4	2.7	0.9	1.0	1.2	0.7	0.4	0.6	1.3	1.1	0.8	1.5	4.4				
24-Jul	0.9	0.9	1.0	Z	1.8	1.9	1.4	1.3	1.3	1.1	2.7	4.0	4.1	3.4	2.1	1.3	0.7	0.7	0.9	1.0	1.2	0.9	0.9	0.7	1.6	4.1				
25-Jul	0.9	0.5	0.6	0.7	Z	1.4	0.9	1.0	1.1	1.0	0.9	0.7	0.6	0.5	0.7	1.5	0.8	0.6	1.0	1.1	1.7	0.9	0.9	1.0	0.9	1.7				
26-Jul	0.9	1.3	3.3	4.3	5.4	Z	2.9	3.6	3.7	2.8	1.9	1.3	1.9	1.6	1.5	2.9	2.6	1.7	1.8	2.7	2.7	3.0	4.2	1.3	2.6	5.4				
27-Jul	Z	1.2	0.9	0.8	5.0	1.5	0.9	C	C	C	C	C	1.0	0.8	0.8	0.8	0.9	0.9	1.1	1.0	1.4	2.0	1.0	1.0	1.3	5.0				
28-Jul	0.8	Z	1.2	0.9	1.0	1.2	3.0	1.2	1.1	0.8	0.9	0.7	1.9	0.9	0.8	0.5	0.5	0.4	0.4	0.4	0.4	0.5	1.1	1.2	1.0	3.0				
29-Jul	1.8	1.9	Z	3.0	2.2	2.2	1.4	1.9	2.1	1.2	1.1	0.8	0.6	0.6	0.3	0.4	0.3	0.3	0.6	1.0	0.6	0.8	0.6	0.7	1.2	3.0				
30-Jul	0.9	0.9	0.8	Z	1.3	0.9	1.0	1.0	0.9	0.8	0.8	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.5	1.3	2.6	1.2	1.3	0.9	2.6				
31-Jul	0.8	0.7	1.2	0.8	Z	2.1	1.4	1.2	1.0	1.4	1.4	1.5	1.8	2.2	2.2	1.5	1.3	0.9	1.1	0.7	0.5	5.9	1.5	1.0	1.5	5.9				
1.3 1.4 1.6 1.7 1.9 1.8 1.9 1.9 1.9 1.9 1.9 1.4 1.9 1.4 1.2 1.0 1.1 0.9 1.0 1.0 1.1 1.6 1.5 1.3																								Diurnal Average						
2.6 3.5 4.9 4.3 5.4 7.7 5.3 7.2 5.7 9.8 9.1 4.0 17.1 4.4 2.7 2.9 4.5 1.8 1.9 2.7 3.1 7.6 5.0 3.7																								Diurnal Maximum						
Z - zerospan C - Calibration M - Maintenance																														



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Anzac - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Anzac - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	706	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Anzac - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	5	3	3	4	9	40	77	80	37	25	47	47	117	125	50	37	706
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	5	3	3	4	9	40	77	80	37	25	47	47	117	125	50	37	706

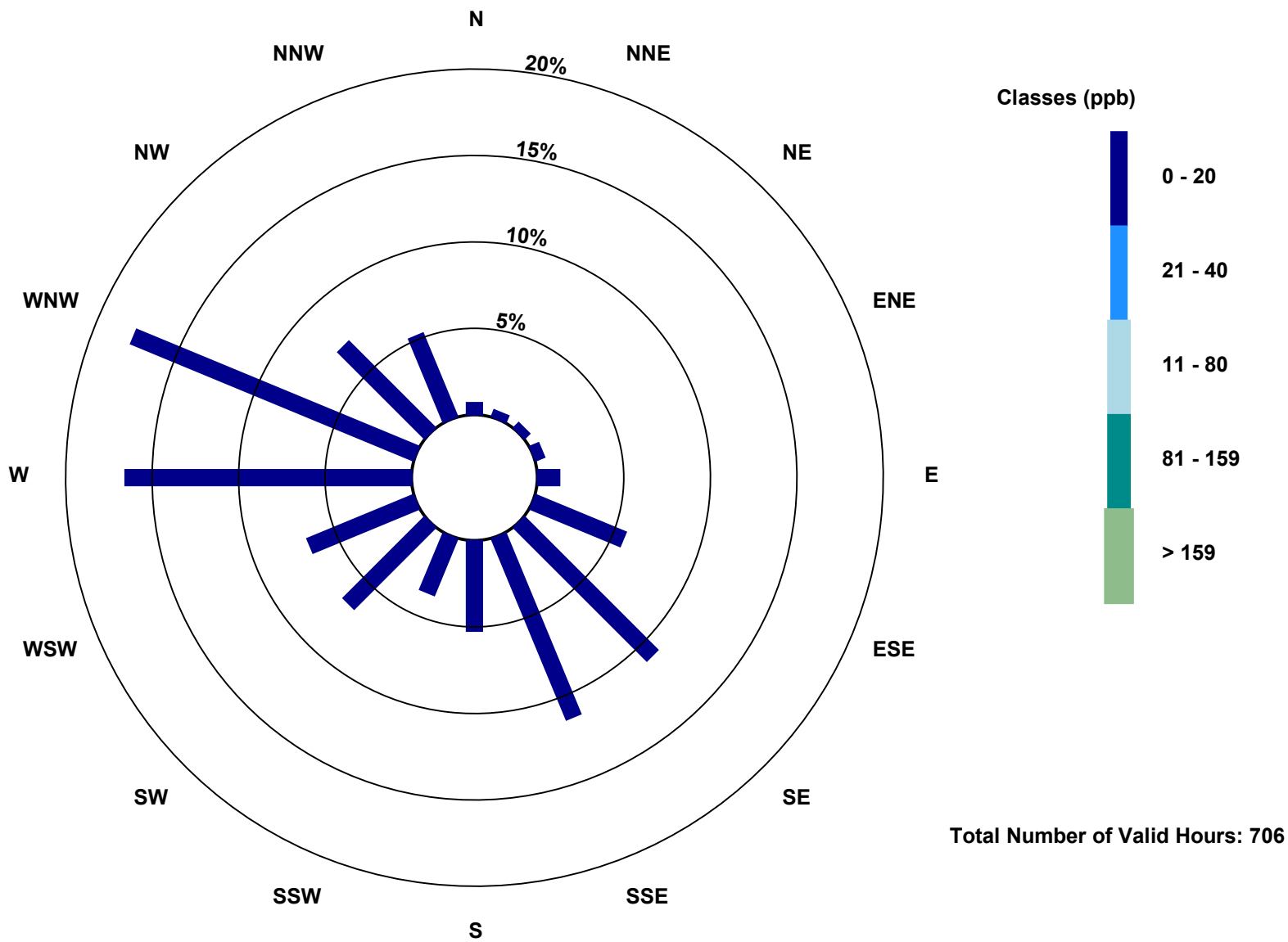
Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Oxides (NO_x) - ppb
Anzac



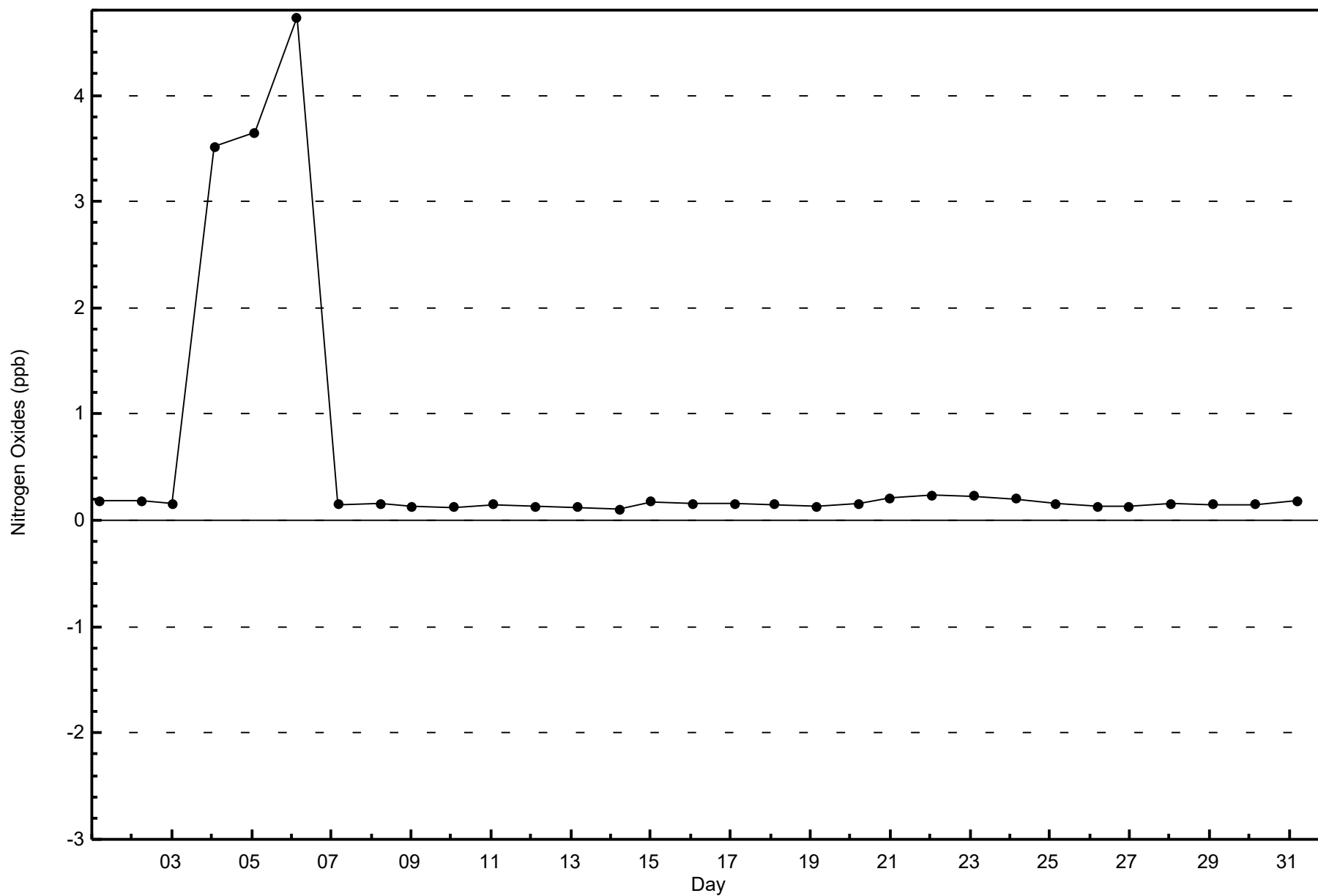


Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_x) - ppb

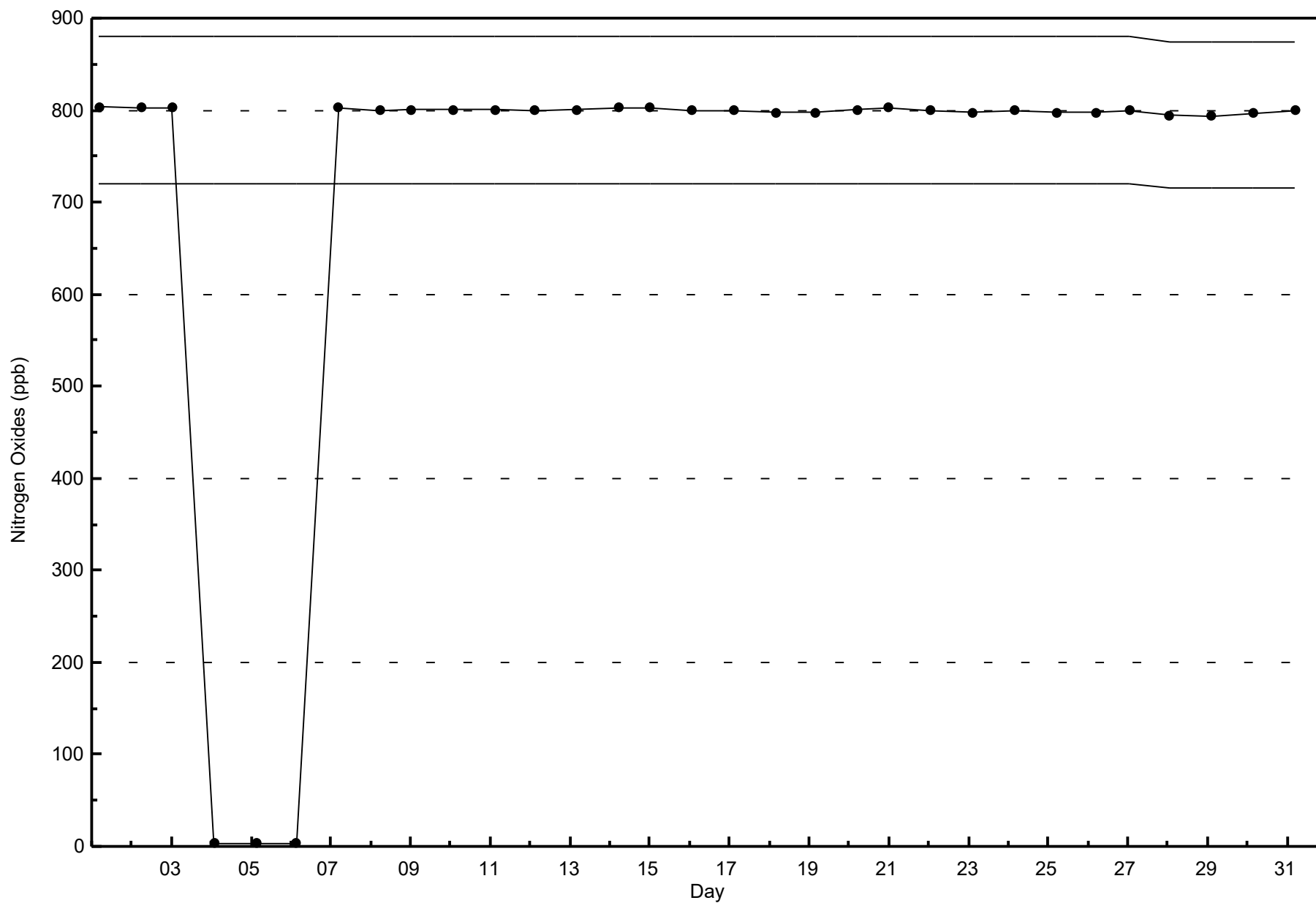
Anzac - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Anzac - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O₃) - ppb

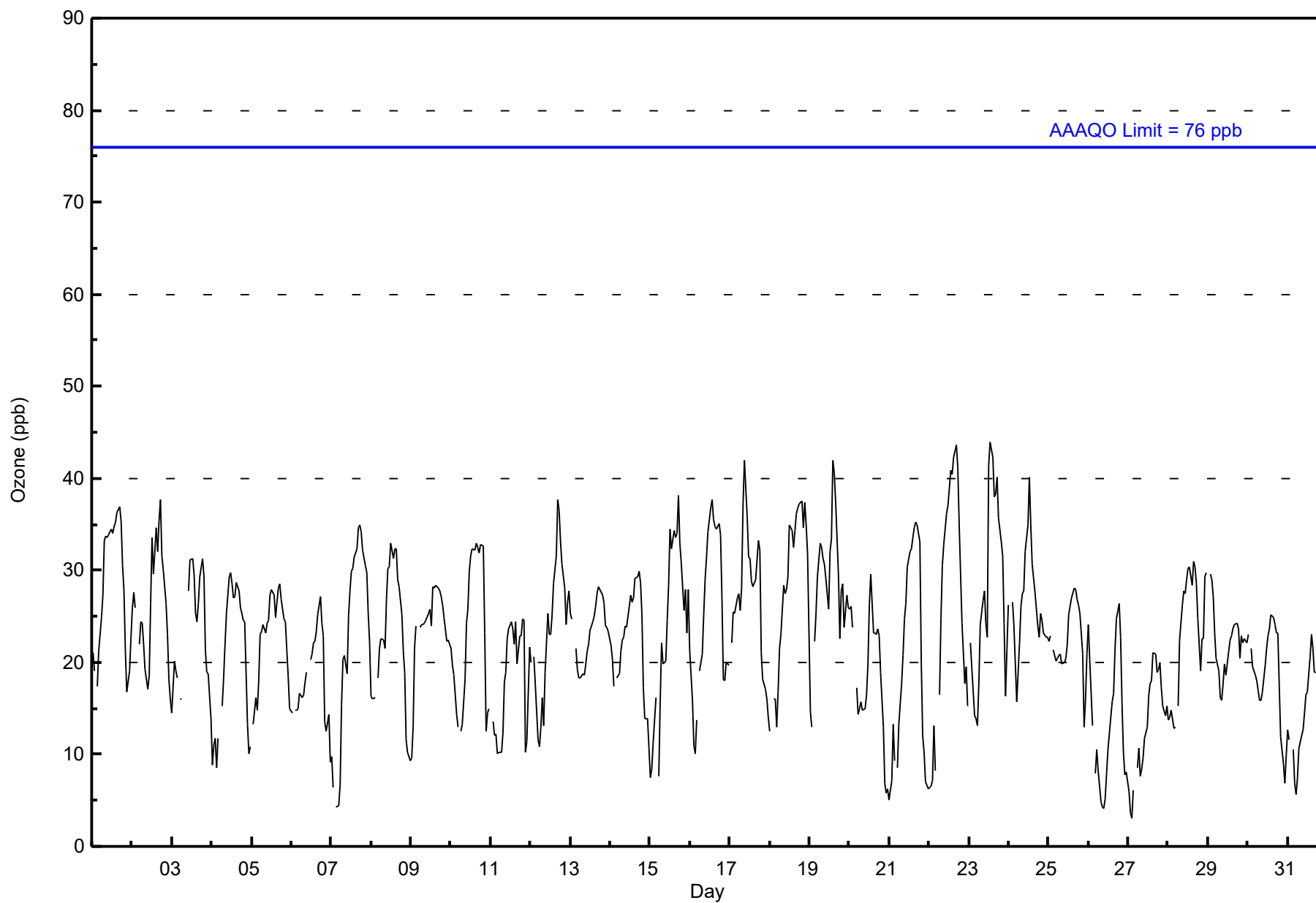
Anzac - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 44.0 ppb on Jul 23 14:00 Minimum Value: 3.0 ppb on Jul 27 03:00 Maximum Diurnal Average: 29.9 ppb at hour 17 Monthly Average: 22.56 ppb																				Hours in Service: 744 Hours of Data: 709 Hours of Missing Data: 35 Hours of Calibration: 34 Percent Operational Time: 99.9						
Maximum Daily Average: 28.6 ppb on Jul 19 Minimum Daily Average: 13.2 ppb on Jul 27 Minimum Diurnal Average: 15.8 ppb at hour 5 Percentiles: P ₁ = 5.1 P ₁₀ = 11.2 Q ₁ = 16.5 Median = 22.9 Q ₃ = 28.1 P ₉₀ = 33.5 P ₉₉ = 41.1																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	21.0	19.1	Z	17.5	21.1	24.9	27.3	33.3	33.8	33.6	33.9	34.5	33.9	34.9	35.2	36.3	36.8	35.3	30.5	27.8	21.3	16.8	19.0	22.7	28.3	36.8
2-Jul	25.9	27.5	25.9	Z	22.0	24.5	24.3	22.0	19.2	17.1	18.6	26.3	33.5	29.6	34.6	32.0	35.4	37.6	31.6	30.0	26.4	23.0	18.2	16.0	26.1	37.6
3-Jul	14.4	20.1	19.1	18.4	Z	16.0	16.1	C	C	C	27.8	31.1	31.3	29.4	25.3	24.5	26.3	29.3	31.3	29.2	21.4	19.0	18.7	13.9	23.1	31.3
4-Jul	8.8	11.0	11.7	8.5	11.8	Z	15.3	18.3	21.9	25.3	29.2	29.7	28.5	27.0	27.1	28.7	27.8	25.9	25.3	24.5	24.3	13.3	10.1	10.8	20.2	29.7
5-Jul	Z	13.3	16.1	14.8	18.0	23.0	23.4	24.2	23.2	24.2	24.5	27.3	27.9	27.4	24.9	26.6	28.1	28.5	26.8	24.8	24.3	21.3	18.4	14.9	22.9	28.5
6-Jul	14.5	Z	14.8	14.8	14.9	16.6	16.2	16.5	17.9	18.9	M	20.2	20.9	22.1	22.3	23.3	25.1	27.2	24.2	22.9	13.6	12.5	14.4	9.2	18.3	27.2
7-Jul	9.8	6.3	Z	4.3	4.4	6.7	15.4	20.4	20.8	18.8	25.0	27.7	29.9	30.2	31.4	32.3	34.6	34.9	34.2	32.2	30.5	29.8	25.3	22.1	22.9	34.9
8-Jul	16.3	16.0	16.2	Z	18.3	21.4	22.6	22.5	21.4	26.9	30.2	30.4	32.9	31.3	32.4	32.4	29.0	28.2	25.1	21.2	18.9	11.6	10.2	9.2	22.8	32.9
9-Jul	9.5	13.0	21.5	23.9	Z	23.8	24.1	24.2	24.2	24.6	25.3	25.8	24.0	28.3	28.1	28.3	28.1	27.7	27.2	26.2	24.8	22.2	22.4	21.9	23.9	28.3
10-Jul	21.5	19.6	18.7	14.3	12.9	Z	12.5	13.2	18.2	24.2	25.8	29.9	31.6	32.4	32.2	32.9	32.6	31.9	32.7	32.6	23.2	12.6	14.5	15.0	23.3	32.9
11-Jul	Z	13.6	12.0	12.1	10.1	10.2	10.2	12.3	17.8	18.9	22.5	23.6	24.4	23.6	21.9	24.4	19.8	22.9	22.9	24.7	24.6	10.2	11.4	21.7	18.1	24.7
12-Jul	20.0	Z	20.5	17.7	11.6	10.9	13.0	16.2	13.1	19.0	25.3	23.0	23.0	25.2	28.5	31.6	37.8	36.4	33.1	30.6	28.0	24.1	26.5	27.8	23.6	37.8
13-Jul	25.3	24.6	Z	21.5	19.2	18.4	18.4	18.7	18.7	19.8	21.2	22.0	23.5	24.3	25.0	26.1	27.5	28.2	27.6	27.3	26.4	24.0	23.8	23.3	23.3	28.2
14-Jul	21.9	20.3	17.4	Z	18.4	18.7	21.1	22.4	22.7	24.0	23.8	26.2	27.2	26.6	27.0	29.1	29.2	29.9	28.6	25.2	17.3	13.9	13.9	10.7	22.4	29.9
15-Jul	7.5	8.3	11.3	16.2	Z	7.6	15.8	22.1	19.9	20.1	24.5	28.4	34.5	32.4	34.3	33.5	34.0	38.2	33.0	30.9	25.6	28.0	23.2	28.0	24.2	38.2
16-Jul	21.3	15.8	11.1	10.1	13.8	Z	19.1	20.8	25.2	29.0	31.4	34.2	36.8	37.7	35.5	34.8	34.5	35.0	33.9	27.1	18.2	18.0	20.0	19.7	25.3	37.7
17-Jul	Z	22.1	25.5	25.3	27.0	27.4	25.6	28.1	37.1	41.9	35.6	31.4	31.2	28.8	28.2	28.9	31.1	33.2	32.1	21.0	18.1	17.1	16.0	14.0	27.3	41.9
18-Jul	12.5	Z	16.0	16.1	13.0	16.8	21.6	23.1	28.4	27.4	27.8	29.3	34.9	34.4	32.4	34.3	36.1	36.8	37.3	37.5	34.7	37.4	34.9	31.8	28.4	37.5
19-Jul	14.7	13.0	Z	22.3	25.3	29.3	33.0	32.5	31.3	30.7	29.2	25.8	32.0	33.5	41.9	40.5	37.4	29.4	22.6	27.7	28.5	23.7	27.3	25.9	28.6	41.9
20-Jul	25.7	26.0	23.8	Z	17.2	14.4	14.9	15.8	14.8	15.0	16.5	19.9	26.2	29.6	23.1	23.2	23.1	23.7	22.8	19.0	13.0	6.8	5.8	6.3	18.5	29.6
21-Jul	5.0	7.2	13.3	9.2	Z	8.5	13.3	17.7	20.7	24.7	26.3	30.3	32.0	32.3	33.6	34.6	35.2	34.9	33.2	20.1	12.1	10.2	7.0	6.2	20.3	35.2
22-Jul	6.4	6.6	7.2	13.0	8.2	Z	16.5	24.8	30.5	32.8	36.2	37.1	38.9	40.9	40.5	42.3	43.6	41.1	34.9	29.5	24.3	17.7	19.6	15.2	26.4	43.6
23-Jul	Z	22.2	19.4	14.2	13.9	13.1	17.6	24.1	26.7	27.8	24.2	22.7	41.4	44.0	42.3	38.0	38.2	40.1	35.7	33.1	31.6	24.3	16.4	21.4	27.5	44.0
24-Jul	26.3	Z	26.5	24.0	19.9	15.8	22.2	26.1	27.4	27.8	32.1	34.9	40.1	34.9	30.7	29.1	27.6	23.9	22.7	25.3	24.6	23.1	22.8	22.7	26.5	40.1
25-Jul	22.2	22.9	Z	21.3	20.1	20.5	20.8	20.8	19.8	20.0	20.5	21.9	25.2	26.0	27.0	28.0	27.9	26.8	26.3	25.3	20.9	13.0	16.1	20.9	22.4	28.0
26-Jul	24.1	20.3	13.1	Z	8.0	10.5	8.2	4.8	4.2	4.1	5.2	7.9	10.6	14.0	15.7	16.7	21.4	24.6	26.4	22.8	15.5	10.3	7.8	8.2	13.2	26.4
27-Jul	6.0	3.6	3.0	6.1	Z	8.5	10.7	7.7	8.3	9.6	11.8	13.0	16.3	17.8	18.1	21.1	20.9	18.9	19.3	20.0	17.2	15.2	14.2	15.3	13.2	21.1
28-Jul	13.7	14.1	14.8	12.8	12.9	Z	15.3	22.4	26.2	27.7	27.5	28.9	30.2	30.4	28.4	30.9	30.3	28.5	24.7	19.1	22.6	22.6	29.3	29.7	23.6	30.9
29-Jul	Z	29.6	29.0	27.2	23.2	20.5	19.0	16.2	15.8	17.7	19.8	18.6	21.1	22.4	22.9	23.6	24.1	24.2	23.7	20.5	22.8	22.1	22.5	22.1	22.1	29.6
30-Jul	23.1	Z	21.5	19.5	18.5	18.1	17.0	15.8	15.8	16.7	19.7	21.5	22.9	23.6	25.2	24.8	24.1	23.1	23.2	17.6	12.0	9.1	6.9	9.8	18.7	25.2
31-Jul	12.7	11.6	Z	10.5	6.8	5.6	7.5	10.7	12.0	12.7	14.4	16.4	16.7	20.7	23.0	21.6	19.0	18.9	18.9	15.5	10.5	11.2	10.9	9.7	13.8	23.0
16.6 16.5 17.2 16.0 15.8 16.6 18.0 19.9 21.2 22.7 24.5 25.8 28.5 28.9 29.0 29.5 29.9 29.8 28.1 25.5 21.9 18.2 17.7 17.6																										Diurnal Average
26.3 29.6 29.0 27.2 27.0 29.3 33.0 33.3 37.1 41.9 36.2 37.1 41.4 44.0 42.3 42.3 43.6 41.1 37.3 37.5 34.7 37.4 34.9 31.8																										Diurnal Maximum
Z - zerospan C - Calibration M - Maintenance																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Ozone (O₃) - ppb
Anzac - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ozone (O₃) - ppb
Anzac - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	272	38.36	38.36
21 - 50	437	61.64	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Ozone (O₃) - ppb
Anzac - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	4	4	2	4	5	6	23	36	23	14	28	24	44	28	14	13	272
21 - 50	2	0	1	1	4	32	52	44	13	14	19	24	73	101	34	23	437
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	6	4	3	5	9	38	75	80	36	28	47	48	117	129	48	36	709

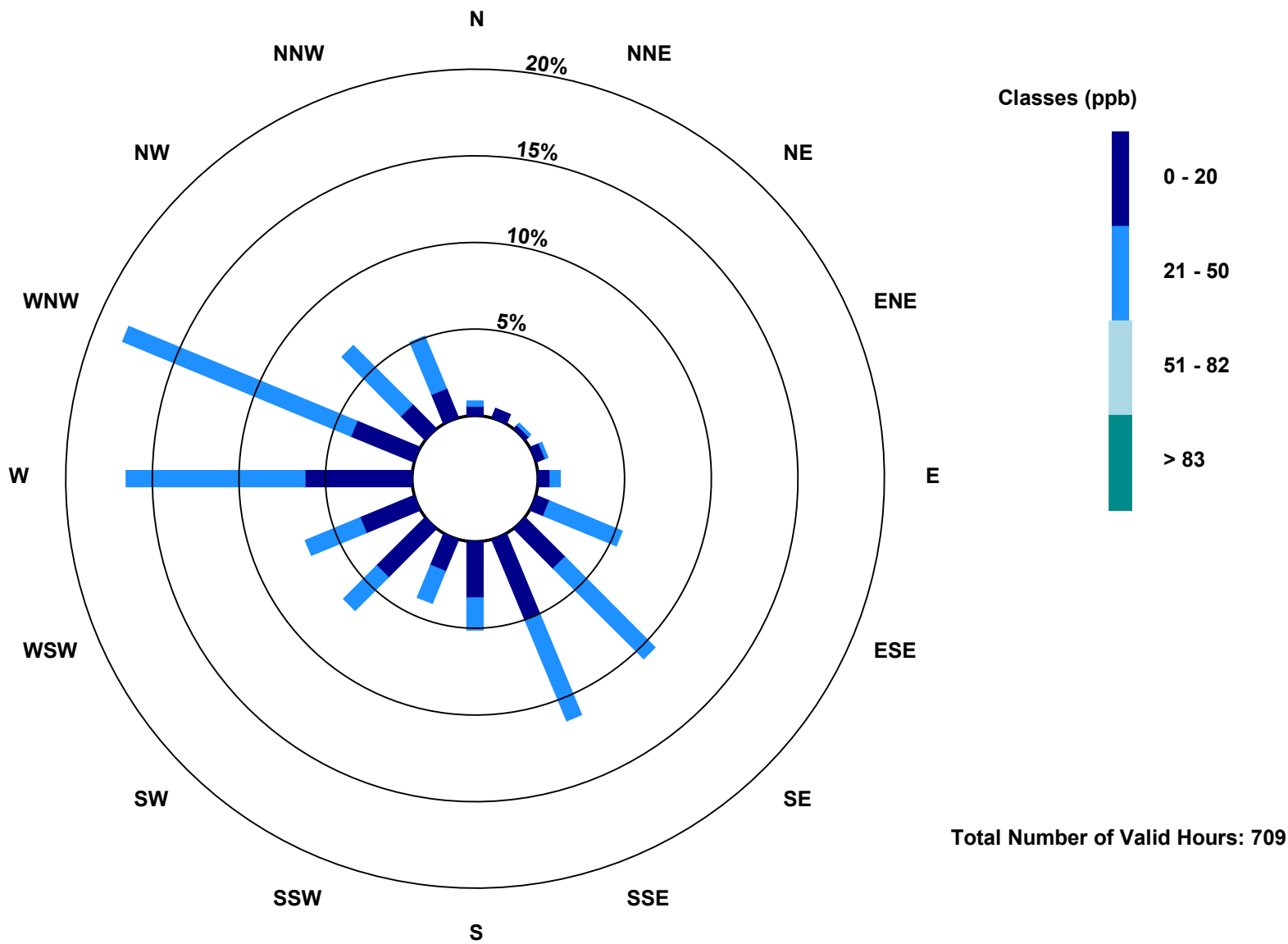
Total Number of Valid Hours: 709

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

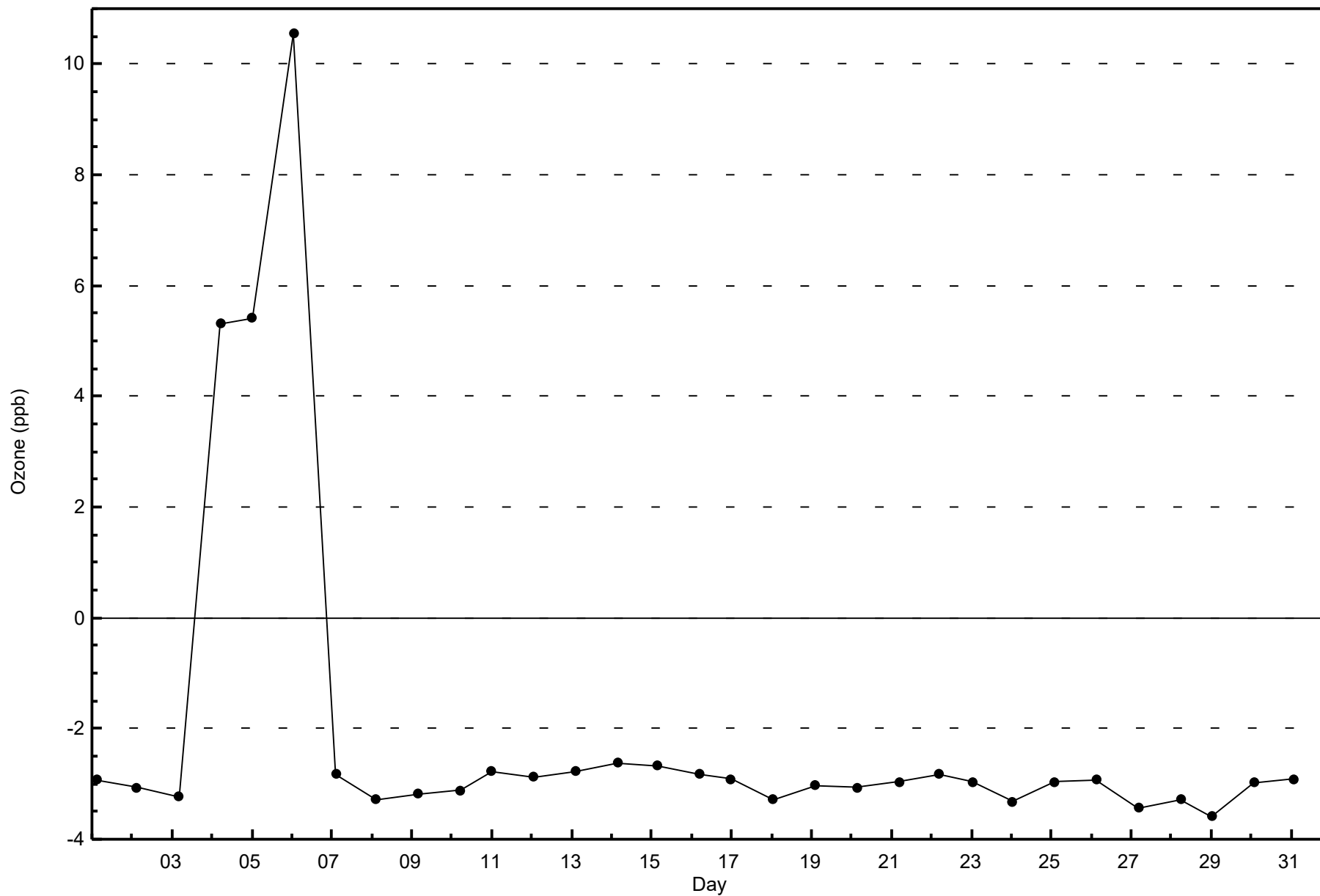
Ozone (O₃) - ppb
Anzac





Wood Buffalo Environmental Association
Zero Responses

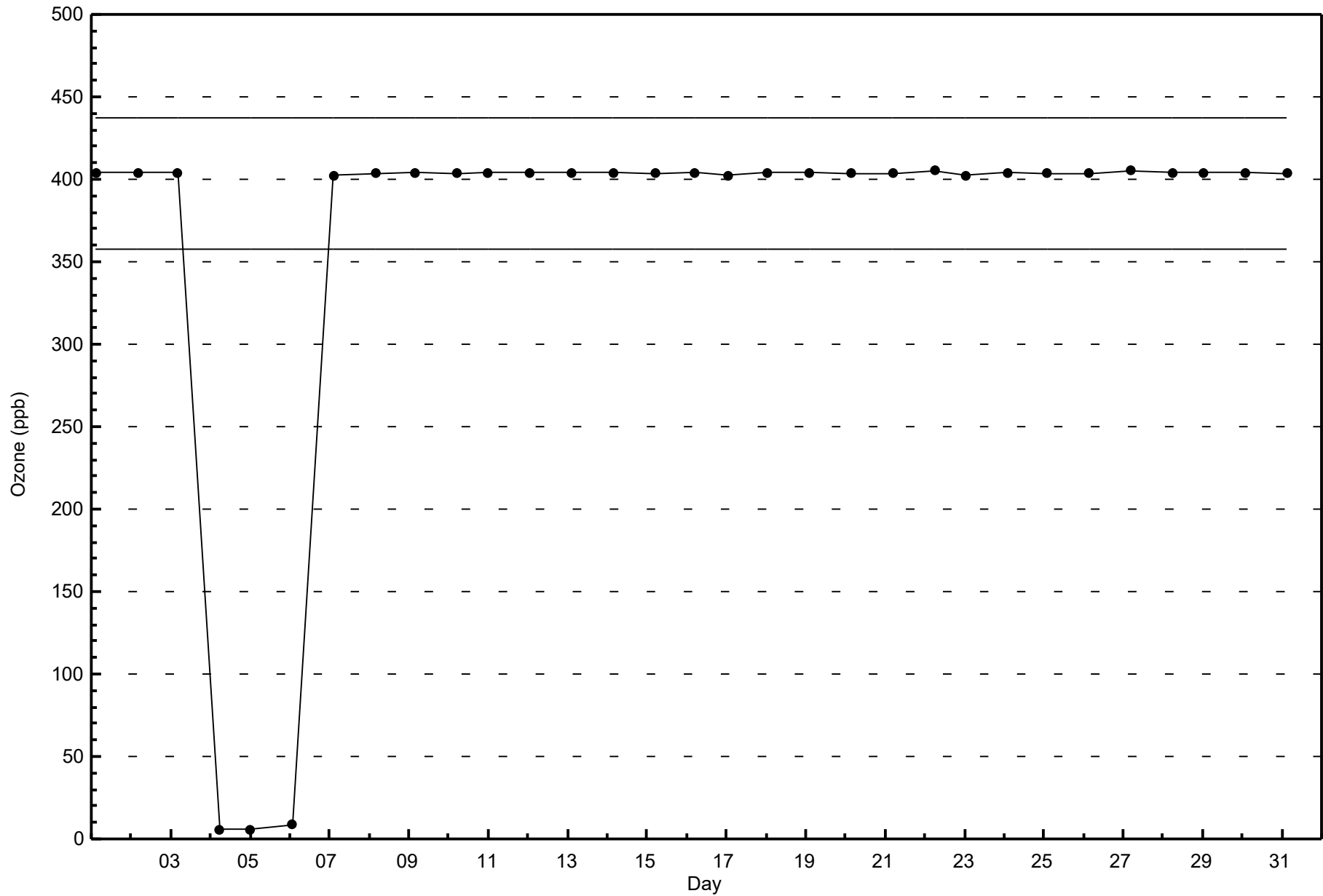
Ozone (O₃) - ppb
Anzac - July 2026





Wood Buffalo Environmental Association
Span Responses

Ozone (O₃) - ppb
Anzac - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Anzac - July 2026

Number of Exceedances (AAAQO): 1-hr: 11 24-hr: 4 Maximum Value: 167.6 µg/m³ on Jul 20 02:00 Minimum Value: 0.9 µg/m³ on Jul 9 14:00 Maximum Diurnal Average: 18.8 µg/m³ at hour 2 Monthly Average: 14.90 µg/m³																					Hours in Service: 744 Hours of Data: 743 Hours of Missing Data: 1 Hours of Calibration: 1 Percent Operational Time: 100.0					
Minimum Daily Average: 1.8 µg/m³ on Jul 9 Minimum Diurnal Average: 12.3 µg/m³ at hour 16 Percentiles: P ₁ = 1.2 P ₁₀ = 2.3 Q ₁ = 3.4 Median = 6.2 Q ₃ = 14.5 P ₉₀ = 51.0 P ₉₉ = 84.2																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	24.9	25.3	25.6	28.4	26.1	28.8	58.6	84.0	97.9	89.1	84.4	82.3	67.3	56.8	31.8	20.8	26.0	29.1	29.5	32.2	33.2	32.7	34.6	35.9	45.2	97.9
2-Jul	36.9	34.6	33.2	30.1	28.6	25.0	21.6	21.3	21.7	22.6	21.8	18.9	11.3	13.7	7.3	9.0	7.2	4.7	4.6	5.1	5.7	6.1	6.1	6.8	16.8	36.9
3-Jul	6.6	6.2	5.9	5.7	5.6	6.1	6.8	7.5	7.4	8.0	7.3	8.3	5.9	3.6	5.7	6.3	5.2	4.1	3.3	3.3	4.5	5.6	4.8	4.8	5.8	8.3
4-Jul	4.9	3.7	3.1	3.3	3.0	2.5	2.5	2.4	2.3	2.2	2.5	2.7	2.7	2.4	1.6	2.0	2.3	2.6	2.6	2.8	2.7	3.9	4.2	3.6	2.9	4.9
5-Jul	3.4	2.9	2.6	2.8	2.2	2.1	2.2	2.3	2.5	2.5	2.6	2.5	2.4	2.9	3.8	4.0	5.8	9.1	8.0	5.0	4.8	5.0	5.3	6.1	3.9	9.1
6-Jul	13.5	15.8	16.1	14.9	13.9	11.7	10.2	9.0	9.8	12.2	12.4	13.3	12.1	11.9	11.3	7.5	5.5	5.3	6.6	6.7	6.5	7.0	5.9	6.4	10.2	16.1
7-Jul	6.6	6.5	6.9	7.3	6.9	6.2	6.8	7.0	8.4	7.9	5.0	4.4	4.4	4.3	3.7	3.6	3.7	3.6	3.6	3.7	3.9	4.3	4.7	4.7	5.3	8.4
8-Jul	5.2	5.1	4.9	5.0	4.8	4.9	4.8	5.1	6.2	5.6	4.4	5.2	7.9	4.4	4.7	4.8	12.1	9.0	7.2	5.6	5.1	5.4	5.5	5.2	5.8	12.1
9-Jul	4.7	3.8	2.5	2.0	1.6	1.4	1.1	1.1	1.4	1.5	1.9	1.2	1.4	0.9	1.0	1.2	1.4	1.7	1.2	1.2	1.4	1.8	2.4	2.7	1.8	4.7
10-Jul	2.9	3.1	2.9	3.3	3.3	3.4	3.6	3.4	3.1	2.5	2.0	1.6	1.5	1.6	2.2	1.5	1.7	1.4	1.5	2.1	25.7	13.0	3.0	3.0	3.9	25.7
11-Jul	2.5	2.7	3.1	2.9	2.9	2.9	2.8	3.2	3.0	2.9	3.1	3.2	3.4	3.4	3.5	3.7	3.7	3.6	3.5	3.9	3.8	4.6	4.9	2.8	3.3	4.9
12-Jul	2.8	2.8	2.8	3.2	3.5	3.3	3.0	3.0	3.3	3.0	2.8	2.8	2.8	2.7	2.9	3.0	2.7	1.7	1.5	2.0	2.4	2.5	2.1	2.1	2.7	3.5
13-Jul	2.1	2.1	2.1	2.0	1.8	1.6	1.4	1.6	1.7	1.9	2.1	2.0	1.7	1.6	1.3	1.4	1.3	1.5	1.6	1.5	3.2	6.7	7.5	6.0	2.4	7.5
14-Jul	6.2	5.8	5.5	5.4	5.1	4.3	4.6	4.5	4.8	4.7	4.0	4.6	4.9	4.5	3.6	2.6	2.9	3.1	3.2	3.1	3.2	3.7	3.8	4.4	4.3	6.2
15-Jul	5.1	5.1	5.8	6.1	5.7	5.5	6.2	7.5	8.3	8.7	8.7	6.3	6.5	6.1	6.3	6.1	5.8	6.0	5.5	5.6	6.1	6.2	6.6	6.0	6.3	8.7
16-Jul	6.1	6.3	6.5	7.3	7.5	7.2	7.4	7.9	8.0	8.2	8.2	8.2	8.5	8.7	8.0	8.1	7.9	7.8	8.3	8.7	8.3	8.4	8.9	9.8	7.9	9.8
17-Jul	9.9	9.8	9.6	9.5	9.7	10.1	10.6	11.7	17.2	16.9	12.3	10.6	10.4	10.0	10.1	10.3	10.8	11.5	11.4	11.6	11.5	11.4	11.4	12.7	11.3	17.2
18-Jul	15.7	17.4	16.5	15.5	16.0	14.9	14.9	15.3	13.0	12.3	11.4	8.1	7.2	9.7	9.7	11.7	15.6	17.3	16.2	16.6	16.9	15.8	16.0	16.2	14.2	17.4
19-Jul	18.5	19.2	15.8	16.4	17.3	19.5	16.6	11.4	10.8	13.4	14.5	15.2	17.5	15.4	16.6	16.5	16.4	17.7	16.9	13.3	11.4	14.4	21.4	43.2	17.1	43.2
20-Jul	117.9	167.6	164.5	148.0	98.1	57.7	54.4	59.2	67.1	66.5	62.3	69.5	74.0	77.5	76.0	82.1	77.1	76.5	76.8	72.6	72.3	76.9	76.2	72.3	85.1	167.6
21-Jul	67.3	64.6	63.7	61.2	59.7	59.0	64.3	68.2	68.9	76.1	78.2	77.4	73.1	69.7	68.9	65.4	63.7	62.6	61.2	58.1	60.7	65.1	63.3	62.1	65.9	78.2
22-Jul	60.9	58.9	56.4	57.3	55.1	55.2	52.4	57.3	64.1	68.5	67.5	61.7	54.3	52.4	51.6	51.2	49.1	44.8	42.2	41.0	41.3	42.9	49.5	54.8	53.8	68.5
23-Jul	57.2	56.5	50.0	46.9	42.7	39.8	36.4	28.6	27.4	27.3	28.4	34.3	48.4	42.9	24.7	7.6	7.4	7.3	4.5	3.1	4.4	5.1	4.8	4.4	26.7	57.2
24-Jul	7.3	12.3	14.6	15.6	14.5	14.7	14.5	13.6	13.5	15.0	15.8	16.2	16.1	12.9	10.2	8.0	6.2	6.2	7.2	11.0	11.1	8.3	6.3	5.6	11.5	16.2
25-Jul	5.0	4.8	4.6	4.6	4.5	4.5	4.1	4.0	3.5	3.4	3.6	3.0	2.0	1.8	2.7	3.1	2.4	2.3	2.7	3.2	3.0	4.6	3.9	3.1	3.5	5.0
26-Jul	2.6	4.2	7.5	8.8	7.5	6.6	11.0	12.1	7.1	5.0	4.5	4.6	5.4	6.0	6.4	8.7	10.6	11.0	11.0	11.7	13.3	15.2	13.2	8.5	8.4	15.2
27-Jul	8.2	8.4	7.9	7.3	5.8	7.6	10.2	C	8.2	8.4	8.5	7.9	7.7	9.1	10.8	13.9	14.8	15.1	26.5	33.2	33.0	28.4	21.5	16.4	13.9	33.2
28-Jul	14.9	15.2	16.5	17.1	17.9	16.1	10.0	7.7	6.1	5.3	4.9	4.0	4.2	5.6	6.4	6.4	6.4	7.2	7.2	7.5	8.5	10.0	9.6	6.3	9.2	17.9
29-Jul	6.1	6.1	4.7	5.2	8.2	9.5	10.1	11.1	11.0	8.7	8.4	9.9	3.3	1.7	1.6	1.6	1.4	1.5	1.6	5.4	2.9	2.6	2.7	2.5	5.3	11.1
30-Jul	2.1	2.0	2.1	2.3	2.9	3.3	3.1	3.2	3.1	2.8	2.8	3.4	3.9	3.9	3.5	3.5	3.1	2.8	2.6	2.9	3.8	6.3	4.2	3.7	3.2	6.3
31-Jul	3.1	3.1	3.3	3.5	3.7	3.7	3.4	3.5	4.0	3.5	3.3	4.3	4.4	4.9	4.9	4.3	4.5	5.2	4.8	4.5	4.8	4.8	5.1	5.5	4.2	5.5
17.1 18.8 18.3 17.7 15.7 14.2 14.8 15.9 16.6 16.7 16.1 16.0 15.4 14.6 13.0 12.3 12.4 12.4 12.4 12.5 13.5 13.8 13.5 13.8																									Diurnal Average	
117.9 167.6 164.5 148.0 98.1 59.0 64.3 84.0 97.9 89.1 84.4 82.3 74.0 77.5 76.0 82.1 77.1 76.5 76.8 72.6 72.3 76.9 76.2 72.3																									Diurnal Maximum	
C - Calibration																										
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 µg/m³ 24-hr 29 µg/m³																										



Wood Buffalo Environmental Association
Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Anzac - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Anzac - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Number of Hours	%	Cumulative %
0 - 5	327	44.01	44.01
6 - 15	246	33.11	77.12
16 - 25	52	7.00	84.12
26 - 80	107	14.40	98.52
> 81.0	11	1.48	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Anzac - July 2026

Concentration Ranges (µg/m ³)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	2	1	1	1	4	8	20	32	17	17	36	28	74	62	14	10	327
6 - 15	3	3	0	3	4	21	32	28	13	8	9	10	32	43	19	18	246
16 - 25	0	0	1	1	1	5	9	11	2	1	1	4	1	8	5	2	52
26 - 80	1	0	1	0	0	5	16	13	6	2	5	9	15	19	11	4	107
> 81.0	0	0	0	0	0	1	3	1	0	0	0	0	0	1	2	3	11
Totals	6	4	3	5	9	40	80	85	38	28	51	51	122	133	51	37	743

Total Number of Valid Hours: 743

Total Number of Hours: 744

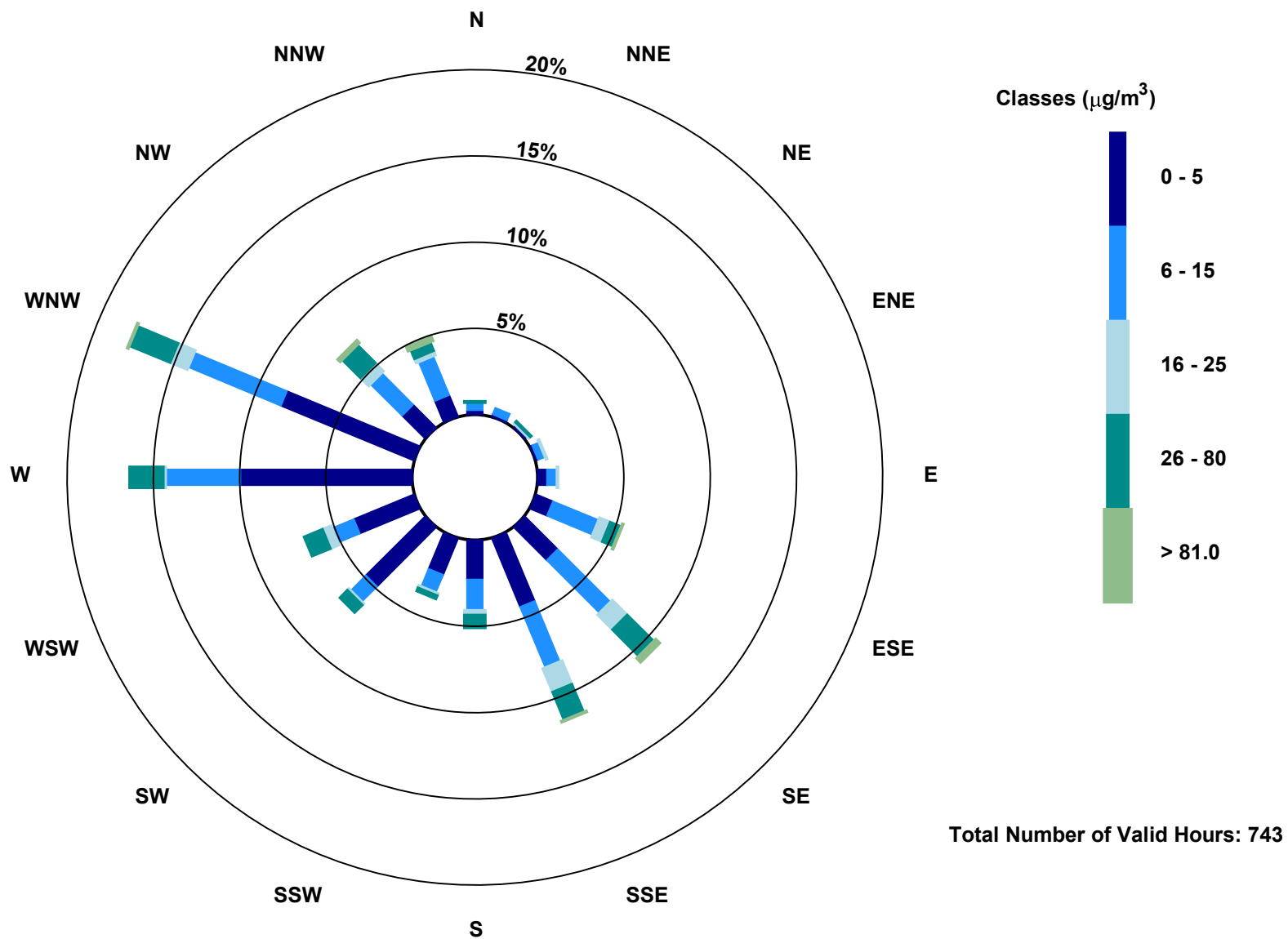


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$

Anzac





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

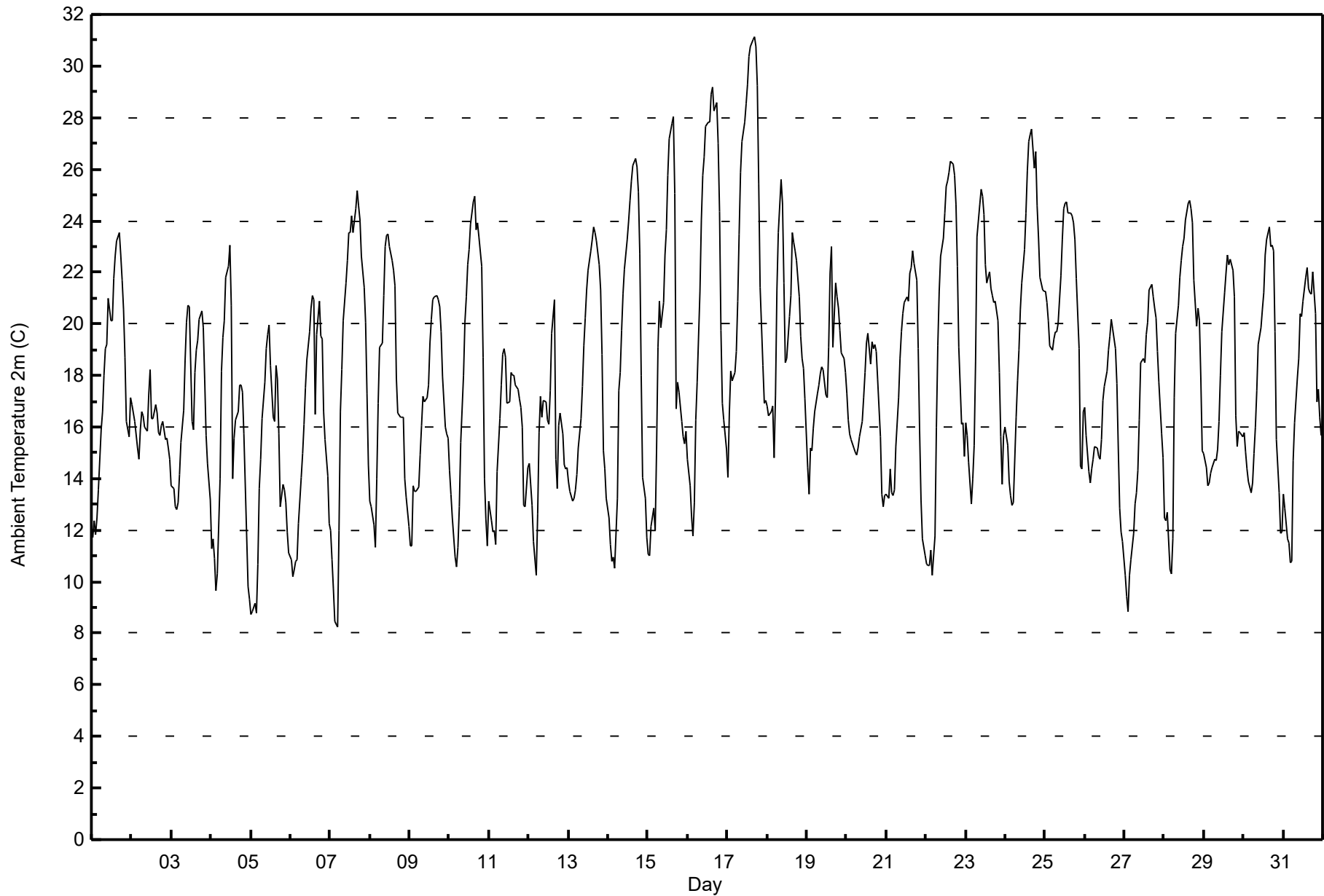
Anzac - July 2026

Maximum Value: 31.1 C on Jul 17 17:00																				Maximum Daily Average: 23.7 C on Jul 17					Hours in Service: 744	
Minimum Value: 8.3 C on Jul 7 05:00																				Minimum Daily Average: 14.4 C on Jul 5					Hours of Data: 744	
Maximum Diurnal Average: 22.6 C at hour 16																				Minimum Diurnal Average: 12.8 C at hour 4					Hours of Missing Data: 0	
Monthly Average: 17.94 C																				Percentiles: P ₁ = 9.4 P ₁₀ = 12.1 Q ₁ = 14.5 Median = 17.5 Q ₃ = 21.1 P ₉₀ = 23.9 P ₉₉ = 29.0					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	11.7	12.4	11.8	12.5	13.5	15.9	16.6	18.0	19.0	19.2	21.0	20.1	20.1	21.8	22.6	23.2	23.6	22.7	21.7	20.6	18.7	16.2	15.6	17.1	18.2	23.6
2-Jul	16.9	16.6	16.2	15.2	14.8	15.9	16.6	16.4	16.0	15.9	17.2	18.2	16.3	16.4	16.9	16.5	15.8	15.7	16.0	16.2	15.5	15.6	15.2	14.7	16.1	18.2
3-Jul	13.7	13.6	12.9	12.8	13.1	14.2	15.4	16.6	18.6	20.1	20.7	20.6	16.2	15.9	18.1	19.0	19.3	20.2	20.5	19.8	17.8	15.7	14.6	13.2	16.8	20.7
4-Jul	11.3	11.7	10.9	9.7	10.3	14.0	18.2	19.5	20.1	21.8	22.3	23.1	20.7	14.0	15.6	16.2	16.6	17.6	17.6	17.4	15.8	11.8	9.8	9.3	15.6	23.1
5-Jul	8.7	8.8	9.2	8.8	10.7	13.6	14.8	16.3	17.7	19.0	19.6	19.9	18.4	16.4	16.2	18.4	17.8	15.8	12.9	13.8	13.5	13.1	11.9	11.1	14.4	19.9
6-Jul	10.8	10.2	10.5	10.8	10.8	12.3	14.0	15.0	16.1	17.5	18.6	19.7	20.6	21.1	20.9	16.5	19.6	20.9	19.5	19.4	16.6	15.5	14.1	12.2	16.0	21.1
7-Jul	12.0	10.8	9.7	8.5	8.3	12.0	16.6	18.2	20.1	21.6	22.5	23.5	23.5	24.2	23.6	24.5	25.2	24.6	24.0	22.6	21.4	20.1	17.3	14.5	18.7	25.2
8-Jul	13.2	12.9	12.2	11.4	14.0	16.9	19.1	19.3	21.1	23.0	23.5	23.5	23.0	22.5	22.0	21.5	17.9	16.5	16.4	16.4	16.4	14.0	13.3	12.2	17.6	23.5
9-Jul	11.4	11.4	13.7	13.5	13.5	13.7	14.9	16.0	17.2	17.0	17.1	17.6	19.3	20.2	20.9	21.1	21.1	20.9	20.7	19.7	18.0	16.0	15.7	15.6	16.9	21.1
10-Jul	14.3	13.4	12.5	11.0	10.6	11.3	12.9	15.4	18.0	20.1	21.0	22.3	22.9	23.8	24.7	24.9	23.6	23.9	23.4	22.2	18.7	14.0	12.4	11.4	17.9	24.9
11-Jul	13.1	12.4	11.9	12.0	11.5	14.2	16.3	17.6	18.8	19.0	18.7	16.9	17.0	18.1	18.0	18.0	17.6	17.5	17.1	16.8	16.0	13.0	12.9	14.4	15.8	19.0
12-Jul	14.6	13.7	12.9	11.5	10.2	12.6	15.8	17.2	16.4	17.0	17.0	16.3	16.1	17.4	19.6	20.9	14.8	13.6	16.1	16.5	15.7	14.5	14.4	14.4	15.4	20.9
13-Jul	13.9	13.5	13.1	13.3	13.5	14.1	15.2	16.3	17.6	19.1	20.2	21.3	22.1	22.8	23.3	23.7	23.5	23.2	22.3	21.3	18.8	15.1	14.4	13.2	18.1	23.7
14-Jul	12.5	11.5	10.8	10.9	10.5	13.2	17.4	18.1	19.7	21.2	22.1	23.3	24.0	24.8	25.5	26.1	26.4	26.1	25.1	22.7	18.0	14.1	13.3	11.7	18.7	26.4
15-Jul	11.1	11.0	12.1	12.9	12.0	15.2	19.1	20.9	19.9	20.8	22.7	23.6	25.8	27.2	27.8	28.0	25.1	16.7	17.7	17.4	16.2	15.6	15.3	15.8	18.7	28.0
16-Jul	14.8	13.7	12.5	11.8	13.1	16.3	17.8	21.3	24.0	25.8	26.5	27.7	27.8	27.8	28.9	29.2	28.3	28.6	27.0	24.4	19.7	16.9	16.3	15.1	21.5	29.2
17-Jul	14.1	16.5	18.2	17.8	18.1	18.9	20.9	23.5	25.9	27.1	27.8	28.5	29.3	30.3	30.7	31.0	31.1	30.8	29.3	25.4	21.4	18.4	16.9	17.0	23.7	31.1
18-Jul	16.8	16.5	16.6	16.8	14.8	17.2	21.3	23.5	25.6	24.7	21.6	18.5	18.7	20.3	21.1	23.6	23.2	22.8	22.5	21.1	19.5	18.7	18.3	17.1	20.0	25.6
19-Jul	14.4	13.4	15.2	15.1	15.9	16.6	17.3	17.6	18.1	18.3	18.2	17.2	17.1	19.1	22.0	23.0	19.1	21.6	21.0	20.6	19.8	18.9	18.6	18.1	18.2	23.0
20-Jul	17.3	16.3	15.7	15.5	15.2	15.0	14.9	15.2	15.6	16.2	17.2	18.1	19.2	19.6	18.5	19.3	19.0	19.2	18.9	17.8	15.6	13.4	12.9	13.4	16.6	19.6
21-Jul	13.4	13.2	14.4	13.4	13.3	13.6	15.2	17.1	18.6	19.7	20.4	20.8	21.0	20.9	22.0	22.2	22.9	22.4	21.7	19.1	15.9	13.2	11.6	11.0	17.4	22.9
22-Jul	10.7	10.6	10.6	11.2	10.3	11.8	16.0	19.2	21.3	22.6	23.3	24.3	25.3	25.5	25.9	26.3	26.2	25.8	24.6	22.2	19.1	16.1	16.2	14.9	19.2	26.3
23-Jul	16.2	15.7	14.6	13.0	14.0	15.3	18.5	23.4	24.6	25.2	24.9	24.3	22.3	21.6	22.0	21.4	21.1	20.8	20.9	20.1	18.1	15.6	13.8	15.6	19.3	25.2
24-Jul	16.0	15.3	13.9	13.4	13.0	13.1	16.4	17.8	19.0	20.6	21.6	22.9	24.3	25.9	27.1	27.4	27.5	26.1	26.7	24.6	23.3	21.8	21.3	21.2	20.8	27.5
25-Jul	21.3	20.9	20.1	19.1	19.0	19.4	19.7	19.7	20.0	21.8	23.3	24.5	24.7	24.7	24.3	24.3	24.2	23.9	23.3	21.8	19.0	14.5	14.3	16.6	21.0	24.7
26-Jul	16.7	15.7	14.2	13.8	14.4	14.8	15.2	15.2	14.9	14.7	15.5	17.0	17.6	18.2	19.0	19.5	20.2	19.8	19.0	17.7	15.2	12.9	11.9	11.5	16.0	20.2
27-Jul	10.3	9.4	8.8	10.2	10.9	11.9	13.0	13.4	14.3	16.3	18.5	18.7	18.5	19.6	20.1	21.3	21.5	21.0	20.6	20.2	18.9	17.7	15.8	14.8	16.1	21.5
28-Jul	12.5	12.3	12.7	10.5	10.3	11.7	17.1	19.6	20.7	21.8	22.4	23.0	23.3	24.0	24.7	24.8	24.5	23.9	21.7	19.9	20.6	20.1	17.9	15.1	19.0	24.8
29-Jul	15.0	14.4	13.7	13.8	14.2	14.4	14.8	14.7	15.1	16.2	18.0	19.7	21.2	22.0	22.7	22.3	22.5	22.1	21.1	16.4	15.2	15.8	15.8	15.6	17.4	22.7
30-Jul	15.8	15.0	14.4	13.9	13.5	13.9	15.0	16.0	17.4	19.2	19.8	20.6	21.2	22.6	23.3	23.8	23.0	23.0	22.8	19.7	15.5	13.5	11.9	11.9	17.8	23.8
31-Jul	13.4	12.8	11.7	11.5	10.8	10.8	14.7	16.2	17.9	18.7	20.4	20.3	20.9	21.8	22.2	21.4	21.2	21.1	22.0	20.4	17.0	17.4	16.4	15.7	17.4	22.2
13.8 13.4 13.2 12.8 12.8 14.3 16.5 17.9 19.0 20.0 20.8 21.2 21.2 21.6 22.3 22.6 22.0 21.6 21.1 19.8 17.8 15.8 14.8 14.4																										Diurnal Average
21.3 20.9 20.1 19.1 19.0 19.4 21.3 23.5 25.9 27.1 27.8 28.5 29.3 30.3 30.7 31.0 31.1 30.8 29.3 25.4 23.3 21.8 21.3 21.2																										Diurnal Maximum



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Anzac - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Anzac - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	12	1.61	1.61
10 - 20	484	65.05	66.67
> 20	248	33.33	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

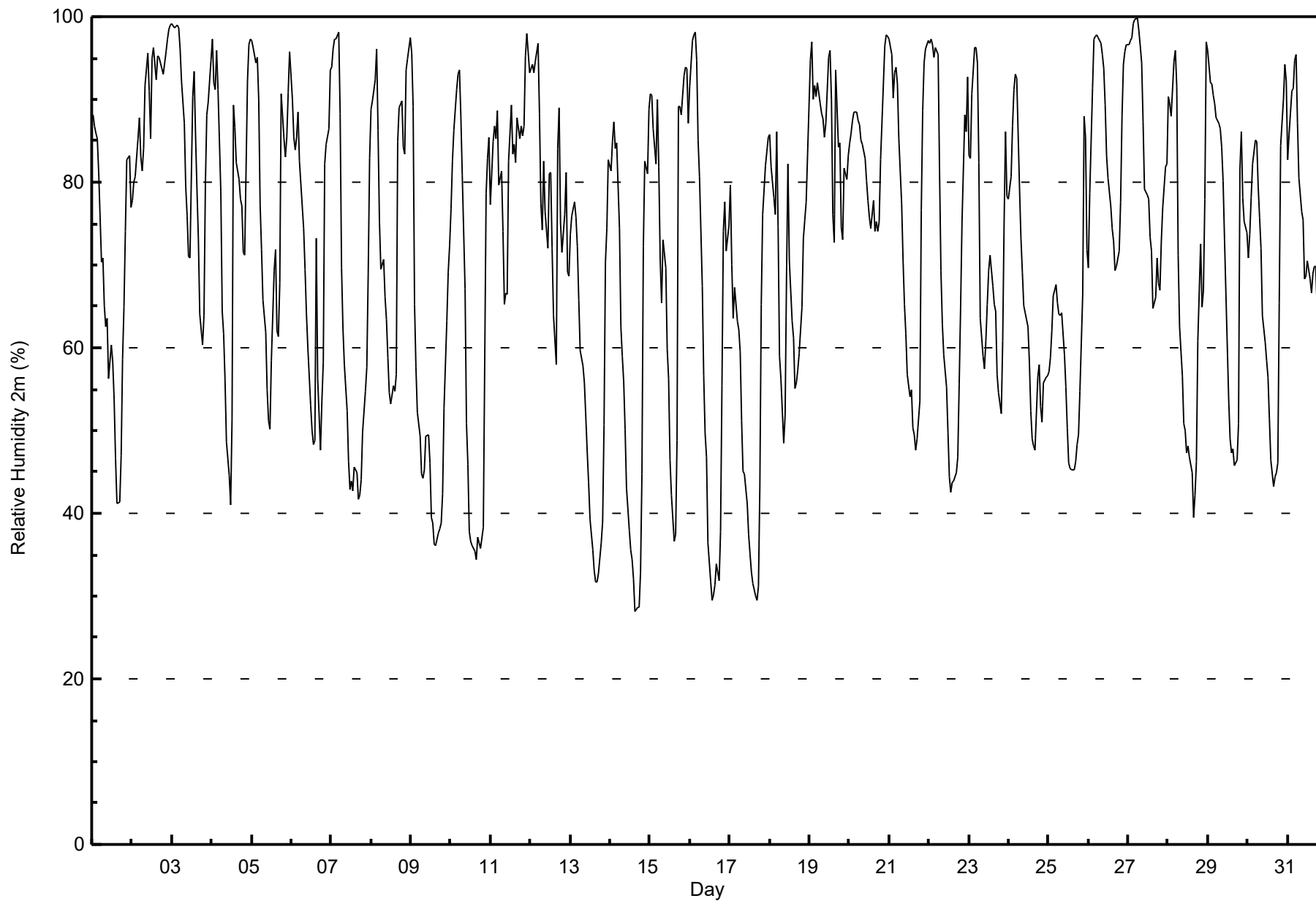
Anzac - July 2026

Maximum Value: 99.9 % on Jul 27 06:00																			Maximum Daily Average: 90.4 % on Jul 2										Hours in Service: 744	
Minimum Value: 28.1 % on Jul 14 16:00																			Minimum Daily Average: 52.2 % on Jul 9										Hours of Data: 744	
Maximum Diurnal Average: 88.1 % at hour 5																			Minimum Diurnal Average: 54.7 % at hour 16										Hours of Missing Data: 0	
Monthly Average: 71.72 %																			Percentiles: P ₁ = 31.3 P ₁₀ = 44.7 Q ₁ = 56.7 Median = 74.5 Q ₃ = 87.8 P ₉₀ = 94.9 P ₉₉ = 98.6										Hours of Calibration: 0	
																													Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																				Daily Average	Daily Maximum								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			21	22	23	24				
1-Jul	88.2	86.8	86.0	85.3	81.2	70.4	70.8	65.1	62.5	63.6	56.3	60.3	58.2	53.7	46.7	41.1	41.4	46.9	58.6	64.9	74.1	82.7	83.3	76.9	66.9	88.2				
2-Jul	77.8	80.1	80.7	85.3	87.8	83.0	81.4	84.0	91.8	95.6	91.0	85.2	95.0	96.2	92.4	95.3	95.2	94.4	93.8	93.1	95.7	97.3	98.5	99.0	90.4	99.0				
3-Jul	99.2	98.6	98.8	98.9	98.6	96.0	92.2	87.2	79.5	76.0	71.0	70.8	90.4	93.4	85.5	79.1	73.2	64.1	60.3	63.9	79.6	88.2	89.6	94.8	84.5	99.2				
4-Jul	97.3	92.1	91.2	95.9	91.2	78.8	64.4	61.6	56.0	48.6	44.6	41.0	51.3	89.4	86.6	82.4	80.3	78.0	77.1	71.5	71.2	92.1	96.7	97.3	76.5	97.3				
5-Jul	97.1	96.3	94.4	95.0	90.0	77.2	71.8	65.8	61.8	55.0	51.2	50.1	58.5	69.3	71.8	62.0	61.3	67.9	90.7	85.3	83.1	85.4	90.8	95.7	76.1	97.1				
6-Jul	90.0	85.4	83.8	85.4	88.5	82.6	77.2	74.4	69.6	64.1	60.1	53.1	50.1	48.3	48.9	73.2	56.4	47.6	53.6	58.4	82.1	84.6	86.4	93.5	70.7	93.5				
7-Jul	93.9	96.2	97.3	97.4	98.1	88.2	69.7	62.3	58.0	52.4	46.2	42.9	43.9	42.8	45.5	45.0	41.7	42.2	44.1	49.8	54.7	57.7	69.0	82.8	63.4	98.1				
8-Jul	88.8	89.8	92.4	96.2	86.3	75.2	69.5	70.7	66.2	63.3	58.9	54.6	53.2	55.4	54.7	56.7	84.8	89.0	89.8	84.2	83.4	93.6	95.0	97.4	77.0	97.4				
9-Jul	95.6	89.1	65.3	57.5	52.2	49.4	44.7	44.3	45.2	49.3	49.4	46.1	39.4	38.8	36.3	36.1	37.6	38.2	38.8	42.3	52.8	63.3	69.1	72.3	52.2	95.6				
10-Jul	76.8	82.5	86.2	91.1	93.0	93.6	88.0	80.9	67.1	50.8	45.9	37.8	36.6	36.2	35.4	34.3	37.1	36.5	35.8	38.3	58.3	78.6	82.9	85.5	62.1	93.6				
11-Jul	77.3	85.0	86.7	85.3	88.7	79.6	81.4	74.1	65.2	66.7	66.4	82.6	89.3	83.4	84.5	82.4	87.8	85.2	86.8	85.7	86.8	95.2	98.0	93.3	83.2	98.0				
12-Jul	93.7	94.3	93.2	94.7	96.7	88.3	77.4	74.3	82.5	76.5	72.1	81.1	81.1	72.1	63.8	57.9	84.1	89.0	75.0	71.5	76.2	81.2	69.2	68.6	79.8	96.7				
13-Jul	73.7	75.9	77.5	75.7	72.1	65.8	59.7	57.7	55.7	51.8	47.4	43.8	39.3	35.7	33.1	31.6	31.6	32.8	36.5	38.9	50.7	70.4	74.5	82.7	54.8	82.7				
14-Jul	81.4	84.9	87.3	84.0	84.7	74.4	62.5	59.0	56.0	50.1	43.1	37.9	35.6	34.4	32.0	28.1	28.7	28.7	32.9	44.8	72.2	82.5	81.0	88.9	58.1	88.9				
15-Jul	90.7	90.5	86.4	82.3	90.0	81.9	70.6	65.4	73.0	69.6	59.8	56.3	46.5	42.2	36.6	37.4	48.8	89.1	89.1	88.2	92.8	94.0	93.8	87.2	73.4	94.0				
16-Jul	91.6	97.2	97.8	98.1	94.7	85.0	80.8	67.5	56.5	49.6	46.7	36.4	31.6	29.6	30.1	31.4	33.8	31.8	37.9	55.5	74.1	77.7	71.7	74.8	61.7	98.1				
17-Jul	79.6	69.9	63.5	67.3	63.2	62.2	59.4	51.1	45.1	44.8	41.1	37.4	35.1	32.9	31.5	30.0	29.5	31.2	43.2	65.2	76.1	82.1	83.7	85.4	54.6	85.4				
18-Jul	85.7	81.9	78.1	76.1	86.2	74.5	58.9	56.3	48.5	51.9	68.6	82.1	70.6	63.3	61.1	55.0	55.8	57.3	59.4	65.0	73.2	75.4	77.7	83.5	68.6	86.2				
19-Jul	94.8	96.9	90.0	91.8	90.4	92.0	89.6	88.4	87.6	85.4	87.2	95.0	95.9	89.9	76.1	72.7	93.5	84.2	84.7	74.6	73.1	81.6	80.3	83.2	86.6	96.9				
20-Jul	84.7	85.9	87.5	88.5	88.4	87.4	86.9	85.0	84.6	82.8	80.2	77.8	75.7	74.4	77.7	74.1	75.3	74.1	75.3	82.8	91.9	96.5	97.8	97.6	83.9	97.8				
21-Jul	97.3	95.5	90.1	93.3	93.8	91.9	85.2	77.5	70.7	65.3	61.7	56.9	54.0	54.8	50.3	49.4	47.6	49.0	53.5	76.6	88.7	94.4	96.1	97.0	74.6	97.3				
22-Jul	96.9	97.3	96.6	95.0	96.3	95.4	81.4	69.3	62.9	59.2	55.3	49.9	44.4	42.5	43.7	43.9	44.9	46.8	55.7	64.8	75.1	88.2	86.2	92.7	70.2	97.3				
23-Jul	83.2	82.9	90.7	96.2	96.3	94.4	82.4	63.5	59.0	57.5	60.8	65.2	69.3	71.3	67.4	65.2	64.4	56.7	54.5	52.0	60.8	75.1	86.1	78.4	72.2	96.3				
24-Jul	77.9	80.6	86.8	91.3	93.0	92.5	79.1	73.2	69.2	65.0	64.2	62.6	58.2	52.4	49.1	48.1	47.6	56.4	58.0	52.8	51.0	55.7	56.5	56.6	65.7	93.0				
25-Jul	57.2	58.8	62.0	66.2	67.6	65.4	64.1	63.8	64.2	59.2	55.2	50.3	46.1	45.5	45.2	45.2	46.2	48.2	49.6	54.8	66.5	88.0	85.4	71.8	59.4	88.0				
26-Jul	69.6	78.7	91.3	97.3	97.6	97.8	97.4	96.9	95.4	93.7	89.3	83.2	80.5	77.2	74.3	72.9	69.3	69.9	71.7	77.6	88.0	94.3	95.7	96.7	85.7	97.8				
27-Jul	96.6	97.1	97.5	99.1	99.7	99.9	98.3	96.4	94.3	87.3	79.2	78.4	77.9	73.3	71.7	64.7	66.0	70.8	67.9	66.9	72.8	77.0	81.9	82.1	83.2	99.9				
28-Jul	90.4	89.4	88.0	94.7	96.0	91.5	71.3	62.5	56.7	50.8	49.9	47.4	48.2	46.7	44.9	39.6	42.2	46.3	60.9	72.6	64.8	67.0	77.9	97.0	66.5	97.0				
29-Jul	95.9	92.1	91.9	90.5	89.4	87.8	87.1	86.4	84.3	80.2	73.2	66.6	53.7	48.9	47.3	47.7	45.7	46.4	50.9	81.6	86.2	78.1	75.2	73.8	73.4	95.9				
30-Jul	70.8	73.7	78.1	82.2	85.1	84.9	79.6	75.8	72.0	63.8	60.6	58.5	56.4	51.3	46.4	43.3	44.4	44.9	46.1	65.4	84.3	89.9	94.3	92.2	68.5	94.3				
31-Jul	82.7	85.8	91.1	91.4	94.7	95.4	87.2	80.5	76.5	75.4	68.2	68.7	70.5	68.2	66.6	68.9	69.8	69.9	64.6	73.4	88.9	82.7	87.8	89.8	79.1	95.4				
86.3 86.8 86.7 88.0 88.1 83.3 76.4 71.6 68.3 64.7 61.4 60.0 59.2 58.5 56.0 54.7 57.0 58.5 61.2 66.5 75.1 82.3 84.3 86.1																										Diurnal Average				
99.2 98.6 98.8 99.1 99.7 99.9 98.3 96.9 95.4 95.6 91.0 95.0 95.9 96.2 92.4 95.3 95.2 94.4 93.8 93.1 95.7 97.3 98.5 99.0																										Diurnal Maximum				



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Anzac - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %
Anzac - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	50	6.72	6.72
40 - 60	167	22.45	29.17
60 - 80	215	28.90	58.06
80 - 100	312	41.94	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Leaf Wetness (LW) - %

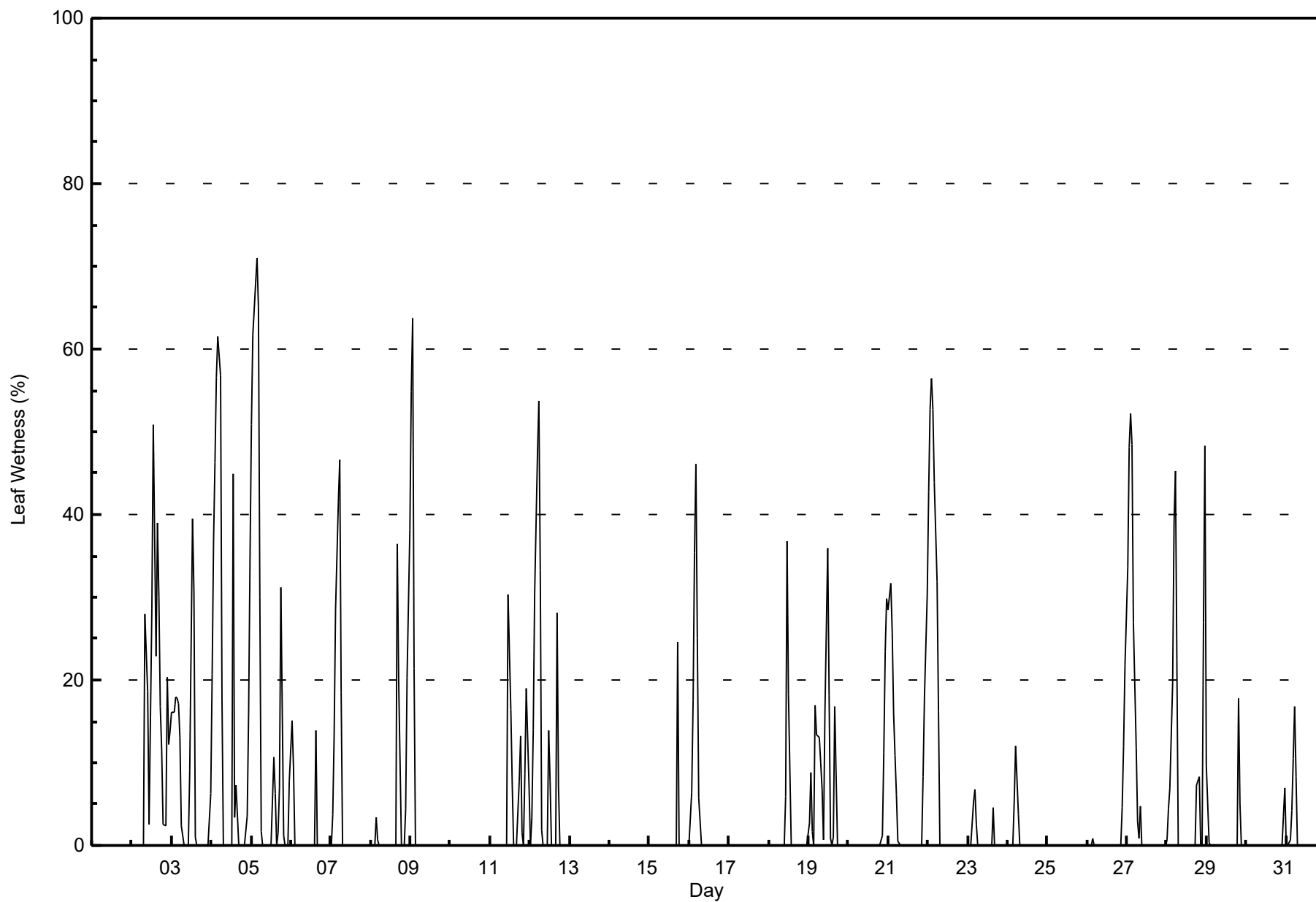
Anzac - July 2026

Maximum Value: 71.0 % on Jul 5 04:00																	Maximum Daily Average: 17.3 % on Jul 5										Hours in Service: 744	
Minimum Value: 0.0 % on Jul 1 01:00																	Minimum Daily Average: 0.0 % on Jul 1										Hours of Data: 744	
Maximum Diurnal Average: 14.2 % at hour 5																	Minimum Diurnal Average: 0.3 % at hour 21										Hours of Missing Data: 0	
Monthly Average: 4.94 %																	Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 18.1 P ₉₉ = 56.6										Hours of Calibration: 0	
																											Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0	18.7	2.6	15.4	28.7	50.9	22.8	39.1	30.0	16.7	11.5	2.6	2.4	20.4	12.2	13.9	13.2	50.9	
3-Jul	16.2	16.0	18.0	17.8	17.1	13.0	2.3	0.0	0.0	0.0	0.0	8.9	39.5	30.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	7.8	39.5		
4-Jul	20.8	36.8	46.3	56.6	61.6	56.8	17.9	0.0	0.0	0.0	0.0	0.0	0.1	45.0	3.4	7.4	0.0	0.0	0.0	0.0	0.0	3.6	15.9	34.8	16.9	61.6		
5-Jul	50.9	61.7	68.0	71.0	65.0	30.0	1.8	0.0	0.0	0.0	0.0	0.0	0.2	10.6	6.3	0.0	1.5	6.9	31.2	1.2	0.0	0.0	0.0	7.8	17.3	71.0		
6-Jul	15.1	9.6	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	13.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	15.1		
7-Jul	0.0	3.8	13.4	28.4	41.5	46.6	18.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	46.6		
8-Jul	0.0	0.0	0.0	3.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.4	20.3	0.0	0.0	0.0	4.4	20.4	38.1	5.1	38.1		
9-Jul	55.0	63.7	21.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	63.7		
10-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
11-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.3	16.5	7.5	0.0	0.0	0.0	7.8	13.3	1.5	0.0	8.6	19.0	7.1	4.6	30.3		
12-Jul	0.0	3.4	14.1	30.6	47.2	53.7	33.2	1.9	0.0	0.0	0.0	13.9	7.8	0.0	0.0	0.0	28.1	7.2	0.0	0.0	0.0	0.0	0.0	0.0	10.0	53.7		
13-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
14-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
15-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.6	0.0	0.0	0.0	0.0	0.0	0.0	1.0	24.6		
16-Jul	0.0	6.4	17.5	35.3	46.1	25.1	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	46.1		
17-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
18-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	36.7	18.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	36.7		
19-Jul	2.7	8.9	1.7	0.0	16.9	13.4	13.0	10.0	6.8	0.7	15.9	36.0	18.1	0.9	0.0	1.0	16.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	36.0		
20-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	11.2	23.4	29.9	2.7	29.9		
21-Jul	28.6	31.7	25.7	15.9	10.8	6.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	18.0	30.5	7.3	31.7		
22-Jul	42.8	52.6	56.5	52.6	43.9	31.9	16.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.4	56.5		
23-Jul	0.0	0.0	0.0	5.2	6.7	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	6.7		
24-Jul	0.0	0.0	0.0	0.0	5.2	12.1	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	12.1		
25-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
26-Jul	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	12.0	21.7	1.6	21.7		
27-Jul	33.6	48.1	52.1	48.5	26.9	11.8	2.8	0.9	4.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6	52.1		
28-Jul	0.7	4.4	6.9	19.6	39.0	45.2	22.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	8.3	0.0	0.0	26.9	48.3	9.5	48.3	
29-Jul	9.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.7	5.0	0.0	0.0	0.0	1.4	17.7		
30-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	6.9	0.4	6.9		
31-Jul	0.0	0.0	0.8	4.2	10.5	16.8	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	16.8		
		8.9	11.2	11.0	12.6	14.2	11.8	4.7	0.4	1.3	0.6	0.8	4.6	4.2	4.7	1.1	2.1	3.6	2.7	2.0	1.0	0.3	2.0	4.9	7.9	Diurnal Average		
		55.0	63.7	68.0	71.0	65.0	56.8	33.2	10.0	28.0	18.7	15.9	36.7	39.5	50.9	22.8	39.1	36.4	24.6	31.2	17.7	5.0	20.4	26.9	48.3	Diurnal Maximum		



Wood Buffalo Environmental Association
Hourly Averages

Leaf Wetness (LW) - %
Anzac - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Leaf Wetness (LW) - %
Anzac - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 0.3	562	75.54	75.54
0.4 - 0.5	1	0.13	75.67
0.6 - 0.7	4	0.54	76.21
0.8 - 1.4	8	1.08	77.28
1.5 - 10	55	7.39	84.68
> 10	113	15.19	99.87

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 20m (WS20) - km/h

Anzac - July 2026

Maximum Speed: 31 km/h on Jul 18 13:00																		Maximum Daily Speed Average: 17.7 km/h on Jul 13										Hours in Service: 744	
Minimum Speed Value: 0 km/h on Jul 11 07:00																		Minimum Daily Speed Average: 1.9 km/h on Jul 24										Hours of Data: 744	
Maximum Diurnal Speed Average: 5.8 km/h at hour 11																		Minimum Diurnal Speed Average: 1.9 km/h at hour 21										Hours of Missing Data: 0	
Monthly Average Velocity: 4.3 km/h 250.6 deg																		Percentiles: P ₁ = 2 P ₁₀ = 5 Q ₁ = 7 Median = 10 Q ₃ = 13 P ₉₀ = 17 P ₉₉ = 23										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	ESE5	ESE8	SE8	SSE9	SSE10	SE9	SE9	SE10	SE13	SE12	SE15	ESE15	SE13	SE13	SE13	SE14	SE15	SSE10	SE6	ESE8	SE7	SSE7	SE9	SSE10	SE10.1	SE15			
2-Jul	SE9	SE10	SE12	SE10	SSE10	SE14	SE13	SE14	SSE13	SE14	SE16	S15	S7	SE8	ESE7	SSE7	SE8	SSE11	SSE8	SE9	SE9	SW3	SSE3	SE6	SSE9.5	SSE16			
3-Jul	SE9	SE9	SE8	SSE11	SSE13	SE11	SE13	SE14	SE12	SE12	SSE16	S11	SSW9	NW4	W8	W8	NW6	W8	W6	SSW3	SE8	SSE10	SSE10	S10	SSE6.7	SSE16			
4-Jul	SSW5	SSW8	SW8	SW7	SW7	WSW5	SW3	S2	SSE3	SE6	SE9	SE14	SSW13	SW11	SSE9	SSE6	SSW4	SW4	WNW7	W11	WNW8	SW5	SSW5	SW5	SSW4.9	SE14			
5-Jul	WSW5	WSW7	WSW8	WSW9	W10WNW14	WNW13	W12	W15WNW17	WNW19	NW16WNW10	WNW13	WNW8	WNW9	W11WNW14	NW11WNW15	WNW16WNW15	NW13WNW12	WNW11.8	WNW19										
6-Jul	NW12	NW11WNW10	W9	W10WNW11	NW12WNW15	WNW14WNW13	WNW12WNW15	WNW12	NNW12	NW11WNW13	W5	WNW7	NW8	WNW5	NNE2	WNW2	W4	N2	WNW9.1	WNW15									
7-Jul	S4	S2	S3	S2	SW5	NNE2	E5	SE7	SE7	ESE8	ESE9	ESE7	SSE9	SE11	SSE10	SSE10	SE12	SE12	SE13	ESE10	ESE11	SE12	SSE11	SSE10	SE7.2	SE13			
8-Jul	SSE11	SSE11	SSE10	SSE10	SSE12	SSE14	SSE14	SE11	SE11	E11	N2	SW8	S12	SE14	SW9	W8WSW12	SSW8	W12	W11	W8	SW6	SW7	SW6	S6.1	SSE14				
9-Jul	S5	W8WNW14	WNW14	W11	W12	W18	W20	W24	W18	W18WSW18	SW18WSW17	WSW18WSW16	SW17	SW17	SW16	SW12	SSW11	SSW11	SSW11	SSW11	SSW11	SW6	WSW13.3	W24					
10-Jul	S9	NNE5	E10	SSE9	S7	S6	S6	S4	S9	SSW12	SW7WNW10	WNW8WSW10	WSW12	W12WSW16	WSW13	W12	SW12	SW7	SSW8	SSW8	SW7			SW6.3	WSW16				
11-Jul	W7	WSW6	SW6	SSW6	SW4	W4	SE0	SSE3	SSE2	W4	NW4	S8	ESE5	E5	E3	NNW4	NNW8	N8	N5	NNW7	NW7	W6	WNW9WNW16	WNW2.6	WNW16				
12-Jul	WNW12WNW10	W8	W9	SW6	SW4	SSW4	SW3	WNW1	W5	WNW9WNW13	NNW10	SSE11	SSE18	SSE19	W18	S7WSW11	WSW14	SW12	SW13WSW20	W25	WSW7.5	W25		WSW7.5	W25				
13-Jul	W22	W21	W18	W20	W21	W20	W20	W17	W16	W18WSW22	W22	W23	W22	W23	W20	W20WNW22	WNW19	W17	NW11	NNW9WNW10	WSW8	W17.7	W23		W17.7	W23			
14-Jul	SSW8	SW8	WSW8	SW8	SW7	WSW8WNW12	W18	W14WNW18	WNW17WNW16	WNW13WNW11	WNW10WNW14	WNW11	NW8	NNW7	NE8	ENE8	E6	S8	S7					W7.1	WNW18				
15-Jul	SSW5	SE7	SSE11	S11	SSE7	SE4	SSE4	SE6	SSE8	SE7	SE7	SE9	SE16	SSE17	SSE17	SSE15	SSW6	NNW13	ESE5	SE7	SSE10	SSE12	S14	S12	SSE8.1	SSE17			
16-Jul	SSW6	WNW5	SW3	SW8	SW8	SW10	WSW6	SSW5	S7	SSE8	SSE8WSW12	W16	W16	W15WNW12	WNW8	NNW6	WNW6	WNW4	WSW3	WSW7	WSW8	W8	WSW6.5	W16		W16			
17-Jul	WNW8	W10WNW11	WNW11WNW13	WNW12	WNW9	WNW6	WNW6	WNW7	WNW9	NNW10	NNW9WNW10	W9	W8	W3	S5	SSE6	SSE7	SSE6	SE7	SE8	S9			W5.0	WNW13				
18-Jul	SSE11	SSE12	SSE13	SSE13	SSE12	SSE12	SE11	SE11	SSE13	W10WNW14	S7	ESE31	ESE22	SSE16	SSE21	SSE19	SSE23	SSE17	SE15	SSE14	SE12	SE9	ENE4	SSE11.8	ESE31				
19-Jul	E1	NE7	ESE8	S6	SSW9	WNW9	NW8	WNW8	NW9WNW12	NW14	NW14WNW14	WNW15WNW17	WNW17	NW10	NW10	NW10	NNW15	NNW13	NNW10	NNW12	NW14			NW8.6	WNW17				
20-Jul	NNW17	NNW19	NNW17	NW11	NW11	NW11	NW15	NNW14	NW11	NW13	NW14WNW12	WNW12WNW17	WNW15WNW16	NW13WNW11	WNW9	NNW8	NNW6	N5	SW5	WSW6				NW11.0	NNW19				
21-Jul	WSW5	W8	W9	W7	W6	W8	W6	W10WNW12	WNW10	WNW9	W7	W6	NW5	WSW4	SSE1	WNW5	WNW6	WNW5	S1	S5	S5	S6	SSW6	W5.1	WNW12				
22-Jul	WSW7	WSW7	WSW7	SW8	SW7	WSW7	W8	W10WNW10	WNW9	WNW8	NW8	WNW6	NW2	WNW3	ESE3	ESE6	ESE8	ESE7	SE10	SE10	SSE10	SSE9	SSE10	SW3.1	W10				
23-Jul	SSE12	SSE11	SSE10	S8	NE4	S2	SSW9	SW9	W12	W15WNW16	NW22	NW20	NNW18	NNW16	NW16	NW13	NNW16	NW14	NW14	NW11	WNW7	W8WNW10	WNW7.5	NNW22					
24-Jul	WNW12	NW13	NW10	WNW9	W7	W6	WNW4	WNW4	ESE3	SE5	SE6	ESE10	ESE12	SE13	ESE13	ESE12	SE11	SSE6	SSE3	W9	W9	W10WSW10	W14	SW1.9	W14				
25-Jul	W17	W16	W13	W12	W14	W14	W16	W19	W16WNW16	W13	W12	W16	W13WSW14	W13	W12	W10WSW10	WSW9	WSW7	W4	W7	W10			W12.4	W19				
26-Jul	WNW11WNW12	NW11	NNW6	N6	N5	NNW9	NNW11	NNW15	NNW12	NNW10	NW9	NNW9	NNW8	NNW10	NW10	NW9	NW9	NNW11	NNW9	NNW7	NNE9	ENE6	ENE8	NNW8.2	NNW15				
27-Jul	ENE6	ESE5	ESE6	ESE7	ESE8	SE8	ESE10	SE8	SE4	SSE3WNW10	WNW13WNW13	NW10	NW11	WNW6	WNW5	WNW4	W12	W10	WSW7	WSW7	WSW7	WSW9		W2.3	WNW13				
28-Jul	W7	W8	W7	WSW7	WSW6	SW7	W6	WNW7	WNW7	WNW2	SSE8	SE7	ESE11	ESE12	ESE14	ESE15	ESE14	ESE12	E9	E9	ESE14	ESE11	SW11	SE5	SE3.8	ESE15			
29-Jul	SE9	SW11	SW14WSW20	WSW23WSW24	W24	W23	W23	W22	W20WNW20	WNW21	W20	W21WNW20	W21	W22WNW21	NNW16	W11WNW16	W14	W14						W17.1	WSW24				
30-Jul	W17WNW18	WNW19WNW19	WNW17WNW17	WNW15WNW14	WNW14WNW16	WNW14WNW16	WNW14WNW12	NW10	WNW9	WNW10	WNW8	NW5	W5	W5	WSW5	SSW2	SSW5	SSW5	SW7					WNW10.5	WNW19				
31-Jul	WSW7	SW7	SW7	SW8	SW7	SW6	SE3	SSE6	S6	SSE7	S8	S8	SSE5	SE5	ESE7	ESE7	SE8	SE8	SE8	SE8	SE9	SSE11	SSE10	S10	SSE5.8	SSE11			
WSW4.2WSW4.3WSW4.4 SW5.7WSW5.5WSW5.3WSW4.4WSW4.5 W4.6 W5.2 W5.8 W5.7WSW4.5WSW4.0WSW4.6WSW4.8 W3.8 W3.9 W3.0 SW1.9SSW2.9 SW4.8 SW5.0																								Diurnal Average					
W22 W21WNW19WSW20WSW23WSW24 W24 W23 W24 W22WSW22 W22 ESE31 ESE22 W23 SSE21 W21 SSE23WNW21 W17WNW16WNW16WSW20 W25																								Diurnal Maximum					
All monthly, daily, and diurnal averages have been calculated using vector methods																													

All monthly, daily, and diurnal averages have been calculated using vector methods



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 20m (WS20) - km/h

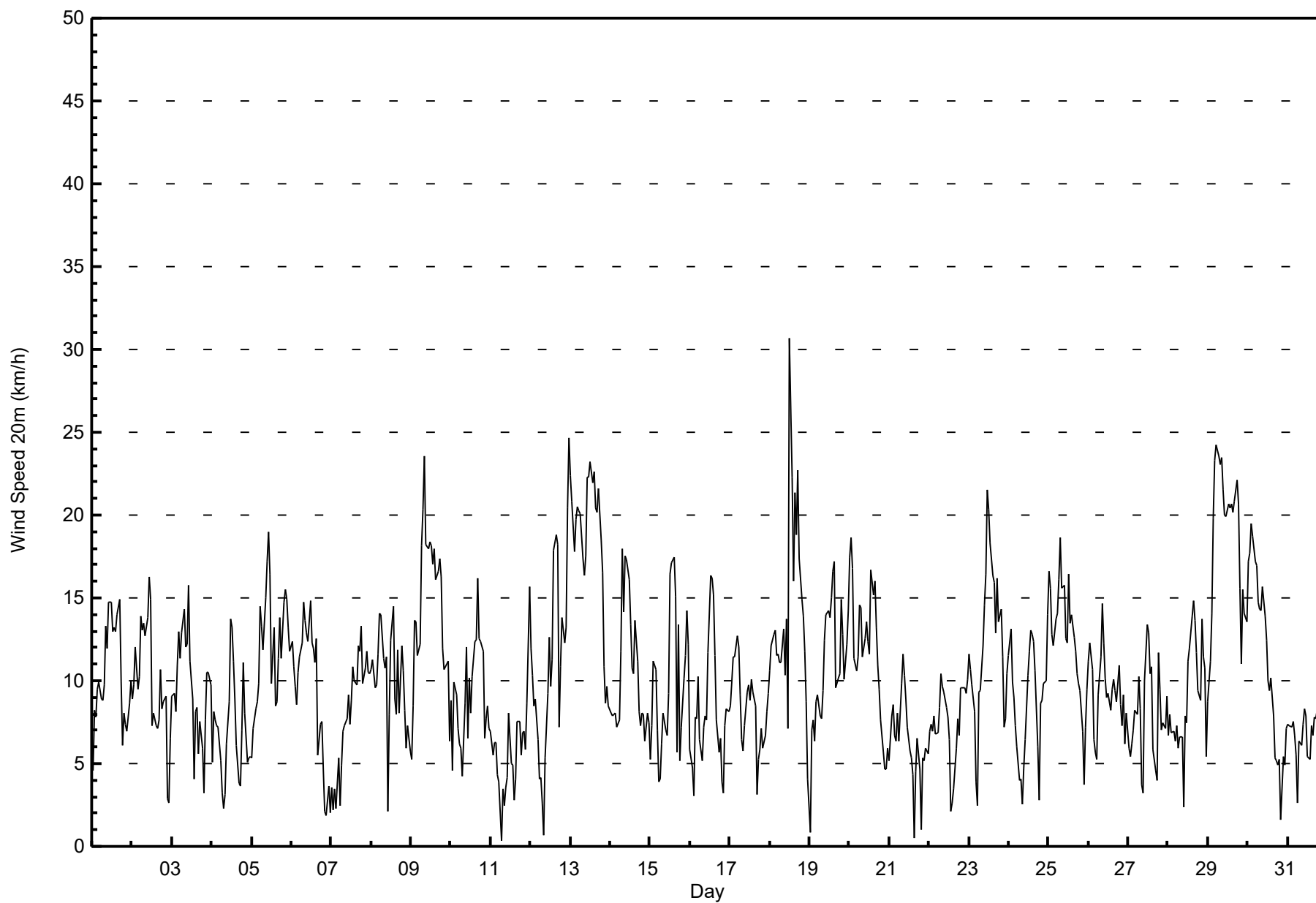
Anzac - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 11 km/h on Jul 15 18:00																	Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0								
Minimum Value: 1 km/h on Jul 21 00:00																									
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 3 Q ₃ = 4 P ₉₀ = 5 P ₉₉ = 8																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	1	1	1	1	1	1	2	2	3	3	4	4	3	4	3	4	4	3	1	1	1	1	2	1	4
2-Jul	1	2	2	2	3	3	3	4	3	4	5	6	2	2	2	3	8	2	2	2	2	2	2	2	8
3-Jul	2	1	1	2	2	3	3	3	3	3	4	5	5	3	4	2	2	4	2	1	2	1	1	2	5
4-Jul	2	1	1	1	1	1	1	1	1	2	3	4	6	5	3	3	2	1	3	3	3	2	1	1	6
5-Jul	1	1	1	2	3	4	3	3	4	5	5	5	5	4	3	2	6	5	4	4	4	4	3	2	6
6-Jul	2	2	2	3	3	3	3	4	4	3	4	4	4	4	5	8	3	2	3	1	1	5	1	2	8
7-Jul	2	2	1	1	1	1	1	2	2	2	2	3	3	3	2	3	3	3	3	2	2	2	2	1	3
8-Jul	1	1	1	1	2	2	4	3	3	3	3	4	3	4	5	2	5	3	3	3	2	1	2	2	5
9-Jul	2	3	4	4	3	5	6	6	7	6	5	6	7	6	5	5	6	6	5	4	3	3	3	3	7
10-Jul	3	4	3	2	2	1	1	1	2	3	3	4	4	4	4	4	5	4	4	3	1	1	2	2	5
11-Jul	1	1	1	2	1	1	1	1	1	3	2	4	1	2	1	2	2	3	1	1	1	1	5	4	5
12-Jul	3	2	2	2	1	2	1	1	2	3	3	4	5	3	4	4	9	3	3	4	3	4	7	7	9
13-Jul	6	6	5	5	6	5	6	5	4	6	6	6	6	7	7	7	5	6	5	4	3	2	3	2	7
14-Jul	2	2	1	1	1	2	4	4	4	5	5	4	4	3	4	3	3	3	2	1	1	1	1	1	5
15-Jul	1	2	2	1	2	1	1	2	1	2	2	3	4	5	4	5	11	11	3	2	2	3	3	3	11
16-Jul	3	2	3	2	2	2	2	1	2	2	2	4	5	5	4	5	3	2	2	2	1	2	1	1	5
17-Jul	2	2	1	2	2	2	2	2	2	2	2	3	3	3	3	2	2	2	1	1	1	2	2	2	3
18-Jul	1	1	1	1	1	2	2	2	3	7	4	5	8	6	4	6	5	6	4	3	3	2	1	3	8
19-Jul	2	3	3	3	3	2	3	2	2	3	3	3	3	4	4	8	5	2	2	3	3	2	2	3	8
20-Jul	4	4	4	2	2	3	3	3	3	3	3	4	3	4	4	4	3	3	2	1	1	1	1	1	4
21-Jul	1	2	1	1	1	1	2	3	3	3	2	1	1	2	2	2	3	2	1	2	1	1	1	1	3
22-Jul	1	1	1	1	1	1	3	2	2	2	2	2	2	3	2	2	2	1	1	2	2	1	1	1	3
23-Jul	1	1	1	2	4	3	3	3	4	3	4	6	5	4	4	4	4	4	3	4	3	1	2	3	6
24-Jul	2	3	2	2	2	1	2	1	2	2	3	3	3	4	4	4	3	2	2	2	2	2	2	4	4
25-Jul	4	4	4	3	3	4	5	4	4	4	3	3	5	4	4	3	3	3	3	2	3	1	1	2	5
26-Jul	2	2	2	2	2	1	2	3	3	3	2	2	3	3	2	2	3	2	3	2	1	1	2	1	3
27-Jul	1	1	1	1	2	3	3	2	2	1	4	3	3	3	4	2	1	1	4	3	1	1	1	2	4
28-Jul	1	1	2	1	1	1	1	2	2	2	3	3	3	3	4	4	3	2	2	2	3	2	9	2	9
29-Jul	4	5	5	6	7	7	7	7	6	6	6	5	5	6	5	5	5	7	6	5	3	4	4	4	7
30-Jul	5	4	5	4	5	4	4	4	4	4	3	3	3	3	3	3	3	2	2	1	1	1	1	1	5
31-Jul	2	1	1	1	1	1	1	2	1	1	2	2	1	1	1	1	1	1	1	1	2	2	1	2	2
Diurnal Maximum																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 20m (WS20) - km/h
Anzac - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 20m (WS20) - km/h
Anzac - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	103	13.84	13.84
6 - 11	379	50.94	64.79
12 - 19	222	29.84	94.62
20 - 28	39	5.24	99.87
29 - 38	1	0.13	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 20m (WS20) - km/h
Anzac - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	5	3	1	1	4	6	7	9	12	11	10	6	9	13	5	1	103
6 - 11	1	1	2	4	5	22	49	48	22	15	32	29	49	51	28	21	379
12 - 19	0	0	0	0	0	10	25	26	4	2	9	11	40	64	16	15	222
20 - 28	0	0	0	0	0	1	0	2	0	0	0	5	24	5	2	0	39
29 - 38	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	6	4	3	5	9	40	81	85	38	28	51	51	122	133	51	37	744

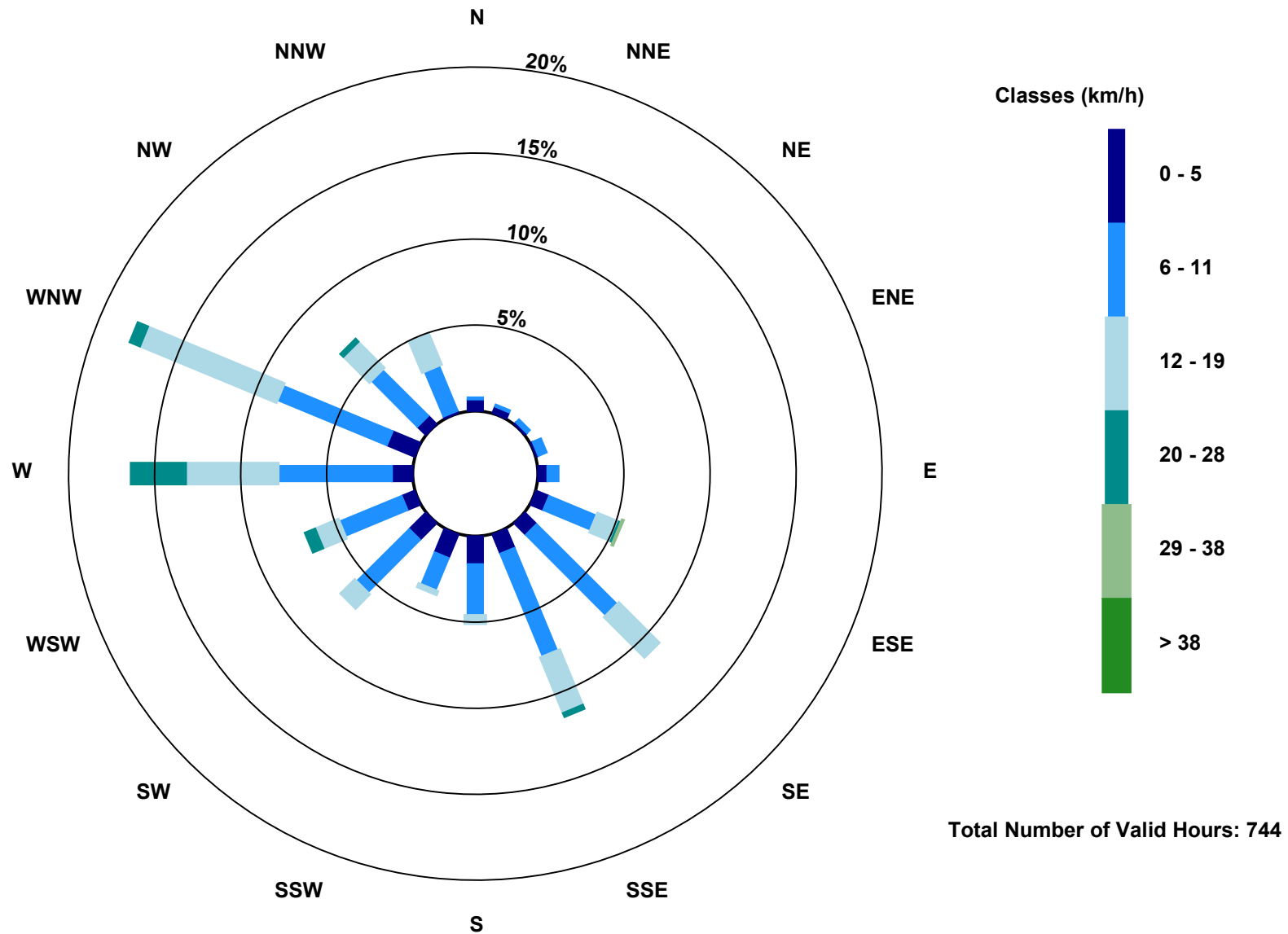
Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 20m (WS20) - km/h
Anzac





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 20m (WD20) - deg
Anzac - July 2026

Direction of Maximum Speed: 113 deg on Jul 18 13:00 Direction of Maximum Daily Speed Average: 272.1 deg on Jul 13																				Hours in Service: 744					
Direction of Minimum Speed: 129 deg on Jul 11 07:00 Direction of Minimum Daily Speed Average: 1.9 deg on Jul 24																				Hours of Data: 744					
Direction of Minimum Speed: 129 deg on Jul 11 07:00 Direction of Minimum Daily Speed Average: 1.9 deg on Jul 24																				Hours of Missing Data: 0					
Monthly Average Direction: 250.6 deg																				Percent Operational Time: 100.0					
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	117	108	135	161	151	143	134	129	146	134	137	117	138	124	133	127	141	157	141	122	132	151	146	154	136.5
2-Jul	146	144	141	138	149	140	145	144	158	144	154	177	172	145	119	152	141	155	149	136	130	227	155	140	148.1
3-Jul	128	136	142	149	151	137	142	144	136	143	150	182	192	317	280	276	306	268	260	196	136	158	165	174	161.4
4-Jul	210	206	215	229	219	245	216	178	149	144	143	132	213	216	153	165	206	225	285	276	293	214	206	236	207.0
5-Jul	240	250	251	253	269	294	289	280	280	288	290	306	301	294	288	288	265	290	308	283	289	295	308	303	286.9
6-Jul	309	305	299	280	280	290	305	294	301	300	294	292	288	327	313	299	262	296	311	300	21	295	265	6	298.7
7-Jul	169	185	184	181	233	22	82	127	127	121	102	111	150	136	152	149	143	136	136	121	119	127	151	154	136.5
8-Jul	150	160	162	148	148	159	158	127	125	87	350	219	175	166	222	261	257	209	272	272	267	226	228	219	184.3
9-Jul	189	266	285	288	259	259	270	276	271	261	261	243	228	246	249	238	232	234	228	225	192	192	198	232	247.1
10-Jul	188	23	95	154	174	184	178	174	190	198	236	295	282	244	256	277	254	251	263	233	221	208	209	225	227.8
11-Jul	261	253	230	211	215	259	129	158	167	281	308	178	105	88	94	332	341	349	6	330	315	275	285	288	282.6
12-Jul	287	288	266	267	227	216	206	232	302	273	286	303	338	151	156	165	276	181	241	245	227	224	247	263	244.4
13-Jul	268	274	269	273	276	266	261	271	275	272	255	269	267	264	260	259	276	286	282	276	325	335	302	246	272.1
14-Jul	210	228	245	234	221	257	282	281	281	284	284	288	291	301	292	287	297	316	330	51	70	98	171	177	277.2
15-Jul	194	164	164	177	159	140	150	146	152	143	135	124	138	150	154	151	209	329	109	127	156	167	170	181	155.6
16-Jul	207	297	231	225	228	236	239	193	182	165	161	237	263	261	268	284	283	333	295	303	249	239	249	259	248.2
17-Jul	290	280	289	285	291	287	287	294	303	288	296	327	311	282	279	274	261	172	164	165	160	132	127	169	274.8
18-Jul	161	165	156	162	162	153	137	140	151	279	297	176	113	120	150	159	155	154	149	142	148	130	129	68	148.0
19-Jul	95	35	110	179	198	295	321	288	309	298	309	317	291	286	283	301	312	309	312	335	327	331	334	324	308.3
20-Jul	347	339	336	319	308	310	326	330	320	310	304	298	302	289	297	293	306	302	297	330	344	9	228	241	313.2
21-Jul	249	274	270	260	269	262	259	277	293	288	288	278	277	316	250	160	301	293	285	175	173	171	181	209	267.3
22-Jul	240	241	238	222	228	242	273	279	291	291	293	304	283	309	293	113	120	114	112	124	141	159	167	162	223.6
23-Jul	167	165	160	172	35	175	198	227	262	281	296	310	325	329	333	321	313	344	326	315	319	291	268	292	299.5
24-Jul	299	308	308	293	277	275	297	297	103	128	126	105	121	135	119	114	144	147	157	268	259	268	257	261	227.5
25-Jul	271	273	270	270	273	275	273	273	277	282	271	273	263	261	251	263	263	263	247	253	255	279	266	274	268.1
26-Jul	299	301	317	330	354	355	347	348	347	348	327	323	336	337	327	308	309	321	346	339	340	13	69	64	336.5
27-Jul	58	106	121	116	113	129	122	126	135	157	297	301	303	313	307	300	289	283	271	260	244	250	251	256	267.2
28-Jul	269	277	265	251	237	225	270	296	300	291	148	134	120	108	112	117	110	110	100	88	109	110	221	135	137.7
29-Jul	144	215	234	240	250	257	271	263	273	274	281	283	282	276	277	284	274	277	291	330	278	283	279	274	271.0
30-Jul	281	288	288	286	292	293	296	302	294	293	293	299	306	296	297	290	317	278	268	245	195	211	210	232	287.3
31-Jul	238	231	234	233	228	236	141	167	175	164	172	175	148	128	105	121	130	139	142	146	137	152	166	176	167.7
244.1 257.1 243.4 235.4 237.0 248.3 255.6 257.1 259.7 266.6 268.3 269.4 257.7 252.1 249.4 251.2 256.5 261.4 267.7 264.6 219.0 208.4 219.6 234.1																									
Diurnal Average																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 20m (WD20) - deg

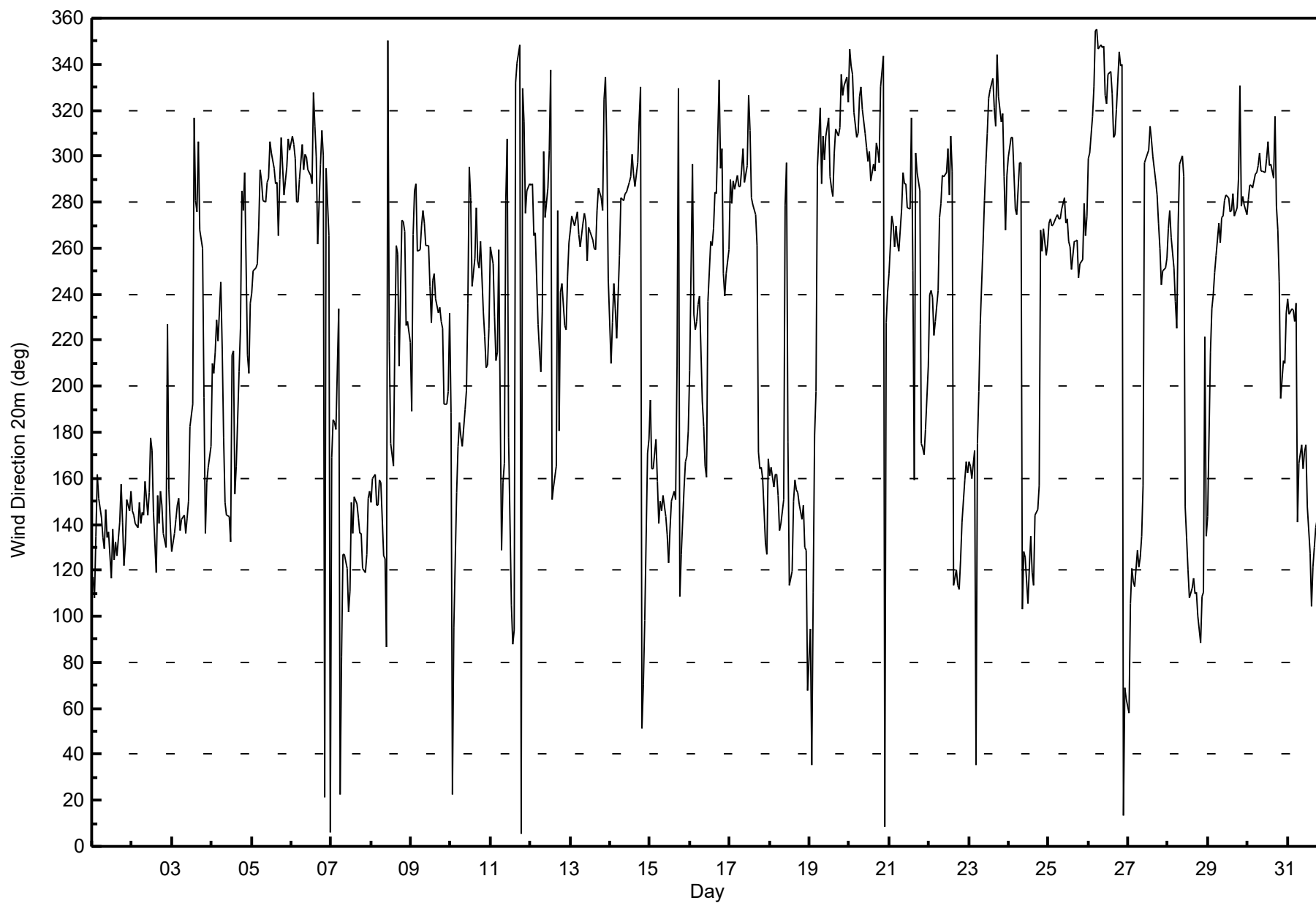
Anzac - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 94 deg on Jul 8 11:00																		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0							
Minimum Value: 4 deg on Jul 18 04:00																									
Percentiles: P ₁ = 6 P ₁₀ = 11 Q ₁ = 14 Median = 18 Q ₃ = 24 P ₉₀ = 39 P ₉₉ = 84																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	29	5	12	6	8	14	13	14	14	15	18	16	15	20	17	16	18	15	12	8	11	10	9	8	29
2-Jul	11	11	13	14	13	14	14	16	15	15	20	30	24	29	25	31	65	22	21	14	11	63	70	23	70
3-Jul	9	11	11	9	10	15	13	13	18	20	22	41	34	61	33	25	26	38	32	50	13	7	6	12	61
4-Jul	29	11	8	12	11	11	31	37	38	30	27	22	53	37	22	28	36	48	27	22	18	27	21	20	53
5-Jul	20	22	12	10	15	16	18	19	19	20	19	23	37	19	20	18	24	30	29	16	17	16	13	12	37
6-Jul	12	14	13	21	19	17	16	16	18	21	25	22	26	31	39	45	37	20	14	19	61	85	30	69	85
7-Jul	42	65	21	37	14	48	27	18	24	22	24	39	27	25	17	19	20	17	14	13	10	11	8	6	65
8-Jul	7	8	8	8	9	10	17	20	18	21	94	61	21	16	43	28	26	58	15	17	18	17	21	23	94
9-Jul	28	36	17	21	17	19	18	18	17	17	18	20	25	25	23	27	21	20	21	23	18	18	21	48	48
10-Jul	25	80	25	19	10	10	9	20	19	20	53	28	40	28	35	26	19	20	21	17	15	11	12	16	80
11-Jul	20	25	13	21	26	18	92	36	61	54	73	30	24	28	47	50	19	23	20	13	16	12	21	14	92
12-Jul	15	14	17	14	13	20	29	47	89	35	20	19	52	20	15	17	41	36	20	18	18	17	18	17	89
13-Jul	17	18	18	17	17	17	18	18	19	19	22	19	18	21	21	20	19	17	17	17	43	30	19	16	43
14-Jul	15	14	12	14	13	15	18	14	17	17	18	18	20	26	26	19	19	26	23	22	13	27	7	6	27
15-Jul	13	19	9	6	12	16	21	23	13	19	21	17	18	19	20	20	57	74	61	18	15	23	12	13	74
16-Jul	32	48	79	20	21	13	23	19	28	23	31	30	24	19	20	30	28	44	23	40	39	14	9	12	79
17-Jul	24	10	9	9	9	13	13	20	24	20	26	30	33	24	32	27	62	22	16	7	8	11	13	12	62
18-Jul	5	5	7	4	5	8	12	16	14	58	21	60	18	18	23	14	15	14	13	12	11	11	11	67	67
19-Jul	87	45	20	44	30	35	39	22	15	16	14	15	17	15	17	23	26	15	14	13	16	15	11	13	87
20-Jul	13	12	14	14	14	16	12	14	17	16	18	21	25	16	17	16	17	18	17	12	8	12	36	11	36
21-Jul	8	15	12	14	11	6	17	16	15	21	25	22	28	35	63	94	69	23	25	84	9	6	8	12	94
22-Jul	8	11	15	10	10	10	12	15	15	18	23	24	36	92	75	74	35	14	13	7	10	7	5	5	92
23-Jul	7	6	7	10	74	78	20	22	23	16	25	18	18	13	17	23	35	18	16	14	10	20	12	17	78
24-Jul	13	14	13	12	16	14	39	48	71	54	42	26	25	22	21	17	18	27	69	19	17	14	14	17	71
25-Jul	16	16	17	14	16	16	15	15	16	18	20	20	18	21	19	19	20	19	17	15	13	38	26	22	38
26-Jul	14	11	12	21	13	11	14	14	15	16	17	23	25	24	24	19	25	24	18	13	9	15	18	9	25
27-Jul	12	22	16	11	11	17	16	16	48	64	24	19	19	24	27	41	43	23	19	18	14	12	13	11	64
28-Jul	12	11	14	10	21	12	16	24	26	87	35	38	22	22	21	16	14	13	17	15	12	14	57	66	87
29-Jul	55	27	21	18	17	19	17	17	17	17	19	17	17	19	19	18	18	19	22	26	18	16	16	17	55
30-Jul	17	15	15	16	15	16	19	18	20	18	19	23	29	33	29	30	64	24	27	19	72	22	16	13	72
31-Jul	10	11	11	9	9	15	55	14	12	11	16	15	16	19	14	14	15	9	11	8	9	19	15	24	55
87 80 79 44 74 78 92 48 89 87 94 61 53 92 75 94 69 74 69 84 72 85 70 69 Diurnal Maximum																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 20m (WD20) - deg
Anzac - July 2026





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

**AMS17
WAPASU
JULY 2026**

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - WAPASU (AMS17)

JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO ₂ (ppb) Average	707	35	37	99.73	30.1	0	3.5	0
H ₂ S (ppb) Average	706	36	38	99.73	1.6	0	0.6	0
THC (ppm) Average	707	35	37	99.73	2.9	-	2.4	-
O ₃ (ppb) Average	708	34	36	99.73	62.7	0	39.9	-
NO ₂ (ppb) Average	705	36	39	99.6	12.2	0	4.1	-
NO (ppb) Average	705	36	39	99.6	10	-	2	-
NO _x (ppb) Average	705	36	39	99.6	19.3	-	5.2	-
PM _{2.5} (ug/m ³) Average	742	1	2	99.87	157.1	13	65.4	4
Temperature 2 m (C) Average	744	0	0	100	29.9	-	22.7	-
Relative Humidity (%) Average	723	0	21	97.18	100	-	92.8	-
Wind Speed 10 m (km/h) Average	742	0	2	99.73	20	-	12	-
Wind Direction 10 m (deg) Average	742	0	2	99.73	-	-	-	-
Precipitation (mm) Total	744	0	0	100	10	-	16.4	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - WAPASU (AMS17)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	707	0.73	2.2	-	0	0	0	0	0.4	2.2	30.1
H2S (ppb) Average	706	0.21	0.2	-	0	0.1	0.1	0.1	0.3	0.5	1.6
THC (ppm) Average	707	2.23	0.1	-	2	2.1	2.1	2.2	2.3	2.4	2.9
O3 (ppb) Average	708	24.75	11.3	-	1.1	10	16.2	24.9	32.5	39.5	62.7
NO2 (ppb) Average	705	2.15	2	-	0	0.4	0.7	1.5	2.8	4.9	12.2
NO (ppb) Average	705	0.39	1.1	-	0	0	0	0	0.2	1.1	10
NOX (ppb) Average	705	2.54	2.7	-	0	0.4	0.7	1.7	3.1	6.2	19.3
PM2.5 (ug/m3) Average	742	15.25	20.1	-	1.3	3.1	4.5	7.2	15.2	47.2	157.1
Temperature 2 m (C) Average	744	17.64	4.4	-	8.8	12	14.2	17.2	20.6	24	29.9
Relative Humidity (%) Average	723	70.94	19.4	-	29.8	42.7	54.8	72.5	88.3	96	100
Wind Speed 10 m (km/h) Average	742	8.1	4	-	1	4	6	7	10	13	20
Wind Direction 10 m (deg) Average	742	-	-	-	-	-	-	-	-	-	-
Precipitation (mm) Total	744	-	-	91.54	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - WAPASU (AMS17)
JULY 2026

OPERATIONAL NOTES

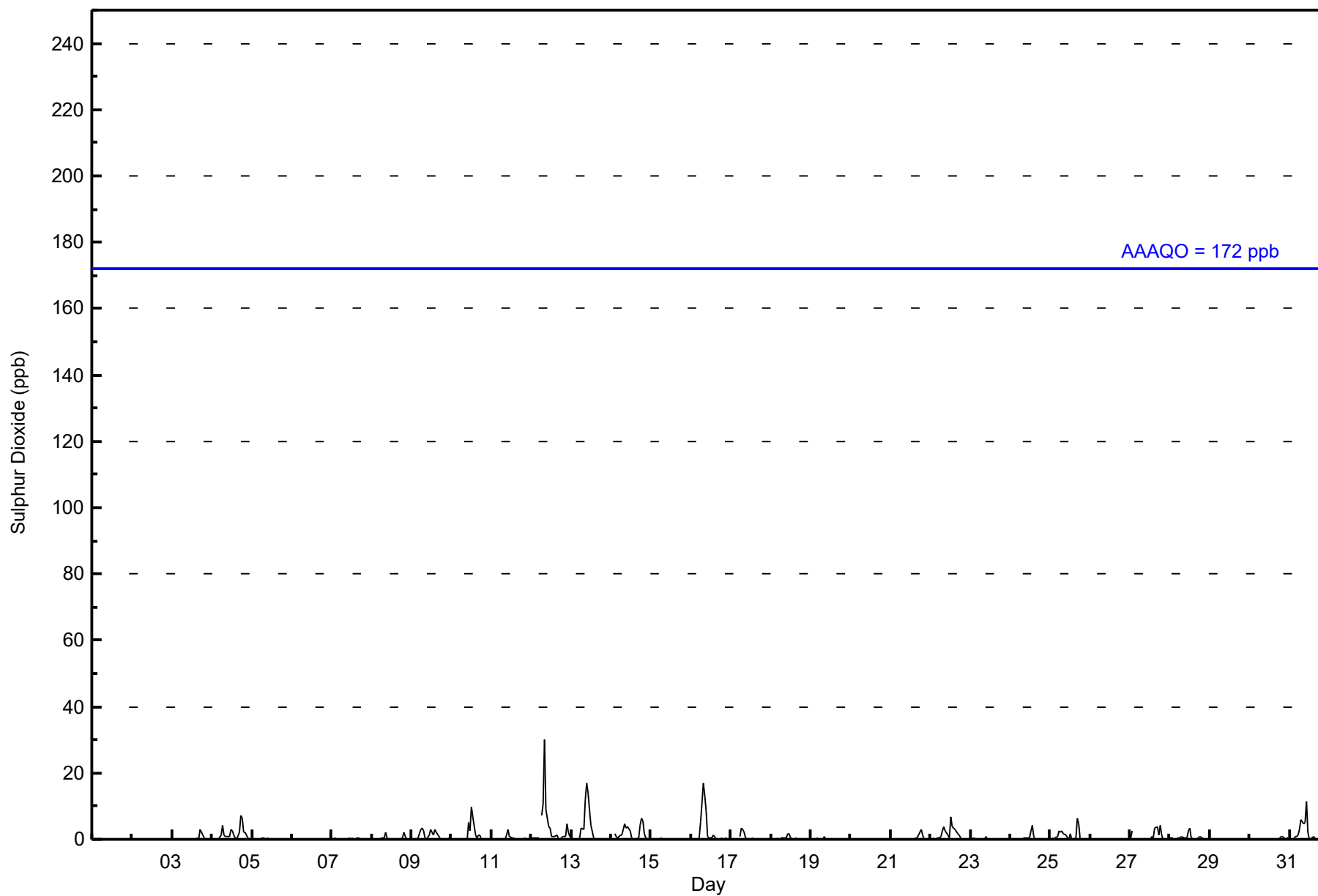
Parameter	Start	End	(Hours)	Notes
SO2	29 Jul 2026 12:00	29 Jul 2026 13:00	2	Maintenance - WBEA internal audit
H2S	29 Jul 2026 11:00	29 Jul 2026 12:00	2	Maintenance - WBEA internal audit
THC	28 Jul 2026 13:00	28 Jul 2026 14:00	2	Maintenance - WBEA internal audit
O3	28 Jul 2026 13:00	28 Jul 2026 14:00	2	Maintenance - WBEA internal audit
NO2	29 Jul 2026 11:00	29 Jul 2026 13:00	3	Maintenance - WBEA internal audit
PM2.5	28 Jul 2026 14:00	28 Jul 2026 14:00	1	Maintenance - WBEA internal audit
Relative Humidity	09 Jul 2026 03:00	09 Jul 2026 03:00	1	Sensor operated out of range
Relative Humidity	26 Jul 2026 04:00	26 Jul 2026 13:00	10	Sensor operated out of range
Relative Humidity	27 Jul 2026 04:00	27 Jul 2026 07:00	4	Sensor operated out of range
Relative Humidity	29 Jul 2026 07:00	29 Jul 2026 10:00	4	Sensor operated out of range
Relative Humidity	30 Jul 2026 04:00	30 Jul 2026 05:00	2	Sensor operated out of range
Wind Speed, Wind Direction	20 Jul 2026 21:00	20 Jul 2026 21:00	1	Flat line in sensor output signal
Wind Speed, Wind Direction	21 Jul 2026 07:00	21 Jul 2026 07:00	1	Flat line in sensor output signal

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 30.1 ppb on Jul 12 09:00 Maximum Daily Average: 3.5 ppb on Jul 12																	Hours in Service: 744										
Minimum Value: 0.0 ppb on Jul 1 02:00 Minimum Daily Average: 0.0 ppb on Jul 2 Maximum Diurnal Average: 2.5 ppb at hour 9 Minimum Diurnal Average: 0.1 ppb at hour 1 Monthly Average: 0.73 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.4 P ₉₀ = 2.2 P ₉₉ = 10.7																	Hours of Data: 707										
																	Hours of Missing Data: 37										
																	Hours of Calibration: 35										
																	Percent Operational Time: 99.7										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.0	0.1	0.2	0.0	3.0	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4-Jul	0.0	0.0	0.0	Z	0.0	1.2	4.4	1.2	0.8	1.0	1.0	3.0	2.5	1.3	0.6	0.1	2.2	7.4	6.4	2.1	2.2	0.6	0.0	0.0	0.0	0.0	0.0
5-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.5	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0
7-Jul	Z	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.4	0.4	2.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	2.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0
9-Jul	0.0	0.0	Z	0.0	0.5	2.8	3.2	2.5	0.3	0.0	1.1	2.8	2.1	1.4	2.9	1.9	1.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0
10-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	5.1	2.7	9.8	6.9	1.2	0.3	1.5	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-Jul	0.0	0.0	0.0	0.0	Z	0.2	0.0	0.0	0.0	1.2	2.8	0.8	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.2	0.0	0.0	0.0
12-Jul	0.2	0.3	0.5	0.3	0.5	Z	7.1	10.8	30.1	9.0	3.6	3.4	1.0	1.0	0.8	1.2	0.1	0.1	0.2	0.7	0.9	4.6	2.1	1.0	0.0	0.0	0.0
13-Jul	Z	0.2	0.2	0.1	0.0	0.4	3.4	3.1	11.7	16.9	14.1	8.7	4.1	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Jul	0.1	Z	1.7	1.0	0.6	1.4	1.2	3.0	4.5	3.5	3.8	2.7	0.5	0.0	0.0	0.0	0.4	4.4	6.4	5.6	1.7	0.6	0.1	0.0	0.0	0.0	0.0
15-Jul	0.0	0.0	Z	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16-Jul	0.0	0.0	0.0	Z	0.0	0.6	5.1	16.9	13.3	8.6	1.1	0.5	0.6	1.2	1.0	0.1	0.1	0.2	0.3	0.1	0.2	0.3	0.0	0.0	0.0	0.0	0.0
17-Jul	0.0	0.0	0.0	0.1	Z	0.9	3.6	3.1	1.9	0.4	0.2	0.2	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18-Jul	0.1	0.0	0.0	0.1	0.5	Z	0.5	0.6	0.4	0.6	1.5	1.9	0.3	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-Jul	Z	0.0	0.0	0.2	0.5	0.0	0.0	0.0	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	1.1	2.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22-Jul	0.0	0.0	0.4	Z	0.5	0.3	0.7	2.6	3.6	2.6	1.4	0.3	6.6	3.9	3.2	2.9	1.9	1.5	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23-Jul	0.0	0.2	0.2	0.0	Z	0.1	0.1	0.1	0.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.5	0.6	0.4	0.3	2.6	4.2	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25-Jul	Z	0.3	0.0	0.2	0.7	2.4	2.0	2.4	1.8	1.4	0.6	0.2	1.9	0.2	0.0	0.5	6.4	4.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
26-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27-Jul	0.4	2.5	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8	0.5	3.4	3.6	1.4	4.4	1.2	0.1	0.0	0.2	0.6	0.0	0.0	0.0
28-Jul	0.4	0.3	0.4	Z	0.3	0.3	0.2	0.7	0.5	0.3	0.4	2.5	3.4	0.4	0.0	0.0	0.0	0.4	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	M	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0	0.9	0.2	0.4	0.5	0.0	0.0
31-Jul	Z	0.1	0.1	0.6	1.0	1.1	2.9	6.1	4.7	5.1	11.4	2.2	0.2	0.3	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
																									Diurnal Average		
																									Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Wapasu - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Wapasu - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	699	98.87	98.87
11 - 20	7	0.99	99.86
21 - 60	1	0.14	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Wapasu - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	50	25	4	10	11	18	52	125	93	76	82	64	17	15	21	34	697
11 - 20	0	0	0	0	0	0	0	0	1	1	5	0	0	0	0	0	7
21 - 60	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	50	25	4	10	11	18	52	125	94	77	87	65	17	15	21	34	705

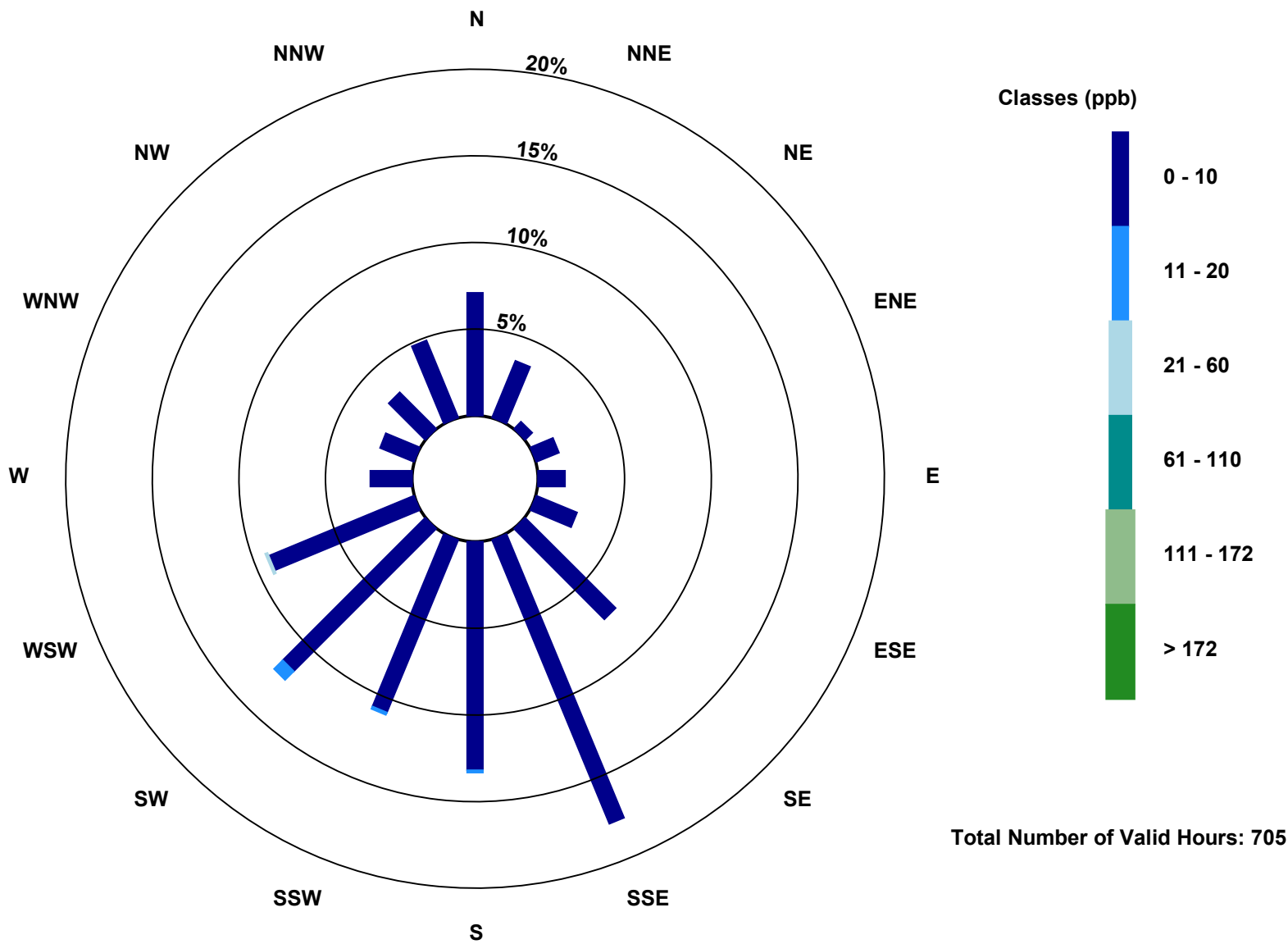
Total Number of Valid Hours: 705

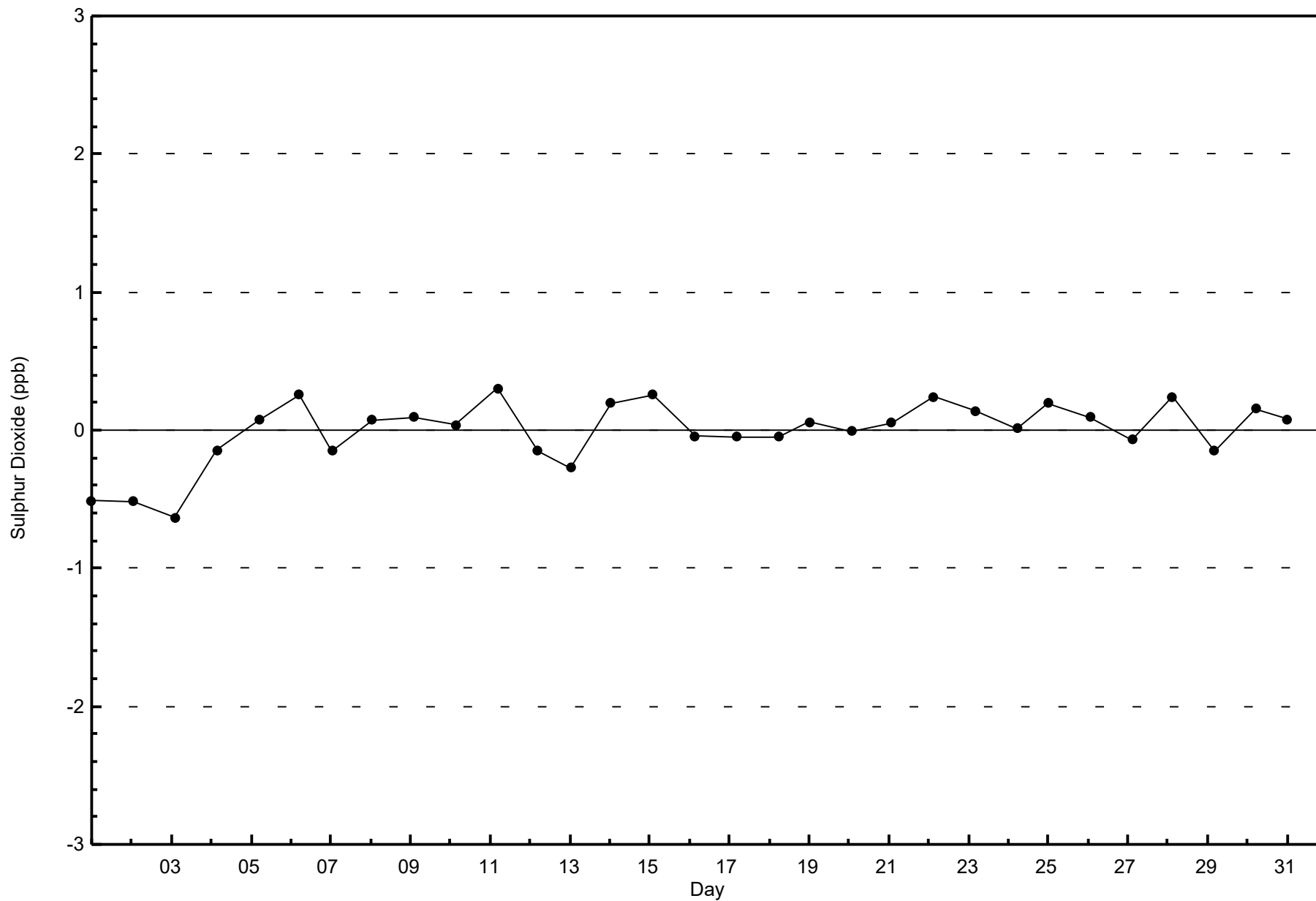
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Sulphur Dioxide (SO₂) - ppb
Wapasu

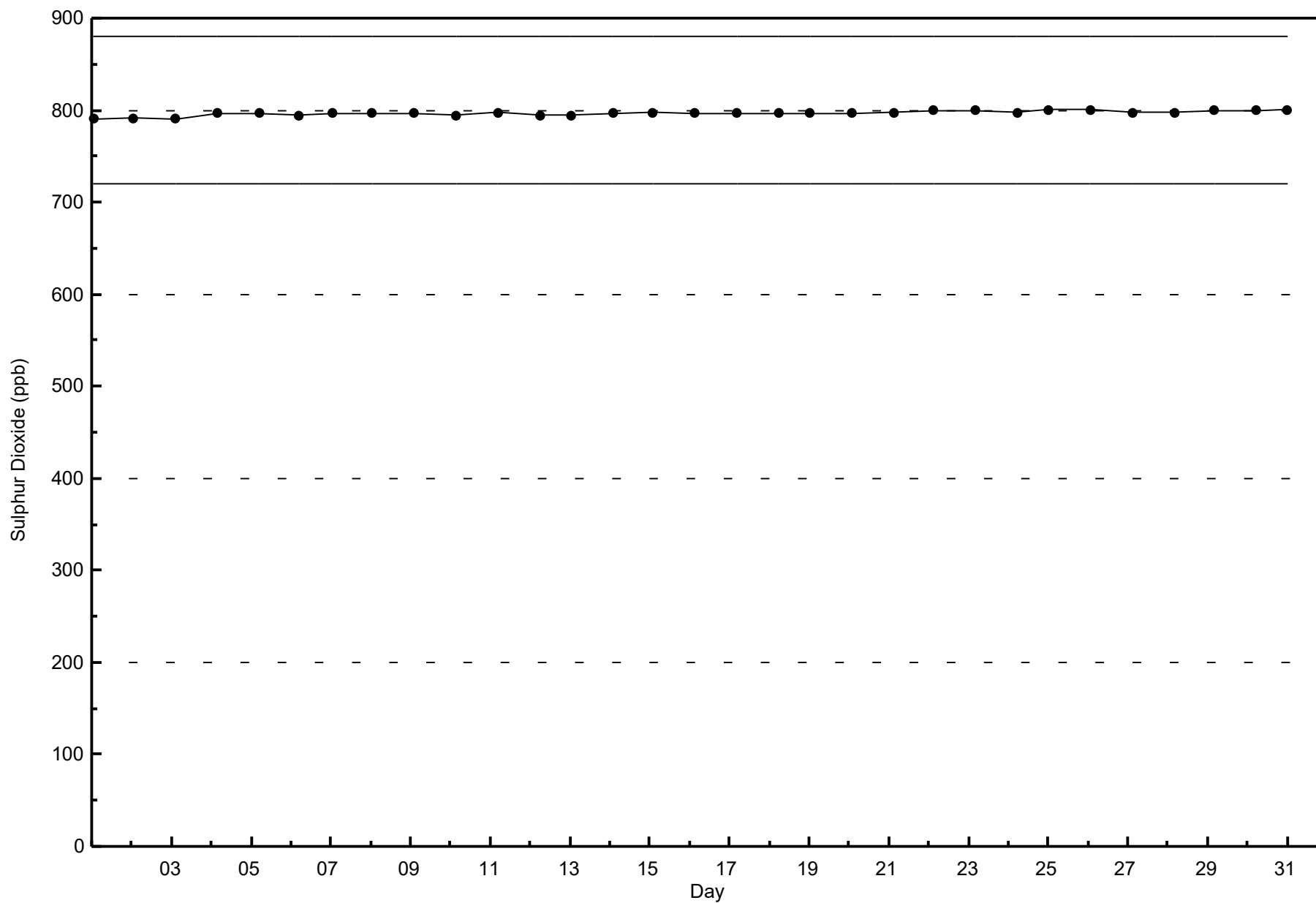






Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Wapasu - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H₂S) - ppb

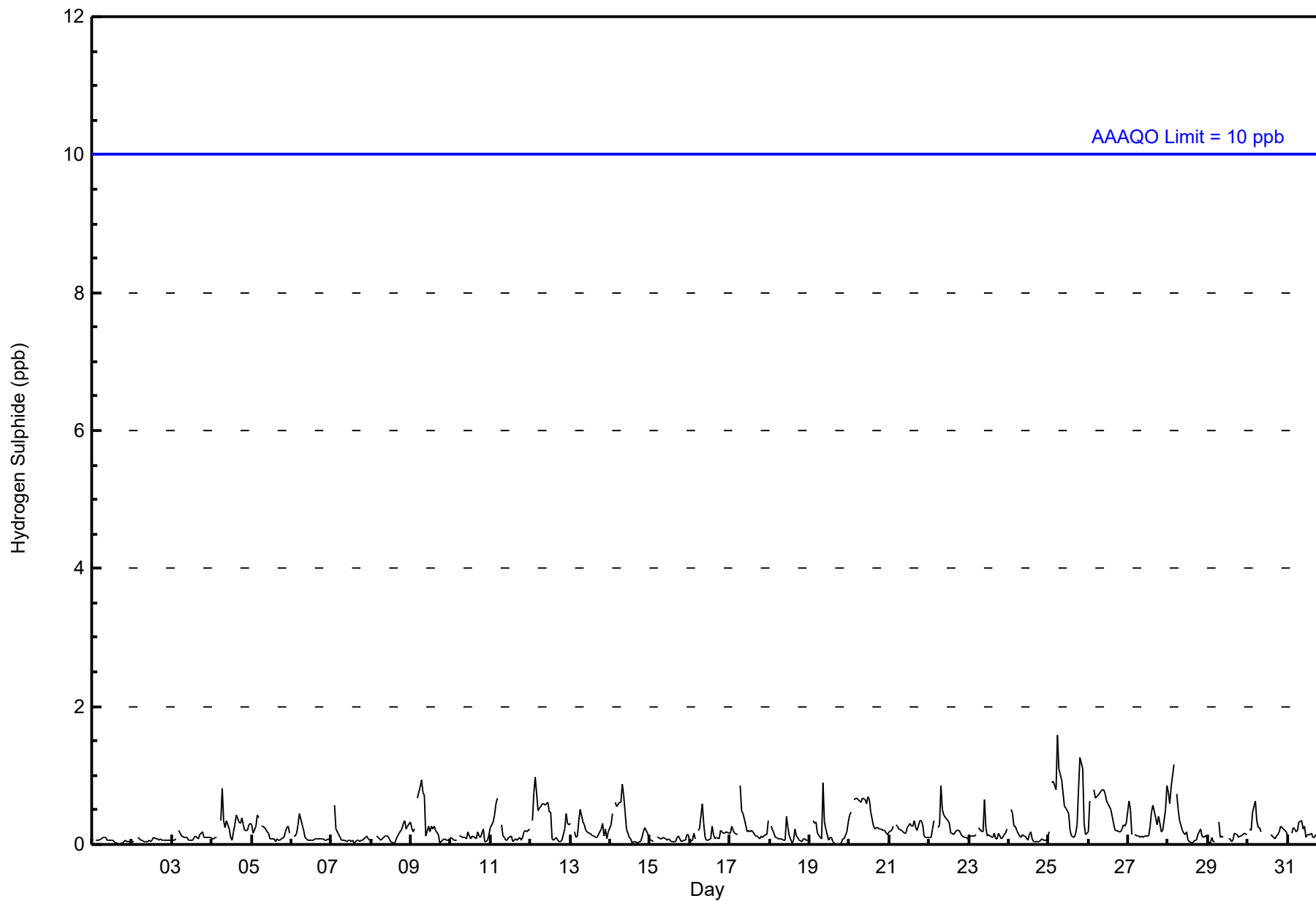
Wapasu - July 2026

Number of Exceedances (AAAQO): Maximum Value: 1.6 ppb on Jul 25 06:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 0.6 ppb on Jul 25						Hours in Service: 744 Hours of Data: 706			
Minimum Value: 0.0 ppb on Jul 19 17:00 Maximum Diurnal Average: 0.4 ppb at hour 6 Monthly Average: 0.21 ppb																			Minimum Daily Average: 0.1 ppb on Jul 1 Minimum Diurnal Average: 0.1 ppb at hour 18 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.5 P ₉₉ = 0.9						Hours of Missing Data: 38 Hours of Calibration: 36 Percent Operational Time: 99.7			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1		
2-Jul	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	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		
3-Jul	0.1	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2		
4-Jul	0.1	0.1	0.1	0.1	Z	0.3	0.8	0.3	0.2	0.3	0.2	0.1	0.1	0.2	0.3	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.3	0.3	0.8		
5-Jul	0.3	0.2	0.3	0.4	0.4	Z	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.4		
6-Jul	Z	0.1	0.1	0.2	0.3	0.4	0.3	0.2	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	0.0	0.1	0.4		
7-Jul	0.1	Z	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.6		
8-Jul	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.1	0.3		
9-Jul	0.2	0.2	0.2	Z	0.7	0.8	0.9	0.8	0.7	0.1	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.3	0.9		
10-Jul	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.0	0.0	0.1	0.1	0.1	0.2		
11-Jul	0.2	0.3	0.4	0.6	0.7	Z	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.7		
12-Jul	Z	0.3	0.8	1.0	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.2	0.5	0.3	0.3	0.4	1.0		
13-Jul	0.3	Z	0.2	0.1	0.1	0.3	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.2	0.1	0.2	0.2	0.5		
14-Jul	0.3	0.4	Z	0.6	0.6	0.6	0.6	0.9	0.7	0.5	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.1	0.3	0.9		
15-Jul	0.1	0.1	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1		
16-Jul	0.0	0.1	0.2	0.1	Z	0.2	0.2	0.6	0.3	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6		
17-Jul	0.2	0.3	0.2	0.2	0.1	Z	0.9	0.5	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.9		
18-Jul	Z	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.2	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.4		
19-Jul	0.1	Z	0.3	0.3	0.3	0.2	0.1	0.1	0.9	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.2	0.9		
20-Jul	0.4	0.5	Z	0.6	0.7	0.6	0.6	0.6	0.7	0.6	0.6	0.7	0.7	0.5	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.4	0.7		
21-Jul	0.2	0.2	0.3	Z	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.1	0.1	0.1	0.2	0.3		
22-Jul	0.1	0.1	0.2	0.3	Z	0.3	0.3	0.8	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.8		
23-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.6	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.6		
24-Jul	Z	0.5	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5		
25-Jul	0.2	Z	0.9	0.9	0.8	1.6	1.1	1.0	0.9	0.5	0.5	0.5	0.4	0.2	0.1	0.1	0.2	0.3	0.8	1.3	1.1	0.3	0.2	0.2	0.6	1.6		
26-Jul	0.2	0.6	Z	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.6	0.6	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.5	0.8		
27-Jul	0.6	0.5	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.5	0.6	0.4	0.3	0.4	0.3	0.2	0.2	0.5	0.9	0.3	0.9		
28-Jul	0.8	0.6	0.8	1.2	Z	0.7	0.5	0.4	0.2	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.3	1.2		
29-Jul	0.0	0.0	0.1	0.0	0.0	Z	0.3	0.1	0.1	0.1	M	M	0.1	0.1	0.0	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.3		
30-Jul	Z	0.2	0.2	0.5	0.6	0.4	0.3	0.2	0.2	C	C	C	C	C	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.6		
31-Jul	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.2	0.3	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.4		
																									Diurnal Average			
																									Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance																												
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																												



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H_2S) - ppb
Wapasu - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Wapasu - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	706	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Wapasu - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	51	23	4	10	12	17	53	127	97	76	88	63	17	15	18	33	704
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	51	23	4	10	12	17	53	127	97	76	88	63	17	15	18	33	704

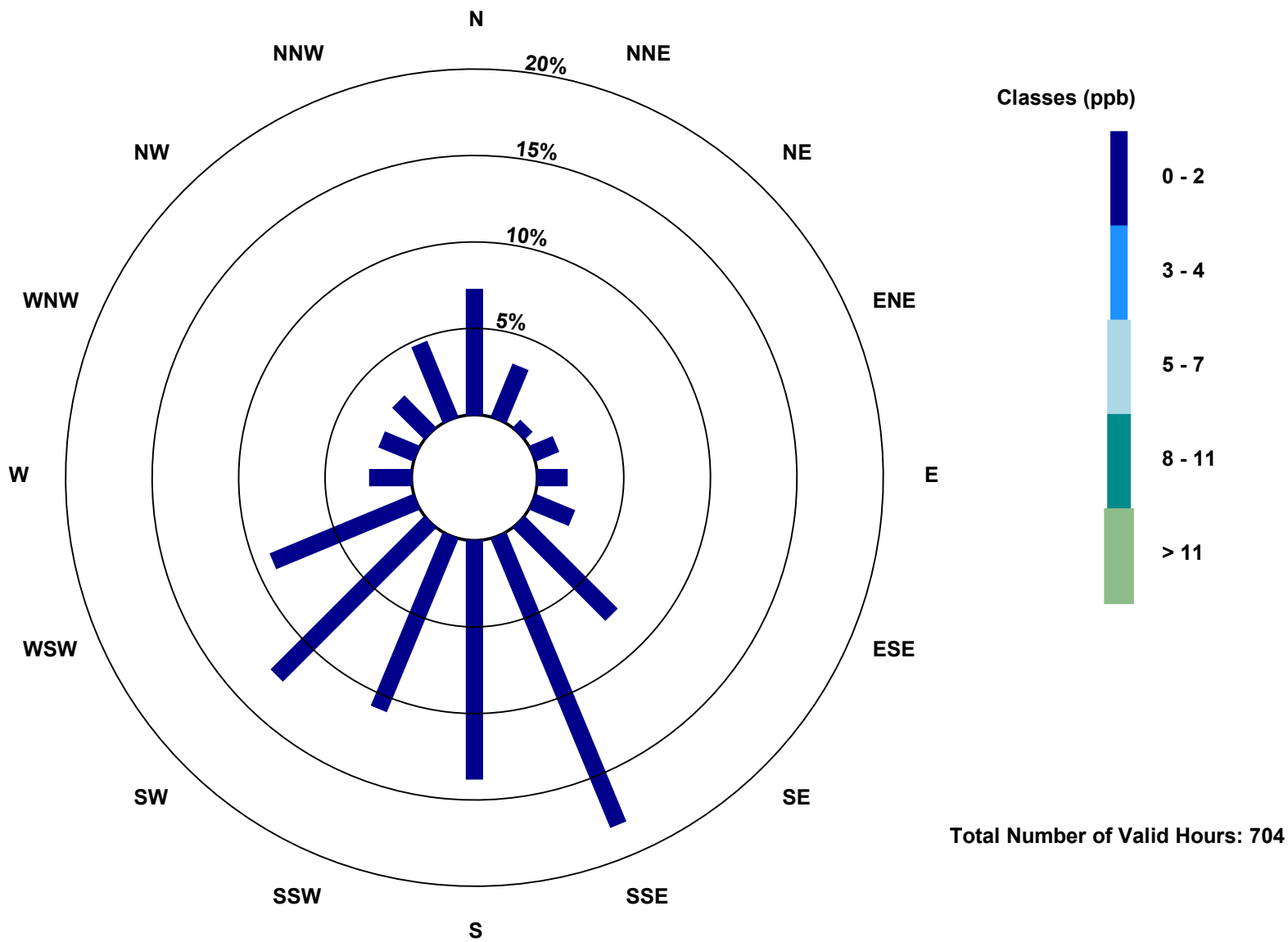
Total Number of Valid Hours: 704

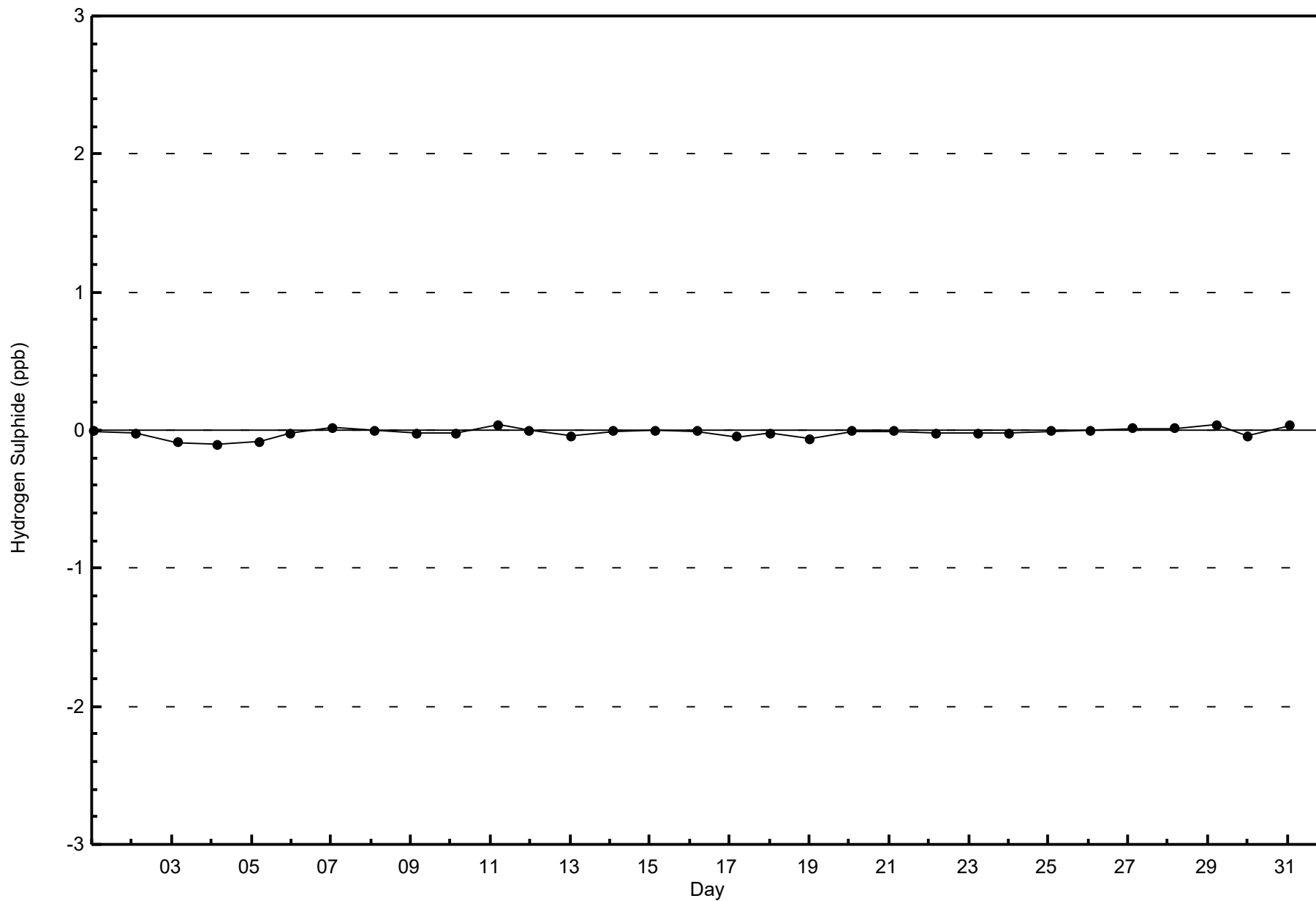
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Hydrogen Sulphide (H₂S) - ppb
Wapasu

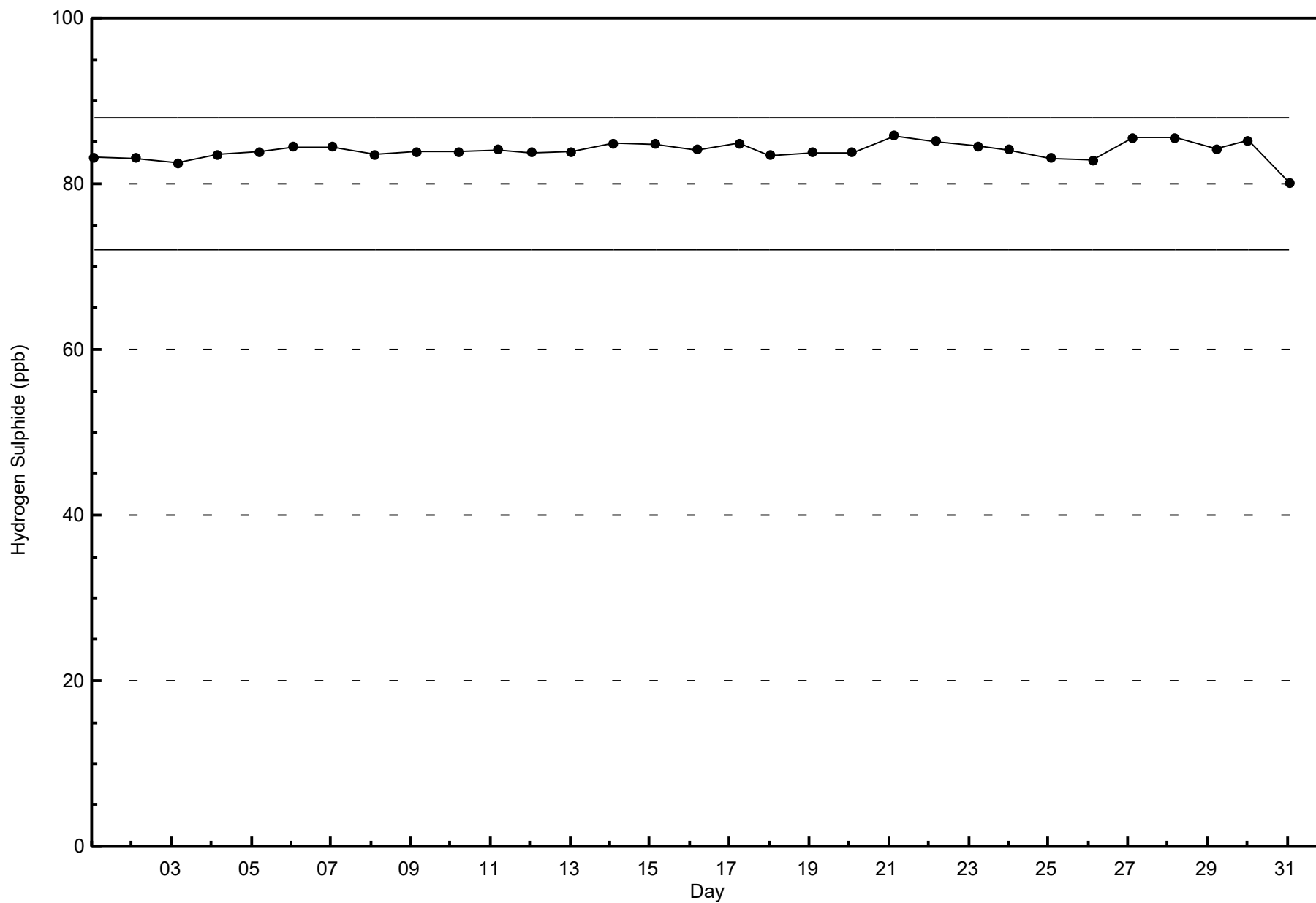






Wood Buffalo Environmental Association
Span Responses

Hydrogen Sulphide (H₂S) - ppb
Wapasu - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

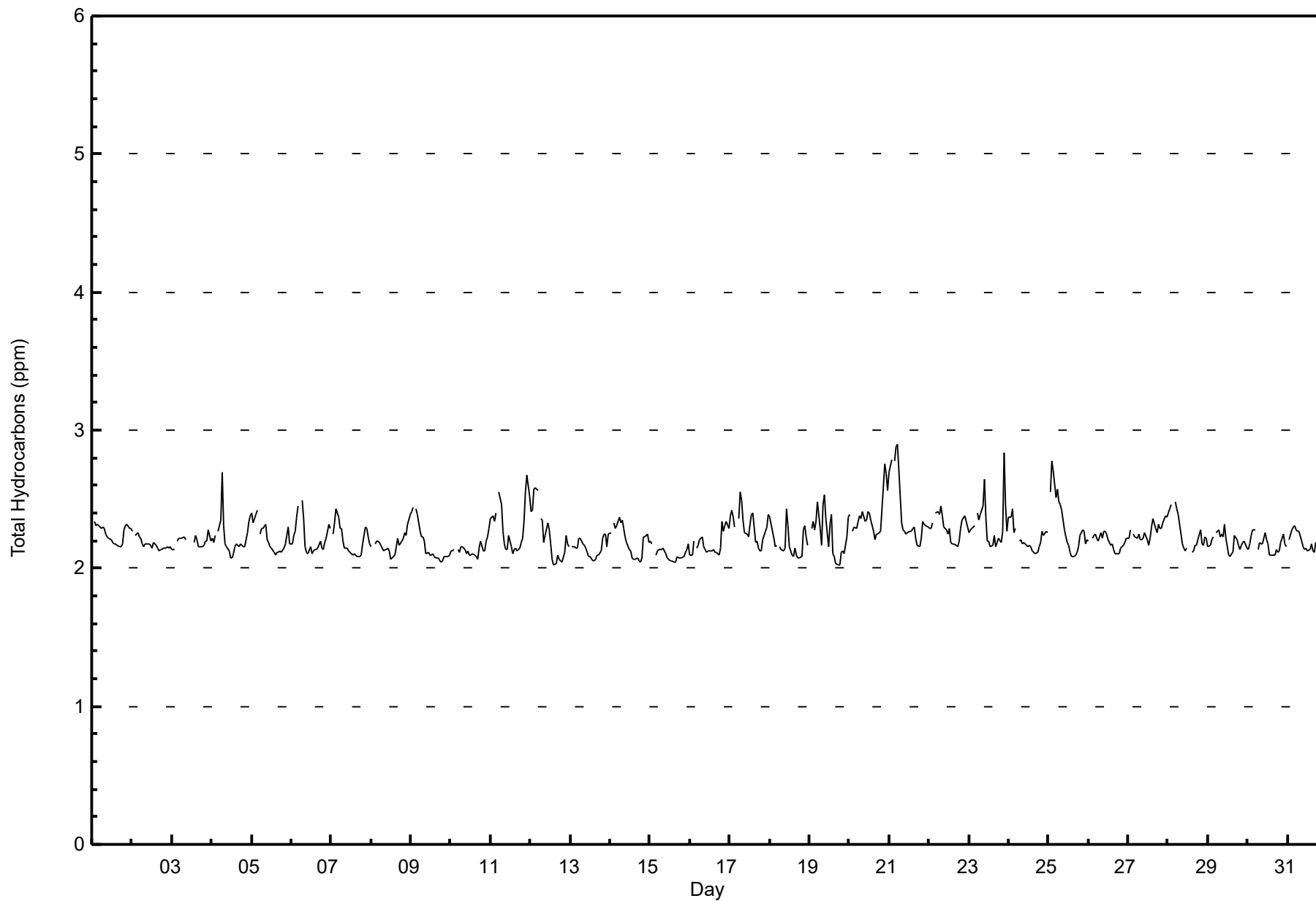
Wapasu - July 2026

Maximum Value: 2.9 ppm on Jul 21 06:00																		Maximum Daily Average: 2.4 ppm on Jul 21																		Hours in Service: 744	
Minimum Value: 2.0 ppm on Jul 19 19:00																		Minimum Daily Average: 2.1 ppm on Jul 15																		Hours of Data: 707	
Maximum Diurnal Average: 2.3 ppm at hour 4																		Minimum Diurnal Average: 2.1 ppm at hour 17																		Hours of Missing Data: 37	
Monthly Average: 2.23 ppm																		Percentiles: P ₁ = 2.0 P ₁₀ = 2.1 Q ₁ = 2.1 Median = 2.2 Q ₃ = 2.3 P ₉₀ = 2.4 P ₉₉ = 2.7																		Hours of Calibration: 35	
																																				Percent Operational Time: 99.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24													
1-Jul	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.3											
2-Jul	2.3	Z	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2											
3-Jul	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.2	2.2	C	C	C	C	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.3											
4-Jul	2.2	2.2	2.2	Z	2.3	2.4	2.7	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.2	2.7											
5-Jul	2.4	2.3	2.4	2.4	Z	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.2	2.4											
6-Jul	2.2	2.2	2.3	2.4	2.5	Z	2.5	2.4	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.2	2.3	2.3	2.2	2.5											
7-Jul	Z	2.2	2.3	2.4	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.2	2.2	2.2	2.4											
8-Jul	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.4	2.2	2.4											
9-Jul	2.4	2.4	Z	2.4	2.4	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.2	2.4											
10-Jul	2.1	2.1	2.1	Z	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.2	2.3	2.1	2.3											
11-Jul	2.4	2.4	2.3	2.4	Z	2.6	2.5	2.3	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.6	2.7	2.5	2.3	2.7											
12-Jul	2.4	2.4	2.6	2.6	2.6	Z	2.4	2.3	2.2	2.2	2.3	2.3	2.2	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.2	2.2	2.2	2.2	2.6											
13-Jul	Z	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.2	2.1	2.3											
14-Jul	2.3	Z	2.3	2.3	2.3	2.4	2.3	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.2	2.2	2.2	2.2	2.2	2.4											
15-Jul	2.2	2.2	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2											
16-Jul	2.1	2.1	2.2	Z	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.3	2.3	2.3	2.2	2.3											
17-Jul	2.4	2.4	2.4	2.3	Z	2.4	2.6	2.5	2.3	2.3	2.3	2.2	2.3	2.4	2.4	2.2	2.2	2.1	2.1	2.1	2.2	2.3	2.3	2.4	2.3	2.6											
18-Jul	2.4	2.3	2.2	2.2	2.2	Z	2.2	2.1	2.1	2.1	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.2	2.2	2.2	2.4											
19-Jul	Z	2.3	2.3	2.3	2.3	2.5	2.3	2.2	2.5	2.5	2.4	2.2	2.3	2.4	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.4	2.2	2.5											
20-Jul	2.4	Z	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.3	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.6	2.8	2.7	2.6	2.4	2.8											
21-Jul	2.7	2.8	Z	2.8	2.9	2.9	2.7	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.9											
22-Jul	2.3	2.3	2.3	Z	2.4	2.4	2.4	2.5	2.4	2.3	2.3	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.3	2.3	2.3	2.5											
23-Jul	2.3	2.3	2.3	2.3	Z	2.4	2.3	2.4	2.4	2.6	2.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.8	2.5	2.3	2.3	2.8											
24-Jul	2.4	2.4	2.4	2.3	2.3	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.3	2.3	2.2	2.4											
25-Jul	Z	2.5	2.8	2.7	2.5	2.6	2.5	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.2	2.2	2.3	2.8											
26-Jul	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.3											
27-Jul	2.2	2.3	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.4											
28-Jul	2.4	2.4	2.5	Z	2.5	2.4	2.4	2.3	2.2	2.1	2.1	2.1	M	M	2.1	2.1	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.3	2.5											
29-Jul	2.2	2.2	2.2	2.2	Z	2.3	2.3	2.2	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.1	2.2	2.3											
30-Jul	2.1	2.2	2.2	2.3	2.3	Z	2.1	2.2	2.2	2.2	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.2	2.2	2.3											
31-Jul	Z	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.3											
2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.2 2.2 2.2 2.2 2.2 2.2 2.1 2.1 2.1 2.1 2.1 2.2 2.2 2.3 2.3 2.3																								Diurnal Average													
2.7 2.8 2.8 2.8 2.9 2.9 2.7 2.5 2.5 2.6 2.4 2.4 2.4 2.4 2.4 2.4 2.3 2.3 2.3 2.3 2.6 2.8 2.7 2.6																								Diurnal Maximum													
Z - zerospan C - Calibration M - Maintenance																																					



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Wapasu - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Wapasu - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	10	1.41	1.41
2.1 - 3.0	697	98.59	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Wapasu - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	3	0	0	0	0	0	0	0	2	2	0	2	1	0	0	0	10
2.1 - 3.0	47	25	4	10	11	18	52	125	91	74	87	63	16	16	21	35	695
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	50	25	4	10	11	18	52	125	93	76	87	65	17	16	21	35	705

Total Number of Valid Hours: 705

Total Number of Hours: 744

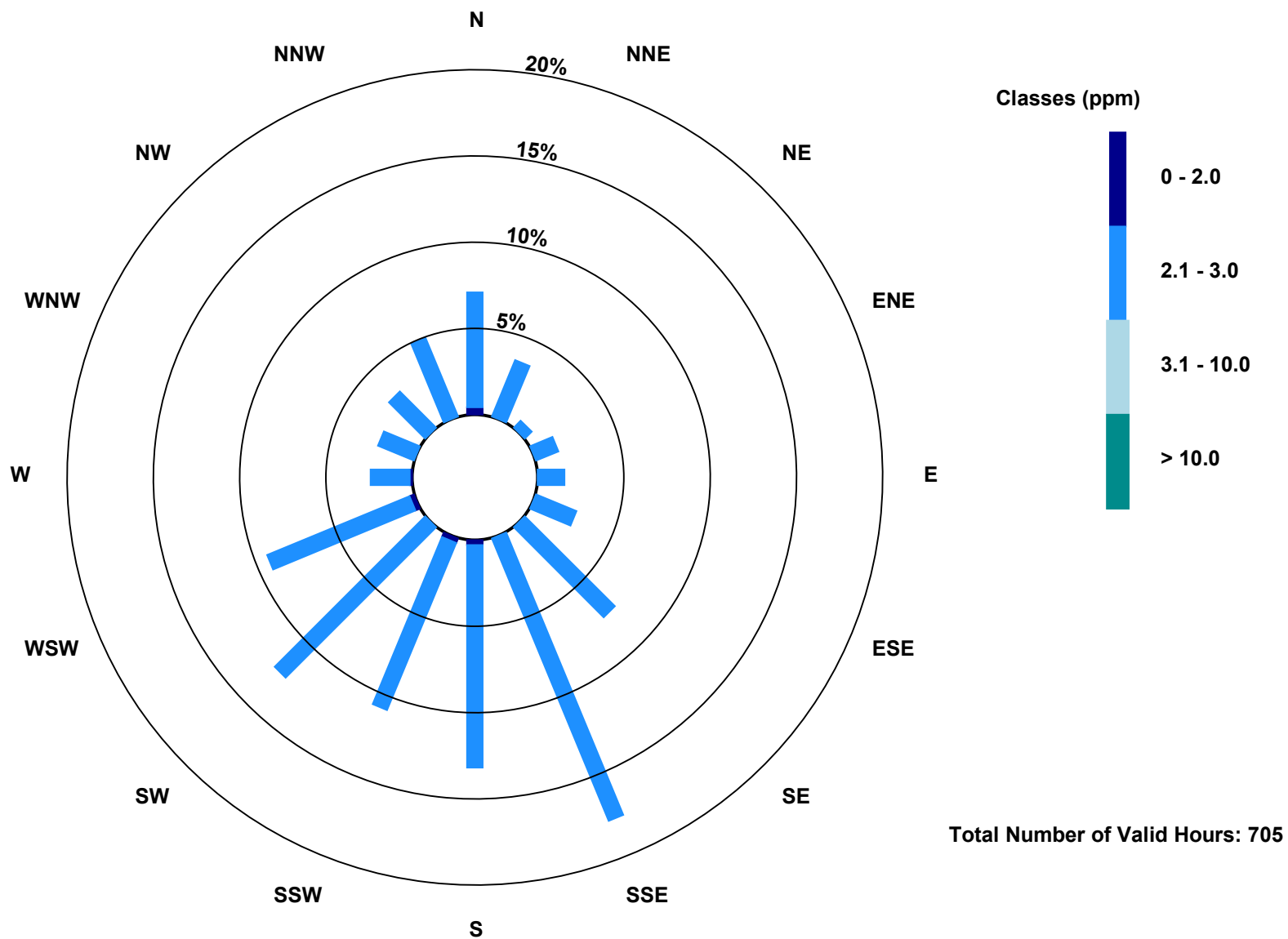


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Total Hydrocarbons (THC) - ppm

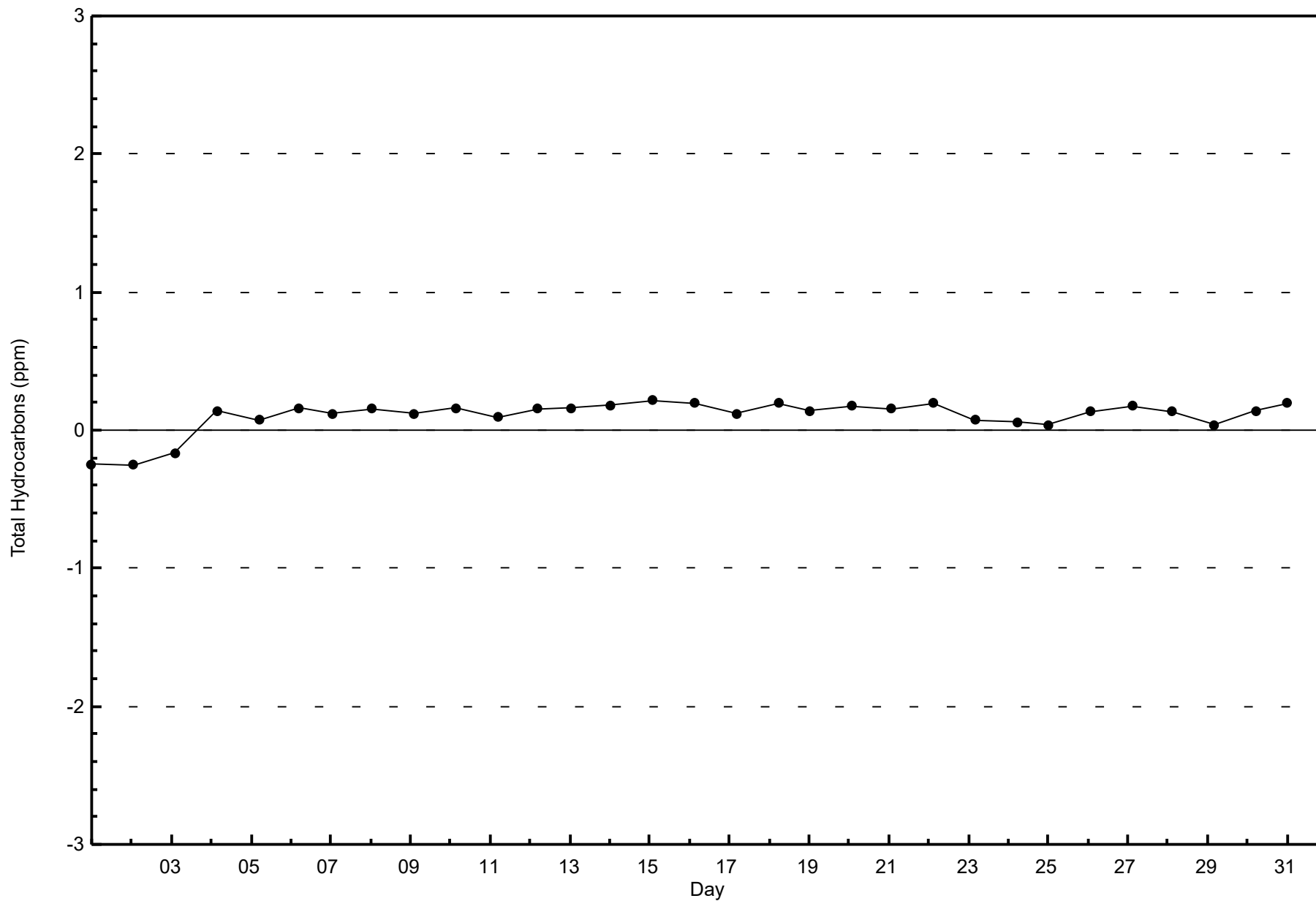
Wapasu

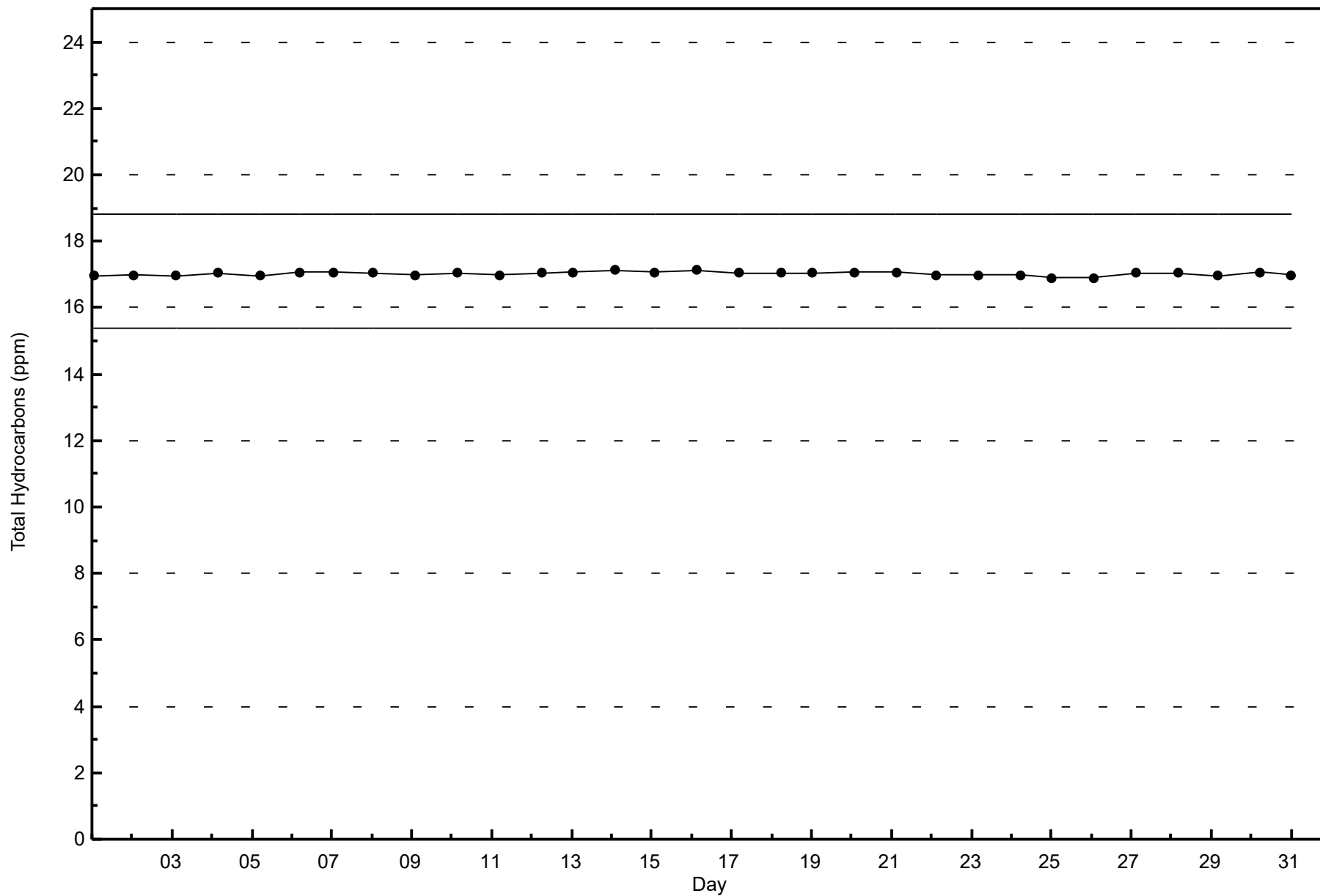




Wood Buffalo Environmental Association
Zero Responses

Total Hydrocarbons (THC) - ppm
Wapasu - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O₃) - ppb

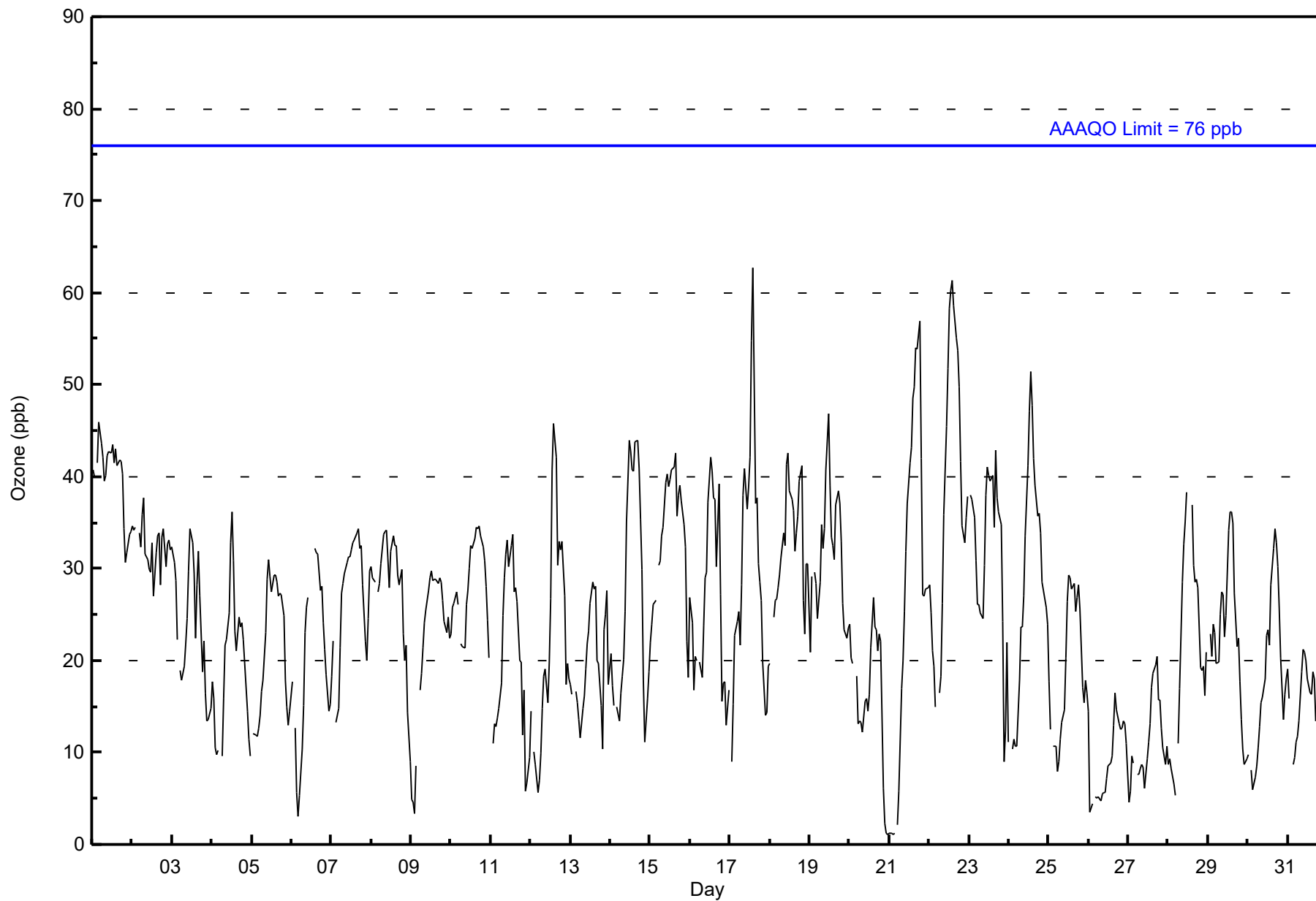
Wapasu - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 62.7 ppb on Jul 17 15:00 Maximum Daily Average: 39.9 ppb on Jul 1																				Hours in Service: 744						
Minimum Value: 1.1 ppb on Jul 21 00:00 Minimum Daily Average: 9.3 ppb on Jul 26 Maximum Diurnal Average: 34.1 ppb at hour 15 Minimum Diurnal Average: 16.7 ppb at hour 3 Monthly Average: 24.75 ppb Percentiles: P ₁ = 2.3 P ₁₀ = 10.0 Q ₁ = 16.2 Median = 24.9 Q ₃ = 32.5 P ₉₀ = 39.5 P ₉₉ = 54.8																				Hours of Data: 708						
																				Hours of Missing Data: 36						
																				Hours of Calibration: 34						
																				Percent Operational Time: 99.7						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jul	40.8	40.0	Z	41.5	45.9	43.7	42.1	39.5	40.2	42.2	42.7	42.5	43.4	41.4	42.9	41.2	41.8	41.6	40.3	34.3	30.6	31.7	33.7	34.1	39.9	45.9
2-Jul	34.7	34.2	34.5	Z	33.9	32.3	35.8	37.6	31.5	31.0	29.9	29.6	32.8	27.0	31.7	33.6	33.9	28.2	33.4	34.4	30.2	32.7	33.1	32.0	32.5	37.6
3-Jul	32.3	30.7	28.8	22.3	Z	18.9	17.8	19.4	21.8	24.6	29.8	34.3	32.7	29.5	22.4	28.3	31.8	27.0	18.8	22.1	16.6	13.4	13.6	14.8	24.0	34.3
4-Jul	17.6	15.9	10.5	9.7	10.2	Z	9.7	15.9	21.6	22.2	25.1	32.8	36.2	30.8	23.2	21.1	24.7	23.6	24.1	22.2	19.7	14.5	11.4	9.5	19.7	36.2
5-Jul	Z	12.1	11.8	11.7	12.6	14.0	16.7	17.9	23.0	28.8	30.9	29.2	27.4	29.3	29.3	28.5	27.0	27.3	27.1	24.9	17.9	15.0	12.9	14.5	21.3	30.9
6-Jul	17.7	Z	12.7	5.7	3.1	5.3	10.3	15.1	23.0	25.8	26.8	C	C	C	32.2	31.8	31.6	27.7	28.1	24.0	21.2	18.5	14.5	15.2	19.5	32.2
7-Jul	18.3	22.2	Z	13.3	14.7	21.4	27.3	28.4	29.5	30.6	31.2	31.3	32.1	32.9	33.0	33.8	34.4	32.3	32.4	28.1	22.2	20.0	24.6	29.8	27.1	34.4
8-Jul	30.2	28.9	28.5	Z	27.4	28.3	30.5	33.6	34.0	34.2	31.1	27.9	31.8	33.5	32.6	32.5	29.2	28.3	29.9	22.9	20.0	21.6	14.4	9.1	27.8	34.2
9-Jul	4.8	4.6	3.3	8.5	Z	16.7	18.7	21.4	24.1	25.5	27.7	29.1	29.7	28.7	28.9	28.9	28.4	29.0	28.6	26.5	24.2	23.0	24.7	22.4	22.1	29.7
10-Jul	22.8	25.8	26.3	27.4	26.1	Z	21.8	21.5	21.3	26.1	27.6	30.1	32.5	32.2	33.3	34.6	34.3	34.6	33.6	32.4	30.9	28.1	24.4	20.4	28.2	34.6
11-Jul	Z	11.0	13.2	12.9	13.7	14.8	17.6	24.9	29.0	31.6	33.0	30.2	32.4	33.7	27.4	28.0	26.4	19.9	19.8	11.9	16.8	5.8	6.7	9.5	20.4	33.7
12-Jul	14.5	Z	10.0	8.6	5.6	7.0	9.9	14.8	18.2	19.1	15.3	19.8	26.6	40.7	45.8	42.0	30.3	32.9	32.0	32.9	27.0	17.4	19.6	18.0	22.1	45.8
13-Jul	17.4	16.3	Z	16.6	15.4	13.6	11.7	14.8	16.1	19.1	21.8	23.1	26.2	28.6	27.8	28.1	19.9	19.7	15.1	10.3	23.4	25.1	27.6	17.4	19.8	28.6
14-Jul	20.7	17.2	15.2	Z	14.9	13.5	16.5	18.3	20.1	25.4	35.1	43.9	42.7	40.8	40.7	43.7	44.0	40.8	35.4	29.8	17.9	11.2	15.8	18.7	27.1	44.0
15-Jul	22.0	23.9	26.1	26.5	Z	30.3	30.9	33.5	34.5	39.4	40.3	38.9	39.6	40.8	41.0	42.6	35.7	38.1	39.1	37.4	34.7	32.4	22.2	18.1	33.4	42.6
16-Jul	26.8	24.2	16.8	20.4	19.9	Z	19.9	18.1	23.8	28.9	29.6	37.2	42.1	40.6	37.6	37.6	30.3	39.1	27.1	15.6	17.5	17.6	13.0	16.7	26.1	42.1
17-Jul	Z	9.0	15.3	22.8	24.2	25.3	21.6	28.3	38.0	40.9	36.4	38.9	42.0	54.8	62.7	37.0	37.7	30.5	28.5	26.5	19.9	14.0	14.3	19.4	29.9	62.7
18-Jul	19.7	Z	24.7	26.5	26.8	27.8	29.3	31.2	33.8	32.5	41.4	42.5	38.5	37.5	36.4	31.9	33.8	35.6	39.5	41.2	26.5	22.9	30.5	30.5	32.2	42.5
19-Jul	20.9	29.1	Z	29.7	28.3	24.5	28.5	34.8	32.1	34.4	40.7	46.9	39.0	33.4	32.6	31.0	36.9	38.4	37.0	32.9	26.2	23.3	22.4	23.4	31.6	46.9
20-Jul	23.9	20.2	19.6	Z	18.2	13.1	13.4	13.3	12.2	15.6	15.9	14.5	16.4	21.4	26.8	23.7	23.4	21.1	22.8	22.1	6.1	2.3	1.3	1.1	16.0	26.8
21-Jul	1.2	1.2	1.1	1.2	Z	2.1	5.8	17.0	20.0	25.3	31.9	37.1	41.5	43.2	48.6	49.7	54.1	53.8	56.9	41.9	27.2	27.1	27.7	28.0	28.0	56.9
22-Jul	28.2	25.1	21.1	19.4	15.0	Z	16.4	18.4	26.3	35.9	45.5	51.7	58.3	60.2	61.3	58.6	55.0	53.7	49.7	41.6	34.6	32.8	35.6	37.9	38.4	61.3
23-Jul	Z	38.0	37.5	35.5	30.8	26.0	26.1	25.2	24.5	30.3	38.0	41.1	40.1	39.5	40.1	34.5	42.8	37.6	36.2	34.8	24.2	9.0	12.3	22.0	31.6	42.8
24-Jul	11.2	Z	10.4	11.4	10.6	10.7	17.8	23.6	23.7	27.0	33.5	41.2	47.2	51.4	47.7	41.9	39.1	35.6	36.0	33.8	28.5	27.6	25.8	24.0	28.7	51.4
25-Jul	17.7	12.6	Z	10.6	10.7	8.0	8.9	11.4	13.3	14.7	20.3	26.4	29.2	28.9	27.7	28.3	25.3	26.9	28.2	25.6	17.1	15.5	17.9	16.5	19.2	29.2
26-Jul	14.5	3.6	4.4	Z	5.2	5.0	5.2	4.8	5.5	5.6	5.6	7.2	8.6	8.9	9.6	12.9	16.5	14.7	13.1	12.6	12.7	13.4	13.1	11.0	9.3	16.5
27-Jul	4.6	5.9	9.6	8.9	Z	7.6	7.7	8.2	8.8	8.3	6.2	9.2	11.1	13.2	17.1	18.6	19.5	20.5	15.7	15.7	12.6	10.6	8.7	10.6	11.3	20.5
28-Jul	8.7	9.3	8.2	6.5	5.4	Z	11.0	17.0	28.5	32.7	35.1	38.3	M	M	36.9	30.4	28.5	28.8	27.9	19.3	18.9	19.3	16.1	20.9	21.3	38.3
29-Jul	Z	22.8	20.5	24.0	23.0	19.7	19.9	24.9	27.5	27.1	22.5	24.9	34.2	36.2	36.2	34.9	27.3	21.5	22.4	17.8	13.5	10.4	8.7	9.4	23.0	36.2
30-Jul	9.8	Z	8.0	6.0	7.4	8.5	10.6	12.9	15.5	16.0	18.0	22.7	23.4	21.6	28.3	32.2	34.3	32.8	30.2	25.6	20.3	13.6	16.3	18.0	18.8	34.3
31-Jul	19.1	15.9	Z	8.7	9.5	11.2	11.8	13.4	18.7	21.2	21.0	20.0	18.0	16.5	16.3	18.8	18.0	13.5	14.1	15.6	15.2	17.4	18.3	18.0	16.1	21.2
Diurnal Average																										
Diurnal Maximum																										
Z - zerospan C - Calibration M - Maintenance																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Ozone (O₃) - ppb
Wapasu - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ozone (O₃) - ppb
Wapasu - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	273	38.56	38.56
21 - 50	422	59.60	98.16
51 - 82	13	1.84	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Ozone (O₃) - ppb
Wapasu - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	16	16	0	8	6	11	17	48	38	28	41	14	7	4	6	11	271
21 - 50	33	9	4	2	5	7	36	75	61	45	42	46	11	12	14	20	422
51 - 82	0	0	0	0	0	0	0	0	1	0	4	6	0	0	0	2	13
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	49	25	4	10	11	18	53	123	100	73	87	66	18	16	20	33	706

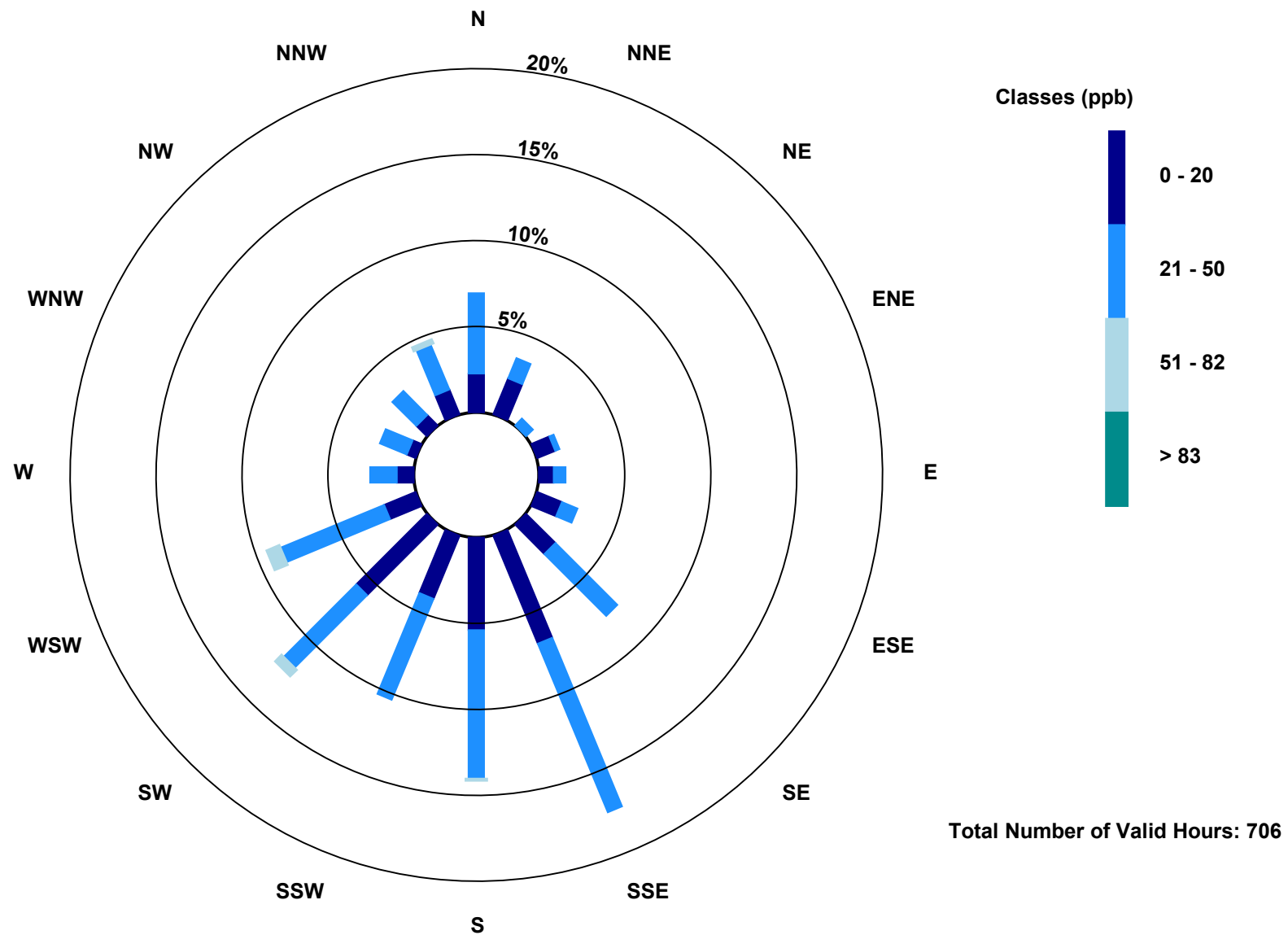
Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

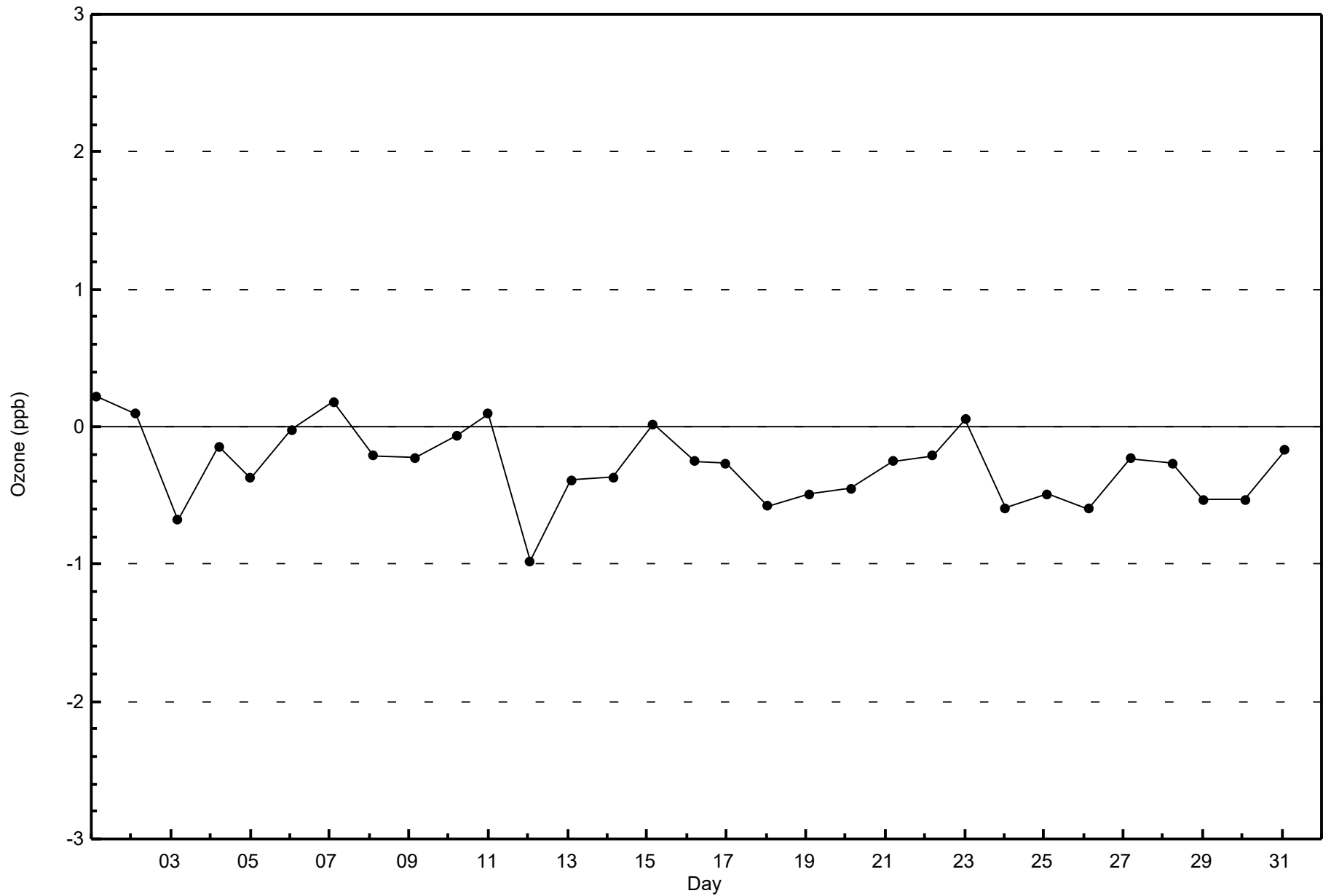
Ozone (O_3) - ppb
Wapasu





Wood Buffalo Environmental Association
Zero Responses

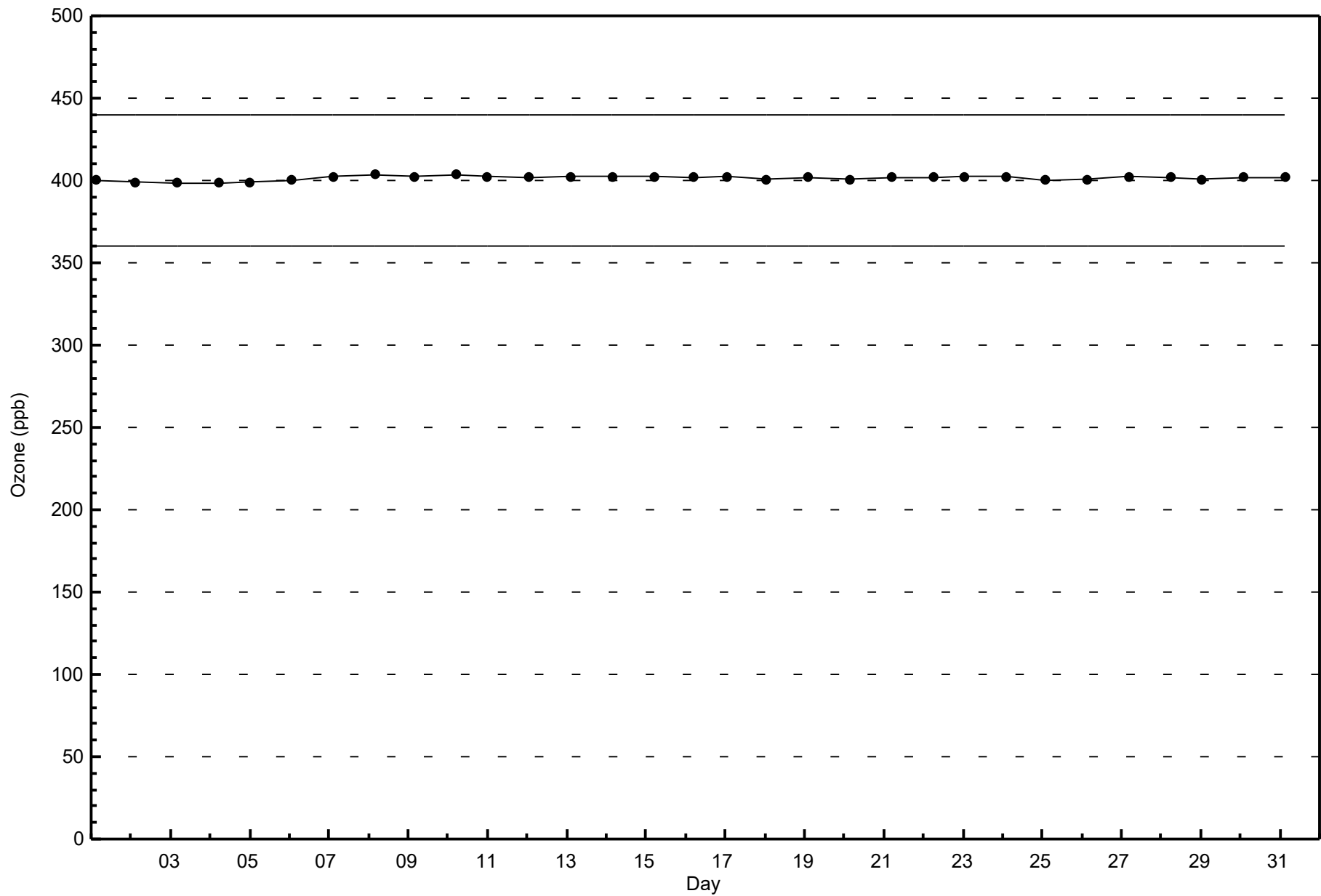
Ozone (O₃) - ppb
Wapasu - July 2026





Wood Buffalo Environmental Association
Span Responses

Ozone (O₃) - ppb
Wapasu - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

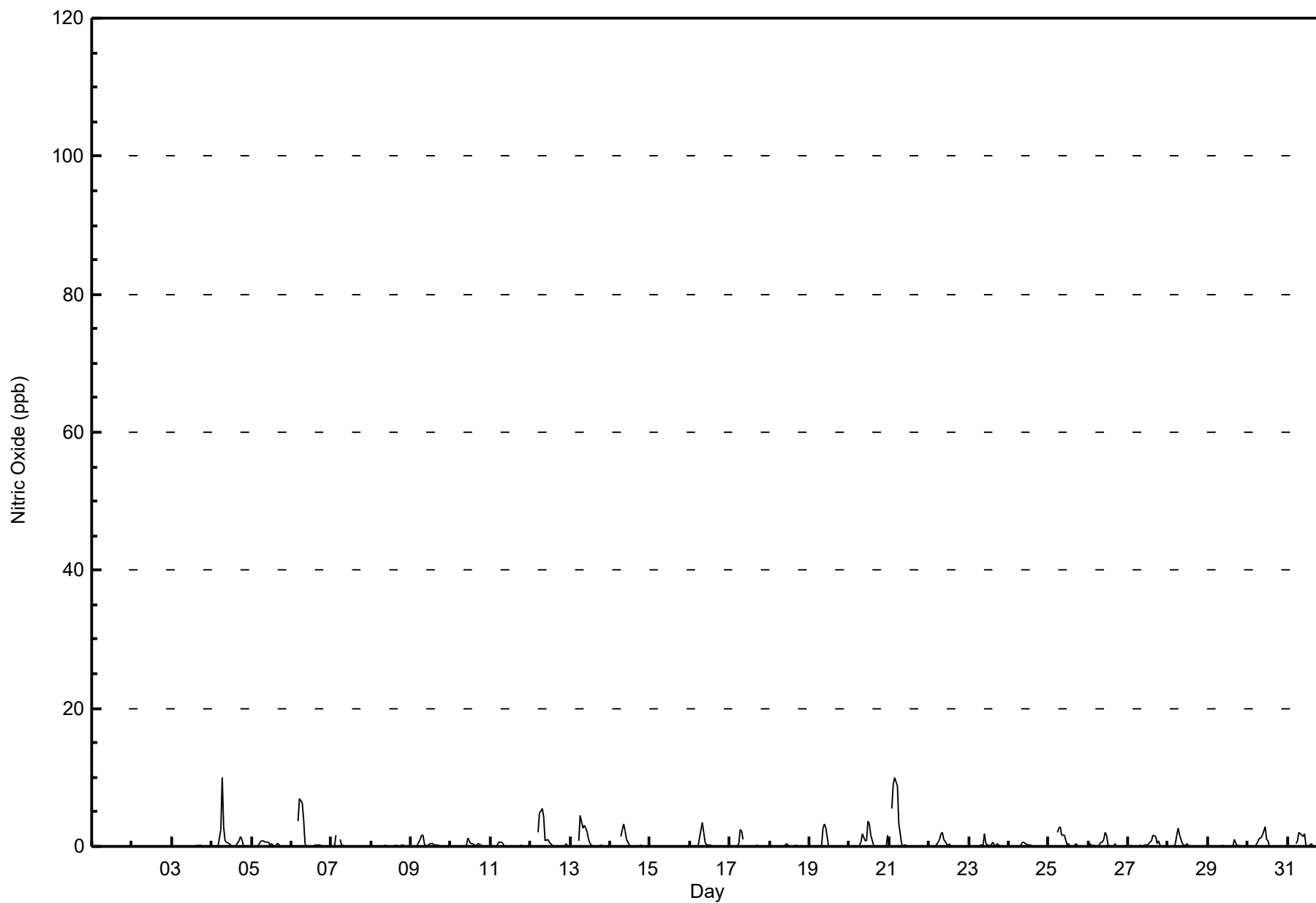
Wapasu - July 2026

Maximum Value: 10.0 ppb on Jul 4 07:00																		Maximum Daily Average: 2.0 ppb on Jul 21																		Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 1 01:00																		Minimum Daily Average: 0.0 ppb on Jul 1																		Hours of Data: 705	
Maximum Diurnal Average: 1.5 ppb at hour 7																		Minimum Diurnal Average: 0.0 ppb at hour 1																		Hours of Missing Data: 39	
Monthly Average: 0.39 ppb																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.2 P ₉₀ = 1.1 P ₉₉ = 5.5																		Hours of Calibration: 36	
																																				Percent Operational Time: 99.6	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24													
1-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
3-Jul	Z	0.0	0.0	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	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0												
4-Jul	0.0	Z	0.0	0.0	0.0	2.5	10.0	2.8	0.8	0.6	0.4	0.2	0.0	0.0	0.0	0.2	0.7	1.3	1.1	0.1	0.0	0.0	0.0	0.0	0.9												
5-Jul	0.0	0.0	Z	0.0	0.2	0.5	0.8	0.8	0.6	0.7	0.5	0.2	0.5	0.1	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2												
6-Jul	0.0	0.0	0.0	Z	3.7	7.0	6.3	3.9	0.5	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	1.0												
7-Jul	0.0	0.0	0.0	1.6	Z	1.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1												
8-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0												
9-Jul	Z	0.0	0.0	0.0	0.3	1.1	1.6	1.6	0.4	0.1	0.1	0.4	0.4	0.4	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3												
10-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	1.2	0.7	0.3	0.4	0.1	0.1	0.4	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.2												
11-Jul	0.0	0.0	Z	0.0	0.2	0.5	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1												
12-Jul	0.0	0.0	0.0	Z	2.0	4.9	5.0	5.4	4.3	0.8	1.0	0.7	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	1.1												
13-Jul	0.0	0.0	0.0	0.0	Z	0.9	4.4	2.7	3.1	2.7	2.1	1.0	0.3	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.8												
14-Jul	0.0	0.0	0.0	0.0	0.0	Z	1.4	2.5	3.3	2.2	1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.5												
15-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0												
16-Jul	0.0	Z	0.0	0.0	0.0	0.1	1.1	3.5	2.0	0.7	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3												
17-Jul	0.0	0.0	Z	0.0	0.0	0.4	2.5	2.2	0.9	C	C	C	C	C	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4												
18-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
19-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.2	2.6	3.2	2.7	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	0.4												
20-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.3	0.6	1.8	0.8	0.7	3.7	3.2	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.6												
21-Jul	Z	5.5	8.9	9.9	9.4	8.7	3.3	0.3	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0												
22-Jul	0.0	Z	0.0	0.0	0.1	0.5	1.1	1.9	2.1	1.0	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3												
23-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.3	0.3	1.9	0.3	0.3	0.3	0.1	0.6	0.2	0.1	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.2												
24-Jul	0.0	0.0	0.0	Z	0.0	0.1	0.0	0.1	0.5	0.6	0.4	0.2	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1												
25-Jul	0.0	0.0	0.0	0.0	Z	2.1	2.6	2.9	1.6	1.5	0.9	0.3	0.4	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.6												
26-Jul	0.0	0.4	0.0	0.3	0.0	Z	0.0	0.5	0.6	1.0	2.0	1.6	0.2	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3												
27-Jul	Z	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.2	0.3	0.6	0.7	1.7	1.4	0.3	0.9	0.2	0.0	0.0	0.0	0.0	0.3												
28-Jul	0.0	Z	0.0	0.0	0.5	1.6	2.7	1.7	0.5	0.2	0.1	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3												
29-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.2	M	M	M	0.0	0.0	0.0	0.9	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.1												
30-Jul	0.0	0.0	0.0	Z	0.0	0.5	0.7	1.3	1.3	1.6	2.8	1.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4												
31-Jul	0.0	0.0	0.0	0.0	Z	0.4	0.9	2.0	1.5	1.4	1.9	0.1	0.1	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4												
0.0 0.2 0.3 0.5 0.7 1.3 1.5 1.2 0.9 0.7 0.7 0.4 0.3 0.1 0.1 0.1 0.2 0.1 0.1 0.0 0.0 0.0 0.0 0.1																								Diurnal Average													
0.0 5.5 8.9 9.9 9.4 8.7 10.0 5.4 4.3 3.2 2.8 3.7 3.2 1.7 0.7 1.7 1.4 1.3 1.1 0.2 0.1 0.4 0.0 1.7																								Diurnal Maximum													
Z - zerospan C - Calibration M - Maintenance																																					



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Wapasu - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Wapasu - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	705	100.00	100.00
21 - 40	0	0.00	100.00
41 - 60	0	0.00	100.00
61 - 80	0	0.00	100.00
81 - 100	0	0.00	100.00
101 - 120	0	0.00	100.00
121 - 140	0	0.00	100.00
141 - 160	0	0.00	100.00
161 - 180	0	0.00	100.00
181 - 200	0	0.00	100.00
201 - 220	0	0.00	100.00
221 - 240	0	0.00	100.00
241 - 260	0	0.00	100.00
261 - 280	0	0.00	100.00
281 - 300	0	0.00	100.00
301 - 320	0	0.00	100.00
321 - 340	0	0.00	100.00
341 - 360	0	0.00	100.00
361 - 380	0	0.00	100.00
381 - 400	0	0.00	100.00
401 - 420	0	0.00	100.00
421 - 440	0	0.00	100.00
441 - 460	0	0.00	100.00
461 - 480	0	0.00	100.00
481 - 500	0	0.00	100.00
501 - 520	0	0.00	100.00
521 - 540	0	0.00	100.00
541 - 560	0	0.00	100.00
561 - 580	0	0.00	100.00
581 - 600	0	0.00	100.00
601 - 620	0	0.00	100.00
621 - 640	0	0.00	100.00
641 - 660	0	0.00	100.00
661 - 680	0	0.00	100.00
681 - 700	0	0.00	100.00
701 - 720	0	0.00	100.00
721 - 740	0	0.00	100.00
741 - 760	0	0.00	100.00
761 - 780	0	0.00	100.00
781 - 800	0	0.00	100.00
801 - 820	0	0.00	100.00
821 - 840	0	0.00	100.00
841 - 860	0	0.00	100.00
861 - 880	0	0.00	100.00
881 - 900	0	0.00	100.00
901 - 920	0	0.00	100.00
921 - 940	0	0.00	100.00
941 - 960	0	0.00	100.00
961 - 980	0	0.00	100.00
981 - 1000	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Wapasu - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	50	24	4	10	12	16	53	124	99	75	88	66	16	16	20	30	703
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	50	24	4	10	12	16	53	124	99	75	88	66	16	16	20	30	703

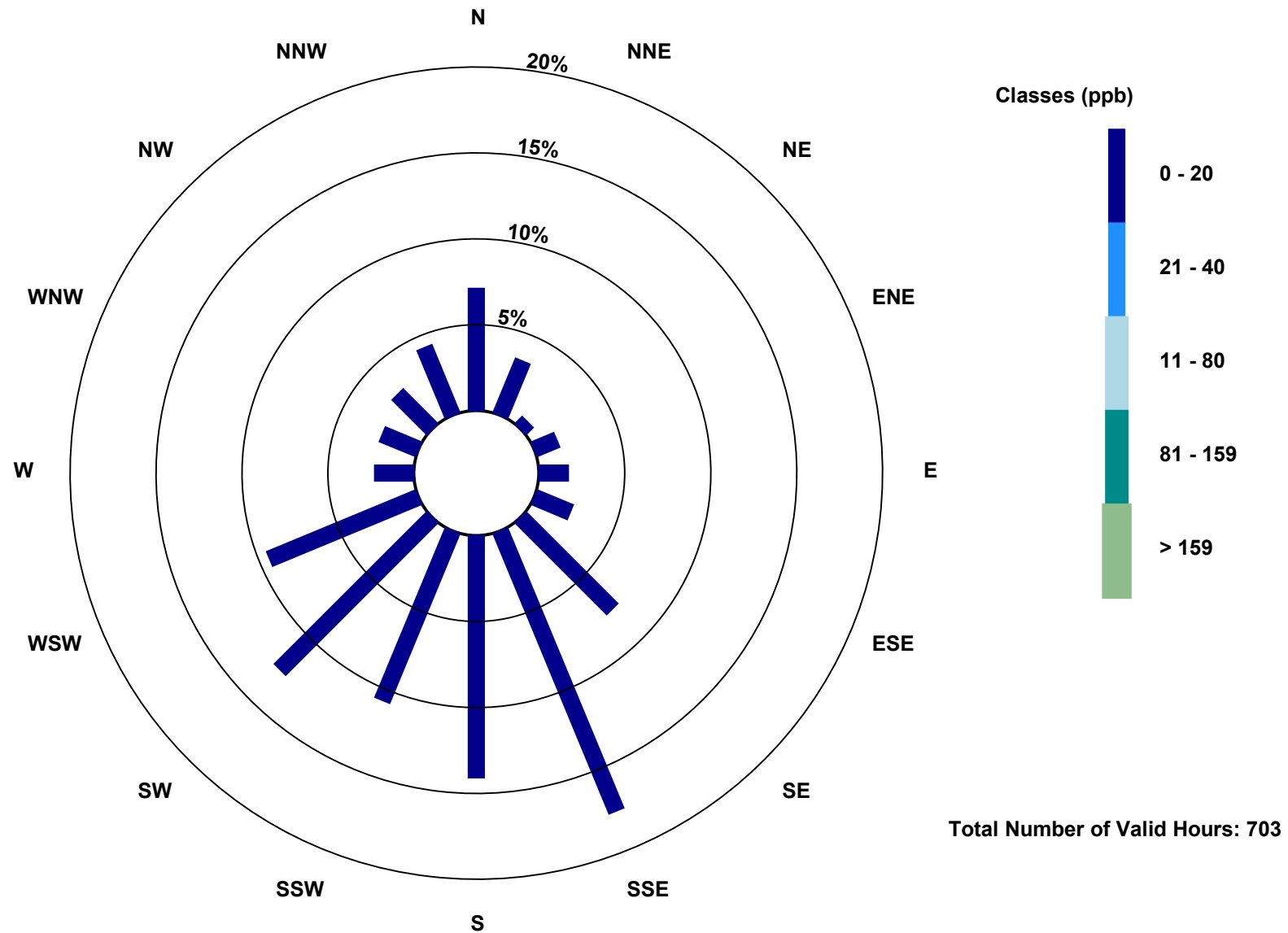
Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

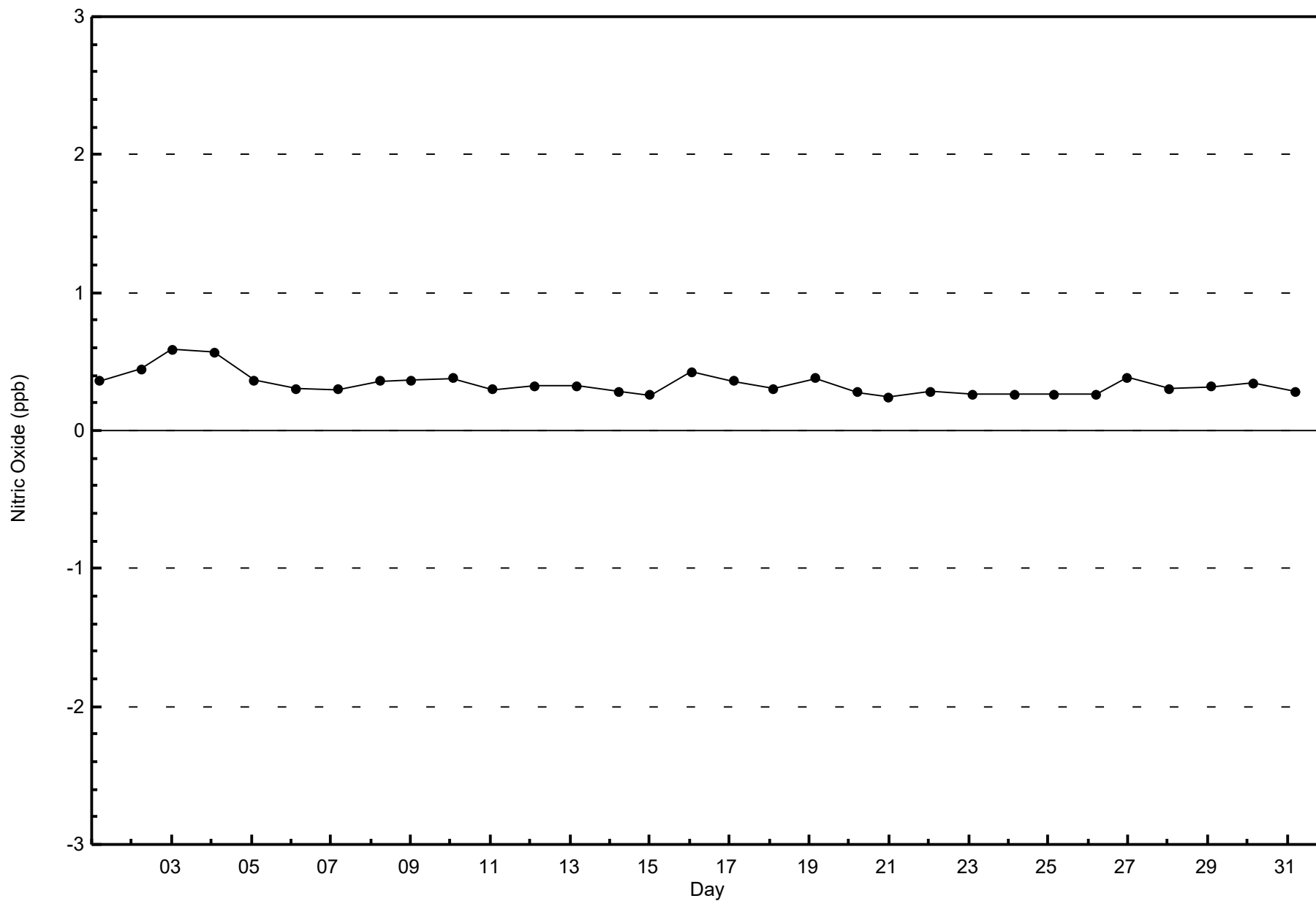
Nitric Oxide (NO) - ppb
Wapasu





Wood Buffalo Environmental Association
Zero Responses

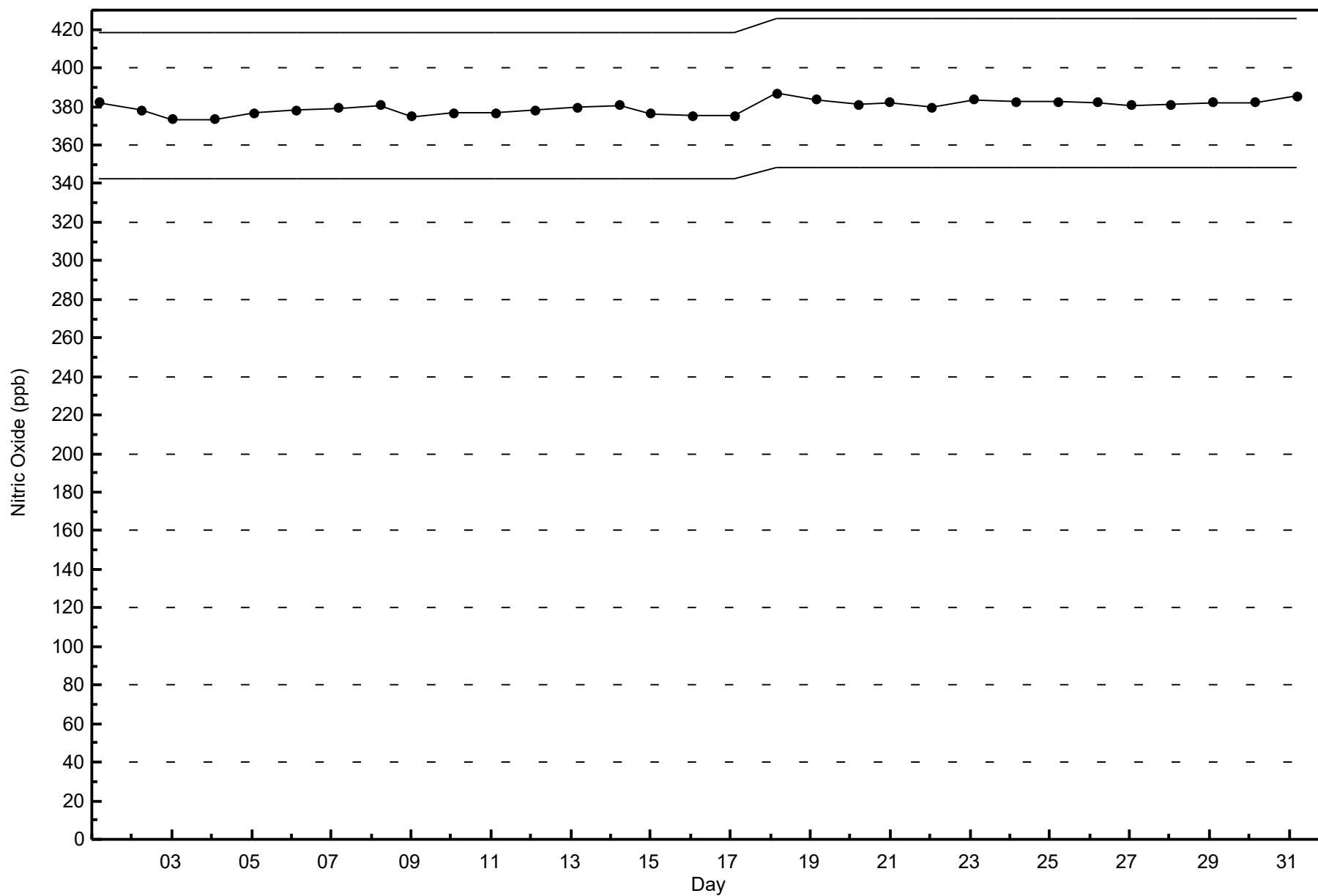
Nitric Oxide (NO) - ppb
Wapasu - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Wapasu - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

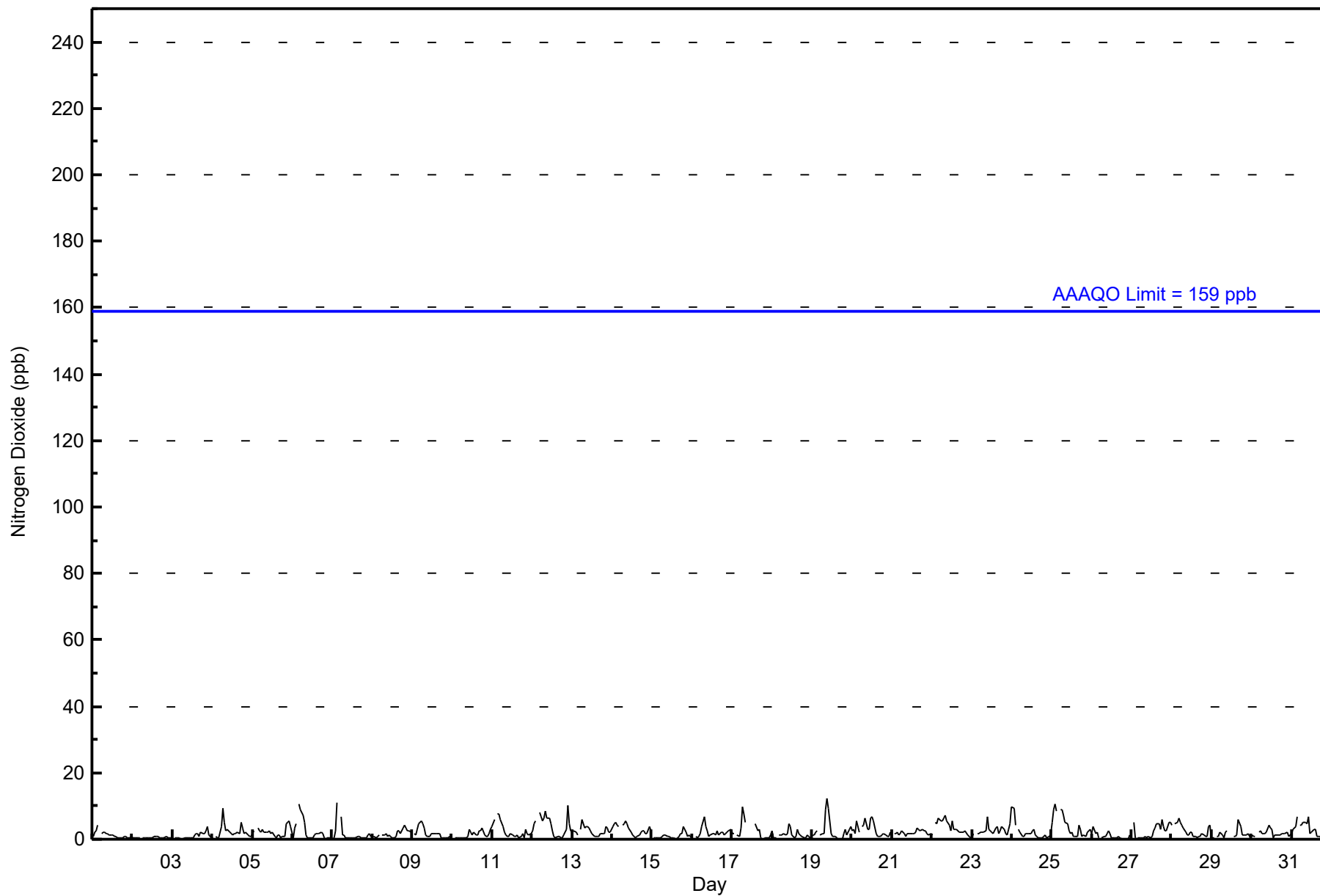
Wapasu - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 12.2 ppb on Jul 19 10:00 Maximum Daily Average: 4.1 ppb on Jul 25																			Hours in Service: 744 Hours of Data: 705							
Minimum Value: 0.0 ppb on Jul 26 20:00 Minimum Daily Average: 0.5 ppb on Jul 2 Maximum Diurnal Average: 3.4 ppb at hour 6 Minimum Diurnal Average: 1.4 ppb at hour 14 Monthly Average: 2.15 ppb Percentiles: P ₁ = 0.2 P ₁₀ = 0.4 Q ₁ = 0.7 Median = 1.5 Q ₃ = 2.8 P ₉₀ = 4.9 P ₉₉ = 9.3																			Hours of Missing Data: 39 Hours of Calibration: 36 Percent Operational Time: 99.6							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.8	2.2	2.5	4.3	Z	1.9	2.3	2.0	1.9	1.7	1.4	1.3	1.2	0.8	0.7	0.6	0.3	0.3	0.6	0.8	0.7	0.6	0.6	0.7	1.3	4.3
2-Jul	0.5	0.5	0.5	0.6	0.6	Z	0.4	0.3	0.4	0.4	0.3	0.3	0.5	0.8	0.8	0.7	0.5	0.4	0.4	0.6	0.8	0.3	0.4	0.4	0.5	0.8
3-Jul	Z	0.5	0.5	0.4	0.3	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.4	1.2	1.7	1.5	1.0	2.2	1.5	1.8	2.6	4.0	1.3	0.6	1.0	4.0
4-Jul	0.3	Z	1.0	0.5	0.6	3.7	9.3	4.9	2.5	3.0	2.2	1.6	1.1	1.6	1.6	2.3	1.9	4.9	3.5	1.8	2.1	1.3	0.8	0.9	2.3	9.3
5-Jul	1.9	2.5	Z	3.3	2.7	2.0	2.9	2.3	2.1	2.2	2.6	1.5	2.2	0.9	0.4	1.4	1.4	0.6	1.0	1.0	4.6	5.1	5.7	3.7	2.3	5.7
6-Jul	0.3	3.6	4.6	Z	10.4	9.0	7.1	5.1	1.3	0.3	0.5	0.3	0.6	1.1	1.5	1.7	1.8	2.2	1.8	0.3	0.2	0.4	0.4	0.3	2.4	10.4
7-Jul	0.2	0.3	2.4	11.0	Z	6.9	1.1	1.1	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.7	0.7	0.3	0.3	0.3	0.4	1.3	1.6	0.7	1.4	11.0
8-Jul	0.7	0.9	0.6	0.7	1.2	Z	1.2	1.2	1.5	1.0	1.4	0.7	0.5	0.5	0.7	2.4	2.4	1.8	3.3	4.2	3.4	2.4	2.6	2.2	1.6	4.2
9-Jul	Z	1.6	1.1	3.0	4.7	5.3	4.8	3.3	1.3	0.7	1.0	1.5	1.6	1.7	1.5	1.6	1.6	0.6	0.4	0.4	0.6	0.4	1.0	0.7	1.8	5.3
10-Jul	0.7	Z	0.4	0.4	0.5	0.4	0.5	0.6	0.5	0.9	2.9	2.1	1.4	2.0	1.1	1.1	2.7	2.4	3.3	1.3	1.0	0.9	1.7	3.1	1.4	3.3
11-Jul	3.7	5.8	Z	7.6	7.7	5.8	3.7	2.3	1.2	0.8	0.8	1.6	1.1	0.9	0.8	1.1	0.4	0.7	1.5	0.5	2.8	1.5	1.4	1.8	2.4	7.7
12-Jul	2.4	4.6	5.4	Z	8.0	6.7	5.7	6.5	8.3	6.4	6.2	4.7	2.6	0.9	0.6	1.0	0.8	0.4	0.5	1.1	3.1	10.3	4.7	2.7	4.1	10.3
13-Jul	2.1	2.7	2.1	1.2	Z	3.0	6.0	3.6	3.9	3.8	3.4	2.4	1.6	0.7	0.8	0.7	0.8	1.8	1.7	1.9	4.0	3.6	2.0	2.0	2.4	6.0
14-Jul	3.8	4.6	4.9	4.4	4.0	Z	4.3	4.6	5.5	4.6	3.4	2.3	1.4	0.8	0.6	0.9	1.1	2.0	2.5	2.5	1.8	1.5	4.0	2.7	3.0	5.5
15-Jul	Z	0.3	0.3	0.3	0.3	0.5	0.8	1.3	1.1	0.9	0.9	0.4	0.4	0.4	0.2	0.3	0.9	1.8	1.6	3.7	2.0	0.9	1.2	0.8	0.9	3.7
16-Jul	0.5	Z	0.9	0.5	0.7	1.5	3.7	6.6	4.0	2.6	1.0	1.4	1.7	1.8	1.3	2.5	1.4	2.0	2.2	1.3	1.7	2.2	2.4	2.9	2.0	6.6
17-Jul	1.9	1.6	Z	1.4	0.8	3.4	9.7	7.5	5.2	C	C	C	C	C	4.5	2.7	2.9	0.5	0.2	0.1	0.3	0.4	0.3	1.4	2.5	9.7
18-Jul	2.6	0.5	0.5	Z	1.4	1.1	1.4	1.5	1.2	1.9	4.8	4.0	1.2	0.4	1.0	2.8	1.5	1.3	0.7	0.3	0.4	1.2	0.8	0.5	1.4	4.8
19-Jul	1.2	1.3	2.3	2.6	Z	1.2	1.7	1.7	8.8	12.2	9.3	1.8	0.9	0.8	0.7	0.6	0.2	0.2	0.2	1.9	3.0	1.4	2.8	4.0	2.6	12.2
20-Jul	2.7	3.1	1.6	5.5	2.1	Z	3.9	4.3	6.4	3.1	2.9	6.5	6.6	5.5	1.7	0.8	0.9	0.9	1.3	1.9	1.1	0.8	0.7	2.2	2.9	6.6
21-Jul	Z	1.9	1.6	2.1	1.3	1.5	2.4	1.7	1.0	1.8	1.8	1.9	1.9	1.8	2.3	3.4	3.0	2.4	2.8	2.7	2.5	1.5	1.3	1.6	2.0	3.4
22-Jul	1.1	Z	5.0	4.5	6.4	5.6	5.3	6.2	7.4	5.5	4.4	2.4	5.5	2.8	2.9	2.8	2.2	2.0	2.1	2.0	2.5	1.3	0.7	0.6	3.5	7.4
23-Jul	0.5	1.7	Z	1.6	1.6	2.2	2.1	2.2	2.7	6.9	3.1	2.7	2.2	1.5	3.3	3.7	1.9	2.4	3.7	2.9	1.9	1.1	3.0	4.5	2.6	6.9
24-Jul	9.7	9.2	4.3	Z	3.0	2.2	0.9	0.9	1.8	1.7	1.8	1.7	2.5	3.1	1.4	0.9	0.6	0.4	0.5	0.7	1.2	0.5	0.8	1.7	2.2	9.7
25-Jul	5.2	8.7	10.8	8.4	Z	9.1	8.9	7.2	5.0	4.5	2.5	1.7	2.0	0.9	0.7	0.9	4.3	3.0	0.9	1.3	1.0	2.2	2.7	3.1	4.1	10.8
26-Jul	1.9	4.0	1.5	2.2	0.5	Z	0.3	1.0	0.9	1.6	2.5	1.7	0.4	0.3	0.3	0.5	0.9	0.3	0.1	0.0	0.1	0.1	0.1	1.3	1.0	4.0
27-Jul	Z	5.2	0.4	0.2	0.3	0.4	0.3	0.6	0.7	0.5	0.8	0.5	1.0	2.4	3.5	4.6	4.7	3.1	5.9	3.7	2.5	2.5	4.9	4.9	2.3	5.9
28-Jul	4.2	Z	4.5	5.1	6.5	5.0	4.4	3.4	2.1	1.3	1.2	2.3	2.3	1.0	0.8	0.5	0.8	0.7	1.9	1.4	0.9	0.8	4.0	4.3	2.6	6.5
29-Jul	0.5	0.3	Z	0.9	0.8	2.2	1.3	0.5	2.3	2.5	M	M	M	0.8	0.7	1.3	6.0	3.9	1.3	1.4	1.1	1.3	1.9	0.6	1.6	6.0
30-Jul	1.4	1.0	0.9	Z	2.1	2.6	1.5	1.8	1.8	2.3	4.2	3.4	2.8	0.3	1.1	1.3	1.4	1.4	1.5	1.7	1.9	2.2	1.0	1.1	1.8	4.2
31-Jul	1.8	2.8	3.8	6.7	Z	4.1	4.4	5.2	4.9	4.8	6.6	1.9	2.1	2.9	3.1	1.0	0.8	0.8	0.4	0.4	0.6	0.5	0.3	0.3	2.6	6.7
2.0 2.7 2.5 3.1 2.7 3.4 3.3 3.0 2.9 2.7 2.6 1.9 1.7 1.4 1.4 1.6 1.7 1.5 1.6 1.5 1.7 1.8 1.8 1.9																									Diurnal Average	
9.7 9.2 10.8 11.0 10.4 9.1 9.7 7.5 8.8 12.2 9.3 6.5 6.6 5.5 4.5 4.6 6.0 4.9 5.9 4.2 4.6 10.3 5.7 4.9																									Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Wapasu - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Wapasu - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	705	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Wapasu - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	50	24	4	10	12	16	53	124	99	75	88	66	16	16	20	30	703
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	50	24	4	10	12	16	53	124	99	75	88	66	16	16	20	30	703

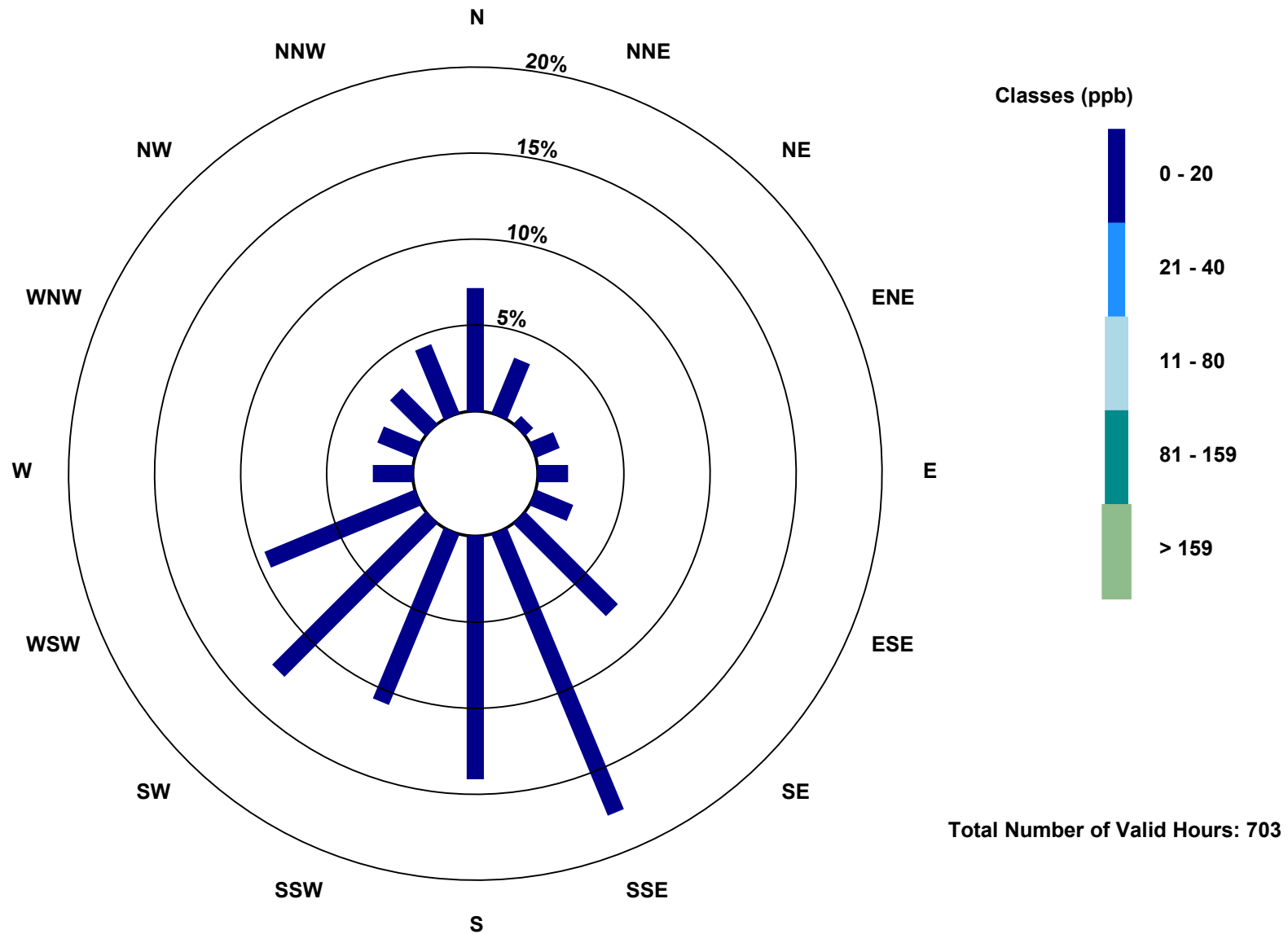
Total Number of Valid Hours: 703

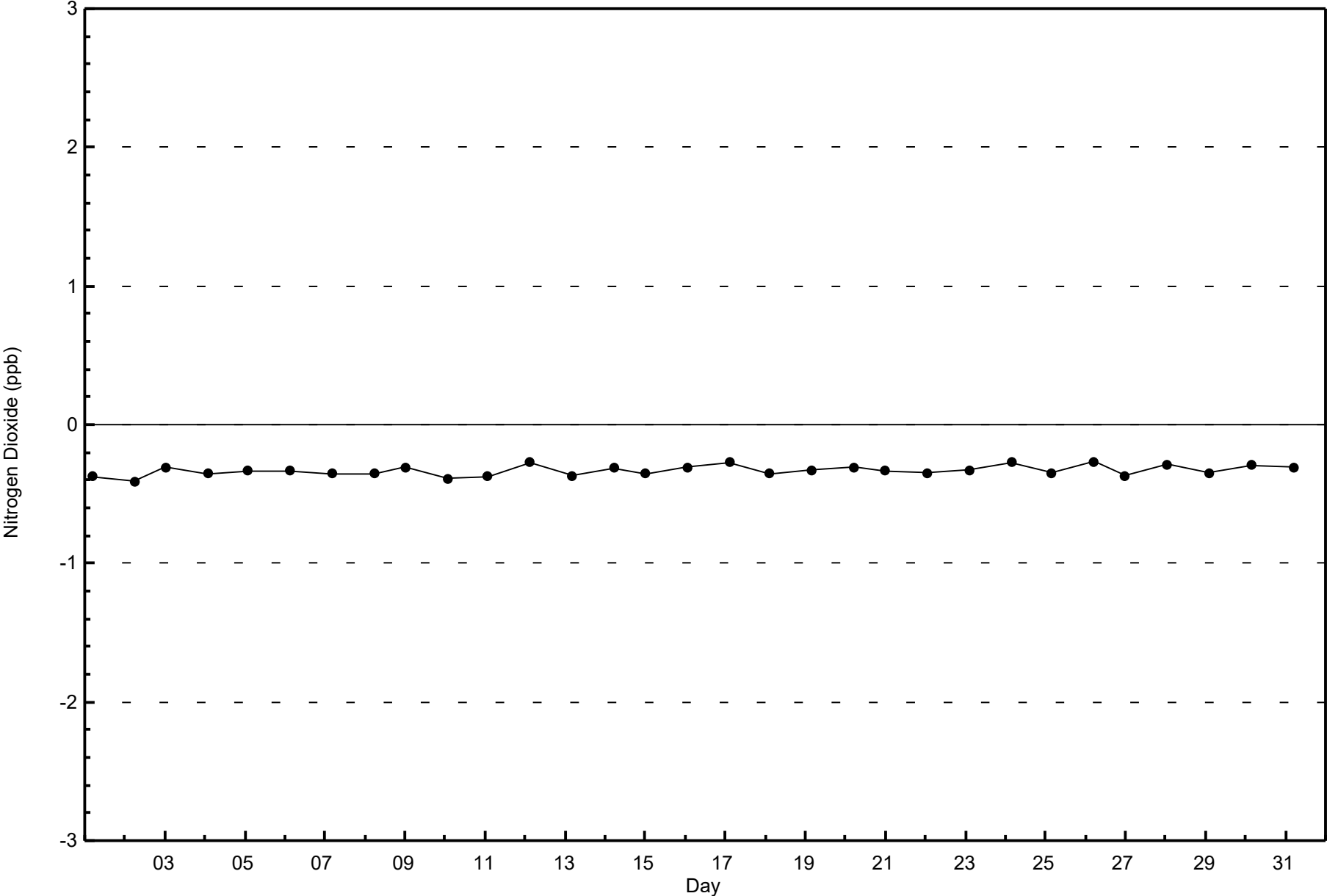
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Dioxide (NO₂) - ppb
Wapasu

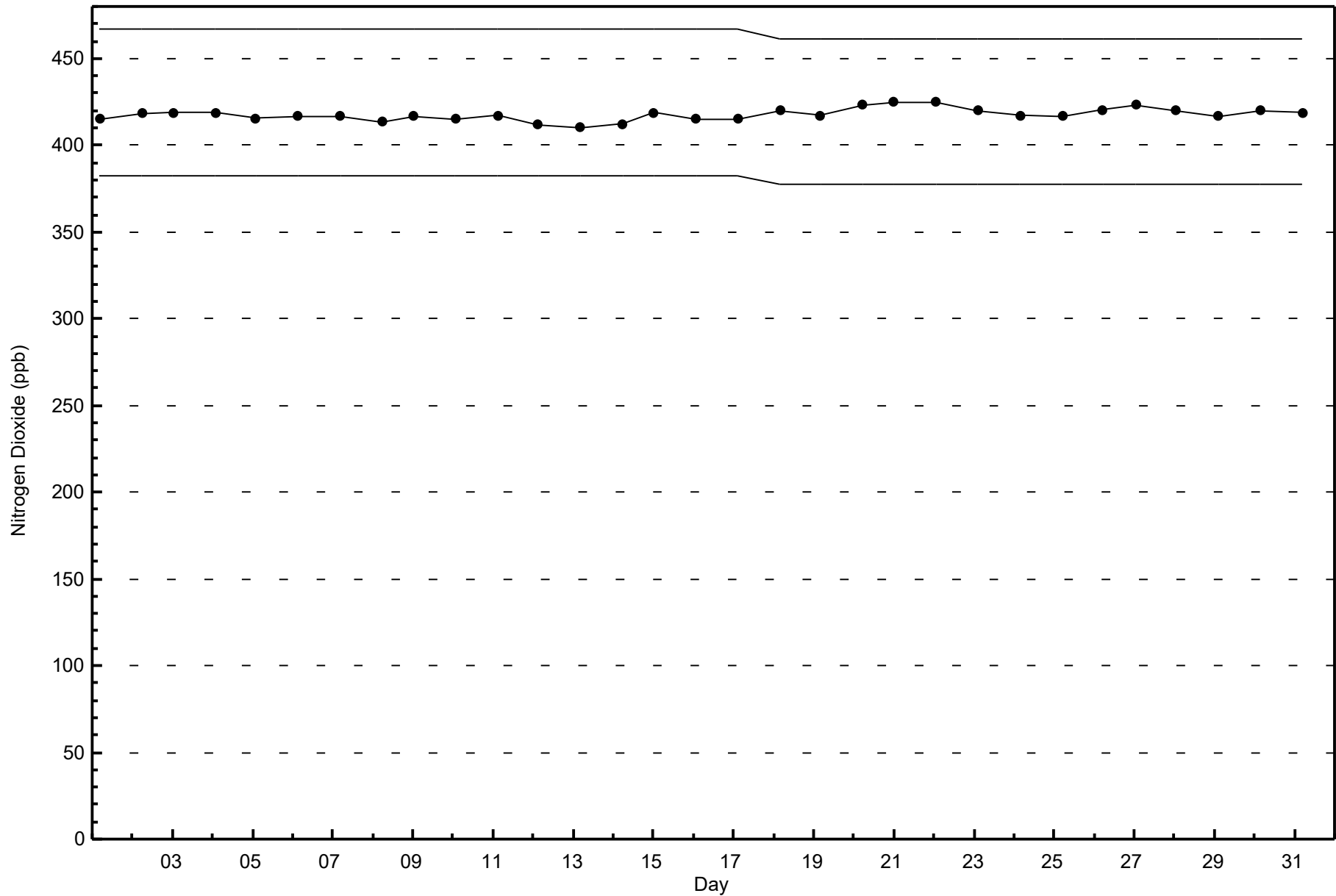






Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Wapasu - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

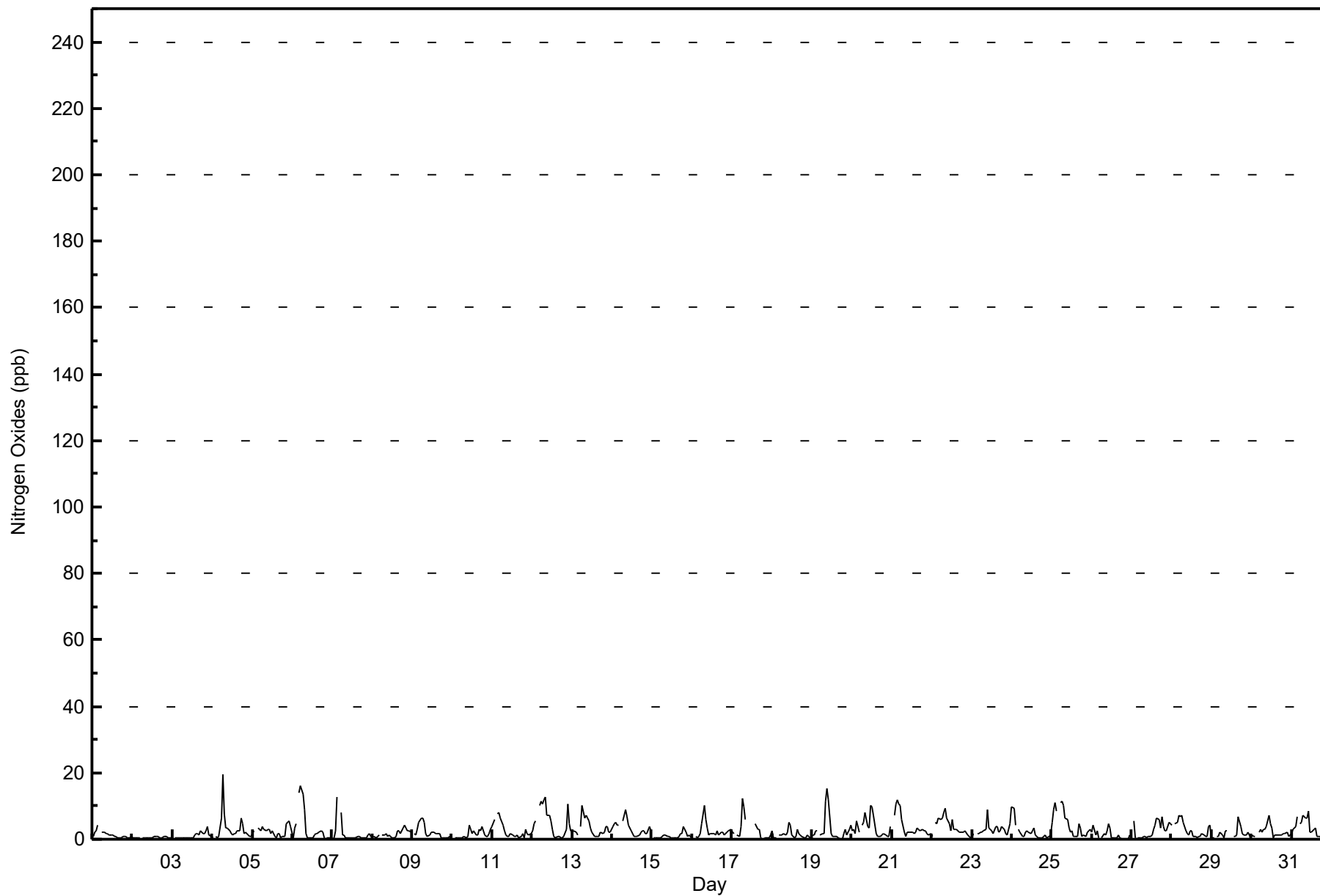
Wapasu - July 2026

Maximum Value: 19.3 ppb on Jul 4 07:00																			Maximum Daily Average: 5.2 ppb on Jul 12							Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 26 20:00																			Minimum Daily Average: 0.5 ppb on Jul 2							Hours of Data: 705	
Maximum Diurnal Average: 4.8 ppb at hour 7																			Minimum Diurnal Average: 1.5 ppb at hour 15							Hours of Missing Data: 39	
Monthly Average: 2.54 ppb																			Percentiles: P ₁ = 0.2 P ₁₀ = 0.4 Q ₁ = 0.7 Median = 1.7 Q ₃ = 3.1 P ₉₀ = 6.2 P ₉₉ = 12.2							Hours of Calibration: 36	
																										Percent Operational Time: 99.6	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.8	2.2	2.5	4.3	Z	1.9	2.3	2.0	1.9	1.7	1.4	1.3	1.2	0.8	0.7	0.6	0.3	0.3	0.6	0.8	0.7	0.6	0.6	0.7	1.3	4.3	
2-Jul	0.5	0.5	0.5	0.6	0.6	Z	0.4	0.3	0.4	0.4	0.3	0.3	0.5	0.8	0.8	0.7	0.5	0.4	0.4	0.6	0.8	0.3	0.4	0.4	0.5	0.8	
3-Jul	Z	0.5	0.5	0.4	0.3	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.4	1.2	1.8	1.7	1.1	2.4	1.6	1.8	2.6	4.0	1.3	0.6	1.1	4.0	
4-Jul	0.3	Z	1.0	0.5	0.6	6.2	19.3	7.7	3.3	3.6	2.6	1.8	1.1	1.6	1.6	2.5	2.6	6.2	4.6	1.9	2.1	1.3	0.8	0.9	3.2	19.3	
5-Jul	1.9	2.5	Z	3.3	2.9	2.5	3.7	3.1	2.7	2.9	3.1	1.7	2.7	1.0	0.4	1.8	1.8	0.6	1.0	1.0	4.6	5.1	5.7	3.7	2.6	5.7	
6-Jul	0.3	3.6	4.6	Z	14.1	16.0	13.4	9.0	1.8	0.3	0.5	0.3	0.6	1.2	1.6	1.8	1.9	2.4	1.9	0.3	0.2	0.4	0.4	0.3	3.3	16.0	
7-Jul	0.2	0.3	2.4	12.6	Z	8.0	1.2	1.3	0.4	0.4	0.4	0.3	0.3	0.3	0.7	0.7	0.3	0.3	0.3	0.3	0.4	1.3	1.6	0.7	1.5	12.6	
8-Jul	0.7	0.9	0.6	0.7	1.2	Z	1.2	1.2	1.7	1.0	1.4	0.7	0.5	0.5	0.7	2.5	2.5	1.8	3.4	4.3	3.5	2.4	2.6	2.2	1.7	4.3	
9-Jul	Z	1.6	1.1	3.0	5.0	6.4	6.4	4.9	1.7	0.8	1.1	1.9	2.0	2.1	1.7	1.8	1.8	0.6	0.4	0.4	0.6	0.4	1.0	0.7	2.1	6.4	
10-Jul	0.7	Z	0.4	0.4	0.5	0.4	0.5	0.7	0.6	1.0	4.1	2.8	1.7	2.4	1.2	1.2	3.1	2.7	3.6	1.3	1.0	0.9	1.7	3.1	1.6	4.1	
11-Jul	3.7	5.8	Z	7.6	7.9	6.3	4.4	2.6	1.2	0.8	0.8	1.6	1.1	0.9	0.8	1.1	0.4	0.7	1.6	0.5	2.8	1.5	1.4	1.8	2.5	7.9	
12-Jul	2.4	4.6	5.4	Z	10.0	11.6	10.7	11.9	12.6	7.2	7.2	5.4	3.0	1.0	0.6	1.0	0.8	0.4	0.5	1.1	3.1	10.7	4.7	2.7	5.2	12.6	
13-Jul	2.1	2.7	2.1	1.2	Z	3.9	10.4	6.3	7.0	6.5	5.5	3.4	1.9	0.7	0.8	0.7	0.8	1.9	1.9	2.0	4.0	3.6	2.0	2.0	3.2	10.4	
14-Jul	3.8	4.6	4.9	4.4	4.0	Z	5.7	7.1	8.8	6.8	4.4	2.6	1.5	0.8	0.6	0.9	1.1	2.1	2.6	2.5	1.8	1.5	4.0	2.7	3.5	8.8	
15-Jul	Z	0.3	0.3	0.3	0.3	0.5	0.8	1.3	1.1	0.9	0.9	0.4	0.4	0.4	0.2	0.3	0.9	1.8	1.6	3.8	2.0	0.9	1.2	0.8	0.9	3.8	
16-Jul	0.5	Z	0.9	0.5	0.7	1.6	4.8	10.1	6.0	3.3	1.1	1.6	1.8	1.8	1.3	2.5	1.4	2.0	2.2	1.3	1.7	2.2	2.4	2.9	2.4	10.1	
17-Jul	1.9	1.6	Z	1.4	0.8	3.8	12.2	9.7	6.1	C	C	C	C	C	4.6	2.8	3.1	0.5	0.2	0.1	0.3	0.4	0.3	1.4	2.9	12.2	
18-Jul	2.6	0.5	0.5	Z	1.4	1.1	1.4	1.5	1.2	2.0	5.3	4.1	1.2	0.4	1.0	2.8	1.6	1.3	0.7	0.3	0.4	1.2	0.8	0.5	1.5	5.3	
19-Jul	1.2	1.3	2.3	2.6	Z	1.2	1.7	1.9	11.4	15.4	12.0	1.8	0.9	0.8	0.7	0.6	0.2	0.2	0.2	1.9	3.0	1.4	2.8	4.0	3.0	15.4	
20-Jul	2.7	3.1	1.6	5.5	2.1	Z	4.2	4.9	8.2	3.9	3.6	10.2	9.8	7.2	1.9	0.8	0.9	0.9	1.3	1.9	1.1	0.8	0.7	3.9	3.5	10.2	
21-Jul	Z	7.4	10.5	12.0	10.7	10.2	5.7	2.0	1.0	2.0	1.9	2.0	1.9	1.8	2.3	3.4	3.0	2.4	2.8	2.7	2.5	1.5	1.3	1.6	4.0	12.0	
22-Jul	1.1	Z	5.0	4.5	6.5	6.1	6.4	8.1	9.5	6.5	4.9	2.4	6.0	2.8	2.9	2.8	2.2	2.0	2.1	2.0	2.5	1.3	0.7	0.6	3.9	9.5	
23-Jul	0.5	1.7	Z	1.6	1.6	2.2	2.1	2.5	3.0	8.8	3.4	3.0	2.5	1.6	3.9	3.9	2.0	2.7	3.9	3.0	1.9	1.1	3.0	4.5	2.8	8.8	
24-Jul	9.7	9.2	4.3	Z	3.0	2.3	0.9	1.0	2.3	2.3	2.2	1.9	2.7	3.4	1.4	0.9	0.6	0.4	0.5	0.7	1.2	0.5	0.8	1.7	2.4	9.7	
25-Jul	5.2	8.7	10.8	8.4	Z	11.2	11.5	10.1	6.6	6.0	3.4	2.0	2.4	0.9	0.7	0.9	4.6	3.3	0.9	1.3	1.0	2.2	2.7	3.1	4.7	11.5	
26-Jul	1.9	4.4	1.5	2.5	0.5	Z	0.3	1.5	1.5	2.6	4.5	3.3	0.6	0.3	0.3	0.5	1.2	0.3	0.1	0.0	0.1	0.1	0.1	1.3	1.3	4.5	
27-Jul	Z	5.4	0.4	0.2	0.3	0.4	0.3	0.7	0.7	0.5	1.0	0.7	1.3	3.0	4.2	6.3	6.1	3.4	6.8	3.9	2.5	2.5	4.9	4.9	2.6	6.8	
28-Jul	4.2	Z	4.5	5.1	7.0	6.6	7.1	5.1	2.6	1.5	1.3	2.6	2.6	1.0	0.8	0.5	0.8	0.7	1.9	1.4	0.9	0.8	4.0	4.3	2.9	7.1	
29-Jul	0.5	0.3	Z	0.9	0.8	2.2	1.3	0.5	2.4	2.7	M	M	M	0.8	0.7	1.3	6.9	4.0	1.5	1.4	1.1	1.3	1.9	0.6	1.7	6.9	
30-Jul	1.4	1.0	0.9	Z	2.1	3.1	2.2	3.1	3.1	3.9	7.0	4.5	3.5	0.3	1.1	1.3	1.4	1.4	1.5	1.7	1.9	2.2	1.0	1.1	2.2	7.0	
31-Jul	1.8	2.8	3.8	6.7	Z	4.5	5.3	7.2	6.4	6.2	8.5	2.0	2.2	3.0	3.4	1.0	0.8	0.8	0.4	0.4	0.6	0.5	0.3	0.3	3.0	8.5	
2.0 3.0 2.8 3.5 3.4 4.6 4.8 4.2 3.8 3.4 3.3 2.3 2.0 1.5 1.5 1.7 1.9 1.6 1.7 1.5 1.7 1.8 1.8 1.9																										Diurnal Average	
9.7 9.2 10.8 12.6 14.1 16.0 19.3 11.9 12.6 15.4 12.0 10.2 9.8 7.2 4.6 6.3 6.9 6.2 6.8 4.3 4.6 10.7 5.7 4.9																										Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance																											



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Wapasu - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Wapasu - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	705	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Wapasu - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	50	24	4	10	12	16	53	124	99	75	88	66	16	16	20	30	703
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	50	24	4	10	12	16	53	124	99	75	88	66	16	16	20	30	703

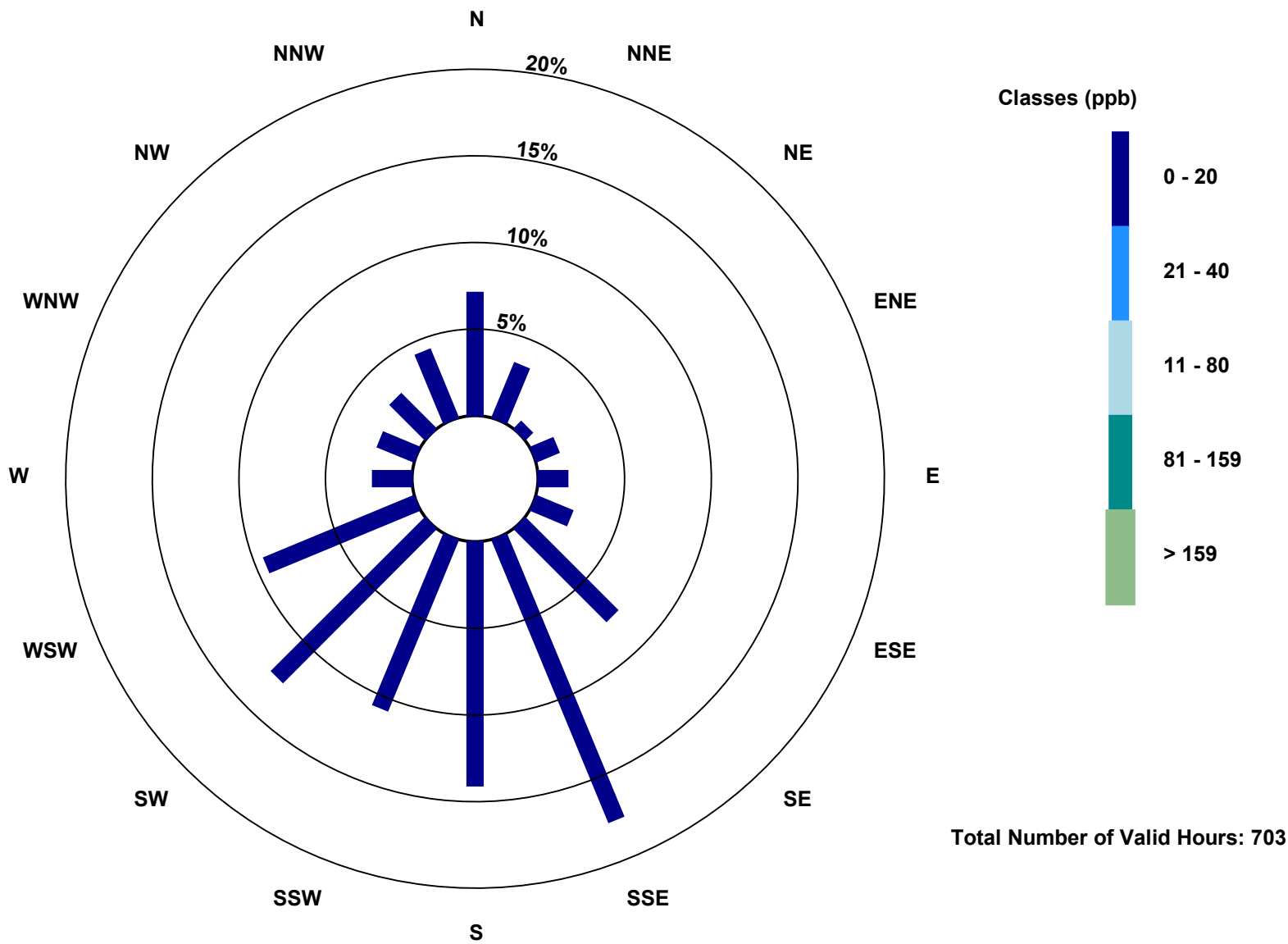
Total Number of Valid Hours: 703

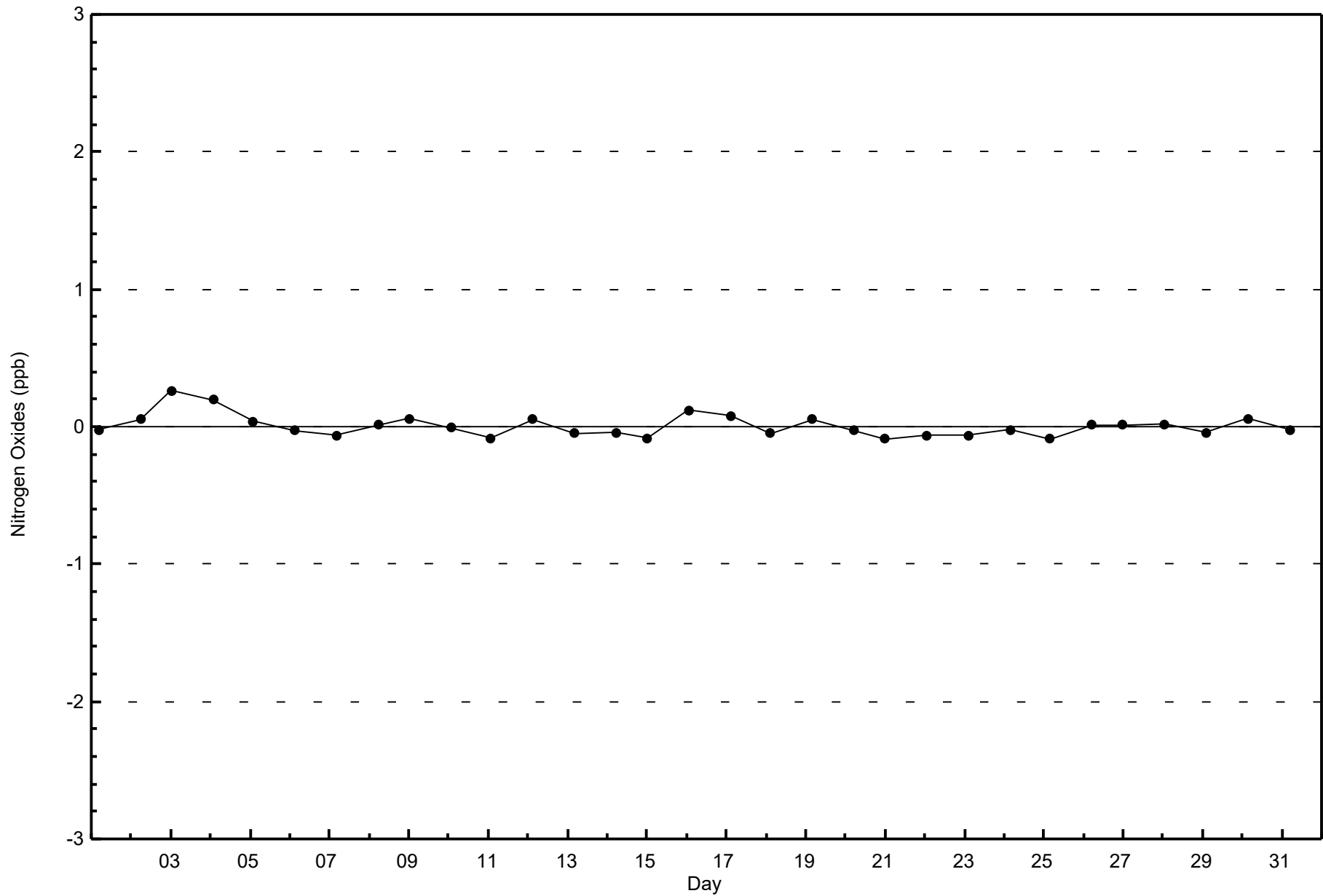
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Oxides (NO_x) - ppb
Wapasu

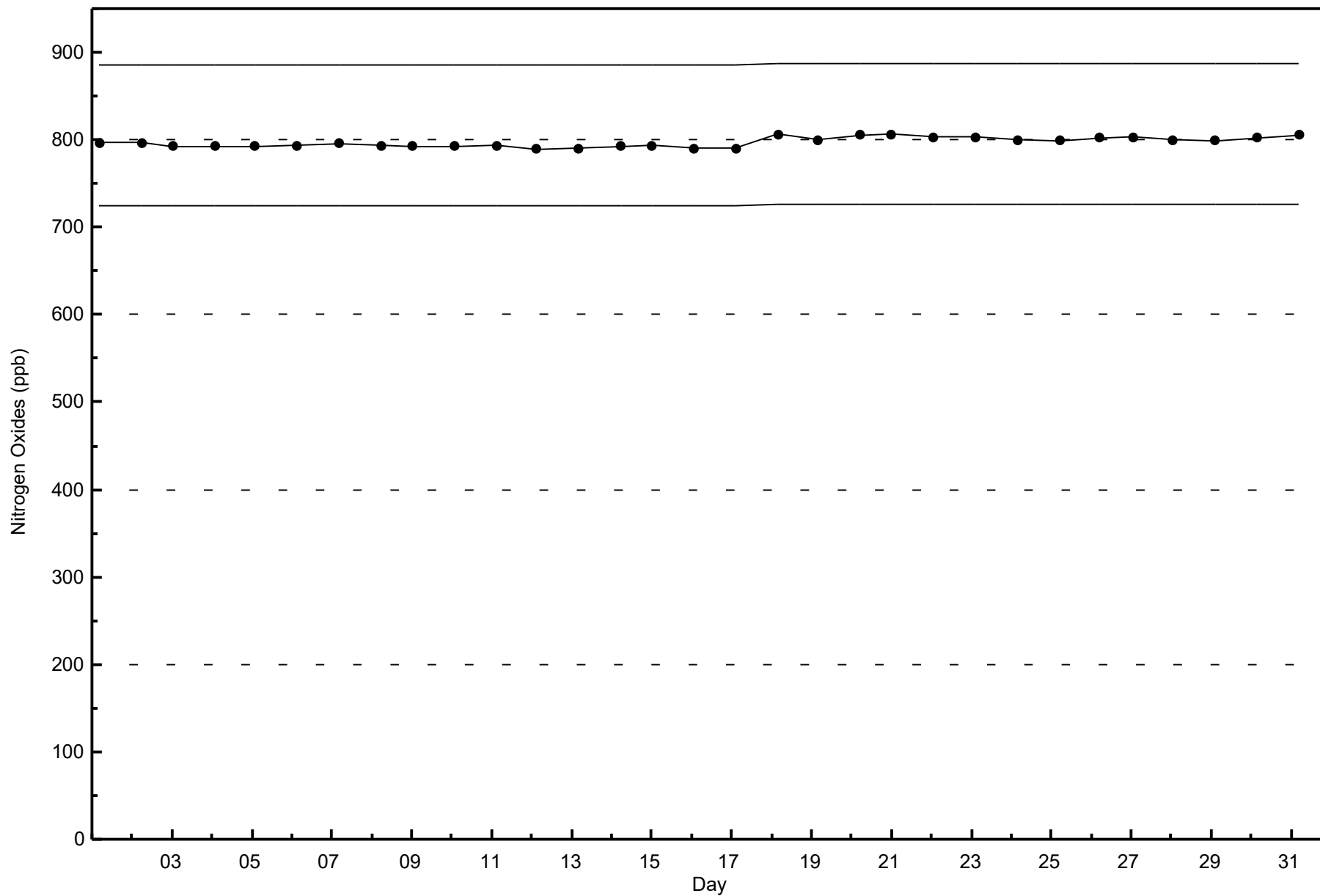






Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Wapasu - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

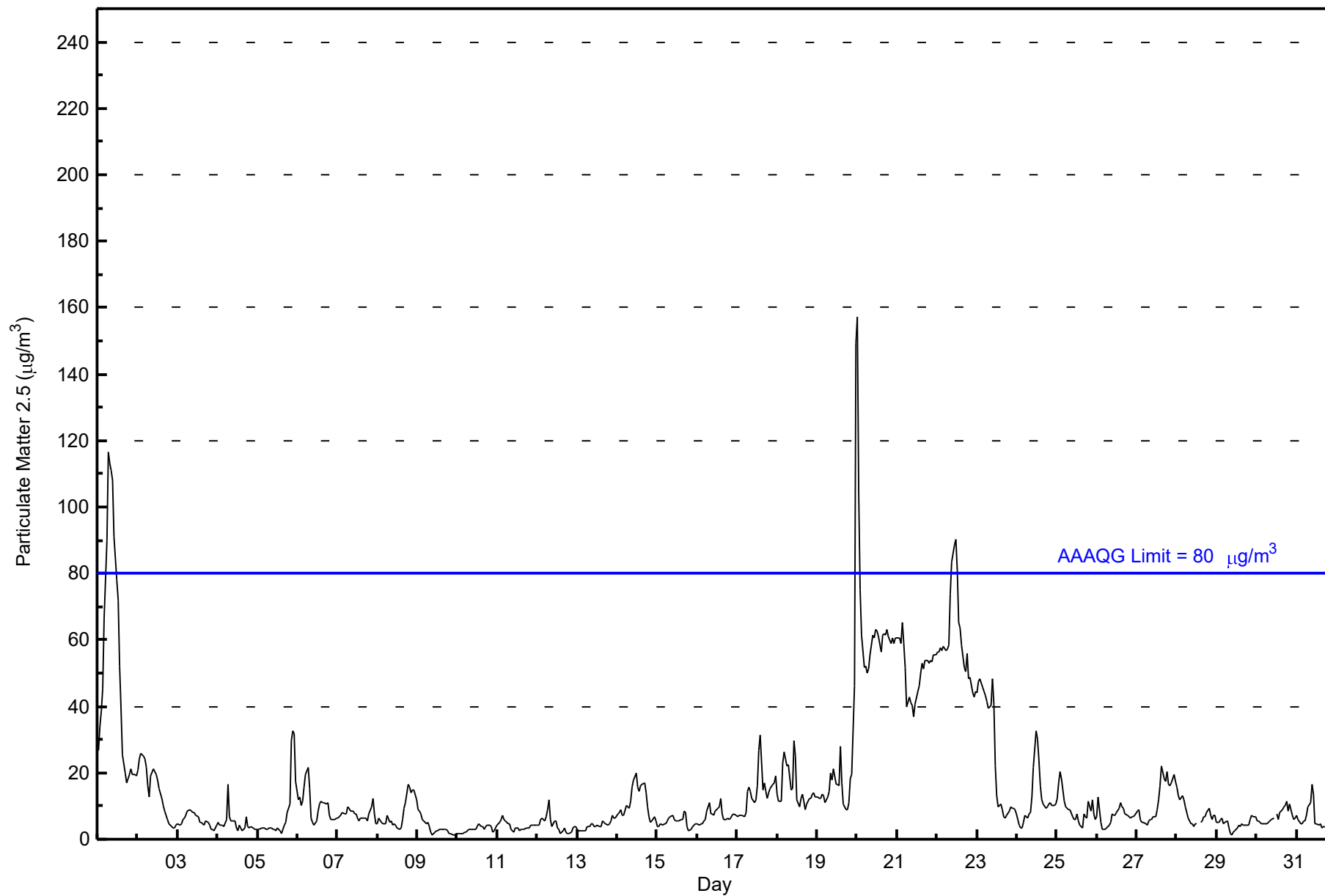
Wapasu - July 2026

Number of Exceedances (AAAQO): 1-hr: 13 24-hr: 4 Maximum Value: 157.1 µg/m³ on Jul 20 01:00 Minimum Value: 1.3 µg/m³ on Jul 9 10:00 Maximum Diurnal Average: 17.7 µg/m³ at hour 10 Monthly Average: 15.25 µg/m³																					Hours in Service: 744 Hours of Data: 742 Hours of Missing Data: 2 Hours of Calibration: 1 Percent Operational Time: 99.9					
Maximum Daily Average: 65.4 µg/m³ on Jul 20 Minimum Daily Average: 3.0 µg/m³ on Jul 10 Minimum Diurnal Average: 12.4 µg/m³ at hour 20 Percentiles: P ₁ = 1.7 P ₁₀ = 3.1 Q ₁ = 4.5 Median = 7.2 Q ₃ = 15.2 P ₉₀ = 47.2 P ₉₉ = 90.9																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	26.8	34.0	38.4	45.4	66.6	90.0	116.6	113.0	111.2	107.9	91.3	77.8	71.9	52.1	39.4	25.4	19.9	17.1	18.1	19.7	21.2	19.6	19.5	19.0	52.6	116.6
2-Jul	20.8	24.2	25.8	25.1	24.0	21.6	16.1	12.5	19.2	21.3	20.1	19.7	17.6	15.1	12.3	10.0	8.4	7.4	6.0	4.8	4.0	3.3	3.4	4.3	14.5	25.8
3-Jul	4.5	4.3	4.7	6.0	6.4	7.2	8.4	8.9	8.3	8.0	8.1	7.1	6.7	5.3	5.2	4.7	4.4	5.6	5.3	4.2	3.0	2.9	2.7	4.2	5.7	8.9
4-Jul	5.0	4.4	4.3	4.3	3.9	6.1	16.5	6.7	5.7	5.5	5.3	3.4	2.7	4.1	3.5	2.6	3.5	6.9	3.9	3.3	3.7	3.3	3.2	3.0	4.8	16.5
5-Jul	3.0	3.1	3.6	3.6	3.3	3.0	2.9	3.6	3.4	2.8	2.9	2.6	3.5	2.6	1.8	3.0	4.1	5.2	8.0	10.4	29.7	32.6	31.8	17.5	7.8	32.6
6-Jul	12.0	12.8	10.1	11.5	15.8	19.5	21.5	15.1	6.4	5.0	4.2	5.4	8.4	10.5	11.3	11.0	10.8	10.4	11.2	7.0	5.9	5.8	5.8	6.2	10.2	21.5
7-Jul	6.4	6.6	7.1	8.0	7.7	7.8	9.6	9.3	8.3	8.5	7.6	7.5	6.3	5.5	6.2	6.2	6.5	6.2	5.6	7.6	9.6	12.3	7.5	4.8	7.4	12.3
8-Jul	4.5	6.2	4.9	4.5	4.8	4.5	7.1	4.9	5.5	4.2	4.5	4.3	3.2	3.0	3.3	5.9	9.4	11.2	16.4	15.8	13.8	15.0	14.8	12.0	7.6	16.4
9-Jul	8.9	8.5	7.5	6.0	5.3	4.5	5.1	3.9	2.1	1.3	2.3	2.7	2.6	2.8	2.8	3.0	2.8	3.0	2.6	1.8	1.7	1.3	1.5	1.5	3.6	8.9
10-Jul	1.8	1.8	1.6	1.7	2.2	2.3	2.7	2.9	2.8	2.8	2.9	2.9	3.7	4.6	3.6	3.8	3.2	4.0	4.0	4.4	3.7	2.3	2.7	3.5	3.0	4.6
11-Jul	4.1	5.2	5.8	7.1	6.0	5.3	4.6	4.6	3.1	2.5	2.1	3.3	3.2	2.5	3.0	3.0	3.0	3.4	3.5	3.4	4.3	4.2	4.2	4.1	4.0	7.1
12-Jul	4.2	4.4	6.0	6.4	5.7	6.8	8.8	12.0	6.0	3.8	5.4	5.3	3.5	2.9	1.8	2.6	3.2	2.0	1.7	1.7	2.2	3.5	3.6	3.8	4.5	12.0
13-Jul	3.1	2.5	2.5	2.6	2.6	2.7	3.6	3.8	4.5	4.7	3.8	3.7	4.3	3.7	3.9	5.5	5.2	4.5	4.2	4.7	5.7	7.2	6.2	6.3	4.2	7.2
14-Jul	7.5	8.0	8.7	7.2	7.4	10.3	9.9	9.5	11.5	15.7	17.8	20.1	15.7	14.5	16.1	16.7	17.0	13.8	9.8	6.8	5.0	5.4	6.9	5.7	11.1	20.1
15-Jul	3.7	3.8	4.8	4.3	4.5	4.8	5.4	6.5	6.7	7.2	6.1	5.6	5.4	5.4	5.9	5.9	8.6	8.1	3.6	2.6	3.1	3.8	4.3	4.8	5.2	8.6
16-Jul	4.7	4.4	4.5	4.9	5.3	5.8	8.6	11.1	7.7	7.6	7.2	8.6	9.4	9.6	12.3	7.4	6.0	5.7	6.2	6.0	6.2	7.4	7.6	7.1	7.1	12.3
17-Jul	7.0	7.0	7.3	7.3	6.9	8.1	14.4	15.9	14.4	12.5	11.1	11.8	16.3	26.7	31.2	14.7	16.9	14.4	12.1	14.2	15.2	16.5	17.0	19.0	14.1	31.2
18-Jul	13.4	11.6	11.4	23.0	26.2	24.2	22.2	22.3	15.0	15.5	29.5	25.1	11.8	9.8	12.5	13.6	11.4	8.9	10.7	12.1	12.2	13.3	13.8	12.6	15.9	29.5
19-Jul	12.5	12.4	12.1	13.4	13.2	11.1	12.5	14.5	19.8	17.7	21.0	16.6	16.5	16.1	27.8	16.8	10.4	8.8	8.7	10.9	18.3	19.4	46.2	149.4	21.9	149.4
20-Jul	157.1	103.4	74.9	61.5	51.6	52.3	49.9	51.5	55.4	61.5	60.4	63.0	62.7	61.0	56.3	61.3	61.8	61.4	63.0	61.0	58.8	60.8	58.9	60.6	65.4	157.1
21-Jul	60.5	60.5	59.1	65.4	59.0	51.6	39.8	42.8	41.1	40.4	37.0	40.5	44.5	46.1	49.9	52.9	51.4	53.9	53.8	52.8	53.6	53.6	55.6	55.7	50.9	65.4
22-Jul	56.5	56.2	57.5	56.6	57.9	56.7	57.1	58.4	73.8	83.6	88.6	90.4	80.9	65.4	63.4	58.4	51.7	50.6	56.1	48.1	48.5	44.2	43.0	44.6	60.3	90.4
23-Jul	44.2	47.3	48.4	45.9	44.6	43.0	41.7	39.3	40.2	48.5	40.8	22.0	13.2	9.9	10.7	8.8	6.7	6.5	7.1	8.5	9.6	9.2	9.3	8.8	25.6	48.5
24-Jul	7.4	4.4	3.3	3.5	5.0	7.1	6.3	7.8	8.3	12.6	21.5	32.7	30.0	23.8	16.0	11.8	10.4	9.3	9.7	10.5	10.9	10.3	10.3	10.5	11.8	32.7
25-Jul	12.1	16.9	20.3	18.1	11.6	9.5	9.4	8.9	8.7	7.0	5.8	6.0	7.7	5.6	4.3	3.4	7.4	6.7	6.5	11.6	8.5	11.9	7.7	6.0	9.2	20.3
26-Jul	6.8	12.9	5.3	3.2	3.0	2.8	3.6	4.1	5.0	7.6	7.2	7.3	8.2	9.2	11.0	9.9	9.4	7.7	7.2	6.9	6.4	6.9	6.9	7.2	6.9	12.9
27-Jul	8.5	8.7	6.0	5.1	4.9	4.6	4.4	5.5	5.9	5.9	6.7	7.0	9.0	11.8	15.9	21.8	18.4	17.4	20.4	16.5	16.3	16.8	19.5	17.6	11.4	21.8
28-Jul	15.9	13.3	11.8	13.1	11.9	9.8	8.0	6.2	4.6	4.6	3.8	4.7	4.8	M	5.1	5.5	6.7	6.8	8.2	9.4	7.0	6.1	7.1	7.1	7.9	15.9
29-Jul	5.0	5.1	5.9	6.4	4.8	5.2	5.4	3.5	1.7	1.5	2.1	2.5	3.3	4.1	3.7	4.5	4.3	4.2	4.3	4.3	5.9	7.3	6.9	6.6	4.5	7.3
30-Jul	5.5	5.3	5.0	4.8	4.7	4.6	4.6	5.1	5.4	5.9	6.5	C	7.5	6.1	8.0	9.1	9.8	10.4	11.4	8.4	10.7	7.0	5.8	6.4	6.9	11.4
31-Jul	7.1	5.9	4.7	4.7	5.3	5.4	7.2	9.9	11.1	16.4	13.4	4.8	4.7	4.3	4.5	3.5	4.0	4.0	3.6	3.6	3.8	3.9	3.9	3.9	6.0	16.4
17.4 16.3 15.3 15.5 15.6 16.1 17.2 16.9 16.9 17.7 17.7 17.2 15.8 14.8 14.6 13.3 12.8 12.4 12.7 12.4 13.2 13.5 14.1 16.9																									Diurnal Average	
157.1 103.4 74.9 65.4 66.6 90.0 116.6 113.0 111.2 107.9 91.3 90.4 80.9 65.4 63.4 61.3 61.8 61.4 63.0 61.0 58.8 60.8 58.9 149.4																									Diurnal Maximum	
C - Calibration M - Maintenance																										
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 µg/m³ 24-hr 29 µg/m³																										



Wood Buffalo Environmental Association
Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Wapasu - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Wapasu - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Number of Hours	%	Cumulative %
0 - 5	263	35.44	35.44
6 - 15	295	39.76	75.20
16 - 25	73	9.84	85.04
26 - 80	98	13.21	98.25
> 81.0	13	1.75	100.00

Total Number of Valid Hours: 742

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Wapasu - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	6	7	0	0	3	3	11	52	44	33	47	27	8	6	6	10	263
6 - 15	21	14	4	10	7	14	21	48	42	28	30	21	4	9	11	11	295
16 - 25	10	2	0	0	2	1	7	17	7	9	6	8	2	1	0	1	73
26 - 80	12	2	0	0	0	1	13	17	11	7	5	7	4	1	3	13	96
> 81.0	3	0	0	0	0	0	4	2	0	0	1	3	0	0	0	0	13
Totals	52	25	4	10	12	19	56	136	104	77	89	66	18	17	20	35	740

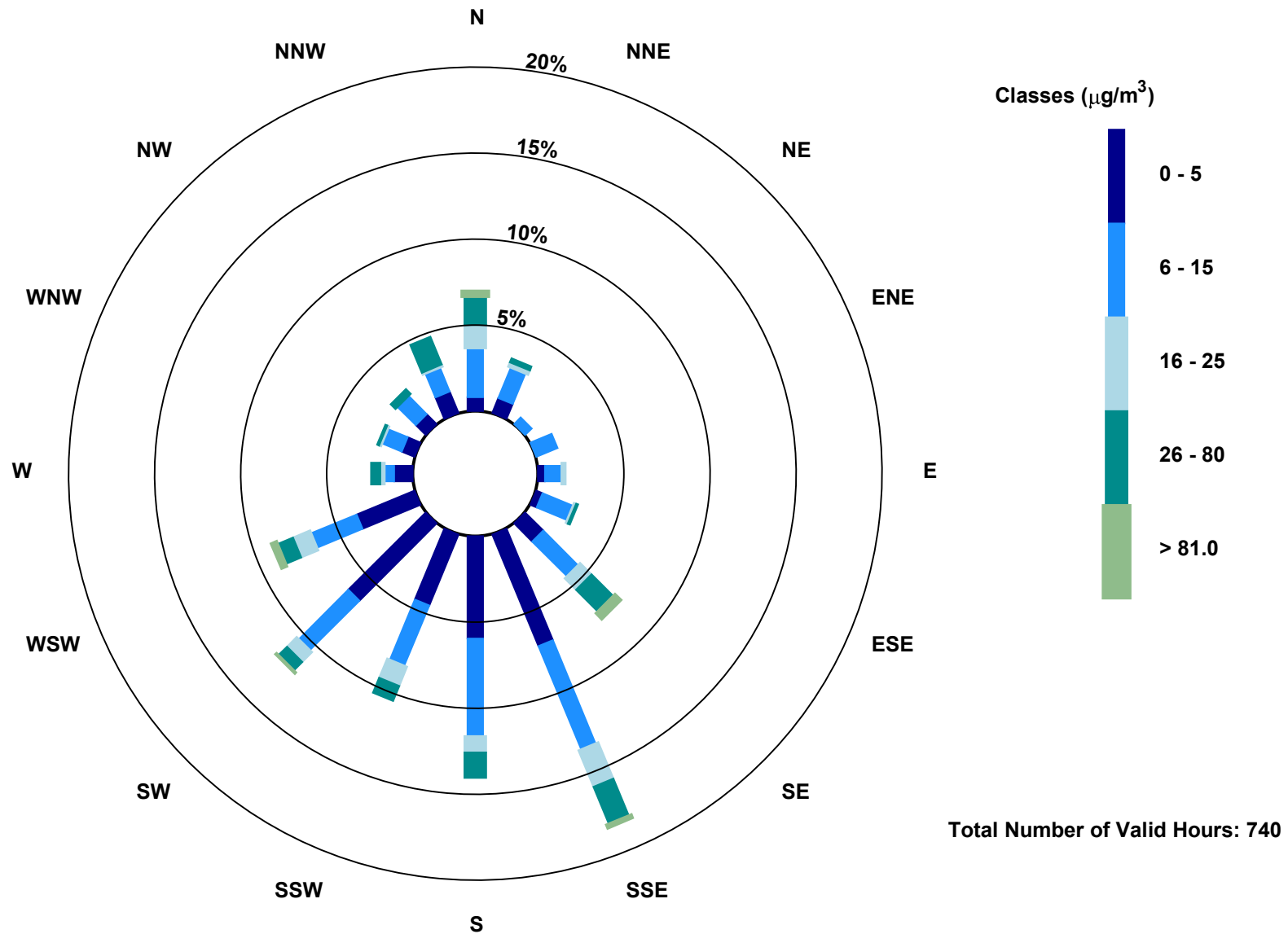
Total Number of Valid Hours: 740

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Wapasu





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

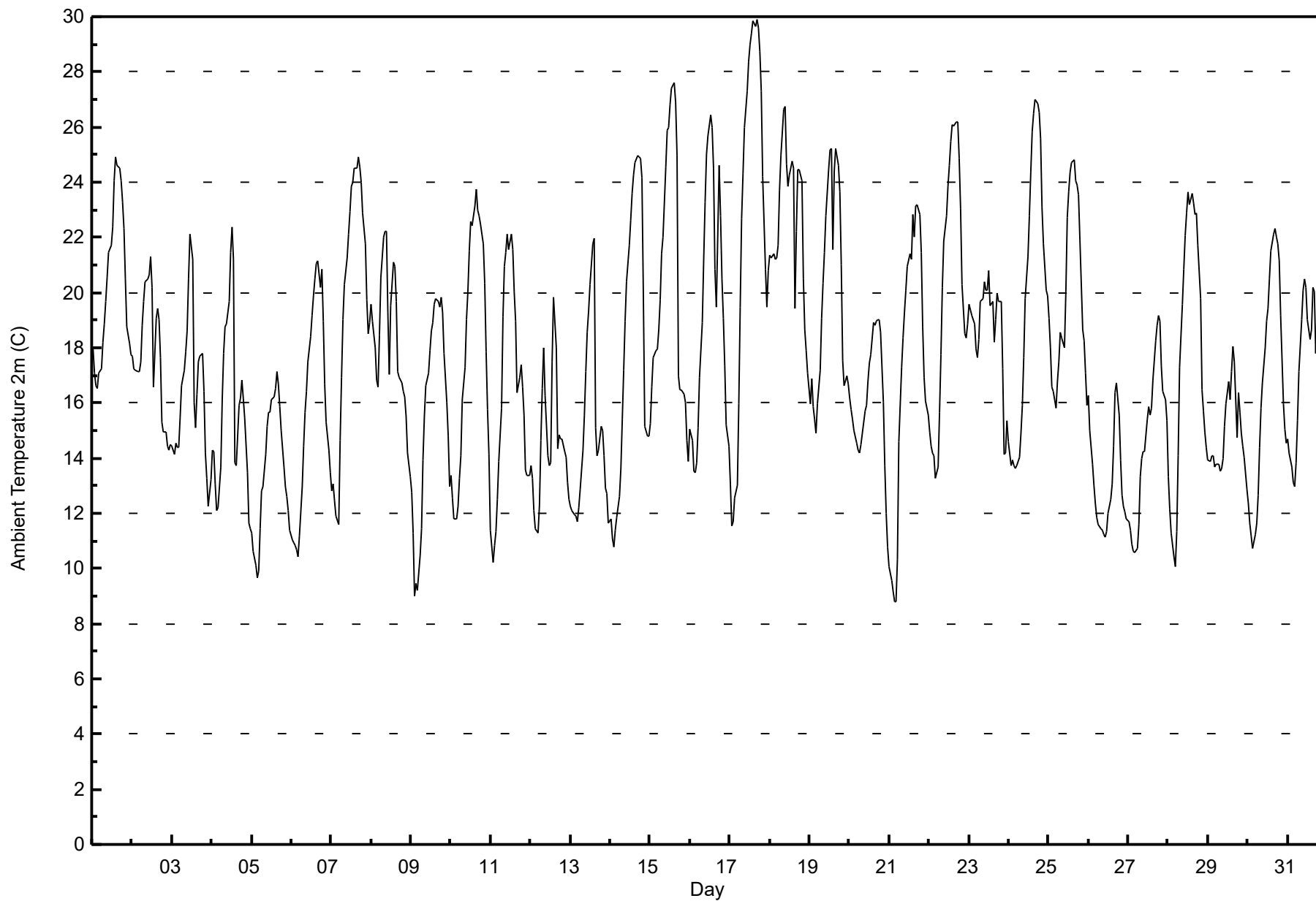
Wapasu - July 2026

Maximum Value: 29.9 C on Jul 17 17:00																				Maximum Daily Average: 22.7 C on Jul 17				Hours in Service: 744		
Minimum Value: 8.8 C on Jul 21 05:00																				Minimum Daily Average: 13.1 C on Jul 26				Hours of Data: 744		
Maximum Diurnal Average: 21.3 C at hour 15																				Minimum Diurnal Average: 13.4 C at hour 5				Hours of Missing Data: 0		
Monthly Average: 17.64 C																				Percentiles: P ₁ = 9.8 P ₁₀ = 12.0 Q ₁ = 14.2 Median = 17.2 Q ₃ = 20.6 P ₉₀ = 24.0 P ₉₉ = 28.0				Hours of Calibration: 0		
																								Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	17.9	17.1	16.6	16.5	17.1	17.2	18.2	18.9	19.7	20.6	21.5	21.7	22.4	24.1	24.9	24.6	24.5	24.0	23.3	22.3	20.5	18.8	18.2	17.8	20.3	24.9
2-Jul	17.7	17.2	17.2	17.1	17.1	17.5	18.8	19.7	20.4	20.5	20.7	21.3	20.2	16.6	19.1	19.4	19.0	17.6	15.3	15.0	14.9	14.4	14.3	14.5	17.7	21.3
3-Jul	14.4	14.1	14.6	14.4	14.4	15.4	16.6	17.2	17.8	18.6	20.5	22.1	21.2	16.0	15.1	16.3	17.5	17.7	17.8	16.4	14.2	13.3	12.2	13.2	16.3	22.1
4-Jul	14.3	14.2	13.1	12.1	12.2	13.7	16.1	17.8	18.8	18.9	19.7	21.4	22.4	21.2	13.8	13.7	15.9	16.2	16.8	16.2	15.4	13.5	11.7	11.4	15.8	22.4
5-Jul	11.3	10.6	10.1	9.7	9.9	11.5	12.8	13.0	14.1	15.2	15.7	15.7	16.1	16.2	16.5	17.1	16.7	15.9	15.0	13.7	12.9	12.6	12.1	11.4	13.6	17.1
6-Jul	11.0	11.0	10.8	10.7	10.4	11.2	13.0	14.5	15.6	16.4	17.5	18.4	19.2	19.9	20.5	21.0	21.1	20.2	20.9	19.0	16.7	15.3	14.3	13.5	15.9	21.1
7-Jul	12.8	13.1	12.4	11.9	11.6	14.6	16.9	19.0	20.3	21.3	22.1	22.9	23.8	24.0	24.5	24.5	24.9	24.6	24.0	22.9	21.8	19.7	18.5	18.9	19.6	24.9
8-Jul	19.6	19.0	18.0	16.8	16.6	18.4	20.5	22.0	22.2	22.2	19.3	17.1	19.5	21.1	21.0	19.7	17.1	16.9	16.7	16.4	16.2	15.5	14.2	13.3	18.3	22.2
9-Jul	12.7	11.3	9.0	9.4	9.2	10.5	11.5	13.9	15.5	16.6	17.1	17.9	18.6	18.9	19.6	19.8	19.7	19.5	19.8	19.3	17.8	16.0	14.8	13.0	15.5	19.8
10-Jul	13.4	12.6	11.8	11.8	12.3	13.3	14.1	16.1	17.3	19.0	20.0	21.5	22.6	22.4	23.1	23.7	23.0	22.8	22.5	21.8	20.3	17.8	15.8	14.2	18.0	23.7
11-Jul	11.4	10.2	10.8	11.3	12.5	13.9	15.8	19.1	20.9	21.5	22.1	21.6	22.1	21.5	20.0	19.0	16.4	16.9	17.4	16.6	15.6	13.6	13.4	13.4	16.5	22.1
12-Jul	13.7	13.3	12.1	11.4	11.3	12.3	14.6	16.5	18.0	16.3	14.1	13.7	13.8	17.5	19.8	18.0	14.3	14.8	14.7	14.7	14.2	14.0	13.1	12.5	14.5	19.8
13-Jul	12.3	12.1	12.0	11.9	11.7	12.2	12.9	14.3	15.6	17.1	18.6	19.3	20.3	21.8	22.0	15.1	14.1	14.3	15.1	15.0	14.1	12.9	12.7	11.7	15.0	22.0
14-Jul	11.8	11.1	10.8	11.4	11.8	12.6	13.6	15.4	17.2	19.0	20.4	21.7	22.6	23.6	24.2	24.7	25.0	24.9	24.9	24.2	19.9	15.2	14.8	14.8	18.1	25.0
15-Jul	15.2	16.6	17.6	17.9	17.9	18.7	19.7	21.4	22.0	24.6	25.9	26.0	26.8	27.4	27.6	26.9	25.0	17.0	16.5	16.5	16.3	16.0	14.6	13.9	20.3	27.6
16-Jul	15.1	14.6	13.5	13.5	13.8	15.1	17.0	18.9	21.2	23.3	25.0	25.7	26.5	26.0	24.5	20.9	19.5	24.6	22.8	20.5	19.1	17.3	15.2	14.4	19.5	26.5
17-Jul	13.1	11.6	11.7	12.6	13.0	16.0	19.5	22.7	24.3	26.0	27.3	28.4	29.0	29.4	29.9	29.7	29.9	29.6	28.7	27.3	24.2	20.9	19.5	20.8	22.7	29.9
18-Jul	21.3	21.2	21.4	21.2	21.3	21.7	23.7	25.0	26.7	26.8	24.7	23.9	24.2	24.7	24.5	19.4	22.2	24.5	24.5	24.0	20.5	18.7	17.9	17.1	22.5	26.8
19-Jul	15.9	16.9	15.8	15.4	14.9	16.0	17.2	19.1	20.3	21.5	22.8	24.4	25.2	25.2	21.6	24.4	25.2	24.6	23.7	21.0	17.5	16.6	17.0	16.7	20.0	25.2
20-Jul	16.1	15.8	15.4	15.0	14.5	14.3	14.2	14.5	14.9	15.7	15.9	16.8	17.5	17.8	18.9	18.8	18.9	19.0	19.0	18.5	16.0	13.7	12.0	10.8	16.0	19.0
21-Jul	10.1	9.5	9.2	8.8	8.8	10.3	14.6	17.3	18.4	19.3	20.1	20.9	21.4	21.2	22.8	22.0	23.1	23.2	22.8	21.5	18.8	16.9	16.1	15.5	17.2	23.2
22-Jul	15.0	14.5	14.2	14.1	13.3	13.7	15.7	17.7	20.2	21.8	22.8	23.8	24.6	25.5	26.1	26.0	26.2	26.2	24.9	23.0	20.3	18.5	18.3	18.9	20.2	26.2
23-Jul	19.6	19.4	19.2	18.9	17.9	17.7	18.3	19.7	19.8	20.4	20.1	20.1	20.8	19.6	19.7	18.2	19.0	20.0	19.7	19.7	17.2	14.2	14.2	15.3	18.7	20.8
24-Jul	14.6	13.7	13.9	13.7	13.6	13.7	14.0	14.9	15.9	17.7	19.8	21.3	22.8	24.4	25.8	26.5	27.0	26.8	26.6	25.6	23.1	21.7	20.1	19.9	19.9	27.0
25-Jul	19.1	18.0	16.6	16.4	15.8	16.8	17.5	18.5	18.3	18.0	20.1	22.7	23.6	24.3	24.7	24.8	24.0	23.9	23.5	21.9	18.7	18.3	17.1	15.9	19.9	24.8
26-Jul	16.3	15.0	13.8	13.0	12.3	11.9	11.6	11.5	11.4	11.2	11.1	11.3	12.0	12.5	13.1	14.5	16.4	16.7	15.6	13.9	12.7	12.3	12.1	11.8	13.1	16.7
27-Jul	11.7	11.4	10.9	10.6	10.6	10.7	11.6	13.3	14.0	14.2	14.2	15.4	15.8	15.6	15.8	16.9	18.2	18.8	19.2	19.0	17.4	16.4	16.1	15.4	14.7	19.2
28-Jul	13.3	12.1	11.3	10.4	10.1	11.3	14.1	17.3	19.6	20.8	22.0	22.9	23.6	23.2	23.6	23.2	22.8	22.9	21.7	19.8	16.5	15.7	14.9	14.4	17.8	23.6
29-Jul	13.9	13.9	14.1	14.1	13.7	13.8	13.8	13.5	13.6	14.0	15.2	16.0	16.8	16.1	17.2	18.0	17.5	14.7	16.4	15.7	14.9	14.4	14.0	12.9	14.9	18.0
30-Jul	12.3	11.7	11.2	10.7	11.3	11.7	12.7	14.4	15.8	16.7	18.0	19.0	19.4	20.5	21.5	22.1	22.3	22.0	21.8	21.1	19.2	16.0	15.1	14.6	16.7	22.3
31-Jul	14.7	14.2	13.7	13.1	12.9	13.8	15.4	17.1	19.0	20.1	20.5	20.2	19.0	18.3	18.7	20.2	20.0	17.8	19.4	20.0	17.9	17.0	17.1	17.2	17.4	20.5
14.6 14.1 13.6 13.4 13.4 14.2 15.7 17.2 18.3 19.2 19.8 20.5 21.1 21.2 21.3 20.9 20.9 20.6 20.3 19.4 17.6 16.0 15.2 14.8																										Diurnal Average
21.3 21.2 21.4 21.2 21.3 21.7 23.7 25.0 26.7 26.8 27.3 28.4 29.0 29.4 29.9 29.7 29.9 29.6 28.7 27.3 24.2 21.7 20.1 20.8																										Diurnal Maximum



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Wapasu - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Wapasu - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	9	1.21	1.21
10 - 20	516	69.35	70.56
> 20	219	29.44	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

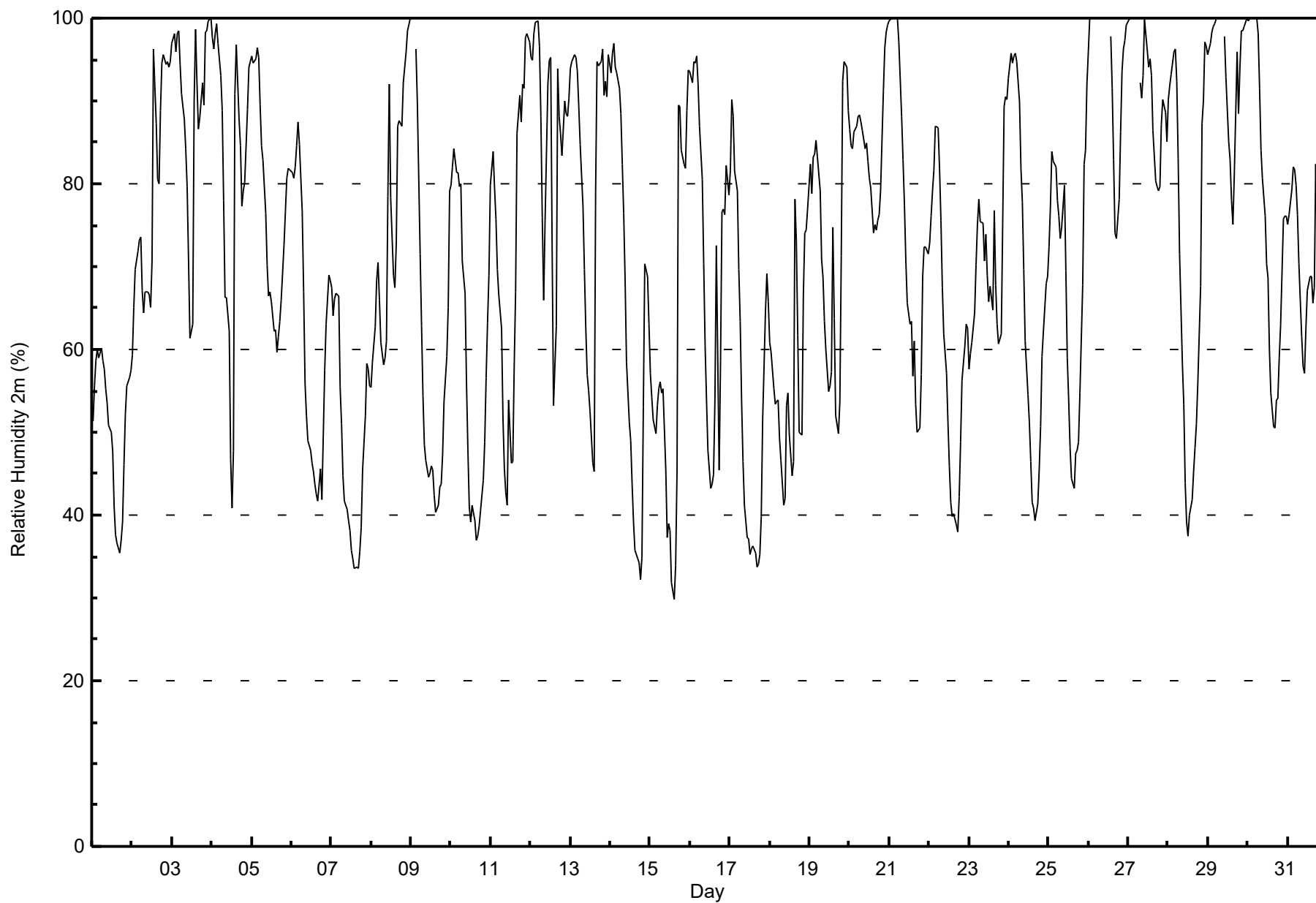
Wapasu - July 2026

Maximum Value: 100.0 % on Jul 4 00:00																				Maximum Daily Average: 92.8 % on Jul 29					Hours in Service: 744	
Minimum Value: 29.8 % on Jul 15 15:00																				Minimum Daily Average: 48.2 % on Jul 7					Hours of Data: 723	
Maximum Diurnal Average: 84.3 % at hour 3																				Minimum Diurnal Average: 57.0 % at hour 13					Hours of Missing Data: 21	
Monthly Average: 70.94 %																				Percentiles: P ₁ = 33.9 P ₁₀ = 42.7 Q ₁ = 54.8 Median = 72.5 Q ₃ = 88.3 P ₉₀ = 96.0 P ₉₉ = 100.0					Hours of Calibration: 0	
																				Percent Operational Time: 97.2						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	51.4	55.5	58.7	60.0	59.0	60.2	58.7	57.6	55.3	53.5	50.8	50.0	47.6	41.0	37.5	36.6	35.4	37.0	39.2	46.1	52.2	55.6	56.6	57.4	50.5	60.2
2-Jul	59.2	65.1	69.6	71.8	73.2	73.5	67.1	64.4	67.0	66.9	66.6	65.0	70.7	96.3	87.2	80.5	80.0	88.9	94.6	95.6	94.3	94.7	94.0	94.8	78.4	96.3
3-Jul	97.0	98.1	96.0	98.2	98.5	94.5	90.8	87.8	84.2	79.6	70.8	61.3	63.1	90.1	98.7	92.2	86.6	88.0	92.3	89.5	98.4	98.4	99.6	100.0	89.7	100.0
4-Jul	97.7	96.3	98.1	99.4	97.0	93.0	88.8	78.0	66.3	66.3	62.2	46.8	40.8	47.9	90.8	96.8	87.9	84.5	77.3	79.1	80.1	89.1	94.0	94.7	81.4	99.4
5-Jul	95.5	94.6	95.1	96.4	95.3	89.6	84.7	82.9	76.5	70.2	66.4	66.9	65.8	62.1	62.4	59.6	61.5	63.4	66.0	72.5	76.7	80.8	81.9	81.7	77.0	96.4
6-Jul	81.4	80.6	82.0	84.7	87.5	84.7	76.6	67.0	55.9	52.0	49.0	47.7	46.2	45.2	43.7	42.6	41.7	45.6	41.9	49.7	57.4	63.1	69.0	68.2	61.0	87.5
7-Jul	67.5	64.0	66.0	66.8	66.4	55.4	51.0	44.7	41.8	40.7	39.4	38.1	35.8	34.7	33.6	33.8	33.5	35.6	38.4	45.4	52.1	58.3	57.6	55.5	48.2	67.5
8-Jul	55.4	58.5	62.8	68.3	70.5	65.9	60.9	58.1	58.9	61.0	78.5	92.1	78.2	69.0	67.4	72.9	86.9	87.6	87.0	92.2	94.1	96.0	98.5	100.0	75.9	100.0
9-Jul	100.0	100.0	OR	96.3	89.8	71.5	62.9	54.4	48.4	46.6	44.6	45.0	45.9	45.5	42.4	40.3	41.2	43.3	43.7	47.3	53.7	59.1	65.1	79.2	59.4	100.0
10-Jul	79.8	82.0	84.2	81.3	81.4	79.6	80.1	70.7	66.8	56.0	48.0	41.0	39.2	41.3	39.3	36.9	37.4	38.7	40.5	44.2	48.8	56.7	63.3	68.9	58.6	84.2
11-Jul	79.9	83.9	79.5	75.7	69.7	66.6	62.6	51.7	45.6	42.6	41.2	53.8	46.2	46.4	58.0	67.0	86.2	90.7	87.5	92.0	91.5	97.6	98.1	97.1	71.3	98.1
12-Jul	95.3	94.8	98.2	99.5	99.7	96.5	88.1	76.0	65.9	75.7	92.1	95.0	95.2	72.7	53.2	62.9	94.0	88.2	86.1	83.3	89.9	88.4	88.1	90.4	86.2	99.7
13-Jul	93.9	94.8	95.5	95.3	93.5	89.3	84.8	77.3	69.7	62.6	56.9	55.0	52.6	46.2	45.2	79.0	94.7	94.3	94.7	96.3	90.7	92.3	90.6	95.6	80.9	96.3
14-Jul	93.4	95.8	96.9	94.0	93.5	91.5	88.5	82.4	76.4	68.4	58.5	51.2	49.0	43.7	39.1	35.8	34.8	34.2	32.1	34.9	53.1	70.3	68.8	63.0	64.5	96.9
15-Jul	57.2	54.3	51.5	49.8	53.1	55.3	56.1	54.7	55.3	45.4	37.3	39.0	38.1	31.9	29.8	33.9	45.2	89.6	89.3	84.1	82.4	81.9	88.8	93.7	58.2	93.7
16-Jul	93.6	92.2	94.7	94.7	95.5	92.0	87.0	80.5	70.4	60.5	53.9	47.7	43.3	43.7	44.9	54.0	72.5	45.3	58.7	76.6	76.9	76.2	82.2	78.6	71.5	95.5
17-Jul	81.7	90.2	88.1	81.6	79.1	69.6	63.4	53.8	46.4	41.2	37.4	37.2	35.3	35.9	36.3	35.4	33.8	34.1	35.2	39.9	51.6	64.6	69.2	65.8	54.4	90.2
18-Jul	60.8	59.6	55.2	53.5	53.7	53.9	49.4	46.6	41.2	42.0	53.2	54.7	49.6	44.8	46.5	78.1	73.0	61.8	50.0	49.6	66.6	74.1	74.4	76.9	57.0	78.1
19-Jul	82.4	78.8	83.3	83.5	85.3	83.3	79.2	70.9	68.7	63.5	60.0	54.9	55.5	57.3	74.8	63.7	52.1	49.8	53.7	71.4	92.3	94.8	94.0	88.9	72.6	94.8
20-Jul	86.7	84.7	84.3	86.3	86.9	88.1	88.2	87.5	86.4	84.3	84.9	82.8	80.7	79.5	74.1	75.2	74.3	75.7	76.3	79.2	91.2	96.5	98.4	99.1	84.6	99.1
21-Jul	99.7	100.0	100.0	100.0	100.0	100.0	97.1	88.2	82.9	77.4	70.7	65.6	63.0	63.4	56.8	61.1	53.3	50.1	50.4	57.0	68.9	72.4	72.5	71.5	75.9	100.0
22-Jul	72.8	76.1	79.1	81.7	87.0	86.8	81.9	75.6	67.4	61.9	57.1	51.2	46.0	41.5	39.9	40.2	38.8	38.0	42.3	48.8	56.3	60.3	63.0	62.5	60.7	87.0
23-Jul	57.6	59.5	60.8	64.4	70.2	75.1	78.2	75.4	75.3	70.7	73.9	69.0	65.8	67.6	64.8	76.7	67.7	63.1	60.8	61.8	75.3	89.4	90.5	90.2	71.0	90.5
24-Jul	92.8	95.8	94.6	95.4	95.8	94.7	89.9	81.8	77.7	69.6	61.0	54.5	51.2	46.5	41.6	40.8	39.3	41.4	45.3	50.7	59.1	62.3	67.9	68.7	67.4	95.8
25-Jul	72.4	77.3	83.9	82.8	82.1	78.0	76.2	73.4	74.7	79.8	69.5	59.0	53.8	48.1	44.4	43.2	47.5	47.7	48.7	54.7	67.7	82.4	84.1	92.1	67.7	92.1
26-Jul	96.0	100.0	100.0	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	97.8	91.6	82.8	74.1	73.3	78.1	86.4	93.6	96.3	97.3	99.1	--	100.0
27-Jul	99.8	100.0	100.0	OR	OR	OR	OR	92.2	90.3	93.0	99.8	96.1	94.1	95.1	93.0	86.5	80.3	79.6	79.1	79.6	87.1	90.2	88.6	85.1	90.5	100.0
28-Jul	90.2	91.9	93.3	95.9	96.3	92.4	83.1	71.5	58.3	53.4	43.9	39.2	37.4	40.0	41.9	45.2	48.1	51.0	55.9	67.7	87.3	90.0	97.1	96.7	69.5	97.1
29-Jul	95.6	96.9	98.2	98.9	99.3	99.9	OR	OR	OR	OR	97.9	93.0	85.2	82.9	78.0	75.1	81.2	96.0	88.4	94.1	98.6	98.5	99.0	100.0	92.8	100.0
30-Jul	99.7	100.0	100.0	OR	OR	100.0	98.1	91.6	84.0	80.7	76.1	70.4	68.7	59.9	54.8	50.7	50.6	53.9	54.1	58.9	63.1	75.8	76.1	76.1	74.7	100.0
31-Jul	75.1	76.3	79.3	82.1	81.8	79.8	76.3	70.4	61.4	57.9	57.0	62.5	67.2	68.9	68.7	65.5	67.5	82.3	73.4	70.8	79.7	77.2	73.5	72.7	72.0	82.3
Diurnal Average																										
Diurnal Maximum																										
OR - Out of Range																										



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Wapasu - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %
Wapasu - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	47	6.50	6.50
40 - 60	188	26.00	32.50
60 - 80	214	29.60	62.10
80 - 100	259	35.82	97.93

Total Number of Valid Hours: 723

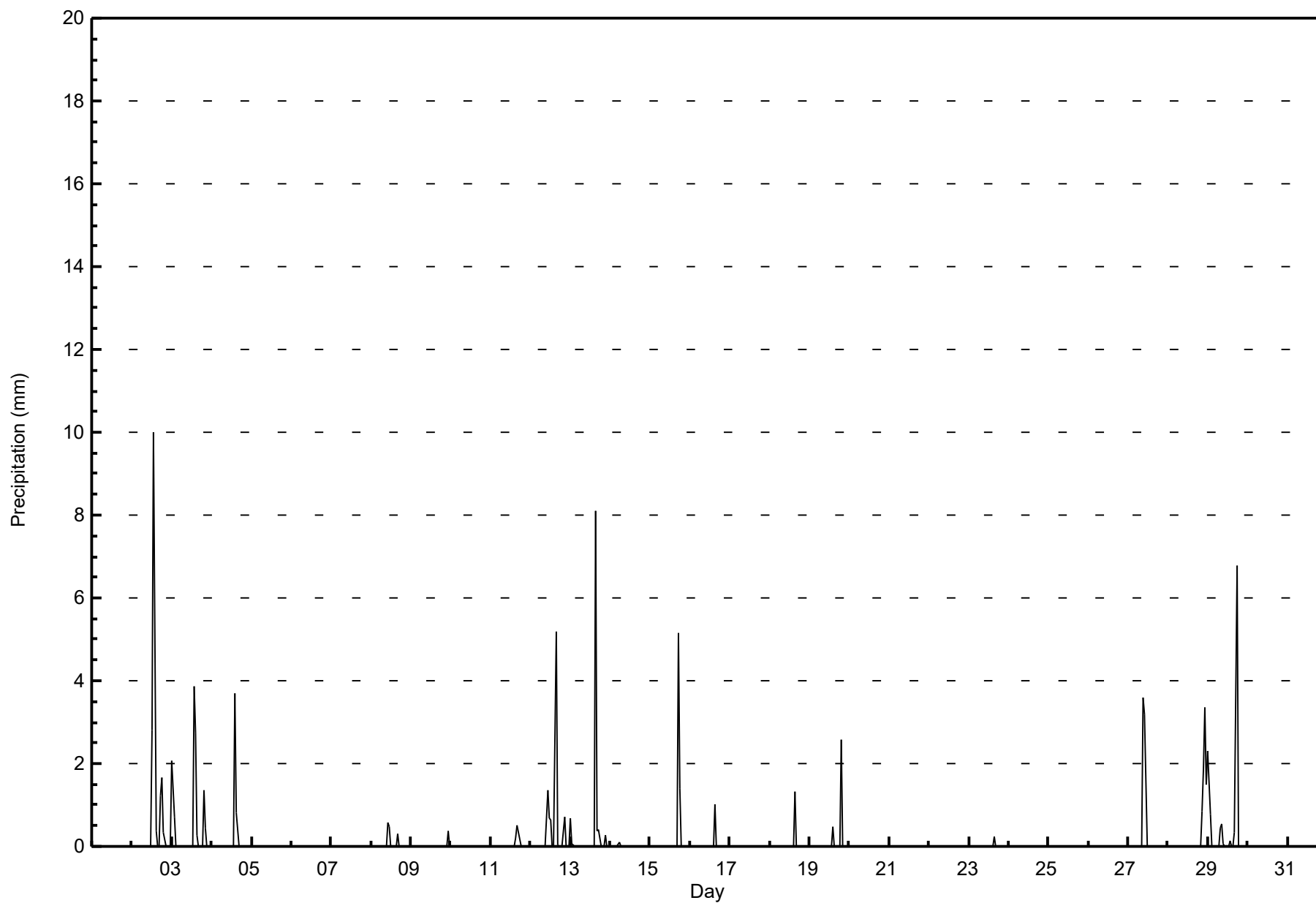
Total Number of Hours: 744

[illegible]



Wood Buffalo Environmental Association
Hourly Averages

Precipitation (PC) - mm
Wapasu - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

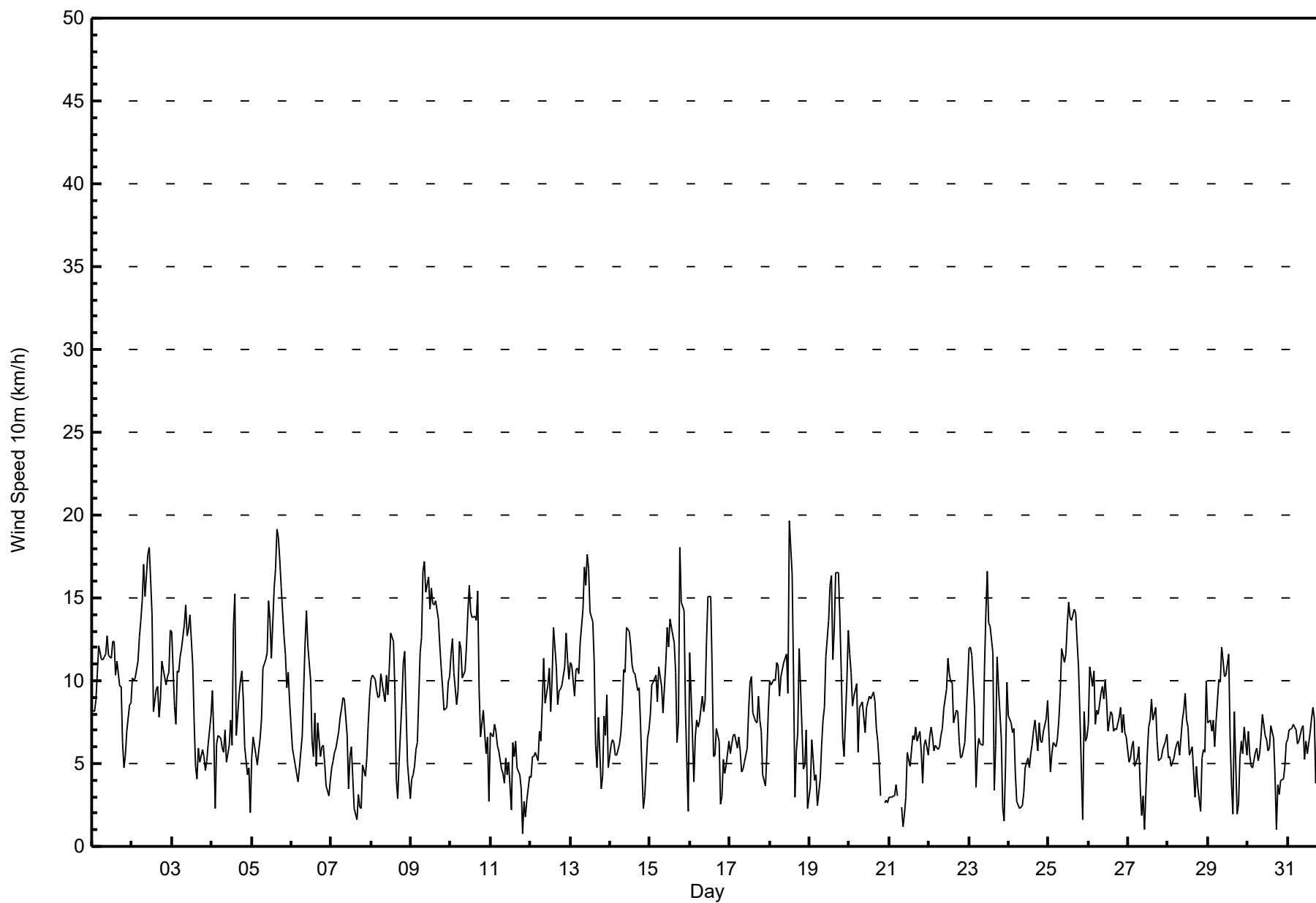
Wapasu - July 2026

Maximum Speed: 20 km/h on Jul 18 13:00																Maximum Daily Speed Average: 11.7 km/h on Jul 2										Hours in Service: 744	
Minimum Speed Value: 1 km/h on Jul 11 20:00																Minimum Daily Speed Average: 1.8 km/h on Jul 17										Hours of Data: 742	
Maximum Diurnal Speed Average: 5.4 km/h at hour 6																Minimum Diurnal Speed Average: 2.1 km/h at hour 18										Hours of Missing Data: 2	
Monthly Average Velocity: 3.3 km/h 199.0 deg																Percentiles: P ₁ = 2 P ₁₀ = 4 Q ₁ = 6 Median = 7 Q ₃ = 10 P ₉₀ = 13 P ₉₉ = 17										Percent Operational Time: 99.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	SE8	SE8	SE9	SE10	SE12	SE11	SE11	SE11	SE12	SSE13	SSE12	SE11	SE12	SSE12	SSE10	SE11	S10	SSE10	S6	SSE5	SE5	SE7	SE9	SE9	SE9.6	SSE13	
2-Jul	SSE10	SSE10	SSE10	SSE11	SE13	SE14	SSE15	SSE17	SSE15	SSE18	SSE18	SSE16	S14	S8	SSW10	SSW10	S8	SSE9	SSE11	SE11	SSE10	SSE10	SSE11	SSE13	SSE11.7	SSE18	
3-Jul	SSE13	SE8	SSE7	SSE11	SSE11	SSE11	SSE12	SSE13	SSE15	S13	S13	SSE14	S11	SW8	SSW5	SSW4	SSW6	SSW5	SSE6	WSW5	ESE5	SE5	SE6	SSE8	SSE8.2	SSE15	
4-Jul	SSE9	SSE7	S2	SSE6	S7	SSW7	SSW6	SW6	SW7	SSW5	S6	SSW8	SW6	SSW13	SW15	SSW7	SW9	WSW10	WSW11	WSW9	SW6	SSW4	S5	SSE2	SSW6.4	SW15	
5-Jul	SSE5	S7	S6	SW5	SW6	SW7	SW8	SW11	WSW11	NNW12	NNW15	NW14	NW11	NNW16	NNW17	N19	NNW19	NNW17	NNW16	NNW13	N12	NNW10	NNW11	NNW9	NW7.4	N19	
6-Jul	NW6	WNW5	NW5	W4	W4	W5	WNW7	NW9	NNW12	NNW14	NNW12	NNW10	NW6	NNW5	N8	NNE5	NNW7	N5	N6	NE6	ENE5	ENE4	ENE3	E4	NNW5.1	NNW14	
7-Jul	ESE5	ESE5	ESE6	ESE6	ESE7	SE8	SE8	SE9	SE9	SE7	ESE3	SE5	SSW6	SSW4	SW2	NNE2	NNE3	S2	SSE2	SSE5	SSE4	SE5	SSE7	SSE9	SE4.7	SSE9	
8-Jul	SE10	SE10	SSE10	SSE9	SSE9	SSE9	SSE10	S9	SSW9	S10	SSW9	SSE11	SSE13	SSE12	SSE9	WSW4	SSW3	SW5	SW9	SW11	SW12	SW8	S5	S3	S7.4	SSE13	
9-Jul	SSE4	S4	S5	S6	SSW6	SW12	SW13	WSW17	WSW17	WSW15	WSW16	SW14	SW16	SW15	SW15	SW15	SW14	SSW12	SSW11	S10	S8	S8	SSW10	S10	SW10.3	WSW17	
10-Jul	S12	S13	S11	S9	S9	S12	S12	S10	SSW11	SSW12	SW14	SW16	SSW14	SW14	SSW14	SW14	SW15	W10	W7	SW8	S7	S6	S7	S3	SSW9.6	SW16	
11-Jul	SSE7	SSE7	SSE7	SSE7	SSE6	SSE6	SSE5	SSE4	SSW4	S5	SSW4	NW5	WSW2	SSW6	SSW5	SSW6	S5	SE4	ESE4	W1	NW3	SSW2	S3	SSE4	S3.6	SSE7	
12-Jul	S4	SSW5	S5	S6	S5	SSE7	SSW6	SW9	WSW11	SW9	SW10	SW11	SSW8	SSE10	WSW13	WSW11	S9	S9	SSW10	SSW10	SSW11	SW13	SW11	SW10	SSW8.1	WSW13	
13-Jul	WSW11	WSW11	SW9	WSW11	SW11	SW10	SW12	SW14	SW17	SW16	SW18	WSW17	WSW14	WSW14	WSW11	NW6	ESE5	E8	SSE4	SW4	WSW8	SW7	SW9	SW5	SW9.1	SW18	
14-Jul	SW6	SSW6	SSW6	SSW6	S6	SSW6	SSW7	SSW8	SW11	WSW10	WSW13	WSW13	WSW12	WSW11	WSW10	WSW10	WSW9	WSW10	W7	SW5	S2	SSE3	SSE7	SSE7	SW6.9	WSW13	
15-Jul	SSE8	SSE10	SSE10	SSE10	SSE9	S11	S10	S10	S8	SSW11	SW13	SSW12	S14	S13	S12	S11	SW6	SSW8	SE18	SE15	SE14	SE8	SW5	SW2	S9.1	SE18	
16-Jul	SSE12	SSE7	SSW4	S7	S8	S7	S8	SSW9	S8	SSW9	SSW12	SW15	SW15	WSW11	NNW5	NNE6	ESE7	SE6	ENE3	SE3	SSE5	SE4	SSE5	SSE6	S5.5	SW15	
17-Jul	SSE6	SSE6	SSE7	SSE7	SSE6	S7	SSE6	SW4	WNW5	NW5	NNW6	N8	N10	NNW10	NNW8	N8	N7	NNE9	NE8	NE7	ENE4	E4	E6	ESE8	NE1.8	NNW10	
18-Jul	SE10	SE10	SSE10	SSE10	SSE11	SSE11	S9	S10	S11	SW11	WSW12	SSE9	SE20	SSE16	WSW10	WNW3	E6	SSE7	SSE12	SSE7	SSE5	SSE5	SE7	E2	SSE7.5	SE20	
19-Jul	E4	E6	SE5	ESE4	ESE4	S2	SW4	NW6	N8	N8	N11	N14	N16	N16	N11	NNE13	N17	N17	N14	N11	N7	NNE5	N10	N13	N7.6	N17	
20-Jul	N12	N10	NNE9	N9	N10	NNW6	NNW8	NNW9	N9	NNE7	NNW8	N9	NNW9	NNW9	NNW9	NNW9	NW7	NW6	NW5	W3	UO	SSE3	SE3	ESE3	N6.4	N12	
21-Jul	SE3	SE3	SE3	SE3	SSE4	SSE3	UO	NNW2	N1	N2	W3	N6	W5	W6	WSW7	WSW6	WSW7	SW6	WSW7	SW6	SSW4	S6	S6	S6	SW2.6	WSW7	
22-Jul	S7	SSE7	S7	S6	S6	SSE6	S6	SSW7	SSW7	SW8	WSW9	WSW11	WSW10	WSW10	SW10	WSW7	SW8	SW8	SSW6	S5	SSE5	SSE6	SSE8	SSE10	SSW6.2	WSW11	
23-Jul	SSE12	SSE12	SSE12	S8	SE4	SSE6	SSW7	SSW6	WNW6	N11	N14	N17	N13	N13	N12	WNW3	WSW6	WNW11	WNW10	NW7	W2	WSW2	N5	N10	NW2.5	N17	
24-Jul	N8	N7	N7	NNW7	WNW4	WNW3	NW2	SW2	S2	SW3	SSE5	SSW5	S5	S6	SSW6	SSW7	S8	S6	SSE7	SE6	SE6	S7	S8	S9	S2.5	S9	
25-Jul	S7	SSW5	SSE6	SSW6	SSW6	SSW7	SW8	SW9	SW12	SW11	SW12	WSW13	WSW15	WSW14	WSW14	WSW14	SW14	WSW12	WSW11	WSW8	NNW2	NNE8	NNE6	NNE7	SW7.2	WSW15	
26-Jul	NNE7	N11	NNE10	N11	NNE7	NNE8	NNE8	NNE9	N10	N9	N10	N9	NNE7	N8	NNE8	NNE7	NNE7	NNE7	ENE8	ENE8	ENE7	E8	ENE7	ESE7	NNE7.3	N11	
27-Jul	ESE5	SE5	SSE6	SSE6	SSE5	SSE5	SE6	SE3	E2	SE3	SSE1	SSW6	WSW7	WSW8	WSW9	SSW8	SW8	SSW6	S5	SSW5	S5	SSW6	SSW6	SW7	SSW4.2	WSW9	
28-Jul	SSE5	S5	S5	S5	S6	SSE6	S6	SSW6	WSW8	WSW8	WSW9	W8	S7	SSW6	S6	S4	SSE3	E5	ESE4	SE2	ESE5	ENE6	N6	NE10	S3.0	NE10	
29-Jul	E7	E8	SSE7	S8	S6	WSW8	W10	W10	NNW12	NW11	W10	NNW10	NNW12	N7	NNW4	WNW2	NNE8	NNE2	SW3	WSW5	WSW6	W6	WSW7	SW5	W3.5	WNW12	
30-Jul	WSW7	SW5	SW5	SSW5	SW6	SW6	SW5	WSW6	W7	NW8	WNW7	NW6	NNW6	NNW6	NW7	NW7	NNW4	WNW1	SSW4	S3	SSW4	S4	SSE5	SSE6	WSW3.1	NW8	
31-Jul	SSE6	S7	S7	S7	S7	S7	S6	SSW6	SW7	SW7	SW5	S6	SW6	SSW7	SSE8	SSE8	SSW8	SSE4	SSE8	SSE7	SSE8	SSE9	SSE10	SSE10	S6.7	SSE10	
SSE4.5 SSE4.4 SSE4.6 SSE4.7 SSE4.9 S5.4 S5.3 SSW5.1 SW4.9 SW4.5 WSW5.2 WSW4.1 SW4.4 WSW4.1 WSW4.2 WSW3.0 SW2.5 SW2.1 SSW2.2 SSW2.6 S2.8 SSE3.1 SSE3.2 SSE3.2																										Diurnal Average	
SSE13 S13 SSE12 SSE11 SE13 SE14 SSE15 SSE17 WSW17 SSE18 SSE18 WSW17 SE20 SSE16 NNW17 N19 NNW19 NNW17 SE18 SE15 SE14 SW13 SW11 N13																										Diurnal Maximum	
UO - Unstable Operation																											
All monthly, daily, and diurnal averages have been calculated using vector methods																											



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Wapasu - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Wapasu - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	176	23.72	23.72
6 - 11	442	59.57	83.29
12 - 19	123	16.58	99.87
20 - 28	1	0.13	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 742

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Wapasu - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	4	5	0	5	6	12	18	28	27	20	18	5	8	8	6	6	176
6 - 11	33	19	4	5	6	7	29	85	67	51	45	42	10	6	14	19	442
12 - 19	15	1	0	0	0	0	8	23	10	7	26	19	0	3	1	10	123
20 - 28	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	52	25	4	10	12	19	56	136	104	78	89	66	18	17	21	35	742

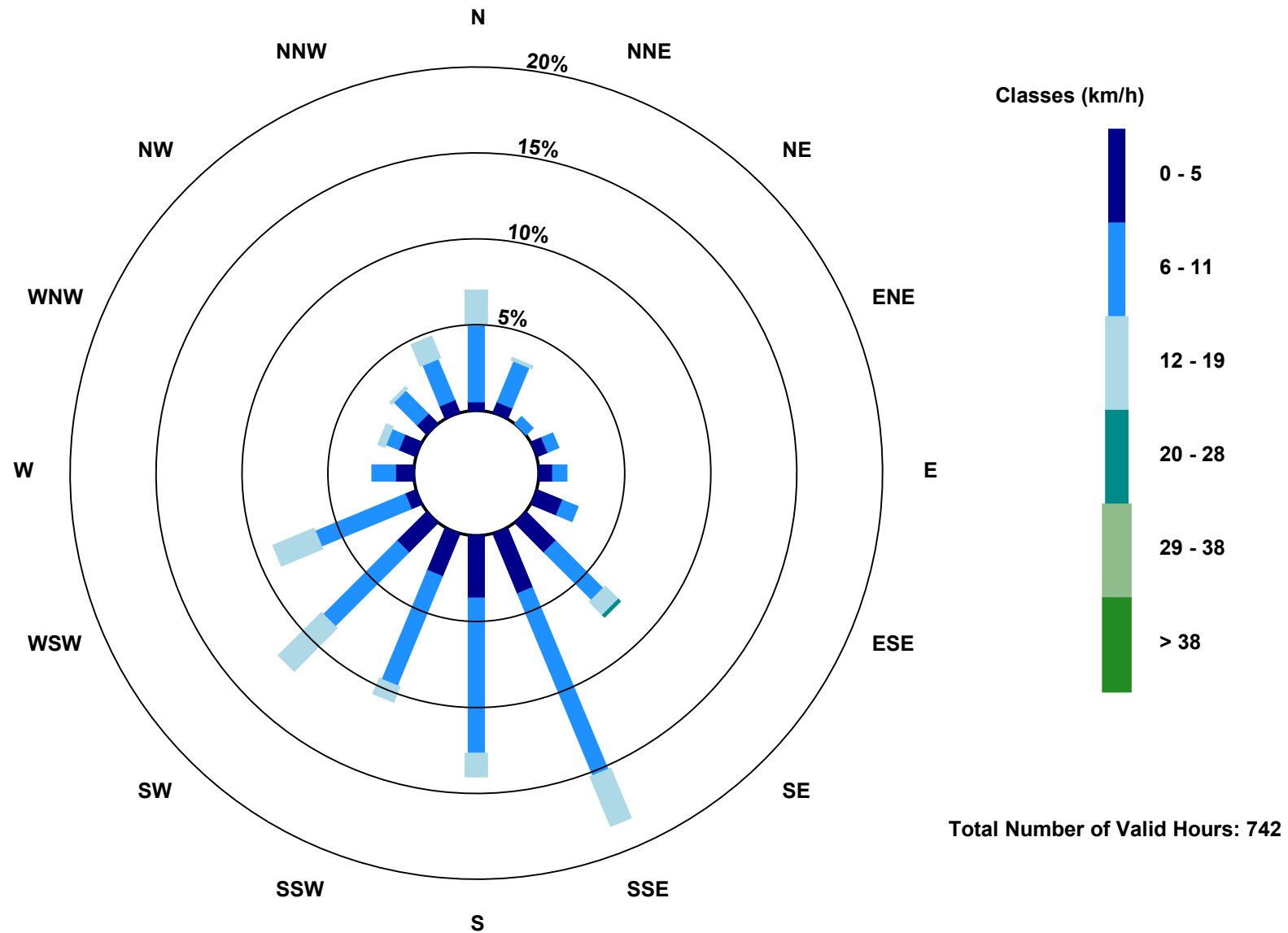
Total Number of Valid Hours: 742

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Wapasu





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Wapasu - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																	Hours in Service: 744								
Maximum Value: 9 km/h on Jul 4 14:00																	Hours of Data: 742								
Minimum Value: 1 km/h on Jul 14 23:00																	Hours of Missing Data: 2								
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 2 Q ₃ = 3 P ₉₀ = 4 P ₉₉ = 6																	Hours of Calibration: 0								
																	Percent Operational Time: 99.7								
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	2	2	2	3	3	3	3	3	3	4	4	4	3	4	4	4	4	3	2	1	1	1	2	2	4
2-Jul	2	2	2	3	3	4	5	5	5	6	6	5	6	3	4	4	3	3	3	3	2	2	2	3	6
3-Jul	4	2	2	3	2	3	4	4	5	4	4	5	4	7	2	1	2	2	2	3	1	1	1	1	7
4-Jul	2	2	2	1	1	2	2	2	2	2	2	3	3	9	7	2	3	3	3	3	2	1	1	2	9
5-Jul	1	2	2	2	2	2	3	3	3	4	6	4	4	6	5	6	5	5	4	4	4	3	2	3	6
6-Jul	2	2	2	1	1	2	2	3	4	4	4	4	4	3	3	3	3	2	2	2	1	1	1	1	4
7-Jul	1	1	1	1	1	2	2	2	3	3	3	3	3	3	3	2	2	2	1	1	1	1	1	2	3
8-Jul	2	3	2	2	2	2	3	3	3	4	4	4	4	4	3	5	2	4	3	3	3	3	1	2	5
9-Jul	2	1	1	1	2	3	3	4	5	5	5	5	6	5	6	5	5	5	4	3	2	2	5	3	6
10-Jul	4	4	3	2	3	4	4	3	4	4	5	5	5	5	5	5	5	4	2	3	2	1	1	2	5
11-Jul	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	2	3	1	1	1	3
12-Jul	1	1	1	1	1	2	2	3	3	3	3	3	3	4	5	7	3	3	4	4	4	4	3	2	7
13-Jul	3	3	2	3	3	3	3	4	5	4	5	5	4	5	4	7	2	3	1	3	3	3	5	2	7
14-Jul	2	2	2	2	2	2	3	3	3	3	4	4	4	3	4	4	3	3	2	3	1	2	1	1	4
15-Jul	1	2	2	2	2	3	3	3	3	4	4	4	5	5	4	4	5	6	5	4	4	3	1	3	6
16-Jul	4	3	2	2	2	2	2	3	3	3	4	5	5	4	3	4	2	2	1	1	1	1	1	1	5
17-Jul	1	1	1	1	1	1	1	2	1	2	2	3	3	3	3	3	2	3	3	2	1	1	2	2	3
18-Jul	2	2	2	2	2	3	3	3	4	5	4	4	7	6	4	3	2	3	4	2	1	1	1	2	7
19-Jul	2	2	2	1	2	1	2	3	2	3	4	4	5	5	7	4	5	5	5	6	4	1	5	4	7
20-Jul	4	3	3	3	3	2	2	2	3	2	2	3	3	2	3	3	2	2	2	1	UO	1	1	1	4
21-Jul	1	1	1	1	1	1	UO	1	1	2	2	2	2	2	3	2	2	3	2	2	1	1	1	1	3
22-Jul	1	1	1	1	1	1	2	2	2	2	3	3	3	3	3	3	3	3	2	1	1	1	2	2	3
23-Jul	3	3	3	3	2	2	3	3	3	5	4	5	4	4	4	3	4	4	3	3	1	1	4	3	5
24-Jul	3	2	2	2	1	1	1	1	1	2	2	2	3	3	3	3	3	2	2	2	1	3	3	2	3
25-Jul	2	1	1	2	2	2	3	4	4	4	3	4	4	4	4	4	4	3	3	3	1	3	2	2	4
26-Jul	3	3	3	3	3	3	3	3	3	3	3	3	2	2	3	2	3	3	2	3	2	3	2	2	3
27-Jul	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2	3	3	2	2	2	1	1	2	2	3
28-Jul	1	1	1	1	1	1	2	2	2	3	3	3	3	2	2	2	1	2	1	3	2	2	3	3	3
29-Jul	3	3	2	3	2	3	3	3	4	4	3	4	3	4	2	2	3	3	1	2	2	2	2	2	4
30-Jul	1	2	2	1	2	2	2	2	2	2	3	3	2	3	3	3	2	2	3	1	2	1	1	1	3
31-Jul	1	1	1	1	1	1	2	2	3	2	2	2	2	2	2	2	2	2	2	1	1	2	2	2	3
4 4 3 3 3 4 5 5 5 6 6 5 7 9 7 7 5 6 5 6 4 4 5 4																									
Diurnal Maximum																									
UO - Unstable Operation																									



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

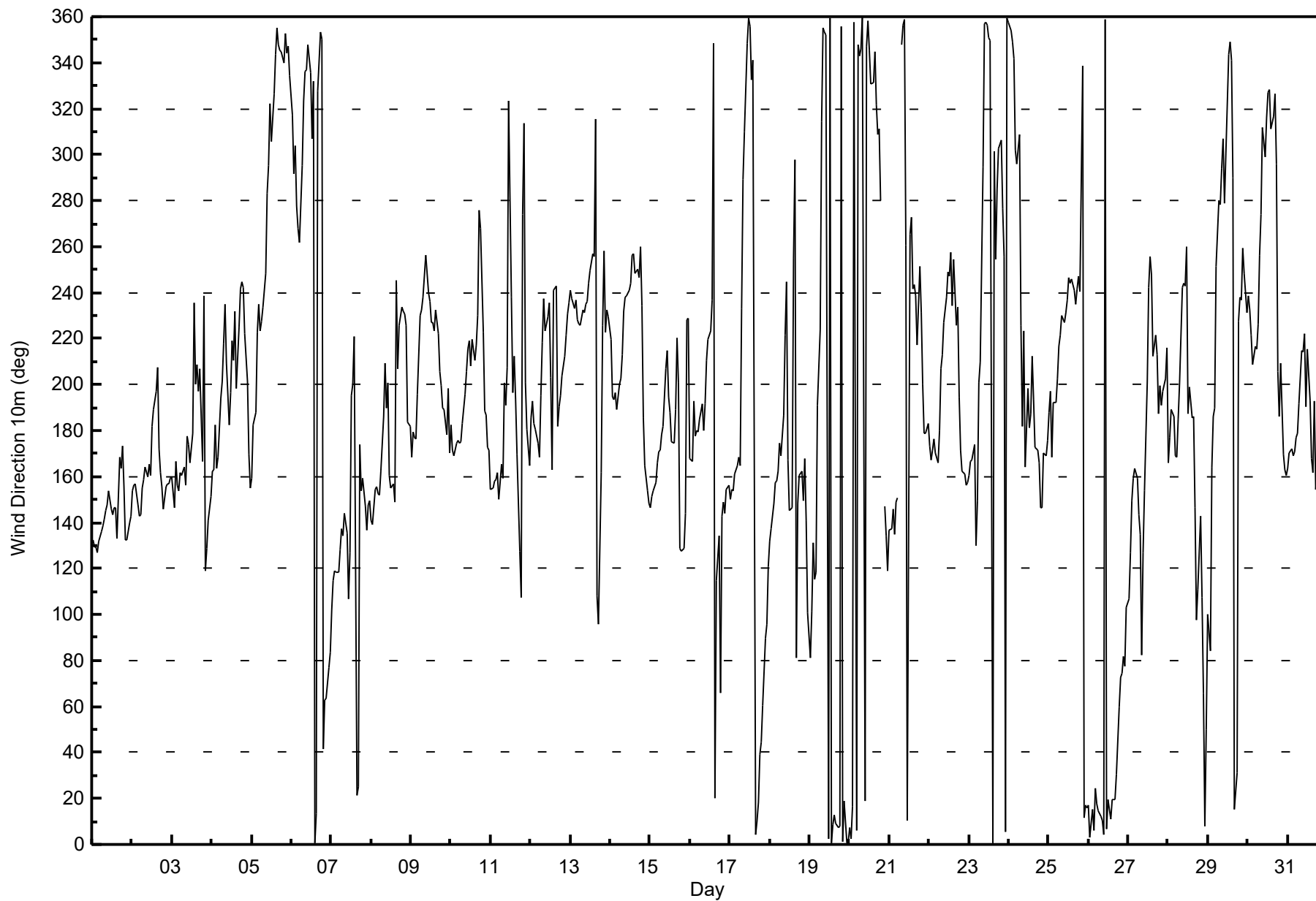
Wapasu - July 2026

Direction of Maximum Speed: 145 deg on Jul 18 13:00 Direction of Maximum Daily Speed Average: 161.4 deg on Jul 2																				Hours in Service: 744					
Direction of Minimum Speed: 274 deg on Jul 11 20:00 Direction of Minimum Daily Speed Average: 1.8 deg on Jul 17																				Hours of Data: 742					
																				Hours of Missing Data: 2					
Monthly Average Direction: 199.0 deg																				Percent Operational Time: 99.7					
Day	Hourly Period Ending At (MST)																				Daily Average				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	133	129	130	127	132	136	138	141	145	147	154	146	144	147	147	133	169	164	173	155	133	132	140	143	142.8
2-Jul	154	156	157	148	143	144	155	159	164	160	165	161	182	189	197	208	172	162	155	146	155	157	157	160	161.4
3-Jul	160	146	166	156	154	162	161	164	157	177	174	166	179	236	200	209	197	207	166	239	119	129	141	151	168.0
4-Jul	162	163	183	163	169	194	201	218	235	210	182	197	219	210	232	198	225	242	245	242	222	201	170	155	207.9
5-Jul	159	183	188	223	235	223	228	234	248	283	295	322	305	327	343	355	348	345	345	340	353	344	347	334	317.2
6-Jul	317	292	304	278	268	262	295	324	336	337	348	336	307	332	0	13	328	353	350	41	63	63	77	83	336.8
7-Jul	102	115	119	118	118	128	138	134	144	136	107	127	195	200	221	21	25	174	154	159	147	137	148	150	137.4
8-Jul	141	139	154	155	152	152	162	186	209	190	201	160	155	157	149	245	207	226	233	232	231	226	184	182	179.4
9-Jul	168	179	177	177	196	230	233	238	247	257	240	236	227	227	223	232	222	206	199	190	189	178	198	170	219.1
10-Jul	182	171	169	175	176	175	175	183	196	205	215	219	208	219	211	217	230	276	268	223	188	187	173	171	201.5
11-Jul	154	155	158	159	161	150	165	159	201	191	207	323	238	196	212	193	170	128	107	274	314	201	181	165	174.3
12-Jul	185	193	183	180	174	168	195	219	237	223	229	236	203	163	241	243	182	190	195	204	212	221	231	236	211.0
13-Jul	241	237	233	237	228	227	226	233	231	235	236	244	250	257	256	315	108	96	162	226	258	223	232	229	236.2
14-Jul	220	195	193	197	189	200	203	213	232	238	238	241	244	256	257	248	250	246	260	234	185	165	154	149	226.7
15-Jul	147	151	154	157	166	171	171	178	182	207	214	194	188	175	175	189	220	201	129	128	129	144	228	229	170.5
16-Jul	168	167	193	177	180	179	185	192	180	192	211	220	223	237	348	20	115	134	66	143	149	144	155	156	184.3
17-Jul	150	154	154	161	165	169	165	233	289	310	348	359	356	332	341	4	10	18	39	45	60	89	96	121	39.6
18-Jul	132	138	149	158	158	162	174	169	187	221	244	167	145	147	255	297	81	148	161	162	150	168	141	101	164.1
19-Jul	81	101	131	115	118	191	224	314	355	353	352	2	359	1	8	13	9	7	8	356	1	19	1	1	7.6
20-Jul	8	2	16	358	6	348	343	346	360	19	347	358	345	331	332	345	322	309	311	280	UO	147	134	119	350.4
21-Jul	136	137	146	135	149	151	UO	348	356	359	261	10	265	273	241	244	239	217	252	231	200	179	179	183	217.5
22-Jul	173	167	171	176	170	166	180	207	213	227	238	249	247	257	234	255	226	234	195	171	162	161	156	157	204.9
23-Jul	161	166	167	174	130	149	201	210	295	357	358	356	351	350	0	302	255	285	303	306	276	255	6	359	321.0
24-Jul	358	354	349	342	302	296	309	226	182	223	164	198	181	187	212	193	173	171	166	146	146	170	169	176	188.5
25-Jul	188	197	168	192	192	203	217	221	230	227	231	237	247	244	246	241	235	241	247	241	339	12	17	16	234.0
26-Jul	17	3	15	6	25	18	15	12	10	4	359	7	20	11	20	20	19	31	60	73	74	82	78	103	26.0
27-Jul	107	127	149	160	164	159	143	135	83	127	154	201	242	255	247	212	221	213	187	199	191	197	202	216	191.5
28-Jul	166	177	189	186	169	168	185	201	242	244	243	260	187	199	185	186	147	97	111	143	107	66	8	50	182.7
29-Jul	100	84	164	186	190	252	280	278	294	307	279	301	344	349	341	290	15	31	228	238	237	259	248	231	280.1
30-Jul	239	232	222	209	217	215	226	256	274	312	299	316	327	329	311	317	327	296	206	186	209	170	163	160	257.5
31-Jul	163	170	172	169	171	177	179	192	214	214	222	190	215	193	168	162	193	154	162	162	155	155	157	154	175.5
156.6 157.6 163.6 168.3 167.6 177.5 189.9 205.4 223.9 231.6 238.8 239.2 229.2 238.2 248.5 249.7 233.9 226.3 198.7 195.3 170.5 164.1 165.4 152.9																									
Diurnal Average																									
UO - Unstable Operation																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Wapasu - July 2026





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Wapasu - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 94 deg on Jul 7 11:00																		Hours in Service: 744							
Minimum Value: 5 deg on Jul 14 23:00																		Hours of Data: 742							
Percentiles: P ₁ = 7 P ₁₀ = 15 Q ₁ = 20 Median = 26 Q ₃ = 32 P ₉₀ = 48 P ₉₉ = 85																		Hours of Missing Data: 2							
																		Hours of Calibration: 0							
																		Percent Operational Time: 99.7							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	15	16	16	18	18	17	19	17	19	20	22	23	25	27	30	32	30	24	23	14	15	13	13	14	32
2-Jul	16	15	18	18	17	18	20	23	25	24	25	27	31	31	29	31	28	23	20	18	18	18	16	19	31
3-Jul	20	17	24	21	18	19	21	23	25	29	30	28	26	56	28	26	30	36	26	43	32	14	12	14	56
4-Jul	17	44	79	13	19	30	28	26	26	33	29	38	65	35	24	29	27	18	23	19	22	20	16	79	79
5-Jul	20	22	22	29	36	21	23	18	26	32	31	29	32	31	24	25	21	21	22	20	21	17	17	20	36
6-Jul	30	31	37	33	32	29	37	32	27	28	31	42	72	71	43	68	48	40	36	27	16	19	49	16	72
7-Jul	15	15	15	13	14	18	19	23	28	46	94	67	57	81	90	84	76	77	74	15	10	12	11	14	94
8-Jul	18	19	18	18	17	16	21	32	33	32	30	19	21	21	21	80	62	53	22	19	17	22	21	72	80
9-Jul	55	17	12	25	28	17	16	18	23	26	25	26	26	25	29	30	26	29	30	30	28	25	34	24	55
10-Jul	27	24	23	22	25	25	26	28	30	28	27	28	33	29	34	32	20	43	35	33	24	17	13	68	68
11-Jul	7	7	6	8	11	10	14	19	38	33	46	41	87	31	37	30	24	28	27	72	85	43	25	15	87
12-Jul	24	21	24	19	18	19	30	24	20	27	21	20	38	33	27	47	29	27	29	27	27	23	19	18	47
13-Jul	18	17	18	16	18	21	22	20	20	19	20	21	26	30	39	86	47	28	32	44	27	26	25	33	86
14-Jul	23	23	21	25	32	27	28	27	23	22	20	26	29	32	36	31	34	26	29	29	51	38	5	7	51
15-Jul	10	13	15	17	22	22	25	27	27	33	29	31	32	30	33	31	35	53	19	19	18	57	43	81	81
16-Jul	27	39	66	21	24	24	27	29	30	34	27	25	26	27	45	51	37	17	43	50	17	14	14	6	66
17-Jul	9	7	6	7	20	14	12	43	37	46	45	38	28	29	42	39	39	31	30	22	18	20	16	15	46
18-Jul	16	15	16	16	16	18	26	24	31	31	26	41	21	25	35	80	48	24	23	24	9	11	15	71	80
19-Jul	22	23	23	46	27	42	50	45	28	32	28	28	27	28	31	31	31	28	29	32	27	22	24	25	50
20-Jul	28	27	35	27	25	34	17	20	25	31	28	30	27	27	27	25	27	32	34	34	UO	8	20	14	35
21-Jul	20	22	24	14	11	31	UO	50	91	87	75	38	56	30	49	25	29	38	22	22	22	16	15	14	91
22-Jul	12	11	16	14	11	14	24	26	24	27	28	27	35	32	30	43	29	32	26	18	10	12	13	15	43
23-Jul	18	21	22	30	62	41	45	41	44	38	25	25	25	26	30	85	69	35	30	31	33	64	40	23	85
24-Jul	21	20	20	19	29	37	62	68	64	68	56	56	81	70	56	47	41	28	26	20	16	46	23	22	81
25-Jul	25	23	11	24	23	28	26	24	19	20	18	23	24	21	23	22	19	22	22	18	74	28	31	31	74
26-Jul	33	25	29	26	32	32	30	27	30	27	22	28	31	28	30	35	43	39	34	28	27	24	28	25	43
27-Jul	26	28	24	23	22	26	26	53	56	45	84	43	21	23	21	33	26	28	31	28	23	23	24	27	84
28-Jul	18	14	12	13	15	12	23	31	25	34	33	44	40	34	36	33	39	20	48	85	35	32	56	28	85
29-Jul	40	27	28	30	28	34	28	30	28	31	30	41	26	23	63	73	28	86	54	21	21	25	20	21	86
30-Jul	17	19	20	21	22	25	26	38	38	35	45	46	39	54	50	56	62	85	42	41	27	13	13	9	85
31-Jul	11	11	12	11	14	16	20	28	28	25	32	29	31	30	19	19	29	64	16	15	11	15	17	15	64
55 44 79 46 62 42 62 68 91 87 94 67 87 81 90 86 76 86 74 85 85 64 56 81																									
Diurnal Maximum																									
UO - Unstable Operation																									



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS18 STONY MOUNTAIN JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - STONY MOUNTAIN (AMS18)
JULY 2026

MONTHLY SUMMARY for
AMD SECTION III.B.1(c)

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	708	35	36	99.87	-	-	2.4	0	0.6	0
TRS(ppb) Average	697	39	47	98.92	0.9	0	0.9	-	0.5	-
THC(ppm) Average	662	32	82	93.28	-	-	2.3	-	2.1	-
NMHC(ppm) Average	662	32	82	93.28	-	-	0.067	-	0.005	-
CH4(ppm) Average	662	32	82	93.28	-	-	2.3	-	2.1	-
O3 (ppb) Average	708	35	36	99.87	-	-	46.9	0	35.5	-
NO2 (ppb) Average	708	36	36	100	-	-	3	0	1.2	-
NO (ppb) Average	708	36	36	100	-	-	0.5	-	0.1	-
NOX (ppb) Average	708	36	36	100	-	-	3	-	1.2	-
PM2.5 (ug/m3) Average	513	1	231	69.09	-	-	88.2	5	72.6	2
Temperature 2 m (C) Average	744	0	0	100	-	-	30.8	-	24	-
Relative Humidity (%) Average	744	0	0	100	-	-	99.4	-	87.8	-
Wind Speed 20 m (km/h) Average	744	0	0	100	-	-	21	-	15	-
Wind Direction 20 m (deg) Average	744	0	0	100	-	-	-	-	-	-
Precipitation (mm) Total	744	0	0	100	-	-	8.5	-	14.6	-
Leaf Wetness (% of range) Average	744	0	0	100	-	-	50.6	-	13.5	-
Global Solar Radiation (W/m2) Average	744	0	0	100	-	-	941.6	-	334.2	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - STONY MOUNTAIN (AMS18)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	708	0.14	0.2	-	0	0	0	0.1	0.2	0.3	2.4
TRS (ppb) Average	697	0.33	0.1	-	0	0.1	0.2	0.4	0.4	0.4	0.9
THC (ppm) Average	662	2.05	0.1	-	1.9	2	2	2	2.1	2.1	2.3
NMHC(ppm) Average	662	0	0.003	-	0	0	0	0	0	0	0.067
CH4(ppm) Average	662	2.05	0.1	-	1.9	2	2	2	2.1	2.1	2.3
O3 (ppb) Average	708	27.7	7.4	-	5	18.4	22.6	27.5	33	37.1	46.9
NO2 (ppb) Average	708	0.54	0.4	-	0	0.2	0.3	0.5	0.7	1	3
NO (ppb) Average	708	0.03	0	-	0	0	0	0	0	0.1	0.5
NOX (ppb) Average	708	0.57	0.4	-	0	0.2	0.3	0.5	0.7	1.1	3
PM2.5 (ug/m3) Average	513	12.6	18.9	-	1	1.8	3.1	4.9	8.8	40.7	88.2
Temperature 2 m (C) Average	744	17.71	4.2	-	8.5	12.6	14.6	17.3	20.6	23.4	30.8
Relative Humidity (%) Average	744	70.21	18	-	25.9	45.2	56.9	70.9	84.7	94.6	99.4
Wind Speed 20 m (km/h) Average	744	9.3	3	-	1	5	7	9	11	14	21
Wind Direction 20 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-
Precipitation (mm) Total	744	-	-	65.27	-	-	-	-	-	-	-
Surface Wetness (% of range) Average	744	3.49	6.9	-	0	0.2	0.6	1	1.6	12.3	50.6
Global Solar Radiation (W/m2) Average	744	224.58	270.7	-	0	0	0.8	81.7	411.6	701	941.6

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - STONY MOUNTAIN (AMS18)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
SO2, TRS, THC/NMHC/CH4, O3	10 Jul 2026 13:00	10 Jul 2026 13:00	1	Maintenance - sample manifold cleaned
THC/NMHC/CH4	06 Jul 2026 9:00	07 Jul 2026 13:00	29	Unstable Operation - excessive baseline noise
THC/NMHC/CH4	20 Jul 2026 23:00	21 Jul 2026 11:00	13	Unstable Operation - inconsistent response
THC/NMHC/CH4	21 Jul 2026 12:00	21 Jul 2026 18:00	7	Maintenance - pump and actuator replaced
TRS	17 Jul 2026 09:00	17 Jul 2026 09:00	1	Maintenance - verify daily QA response
TRS	24 Jul 2026 09:00	24 Jul 2026 09:00	1	Maintenance - verify daily QA response
TRS	26 Jul 2026 08:00	26 Jul 2026 08:00	1	Maintenance - verify daily QA response
TRS	28 Jul 2026 12:00	28 Jul 2026 18:00	4	Maintenance - analyzer replacement
PM2.5	01 Jul 2026 11:00	01 Jul 2026 14:00	4	Unstable Operation - flatline in analyzer output signal
PM2.5	02 Jul 2026 06:00	02 Jul 2026 08:00	3	Unstable Operation - flatline in analyzer output signal
PM2.5	03 Jul 2026 18:00	04 Jul 2026 09:00	16	Unstable Operation - flatline in analyzer output signal
PM2.5	06 Jul 2026 05:00	06 Jul 2026 11:00	7	Unstable Operation - flatline in analyzer output signal
PM2.5	08 Jul 2026 06:00	08 Jul 2026 10:00	5	Unstable Operation - flatline in analyzer output signal
PM2.5	09 Jul 2026 06:00	09 Jul 2026 11:00	6	Unstable Operation - flatline in analyzer output signal
PM2.5	11 Jul 2026 01:00	11 Jul 2026 10:00	10	Unstable Operation - flatline in analyzer output signal
PM2.5	12 Jul 2026 04:00	13 Jul 2026 07:00	28	Unstable Operation - flatline in analyzer output signal
PM2.5	14 Jul 2026 08:00	14 Jul 2026 09:00	2	Unstable Operation - flatline in analyzer output signal
PM2.5	14 Jul 2026 13:00	15 Jul 2026 08:00	20	Unstable Operation - flatline in analyzer output signal
PM2.5	15 Jul 2026 10:00	15 Jul 2026 11:00	2	Unstable Operation - flatline in analyzer output signal
PM2.5	16 Jul 2026 01:00	16 Jul 2026 07:00	7	Unstable Operation - flatline in analyzer output signal
PM2.5	17 Jul 2026 01:00	20 Jul 2026 08:00	80	Unstable Operation - flatline in analyzer output signal
PM2.5	20 Jul 2026 19:00	20 Jul 2026 21:00	3	Unstable Operation - flatline in analyzer output signal
PM2.5	21 Jul 2026 19:00	22 Jul 2026 08:00	14	Unstable Operation - flatline in analyzer output signal
PM2.5	22 Jul 2026 19:00	23 Jul 2026 06:00	12	Unstable Operation - flatline in analyzer output signal
PM2.5	23 Jul 2026 13:00	23 Jul 2026 15:00	3	Maintenance- new data logger in place for PM2.5 analyzer
PM2.5	30 Jul 2026 00:00	30 Jul 2026 07:00	8	Unstable Operation - flatline in analyzer output signal



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

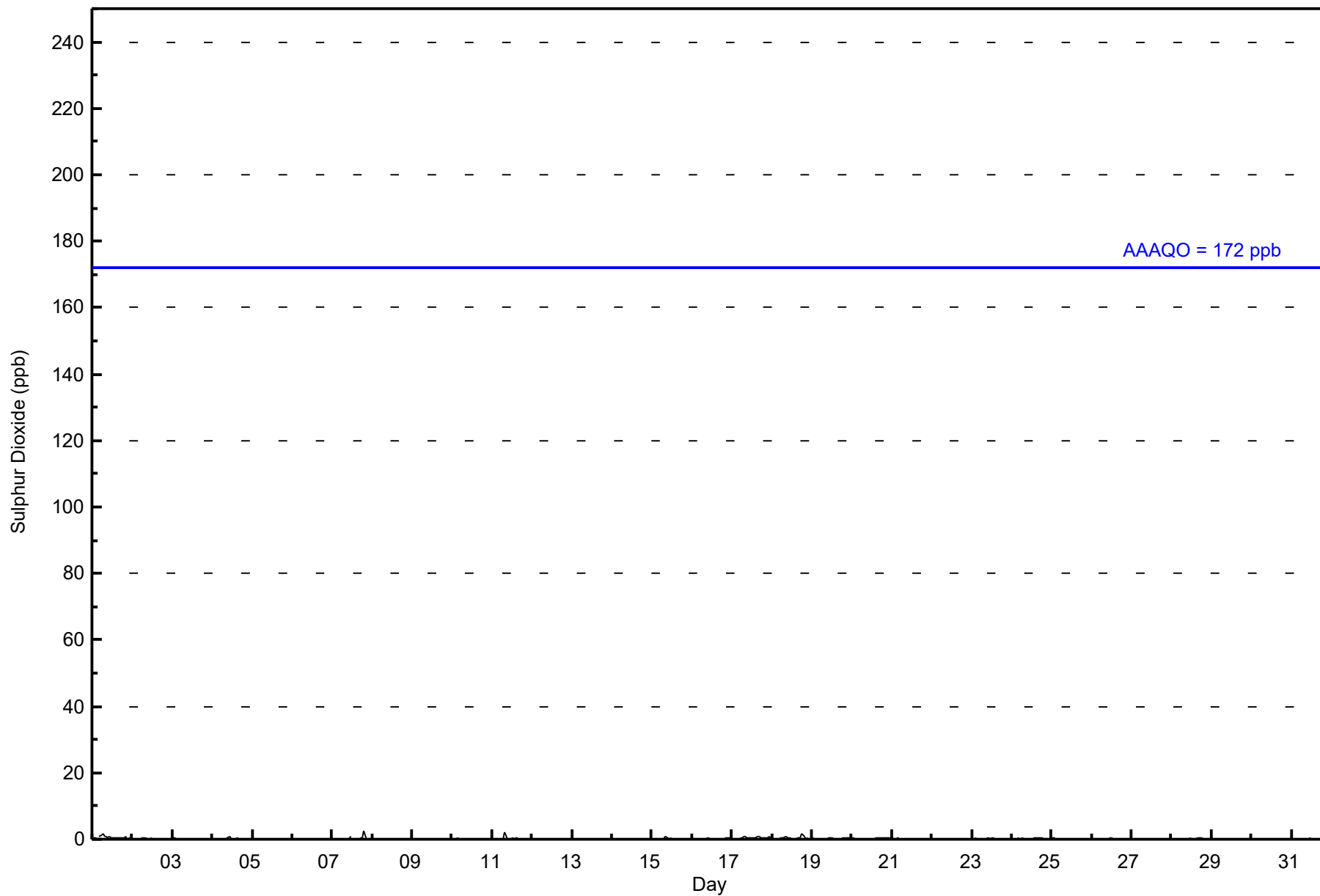
Stony Mountain - July 2026

Number of Exceedances (AAAQO): Maximum Value: 2.4 ppb on Jul 7 20:00																	1-hr: 0 24-hr: 0 Maximum Daily Average: 0.6 ppb on Jul 1										Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 3 15:00 Maximum Diurnal Average: 0.2 ppb at hour 9 Monthly Average: 0.14 ppb																	Minimum Daily Average: 0.0 ppb on Jul 8 Minimum Diurnal Average: 0.1 ppb at hour 3 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 1.0										Hours of Data: 708	
																											Hours of Missing Data: 36	
																											Hours of Calibration: 35	
																											Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	0.3	0.4	0.2	Z	1.0	1.2	1.8	1.0	0.8	0.6	0.9	0.4	0.3	0.4	0.4	0.4	0.2	0.4	0.5	0.3	1.0	0.0	0.4	0.1	0.6	1.8		
2-Jul	0.0	0.0	0.1	0.1	Z	0.2	0.3	0.2	0.3	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.3		
3-Jul	0.3	0.3	0.1	0.0	0.0	Z	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.3		
4-Jul	Z	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.7	0.2	0.0	0.0	0.1	0.3	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.7		
5-Jul	0.2	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2		
6-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1		
7-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.2	0.2	0.4	0.8	C	C	C	C	0.0	0.3	0.3	2.4	0.0	0.0	0.0	0.0	0.3	2.4		
8-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
9-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1		
10-Jul	Z	0.0	0.0	0.2	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0	M	0.1	0.2	0.1	0.0	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2		
11-Jul	0.4	Z	0.1	0.1	0.0	0.1	0.2	1.9	1.1	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.2	1.9		
12-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1		
13-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1		
14-Jul	0.1	0.1	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2		
15-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.9	0.3	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.9		
16-Jul	Z	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.3		
17-Jul	0.2	Z	0.2	0.1	0.1	0.3	0.3	0.8	0.7	0.6	0.3	0.2	0.6	0.6	0.6	0.7	0.8	0.6	0.6	0.5	0.4	0.4	0.8	0.4	0.5	0.8		
18-Jul	0.3	0.6	Z	0.1	0.2	0.5	0.5	0.5	1.0	0.4	0.2	0.2	0.1	0.1	0.1	0.3	0.4	0.4	1.5	1.0	0.1	0.4	0.1	0.1	0.4	1.5		
19-Jul	0.3	0.2	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.3	0.4	0.2	0.4		
20-Jul	0.4	0.3	0.2	0.1	Z	0.0	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.5	0.4	0.2	0.6	0.3	0.3	0.4	0.3	0.3	0.3	0.6		
21-Jul	0.2	0.2	0.2	0.5	0.4	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.5		
22-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1		
23-Jul	0.2	Z	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.3		
24-Jul	0.0	0.1	Z	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.5	0.6	0.3	0.3	0.3	0.3	0.1	0.1	0.2	0.2	0.1	0.2	0.6		
25-Jul	0.3	0.2	0.3	Z	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3		
26-Jul	0.0	0.0	0.0	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3		
27-Jul	0.0	0.1	0.2	0.1	0.0	Z	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2		
28-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.2	0.5	0.4	0.3	0.4	0.2	0.0	0.0	0.0	0.0	0.1	0.5		
29-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2		
30-Jul	0.2	0.2	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2		
31-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2		
																									Diurnal Average			
																									Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance																												
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																												



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Stony Mountain - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	708	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Stony Mountain - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	6	8	15	10	21	22	34	36	41	72	69	77	134	82	62	19	708
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	6	8	15	10	21	22	34	36	41	72	69	77	134	82	62	19	708

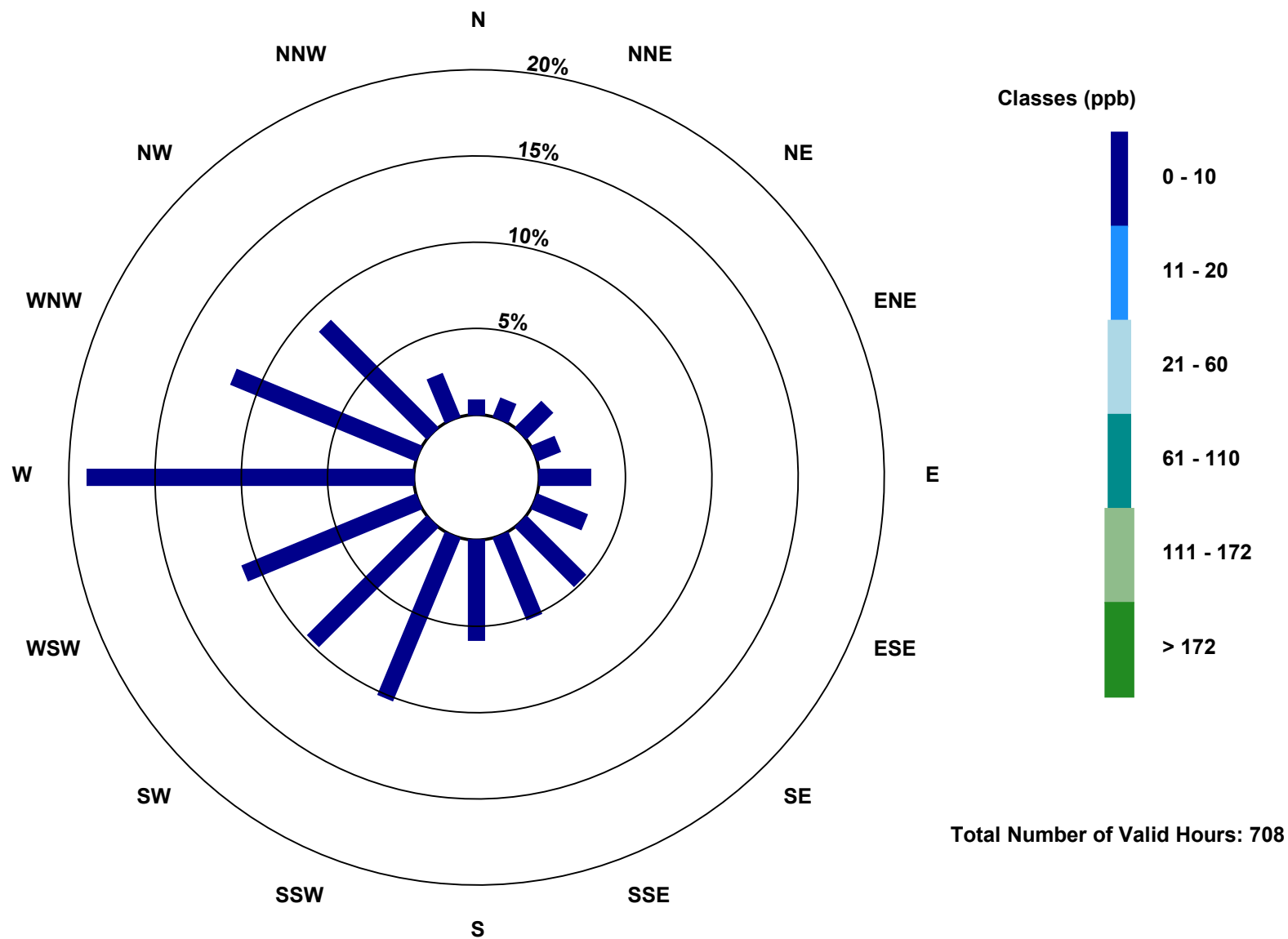
Total Number of Valid Hours: 708

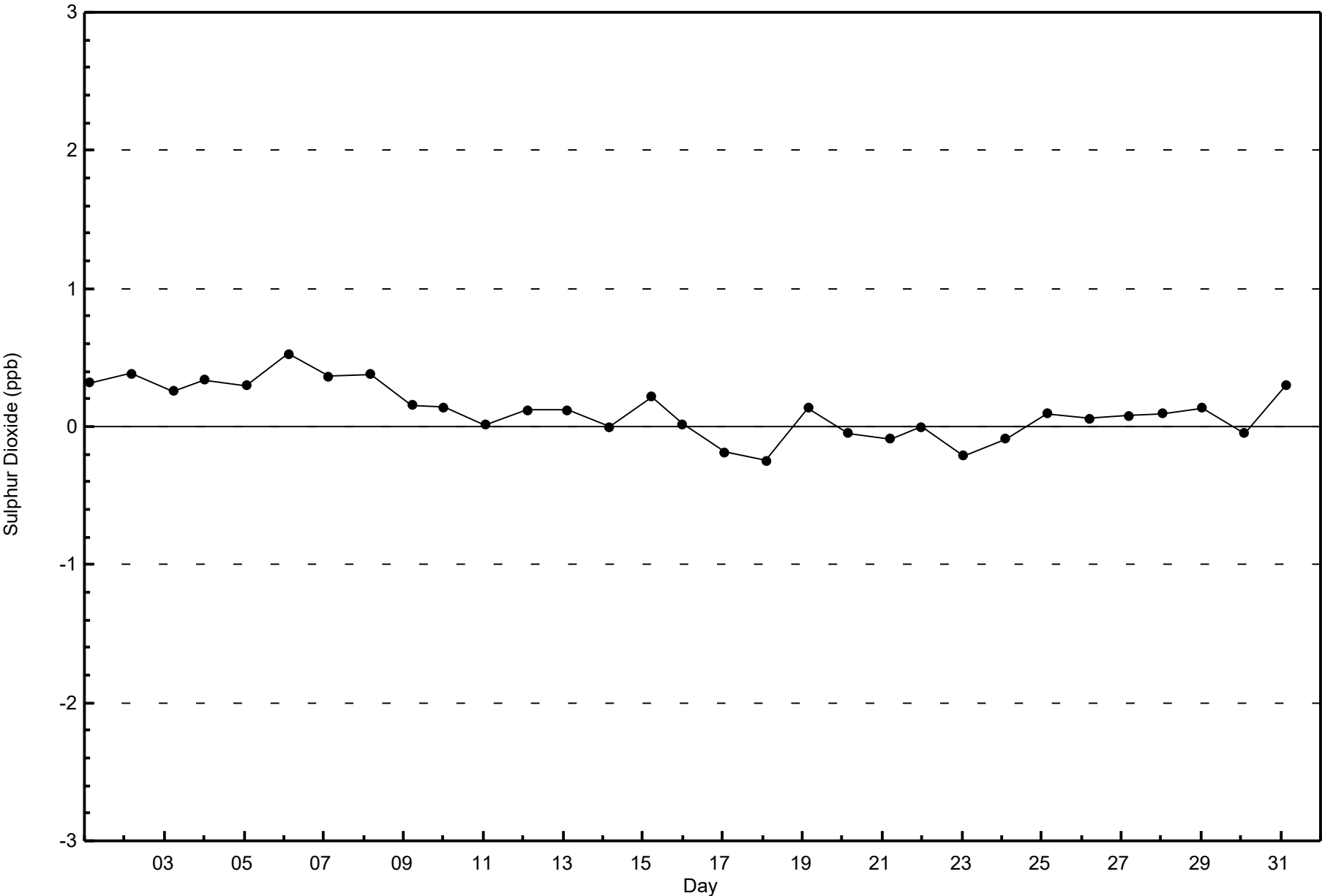
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Sulphur Dioxide (SO₂) - ppb
Stony Mountain

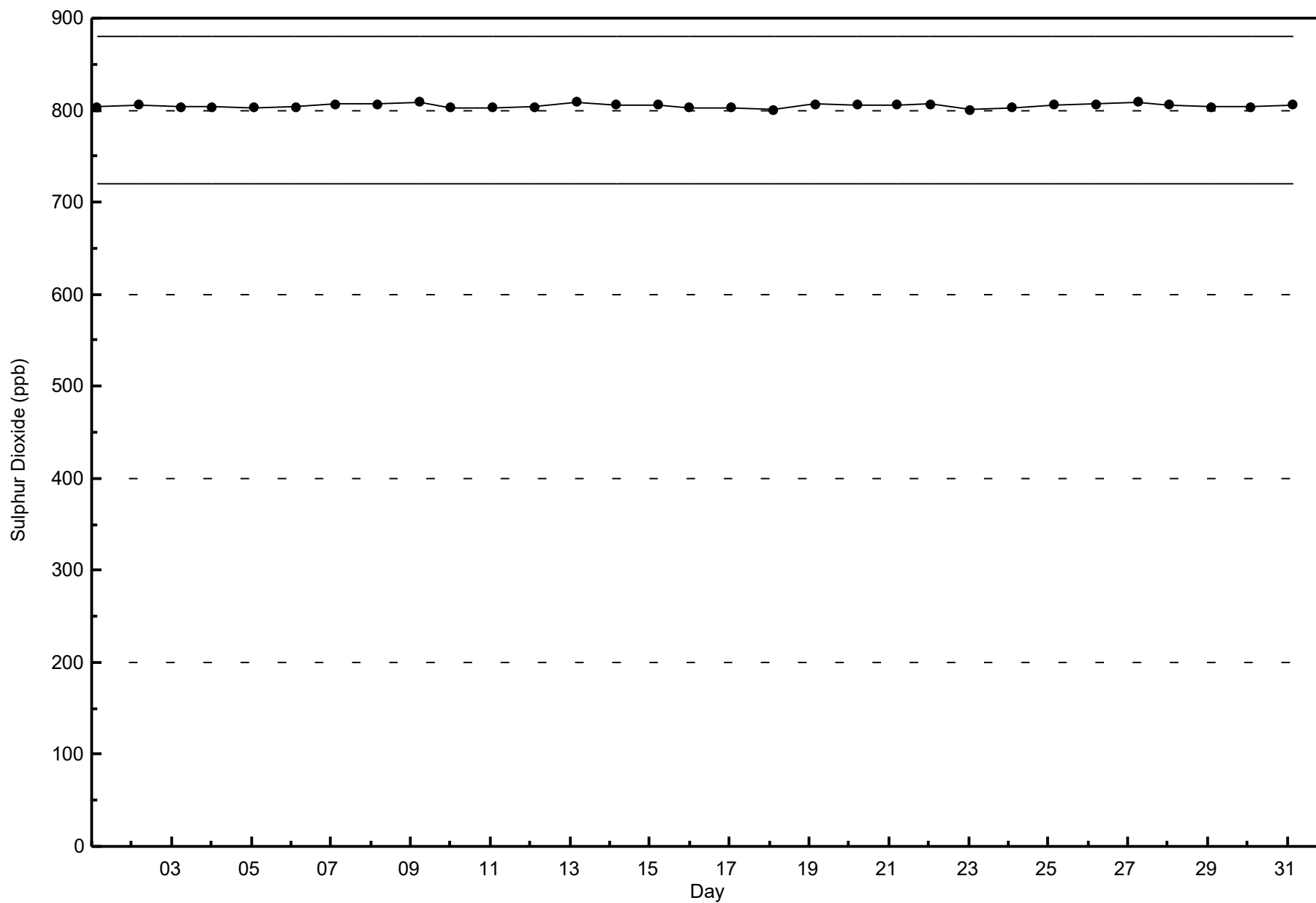






Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Stony Mountain - July 2026





Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Stony Mountain - July 2026

Number of Exceedences (AAAQG): 30-Min: 0																			Periods in Service: 1488									
Maximum Value: 0.9 ppb on Jul 20 09:00																			Maximum Daily Average: 0.5 ppb on Jul 20					Periods of Valid Data: 1391				
Minimum Value: 0.0 ppb on Jul 15 20:00																			Minimum Daily Average: 0.1 ppb on Jul 16					Periods of Invalid Data: 97				
Maximum Diurnal Average: 0.4 ppb at hour 7																			Minimum Diurnal Average: 0.3 ppb at hour 1					Periods of Calibration: 79				
Monthly Average: 0.33 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.4 Q ₃ = 0.4 P ₉₀ = 0.4 P ₉₉ = 0.6					Percent Operational Time: 98.8				
Day	Period Ending At (MST)																								Daily Average	Daily Maximum		
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00				
1-Jul	0.4 0.4	0.4 0.4	0.4 0.3	0.5 0.6	Z SP	0.5 0.5	0.5 0.5	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.4	0.3 0.4	0.4 0.4	0.4 0.3	0.3 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4	0.6		
2-Jul	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	Z SP	0.4 0.4	0.5 0.5	0.5 0.4	0.5 0.4	0.4 0.4	0.4 0.4	0.5 0.5	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.3	0.3 0.4	0.4 0.4	0.4 0.3	0.4 0.4	0.4 0.3	0.4 0.4	0.4	0.5		
3-Jul	Z SP	0.3 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.5 0.5	0.5 0.5	0.4 0.5	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4	0.5		
4-Jul	0.4 0.4	Z SP	0.3 0.4	0.4 0.4	0.4 0.4	0.3 0.4	0.3 0.3	0.4 0.3	0.3 0.3	0.4 0.4	0.4 0.3	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4	0.4		
5-Jul	0.3 0.3	0.3 0.3	Z SP	0.3 0.3	0.3 0.3	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4	0.4		
6-Jul	0.4 0.4	0.4 0.4	0.4 0.4	Z SP	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.3	0.4 0.4	0.4 0.4	0.3 0.3	C C	C C	C C	C C	C C	0.6 0.5	0.4 0.4	0.4 0.4	0.3 0.4	0.4 0.4	0.4 0.4	0.3 0.4	0.4 0.4	0.4	0.6		
7-Jul	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	Z SP	0.6 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.5	0.5 0.4	0.4 0.4	0.4	0.6		
8-Jul	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	Z SP	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.5	0.4 0.5	0.4 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4	0.5		
9-Jul	Z SP	0.3 0.3	0.4 0.4	0.4 0.3	0.4 0.3	0.3 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.3 0.4	0.3 0.3	0.3 0.3	0.3 0.4	0.3 0.3	0.4 0.3	0.4 0.3	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4	0.4		
10-Jul	0.4 0.4	Z SP	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.3	0.4 0.4	0.4 0.3	0.4 0.3	0.4 M	M M	0.3 0.3	0.3 0.3	0.3 0.4	0.3 0.4	0.4 0.4	0.3 0.3	0.4 0.3	0.4 0.3	0.4 0.3	0.4 0.3	0.4 0.3	0.4	0.4		
11-Jul	0.5 0.5	0.5 0.4	Z SP	0.4 0.3	0.4 0.3	0.3 0.3	0.3 0.4	0.5 0.4	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.4 0.3	0.3 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3	0.5		
12-Jul	0.3 0.3	0.3 0.3	0.3 0.3	Z SP	0.3 0.3	0.3 0.3	0.3 0.4	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3	0.4		
13-Jul	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	Z SP	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3	0.3		
14-Jul	0.3 0.3	0.3 0.4	0.3 0.3	0.3 0.3	0.3 0.3	Z SP	0.3 0.3	0.4 0.4	0.4 0.3	0.3 0.4	0.3 0.4	0.3 0.3	0.4 0.4	0.4 0.3	0.4 0.4	0.4 0.4	0.4 0.3	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.3	0.4 0.4	0.4	0.4		
15-Jul	Z SP	0.4 0.4	0.4 0.4	0.3 0.4	0.3 0.3	0.4 0.3	0.3 0.4	0.3 0.3	0.4 0.4	0.4 0.4	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.4	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.3	0.5		



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Stony Mountain - July 2026

Day	Period Ending At (MST)																								Daily Average	Daily Maximum
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00		
16-Jul	0.0 0.0	Z SP	0.5 0.5	0.3 0.1	0.0 0.0	0.1 0.1	0.1 0.1	0.1 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	0.1 0.1	0.1 0.1	0.1 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.1	0.5
17-Jul	0.1 0.1	0.1 0.1	Z SP	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	M 0.5	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.5	0.5 0.5	0.4	0.5
18-Jul	0.4 0.4	0.4 0.4	0.4 0.4	Z SP	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.1	0.1 0.0	0.1 0.1	0.0 0.0	0.0 0.0	0.1 0.0	0.0 0.0	0.0 0.1	0.1 0.1	0.1 0.1	0.1 0.0	0.1 0.1	0.1 0.1	0.1 0.1	0.2	0.4
19-Jul	0.1 0.0	0.1 0.0	0.1 0.1	0.1 0.1	Z SP	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.2	0.1 0.1	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	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	0.2	0.4
20-Jul	0.1 0.1	0.1 0.1	0.1 0.2	0.2 0.2	0.2 0.3	Z SP	0.8 0.8	0.8 0.9	M M	0.8 0.7	0.7 0.6	0.6 0.5	0.5 0.6	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.4	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.5	0.9
21-Jul	Z SP	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.4	0.4 0.4	0.4 0.4	0.4 0.5	0.5 0.5	0.5 0.5	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4	0.5
22-Jul	0.4 0.4	Z SP	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.3	0.4 0.3	0.4 0.3	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.2 0.1	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.3	0.4
23-Jul	0.0 0.0	0.0 0.0	Z SP	0.5 0.5	0.5 0.4	0.4 0.4	0.5 0.5	0.5 0.5	0.5 0.6	0.6 0.5	0.5 0.5	0.6 0.5	0.4 0.4	0.3 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.1	0.3	0.6
24-Jul	0.2 0.2	0.2 0.2	0.1 0.1	Z SP	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	M M	0.4 0.3	0.4 0.4	0.4 0.4	0.4 0.5	0.5 0.5	0.5 0.5	0.4 0.4	0.4 0.5	0.4 0.5	0.5 0.5	0.4 0.5	0.5 0.5	0.5 0.5	0.5 0.4	0.4 0.4	0.4	0.5
25-Jul	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	Z SP	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.3	0.4 0.3	0.3 0.1	0.0 0.0	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.3	0.4
26-Jul	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	Z SP	0.4 0.4	M 0.4	0.4 0.3	0.3 0.3	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.4	0.3 0.3	0.3 0.3	0.4 0.4	0.4 0.5	0.5 0.4	0.5 0.5	0.5 0.5	0.5 0.5	0.5 0.5	0.3	0.5
27-Jul	Z SP	0.7 0.7	0.7 0.7	0.7 0.7	0.6 0.5	0.6 0.6	0.5 0.4	0.4 0.4	0.4 0.4	0.3 0.2	0.2 0.1	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3	0.7
28-Jul	0.2 0.2	Z SP	0.4 0.4	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	M M	M M	M M	M M	C C	C C	C C	C C	0.3 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	--	0.4
29-Jul	0.3 0.3	0.3 0.3	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.3
30-Jul	0.2 0.2	0.2 0.2	0.2 0.2	Z SP	0.3 0.2	0.2 0.3	0.3 0.3	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.3
31-Jul	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	Z SP	0.2 0.2	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.3
0.3 0.3 0.3 0.4 0.3 0.4 0.4 0.4 0.4 0.4 0.4 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3																								Diurnal Average		
0.5 0.7 0.7 0.7 0.6 0.6 0.8 0.8 0.9 0.8 0.7 0.6 0.6 0.5 0.5 0.5 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5																								Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance SP - Span																										
Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb																										



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

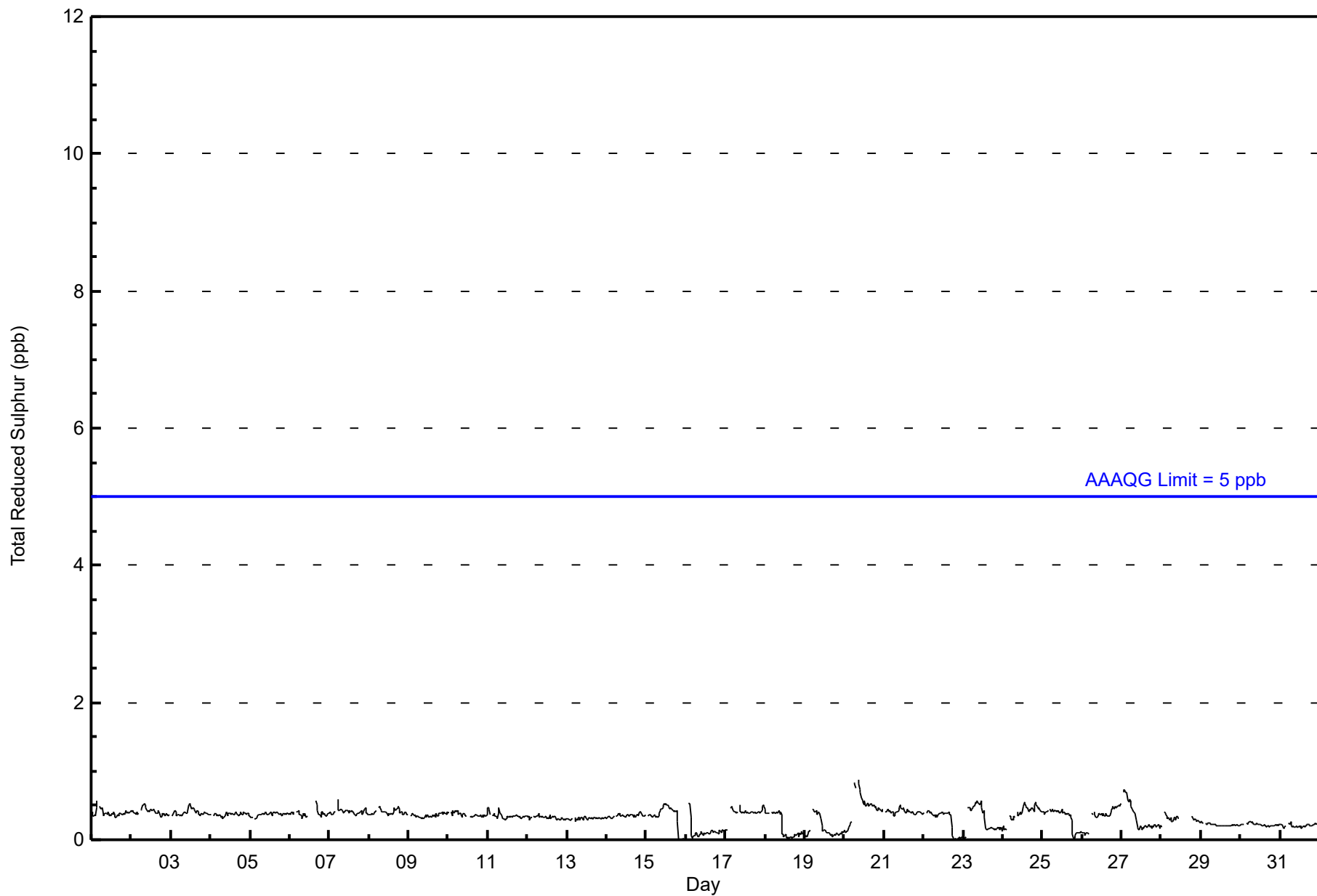
Stony Mountain - July 2026

Maximum Value: 0.9 ppb on Jul 20 09:00																		Maximum Daily Average: 0.5 ppb on Jul 20								Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 15 21:00																		Minimum Daily Average: 0.1 ppb on Jul 16								Hours of Data: 697	
Maximum Diurnal Average: 0.4 ppb at hour 9																		Minimum Diurnal Average: 0.3 ppb at hour 1								Hours of Missing Data: 47	
Monthly Average: 0.33 ppb																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.4 Q ₃ = 0.4 P ₉₀ = 0.4 P ₉₉ = 0.7								Hours of Calibration: 39	
																										Percent Operational Time: 98.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.4	0.4	0.4	0.5	Z	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
2-Jul	0.4	0.4	0.4	0.4	0.4	Z	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
3-Jul	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
4-Jul	0.4	Z	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
5-Jul	0.3	0.3	Z	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
6-Jul	0.4	0.4	0.4	Z	0.4	0.4	0.4	0.3	0.4	0.4	0.3	C	C	C	C	C	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.5	
7-Jul	0.4	0.4	0.4	0.4	Z	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
8-Jul	0.4	0.4	0.4	0.4	0.4	Z	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
9-Jul	Z	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
10-Jul	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	M	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	
11-Jul	0.5	0.4	Z	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
12-Jul	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
13-Jul	0.3	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
14-Jul	0.3	0.3	0.3	0.3	0.3	Z	0.3	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	
15-Jul	Z	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.1	0.0	0.0	0.0	0.0	0.3	
16-Jul	0.0	Z	0.5	0.2	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	0.1	
17-Jul	0.1	0.1	Z	0.5	0.5	0.4	0.4	0.4	M	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.5	
18-Jul	0.4	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.2	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	0.2	
19-Jul	0.1	0.1	0.1	0.1	Z	0.4	0.4	0.4	0.4	0.4	0.3	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	0.2	
20-Jul	0.1	0.1	0.2	0.2	0.3	Z	0.8	0.8	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.5	
21-Jul	Z	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
22-Jul	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	
23-Jul	0.0	0.0	Z	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	
24-Jul	0.2	0.2	0.1	Z	0.3	0.3	0.3	0.3	M	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	
25-Jul	0.4	0.4	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.3	
26-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.4	M	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.3	
27-Jul	Z	0.7	0.7	0.7	0.6	0.6	0.5	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	
28-Jul	0.2	Z	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	M	M	M	M	C	C	C	0.4	0.3	0.3	0.3	0.3	0.3	0.3	--	
29-Jul	0.3	0.3	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
30-Jul	0.2	0.2	0.2	Z	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
31-Jul	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
0.3 0.3 0.3 0.4 0.3 0.4 0.4 0.4 0.4 0.4 0.4 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3																									Diurnal Average		
0.5 0.7 0.7 0.7 0.6 0.6 0.8 0.8 0.9 0.8 0.7 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5																									Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance																											
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA																											



Wood Buffalo Environmental Association
Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Stony Mountain - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	697	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 697

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Stony Mountain - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	6	8	14	10	25	21	28	34	44	71	69	77	134	82	56	18	697
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	6	8	14	10	25	21	28	34	44	71	69	77	134	82	56	18	697

Total Number of Valid Hours: 697

Total Number of Hours: 744



Total Reduced Sulphur (TRS) - ppb

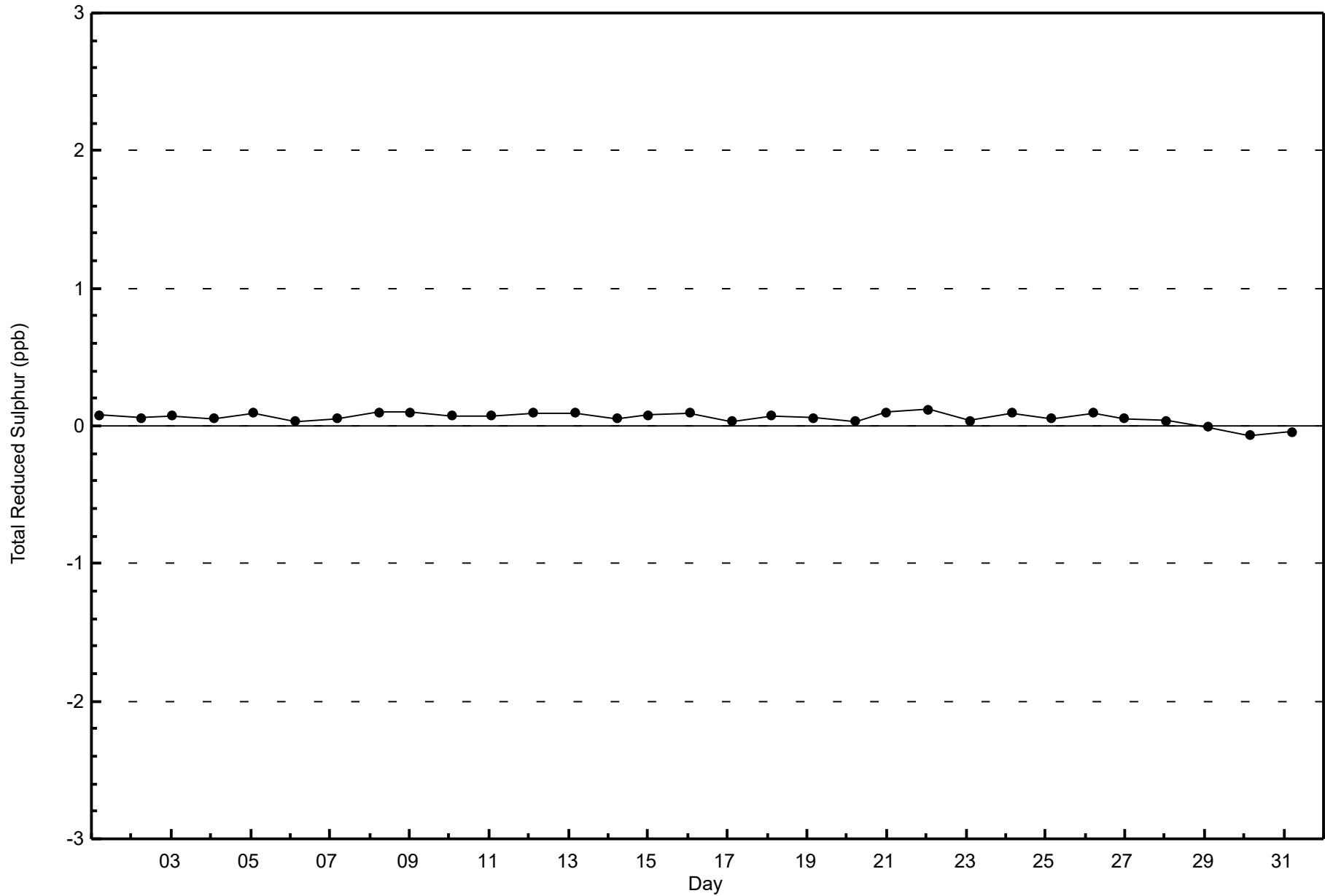
Stony Mountain





Wood Buffalo Environmental Association
Zero Responses

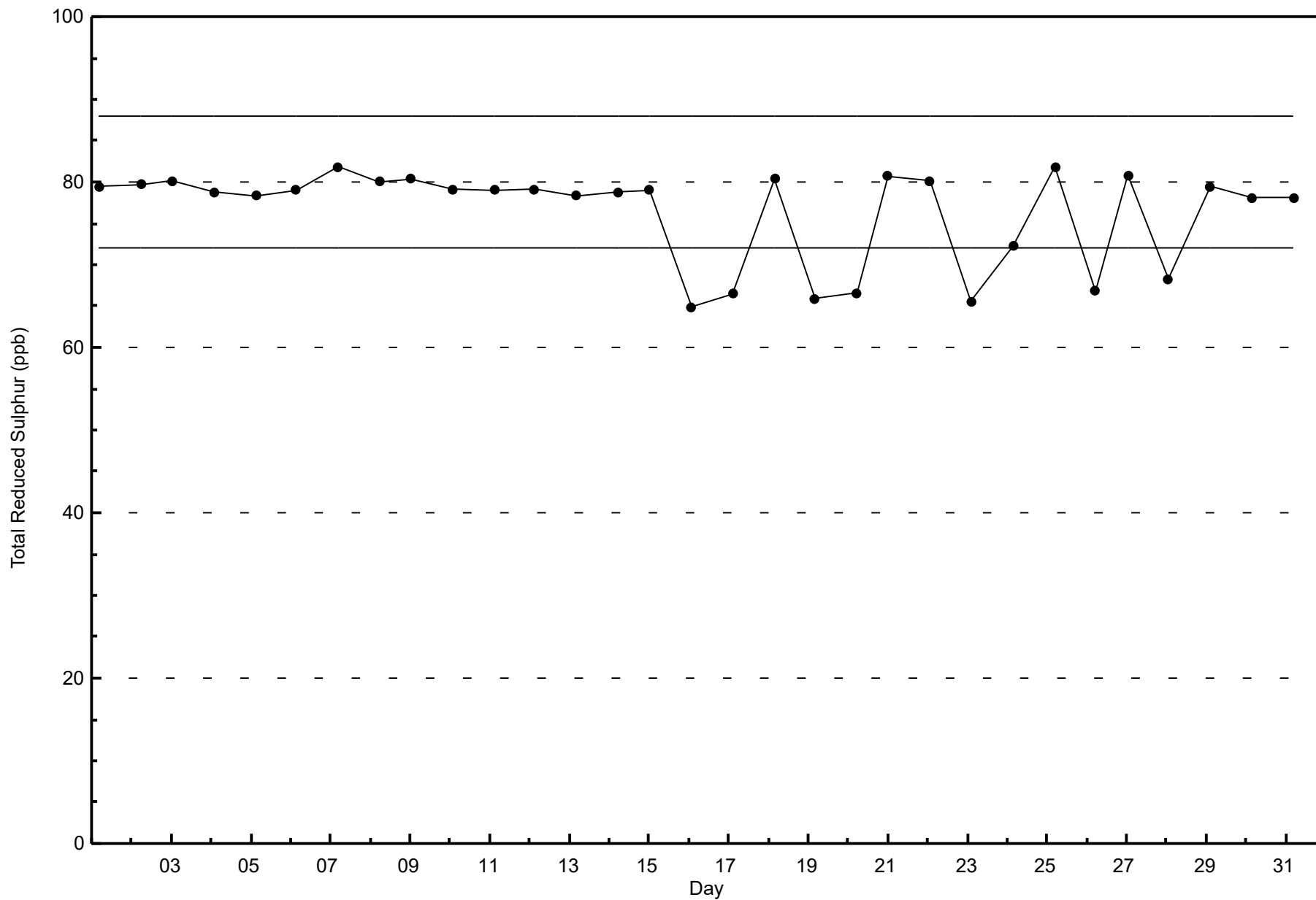
Total Reduced Sulphur (TRS) - ppb
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Span Responses

Total Reduced Sulphur (TRS) - ppb
Stony Mountain - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

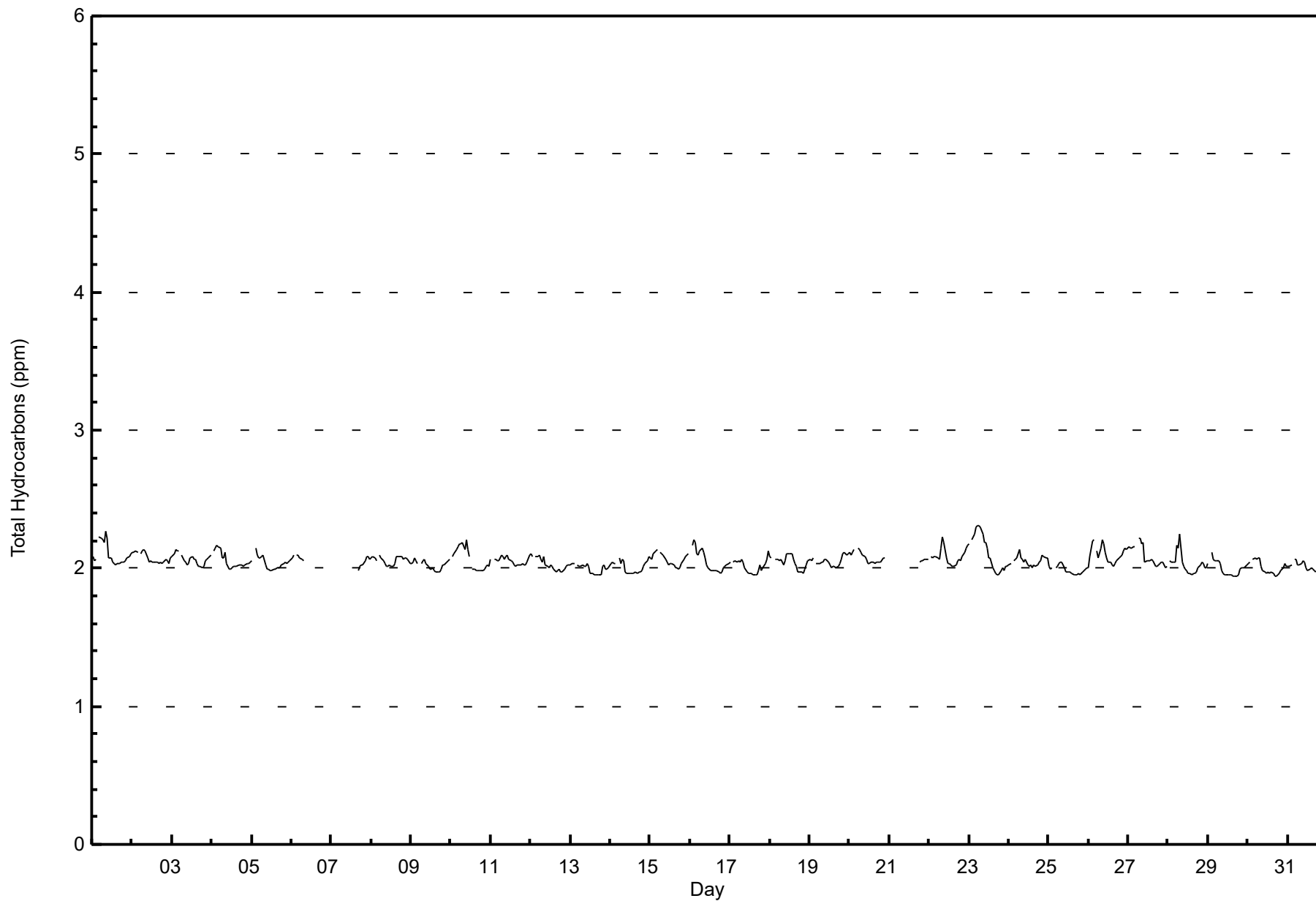
Stony Mountain - July 2026

Maximum Value: 2.3 ppm on Jul 23 07:00																	Maximum Daily Average: 2.1 ppm on Jul 23										Hours in Service: 744	
Minimum Value: 1.9 ppm on Jul 29 18:00																	Minimum Daily Average: 2.0 ppm on Jul 25										Hours of Data: 662	
Maximum Diurnal Average: 2.1 ppm at hour 4																	Minimum Diurnal Average: 2.0 ppm at hour 17										Hours of Missing Data: 82	
Monthly Average: 2.05 ppm																	Percentiles: P ₁ = 1.9 P ₁₀ = 2.0 Q ₁ = 2.0 Median = 2.0 Q ₃ = 2.1 P ₉₀ = 2.1 P ₉₉ = 2.2										Hours of Calibration: 32	
																											Percent Operational Time: 93.3	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	2.1	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.3	
2-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.1	
3-Jul	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	
4-Jul	Z	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	
5-Jul	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	
6-Jul	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	2.1	
7-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	C	C	C	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	--	2.1	
8-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1		
9-Jul	2.0	2.0	2.1	2.1	2.0	Z	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	
10-Jul	Z	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.1	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	
11-Jul	2.1	Z	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	
12-Jul	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	
13-Jul	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
14-Jul	2.0	2.0	2.0	2.0	Z	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1		
15-Jul	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	
16-Jul	Z	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	
17-Jul	2.0	Z	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	
18-Jul	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	
19-Jul	2.1	2.1	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	
20-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	UO	UO	2.1	2.1		
21-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	M	M	M	M	M	M	M	2.0	2.1	2.1	2.1	2.1	2.1	--	2.1	
22-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.2		
23-Jul	2.2	Z	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3		
24-Jul	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	
25-Jul	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
26-Jul	2.0	2.1	2.2	2.2	Z	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2		
27-Jul	2.2	2.1	2.1	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2		
28-Jul	Z	2.1	2.0	2.0	2.0	2.2	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	
29-Jul	2.0	Z	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1		
30-Jul	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	
31-Jul	2.0	2.0	2.0	Z	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1		
2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.1 2.1																								Diurnal Average				
2.2 2.2 2.2 2.2 2.3 2.3 2.3 2.3 2.3 2.3 2.2 2.2 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.2 2.2																								Diurnal Maximum				
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation																												



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Stony Mountain - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	382	57.70	57.70
2.1 - 3.0	280	42.30	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 662

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Stony Mountain - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	3	4	5	5	14	13	16	14	20	27	27	48	94	48	33	11	382
2.1 - 3.0	3	4	10	5	5	8	18	20	20	44	38	21	34	20	24	6	280
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	6	8	15	10	19	21	34	34	40	71	65	69	128	68	57	17	662

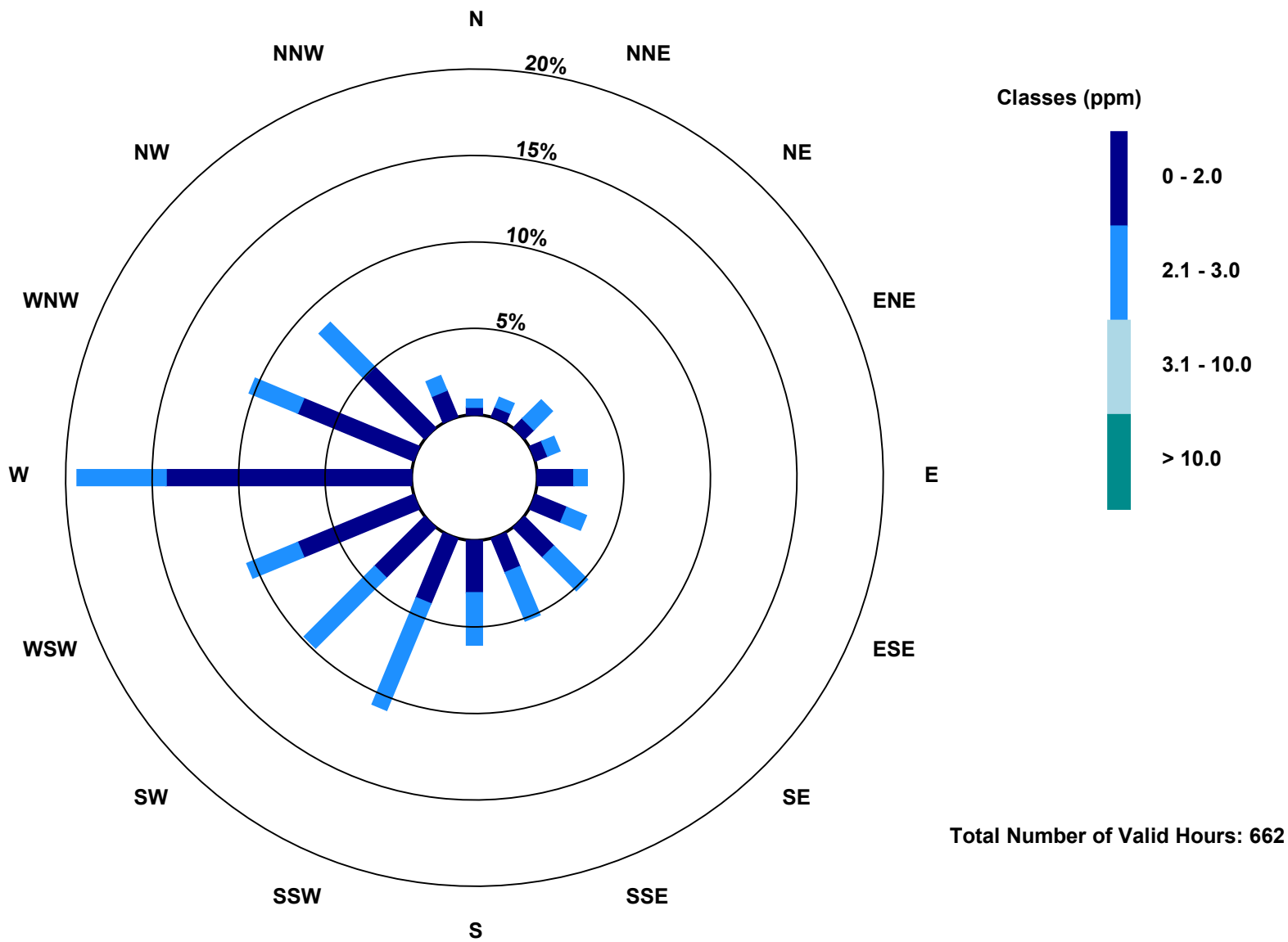
Total Number of Valid Hours: 662

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

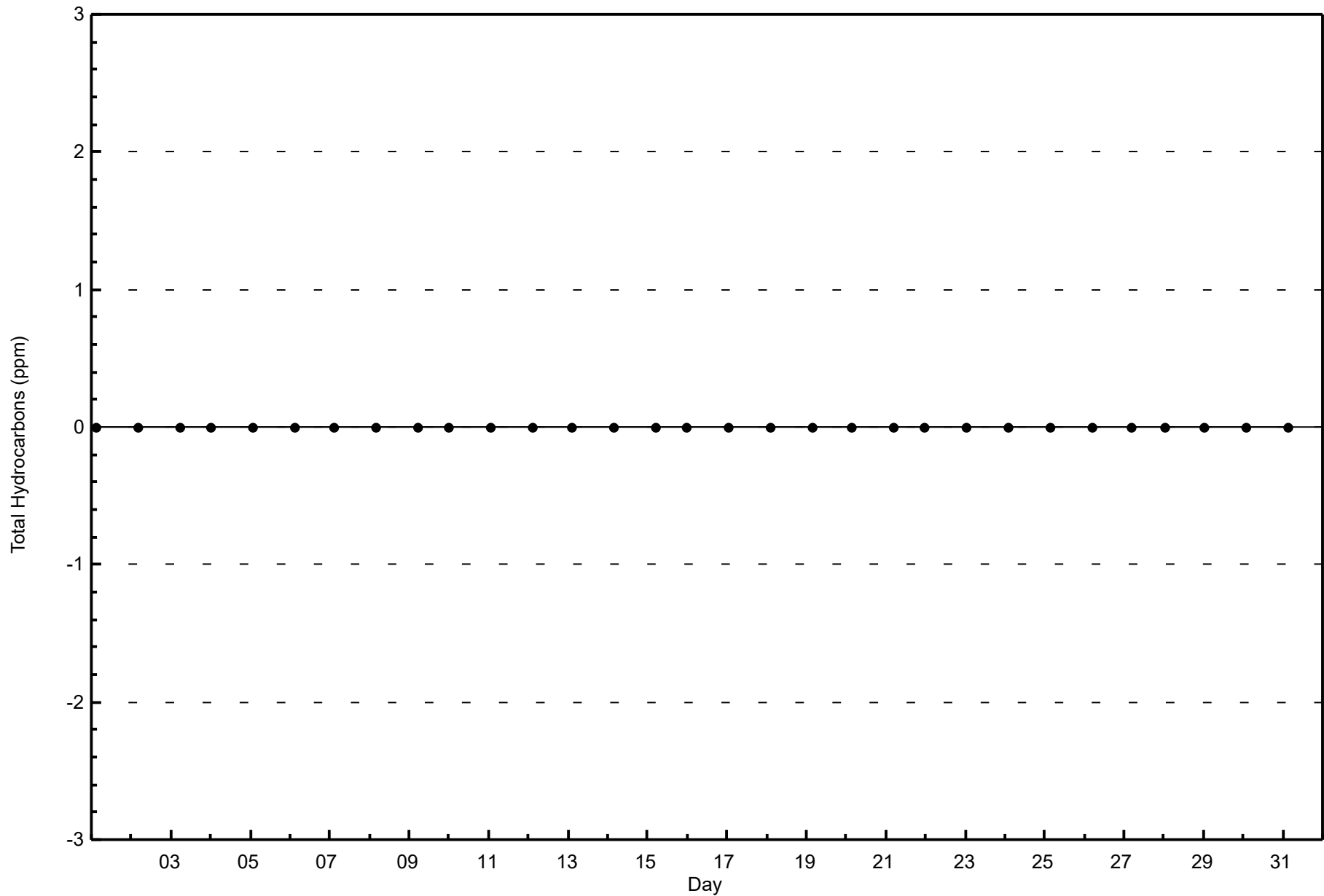
Total Hydrocarbons (THC) - ppm
Stony Mountain





Wood Buffalo Environmental Association
Zero Responses

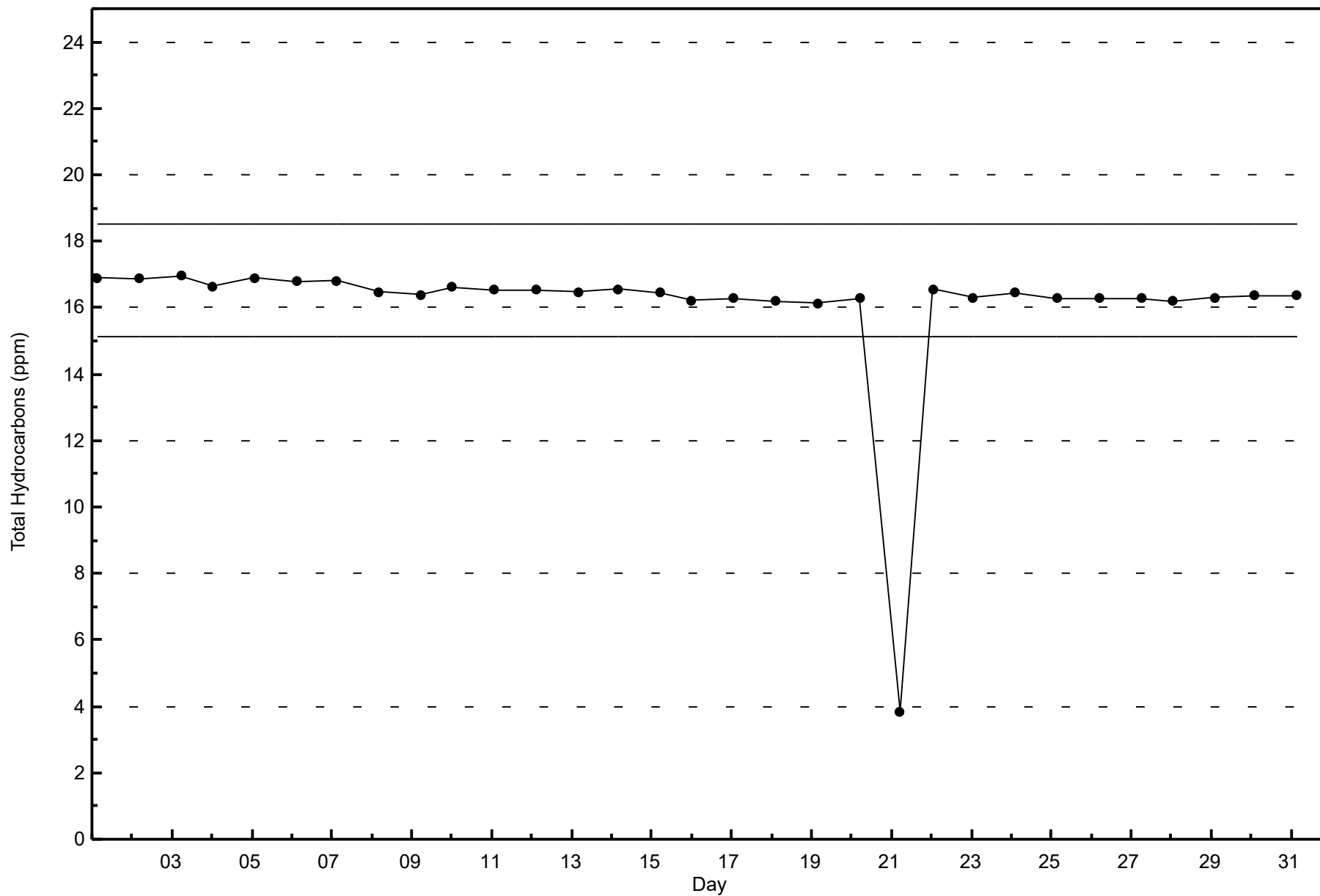
Total Hydrocarbons (THC) - ppm
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Span Responses

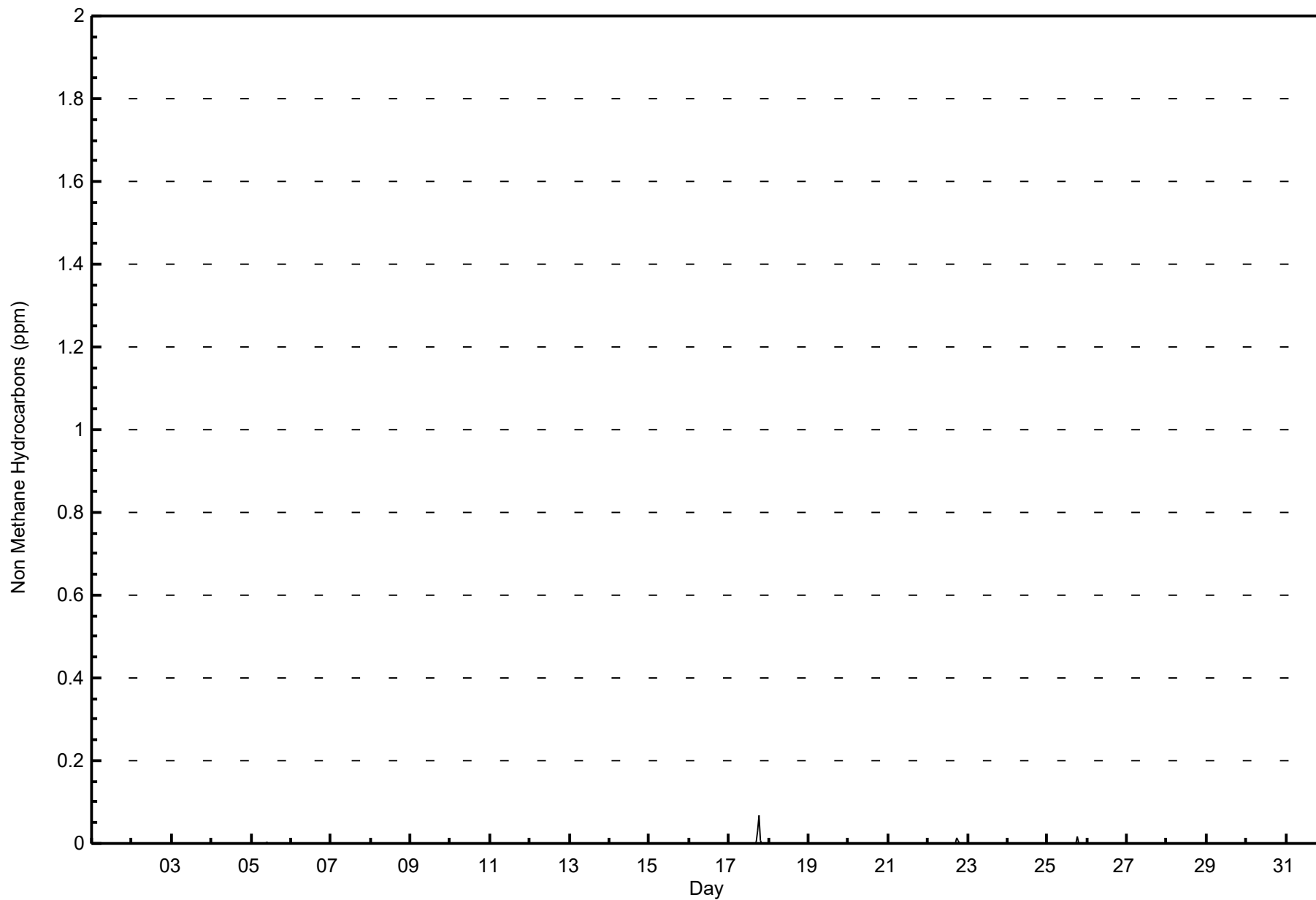
Total Hydrocarbons (THC) - ppm
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Stony Mountain - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	656	99.09	99.09
0.006 - 0.05	5	0.76	99.85
0.06 - 0.1	1	0.15	100.00
> 0.1	0	0.00	100.00

Total Number of Valid Hours: 662

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Stony Mountain - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 0.005	6	8	14	9	17	20	34	34	40	71	65	69	128	68	57	16	656
0.006 - 0.05	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	1	5
0.06 - 0.1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
> 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	6	8	15	10	19	21	34	34	40	71	65	69	128	68	57	17	662

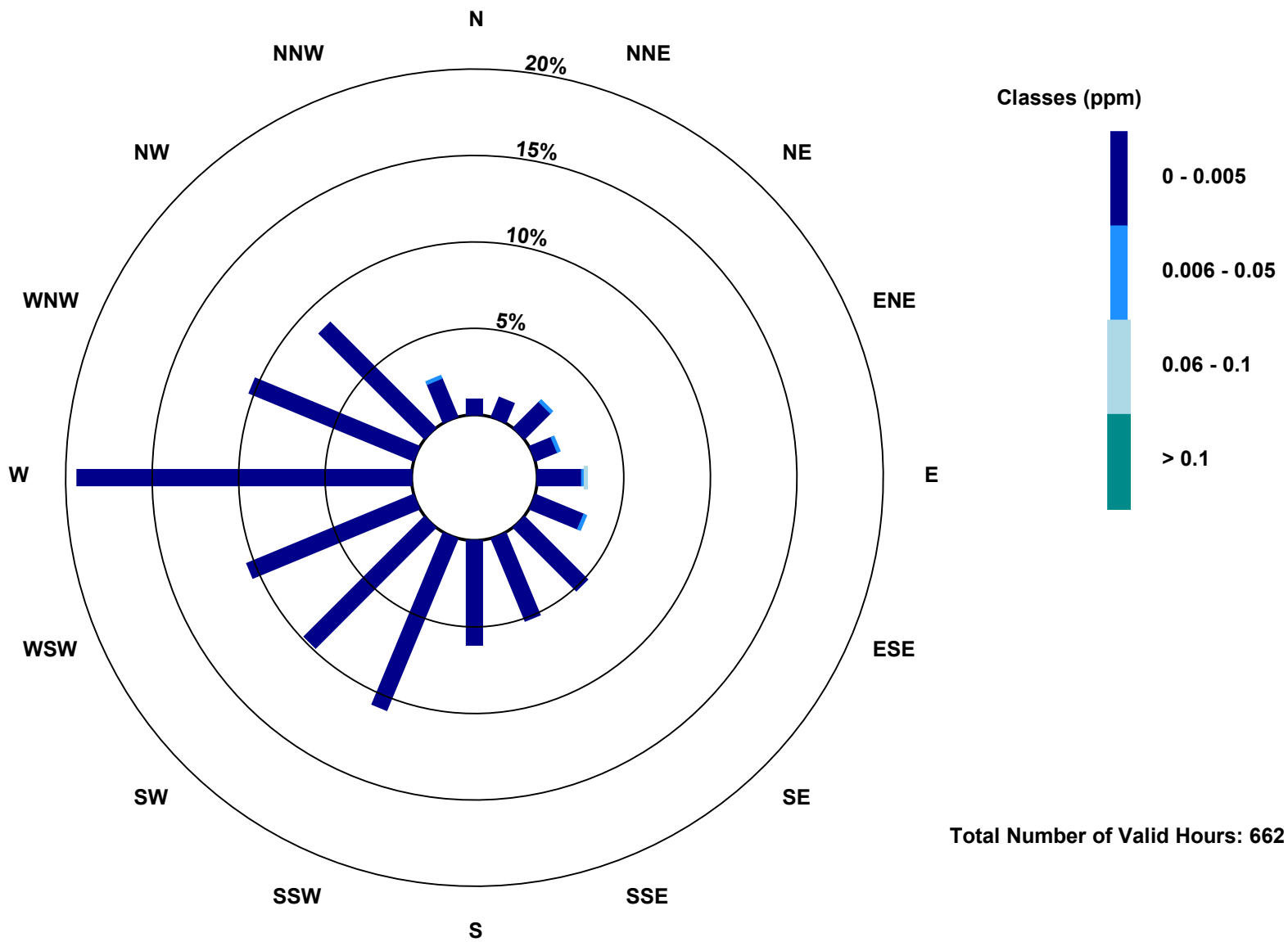
Total Number of Valid Hours: 662

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Non Methane Hydrocarbons (NMHC) - ppm
Stony Mountain



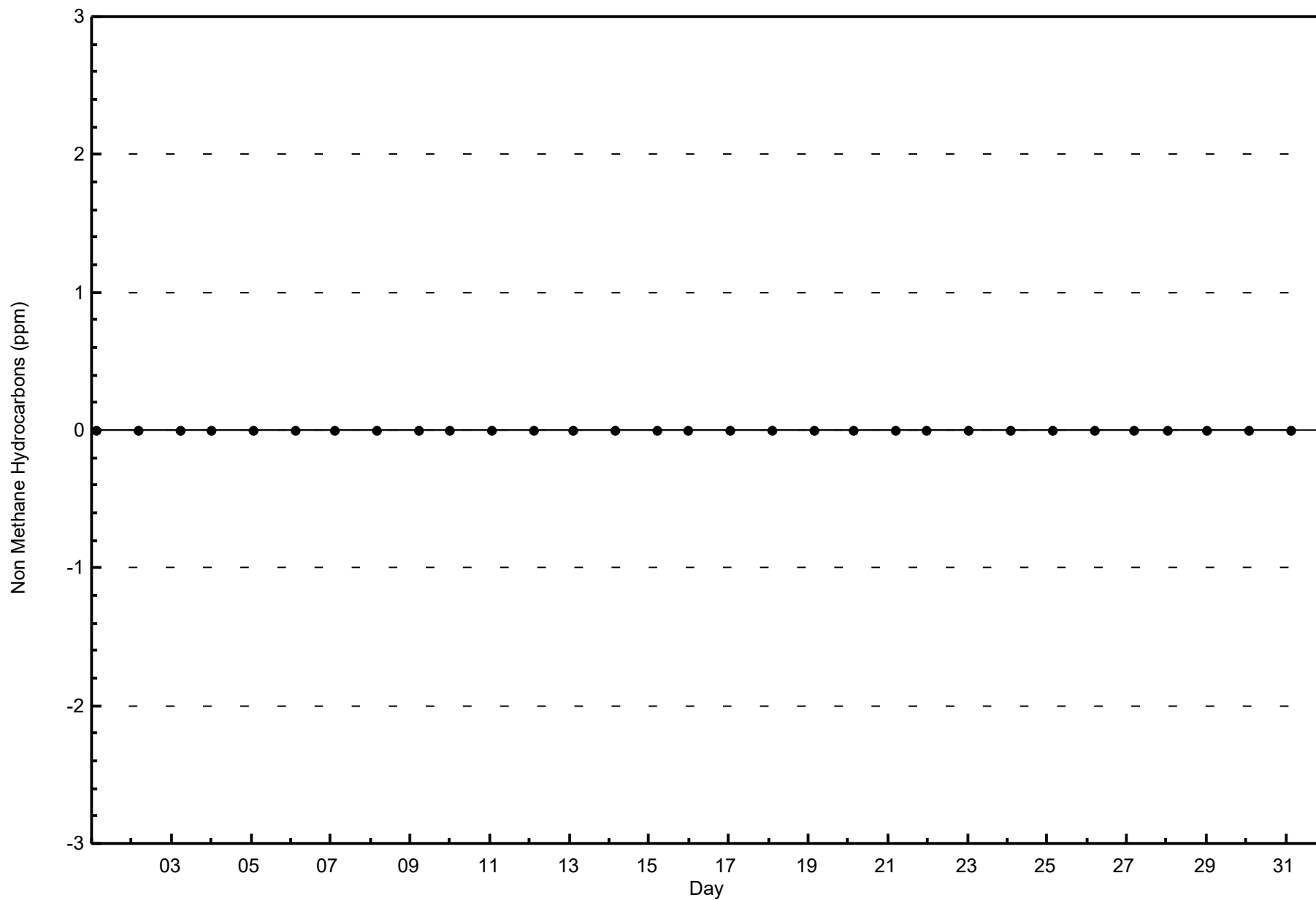


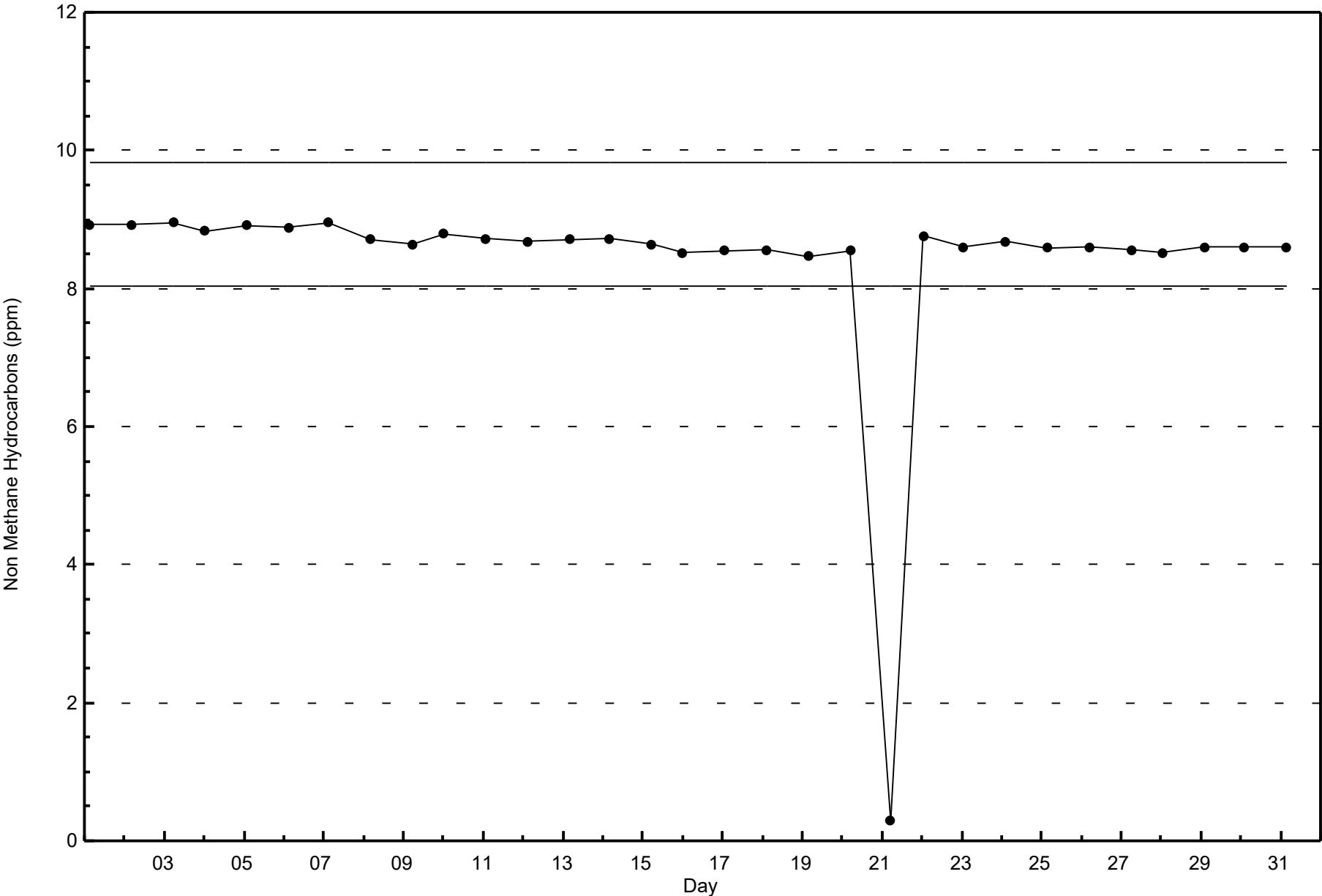
Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Stony Mountain - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH₄) - ppm

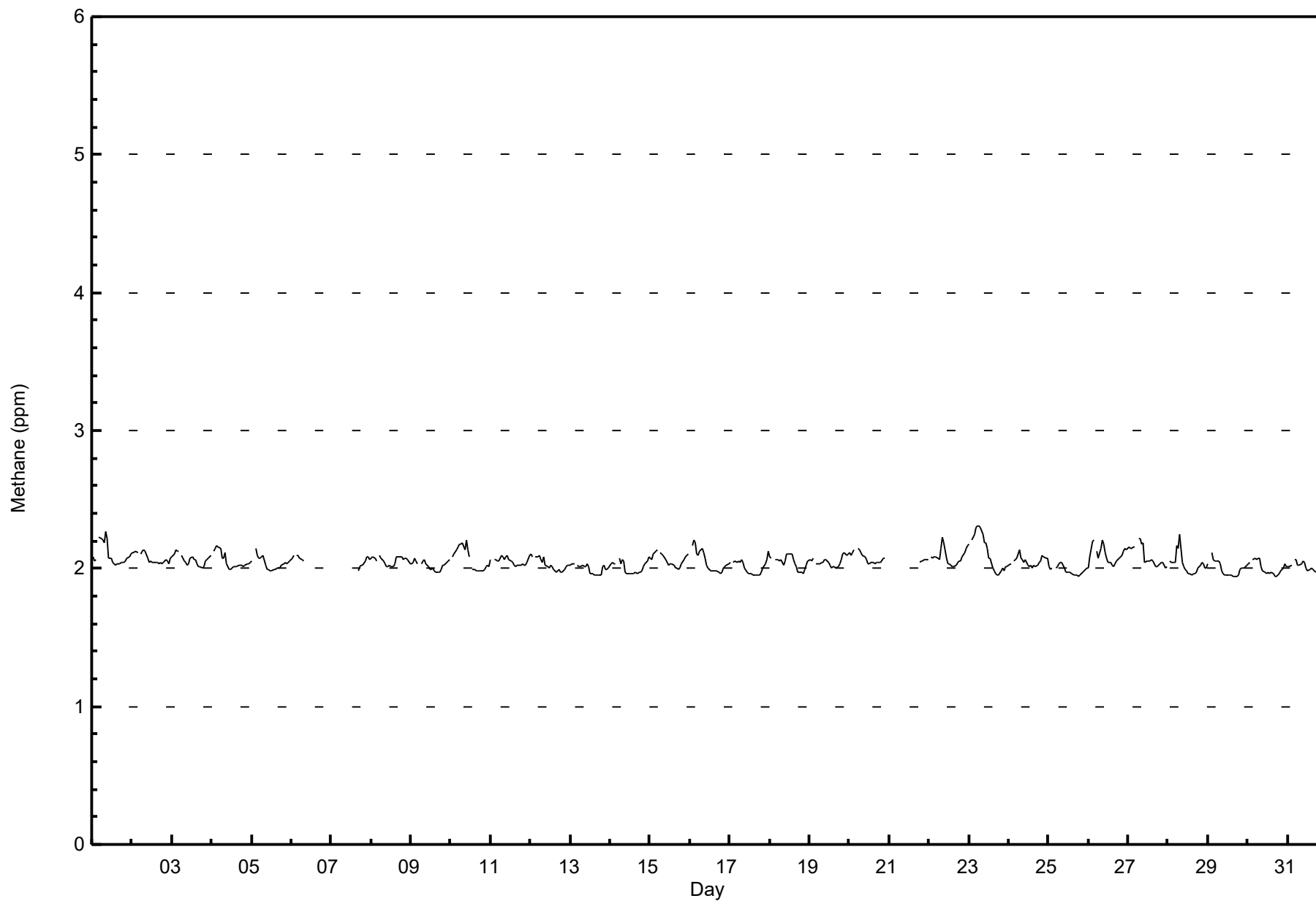
Stony Mountain - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																		Hours in Service: 744									
Maximum Value: 2.3 ppm on Jul 23 07:00																		Maximum Daily Average: 2.1 ppm on Jul 23		Hours of Data: 662							
Minimum Value: 1.9 ppm on Jul 29 18:00																		Minimum Daily Average: 2.0 ppm on Jul 25		Hours of Missing Data: 82							
Maximum Diurnal Average: 2.1 ppm at hour 4																		Minimum Diurnal Average: 2.0 ppm at hour 17		Hours of Calibration: 32							
Monthly Average: 2.05 ppm																		Percentiles: P ₁ = 1.9 P ₁₀ = 2.0 Q ₁ = 2.0 Median = 2.0 Q ₃ = 2.1 P ₉₀ = 2.1 P ₉₉ = 2.2		Percent Operational Time: 93.3							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	2.1	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.3
2-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	
3-Jul	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	
4-Jul	Z	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	
5-Jul	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	
6-Jul	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	2.1
7-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	C	C	C	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	--	2.1
8-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	
9-Jul	2.0	2.0	2.1	2.1	2.0	Z	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1
10-Jul	Z	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.1	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	
11-Jul	2.1	Z	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	
12-Jul	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	
13-Jul	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
14-Jul	2.0	2.0	2.0	2.0	Z	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	
15-Jul	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	
16-Jul	Z	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	
17-Jul	2.0	Z	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	
18-Jul	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	
19-Jul	2.1	2.1	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.1	
20-Jul	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	UO	UO	2.1	2.1	
21-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	M	M	M	M	M	M	M	2.0	2.1	2.1	2.1	2.1	2.1	--	2.1
22-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.2	
23-Jul	2.2	Z	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	
24-Jul	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	
25-Jul	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
26-Jul	2.0	2.1	2.2	2.2	Z	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	
27-Jul	2.2	2.1	2.1	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	
28-Jul	Z	2.1	2.0	2.0	2.0	2.2	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
29-Jul	2.0	Z	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	
30-Jul	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	
31-Jul	2.0	2.0	2.0	Z	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	
2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.1 2.1																								Diurnal Average			
2.2 2.2 2.2 2.2 2.3 2.3 2.3 2.3 2.3 2.2 2.2 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.2 2.2																								Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation																											



Wood Buffalo Environmental Association
Hourly Averages

Methane (CH₄) - ppm
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Methane (CH₄) - ppm
Stony Mountain - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	383	57.85	57.86
2.1 - 3.0	279	42.15	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 662

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Methane (CH₄) - ppm
Stony Mountain - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	3	4	6	5	14	13	16	14	20	27	27	48	94	48	33	11	383
2.1 - 3.0	3	4	9	5	5	8	18	20	20	44	38	21	34	20	24	6	279
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	6	8	15	10	19	21	34	34	40	71	65	69	128	68	57	17	662

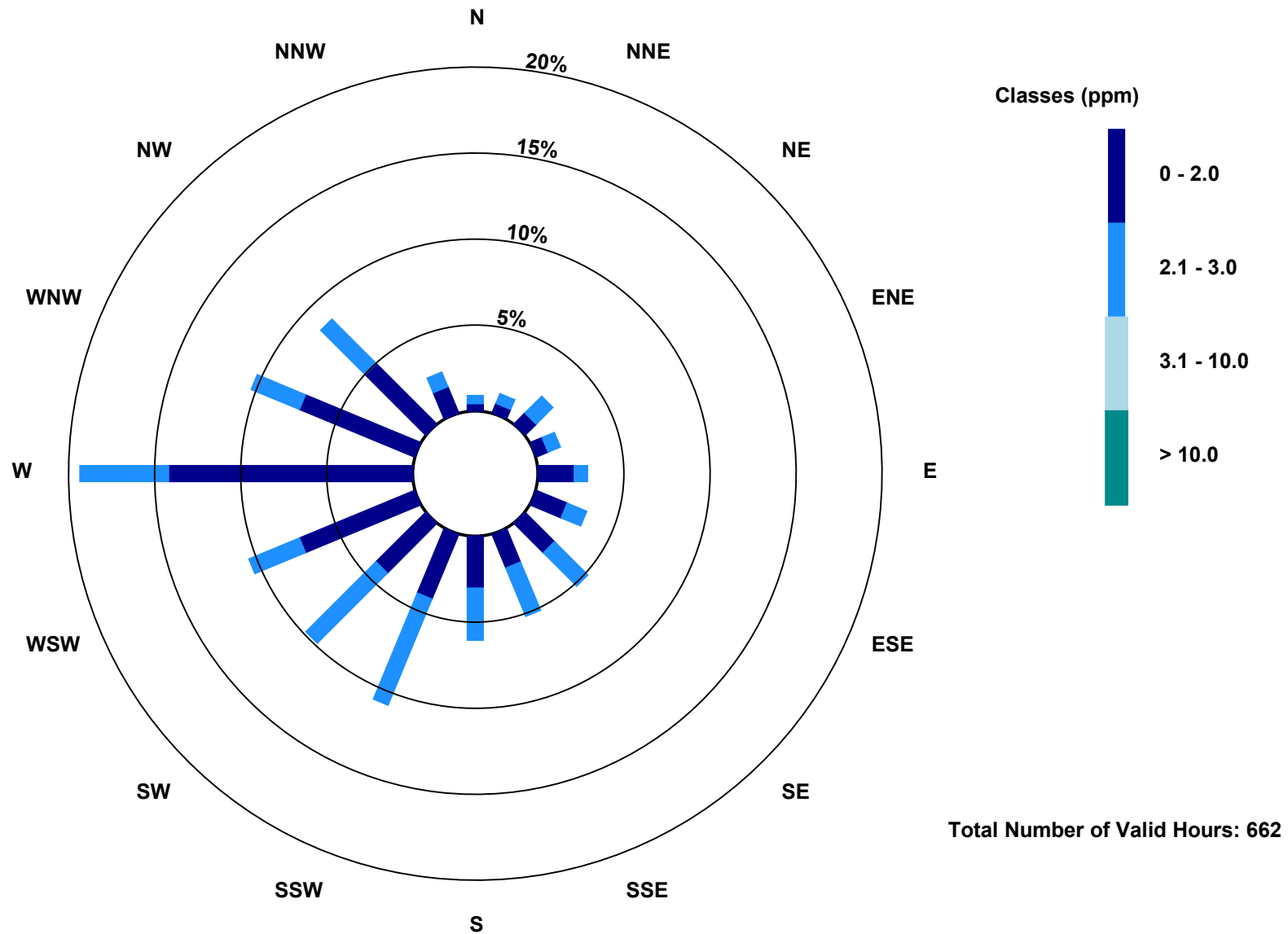
Total Number of Valid Hours: 662

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

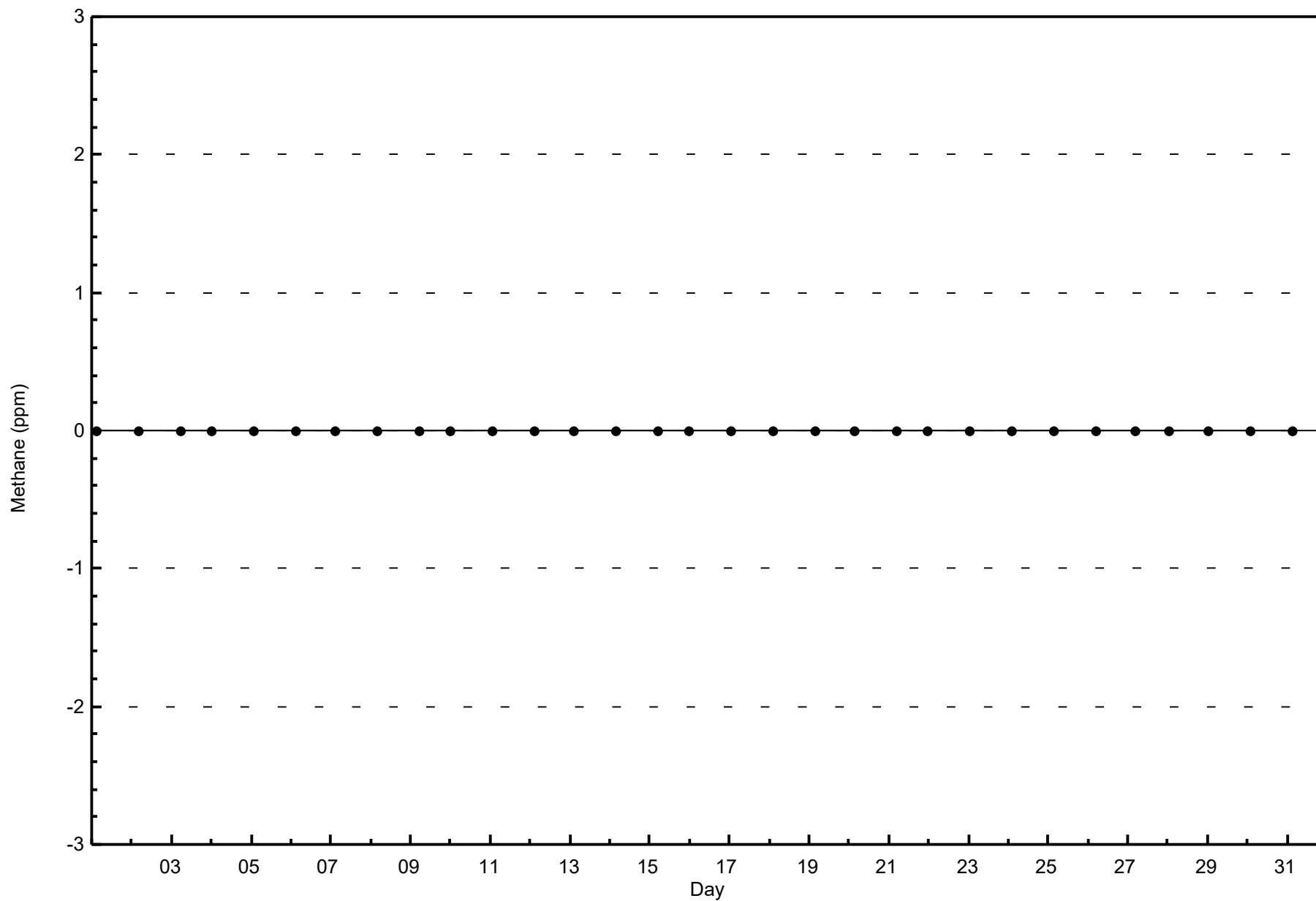
Methane (CH₄) - ppm
Stony Mountain





Wood Buffalo Environmental Association
Zero Responses

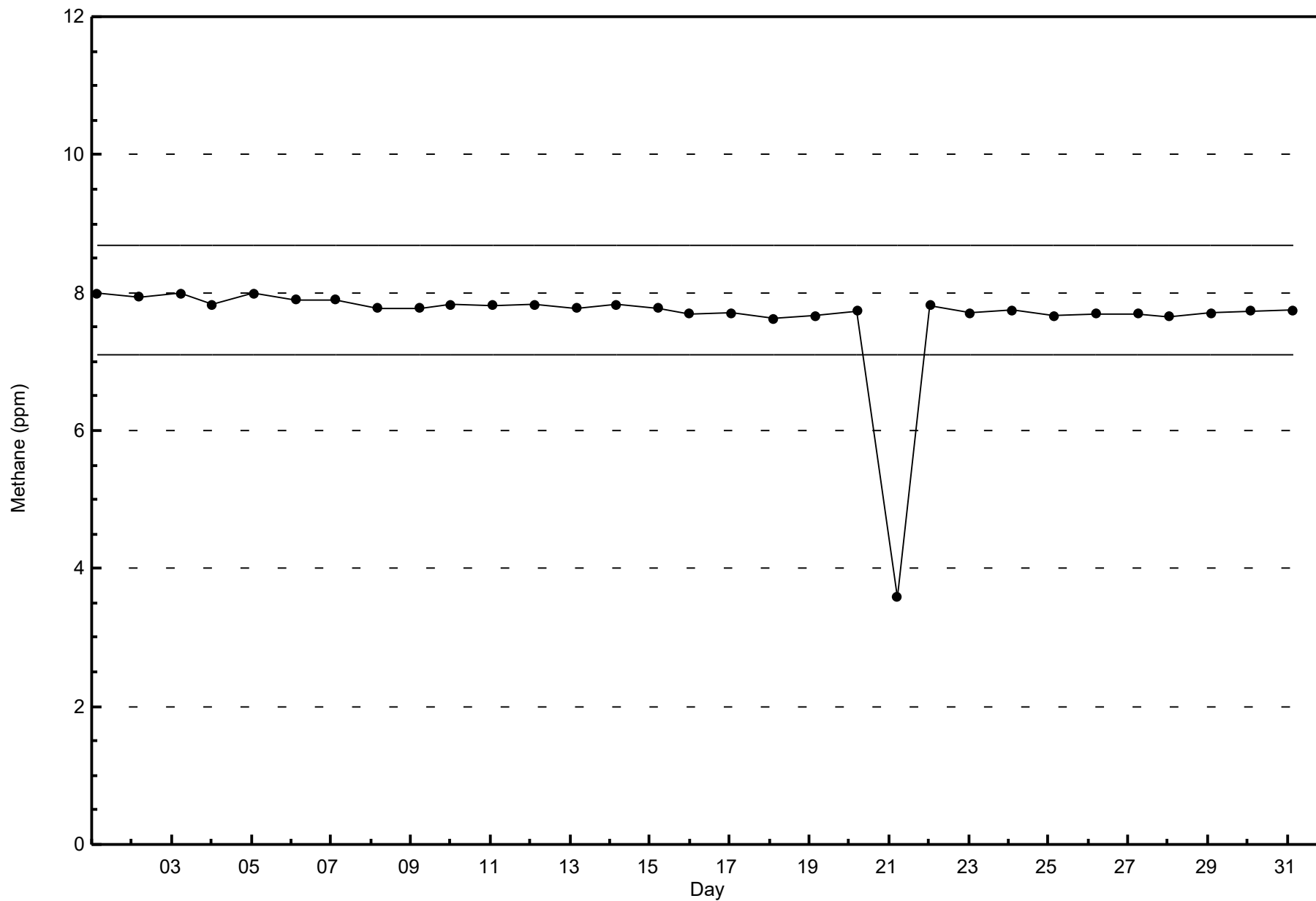
Methane (CH₄) - ppm
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Span Responses

Methane (CH₄) - ppm
Stony Mountain - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

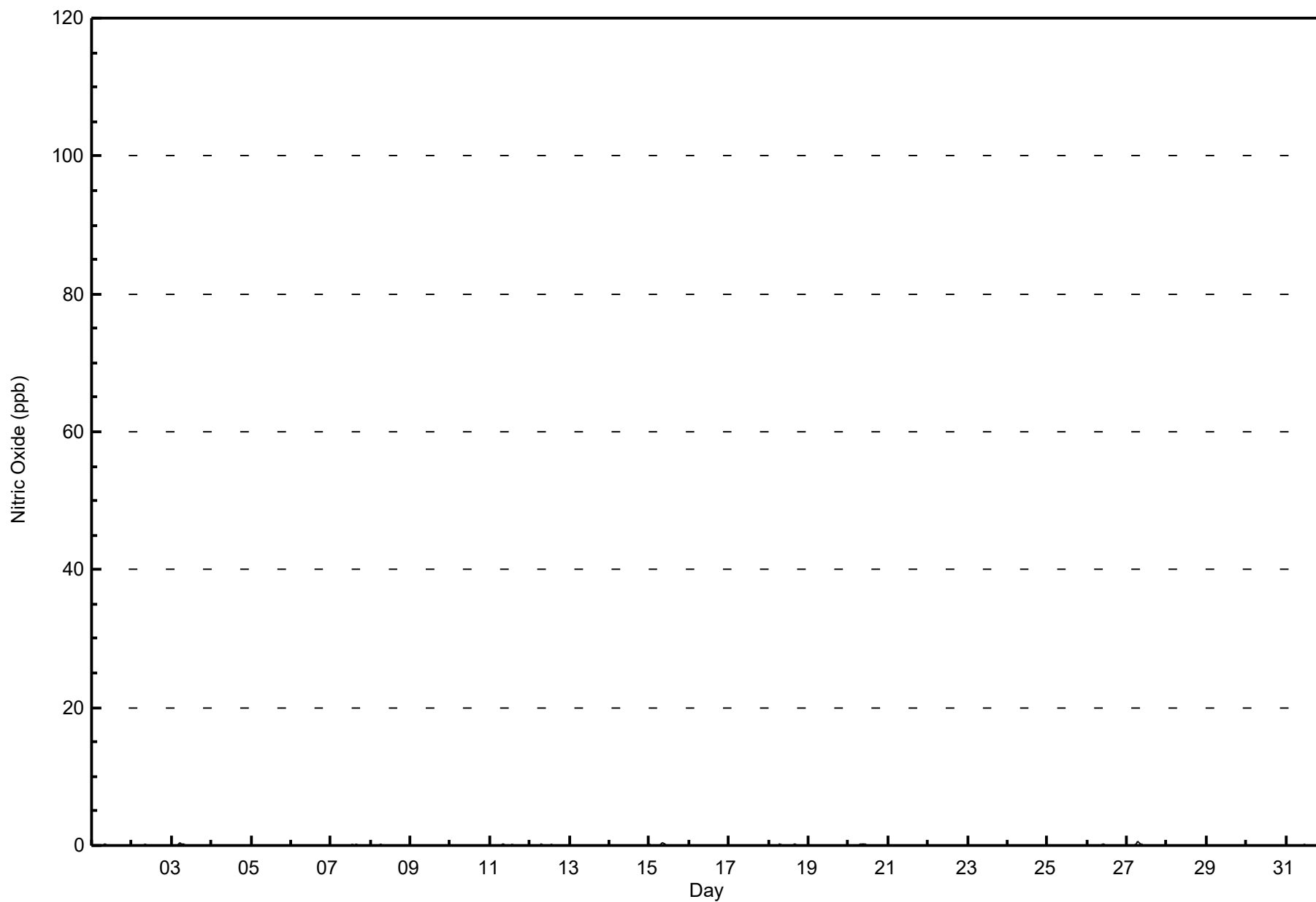
Stony Mountain - July 2026

Maximum Value: 0.5 ppb on Jul 27 07:00																		Maximum Daily Average: 0.1 ppb on Jul 15																		Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 1 03:00																		Minimum Daily Average: 0.0 ppb on Jul 28																		Hours of Data: 708	
Maximum Diurnal Average: 0.1 ppb at hour 9																		Minimum Diurnal Average: 0.0 ppb at hour 22																		Hours of Missing Data: 36	
Monthly Average: 0.03 ppb																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.1 P ₉₉ = 0.2																		Hours of Calibration: 36	
																																				Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24													
1-Jul	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
2-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
3-Jul	0.0	0.0	Z	0.0	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
4-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
5-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
6-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
7-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
8-Jul	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0											
9-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
10-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.0	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
11-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.2	0.2	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											
12-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
13-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
14-Jul	0.0	Z	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1											
15-Jul	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1											
16-Jul	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
17-Jul	0.0	0.0	0.0	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
18-Jul	0.1	0.0	0.0	0.0	0.1	Z	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
19-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
20-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
21-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
22-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
23-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
24-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
25-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
26-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0											
27-Jul	0.0	0.1	Z	0.1	0.1	0.1	0.5	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
28-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
29-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
30-Jul	0.0	0.0	0.0	0.1	0.0	Z	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
31-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0											
0.0																								Diurnal Average													
0.1																								Diurnal Maximum													
Z - zerospan C - Calibration																																					



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Stony Mountain - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	708	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Stony Mountain - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	5	8	14	10	25	23	34	36	45	69	68	78	129	84	60	20	708
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	5	8	14	10	25	23	34	36	45	69	68	78	129	84	60	20	708

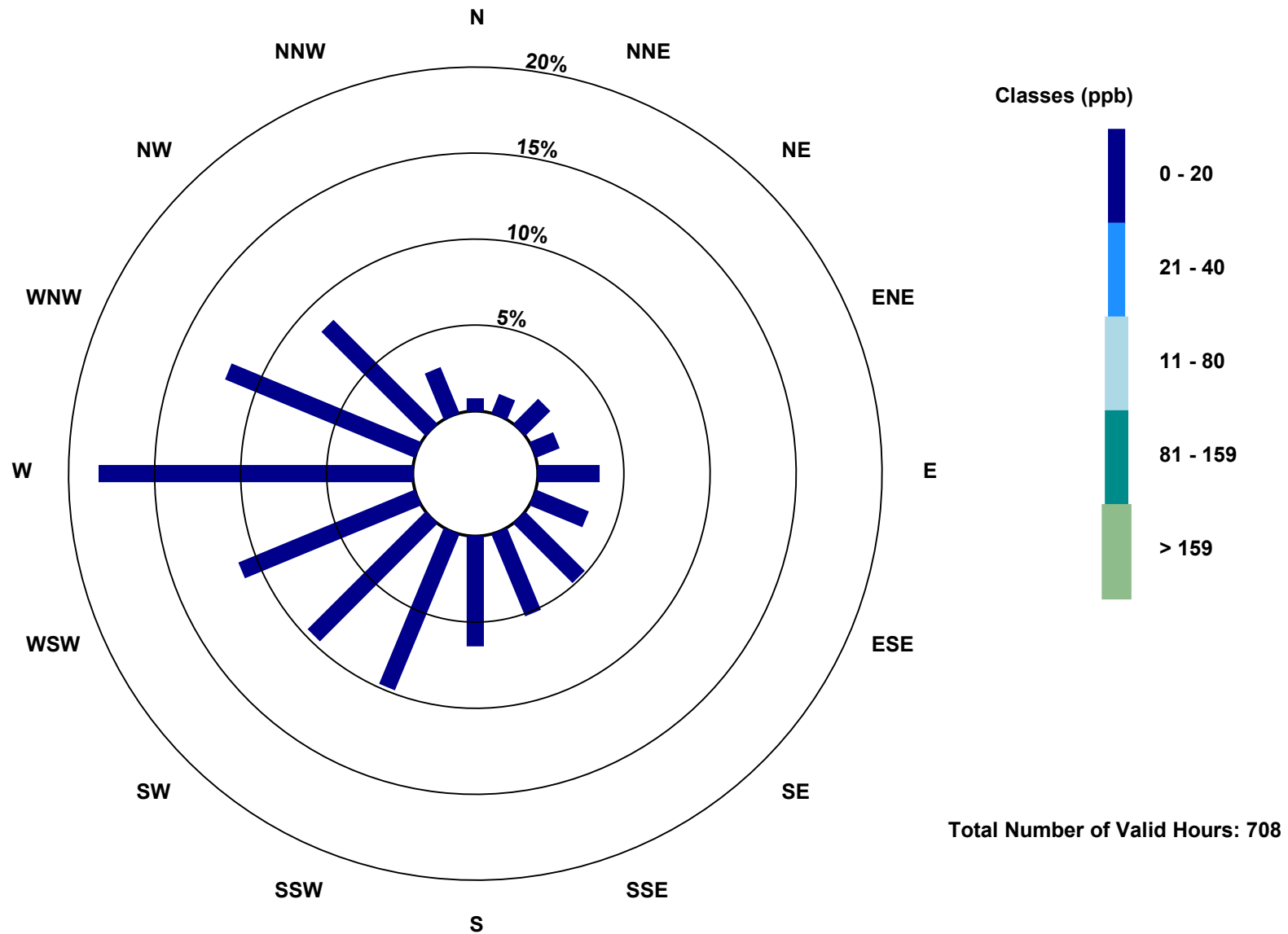
Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

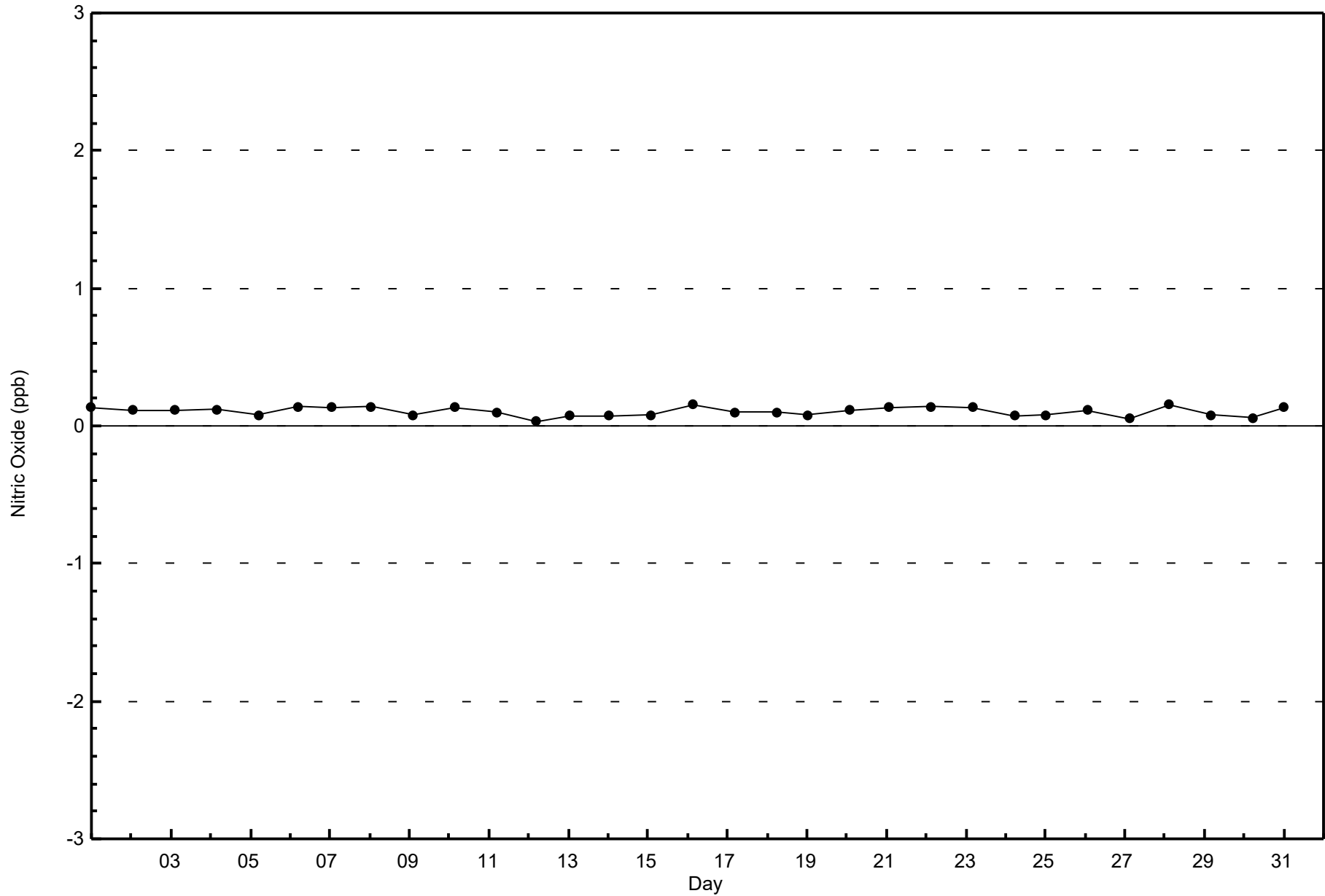
Nitric Oxide (NO) - ppb
Stony Mountain





Wood Buffalo Environmental Association
Zero Responses

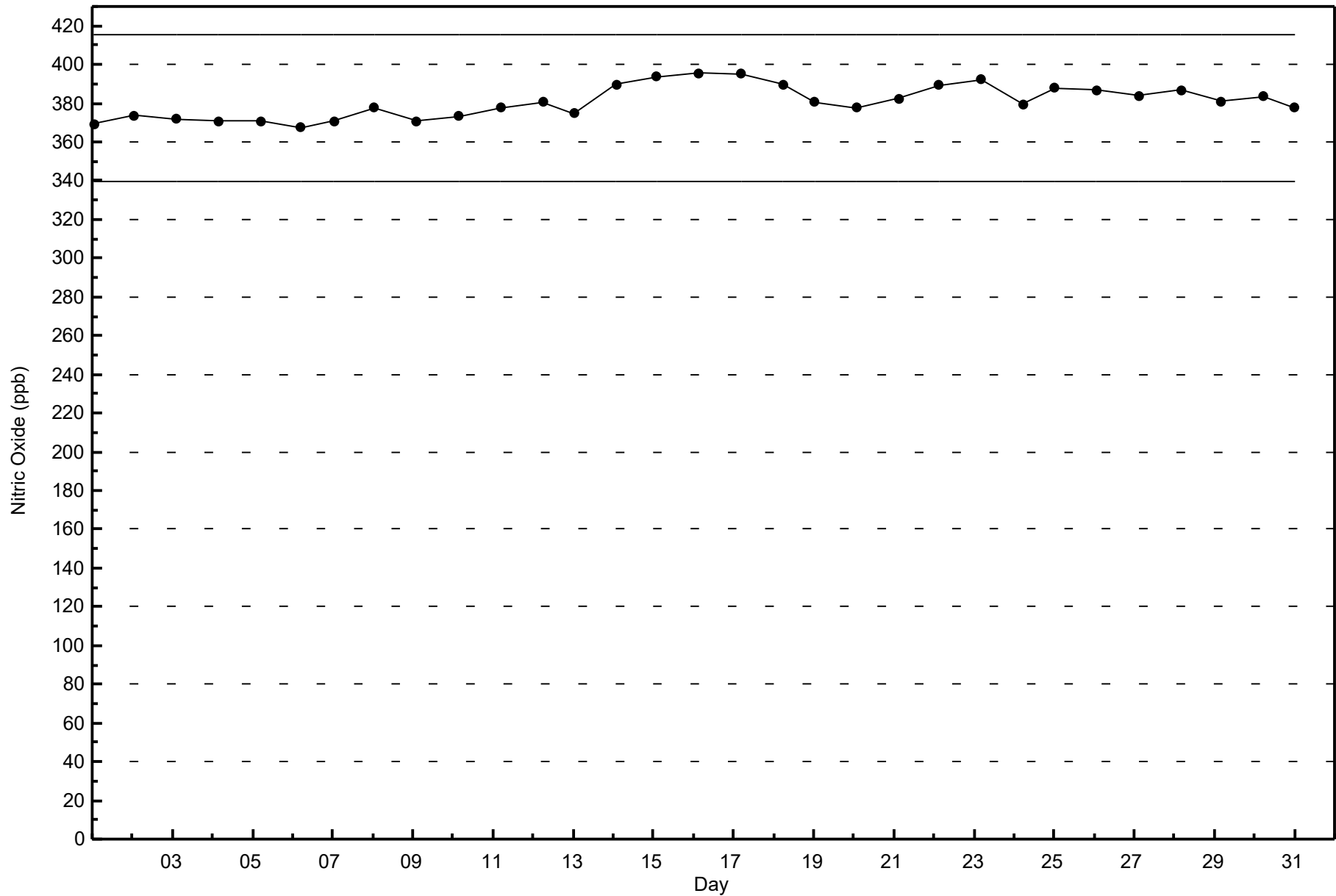
Nitric Oxide (NO) - ppb
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Stony Mountain - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

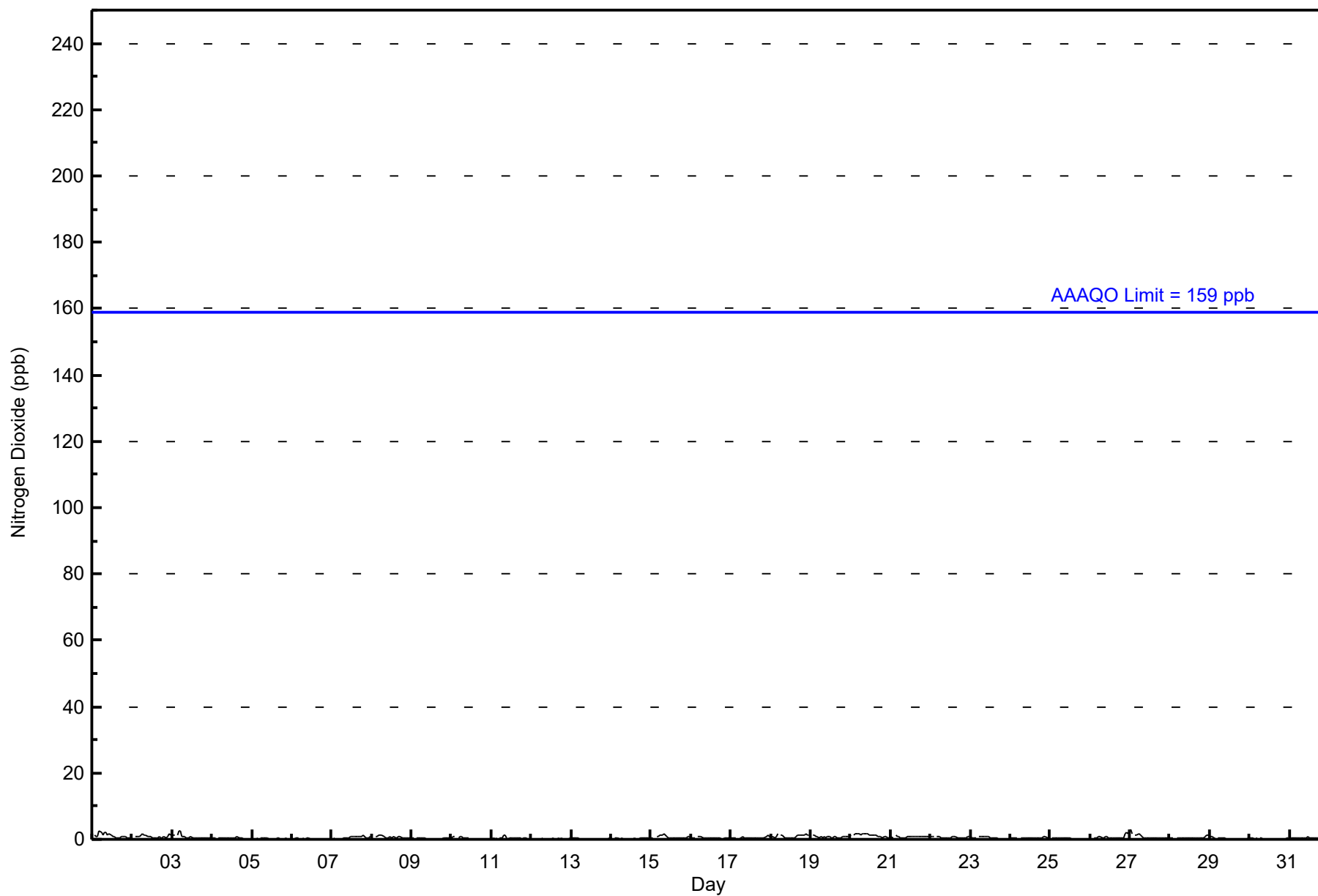
Stony Mountain - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.0 ppb on Jul 27 01:00 Maximum Daily Average: 1.2 ppb on Jul 20																			Hours in Service: 744 Hours of Data: 708							
Minimum Value: 0.0 ppb on Jul 10 17:00 Minimum Daily Average: 0.2 ppb on Jul 13 Maximum Diurnal Average: 0.8 ppb at hour 6 Minimum Diurnal Average: 0.4 ppb at hour 19 Monthly Average: 0.54 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.5 Q ₃ = 0.7 P ₉₀ = 1.0 P ₉₉ = 2.0																			Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	Z	1.1	1.0	1.0	2.5	2.1	1.4	2.0	2.2	1.4	1.6	1.4	1.0	0.8	0.6	0.6	0.5	0.7	0.8	0.7	0.7	0.4	0.6	0.5	1.1	2.5
2-Jul	0.5	Z	0.9	0.9	1.0	1.3	1.7	1.3	1.4	0.7	0.7	0.8	0.6	0.6	0.6	0.6	0.9	0.5	0.4	0.7	0.6	0.9	1.6	1.4	0.9	1.7
3-Jul	1.2	1.1	Z	1.2	2.4	2.6	0.9	0.7	0.6	0.6	0.5	0.7	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.7	2.6
4-Jul	0.4	0.3	0.4	Z	0.5	0.4	0.3	0.3	0.3	0.5	0.6	0.4	0.5	0.4	0.3	0.9	0.5	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.9
5-Jul	0.2	0.2	0.2	0.3	Z	0.5	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.3	0.5
6-Jul	0.2	0.2	0.3	0.3	0.3	Z	0.4	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
7-Jul	Z	0.3	0.2	0.1	0.2	0.2	0.2	0.4	0.4	0.4	0.5	0.7	0.7	0.8	0.8	0.9	0.7	0.9	0.8	1.2	0.5	0.5	0.5	0.8	0.6	1.2
8-Jul	0.8	Z	0.9	0.9	1.2	1.1	1.1	0.8	0.6	0.6	0.6	0.7	0.6	0.7	0.6	0.6	0.7	0.7	0.6	0.4	0.5	0.3	0.3	0.3	0.7	1.2
9-Jul	0.3	0.3	Z	0.5	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.5
10-Jul	0.3	0.9	0.7	Z	0.6	0.9	0.7	0.5	0.3	0.3	0.3	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.3	0.9
11-Jul	0.1	0.3	0.2	0.3	Z	0.4	0.3	1.3	1.1	0.3	0.2	0.4	0.5	0.6	0.5	0.4	0.4	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.4	1.3
12-Jul	0.2	0.2	0.2	0.2	0.1	Z	0.3	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.3
13-Jul	Z	0.4	0.3	0.3	0.3	0.2	0.1	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	0.2	0.3	0.2	0.4
14-Jul	0.3	Z	0.5	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.3	0.2	0.2	0.3	0.4	0.4	0.3	0.4	0.4	0.5	0.3	0.5
15-Jul	0.5	0.6	Z	1.0	0.9	1.1	1.1	1.1	1.8	0.8	0.5	0.6	0.5	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.5	0.5	0.7	0.8	0.7	1.8
16-Jul	0.5	0.5	0.5	Z	0.8	0.7	0.7	0.6	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.8
17-Jul	0.5	0.6	0.6	0.5	Z	0.6	0.6	0.7	0.6	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.4	0.4	0.5	0.5	0.5	0.9	1.1	0.9	0.5	1.1
18-Jul	0.6	1.0	0.6	0.8	1.7	Z	1.3	1.2	0.5	0.6	0.6	0.5	0.5	0.5	0.4	0.8	1.1	1.2	1.3	1.4	1.3	1.5	1.2	1.1	0.9	1.7
19-Jul	Z	1.1	1.1	1.0	0.8	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.6	0.5	0.7	0.7	0.5	0.6	0.6	0.8	1.0	1.0	1.0	1.0	0.8	1.1
20-Jul	1.1	Z	1.4	1.6	1.6	1.5	1.2	1.6	1.7	1.9	1.5	1.1	1.1	1.2	1.2	1.2	0.9	0.8	0.8	0.6	0.7	0.7	0.5	0.6	1.2	1.9
21-Jul	0.7	0.6	Z	1.1	0.9	0.7	0.6	0.6	0.6	0.5	0.9	0.9	0.7	0.7	0.7	0.7	0.8	0.7	0.8	0.8	0.8	0.8	0.9	0.8	0.8	1.1
22-Jul	0.7	0.7	0.7	Z	0.9	0.7	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.7	0.6	0.6	0.5	0.5	0.5	0.6	0.8	0.7	0.6	0.9
23-Jul	0.8	0.6	0.5	0.6	Z	0.7	0.7	0.8	1.0	1.0	1.0	0.8	0.6	0.5	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	1.0
24-Jul	0.3	0.3	0.4	0.4	0.4	Z	0.5	0.5	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.7	0.8	0.6	0.5	0.5	0.8
25-Jul	Z	0.5	0.4	0.4	0.5	0.4	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5
26-Jul	0.2	Z	0.6	0.6	0.6	0.8	0.8	0.5	0.6	0.7	0.8	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.4	1.8	2.2	1.8	0.7	2.2
27-Jul	3.0	1.8	Z	1.1	1.1	1.6	1.1	0.8	0.5	0.5	0.5	0.4	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.8	3.0
28-Jul	0.5	0.5	0.5	Z	0.5	0.4	0.4	0.3	0.4	0.3	0.3	0.5	0.4	0.4	0.3	0.4	0.6	0.5	0.5	0.4	0.6	0.9	1.3	1.1	0.5	1.3
29-Jul	0.9	0.7	0.6	0.6	Z	0.6	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.9
30-Jul	0.3	0.3	0.3	0.2	0.3	Z	0.4	0.4	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	0.3	0.3	0.2	0.4
31-Jul	Z	0.4	0.3	0.3	0.4	0.6	0.6	0.5	0.5	0.5	0.5	1.0	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.4	0.5	0.6	1.0	0.5	1.0
0.6 0.6 0.6 0.6 0.8 0.8 0.7 0.6 0.6 0.5 0.5 0.5 0.5 0.5 0.4 0.5 0.4 0.4 0.4 0.4 0.4 0.5 0.6 0.6																									Diurnal Average	
3.0 1.8 1.4 1.6 2.5 2.6 1.7 2.0 2.2 1.9 1.6 1.4 1.1 1.2 1.2 1.2 1.1 1.2 1.3 1.4 1.3 1.8 2.2 1.8																									Diurnal Maximum	
Z - zerospan C - Calibration																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Stony Mountain - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	708	100.00	100.00
21 - 40	0	0.00	100.00
41 - 60	0	0.00	100.00
61 - 80	0	0.00	100.00
81 - 100	0	0.00	100.00
101 - 120	0	0.00	100.00
121 - 140	0	0.00	100.00
141 - 160	0	0.00	100.00
161 - 180	0	0.00	100.00
181 - 200	0	0.00	100.00
201 - 220	0	0.00	100.00
221 - 240	0	0.00	100.00
241 - 260	0	0.00	100.00
261 - 280	0	0.00	100.00
281 - 300	0	0.00	100.00
301 - 320	0	0.00	100.00
321 - 340	0	0.00	100.00
341 - 360	0	0.00	100.00
361 - 380	0	0.00	100.00
381 - 400	0	0.00	100.00
401 - 420	0	0.00	100.00
421 - 440	0	0.00	100.00
441 - 460	0	0.00	100.00
461 - 480	0	0.00	100.00
481 - 500	0	0.00	100.00
501 - 520	0	0.00	100.00
521 - 540	0	0.00	100.00
541 - 560	0	0.00	100.00
561 - 580	0	0.00	100.00
581 - 600	0	0.00	100.00
601 - 620	0	0.00	100.00
621 - 640	0	0.00	100.00
641 - 660	0	0.00	100.00
661 - 680	0	0.00	100.00
681 - 700	0	0.00	100.00
701 - 720	0	0.00	100.00
721 - 740	0	0.00	100.00
741 - 760	0	0.00	100.00
761 - 780	0	0.00	100.00
781 - 800	0	0.00	100.00
801 - 820	0	0.00	100.00
821 - 840	0	0.00	100.00
841 - 860	0	0.00	100.00
861 - 880	0	0.00	100.00
881 - 900	0	0.00	100.00
901 - 920	0	0.00	100.00
921 - 940	0	0.00	100.00
941 - 960	0	0.00	100.00
961 - 980	0	0.00	100.00
981 - 1000	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Stony Mountain - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	5	8	14	10	25	23	34	36	45	69	68	78	129	84	60	20	708
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	5	8	14	10	25	23	34	36	45	69	68	78	129	84	60	20	708

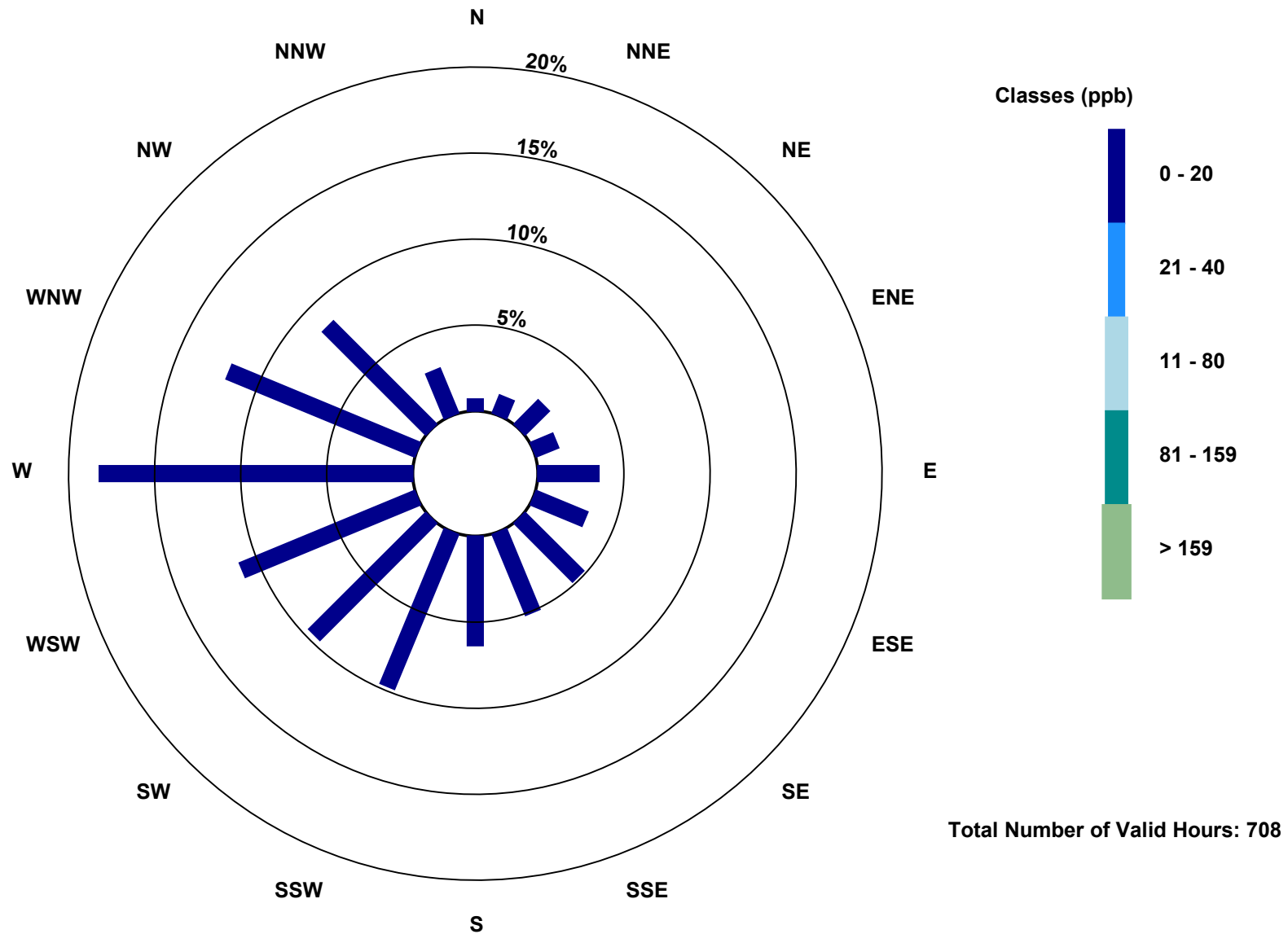
Total Number of Valid Hours: 708

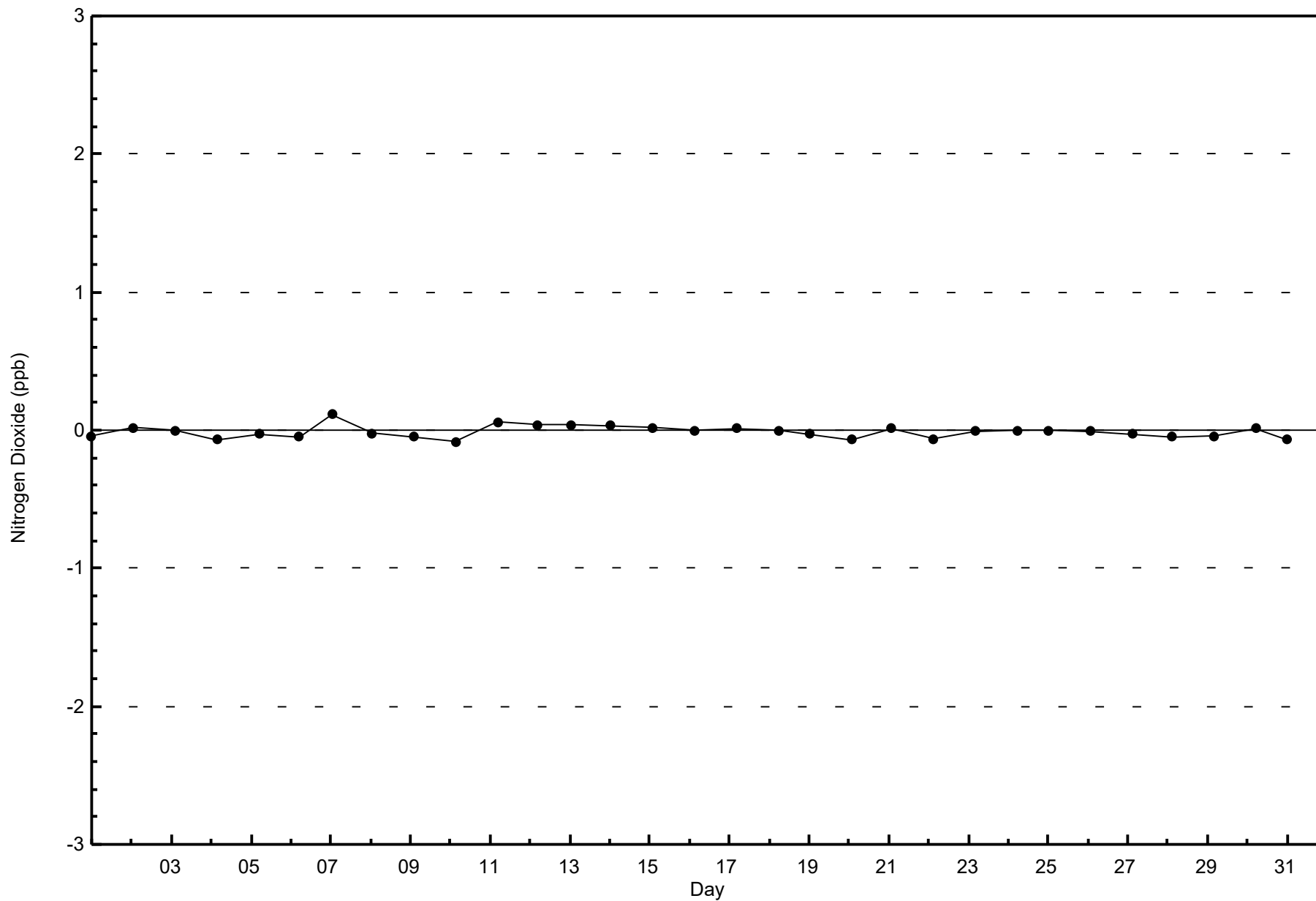
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Dioxide (NO₂) - ppb
Stony Mountain

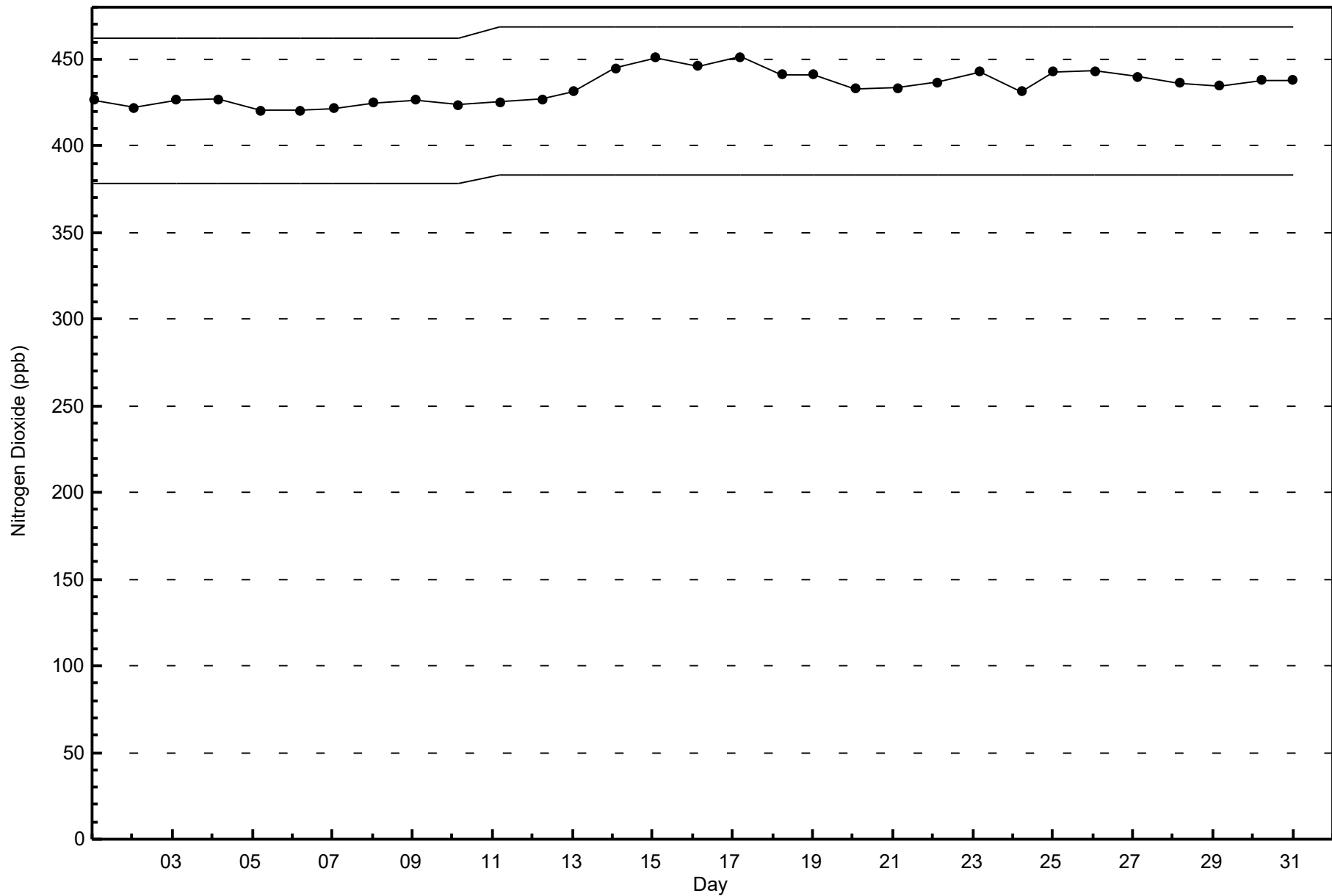






Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Stony Mountain - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

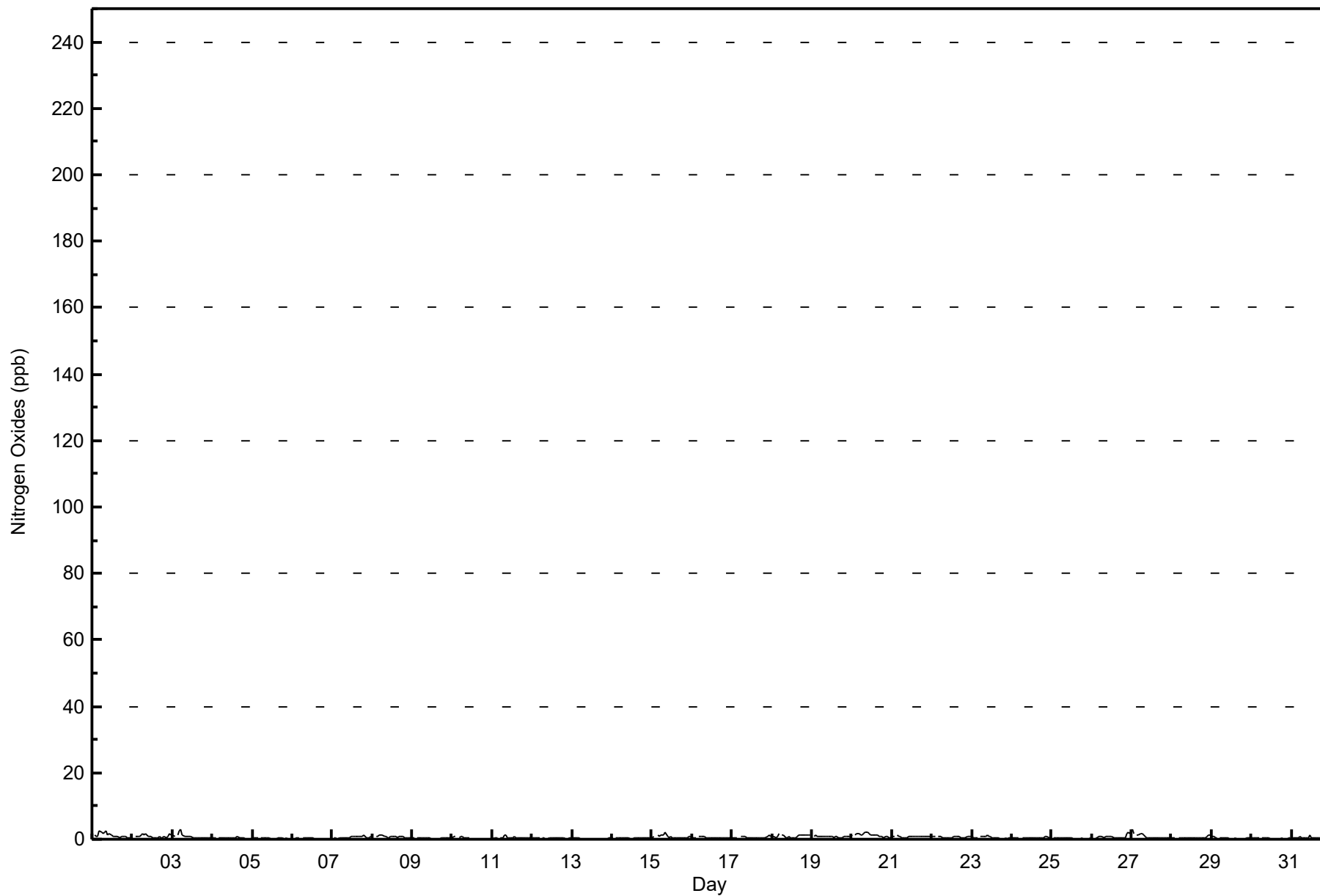
Stony Mountain - July 2026

Maximum Value: 3.0 ppb on Jul 27 01:00																			Maximum Daily Average: 1.2 ppb on Jul 20							Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 10 17:00																			Minimum Daily Average: 0.2 ppb on Jul 13							Hours of Data: 708	
Maximum Diurnal Average: 0.9 ppb at hour 6																			Minimum Diurnal Average: 0.4 ppb at hour 18							Hours of Missing Data: 36	
Monthly Average: 0.57 ppb																			Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.5 Q ₃ = 0.7 P ₉₀ = 1.1 P ₉₉ = 2.2							Hours of Calibration: 36	
																										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	Z	1.1	1.0	1.0	2.5	2.2	1.5	2.1	2.4	1.5	1.6	1.4	1.0	0.8	0.6	0.6	0.5	0.7	0.8	0.7	0.7	0.4	0.6	0.5	1.1	2.5	
2-Jul	0.5	Z	0.9	0.9	1.0	1.3	1.8	1.4	1.5	0.8	0.7	0.8	0.6	0.6	0.6	0.6	0.9	0.5	0.4	0.7	0.6	0.9	1.6	1.4	0.9	1.8	
3-Jul	1.2	1.1	Z	1.2	2.6	2.9	1.1	0.9	0.7	0.7	0.6	0.7	0.6	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.8	2.9	
4-Jul	0.4	0.3	0.4	Z	0.5	0.4	0.3	0.3	0.3	0.5	0.6	0.4	0.5	0.4	0.4	0.9	0.5	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.9	
5-Jul	0.2	0.2	0.2	0.3	Z	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.3	0.6	
6-Jul	0.2	0.2	0.3	0.3	0.3	Z	0.4	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	
7-Jul	Z	0.3	0.2	0.1	0.2	0.2	0.2	0.4	0.5	0.4	0.5	0.7	0.8	0.9	0.8	1.0	0.7	0.9	0.8	1.2	0.5	0.5	0.5	0.8	0.6	1.2	
8-Jul	0.8	Z	0.9	0.9	1.2	1.2	1.2	0.9	0.7	0.6	0.6	0.7	0.6	0.7	0.7	0.6	0.7	0.7	0.7	0.5	0.5	0.3	0.3	0.3	0.7	1.2	
9-Jul	0.3	0.3	Z	0.5	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.5	
10-Jul	0.3	0.9	0.7	Z	0.6	0.9	0.7	0.5	0.3	0.4	0.3	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.3	0.9	
11-Jul	0.1	0.3	0.2	0.3	Z	0.4	0.4	1.5	1.3	0.3	0.3	0.5	0.6	0.7	0.6	0.5	0.5	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.5	1.5	
12-Jul	0.3	0.3	0.3	0.3	0.2	Z	0.4	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.4	
13-Jul	Z	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.4	
14-Jul	0.3	Z	0.6	0.5	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.3	0.6	
15-Jul	0.6	0.7	Z	1.1	1.0	1.2	1.2	1.2	2.2	0.9	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.4	0.5	0.5	0.5	0.7	0.9	0.8	2.2	
16-Jul	0.6	0.5	0.5	Z	0.8	0.7	0.7	0.7	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.8	
17-Jul	0.5	0.6	0.6	0.6	Z	0.7	0.7	0.8	0.7	0.5	0.4	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.5	0.5	0.5	0.9	1.1	0.9	0.6	1.1	
18-Jul	0.7	1.0	0.6	0.8	1.8	Z	1.4	1.3	0.5	0.6	0.7	0.5	0.5	0.6	0.5	0.9	1.2	1.3	1.4	1.4	1.3	1.5	1.2	1.1	1.0	1.8	
19-Jul	Z	1.1	1.1	1.0	0.8	0.6	0.7	0.6	0.7	0.7	0.8	0.8	0.7	0.5	0.7	0.7	0.5	0.6	0.6	0.8	1.0	1.0	1.0	1.0	0.8	1.1	
20-Jul	1.1	Z	1.4	1.6	1.6	1.5	1.2	1.7	1.9	2.1	1.6	1.1	1.1	1.2	1.2	1.2	0.9	0.8	0.8	0.6	0.7	0.7	0.5	0.6	1.2	2.1	
21-Jul	0.7	0.6	Z	1.1	0.9	0.7	0.6	0.6	0.6	0.5	0.9	0.9	0.8	0.7	0.7	0.7	0.8	0.7	0.8	0.8	0.8	0.8	0.9	0.8	0.8	1.1	
22-Jul	0.7	0.7	0.7	Z	0.9	0.7	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.7	0.6	0.6	0.5	0.5	0.5	0.6	0.8	0.7	0.6	0.9	
23-Jul	0.8	0.6	0.5	0.6	Z	0.7	0.7	0.8	1.0	1.1	1.0	0.8	0.6	0.5	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	1.1	
24-Jul	0.3	0.3	0.4	0.4	0.4	Z	0.5	0.5	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.7	0.8	0.6	0.5	0.5	0.8	
25-Jul	Z	0.5	0.4	0.4	0.5	0.4	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	
26-Jul	0.2	Z	0.6	0.6	0.6	0.8	0.8	0.6	0.7	0.8	0.9	0.7	0.6	0.6	0.5	0.4	0.4	0.4	0.5	0.5	0.4	1.8	2.3	1.8	0.8	2.3	
27-Jul	3.0	1.9	Z	1.2	1.2	1.7	1.6	1.2	0.7	0.6	0.5	0.4	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.9	3.0	
28-Jul	0.5	0.5	0.5	Z	0.5	0.4	0.4	0.3	0.4	0.3	0.3	0.5	0.4	0.4	0.3	0.4	0.6	0.5	0.5	0.4	0.6	0.9	1.3	1.1	0.5	1.3	
29-Jul	0.9	0.7	0.6	0.6	Z	0.6	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.9	
30-Jul	0.3	0.3	0.3	0.3	0.3	Z	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.5	
31-Jul	Z	0.4	0.3	0.3	0.4	0.6	0.6	0.6	0.6	0.5	0.6	1.2	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.4	0.5	0.6	1.0	0.5	1.2	
Diurnal Average																											
Diurnal Maximum																											
Z - zerospan C - Calibration																											



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Stony Mountain - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	708	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Stony Mountain - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	5	8	14	10	25	23	34	36	45	69	68	78	129	84	60	20	708
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	5	8	14	10	25	23	34	36	45	69	68	78	129	84	60	20	708

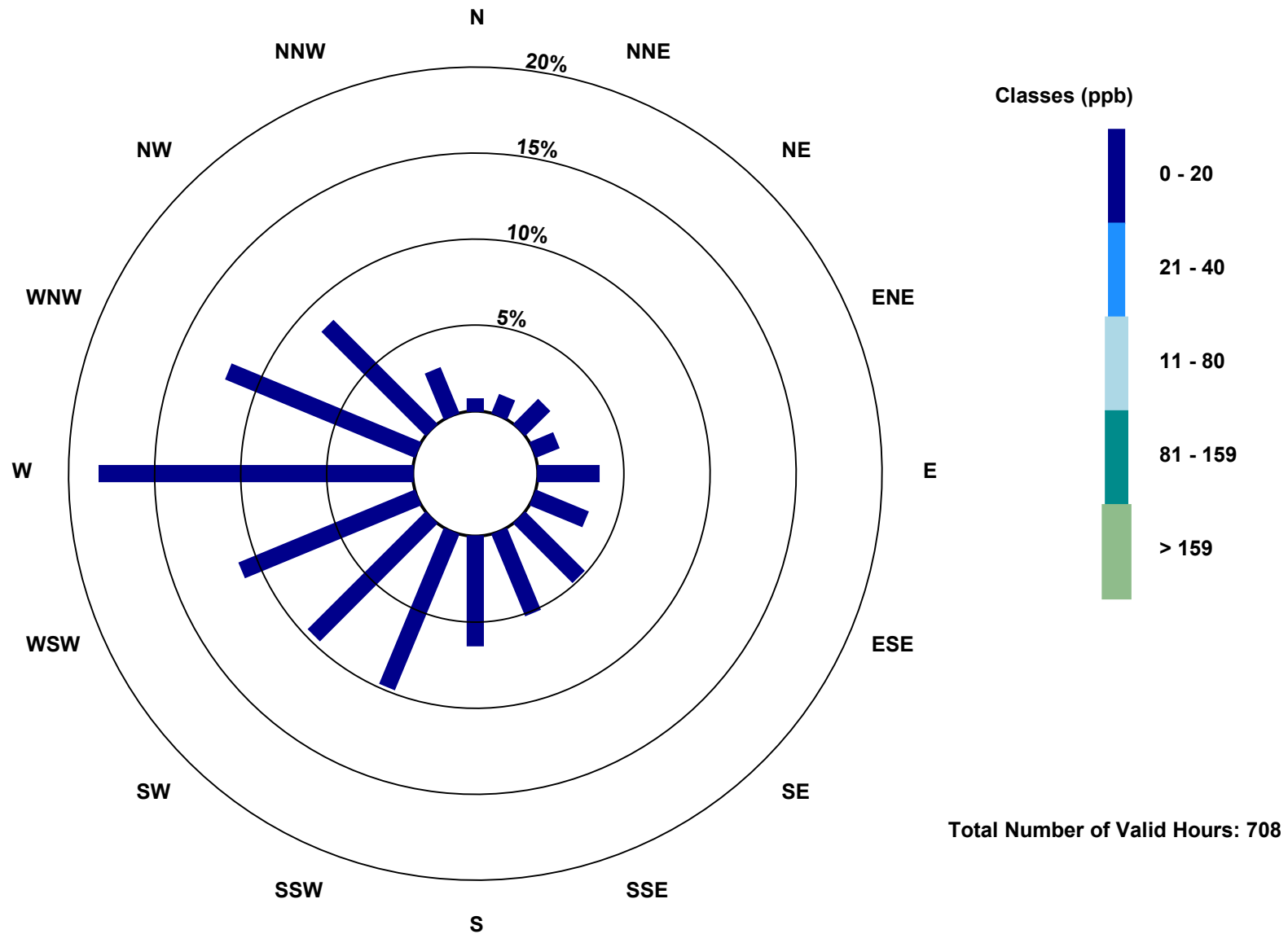
Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

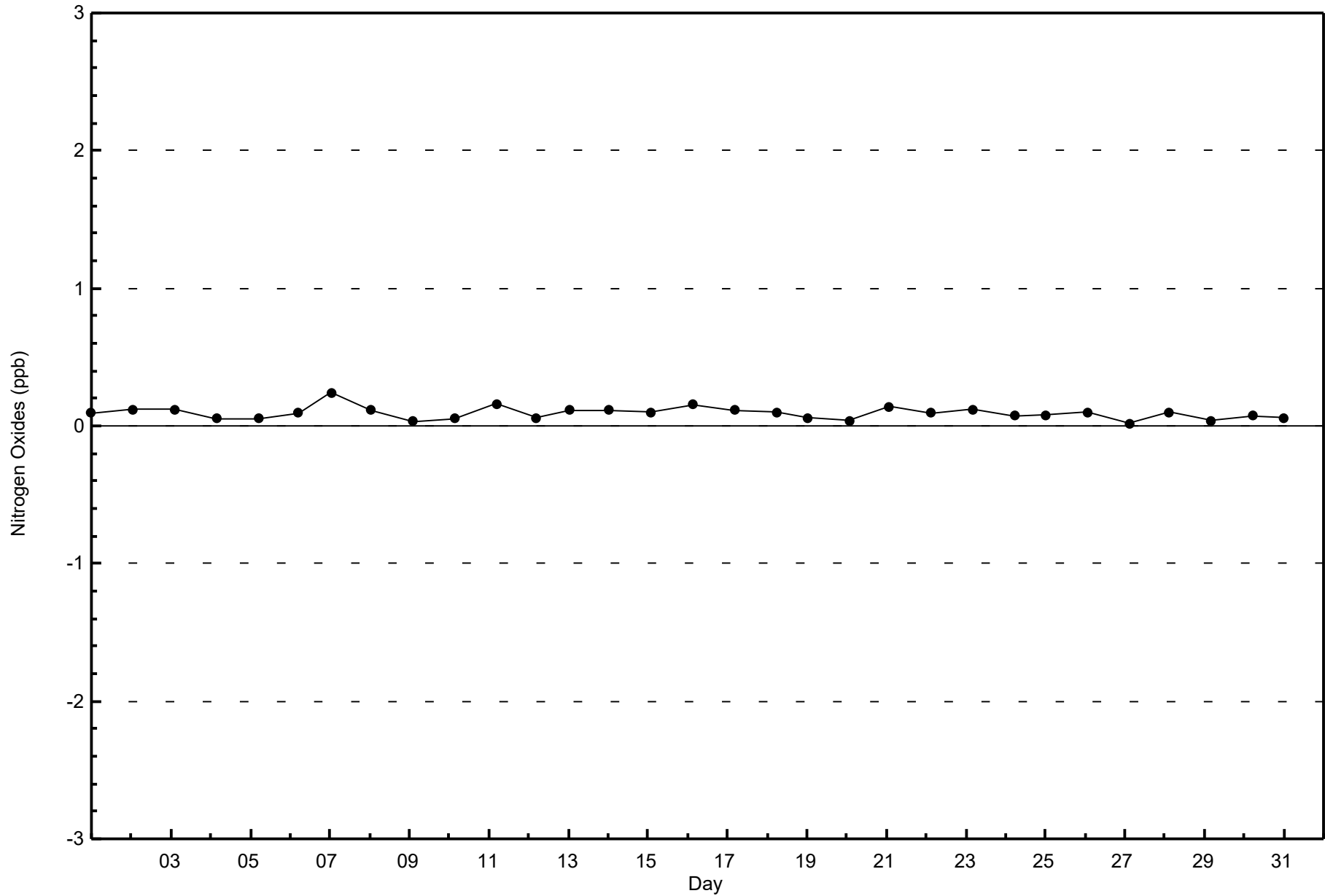
Nitrogen Oxides (NO_x) - ppb
Stony Mountain





Wood Buffalo Environmental Association
Zero Responses

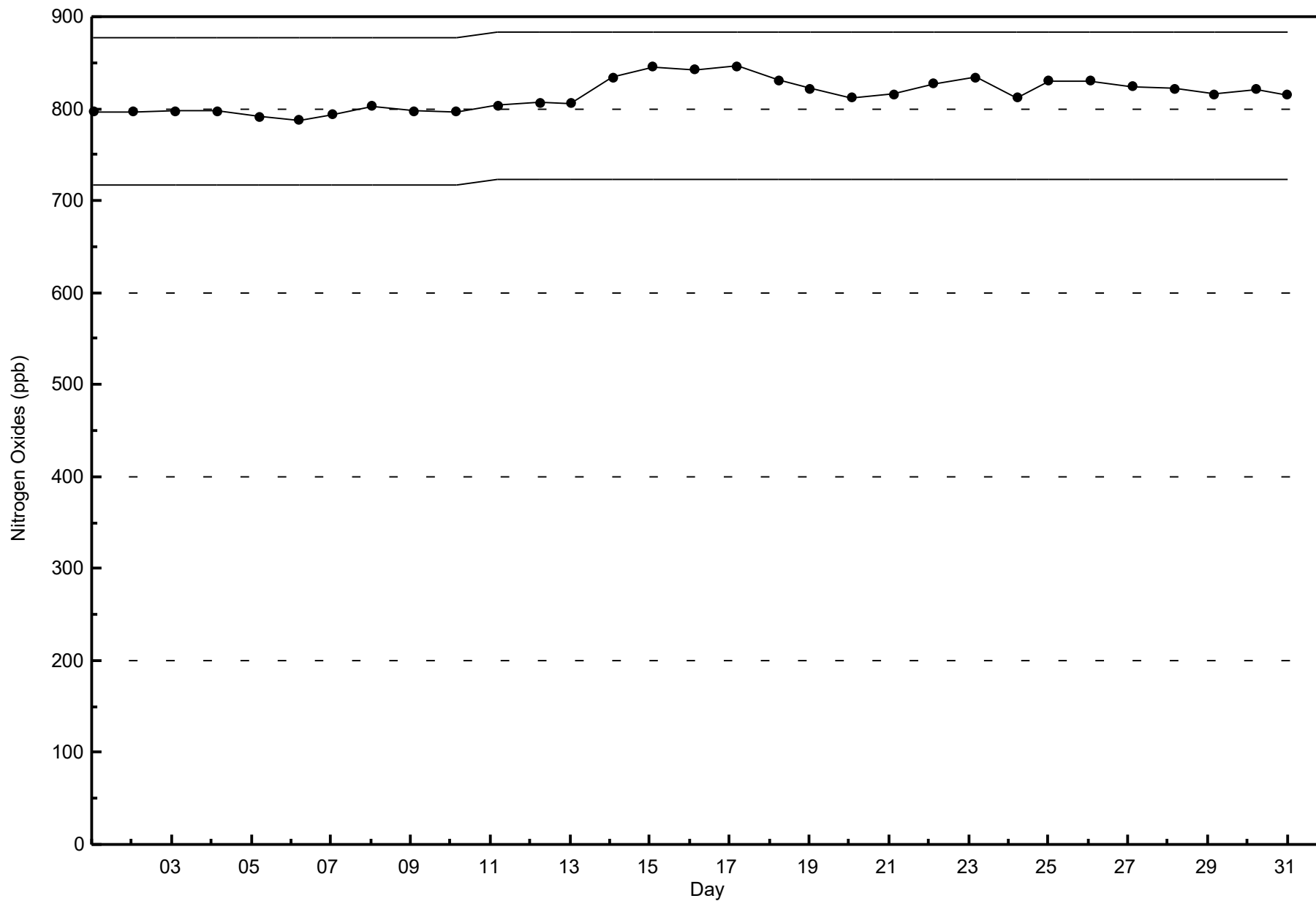
Nitrogen Oxides (NO_x) - ppb
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Stony Mountain - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O₃) - ppb

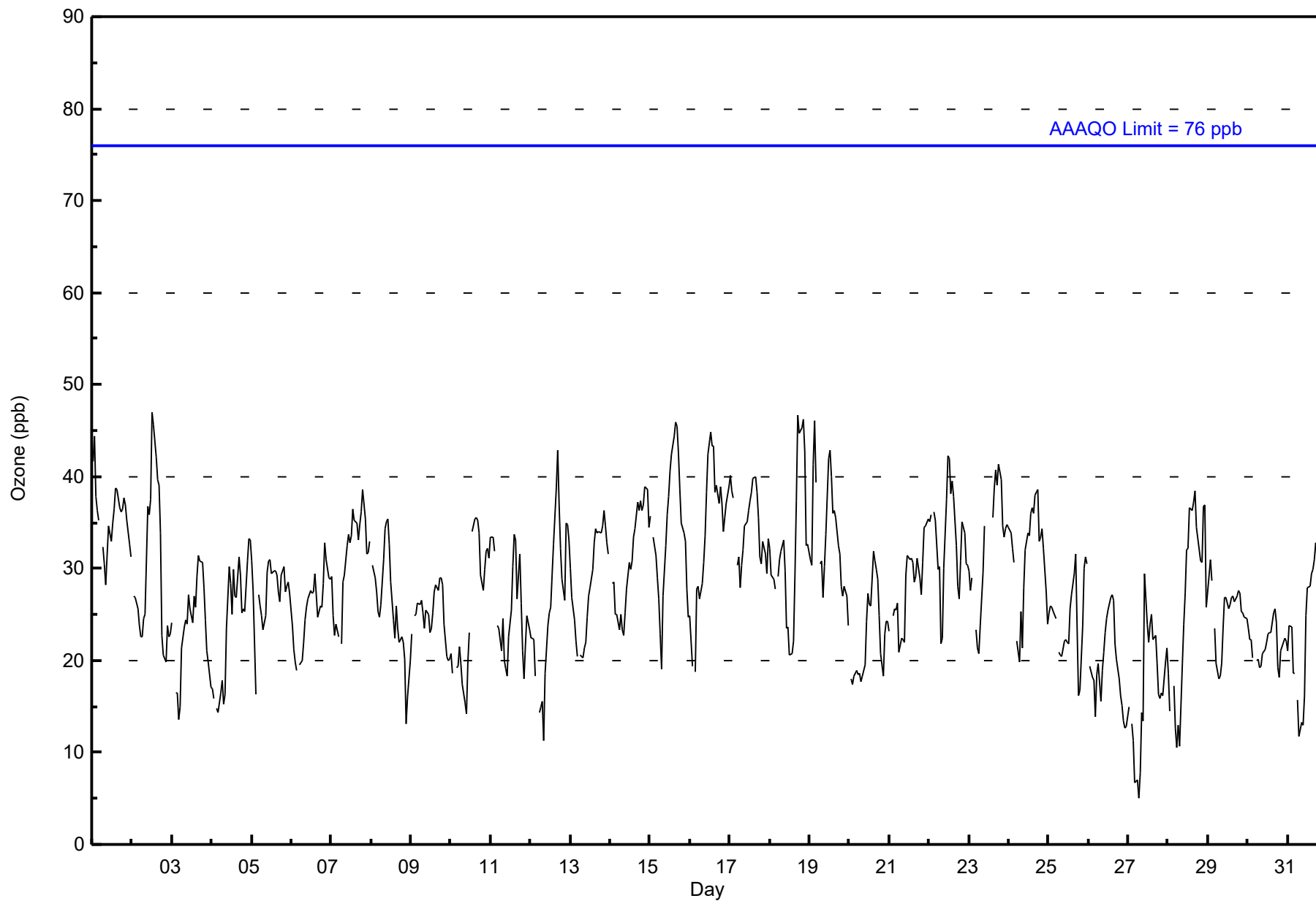
Stony Mountain - July 2026

Number of Exceedances (AAAO): 1-hr: 0 24-hr: 0 Maximum Value: 46.9 ppb on Jul 2 13:00 Maximum Daily Average: 35.5 ppb on Jul 1																				Hours in Service: 744 Hours of Data: 708						
Minimum Value: 5.0 ppb on Jul 27 07:00 Minimum Daily Average: 16.9 ppb on Jul 27 Maximum Diurnal Average: 32.7 ppb at hour 16 Minimum Diurnal Average: 21.7 ppb at hour 6 Monthly Average: 27.70 ppb Percentiles: P ₁ = 11.3 P ₁₀ = 18.4 Q ₁ = 22.6 Median = 27.5 Q ₃ = 33.0 P ₉₀ = 37.1 P ₉₉ = 45.3																				Hours of Missing Data: 36 Hours of Calibration: 35 Percent Operational Time: 99.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jul	41.6	44.4	37.8	36.3	35.2	Z	32.4	30.5	28.3	31.5	34.6	33.0	34.9	36.5	38.8	38.5	36.6	36.1	36.5	37.7	36.9	35.2	32.6	31.2	35.5	44.4
2-Jul	Z	26.9	26.9	25.6	23.7	22.6	22.5	24.5	25.1	36.8	35.9	37.6	46.9	45.6	42.1	39.6	39.0	33.8	22.8	20.6	19.9	23.8	22.6	22.9	29.9	46.9
3-Jul	24.1	Z	16.4	16.5	13.6	14.9	21.3	23.7	24.4	23.9	27.2	25.6	24.1	27.0	25.7	29.2	31.4	30.8	30.7	27.9	24.4	21.1	19.9	17.2	23.5	31.4
4-Jul	16.9	15.8	Z	14.8	14.4	16.5	17.8	15.3	16.3	23.6	30.2	28.4	25.1	29.9	26.9	26.8	31.2	29.2	25.2	25.6	25.3	30.8	33.3	33.1	24.0	33.3
5-Jul	30.8	27.7	16.4	Z	27.2	26.0	24.9	23.3	24.9	29.5	30.8	31.0	29.5	29.7	29.8	29.3	27.5	26.4	29.3	30.2	27.4	28.0	28.5	27.2	27.6	31.0
6-Jul	23.7	21.2	19.8	18.9	Z	19.6	20.0	21.9	24.3	25.8	26.7	27.6	27.4	27.5	29.5	27.1	24.7	25.9	25.7	28.4	32.9	31.0	28.9	28.8	25.5	32.9
7-Jul	29.2	24.8	22.8	23.9	22.6	Z	21.9	28.5	29.3	32.5	33.6	32.8	33.5	36.4	35.2	34.9	33.1	34.8	36.2	38.6	35.4	31.6	31.8	33.0	31.1	38.6
8-Jul	Z	30.4	29.0	27.4	25.3	24.7	26.1	31.0	34.3	35.0	35.3	32.7	28.6	24.4	22.4	26.0	23.5	21.9	22.6	21.9	20.2	13.1	16.1	20.0	25.7	35.3
9-Jul	22.9	Z	24.8	25.0	26.2	26.1	26.6	25.2	23.5	25.5	25.1	23.0	23.5	25.2	27.5	28.2	27.6	29.0	29.0	28.2	24.0	20.5	19.9	20.2	25.1	29.0
10-Jul	20.8	18.6	Z	19.3	19.4	21.5	19.7	17.4	15.4	14.2	19.8	23.0	M	34.1	35.3	35.6	35.2	33.8	29.3	27.7	29.9	31.9	32.2	31.2	25.7	35.6
11-Jul	33.3	33.3	31.8	Z	23.8	23.5	21.0	24.6	19.9	19.0	18.2	22.6	25.5	30.3	33.6	33.2	26.6	31.6	26.3	21.1	18.1	21.6	24.8	23.3	25.5	33.6
12-Jul	22.5	22.4	22.2	18.3	Z	14.4	15.0	15.6	11.3	18.6	23.8	25.2	25.8	29.4	32.7	38.8	42.9	36.9	32.2	28.9	26.5	35.0	34.7	33.2	26.4	42.9
13-Jul	30.1	26.9	24.4	22.2	20.4	Z	20.5	20.4	21.4	22.0	24.7	27.0	28.0	29.9	32.8	34.3	33.9	34.0	33.9	34.6	36.4	34.6	32.8	31.6	28.6	36.4
14-Jul	Z	28.3	28.5	25.0	25.0	23.4	25.0	23.3	22.7	25.2	27.7	30.7	29.8	30.9	33.5	34.3	37.2	36.3	37.4	36.4	36.9	38.8	38.6	34.5	30.8	38.8
15-Jul	35.8	Z	33.4	31.5	28.9	26.6	22.9	19.0	26.9	32.4	35.9	37.8	40.5	42.4	44.3	45.9	45.5	42.6	38.6	34.9	33.8	33.0	27.7	24.7	34.1	45.9
16-Jul	24.8	19.3	Z	18.7	27.7	28.1	26.7	28.4	30.7	33.5	38.3	42.4	44.8	43.4	43.3	38.3	39.1	37.1	38.9	37.1	34.1	35.6	37.0	38.8	34.2	44.8
17-Jul	40.1	38.5	37.7	Z	30.3	31.2	27.9	30.3	32.1	34.7	35.1	36.3	37.4	38.3	39.8	40.0	38.3	35.5	31.3	30.5	33.0	31.5	29.5	33.2	34.5	40.1
18-Jul	32.1	29.3	28.9	27.8	Z	29.1	31.0	31.9	33.1	29.7	23.5	23.7	20.6	20.8	22.1	29.3	37.4	46.7	44.7	45.3	46.3	42.7	32.5	32.6	32.2	46.7
19-Jul	30.9	30.3	41.3	46.0	39.3	Z	30.5	30.8	26.9	30.2	33.7	41.9	42.9	40.0	36.0	36.2	35.5	32.6	31.6	28.0	27.0	28.1	27.0	23.7	33.5	46.0
20-Jul	Z	17.9	17.4	18.3	18.8	18.5	18.6	17.7	18.3	19.5	24.3	27.3	26.1	25.9	31.9	30.9	29.9	28.8	24.9	20.8	18.3	22.8	24.3	24.3	22.9	31.9
21-Jul	23.2	Z	24.9	25.6	25.4	26.2	20.8	22.4	22.2	21.9	29.3	31.4	30.9	31.0	30.7	28.5	29.1	31.1	29.0	27.2	30.7	34.5	34.6	35.4	28.1	35.4
22-Jul	35.1	35.9	Z	36.2	35.3	29.9	30.2	21.7	22.4	30.0	37.6	42.2	42.0	38.1	39.5	37.9	32.4	28.1	26.7	30.8	35.1	33.9	30.5	30.3	33.1	42.2
23-Jul	29.7	27.5	29.1	Z	23.3	21.4	20.7	23.7	29.6	34.6	C	C	C	C	35.6	38.7	40.8	39.0	41.4	39.6	34.6	33.4	34.3	34.8	32.2	41.4
24-Jul	34.4	33.8	32.2	30.7	Z	22.2	19.9	25.3	21.4	28.0	32.1	33.8	33.6	36.0	36.7	36.0	38.0	38.5	33.0	33.4	34.4	32.1	27.5	24.0	31.2	38.5
25-Jul	25.2	25.9	25.8	25.4	24.6	Z	20.9	20.6	20.5	22.2	22.3	22.0	21.8	25.6	27.2	29.4	31.5	23.6	16.1	16.8	23.7	30.0	31.2	30.5	24.5	31.5
26-Jul	Z	19.4	18.1	17.9	13.9	18.5	19.7	15.6	19.0	21.0	23.0	24.6	25.5	26.8	27.1	26.5	21.7	20.1	18.0	16.2	15.1	13.4	12.7	12.7	19.4	27.1
27-Jul	14.9	Z	13.1	11.3	6.8	7.0	5.0	7.7	14.4	13.5	29.4	23.9	21.9	23.9	25.0	22.2	22.7	19.8	16.4	15.9	16.5	16.1	19.9	21.4	16.9	29.4
28-Jul	18.7	14.4	Z	17.3	12.6	10.5	12.9	10.7	19.7	23.9	27.4	32.1	32.2	36.5	36.2	37.2	38.4	34.4	33.2	30.7	30.6	36.8	36.9	25.8	26.5	38.4
29-Jul	27.4	30.9	28.7	Z	23.4	19.6	18.1	18.3	19.7	23.6	26.9	26.8	25.7	26.0	26.8	27.0	26.4	27.0	27.6	27.3	25.3	25.2	24.7	24.6	25.1	30.9
30-Jul	23.4	22.2	22.3	20.4	Z	20.0	20.1	19.2	19.4	20.8	21.2	22.0	22.9	23.0	23.0	25.1	25.7	24.1	19.2	18.2	21.0	22.0	22.4	22.2	21.7	25.7
31-Jul	21.1	23.9	23.7	18.7	18.6	Z	15.8	11.7	13.2	13.0	16.2	24.8	27.9	28.1	29.5	29.9	31.0	32.8	31.2	28.7	30.0	30.7	29.0	30.0	24.3	32.8
27.4 26.5 26.1 23.8 23.3 21.7 21.8 21.9 22.9 25.7 28.3 29.8 30.3 31.4 32.3 32.7 32.7 31.7 29.6 28.7 28.5 29.0 28.3 27.6 Diurnal Average																										
41.6 44.4 41.3 46.0 39.3 31.2 32.4 31.9 34.3 36.8 38.3 42.4 46.9 45.6 44.3 45.9 45.5 46.7 44.7 45.3 46.3 42.7 38.6 38.8 Diurnal Maximum																										
Z - zerospan C - Calibration M - Maintenance																										
Alberta Ambient Air Quality Objectives (AAAO): 1-hr 76 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Ozone (O₃) - ppb
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ozone (O₃) - ppb
Stony Mountain - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	120	16.95	16.95
21 - 50	588	83.05	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Ozone (O₃) - ppb
Stony Mountain - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	1	1	6	3	0	0	2	7	7	16	20	11	21	8	11	6	120
21 - 50	5	7	8	7	25	22	33	27	38	54	50	67	109	74	48	14	588
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	6	8	14	10	25	22	35	34	45	70	70	78	130	82	59	20	708

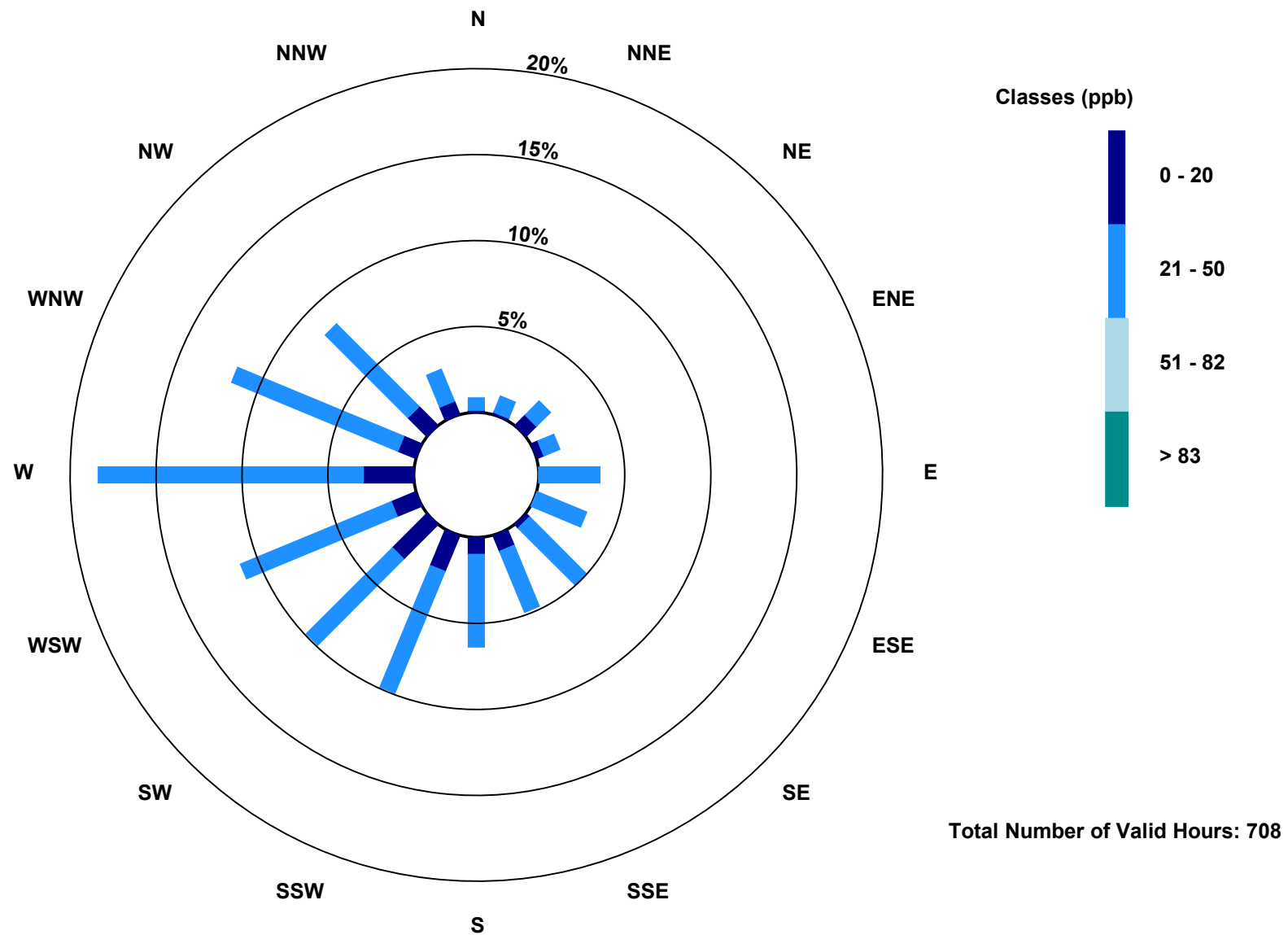
Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

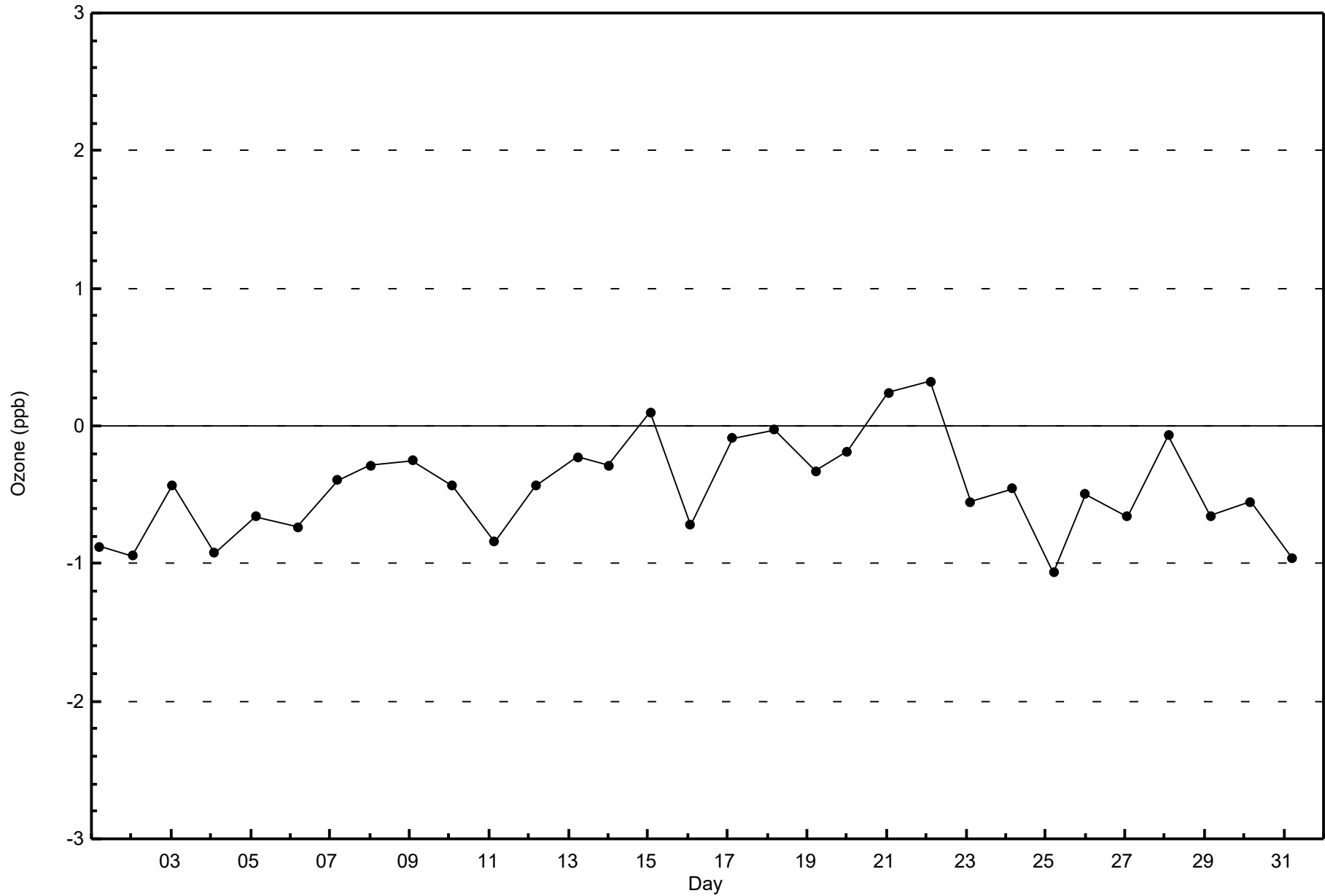
Ozone (O₃) - ppb
Stony Mountain





Wood Buffalo Environmental Association
Zero Responses

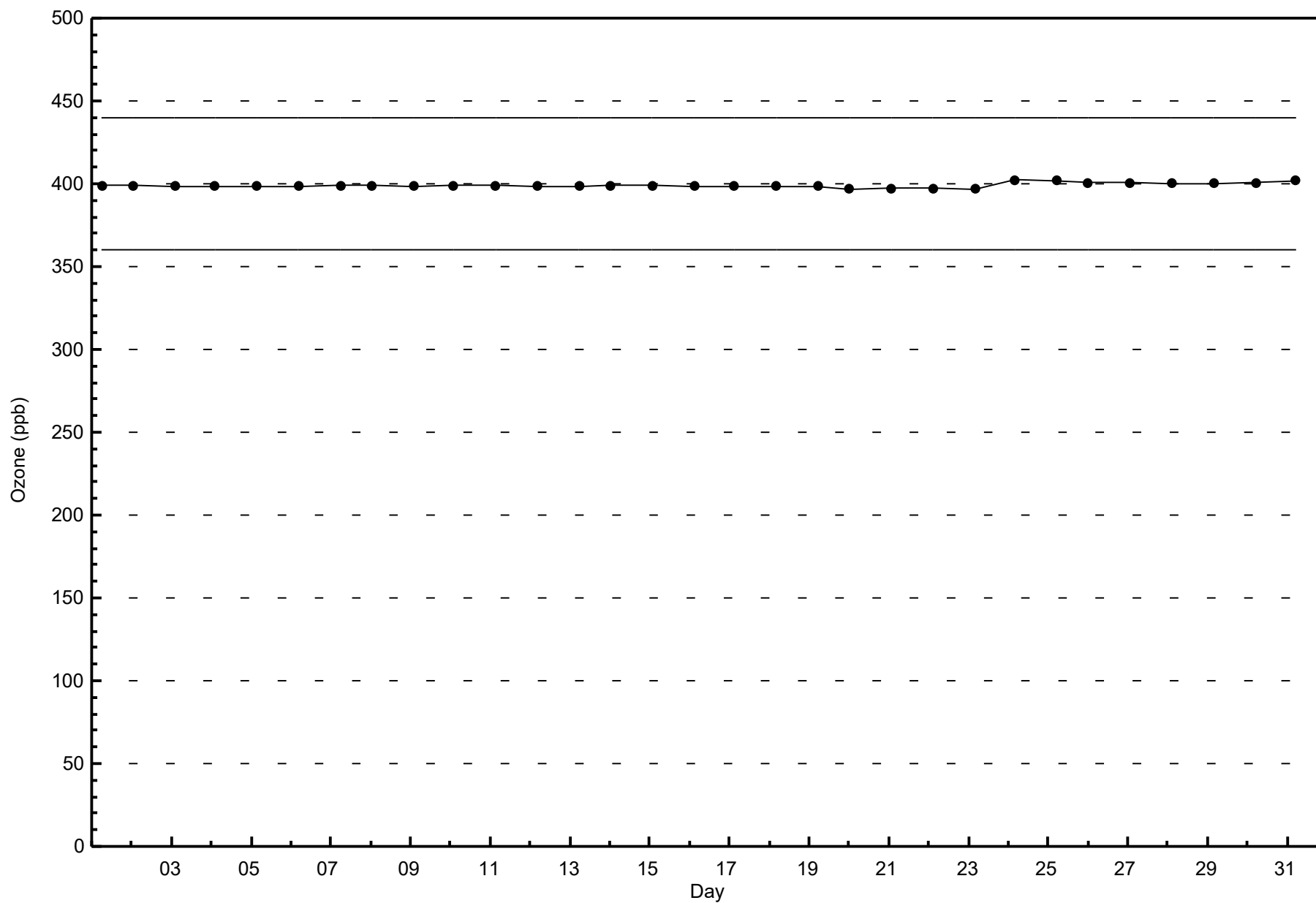
Ozone (O₃) - ppb
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Span Responses

Ozone (O₃) - ppb
Stony Mountain - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

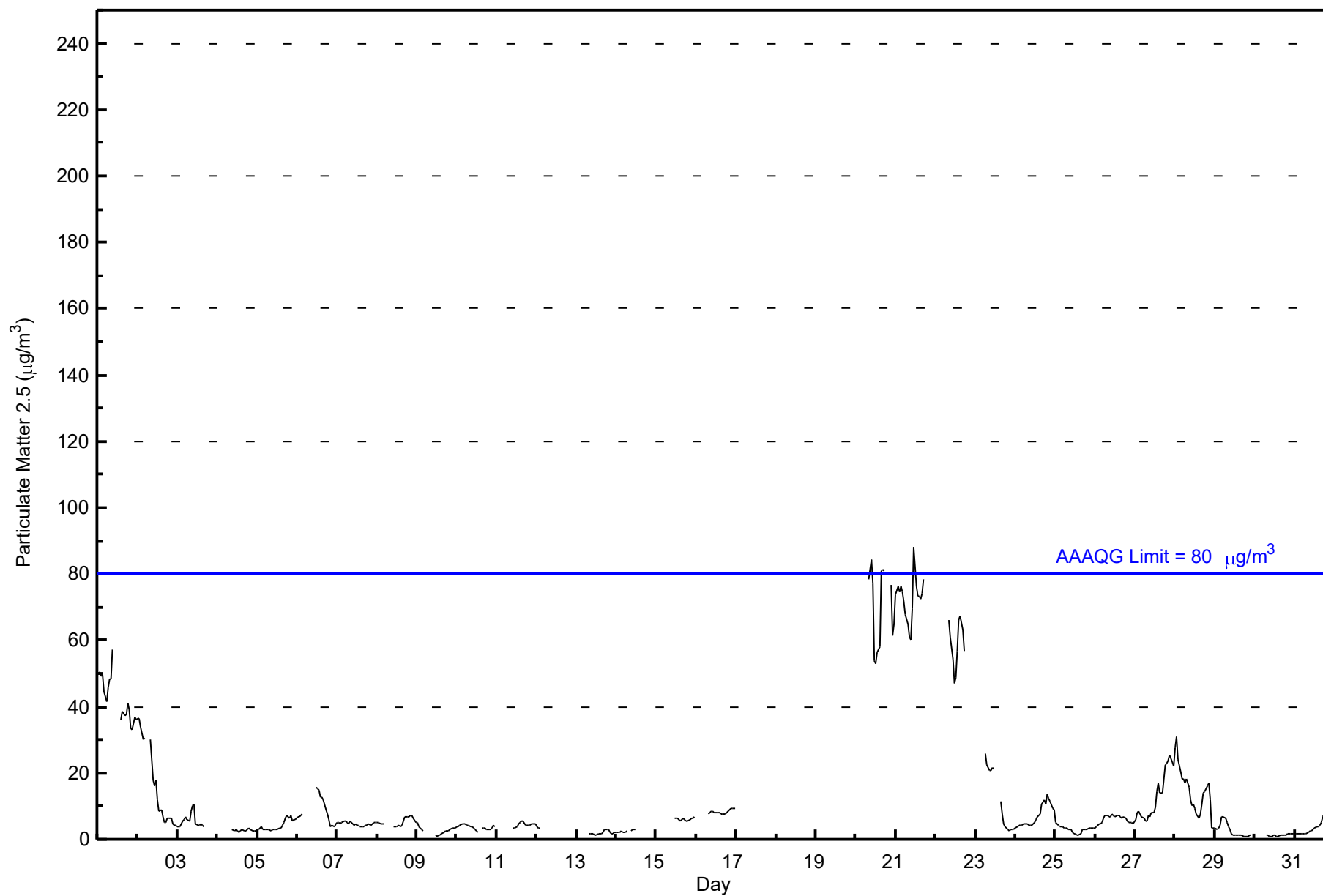
Stony Mountain - July 2026

Number of Exceedances (AAAQO): 1-hr: 5 24-hr: 2																				Hours in Service: 744							
Maximum Value: 88.2 µg/m³ on Jul 21 12:00										Maximum Daily Average: 72.6 µg/m³ on Jul 21										Hours of Data: 513							
Minimum Value: 1.0 µg/m³ on Jul 30 11:00										Minimum Daily Average: 2.6 µg/m³ on Jul 9										Hours of Missing Data: 231							
Maximum Diurnal Average: 18.3 µg/m³ at hour 9										Minimum Diurnal Average: 7.6 µg/m³ at hour 21										Hours of Calibration: 1							
Monthly Average: 12.60 µg/m³										Percentiles: P ₁ = 1.0 P ₁₀ = 1.8 Q ₁ = 3.1 Median = 4.9 Q ₃ = 8.8 P ₉₀ = 40.7 P ₉₉ = 78.4										Percent Operational Time: 69.1							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	50.0	50.4	49.3	49.7	44.5	41.6	45.8	48.4	48.4	57.2	UO	UO	UO	UO	35.8	38.8	37.5	37.9	41.2	39.0	33.4	33.0	36.9	35.9	42.7	57.2	
2-Jul	36.5	36.5	33.8	30.2	30.6	UO	UO	UO	30.3	17.7	16.2	17.7	12.0	8.3	9.1	6.9	5.0	4.9	6.5	6.5	6.6	4.8	4.2	4.1	15.6	36.5	
3-Jul	3.6	3.8	4.7	5.6	6.1	6.9	5.8	5.7	8.7	10.0	10.8	4.7	4.2	4.4	4.7	4.1	3.8	UO	UO	UO	UO	UO	UO	UO	--	10.8	
4-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	2.8	2.5	3.0	2.6	2.2	2.5	2.9	2.5	2.5	3.0	3.2	3.1	2.7	2.6	2.7	--	3.2	
5-Jul	2.9	3.1	3.8	3.1	2.9	3.0	3.0	2.8	2.7	2.8	3.1	2.8	3.1	3.2	3.4	4.3	5.1	6.5	7.1	6.4	7.0	5.7	5.8	6.1	4.2	7.1	
6-Jul	6.6	6.9	7.1	7.4	UO	UO	UO	UO	UO	UO	UO	15.7	15.2	14.7	12.8	12.7	11.7	8.7	7.5	5.7	3.9	4.3	4.0	4.5	--	15.7	
7-Jul	4.9	4.9	4.8	4.9	5.6	5.5	4.9	4.6	5.4	4.7	4.4	4.5	4.2	4.1	3.8	3.7	3.7	4.4	4.4	4.6	4.3	4.6	5.0	5.1	4.6	5.6	
8-Jul	5.0	5.1	4.8	4.8	4.8	UO	UO	UO	UO	UO	4.0	3.9	3.9	4.0	4.0	4.3	5.4	6.7	6.9	6.8	7.0	7.1	6.4	5.3	5.3	7.1	
9-Jul	4.9	3.9	3.4	2.9	2.6	UO	UO	UO	UO	UO	UO	1.2	1.0	1.2	1.4	1.8	2.1	2.4	2.5	2.7	2.9	3.2	3.3	3.4	2.6	4.9	
10-Jul	3.7	4.0	4.4	4.6	4.7	4.7	4.4	4.2	3.7	4.0	3.6	3.1	2.6	2.1	C	3.2	3.2	3.3	2.9	2.9	3.1	3.6	4.3	4.0	3.7	4.7	
11-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	3.4	3.5	3.8	4.5	5.1	5.6	5.4	4.3	4.2	4.4	4.4	4.5	4.5	4.5	--	5.6	
12-Jul	3.9	3.5	3.3	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	3.9	
13-Jul	UO	UO	UO	UO	UO	UO	UO	1.7	1.5	1.7	1.6	1.4	1.5	1.6	1.7	1.7	2.2	2.9	2.9	2.9	2.3	1.8	1.9	2.1	--	2.9	
14-Jul	2.2	2.2	2.1	2.4	2.3	2.3	2.5	UO	UO	2.7	2.8	3.0	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	3.0	
15-Jul	UO	UO	UO	UO	UO	UO	UO	UO	6.0	UO	UO	6.4	6.5	6.5	5.7	5.9	6.4	6.1	5.6	5.5	5.8	6.2	6.3	6.6	--	6.6	
16-Jul	UO	UO	UO	UO	UO	UO	UO	7.8	8.2	8.5	8.3	7.9	8.0	8.2	8.0	7.8	7.7	7.7	8.0	8.4	8.8	9.3	9.5	9.5	--	9.5	
17-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
18-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
19-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
20-Jul	UO	UO	UO	UO	UO	UO	UO	UO	78.2	84.2	77.2	53.6	53.1	56.3	58.0	80.7	81.5	80.7	UO	UO	UO	UO	76.9	61.3	64.9	--	84.2
21-Jul	73.5	76.1	74.7	76.2	74.7	71.8	67.9	64.9	60.9	60.3	69.7	88.2	76.2	73.1	73.4	72.6	74.2	78.4	UO	UO	UO	UO	UO	UO	72.6	88.2	
22-Jul	UO	UO	UO	UO	UO	UO	UO	UO	66.1	61.0	54.3	46.8	48.6	56.8	66.3	67.5	63.2	56.7	UO	UO	UO	UO	UO	UO	--	67.5	
23-Jul	UO	UO	UO	UO	UO	UO	25.9	22.6	21.0	20.6	21.5	21.1	M	M	M	11.6	7.6	4.8	3.7	3.0	2.7	2.8	2.9	3.2	--	25.9	
24-Jul	3.6	3.7	4.0	4.2	4.3	4.7	4.5	4.7	4.4	4.2	4.3	5.0	6.1	6.7	7.1	7.8	10.5	11.8	10.7	13.4	12.5	11.3	9.2	8.7	7.0	13.4	
25-Jul	5.3	4.6	4.2	3.9	3.7	3.5	3.3	3.4	3.1	2.8	2.2	1.8	1.6	1.1	1.2	1.9	2.9	3.0	2.9	3.0	3.4	3.5	3.3	3.3	3.0	5.3	
26-Jul	3.2	3.8	4.9	4.7	5.1	6.4	7.3	7.3	6.7	6.9	7.6	7.3	6.7	7.1	7.3	6.8	6.4	6.6	6.4	5.5	5.2	5.0	4.9	4.7	6.0	7.6	
27-Jul	6.0	7.9	8.3	7.7	6.9	6.2	5.4	5.3	7.2	6.9	7.9	8.1	9.6	14.4	16.7	14.0	14.1	18.3	22.3	22.9	23.6	25.5	23.1	21.9	12.9	25.5	
28-Jul	27.7	31.0	24.3	20.2	18.3	18.2	17.1	18.4	15.6	11.8	10.0	10.5	9.3	7.7	6.3	7.8	10.8	14.0	14.2	16.2	16.7	12.0	3.2	3.4	14.4	31.0	
29-Jul	3.4	3.1	3.3	4.1	6.7	6.6	6.2	4.9	3.7	3.0	1.9	1.3	1.2	1.3	1.3	1.3	1.2	1.0	1.0	1.0	1.0	1.1	1.1	UO	2.6	6.7	
30-Jul	UO	UO	UO	UO	UO	UO	UO	1.1	1.2	1.0	1.0	1.1	1.1	1.0	1.1	1.2	1.3	1.3	1.3	1.3	1.6	1.7	1.7	1.8	--	1.8	
31-Jul	1.6	1.7	1.8	1.9	1.9	1.8	1.8	1.7	2.2	2.4	2.6	2.9	3.2	3.6	4.0	4.4	5.2	6.9	7.6	8.0	7.8	7.6	7.9	7.7	4.1	8.0	
																								Diurnal Average			
																								Diurnal Maximum			
C - Calibration M - Maintenance UO - Unstable Operation																											
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 µg/m³ 24-hr 29 µg/m³																											



Wood Buffalo Environmental Association
Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Stony Mountain - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Number of Hours	%	Cumulative %
0 - 5	282	54.97	54.97
6 - 15	135	26.32	81.29
16 - 25	25	4.87	86.16
26 - 80	66	12.87	99.03
> 81.0	5	0.97	100.00

Total Number of Valid Hours: 513

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Stony Mountain - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	3	2	3	4	10	4	6	9	24	29	25	28	75	42	11	7	282
6 - 15	2	3	9	2	1	2	8	11	10	17	17	16	14	11	10	2	135
16 - 25	0	0	0	0	0	0	1	3	1	2	3	3	9	0	3	0	25
26 - 80	0	2	1	0	5	8	7	4	0	4	3	7	8	12	3	2	66
> 81.0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	5
Totals	5	7	13	6	16	14	22	27	35	52	48	54	106	66	30	12	513

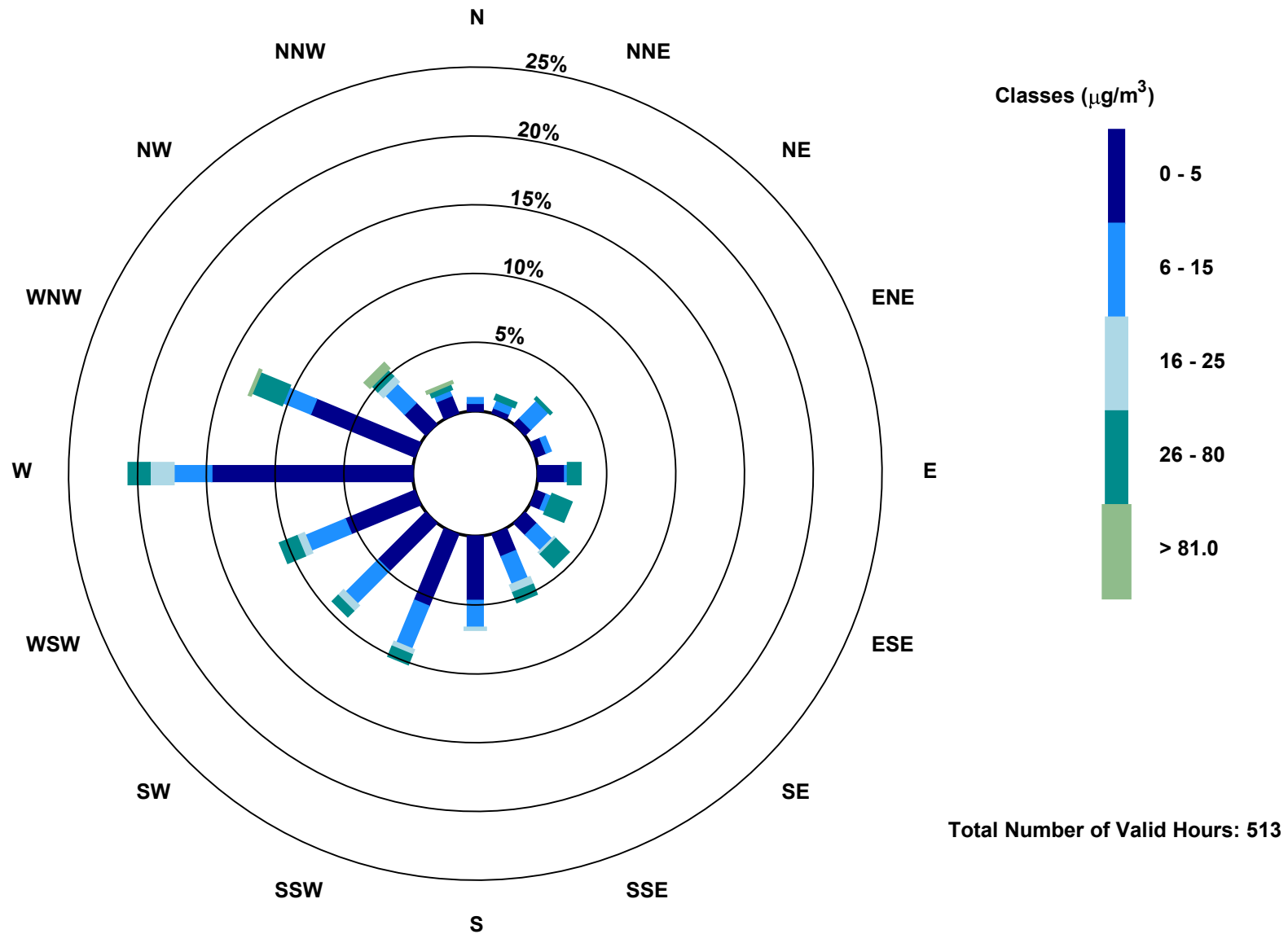
Total Number of Valid Hours: 513

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

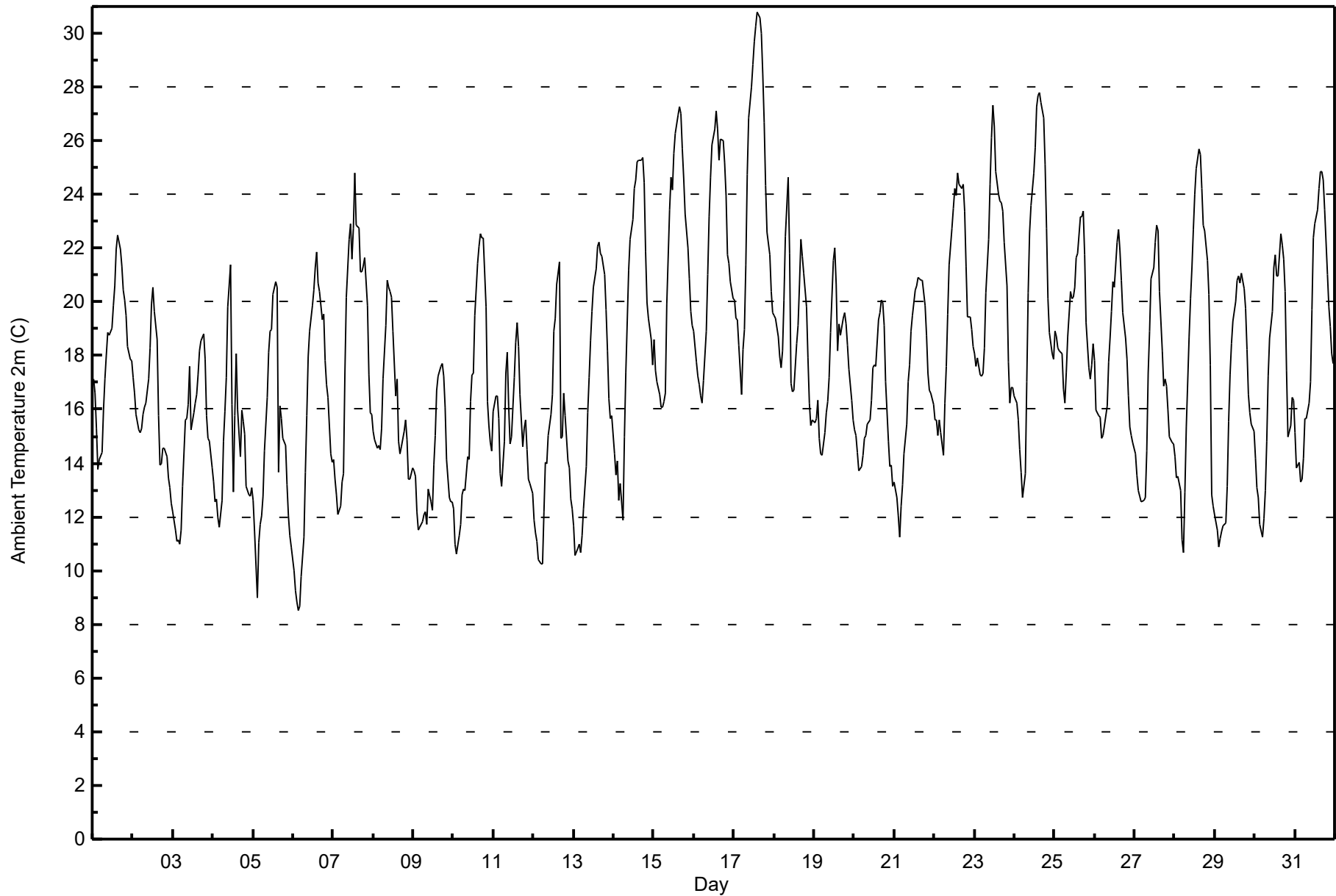
Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Stony Mountain





Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Stony Mountain - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	6	0.81	0.81
10 - 20	522	70.16	70.97
> 20	216	29.03	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

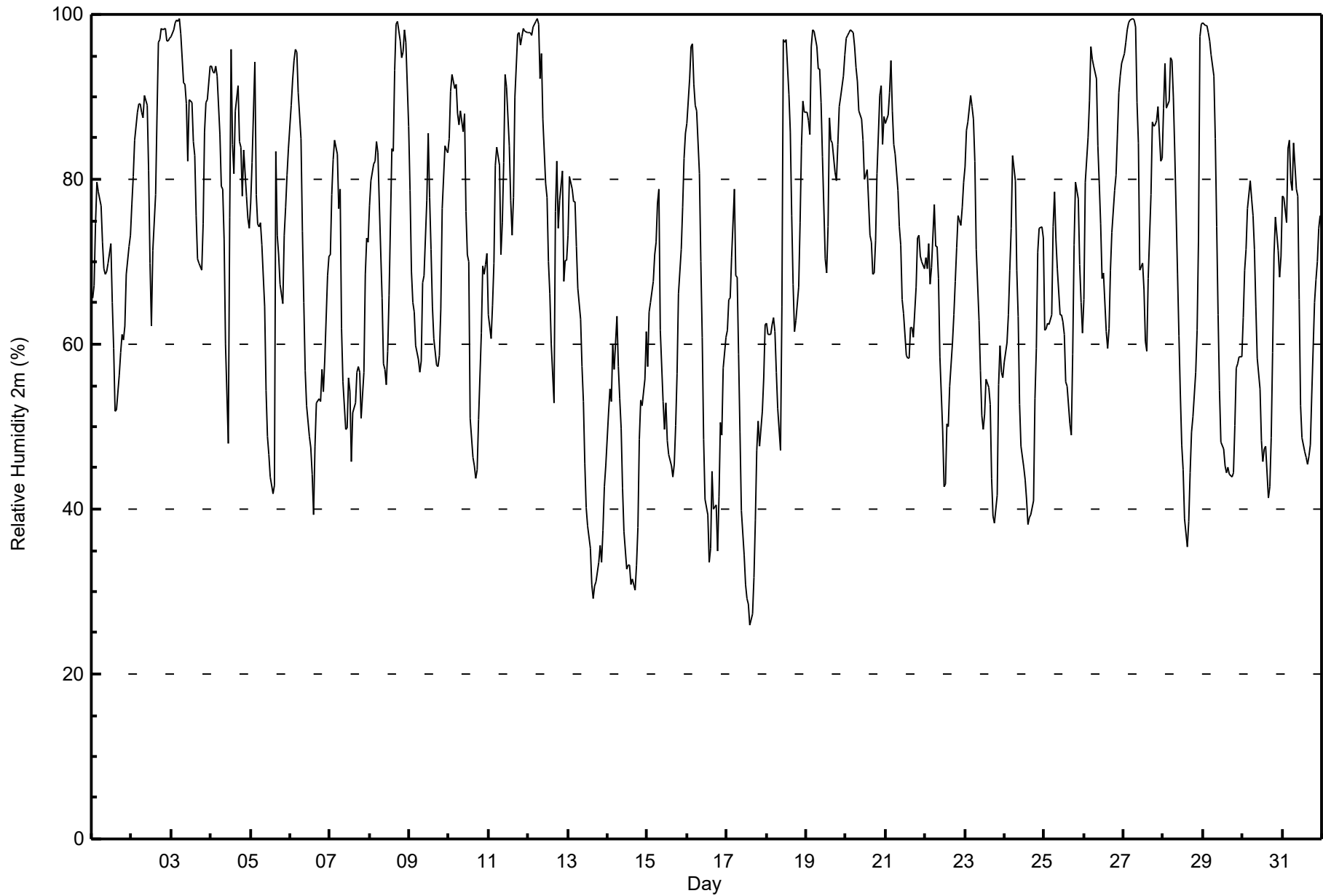
Stony Mountain - July 2026

Maximum Value: 99.4 % on Jul 3 06:00																				Maximum Daily Average: 87.8 % on Jul 3					Hours in Service: 744	
Minimum Value: 25.9 % on Jul 17 15:00																				Minimum Daily Average: 46.4 % on Jul 14					Hours of Data: 744	
Maximum Diurnal Average: 83.9 % at hour 5																				Minimum Diurnal Average: 55.4 % at hour 15					Hours of Missing Data: 0	
Monthly Average: 70.21 %																				Percentiles: P ₁ = 30.9 P ₁₀ = 45.2 Q ₁ = 56.9 Median = 70.9 Q ₃ = 84.7 P ₉₀ = 94.6 P ₉₉ = 99.1					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	65.7	67.1	74.6	79.6	78.5	76.8	72.4	69.2	68.5	68.8	69.8	72.2	65.1	59.4	51.9	52.0	56.2	58.9	61.2	60.5	62.2	68.5	71.9	73.3	66.8	79.6
2-Jul	76.9	80.3	84.7	88.1	89.1	89.1	88.1	87.4	90.2	88.9	81.1	69.9	62.2	71.4	78.2	87.9	96.6	97.0	98.3	98.1	98.3	96.8	96.8	97.1	87.2	98.3
3-Jul	97.3	98.2	99.1	99.3	99.2	99.4	97.7	91.7	91.5	89.2	82.1	89.7	89.3	84.5	82.9	75.5	70.3	69.8	68.9	74.5	85.8	89.3	89.6	93.7	87.8	99.4
4-Jul	93.8	93.1	92.9	93.7	92.5	85.5	79.2	78.8	72.8	60.0	48.0	75.4	95.8	84.3	80.6	88.2	91.3	84.6	84.0	78.0	83.6	78.0	75.2	74.0	81.8	95.8
5-Jul	77.2	82.0	94.2	78.1	74.7	74.2	74.8	72.0	64.5	54.4	48.9	46.6	44.0	41.9	42.8	83.4	73.2	70.8	67.3	65.0	73.3	76.6	80.4	83.7	68.5	94.2
6-Jul	89.0	92.1	94.4	95.8	95.4	90.6	85.0	73.7	65.1	56.8	52.6	48.8	47.5	44.2	39.3	47.6	52.9	53.3	53.1	56.9	54.3	58.2	68.2	70.6	66.1	95.8
7-Jul	70.9	78.1	82.4	84.7	83.1	76.4	78.9	61.9	55.4	49.7	49.8	55.9	54.2	45.8	51.7	52.9	56.7	57.3	56.6	50.9	56.7	68.5	72.8	72.3	63.5	84.7
8-Jul	76.8	79.9	81.8	82.2	84.5	83.2	77.1	65.6	57.6	56.9	55.1	59.1	65.9	83.8	83.3	93.2	98.8	99.1	96.8	94.7	95.4	98.2	96.7	86.4	81.3	99.1
9-Jul	78.7	68.8	65.0	64.0	59.8	58.2	56.7	57.9	67.4	68.2	77.4	85.6	77.9	71.5	64.5	60.6	57.5	57.2	58.6	64.3	76.4	84.0	83.6	83.2	68.6	85.6
10-Jul	85.0	90.7	92.6	91.0	91.6	88.0	86.7	88.4	85.7	88.0	76.2	70.8	70.0	51.0	46.3	45.3	43.7	44.8	50.9	61.3	69.5	68.4	69.7	70.9	71.9	92.6
11-Jul	63.6	60.7	64.7	69.9	81.7	83.9	81.7	70.8	74.7	82.0	92.8	91.1	84.0	77.4	73.3	77.8	90.0	97.6	97.7	96.2	97.3	98.3	97.9	97.8	83.4	98.3
12-Jul	97.8	97.8	97.5	98.5	99.1	99.4	98.9	92.1	95.2	87.3	79.6	77.8	70.1	66.2	60.0	52.9	76.1	82.2	74.0	77.4	81.0	67.6	70.2	70.3	82.0	99.4
13-Jul	73.3	80.4	78.7	77.3	77.2	71.8	66.8	63.0	57.3	53.0	45.5	40.2	37.9	35.2	30.9	29.1	30.8	31.2	33.5	35.6	33.5	37.5	42.8	45.2	50.3	80.4
14-Jul	51.7	54.5	53.1	60.0	56.9	63.4	57.2	53.4	49.9	42.5	37.3	32.8	33.2	33.2	30.9	31.5	30.1	33.1	37.8	48.4	53.2	52.5	55.8	61.5	46.4	63.4
15-Jul	57.3	63.8	65.0	67.7	70.8	72.4	77.1	78.9	61.8	53.1	49.7	52.9	48.3	46.6	45.2	43.8	45.4	50.2	56.4	66.2	71.5	76.6	82.6	85.6	62.0	85.6
16-Jul	86.7	92.3	96.2	96.5	91.6	89.0	88.3	80.7	70.0	60.8	48.5	41.3	39.3	33.6	35.2	44.6	40.1	40.6	35.0	41.5	50.5	48.9	57.1	60.9	61.2	96.5
17-Jul	61.7	65.4	65.5	70.6	78.7	68.3	68.1	58.8	49.3	39.8	34.3	30.9	29.1	28.5	25.9	27.3	31.6	38.7	47.1	50.7	47.6	51.8	55.9	62.4	49.5	78.7
18-Jul	62.5	61.3	61.1	62.5	63.3	61.6	56.6	52.1	47.1	64.6	97.0	96.6	97.0	90.4	85.7	75.6	67.2	61.5	62.9	67.0	74.8	84.1	89.6	88.2	72.1	97.0
19-Jul	88.1	87.2	85.4	96.2	98.1	98.0	96.2	93.5	93.4	89.3	82.7	70.3	68.6	74.3	87.4	84.8	84.4	80.8	79.8	84.3	88.8	90.0	92.5	95.1	87.0	98.1
20-Jul	97.1	97.4	97.8	98.2	97.9	96.1	93.6	91.9	88.3	87.3	84.8	80.0	80.4	81.3	73.3	72.4	68.4	68.6	72.5	80.7	90.2	91.3	84.2	87.6	85.9	98.2
21-Jul	86.7	87.9	90.5	94.5	88.3	84.2	83.0	78.7	74.3	72.0	65.5	63.7	58.6	58.3	58.4	62.1	62.0	60.8	67.0	72.9	73.3	70.7	69.9	69.2	73.0	94.5
22-Jul	70.5	69.2	72.2	67.3	69.4	76.9	71.9	71.9	67.9	58.5	49.6	42.8	43.0	50.4	49.9	54.9	60.2	63.6	67.7	71.7	75.6	74.3	76.6	79.6	64.8	79.6
23-Jul	81.5	85.9	86.9	90.1	88.8	87.3	82.3	71.6	62.9	56.7	51.4	49.7	51.5	55.7	54.7	52.8	43.8	39.1	38.4	41.7	55.0	59.8	56.5	55.9	62.5	90.1
24-Jul	57.8	60.1	63.6	69.0	74.1	82.8	79.9	69.0	63.4	52.7	47.6	45.0	43.5	41.2	38.2	38.9	39.4	41.0	53.4	59.5	71.3	74.1	74.3	72.9	58.9	82.8
25-Jul	61.7	61.8	62.5	62.4	63.5	74.3	78.5	72.6	69.2	63.6	63.5	62.7	61.2	55.5	54.9	50.4	49.0	58.7	72.0	79.6	77.6	69.6	65.0	61.3	64.6	79.6
26-Jul	65.4	79.6	85.0	89.5	96.1	94.6	93.7	92.2	84.0	79.5	74.6	68.0	68.6	61.6	59.6	61.9	69.0	73.5	78.6	80.4	85.4	90.4	92.6	94.0	79.9	96.1
27-Jul	95.3	96.5	98.2	98.9	99.3	99.4	99.4	98.4	89.3	84.4	68.9	69.9	66.5	60.4	59.1	67.9	78.2	86.9	86.5	86.6	87.1	88.8	82.2	82.5	84.6	99.4
28-Jul	88.7	94.0	88.6	89.6	94.7	94.5	89.9	83.4	68.4	61.0	53.9	47.8	44.8	38.7	35.4	38.5	44.4	49.3	51.2	56.6	61.7	72.8	97.4	98.8	68.5	98.8
29-Jul	98.9	98.6	98.7	97.8	96.7	95.0	92.6	85.0	74.2	63.5	54.4	48.2	47.3	45.3	44.4	45.1	44.2	44.0	44.4	50.2	57.1	57.6	58.5	58.5	66.7	98.9
30-Jul	63.2	69.0	71.5	76.5	79.8	77.6	75.6	71.6	64.6	58.3	54.5	48.2	45.8	47.2	47.6	41.4	42.8	48.6	59.0	70.9	75.5	71.3	68.2	70.6	62.5	79.8
31-Jul	78.0	77.8	74.8	83.7	84.8	79.9	78.7	84.5	78.8	77.9	65.5	52.5	48.7	47.0	46.2	45.5	46.5	47.8	53.9	65.0	67.9	70.1	74.0	75.6	66.9	84.8
77.4 79.7 81.3 83.0 83.9 83.0 80.8 76.1 71.0 66.7 62.7 60.8 59.3 57.0 55.4 57.6 59.4 61.0 63.4 67.3 72.0 73.7 75.8 76.7																										Diurnal Average
98.9 98.6 99.1 99.3 99.3 99.4 99.4 98.4 95.2 89.3 97.0 96.6 97.0 90.4 87.4 93.2 98.8 99.1 98.3 98.1 98.3 98.3 97.9 98.8																										Diurnal Maximum



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Stony Mountain - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Precipitation (PC) - mm

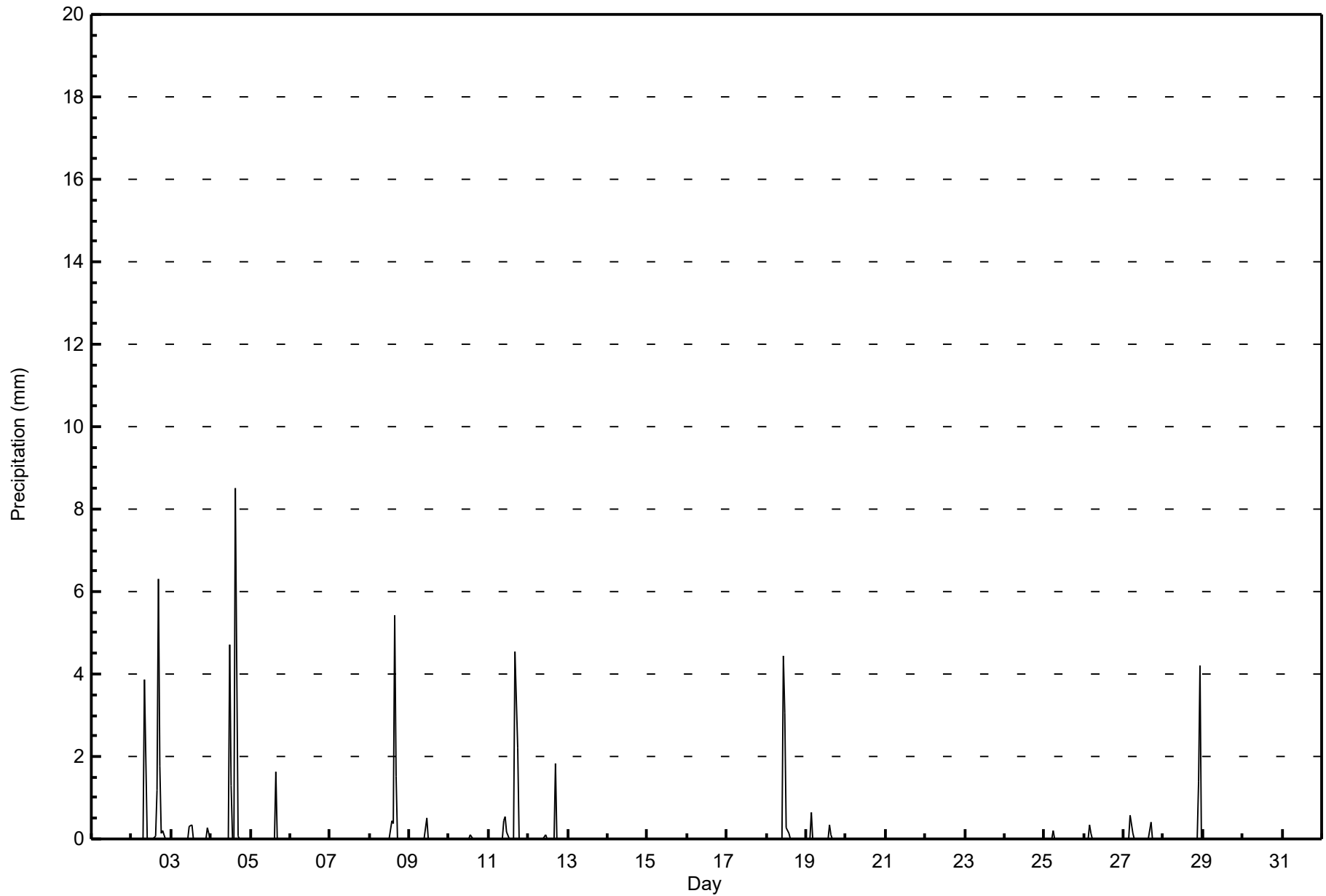
Stony Mountain - July 2026

Maximum Value: 8.5 mm on Jul 4 16:00																	Maximum Daily Total: 14.6 mm on Jul 4										Hours in Service: 744	
Minimum Value: 0.0 mm on Jul 1 01:00																	Minimum Daily Total: 0.0 mm on Jul 1										Hours of Data: 744	
Maximum Diurnal Total: 16.9 mm at hour 16																	Minimum Diurnal Total: 0.0 mm at hour 1										Hours of Missing Data: 0	
Monthly Total: 65.27 mm																	Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 3.5										Hours of Calibration: 0	
																	Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.1	1.2	6.3	1.8	0.1	0.2	0.0	0.0	0.0	0.0	13.5		
3-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.9		
4-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	1.3	0.0	0.0	8.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.6		
5-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6		
6-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
7-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
8-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	5.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8		
9-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5		
10-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1		
11-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.2	0.0	0.0	0.0	0.0	4.5	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9		
12-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9		
13-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
14-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
15-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
16-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
17-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
18-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	3.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9		
19-Jul	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1		
20-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
21-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
22-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
23-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
24-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
25-Jul	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2		
26-Jul	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5		
27-Jul	0.0	0.0	0.0	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1		
28-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	4.2	0.0	5.6			
29-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
30-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
31-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																												
Diurnal Maximum																												



Wood Buffalo Environmental Association
Hourly Averages

Precipitation (PC) - mm
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Precipitation (PC) - mm
Stony Mountain - July 2026

Concentration Ranges (mm)	Number of Hours	%	Cumulative %
0 - 0.3	718	96.51	96.51
0.4 - 0.5	7	0.94	97.45
0.6 - 0.7	2	0.27	97.72
0.8 - 1.4	3	0.40	98.12
1.5 - 10	14	1.88	100.00
> 10	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Leaf Wetness (LW) - %

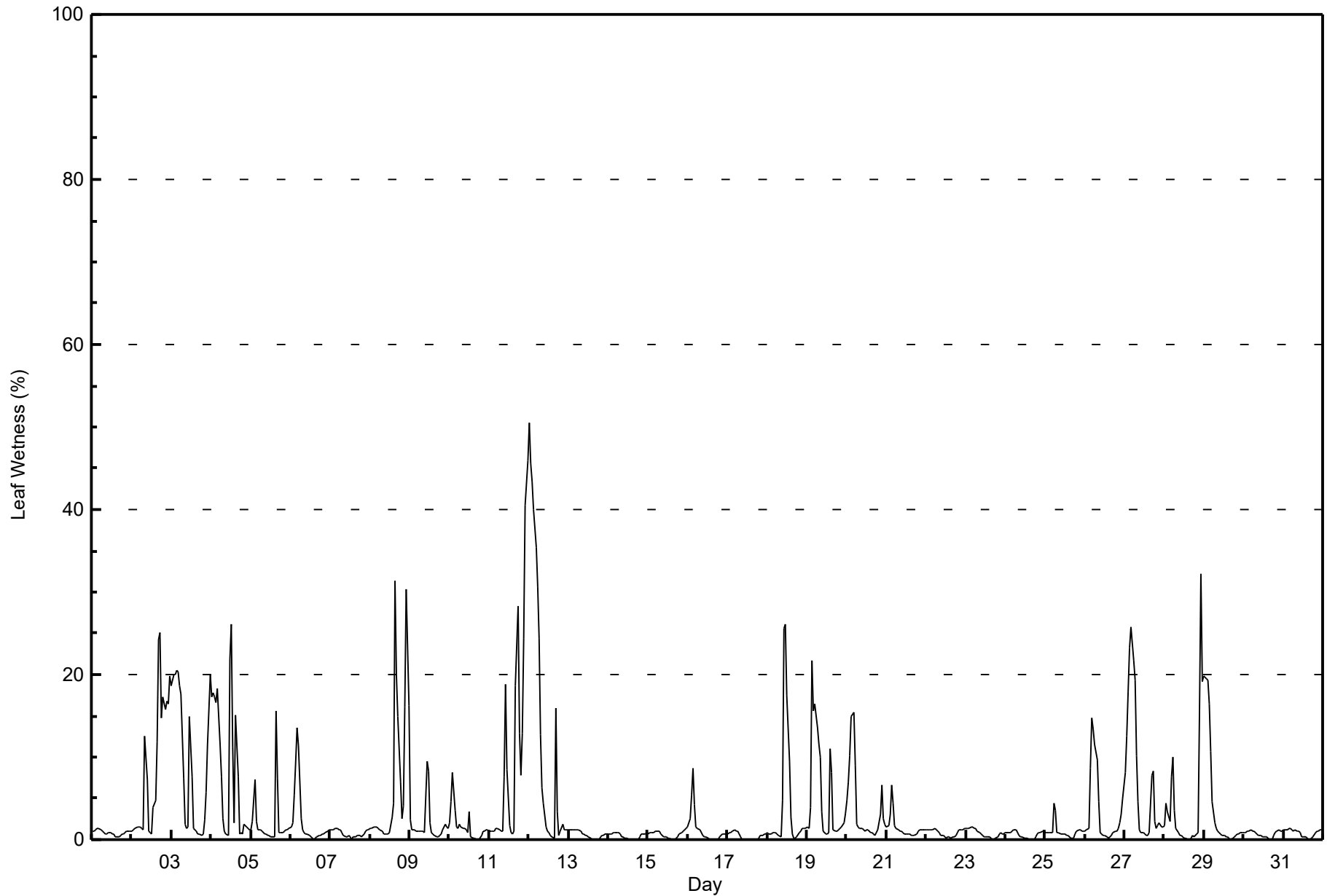
Stony Mountain - July 2026

Maximum Value: 50.6 % on Jul 12 01:00																		Maximum Daily Average: 13.5 % on Jul 12										Hours in Service: 744	
Minimum Value: 0.0 % on Jul 7 14:00																		Minimum Daily Average: 0.4 % on Jul 17										Hours of Data: 744	
Maximum Diurnal Average: 6.9 % at hour 4																		Minimum Diurnal Average: 1.1 % at hour 15										Hours of Missing Data: 0	
Monthly Average: 3.49 %																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 0.6 Median = 1.0 Q ₃ = 1.6 P ₉₀ = 12.3 P ₉₉ = 31.8										Hours of Calibration: 0	
																												Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	1.0	1.0	1.1	1.4	1.3	1.2	1.0	0.8	0.7	0.7	0.8	0.7	0.6	0.4	0.3	0.4	0.5	0.7	0.7	0.8	1.0	1.0	1.0	0.8	1.4				
2-Jul	1.1	1.2	1.3	1.6	1.6	1.4	1.3	1.3	12.6	7.3	1.1	0.8	0.7	3.9	4.7	11.9	24.2	25.0	14.8	17.4	15.8	16.8	16.5	19.9	8.5	25.0			
3-Jul	18.7	20.0	20.0	20.4	20.3	18.6	17.6	7.5	1.9	1.3	1.6	15.0	7.6	1.4	1.2	1.0	0.7	0.7	0.5	0.6	2.4	5.7	11.5	20.1	9.0	20.4			
4-Jul	17.2	17.7	17.3	16.6	18.3	11.5	7.6	2.5	1.0	0.7	0.5	21.9	26.1	11.1	2.0	15.1	7.6	0.7	0.9	0.7	1.9	1.5	1.3	1.2	8.5	26.1			
5-Jul	1.3	2.2	7.3	2.2	1.2	1.2	1.2	1.0	0.7	0.6	0.5	0.5	0.4	0.3	0.4	15.5	7.5	0.8	0.8	0.9	1.0	1.1	1.2	1.3	2.1	15.5			
6-Jul	1.5	2.1	5.4	9.3	13.5	11.4	2.6	1.1	0.8	0.7	0.6	0.5	0.4	0.2	0.0	0.2	0.3	0.6	0.5	0.7	0.8	0.8	1.0	1.1	2.3	13.5			
7-Jul	1.1	1.2	1.3	1.4	1.3	1.2	1.3	0.9	0.5	0.3	0.3	0.5	0.4	0.0	0.3	0.3	0.6	0.6	0.5	0.3	0.8	1.0	1.1	1.2	0.8	1.4			
8-Jul	1.3	1.4	1.5	1.5	1.5	1.3	1.2	1.0	0.7	0.8	0.7	0.8	0.9	2.7	4.5	31.4	20.0	14.9	7.0	2.6	4.1	16.1	30.3	16.2	6.9	31.4			
9-Jul	2.3	1.2	1.2	1.1	1.1	1.0	1.0	0.9	1.0	0.9	9.5	8.3	2.0	0.9	0.6	0.5	0.4	0.3	0.4	0.7	1.2	1.9	1.4	1.4	1.7	9.5			
10-Jul	2.0	4.5	8.1	3.5	1.6	1.4	1.9	1.5	1.3	1.4	1.1	0.9	3.5	0.4	0.1	0.1	0.0	0.0	0.0	0.5	1.1	1.1	1.1	1.2	1.6	8.1			
11-Jul	1.1	1.0	1.0	1.0	1.3	1.3	1.2	1.0	0.9	7.6	18.9	8.4	1.6	0.8	0.7	0.9	18.7	28.2	12.9	7.8	12.9	24.4	40.4	45.9	10.0	45.9			
12-Jul	50.6	45.5	43.4	40.0	35.4	30.6	24.4	12.7	6.2	4.5	1.6	1.0	0.8	0.5	0.3	0.2	16.0	3.5	0.4	1.0	1.8	1.1	1.1	1.1	13.5	50.6			
13-Jul	1.2	1.3	1.3	1.2	1.3	1.2	1.1	1.0	0.7	0.6	0.6	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.1	0.3	0.4	0.5	0.6	0.6	0.6	1.3			
14-Jul	0.7	0.8	0.7	0.9	0.8	0.9	0.8	0.6	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.7	0.8	0.8	0.4	0.9			
15-Jul	0.8	0.8	0.9	0.9	0.9	0.9	1.0	1.0	0.6	0.3	0.3	0.4	0.2	0.1	0.0	0.0	0.0	0.2	0.4	0.6	0.8	1.0	1.1	1.4	0.6	1.4			
16-Jul	1.5	2.5	5.5	8.7	4.2	1.5	1.4	1.2	0.8	0.6	0.4	0.3	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.6	0.6	0.7	0.7	1.3	8.7			
17-Jul	0.7	0.8	0.8	0.9	1.2	1.0	0.9	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.6	0.6	0.7	0.4	1.2			
18-Jul	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.3	4.8	25.7	26.1	17.4	9.5	2.6	0.7	0.2	0.1	0.4	0.8	1.0	1.4	1.4	1.4	4.2	26.1			
19-Jul	1.5	1.4	3.9	21.6	15.7	16.4	13.6	11.6	10.0	3.4	1.0	0.7	0.7	0.8	11.1	8.2	1.2	1.0	1.0	1.2	1.4	1.5	2.0	3.2	5.6	21.6			
20-Jul	4.7	6.9	10.1	14.9	15.5	9.0	1.9	1.5	1.3	1.3	1.2	1.1	1.1	1.1	0.8	0.9	0.7	0.6	0.8	1.2	3.0	6.6	2.6	1.8	3.8	15.5			
21-Jul	1.6	1.7	3.0	6.6	4.4	1.7	1.4	1.2	1.0	0.9	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.8	1.0	1.1	1.2	1.1	1.1	1.5	6.6			
22-Jul	1.2	1.2	1.3	1.1	1.2	1.3	1.2	1.0	0.8	0.6	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.5	0.9	1.2	1.2	1.3	1.4	0.8	1.4			
23-Jul	1.4	1.4	1.4	1.5	1.5	1.4	1.3	1.1	0.8	0.6	0.5	0.4	0.4	0.4	0.3	0.2	0.0	0.0	0.1	0.4	0.7	0.8	0.8	0.7	0.8	1.5			
24-Jul	0.8	0.8	0.8	0.9	1.0	1.2	1.1	0.9	0.6	0.3	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.3	0.6	0.8	0.9	1.0	0.9	0.6	1.2			
25-Jul	0.8	0.8	0.8	0.8	0.8	4.4	3.6	0.9	0.8	0.6	0.7	0.6	0.6	0.5	0.5	0.2	0.1	0.2	0.6	1.0	1.2	1.1	1.0	0.9	1.0	4.4			
26-Jul	0.9	1.1	1.3	8.7	14.7	13.4	11.6	9.7	4.6	0.8	0.7	0.5	0.6	0.3	0.2	0.3	0.6	0.8	1.0	1.1	1.4	2.0	3.1	4.9	3.5	14.7			
27-Jul	8.2	12.5	17.9	23.3	25.8	21.7	19.4	10.3	4.6	1.1	0.8	0.8	0.6	0.5	0.5	0.8	7.9	8.4	2.2	1.4	1.6	2.0	1.4	1.5	7.3	25.8			
28-Jul	1.7	4.4	3.4	2.1	7.7	10.0	3.6	1.4	0.9	0.6	0.5	0.3	0.2	0.1	0.0	0.0	0.2	0.5	0.4	0.7	0.8	15.5	32.2	19.2	4.4	32.2			
29-Jul	19.9	19.5	19.3	16.5	10.6	4.6	2.0	1.3	1.0	0.8	0.7	0.5	0.5	0.3	0.3	0.2	0.0	0.1	0.3	0.6	0.7	0.8	0.8	0.8	4.2	19.9			
30-Jul	0.8	0.9	1.0	1.0	1.1	1.1	1.0	0.9	0.8	0.6	0.5	0.4	0.3	0.4	0.3	0.0	0.0	0.1	0.5	0.9	1.1	1.1	1.0	1.0	0.7	1.1			
31-Jul	1.2	1.3	1.2	1.3	1.4	1.2	1.1	1.1	1.1	1.0	0.8	0.4	0.4	0.3	0.2	0.1	0.0	0.2	0.4	0.8	1.0	1.1	1.1	1.1	0.8	1.4			
4.8 5.2 5.9 6.9 6.7 5.7 4.2 2.6 1.9 1.5 2.4 3.0 2.3 1.2 1.1 2.9 3.5 2.9 1.6 1.6 2.1 3.6 5.2 5.0																										Diurnal Average			
50.6 45.5 43.4 40.0 35.4 30.6 24.4 12.7 12.6 7.6 25.7 26.1 26.1 11.1 11.1 31.4 24.2 28.2 14.8 17.4 15.8 24.4 40.4 45.9																										Diurnal Maximum			



Wood Buffalo Environmental Association
Hourly Averages

Leaf Wetness (LW) - %
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Leaf Wetness (LW) - %
Stony Mountain - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 0.3	121	16.26	16.26
0.4 - 0.5	57	7.66	23.92
0.6 - 0.7	82	11.02	34.95
0.8 - 1.4	283	38.04	72.98
1.5 - 10	106	14.25	87.23
> 10	86	11.56	98.79

Total Number of Valid Hours: 744

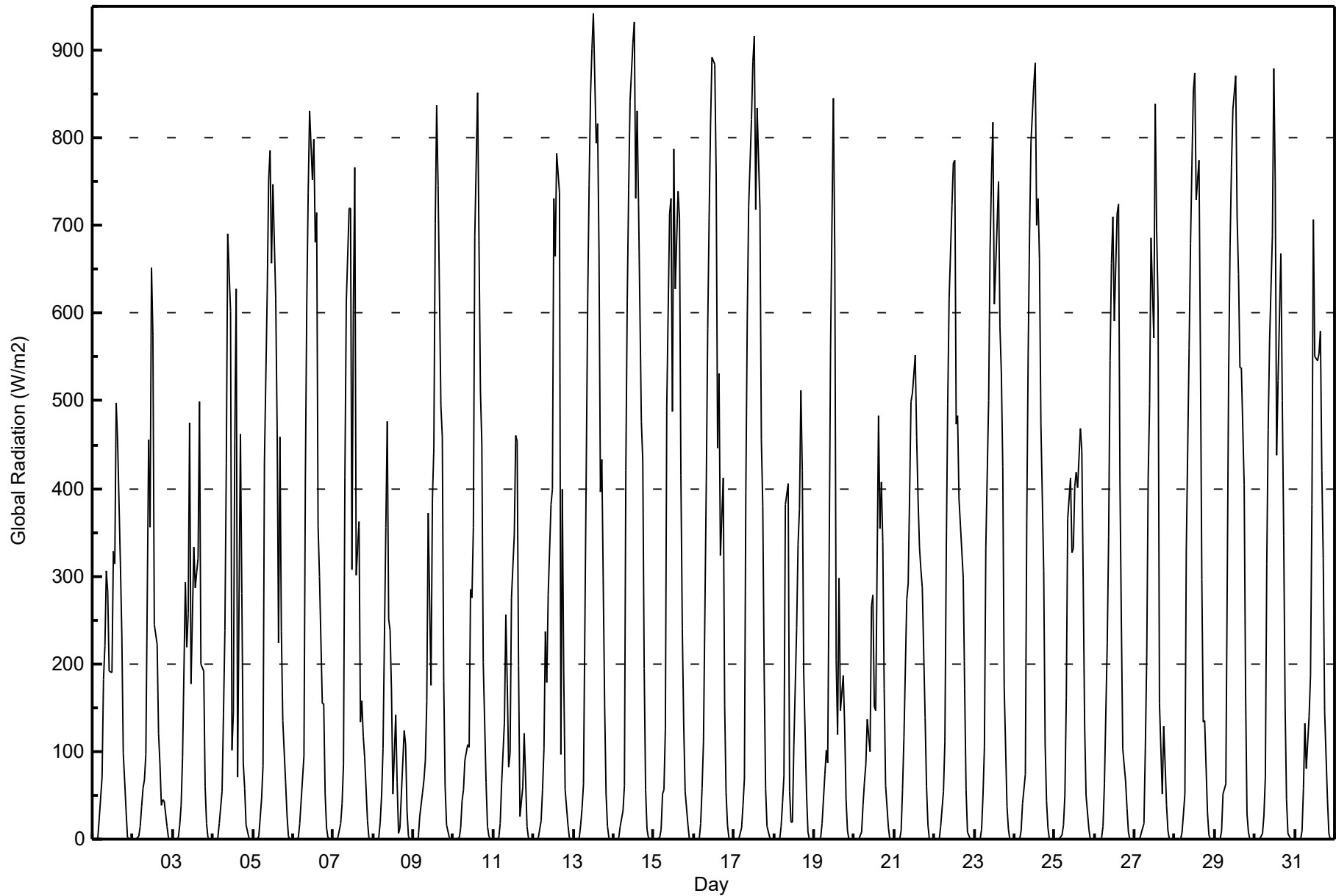
Total Number of Hours: 744

Maximum Value: 941.6 W/m2 on Jul 13 13:00																				Maximum Daily Average: 334.2 W/m2 on Jul 14					Hours in Service: 744																							
Minimum Value: 0.0 W/m2 on Jul 1 02:00																				Minimum Daily Average: 94.2 W/m2 on Jul 8					Hours of Data: 744																							
Maximum Diurnal Average: 598.6 W/m2 at hour 13																				Minimum Diurnal Average: 0.1 W/m2 at hour 3					Hours of Missing Data: 0																							
Monthly Average: 224.58 W/m2																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.8 Median = 81.7 Q ₃ = 411.6 P ₉₀ = 701.0 P ₉₉ = 884.8					Hours of Calibration: 0																							
																									Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Jul	0.0	0.0	0.0	1.6	24.7	71.0	182.3	220.9	305.8	282.1	191.4	189.7	328.6	314.6	497.9	453.5	312.7	232.2	98.8	66.5	31.5	1.7	0.0	0.0	158.7	497.9																						
2-Jul	0.0	0.0	0.0	2.5	14.0	37.5	57.9	68.4	96.8	456.3	355.5	652.4	574.3	244.7	222.0	121.4	85.6	38.4	44.6	43.8	14.2	1.1	0.0	0.0	130.5	652.4																						
3-Jul	0.0	0.0	0.0	1.8	15.5	38.2	92.7	292.6	219.3	257.6	474.3	177.1	332.7	286.5	304.0	320.7	499.4	199.9	192.1	60.1	17.0	2.4	0.3	0.1	157.7	499.4																						
4-Jul	0.1	0.2	0.3	2.1	17.1	54.3	143.4	237.9	428.1	691.4	601.6	101.8	144.6	454.1	628.6	70.7	462.5	280.6	87.7	58.0	16.1	2.2	0.2	0.5	186.8	691.4																						
5-Jul	0.5	0.5	0.3	2.7	24.9	47.1	83.9	429.7	625.7	752.1	785.1	657.5	747.5	616.7	468.0	224.0	458.7	237.0	135.3	64.1	27.3	2.8	0.1	0.0	266.3	785.1																						
6-Jul	0.1	0.1	0.0	1.7	18.5	43.3	95.0	412.8	611.6	736.9	830.6	751.8	798.2	681.2	714.7	358.2	298.9	154.8	155.1	51.4	12.6	1.0	0.0	0.1	280.4	830.6																						
7-Jul	0.0	0.0	0.0	1.5	17.0	39.9	85.8	414.6	612.8	719.5	720.5	306.8	603.5	766.4	301.8	362.0	134.0	157.7	117.3	92.9	21.1	1.3	0.0	0.0	228.2	766.4																						
8-Jul	0.0	0.0	0.0	1.5	18.7	50.0	103.3	356.6	475.9	251.6	238.5	168.8	51.5	142.4	64.4	6.0	13.1	51.9	123.4	107.1	32.5	3.2	0.2	0.2	94.2	475.9																						
9-Jul	0.4	0.4	0.1	1.6	26.4	53.7	67.1	91.0	157.0	372.6	176.1	387.3	445.4	701.3	837.1	745.5	493.8	458.8	180.4	60.0	15.4	1.6	0.1	0.0	219.7	837.1																						
10-Jul	0.0	0.0	0.0	2.0	13.4	44.2	55.9	90.8	108.4	104.4	285.8	275.9	355.1	687.6	851.2	677.5	512.1	450.4	200.6	64.9	14.7	2.4	0.1	0.1	199.9	851.2																						
11-Jul	0.0	0.0	0.0	1.1	17.5	62.6	133.9	255.8	177.9	82.3	98.6	275.1	347.0	460.9	454.0	198.3	25.6	59.9	120.8	69.3	14.9	1.3	0.0	0.0	119.0	460.9																						
12-Jul	0.0	0.0	0.0	1.6	20.7	55.9	103.4	237.1	178.9	278.3	381.5	398.9	731.8	664.4	783.0	736.7	96.3	399.6	189.8	56.9	16.0	1.2	0.2	0.1	222.2	783.0																						
13-Jul	0.1	0.1	0.1	1.3	15.4	34.7	63.5	429.8	617.1	747.1	850.8	902.3	941.6	794.3	816.4	669.8	395.5	433.7	151.8	51.4	14.4	1.0	0.0	0.0	330.5	941.6																						
14-Jul	0.0	0.0	0.0	1.1	14.1	32.2	60.5	420.0	614.3	740.3	841.4	907.7	933.1	730.8	830.8	724.4	477.2	431.1	194.8	55.7	11.7	0.9	0.0	0.0	334.2	933.1																						
15-Jul	0.0	0.0	0.0	0.9	10.5	52.1	56.7	125.5	494.9	713.2	730.8	487.7	787.5	628.2	738.4	708.1	415.9	239.6	129.6	55.0	15.9	0.6	0.0	0.0	266.3	787.5																						
16-Jul	0.0	0.1	0.0	0.6	18.2	57.9	110.7	407.9	582.5	708.8	814.1	891.5	884.4	755.1	445.3	531.0	324.3	412.4	153.4	52.9	15.5	1.1	0.1	0.1	298.7	891.5																						
17-Jul	0.0	0.0	0.0	0.7	13.6	39.4	68.9	395.7	590.4	721.4	821.1	888.0	916.3	717.5	833.3	719.5	455.0	380.7	187.7	58.3	14.7	1.1	0.0	0.0	326.0	916.3																						
18-Jul	0.0	0.0	0.0	0.5	13.8	42.6	73.0	382.1	405.0	54.9	19.2	19.0	106.6	241.0	337.1	376.4	512.4	419.7	189.6	51.5	8.8	0.4	0.0	0.0	135.6	512.4																						
19-Jul	0.0	0.0	0.0	0.1	2.4	18.0	73.8	101.7	87.2	313.8	557.7	845.6	673.1	204.6	119.9	297.6	147.1	187.0	129.5	44.5	9.5	0.4	0.0	0.0	158.9	845.6																						
20-Jul	0.1	0.0	0.1	0.3	8.6	39.4	63.9	85.5	136.6	99.3	265.9	279.1	152.1	146.4	482.3	354.2	407.1	339.1	172.1	61.5	12.4	0.4	0.3	0.3	129.4	482.3																						
21-Jul	0.2	0.2	0.2	0.5	9.7	56.2	115.5	273.0	290.9	391.3	499.3	508.7	552.1	458.5	387.9	332.9	307.8	287.2	137.7	60.1	15.8	0.6	0.0	0.0	195.3	552.1																						
22-Jul	0.0	0.1	0.1	0.4	14.1	54.8	111.0	330.2	495.3	617.1	723.2	770.9	774.0	473.1	483.7	387.5	328.0	297.8	172.9	56.6	7.8	0.6	0.2	0.2	254.1	774.0																						
23-Jul	0.3	0.1	0.2	0.5	10.7	49.3	105.4	333.7	500.6	671.5	755.7	817.3	609.7	653.0	750.8	584.3	531.2	425.0	174.3	37.3	10.6	0.6	0.2	0.1	292.6	817.3																						
24-Jul	0.1	0.0	0.0	0.2	10.4	39.4	74.6	363.7	553.2	691.8	795.3	861.1	885.1	700.5	731.1	662.5	474.6	305.6	109.0	43.7	13.4	0.3	0.1	0.1	304.8	885.1																						
25-Jul	0.0	0.0	0.0	0.0	4.6	16.1	49.3	160.8	365.9	411.5	327.2	331.2	402.4	419.2	401.4	468.9	442.5	289.7	128.1	50.2	11.0	0.1	0.0	0.0	178.3	468.9																						
26-Jul	0.0	0.0	0.0	0.0	1.6	15.1	63.2	223.3	345.0	546.2	656.2	710.2	591.7	713.2	725.3	409.8	248.5	103.7	66.3	35.8	8.3	0.1	0.0	0.0	227.6	725.3																						
27-Jul	0.0	0.0	0.0	0.2	5.8	17.9	105.0	210.9	411.6	496.3	686.0	571.7	839.0	694.1	610.8	155.1	52.1	129.3	84.6	38.5	10.4	0.5	0.3	0.3	213.4	839.0																						
28-Jul	0.3	0.4	0.4	0.7	7.9	29.7	50.8	329.3	560.0	679.3	770.3	854.0	875.0	728.8	774.5	553.1	296.5	133.1	135.1	30.5	4.4	0.0	0.2	0.3	283.9	875.0																						
29-Jul	0.3	0.3	0.4	0.5	10.4	51.0	62.6	290.9	531.9	675.6	766.3	832.8	871.8	710.0	644.1	538.0	537.5	404.6	167.2	29.4	7.4	0.3	0.1	0.1	297.2	871.8																						
30-Jul	0.1	0.0	0.0	0.1	6.6	28.2	70.7	314.5	466.8	568.1	688.9	878.8	750.5	437.8	523.9	668.3	501.5	346.3	151.7	44.9	6.8	0.3	0.1	0.0	269.0	878.8																						
31-Jul	0.0	0.1	0.0	0.1	9.2	57.2	132.7	81.2	139.6	186.8	381.7	707.5	550.6	545.7	553.7	579.8	420.7	321.2	144.9	45.4	6.9	0.2	0.0	0.0	202.7	707.5																						
																								0.1	0.1	0.1	1.0	13.4	42.9	87.6	269.9	393.1	484.5	551.3	561.6	598.6	541.0	558.6	451.5	344.1	277.7	142.8	54.8	14.2	1.0	0.1	0.1	Diurnal Average
																								0.5	0.5	0.4	2.7	26.4	71.0	182.3	429.8	625.7	752.1	850.8	907.7	941.6	794.3	851.2	745.5	537.5	458.8	200.6	107.1	32.5	3.2	0.3	0.5	Diurnal Maximum



Wood Buffalo Environmental Association
Hourly Averages

Global Radiation (GR) - W/m²
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Global Radiation (GR) - W/m2
Stony Mountain - July 2026

Concentration Ranges (W/m2)	Number of Hours	%	Cumulative %
0 - 20	279	37.50	37.50
21 - 100	111	14.92	52.42
101 - 300	111	14.92	67.34
301 - 600	133	17.88	85.22
601 - 900	105	14.11	99.33
> 900	5	0.67	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 20m (WS20) - km/h

Stony Mountain - July 2026

Maximum Speed: 21 km/h on Jul 23 14:00										Maximum Daily Speed Average: 14.4 km/h on Jul 13										Hours in Service: 744						
Minimum Speed Value: 1 km/h on Jul 31 03:00										Minimum Daily Speed Average: 0.5 km/h on Jul 17										Hours of Data: 744						
Maximum Diurnal Speed Average: 7.1 km/h at hour 1										Minimum Diurnal Speed Average: 3.0 km/h at hour 16										Hours of Missing Data: 0						
Monthly Average Velocity: 4.9 km/h 245.6 deg										Percentiles: P ₁ = 2 P ₁₀ = 5 Q ₁ = 7 Median = 9 Q ₃ = 11 P ₉₀ = 14 P ₉₉ = 18										Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	SSW7	SSW5	SE5	E8	ESE8	ESE7	E6	E7	E6	ESE7	ESE7	E6	E9	ESE9	ESE11	ESE11	ESE11	E11	ESE11	ESE10	SE10	SE8	SE10	SE10	ESE7.6	E11
2-Jul	SSE9	SE8	SE8	SSE8	SSE9	SE10	SE9	SE8	SSE9	S11	SSE11	SSE15	S13	SW8	SSE9	SSW13	S11	S9	E1	ESE4	SSE7	SSW7	SSW8	S8	SSE8.3	SSE15
3-Jul	S7	SSE9	SSE9	S10	S10	S10	S10	SSE10	S11	SSW8	S10WSW12	WSW8	WSW8	WSW7	W7	WSW7	WSW3	SSW6	S6	S7	SSW9	SW10	SSW11		SSW7.3	WSW12
4-Jul	SW12	SW12	SW12	SW11	SW10	SW10	W6	SSW3	SE6	SE7	SSE7WSW13	WNW6	S4	E8	E2	NNW9	NW7	WNW7	WNW7	W8	WSW8	WSW9WSW11		WSW5.2	WSW13	
5-Jul	W10	WSW8	SW10WSW12	W12	W12	W10	W10	W9WNW12WNW14	W15WNW14	W14	WNW9NNW12	N2WNW13	W8WNW11	NW11	W11	W12WNW12								W10.1	W15	
6-Jul	WNW11WNW10	W9	W9	W9	W8	W6	W8WNW10WNW11	NW12	NW10	NW9	NW8	WNW7	N5	NW1	WSW7	W6WSW10WSW10	WSW8	SW6	SW9					W7.3	NW12	
7-Jul	SW9	SW6	WNW2	SE4	SSE6	SSW8	WSW3	S7	SSE4	ESE6	E6	E6	E10	ESE11	E8	E9	E7	E9	ESE8	SE11	SE9	SSE8	S9	S10	SE4.9	ESE11
8-Jul	S11	S11	S11	S12	S13	S13	S14	SSE16	S12	S11	S7	SSW6	E6	WSW7WNW12	N8	NW10	WNW8	W8	W7	SW7WSW11	W13			SSW6.6	SSE16	
9-Jul	W14	W15	W15WNW14WNW13WNW12WNW13WNW13WNW14WSW11WSW12	SW9	SSW11	SSW16	SW16	SW16	SW16	SW16	SSW14	SSW14	SSW12	S10	SSW11	SSW12	SSW11							WSW10.5	SSW16	
10-Jul	SSW10	SSW10	SSW11	SSW12	SW12	SW12	SW10	SW9	SW7	SSW8	SW6	SSW6	S6	WSW3	SW5	WSW5	W8	WNW6	NW4	NNW3	N4	SE4	SSW4	S6	SW5.8	SW12
11-Jul	SW7	SW8	WSW8	W6	NW2	ESE1	SE6	SE2	WNW4	WNW7	NW6	NNE7	ENE6	NE8	NNE9	N11NNW14NNW10	NNW9	NW7	NW6	WNW7	WNW9WNW11			NW4.0	NNW14	
12-Jul	WNW10WNW10	WNW9	WNW7	SW6	SW8	WSW3	SW4	SSW5	WSW4	W4	NNW5	NW8	NE5	SSE4	S11WNW15	NW8	W6	WSW6	WSW7WSW14WSW14WSW16					W5.8	WSW16	
13-Jul	WSW15	SW15WSW15WSW15WSW16WSW14WSW15WSW14WSW12WSW15WSW18WSW18	W18WSW18	W17	W17	W16WSW17	W13	W11	W11	W10	W11	W12	WSW14.4	WSW18											WSW14.4	WSW18
14-Jul	WNW11	W11	W11	W10	W11WSW11	W11	W10	W9WNW11	W10WNW12	W9	W8	W9	W8	W8	WNW4	WSW7	SW6	SW9	SW9	WSW8	SW10			W8.7	WNW12	
15-Jul	SW10	SSW10	SW11	SSW11	SSW10	SSW9	SSE6	SSE7	SSE8	SE9	SSE11	SSE11	S9	SSW7	SSE10	S11	S11	SW11	WSW9	SW9	SW11	SSW7	ESE9	W4	SSW7.6	SSE11
16-Jul	SW9	SSW10	SSW12	SSW13	SSW13	SSW13	SW13	SSW13	SSW11	SSW12	SSW12	SSW13	SW14	SW16WSW14	NW10	W7	W8	W10	WSW9	WSW9WSW10	SW12	SW13		SW10.5	SW16	
17-Jul	WSW13WSW12WSW10WSW10	WNW7	W8	WNW7	NW6	NW5	WNW4	NW4	NNE5	SSE2	ENE5	E4	E6	ESE7	E7	E8	ENE8	E9	ESE10	SE9	SSE9			S0.5	WSW13	
18-Jul	S9	S10	S10	SSE11	SSE11	SSE13	SE13	SE13	SE15	NW9NNW11	NE12	E10	ENE8	ENE7	ESE14	ESE15	SE16	SE13	SE12	ESE9	E8	NNW7	NW9	SE6.7	SE16	
19-Jul	N7	SW9	SW10WSW11	NW10	NW8	WNW8	WNW5	NW6	NW11	NW11	NW13	NW12NNW14	NW11	NW10WNW11WNW11	NW12	NW11	NW12	NW13	NW12	NW11				NW9.2	NNW14	
20-Jul	NW11	NW10	NNW9	NW10	NNW9	NW9	NNW9	NNW9	NW9	NW9	NNW9	NW8	NW6	WNW7	WNW8	NW10	NW10	NNW8	NW7	NW6	WNW6	W7	WNW8	NNW8	NW8.1	NW11
21-Jul	WNW8	WNW8	WNW7	WNW6	W7	WSW8	WSW6	WSW7	WSW4	W5	W6	W6	WNW7	W6	WNW5	NNW4	WNW4	W6	W5	W5	W7	W8	W9	W9	W6.0	W9
22-Jul	W9	W9	W9	W10	WSW8	WSW8	WSW8	SW6	SW5	SW6	SSW5	WSW7	SW6	WNW2	WSW3	NNE3	NNE2	NE3	ESE3	S5	S7	SSW8	SSW9	SSW10	SW4.7	SSW10
23-Jul	SSW12	SSW13	SSW15	SSW15	SW15	SSW15	SSW16	SSW16	SSW17	SW14WSW13	W11WNW16	NW21	NW18	NW16WNW18WNW17WNW17	NW15	WNW8	W10	W10	W11					WSW10.8	NW21	
24-Jul	W11	W11	W11WNW11	WNW9	W6	SW5	W4	ESE3	SSW6	SW10	SW10	SW10	SW8WSW10	SW12	SSW11	SW11	W7	SW12	SSW13	SW12WSW10WSW11				WSW8.1	SSW13	
25-Jul	W14	W14	W15	W14	W15	W14	W12	W13WNW12	W10	W9	W9WSW10	W9	W8	WNW6	W7	NW3	NNW3	W2	WNW6	WNW6	W7	WNW9		W9.1	W15	
26-Jul	W6	SSW5	SSW6	SW7	S6	SW9	SSW6	NNW6	N3	NNE6	NNE8	NE7	NE9	ENE7	ENE8	NE10	NE10	NNE8	NE9	NE8	ENE8	ENE8	ENE10		NE3.6	NE10
27-Jul	NE8	NE9	NE7	NE6	SE4	SSE4	NW5	SW4	WSW5	NW5	W9	WNW9	NW9	NW7	NW10WNW10	W13	W7	WSW5	W8	W8	W10	W10	W10	WNW4.7	W13	
28-Jul	W9	WSW8	W9	W8	W7	SW8	WSW6	SW5	NW3	SSE3	SSE6	SSE6	SE7	SE9	SE12	SE11	SE11	SE11	SE11	SE12	SE12WSW11WNW10	SE5		S4.6	SE12	
29-Jul	SSW11	SW13	SW14	SW15WSW15WSW15WSW15	W16	W14	W16	W19	W19	W18WSW18	W16	W17	W15	W16WNW14	W13	W11	W13	W14	W16					W14.3	W19	
30-Jul	W15	W13	W13	W12	W12	W12	W11	W8	WNW8WNW11WNW11	NW11WNW11	WNW9	W8	WNW9	NW9	NW6	NW5	WNW6	W3	SW7	WSW8	W7			WNW9.1	W15	
31-Jul	W6	W5	S1	S6	SSE7	SSE7	SSE7	S6	S7	SSE7	SSW3	S6	SSW6	SSW6	SSW8	SSW6	SSW8	SSW7	SW7	SW8	SW9	SSW10	SSW11	SSW12	SSW5.9	SSW12
WSW7.1WSW7.0WSW6.9WSW6.8 SW6.5 SW6.8WSW5.7 SW5.0 SW4.2WSW4.4WSW4.8WSW4.4WSW4.2 W3.4WSW3.5 W3.0 W3.9 W3.4 W3.4WSW3.5WSW3.8WSW5.5WSW6.1WSW6.7																								Diurnal Average		
WSW15 W15 SSW15WSW15WSW16 SSW15 SSW16 SSW16 SSW17 W16 W19 W19 W18 NW21 NW18 W17WNW18WSW17WNW17 NW15 SSW13WSW14WSW14WSW16																								Diurnal Maximum		
All monthly, daily, and diurnal averages have been calculated using vector methods																										



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

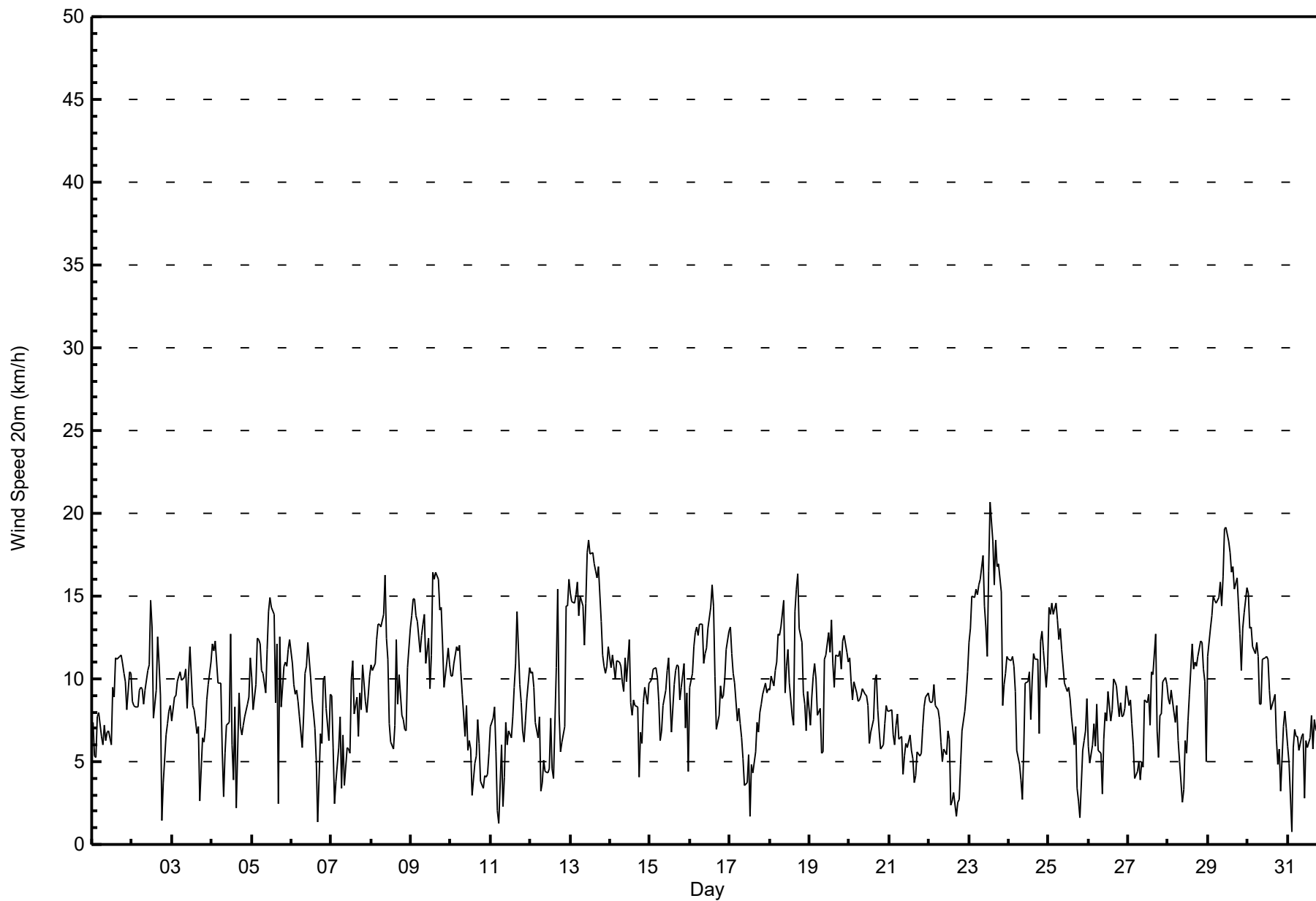
Wind Speed 20m (WS20) - km/h
Stony Mountain - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 9 km/h on Jul 28 22:00																		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0							
Minimum Value: 0 km/h on Jul 10 21:00																									
Percentiles: P ₁ = 1 P ₁₀ = 2 Q ₁ = 2 Median = 3 Q ₃ = 4 P ₉₀ = 5 P ₉₉ = 7																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	1	1	0	2	1	1	2	2	2	2	3	2	3	3	4	4	4	4	4	3	3	2	3	3	4
2-Jul	2	2	2	2	2	3	3	3	3	4	4	5	5	4	4	5	3	2	2	1	2	1	1	2	5
3-Jul	2	1	1	2	2	3	3	3	3	2	4	6	4	3	3	3	3	2	2	2	1	1	2	2	6
4-Jul	3	2	3	2	2	2	2	1	2	2	3	8	2	2	3	3	3	3	3	2	2	2	2	3	8
5-Jul	3	2	2	4	4	4	4	4	3	4	5	6	6	5	5	5	2	6	3	5	4	3	3	4	6
6-Jul	3	3	2	2	2	2	3	3	3	4	4	4	4	4	3	2	1	3	2	4	3	2	1	2	4
7-Jul	2	2	1	2	2	1	2	2	2	2	3	3	4	3	3	3	2	2	3	3	2	1	2	2	4
8-Jul	2	2	2	2	3	3	4	5	6	4	4	2	3	4	3	5	3	3	3	3	3	1	3	4	6
9-Jul	4	5	4	4	3	3	4	4	4	4	4	3	4	5	6	6	6	5	4	4	2	2	2	2	6
10-Jul	2	2	2	3	3	3	3	2	1	2	2	2	2	2	3	3	3	3	2	1	0	1	1	1	3
11-Jul	1	1	2	3	1	1	1	2	3	2	2	2	2	3	3	3	5	4	2	2	2	2	2	3	5
12-Jul	3	2	2	2	2	2	2	3	2	2	2	3	3	3	3	4	8	3	2	2	3	5	4	5	8
13-Jul	5	4	5	5	5	5	5	5	5	5	6	7	7	6	7	6	6	7	5	4	4	3	3	3	7
14-Jul	3	3	3	3	3	3	4	3	3	4	4	5	4	4	4	4	3	2	2	2	1	2	2	2	5
15-Jul	2	2	2	2	2	2	1	2	3	4	4	4	4	4	4	4	5	3	3	2	3	3	3	2	5
16-Jul	2	2	3	3	3	3	3	3	3	4	4	5	5	5	5	5	3	4	4	2	2	2	3	3	5
17-Jul	3	3	3	2	2	2	2	2	1	1	2	3	2	3	3	3	3	2	2	1	2	2	2	2	3
18-Jul	2	2	2	2	2	4	4	4	5	5	4	5	3	4	4	4	6	5	4	4	3	2	2	4	6
19-Jul	3	4	5	5	3	3	2	2	2	3	4	4	4	5	3	3	3	3	3	3	4	4	3	3	5
20-Jul	3	2	2	3	2	2	2	3	3	3	3	3	2	2	3	4	3	3	2	1	1	1	2	2	4
21-Jul	2	2	2	1	2	1	2	2	2	2	2	2	3	2	2	2	3	2	2	1	2	2	2	2	3
22-Jul	2	2	2	2	2	2	2	2	2	2	2	3	3	2	2	2	1	1	2	1	1	1	1	2	3
23-Jul	3	3	4	3	3	4	4	4	5	5	4	4	6	7	7	6	7	7	6	6	2	3	3	3	7
24-Jul	3	3	3	2	2	2	1	1	1	4	4	4	4	4	4	5	4	4	2	6	4	3	2	3	6
25-Jul	5	4	5	5	5	4	4	4	4	3	3	3	3	4	3	2	3	1	1	1	1	1	1	2	5
26-Jul	2	2	3	2	2	2	2	2	2	2	3	3	3	3	2	3	3	3	2	2	2	2	2	2	3
27-Jul	2	2	2	1	2	2	2	3	3	2	3	3	3	3	4	3	4	4	1	3	2	3	3	3	4
28-Jul	2	2	2	2	2	2	2	1	1	2	3	3	3	4	4	4	3	4	3	4	4	9	5	3	9
29-Jul	3	3	4	4	5	5	5	5	6	6	7	7	6	6	6	6	5	6	6	5	3	4	4	5	7
30-Jul	5	4	4	3	3	4	3	3	3	4	4	4	4	3	3	3	3	2	1	1	1	2	2	2	5
31-Jul	1	1	1	1	1	1	1	1	1	2	2	3	2	2	3	3	3	2	2	1	2	2	2	3	3
Diurnal Maximum																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 20m (WS20) - km/h
Stony Mountain - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 20m (WS20) - km/h
Stony Mountain - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	85	11.42	11.42
6 - 11	485	65.19	76.61
12 - 19	173	23.25	99.87
20 - 28	1	0.13	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 20m (WS20) - km/h
Stony Mountain - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	3	3	2	1	3	4	6	5	3	7	6	10	9	9	9	5	85
6 - 11	3	5	12	9	22	17	22	28	37	42	46	45	86	57	42	12	485
12 - 19	0	0	1	0	0	2	7	5	7	26	21	27	44	20	10	3	173
20 - 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	6	8	15	10	25	23	35	38	47	75	73	82	139	86	62	20	744

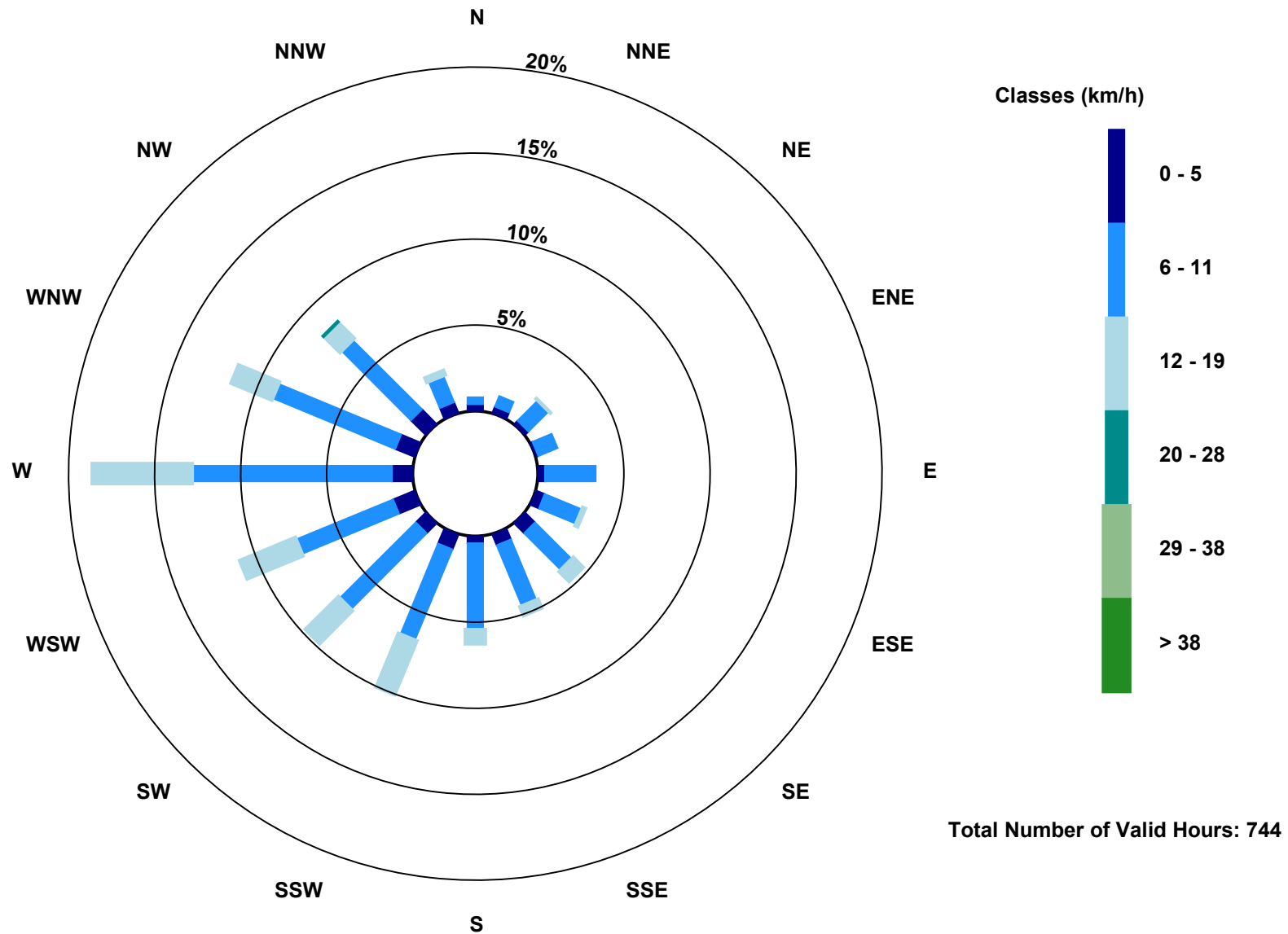
Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 20m (WS20) - km/h
Stony Mountain





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 20m (WD20) - deg

Stony Mountain - July 2026

Direction of Maximum Speed: 307 deg on Jul 23 14:00 Direction of Maximum Daily Speed Average: 256.2 deg on Jul 13																				Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0					
Direction of Minimum Speed: 174 deg on Jul 31 03:00										Direction of Minimum Daily Speed Average: 0.5 deg on Jul 17										Percent Operational Time: 100.0					
Monthly Average Direction: 245.6 deg																									
Day	Hourly Period Ending At (MST)																				Daily Average				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	211	195	145	98	115	111	86	91	99	103	105	99	97	117	113	115	104	94	106	118	140	143	133	139	116.9
2-Jul	154	146	145	159	164	146	142	139	160	171	160	159	176	223	168	198	190	169	91	117	154	193	197	189	166.7
3-Jul	175	151	166	184	172	173	180	167	174	207	180	244	255	245	253	266	243	253	202	181	189	203	214	206	199.2
4-Jul	219	222	225	224	232	232	270	212	144	129	157	238	295	173	86	93	330	313	283	284	261	256	254	246	237.8
5-Jul	260	253	222	255	263	266	271	280	266	283	288	276	283	279	291	345	360	302	260	292	308	277	277	283	278.7
6-Jul	284	289	281	280	272	271	268	266	292	296	305	316	305	326	296	349	320	239	267	248	238	258	233	227	279.2
7-Jul	218	229	298	137	164	198	241	189	157	117	96	95	91	103	96	80	85	83	117	134	139	155	176	176	136.1
8-Jul	183	180	176	183	181	183	186	182	166	173	169	170	210	92	246	282	352	309	293	280	268	226	246	263	205.8
9-Jul	269	274	278	283	287	285	283	292	287	257	258	222	203	194	215	216	217	208	209	204	185	194	205	210	239.3
10-Jul	208	193	200	208	216	230	221	230	223	203	225	201	180	256	216	243	268	282	312	330	9	127	204	184	219.1
11-Jul	222	220	257	260	324	117	130	131	291	300	318	20	64	41	17	10	333	344	334	323	316	296	287	294	321.9
12-Jul	297	299	299	297	230	222	239	234	202	258	275	340	322	35	160	177	283	319	276	239	238	253	237	245	262.9
13-Jul	243	236	250	249	254	253	251	253	246	242	248	255	262	256	263	279	267	253	261	271	261	269	266	272	256.2
14-Jul	289	277	277	264	262	244	271	270	276	299	275	282	276	278	265	262	259	286	238	233	228	235	237	214	263.7
15-Jul	218	211	215	209	205	200	168	161	164	142	152	150	175	200	156	181	187	227	249	232	224	206	116	263	191.6
16-Jul	221	205	211	208	203	212	215	213	200	197	202	211	231	227	238	310	262	266	259	246	248	242	235	235	225.5
17-Jul	238	244	251	247	287	280	299	308	319	297	315	23	168	60	101	88	107	92	84	78	79	102	140	159	190.6
18-Jul	171	181	169	162	157	159	148	139	135	306	334	50	101	75	78	113	122	128	132	129	119	88	335	326	127.5
19-Jul	5	229	229	257	318	310	292	286	317	310	310	306	307	329	317	305	297	300	310	310	317	320	326	320	305.7
20-Jul	319	318	327	326	329	324	327	327	325	317	330	325	308	289	297	322	314	330	324	304	295	280	287	296	315.6
21-Jul	294	291	297	296	259	240	256	258	254	263	275	281	287	267	298	343	300	264	267	278	271	263	263	270	274.4
22-Jul	266	265	259	264	258	252	254	217	221	216	194	241	236	285	258	27	14	42	114	188	173	200	205	206	233.7
23-Jul	207	207	213	209	214	206	207	205	211	218	237	261	298	307	305	305	297	297	300	311	288	269	272	276	256.6
24-Jul	270	274	281	285	286	272	235	265	123	207	222	215	218	225	238	222	208	217	269	220	211	234	237	244	239.1
25-Jul	269	261	261	267	271	264	262	273	287	272	265	260	252	269	262	286	278	304	343	281	291	284	271	284	270.7
26-Jul	270	199	207	214	185	214	209	335	4	31	15	52	48	64	61	51	48	37	18	40	45	59	57	59	47.3
27-Jul	52	50	38	36	141	160	309	235	242	324	272	293	315	316	312	290	276	277	243	273	276	269	273	271	292.9
28-Jul	260	244	265	261	264	227	237	221	305	159	162	158	130	137	142	130	131	143	139	143	146	237	299	126	181.1
29-Jul	213	216	223	235	242	242	252	261	272	272	273	273	260	257	266	272	275	281	282	281	274	268	266	277	261.1
30-Jul	279	277	276	280	275	277	278	279	285	295	289	308	288	284	279	299	304	318	321	297	269	231	254	266	283.4
31-Jul	268	265	174	170	163	150	163	175	183	151	200	169	197	210	199	204	206	209	230	235	215	213	207	206	199.6
246.2 238.5 240.4 239.5 236.1 230.2 236.5 235.1 231.2 247.0 252.3 255.9 255.4 260.2 252.8 272.8 268.9 271.9 265.1 250.0 236.5 239.6 243.8 245.6																									
Diurnal Average																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 20m (WD20) - deg

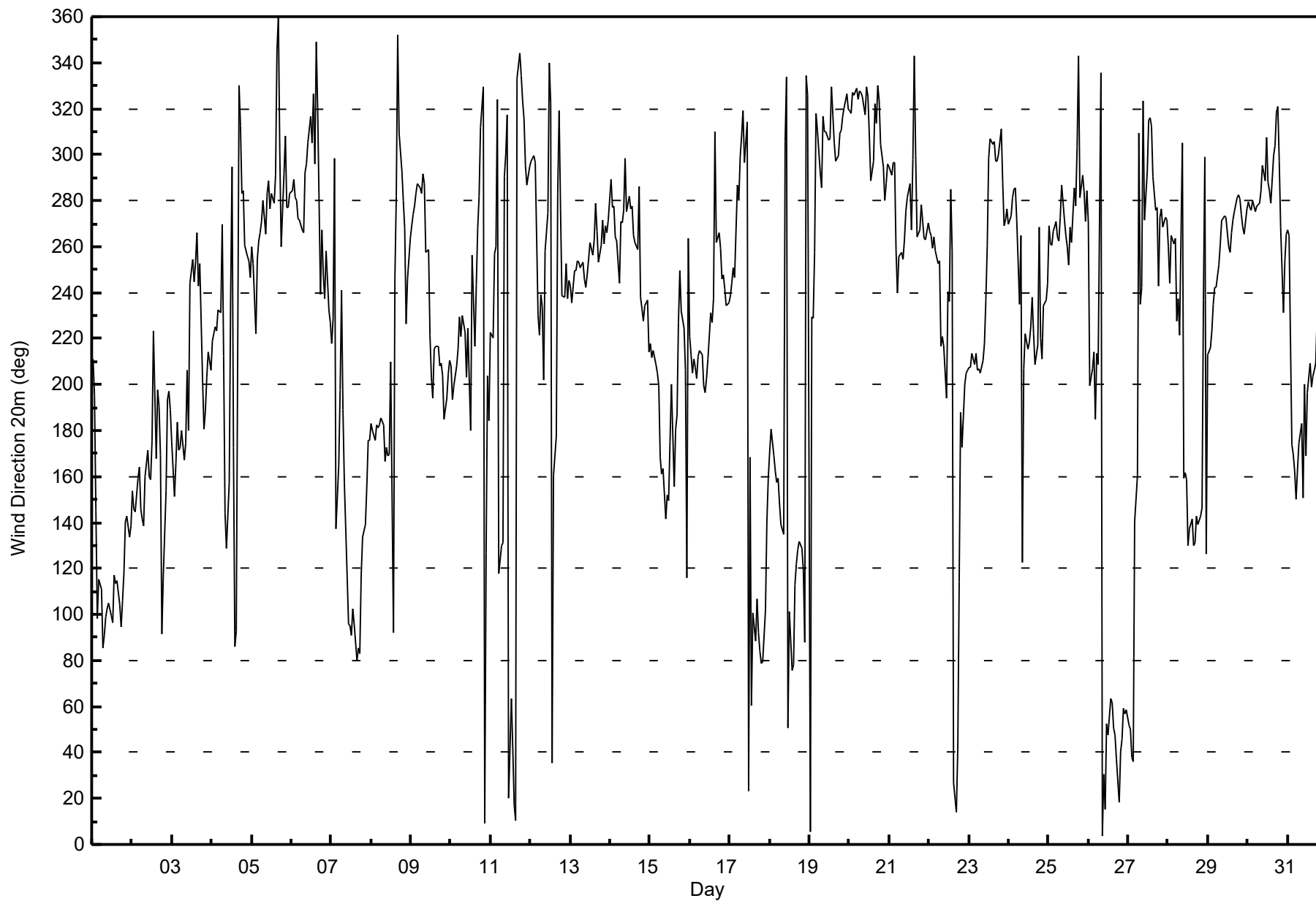
Stony Mountain - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 94 deg on Jul 31 03:00																		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0							
Minimum Value: 7 deg on Jul 30 20:00																									
Percentiles: P ₁ = 12 P ₁₀ = 16 Q ₁ = 19 Median = 24 Q ₃ = 32 P ₉₀ = 45 P ₉₉ = 82																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	12	19	12	14	12	11	15	21	20	23	19	23	19	21	22	28	22	21	21	18	21	16	19	21	28
2-Jul	20	20	20	20	20	21	22	24	30	29	27	30	32	35	36	24	27	20	84	42	24	17	17	15	84
3-Jul	18	12	15	16	18	19	22	27	25	26	32	30	34	30	32	32	36	80	31	23	19	13	19	15	80
4-Jul	17	15	14	14	17	18	26	46	33	29	38	51	35	50	25	90	30	32	24	22	17	16	17	16	90
5-Jul	22	23	17	20	24	24	24	26	32	30	29	30	33	31	47	35	86	24	28	33	27	21	20	22	86
6-Jul	21	19	19	15	17	21	37	32	26	34	32	38	45	40	51	44	90	24	22	25	27	20	33	13	90
7-Jul	12	18	54	54	16	19	54	28	64	48	52	36	21	26	21	19	21	15	24	22	17	18	15	18	64
8-Jul	15	16	17	16	16	18	20	26	26	26	27	26	32	62	32	37	25	20	20	22	25	16	19	24	62
9-Jul	23	22	22	21	19	20	22	20	24	30	25	29	29	25	29	29	27	28	24	22	17	16	16	19	30
10-Jul	16	14	15	16	19	20	22	21	20	17	27	30	26	74	71	59	33	35	39	29	17	26	21	21	74
11-Jul	22	11	31	55	79	86	19	63	42	18	23	29	20	27	25	24	25	27	21	24	21	16	16	18	86
12-Jul	17	18	19	16	40	16	40	60	28	48	50	61	38	60	75	36	42	31	34	20	41	25	20	25	75
13-Jul	22	22	24	28	26	27	26	28	32	29	30	31	31	32	34	29	30	28	29	24	24	20	23	20	34
14-Jul	32	17	21	21	23	21	26	25	30	28	37	30	42	52	36	41	41	54	29	20	13	12	15	17	54
15-Jul	15	15	16	17	15	18	24	21	25	33	36	35	41	51	35	37	37	26	27	21	20	42	28	60	60
16-Jul	19	16	17	19	18	18	19	22	24	26	30	32	30	30	31	27	41	33	24	19	17	15	16	16	41
17-Jul	17	18	21	20	30	15	15	20	24	42	62	61	93	71	69	55	26	20	14	12	13	14	16	17	93
18-Jul	17	18	20	19	17	20	24	23	25	68	22	48	21	63	53	18	20	24	22	20	18	14	42	24	68
19-Jul	26	38	48	45	24	22	26	41	28	20	28	26	29	26	24	24	20	21	20	20	22	21	20	21	48
20-Jul	20	19	17	16	17	19	21	23	21	23	30	27	34	19	29	26	25	27	24	14	10	13	14	14	34
21-Jul	16	13	15	13	17	12	20	26	39	37	37	41	33	45	45	61	64	34	23	16	15	18	19	17	64
22-Jul	16	17	19	20	17	16	17	29	34	35	50	41	46	75	77	51	74	51	47	15	11	14	13	13	77
23-Jul	16	17	17	18	17	17	19	20	22	24	30	35	26	27	27	28	25	25	26	22	18	17	19	21	35
24-Jul	21	23	21	17	16	25	30	29	61	55	34	35	39	49	32	34	29	22	25	36	20	18	18	22	61
25-Jul	25	27	26	25	26	25	25	24	23	26	25	25	25	29	28	34	26	24	27	54	19	11	17	16	54
26-Jul	34	39	36	27	35	20	39	30	61	36	34	35	28	36	27	23	20	21	21	16	14	14	14	14	61
27-Jul	13	12	15	17	79	51	25	51	64	39	39	37	39	43	29	24	22	32	21	24	20	21	18	19	79
28-Jul	21	20	20	20	17	15	30	28	79	83	53	55	39	37	29	32	27	22	23	21	23	66	36	56	83
29-Jul	22	19	21	23	23	23	28	25	27	28	28	29	27	28	32	28	27	27	27	25	22	23	24	23	32
30-Jul	23	22	22	21	22	25	24	26	27	28	29	34	31	32	26	38	31	27	15	7	49	16	20	19	49
31-Jul	13	19	94	16	14	9	13	12	15	38	61	44	40	34	38	51	29	25	21	13	14	14	14	16	94
34 39 94 55 79 86 54 63 79 83 62 61 93 75 77 90 90 80 84 54 49 66 42 60																									
Diurnal Maximum																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 20m (WD20) - deg
Stony Mountain - July 2026





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS19 FIREBAG JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FIREBAG (AMS19)
JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	709	35	35	100	34.9	0	3.6	0
H2S (ppb) Average	709	35	35	100	5	0	0.5	0
THC (ppm) Average	709	35	35	100	3.7	-	2.6	-
NO2 (ppb) Average	708	36	36	100	14.2	0	3.7	-
NO (ppb) Average	708	36	36	100	10.3	-	0.8	-
NOX (ppb) Average	708	36	36	100	22.4	-	4.1	-
Temperature 2 m (C) Average	744	0	0	100	28.9	-	22.8	-
Relative Humidity (%) Average	744	0	0	100	98.3	-	95.4	-
Wind Speed 10 m (km/h) Average	744	0	0	100	27	-	17	-
Wind Direction 10 m (deg) Average	744	0	0	100	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FIREBAG (AMS19)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	709	0.76	2	-	0	0	0.1	0.2	0.5	2	34.9
H2S (ppb) Average	709	0.23	0.3	-	0	0	0.1	0.1	0.3	0.5	5
THC (ppm) Average	709	2.25	0.2	-	2.1	2.1	2.2	2.2	2.3	2.4	3.7
NO2 (ppb) Average	708	2	1.7	-	0.1	0.5	0.8	1.5	2.5	4.1	14.2
NO (ppb) Average	708	0.37	0.8	-	0	0	0.1	0.1	0.3	0.9	10.3
NOX (ppb) Average	708	2.37	2.3	-	0.2	0.6	1	1.7	2.9	4.9	22.4
Temperature 2 m (C) Average	744	17.35	4.1	-	9	12.2	14.2	16.9	20.3	23.1	28.9
Relative Humidity (%) Average	744	69.72	18.8	-	29.8	42.9	54.6	70.7	86.4	94.3	98.3
Wind Speed 10 m (km/h) Average	744	11.5	5	-	1	6	8	11	14	19	27
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FIREBAG (AMS19)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
No operational issues to report				



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

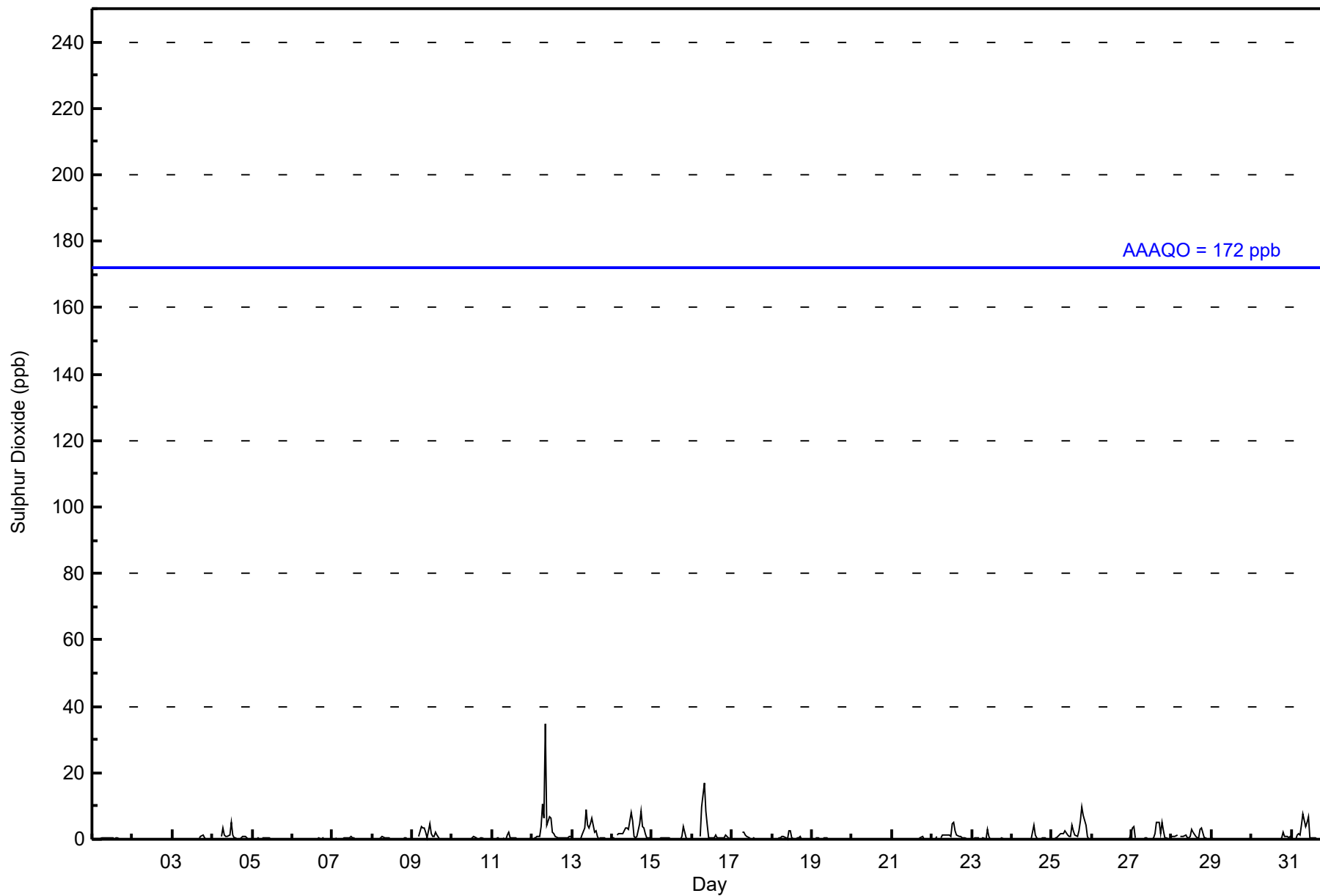
Firebag - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 34.9 ppb on Jul 12 09:00 Maximum Daily Average: 3.6 ppb on Jul 12																			Hours in Service: 744 Hours of Data: 709 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0								
Minimum Value: 0.0 ppb on Jul 21 17:00 Maximum Diurnal Average: 2.3 ppb at hour 9 Monthly Average: 0.76 ppb																			Minimum Daily Average: 0.0 ppb on Jul 26 Minimum Diurnal Average: 0.1 ppb at hour 23 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.5 P ₉₀ = 2.0 P ₉₉ = 8.3								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.1	Z	0.2	0.1	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.4	0.4	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.2	0.4	
2-Jul	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
3-Jul	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.2	0.2	0.2	0.1	0.7	1.4	0.3	0.1	0.1	0.1	0.1	0.2	1.4	
4-Jul	0.0	0.1	0.1	0.0	Z	0.7	3.2	1.3	0.8	1.0	1.2	5.1	1.3	0.4	0.5	0.1	0.1	0.5	1.0	1.0	0.7	0.2	0.1	0.1	0.8	5.1	
5-Jul	0.1	0.1	0.2	0.2	0.2	Z	0.4	0.6	0.4	0.4	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	
6-Jul	Z	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.4	
7-Jul	0.0	Z	0.4	0.1	0.0	0.0	0.0	0.3	0.3	0.3	0.4	0.7	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.7	
8-Jul	0.1	0.1	Z	0.1	0.1	0.3	0.7	0.6	0.5	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.1	0.1	0.2	0.2	0.7	
9-Jul	0.2	0.1	0.1	Z	1.0	3.8	3.2	3.5	2.1	0.4	4.7	1.7	1.0	0.9	2.0	1.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	1.2	4.7	
10-Jul	0.1	0.1	0.1	0.0	Z	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.7	0.4	0.1	0.0	0.4	0.6	0.1	0.0	0.0	0.0	0.0	0.2	0.7	
11-Jul	0.1	0.0	0.1	0.2	0.3	Z	0.2	0.2	0.2	1.1	2.1	0.5	0.3	0.3	0.2	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.3	0.3	2.1	
12-Jul	Z	0.3	0.5	0.7	0.8	3.8	10.7	6.3	34.9	4.3	6.8	6.2	2.1	1.8	0.7	0.3	0.3	0.2	0.2	0.6	0.2	0.2	0.9	0.7	3.6	34.9	
13-Jul	0.6	Z	0.1	0.1	0.1	0.1	1.3	3.6	8.9	4.4	3.6	4.9	6.5	2.1	2.4	0.7	0.2	0.2	0.3	0.2	0.2	0.1	0.0	0.2	1.8	8.9	
14-Jul	0.5	0.5	Z	1.3	1.6	1.6	1.5	2.3	3.2	3.3	3.0	7.9	5.5	0.6	0.2	1.0	4.8	8.7	3.9	3.6	1.9	0.5	0.3	0.1	2.5	8.7	
15-Jul	0.1	0.1	0.1	Z	0.2	0.3	0.5	0.4	0.3	0.4	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	1.0	3.7	0.3	0.1	0.1	0.1	0.4	3.7	
16-Jul	0.1	0.0	0.0	0.0	Z	0.9	9.8	17.0	8.4	4.3	0.6	0.3	0.3	0.5	1.2	0.3	0.6	0.3	0.3	0.5	1.1	0.8	0.3	0.2	2.1	17.0	
17-Jul	0.1	0.1	0.1	0.1	0.1	Z	2.0	2.3	1.3	0.7	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	2.3	
18-Jul	Z	0.1	0.1	0.2	0.5	0.5	0.7	1.0	0.2	0.2	2.5	2.6	0.4	0.1	0.1	0.4	0.3	0.9	0.2	0.1	0.1	0.1	0.1	0.1	0.5	2.6	
19-Jul	0.1	Z	0.3	0.4	0.5	0.2	0.1	0.3	0.3	0.4	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	
20-Jul	0.1	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
21-Jul	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.1	0.0	0.0	0.2	0.8	0.1	0.0	0.0	0.0	0.0	0.1	0.8	
22-Jul	0.0	0.0	0.2	0.7	Z	0.6	1.1	1.1	1.1	1.2	1.2	0.9	4.9	5.3	2.5	1.1	0.9	0.8	0.6	0.4	0.2	0.1	0.1	0.1	1.1	5.3	
23-Jul	0.1	0.1	0.2	0.3	0.3	Z	0.3	0.2	0.2	2.9	0.9	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.3	0.1	0.0	0.0	0.0	0.0	0.3	2.9	
24-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.0	4.3	1.2	0.3	0.2	0.1	0.3	0.3	0.2	0.1	0.1	0.1	0.4	4.3	
25-Jul	0.4	Z	0.4	0.5	1.3	1.7	1.6	1.5	2.6	1.4	0.7	0.8	4.4	2.6	1.4	0.9	2.5	5.7	9.7	7.4	4.1	1.0	0.2	0.1	2.3	9.7	
26-Jul	0.1	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	
27-Jul	3.2	4.0	0.5	Z	0.1	0.1	0.1	0.1	0.2	0.5	0.1	0.1	0.1	0.6	1.6	5.3	5.3	1.6	5.0	2.4	0.5	0.3	0.2	0.3	1.4	5.3	
28-Jul	0.7	0.7	1.0	1.1	Z	1.0	0.8	0.8	1.4	0.4	0.4	0.8	3.0	2.2	0.6	0.5	0.5	2.8	3.2	0.6	0.2	0.2	0.1	0.1	1.0	3.2	
29-Jul	0.2	0.1	0.2	0.1	0.0	Z	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	
30-Jul	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.4	2.0	0.7	0.6	0.6	0.7	0.3	2.0	
31-Jul	0.5	Z	0.2	1.3	1.5	1.3	4.4	7.5	4.0	5.0	7.0	0.6	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.4	0.4	0.3	0.2	1.6	7.5	
0.3 0.3 0.2 0.3 0.3 0.7 1.4 1.7 2.3 1.1 1.2 1.2 1.1 0.8 0.6 0.5 0.6 0.8 1.0 0.8 0.4 0.2 0.1 0.1																										Diurnal Average	
3.2 4.0 1.0 1.3 1.6 3.8 10.7 17.0 34.9 5.0 7.0 7.9 6.5 5.3 2.5 5.3 5.3 8.7 9.7 7.4 4.1 1.0 0.9 0.7																										Diurnal Maximum	
Z - zerospan C - Calibration																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Firebag - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Firebag - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	706	99.58	99.58
11 - 20	2	0.28	99.86
21 - 60	1	0.14	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Firebag - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	37	19	13	9	9	25	32	58	75	70	117	98	36	20	40	48	706
11 - 20	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
21 - 60	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	37	19	13	9	9	25	32	58	75	70	120	98	36	20	40	48	709

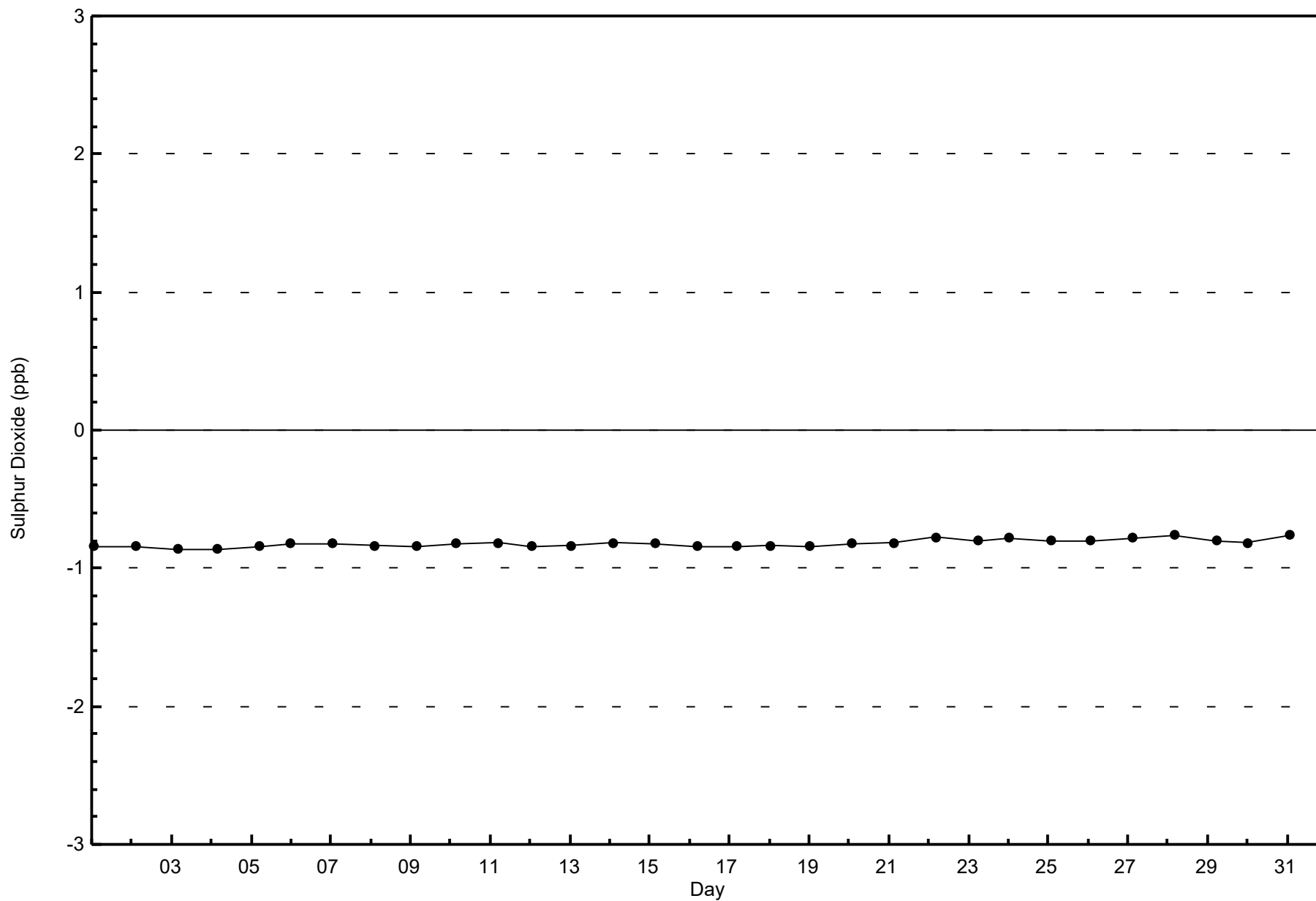
Total Number of Valid Hours: 709

Total Number of Hours: 744



Sulphur Dioxide (SO₂) - ppb
Firebag

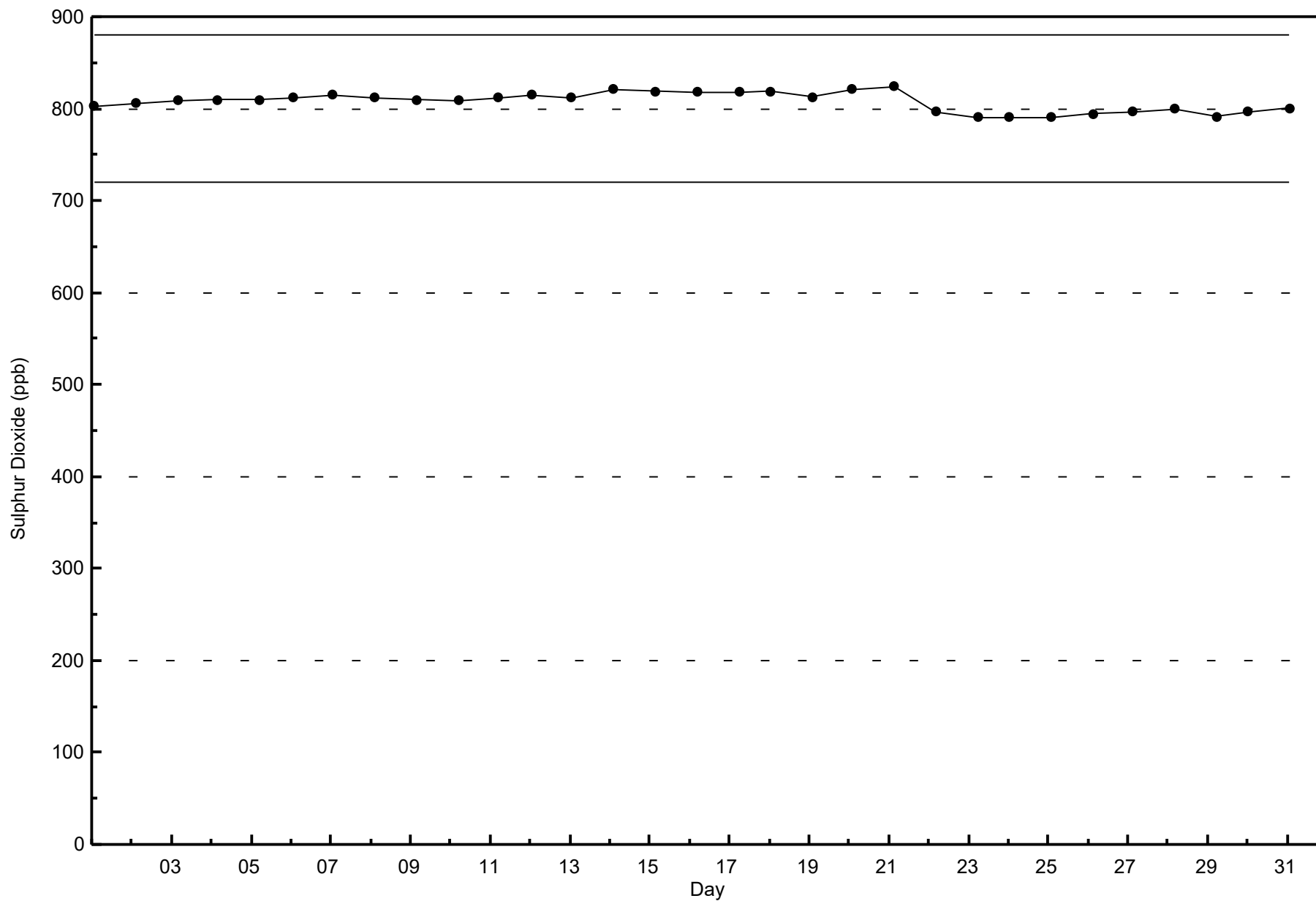






Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Firebag - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H₂S) - ppb

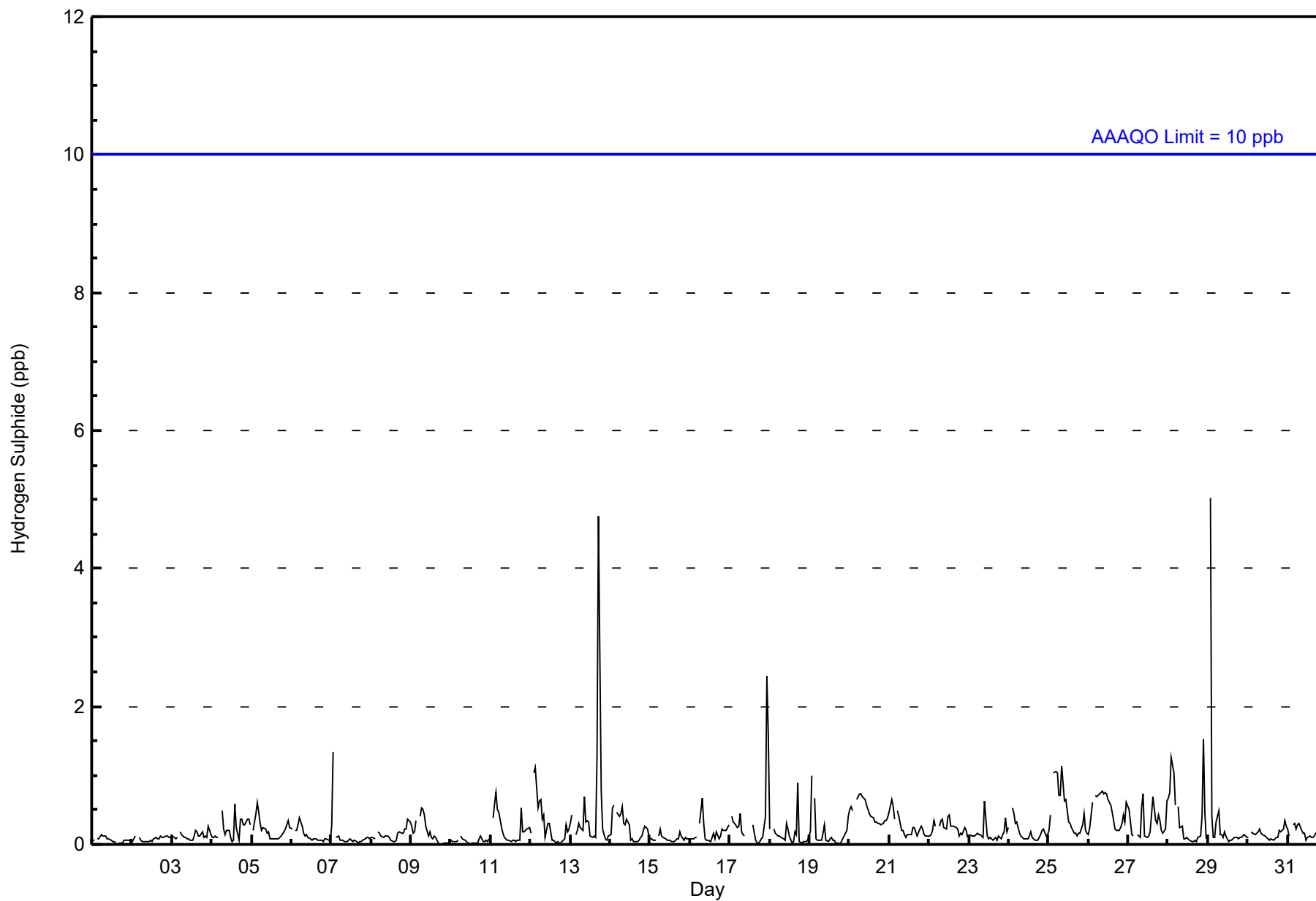
Firebag - July 2026

Number of Exceedances (AAAQO): Maximum Value: 5.0 ppb on Jul 29 02:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 0.5 ppb on Jul 26							Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 9 18:00 Maximum Diurnal Average: 0.5 ppb at hour 2 Monthly Average: 0.23 ppb																			Minimum Daily Average: 0.1 ppb on Jul 10 Minimum Diurnal Average: 0.1 ppb at hour 14 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.5 P ₉₉ = 1.2							Hours of Data: 709	
																										Hours of Missing Data: 35	
																										Hours of Calibration: 35	
																										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	
2-Jul	0.0	0.1	0.1	Z	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	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	
3-Jul	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.3	0.1	0.1	0.3	
4-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.5	0.2	0.1	0.2	0.2	0.1	0.0	0.1	0.6	0.2	0.1	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.2	0.6	
5-Jul	Z	0.2	0.4	0.6	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.6	
6-Jul	0.2	Z	0.2	0.2	0.3	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.4	
7-Jul	0.3	1.3	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	1.3	
8-Jul	0.1	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.1	0.4	
9-Jul	0.3	0.2	0.2	0.4	Z	0.4	0.5	0.5	0.4	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	
10-Jul	0.1	0.0	0.0	0.0	0.1	Z	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	
11-Jul	Z	0.4	0.6	0.8	0.5	0.5	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.8	
12-Jul	0.2	Z	1.0	1.1	0.5	0.6	0.6	0.4	0.4	0.1	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.2	0.3	1.1	
13-Jul	0.3	0.4	Z	0.2	0.2	0.3	0.2	0.2	0.7	0.3	0.4	0.3	0.1	0.1	0.1	0.1	1.3	4.8	0.8	0.2	0.2	0.1	0.1	0.1	0.5	4.8	
14-Jul	0.1	0.5	0.6	Z	0.5	0.4	0.5	0.6	0.3	0.3	0.4	0.3	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.2	0.6	
15-Jul	0.1	0.1	0.1	0.1	Z	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	
16-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.3	0.7	0.3	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.7	
17-Jul	Z	0.4	0.3	0.3	0.2	0.3	0.5	0.2	0.1	0.1	C	C	C	C	0.3	0.1	0.0	0.0	0.0	0.1	0.1	0.4	2.4	1.6	0.4	2.4	
18-Jul	0.2	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.0	0.0	0.2	0.2	0.9	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.9	
19-Jul	0.2	1.0	Z	0.7	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.4	0.2	1.0	
20-Jul	0.5	0.6	0.5	Z	0.6	0.7	0.7	0.7	0.7	0.6	0.6	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.7	
21-Jul	0.5	0.6	0.5	0.4	Z	0.5	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.3	0.6	
22-Jul	0.1	0.1	0.2	0.3	0.3	Z	0.3	0.3	0.4	0.2	0.2	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.4	
23-Jul	Z	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.6	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.2	0.2	0.6	
24-Jul	0.3	Z	0.5	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.5	
25-Jul	0.2	0.4	Z	1.0	1.0	1.0	0.7	0.7	1.1	0.6	0.7	0.5	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.4	0.2	0.2	0.5	1.1	
26-Jul	0.1	0.2	0.6	Z	0.7	0.7	0.7	0.8	0.8	0.7	0.8	0.7	0.7	0.6	0.5	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.6	0.5	0.8	
27-Jul	0.5	0.3	0.1	0.1	Z	0.1	0.1	0.1	0.6	0.7	0.1	0.1	0.1	0.2	0.4	0.7	0.4	0.3	0.4	0.4	0.2	0.2	0.2	0.6	0.3	0.7	
28-Jul	0.7	0.8	1.3	1.0	0.6	Z	0.6	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.4	1.5	0.5	0.1	0.4	1.5	
29-Jul	Z	5.0	0.4	0.1	0.1	0.3	0.5	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	5.0	
30-Jul	0.1	Z	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.3	
31-Jul	0.2	0.1	Z	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.3	
0.2 0.5 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.3 0.2 0.1 0.2 0.2 0.3 0.2																										Diurnal Average	
0.7 5.0 1.3 1.1 1.0 1.0 0.7 0.8 1.1 0.7 0.8 0.7 0.7 0.6 0.6 0.7 1.3 4.8 0.8 0.4 0.4 1.5 2.4 1.6																										Diurnal Maximum	
Z - zerospan C - Calibration																											
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Firebag - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Firebag - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	707	99.72	99.72
3 - 4	0	0.00	99.72
5 - 7	2	0.28	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Firebag - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	38	19	12	9	7	24	31	60	74	72	118	98	38	19	43	45	707
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	38	19	12	9	9	24	31	60	74	72	118	98	38	19	43	45	709

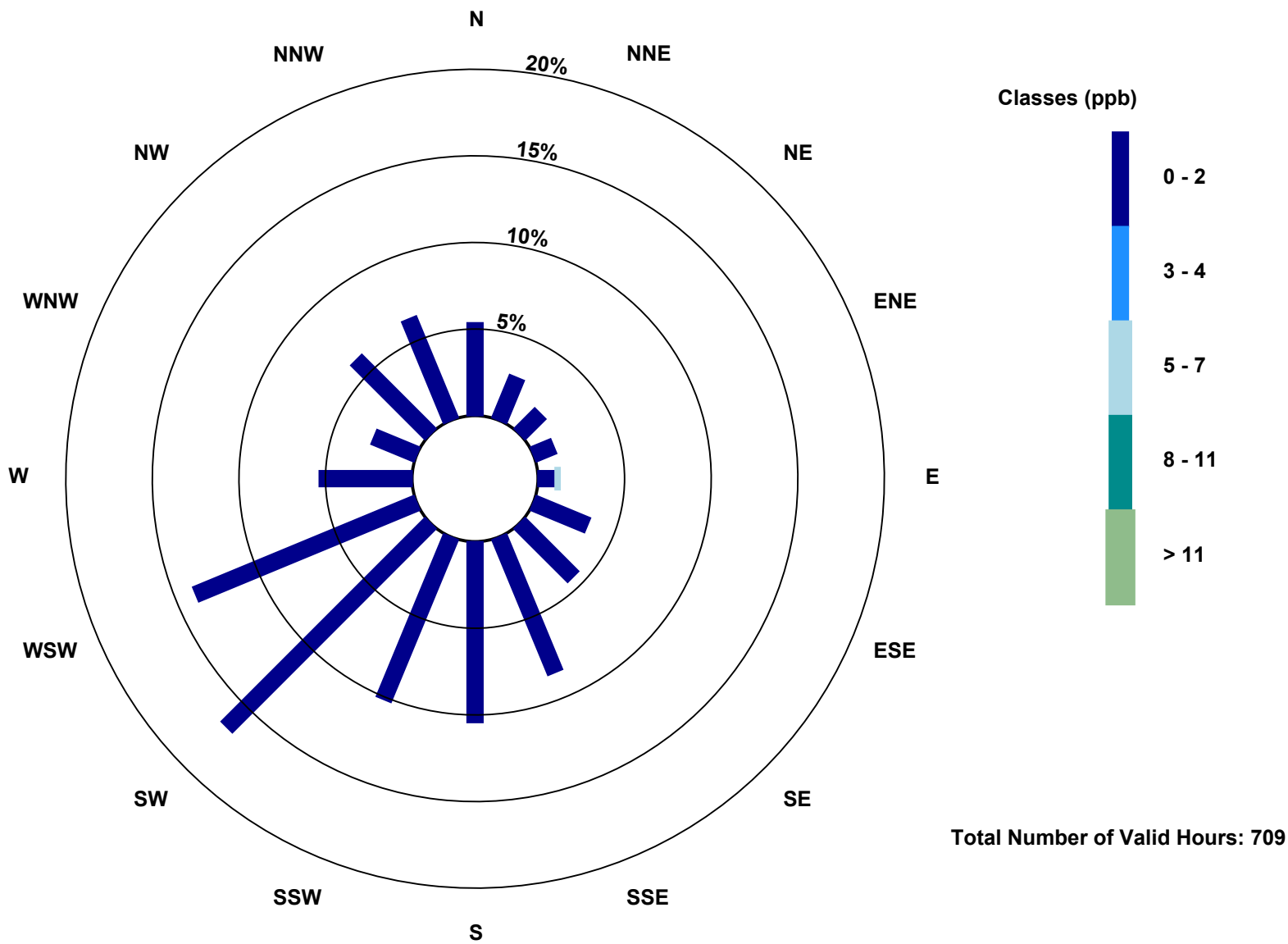
Total Number of Valid Hours: 709

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Hydrogen Sulphide (H₂S) - ppb
Firebag



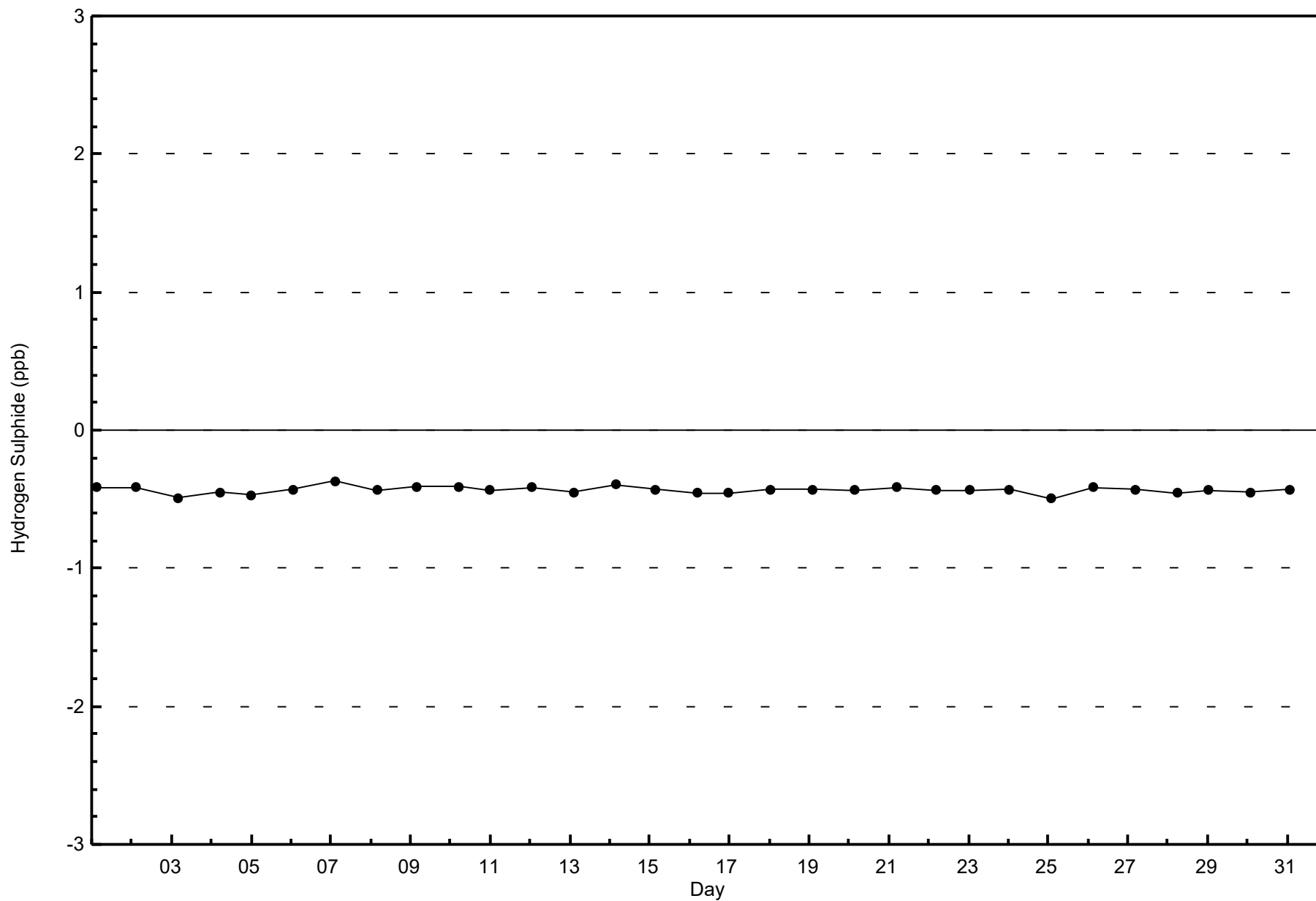


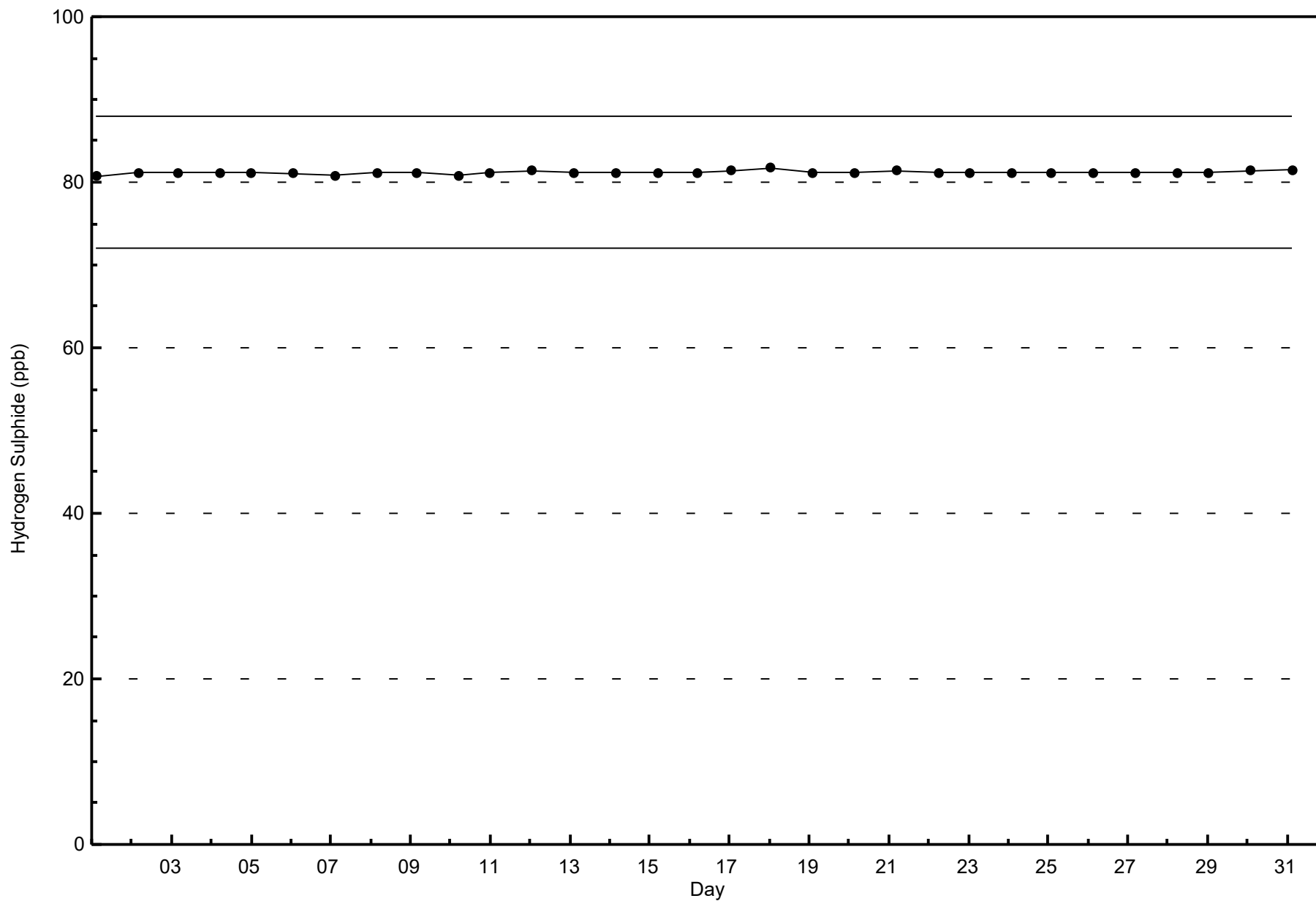
Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Firebag - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

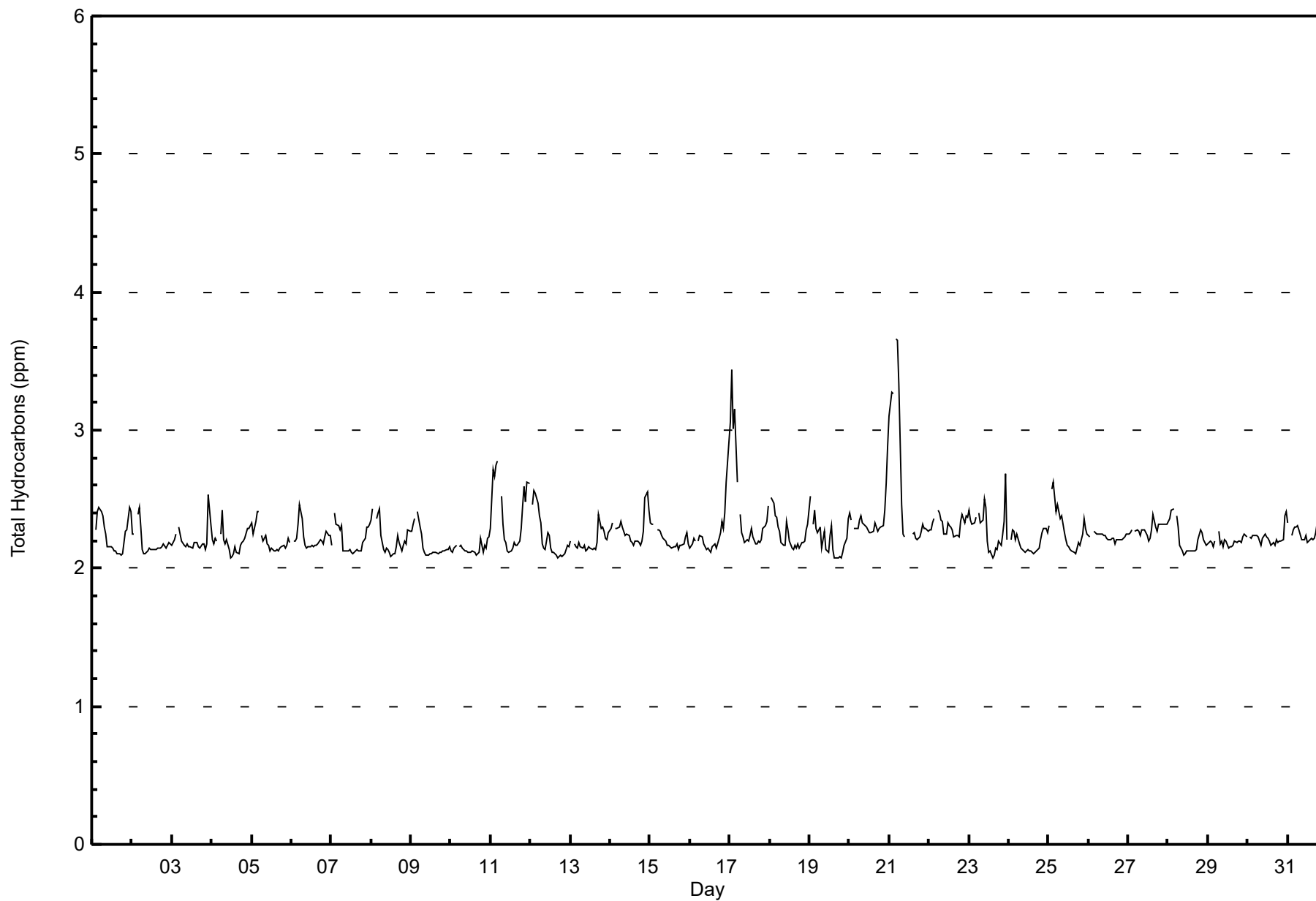
Firebag - July 2026

Maximum Value: 3.7 ppm on Jul 21 05:00																		Maximum Daily Average: 2.6 ppm on Jul 21										Hours in Service: 744	
Minimum Value: 2.1 ppm on Jul 19 16:00																		Minimum Daily Average: 2.1 ppm on Jul 10										Hours of Data: 709	
Maximum Diurnal Average: 2.4 ppm at hour 5																		Minimum Diurnal Average: 2.2 ppm at hour 13										Hours of Missing Data: 35	
Monthly Average: 2.25 ppm																		Percentiles: P ₁ = 2.1 P ₁₀ = 2.1 Q ₁ = 2.2 Median = 2.2 Q ₃ = 2.3 P ₉₀ = 2.4 P ₉₉ = 3.1										Hours of Calibration: 35	
																												Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	2.4	Z	2.3	2.4	2.4	2.4	2.4	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.4	2.4	2.2	2.4			
2-Jul	2.2	2.3	Z	2.4	2.4	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.4			
3-Jul	2.2	2.2	2.2	Z	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.2	2.5	2.3	2.2	2.5			
4-Jul	2.2	2.2	2.2	2.2	Z	2.2	2.4	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.4			
5-Jul	2.3	2.2	2.3	2.4	2.4	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.4			
6-Jul	Z	2.2	2.2	2.2	2.3	2.5	2.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.5			
7-Jul	2.2	Z	2.4	2.3	2.3	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.2	2.4			
8-Jul	2.4	2.4	Z	2.4	2.4	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.4			
9-Jul	2.3	2.3	2.4	Z	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.4			
10-Jul	2.1	2.1	2.1	2.2	Z	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.2	2.2	2.1	2.2			
11-Jul	2.3	2.7	2.7	2.7	2.8	Z	2.5	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.5	2.6	2.5	2.6	2.6	2.4	2.8			
12-Jul	Z	2.5	2.6	2.5	2.5	2.4	2.3	2.2	2.1	2.1	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.6			
13-Jul	2.2	Z	2.2	2.2	2.1	2.2	2.2	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.4	2.3	2.3	2.3	2.2	2.2	2.3	2.2	2.4			
14-Jul	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.5	2.6	2.4	2.3	2.6			
15-Jul	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.3	2.2	2.2	2.3			
16-Jul	2.1	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.3	2.3	2.3	2.4	2.6	2.9	2.3	2.9			
17-Jul	3.1	3.4	3.0	3.2	2.6	Z	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.5	2.4	3.4			
18-Jul	Z	2.5	2.5	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.2	2.1	2.1	2.2	2.1	2.2	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.5			
19-Jul	2.5	Z	2.3	2.4	2.3	2.3	2.3	2.1	2.2	2.3	2.1	2.1	2.2	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.4	2.2	2.5			
20-Jul	2.4	2.4	Z	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.6	2.9	2.4	2.9			
21-Jul	3.1	3.3	3.3	Z	3.7	3.6	3.3	2.5	2.2	2.2	C	C	C	C	2.2	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.6	3.7			
22-Jul	2.3	2.3	2.3	2.4	Z	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.4	2.3	2.4	2.4	2.3	2.4			
23-Jul	2.4	2.3	2.3	2.3	2.4	Z	2.4	2.3	2.4	2.5	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.7	2.2	2.3	2.7			
24-Jul	Z	2.2	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.2	2.3			
25-Jul	2.3	Z	2.6	2.6	2.4	2.5	2.4	2.4	2.4	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.4	2.3	2.2	2.3	2.6			
26-Jul	2.2	2.2	Z	2.3	2.3	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3			
27-Jul	2.2	2.3	2.3	Z	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4			
28-Jul	2.3	2.4	2.4	2.4	Z	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.4			
29-Jul	2.2	2.2	2.2	2.2	2.2	Z	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.3			
30-Jul	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.4	2.4	2.2	2.4			
31-Jul	2.3	Z	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.4			
2.3 2.4 2.4 2.4 2.4 2.4 2.3 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.3 2.3 2.3																										Diurnal Average			
3.1 3.4 3.3 3.2 3.7 3.6 3.3 2.5 2.4 2.5 2.4 2.3 2.3 2.3 2.3 2.4 2.3 2.4 2.3 2.5 2.6 2.5 2.7 2.9																										Diurnal Maximum			
Z - zerospan C - Calibration																													



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Firebag - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Firebag - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	0	0.00	0.00
2.1 - 3.0	700	98.73	98.73
3.1 - 10.0	9	1.27	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Firebag - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.1 - 3.0	37	19	11	9	9	25	32	58	75	69	117	98	36	20	40	45	700
3.1 - 10.0	0	0	2	0	0	0	0	0	0	1	3	0	0	0	0	3	9
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	37	19	13	9	9	25	32	58	75	70	120	98	36	20	40	48	709

Total Number of Valid Hours: 709

Total Number of Hours: 744

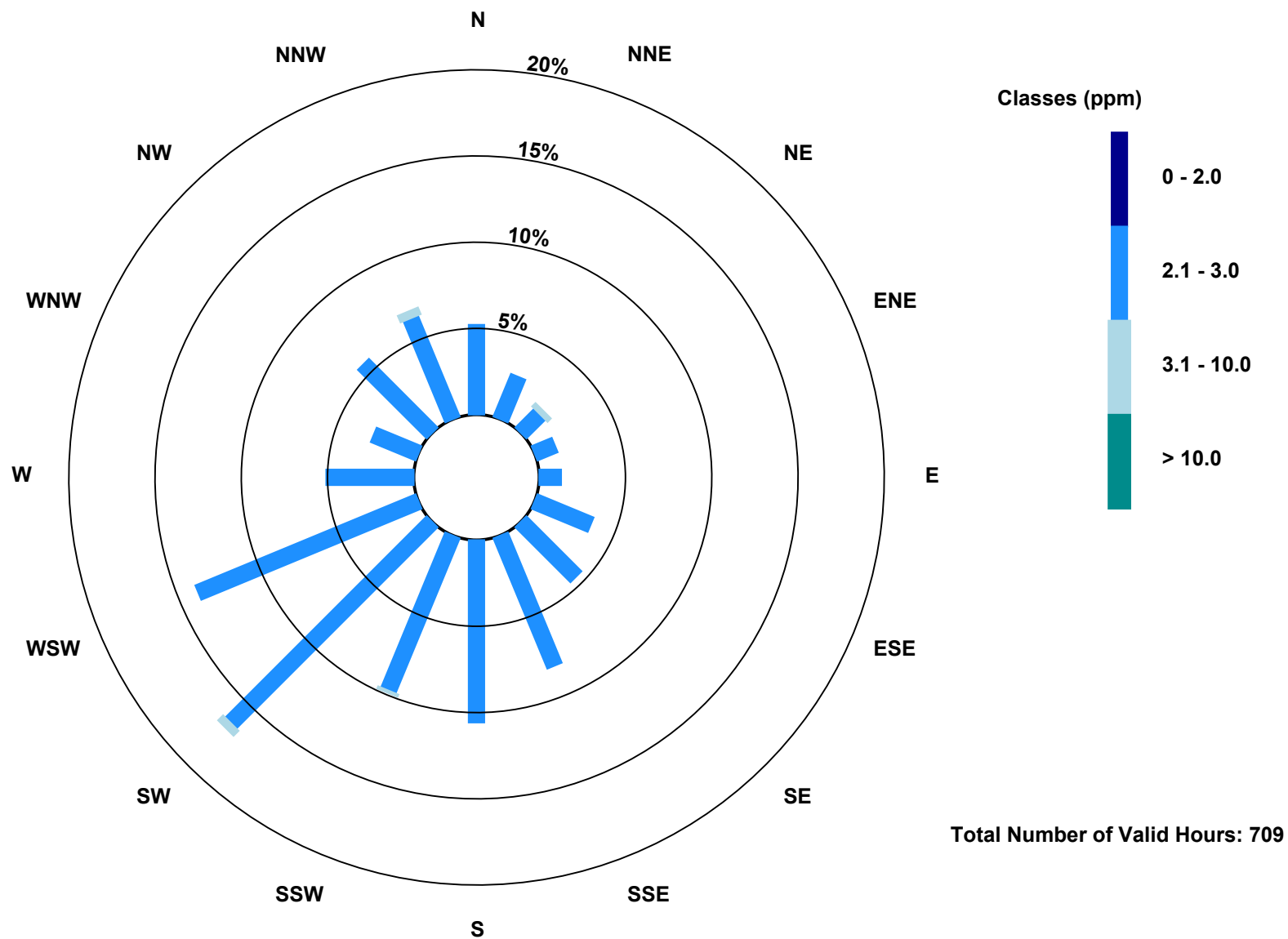


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Total Hydrocarbons (THC) - ppm

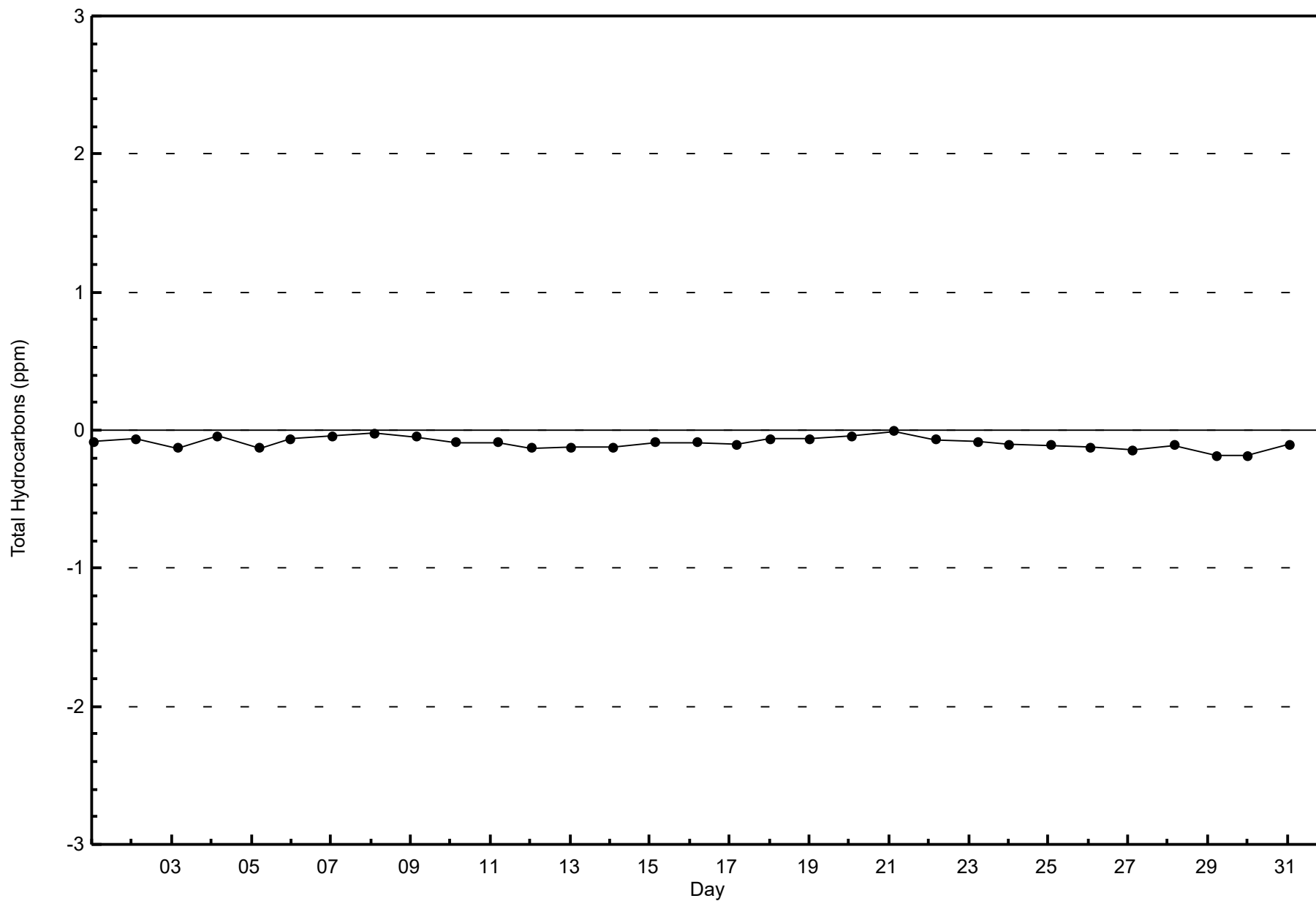
Firebag





Wood Buffalo Environmental Association
Zero Responses

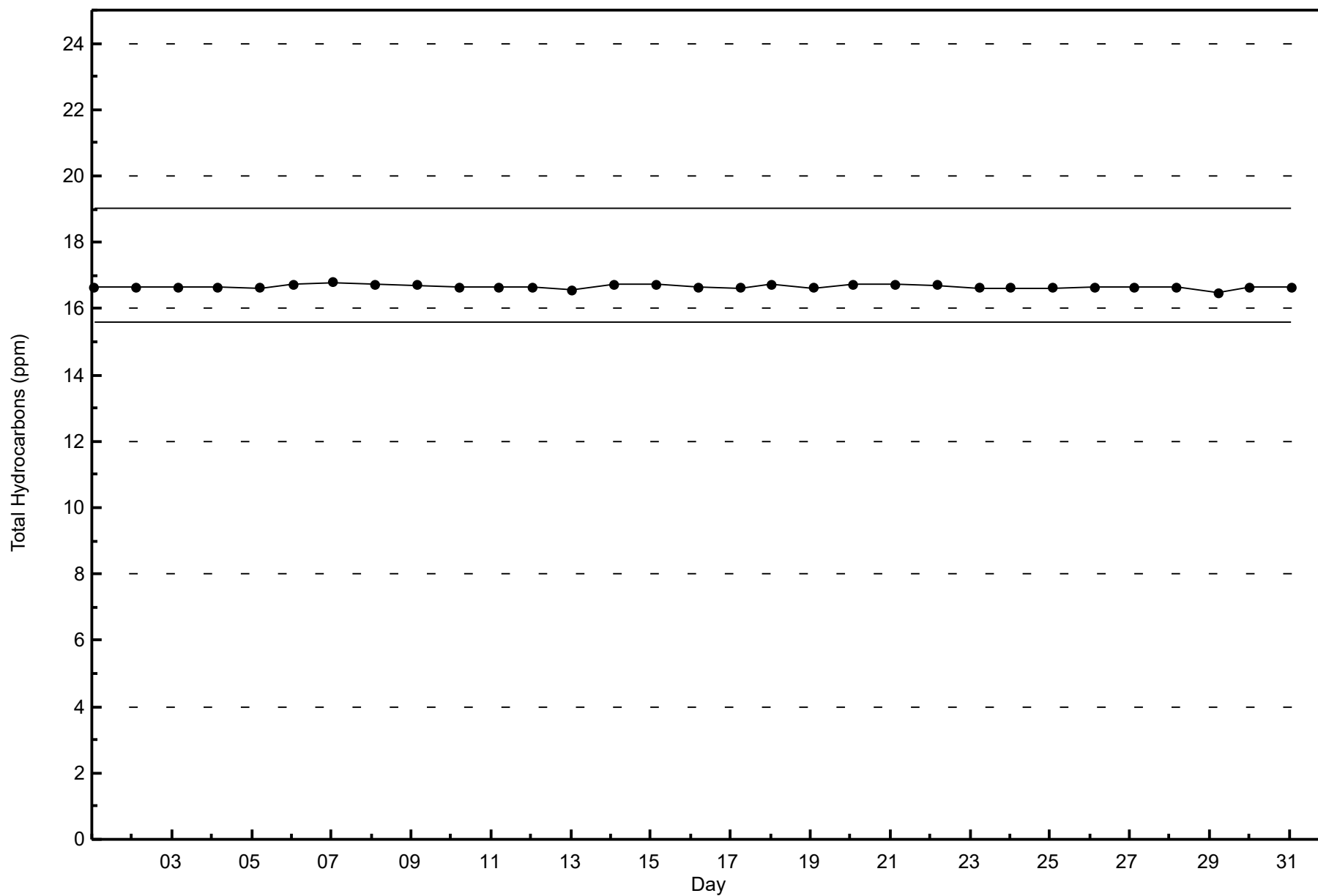
Total Hydrocarbons (THC) - ppm
Firebag - July 2026





Wood Buffalo Environmental Association
Span Responses

Total Hydrocarbons (THC) - ppm
Firebag - July 2026

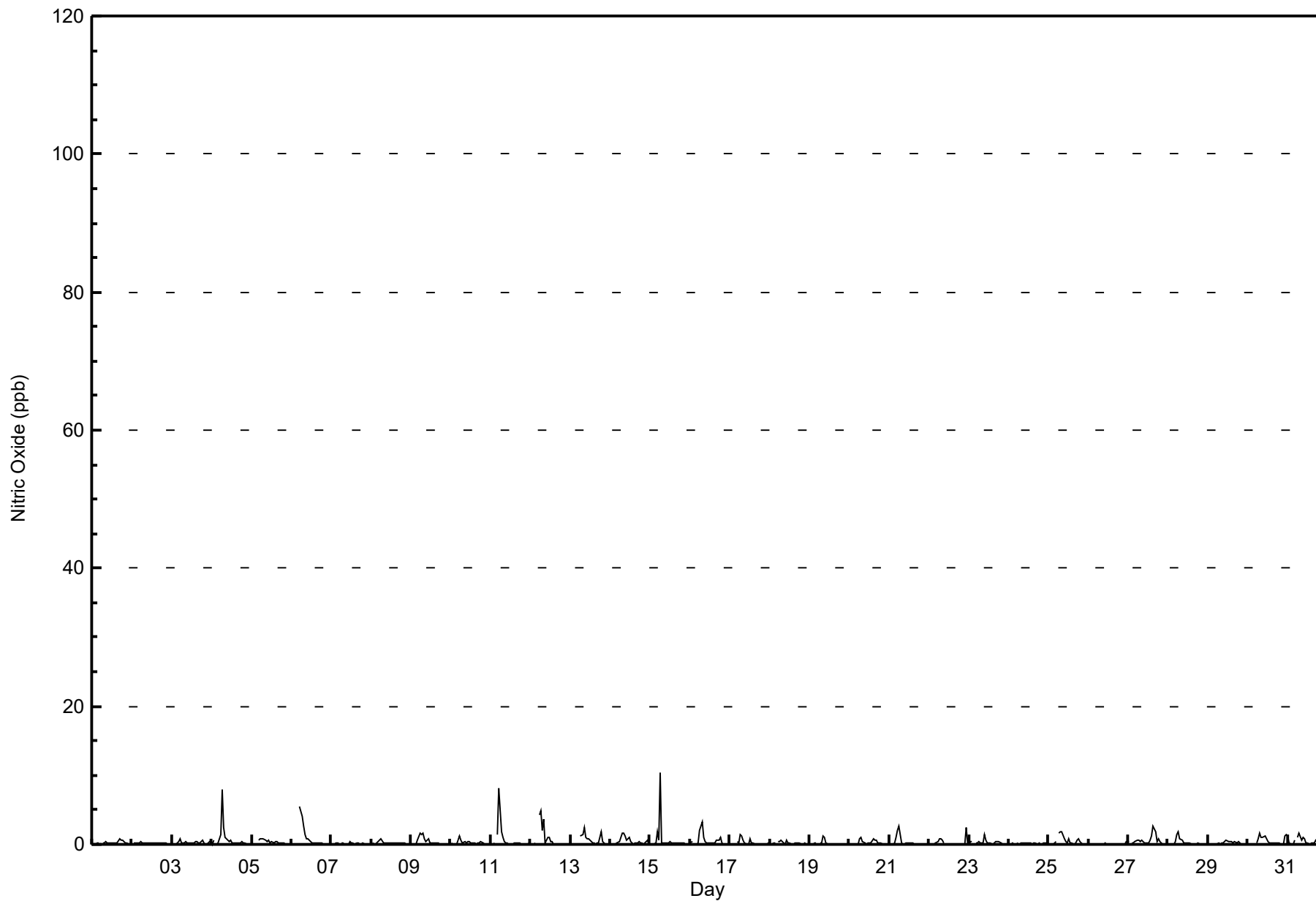


Maximum Value: 10.3 ppb on Jul 15 07:00										Maximum Daily Average: 0.8 ppb on Jul 12										Hours in Service: 744						
Minimum Value: 0.0 ppb on Jul 22 17:00										Minimum Daily Average: 0.1 ppb on Jul 26										Hours of Data: 708						
Maximum Diurnal Average: 1.6 ppb at hour 7										Minimum Diurnal Average: 0.1 ppb at hour 22										Hours of Missing Data: 36						
Monthly Average: 0.37 ppb										Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.9 P ₉₉ = 3.6										Hours of Calibration: 36						
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.1	0.1	0.1	0.1	0.2	Z	0.1	0.2	0.4	0.2	0.3	0.2	0.2	0.1	0.1	0.2	0.7	0.5	0.6	0.3	0.1	0.1	0.1	0.1	0.2	0.7
2-Jul	Z	0.1	0.1	0.1	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3
3-Jul	0.1	Z	0.1	0.1	0.3	0.9	0.2	0.2	0.4	0.2	0.1	0.2	0.1	0.1	0.3	0.4	0.2	0.3	0.5	0.1	0.1	0.1	0.2	0.5	0.3	0.9
4-Jul	0.1	0.7	Z	0.1	0.1	1.5	8.0	2.4	1.0	0.8	0.5	0.6	0.1	0.1	0.2	0.2	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.8	8.0
5-Jul	0.1	0.1	0.1	Z	0.5	0.8	0.8	0.8	0.6	0.4	0.7	0.2	0.4	0.3	0.4	0.5	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.3	0.8
6-Jul	0.0	0.0	0.0	0.1	Z	5.5	4.0	2.5	1.4	0.8	0.8	0.4	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.8	5.5
7-Jul	0.0	0.0	0.0	0.1	0.2	Z	0.2	0.1	0.1	0.1	0.1	0.4	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
8-Jul	Z	0.2	0.1	0.2	0.4	0.6	0.7	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.7
9-Jul	0.1	Z	0.0	0.1	0.6	1.5	1.5	1.6	0.8	0.3	0.9	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.4	1.6
10-Jul	0.1	0.2	Z	0.1	0.5	1.2	0.6	0.3	0.3	0.2	0.5	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.0	0.0	0.2	1.2
11-Jul	0.0	0.1	0.1	Z	1.5	8.2	1.8	0.9	0.4	0.2	0.1	0.0	0.0	0.1	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.6	8.2
12-Jul	0.0	0.0	0.0	0.1	Z	4.2	4.9	2.1	3.6	0.2	0.9	1.0	0.5	0.4	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.8	4.9
13-Jul	0.0	0.0	0.0	0.0	0.1	Z	1.3	1.4	2.4	1.0	0.8	0.7	0.6	0.2	0.2	0.1	0.2	0.3	1.8	0.4	0.1	0.0	0.0	0.0	0.5	2.4
14-Jul	Z	0.0	0.0	0.0	0.2	0.4	1.1	1.5	1.6	1.2	0.7	0.9	0.4	0.1	0.1	0.1	0.2	0.4	0.1	0.1	0.1	0.2	0.5	0.1	0.4	1.6
15-Jul	0.1	Z	0.1	0.1	1.8	0.6	10.3	0.2	0.2	0.1	0.2	0.2	0.3	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.7	10.3
16-Jul	0.2	0.4	Z	0.1	0.1	0.3	2.1	3.2	1.1	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.6	0.6	1.0	0.1	0.1	0.1	0.1	0.1	0.5	3.2
17-Jul	0.1	0.1	0.0	Z	0.4	0.3	1.5	1.2	0.6	0.2	0.1	0.1	0.8	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.3	1.5
18-Jul	0.2	0.1	0.1	0.1	Z	0.4	0.4	0.6	0.1	0.1	0.6	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.6
19-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.3	1.1	1.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.1
20-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.7	1.0	0.5	0.2	0.1	0.1	0.2	0.2	0.9	0.7	0.6	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.3	1.0
21-Jul	0.1	Z	0.1	0.2	0.9	2.1	2.7	0.1	0.1	0.1	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.3	2.7
22-Jul	0.0	0.0	Z	0.0	0.1	0.4	0.7	0.8	0.6	0.3	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.5	0.2	0.3	2.5
23-Jul	0.1	0.4	0.5	Z	0.1	0.2	0.5	0.3	0.3	1.5	0.6	0.1	0.3	0.3	0.1	0.2	0.5	0.3	0.4	0.2	0.1	0.1	0.0	0.1	0.3	1.5
24-Jul	0.1	0.1	0.2	0.1	Z	0.2	0.1	0.2	0.3	0.2	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.3
25-Jul	0.1	0.0	0.0	0.0	0.3	Z	1.6	1.9	1.9	0.8	0.4	0.2	0.8	0.3	0.2	0.1	0.2	0.6	0.9	0.4	0.1	0.0	0.0	0.0	0.5	1.9
26-Jul	Z	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	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.1	0.4
27-Jul	0.5	Z	0.1	0.1	0.4	0.6	0.6	0.4	0.6	0.4	0.1	0.2	0.1	0.6	1.2	2.6	1.9	0.3	0.9	0.4	0.1	0.1	0.1	0.1	0.5	2.6
28-Jul	0.1	0.1	Z	0.1	0.4	1.5	1.8	0.8	0.6	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.3	1.8
29-Jul	0.1	0.1	0.1	Z	0.0	0.1	0.2	0.1	0.1	0.1	0.5	0.6	0.3	0.4	0.4	0.2	0.5	0.1	0.4	0.2	0.1	0.1	0.1	0.0	0.2	0.6
30-Jul	0.0	0.0	0.1	0.1	Z	0.3	0.8	1.5	1.0	1.0	1.2	0.8	0.5	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	1.3	1.4	0.5	1.5
31-Jul	1.2	0.3	0.0	0.1	0.5	Z	1.0	1.6	0.7	0.9	0.9	0.2	0.1	0.1	0.2	0.3	0.1	0.6	0.5	0.1	0.2	0.1	0.1	0.1	0.4	1.6
																									Diurnal Average	
																									Diurnal Maximum	
Z - zerospan C - Calibration																										



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Firebag - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Firebag - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	708	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Firebag - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	39	18	13	9	10	26	31	59	72	70	120	94	37	20	43	47	708
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	39	18	13	9	10	26	31	59	72	70	120	94	37	20	43	47	708

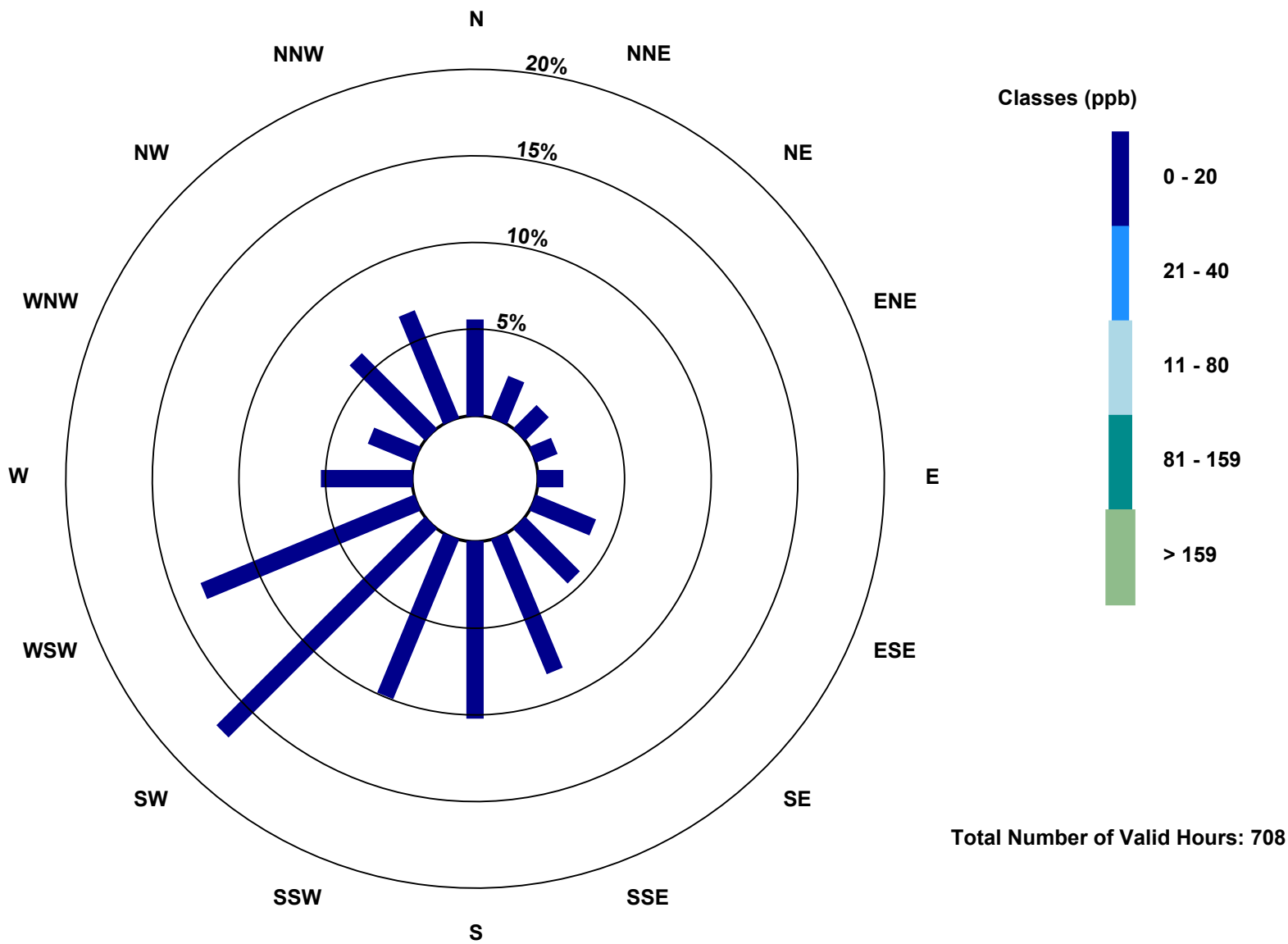
Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

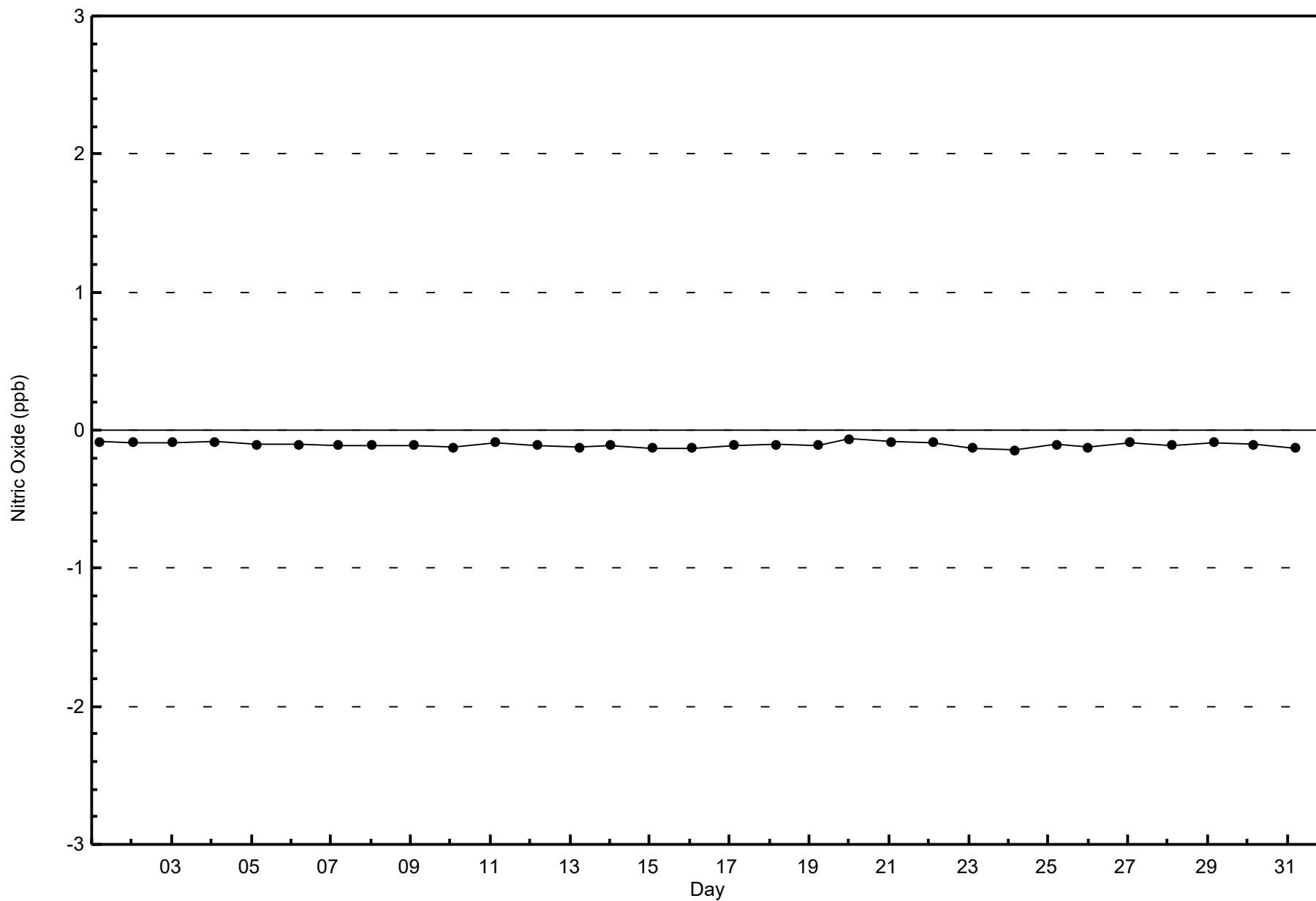
Nitric Oxide (NO) - ppb
Firebag





Wood Buffalo Environmental Association
Zero Responses

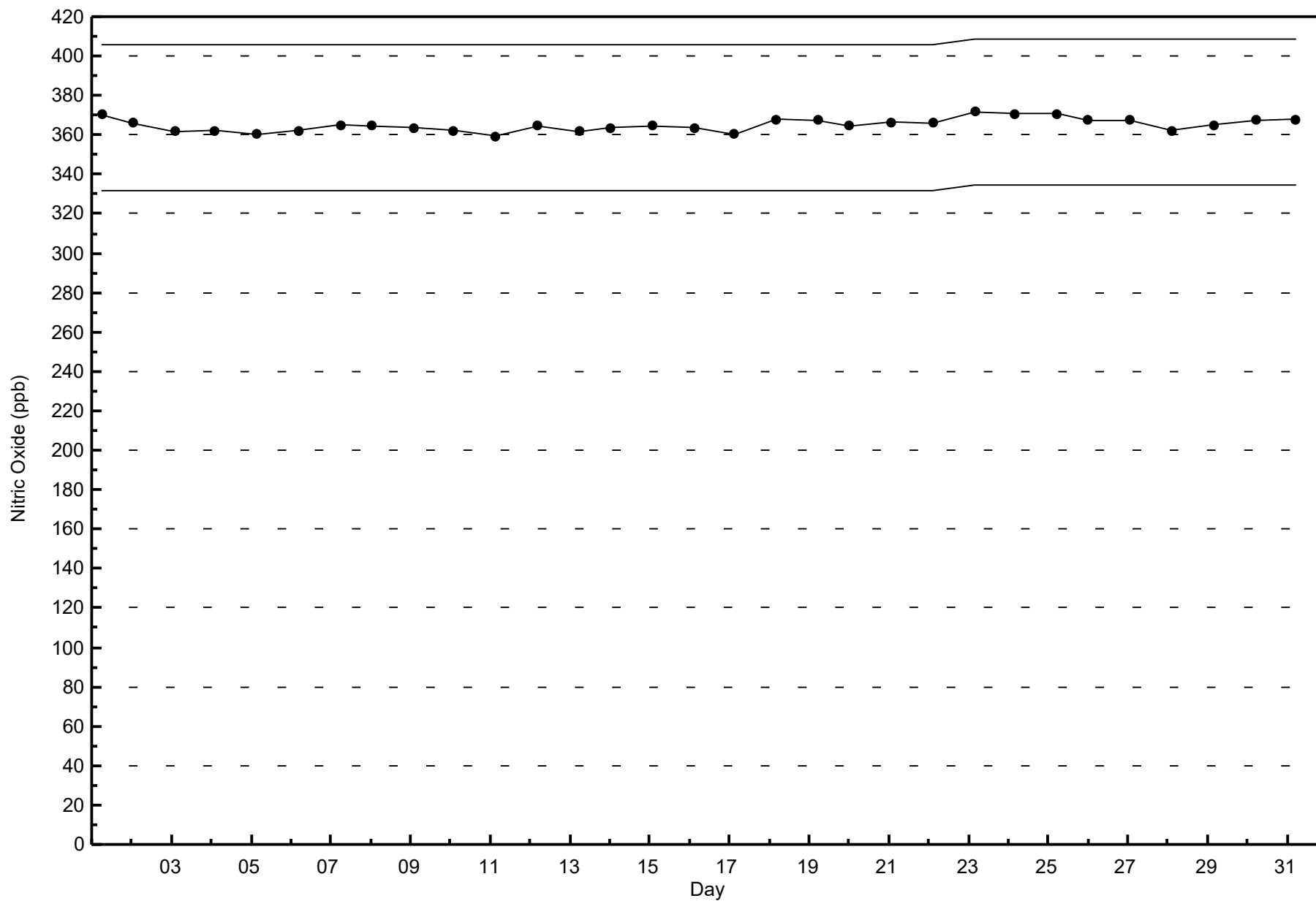
Nitric Oxide (NO) - ppb
Firebag - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Firebag - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

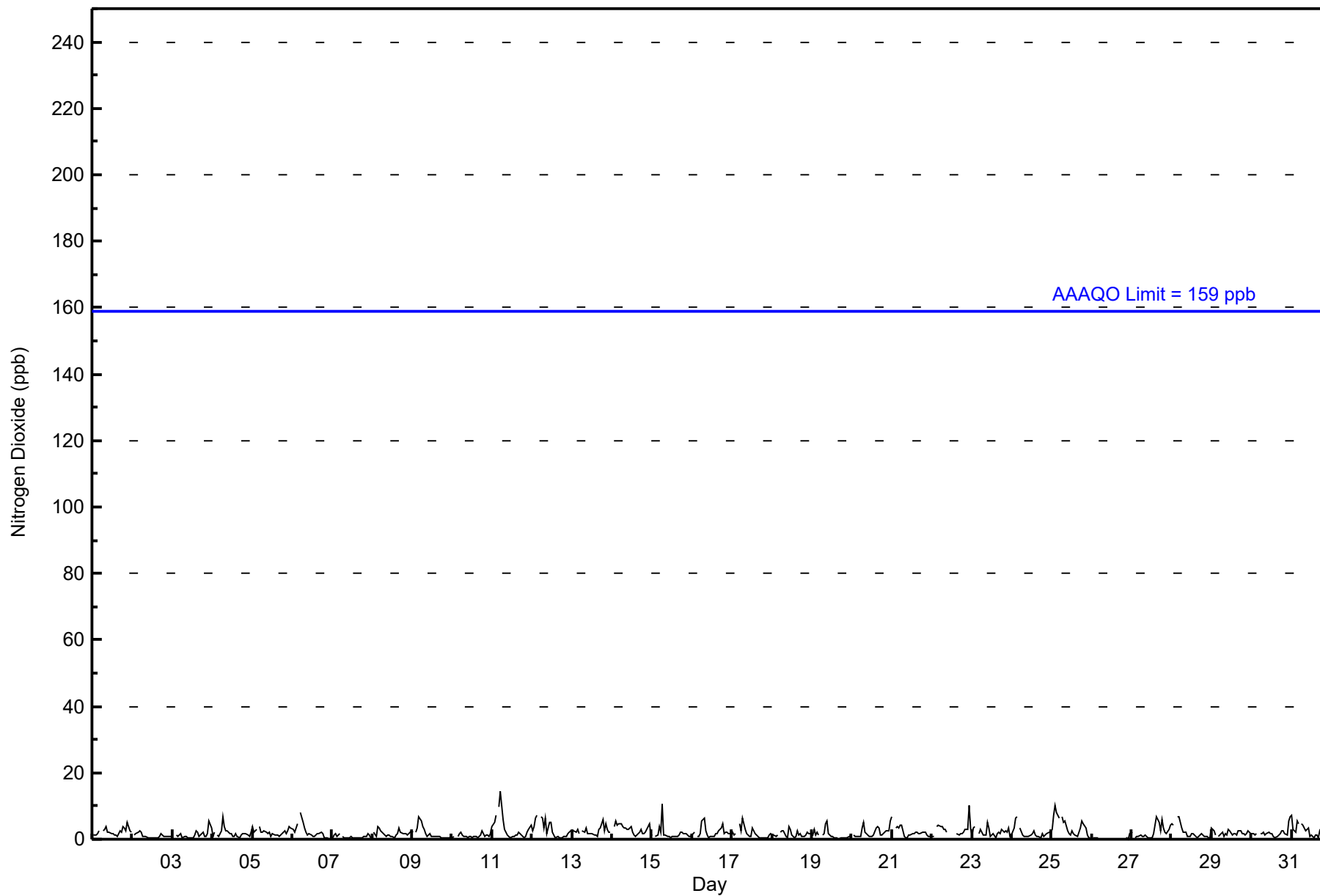
Firebag - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 14.2 ppb on Jul 11 06:00 Maximum Daily Average: 3.7 ppb on Jul 25																			Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0							
Minimum Value: 0.1 ppb on Jul 26 06:00 Minimum Daily Average: 0.3 ppb on Jul 26 Maximum Diurnal Average: 3.4 ppb at hour 6 Minimum Diurnal Average: 1.1 ppb at hour 14 Monthly Average: 2.00 ppb Percentiles: P ₁ = 0.2 P ₁₀ = 0.5 Q ₁ = 0.8 Median = 1.5 Q ₃ = 2.5 P ₉₀ = 4.1 P ₉₉ = 7.4																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	1.2	1.1	1.3	1.8	2.7	Z	2.6	2.9	3.7	2.2	2.1	1.7	1.7	1.3	1.1	1.0	2.5	2.1	4.0	3.3	2.7	4.9	2.7	2.3	2.3	4.9
2-Jul	Z	1.4	1.5	2.0	2.5	2.0	0.7	0.7	0.7	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.8	1.5	1.4	1.0	0.9	0.7	0.7	0.7	1.0	2.5
3-Jul	1.0	Z	1.2	0.8	1.3	1.6	0.5	0.8	0.9	0.6	0.6	0.5	0.6	1.4	2.4	2.0	0.7	1.3	2.2	0.8	1.0	1.6	5.4	3.4	1.4	5.4
4-Jul	0.7	2.1	Z	1.2	0.8	2.6	6.8	3.8	2.5	2.7	1.7	1.7	0.7	0.7	1.6	0.9	0.4	1.2	1.6	1.6	1.6	1.2	0.9	2.3	1.8	6.8
5-Jul	3.8	2.2	3.1	Z	3.7	2.3	2.1	2.4	2.1	1.7	2.3	1.0	1.5	1.2	1.1	1.1	0.8	1.2	1.9	2.4	1.8	2.7	3.9	3.6	2.2	3.9
6-Jul	3.1	2.3	3.6	4.5	Z	8.0	5.2	3.6	2.3	1.4	1.6	1.1	0.9	1.0	1.3	1.5	1.5	2.2	1.9	0.5	0.3	0.3	0.2	0.3	2.1	8.0
7-Jul	0.3	1.4	1.5	1.0	1.5	Z	0.7	0.5	0.4	0.5	0.5	1.0	0.5	0.6	0.4	0.6	0.5	0.5	0.5	1.0	0.9	1.8	1.1	0.5	0.8	1.8
8-Jul	Z	2.0	0.7	3.9	3.3	2.6	2.2	1.2	0.9	1.1	1.2	0.9	0.8	0.6	1.3	1.8	3.5	2.1	1.5	1.6	1.8	1.3	1.9	2.5	1.8	3.9
9-Jul	2.3	Z	2.2	3.2	6.9	5.5	4.0	3.0	1.6	0.9	1.8	0.8	0.7	0.7	0.7	0.7	0.7	0.5	0.3	0.4	0.5	0.6	0.5	0.8	1.7	6.9
10-Jul	0.4	0.7	Z	0.8	1.7	2.2	1.2	0.9	0.9	0.6	1.0	1.0	0.5	0.7	0.7	0.5	0.7	1.1	2.4	1.0	1.1	1.4	0.9	1.8	1.1	2.4
11-Jul	3.7	5.0	7.2	Z	9.7	14.2	6.1	2.9	2.0	1.2	0.9	0.5	0.7	0.7	1.2	1.1	2.1	1.2	0.8	0.4	0.8	2.3	3.0	4.3	3.1	14.2
12-Jul	2.4	3.7	6.5	7.0	Z	6.8	6.4	3.3	6.3	1.7	5.2	4.9	2.0	1.4	0.5	0.7	0.6	0.6	0.6	0.8	0.8	1.6	2.3	2.5	3.0	7.0
13-Jul	2.6	2.5	2.3	2.8	1.6	Z	2.4	2.2	3.2	1.8	1.8	1.8	1.9	1.1	1.2	0.7	2.8	3.5	6.0	2.7	4.5	2.9	2.0	2.0	2.4	6.0
14-Jul	Z	3.8	5.5	4.2	4.8	4.5	3.7	3.2	3.2	2.9	2.8	3.8	2.1	1.1	1.0	1.3	2.1	2.9	1.6	1.5	2.1	2.8	4.8	1.3	2.9	5.5
15-Jul	1.1	Z	0.7	1.1	3.8	2.0	10.4	1.2	1.1	0.9	0.7	0.6	1.0	0.8	0.9	0.8	1.1	2.1	2.3	1.8	1.5	1.4	1.0	0.8	1.7	10.4
16-Jul	1.1	2.2	Z	0.9	0.8	1.8	5.6	6.2	2.6	1.4	0.5	0.7	0.8	1.0	1.6	1.7	2.7	3.3	4.5	1.7	2.1	2.1	1.8	1.7	2.1	6.2
17-Jul	2.1	1.3	1.5	Z	4.8	2.7	6.5	4.6	3.1	1.7	1.0	0.7	3.4	2.6	1.8	0.7	0.5	0.4	0.3	0.3	0.3	0.6	1.4	1.9	1.9	6.5
18-Jul	1.2	1.2	0.9	1.4	Z	2.3	2.4	2.5	0.8	0.5	3.9	2.8	1.2	0.6	0.7	2.4	1.2	1.9	1.0	0.8	1.2	2.3	1.9	1.8	1.6	3.9
19-Jul	1.2	3.1	1.4	2.2	1.4	Z	1.2	1.5	4.7	5.4	1.7	0.7	0.7	0.6	0.4	0.3	0.2	0.3	0.3	0.3	0.5	0.5	0.7	1.4	1.3	5.4
20-Jul	Z	1.4	1.0	0.8	0.8	0.7	3.2	5.1	2.2	1.2	0.8	0.7	0.9	1.1	3.4	3.7	3.2	1.3	1.4	1.8	2.5	2.4	2.5	5.4	2.1	5.4
21-Jul	6.9	Z	3.2	3.8	3.6	4.1	4.1	0.7	0.4	0.4	1.4	1.4	1.9	1.8	2.0	2.1	1.8	1.8	2.1	2.0	2.3	1.3	0.9	0.9	2.2	6.9
22-Jul	0.8	0.8	Z	3.9	4.3	3.7	3.8	3.1	3.1	2.1	C	C	C	C	C	1.8	1.4	1.6	1.6	2.0	3.0	3.0	10.1	3.3	3.0	10.1
23-Jul	1.4	3.5	4.0	Z	1.8	2.9	2.1	1.4	1.2	5.2	3.3	1.0	1.4	1.5	0.4	1.7	2.3	1.8	2.9	2.3	2.4	2.3	3.2	0.9	2.2	5.2
24-Jul	1.2	3.6	6.4	6.8	Z	3.6	1.3	0.8	1.0	0.8	0.8	1.1	1.8	2.6	1.3	0.9	0.7	0.5	1.5	0.9	1.1	1.5	2.1	2.1	1.9	6.8
25-Jul	2.8	7.1	10.2	7.9	6.3	Z	6.9	4.9	5.3	2.7	1.6	1.2	2.5	1.5	1.3	0.9	2.0	3.6	5.6	4.8	3.4	1.4	0.3	0.3	3.7	10.2
26-Jul	Z	0.5	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	1.7	0.3	1.7
27-Jul	2.3	Z	0.6	0.7	0.8	1.1	1.0	0.7	1.4	1.0	0.4	0.3	0.5	1.7	4.3	6.7	5.2	2.5	6.0	3.6	2.3	1.6	2.8	4.4	2.3	6.7
28-Jul	4.5	4.2	Z	6.9	6.8	5.1	3.6	2.0	2.0	0.8	0.7	1.0	1.7	1.5	0.7	0.6	0.8	1.3	1.8	1.0	0.9	0.7	0.5	0.4	2.2	6.9
29-Jul	3.4	2.5	1.3	Z	1.0	1.2	2.1	1.0	1.5	1.1	2.9	2.5	1.1	1.9	1.6	1.4	2.6	2.5	1.8	1.5	1.3	1.7	2.7	1.5	1.8	3.4
30-Jul	1.5	1.9	1.1	1.8	Z	1.9	1.5	2.1	1.3	1.5	2.0	1.9	1.5	0.9	0.6	0.9	1.4	1.9	2.5	2.5	1.5	1.3	5.7	6.9	2.0	6.9
31-Jul	7.4	2.9	2.2	5.5	4.6	Z	4.8	4.4	2.6	3.0	3.2	0.8	1.1	0.6	1.3	1.2	0.6	2.7	1.6	0.9	1.6	1.1	0.8	0.7	2.4	7.4
2.3 2.5 2.7 3.0 3.1 3.4 3.4 2.4 2.1 1.6 1.6 1.3 1.2 1.1 1.3 1.4 1.5 1.7 2.1 1.5 1.6 1.7 2.2 2.1 Diurnal Average																										
7.4 7.1 10.2 7.9 9.7 14.2 10.4 6.2 6.3 5.4 5.2 4.9 3.4 2.6 4.3 6.7 5.2 3.6 6.0 4.8 4.5 4.9 10.1 6.9 Diurnal Maximum																										
Z - zerospan C - Calibration																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Firebag - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Firebag - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	708	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Firebag - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	39	18	13	9	10	26	31	59	72	70	120	94	37	20	43	47	708
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	39	18	13	9	10	26	31	59	72	70	120	94	37	20	43	47	708

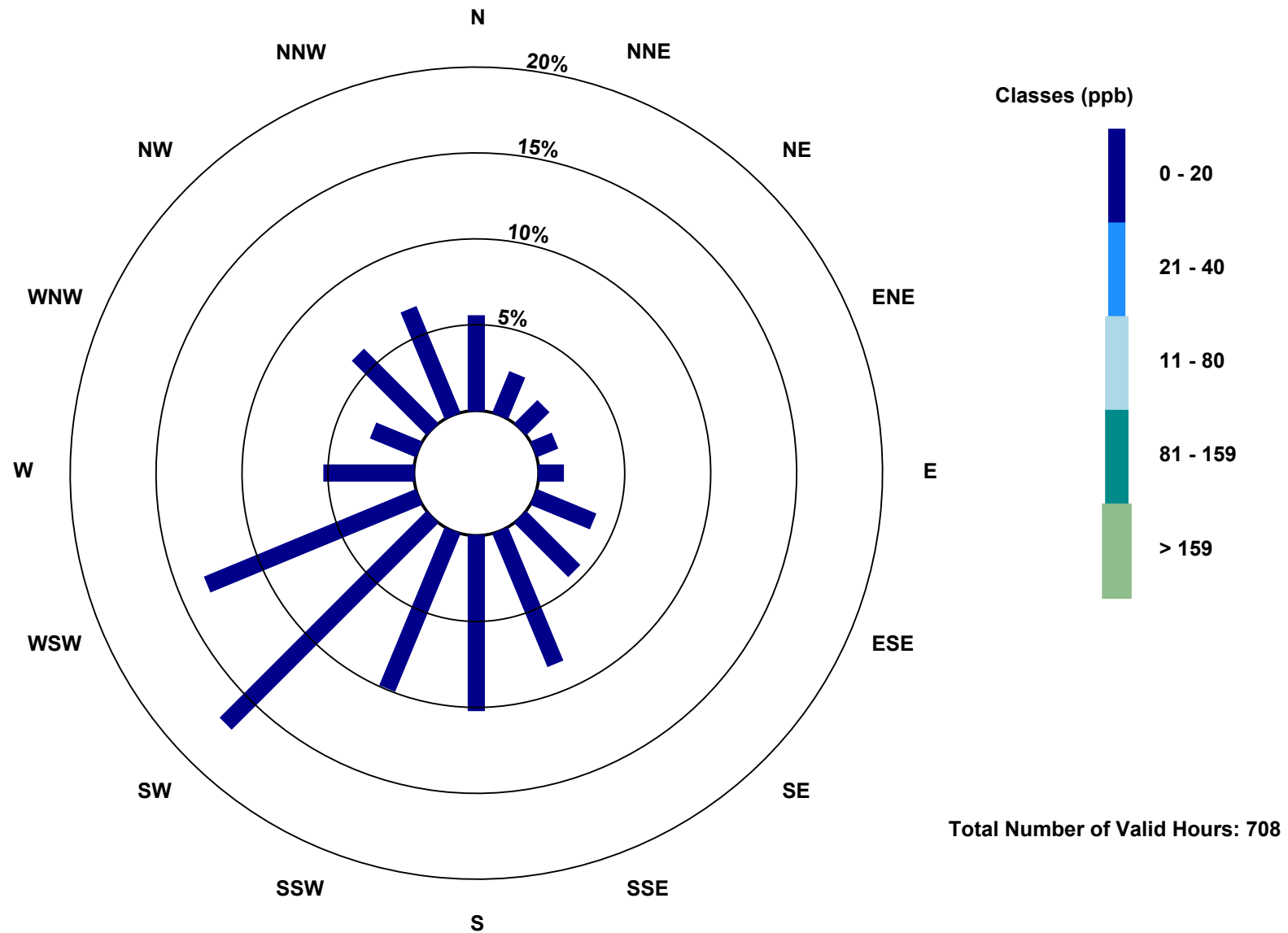
Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Dioxide (NO₂) - ppb
Firebag



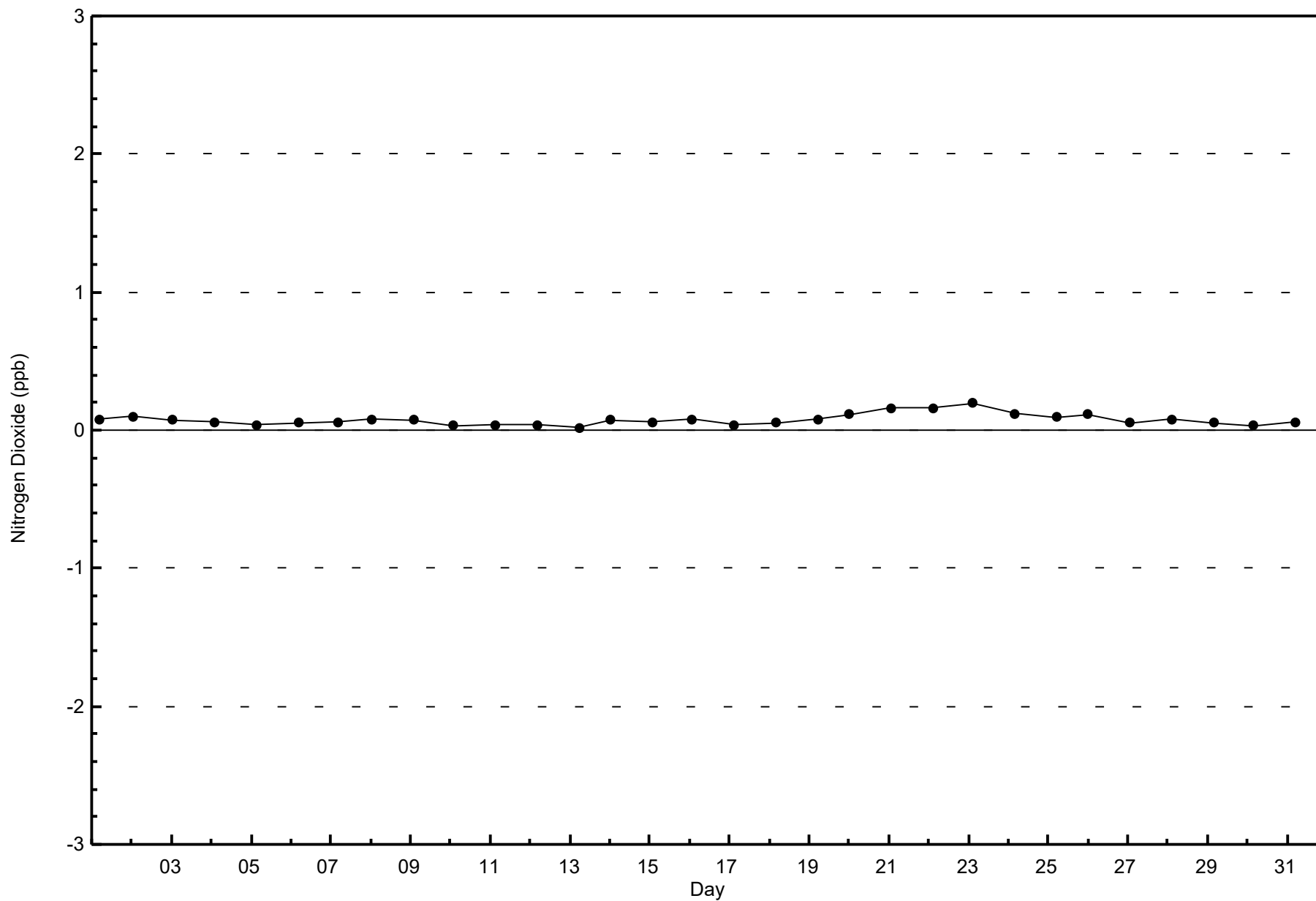


Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO₂) - ppb

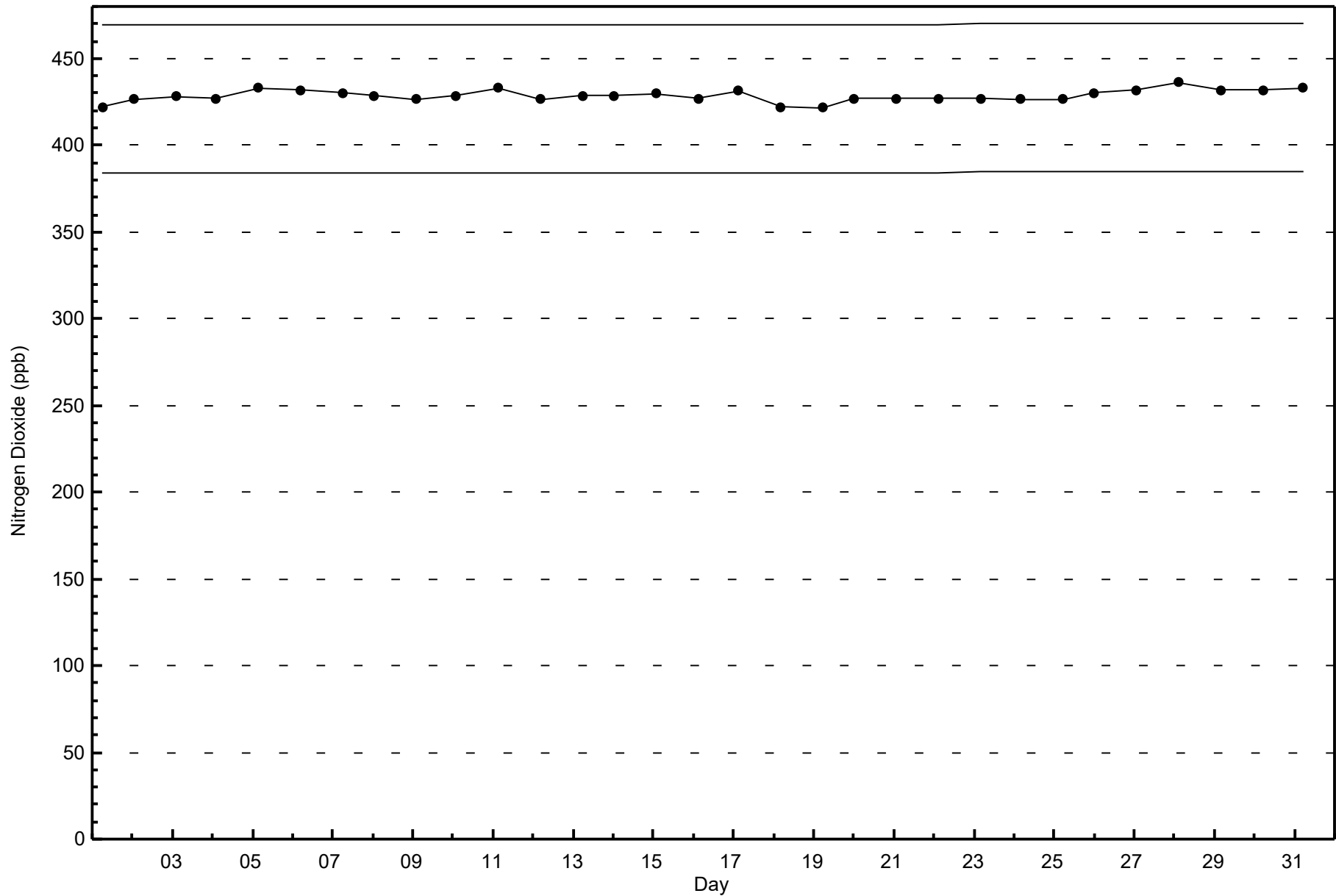
Firebag - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Firebag - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

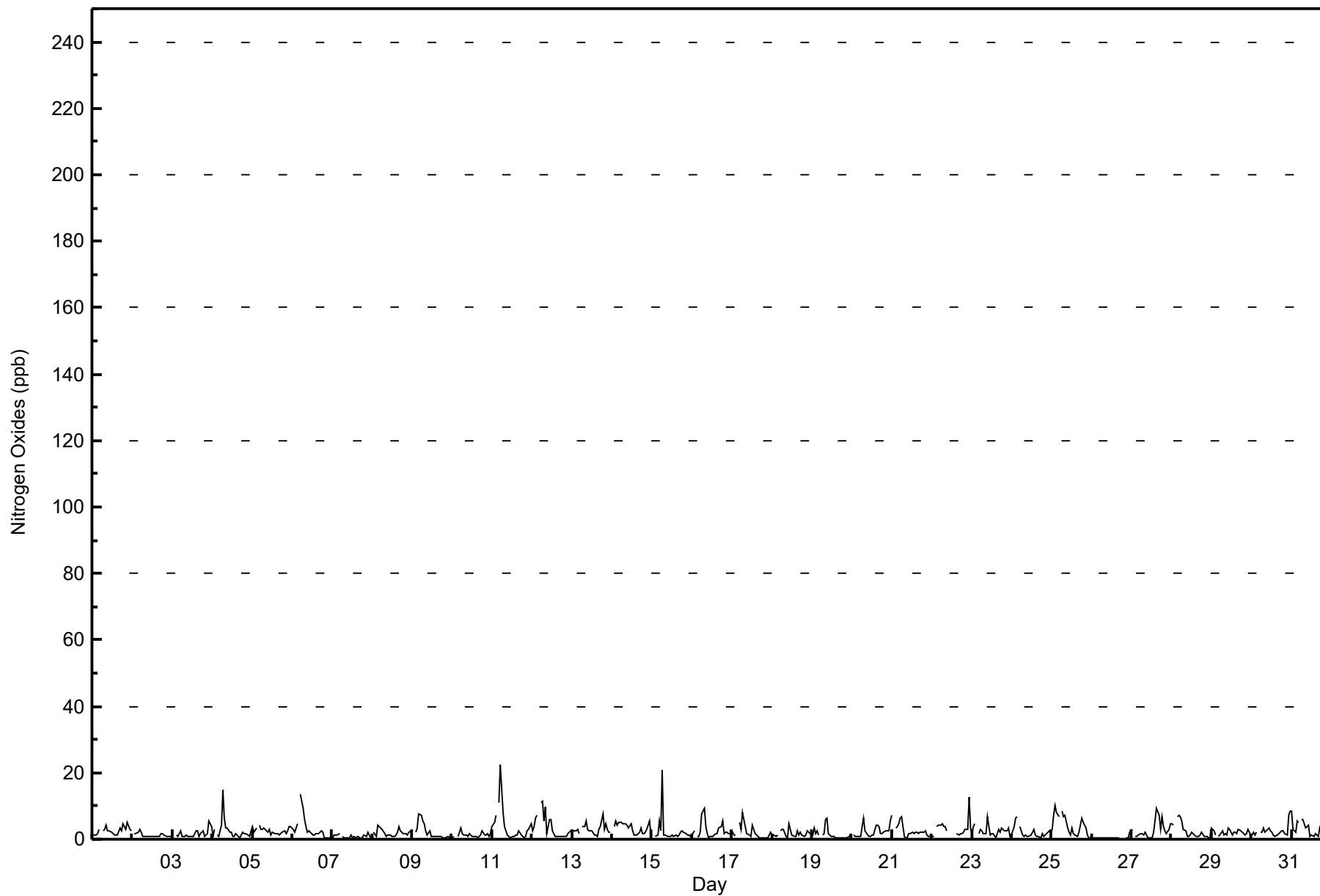
Firebag - July 2026

Maximum Value: 22.4 ppb on Jul 11 06:00																			Maximum Daily Average: 4.1 ppb on Jul 25							Hours in Service: 744	
Minimum Value: 0.2 ppb on Jul 26 18:00																			Minimum Daily Average: 0.3 ppb on Jul 26							Hours of Data: 708	
Maximum Diurnal Average: 5.0 ppb at hour 7																			Minimum Diurnal Average: 1.3 ppb at hour 14							Hours of Missing Data: 36	
Monthly Average: 2.37 ppb																			Percentiles: P ₁ = 0.2 P ₁₀ = 0.6 Q ₁ = 1.0 Median = 1.7 Q ₃ = 2.9 P ₉₀ = 4.9 P ₉₉ = 10.9							Hours of Calibration: 36	
																										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	1.3	1.2	1.4	1.9	2.9	Z	2.7	3.1	4.1	2.4	2.4	1.9	1.9	1.4	1.2	1.2	3.2	2.6	4.6	3.6	2.8	5.0	2.8	2.4	2.5	5.0	
2-Jul	Z	1.5	1.6	2.1	2.8	2.3	0.9	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.9	1.8	1.6	1.1	1.0	0.8	0.8	0.8	1.2	2.8	
3-Jul	1.1	Z	1.3	0.9	1.6	2.5	0.7	1.0	1.3	0.8	0.7	0.7	0.7	1.5	2.7	2.4	0.9	1.6	2.7	0.9	1.1	1.7	5.6	3.9	1.7	5.6	
4-Jul	0.8	2.8	Z	1.3	0.9	4.1	14.8	6.2	3.5	3.5	2.2	2.3	0.8	0.8	1.8	1.1	0.5	1.4	1.9	1.8	1.7	1.3	1.0	2.4	2.6	14.8	
5-Jul	3.9	2.3	3.2	Z	4.2	3.1	2.9	3.2	2.7	2.1	3.0	1.2	1.9	1.5	1.5	1.6	1.1	1.5	2.1	2.5	1.9	2.7	3.9	3.6	2.5	4.2	
6-Jul	3.1	2.3	3.6	4.6	Z	13.5	9.2	6.1	3.7	2.2	2.4	1.5	1.1	1.2	1.5	1.7	1.7	2.5	2.1	0.5	0.3	0.3	0.2	0.3	2.8	13.5	
7-Jul	0.3	1.4	1.5	1.1	1.7	Z	0.9	0.6	0.5	0.6	0.6	1.4	0.6	0.8	0.5	0.8	0.6	0.6	0.6	1.1	1.0	1.9	1.2	0.6	0.9	1.9	
8-Jul	Z	2.2	0.8	4.1	3.7	3.2	2.9	1.5	1.1	1.3	1.4	1.1	1.0	0.7	1.4	2.0	3.8	2.3	1.6	1.7	1.9	1.4	2.0	2.6	2.0	4.1	
9-Jul	2.4	Z	2.2	3.3	7.5	7.0	5.5	4.6	2.4	1.2	2.7	1.0	0.9	0.9	0.8	0.8	0.8	0.6	0.4	0.4	0.5	0.7	0.5	0.9	2.1	7.5	
10-Jul	0.5	0.9	Z	0.9	2.2	3.4	1.8	1.2	1.2	0.8	1.5	1.4	0.7	0.9	0.8	0.6	0.8	1.2	2.7	1.1	1.2	1.5	0.9	1.8	1.3	3.4	
11-Jul	3.7	5.1	7.3	Z	11.2	22.4	7.9	3.8	2.4	1.4	1.0	0.5	0.7	0.8	1.4	1.3	2.4	1.3	0.9	0.5	0.9	2.4	3.1	4.6	3.8	22.4	
12-Jul	2.4	3.7	6.5	7.1	Z	11.0	11.3	5.4	9.9	1.9	6.1	5.9	2.5	1.8	0.6	0.7	0.7	0.7	0.7	0.9	0.8	1.6	2.3	2.5	3.8	11.3	
13-Jul	2.6	2.5	2.3	2.8	1.7	Z	3.7	3.6	5.6	2.8	2.6	2.5	2.5	1.3	1.4	0.8	3.0	3.8	7.8	3.1	4.6	2.9	2.0	2.0	3.0	7.8	
14-Jul	Z	3.8	5.5	4.2	5.0	4.9	4.8	4.7	4.8	4.1	3.5	4.7	2.5	1.2	1.1	1.4	2.3	3.3	1.7	1.6	2.2	3.0	5.3	1.4	3.3	5.5	
15-Jul	1.2	Z	0.8	1.2	5.6	2.6	20.7	1.4	1.3	1.0	0.9	0.8	1.3	1.0	1.2	1.0	1.2	2.2	2.5	2.0	1.6	1.5	1.1	0.9	2.4	20.7	
16-Jul	1.3	2.6	Z	1.0	0.9	2.1	7.7	9.4	3.7	1.8	0.6	0.8	0.9	1.1	1.7	1.8	3.3	3.9	5.5	1.8	2.2	2.2	1.9	1.8	2.6	9.4	
17-Jul	2.2	1.4	1.5	Z	5.2	3.0	8.0	5.8	3.7	1.9	1.1	0.8	4.2	2.8	1.9	0.8	0.6	0.5	0.4	0.4	0.4	0.6	1.4	2.1	2.2	8.0	
18-Jul	1.4	1.3	1.0	1.5	Z	2.7	2.8	3.1	0.9	0.6	4.5	3.0	1.3	0.7	0.8	2.5	1.4	2.2	1.1	0.9	1.3	2.4	2.0	1.8	1.8	4.5	
19-Jul	1.3	3.2	1.5	2.3	1.5	Z	1.3	1.8	5.8	6.5	1.9	0.8	0.8	0.7	0.5	0.4	0.3	0.3	0.3	0.3	0.5	0.5	0.7	1.4	1.5	6.5	
20-Jul	Z	1.4	1.0	0.8	0.8	0.7	3.9	6.1	2.7	1.4	0.9	0.8	1.1	1.3	4.3	4.4	3.8	1.5	1.6	1.9	2.6	2.5	2.5	5.5	2.3	6.1	
21-Jul	7.0	Z	3.3	4.0	4.5	6.2	6.8	0.8	0.5	0.5	1.7	1.6	2.0	1.9	2.1	2.2	1.9	1.9	2.2	2.1	2.3	1.3	0.9	0.9	2.6	7.0	
22-Jul	0.8	0.8	Z	3.9	4.4	4.1	4.5	3.9	3.7	2.4	C	C	C	C	C	1.8	1.4	1.6	1.6	2.0	3.0	3.1	12.6	3.5	3.3	12.6	
23-Jul	1.5	3.9	4.5	Z	1.9	3.1	2.6	1.7	1.5	6.7	3.9	1.1	1.7	1.8	0.5	1.9	2.8	2.1	3.3	2.5	2.5	2.4	3.2	1.0	2.5	6.7	
24-Jul	1.3	3.7	6.6	6.9	Z	3.8	1.4	1.0	1.3	1.0	0.9	1.2	2.0	2.9	1.4	1.0	0.8	0.6	1.7	1.0	1.2	1.6	2.3	2.3	2.1	6.9	
25-Jul	2.9	7.1	10.2	7.9	6.6	Z	8.5	6.8	7.2	3.5	2.0	1.4	3.3	1.8	1.5	1.0	2.2	4.2	6.5	5.2	3.5	1.4	0.3	0.3	4.1	10.2	
26-Jul	Z	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	2.1	0.3	2.1	
27-Jul	2.8	Z	0.7	0.8	1.2	1.7	1.6	1.1	2.0	1.4	0.5	0.5	0.6	2.3	5.5	9.3	7.1	2.8	6.9	4.0	2.4	1.7	2.9	4.5	2.8	9.3	
28-Jul	4.6	4.3	Z	7.0	7.2	6.6	5.4	2.8	2.6	0.9	0.8	1.1	1.9	1.6	0.8	0.7	0.9	1.4	1.9	1.0	1.0	0.7	0.5	0.4	2.5	7.2	
29-Jul	3.5	2.6	1.4	Z	1.0	1.3	2.3	1.1	1.6	1.2	3.4	3.1	1.4	2.3	2.0	1.6	3.1	2.6	2.2	1.7	1.4	1.8	2.8	1.5	2.0	3.5	
30-Jul	1.5	1.9	1.2	1.9	Z	2.2	2.3	3.6	2.3	2.5	3.2	2.7	2.0	1.1	0.7	1.1	1.6	2.1	2.7	2.7	1.6	1.4	7.0	8.3	2.5	8.3	
31-Jul	8.6	3.2	2.2	5.6	5.1	Z	5.8	6.0	3.3	3.9	4.1	1.0	1.2	0.7	1.5	1.5	0.7	3.3	2.1	1.0	1.8	1.2	0.9	0.8	2.8	8.6	
Diurnal Average																											
Diurnal Maximum																											
Z - zerospan C - Calibration																											



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Firebag - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Firebag - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	706	99.72	99.72
21 - 40	2	0.28	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Firebag - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	39	18	13	9	10	26	31	59	71	69	120	94	37	20	43	47	706
21 - 40	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	39	18	13	9	10	26	31	59	72	70	120	94	37	20	43	47	708

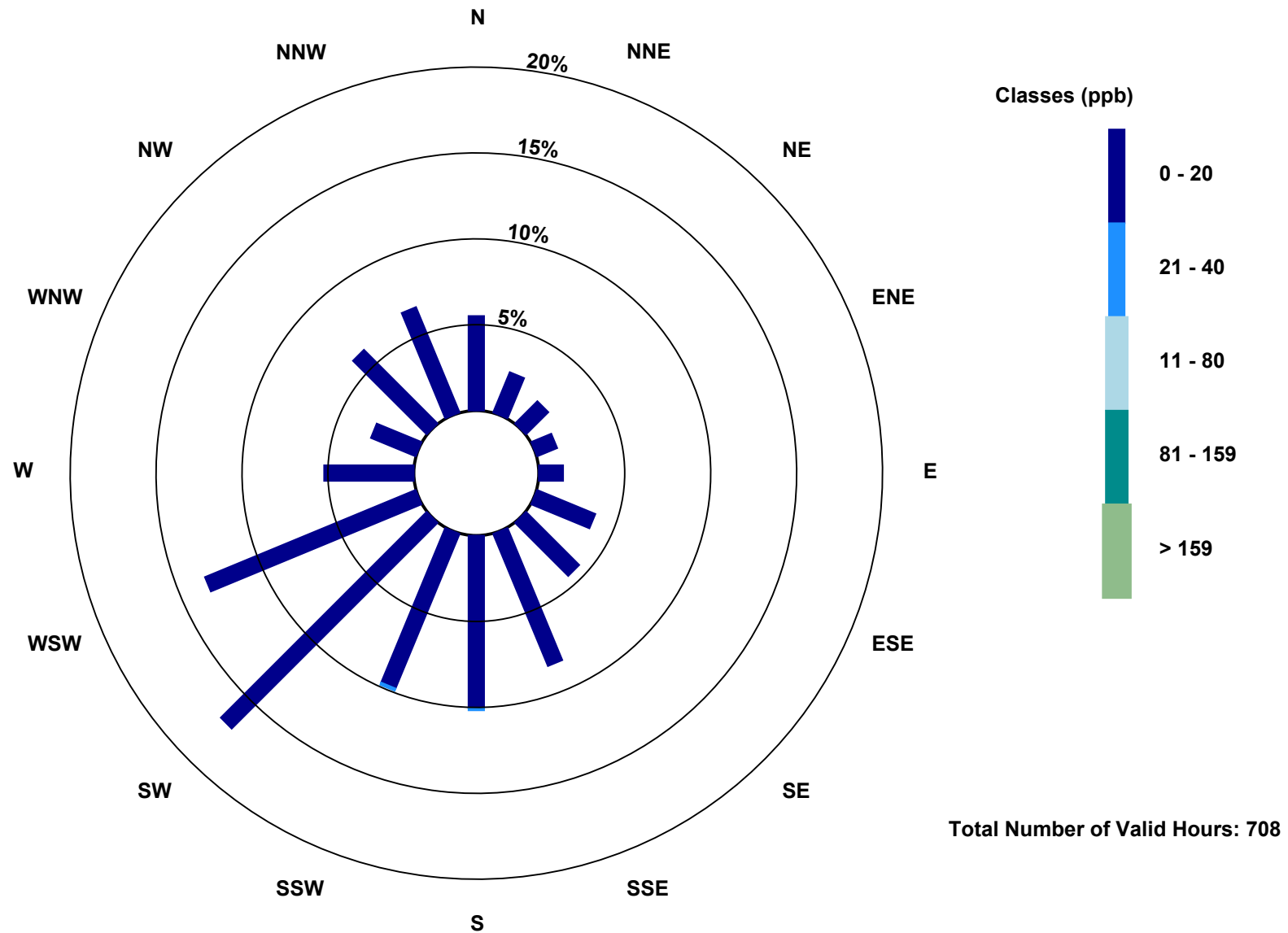
Total Number of Valid Hours: 708

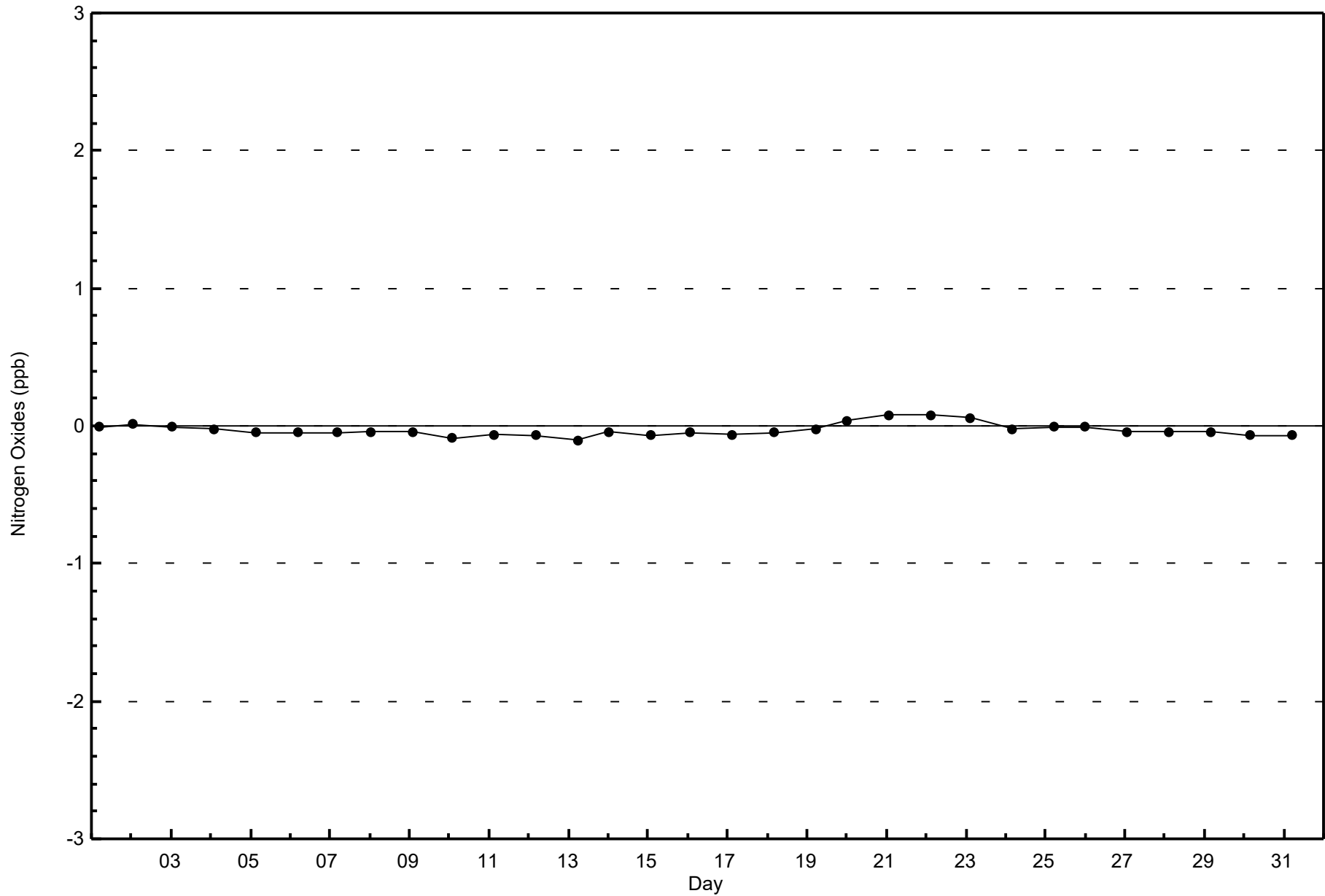
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Oxides (NO_x) - ppb
Firebag

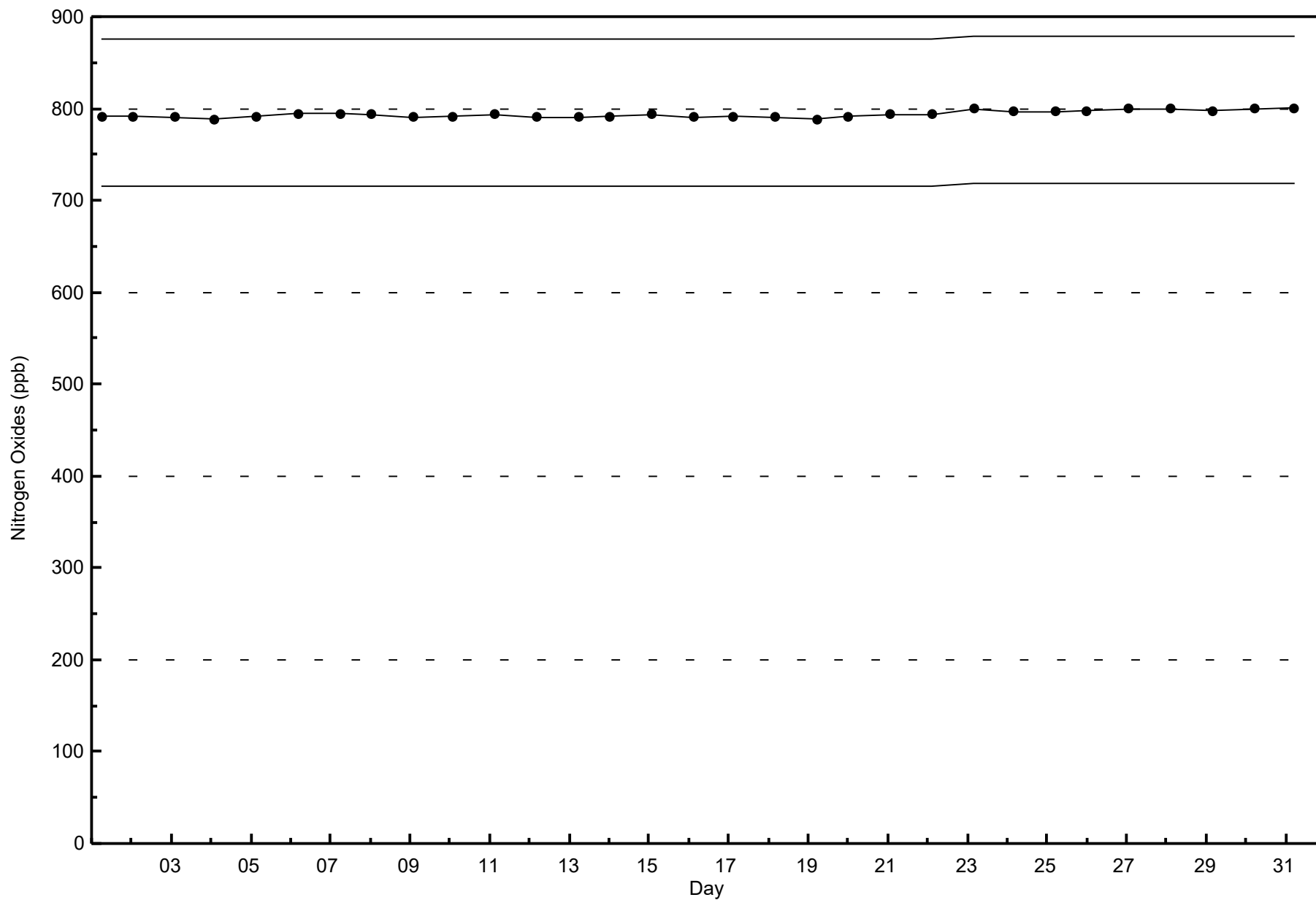






Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Firebag - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

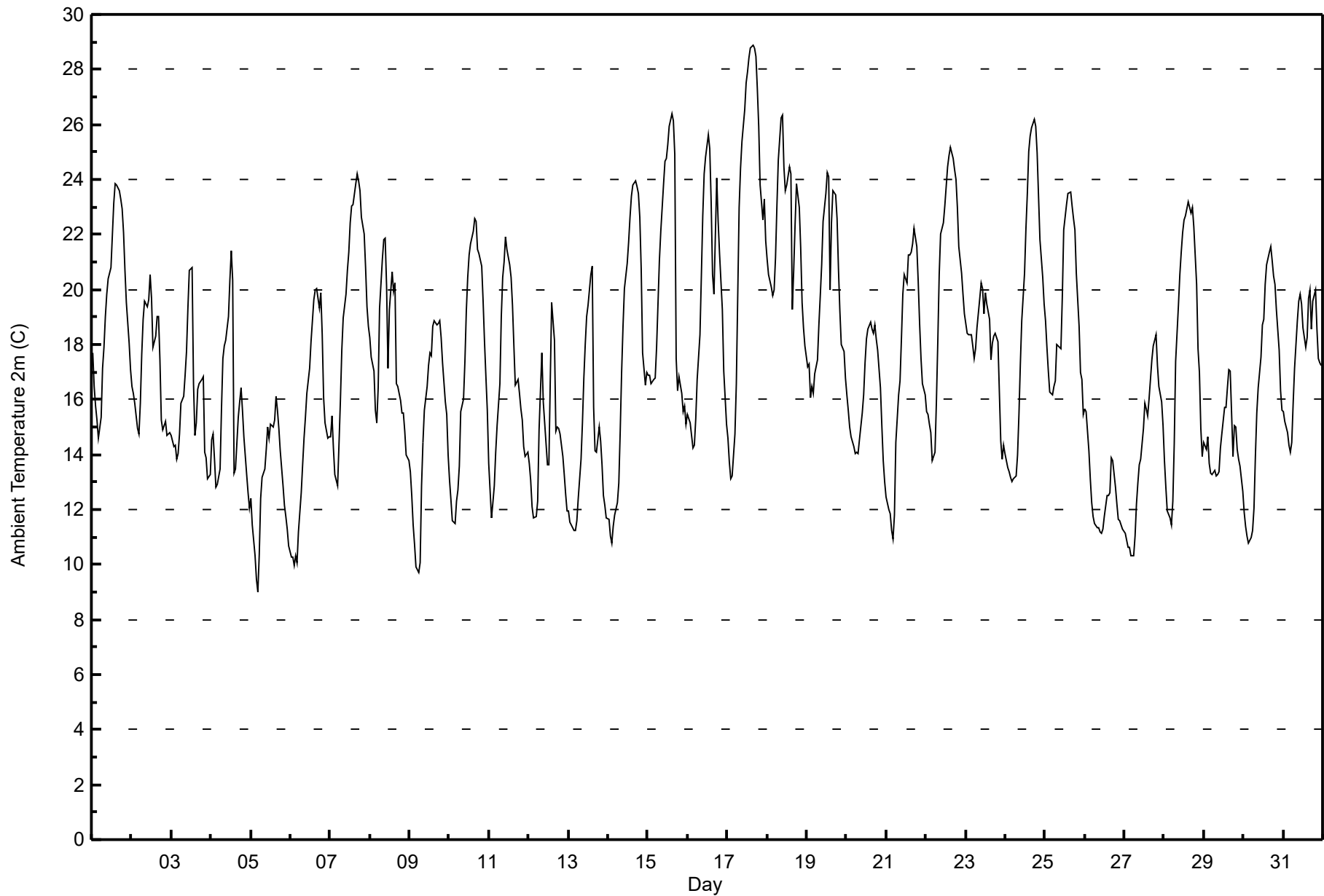
Firebag - July 2026

Maximum Value: 28.9 C on Jul 17 16:00																			Maximum Daily Average: 22.8 C on Jul 17							Hours in Service: 744	
Minimum Value: 9.0 C on Jul 5 05:00																			Minimum Daily Average: 12.4 C on Jul 26							Hours of Data: 744	
Maximum Diurnal Average: 20.6 C at hour 14																			Minimum Diurnal Average: 13.4 C at hour 5							Hours of Missing Data: 0	
Monthly Average: 17.35 C																			Percentiles: P ₁ = 10.3 P ₁₀ = 12.2 Q ₁ = 14.2 Median = 16.9 Q ₃ = 20.3 P ₉₀ = 23.1 P ₉₉ = 27.0							Hours of Calibration: 0	
																										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	17.7	16.5	15.8	15.3	14.6	15.4	17.1	17.9	19.0	19.8	20.4	20.8	22.0	23.2	23.9	23.8	23.6	23.3	22.9	22.1	20.7	19.5	18.1	17.1	19.6	23.9	
2-Jul	16.5	16.2	15.9	15.0	14.7	15.9	17.6	18.9	19.6	19.4	19.6	20.6	19.7	17.9	18.3	19.0	19.0	17.5	15.2	14.9	15.2	14.7	14.8	14.8	17.1	20.6	
3-Jul	14.7	14.3	14.3	13.8	14.0	14.7	15.8	16.1	16.9	17.7	19.3	20.7	20.8	16.6	14.7	15.1	16.4	16.6	16.7	16.8	14.1	13.9	13.1	13.2	15.9	20.8	
4-Jul	14.5	14.8	13.8	12.8	12.9	13.5	15.7	17.5	17.9	18.2	19.0	20.4	21.4	20.3	13.3	13.4	15.3	15.9	16.4	15.6	14.7	13.3	12.6	12.1	15.6	21.4	
5-Jul	12.4	11.5	10.3	9.4	9.0	10.4	12.4	13.1	13.5	14.2	15.0	14.6	15.1	15.0	15.3	16.1	15.6	15.0	14.1	12.9	12.1	11.7	11.3	10.7	12.9	16.1	
6-Jul	10.3	10.3	10.0	10.3	10.0	11.2	12.6	13.6	14.6	15.4	16.2	17.1	18.1	18.9	19.6	20.0	20.0	19.3	19.9	18.3	16.1	15.1	14.6	14.7	15.3	20.0	
7-Jul	14.6	15.4	14.2	13.2	12.8	14.4	16.0	17.8	19.0	19.8	20.7	21.4	22.4	23.0	23.1	23.9	24.2	23.9	23.6	22.6	22.0	20.8	19.4	18.7	19.5	24.2	
8-Jul	18.3	17.5	17.0	15.6	15.2	16.4	19.3	21.1	21.8	21.8	20.1	17.1	19.3	20.7	19.9	20.3	16.6	16.5	16.0	15.5	15.5	14.9	14.0	13.8	17.7	21.8	
9-Jul	13.4	12.5	11.5	10.7	9.9	9.7	10.0	12.9	14.4	15.6	16.5	17.2	17.7	17.6	18.6	18.9	18.7	18.8	18.8	18.3	17.3	15.9	15.5	14.0	15.2	18.9	
10-Jul	13.1	12.3	11.6	11.5	12.3	12.7	13.6	15.6	16.0	17.4	19.2	20.4	21.2	21.7	22.1	22.6	22.5	21.5	21.3	20.8	19.6	18.1	16.8	15.6	17.5	22.6	
11-Jul	13.7	11.7	12.2	12.9	14.1	15.0	16.6	19.0	20.5	21.0	21.9	21.5	20.9	20.4	19.4	17.9	16.5	16.7	16.2	15.7	15.3	14.3	14.0	14.1	16.7	21.9	
12-Jul	13.7	13.1	12.1	11.7	11.7	12.3	14.9	16.3	17.7	15.9	14.4	13.6	13.6	16.7	19.5	18.1	14.9	15.0	15.0	14.7	13.9	13.3	12.6	12.0	14.4	19.5	
13-Jul	11.9	11.6	11.3	11.3	11.2	11.6	12.4	13.8	15.2	16.8	18.0	19.0	19.4	20.5	20.9	15.7	14.2	14.1	15.0	14.5	13.6	12.5	12.1	11.7	14.5	20.9	
14-Jul	11.6	11.0	10.8	11.4	11.8	12.3	13.0	14.8	17.0	18.7	20.0	20.9	21.7	22.6	23.4	23.8	23.9	23.7	23.5	22.6	20.7	17.7	16.5	17.0	17.9	23.9	
15-Jul	16.9	16.9	16.6	16.7	16.8	17.9	19.5	21.0	22.1	23.9	24.7	24.8	25.3	25.9	26.4	26.1	24.9	17.5	16.3	16.8	16.2	15.6	15.8	15.1	20.0	26.4	
16-Jul	15.5	15.1	14.7	14.2	14.4	15.3	16.7	18.4	20.5	22.7	24.2	24.8	25.7	25.1	23.2	20.5	19.8	24.0	22.5	21.3	20.3	19.3	17.1	15.1	19.6	25.7	
17-Jul	14.6	13.7	13.1	13.2	14.8	16.6	19.8	23.0	24.4	25.4	26.5	27.5	27.9	28.4	28.8	28.9	28.8	28.5	27.3	25.9	23.8	22.5	23.3	21.8	22.8	28.9	
18-Jul	21.1	20.5	20.1	19.8	20.0	21.2	23.0	24.7	26.2	26.4	24.4	23.6	23.8	24.5	24.2	19.3	20.7	22.4	23.8	23.0	21.5	19.5	18.6	17.9	22.1	26.4	
19-Jul	17.2	17.3	16.1	16.4	16.2	17.0	17.5	18.7	19.8	20.9	22.5	23.5	24.2	24.1	20.0	22.4	23.6	23.4	22.6	20.8	19.2	18.0	17.8	16.8	19.8	24.2	
20-Jul	16.2	15.6	15.0	14.7	14.3	14.0	14.1	14.1	14.6	15.5	16.2	17.4	18.2	18.6	18.8	18.5	18.4	18.7	18.2	17.8	16.4	15.0	13.8	13.0	16.1	18.8	
21-Jul	12.5	12.0	11.9	11.3	10.9	11.8	14.4	16.2	16.7	18.2	19.8	20.5	20.3	21.2	21.3	21.4	21.7	22.2	21.6	20.3	18.8	17.5	16.6	16.2	17.3	22.2	
22-Jul	15.6	15.5	15.1	14.8	13.8	14.1	15.9	18.1	20.5	22.0	22.4	23.0	23.7	24.4	24.9	25.2	24.8	24.4	24.0	23.0	21.6	20.6	19.8	19.1	20.3	25.2	
23-Jul	18.7	18.4	18.4	18.3	17.9	17.5	17.8	18.6	19.7	20.3	20.0	19.1	19.9	19.5	18.9	17.4	18.0	18.3	18.4	18.1	16.3	14.5	13.8	14.4	18.0	20.3	
24-Jul	14.0	13.5	13.4	13.2	13.0	13.1	13.2	14.0	15.5	17.3	18.9	20.6	22.2	23.5	25.0	25.6	25.9	26.2	26.0	25.0	23.4	21.8	20.4	19.5	19.3	26.2	
25-Jul	18.9	17.9	17.0	16.3	16.2	16.5	16.7	18.0	17.9	17.8	19.7	22.2	22.6	23.1	23.5	23.6	23.0	22.6	22.2	20.6	18.6	17.0	16.7	15.5	19.3	23.6	
26-Jul	15.7	15.5	14.1	13.1	12.3	11.8	11.5	11.3	11.4	11.2	11.1	11.3	11.7	12.5	12.5	12.6	13.9	13.8	12.8	12.2	11.7	11.6	11.4	11.3	12.4	15.7	
27-Jul	11.1	10.9	10.6	10.6	10.3	10.3	11.0	12.2	13.0	13.6	13.8	15.0	15.9	15.6	15.4	16.0	17.4	17.9	18.1	18.4	17.2	16.5	15.9	15.1	14.3	18.4	
28-Jul	13.8	12.8	12.0	11.7	11.4	12.3	14.4	17.4	19.4	20.5	21.4	22.1	22.6	22.7	23.2	23.0	22.8	23.0	22.3	20.2	17.9	17.0	14.9	14.0	18.0	23.2	
29-Jul	14.4	14.2	14.7	13.7	13.3	13.3	13.4	13.2	13.3	13.4	14.2	14.8	15.7	15.7	16.4	17.1	17.0	13.9	15.1	15.0	14.2	13.8	13.6	12.6	14.4	17.1	
30-Jul	11.9	11.4	11.0	10.8	11.0	11.2	12.1	13.9	15.5	16.4	17.6	18.7	18.9	20.2	20.9	21.3	21.6	21.1	20.5	20.2	19.3	17.8	16.3	15.6	16.5	21.6	
31-Jul	15.6	15.2	14.8	14.4	14.1	14.5	15.8	17.1	18.8	19.6	19.9	19.5	18.6	17.9	18.2	19.7	20.0	18.6	19.6	20.0	18.6	17.5	17.3	17.2	17.6	20.0	
Diurnal Average																											
Diurnal Maximum																											



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Firebag - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Firebag - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	5	0.67	0.67
10 - 20	544	73.12	73.79
> 20	195	26.21	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

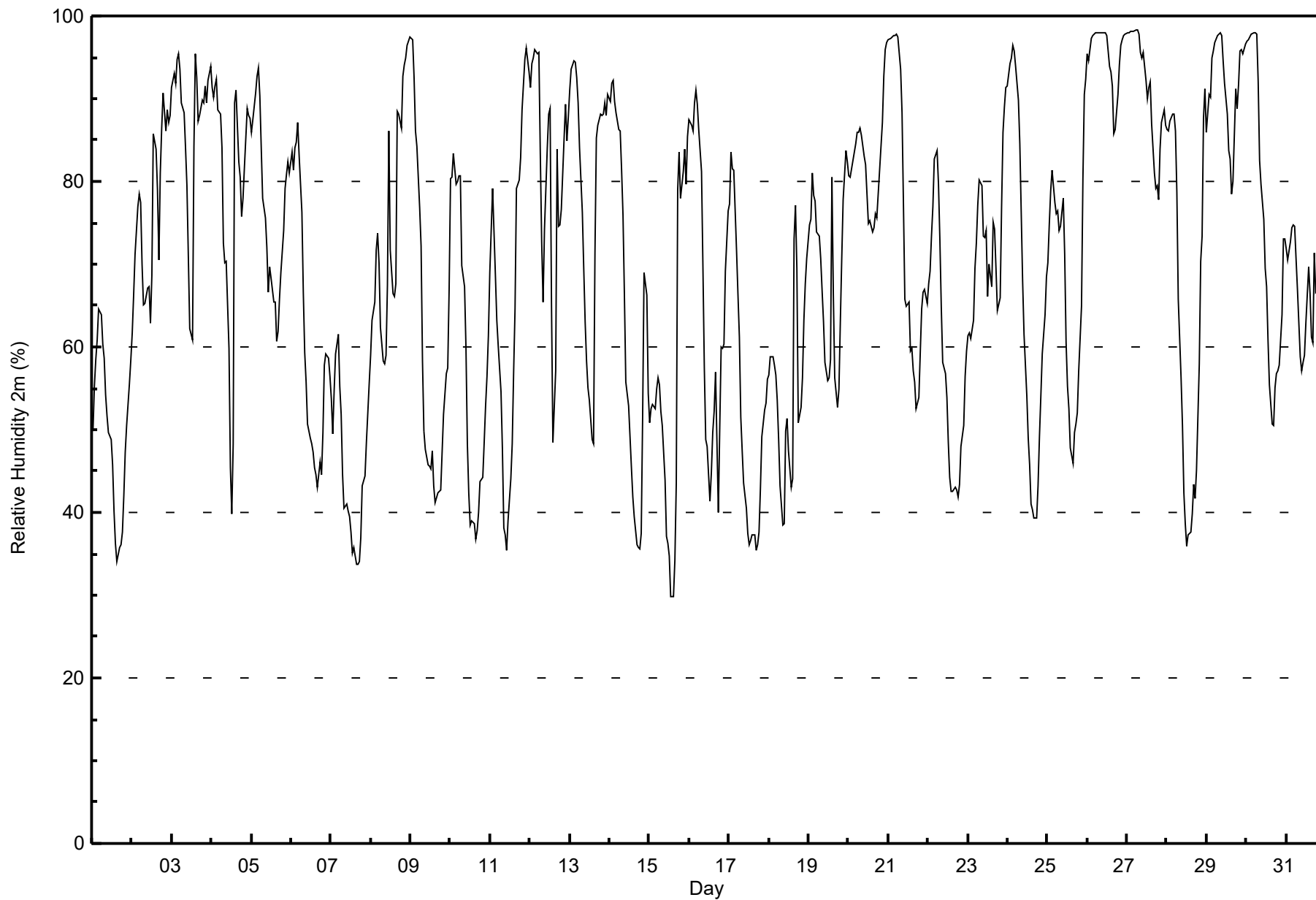
Firebag - July 2026

Maximum Value: 98.3 % on Jul 27 06:00																				Maximum Daily Average: 95.4 % on Jul 26					Hours in Service: 744	
Minimum Value: 29.8 % on Jul 15 15:00																				Minimum Daily Average: 45.1 % on Jul 7					Hours of Data: 744	
Maximum Diurnal Average: 82.5 % at hour 5																				Minimum Diurnal Average: 56.9 % at hour 14					Hours of Missing Data: 0	
Monthly Average: 69.72 %																				Percentiles: P ₁ = 34.8 P ₁₀ = 42.9 Q ₁ = 54.6 Median = 70.7 Q ₃ = 86.4 P ₉₀ = 94.3 P ₉₉ = 98.0					Hours of Calibration: 0	
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	49.9	55.3	58.5	60.8	64.6	63.9	60.4	58.7	54.2	51.6	49.7	48.8	45.8	40.2	36.3	34.1	35.8	36.1	37.6	42.0	47.4	50.6	55.6	58.4	49.9	64.6
2-Jul	61.8	66.2	71.2	76.9	78.5	77.4	70.0	65.1	65.2	67.2	67.2	62.8	68.7	85.8	83.8	79.0	70.5	81.0	86.5	90.6	86.0	88.6	87.2	88.0	76.1	90.6
3-Jul	91.4	93.1	91.9	94.8	95.4	93.5	89.4	88.3	84.1	79.5	71.0	62.2	60.8	84.2	95.5	92.6	87.3	87.9	89.9	89.5	91.5	89.5	92.2	93.9	87.1	95.5
4-Jul	91.3	90.2	91.5	92.3	88.7	88.2	84.1	72.6	70.2	70.4	59.9	45.4	39.8	48.2	89.5	91.0	82.3	80.5	75.8	78.0	81.6	88.8	87.9	87.6	78.2	92.3
5-Jul	85.9	87.5	90.8	92.7	93.7	90.3	84.0	78.0	75.5	72.1	66.5	69.7	68.4	65.4	65.4	60.7	61.8	65.7	69.0	74.2	79.1	80.9	82.4	81.0	76.7	93.7
6-Jul	83.5	81.4	84.0	84.7	87.1	83.2	76.2	66.6	59.2	55.8	50.6	48.9	48.4	47.2	45.5	44.6	43.1	46.1	44.7	49.6	57.8	59.1	58.7	56.5	60.9	87.1
7-Jul	53.7	49.5	54.7	59.1	61.5	55.2	51.8	44.5	40.5	41.1	40.1	39.5	37.6	35.1	35.7	33.6	33.6	34.1	37.0	43.2	44.5	48.4	52.1	55.5	45.1	61.5
8-Jul	58.9	63.2	65.4	71.7	73.8	70.1	62.3	58.3	58.0	58.9	67.4	86.1	71.8	66.4	66.1	67.7	88.5	88.1	86.4	92.8	94.1	94.8	96.4	97.5	75.2	97.5
9-Jul	97.2	97.1	92.5	86.1	84.2	76.8	72.3	58.3	49.8	47.7	45.8	45.5	45.3	47.5	43.2	41.2	42.4	42.5	42.7	47.2	51.9	56.8	57.5	66.9	59.9	97.2
10-Jul	80.3	80.5	83.5	79.6	79.9	80.7	80.7	69.9	67.3	60.0	48.3	42.3	38.5	38.9	38.7	36.7	37.8	40.1	43.7	44.3	48.5	52.8	56.5	61.3	58.0	83.5
11-Jul	69.0	79.1	73.9	68.7	63.2	60.2	54.6	47.6	38.1	37.4	35.5	39.1	44.0	48.3	56.9	64.6	79.1	80.2	83.0	88.6	91.7	94.7	96.1	93.2	66.1	96.1
12-Jul	91.4	94.3	94.9	95.9	95.4	95.6	83.6	72.7	65.4	74.2	84.2	88.2	88.8	65.2	48.4	57.2	83.9	74.6	74.8	76.5	85.2	89.3	84.9	87.9	81.3	95.9
13-Jul	91.0	93.6	94.6	94.4	92.6	89.5	84.1	76.3	69.4	63.1	58.4	55.0	53.5	48.8	48.2	71.3	85.3	86.8	88.1	87.9	88.1	89.5	87.9	90.5	78.7	94.6
14-Jul	89.6	91.9	92.1	89.6	88.3	86.2	86.1	81.4	76.0	66.3	55.7	52.9	49.2	45.5	41.9	39.4	36.1	35.7	35.5	37.4	51.6	69.0	66.2	54.5	63.3	92.1
15-Jul	50.9	52.5	53.1	52.6	54.9	56.3	55.4	52.2	50.5	44.0	37.2	36.2	34.7	29.9	29.8	34.2	43.6	78.9	83.5	77.9	81.2	83.9	79.6	85.5	55.8	85.5
16-Jul	87.4	86.7	86.1	89.4	91.0	89.3	86.3	81.2	69.7	57.5	48.8	48.0	41.3	44.8	49.7	52.3	57.0	40.1	50.3	60.0	59.8	60.3	69.2	76.5	65.9	91.0
17-Jul	77.3	83.6	81.5	81.4	71.5	66.4	61.2	51.5	47.4	43.5	40.5	37.4	36.2	36.7	37.3	37.4	35.5	36.1	37.6	42.9	49.1	52.4	53.3	56.1	52.2	83.6
18-Jul	56.6	58.8	58.8	57.8	56.6	53.6	48.8	43.2	38.5	38.6	49.9	51.3	47.4	43.0	44.1	73.1	77.1	69.5	50.8	52.8	56.2	63.2	67.6	70.6	55.3	77.1
19-Jul	74.8	75.4	81.0	78.2	77.6	74.0	73.3	70.7	66.9	63.1	58.1	55.9	56.2	58.5	80.6	66.4	56.3	52.7	55.0	63.0	70.7	77.8	83.8	82.3	68.8	83.8
20-Jul	80.8	80.6	81.5	82.6	84.6	85.9	86.0	86.5	85.7	83.1	82.1	78.4	74.9	75.2	73.9	74.3	76.1	75.5	78.5	81.3	87.1	92.7	96.0	96.9	82.5	96.9
21-Jul	97.2	97.3	97.4	97.6	97.7	97.8	97.5	93.6	88.4	77.2	65.7	64.9	65.4	59.5	59.9	57.1	55.7	52.5	53.9	59.4	64.5	66.5	66.9	65.2	75.0	97.8
22-Jul	67.6	69.1	73.5	77.0	82.7	83.7	79.7	72.9	64.8	58.2	56.7	54.0	48.6	44.2	42.5	42.5	43.0	42.6	41.8	43.4	47.9	50.5	56.5	59.5	58.5	83.7
23-Jul	61.3	61.7	61.0	63.2	69.5	72.6	77.1	80.2	79.5	73.4	73.2	74.0	66.1	70.0	67.3	75.1	74.2	69.5	64.4	65.9	77.0	85.9	89.0	91.3	72.6	91.3
24-Jul	91.5	94.2	94.9	96.4	95.7	93.8	89.8	84.5	76.3	68.0	61.4	54.0	48.9	45.7	41.0	40.4	39.3	39.3	43.2	49.2	54.1	59.1	64.0	68.5	66.4	96.4
25-Jul	70.2	74.8	78.8	81.4	77.5	76.2	76.5	74.1	74.5	78.0	71.2	60.5	55.3	52.5	47.9	45.9	49.6	50.7	52.0	57.2	64.9	80.4	90.4	92.4	68.0	92.4
26-Jul	95.4	94.6	97.3	97.7	97.8	97.9	97.9	98.0	98.0	98.0	98.0	97.7	93.9	93.3	91.5	85.8	86.2	90.6	94.0	96.5	97.2	97.6	97.8		95.4	98.0
27-Jul	97.9	98.0	98.1	98.2	98.2	98.3	98.3	97.7	95.6	95.0	95.6	92.2	90.1	91.4	92.0	86.9	81.1	79.2	79.5	77.8	83.9	87.2	88.6	86.8	91.1	98.3
28-Jul	86.2	86.1	87.3	88.2	88.1	86.1	78.7	65.7	56.2	50.6	42.4	38.7	35.9	37.3	37.7	39.8	43.4	41.6	45.1	58.0	70.3	73.3	87.7	91.2	63.1	91.2
29-Jul	86.0	90.5	90.1	94.9	95.8	96.8	97.6	97.9	97.9	97.6	94.6	91.9	88.1	83.7	82.7	78.5	80.1	91.2	88.8	91.7	95.8	96.0	95.4	96.6	91.7	97.9
30-Jul	96.9	97.2	97.5	97.8	98.0	98.0	97.8	92.0	82.6	79.6	75.4	69.4	67.3	60.8	55.5	50.7	50.5	55.0	56.8	57.1	57.8	63.8	73.1	73.1	75.2	98.0
31-Jul	71.9	70.5	72.7	74.3	74.8	74.6	70.7	66.9	58.9	57.2	58.2	59.0	62.9	69.7	66.4	61.2	60.5	71.4	66.7	67.2	71.2	70.7	67.9	69.3	67.3	74.8
78.9 80.5 81.6 82.4 82.5 81.0 77.8 72.5 67.9 64.8 61.6 59.7 57.3 56.9 57.9 58.7 60.5 61.7 62.4 65.8 70.5 74.6 77.0 78.5																										Diurnal Average
97.9 98.0 98.1 98.2 98.2 98.3 98.3 98.0 98.0 98.0 98.0 98.0 97.7 93.9 95.5 92.6 88.5 91.2 90.6 94.0 96.5 97.2 97.6 97.8																										Diurnal Maximum



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Firebag - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %
Firebag - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	51	6.85	6.85
40 - 60	209	28.09	34.95
60 - 80	213	28.63	63.58
80 - 100	271	36.42	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

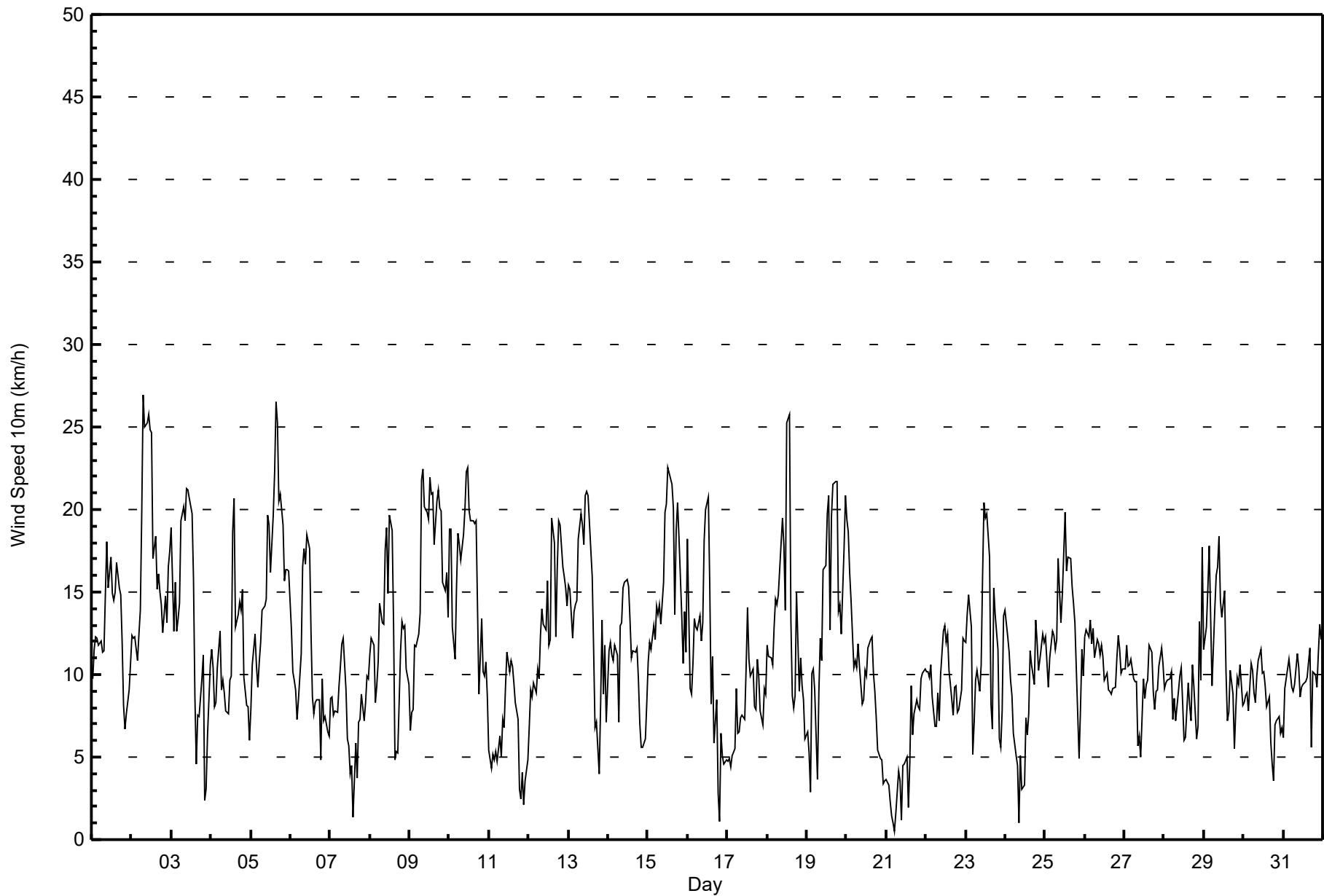
Firebag - July 2026

Maximum Speed: 27 km/h on Jul 2 08:00																		Maximum Daily Speed Average: 16.4 km/h on Jul 2										Hours in Service: 744	
Minimum Speed Value: 1 km/h on Jul 21 06:00																		Minimum Daily Speed Average: 3.0 km/h on Jul 21										Hours of Data: 744	
Maximum Diurnal Speed Average: 7.4 km/h at hour 11																		Minimum Diurnal Speed Average: 3.2 km/h at hour 24										Hours of Missing Data: 0	
Monthly Average Velocity: 5.0 km/h 225.6 deg																		Percentiles: P ₁ = 2 P ₁₀ = 6 Q ₁ = 8 Median = 11 Q ₃ = 14 P ₉₀ = 19 P ₉₉ = 25										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	SE10	ESE12	ESE12	ESE12	ESE12	SE12	SE11	SE11	SSE15	SSE18	SSE15	SSE17	SSE15	SE14	SE15	SE17	SSE15	S15	S12	SSE8	SSE7	SE8	SE9	SE11	SE12.1	SSE18			
2-Jul	SSE12	SSE12	SSE12	SE11	SE12	SE14	SSE20	SSE27	S25	SSE25	SSE26	S25	S25	SSW17	SW18	SW15	SSW16	S15	SSE14	SSE13	SSE15	S13	S16	S17	S16.4	SSE27			
3-Jul	S19	SSE13	SSE16	SSE13	SSE13	SSE14	S19	SSE20	S19	S21	S21	SSE21	S20	SW16	SW9	S5	SW8	SSW7	SSW10	SW11	NW2	ESE3	SE6	SSE11	S11.8	S21			
4-Jul	SSW12	S10	SSW8	SSW8	SSW10	SW13	WSW9	WSW10	WSW9	WSW8	SW8	SW10	SSW10	SW19	WSW21	SW13	SW14	WSW14	WSW14	W15	SW10	SW8	SW8	WSW6	SW10.4	WSW21			
5-Jul	SSW8	SSW11	SW12	SW11	WSW9	WSW11	WSW12	W14	W14	WNW15	WNW20	NW19	NW16	NW20	NNW22	NNW27	NNW25	NNW20	NNW21	NNW19	NNW16	NNW16	NNW16	NNW16	NW12.5	NNW27			
6-Jul	NW13	WNW10	WNW10	WNW9	WNW7	WNW8	NW11	NNW17	NNW18	NNW17	NW19	NNW18	NNW13	NW9	NNW8	NW8	NNW8	NNW9	NW5	NE10	NE7	ENE7	NE7	E6	NNW8.8	NW19			
7-Jul	E9	ESE9	ESE8	SE8	ESE8	ESE9	ESE10	ESE12	ESE12	SE9	ESE6	ENE6	SSE4	SSE4	WSW1	S6	SE4	S7	SSW7	S9	SSE7	SSE8	SSE10	SSE10	SE6.4	ESE12			
8-Jul	SE11	SE12	SSE12	SE8	SE9	SSE11	S14	S13	SW13	SSW18	SSW19	S15	SSE20	SSE19	SE13	S5	W5	W5	SW11	SW13	WSW13	WSW13	SW10	SSW9	S9.6	SSE20			
9-Jul	WSW7	SW8	SW8	SW12	WSW12	WSW12	WSW14	WSW22	WSW22	W20	WSW20	WSW19	SW22	SW21	SW21	WSW18	SW21	SW21	SW20	SSW20	SSW16	SSW15	SW16	S14	SW15.6	WSW22			
10-Jul	SSW19	S19	S13	S11	SSW15	S19	S18	SSW17	SSW18	SSW20	SW22	SW23	SW20	SW19	SW19	SW19	SW19	WSW14	W9	SW13	SSW10	SSW10	SSW11	SW9	SSW15.1	SW23			
11-Jul	SW5	S4	S5	S5	S5	S5	S6	S5	SSE7	SSE7	S9	SW11	SW10	SW11	SW11	SW9	SSW8	SE7	NE3	NNW2	NNW4	NW2	SW4	SSW5	SSW4.8	SW11			
12-Jul	SW7	SW9	SW9	SW9	SW9	SW10	SW10	SW12	SW14	SW13	WSW13	W16	WSW12	SSE12	SW20	WSW18	SW12	SSW16	SW19	SW19	SW17	SW16	WSW15	WSW14	SW12.8	SW20			
13-Jul	W15	WSW15	WSW12	WSW14	WSW14	WSW15	WSW18	WSW20	WSW19	WSW18	WSW21	WSW21	WSW21	W18	W16	NNW11	E7	E7	SW4	WSW8	W13	WSW9	WSW12	W7	WSW12.3	WSW21			
14-Jul	WSW11	WSW12	WSW11	WSW11	WSW12	WSW11	WSW7	SW13	WSW13	WSW15	WSW16	W16	W15	W13	W11	WSW11	WSW11	WSW12	WSW10	WSW7	SSW6	S6	S6	S8	WSW10.3	W16			
15-Jul	S11	S12	SSE12	S13	S12	SSW14	SSW14	SSW14	SSW13	SW16	SSW20	SSW20	S23	S22	S22	S20	SSW14	WSW19	SE20	ESE18	SE14	SE11	SSE14	SSW11	S13.7	S23			
16-Jul	S18	S9	S9	SSW11	SW13	SW13	SW13	SW14	SW12	SW13	SW18	SW20	SW21	WSW15	NW8	N11	ENE6	SSE8	ENE3	ESE1	SSW6	SSE5	SSE5	S5	SW8.1	SW21			
17-Jul	SW5	SW5	SSW4	SW5	SW5	WSW9	WSW6	WNW7	WNW7	NW8	WNW7	NNW10	NNW14	NNW11	NNW10	N10	NNW8	NNE8	NE11	NE10	NE8	E7	E9	ESE9	NNW3.4	NNW14			
18-Jul	SE12	SE11	SSE11	SSE11	S13	S15	S14	S15	SSW18	SW20	WSW18	SSW14	SSE25	SE26	S13	NW9	NE8	ESE9	SSE15	SSE9	SSE11	S9	SSE8	SE6	S10.4	SE26			
19-Jul	E7	E5	ESE3	ESE10	ESE10	SSE9	WSW4	NW9	NNW12	N11	N16	N17	N20	N21	N13	NNE20	NNE22	N22	NNE22	N14	N14	N12	N18	N21	N10.7	NNE22			
20-Jul	N19	N19	N16	N15	N10	N11	NNW10	NNW12	NNW10	NNW8	N8	N10	N10	NNW12	NNW12	NNW12	NW10	NW9	NW7	NW5	NW5	NW5	NW3	NW4	NNW9.7	N19			
21-Jul	NNW4	NNW3	NNW2	NW1	NE1	SSW1	NE2	NNE4	NNE4	N1	N4	NW5	W5	WNW2	WNW5	SW9	SSW6	WSW8	W8	WSW8	SW8	SW10	SW10	SW10	WSW3.0	SW10			
22-Jul	SW10	SW10	SW10	SW11	SW9	SW7	SW7	WSW9	SW7	W10	WSW13	W13	W12	WSW12	WSW10	WSW9	WSW8	WSW9	SW9	SSW8	S8	SSW9	S12	S12	SW8.7	W13			
23-Jul	S12	S14	S15	SSW13	SSW5	SE7	SSW10	SW10	WNW9	NNW11	N16	NNW20	N19	NNW20	N17	NW8	W7	W15	NW14	NW11	NW6	NW6	NNW8	N14	NW5.3	NNW20			
24-Jul	N14	NNW12	NNW11	NNW10	NNW9	NW6	N5	W4	S1	SSW5	SW3	SSW3	S7	SSW6	SW8	SW11	SSW11	SSW9	S13	SSE12	SSE10	S11	S12	SSW12	SW3.3	NNW14			
25-Jul	SW12	SW11	WSW9	SW11	SW13	WSW12	WSW11	WSW12	WSW17	WSW13	WSW15	WSW17	WSW20	WSW16	WSW17	WSW17	WSW15	W14	WSW13	WSW10	WNW5	N8	NNE12	NNE10	WSW11.0	WSW20			
26-Jul	NNE12	NNE13	N12	N13	N12	NNE13	NNE11	N12	N12	N11	N12	N11	NNE10	NNE10	NNE9	NNE9	NNE9	NE9	NE9	NE11	ENE12	ENE12	ENE10	E10	NNE10.0	N13			
27-Jul	ESE10	SE12	SE11	SSE11	SSE11	SE10	SE10	SE10	ESE6	ESE6	ESE5	S10	WSW9	WSW9	WSW10	SW12	SW11	WSW9	SW8	SW9	SW9	SW11	SW12	SW11	S6.0	SW12			
28-Jul	SW9	SW10	WSW10	SW10	SW10	SW7	SW9	WSW7	W9	W10	W10	SW8	SSW6	SSW6	S10	S8	S7	ESE11	ESE9	SSW6	ESE7	ENE13	NNE10	NNE18	SSW3.7	NNE18			
29-Jul	E12	E13	S15	SSW18	SW14	W9	WNW14	WNW16	WNW16	NW18	WNW15	NW13	NNW15	NNW10	NW7	NW8	N10	NNW9	W6	W8	W10	W9	W11	W8	WNW6.8	NW18			
30-Jul	W8	W9	W9	W8	WSW11	WSW10	W9	WNW8	NW10	NW11	NW12	NW10	NW10	NW9	NW8	NW9	NW6	WNW5	WSW4	SW7	SSW7	SSW7	SSW6	SSW7	W6.4	NW12			
31-Jul	SSW6	SSW9	SW10	SW11	SW10	SW9	SW9	SW9	WSW11	SW10	WSW9	SW9	SSW9	SW10	SSW10	SSW11	SSW12	SSW6	S10	S10	SSE9	S11	S13	S12	SSW9.1	S13			
SSW4.2SSW4.3SSW5.0SSW5.4SSW5.8SSW6.0 SW6.3 SW6.9SSW6.5WSW6.8WSW7.4WSW6.9 SW6.5WSW6.4WSW6.5 W5.5WSW4.4WSW4.6 SW4.0 SW4.3SSW3.4SSW3.3SSW3.7SSW3.2																										Diurnal Average			
N19 S19 N16 SSW18 SSW15 S19 SSE20 SSE27 S25 SSE25 SSE26 SSE25 SSE25 SE26 NNW22 NNW27 NNW25 N22 NNE22 SSW20 SW17NNW16 N18 N21																										Diurnal Maximum			
All monthly, daily, and diurnal averages have been calculated using vector methods																													



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Firebag - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Firebag - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	69	9.27	9.27
6 - 11	347	46.64	55.91
12 - 19	265	35.62	91.53
20 - 28	63	8.47	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Firebag - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	3	2	3	1	1	4	1	4	10	6	8	3	4	5	9	5	69
6 - 11	12	9	10	5	7	16	20	24	23	38	68	42	20	10	25	18	347
12 - 19	21	5	0	3	2	7	11	25	35	25	37	48	14	5	8	19	265
20 - 28	4	3	0	0	0	0	2	9	9	4	13	9	1	1	1	7	63
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	40	19	13	9	10	27	34	62	77	73	126	102	39	21	43	49	744

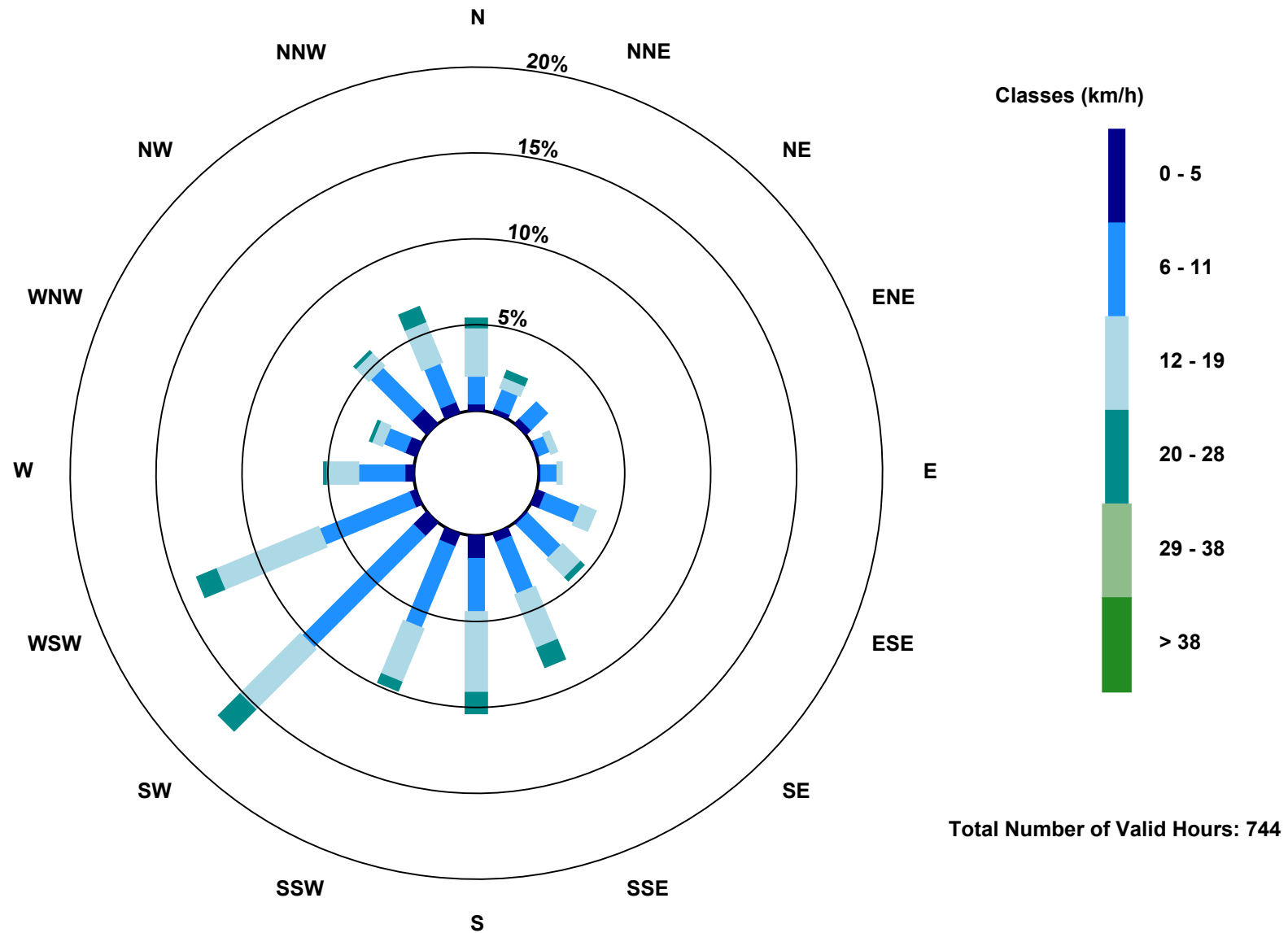
Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Firebag





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Firebag - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 13 km/h on Jul 4 14:00																	Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0								
Minimum Value: 0 km/h on Jul 20 22:00																									
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 3 Q ₃ = 4 P ₉₀ = 5 P ₉₉ = 7																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	1	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4	3	3	3	2	1	1	2	2	4
2-Jul	2	2	2	2	2	3	7	5	5	5	5	5	7	5	3	4	3	3	3	2	2	2	2	2	7
3-Jul	4	3	3	2	2	3	3	4	3	3	4	4	4	8	3	1	1	1	1	3	3	1	2	2	8
4-Jul	2	2	1	2	1	3	2	2	2	1	2	3	4	13	8	3	2	3	3	4	1	1	1	3	13
5-Jul	4	1	2	2	2	2	2	3	3	4	7	6	5	6	6	7	6	5	5	5	4	4	4	5	7
6-Jul	3	3	3	2	2	3	3	4	5	5	5	5	5	3	4	4	4	3	2	3	1	1	1	1	5
7-Jul	2	2	1	2	2	2	2	2	3	3	3	4	4	4	2	3	4	3	2	1	1	1	1	2	4
8-Jul	2	2	2	2	2	2	2	2	4	4	5	4	4	4	2	3	3	3	3	3	3	3	2	1	5
9-Jul	3	1	1	1	2	2	3	6	6	5	5	6	5	5	6	6	5	4	4	3	3	2	6	2	6
10-Jul	4	3	3	2	2	3	3	3	3	3	5	5	5	6	5	5	4	5	3	3	2	1	1	2	6
11-Jul	2	1	1	1	1	1	1	1	1	2	4	3	2	2	3	3	2	2	1	2	1	1	2	2	4
12-Jul	1	1	1	1	1	1	3	3	3	4	2	4	4	3	5	5	6	3	4	5	4	3	3	3	6
13-Jul	3	3	2	3	3	3	4	4	4	5	5	5	5	5	5	6	4	3	2	3	4	2	3	2	6
14-Jul	2	2	2	2	2	2	3	2	3	3	4	4	4	5	4	4	4	3	2	2	1	1	1	2	5
15-Jul	1	2	1	1	2	2	2	2	2	4	4	4	4	5	4	4	4	8	6	4	2	2	4	5	8
16-Jul	5	3	2	2	2	2	2	2	2	2	4	4	5	5	3	5	3	2	2	2	3	2	1	1	5
17-Jul	1	1	1	1	2	2	1	2	2	2	2	3	4	4	4	4	4	4	2	2	1	2	3	2	4
18-Jul	2	2	1	1	2	2	2	2	3	4	5	4	6	6	6	4	3	2	3	3	3	1	2	2	6
19-Jul	3	2	2	2	3	2	2	3	3	3	4	5	5	5	3	5	5	6	5	4	4	3	4	5	6
20-Jul	5	4	4	3	3	3	2	3	3	2	2	3	3	3	3	3	2	2	2	1	1	0	1	1	5
21-Jul	1	1	1	2	1	2	2	1	2	1	3	4	1	2	2	3	2	3	2	1	1	1	1	1	4
22-Jul	1	1	1	1	1	1	2	2	2	2	3	3	4	4	4	4	4	3	2	1	1	1	2	2	4
23-Jul	2	2	2	2	4	3	3	3	3	5	4	5	5	5	5	5	4	4	4	3	1	1	2	3	5
24-Jul	3	4	3	3	3	2	2	2	2	3	2	3	3	4	4	4	4	3	2	2	2	2	2	2	4
25-Jul	2	2	2	2	2	2	3	4	4	4	3	4	5	5	4	5	4	3	3	2	2	2	2	2	5
26-Jul	3	3	3	3	3	3	3	3	3	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3
27-Jul	2	3	2	2	2	2	2	2	2	1	2	2	2	2	3	3	3	2	2	2	2	2	2	2	3
28-Jul	1	1	1	1	2	2	2	1	3	3	3	3	3	2	3	2	2	2	2	5	3	3	3	4	5
29-Jul	4	4	5	4	3	3	4	4	5	6	5	4	4	4	2	2	3	5	2	2	2	2	2	2	6
30-Jul	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	1	3
31-Jul	1	2	2	1	1	1	1	2	2	2	2	2	2	2	1	2	2	1	2	2	1	2	2	2	2
Diurnal Maximum																									



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

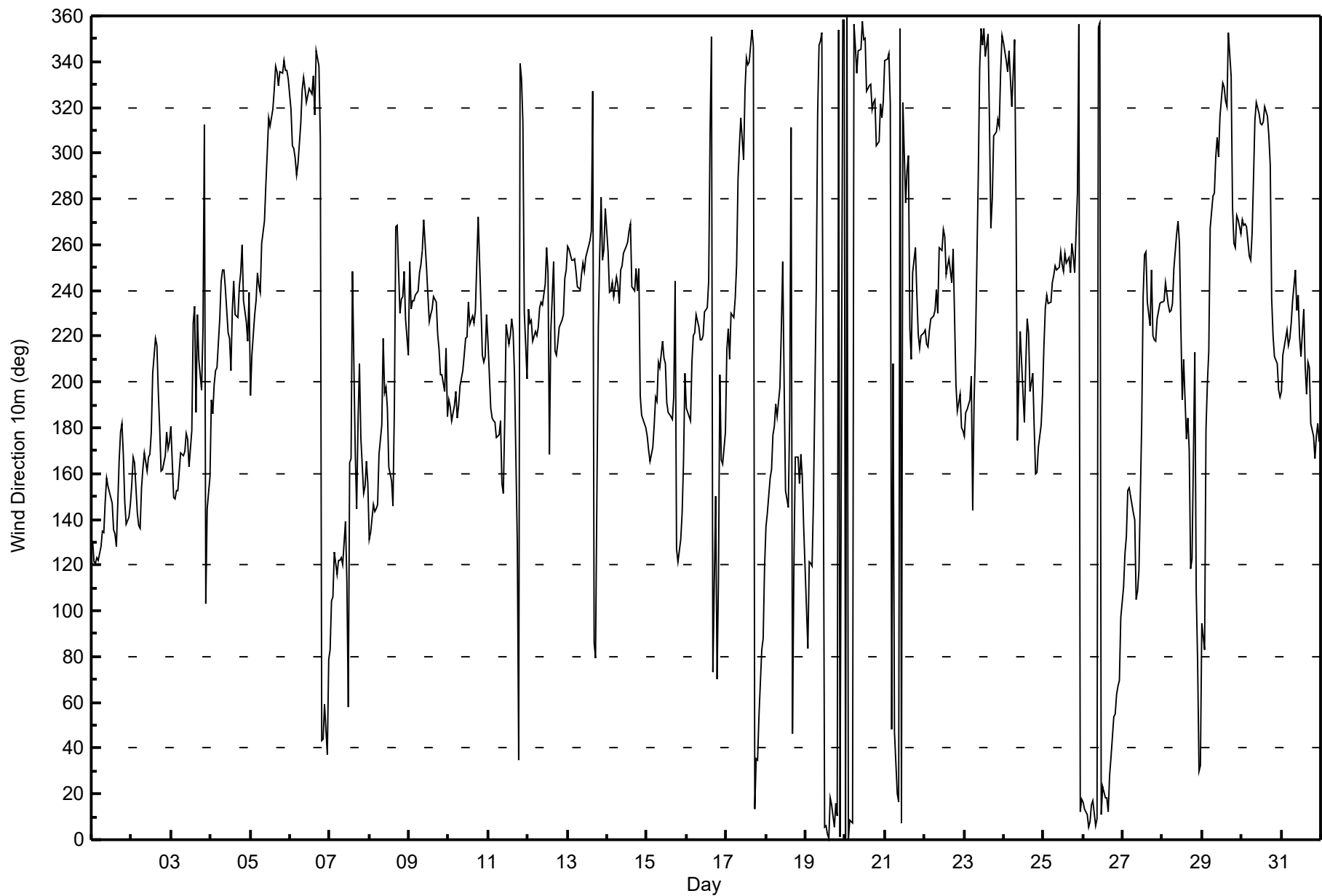
Firebag - July 2026

Direction of Maximum Speed: 162 deg on Jul 2 08:00																					Hours in Service:		744		
Direction of Maximum Daily Speed Average: 170.9 deg on Jul 2																					Hours of Data:		744		
Direction of Minimum Speed: 208 deg on Jul 21 06:00										Direction of Minimum Daily Speed Average: 3.0 deg on Jul 21											Hours of Missing Data:		0		
Monthly Average Direction: 225.6 deg																					Percent Operational Time:		100.0		
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	130	121	121	123	122	128	135	134	148	158	154	149	147	135	134	128	166	178	182	168	147	138	141	146	143.6
2-Jul	155	167	165	143	137	136	154	162	169	161	167	169	178	204	219	216	196	180	161	161	168	178	171	174	170.9
3-Jul	181	149	149	152	153	161	169	168	170	178	175	163	179	226	233	187	229	210	196	223	312	103	145	159	175.6
4-Jul	192	186	199	205	207	228	244	249	249	241	221	219	205	231	244	229	228	242	248	260	236	226	218	239	229.0
5-Jul	194	211	230	236	248	242	239	261	270	286	300	315	312	319	327	338	336	329	336	335	341	336	336	333	308.1
6-Jul	319	303	302	298	291	296	313	328	333	328	322	328	327	326	334	316	345	338	307	43	44	59	37	79	330.6
7-Jul	83	104	106	126	116	122	122	123	120	139	113	58	165	167	248	169	144	183	208	176	151	154	166	155	136.8
8-Jul	131	134	147	144	145	147	169	181	219	195	198	188	163	157	146	188	268	269	230	236	237	248	228	212	186.0
9-Jul	252	232	236	236	238	240	248	251	257	271	250	238	227	229	232	237	235	221	214	203	203	196	215	185	231.5
10-Jul	192	189	183	189	196	184	190	198	205	212	219	220	235	225	229	226	232	252	272	233	212	209	211	230	213.2
11-Jul	218	189	184	183	183	176	177	183	156	151	184	225	217	220	228	222	203	130	34	339	332	314	231	201	199.5
12-Jul	232	226	227	218	222	221	224	233	235	234	243	259	247	168	222	252	214	212	217	224	227	229	245	249	229.2
13-Jul	259	258	253	253	254	249	241	241	247	252	248	255	257	262	266	327	86	80	224	256	281	254	258	276	256.1
14-Jul	257	239	240	244	237	246	242	234	249	251	256	259	261	266	269	241	240	249	240	249	194	185	182	180	243.9
15-Jul	176	170	165	172	181	193	192	209	206	218	211	208	191	187	185	184	193	244	127	121	131	143	165	204	184.0
16-Jul	188	185	183	209	220	222	230	224	219	219	220	231	233	244	309	351	73	150	70	113	203	166	164	178	215.6
17-Jul	214	223	210	230	228	237	251	289	303	316	297	328	342	339	340	354	347	14	36	35	54	83	88	119	338.1
18-Jul	137	143	158	161	177	180	190	185	198	223	253	200	152	145	186	311	47	120	167	167	156	169	159	137	173.2
19-Jul	101	84	122	121	120	148	241	317	347	349	353	5	6	3	0	18	15	5	16	10	354	1	358	358	10.0
20-Jul	0	360	0	8	8	356	346	335	345	345	358	349	350	327	329	330	319	322	324	304	305	321	316	323	343.9
21-Jul	340	341	343	321	48	208	47	20	16	354	7	322	278	292	299	223	210	248	259	239	221	215	220	221	254.6
22-Jul	223	217	215	223	227	229	231	241	230	259	258	266	264	247	251	254	243	258	229	199	187	195	180	179	230.7
23-Jul	176	187	188	192	203	144	192	216	290	337	354	347	354	342	352	314	267	280	308	309	315	312	335	351	306.5
24-Jul	349	340	335	345	332	320	350	279	174	201	222	195	182	208	227	221	196	204	181	160	160	172	181	195	218.5
25-Jul	216	233	238	234	235	243	247	251	249	250	257	251	248	256	252	254	247	261	255	248	283	356	12	18	253.3
26-Jul	17	13	11	6	8	15	17	6	9	355	357	11	23	18	18	12	28	36	54	55	63	67	69	97	25.0
27-Jul	111	125	132	153	154	146	143	140	105	109	118	183	237	256	257	235	225	249	220	219	218	228	234	235	189.7
28-Jul	235	236	243	234	230	231	234	250	265	270	260	225	192	210	175	184	170	118	123	213	109	78	30	33	213.3
29-Jul	95	83	179	200	214	267	282	283	298	307	298	316	331	329	323	320	353	334	276	261	259	272	271	265	286.9
30-Jul	271	268	269	268	255	253	265	289	314	322	317	313	312	314	320	316	307	294	237	220	211	208	196	193	279.3
31-Jul	196	212	219	222	216	219	226	236	249	231	238	220	211	232	207	195	209	206	182	176	167	176	182	174	207.8
192.9 192.3 197.8 202.7 205.2 207.4 214.1 227.7 238.5 240.9 246.8 246.3 235.7 242.3 251.3 259.3 242.5 245.5 222.6 221.6 207.5 197.6 203.5 195.5																									
Diurnal Average																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Firebag - July 2026





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Firebag - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 101 deg on Jul 24 09:00																		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0							
Minimum Value: 4 deg on Jul 14 22:00																									
Percentiles: P ₁ = 7 P ₁₀ = 9 Q ₁ = 12 Median = 16 Q ₃ = 22 P ₉₀ = 35 P ₉₉ = 80																									
Day	Hourly Period Ending At (MST)																							Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		24
1-Jul	16	11	10	12	12	13	13	13	13	14	16	15	23	22	22	21	13	13	10	11	14	11	13	10	23
2-Jul	9	10	10	13	13	12	18	12	12	15	12	13	12	18	13	16	15	17	12	11	11	12	9	10	18
3-Jul	11	13	12	11	11	11	10	12	13	13	17	17	14	19	31	38	19	25	12	23	67	34	20	18	67
4-Jul	8	9	29	16	8	11	15	14	14	16	23	26	33	22	13	22	15	13	19	15	12	11	9	48	48
5-Jul	43	9	9	10	11	12	14	15	18	23	23	21	22	24	19	17	17	15	15	14	15	14	14	15	43
6-Jul	15	21	21	22	20	21	22	19	18	20	19	22	28	37	64	42	33	23	43	20	7	9	17	11	64
7-Jul	14	14	14	21	14	13	14	15	22	43	60	55	89	87	90	49	82	40	26	11	15	12	10	11	90
8-Jul	14	14	12	14	13	12	12	19	19	16	22	22	11	13	13	66	36	51	18	13	13	11	11	16	66
9-Jul	36	8	12	9	10	11	11	13	15	20	18	22	20	17	19	19	17	14	13	9	8	7	23	12	36
10-Jul	13	9	9	9	7	10	10	11	10	12	16	15	18	18	19	18	15	35	29	15	11	9	8	34	35
11-Jul	24	9	13	12	13	15	11	17	18	37	41	16	14	14	19	30	17	26	30	27	25	50	73	30	73
12-Jul	12	10	12	9	10	11	13	14	16	19	13	15	26	26	23	19	38	13	11	12	13	11	12	14	38
13-Jul	13	13	12	12	12	11	12	14	16	17	15	16	17	20	20	45	59	45	46	14	19	19	15	14	59
14-Jul	15	11	10	12	11	11	19	13	17	17	19	21	24	28	35	33	24	19	22	16	15	4	5	9	35
15-Jul	7	7	9	8	9	8	8	10	12	14	16	16	15	18	18	16	13	38	20	12	13	16	13	41	41
16-Jul	19	14	17	8	9	10	11	12	12	13	15	18	16	22	30	29	58	20	70	77	28	29	25	9	77
17-Jul	15	14	22	7	12	8	11	23	21	22	27	25	21	29	28	27	31	40	13	10	12	18	12	13	40
18-Jul	13	11	9	9	9	9	9	10	11	14	18	36	14	18	55	56	24	20	18	21	19	11	14	28	56
19-Jul	30	46	81	13	17	17	66	28	19	20	20	20	20	22	22	17	18	19	17	17	15	15	15	17	81
20-Jul	19	15	16	17	15	15	15	14	16	18	19	22	24	21	22	19	18	19	14	17	9	12	10	10	24
21-Jul	12	15	29	56	74	84	58	16	16	74	42	78	27	78	60	19	23	30	18	11	9	9	9	8	84
22-Jul	10	8	8	10	10	11	13	12	20	21	20	21	26	27	30	32	31	22	15	12	10	8	9	8	32
23-Jul	9	9	9	12	70	25	42	24	24	34	18	17	17	17	20	55	42	23	21	18	12	10	14	15	70
24-Jul	14	15	15	15	16	18	33	43	101	60	93	78	48	63	42	31	27	20	14	12	12	11	10	9	101
25-Jul	11	13	12	7	10	11	12	12	13	13	16	16	16	18	16	15	14	14	13	11	49	24	14	13	49
26-Jul	14	16	14	15	15	15	16	16	16	16	18	18	21	19	21	19	26	24	19	19	14	13	13	17	26
27-Jul	13	14	16	16	15	15	18	16	24	17	35	23	25	19	15	20	19	13	14	12	11	11	9	11	35
28-Jul	11	8	9	8	8	11	12	16	20	24	24	44	55	39	23	28	36	13	14	69	44	18	33	18	69
29-Jul	27	15	19	11	15	24	21	20	23	22	24	30	18	20	29	21	18	30	22	17	14	15	16	14	30
30-Jul	16	17	15	18	11	11	16	26	23	23	22	26	24	31	34	26	45	26	41	9	6	6	6	7	45
31-Jul	8	10	9	9	7	9	9	15	15	16	16	16	13	10	10	10	12	21	7	9	9	8	9	9	21
43 46 81 56 74 84 66 43 101 74 93 78 89 87 90 66 82 51 70 77 67 50 73 48																									
Diurnal Maximum																									



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS20 MACKAY RIVER JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MACKAY RIVER (AMS20)

JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	710	34	34	100	5.9	0	0.8	0
H2S (ppb) Average	708	36	36	100	1.3	0	0.7	0
THC (ppm) Average	710	34	34	100	3.2	-	2.5	-
NO2 (ppb) Average	708	36	36	100	8.9	0	4.2	-
NO (ppb) Average	708	36	36	100	4.4	-	1.4	-
NOX (ppb) Average	708	36	36	100	9.3	-	5.6	-
Temperature 2 m (C) Average	744	0	0	100	31.4	-	22.7	-
Relative Humidity (%) Average	744	0	0	100	99.4	-	88.7	-
Wind Speed 10 m (km/h) Average	744	0	0	100	17	-	9	-
Wind Direction 10 m (deg) Average	744	0	0	100	-	-	-	-
Precipitation (mm) Total	744	0	0	100	10.6	-	22.8	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MACKAY RIVER (AMS20)
JULY 2026
MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	710	0.24	0.6	-	0	0	0	0.1	0.2	0.6	5.9
H2S (ppb) Average	708	0.16	0.2	-	0	0.1	0.1	0.1	0.2	0.2	1.3
THC (ppm) Average	710	2.32	0.2	-	2.1	2.2	2.2	2.3	2.4	2.6	3.2
NO2 (ppb) Average	708	0.71	1.1	-	0	0.2	0.2	0.4	0.7	1.2	8.9
NO (ppb) Average	708	0.07	0.4	-	0	0	0	0	0	0.1	4.4
NOX (ppb) Average	708	0.78	1.3	-	0	0.2	0.2	0.4	0.7	1.3	9.3
Temperature 2 m (C) Average	744	17.4	4.9	-	6	11.1	13.8	17	20.9	23.7	31.4
Relative Humidity (%) Average	744	70.47	19.9	-	24.3	41.4	54	73.6	87.9	94.8	99.4
Wind Speed 10 m (km/h) Average	744	5.8	3	-	0	2	4	5	8	10	17
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-
Precipitation (mm) Total	744	-	-	97.79	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION -MACKAY RIVER (AMS20)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
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No operational issues to report



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

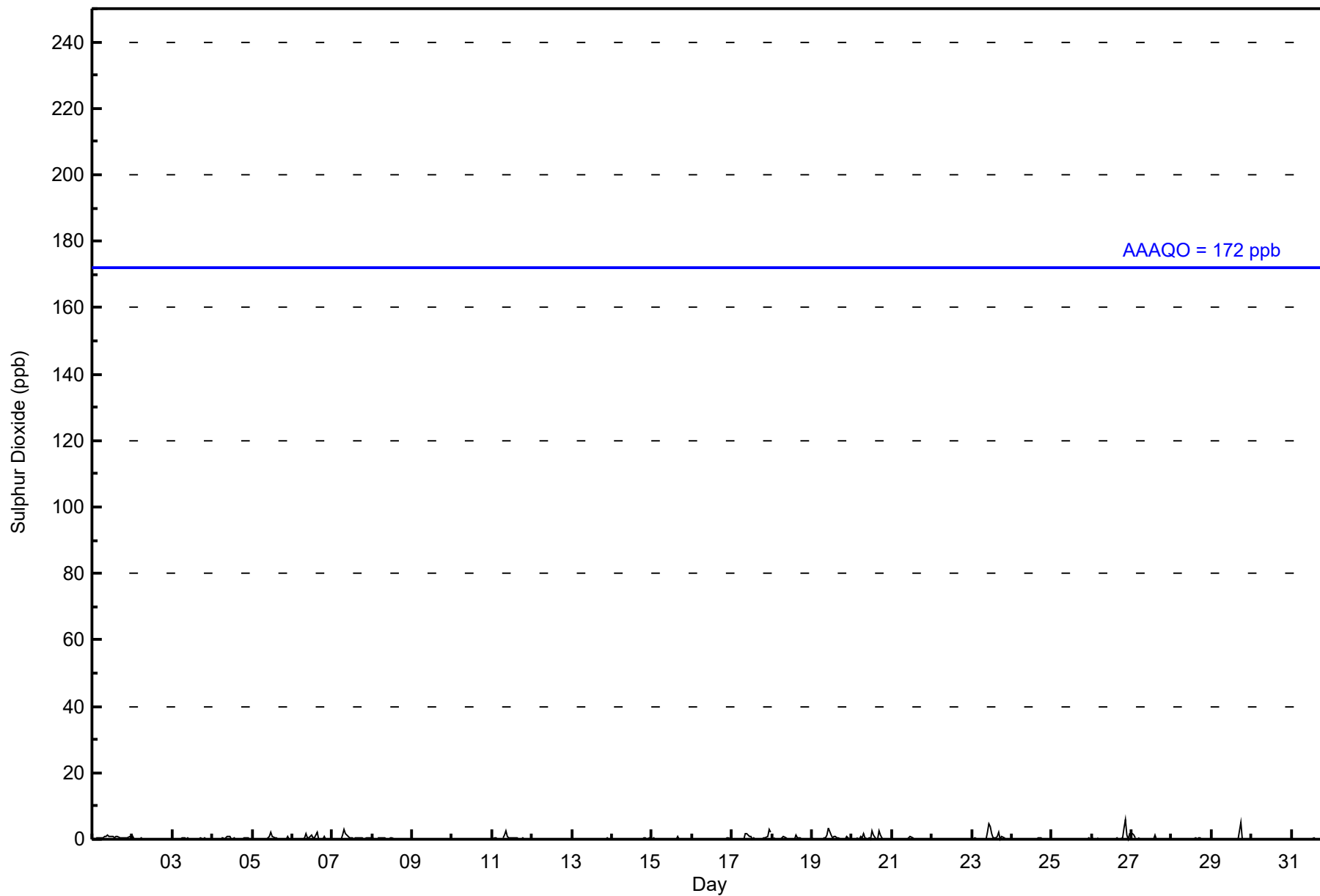
Mackay River - July 2026

Number of Exceedances (AAAQO): Maximum Value: 5.9 ppb on Jul 26 21:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 0.8 ppb on Jul 23																			Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 2 12:00 Maximum Diurnal Average: 0.5 ppb at hour 11 Monthly Average: 0.24 ppb																			Minimum Daily Average: 0.0 ppb on Jul 22 Minimum Diurnal Average: 0.1 ppb at hour 5 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.6 P ₉₉ = 2.8																			Hours of Data: 710	
																																						Hours of Missing Data: 34	
																																						Hours of Calibration: 34	
																																						Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jul	0.6	Z	0.5	0.4	0.4	0.3	0.5	0.7	0.9	1.1	1.0	0.7	0.7	0.6	0.7	0.7	0.4	0.6	0.5	0.5	0.4	0.4	0.7	0.4	0.6	1.1													
2-Jul	0.8	0.2	Z	0.2	0.1	0.3	0.2	0.1	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8													
3-Jul	0.0	0.1	0.0	Z	0.0	0.0	0.6	0.3	0.1	0.2	0.2	0.1	0.1	0.2	0.0	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.0	0.1	0.1	0.6													
4-Jul	0.0	0.2	0.0	0.1	Z	0.2	0.4	0.1	0.3	1.0	0.7	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.3	0.3	0.2	0.1	0.1	0.2	1.0													
5-Jul	0.1	0.1	0.0	0.1	0.1	Z	0.0	0.0	0.0	0.3	0.7	2.0	0.8	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.3	2.0													
6-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.8	0.6	0.5	1.2	0.6	0.4	1.2	2.0	0.0	0.0	0.0	1.0	0.0	0.1	0.0	0.0	0.4	2.0													
7-Jul	0.0	Z	0.1	0.1	0.2	0.2	1.1	3.0	1.9	0.8	0.5	0.4	0.3	0.2	0.4	0.4	0.6	0.6	0.4	0.2	0.2	0.4	0.4	0.6	0.6	3.0													
8-Jul	0.6	0.5	Z	0.3	0.3	0.4	0.4	0.3	0.1	0.2	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6													
9-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1													
10-Jul	0.0	0.0	0.0	0.1	Z	0.0	0.0	0.2	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.2													
11-Jul	0.2	0.2	0.3	0.1	0.2	Z	0.3	1.1	2.7	0.9	0.3	0.3	0.3	0.4	0.3	0.3	0.1	0.0	0.5	0.1	0.1	0.1	0.0	0.1	0.4	2.7													
12-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1													
13-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.4													
14-Jul	0.0	0.0	Z	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.2	0.2	0.1	0.3													
15-Jul	0.2	0.2	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.7													
16-Jul	0.0	0.1	0.1	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.0	0.1	0.4													
17-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.1	1.9	1.7	0.9	0.8	0.0	0.4	0.2	0.1	0.0	0.0	0.2	0.6	0.4	0.8	2.8	2.3	0.6	2.8													
18-Jul	Z	0.2	0.0	0.0	0.0	0.2	0.6	0.7	0.3	0.0	0.0	0.0	0.0	0.0	1.4	0.4	0.3	0.2	0.1	0.0	0.0	0.1	0.2	0.1	0.2	1.4													
19-Jul	0.3	Z	0.1	0.1	0.1	0.0	0.1	0.5	0.3	1.4	3.4	1.4	0.4	0.9	0.7	0.6	0.2	0.2	0.1	0.1	0.1	0.9	0.2	0.3	0.5	3.4													
20-Jul	0.2	0.2	Z	0.6	0.2	0.9	0.2	1.6	0.3	0.2	0.3	0.2	2.3	1.4	0.2	0.1	2.4	1.2	0.4	0.1	0.2	0.1	0.1	0.1	0.6	2.4													
21-Jul	0.1	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.0	0.5	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0													
22-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.1													
23-Jul	0.0	0.0	0.3	0.0	0.0	Z	0.0	0.0	0.1	2.3	4.6	3.7	1.8	0.5	0.4	0.7	2.3	0.1	1.1	0.5	0.1	0.1	0.1	0.1	0.8	4.6													
24-Jul	Z	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.3	0.2	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.3													
25-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.1	0.0	0.5													
26-Jul	0.3	0.4	Z	0.2	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.2	0.0	0.2	0.3	3.2	5.9	1.2	0.2	1.6	0.6	5.9													
27-Jul	1.5	1.2	0.6	Z	0.3	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	1.4	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.3	1.5													
28-Jul	0.1	0.1	0.0	0.1	Z	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.3	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.3													
29-Jul	0.2	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	5.2													
30-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1													
31-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.1	0.0	0.1	0.4													
Diurnal Average																																							
Diurnal Maximum																																							
Z - zerospan C - Calibration																																							
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																																							



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Mackay River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Mackay River - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	710	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 710

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Mackay River - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	11	15	20	11	11	54	78	44	82	65	111	89	50	33	23	13	710
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	15	20	11	11	54	78	44	82	65	111	89	50	33	23	13	710

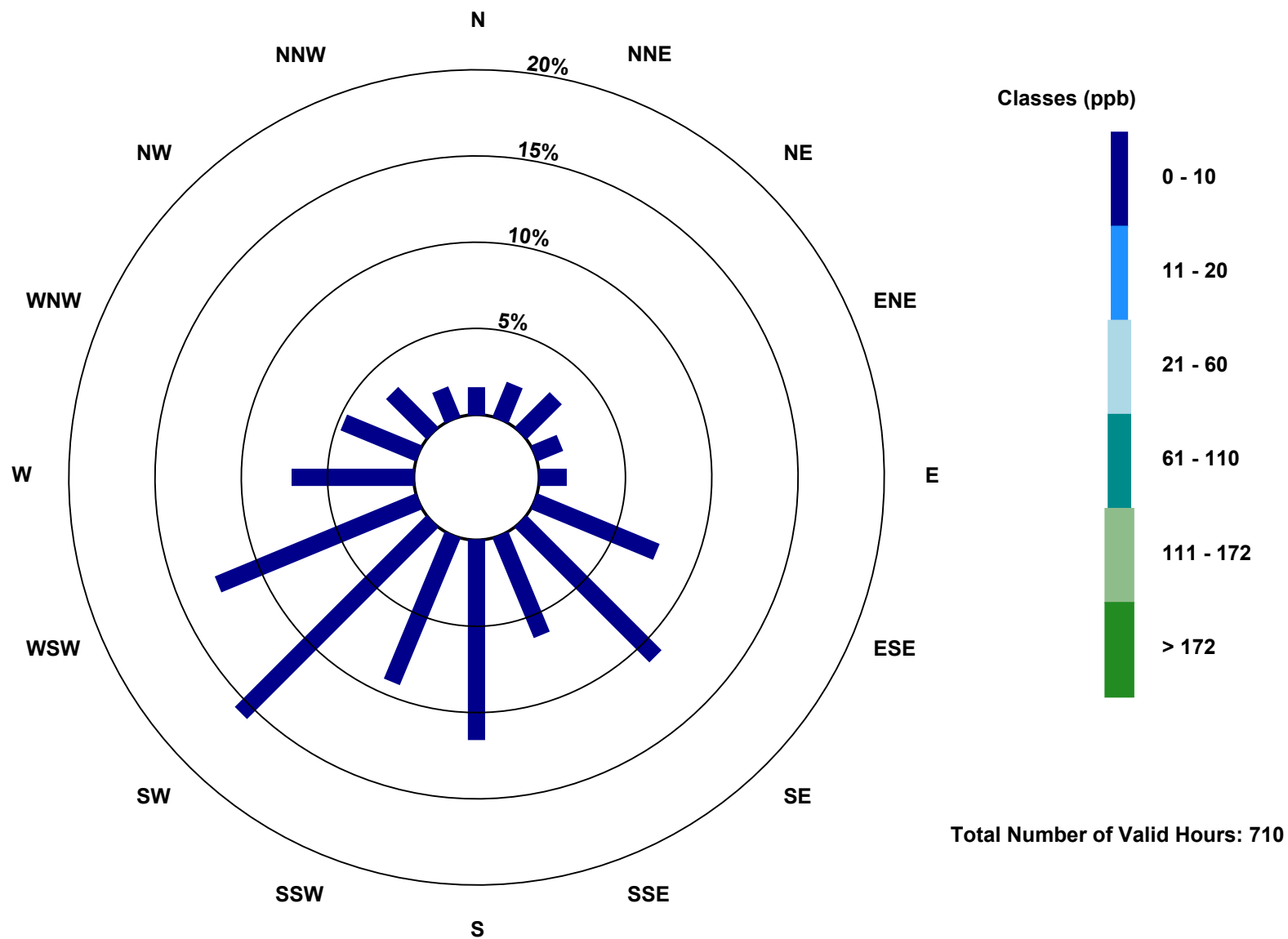
Total Number of Valid Hours: 710

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

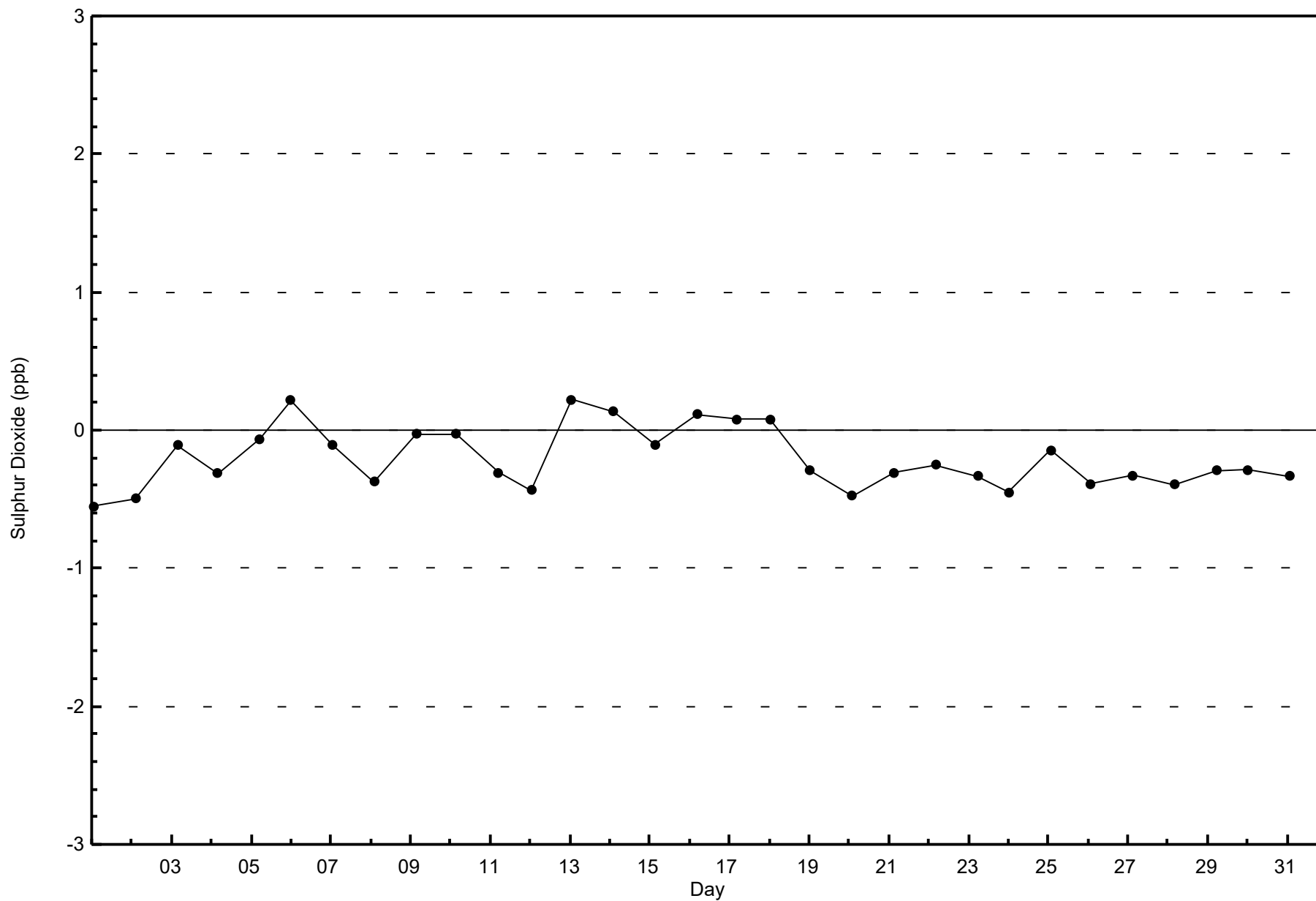
Sulphur Dioxide (SO₂) - ppb
Mackay River





Wood Buffalo Environmental Association
Zero Responses

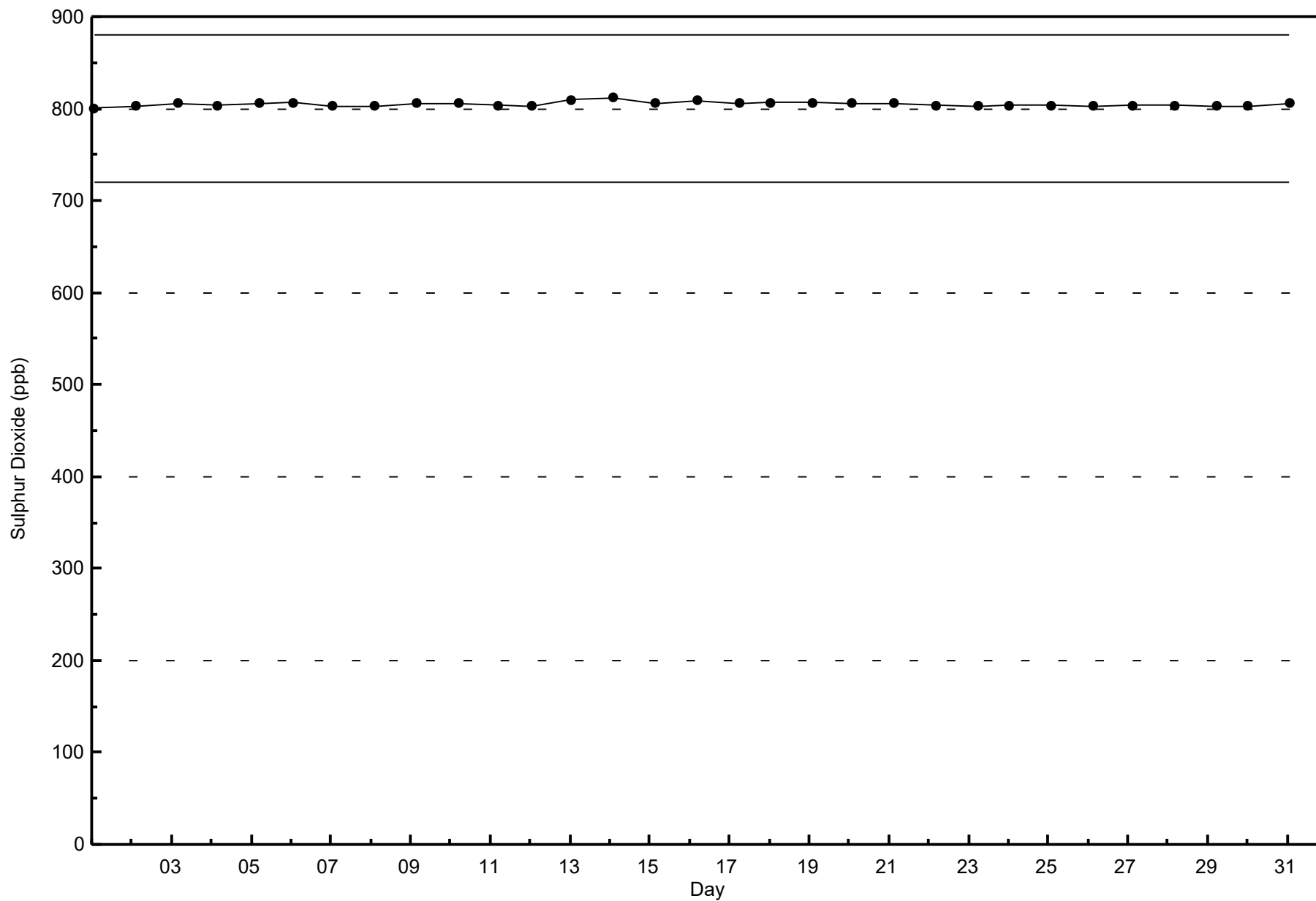
Sulphur Dioxide (SO₂) - ppb
Mackay River - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Mackay River - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H₂S) - ppb

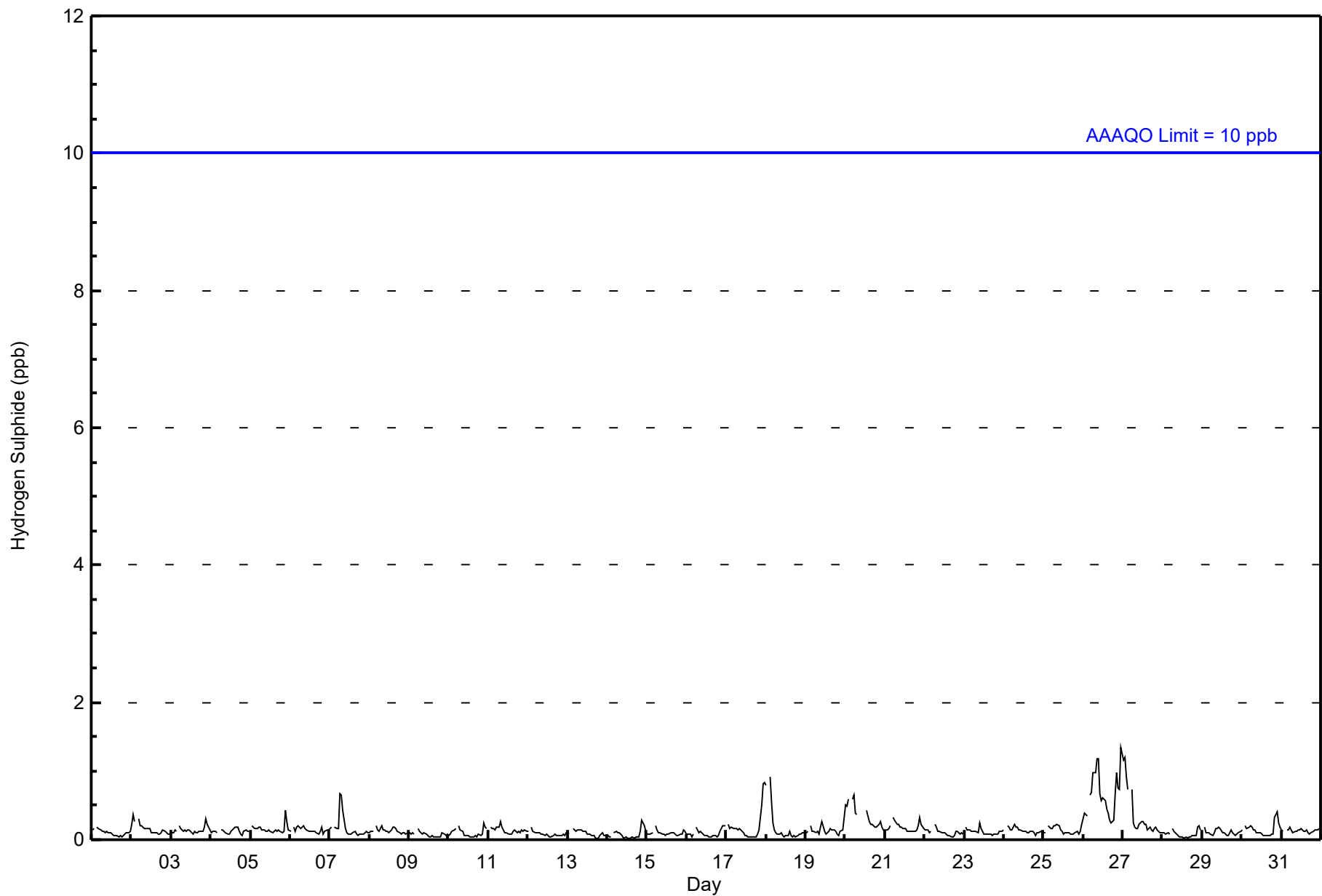
Mackay River - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.3 ppb on Jul 27 00:00 Maximum Daily Average: 0.7 ppb on Jul 26																			Hours in Service: 744 Hours of Data: 708							
Minimum Value: 0.0 ppb on Jul 13 19:00 Minimum Daily Average: 0.1 ppb on Jul 14 Maximum Diurnal Average: 0.2 ppb at hour 3 Minimum Diurnal Average: 0.1 ppb at hour 18 Monthly Average: 0.16 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.2 P ₉₉ = 1.0																			Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.1	0.2	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2-Jul	0.2	0.4	0.3	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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
3-Jul	0.1	0.1	0.1	0.1	Z	0.2	0.2	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	0.2	0.3	0.2	0.1	0.1
4-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
5-Jul	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.4	0.3	0.1	0.2
6-Jul	0.1	Z	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1
7-Jul	0.2	0.2	Z	0.2	0.2	0.2	0.7	0.6	0.4	0.2	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
8-Jul	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
9-Jul	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
10-Jul	0.1	0.1	0.1	0.1	0.2	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1
11-Jul	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	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
12-Jul	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	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	0.1	0.1	0.1	0.1
13-Jul	0.1	0.1	Z	0.2	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	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
14-Jul	0.1	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.1	0.1
15-Jul	0.1	0.1	0.1	0.1	Z	0.2	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
16-Jul	0.1	0.1	0.1	0.0	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1
17-Jul	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5	0.8	0.8	0.2
18-Jul	0.8	Z	0.9	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
19-Jul	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1
20-Jul	0.5	0.5	0.6	Z	0.6	0.7	0.4	0.4	C	C	C	C	C	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.3
21-Jul	0.2	0.2	0.2	0.2	Z	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2
22-Jul	0.1	0.1	0.2	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23-Jul	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	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
24-Jul	0.1	Z	0.2	0.2	0.1	0.1	0.2	0.2	0.2	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
25-Jul	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.2	0.1
26-Jul	0.3	0.4	0.3	Z	0.7	0.7	1.0	1.0	1.2	1.2	0.7	0.6	0.6	0.6	0.4	0.4	0.3	0.2	0.3	0.7	1.0	0.7	0.7	1.3	0.7	1.3
27-Jul	1.2	1.2	0.9	0.7	Z	0.7	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.3
28-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2
29-Jul	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30-Jul	0.1	Z	0.2	0.2	0.2	0.2	0.2	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	0.3	0.4	0.2	0.2	0.1
31-Jul	0.1	0.1	Z	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.2 0.2																									Diurnal Average	
1.2 1.2 0.9 0.7 0.7 0.7 1.0 1.0 1.2 1.2 0.7 0.6 0.6 0.6 0.4 0.4 0.3 0.2 0.3 0.7 1.0 0.7 0.8 1.3																									Diurnal Maximum	
Z - zerospan C - Calibration																										
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Mackay River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Mackay River - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	708	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Mackay River - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	12	15	21	10	11	58	75	45	82	65	112	88	50	30	21	13	708
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	12	15	21	10	11	58	75	45	82	65	112	88	50	30	21	13	708

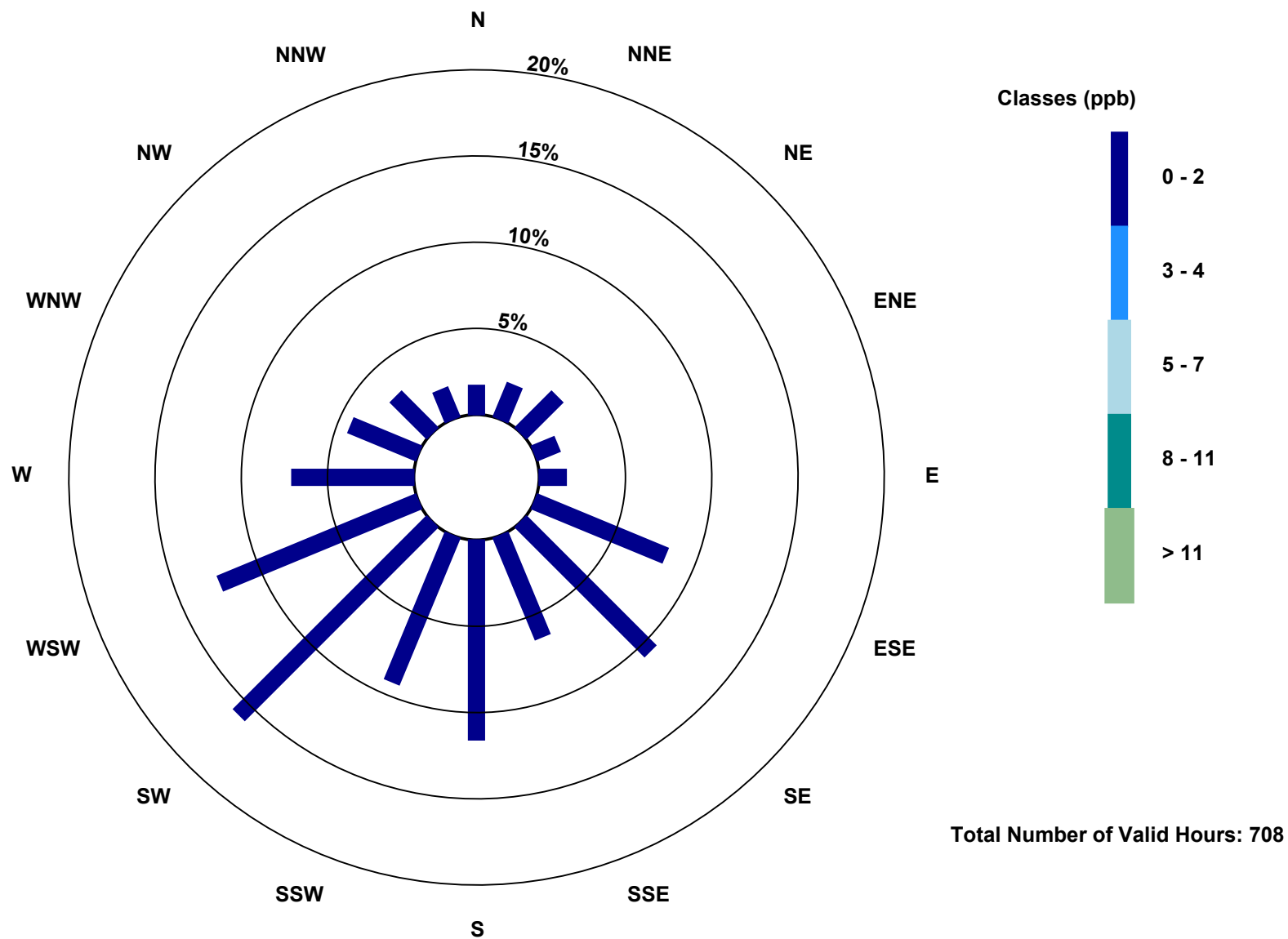
Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

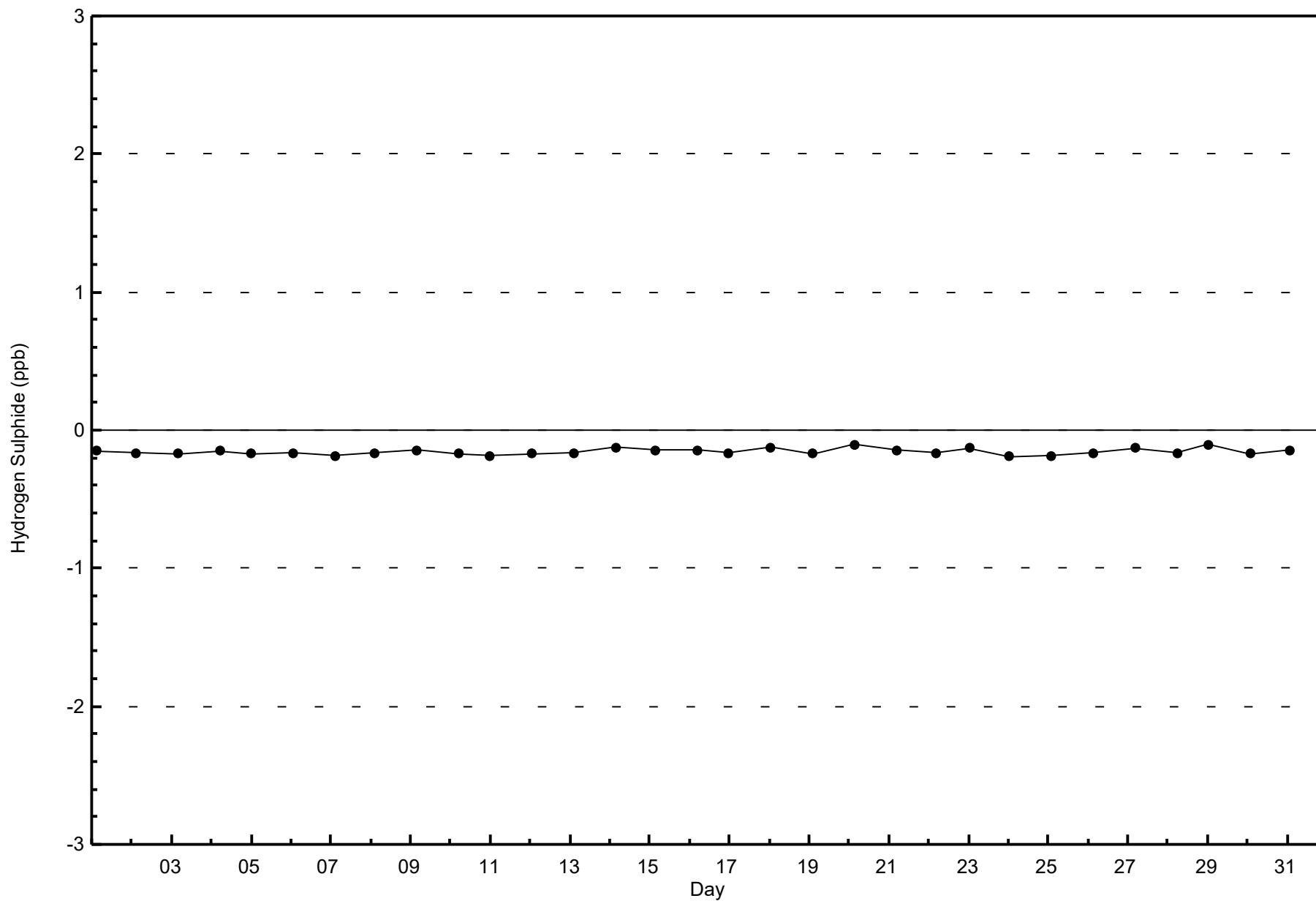
Hydrogen Sulphide (H₂S) - ppb
Mackay River





Wood Buffalo Environmental Association
Zero Responses

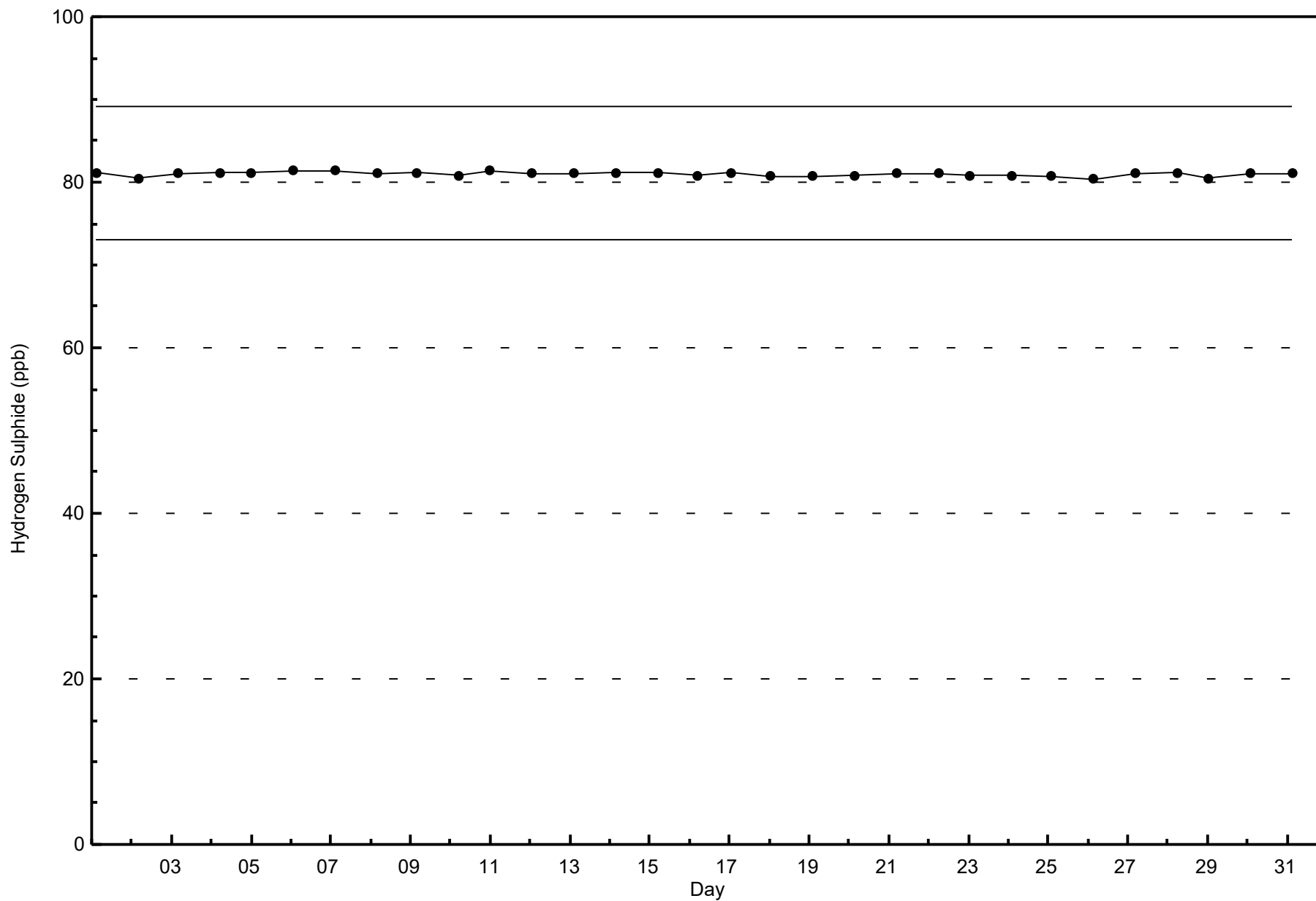
Hydrogen Sulphide (H₂S) - ppb
Mackay River - July 2026





Wood Buffalo Environmental Association
Span Responses

Hydrogen Sulphide (H₂S) - ppb
Mackay River - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

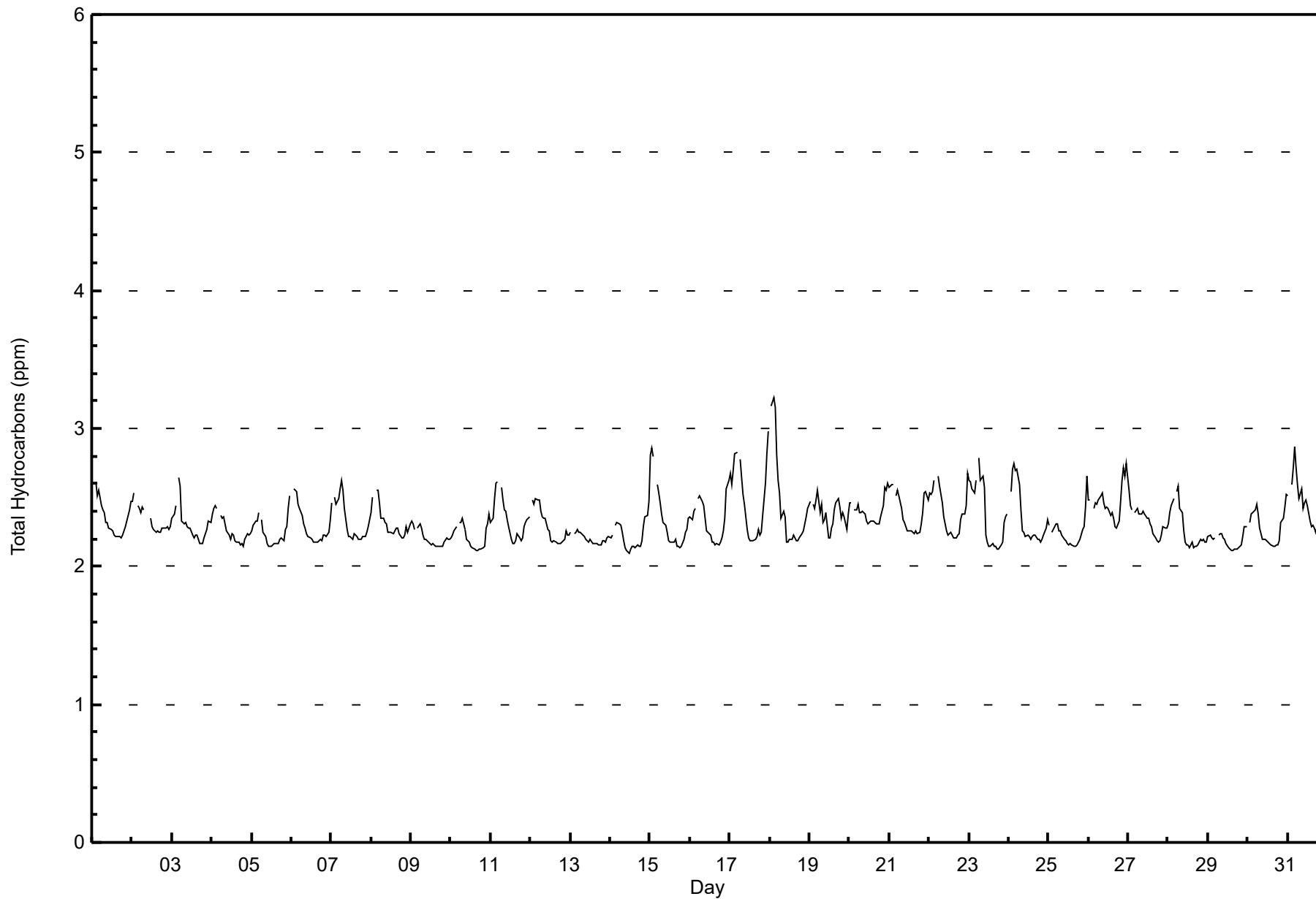
Mackay River - July 2026

Maximum Value: 3.2 ppm on Jul 18 03:00																		Maximum Daily Average: 2.5 ppm on Jul 17										Hours in Service: 744	
Minimum Value: 2.1 ppm on Jul 14 12:00																		Minimum Daily Average: 2.2 ppm on Jul 29										Hours of Data: 710	
Maximum Diurnal Average: 2.5 ppm at hour 5																		Minimum Diurnal Average: 2.2 ppm at hour 18										Hours of Missing Data: 34	
Monthly Average: 2.32 ppm																		Percentiles: P ₁ = 2.1 P ₁₀ = 2.2 Q ₁ = 2.2 Median = 2.3 Q ₃ = 2.4 P ₉₀ = 2.6 P ₉₉ = 2.8										Hours of Calibration: 34	
																												Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	2.5	Z	2.6	2.5	2.5	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.5	2.3	2.6			
2-Jul	2.5	2.5	Z	2.4	2.4	2.4	2.4	2.4	C	C	C	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.5		
3-Jul	2.4	2.4	2.4	Z	2.6	2.6	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.6			
4-Jul	2.4	2.4	2.4	2.4	Z	2.4	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.3	2.4			
5-Jul	2.3	2.3	2.3	2.3	2.4	Z	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.5	2.3	2.5			
6-Jul	Z	2.6	2.6	2.5	2.5	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.6			
7-Jul	2.5	Z	2.5	2.4	2.5	2.6	2.6	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.6			
8-Jul	2.4	2.5	Z	2.6	2.6	2.5	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.3	2.6			
9-Jul	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3			
10-Jul	2.2	2.2	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.4	2.2	2.4			
11-Jul	2.3	2.4	2.5	2.6	2.6	Z	2.6	2.5	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.3	2.6			
12-Jul	Z	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.3	2.5			
13-Jul	2.2	Z	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3			
14-Jul	2.2	2.2	Z	2.3	2.3	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.4	2.4	2.5	2.2	2.5			
15-Jul	2.8	2.9	2.8	Z	2.6	2.5	2.5	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.9			
16-Jul	2.4	2.3	2.4	2.4	Z	2.5	2.5	2.5	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.6	2.6	2.3	2.6			
17-Jul	2.7	2.6	2.7	2.8	2.8	Z	2.8	2.6	2.5	2.5	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.4	2.6	2.8	3.0	2.5	3.0		
18-Jul	Z	3.2	3.2	3.2	2.8	2.6	2.5	2.3	2.4	2.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.4	2.4	3.2			
19-Jul	2.5	Z	2.4	2.4	2.5	2.6	2.4	2.4	2.3	2.3	2.4	2.2	2.2	2.3	2.3	2.4	2.5	2.5	2.4	2.4	2.4	2.4	2.3	2.4	2.4	2.6			
20-Jul	2.5	2.5	Z	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.6	2.6	2.6	2.4	2.6			
21-Jul	2.6	2.6	2.6	Z	2.5	2.6	2.5	2.4	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.2	2.3	2.3	2.4	2.5	2.5	2.5	2.5	2.4	2.6			
22-Jul	2.5	2.5	2.5	2.6	Z	2.7	2.6	2.5	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.4	2.4	2.7	2.4	2.7			
23-Jul	2.6	2.6	2.6	2.5	2.6	Z	2.8	2.6	2.7	2.6	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.4	2.4	2.4	2.8			
24-Jul	Z	2.5	2.7	2.7	2.7	2.7	2.6	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.7			
25-Jul	2.3	Z	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.4	2.6	2.2	2.6			
26-Jul	2.5	2.5	Z	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.5	2.6	2.7	2.7	2.7	2.5	2.7			
27-Jul	2.6	2.4	2.4	Z	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.6			
28-Jul	2.3	2.4	2.4	2.5	Z	2.5	2.6	2.4	2.4	2.3	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.6			
29-Jul	2.2	2.2	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.2	2.3			
30-Jul	Z	2.3	2.4	2.4	2.4	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.3	2.4	2.4	2.5	2.3	2.5			
31-Jul	2.5	Z	2.6	2.7	2.9	2.7	2.6	2.5	2.6	2.4	2.5	2.5	2.4	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.4	2.4	2.5	2.7	2.5	2.9			
2.4 2.5 2.5 2.5 2.5 2.5 2.4 2.4 2.4 2.3 2.3 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.3 2.3 2.4 2.4																								Diurnal Average					
2.8 3.2 3.2 3.2 2.9 2.7 2.8 2.6 2.7 2.6 2.5 2.5 2.4 2.4 2.4 2.4 2.5 2.5 2.4 2.5 2.6 2.7 2.8 3.0																								Diurnal Maximum					
Z - zerospan C - Calibration																													



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Mackay River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Mackay River - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	0	0.00	0.00
2.1 - 3.0	707	99.58	99.58
3.1 - 10.0	3	0.42	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 710

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Mackay River - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.1 - 3.0	11	15	20	10	11	54	77	44	81	65	111	89	50	33	23	13	707
3.1 - 10.0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	3
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	15	20	11	11	54	78	44	82	65	111	89	50	33	23	13	710

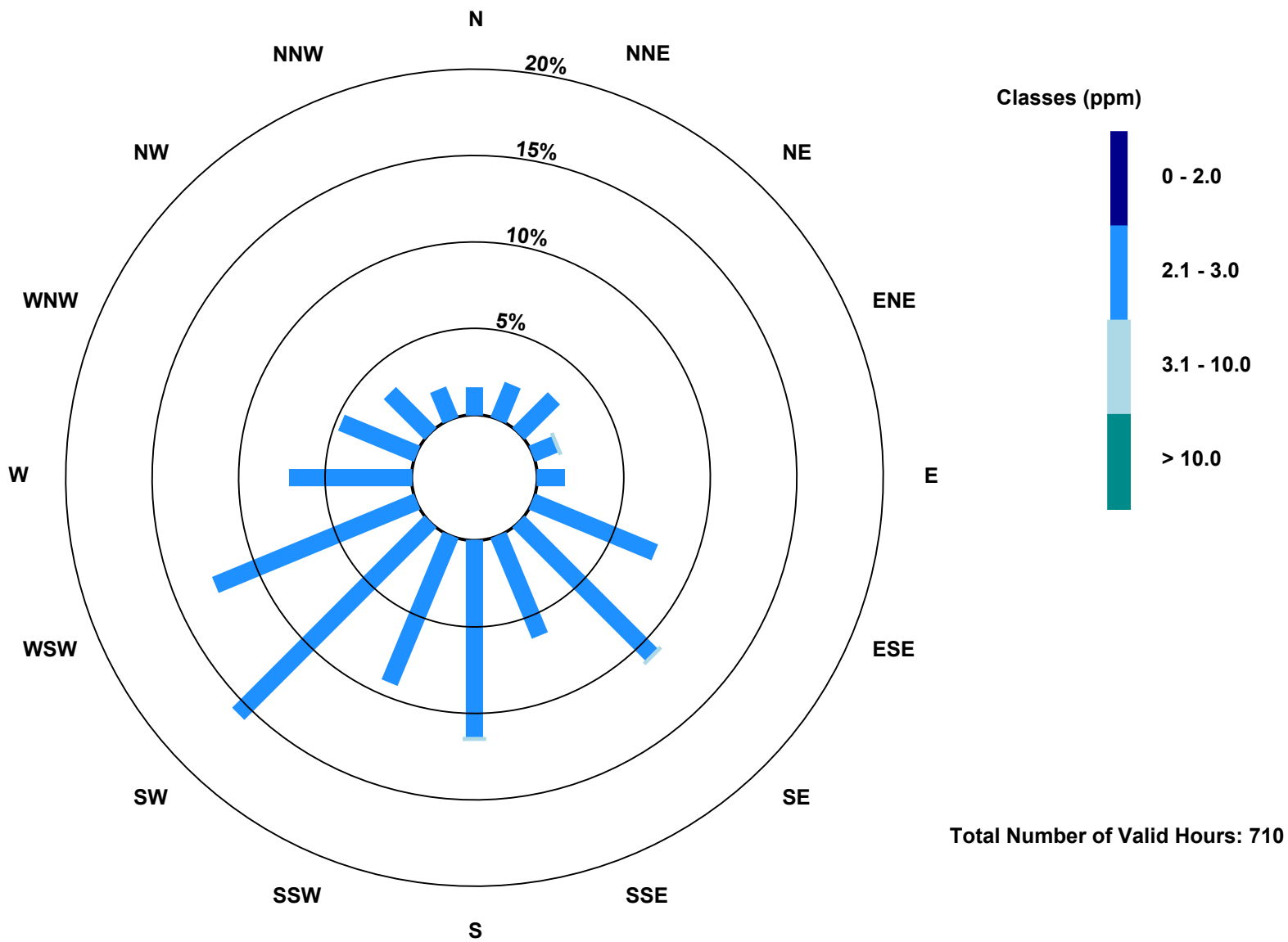
Total Number of Valid Hours: 710

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

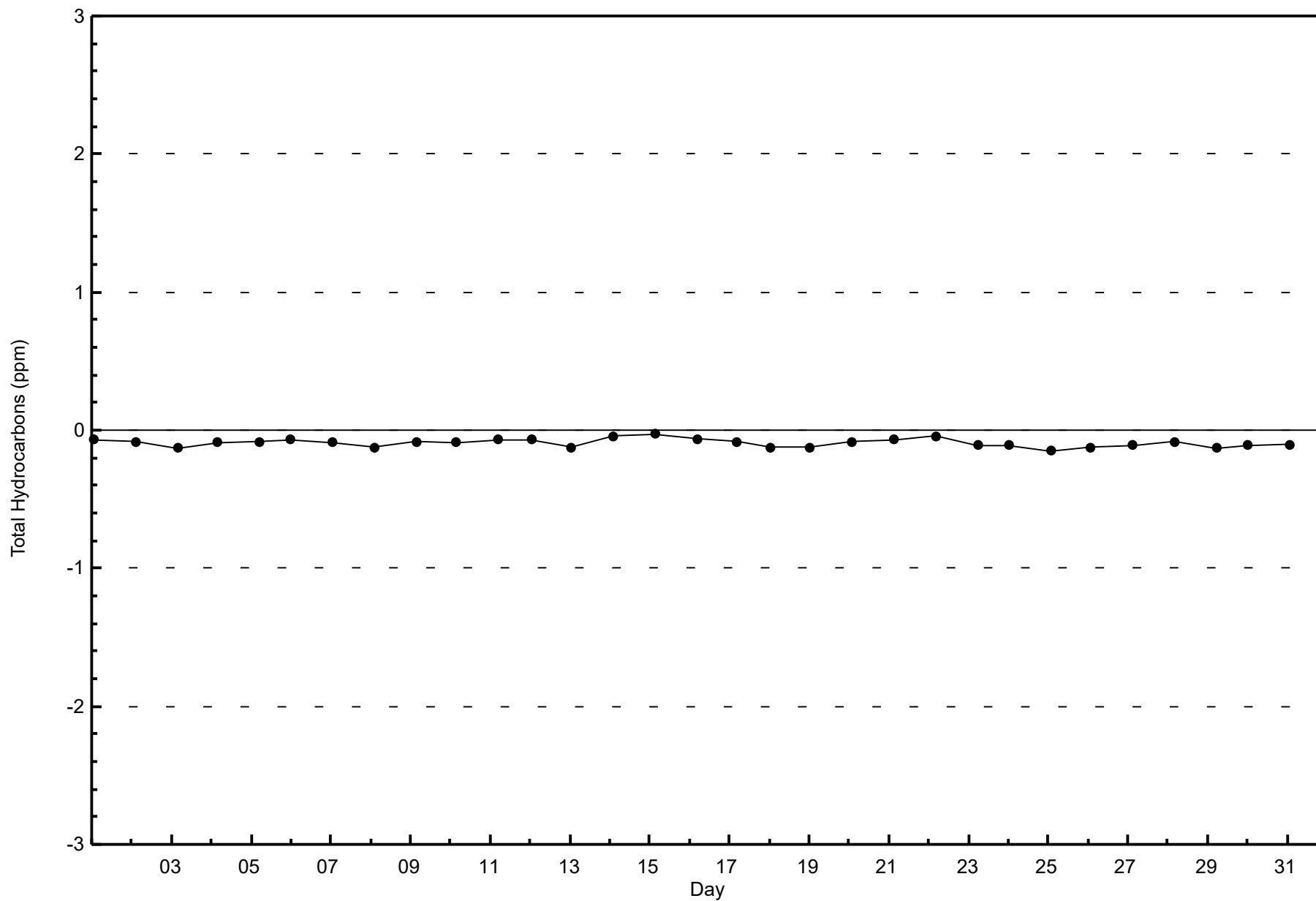
Total Hydrocarbons (THC) - ppm
Mackay River





Wood Buffalo Environmental Association
Zero Responses

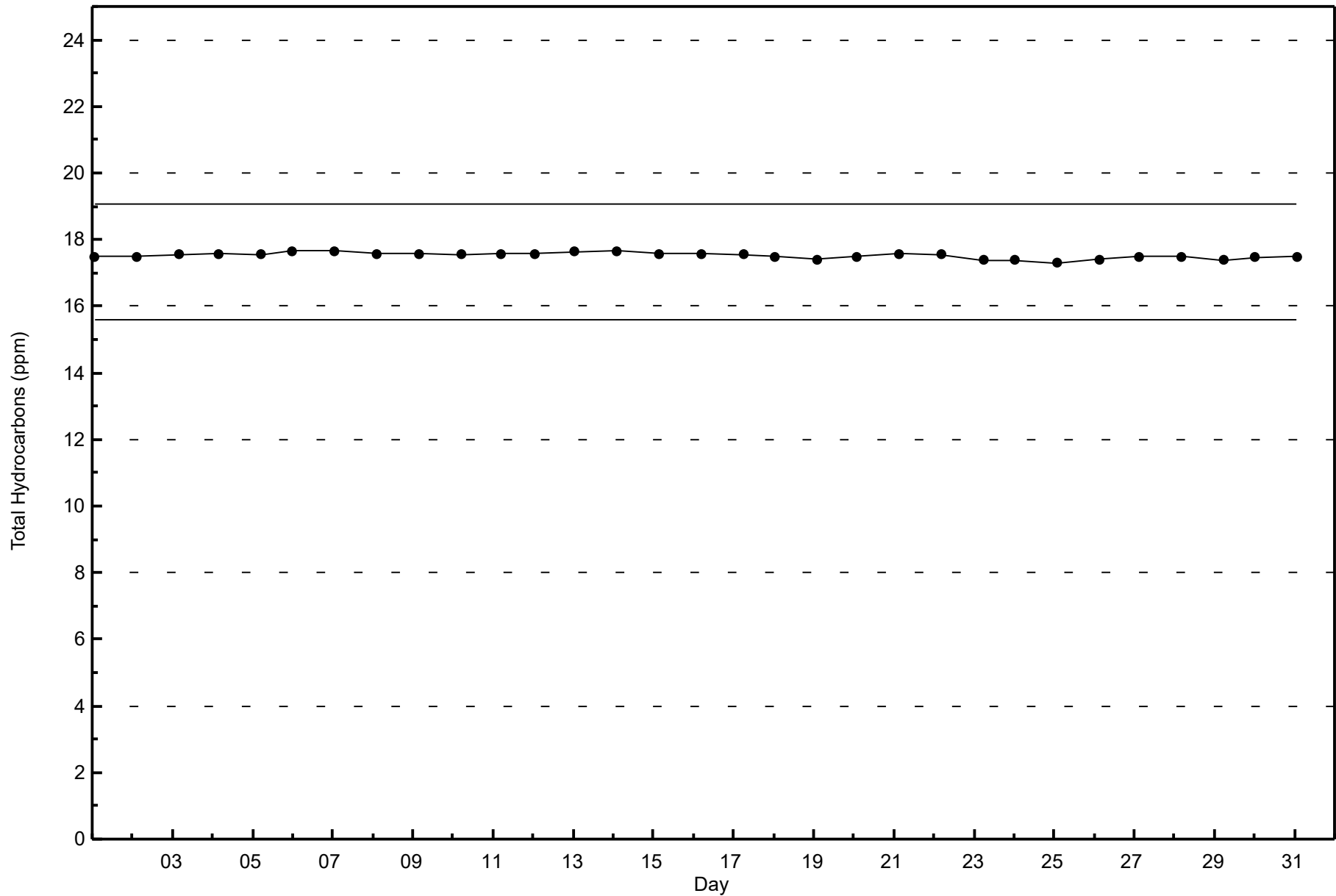
Total Hydrocarbons (THC) - ppm
Mackay River - July 2026





Wood Buffalo Environmental Association
Span Responses

Total Hydrocarbons (THC) - ppm
Mackay River - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

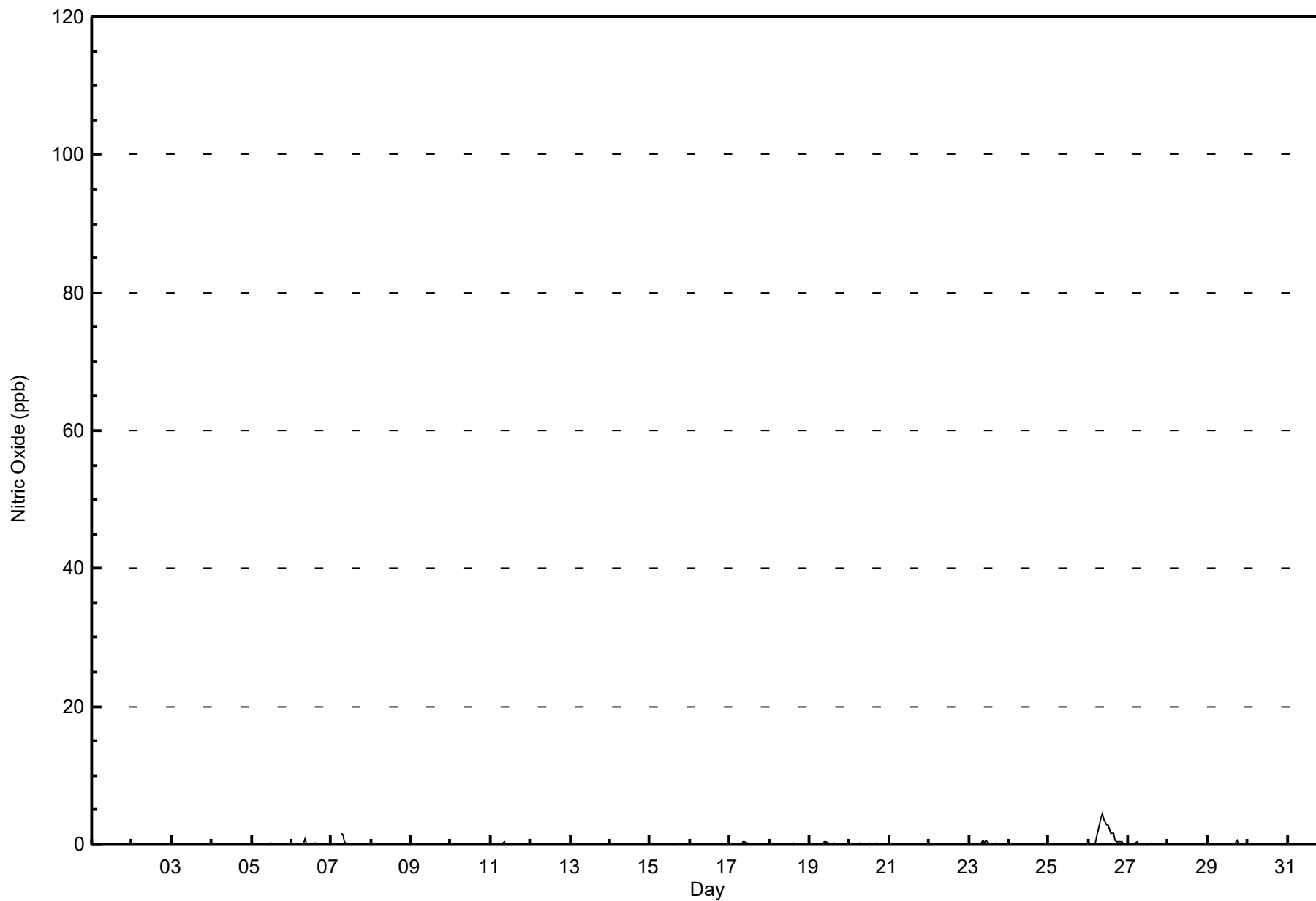
Mackay River - July 2026

Maximum Value: 4.4 ppb on Jul 26 09:00																		Maximum Daily Average: 1.4 ppb on Jul 26										Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 1 01:00																		Minimum Daily Average: 0.0 ppb on Jul 9										Hours of Data: 708	
Maximum Diurnal Average: 0.2 ppb at hour 9																		Minimum Diurnal Average: 0.0 ppb at hour 23										Hours of Missing Data: 36	
Monthly Average: 0.07 ppb																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.1 P ₉₉ = 1.6										Hours of Calibration: 36	
																												Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
3-Jul	0.0	Z	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
4-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
5-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2			
6-Jul	0.0	0.1	0.0	0.0	Z	0.0	0.0	0.2	0.8	0.2	0.1	0.3	0.1	0.1	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			
7-Jul	0.0	0.0	0.0	0.1	0.1	Z	1.6	1.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2			
8-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
9-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
10-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
11-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
12-Jul	0.1	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			
13-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
14-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
15-Jul	0.0	Z	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.1			
16-Jul	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			
17-Jul	0.1	0.0	0.0	Z	0.1	0.1	0.0	0.0	0.3	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			
18-Jul	0.0	0.0	0.1	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
19-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.2	0.4	0.5	0.3	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			
20-Jul	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2			
21-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			
22-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
23-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.6	0.3	0.6	0.4	0.2	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6			
24-Jul	0.0	0.0	0.0	0.1	Z	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2			
25-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
26-Jul	Z	0.0	0.0	0.0	0.2	1.2	2.0	3.8	4.4	3.6	3.2	2.8	2.9	1.5	1.6	1.6	0.7	0.3	0.4	0.5	0.4	0.1	0.0	0.0	1.4	4.4			
27-Jul	0.1	Z	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3			
28-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
29-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5			
30-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
31-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0																								Diurnal Average					
0.1 0.1 0.1 0.1 0.2 1.2 2.0 3.8 4.4 3.6 3.2 2.8 2.9 1.5 1.6 1.6 0.7 0.5 0.4 0.5 0.4 0.1 0.1 0.1 0.1 0.1																								Diurnal Maximum					
Z - zerospan C - Calibration																													



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Mackay River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Mackay River - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	708	100.00	100.00
21 - 40	0	0.00	100.00
41 - 60	0	0.00	100.00
61 - 80	0	0.00	100.00
81 - 100	0	0.00	100.00
101 - 120	0	0.00	100.00
121 - 140	0	0.00	100.00
141 - 160	0	0.00	100.00
161 - 180	0	0.00	100.00
181 - 200	0	0.00	100.00
201 - 220	0	0.00	100.00
221 - 240	0	0.00	100.00
241 - 260	0	0.00	100.00
261 - 280	0	0.00	100.00
281 - 300	0	0.00	100.00
301 - 320	0	0.00	100.00
321 - 340	0	0.00	100.00
341 - 360	0	0.00	100.00
361 - 380	0	0.00	100.00
381 - 400	0	0.00	100.00
401 - 420	0	0.00	100.00
421 - 440	0	0.00	100.00
441 - 460	0	0.00	100.00
461 - 480	0	0.00	100.00
481 - 500	0	0.00	100.00
501 - 520	0	0.00	100.00
521 - 540	0	0.00	100.00
541 - 560	0	0.00	100.00
561 - 580	0	0.00	100.00
581 - 600	0	0.00	100.00
601 - 620	0	0.00	100.00
621 - 640	0	0.00	100.00
641 - 660	0	0.00	100.00
661 - 680	0	0.00	100.00
681 - 700	0	0.00	100.00
701 - 720	0	0.00	100.00
721 - 740	0	0.00	100.00
741 - 760	0	0.00	100.00
761 - 780	0	0.00	100.00
781 - 800	0	0.00	100.00
801 - 820	0	0.00	100.00
821 - 840	0	0.00	100.00
841 - 860	0	0.00	100.00
861 - 880	0	0.00	100.00
881 - 900	0	0.00	100.00
901 - 920	0	0.00	100.00
921 - 940	0	0.00	100.00
941 - 960	0	0.00	100.00
961 - 980	0	0.00	100.00
981 - 1000	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Mackay River - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	12	15	20	10	10	56	80	43	84	65	111	82	51	33	24	12	708
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	12	15	20	10	10	56	80	43	84	65	111	82	51	33	24	12	708

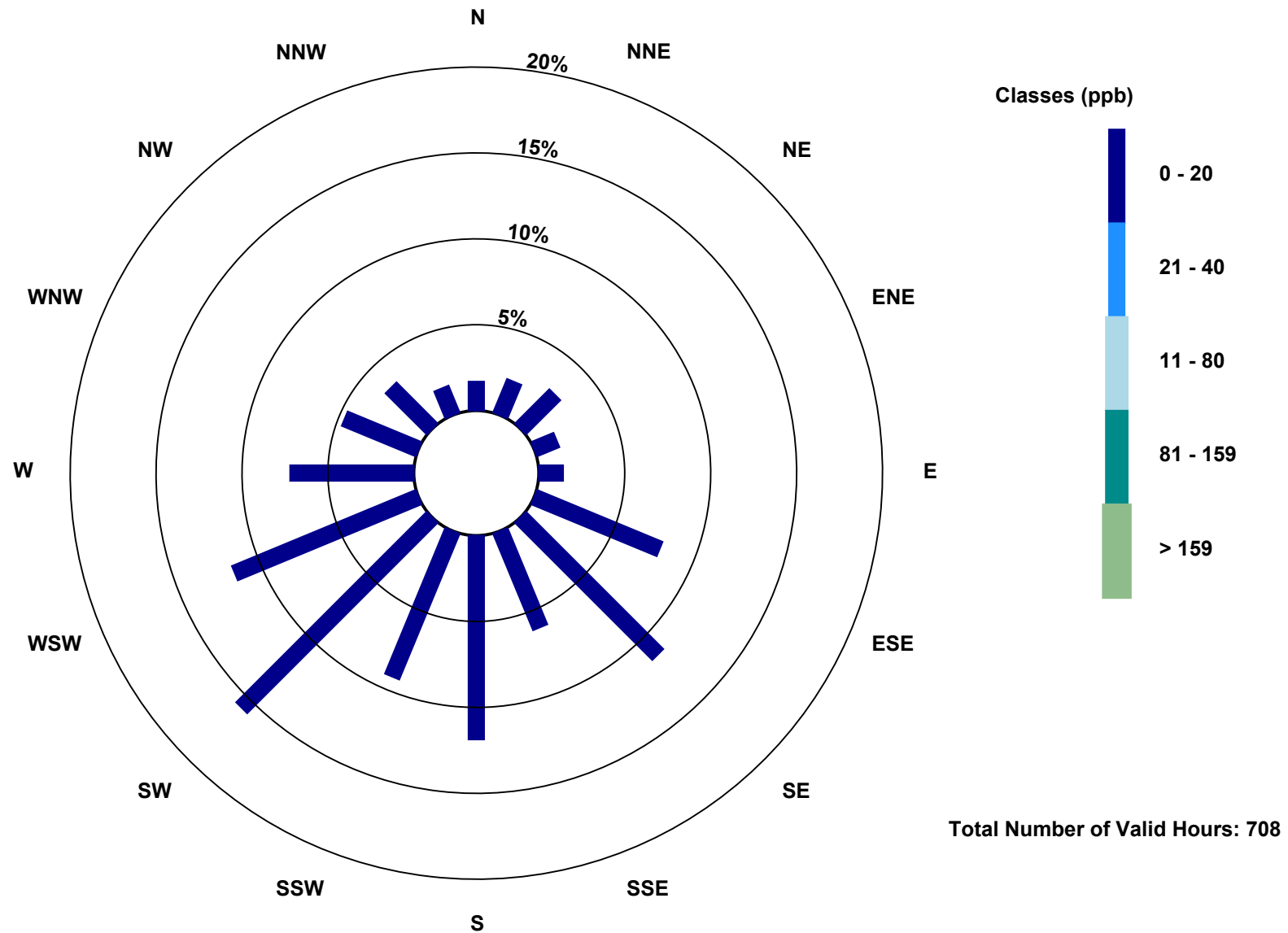
Total Number of Valid Hours: 708

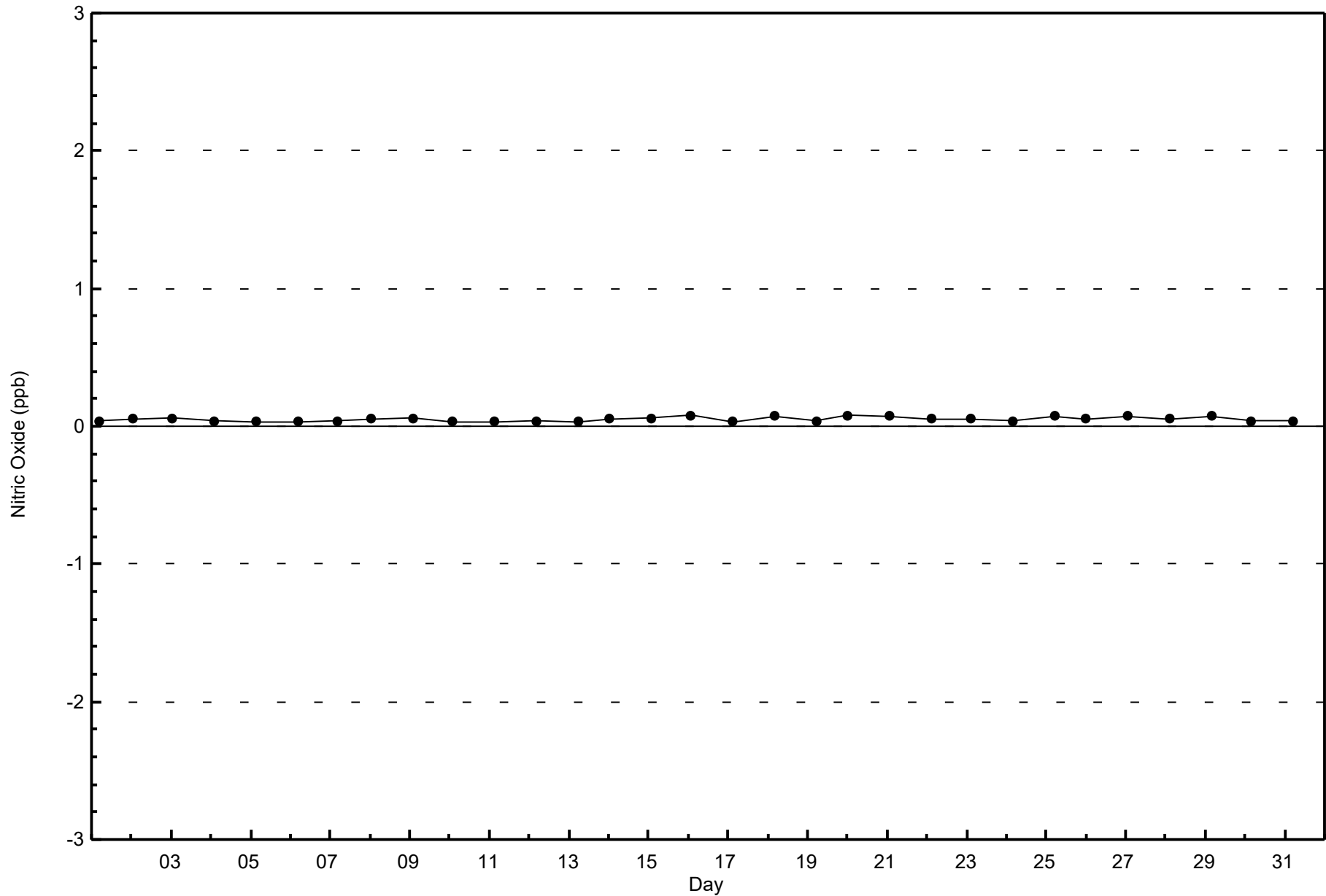
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitric Oxide (NO) - ppb
Mackay River

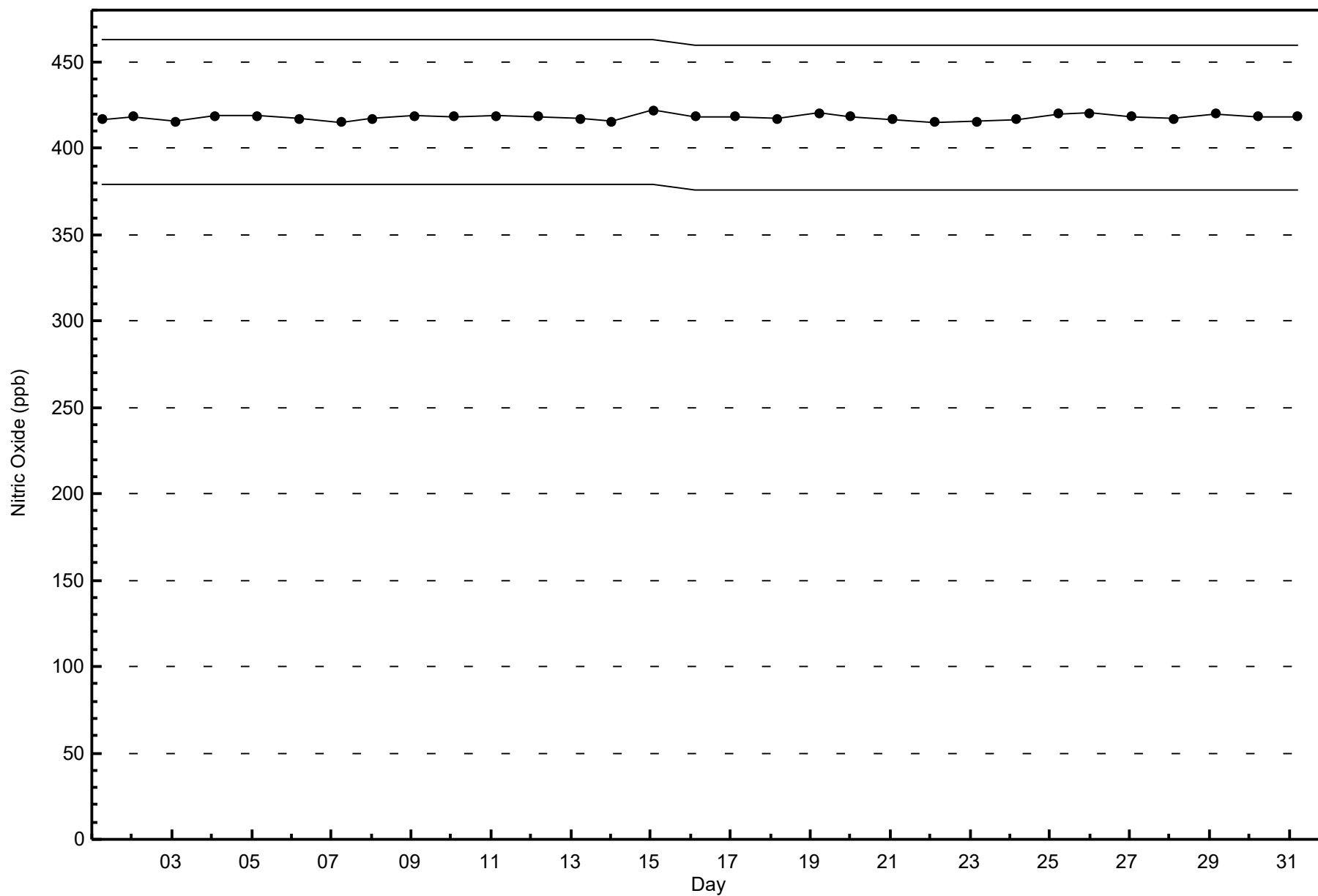






Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Mackay River - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

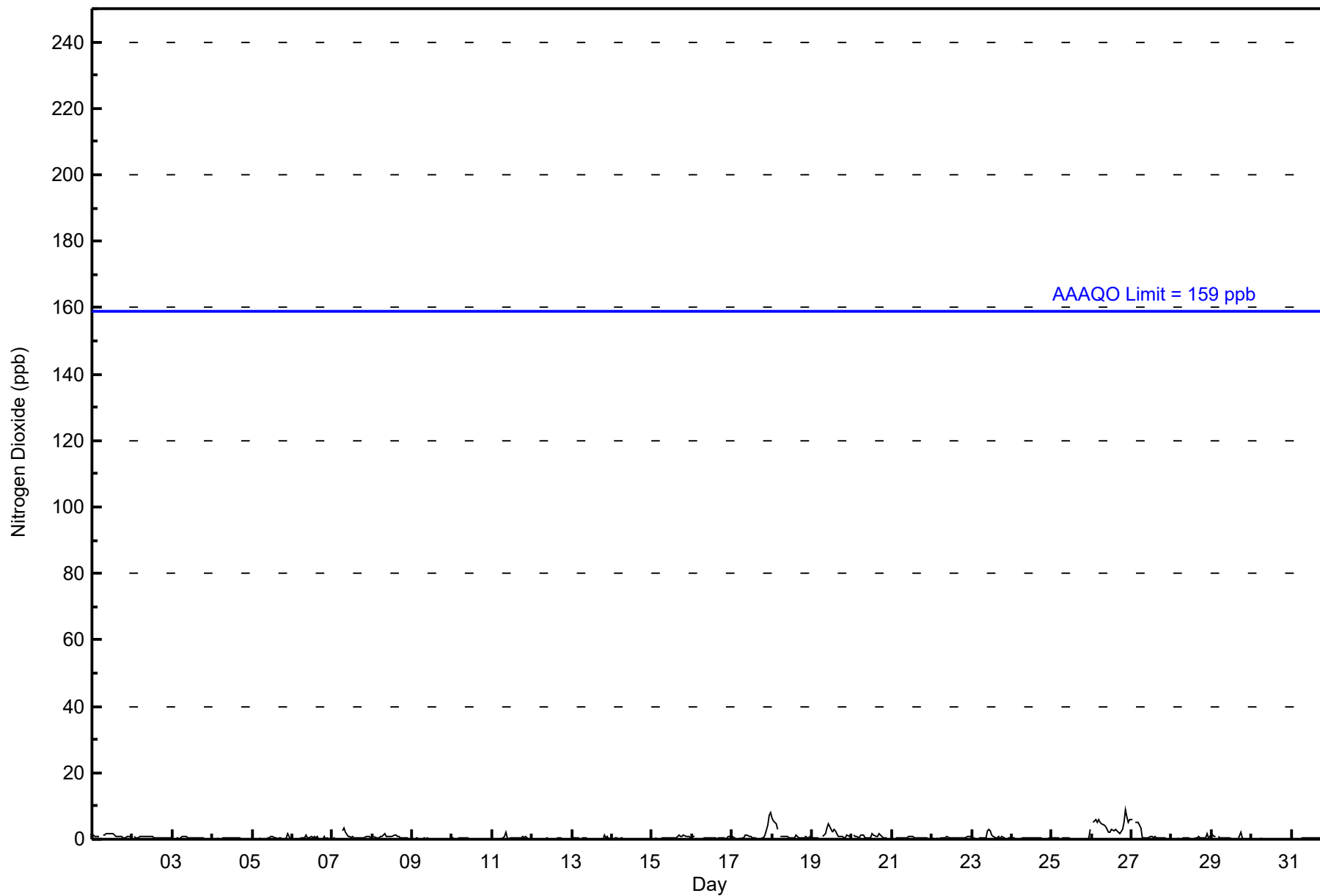
Mackay River - July 2026

Number of Exceedances (AAAQO): Maximum Value: 8.9 ppb on Jul 26 21:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 4.2 ppb on Jul 26						Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 14 14:00 Maximum Diurnal Average: 0.9 ppb at hour 3 Monthly Average: 0.71 ppb																			Minimum Daily Average: 0.1 ppb on Jul 14 Minimum Diurnal Average: 0.5 ppb at hour 19 Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 0.2 Median = 0.4 Q ₃ = 0.7 P ₉₀ = 1.2 P ₉₉ = 5.9						Hours of Data: 708	
																									Hours of Missing Data: 36	
																									Hours of Calibration: 36	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	1.1	1.0	0.9	0.8	0.8	Z	1.2	1.2	1.5	1.7	1.9	1.9	1.8	1.2	0.9	0.8	0.7	0.8	0.6	0.6	0.6	0.7	0.7	0.8	1.1	1.9
2-Jul	Z	0.7	0.6	0.6	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.4	0.6	0.8
3-Jul	0.4	Z	0.4	0.3	0.2	0.6	0.7	0.7	0.7	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.7
4-Jul	0.2	0.2	Z	0.3	0.2	0.2	0.3	0.3	0.3	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.6
5-Jul	0.2	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.3	0.4	1.0	0.9	0.6	0.6	0.2	0.3	0.5	0.2	0.2	0.3	1.5	0.8	0.2	0.4	1.5
6-Jul	0.2	0.1	0.2	0.2	Z	0.3	0.3	0.5	1.3	0.6	0.5	0.8	0.6	1.0	0.6	0.9	0.2	0.2	0.2	0.9	0.2	0.3	0.2	0.2	0.5	1.3
7-Jul	0.2	0.3	0.2	0.1	0.1	Z	2.4	3.4	2.1	1.0	0.7	0.6	0.7	0.6	0.5	0.5	0.6	0.5	0.5	0.6	0.7	0.9	0.9	0.6	0.8	3.4
8-Jul	Z	0.7	0.6	0.5	0.5	0.8	0.8	1.7	0.9	0.9	0.9	1.0	0.9	1.2	1.2	1.0	0.8	0.5	0.4	0.5	0.3	0.3	0.2	0.2	0.7	1.7
9-Jul	0.3	Z	0.5	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.5
10-Jul	0.3	0.3	Z	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5
11-Jul	0.2	0.2	0.1	Z	0.2	0.2	0.3	0.8	2.1	0.5	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.9	0.4	0.8	0.3	0.2	0.2	0.4	2.1
12-Jul	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4
13-Jul	0.2	0.3	0.3	0.3	0.3	Z	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	1.2	0.4	0.8	0.2	0.3	0.3	1.2
14-Jul	Z	0.4	0.3	0.3	0.2	0.3	0.3	C	C	C	C	C	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.4
15-Jul	0.1	Z	0.3	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.8	1.4	1.0	0.9	1.1	0.9	0.7	0.9	0.5	0.6	1.4
16-Jul	0.8	0.7	Z	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.5	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.5	0.8	0.8	0.4	0.8
17-Jul	0.9	0.5	0.3	Z	0.3	0.2	0.4	0.5	1.1	1.3	0.8	0.7	0.3	0.5	0.4	0.2	0.2	0.2	0.3	0.6	1.3	4.2	7.4	8.2	1.3	8.2
18-Jul	6.4	5.5	4.5	3.0	Z	0.9	0.9	0.8	0.7	0.7	0.4	0.3	0.3	0.4	1.2	0.7	0.5	0.5	0.6	0.6	0.7	0.6	0.6	0.7	1.4	6.4
19-Jul	0.6	0.5	0.5	0.5	0.3	Z	0.7	1.1	1.6	3.2	4.5	2.9	2.0	2.8	2.5	1.6	1.0	1.0	0.7	0.5	0.4	1.1	0.7	1.2	1.4	4.5
20-Jul	Z	1.1	0.9	0.9	0.4	1.1	1.4	1.4	0.4	0.4	0.6	0.6	1.6	1.2	0.8	0.7	1.5	1.1	0.7	0.5	0.4	0.2	0.2	0.2	0.8	1.6
21-Jul	0.3	Z	0.3	0.4	0.3	0.4	0.4	0.4	0.5	0.5	0.7	0.9	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.5	0.9
22-Jul	0.2	0.3	Z	0.3	0.2	0.3	0.4	0.4	0.5	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.7	0.7	0.5	0.7
23-Jul	0.6	0.5	0.6	Z	0.4	0.3	0.4	0.5	0.5	2.6	2.9	2.4	1.4	0.7	0.6	0.5	1.0	0.1	0.7	0.4	0.2	0.2	0.3	0.3	0.8	2.9
24-Jul	0.3	0.3	0.2	0.1	Z	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.5	0.4	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.5
25-Jul	0.3	0.3	0.3	0.3	0.3	Z	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.5	2.8	0.4	2.8
26-Jul	Z	4.9	5.8	5.1	5.9	4.9	4.5	4.2	4.0	3.1	2.3	2.3	3.0	2.6	3.0	2.7	2.1	1.9	3.1	5.2	8.9	6.6	5.0	6.1	4.2	8.9
27-Jul	6.1	Z	5.1	4.9	5.0	3.4	0.6	0.4	0.4	0.4	0.5	0.7	0.7	0.6	1.0	0.6	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.2	1.4	6.1
28-Jul	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.3	0.4	0.7	0.6	0.6	0.6	0.6	1.8	0.6	0.9	0.4	1.8
29-Jul	1.9	0.8	0.7	Z	0.7	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.1	0.2	2.0	0.3	0.2	0.2	0.2	0.2	0.2	0.5	2.0
30-Jul	0.1	0.1	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
31-Jul	0.2	0.2	0.2	0.2	0.2	Z	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.5	0.6	0.5	0.6	0.5	0.6	1.0	0.8	1.0	0.9	0.5	0.5	1.0
0.9 0.8 0.9 0.8 0.7 0.7 0.7 0.8 0.8 0.8 0.8 0.7 0.7 0.6 0.6 0.5 0.5 0.5 0.5 0.5 0.6 0.7 0.8 0.8 0.9 Diurnal Average																										
6.4 5.5 5.8 5.1 5.9 4.9 4.5 4.2 4.0 3.2 4.5 2.9 3.0 2.8 3.0 2.7 2.1 2.0 3.1 5.2 8.9 6.6 7.4 8.2 Diurnal Maximum																										
Z - zerospan C - Calibration																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Mackay River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Mackay River - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	708	100.00	100.00
21 - 40	0	0.00	100.00
41 - 60	0	0.00	100.00
61 - 80	0	0.00	100.00
81 - 100	0	0.00	100.00
101 - 120	0	0.00	100.00
121 - 140	0	0.00	100.00
141 - 160	0	0.00	100.00
161 - 180	0	0.00	100.00
181 - 200	0	0.00	100.00
201 - 220	0	0.00	100.00
221 - 240	0	0.00	100.00
241 - 260	0	0.00	100.00
261 - 280	0	0.00	100.00
281 - 300	0	0.00	100.00
301 - 320	0	0.00	100.00
321 - 340	0	0.00	100.00
341 - 360	0	0.00	100.00
361 - 380	0	0.00	100.00
381 - 400	0	0.00	100.00
401 - 420	0	0.00	100.00
421 - 440	0	0.00	100.00
441 - 460	0	0.00	100.00
461 - 480	0	0.00	100.00
481 - 500	0	0.00	100.00
501 - 520	0	0.00	100.00
521 - 540	0	0.00	100.00
541 - 560	0	0.00	100.00
561 - 580	0	0.00	100.00
581 - 600	0	0.00	100.00
601 - 620	0	0.00	100.00
621 - 640	0	0.00	100.00
641 - 660	0	0.00	100.00
661 - 680	0	0.00	100.00
681 - 700	0	0.00	100.00
701 - 720	0	0.00	100.00
721 - 740	0	0.00	100.00
741 - 760	0	0.00	100.00
761 - 780	0	0.00	100.00
781 - 800	0	0.00	100.00
801 - 820	0	0.00	100.00
821 - 840	0	0.00	100.00
841 - 860	0	0.00	100.00
861 - 880	0	0.00	100.00
881 - 900	0	0.00	100.00
901 - 920	0	0.00	100.00
921 - 940	0	0.00	100.00
941 - 960	0	0.00	100.00
961 - 980	0	0.00	100.00
981 - 1000	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Mackay River - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	12	15	20	10	10	56	80	43	84	65	111	82	51	33	24	12	708
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	12	15	20	10	10	56	80	43	84	65	111	82	51	33	24	12	708

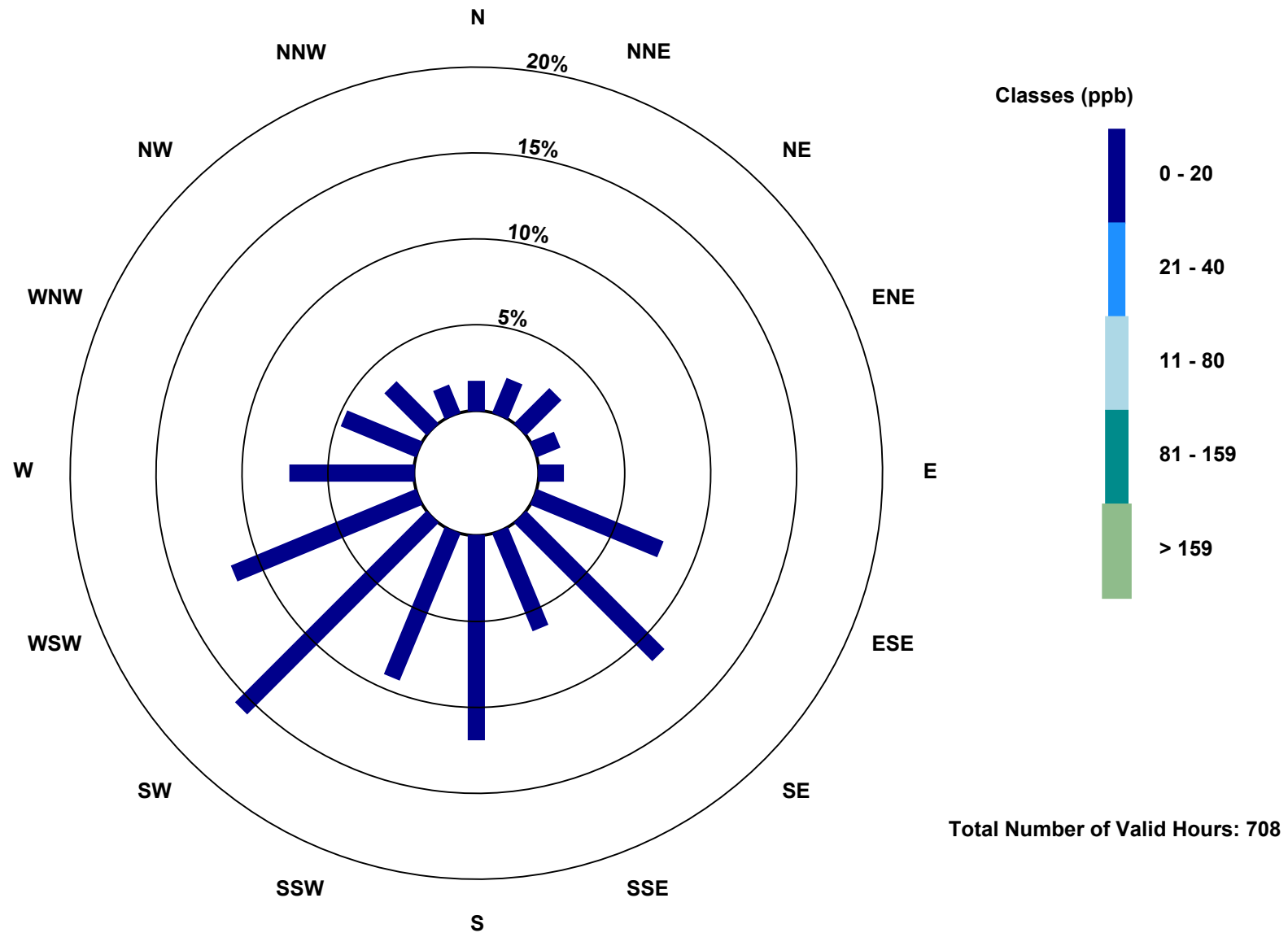
Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

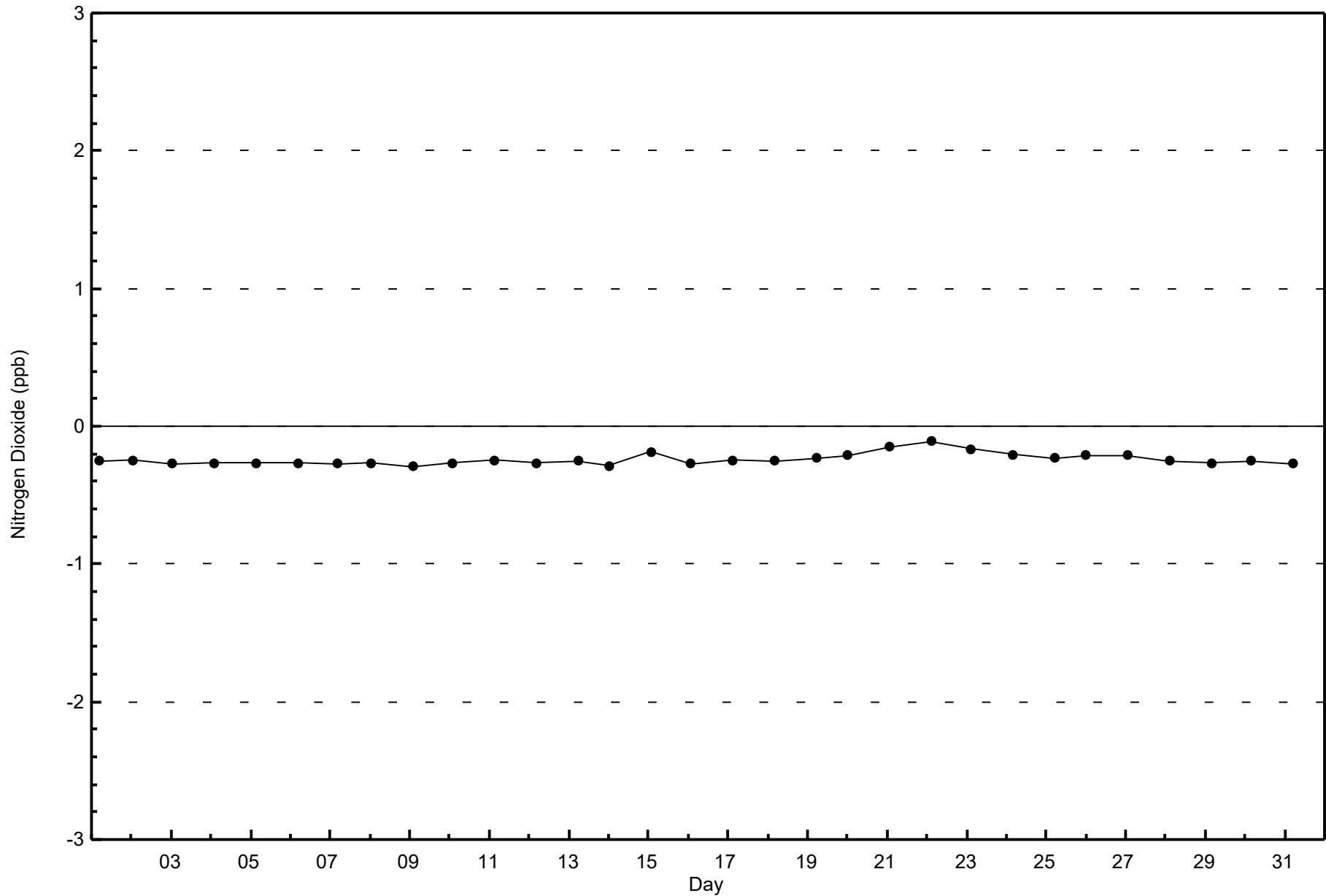
Nitrogen Dioxide (NO₂) - ppb
Mackay River





Wood Buffalo Environmental Association
Zero Responses

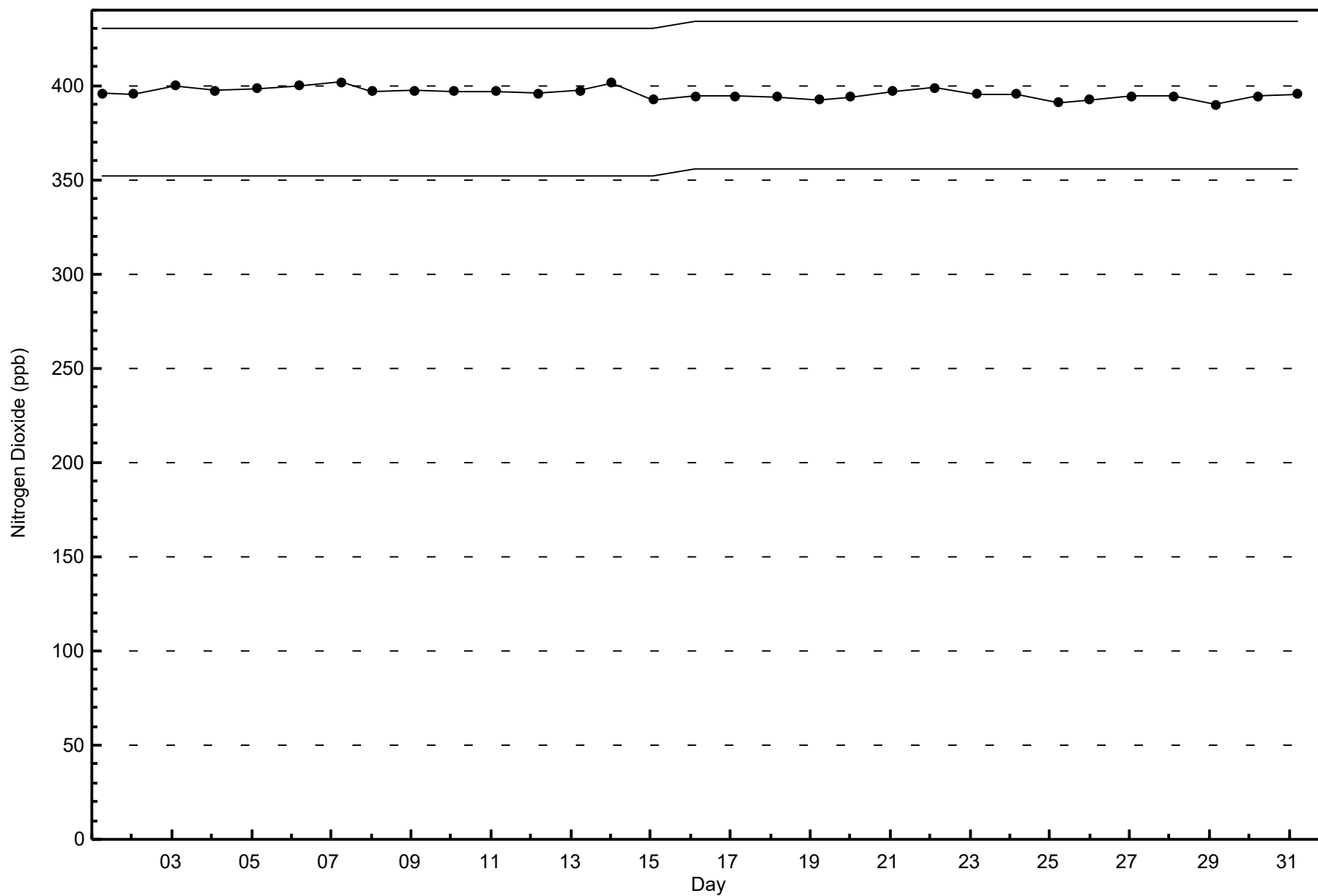
Nitrogen Dioxide (NO₂) - ppb
Mackay River - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Mackay River - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

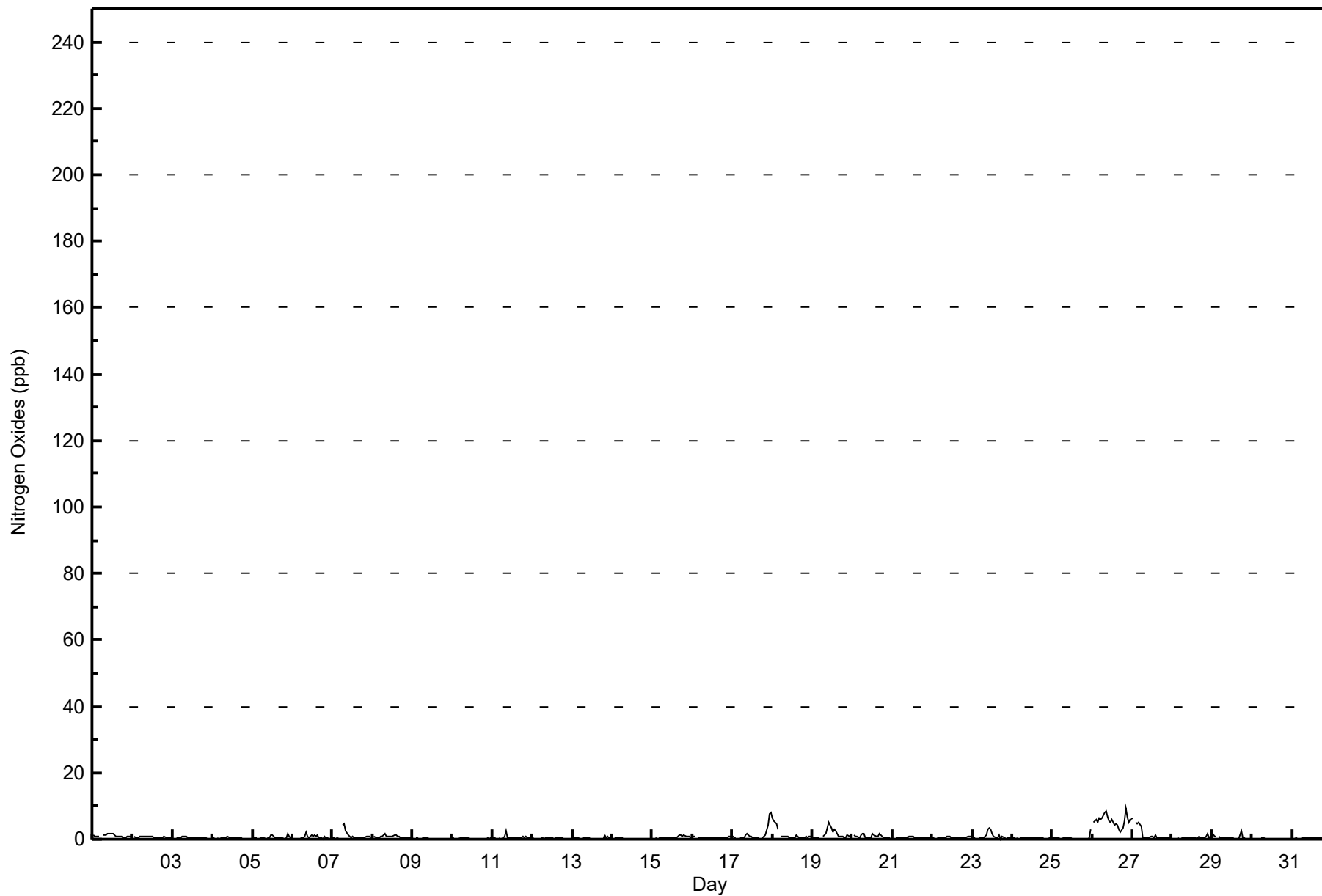
Mackay River - July 2026

Maximum Value: 9.3 ppb on Jul 26 21:00																		Maximum Daily Average: 5.6 ppb on Jul 26										Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 14 15:00																		Minimum Daily Average: 0.1 ppb on Jul 14										Hours of Data: 708	
Maximum Diurnal Average: 1.0 ppb at hour 9																		Minimum Diurnal Average: 0.5 ppb at hour 19										Hours of Missing Data: 36	
Monthly Average: 0.78 ppb																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 0.2 Median = 0.4 Q ₃ = 0.7 P ₉₀ = 1.3 P ₉₉ = 6.5										Hours of Calibration: 36	
																												Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	1.1	1.0	0.9	0.8	0.8	Z	1.2	1.2	1.5	1.7	1.9	1.9	1.8	1.2	0.9	0.8	0.7	0.8	0.6	0.6	0.6	0.7	0.7	0.8	1.1	1.9			
2-Jul	Z	0.7	0.6	0.6	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.4	0.6	0.8			
3-Jul	0.4	Z	0.4	0.3	0.3	0.6	0.8	0.8	0.7	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.8			
4-Jul	0.2	0.2	Z	0.3	0.2	0.2	0.3	0.3	0.3	0.7	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.7			
5-Jul	0.2	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.3	0.5	1.2	1.1	0.6	0.6	0.2	0.3	0.5	0.2	0.2	0.3	1.5	0.8	0.3	0.5	1.5			
6-Jul	0.2	0.2	0.2	0.2	Z	0.3	0.3	0.7	2.1	0.8	0.6	1.1	0.7	1.1	0.8	1.2	0.2	0.2	0.2	0.9	0.2	0.3	0.2	0.2	0.6	2.1			
7-Jul	0.2	0.3	0.2	0.2	0.2	Z	4.0	4.9	2.6	1.1	0.7	0.6	0.7	0.6	0.5	0.5	0.6	0.5	0.5	0.6	0.7	0.9	0.9	0.6	1.0	4.9			
8-Jul	Z	0.7	0.6	0.5	0.5	0.8	0.8	1.7	0.9	0.9	0.9	1.0	0.9	1.2	1.2	1.0	0.8	0.5	0.4	0.5	0.3	0.3	0.2	0.2	0.7	1.7			
9-Jul	0.3	Z	0.5	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.5			
10-Jul	0.3	0.3	Z	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5			
11-Jul	0.2	0.2	0.1	Z	0.2	0.2	0.3	1.0	2.6	0.5	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.9	0.4	0.8	0.3	0.2	0.2	0.5	2.6			
12-Jul	0.3	0.2	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4			
13-Jul	0.2	0.3	0.3	0.3	0.3	Z	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	1.2	0.4	0.8	0.2	0.3	0.3	1.2			
14-Jul	Z	0.4	0.3	0.3	0.2	0.3	0.3	C	C	C	C	C	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.4			
15-Jul	0.1	Z	0.3	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.8	1.4	1.1	1.0	1.1	0.9	0.7	0.9	0.5	0.6	1.4			
16-Jul	0.8	0.7	Z	0.3	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.5	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.5	0.8	0.8	0.4	0.8			
17-Jul	1.0	0.5	0.3	Z	0.4	0.3	0.4	0.5	1.4	1.7	1.0	0.8	0.3	0.5	0.4	0.2	0.2	0.3	0.6	1.3	4.2	7.4	8.2	1.4	8.2				
18-Jul	6.4	5.5	4.6	3.1	Z	0.9	0.9	0.8	0.7	0.7	0.4	0.3	0.3	0.4	1.3	0.7	0.5	0.5	0.6	0.6	0.7	0.6	0.6	0.7	1.4	6.4			
19-Jul	0.6	0.5	0.5	0.5	0.3	Z	0.7	1.1	1.8	3.6	5.0	3.2	2.0	2.9	2.5	1.7	1.1	1.0	0.7	0.5	0.4	1.1	0.7	1.2	1.5	5.0			
20-Jul	Z	1.1	0.9	0.9	0.4	1.2	1.5	1.5	0.4	0.4	0.6	0.6	1.8	1.3	0.8	0.7	1.7	1.2	0.7	0.5	0.4	0.2	0.3	0.2	0.8	1.8			
21-Jul	0.3	Z	0.3	0.4	0.3	0.4	0.4	0.4	0.5	0.5	0.8	1.0	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.5	1.0			
22-Jul	0.2	0.3	Z	0.3	0.2	0.3	0.4	0.4	0.5	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.7	0.7	0.5	0.7			
23-Jul	0.6	0.5	0.6	Z	0.4	0.3	0.5	0.5	1.1	2.9	3.5	2.8	1.6	0.7	0.6	0.6	1.3	0.1	0.7	0.4	0.2	0.2	0.3	0.3	0.9	3.5			
24-Jul	0.3	0.3	0.2	0.2	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.5	0.4	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.5			
25-Jul	0.3	0.3	0.3	0.3	0.3	Z	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.5	2.8	0.4	2.8			
26-Jul	Z	4.9	5.8	5.1	6.1	6.1	6.5	8.0	8.4	6.7	5.5	5.1	5.9	4.1	4.6	4.3	2.8	2.2	3.5	5.7	9.3	6.7	5.0	6.1	5.6	9.3			
27-Jul	6.2	Z	5.1	4.9	5.1	3.7	0.6	0.4	0.4	0.4	0.5	0.8	0.8	0.6	1.2	0.6	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.2	1.5	6.2			
28-Jul	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.7	0.6	0.6	0.6	1.8	0.6	0.9	0.4	1.8			
29-Jul	1.9	0.8	0.7	Z	0.7	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.1	0.2	2.5	0.3	0.2	0.2	0.2	0.2	0.2	0.5	2.5			
30-Jul	0.1	0.1	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3			
31-Jul	0.2	0.2	0.2	0.2	0.2	Z	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.5	0.6	0.5	0.6	0.5	0.6	1.0	0.8	1.0	0.9	0.5	0.5	1.0			
Diurnal Average																										Diurnal Maximum			
Diurnal Maximum																													
Z - zerospan C - Calibration																													



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Mackay River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Mackay River - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	708	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Mackay River - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	12	15	20	10	10	56	80	43	84	65	111	82	51	33	24	12	708
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	12	15	20	10	10	56	80	43	84	65	111	82	51	33	24	12	708

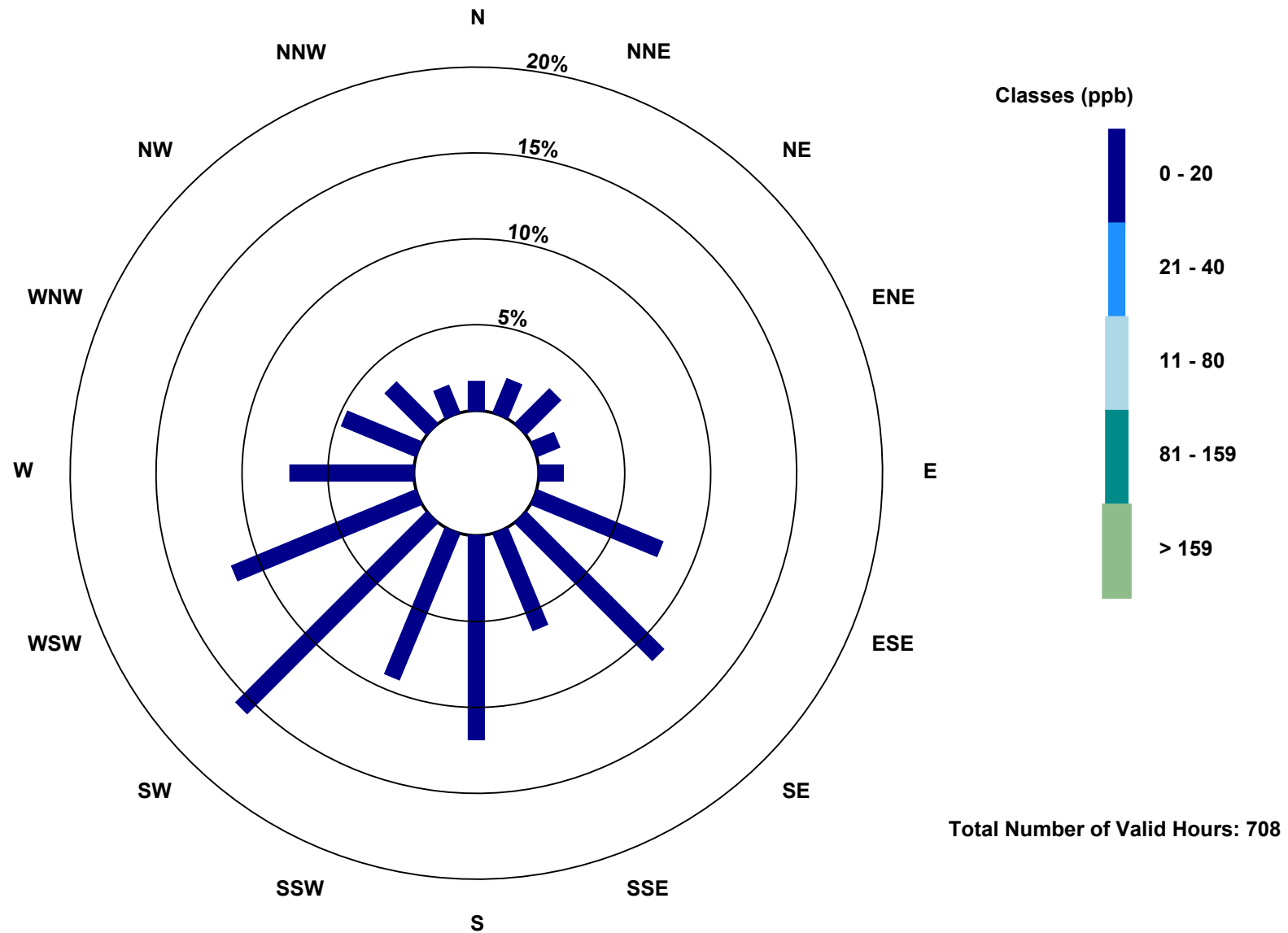
Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

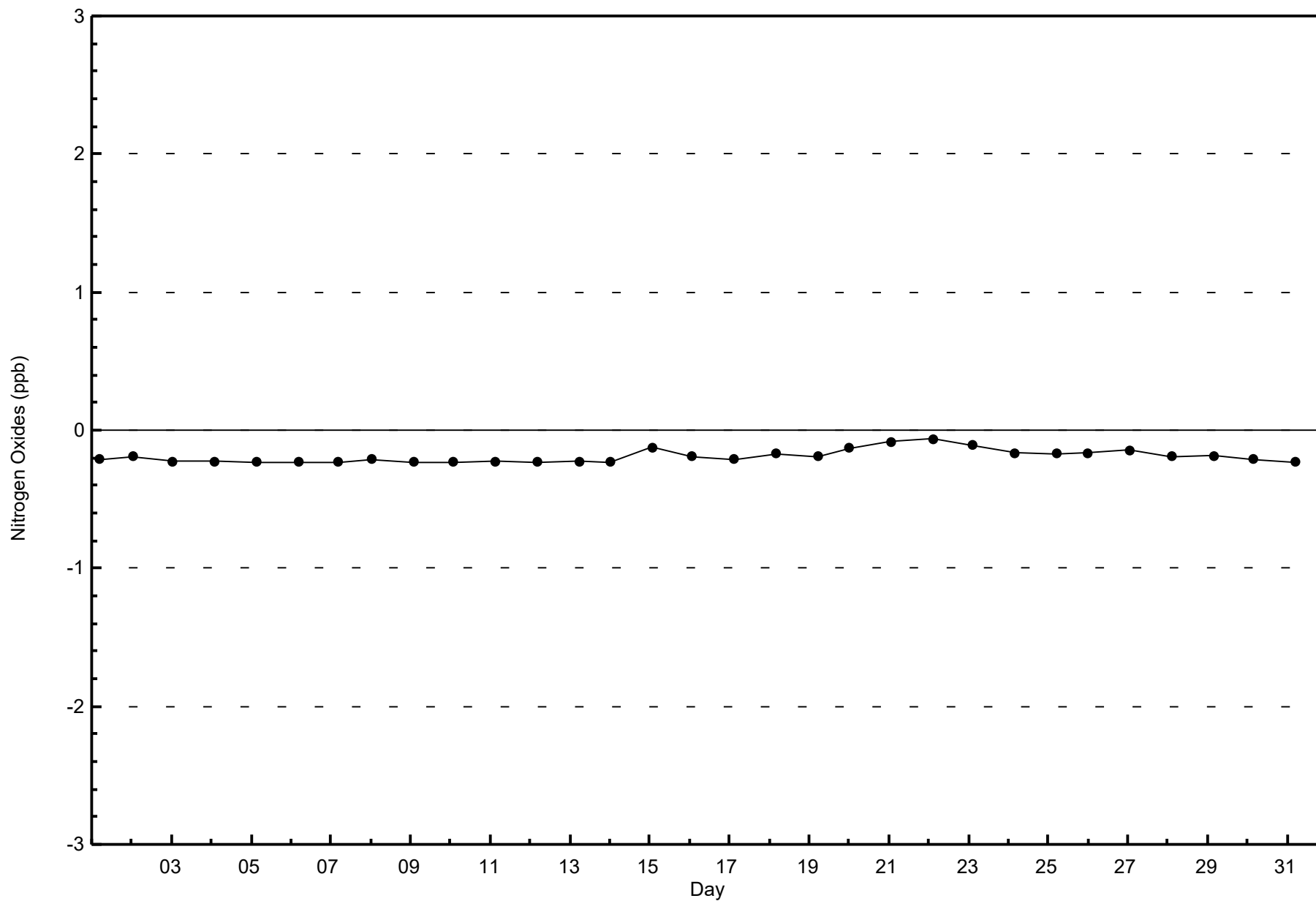
Nitrogen Oxides (NO_x) - ppb
Mackay River





Wood Buffalo Environmental Association
Zero Responses

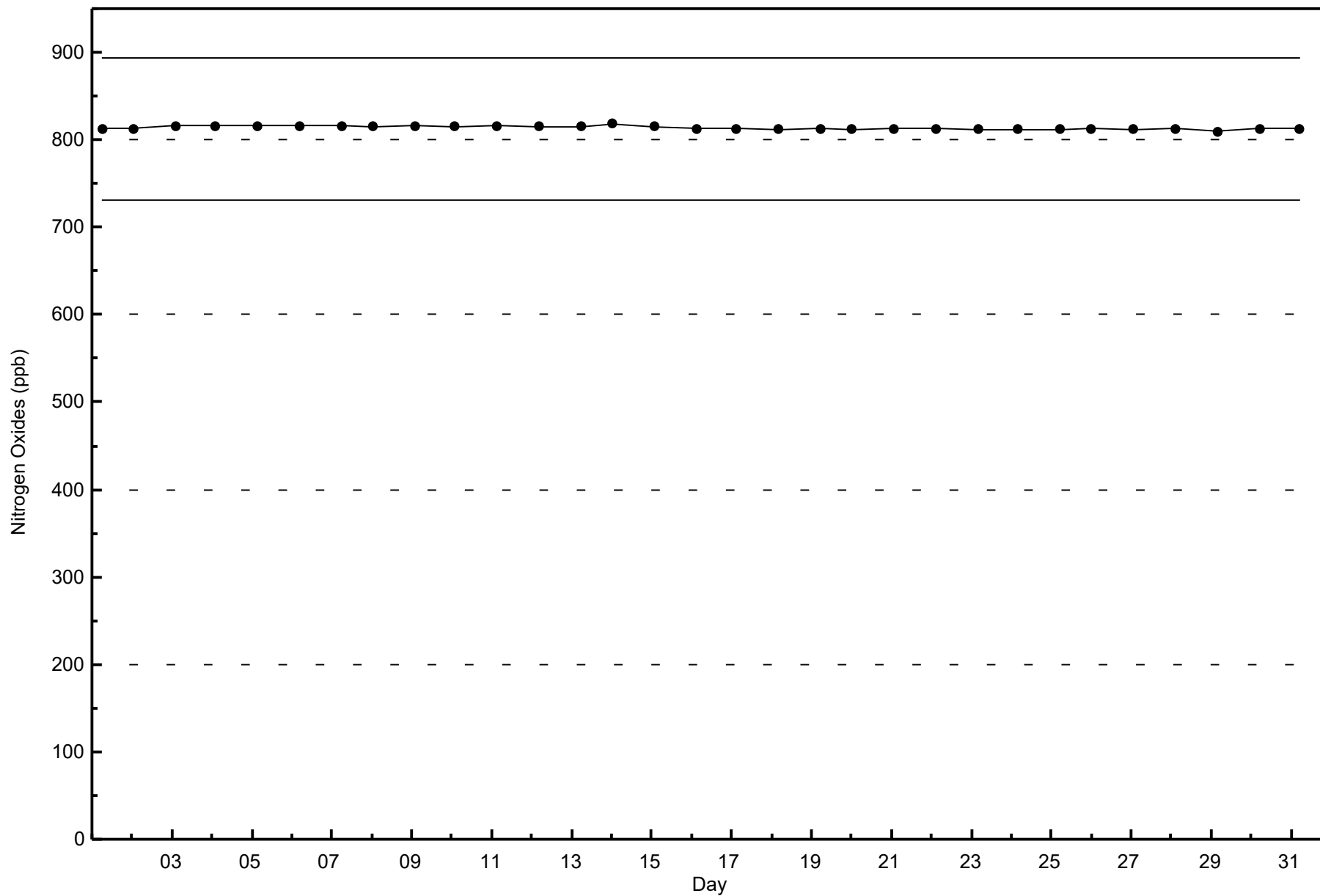
Nitrogen Oxides (NO_x) - ppb
Mackay River - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Mackay River - July 2026

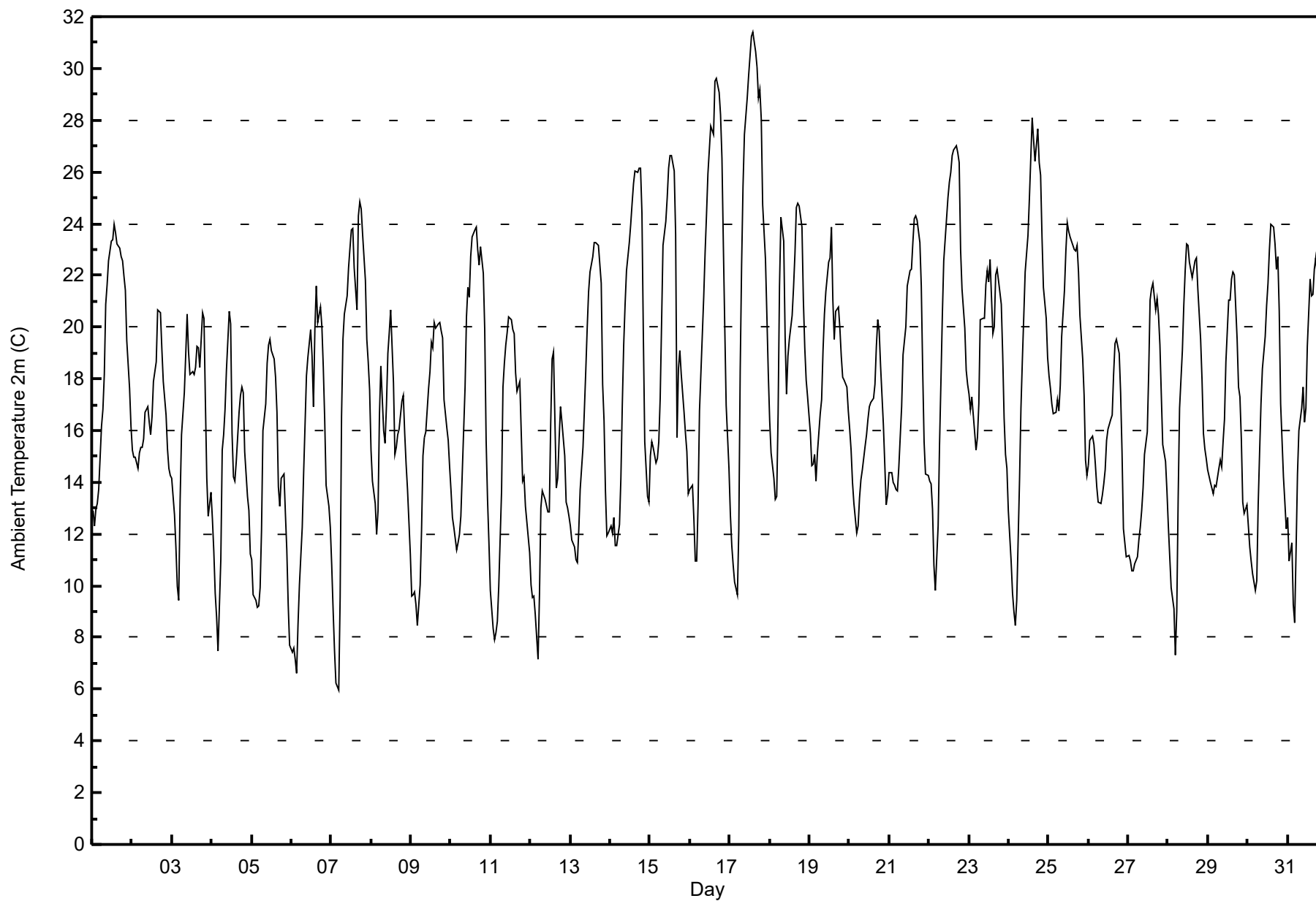


Maximum Value: 31.4 C on Jul 17 15:00																				Maximum Daily Average: 22.7 C on Jul 17					Hours in Service: 744				
Minimum Value: 6.0 C on Jul 7 05:00																				Minimum Daily Average: 13.3 C on Jul 12					Hours of Data: 744				
Maximum Diurnal Average: 21.8 C at hour 15																				Minimum Diurnal Average: 11.1 C at hour 5					Hours of Missing Data: 0				
Monthly Average: 17.40 C																				Percentiles: P ₁ = 7.5 P ₁₀ = 11.1 Q ₁ = 13.8 Median = 17.0 Q ₃ = 20.9 P ₉₀ = 23.7 P ₉₉ = 29.4					Hours of Calibration: 0				
																									Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																				Daily Average	Daily Maximum							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			21	22	23	24			
1-Jul	12.9	12.3	13.0	13.2	13.7	16.2	16.8	18.2	20.9	21.7	22.6	23.3	23.4	23.9	23.6	23.2	23.0	22.7	22.6	21.9	21.4	19.4	17.6	16.1	19.3	23.9			
2-Jul	15.2	15.0	14.9	14.5	15.1	15.4	15.4	15.7	16.7	16.9	16.3	15.8	16.5	17.9	18.7	20.6	20.6	20.6	19.2	17.9	16.6	15.3	14.5	14.3	16.7	20.6			
3-Jul	14.2	12.8	11.5	10.0	9.4	13.3	15.8	17.4	19.0	20.5	19.0	18.2	18.3	18.2	18.5	19.3	19.2	18.5	20.5	20.4	17.1	14.2	12.7	13.6	16.3	20.5			
4-Jul	12.6	11.3	9.7	8.8	7.5	11.0	15.2	15.8	16.8	18.4	20.6	20.1	15.9	14.2	14.1	14.8	16.7	17.3	17.7	17.5	15.2	13.5	12.9	11.2	14.5	20.6			
5-Jul	11.0	9.6	9.4	9.2	9.2	9.9	12.1	16.0	17.0	18.6	19.3	19.5	19.1	18.8	18.1	16.7	13.8	13.1	14.1	14.3	12.8	11.4	9.3	7.7	13.8	19.5			
6-Jul	7.4	7.6	7.2	6.6	8.5	10.0	12.3	14.4	16.2	18.1	18.8	19.9	18.9	16.9	19.9	21.6	20.2	20.8	20.0	18.4	16.4	13.9	13.0	12.3	15.0	21.6			
7-Jul	10.8	9.1	7.5	6.3	6.0	9.5	16.5	19.5	20.5	21.2	22.3	23.1	23.8	23.8	22.3	20.7	24.3	24.8	24.6	23.6	21.8	19.5	18.7	17.6	18.2	24.8			
8-Jul	15.3	14.0	13.2	12.0	12.9	16.6	18.5	16.0	15.5	17.0	19.0	19.8	20.6	17.8	15.1	15.4	15.9	16.0	17.1	17.3	15.9	14.7	13.7	11.2	15.9	20.6			
9-Jul	9.6	9.7	9.8	9.3	8.5	10.1	12.2	15.0	15.7	16.0	17.6	18.3	19.4	19.2	20.2	20.0	20.1	20.2	19.9	19.6	17.2	16.1	15.6	14.6	15.6	20.2			
10-Jul	13.6	12.6	12.2	11.4	11.7	12.0	12.7	14.4	17.7	20.4	21.5	21.1	22.7	23.5	23.8	23.8	23.0	22.4	23.1	22.1	19.9	15.6	13.3	11.6	17.8	23.8			
11-Jul	9.8	8.4	7.9	8.2	8.7	10.0	13.7	17.7	18.6	19.3	19.8	20.4	20.3	19.9	19.7	18.2	17.5	17.9	15.9	14.1	14.2	13.1	12.5	11.3	14.9	20.4			
12-Jul	10.0	9.6	9.6	8.9	7.2	9.7	13.0	13.6	13.5	13.3	12.9	12.8	16.3	18.8	19.0	13.8	14.2	15.7	16.9	16.3	15.0	13.2	13.0	12.7	13.3	19.0			
13-Jul	12.3	11.8	11.5	11.0	10.9	12.2	13.7	15.3	16.8	18.3	20.0	21.4	22.2	22.7	23.3	23.3	23.2	23.1	21.7	17.8	16.4	13.7	11.9	12.0	16.9	23.3			
14-Jul	12.3	12.1	12.6	11.6	11.6	12.3	14.2	17.0	19.3	20.9	22.2	23.3	23.9	24.8	25.5	26.1	26.0	26.2	26.1	24.4	19.7	15.5	13.5	13.3	18.9	26.2			
15-Jul	15.0	15.6	15.3	14.7	14.9	15.5	17.3	20.2	23.2	24.1	25.0	26.2	26.6	26.7	26.1	23.6	15.7	18.4	19.1	18.2	16.7	15.9	15.2	13.5	19.3	26.7			
16-Jul	13.7	13.9	12.6	11.0	10.9	13.2	16.7	19.7	21.1	22.9	24.4	25.9	27.8	27.6	27.5	29.5	29.6	29.1	28.2	26.5	23.1	20.0	17.0	14.6	21.1	29.6			
17-Jul	12.8	11.5	10.8	10.1	9.6	12.2	18.3	22.4	25.4	27.4	28.9	29.7	30.5	31.2	31.4	30.7	30.0	28.8	29.2	28.0	24.8	22.6	20.5	18.2	22.7	31.4			
18-Jul	16.4	15.1	14.2	13.4	13.4	16.6	21.6	24.2	23.3	19.6	17.4	18.9	19.5	20.4	21.5	22.9	24.6	24.8	24.7	23.9	21.0	19.2	17.9	17.3	19.7	24.8			
19-Jul	15.9	14.6	14.7	15.1	14.0	15.1	16.7	17.2	19.1	20.5	21.4	22.5	22.7	23.9	21.1	19.5	20.6	20.8	20.0	18.9	18.1	17.9	17.7	16.8	18.5	23.9			
20-Jul	16.0	15.2	14.0	13.2	12.0	12.3	13.4	14.1	14.5	15.4	15.9	16.5	16.9	17.1	17.3	17.8	19.3	20.3	19.8	18.5	16.2	14.7	13.2	13.5	15.7	20.3			
21-Jul	14.4	14.4	14.0	13.9	13.7	13.6	14.6	16.9	18.9	19.5	20.0	21.6	22.2	22.3	23.3	24.2	24.3	24.2	23.3	21.6	18.3	15.6	14.3	14.3	18.5	24.3			
22-Jul	14.0	14.0	13.0	10.8	9.8	12.3	15.5	17.9	20.4	22.6	24.2	25.0	25.6	26.0	26.6	26.9	27.0	26.7	26.4	23.0	21.5	20.0	18.3	17.8	20.2	27.0			
23-Jul	17.4	16.8	17.3	15.9	15.2	15.8	17.0	20.3	20.3	20.3	21.6	22.2	21.8	22.6	19.8	20.0	22.0	22.2	21.8	20.9	18.9	16.5	15.1	14.5	19.0	22.6			
24-Jul	12.9	10.9	9.7	9.0	8.5	9.5	14.1	16.9	18.7	20.4	22.1	23.5	24.9	26.5	28.1	27.2	26.4	27.7	26.4	25.9	23.5	21.5	20.3	18.8	19.7	28.1			
25-Jul	18.1	17.6	17.1	16.7	16.7	17.2	16.7	17.7	19.6	21.4	23.0	24.1	23.7	23.5	23.3	23.0	22.9	23.2	22.1	20.5	18.8	17.4	14.9	14.3	19.7	24.1			
26-Jul	14.7	15.6	15.8	15.5	14.7	13.9	13.2	13.5	13.9	14.5	15.6	16.1	16.4	16.6	18.2	19.4	19.5	19.0	17.4	15.2	12.2	11.7	11.1	15.3	19.5				
27-Jul	11.2	11.0	10.6	10.6	10.9	11.1	11.8	12.2	12.9	13.8	15.1	15.9	18.2	21.0	21.5	21.7	20.6	21.1	20.5	19.3	17.4	15.5	14.8	13.6	15.5	21.7			
28-Jul	12.3	11.1	9.9	9.1	7.3	9.0	13.4	16.9	19.1	20.8	22.2	23.2	23.2	22.5	21.9	22.2	22.6	22.7	21.5	19.6	18.0	15.9	15.3	14.9	17.3	23.2			
29-Jul	14.5	14.0	13.8	13.6	13.9	13.8	14.5	14.9	14.6	15.6	16.5	18.7	21.0	21.0	21.9	22.2	22.0	19.5	17.7	17.3	15.7	13.2	12.8	13.1	16.5	22.2			
30-Jul	12.3	11.5	10.9	10.5	9.8	10.2	13.1	15.1	17.0	18.4	19.6	20.8	21.7	23.0	24.0	23.9	23.2	22.2	22.7	20.6	17.0	14.2	13.3	12.2	17.0	24.0			
31-Jul	12.6	11.0	11.7	9.3	8.6	11.4	14.3	16.0	16.9	17.7	16.3	16.9	19.3	21.9	21.2	21.3	22.2	22.7	22.0	21.0	18.4	16.9	15.9	13.9	16.6	22.7			
13.3 12.6 12.1 11.4 11.1 12.6 15.0 16.8 18.2 19.2 20.0 20.8 21.4 21.7 21.8 21.7 21.6 21.7 21.4 20.2 18.1 16.1 14.9 13.9																									Diurnal Average				
18.1 17.6 17.3 16.7 16.7 17.2 21.6 24.2 25.4 27.4 28.9 29.7 30.5 31.2 31.4 30.7 30.0 29.1 29.2 28.0 24.8 22.6 20.5 18.8																									Diurnal Maximum				



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Mackay River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Mackay River - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	51	6.85	6.85
10 - 20	464	62.37	69.22
> 20	229	30.78	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

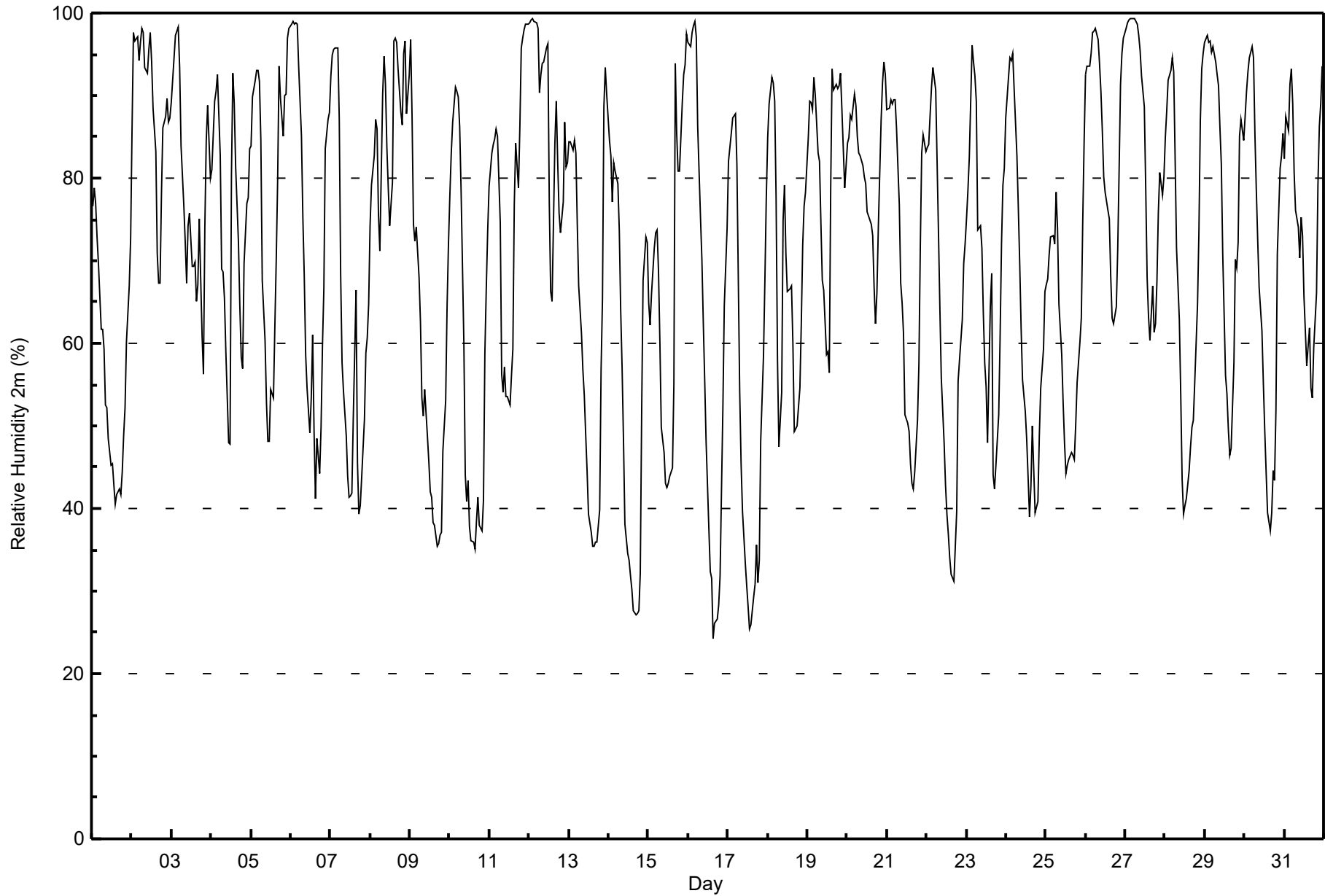
Mackay River - July 2026

Maximum Value: 99.4 % on Jul 27 05:00																				Maximum Daily Average: 88.7 % on Jul 2				Hours in Service: 744		
Minimum Value: 24.3 % on Jul 16 16:00																				Minimum Daily Average: 53.0 % on Jul 17				Hours of Data: 744		
Maximum Diurnal Average: 90.1 % at hour 5																				Minimum Diurnal Average: 53.6 % at hour 14				Hours of Missing Data: 0		
Monthly Average: 70.47 %																				Percentiles: P ₁ = 27.7 P ₁₀ = 41.4 Q ₁ = 54.0 Median = 73.6 Q ₃ = 87.9 P ₉₀ = 94.8 P ₉₉ = 99.0				Hours of Calibration: 0		
																								Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	76.6	78.8	76.9	72.8	69.6	61.7	61.6	59.3	52.6	52.2	48.4	45.3	45.4	42.8	40.6	41.8	42.4	41.8	44.3	48.9	52.2	60.1	67.0	72.8	56.5	78.8
2-Jul	85.9	97.6	96.7	97.1	94.2	96.4	98.2	97.6	93.3	92.7	95.7	97.6	94.2	88.6	83.2	70.8	67.4	67.3	77.9	86.1	87.5	89.7	86.7	87.3	88.7	98.2
3-Jul	89.2	94.6	97.2	97.8	98.2	93.4	83.9	76.6	72.2	67.3	74.3	75.7	69.4	69.3	69.8	65.1	67.2	75.0	61.0	56.3	74.1	84.5	88.8	80.1	78.4	98.2
4-Jul	81.0	85.2	89.3	90.4	92.6	82.7	69.0	68.7	65.4	58.9	47.9	47.8	80.3	92.7	88.9	81.4	72.3	64.3	58.3	57.0	69.7	76.9	77.6	83.5	74.2	92.7
5-Jul	83.8	89.9	91.9	93.0	93.0	91.8	84.7	67.6	60.4	52.9	48.1	48.2	54.3	53.3	62.1	70.2	79.8	93.5	89.7	85.1	90.0	90.2	96.9	98.2	77.9	98.2
6-Jul	98.6	98.9	98.6	98.8	98.6	93.5	85.1	75.3	68.2	58.6	54.5	49.1	53.4	61.0	49.3	41.2	48.4	44.2	49.8	59.7	66.6	83.6	87.1	88.0	71.3	98.9
7-Jul	92.4	94.9	95.6	95.8	95.7	87.1	68.3	57.6	54.2	48.9	44.0	41.3	41.5	41.8	50.9	66.5	45.5	39.4	40.3	43.7	50.9	58.7	60.7	64.8	61.7	95.8
8-Jul	74.2	79.2	82.8	87.1	85.9	75.6	71.1	90.1	94.7	91.3	83.7	78.9	74.2	79.5	96.7	96.9	96.4	93.2	88.1	86.5	95.1	96.7	87.8	92.6	86.6	96.9
9-Jul	96.8	87.4	74.5	72.3	74.1	67.9	62.5	53.4	51.3	54.5	48.7	45.6	42.0	41.3	38.4	38.0	35.4	35.8	36.8	37.1	46.9	53.0	64.5	72.0	55.4	96.8
10-Jul	78.0	83.0	86.7	91.1	90.5	89.8	86.3	78.6	60.0	44.1	40.8	43.5	37.8	36.1	35.9	35.0	38.5	41.3	37.9	37.3	41.0	58.8	66.6	73.6	58.9	91.1
11-Jul	79.0	83.0	84.1	84.8	85.9	85.1	74.6	56.3	54.1	57.2	53.6	53.5	52.5	56.1	59.3	76.8	84.2	78.8	86.2	95.8	96.9	98.0	98.6	98.6	76.4	98.6
12-Jul	98.9	99.1	99.3	99.1	98.8	98.1	90.4	92.6	93.9	94.0	95.8	96.2	77.2	66.3	65.0	84.3	89.3	82.0	75.8	73.4	77.1	86.7	81.4	81.9	87.4	99.3
13-Jul	84.3	84.4	83.5	84.6	83.1	74.5	66.9	61.2	56.8	53.8	48.9	44.6	39.3	37.1	35.5	35.5	36.0	35.9	39.8	56.7	65.5	88.6	93.4	90.2	61.7	93.4
14-Jul	84.6	82.8	77.1	81.8	80.8	79.3	73.6	64.0	57.1	48.4	38.2	34.6	33.8	31.9	30.1	27.7	27.1	27.3	27.7	32.2	51.9	67.6	72.9	72.2	54.4	84.6
15-Jul	64.9	62.2	65.9	71.6	73.3	73.8	68.8	60.3	49.8	46.8	43.0	42.5	43.0	43.9	44.9	55.1	93.9	85.4	80.9	80.9	89.1	92.5	93.7	97.5	67.7	97.5
16-Jul	96.5	96.0	97.6	98.5	99.0	97.2	86.3	75.2	70.2	62.5	55.6	48.1	37.5	32.4	31.5	24.3	26.1	26.6	28.3	31.9	42.3	52.3	64.7	74.0	60.6	99.0
17-Jul	82.1	83.7	85.5	87.4	87.9	81.8	68.0	54.2	45.5	39.6	33.4	30.6	28.1	25.4	25.9	29.3	30.8	35.6	31.1	33.7	48.2	58.4	67.7	77.6	53.0	87.9
18-Jul	84.9	88.9	92.1	91.4	89.3	77.6	58.0	47.4	54.0	75.0	79.2	70.9	66.3	66.6	67.0	59.9	49.2	49.6	50.0	54.6	62.4	71.8	76.6	78.3	69.2	92.1
19-Jul	84.9	89.3	89.2	88.3	92.2	90.0	83.1	82.0	74.5	67.7	66.5	58.6	59.0	56.4	78.9	93.2	90.7	91.4	90.8	91.2	92.8	88.4	78.8	81.5	81.6	93.2
20-Jul	84.2	84.9	87.6	87.1	90.3	88.8	85.0	83.1	82.7	81.5	80.2	79.3	76.0	75.5	74.4	73.0	66.8	62.4	66.0	73.9	87.0	91.5	94.0	92.6	81.2	94.0
21-Jul	88.3	88.5	89.4	89.0	89.5	89.5	86.1	76.7	67.3	64.9	61.2	51.4	50.4	49.4	45.3	43.0	42.4	44.4	50.7	57.4	71.7	83.0	85.3	83.2	68.7	89.5
22-Jul	83.8	84.0	87.7	91.0	93.4	90.7	81.9	73.3	64.1	55.7	48.0	42.9	39.4	36.9	34.0	32.1	31.2	35.4	39.7	55.4	58.0	62.9	69.6	72.1	61.0	93.4
23-Jul	75.0	78.5	82.5	96.0	94.1	92.4	89.4	73.7	74.2	71.5	63.7	57.6	54.8	47.9	64.5	68.5	44.1	42.3	45.3	51.4	60.8	72.1	79.1	81.2	69.2	96.0
24-Jul	87.4	92.2	94.6	94.3	95.1	90.9	82.6	76.4	69.6	61.9	55.6	51.7	48.4	43.6	39.0	42.8	50.0	39.4	40.1	40.8	48.8	54.5	59.3	66.3	63.6	95.1
25-Jul	67.2	67.9	70.7	72.9	73.0	72.0	78.3	73.9	64.8	58.6	52.9	48.0	44.2	45.2	45.9	46.9	46.4	46.0	50.1	55.3	60.1	63.0	74.5	84.4	60.9	84.4
26-Jul	92.6	93.6	93.6	95.1	97.6	97.8	98.2	96.8	93.9	90.4	85.8	80.2	78.4	76.1	75.1	68.1	63.1	62.3	64.4	71.4	81.0	91.4	95.0	96.9	85.0	98.2
27-Jul	98.2	98.8	99.1	99.3	99.4	99.4	98.9	98.6	97.4	95.3	92.3	88.6	78.8	68.0	63.3	60.3	66.9	61.4	62.3	67.5	75.7	80.6	77.9	80.3	83.7	99.4
28-Jul	85.0	88.2	91.9	93.0	94.6	92.8	82.4	71.5	62.9	53.9	43.6	39.3	40.3	41.3	44.6	47.5	49.8	50.7	55.2	64.8	73.5	87.0	93.2	95.1	68.4	95.1
29-Jul	96.4	97.3	96.4	96.5	95.2	96.0	94.1	92.5	91.2	86.2	81.7	70.8	56.1	53.9	49.7	46.4	47.3	57.6	70.1	69.2	72.3	85.1	87.1	84.6	78.1	97.3
30-Jul	87.5	90.6	92.9	94.6	96.0	94.7	85.3	78.5	72.5	66.8	61.6	55.3	49.5	44.3	39.5	37.3	39.5	44.6	43.3	51.9	70.9	81.3	82.8	85.4	68.6	96.0
31-Jul	82.4	87.4	85.8	91.3	93.3	89.0	80.7	76.1	74.1	70.3	75.2	73.0	65.7	57.3	59.7	61.9	54.6	53.4	59.5	66.1	79.1	86.3	89.0	93.6	75.2	93.6
85.3 87.4 88.3 89.8 90.1 86.8 80.1 73.8 69.1 65.3 61.4 57.8 55.2 53.6 54.5 55.5 55.6 55.1 56.2 60.4 69.0 77.3 80.6 83.2																										Diurnal Average
98.9 99.1 99.3 99.3 99.4 99.4 98.9 98.6 97.4 95.3 95.8 97.6 94.2 92.7 96.7 96.9 96.4 93.5 90.8 95.8 96.9 98.0 98.6 98.6																										Diurnal Maximum



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Mackay River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %
Mackay River - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	63	8.47	8.47
40 - 60	175	23.52	31.99
60 - 80	206	27.69	59.68
80 - 100	300	40.32	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Precipitation (PC) - mm

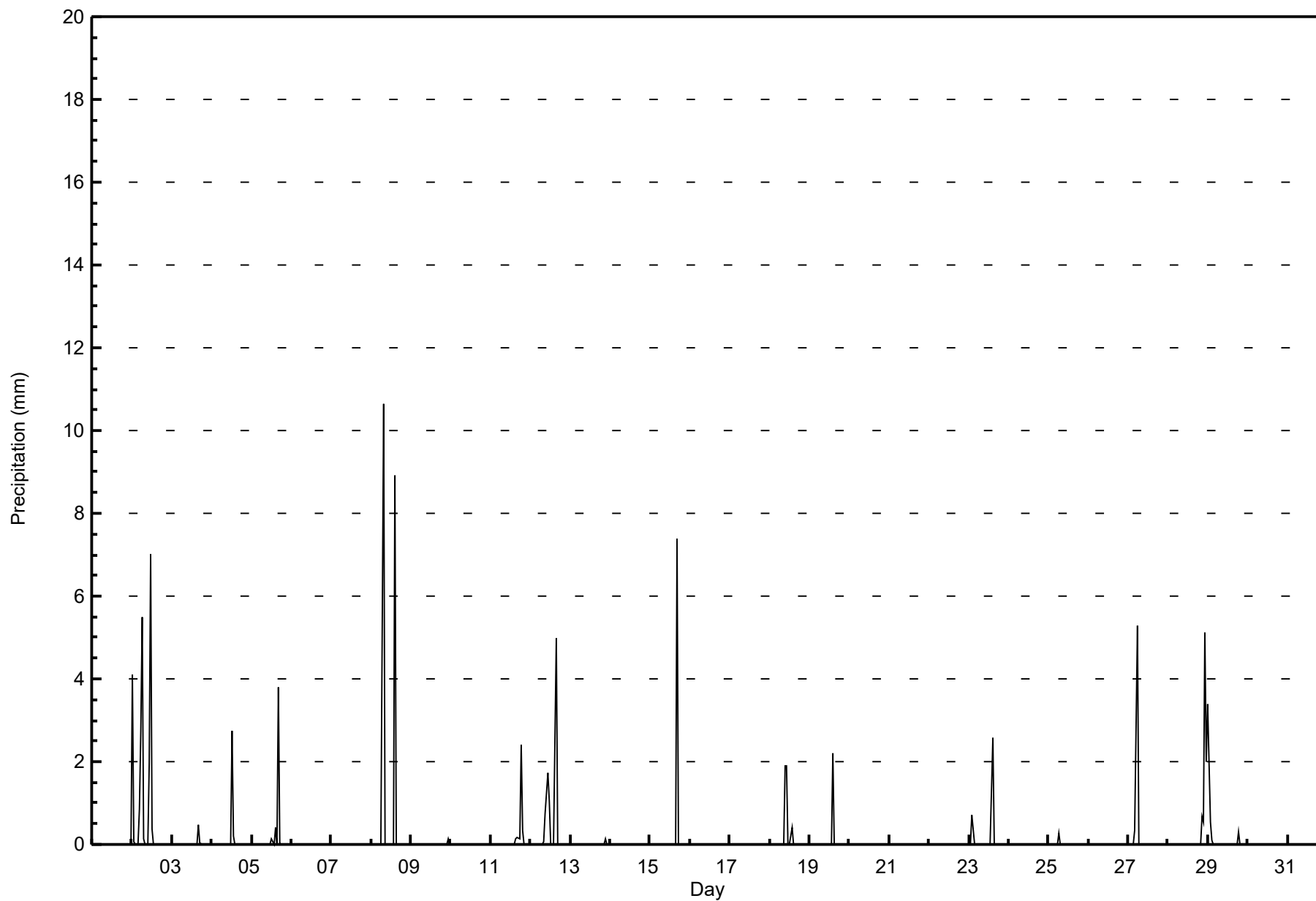
Mackay River - July 2026

Maximum Value: 10.6 mm on Jul 8 08:00																			Maximum Daily Total: 22.8 mm on Jul 2							Hours in Service: 744	
Minimum Value: 0.0 mm on Jul 1 01:00																			Minimum Daily Total: 0.0 mm on Jul 1							Hours of Data: 744	
Maximum Diurnal Total: 14.1 mm at hour 15																			Minimum Diurnal Total: 0.0 mm at hour 4							Hours of Missing Data: 0	
Monthly Total: 97.79 mm																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 4.6							Hours of Calibration: 0	
																										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jul	4.1	0.1	0.0	0.0	0.8	2.8	5.5	0.1	0.0	0.0	2.0	7.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.8	
3-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	
4-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	
5-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	
6-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.6	
9-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	
10-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
11-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	2.4	0.3	0.0	0.0	0.0	0.0	0.0	3.2	
12-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8	1.7	1.1	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6	
13-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	
14-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	
16-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
17-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
18-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	
19-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	
20-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
21-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
22-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23-Jul	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	
24-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
25-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	
26-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
27-Jul	0.0	0.0	0.0	0.0	0.3	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	
28-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.6	5.1	2.0	8.4		
29-Jul	3.4	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	4.3	
30-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
31-Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7.5 0.6 0.8 0.0 1.2 8.0 5.7 10.8 0.1 2.7 5.6 8.1 3.3 0.6 14.1 5.1 11.8 0.2 2.7 0.3 0.7 0.7 5.3 2.0																											
4.1 0.5 0.7 0.0 0.8 5.3 5.5 10.6 0.1 1.9 2.0 7.0 2.8 0.4 8.9 5.0 7.4 0.1 2.4 0.3 0.7 0.6 5.1 2.0																											



Wood Buffalo Environmental Association
Hourly Averages

Precipitation (PC) - mm
Mackay River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Precipitation (PC) - mm
Mackay River - July 2026

Concentration Ranges (mm)	Number of Hours	%	Cumulative %
0 - 0.3	712	95.70	95.70
0.4 - 0.5	5	0.67	96.37
0.6 - 0.7	3	0.40	96.77
0.8 - 1.4	3	0.40	97.18
1.5 - 10	20	2.69	99.87
> 10	1	0.13	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

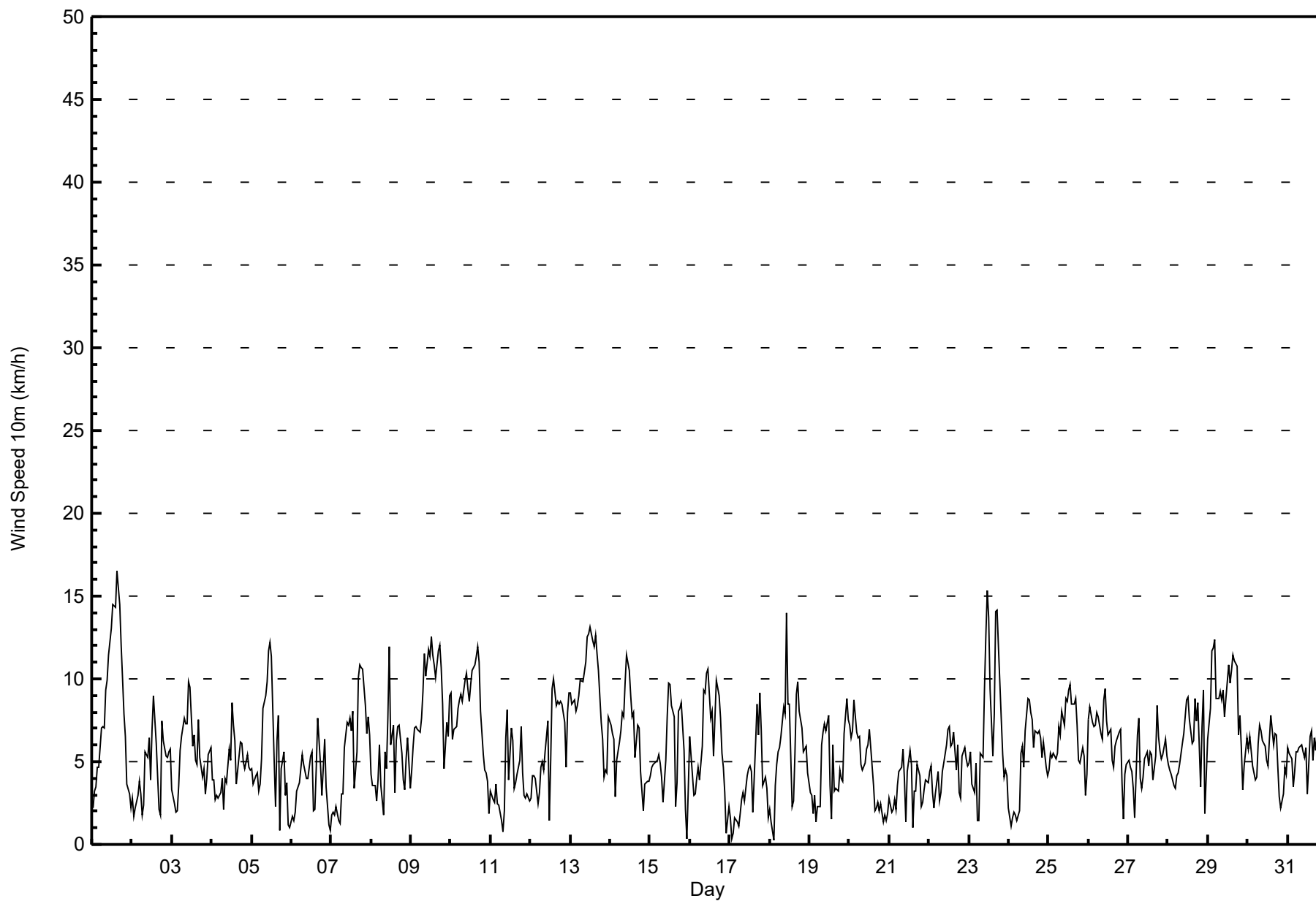
Mackay River - July 2026

Maximum Speed: 17 km/h on Jul 1 16:00										Maximum Daily Speed Average: 8.8 km/h on Jul 9										Hours in Service: 744							
Minimum Speed Value: 0 km/h on Jul 18 03:00										Minimum Daily Speed Average: 1.5 km/h on Jul 17										Hours of Data: 744							
Maximum Diurnal Speed Average: 3.5 km/h at hour 14										Minimum Diurnal Speed Average: 1.9 km/h at hour 20										Hours of Missing Data: 0							
Monthly Average Velocity: 2.5 km/h 208.2 deg										Percentiles: P ₁ = 1 P ₁₀ = 2 Q ₁ = 4 Median = 5 Q ₃ = 8 P ₉₀ = 10 P ₉₉ = 14										Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	SE2	ESE3	SE3	SE5	SE5	ESE7	ESE7	SE7	SE9	ESE10	ESE11	ESE13	ESE14	ESE14	ESE14	ESE17	ESE15	ESE12	ESE10	ESE8	SE6	SE4	SE3	SE2	ESE8.4	ESE17	
2-Jul	SE3	SSE2	SE2	SE3	S4	S3	SSW2	E2	ESE6	SE5	ESE6	S4	S7	S9	SSW6	WSW4	SW2	ESE2	ESE7	SE6	SW5	SSE5	SSE6	ESE6	SSE3.5	S9	
3-Jul	S3	ESE2	SE2	SE2	SE4	SE6	SSE7	S8	SSE7	S7	SW10	WSW9	WSW6	SW7	WSW5	S5	SSW8	S5	S4	SSW5	S3	S4	S5	SSW6	SSW4.4	SW10	
4-Jul	WSW4	SW4	SSW3	SSW3	S3	SSW3	SW4	SW2	S4	S4	S6	SW5	SW9	W7	WNW6	WSW4	WSW5	SW6	WSW6	SW5	S5	SSW5	SW5	SW4	SW4.1	SW9	
5-Jul	SW5	SW4	SW4	SW4	WSW3	SW4	WSW5	W8	W9	WNW10	NW12	NW12	NW11	W5	NNE2	S6	N8	SSW1	SW5	WSW6	W3	NW4	W1	S1	W3.9	NW12	
6-Jul	SSW2	SSW1	SSW2	SW3	WSW3	WSW4	W5	NW5	N4	W4	WNW4	N5	WNW6	W2	WNW2	NW5	SSW8	SSW5	SW3	WNW5	W6	SSE3	ENE1	ENE1	W2.3	SSW8	
7-Jul	SSE2	SSE2	SE2	SE2	ESE1	ENE1	NE3	ESE3	ESE6	SE7	SE7	ESE8	ESE7	ESE8	ESE3	E6	ESE10	ESE11	ESE11	ESE11	ESE8	ESE7	ESE8	SE7	ESE5.6	ESE11	
8-Jul	SE4	SE4	SE4	SE3	SE4	SE6	SSW4	NW2	ESE6	E5	ESE8	ESE12	SE6	W7	SE3	SSW6	SSW7	SW7	WSW5	SSW4	SSE3	S5	SW6	WSW3	SSE3.2	ESE12	
9-Jul	SW4	SW6	SW7	SSW7	SSW7	SSW7	SW8	SW9	SW12	SSW10	SSW12	SSW11	SW13	SW11	SSW11	SW10	SW12	SW12	SW12	SW11	SW8	S5	S7	S7	S9	SSW8.8	SW13
10-Jul	S9	S6	S7	S7	S8	S9	S9	SSW9	SSW10	SW10	SW9	SSW9	SW10	SW11	SW11	SW11	SSW12	SSW11	SW8	WSW5	SW5	S4	SSW4	SW2	SSW7.8	SSW12	
11-Jul	SE3	SE3	SE3	SSE4	SE2	SE2	WNW1	NNW1	SE2	S6	S8	WSW4	S7	S6	SE3	SE4	SSE4	S5	WNW7	N4	WNW3	SW3	WSW3	SW3	S2.2	S8	
12-Jul	SW3	SSW4	SW4	SSW4	S2	SSW3	SW5	SW5	SW5	WSW6	SW7	SE1	SE5	SSW9	SW10	SW8	SSW9	SW8	SW9	SW8	SW7	SW5	SW8	SW9	SW5.7	SW10	
13-Jul	WSW9	WSW8	WSW9	WSW8	SW8	WSW9	SW10	WSW10	SW10	SW11	SW13	WSW13	WSW13	WSW12	WSW12	WSW13	WSW11	WSW10	W7	N6	NNW4	N5	SSW4	SSW8	WSW8.3	WSW13	
14-Jul	SSW7	SSW7	SSW6	SW3	SW5	SW6	WSW7	WSW8	WSW8	WSW10	WSW11	WSW11	WSW9	WSW8	W8	WSW5	SW7	W7	WNW4	WSW3	SSE2	SE4	SSE4	SE4	WSW5.4	WSW11	
15-Jul	SE4	SSE5	SSE5	SSE5	SSE5	SSE5	S5	SSW4	S3	SSE5	SSE8	SE10	SE10	SSE8	SSE8	NNE2	SSE4	ESE8	SE8	SE9	SSE6	ESE2	SSW0	SSE3	SSE5.0	SE10	
16-Jul	S7	SSW4	SSW3	SSE3	S4	S5	S4	S6	S9	S9	SSW10	SSW11	SW8	WSW8	W5	WSW8	WSW10	WSW9	WSW8	SW5	SSW5	WSW3	S1	S2	SW5.3	SSW11	
17-Jul	S2	SE0	SE1	SSW2	S1	SW1	WSW2	WSW3	WSW3	W3	NNE4	N5	NNE5	NNE4	N2	SE6	ESE8	ESE7	ESE9	ESE7	NE4	NE4	NE3	E2	E1.5	ESE9	
18-Jul	ESE2	ENE1	S0	SE4	SE5	SE6	SE6	SSE6	SW8	SW8	ESE14	SE9	SE8	SW2	N3	NE6	E9	ESE10	ESE8	SE7	SE6	ESE6	SE6	SE4	SE4.5	ESE14	
19-Jul	SE3	NE3	S2	ESE3	SE1	E2	WNW2	NW6	NNW7	NNW7	NNW7	NNE8	ENE4	ESE2	NNW6	W3	W3	WNW3	W5	WNW4	WNW4	NW7	NNW9	NNW8	NNW2.8	NNW9	
20-Jul	NNW7	NNW6	NW7	NW9	NW7	NW6	NW6	NW5	W4	WNW5	WNW6	WNW6	NW7	NNW6	NNE4	ENE2	NW2	WNW3	SW2	SSW2	SE1	SSE2	SE1	SSW2	NW3.5	NW9	
21-Jul	WSW3	SW2	SSW2	SSW3	SSW2	SW4	SW4	SW5	WSW6	W4	SW1	SSE4	SSE6	S5	WSW1	NW3	WSW3	WSW5	W4	WSW2	SSW3	SSE3	SSW4	SW4	SW2.7	WSW6	
22-Jul	SW4	SW5	SW3	S2	SSW3	SW4	SW3	WSW3	SW4	SW5	SW6	SW7	SW7	S6	S6	S7	S4	S6	SSW3	SE3	SE5	SE6	SE5	SE5	SSW3.8	SW7	
23-Jul	SE5	SSE6	SSW4	SSE3	SSE5	S1	S1	WSW5	W5	NW9	NW13	NW15	NW14	NW9	WSW5	W8	WNW14	WNW14	WNW12	WNW8	WNW5	W4	W5	WNW4	WNW5.1	NW15	
24-Jul	WSW2	WSW1	SW2	SSE2	S2	E1	SE2	SE6	S6	SSE5	SSE7	SE9	SSE9	SSE8	S8	SE6	ESE7	SSW7	SW7	WSW6	SW5	SSW6	SW5	WSW4	S3.8	SE9	
25-Jul	SW5	SW5	WSW5	WSW5	W5	WSW5	WSW7	WSW7	WSW8	WSW7	WSW9	WSW9	WSW9	WSW10	WSW8	WSW9	SW9	WSW7	WSW5	SW5	SSW6	SW5	WNW3	NNW4	WSW6.2	WSW10	
26-Jul	NNE8	NNE8	N7	NNE7	NE7	NNE8	NE8	NE7	NE6	NNE9	NNE9	NNE7	NNE7	N7	N5	NE5	N6	NE6	ENE7	NE7	NE4	NE2	NE4	NE5	NNE6.2	NNE9	
27-Jul	NE5	NE5	NE4	NNE3	NW2	E7	SE8	SE4	SE3	SSE4	WSW5	W6	WNW5	WNW6	WNW5	W4	SW5	SW8	SW6	SW5	SSW5	SW6	SW5	SW5	SW1.8	SW8	
28-Jul	SW5	SSW4	SSW4	SW4	S3	S4	S4	S5	S6	S7	SSE8	SSE9	SE9	ESE8	ESE6	E6	E9	E7	ESE9	NE3	ENE7	ENE9	ENE2	ENE4	SE4.0	ENE9	
29-Jul	SE6	SSW8	SW12	WSW12	W12	W9	W9	W9	WSW9	WSW9	WSW8	W9	WSW11	W10	W11	W11	W11	WNW11	W7	WNW8	W6	SW3	WSW5	WSW6	WSW7.9	W12	
30-Jul	W6	W7	W6	W5	W4	WSW4	W6	WNW7	W7	W6	W6	W5	WNW5	WNW6	W8	W6	WSW7	SW7	SW5	SW3	SSE2	SSE3	S5	S4	WSW4.5	W8	
31-Jul	S6	S6	S5	SE3	SSE4	S6	S6	S6	S6	S6	S5	SSW6	S3	S7	S7	S5	S6	SE6	ESE7	ESE5	ESE4	SE5	SE3	S2	SSE4.7	ESE7	
SSW2.3SSW2.1SSW2.4SSW2.2SSW2.3SSW2.4SSW2.8 SW3.0 SW3.4 SW3.5 SW3.1 SW2.5 SW2.8 SW3.5 SW2.8 SW2.8SSW3.2SSW3.2SSW2.7SSW1.9 S1.9 S2.1 S2.0SSW2.0																										Diurnal Average	
S9 WSW8 SW12WSW12 W12 WSW9 SW10WSW10 SW12 SW11 ESE14 NW15 ESE14 ESE14 ESE14 ESE17 ESE15WNW14WNW12 ESE11 ESE8 ENE9 NNW9 SW9																										Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using vector methods																											



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Mackay River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Mackay River - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	375	50.40	50.40
6 - 11	337	45.30	95.70
12 - 19	32	4.30	100.00
20 - 28	0	0.00	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Mackay River - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	7	7	14	8	5	12	54	31	48	37	61	39	22	18	8	4	375
6 - 11	5	9	7	3	6	37	29	15	40	31	48	46	29	12	11	9	337
12 - 19	0	0	0	0	0	9	0	0	0	2	6	6	1	3	5	0	32
20 - 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	12	16	21	11	11	58	83	46	88	70	115	91	52	33	24	13	744

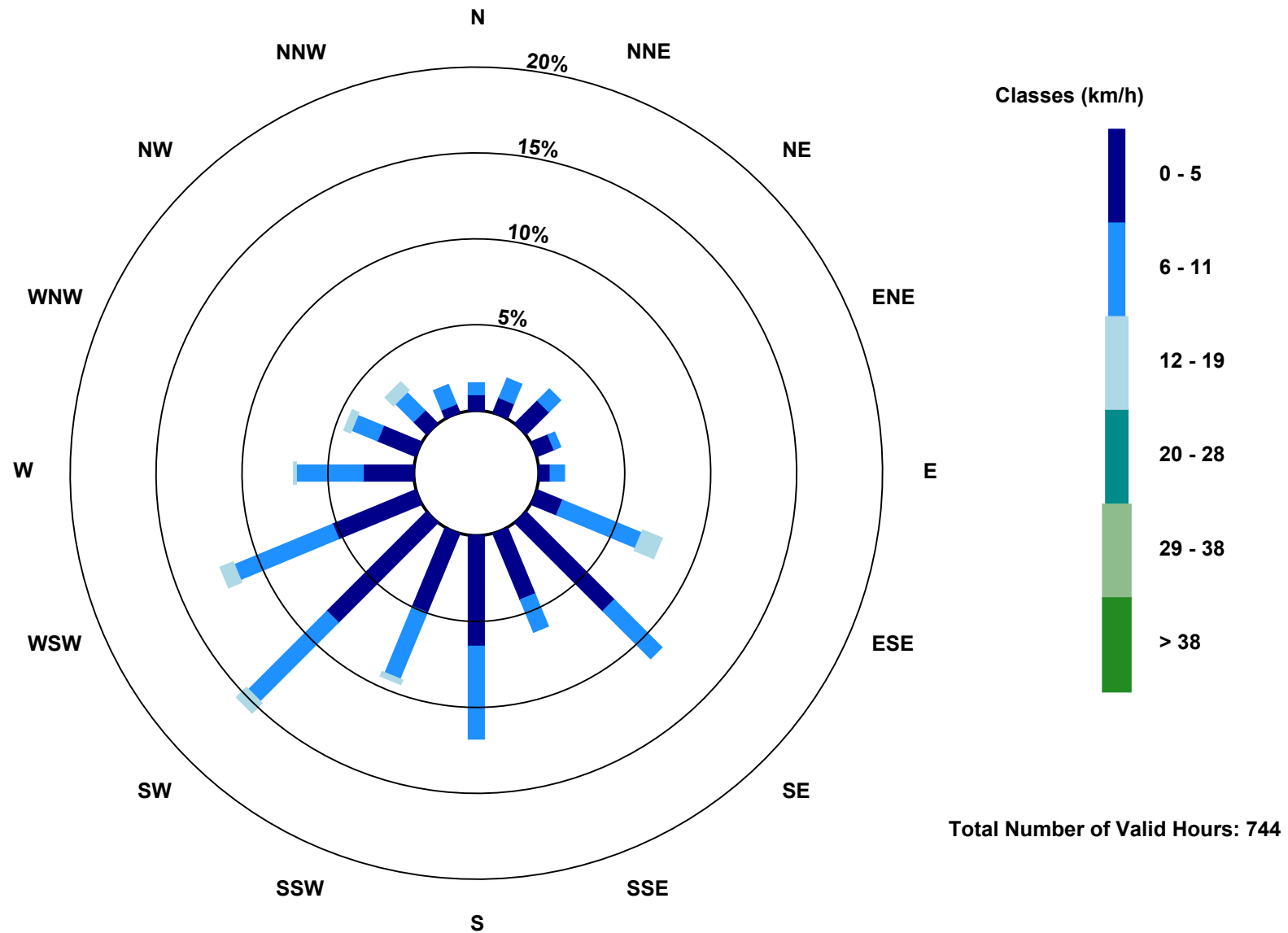
Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Mackay River





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h
Mackay River - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																	Hours in Service: 744								
Maximum Value: 7 km/h on Jul 15 16:00																	Hours of Data: 744								
Minimum Value: 0 km/h on Jul 30 22:00																	Hours of Missing Data: 0								
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 1 Median = 2 Q ₃ = 3 P ₉₀ = 4 P ₉₉ = 6																	Hours of Calibration: 0								
																	Percent Operational Time: 100.0								
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	1	1	1	1	1	2	2	2	3	3	4	4	4	5	4	5	5	4	3	2	2	1	1	1	5
2-Jul	1	1	1	1	1	1	1	1	2	2	2	1	2	3	3	2	1	1	2	2	3	3	2	2	3
3-Jul	1	1	1	1	1	2	2	3	3	3	5	4	2	2	2	2	3	2	2	2	1	1	1	2	5
4-Jul	1	1	1	1	1	1	1	1	2	1	2	2	4	3	3	2	3	3	3	2	1	2	1	1	4
5-Jul	2	1	1	2	1	1	2	4	3	4	5	4	4	3	2	3	5	1	2	2	2	2	1	1	5
6-Jul	1	1	2	2	1	2	2	2	2	3	2	2	5	2	2	3	3	2	1	3	3	3	1	1	5
7-Jul	1	0	1	0	1	1	1	2	2	3	3	3	3	3	2	2	4	3	3	3	3	1	2	2	4
8-Jul	1	1	1	1	1	2	2	3	2	2	3	4	3	3	2	2	2	3	2	2	1	1	2	1	4
9-Jul	1	2	2	2	2	2	3	4	5	4	5	4	5	5	5	4	4	5	4	3	1	3	2	3	5
10-Jul	3	2	2	2	2	2	3	3	3	4	4	4	4	4	5	5	5	4	3	3	1	1	1	1	5
11-Jul	1	1	1	1	1	1	1	1	1	3	3	2	3	2	1	2	1	3	5	1	1	1	1	1	5
12-Jul	1	1	1	1	1	1	1	2	2	3	3	2	2	4	5	6	3	3	3	3	3	2	3	3	6
13-Jul	4	3	3	3	3	3	4	4	4	4	5	6	5	5	5	5	5	5	4	5	6	4	2	2	6
14-Jul	2	2	2	1	2	2	3	3	3	4	5	4	4	3	3	3	4	3	3	2	1	1	1	1	5
15-Jul	1	1	1	1	2	1	2	2	2	2	3	4	4	4	3	7	6	2	2	2	2	2	2	1	7
16-Jul	2	2	1	1	1	1	1	2	3	4	4	4	4	4	3	4	4	4	3	2	1	2	1	1	4
17-Jul	0	1	1	1	1	1	1	1	1	2	2	3	2	3	2	3	2	2	2	2	2	1	1	1	3
18-Jul	1	1	1	1	1	1	2	3	5	5	5	3	3	2	1	2	3	3	3	2	2	2	1	2	5
19-Jul	1	1	3	1	1	1	2	2	3	2	3	3	2	2	6	1	2	1	2	2	1	2	3	2	6
20-Jul	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	2
21-Jul	1	1	1	1	1	1	2	2	2	2	1	2	3	3	2	3	2	2	2	1	1	1	1	1	3
22-Jul	1	1	2	1	1	1	1	1	2	2	2	3	3	3	3	3	2	3	1	1	1	1	1	1	3
23-Jul	1	1	4	2	1	1	1	2	2	4	4	5	5	3	4	6	5	6	5	3	2	1	1	2	6
24-Jul	1	1	1	1	1	1	2	2	2	2	3	3	3	3	4	3	3	2	4	3	3	2	2	2	4
25-Jul	2	2	2	2	2	2	3	3	3	3	4	4	4	4	4	3	3	3	2	2	1	2	2	1	4
26-Jul	3	3	2	3	2	3	2	2	2	3	3	3	2	3	2	2	2	3	2	2	2	1	1	1	3
27-Jul	2	2	1	1	1	3	2	1	1	1	3	2	2	3	2	2	2	3	3	2	1	1	2	1	3
28-Jul	1	1	1	1	1	1	1	1	2	3	3	3	3	2	2	2	3	3	4	1	3	3	4	3	4
29-Jul	4	3	5	5	5	4	4	4	4	4	3	4	5	4	5	5	5	4	3	3	3	1	2	3	5
30-Jul	2	2	2	2	2	2	2	3	2	2	2	3	3	3	3	3	3	3	1	1	1	0	1	1	3
31-Jul	1	1	1	1	1	1	1	2	2	2	2	2	2	3	3	2	2	2	2	1	1	1	1	1	3
Diurnal Maximum																									



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

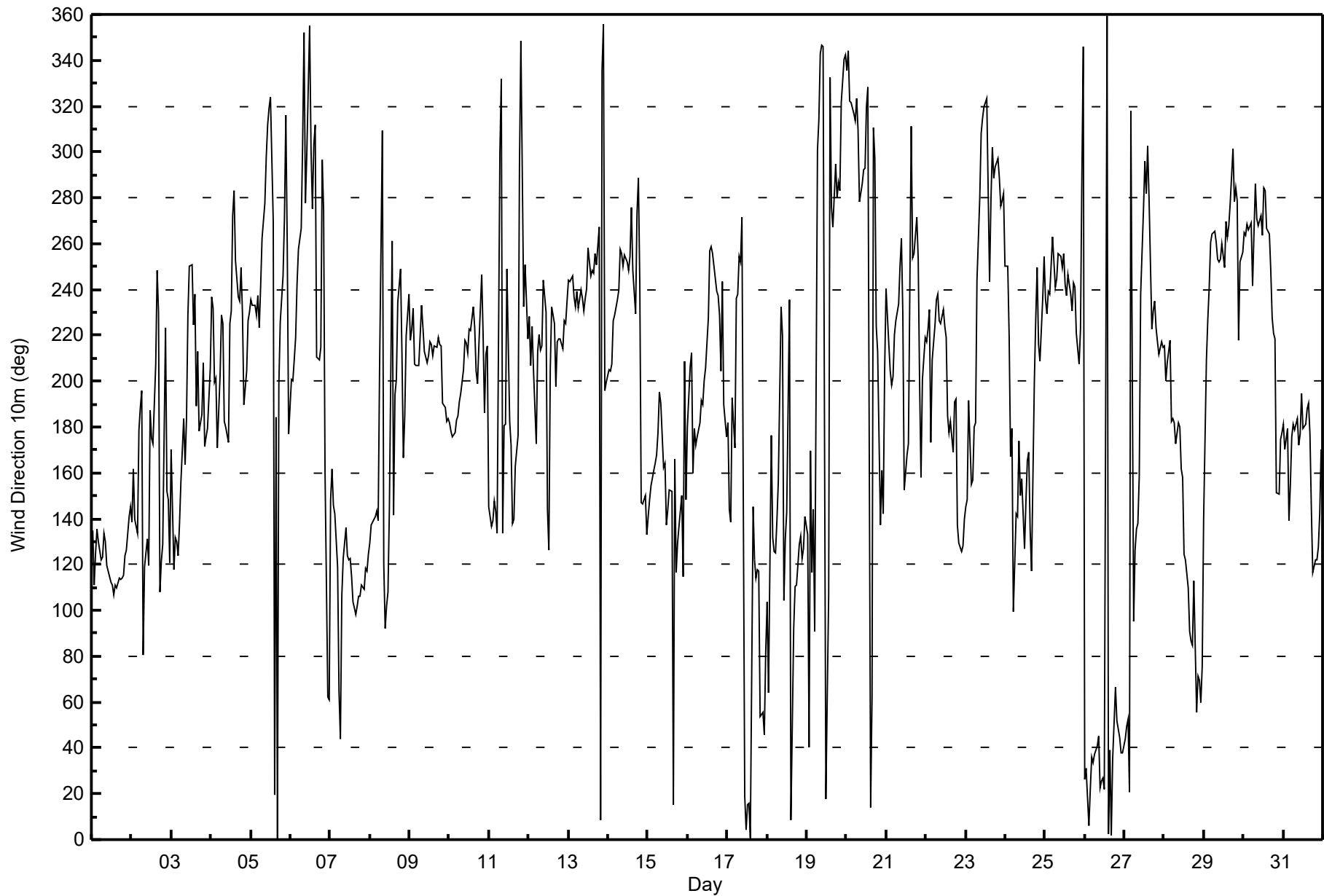
Mackay River - July 2026

Direction of Maximum Speed: 110 deg on Jul 1 16:00 Direction of Maximum Daily Speed Average: 212.4 deg on Jul 9																				Hours in Service: 744					
Direction of Minimum Speed: 176 deg on Jul 18 03:00 Direction of Minimum Daily Speed Average: 1.5 deg on Jul 17																				Hours of Data: 744					
																				Hours of Missing Data: 0					
Monthly Average Direction: 208.2 deg																				Percent Operational Time: 100.0					
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	135	111	125	135	130	122	123	134	130	119	117	112	111	107	111	110	114	114	114	115	124	126	141	145	117.5
2-Jul	139	162	140	134	179	188	196	80	119	131	119	187	175	173	207	248	230	108	122	129	223	152	149	121	156.0
3-Jul	170	118	132	130	124	138	156	183	164	183	229	250	251	224	238	189	213	178	186	208	171	176	180	206	193.0
4-Jul	237	232	200	201	171	203	229	225	182	180	173	225	231	272	283	253	237	235	249	229	190	204	226	230	225.0
5-Jul	235	233	233	229	237	223	241	262	277	298	312	319	324	269	19	184	0	199	226	246	271	316	259	177	277.9
6-Jul	201	200	210	219	242	258	267	304	352	278	300	355	302	275	303	312	210	209	215	297	274	161	62	61	269.4
7-Jul	148	162	146	142	119	65	44	106	123	136	124	122	123	115	104	98	102	106	106	111	109	118	117	125	114.6
8-Jul	130	137	140	141	143	139	205	309	120	92	102	108	144	261	142	194	201	234	249	212	166	185	220	238	167.8
9-Jul	218	223	232	207	207	207	220	233	224	213	208	211	217	216	211	215	215	219	216	216	191	189	182	184	212.4
10-Jul	182	178	176	177	183	185	191	194	205	218	217	213	223	222	232	223	204	199	216	246	220	186	212	216	205.4
11-Jul	145	137	139	148	143	134	300	332	134	181	181	249	182	172	138	140	163	176	295	349	291	232	251	218	183.8
12-Jul	228	207	224	205	173	213	221	214	215	244	230	144	126	205	233	225	198	217	219	219	214	227	225	235	216.7
13-Jul	244	244	246	237	233	239	232	240	236	231	236	240	258	246	249	247	255	251	267	8	335	356	196	200	245.2
14-Jul	205	204	207	227	229	235	240	258	255	250	255	252	248	255	276	249	229	273	289	242	147	146	150	133	239.6
15-Jul	141	148	154	161	164	168	178	195	191	162	164	137	144	153	152	16	166	116	129	137	150	115	209	148	149.9
16-Jul	180	206	212	160	179	172	176	182	191	190	200	206	228	257	259	255	250	239	237	229	204	243	190	176	214.1
17-Jul	182	144	138	193	171	236	238	254	252	271	19	4	15	16	1	145	122	114	118	117	54	56	46	82	93.1
18-Jul	104	64	176	132	125	125	139	156	233	220	104	131	143	236	9	50	92	111	111	129	133	123	127	141	127.9
19-Jul	133	40	170	116	144	91	301	314	343	346	346	18	63	107	333	276	267	295	280	287	283	321	341	343	335.2
20-Jul	336	344	322	321	317	314	323	310	278	286	292	293	320	329	14	62	311	297	224	213	137	161	142	205	313.2
21-Jul	240	216	204	198	202	221	227	233	250	262	229	153	168	173	239	311	254	255	272	253	199	158	201	219	221.2
22-Jul	217	223	231	173	209	225	235	238	227	225	231	224	219	185	178	182	169	191	192	137	129	126	128	140	193.7
23-Jul	145	148	192	155	157	180	182	244	280	308	315	320	322	324	243	280	302	289	294	297	288	276	279	282	290.7
24-Jul	250	250	220	167	179	100	142	141	174	150	157	127	148	165	169	135	117	199	227	250	216	209	236	254	176.1
25-Jul	236	229	239	238	263	252	241	245	255	254	250	256	242	237	247	238	230	243	241	221	207	223	290	346	243.7
26-Jul	26	31	6	22	36	33	37	41	45	23	25	27	22	359	3	39	2	35	67	52	48	45	38	38	29.9
27-Jul	44	49	53	21	318	95	127	136	138	159	238	275	296	282	302	279	223	230	235	223	217	212	217	215	224.1
28-Jul	215	200	208	218	182	184	182	173	182	180	162	158	125	122	110	91	87	85	113	55	72	70	60	76	131.9
29-Jul	140	209	227	241	260	264	265	261	253	252	253	260	250	270	263	268	278	301	278	284	279	218	252	256	257.7
30-Jul	265	264	268	266	269	242	265	286	271	268	272	263	284	283	267	264	248	228	221	219	151	151	175	177	255.3
31-Jul	181	170	180	139	155	176	181	179	184	172	177	195	179	181	188	191	177	145	117	122	122	128	142	170	166.8
192.8 197.8 210.4 197.2 197.9 192.9 212.4 224.3 216.6 219.9 213.9 219.1 215.6 222.3 229.9 217.7 208.3 208.6 204.9 202.3 187.9 170.1 190.8 193.0																									
Diurnal Average																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Mackay River - July 2026





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg
Mackay River - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 103 deg on Jul 28 23:00																		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0							
Minimum Value: 7 deg on Jul 30 22:00																									
Percentiles: P ₁ = 13 P ₁₀ = 19 Q ₁ = 25 Median = 36 Q ₃ = 46 P ₉₀ = 59 P ₉₉ = 93																									
Day	Hourly Period Ending At (MST)																							Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		24
1-Jul	19	17	19	13	16	17	17	24	26	24	27	23	27	28	22	22	20	21	20	17	20	16	37	27	37
2-Jul	44	37	38	26	27	41	75	72	27	27	27	41	27	28	44	63	57	67	20	23	40	34	33	20	75
3-Jul	34	28	19	16	17	19	32	34	38	36	48	43	47	37	52	50	40	29	48	25	14	13	9	27	52
4-Jul	28	29	42	30	27	26	42	55	42	42	45	40	43	44	36	56	54	49	53	43	18	28	36	34	56
5-Jul	39	30	38	31	44	29	45	43	47	35	31	25	26	49	89	35	73	83	27	45	42	28	58	33	89
6-Jul	42	57	65	28	41	45	47	45	68	75	62	55	62	73	91	72	42	28	67	38	44	56	75	91	91
7-Jul	32	14	19	11	40	56	38	61	37	35	40	42	53	46	40	35	31	24	24	20	19	17	16	15	61
8-Jul	20	19	23	18	22	21	66	93	31	37	30	23	45	52	66	30	33	36	41	34	19	19	31	41	93
9-Jul	18	27	33	19	20	23	34	37	34	34	37	37	37	37	36	36	31	34	31	26	22	24	26	27	37
10-Jul	24	21	21	20	19	21	22	23	28	38	48	38	41	40	46	38	31	27	42	46	27	16	21	36	48
11-Jul	12	14	20	14	31	19	70	83	48	32	29	56	28	27	51	27	29	39	46	33	39	43	41	25	83
12-Jul	22	18	22	21	42	32	29	26	29	41	33	91	47	41	43	49	25	34	33	26	35	42	28	36	91
13-Jul	46	48	46	38	33	36	36	40	42	39	40	43	42	46	46	44	45	47	54	39	58	52	22	19	58
14-Jul	19	19	31	52	30	34	39	46	48	47	46	45	49	56	52	70	54	53	61	40	25	9	13	13	70
15-Jul	26	15	21	15	37	17	27	48	79	58	37	39	40	39	30	88	88	23	22	20	25	79	101	30	101
16-Jul	24	46	39	20	24	16	21	24	26	30	35	32	50	44	51	53	45	43	45	33	17	52	92	18	92
17-Jul	39	92	75	32	59	63	59	49	56	71	65	76	69	63	96	33	24	15	18	16	41	26	22	52	96
18-Jul	35	38	96	15	13	16	22	32	44	58	29	26	24	83	76	39	34	26	24	24	21	16	17	21	96
19-Jul	23	39	96	52	79	58	88	23	32	32	31	33	50	98	65	29	42	30	45	45	42	24	22	22	98
20-Jul	19	22	19	17	18	21	22	31	44	39	33	34	26	25	40	76	76	69	66	23	55	26	42	47	76
21-Jul	31	60	39	40	72	29	33	37	46	58	91	51	56	68	94	85	76	49	50	42	23	15	27	17	94
22-Jul	18	22	48	33	27	25	49	48	41	50	54	52	53	57	57	42	63	33	43	25	16	13	15	23	63
23-Jul	20	16	63	46	19	86	79	39	41	31	25	25	27	36	50	45	30	34	31	28	26	26	23	30	86
24-Jul	52	42	41	30	33	24	37	28	40	59	44	42	36	50	46	38	24	58	38	50	26	20	52	40	59
25-Jul	38	36	45	42	45	43	43	48	47	55	49	47	41	39	41	39	36	42	50	33	18	34	42	22	55
26-Jul	25	30	26	26	27	27	26	27	31	27	31	31	36	39	54	65	51	40	34	24	26	70	21	21	70
27-Jul	24	31	28	36	72	32	26	34	34	30	41	41	49	57	49	61	27	36	41	29	21	17	21	19	72
28-Jul	16	19	19	22	27	22	22	28	38	48	39	42	31	25	22	33	32	33	27	42	34	35	103	80	103
29-Jul	46	32	34	39	44	44	48	45	49	46	46	49	45	45	48	50	41	30	39	41	38	17	43	42	50
30-Jul	48	40	43	55	44	48	39	39	46	48	48	63	66	64	50	55	41	35	36	30	13	7	14	16	66
31-Jul	13	13	18	19	18	15	18	20	23	24	25	24	60	42	25	32	26	35	22	17	13	13	40	34	60
52 92 96 55 79 86 88 93 79 75 91 91 69 98 96 88 88 83 67 50 58 79 103 91																									
Diurnal Maximum																									



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

**AMS21
CONKLIN
JULY 2026**

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - CONKLIN (AMS21)

JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	707	36	37	99.87	-	-	2.3	0	0.5	0
TRS(ppb) Average	707	37	37	100	0.9	0	0.9	0	0.3	0
THC(ppm) Average	701	35	43	98.92	-	-	4.6	-	2.6	-
NMHC(ppm) Average	701	35	43	98.92	-	-	0.206	-	0.013	-
CH4(ppm) Average	701	35	43	98.92	-	-	4.6	-	2.6	-
O3 (ppb) Average	708	35	36	99.87	-	-	48.6	0	30.1	-
NO2 (ppb) Average	705	37	39	99.73	-	-	12.6	0	3.2	-
NO (ppb) Average	705	37	39	99.73	-	-	29.5	-	4.9	-
NOX (ppb) Average	705	37	39	99.73	-	-	37.3	-	8.1	-
PM2.5 (ug/m3) Average	742	2	2	100	-	-	171	10	73.6	4
Temperature 2 m (C) Average	744	0	0	100	-	-	31.6	-	23.4	-
Relative Humidity (%) Average	730	0	14	98.12	-	-	100	-	89.5	-
Wind Speed 10 m (km/h) Average	744	0	0	100	-	-	15	-	10	-
Wind Direction 10 m (deg) Average	744	0	0	100	-	-	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - CONKLIN (AMS21)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	707	0.16	0.3	-	0	0	0	0.1	0.2	0.4	2.3
TRS (ppb) Average	707	0.2	0.1	-	0	0.1	0.1	0.2	0.2	0.3	0.9
THC (ppm) Average	701	2.3	0.4	-	1.7	2	2.1	2.1	2.4	2.8	4.6
NMHC(ppm) Average	701	0.001	0.009	-	0	0	0	0	0	0	0.206
CH4(ppm) Average	701	2.3	0.4	-	1.7	2	2.1	2.1	2.4	2.8	4.6
O3 (ppb) Average	708	21.69	11.9	-	1.1	3.6	12	23.2	30.6	37.3	48.6
NO2 (ppb) Average	705	1.62	1.8	-	0.1	0.3	0.5	1	2	3.9	12.6
NO (ppb) Average	705	1	3	-	0	0	0	0	0.3	3	29.5
NOX (ppb) Average	705	2.63	4.4	-	0.1	0.3	0.5	1	2.4	6.9	37.3
PM2.5 (ug/m3) Average	742	14.74	21	-	1	2.5	3.9	6.2	13	41	171
Temperature 2 m (C) Average	744	17.37	5.5	-	6.4	10	13.1	17.2	21.6	24.8	31.6
Relative Humidity (%) Average	730	72.99	21.6	-	24	41.9	54.2	77.3	93.2	98.7	100
Wind Speed 10 m (km/h) Average	744	4.9	3	-	0	2	2	4	7	10	15
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - CONKLIN (AMS 21)

JULY 2026

OPERATIONAL NOTES

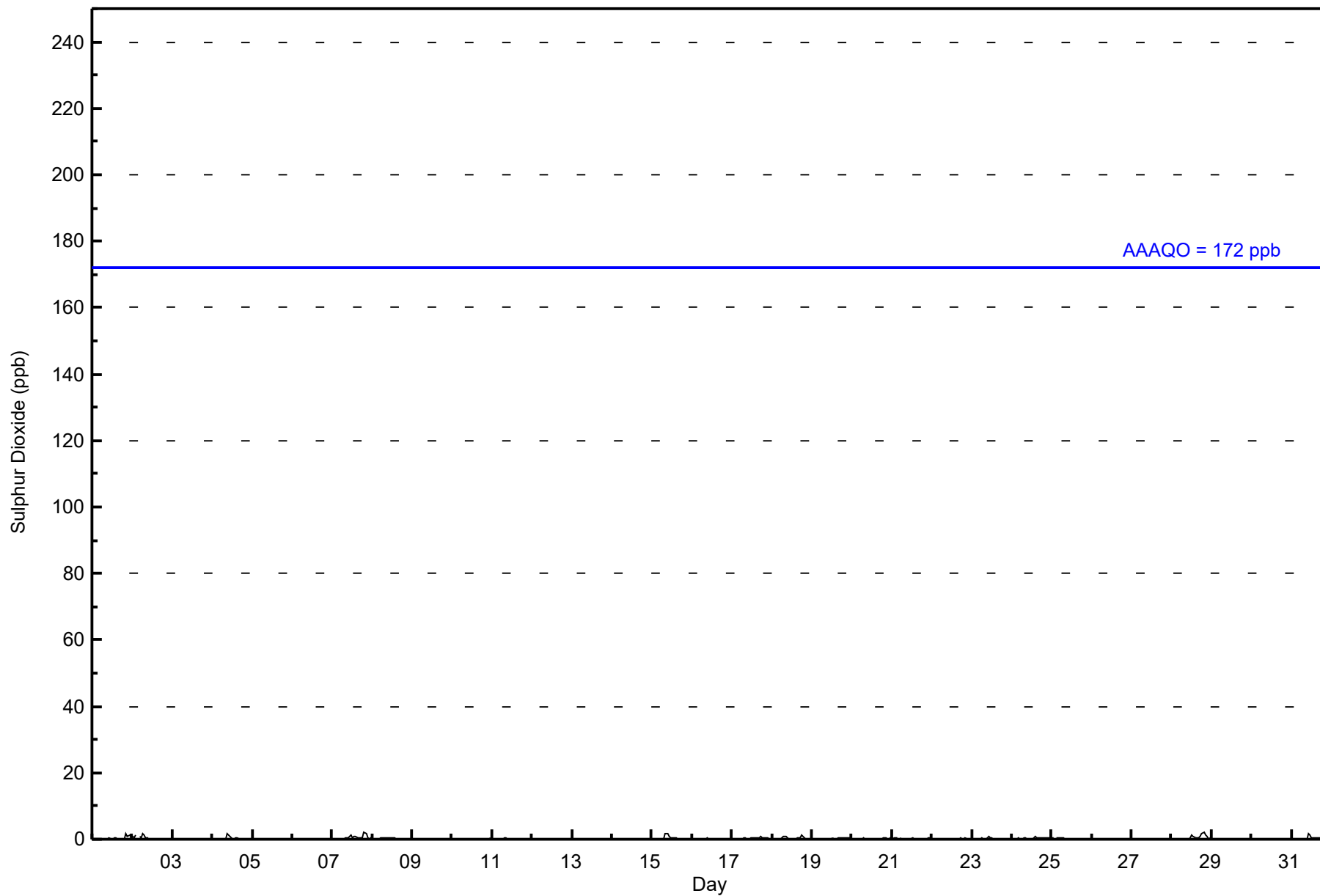
Parameter	Period Start	Period End	Duration (Hours)	Notes
THC/NMHC/CH4	02 Jul 2026 05:00	02 Jul 2026 11:00	7	Unstable Operation - excessive baseline drift
NO2, NMHC, O3, SO2	29 Jul 2026 15:00	29 Jul 2026 15:00	1	Maintenance - sample manifold cleaned
NO2	12 Jul 2026 16:00	12 Jul 2026 16:00	1	Station power failure
Relative Humidity	03 Jul 2026 05:00	03 Jul 2026 07:00	3	Sensor operated out of range
Relative Humidity	09 Jul 2026 06:00	09 Jul 2026 06:00	1	Sensor operated out of range
Relative Humidity	12 Jul 2026 00:00	12 Jul 2026 01:00	2	Sensor operated out of range
Relative Humidity	12 Jul 2026 03:00	12 Jul 2026 06:00	4	Sensor operated out of range
Relative Humidity	27 Jul 2026 05:00	27 Jul 2026 08:00	4	Sensor operated out of range

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																	Hours in Service: 744									
Maximum Value: 2.3 ppb on Jul 28 20:00 Maximum Daily Average: 0.5 ppb on Jul 7																	Hours of Data: 707									
Minimum Value: 0.0 ppb on Jul 1 01:00 Minimum Daily Average: 0.0 ppb on Jul 26																	Hours of Missing Data: 37									
Maximum Diurnal Average: 0.3 ppb at hour 11 Minimum Diurnal Average: 0.1 ppb at hour 4																	Hours of Calibration: 36									
Monthly Average: 0.16 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.4 P ₉₉ = 1.6																	Percent Operational Time: 99.9									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.0	0.1	0.3	0.2	0.1	0.1	0.2	0.0	0.1	1.6	0.6	1.4	0.6	0.3	1.6
2-Jul	0.9	0.4	1.4	Z	0.7	0.6	1.6	1.3	0.5	0.3	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.6
3-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1
4-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.2	1.6	1.0	0.3	0.0	0.0	0.2	0.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.6
5-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1
6-Jul	0.0	Z	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2
7-Jul	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.4	0.3	0.9	1.1	0.6	0.7	0.7	0.4	0.3	0.4	0.5	2.1	1.6	0.3	0.2	0.2	0.5	2.1
8-Jul	0.2	0.2	0.2	Z	0.2	0.3	0.4	0.3	0.3	0.5	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.5
9-Jul	0.1	0.1	0.1	0.1	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1
10-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2
11-Jul	Z	0.1	0.2	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.3
12-Jul	0.0	Z	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
13-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2
15-Jul	0.2	0.2	0.1	0.2	Z	0.2	0.1	0.2	1.7	1.8	1.0	0.5	0.4	0.5	0.4	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.4	1.8
16-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
17-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.2	0.1	0.4	0.4	0.4	0.6	0.6	0.6	0.7	0.5	0.3	0.2	0.2	0.1	0.1	0.3	0.7
18-Jul	0.2	Z	0.2	0.1	0.1	0.1	0.5	0.7	0.9	0.3	0.1	0.0	0.0	0.0	0.0	0.2	0.4	0.5	1.3	0.6	0.1	0.1	0.0	0.0	0.3	1.3
19-Jul	0.1	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.3	0.1	0.1	0.2	0.2	0.2	0.4	0.3	0.4	0.3	0.2	0.1	0.2	0.4
20-Jul	0.1	0.2	0.2	Z	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.3
21-Jul	0.2	0.2	0.4	0.4	Z	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.3	0.2	0.4
22-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2
23-Jul	Z	0.1	0.0	0.1	0.1	0.2	0.3	0.2	0.1	0.6	0.6	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6
24-Jul	0.1	Z	0.1	0.1	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.4	0.8	0.4	0.4	0.5	0.4	0.3	0.4	0.3	0.2	0.2	0.3	0.8
25-Jul	0.4	0.5	Z	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.2	0.5
26-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28-Jul	0.1	0.0	0.1	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.4	1.2	1.0	0.6	0.4	0.5	0.8	1.6	2.3	1.2	0.8	0.2	0.3	0.5	2.3
29-Jul	Z	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	M	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
30-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	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	0.0	0.1	0.1	0.1	0.0	0.1
31-Jul	0.1	0.1	Z	0.0	0.0	0.1	0.1	0.0	0.0	0.2	1.7	1.3	0.4	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.3	1.7
0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.2 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1																									Diurnal Average	
0.9 0.5 1.4 0.4 0.7 0.6 1.6 1.3 1.7 1.8 1.7 1.3 1.2 1.0 0.8 0.6 0.6 0.8 1.6 2.3 1.6 0.8 1.4 0.6																									Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Conklin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Conklin - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	707	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Conklin - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	105	46	47	21	29	38	40	17	34	44	45	27	50	32	53	79	707
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	105	46	47	21	29	38	40	17	34	44	45	27	50	32	53	79	707

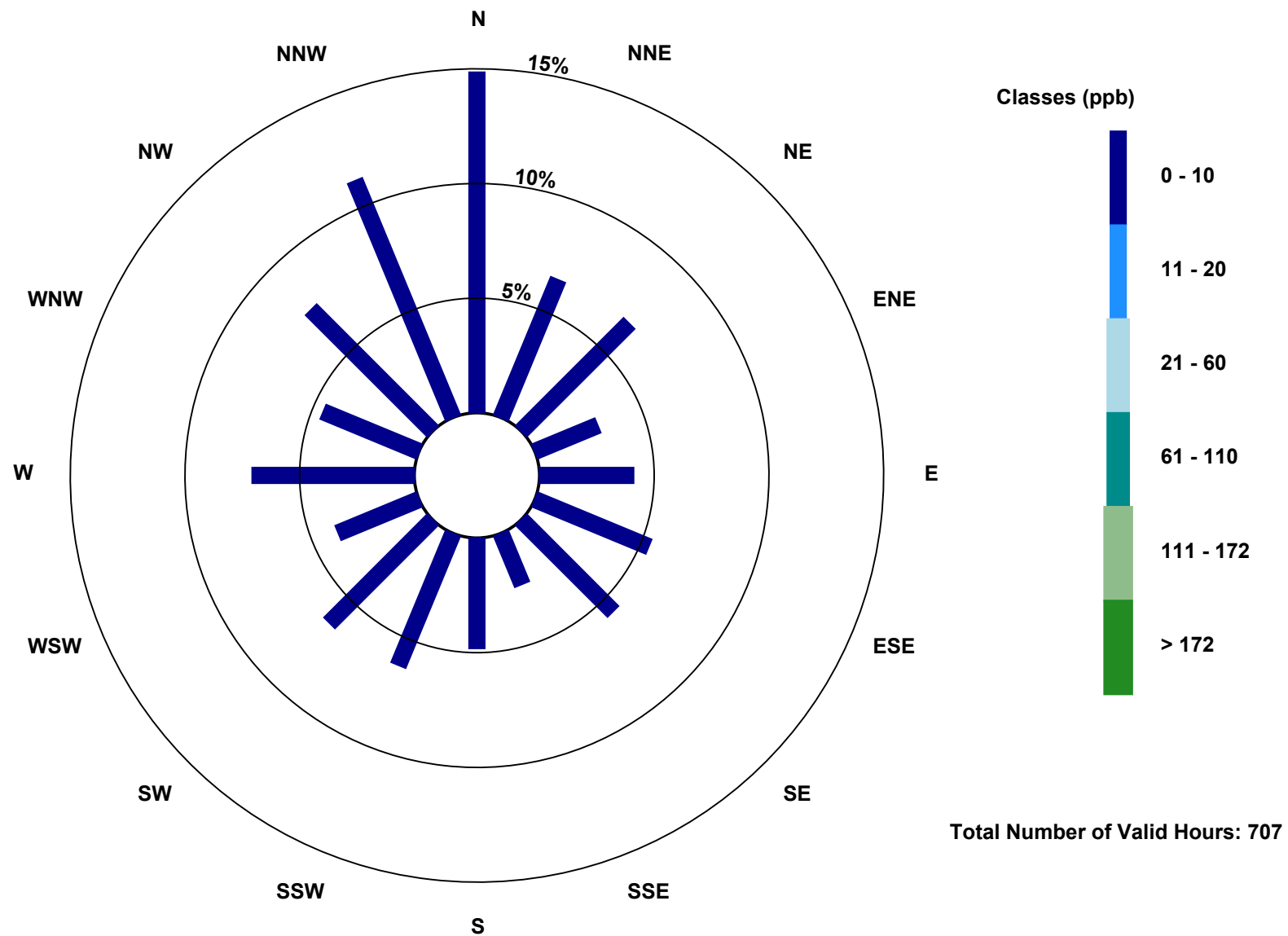
Total Number of Valid Hours: 707

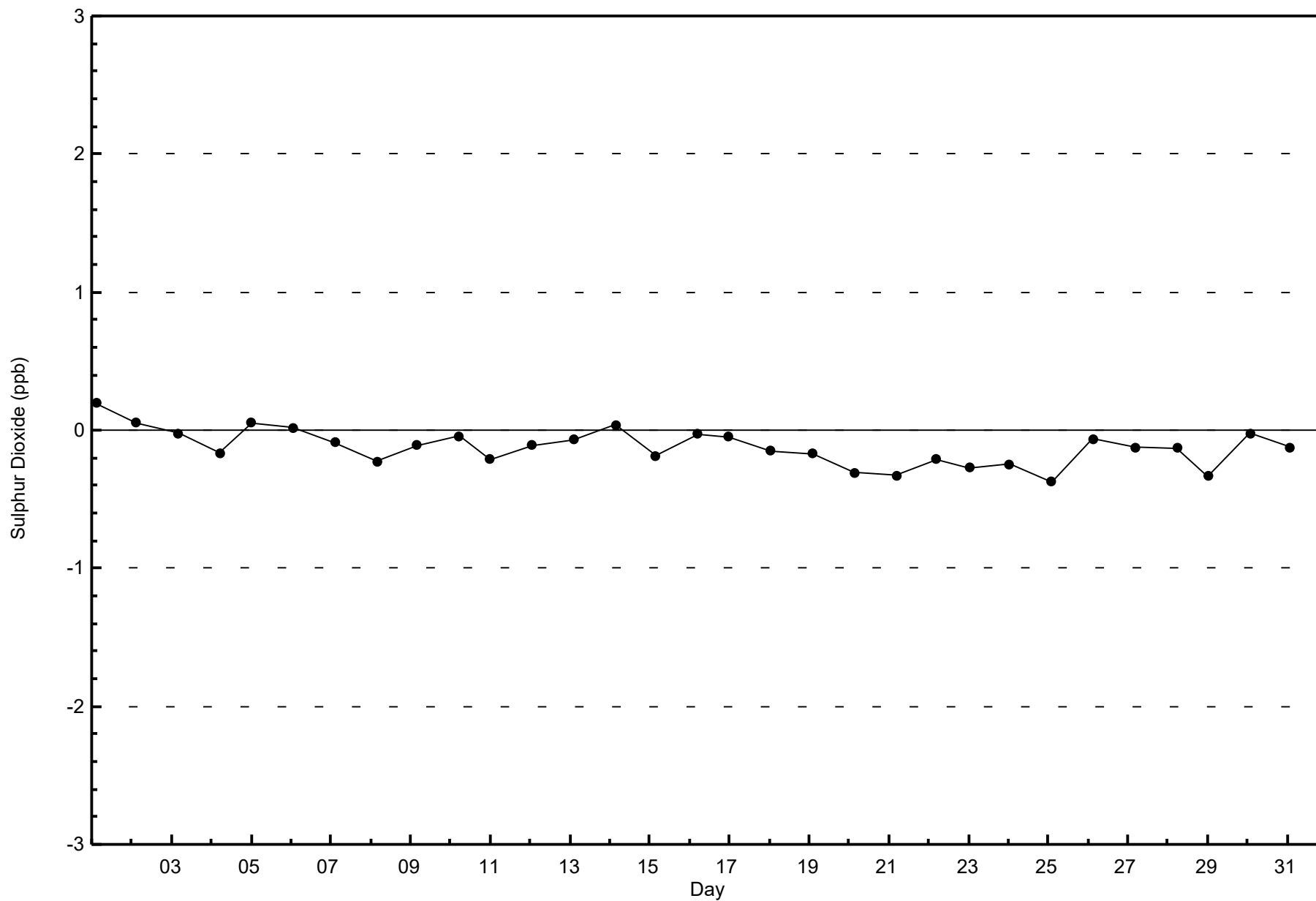
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Sulphur Dioxide (SO₂) - ppb
Conklin

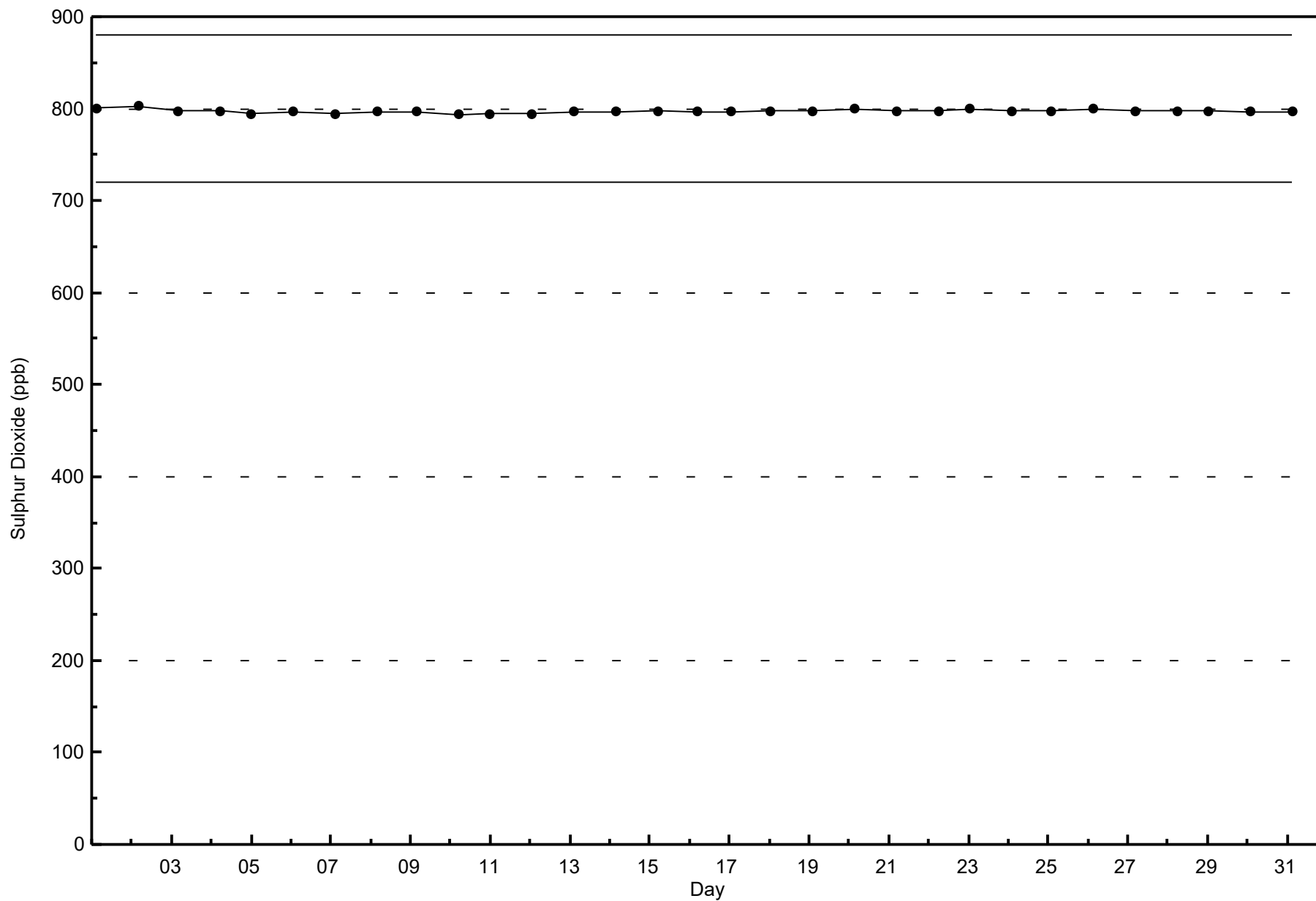






Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Conklin - July 2026





Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Conklin - July 2026

Number of Exceedences (AAAQG): 30-Min: 0																			Periods in Service: 1488																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Maximum Value: 0.9 ppb on Jul 18 03:30 Maximum Daily Average: 0.3 ppb on Jul 18																			Periods of Valid Data: 1414																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Minimum Value: 0.0 ppb on Jul 20 00:00 Minimum Daily Average: 0.1 ppb on Jul 19																			Periods of Invalid Data: 74																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Maximum Diurnal Average: 0.3 ppb at hour 4 Minimum Diurnal Average: 0.2 ppb at hour 18																			Periods of Calibration: 74																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Monthly Average: 0.20 ppb Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.5																			Percent Operational Time: 100.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Day	Period Ending At (MST)																								Daily Average	Daily Maximum																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
1-Jul	0.3 0.3	0.2 0.2	0.2 0.3	Z SP	0.5 0.4	0.4 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.2 0.2	0.2 0.1	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Conklin - July 2026

Day	Period Ending At (MST)																								Daily Average	Daily Maximum
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00		
16-Jul	Z SP	0.5 0.4	0.5 0.4	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.2	0.2 0.1	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.3 0.3	0.3 0.2	0.2 0.2	0.2	0.5
17-Jul	0.2 Z SP	0.4 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	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	0.1 0.2	0.2 0.4	0.4 0.3	0.3 0.5	0.4 0.4	0.2	0.5
18-Jul	0.5 0.4	0.6 0.6	Z SP	0.9 0.8	0.7 0.6	0.6 0.4	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	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 0.2	0.2 0.1	0.2 0.1	0.3	0.9
19-Jul	0.1 0.1	0.1 0.2	0.1 0.2	Z SP	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	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	0.0 0.1	0.0 0.1	0.1 0.1	0.1 0.1	0.0 0.1	0.1 0.0	0.0 0.1	0.1 0.0	0.1	0.3
20-Jul	0.0 0.1	0.1 0.1	0.1 0.1	0.2 0.2	Z SP	0.5 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.5
21-Jul	0.2 0.1	0.1 0.1	0.1 0.2	0.2 0.2	0.1 0.1	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.2 0.3	0.3 0.3	0.2	0.3
22-Jul	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.4	0.3 0.2	0.3 0.3	0.2	0.4
23-Jul	0.2 0.3	Z SP	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.2 0.3	0.3 0.2	0.2 0.2	0.2	0.3
24-Jul	0.2 0.2	0.3 0.3	Z SP	0.3 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.3
25-Jul	0.2 0.1	0.1 0.1	0.1 0.1	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.1 0.2	0.1 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2	0.3
26-Jul	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.1	Z SP	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 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 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.2	0.3
27-Jul	0.4 0.4	0.3 0.4	0.4 0.4	0.4 0.3	0.4 0.2	Z SP	0.3 0.3	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.2 0.2	0.2 0.3	0.2 0.2	0.3	0.4
28-Jul	Z SP	0.2 0.3	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.3
29-Jul	0.2 0.2	Z SP	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.1	0.2 0.1	0.1 0.2	0.1 0.1	0.1 0.1	C C	C C	C C	C C	C C	C C	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.2	--	0.2
30-Jul	0.2 0.2	0.2 0.2	Z SP	0.2 0.3	0.3 0.2	0.2 0.2	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2	0.3
31-Jul	0.3 0.3	0.3 0.3	0.3 0.2	Z SP	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.3 0.4	0.4 0.4	0.3 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2	0.4
0.2 0.2 0.2 0.3 0.3 0.2																								Diurnal Average		
0.5 0.6 0.5 0.9 0.7 0.6 0.5 0.4 0.4 0.4 0.4 0.3 0.3 0.3 0.3 0.3 0.2 0.2 0.3 0.2 0.3 0.3 0.4 0.4 0.5																								Diurnal Maximum		

Z - zerospan C - Calibration SP - Span
Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

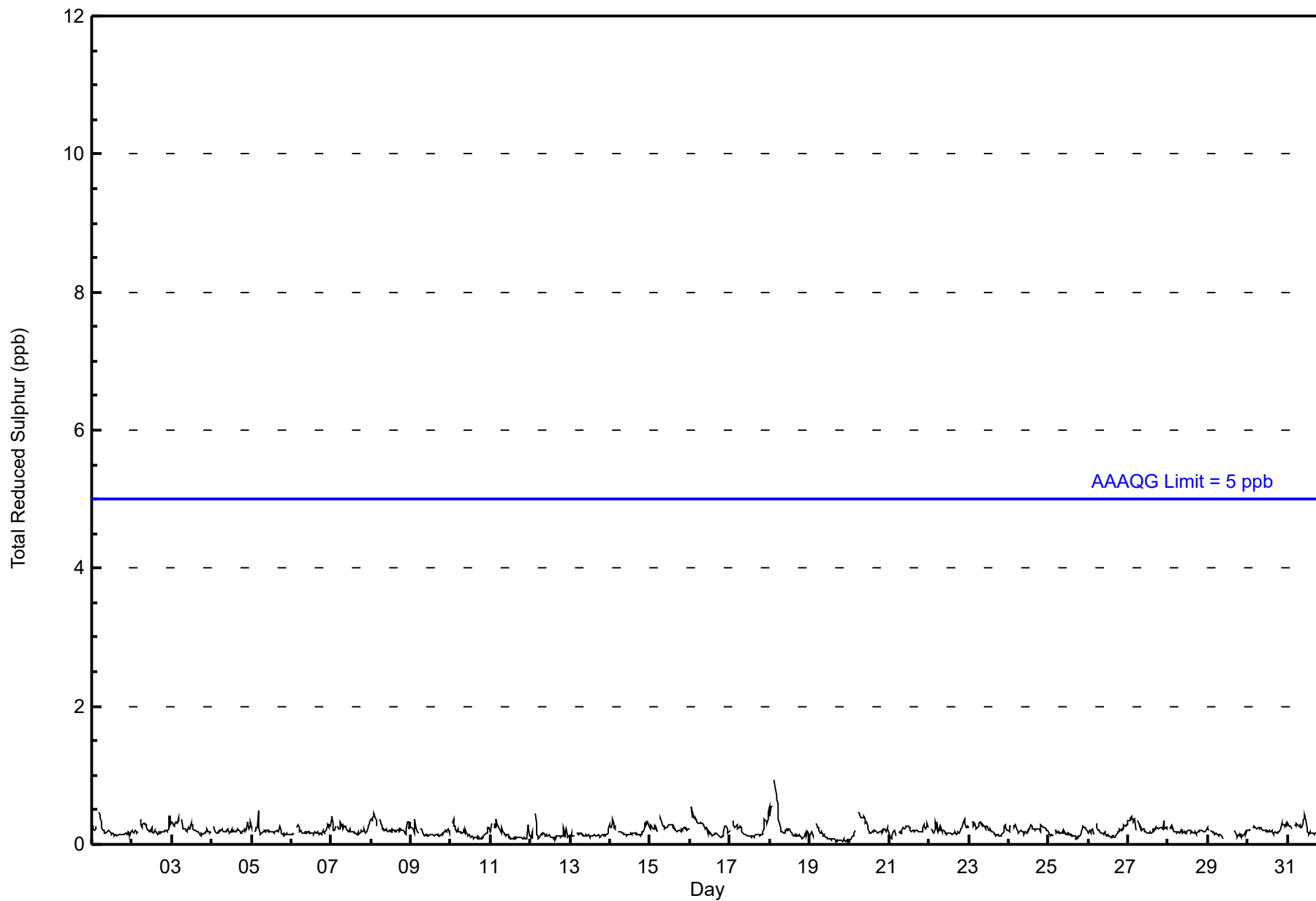
Conklin - July 2026

Maximum Value: 0.9 ppb on Jul 18 04:00																	Maximum Daily Average: 0.3 ppb on Jul 18										Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 20 00:00																	Minimum Daily Average: 0.1 ppb on Jul 19										Hours of Data: 707	
Maximum Diurnal Average: 0.3 ppb at hour 4																	Minimum Diurnal Average: 0.2 ppb at hour 18										Hours of Missing Data: 37	
Monthly Average: 0.20 ppb																	Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.4										Hours of Calibration: 37	
																	Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	0.3	0.2	0.2	Z	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2		
2-Jul	0.2	0.2	0.2	0.2	Z	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3		
3-Jul	0.3	0.3	0.3	0.3	0.4	Z	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2		
4-Jul	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2		
5-Jul	0.2	Z	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2		
6-Jul	0.1	0.1	Z	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.2		
7-Jul	0.4	0.2	0.2	Z	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2		
8-Jul	0.4	0.4	0.4	0.3	Z	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.4		
9-Jul	0.2	0.2	0.3	0.2	0.2	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
10-Jul	Z	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2		
11-Jul	0.2	Z	0.3	0.3	0.3	0.2	0.2	0.2	0.2	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	0.2	0.2	0.2	0.3		
12-Jul	0.1	0.1	Z	0.4	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.4		
13-Jul	0.1	0.1	0.1	Z	0.2	0.1	0.2	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	0.2	0.2	0.1	0.2		
14-Jul	0.3	0.3	0.3	0.2	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.3		
15-Jul	0.3	0.3	0.2	0.2	0.2	Z	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4		
16-Jul	Z	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.5		
17-Jul	0.2	Z	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.3	0.4	0.2	0.4		
18-Jul	0.5	0.6	Z	0.9	0.7	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.9		
19-Jul	0.1	0.2	0.1	Z	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.3		
20-Jul	0.1	0.1	0.1	0.2	Z	0.5	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5		
21-Jul	0.1	0.1	0.2	0.2	0.1	Z	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.3		
22-Jul	Z	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2		
23-Jul	0.2	Z	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.3		
24-Jul	0.2	0.3	Z	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3		
25-Jul	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2		
26-Jul	0.2	0.2	0.2	0.1	Z	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3		
27-Jul	0.4	0.4	0.4	0.3	0.3	Z	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.4		
28-Jul	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
29-Jul	0.2	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	C	C	C	C	C	C	C	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	—		
30-Jul	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3		
31-Jul	0.3	0.3	0.2	Z	0.3	0.3	0.3	0.3	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.4		
0.2 0.2 0.2 0.3 0.3 0.2																										Diurnal Average		
0.5 0.6 0.4 0.9 0.7 0.5 0.4 0.4 0.4 0.4 0.4 0.4 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.4 0.3 0.4																										Diurnal Maximum		
Z - zerospan C - Calibration																												
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA																												



Wood Buffalo Environmental Association
Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Conklin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Conklin - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	707	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Conklin - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	103	45	44	22	29	40	39	19	37	47	46	27	44	31	54	80	707
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	103	45	44	22	29	40	39	19	37	47	46	27	44	31	54	80	707

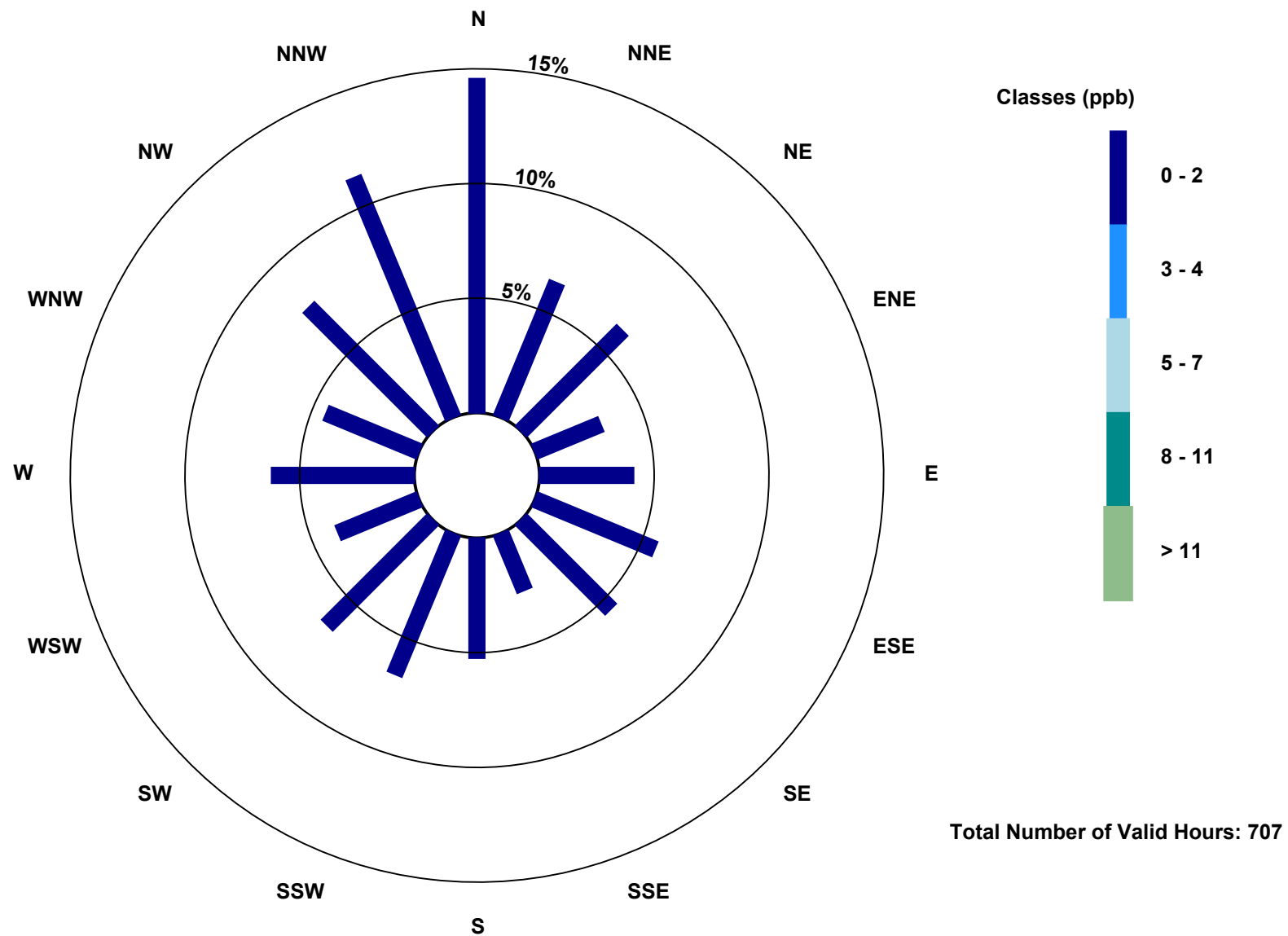
Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Total Reduced Sulphur (TRS) - ppb
Conklin



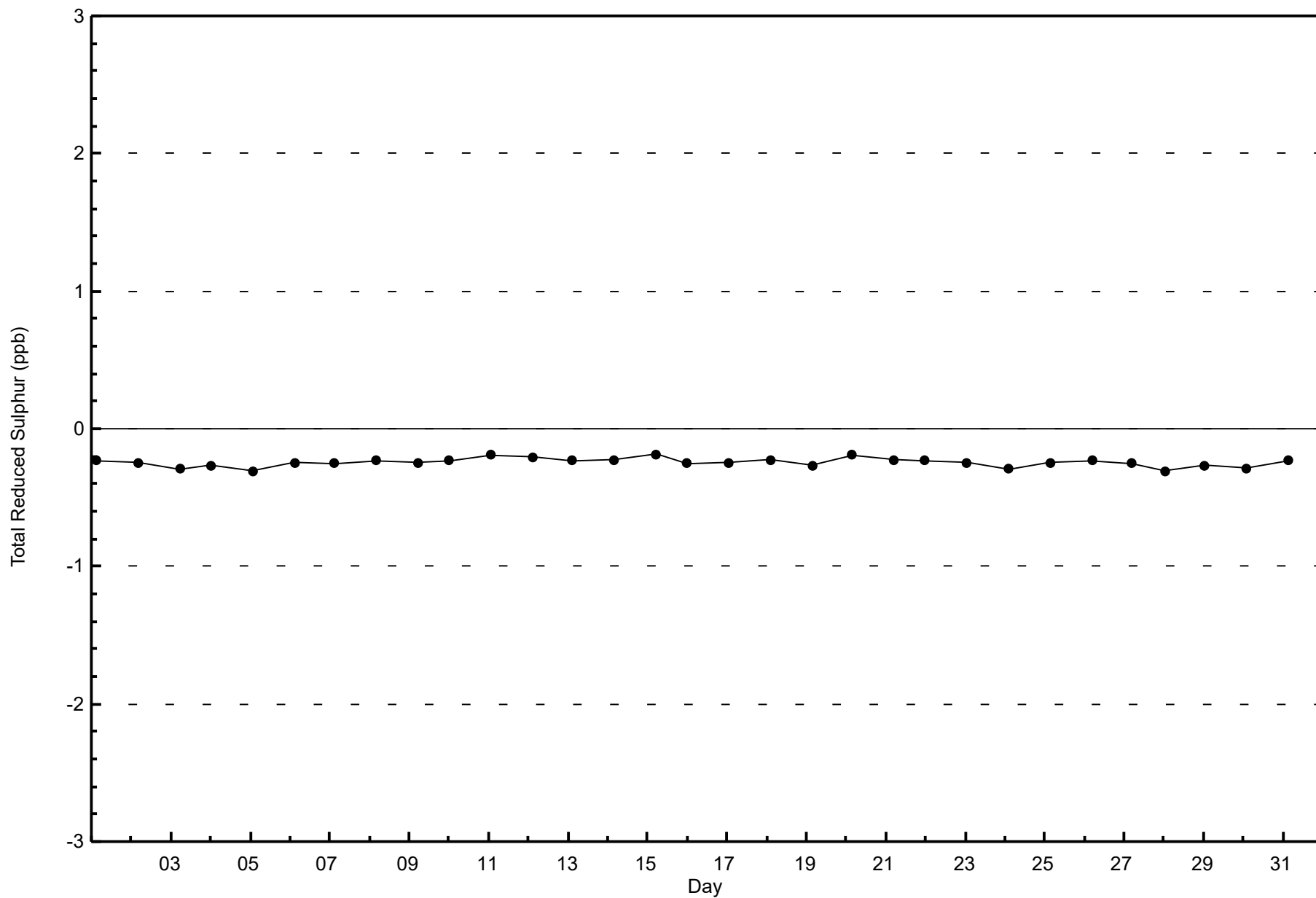


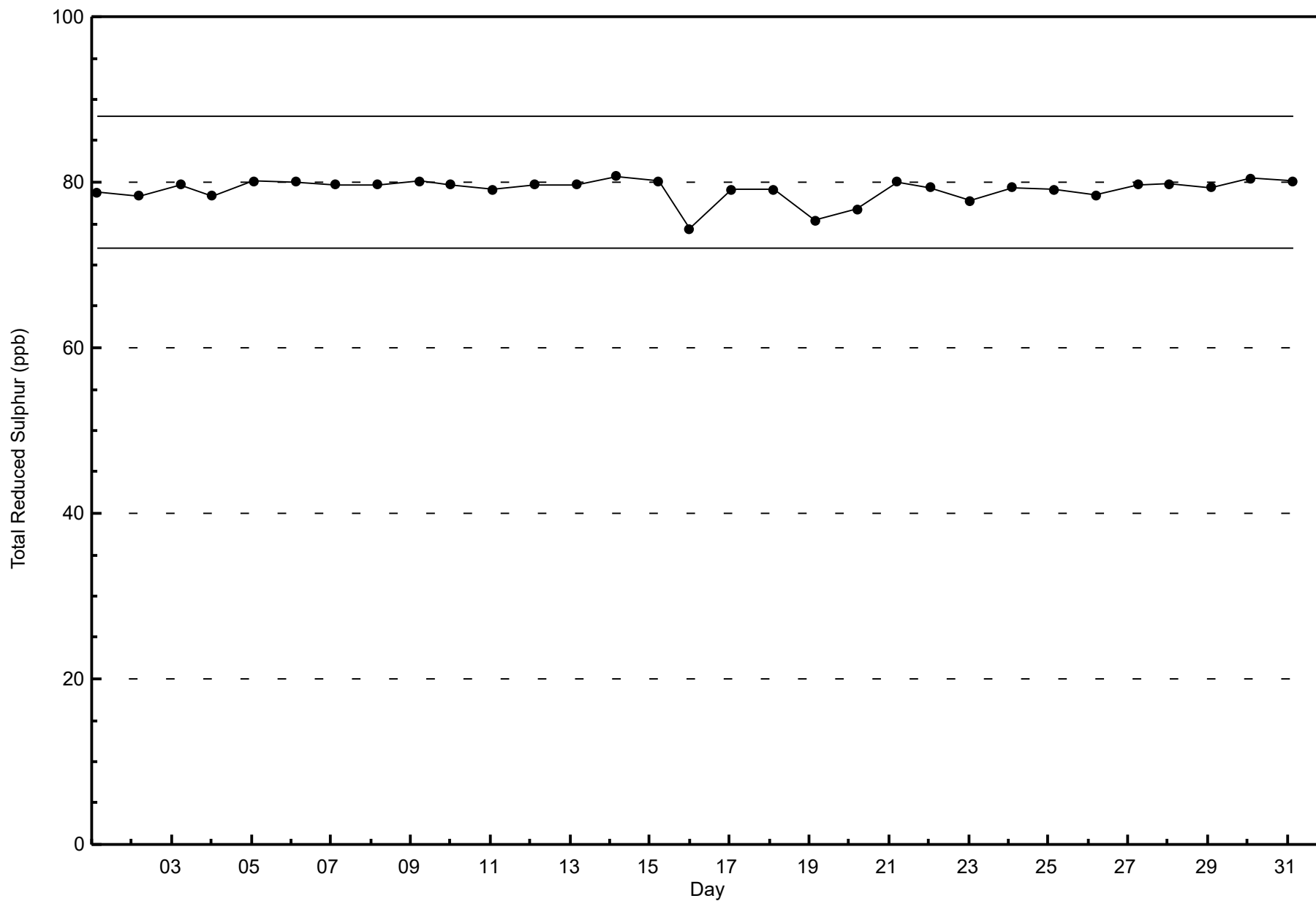
Wood Buffalo Environmental Association

Zero Responses

Total Reduced Sulphur (TRS) - ppb

Conklin - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

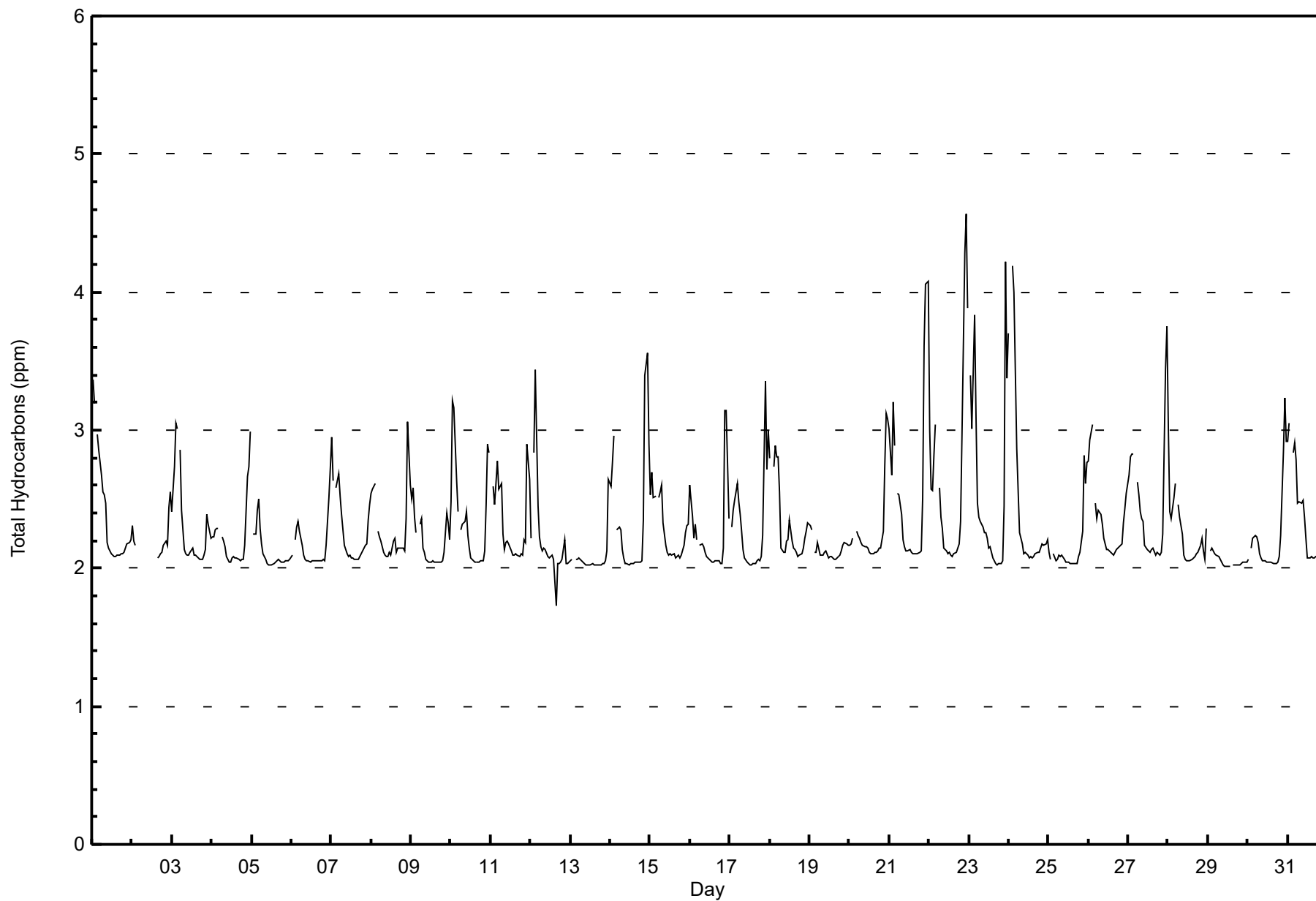
Conklin - July 2026

Maximum Value: 4.6 ppm on Jul 22 23:00																			Maximum Daily Average: 2.6 ppm on Jul 22							Hours in Service: 744	
Minimum Value: 1.7 ppm on Jul 12 16:00																			Minimum Daily Average: 2.1 ppm on Jul 29							Hours of Data: 701	
Maximum Diurnal Average: 2.8 ppm at hour 23																			Minimum Diurnal Average: 2.1 ppm at hour 16							Hours of Missing Data: 43	
Monthly Average: 2.30 ppm																			Percentiles: P ₁ = 2.0 P ₁₀ = 2.0 Q ₁ = 2.1 Median = 2.1 Q ₃ = 2.4 P ₉₀ = 2.8 P ₉₉ = 3.9							Hours of Calibration: 35	
																										Percent Operational Time: 98.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	3.4	3.2	Z	3.0	2.9	2.7	2.6	2.5	2.5	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.4	3.4	
2-Jul	2.3	2.2	2.2	Z	UO	UO	UO	UO	UO	UO	UO	C	C	C	C	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.4	2.6	--	2.6	
3-Jul	2.4	2.7	3.1	3.0	Z	2.9	2.4	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.3	2.2	2.3	3.1	
4-Jul	2.2	2.2	2.3	2.3	Z	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.7	2.7	3.0	2.2	3.0	
5-Jul	Z	2.2	2.2	2.4	2.5	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.5	
6-Jul	2.1	Z	2.2	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.5	2.7	2.2	2.7	
7-Jul	2.9	2.6	Z	2.6	2.7	2.5	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.5	2.3	2.9	
8-Jul	2.5	2.6	2.6	Z	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.4	3.1	2.6	2.3	3.1	
9-Jul	2.5	2.6	2.4	2.3	Z	2.3	2.4	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.4	2.3	2.2	2.2	2.6	
10-Jul	2.5	3.2	3.2	2.6	2.4	Z	2.3	2.3	2.3	2.4	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.5	2.9	2.8	2.4	3.2	
11-Jul	Z	2.6	2.5	2.6	2.8	2.6	2.6	2.3	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.9	2.6	2.3	2.9	
12-Jul	2.2	Z	2.8	3.4	2.5	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.7	2.0	2.0	2.0	2.1	2.2	2.0	2.0	2.0	2.2	3.4	
13-Jul	2.0	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.6	2.1	2.6	
14-Jul	2.6	2.8	3.0	Z	2.3	2.3	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4	3.4	3.6	2.9	2.3	3.6	
15-Jul	2.5	2.7	2.5	2.5	Z	2.5	2.6	2.6	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.7	
16-Jul	2.6	2.4	2.2	2.3	2.2	Z	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.2	3.1	3.1	2.4	2.2	3.1	
17-Jul	Z	2.3	2.4	2.5	2.6	2.5	2.4	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	3.4	2.7	3.0	2.3	3.4	
18-Jul	2.8	Z	2.7	2.9	2.8	2.8	2.6	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.9	
19-Jul	2.3	2.3	Z	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.3	
20-Jul	2.2	2.2	2.2	Z	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.7	3.1	3.1	2.3	3.1	
21-Jul	3.0	2.7	3.2	2.9	Z	2.5	2.5	2.4	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.5	3.6	4.1	4.1	2.6	4.1	
22-Jul	3.0	2.6	2.6	2.8	3.0	Z	2.6	2.4	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	3.0	4.3	4.6	3.9	2.6	4.6	
23-Jul	Z	3.4	3.0	3.8	3.1	2.5	2.4	2.3	2.3	2.3	2.3	2.2	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.5	4.2	3.4	2.5	4.2	
24-Jul	3.7	Z	4.2	4.0	3.4	2.9	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.5	4.2	
25-Jul	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.3	2.8	2.6	2.8	2.2	2.8	
26-Jul	2.8	2.9	3.0	Z	2.5	2.4	2.4	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.4	2.5	2.3	3.0	
27-Jul	2.7	2.8	2.8	2.8	Z	2.6	2.5	2.4	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	3.5	3.8	2.4	3.8	
28-Jul	3.0	2.4	2.4	2.5	2.6	Z	2.5	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.3	2.2	3.0	
29-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	
30-Jul	2.1	Z	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.9	3.2	2.9	2.2	3.2	
31-Jul	2.9	3.1	Z	2.8	2.9	2.8	2.5	2.5	2.5	2.5	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	3.5	3.3	3.1	2.5	3.5	
																									Diurnal Average	Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation																											



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Conklin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Conklin - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	104	14.84	14.84
2.1 - 3.0	560	79.89	94.72
3.1 - 10.0	37	5.28	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Conklin - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	6	0	1	1	1	1	1	0	1	3	9	7	25	18	18	12	104
2.1 - 3.0	97	42	33	18	27	33	35	11	27	40	36	20	25	14	35	67	560
3.1 - 10.0	2	4	13	2	1	3	2	4	5	1	0	0	0	0	0	0	37
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	105	46	47	21	29	37	38	15	33	44	45	27	50	32	53	79	701

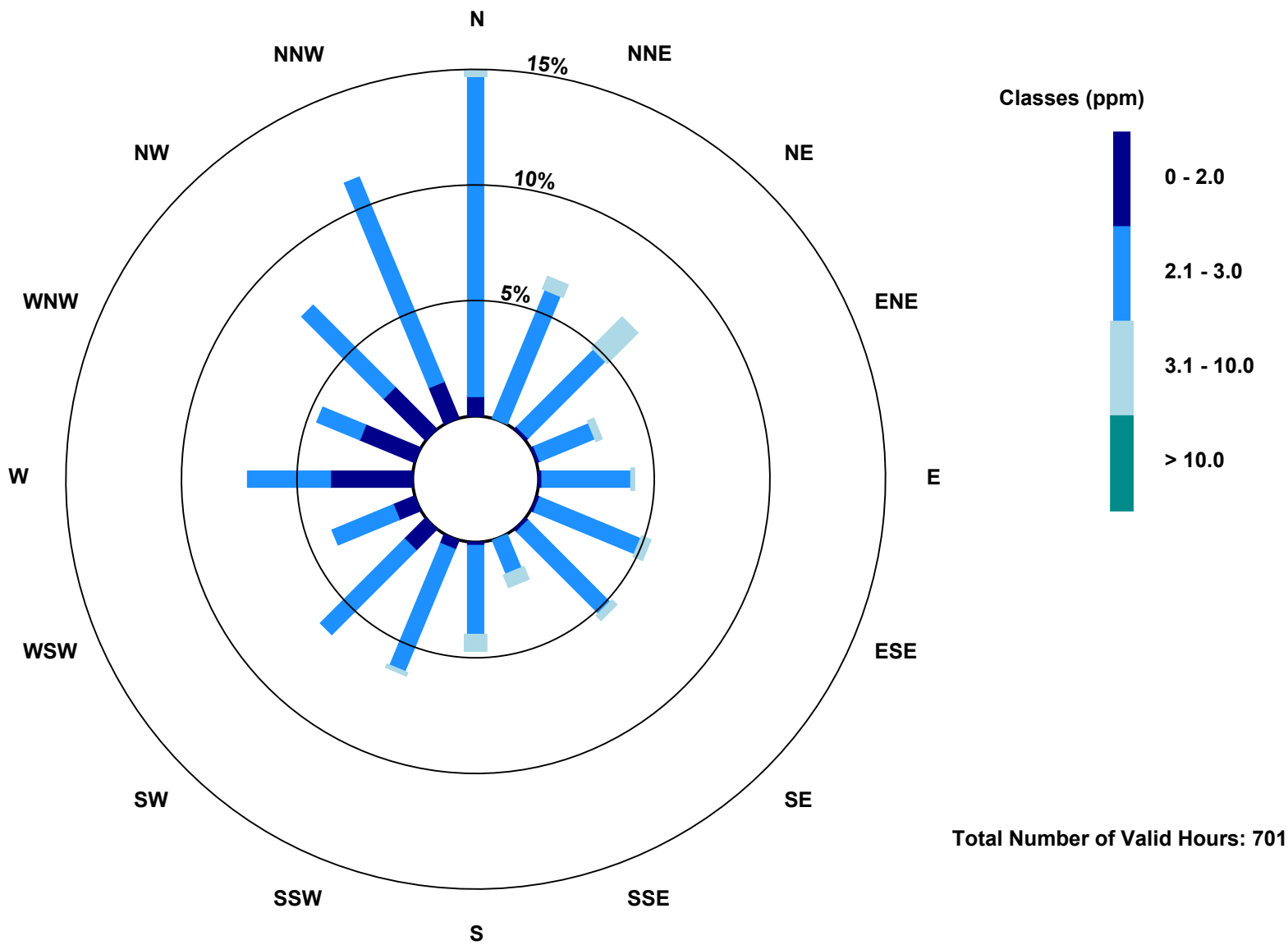
Total Number of Valid Hours: 701

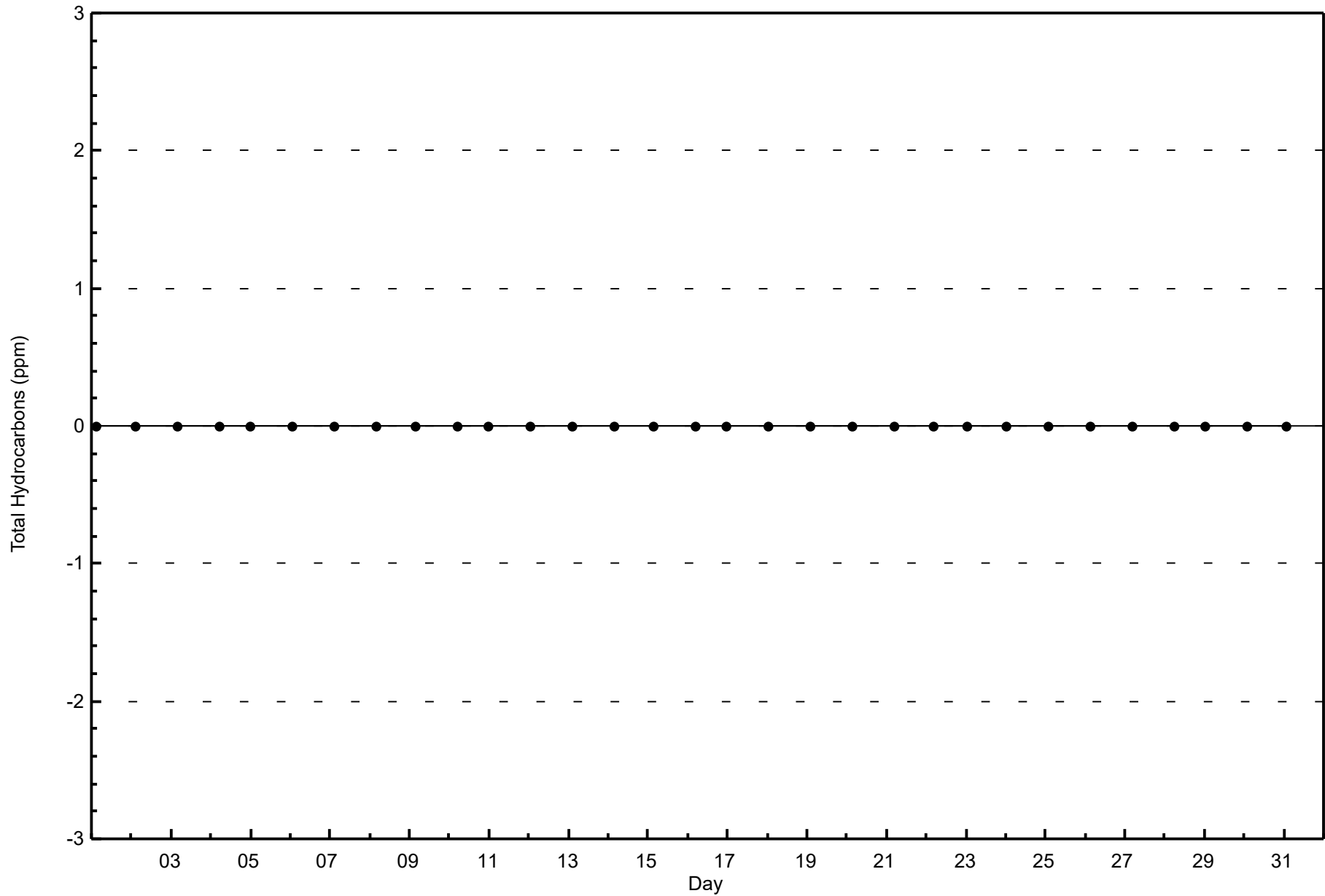
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Total Hydrocarbons (THC) - ppm
Conklin

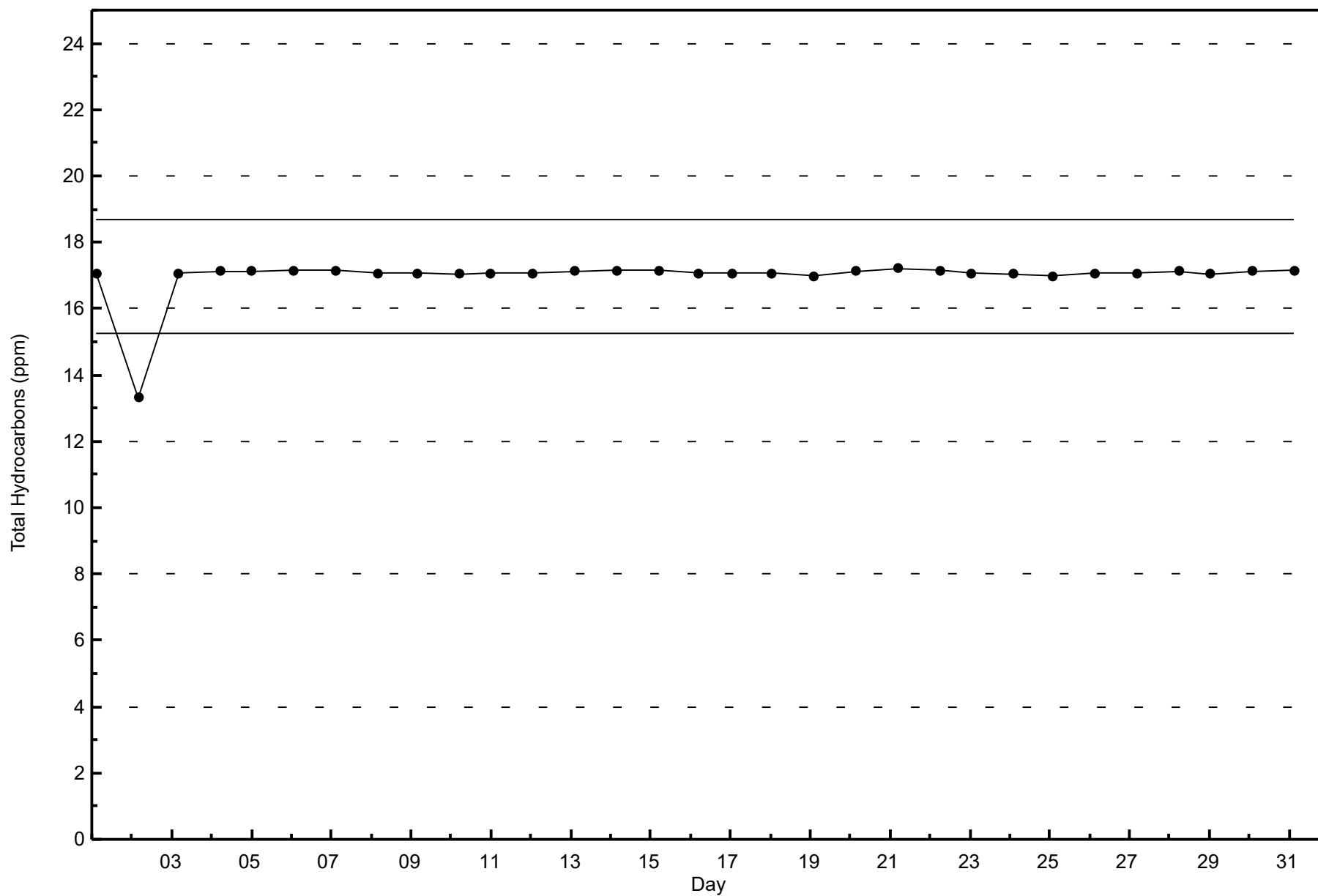






Wood Buffalo Environmental Association
Span Responses

Total Hydrocarbons (THC) - ppm
Conklin - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

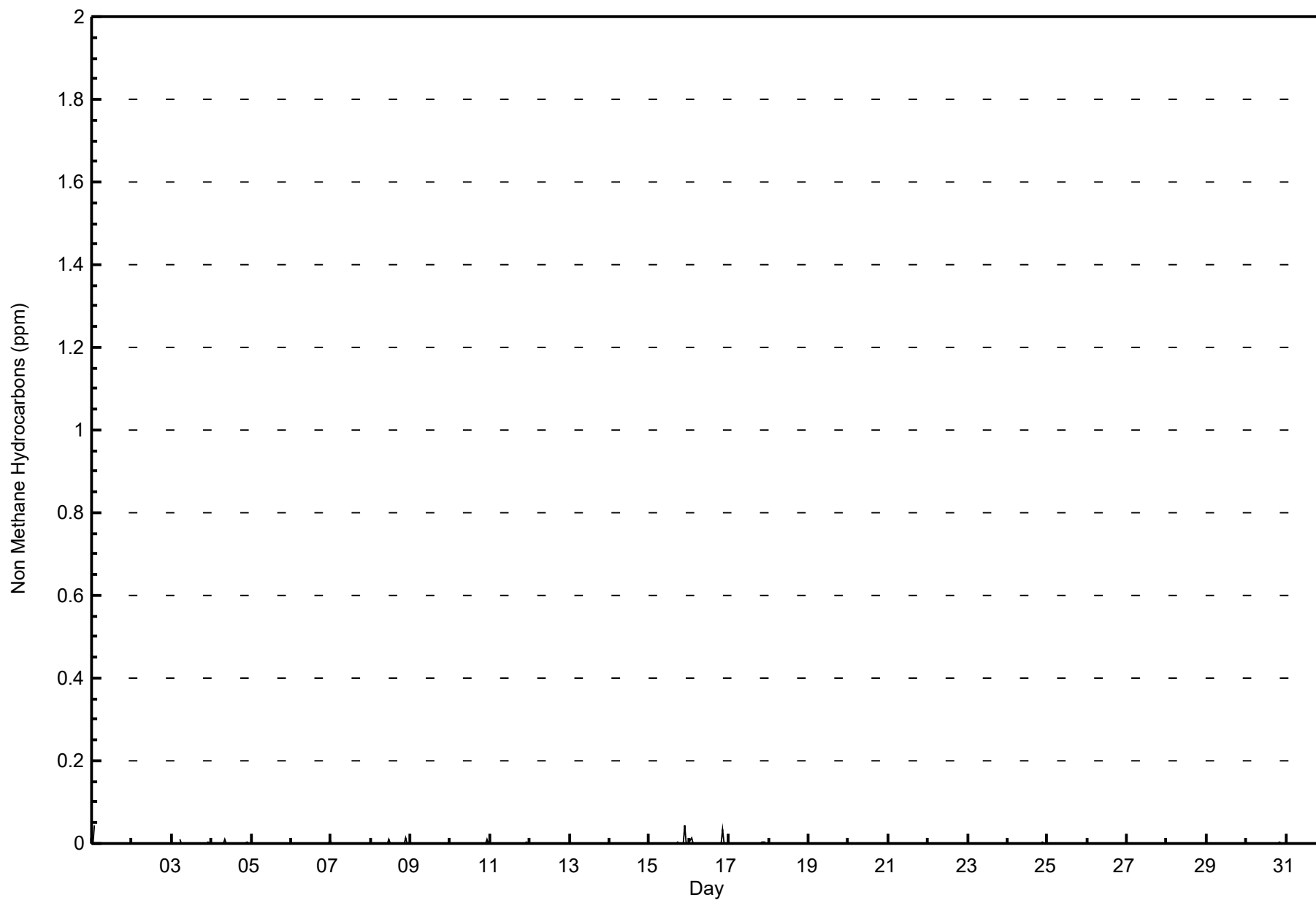
Conklin - July 2026

Maximum Value: 0.206 ppm on Jul 31 23:00																		Maximum Daily Average: 0.013 ppm on Jul 31								Hours in Service: 744	
Minimum Value: 0.000 ppm on Jul 1 01:00																		Minimum Daily Average: 0.000 ppm on Jul 5								Hours of Data: 701	
Maximum Diurnal Average: 0.007 ppm at hour 23																		Minimum Diurnal Average: 0.000 ppm at hour 3								Hours of Missing Data: 43	
Monthly Average: 0.001 ppm																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0								Hours of Calibration: 35	
																										Percent Operational Time: 98.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.000	0.043	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.043	
2-Jul	0.000	0.000	0.000	Z	UO	UO	UO	UO	UO	UO	UO	C	C	C	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	--	0.000	
3-Jul	0.000	0.000	0.000	0.000	Z	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.001	0.011	
4-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.001	0.010	
5-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
6-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.010	
7-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
8-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.000	0.001	0.014	
9-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
10-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.000	0.010	
11-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.003	
12-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
13-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
14-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
15-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.046	0.005	0.000	0.002	0.046	
16-Jul	0.004	0.012	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.034	0.003	0.000	0.002	0.034	
17-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.003	0.000	0.000	0.003	
18-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
19-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
20-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
21-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
22-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
23-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	
24-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.003	
25-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
26-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
27-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
28-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
29-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	M	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
30-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.002	
31-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.050	0.206	0.013	0.206	
0.000 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.004 0.007 0.001																								Diurnal Average			
0.004 0.043 0.000 0.000 0.000 0.011 0.000 0.000 0.010 0.000 0.000 0.010 0.001 0.000 0.000 0.000 0.000 0.002 0.000 0.000 0.034 0.050 0.206 0.034																								Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation																											



Wood Buffalo Environmental Association
Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm
Conklin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Conklin - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	688	98.15	98.15
0.006 - 0.05	12	1.71	99.86
0.06 - 0.1	0	0.00	99.86
> 0.1	1	0.14	100.00

Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Conklin - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 0.005	103	45	45	21	29	36	37	15	30	43	45	27	49	32	52	79	688
0.006 - 0.05	2	1	2	0	0	1	1	0	2	1	0	0	1	0	1	0	12
0.06 - 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 0.1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Totals	105	46	47	21	29	37	38	15	33	44	45	27	50	32	53	79	701

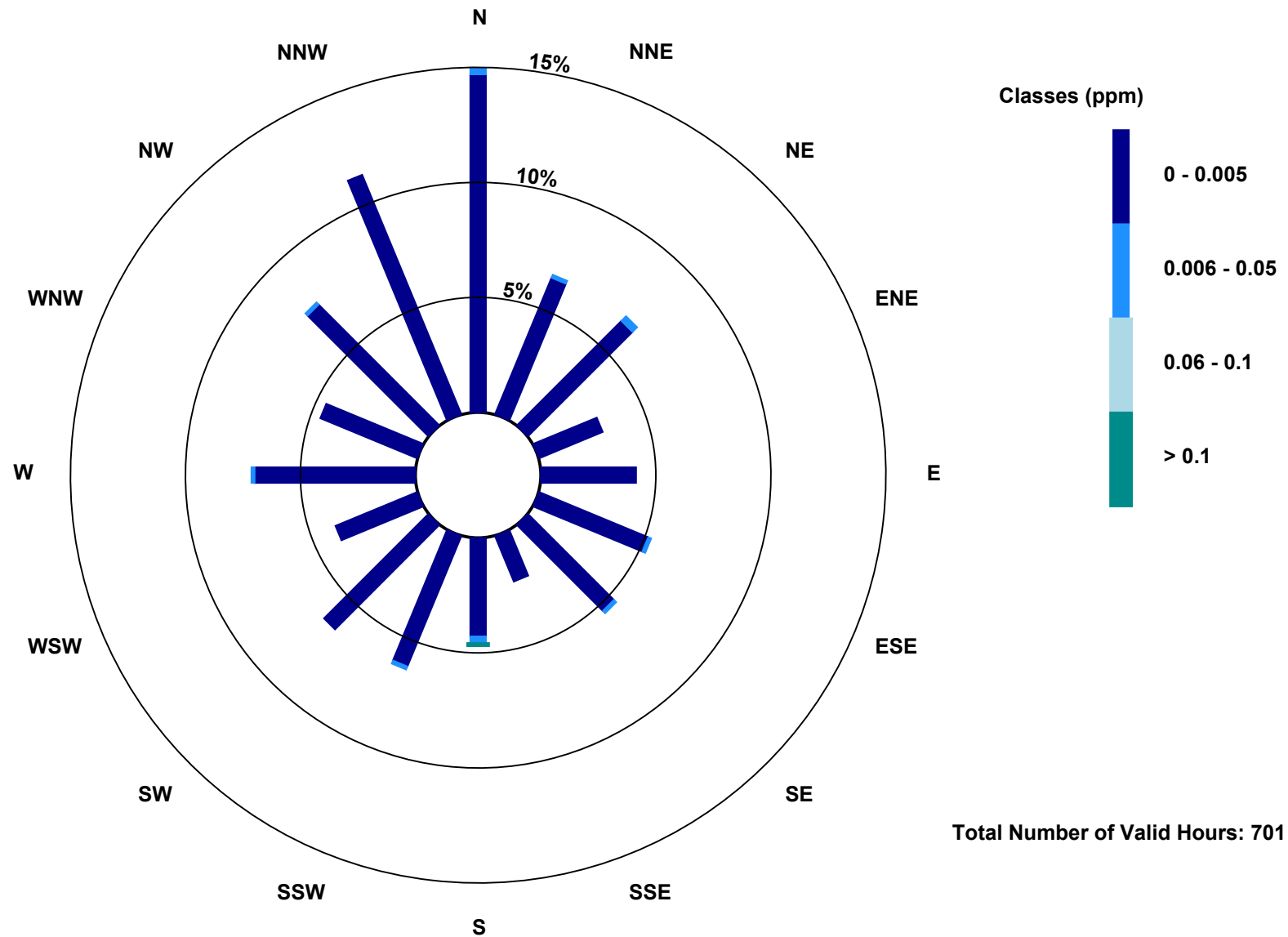
Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Non Methane Hydrocarbons (NMHC) - ppm
Conklin



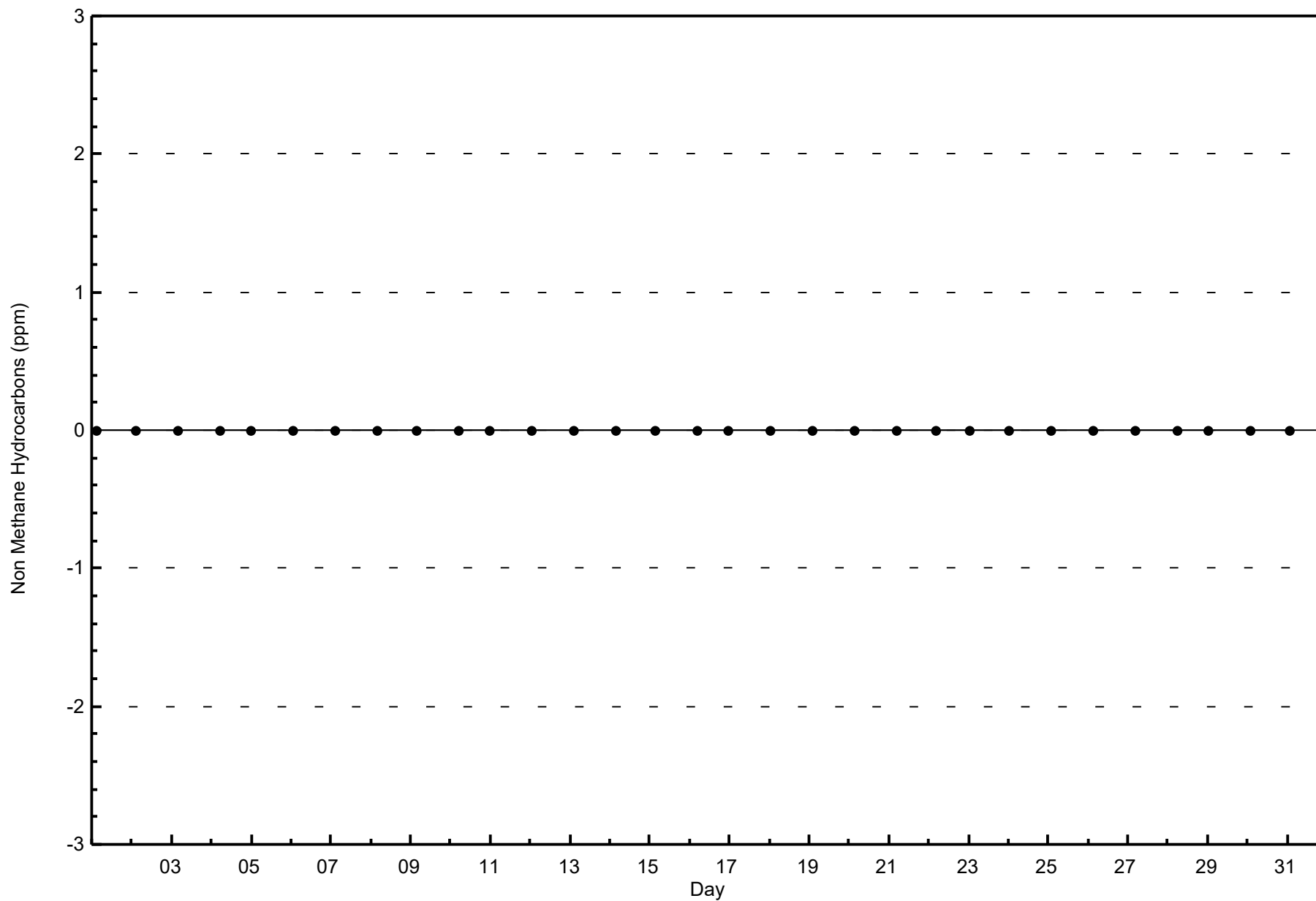


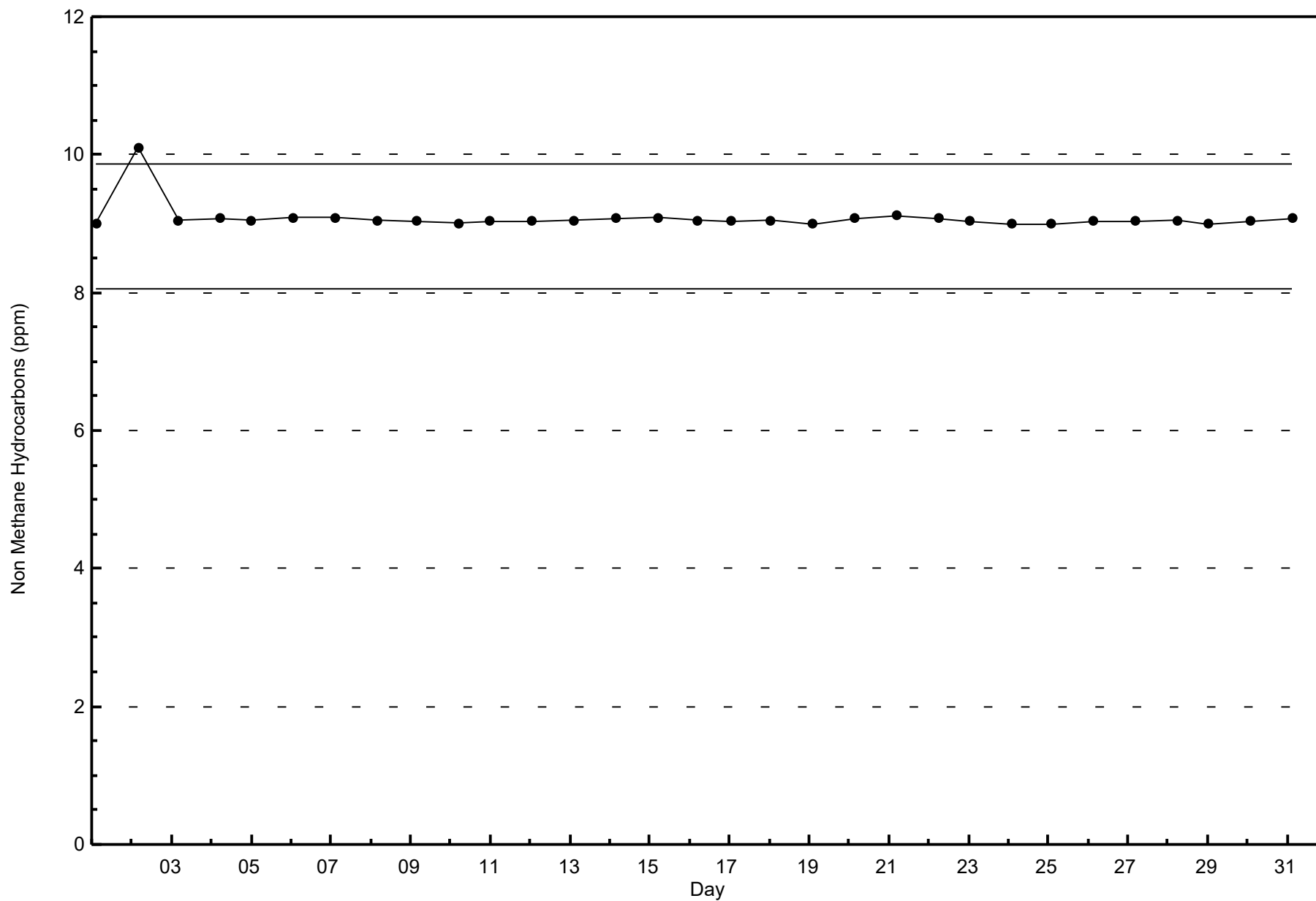
Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Conklin - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH₄) - ppm

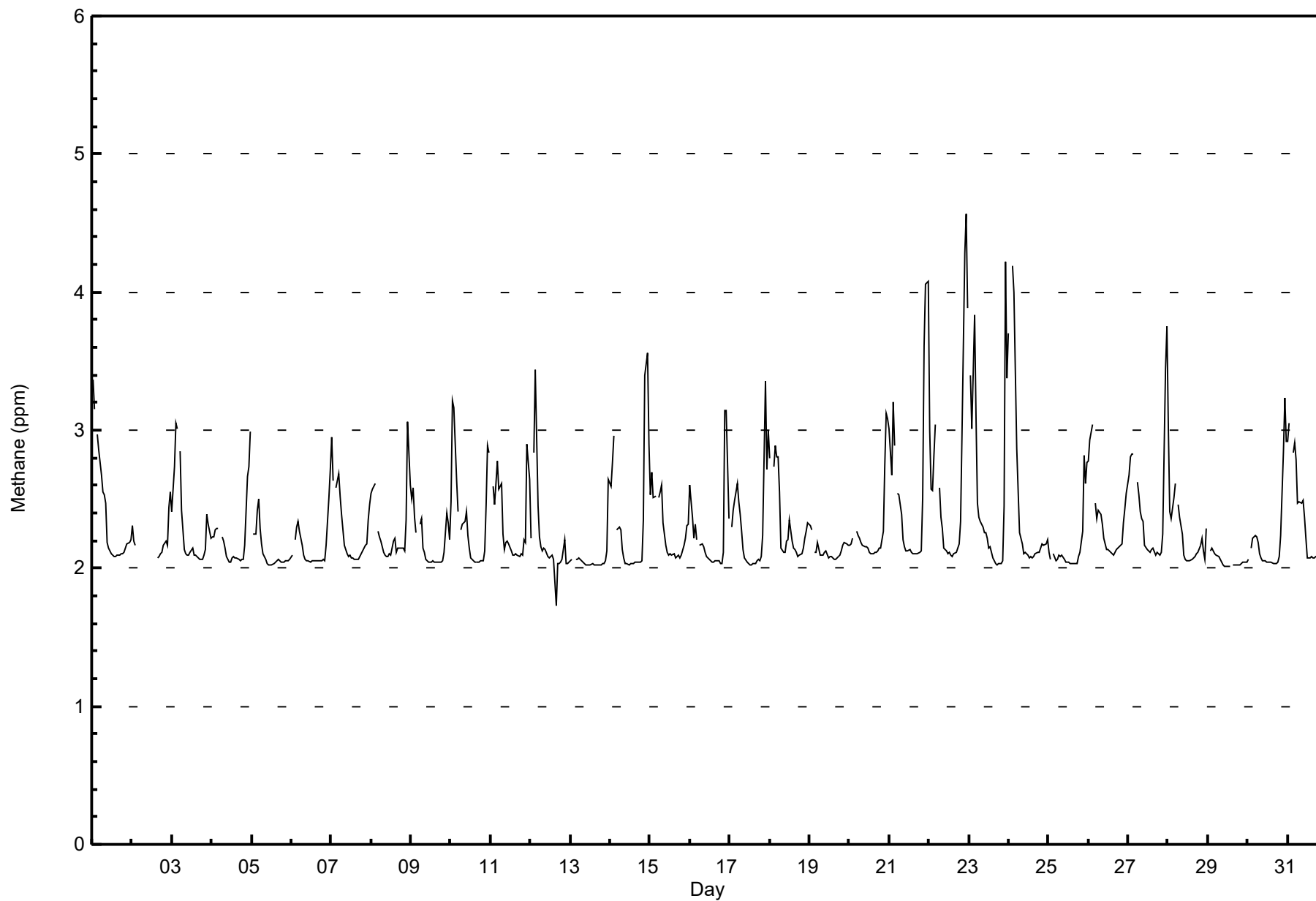
Conklin - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																			Hours in Service: 744								
Maximum Value: 4.6 ppm on Jul 22 23:00																			Maximum Daily Average: 2.6 ppm on Jul 22		Hours of Data: 701						
Minimum Value: 1.7 ppm on Jul 12 16:00																			Minimum Daily Average: 2.1 ppm on Jul 29		Hours of Missing Data: 43						
Maximum Diurnal Average: 2.7 ppm at hour 23																			Minimum Diurnal Average: 2.1 ppm at hour 16		Hours of Calibration: 35						
Monthly Average: 2.30 ppm																			Percentiles: P ₁ = 2.0 P ₁₀ = 2.0 Q ₁ = 2.1 Median = 2.1 Q ₃ = 2.4 P ₉₀ = 2.8 P ₉₉ = 3.9		Percent Operational Time: 98.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	3.4	3.1	Z	3.0	2.9	2.7	2.6	2.5	2.5	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.4	3.4
2-Jul	2.3	2.2	2.2	Z	UO	UO	UO	UO	UO	UO	UO	C	C	C	C	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.4	2.6	--	2.6
3-Jul	2.4	2.7	3.1	3.0	Z	2.8	2.4	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.3	2.2	2.3	3.1	
4-Jul	2.2	2.2	2.3	2.3	2.3	Z	2.2	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.7	2.7	3.0	2.2	3.0
5-Jul	Z	2.2	2.2	2.4	2.5	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.5
6-Jul	2.1	Z	2.2	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.5	2.7	2.2	2.7	
7-Jul	2.9	2.6	Z	2.6	2.7	2.5	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.5	2.3	2.9	
8-Jul	2.5	2.6	2.6	Z	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.3	3.1	2.6	2.3	3.1	
9-Jul	2.5	2.6	2.4	2.3	Z	2.3	2.4	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.4	2.3	2.2	2.2	2.6	
10-Jul	2.5	3.2	3.2	2.6	2.4	Z	2.3	2.3	2.3	2.4	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.5	2.9	2.8	2.4	3.2	
11-Jul	Z	2.6	2.5	2.6	2.8	2.6	2.6	2.3	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.9	2.6	2.3	2.9	
12-Jul	2.2	Z	2.8	3.4	2.5	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.7	2.0	2.0	2.0	2.1	2.2	2.0	2.0	2.0	2.2	3.4	
13-Jul	2.0	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.6	2.1	2.6	
14-Jul	2.6	2.8	3.0	Z	2.3	2.3	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4	3.4	3.6	2.9	2.3	3.6	
15-Jul	2.5	2.7	2.5	2.5	Z	2.5	2.6	2.6	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.7	
16-Jul	2.6	2.4	2.2	2.3	2.2	Z	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.1	3.1	3.1	2.4	2.2	3.1	
17-Jul	Z	2.3	2.4	2.5	2.6	2.5	2.4	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	3.4	2.7	3.0	2.3	3.4	
18-Jul	2.8	Z	2.7	2.9	2.8	2.8	2.6	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.9	
19-Jul	2.3	2.3	Z	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.3	
20-Jul	2.2	2.2	2.2	Z	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.7	3.1	3.1	2.3	3.1	
21-Jul	3.0	2.7	3.2	2.9	Z	2.5	2.5	2.4	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.5	3.6	4.1	4.1	2.6	4.1	
22-Jul	3.0	2.6	2.6	2.8	3.0	Z	2.6	2.4	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	3.0	4.3	4.6	3.9	2.6	4.6	
23-Jul	Z	3.4	3.0	3.8	3.1	2.5	2.4	2.3	2.3	2.3	2.3	2.2	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.5	4.2	3.4	2.5	4.2	
24-Jul	3.7	Z	4.2	4.0	3.4	2.9	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.5	4.2	
25-Jul	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.3	2.8	2.6	2.8	2.2	2.8	
26-Jul	2.8	2.9	3.0	Z	2.5	2.4	2.4	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.4	2.5	2.3	3.0	
27-Jul	2.7	2.8	2.8	2.8	Z	2.6	2.5	2.4	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	3.5	3.8	2.4	3.8	
28-Jul	3.0	2.4	2.4	2.5	2.6	Z	2.5	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.3	2.2	3.0	
29-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	
30-Jul	2.1	Z	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.9	3.2	2.9	2.2	3.2	
31-Jul	2.9	3.1	Z	2.8	2.9	2.8	2.5	2.5	2.5	2.5	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	3.5	3.1	3.1	2.5	3.5	
2.6 2.6 2.6 2.7 2.5 2.4 2.3 2.2 2.2 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.2 2.5 2.7 2.7																								Diurnal Average			
3.7 3.4 4.2 4.0 3.4 2.9 2.6 2.6 2.5 2.5 2.4 2.2 2.3 2.2 2.2 2.1 2.1 2.1 2.1 2.2 2.3 3.0 4.3 4.6 4.1																								Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation																											



Wood Buffalo Environmental Association
Hourly Averages

Methane (CH₄) - ppm
Conklin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Methane (CH₄) - ppm
Conklin - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	104	14.84	14.84
2.1 - 3.0	560	79.89	94.72
3.1 - 10.0	37	5.28	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Methane (CH₄) - ppm
Conklin - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	6	0	1	1	1	1	1	0	1	3	9	7	25	18	18	12	104
2.1 - 3.0	97	42	33	18	27	33	35	11	27	40	36	20	25	14	35	67	560
3.1 - 10.0	2	4	13	2	1	3	2	4	5	1	0	0	0	0	0	0	37
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	105	46	47	21	29	37	38	15	33	44	45	27	50	32	53	79	701

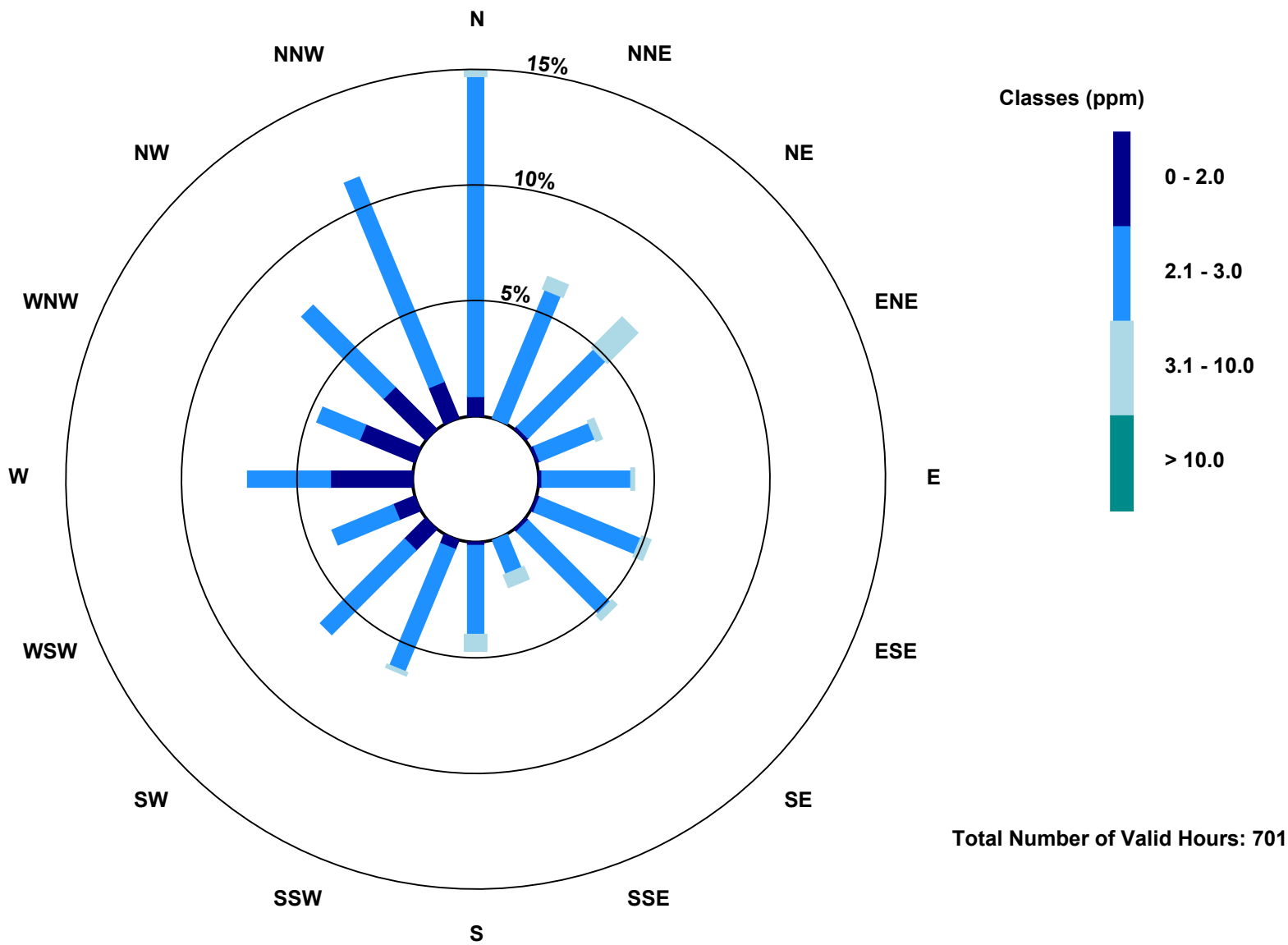
Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

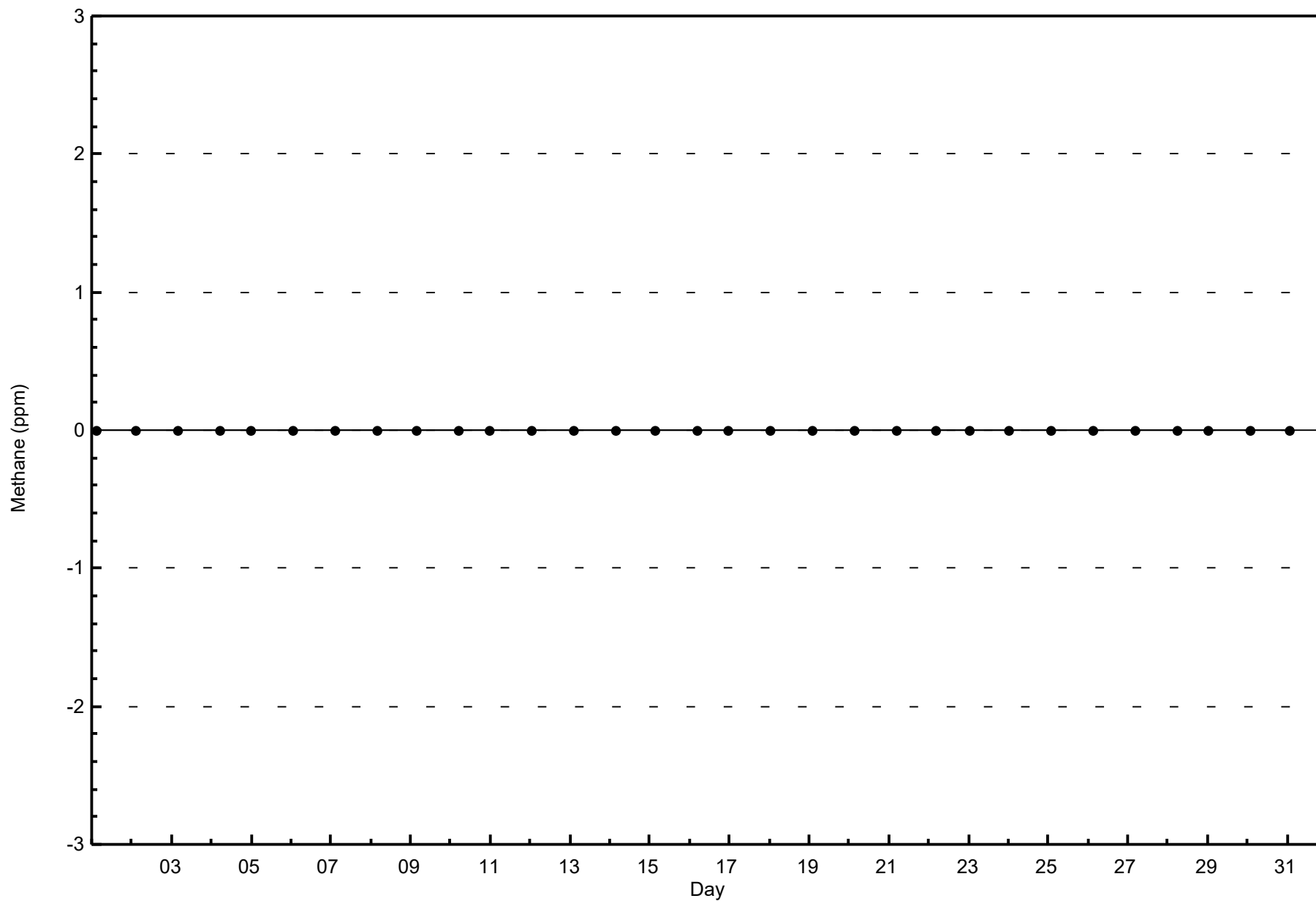
Methane (CH₄) - ppm
Conklin





Wood Buffalo Environmental Association
Zero Responses

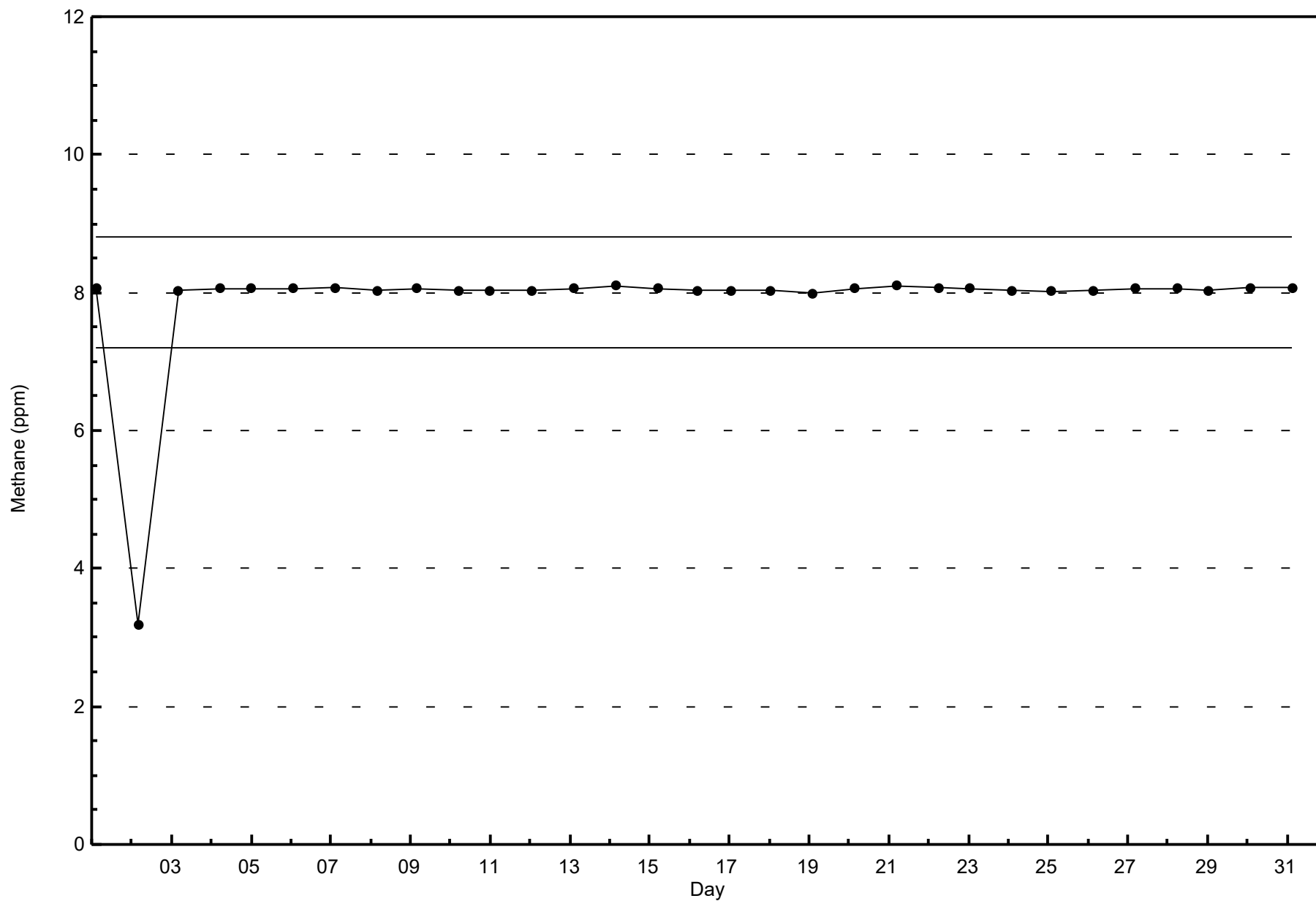
Methane (CH₄) - ppm
Conklin - July 2026





Wood Buffalo Environmental Association
Span Responses

Methane (CH₄) - ppm
Conklin - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

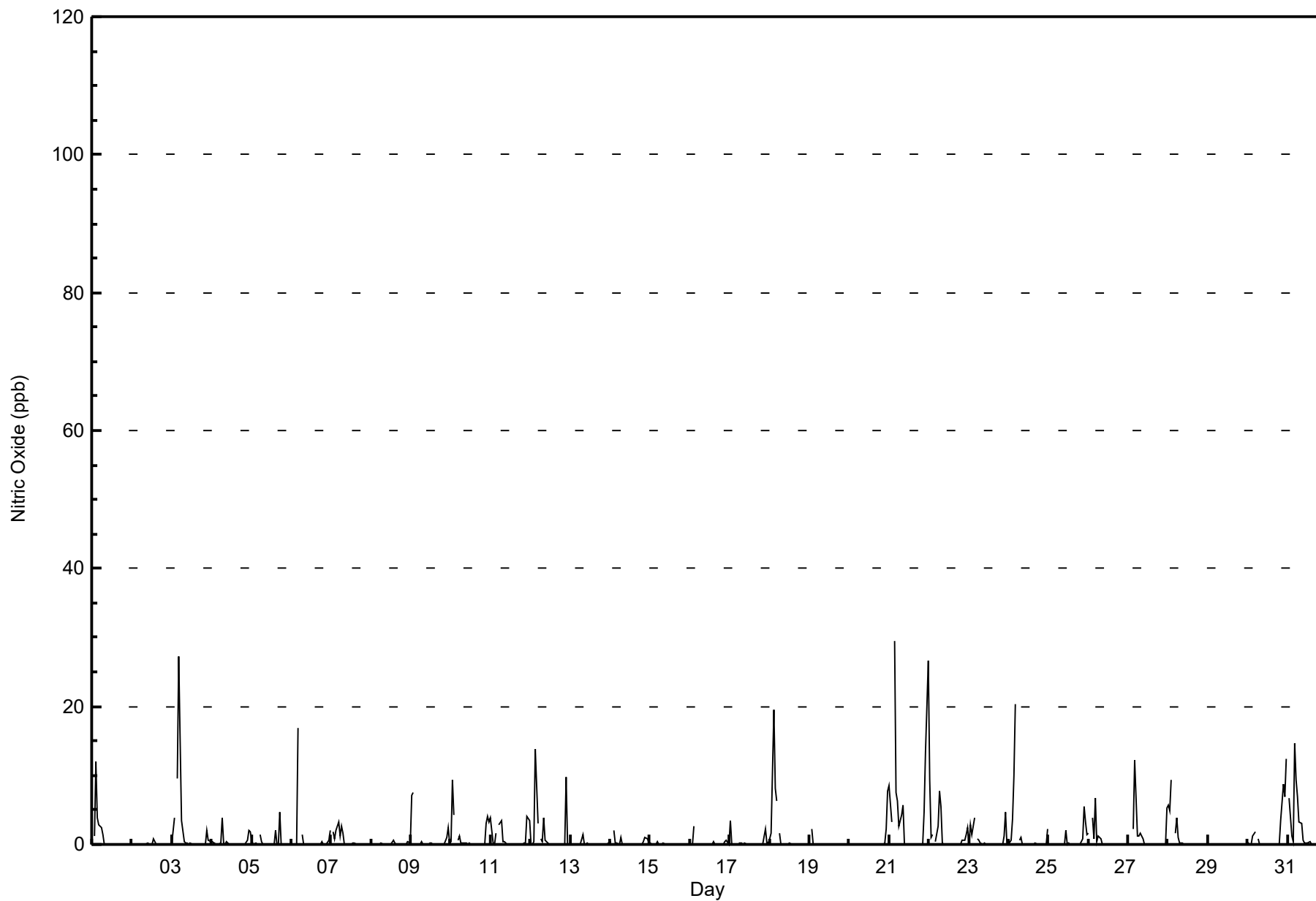
Conklin - July 2026

Maximum Value: 29.5 ppb on Jul 21 04:00																		Maximum Daily Average: 4.9 ppb on Jul 21								Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 1 09:00																		Minimum Daily Average: 0.0 ppb on Jul 29								Hours of Data: 705	
Maximum Diurnal Average: 4.9 ppb at hour 5																		Minimum Diurnal Average: 0.0 ppb at hour 16								Hours of Missing Data: 39	
Monthly Average: 1.00 ppb																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.3 P ₉₀ = 3.0 P ₉₉ = 14.6								Hours of Calibration: 37	
																										Percent Operational Time: 99.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	Z	1.1	12.0	3.9	2.8	2.4	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	12.0	
2-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
3-Jul	0.0	4.0	Z	9.5	27.3	15.3	3.5	0.4	0.2	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.6	0.4	2.8	27.3	
4-Jul	0.3	0.3	0.2	Z	0.0	0.2	3.8	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	2.0	1.9	0.4	3.8	
5-Jul	0.6	0.1	0.2	0.0	Z	1.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.4	4.6	
6-Jul	0.0	0.0	0.0	0.0	16.9	Z	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.7	2.1	0.9	16.9	
7-Jul	Z	1.9	0.8	2.0	3.2	1.2	2.5	1.7	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	3.2	
8-Jul	0.0	Z	0.0	0.0	0.0	0.1	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1	0.1	0.6	
9-Jul	7.0	7.5	Z	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.5	0.2	0.8	7.5	
10-Jul	0.4	9.4	4.3	Z	0.7	1.3	0.2	0.2	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	4.0	3.3	1.2	9.4	
11-Jul	3.8	0.2	0.1	1.6	Z	2.8	3.5	0.5	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	4.0	3.5	0.9	4.0	
12-Jul	0.0	0.0	0.5	13.9	3.0	Z	0.8	0.5	3.9	0.6	0.1	0.0	0.0	0.1	0.0	PF	0.0	0.0	0.0	0.0	0.0	9.8	0.0	0.0	1.5	13.9	
13-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	1.4	
14-Jul	0.4	Z	2.1	0.1	0.1	0.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.9	0.9	0.1	0.3	2.1	
15-Jul	0.2	0.0	Z	0.0	0.3	0.1	0.0	0.0	0.2	0.0	C	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.3	
16-Jul	0.0	0.0	2.7	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	0.2	2.7	
17-Jul	3.4	0.0	0.0	0.1	Z	0.1	0.3	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.3	0.1	0.3	3.4	
18-Jul	0.7	1.6	19.5	8.1	6.3	Z	1.7	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	19.5	
19-Jul	Z	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.3	
20-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.2	7.7	0.4	7.7	
21-Jul	8.5	3.2	Z	29.5	7.5	6.2	2.7	4.3	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	13.5	26.6	4.9	29.5	
22-Jul	9.4	1.1	1.4	Z	0.4	2.7	7.8	5.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.4	2.3	1.4	9.4	
23-Jul	0.0	2.8	1.4	3.8	Z	0.9	0.5	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	4.6	0.0	0.7	4.6	
24-Jul	0.0	0.7	3.6	10.0	20.4	Z	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.3	1.7	20.4	
25-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	5.4	3.2	1.5	0.6	5.4	
26-Jul	1.6	Z	3.9	0.8	6.7	0.4	1.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	6.7	
27-Jul	0.0	0.0	Z	2.2	12.2	1.2	1.1	1.6	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	1.1	12.2	
28-Jul	5.8	4.9	9.3	Z	1.7	3.8	1.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	9.3	
29-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
30-Jul	0.2	0.0	0.0	1.2	1.9	Z	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	8.8	7.0	12.4	1.6	12.4	
31-Jul	Z	6.7	1.3	0.4	14.6	9.3	7.0	3.3	3.0	0.7	0.2	0.2	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	7.4	6.2	10.2	3.1	14.6	



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Conklin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Conklin - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	702	99.57	99.57
21 - 40	3	0.43	100.00
41 - 60	0	0.00	100.00
61 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Conklin - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	103	46	44	21	27	39	37	18	33	46	47	27	49	32	54	79	702
21 - 40	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	103	47	45	21	28	39	37	18	33	46	47	27	49	32	54	79	705

Total Number of Valid Hours: 705

Total Number of Hours: 744



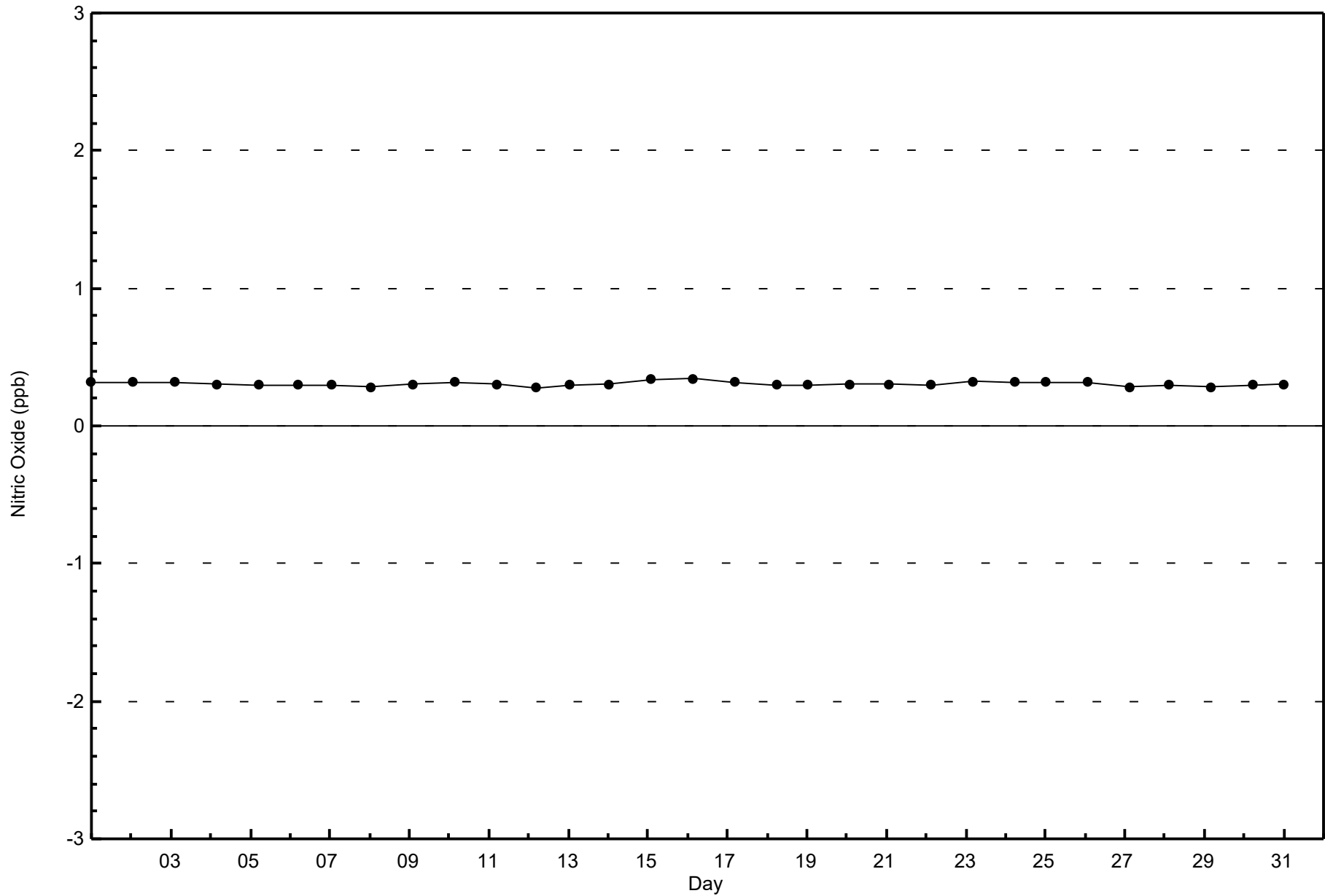
Nitric Oxide (NO) - ppb
Conklin





Wood Buffalo Environmental Association
Zero Responses

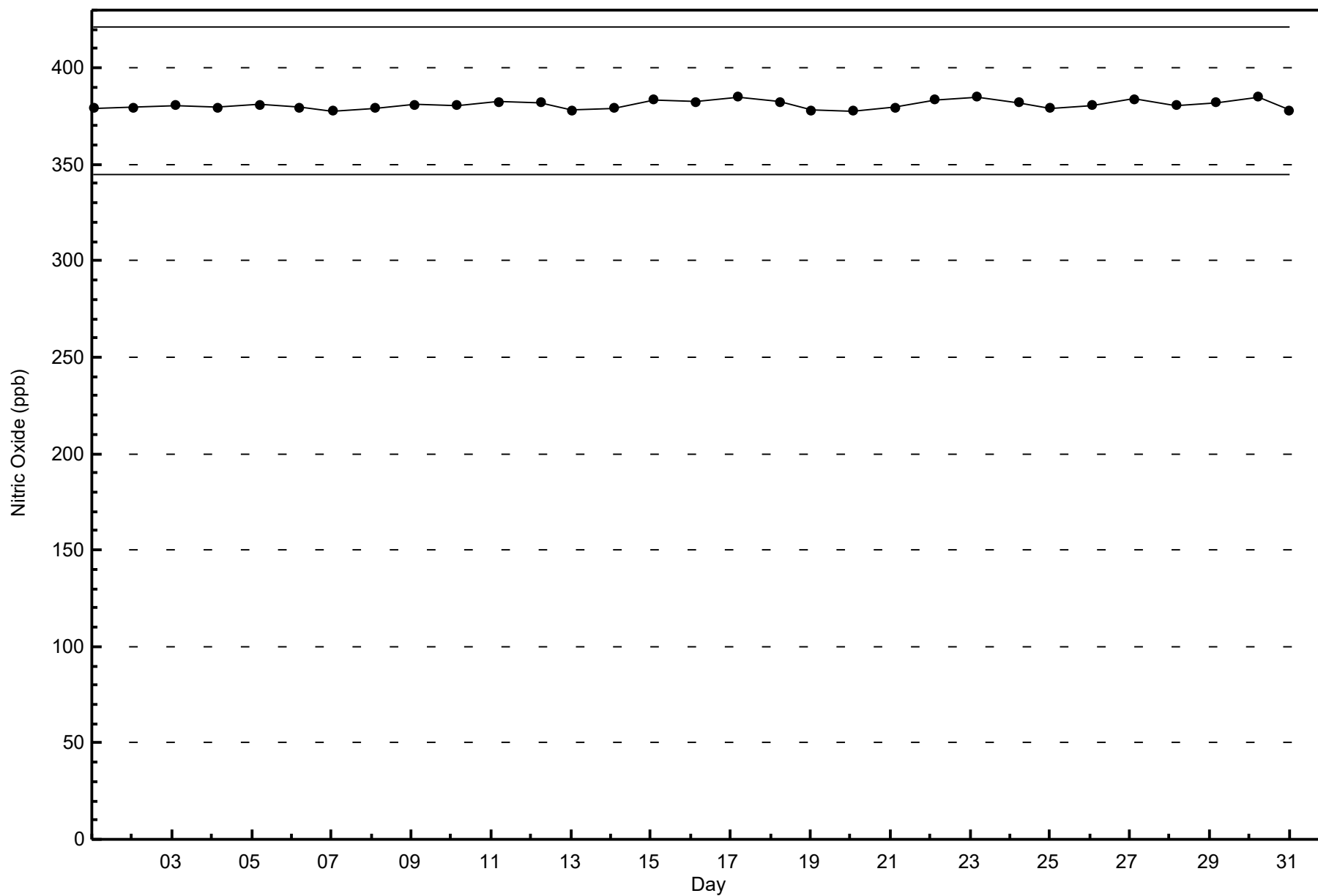
Nitric Oxide (NO) - ppb
Conklin - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Conklin - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

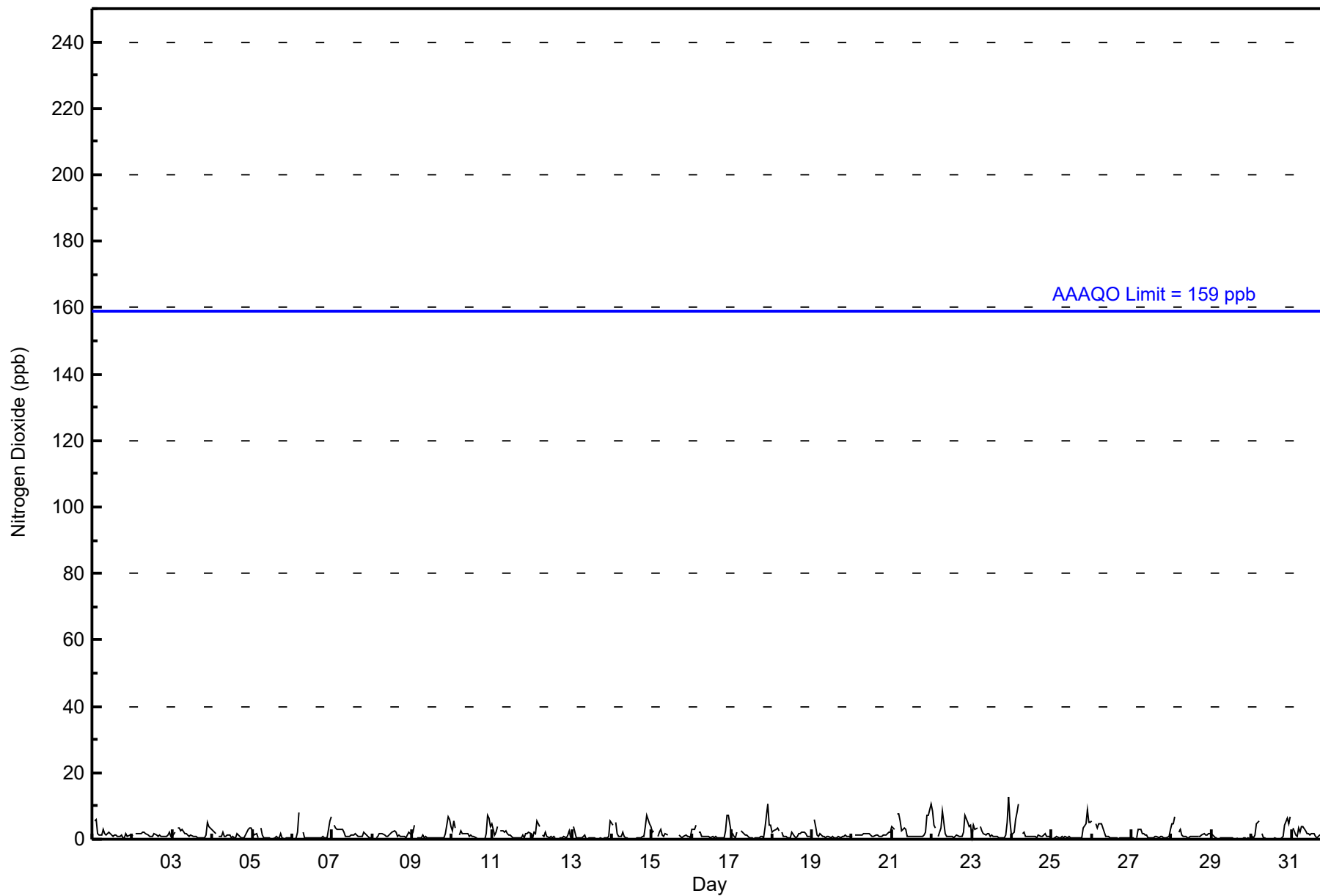
Conklin - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 12.6 ppb on Jul 23 23:00 Maximum Daily Average: 3.2 ppb on Jul 21																			Hours in Service: 744 Hours of Data: 705 Hours of Missing Data: 39 Hours of Calibration: 37 Percent Operational Time: 99.7							
Minimum Value: 0.1 ppb on Jul 13 15:00 Minimum Daily Average: 0.4 ppb on Jul 29 Maximum Diurnal Average: 3.3 ppb at hour 22 Minimum Diurnal Average: 0.6 ppb at hour 16 Monthly Average: 1.62 ppb Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.5 Median = 1.0 Q ₃ = 2.0 P ₉₀ = 3.9 P ₉₉ = 8.3																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	Z	5.5	6.1	1.7	1.3	1.2	2.8	1.6	1.2	1.9	2.3	1.2	1.0	1.3	1.2	1.0	0.8	1.2	0.6	0.6	1.5	0.8	1.2	0.8	1.7	6.1
2-Jul	1.2	Z	1.8	1.6	1.6	1.5	2.1	2.0	1.5	1.3	1.0	0.9	0.9	1.9	1.1	1.0	1.2	1.0	0.8	0.7	0.7	1.4	2.0	1.0	1.3	2.1
3-Jul	0.7	2.3	Z	3.5	3.4	2.5	3.0	1.7	1.6	1.1	1.0	1.4	0.9	0.7	0.7	0.6	0.4	0.3	0.5	0.5	1.4	5.1	4.0	3.1	1.8	5.1
4-Jul	2.7	2.1	1.5	Z	0.9	0.9	2.1	0.8	0.7	1.1	1.1	0.5	0.7	0.5	0.6	1.9	0.7	0.6	0.6	0.3	1.3	3.1	3.6	3.2	1.4	3.6
5-Jul	2.6	1.1	1.9	0.4	Z	3.6	1.1	0.6	0.4	0.4	0.4	0.2	0.2	0.3	0.9	0.3	0.5	1.5	0.3	0.2	0.3	0.4	0.3	0.3	0.8	3.6
6-Jul	0.2	0.2	0.5	2.3	8.1	Z	2.2	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.5	0.7	0.5	0.4	0.4	5.6	6.8	1.4	8.1
7-Jul	Z	4.2	3.2	2.9	2.9	2.9	3.1	2.1	0.8	0.7	0.9	1.2	1.1	1.3	1.6	0.9	0.7	1.0	1.0	2.2	1.3	0.9	0.6	0.5	1.7	4.2
8-Jul	0.4	Z	0.5	0.7	1.5	1.5	1.7	1.3	0.9	1.0	1.1	1.8	2.1	2.6	2.1	0.8	1.2	0.9	1.0	0.8	0.5	1.3	2.0	1.4	1.3	2.6
9-Jul	2.3	4.4	Z	0.4	0.3	0.3	1.2	0.6	0.8	0.4	0.4	0.6	0.6	0.5	0.3	0.3	0.3	0.3	0.4	0.6	1.6	6.8	6.0	3.8	1.4	6.8
10-Jul	2.5	5.3	3.3	Z	1.3	2.6	1.9	1.8	1.6	1.5	0.7	1.1	0.9	0.7	0.3	0.2	0.2	0.2	0.2	0.2	1.7	7.1	6.4	3.9	2.0	7.1
11-Jul	4.6	1.2	2.0	3.7	Z	2.6	2.7	2.0	2.5	1.7	1.1	1.1	0.4	0.4	0.5	0.6	0.5	0.6	1.4	0.3	1.7	1.5	2.3	1.9	1.6	4.6
12-Jul	0.3	2.1	1.8	5.4	3.7	Z	1.3	0.9	2.0	0.9	0.5	0.8	0.4	0.7	0.4	PF	0.5	0.5	0.5	0.8	0.6	1.4	2.4	0.5	1.3	5.4
13-Jul	Z	3.7	0.6	0.4	0.6	0.3	0.3	1.2	0.2	0.2	0.4	0.3	0.4	0.3	0.1	0.1	0.2	0.3	0.2	0.3	0.3	0.5	0.8	5.3	0.7	5.3
14-Jul	4.3	Z	4.9	1.9	1.0	0.7	2.0	0.7	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.6	0.3	0.8	1.0	3.9	7.1	4.8	3.7	1.7	7.1
15-Jul	2.3	2.4	Z	1.0	2.1	3.0	1.4	0.9	1.8	1.4	C	C	C	C	C	C	1.1	0.8	0.6	0.7	1.1	0.9	0.7	0.6	--	3.0
16-Jul	3.0	2.9	4.1	Z	2.3	2.0	1.0	1.0	0.8	1.0	0.8	0.5	0.9	0.6	0.9	0.5	0.4	0.3	0.3	0.4	2.6	7.1	7.2	2.2	1.9	7.2
17-Jul	1.9	1.0	0.5	2.2	Z	2.5	2.3	1.8	1.2	1.1	0.5	0.3	0.3	0.2	0.3	0.3	0.4	0.8	0.9	0.5	3.3	10.7	4.4	4.2	1.8	10.7
18-Jul	2.0	2.5	2.8	3.3	2.4	Z	2.1	0.8	0.9	0.6	0.6	0.6	2.0	0.7	0.6	0.9	1.6	1.7	2.0	2.1	1.5	1.0	0.8	0.8	1.5	3.3
19-Jul	Z	6.1	3.9	1.2	0.7	1.5	1.0	1.0	0.6	0.7	0.7	0.6	0.7	0.5	0.5	0.6	0.7	0.6	0.7	1.0	1.1	1.0	0.7	0.7	1.2	6.1
20-Jul	0.7	Z	1.1	1.4	1.3	1.4	1.3	1.5	1.6	1.9	1.8	1.3	0.8	1.0	1.1	1.1	0.9	0.8	0.7	1.3	1.1	1.7	2.3	2.3	1.3	2.3
21-Jul	3.7	3.1	Z	7.8	7.6	5.5	2.5	3.5	2.9	0.8	0.8	1.0	1.0	0.7	0.7	0.7	0.7	0.8	0.8	1.2	2.1	7.1	7.3	10.5	3.2	10.5
22-Jul	8.3	4.3	3.6	Z	1.0	3.6	8.6	5.1	1.5	0.9	0.7	0.7	0.8	0.6	0.8	1.1	1.0	1.0	0.9	2.2	7.0	4.9	4.0	4.1	2.9	8.6
23-Jul	0.8	4.2	3.1	3.2	Z	3.7	2.7	1.6	1.4	1.7	1.6	1.0	1.1	0.7	0.7	0.8	0.6	0.5	0.5	0.4	1.1	4.9	12.6	5.5	2.4	12.6
24-Jul	1.2	2.3	5.9	8.0	10.8	Z	1.9	2.3	1.0	0.7	0.7	0.7	0.7	0.9	0.7	0.6	1.2	1.0	0.7	1.1	1.6	1.0	0.8	0.5	2.0	10.8
25-Jul	Z	0.6	0.6	0.7	0.5	0.6	0.7	0.6	0.7	0.4	1.0	0.3	0.6	0.3	0.4	0.3	0.3	0.4	0.3	3.5	4.5	8.9	4.9	5.0	1.6	8.9
26-Jul	5.5	Z	4.8	3.3	4.5	4.6	4.7	2.3	1.0	0.8	0.7	0.5	0.5	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.3	1.6	5.5
27-Jul	0.3	0.3	Z	0.6	2.8	3.0	1.6	1.8	1.3	1.2	0.6	0.5	0.5	0.6	0.9	0.8	0.6	1.0	0.7	0.6	0.5	0.5	0.9	2.9	1.1	3.0
28-Jul	4.5	4.7	6.9	Z	2.1	2.9	1.4	0.8	0.8	0.5	0.4	0.7	0.8	1.0	0.7	0.7	0.7	0.8	1.4	1.7	1.2	1.2	1.5	1.5	1.7	6.9
29-Jul	1.5	1.0	0.6	0.6	Z	0.6	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.2	M	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.4	1.5
30-Jul	0.7	0.3	1.3	4.8	5.4	Z	1.8	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.4	0.2	0.2	0.2	0.2	0.3	0.8	4.1	6.5	4.7	1.7	6.6
31-Jul	Z	3.6	1.1	0.7	3.6	2.2	3.9	3.8	2.5	1.7	1.5	1.2	1.7	1.5	0.7	0.5	0.7	1.2	1.4	0.6	3.3	6.3	6.2	11.9	2.7	11.9
2.3 2.7 2.6 2.5 2.8 2.2 2.2 1.5 1.1 0.9 0.8 0.7 0.8 0.7 0.7 0.6 0.6 0.7 0.7 0.9 1.7 3.3 3.3 3.1 Diurnal Average																										
8.3 6.1 6.9 8.0 10.8 5.5 8.6 5.1 2.9 1.9 2.3 1.8 2.1 2.6 2.1 1.9 1.6 1.7 2.0 3.5 7.0 10.7 12.6 11.9 Diurnal Maximum																										
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Conklin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Conklin - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	705	100.00	100.00
21 - 40	0	0.00	100.00
41 - 60	0	0.00	100.00
61 - 80	0	0.00	100.00
81 - 100	0	0.00	100.00
101 - 120	0	0.00	100.00
121 - 140	0	0.00	100.00
141 - 160	0	0.00	100.00
161 - 180	0	0.00	100.00
181 - 200	0	0.00	100.00
201 - 220	0	0.00	100.00
221 - 240	0	0.00	100.00
241 - 260	0	0.00	100.00
261 - 280	0	0.00	100.00
281 - 300	0	0.00	100.00
301 - 320	0	0.00	100.00
321 - 340	0	0.00	100.00
341 - 360	0	0.00	100.00
361 - 380	0	0.00	100.00
381 - 400	0	0.00	100.00
401 - 420	0	0.00	100.00
421 - 440	0	0.00	100.00
441 - 460	0	0.00	100.00
461 - 480	0	0.00	100.00
481 - 500	0	0.00	100.00
501 - 520	0	0.00	100.00
521 - 540	0	0.00	100.00
541 - 560	0	0.00	100.00
561 - 580	0	0.00	100.00
581 - 600	0	0.00	100.00
601 - 620	0	0.00	100.00
621 - 640	0	0.00	100.00
641 - 660	0	0.00	100.00
661 - 680	0	0.00	100.00
681 - 700	0	0.00	100.00
701 - 720	0	0.00	100.00
721 - 740	0	0.00	100.00
741 - 760	0	0.00	100.00
761 - 780	0	0.00	100.00
781 - 800	0	0.00	100.00
801 - 820	0	0.00	100.00
821 - 840	0	0.00	100.00
841 - 860	0	0.00	100.00
861 - 880	0	0.00	100.00
881 - 900	0	0.00	100.00
901 - 920	0	0.00	100.00
921 - 940	0	0.00	100.00
941 - 960	0	0.00	100.00
961 - 980	0	0.00	100.00
981 - 1000	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Conklin - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	103	47	45	21	28	39	37	18	33	46	47	27	49	32	54	79	705
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	103	47	45	21	28	39	37	18	33	46	47	27	49	32	54	79	705

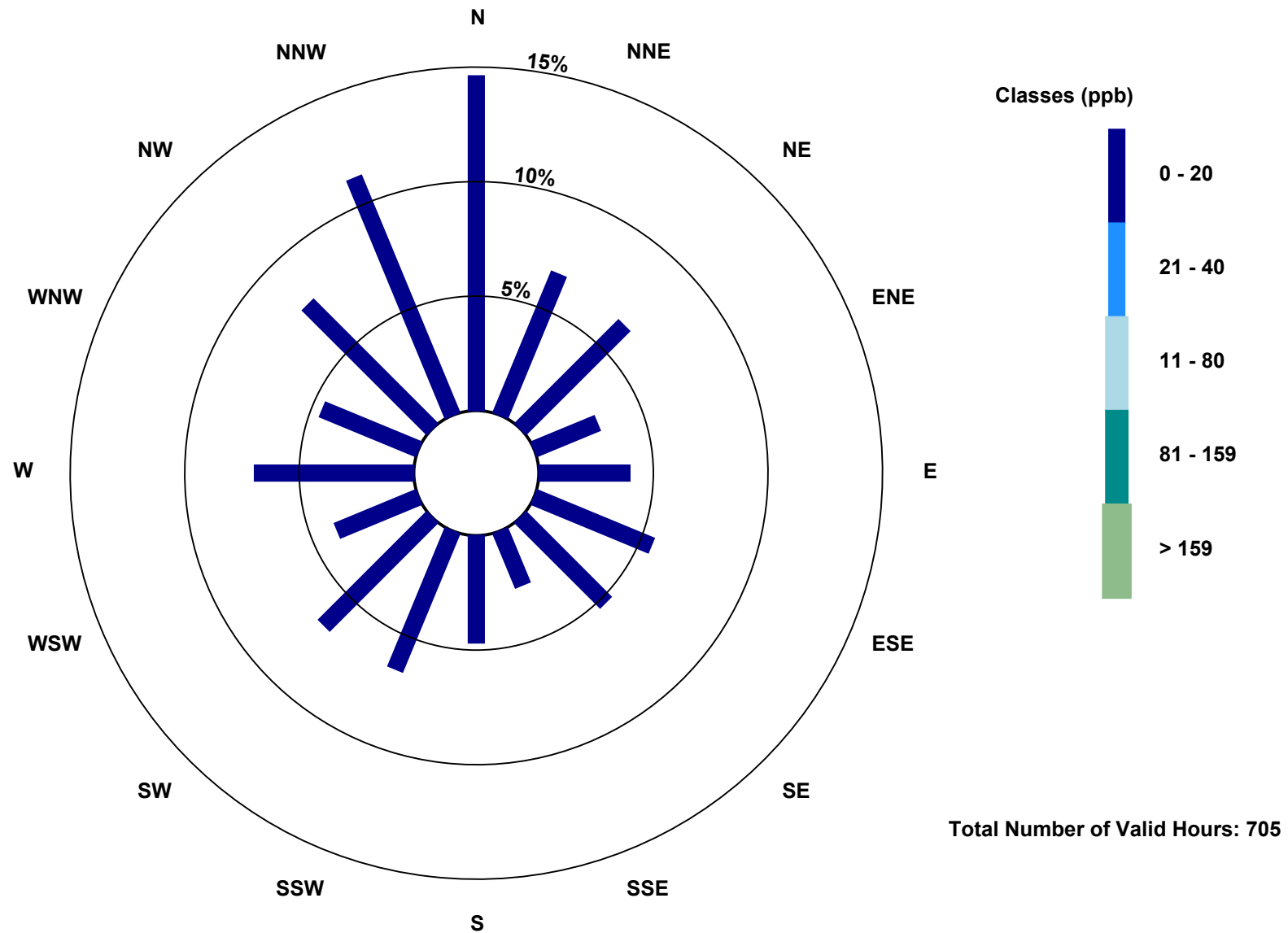
Total Number of Valid Hours: 705

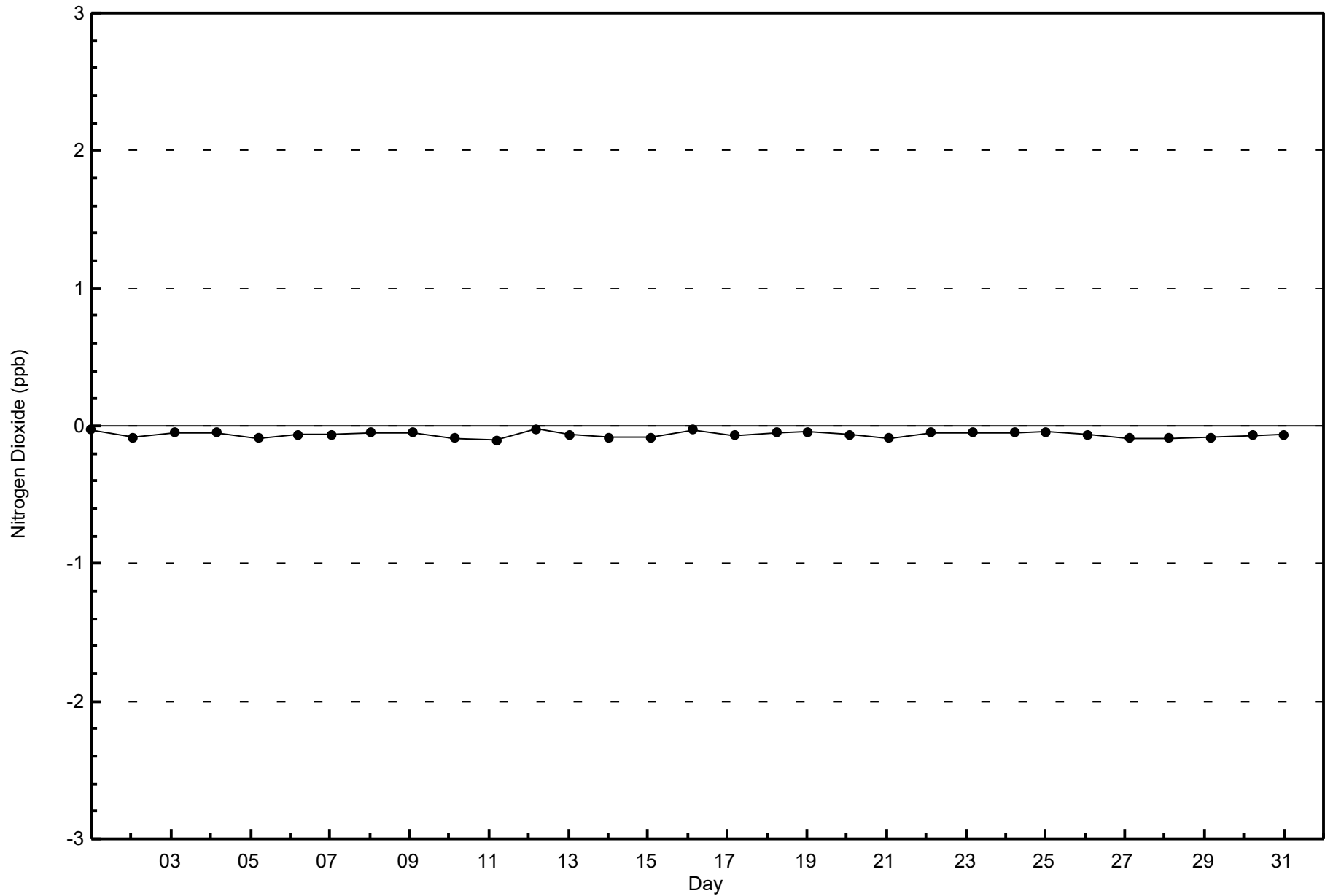
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Dioxide (NO₂) - ppb
Conklin

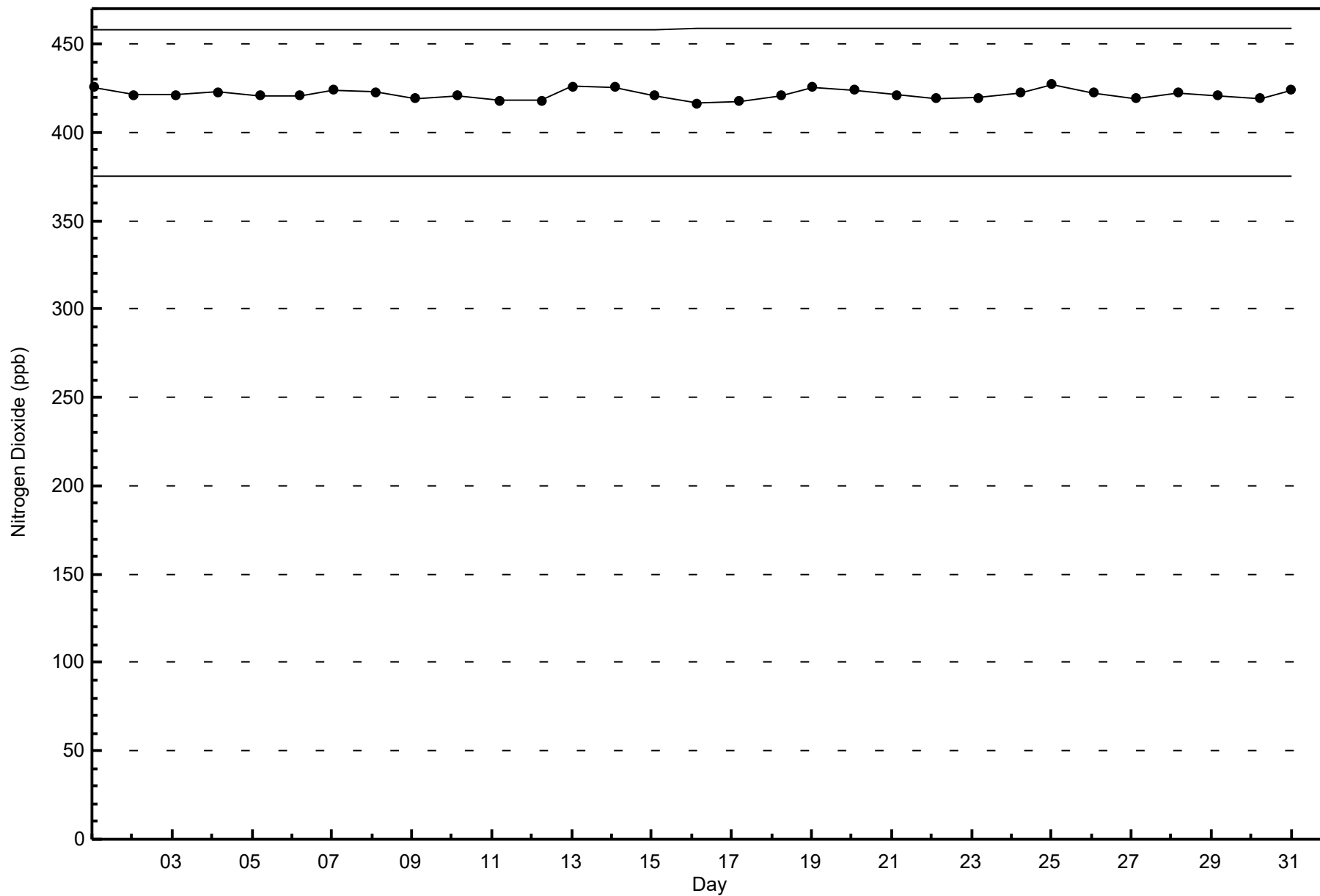






Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Conklin - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

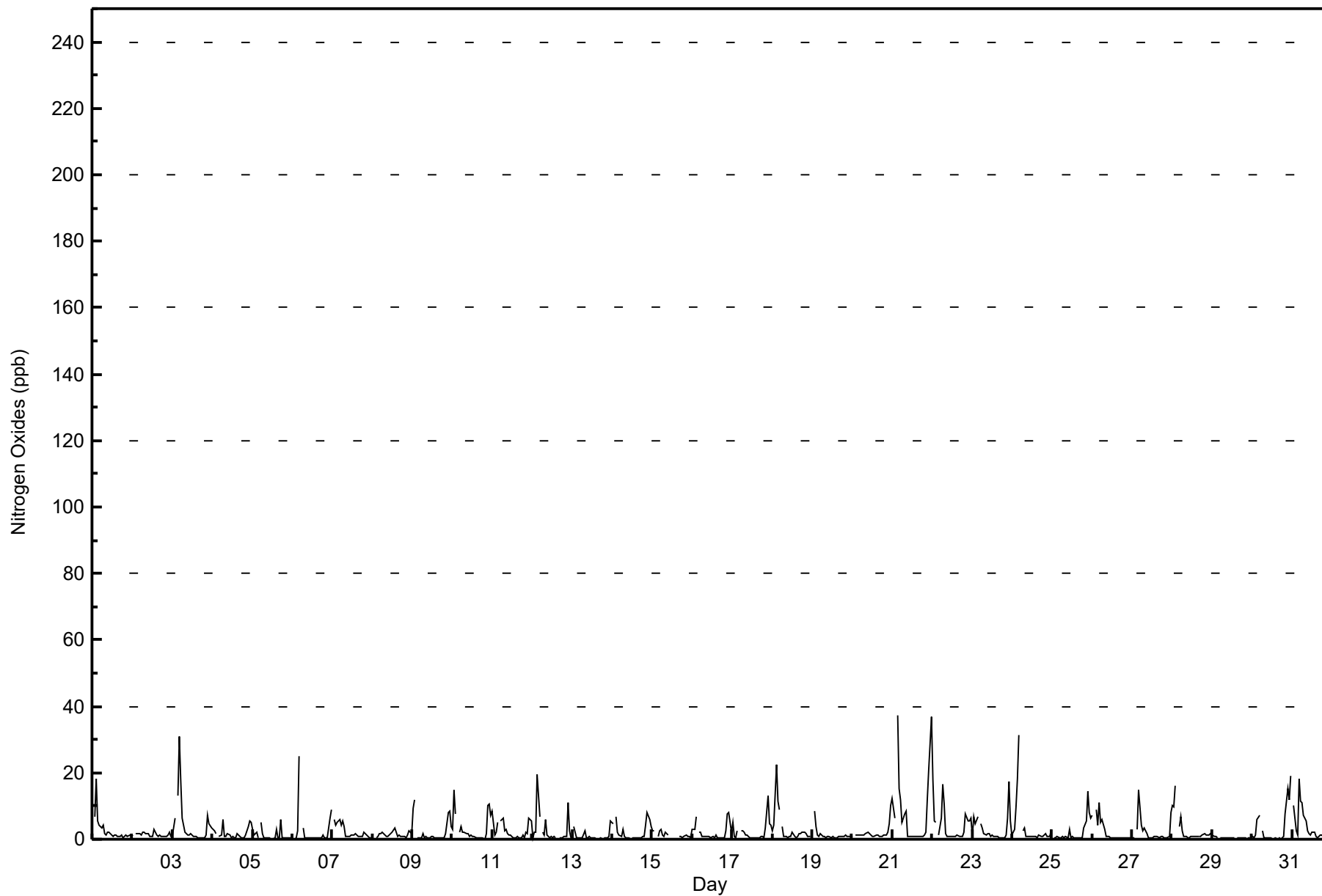
Conklin - July 2026

Maximum Value: 37.3 ppb on Jul 21 04:00																			Maximum Daily Average: 8.1 ppb on Jul 21						Hours in Service: 744	
Minimum Value: 0.1 ppb on Jul 13 16:00																			Minimum Daily Average: 0.4 ppb on Jul 29						Hours of Data: 705	
Maximum Diurnal Average: 7.7 ppb at hour 5																			Minimum Diurnal Average: 0.6 ppb at hour 16						Hours of Missing Data: 39	
Monthly Average: 2.63 ppb																			Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.5 Median = 1.0 Q ₃ = 2.4 P ₉₀ = 6.9 P ₉₉ = 20.8						Hours of Calibration: 37	
																									Percent Operational Time: 99.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	Z	6.6	18.1	5.6	4.1	3.6	4.2	1.7	1.2	1.9	2.3	1.2	1.0	1.4	1.2	1.0	0.8	1.2	0.6	0.6	1.5	0.8	1.2	0.8	2.7	18.1
2-Jul	1.2	Z	1.8	1.6	1.6	1.5	2.1	2.0	1.5	1.5	1.0	0.9	0.9	2.8	1.1	1.0	1.2	1.0	0.8	0.7	0.7	1.4	2.0	1.0	1.4	2.8
3-Jul	0.7	6.3	Z	13.0	30.8	17.8	6.5	2.1	1.8	1.2	1.1	1.6	0.9	0.7	0.7	0.6	0.4	0.3	0.5	0.5	1.4	7.2	4.6	3.5	4.5	30.8
4-Jul	3.0	2.4	1.7	Z	0.9	1.1	5.9	0.9	0.7	1.6	1.1	0.5	0.7	0.5	0.6	1.9	0.7	0.6	0.6	0.3	1.4	3.7	5.6	5.1	1.8	5.9
5-Jul	3.2	1.2	2.1	0.4	Z	5.1	1.5	0.6	0.4	0.4	0.4	0.2	0.2	0.3	2.9	0.3	0.5	6.1	0.3	0.2	0.3	0.4	0.3	0.3	1.2	6.1
6-Jul	0.2	0.2	0.5	2.3	25.0	Z	3.5	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.5	1.1	0.5	0.4	0.4	6.3	8.9	2.3	25.0
7-Jul	Z	6.1	4.0	4.9	6.1	4.1	5.6	3.8	0.8	0.7	0.9	1.2	1.1	1.4	1.8	0.9	0.7	1.0	1.0	2.2	1.3	0.9	0.6	0.5	2.2	6.1
8-Jul	0.4	Z	0.5	0.7	1.5	1.6	2.0	1.4	1.0	1.0	1.1	1.8	2.1	3.2	2.3	0.8	1.2	0.9	1.0	0.8	0.5	1.3	2.4	1.5	1.4	3.2
9-Jul	9.3	11.9	Z	0.4	0.3	0.3	1.5	0.6	0.9	0.4	0.4	0.8	0.7	0.5	0.3	0.3	0.3	0.3	0.4	0.6	1.6	7.9	8.5	4.0	2.3	11.9
10-Jul	2.9	14.7	7.6	Z	2.0	3.9	2.1	2.0	1.8	1.8	0.8	1.2	0.9	0.8	0.3	0.2	0.2	0.2	0.2	0.2	1.7	10.2	10.4	7.2	3.2	14.7
11-Jul	8.4	1.4	2.1	5.3	Z	5.4	6.2	2.5	2.9	1.8	1.2	1.1	0.4	0.4	0.5	0.6	0.5	0.6	1.4	0.3	1.9	1.6	6.3	5.4	2.5	8.4
12-Jul	0.3	2.1	2.3	19.3	6.7	Z	2.1	1.4	5.9	1.5	0.6	0.8	0.4	0.8	0.4	PF	0.5	0.5	0.5	0.8	0.6	11.2	2.4	0.5	2.8	19.3
13-Jul	Z	3.7	0.6	0.4	0.6	0.3	0.3	2.6	0.2	0.2	0.6	0.4	0.4	0.3	0.1	0.1	0.2	0.3	0.2	0.3	0.3	0.5	0.8	5.5	0.8	5.5
14-Jul	4.7	Z	7.0	2.0	1.1	0.7	2.9	0.8	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.6	0.3	0.9	1.0	4.3	8.0	5.7	3.8	2.0	8.0
15-Jul	2.5	2.4	Z	1.0	2.4	3.1	1.4	0.9	2.0	1.4	C	C	C	C	C	C	1.1	0.8	0.6	0.7	1.1	0.9	0.7	0.6	--	3.1
16-Jul	3.0	2.9	6.8	Z	2.3	2.0	1.0	1.0	0.8	1.0	0.8	0.5	0.9	0.6	1.4	0.5	0.4	0.3	0.3	0.4	2.6	7.5	7.9	2.2	2.0	7.9
17-Jul	5.3	1.0	0.5	2.3	Z	2.6	2.6	2.0	1.2	1.3	0.5	0.3	0.3	0.2	0.3	0.3	0.4	0.8	0.9	0.5	3.3	13.0	4.7	4.3	2.1	13.0
18-Jul	2.7	4.1	22.3	11.4	8.7	Z	3.8	0.8	0.9	0.6	0.6	0.6	2.1	0.7	0.6	0.9	1.7	1.7	2.0	2.1	1.5	1.0	0.8	0.8	3.2	22.3
19-Jul	Z	8.4	3.9	1.2	0.7	1.5	1.0	1.0	0.6	0.7	0.7	0.6	0.7	0.5	0.5	0.6	0.7	0.6	0.7	1.0	1.1	1.0	0.7	0.7	1.3	8.4
20-Jul	0.7	Z	1.1	1.4	1.3	1.4	1.3	1.5	1.6	1.9	1.8	1.3	0.8	1.0	1.1	1.1	0.9	0.8	0.7	1.3	1.1	2.0	4.5	10.0	1.8	10.0
21-Jul	12.2	6.3	Z	37.3	15.1	11.7	5.2	7.8	8.6	0.8	0.8	1.0	1.0	0.7	0.7	0.7	0.7	0.8	0.8	1.2	2.1	11.7	20.8	37.1	8.1	37.3
22-Jul	17.7	5.4	5.0	Z	1.4	6.3	16.4	10.5	1.6	0.9	0.7	0.7	0.8	0.6	0.8	1.1	1.0	1.0	0.9	2.2	7.6	5.5	5.4	6.4	4.3	17.7
23-Jul	0.8	7.0	4.5	7.0	Z	4.6	3.2	1.7	1.4	1.8	1.7	1.0	1.1	0.7	0.7	0.8	0.6	0.5	0.5	0.4	1.1	6.2	17.2	5.5	3.0	17.2
24-Jul	1.2	3.0	9.5	18.0	31.2	Z	2.4	3.3	1.0	0.7	0.7	0.7	0.7	0.9	0.7	0.6	1.3	1.0	0.7	1.1	1.6	1.0	0.8	2.8	3.7	31.2
25-Jul	Z	0.6	0.6	0.7	0.5	0.6	0.7	0.6	0.7	0.4	3.0	0.3	0.8	0.3	0.4	0.3	0.3	0.4	0.3	3.5	5.4	14.3	8.1	6.5	2.1	14.3
26-Jul	7.1	Z	8.7	4.1	11.2	5.0	5.9	3.1	1.0	0.8	0.7	0.5	0.5	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.3	2.3	11.2
27-Jul	0.3	0.3	Z	2.8	15.0	4.2	2.7	3.4	2.6	1.9	0.6	0.5	0.5	0.6	0.9	0.8	0.6	1.0	0.7	0.6	0.5	0.5	0.9	8.2	2.2	15.0
28-Jul	10.3	9.6	16.2	Z	3.8	6.7	2.5	1.0	1.0	0.5	0.4	0.7	0.8	1.0	0.7	0.7	0.7	0.8	1.4	1.7	1.2	1.2	1.5	1.5	2.9	16.2
29-Jul	1.5	1.0	0.6	0.6	Z	0.6	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.2	M	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.4	1.5
30-Jul	0.9	0.3	1.3	6.0	7.3	Z	2.6	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.4	0.2	0.2	0.2	0.3	0.8	7.6	15.3	11.7	19.0	3.3	19.0
31-Jul	Z	10.3	2.4	1.1	18.2	11.5	10.9	7.1	5.5	2.4	1.7	1.4	2.0	1.9	0.7	0.5	0.7	1.2	1.4	0.6	3.5	13.7	12.4	22.1	5.8	22.1
																								Diurnal Average		
																								Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Conklin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Conklin - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	697	98.87	98.87
21 - 40	8	1.13	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Conklin - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	102	45	43	21	27	39	37	18	32	46	46	27	49	32	54	79	697
21 - 40	1	2	2	0	1	0	0	0	1	0	1	0	0	0	0	0	8
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	103	47	45	21	28	39	37	18	33	46	47	27	49	32	54	79	705

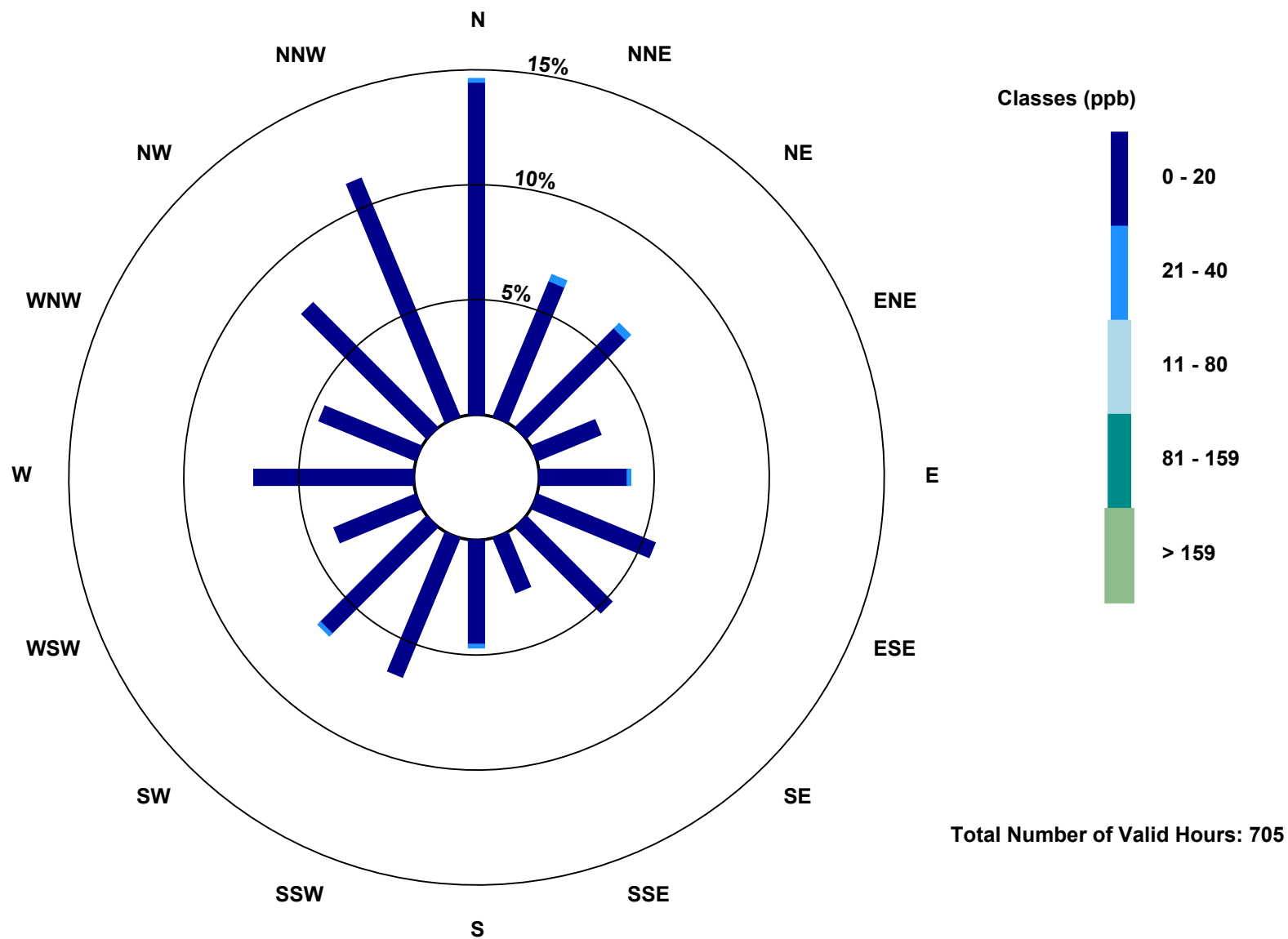
Total Number of Valid Hours: 705

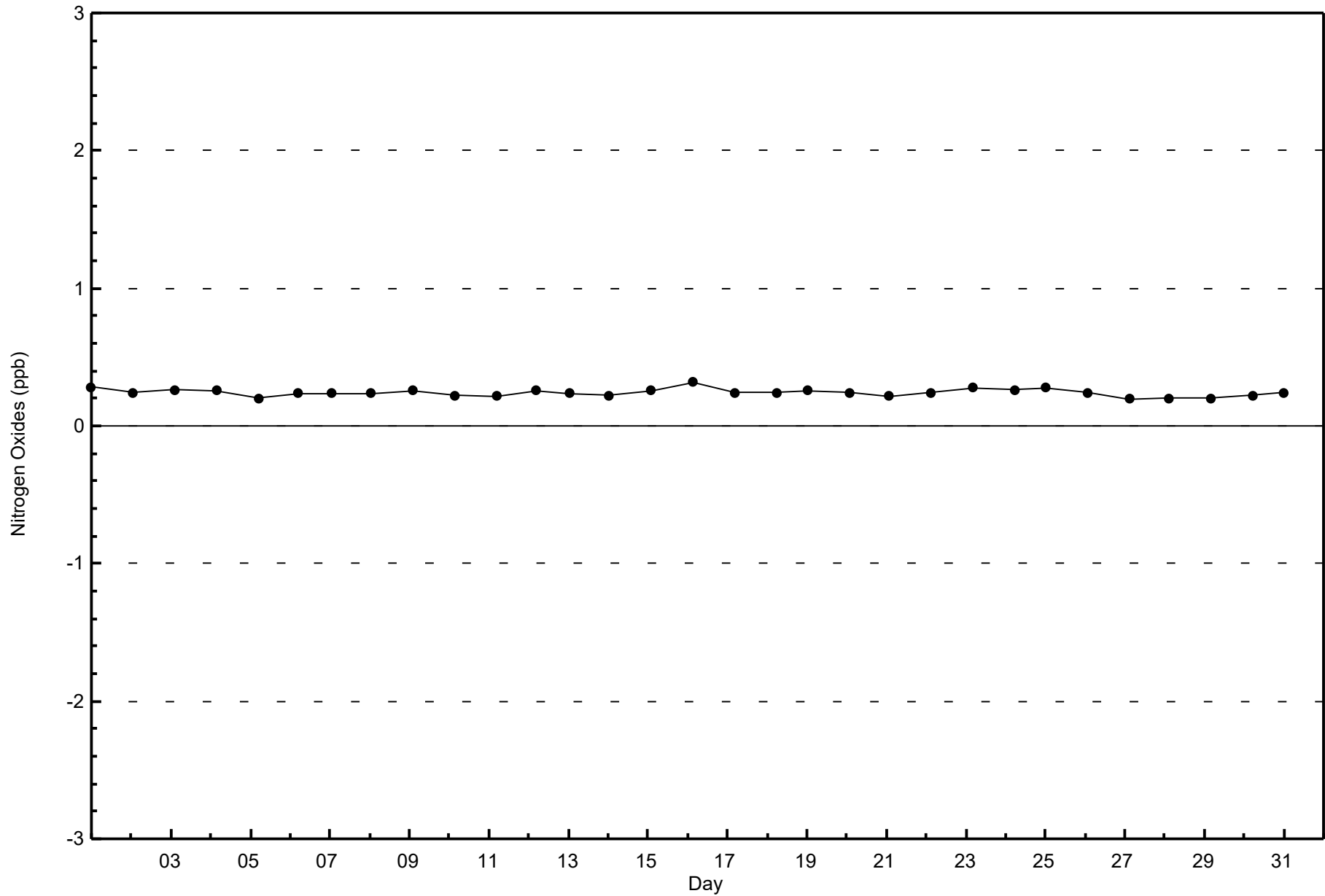
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Oxides (NO_x) - ppb
Conklin

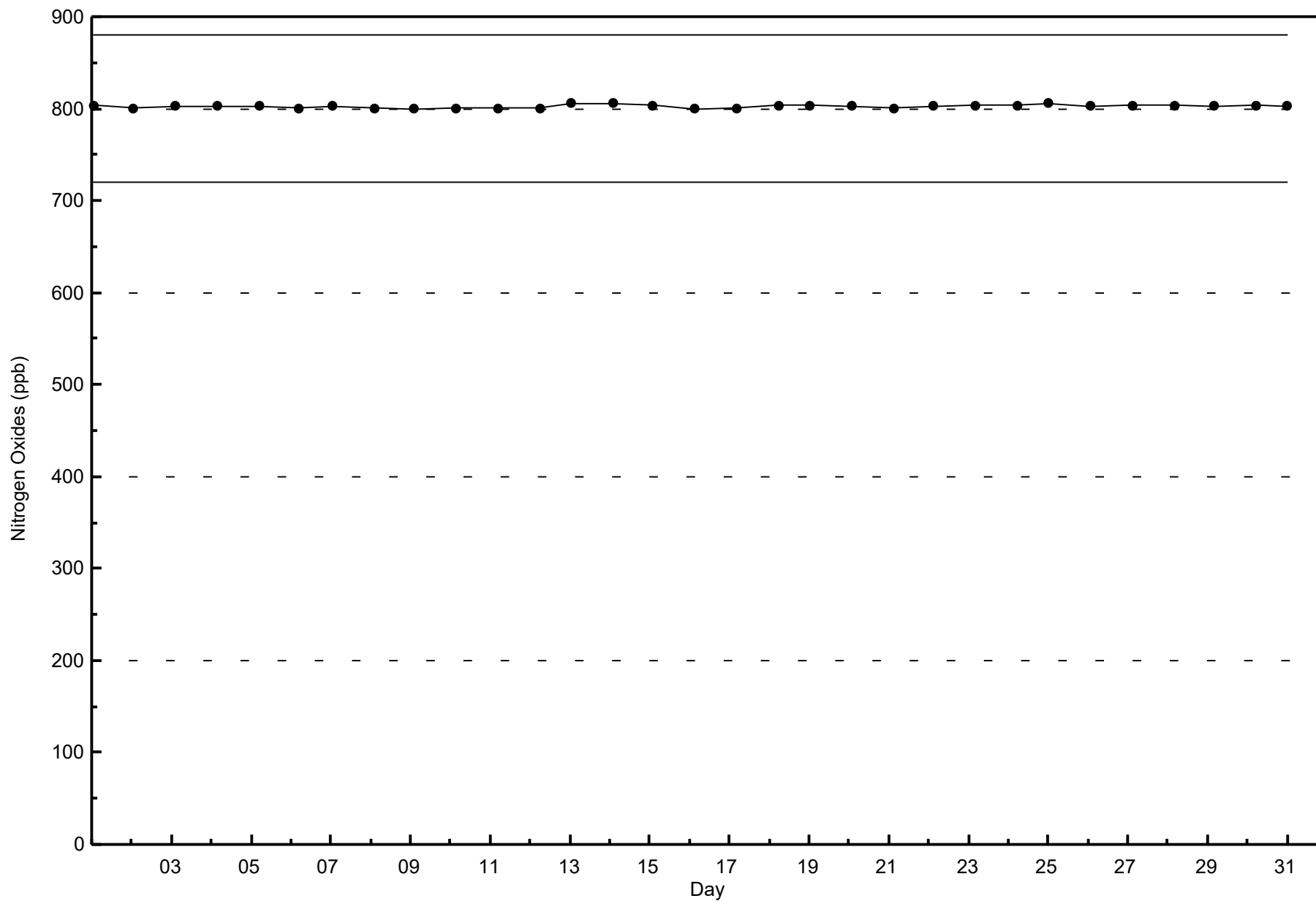






Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Conklin - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O₃) - ppb

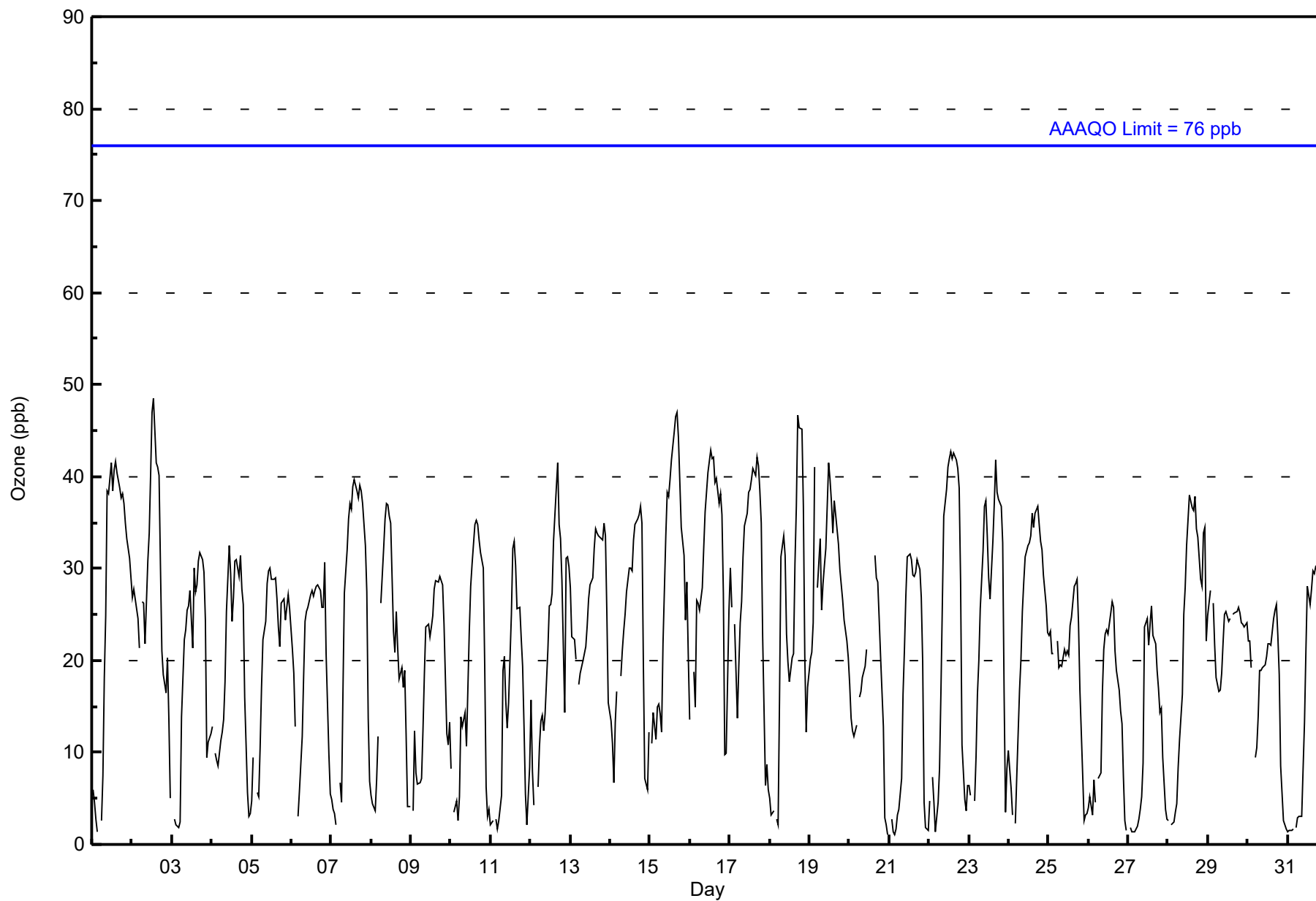
Conklin - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 48.6 ppb on Jul 2 14:00 Maximum Daily Average: 30.1 ppb on Jul 19																				Hours in Service: 744 Hours of Data: 708						
Minimum Value: 1.1 ppb on Jul 21 04:00 Minimum Daily Average: 11.9 ppb on Jul 27 Maximum Diurnal Average: 33.0 ppb at hour 16 Minimum Diurnal Average: 8.5 ppb at hour 5 Monthly Average: 21.69 ppb Percentiles: P ₁ = 1.4 P ₁₀ = 3.6 Q ₁ = 12.0 Median = 23.2 Q ₃ = 30.6 P ₉₀ = 37.3 P ₉₉ = 44.8																				Hours of Missing Data: 36 Hours of Calibration: 35 Percent Operational Time: 99.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	5.9	4.6	2.8	1.4	Z	2.5	7.4	18.1	24.8	38.4	38.1	41.4	38.4	40.7	41.7	40.4	38.8	37.6	38.1	37.1	35.0	33.2	31.0	29.0	27.2	41.7
2-Jul	26.9	27.8	26.7	24.6	21.4	Z	26.3	26.3	21.9	30.8	33.9	40.3	47.0	48.6	41.4	41.1	40.1	30.2	21.1	18.4	16.5	20.3	13.6	5.1	28.3	48.6
3-Jul	Z	2.8	2.2	2.0	1.9	2.4	13.9	22.3	23.4	25.5	25.9	27.6	21.4	30.0	27.5	28.2	30.8	31.7	30.9	29.6	24.4	9.5	11.2	12.1	19.0	31.7
4-Jul	12.9	Z	9.9	9.1	8.5	11.2	12.3	13.6	17.6	25.3	32.5	29.5	24.2	26.9	30.8	31.0	29.1	31.4	27.7	26.0	16.0	5.6	3.0	3.4	19.0	32.5
5-Jul	4.7	9.4	Z	5.6	5.1	10.5	17.1	22.3	24.2	28.4	29.8	30.1	28.8	28.8	29.0	26.6	23.7	21.4	26.2	26.7	24.4	25.8	27.2	25.6	21.8	30.1
6-Jul	21.3	18.6	12.8	Z	3.0	5.8	11.8	18.2	24.3	25.3	25.8	27.1	27.6	27.0	27.7	28.0	28.2	27.7	25.8	25.8	30.7	20.8	9.8	5.5	20.8	30.7
7-Jul	4.8	3.9	3.4	2.1	Z	6.7	4.6	16.4	27.3	32.1	35.4	37.1	36.4	39.0	39.7	38.5	37.6	39.0	38.4	37.1	32.6	27.4	13.8	6.9	24.4	39.7
8-Jul	5.4	4.3	3.6	7.0	11.7	Z	26.2	32.2	35.4	37.1	36.9	35.7	34.9	23.1	20.8	25.4	21.3	18.0	19.3	17.1	18.9	11.9	4.2	4.1	19.8	37.1
9-Jul	Z	3.6	12.4	7.8	6.5	6.6	7.1	12.4	18.5	23.6	24.0	22.6	23.6	24.9	27.8	28.7	28.5	29.1	28.7	28.3	24.0	12.1	10.9	13.3	18.5	29.1
10-Jul	8.3	Z	3.6	4.7	2.5	5.2	13.9	12.7	14.3	10.6	16.9	23.1	28.1	30.5	34.8	35.3	34.8	33.1	31.7	30.1	19.4	6.2	3.0	3.8	17.7	35.3
11-Jul	2.2	2.7	Z	2.8	1.6	2.7	5.4	19.0	20.5	15.6	12.7	15.5	25.0	32.3	33.0	30.4	25.7	25.8	22.5	19.4	12.8	5.6	2.1	8.4	14.9	33.0
12-Jul	15.7	7.9	4.3	Z	6.2	10.6	13.4	14.0	12.4	14.2	21.2	26.0	26.1	27.3	32.9	38.7	41.4	34.8	33.2	28.6	14.4	31.2	31.3	30.1	22.4	41.4
13-Jul	28.0	22.5	22.2	20.2	Z	17.4	18.6	19.9	20.8	21.5	23.8	26.6	28.2	29.0	32.1	34.4	33.9	33.5	33.2	33.2	35.0	33.5	25.1	15.4	26.4	35.0
14-Jul	13.4	11.0	6.7	13.3	16.6	Z	18.4	21.1	23.2	25.0	27.4	30.1	30.1	29.7	33.1	34.8	35.4	35.8	36.8	35.0	19.9	7.1	5.9	12.2	22.7	36.8
15-Jul	Z	11.0	14.3	11.5	14.9	15.3	14.1	12.2	21.8	33.5	38.3	37.8	39.6	41.8	44.8	46.6	47.0	44.3	39.4	34.4	31.5	24.4	28.6	20.5	29.0	47.0
16-Jul	13.6	Z	18.7	15.0	26.5	26.2	25.5	27.9	32.2	36.2	38.3	40.4	42.9	42.0	42.2	39.3	39.8	37.1	38.2	35.9	27.3	9.8	9.9	25.4	30.0	42.9
17-Jul	30.1	25.7	Z	24.0	13.8	19.4	24.1	26.4	31.3	34.6	36.0	38.4	38.6	39.6	40.8	40.1	42.1	41.1	38.4	34.9	22.5	6.5	8.7	5.9	28.8	42.1
18-Jul	5.0	3.2	3.7	Z	2.7	2.2	15.6	31.3	33.6	31.4	23.0	19.9	17.7	20.3	20.7	30.4	36.7	46.6	45.3	45.2	36.7	20.5	12.2	17.0	22.7	46.6
19-Jul	20.1	20.9	24.1	41.1	Z	27.9	33.3	25.5	28.3	30.4	32.1	41.6	39.7	37.2	33.8	37.3	35.8	32.6	30.0	28.3	26.6	24.4	22.1	20.3	30.1	41.6
20-Jul	17.4	13.8	12.3	11.7	13.0	Z	16.0	16.6	18.1	19.4	21.2	C	C	C	C	31.4	29.1	28.5	24.5	20.4	12.8	3.0	2.1	1.1	16.4	31.4
21-Jul	Z	2.7	1.4	1.1	1.6	3.3	3.9	7.1	16.4	21.2	27.0	31.3	31.6	31.0	29.4	29.1	29.6	30.9	29.9	26.9	19.9	4.5	1.9	1.6	16.7	31.6
22-Jul	4.7	Z	7.4	4.6	1.4	4.6	8.2	16.6	26.1	35.8	38.5	41.1	42.0	42.7	41.9	42.5	41.8	40.8	38.7	28.5	10.9	4.8	3.6	6.5	23.2	42.7
23-Jul	6.4	5.4	Z	4.8	9.5	16.4	20.0	25.6	31.8	36.8	37.3	33.5	29.0	26.7	33.0	37.0	41.9	38.3	37.6	36.7	32.8	16.5	3.6	8.3	24.7	41.9
24-Jul	10.3	6.1	3.2	Z	2.3	7.4	16.7	20.1	25.4	28.6	31.2	32.5	32.8	33.6	36.0	34.5	36.0	36.7	34.8	33.0	32.0	29.2	26.0	23.0	24.8	36.7
25-Jul	22.8	23.2	20.7	20.8	Z	22.2	19.2	19.6	19.3	21.2	20.6	21.1	20.6	23.9	24.7	28.1	28.4	28.8	24.0	16.8	7.5	2.6	3.1	3.3	19.2	28.8
26-Jul	4.0	5.2	3.2	7.0	4.6	Z	7.2	7.7	16.5	21.2	22.8	23.3	22.9	25.2	26.3	25.8	21.1	19.0	16.7	14.5	13.1	7.4	2.6	1.5	13.9	26.3
27-Jul	Z	1.9	1.3	1.3	1.4	1.9	2.8	3.7	5.1	8.8	23.7	24.5	21.7	24.0	25.9	22.7	21.9	18.9	16.9	14.4	14.7	9.5	3.8	2.7	11.9	25.9
28-Jul	2.6	Z	2.1	2.4	3.5	4.4	8.3	11.4	16.3	25.1	27.9	32.5	35.3	38.0	36.5	36.3	37.9	34.4	33.4	28.8	28.1	33.9	34.4	22.2	23.3	38.0
29-Jul	24.8	27.6	Z	26.2	21.6	18.1	16.6	16.8	18.5	21.9	25.0	25.3	24.3	24.5	M	25.0	25.2	25.3	25.8	25.2	24.1	24.0	23.7	24.1	23.3	27.6
30-Jul	22.2	22.2	19.3	Z	9.5	10.6	13.8	18.9	18.9	19.2	19.6	20.4	21.9	21.9	21.7	24.5	25.5	26.1	22.7	18.5	8.6	2.6	2.1	1.6	17.1	26.1
31-Jul	1.4	1.5	1.5	1.6	Z	1.8	2.9	3.1	3.1	8.2	13.3	21.0	28.1	26.0	27.8	29.7	29.5	30.2	30.1	23.9	11.3	2.8	3.7	5.0	13.4	30.2
																									Diurnal Average	
																									Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Ozone (O₃) - ppb
Conklin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ozone (O₃) - ppb
Conklin - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	295	41.67	41.67
21 - 50	413	58.33	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Ozone (O₃) - ppb
Conklin - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	74	38	37	10	14	11	15	10	18	18	9	7	6	3	9	16	295
21 - 50	27	10	10	9	16	26	25	11	17	28	39	19	44	28	45	59	413
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	101	48	47	19	30	37	40	21	35	46	48	26	50	31	54	75	708

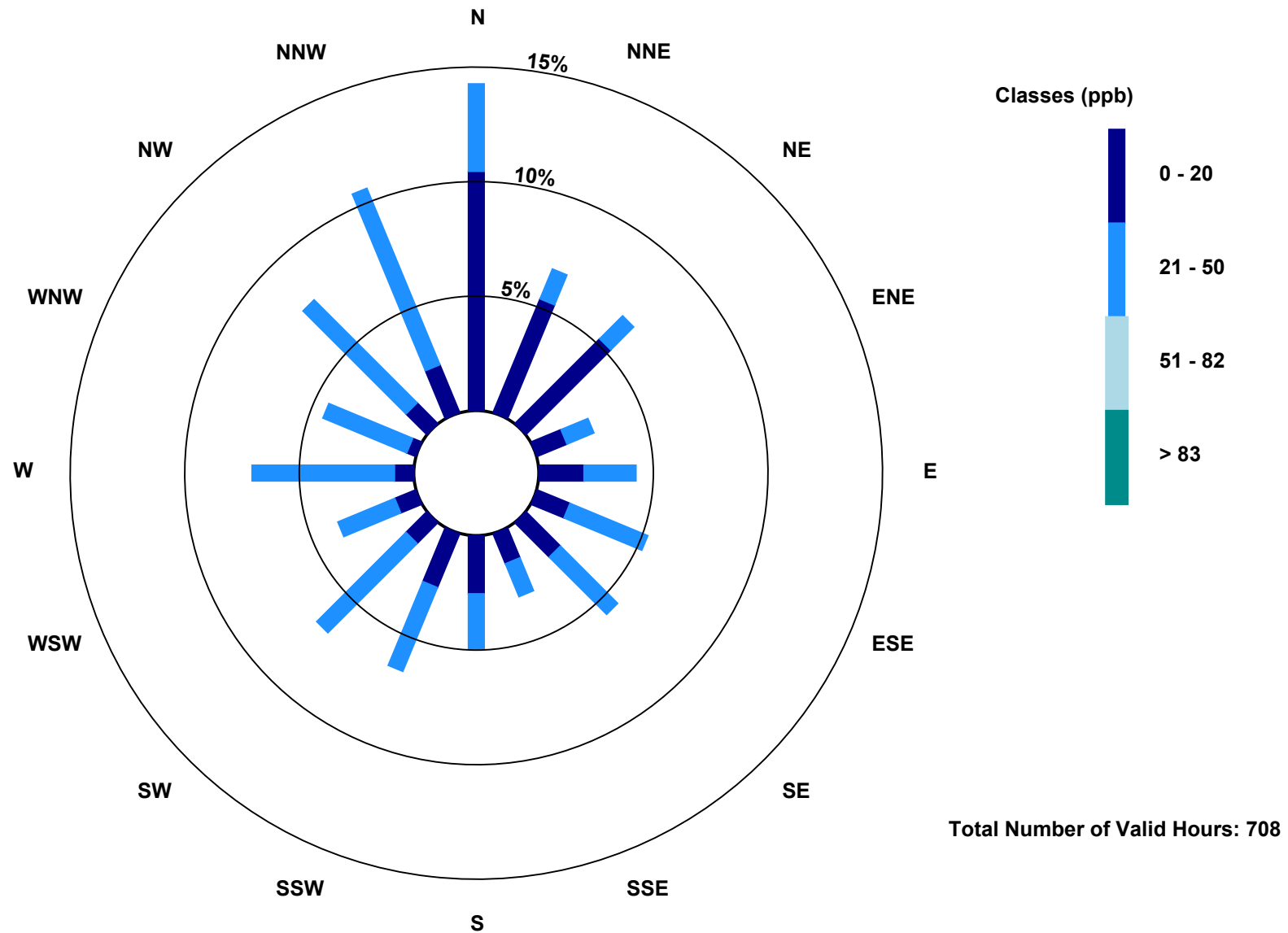
Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

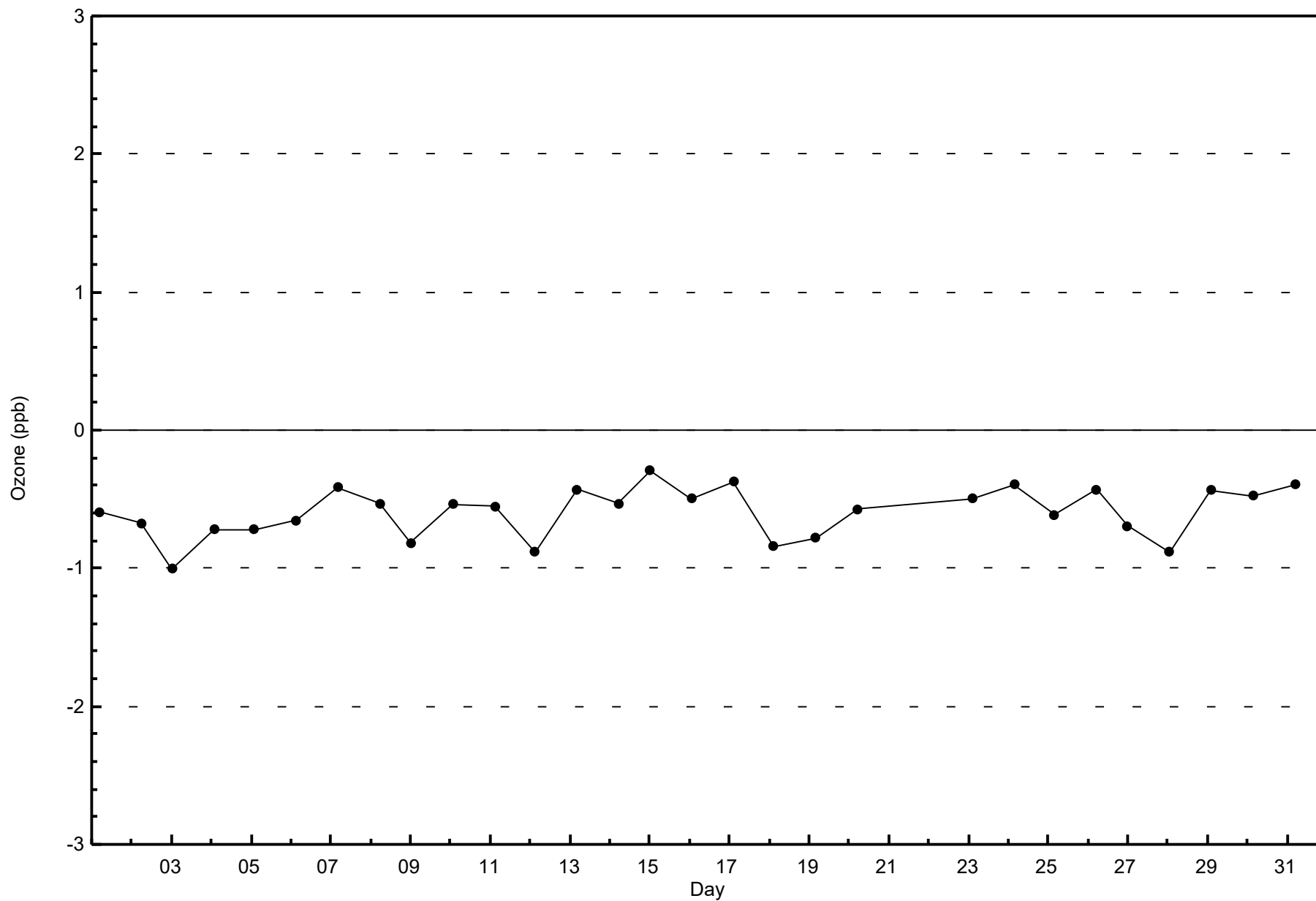
Ozone (O_3) - ppb
Conklin





Wood Buffalo Environmental Association
Zero Responses

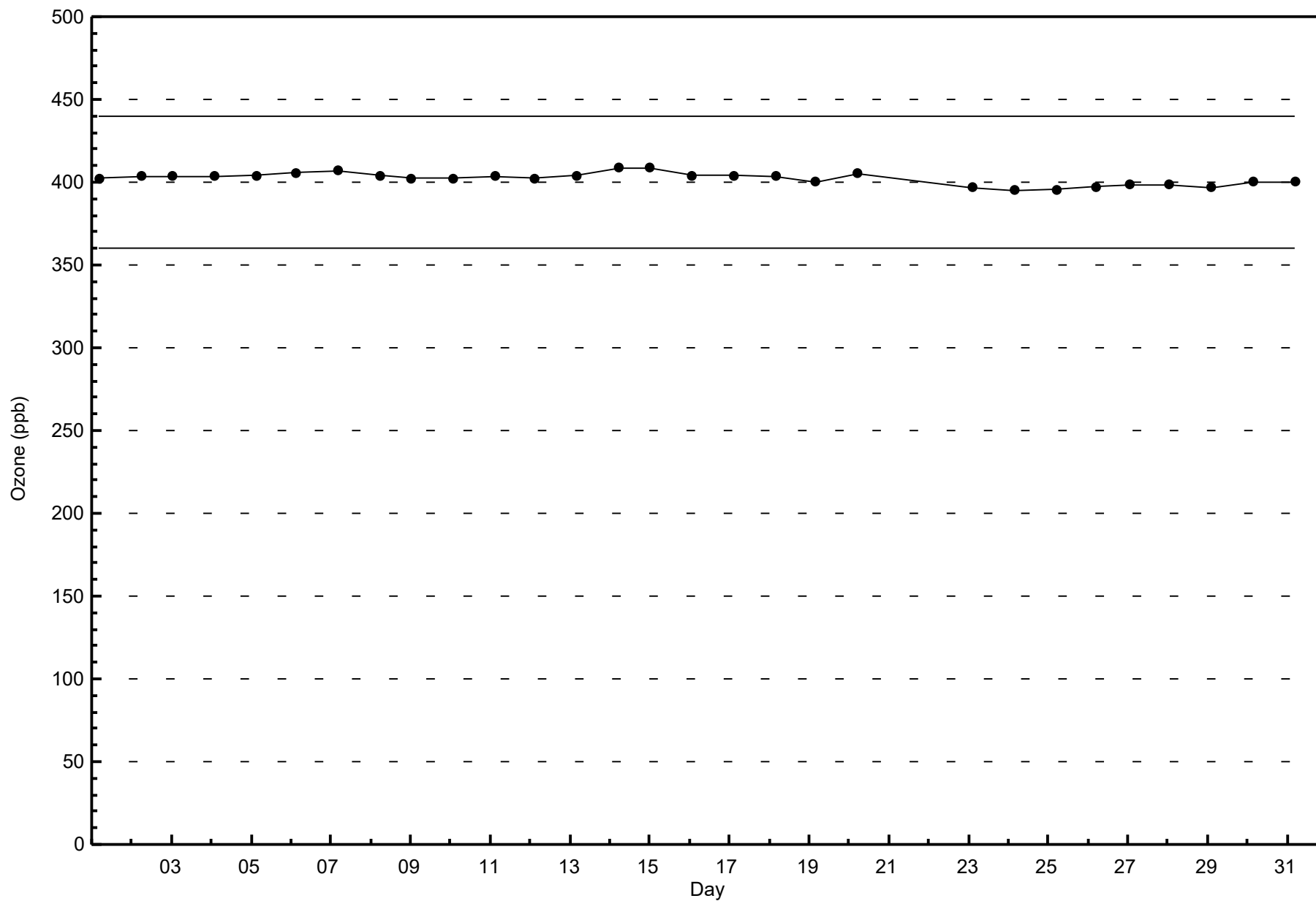
Ozone (O₃) - ppb
Conklin - July 2026





Wood Buffalo Environmental Association
Span Responses

Ozone (O₃) - ppb
Conklin - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Conklin - July 2026

Number of Exceedances (AAAQO): 1-hr: 10 24-hr: 4 Maximum Value: 171.0 µg/m³ on Jul 20 06:00 Minimum Value: 1.0 µg/m³ on Jul 9 13:00 Maximum Diurnal Average: 18.0 µg/m³ at hour 6 Monthly Average: 14.74 µg/m³																								Hours in Service: 744 Hours of Data: 742 Hours of Missing Data: 2 Hours of Calibration: 2 Percent Operational Time: 100.0		
Minimum Daily Average: 2.0 µg/m³ on Jul 13 Minimum Diurnal Average: 12.5 µg/m³ at hour 13 Percentiles: P ₁ = 1.4 P ₁₀ = 2.5 Q ₁ = 3.9 Median = 6.2 Q ₃ = 13.0 P ₉₀ = 41.0 P ₉₉ = 81.3																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	40.2	40.7	42.6	38.1	36.6	36.3	39.5	39.1	44.2	76.3	86.3	79.4	45.8	38.9	35.5	40.0	38.7	39.3	41.6	37.5	31.6	31.6	35.6	35.4	43.8	86.3
2-Jul	36.6	32.6	28.2	28.5	30.1	32.2	32.9	32.1	28.2	19.9	17.2	16.2	12.4	9.9	11.5	6.1	4.5	4.7	5.1	5.0	5.3	3.9	4.2	4.2	17.1	36.6
3-Jul	4.0	4.2	7.9	4.3	4.4	4.3	5.4	5.7	9.1	8.8	8.9	5.0	4.0	3.9	4.1	4.1	3.7	3.5	3.7	4.2	4.3	5.2	5.2	4.9	5.1	9.1
4-Jul	4.9	5.1	5.1	4.8	4.5	4.0	3.6	3.3	3.0	2.8	2.4	2.6	2.7	2.5	2.4	2.4	2.5	1.8	2.8	3.1	3.3	7.8	4.9	4.1	3.6	7.8
5-Jul	4.1	3.9	4.0	3.9	3.9	3.3	3.0	2.8	2.6	2.6	2.7	2.7	2.8	3.0	3.2	4.8	4.6	5.8	7.0	6.2	7.1	5.5	5.4	5.6	4.2	7.1
6-Jul	6.0	6.5	6.7	6.8	7.5	6.9	7.2	8.6	8.5	11.7	14.8	14.9	13.7	13.6	12.8	11.9	11.3	9.1	8.0	7.6	3.9	3.9	4.6	5.3	8.8	14.9
7-Jul	5.3	5.4	5.3	5.2	5.4	5.5	5.3	5.8	4.9	4.4	4.4	4.2	4.2	3.9	3.6	3.5	3.6	4.1	4.3	4.4	4.1	4.1	4.6	4.8	4.6	5.8
8-Jul	4.8	5.0	4.9	4.9	5.0	4.5	4.3	4.0	4.0	4.0	4.2	5.1	4.8	4.5	5.8	4.3	4.9	5.7	6.5	6.7	6.4	7.0	6.3	6.3	5.2	7.0
9-Jul	6.4	6.5	4.0	3.5	3.1	2.8	2.8	2.4	2.2	1.6	1.3	1.3	1.0	1.1	1.3	1.9	2.2	2.1	2.4	2.7	2.9	3.4	3.8	3.5	2.8	6.5
10-Jul	3.5	4.1	4.2	4.1	4.2	5.3	4.5	4.3	4.2	4.0	3.6	2.8	2.1	1.8	2.5	3.0	3.1	3.2	3.2	4.0	3.5	5.5	5.4	4.7	3.8	5.5
11-Jul	4.7	4.7	4.5	4.5	4.4	4.4	5.0	5.0	4.6	9.6	3.7	3.6	3.5	4.4	5.2	5.3	4.8	4.4	4.1	4.2	4.2	4.8	5.2	6.5	4.8	9.6
12-Jul	4.9	4.3	3.9	3.8	3.0	2.6	2.1	2.6	3.0	3.0	2.9	2.8	2.9	3.0	3.0	3.3	3.4	2.6	2.3	2.6	3.0	2.4	2.0	1.9	3.0	4.9
13-Jul	1.9	2.1	2.0	2.1	2.0	1.9	1.7	1.7	1.5	1.6	1.4	1.5	1.4	1.4	1.6	1.6	2.1	2.6	2.7	2.6	2.3	1.7	2.6	3.3	2.0	3.3
14-Jul	3.6	3.3	3.2	2.8	2.8	2.8	2.9	2.6	2.5	2.7	2.6	2.8	3.2	3.4	3.6	3.7	4.1	4.4	5.3	6.3	5.9	7.9	6.6	6.2	4.0	7.9
15-Jul	6.3	6.5	6.8	6.6	6.9	6.7	6.1	6.9	7.2	6.6	6.2	6.5	6.5	6.3	5.6	5.7	6.4	6.7	5.6	5.2	5.7	6.2	6.8	6.3	6.3	7.2
16-Jul	6.7	6.9	7.1	7.2	7.2	7.7	7.4	8.1	7.8	8.2	8.1	8.0	7.6	7.6	7.8	8.1	7.8	7.8	7.2	7.7	8.2	11.9	9.2	9.1	7.9	11.9
17-Jul	10.3	9.5	9.7	9.5	10.9	9.8	10.1	10.2	13.1	14.5	11.3	9.1	8.4	8.1	8.3	9.2	8.2	9.1	10.5	10.3	10.8	10.6	16.0	15.1	10.5	16.0
18-Jul	12.4	12.2	12.8	12.5	12.1	11.7	12.9	13.2	11.4	11.6	11.0	10.0	9.7	10.3	11.6	23.2	28.7	25.3	20.2	17.0	12.9	12.3	12.6	13.0	14.2	28.7
19-Jul	13.8	14.1	15.0	7.9	7.1	7.4	8.8	9.1	9.6	9.1	11.1	11.7	10.5	12.8	14.2	9.4	9.9	12.3	14.9	16.4	18.6	17.8	14.9	13.3	12.1	18.6
20-Jul	13.4	15.8	40.6	93.8	152.0	171.0	148.5	104.0	73.6	70.5	73.9	54.1	37.7	38.2	46.8	56.6	73.0	77.4	75.4	73.2	72.4	70.2	69.1	65.9	73.6	171.0
21-Jul	64.6	60.9	59.8	62.4	62.5	60.8	54.4	54.5	57.4	57.6	61.8	80.3	78.5	69.0	67.5	68.0	68.5	71.8	74.3	76.0	79.3	76.6	76.0	76.3	67.4	80.3
22-Jul	81.1	81.5	82.9	78.0	63.0	66.4	74.8	70.7	66.0	55.4	51.8	45.0	46.2	51.6	60.5	63.8	62.8	53.3	48.6	44.8	45.2	44.6	42.0	41.0	59.2	82.9
23-Jul	41.8	40.6	40.1	37.3	35.2	31.0	27.3	23.7	21.9	22.0	22.8	22.1	24.4	28.3	21.7	14.3	9.1	7.0	5.6	4.4	4.8	5.9	5.1	4.1	20.9	41.8
24-Jul	4.1	3.8	3.9	4.4	4.6	4.8	5.1	6.0	6.8	6.2	10.4	5.2	6.5	7.0	7.5	9.0	11.5	12.4	11.8	14.2	14.9	14.1	12.5	11.7	8.3	14.9
25-Jul	7.6	4.8	5.0	4.4	3.7	3.6	3.4	3.4	3.3	3.0	2.7	2.0	1.8	1.4	1.4	2.2	3.0	3.4	3.9	5.7	5.4	6.1	5.8	4.8	3.8	7.6
26-Jul	4.7	5.1	5.1	5.3	5.6	6.0	6.7	6.5	6.2	7.3	9.2	8.5	8.5	8.8	8.2	7.4	7.6	8.2	7.4	6.2	6.0	6.0	6.2	6.2	6.8	9.2
27-Jul	6.0	6.2	6.2	8.4	10.4	8.6	8.5	7.4	7.6	9.4	9.8	10.2	13.4	19.0	25.0	20.0	18.5	22.8	27.4	29.3	31.2	33.3	31.2	31.9	16.7	33.3
28-Jul	33.6	37.7	35.7	34.1	33.9	30.4	27.8	28.4	24.7	15.1	13.3	14.4	13.0	13.4	11.5	12.5	17.5	21.5	20.8	24.7	28.9	19.5	4.1	4.5	21.7	37.7
29-Jul	4.3	3.8	4.2	5.0	7.6	9.3	8.6	6.7	5.1	3.8	2.6	1.9	1.8	1.8	C	C	1.7	1.4	1.3	1.3	1.4	1.4	1.4	1.4	3.5	9.3
30-Jul	1.7	1.7	1.8	2.7	3.6	3.0	2.2	1.9	1.9	1.5	1.5	2.5	2.2	2.2	1.8	2.3	4.3	3.6	4.5	3.7	4.5	6.0	3.8	3.5	2.9	6.0
31-Jul	3.7	3.7	3.6	3.6	3.7	3.4	3.9	4.0	4.8	8.5	8.8	6.3	5.4	6.1	6.0	7.2	7.4	9.9	11.6	11.3	15.4	13.1	13.9	12.7	7.4	15.4
14.4 14.3 15.1 16.1 17.6 18.0 17.3 15.6 14.5 14.9 15.2 14.3 12.5 12.5 13.4 13.8 14.2 14.4 14.5 14.5 14.6 14.5 13.8 13.5																								Diurnal Average		
81.1 81.5 82.9 93.8 152.0 171.0 148.5 104.0 73.6 76.3 86.3 80.3 78.5 69.0 67.5 68.0 73.0 77.4 75.4 76.0 79.3 76.6 76.0 76.3																								Diurnal Maximum		
C - Calibration																										
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 µg/m³ 24-hr 29 µg/m³																										



Wood Buffalo Environmental Association
Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Conklin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Conklin - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Number of Hours	%	Cumulative %
0 - 5	336	45.28	45.28
6 - 15	249	33.56	78.84
16 - 25	30	4.04	82.88
26 - 80	118	15.90	98.79
> 81.0	9	1.21	100.00

Total Number of Valid Hours: 742

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Conklin - July 2026

Concentration Ranges (µg/m³)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	40	28	25	9	16	13	11	8	19	21	24	16	34	23	29	20	336
6 - 15	50	16	13	9	8	8	12	6	15	19	22	8	11	5	13	34	249
16 - 25	1	0	1	0	0	1	7	2	1	3	2	0	1	1	5	5	30
26 - 80	16	5	10	2	6	19	11	5	3	5	1	3	4	2	7	19	118
> 81.0	3	0	0	2	1	0	1	0	0	0	0	0	0	0	0	2	9
Totals	110	49	49	22	31	41	42	21	38	48	49	27	50	31	54	80	742

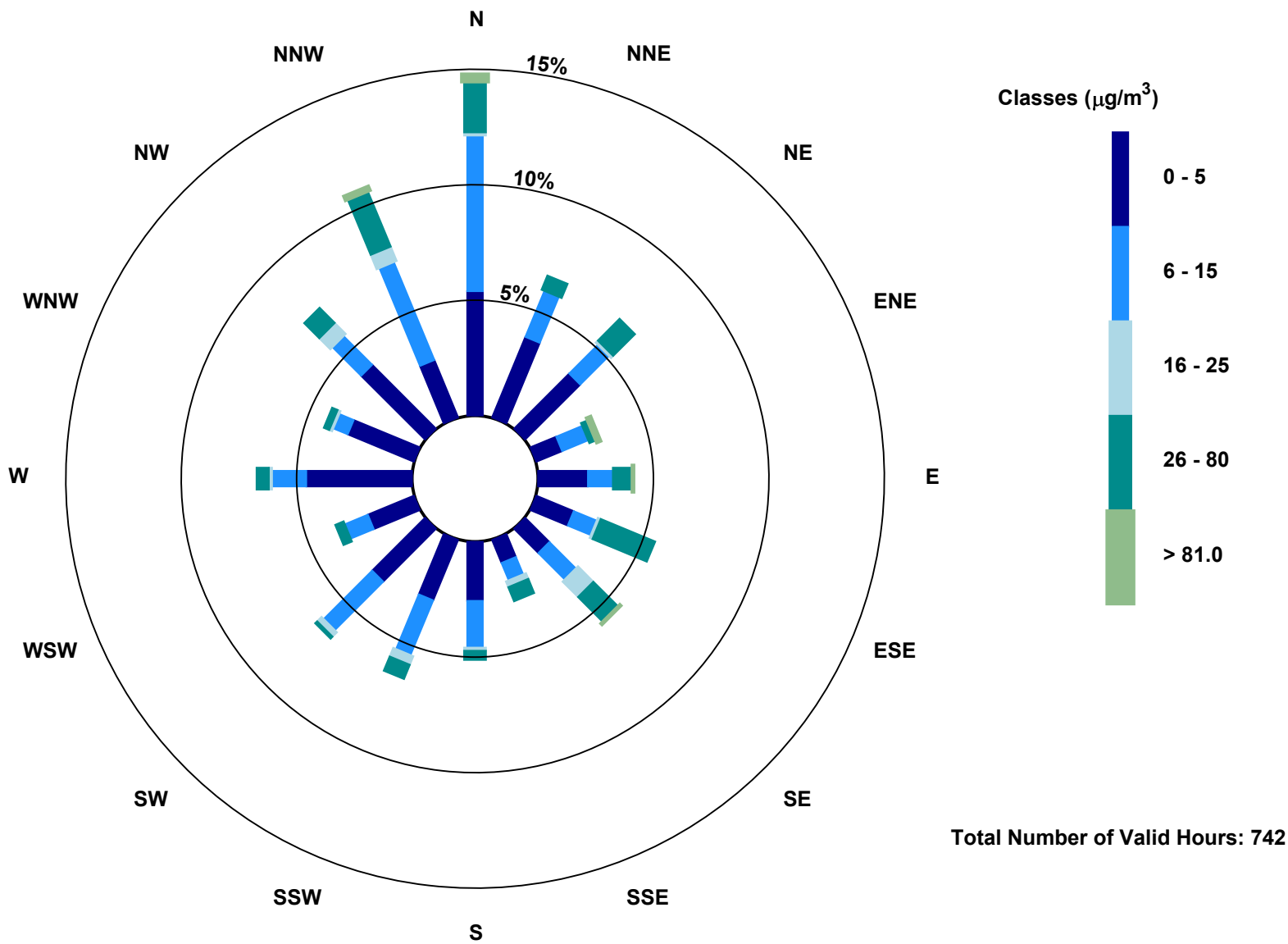
Total Number of Valid Hours: 742

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Conklin





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

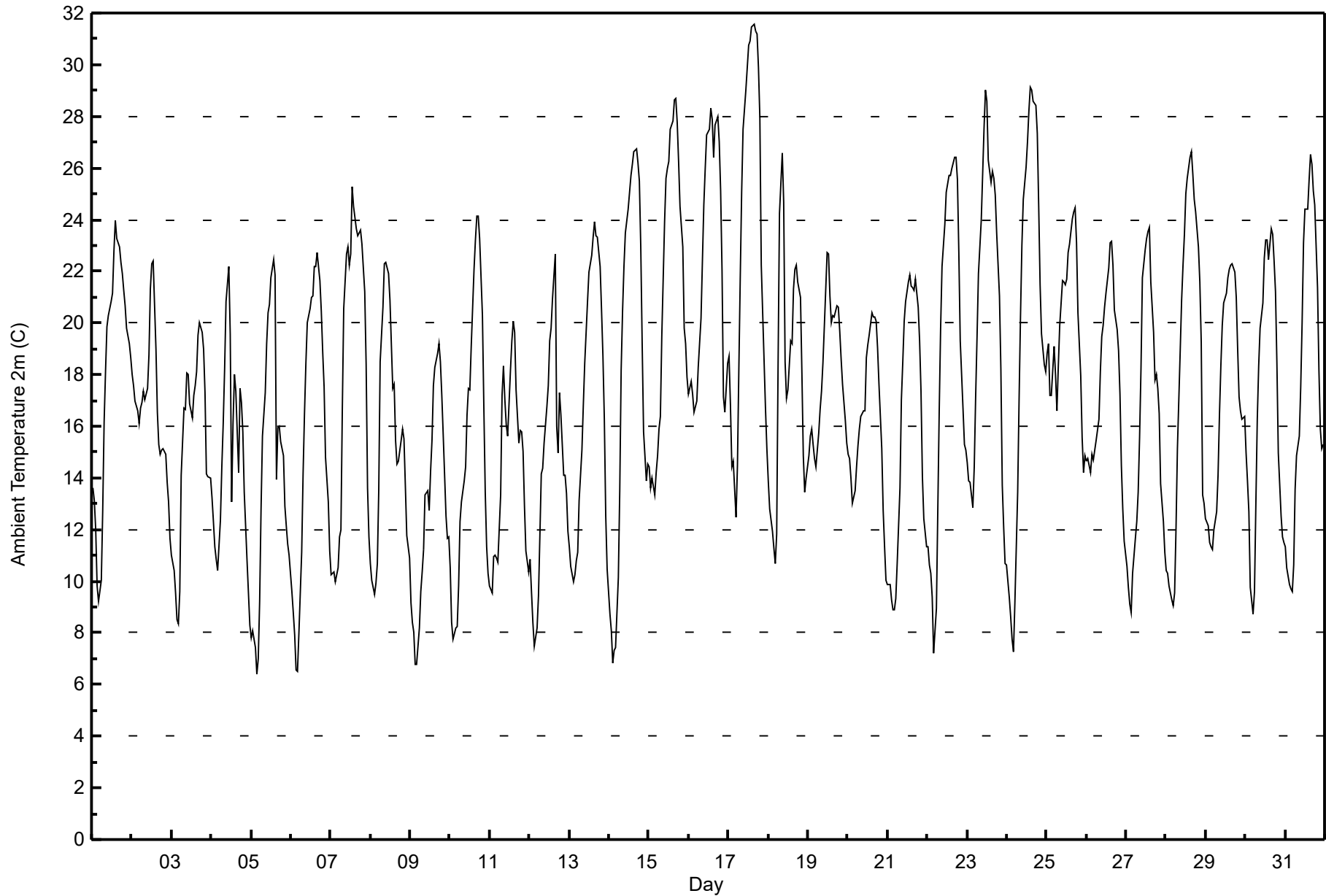
Conklin - July 2026

Maximum Value: 31.6 C on Jul 17 16:00																				Maximum Daily Average: 23.4 C on Jul 17				Hours in Service: 744			
Minimum Value: 6.4 C on Jul 5 04:00																				Minimum Daily Average: 12.9 C on Jul 9				Hours of Data: 744			
Maximum Diurnal Average: 22.9 C at hour 15																				Minimum Diurnal Average: 10.8 C at hour 4				Hours of Missing Data: 0			
Monthly Average: 17.37 C																				Percentiles: P ₁ = 7.2 P ₁₀ = 10.0 Q ₁ = 13.1 Median = 17.2 Q ₃ = 21.6 P ₉₀ = 24.8 P ₉₉ = 29.5				Hours of Calibration: 0			
																								Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	13.6	13.1	12.0	9.8	9.2	10.0	12.7	16.1	18.1	19.9	20.3	20.8	21.1	22.8	24.0	23.3	23.0	22.3	21.9	21.3	20.7	19.8	19.2	18.6	18.1	24.0	
2-Jul	18.0	17.6	17.0	16.6	16.1	16.7	16.9	17.4	17.0	17.5	18.8	21.3	22.3	22.4	19.0	16.6	15.3	14.9	15.1	15.2	14.9	13.8	13.1	11.7	16.9	22.4	
3-Jul	11.0	10.4	9.6	8.5	8.3	9.6	14.1	16.7	16.6	18.0	18.0	16.9	16.3	17.2	17.6	18.1	19.5	20.0	19.7	19.0	17.3	14.1	14.1	14.0	15.2	20.0	
4-Jul	13.2	12.3	11.3	10.8	10.4	12.4	14.4	16.1	18.2	20.8	22.2	19.6	13.1	16.1	18.0	17.4	14.2	17.5	16.9	15.8	13.4	10.8	9.5	8.3	14.7	22.2	
5-Jul	7.8	8.1	7.5	6.4	7.0	9.2	12.8	15.6	17.3	19.2	20.4	20.7	21.8	22.5	21.8	13.9	16.0	16.0	15.4	14.9	12.9	12.2	11.5	11.0	14.2	22.5	
6-Jul	9.6	8.8	7.9	6.6	6.5	8.0	11.1	14.2	16.5	18.4	20.0	20.6	21.0	21.0	22.2	22.2	22.7	21.6	20.5	18.9	17.5	14.8	13.1	11.2	15.6	22.7	
7-Jul	10.3	10.3	10.4	10.0	10.5	11.7	12.0	16.7	20.5	22.7	23.0	22.2	22.7	25.3	24.5	23.7	23.4	23.5	23.6	23.1	21.2	18.4	13.6	11.7	18.1	25.3	
8-Jul	10.7	10.0	9.5	9.9	10.7	13.5	18.5	20.6	22.3	22.4	22.1	21.9	20.9	17.5	17.6	15.4	14.5	14.6	15.5	15.9	15.5	13.7	11.8	10.9	15.7	22.4	
9-Jul	9.1	8.4	8.0	6.8	6.8	8.2	9.6	10.4	11.2	13.4	13.5	12.8	14.3	15.5	17.6	18.3	18.8	19.2	18.5	17.2	15.7	12.5	11.6	11.7	12.9	19.2	
10-Jul	10.5	8.4	7.8	8.2	8.2	9.8	12.3	13.0	13.9	14.4	16.4	17.5	17.4	19.1	22.1	23.2	24.1	24.1	23.3	20.3	16.8	13.4	11.3	10.3	15.2	24.1	
11-Jul	9.8	9.6	11.0	11.0	10.9	10.7	13.3	17.2	18.3	17.0	16.1	15.6	18.2	19.3	20.1	19.6	17.4	15.4	15.9	15.8	15.0	12.9	11.2	10.3	14.6	20.1	
12-Jul	10.9	9.6	8.4	7.5	8.2	9.4	11.8	14.2	14.4	15.4	16.8	17.6	19.3	19.8	20.9	22.7	16.0	15.0	17.3	16.4	14.1	14.1	13.4	12.0	14.4	22.7	
13-Jul	11.4	10.6	10.0	10.3	10.8	11.1	13.1	15.1	16.8	18.4	19.6	20.8	21.9	22.6	23.3	23.9	23.4	23.3	22.2	20.5	18.7	16.3	12.5	10.5	17.0	23.9	
14-Jul	8.8	8.1	6.8	7.3	7.4	10.1	13.5	18.2	20.5	22.2	23.5	24.4	25.1	25.7	26.1	26.6	26.8	26.2	25.5	23.0	19.2	15.8	13.9	14.5	18.3	26.8	
15-Jul	14.4	13.6	14.0	13.3	14.2	14.8	15.9	16.4	19.5	23.9	25.6	26.0	26.2	27.5	27.8	28.7	28.7	27.8	26.3	24.5	22.9	19.8	19.2	17.9	21.2	28.7	
16-Jul	17.3	17.7	17.3	16.5	16.7	17.0	18.3	20.2	22.4	24.6	26.0	27.3	27.5	28.3	27.9	26.4	27.7	28.0	27.0	25.1	22.0	17.2	16.5	18.4	22.2	28.3	
17-Jul	18.7	16.8	14.4	14.7	12.5	14.5	18.2	21.8	25.1	27.5	29.0	29.9	30.8	30.9	31.4	31.6	31.3	31.2	29.9	27.9	22.2	18.6	16.7	15.1	23.4	31.6	
18-Jul	13.9	12.8	11.9	11.3	10.7	11.8	18.4	24.3	26.6	24.7	18.5	17.1	17.4	19.3	19.2	21.3	22.1	22.2	21.6	21.0	18.1	14.9	13.5	14.0	17.8	26.6	
19-Jul	14.9	15.6	15.9	15.3	14.8	14.4	15.7	16.7	17.3	18.4	19.9	22.7	22.7	21.0	20.0	20.3	20.2	20.7	20.6	19.7	18.6	17.7	16.2	15.3	18.1	22.7	
20-Jul	14.9	14.7	14.0	13.0	13.5	14.4	15.2	15.9	16.4	16.6	16.6	18.7	19.1	19.5	20.4	20.2	20.3	20.1	19.1	17.6	15.1	12.7	11.4	10.0	16.2	20.4	
21-Jul	9.9	9.8	9.3	8.9	8.9	9.3	10.7	13.6	17.0	18.5	20.1	20.8	21.6	21.9	21.4	21.4	21.3	21.7	20.6	19.3	17.4	14.0	12.4	11.3	15.9	21.9	
22-Jul	11.3	10.6	10.3	9.4	7.2	9.0	12.8	16.6	19.8	22.2	23.8	25.1	25.4	25.7	25.7	26.0	26.4	26.4	25.5	22.7	19.3	16.6	15.3	15.1	18.7	26.4	
23-Jul	14.6	13.9	13.8	12.9	14.4	17.1	19.4	21.9	24.0	25.8	27.6	29.0	28.6	26.3	25.4	25.9	25.6	24.9	23.5	21.1	18.2	13.7	12.1	10.7	20.4	29.0	
24-Jul	10.6	9.4	8.6	7.8	7.2	9.2	13.4	17.0	20.3	23.0	24.8	26.0	27.0	28.2	29.1	29.0	28.6	28.4	27.3	24.5	21.5	19.6	18.4	18.1	19.9	29.1	
25-Jul	18.8	19.2	17.2	17.2	19.1	18.0	16.6	18.3	19.9	21.7	21.6	21.5	21.7	22.7	23.0	24.0	24.3	24.4	23.1	20.4	17.9	15.6	14.2	14.8	19.8	24.4	
26-Jul	14.6	14.7	14.2	14.9	14.7	15.1	15.4	16.3	18.1	19.5	19.9	20.6	21.2	22.1	23.1	23.2	22.2	20.5	19.7	18.9	17.2	14.5	12.8	11.5	17.7	23.2	
27-Jul	10.6	9.8	9.1	8.8	10.3	11.7	12.3	13.5	15.6	18.2	21.8	22.8	23.3	23.6	23.7	21.6	19.6	17.8	18.0	17.4	16.5	13.8	12.3	11.1	16.0	23.7	
28-Jul	10.4	10.3	9.8	9.3	9.0	9.5	12.0	15.1	18.9	20.9	22.2	23.5	25.0	25.6	26.4	26.6	25.8	24.8	24.3	22.9	21.6	19.3	13.4	13.0	18.3	26.6	
29-Jul	12.4	12.1	11.5	11.3	11.2	12.0	12.7	14.1	16.4	18.3	19.9	20.8	21.2	21.7	22.1	22.3	22.3	21.9	21.0	19.0	17.2	16.6	16.3	16.4	17.1	22.3	
30-Jul	15.0	13.9	12.7	9.8	8.8	9.6	13.0	16.3	18.3	19.8	20.8	22.5	23.2	23.2	22.5	23.7	23.4	22.4	21.2	18.5	15.0	12.5	11.7	11.5	17.0	23.7	
31-Jul	11.3	10.5	9.9	9.7	9.6	10.6	13.6	14.8	15.6	17.5	20.0	23.1	24.4	24.4	25.6	26.5	26.1	25.1	24.6	21.4	18.2	15.9	15.2	15.3	17.9	26.5	
Diurnal Average																											
Diurnal Maximum																											



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Conklin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Conklin - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	75	10.08	10.08
10 - 20	420	56.45	66.53
> 20	249	33.47	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

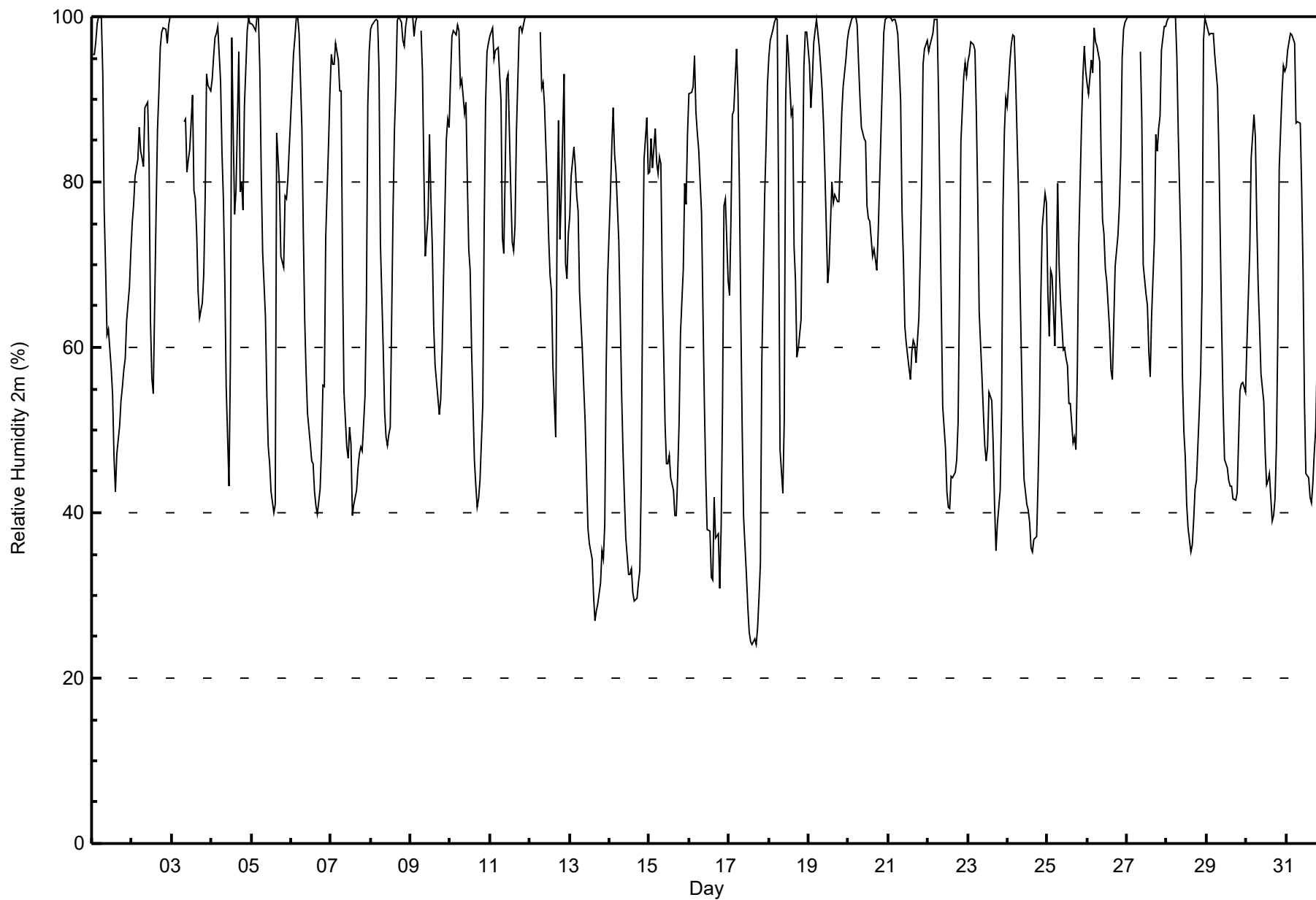
Conklin - July 2026

Maximum Value: 100.0 % on Jul 1 05:00																				Maximum Daily Average: 89.5 % on Jul 11					Hours in Service: 744	
Minimum Value: 24.0 % on Jul 17 17:00																				Minimum Daily Average: 51.8 % on Jul 13					Hours of Data: 730	
Maximum Diurnal Average: 94.4 % at hour 4																				Minimum Diurnal Average: 53.1 % at hour 15					Hours of Missing Data: 14	
Monthly Average: 72.99 %																				Percentiles: P ₁ = 28.3 P ₁₀ = 41.9 Q ₁ = 54.2 Median = 77.3 Q ₃ = 93.2 P ₉₀ = 98.7 P ₉₉ = 100.0					Hours of Calibration: 0	
																									Percent Operational Time: 98.1	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	95.4	95.4	96.9	99.1	100.0	99.9	93.0	76.6	69.7	61.6	62.3	57.5	54.2	46.7	42.5	47.2	50.6	53.5	55.2	57.2	58.7	63.2	67.3	71.5	69.8	100.0
2-Jul	75.1	77.4	80.6	82.6	86.6	83.7	82.8	81.9	89.0	89.7	82.4	63.2	56.3	54.5	76.2	86.3	90.8	96.2	98.2	98.7	98.4	96.8	99.1	100.0	84.4	100.0
3-Jul	100.0	100.0	100.0	100.0	OR	OR	OR	87.4	87.7	81.3	82.7	83.9	90.5	78.9	78.0	73.6	66.6	63.5	65.4	68.8	77.9	93.0	91.7	91.0	83.9	100.0
4-Jul	92.4	95.1	97.4	97.9	98.9	92.3	83.6	78.0	68.4	55.2	43.3	58.1	97.4	86.3	76.2	79.0	95.8	78.8	79.9	76.7	89.1	98.3	99.8	99.1	84.0	99.8
5-Jul	99.1	98.9	98.2	100.0	100.0	93.5	81.0	71.5	63.7	54.2	48.0	45.9	42.5	40.0	41.1	86.0	82.9	79.6	71.0	69.7	78.2	78.0	80.3	84.2	74.5	100.0
6-Jul	91.6	95.5	97.5	99.8	100.0	98.0	86.4	74.0	63.4	57.0	52.1	48.2	46.2	45.9	42.5	40.9	39.9	42.9	47.9	55.4	55.2	73.4	84.7	90.9	67.9	100.0
7-Jul	95.4	94.2	94.3	96.9	94.8	91.0	91.1	69.4	54.6	48.0	46.5	50.3	48.3	39.7	41.0	42.7	45.4	47.0	47.9	47.4	54.1	65.2	89.4	95.8	66.3	96.9
8-Jul	98.5	99.0	99.6	99.6	99.5	93.5	72.6	59.8	52.2	49.1	48.1	49.4	50.4	76.4	86.2	91.5	99.6	100.0	99.4	97.2	96.5	98.8	100.0	100.0	84.0	100.0
9-Jul	100.0	100.0	97.6	99.3	100.0	OR	98.3	93.2	81.0	71.0	76.0	85.8	78.0	72.3	62.6	57.8	53.9	51.8	53.8	59.6	68.4	85.1	87.6	86.7	79.1	100.0
10-Jul	92.5	97.6	98.4	97.7	99.0	98.3	91.7	92.3	88.4	89.6	80.0	71.8	69.2	59.8	46.4	43.5	40.6	41.7	43.9	53.0	74.8	89.5	95.8	96.8	77.2	99.0
11-Jul	97.6	98.7	94.9	95.9	96.2	96.2	89.8	73.3	71.3	81.5	92.3	93.1	78.8	72.7	71.7	74.8	86.2	98.7	98.7	98.1	99.1	99.9	100.0	OR	89.5	100.0
12-Jul	OR	100.0	OR	OR	OR	OR	98.2	91.4	92.0	89.3	79.3	73.2	68.6	66.9	57.9	49.1	74.9	87.5	73.0	78.4	93.1	70.2	68.3	73.6	78.2	100.0
13-Jul	75.8	80.6	84.2	81.9	78.3	76.5	66.7	59.6	55.3	51.0	44.6	38.2	36.3	34.5	30.0	26.9	28.1	29.0	31.5	35.4	34.4	38.6	57.4	68.4	51.8	84.2
14-Jul	78.5	84.2	89.1	83.3	81.3	72.8	64.2	54.6	47.4	41.8	36.9	32.5	32.5	33.3	30.3	29.3	29.7	31.5	33.0	43.5	66.7	82.7	87.8	81.0	56.2	89.1
15-Jul	81.2	85.2	81.8	86.5	82.3	81.1	83.0	82.2	68.1	50.7	45.9	45.9	46.9	44.2	42.6	39.7	39.7	44.5	50.9	61.8	69.4	79.9	77.3	85.7	64.9	86.5
16-Jul	90.8	90.9	91.6	95.2	88.5	85.9	83.8	76.2	64.8	53.6	44.6	38.0	37.8	32.1	31.8	41.9	37.0	37.4	30.9	38.3	53.3	77.2	77.9	67.9	61.1	95.2
17-Jul	66.3	75.6	88.2	88.7	96.1	90.9	79.5	64.1	50.2	39.5	32.5	28.6	25.6	24.4	24.1	24.8	24.0	26.1	29.8	33.9	58.1	78.2	84.2	91.8	55.2	96.1
18-Jul	95.2	97.1	98.5	99.4	99.8	99.7	76.5	47.7	42.4	51.3	89.7	97.8	95.3	88.2	88.8	72.2	68.1	58.8	59.8	63.4	78.6	94.0	98.1	98.1	81.6	99.8
19-Jul	94.2	89.0	92.2	96.8	98.3	99.7	96.2	93.9	91.2	87.2	81.2	67.8	69.9	75.2	80.1	77.5	78.5	77.6	77.7	82.8	88.3	91.5	94.9	97.2	86.6	99.7
20-Jul	98.3	98.9	99.7	100.0	100.0	98.9	94.4	90.2	86.6	85.2	85.0	77.1	75.6	75.3	71.1	71.8	70.8	69.4	73.9	80.0	92.3	98.2	99.6	99.9	87.2	100.0
21-Jul	100.0	99.9	99.4	99.6	99.7	99.0	97.8	89.9	76.4	70.5	62.5	60.4	57.5	56.0	59.5	60.8	60.4	58.2	63.5	70.8	80.0	94.2	96.1	97.2	79.6	100.0
22-Jul	95.8	96.7	97.3	98.0	99.6	99.6	90.8	78.3	65.1	52.9	47.7	42.5	40.7	40.5	44.3	44.3	45.0	46.5	51.0	66.9	85.0	92.7	94.4	92.8	71.2	99.6
23-Jul	94.5	95.5	96.9	96.7	95.9	88.3	78.0	64.5	56.4	52.3	48.1	46.2	48.0	54.5	53.6	48.3	40.8	35.4	38.6	42.8	52.5	76.9	86.2	90.2	65.9	96.9
24-Jul	89.1	94.7	96.8	97.7	97.7	92.5	79.2	68.9	60.0	50.9	44.1	41.1	40.3	38.7	35.8	35.3	36.8	37.1	43.8	51.9	66.3	74.6	78.6	77.5	63.7	97.7
25-Jul	66.7	61.4	69.4	68.6	60.1	68.9	79.8	70.0	65.8	59.7	59.9	58.7	57.8	53.2	53.3	48.5	49.2	47.6	57.0	72.4	87.0	92.9	96.5	93.5	66.6	96.5
26-Jul	91.8	90.6	94.8	93.3	98.7	97.0	96.5	94.5	82.9	75.3	73.7	69.6	67.9	62.2	57.2	56.1	62.9	69.9	73.6	77.0	83.2	95.1	98.4	99.3	81.7	99.3
27-Jul	100.0	100.0	100.0	100.0	OR	OR	OR	OR	95.7	87.6	70.1	66.4	65.2	59.4	56.4	63.9	73.2	85.8	83.7	86.4	88.0	96.0	98.8	98.9	83.8	100.0
28-Jul	99.6	99.8	100.0	100.0	100.0	100.0	95.1	85.9	71.2	56.3	49.8	46.8	41.0	38.2	35.3	36.1	39.1	42.9	43.9	52.4	57.1	67.2	97.2	99.8	69.0	100.0
29-Jul	99.1	97.8	97.9	97.9	98.0	95.5	91.4	83.2	72.7	62.0	52.9	46.4	45.4	44.0	43.2	43.2	41.7	41.5	42.3	48.7	54.8	55.5	55.8	54.6	65.2	99.1
30-Jul	60.7	66.3	71.8	82.9	88.1	85.5	75.1	67.5	62.3	56.8	53.3	47.3	43.4	43.9	44.8	38.9	39.6	41.7	48.2	61.5	81.7	90.8	94.1	93.3	64.1	94.1
31-Jul	93.8	96.0	98.0	97.8	97.4	96.8	87.1	87.3	87.0	79.3	69.2	53.4	44.7	44.2	41.9	41.1	43.6	47.3	50.0	66.6	82.5	90.0	89.2	85.6	73.7	98.0
Diurnal Average																										
Diurnal Maximum																										
OR - Out of Range																										



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Conklin - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

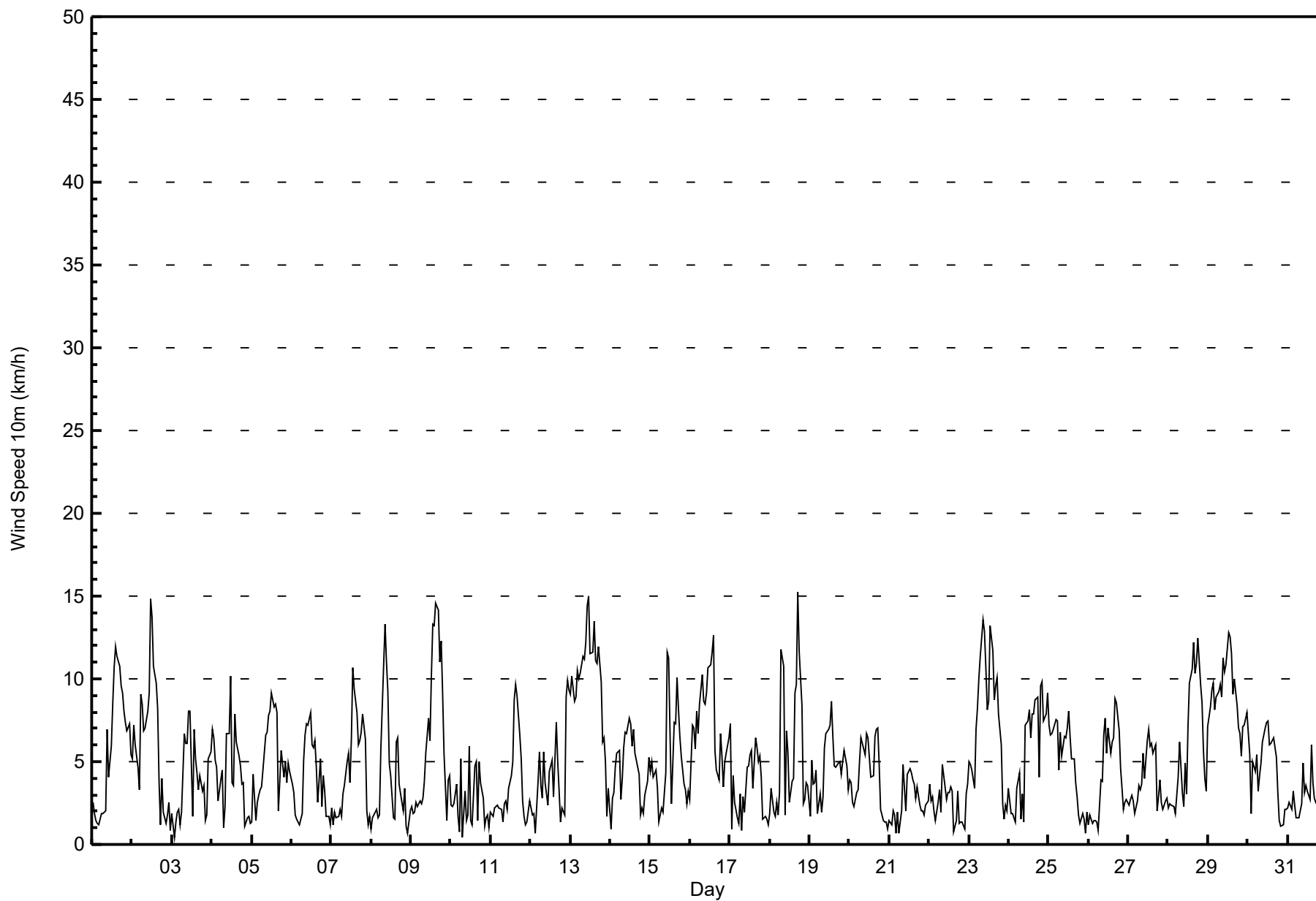
Conklin - July 2026

Maximum Speed: 15 km/h on Jul 18 18:00										Maximum Daily Speed Average: 9.1 km/h on Jul 13										Hours in Service: 744						
Minimum Speed Value: 0 km/h on Jul 10 08:00										Minimum Daily Speed Average: 0.2 km/h on Jul 22										Hours of Data: 744						
Maximum Diurnal Speed Average: 2.5 km/h at hour 12										Minimum Diurnal Speed Average: 0.2 km/h at hour 1										Hours of Missing Data: 0						
Monthly Average Velocity: 0.9 km/h 265.4 deg										Percentiles: P ₁ = 1 P ₁₀ = 2 Q ₁ = 2 Median = 4 Q ₃ = 7 P ₉₀ = 10 P ₉₉ = 13										Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	NE3	N2	N1	N1	N1	N2	N2	N2	NNE2	ESE7	E4	E6	ESE9	ESE11	ESE12	ESE11	ESE11	ESE10	ESE9	ESE8	SE7	SE7	SE7	ESE5	ESE5.0	ESE12
2-Jul	SE5	ESE7	ESE6	ESE5	ESE3	SE9	SSE8	SE7	SSE7	S8	SSE9	SSE15	SSE14	S11	S10	SW8	S4	NNE1	N4	N2	NNE1	NNE2	NE3	N1	SSE4.7	SSE15
3-Jul	N2	SE0	NE1	NNE2	NNE2	N1	NNE2	SE7	SSW6	SSW6	SW8	WSW8	S2	WSW7	W5	WNW4	WNW3	WSW4	SSW3	S4	SSW1	SSW2	S5	S6	SW2.2	SW8
4-Jul	SSW7	S6	SSE5	SSE5	E3	SSW4	SW4	W1	ESE2	E7	SE7	SW10	NNW4	NE4	E8	E6	NNW5	NW5	NW4	NW4	NNW1	N2	NNE2	ESE1	SE0.8	SW10
5-Jul	ESE1	SE4	ESE1	NE3	E3	SE3	SW3	NW5	W7	NW7	NW8	WNW8	WNW9	NW8	NW8	NNW8	E2	NW4	W6	WNW4	NNW5	NNW4	NW5	NNW4	NW3.3	WNW9
6-Jul	N4	N3	N2	N2	SW1	NNE1	SW2	WSW5	WNW7	NW7	NW7	NNW8	NW6	NW6	NNW6	N5	NNW3	WSW5	NW2	W4	WNW3	N2	NNE2	NE1	NW3.1	NNW8
7-Jul	NNE2	N1	N2	NE2	E2	NE2	N2	NE3	ENE4	E5	E6	ENE4	ENE6	ESE11	ESE9	E8	ENE6	E6	ESE7	ESE8	SE6	SE2	N1	N2	E3.8	ESE11
8-Jul	N1	N2	N2	N2	N2	N2	SSE6	S11	S13	SSE11	S9	S5	SSW4	NE2	WNW2	WNW6	N6	NNW4	NNW3	NNW2	WNW3	NW1	ESE1	NE2	SSW1.1	S13
9-Jul	NNE2	NE2	N2	NNE3	NE2	NE3	NNE2	N3	NW4	W6	W8	SW6	SSW10	SSW13	SW13	SW15	SSW14	SW11	SSW12	SSW9	S5	SE1	SSW4	S4	SW4.3	SW15
10-Jul	E2	NE2	SSE2	SE4	NNE2	SSE1	SSW5	NE0	SSW3	ENE1	SE2	S6	SW1	W1	WNW5	W5	W1	NNW5	NNW4	N3	NNE1	NNE2	NE2	NE1	W0.3	S6
11-Jul	NNE2	NE2	ESE2	NNE2	N2	NNE2	NE2	NNW1	N2	N3	N2	N3	ENE4	NNE5	N9	N10	NNW9	NNW7	NNW5	N3	N2	NW1	NE1	N3	N3.2	N10
12-Jul	N2	NNE2	NNE2	ENE1	S4	SSW6	SW4	WSW3	WSW6	WSW4	NW2	N4	NNW5	N5	E3	S7	WNW5	N3	NNW1	SSE2	NNE2	W9	SW10	SW9	WSW1.7	SW10
13-Jul	SW9	SW10	SW9	SW9	WSW11	SW10	WSW10	WSW11	WSW11	WSW12	WSW14	WSW15	W12	W12	W13	WNW11	WNW11	W12	W10	WNW6	W6	W5	SW2	SSE3	WSW9.1	WSW15
14-Jul	NNE1	ENE3	ESE3	SE5	SE6	SSW6	S3	WSW4	W6	NW7	NW7	WNW8	NW7	NW6	WNW7	W6	NW5	NNW4	NW2	NNW2	NE2	SSE3	S4	S5	WNW1.7	WNW8
15-Jul	S4	S5	SSE4	SE5	SE3	NNE1	ENE2	ENE2	E2	E4	SE12	SE11	SE7	SSE2	SE7	S7	S10	SW8	W7	W5	WSW4	NNE3	ENE2	N3	SSE2.8	SE12
16-Jul	S3	SSW7	SSW7	S6	SSW8	SSW7	SSW9	SSW10	SSW9	SW8	SSW9	SW11	WSW11	SW12	WSW13	NNW6	NW4	NNW4	W7	W5	W3	S5	SSW5	SSW6	SW5.9	WSW13
17-Jul	SW7	SSE1	ESE4	SE3	N2	SSE1	SW3	NE1	N3	N2	N5	N5	NE5	N6	ENE3	ESE6	E6	ESE5	ENE5	NE4	N2	NNE2	N2	N1	ENE1.6	SW7
18-Jul	N2	NNW3	N2	N2	N3	N2	E3	SE12	SE11	NNW2	NNW7	NNE5	ESE3	ENE4	NE4	ESE9	ESE10	SE15	SE12	SE8	NE2	N3	N4	N4	E3.1	SE15
19-Jul	N2	WSW5	SSW4	W4	NNW4	NW2	NW3	W2	N3	NNW6	NNW7	NW7	NNW7	NNW9	NNW7	NNW5	NNW5	NNW5	NNW5	NNW4	NNW5	NNW6	NNW5	N3	NNW4.0	NNW9
20-Jul	NNW4	NNW4	N3	N2	N3	N3	NNW5	NNW6	NNW6	NNW5	NNW7	NNW6	N5	NNW4	NNW4	NNW7	NNW7	NNW7	N5	N2	N1	N1	N1	N1	NNW4.2	NNW7
21-Jul	N1	NE1	NE2	NE2	S1	NE2	E1	ESE2	SSW5	WSW3	NW2	NW4	NNW5	NNW4	NNW4	NNW4	NNW3	NW4	NW2	NNW2	NNW2	NE2	NE2	E3	NNW1.5	SSW5
22-Jul	SE4	ENE3	ENE3	E2	NNE1	E3	SE3	SW2	WSW5	W4	WNW3	WNW3	W3	W3	NNW3	SSE1	NW1	WSW3	N1	NNE1	NNE1	NE1	E3	SSE4	W0.2	WSW5
23-Jul	ESE5	SSE5	SE4	SE3	S7	SSW8	SSW10	SSW11	SSW14	SW13	SW11	W8	NW9	NW13	NNW12	NW9	NW10	NW10	NW8	NNW6	N2	NNE1	NE2	NE2	W3.1	SSW14
24-Jul	ESE3	NE2	NNE2	NE2	NNE1	S3	SSW4	E2	NE3	NNE1	SW7	SW7	SW8	SW6	SW8	SW8	SW9	SW9	W4	SSW10	SSW10	SW7	SW8	SW9	SW4.2	SSW10
25-Jul	W7	WSW7	SW7	SW7	WNW8	W7	W4	W7	NW5	WNW7	W6	W7	WSW8	W7	W5	WNW5	NNW4	NNW3	N2	N1	N2	NNE2	ENE1	NNE2	W4.0	WSW8
26-Jul	NE1	ESE2	NE1	SSW1	NNE1	NNW1	N1	N4	N4	NNE7	N8	NNE6	NNE7	NE5	ENE6	NE6	NNE9	N9	N7	N5	N3	N2	N3	N3	NNE3.8	NNE9
27-Jul	N2	N3	N3	N3	ENE2	N3	N4	N3	N4	N5	NW4	NNW6	NNW7	NW6	NW6	NW5	NW6	WNW2	W3	NW4	NNW3	NNW2	NE3	ENE3	NNW3.2	NNW7
28-Jul	NE2	ESE2	ENE2	E2	SE2	S3	SSW4	SSW6	NE3	SE2	S5	SSW3	E7	ESE10	ESE11	ESE12	SE10	SE11	SE12	SE10	SE9	SSW6	NNW4	ESE3	SE4.5	SE12
29-Jul	SW7	SW8	SW9	SW10	SW8	SW9	WSW9	W10	WNW9	W11	W10	W11	W13	W13	W12	WNW9	WNW10	NW8	NW7	NW7	WNW5	W7	W7	WNW8	W8.0	W13
30-Jul	NW7	NW5	W2	S5	S4	SSW5	SSW3	NW4	NNW5	NW6	NW7	NW7	WNW7	NW6	WNW6	NW6	NNW6	NNW5	N3	N1	NNE1	NE1	NE2	E2	NW2.9	WNW7
31-Jul	NE2	NE3	E2	E3	ENE2	NNE2	NNE2	N2	N2	E5	N3	E4	S3	SSW3	S6	WSW4	SSW3	SW3	WNW2	NNW2	NNE1	SE3	S4	S5	SE0.7	S6
WSW0.2SSW0.5 SSE0.8 SSE0.9 S0.5SSW1.3 SW1.9 SW1.5WSW1.6 W1.6 W2.1 W2.5WNW1.9WNW1.7WNW1.5 NW1.4 NW1.6WNW1.5 NW1.3WNW0.7 NW0.5WNW0.6WSW0.3SSW0.4																										Diurnal Average
SW9 SW10 SW9 SW10WSW11 SW10WSW10 SE12 SSW14 SW13WSW14WSW15 SSE14 SSW13 W13 SW15 SSW14 SE15 SE12 SE10 SSW10 W9 SW10 SW9																										Diurnal Maximum
All monthly, daily, and diurnal averages have been calculated using vector methods																										



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Conklin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Conklin - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	468	62.90	62.90
6 - 11	245	32.93	95.83
12 - 19	31	4.17	100.00
20 - 28	0	0.00	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Conklin - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	103	45	48	19	22	20	19	14	23	21	9	12	20	15	25	53	468
6 - 11	7	4	1	3	9	19	18	5	14	23	36	11	24	17	28	26	245
12 - 19	0	0	0	0	0	2	5	2	1	4	4	4	7	0	1	1	31
20 - 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	110	49	49	22	31	41	42	21	38	48	49	27	51	32	54	80	744

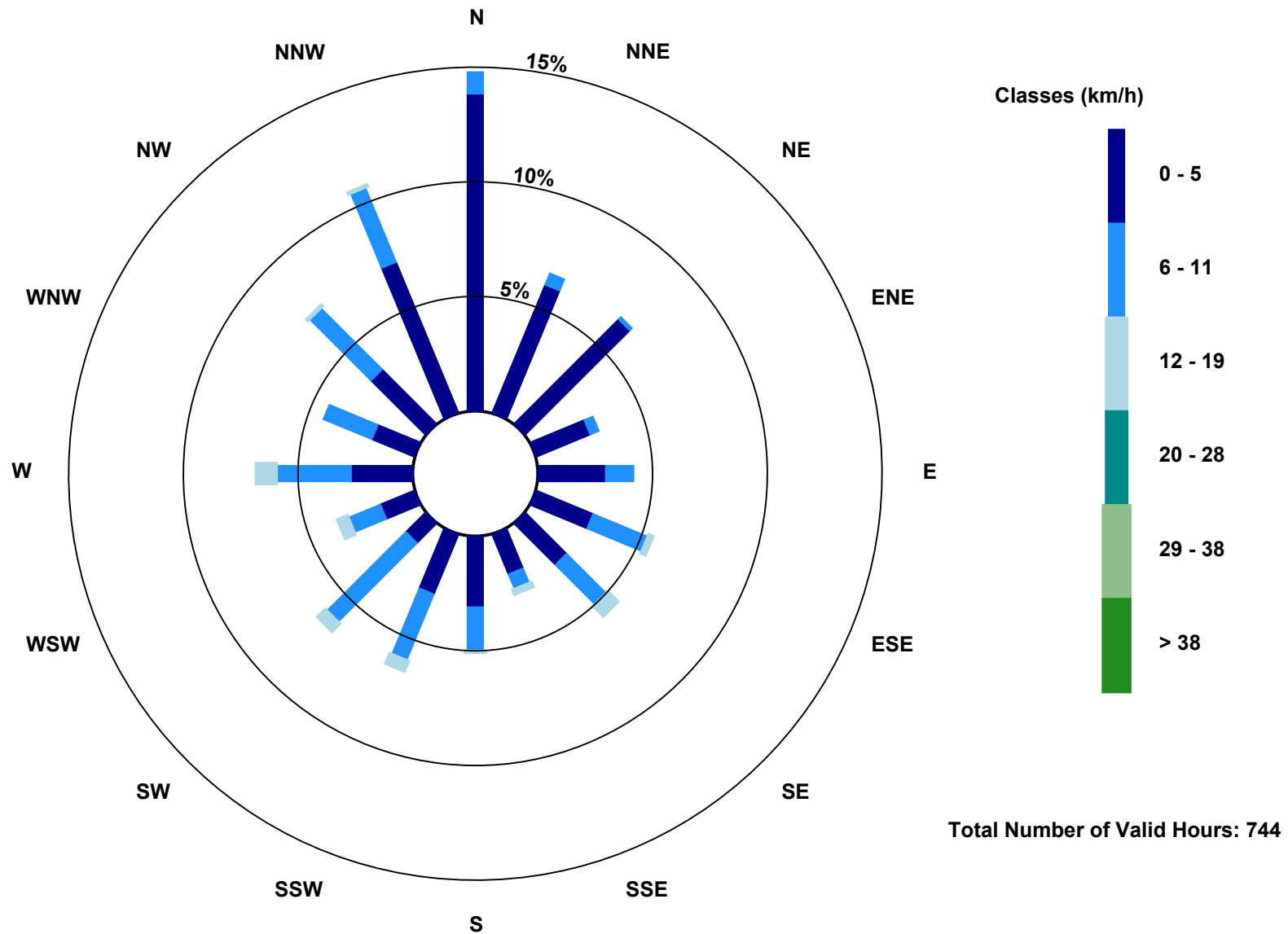
Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Conklin





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Conklin - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																	Hours in Service: 744									
Maximum Value: 7 km/h on Jul 4 12:00																	Hours of Data: 744									
Minimum Value: 1 km/h on Jul 21 23:00																	Hours of Missing Data: 0									
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 1 Median = 2 Q ₃ = 3 P ₉₀ = 4 P ₉₉ = 6																	Hours of Calibration: 0									
																	Percent Operational Time: 100.0									
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	1	1	1	1	1	1	1	1	1	2	1	2	3	4	4	4	3	3	3	2	2	2	2	2	2	4
2-Jul	1	2	2	1	2	3	2	2	3	3	3	5	4	4	5	3	3	2	1	1	1	1	1	1	1	5
3-Jul	1	2	1	1	1	2	1	3	2	2	3	5	2	2	2	2	2	2	2	2	1	1	2	2	2	5
4-Jul	2	1	1	1	1	2	1	1	1	3	3	7	2	2	3	4	2	2	2	2	1	1	1	2	2	7
5-Jul	1	1	1	1	1	1	2	2	3	3	4	4	4	4	5	5	2	3	2	3	3	2	3	2	2	5
6-Jul	2	1	1	1	2	2	1	2	3	3	3	3	3	3	3	3	2	2	2	4	2	1	1	1	1	4
7-Jul	1	1	1	1	1	1	1	1	1	2	3	2	2	3	3	3	2	2	2	2	2	1	1	1	1	3
8-Jul	1	1	1	1	1	1	3	4	4	4	4	3	3	2	1	3	3	2	1	1	1	2	2	1	1	4
9-Jul	1	1	2	1	1	1	1	1	2	2	4	3	3	4	4	4	4	4	4	3	2	1	1	1	1	4
10-Jul	1	1	1	1	1	2	2	2	1	1	1	2	2	1	2	3	2	2	1	2	1	1	2	2	2	3
11-Jul	1	2	2	1	1	2	1	1	2	1	1	2	1	2	3	3	3	3	2	2	1	1	1	1	1	3
12-Jul	1	1	1	2	1	2	1	2	2	2	2	2	3	2	2	4	5	2	1	1	1	4	3	3	3	5
13-Jul	2	3	2	3	3	3	4	5	4	5	5	6	6	5	7	6	5	5	5	3	2	2	2	1	7	
14-Jul	2	1	1	1	1	2	1	2	3	3	3	4	3	3	3	3	3	2	2	1	1	1	2	1	4	
15-Jul	1	1	1	1	1	2	2	1	1	3	4	4	3	3	3	3	4	3	2	2	2	1	2	1	4	
16-Jul	2	2	2	2	2	2	3	3	3	3	3	4	4	5	5	3	3	2	3	1	1	1	1	2	5	
17-Jul	2	2	1	1	1	1	1	1	1	1	3	2	2	3	3	3	2	2	2	1	1	1	2	1	3	
18-Jul	1	2	1	2	1	1	3	4	4	6	3	3	2	3	2	3	3	5	3	3	1	1	1	1	6	
19-Jul	1	3	3	4	2	1	2	2	2	3	3	3	3	4	3	2	2	2	2	2	2	2	2	1	4	
20-Jul	2	2	1	1	1	1	2	2	2	2	3	3	2	2	2	3	3	3	2	1	1	1	1	1	3	
21-Jul	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	1	2	1	1	1	1	1	1	2	
22-Jul	1	1	1	1	1	1	1	2	2	2	2	2	3	2	2	2	2	1	2	1	1	1	1	1	3	
23-Jul	1	1	1	1	1	2	3	3	4	4	4	4	4	6	6	4	4	4	4	3	1	1	1	1	6	
24-Jul	1	1	1	1	1	2	1	1	1	2	3	3	4	3	4	4	3	3	3	6	3	2	2	2	6	
25-Jul	3	3	2	3	3	3	2	3	2	3	3	3	3	3	3	2	2	1	1	1	1	1	1	1	3	
26-Jul	2	2	1	2	1	1	1	2	2	2	3	3	3	3	3	3	3	3	2	1	2	1	1	1	3	
27-Jul	2	1	1	1	1	1	1	1	1	2	2	3	3	3	2	3	3	2	1	1	1	1	1	1	3	
28-Jul	1	1	1	1	1	1	2	1	1	2	3	3	3	4	3	3	3	4	3	3	2	6	3	1	6	
29-Jul	2	2	3	3	2	2	4	4	4	5	5	5	6	5	6	4	6	4	4	3	2	3	3	4	6	
30-Jul	3	3	2	1	1	2	2	2	2	3	3	3	4	3	3	3	3	3	1	1	1	1	1	1	4	
31-Jul	1	1	1	1	1	1	1	1	1	2	1	2	2	2	3	3	2	2	1	1	1	1	1	1	3	
Diurnal Maximum																										



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

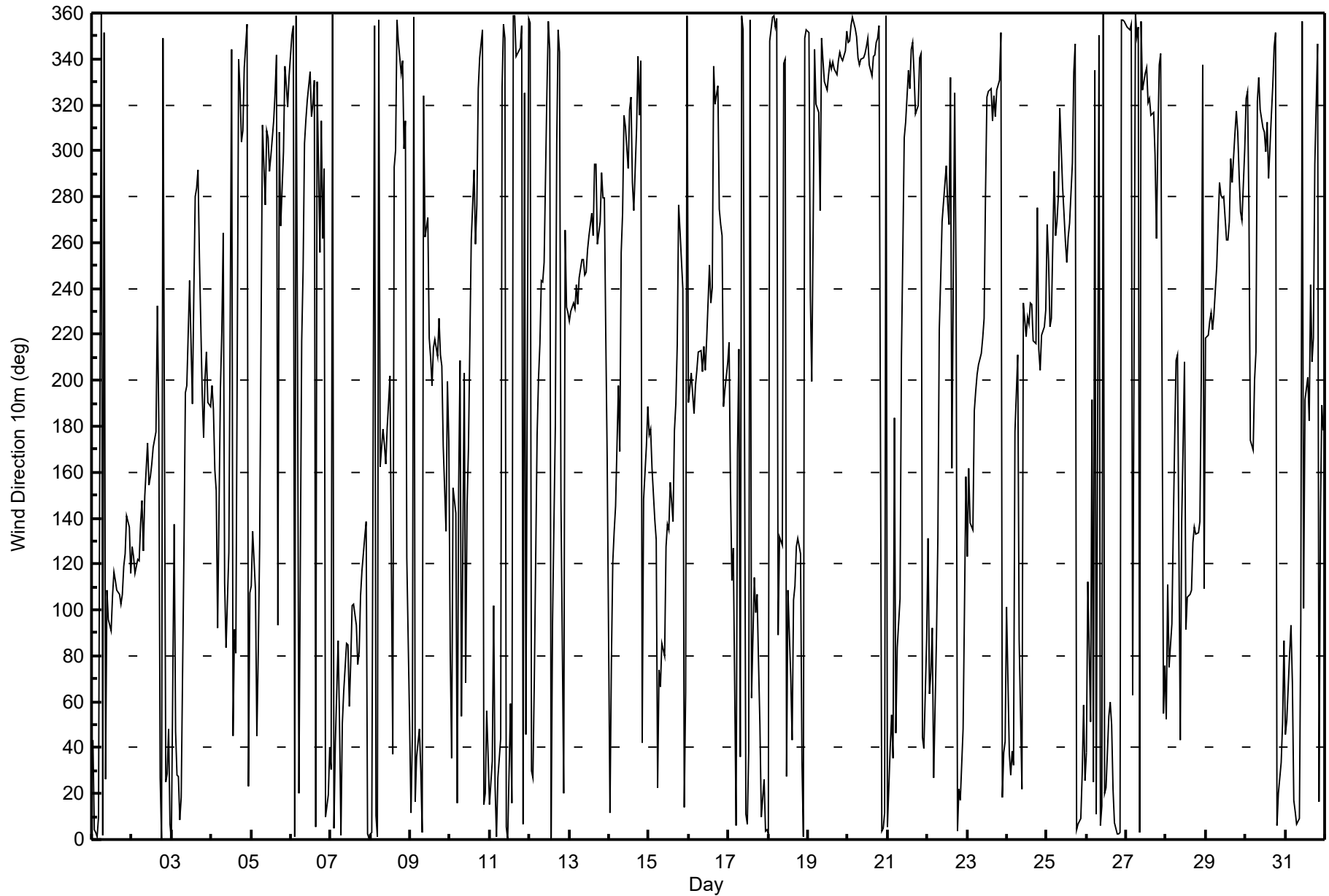
Conklin - July 2026

Direction of Maximum Speed: 127 deg on Jul 18 18:00																					Hours in Service:		744		
Direction of Maximum Daily Speed Average: 255.1 deg on Jul 13																					Hours of Data:		744		
Direction of Minimum Speed: 54 deg on Jul 10 08:00										Direction of Minimum Daily Speed Average: 0.2 deg on Jul 22											Hours of Missing Data:		0		
Monthly Average Direction: 265.4 deg																					Percent Operational Time:		100.0		
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	43	4	3	2	10	360	2	351	26	108	96	91	106	117	113	109	107	102	107	119	124	141	136	116	105.5
2-Jul	127	123	116	122	121	137	148	126	149	173	154	158	163	171	177	233	182	27	0	349	25	29	48	7	150.3
3-Jul	0	137	47	28	28	8	18	128	195	198	220	243	190	237	280	284	292	254	194	175	201	213	190	188	219.3
4-Jul	197	188	161	152	92	197	222	264	111	84	125	228	344	45	91	81	340	326	304	309	336	355	23	107	144.3
5-Jul	111	134	109	45	82	129	222	311	276	309	306	291	298	313	325	342	93	308	267	300	337	328	319	332	311.7
6-Jul	350	355	2	359	215	20	217	248	303	314	322	335	315	320	331	6	330	255	313	262	292	10	19	40	317.6
7-Jul	30	360	5	42	87	51	2	51	65	85	85	58	77	102	103	94	76	82	106	117	132	138	2	1	86.0
8-Jul	2	3	355	11	1	357	162	179	172	164	179	190	202	37	293	300	357	347	334	339	301	313	122	51	192.3
9-Jul	12	46	358	17	36	48	30	3	324	262	271	218	210	198	214	218	210	227	211	206	172	134	199	173	217.0
10-Jul	82	35	153	142	16	152	209	54	203	68	145	170	216	261	292	259	276	327	340	353	15	20	56	37	258.8
11-Jul	15	34	102	23	1	27	44	328	355	349	5	0	59	16	359	359	341	344	345	354	7	325	45	358	3.3
12-Jul	355	30	27	70	176	200	216	243	243	251	326	356	344	0	95	180	303	352	343	149	20	265	232	230	257.5
13-Jul	226	230	234	231	242	233	244	252	253	246	247	257	263	273	263	294	294	259	269	291	280	279	219	166	255.1
14-Jul	12	77	121	134	145	198	169	255	273	315	311	292	318	324	286	274	310	341	315	339	42	148	171	188	281.4
15-Jul	176	179	162	139	131	23	74	66	86	80	128	137	135	156	139	178	190	215	277	265	240	14	64	359	156.2
16-Jul	190	203	194	186	197	204	212	213	204	215	204	218	250	234	241	337	320	328	275	268	263	189	196	207	223.3
17-Jul	217	153	113	127	6	168	214	36	359	353	11	6	38	357	62	114	99	106	78	50	10	26	4	4	61.2
18-Jul	3	348	358	359	354	358	89	132	128	338	340	28	109	71	44	104	110	127	131	124	34	1	349	353	90.4
19-Jul	351	237	200	266	344	320	317	274	349	339	330	326	333	339	335	339	335	333	339	343	341	339	343	352	329.4
20-Jul	347	348	355	358	353	350	340	337	340	340	342	345	349	337	332	341	341	347	349	354	4	5	11	359	345.1
21-Jul	6	40	54	35	184	47	84	105	211	257	306	312	335	327	344	347	334	316	320	341	343	45	40	87	342.9
22-Jul	131	63	73	92	27	88	131	222	244	269	286	294	277	268	332	162	325	241	4	22	17	48	101	158	265.7
23-Jul	123	161	138	135	187	195	203	207	212	218	227	281	323	326	327	313	324	315	326	331	351	19	38	43	264.6
24-Jul	102	37	28	39	33	177	211	88	54	22	234	219	228	225	234	233	217	216	275	213	204	220	224	230	220.4
25-Jul	268	252	223	227	291	263	269	281	319	284	273	261	251	263	269	295	334	347	4	7	9	29	59	26	275.3
26-Jul	38	112	51	192	25	335	11	351	6	15	360	20	23	54	60	50	22	8	3	3	3	357	357	356	18.5
27-Jul	354	353	353	355	63	360	349	354	3	356	326	334	336	321	323	315	317	298	262	307	338	342	55	75	338.7
28-Jul	52	111	75	94	136	175	209	211	43	138	171	208	91	105	107	109	129	136	133	134	138	202	337	109	129.2
29-Jul	219	219	226	229	222	229	249	268	286	281	280	280	261	261	269	297	286	307	317	308	289	273	269	301	267.4
30-Jul	323	326	273	174	170	200	212	322	332	318	310	308	300	313	288	316	329	345	352	6	20	34	51	86	311.4
31-Jul	46	52	81	93	68	17	12	6	9	95	356	101	191	201	183	242	208	218	294	346	16	140	189	178	134.8
236.3 192.1 154.2 156.1 181.4 203.4 217.1 232.8 249.3 271.4 268.6 267.9 283.9 290.1 283.8 304.3 316.7 302.9 310.5 294.9 314.5 286.6 243.2 198.0																									
Diurnal Average																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Conklin - July 2026





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Conklin - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 114 deg on Jul 21 05:00																									Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0
Minimum Value: 3 deg on Jul 8 02:00																									
Percentiles: P ₁ = 6 P ₁₀ = 20 Q ₁ = 27 Median = 44 Q ₃ = 58 P ₉₀ = 79 P ₉₉ = 101																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	24	11	13	6	9	7	10	33	51	30	48	33	27	30	24	24	23	28	25	22	22	23	19	33	51
2-Jul	33	23	34	50	61	22	25	31	40	31	27	27	30	45	44	43	80	77	33	34	88	47	37	8	88
3-Jul	5	88	76	31	27	9	21	40	49	50	40	64	106	45	52	56	77	74	79	82	93	103	48	39	106
4-Jul	25	30	42	48	67	86	51	91	91	36	54	64	36	38	33	62	30	45	54	48	62	37	40	80	91
5-Jul	74	42	78	28	47	62	80	60	55	55	55	52	51	50	53	33	76	67	46	55	29	42	49	44	80
6-Jul	31	23	39	51	99	58	87	54	54	48	47	32	51	49	41	42	73	50	53	66	68	9	65	83	99
7-Jul	28	82	23	43	72	45	12	29	43	59	42	38	34	30	26	24	33	28	32	24	27	92	10	4	92
8-Jul	4	3	7	30	17	31	55	28	26	28	36	74	72	80	76	53	23	23	42	40	46	76	91	59	91
9-Jul	40	65	63	21	21	33	30	24	51	52	47	53	35	30	35	32	26	33	27	27	45	101	69	60	101
10-Jul	60	53	84	51	9	95	74	86	84	75	95	50	92	105	67	78	102	44	36	17	24	36	52	60	105
11-Jul	24	31	62	23	43	37	51	73	25	33	15	20	38	39	21	21	24	21	19	18	14	55	34	32	73
12-Jul	31	42	48	77	58	41	73	90	47	69	72	21	48	28	89	58	72	42	92	86	58	40	26	25	92
13-Jul	26	26	26	30	33	33	37	33	40	36	35	40	54	50	52	53	50	48	48	45	39	49	98	67	98
14-Jul	92	46	49	29	28	55	87	80	56	52	49	54	52	57	62	66	65	38	76	43	43	58	63	28	92
15-Jul	42	22	40	26	51	83	50	52	79	71	30	36	44	103	49	55	36	44	40	41	72	38	58	16	103
16-Jul	87	18	27	31	23	39	29	27	32	40	42	38	44	41	39	38	48	46	46	35	70	38	22	28	87
17-Jul	25	93	35	67	57	101	81	86	28	79	51	52	47	49	72	56	52	45	31	28	10	40	15	7	101
18-Jul	14	9	9	5	7	6	57	21	27	90	23	61	78	63	59	27	23	21	21	25	34	17	13	22	90
19-Jul	81	63	90	74	30	52	62	67	28	37	43	43	38	25	27	34	46	45	36	31	27	24	20	19	90
20-Jul	23	25	16	13	15	20	23	23	25	30	25	27	26	35	44	31	26	20	15	13	14	9	10	61	61
21-Jul	68	93	54	73	114	56	83	74	45	70	79	55	38	46	37	56	42	47	44	29	30	37	25	52	114
22-Jul	52	46	43	58	24	52	57	101	67	62	81	77	87	77	62	106	82	77	49	22	7	93	48	50	106
23-Jul	17	28	38	51	21	22	22	23	24	29	40	54	47	37	41	51	50	50	46	46	21	16	23	22	54
24-Jul	38	24	18	59	56	75	60	91	42	92	50	53	48	71	58	50	34	39	61	58	22	30	24	22	92
25-Jul	50	53	34	41	56	43	66	55	55	53	48	47	36	51	55	56	46	35	6	9	17	32	104	52	104
26-Jul	65	67	79	94	72	69	72	22	24	27	24	44	38	57	51	46	23	20	17	14	12	7	6	8	94
27-Jul	9	8	13	7	58	13	16	17	17	23	67	36	39	52	46	52	50	87	62	45	36	31	25	36	87
28-Jul	58	76	57	58	77	81	63	27	42	93	72	88	39	39	30	23	24	18	20	17	20	75	55	50	93
29-Jul	31	28	28	27	25	27	38	47	55	53	54	55	45	44	52	55	54	56	54	49	45	44	47	55	56
30-Jul	53	49	98	42	58	59	91	50	45	50	54	56	51	54	56	51	49	30	20	27	8	80	43	81	98
31-Jul	43	33	48	41	40	20	6	4	20	35	31	71	85	96	73	88	91	91	68	24	64	70	42	26	96
92 93 98 94 114 101 91 101 91 93 95 88 106 105 89 106 102 91 92 86 93 103 104 83																									
Diurnal Maximum																									



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

**AMS22
JANVIER
JULY 2026**

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - JANVIER (AMS22)
JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	707	34	37	99.6	-	-	6	0	0.9	0
TRS(ppb) Average	702	35	42	99.06	1.0	0	0.9	-	0.3	-
THC(ppm) Average	705	34	39	99.33	-	-	2.7	-	2.2	-
NMHC(ppm) Average	705	34	39	99.33	-	-	0.096	-	0.01	-
CH4(ppm) Average	705	34	39	99.33	-	-	2.7	-	2.2	-
O3 (ppb) Average	706	35	38	99.6	-	-	45	0	29.6	-
NO2 (ppb) Average	708	35	36	99.87	-	-	2.9	0	1.3	-
NO (ppb) Average	708	35	36	99.87	-	-	3	-	0.5	-
NOX (ppb) Average	708	35	36	99.87	-	-	4.7	-	1.5	-
PM2.5 (ug/m3) Average	694	1	50	93.41	-	-	160.5	7	75.1	4
Temperature 2 m (C) Average	743	0	1	99.87	-	-	32.3	-	23.3	-
Relative Humidity (%) Average	743	0	1	99.87	-	-	99.3	-	87.2	-
Wind Speed 20 m (km/h) Average	741	0	3	99.6	-	-	21	-	15	-
Wind Direction 20 m (deg) Average	741	0	3	99.6	-	-	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - JANVIER (AMS22)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	707	0.12	0.3	-	0	0	0	0.1	0.2	0.2	6
TRS (ppb) Average	702	0.19	0.1	-	0	0	0.2	0.2	0.2	0.3	0.9
THC (ppm) Average	705	2.06	0.1	-	2	2	2	2	2.1	2.1	2.7
NMHC(ppm) Average	705	0.001	0.006	-	0	0	0	0	0	0	0.096
CH4(ppm) Average	705	2.05	0.1	-	2	2	2	2	2.1	2.1	2.7
O3 (ppb) Average	706	21.39	9.6	-	3.7	9.2	13.5	20.6	28.3	34.7	45
NO2 (ppb) Average	708	0.64	0.5	-	0	0.2	0.3	0.5	0.8	1.3	2.9
NO (ppb) Average	708	0.24	0.3	-	0	0	0.1	0.1	0.3	0.6	3
NOX (ppb) Average	708	0.88	0.7	-	0	0.3	0.4	0.7	1.1	1.7	4.7
PM2.5 (ug/m3) Average	694	14.8	20.7	-	1.1	2.5	3.7	6.3	13.9	49.7	160.5
Temperature 2 m (C) Average	743	17.91	4.7	-	7.9	12.2	14.3	17.4	21.3	24.1	32.3
Relative Humidity (%) Average	743	74.04	19	-	27	43.6	61	78.3	90.3	96.1	99.3
Wind Speed 20 m (km/h) Average	741	7.2	4	-	0	3	5	7	9	11	21
Wind Direction 20 m (deg) Average	741	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - JANVIER (AMS22)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
ALL PARAMETERS	17 Jul 2026 09:00	17 Jul 2026 09:00	1	DAS Failure - data not recorded
NMHC, O3, TRS, SO2	29 Jul 2026 11:00	29 Jul 2026 12:00	2	Maintenance - sample manifold cleaned
TRS	19 Jul 2026 10:00	19 Jul 2026 12:00	3	Maintenance - verify daily QA response
TRS	25 Jul 2026 08:00	25 Jul 2026 08:00	1	Maintenance - verify daily QA response
THC/NMHC/CH4	22 Jul 2026 12:00	22 Jul 2026 13:00	2	Maintenance - replaced support gas cylinder
PM2.5	02 Jul 2026 10:00	03 Jul 2026 11:00	26	DAS Failure - data not recorded
PM2.5	29 Jul 2026 13:00	30 Jul 2026 09:00	21	DAS Failure - data not recorded
PM2.5	30 Jul 2026 10:00	30 Jul 2026 10:00	1	Maintenance - reset instrument
Wind Speed, Wind Direction	01 Jul 2026 05:00	01 Jul 2026 05:00	1	Flat line in sensor output signal
Wind Speed, Wind Direction	31 Jul 2026 20:00	31 Jul 2026 20:00	1	Flat line in sensor output signal



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

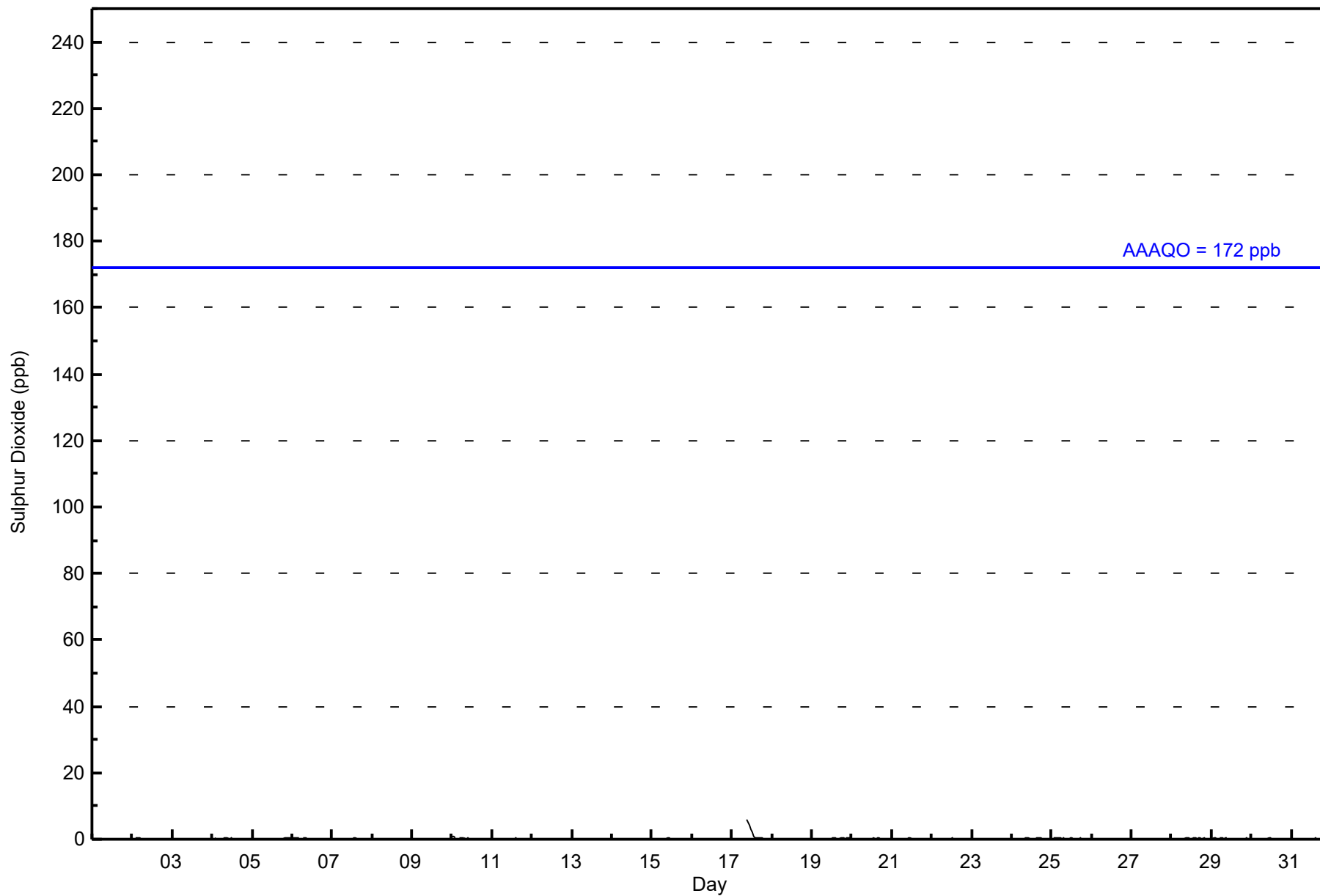
Janvier - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																		Hours in Service: 744									
Maximum Value: 6.0 ppb on Jul 17 10:00 Maximum Daily Average: 0.9 ppb on Jul 17																		Hours of Data: 707									
Minimum Value: 0.0 ppb on Jul 1 02:00 Minimum Daily Average: 0.0 ppb on Jul 27																		Hours of Missing Data: 37									
Maximum Diurnal Average: 0.3 ppb at hour 10 Minimum Diurnal Average: 0.1 ppb at hour 23																		Hours of Calibration: 34									
Monthly Average: 0.12 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.2 P ₉₉ = 0.6																		Percent Operational Time: 99.6									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2
2-Jul	0.2	Z	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
3-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.0	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.2	
4-Jul	0.1	0.1	0.2	Z	0.2	0.2	0.1	0.3	0.3	0.3	0.2	0.3	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.3	
5-Jul	0.0	0.1	0.1	0.1	Z	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.1	0.3	
6-Jul	0.3	0.2	0.3	0.3	0.2	Z	0.4	0.4	0.2	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.4	
7-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.2	0.3	0.3	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.3	
8-Jul	0.0	Z	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	
9-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.0	0.3	
10-Jul	0.7	0.9	0.3	Z	0.6	0.6	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.9	
11-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	
12-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1	
13-Jul	Z	0.1	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	
14-Jul	0.0	Z	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	
15-Jul	0.0	0.0	Z	0.1	0.0	0.0	0.1	0.1	0.1	0.5	0.5	0.0	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.5	
16-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
17-Jul	0.0	0.0	0.1	0.1	Z	0.1	0.0	0.1	DF	6.0	4.1	3.0	2.2	1.0	0.4	0.4	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.9	6.0	
18-Jul	0.1	0.1	0.1	0.0	0.1	Z	0.0	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.2	
19-Jul	Z	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.2	0.5	0.2	0.1	0.2	0.6	0.5	0.3	0.2	0.3	0.3	0.2	0.2	0.6	
20-Jul	0.2	Z	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.3	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.3	
21-Jul	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.3	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.3	
22-Jul	0.1	0.1	0.1	Z	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.2	
23-Jul	0.1	0.0	0.0	0.0	Z	0.0	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.2	
24-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.2	0.6	0.5	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.6	
25-Jul	Z	0.2	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.4	
26-Jul	0.1	Z	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
27-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
28-Jul	0.0	0.0	0.0	Z	0.2	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.4	0.4	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.4	
29-Jul	0.2	0.3	0.2	0.2	Z	0.2	0.2	0.2	0.3	0.2	M	M	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.3	
30-Jul	0.1	0.1	0.1	0.1	0.0	Z	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.3	
31-Jul	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	
																								Diurnal Average			
																								Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance DF - DAS Failure																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Janvier - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Janvier - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	707	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Janvier - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	27	36	25	13	12	23	43	29	44	127	165	48	42	27	29	15	705
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	27	36	25	13	12	23	43	29	44	127	165	48	42	27	29	15	705

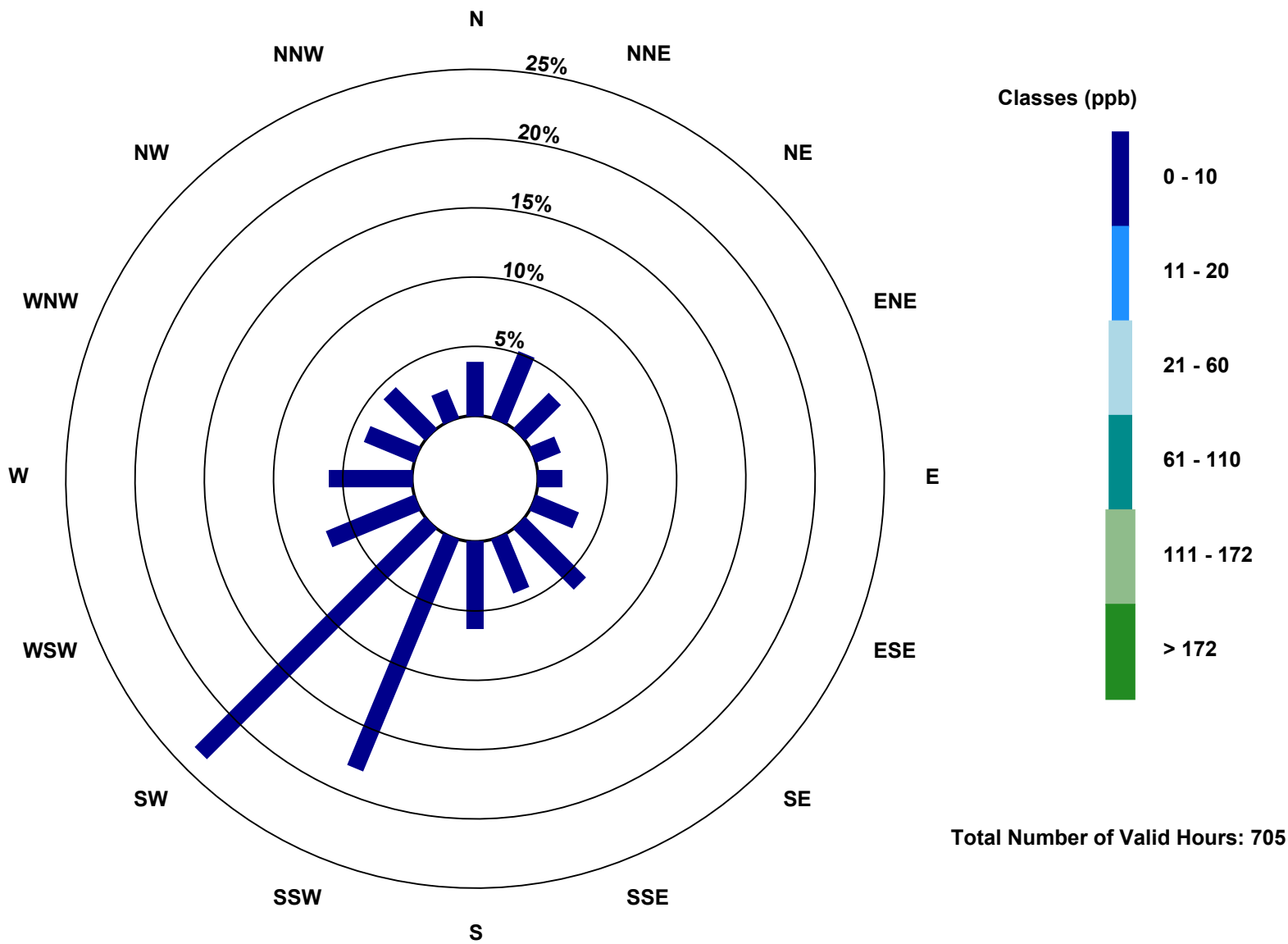
Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Sulphur Dioxide (SO₂) - ppb
Janvier



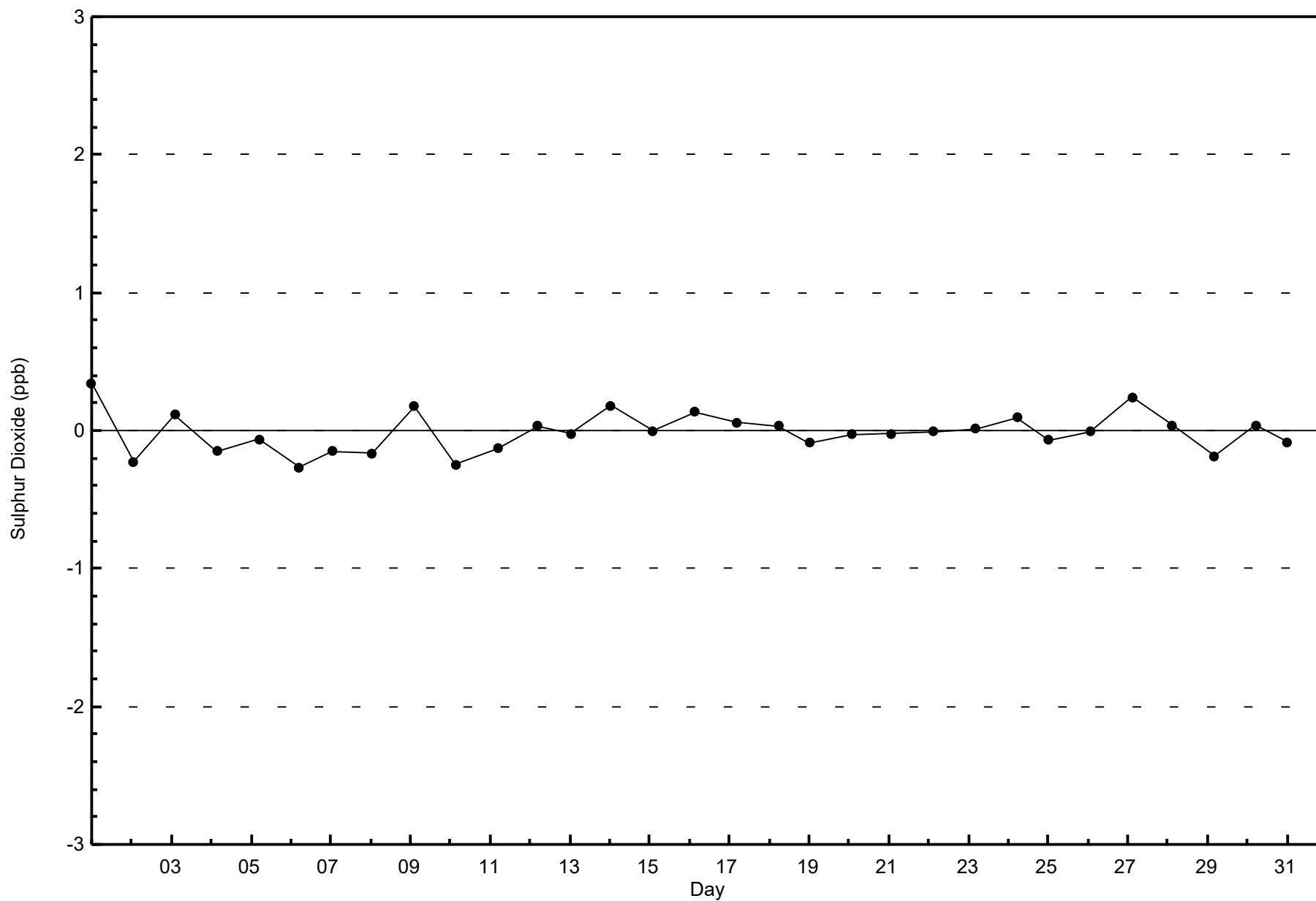


Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO₂) - ppb

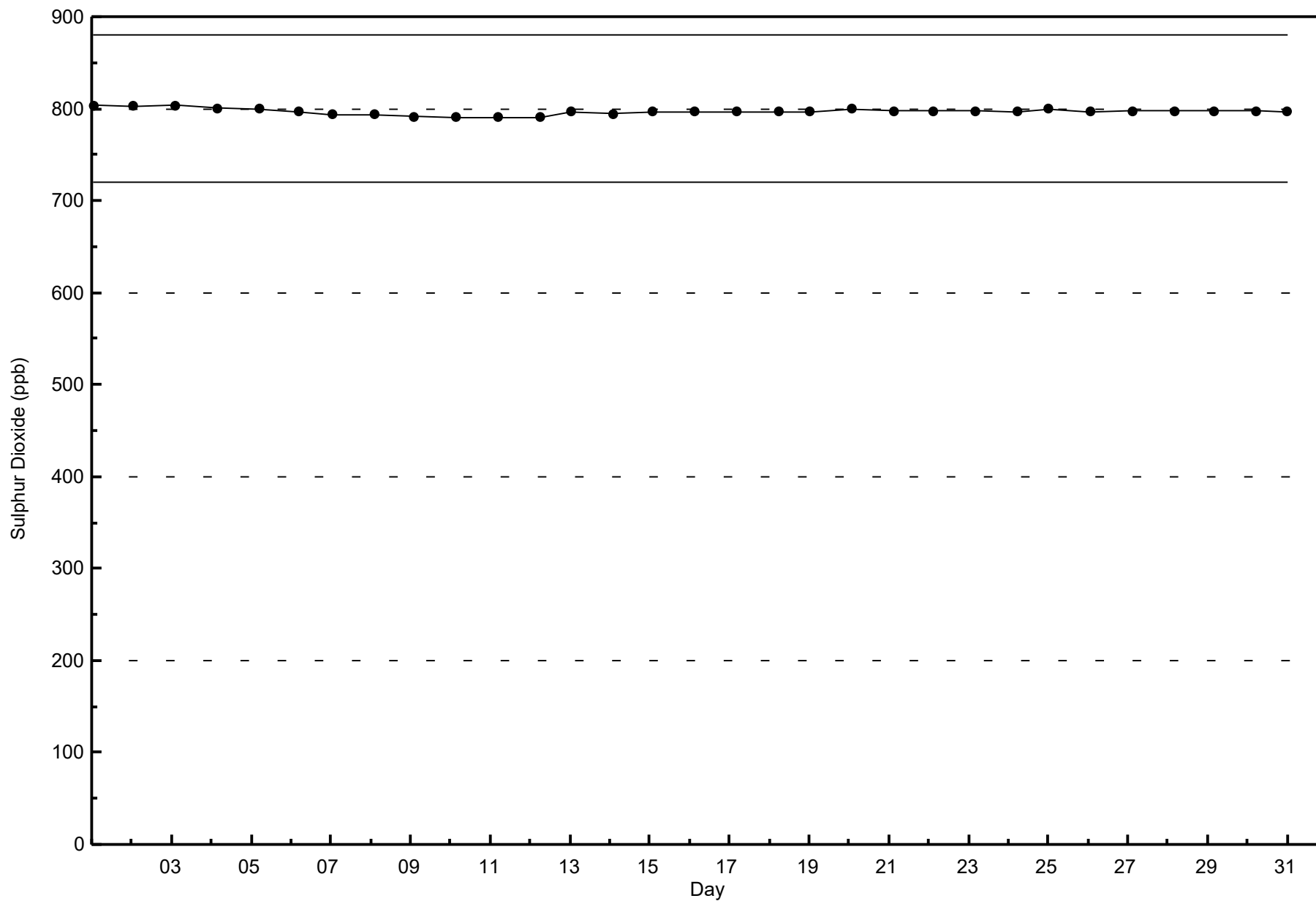
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Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Janvier - July 2026





Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Janvier - July 2026

Number of Exceedences (AAAQG): 30-Min: 0																			Periods in Service: 1488							
Maximum Value: 1.0 ppb on Jul 19 12:30 Maximum Daily Average: 0.3 ppb on Jul 1																			Periods of Valid Data: 1402							
Minimum Value: 0.0 ppb on Jul 17 23:00 Minimum Daily Average: 0.0 ppb on Jul 20																			Periods of Invalid Data: 86							
Maximum Diurnal Average: 0.2 ppb at hour 10 Minimum Diurnal Average: 0.2 ppb at hour 23																			Periods of Calibration: 71							
Monthly Average: 0.19 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.5																			Percent Operational Time: 99.0							
Day	Period Ending At (MST)																								Daily Average	Daily Maximum
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00		
1-Jul	0.3 0.3	Z SP	0.3 0.3	0.3 0.3	0.3 0.3	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.2	0.3 0.3	0.3 0.2	0.3 0.3	0.3 0.2	0.3	0.4
2-Jul	0.3 0.3	0.2 0.3	Z SP	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3	0.3
3-Jul	0.3 0.3	0.3 0.3	0.3 0.3	Z SP	0.2 0.2	0.2 0.3	0.3 0.3	0.4 0.3	0.3 0.3	0.3 0.4	0.4 0.4	0.4 PF	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.3	0.4
4-Jul	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.1	Z SP	0.1 0.1	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2	0.2
5-Jul	0.1 0.2	0.1 0.2	0.1 0.1	0.1 0.1	0.1 0.1	Z SP	0.1 0.1	0.1 0.1	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.1	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.2
6-Jul	Z SP	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.2 0.1	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	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	0.2 0.2	0.2 0.2	0.2 0.1	0.2	0.2
7-Jul	0.2 0.2	Z SP	0.1 0.1	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.1	0.1 0.1	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.2
8-Jul	0.2 0.2	0.2 0.2	Z SP	0.1 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 PF	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.3
9-Jul	0.2 0.2	0.2 0.2	0.2 0.2	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.2
10-Jul	0.2 0.3	0.3 0.3	0.3 0.2	0.2 0.2	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.3
11-Jul	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	Z SP	0.2 0.2	0.2 0.2	0.3 0.2	0.2 0.3	0.2 0.2	0.3 0.3	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.1 0.1	0.1 0.1	0.2 0.1	0.2	0.3
12-Jul	Z SP	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2	0.3
13-Jul	0.1 0.2	Z SP	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	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	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1	0.2
14-Jul	0.2 0.2	0.2 0.2	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.2 0.1	0.1 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.3	0.2	0.3
15-Jul	0.2 0.2	0.2 0.2	0.2 0.2	Z SP	0.2 0.3	0.3 0.3	0.3 0.2	0.3 0.4	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.2 0.3	0.2	0.4



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Janvier - July 2026

Day	Period Ending At (MST)																								Daily Average	Daily Maximum	
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00			
16-Jul	0.2 0.3	0.2 0.3	0.3 0.3	0.3 0.3	Z SP	0.3 0.3	0.3 0.4	0.4 0.4	0.4 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2
17-Jul	0.2 0.1	0.2 0.1	0.1 0.2	0.1 0.2	0.2 0.1	Z SP	0.1 0.1	0.2 0.2	DF DF	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.2 0.1	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.2 0.2
18-Jul	Z SP	0.0 0.0	0.0 0.0	0.1 0.0	0.1 0.1	0.1 0.1	0.0 0.0	0.0 0.0	0.0 0.1	0.1 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
19-Jul	0.0 0.0	Z SP	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 M	M M	M M	1.0 0.8	0.8 0.9	0.9 0.7	0.7 0.6	0.6 0.4	0.4 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.2 0.2	1.0 0.0
20-Jul	0.0 0.0	0.0 0.0	Z SP	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
21-Jul	0.0 0.0	0.0 0.0	0.0 0.0	Z SP	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.3 0.3	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.3 0.1
22-Jul	0.1 0.1	0.1 0.1	0.1 0.2	0.1 0.1	Z SP	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.3	0.2 0.3	0.2 0.3	0.3 0.3
23-Jul	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	Z SP	0.2 0.3	0.3 0.3	0.3 0.4	0.3 0.3	0.4 0.3	0.3 0.3	0.3 0.2	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.4 0.2
24-Jul	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.2 0.2	0.3 0.0
25-Jul	0.0 0.0	Z SP	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	M M	M 0.5	0.5 0.5	0.5 0.5	0.4 0.4	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.3	0.2 0.3	0.3 0.3	0.3 0.3	0.2 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.5 0.2
26-Jul	0.2 0.2	0.2 0.2	Z SP	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.1	0.1 0.1	0.1 0.2	0.2 0.2	0.2 0.1	0.1 0.2	0.2 0.1	0.2 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.2 0.2	0.3 0.3
27-Jul	0.3 0.3	0.3 0.2	0.2 0.2	Z SP	0.3 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.3 0.3
28-Jul	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	Z SP	0.2 0.2	0.2 0.2	0.2 0.2	0.3 C	C C	C C	C C	C C	0.3 0.3	0.3 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.3	0.2 0.2	0.3 0.3	0.2 0.2	0.3 0.3
29-Jul	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.3	0.2 0.3	Z SP	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.3	M M	M 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 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.2 0.2	0.3 0.1
30-Jul	Z SP	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	0.2 0.1	0.1 0.1	0.2 0.1	0.2 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	0.2 0.2	0.1 0.2	0.1 0.2	0.1 0.1	0.2 0.1	0.1 0.1	0.2 0.1	0.1 0.1	0.2 0.1
31-Jul	0.1 0.1	Z SP	0.1 0.1	0.2 0.1	0.1 0.1	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.1 0.1	0.2 0.2
Diurnal Average Diurnal Maximum																											
Z - zerospan C - Calibration M - Maintenance DF - DAS Failure PF - Power Failure SP - Span																											
Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb																											



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

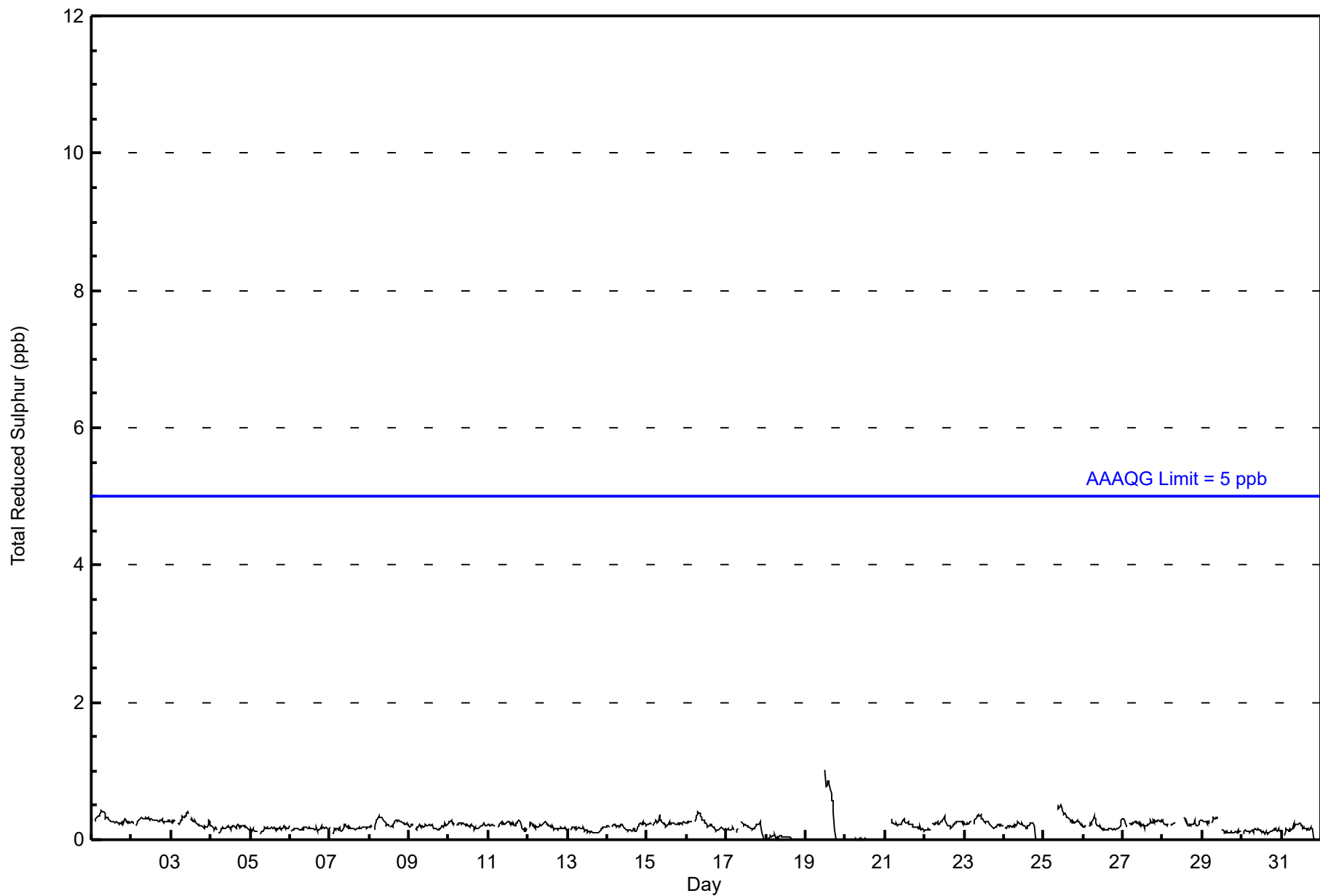
Janvier - July 2026

Maximum Value: 0.9 ppb on Jul 19 13:00																		Maximum Daily Average: 0.3 ppb on Jul 1										Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 18 00:00																		Minimum Daily Average: 0.0 ppb on Jul 20										Hours of Data: 702	
Maximum Diurnal Average: 0.2 ppb at hour 10																		Minimum Diurnal Average: 0.2 ppb at hour 23										Hours of Missing Data: 42	
Monthly Average: 0.19 ppb																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.2 Median = 0.2 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.5										Hours of Calibration: 35	
																		Percent Operational Time: 99.1											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
1-Jul	0.3	Z	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.4		
2-Jul	0.3	0.3	Z	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
3-Jul	0.3	0.3	0.3	Z	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4		
4-Jul	0.2	0.2	0.2	0.2	Z	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2		
5-Jul	0.2	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
6-Jul	Z	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
7-Jul	0.2	Z	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
8-Jul	0.2	0.2	Z	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3		
9-Jul	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
10-Jul	0.3	0.3	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3		
11-Jul	0.2	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.2	0.3		
12-Jul	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.3		
13-Jul	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2		
14-Jul	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
15-Jul	0.2	0.2	0.2	Z	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3		
16-Jul	0.3	0.3	0.3	0.3	Z	0.3	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.4		
17-Jul	0.1	0.2	0.2	0.2	0.2	Z	0.1	0.2	DF	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.2	0.2		
18-Jul	Z	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1		
19-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	M	M	M	0.9	0.8	0.8	0.7	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9		
20-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
21-Jul	0.0	0.0	0.0	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3		
22-Jul	0.1	0.1	0.2	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3		
23-Jul	0.2	0.2	0.2	0.2	0.3	Z	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4		
24-Jul	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.3		
25-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	M	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.6		
26-Jul	0.2	0.2	Z	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.3		
27-Jul	0.3	0.3	0.2	Z	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3		
28-Jul	0.3	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.3	C	C	C	C	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.3		
29-Jul	0.3	0.3	0.3	0.2	0.3	Z	0.3	0.3	0.3	0.3	C	M	M	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3		
30-Jul	Z	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	0.2	0.2	0.1	0.1	0.1	0.1	0.2		
31-Jul	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.2		
0.2																								Diurnal Average					
0.3																								Diurnal Maximum					
Z - zerospan C - Calibration M - Maintenance DF - DAS Failure																													
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA																													



Wood Buffalo Environmental Association
Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Janvier - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Janvier - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	702	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 702

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Janvier - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	28	37	23	12	12	23	43	29	42	130	164	49	40	27	28	13	700
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	28	37	23	12	12	23	43	29	42	130	164	49	40	27	28	13	700

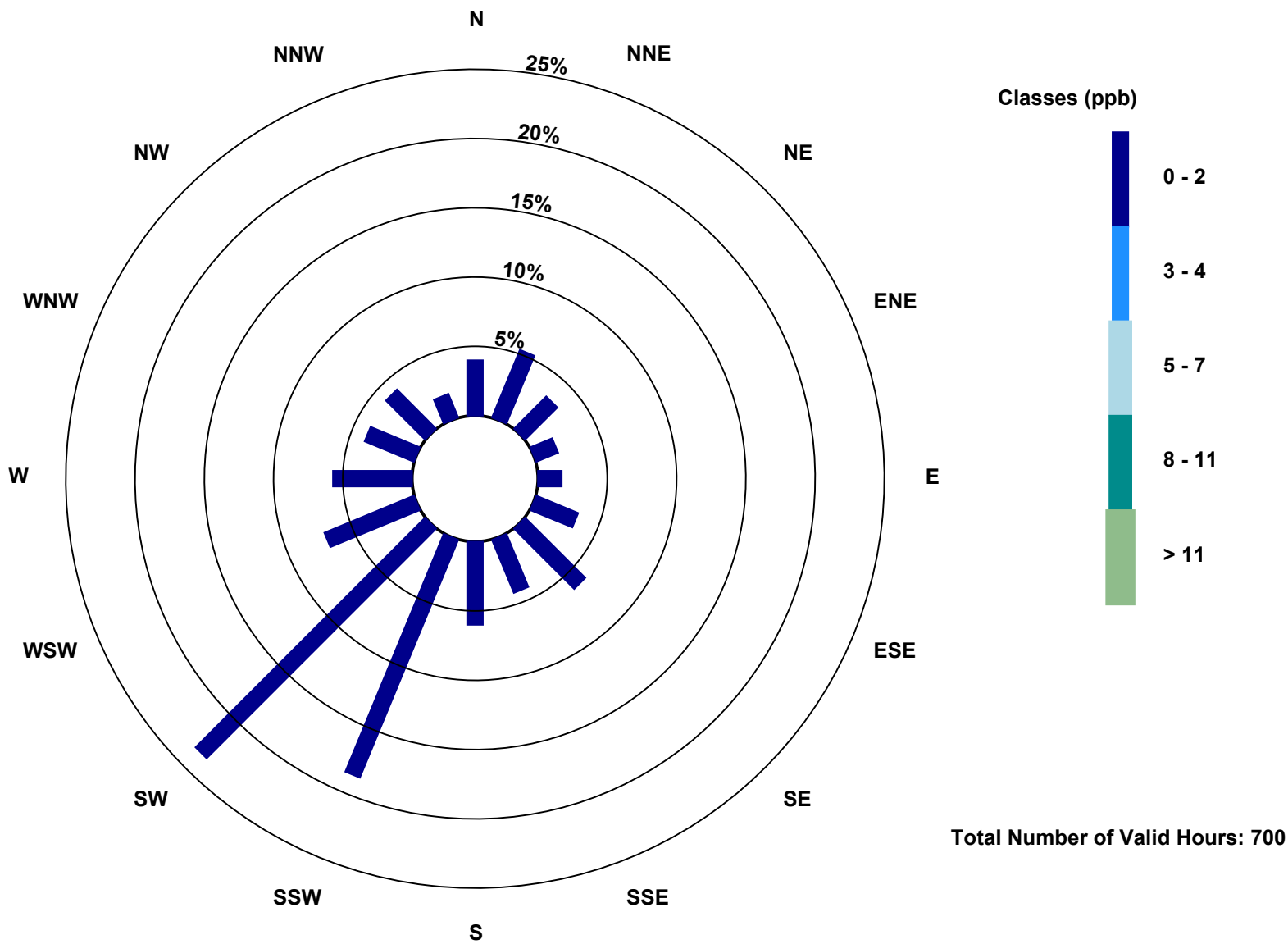
Total Number of Valid Hours: 700

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Total Reduced Sulphur (TRS) - ppb
Janvier



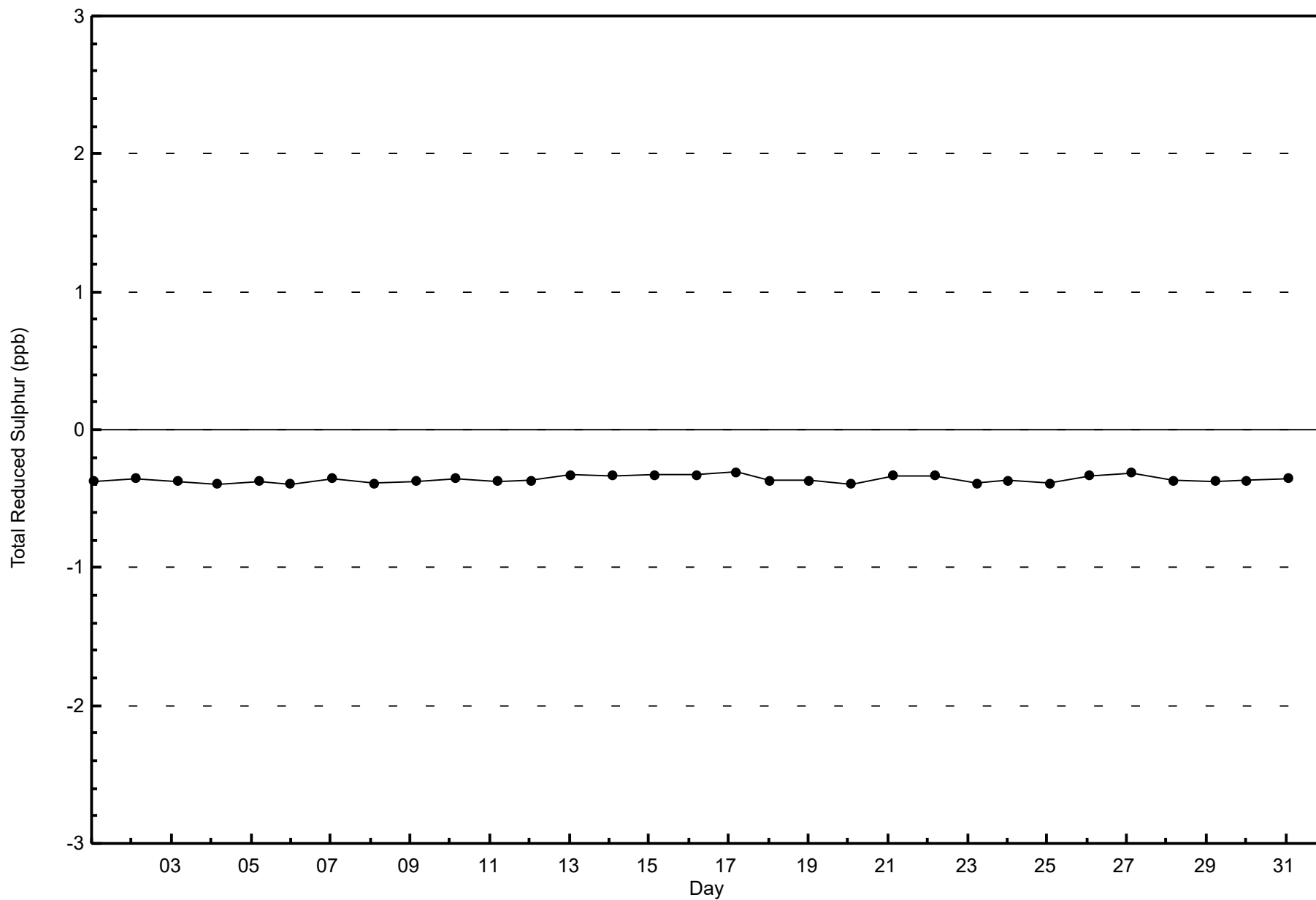


Wood Buffalo Environmental Association

Zero Responses

Total Reduced Sulphur (TRS) - ppb

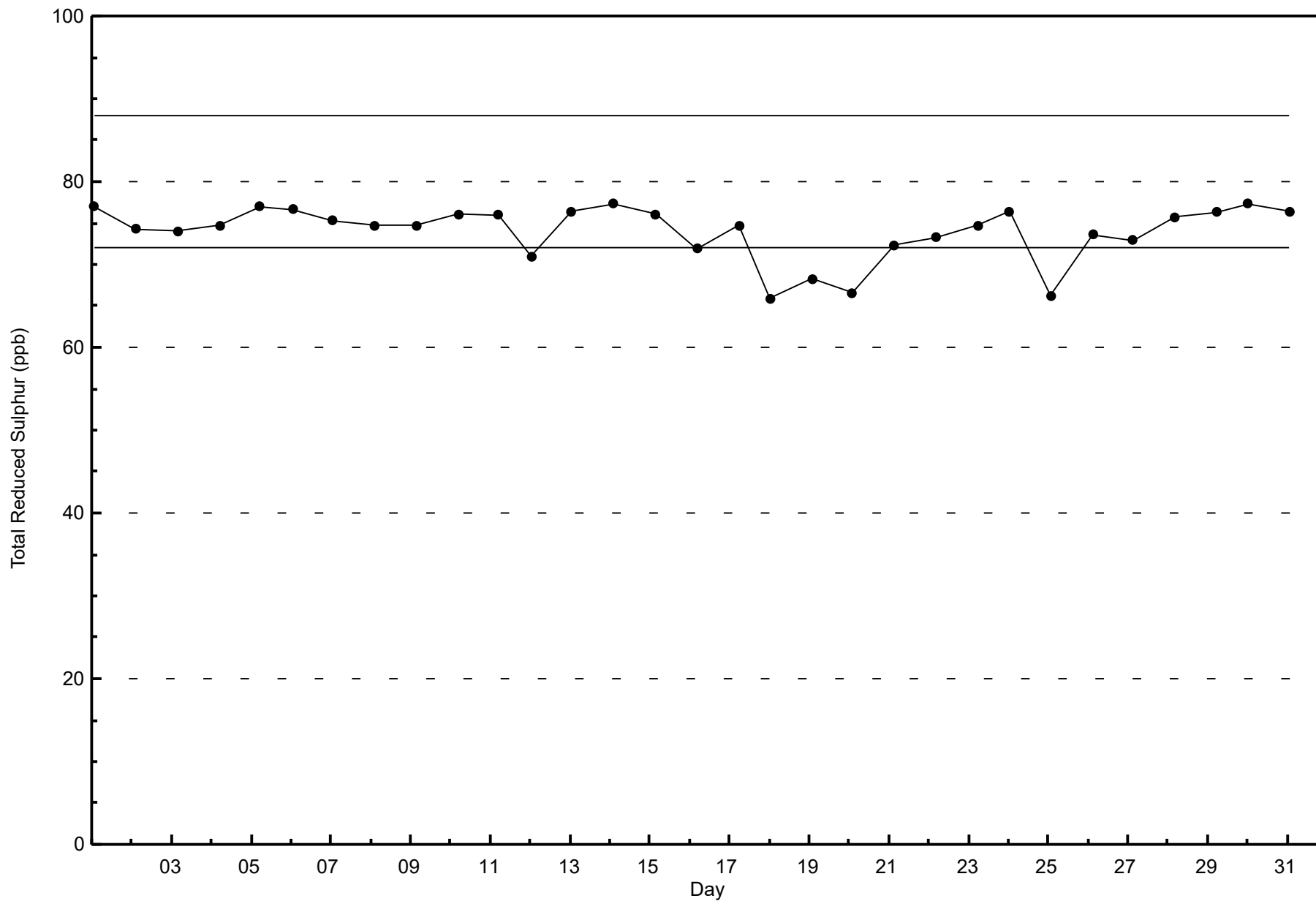
Janvier - July 2026





Wood Buffalo Environmental Association
Span Responses

Total Reduced Sulphur (TRS) - ppb
Janvier - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

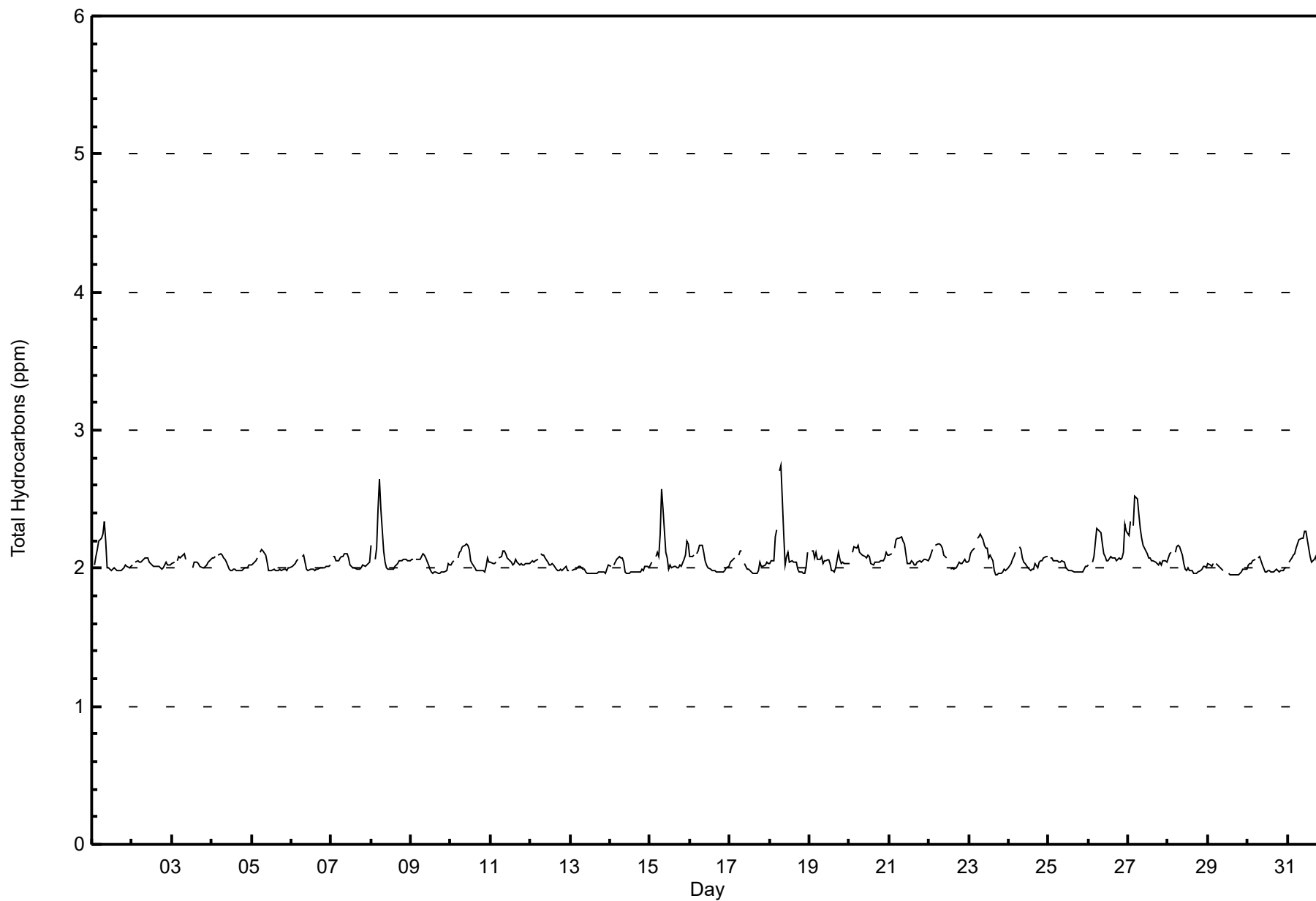
Janvier - July 2026

Maximum Value: 2.7 ppm on Jul 18 08:00																			Maximum Daily Average: 2.2 ppm on Jul 27																			Hours in Service: 744	
Minimum Value: 2.0 ppm on Jul 29 18:00																			Minimum Daily Average: 2.0 ppm on Jul 13																			Hours of Data: 705	
Maximum Diurnal Average: 2.2 ppm at hour 8																			Minimum Diurnal Average: 2.0 ppm at hour 16																			Hours of Missing Data: 39	
Monthly Average: 2.06 ppm																			Percentiles: P ₁ = 2.0 P ₁₀ = 2.0 Q ₁ = 2.0 Median = 2.0 Q ₃ = 2.1 P ₉₀ = 2.1 P ₉₉ = 2.4																			Hours of Calibration: 34	
																																						Percent Operational Time: 99.3	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
1-Jul	Z	2.0	2.1	2.1	2.2	2.2	2.2	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3													
2-Jul	2.0	Z	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1													
3-Jul	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.1	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1													
4-Jul	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1													
5-Jul	2.0	2.0	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1													
6-Jul	2.0	2.0	2.0	2.1	2.1	Z	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1													
7-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1													
8-Jul	2.2	Z	2.1	2.1	2.4	2.6	2.4	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.6													
9-Jul	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1													
10-Jul	2.0	2.0	2.1	Z	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.2													
11-Jul	2.0	2.0	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1													
12-Jul	2.0	2.1	2.0	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1													
13-Jul	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0													
14-Jul	2.0	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1													
15-Jul	2.0	2.0	Z	2.1	2.1	2.1	2.2	2.6	2.4	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.1													
16-Jul	2.1	2.1	2.1	Z	2.1	2.1	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2													
17-Jul	2.0	2.1	2.1	2.1	Z	2.1	2.1	2.1	DF	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1													
18-Jul	2.0	2.1	2.1	2.2	2.3	Z	2.7	2.7	2.2	2.0	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.7													
19-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1													
20-Jul	2.0	Z	2.1	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2													
21-Jul	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.2													
22-Jul	2.1	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.1	2.1	2.1	M	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.2													
23-Jul	2.1	2.1	2.1	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2													
24-Jul	2.0	2.0	2.1	2.1	2.1	Z	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.2													
25-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1													
26-Jul	2.0	Z	2.0	2.1	2.2	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.1													
27-Jul	2.2	2.3	Z	2.3	2.5	2.5	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.2													
28-Jul	2.1	2.1	2.1	Z	2.1	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0													
29-Jul	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	M	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0													
30-Jul	2.0	2.0	2.0	2.1	2.1	Z	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1													
31-Jul	Z	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.3													
2.1 2.1 2.1 2.1 2.1 2.2 2.2 2.2 2.1 2.1 2.1 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0																								Diurnal Average															
2.2 2.3 2.1 2.3 2.5 2.6 2.7 2.7 2.4 2.2 2.3 2.3 2.2 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.3 2.3																								Diurnal Maximum															
Z - zerospan				C - Calibration				M - Maintenance				DF - DAS Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Janvier - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Janvier - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	413	58.58	58.58
2.1 - 3.0	292	41.42	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Janvier - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	11	7	9	7	10	20	33	27	33	56	76	38	38	25	20	2	412
2.1 - 3.0	16	29	16	6	2	3	10	2	11	71	87	10	4	2	9	13	291
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	27	36	25	13	12	23	43	29	44	127	163	48	42	27	29	15	703

Total Number of Valid Hours: 703

Total Number of Hours: 744

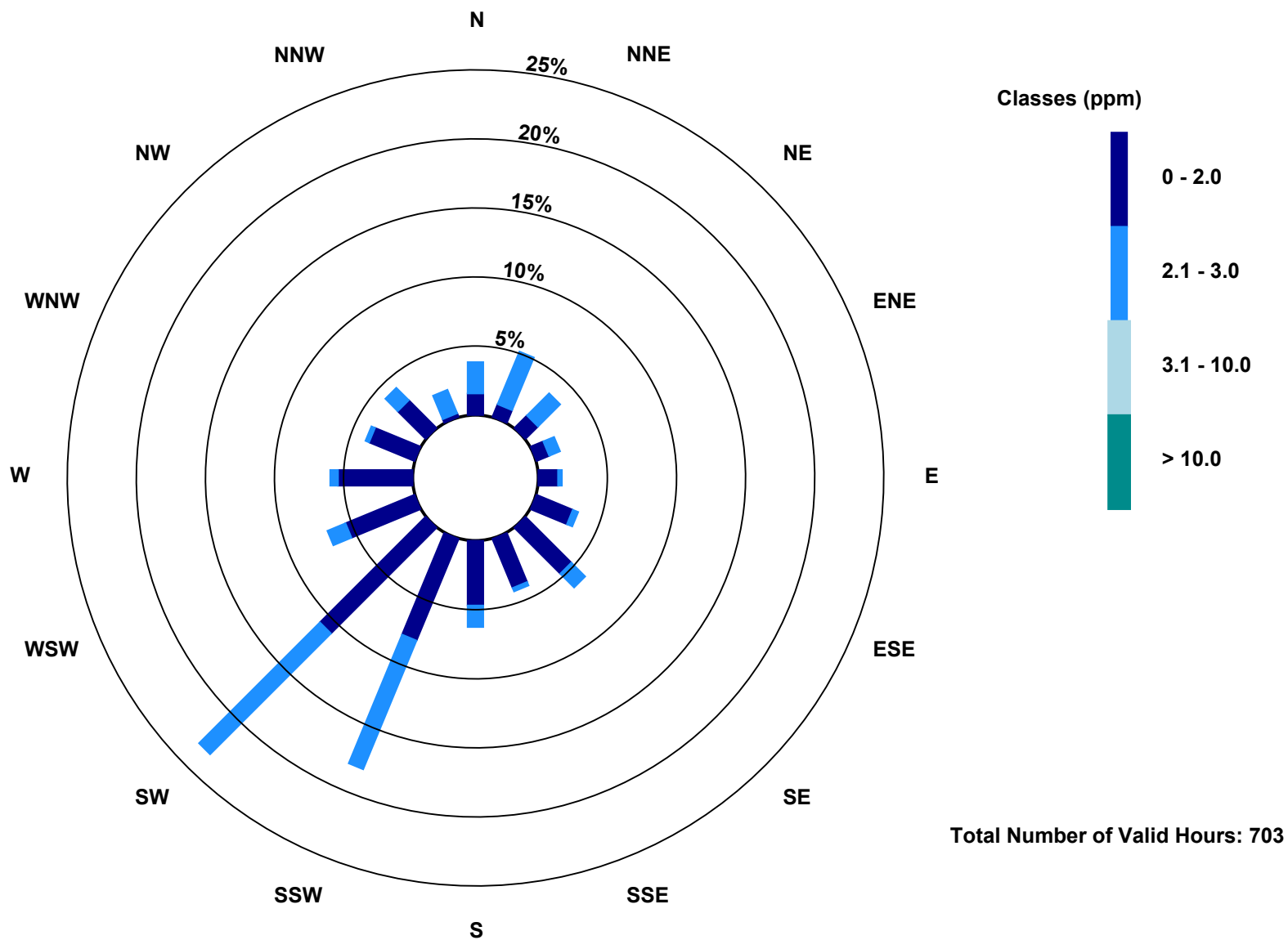


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Total Hydrocarbons (THC) - ppm

Janvier



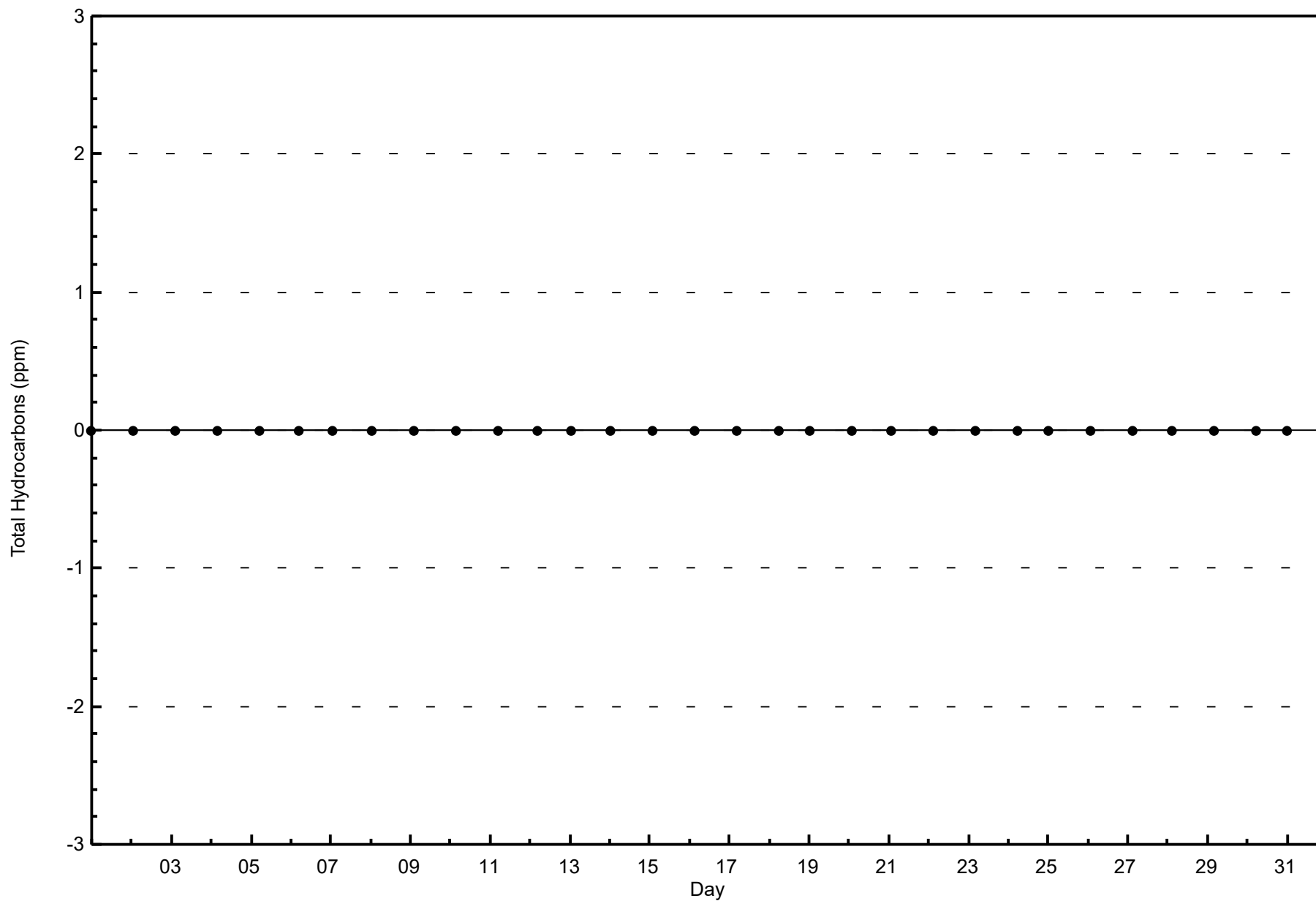


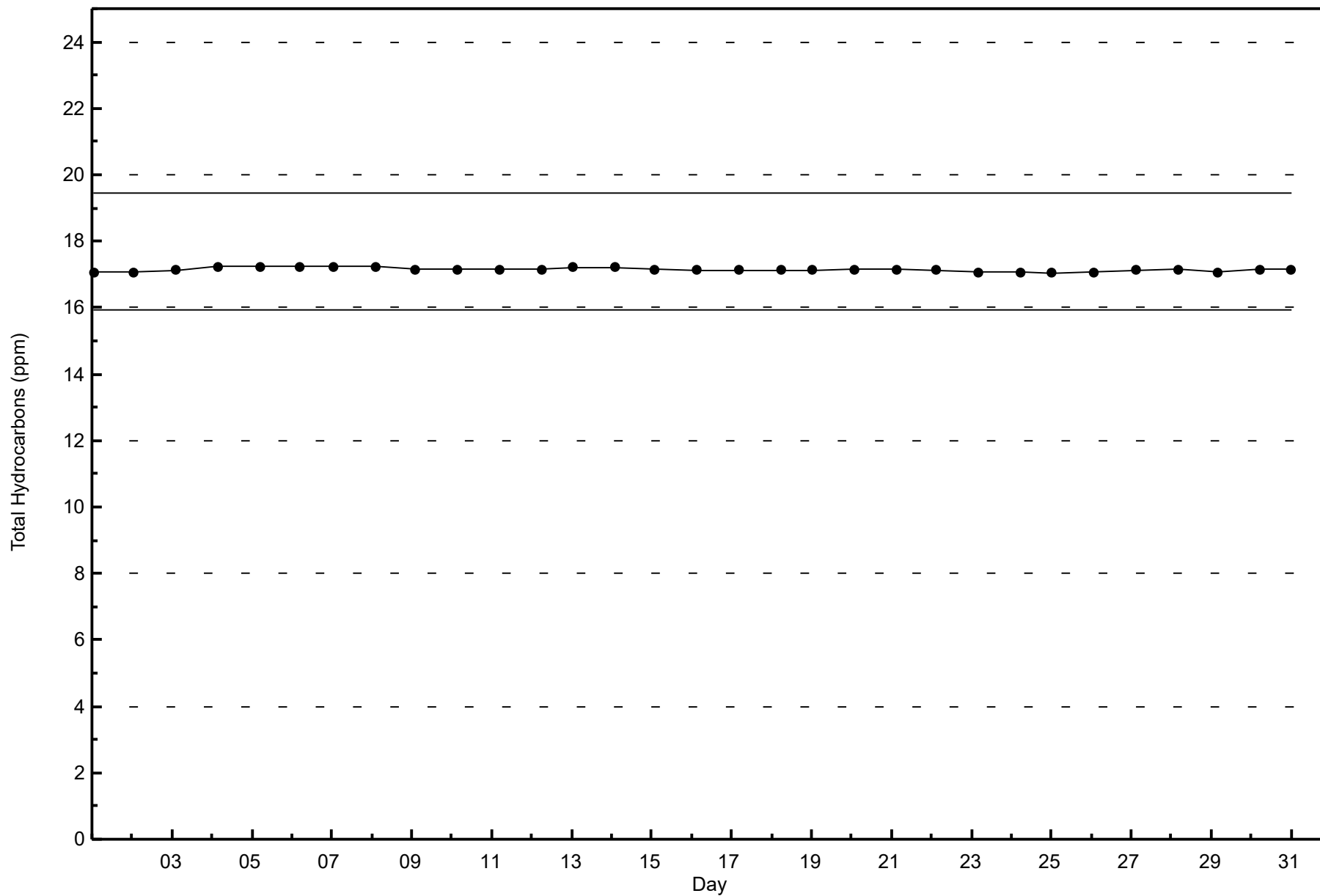
Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Janvier - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

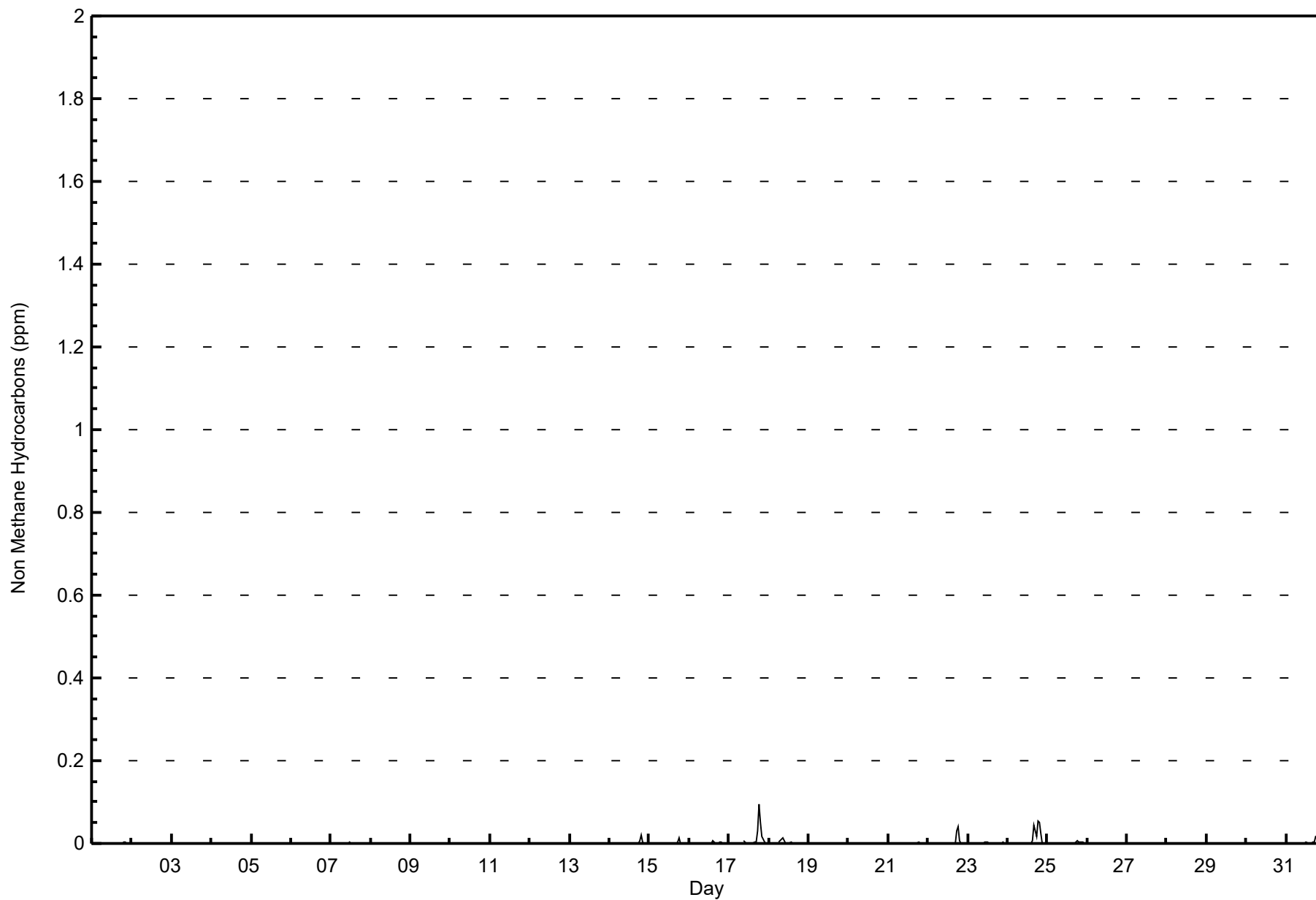
Janvier - July 2026

Maximum Value: 0.096 ppm on Jul 17 19:00																		Maximum Daily Average: 0.010 ppm on Jul 17																		Hours in Service: 744	
Minimum Value: 0.000 ppm on Jul 1 02:00																		Minimum Daily Average: 0.000 ppm on Jul 3																		Hours of Data: 705	
Maximum Diurnal Average: 0.008 ppm at hour 19																		Minimum Diurnal Average: 0.000 ppm at hour 2																		Hours of Missing Data: 39	
Monthly Average: 0.001 ppm																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0																		Hours of Calibration: 34	
																																				Percent Operational Time: 99.3	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24													
1-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.002	0.000	0.000	0.000	0.000	0.000	0.000										
2-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.001										
3-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	C	C	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000										
4-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000										
5-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000										
6-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001										
7-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002										
8-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001										
9-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000										
10-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001										
11-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001										
12-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000										
13-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000										
14-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.020	0.003	0.000	0.000	0.000	0.000	0.001										
15-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001										
16-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.003	0.000	0.000	0.003	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.001										
17-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	DF	0.005	0.001	0.001	0.000	0.001	0.003	0.004	0.031	0.096	0.050	0.017	0.004	0.000	0.000	0.000	0.000	0.010										
18-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.004	0.008	0.014	0.006	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002										
19-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001										
20-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000										
21-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.002										
22-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	M	M	0.000	0.000	0.000	0.000	0.032	0.039	0.008	0.002	0.001	0.000	0.000	0.000	0.000	0.004										
23-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.001	0.000	0.001	0.003	0.005	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.000	0.000	0.000	0.001										
24-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.006	0.045	0.018	0.054	0.050	0.023	0.000	0.000	0.000	0.000	0.000	0.009										
25-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.003	0.007	0.003	0.005	0.005	0.001	0.000	0.000	0.000	0.001										
26-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000										
27-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000										
28-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000										
29-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	M	M	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000										
30-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000										
31-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.002	0.001	0.000	0.000	0.003	0.003	0.017	0.019	0.007	0.003	0.000	0.001	0.000	0.000	0.002										
0.000																										Diurnal Average											
0.000																										Diurnal Maximum											
Z - zerospan C - Calibration M - Maintenance DF - DAS Failure																																					



Wood Buffalo Environmental Association
Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm
Janvier - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Janvier - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	681	96.60	96.60
0.006 - 0.05	23	3.26	99.86
0.06 - 0.1	1	0.14	100.00
> 0.1	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



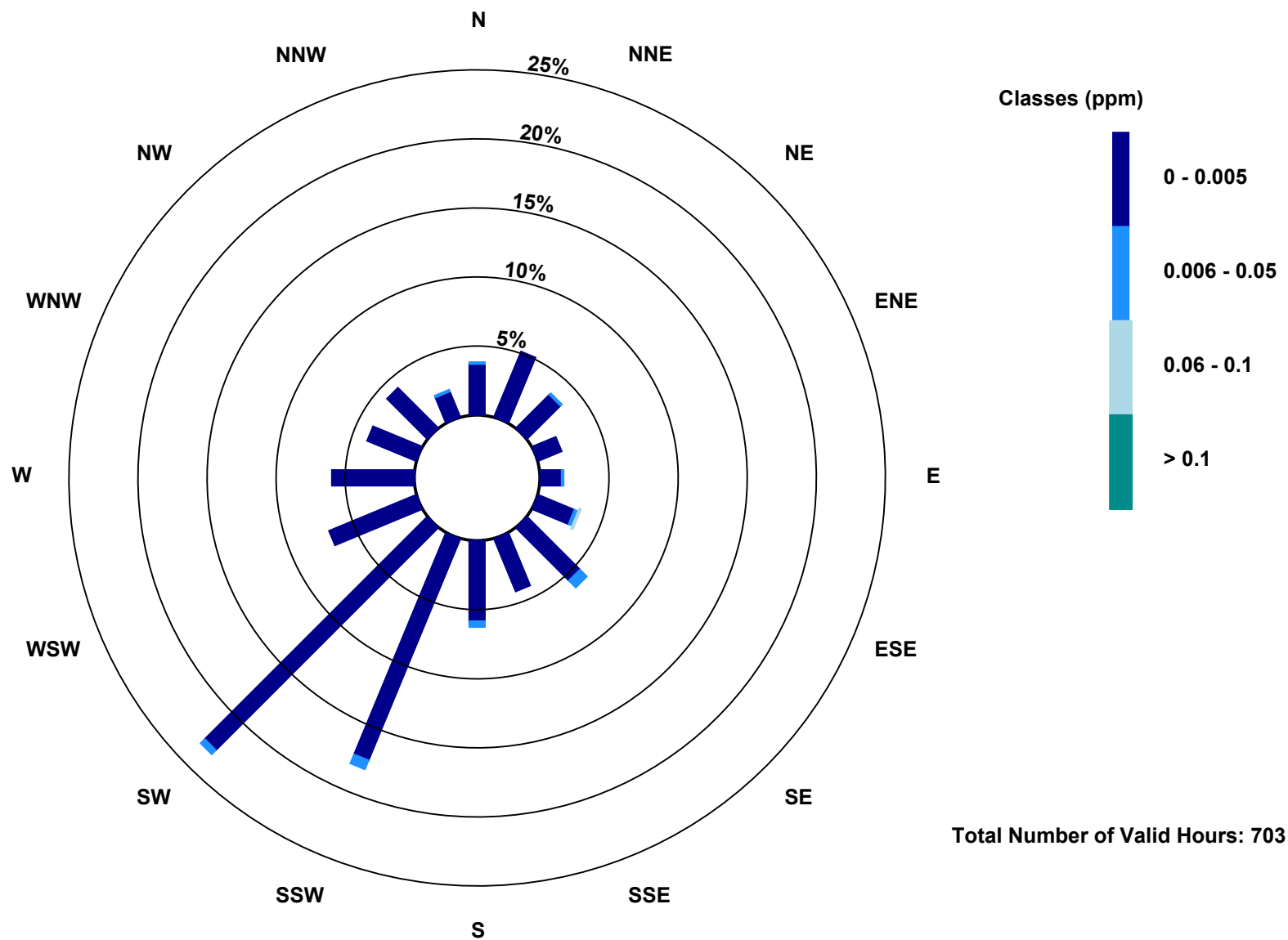
Wood Buffalo Environmental Association
Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Janvier - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 0.005	26	36	24	13	11	20	38	29	41	122	160	48	42	27	29	14	680
0.006 - 0.05	1	0	1	0	1	2	5	0	3	5	3	0	0	0	0	1	22
0.06 - 0.1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
> 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	27	36	25	13	12	23	43	29	44	127	163	48	42	27	29	15	703

Total Number of Valid Hours: 703

Total Number of Hours: 744



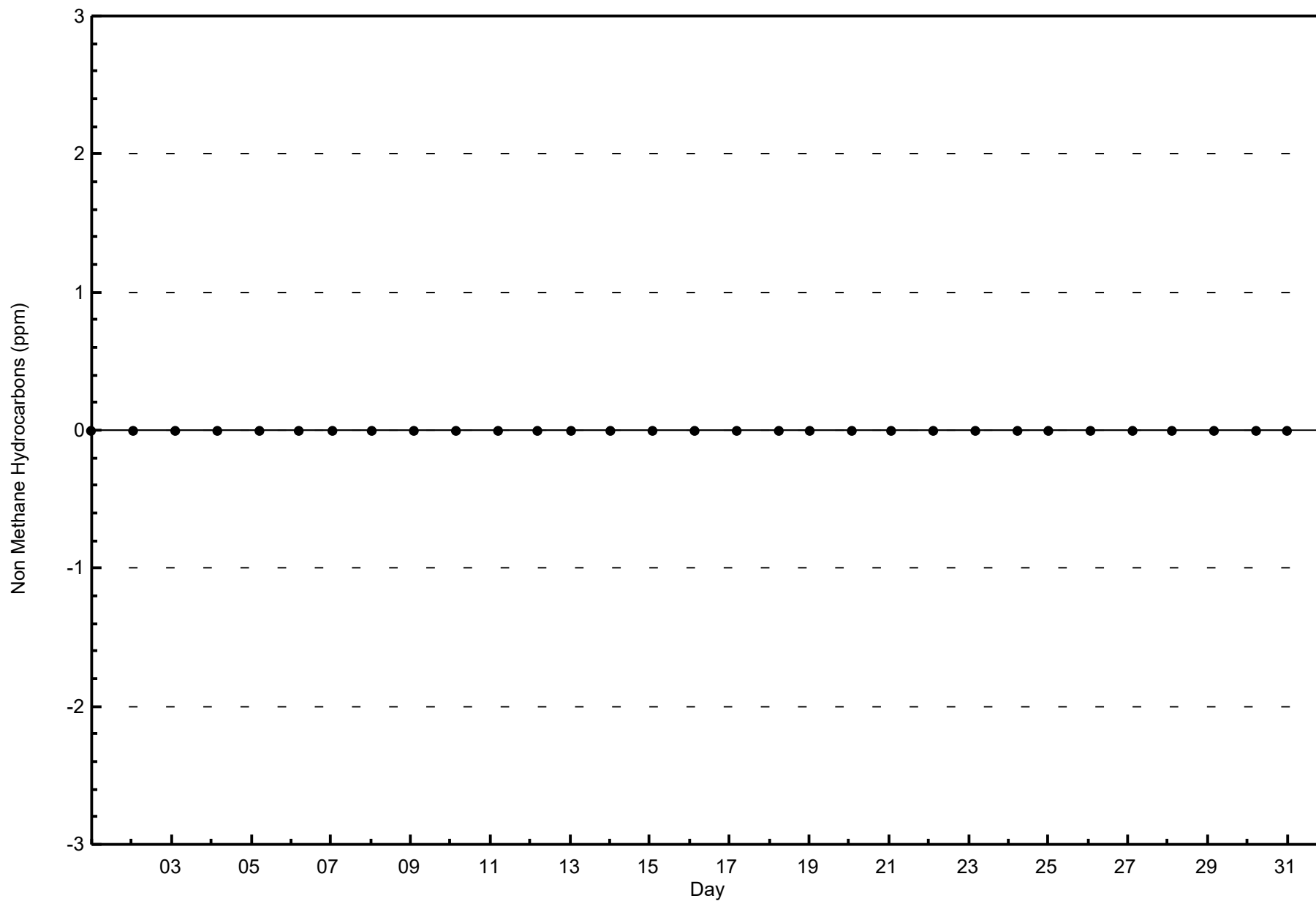


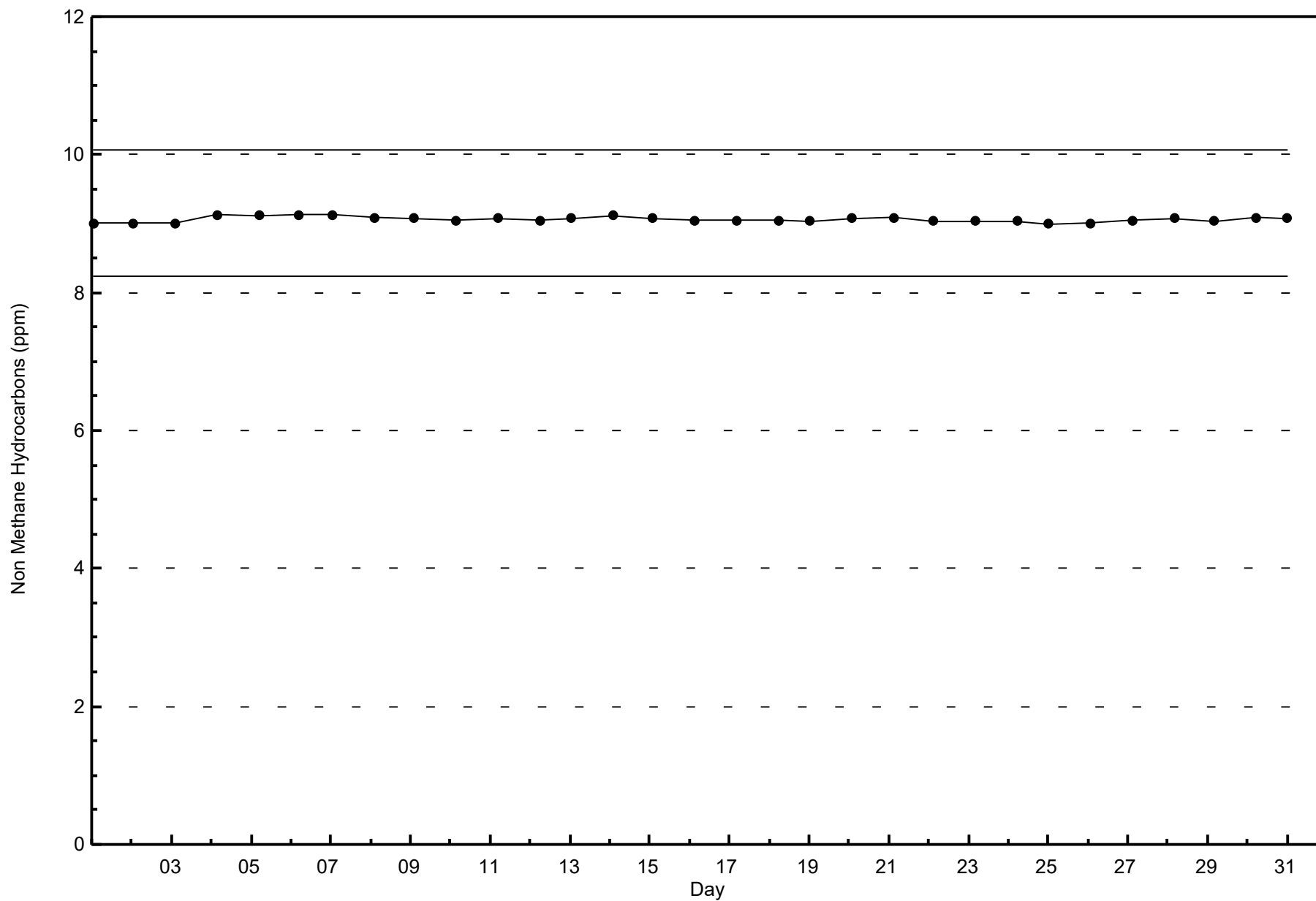
Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Janvier - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH₄) - ppm

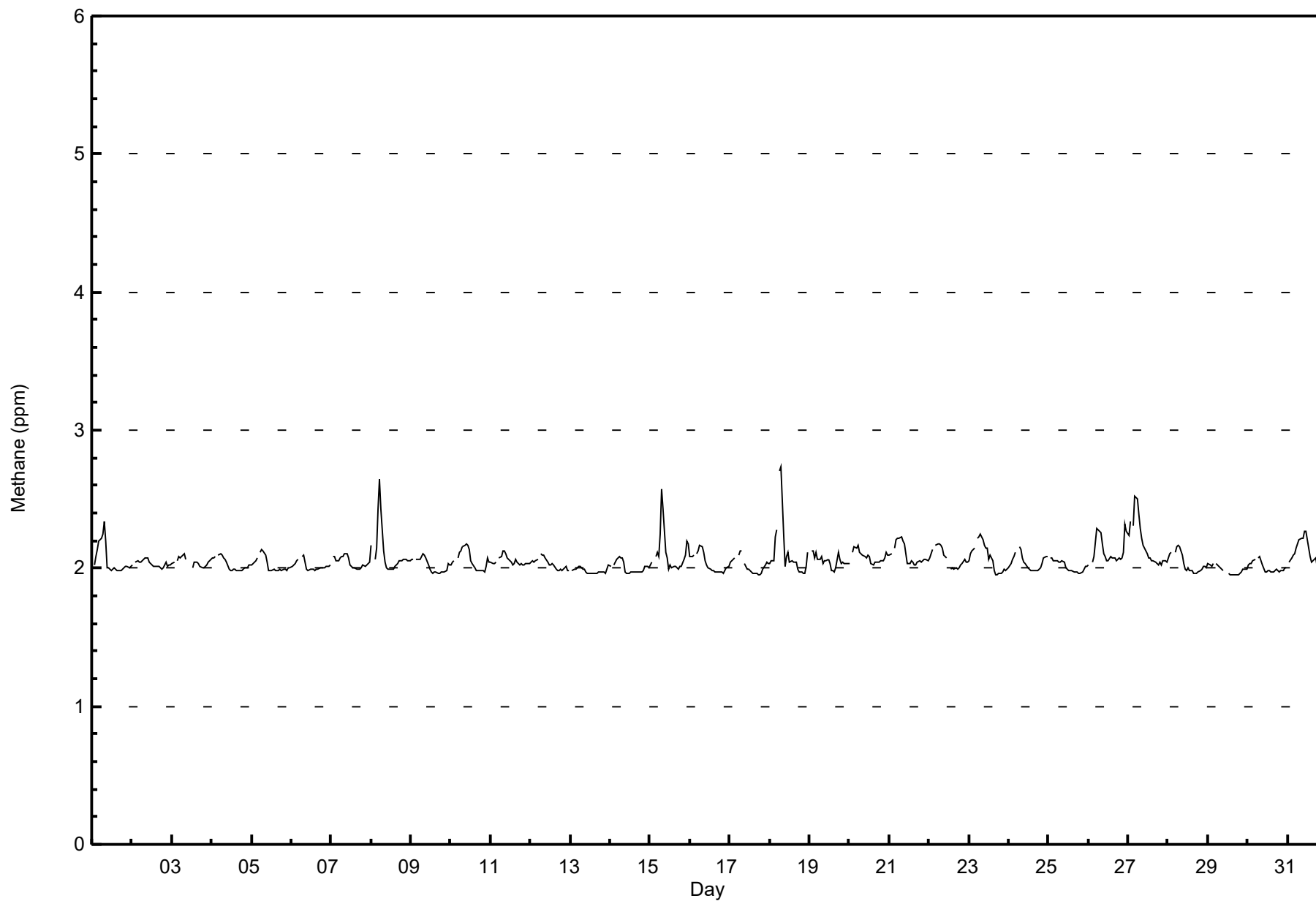
Janvier - July 2026

Number of Exceedances (AAAQO): Maximum Value: 2.7 ppm on Jul 18 08:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 2.2 ppm on Jul 27						Hours in Service: 744 Hours of Data: 705 Hours of Missing Data: 39 Hours of Calibration: 34 Percent Operational Time: 99.3			
Minimum Value: 2.0 ppm on Jul 17 19:00 Maximum Diurnal Average: 2.2 ppm at hour 8 Monthly Average: 2.05 ppm																			Minimum Daily Average: 2.0 ppm on Jul 13 Minimum Diurnal Average: 2.0 ppm at hour 19 Percentiles: P ₁ = 2.0 P ₁₀ = 2.0 Q ₁ = 2.0 Median = 2.0 Q ₃ = 2.1 P ₉₀ = 2.1 P ₉₉ = 2.4									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	Z	2.0	2.1	2.1	2.2	2.2	2.2	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3		
2-Jul	2.0	Z	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1		
3-Jul	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.1	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1		
4-Jul	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1		
5-Jul	2.0	2.0	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1		
6-Jul	2.0	2.0	2.0	2.1	2.1	Z	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1		
7-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1		
8-Jul	2.2	Z	2.1	2.1	2.4	2.6	2.4	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.6		
9-Jul	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1		
10-Jul	2.0	2.0	2.1	Z	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.2		
11-Jul	2.0	2.0	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1		
12-Jul	2.0	2.1	2.0	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1		
13-Jul	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
14-Jul	2.0	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1		
15-Jul	2.0	2.0	Z	2.1	2.1	2.1	2.2	2.6	2.4	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.1	2.6		
16-Jul	2.1	2.1	2.1	Z	2.1	2.1	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2		
17-Jul	2.0	2.1	2.1	2.1	Z	2.1	2.1	2.1	DF	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1		
18-Jul	2.0	2.1	2.1	2.2	2.3	Z	2.7	2.7	2.2	2.0	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.7		
19-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1		
20-Jul	2.0	Z	2.1	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2		
21-Jul	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.2		
22-Jul	2.1	2.1	2.1	Z	2.2	2.2	2.2	2.2	2.1	2.1	2.1	M	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.2		
23-Jul	2.1	2.1	2.1	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2		
24-Jul	2.0	2.0	2.1	2.1	2.1	Z	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.2		
25-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1		
26-Jul	2.0	Z	2.0	2.1	2.2	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.1	2.3		
27-Jul	2.2	2.3	Z	2.3	2.5	2.5	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.2	2.5		
28-Jul	2.1	2.1	2.1	Z	2.1	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2		
29-Jul	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	M	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
30-Jul	2.0	2.0	2.0	2.1	2.1	Z	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1		
31-Jul	Z	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.3		
																								Diurnal Average				
																								Diurnal Maximum				
Z - zerospan C - Calibration M - Maintenance DF - DAS Failure																												



Wood Buffalo Environmental Association
Hourly Averages

Methane (CH₄) - ppm
Janvier - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Methane (CH₄) - ppm
Janvier - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	414	58.72	58.72
2.1 - 3.0	291	41.28	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Methane (CH₄) - ppm
Janvier - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	11	7	9	7	10	20	33	27	33	56	77	38	38	25	20	2	413
2.1 - 3.0	16	29	16	6	2	3	10	2	11	71	86	10	4	2	9	13	290
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	27	36	25	13	12	23	43	29	44	127	163	48	42	27	29	15	703

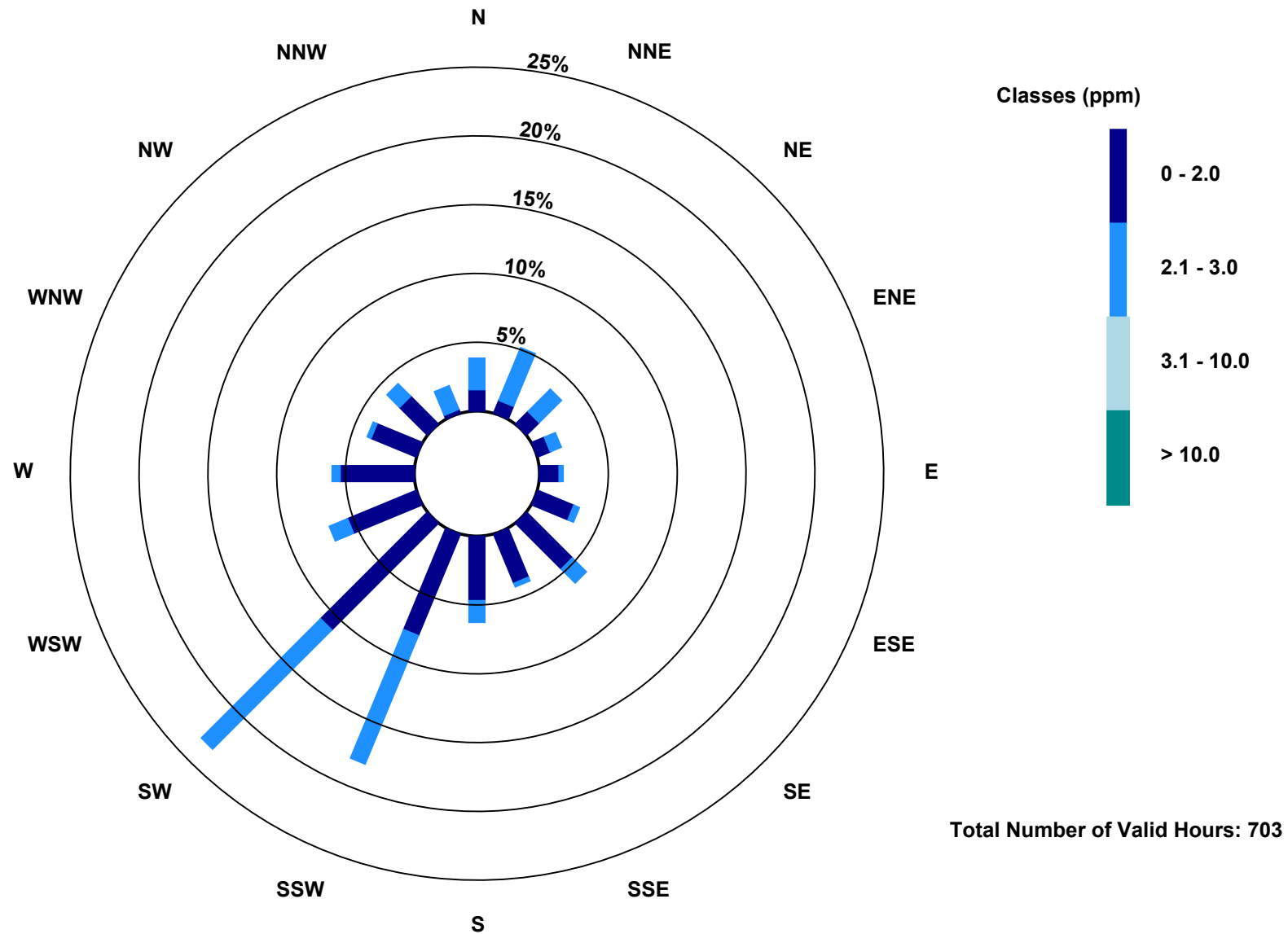
Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

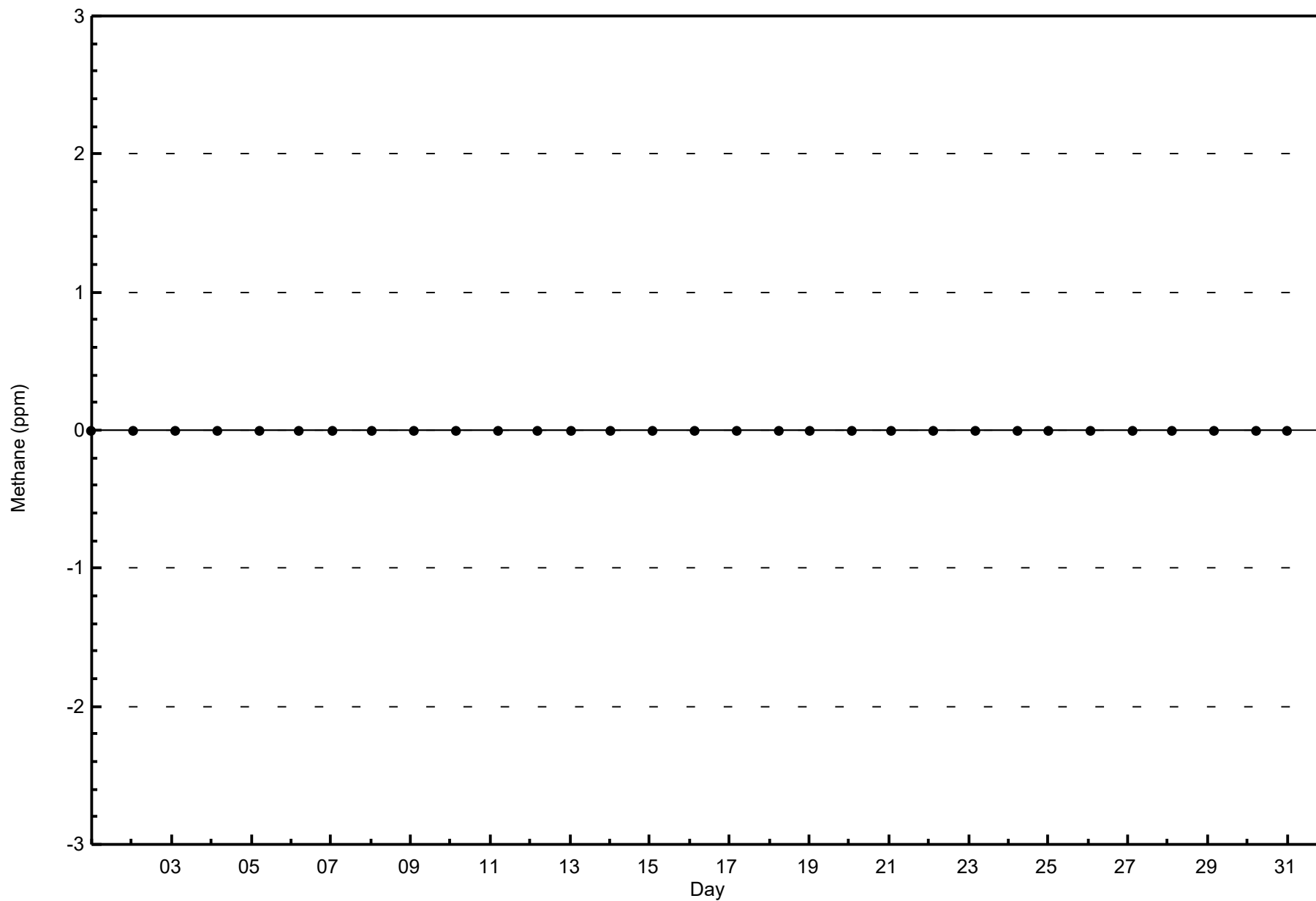
Methane (CH₄) - ppm
Janvier





Wood Buffalo Environmental Association
Zero Responses

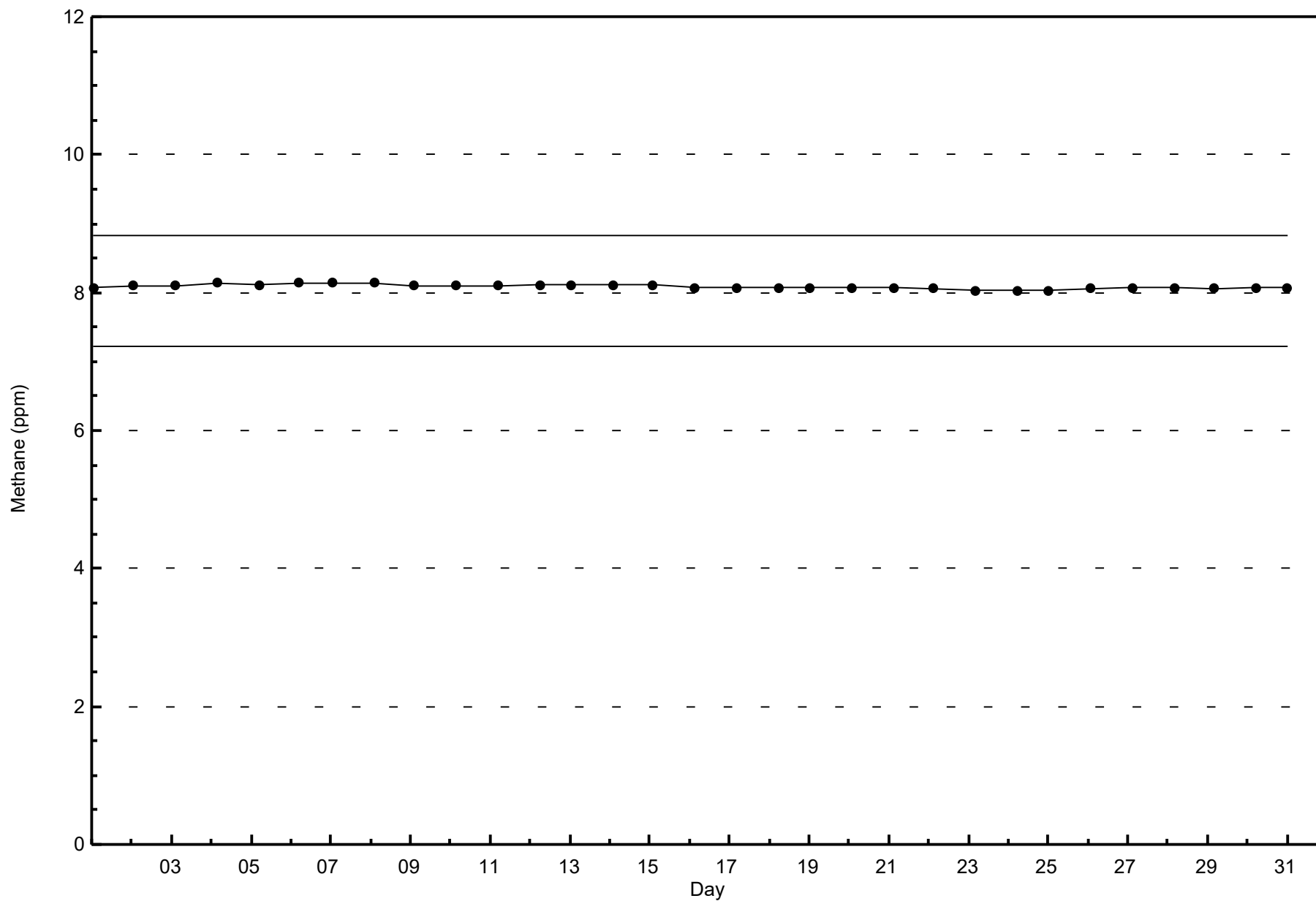
Methane (CH₄) - ppm
Janvier - July 2026





Wood Buffalo Environmental Association
Span Responses

Methane (CH₄) - ppm
Janvier - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

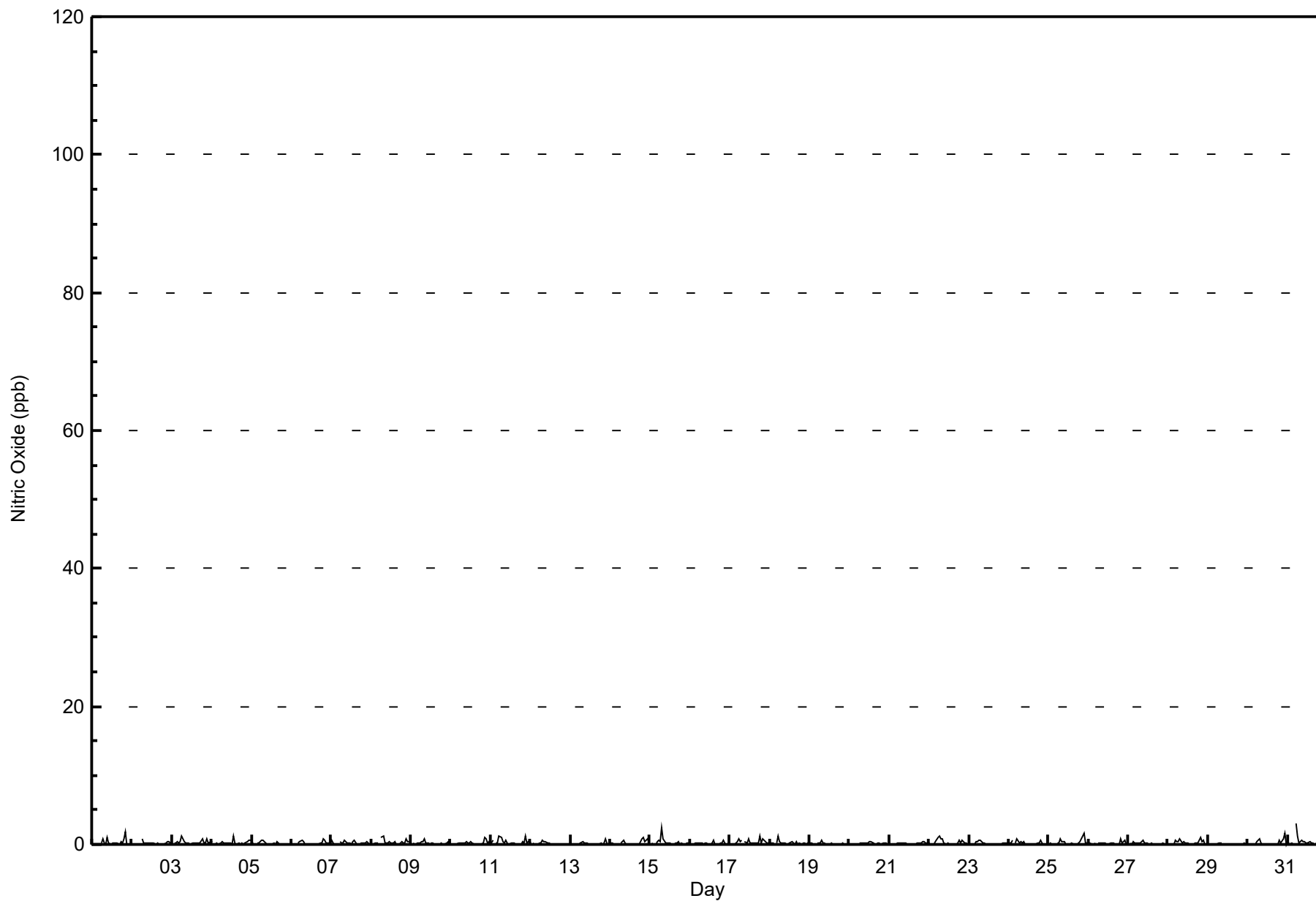
Janvier - July 2026

Maximum Value: 3.0 ppb on Jul 31 06:00																		Maximum Daily Average: 0.5 ppb on Jul 31										Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 13 03:00																		Minimum Daily Average: 0.1 ppb on Jul 29										Hours of Data: 708	
Maximum Diurnal Average: 0.5 ppb at hour 6																		Minimum Diurnal Average: 0.1 ppb at hour 16										Hours of Missing Data: 36	
Monthly Average: 0.24 ppb																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.6 P ₉₉ = 1.3										Hours of Calibration: 35	
																												Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	0.1	0.1	0.1	0.1	Z	0.2	0.8	0.1	0.1	1.0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.4	0.3	0.8	1.8	0.1	0.1	0.1	0.3	1.8			
2-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.8	0.1	0.2	0.2	0.3	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.1	0.2	0.8			
3-Jul	Z	0.3	0.2	0.4	0.2	0.4	1.2	0.4	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.9	0.2	0.3	0.9	0.2	0.4	0.3	1.2			
4-Jul	0.5	Z	0.1	0.2	0.1	0.1	0.3	0.2	0.1	0.3	0.1	0.2	0.1	1.1	0.3	0.1	0.2	0.1	0.2	0.1	0.3	0.5	0.6	0.6	0.3	1.1			
5-Jul	0.5	0.1	Z	0.3	0.1	0.4	0.6	0.6	0.3	0.1	0.0	0.0	0.0	0.2	0.1	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.6			
6-Jul	0.0	0.0	0.0	Z	0.1	0.5	0.6	0.4	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.7	0.6	0.2	0.2	0.2	0.2	0.7			
7-Jul	0.7	0.2	0.1	0.1	Z	0.4	0.3	0.1	0.7	0.2	0.2	0.1	0.1	0.4	0.6	0.1	0.1	0.1	0.1	0.2	0.1	0.4	0.2	0.1	0.2	0.7			
8-Jul	0.1	0.1	0.2	0.2	0.3	Z	1.0	1.3	0.3	0.2	0.1	0.4	0.2	0.1	0.3	0.1	0.1	0.1	0.5	0.3	0.1	0.9	0.3	0.5	0.3	1.3			
9-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.4	0.3	0.7	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.2	0.3	0.1	0.2	0.7			
10-Jul	0.1	Z	0.1	0.0	0.1	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.5	0.1	0.1	0.1	0.0	0.0	0.1	0.2	1.1	0.8	0.2	0.4	0.2	1.1			
11-Jul	0.1	0.6	Z	0.2	0.2	1.3	1.1	0.4	0.2	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.3	1.2	0.2	0.5	0.3	1.3			
12-Jul	0.1	0.1	0.1	Z	0.1	0.2	0.2	0.7	0.4	0.4	0.3	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.7			
13-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.2	0.4	0.2	0.2	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.7	0.2	0.1	0.1	0.7			
14-Jul	0.1	0.2	0.1	0.1	0.1	Z	0.3	0.4	0.6	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.4	0.8	1.1	0.4	0.8	0.3	0.3	1.1			
15-Jul	Z	0.1	0.1	0.1	0.4	0.5	0.3	2.4	0.8	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.5	0.1	0.2	0.1	0.1	0.1	0.2	0.3	2.4			
16-Jul	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.0	0.3	0.6	0.1	0.1	0.1	0.1	0.1	0.7	0.1	0.1	0.2	0.2	0.7			
17-Jul	0.1	0.1	Z	0.1	0.5	0.9	0.5	0.5	DF	0.4	0.2	0.9	0.1	0.1	0.1	0.3	0.1	0.1	0.2	1.3	0.2	0.8	0.5	0.1	0.1	0.4	1.3		
18-Jul	0.1	0.1	0.1	Z	0.2	1.3	0.4	0.2	0.2	0.2	0.1	0.1	0.3	0.3	0.1	0.1	0.3	0.1	0.2	0.1	0.2	0.3	0.1	0.2	0.2	1.3			
19-Jul	0.1	0.1	0.1	0.1	Z	0.3	0.2	0.6	0.3	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	0.0	0.0	0.1	0.6			
20-Jul	0.0	0.0	0.1	0.1	0.1	Z	0.1	0.2	0.2	0.2	0.1	0.2	0.4	0.4	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.4			
21-Jul	Z	0.1	0.1	0.0	0.1	0.3	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.1	0.1	0.2	0.4			
22-Jul	0.2	Z	0.1	0.1	0.4	1.0	1.3	0.8	0.9	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6	0.2	0.7	0.2	0.1	0.1	0.3	1.3			
23-Jul	0.1	0.1	Z	0.1	0.3	0.3	0.7	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.7			
24-Jul	0.2	0.2	0.6	Z	0.2	0.9	0.3	0.5	0.2	0.3	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.6	0.3	0.0	0.1	0.1	0.2	0.9			
25-Jul	0.0	0.3	0.0	0.1	Z	0.3	0.1	0.8	0.3	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	1.2	1.6	0.2	0.1	0.3	1.6			
26-Jul	0.1	0.3	0.1	0.1	0.2	Z	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7	0.2	0.3	0.7	0.1	0.2	0.7			
27-Jul	Z	0.1	0.1	0.4	0.2	0.2	0.2	0.2	0.5	0.6	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.2	0.2	0.6			
28-Jul	0.1	Z	0.1	0.0	0.6	0.3	0.4	0.8	0.3	0.4	0.1	0.2	0.1	0.1	0.1	0.0	0.2	0.3	0.1	1.0	0.4	0.7	0.0	0.1	0.3	1.0			
29-Jul	0.1	0.1	Z	0.1	0.0	0.1	0.3	0.2	0.1	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.3			
30-Jul	0.0	0.0	0.0	Z	0.1	0.3	0.6	0.8	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.7	0.2	0.9	1.7	0.1	0.3	1.7			
31-Jul	0.7	0.1	0.2	0.1	Z	3.0	1.3	0.2	0.5	0.4	0.4	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.4	0.6	0.7	0.5	0.9	0.2	0.5	3.0			
Diurnal Average																													
Diurnal Maximum																													
Z - zerospan C - Calibration DF - DAS Failure																													



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Janvier - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Janvier - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	708	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Janvier - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	28	37	24	13	13	23	44	30	42	131	162	50	41	27	29	13	707
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	28	37	24	13	13	23	44	30	42	131	162	50	41	27	29	13	707

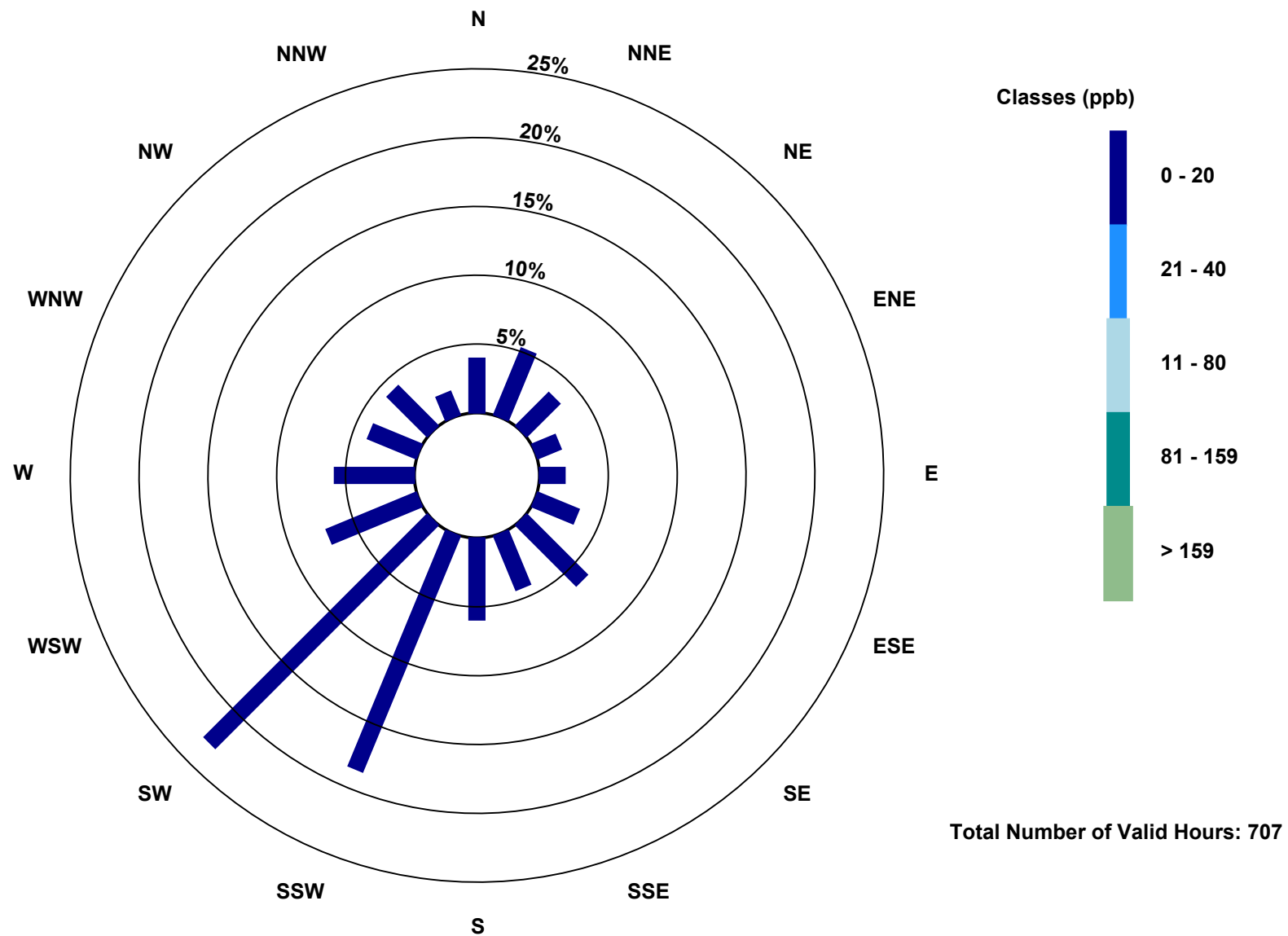
Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

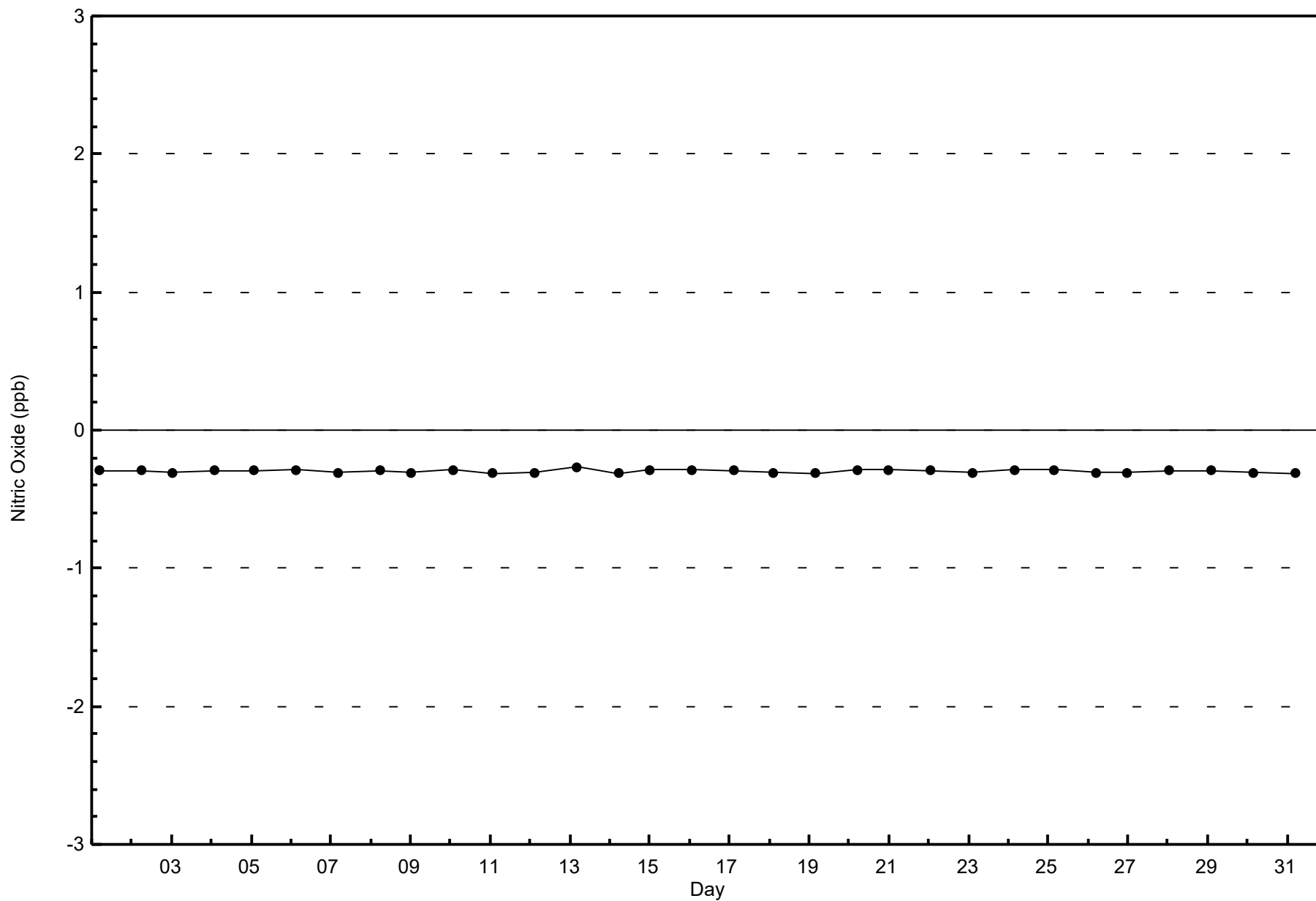
Nitric Oxide (NO) - ppb
Janvier





Wood Buffalo Environmental Association
Zero Responses

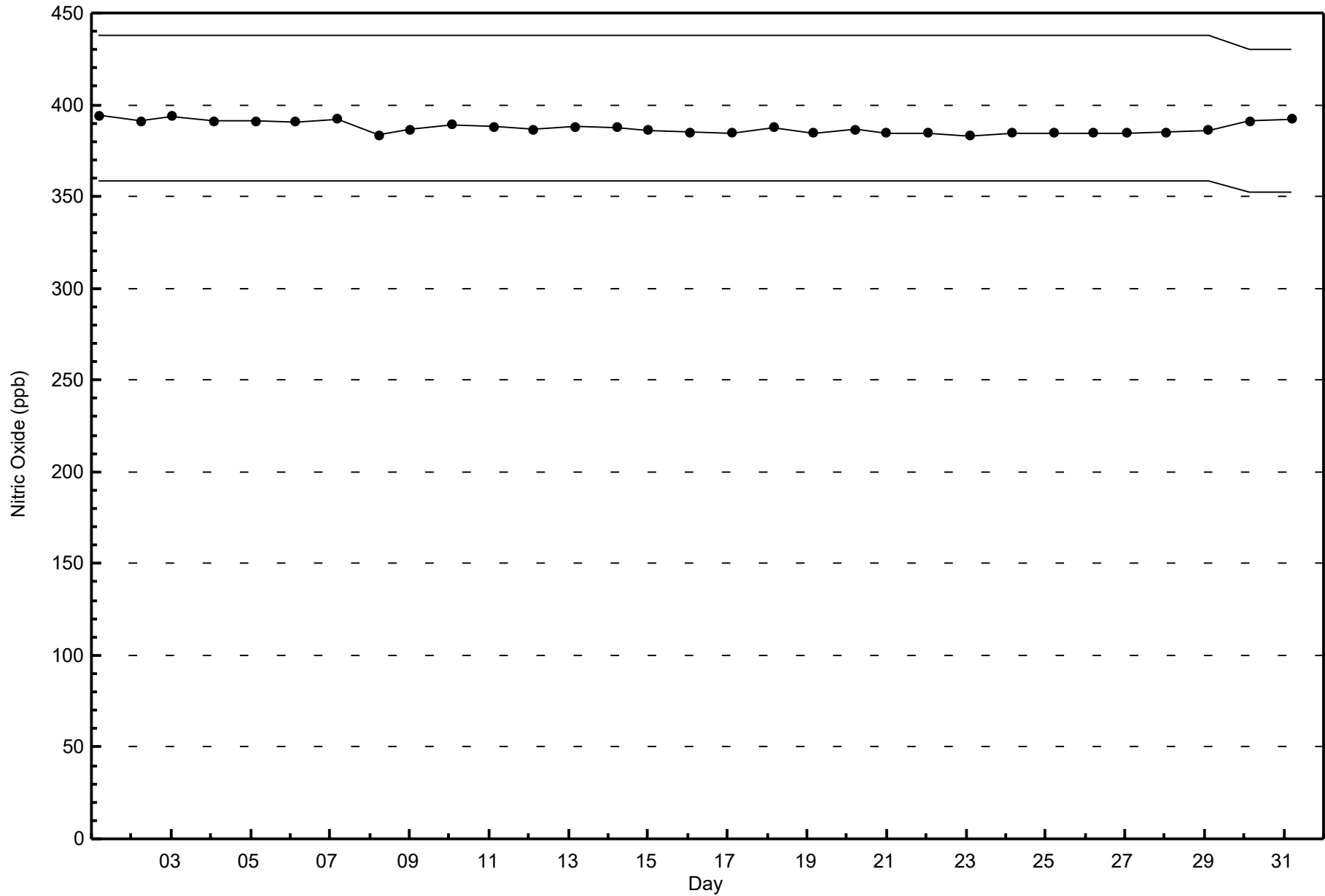
Nitric Oxide (NO) - ppb
Janvier - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Janvier - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

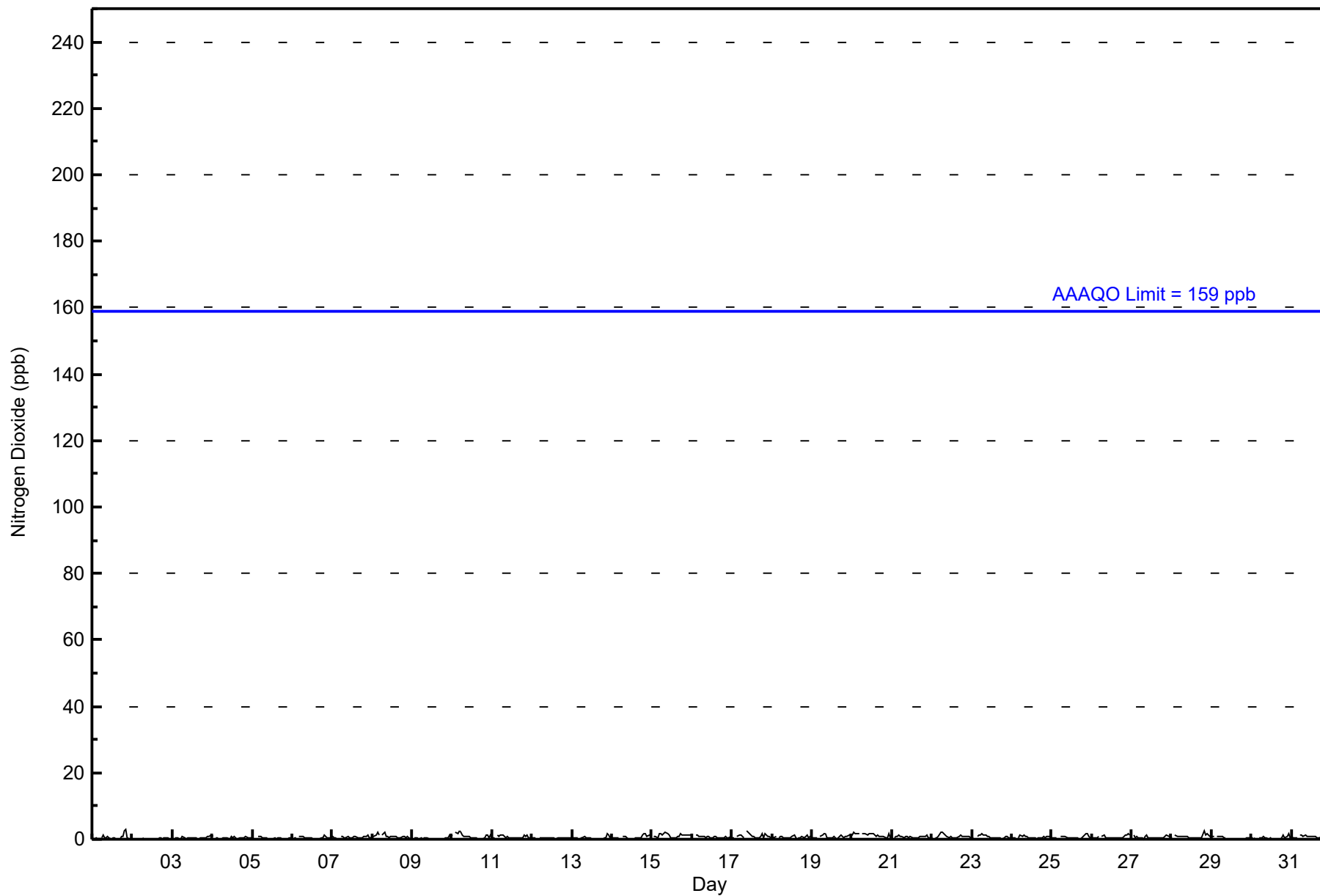
Janvier - July 2026

Number of Exceedances (AAAQO): Maximum Value: 2.9 ppb on Jul 1 21:00																		1-hr: 0 24-hr: 0 Maximum Daily Average: 1.3 ppb on Jul 20										Hours in Service: 744 Hours of Data: 708			
Minimum Value: 0.0 ppb on Jul 1 02:00 Maximum Diurnal Average: 0.9 ppb at hour 6 Monthly Average: 0.64 ppb																		Minimum Daily Average: 0.1 ppb on Jul 2 Minimum Diurnal Average: 0.3 ppb at hour 16 Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.5 Q ₃ = 0.8 P ₉₀ = 1.3 P ₉₉ = 2.1										Hours of Missing Data: 36 Hours of Calibration: 35 Percent Operational Time: 99.9			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jul	0.2	0.0	0.3	0.1	Z	0.5	1.4	0.3	0.6	1.0	0.6	0.2	0.4	0.3	0.2	0.2	0.0	1.0	0.7	2.6	2.9	0.3	0.0	0.0	0.6	2.9					
2-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.3	0.0	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.3	0.3	0.1	0.3	0.4	0.3	0.2	0.2	0.1	0.4					
3-Jul	Z	0.5	0.3	0.4	0.2	0.2	0.7	0.3	0.1	0.5	0.6	0.4	0.4	0.3	0.3	0.2	0.2	0.3	0.5	0.4	0.3	0.8	0.8	1.3	0.4	1.3					
4-Jul	0.9	Z	0.4	0.3	0.1	0.2	0.4	0.4	0.3	0.4	0.2	0.7	0.4	0.9	0.6	0.2	0.5	0.3	0.3	0.3	0.7	0.6	0.5	0.3	0.4	0.9					
5-Jul	0.5	0.1	Z	0.9	0.7	0.8	0.5	0.5	0.3	0.2	0.1	0.1	0.1	0.3	0.2	0.6	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.9					
6-Jul	0.2	0.3	0.3	Z	0.7	0.8	0.7	0.5	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.2	0.4	0.5	1.3	0.8	0.6	0.5	0.6	0.4	1.3					
7-Jul	0.7	0.4	0.3	0.2	Z	0.9	0.7	0.4	0.4	0.7	0.5	0.5	0.4	0.9	0.8	0.3	0.3	0.3	0.5	0.9	0.8	1.2	0.6	0.4	0.6	1.2					
8-Jul	1.0	0.8	1.4	2.2	1.3	Z	1.2	2.0	0.9	0.7	0.6	0.8	0.7	0.7	1.0	0.6	0.6	0.5	0.8	0.7	0.4	0.7	0.4	0.2	0.9	2.2					
9-Jul	Z	0.3	0.6	0.4	0.2	0.3	0.2	0.3	0.6	0.4	0.2	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.2	0.3	0.6	1.1	1.0	0.3	1.1					
10-Jul	1.4	Z	2.0	1.5	2.4	2.0	1.3	0.8	0.7	1.0	0.9	0.6	0.6	0.5	0.3	0.2	0.2	0.2	0.2	0.5	1.1	1.1	0.5	1.2	0.9	2.4					
11-Jul	0.4	0.4	Z	1.1	0.8	1.2	1.3	0.8	0.6	0.9	0.5	0.4	0.5	0.6	0.5	0.4	0.3	0.4	0.6	1.1	1.0	1.1	0.5	0.6	0.7	1.3					
12-Jul	0.6	0.4	0.4	Z	0.4	0.4	0.4	0.5	0.6	0.6	0.5	0.4	0.4	0.3	0.2	0.3	0.5	0.4	0.5	0.3	0.4	0.5	0.4	0.4	0.4	0.6					
13-Jul	0.4	0.3	0.3	0.3	Z	0.6	0.5	0.7	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	1.7	1.2	0.5	0.4	1.7					
14-Jul	0.6	0.5	0.3	0.4	0.5	Z	0.8	0.7	0.7	0.5	0.2	0.2	0.2	0.1	0.3	0.3	0.3	0.4	1.2	1.5	1.5	0.9	1.3	0.9	0.6	1.5					
15-Jul	Z	0.9	1.0	0.6	1.6	1.7	1.3	1.8	2.1	1.6	1.3	0.6	0.3	0.4	0.5	0.8	0.7	1.8	1.2	1.4	1.3	1.3	1.4	1.3	1.2	2.1					
16-Jul	1.1	Z	1.3	1.2	0.8	0.9	0.7	0.7	0.6	0.8	0.8	0.4	0.4	0.7	1.0	0.4	0.3	0.5	0.6	0.5	0.8	0.5	0.3	0.7	0.7	1.3					
17-Jul	0.4	0.3	Z	0.7	1.3	1.1	0.9	0.5	DF	2.6	1.9	1.4	1.0	0.7	0.6	0.3	0.4	0.7	1.9	0.5	1.8	1.0	0.7	0.6	1.0	2.6					
18-Jul	0.7	0.6	0.7	Z	0.6	0.8	0.7	0.4	0.4	0.6	0.4	0.4	0.8	1.1	0.4	0.2	0.5	0.3	0.9	0.6	0.7	1.1	0.6	0.9	0.6	1.1					
19-Jul	0.5	0.5	0.3	0.5	Z	1.0	1.1	1.9	1.5	0.4	0.3	0.3	0.4	0.9	0.5	0.1	0.4	1.3	0.8	0.5	0.8	0.7	1.1	1.2	0.7	1.9					
20-Jul	1.3	2.0	1.6	1.6	1.7	Z	1.6	1.7	1.6	1.3	1.5	1.9	1.9	1.5	1.0	1.1	0.9	0.7	0.8	0.8	0.6	0.6	1.5	0.5	1.3	2.0					
21-Jul	Z	0.5	0.8	0.7	1.3	1.0	0.7	0.5	0.7	0.7	0.6	0.7	0.6	0.6	0.6	0.5	0.6	1.0	0.7	1.0	0.7	1.1	0.5	0.6	0.7	1.3					
22-Jul	0.5	Z	0.6	0.5	0.9	2.0	2.1	1.5	1.4	0.7	0.6	0.8	0.6	0.6	0.5	0.5	0.7	1.1	0.8	0.8	1.0	0.8	0.8	0.6	0.9	2.1					
23-Jul	0.5	0.4	Z	0.8	1.3	1.3	1.5	1.3	1.1	0.8	0.7	0.6	0.4	0.4	0.6	0.4	0.3	0.3	0.2	0.3	0.8	0.7	0.5	0.5	0.7	1.5					
24-Jul	0.3	0.3	0.4	Z	0.6	1.4	0.9	1.1	0.8	0.9	0.4	0.5	0.4	0.3	0.3	0.2	0.4	0.6	0.5	0.7	0.6	0.7	0.7	0.6	0.6	1.4					
25-Jul	0.5	0.6	0.5	0.4	Z	0.9	0.7	0.9	0.8	0.6	0.3	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.5	0.8	1.6	1.7	0.9	0.5	0.6	1.7					
26-Jul	0.3	0.6	0.3	0.4	0.8	Z	1.0	1.3	0.6	0.5	0.4	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.3	1.0	1.1	1.4	1.9	1.4	0.7	1.9					
27-Jul	Z	1.2	0.5	0.7	0.5	0.5	0.3	0.2	0.7	1.1	0.6	0.6	0.4	0.4	0.5	0.5	0.6	0.5	0.4	0.5	0.7	1.3	0.7	0.7	0.6	1.3					
28-Jul	0.5	Z	1.2	0.7	0.9	0.8	0.7	0.8	0.8	0.8	0.6	0.6	0.5	0.5	0.5	0.3	0.6	0.6	0.6	2.6	1.2	1.9	1.1	1.0	0.9	2.6					
29-Jul	1.0	1.0	Z	0.8	0.8	0.7	0.9	0.6	0.4	C	C	C	C	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.6	0.3	0.4	1.0					
30-Jul	0.3	0.2	0.3	Z	0.4	0.6	0.5	0.8	0.4	0.3	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.3	1.1	0.3	1.0	1.5	0.3	0.4	1.5					
31-Jul	0.9	0.3	0.3	0.3	Z	1.4	1.2	0.7	1.1	1.0	0.8	0.8	0.7	0.7	0.7	0.5	0.3	0.3	0.9	0.7	0.7	0.6	0.6	0.3	0.7	1.4					
0.6 0.5 0.6 0.7 0.8 0.9 0.9 0.8 0.7 0.7 0.6 0.5 0.5 0.5 0.4 0.3 0.4 0.5 0.6 0.8 0.8 0.9 0.8 0.6																								Diurnal Average							
1.4 2.0 2.0 2.2 2.4 2.0 2.1 2.0 2.1 2.6 1.9 1.9 1.9 1.5 1.0 1.1 0.9 1.8 1.9 2.6 2.9 1.9 1.9 1.4																								Diurnal Maximum							
Z - zerospan C - Calibration DF - DAS Failure																															
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																															



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Janvier - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Janvier - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	708	100.00	100.00
21 - 40	0	0.00	100.00
41 - 60	0	0.00	100.00
61 - 80	0	0.00	100.00
81 - 100	0	0.00	100.00
101 - 120	0	0.00	100.00
121 - 140	0	0.00	100.00
141 - 160	0	0.00	100.00
161 - 180	0	0.00	100.00
181 - 200	0	0.00	100.00
201 - 220	0	0.00	100.00
221 - 240	0	0.00	100.00
241 - 260	0	0.00	100.00
261 - 280	0	0.00	100.00
281 - 300	0	0.00	100.00
301 - 320	0	0.00	100.00
321 - 340	0	0.00	100.00
341 - 360	0	0.00	100.00
361 - 380	0	0.00	100.00
381 - 400	0	0.00	100.00
401 - 420	0	0.00	100.00
421 - 440	0	0.00	100.00
441 - 460	0	0.00	100.00
461 - 480	0	0.00	100.00
481 - 500	0	0.00	100.00
501 - 520	0	0.00	100.00
521 - 540	0	0.00	100.00
541 - 560	0	0.00	100.00
561 - 580	0	0.00	100.00
581 - 600	0	0.00	100.00
601 - 620	0	0.00	100.00
621 - 640	0	0.00	100.00
641 - 660	0	0.00	100.00
661 - 680	0	0.00	100.00
681 - 700	0	0.00	100.00
701 - 720	0	0.00	100.00
721 - 740	0	0.00	100.00
741 - 760	0	0.00	100.00
761 - 780	0	0.00	100.00
781 - 800	0	0.00	100.00
801 - 820	0	0.00	100.00
821 - 840	0	0.00	100.00
841 - 860	0	0.00	100.00
861 - 880	0	0.00	100.00
881 - 900	0	0.00	100.00
901 - 920	0	0.00	100.00
921 - 940	0	0.00	100.00
941 - 960	0	0.00	100.00
961 - 980	0	0.00	100.00
981 - 1000	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Janvier - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	28	37	24	13	13	23	44	30	42	131	162	50	41	27	29	13	707
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	28	37	24	13	13	23	44	30	42	131	162	50	41	27	29	13	707

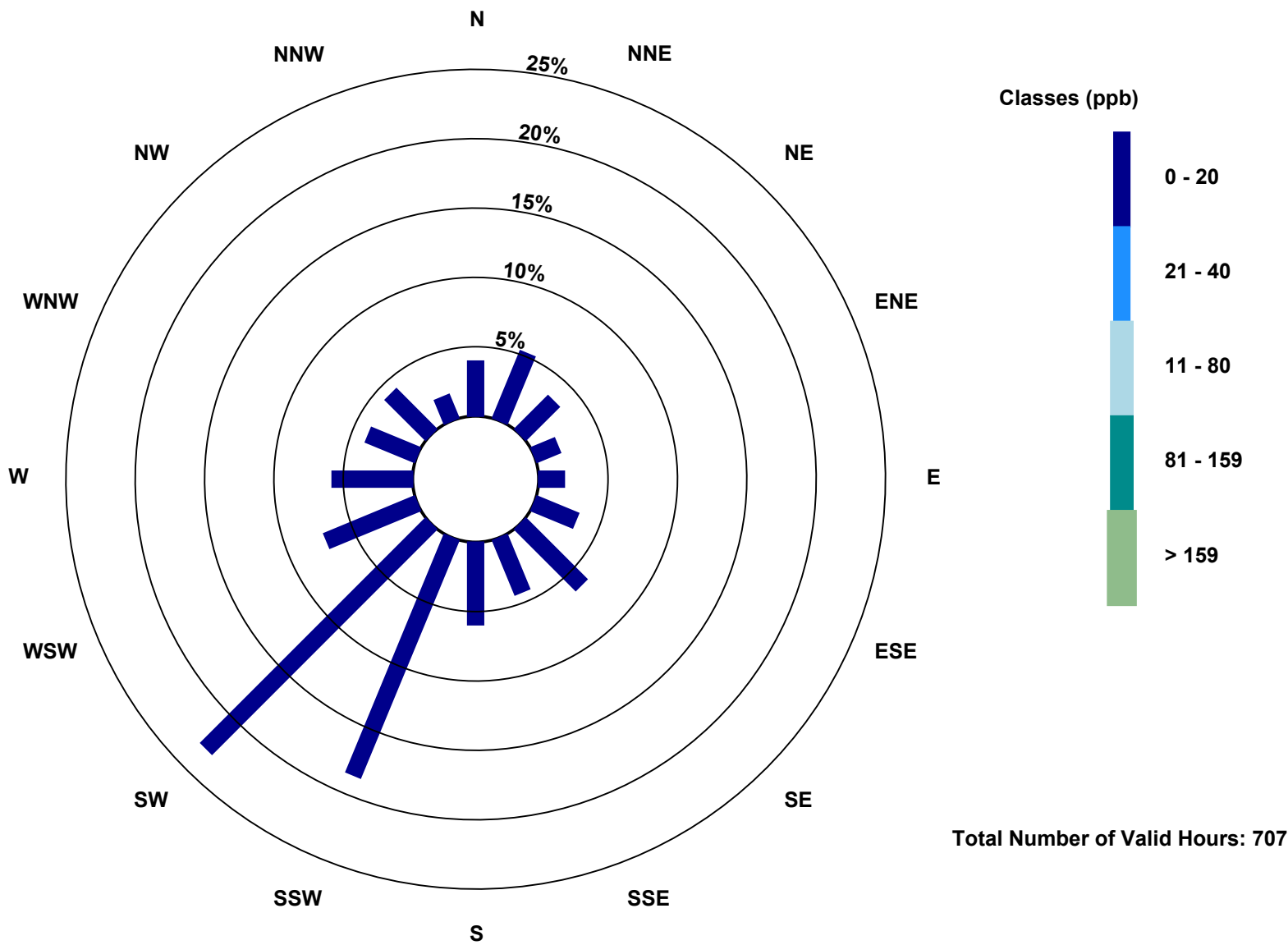
Total Number of Valid Hours: 707

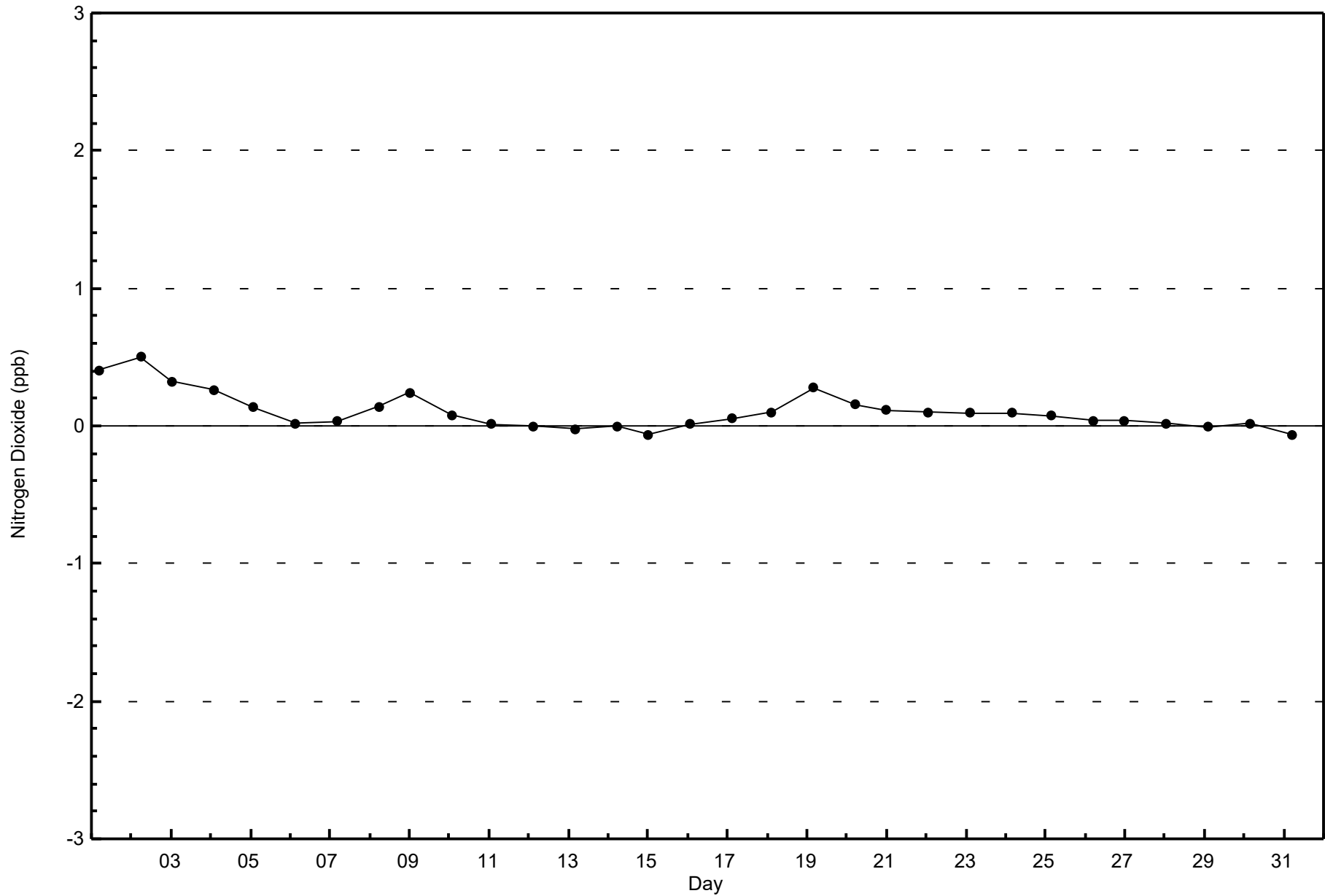
Total Number of Hours: 744

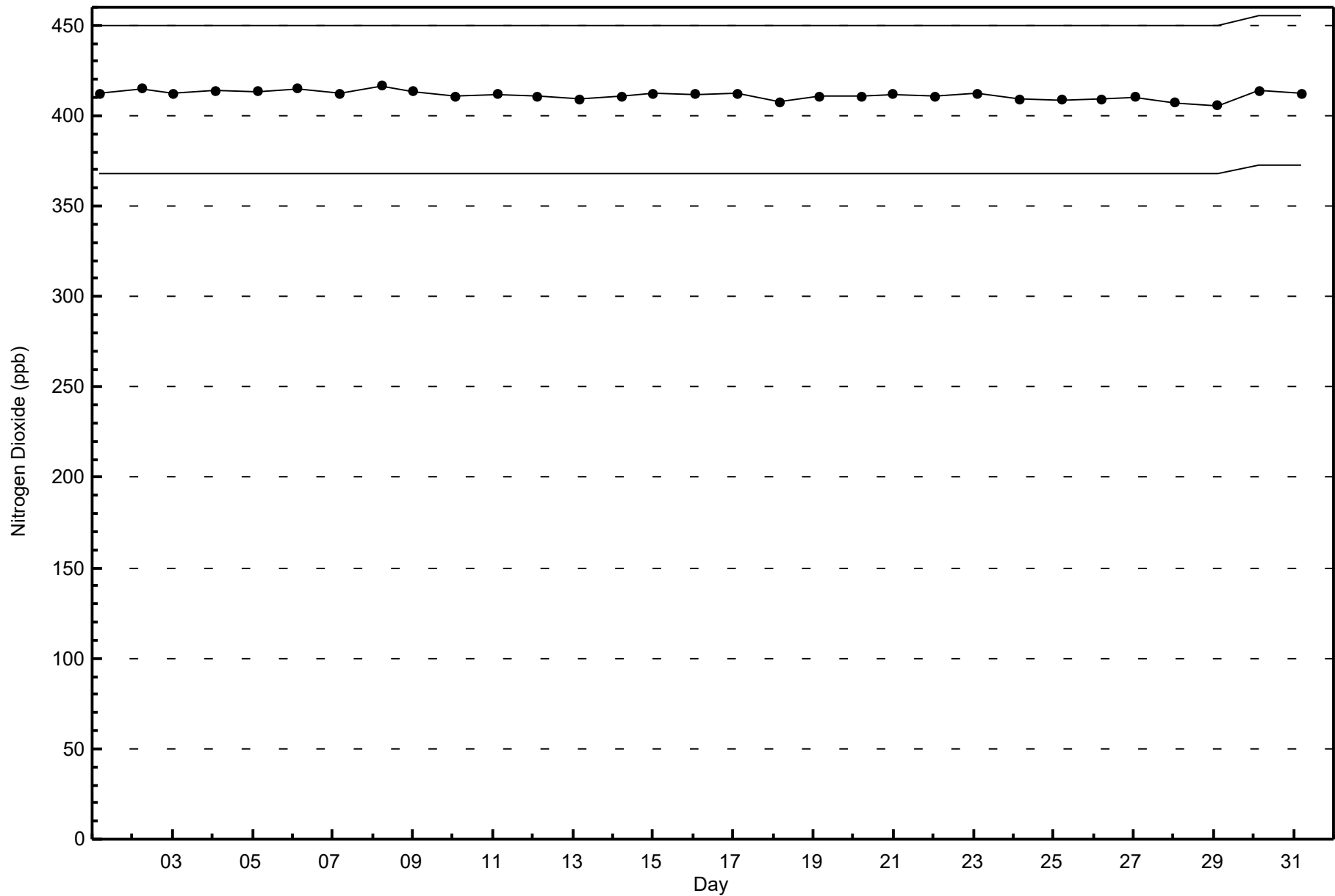


Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Dioxide (NO₂) - ppb
Janvier









Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

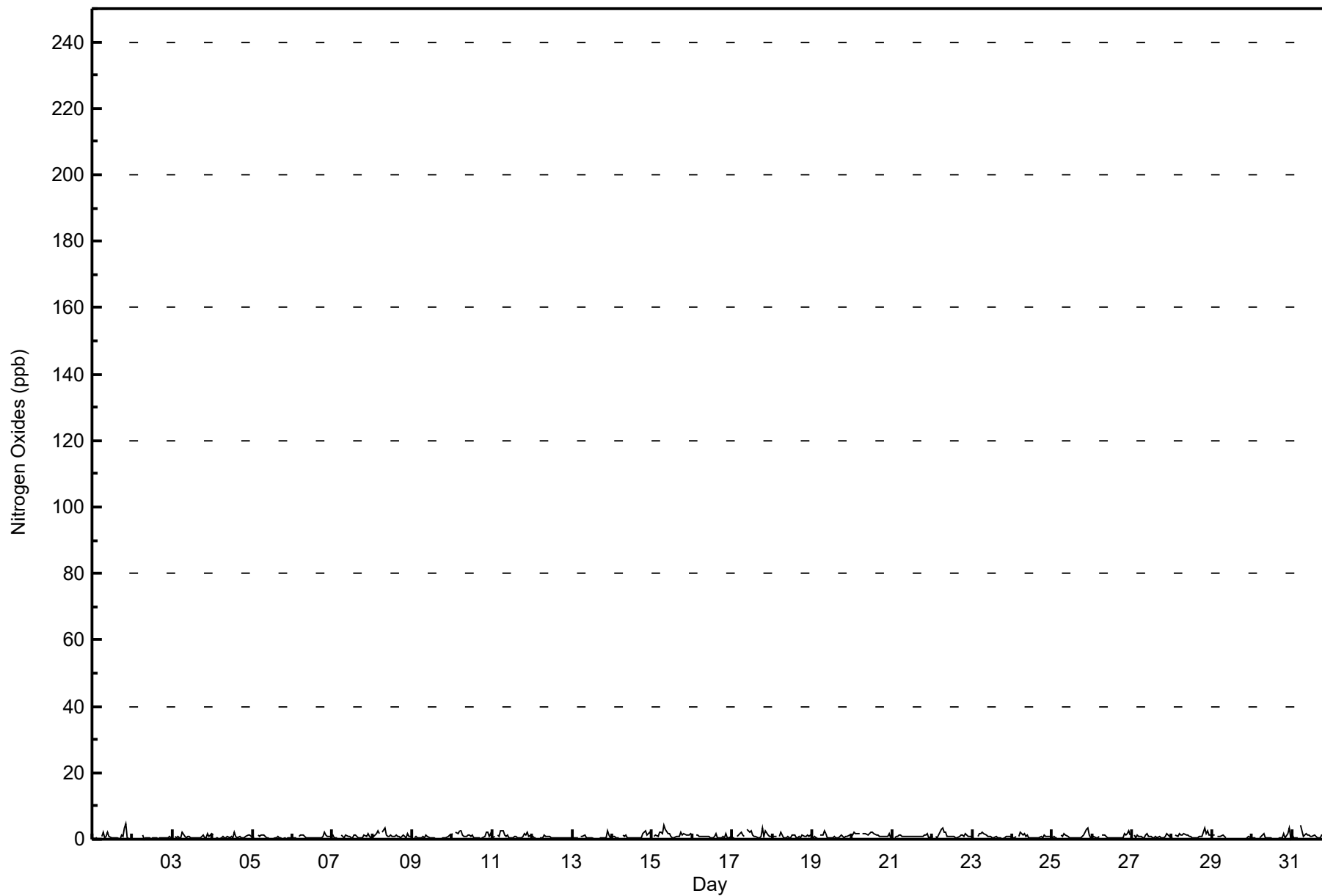
Janvier - July 2026

Maximum Value: 4.7 ppb on Jul 1 21:00															Maximum Daily Average: 1.5 ppb on Jul 15										Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 29 18:00															Minimum Daily Average: 0.3 ppb on Jul 2										Hours of Data: 708	
Maximum Diurnal Average: 1.4 ppb at hour 6															Minimum Diurnal Average: 0.4 ppb at hour 16										Hours of Missing Data: 36	
Monthly Average: 0.88 ppb															Percentiles: P ₁ = 0.0 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.7 Q ₃ = 1.1 P ₉₀ = 1.7 P ₉₉ = 3.3										Hours of Calibration: 35	
																									Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.3	0.1	0.4	0.2	Z	0.7	2.2	0.4	0.7	2.0	0.7	0.3	0.6	0.5	0.3	0.3	0.1	1.4	1.0	3.4	4.7	0.4	0.1	0.1	0.9	4.7
2-Jul	0.0	0.0	0.0	0.0	0.0	Z	1.1	0.1	0.3	0.2	0.4	0.1	0.4	0.3	0.2	0.2	0.4	0.4	0.2	0.4	0.5	0.6	0.6	0.3	0.3	1.1
3-Jul	Z	0.8	0.5	0.8	0.4	0.6	1.9	0.7	0.2	0.7	0.8	0.5	0.6	0.5	0.4	0.4	0.4	0.4	1.4	0.6	0.6	1.7	1.0	1.7	0.8	1.9
4-Jul	1.4	Z	0.5	0.5	0.2	0.3	0.7	0.6	0.4	0.7	0.3	0.9	0.5	2.0	0.9	0.3	0.7	0.4	0.5	0.4	1.0	1.1	1.1	0.9	0.7	2.0
5-Jul	1.0	0.2	Z	1.2	0.8	1.2	1.1	1.1	0.6	0.3	0.1	0.1	0.1	0.5	0.3	0.9	0.5	0.4	0.2	0.3	0.2	0.2	0.3	0.3	0.5	1.2
6-Jul	0.2	0.3	0.3	Z	0.8	1.3	1.3	0.9	0.4	0.3	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.5	0.7	2.0	1.4	0.8	0.7	0.8	0.6	2.0
7-Jul	1.4	0.6	0.4	0.3	Z	1.3	1.0	0.5	1.1	0.9	0.7	0.6	0.5	1.3	1.4	0.4	0.4	0.4	0.6	1.1	0.9	1.6	0.8	0.5	0.8	1.6
8-Jul	1.1	0.9	1.6	2.4	1.6	Z	2.2	3.3	1.2	0.9	0.7	1.2	0.9	0.8	1.3	0.7	0.7	0.6	1.3	1.0	0.5	1.6	0.7	0.7	1.2	3.3
9-Jul	Z	0.4	0.7	0.5	0.3	0.4	0.6	0.6	1.3	0.7	0.3	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.8	1.4	1.1	0.5	1.4
10-Jul	1.5	Z	2.1	1.5	2.5	2.3	1.5	1.0	0.9	1.3	1.2	0.8	1.1	0.6	0.4	0.3	0.2	0.2	0.3	0.7	2.2	1.9	0.7	1.6	1.2	2.5
11-Jul	0.5	1.0	Z	1.3	1.0	2.5	2.4	1.2	0.8	1.4	0.6	0.5	0.6	0.7	0.6	0.5	0.4	0.5	0.7	1.5	1.3	2.3	0.7	1.1	1.0	2.5
12-Jul	0.7	0.5	0.5	Z	0.5	0.6	0.6	1.2	1.0	1.0	0.8	0.5	0.4	0.4	0.3	0.4	0.5	0.5	0.5	0.4	0.5	0.6	0.4	0.4	0.6	1.2
13-Jul	0.4	0.3	0.3	0.3	Z	0.7	0.7	1.1	0.6	0.6	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.6	2.4	1.4	0.6	0.5	2.4
14-Jul	0.7	0.7	0.4	0.5	0.6	Z	1.1	1.1	1.3	0.6	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.5	1.6	2.3	2.6	1.3	2.1	1.2	0.9	2.6
15-Jul	Z	1.0	1.1	0.7	2.0	2.2	1.6	4.2	2.9	1.9	1.5	0.8	0.5	0.5	0.6	0.9	0.9	2.3	1.3	1.6	1.4	1.4	1.5	1.5	1.5	4.2
16-Jul	1.2	Z	1.4	1.3	0.9	1.0	0.8	0.8	0.7	1.0	1.0	0.5	0.4	1.0	1.6	0.5	0.4	0.6	0.7	0.6	1.5	0.6	0.4	0.9	0.9	1.6
17-Jul	0.5	0.4	Z	0.8	1.8	2.0	1.4	1.0	DF	3.0	2.1	2.3	1.1	0.8	0.7	0.6	0.5	0.9	3.2	0.7	2.6	1.5	0.8	0.7	1.3	3.2
18-Jul	0.8	0.7	0.8	Z	0.8	2.1	1.1	0.6	0.6	0.8	0.5	0.5	1.1	1.4	0.5	0.3	0.8	0.4	1.1	0.7	0.9	1.4	0.7	1.1	0.9	2.1
19-Jul	0.6	0.6	0.4	0.6	Z	1.3	1.3	2.5	1.8	0.5	0.4	0.4	0.5	1.0	0.6	0.2	0.5	1.4	0.9	0.6	0.9	0.8	1.1	1.2	0.9	2.5
20-Jul	1.3	2.0	1.7	1.7	1.8	Z	1.7	1.9	1.8	1.5	1.6	2.1	2.3	1.9	1.2	1.2	1.0	0.8	1.0	0.9	0.8	0.8	1.7	0.6	1.4	2.3
21-Jul	Z	0.6	0.9	0.7	1.4	1.3	1.0	0.7	1.0	0.9	0.7	0.8	0.7	0.7	0.7	0.6	0.7	1.1	0.8	1.2	1.1	1.5	0.6	0.7	0.9	1.5
22-Jul	0.7	Z	0.7	0.6	1.3	3.0	3.4	2.3	2.3	0.9	0.7	0.9	0.7	0.7	0.6	0.6	0.8	1.3	1.4	1.0	1.7	1.0	0.9	0.7	1.2	3.4
23-Jul	0.6	0.5	Z	0.9	1.6	1.6	2.2	1.9	1.3	0.9	0.8	0.7	0.5	0.5	0.7	0.5	0.3	0.3	0.2	0.4	0.9	0.8	0.7	0.7	0.9	2.2
24-Jul	0.5	0.5	1.0	Z	0.8	2.3	1.2	1.6	1.0	1.2	0.5	0.5	0.5	0.4	0.4	0.3	0.5	0.8	0.6	1.3	0.9	0.7	0.8	0.7	0.8	2.3
25-Jul	0.5	0.9	0.5	0.5	Z	1.2	0.8	1.7	1.1	1.0	0.4	0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.7	1.1	2.8	3.3	1.1	0.6	0.9	3.3
26-Jul	0.4	0.9	0.4	0.5	1.0	Z	1.1	1.5	0.8	0.6	0.5	0.4	0.5	0.4	0.4	0.5	0.4	0.4	0.4	1.7	1.3	1.7	2.6	1.5	0.9	2.6
27-Jul	Z	1.3	0.6	1.1	0.7	0.7	0.5	0.4	1.2	1.7	0.7	0.7	0.5	0.5	0.7	0.6	0.7	0.6	0.5	0.6	0.8	1.6	0.8	0.9	0.8	1.7
28-Jul	0.6	Z	1.3	0.7	1.5	1.1	1.1	1.6	1.1	1.2	0.7	0.8	0.6	0.6	0.6	0.3	0.8	0.9	0.7	3.6	1.6	2.6	1.1	1.1	1.1	3.6
29-Jul	1.1	1.1	Z	0.9	0.8	0.8	1.2	0.8	0.5	C	C	C	C	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.7	0.3	0.5	1.2
30-Jul	0.3	0.2	0.3	Z	0.5	0.9	1.1	1.6	0.6	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.4	1.8	0.5	1.9	3.2	0.4	0.7	3.2
31-Jul	1.6	0.4	0.5	0.4	Z	4.4	2.5	0.9	1.6	1.4	1.2	0.9	0.8	1.1	0.8	0.6	0.4	0.4	1.3	1.3	1.4	1.1	1.5	0.5	1.2	4.4
																									Diurnal Average	
																									Diurnal Maximum	
Z - zerospan C - Calibration DF - DAS Failure																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Janvier - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Janvier - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	708	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Janvier - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	28	37	24	13	13	23	44	30	42	131	162	50	41	27	29	13	707
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	28	37	24	13	13	23	44	30	42	131	162	50	41	27	29	13	707

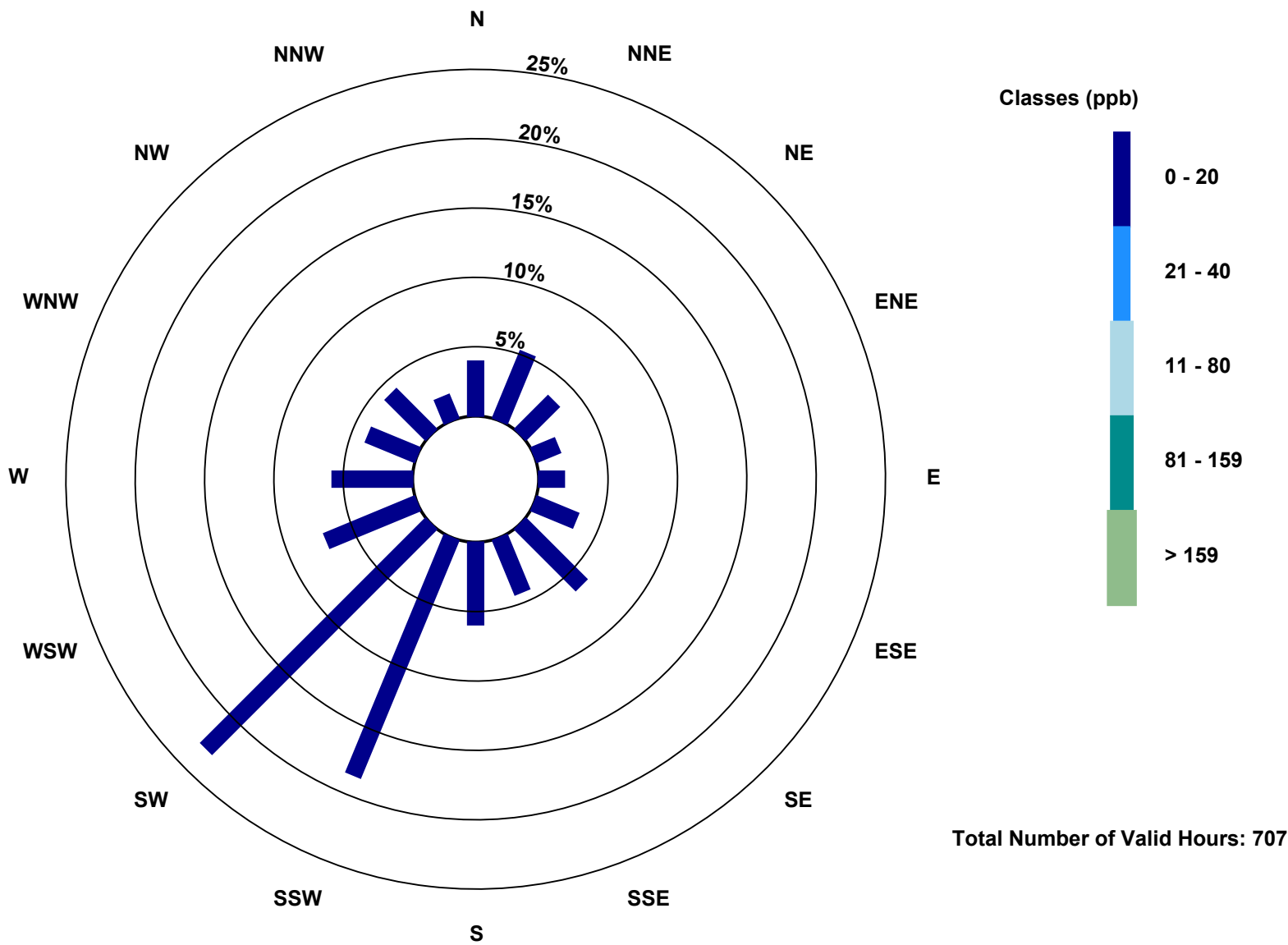
Total Number of Valid Hours: 707

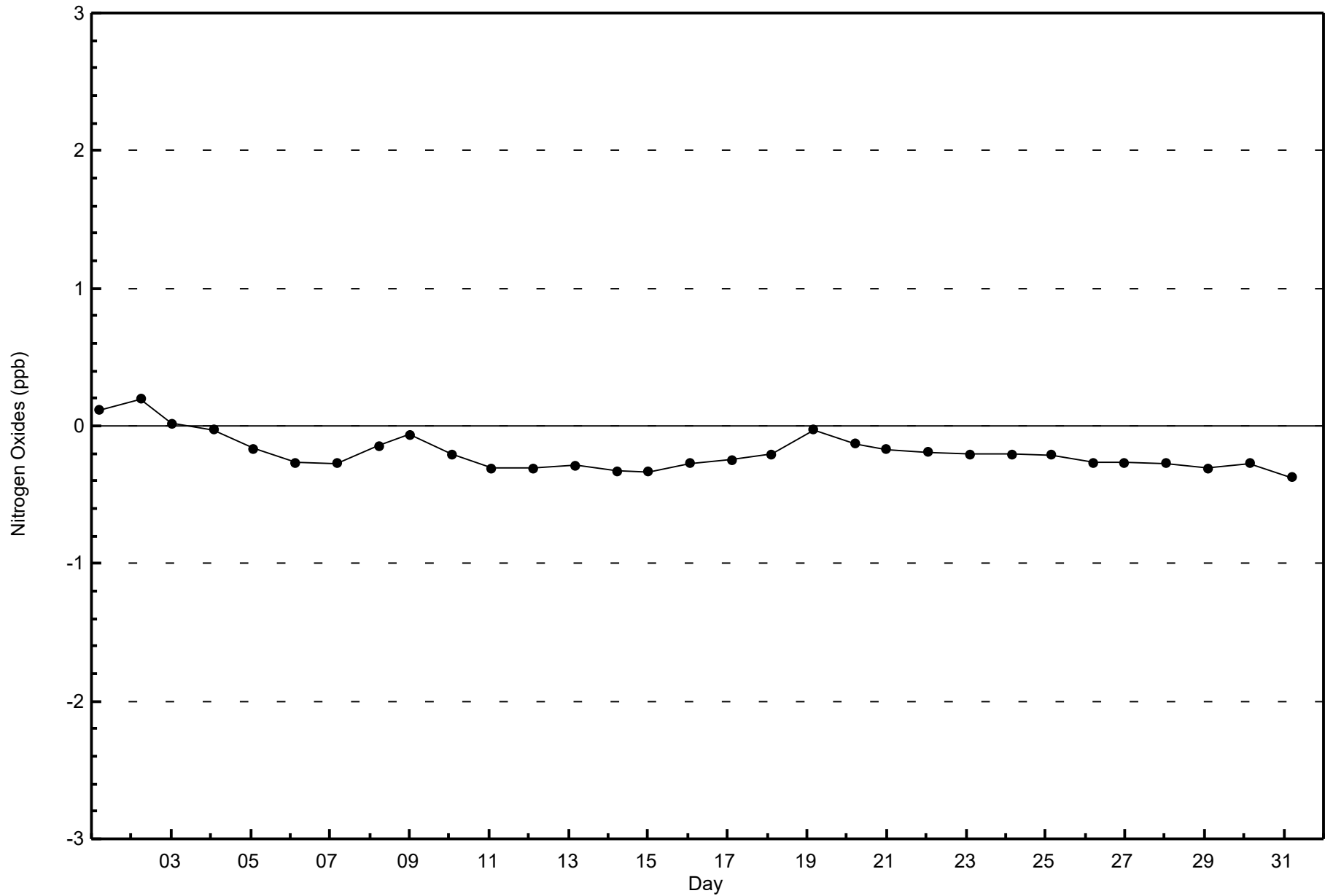
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Oxides (NO_x) - ppb
Janvier

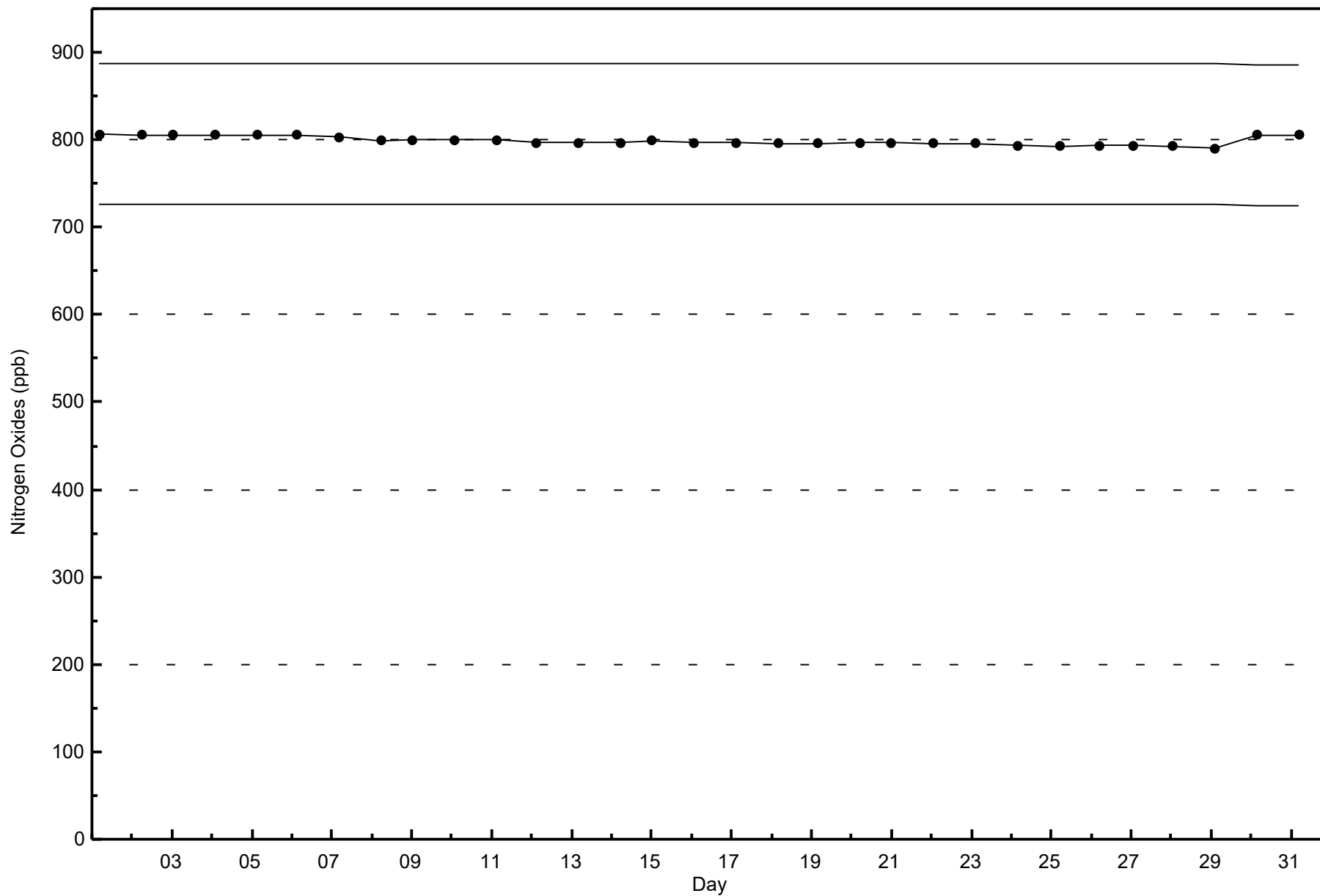






Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Janvier - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O₃) - ppb

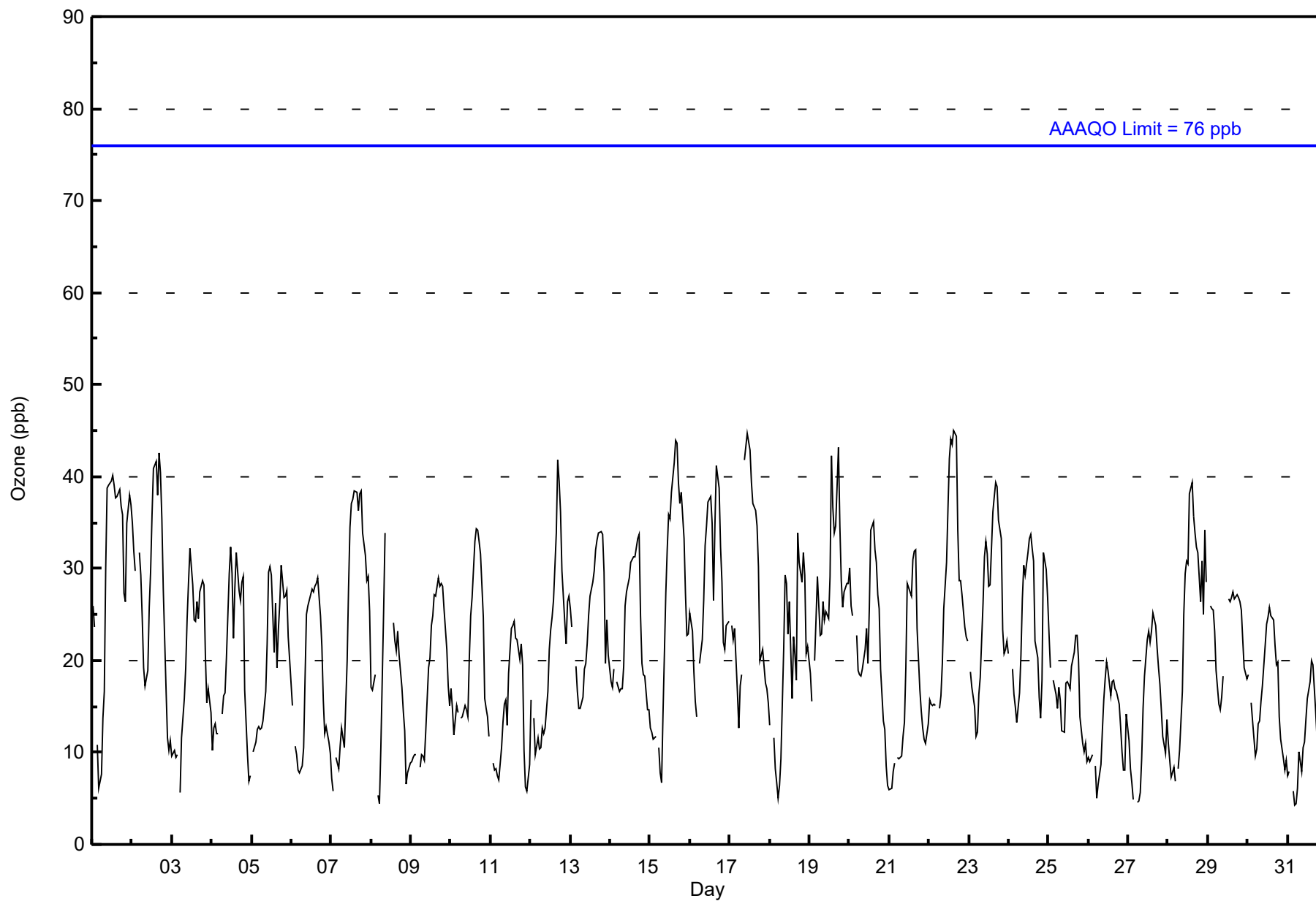
Janvier - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 45.0 ppb on Jul 22 16:00 Maximum Daily Average: 29.6 ppb on Jul 1																		Hours in Service: 744								
Minimum Value: 3.7 ppb on Aug 1 00:00 Minimum Daily Average: 10.1 ppb on Jul 31 Maximum Diurnal Average: 30.4 ppb at hour 17 Minimum Diurnal Average: 11.7 ppb at hour 6 Monthly Average: 21.39 ppb Percentiles: P ₁ = 4.8 P ₁₀ = 9.2 Q ₁ = 13.5 Median = 20.6 Q ₃ = 28.3 P ₉₀ = 34.7 P ₉₉ = 43.4																		Hours of Data: 706								
																		Hours of Missing Data: 38								
																		Hours of Calibration: 35								
																		Percent Operational Time: 99.6								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	26.0	23.7	Z	10.8	6.2	7.6	13.7	16.6	30.1	38.7	39.1	39.6	40.0	39.0	37.7	37.8	38.5	36.7	35.8	27.4	26.3	35.0	38.0	37.0	29.6	40.0
2-Jul	35.0	31.8	29.7	Z	31.8	29.2	24.7	19.2	17.3	19.0	25.8	29.8	35.9	40.9	41.7	38.0	42.5	40.5	35.4	27.8	16.7	11.6	10.3	11.2	28.1	42.5
3-Jul	9.5	10.2	9.4	9.7	Z	5.7	11.6	15.9	19.2	24.6	28.5	32.2	28.2	24.4	24.3	26.4	24.6	27.4	28.7	28.2	20.6	15.3	16.9	14.3	19.8	32.2
4-Jul	10.3	12.6	13.1	12.1	12.0	Z	14.1	16.1	16.5	20.2	29.5	32.4	29.4	22.4	27.9	31.8	27.6	26.5	28.6	29.2	16.8	9.7	6.8	7.5	19.7	32.4
5-Jul	Z	10.1	11.1	12.5	12.8	12.5	12.6	13.4	16.7	21.8	29.5	30.2	29.2	21.0	26.3	19.2	23.3	26.3	30.3	26.8	27.0	27.7	22.6	20.1	21.0	30.3
6-Jul	15.0	Z	10.7	9.8	8.0	7.8	8.6	10.6	18.0	25.1	26.0	27.1	27.8	27.4	28.1	28.3	28.9	24.8	21.5	15.6	12.1	12.7	11.1	10.0	18.0	28.9
7-Jul	7.2	5.8	Z	9.4	8.3	10.7	12.7	11.6	10.6	19.9	27.9	34.5	37.1	37.5	38.4	38.2	36.3	38.1	38.5	33.9	31.4	28.7	29.2	25.4	24.8	38.5
8-Jul	17.1	16.8	18.4	Z	5.3	4.4	10.5	25.5	33.9	C	C	C	C	24.1	22.2	21.1	23.2	20.6	17.1	14.6	12.3	6.5	7.8	8.8	16.3	33.9
9-Jul	9.0	9.5	9.8	9.7	Z	8.3	9.8	9.6	9.1	12.3	19.2	20.4	23.8	24.9	27.1	27.0	29.0	28.1	28.4	28.1	25.7	21.3	17.2	15.0	18.4	29.0
10-Jul	16.9	14.8	12.0	15.1	14.3	Z	13.7	13.8	15.0	14.7	13.9	20.1	24.8	26.8	33.0	34.4	34.2	33.0	31.6	24.7	15.8	14.8	13.9	11.7	20.1	34.4
11-Jul	Z	8.9	8.1	8.3	7.5	7.1	10.6	13.3	15.2	15.7	12.9	18.7	23.5	23.8	24.3	22.4	22.2	20.1	21.8	19.6	10.2	6.3	5.8	8.8	14.6	24.3
12-Jul	15.7	Z	13.7	9.8	11.6	10.4	10.5	12.6	12.0	12.6	16.6	21.2	23.4	24.8	26.5	33.9	41.8	39.5	36.2	29.8	24.3	21.8	26.4	26.9	21.8	41.8
13-Jul	25.6	23.6	Z	19.3	16.6	14.9	14.8	16.1	19.1	19.7	21.8	24.9	27.0	28.5	29.7	32.0	33.1	33.9	34.0	33.8	29.6	19.7	24.4	20.6	24.5	34.0
14-Jul	17.7	17.1	19.1	Z	17.8	16.6	16.9	17.0	19.4	25.9	27.4	29.0	30.6	31.0	31.2	31.3	33.3	33.6	24.9	19.6	18.4	18.3	14.6	14.6	22.8	33.6
15-Jul	12.7	12.2	11.4	11.8	Z	10.5	7.8	6.7	14.2	27.4	32.1	35.8	35.4	38.3	41.5	43.9	43.7	39.4	37.1	38.2	33.2	27.3	22.7	22.9	26.4	43.9
16-Jul	25.1	23.2	18.7	15.5	13.9	Z	19.6	22.3	26.6	32.4	34.6	37.2	37.9	34.9	26.5	34.8	41.2	38.7	32.4	28.5	21.9	21.2	23.8	24.3	27.6	41.2
17-Jul	Z	23.8	22.3	23.5	16.7	12.6	17.3	18.4	DF	41.8	44.7	43.7	42.8	39.4	37.1	36.3	34.6	30.3	20.0	20.7	21.2	17.5	16.9	15.4	27.1	44.7
18-Jul	13.0	Z	11.6	8.2	6.7	5.0	6.4	9.3	21.4	29.3	28.3	22.9	26.3	15.8	22.5	20.6	17.8	33.8	30.7	28.5	31.7	29.3	20.8	21.6	20.1	33.8
19-Jul	18.6	15.5	Z	20.0	24.4	29.1	22.8	22.9	26.3	24.4	25.3	24.5	29.2	42.3	36.6	33.8	34.6	43.1	34.6	28.7	25.8	27.5	28.4	28.3	28.1	43.1
20-Jul	30.0	25.9	24.9	Z	22.7	19.0	18.5	18.3	19.1	21.3	23.4	19.6	25.7	34.2	35.1	32.1	30.6	27.2	25.6	19.1	13.4	12.5	8.5	6.4	22.3	35.1
21-Jul	6.0	6.1	7.9	8.9	Z	9.4	9.3	9.6	11.7	13.2	19.2	28.4	27.4	27.0	31.0	31.9	32.1	23.4	16.7	14.5	12.6	11.5	11.0	13.1	16.6	32.1
22-Jul	15.7	15.2	15.1	15.2	15.1	Z	14.8	16.2	19.6	25.6	30.6	36.5	42.0	44.2	43.4	45.0	44.3	34.2	28.7	28.8	27.1	23.7	22.6	22.1	27.2	45.0
23-Jul	Z	18.8	17.1	14.9	11.7	12.2	16.3	18.1	26.3	31.3	33.0	31.6	28.1	28.2	36.1	37.8	39.4	39.0	35.3	33.3	23.4	20.8	21.2	22.1	25.9	39.4
24-Jul	20.7	Z	19.0	16.3	14.9	13.2	16.5	20.7	26.7	30.4	29.3	31.8	33.2	33.7	32.2	30.8	22.1	20.2	16.0	13.7	17.9	31.7	29.8	26.9	23.8	33.7
25-Jul	23.0	19.2	Z	17.9	16.3	14.8	17.1	15.8	12.4	12.2	17.5	17.7	17.5	17.0	19.4	20.9	22.7	22.7	20.1	13.9	11.0	10.1	11.0	9.0	16.5	23.0
26-Jul	9.4	9.0	9.8	Z	8.6	5.0	6.5	8.8	12.4	15.7	18.0	19.9	18.9	16.2	17.7	17.8	16.9	16.7	15.3	12.8	10.1	8.1	8.1	14.2	12.9	19.9
27-Jul	11.3	8.2	6.7	4.8	Z	4.6	4.8	5.7	9.3	14.8	18.3	22.3	23.2	22.0	23.2	25.1	23.8	21.3	19.2	17.4	14.6	11.7	10.0	13.6	14.6	25.1
28-Jul	10.9	9.2	7.3	8.3	6.9	Z	8.3	10.3	16.7	25.0	29.5	30.8	30.5	38.1	39.4	35.7	33.9	32.3	31.7	26.3	30.7	25.0	34.2	28.5	23.9	39.4
29-Jul	Z	25.9	25.6	25.5	23.2	18.9	15.2	14.6	16.1	18.4	M	M	26.7	26.3	26.9	27.5	26.7	27.1	26.9	26.4	25.4	22.3	19.2	18.0	23.0	27.5
30-Jul	18.4	Z	15.5	13.4	9.5	10.4	13.2	13.4	15.5	17.2	21.7	23.9	24.8	25.8	24.9	24.4	21.6	19.6	19.9	13.9	11.5	9.3	8.1	9.2	16.7	25.8
31-Jul	7.5	8.0	Z	5.7	4.3	4.4	6.1	10.0	8.0	10.5	11.1	13.6	15.9	17.7	20.1	19.5	16.9	14.4	11.3	7.2	6.2	5.9	4.4	3.7	10.1	20.1
Diurnal Average																										
Diurnal Maximum																										
Z - zerospan C - Calibration M - Maintenance DF - DAS Failure																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Ozone (O₃) - ppb
Janvier - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ozone (O₃) - ppb
Janvier - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	350	49.58	49.58
21 - 50	356	50.42	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Ozone (O₃) - ppb
Janvier - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	9	25	15	5	0	6	10	5	25	105	104	19	7	2	3	8	348
21 - 50	19	11	10	8	13	17	32	24	15	23	60	31	35	25	26	7	356
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	28	36	25	13	13	23	42	29	40	128	164	50	42	27	29	15	704

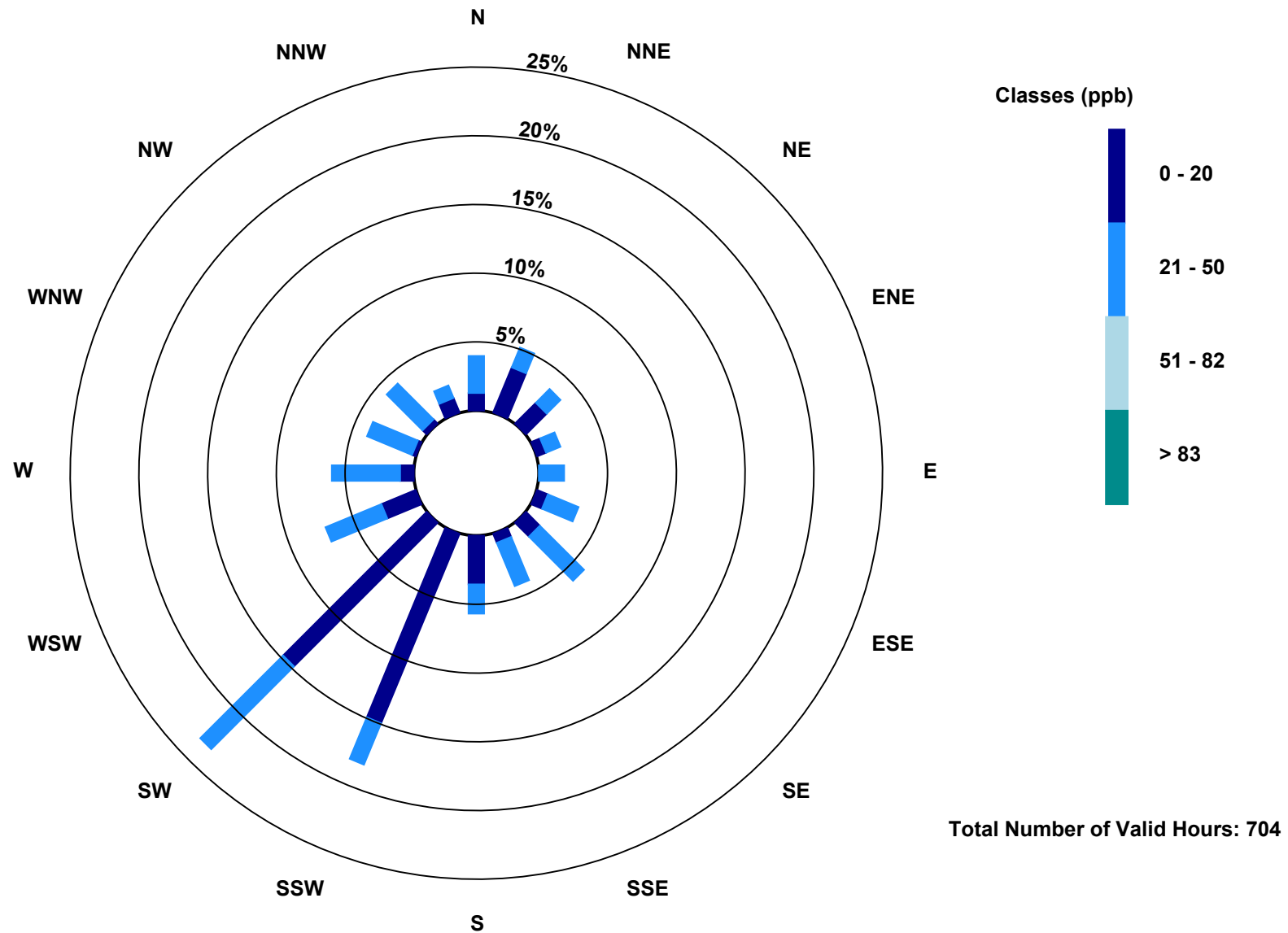
Total Number of Valid Hours: 704

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

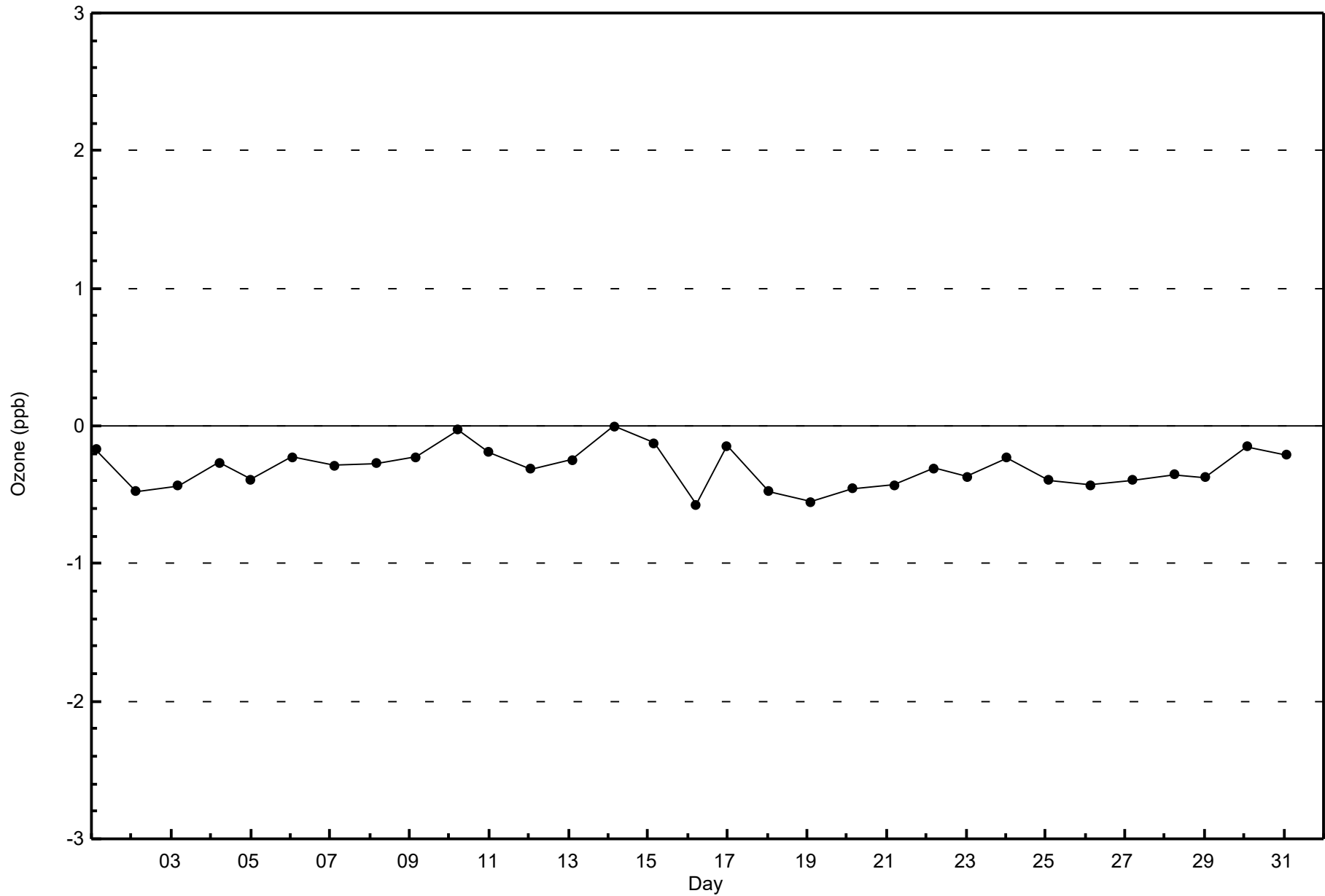
Ozone (O_3) - ppb
Janvier





Wood Buffalo Environmental Association
Zero Responses

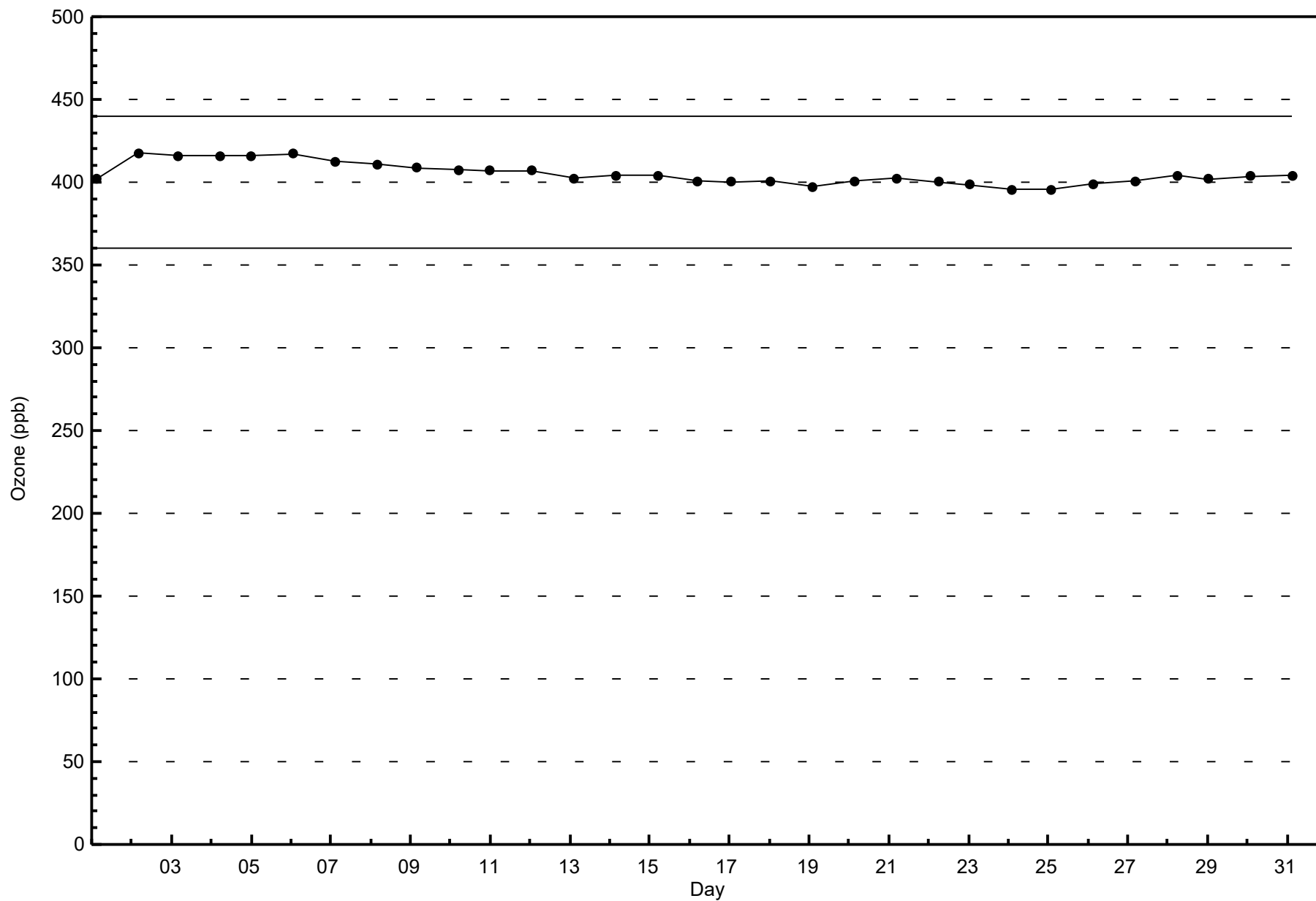
Ozone (O₃) - ppb
Janvier - July 2026





Wood Buffalo Environmental Association
Span Responses

Ozone (O₃) - ppb
Janvier - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Janvier - July 2026

Number of Exceedances (AAAQO): 1-hr: 7 24-hr: 4 Maximum Value: 160.5 µg/m³ on Jul 20 05:00 Maximum Daily Average: 75.1 µg/m³ on Jul 20																				Hours in Service: 744 Hours of Data: 694 Hours of Missing Data: 50 Hours of Calibration: 1 Percent Operational Time: 93.4						
Minimum Value: 1.1 µg/m³ on Jul 9 14:00 Minimum Daily Average: 1.8 µg/m³ on Jul 13 Maximum Diurnal Average: 19.5 µg/m³ at hour 5 Minimum Diurnal Average: 11.5 µg/m³ at hour 13 Monthly Average: 14.80 µg/m³ Percentiles: P ₁ = 1.4 P ₁₀ = 2.5 Q ₁ = 3.7 Median = 6.3 Q ₃ = 13.9 P ₉₀ = 49.7 P ₉₉ = 75.8																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	29.8	29.4	30.7	28.7	29.0	28.0	28.5	35.2	67.0	80.2	67.7	50.0	45.1	50.8	42.2	34.7	35.4	34.9	38.3	39.5	39.4	39.2	33.8	29.8	40.3	80.2
2-Jul	24.5	24.3	23.4	21.4	19.2	17.9	18.9	21.6	20.6	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	--	24.5
3-Jul	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	5.1	5.0	3.5	4.9	4.6	4.3	3.7	3.4	3.6	4.1	4.8	4.8	4.4	--	5.1
4-Jul	4.5	4.8	4.5	4.3	4.0	3.8	3.4	3.1	3.0	2.8	2.3	2.4	2.7	2.4	2.1	1.8	2.6	2.4	2.5	2.4	3.6	3.7	3.8	3.7	3.2	4.8
5-Jul	3.7	3.6	3.5	3.4	3.4	3.3	3.0	2.9	2.6	2.5	2.6	2.5	2.7	3.2	2.9	3.0	3.7	5.4	7.1	7.0	7.8	5.5	5.6	5.6	4.0	7.8
6-Jul	5.8	6.0	6.2	6.2	6.6	6.8	6.9	7.3	8.5	10.1	14.8	15.8	12.8	11.2	10.2	11.3	9.3	9.7	9.7	9.9	10.0	10.3	10.1	9.9	9.4	15.8
7-Jul	9.9	9.2	8.1	6.9	6.2	5.6	5.3	4.9	5.3	5.4	4.2	3.5	3.4	3.6	3.4	3.5	3.1	3.4	3.3	3.9	4.2	4.3	4.5	4.4	5.0	9.9
8-Jul	4.9	5.1	5.0	5.1	6.1	8.3	8.0	4.5	4.0	4.0	3.9	3.6	3.5	3.6	3.9	3.8	4.4	5.6	6.7	7.1	7.2	7.2	7.0	7.2	5.4	8.3
9-Jul	7.0	6.2	5.3	4.3	4.4	3.8	3.4	3.1	2.9	2.5	1.8	1.5	1.3	1.1	1.4	1.3	1.4	1.2	1.5	1.8	2.5	3.0	3.2	3.2	2.9	7.0
10-Jul	3.1	3.5	3.8	3.6	3.9	4.0	4.1	4.1	4.1	4.0	4.0	3.3	2.9	2.4	2.4	2.4	2.5	2.5	2.5	2.7	3.4	3.6	3.5	3.7	3.3	4.1
11-Jul	3.9	4.1	4.1	4.2	4.1	4.4	4.4	4.5	4.3	4.3	3.8	3.0	3.0	3.2	3.6	3.8	3.9	4.4	4.1	4.2	4.6	4.6	4.9	4.8	4.1	4.9
12-Jul	4.1	3.5	3.7	4.1	3.7	3.5	3.2	2.9	2.9	2.9	2.7	2.8	2.9	2.8	3.0	2.9	3.2	1.8	1.4	2.2	3.1	2.9	2.6	2.3	3.0	4.1
13-Jul	2.3	2.2	2.3	2.2	2.1	2.0	1.8	1.6	1.6	1.5	1.6	1.4	1.3	1.4	1.3	1.5	1.3	1.6	1.5	1.4	1.6	2.8	2.1	2.4	1.8	2.8
14-Jul	2.8	2.7	2.6	2.6	2.6	2.5	2.5	2.4	2.5	2.6	2.4	2.2	2.6	2.9	3.2	3.3	3.6	3.6	3.8	6.9	5.2	4.8	5.0	5.4	3.4	6.9
15-Jul	5.5	5.9	6.3	6.5	6.6	6.4	6.3	6.2	6.9	6.2	6.1	5.4	5.5	5.3	5.4	5.7	6.3	6.4	6.3	6.5	6.4	7.6	6.3	6.8	6.2	7.6
16-Jul	7.0	6.3	6.4	7.4	6.9	7.0	7.4	7.3	7.4	7.4	7.9	8.0	7.6	7.9	6.4	6.7	6.1	6.6	7.4	7.4	7.2	7.7	8.0	8.9	7.3	8.9
17-Jul	8.8	8.9	9.1	8.4	9.3	9.6	9.4	9.4	DF	13.9	12.6	11.3	11.3	10.1	9.2	8.0	9.0	9.7	9.0	9.7	20.6	23.2	20.5	18.6	11.7	23.2
18-Jul	17.2	16.2	16.1	18.1	24.9	23.1	20.4	21.3	13.6	10.0	11.6	10.0	9.8	10.1	8.8	10.9	13.7	17.0	17.3	14.5	11.3	10.8	12.9	13.3	14.7	24.9
19-Jul	13.4	13.4	14.9	15.0	14.1	11.7	10.5	10.7	10.2	10.4	15.1	16.8	17.7	17.8	11.8	8.1	10.9	20.3	19.0	18.3	18.7	15.8	12.3	12.8	14.2	20.3
20-Jul	31.8	57.2	115.3	145.9	160.5	147.1	107.4	80.6	64.7	68.9	64.8	65.3	59.2	39.4	28.9	47.3	52.9	59.4	62.8	61.9	64.6	69.7	75.4	72.3	75.1	160.5
21-Jul	68.7	68.8	69.8	62.5	60.9	64.0	54.5	56.4	54.8	52.0	54.2	56.7	60.8	61.9	62.5	62.6	63.9	64.0	62.8	60.8	62.9	66.7	70.7	72.3	62.3	72.3
22-Jul	74.0	70.5	65.9	67.3	64.9	62.8	61.1	52.6	54.4	49.0	48.0	47.2	C	42.5	40.3	39.3	47.3	50.1	52.8	55.8	56.7	55.2	56.6	56.8	55.3	74.0
23-Jul	57.5	56.4	57.9	56.0	56.0	48.2	35.3	29.7	24.9	22.5	22.5	22.9	22.6	28.2	33.7	18.8	8.7	6.7	5.0	3.6	4.7	5.0	3.9	3.5	26.4	57.9
24-Jul	3.7	3.7	4.1	4.0	4.2	4.5	4.8	7.5	11.5	14.2	12.6	9.2	6.6	6.4	6.2	6.1	7.2	8.7	9.7	9.0	10.9	14.6	13.2	12.0	8.1	14.6
25-Jul	10.8	9.6	6.8	5.7	5.2	4.8	3.9	3.5	3.4	3.3	2.9	2.7	2.4	2.1	1.9	1.7	2.1	2.4	2.7	3.4	4.0	4.3	4.4	4.5	4.1	10.8
26-Jul	4.6	4.6	4.8	5.2	5.4	5.3	5.2	7.1	9.6	9.4	8.1	8.0	8.6	9.3	8.8	8.3	7.1	6.7	6.1	8.0	8.0	8.0	8.0	11.2	7.3	11.2
27-Jul	11.9	10.3	8.7	8.4	8.5	7.9	7.1	8.1	8.3	10.1	10.0	9.1	9.0	9.4	11.1	17.4	19.8	20.7	21.8	24.6	29.7	30.0	32.9	28.9	15.2	32.9
28-Jul	29.6	28.6	30.7	31.9	34.5	34.8	30.5	25.0	17.3	11.1	6.3	5.1	6.2	6.9	8.3	9.4	10.2	10.9	16.4	17.0	19.2	19.4	8.9	5.5	17.7	34.8
29-Jul	5.2	4.7	4.3	3.9	4.9	7.1	9.0	9.7	7.8	8.2	4.0	2.5	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	--	9.7
30-Jul	DF	DF	DF	DF	DF	DF	DF	DF	DF	M	2.2	2.3	2.1	2.3	2.4	2.3	2.2	1.9	2.3	2.8	3.1	4.1	5.2	3.6	--	5.2
31-Jul	4.1	4.2	4.0	4.0	4.2	4.1	4.2	4.2	4.1	4.1	4.2	4.5	4.2	4.0	4.5	4.9	4.1	5.5	6.3	5.0	5.3	5.6	5.5	5.4	4.6	6.3
15.9 16.3 18.2 18.9 19.5 18.7 16.2 15.1 15.3 15.1 14.0 12.8 11.5 12.3 11.5 11.6 12.1 13.0 13.6 13.8 14.8 15.3 15.0 14.6																								Diurnal Average		
74.0 70.5 115.3 145.9 160.5 147.1 107.4 80.6 67.0 80.2 67.7 65.3 60.8 61.9 62.5 62.6 63.9 64.0 62.8 61.9 64.6 69.7 75.4 72.3																								Diurnal Maximum		
C - Calibration M - Maintenance DF - DAS Failure																										
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 µg/m³ 24-hr 29 µg/m³																										



Wood Buffalo Environmental Association
Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Janvier - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Janvier - July 2026

Concentration Ranges (µg/m³)	Number of Hours	%	Cumulative %
0 - 5	318	45.82	45.82
6 - 15	211	30.40	76.22
16 - 25	49	7.06	83.29
26 - 80	110	15.85	99.14
> 81.0	6	0.86	100.00

Total Number of Valid Hours: 694

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Janvier - July 2026

Concentration Ranges (µg/m³)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	3	8	5	4	5	7	9	11	23	75	95	28	19	16	5	4	317
6 - 15	10	23	16	8	4	4	12	4	11	31	44	10	11	8	11	4	211
16 - 25	3	2	2	1	0	4	13	4	0	2	1	4	2	2	5	4	49
26 - 80	7	5	1	0	3	7	6	6	7	29	21	5	3	0	8	1	109
> 81.0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Totals	29	38	24	13	12	22	40	25	41	137	161	47	35	26	29	13	692

Total Number of Valid Hours: 692

Total Number of Hours: 744

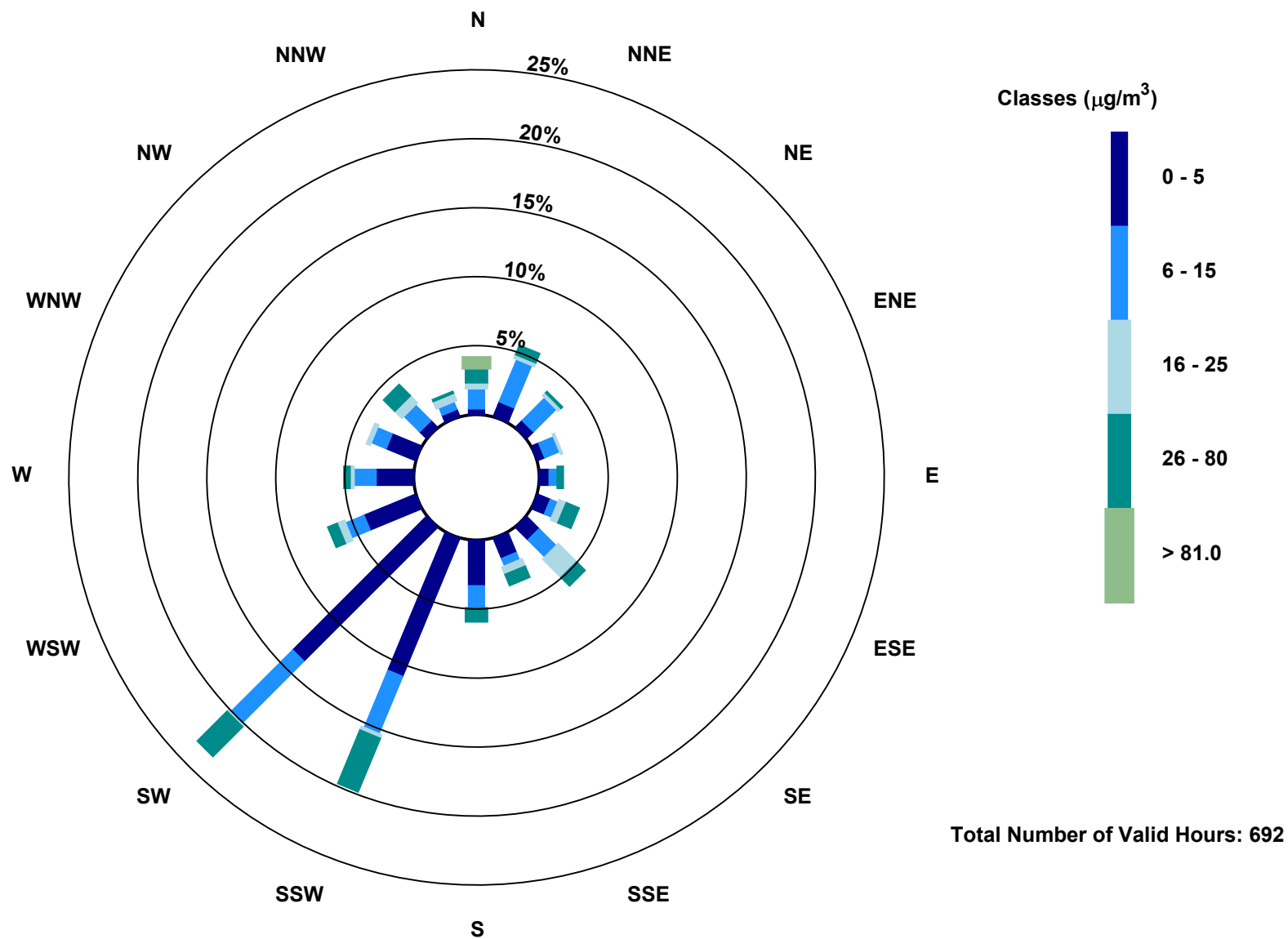


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$

Janvier





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

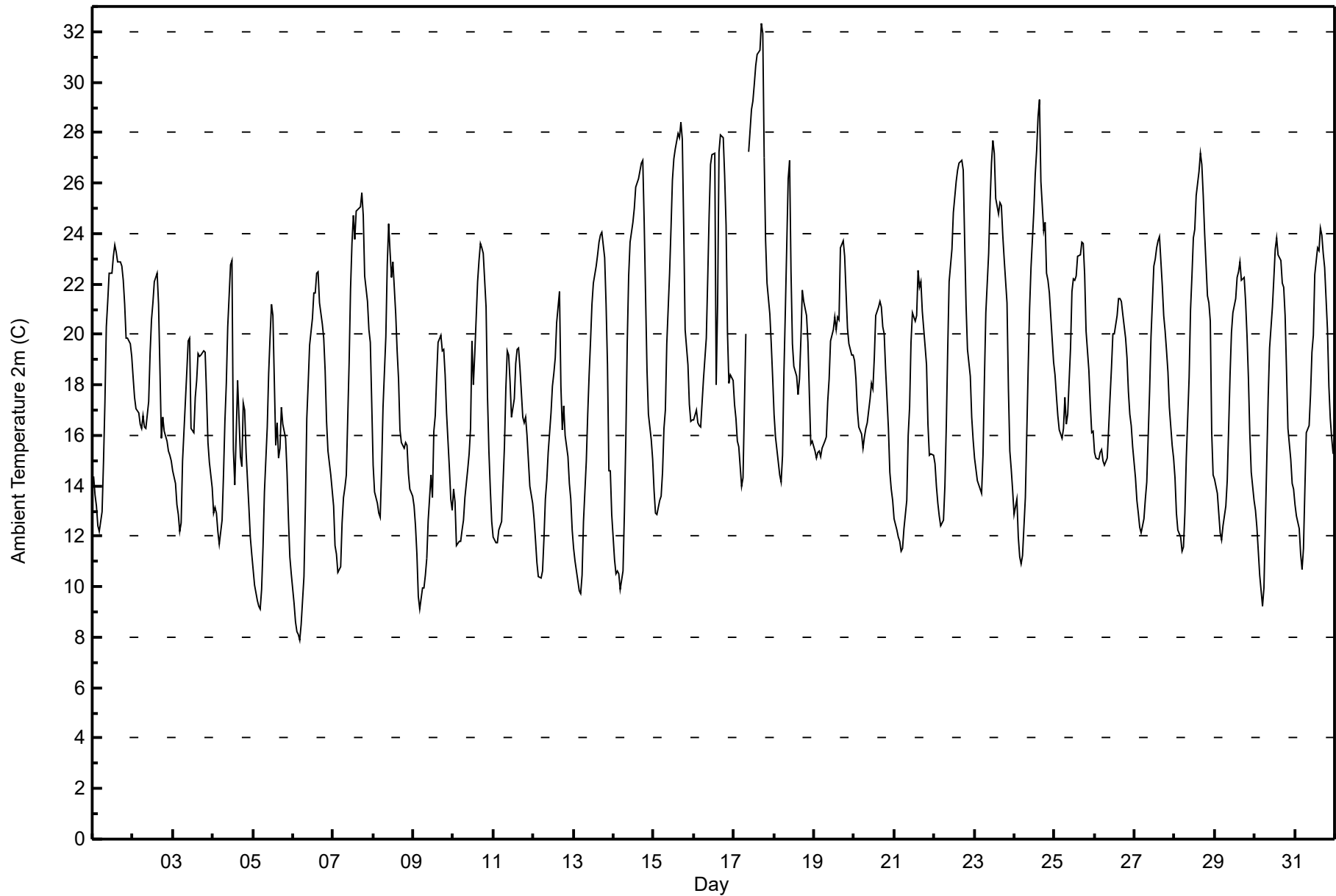
Janvier - July 2026

Maximum Value: 32.3 C on Jul 17 17:00																				Maximum Daily Average: 23.3 C on Jul 17					Hours in Service: 744	
Minimum Value: 7.9 C on Jul 6 05:00																				Minimum Daily Average: 14.2 C on Jul 5					Hours of Data: 743	
Maximum Diurnal Average: 22.9 C at hour 16																				Minimum Diurnal Average: 12.3 C at hour 5					Hours of Missing Data: 1	
Monthly Average: 17.91 C																				Percentiles: P ₁ = 9.2 P ₁₀ = 12.2 Q ₁ = 14.3 Median = 17.4 Q ₃ = 21.3 P ₉₀ = 24.1 P ₉₉ = 29.1					Hours of Calibration: 0	
																									Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	14.4	13.7	13.2	12.4	12.2	13.0	14.9	17.3	20.3	21.3	22.5	22.5	23.1	23.5	23.2	22.9	22.9	22.7	22.2	21.2	19.8	19.9	19.7	19.1	19.1	23.5
2-Jul	18.3	17.5	17.1	16.9	16.4	16.3	16.8	16.3	16.3	17.4	19.3	20.6	21.2	22.1	22.4	21.2	18.6	15.9	16.7	16.2	15.8	15.4	15.2	15.0	17.7	22.4
3-Jul	14.6	14.1	13.3	12.9	12.2	12.5	15.0	17.3	18.5	19.7	19.9	16.3	16.1	17.5	18.2	19.3	19.1	19.2	19.4	19.3	17.6	15.7	14.9	13.9	16.5	19.9
4-Jul	12.9	13.1	12.9	12.2	11.7	12.6	14.4	16.6	18.1	20.3	22.8	22.9	15.5	14.1	16.1	18.2	15.2	14.8	17.3	17.0	15.3	13.1	12.0	11.3	15.4	22.9
5-Jul	10.7	10.1	9.4	9.3	9.1	9.9	11.6	13.7	16.3	18.4	19.9	21.2	20.7	15.6	16.5	15.1	15.5	17.1	16.4	15.9	14.6	12.7	11.2	10.5	14.2	21.2
6-Jul	9.4	8.6	8.2	8.1	7.9	8.5	10.4	13.2	16.6	18.1	19.6	20.6	21.7	21.7	22.4	22.5	21.3	20.4	19.9	18.5	16.6	15.4	14.4	13.8	15.7	22.5
7-Jul	13.2	11.6	11.3	10.6	10.8	12.5	13.5	14.0	14.5	18.9	21.8	23.6	24.7	23.8	24.9	25.0	25.1	25.6	24.7	22.3	21.3	20.2	19.7	17.3	18.8	25.6
8-Jul	14.8	13.7	13.3	12.9	12.8	14.6	17.1	19.9	22.7	24.4	23.3	22.3	22.9	20.8	19.4	18.2	16.2	15.7	15.5	15.7	15.6	14.5	13.9	13.6	17.2	24.4
9-Jul	13.2	12.4	11.3	9.6	9.1	10.0	10.0	10.5	11.1	12.6	14.5	13.5	16.2	16.8	18.3	19.7	20.0	19.3	19.4	18.4	16.9	14.7	13.5	13.0	14.3	20.0
10-Jul	13.9	13.4	11.6	11.8	11.8	12.2	12.7	13.5	14.7	15.3	16.3	19.8	18.0	19.2	22.1	22.9	23.6	23.5	23.2	21.1	17.6	15.4	13.9	12.6	16.7	23.6
11-Jul	12.0	11.8	11.7	12.2	12.4	12.6	15.5	17.9	19.4	19.2	18.1	16.7	17.5	18.8	19.4	19.5	18.7	16.7	16.5	16.7	16.0	15.0	14.0	13.3	15.9	19.5
12-Jul	12.7	11.9	11.0	10.4	10.3	10.6	11.9	13.5	14.2	15.3	16.9	18.0	18.4	19.1	20.5	21.7	17.9	16.2	17.2	16.0	15.1	14.1	13.5	12.2	14.9	21.7
13-Jul	11.5	11.0	10.2	9.8	9.7	10.5	12.6	15.0	16.8	18.4	19.7	21.2	22.0	22.7	23.2	23.7	24.0	24.0	23.0	21.2	18.8	14.6	14.6	12.8	17.1	24.0
14-Jul	11.1	10.5	10.6	10.5	9.9	10.6	13.0	15.9	19.7	22.3	23.7	24.4	25.0	25.8	26.0	26.2	26.8	26.9	24.4	21.5	18.6	16.8	15.8	15.1	18.8	26.9
15-Jul	13.8	12.9	12.8	13.4	13.6	14.5	16.3	17.0	19.6	22.4	24.2	26.1	27.0	27.3	27.9	27.8	28.4	27.7	24.2	20.2	18.8	17.2	16.5	16.6	20.3	28.4
16-Jul	16.6	17.0	16.5	16.4	16.3	17.3	18.2	19.9	22.2	24.7	26.7	27.1	27.2	18.0	21.2	27.2	27.9	27.8	26.3	24.3	20.1	18.1	18.4	18.2	21.4	27.9
17-Jul	17.2	16.7	15.8	15.6	14.0	14.3	17.2	20.0	DF	27.2	28.9	29.3	29.9	30.7	31.1	31.2	32.3	31.9	27.0	23.7	22.1	20.8	19.7	18.3	23.3	32.3
18-Jul	16.8	15.9	15.0	14.4	14.2	15.2	18.5	21.0	26.2	26.9	22.5	19.6	18.8	18.4	17.6	18.2	19.8	21.7	21.3	20.7	19.7	17.6	15.7	15.8	18.8	26.9
19-Jul	15.4	15.1	15.3	15.4	15.2	15.5	15.8	15.9	17.4	18.2	19.7	20.2	20.7	20.2	20.7	20.6	23.4	23.7	23.1	21.7	20.2	19.6	19.2	19.2	18.8	23.7
20-Jul	19.0	18.3	17.0	16.3	16.1	15.5	15.9	16.3	16.5	17.5	18.1	17.8	19.1	20.7	21.1	21.3	21.1	20.3	20.0	18.6	16.3	14.6	13.9	13.4	17.7	21.3
21-Jul	12.7	12.2	12.0	11.8	11.4	11.5	12.3	13.4	16.0	17.1	19.7	20.9	20.5	20.8	22.5	21.9	22.1	20.9	19.5	18.8	16.5	15.2	15.3	15.2	16.7	22.5
22-Jul	14.9	14.0	13.3	12.8	12.4	12.6	14.0	16.4	19.4	22.1	23.4	24.8	25.4	26.1	26.5	26.8	26.9	26.5	23.7	21.2	19.4	18.4	16.7	15.8	19.7	26.9
23-Jul	15.1	14.6	14.2	13.9	13.7	15.2	18.2	20.9	23.2	25.2	26.8	27.7	27.2	25.4	24.8	25.2	25.1	24.0	23.0	21.2	17.9	15.4	14.6	13.8	20.3	27.7
24-Jul	12.9	13.5	12.0	11.2	10.9	11.2	13.5	16.1	18.7	21.0	22.7	24.9	26.3	27.3	28.6	29.3	26.0	24.1	24.5	22.4	22.1	21.6	19.8	18.9	20.0	29.3
25-Jul	18.4	17.6	16.8	16.2	15.9	16.3	17.5	16.4	16.8	19.5	21.7	22.2	22.1	22.3	23.1	23.1	23.6	23.6	22.4	20.1	18.6	17.2	16.1	16.2	19.3	23.6
26-Jul	15.3	15.1	15.0	15.3	15.5	15.0	14.8	15.1	16.3	17.5	18.7	20.0	20.0	20.7	21.4	21.4	21.3	20.8	19.8	19.1	17.7	16.8	16.4	15.6	17.7	21.4
27-Jul	14.3	13.4	12.9	12.4	12.1	12.7	13.5	14.2	16.0	17.7	19.9	22.7	23.0	23.5	23.7	23.9	21.9	20.7	20.1	19.4	18.5	17.1	15.6	15.1	17.7	23.9
28-Jul	14.3	12.9	12.2	11.9	11.4	11.6	12.9	15.1	18.3	21.0	22.3	23.8	24.2	25.5	26.5	27.2	26.8	25.5	24.0	21.5	21.2	20.5	16.1	14.4	19.2	27.2
29-Jul	14.3	13.7	12.9	12.2	11.9	12.4	13.2	14.2	16.3	18.4	20.1	20.9	21.4	22.2	22.5	22.8	22.1	22.2	21.3	20.0	18.3	16.1	14.5	13.4	17.4	22.8
30-Jul	13.0	12.4	11.4	10.4	9.2	9.9	12.5	15.0	17.5	19.5	21.1	22.2	23.4	23.8	23.1	22.9	22.0	21.9	20.8	18.6	16.3	15.0	14.1	13.9	17.1	23.8
31-Jul	13.3	12.8	12.3	11.3	10.7	11.5	13.8	16.1	16.4	17.6	19.3	20.0	22.4	23.5	23.3	24.2	24.0	23.2	22.7	20.2	18.0	16.7	15.9	15.3	17.7	24.2
Diurnal Average																										
Diurnal Maximum																										
DF - DAS Failure																										



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Janvier - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Janvier - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	19	2.56	2.56
10 - 20	481	64.74	67.29
> 20	243	32.71	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

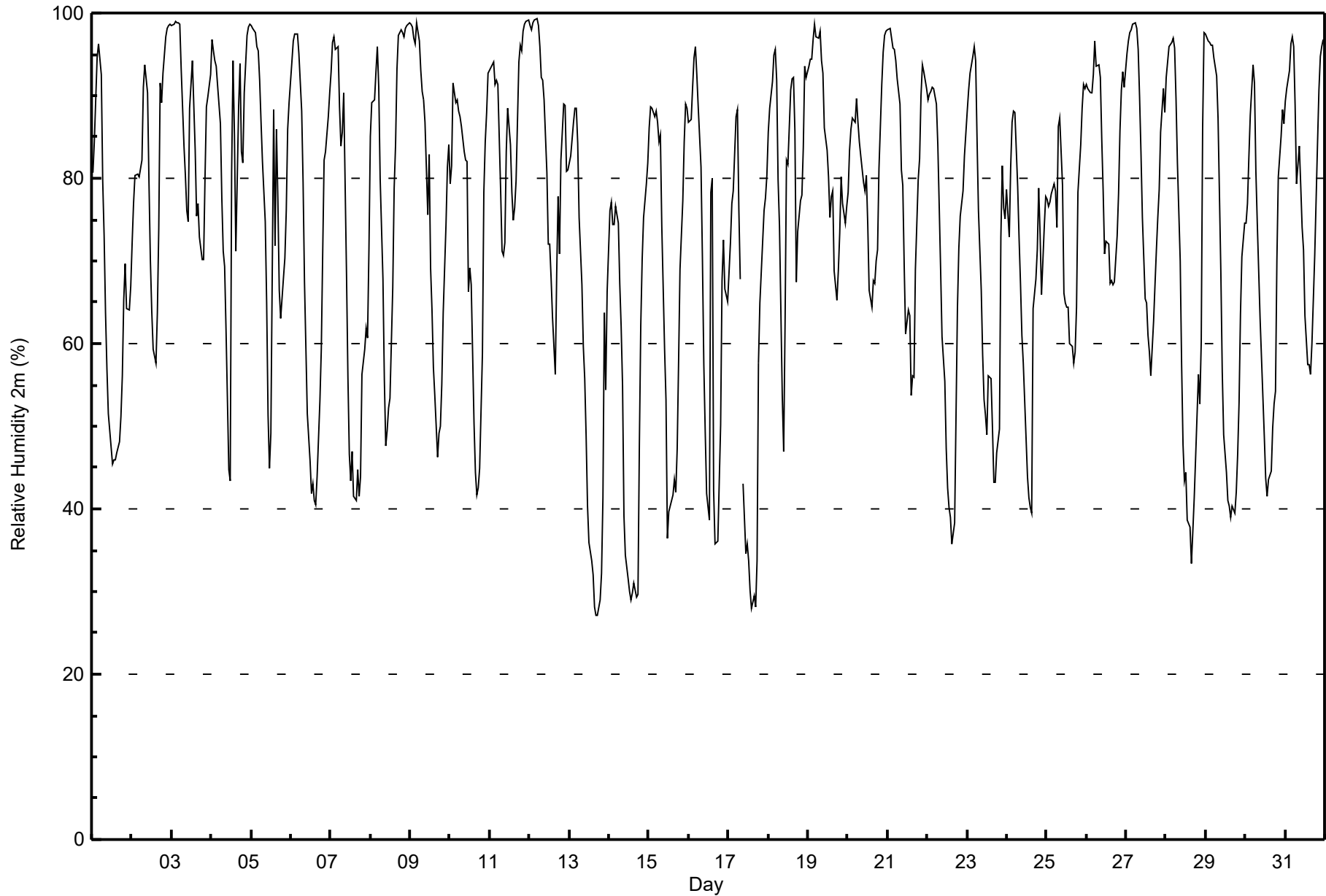
Janvier - July 2026

Maximum Value: 99.3 % on Jul 12 05:00																				Maximum Daily Average: 87.2 % on Jul 11					Hours in Service: 744		
Minimum Value: 27.0 % on Jul 13 18:00																				Minimum Daily Average: 55.4 % on Jul 13					Hours of Data: 743		
Maximum Diurnal Average: 92.7 % at hour 5																				Minimum Diurnal Average: 54.5 % at hour 16					Hours of Missing Data: 1		
Monthly Average: 74.04 %																				Percentiles: P ₁ = 29.4 P ₁₀ = 43.6 Q ₁ = 61.0 Median = 78.3 Q ₃ = 90.3 P ₉₀ = 96.1 P ₉₉ = 98.8					Hours of Calibration: 0		
																									Percent Operational Time: 99.9		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	80.7	84.4	89.5	94.6	96.3	92.6	79.7	73.0	63.7	56.9	51.6	47.4	45.4	46.0	46.7	48.1	51.2	56.0	65.3	69.7	64.2	64.1	66.9	65.8	96.3		
2-Jul	72.1	77.0	80.4	80.5	80.1	81.2	82.2	91.1	93.8	90.3	79.6	70.2	63.9	59.4	57.7	63.6	73.9	91.6	89.2	92.7	97.1	98.1	98.4	98.6	81.8	98.6	
3-Jul	98.4	98.7	98.9	98.8	98.8	98.7	93.3	83.8	80.4	76.1	74.7	88.5	94.2	88.8	83.4	75.5	77.0	72.8	70.1	70.2	80.0	88.7	89.9	92.5	86.3	98.9	
4-Jul	96.7	95.4	94.2	93.5	91.3	86.5	77.7	71.2	69.3	61.6	44.7	43.4	80.7	94.3	85.3	71.2	88.7	93.9	83.2	81.9	90.4	97.3	98.3	98.6	82.9	98.6	
5-Jul	98.4	98.1	97.6	95.9	95.5	91.8	86.7	82.1	74.7	64.9	51.4	44.9	49.1	88.3	71.8	86.0	77.5	66.4	63.0	67.9	70.3	76.0	85.9	89.1	78.1	98.4	
6-Jul	94.0	96.7	97.5	97.5	97.4	95.0	88.1	79.5	67.4	59.5	51.5	45.7	41.9	43.0	41.0	40.6	43.9	53.0	59.3	71.1	82.2	83.2	87.4	90.4	71.1	97.5	
7-Jul	92.8	96.4	97.1	95.6	95.9	88.7	83.9	85.6	90.3	68.2	56.0	46.6	43.3	47.0	41.5	41.0	44.8	41.5	44.0	56.2	59.3	61.9	60.6	71.3	67.1	97.1	
8-Jul	85.0	89.1	89.5	92.9	96.0	91.0	80.0	67.9	55.6	47.7	49.5	52.3	53.3	66.8	78.9	84.1	93.2	97.3	98.0	97.6	97.2	98.1	98.5	98.9	81.6	98.9	
9-Jul	98.7	98.2	96.9	96.3	98.7	96.7	93.1	90.5	89.6	86.8	75.6	82.9	69.2	64.0	57.1	53.7	46.3	49.1	50.1	55.1	63.7	74.5	81.3	84.0	77.2	98.7	
10-Jul	79.3	81.6	91.5	89.2	89.6	88.1	87.5	86.3	83.2	82.2	82.0	66.4	69.2	67.1	50.4	44.4	41.6	42.5	45.0	58.8	78.3	84.4	87.9	92.8	73.7	92.8	
11-Jul	93.0	93.8	94.1	91.3	91.8	91.4	78.4	71.3	70.7	72.2	83.3	88.5	84.0	78.2	74.8	76.4	79.6	94.0	96.1	95.4	97.8	98.6	99.0	99.2	87.2	99.2	
12-Jul	98.6	97.9	98.8	99.2	99.3	98.4	96.0	92.2	91.9	89.4	80.7	72.1	72.0	67.9	63.3	56.3	68.5	77.8	70.9	82.1	89.0	88.9	80.8	81.1	83.9	99.3	
13-Jul	81.8	82.8	86.7	88.5	88.5	84.3	75.2	67.2	59.6	55.8	48.7	40.3	35.9	33.7	32.0	28.1	27.2	27.0	29.0	32.1	41.3	63.7	54.5	66.2	55.4	88.5	
14-Jul	76.1	77.1	74.4	74.4	76.7	74.5	67.4	62.1	55.0	39.2	34.3	31.5	30.0	29.0	29.8	31.0	29.3	29.6	47.9	62.2	70.2	75.3	79.3	81.8	55.8	81.8	
15-Jul	86.2	88.7	88.5	87.4	88.2	86.8	84.5	85.3	74.2	59.3	53.3	36.4	39.7	40.3	41.7	43.6	42.1	47.3	57.8	69.1	77.3	84.3	89.0	88.4	68.3	89.0	
16-Jul	86.8	87.1	90.9	94.6	95.9	92.5	88.6	81.4	70.3	57.5	49.3	41.9	38.6	78.3	80.1	42.3	35.7	36.1	43.2	50.1	67.7	72.5	66.6	65.1	67.2	95.9	
17-Jul	68.7	72.1	76.9	78.4	87.5	88.3	76.3	67.8	DF	43.1	34.6	35.8	33.7	30.2	28.0	29.5	28.2	33.7	57.6	64.9	68.6	76.1	77.7	80.3	58.2	88.3	
18-Jul	85.7	88.5	91.6	94.9	95.6	91.9	79.8	74.3	53.5	46.9	62.7	82.2	81.7	90.6	92.1	92.3	85.7	67.4	73.6	77.3	78.0	83.7	93.6	92.2	81.5	95.6	
19-Jul	93.6	94.4	94.4	96.8	98.6	97.0	97.0	97.8	94.2	92.7	86.1	83.5	80.1	75.2	77.8	78.5	68.8	65.2	68.9	73.4	80.2	76.9	74.6	76.7	84.3	98.6	
20-Jul	78.3	83.4	86.0	87.3	86.7	89.6	86.8	84.5	82.7	79.4	78.5	80.4	74.4	66.5	64.4	67.6	67.2	70.0	71.4	81.2	91.4	95.3	97.3	97.8	81.2	97.8	
21-Jul	98.0	98.1	97.0	95.8	95.6	94.3	92.0	88.9	81.1	79.1	69.6	61.1	64.0	63.4	53.7	56.1	55.9	69.1	79.9	82.4	90.1	93.7	92.8	90.9	80.9	98.1	
22-Jul	89.5	90.2	90.5	91.1	90.9	89.0	84.0	76.6	69.0	60.9	55.4	47.3	42.6	40.1	39.0	35.8	38.4	51.4	64.2	71.5	75.4	78.4	82.7	85.4	68.3	91.1	
23-Jul	88.1	90.7	92.6	94.7	96.0	94.3	84.8	76.1	66.4	58.7	53.1	51.4	48.9	56.1	55.7	49.8	43.3	43.2	46.9	49.7	72.8	81.5	76.4	75.2	68.6	96.0	
24-Jul	78.6	72.9	81.4	86.8	88.1	88.0	79.0	72.8	67.3	61.0	57.7	48.4	43.9	41.4	40.1	39.5	64.2	67.9	71.4	78.9	73.2	65.9	74.3	77.8	67.5	88.1	
25-Jul	77.5	76.6	77.2	78.2	79.3	78.6	74.1	86.3	87.3	79.2	66.0	64.9	64.5	64.4	60.0	59.7	57.6	59.0	64.4	78.3	84.1	88.4	91.4	90.8	74.5	91.4	
26-Jul	91.3	90.9	90.3	90.4	92.5	96.6	93.5	93.7	92.2	84.8	78.6	70.9	72.3	72.0	67.3	67.5	67.2	67.4	73.1	78.1	85.8	90.7	92.9	91.1	83.0	96.6	
27-Jul	95.2	96.6	97.7	98.0	98.6	98.8	98.2	95.5	89.8	83.0	75.3	65.5	64.9	61.1	58.9	56.1	62.7	67.1	71.4	75.3	78.6	85.6	90.9	88.0	81.4	98.8	
28-Jul	92.3	94.2	96.0	96.5	97.0	95.8	89.7	81.9	70.0	57.4	47.7	43.3	44.3	38.6	37.8	33.3	37.3	41.4	46.3	56.2	52.7	60.1	86.1	97.6	66.4	97.6	
29-Jul	97.4	96.7	96.5	96.1	96.2	94.6	92.4	87.3	78.0	68.6	56.6	48.9	44.3	41.0	40.3	39.0	40.4	39.5	42.0	46.6	52.9	63.5	70.5	74.5	66.8	97.4	
30-Jul	74.6	77.0	82.5	87.6	93.8	91.5	80.9	74.6	68.9	63.0	53.5	48.9	43.7	41.5	43.5	44.5	49.8	52.7	54.3	70.2	80.1	85.1	88.3	86.7	68.2	93.8	
31-Jul	89.3	90.9	93.1	96.2	97.1	95.9	88.7	79.2	83.9	79.2	74.0	71.3	63.4	57.5	57.5	56.3	59.9	65.3	70.7	84.2	90.7	94.8	96.0	96.8	80.5	97.1	
87.6 88.9 90.7 91.6 92.7 91.0 85.1 80.9 75.8 67.9 61.8 58.2 57.3 59.1 56.5 54.5 56.3 59.1 63.2 70.2 77.0 81.6 84.1 86.0																										Diurnal Average	
98.7 98.7 98.9 99.2 99.3 98.8 98.2 97.8 94.2 92.7 86.1 88.5 94.2 94.3 92.1 92.3 93.2 97.3 98.0 97.6 97.8 98.6 99.0 99.2																										Diurnal Maximum	
DF - DAS Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Janvier - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 20m (WS20) - km/h

Janvier - July 2026

Maximum Speed: 21 km/h on Jul 29 13:00										Maximum Daily Speed Average: 13.5 km/h on Jul 29										Hours in Service: 744						
Minimum Speed Value: 0 km/h on Jul 23 21:00										Minimum Daily Speed Average: 0.9 km/h on Jul 11										Hours of Data: 741						
Maximum Diurnal Speed Average: 5.5 km/h at hour 4										Minimum Diurnal Speed Average: 1.9 km/h at hour 14										Hours of Missing Data: 3						
Monthly Average Velocity: 3.7 km/h 228.4 deg										Percentiles: P ₁ = 1 P ₁₀ = 3 Q ₁ = 5 Median = 7 Q ₃ = 9 P ₉₀ = 11 P ₉₉ = 18										Percent Operational Time: 99.6						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jul	E1	W0	SSW0	NW1	UO	NNE3	NNE4	N3	E4	ESE7	ESE10	ESE11	ESE12	E12	ESE9	SE8	SE8	S6	SSE5	SE4	SSE5	SSE8	S8	SSE6	ESE4.6	ESE12
2-Jul	SE7	SE6	SE7	SE9	SE8	SE9	SE8	ESE6	SE8	SE11	SSE14	SSE15	SSE16	SSE14	SSE13	S10WSW12	SW10	SW1	E3	ESE1	SSW1	S2	S3	SSE6.7	SSE16	
3-Jul	S3	SE4	SE4	SE4	SE0	SW0	NNW2	NE2	NNW2	WSW5	SW3	SW8	SW10	SSW8	SW9	SW10	SW9	SSW9	S6	S6	S6	SSE7	S7	SSW6	SSW4.3	SW10
4-Jul	SW8	SSW10	SW10	SW11	SW10	SW9	SW7	SW5	WSW4	SSW4	SE7	SSE6WSW15	E3	E5	E6	ESE3	WSW6	WSW7	WSW9	SW5	SSW4	SSW6	SSW7	SSW5.1	WSW15	
5-Jul	SSW7	SSW7	SW8	SW9	SSW11	SW9	SW7	SSW9	SSW10	SW10	W12WNW14	W11	NNW0	NE9	SSW6	SSW8	W10	W8WNW11	WNW9	WNW8	WNW6	SW8	WSW6.6	WNW14		
6-Jul	SW6	SW6	SSW8	SSW8	SSW7	SSW9	SW8	SW8	W7	WNW9WNW10	NW10	NW11	NW9WNW13	W10	N9	NNE10	NE4	SE3	S5	S4	S3	SW1	W3.9	WNW13		
7-Jul	SW6	W2	S6	SSW6	SW5	SSW4	SSW3	S3	ESE2	SE2	E6	E8	E8	SE6	SSE7	ESE7	ESE7	ESE8	ESE8	SE6	SE6	SSE7	SSE8	S7	SSE4.2	ESE8
8-Jul	SSW3	SSE3	NE1	NNE1	NNE2	SW2	NW1	SSW10	SSW11	S10	S10	SSE7	S6	SSW5	SE6WSW10	W3	NW4	SW5	SW5	SW5	SSW6	SW5	SW8	SSW4.1	SSW11	
9-Jul	SW7	SW8	SW8	SW6	SSW7	SSW6	SSW7	SSW7	SSW6	SW7WSW11	SW13	SW15	SSW17	SW17	SW15	SW16	SW14	SW12	SW12	SSW10	SSW9	SSW9	SW7	SW10.0	SW17	
10-Jul	SSW10	SSW8	SSW6	SW8	SW8	SW8	SW9	SW9	SW6	SSW7	SSW5	SW6	SW8	SSW9	SW8WSW10WSW10	SW10	WSW8	WSW4	SSW4	SSW4	SSW4	S4	SW6.9	WSW10		
11-Jul	SSW3	SSW7	SSW4	SSW3	S3	S2	SW3	SSW2	W2	WSW4	SW5	NNW4	NNE5	NE6	NNE8	NNE9	N9	WNW3	N5	WNW3	SW2	SW3	SW5	SW5	W0.9	NNE9
12-Jul	WSW6	WSW6	SSW6	SSW6	SW8	SW9	SW8	SW8	SW7	SW6	WSW5	WSW1	N4	NE5	SE8	S9WSW14	WNW6	SW6	SSW7	S9	SW11	SW10	SW11	SW5.7	WSW14	
13-Jul	WSW10	SW11	SW13	SW11	SW12	SW13	SW12	SW11WSW12	SW13	SW16	W17	W18	W18	W16	W18	W16WNW16WNW14WNW12	W8	WSW7	SW8	W3	WSW11.9	W18	WSW6.2	WNW16		
14-Jul	SSW6	SSW8	SSW11	SSW12	SW11	SW10	SW10	SW7	WSW7WNW16WNW13WNW12	W13WNW12	W12	W9	W8	SW4	S2	SE5	SE6	S3	S4	S4	WSW6.2	WNW16	SSW5.1	SSW11		
15-Jul	S3	S4	SSW5	S4	SSW3	NNE1	ENE1	N2	NE1	SE4	NNE2	SSE11	SSE11	S8	SSE8	SSE9	S11	SSW7	N9	NE5	NE5	NNE2	W1	SW5	SSE2.7	SSW11
16-Jul	SW8	SW9	SW8	SSW8	SSW8	SW8WSW10	SW11WSW10	SW5	WSW5WSW11WSW11	NW3	SSW8WSW12WSW11	SW10	SW9	SW8	SW6	SSW9	SSW11	SW11	SW8.3	WSW12	SSW3.1	SSW12				
17-Jul	SSW11	SSW12	SSW9	SSW11	SSW5	SSW6	SSW6	SSW5	DF	ESE2	ENE4	ENE5	SE4	ENE6	NE5	SE4	ENE4	SE2	ESE1	E5	ESE8	ESE7	SE6	SSE3	SSE3.1	SSW12
18-Jul	SSE1	SE1	NE2	NE3	ENE3	NNE2	NNE1	NNW3	SE4	SSW3	N9	N7	NE11	N4	NNE3	SE4	S5	SSE6	SE5	SSE4	SE4	SE5	NW3	ENE1.6	NE11	
19-Jul	N5	NE2	SW5	SW2	N8	NNE6	ENE3	WNW5	SSE1	NW4	NNW7	NNW6	N8	N11	NW6	W9	WNW6	N9	NNW9	NW8	NW8	NNW6	N7	N8	NNW5.0	N11
20-Jul	N10	N11	N10	N9	N9	N8	N9	N8	N8	N8	NNE6	NW6	N6	NNE8	NNE6	NW9	NW10	NW8	NW5	NE2	ESE2	SSW3	SW5	SSW5	N5.6	N11
21-Jul	SSW6	SSW6	SSW8	SSW9	SW10	SSW9	SSW6	SSW5	SW6	SW5	WSW6	SW9	WSW6	WSW4	N2	SW6	WSW6	NW2	S2	SSW2	SSW6	SSW6	SSW7	SSW8	SW5.4	SSW10
22-Jul	SSW8	SSW8	SSW9	SSW10	SSW11	SSW10	SW6	SW6	SW6	SW6	SW6	SW5	SW5	W6	W8	SW5	SSE4	SE3	SE5	SE7	SE7	SSE5	S4	SW1	SSW5.2	SSW11
23-Jul	S4	S4	S4	SSW5	SSW5	SSW9	SW9	SW8WSW11	SW14WSW14WSW13WNW15	NW18	NW16	NW16	NW18	NW14	NW11	NW7	NE0	WSW5	WSW6	SW7	SSW4.5	SSW10				
24-Jul	SW7	SW10	SW6	SW6	SSW7	SSW7	SW6	SSW5	SSW4	ESE4	E5	W1	E3	ENE5	S1	SW5	SSW5	SSW3	S3	SW3	SW9	SW10	SW9	SW10	SSW4.5	SSW10
25-Jul	SW11	SW11	SW11	SW10	SW9	SSW8	WSW9	SW10	SW8	SSW6	WSW9	SW9	SW9	SW9	SW10	SW9	SW8	SW7	SSW6	SSW5	SW6	SSW5	SW3	SW5	SSW7.9	SSW11
26-Jul	SSW7	SW4	SSW3	SSW6	SSW3	NNW4	NNW5	NNE6	NE7	NE8	NE7	NE8	NE9	NE11	NNE10	NNE11	NNE11	NNE10	NNE7	NE6	NNE3	NNE4	NNE5	NNE5	NNE4.6	NE11
27-Jul	NNE5	NNE5	NNE6	NNE4	NNE4	NNW4	N3	SW3	WSW7	SW7	SW6	W8	NW6	NNW5	NNW9	WNW8	W10	WSW6	W6	SW5	SW6	SSW7	SW9	W3.2	W10	
28-Jul	SW9	SW8	SSW9	SSW9	SSW9	SW9	SW8	SSW8	SW6	SW5	S3	E1	ENE5	E8	ESE8	SE7	SE7	SSE8	SSE8	SE6	ESE8	SE7	W8	SE6	S4.6	SW9
29-Jul	SSW9	SW13	SW11	SW13WSW12	SW13	SW13WSW14	W16	W16	W17	W20WSW21	W19	W20	W20	W20	W19	W17	W14	W10	W7	SW8	SW8	W13.5	WSW21	WSW6.7	WNW11	
30-Jul	WSW8	SW8	SW7	SW7	SSW6	SSW9	SW9	SW10	SW10	W7	NW9WNW11	NW10	WNW9	WNW8	W9	SW10	WSW9	SW8	SSW7	SSW7	SSW6	SSW7	SSW8	WSW6.7	WNW11	
31-Jul	SSW7	SSW8	SSW6	S4	SSW5	SSW7	SSW4	SW4	S4	SSE3	ENE3	NW1	ENE3	ENE4	NNE4	NNE5	NNE5	NNE5	NE3	UO	S1	SSW4	SSW4	SW5	S1.5	SSW8
SW4.8SSW5.3SSW5.3SSW5.5SSW5.1 SW4.8 SW4.5 SW4.4 SW4.1 SW4.1WSW3.0WSW3.6WSW3.3 W1.9 W2.1WSW4.3WSW4.6 W3.8WSW2.6 SW2.3SSW2.9SSW3.7SSW4.4 SW4.4																								Diurnal Average		
SSW11 SW13 SW13 SW13WSW12 SW13 SW13WSW14 W16 W16 W17 W20WSW21 W19 W20WNW20 W20 W19 W17 W14 W10 SW11 SSW11 SW11																								Diurnal Maximum		
DF - DAS Failure UO - Unstable Operation																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 20m (WS20) - km/h

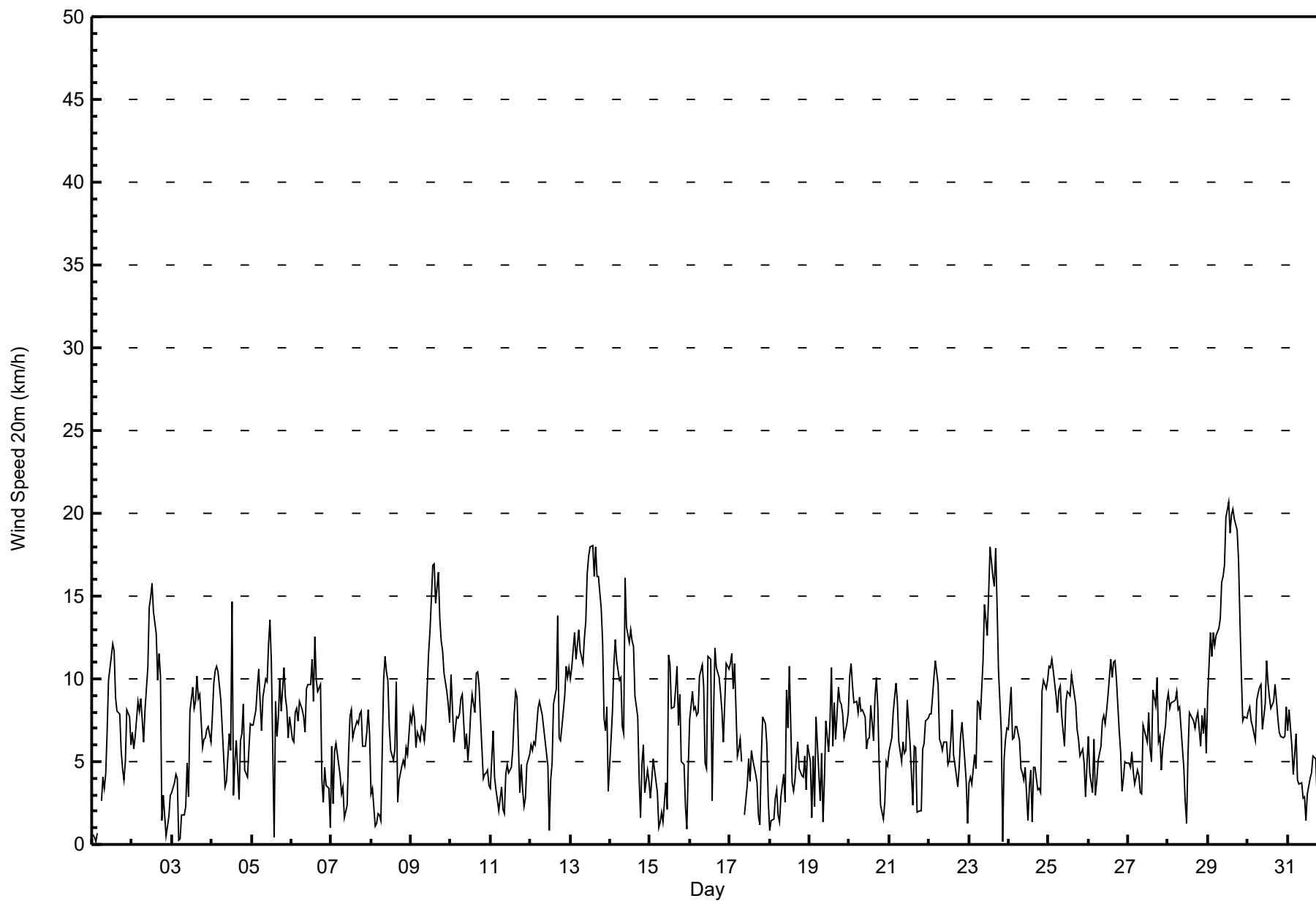
Janvier - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 10 km/h on Jul 4 13:00																	Hours in Service: 744 Hours of Data: 741 Hours of Missing Data: 3 Hours of Calibration: 0 Percent Operational Time: 99.6								
Minimum Value: 1 km/h on Jul 31 04:00																									
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 2 Q ₃ = 3 P ₉₀ = 4 P ₉₉ = 7																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	1	1	1	1	UO	1	1	1	3	3	4	4	4	4	4	3	2	2	1	1	1	3	3	2	4
2-Jul	2	2	2	2	2	3	2	1	3	4	5	5	5	5	4	5	4	5	2	2	1	1	2	2	5
3-Jul	1	2	2	2	1	1	2	2	2	2	4	6	5	3	3	3	3	2	2	2	1	1	2	2	6
4-Jul	1	1	2	2	2	2	2	1	1	1	2	3	10	2	3	2	4	2	2	3	2	2	1	1	10
5-Jul	1	2	2	2	2	3	2	2	3	4	4	5	5	4	4	2	2	4	2	3	3	2	2	2	5
6-Jul	1	1	2	1	1	2	2	2	3	4	4	4	4	4	4	4	4	4	1	1	2	3	1	2	4
7-Jul	2	1	1	2	2	2	2	2	2	1	2	2	3	3	2	3	3	3	3	1	1	2	2	2	3
8-Jul	2	2	1	1	1	2	1	4	4	4	3	3	3	2	2	5	5	2	2	1	1	2	1	2	5
9-Jul	1	2	2	1	1	1	2	2	2	3	3	4	5	5	5	5	6	4	4	4	3	2	2	2	6
10-Jul	3	3	1	1	1	2	2	3	3	3	2	3	4	3	3	3	4	3	3	2	1	1	1	2	4
11-Jul	3	2	2	2	1	2	1	1	1	1	2	2	2	2	2	2	3	3	2	2	1	1	1	1	3
12-Jul	1	2	1	1	2	2	2	2	2	3	2	1	2	2	3	4	8	4	2	3	3	3	3	3	8
13-Jul	3	3	3	3	4	4	4	4	4	4	5	6	6	6	6	6	5	6	5	4	2	1	2	2	6
14-Jul	2	2	2	2	2	2	3	2	4	5	5	5	5	4	5	3	4	2	2	1	1	1	2	1	5
15-Jul	2	2	1	2	2	1	1	1	1	2	3	4	4	3	3	3	4	3	6	3	2	1	1	2	6
16-Jul	2	2	2	2	2	2	3	4	3	2	4	4	4	6	3	5	4	3	2	2	1	1	2	2	6
17-Jul	2	2	3	2	3	1	1	1	DF	1	1	2	2	3	2	3	2	1	1	2	1	1	2	2	3
18-Jul	2	2	1	1	1	1	1	1	3	3	5	6	6	3	3	3	2	3	2	2	3	2	2	2	6
19-Jul	2	2	2	2	3	2	2	2	1	2	3	2	5	4	2	3	4	4	4	3	3	2	2	3	5
20-Jul	3	4	3	3	3	3	3	3	3	3	2	3	3	3	3	4	4	3	2	1	1	2	1	2	4
21-Jul	1	1	1	1	2	2	2	2	2	1	2	3	2	2	2	2	2	2	1	1	1	1	1	1	3
22-Jul	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	2	2	2	2
23-Jul	1	1	1	1	2	2	2	2	4	5	4	5	6	6	6	6	7	6	4	3	1	1	1	1	7
24-Jul	1	2	1	1	1	2	2	1	2	2	2	2	2	3	2	3	3	1	1	1	4	3	2	2	4
25-Jul	2	3	2	2	2	2	3	2	2	2	3	3	3	3	3	3	2	2	2	1	1	1	2	1	3
26-Jul	1	2	2	1	2	1	2	2	2	2	2	3	3	3	3	3	3	3	2	2	1	1	2	2	3
27-Jul	1	1	1	1	1	2	1	2	2	3	2	3	5	3	4	3	3	3	2	2	1	2	1	2	5
28-Jul	2	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	2	3	3	2	2	3	9	2	9
29-Jul	4	4	4	4	4	4	4	5	6	5	6	7	6	7	7	7	7	6	5	5	3	2	2	1	7
30-Jul	2	2	2	1	2	2	3	3	3	3	4	5	4	4	3	3	3	3	2	1	1	1	2	1	5
31-Jul	1	1	2	1	1	1	1	1	1	1	2	1	1	1	1	2	2	1	2	UO	1	1	1	1	2
4 4 4 4 4 4 4 5 6 5 6 7 10 7 7 7 8 6 6 5 4 3 9 3																									
Diurnal Maximum																									
DF - DAS Failure UO - Unstable Operation																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 20m (WS20) - km/h
Janvier - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 20m (WS20) - km/h
Janvier - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	247	33.33	33.33
6 - 11	420	56.68	90.01
12 - 19	69	9.31	99.33
20 - 28	5	0.67	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 741

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 20m (WS20) - km/h
Janvier - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	8	24	14	12	8	8	19	10	29	40	37	10	7	3	9	9	247
6 - 11	21	14	11	1	4	14	26	15	16	97	119	30	19	12	15	6	420
12 - 19	0	0	0	0	1	1	0	5	0	3	18	10	15	11	5	0	69
20 - 28	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0	0	5
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	29	38	25	13	13	23	45	30	45	140	174	51	44	27	29	15	741

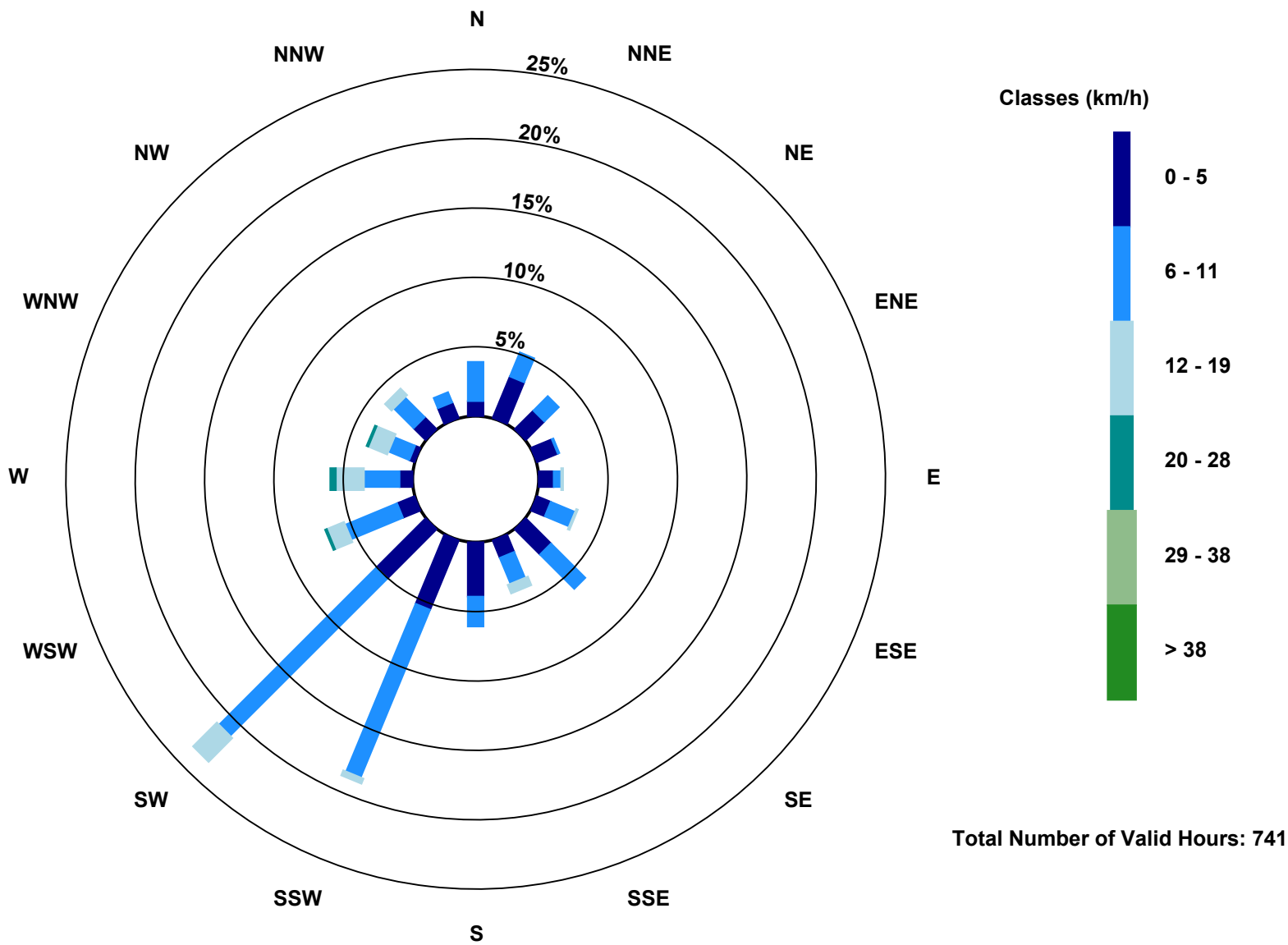
Total Number of Valid Hours: 741

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 20m (WS20) - km/h
Janvier





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 20m (WD20) - deg

Janvier - July 2026

Direction of Maximum Speed: 257 deg on Jul 29 13:00 Direction of Maximum Daily Speed Average: 260.8 deg on Jul 29																				Hours in Service: 744					
Direction of Minimum Speed: 51 deg on Jul 23 21:00 Direction of Minimum Daily Speed Average: 0.9 deg on Jul 11																				Hours of Data: 741					
																				Hours of Missing Data: 3					
Monthly Average Direction: 228.4 deg																				Percent Operational Time: 99.6					
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	101	272	213	313	UO	29	24	356	86	119	104	102	102	96	109	127	132	172	158	128	150	161	175	160	120.0
2-Jul	125	140	137	126	131	136	133	108	131	143	147	147	155	166	152	178	242	234	218	89	108	195	184	169	152.8
3-Jul	175	143	136	144	133	236	330	39	340	252	233	235	216	203	216	220	220	210	179	171	171	163	179	211	200.1
4-Jul	214	213	217	215	217	222	220	215	245	198	124	148	241	90	79	100	120	251	253	257	221	210	207	207	212.4
5-Jul	208	197	218	216	212	221	224	206	212	235	268	284	275	347	34	207	212	280	265	285	295	289	282	236	246.2
6-Jul	219	219	210	209	207	210	219	230	268	291	298	305	323	321	284	281	356	29	49	128	182	191	185	231	264.3
7-Jul	221	261	185	203	217	213	198	189	114	139	84	83	101	145	159	107	121	108	119	141	142	149	165	184	147.4
8-Jul	202	149	54	25	31	232	322	194	196	189	169	168	174	199	140	247	271	315	230	230	232	207	223	219	202.5
9-Jul	215	222	234	231	206	209	206	196	203	219	243	236	221	208	223	233	235	228	225	218	204	200	200	214	219.8
10-Jul	200	201	206	218	221	218	216	220	217	207	209	214	228	210	234	237	239	227	256	244	194	193	198	173	218.3
11-Jul	200	202	196	198	191	176	235	206	265	248	215	340	32	45	32	15	2	293	10	284	218	229	214	235	274.4
12-Jul	244	241	213	211	221	228	234	227	228	228	250	247	3	44	125	191	251	291	217	193	178	216	227	227	222.5
13-Jul	239	230	231	228	222	229	229	231	239	232	236	260	265	272	264	265	268	283	291	283	272	239	232	272	252.3
14-Jul	204	213	208	212	215	217	225	228	239	288	292	289	281	296	275	275	268	235	176	126	135	189	175	172	244.7
15-Jul	189	179	201	184	200	30	69	2	34	126	29	165	152	182	168	165	183	194	7	52	39	29	272	229	164.5
16-Jul	216	219	216	211	207	232	238	233	240	223	253	250	249	316	208	242	242	226	225	235	223	205	210	214	228.2
17-Jul	209	208	211	209	207	206	211	205	DF	114	70	72	145	58	46	128	73	126	103	100	107	117	142	159	161.7
18-Jul	166	144	48	35	58	22	21	338	128	195	355	7	43	353	22	124	177	156	143	160	140	128	326	38	67.9
19-Jul	357	53	233	229	349	23	64	287	155	312	339	348	351	352	316	277	294	349	331	324	324	346	5	356	334.7
20-Jul	3	6	10	1	360	1	355	1	4	4	15	326	3	22	17	316	312	310	316	36	113	202	216	209	351.5
21-Jul	209	207	210	213	214	212	210	205	217	218	246	230	252	257	360	221	249	310	174	205	194	206	206	208	218.5
22-Jul	212	207	208	208	211	211	219	226	224	227	227	220	230	264	259	231	163	133	124	136	144	164	170	218	206.9
23-Jul	176	184	187	195	204	213	217	233	237	234	241	250	295	306	310	311	304	321	311	322	51	251	252	226	269.2
24-Jul	222	217	215	214	207	207	230	207	192	123	80	268	93	74	179	226	200	195	176	214	218	228	228	225	209.0
25-Jul	223	221	220	222	217	209	247	227	218	206	240	228	227	226	228	225	225	230	211	209	215	210	218	222	223.1
26-Jul	200	214	202	196	192	336	348	13	36	44	37	44	35	35	30	30	20	27	25	34	33	30	18	13	28.8
27-Jul	26	27	30	26	18	30	335	8	224	238	230	217	272	326	332	309	292	264	253	276	236	235	206	223	280.3
28-Jul	222	214	207	213	211	216	217	211	214	214	181	80	70	86	103	130	134	149	149	140	118	145	263	144	177.0
29-Jul	203	224	226	230	238	235	233	253	268	275	276	272	257	272	276	281	281	275	278	279	271	280	233	226	260.8
30-Jul	254	227	223	216	195	207	230	229	235	266	309	295	312	299	299	261	236	244	225	206	202	209	204	212	242.9
31-Jul	210	209	199	187	198	208	212	236	180	151	75	321	62	63	27	24	23	28	55	UO	187	199	203	221	190.0
214.9 211.9 211.4 211.1 213.5 218.2 228.8 228.2 225.5 231.3 250.4 250.8 256.1 279.3 260.6 247.7 255.5 259.4 250.6 230.9 196.5 203.2 213.3 214.3																									
Diurnal Average																									
DF - DAS Failure UO - Unstable Operation																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 20m (WD20) - deg

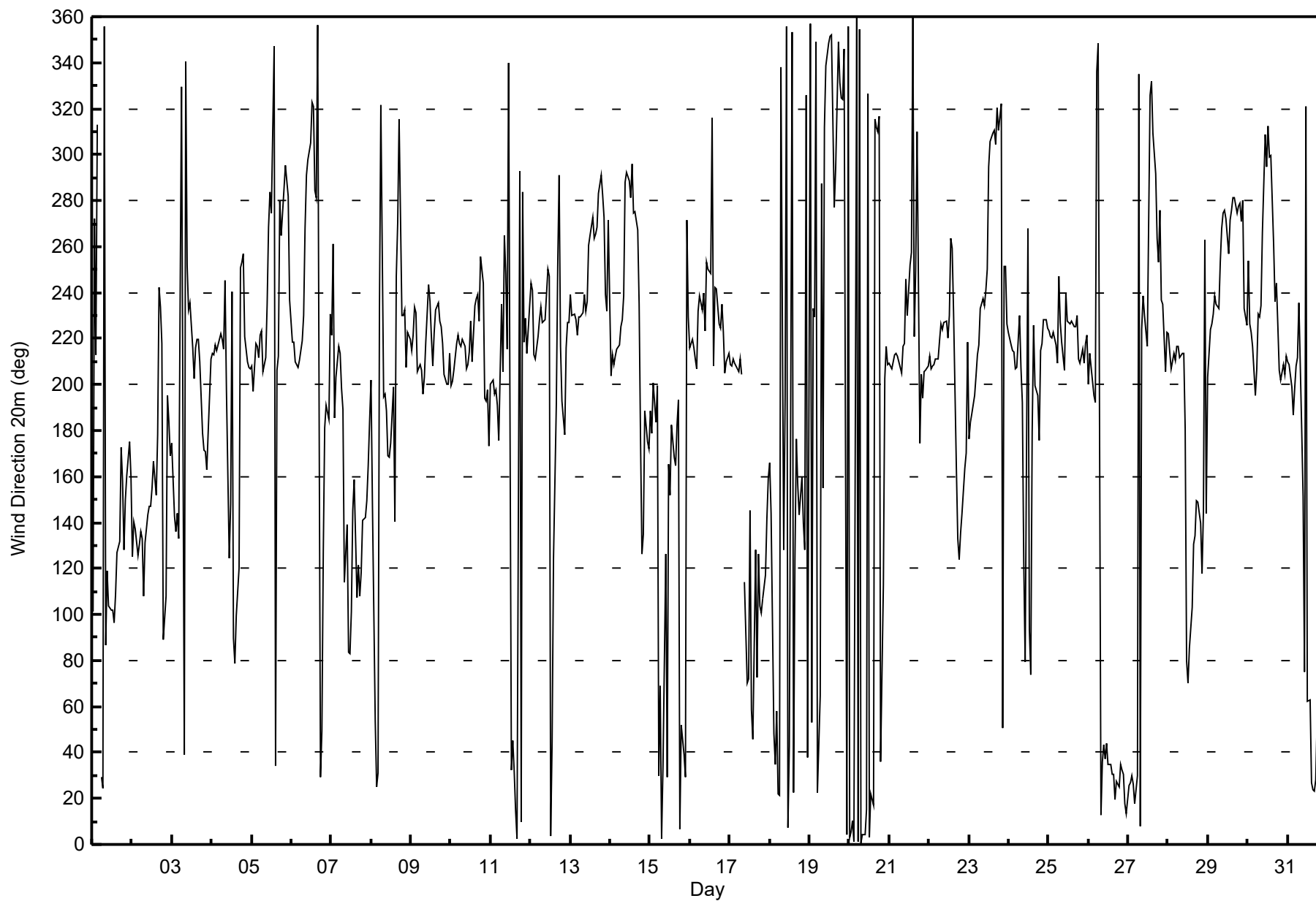
Janvier - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 100 deg on Jul 16 14:00																		Hours in Service: 744 Hours of Data: 741 Hours of Missing Data: 3 Hours of Calibration: 0 Percent Operational Time: 99.6							
Minimum Value: 7 deg on Aug 1 00:00																									
Percentiles: P ₁ = 8 P ₁₀ = 13 Q ₁ = 19 Median = 26 Q ₃ = 38 P ₉₀ = 57 P ₉₉ = 95																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	84	56	94	55	UO	27	28	36	66	35	32	27	28	28	27	24	24	24	21	16	16	22	21	23	94
2-Jul	22	24	20	18	21	20	21	22	24	24	25	27	26	30	27	49	28	29	96	68	82	41	72	24	96
3-Jul	22	14	19	49	79	91	50	70	62	47	88	29	25	23	23	23	23	18	28	24	18	17	19	16	91
4-Jul	9	10	14	13	15	20	26	25	32	50	36	50	30	73	45	36	97	40	28	21	28	27	14	9	97
5-Jul	11	13	11	14	14	22	25	18	27	33	28	31	44	97	50	38	34	22	24	21	20	19	25	16	97
6-Jul	12	20	13	10	13	15	23	24	41	34	36	33	36	46	31	35	46	21	37	34	26	67	43	85	85
7-Jul	23	54	13	15	16	19	38	49	92	66	35	28	40	30	31	27	26	27	23	20	18	18	21	19	92
8-Jul	82	39	65	49	45	47	46	19	20	31	26	24	25	34	41	25	83	39	38	20	32	18	17	15	83
9-Jul	13	14	16	23	12	17	15	18	23	29	25	25	26	21	27	29	27	24	25	21	17	12	10	25	29
10-Jul	19	15	21	12	15	15	19	19	38	27	22	43	35	25	36	30	27	24	28	36	13	33	26	30	43
11-Jul	39	11	25	47	57	64	34	55	59	39	34	43	43	25	23	21	28	80	32	49	43	37	17	28	80
12-Jul	21	25	14	14	13	20	21	24	24	38	40	99	58	61	35	28	39	44	29	24	22	19	21	19	99
13-Jul	21	20	20	19	18	20	22	23	26	27	26	27	27	27	27	28	25	26	24	21	17	15	16	66	66
14-Jul	13	13	10	14	14	17	20	25	40	25	32	30	30	32	31	33	36	52	52	19	8	40	31	20	52
15-Jul	31	55	23	33	51	35	66	42	88	52	92	29	35	39	43	32	28	25	48	48	50	75	89	32	92
16-Jul	20	17	17	16	21	23	22	23	25	47	67	25	30	100	32	29	27	23	18	17	12	8	11	12	100
17-Jul	12	11	26	10	25	13	16	19	DF	51	27	50	79	42	59	71	42	65	80	18	9	11	17	58	80
18-Jul	95	93	47	24	27	61	58	38	64	75	35	50	35	66	78	71	27	34	32	42	76	21	41	22	95
19-Jul	45	87	36	87	41	43	67	42	76	38	35	35	38	33	38	24	47	36	38	32	28	37	24	27	87
20-Jul	29	27	24	27	25	23	26	29	29	34	36	36	44	38	39	38	32	28	35	39	29	40	12	15	44
21-Jul	15	9	11	11	12	18	19	27	24	26	41	28	30	44	85	38	24	77	51	31	8	8	8	8	85
22-Jul	11	10	9	10	12	13	21	23	25	35	27	44	50	34	30	31	34	24	15	9	10	32	27	59	59
23-Jul	37	13	17	14	17	11	16	24	26	24	26	31	25	28	30	33	29	34	31	38	93	22	16	14	93
24-Jul	12	12	10	10	14	16	22	27	38	53	42	98	83	73	90	45	35	73	19	43	22	18	18	17	98
25-Jul	19	15	17	18	21	18	22	21	20	29	23	22	24	23	20	19	18	21	18	15	9	12	55	26	55
26-Jul	11	34	69	18	71	27	33	29	26	19	25	31	23	26	27	24	25	21	19	19	19	11	19	19	71
27-Jul	17	14	18	19	34	32	37	42	74	35	36	48	45	52	61	30	27	22	20	22	24	16	11	12	74
28-Jul	15	15	11	14	14	15	19	22	38	41	74	99	48	33	39	39	28	26	23	21	18	26	68	38	99
29-Jul	36	22	22	21	23	23	23	25	26	25	26	24	24	29	26	25	22	23	22	20	19	23	15	16	36
30-Jul	24	23	21	19	26	17	20	20	26	43	41	30	40	40	34	25	21	24	20	12	8	9	9	10	43
31-Jul	11	9	10	7	15	10	27	25	18	53	51	77	49	25	25	28	32	20	39	UO	84	18	13	7	84
95 93 94 87 79 91 67 70 92 75 92 99 83 100 90 71 97 80 96 68 93 75 89 85																									
Diurnal Maximum																									
DF - DAS Failure UO - Unstable Operation																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 20m (WD20) - deg
Janvier - July 2026





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS23 FORT HILLS JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT HILLS (AMS23)
JULY 2026

MONTHLY SUMMARY for
AMD SECTION III.B.1(c)

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	709	35	35	100	-	-	12.2	0	2.1	0
TRS(ppb) Average	707	37	37	100	2.8	0	2.8	-	1.2	-
H2S(ppb) Average	707	37	37	100	-	-	2.4	0	1	0
THC(ppm) Average	709	35	35	100	-	-	5.7	-	3.1	-
NMHC(ppm) Average	709	35	35	100	-	-	2.057	-	0.603	-
CH4(ppm) Average	709	35	35	100	-	-	3.9	-	2.5	-
NO2 (ppb) Average	707	37	37	100	-	-	41.7	0	20.5	-
NO (ppb) Average	707	37	37	100	-	-	174.2	-	29.7	-
NOX (ppb) Average	707	37	37	100	-	-	207.5	-	44.7	-
PM2.5 (ug/m3) Average	738	2	6	99.46	-	-	336.2	65	125.2	9
Temperature 2 m (C) Average	744	0	0	100	-	-	31.2	-	23.2	-
Relative Humidity (%) Average	744	0	0	100	-	-	98	-	83.5	-
Wind Speed 10 m (km/h) Average	742	0	2	99.73	-	-	29	-	16	-
Wind Direction 10 m (deg) Average	742	0	2	99.73	-	-	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT HILLS (AMS23)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2(ppb) Average	709	0.52	1.2	-	0	0	0.1	0.2	0.4	1	12.2
TRS(ppb) Average	707	0.57	0.4	-	0	0.3	0.3	0.5	0.7	1	2.8
H2S(ppb) Average	707	0.39	0.4	-	0	0.1	0.1	0.3	0.5	0.8	2.4
THC(ppm) Average	709	2.36	0.5	-	1.9	2	2	2.2	2.5	3	5.7
NMHC(ppm) Average	709	0.164	0.271	-	0	0	0	0	0.2	0.5	2.057
CH4(ppm) Average	709	2.2	0.3	-	1.9	2	2	2.1	2.3	2.6	3.9
NO2(ppb) Average	707	7.98	8.4	-	0.1	0.8	2	4.9	11.2	19.8	41.7
NO(ppb) Average	707	7.6	19.4	-	0	0.1	0.3	1.1	4.5	18.8	174.2
NOX(ppb) Average	707	15.58	25.7	-	0.2	1.1	2.6	6.9	15.9	37.8	207.5
PM2.5(ug/m3) Average	738	31.13	45.5	-	1.7	4.6	7.5	15.5	33.2	75	336.2
AT(C) Average	744	18.96	3.9	-	10.8	14.1	16	18.5	21.4	24.6	31.2
RH(%) Average	744	69.57	17.2	-	26.5	42.5	57.8	72.2	83.8	89.9	98
WS(km/h) Average	742	9.6	6	-	0	3	5	8	13	18	29
WD(deg) Average	742	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT HILLS (AMS23)
JULY 2026

OPERATIONAL NOTES

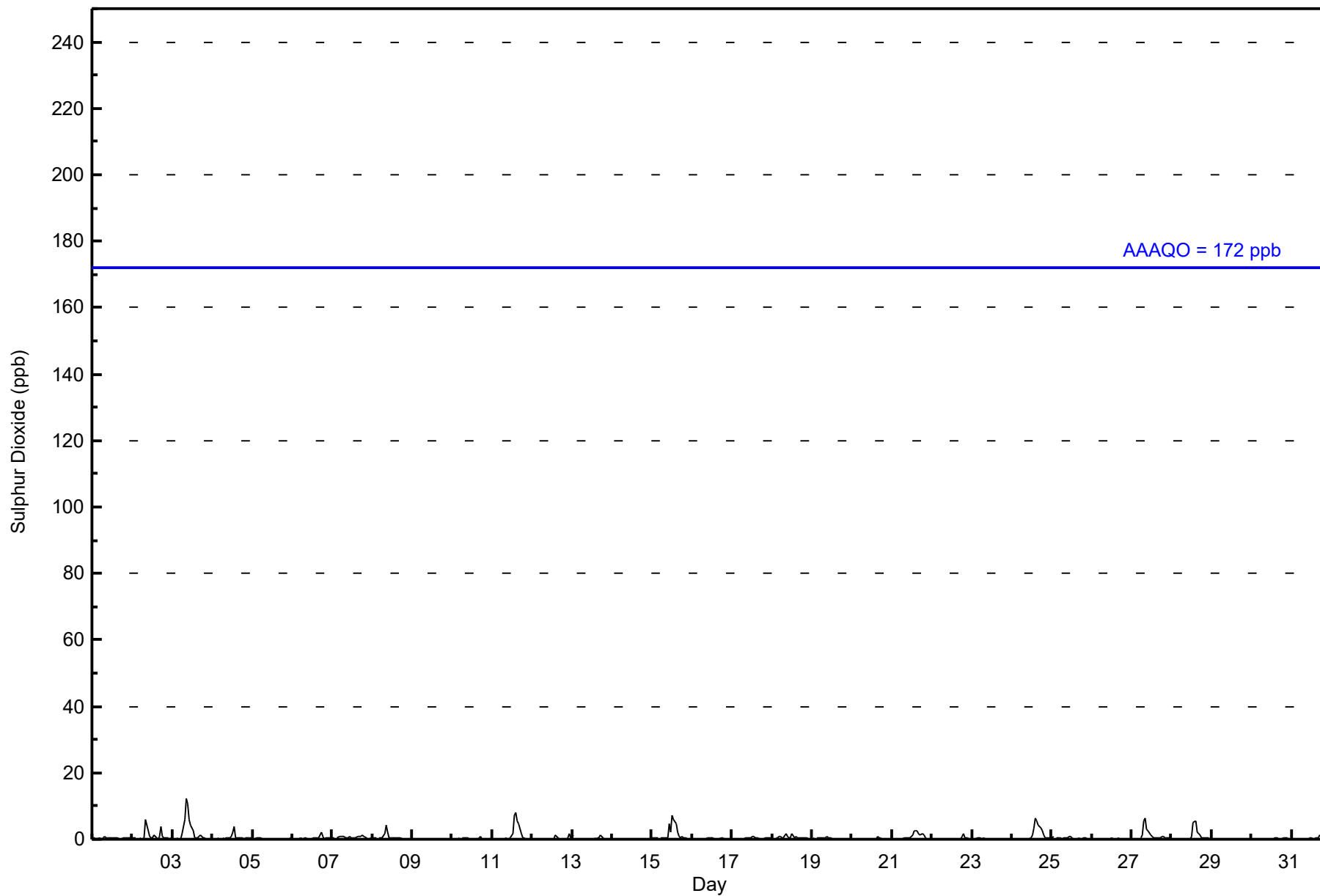
Parameter	Period Start	Period End	Duration (Hours)	Notes
PM2.5	29 Jul 2026 09:00	29 Jul 2026 12:00	4	Unstable Operation - flatline in analyzer output signal
Wind Speed, Wind Direction	18 Jul 2026 06:00	18 Jul 2026 06:00	1	Flat line in sensor output signal
Wind Speed, Wind Direction	01 Aug 2026 00:00	01 Aug 2026 00:00	1	Flat line in sensor output signal

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 12.2 ppb on Jul 3 09:00 Maximum Daily Average: 2.1 ppb on Jul 3																			Hours in Service: 744 Hours of Data: 709 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0											
Minimum Value: 0.0 ppb on Jul 5 23:00 Maximum Diurnal Average: 1.2 ppb at hour 9 Monthly Average: 0.52 ppb																			Minimum Daily Average: 0.0 ppb on Jul 29 Minimum Diurnal Average: 0.1 ppb at hour 3 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 1.0 P ₉₉ = 6.1											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Jul	0.2	0.3	Z	0.1	0.5	0.1	0.4	0.8	0.6	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.1	0.2	0.6	0.3	0.2	0.3	0.4	0.5	0.3	0.8				
2-Jul	0.4	0.3	0.4	Z	0.3	0.2	0.2	0.3	6.1	2.7	1.0	0.5	0.4	1.1	0.4	0.2	0.8	3.9	0.9	0.2	0.5	0.4	0.2	0.2	0.9	6.1				
3-Jul	0.2	0.2	0.1	0.3	Z	0.2	1.5	6.0	12.2	10.5	5.8	4.2	2.6	0.6	0.6	0.3	0.6	1.2	0.5	0.2	0.1	0.2	0.2	0.1	2.1	12.2				
4-Jul	0.2	0.2	0.2	0.1	0.3	Z	0.3	0.2	0.3	0.2	0.3	0.7	2.1	3.7	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.5	3.7				
5-Jul	Z	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.3				
6-Jul	0.1	Z	0.0	0.1	0.1	0.3	0.2	0.4	0.2	0.1	0.1	0.1	0.2	0.4	0.4	0.3	0.3	2.0	1.0	0.2	0.3	0.3	0.2	0.2	0.3	2.0				
7-Jul	0.3	0.5	Z	0.6	0.6	0.7	1.0	0.8	0.6	0.6	0.7	0.5	0.5	0.5	0.6	0.6	0.9	1.1	1.4	0.7	0.4	0.2	0.2	0.3	0.6	1.4				
8-Jul	0.2	0.4	0.6	Z	0.6	0.3	0.3	1.5	4.4	2.1	0.4	0.2	0.4	0.3	0.5	0.6	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.6	4.4				
9-Jul	0.2	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2				
10-Jul	0.1	0.1	0.1	0.2	0.3	Z	0.3	0.6	0.4	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.5	0.8	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.8				
11-Jul	Z	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.3	0.1	0.1	0.4	1.6	7.4	7.9	5.6	4.8	1.6	0.5	0.3	0.2	0.1	0.1	0.1	1.4	7.9				
12-Jul	0.1	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.2	0.1	0.0	0.0	0.1	0.1	0.5	1.7	0.4	0.2	1.7				
13-Jul	0.9	1.4	Z	0.2	0.2	0.1	0.1	0.1	0.0	C	C	C	C	0.6	0.2	0.3	0.2	1.1	0.2	0.1	0.1	0.2	0.1	0.1	0.3	1.4				
14-Jul	0.0	0.1	0.0	Z	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.5	0.1	0.5				
15-Jul	0.3	0.4	0.4	0.4	Z	0.4	0.6	0.4	0.6	0.5	4.6	2.0	7.4	6.1	4.9	2.2	0.7	0.3	0.6	0.3	0.3	0.2	0.1	0.0	1.5	7.4				
16-Jul	0.2	0.2	0.0	0.0	0.0	Z	0.1	0.0	0.1	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.2	0.3	0.3	0.2	0.1	0.2	0.1	0.1	0.2	0.3				
17-Jul	Z	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.3	0.4	0.6	0.6	0.9	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.9				
18-Jul	0.4	Z	0.3	0.6	0.7	0.7	0.4	0.6	1.6	0.9	0.4	0.6	1.7	0.5	0.9	0.5	0.6	0.4	0.3	0.3	0.2	0.3	0.2	0.1	0.6	1.7				
19-Jul	0.2	0.2	Z	0.4	0.5	0.5	0.3	0.2	0.4	0.7	0.5	0.3	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7				
20-Jul	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.0	0.6	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.1	1.0				
21-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.5	0.6	0.3	0.2	0.3	1.1	2.5	2.4	2.7	1.8	1.5	1.7	1.1	0.5	0.2	0.1	0.1	0.8	2.7				
22-Jul	0.1	0.1	0.1	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.8	1.6	0.3	0.2	0.2	0.2	0.2	1.6				
23-Jul	Z	0.2	0.1	0.5	0.5	0.3	0.2	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.5				
24-Jul	0.0	Z	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	1.1	3.3	6.2	5.5	4.1	3.5	2.4	1.1	0.6	0.4	0.3	0.4	1.3	6.2				
25-Jul	0.5	0.6	Z	0.5	0.3	0.2	0.2	0.3	0.6	0.3	1.0	0.9	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.3	1.0				
26-Jul	0.1	0.1	0.2	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2				
27-Jul	0.1	0.2	0.1	0.2	Z	0.3	1.4	5.7	6.2	3.0	2.4	1.3	0.8	0.5	0.3	0.3	0.4	0.9	0.9	0.5	0.3	0.2	0.2	0.2	1.1	6.2				
28-Jul	0.1	0.2	0.1	0.0	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.8	5.2	5.5	2.1	1.8	1.1	0.3	0.6	0.5	0.4	0.3	0.1	0.9	5.5				
29-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1				
30-Jul	0.1	Z	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.4	0.1	0.1	0.1	0.3	0.4	0.2	0.2	0.1	0.1	0.4				
31-Jul	0.0	0.1	Z	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.2	0.3	0.6	1.2	1.5	0.9	0.5	0.3	0.3	0.3	0.3	1.5				
																									Diurnal Average					
																									Diurnal Maximum					
Z - zerospan C - Calibration																														
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																														



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Fort Hills - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	707	99.72	99.72
11 - 20	2	0.28	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Fort Hills - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	71	27	25	18	4	17	43	120	91	86	60	25	20	28	22	48	705
11 - 20	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	71	27	25	18	4	17	43	121	92	86	60	25	20	28	22	48	707

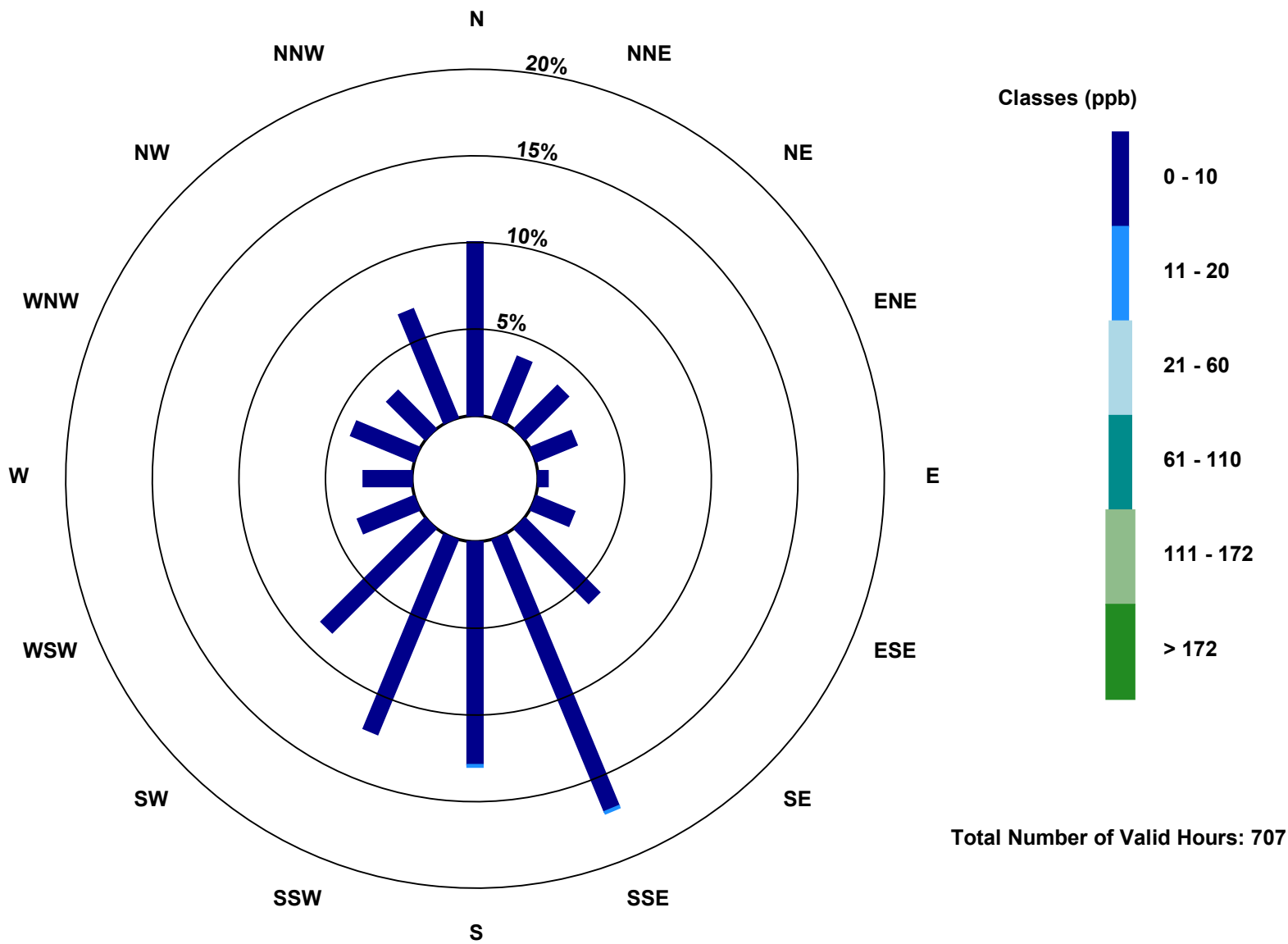
Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

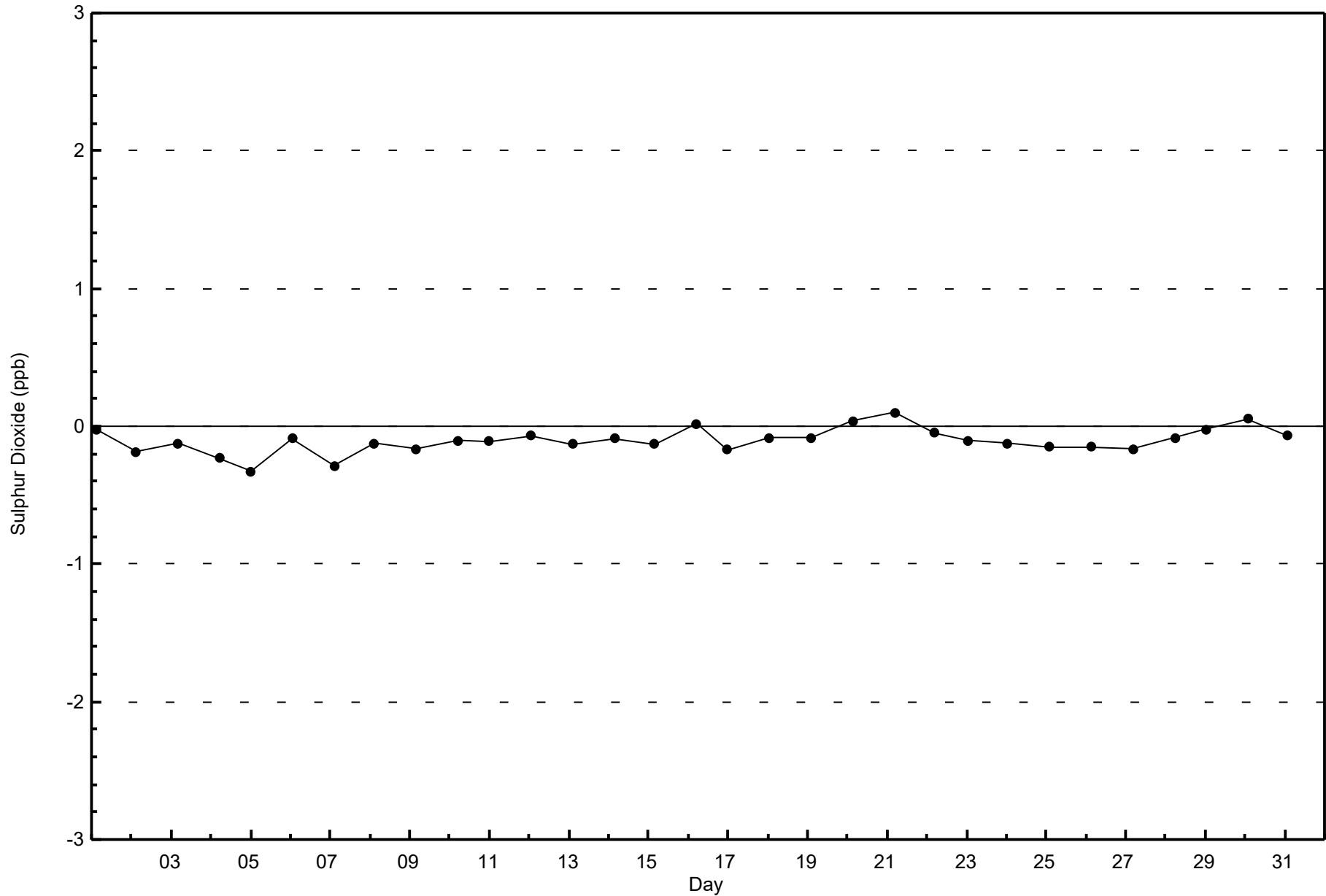
Sulphur Dioxide (SO₂) - ppb
Fort Hills





Wood Buffalo Environmental Association
Zero Responses

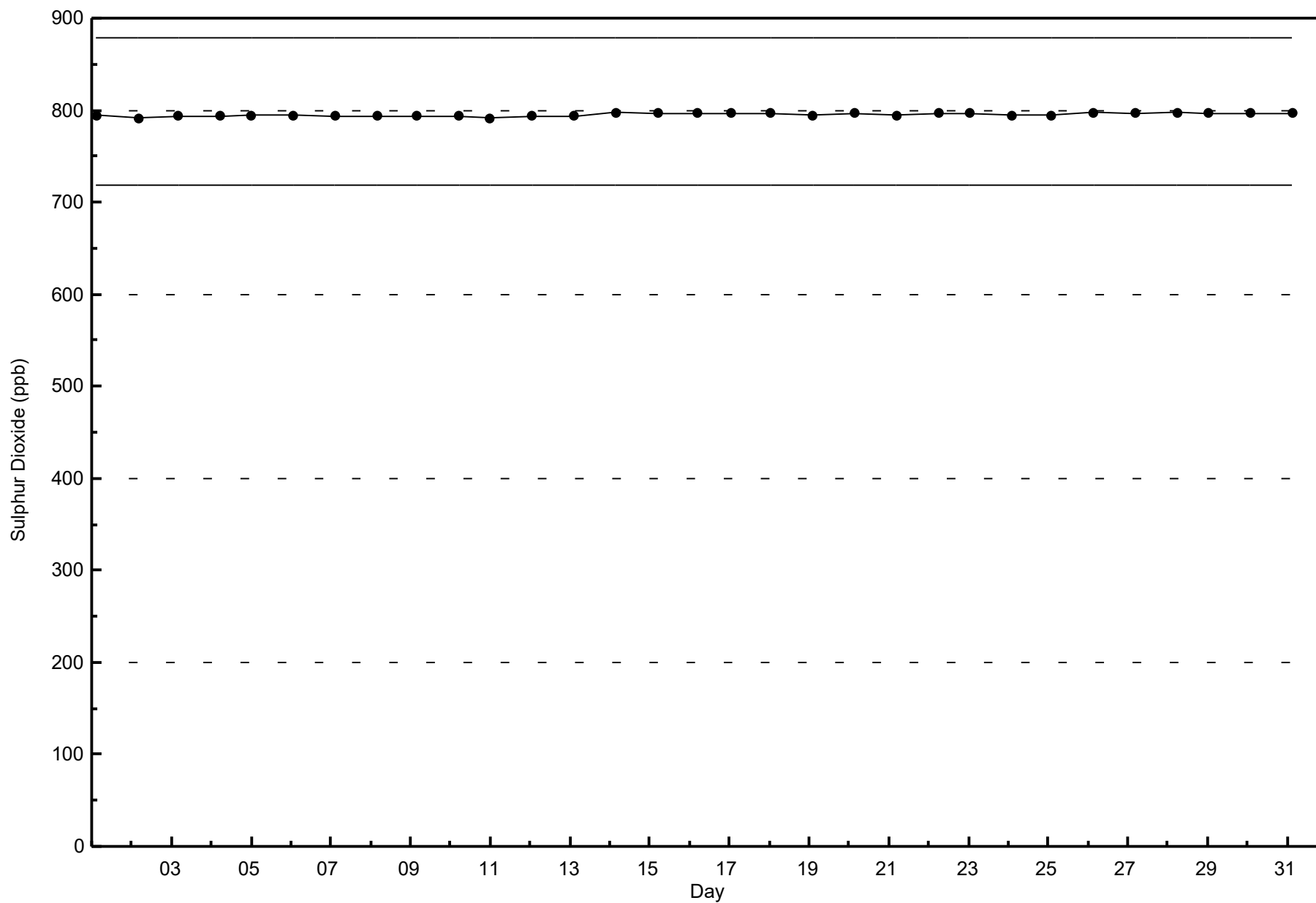
Sulphur Dioxide (SO₂) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Fort Hills - July 2026

Number of Exceedences (AAAQG): 30-Min: 0																		Periods in Service: 1488								
Maximum Value: 2.8 ppb on Jul 27 10:00 Maximum Daily Average: 1.2 ppb on Jul 18																		Periods of Valid Data: 1415								
Minimum Value: 0.0 ppb on Jul 1 17:30 Minimum Daily Average: 0.3 ppb on Jul 14																		Periods of Invalid Data: 73								
Maximum Diurnal Average: 0.8 ppb at hour 9 Minimum Diurnal Average: 0.4 ppb at hour 16																		Periods of Calibration: 73								
Monthly Average: 0.57 ppb Percentiles: P ₁ = 0.1 P ₁₀ = 0.3 Q ₁ = 0.3 Median = 0.5 Q ₃ = 0.7 P ₉₀ = 1.0 P ₉₉ = 2.2																		Percent Operational Time: 100.0								
Day	Period Ending At (MST)																								Daily Average	Daily Maximum
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00		
1-Jul	0.7 0.7	0.9 1.1	0.7 0.9	Z SP	0.8 1.3	1.1 1.0	1.0 1.1	1.4 1.4	1.4 1.3	1.4 1.0	0.7 0.5	0.3 0.1	0.1 0.1	0.1 0.1	0.1 0.0	0.0 0.1	0.1 0.0	0.0 0.0	0.1 0.1	0.1 0.1	0.1 0.2	0.2 0.6	0.7 0.6	0.7 1.6	0.6	1.6
2-Jul	0.7 0.7	0.6 0.5	0.6 0.6	0.6 0.7	Z SP	0.3 0.5	0.5 0.4	0.2 0.3	0.4 0.8	0.8 0.7	C C	C C	C C	C C	C C	C 0.5	0.6 0.8	0.7 0.7	0.6 0.4	0.4 0.5	0.6 0.7	0.5 0.5	0.5 0.4	0.5 0.6	--	0.8
3-Jul	0.6 0.4	0.5 0.4	0.5 0.8	0.8 1.0	1.1 0.9	Z SP	0.8 1.0	0.8 0.9	0.9 1.0	0.8 0.6	0.6 0.3	0.7 2.1	0.6 0.3	0.4 0.4	0.3 0.2	0.2 0.2	0.2 0.3	0.4 0.3	0.3 0.3	0.3 0.4	0.4 0.8	0.4 0.5	0.4 0.5	0.5 0.5	0.6	2.1
4-Jul	Z SP	0.5 0.6	0.7 0.6	0.7 0.8	1.0 1.0	0.7 0.7	0.6 0.6	0.6 0.5	0.4 0.4	0.4 0.4	0.4 0.4	0.5 0.3	0.3 0.3	0.4 0.3	0.2 0.2	0.3 0.3	0.3 0.3	0.2 0.2	0.3 0.3	0.3 0.3	0.5 1.2	0.6 0.4	0.4 0.5	0.4 0.3	0.5	1.2
5-Jul	0.3 0.5	Z SP	0.5 0.8	0.8 0.9	1.0 1.0	1.1 0.9	0.7 0.5	0.5 0.4	0.5 0.3	0.2 0.2	0.2 0.3	0.2 0.2	0.3 0.2	0.3 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.4	1.1
6-Jul	0.4 0.3	0.3 0.4	Z SP	0.6 0.6	0.6 1.2	1.2 0.7	0.9 0.7	0.8 0.3	0.4 0.3	0.3 0.3	0.3 0.3	0.2 0.3	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.4 0.4	0.3 0.5	0.3 0.5	0.4 0.5	0.4	1.2
7-Jul	0.4 0.4	0.6 0.7	0.6 0.6	Z SP	0.7 0.8	1.0 1.1	1.3 1.4	1.4 1.4	1.2 1.2	0.8 0.4	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.3	0.2 0.2	0.1 0.2	0.3 0.3	0.5	1.4
8-Jul	0.3 0.3	0.4 0.6	0.7 0.8	0.9 1.0	Z SP	0.7 0.8	0.8 0.6	0.6 0.7	1.1 1.1	0.7 0.8	0.6 0.3	0.4 0.6	0.6 0.5	0.5 0.6	0.3 0.4	0.3 0.4	0.3 0.3	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.3 0.4	0.4 0.4	0.5	1.1
9-Jul	0.4 0.4	0.4 0.6	0.7 0.4	0.3 0.4	0.5 0.5	Z SP	0.5 0.6	0.5 0.5	0.5 0.4	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.4 0.4	0.3 1.0	0.6 1.0	0.9 1.0	0.4	1.0
10-Jul	Z SP	0.6 0.6	0.8 0.9	1.0 1.0	1.0 0.9	0.7 0.9	0.8 1.0	1.3 1.6	1.3 0.8	0.5 0.4	0.3 0.3	0.3 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.6	0.4 0.6	0.6 0.6	0.4 0.3	0.3 0.3	0.5 0.6	0.5 0.6	0.5 0.6	0.6	0.6	1.6
11-Jul	0.5 0.6	Z SP	0.5 0.6	0.6 0.5	0.6 0.6	0.6 0.7	0.7 0.7	0.7 0.7	0.9 0.7	0.6 0.4	0.3 0.3	0.3 0.5	1.2 1.4	1.4 1.5	1.0 0.7	0.8 1.0	0.8 0.9	0.7 0.4	0.5 0.4	0.4 0.4	0.4 0.4	0.5 0.5	0.6 0.6	0.7	1.5	
12-Jul	0.7 0.6	0.5 0.4	Z SP	0.4 0.4	0.4 0.4	0.4 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.5	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.3 0.4	0.3 0.3	0.4 0.5	0.7 1.1	0.3 0.3	0.4	1.1	
13-Jul	0.4 2.2	1.9 0.4	0.4 0.4	Z SP	0.4 0.5	0.5 0.4	0.4 0.4	0.4 0.4	0.3 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.5	0.4 0.3	0.3 0.4	0.6 0.5	0.4 0.3	0.3 0.3	0.2 0.3	0.5 0.5	0.4 0.3	0.3 0.3	0.4	2.2	
14-Jul	0.3 0.3	0.3 0.3	0.3 0.3	0.4 0.4	Z SP	0.3 0.4	0.3 0.4	0.4 0.4	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.2 0.1	0.2 0.2	0.3 0.3	0.3 0.4	0.9 0.8	0.3	0.9	
15-Jul	0.7 0.9	0.8 1.1	1.1 0.8	0.8 1.0	1.0 1.0	Z SP	1.3 1.2	1.0 0.8	0.7 0.5	0.4 0.6	0.4 0.4	0.3 0.2	0.3 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.8 0.5	0.5 0.3	0.3 0.3	0.3 0.4	0.4 0.4	0.4 0.5	0.5 0.5	0.6	1.3	



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Fort Hills - July 2026

Day	Period Ending At (MST)																								Daily Average	Daily Maximum
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00		
16-Jul	Z SP	0.7 0.7	0.5 0.4	0.4 0.5	0.6 0.6	0.6 0.5	0.5 0.5	0.4 0.4	0.4 0.4	0.5 0.5	0.4 0.3	0.3 0.3	0.2 0.2	0.3 0.3	0.3 0.3	0.4 0.4	0.4 0.5	0.4 0.6	0.4 0.4	0.4 0.5	0.5 0.6	0.8 0.8	0.8 0.8	0.7 0.6	0.5	0.8
17-Jul	0.5 Z SP	0.7 0.8	0.8 0.9	0.8 0.7	0.8 0.6	0.6 0.6	0.7 0.6	0.5 0.6	0.7 0.7	0.6 0.6	0.7 0.6	0.5 0.6	0.6 0.7	0.6 0.4	0.5 0.4	0.4 0.4	0.5 0.5	0.4 0.4	0.6 0.6	0.8 0.9	1.0 1.1	1.3 1.6	1.8 2.1	2.0 2.0	0.8	2.1
18-Jul	2.1 2.3	2.2 Z SP	1.6 2.1	2.3 2.5	2.4 2.4	2.3 2.3	2.5 2.8	1.9 1.2	1.1 0.7	0.5 0.4	0.4 0.6	0.6 0.6	0.5 0.4	0.5 0.6	0.6 0.7	0.7 0.6	0.5 0.5	0.6 0.6	0.6 0.6	0.6 0.6	0.7 0.8	1.0 0.9	0.7 0.7	0.8 0.7	1.2	2.8
19-Jul	0.8 0.9	0.9 1.0	1.7 2.1 Z SP	1.1 1.8	1.9 1.8	1.9 1.8	1.7 1.5	1.1 0.9	0.6 0.5	0.4 0.4	0.4 0.4	0.5 0.4	0.4 0.4	0.3 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.4 0.4	0.6 0.8	0.9 0.7	0.8	2.1
20-Jul	0.7 0.6	0.7 0.8	0.8 0.8	0.7 0.7 Z SP	0.8 0.7	0.7 0.7	0.7 0.6	0.6 0.7	0.7 0.7	0.7 0.7	0.7 0.7	0.7 0.7	0.7 0.7	0.7 0.6	0.6 0.6	0.7 0.7	0.6 0.8	0.6 0.5	0.6 0.5	0.5 0.6	0.7 0.6	0.5 0.5	0.6 0.6	0.6 0.6	0.7	0.8
21-Jul	0.6 0.6	0.6 0.6	0.5 0.6	0.6 0.6	0.7 0.6 Z SP	0.7 0.9	1.0 1.6	1.9 1.7	1.6 1.4	1.3 1.0	0.8 0.6	0.5 0.4	0.5 0.4	0.5 0.5	0.5 0.4	0.4 0.4	0.3 0.3	0.4 0.3	0.4 0.3	0.3 0.4	0.4 0.4	0.5 0.5	0.6 0.6	0.6 0.7	0.7	1.9
22-Jul	Z SP	0.6 0.7	0.6 0.6	0.5 0.5	0.5 0.5	0.6 0.6	0.5 0.6	0.5 0.6	0.5 0.4	0.4 0.4	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.4 0.4	0.5 0.7	0.8 0.9	0.7 0.5	0.4 0.4	0.5	0.9
23-Jul	0.6 0.8	Z SP	0.9 1.2	1.5 2.0	1.6 0.9	0.7 0.6	0.6 0.6	0.8 0.7	0.6 0.7	0.7 0.6	0.5 0.4	0.4 0.4	0.3 0.3	0.4 0.3	0.3 0.3	0.4 0.3	0.4 0.5	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.5	0.6 0.6	0.4 0.4	0.4 0.4	0.6	2.0
24-Jul	0.4 0.4	0.4 0.4	Z SP	0.4 0.4	0.4 0.5	0.5 0.6	0.8 0.7	0.5 0.5	0.5 0.4	0.4 0.4	0.5 0.5	0.5 0.6	0.7 0.8	0.8 0.8	0.8 0.8	0.8 0.8	0.8 0.8	0.7 0.5	0.6 0.6	0.5 0.4	0.5 0.5	0.6 0.5	0.5 0.8	0.6	0.8	
25-Jul	1.9 1.1	0.9 0.9	0.8 0.7 Z SP	0.6 0.7	0.7 0.6	0.6 0.6	0.5 0.5	0.8 1.3	0.5 0.5	0.5 0.8	0.6 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.3 0.3	0.4 0.4	0.3 0.4	0.4 0.5	0.5 0.6	0.5 0.6	0.6 0.5	0.6 0.6	0.6	1.9
26-Jul	0.8 0.9	0.8 0.9	0.8 0.8	0.9 0.8 Z SP	0.9 1.1	1.0 0.9	0.8 0.8	0.8 0.7	0.7 0.7	0.7 0.6	0.7 0.6	0.6 0.6	0.6 0.6	0.5 0.5	0.5 0.5	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.4 0.4	0.3 0.3	0.6	1.1
27-Jul	0.3 0.4	0.4 0.4	0.4 0.4	0.5 0.4	0.5 0.5 Z SP	0.6 0.8	0.9 1.5	2.8 2.7	2.7 2.8	2.5 2.0	0.9 0.9	0.8 0.6	0.7 0.4	0.5 0.4	0.4 0.3	0.3 0.4	1.4 1.3	1.2 1.7	1.2 0.6	1.2 0.3	1.2 0.4	0.4 0.3	0.3 0.4	0.4 0.5	0.9	2.8
28-Jul	Z SP	0.4 0.5	0.4 0.4	0.3 0.3	0.3 0.4	0.3 0.3	0.3 0.3	0.4 0.9	0.9 0.7	0.4 0.3	0.3 0.4	0.5 0.4	0.4 0.3	0.3 0.5	0.6 0.6	0.7 0.8	0.8 0.6	0.5 0.4	0.5 0.7	0.7 0.8	1.0 0.8	0.5 0.5	0.5 0.5	0.5	1.0	
29-Jul	0.5 0.4	Z SP	0.4 0.4	0.4 0.5	0.5 0.4	0.4 0.3	0.3 0.4	0.4 1.3	0.3 0.3	0.4 0.3	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.5 0.5	0.4 0.4	0.4 0.4	0.3 0.3	0.4 0.4	0.5 0.5	0.4 0.3	0.2 0.3	0.3 0.4	0.4 0.5	0.4	1.3
30-Jul	0.5 0.6	0.8 0.6	Z SP	0.4 0.4	0.4 1.7	1.3 0.6	0.6 0.5	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.4	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.5 0.8	0.7 0.6	0.5 0.5	0.5 0.6	0.5 0.5	0.5	1.7
31-Jul	0.5 0.4	0.6 0.5	0.4 0.4 Z SP	0.4 0.5	0.5 0.4	0.5 0.5	0.5 0.5	0.4 0.4	0.4 0.3	0.4 0.8	1.4 1.3	1.2 0.8	0.4 0.3	0.3 0.4	0.5 0.5	0.7 1.4	1.4 1.2	1.0 1.3	1.4 1.3	1.4 1.2	1.2 1.4	1.2 1.2	1.2 1.3	0.8	1.4	
0.7 2.3 0.7 2.2 0.7 2.1 0.7 2.1 0.8 2.5 0.8 2.4 0.8 2.3 0.8 2.8 0.8 2.8 0.6 2.8 0.5 2.5 0.4 1.4 0.4 2.1 0.4 1.4 0.4 1.5 0.4 1.0 0.4 1.4 0.4 1.4 0.5 1.7 0.5 1.2 0.5 1.6 0.6 2.1 0.6 2.0																								Diurnal Average	Diurnal Maximum	

Z - zerospan C - Calibration SP - Span
Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

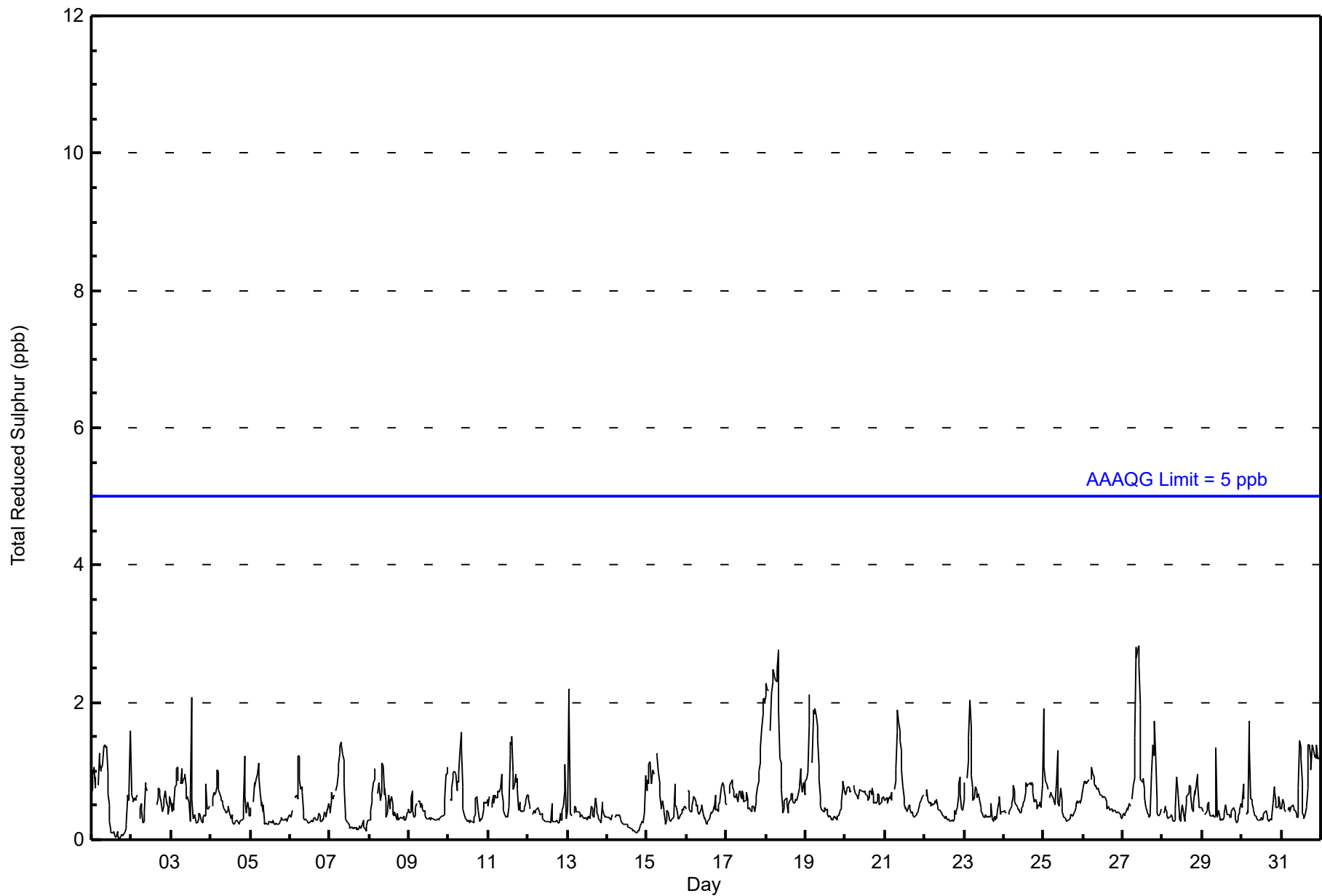
Fort Hills - July 2026

Maximum Value: 2.8 ppb on Jul 27 10:00										Maximum Daily Average: 1.2 ppb on Jul 18										Hours in Service: 744							
Minimum Value: 0.0 ppb on Jul 1 18:00										Minimum Daily Average: 0.3 ppb on Jul 14										Hours of Data: 707							
Maximum Diurnal Average: 0.8 ppb at hour 9										Minimum Diurnal Average: 0.4 ppb at hour 16										Hours of Missing Data: 37							
Monthly Average: 0.57 ppb										Percentiles: P ₁ = 0.1 P ₁₀ = 0.3 Q ₁ = 0.3 Median = 0.5 Q ₃ = 0.7 P ₉₀ = 1.0 P ₉₉ = 2.2										Hours of Calibration: 37							
																				Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Jul	0.7	1.0	0.8	Z	1.0	1.1	1.1	1.4	1.4	1.2	0.6	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.4	0.6	1.1	0.6	1.4	
2-Jul	0.7	0.6	0.6	0.6	Z	0.4	0.5	0.2	0.6	0.7	C	C	C	C	C	C	0.7	0.7	0.5	0.4	0.7	0.5	0.4	0.6	--	0.7	
3-Jul	0.5	0.5	0.6	0.9	1.0	Z	0.9	0.8	0.9	0.7	0.6	0.4	1.4	0.5	0.4	0.3	0.3	0.4	0.3	0.3	0.4	0.6	0.5	0.5	0.6	1.4	
4-Jul	Z	0.6	0.7	0.7	1.0	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.9	0.5	0.5	0.4	0.5	1.0	
5-Jul	0.4	Z	0.7	0.8	1.0	1.0	0.6	0.5	0.4	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	1.0	
6-Jul	0.3	0.4	Z	0.6	0.6	1.2	0.8	0.7	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.4	1.2	
7-Jul	0.4	0.6	0.6	Z	0.8	1.0	1.3	1.4	1.2	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.3	0.5	1.4	
8-Jul	0.3	0.5	0.8	0.9	Z	0.8	0.7	0.6	1.1	0.7	0.4	0.5	0.5	0.6	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	1.1	
9-Jul	0.4	0.5	0.6	0.3	0.5	Z	0.6	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.8	1.0	0.4	1.0	
10-Jul	Z	0.6	0.8	1.0	1.0	0.8	0.9	1.4	1.1	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.6	0.4	0.3	0.3	0.5	0.5	0.6	0.6	1.4	
11-Jul	0.6	Z	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.5	0.3	0.3	0.4	1.3	1.4	0.9	0.9	0.9	0.6	0.5	0.4	0.4	0.5	0.6	0.7	1.4	
12-Jul	0.6	0.5	Z	0.4	0.4	0.4	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.9	0.3	0.4	0.9	
13-Jul	1.3	1.2	0.4	Z	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.4	0.3	0.3	0.5	0.3	0.3	0.4	1.3	
14-Jul	0.3	0.3	0.3	0.4	Z	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.9	0.3	0.9	
15-Jul	0.8	1.0	1.0	0.9	1.0	Z	1.2	0.9	0.6	0.5	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.7	0.4	0.3	0.3	0.4	0.5	0.5	0.6	1.2	
16-Jul	Z	0.7	0.4	0.4	0.6	0.6	0.5	0.4	0.4	0.5	0.3	0.3	0.2	0.3	0.3	0.4	0.4	0.5	0.4	0.5	0.6	0.8	0.8	0.7	0.5	0.8	
17-Jul	0.5	Z	0.7	0.9	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6	0.6	0.5	0.5	0.4	0.5	0.4	0.6	0.8	1.0	1.5	1.9	2.0	0.8	2.0	
18-Jul	2.2	2.2	Z	1.9	2.4	2.4	2.3	2.6	1.5	0.9	0.4	0.5	0.6	0.5	0.5	0.6	0.6	0.5	0.6	0.6	0.8	1.0	0.7	0.7	1.2	2.6	
19-Jul	0.9	0.9	1.9	Z	1.4	1.9	1.9	1.6	1.0	0.6	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.7	0.8	0.8	1.9	
20-Jul	0.6	0.7	0.8	0.7	Z	0.8	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.7	0.7	0.6	0.5	0.5	0.7	0.5	0.6	0.6	0.7	0.8	
21-Jul	0.6	0.6	0.6	0.6	0.6	Z	0.8	1.3	1.8	1.5	1.2	0.7	0.5	0.4	0.5	0.5	0.4	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.7	1.8	
22-Jul	Z	0.7	0.6	0.5	0.5	0.5	0.6	0.6	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.6	0.9	0.6	0.4	0.5	0.9	
23-Jul	0.7	Z	1.0	1.8	1.3	0.7	0.6	0.7	0.6	0.6	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.6	0.4	0.4	0.6	1.8	
24-Jul	0.4	0.4	Z	0.4	0.5	0.6	0.7	0.5	0.5	0.4	0.4	0.5	0.6	0.8	0.8	0.8	0.8	0.8	0.6	0.6	0.5	0.5	0.5	0.7	0.6	0.8	
25-Jul	1.5	0.9	0.8	Z	0.7	0.7	0.6	0.5	1.1	0.5	0.6	0.5	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.6	0.5	0.5	0.6	0.6	1.5	
26-Jul	0.8	0.8	0.8	0.9	Z	1.0	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.6	1.0	
27-Jul	0.3	0.4	0.4	0.5	0.5	Z	0.7	1.2	2.7	2.8	2.3	0.9	0.9	0.7	0.4	0.4	0.3	0.7	1.4	1.5	0.9	0.4	0.4	0.4	0.9	2.8	
28-Jul	Z	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.7	0.8	0.3	0.3	0.5	0.3	0.4	0.6	0.7	0.7	0.4	0.6	0.7	0.9	0.5	0.5	0.5	0.9	
29-Jul	0.4	Z	0.4	0.5	0.5	0.3	0.3	0.3	0.8	0.3	0.4	0.3	0.3	0.4	0.5	0.4	0.4	0.3	0.4	0.5	0.4	0.3	0.4	0.5	0.4	0.8	
30-Jul	0.5	0.7	Z	0.4	1.1	1.0	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.7	0.6	0.5	0.6	0.5	0.5	1.1	
31-Jul	0.5	0.6	0.4	Z	0.5	0.4	0.5	0.5	0.4	0.4	0.5	1.4	1.0	0.4	0.3	0.5	1.1	1.3	1.2	1.3	1.2	1.3	1.2	1.2	0.8	1.4	
0.7 0.7 0.7 0.7 0.8 0.8 0.8 0.8 0.8 0.6 0.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.5 0.5 0.5 0.6 0.6																										Diurnal Average	
2.2 2.2 1.9 1.9 2.4 2.4 2.3 2.6 2.7 2.8 2.3 1.4 1.4 1.3 1.4 0.9 1.1 1.3 1.4 1.5 1.2 1.5 1.9 2.0																										Diurnal Maximum	
Z - zerospan C - Calibration																											
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA																											



Wood Buffalo Environmental Association
Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Fort Hills - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	704	99.58	99.58
3 - 4	3	0.42	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Fort Hills - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	70	28	25	19	4	18	41	117	91	88	60	24	19	29	23	46	702
3 - 4	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	70	28	25	19	4	18	41	120	91	88	60	24	19	29	23	46	705

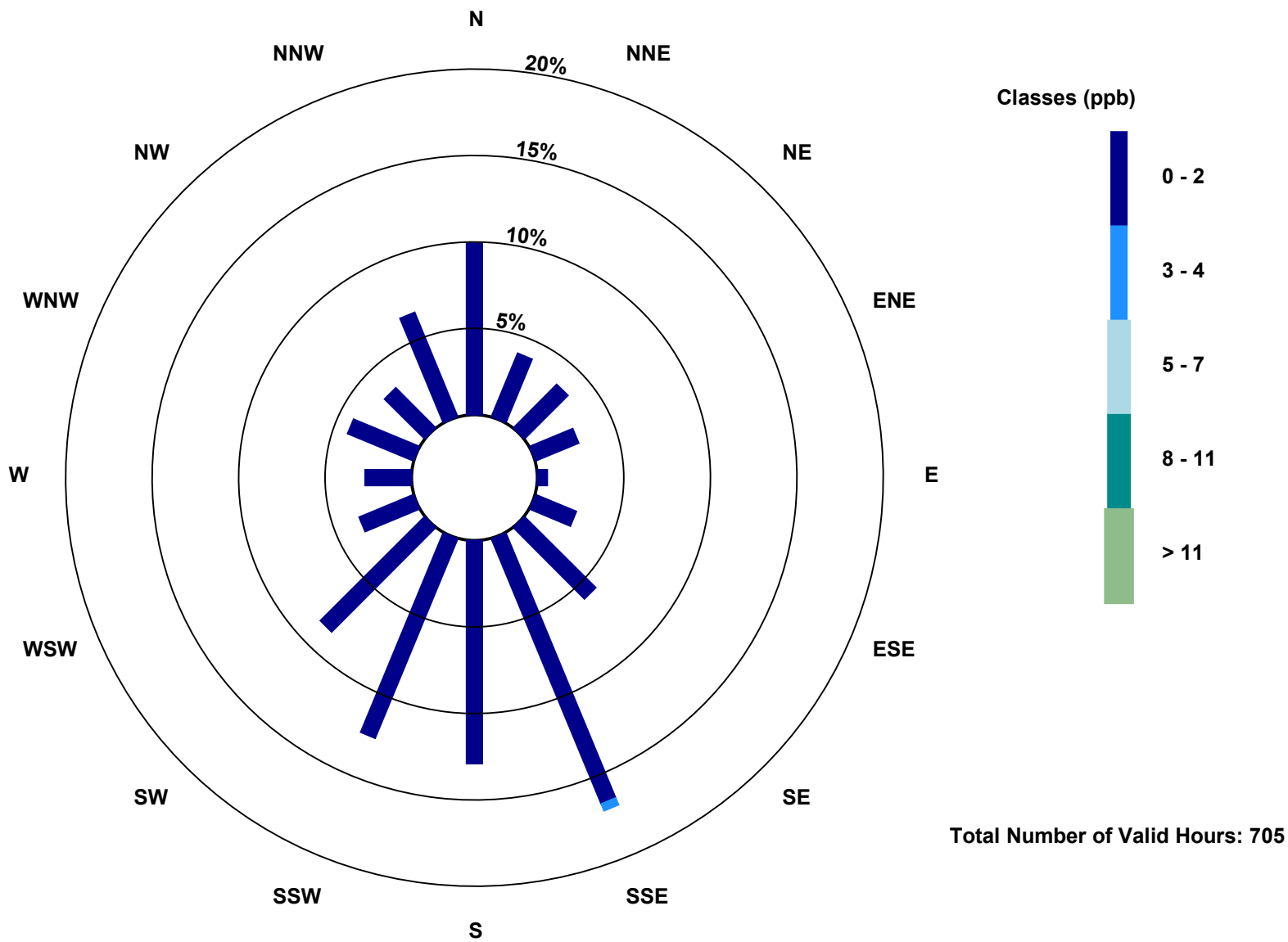
Total Number of Valid Hours: 705

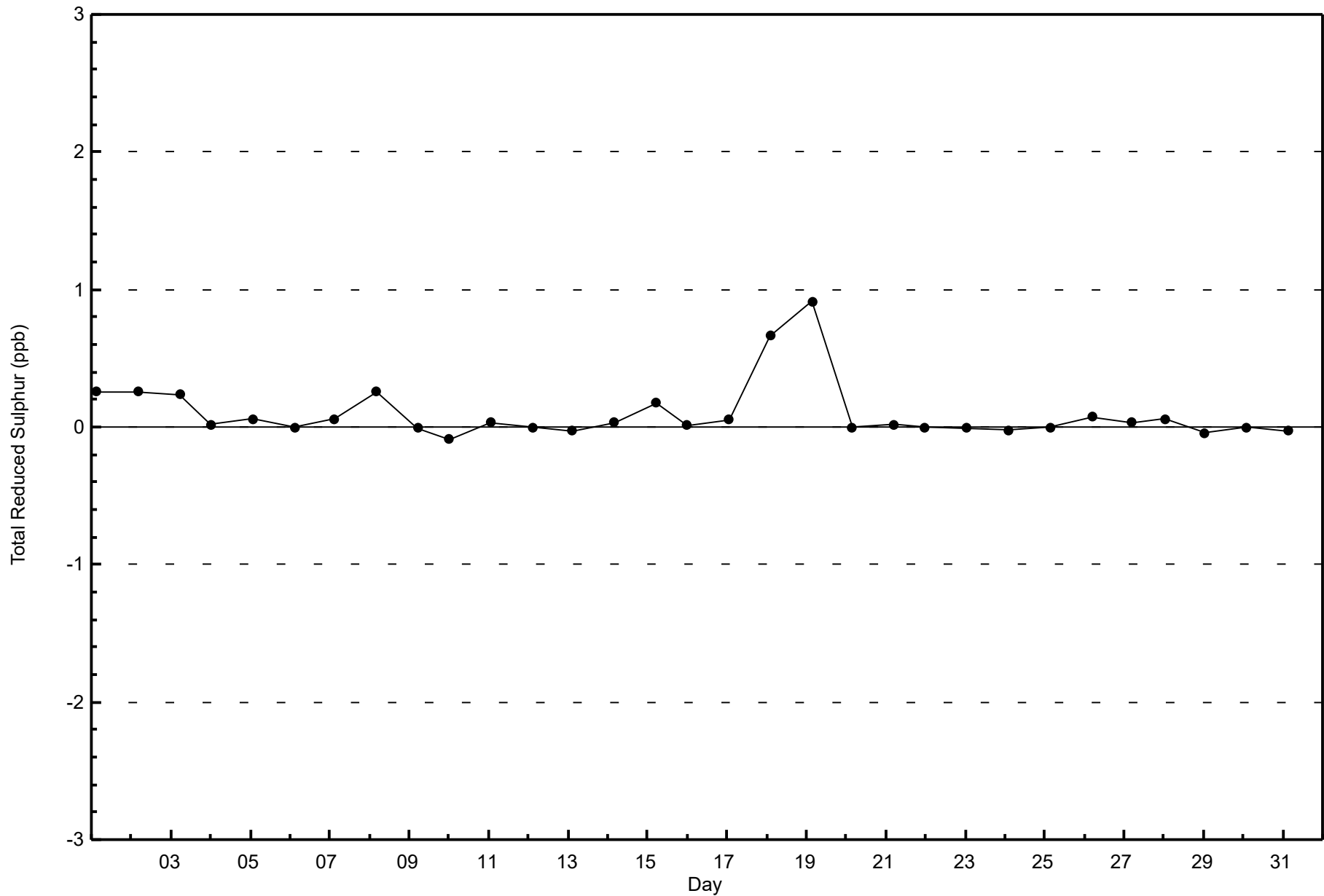
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Total Reduced Sulphur (TRS) - ppb
Fort Hills

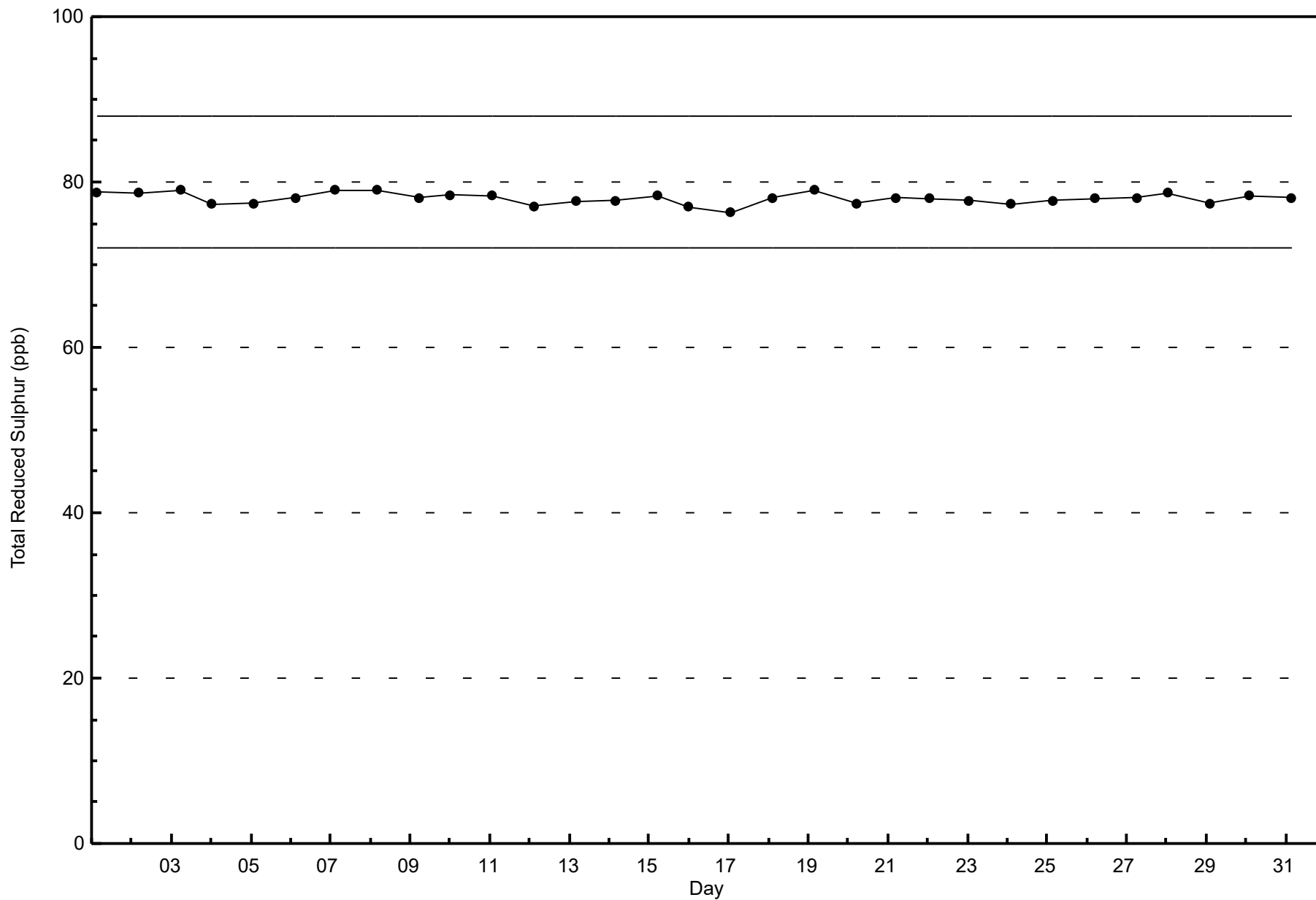






Wood Buffalo Environmental Association
Span Responses

Total Reduced Sulphur (TRS) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H₂S) - ppb

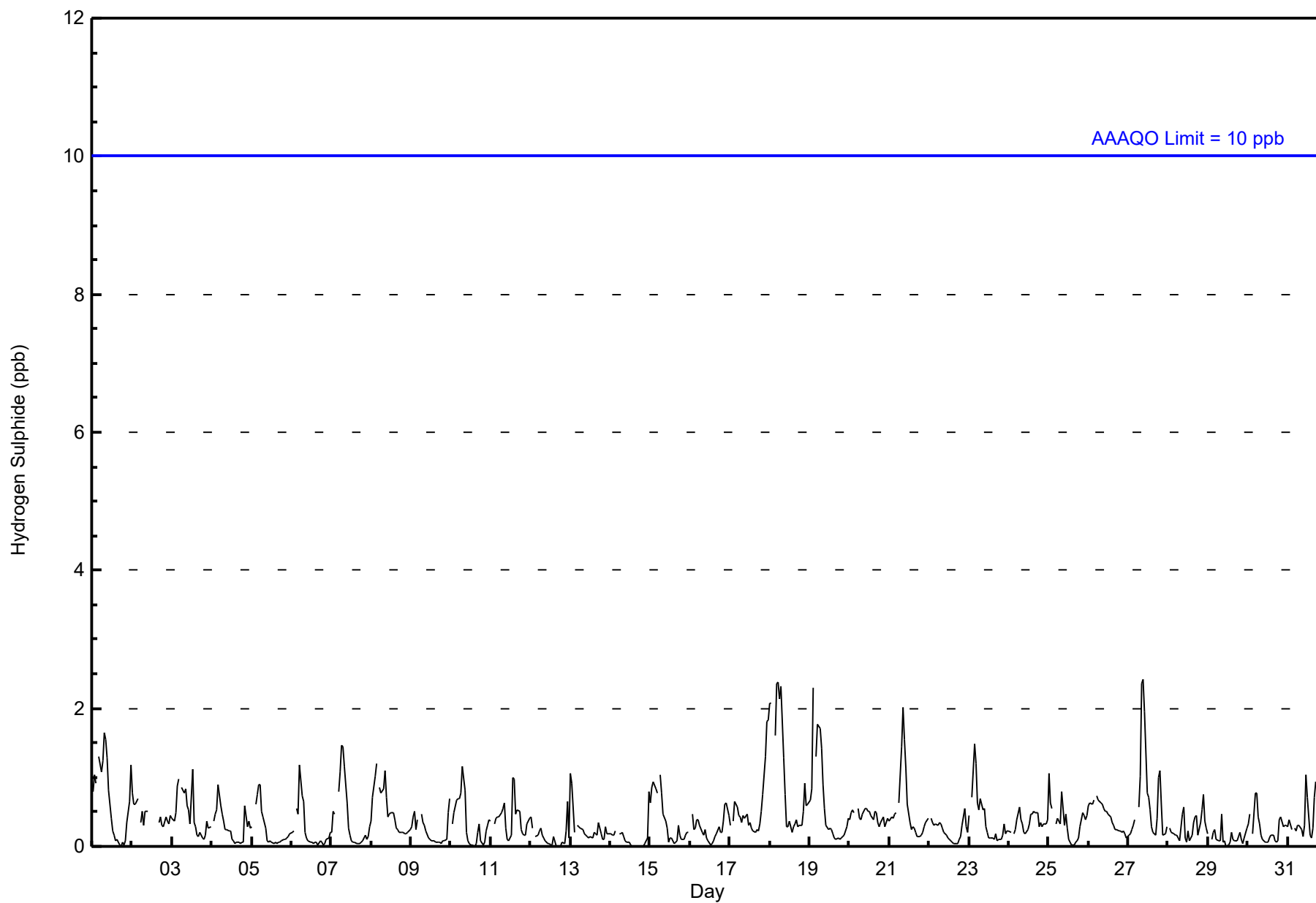
Fort Hills - July 2026

Number of Exceedances (AAAQO): Maximum Value: 2.4 ppb on Jul 27 10:00																		1-hr: 0 24-hr: 0 Maximum Daily Average: 1.0 ppb on Jul 18										Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 1 18:00 Maximum Diurnal Average: 0.7 ppb at hour 5 Monthly Average: 0.39 ppb																		Minimum Daily Average: 0.1 ppb on Jul 14 Minimum Diurnal Average: 0.2 ppb at hour 16 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.3 Q ₃ = 0.5 P ₉₀ = 0.8 P ₉₉ = 2.1										Hours of Data: 707	
																												Hours of Missing Data: 37	
																												Hours of Calibration: 37	
																												Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	0.8	1.0	0.9	Z	1.3	1.1	1.2	1.7	1.5	1.3	0.8	0.4	0.2	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.3	0.6	1.2	0.7	1.7			
2-Jul	0.8	0.6	0.6	0.7	Z	0.3	0.5	0.3	0.5	0.5	C	C	C	C	C	C	0.3	0.4	0.3	0.3	0.4	0.4	0.3	0.4	--	0.8			
3-Jul	0.4	0.4	0.5	0.9	1.0	Z	0.9	0.8	0.8	0.6	0.5	0.3	1.1	0.3	0.3	0.2	0.1	0.2	0.1	0.1	0.2	0.4	0.3	0.3	0.5	1.1			
4-Jul	Z	0.4	0.5	0.5	0.9	0.6	0.5	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.6	0.3	0.4	0.3	0.3	0.9			
5-Jul	0.3	Z	0.6	0.8	0.9	0.9	0.5	0.4	0.3	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.9			
6-Jul	0.2	0.2	Z	0.5	0.5	1.2	0.7	0.6	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.2	1.2			
7-Jul	0.2	0.5	0.5	Z	0.8	1.1	1.5	1.4	1.2	0.6	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.3	0.4	1.5			
8-Jul	0.4	0.7	1.0	1.2	Z	0.8	0.8	0.8	1.1	0.7	0.4	0.5	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	1.2			
9-Jul	0.3	0.4	0.5	0.3	0.4	Z	0.5	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.5	0.7	0.2	0.7			
10-Jul	Z	0.3	0.5	0.7	0.7	0.7	0.8	1.2	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.0	0.1	0.2	0.3	0.4	0.3	1.2			
11-Jul	0.4	Z	0.3	0.4	0.4	0.4	0.5	0.6	0.6	0.3	0.1	0.1	0.2	1.0	1.0	0.5	0.5	0.5	0.2	0.2	0.2	0.2	0.3	0.4	0.4	1.0			
12-Jul	0.4	0.3	Z	0.1	0.2	0.2	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.7	0.1	0.1	0.7			
13-Jul	1.1	0.9	0.2	Z	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.3	0.2	0.2	0.3	1.1			
14-Jul	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8	0.1	0.8				
15-Jul	0.6	0.9	0.9	0.8	0.8	Z	1.0	0.8	0.5	0.4	0.3	0.1	0.1	0.1	0.0	0.1	0.1	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.4	1.0			
16-Jul	Z	0.5	0.2	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.3	0.2	0.2	0.4	0.6	0.6	0.5	0.3	0.6			
17-Jul	0.3	Z	0.4	0.7	0.6	0.5	0.4	0.4	0.4	0.5	0.3	0.4	0.3	0.2	0.2	0.3	0.2	0.3	0.2	0.3	0.5	0.8	1.3	1.8	0.6	1.8			
18-Jul	2.1	2.1	Z	1.6	2.4	2.4	2.1	2.3	1.3	0.8	0.3	0.3	0.4	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.5	0.9	0.6	0.6	1.0	2.4			
19-Jul	0.7	0.8	2.3	Z	1.3	1.8	1.7	1.4	0.9	0.5	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.6	2.3			
20-Jul	0.4	0.5	0.5	0.5	Z	0.6	0.4	0.4	0.5	0.6	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.6			
21-Jul	0.4	0.4	0.4	0.5	0.5	Z	0.6	1.4	2.0	1.5	1.1	0.6	0.3	0.2	0.3	0.3	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.4	0.5	2.0			
22-Jul	Z	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.3	0.6	0.3	0.2	0.2	0.6			
23-Jul	0.5	Z	0.7	1.5	1.2	0.6	0.5	0.7	0.5	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.4	1.5			
24-Jul	0.2	0.2	Z	0.2	0.2	0.4	0.6	0.4	0.3	0.2	0.2	0.2	0.3	0.5	0.5	0.5	0.5	0.5	0.3	0.4	0.3	0.3	0.3	0.4	0.3	0.6			
25-Jul	1.1	0.6	0.5	Z	0.3	0.4	0.4	0.3	0.8	0.3	0.5	0.3	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.3	0.5	0.5	0.4	0.5	0.3	1.1			
26-Jul	0.6	0.6	0.6	0.7	Z	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.4	0.7			
27-Jul	0.2	0.2	0.2	0.3	0.4	Z	0.6	1.0	2.4	2.4	1.9	0.8	0.7	0.5	0.3	0.2	0.2	0.4	1.0	1.1	0.6	0.2	0.2	0.3	0.7	2.4			
28-Jul	Z	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.5	0.6	0.1	0.1	0.2	0.1	0.2	0.3	0.4	0.4	0.2	0.3	0.5	0.8	0.4	0.3	0.3	0.8			
29-Jul	0.2	Z	0.1	0.2	0.2	0.1	0.1	0.1	0.5	0.1	0.1	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.3	0.1	0.5			
30-Jul	0.3	0.5	Z	0.2	0.8	0.8	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.4	0.4	0.3	0.3	0.3	0.3	0.8			
31-Jul	0.3	0.4	0.2	Z	0.3	0.2	0.3	0.3	0.2	0.1	0.3	1.0	0.7	0.2	0.1	0.3	0.7	0.9	0.9	1.0	0.9	1.0	0.9	1.0	0.5	1.0			
Diurnal Average																													
Diurnal Maximum																													
Z - zerospan C - Calibration																													
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																													



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H_2S) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Fort Hills - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	707	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Fort Hills - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	70	28	25	19	4	18	41	120	91	88	60	24	19	29	23	46	705
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	70	28	25	19	4	18	41	120	91	88	60	24	19	29	23	46	705

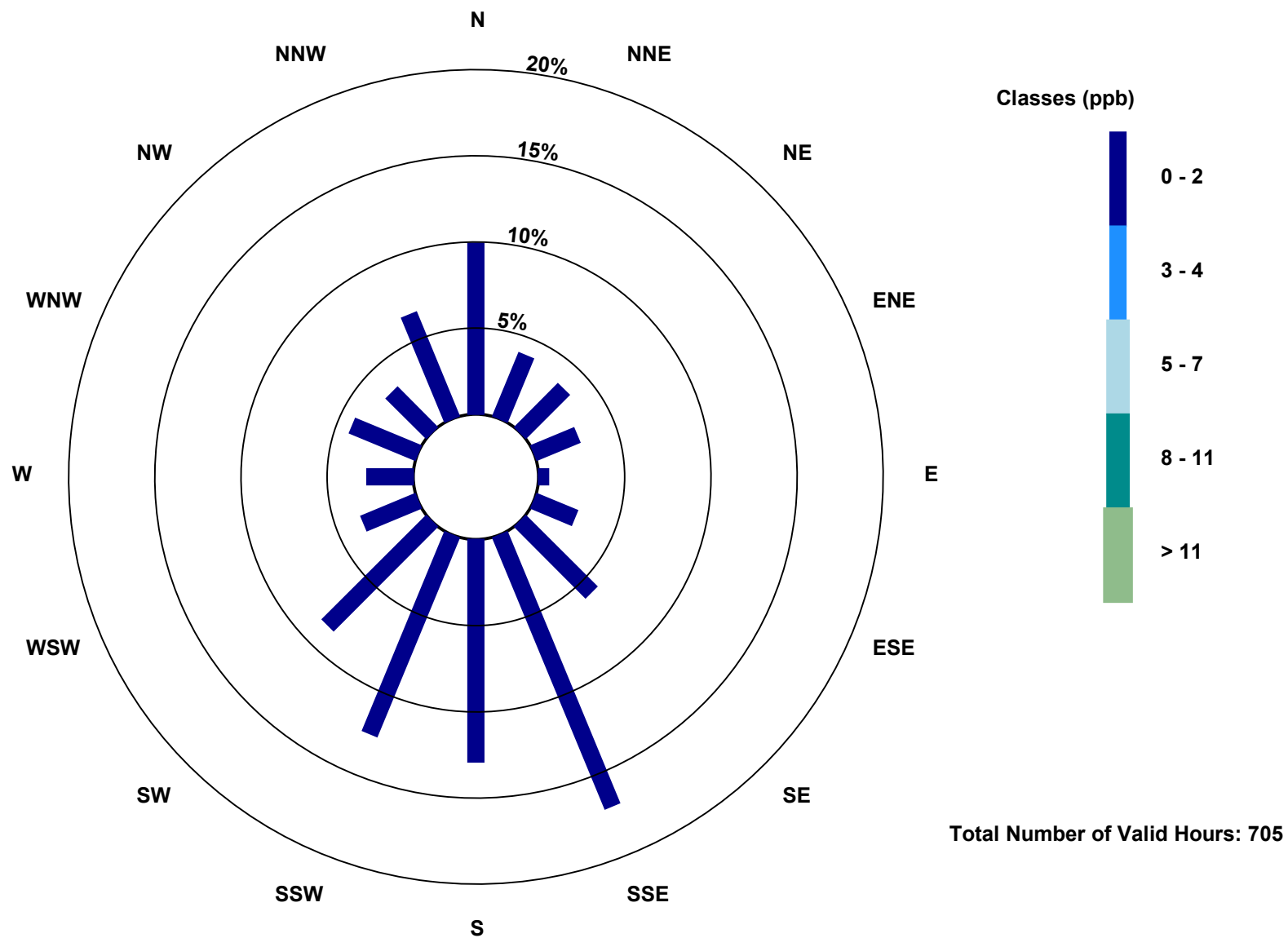
Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

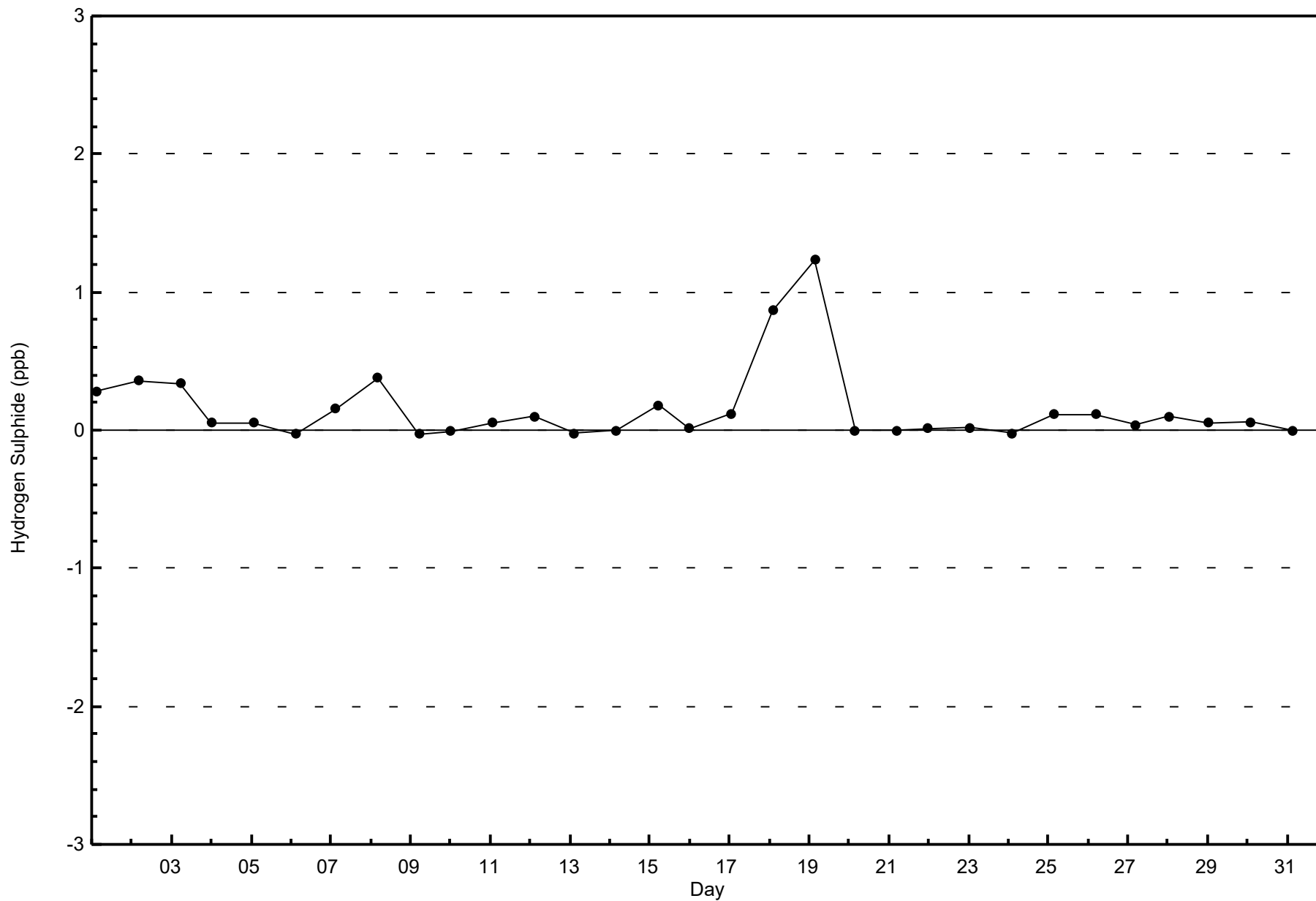
Hydrogen Sulphide (H₂S) - ppb
Fort Hills





Wood Buffalo Environmental Association
Zero Responses

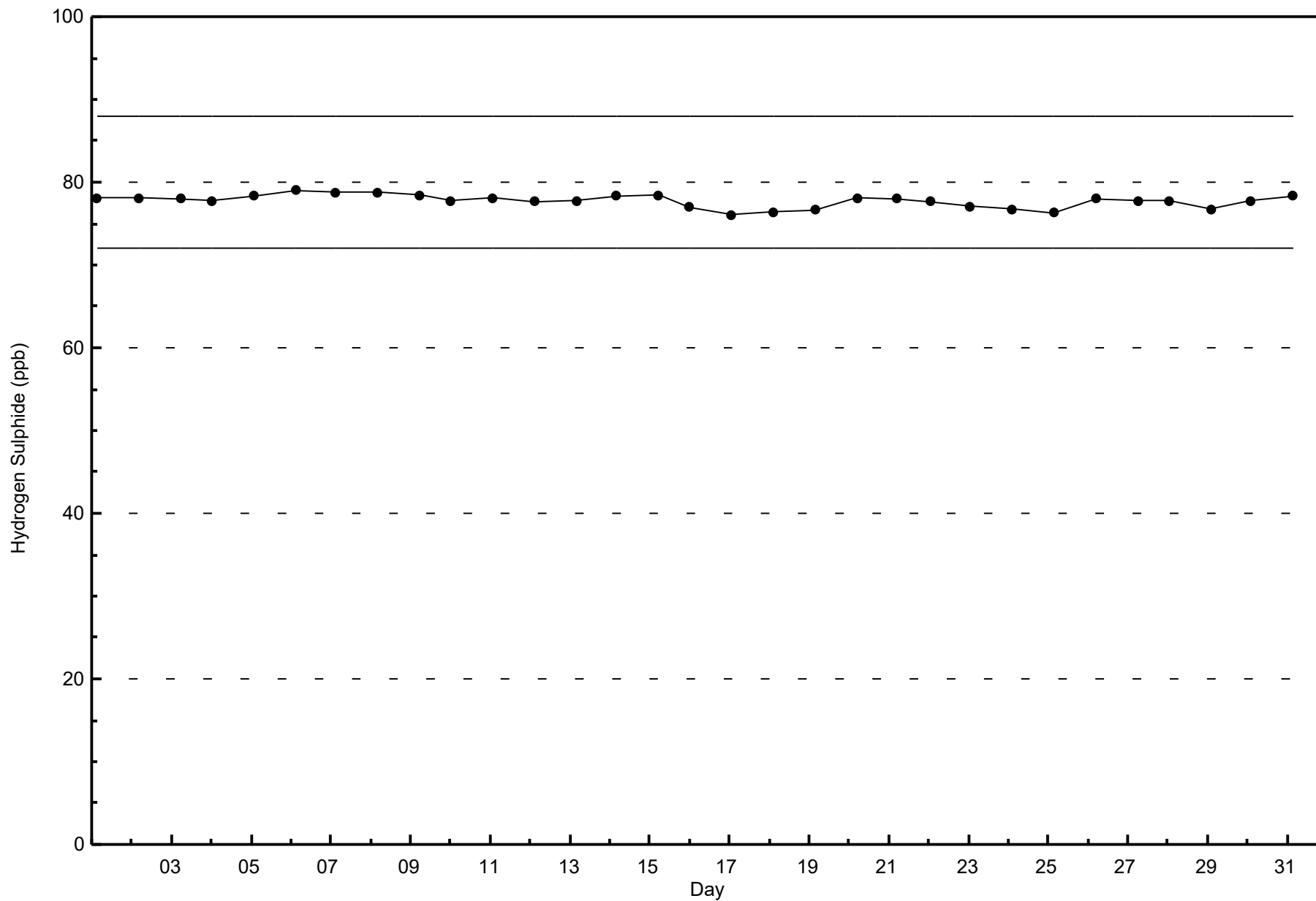
Hydrogen Sulphide (H₂S) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association
Span Responses

Hydrogen Sulphide (H₂S) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

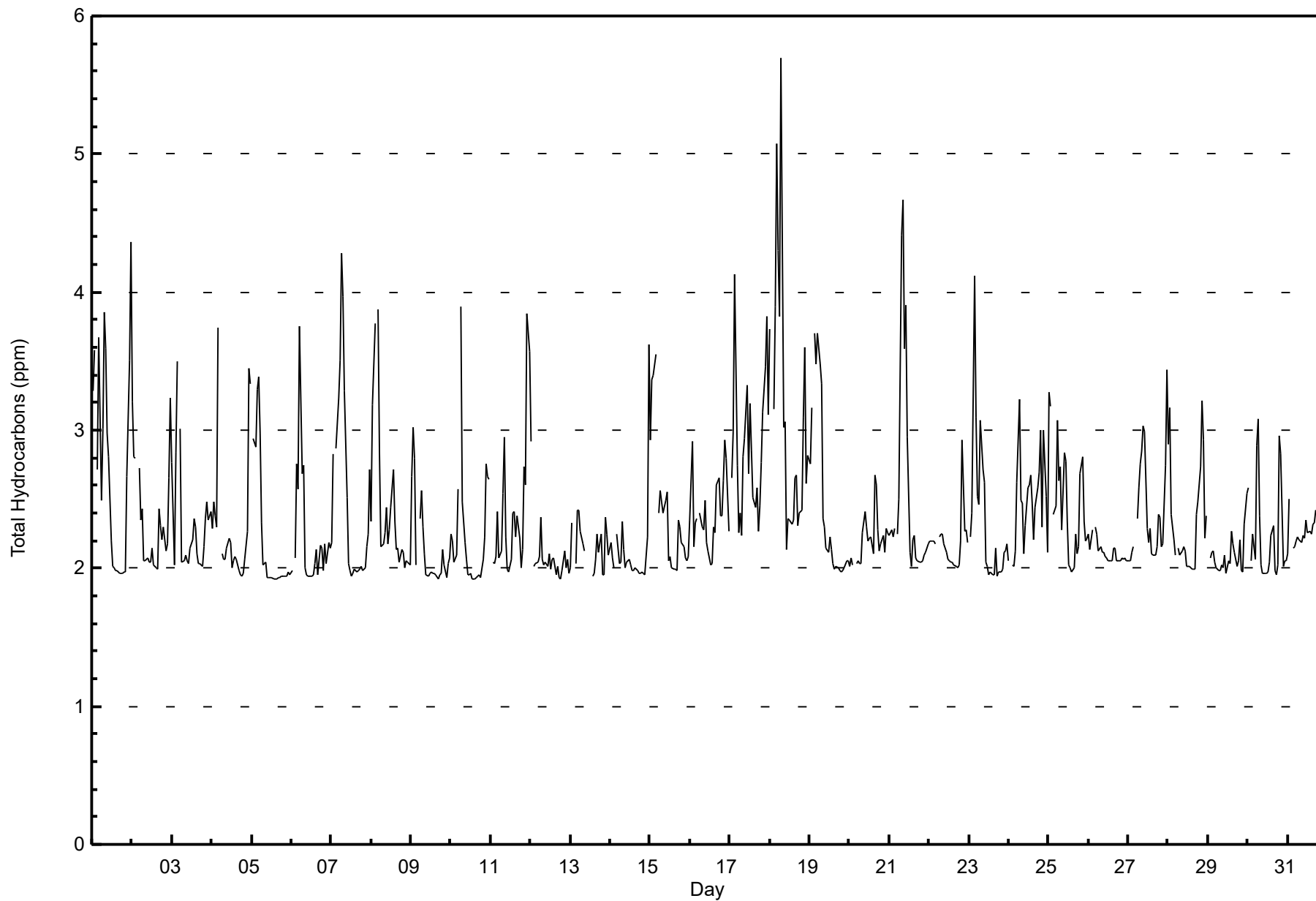
Fort Hills - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 5.7 ppm on Jul 18 08:00 Maximum Daily Average: 3.1 ppm on Jul 18																		Hours in Service: 744								
Minimum Value: 1.9 ppm on Jul 12 19:00 Minimum Daily Average: 2.1 ppm on Jul 12 Maximum Diurnal Average: 2.7 ppm at hour 5 Minimum Diurnal Average: 2.1 ppm at hour 15 Monthly Average: 2.36 ppm Percentiles: P ₁ = 1.9 P ₁₀ = 2.0 Q ₁ = 2.0 Median = 2.2 Q ₃ = 2.5 P ₉₀ = 3.0 P ₉₉ = 4.1																		Hours of Data: 709								
																		Hours of Missing Data: 35								
																		Hours of Calibration: 35								
																		Percent Operational Time: 100.0								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	3.3	3.6	Z	2.7	3.7	2.5	3.0	3.9	3.6	3.0	2.8	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.7	3.5	4.4	2.7	4.4
2-Jul	3.2	2.8	2.8	Z	2.7	2.4	2.4	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.4	2.3	2.2	2.3	2.1	2.2	2.7	3.2	2.4	3.2
3-Jul	2.8	2.0	2.8	3.5	Z	3.0	2.0	2.1	2.1	2.1	2.0	2.1	2.2	2.4	2.3	2.1	2.0	2.0	2.0	2.2	2.4	2.5	2.3	2.4	2.3	3.5
4-Jul	2.3	2.5	2.4	2.3	3.7	Z	2.1	2.1	2.1	2.1	2.2	2.2	2.0	2.1	2.1	2.1	2.0	1.9	1.9	2.0	2.1	2.3	3.4	3.3	2.3	3.7
5-Jul	Z	2.9	2.9	3.3	3.4	3.0	2.3	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.2	3.4
6-Jul	2.0	Z	2.1	2.8	2.6	3.8	2.7	2.7	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.1	1.9	2.2	2.1	2.0	2.2	2.0	2.2	2.1	2.2	3.8
7-Jul	2.2	2.8	Z	2.9	3.2	3.5	4.3	4.0	3.3	2.5	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.7	2.5	4.3
8-Jul	2.3	3.2	3.8	Z	3.9	2.8	2.2	2.2	2.3	2.4	2.2	2.3	2.4	2.7	2.3	2.1	2.1	2.0	2.1	2.1	2.0	2.1	2.0	2.0	2.4	3.9
9-Jul	2.7	3.0	2.8	2.0	Z	2.4	2.6	2.3	2.1	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.1	2.0	1.9	2.0	2.1	2.2	3.0
10-Jul	2.2	2.2	2.0	2.1	2.6	Z	3.9	2.5	2.2	2.1	2.0	1.9	2.0	1.9	1.9	1.9	1.9	2.0	1.9	2.1	2.2	2.8	2.7	2.6	2.2	3.9
11-Jul	Z	2.0	2.0	2.1	2.4	2.1	2.1	2.5	2.9	2.2	2.0	2.0	2.1	2.4	2.4	2.2	2.4	2.2	2.0	2.1	2.7	2.6	3.8	3.6	2.4	3.8
12-Jul	2.9	Z	2.0	2.0	2.0	2.1	2.4	2.1	2.0	2.0	2.0	2.1	2.0	2.1	2.1	1.9	2.0	1.9	1.9	2.0	2.1	2.0	2.1	2.0	2.1	2.9
13-Jul	2.0	2.3	Z	2.0	2.4	2.4	2.3	2.2	2.1	C	C	C	C	1.9	2.0	2.1	2.2	2.1	2.2	2.0	2.0	2.4	2.3	2.1	2.2	2.4
14-Jul	2.2	2.1	2.0	Z	2.2	2.0	2.0	2.3	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	3.6	2.1	3.6	
15-Jul	2.9	3.4	3.4	3.5	Z	2.4	2.6	2.5	2.4	2.5	2.6	2.1	2.1	2.0	2.0	2.0	2.0	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.4	3.5
16-Jul	2.4	2.9	2.2	2.3	2.4	Z	2.4	2.3	2.3	2.5	2.2	2.1	2.0	2.0	2.3	2.3	2.6	2.7	2.4	2.4	2.6	2.9	2.8	2.3	2.4	2.9
17-Jul	Z	2.7	3.0	4.1	2.7	2.3	2.4	2.2	2.8	2.9	3.3	2.7	3.2	2.9	2.5	2.4	2.6	2.3	2.4	2.8	3.1	3.5	3.8	3.1	2.9	4.1
18-Jul	3.7	Z	3.1	3.9	5.1	4.3	3.8	5.7	3.0	3.1	2.1	2.4	2.4	2.3	2.3	2.7	2.7	2.3	2.4	2.4	3.1	3.6	2.6	2.8	3.1	5.7
19-Jul	2.8	3.2	Z	3.7	3.5	3.7	3.5	3.3	2.4	2.3	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.5	3.7
20-Jul	2.0	2.1	2.0	Z	2.0	2.0	2.0	2.0	2.3	2.4	2.3	2.2	2.2	2.2	2.1	2.7	2.6	2.3	2.1	2.2	2.2	2.1	2.3	2.3	2.2	2.7
21-Jul	2.2	2.3	2.2	2.3	Z	2.2	2.5	4.4	4.7	3.6	3.9	2.9	2.1	2.0	2.2	2.2	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.5	4.7
22-Jul	2.2	2.2	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.9	2.3	2.3	2.2	2.2	2.9
23-Jul	Z	2.2	2.4	4.1	3.1	2.5	2.5	3.1	2.7	2.6	2.0	2.0	2.0	2.0	1.9	2.0	2.2	1.9	2.0	2.0	2.0	2.1	2.1	2.2	2.3	4.1
24-Jul	2.1	Z	2.0	2.0	2.1	2.6	3.2	2.5	2.5	2.1	2.3	2.6	2.6	2.7	2.5	2.2	2.4	2.6	2.7	3.0	2.3	3.0	2.5	2.1	2.5	3.2
25-Jul	3.3	3.2	Z	2.4	2.5	3.1	2.6	2.7	2.3	2.8	2.8	2.3	2.0	2.0	2.0	2.0	2.2	2.1	2.2	2.7	2.8	2.3	2.2	2.2	2.5	3.3
26-Jul	2.2	2.1	2.3	Z	2.3	2.3	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.3
27-Jul	2.1	2.1	2.1	2.2	Z	2.4	2.6	2.8	2.8	3.0	3.0	2.3	2.2	2.3	2.1	2.1	2.1	2.2	2.4	2.4	2.2	2.2	2.7	3.4	2.4	3.4
28-Jul	2.9	3.2	2.4	2.2	2.1	Z	2.1	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.4	2.5	2.7	3.2	2.9	2.2	2.4	2.3	3.2
29-Jul	Z	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.3	2.2	2.1	2.0	2.1	2.2	2.0	2.0	2.3	2.5	2.1	2.5
30-Jul	2.6	Z	2.1	2.2	2.1	2.9	3.1	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.3	2.0	2.0	2.0	3.0	2.8	2.0	2.1	2.1	2.2	3.1
31-Jul	2.1	2.5	Z	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.3	2.3	2.4	2.4	2.4	2.3	2.4	2.6	3.1	2.3	3.1
2.5 2.6 2.4 2.7 2.7 2.6 2.6 2.6 2.4 2.4 2.3 2.2 2.1 2.1 2.1 2.1 2.2 2.1 2.1 2.2 2.3 2.4 2.5 2.6																									Diurnal Average	
3.7 3.6 3.8 4.1 5.1 4.3 4.3 5.7 4.7 3.6 3.9 2.9 3.2 2.9 2.5 2.7 2.7 2.7 2.7 3.0 3.2 3.6 3.8 4.4																									Diurnal Maximum	
Z - zerospan C - Calibration																										



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Fort Hills - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Fort Hills - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	206	29.06	29.06
2.1 - 3.0	433	61.07	90.13
3.1 - 10.0	70	9.87	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Fort Hills - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	17	0	4	5	0	1	3	24	31	34	21	10	6	19	12	19	206
2.1 - 3.0	42	23	20	10	4	13	33	91	54	47	35	11	13	8	10	19	433
3.1 - 10.0	12	4	1	3	0	3	7	6	7	5	4	4	1	1	0	10	68
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	71	27	25	18	4	17	43	121	92	86	60	25	20	28	22	48	707

Total Number of Valid Hours: 707

Total Number of Hours: 744

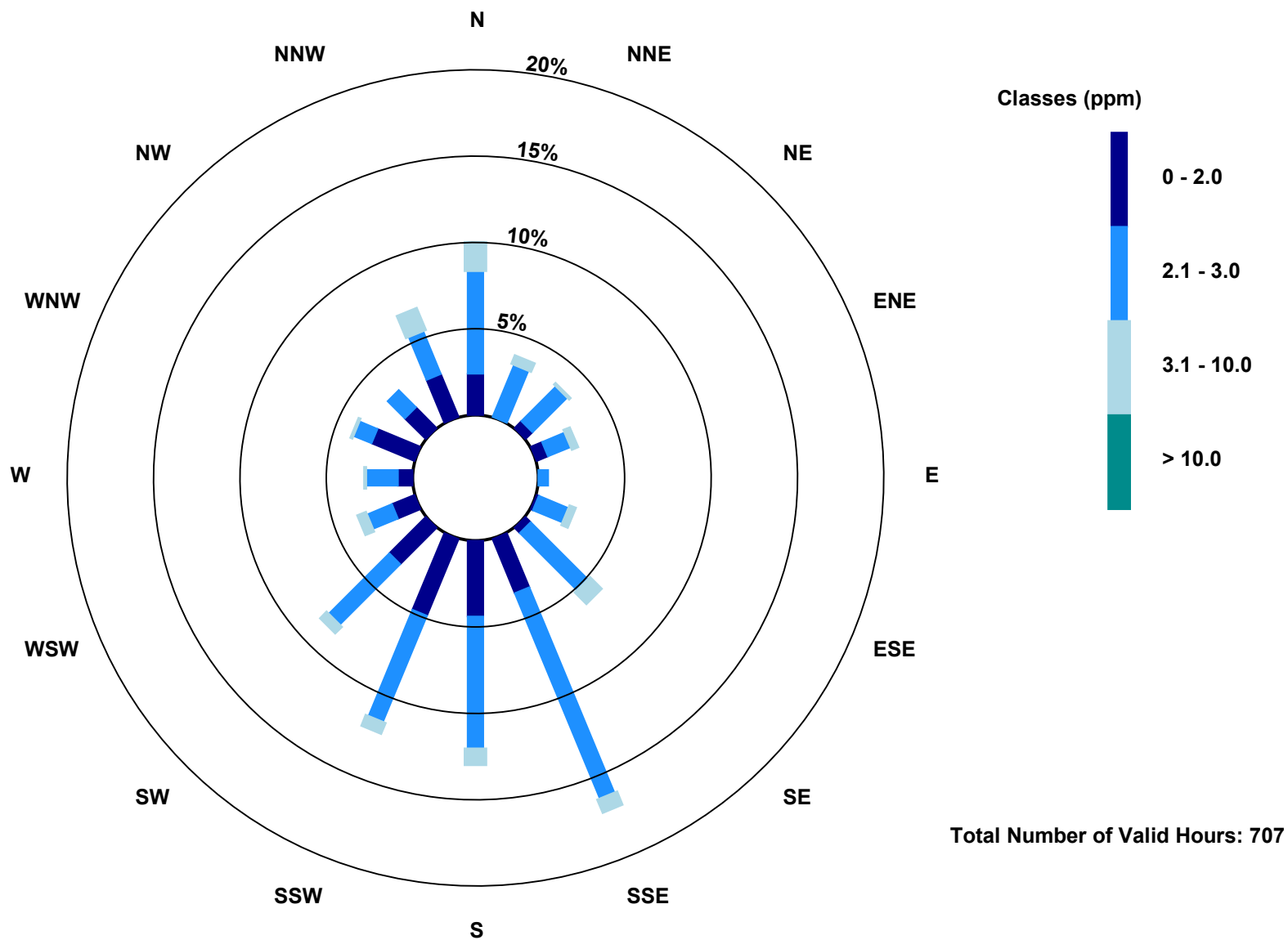


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Total Hydrocarbons (THC) - ppm

Fort Hills



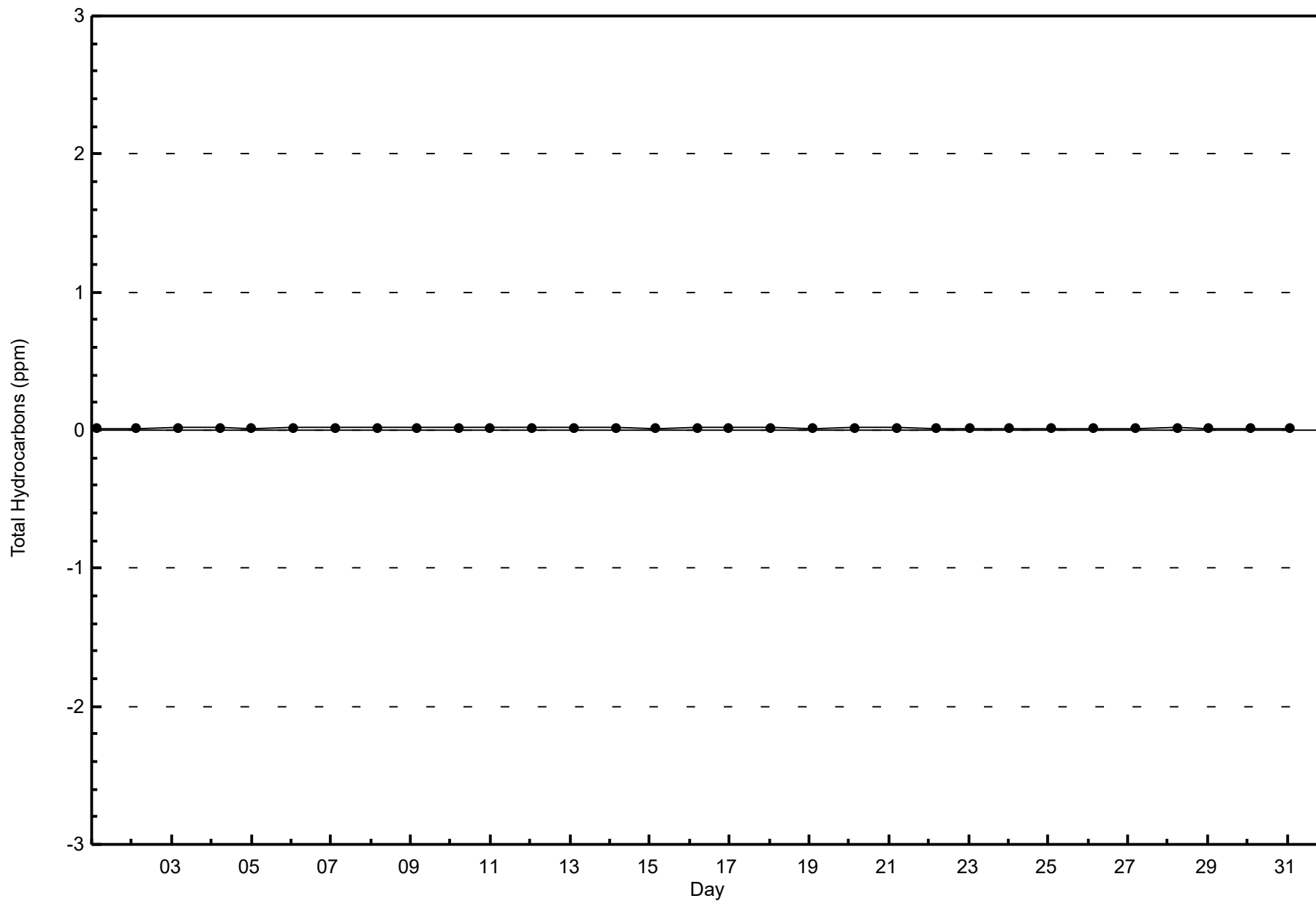


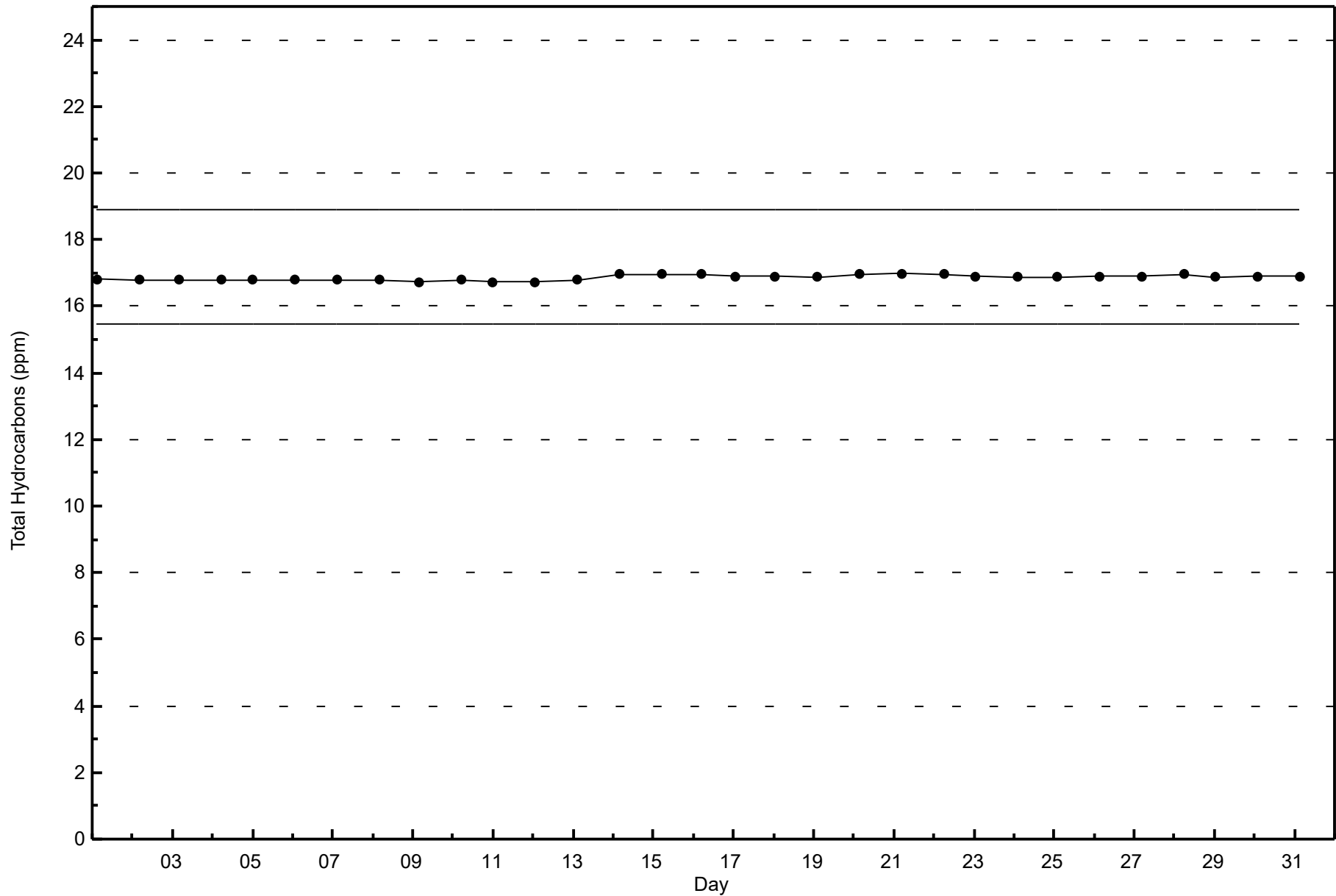
Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Fort Hills - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

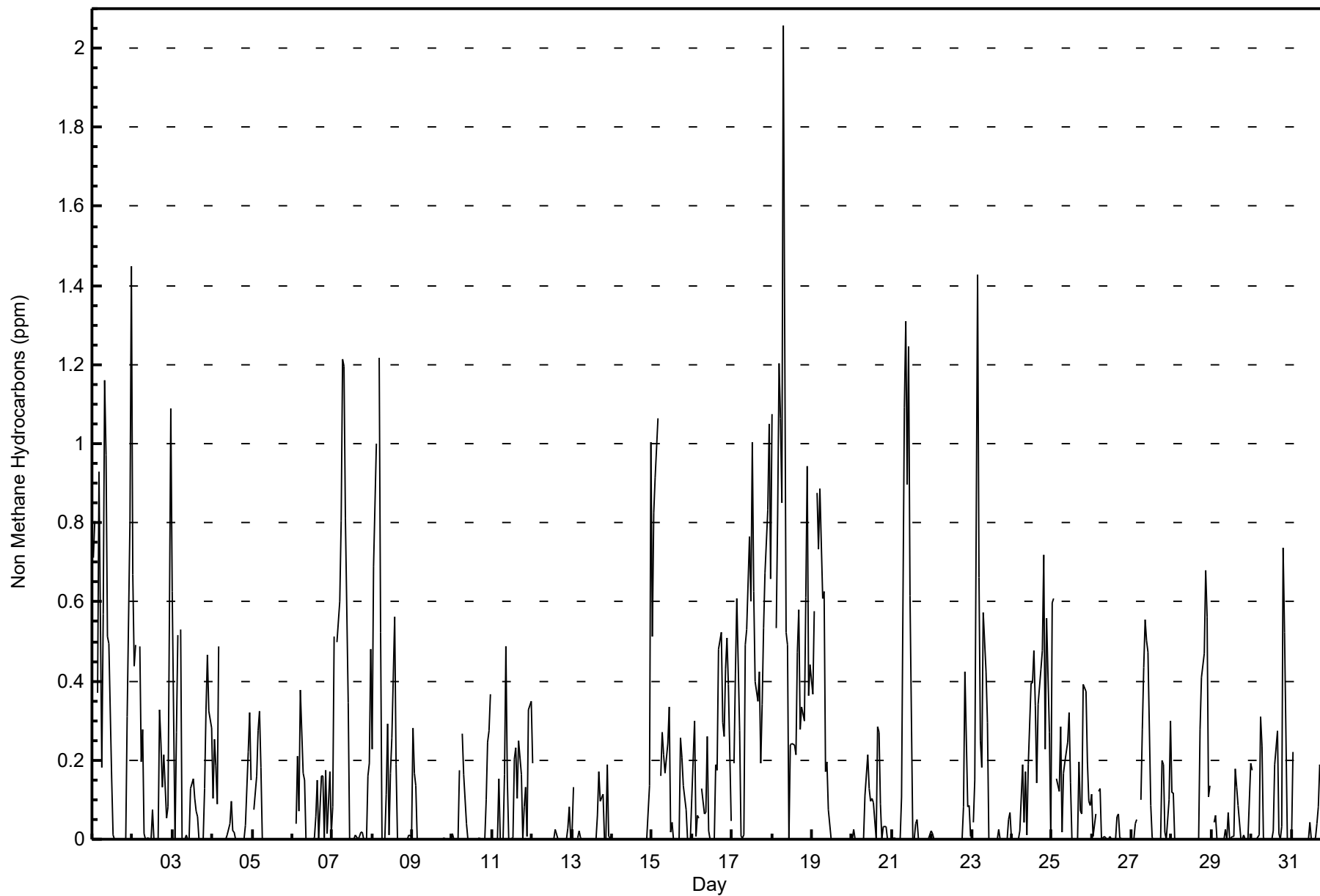
Fort Hills - July 2026

Maximum Value: 2.057 ppm on Jul 18 08:00																		Maximum Daily Average: 0.603 ppm on Jul 18																		Hours in Service: 744	
Minimum Value: 0.000 ppm on Jul 1 14:00																		Minimum Daily Average: 0.014 ppm on Jul 12																		Hours of Data: 709	
Maximum Diurnal Average: 0.294 ppm at hour 5																		Minimum Diurnal Average: 0.069 ppm at hour 15																		Hours of Missing Data: 35	
Monthly Average: 0.164 ppm																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.2 P ₉₀ = 0.5 P ₉₉ = 1.2																		Hours of Calibration: 35	
																																				Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24													
1-Jul	0.712	0.805	Z	0.371	0.931	0.181	0.569	1.161	0.973	0.512	0.494	0.153	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.311	0.805	1.449	0.410	1.449											
2-Jul	0.667	0.437	0.490	Z	0.487	0.196	0.277	0.015	0.000	0.003	0.000	0.000	0.076	0.000	0.000	0.000	0.326	0.242	0.133	0.213	0.052	0.081	0.556	1.090	0.232	1.090											
3-Jul	0.625	0.000	0.271	0.517	Z	0.532	0.000	0.000	0.010	0.000	0.000	0.128	0.152	0.102	0.070	0.058	0.000	0.000	0.000	0.127	0.328	0.468	0.324	0.283	0.174	0.625											
4-Jul	0.103	0.254	0.184	0.090	0.487	Z	0.000	0.000	0.000	0.011	0.040	0.096	0.022	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.035	0.221	0.320	0.148	0.088	0.487											
5-Jul	Z	0.075	0.161	0.274	0.323	0.182	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.044	0.323											
6-Jul	0.000	Z	0.039	0.209	0.072	0.378	0.168	0.151	0.000	0.000	0.000	0.000	0.000	0.005	0.057	0.151	0.000	0.161	0.159	0.002	0.175	0.013	0.170	0.014	0.084	0.378											
7-Jul	0.082	0.513	Z	0.497	0.601	0.804	1.214	1.196	0.812	0.347	0.000	0.000	0.000	0.000	0.009	0.000	0.007	0.017	0.017	0.000	0.000	0.161	0.193	0.481	0.302	1.214											
8-Jul	0.228	0.690	1.001	Z	1.216	0.525	0.000	0.000	0.114	0.291	0.012	0.169	0.257	0.562	0.189	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.007	0.229	1.216											
9-Jul	0.283	0.167	0.136	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.026	0.283											
10-Jul	0.013	0.000	0.000	0.000	0.175	Z	0.267	0.165	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.099	0.247	0.276	0.368	0.072	0.368											
11-Jul	Z	0.000	0.000	0.000	0.153	0.000	0.000	0.162	0.488	0.154	0.000	0.000	0.005	0.203	0.231	0.102	0.250	0.165	0.000	0.083	0.131	0.008	0.329	0.348	0.122	0.488											
12-Jul	0.193	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.083	0.000	0.014	0.193											
13-Jul	0.018	0.133	Z	0.003	0.023	0.003	0.000	0.000	0.000	C	C	C	C	0.000	0.000	0.061	0.171	0.097	0.113	0.000	0.000	0.187	0.006	0.003	0.043	0.187											
14-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.134	1.004	0.050	1.004												
15-Jul	0.513	0.824	0.913	1.064	Z	0.161	0.270	0.213	0.169	0.243	0.335	0.018	0.042	0.000	0.000	0.000	0.000	0.257	0.208	0.134	0.076	0.000	0.000	0.000	0.236	1.064											
16-Jul	0.102	0.298	0.006	0.061	0.052	Z	0.127	0.063	0.068	0.261	0.020	0.000	0.000	0.000	0.190	0.173	0.480	0.524	0.296	0.259	0.430	0.509	0.391	0.047	0.189	0.524											
17-Jul	Z	0.191	0.422	0.609	0.273	0.006	0.003	0.010	0.492	0.530	0.765	0.602	1.006	0.625	0.397	0.350	0.423	0.193	0.342	0.532	0.674	0.831	1.051	0.657	0.478	1.051											
18-Jul	1.076	Z	0.532	0.819	1.202	1.065	0.850	2.057	0.523	0.492	0.000	0.240	0.243	0.237	0.213	0.474	0.580	0.276	0.336	0.299	0.611	0.943	0.361	0.441	0.603	2.057											
19-Jul	0.365	0.576	Z	0.876	0.732	0.885	0.609	0.626	0.171	0.197	0.074	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.222	0.885											
20-Jul	0.000	0.023	0.000	Z	0.000	0.000	0.000	0.000	0.111	0.213	0.129	0.096	0.102	0.092	0.000	0.283	0.271	0.090	0.000	0.033	0.033	0.000	0.000	0.000	0.064	0.283											
21-Jul	0.000	0.004	0.000	0.000	Z	0.000	0.106	1.092	1.308	0.895	1.246	0.615	0.000	0.000	0.038	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.234	1.308											
22-Jul	0.016	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.081	0.425	0.081	0.085	0.008	0.030	0.425											
23-Jul	Z	0.042	0.149	1.428	0.663	0.251	0.181	0.571	0.423	0.296	0.000	0.000	0.000	0.000	0.000	0.000	0.027	0.000	0.000	0.000	0.000	0.000	0.049	0.069	0.180	1.428											
24-Jul	0.003	Z	0.000	0.000	0.000	0.021	0.188	0.044	0.169	0.010	0.187	0.397	0.396	0.478	0.339	0.142	0.342	0.431	0.476	0.719	0.228	0.558	0.269	0.000	0.235	0.719											
25-Jul	0.596	0.610	Z	0.153	0.122	0.284	0.019	0.167	0.196	0.246	0.320	0.143	0.000	0.000	0.000	0.000	0.196	0.073	0.063	0.393	0.375	0.197	0.098	0.086	0.189	0.610											
26-Jul	0.114	0.007	0.063	Z	0.120	0.127	0.000	0.006	0.003	0.000	0.000	0.006	0.000	0.000	0.000	0.055	0.064	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.025	0.127											
27-Jul	0.000	0.000	0.040	0.050	Z	0.101	0.278	0.435	0.554	0.504	0.472	0.084	0.003	0.000	0.000	0.000	0.000	0.000	0.201	0.188	0.018	0.000	0.099	0.300	0.144	0.554											
28-Jul	0.119	0.119	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.277	0.408	0.469	0.680	0.561	0.106	0.136	0.125	0.680											
29-Jul	Z	0.041	0.061	0.000	0.000	0.000	0.000	0.000	0.024	0.000	0.066	0.000	0.006	0.006	0.178	0.130	0.084	0.000	0.000	0.010	0.000	0.000	0.000	0.191	0.035	0.191											
30-Jul	0.175	Z	0.000	0.000	0.011	0.309	0.236	0.004	0.000	0.000	0.000	0.000	0.000	0.022	0.189	0.274	0.015	0.000	0.032	0.735	0.522	0.000	0.000	0.000	0.110	0.735											
31-Jul	0.000	0.221	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.043	0.000	0.000	0.003	0.039	0.083	0.189	0.171	0.199	0.092	0.043	0.155	0.285	0.066	0.285											
0.231 0.232 0.179 0.270 0.294 0.231 0.173 0.262 0.214 0.173 0.139 0.093 0.077 0.076 0.069 0.076 0.107 0.097 0.095 0.145 0.161 0.176 0.189 0.240																								Diurnal Average													
1.076 0.824 1.001 1.428 1.216 1.065 1.214 2.057 1.308 0.895 1.246 0.615 1.006 0.625 0.397 0.474 0.580 0.524 0.476 0.735 0.680 0.943 1.051 1.449																								Diurnal Maximum													
Z - zerospan C - Calibration																																					



Wood Buffalo Environmental Association
Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm
Fort Hills - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Fort Hills - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	328	46.26	46.26
0.006 - 0.05	68	9.59	55.85
0.06 - 0.1	74	10.44	66.29
> 0.1	239	33.71	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744



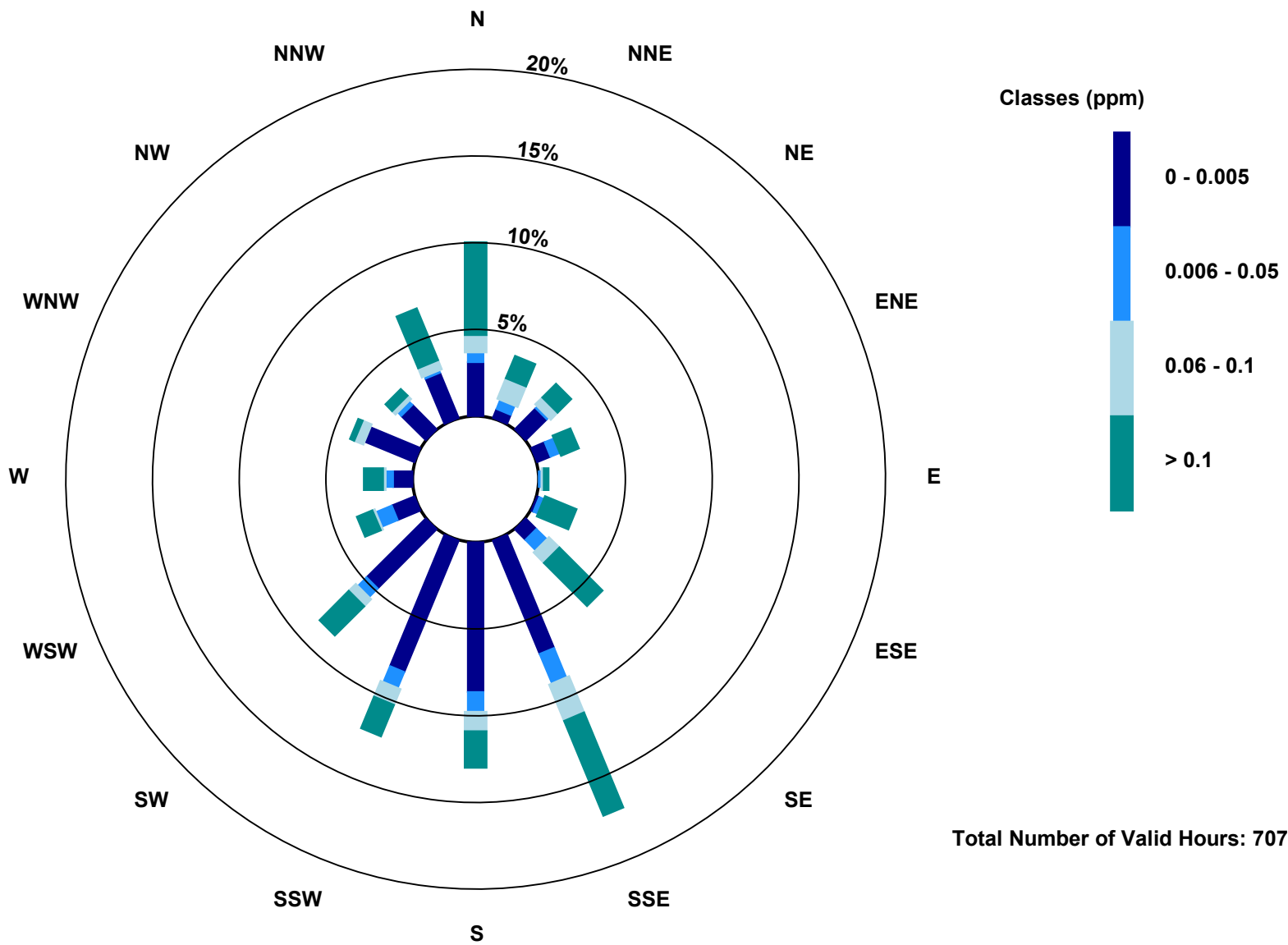
Wood Buffalo Environmental Association
Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Fort Hills - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 0.005	22	4	12	6	0	1	6	50	61	58	34	10	8	22	14	20	328
0.006 - 0.05	4	4	1	4	1	2	6	13	8	7	5	7	3	0	2	1	68
0.06 - 0.1	7	9	4	0	1	0	6	16	8	7	4	1	1	4	2	4	74
> 0.1	38	10	8	8	2	14	25	42	15	14	17	7	8	2	4	23	237
Totals	71	27	25	18	4	17	43	121	92	86	60	25	20	28	22	48	707

Total Number of Valid Hours: 707

Total Number of Hours: 744



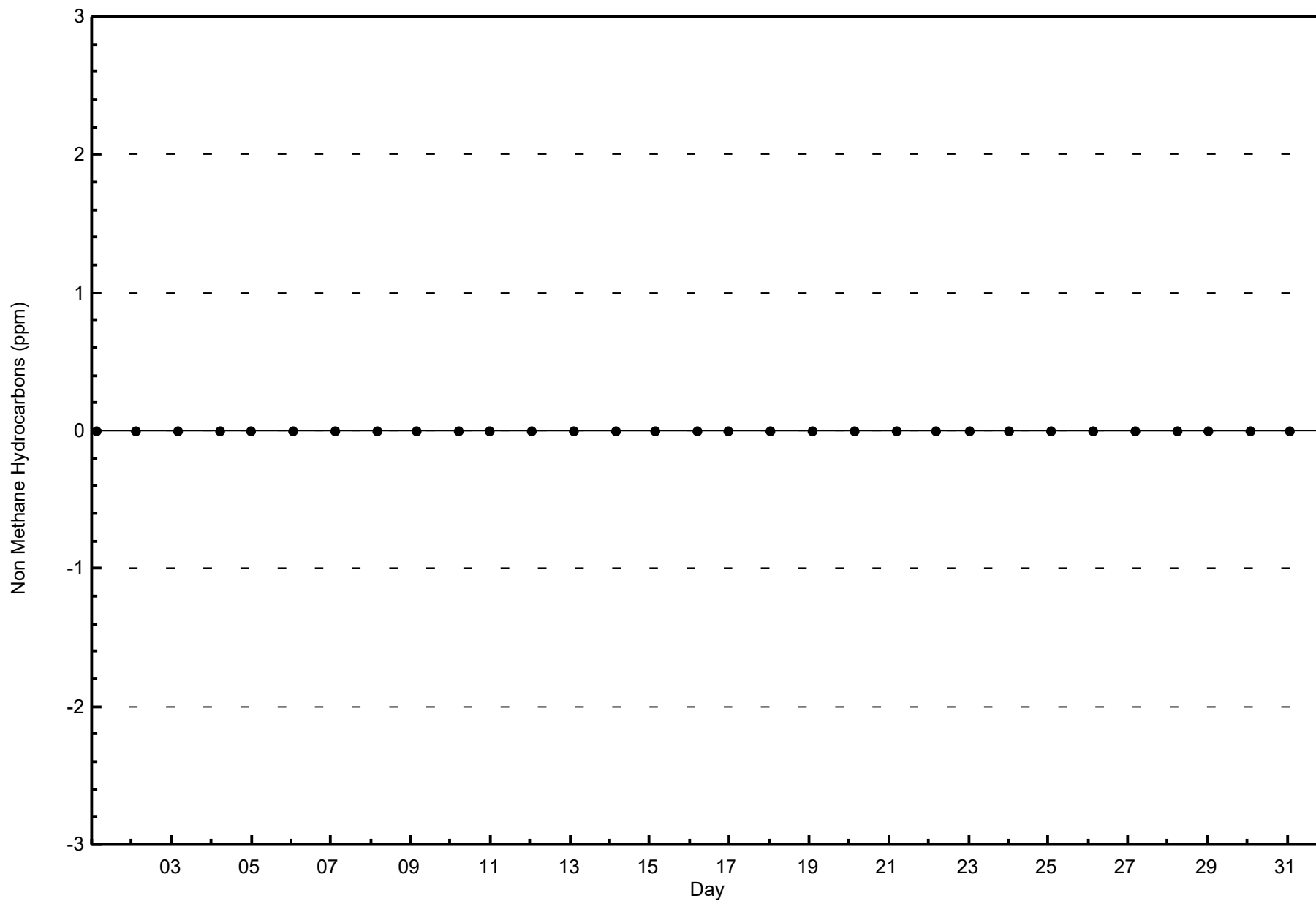


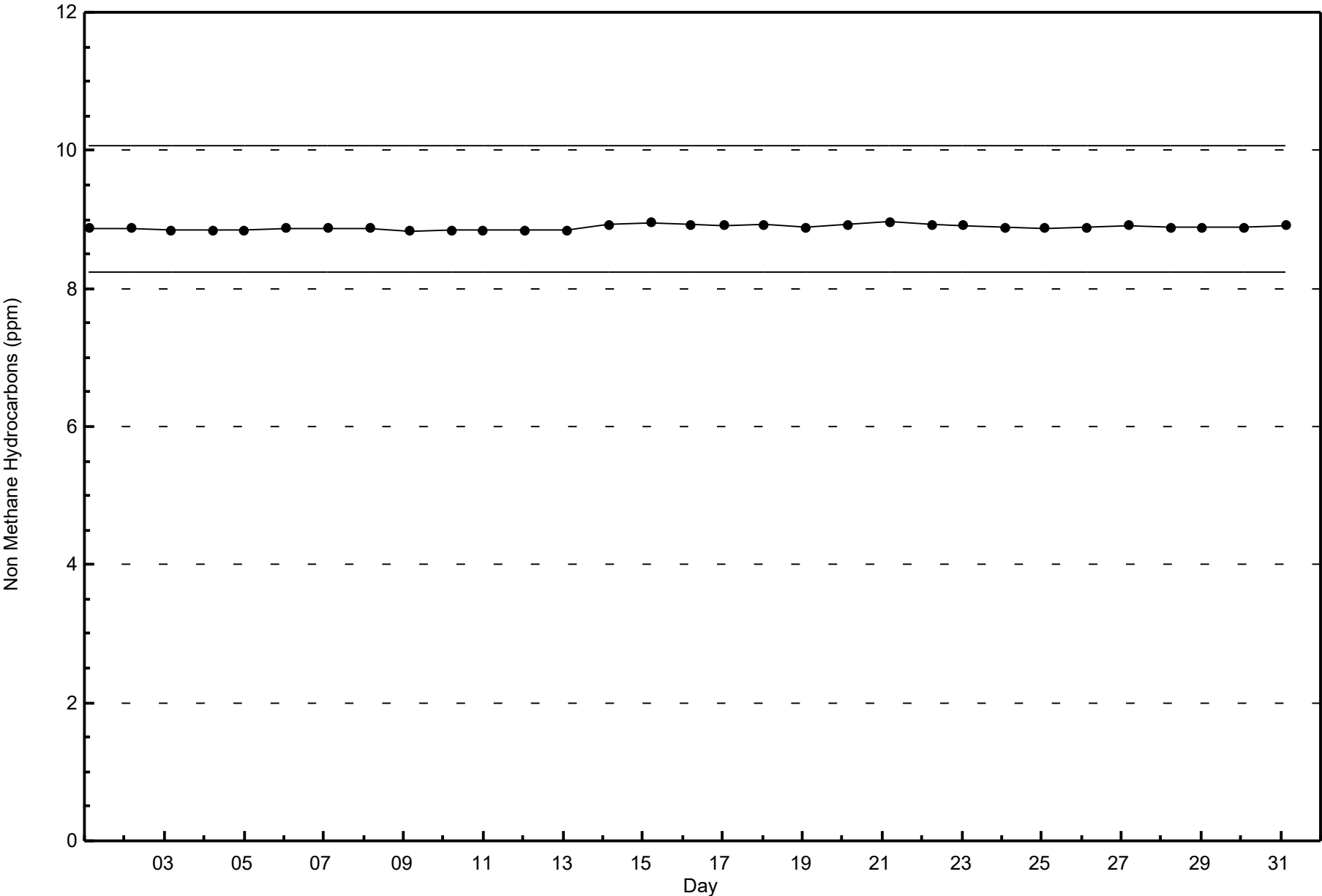
Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Fort Hills - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH₄) - ppm

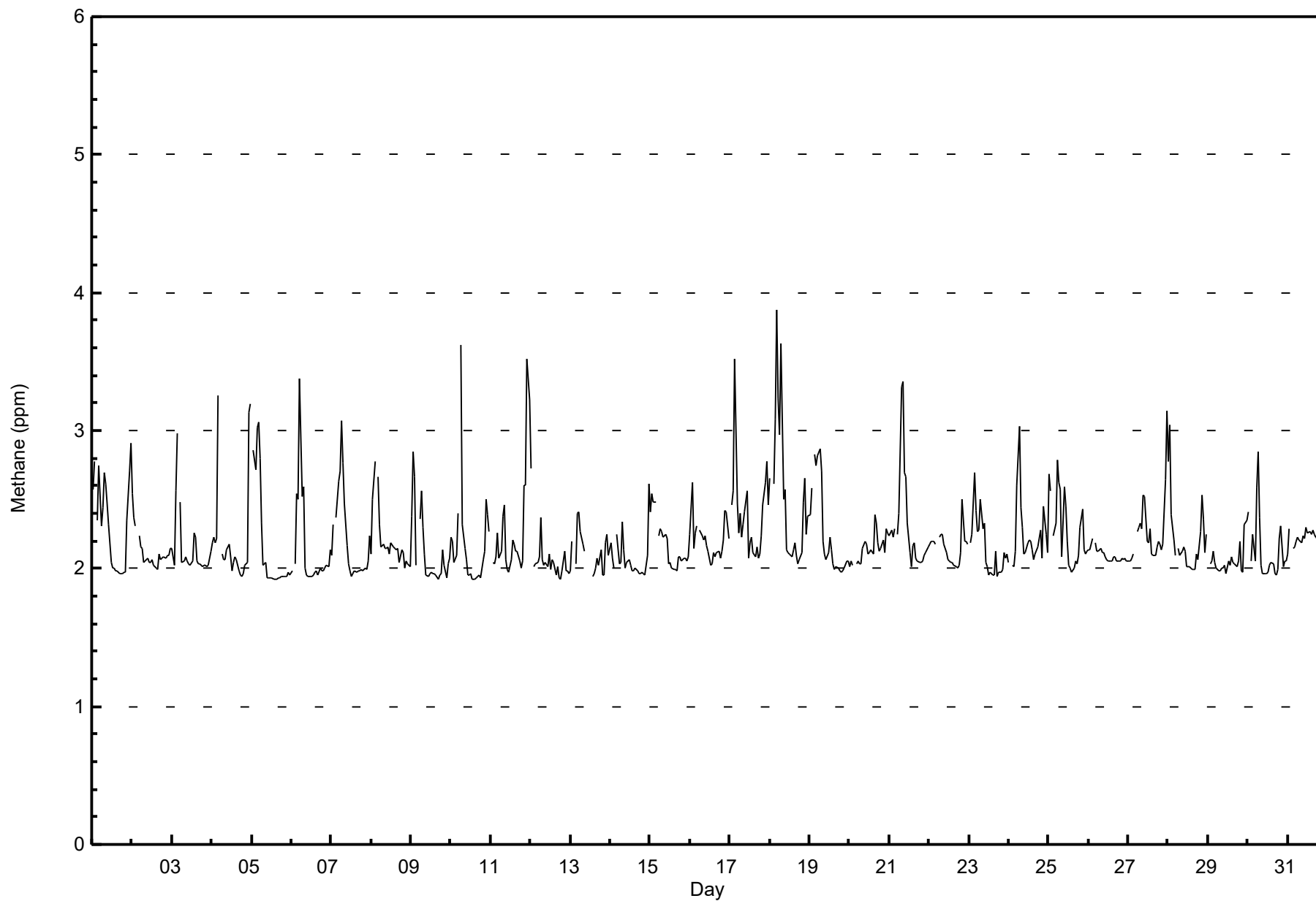
Fort Hills - July 2026

Number of Exceedances (AAAQO): Maximum Value: 3.9 ppm on Jul 18 05:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 2.5 ppm on Jul 18						Hours in Service: 744 Hours of Data: 709 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0			
Minimum Value: 1.9 ppm on Jul 12 19:00 Maximum Diurnal Average: 2.4 ppm at hour 5 Monthly Average: 2.20 ppm																			Minimum Daily Average: 2.1 ppm on Jul 29 Minimum Diurnal Average: 2.0 ppm at hour 18 Percentiles: P ₁ = 1.9 P ₁₀ = 2.0 Q ₁ = 2.0 Median = 2.1 Q ₃ = 2.3 P ₉₀ = 2.6 P ₉₉ = 3.3									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	2.6	2.8	Z	2.3	2.7	2.3	2.4	2.7	2.6	2.5	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.4	2.7	2.9	2.3	2.9		
2-Jul	2.5	2.4	2.3	Z	2.2	2.2	2.2	2.0	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.5		
3-Jul	2.1	2.0	2.6	3.0	Z	2.5	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	3.0		
4-Jul	2.2	2.2	2.2	2.2	3.3	Z	2.1	2.1	2.1	2.1	2.2	2.1	2.0	2.0	2.1	2.1	2.0	1.9	1.9	2.0	2.0	2.0	3.1	3.2	2.2	3.3		
5-Jul	Z	2.9	2.7	3.0	3.1	2.8	2.3	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.2	3.1		
6-Jul	2.0	Z	2.0	2.5	2.5	3.4	2.5	2.6	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	3.4		
7-Jul	2.1	2.3	Z	2.4	2.6	2.7	3.1	2.8	2.5	2.2	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	3.1		
8-Jul	2.1	2.5	2.8	Z	2.7	2.3	2.2	2.2	2.1	2.1	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.1	2.0	2.0	2.2	2.8		
9-Jul	2.4	2.9	2.7	2.0	Z	2.4	2.6	2.3	2.1	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.1	2.0	1.9	2.0	2.1	2.1	2.9		
10-Jul	2.2	2.2	2.0	2.1	2.4	Z	3.6	2.3	2.1	2.1	2.0	1.9	2.0	1.9	1.9	1.9	1.9	2.0	1.9	2.1	2.1	2.5	2.4	2.3	2.2	3.6		
11-Jul	Z	2.0	2.0	2.1	2.3	2.1	2.1	2.4	2.5	2.1	2.0	2.0	2.1	2.2	2.2	2.1	2.1	2.1	2.0	2.1	2.6	2.6	3.5	3.2	2.3	3.5		
12-Jul	2.7	Z	2.0	2.0	2.0	2.1	2.4	2.1	2.0	2.0	2.0	2.1	2.0	2.1	2.0	1.9	2.0	1.9	1.9	2.0	2.1	2.0	2.0	2.0	2.1	2.7		
13-Jul	2.0	2.2	Z	2.0	2.4	2.4	2.3	2.2	2.1	C	C	C	C	1.9	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.2	2.2	2.1	2.1	2.4		
14-Jul	2.2	2.1	2.0	Z	2.2	2.0	2.0	2.3	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.6	2.1	2.6			
15-Jul	2.4	2.5	2.5	2.5	Z	2.2	2.3	2.3	2.2	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.5		
16-Jul	2.3	2.6	2.1	2.3	2.3	Z	2.3	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.4	2.2	2.2	2.6		
17-Jul	Z	2.5	2.6	3.5	2.5	2.3	2.4	2.2	2.3	2.4	2.6	2.1	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.2	2.5	2.6	2.8	2.5	2.4	3.5		
18-Jul	2.7	Z	2.6	3.1	3.9	3.2	3.0	3.6	2.5	2.6	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.0	2.1	2.1	2.5	2.7	2.2	2.4	2.5	3.9		
19-Jul	2.4	2.6	Z	2.8	2.7	2.8	2.9	2.7	2.2	2.1	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.3	2.9		
20-Jul	2.0	2.1	2.0	Z	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.4	2.3	2.2	2.1	2.1	2.2	2.1	2.3	2.3	2.1	2.4		
21-Jul	2.2	2.3	2.2	2.3	Z	2.2	2.4	3.3	3.4	2.7	2.7	2.3	2.1	2.0	2.2	2.2	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.3	3.4		
22-Jul	2.2	2.2	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.5	2.2	2.2	2.2	2.1	2.5		
23-Jul	Z	2.2	2.2	2.7	2.4	2.3	2.3	2.5	2.3	2.3	2.0	2.0	2.0	2.0	1.9	2.0	2.1	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.7		
24-Jul	2.0	Z	2.0	2.0	2.1	2.6	3.0	2.4	2.3	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.3	2.1	2.4	2.3	2.1	2.2	3.0		
25-Jul	2.7	2.6	Z	2.2	2.3	2.8	2.6	2.6	2.1	2.6	2.5	2.2	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.3	2.4	2.1	2.1	2.1	2.3	2.8		
26-Jul	2.1	2.1	2.2	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2		
27-Jul	2.1	2.1	2.1	2.1	Z	2.3	2.3	2.3	2.3	2.5	2.5	2.2	2.2	2.3	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.6	3.1	2.3	3.1		
28-Jul	2.8	3.0	2.4	2.2	2.1	Z	2.1	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.3	2.5	2.4	2.1	2.2	2.2	3.0		
29-Jul	Z	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.1	2.2	2.0	2.0	2.3	2.4	2.1	2.4		
30-Jul	2.4	Z	2.1	2.2	2.1	2.6	2.8	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.3	2.0	2.1	2.1	2.1	2.8		
31-Jul	2.1	2.3	Z	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.4	2.4	2.8	2.3	2.8		
2.3 2.4 2.3 2.4 2.4 2.4 2.4 2.4 2.2 2.2 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.0 2.0 2.1 2.1 2.2 2.3 2.3																										Diurnal Average		
2.8 3.0 2.8 3.5 3.9 3.4 3.6 3.6 3.6 3.4 2.7 2.7 2.3 2.3 2.3 2.2 2.4 2.3 2.2 2.2 2.3 2.6 2.7 3.5 3.2																										Diurnal Maximum		
Z - zerospan C - Calibration																												



Wood Buffalo Environmental Association
Hourly Averages

Methane (CH₄) - ppm
Fort Hills - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Methane (CH₄) - ppm
Fort Hills - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	240	33.85	33.85
2.1 - 3.0	452	63.75	97.60
3.1 - 10.0	17	2.40	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Methane (CH₄) - ppm
Fort Hills - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	17	3	10	6	2	3	4	32	31	36	22	13	7	20	14	20	240
2.1 - 3.0	51	24	14	12	2	14	39	87	57	46	37	12	12	8	8	28	451
3.1 - 10.0	3	0	1	0	0	0	0	2	4	4	1	0	1	0	0	0	16
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	71	27	25	18	4	17	43	121	92	86	60	25	20	28	22	48	707

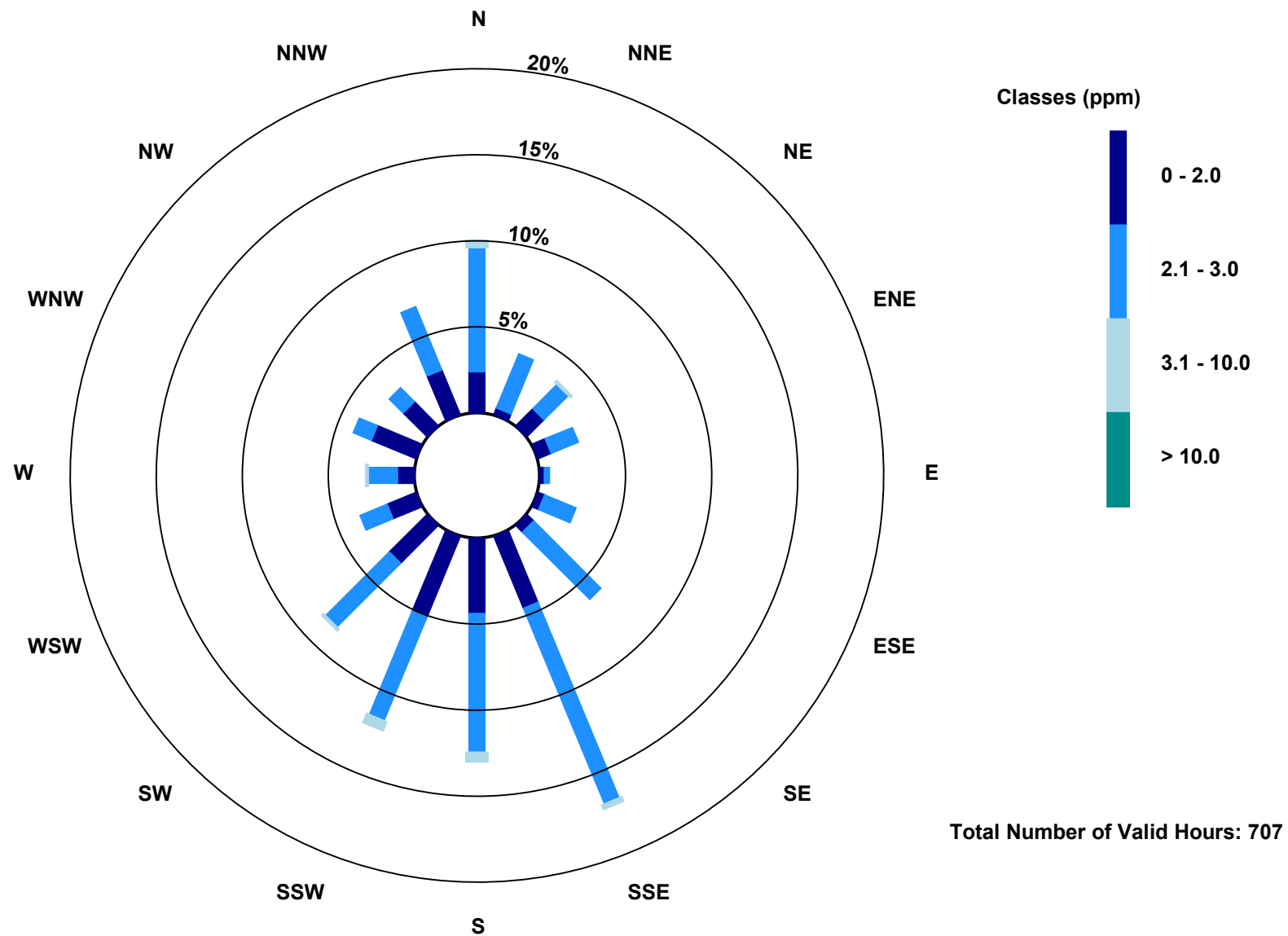
Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

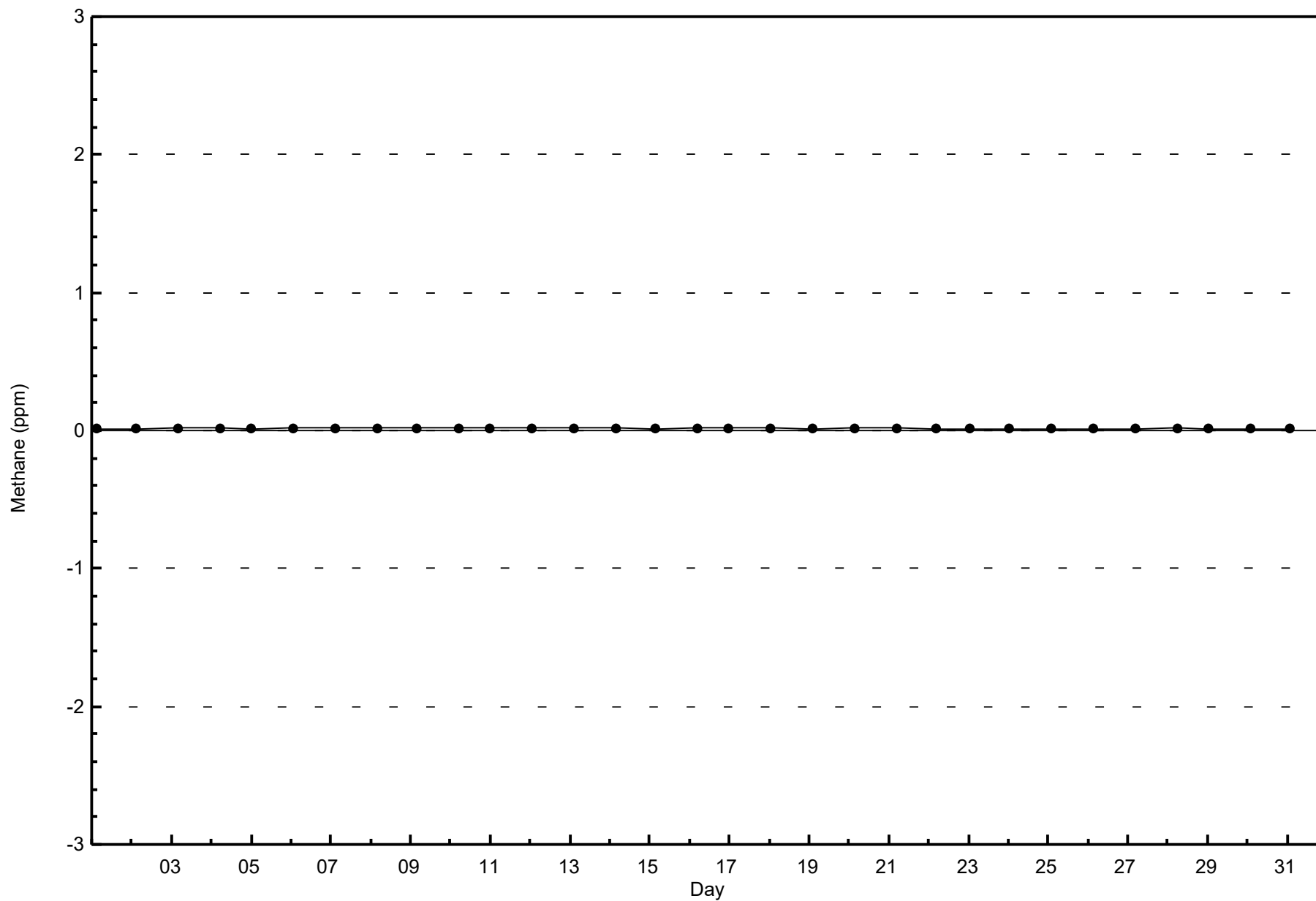
Methane (CH₄) - ppm
Fort Hills





Wood Buffalo Environmental Association
Zero Responses

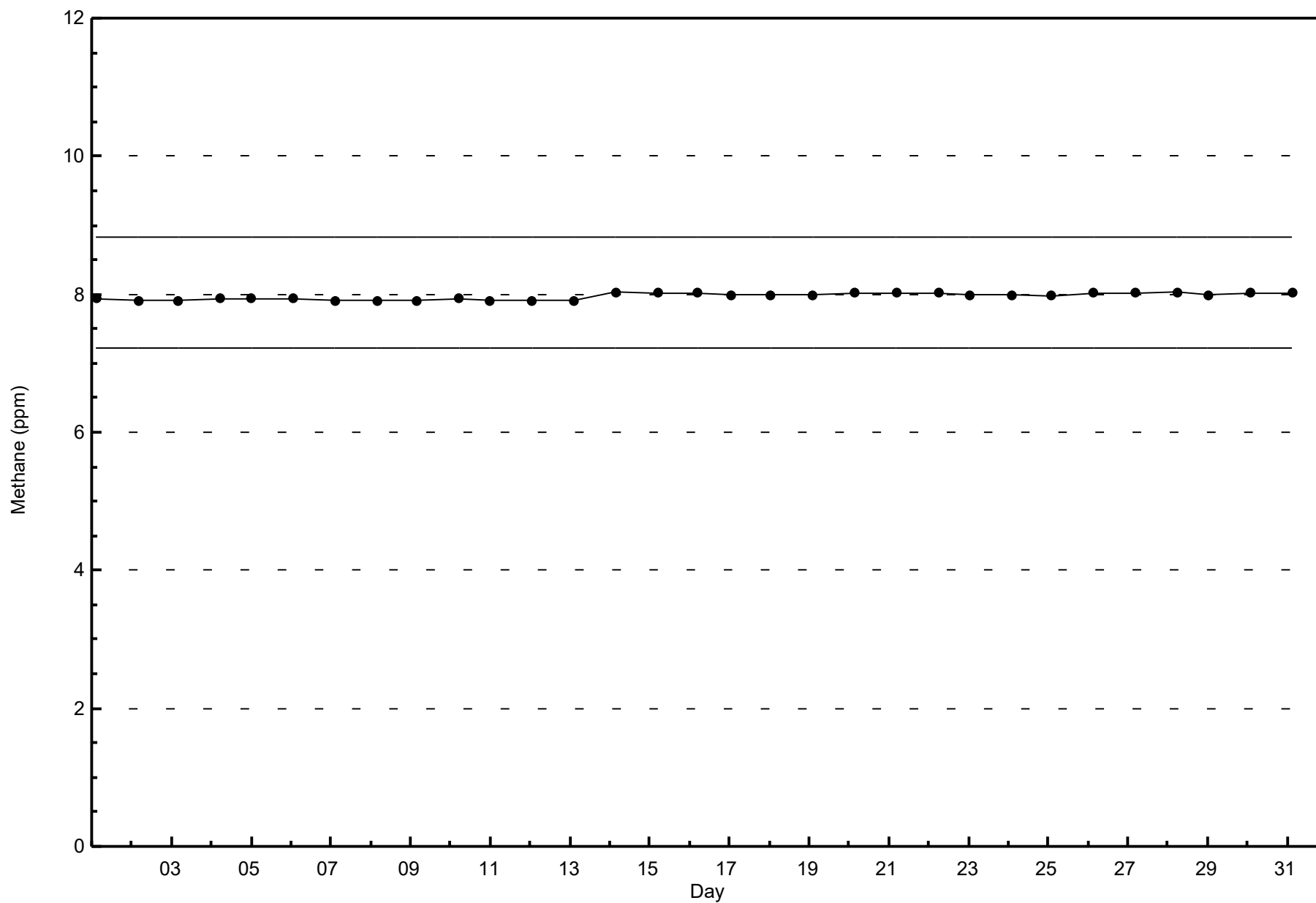
Methane (CH₄) - ppm
Fort Hills - July 2026





Wood Buffalo Environmental Association
Span Responses

Methane (CH₄) - ppm
Fort Hills - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

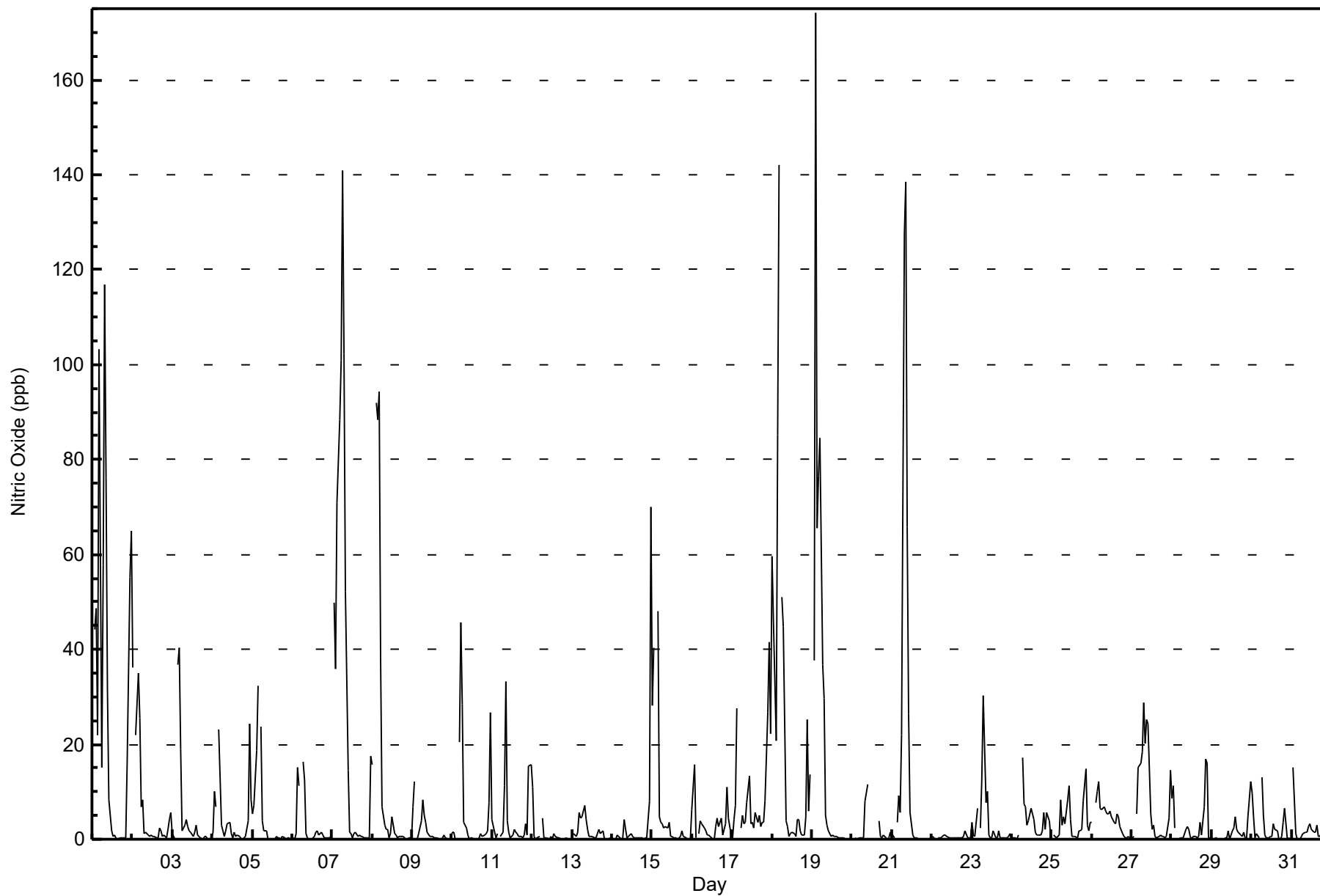
Fort Hills - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 174.2 ppb on Jul 19 03:00 Maximum Daily Average: 29.7 ppb on Jul 7																				Hours in Service: 744						
Minimum Value: 0.0 ppb on Jul 13 00:00 Minimum Daily Average: 0.5 ppb on Jul 22 Maximum Diurnal Average: 26.1 ppb at hour 5 Minimum Diurnal Average: 0.7 ppb at hour 19 Monthly Average: 7.60 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.3 Median = 1.1 Q ₃ = 4.5 P ₉₀ = 18.8 P ₉₉ = 102.2																				Hours of Data: 707						
																				Hours of Missing Data: 37						
																				Hours of Calibration: 37						
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	Z	44.2	48.6	21.9	103.2	15.1	57.7	116.8	76.1	31.3	8.4	1.8	0.6	0.7	0.4	0.1	0.2	0.2	0.2	0.2	0.3	16.1	55.1	64.8	28.9	116.8
2-Jul	36.2	Z	21.9	35.0	25.4	6.8	8.3	1.1	1.5	1.0	0.6	0.9	0.7	0.6	0.3	0.2	2.3	1.6	0.6	0.9	0.4	2.1	4.2	5.7	6.9	36.2
3-Jul	1.1	0.1	Z	36.8	40.2	19.0	1.9	3.0	4.2	2.6	1.7	1.3	0.7	1.5	3.1	0.9	0.4	0.4	0.1	0.5	0.6	0.1	0.1	0.2	5.2	40.2
4-Jul	1.6	10.2	6.7	Z	23.3	2.8	1.6	0.7	1.7	3.2	3.5	1.3	0.4	1.4	0.7	1.0	0.5	0.0	0.1	0.2	0.5	3.8	24.3	8.2	4.3	24.3
5-Jul	5.3	7.0	18.7	32.3	Z	23.7	3.9	1.7	1.7	0.1	0.1	0.0	0.0	0.1	0.6	0.3	0.2	0.1	0.5	0.4	0.1	0.1	0.2	0.1	4.2	32.3
6-Jul	0.2	0.1	1.3	15.2	11.4	Z	16.4	12.3	1.0	0.2	0.1	0.1	0.3	0.6	1.5	1.8	1.0	1.4	0.9	0.3	0.3	0.2	0.3	1.0	3.0	16.4
7-Jul	Z	49.9	35.8	71.0	88.4	100.8	140.9	102.3	52.2	14.5	1.4	1.1	0.4	1.2	1.5	0.7	0.7	0.7	0.5	0.3	0.2	0.4	0.3	17.4	29.7	140.9
8-Jul	15.7	Z	92.1	88.5	94.2	38.2	6.9	3.0	2.0	2.2	0.4	1.2	4.8	1.2	0.7	0.4	0.6	0.5	0.4	0.2	0.0	0.1	0.3	0.4	15.4	94.2
9-Jul	6.7	12.2	Z	0.1	1.2	3.8	8.2	5.0	3.5	1.3	0.7	0.5	0.5	0.3	0.3	0.2	0.0	0.1	0.3	1.0	0.2	0.0	0.1	0.2	2.0	12.2
10-Jul	1.5	1.6	0.0	Z	20.4	45.6	28.5	3.5	2.3	0.9	0.0	0.2	0.4	0.1	0.1	0.1	0.3	1.2	0.5	0.9	1.3	1.9	7.7	26.7	6.3	45.6
11-Jul	4.0	1.6	0.3	1.2	Z	0.5	1.6	11.1	33.2	4.0	1.3	0.3	0.9	2.0	1.4	1.1	0.7	0.5	0.2	0.9	3.2	1.0	15.4	15.8	4.4	33.2
12-Jul	10.9	0.5	0.1	0.3	0.6	Z	4.3	0.4	0.2	0.2	0.1	0.6	0.1	1.1	0.7	0.1	0.4	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.9	10.9
13-Jul	Z	1.2	0.5	1.4	5.6	4.5	4.8	7.1	4.1	1.9	0.5	0.6	0.5	0.4	0.4	1.3	2.0	1.1	1.7	0.1	0.1	0.1	0.1	0.3	1.8	7.1
14-Jul	0.4	Z	0.1	1.0	0.5	0.1	0.3	4.1	1.9	0.3	0.6	1.0	0.6	0.3	0.4	0.4	0.3	0.2	0.1	0.1	0.2	0.2	7.9	70.0	4.0	70.0
15-Jul	28.3	40.4	Z	48.1	4.7	3.6	3.4	2.4	2.6	2.3	3.6	0.6	0.6	0.3	0.3	0.1	0.3	0.6	1.7	0.5	0.1	0.0	0.1	0.1	6.3	48.1
16-Jul	6.3	15.6	0.2	Z	1.3	3.8	3.4	2.4	1.6	1.0	0.8	0.5	0.1	0.1	2.5	4.4	2.8	4.3	0.8	2.0	3.2	11.1	4.5	1.0	3.2	15.6
17-Jul	0.3	4.2	7.2	27.7	Z	2.4	5.1	3.4	3.6	7.7	13.4	3.2	3.6	2.4	5.6	3.6	5.2	2.6	3.6	3.6	8.0	26.8	41.5	22.4	9.0	41.5
18-Jul	59.6	45.9	20.8	85.0	142.0	Z	51.1	44.6	3.9	2.7	0.6	1.2	1.5	1.3	0.5	4.2	4.3	1.7	0.9	0.8	4.8	25.2	6.0	13.7	22.7	142.0
19-Jul	Z	37.6	174.2	65.5	76.4	84.4	36.7	29.7	5.1	3.0	1.8	0.7	0.9	0.7	0.7	0.6	0.3	0.4	0.2	0.2	0.1	0.1	0.1	0.1	22.6	174.2
20-Jul	0.1	Z	0.4	0.1	0.2	0.4	0.2	0.3	8.1	11.6	C	C	C	C	C	C	3.8	0.7	0.2	0.8	0.3	0.0	0.4	1.4	--	11.6
21-Jul	1.1	0.3	Z	3.7	9.1	5.7	22.0	127.7	138.6	65.9	26.4	5.8	0.9	0.2	0.3	0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.2	17.8	138.6
22-Jul	0.7	0.2	0.1	Z	0.2	0.3	0.7	1.0	0.9	0.6	0.4	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.7	1.8	0.4	0.3	0.4	0.5	1.8
23-Jul	3.4	1.0	0.6	6.5	Z	2.3	12.9	30.3	7.8	10.2	0.9	0.3	0.3	1.9	0.3	0.4	1.6	0.4	0.3	0.2	0.2	0.3	0.6	1.3	3.6	30.3
24-Jul	0.4	0.2	0.3	0.1	0.8	Z	17.3	7.4	6.8	2.9	4.0	6.6	5.3	4.1	1.4	0.9	0.8	0.8	1.7	5.5	2.0	5.7	3.9	0.2	3.4	17.3
25-Jul	Z	0.8	0.6	0.2	0.9	8.3	3.0	4.8	3.2	8.2	11.3	4.2	0.6	0.5	0.5	0.2	1.8	1.7	2.0	8.1	14.7	2.8	1.9	3.4	3.6	14.7
26-Jul	3.5	Z	7.8	10.2	12.1	6.5	6.3	6.9	5.9	5.4	5.3	6.0	4.7	3.7	3.1	5.4	4.7	2.6	1.3	0.6	0.4	0.4	0.5	0.3	4.5	12.1
27-Jul	0.2	0.6	Z	5.5	15.0	15.9	18.4	28.8	20.2	25.2	24.4	5.4	2.1	3.0	0.6	0.3	0.5	0.8	0.7	0.5	0.2	0.6	4.3	14.4	8.2	28.8
28-Jul	8.5	11.4	2.4	Z	0.1	0.2	0.4	0.4	2.0	2.7	2.0	0.5	0.1	0.6	0.7	0.2	0.5	3.5	0.8	6.8	16.9	16.1	0.2	0.3	3.4	16.9
29-Jul	0.2	0.0	0.2	0.2	Z	0.1	0.1	0.1	0.4	0.2	1.8	0.0	1.9	2.4	4.7	2.0	1.4	0.9	0.4	1.6	0.4	0.0	4.9	12.1	1.6	12.1
30-Jul	9.9	4.9	0.2	1.1	0.2	Z	13.2	5.1	0.9	0.2	0.2	0.5	0.6	3.2	2.1	1.8	0.1	0.1	0.5	3.6	6.7	0.0	0.3	0.1	2.4	13.2
31-Jul	Z	15.1	1.1	0.1	0.1	0.1	0.5	1.1	1.4	1.4	2.8	3.2	2.1	1.5	1.4	3.1	0.5	0.6	1.2	0.6	0.4	2.9	4.3	13.6	2.6	15.1
																									Diurnal Average	
																									Diurnal Maximum	
Z - zerospan C - Calibration																										



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Fort Hills - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	639	90.38	90.38
21 - 40	33	4.67	95.05
41 - 80	20	2.83	97.88
81 - 159	14	1.98	99.86
> 159	1	0.14	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Fort Hills - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	57	24	23	18	3	14	33	114	90	85	56	22	17	29	22	31	638
21 - 40	3	1	0	0	0	2	5	6	3	2	2	1	1	0	2	5	33
11 - 80	5	1	0	0	0	2	2	3	0	0	0	1	0	1	0	5	20
81 - 159	6	0	1	0	0	0	0	0	1	1	0	0	0	0	0	5	14
> 159	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Totals	71	27	24	18	3	18	40	123	94	88	58	24	18	30	24	46	706

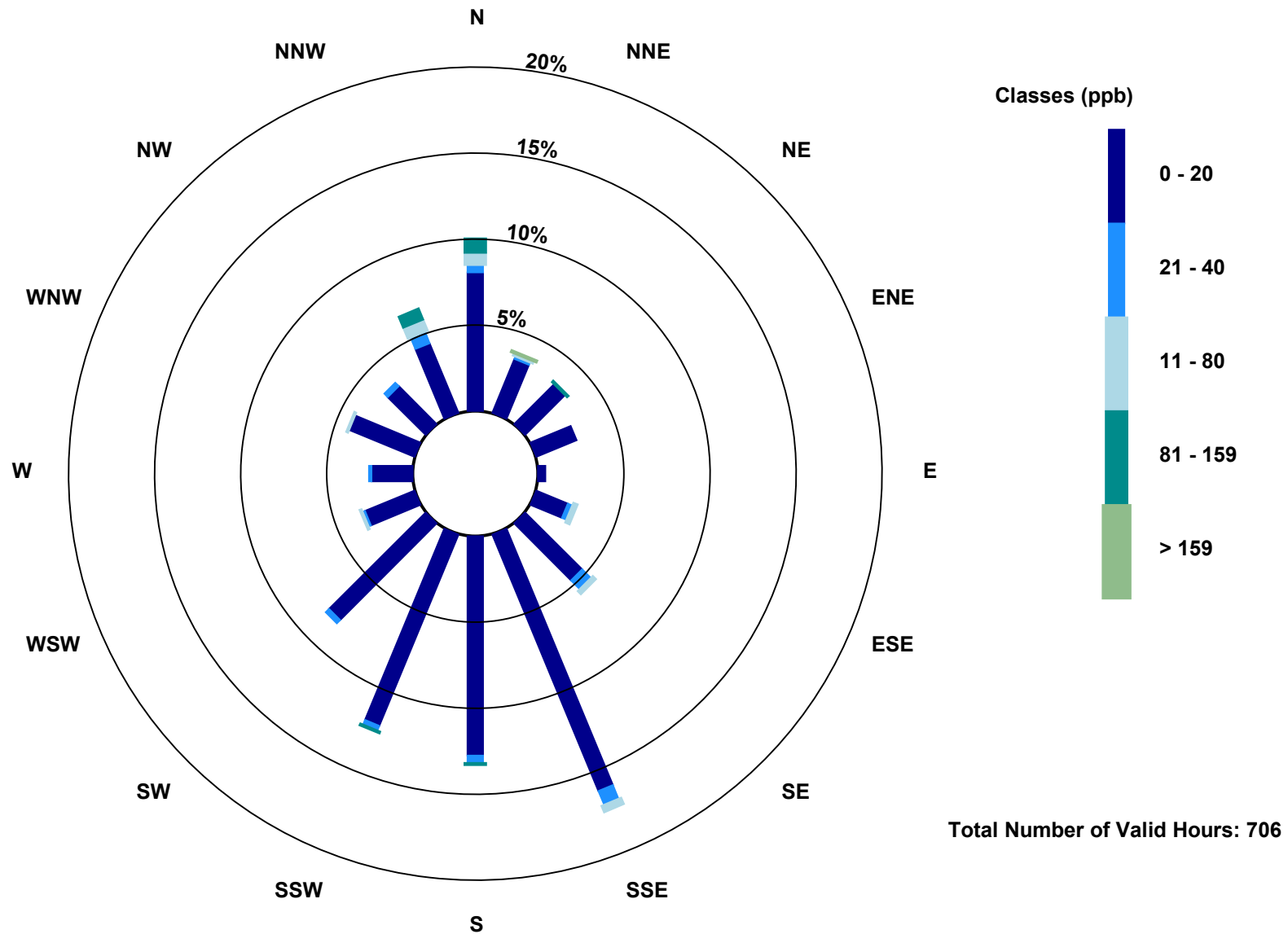
Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

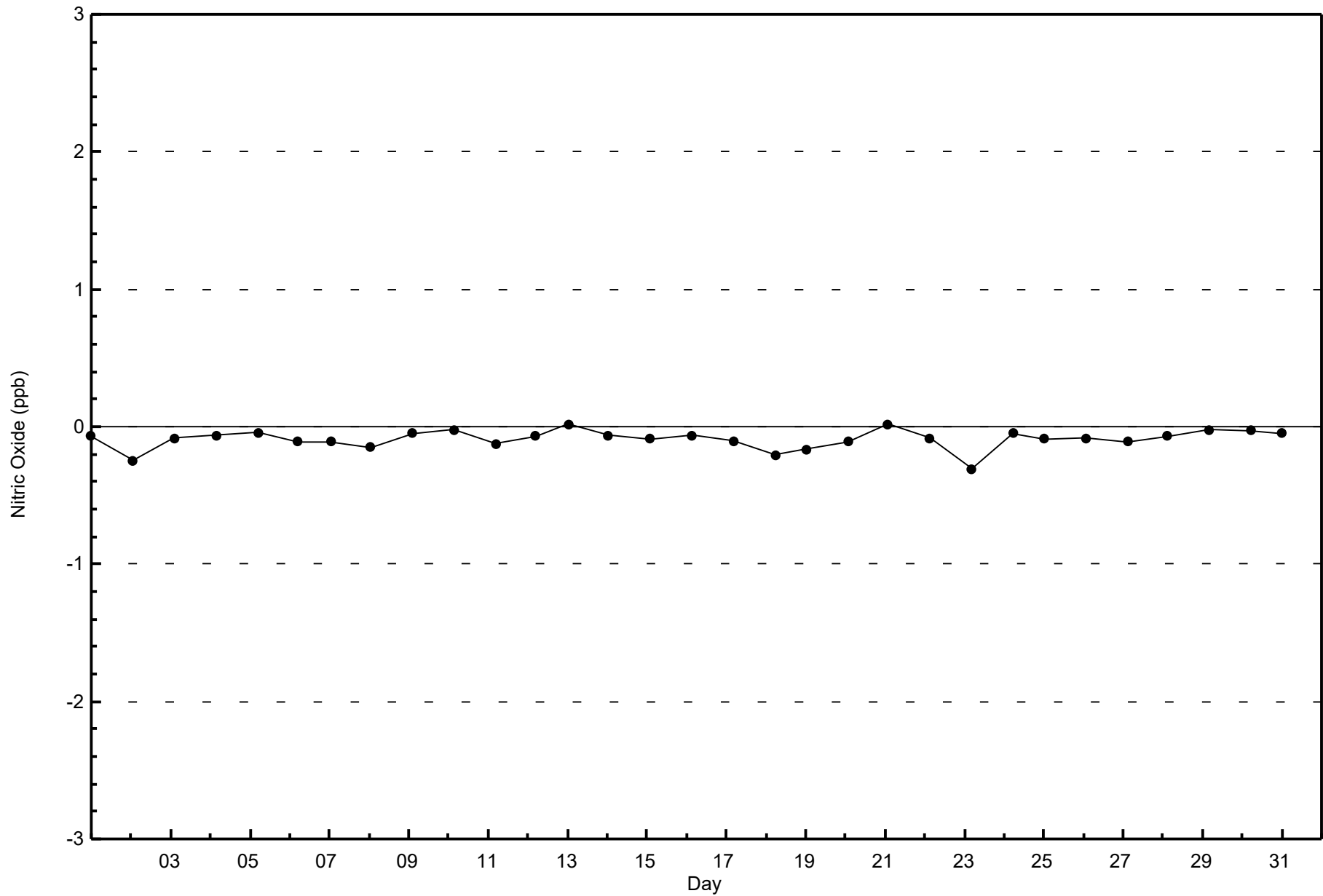
Nitric Oxide (NO) - ppb
Fort Hills





Wood Buffalo Environmental Association
Zero Responses

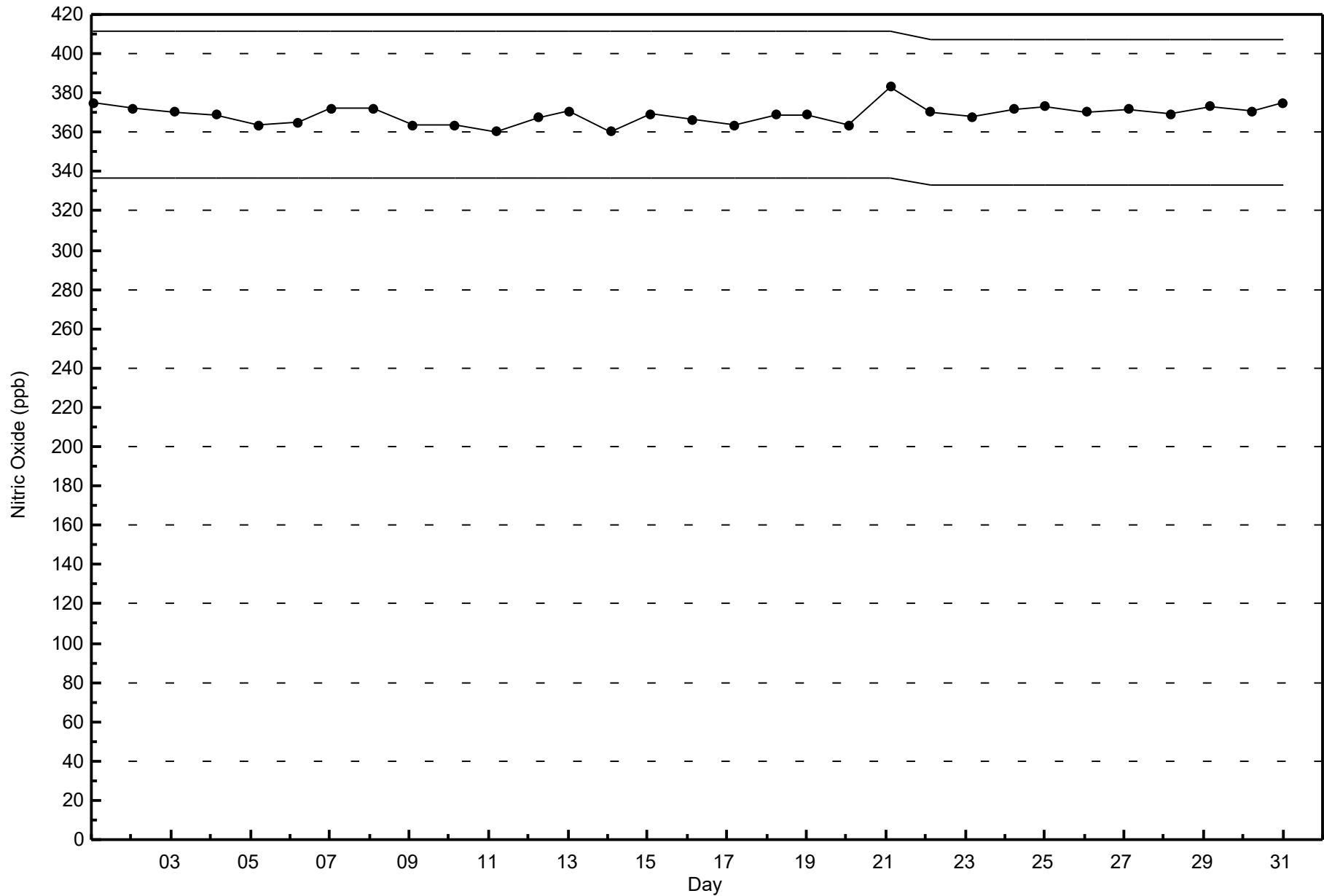
Nitric Oxide (NO) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

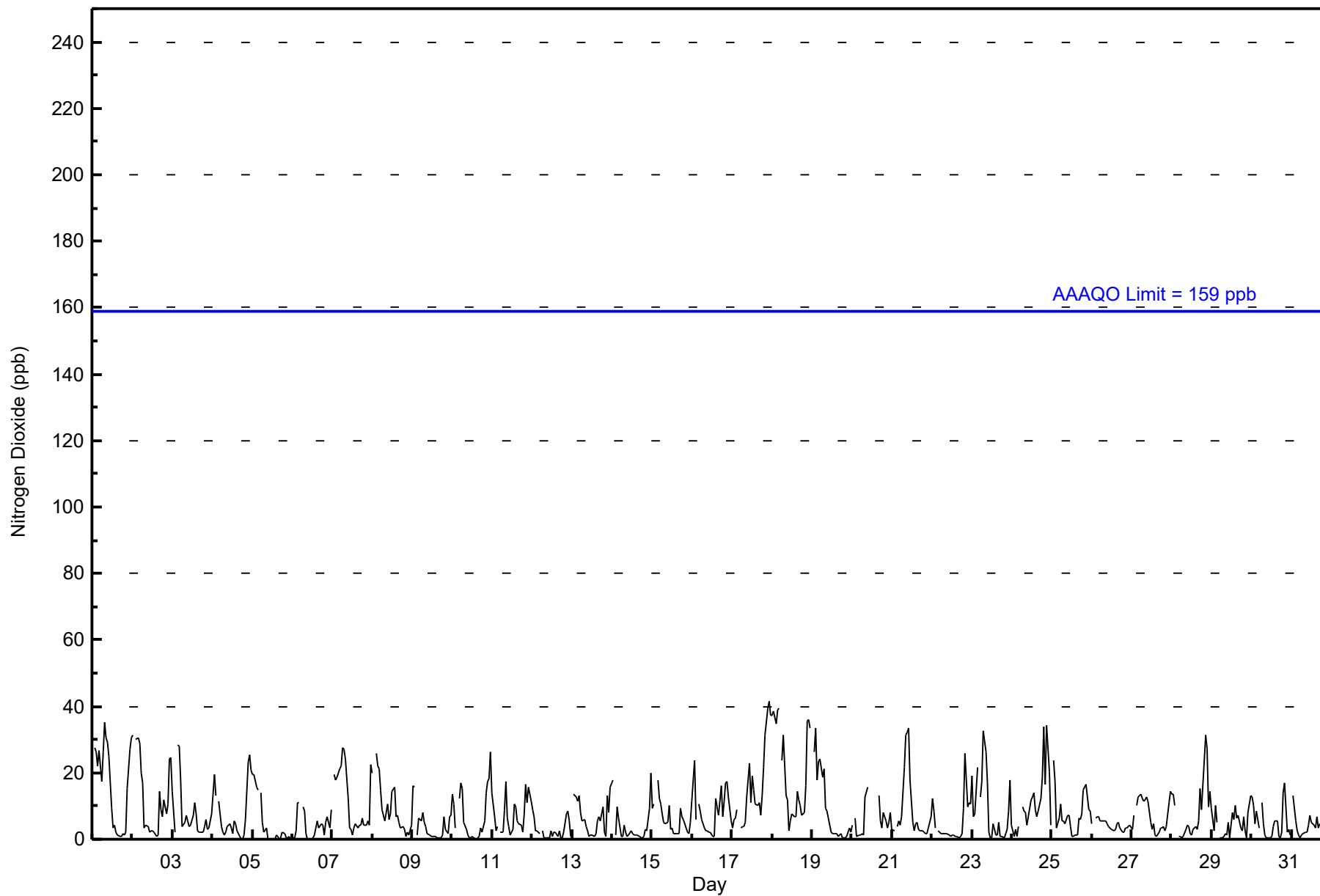
Fort Hills - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 41.7 ppb on Jul 17 23:00 Maximum Daily Average: 20.5 ppb on Jul 18																				Hours in Service: 744 Hours of Data: 707						
Minimum Value: 0.1 ppb on Jul 5 14:00 Minimum Daily Average: 2.7 ppb on Jul 12 Maximum Diurnal Average: 12.9 ppb at hour 2 Minimum Diurnal Average: 3.8 ppb at hour 13 Monthly Average: 7.98 ppb Percentiles: P ₁ = 0.2 P ₁₀ = 0.8 Q ₁ = 2.0 Median = 4.9 Q ₃ = 11.2 P ₉₀ = 19.8 P ₉₉ = 36.0																				Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jul	Z	27.6	26.2	21.9	26.5	17.2	26.4	35.3	30.4	29.4	25.1	9.2	3.6	4.2	2.3	1.1	0.8	0.8	1.5	1.1	2.0	15.1	27.1	30.3	15.9	35.3
2-Jul	31.5	Z	30.2	30.6	28.9	19.9	16.9	3.5	4.4	3.7	2.3	2.7	2.4	2.0	1.0	1.2	14.5	9.0	6.9	11.7	7.7	10.4	24.0	24.5	12.6	31.5
3-Jul	14.4	2.1	Z	28.5	28.1	17.9	4.0	5.2	7.4	5.7	3.9	4.4	7.2	11.2	7.7	2.6	2.0	2.1	2.1	3.9	6.1	3.1	3.6	7.5	7.9	28.5
4-Jul	13.6	19.4	13.2	Z	11.4	4.0	2.2	1.1	2.1	3.7	4.5	3.3	1.8	5.6	4.6	2.5	0.8	0.2	0.2	1.3	6.0	23.4	25.3	20.8	7.4	25.3
5-Jul	19.3	19.6	15.6	14.8	Z	14.0	5.2	2.2	3.2	0.2	0.2	0.2	0.2	0.1	1.2	0.7	0.2	0.4	2.0	1.8	0.4	0.5	1.0	0.2	4.5	19.6
6-Jul	0.4	0.3	2.4	11.0	10.9	Z	9.6	8.4	1.6	0.2	0.2	0.2	0.5	1.1	3.5	5.7	3.2	4.8	4.2	1.3	5.2	6.7	3.4	8.8	4.1	11.0
7-Jul	Z	19.7	17.9	18.7	21.2	22.0	27.7	27.0	24.1	12.2	3.3	2.9	1.1	3.5	4.7	3.2	4.2	4.4	6.2	4.2	4.1	5.3	4.4	22.5	11.5	27.7
8-Jul	19.8	Z	25.8	22.2	21.2	15.0	8.7	5.7	8.0	10.5	5.9	7.6	14.3	15.5	6.8	7.2	5.2	3.6	3.9	2.8	0.8	2.0	1.1	4.2	9.5	25.8
9-Jul	16.1	15.6	Z	1.1	6.3	5.3	7.9	4.9	3.7	1.9	1.3	0.8	0.9	0.8	0.7	0.6	0.3	0.6	1.1	6.7	2.9	1.7	6.6	7.2	4.1	16.1
10-Jul	13.5	10.7	3.3	Z	12.2	17.0	15.3	5.2	2.8	1.3	0.3	0.6	1.0	0.3	0.2	0.4	0.9	3.4	2.3	5.4	13.8	17.4	18.1	26.2	7.5	26.2
11-Jul	13.9	6.6	2.6	4.0	Z	2.3	2.2	8.9	17.2	6.5	3.7	1.2	3.1	10.6	9.9	5.3	4.5	4.1	2.3	7.6	16.5	11.2	15.7	11.4	7.4	17.2
12-Jul	8.8	6.6	2.6	2.5	1.8	Z	2.4	0.6	0.4	0.4	0.4	2.4	0.7	2.1	2.1	0.8	2.6	0.5	0.3	2.2	7.7	8.4	5.5	0.8	2.7	8.8
13-Jul	Z	13.5	12.8	11.5	13.0	8.2	5.3	5.9	4.0	2.4	0.8	1.4	1.4	1.0	1.9	5.4	6.9	5.4	9.7	2.0	1.0	13.0	8.0	15.7	6.5	15.7
14-Jul	17.8	Z	1.1	9.9	6.5	0.9	0.7	4.1	2.3	0.7	1.4	2.4	1.6	1.1	1.2	1.4	1.0	0.5	0.5	0.8	3.1	2.4	9.3	20.0	3.9	20.0
15-Jul	9.2	10.5	Z	17.8	12.1	10.8	7.8	5.0	4.7	5.2	10.2	2.8	3.3	1.9	1.8	1.6	1.8	9.5	6.9	6.1	3.5	2.2	1.7	5.2	6.2	17.8
16-Jul	11.5	23.7	6.1	Z	10.4	8.3	5.8	3.6	2.7	2.7	2.3	2.2	0.8	1.0	12.1	9.6	7.4	16.0	6.8	11.4	17.1	17.3	12.5	5.7	8.6	23.7
17-Jul	3.3	6.1	6.4	9.0	Z	3.4	4.0	3.7	5.2	12.5	22.9	10.9	19.0	14.8	10.8	10.2	11.2	7.2	13.0	21.4	31.5	39.5	41.7	37.2	15.0	41.7
18-Jul	37.5	38.6	34.8	38.9	39.4	Z	23.6	31.3	13.0	12.0	2.4	5.7	7.5	6.8	6.7	14.4	12.0	10.1	7.4	7.9	16.1	35.4	36.0	33.4	20.5	39.4
19-Jul	Z	26.4	33.3	17.8	23.1	24.3	18.7	21.0	9.2	8.3	6.2	2.3	1.9	1.5	1.7	1.5	1.0	1.8	0.4	0.4	0.3	0.7	3.3	2.2	9.0	33.3
20-Jul	4.1	Z	6.5	1.0	1.2	1.3	1.6	1.4	12.6	15.6	C	C	C	C	C	C	13.2	5.7	3.3	8.0	5.7	3.4	4.9	7.9	--	15.6
21-Jul	2.9	2.5	Z	3.9	5.4	4.2	6.8	21.6	31.2	32.1	33.3	17.8	5.0	2.4	4.5	5.1	3.1	2.5	2.6	2.3	1.6	1.7	3.2	6.7	8.8	33.3
22-Jul	12.2	8.5	3.3	Z	2.4	1.5	1.8	1.9	1.9	1.7	1.3	1.0	1.1	1.1	1.0	0.8	0.5	0.7	1.8	9.2	25.7	9.9	11.1	10.6	4.8	25.7
23-Jul	18.9	6.6	7.8	21.6	Z	12.7	17.2	32.8	26.1	17.0	2.0	0.5	0.5	4.5	1.1	1.3	4.9	0.8	0.9	0.5	1.8	3.1	8.5	17.9	9.1	32.8
24-Jul	4.4	0.9	3.0	0.7	3.9	Z	9.6	8.5	7.9	4.3	6.9	11.8	12.6	13.8	9.0	6.6	8.6	12.1	18.8	33.7	16.5	34.2	20.4	4.4	11.0	34.2
25-Jul	Z	23.7	17.2	3.6	6.2	10.7	5.5	5.4	4.8	7.4	7.1	4.0	0.7	0.9	1.2	1.4	6.2	5.9	7.6	14.8	16.6	12.7	8.8	8.3	7.9	23.7
26-Jul	4.8	Z	6.3	6.6	6.9	5.6	5.4	5.5	5.3	4.7	3.8	3.6	3.1	2.6	3.0	4.6	4.9	3.4	2.0	2.1	3.2	3.2	3.7	4.1	4.3	6.9
27-Jul	3.1	7.0	Z	10.1	12.5	13.6	12.3	11.6	12.0	12.7	11.4	5.1	3.1	4.8	1.4	1.0	2.0	3.6	3.6	3.8	2.5	4.0	11.2	14.5	7.3	14.5
28-Jul	13.4	13.4	10.0	Z	0.8	0.8	0.6	0.8	2.9	4.2	3.8	1.8	1.3	3.0	3.8	2.9	5.6	15.4	9.0	23.9	31.2	27.2	9.9	14.2	8.7	31.2
29-Jul	9.5	2.7	10.2	4.9	Z	0.6	0.6	0.8	1.5	1.1	5.1	0.4	7.9	5.9	10.1	6.5	7.2	3.2	2.6	6.9	2.5	0.3	8.0	13.1	4.9	13.1
30-Jul	12.6	10.1	4.8	8.5	3.4	Z	10.9	4.5	1.3	0.3	0.3	0.3	0.7	4.0	5.3	5.4	0.7	0.4	2.2	14.1	16.9	2.3	2.8	1.4	4.9	16.9
31-Jul	Z	13.0	5.6	2.6	1.2	0.5	1.3	1.7	2.0	2.3	4.4	7.1	5.0	4.1	3.2	6.7	3.6	4.5	4.4	4.4	5.0	7.6	8.8	11.3	4.8	13.0
12.7 12.9 11.9 12.5 12.2 9.3 8.6 9.0 8.3 7.2 5.9 3.9 3.8 4.4 4.2 3.9 4.5 4.6 4.4 7.2 8.9 10.5 11.3 12.8																								Diurnal Average		
37.5 38.6 34.8 38.9 39.4 24.3 27.7 35.3 31.2 32.1 33.3 17.8 19.0 15.5 12.1 14.4 14.5 16.0 18.8 33.7 31.5 39.5 41.7 37.2																								Diurnal Maximum		
Z - zerospan C - Calibration																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Fort Hills - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	639	90.38	90.38
21 - 40	67	9.48	99.86
41 - 80	1	0.14	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Fort Hills - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	53	22	22	17	2	14	33	117	92	85	57	22	18	29	22	33	638
21 - 40	18	5	2	1	1	4	7	6	2	3	1	2	0	1	2	12	67
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	71	27	24	18	3	18	40	123	94	88	58	24	18	30	24	46	706

Total Number of Valid Hours: 706

Total Number of Hours: 744

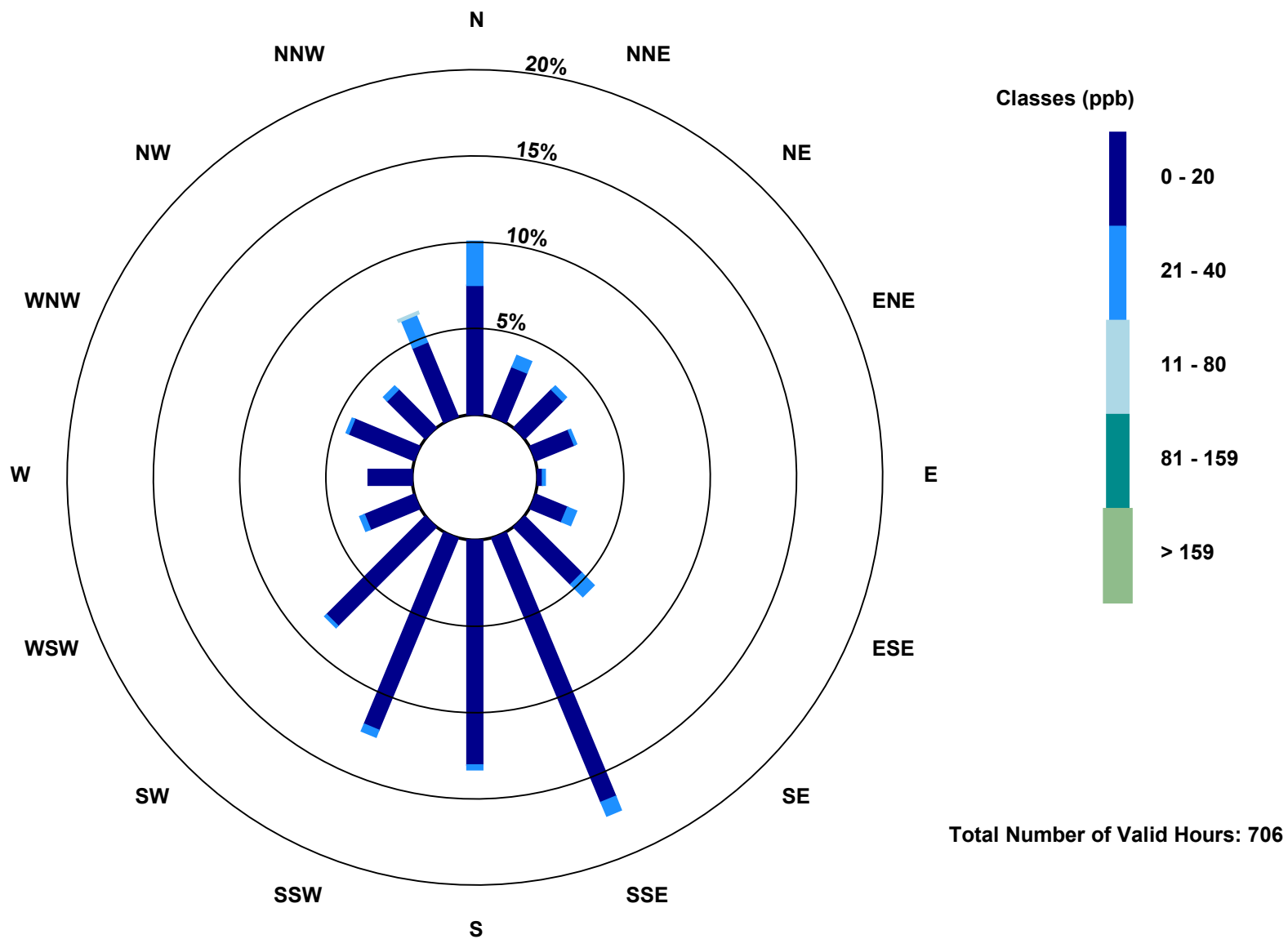


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Nitrogen Dioxide (NO₂) - ppb

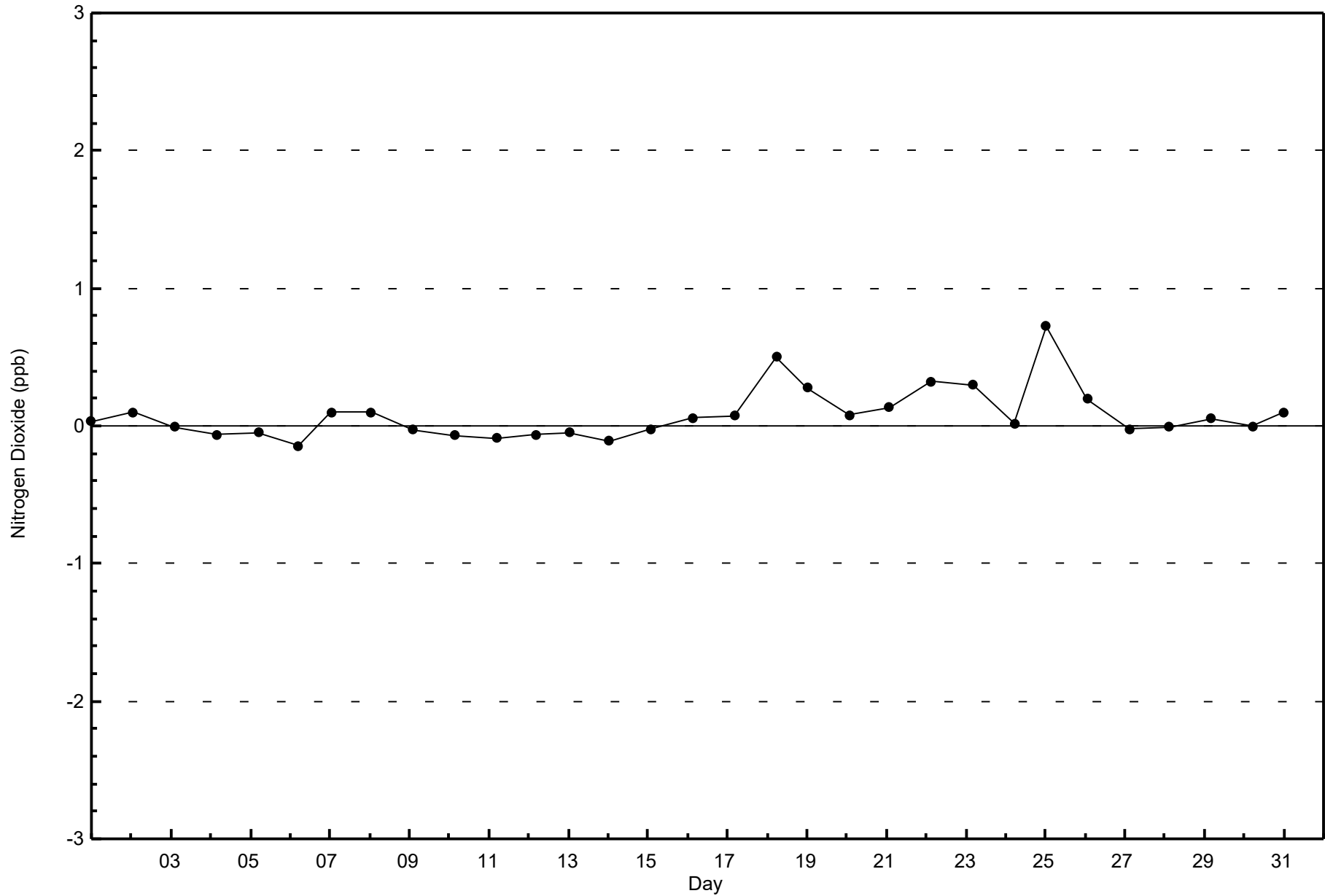
Fort Hills





Wood Buffalo Environmental Association
Zero Responses

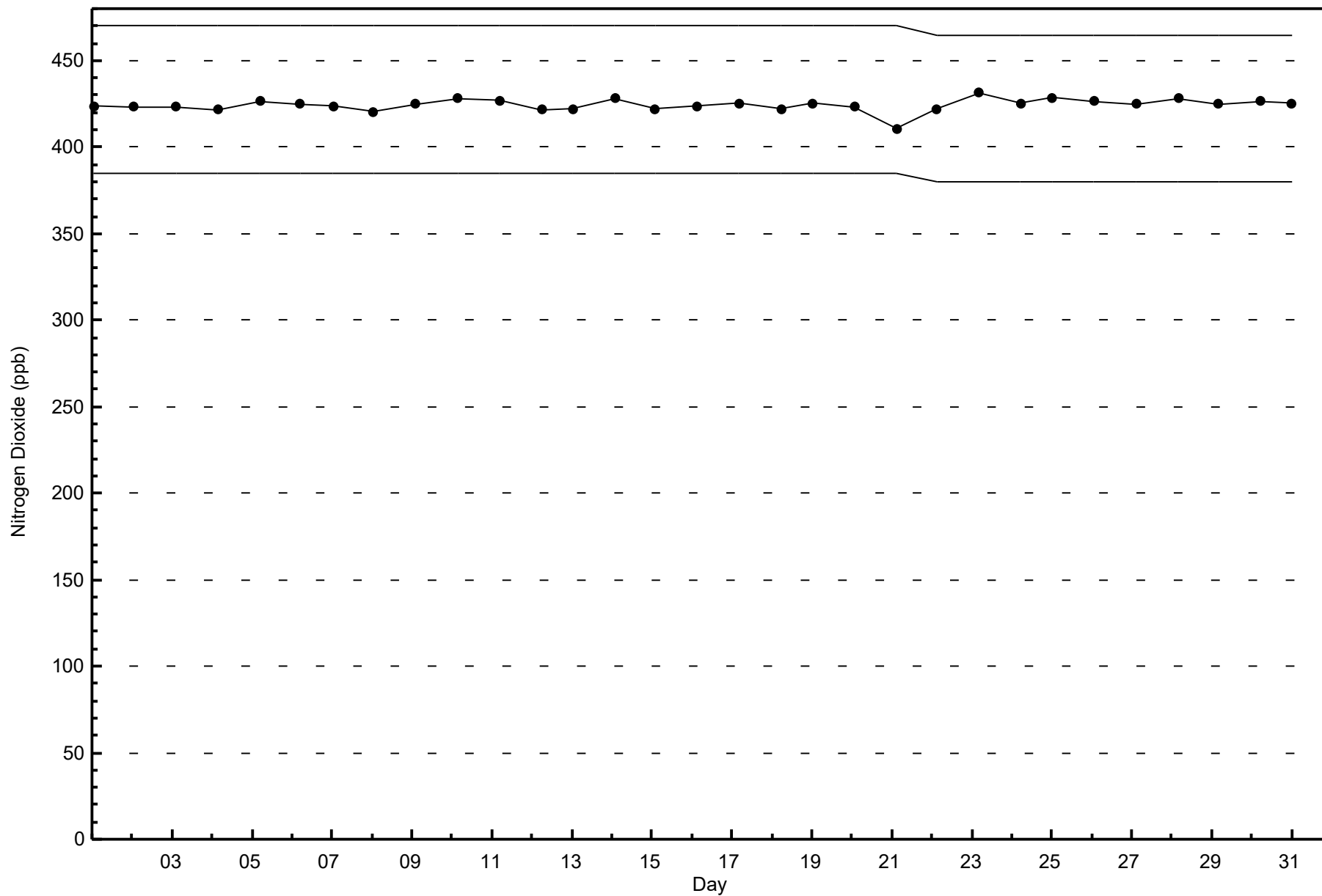
Nitrogen Dioxide (NO₂) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

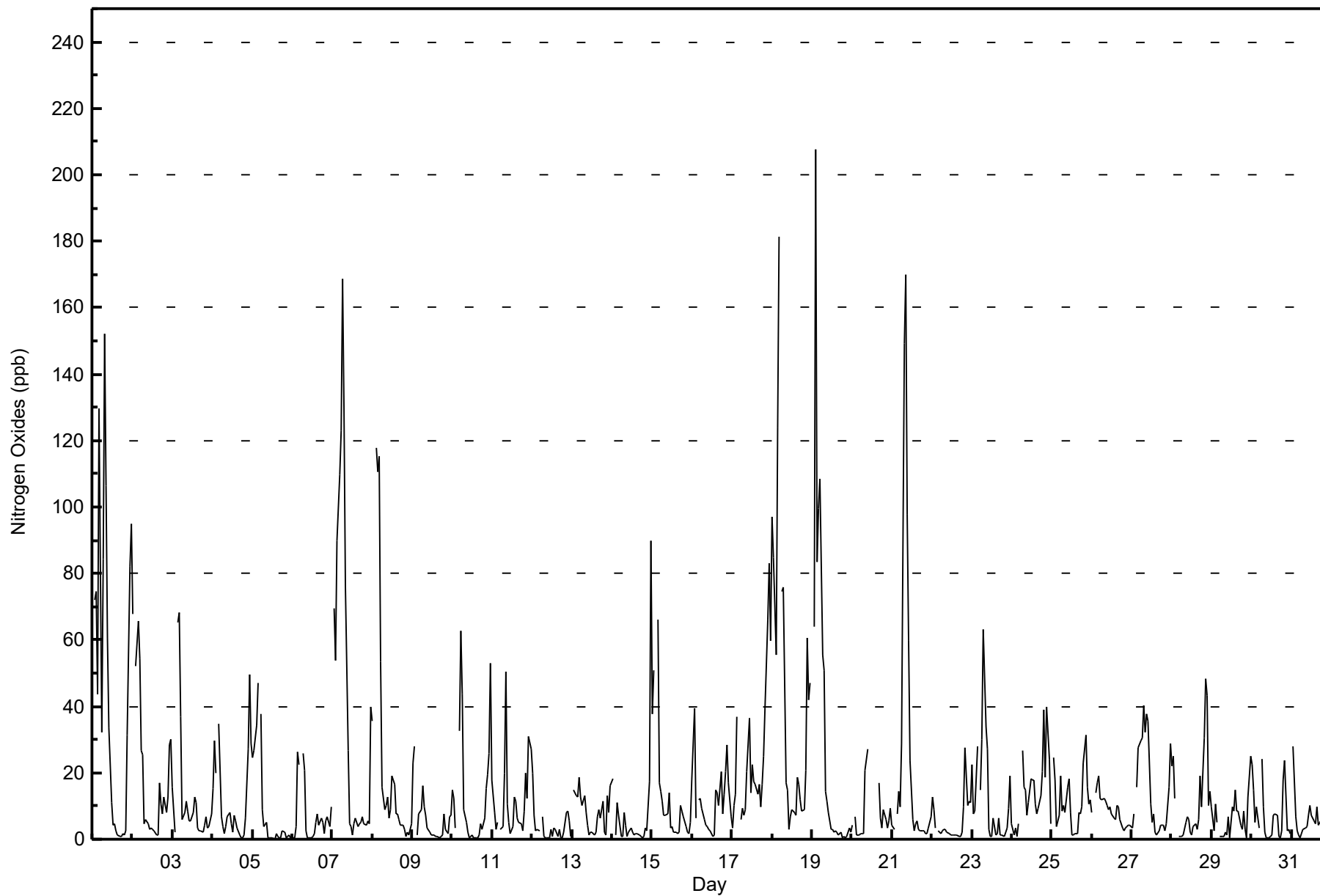
Fort Hills - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 207.5 ppb on Jul 19 03:00 Maximum Daily Average: 44.7 ppb on Jul 1																				Hours in Service: 744							
Minimum Value: 0.2 ppb on Jul 5 14:00 Minimum Daily Average: 3.6 ppb on Jul 12 Maximum Diurnal Average: 38.2 ppb at hour 5 Minimum Diurnal Average: 5.0 ppb at hour 13 Monthly Average: 15.58 ppb Percentiles: P ₁ = 0.3 P ₁₀ = 1.1 Q ₁ = 2.6 Median = 6.9 Q ₃ = 15.9 P ₉₀ = 37.8 P ₉₉ = 129.0																				Hours of Data: 707							
																				Hours of Missing Data: 37							
																				Hours of Calibration: 37							
																				Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	Z	71.8	74.8	43.8	129.7	32.3	84.1	152.1	106.5	60.7	33.5	11.0	4.2	4.9	2.7	1.2	1.0	1.0	1.7	1.3	2.3	31.2	82.2	95.1	44.7	152.1	
2-Jul	67.7	Z	52.1	65.6	54.3	26.7	25.2	4.6	5.9	4.7	2.9	3.6	3.1	2.6	1.3	1.4	16.8	10.6	7.5	12.6	8.1	12.5	28.2	30.2	19.5	67.7	
3-Jul	15.5	2.2	Z	65.3	68.3	36.9	5.9	8.2	11.6	8.3	5.6	5.7	7.9	12.7	10.8	3.5	2.4	2.5	2.2	4.4	6.7	3.2	3.7	7.7	13.1	68.3	
4-Jul	15.2	29.6	19.9	Z	34.7	6.8	3.8	1.8	3.8	6.9	8.0	4.6	2.2	7.0	5.3	3.5	1.3	0.2	0.3	1.5	6.5	27.2	49.6	29.0	11.7	49.6	
5-Jul	24.6	26.6	34.3	47.1	Z	37.7	9.1	3.9	4.9	0.3	0.3	0.2	0.2	0.2	1.8	1.0	0.4	0.5	2.5	2.2	0.5	0.6	1.2	0.3	8.7	47.1	
6-Jul	0.6	0.4	3.7	26.2	22.3	Z	26.0	20.7	2.6	0.4	0.3	0.3	0.8	1.7	5.0	7.5	4.2	6.2	5.1	1.6	5.5	6.9	3.7	9.8	7.0	26.2	
7-Jul	Z	69.6	53.7	89.7	109.6	122.8	168.6	129.3	76.3	26.7	4.7	4.0	1.5	4.7	6.2	3.9	4.9	5.1	6.7	4.5	4.3	5.7	4.7	39.9	41.2	168.6	
8-Jul	35.5	Z	117.9	110.7	115.4	53.2	15.6	8.7	10.0	12.7	6.3	8.8	19.1	16.7	7.5	7.6	5.8	4.1	4.3	3.0	0.8	2.1	1.4	4.6	24.9	117.9	
9-Jul	22.8	27.8	Z	1.2	7.5	9.1	16.1	9.9	7.2	3.2	2.0	1.3	1.4	1.1	1.0	0.8	0.3	0.7	1.4	7.7	3.1	1.7	6.7	7.4	6.1	27.8	
10-Jul	15.0	12.3	3.3	Z	32.6	62.6	43.8	8.7	5.1	2.2	0.3	0.8	1.4	0.4	0.3	0.5	1.2	4.6	2.8	6.3	15.1	19.3	25.8	52.9	13.8	62.6	
11-Jul	17.9	8.2	2.9	5.2	Z	2.8	3.8	20.0	50.4	10.5	5.0	1.5	4.0	12.6	11.3	6.4	5.2	4.6	2.5	8.5	19.7	12.2	31.1	27.2	11.9	50.4	
12-Jul	19.7	7.1	2.7	2.8	2.4	Z	6.7	1.0	0.6	0.6	0.5	3.0	0.8	3.2	2.8	0.9	3.0	0.5	0.3	2.3	7.9	8.5	5.5	0.8	3.6	19.7	
13-Jul	Z	14.7	13.3	12.9	18.6	12.7	10.1	13.0	8.1	4.3	1.3	2.0	1.9	1.4	2.3	6.7	8.9	6.5	11.4	2.1	1.1	13.1	8.1	16.0	8.3	18.6	
14-Jul	18.2	Z	1.2	10.9	7.0	1.0	1.0	8.2	4.2	1.0	2.0	3.4	2.2	1.4	1.6	1.8	1.3	0.7	0.6	0.9	3.3	2.6	17.2	90.0	7.9	90.0	
15-Jul	37.5	50.9	Z	65.9	16.8	14.4	11.2	7.4	7.3	7.5	13.8	3.4	3.9	2.2	2.1	1.7	2.1	10.1	8.6	6.6	3.6	2.2	1.8	5.3	12.5	65.9	
16-Jul	17.8	39.3	6.3	Z	11.7	12.1	9.2	6.0	4.3	3.7	3.1	2.7	0.9	1.1	14.6	14.0	10.2	20.3	7.6	13.4	20.3	28.4	17.0	6.7	11.8	39.3	
17-Jul	3.6	10.3	13.6	36.7	Z	5.8	9.1	7.1	8.8	20.2	36.3	14.1	22.6	17.2	16.4	13.8	16.4	9.8	16.6	25.0	39.5	66.3	83.2	59.6	24.0	83.2	
18-Jul	97.1	84.5	55.6	123.9	181.4	Z	74.7	75.9	16.9	14.7	3.0	6.9	9.0	8.1	7.2	18.6	16.3	11.8	8.3	8.7	20.9	60.6	42.0	47.1	43.2	181.4	
19-Jul	Z	64.0	207.5	83.3	99.5	108.7	55.4	50.7	14.3	11.3	8.0	3.0	2.8	2.2	2.4	2.1	1.3	2.2	0.6	0.6	0.4	0.8	3.4	2.3	31.6	207.5	
20-Jul	4.2	Z	6.9	1.1	1.4	1.7	1.8	1.7	20.7	27.2	C	C	C	C	C	C	17.0	6.4	3.5	8.8	6.0	3.4	5.3	9.3	--	27.2	
21-Jul	4.0	2.8	Z	7.6	14.5	9.9	28.8	149.3	169.8	98.0	59.7	23.6	5.9	2.6	4.8	5.4	3.1	2.6	2.6	2.4	1.6	1.7	3.3	6.9	26.6	169.8	
22-Jul	12.9	8.7	3.4	Z	2.6	1.8	2.5	2.9	2.8	2.3	1.7	1.2	1.4	1.4	1.2	1.1	0.7	0.9	2.0	9.9	27.5	10.3	11.4	11.0	5.3	27.5	
23-Jul	22.3	7.6	8.4	28.1	Z	15.0	30.1	63.1	33.9	27.2	2.9	0.8	0.8	6.4	1.4	1.7	6.5	1.2	1.2	0.7	2.0	3.4	9.1	19.2	12.7	63.1	
24-Jul	4.8	1.1	3.3	0.8	4.7	Z	26.9	15.9	14.7	7.2	10.9	18.4	17.9	17.9	10.4	7.5	9.4	12.9	20.5	39.2	18.5	39.9	24.3	4.6	14.4	39.9	
25-Jul	Z	24.5	17.8	3.8	7.1	19.0	8.5	10.2	8.0	15.6	18.4	8.2	1.3	1.4	1.7	1.6	8.0	7.6	9.6	22.9	31.3	15.5	10.7	11.7	11.5	31.3	
26-Jul	8.3	Z	14.1	16.8	19.0	12.1	11.7	12.4	11.2	10.1	9.1	9.6	7.8	6.3	6.1	10.0	9.6	6.0	3.3	2.7	3.6	3.6	4.2	4.4	8.8	19.0	
27-Jul	3.3	7.6	Z	15.6	27.5	29.5	30.7	40.4	32.2	37.9	35.8	10.5	5.2	7.8	2.0	1.3	2.5	4.4	4.3	4.3	2.7	4.6	15.5	28.9	15.4	40.4	
28-Jul	21.9	24.8	12.4	Z	0.9	1.0	1.0	1.2	4.9	6.9	5.8	2.3	1.4	3.6	4.5	3.1	6.1	18.9	9.8	30.7	48.1	43.3	10.1	14.5	12.1	48.1	
29-Jul	9.7	2.7	10.4	5.1	Z	0.7	0.7	0.9	1.9	1.3	6.9	0.4	9.8	8.3	14.8	8.5	8.6	4.1	3.0	8.5	2.9	0.3	12.9	25.2	6.4	25.2	
30-Jul	22.5	15.0	5.0	9.6	3.6	Z	24.1	9.6	2.2	0.5	0.5	0.8	1.3	7.2	7.4	7.2	0.8	0.5	2.7	17.7	23.6	2.3	3.1	1.5	7.3	24.1	
31-Jul	Z	28.1	6.7	2.7	1.3	0.6	1.8	2.8	3.4	3.7	7.2	10.3	7.1	5.6	4.6	9.8	4.1	5.1	5.6	5.0	5.4	10.5	13.1	24.9	7.4	28.1	
20.9 24.7 28.9 33.9 38.2 24.5 24.1 27.3 21.1 14.1 9.9 5.5 5.0 5.7 5.4 5.1 5.8 5.6 5.1 8.6 11.1 14.3 17.4 22.4																										Diurnal Average	
97.1 84.5 207.5 123.9 181.4 122.8 168.6 152.1 169.8 98.0 59.7 23.6 22.6 17.9 16.4 18.6 17.0 20.3 20.5 39.2 48.1 66.3 83.2 95.1																										Diurnal Maximum	
Z - zerospan C - Calibration																											



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Fort Hills - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	571	80.76	80.76
21 - 40	72	10.18	90.95
41 - 80	37	5.23	96.18
81 - 159	23	3.25	99.43
> 159	4	0.57	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Fort Hills - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	47	22	22	14	2	13	26	104	84	78	50	19	15	29	20	26	571
21 - 40	10	1	0	4	0	1	7	12	8	8	7	3	2	0	3	5	71
11 - 80	4	3	1	0	1	2	5	7	1	1	1	2	1	0	1	7	37
81 - 159	8	0	1	0	0	2	2	0	0	1	0	0	0	1	0	8	23
> 159	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4
Totals	71	27	24	18	3	18	40	123	94	88	58	24	18	30	24	46	706

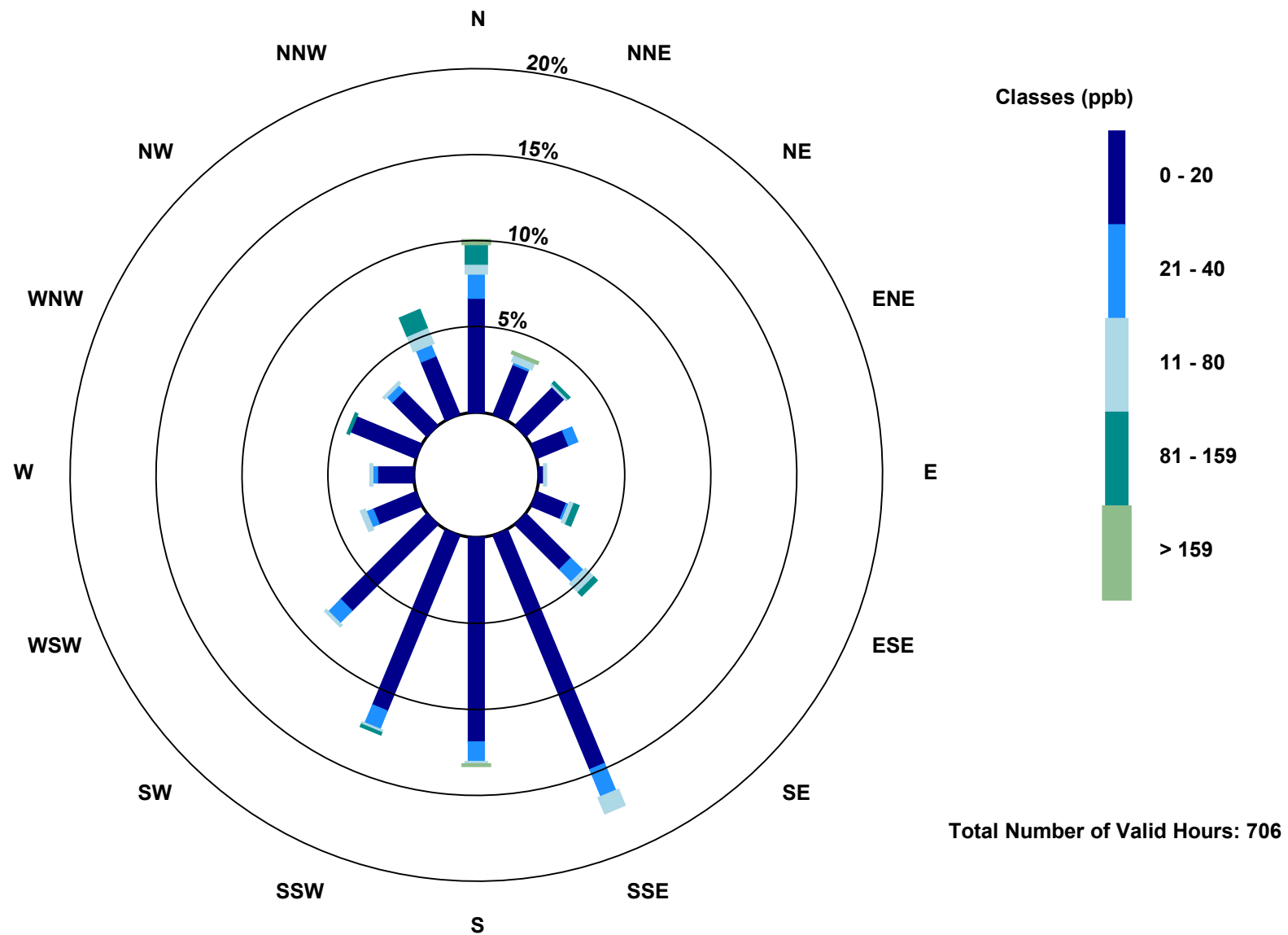
Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

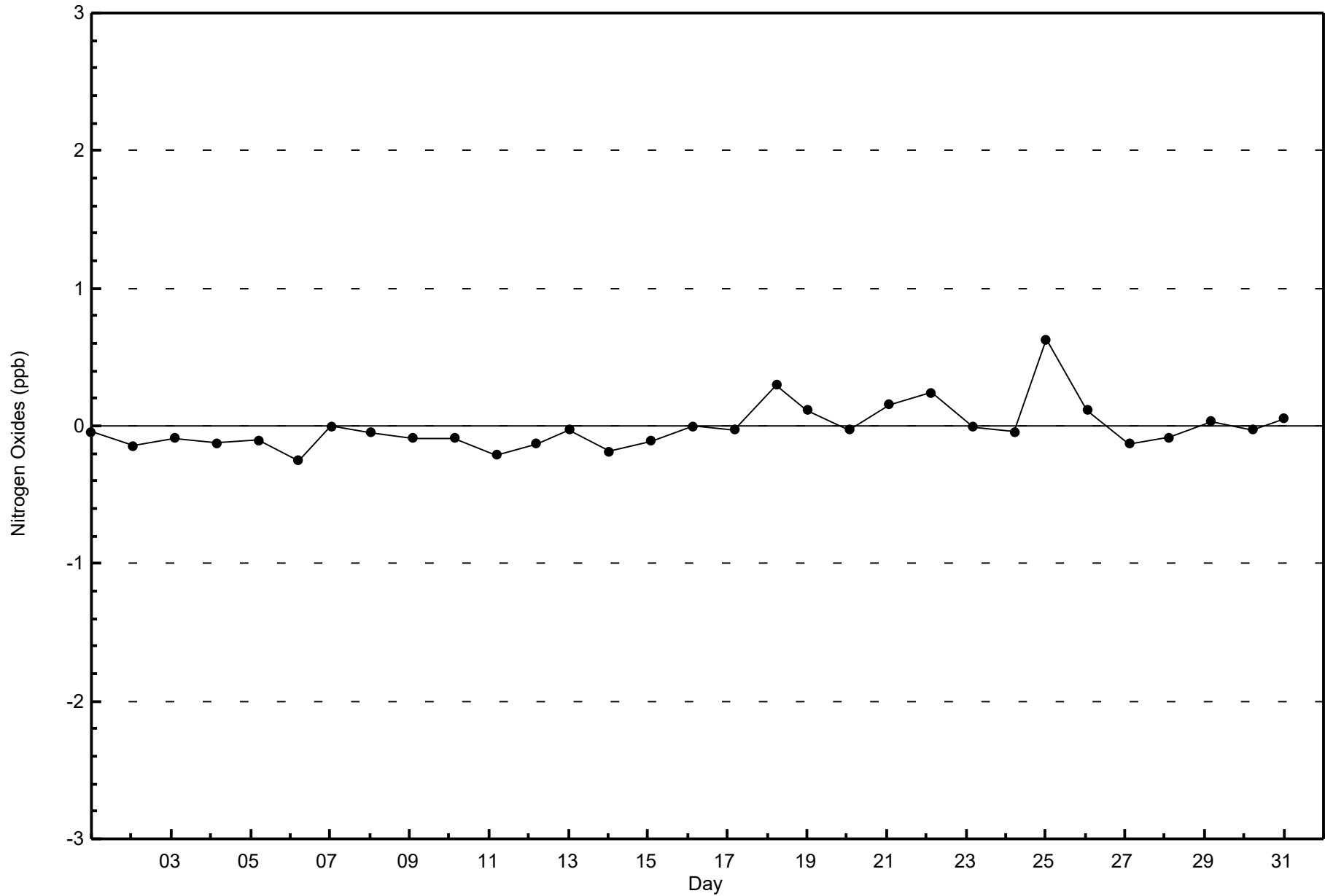
Nitrogen Oxides (NO_x) - ppb
Fort Hills





Wood Buffalo Environmental Association
Zero Responses

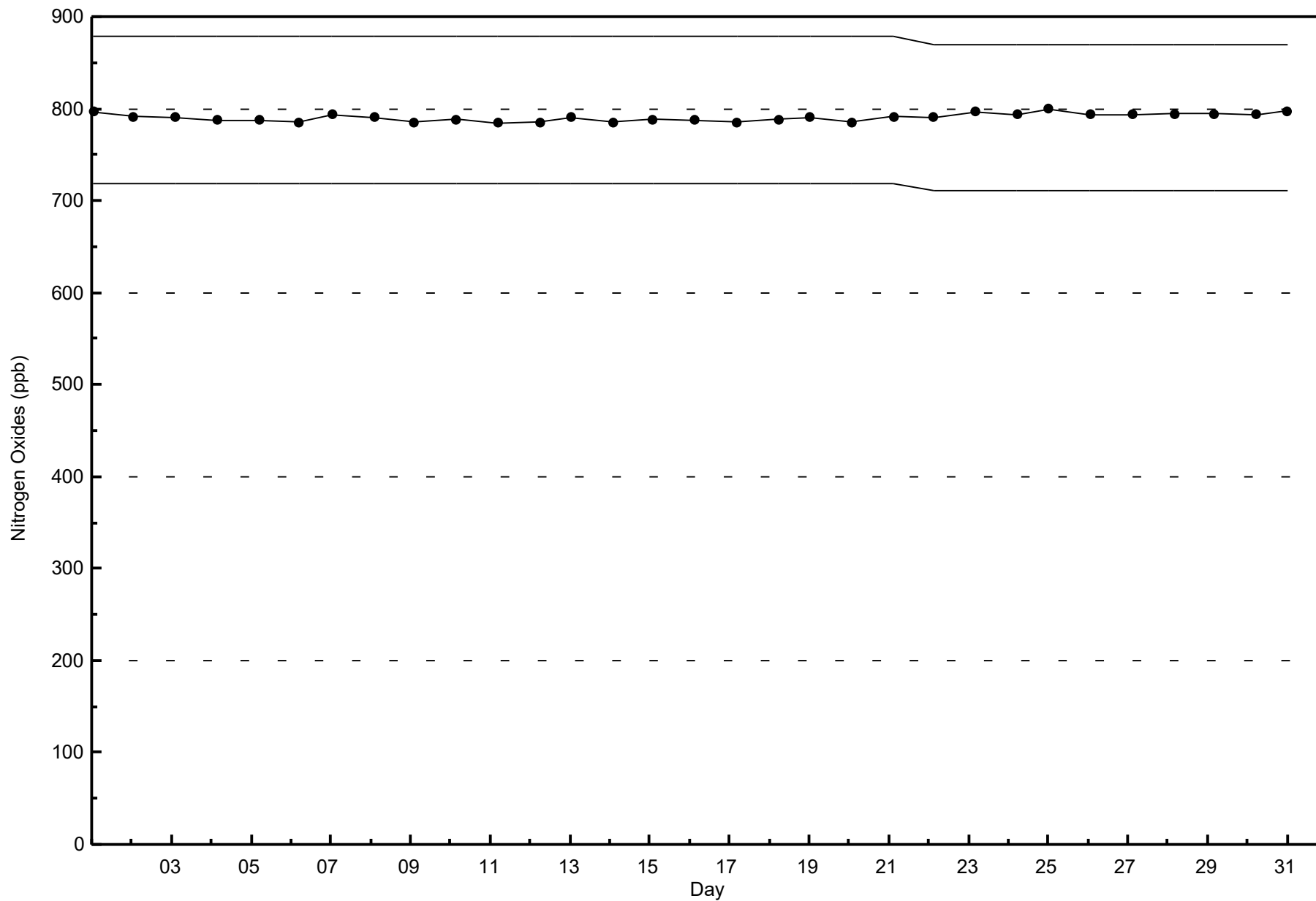
Nitrogen Oxides (NO_x) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Fort Hills - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

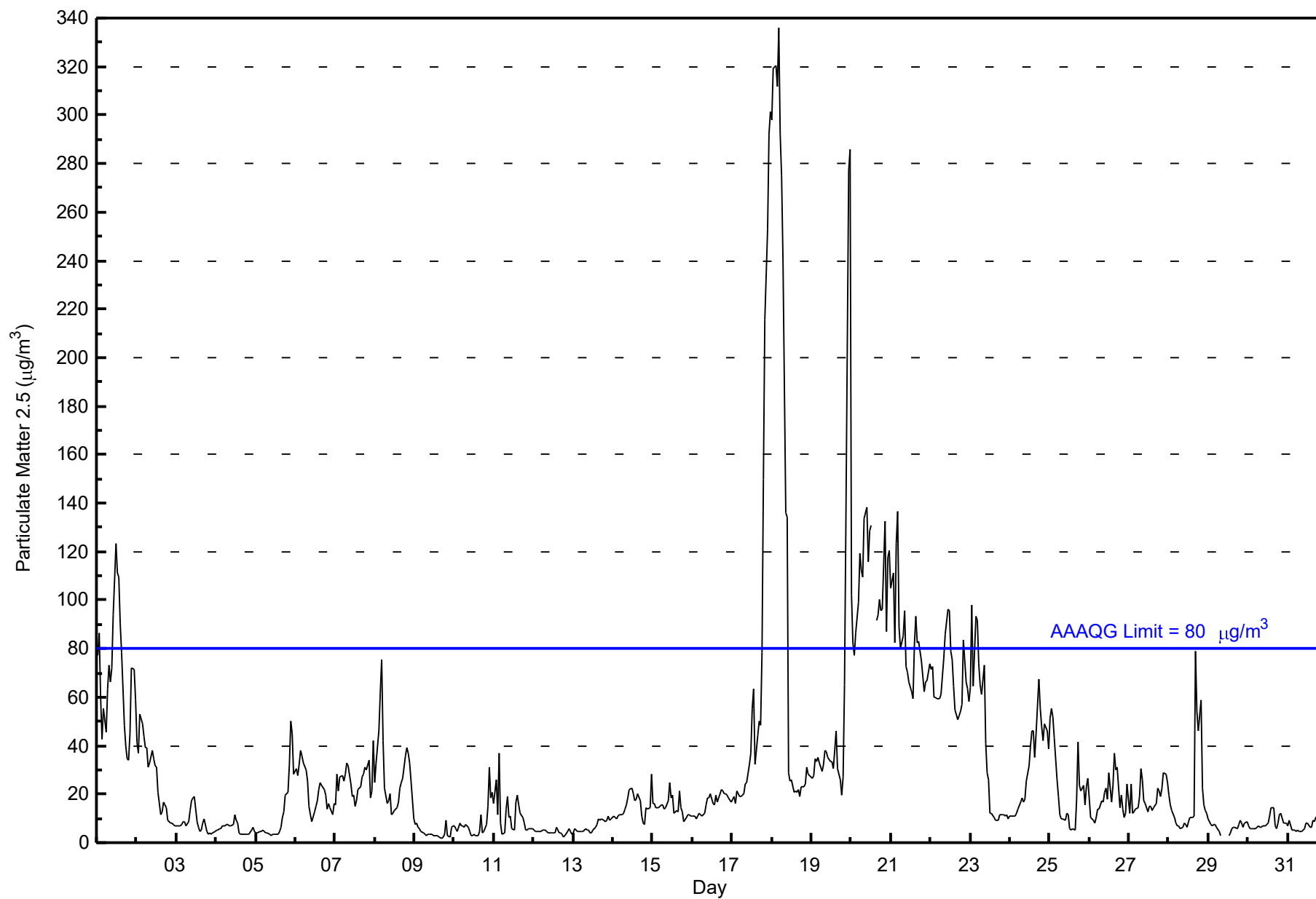
Fort Hills - July 2026

Number of Exceedances (AAAQO): 1-hr: 65 24-hr: 9 Maximum Value: 336.2 µg/m³ on Jul 18 05:00 Minimum Value: 1.7 µg/m³ on Jul 9 17:00 Maximum Diurnal Average: 42.2 µg/m³ at hour 24 Monthly Average: 31.13 µg/m³																					Hours in Service: 744 Hours of Data: 738 Hours of Missing Data: 6 Hours of Calibration: 2 Percent Operational Time: 99.5					
Maximum Daily Average: 125.2 µg/m³ on Jul 18 Minimum Daily Average: 4.2 µg/m³ on Jul 9 Minimum Diurnal Average: 21.4 µg/m³ at hour 15 Percentiles: P ₁ = 2.6 P ₁₀ = 4.6 Q ₁ = 7.5 Median = 15.5 Q ₃ = 33.2 P ₉₀ = 75.0 P ₉₉ = 289.9																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	77.3	86.5	59.9	42.9	55.3	45.3	63.5	72.9	66.5	71.8	93.9	123.3	111.2	109.4	90.4	78.5	48.6	39.6	34.6	34.1	44.8	72.1	71.5	58.6	68.9	123.3
2-Jul	41.4	37.1	52.8	48.8	43.8	39.3	39.3	31.0	32.9	38.1	34.3	31.4	31.2	21.0	11.6	12.9	16.6	15.5	14.5	9.0	8.2	8.3	7.6	7.2	26.4	52.8
3-Jul	6.7	6.7	7.2	7.5	8.5	8.5	6.9	8.4	13.4	17.3	18.2	19.0	8.4	6.2	4.6	5.0	7.8	10.1	4.5	3.4	4.2	3.4	3.8	4.6	8.1	19.0
4-Jul	5.1	5.3	5.6	6.0	7.0	6.7	7.3	7.6	6.9	6.9	7.5	11.4	9.0	8.3	3.8	3.5	3.4	3.3	3.3	3.4	3.4	5.1	6.5	4.6	5.9	11.4
5-Jul	4.1	4.1	4.4	4.8	5.2	4.8	4.1	3.9	3.3	2.9	3.5	3.7	3.3	3.6	4.8	6.2	10.3	12.4	19.4	20.8	32.1	50.2	44.7	28.5	11.9	50.2
6-Jul	30.8	27.9	32.5	37.8	35.8	33.1	30.0	25.5	14.9	11.2	8.8	12.7	15.2	17.3	21.7	24.7	23.8	21.7	19.4	13.9	16.3	14.4	11.6	16.0	21.5	37.8
7-Jul	15.4	28.3	21.2	27.2	27.6	25.2	28.4	33.1	32.0	24.2	19.1	19.4	14.9	17.2	22.0	23.2	27.0	28.1	31.1	29.7	33.7	18.5	21.1	41.8	25.4	41.8
8-Jul	24.7	32.9	46.3	61.4	75.4	41.8	22.5	16.0	17.3	20.4	11.3	11.9	13.1	14.6	16.9	22.6	25.0	26.5	35.4	38.9	36.8	32.6	25.6	9.9	28.3	75.4
9-Jul	7.3	8.0	6.6	5.5	4.5	4.0	3.4	3.1	3.3	3.4	3.5	2.9	2.7	3.0	2.6	2.2	1.7	2.1	3.4	9.5	3.0	2.0	6.1	6.9	4.2	9.5
10-Jul	7.1	5.7	4.3	8.3	7.2	6.7	6.4	7.3	6.2	4.6	3.0	3.1	3.4	2.6	2.6	4.6	11.4	4.1	4.4	7.5	14.7	30.9	18.2	20.7	8.1	30.9
11-Jul	16.4	26.2	11.7	36.7	8.3	3.6	4.3	13.6	19.1	10.3	11.2	5.5	5.2	16.4	19.8	15.6	12.3	10.4	7.8	5.2	5.4	5.6	5.9	5.8	11.8	36.7
12-Jul	5.3	4.8	4.7	4.6	4.8	5.1	5.3	5.0	4.5	4.3	4.3	4.0	3.8	4.0	6.6	4.0	4.3	3.2	2.4	3.1	4.8	5.6	4.5	3.7	4.4	6.6
13-Jul	4.3	5.6	4.6	4.9	4.8	4.6	4.5	5.8	5.4	5.4	4.1	3.9	5.4	6.6	7.6	9.6	9.5	10.0	9.0	8.8	9.3	10.9	9.0	9.9	6.8	10.9
14-Jul	10.9	10.3	9.6	10.7	11.4	11.4	12.3	14.1	15.8	18.6	21.7	22.6	20.3	17.1	18.1	20.0	17.3	10.9	8.1	7.6	14.3	14.0	14.4	28.0	15.0	28.0
15-Jul	16.2	16.4	14.3	14.4	15.0	15.8	15.7	13.9	14.4	17.2	25.0	18.4	19.8	12.1	13.2	12.8	21.6	14.3	12.6	8.5	10.2	11.4	11.2	11.1	14.8	25.0
16-Jul	10.9	10.9	9.9	11.0	12.3	11.8	11.1	12.3	15.5	18.6	18.6	20.2	16.0	15.3	19.7	16.6	18.2	22.0	21.3	20.2	20.2	19.9	18.3	16.9	16.1	22.0
17-Jul	17.8	19.0	16.4	21.1	19.2	19.2	19.4	20.0	24.1	25.0	32.0	36.6	55.0	63.4	32.3	44.4	49.9	48.2	78.2	150.0	215.2	253.1	292.1	301.2	77.2	301.2
18-Jul	297.7	319.1	320.2	311.8	336.2	292.1	274.8	240.3	136.1	134.4	28.9	25.4	25.8	20.8	21.5	20.8	22.0	18.9	22.9	23.1	24.1	31.2	28.3	27.9	125.2	336.2
19-Jul	26.7	27.6	34.7	33.3	35.1	32.7	29.1	32.1	37.8	37.4	35.4	33.7	33.6	30.7	38.3	46.0	30.8	25.7	19.4	27.1	65.4	133.3	277.3	286.1	58.7	286.1
20-Jul	101.8	82.5	77.4	86.2	99.1	119.2	112.4	109.5	133.7	138.5	116.0	128.2	131.0	C	C	91.4	93.7	100.1	95.8	96.4	132.6	87.1	117.4	120.4	107.7	138.5
21-Jul	104.7	111.5	82.7	123.3	136.3	88.6	80.3	85.0	95.9	72.3	70.1	66.1	62.4	59.3	81.6	93.2	82.5	82.7	74.8	68.4	62.5	66.4	66.8	73.7	83.0	136.3
22-Jul	71.2	72.9	60.0	60.0	59.4	59.5	61.0	68.5	76.2	85.8	96.4	95.4	78.7	75.6	64.8	54.8	50.5	52.6	54.2	57.2	83.6	66.1	63.4	58.3	67.7	96.4
23-Jul	63.7	97.8	64.7	93.2	91.6	74.0	65.0	61.3	73.3	40.9	29.0	26.0	11.9	12.2	10.3	9.3	9.3	9.1	11.4	11.6	11.3	11.2	11.7	10.0	37.9	97.8
24-Jul	10.7	10.9	10.7	11.0	11.8	13.7	17.0	18.3	16.9	17.6	25.4	31.7	39.9	46.0	45.9	35.0	45.1	67.5	55.1	47.7	42.2	48.8	46.1	38.3	31.4	67.5
25-Jul	51.2	55.2	52.0	43.0	26.1	18.9	11.7	9.5	10.0	9.1	12.1	11.6	5.9	5.2	5.9	4.9	17.9	41.7	23.7	21.5	23.8	15.4	23.0	26.6	21.9	55.2
26-Jul	18.6	10.2	9.1	8.2	10.4	13.7	14.1	17.5	16.6	21.0	22.5	18.0	28.5	16.8	23.9	37.0	29.9	31.3	14.6	19.4	14.1	10.4	12.4	24.1	18.4	37.0
27-Jul	12.2	24.0	12.2	12.7	14.1	14.4	19.0	30.8	26.2	17.2	16.2	12.4	14.8	15.0	13.2	14.2	16.1	22.2	21.5	18.9	22.5	28.9	28.1	25.0	18.8	30.8
28-Jul	19.3	15.3	13.2	10.4	7.9	7.1	6.7	5.8	6.3	8.3	7.6	6.4	8.7	10.5	10.3	11.2	79.0	54.0	46.0	59.0	22.6	15.3	13.0	12.0	19.0	79.0
29-Jul	9.5	7.5	7.0	7.5	7.3	6.6	4.4	2.7	UO	UO	UO	UO	2.8	4.0	5.7	6.4	6.1	5.9	7.2	9.0	7.8	6.1	7.9	8.6	6.5	9.5
30-Jul	6.9	6.0	5.7	5.7	6.0	6.5	6.7	6.6	6.6	6.9	7.1	7.5	7.9	11.1	14.6	14.5	7.0	5.8	8.2	11.5	12.3	8.2	7.9	7.8	8.1	14.6
31-Jul	7.0	9.0	5.1	5.1	5.0	4.7	4.9	4.9	4.8	5.0	5.9	8.1	8.3	6.2	6.3	9.0	8.6	10.2	10.7	10.2	9.7	18.6	14.0	14.0	8.1	18.6
35.6 38.2 34.4 37.6 38.5 33.5 32.0 31.8 31.2 29.8 26.4 27.4 25.7 21.7 21.4 24.3 26.0 26.1 25.0 27.6 32.6 35.6 41.6 42.2																								Diurnal Average		
297.7 319.1 320.2 311.8 336.2 292.1 274.8 240.3 136.1 138.5 116.0 128.2 131.0 109.4 90.4 93.2 93.7 100.1 95.8 150.0 215.2 253.1 292.1 301.2																								Diurnal Maximum		
C - Calibration UO - Unstable Operation																										
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 µg/m³ 24-hr 29 µg/m³																										



Wood Buffalo Environmental Association
Hourly Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$
Fort Hills - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Fort Hills - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Number of Hours	%	Cumulative %
0 - 5	114	15.45	15.45
6 - 15	255	34.55	50.00
16 - 25	127	17.21	67.21
26 - 80	178	24.12	91.33
> 81.0	64	8.67	100.00

Total Number of Valid Hours: 738

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Fort Hills - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	1	1	0	1	1	3	3	17	13	33	22	7	3	4	2	3	114
6 - 15	10	11	8	6	1	3	20	52	45	33	22	8	4	11	9	11	254
16 - 25	9	7	11	8	1	3	10	29	6	12	8	3	4	2	4	10	127
26 - 80	40	8	3	3	1	9	11	26	24	9	7	4	6	5	5	17	178
> 81.0	14	3	3	1	0	0	1	4	8	4	3	2	1	8	4	7	63
Totals	74	30	25	19	4	18	45	128	96	91	62	24	18	30	24	48	736

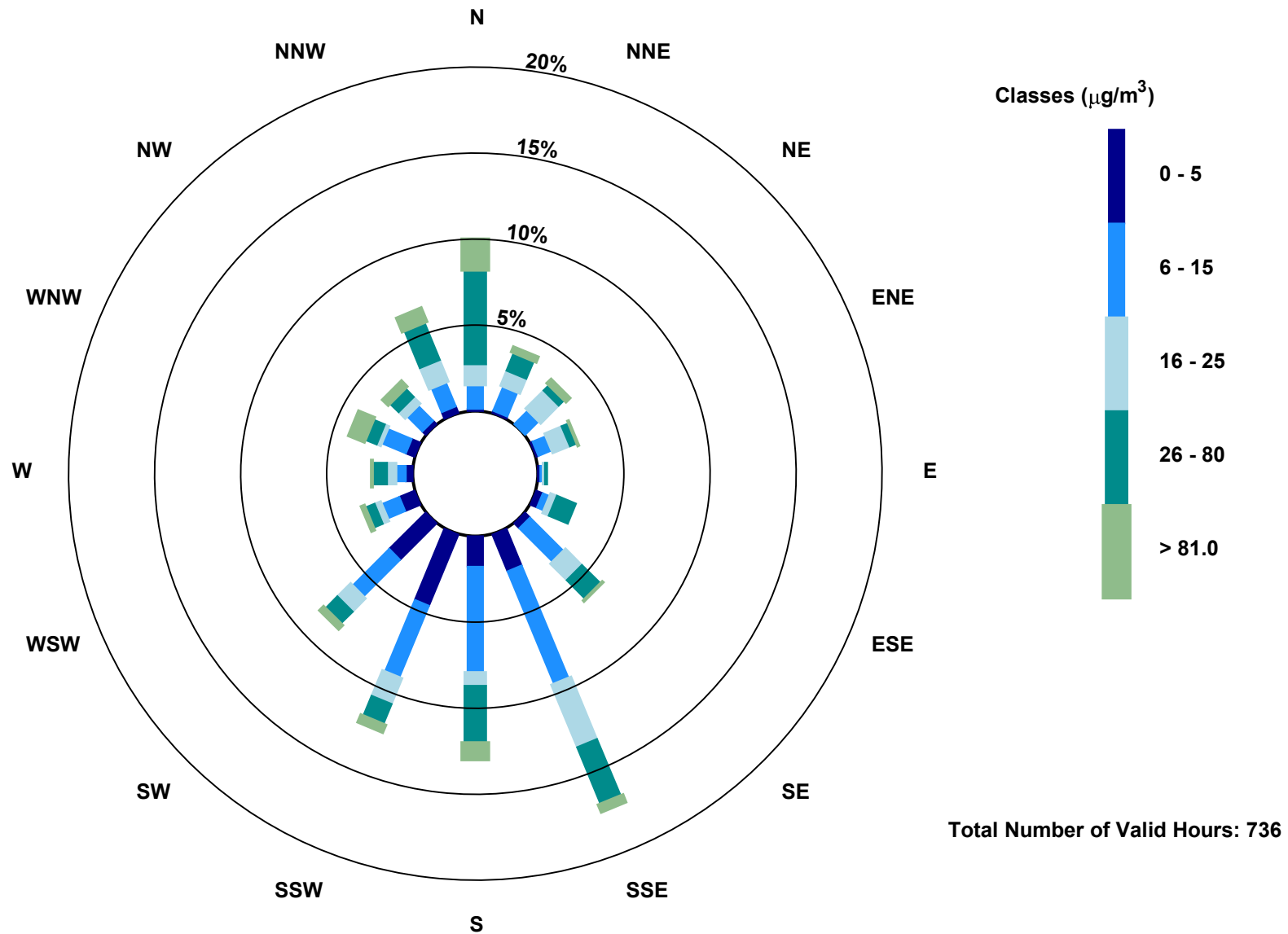
Total Number of Valid Hours: 736

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Fort Hills





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

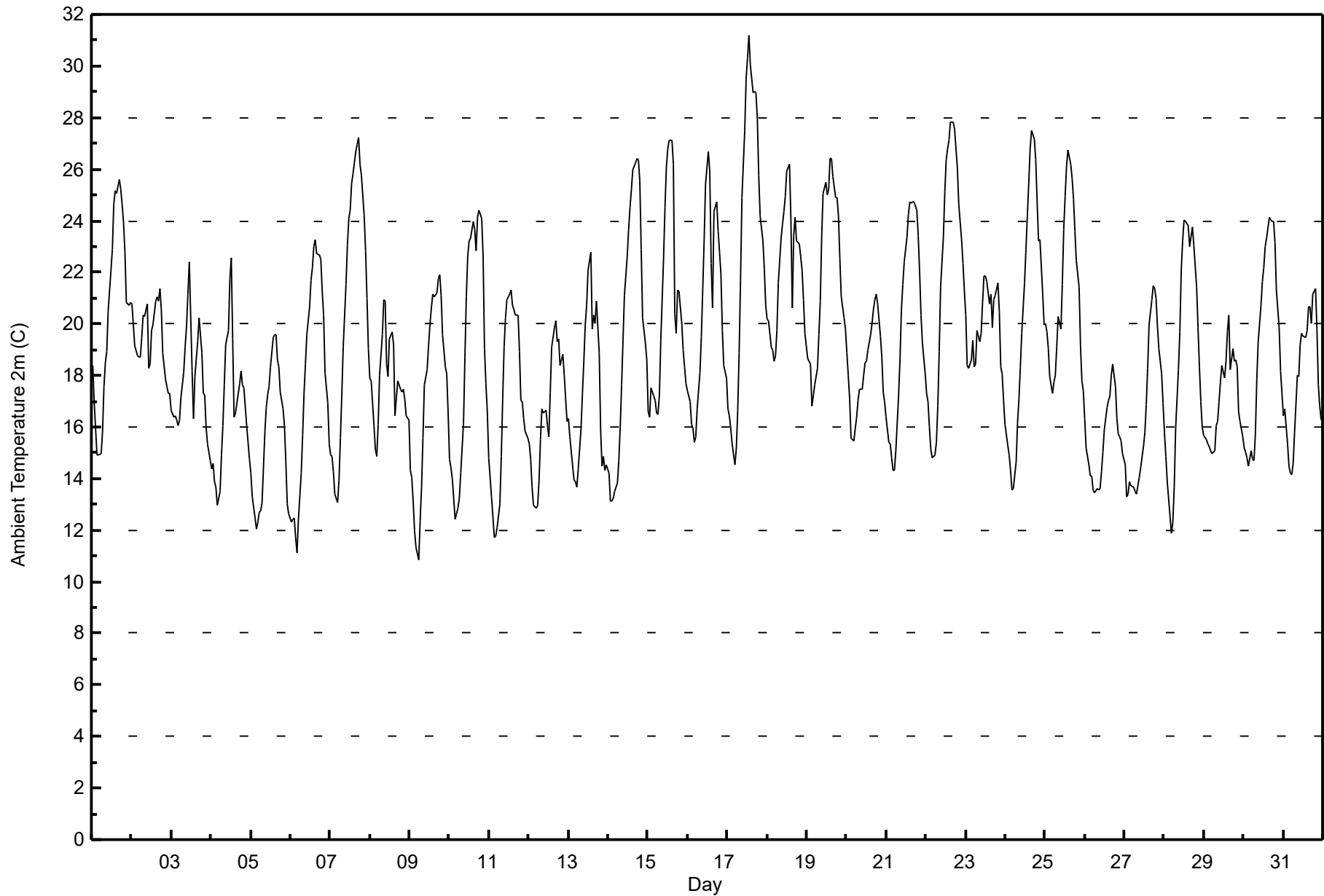
Fort Hills - July 2026

Maximum Value: 31.2 C on Jul 17 14:00																			Maximum Daily Average: 23.2 C on Jul 17							Hours in Service: 744			
Minimum Value: 10.8 C on Jul 9 06:00																			Minimum Daily Average: 15.4 C on Jul 26							Hours of Data: 744			
Maximum Diurnal Average: 22.5 C at hour 18																			Minimum Diurnal Average: 14.6 C at hour 5							Hours of Missing Data: 0			
Monthly Average: 18.96 C																			Percentiles: P ₁ = 12.0 P ₁₀ = 14.1 Q ₁ = 16.0 Median = 18.5 Q ₃ = 21.4 P ₉₀ = 24.6 P ₉₉ = 27.9							Hours of Calibration: 0			
																										Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	18.4	17.0	16.0	14.9	14.9	15.0	15.9	17.6	18.5	18.9	20.5	22.1	22.9	24.6	25.2	25.1	25.6	25.2	24.6	23.9	22.8	20.8	20.7	20.8	20.5	25.6			
2-Jul	20.8	20.0	19.2	18.7	18.7	18.7	19.5	20.4	20.3	20.8	18.3	18.5	19.7	20.0	20.9	21.1	20.9	21.4	20.6	18.9	17.9	17.6	17.3	17.3	19.5	21.4			
3-Jul	16.6	16.4	16.5	16.3	16.1	16.2	17.2	18.1	19.1	19.9	21.2	22.4	18.2	16.3	17.9	18.7	19.3	20.2	18.9	17.3	17.2	16.0	15.3	14.7	17.7	22.4			
4-Jul	14.4	14.6	13.9	13.7	12.9	13.5	14.9	16.0	17.6	19.2	19.8	21.8	22.6	19.4	16.4	16.5	17.3	17.7	18.2	17.6	17.5	16.0	15.4	14.7	16.7	22.6			
5-Jul	14.2	13.3	12.5	12.0	12.3	12.7	12.8	13.1	15.8	16.8	17.2	17.6	18.3	19.5	19.6	19.6	18.6	18.3	17.3	16.7	16.0	14.6	13.0	12.7	15.6	19.6			
6-Jul	12.3	12.4	12.5	11.7	11.1	12.4	14.2	15.7	17.3	18.4	19.6	20.7	21.7	22.2	23.0	23.3	22.7	22.7	22.5	21.3	20.3	18.1	16.9	15.4	17.9	23.3			
7-Jul	14.9	14.9	14.3	13.4	13.1	13.9	15.6	17.3	19.1	21.5	23.1	24.1	24.4	25.4	25.8	26.7	26.9	27.2	26.2	25.8	24.2	22.8	21.0	19.1	20.9	27.2			
8-Jul	17.9	17.8	16.1	15.2	14.9	16.1	18.0	19.6	20.9	20.9	18.4	18.0	19.4	19.7	19.2	16.4	17.1	17.8	17.5	17.4	17.5	17.1	16.4	16.2	17.7	20.9			
9-Jul	14.3	14.0	13.1	12.0	11.4	10.8	12.4	13.7	15.5	17.6	18.2	19.1	19.9	20.6	21.2	21.0	21.2	21.8	21.9	21.1	19.6	18.3	18.0	16.5	17.2	21.9			
10-Jul	14.8	14.5	14.0	12.4	12.6	12.9	13.2	14.2	16.2	18.7	21.0	22.6	23.2	23.3	24.0	23.7	22.8	24.1	24.4	24.1	22.6	19.0	17.7	16.6	18.9	24.4			
11-Jul	14.8	13.3	12.5	11.7	11.8	12.1	13.0	14.8	17.1	19.1	20.2	21.0	21.1	21.3	20.7	20.6	20.4	20.3	18.9	17.0	17.0	16.3	15.8	15.6	16.9	21.3			
12-Jul	15.4	14.7	13.7	12.9	12.9	13.0	13.9	15.5	16.7	16.5	16.6	16.0	15.6	17.3	19.1	19.8	20.1	19.3	19.4	18.4	18.8	18.0	17.1	16.2	16.6	20.1			
13-Jul	16.3	15.6	14.5	13.9	13.9	13.7	14.4	16.0	17.3	18.5	20.0	20.7	22.1	22.8	19.8	20.3	20.0	20.9	18.9	15.9	14.5	14.9	14.3	14.6	17.2	22.8			
14-Jul	14.2	13.1	13.1	13.2	13.5	13.9	14.7	16.0	17.6	19.4	21.1	22.6	23.6	24.5	25.2	26.0	26.3	26.4	26.4	25.5	22.9	20.2	19.3	18.6	19.9	26.4			
15-Jul	16.6	16.4	17.5	17.2	17.0	16.5	16.5	17.2	19.4	22.6	24.5	26.1	26.8	27.1	27.1	26.2	20.4	19.6	21.3	21.3	20.0	19.0	18.3	17.7	20.5	27.1			
16-Jul	17.4	17.0	16.1	16.0	15.4	15.6	16.7	18.1	19.5	21.4	23.3	25.5	26.7	25.9	22.4	20.6	24.3	24.7	23.6	22.8	21.9	19.7	18.4	17.9	20.5	26.7			
17-Jul	16.7	16.4	16.0	15.3	14.6	15.2	16.7	18.9	21.7	24.9	27.5	29.5	30.3	31.2	30.0	29.0	29.0	29.0	28.0	25.8	24.2	23.2	22.1	20.7	23.2	31.2			
18-Jul	20.2	20.1	19.1	19.0	18.5	18.8	19.7	21.6	23.3	23.9	24.4	24.9	25.9	26.2	24.1	20.6	23.4	24.1	23.2	23.1	22.6	22.1	21.0	19.6	22.1	26.2			
19-Jul	18.6	18.5	18.5	16.8	17.2	17.6	18.3	19.6	20.9	23.4	25.1	25.5	25.0	25.2	26.4	26.4	25.7	24.9	24.9	24.2	22.5	21.1	20.2	19.8	21.9	26.4			
20-Jul	18.9	18.0	17.1	15.6	15.5	15.9	16.4	17.1	17.5	17.5	18.0	18.5	18.6	19.0	19.6	20.0	20.6	21.0	21.2	20.8	19.5	18.7	17.4	17.0	18.3	21.2			
21-Jul	16.4	15.4	15.4	14.8	14.3	14.3	15.1	17.2	18.7	20.5	21.5	22.4	23.4	24.3	24.7	24.7	24.8	24.7	24.4	23.4	22.0	20.3	19.3	18.1	20.0	24.8			
22-Jul	17.3	17.0	16.0	15.1	14.8	14.9	15.4	16.8	18.9	21.4	23.4	25.1	26.4	26.8	27.1	27.8	27.8	27.6	26.8	26.0	24.6	23.3	22.4	21.2	21.8	27.8			
23-Jul	20.3	18.4	18.3	18.6	19.4	18.3	18.5	19.7	19.3	19.6	20.8	21.8	21.9	21.6	20.8	21.1	19.9	20.9	21.1	21.6	20.4	18.4	18.0	17.0	19.8	21.9			
24-Jul	16.1	15.3	14.9	14.3	13.6	13.6	14.6	16.1	17.1	18.3	19.7	21.6	22.9	24.2	25.5	26.8	27.5	27.1	26.4	24.8	23.2	23.3	21.1	20.0	20.3	27.5			
25-Jul	20.0	19.7	19.0	18.0	17.3	17.7	18.0	19.1	20.3	19.8	21.6	23.6	24.9	26.1	26.8	26.2	25.7	24.8	23.6	22.5	21.4	19.2	17.8	17.4	21.3	26.8			
26-Jul	16.3	15.2	14.5	14.1	14.1	13.5	13.5	13.6	13.6	13.6	14.2	15.0	15.9	16.7	17.0	17.2	18.0	18.4	17.6	16.3	15.7	15.6	15.4	15.0	15.4	18.4			
27-Jul	14.5	13.3	13.4	13.9	13.7	13.7	13.5	13.4	13.7	14.0	14.5	15.2	15.8	16.9	18.3	20.0	20.9	21.5	21.3	21.0	19.9	19.0	18.1	16.9	16.5	21.5			
28-Jul	15.8	14.9	13.9	12.6	11.9	12.3	13.7	16.0	18.2	19.7	22.1	23.2	24.0	24.0	23.8	23.0	23.4	23.8	23.1	21.4	19.8	18.3	17.0	16.0	18.8	24.0			
29-Jul	15.7	15.5	15.4	15.2	15.1	15.0	15.1	16.1	16.2	17.0	17.7	18.4	17.9	18.6	19.7	20.4	18.2	19.0	18.6	18.6	18.3	16.6	16.2	15.6	17.1	20.4			
30-Jul	15.2	15.0	14.8	14.5	15.1	14.8	14.7	15.7	17.8	19.3	20.7	21.7	22.2	23.0	23.3	24.1	24.0	24.0	24.0	23.2	21.3	19.9	18.2	17.3	19.3	24.1			
31-Jul	16.4	16.7	15.4	14.5	14.2	14.2	14.6	15.8	18.0	17.9	19.2	19.6	19.5	19.5	19.7	20.7	20.6	20.0	21.2	21.4	19.8	17.6	16.8	16.3	17.9	21.4			
Diurnal Average																													
Diurnal Maximum																													



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Fort Hills - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Fort Hills - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	0	0.00	0.00
10 - 20	475	63.84	63.84
> 20	269	36.16	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

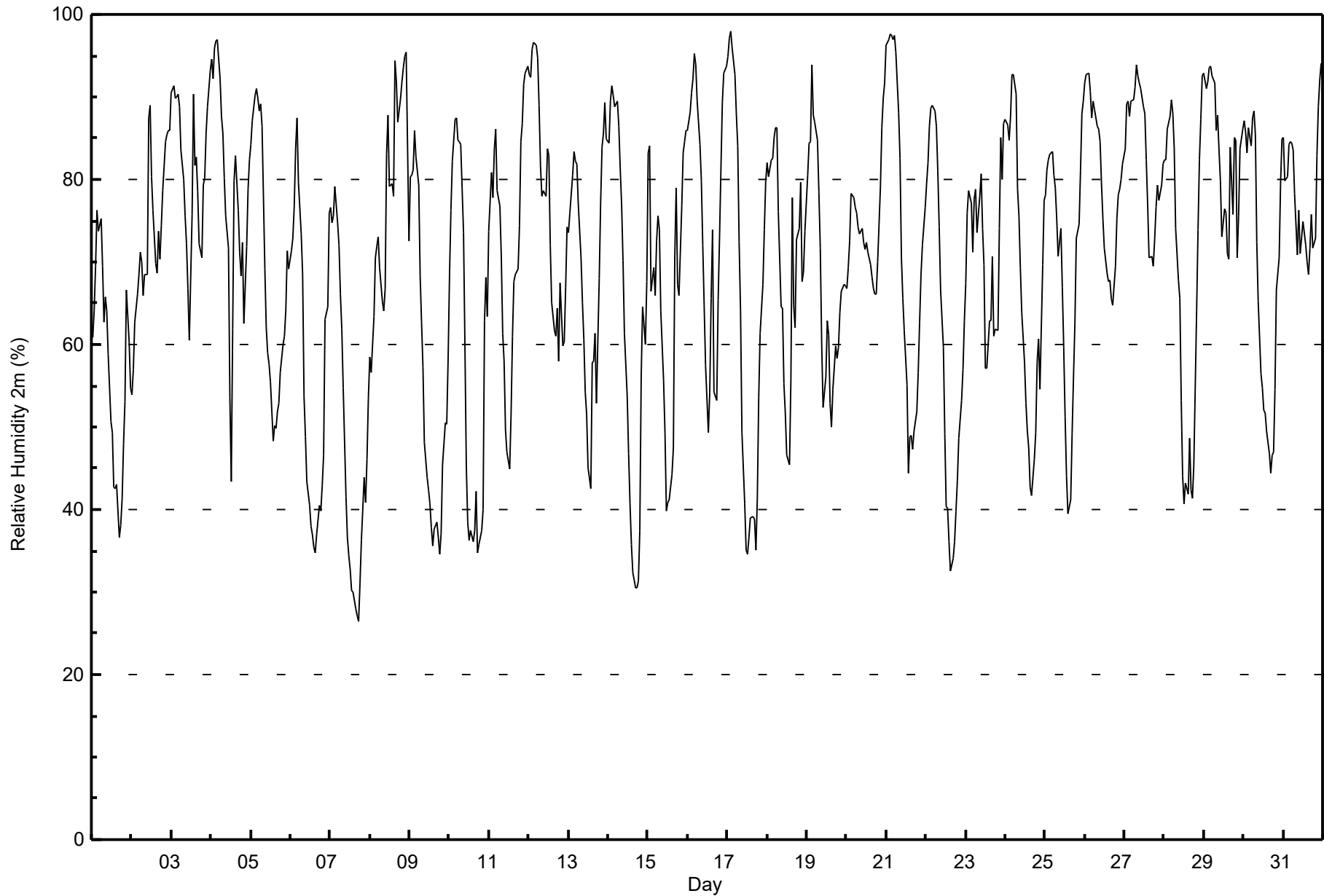
Fort Hills - July 2026

Maximum Value: 98.0 % on Jul 17 03:00																				Maximum Daily Average: 83.5 % on Jul 27					Hours in Service: 744	
Minimum Value: 26.5 % on Jul 7 18:00																				Minimum Daily Average: 48.9 % on Jul 7					Hours of Data: 744	
Maximum Diurnal Average: 85.7 % at hour 4																				Minimum Diurnal Average: 54.4 % at hour 14					Hours of Missing Data: 0	
Monthly Average: 69.57 %																				Percentiles: P ₁ = 31.2 P ₁₀ = 42.5 Q ₁ = 57.8 Median = 72.2 Q ₃ = 83.8 P ₉₀ = 89.9 P ₉₉ = 96.9					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	60.8	64.1	69.4	76.3	73.8	75.2	69.5	62.7	65.7	64.0	58.8	50.7	49.3	42.8	42.6	43.1	36.7	38.2	41.4	48.0	53.0	66.5	60.3	54.8	57.0	76.3
2-Jul	53.9	56.9	62.6	66.1	68.4	71.3	70.0	66.0	68.5	68.5	87.4	89.0	80.3	76.3	69.9	68.6	73.7	70.3	74.5	78.6	84.5	85.4	85.9	86.0	73.4	89.0
3-Jul	90.5	91.4	89.9	90.0	90.3	88.8	83.6	79.9	75.5	72.2	66.8	60.5	75.7	90.3	81.6	82.8	78.4	72.2	70.4	79.3	80.1	85.7	88.8	93.2	81.6	93.2
4-Jul	94.6	92.2	95.9	96.8	96.9	92.2	87.7	85.6	80.1	75.6	71.6	53.5	43.4	61.9	79.9	82.8	76.3	71.2	68.4	72.4	62.5	71.8	78.9	82.4	78.1	96.9
5-Jul	84.2	87.1	90.2	91.0	89.9	88.3	89.2	86.4	69.2	62.0	59.0	57.6	55.4	48.3	50.1	49.7	51.9	52.8	56.6	60.0	61.0	64.2	71.3	69.1	68.5	91.0
6-Jul	71.4	72.9	76.8	83.7	87.4	79.6	73.3	68.4	53.8	48.8	43.4	40.5	38.0	37.0	35.5	34.8	37.0	40.6	39.9	42.9	46.7	63.1	64.5	76.0	56.5	87.4
7-Jul	76.6	74.7	75.6	79.2	74.8	72.0	66.1	61.8	54.8	41.5	36.6	34.4	32.8	30.1	30.0	27.9	27.0	26.5	31.0	36.3	43.8	40.8	46.1	53.6	48.9	79.2
8-Jul	58.5	56.7	63.4	70.5	71.8	73.1	69.3	65.3	64.1	66.8	83.1	87.8	79.2	79.4	78.0	94.4	91.9	86.9	89.9	91.8	93.6	94.9	95.4	72.6	78.3	95.4
9-Jul	80.4	80.5	81.3	86.0	82.7	79.2	68.2	62.7	57.2	48.2	43.8	42.4	40.7	37.8	35.6	37.6	38.4	36.6	34.6	37.1	45.4	50.5	50.3	58.2	54.8	86.0
10-Jul	68.5	76.3	82.3	87.3	87.5	84.7	84.5	84.3	73.6	60.0	45.2	38.5	36.2	37.5	36.0	37.5	42.2	34.7	35.7	37.4	40.1	62.9	68.1	63.3	58.5	87.5
11-Jul	73.6	80.9	77.8	83.5	86.0	78.7	76.8	70.7	61.4	57.9	49.7	46.9	44.9	51.6	61.0	67.6	68.6	69.1	74.4	84.5	86.8	91.6	92.9	93.7	72.1	93.7
12-Jul	92.7	92.4	95.7	96.5	96.3	94.8	89.0	81.7	77.9	78.6	77.9	83.8	82.9	72.0	65.0	61.6	61.0	64.5	58.0	67.5	59.8	60.3	67.0	74.2	77.1	96.5
13-Jul	73.5	76.0	80.4	83.4	82.2	81.9	77.1	70.4	65.0	60.6	54.3	51.6	45.1	42.5	57.8	58.0	61.4	52.9	67.9	77.1	83.9	85.6	89.3	84.9	69.3	89.3
14-Jul	84.4	89.6	91.4	90.3	88.8	89.5	86.5	81.4	76.9	70.2	61.4	53.8	46.8	40.7	35.8	32.4	30.5	30.6	31.3	37.5	56.1	64.6	60.1	67.6	62.4	91.4
15-Jul	83.2	84.0	66.4	69.3	65.9	72.5	75.5	74.0	64.0	55.6	49.3	39.8	40.9	41.2	44.3	47.4	70.6	78.9	67.4	65.9	76.7	83.2	84.6	85.9	66.1	85.9
16-Jul	86.0	88.1	90.5	92.3	95.3	93.9	89.5	84.3	79.8	72.0	64.7	57.5	49.3	54.2	65.6	74.0	54.2	53.3	65.4	73.0	81.3	89.4	92.9	93.7	76.7	95.3
17-Jul	95.0	97.1	98.0	95.9	92.8	88.0	84.1	72.4	64.0	49.3	40.6	35.0	34.6	36.7	38.9	39.2	38.8	35.0	41.4	53.6	61.4	67.2	73.9	79.8	63.0	98.0
18-Jul	82.1	80.4	82.4	82.6	85.0	86.2	86.3	76.1	64.5	64.5	55.3	51.7	46.7	45.4	55.7	77.7	64.7	61.9	72.7	74.0	79.6	67.7	68.8	73.7	70.2	86.3
19-Jul	80.4	84.5	84.5	93.9	87.9	87.0	84.7	78.5	71.8	60.2	52.5	56.0	62.8	61.2	52.9	49.9	54.6	59.8	58.3	59.6	63.9	66.5	67.3	67.1	68.6	93.9
20-Jul	66.7	69.3	72.5	78.3	77.7	76.6	76.0	74.3	73.4	74.1	72.4	71.6	72.4	71.2	69.7	68.2	66.8	66.1	66.2	69.9	79.1	86.2	89.9	91.7	74.2	91.7
21-Jul	96.2	96.9	97.7	97.4	97.0	97.4	95.4	88.2	82.5	70.5	65.7	61.6	55.1	44.4	48.8	48.9	47.3	49.5	51.9	56.6	62.7	68.5	72.0	76.7	72.0	97.7
22-Jul	79.5	82.1	86.4	88.6	89.0	88.3	86.4	81.1	74.3	66.6	59.6	49.2	40.3	40.1	36.0	32.6	34.0	36.2	39.8	43.5	48.6	53.2	56.9	63.0	60.6	89.0
23-Jul	67.4	76.0	78.7	77.2	71.1	77.7	78.8	73.5	77.9	80.6	74.1	69.7	57.2	57.2	62.8	62.9	70.7	61.0	61.9	61.7	74.1	85.1	80.0	86.8	71.8	86.8
24-Jul	87.4	86.6	84.7	87.6	92.7	92.7	90.3	78.9	75.6	69.3	63.9	57.9	52.8	49.5	47.4	42.7	41.7	46.1	49.3	57.8	60.7	54.7	69.6	77.5	67.4	92.7
25-Jul	78.1	81.2	82.3	83.0	83.5	80.6	79.0	75.3	70.7	74.0	67.0	59.7	51.1	44.0	39.5	41.2	49.2	56.1	62.5	72.9	74.7	81.0	87.9	89.6	69.3	89.6
26-Jul	91.6	92.7	92.8	90.7	87.5	89.5	88.4	86.4	86.1	84.6	79.5	75.3	71.8	68.7	67.6	67.8	65.6	64.7	69.6	75.2	78.2	78.7	80.0	81.8	79.8	92.8
27-Jul	83.7	89.2	89.5	87.6	89.6	89.7	91.2	93.9	92.6	91.7	91.1	88.8	88.0	82.4	76.9	70.6	70.6	69.5	72.7	76.7	79.3	77.5	79.3	81.8	83.5	93.9
28-Jul	82.4	82.4	86.1	87.6	89.7	88.0	83.8	74.1	67.8	65.5	53.2	44.0	40.7	43.3	41.9	48.7	42.3	41.4	45.4	64.0	73.9	82.4	87.3	92.5	67.0	92.5
29-Jul	93.0	91.1	91.9	93.5	93.7	92.5	91.6	85.9	87.9	83.6	79.8	73.1	76.5	75.9	71.1	70.4	84.0	75.8	85.1	84.8	70.5	75.6	83.8	86.1	83.2	93.7
30-Jul	87.1	85.8	83.2	86.3	84.0	87.5	88.3	85.4	72.4	65.3	56.5	54.8	52.1	51.7	49.5	46.8	44.4	46.6	46.9	54.5	66.6	70.4	79.6	85.0	67.9	88.3
31-Jul	85.0	79.8	80.3	84.3	84.5	84.4	83.5	78.2	70.9	76.2	70.9	72.9	75.0	72.1	70.0	68.4	71.6	75.8	71.7	72.9	82.8	88.8	92.0	94.0	78.6	94.0
Diurnal Average																										
Diurnal Maximum																										



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Fort Hills - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %
Fort Hills - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	53	7.12	7.12
40 - 60	150	20.16	27.29
60 - 80	299	40.19	67.47
80 - 100	242	32.53	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

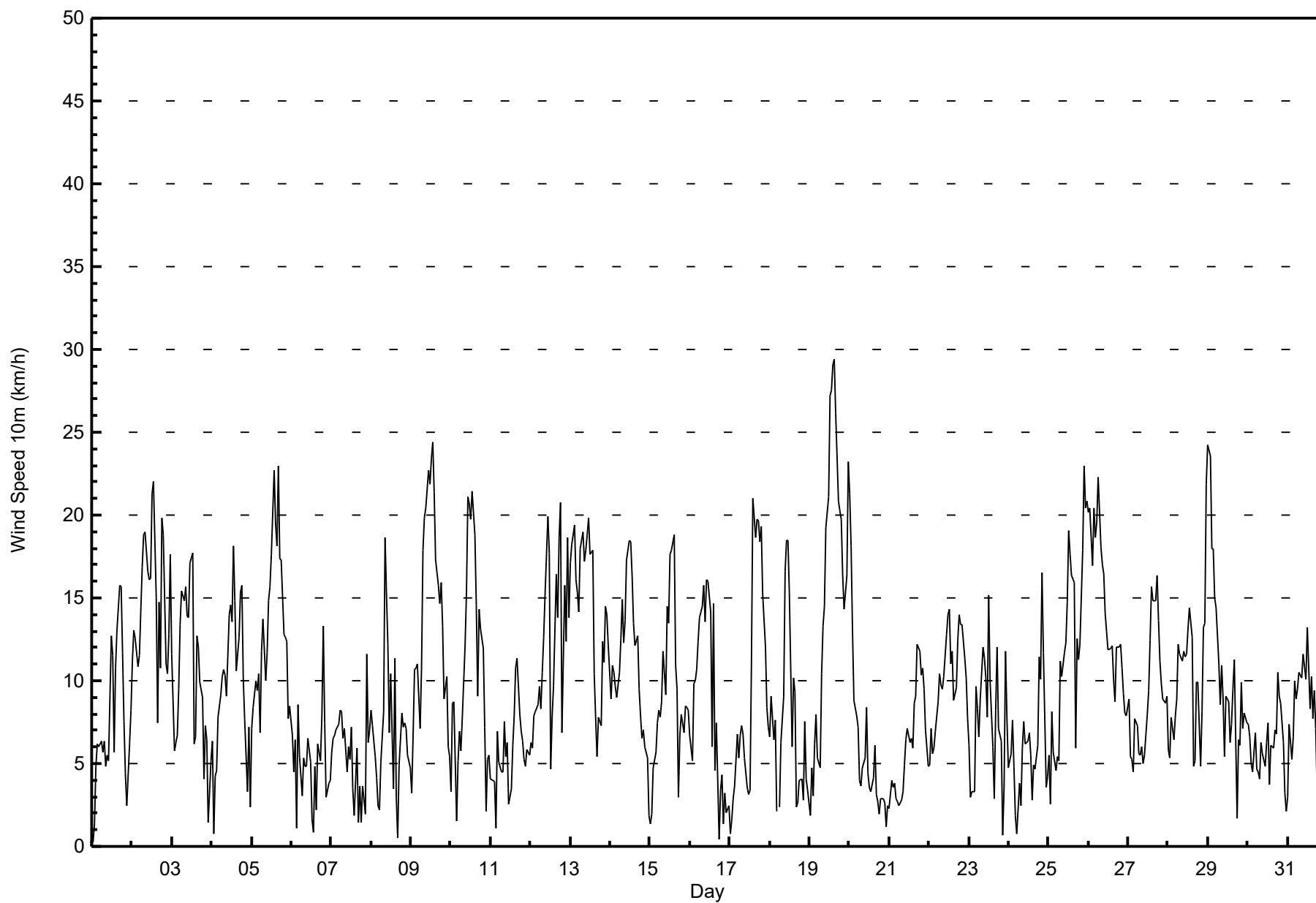
Fort Hills - July 2026

Maximum Speed: 29 km/h on Jul 19 16:00																Maximum Daily Speed Average: 15.0 km/h on Jul 19										Hours in Service: 744	
Minimum Speed Value: 0 km/h on Jul 1 01:00																Minimum Daily Speed Average: 1.6 km/h on Jul 6										Hours of Data: 742	
Maximum Diurnal Speed Average: 6.2 km/h at hour 11																Minimum Diurnal Speed Average: 0.3 km/h at hour 2										Hours of Missing Data: 2	
Monthly Average Velocity: 2.6 km/h 193.7 deg																Percentiles: P ₁ = 1 P ₁₀ = 3 Q ₁ = 5 Median = 8 Q ₃ = 13 P ₉₀ = 18 P ₉₉ = 24										Percent Operational Time: 99.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Jul	ENE0	NNE1	N5	NNW6	NNW6	NNW6	NNW6	NNW6	WNW5	NW5	NW5	SE13	SSE12	SSE6	SSW11	SSW13	S16	S16	S12	S8	SSE4	ESE2	ESE6	ESE8	S2.7	S16	
2-Jul	ESE11	SE13	SE13	ESE11	SE12	SE14	SE17	SSE19	S19	SSE17	S16	SSE16	SSE21	S22	SSW15	SSW7	SE15	SSE11	SSE20	SE19	SSE11	SSE10	SE13	SE18	SSE13.9	S22	
3-Jul	SSE12	SSE6	SE6	SE7	SSE9	SSE13	SSE15	SSE15	SSE16	S14	SSE14	SSE17	WSW18	S6	SE7	SSE13	SSE12	S10	SW9	E4	ESE7	ESE6	NNW1	NNW5	SSE8.3	WSW18	
4-Jul	NNW6	ENE1	SW4	SSW5	S8	SSE9	SSE10	S11	SSE10	SSE9	SSE14	SE15	S14	SSW18	SSW15	S11	SSW13	SSW15	S16	S10	WSW8	SW3	SSW7	SSW2	S8.3	SSW18	
5-Jul	SSW7	SW8	WSW10	SW9	SW10	SSW7	S12	SSW14	WSW10	NNW12	NNW15	NNW16	NW18	NW23	N19	NNW18	NNW23	NNW17	NNW17	NNW13	NW13	NNW12	NW8	WNW9	WNW8.6	NNW23	
6-Jul	WNW7	WNW4	WSW6	SSW1	SW9	W5	W3	SW5	WNW5	NNW5	NW6	N5	WNW2	SE1	NE5	NE2	NNW6	SSE5	E8	NE13	NE7	ENE3	NE4	NW4	NNW1.6	NE13	
7-Jul	NNW6	NNW7	NNW7	N7	NNW7	N8	N8	NNW7	NNW7	ENE5	ENE6	ENE5	SSE7	SE3	WSW2	NE6	NNW1	ENE4	N1	W4	N2	NE12	NE6	NNW7	N3.7	NE12	
8-Jul	NNW8	N7	NNW5	N4	N2	W2	SW5	SSW8	SSE19	SSE15	SSW12	ESE7	SE10	W3	W11	ESE3	NE0	SSE5	S8	S7	S7	S7	S5	SW5	S3.5	SSE19	
9-Jul	SSE3	SSW7	S11	S11	S11	SSE7	SSW11	SW18	SW20	SW20	SW23	SW22	SW23	SW24	SSW21	SSW17	SSW16	SSW15	SSW16	SW13	SSW9	SSE10	SSW6	SSW5	SSW13.4	SW24	
10-Jul	S3	SSE9	SSE9	SSW2	S5	SSE7	S6	S8	SSW12	SSW15	SSW21	SW21	SW20	SSW21	SSW19	SW15	W9	WSW14	WSW13	SW12	SSW7	SSW2	NW5	NNW6	SSW9.3	SSW21	
11-Jul	NW4	NW4	NNW4	S1	S7	SSE5	S4	SE4	SSE8	SSE5	SSE6	WSW3	W4	SSW6	SSW8	SSE11	S11	S8	WSW7	SW6	SE5	SW5	S6	SSW6	S4.1	S11	
12-Jul	SSE6	SSE6	SSE8	SE8	SSE9	SSE10	SSE8	S11	SSW13	S15	SSW20	SSW18	S5	SSW8	SSW10	S16	SSW14	S19	SSW21	SW7	SW16	WSW12	WSW19	W14	SSW10.5	SSW21	
13-Jul	WSW17	SW18	SW19	SW16	SSW15	SSW14	SW18	SW19	SSW17	SSW18	SSW19	SSW20	SW18	WSW18	SW10	NW8	NNE5	WNW8	WNW7	NNW12	NNW11	SW14	SW14	SW12	SW12.4	SSW20	
14-Jul	SSW9	SSE11	S11	SSW10	S9	S11	SSW13	SSW15	SSW12	S14	SSW17	SSW18	SW18	SW16	SW13	SW12	SW13	SSW10	SSW8	S7	SSE7	SSE6	SE5	SE2	SSW10.4	SSW18	
15-Jul	SW1	SE2	SE5	SSE6	SE7	SSE8	SSE8	SSE9	SSE12	SSE9	SSE15	SSE13	SSE18	S18	S19	S11	NNW10	SE3	S7	SSE8	S7	S8	S8	S8	SSE8.1	S19	
16-Jul	SE7	SSE5	SSE10	SSE10	SSE11	SSE12	SSE14	S14	SSE16	SSE14	SSW16	SSW16	SSW14	SSE6	N15	NNE5	ESE7	W0	NW3	N4	NNW1	NNW3	NW2	W2	SSE5.3	SSW16	
17-Jul	ENE1	WSW2	S3	SSE4	SSE7	SE5	SSE7	SE7	SE7	SE5	S4	ESE3	ENE3	NNE11	N21	N19	N20	NNE20	N18	N19	N15	N12	NNW8	NNW7	NNE5.6	N21	
18-Jul	N7	N9	N6	N8	N2	UO	WSW2	SSE6	S9	SW17	SSW19	ESE19	ESE15	SSE6	SW10	SE9	ENE2	SSE3	WNW4	N4	SSE3	SE8	SSE4	E3	SSE2.7	SSW19	
19-Jul	N2	N5	NNE3	NNW6	N8	SSW5	WSW5	NNW10	N13	N14	N19	N21	N27	N28	N29	N29	N26	N21	NNW20	N20	NNW16	NNW14	NNW16	N23	N15.0	N29	
20-Jul	N21	N18	N13	WNW9	WNW8	WNW7	WNW4	NW4	NNW5	N5	NE8	NNE4	NNW4	WNW3	WSW4	SW6	W3	WNW3	NE2	N3	NW3	SSW3	WNW1	NNW2	NNW4.4	N21	
21-Jul	WSW2	NW4	SW4	N4	WNW3	WNW3	NW2	NE3	S3	SE5	SSE6	SSE7	S6	W7	SSW6	S9	S9	S12	S12	S10	S11	S9	SSE7	SE5	S4.4	S12	
22-Jul	SE5	S7	S6	SSE6	SSE7	SSE9	SSE10	S10	S9	S10	S13	SSW14	SW14	SW11	SSW12	SW9	SSW10	S12	SSE14	SSE13	SSE13	SSE11	SSE10	SSE8	S9.2	SW14	
23-Jul	S6	S3	S3	ENE3	NNE10	N8	N7	N9	N12	N11	N10	WNW8	NNW15	N10	NNW6	SSE3	W8	NNW12	NW7	NW6	NW1	WNW4	N12	N8	NNW5.3	NNW15	
24-Jul	NW5	NW6	N8	WNW5	SW2	W1	WSW4	W2	SSW6	SE8	SE6	ESE6	ESE7	SE5	SW3	SSE5	N5	NNW6	N11	N10	N17	NNE12	W4	WSW4	N1.7	N17	
25-Jul	SW5	WSW3	S8	SSE6	SSE5	SSE5	SE5	SSW11	SW10	SSW12	SW12	SSW15	SSW19	SSW18	SW16	SSW16	N6	NNE13	NNE11	N12	N18	N23	N20	N21	WSW2.0	N23	
26-Jul	N20	NNE20	NNE17	NNE20	NNE19	NNE20	NNE22	NNE18	NNE17	NNE16	NNE14	NE13	NE12	NE12	NE12	NNE10	N9	NE12	NE12	NE12	NE11	NE9	ENE8	ENE8	NNE13.8	NNE22	
27-Jul	ENE9	ENE5	E5	ESE5	SE8	SE7	SSE6	SSE6	SSE6	SSE5	S6	S8	SSW9	SSW12	S16	S15	SSE15	SSE16	SSE14	SSE11	S10	SSW9	SSW9	SSW9	SSE7.7	SSE16	
28-Jul	SSW6	S5	SE8	SE6	SSE8	SSE9	S12	S12	S11	S12	SSW11	SSW12	SSE13	S14	S13	SSW5	N5	NNE10	NE10	N5	NNE8	NE13	NE13	NNE22	SE3.8	NNE22	
29-Jul	NNE24	NNE24	N18	N18	NNW15	NNW14	NNW11	W9	WSW11	W9	W5	NNW9	NNE9	ESE6	ESE7	NE9	NNE11	SSE2	S6	SW6	NNW10	NW7	SSW8	SW7	NNW5.1	NNE24	
30-Jul	SW7	WSW7	W5	SW5	SW7	SSW5	S4	SSE4	WNW6	NW6	NNW5	N6	N7	ENE4	ENE6	SSE6	S7	S7	SSE10	SSE9	SSE9	S6	WSW3	SW2	SSW2.4	SSE10	
31-Jul	SE3	SE7	S5	SSE7	SSE10	SSE9	SSE10	SSE11	S10	SSE12	SSE11	S10	SSW13	S8	SSE10	SSE8	S9	SSE7	SW3	SSE1	S3	ENE0	ENE1	UO	SSE7.0	SSW13	
NNW0.8NNE0.3 S1.2SSE1.0 S2.6SSE3.3 S4.3SSW5.4SSW5.6 S5.3SSW6.2 S5.7SSW5.2SSW5.1SSW4.1SSW3.3 SW1.4SSW2.4SSW2.2 S0.4 SW0.4 ESE0.5WSW0.7 NW1.4																								Diurnal Average			
NNE24 NNE24 SW19 NNE20 NNE19 NNE20 NNE22 SW19 SW20 SW20 SW23 SW22 N27 N28 N29 N29 N26 N21 SSW21 N20 N18 N23 N20 N23																								Diurnal Maximum			
UO - Unstable Operation																											
All monthly, daily, and diurnal averages have been calculated using vector methods																											



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Fort Hills - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Fort Hills - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	188	25.34	25.34
6 - 11	309	41.64	66.98
12 - 19	201	27.09	94.07
20 - 28	42	5.66	99.73
29 - 38	2	0.27	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 742

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Fort Hills - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	16	6	6	14	3	4	16	20	15	10	14	11	14	13	13	13	188
6 - 11	23	8	8	5	1	12	18	73	55	32	17	8	5	13	8	23	309
12 - 19	19	8	11	0	0	2	11	33	25	43	23	7	1	5	2	11	201
20 - 28	14	8	0	0	0	0	0	2	1	6	8	0	0	0	1	2	42
29 - 38	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	74	30	25	19	4	18	45	128	96	91	62	26	20	31	24	49	742

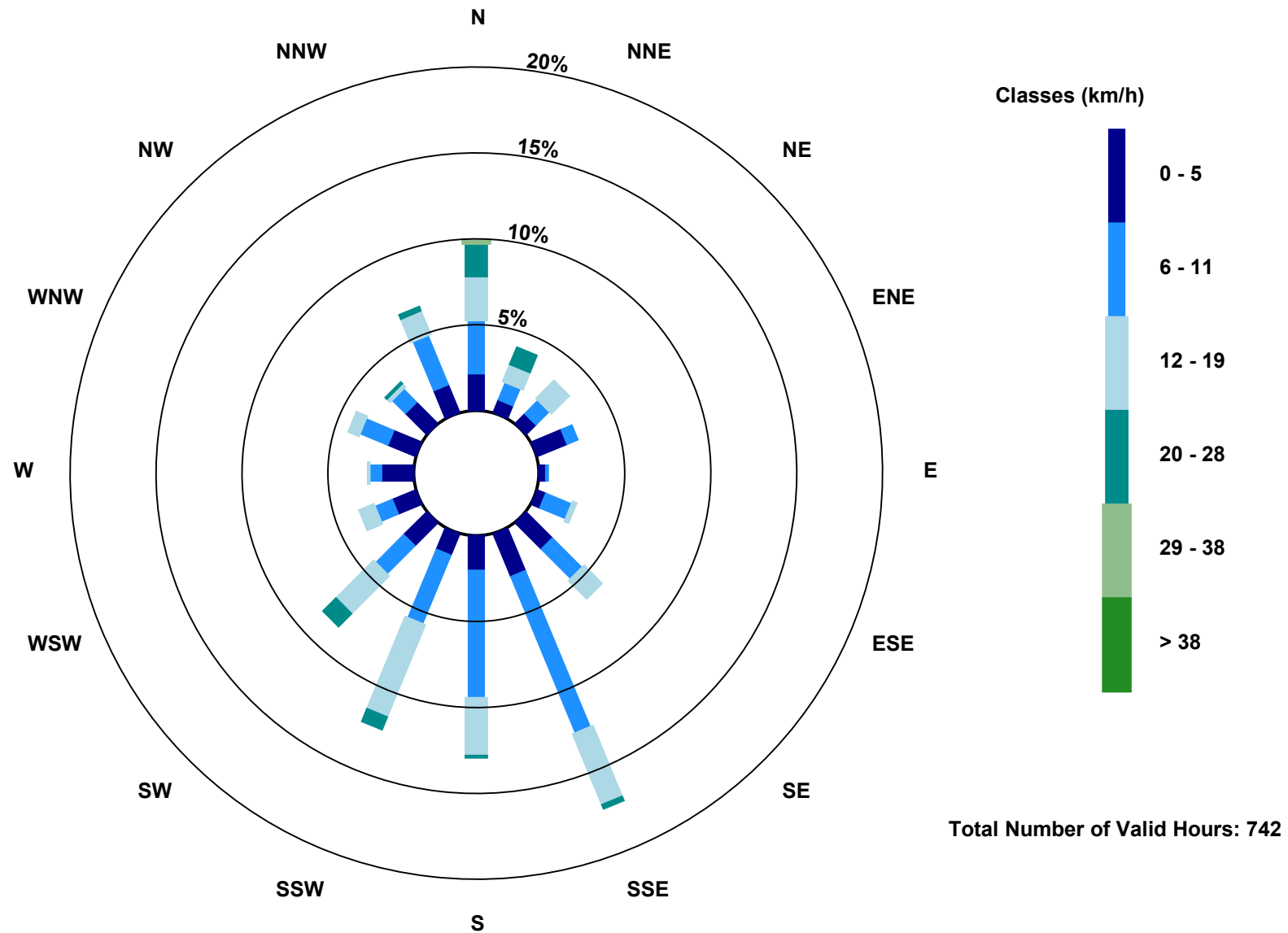
Total Number of Valid Hours: 742

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Fort Hills





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

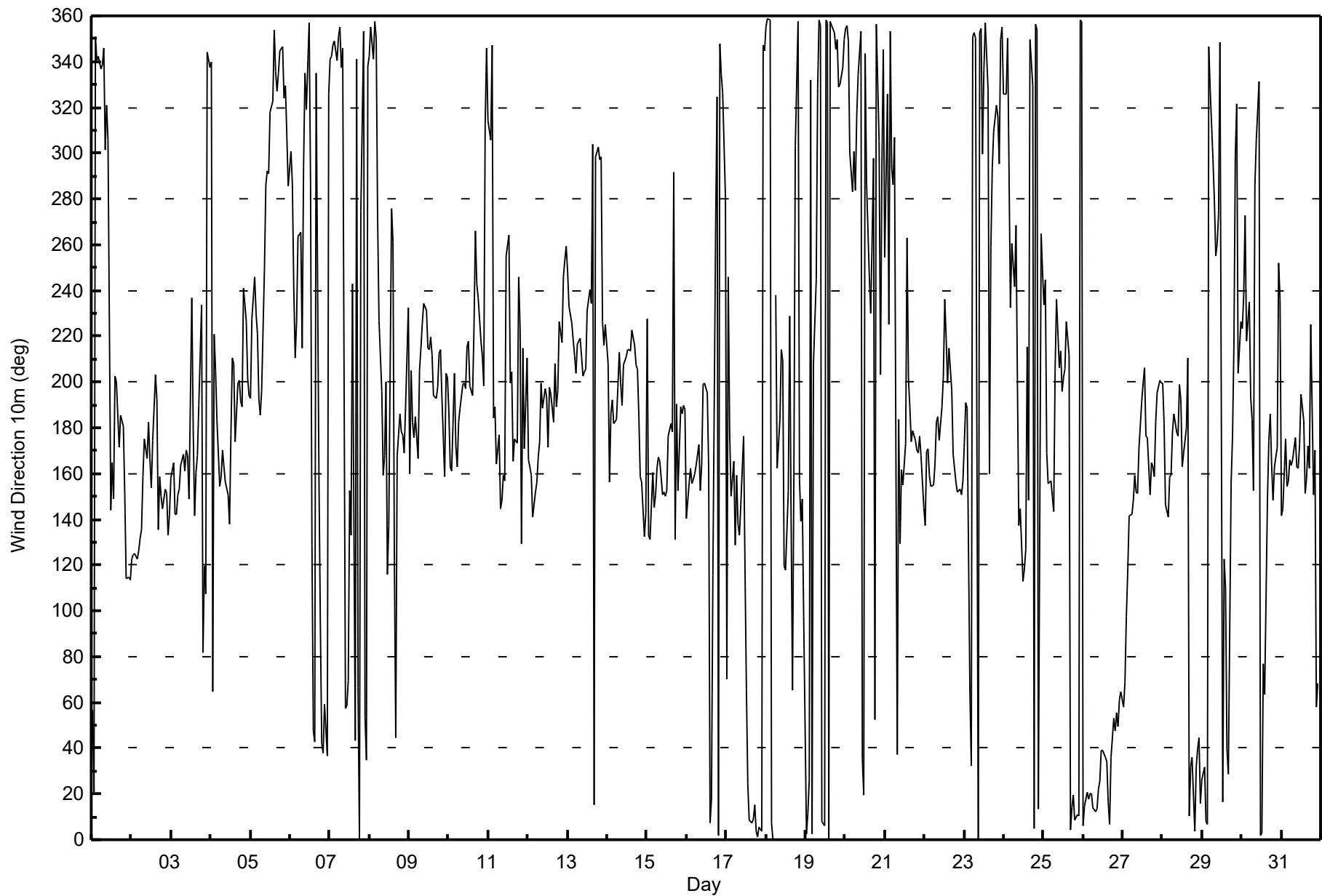
Fort Hills - July 2026

Direction of Maximum Speed: 358 deg on Jul 19 16:00																				Hours in Service:		744			
Direction of Maximum Daily Speed Average: 351.7 deg on Jul 19																				Hours of Data:		742			
Direction of Minimum Speed: 57 deg on Jul 1 01:00										Direction of Minimum Daily Speed Average: 1.6 deg on Jul 6										Hours of Missing Data:		2			
Monthly Average Direction: 193.7 deg																				Percent Operational Time:		99.7			
Day	Hourly Period Ending At (MST)																				Daily Average				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	57	20	351	340	342	337	339	346	301	321	306	144	165	149	203	200	172	185	183	181	151	114	114	114	179.4
2-Jul	123	125	125	123	127	132	135	159	175	167	182	167	154	175	203	192	135	159	150	145	153	151	133	142	152.2
3-Jul	158	165	142	142	151	153	163	168	161	170	168	149	237	180	141	161	168	190	234	82	120	107	344	337	164.7
4-Jul	340	65	221	205	183	154	159	170	163	156	150	138	177	210	208	174	200	201	191	189	241	226	202	194	184.2
5-Jul	193	228	246	230	221	193	186	197	250	286	293	291	318	323	354	336	327	335	345	346	324	330	308	286	301.3
6-Jul	301	286	240	211	226	264	266	215	294	335	319	357	286	129	48	43	335	159	95	42	38	59	37	326	332.7
7-Jul	341	342	347	349	340	351	355	337	346	57	59	70	152	133	243	44	341	67	1	275	353	54	35	338	10.4
8-Jul	342	355	341	358	350	272	227	196	160	168	200	116	138	276	261	122	45	168	186	178	177	169	188	232	186.2
9-Jul	160	205	182	175	185	166	205	215	226	234	232	214	214	220	211	194	193	198	212	214	194	159	204	202	207.2
10-Jul	188	163	161	204	172	163	183	189	199	200	197	215	218	198	194	224	266	243	237	218	211	198	312	346	208.0
11-Jul	314	306	347	184	189	164	177	145	148	159	157	255	264	199	205	165	175	173	246	223	130	215	171	211	187.8
12-Jul	166	163	159	141	152	156	167	174	200	189	197	194	172	198	195	182	208	189	197	226	217	246	253	259	196.6
13-Jul	248	233	226	219	212	204	216	219	211	203	204	205	231	240	234	304	15	299	303	297	299	226	216	225	229.7
14-Jul	208	156	186	192	182	184	197	213	200	190	208	211	214	214	214	222	216	207	205	186	159	156	133	143	198.9
15-Jul	227	133	131	161	145	150	163	167	165	151	152	150	152	176	182	178	292	131	190	153	189	186	190	188	168.2
16-Jul	140	155	162	155	158	160	163	172	153	164	199	200	195	163	8	18	115	269	324	2	348	335	326	281	167.1
17-Jul	70	246	179	150	165	129	159	138	133	146	177	119	66	24	9	7	9	15	3	1	5	4	347	345	20.0
18-Jul	355	359	358	7	0	UO	238	162	183	214	210	120	118	153	229	141	65	160	303	357	157	139	149	98	158.6
19-Jul	2	11	26	332	2	208	245	328	358	356	8	6	358	357	0	358	356	352	345	350	329	330	338	350	351.7
20-Jul	355	356	349	300	283	301	284	317	334	353	35	20	344	288	246	230	262	298	52	357	305	203	293	346	330.5
21-Jul	254	326	225	353	293	286	307	37	184	129	162	155	173	263	201	189	174	178	175	170	169	177	168	145	181.4
22-Jul	137	170	171	159	154	155	164	182	185	174	189	202	236	219	199	215	196	169	162	156	152	153	151	157	177.2
23-Jul	173	191	188	65	32	351	353	350	0	353	355	300	336	357	328	160	259	294	310	321	316	295	350	355	337.5
24-Jul	326	326	350	292	233	261	242	269	201	137	144	113	118	127	215	148	349	329	5	356	354	14	265	248	351.6
25-Jul	234	245	169	155	157	150	143	206	236	206	214	196	202	206	226	212	4	14	19	9	11	11	358	357	248.5
26-Jul	6	15	21	18	20	20	14	12	13	22	26	39	39	36	34	16	7	36	53	48	56	50	61	65	26.4
27-Jul	58	69	97	118	141	142	148	159	152	152	171	191	200	206	176	176	151	164	163	159	182	195	201	200	165.9
28-Jul	199	182	146	141	159	159	178	186	178	176	199	192	163	169	180	211	10	32	36	4	32	40	44	16	146.1
29-Jul	26	32	8	7	347	327	297	279	255	261	274	348	16	123	110	40	28	156	176	216	299	321	204	226	347.7
30-Jul	223	238	273	218	235	193	183	152	286	306	331	2	3	77	64	149	175	186	164	148	163	171	252	236	197.3
31-Jul	141	144	175	155	157	166	164	166	176	163	162	173	194	183	151	158	172	162	225	151	170	58	69	UO	166.6
338.0 26.5 181.7 161.0 174.7 166.4 183.5 191.7 194.4 189.9 198.2 180.8 197.3 205.6 211.7 191.5 213.8 197.8 200.3 182.3 214.9 108.2 241.2 310.2																									
Diurnal Average																									
UO - Unstable Operation																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Fort Hills - July 2026





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Fort Hills - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 103 deg on Jul 6 14:00																		Hours in Service: 744							
Minimum Value: 6 deg on Jul 8 00:00																		Hours of Data: 222							
Percentiles: P ₁ = 8 P ₁₀ = 11 Q ₁ = 13 Median = 18 Q ₃ = 36 P ₉₀ = 69 P ₉₉ = 98																		Hours of Missing Data: 522							
																		Hours of Calibration: 0							
																		Percent Operational Time: 29.8							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	101	50	24	13	15	23	25	18	16	23	33	19	17	65	40	14	18	9	8	10	16	44	15	14	101
2-Jul	10	10	7	9	13	9	12	11	14	17	11	14	12	12	19	35	22	20	9	9	13	15	9	8	35
3-Jul	24	21	16	12	8	11	8	18	19	14	17	21	21	48	79	9	13	15	49	37	20	29	77	17	79
4-Jul	22	96	37	20	20	12	15	15	14	19	13	14	23	28	28	16	15	11	15	12	19	46	32	88	96
5-Jul	15	17	11	13	13	16	12	12	18	24	17	19	16	18	19	22	14	15	24	17	14	12	19	13	24
6-Jul	26	26	22	90	18	64	67	35	52	59	49	71	98	103	84	89	60	47	26	10	60	83	49	14	103
7-Jul	16	11	12	11	13	13	14	17	22	71	47	60	45	80	98	62	95	67	79	19	69	10	41	6	98
8-Jul	12	12	11	16	46	49	34	27	12	33	28	66	32	92	22	68	96	52	15	14	15	23	62	46	96
9-Jul	74	18	19	11	15	31	23	12	12	16	16	16	16	15	17	10	10	17	15	12	12	8	64	70	74
10-Jul	62	11	9	81	30	14	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	81
11-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
12-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
13-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
14-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
15-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
16-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
17-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
18-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
19-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
20-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
21-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
22-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
23-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
24-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
25-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
26-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
27-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
28-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
29-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
30-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
31-Jul	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	--
Diurnal Maximum																									
101 96 37 90 46 64 67 35 52 71 49 71 98 103 98 89 96 67 79 37 69 83 77 88																									
NF - Not Flagged																									



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS25 WASKŌW OHCI PIMÂTISIWIN JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - WASKŌW OHCI PIMÂTISIWIN (AMS25)
JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	702	35	42	99.06	19.2	0	2.6	0
H2S(ppb) Average	697	38	47	98.79	4.9	0	1.3	0
Temperature 2 m (C) Average	744	0	0	100	32.5	0	23	0
Relative Humidity (%) Average	744	0	0	100	99	-	89.4	-
Wind Speed 10 m (km/h) Average	744	0	0	100	18	0	9	0
Wind Direction 10 m (deg) Average	744	0	0	100	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - WASKÖW OHCI PIMĀTISIWIN (AMS25)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	702	0.55	1.7	-	0	0	0	0.1	0.2	1	19.2
H2S (ppb) Average	697	0.38	0.4	-	0	0.1	0.1	0.2	0.5	0.8	4.9
Temperature 2 m (C) Average	744	18.24	4.6	-	8.5	12.7	14.7	17.8	21.3	24.7	32.5
Relative Humidity (%) Average	744	74.82	18.6	-	29.6	46.3	61.9	77.5	91.4	97.1	99
Wind Speed 10 m (km/h) Average	744	4.2	3	-	0	1	2	4	6	8	18
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - WASKŌW OHCI PIMĀTISIWIN (AMS25)

JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
SO2,H2S	02 Jul 2026 16:00	02 Jul 2026 18:00	3	Station power failure
SO2,H2S	13 Jul 2026 09:00	13 Jul 2026 12:00	4	Station power failure
H2S	08 Jul 2026 13:00	08 Jul 2026 14:00	2	Maintenance - sample manifold cleaned



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

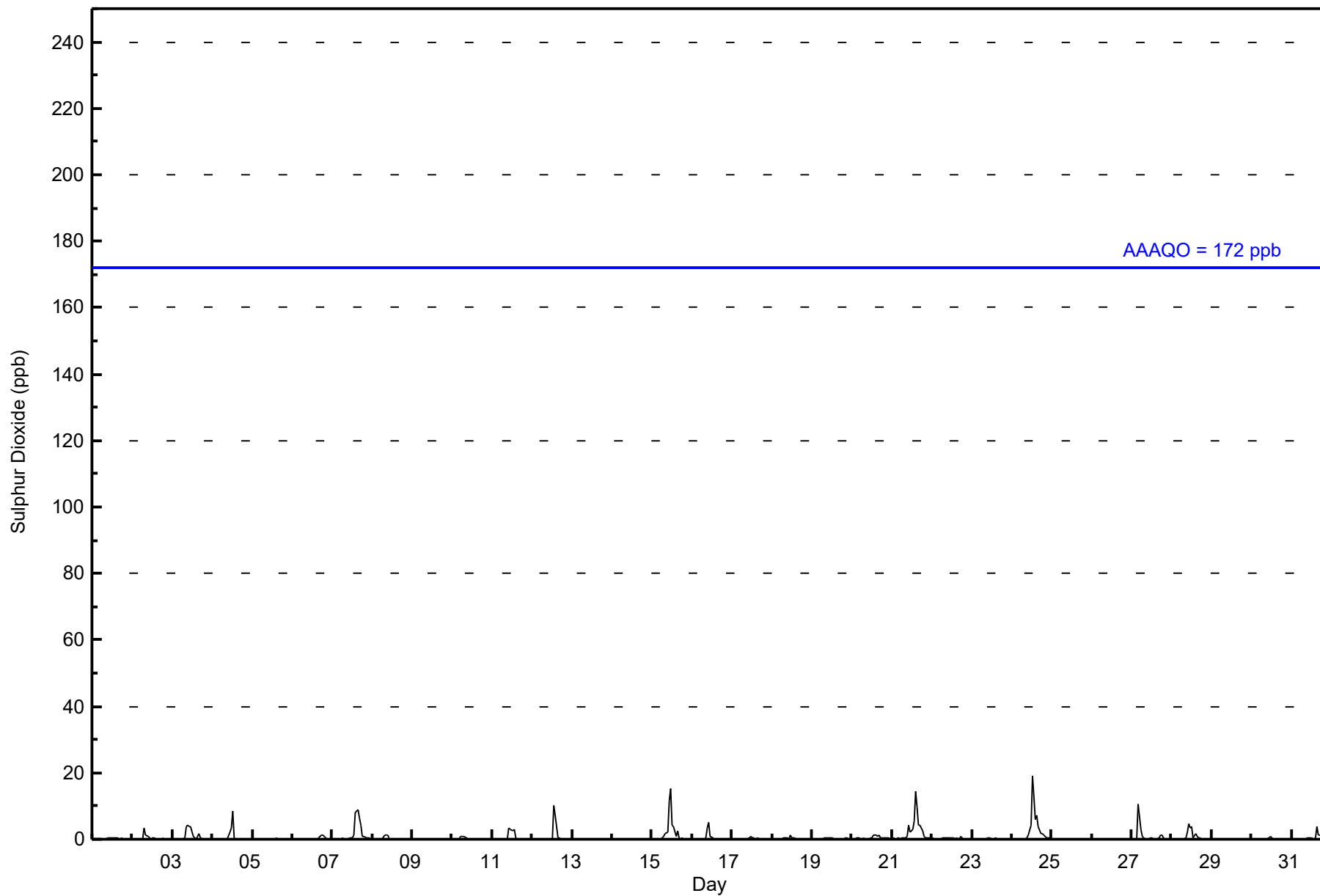
Waskow ohci Pimatisiwin - July 2026

Number of Exceedances (AAAQO): Maximum Value: 19.2 ppb on Jul 24 13:00																			1-hr: 0 Maximum Daily Average: 2.6 ppb on Jul 24						24-hr: 0 Maximum Daily Average: 2.6 ppb on Jul 24						Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 3 21:00 Maximum Diurnal Average: 1.5 ppb at hour 13 Monthly Average: 0.55 ppb																			Minimum Daily Average: 0.0 ppb on Jul 14 Minimum Diurnal Average: 0.0 ppb at hour 24 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 1.0 P ₉₉ = 9.6						Hours of Data: 702							
																									Hours of Missing Data: 42							
																									Hours of Calibration: 35							
																									Percent Operational Time: 99.1							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24								
1-Jul	Z	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.4	0.4	0.2	0.4	0.2	0.1	0.0	0.1	0.1	0.1	0.2	0.4						
2-Jul	0.1	Z	0.1	0.1	0.0	0.1	0.1	3.3	1.1	0.8	0.2	0.2	0.4	0.4	0.2	PF	PF	PF	0.4	0.2	0.2	0.2	0.1	0.1	0.4	3.3						
3-Jul	0.2	0.2	Z	0.2	0.1	0.1	0.2	0.6	3.9	4.0	3.9	3.9	0.7	0.2	0.2	0.9	1.6	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.9	4.0						
4-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	2.0	3.2	8.3	0.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	8.3						
5-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4						
6-Jul	0.1	0.0	0.0	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.3	1.2	1.4	1.0	0.2	0.2	0.1	0.0	0.3	1.4						
7-Jul	Z	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.2	0.1	0.3	0.3	0.5	1.3	8.1	9.0	6.3	4.0	0.9	0.8	0.4	0.3	0.2	0.2	1.5	9.0						
8-Jul	0.1	Z	0.1	0.1	0.0	0.0	0.0	1.5	1.1	1.4	0.4	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.5						
9-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0						
10-Jul	0.0	0.0	0.0	Z	0.3	0.8	0.9	0.8	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9						
11-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	3.4	3.2	2.5	2.8	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	3.4						
12-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	10.1	7.3	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.8	10.1						
13-Jul	Z	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	PF	PF	PF	PF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1						
14-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1						
15-Jul	0.1	0.1	Z	0.0	0.0	0.1	0.3	0.9	1.6	2.2	11.3	15.2	4.4	4.0	0.9	2.5	0.4	0.1	0.5	0.2	0.0	0.0	0.0	0.0	1.9	15.2						
16-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.6	3.5	5.2	0.9	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.5	5.2						
17-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.5	0.9	0.4	0.2	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.9						
18-Jul	0.1	0.1	0.1	0.1	0.0	Z	0.2	0.3	0.4	0.5	0.2	1.2	0.3	0.2	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.2						
19-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.4	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.3	0.2	0.1	0.2	0.5						
20-Jul	0.1	Z	0.2	0.2	0.3	0.1	0.1	0.2	0.2	0.1	0.2	0.3	0.4	1.2	1.4	0.8	1.1	0.6	0.5	0.3	0.3	0.2	0.2	0.2	0.4	1.4						
21-Jul	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.6	4.2	2.2	3.0	5.7	14.6	9.6	4.3	4.4	2.5	0.9	0.5	0.4	0.3	0.2	2.4	14.6						
22-Jul	0.2	0.2	0.1	Z	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.2	0.2	0.1	0.2	0.2	0.7	0.5	0.2	0.1	0.1	0.1	0.1	0.2	0.7						
23-Jul	0.0	0.1	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.4	0.6	0.6	0.1	0.2	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.6						
24-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.3	1.1	4.1	19.2	12.7	5.8	7.1	3.7	1.9	1.7	1.3	0.9	0.5	0.3	0.2	2.6	19.2						
25-Jul	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1						
26-Jul	0.1	Z	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1						
27-Jul	0.0	0.0	Z	0.0	10.5	2.9	0.9	0.3	0.1	0.1	0.1	0.3	0.2	0.0	0.0	0.0	0.3	1.1	1.3	0.3	0.1	0.0	0.0	0.0	0.8	10.5						
28-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.3	2.1	4.7	3.2	4.0	0.6	1.6	0.8	0.6	0.5	0.2	0.1	0.1	0.1	0.0	0.0	0.8	4.7						
29-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1						
30-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.5	0.7	0.4	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.7						
31-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.4	0.3	0.2	0.2	0.4	3.6	1.1	1.4	0.9	0.5	0.2	0.2	0.1	0.1	0.4	3.6						
																									Diurnal Average							
																									Diurnal Maximum							
Z - zerospan C - Calibration PF - Power Failure																																
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																																



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Waskow ohci Pimatisiwin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Waskow ohci Pimatisiwin - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	697	99.29	99.29
11 - 20	5	0.71	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 702

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Waskow ohci Pimatisiwin - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	47	31	18	11	15	20	58	132	66	44	41	38	47	30	52	47	697
11 - 20	0	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	5
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	47	31	18	11	15	20	61	134	66	44	41	38	47	30	52	47	702

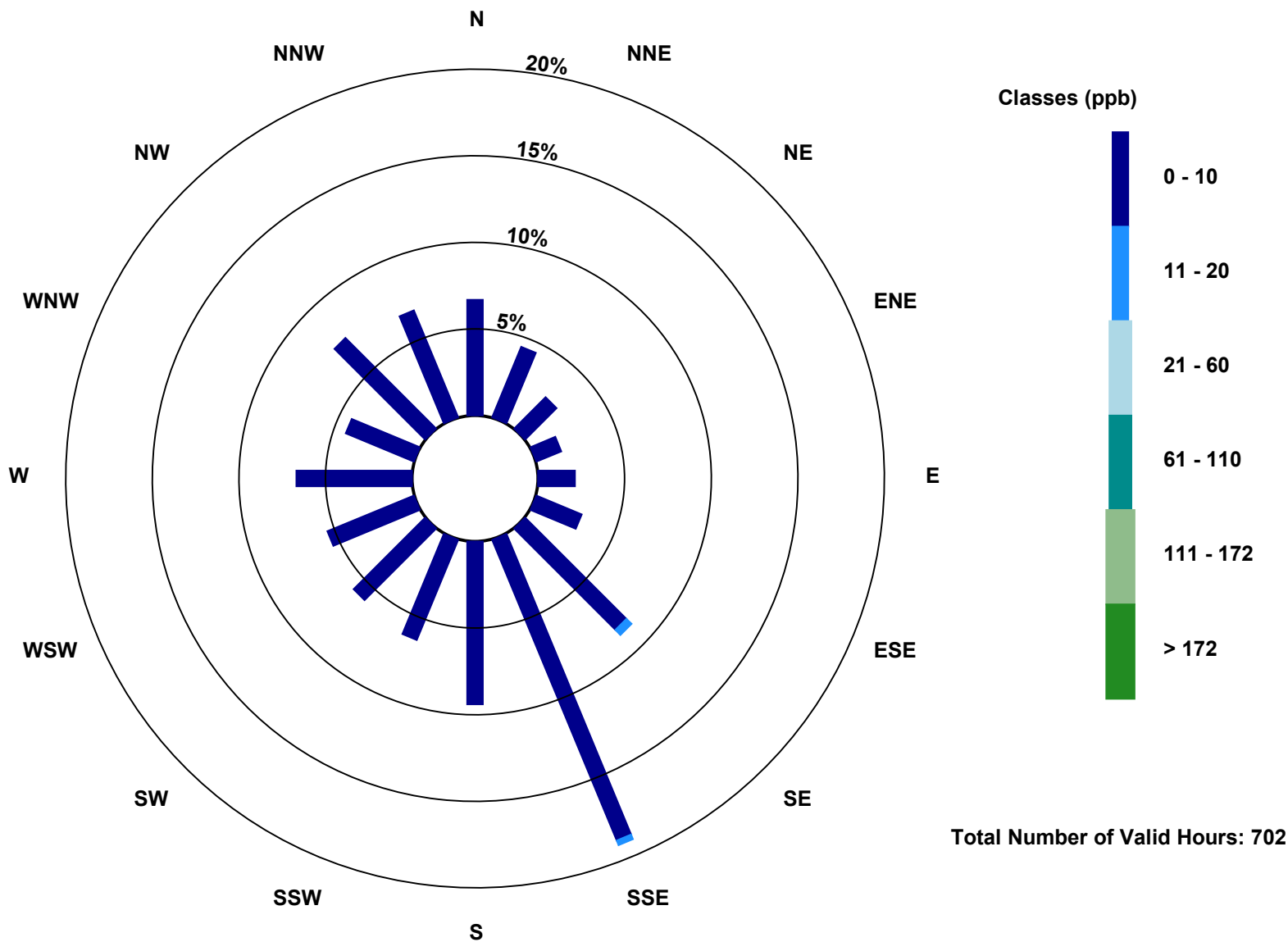
Total Number of Valid Hours: 702

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

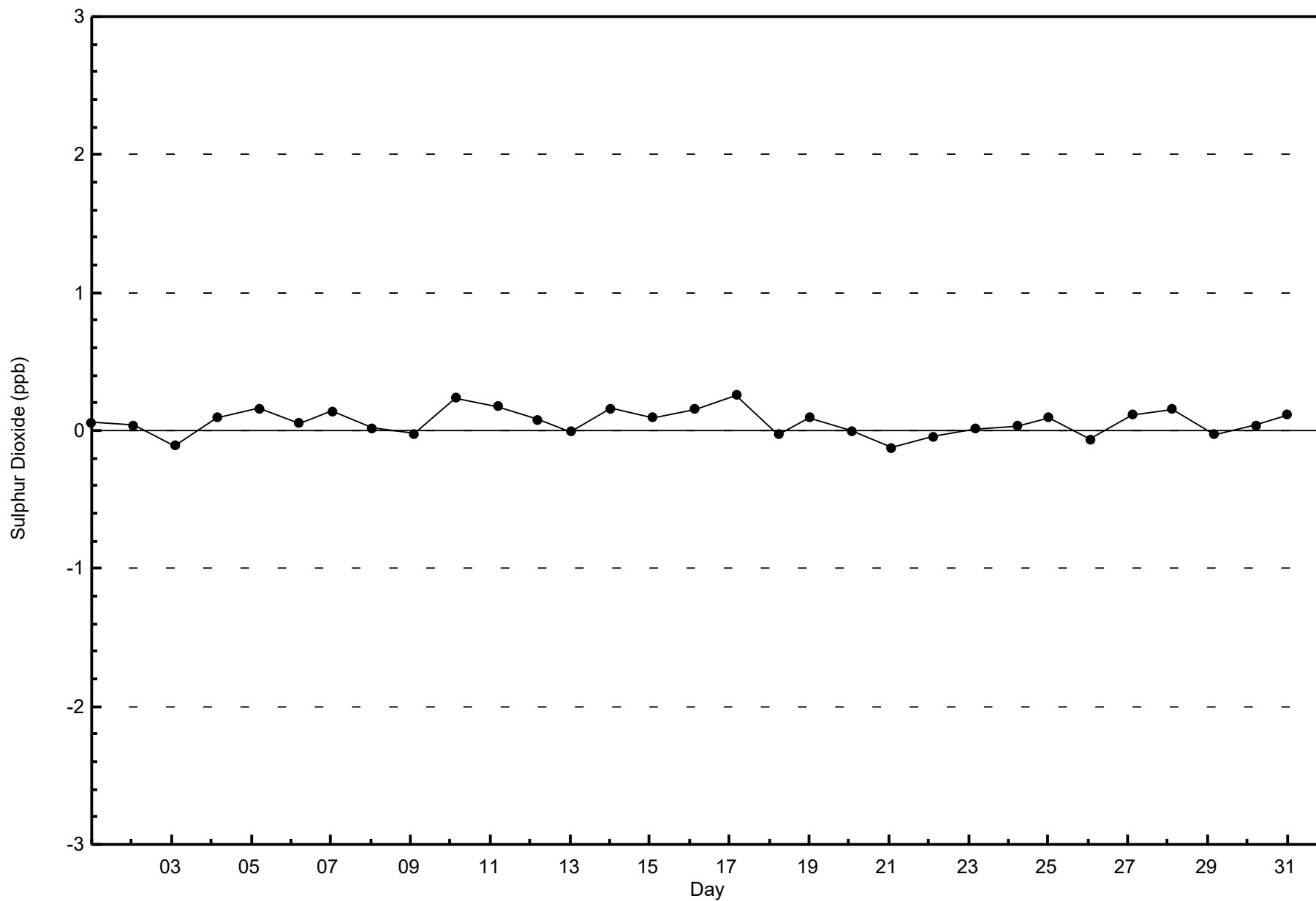
Sulphur Dioxide (SO₂) - ppb
Waskow ohci Pimatisiwin





Wood Buffalo Environmental Association
Zero Responses

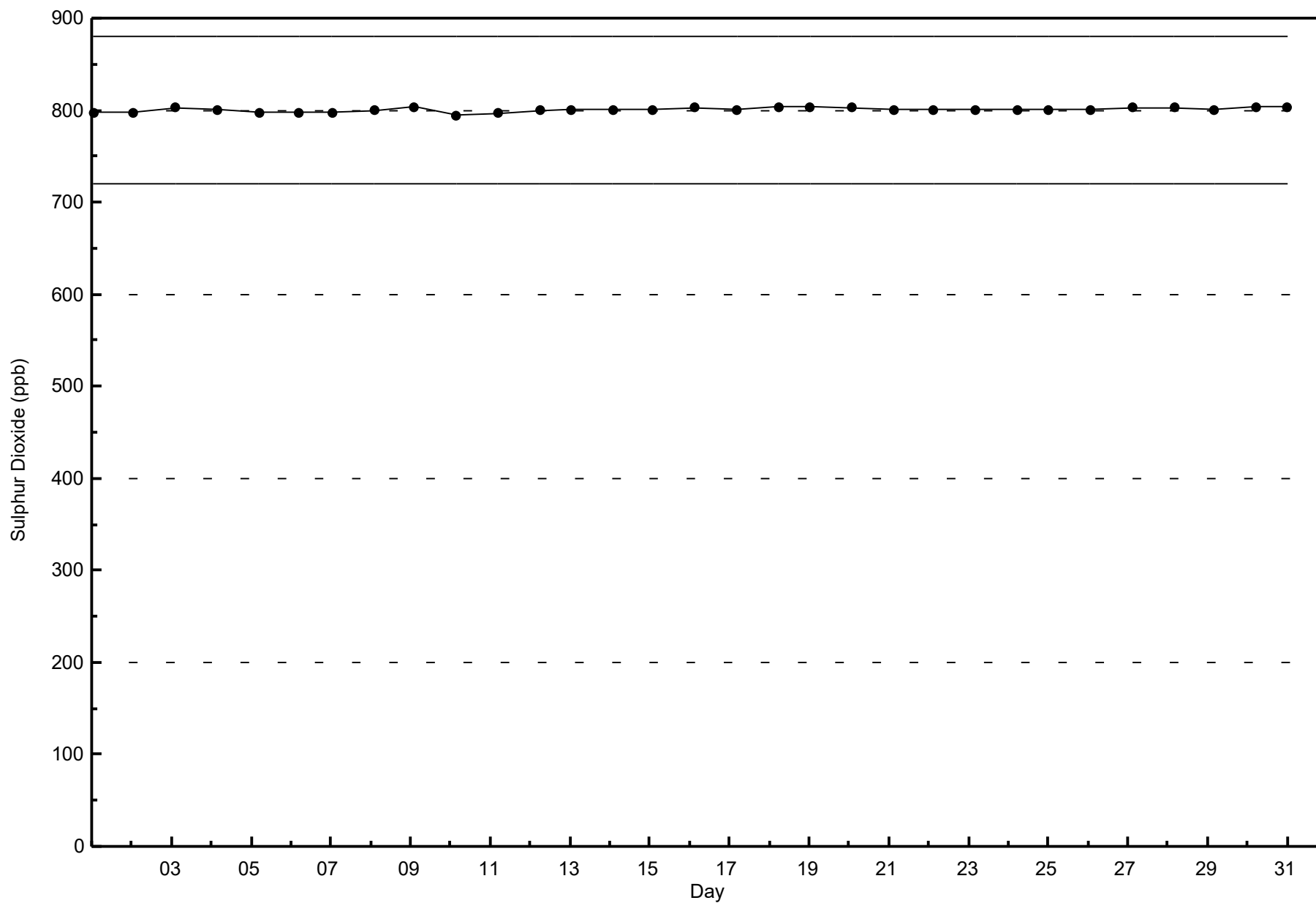
Sulphur Dioxide (SO₂) - ppb
Waskow ohci Pimatisiwin - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Waskow ohci Pimatisiwin - July 2026





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Summary of Hour Averages

Hydrogen Sulphide (H₂S) - ppb

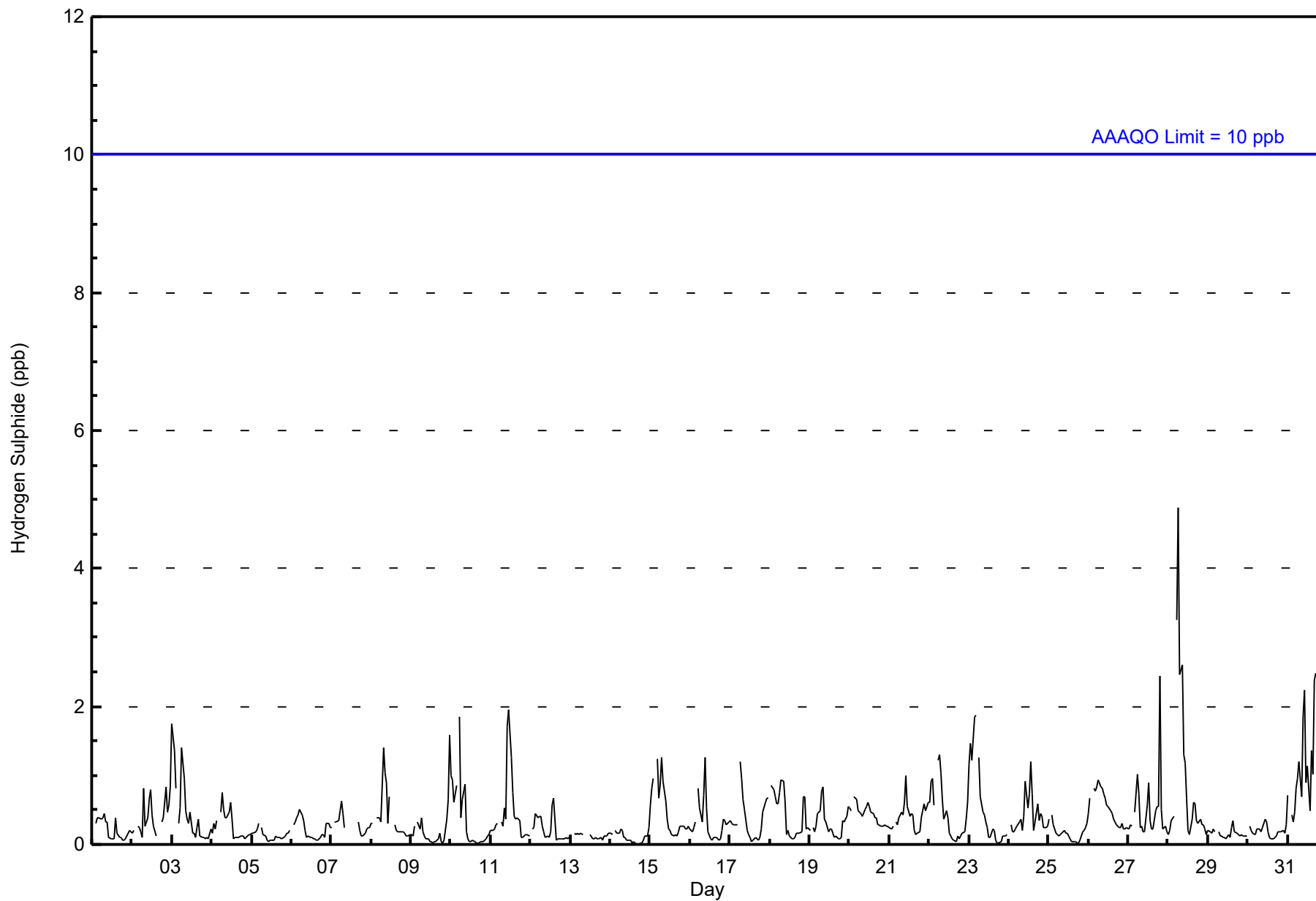
Waskow ohci Pimatisiwin - July 2026

Number of Exceedances (AAAQO): Maximum Value: 4.9 ppb on Jul 28 07:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 1.3 ppb on Jul 31						Hours in Service: 744 Hours of Data: 697		
Minimum Value: 0.0 ppb on Jul 14 17:00 Maximum Diurnal Average: 0.7 ppb at hour 7 Monthly Average: 0.38 ppb																			Minimum Daily Average: 0.1 ppb on Jul 14 Minimum Diurnal Average: 0.2 ppb at hour 16 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.5 P ₉₀ = 0.8 P ₉₉ = 2.4						Hours of Missing Data: 47 Hours of Calibration: 38 Percent Operational Time: 98.8		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.1	Z	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.1	0.1	0.1	0.1	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.4
2-Jul	0.2	0.2	Z	0.3	0.2	0.2	0.1	0.8	0.3	0.4	0.7	0.8	0.4	0.3	0.1	PF	PF	PF	0.3	0.4	0.8	0.5	0.6	0.8	0.8	0.4	0.8
3-Jul	1.7	1.4	0.8	Z	0.3	0.5	1.4	0.9	0.5	0.4	0.3	0.5	0.2	0.2	0.1	0.2	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.5	1.7	
4-Jul	0.2	0.3	0.2	0.4	Z	0.5	0.8	0.5	0.4	0.4	0.5	0.6	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.8	
5-Jul	0.2	0.2	0.2	0.2	0.3	Z	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.3	
6-Jul	Z	0.3	0.3	0.4	0.4	0.5	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.2	0.5	
7-Jul	0.2	Z	0.3	0.3	0.3	0.5	0.6	0.4	0.2	C	C	C	C	C	C	C	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.2	--	0.6	
8-Jul	0.3	0.3	Z	0.4	0.4	0.4	0.3	1.4	1.0	0.9	0.3	0.7	M	M	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.4	1.4	
9-Jul	0.1	0.1	0.3	Z	0.3	0.2	0.4	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.1	0.4	0.7	1.6	0.2	1.6	
10-Jul	1.0	0.9	0.6	0.9	Z	1.9	0.4	0.7	0.9	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.4	1.9	
11-Jul	0.2	0.2	0.2	0.3	0.3	Z	0.3	0.3	0.5	0.4	1.7	2.0	1.3	0.7	0.4	0.4	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.5	2.0	
12-Jul	Z	0.2	0.2	0.4	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.2	0.6	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.7	
13-Jul	0.1	Z	0.2	0.1	0.2	0.1	0.2	0.1	PF	PF	PF	PF	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	
14-Jul	0.2	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.2	
15-Jul	0.6	0.8	0.9	Z	1.2	0.7	0.9	1.3	0.9	0.6	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.5	1.3	
16-Jul	0.2	0.2	0.3	0.3	Z	0.8	0.5	0.3	0.7	1.3	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.3	0.3	0.3	0.3	1.3	
17-Jul	0.3	0.3	0.3	0.3	0.3	Z	1.2	1.0	0.7	0.5	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.5	0.6	0.7	0.7	0.4	1.2	
18-Jul	Z	0.9	0.8	0.7	0.6	0.6	0.8	0.9	0.9	0.6	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.7	0.7	0.2	0.2	0.4	0.9	
19-Jul	0.2	Z	0.3	0.2	0.3	0.5	0.5	0.8	0.8	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.4	0.5	0.3	0.8	
20-Jul	0.5	0.5	Z	0.7	0.7	0.5	0.5	0.4	0.4	0.5	0.5	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.7	
21-Jul	0.2	0.2	0.3	Z	0.3	0.3	0.4	0.5	0.4	0.6	1.0	0.5	0.4	0.5	0.4	0.2	0.1	0.2	0.2	0.4	0.5	0.6	0.5	0.6	0.4	1.0	
22-Jul	0.6	0.9	1.0	0.6	Z	1.2	1.3	1.0	0.7	0.4	0.5	0.4	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.4	0.6	0.5	1.3	
23-Jul	1.2	1.5	1.2	1.8	1.9	Z	1.3	0.7	0.5	0.4	0.3	0.2	0.1	0.1	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.5	1.9	
24-Jul	Z	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.2	0.4	0.9	0.5	0.7	1.2	0.7	0.2	0.3	0.6	0.3	0.4	0.4	0.3	0.3	0.3	0.4	1.2	
25-Jul	0.4	Z	0.4	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.3	0.2	0.4	
26-Jul	0.5	0.7	Z	0.8	0.8	0.8	0.9	0.8	0.8	0.7	0.7	0.6	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.5	0.9	
27-Jul	0.2	0.3	0.3	Z	0.5	1.0	0.7	0.2	0.3	0.2	0.2	0.6	0.9	0.3	0.2	0.2	0.5	0.5	0.5	2.4	0.5	0.2	0.3	0.2	0.5	2.4	
28-Jul	0.1	0.2	0.3	0.4	Z	3.3	4.9	2.5	2.6	1.3	1.2	0.7	0.2	0.1	0.4	0.6	0.6	0.3	0.3	0.4	0.3	0.3	0.2	0.1	0.9	4.9	
29-Jul	0.2	0.2	0.2	0.2	0.2	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	
30-Jul	Z	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.4	
31-Jul	0.7	Z	0.4	0.3	0.5	0.8	1.0	1.2	0.7	1.8	2.2	0.9	1.1	0.5	1.4	1.0	2.4	2.5	2.5	1.9	1.5	1.4	1.7	1.5	1.3	2.5	
0.4 0.5 0.4 0.4 0.4 0.6 0.7 0.6 0.5 0.5 0.5 0.4 0.3 0.2 0.3 0.2 0.3 0.2 0.2 0.3 0.3 0.3 0.3 0.4																								Diurnal Average			
1.7 1.5 1.2 1.8 1.9 3.3 4.9 2.5 2.6 1.8 2.2 2.0 1.3 1.2 1.4 1.0 2.4 2.5 2.5 2.4 1.5 1.4 1.7 1.6																								Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																											
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Waskow ohci Pimatisiwin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Waskow ohci Pimatisiwin - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	694	99.57	99.57
3 - 4	2	0.29	99.86
5 - 7	1	0.14	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 697

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Waskow ohci Pimatisiwin - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	45	30	18	12	14	17	60	131	67	44	39	41	42	32	55	47	694
3 - 4	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
5 - 7	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	45	30	18	12	14	17	61	132	68	44	39	41	42	32	55	47	697

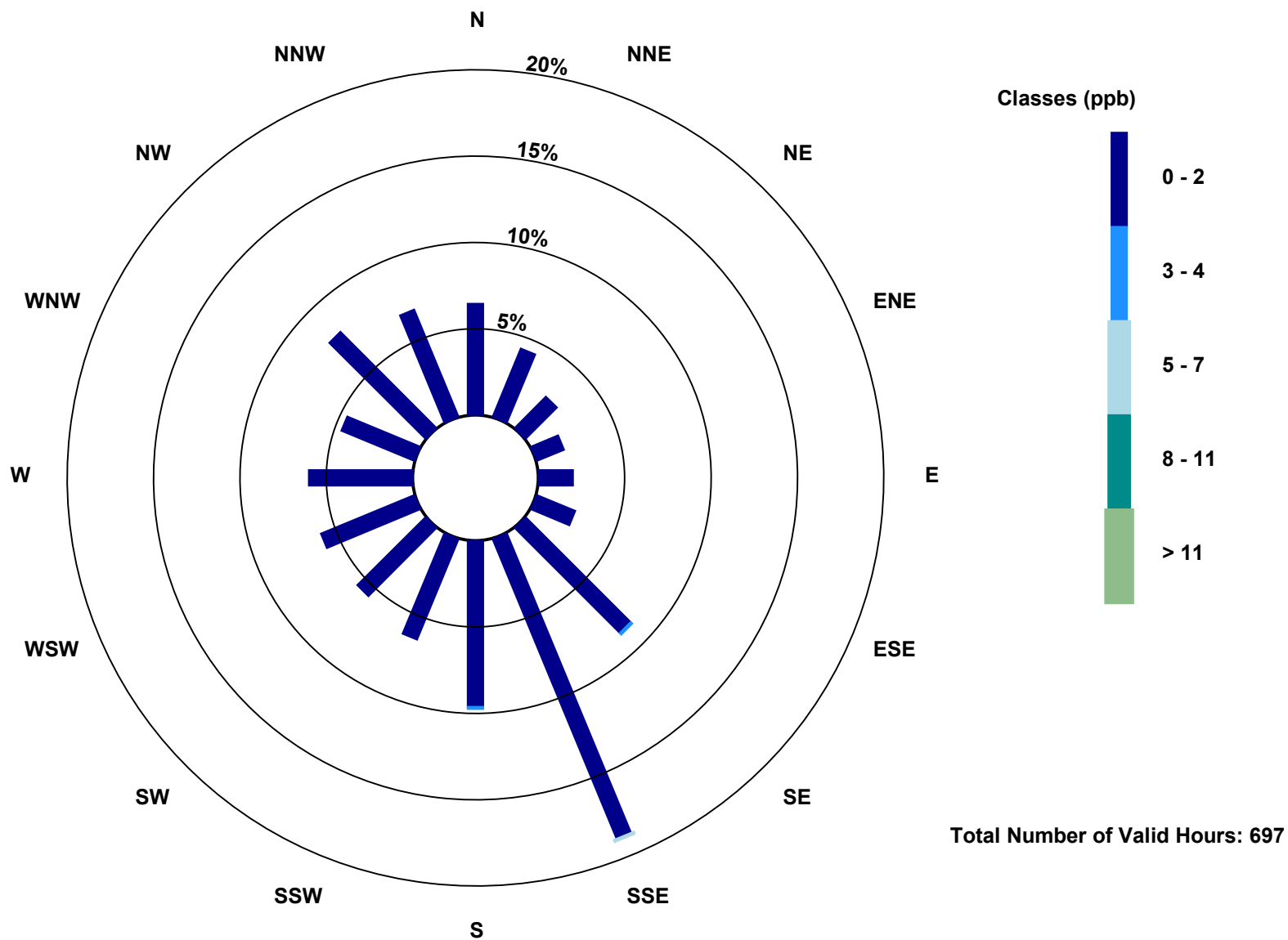
Total Number of Valid Hours: 697

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

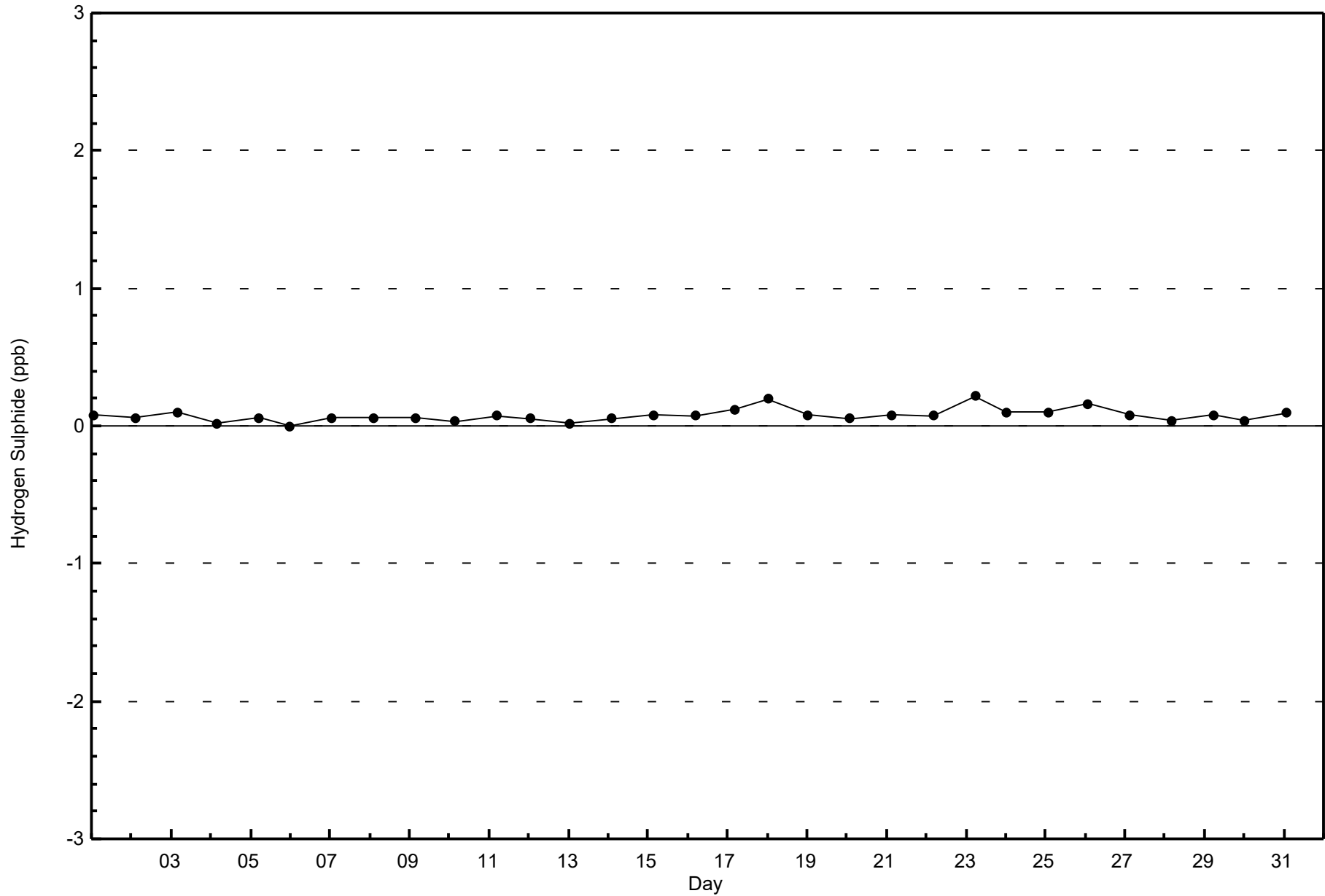
Hydrogen Sulphide (H₂S) - ppb
Waskow ohci Pimatisiwin





Wood Buffalo Environmental Association
Zero Responses

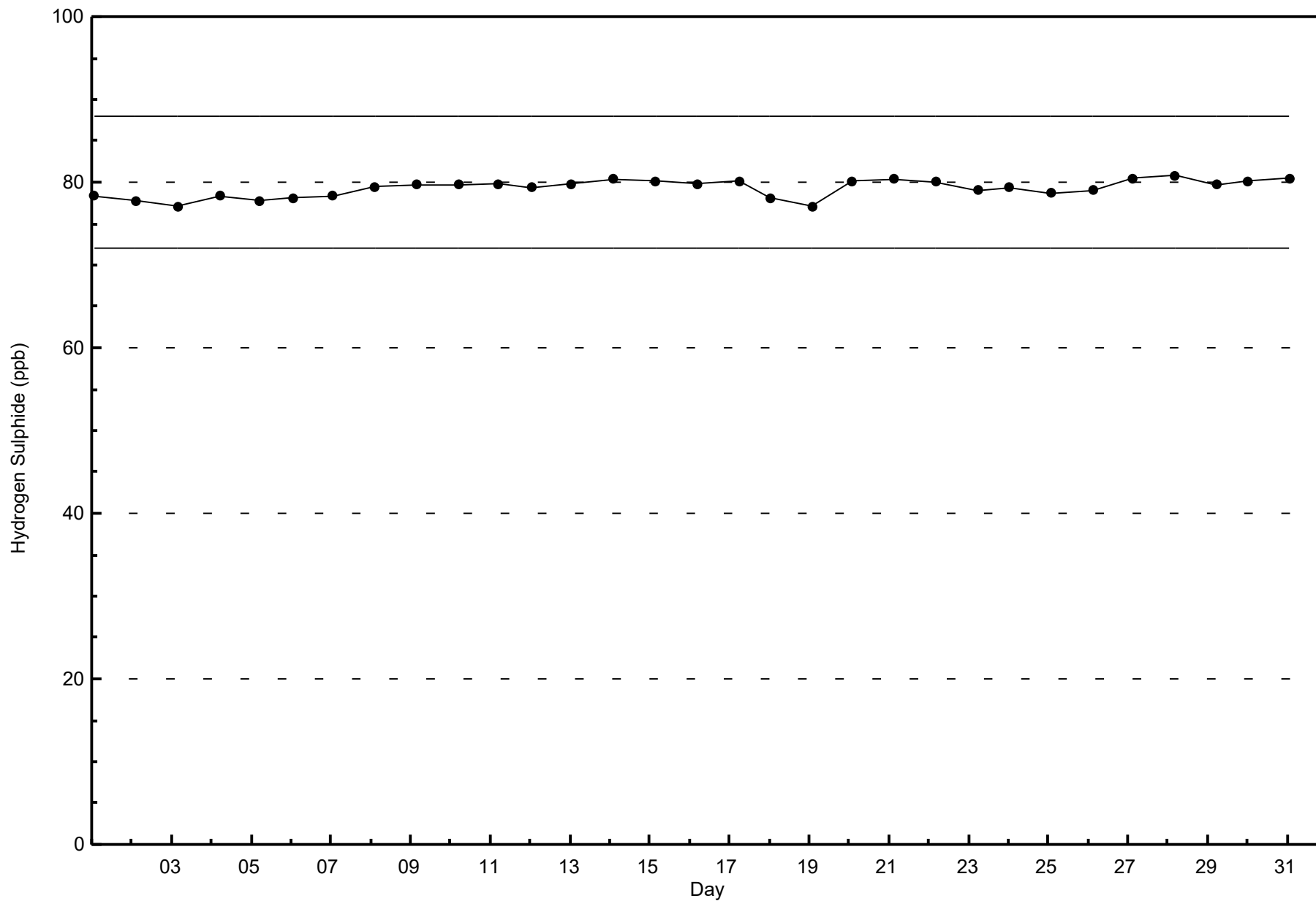
Hydrogen Sulphide (H₂S) - ppb
Waskow ohci Pimatisiwin - July 2026





Wood Buffalo Environmental Association
Span Responses

Hydrogen Sulphide (H₂S) - ppb
Waskow ohci Pimatisiwin - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

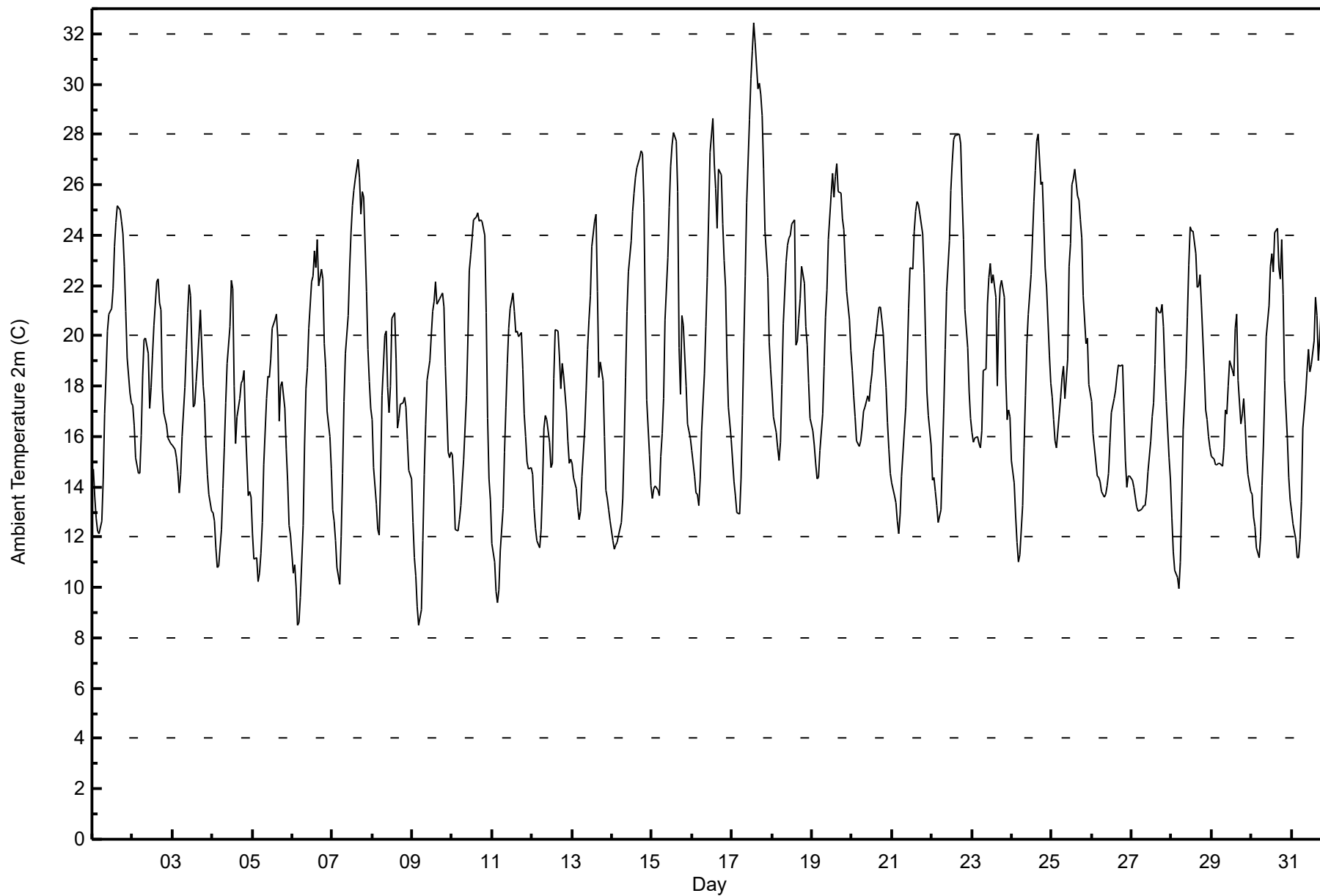
Waskow ohci Pimatisiwin - July 2026

Maximum Value: 32.5 C on Jul 17 14:00																				Maximum Daily Average: 23.0 C on Jul 17					Hours in Service: 744	
Minimum Value: 8.5 C on Jul 9 05:00																				Minimum Daily Average: 15.6 C on Jul 5					Hours of Data: 744	
Maximum Diurnal Average: 23.0 C at hour 15																				Minimum Diurnal Average: 12.5 C at hour 5					Hours of Missing Data: 0	
Monthly Average: 18.24 C																				Percentiles: P ₁ = 9.9 P ₁₀ = 12.7 Q ₁ = 14.7 Median = 17.8 Q ₃ = 21.3 P ₉₀ = 24.7 P ₉₉ = 28.7					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	14.7	13.6	12.7	12.2	12.1	12.7	14.3	16.9	18.4	20.2	20.9	21.1	21.9	23.5	24.5	25.2	25.0	24.6	24.0	22.8	21.0	19.1	17.7	17.3	19.0	25.2
2-Jul	17.2	16.4	15.2	14.6	14.5	16.1	18.4	19.9	19.9	19.3	17.1	18.0	19.2	20.4	22.1	22.3	21.3	21.0	17.9	16.9	16.4	16.0	15.8	15.7	18.0	22.3
3-Jul	15.7	15.5	15.1	14.6	13.8	14.5	16.0	18.0	19.5	20.9	22.0	21.6	17.2	17.3	18.2	19.0	20.0	21.0	18.0	17.3	15.6	14.5	13.7	13.1	17.2	22.0
4-Jul	13.0	12.6	11.6	10.8	10.9	12.3	13.9	15.6	17.3	18.9	20.4	22.2	21.9	18.0	15.7	16.8	17.5	18.1	18.2	18.6	16.4	13.6	13.8	13.6	15.9	22.2
5-Jul	12.2	11.2	11.2	10.3	10.6	11.3	12.6	14.9	17.5	18.4	18.3	19.1	20.3	20.6	20.9	19.9	16.6	18.0	18.2	17.1	15.5	14.2	12.5	12.1	15.6	20.9
6-Jul	10.6	10.9	10.0	8.5	8.6	9.6	12.5	15.7	17.9	18.7	20.3	22.2	22.4	23.4	22.7	23.8	22.0	22.7	22.2	19.7	18.7	17.0	16.0	14.7	17.1	23.8
7-Jul	13.1	12.7	11.9	10.8	10.1	12.0	14.5	17.4	19.3	20.8	22.7	24.1	25.2	25.8	26.2	27.0	26.3	24.9	25.7	25.5	21.7	19.5	18.2	17.1	19.7	27.0
8-Jul	16.7	14.8	13.3	12.3	12.1	14.3	17.6	20.0	20.2	18.0	17.0	18.0	20.7	20.9	19.1	16.3	16.7	17.3	17.3	17.5	17.2	15.9	14.7	14.3	16.8	20.9
9-Jul	12.6	11.2	10.4	9.2	8.5	9.1	11.8	14.5	16.5	18.3	19.0	20.0	21.0	21.4	22.1	21.3	21.5	21.6	21.7	21.1	18.8	15.4	15.2	15.4	16.6	22.1
10-Jul	15.2	14.1	12.3	12.2	12.7	13.2	14.2	15.1	17.6	19.8	22.6	23.2	23.9	24.6	24.7	24.9	24.6	24.6	24.5	24.0	20.9	16.8	14.3	13.5	18.9	24.9
11-Jul	11.7	11.0	9.8	9.4	9.9	11.5	13.2	15.4	17.2	18.9	20.3	21.1	21.7	21.0	20.1	20.2	20.0	20.2	18.7	16.9	16.0	15.0	14.7	14.8	16.2	21.7
12-Jul	14.5	13.1	12.4	11.8	11.6	12.3	14.0	16.3	16.8	16.6	15.8	14.8	15.0	18.3	20.2	20.2	19.2	17.9	18.9	18.4	17.0	15.8	14.9	15.1	15.9	20.2
13-Jul	14.9	14.4	13.9	13.2	12.7	13.0	14.4	16.3	17.8	19.5	20.6	21.6	23.6	24.6	24.8	21.8	18.4	19.0	18.3	16.0	13.9	13.6	13.1	12.6	17.2	24.8
14-Jul	11.9	11.5	11.7	11.8	12.1	12.6	13.5	15.7	18.4	21.0	22.5	23.8	25.0	25.7	26.3	26.7	27.1	27.4	27.2	25.3	20.8	17.5	15.3	14.0	19.4	27.4
15-Jul	13.5	13.9	14.0	13.9	13.6	15.2	16.1	17.5	20.6	23.1	25.1	26.8	27.6	28.1	27.7	25.7	19.5	17.7	20.8	20.4	18.0	16.5	16.2	16.0	19.5	28.1
16-Jul	15.4	14.4	13.7	13.7	13.3	14.3	16.2	18.5	20.3	22.3	24.7	27.3	28.7	26.9	25.8	24.3	26.6	26.4	24.5	23.0	21.9	19.1	17.2	15.9	20.6	28.7
17-Jul	15.0	14.2	13.6	13.0	12.9	14.3	16.8	19.7	22.4	25.3	28.6	30.2	31.3	32.5	31.7	29.8	30.0	29.6	28.7	26.6	24.2	22.3	19.8	18.7	23.0	32.5
18-Jul	17.8	16.8	16.2	15.6	15.1	15.8	18.1	20.5	22.9	23.6	23.9	24.0	24.4	24.6	19.6	19.8	20.7	21.5	22.7	22.1	20.4	19.6	18.1	16.7	20.0	24.6
19-Jul	16.2	15.7	15.0	14.3	14.4	15.4	16.9	18.8	20.8	21.8	23.8	25.6	26.4	25.5	26.3	26.9	25.7	25.7	24.7	24.2	22.9	21.8	20.6	19.4	21.2	26.9
20-Jul	18.6	17.6	16.8	15.8	15.6	15.8	16.4	17.0	17.2	17.6	17.4	18.1	18.5	19.3	20.2	20.7	21.2	21.2	20.6	20.1	18.0	16.5	15.5	14.6	17.9	21.2
21-Jul	14.1	13.7	13.4	12.7	12.2	12.9	14.4	16.3	17.1	19.0	21.1	22.7	22.7	24.2	24.9	25.3	25.3	24.8	24.1	22.5	20.0	17.8	16.8	15.7	18.9	25.3
22-Jul	14.3	14.4	13.8	13.2	12.6	13.1	15.1	17.1	19.5	21.7	23.8	25.8	26.9	27.8	28.0	28.0	28.0	27.6	25.5	23.8	21.0	19.5	17.8	16.7	20.6	28.0
23-Jul	16.2	15.8	16.0	16.0	15.7	15.6	16.2	18.6	18.7	21.3	22.3	22.9	22.1	22.5	21.5	18.0	20.7	21.9	22.2	21.5	18.4	16.7	17.1	16.8	18.9	22.9
24-Jul	15.0	14.2	12.9	11.8	11.0	11.3	13.2	15.5	17.6	19.7	20.9	22.5	23.9	25.3	26.6	27.8	28.0	26.0	26.1	24.5	22.7	21.9	19.2	18.1	19.8	28.0
25-Jul	17.5	16.7	15.8	15.5	16.9	17.5	18.3	18.8	17.5	19.1	22.8	23.7	26.0	26.2	26.6	25.5	25.4	24.6	23.9	21.6	19.7	19.9	18.1	17.7	20.6	26.6
26-Jul	17.4	16.1	15.0	14.4	14.3	14.2	13.8	13.6	13.7	14.1	14.6	15.8	16.9	17.5	17.8	18.4	18.8	18.8	18.8	17.0	15.0	14.0	14.4	14.4	15.8	18.8
27-Jul	14.3	14.0	13.6	13.2	13.1	13.1	13.1	13.3	13.2	13.8	14.6	15.8	16.8	17.4	18.9	21.2	20.9	20.9	21.2	20.4	18.7	17.4	15.2	14.2	16.2	21.2
28-Jul	12.8	11.4	10.7	10.4	10.0	11.0	13.4	16.3	18.7	20.7	22.8	24.3	24.2	24.2	23.3	21.9	22.0	22.5	21.2	18.6	17.0	16.7	16.0	15.5	17.7	24.3
29-Jul	15.2	15.1	14.9	14.9	15.0	14.9	14.8	15.6	17.0	16.9	18.0	19.0	18.6	18.4	20.3	20.8	18.3	16.5	16.9	17.5	16.5	15.3	14.5	13.8	16.6	20.8
30-Jul	13.7	12.8	12.4	11.6	11.2	12.0	14.1	15.7	17.9	20.0	21.2	22.8	23.3	22.5	24.1	24.3	22.7	22.3	23.8	21.6	18.2	15.9	14.4	13.5	18.0	24.3
31-Jul	13.0	12.5	11.9	11.2	11.2	11.9	13.4	16.3	17.7	18.6	19.5	18.6	18.9	19.8	21.6	20.8	19.0	19.9	21.1	20.4	18.1	16.6	15.5	14.8	16.8	21.6
14.6 13.9 13.3 12.7 12.5 13.3 14.9 16.8 18.3 19.6 20.8 21.8 22.4 22.8 23.0 22.7 22.2 22.1 21.9 20.7 18.7 17.1 16.0 15.4																										Diurnal Average
18.6 17.6 16.8 16.0 16.9 17.5 18.4 20.5 22.9 25.3 28.6 30.2 31.3 32.5 31.7 29.8 30.0 29.6 28.7 26.6 24.2 22.3 20.6 19.4																										Diurnal Maximum



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Waskow ohci Pimatisiwin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Waskow ohci Pimatisiwin - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	11	1.48	1.48
10 - 20	479	64.38	65.86
> 20	254	34.14	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

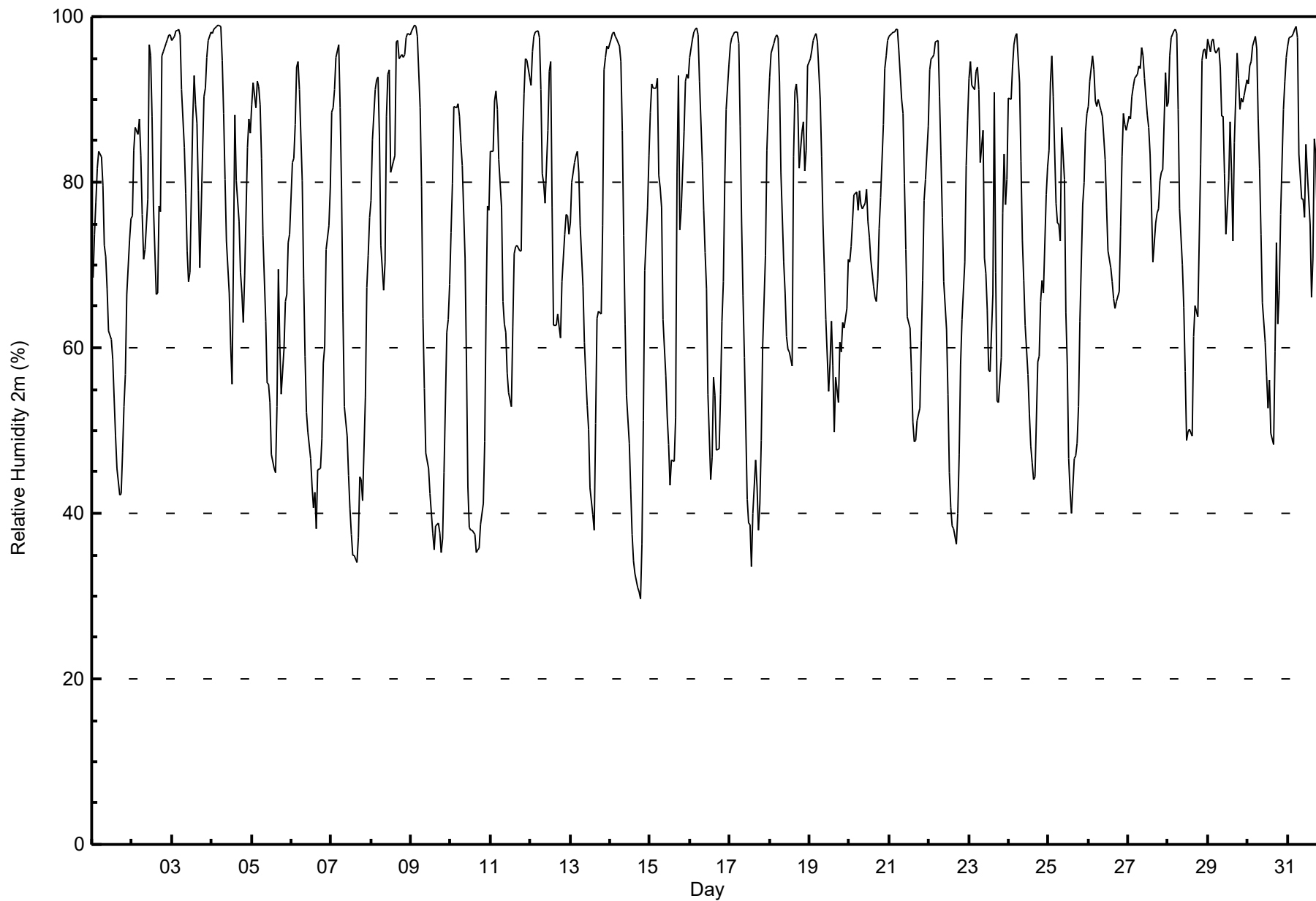
Waskow ohci Pimatisiwin - July 2026

Maximum Value: 99.0 % on Jul 4 05:00																			Maximum Daily Average: 89.4 % on Jul 29										Hours in Service: 744	
Minimum Value: 29.6 % on Jul 14 19:00																			Minimum Daily Average: 60.5 % on Jul 9										Hours of Data: 744	
Maximum Diurnal Average: 93.7 % at hour 4																			Minimum Diurnal Average: 56.8 % at hour 15										Hours of Missing Data: 0	
Monthly Average: 74.82 %																			Percentiles: P ₁ = 34.9 P ₁₀ = 46.3 Q ₁ = 61.9 Median = 77.5 Q ₃ = 91.4 P ₉₀ = 97.1 P ₉₉ = 98.6										Hours of Calibration: 0	
																													Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Jul	68.5	73.7	77.5	81.7	83.7	83.1	79.6	72.4	71.1	67.1	62.1	61.0	58.6	53.8	49.4	45.5	42.2	42.4	47.4	52.9	56.8	66.4	73.0	75.6	64.4	83.7				
2-Jul	75.9	83.9	86.6	85.7	87.7	83.3	76.0	70.7	71.8	78.0	96.6	95.2	88.0	77.1	66.5	66.7	77.1	76.5	95.2	95.8	96.8	97.4	97.8	97.8	84.3	97.8				
3-Jul	97.1	97.7	98.3	98.4	98.5	97.8	91.1	84.2	78.6	71.7	67.9	69.2	87.6	93.0	89.4	87.2	78.9	69.7	83.5	90.3	91.4	95.0	97.1	98.1	88.0	98.5				
4-Jul	98.0	98.4	98.6	98.8	99.0	98.8	94.7	88.2	80.4	72.9	66.6	60.3	55.6	70.9	88.2	80.1	75.2	69.2	66.6	63.1	68.8	84.2	87.6	86.0	81.3	99.0				
5-Jul	89.3	92.0	89.0	92.2	91.5	89.3	82.9	73.6	63.2	55.7	55.6	53.4	47.1	45.5	45.0	53.0	69.4	60.6	54.5	59.8	65.7	66.5	72.8	73.8	68.4	92.2				
6-Jul	82.4	82.9	87.0	93.8	94.5	91.2	80.1	68.4	58.9	52.2	49.9	46.6	43.2	40.7	42.5	38.2	45.3	45.5	48.9	58.1	60.2	71.8	74.7	79.4	64.0	94.5				
7-Jul	88.4	88.9	91.2	95.1	96.6	89.0	79.2	64.2	52.9	49.3	44.6	40.5	37.4	34.9	34.9	34.1	37.2	44.5	44.1	41.5	54.0	67.4	71.2	75.8	60.7	96.6				
8-Jul	77.8	85.1	91.2	92.4	92.7	85.4	72.5	67.0	70.4	88.0	93.1	93.6	81.2	82.5	83.3	97.0	97.1	95.0	95.5	95.1	95.4	97.5	98.1	97.7	88.5	98.1				
9-Jul	98.3	98.7	99.0	98.9	97.7	88.9	79.4	63.6	55.2	47.2	45.4	42.4	39.9	37.6	35.6	38.5	38.8	37.6	35.2	36.9	44.9	61.8	63.4	67.7	60.5	99.0				
10-Jul	73.9	79.8	89.2	89.0	89.4	88.0	84.7	82.0	70.8	58.2	43.2	38.3	37.9	38.0	37.4	35.2	35.6	35.8	38.6	41.2	48.6	65.2	77.1	76.6	60.6	89.4				
11-Jul	83.8	83.7	89.8	91.0	88.9	82.7	77.0	65.5	62.9	61.9	56.9	54.6	52.8	62.6	71.3	72.2	72.4	71.8	71.7	84.9	90.7	94.9	94.8	92.8	76.3	94.9				
12-Jul	91.7	95.7	97.7	98.2	98.4	97.4	91.2	80.9	79.8	77.5	86.3	93.4	94.6	77.0	62.6	62.7	64.0	62.5	61.1	68.0	73.7	76.2	76.0	73.7	80.8	98.4				
13-Jul	75.1	80.0	82.3	83.2	83.7	81.3	74.8	67.5	60.7	56.6	53.1	50.1	43.1	39.9	37.9	50.8	63.5	64.5	64.0	74.8	93.5	95.1	96.5	96.2	69.5	96.5				
14-Jul	97.2	98.0	98.1	97.7	97.2	96.4	94.5	86.4	73.6	63.0	54.2	48.5	43.0	37.5	34.2	32.6	31.1	30.6	29.6	36.4	51.2	69.3	76.9	83.2	65.0	98.1				
15-Jul	88.5	91.8	91.3	91.4	92.6	80.9	79.4	76.9	63.4	56.7	51.7	48.4	43.4	46.4	46.3	51.6	81.2	92.9	74.2	76.8	86.1	92.3	93.1	92.6	74.6	93.1				
16-Jul	95.1	97.4	98.2	98.5	98.6	97.8	92.2	82.6	76.6	71.5	67.2	54.4	44.1	46.7	56.4	54.2	47.6	47.8	54.4	63.2	68.0	80.1	88.8	94.3	74.0	98.6				
17-Jul	96.6	97.5	97.8	98.1	98.2	96.8	86.7	75.2	66.2	58.8	41.6	38.8	38.6	33.6	40.0	46.5	43.2	38.0	41.2	48.9	60.2	71.1	83.9	88.8	66.1	98.2				
18-Jul	92.7	95.6	96.7	97.4	97.8	97.5	92.0	81.1	70.4	66.6	61.4	59.8	59.4	57.8	83.1	91.0	91.9	89.5	81.7	86.1	87.3	81.3	84.0	94.1	83.2	97.8				
19-Jul	94.8	95.9	97.2	97.7	98.0	96.9	90.0	83.1	74.9	69.2	63.4	54.7	58.2	63.3	57.7	49.8	56.5	53.5	60.7	59.5	63.0	62.3	64.7	70.6	72.3	98.0				
20-Jul	70.3	72.3	75.2	78.5	78.7	76.6	79.0	77.3	76.8	77.5	79.2	75.3	73.3	70.7	67.5	66.1	65.5	68.3	74.4	78.1	87.0	93.7	95.3	97.1	77.2	97.1				
21-Jul	97.6	97.9	98.2	98.2	98.4	98.5	95.9	90.0	88.3	79.8	71.9	63.7	62.3	57.1	51.1	48.7	48.7	51.2	52.6	60.8	68.2	77.9	80.4	86.8	76.0	98.5				
22-Jul	93.6	95.0	95.1	95.5	97.0	97.1	90.4	83.2	75.7	67.9	62.3	54.4	44.9	40.7	38.4	38.2	36.4	40.0	47.2	58.0	63.4	70.3	82.1	87.4	68.9	97.1				
23-Jul	92.5	94.6	91.7	91.1	93.3	94.0	91.2	82.4	86.2	70.8	69.0	64.6	57.3	57.1	66.4	90.9	69.1	53.6	53.4	58.8	76.3	83.5	77.2	80.3	76.9	94.6				
24-Jul	90.1	90.1	94.0	96.6	97.6	98.0	92.0	82.6	73.0	68.2	62.8	56.8	52.1	48.1	46.1	44.0	44.3	58.2	59.0	65.6	68.2	66.6	78.4	81.8	71.4	98.0				
25-Jul	84.0	92.1	95.3	90.3	77.5	75.1	75.0	72.9	86.6	80.3	64.2	57.9	46.6	42.8	39.9	46.5	47.0	48.5	52.9	63.2	77.3	80.0	86.2	88.3	69.6	95.3				
26-Jul	89.1	92.2	95.3	93.6	89.9	89.1	89.9	88.7	87.9	85.5	82.7	76.9	71.6	69.6	68.0	65.9	64.8	65.5	66.8	74.6	83.0	88.3	86.9	86.2	81.3	95.3				
27-Jul	88.0	87.6	90.4	91.6	92.6	93.1	94.1	93.7	96.3	95.3	92.6	88.2	86.7	83.4	77.1	70.3	75.1	76.3	76.7	80.1	81.2	81.6	93.3	89.2	86.4	96.3				
28-Jul	89.7	95.3	97.5	98.4	98.5	98.0	88.8	76.8	70.0	65.0	57.2	48.9	49.8	50.2	49.4	61.3	65.1	64.5	63.8	82.2	94.8	96.0	96.1	94.9	77.2	98.5				
29-Jul	97.3	95.7	97.2	97.3	96.0	95.6	96.2	94.0	87.9	88.0	81.0	73.8	80.2	87.2	81.1	72.8	84.7	95.7	92.6	88.7	90.1	89.7	90.5	92.4	89.4	97.3				
30-Jul	91.9	94.1	94.6	96.4	97.7	96.2	87.7	81.6	73.8	65.4	60.6	56.5	52.7	56.1	49.6	48.3	59.5	72.7	62.9	67.0	76.1	88.8	92.2	95.1	75.7	97.7				
31-Jul	96.4	97.5	97.7	98.0	98.5	98.8	97.5	83.3	77.9	78.0	75.8	84.5	81.2	75.0	66.2	70.9	85.2	83.3	75.1	79.8	91.0	96.1	97.5	98.2	86.8	98.8				
Diurnal Average																														
Diurnal Maximum																														



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Waskow ohci Pimatisiwin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %
Waskow ohci Pimatisiwin - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	40	5.38	5.38
40 - 60	133	17.88	23.25
60 - 80	224	30.11	53.36
80 - 100	347	46.64	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

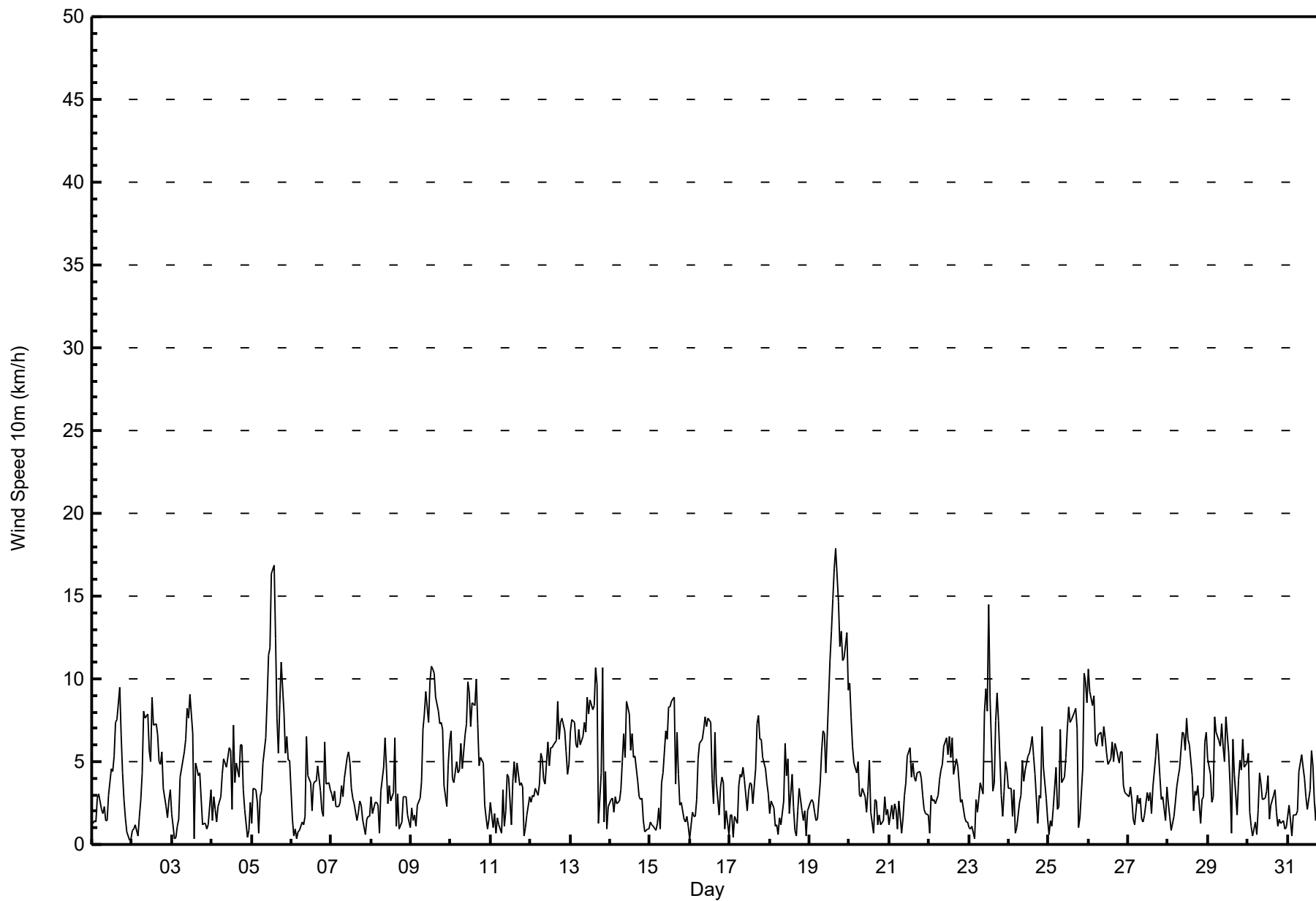
Waskow ohci Pimatisiwin - July 2026

Maximum Speed: 18 km/h on Jul 19 17:00															Maximum Daily Speed Average: 8.1 km/h on Jul 19															Hours in Service: 744	
Minimum Speed Value: 0 km/h on Jul 1 23:00															Minimum Daily Speed Average: 0.5 km/h on Jul 30															Hours of Data: 744	
Maximum Diurnal Speed Average: 2.0 km/h at hour 12															Minimum Diurnal Speed Average: 0.5 km/h at hour 19															Hours of Missing Data: 0	
Monthly Average Velocity: 0.8 km/h 212.9 deg															Percentiles: P ₁ = 0 P ₁₀ = 1 Q ₁ = 2 Median = 4 Q ₃ = 6 P ₉₀ = 8 P ₉₉ = 13															Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jul	WNW1	WNW1	WNW1	NW3	NW3	NW2	NW2	N2	N1	E1	ESE3	SE5	SSE4	S5	SSE7	SSE8	SSE10	SSE7	SSE4	SSE3	SE2	NE1	WSW0	N0	SSE1.7	SSE10					
2-Jul	E1	ENE1	ESE1	ENE0	SE2	ESE3	SE4	SSE8	SSE8	SSE8	SSE6	SE5	SSE9	SSE7	S7	S7	SE5	SSE5	SE6	SE3	SE2	E2	ESE3	ESE3	SSE4.1	SSE9					
3-Jul	SSE2	NE0	NNW0	SE1	SE2	SSE4	SSE5	SSE6	SE6	SE8	SSE8	SSE9	W7	SSE0	SE5	SE5	SE4	SSE4	W1	ENE1	NE1	E1	W1	NW3	SSE2.6	SSE9					
4-Jul	WSW1	NW3	WSW2	WSW1	SSE2	S3	SSE4	SSE5	SE5	SSE5	SE6	SE6	SSW2	WSW7	S4	SSW5	SW4	S6	S6	SSW3	SSW2	W0	NW1	SSW3	S2.7	WSW7					
5-Jul	SSW1	WSW3	NW3	NW3	WNW1	S3	SSW3	SW5	WNW6	NW9	NW11	NW12	NW16	NNW17	NNW12	N8	WNW6	NNW8	NNW11	N8	NNW5	NW7	NW5	NW5	NW6.0	NNW17					
6-Jul	NNW2	SW1	E1	NW0	WSW1	S1	N1	NNE1	NW2	NNW6	NNE4	ESE4	NE2	E4	WSW4	SSW4	N5	NE3	NE2	NW2	NW6	N4	NW4	NW3	NNW1.4	NNW6					
7-Jul	WNW3	W3	W3	WNW2	WNW2	NNW3	N4	N3	NNW4	NNW5	N6	N5	NNE3	SE3	E2	ESE1	ENE2	SSE3	SSE2	ESE2	NNE1	W2	NW2	NW2	NNW1.2	N6					
8-Jul	NNW3	NW2	W3	WNW3	WNW2	NW1	S3	SSE5	SSE6	S5	SSE2	SE4	ESE3	NW3	WNW6	ENE1	S3	ENE1	N1	S3	SSE3	S3	SE2	WNW1	S1.0	SSE6					
9-Jul	SSW2	SSW1	S2	SSW1	SW2	S3	SSE4	SW7	SW8	WSW9	SW7	SSW10	SSW11	SSW11	SSW10	S9	S8	S7	SSW7	S7	S4	SE2	SSE5	SSE6	SSW5.5	SSW11					
10-Jul	SSE7	SE4	SSE4	SSE5	SSE4	SSE4	SSE6	SSE5	SSE7	SSW7	S10	SSW9	SSW7	S9	S8	SSW10	W7	W5	S5	S5	SSW2	S2	WSW1	NW2	S4.8	SSW10					
11-Jul	W3	W1	WSW2	W1	WSW2	SW1	WSW1	SSE3	E1	ESE2	SSE4	SSE4	S1	SSE4	SSE5	SSE4	SSE5	S4	W4	NW3	NW0	SW1	S2	SW3	S1.6	SSE5					
12-Jul	SW3	SSE3	SSE3	SSE3	SSE3	SSE4	SSE5	S5	SSW4	S4	S6	SSW5	SSE6	SSE6	SSE6	SSW6	S9	S6	S7	S8	S7	SSW6	SW4	SW5	S4.8	S9					
13-Jul	WSW7	WSW8	WSW7	WSW6	SW6	WSW7	WSW6	SW6	SSW7	SSW7	SSW9	SW8	WSW9	WSW8	W8	NW11	NW10	ENE1	NNW4	NW11	SW1	SW4	SW1	W2	WSW4.9	NW11					
14-Jul	SSE3	SSE3	SSE2	SSE3	SSE2	S3	S3	SSW5	SSW7	SSW5	SW9	WSW8	SW6	WSW7	SW5	SW5	SSW4	SSW3	SSW3	S3	SSE1	SE1	SE1	S1	SSW3.4	SW9					
15-Jul	SE1	ESE1	WSW1	WSW1	SSE1	SSE2	SW1	SSE4	SE4	SSE7	SE6	SE8	SSE8	SSE9	SSE9	SSE4	WSW7	SSE4	NW2	SSW3	WSW2	S1	SSW2	W1	SSE2.9	SSE9					
16-Jul	NNW0	WSW2	SSE2	SE2	SSE3	SSE5	SSE6	SSE6	SE7	SSE8	SE7	SSE8	SSW7	S4	WNW2	NNE7	NNE4	NE2	NNW3	NNW4	NNW4	W1	W2	NW1	SSE1.6	SSE8					
17-Jul	SW2	W2	WSW0	SSW2	S1	SSE4	SSE4	SE4	SSE5	SE4	E2	E3	ESE4	E4	ENE2	NNE5	N7	NNE8	N6	N6	N5	N5	NW4	WNW3	NE1.2	NNE8					
18-Jul	NW2	WNW3	NW2	SW1	WSW1	WSW1	N2	SE1	S3	SW6	S4	ESE5	E2	W4	SW2	NNE1	SW1	SSW2	NNW3	N2	ENE1	SE2	SE1	NW2	SW0.5	SW6					
19-Jul	NW3	W3	NW3	W2	SW1	S1	NNW4	NNW6	N7	N7	N4	N9	N11	N13	N15	N17	NNW18	N15	NNW12	NNW13	NNW11	NNW11	NNW13	NNW9	NNW8.1	NNW18					
20-Jul	NNW10	NNW8	NW6	NW5	WNW4	NW5	NNW3	NW3	NW3	N3	NNW2	NNW3	NW5	N2	NW1	NNW3	WNW3	SE1	SSE2	SE1	SSW1	W3	WNW2	W2	NW2.7	NNW10					
21-Jul	WSW1	W2	W2	W2	WNW2	W1	NNW3	ENE1	SE2	SSE3	SSE4	SE5	SSE6	SE4	SE5	ESE4	SE4	SSE4	SSE4	SSE4	SSE3	S2	SSE2	SSE2	SSE2.1	SSE6					
22-Jul	SE1	SSE3	SSE3	S3	S2	SSE3	SSE4	SSE4	SSE5	SE6	SE6	SSE5	S7	S5	S6	S4	S5	SSE5	SSE4	SSE3	SSE3	SE2	SE1	SE1	SSE3.7	S7					
23-Jul	ESE1	E1	WSW1	NE0	NW3	W2	NNW3	N4	NNW3	N8	N9	NNW8	NW14	NNW9	N3	WSW4	WSW7	W9	NW7	WNW3	W2	WNW3	WNW5	NW4	NW3.9	NW14					
24-Jul	WNW3	WNW3	NNW2	W3	NW1	WNW1	S3	SE3	SE5	ESE4	SE5	SSE5	SSE6	SSE6	SSE6	SSE5	SSE4	NE1	N3	NNW3	NNW7	NNW5	W3	WNW2	SSE0.9	NNW7					
25-Jul	W1	ESE1	S1	S2	W5	SW2	SSW2	WSW7	SW4	SW4	SW5	SW7	SW8	SW7	SW8	SSW8	SSW8	SW7	WSW1	SSW2	NNW5	N10	N10	NNW9	WSW2.8	N10					
26-Jul	N11	N9	N8	N9	NNE6	NNE6	NNE7	NNE7	NNE6	NNE7	NNE6	NNE6	NE5	NE5	N6	NNE5	N6	N6	NNE5	NNE6	NNE6	NNE4	NE3	NE3	NNE5.9	N11					
27-Jul	NE3	NNE3	ESE3	ESE2	SE1	ESE3	E2	N3	NNE2	E1	SE2	SSE3	SSW3	WSW3	S2	SE3	SSE5	SSE7	SSE6	SSE4	SSE3	S3	SSE1	S4	SE1.9	SSE7					
28-Jul	S2	SE2	NE1	SSE2	SSE3	S3	SSE4	SSE5	SE7	SE7	SE6	SE8	SSE6	SE6	SSE4	NW2	N3	NNE3	N4	NW1	NNW3	ENE3	NNE6	NNE7	SE1.9	SE8					
29-Jul	ENE5	NNE4	NNE3	N3	NW8	WNW7	W6	W6	WNW7	W6	W5	NW8	WNW5	N4	NE1	NNW6	NW4	SSW2	WSW4	WSW5	W4	W6	W5	W5	WNW3.6	NW8					
30-Jul	W6	WNW2	SW1	SSE0	SSE1	SSW1	SW2	WSW4	WNW4	W3	NNW3	NE3	SSE4	ESE1	ESE2	SSE3	N3	NE2	NNE1	SSE1	SSE1	W1	WSW1	S1	WSW0.5	W6					
31-Jul	NW2	W2	W0	WSW2	S2	SSE2	SSE2	S4	SSE5	SSE5	SSE4	S3	S2	SE3	SSE6	SSE5	SSE3	SE1	S3	S2	S1	SW1	WNW2	WNW3	S2.0	SSE6					
WNW0.9WNW1.0 W0.7WSW0.8 SW0.9SSW1.2 S1.3 S1.9 S1.7 S1.5 S1.9 S2.0SSW1.8SSW1.6 S1.9 S1.0 SW0.9 S0.8 W0.5 W0.7WNW0.8 NW0.9 NW1.1WNW1.3																								Diurnal Average							
N11 N9 N8 N9 NW8 WSW7 NNE7 SSE8 SW8 WSW9 NW11 NW12 NW16NNW17 N15 N17 NNW18 N15 NNW12 NNW13 NNW11 NNW11 NNW13 NNW9																								Diurnal Maximum							
All monthly, daily, and diurnal averages have been calculated using vector methods																															



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Waskow ohci Pimatisiwin - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Waskow ohci Pimatisiwin - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	538	72.31	72.31
6 - 11	193	25.94	98.25
12 - 19	13	1.75	100.00
20 - 28	0	0.00	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Waskow ohci Pimatisiwin - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	23	17	18	12	15	22	49	101	53	29	28	28	40	30	44	29	538
6 - 11	21	14	0	0	0	0	15	38	18	19	14	15	9	5	11	14	193
12 - 19	4	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6	13
20 - 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	48	31	18	12	15	22	64	139	71	48	42	43	49	35	58	49	744

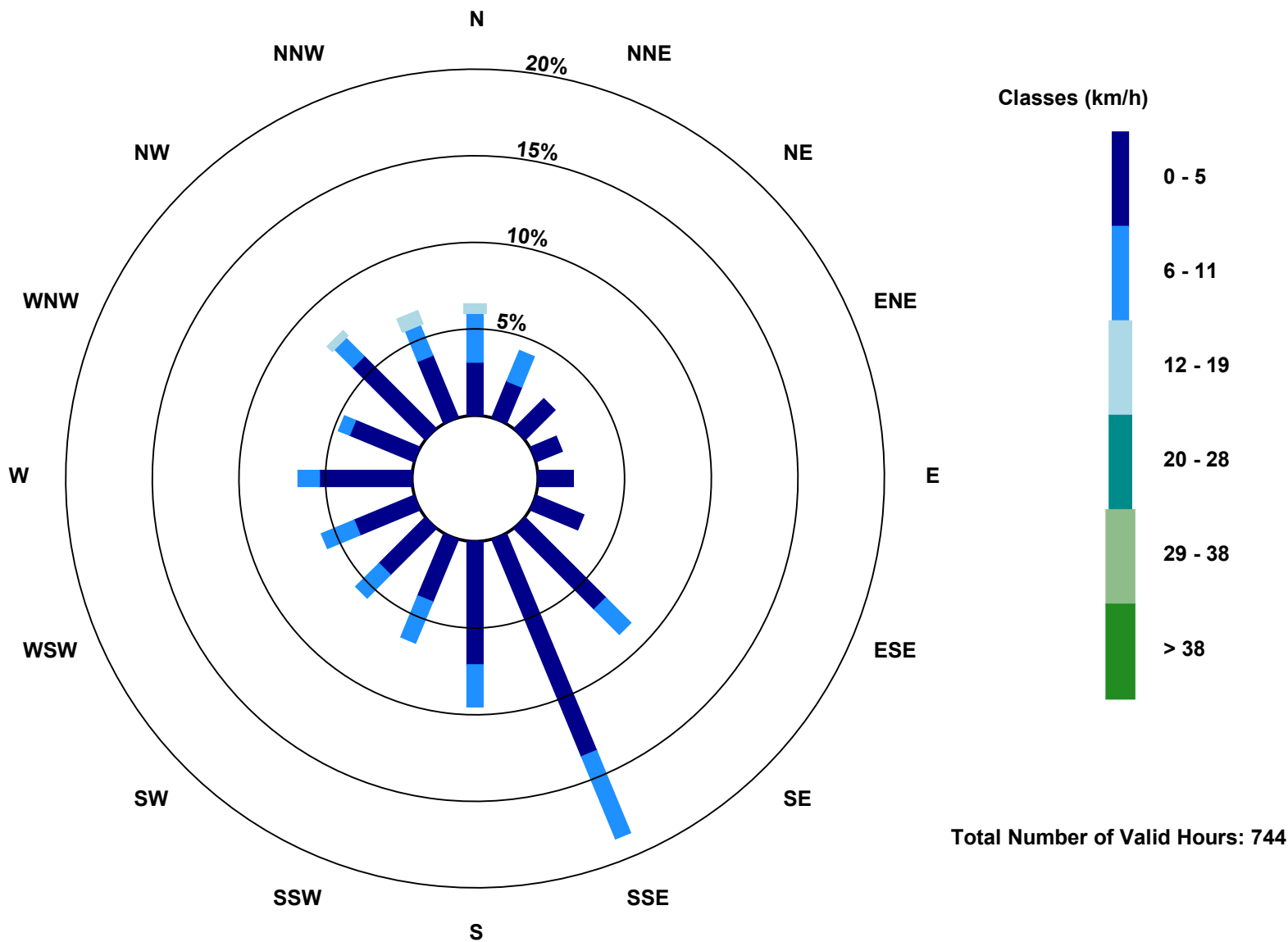
Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Waskow ohci Pimatisiwin





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Waskow ohci Pimatisiwin - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 7 km/h on Jul 15 17:00																	Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0									
Minimum Value: 0 km/h on Jul 8 05:00																										
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 1 Median = 2 Q ₃ = 2 P ₉₀ = 3 P ₉₉ = 5																										
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	3	3	3	2	1	1	1	1	1	1	3
2-Jul	1	1	1	1	1	1	2	3	3	3	2	2	4	3	3	3	2	2	3	1	1	1	1	1	1	4
3-Jul	1	1	1	1	1	1	2	2	3	3	3	4	4	1	2	2	2	2	3	1	1	1	1	1	1	4
4-Jul	1	2	1	1	1	1	1	2	2	2	2	2	2	4	1	2	2	3	3	1	1	1	2	1	1	4
5-Jul	1	1	2	1	1	1	2	2	3	3	5	4	6	6	4	4	4	3	4	3	2	2	1	2	6	
6-Jul	1	1	1	1	1	1	1	1	3	2	3	1	2	1	3	2	3	2	1	2	2	2	1	1	3	
7-Jul	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	2	
8-Jul	1	1	1	1	0	1	1	2	2	3	2	2	1	2	4	1	1	1	1	1	1	1	1	3	4	
9-Jul	1	1	1	1	1	1	2	3	3	5	4	4	4	4	4	4	3	3	3	3	1	1	2	2	5	
10-Jul	3	2	2	2	2	1	2	2	2	3	4	4	3	4	4	4	4	3	3	2	1	1	1	1	4	
11-Jul	1	1	1	1	1	1	1	1	1	1	2	2	1	2	2	2	2	1	2	2	1	1	1	1	2	
12-Jul	1	1	1	1	1	1	2	2	2	2	2	2	3	2	3	3	3	2	3	4	3	2	2	2	4	
13-Jul	3	4	3	2	2	3	3	3	3	3	4	4	4	4	4	4	4	1	3	5	2	3	1	2	5	
14-Jul	1	1	1	1	1	1	1	2	2	2	4	3	3	3	3	3	2	2	1	1	1	1	1	1	4	
15-Jul	1	1	1	1	1	1	1	1	2	2	2	3	3	3	3	2	7	4	2	1	1	1	1	1	7	
16-Jul	1	1	1	1	1	2	2	2	2	2	3	3	3	1	4	4	2	1	4	2	1	1	1	1	4	
17-Jul	1	1	1	1	1	1	1	1	2	2	1	1	2	1	1	2	3	3	2	1	1	1	1	1	3	
18-Jul	1	1	1	1	1	1	1	1	1	3	2	3	2	3	2	1	1	1	1	1	1	1	1	1	3	
19-Jul	2	1	1	1	1	1	2	2	3	2	2	4	4	5	6	5	5	5	3	4	3	3	4	3	6	
20-Jul	3	2	2	2	2	2	2	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	3	
21-Jul	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	1	2	2	1	1	1	1	1	1	2	
22-Jul	1	1	1	1	1	1	1	1	1	2	2	2	3	3	2	2	2	2	1	1	1	1	1	1	3	
23-Jul	1	1	1	1	1	1	1	2	2	3	3	4	5	4	2	2	4	4	3	2	1	1	1	1	5	
24-Jul	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1	4	3	1	1	4	
25-Jul	1	1	1	1	2	2	1	3	2	2	2	3	3	3	3	3	3	3	2	1	2	4	3	3	4	
26-Jul	3	4	3	3	3	3	3	2	3	3	3	2	2	2	2	3	3	2	2	2	2	2	1	2	4	
27-Jul	1	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	2	
28-Jul	1	1	1	1	1	1	1	1	2	2	2	3	2	2	2	1	1	1	1	1	1	1	3	4	4	
29-Jul	3	3	1	2	2	3	2	3	3	3	2	2	3	4	2	3	5	2	2	2	2	2	2	2	5	
30-Jul	3	2	2	1	1	1	2	2	2	2	2	2	2	2	1	2	4	1	1	1	1	1	2	1	4	
31-Jul	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	2	1	1	1	1	1	1	1	1	2	
3 4 3 3 3 3 3 3 3 3 5 5 4 6 6 6 5 7 5 4 5 4 4 4 4																										
Diurnal Maximum																										



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

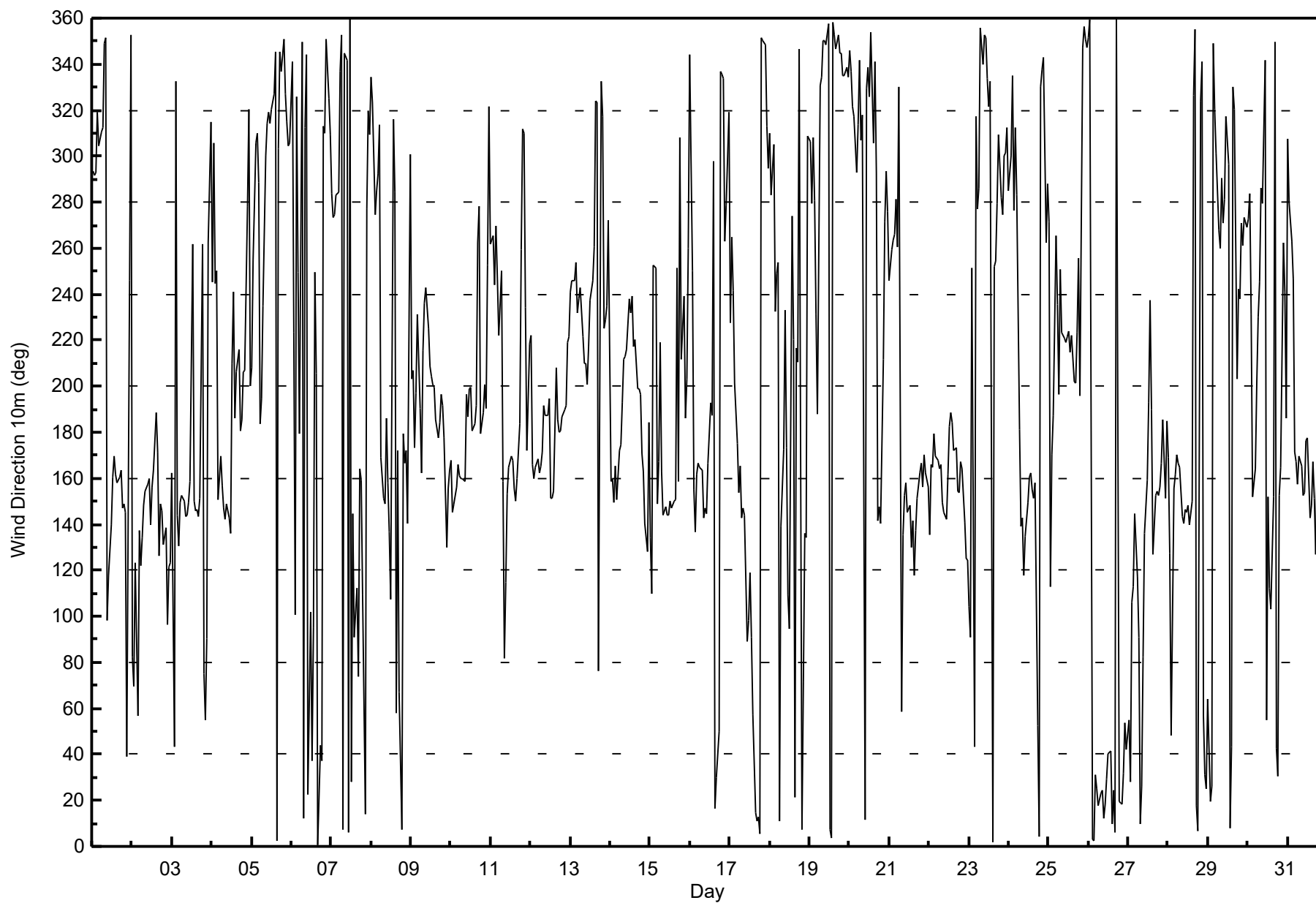
Waskow ohci Pimatisiwin - July 2026

Direction of Maximum Speed: 346 deg on Jul 19 17:00 Direction of Maximum Daily Speed Average: 345.4 deg on Jul 19																					Hours in Service: 744				
Direction of Minimum Speed: 246 deg on Jul 1 23:00 Direction of Minimum Daily Speed Average: 0.5 deg on Jul 30																					Hours of Data: 744				
Direction of Minimum Speed: 246 deg on Jul 1 23:00 Direction of Minimum Daily Speed Average: 0.5 deg on Jul 30																					Hours of Missing Data: 0				
Monthly Average Direction: 212.9 deg																					Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																				Daily Average				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		21	22	23	24
1-Jul	293	292	293	319	305	311	312	349	351	98	118	140	160	170	162	158	161	164	147	149	145	39	246	353	161.7
2-Jul	83	70	123	57	137	122	134	148	154	157	160	140	156	164	188	171	126	149	146	131	138	97	121	123	148.5
3-Jul	162	43	333	144	131	150	152	150	143	144	150	158	262	150	146	146	143	151	262	75	55	90	262	315	154.0
4-Jul	246	306	244	250	151	169	157	147	142	149	143	136	210	241	186	206	216	181	186	206	207	278	320	200	184.4
5-Jul	208	255	306	310	289	183	195	235	300	315	319	314	320	327	346	2	303	346	337	351	327	315	305	306	319.9
6-Jul	341	223	101	326	249	180	350	12	313	344	22	102	37	95	250	206	0	44	37	313	310	351	325	309	348.4
7-Jul	284	273	275	283	284	337	353	7	345	342	6	360	28	145	91	113	74	164	159	109	14	277	320	310	344.0
8-Jul	334	324	274	285	292	313	169	151	149	186	158	137	108	316	285	58	172	67	7	180	167	172	140	301	187.8
9-Jul	203	207	173	197	231	190	162	215	236	243	225	208	205	201	200	186	178	184	196	191	178	130	155	163	198.6
10-Jul	168	145	149	156	166	161	160	160	159	197	187	199	200	180	184	192	262	278	180	189	201	191	253	322	185.3
11-Jul	262	265	244	269	247	222	250	158	82	114	153	165	169	168	156	150	160	184	259	312	310	234	172	219	186.4
12-Jul	222	166	160	165	168	163	165	172	192	188	187	194	152	152	154	208	185	180	180	187	190	192	219	221	181.6
13-Jul	241	246	246	254	232	238	243	222	210	210	201	217	237	246	260	324	324	76	333	317	225	229	235	272	251.1
14-Jul	158	160	149	166	151	172	175	193	212	213	216	238	232	239	217	220	199	199	197	171	163	140	128	184	203.0
15-Jul	134	110	253	251	149	167	219	163	144	148	144	144	150	147	150	151	252	159	308	212	239	186	203	260	162.9
16-Jul	344	250	155	137	162	166	165	163	143	147	144	167	193	187	298	17	30	50	337	336	334	263	279	319	160.5
17-Jul	228	265	242	202	175	153	166	143	147	144	89	98	119	91	58	14	11	13	5	351	350	349	313	295	37.1
18-Jul	310	283	305	232	249	254	11	139	173	233	173	109	95	274	220	21	217	211	347	7	71	136	134	309	234.8
19-Jul	306	280	308	281	231	188	331	334	350	350	349	358	8	4	358	352	346	353	345	345	335	335	339	335	345.4
20-Jul	346	337	322	317	293	314	342	307	318	11	330	338	326	354	305	341	293	141	148	140	211	272	293	276	322.8
21-Jul	246	259	264	266	282	261	330	58	135	152	158	145	149	130	142	118	137	151	162	166	156	170	162	156	158.3
22-Jul	136	166	165	180	170	168	164	166	150	145	142	162	182	189	184	172	173	154	154	167	164	141	125	125	163.8
23-Jul	105	91	252	44	317	277	286	355	340	353	352	333	322	333	2	252	254	279	309	282	275	300	301	312	315.4
24-Jul	285	300	335	276	313	283	181	139	143	118	135	149	160	162	155	151	158	52	4	330	338	343	263	288	167.5
25-Jul	272	113	170	187	265	235	196	251	223	221	219	222	224	215	222	202	201	223	256	196	347	357	351	347	241.6
26-Jul	351	360	3	2	31	25	18	23	25	12	18	30	40	42	10	24	6	360	19	19	18	32	54	42	16.4
27-Jul	55	28	106	113	144	117	91	10	26	83	136	159	193	237	189	127	153	154	152	156	167	186	151	185	142.5
28-Jul	169	128	48	156	162	170	167	165	143	140	146	145	148	140	150	326	355	18	6	324	341	57	31	25	123.8
29-Jul	64	19	26	349	320	302	268	260	291	271	281	317	296	8	43	330	321	203	242	238	271	261	273	269	295.7
30-Jul	273	284	231	152	164	201	230	245	286	279	342	55	152	112	103	152	350	43	31	153	165	263	241	186	243.0
31-Jul	307	280	263	247	172	167	157	170	165	153	154	176	177	143	148	167	151	127	174	175	169	230	288	297	172.2
288.2 291.5 272.6 258.1 235.2 193.6 183.0 183.9 177.9 184.4 171.3 170.9 206.0 196.9 186.7 186.1 231.9 174.5 274.0 269.4 303.6 308.9 311.5 299.0																									
Diurnal Average																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Waskow ohci Pimatisiwin - July 2026





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Waskow ohci Pimatisiwin - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 109 deg on Jul 30 06:00																		Hours in Service: 744							
Minimum Value: 5 deg on Jul 31 22:00																		Hours of Data: 744							
Percentiles: P ₁ = 18 P ₁₀ = 25 Q ₁ = 32 Median = 44 Q ₃ = 60 P ₉₀ = 79 P ₉₉ = 101																		Hours of Missing Data: 0							
																		Hours of Calibration: 0							
																		Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	56	35	40	26	29	42	60	26	49	59	53	44	38	34	28	32	24	26	36	33	58	55	87	70	87
2-Jul	68	32	33	55	60	39	39	34	32	32	32	40	33	41	46	51	36	37	34	36	53	44	33	32	68
3-Jul	68	89	92	52	46	29	34	40	36	30	33	33	59	101	32	40	36	45	106	73	40	83	74	56	106
4-Jul	82	32	46	34	24	34	31	34	31	39	30	39	78	58	33	53	61	44	39	50	42	79	98	55	98
5-Jul	71	47	57	59	102	31	60	56	58	35	28	33	27	28	29	49	41	38	25	21	23	21	20	22	102
6-Jul	62	91	56	90	86	98	84	107	100	43	78	61	87	51	78	79	74	52	48	73	40	44	25	21	107
7-Jul	16	27	22	31	29	27	40	53	59	45	37	62	79	73	77	80	73	41	45	54	37	42	45	22	80
8-Jul	15	35	21	20	19	63	48	41	31	61	79	54	57	65	61	90	50	84	54	28	31	23	41	98	98
9-Jul	27	52	39	56	65	42	35	46	59	59	65	51	44	45	40	37	35	39	38	33	33	28	33	29	65
10-Jul	31	34	38	28	44	27	24	32	34	46	45	48	49	41	44	44	61	67	46	39	36	56	75	55	75
11-Jul	41	80	57	81	65	65	82	36	63	49	39	57	94	46	24	46	29	42	51	53	98	89	66	62	98
12-Jul	69	20	26	25	21	23	27	39	60	64	39	51	46	45	54	55	35	35	37	35	37	36	50	48	69
13-Jul	54	56	53	61	54	59	63	59	54	59	46	54	57	59	64	26	37	72	71	31	76	67	93	81	93
14-Jul	56	33	38	29	34	33	29	39	40	58	52	57	65	56	65	68	73	82	59	29	51	32	44	50	82
15-Jul	40	30	53	79	46	48	88	35	37	30	36	35	32	35	34	41	61	78	89	49	68	71	72	89	89
16-Jul	94	54	45	30	29	27	28	36	31	31	33	38	50	33	94	45	57	63	86	39	32	94	74	94	94
17-Jul	66	74	101	75	71	20	19	26	32	57	76	43	47	41	47	24	30	30	27	20	21	25	17	13	101
18-Jul	23	52	32	42	44	64	57	73	43	54	69	63	89	56	89	98	103	45	41	54	47	69	83	56	103
19-Jul	55	28	52	49	69	76	62	25	24	25	39	32	34	32	30	27	23	26	21	22	22	23	23	22	76
20-Jul	23	25	20	23	47	26	53	40	26	40	67	32	27	84	104	63	82	82	55	43	35	18	65	39	104
21-Jul	54	36	59	24	51	88	39	80	47	55	53	41	31	47	43	44	44	33	22	27	25	29	37	31	88
22-Jul	60	25	30	21	20	19	21	25	35	30	30	54	54	56	46	59	38	35	26	26	31	37	46	31	60
23-Jul	37	38	88	88	50	74	35	37	59	33	32	34	24	36	60	66	60	55	33	58	40	21	33	27	88
24-Jul	26	40	55	17	87	69	40	49	40	54	53	39	47	44	39	40	39	69	31	32	23	44	37	75	87
25-Jul	100	48	83	59	66	88	79	56	66	76	55	55	54	55	52	38	38	50	107	70	28	24	22	20	107
26-Jul	22	29	29	27	42	41	36	37	39	35	38	49	56	53	41	56	47	38	42	29	32	48	45	50	56
27-Jul	41	37	32	66	67	35	49	39	60	63	88	60	77	67	96	55	30	25	30	28	26	33	57	25	96
28-Jul	25	20	35	62	26	21	21	34	34	35	39	32	34	39	38	69	33	24	26	84	50	49	37	60	84
29-Jul	52	64	61	45	23	39	47	54	52	55	64	33	56	60	106	33	78	67	59	50	48	51	60	48	106
30-Jul	59	91	100	92	80	109	82	59	74	80	79	65	56	78	68	67	85	65	57	48	32	66	69	59	109
31-Jul	64	42	79	28	32	39	38	25	25	32	30	43	44	35	35	33	39	47	25	35	70	5	25	17	79
Diurnal Maximum																									



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS27
JACKFISH 2/3
JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - JACKFISH 2/3 (AMS27)
JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	708	35	36	99.87	24.9	0	4.6	0
H2S (ppb) Average	708	36	36	100	2.6	0	0.5	0
NO2 (ppb) Average	707	36	37	99.87	12.9	0	1.8	-
NO (ppb) Average	707	36	37	99.87	28.1	-	2.6	-
NOX (ppb) Average	707	36	37	99.87	41	-	4.5	-
Temperature 2 m (C) Average	744	0	0	100	30.3	-	24	-
Relative Humidity (%) Average	744	0	0	100	98.6	-	85.7	-
Wind Speed 10 m (km/h) Average	744	0	0	100	16	-	11	-
Wind Direction 10 m (deg) Average	744	0	0	100	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - JACKFISH 2/3 (AMS27)

JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	708	0.47	1.7	-	0	0	0	0.1	0.3	0.9	24.9
H2S (ppb) Average	708	0.16	0.2	-	0	0.1	0.1	0.1	0.2	0.3	2.6
NO2 (ppb) Average	707	0.82	0.8	-	0.1	0.3	0.4	0.6	1	1.4	12.9
NO (ppb) Average	707	0.14	1.4	-	0	0	0	0	0.1	0.2	28.1
NOX (ppb) Average	707	0.95	2.1	-	0.1	0.3	0.4	0.7	1	1.5	41
Temperature 2 m (C) Average	744	17.54	4.5	-	7.2	12	14.1	17	20.6	23.8	30.3
Relative Humidity (%) Average	744	69.55	19.4	-	22.3	41.6	53.6	73.4	85.5	93.6	98.6
Wind Speed 10 m (km/h) Average	744	6	3	-	0	3	4	6	7	10	16
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - JACKFISH 2/3 (AMS27)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
NO2, SO2	21 Jul 2026 12:00	21 Jul 2026 12:00	1	Maintenance - sample manifold cleaned



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

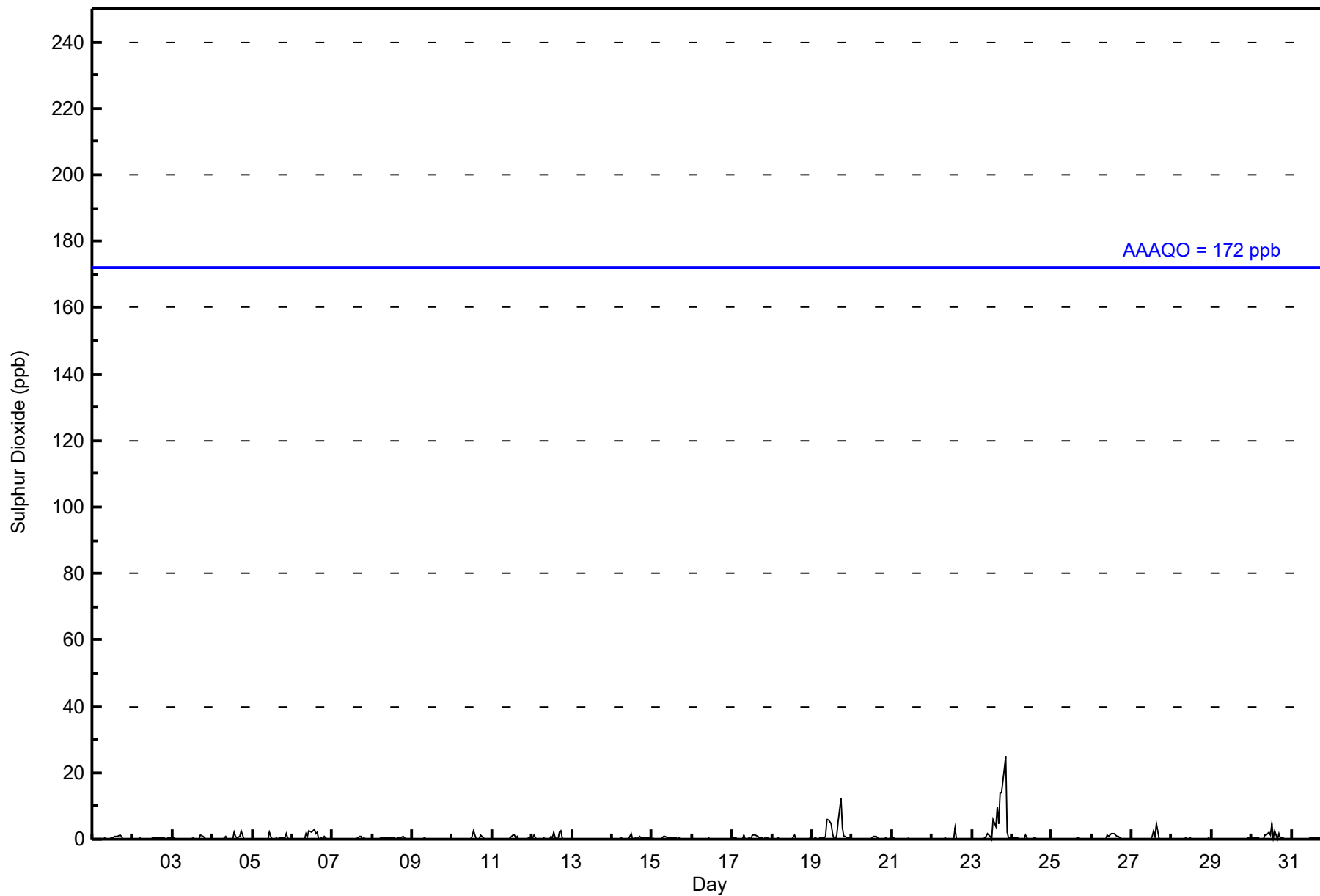
Jackfish 2/3 - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 24.9 ppb on Jul 23 21:00 Maximum Daily Average: 4.6 ppb on Jul 23																			Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 35 Percent Operational Time: 99.9								
Minimum Value: 0.0 ppb on Jul 1 02:00 Minimum Daily Average: 0.0 ppb on Jul 13 Maximum Diurnal Average: 1.3 ppb at hour 18 Minimum Diurnal Average: 0.1 ppb at hour 6 Monthly Average: 0.47 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.9 P ₉₉ = 6.0																											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	Z	0.0	0.0	0.0	0.2	0.0	0.2	0.5	0.1	0.2	0.2	0.2	0.3	0.8	0.7	0.7	1.3	0.9	0.1	0.0	0.1	0.2	0.2	0.2	0.3	1.3	
2-Jul	0.2	Z	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.2	0.3	0.3	0.6	0.6	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.4	0.2	0.6	
3-Jul	0.4	0.4	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.1	0.1	0.2	1.2	0.8	0.3	0.1	0.1	0.0	0.1	0.2	1.2	
4-Jul	0.1	0.2	0.1	Z	0.0	0.0	0.2	0.4	0.7	0.1	0.0	0.1	0.0	2.1	0.9	0.3	1.0	2.5	1.1	0.0	0.0	0.0	0.0	0.0	0.4	2.5	
5-Jul	0.0	0.0	0.2	0.1	Z	0.1	0.0	0.0	0.0	0.1	1.9	0.8	0.0	0.1	0.3	0.1	0.2	0.6	0.4	0.2	1.5	0.4	0.0	0.0	0.3	1.9	
6-Jul	0.0	0.1	0.0	0.0	0.0	Z	0.0	0.0	1.9	0.9	2.7	2.2	2.4	3.1	1.7	2.2	0.2	0.3	0.2	0.7	0.6	0.1	0.1	0.1	0.9	3.1	
7-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.3	0.9	0.7	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.9	
8-Jul	0.2	Z	0.1	0.1	0.2	0.4	0.4	0.3	0.2	0.2	0.3	0.4	0.3	0.2	0.0	0.4	0.3	0.4	1.0	0.2	0.1	0.1	0.1	0.1	0.3	1.0	
9-Jul	0.1	0.1	Z	0.0	0.0	0.1	0.2	0.5	0.3	C	C	C	C	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	
10-Jul	0.0	0.1	0.1	Z	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	1.0	2.4	0.1	0.1	0.1	1.4	0.7	0.1	0.0	0.0	0.1	0.2	0.3	2.4	
11-Jul	0.1	0.1	0.2	0.1	Z	0.0	0.0	0.1	0.0	0.0	0.0	0.2	1.3	1.3	0.6	0.8	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.2	0.2	1.3	
12-Jul	0.5	1.1	0.6	0.1	0.1	Z	0.0	0.6	0.0	0.0	0.2	1.0	0.4	2.2	0.3	0.0	2.2	2.7	0.5	0.1	0.1	0.0	0.1	0.1	0.6	2.7	
13-Jul	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	
14-Jul	0.1	Z	0.0	0.0	0.2	0.2	0.2	0.1	0.1	0.0	0.1	1.9	0.1	0.1	0.2	0.2	0.7	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.3	1.9	
15-Jul	0.2	0.3	Z	0.1	0.1	0.1	0.4	0.7	0.8	0.6	0.4	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.1	0.1	0.3	0.8	
16-Jul	0.2	0.1	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	
17-Jul	0.2	0.3	0.3	0.3	Z	0.1	0.2	1.3	0.2	0.0	0.4	0.1	1.1	1.1	1.1	0.8	0.5	0.5	0.2	0.1	0.2	0.3	0.1	0.0	0.4	1.3	
18-Jul	0.0	0.0	0.1	0.3	0.2	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	1.1	
19-Jul	Z	0.4	0.6	0.0	0.0	0.3	0.4	0.3	0.8	6.0	6.1	4.8	1.7	0.1	0.1	1.2	5.4	12.2	3.3	0.7	0.7	0.5	0.3	0.2	2.0	12.2	
20-Jul	0.2	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.7	0.9	0.2	0.2	0.2	0.2	0.0	0.3	0.2	0.1	0.4	0.2	0.9	
21-Jul	0.5	0.2	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	M	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5	
22-Jul	0.0	0.1	0.1	Z	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.1	0.1	0.2	3.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.3	
23-Jul	0.1	0.2	0.1	0.2	Z	0.0	0.0	1.0	1.8	1.1	0.9	0.1	6.0	3.8	9.7	4.6	13.9	13.8	21.3	24.9	2.1	0.4	0.2	0.2	4.6	24.9	
24-Jul	0.3	0.3	0.2	0.2	0.3	Z	0.1	0.1	1.1	0.4	0.0	0.1	0.0	0.4	0.4	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.2	1.1	
25-Jul	Z	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.3	0.4	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.4	
26-Jul	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.1	0.1	1.1	0.8	1.3	1.8	1.6	1.2	1.0	1.0	0.6	0.2	0.2	0.2	0.1	0.1	0.0	0.5	1.8	
27-Jul	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.8	2.5	0.7	4.8	0.0	0.0	0.2	0.1	0.0	0.1	0.0	0.0	0.4	4.8	
28-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.6	0.1	0.1	0.5	0.2	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.2	0.0	0.5	0.1	0.1	0.6	
29-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.2	0.2	0.2	0.2	0.1	0.2	
30-Jul	0.3	0.3	0.3	0.3	0.3	Z	0.1	0.1	1.4	1.3	2.0	1.4	4.6	0.3	2.4	0.2	1.9	0.3	0.6	0.3	0.2	0.2	0.1	0.1	0.8	4.6	
31-Jul	Z	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.2	0.2	0.1	0.4	0.5	0.6	0.4	0.4	0.4	0.5	0.2	0.3	0.2	0.0	0.1	0.2	0.2	0.6	
0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.2 0.3 0.5 0.6 0.6 0.6 0.9 0.7 0.8 0.7 1.3 0.8 0.8 1.0 0.2 0.1 0.1																										Diurnal Average	
0.5 1.1 0.6 0.3 0.3 0.4 0.4 1.3 1.9 6.0 6.1 4.8 4.6 6.0 3.8 9.7 5.4 13.9 13.8 21.3 24.9 2.1 0.5 0.4																										Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Jackfish 2/3 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Jackfish 2/3 - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	703	99.29	99.29
11 - 20	3	0.42	99.72
21 - 60	2	0.28	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Jackfish 2/3 - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	10	4	18	11	13	23	29	25	83	65	118	159	78	20	32	15	703
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	4	18	11	13	23	29	25	83	65	118	159	78	25	32	15	708

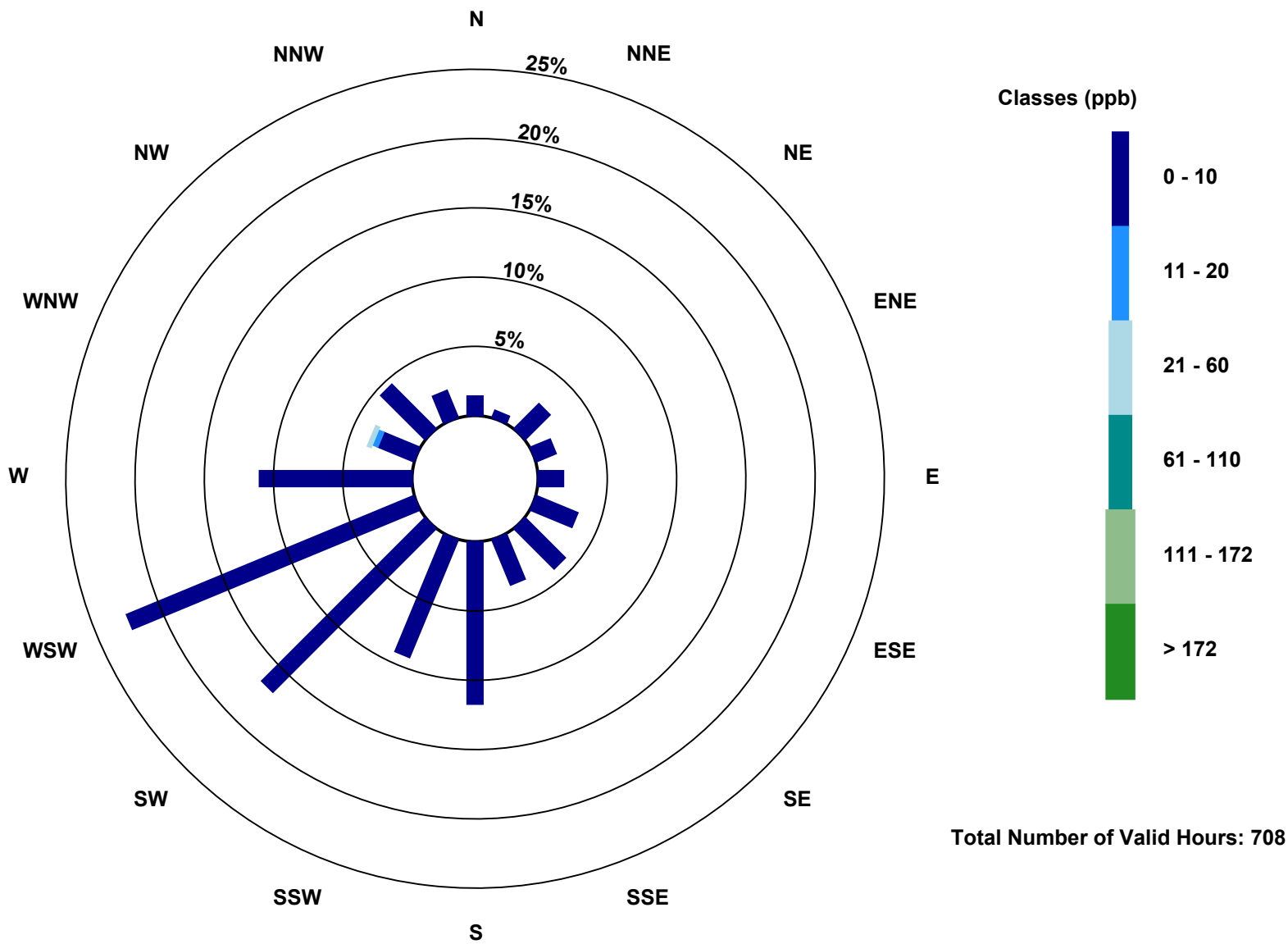
Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

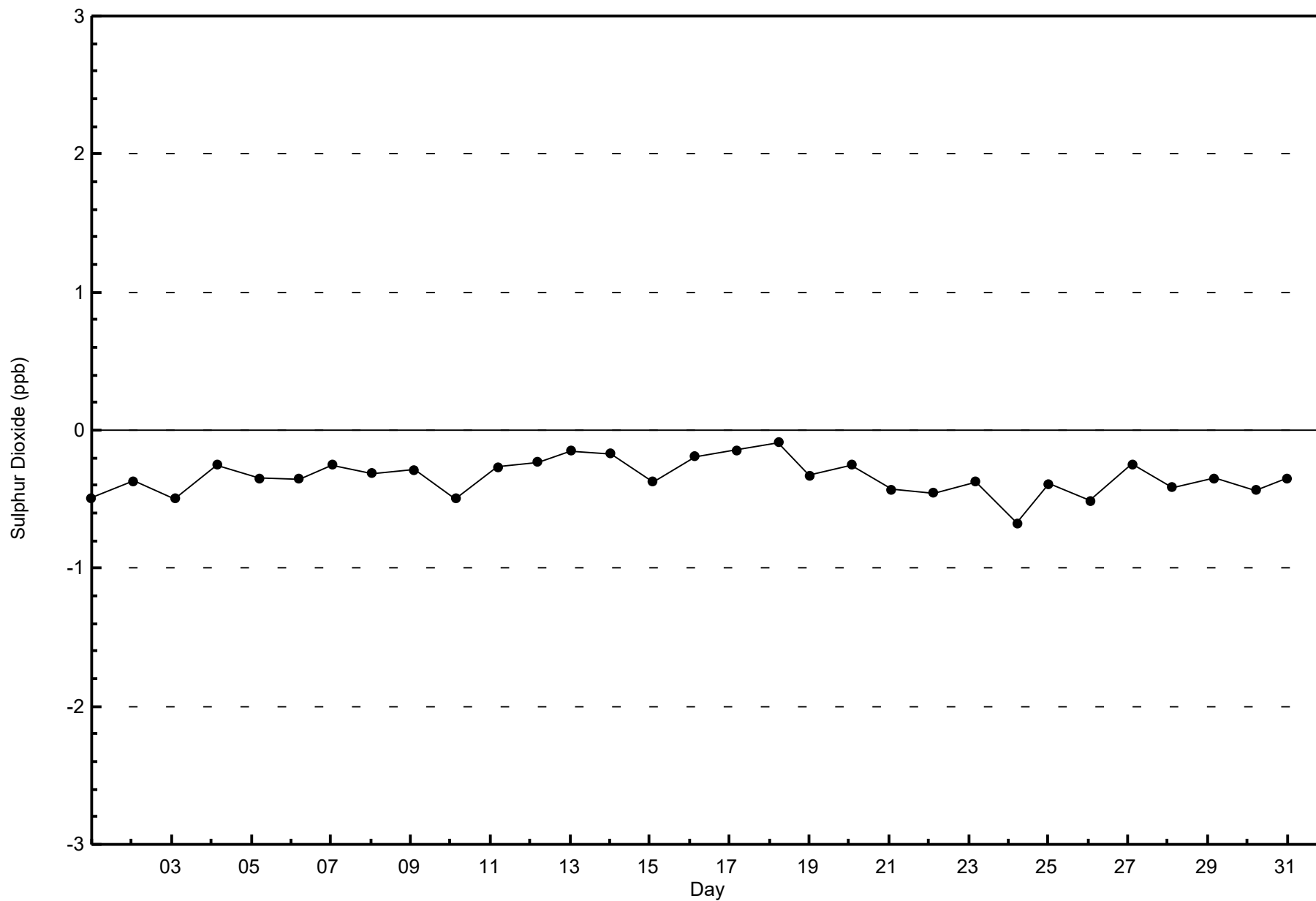
Sulphur Dioxide (SO₂) - ppb
Jackfish 2/3





Wood Buffalo Environmental Association
Zero Responses

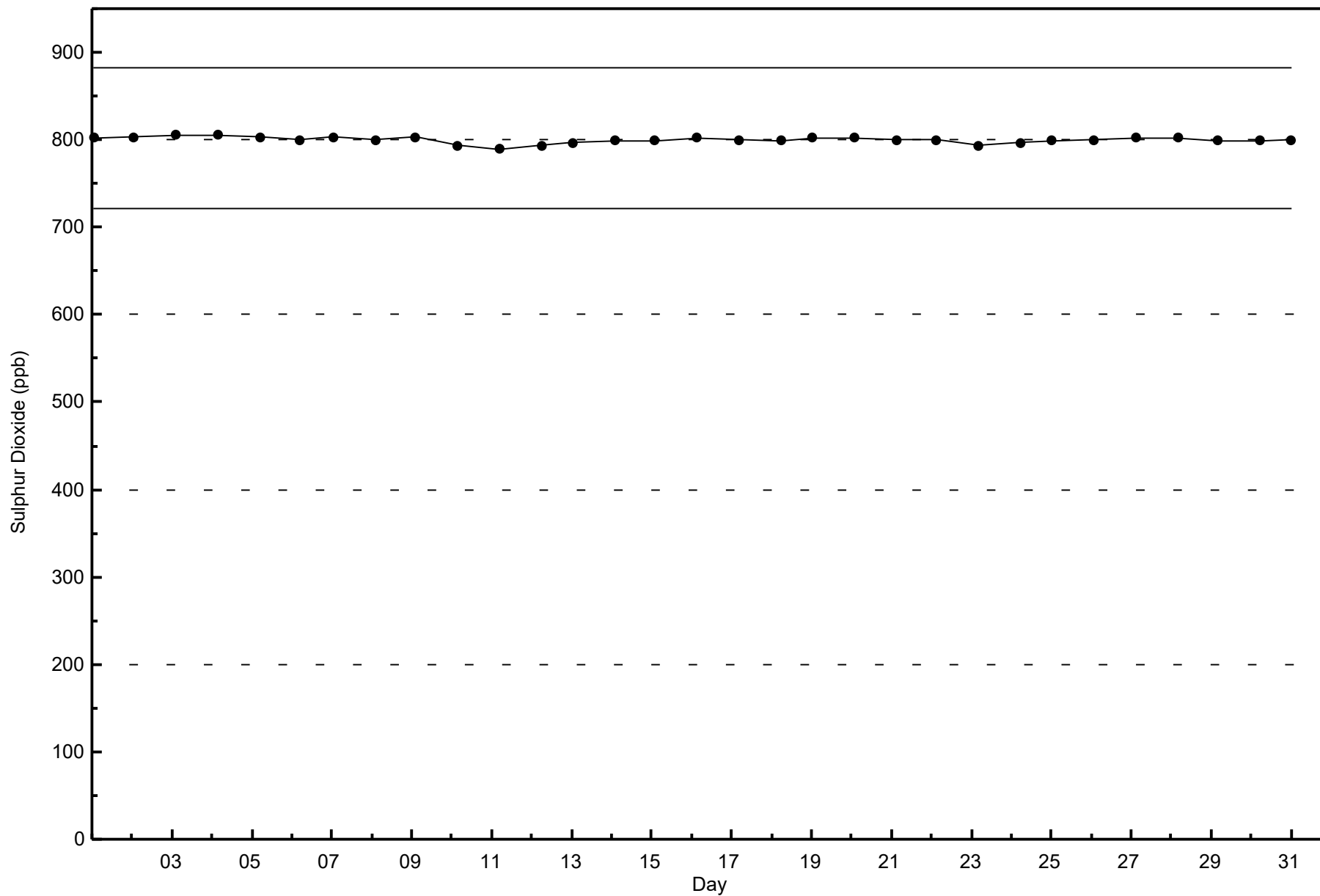
Sulphur Dioxide (SO₂) - ppb
Jackfish 2/3 - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Jackfish 2/3 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H₂S) - ppb

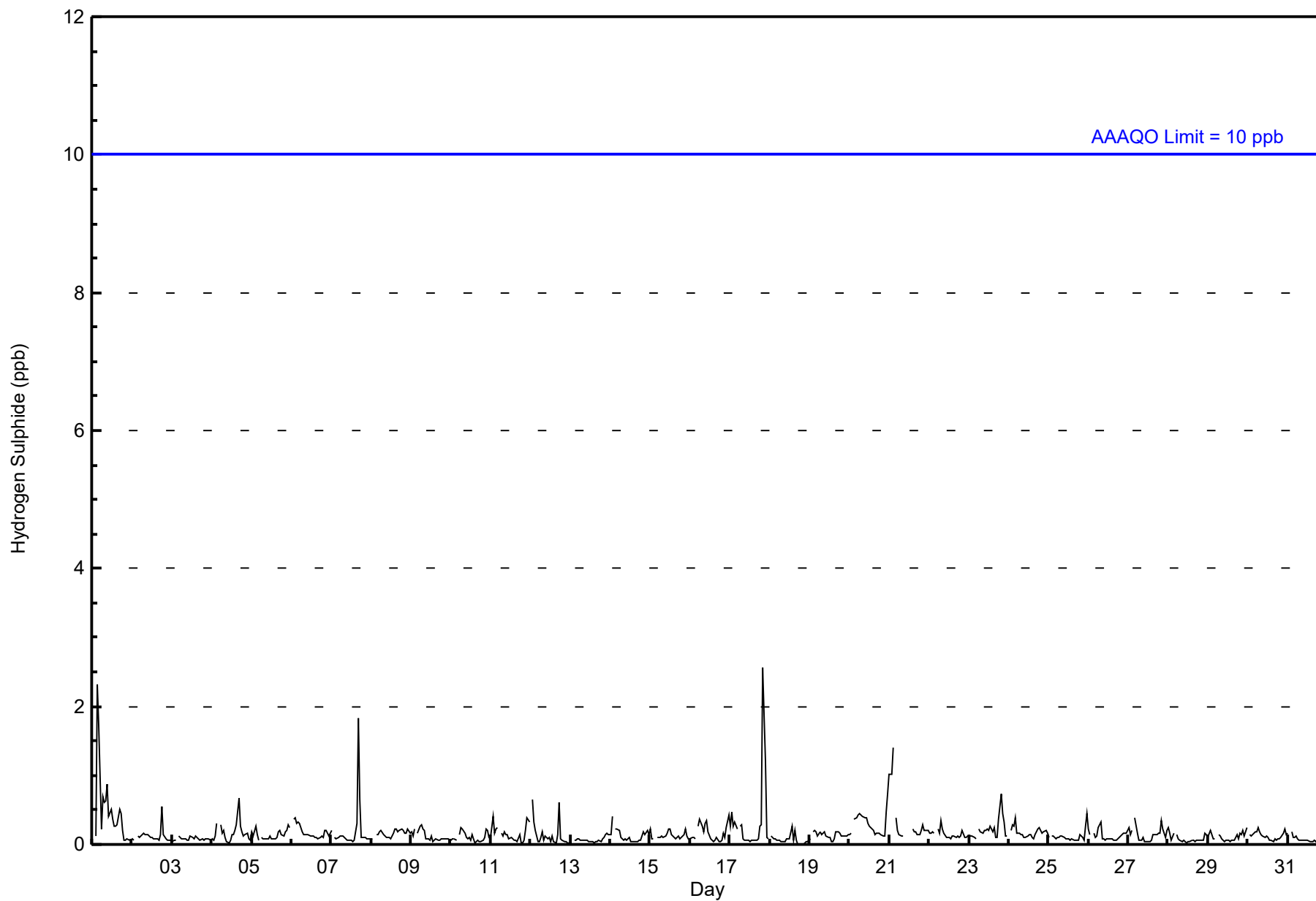
Jackfish 2/3 - July 2026

Number of Exceedances (AAAQO): Maximum Value: 2.6 ppb on Jul 17 21:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 0.5 ppb on Jul 1																			Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 18 20:00 Maximum Diurnal Average: 0.3 ppb at hour 4 Monthly Average: 0.16 ppb																			Minimum Daily Average: 0.1 ppb on Jul 18 Minimum Diurnal Average: 0.1 ppb at hour 15 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 1.0																			Hours of Data: 708	
																																						Hours of Missing Data: 36	
																																						Hours of Calibration: 36	
																																						Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jul	0.1	Z	0.1	2.3	1.7	0.2	0.7	0.6	0.6	0.9	0.4	0.5	0.4	0.3	0.3	0.3	0.5	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.5	2.3													
2-Jul	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.6													
3-Jul	0.0	0.1	0.1	Z	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	0.1	0.1													
4-Jul	0.1	0.1	0.1	0.3	Z	0.3	0.2	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.7	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.7													
5-Jul	0.2	0.1	0.3	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.3													
6-Jul	Z	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.4													
7-Jul	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.3	1.8	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.2	1.8													
8-Jul	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2													
9-Jul	0.2	0.1	0.2	Z	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3													
10-Jul	0.1	0.1	0.1	0.1	Z	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.2													
11-Jul	0.1	0.4	0.2	0.2	0.3	Z	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.2	0.4	0.3	0.2	0.4													
12-Jul	Z	0.6	0.3	0.2	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.6													
13-Jul	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.2													
14-Jul	0.2	0.4	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.4													
15-Jul	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2													
16-Jul	0.1	0.1	0.1	0.1	Z	0.3	0.4	0.3	0.2	0.3	0.3	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.2	0.1	0.3	0.4	0.2	0.4													
17-Jul	0.3	0.5	0.3	0.3	0.2	Z	0.3	0.3	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.3	0.3	2.6	1.2	0.1	0.1	0.3	2.6													
18-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3													
19-Jul	0.1	Z	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2													
20-Jul	0.1	0.2	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.5	0.7	0.3	0.7													
21-Jul	1.0	1.0	1.4	Z	0.4	0.2	0.1	0.1	0.1	C	C	C	C	C	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.4	1.4													
22-Jul	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.3													
23-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.4	0.7	0.4	0.3	0.1	0.1	0.2	0.7													
24-Jul	Z	0.2	0.3	0.3	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4													
25-Jul	0.1	Z	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	0.3	0.5	0.1	0.5													
26-Jul	0.2	0.1	Z	0.2	0.1	0.1	0.2	0.3	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	0.2	0.2	0.2	0.1	0.3													
27-Jul	0.2	0.2	0.2	Z	0.4	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.2	0.1	0.4													
28-Jul	0.3	0.2	0.1	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.3													
29-Jul	0.1	0.2	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2													
30-Jul	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2													
31-Jul	0.2	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2													
																								Diurnal Average															
																								Diurnal Maximum															
Z - zerospan C - Calibration																																							
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																																							



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Jackfish 2/3 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Jackfish 2/3 - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	707	99.86	99.86
3 - 4	1	0.14	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Jackfish 2/3 - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	10	4	18	11	13	22	29	26	79	70	120	156	76	25	33	15	707
3 - 4	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	4	18	11	13	23	29	26	79	70	120	156	76	25	33	15	708

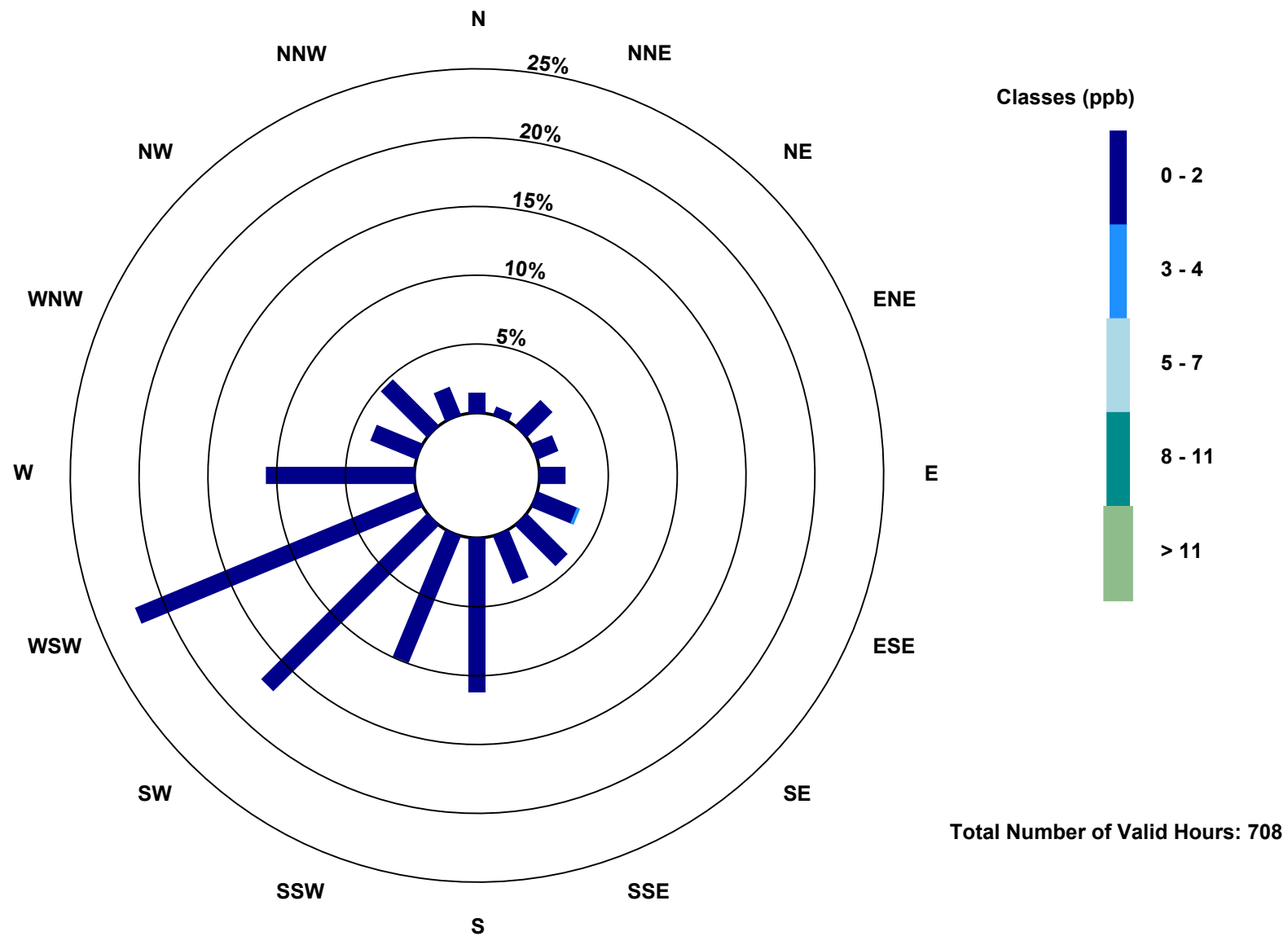
Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Hydrogen Sulphide (H₂S) - ppb
Jackfish 2/3



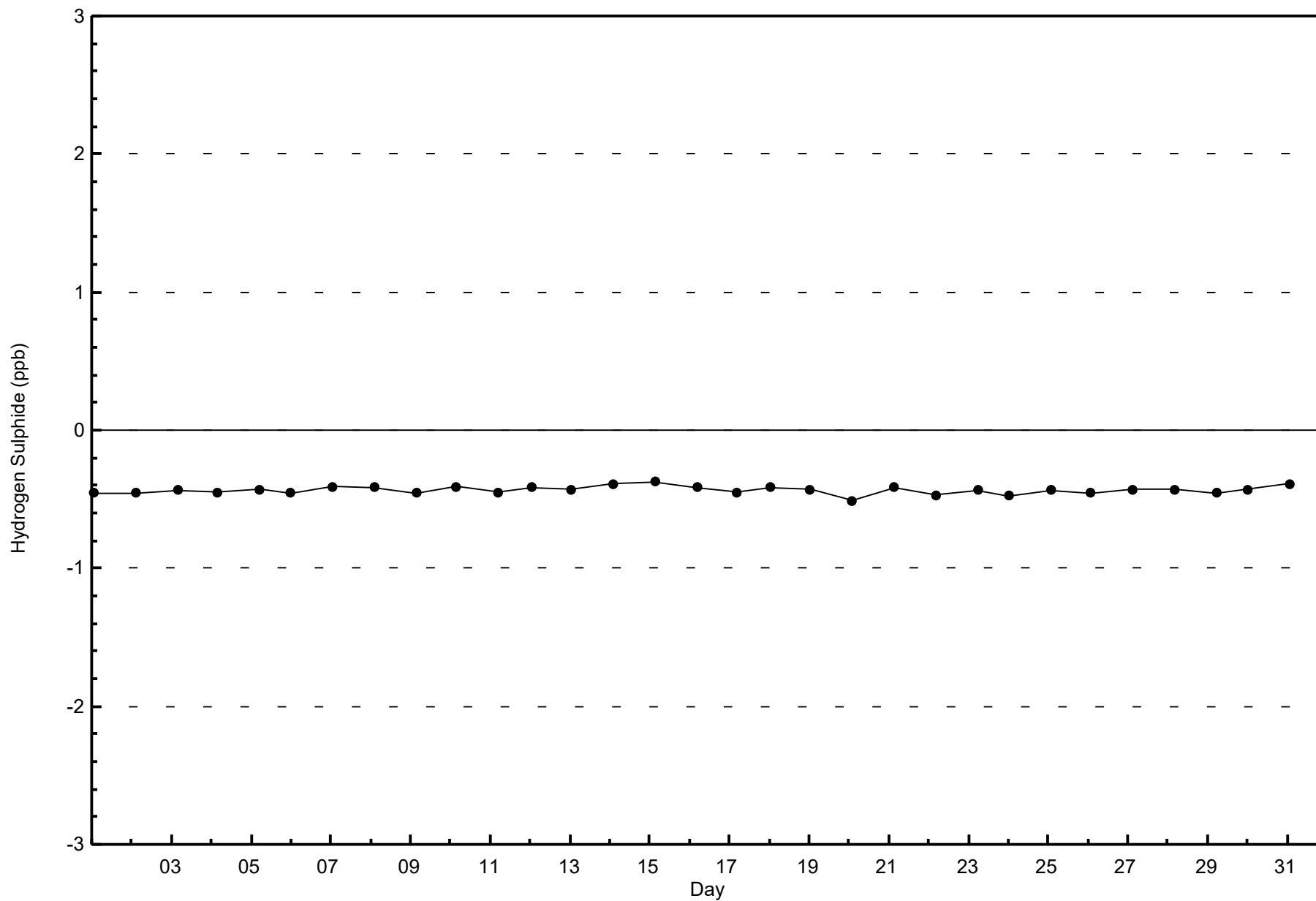


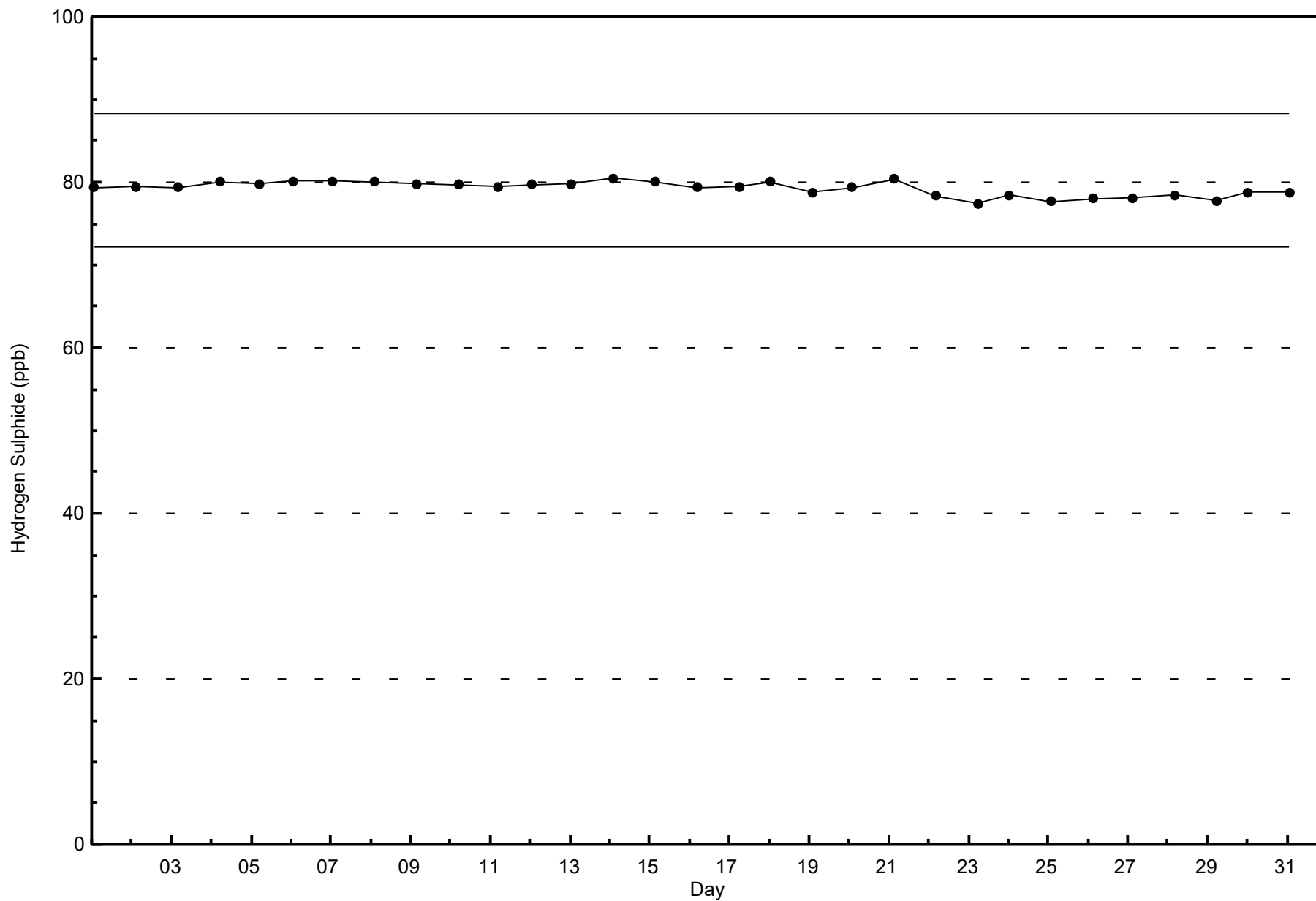
Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H₂S) - ppb

Jackfish 2/3 - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

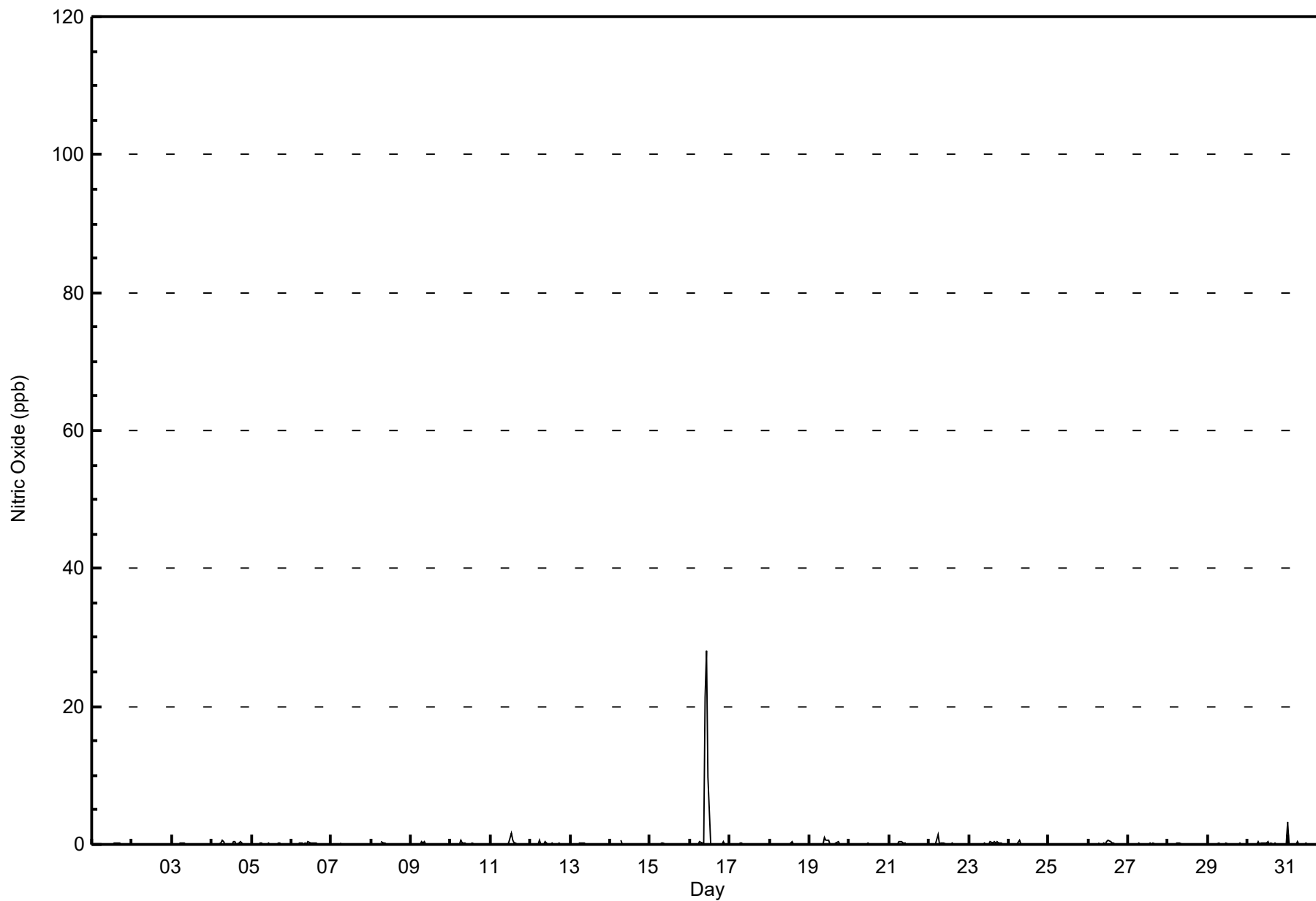
Jackfish 2/3 - July 2026

Maximum Value: 28.1 ppb on Jul 16 11:00																			Maximum Daily Average: 2.6 ppb on Jul 16																			Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 1 01:00																			Minimum Daily Average: 0.0 ppb on Jul 25																			Hours of Data: 707	
Maximum Diurnal Average: 1.0 ppb at hour 11																			Minimum Diurnal Average: 0.0 ppb at hour 24																			Hours of Missing Data: 37	
Monthly Average: 0.14 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.1 P ₉₀ = 0.2 P ₉₉ = 0.7																			Hours of Calibration: 36	
																																						Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2													
2-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1													
3-Jul	Z	0.0	0.0	0.0	0.0	0.2	0.3	0.2	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3													
4-Jul	0.0	Z	0.0	0.0	0.0	0.2	0.5	0.3	0.1	0.0	0.0	0.0	0.1	0.5	0.4	0.1	0.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.5													
5-Jul	0.0	0.0	Z	0.0	0.0	0.3	0.2	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3													
6-Jul	0.0	0.0	0.0	Z	0.0	0.2	0.2	0.1	0.3	0.1	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3													
7-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1													
8-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3													
9-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.5	0.2	0.5	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5													
10-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.5	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5													
11-Jul	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	1.6	0.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.6													
12-Jul	0.0	0.0	0.0	Z	0.0	0.6	0.0	0.1	0.1	0.4	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6													
13-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2													
14-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.5	0.1	0.0	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5													
15-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1													
16-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.4	0.2	0.2	21.5	28.1	9.9	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	2.6	28.1													
17-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1													
18-Jul	0.0	0.0	0.0	Z	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4													
19-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	1.0	0.5	0.7	0.0	0.0	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0													
20-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1													
21-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.1	0.1	0.1	M	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4													
22-Jul	0.0	Z	0.0	0.0	0.0	1.5	0.0	0.1	0.2	0.2	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.5													
23-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.3	0.1	0.3	0.1	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.1	0.4													
24-Jul	0.0	0.0	0.0	Z	0.0	0.1	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5													
25-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0													
26-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.0	0.1	0.1	0.4	0.6	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6													
27-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2													
28-Jul	0.0	Z	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3													
29-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1													
30-Jul	0.0	0.0	0.0	Z	0.0	0.1	0.4	0.1	0.2	0.1	0.3	0.2	0.5	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5													
31-Jul	3.2	0.0	0.0	0.0	Z	0.0	0.3	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.2													
Diurnal Average																																							
Diurnal Maximum																																							
Z - zerospan C - Calibration M - Maintenance																																							



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Jackfish 2/3 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Jackfish 2/3 - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	705	99.72	99.72
21 - 40	2	0.28	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Jackfish 2/3 - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	10	4	18	11	13	22	30	24	82	70	111	161	77	25	33	14	705
21 - 40	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	4	18	11	13	22	30	24	82	70	113	161	77	25	33	14	707

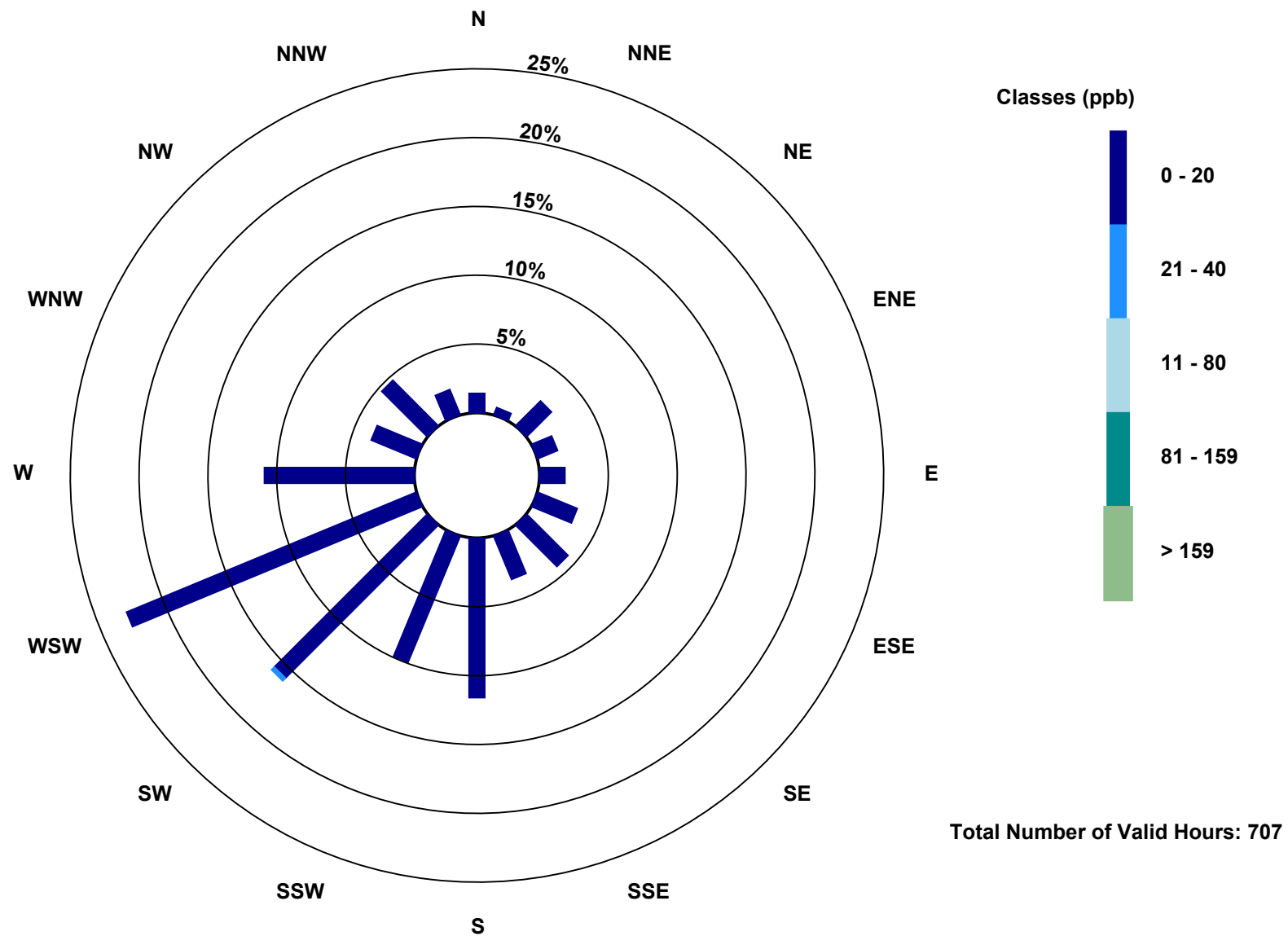
Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

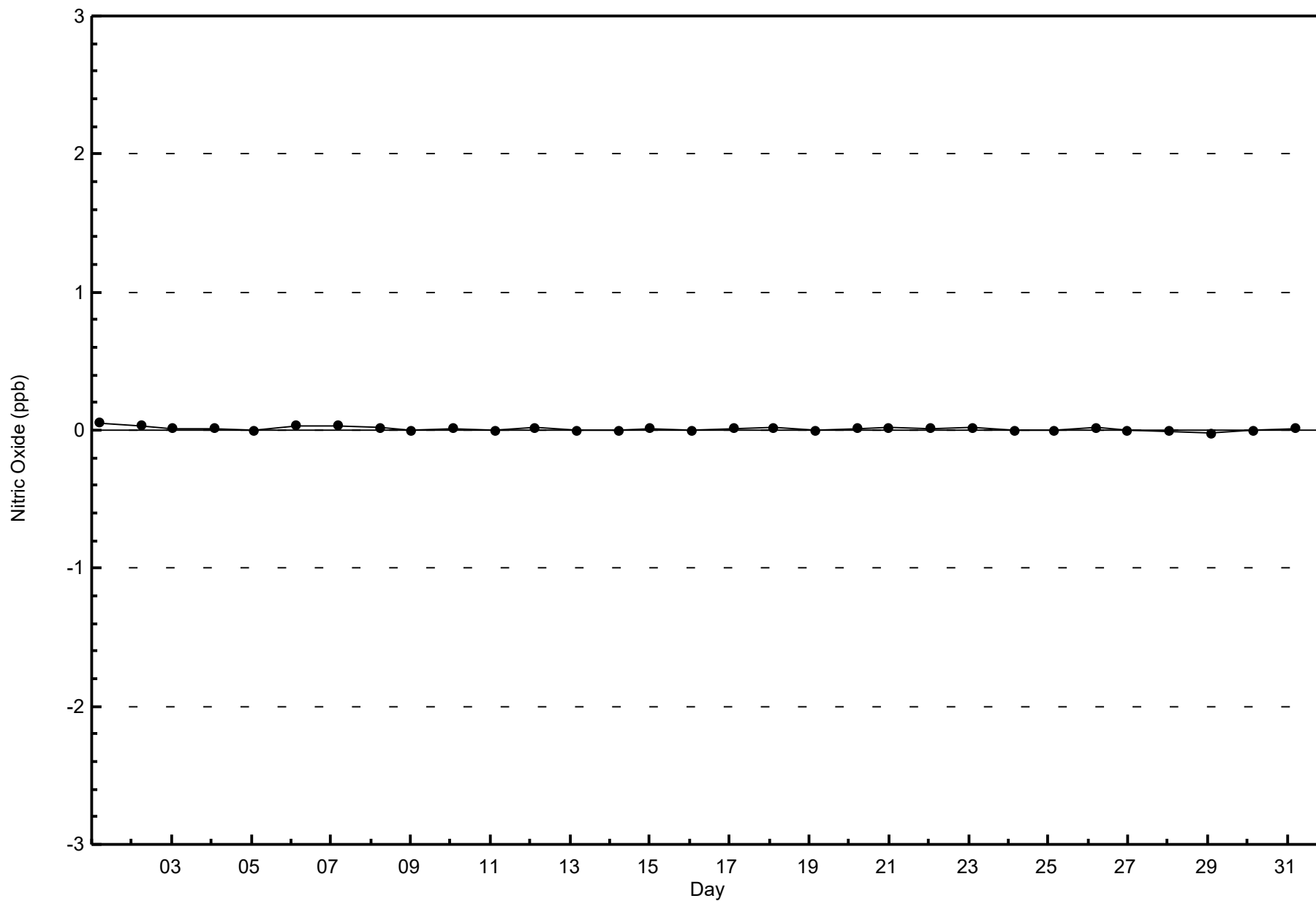
Nitric Oxide (NO) - ppb
Jackfish 2/3





Wood Buffalo Environmental Association
Zero Responses

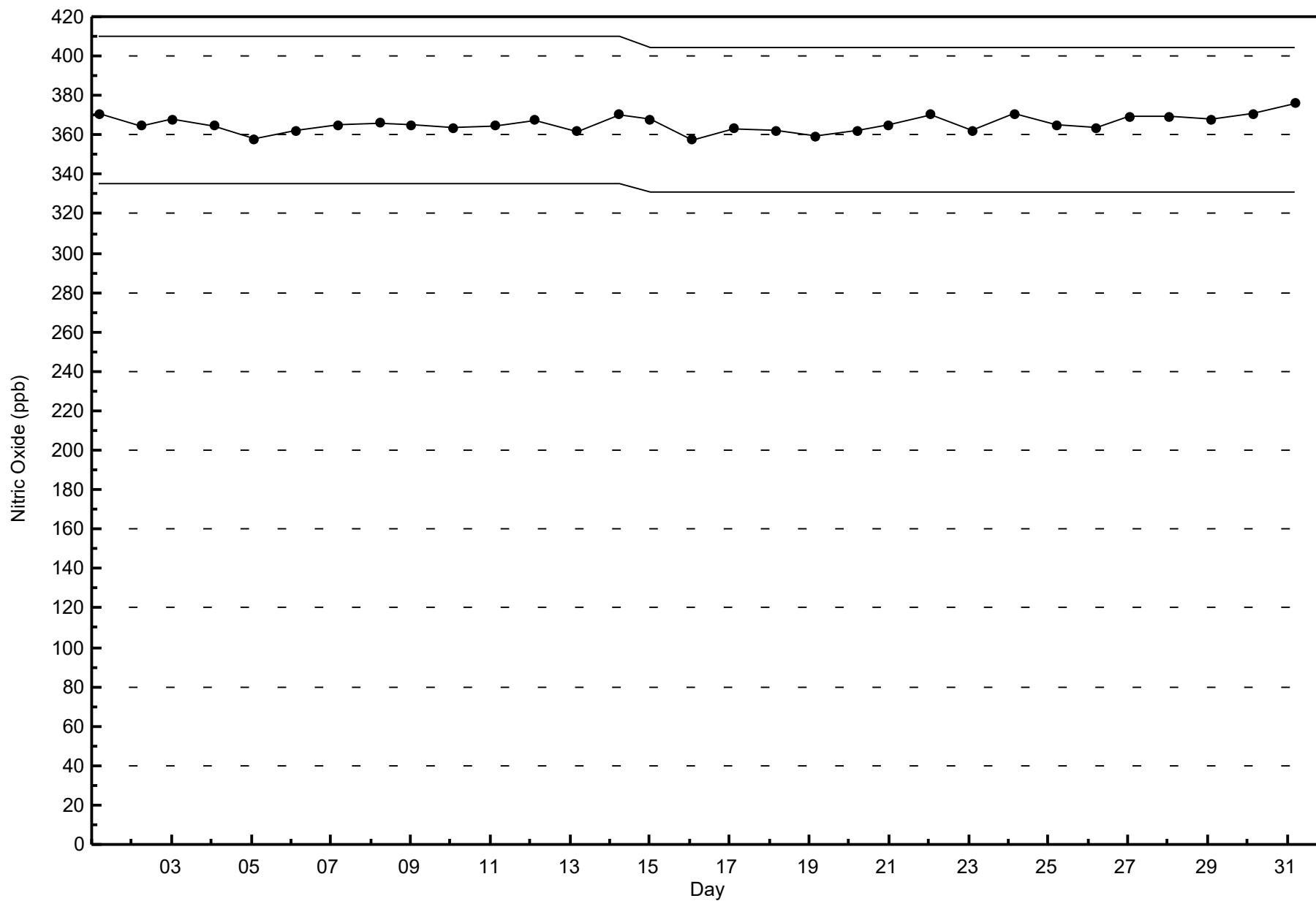
Nitric Oxide (NO) - ppb
Jackfish 2/3 - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Jackfish 2/3 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

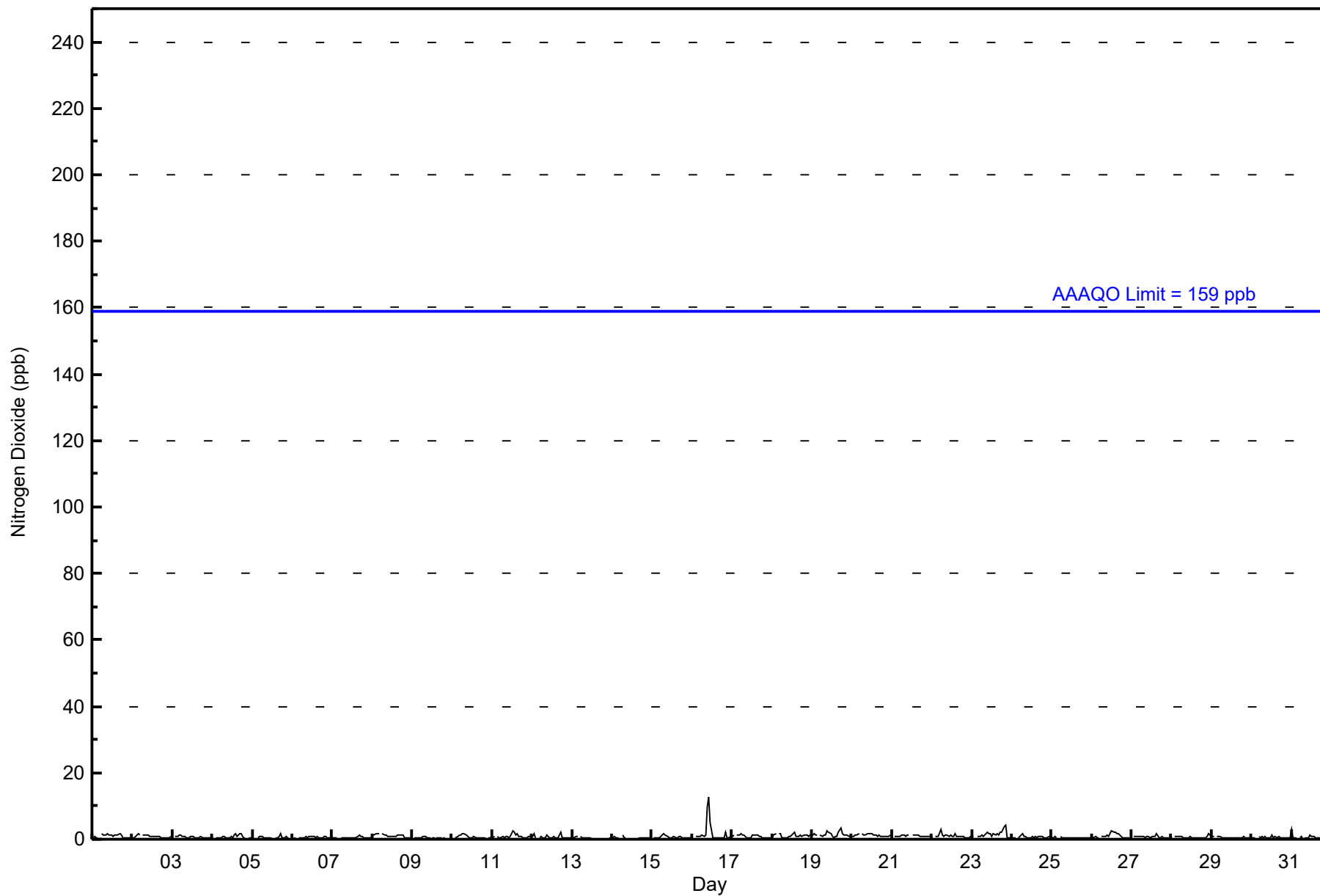
Jackfish 2/3 - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																			Hours in Service: 744													
Maximum Value: 12.9 ppb on Jul 16 11:00																			Maximum Daily Average: 1.8 ppb on Jul 16							Hours of Data: 707						
Minimum Value: 0.1 ppb on Jul 6 00:00																			Minimum Daily Average: 0.3 ppb on Jul 13							Hours of Missing Data: 37						
Maximum Diurnal Average: 1.2 ppb at hour 11																			Minimum Diurnal Average: 0.5 ppb at hour 22							Hours of Calibration: 36						
Monthly Average: 0.82 ppb																			Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.6 Q ₃ = 1.0 P ₉₀ = 1.4 P ₉₉ = 2.8							Percent Operational Time: 99.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24								
1-Jul	0.6	0.7	0.6	0.6	Z	1.7	1.2	1.4	1.3	1.5	1.4	1.4	1.0	1.2	1.1	1.1	1.6	1.1	0.6	0.5	0.5	0.5	0.5	0.5	1.0	1.7						
2-Jul	0.5	0.6	0.9	1.5	1.4	Z	1.4	1.3	1.1	1.2	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.5	0.6	0.6	0.6	0.5	0.5	0.7	0.9	1.5						
3-Jul	Z	0.7	0.7	1.0	1.2	1.2	1.0	0.9	0.6	0.6	0.6	0.7	0.8	0.4	0.6	0.5	0.4	0.8	0.6	0.5	0.3	0.3	0.3	0.3	0.7	1.2						
4-Jul	0.3	Z	0.5	0.4	0.4	0.6	1.0	1.0	0.6	0.4	0.4	0.7	0.6	1.3	1.5	0.9	1.5	1.8	0.7	0.3	0.2	0.2	0.4	0.4	0.7	1.8						
5-Jul	0.3	0.2	Z	0.5	1.0	1.0	0.7	0.4	0.4	0.4	0.6	0.4	0.2	0.2	0.3	0.3	0.9	1.8	0.4	0.3	1.0	0.3	0.2	0.1	0.5	1.8						
6-Jul	0.2	0.3	0.2	Z	0.4	0.6	0.6	0.4	0.8	0.5	1.0	0.8	0.8	1.0	0.6	0.8	0.3	0.3	0.3	0.9	0.9	0.4	0.4	0.7	0.6	1.0						
7-Jul	0.4	0.3	0.3	0.3	Z	0.6	0.4	0.4	0.6	0.6	0.5	0.5	0.6	0.5	0.5	0.8	1.2	0.9	0.7	0.5	0.4	0.4	0.5	0.5	0.5	1.2						
8-Jul	0.9	1.4	1.9	1.9	1.7	Z	1.7	1.1	1.1	0.9	0.9	1.0	0.9	1.0	0.7	1.2	1.1	1.1	1.1	0.6	0.5	0.4	0.6	0.4	1.0	1.9						
9-Jul	Z	0.5	0.3	0.3	0.3	0.4	0.8	0.7	0.8	0.4	0.3	0.2	0.6	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.4	0.8						
10-Jul	0.3	Z	0.5	0.9	1.2	1.2	1.9	1.8	1.1	0.7	0.6	0.4	0.5	0.8	0.4	0.4	0.4	0.6	0.4	0.3	0.2	0.2	0.3	0.3	0.7	1.9						
11-Jul	0.3	0.8	Z	0.9	0.6	0.6	0.7	0.6	0.7	0.8	0.6	0.9	2.7	2.3	1.4	1.8	0.7	0.7	0.6	0.4	0.4	0.6	0.9	0.8	0.9	2.7						
12-Jul	0.8	1.6	0.6	Z	0.6	0.8	0.4	0.5	0.6	1.1	0.5	0.6	0.5	0.9	0.4	0.3	1.1	2.2	0.4	0.3	0.3	0.3	0.4	0.5	0.7	2.2						
13-Jul	0.4	0.5	0.7	0.8	Z	0.7	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.8							
14-Jul	0.3	0.9	0.4	0.5	0.6	Z	1.2	0.6	0.5	C	C	C	C	C	0.2	0.2	0.4	0.4	0.3	0.5	0.3	0.5	0.4	0.6	0.5	1.2						
15-Jul	Z	0.6	0.6	0.6	0.6	0.9	1.2	1.5	1.1	0.9	0.6	0.6	0.6	0.7	0.6	0.6	0.7	0.7	0.6	0.5	0.5	0.6	0.6	0.6	0.7	1.5						
16-Jul	0.8	Z	0.8	0.7	0.9	0.8	1.3	1.0	1.1	9.9	12.9	4.9	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	2.0	0.5	0.6	0.8	1.8	12.9						
17-Jul	1.0	1.1	Z	1.3	1.3	1.5	1.4	1.3	0.7	0.5	0.6	0.5	1.2	1.2	1.2	1.1	0.9	0.7	0.5	0.4	0.5	0.5	0.5	0.5	0.9	1.5						
18-Jul	0.5	1.1	1.5	Z	1.9	1.7	0.4	0.4	0.3	0.6	1.0	0.8	1.2	2.1	1.0	0.9	1.0	1.1	0.7	1.3	1.2	1.2	1.0	1.2	1.0	2.1						
19-Jul	1.4	1.9	1.4	1.2	Z	1.2	0.9	1.1	1.2	2.4	2.0	1.8	1.0	0.6	0.8	1.0	2.0	3.4	1.5	1.1	1.2	1.2	1.0	0.9	1.4	3.4						
20-Jul	0.7	0.9	1.2	1.3	1.5	Z	1.5	1.4	1.4	1.5	1.9	1.6	1.7	1.4	1.2	1.0	1.2	1.0	0.8	0.8	0.8	0.8	0.7	1.3	1.2	1.9						
21-Jul	Z	0.9	0.8	0.7	0.8	0.9	1.4	1.2	1.0	1.3	1.4	M	1.1	1.2	1.1	1.4	1.2	0.9	0.9	0.7	0.7	0.9	0.9	0.9	1.0	1.4						
22-Jul	1.0	Z	0.9	0.8	0.9	2.8	1.2	1.0	1.4	1.2	0.9	1.1	0.9	1.0	1.8	1.0	0.9	0.8	0.8	0.7	0.6	0.6	0.6	0.7	1.0	2.8						
23-Jul	0.9	1.0	Z	1.0	0.8	1.0	1.1	1.0	1.5	2.1	1.8	1.6	0.8	1.5	1.2	1.9	1.1	2.1	2.2	3.7	4.4	0.5	0.3	0.3	1.5	4.4						
24-Jul	0.4	0.3	0.3	Z	0.5	0.8	1.5	0.8	0.8	0.6	0.5	0.5	0.7	0.6	0.7	0.5	0.7	0.7	0.7	0.6	0.5	0.6	0.9	1.0	0.7	1.5						
25-Jul	0.6	0.4	0.7	0.5	Z	0.8	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.5	0.3	0.4	0.4	0.4	0.5	0.5	0.4	0.5	0.8						
26-Jul	0.4	0.4	0.7	0.6	0.6	Z	1.0	0.9	1.0	1.3	0.9	1.8	2.5	2.3	2.1	1.8	1.9	1.2	0.4	0.4	0.4	0.6	0.6	0.4	1.1	2.5						
27-Jul	Z	1.0	1.0	0.9	1.0	0.8	0.9	0.7	0.6	0.7	0.8	0.5	0.7	0.9	0.8	1.7	0.6	0.6	0.7	0.6	0.5	0.5	0.5	0.6	0.8	1.7						
28-Jul	0.7	Z	0.8	0.8	0.8	0.9	0.8	0.6	0.6	0.6	0.4	0.8	0.5	0.3	0.3	0.6	0.4	0.4	0.4	0.4	0.4	0.7	1.6	1.2	0.7	1.6						
29-Jul	0.9	0.8	Z	1.0	0.9	1.0	0.6	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.5	0.4	0.9	0.3	0.3	0.3	0.5	0.5	1.0						
30-Jul	0.3	0.4	0.4	Z	0.7	0.6	0.9	0.5	0.7	0.5	0.6	0.6	1.1	0.3	0.7	0.3	0.7	0.3	0.6	0.4	0.3	0.4	0.5	0.5	0.5	1.1						
31-Jul	3.0	0.6	0.3	0.2	Z	0.6	1.0	0.2	0.4	0.4	0.3	1.1	0.7	0.9	0.6	0.6	0.5	0.6	0.5	0.4	0.4	0.4	0.6	0.8	0.7	3.0						
Diurnal Average																																
Diurnal Maximum																																
Z - zerospan C - Calibration M - Maintenance																																
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																																



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Jackfish 2/3 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Jackfish 2/3 - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
41 - 60	0	0.00	100.00
61 - 80	0	0.00	100.00
81 - 100	0	0.00	100.00
101 - 120	0	0.00	100.00
121 - 140	0	0.00	100.00
141 - 160	0	0.00	100.00
161 - 180	0	0.00	100.00
181 - 200	0	0.00	100.00
201 - 220	0	0.00	100.00
221 - 240	0	0.00	100.00
241 - 260	0	0.00	100.00
261 - 280	0	0.00	100.00
281 - 300	0	0.00	100.00
301 - 320	0	0.00	100.00
321 - 340	0	0.00	100.00
341 - 360	0	0.00	100.00
361 - 380	0	0.00	100.00
381 - 400	0	0.00	100.00
401 - 420	0	0.00	100.00
421 - 440	0	0.00	100.00
441 - 460	0	0.00	100.00
461 - 480	0	0.00	100.00
481 - 500	0	0.00	100.00
501 - 520	0	0.00	100.00
521 - 540	0	0.00	100.00
541 - 560	0	0.00	100.00
561 - 580	0	0.00	100.00
581 - 600	0	0.00	100.00
601 - 620	0	0.00	100.00
621 - 640	0	0.00	100.00
641 - 660	0	0.00	100.00
661 - 680	0	0.00	100.00
681 - 700	0	0.00	100.00
701 - 720	0	0.00	100.00
721 - 740	0	0.00	100.00
741 - 760	0	0.00	100.00
761 - 780	0	0.00	100.00
781 - 800	0	0.00	100.00
801 - 820	0	0.00	100.00
821 - 840	0	0.00	100.00
841 - 860	0	0.00	100.00
861 - 880	0	0.00	100.00
881 - 900	0	0.00	100.00
901 - 920	0	0.00	100.00
921 - 940	0	0.00	100.00
941 - 960	0	0.00	100.00
961 - 980	0	0.00	100.00
981 - 1000	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Jackfish 2/3 - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	10	4	18	11	13	22	30	24	82	70	113	161	77	25	33	14	707
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	4	18	11	13	22	30	24	82	70	113	161	77	25	33	14	707

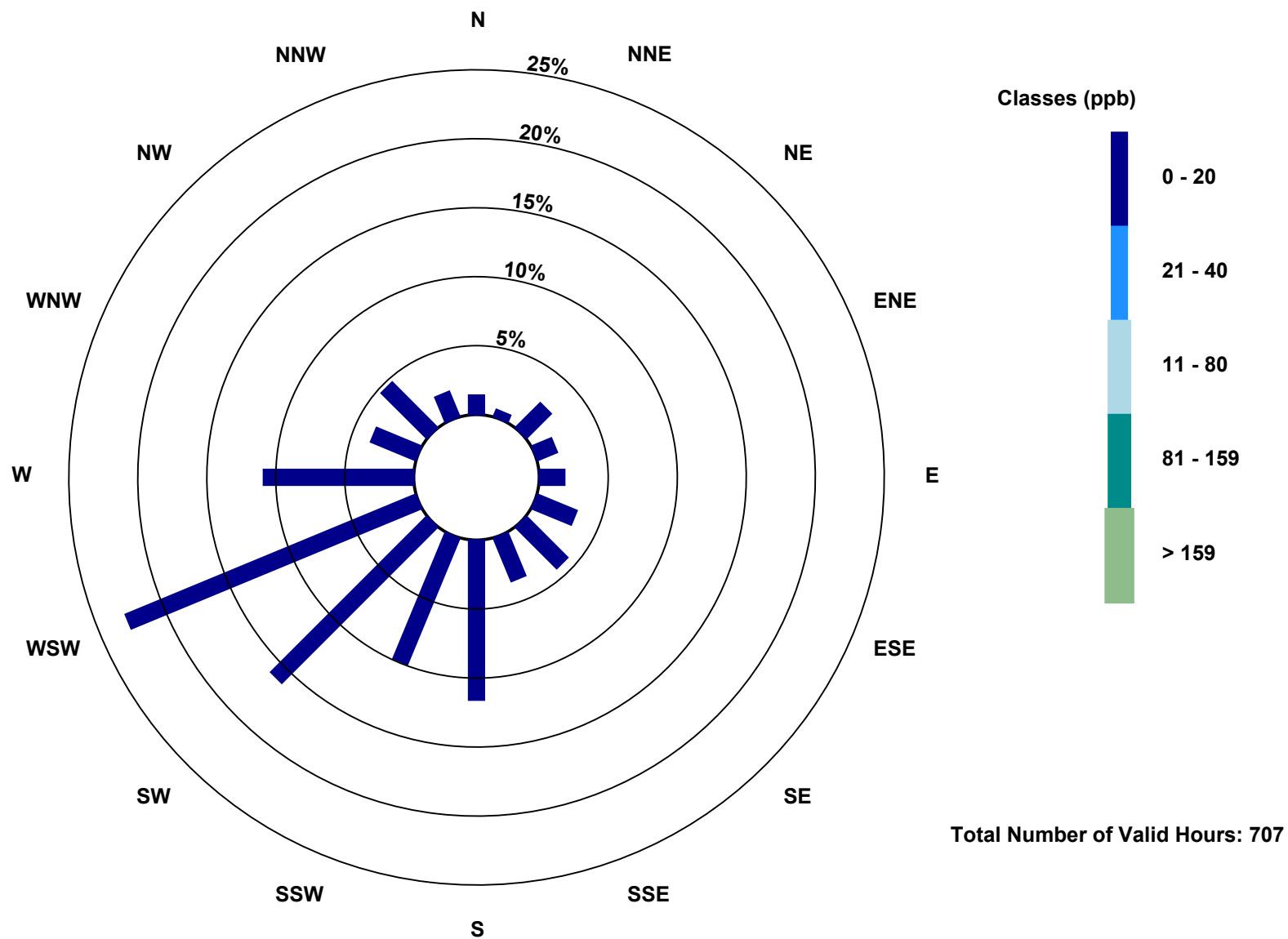
Total Number of Valid Hours: 707

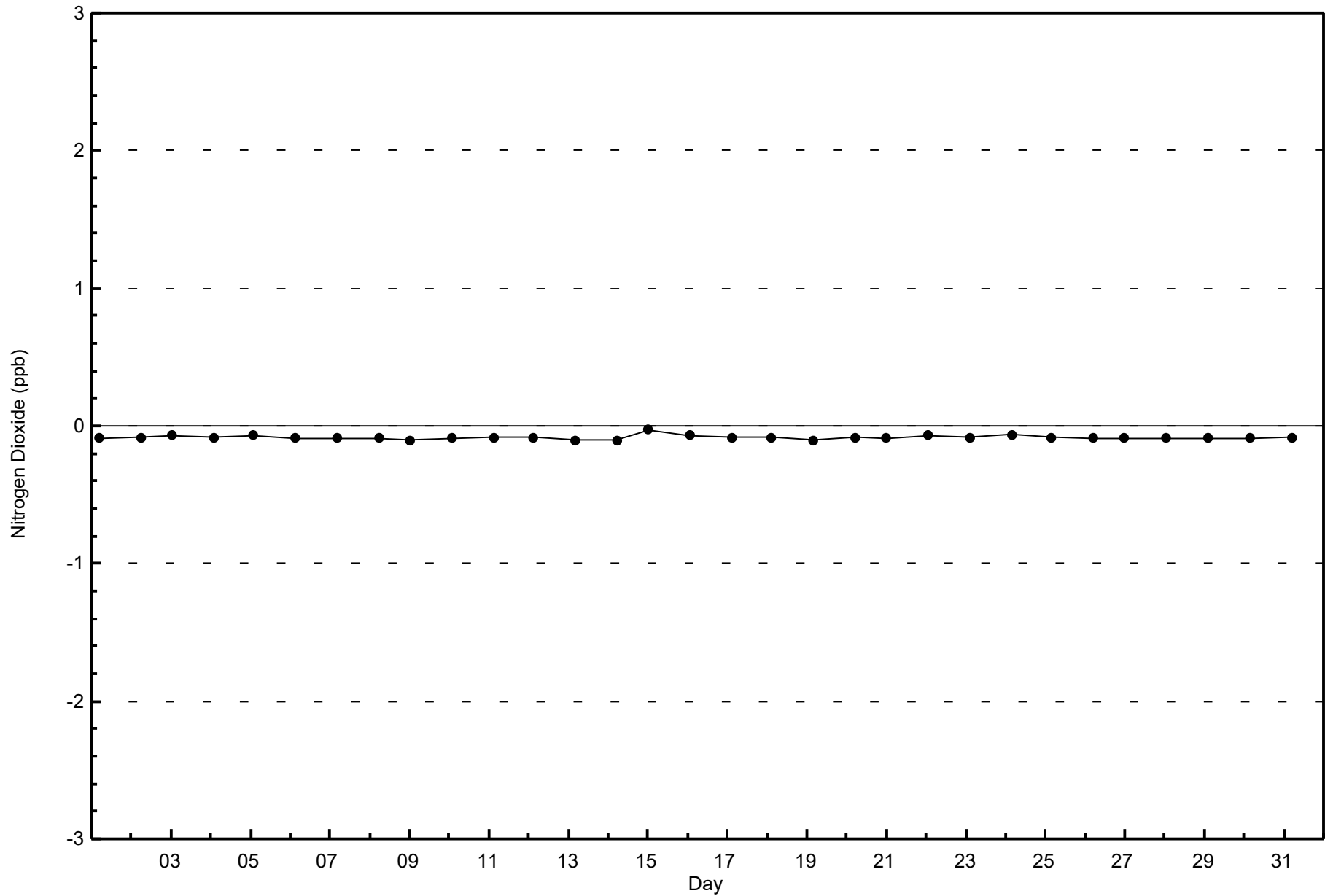
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Dioxide (NO₂) - ppb
Jackfish 2/3

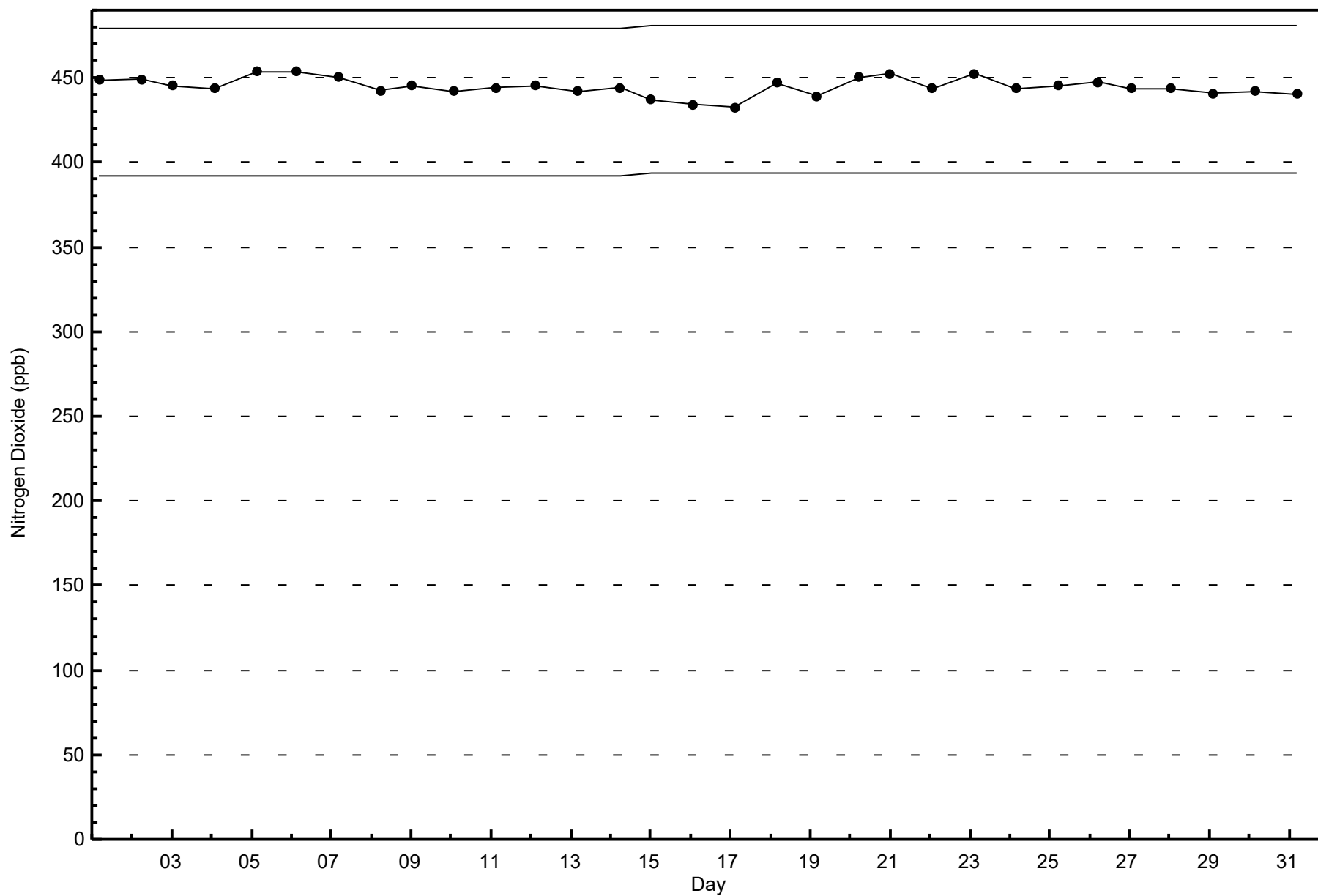






Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Jackfish 2/3 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

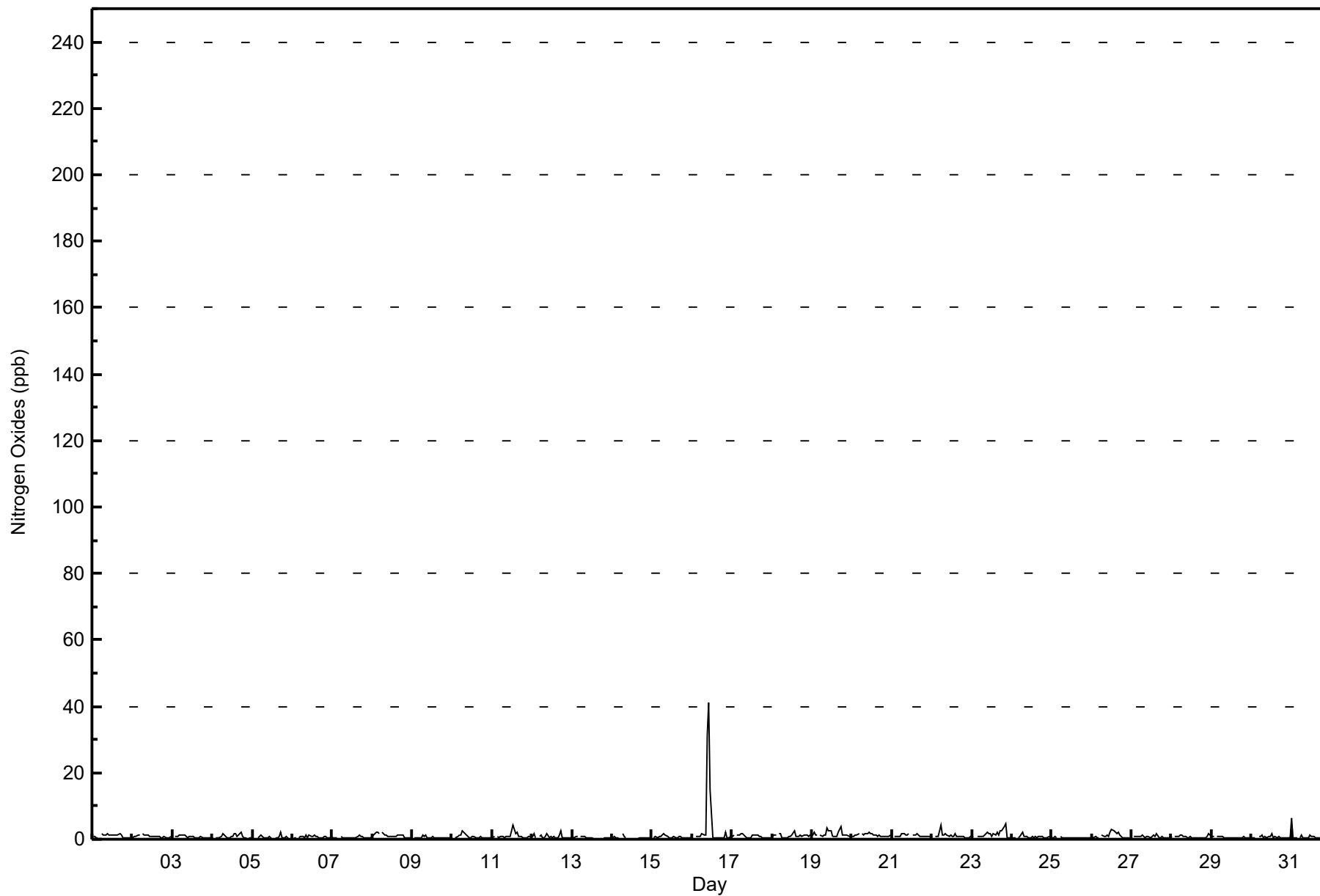
Jackfish 2/3 - July 2026

Maximum Value: 41.0 ppb on Jul 16 11:00																			Maximum Daily Average: 4.5 ppb on Jul 16							Hours in Service: 744	
Minimum Value: 0.1 ppb on Jul 13 15:00																			Minimum Daily Average: 0.4 ppb on Jul 13							Hours of Data: 707	
Maximum Diurnal Average: 2.2 ppb at hour 11																			Minimum Diurnal Average: 0.5 ppb at hour 22							Hours of Missing Data: 37	
Monthly Average: 0.95 ppb																			Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.7 Q ₃ = 1.0 P ₉₀ = 1.5 P ₉₉ = 3.9							Hours of Calibration: 36	
																										Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.6	0.7	0.6	0.6	Z	1.8	1.3	1.5	1.4	1.6	1.4	1.4	1.1	1.3	1.2	1.2	1.8	1.2	0.6	0.5	0.5	0.5	0.5	0.5	1.0	1.8	
2-Jul	0.5	0.6	0.9	1.5	1.4	Z	1.5	1.4	1.2	1.2	1.0	0.9	0.9	0.8	0.8	0.8	0.7	0.5	0.6	0.6	0.6	0.5	0.5	0.7	0.9	1.5	
3-Jul	Z	0.7	0.7	1.0	1.2	1.4	1.3	1.1	0.7	0.6	0.7	0.7	0.9	0.4	0.6	0.5	0.4	0.8	0.6	0.5	0.3	0.3	0.3	0.3	0.7	1.4	
4-Jul	0.3	Z	0.5	0.4	0.4	0.8	1.5	1.3	0.7	0.4	0.4	0.7	0.7	1.8	1.9	1.0	1.6	2.2	0.8	0.3	0.2	0.2	0.4	0.4	0.8	2.2	
5-Jul	0.3	0.2	Z	0.5	1.0	1.3	0.9	0.5	0.5	0.5	0.8	0.4	0.2	0.2	0.3	0.3	1.0	2.1	0.4	0.3	1.0	0.3	0.2	0.1	0.6	2.1	
6-Jul	0.2	0.3	0.2	Z	0.4	0.8	0.8	0.5	1.1	0.6	1.3	1.0	1.0	1.2	0.7	0.9	0.3	0.3	0.3	0.9	0.9	0.4	0.4	0.7	0.7	1.3	
7-Jul	0.4	0.3	0.3	0.3	Z	0.7	0.5	0.4	0.6	0.6	0.5	0.5	0.6	0.5	0.5	0.8	1.3	1.0	0.7	0.5	0.4	0.4	0.5	0.5	0.5	1.3	
8-Jul	0.9	1.4	1.9	1.9	1.7	Z	2.0	1.2	1.2	0.9	0.9	1.0	0.9	1.0	0.7	1.2	1.1	1.1	1.2	0.6	0.5	0.4	0.6	0.4	1.1	2.0	
9-Jul	Z	0.5	0.3	0.3	0.3	0.4	1.3	0.9	1.3	0.4	0.3	0.2	0.7	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.4	1.3	
10-Jul	0.3	Z	0.5	0.9	1.2	1.2	2.4	2.0	1.3	0.7	0.6	0.4	0.6	0.9	0.4	0.4	0.4	0.7	0.4	0.3	0.2	0.2	0.3	0.3	0.7	2.4	
11-Jul	0.3	0.8	Z	0.9	0.6	0.7	0.8	0.6	0.7	0.8	0.6	1.0	4.3	3.0	1.6	2.0	0.7	0.7	0.6	0.4	0.4	0.6	0.9	0.8	1.0	4.3	
12-Jul	0.8	1.6	0.6	Z	0.6	1.4	0.4	0.6	0.7	1.5	0.6	0.7	0.5	1.0	0.4	0.3	1.2	2.4	0.4	0.3	0.3	0.3	0.4	0.5	0.8	2.4	
13-Jul	0.4	0.5	0.7	0.8	Z	0.8	0.8	0.7	0.5	0.5	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.8	
14-Jul	0.3	0.9	0.4	0.5	0.6	Z	1.7	0.7	0.5	C	C	C	C	C	0.2	0.2	0.4	0.4	0.3	0.5	0.3	0.5	0.4	0.6	0.5	1.7	
15-Jul	Z	0.6	0.6	0.6	0.6	0.9	1.3	1.6	1.2	0.9	0.6	0.6	0.6	0.7	0.6	0.6	0.7	0.7	0.6	0.5	0.5	0.6	0.6	0.6	0.7	1.6	
16-Jul	0.8	Z	0.8	0.7	0.9	0.8	1.7	1.2	1.3	31.4	41.0	14.8	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	2.3	0.5	0.6	0.8	4.5	41.0	
17-Jul	1.0	1.1	Z	1.3	1.3	1.5	1.5	1.4	0.7	0.5	0.6	0.5	1.2	1.2	1.3	1.1	0.9	0.7	0.5	0.4	0.5	0.5	0.5	0.5	0.9	1.5	
18-Jul	0.5	1.1	1.5	Z	1.9	1.8	0.4	0.4	0.3	0.6	1.0	0.8	1.2	2.5	1.0	1.0	1.0	1.1	0.7	1.3	1.2	1.2	1.0	1.2	1.1	2.5	
19-Jul	1.4	1.9	1.4	1.2	Z	1.2	0.9	1.2	1.3	3.4	2.5	2.5	1.0	0.6	0.8	1.0	2.1	3.8	1.5	1.1	1.2	1.2	1.0	0.9	1.5	3.8	
20-Jul	0.7	0.9	1.2	1.3	1.5	Z	1.5	1.4	1.5	1.6	2.0	1.7	1.8	1.5	1.3	1.0	1.2	1.0	0.8	0.8	0.8	0.8	0.7	1.3	1.2	2.0	
21-Jul	Z	0.9	0.8	0.7	0.8	0.9	1.7	1.6	1.1	1.4	1.5	M	1.1	1.2	1.1	1.5	1.2	0.9	0.9	0.7	0.7	0.9	0.9	0.9	1.1	1.7	
22-Jul	1.0	Z	0.9	0.8	0.9	4.3	1.2	1.1	1.6	1.4	0.9	1.2	0.9	1.0	1.9	1.0	0.9	0.8	0.8	0.7	0.6	0.6	0.6	0.7	1.1	4.3	
23-Jul	0.9	1.0	Z	1.0	0.8	1.0	1.1	1.0	1.6	2.2	1.8	1.6	0.8	1.8	1.3	2.2	1.2	2.5	2.5	3.9	4.5	0.5	0.3	0.3	1.6	4.5	
24-Jul	0.4	0.3	0.3	Z	0.5	0.9	2.0	0.9	0.9	0.6	0.5	0.5	0.7	0.6	0.7	0.5	0.7	0.7	0.7	0.6	0.5	0.6	0.9	1.0	0.7	2.0	
25-Jul	0.6	0.4	0.7	0.5	Z	0.8	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.5	0.3	0.4	0.4	0.4	0.5	0.5	0.4	0.5	0.8	
26-Jul	0.4	0.4	0.7	0.6	0.6	Z	1.1	1.0	1.0	1.4	1.0	2.2	3.1	2.6	2.3	1.9	2.0	1.2	0.4	0.4	0.4	0.6	0.6	0.4	1.1	3.1	
27-Jul	Z	1.0	1.0	0.9	1.0	0.8	1.1	0.7	0.6	0.7	0.8	0.5	0.7	1.1	0.8	1.9	0.6	0.6	0.7	0.6	0.5	0.5	0.5	0.6	0.8	1.9	
28-Jul	0.7	Z	0.8	0.8	0.8	1.1	1.1	0.7	0.7	0.6	0.4	0.8	0.5	0.3	0.3	0.6	0.4	0.4	0.4	0.4	0.4	0.7	1.6	1.2	0.7	1.6	
29-Jul	0.9	0.8	Z	1.0	0.9	1.0	0.7	0.5	0.4	0.3	0.3	0.5	0.3	0.3	0.4	0.3	0.3	0.5	0.4	1.0	0.3	0.3	0.3	0.5	0.5	1.0	
30-Jul	0.3	0.4	0.4	Z	0.7	0.7	1.3	0.6	0.9	0.6	0.9	0.8	1.6	0.3	0.9	0.3	0.8	0.3	0.6	0.4	0.3	0.4	0.5	0.5	0.6	1.6	
31-Jul	6.2	0.6	0.3	0.2	Z	0.6	1.3	0.2	0.4	0.4	0.3	1.2	0.7	0.9	0.6	0.6	0.5	0.6	0.5	0.4	0.4	0.4	0.6	0.8	0.8	6.2	
Diurnal Average																										Diurnal Maximum	
Diurnal Maximum																											
Z - zerospan C - Calibration M - Maintenance																											



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Jackfish 2/3 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Jackfish 2/3 - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	705	99.72	99.72
21 - 40	1	0.14	99.86
41 - 80	1	0.14	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Jackfish 2/3 - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	10	4	18	11	13	22	30	24	82	70	111	161	77	25	33	14	705
21 - 40	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
11 - 80	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	4	18	11	13	22	30	24	82	70	113	161	77	25	33	14	707

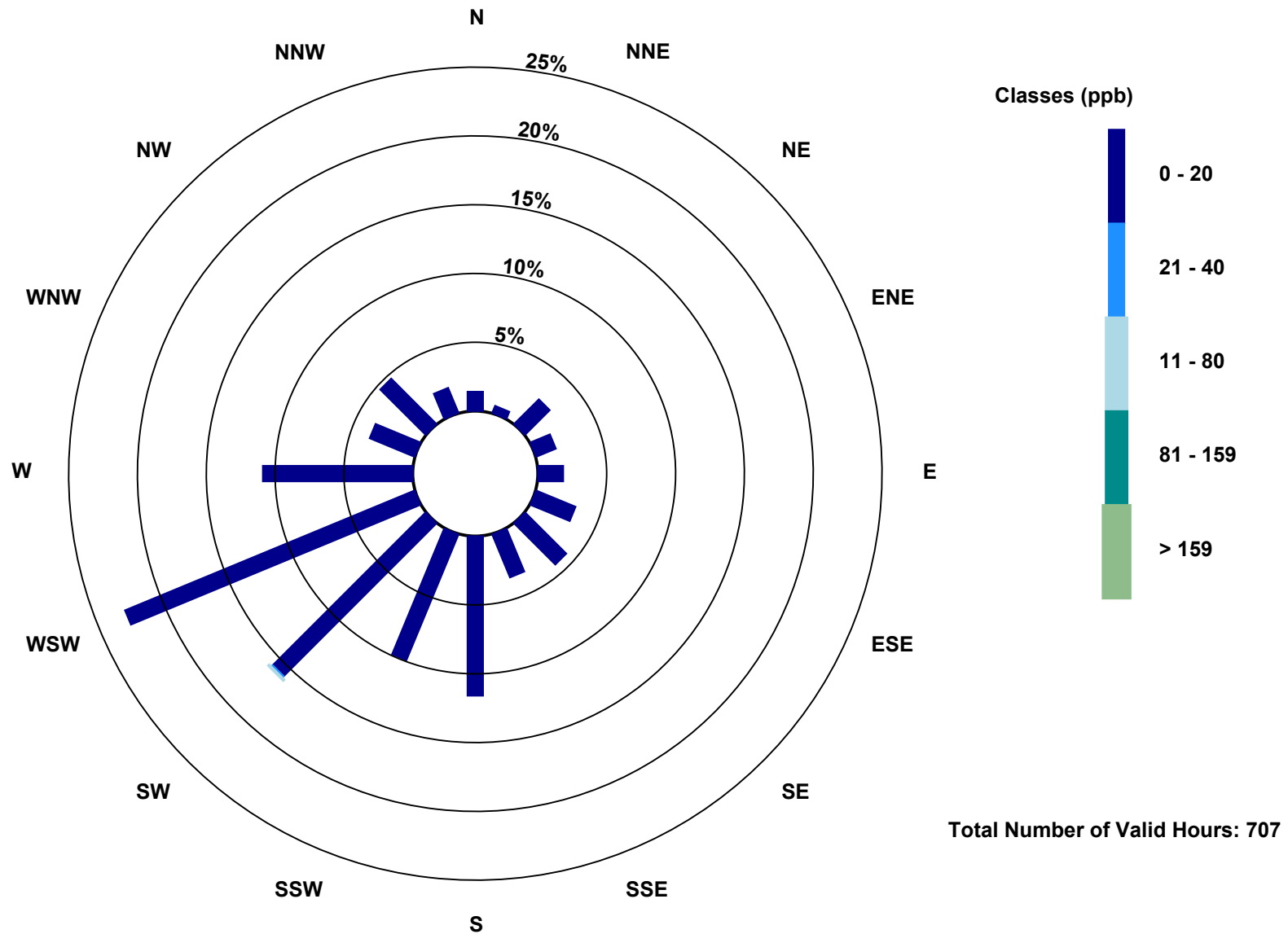
Total Number of Valid Hours: 707

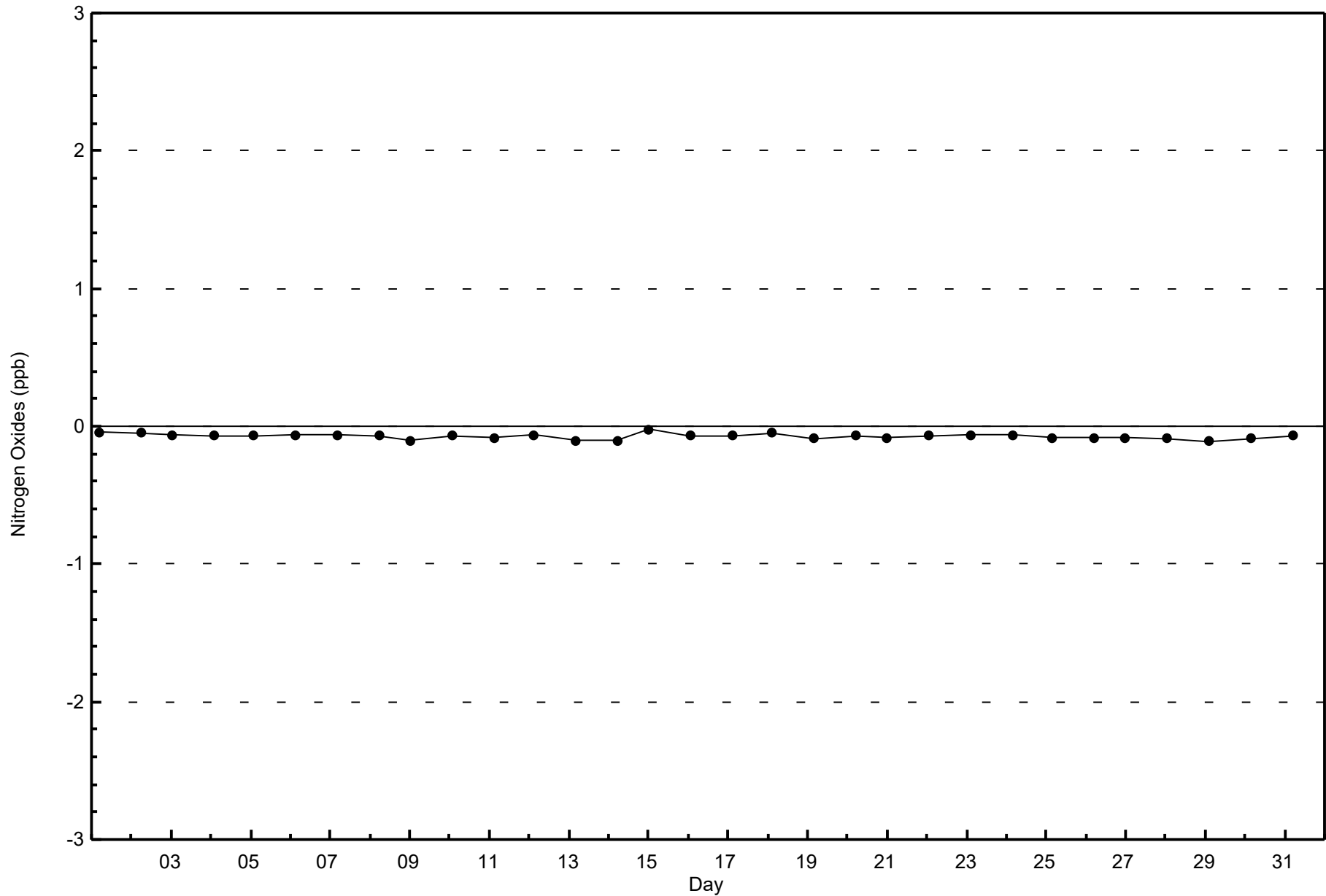
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Oxides (NO_x) - ppb
Jackfish 2/3

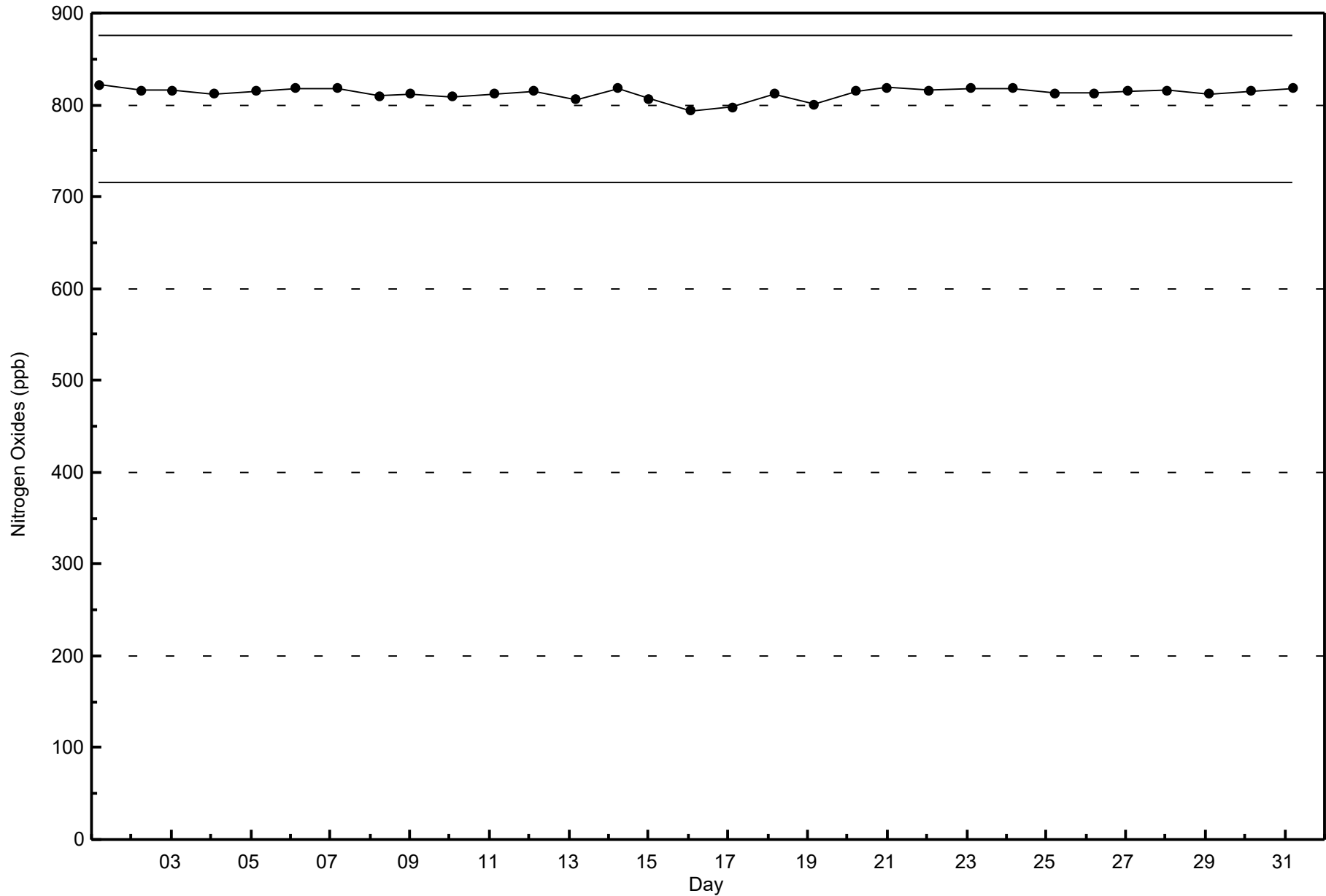






Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Jackfish 2/3 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

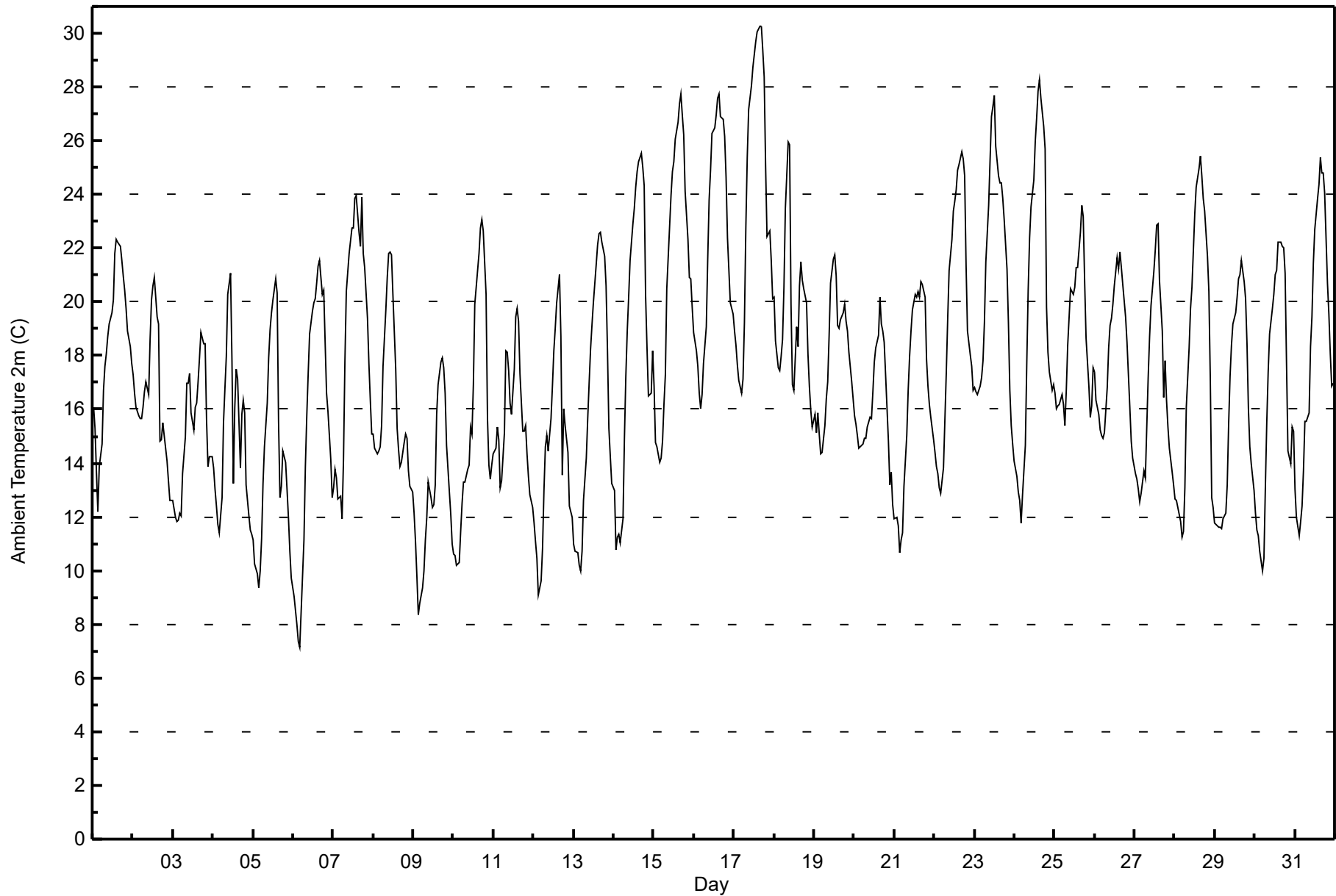
Jackfish 2/3 - July 2026

Maximum Value: 30.3 C on Jul 17 16:00																				Maximum Daily Average: 24.0 C on Jul 17				Hours in Service: 744		
Minimum Value: 7.2 C on Jul 6 05:00																				Minimum Daily Average: 12.9 C on Jul 9				Hours of Data: 744		
Maximum Diurnal Average: 21.9 C at hour 16																				Minimum Diurnal Average: 12.8 C at hour 4				Hours of Missing Data: 0		
Monthly Average: 17.54 C																				Percentiles: P ₁ = 9.1 P ₁₀ = 12.0 Q ₁ = 14.1 Median = 17.0 Q ₃ = 20.6 P ₉₀ = 23.8 P ₉₉ = 28.3				Hours of Calibration: 0		
																								Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jul	16.1	15.3	13.7	12.2	13.9	14.7	16.7	17.6	18.1	18.7	19.2	19.6	20.1	21.8	22.4	22.3	22.1	21.6	21.0	20.4	19.8	18.9	18.3	17.7	18.4	22.4
2-Jul	17.3	16.6	16.1	15.8	15.7	15.7	16.1	16.6	17.0	16.6	18.6	20.1	20.6	20.9	19.4	19.2	14.8	14.9	15.5	15.1	14.1	13.4	12.6	12.6	16.5	20.9
3-Jul	12.6	12.0	11.8	11.9	12.1	12.0	13.6	15.0	16.9	17.0	17.3	15.9	15.2	16.1	16.3	17.0	17.9	18.9	18.4	18.4	15.6	13.9	14.3	14.2	15.2	18.9
4-Jul	13.8	13.0	12.4	11.7	11.4	12.7	15.5	16.8	18.0	20.3	21.0	17.8	13.2	16.1	17.5	17.1	13.8	15.8	16.3	15.9	13.2	12.1	11.5	11.4	14.9	21.0
5-Jul	11.1	10.3	9.9	9.4	10.0	11.2	13.2	14.6	16.2	17.9	18.9	19.6	20.0	20.9	20.3	15.5	12.7	13.1	14.5	14.0	13.0	12.0	10.7	9.7	14.1	20.9
6-Jul	9.0	8.5	8.0	7.4	7.2	8.4	11.1	13.8	15.8	17.3	18.8	19.7	20.0	20.1	20.7	21.3	21.5	20.3	20.4	18.5	16.6	15.9	14.1	12.7	15.3	21.5
7-Jul	13.1	13.8	13.4	12.7	12.8	11.9	14.2	17.8	20.4	21.8	22.3	22.7	22.8	23.8	24.0	22.6	22.1	23.9	21.8	21.3	19.4	17.7	16.3	15.1	18.6	24.0
8-Jul	15.1	14.6	14.3	14.4	14.6	15.4	17.6	19.7	20.9	21.8	21.9	21.7	20.3	17.5	15.3	14.5	13.9	14.0	14.8	15.1	14.9	13.7	13.1	12.9	16.3	21.9
9-Jul	12.1	11.1	9.8	8.3	8.8	9.3	10.0	11.1	12.0	13.3	12.7	12.4	12.5	13.2	15.8	16.9	17.8	17.9	17.5	16.6	14.7	12.9	12.1	11.0	12.9	17.9
10-Jul	10.6	10.5	10.2	10.3	11.4	12.5	13.3	13.3	13.8	13.9	15.3	15.1	16.9	19.9	21.2	21.8	22.7	23.1	22.6	20.3	15.7	13.9	13.4	13.9	15.7	23.1
11-Jul	14.4	14.5	15.3	14.8	13.1	13.3	15.2	18.2	18.1	17.4	16.3	15.8	17.5	19.4	19.8	19.3	17.4	15.2	15.2	15.4	14.3	13.5	12.8	12.3	15.8	19.8
12-Jul	11.7	11.1	10.4	9.1	9.6	10.8	13.0	14.6	15.0	14.5	15.6	16.9	18.2	19.0	20.0	21.0	18.7	13.6	16.1	15.4	14.4	12.4	12.2	12.0	14.4	21.0
13-Jul	11.0	10.7	10.7	10.2	10.0	10.7	12.6	14.2	15.7	17.0	18.2	19.1	20.0	21.4	22.1	22.5	22.6	22.2	21.7	20.6	18.2	15.3	14.2	13.3	16.4	22.6
14-Jul	13.0	10.8	11.2	11.3	11.0	11.9	14.9	17.2	18.9	20.2	21.5	22.9	23.5	24.3	24.8	25.2	25.5	25.0	24.3	20.2	18.3	16.5	16.6	18.2	18.6	25.5
15-Jul	16.8	14.8	14.6	14.0	14.2	14.8	16.2	17.3	20.5	22.8	24.0	24.9	25.2	26.0	26.7	27.4	27.7	27.0	26.2	24.1	22.3	20.9	20.9	19.8	21.2	27.7
16-Jul	18.9	18.2	17.6	16.6	16.0	16.6	17.7	19.1	21.6	23.8	24.9	26.3	26.5	27.0	27.6	27.7	26.9	26.8	26.2	24.7	22.4	21.2	20.0	19.5	22.2	27.7
17-Jul	18.9	18.4	17.7	17.1	16.6	17.1	19.2	22.7	25.4	27.2	28.1	28.7	29.2	29.7	30.0	30.3	30.3	29.4	28.4	25.0	22.4	22.7	21.6	20.1	24.0	30.3
18-Jul	20.2	18.5	17.6	17.4	18.0	18.6	20.6	23.5	25.9	25.9	19.9	16.9	16.7	19.1	18.3	20.6	21.5	20.8	20.5	19.9	18.1	16.9	16.0	15.3	19.4	25.9
19-Jul	15.8	15.1	15.9	15.1	14.4	14.4	15.4	16.4	17.0	18.7	20.7	21.6	21.8	20.9	19.1	19.0	19.4	19.6	19.9	19.3	18.9	18.1	17.0	16.4	17.9	21.8
20-Jul	15.8	15.5	15.0	14.5	14.7	14.7	14.9	14.9	15.3	15.7	15.6	16.6	17.7	18.3	18.7	20.2	19.2	18.9	18.5	17.3	14.8	13.2	13.6	12.5	16.1	20.2
21-Jul	11.9	12.0	11.7	10.7	11.1	11.4	13.1	15.0	16.7	18.0	18.9	19.7	20.3	20.2	20.4	20.2	20.7	20.6	20.2	17.9	16.8	16.2	15.7	14.9	16.4	20.7
22-Jul	14.4	13.9	13.6	13.1	12.9	13.8	15.6	17.4	19.4	21.2	22.4	23.4	23.7	24.2	24.9	25.1	25.6	25.4	24.7	21.4	18.9	18.0	17.6	16.7	19.5	25.6
23-Jul	16.8	16.6	16.6	16.9	17.2	17.8	19.2	21.5	23.6	25.3	26.9	27.3	27.7	25.8	24.7	24.4	24.4	23.9	23.1	21.2	19.2	16.7	15.4	14.7	21.1	27.7
24-Jul	14.1	13.5	12.9	12.6	11.8	12.8	14.6	17.7	20.4	22.4	23.5	24.5	26.0	26.9	27.9	28.3	27.6	26.5	25.7	19.8	18.1	17.4	16.7	16.9	19.9	28.3
25-Jul	16.6	16.0	16.1	16.2	16.5	16.2	15.4	16.7	18.4	20.5	20.4	20.3	20.6	21.3	21.3	22.6	23.6	23.2	20.8	18.7	16.9	15.7	16.1	17.6	18.6	23.6
26-Jul	17.4	16.3	15.8	15.3	15.0	14.9	15.1	16.8	18.3	19.1	19.4	19.9	20.6	21.6	21.2	21.9	21.3	20.6	19.5	18.5	17.3	16.1	14.8	14.2	18.0	21.9
27-Jul	13.6	13.4	13.0	12.5	12.9	13.7	13.4	15.4	17.2	18.7	19.9	21.1	21.9	22.9	22.9	20.8	18.9	16.4	17.8	16.4	15.4	14.5	13.6	13.2	16.6	22.9
28-Jul	12.7	12.6	12.3	11.8	11.2	11.4	13.1	16.1	18.3	19.7	20.6	21.9	23.3	24.3	25.0	25.5	24.7	23.8	23.4	21.7	20.4	17.1	12.7	12.4	18.2	25.5
29-Jul	11.8	11.7	11.6	11.6	11.6	11.9	12.1	13.2	15.4	17.2	18.4	19.2	19.6	20.2	20.9	21.0	21.5	20.7	20.1	18.5	16.0	14.6	14.0	13.0	16.1	21.5
30-Jul	12.1	11.5	11.3	10.7	10.0	10.4	13.1	15.5	17.4	18.8	19.7	20.3	21.0	21.2	22.3	22.2	22.0	22.0	21.1	17.7	14.4	14.0	15.3	15.2	16.6	22.3
31-Jul	13.0	12.0	11.3	11.8	12.4	13.7	15.5	15.5	15.9	18.3	19.4	21.5	22.7	23.8	24.4	25.4	24.8	24.8	24.1	20.7	19.5	18.1	16.9	16.9	18.4	25.4
14.2 13.6 13.3 12.8 12.8 13.4 14.9 16.6 18.2 19.4 20.0 20.4 20.8 21.5 21.8 21.9 21.4 21.0 20.6 19.0 17.2 15.9 15.2 14.7																										Diurnal Average
20.2 18.5 17.7 17.4 18.0 18.6 20.6 23.5 25.9 27.2 28.1 28.7 29.2 29.7 30.0 30.3 30.3 29.4 28.4 25.0 22.4 22.7 21.6 20.1																										Diurnal Maximum



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Jackfish 2/3 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Jackfish 2/3 - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	18	2.42	2.42
10 - 20	505	67.88	70.30
> 20	221	29.70	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

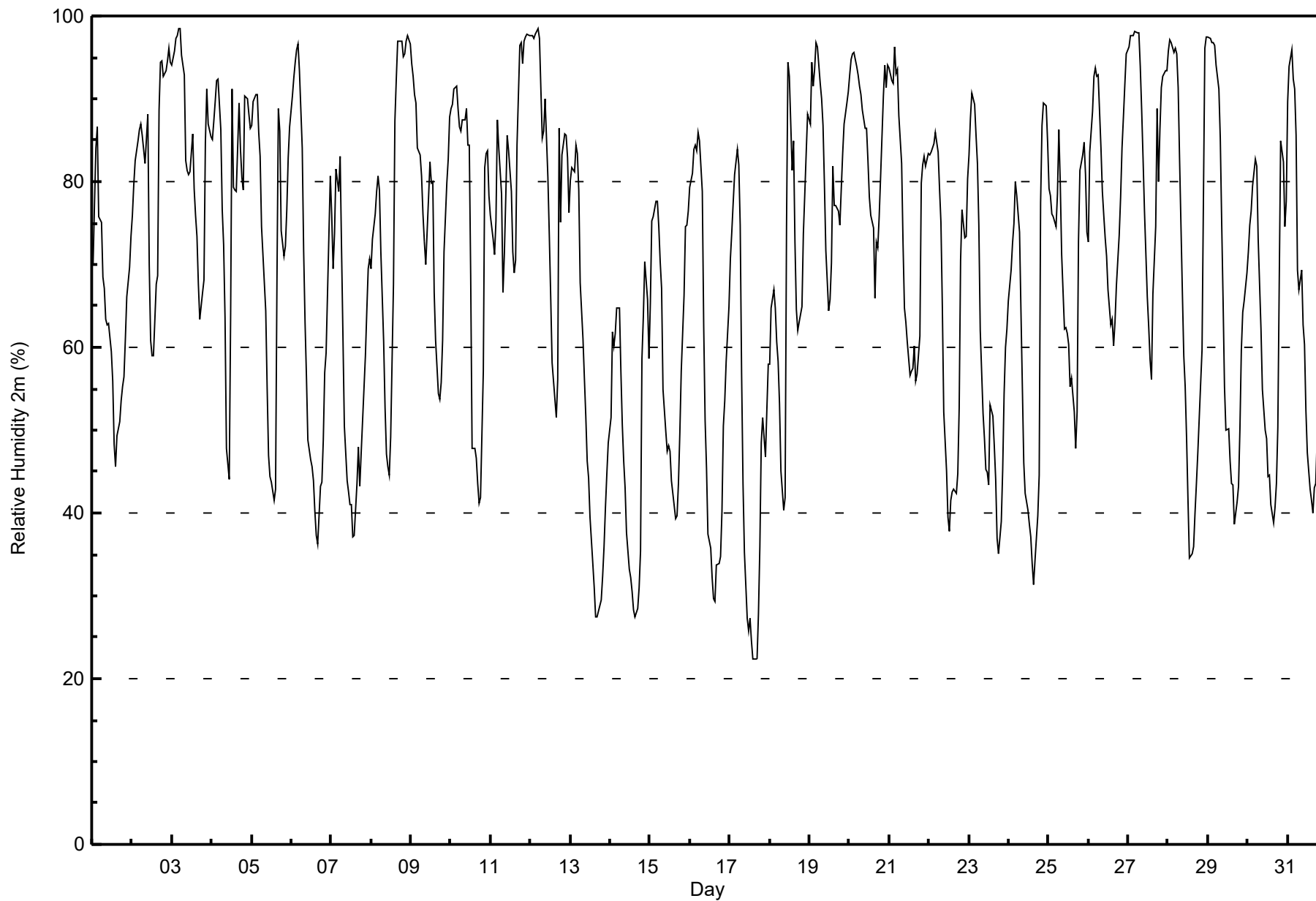
Jackfish 2/3 - July 2026

Maximum Value: 98.6 % on Jul 3 06:00																				Maximum Daily Average: 85.7 % on Jul 20										Hours in Service: 744			
Minimum Value: 22.3 % on Jul 17 17:00																				Minimum Daily Average: 48.5 % on Jul 14										Hours of Data: 744			
Maximum Diurnal Average: 86.5 % at hour 4																				Minimum Diurnal Average: 52.3 % at hour 16										Hours of Missing Data: 0			
Monthly Average: 69.55 %																				Percentiles: P ₁ = 27.4 P ₁₀ = 41.6 Q ₁ = 53.6 Median = 73.4 Q ₃ = 85.5 P ₉₀ = 93.6 P ₉₉ = 97.7										Hours of Calibration: 0			
																														Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24									
1-Jul	70.1	77.3	84.0	86.6	75.8	75.2	68.5	67.2	63.3	62.7	62.9	59.5	56.0	48.3	45.7	49.4	51.1	53.5	55.2	56.5	61.1	66.0	69.7	73.3	64.1	86.6							
2-Jul	75.9	79.6	82.5	84.9	86.2	87.0	85.5	83.8	82.2	88.1	70.0	60.9	59.0	58.9	67.7	68.6	88.7	94.4	94.5	92.7	93.4	94.6	96.1	94.5	82.1	96.1							
3-Jul	94.1	95.8	97.2	97.7	98.4	98.6	95.3	92.9	82.6	81.3	80.9	81.2	85.8	79.1	75.9	73.4	67.6	63.4	66.5	68.2	84.7	91.1	87.0	85.5	84.3	98.6							
4-Jul	85.0	87.3	89.6	92.2	92.3	86.4	76.7	72.3	63.5	47.8	44.0	64.1	91.1	79.3	79.0	78.9	89.5	84.0	80.4	79.1	90.4	90.0	88.1	86.4	79.9	92.3							
5-Jul	86.8	89.6	90.6	90.5	86.0	83.0	74.6	71.2	64.5	55.1	46.9	44.5	43.8	41.5	42.8	68.3	88.9	86.1	74.1	71.1	72.2	76.6	82.8	86.6	71.6	90.6							
6-Jul	90.3	92.5	94.4	96.0	96.6	93.4	84.1	71.7	63.1	56.5	48.8	46.4	45.6	43.8	40.1	37.3	36.3	43.3	43.8	48.8	57.0	59.3	73.6	80.7	64.3	96.6							
7-Jul	76.0	69.5	73.8	81.5	78.9	83.1	71.9	61.4	50.5	43.9	42.6	41.0	41.0	37.1	37.3	43.5	47.9	43.2	47.3	51.1	59.0	64.4	69.5	70.7	57.7	83.1							
8-Jul	69.5	73.0	76.1	78.8	80.7	79.0	71.5	60.7	52.7	47.1	45.6	44.6	49.1	67.6	87.3	92.4	96.9	97.0	97.0	95.1	95.5	96.9	97.7	96.6	77.0	97.7							
9-Jul	94.3	92.8	90.5	89.4	84.0	83.3	80.6	76.1	72.8	70.0	78.1	82.4	79.8	79.9	66.5	60.9	54.4	53.7	55.8	60.8	71.5	79.8	82.8	87.9	76.2	94.3							
10-Jul	88.9	89.4	91.2	91.5	88.8	86.6	86.1	87.5	87.5	88.8	84.3	84.3	68.7	47.8	47.9	46.5	43.6	41.1	41.9	57.1	81.7	83.3	83.8	78.3	74.0	91.5							
11-Jul	75.9	73.0	71.2	75.3	87.4	84.1	78.4	66.6	71.3	78.1	85.6	83.8	78.8	71.5	68.9	70.4	84.5	96.5	96.7	94.3	96.9	97.5	97.8	97.7	82.6	97.8							
12-Jul	97.7	97.7	97.4	97.8	98.5	97.3	91.3	85.2	86.2	89.9	80.5	73.5	66.1	58.1	55.9	51.5	56.1	86.4	75.0	83.2	85.7	85.5	82.8	76.2	81.5	98.5							
13-Jul	80.2	81.7	81.2	84.4	83.3	79.1	67.8	61.1	56.3	51.7	46.3	44.2	39.4	33.9	31.0	27.5	27.4	28.2	29.6	32.3	35.9	40.7	44.7	48.6	51.5	84.4							
14-Jul	51.5	61.8	60.2	61.6	64.8	64.7	57.1	50.7	46.3	43.0	37.6	33.2	32.3	30.5	28.3	27.4	28.4	31.0	35.3	58.6	63.7	70.4	65.8	58.6	48.5	70.4							
15-Jul	65.4	75.2	75.8	77.5	77.6	74.6	70.4	67.1	55.0	49.8	47.4	48.2	47.5	43.8	40.9	39.4	39.6	43.6	49.6	57.2	66.3	74.6	74.8	76.4	59.9	77.6							
16-Jul	79.3	81.0	83.9	84.3	83.7	85.9	84.9	78.7	62.6	51.1	45.5	37.4	35.7	32.3	29.7	29.3	33.7	33.9	34.7	40.2	50.5	53.5	58.4	64.9	56.5	85.9							
17-Jul	70.6	73.9	77.4	80.8	83.9	82.1	74.8	56.8	43.6	35.3	27.3	25.8	27.2	24.5	22.4	22.4	22.3	27.7	35.9	48.5	51.5	46.7	52.6	58.0	48.8	83.9							
18-Jul	58.0	64.8	66.9	64.8	60.7	58.3	53.2	45.0	40.4	41.9	74.5	94.3	92.7	81.4	85.0	72.6	64.5	62.0	63.0	65.0	73.8	78.4	83.4	88.1	68.0	94.3							
19-Jul	87.0	94.4	91.6	93.5	96.7	96.3	91.8	90.0	86.7	79.7	71.7	64.4	65.7	70.1	81.9	77.2	77.1	76.5	74.8	79.2	83.3	87.0	89.4	90.9	83.2	96.7							
20-Jul	92.9	94.7	95.4	95.6	94.0	92.8	91.4	90.5	88.6	86.5	86.5	82.6	78.1	75.9	74.4	66.0	72.7	72.1	75.8	80.5	90.4	94.1	91.4	94.0	85.7	95.6							
21-Jul	93.8	92.2	91.9	96.3	93.1	93.6	88.0	82.1	72.5	64.7	63.1	60.6	56.7	57.1	57.5	60.2	56.0	56.7	61.4	79.9	82.0	83.1	81.9	83.5	75.3	96.3							
22-Jul	83.2	83.6	84.0	84.5	85.9	83.5	79.1	75.1	65.0	52.3	45.1	39.5	37.8	41.6	42.5	42.9	42.4	44.7	52.7	70.5	76.7	73.2	73.3	80.4	64.1	85.9							
23-Jul	83.3	87.6	90.8	89.3	85.6	82.3	74.8	62.0	52.0	49.0	45.3	44.9	43.4	53.0	51.7	48.2	44.0	36.9	35.1	38.9	45.2	54.5	59.9	62.3	59.2	90.8							
24-Jul	65.6	69.3	72.6	74.9	80.1	78.3	73.9	64.4	55.2	46.1	42.3	40.4	38.7	37.1	33.9	31.3	34.2	39.6	44.5	77.5	86.9	89.5	89.2	84.8	60.4	89.5							
25-Jul	79.1	78.2	76.1	75.8	74.6	78.4	86.3	79.9	71.2	62.2	62.3	61.6	60.3	55.3	56.4	52.3	47.7	52.2	72.9	81.4	83.3	84.8	80.8	73.9	70.3	86.3							
26-Jul	72.7	83.6	88.4	92.7	93.7	92.7	92.8	84.1	78.8	76.0	73.2	71.0	67.0	62.8	63.4	60.1	63.1	67.4	73.6	78.2	84.1	87.8	91.7	95.4	78.9	95.4							
27-Jul	96.3	97.7	97.6	97.6	98.1	98.0	98.0	93.8	88.7	82.7	76.4	66.0	62.5	58.5	56.1	66.5	74.5	88.9	80.0	86.3	91.4	92.8	93.4	93.4	84.8	98.1							
28-Jul	95.7	97.1	96.7	95.7	96.1	95.4	91.4	82.7	66.7	58.9	55.2	48.9	41.6	34.6	35.1	35.9	40.0	43.6	47.3	55.7	59.7	78.0	96.2	97.5	68.6	97.5							
29-Jul	97.4	97.2	96.8	96.8	96.5	94.0	91.2	85.3	75.2	65.6	55.3	50.0	50.2	46.3	43.5	43.5	38.7	41.4	43.3	50.1	59.6	64.3	65.6	68.9	67.4	97.4							
30-Jul	71.5	74.7	76.4	79.5	82.7	81.9	73.1	67.7	62.3	54.9	50.0	49.0	44.5	44.6	41.0	38.8	40.7	43.6	50.3	67.8	84.9	82.4	74.6	77.6	63.1	84.9							
31-Jul	89.7	93.9	95.9	92.4	91.3	85.6	69.3	67.0	69.4	62.7	60.3	52.3	47.3	42.9	41.5	40.0	43.0	43.5	48.9	66.3	69.3	73.8	77.3	76.3	66.6	95.9							
Diurnal Average																																	
Diurnal Maximum																																	



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Jackfish 2/3 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %
Jackfish 2/3 - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	59	7.93	7.93
40 - 60	175	23.52	31.45
60 - 80	236	31.72	63.17
80 - 100	274	36.83	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

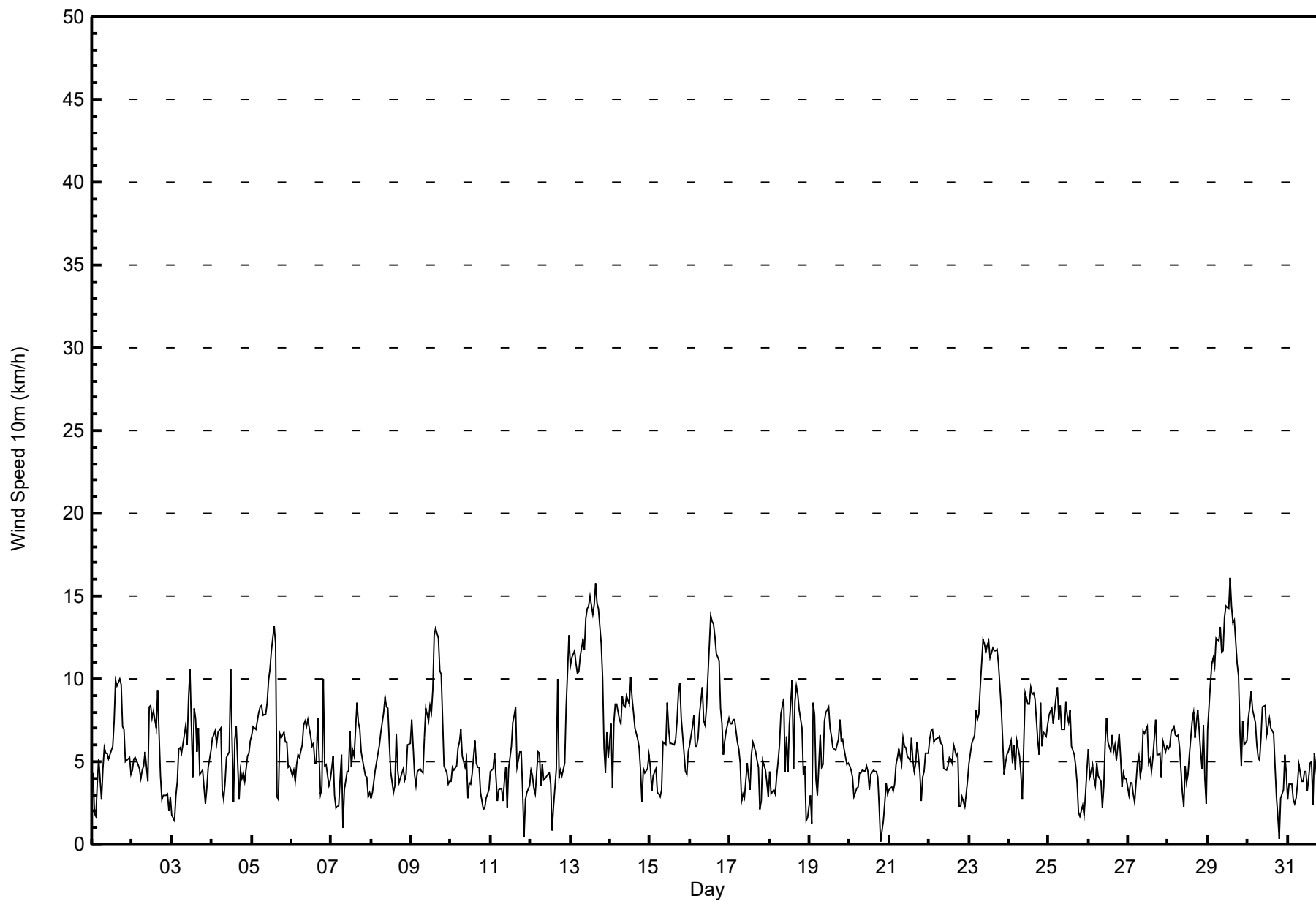
Jackfish 2/3 - July 2026

Maximum Speed: 16 km/h on Jul 29 14:00										Maximum Daily Speed Average: 11.3 km/h on Jul 13										Hours in Service: 744							
Minimum Speed Value: 0 km/h on Jul 20 20:00										Minimum Daily Speed Average: 0.6 km/h on Jul 17										Hours of Data: 744							
Maximum Diurnal Speed Average: 4.8 km/h at hour 6										Minimum Diurnal Speed Average: 2.3 km/h at hour 21										Hours of Missing Data: 0							
Monthly Average Velocity: 3.7 km/h 234.6 deg										Percentiles: P ₁ = 1 P ₁₀ = 3 Q ₁ = 4 Median = 6 Q ₃ = 7 P ₉₀ = 10 P ₉₉ = 14										Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	SSW4	S2	S2	ESE4	ESE5	ESE3	E5	E6	ESE6	ESE6	E5	E6	E6	E7	E10	ESE10	ESE10	ESE10	ESE7	SE7	SE5	SE5	SE5	SE4	ESE5.3	ESE10	
2-Jul	SE4	SE5	SE5	SSE5	S5	SSE4	SSE5	SSE5	S6	SSW4	S8	SSE8	SSE8	SSE8	S7	SW9	SW7	SW4	ESE3	S3	SSW3	SW3	SSW2	S3	S4.5	SW9	
3-Jul	SSE2	SSE1	S3	S4	S6	S6	S6	S7	SSW7	S6	SW9	WSW11	SSW4	WSW8	WSW8	W6	WSW7	WSW4	WSW5	SSW3	S2	SSW3	SSW5	SSW6	SW4.6	WSW11	
4-Jul	SSW6	SSW7	SSW7	SSW6	SW7	SW7	WSW3	SSW3	S4	SE5	S6	SW11	WSW6	WSW3	ENE6	E7	NW3	WNW4	WNW4	W4	WSW4	WSW5	SW5	SW6	SW3.5	SW11	
5-Jul	SW7	SW7	SW7	WSW7	SW8	WSW8	WSW8	WSW8	W8	W9	WNW10	W11	W12	WSW13	WSW12	NNW3	ESE3	SW7	WSW6	WSW7	WNW6	WSW6	W5	W5	WSW6.9	WSW13	
6-Jul	W4	W4	W4	WSW5	WSW5	WSW5	WSW6	WSW7	W7	WNW7	NW8	NW7	NW6	WNW6	WNW5	WNW5	WSW8	SW3	WSW4	WSW10	SW5	SW5	SW4	SSW4	W4.9	WSW10	
7-Jul	S5	S5	S3	S2	S2	S4	S5	SSE1	S3	S4	WSW4	SSW7	SSW5	SSW6	SSW5	ESE9	E7	ESE7	SE6	SE5	SE4	SE4	SE3	SSE3	SSE3.5	ESE9	
8-Jul	S3	S3	S5	S5	S6	S6	SSW7	SSW8	S9	S8	S8	SSW6	SSW4	ESE3	WSW4	W7	N4	NW4	W4	WSW5	WSW4	SW4	SW6	SW6	SSW4.0	S9	
9-Jul	WSW8	WSW6	WSW4	W4	WSW4	WSW5	SW4	W4	W6	W8	W7	WSW8	SW8	SSW9	SW13	SW13	SW12	SW10	SW10	SW8	SSW5	SSW4	S4	S4	SW6.6	SW13	
10-Jul	S4	S5	S4	SSW5	SSW6	SW6	WSW7	WSW5	SSW5	S5	S3	SW4	WSW4	SW4	WSW6	WSW5	WSW5	WNW5	W3	SW2	S2	S3	SSE3	S3	SW3.6	WSW7	
11-Jul	SSW4	SW5	SW6	WSW4	S3	S3	S3	S3	SW4	WSW5	N2	NE5	NE6	NNE7	NE8	NE8	NNW5	N6	NNW6	NW3	WSW0	WSW3	W3	W4	NW0.9	NE8	
12-Jul	W4	W4	WSW3	S3	SSW6	SSW6	SW4	WSW5	W4	WSW4	W4	NNE4	NW4	SE1	SSW2	SSW5	W10	NW4	SW4	SSW4	SSW5	SW8	WSW10	WSW13	WSW4.0	WSW13	
13-Jul	SW11	WSW11	WSW12	WSW11	SW10	SW10	WSW11	WSW12	WSW12	WSW14	WSW14	WSW14	WSW14	WSW15	W14	W14	W16	W15	W14	W12	WSW10	W6	WSW4	WSW7	WSW5	WSW11.3	W16
14-Jul	WSW7	WSW3	SW7	SW9	SW9	SW8	WSW7	WSW9	WSW8	W8	W9	W8	WSW10	WSW9	W8	W7	W6	WSW6	WSW4	S3	SSW5	SSW4	SSW5	SW5	WSW6.4	WSW10	
15-Jul	SSW5	S3	S4	S5	S3	S3	S3	SSE3	S6	SSE6	SSE9	SSE7	S6	SSW6	S6	SSW6	SSW7	SW9	SW10	SW8	SW5	SSW4	SSW4	S6	SSW5.2	SW10	
16-Jul	SW6	SW7	SW8	SSW6	SSW6	SW6	SW8	SW9	SW7	SW7	SW8	SW10	WSW14	SW13	WSW13	WSW13	WSW12	WSW11	WSW8	WSW7	SW5	SW6	SW7	SW8	SW8.4	WSW14	
17-Jul	SW7	SW7	SW8	SW8	WSW6	WSW6	WSW5	NW3	NW3	NNW3	NE5	N4	E3	E5	E6	ENE6	NE5	ENE5	ESE2	ESE3	ESE5	ESE4	SE4	S3	SSE0.6	SW8	
18-Jul	S4	S3	S3	SSW3	S4	SSE5	SSE6	SE8	SE9	SSE4	NNW7	NNE4	ENE7	E10	ENE5	ESE9	ESE10	SE9	SE8	SE7	ESE4	E5	NE1	NNW2	SE4.1	E10	
19-Jul	NW3	WSW1	WSW9	W8	NW4	NW3	WSW7	WNW5	NW5	WNW7	WNW8	NW8	NW7	NNW7	NW6	NW6	NW6	WNW6	NW8	NW6	NW6	NW6	NNW5	NNW5	WNW5.3	WSW9	
20-Jul	NW5	NW5	NW4	NW3	NNW3	NNW4	NNW4	NW4	N4	NW4	NW5	N4	N3	NW4	NNW4	NNW4	NW4	N4	N2	W0	SSW1	SSW3	WSW4	SW3	NW3.0	NW5	
21-Jul	SW3	SW4	SW3	SW4	WSW5	WSW5	SW6	WSW5	WSW6	WSW6	WSW6	W5	W5	WSW6	WSW5	W4	WSW5	WSW6	WSW4	SSW3	SW4	SW4	SW6	SW5	WSW4.7	WSW6	
22-Jul	SW6	SW7	SW7	SW6	WSW6	SW6	SW7	SW6	SW6	WSW5	WSW4	W5	WSW5	W5	W5	WSW6	W5	WSW5	WSW2	SSE2	SSE3	S2	S3	S4	SW4.6	SW7	
23-Jul	S5	S6	S6	SSW7	SSW8	SSW8	SW8	SW10	SW12	SW12	WSW12	WSW12	W12	NW11	NW12	WNW12	WNW12	WNW12	WNW11	WNW8	WNW6	W4	WSW5	WSW5	WSW7.0	SW12	
24-Jul	WSW6	WSW6	WSW5	WSW6	SW4	SW6	WSW5	WSW4	WSW3	WSW6	WSW9	SW9	WSW8	WSW9	WSW9	WSW9	SW9	SW6	SW5	SSW9	SSW6	SSW7	SW7	WSW7	SW6.5	WSW9	
25-Jul	WSW8	WSW8	WSW8	WSW7	WSW9	WSW10	WSW8	WSW8	W7	W7	WSW9	WSW8	WSW7	WSW8	WSW6	W5	W5	SW4	S2	SSE2	S2	S2	SW3	WSW4	WSW5.8	WSW10	
26-Jul	SW6	SSW4	S5	SSW4	SE4	SW5	WSW4	SW4	N2	NNE4	NE6	NE8	NE6	NE6	NE7	NE6	NE6	NE5	NE7	NE5	ENE3	ENE4	ENE4	ENE4	ENE2.1	NE8	
27-Jul	ENE3	NE4	ENE4	ENE3	SW3	SSE5	S5	SSW4	SW5	SW7	WSW7	W7	W5	WNW5	WNW4	WNW5	W8	WSW5	WSW5	W6	W4	WSW6	SW6	SW6	WSW3.2	W8	
28-Jul	SW6	SW6	WSW7	SW7	SW7	WSW7	SW7	WSW6	SSW3	WSW2	SSW5	SSW4	SE4	SSE5	SE7	ESE8	SE6	SE7	SE8	SE6	SE5	WSW7	W4	SE2	S3.4	SE8	
29-Jul	SW7	SW10	SW11	WSW11	WSW11	WSW12	WSW12	WSW13	W12	W12	W14	WSW14	WSW14	WSW16	W14	W13	W14	W11	W10	W7	W5	WSW7	W6	W6	WSW10.8	WSW16	
30-Jul	WSW8	WSW8	WSW9	WSW8	WSW7	WSW6	W5	W5	W6	W8	W8	WNW7	W7	W8	W7	W7	WNW5	NNW3	WNW2	S0	S3	S3	SW5	SW4	W5.3	WSW9	
31-Jul	SSW3	S4	S4	SSE3	S2	S3	S4	S5	SSW4	SSE4	SSW4	SSW4	SSW3	SW5	SW5	SSW2	SW5	SSW5	SW4	SW4	SW4	SW4	S3	SSW4	SSW3.6	SW5	
SW4.3 SW4.1 SW4.7 SW4.4 SW4.5 SW4.8 SW4.8 SW4.4 SW4.2WSW4.2WSW4.5WSW4.4WSW4.0WSW3.7WSW3.6WSW3.0WSW3.6WSW3.1WSW2.8 SW2.8 SW2.3 SW3.2 SW3.2 SW3.6																										Diurnal Average	
WSW11WSW11WSW12WSW11WSW11WSW12WSW12WSW13 SW12WSW14WSW14WSW14WSW15WSW16 W14 W16 W15 W14 W12WSW10 NW6 SW8WSW10WSW13																										Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using vector methods																											



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Jackfish 2/3 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Jackfish 2/3 - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	372	50.00	50.00
6 - 11	326	43.82	93.82
12 - 19	46	6.18	100.00
20 - 28	0	0.00	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Jackfish 2/3 - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	9	3	7	9	4	12	18	19	68	46	43	58	33	11	20	12	372
6 - 11	1	1	11	3	9	11	12	7	20	27	75	88	34	11	13	3	326
12 - 19	0	0	0	0	0	0	0	0	0	0	6	22	14	3	1	0	46
20 - 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	4	18	12	13	23	30	26	88	73	124	168	81	25	34	15	744

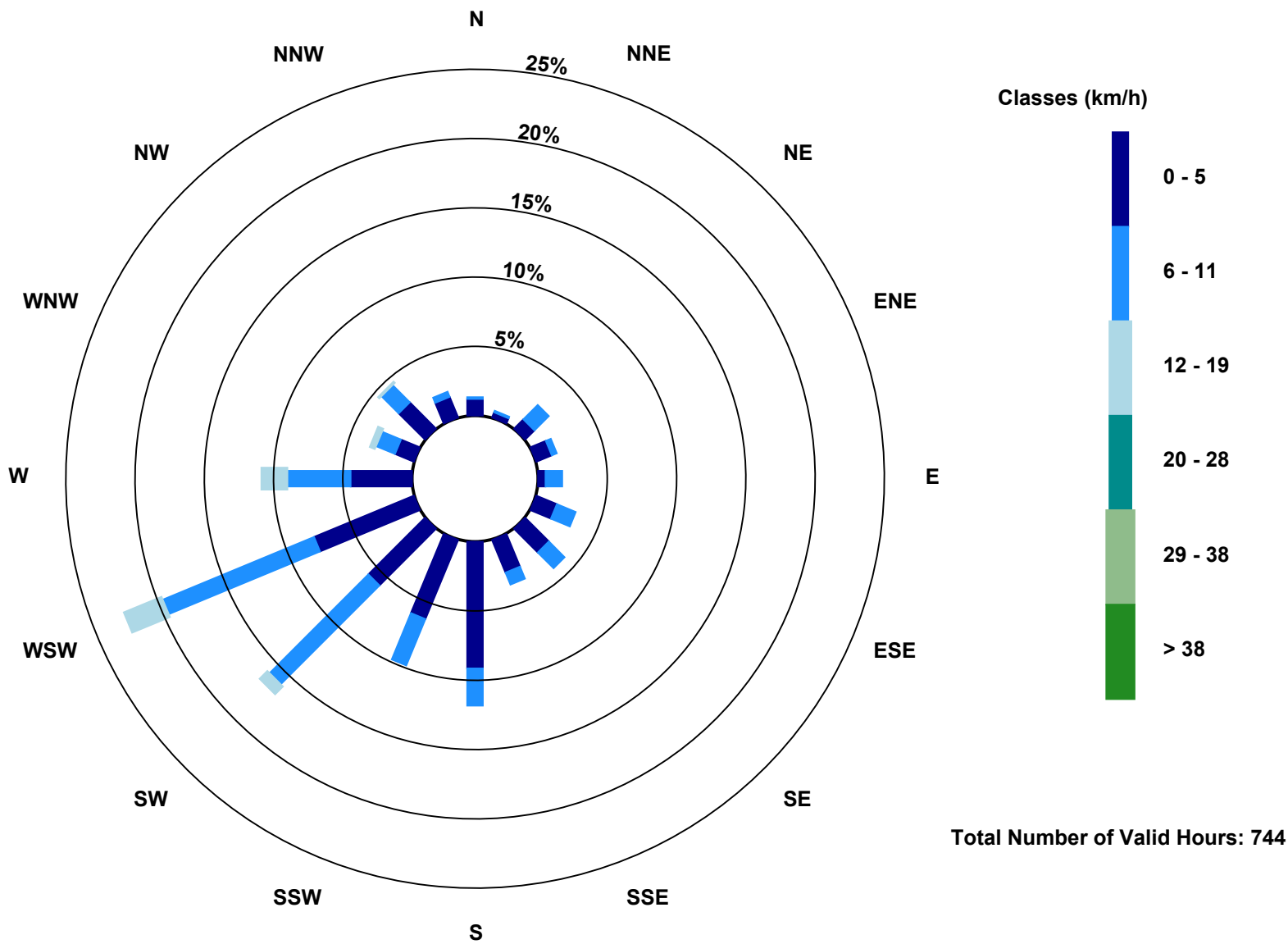
Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Jackfish 2/3





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Jackfish 2/3 - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 9 km/h on Jul 28 22:00																	Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0								
Minimum Value: 0 km/h on Jul 30 21:00																									
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 2 Q ₃ = 3 P ₉₀ = 4 P ₉₉ = 6																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	1	1	1	1	1	2	2	2	2	2	2	2	2	4	4	4	4	4	3	3	3	2	2	2	4
2-Jul	2	2	2	3	2	2	2	2	3	2	4	4	3	3	4	5	3	2	2	1	1	1	1	1	5
3-Jul	2	1	2	2	2	2	2	3	3	2	4	5	2	3	3	3	3	3	2	2	1	1	1	2	5
4-Jul	2	2	2	1	1	2	2	2	1	2	3	6	4	2	2	3	3	2	2	2	1	1	1	2	6
5-Jul	2	2	1	2	2	2	2	3	3	4	4	4	4	5	5	4	1	2	3	2	3	2	2	2	5
6-Jul	1	2	1	1	1	1	2	2	3	3	3	3	3	3	3	3	3	2	2	4	2	2	1	1	4
7-Jul	1	1	2	2	1	1	1	1	2	2	2	3	3	3	3	3	3	3	3	2	1	2	2	2	3
8-Jul	2	2	2	2	2	2	3	3	4	4	4	3	2	2	2	3	2	2	2	1	2	1	2	1	4
9-Jul	2	2	2	1	1	1	1	2	3	3	3	4	3	3	5	5	4	4	3	3	2	2	2	1	5
10-Jul	1	2	2	1	2	2	2	1	1	1	2	2	2	3	3	3	3	2	2	1	1	1	1	1	3
11-Jul	1	1	2	2	1	1	1	1	2	2	1	1	2	3	3	3	3	3	2	2	1	1	1	1	3
12-Jul	1	2	1	1	2	1	1	2	2	2	2	2	2	2	2	3	5	4	1	1	2	3	3	4	5
13-Jul	3	4	3	3	3	3	4	4	4	5	5	5	5	6	6	7	6	5	5	4	2	1	2	1	7
14-Jul	2	2	2	2	2	2	2	3	3	3	3	4	4	4	4	3	3	2	2	1	1	1	1	1	4
15-Jul	1	1	1	1	1	2	1	2	3	3	4	3	3	3	3	3	3	4	3	2	2	1	2	3	4
16-Jul	2	2	2	2	2	2	2	3	3	3	3	4	5	5	5	5	5	4	4	2	1	2	2	2	5
17-Jul	2	2	1	2	2	2	1	1	1	2	3	3	3	3	3	3	3	3	2	2	1	2	2	1	3
18-Jul	2	1	1	2	2	2	3	4	4	4	4	3	3	4	3	4	4	4	4	3	2	2	2	3	4
19-Jul	2	2	4	3	2	2	3	2	2	3	3	3	3	3	2	3	3	3	3	3	3	2	2	3	4
20-Jul	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	2
21-Jul	1	1	1	1	2	1	1	1	2	2	2	3	3	2	2	2	2	2	2	1	1	1	1	1	3
22-Jul	1	1	2	1	1	1	1	2	2	2	2	3	3	3	3	3	3	2	2	1	1	1	1	1	3
23-Jul	1	1	1	2	2	2	2	3	4	4	4	4	5	5	5	5	5	5	5	4	3	1	2	2	5
24-Jul	2	2	2	2	1	2	2	2	2	3	3	3	4	3	3	4	3	2	2	5	1	2	2	2	5
25-Jul	2	2	2	2	2	3	2	2	3	3	3	3	3	3	2	2	2	1	1	1	1	1	1	1	3
26-Jul	2	1	1	2	2	1	1	1	2	2	3	3	3	3	2	2	2	2	2	2	1	1	1	1	3
27-Jul	1	1	1	1	4	2	2	2	2	2	2	3	3	3	2	3	3	2	2	2	2	2	1	1	4
28-Jul	1	1	2	2	2	2	2	2	1	2	2	2	2	3	3	4	3	3	4	3	2	9	3	1	9
29-Jul	2	3	3	3	3	4	4	4	5	5	6	5	6	6	6	5	6	5	4	3	2	2	2	2	6
30-Jul	2	2	2	2	2	2	2	2	3	3	4	3	3	3	3	3	2	2	1	1	0	1	1	1	4
31-Jul	1	1	1	1	1	1	1	1	1	2	2	2	2	3	2	2	3	2	2	1	1	1	1	2	3
3 4 4 3 4 4 4 4 5 5 6 6 6 6 6 6 7 6 5 5 5 3 9 3 4																									
Diurnal Maximum																									



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

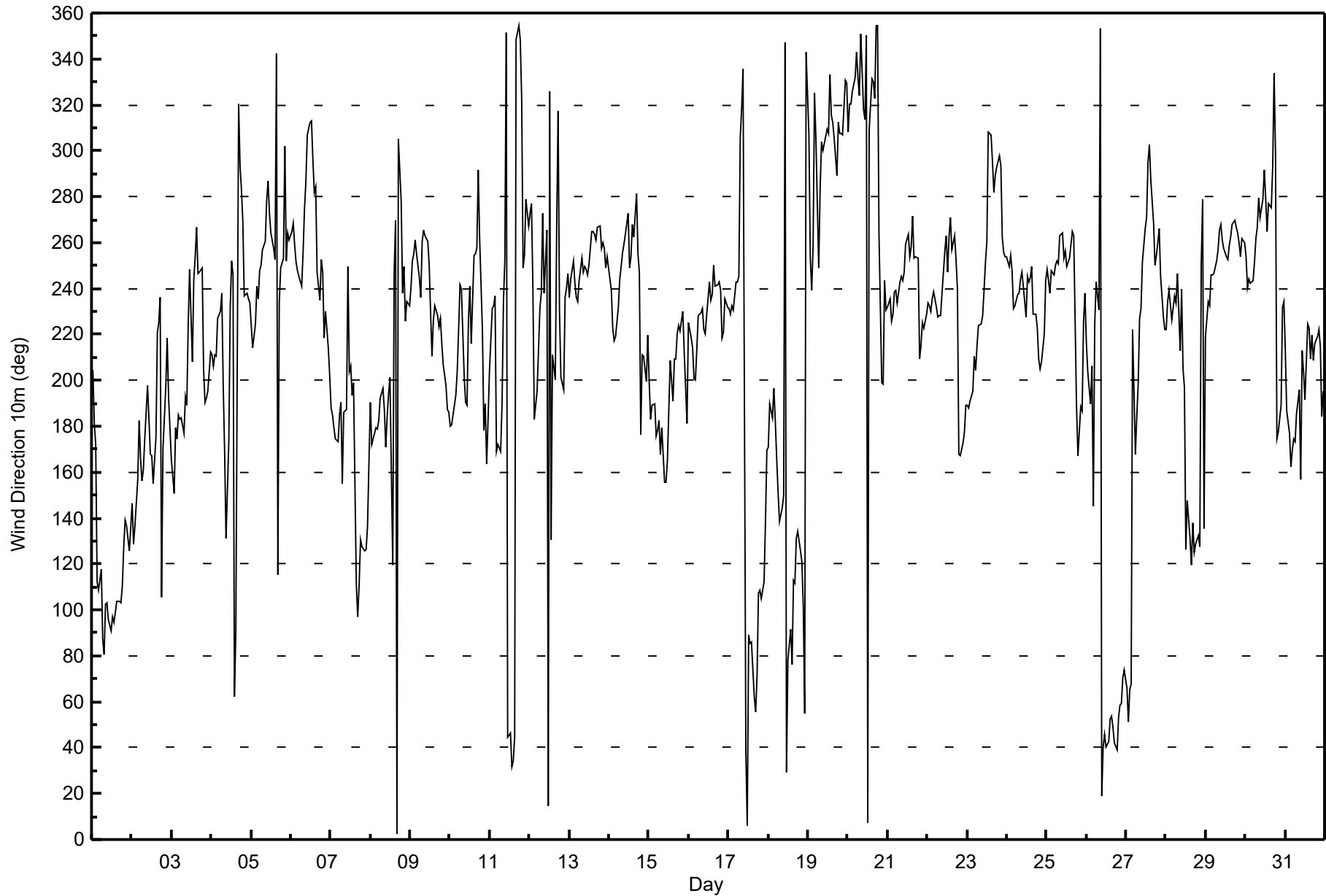
Jackfish 2/3 - July 2026

Direction of Maximum Speed: 252 deg on Jul 29 14:00																					Hours in Service:		744		
Direction of Maximum Daily Speed Average: 252.5 deg on Jul 13																					Hours of Data:		744		
Direction of Minimum Speed: 264 deg on Jul 20 20:00										Direction of Minimum Daily Speed Average: 0.6 deg on Jul 17											Hours of Missing Data:		0		
Monthly Average Direction: 234.6 deg																					Percent Operational Time:		100.0		
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	204	181	172	112	109	118	87	80	103	103	95	91	97	95	99	104	104	103	110	128	139	137	126	136	110.2
2-Jul	146	129	137	157	182	166	156	161	174	198	183	168	167	155	175	221	225	236	106	170	197	219	193	179	175.6
3-Jul	165	151	180	174	185	183	184	177	193	189	224	248	208	244	254	267	247	247	249	205	190	192	195	212	214.1
4-Jul	211	206	211	210	227	230	238	198	169	131	173	232	252	246	62	90	320	294	283	269	237	238	235	234	222.3
5-Jul	224	214	225	241	236	248	250	257	261	278	287	273	264	257	252	342	116	234	249	253	302	252	264	261	255.1
6-Jul	265	269	259	252	248	245	241	256	274	287	307	312	313	296	282	284	247	235	252	247	218	230	214	202	263.0
7-Jul	188	185	179	175	173	185	191	155	186	188	250	204	206	194	199	111	97	111	131	127	126	126	137	164	162.7
8-Jul	191	172	177	179	179	183	192	196	187	171	184	194	202	120	247	270	2	305	278	238	249	226	235	233	206.0
9-Jul	240	252	255	261	255	245	236	260	265	263	260	250	230	210	226	232	228	223	227	216	207	198	188	186	234.0
10-Jul	180	180	185	193	204	222	241	240	201	190	189	226	241	216	255	255	258	292	262	221	178	190	163	182	218.1
11-Jul	204	231	232	237	169	172	169	190	235	253	352	45	46	32	34	45	348	354	348	323	249	254	279	267	325.0
12-Jul	273	277	241	183	196	213	231	238	272	238	265	14	326	130	211	200	266	317	230	201	196	236	240	247	242.2
13-Jul	236	244	252	242	236	234	244	253	247	249	249	246	250	265	265	264	261	266	267	258	260	258	249	254	252.5
14-Jul	244	239	223	217	219	232	244	249	256	259	264	273	249	254	268	263	281	255	247	176	211	211	200	220	244.1
15-Jul	200	183	189	190	176	178	183	168	179	155	156	165	187	209	191	209	209	220	224	222	230	212	197	181	194.6
16-Jul	225	218	214	201	200	214	228	230	231	222	221	228	243	235	237	250	241	242	243	239	219	221	235	232	230.5
17-Jul	231	229	233	231	243	243	245	306	318	335	38	6	89	85	86	62	56	72	107	108	105	113	138	170	160.8
18-Jul	171	190	184	196	182	166	151	139	144	150	347	29	78	91	76	113	111	131	134	126	121	101	55	343	124.1
19-Jul	307	253	239	259	325	305	249	283	304	300	303	309	307	333	315	312	306	289	312	308	308	307	331	329	299.9
20-Jul	308	320	320	326	332	343	332	324	351	318	314	350	7	309	331	330	323	354	354	264	199	198	244	231	322.6
21-Jul	232	236	226	229	239	239	234	243	245	244	247	259	264	254	258	272	253	254	253	210	215	225	223	229	242.4
22-Jul	234	232	230	235	239	232	228	228	228	238	256	263	247	262	271	257	263	253	240	168	167	172	178	189	235.9
23-Jul	189	188	191	196	210	205	216	224	225	228	239	251	260	308	307	295	282	289	293	298	294	263	256	254	254.3
24-Jul	254	249	255	248	231	232	237	238	244	247	241	228	245	243	245	250	229	229	223	209	205	208	220	243	235.5
25-Jul	248	243	238	248	246	250	252	251	263	264	253	256	250	252	253	265	263	226	188	167	189	187	225	238	247.3
26-Jul	216	204	190	206	145	225	243	231	353	19	40	46	40	43	53	54	49	42	39	53	59	59	70	74	57.8
27-Jul	66	51	65	68	222	168	184	198	227	231	251	266	271	294	303	287	269	250	255	260	266	245	228	222	248.1
28-Jul	222	234	239	227	232	237	234	247	213	240	205	197	126	148	131	120	138	125	129	132	127	251	279	136	189.4
29-Jul	219	235	232	246	246	246	252	257	265	268	261	257	254	252	259	262	268	270	267	264	260	254	262	260	255.3
30-Jul	254	240	244	242	243	252	262	266	279	271	279	292	280	265	277	275	293	334	299	174	177	189	232	234	260.7
31-Jul	213	187	177	162	170	175	174	185	196	157	213	204	192	225	223	209	220	209	216	219	222	215	184	195	200.1
226.0 224.3 222.6 222.3 220.8 223.4 227.0 232.2 233.9 239.1 248.9 251.9 248.3 247.8 253.4 255.1 254.1 251.5 246.3 224.8 214.7 220.2 224.3 224.9																									
Diurnal Average																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Jackfish 2/3 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Jackfish 2/3 - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 108 deg on Jul 20 20:00																			Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0						
Minimum Value: 6 deg on Jul 31 03:00																									
Percentiles: P ₁ = 13 P ₁₀ = 18 Q ₁ = 24 Median = 37 Q ₃ = 53 P ₉₀ = 65 P ₉₉ = 89																									
Day	Hourly Period Ending At (MST)																							Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		24
1-Jul	15	51	39	28	19	47	29	32	37	39	39	35	42	55	35	41	38	36	37	44	55	56	45	54	56
2-Jul	57	49	56	62	57	69	57	54	58	54	54	53	57	55	64	51	34	29	49	61	35	27	29	59	69
3-Jul	95	67	61	48	42	40	36	46	45	43	34	35	42	33	32	46	44	70	40	37	27	22	23	23	95
4-Jul	24	20	20	18	18	18	45	36	43	50	60	50	44	85	43	59	82	45	49	41	24	16	19	20	85
5-Jul	23	18	18	16	18	21	28	37	45	53	48	45	38	37	39	83	63	32	31	29	52	22	34	25	83
6-Jul	28	25	17	18	15	19	24	41	47	59	60	69	63	62	67	68	42	84	50	26	29	24	15	21	84
7-Jul	12	14	26	52	36	8	16	99	70	52	62	43	75	65	57	34	31	49	45	46	37	48	69	76	99
8-Jul	89	82	70	59	55	44	37	45	46	60	54	52	43	29	63	52	68	61	43	23	34	27	22	21	89
9-Jul	19	22	36	28	20	19	24	40	40	38	36	35	29	35	34	30	30	35	32	29	26	24	42	30	42
10-Jul	39	37	37	25	23	26	23	25	21	20	39	44	59	73	48	60	61	61	64	56	21	13	16	17	73
11-Jul	12	15	18	33	33	21	34	59	31	35	57	29	39	47	43	36	72	59	51	74	83	29	26	29	83
12-Jul	29	30	37	16	20	19	34	29	49	53	50	56	71	93	80	60	51	77	31	27	29	23	23	24	93
13-Jul	25	25	23	22	23	24	25	30	32	33	32	33	34	40	41	40	38	37	40	30	32	20	15	17	41
14-Jul	19	68	18	18	18	19	25	28	39	44	47	51	37	43	57	52	54	47	38	20	18	17	25	19	68
15-Jul	21	25	18	14	32	49	63	66	58	56	51	57	55	62	60	54	45	34	32	28	24	25	55	49	66
16-Jul	33	26	26	28	27	23	23	26	35	40	40	39	30	32	35	34	32	28	28	24	21	22	19	21	40
17-Jul	20	17	17	16	23	24	25	57	54	66	58	73	81	71	48	55	50	46	40	22	18	40	61	65	81
18-Jul	59	53	57	76	68	72	63	52	54	90	68	72	31	33	75	39	41	46	45	44	47	30	86	73	90
19-Jul	87	101	30	39	58	58	30	49	55	51	54	54	56	63	48	58	55	47	52	50	52	46	77	71	101
20-Jul	60	70	76	85	68	65	64	75	58	61	55	62	61	59	61	75	62	64	65	108	47	19	21	17	108
21-Jul	15	14	14	14	16	18	20	25	30	38	49	55	54	40	52	48	58	36	33	20	17	17	17	19	58
22-Jul	18	18	17	16	15	20	19	23	27	40	56	67	70	68	62	44	44	48	61	18	15	31	25	18	70
23-Jul	23	22	20	22	23	22	27	28	30	30	31	32	39	55	52	49	47	48	48	54	43	23	19	18	55
24-Jul	20	17	20	20	19	19	25	46	78	45	35	40	40	40	40	42	31	26	19	35	23	20	20	20	78
25-Jul	18	18	20	22	22	26	26	28	42	45	34	36	33	36	43	50	51	34	60	18	19	41	40	23	60
26-Jul	24	34	25	28	39	26	20	35	71	72	48	40	54	59	36	49	37	44	42	32	25	22	21	22	72
27-Jul	14	11	18	17	83	45	34	31	39	33	40	41	63	64	67	55	41	33	34	27	36	20	23	18	83
28-Jul	20	18	22	18	19	18	20	30	56	90	57	69	73	62	51	50	54	46	49	47	56	78	84	47	90
29-Jul	30	23	25	24	26	24	27	32	43	41	38	36	35	32	37	37	41	47	43	38	22	19	28	29	47
30-Jul	23	20	20	19	20	32	49	48	53	49	57	51	56	44	57	51	57	81	67	89	9	15	17	14	89
31-Jul	19	6	6	13	22	37	40	22	22	45	47	52	58	67	48	80	45	40	23	14	17	21	40	41	80
95 101 76 85 83 72 64 99 78 90 68 73 81 93 80 83 82 84 67 108 83 78 86 76																									
Diurnal Maximum																									



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

**AMS29
SURMONT 2
JULY 2026**

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - SURMONT2 (AMS29)

JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	709	34	35	99.87	5.3	0	1.1	0
H2S (ppb) Average	709	35	35	100	0.9	0	0.4	0
THC(ppm) Average	708	35	36	99.87	2.6	-	2.4	-
NO2 (ppb) Average	707	36	37	99.87	4.7	0	2	-
NO (ppb) Average	707	36	37	99.87	1.7	-	0.3	-
NOX (ppb) Average	707	36	37	99.87	6.4	-	2.1	-
PM2.5 (ug/m3) Average	694	1	50	93.41	175.6	10	81.9	4
Temperature 2 m (C) Average	744	0	0	100	31	-	22.6	-
Relative Humidity (%) Average	744	0	0	100	99.9	-	90.8	-
Wind Speed 10 m (km/h) Average	708	0	36	95.16	15	-	10	-
Wind Direction 10 m (deg) Average	708	0	36	95.16	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - SURMONT 2 (AMS29)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	709	0.26	0.5	-	0	0	0	0.1	0.3	0.6	5.3
H2S (ppb) Average	709	0.12	0.1	-	0	0	0.1	0.1	0.1	0.2	0.9
THC (ppm) Average	708	2.25	0.1	-	2.1	2.2	2.2	2.2	2.3	2.3	2.6
NO2 (ppb) Average	707	0.8	0.7	-	0.2	0.3	0.4	0.6	0.9	1.6	4.7
NO (ppb) Average	707	0.09	0.2	-	0	0	0	0.1	0.1	0.2	1.7
NOX (ppb) Average	707	0.89	0.7	-	0.2	0.3	0.4	0.6	1	1.8	6.4
PM2.5 (ug/m3) Average	694	15.56	21.9	-	1.1	2.6	3.7	6.4	15.7	52.8	175.6
Temperature 2 m (C) Average	744	17.41	4.8	-	5.7	11.2	14	17.1	20.9	23.8	31
Relative Humidity (%) Average	744	71.61	20.1	-	23.9	42.6	55.3	75.4	88.7	96.5	99.9
Wind Speed 10 m (km/h) Average	708	4.8	3	-	0	1	2	4	7	9	15
Wind Direction 10 m (deg) Average	708	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - SURMONT 2 (AMS29)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
NO2, NMHC, SO2	23 Jul 2026 09:00	23 Jul 2026 09:00	1	Maintenance - sample manifold cleaned
PM2.5	15 Jul 2026 14:00	17 Jul 2026 09:00	44	DAS Failure - data not recorded
PM2.5	28 Jul 2026 06:00	28 Jul 2026 10:00	5	DAS Failure - data not recorded
Wind Speed, Wind Direction	01 Jul 2026 01:00	31 Jul 2026 09:00	36	Flat line in sensor output signal



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

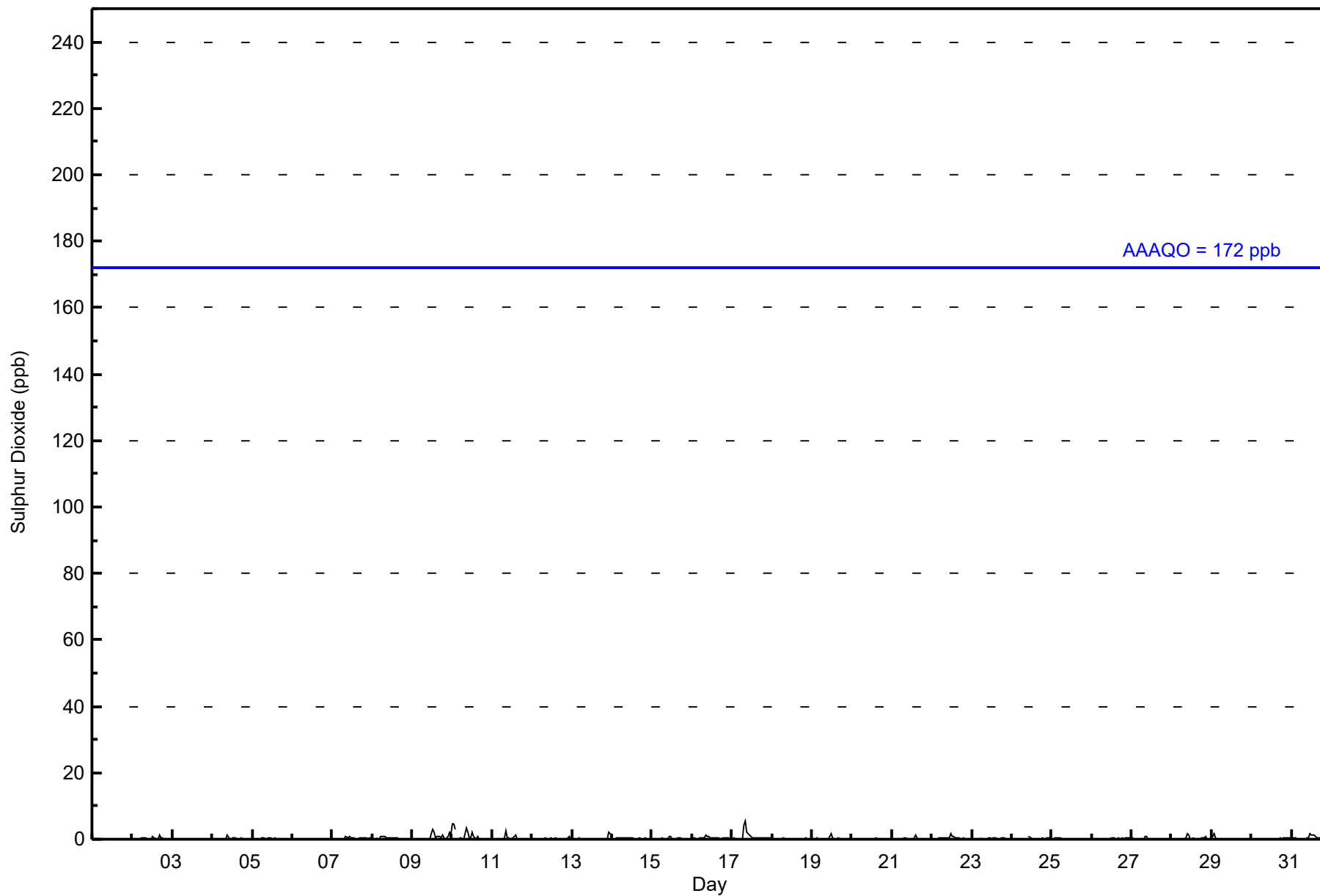
Surmont 2 - July 2026

Number of Exceedances (AAAQO): Maximum Value: 5.3 ppb on Jul 17 09:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 1.1 ppb on Jul 10																			Hours in Service: 744 Hours of Data: 709	
Minimum Value: 0.0 ppb on Jul 1 02:00 Maximum Diurnal Average: 0.6 ppb at hour 9 Monthly Average: 0.26 ppb																			Minimum Daily Average: 0.0 ppb on Jul 6 Minimum Diurnal Average: 0.1 ppb at hour 4 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.6 P ₉₉ = 2.5																			Hours of Missing Data: 35 Hours of Calibration: 34 Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0													
2-Jul	0.0	Z	0.0	0.0	0.0	0.4	0.5	0.2	0.2	0.1	0.1	0.1	0.9	0.3	0.0	0.1	1.4	0.4	0.2	0.0	0.0	0.1	0.1	0.1	0.1	0.2													
3-Jul	0.1	0.1	Z	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1													
4-Jul	0.1	0.1	0.1	Z	0.0	0.0	0.1	0.1	0.1	1.2	0.1	0.1	0.3	0.3	0.3	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2													
5-Jul	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.4	0.4	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.2	0.1	0.0	0.1	0.2	0.0	0.2	0.4													
6-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0													
7-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.5	0.7	0.3	0.3	0.3	0.2	0.2	0.4	0.4	0.4	0.3	0.2	0.1	0.6	0.3	0.3	0.7													
8-Jul	0.2	Z	0.2	0.0	0.0	0.8	0.7	0.9	0.5	0.5	0.6	0.5	0.4	0.2	0.3	0.4	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.3	0.9													
9-Jul	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	3.0	1.9	0.6	0.8	0.8	0.6	1.2	0.6	0.1	1.0	2.2	1.7	0.7	3.0													
10-Jul	4.6	4.5	2.8	Z	0.6	0.3	0.2	0.2	3.5	1.9	0.6	0.3	2.2	1.1	0.1	0.9	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.0	1.1	4.6													
11-Jul	0.1	0.0	0.1	0.1	Z	0.1	0.2	0.2	2.5	0.5	0.4	0.1	0.2	0.9	1.3	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.3	2.5													
12-Jul	0.1	0.1	0.1	0.2	0.2	Z	0.1	0.1	0.3	0.1	0.1	0.2	0.1	0.1	0.4	0.2	0.1	0.0	0.1	0.1	0.2	0.4	0.9	0.1	0.2	0.9													
13-Jul	Z	0.0	0.0	0.1	0.2	0.2	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	2.0	1.7	0.2	2.0													
14-Jul	0.6	Z	0.2	0.2	0.3	0.5	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.3	0.6													
15-Jul	0.1	0.0	Z	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.9	0.7	0.2	0.0	0.0	0.3	0.4	0.3	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.9													
16-Jul	0.5	0.6	0.1	Z	0.4	0.4	0.3	0.3	1.4	0.8	0.7	0.6	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.4	0.1	0.4	1.4													
17-Jul	0.0	0.2	0.0	0.0	Z	0.0	0.2	4.1	5.3	2.2	1.2	0.8	0.4	0.3	0.4	0.4	0.5	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.8	5.3													
18-Jul	0.1	0.1	0.1	0.2	0.1	Z	0.2	0.3	0.0	0.1	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.3	0.1	0.0	0.0	0.1	0.3													
19-Jul	Z	0.1	0.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.6	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	1.5													
20-Jul	0.2	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2													
21-Jul	0.0	0.1	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.5	1.1	0.3	0.2	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.2	1.1													
22-Jul	0.0	0.0	0.0	Z	0.3	0.3	0.2	0.5	0.5	0.4	0.4	1.6	0.9	0.8	0.5	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.3	1.6													
23-Jul	0.0	0.1	0.0	0.0	Z	0.3	0.1	0.2	M	0.2	0.5	0.4	0.2	0.3	0.2	0.2	0.1	0.0	0.4	0.2	0.1	0.1	0.1	0.1	0.2	0.5													
24-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.3	C	C	C	0.7	0.2	0.0	0.1	0.0	0.1	0.0	0.2	0.2	0.0	0.0	0.4	0.5	0.5	0.2	0.7													
25-Jul	Z	0.2	0.3	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.5													
26-Jul	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2	0.2	0.2	0.1	0.3	0.2	0.6	0.6	0.4	0.3	0.2	0.6													
27-Jul	0.2	0.0	Z	0.2	0.2	0.1	0.1	0.2	0.7	0.8	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.8													
28-Jul	0.0	0.0	0.0	Z	0.2	0.2	0.2	0.1	0.3	1.9	1.4	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.3	0.7	0.1	0.2	0.1	0.3	1.9													
29-Jul	0.2	1.9	0.5	0.2	Z	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.9													
30-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.1	0.3													
31-Jul	Z	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.4	0.3	1.5	1.3	1.1	0.8	0.4	0.3	0.4	0.2	0.1	0.3	0.1	0.1	0.1	0.4	1.5													
0.3 0.3 0.2 0.1 0.1 0.2 0.2 0.3 0.6 0.5 0.3 0.4 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.1 0.1 0.2 0.3 0.2																										Diurnal Average													
4.6 4.5 2.8 0.5 0.6 0.8 0.7 4.1 5.3 2.2 1.4 1.8 3.0 1.9 1.3 0.9 1.4 0.6 1.2 0.6 0.7 1.0 2.2 1.7																										Diurnal Maximum													
Z - zerospan C - Calibration M - Maintenance																																							
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																																							



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Surmont 2 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Surmont 2 - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	709	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Surmont 2 - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	16	14	6	5	9	62	63	26	17	25	28	135	148	65	38	21	678
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	14	6	5	9	62	63	26	17	25	28	135	148	65	38	21	678

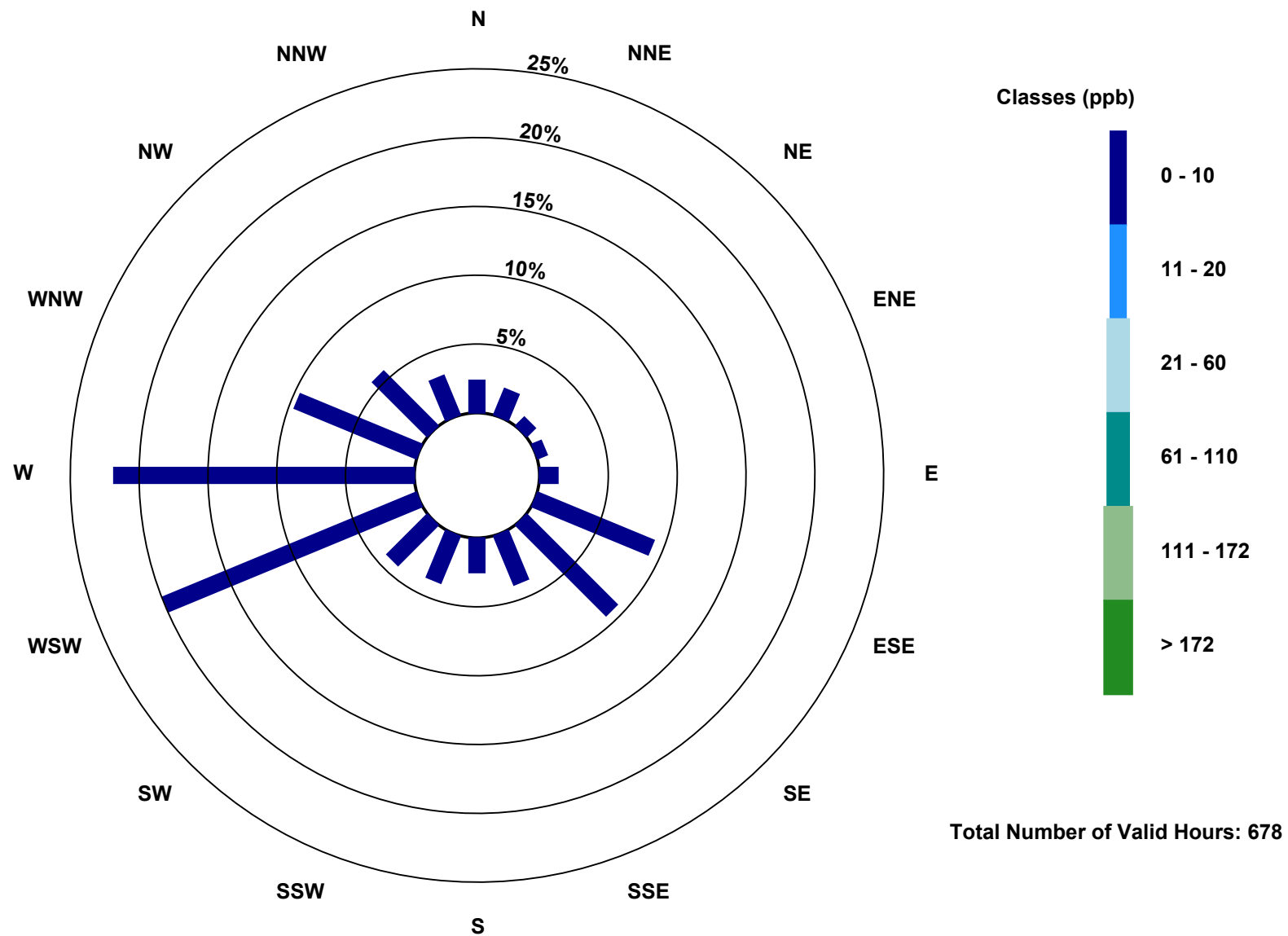
Total Number of Valid Hours: 678

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

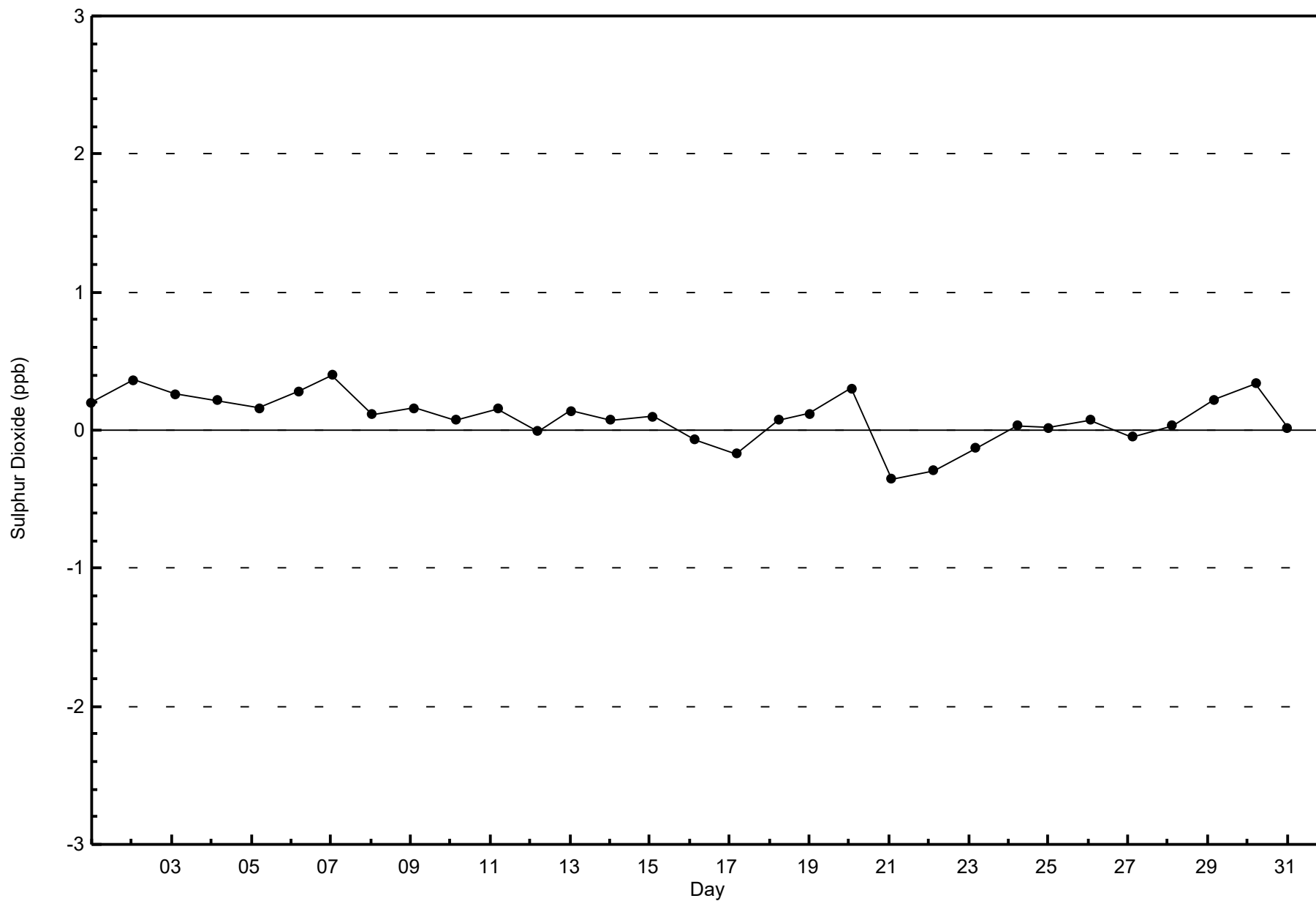
Sulphur Dioxide (SO₂) - ppb
Surmont 2





Wood Buffalo Environmental Association
Zero Responses

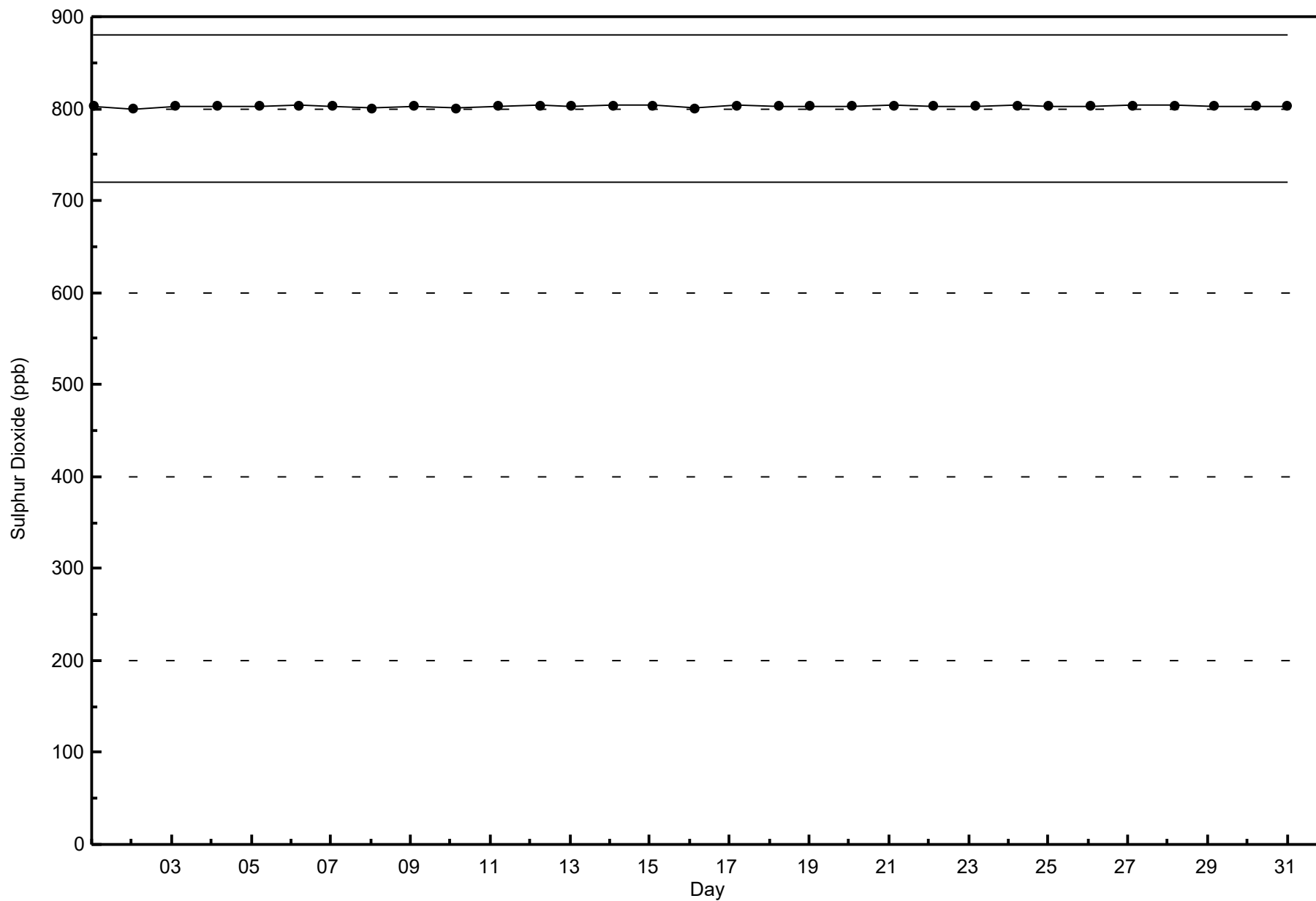
Sulphur Dioxide (SO₂) - ppb
Surmont 2 - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Surmont 2 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H₂S) - ppb

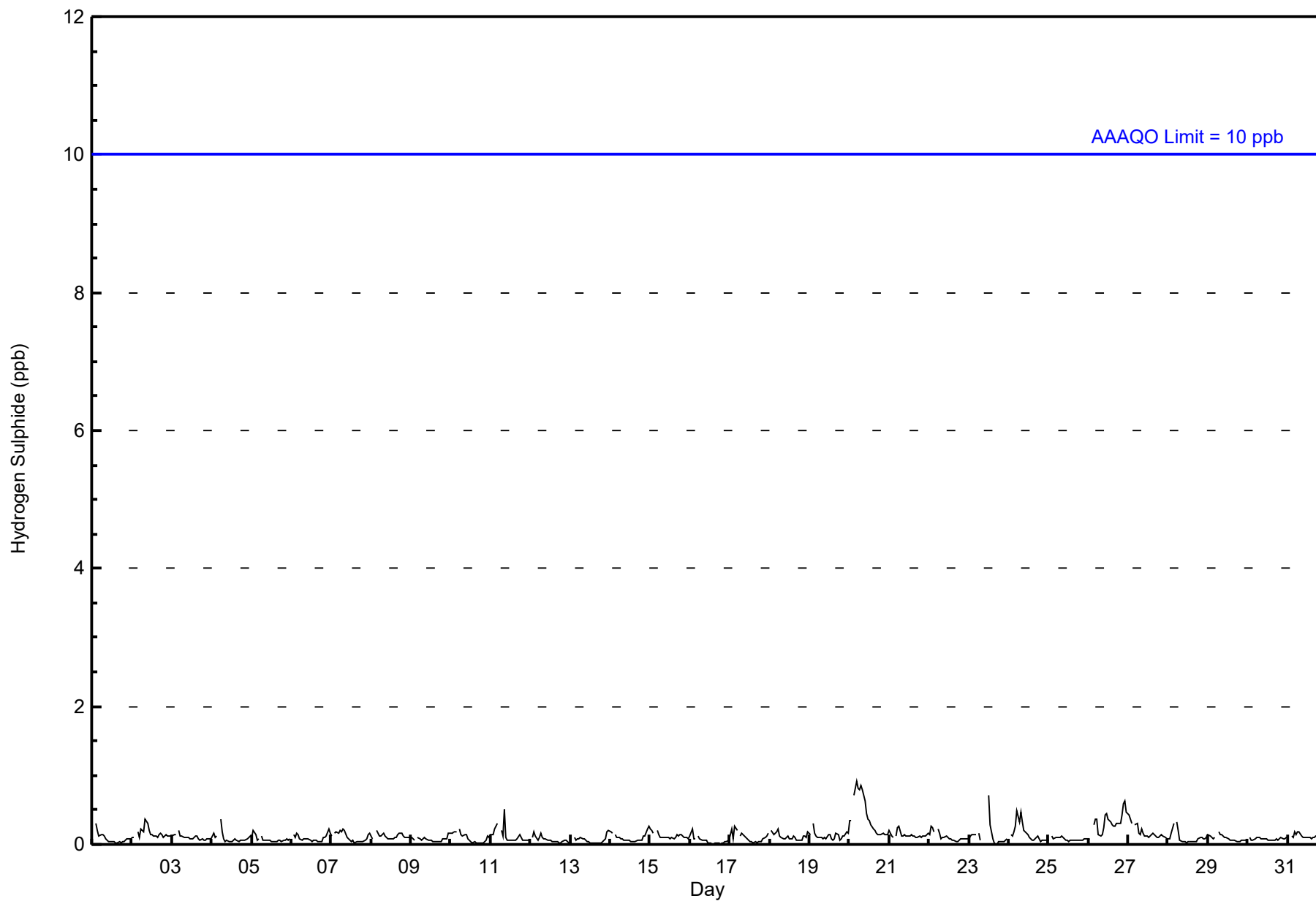
Surmont 2 - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																			Hours in Service: 744								
Maximum Value: 0.9 ppb on Jul 20 05:00																			Maximum Daily Average: 0.4 ppb on Jul 20		Hours of Data: 709						
Minimum Value: 0.0 ppb on Jul 23 17:00																			Minimum Daily Average: 0.1 ppb on Jul 16		Hours of Missing Data: 35						
Maximum Diurnal Average: 0.2 ppb at hour 6																			Minimum Diurnal Average: 0.1 ppb at hour 16		Hours of Calibration: 35						
Monthly Average: 0.12 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.1 P ₉₀ = 0.2 P ₉₉ = 0.6		Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.1	Z	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.3
2-Jul	0.1	0.1	Z	0.2	0.1	0.2	0.2	0.2	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
3-Jul	0.1	0.1	0.1	Z	0.2	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	0.1	0.2
4-Jul	0.1	0.2	0.1	0.1	Z	0.4	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
5-Jul	0.1	0.2	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
6-Jul	Z	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.2
7-Jul	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.2
8-Jul	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
9-Jul	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2
10-Jul	0.2	0.2	0.2	0.2	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2
11-Jul	0.1	0.1	0.2	0.3	0.3	Z	0.2	0.1	0.5	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	0.5
12-Jul	Z	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.2	
13-Jul	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.2	
14-Jul	0.2	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.3
15-Jul	0.2	0.2	0.2	Z	0.2	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	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
16-Jul	0.1	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	
17-Jul	0.1	0.2	0.1	0.3	0.2	Z	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.3
18-Jul	Z	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
19-Jul	0.1	Z	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.3
20-Jul	0.4	0.4	Z	0.7	0.9	0.8	0.8	0.8	0.8	0.6	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.4	0.9
21-Jul	0.2	0.1	0.1	Z	0.1	0.3	0.3	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	0.2	0.1	0.3
22-Jul	0.1	0.3	0.2	0.2	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
23-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.1	C	C	C	C	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.7
24-Jul	Z	0.1	0.1	0.2	0.3	0.5	0.3	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.5
25-Jul	0.1	Z	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	0.1	0.1	0.1	0.1	0.1
26-Jul	0.1	0.1	Z	0.3	0.4	0.4	0.2	0.1	0.2	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.6	0.6	0.5	0.3	0.6
27-Jul	0.4	0.4	0.3	Z	0.3	0.3	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
28-Jul	0.1	0.1	0.2	0.3	Z	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
29-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	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
30-Jul	Z	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	0.1	0.1	0.1	0.1	0.1	0.1
31-Jul	0.1	Z	0.1	0.1	0.2	0.1	0.2	0.2	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	0.2	0.1	0.1	0.1	0.1	0.2
Diurnal Average																										Diurnal Maximum	
0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.2 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																											
0.4 0.4 0.3 0.7 0.9 0.8 0.8 0.8 0.8 0.6 0.4 0.4 0.7 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.4 0.6 0.6 0.5																											
Z - zerospan C - Calibration																											
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Surmont 2 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Surmont 2 - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	709	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Surmont 2 - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	16	14	5	6	9	64	63	26	17	27	32	129	145	66	38	21	678
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	14	5	6	9	64	63	26	17	27	32	129	145	66	38	21	678

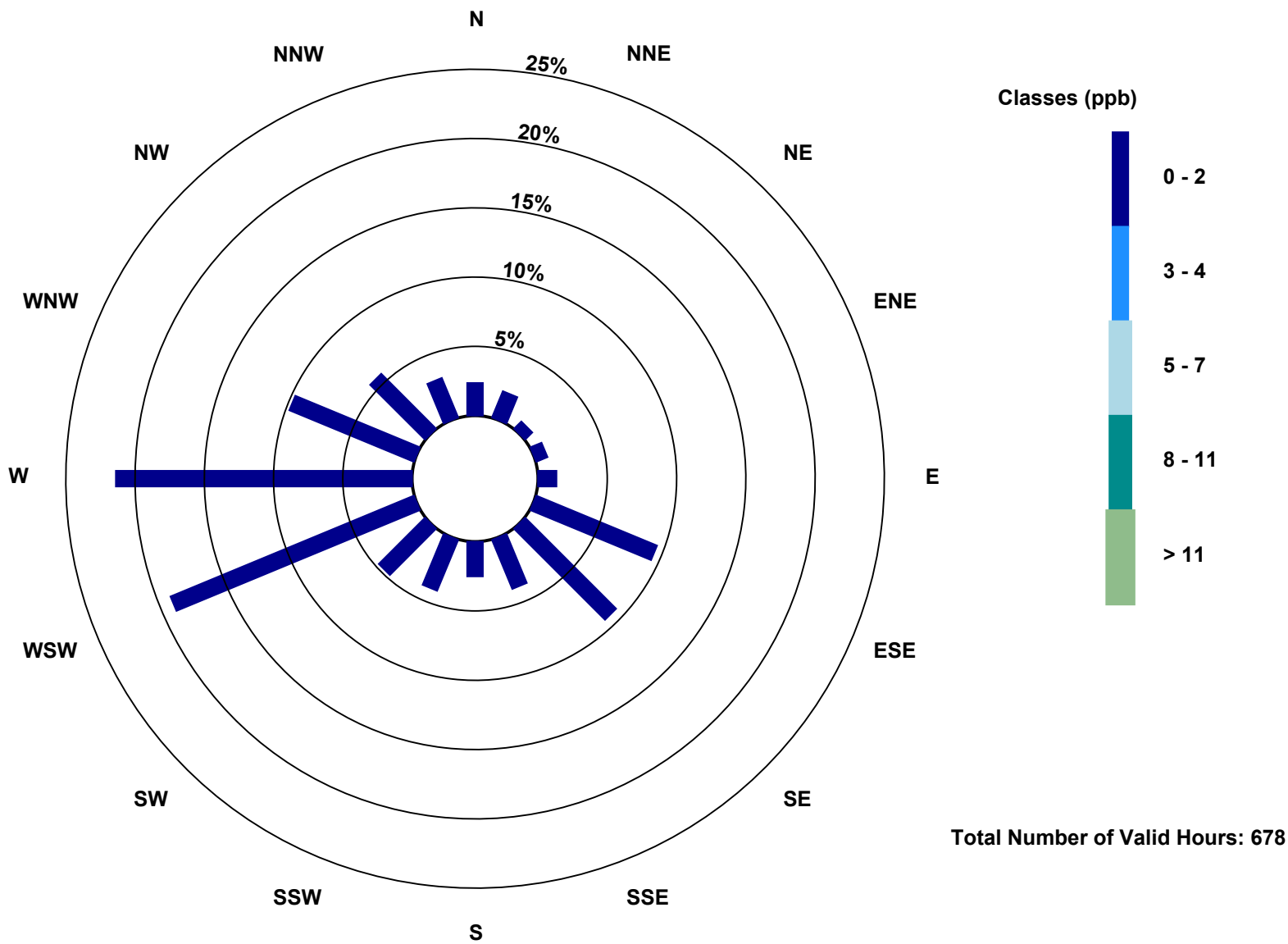
Total Number of Valid Hours: 678

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

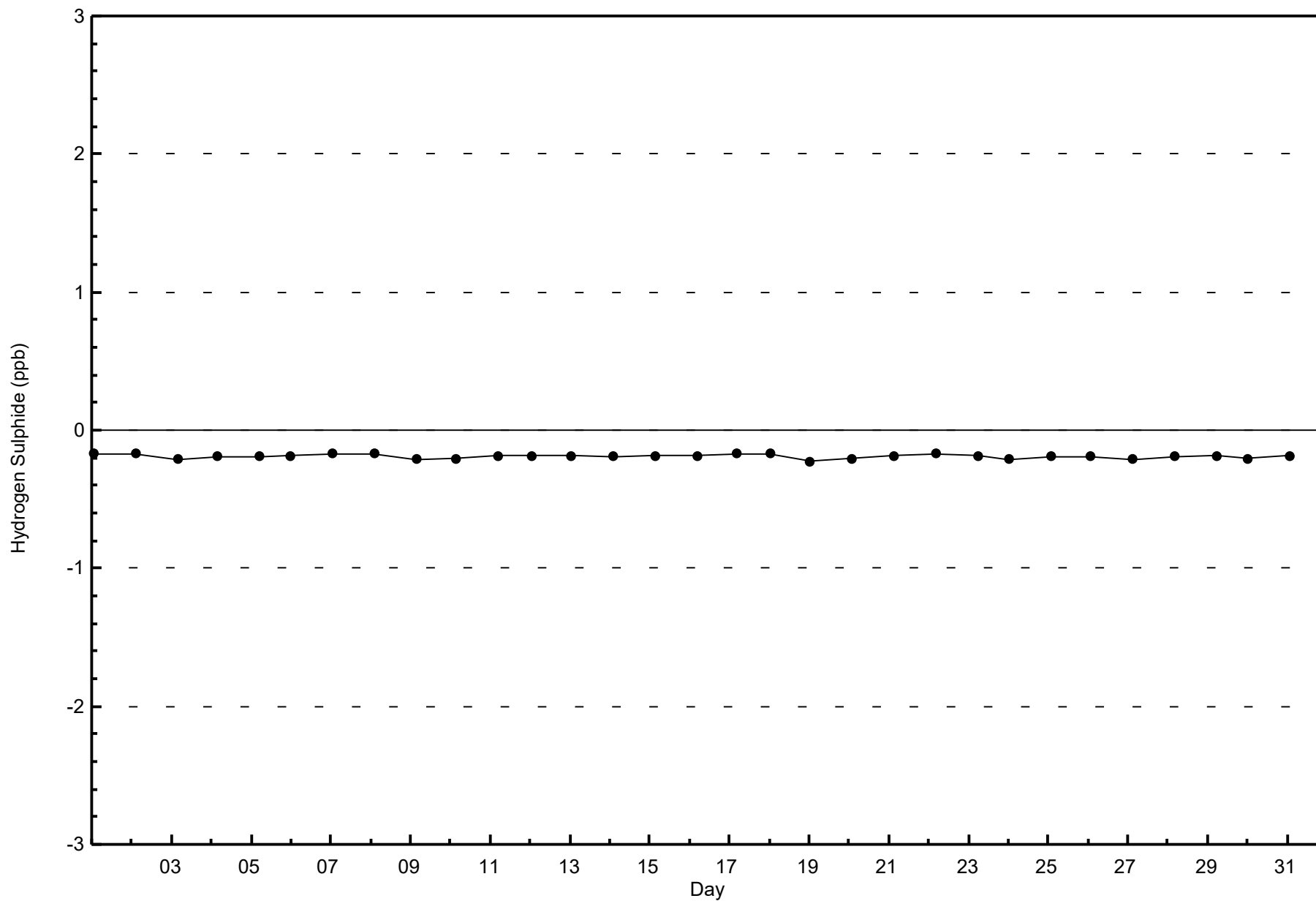
Hydrogen Sulphide (H₂S) - ppb
Surmont 2

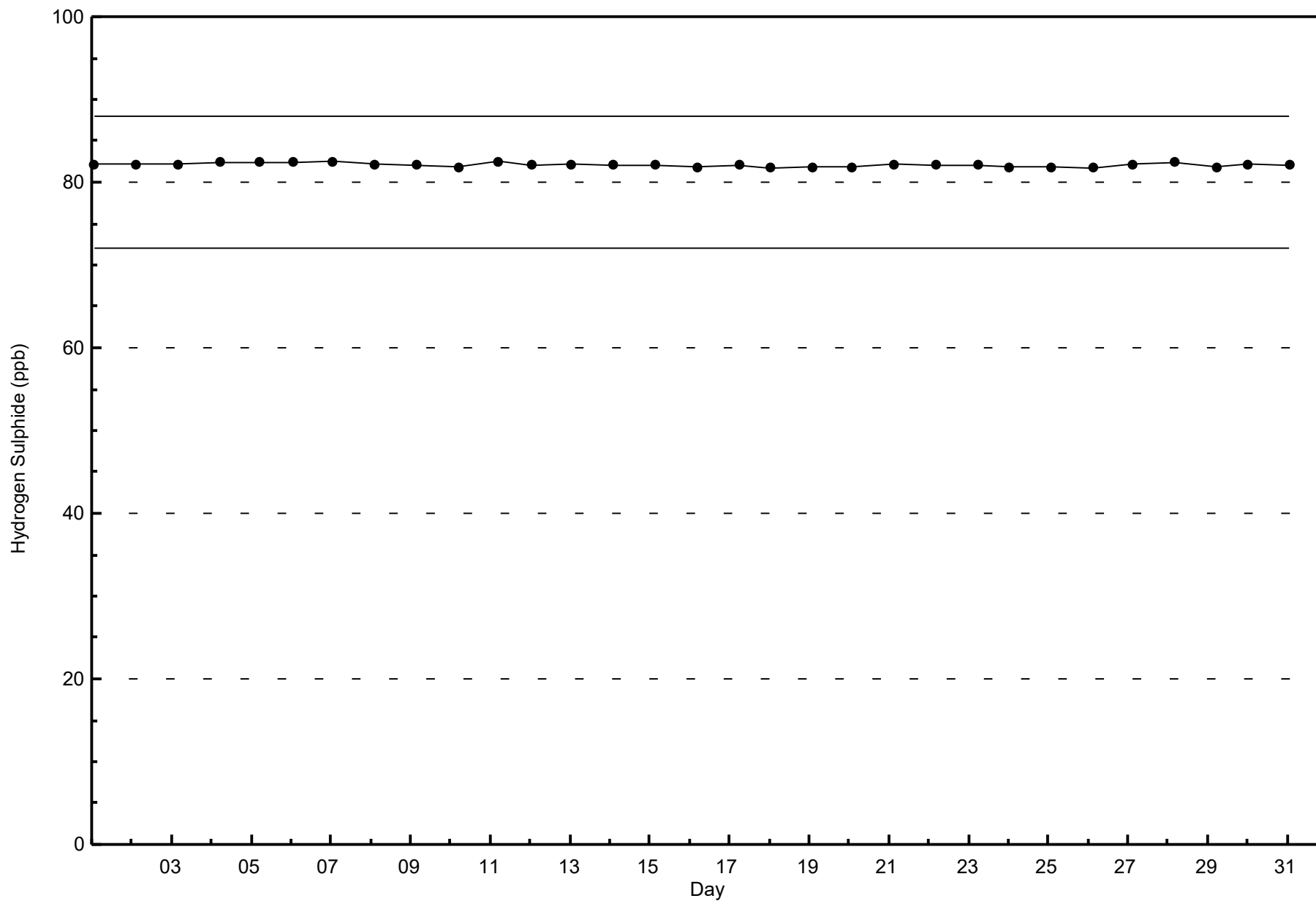




Wood Buffalo Environmental Association
Zero Responses

Hydrogen Sulphide (H₂S) - ppb
Surmont 2 - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

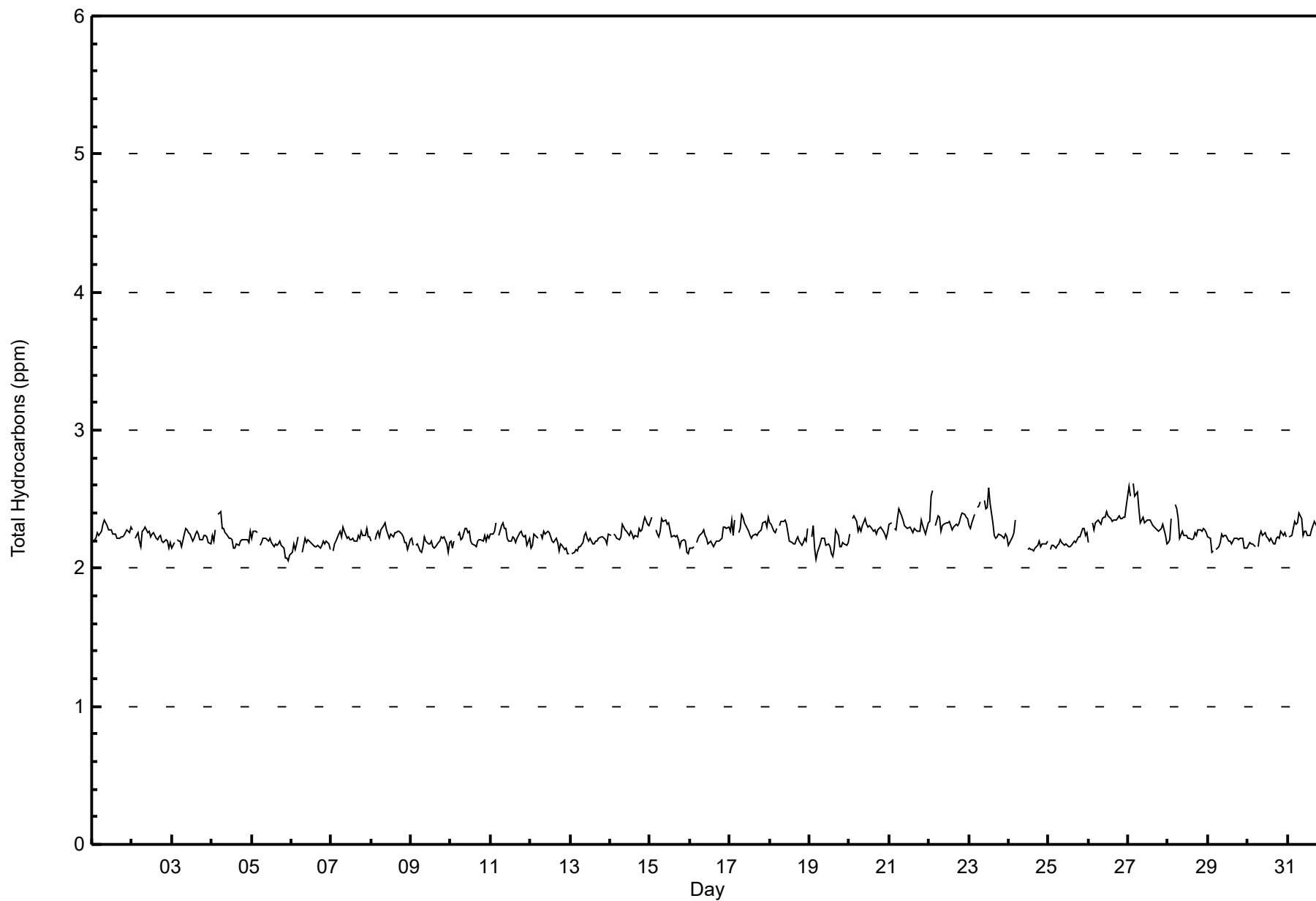
Surmont 2 - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																		Hours in Service: 744								
Maximum Value: 2.6 ppm on Jul 27 04:00 Maximum Daily Average: 2.4 ppm on Jul 27																		Hours of Data: 708								
Minimum Value: 2.1 ppm on Jul 5 23:00 Minimum Daily Average: 2.2 ppm on Jul 6																		Hours of Missing Data: 36								
Maximum Diurnal Average: 2.3 ppm at hour 9 Minimum Diurnal Average: 2.2 ppm at hour 23																		Hours of Calibration: 35								
Monthly Average: 2.25 ppm Percentiles: P ₁ = 2.1 P ₁₀ = 2.2 Q ₁ = 2.2 Median = 2.2 Q ₃ = 2.3 P ₉₀ = 2.3 P ₉₉ = 2.5																		Percent Operational Time: 99.9								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	Z	2.2	2.2	2.3	2.2	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3
2-Jul	2.3	Z	2.2	2.3	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.3
3-Jul	2.1	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
4-Jul	2.2	2.2	2.3	Z	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.4
5-Jul	2.2	2.3	2.3	2.3	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2
6-Jul	2.1	2.2	2.1	2.2	2.2	Z	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2
7-Jul	Z	2.1	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.3	2.2	2.2	2.3
8-Jul	2.2	Z	2.2	2.2	2.3	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.3
9-Jul	2.2	2.2	Z	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2
10-Jul	2.2	2.1	2.2	Z	2.2	2.3	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
11-Jul	2.2	2.2	2.3	2.3	Z	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3
12-Jul	2.1	2.2	2.2	2.2	2.2	Z	2.2	2.2	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.3
13-Jul	Z	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
14-Jul	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.4
15-Jul	2.3	2.4	Z	2.3	2.3	2.2	2.3	2.4	2.3	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.3	2.4
16-Jul	2.1	2.1	2.2	Z	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.3
17-Jul	2.3	2.3	2.2	2.3	Z	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.4
18-Jul	2.3	2.3	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3
19-Jul	Z	2.2	2.3	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
20-Jul	2.2	Z	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.4
21-Jul	2.3	2.3	Z	2.3	2.3	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.4
22-Jul	2.3	2.5	2.6	Z	2.3	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.6
23-Jul	2.3	2.3	2.3	2.4	Z	2.4	2.5	2.5	M	2.5	2.4	2.4	2.6	2.5	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.6
24-Jul	2.2	2.2	2.2	2.3	2.4	Z	2.4	C	C	C	C	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.4
25-Jul	Z	2.1	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.2	2.3
26-Jul	2.2	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.4	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.4	2.5
27-Jul	2.6	2.5	Z	2.6	2.5	2.6	2.4	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.4	2.6
28-Jul	2.2	2.2	2.4	Z	2.5	2.4	2.4	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.5
29-Jul	2.2	2.2	2.1	2.1	Z	2.1	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.3
30-Jul	2.2	2.2	2.2	2.2	2.2	Z	2.2	2.2	2.3	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.2	2.2	2.3
31-Jul	Z	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.2	2.3	2.3	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.4
2.2																								Diurnal Average		
2.6																								Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance																										



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Surmont 2 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Surmont 2 - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	0	0.00	0.00
2.1 - 3.0	708	100.00	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Surmont 2 - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.1 - 3.0	16	14	6	5	9	61	63	26	17	25	28	135	148	65	38	21	677
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	14	6	5	9	61	63	26	17	25	28	135	148	65	38	21	677

Total Number of Valid Hours: 677

Total Number of Hours: 744

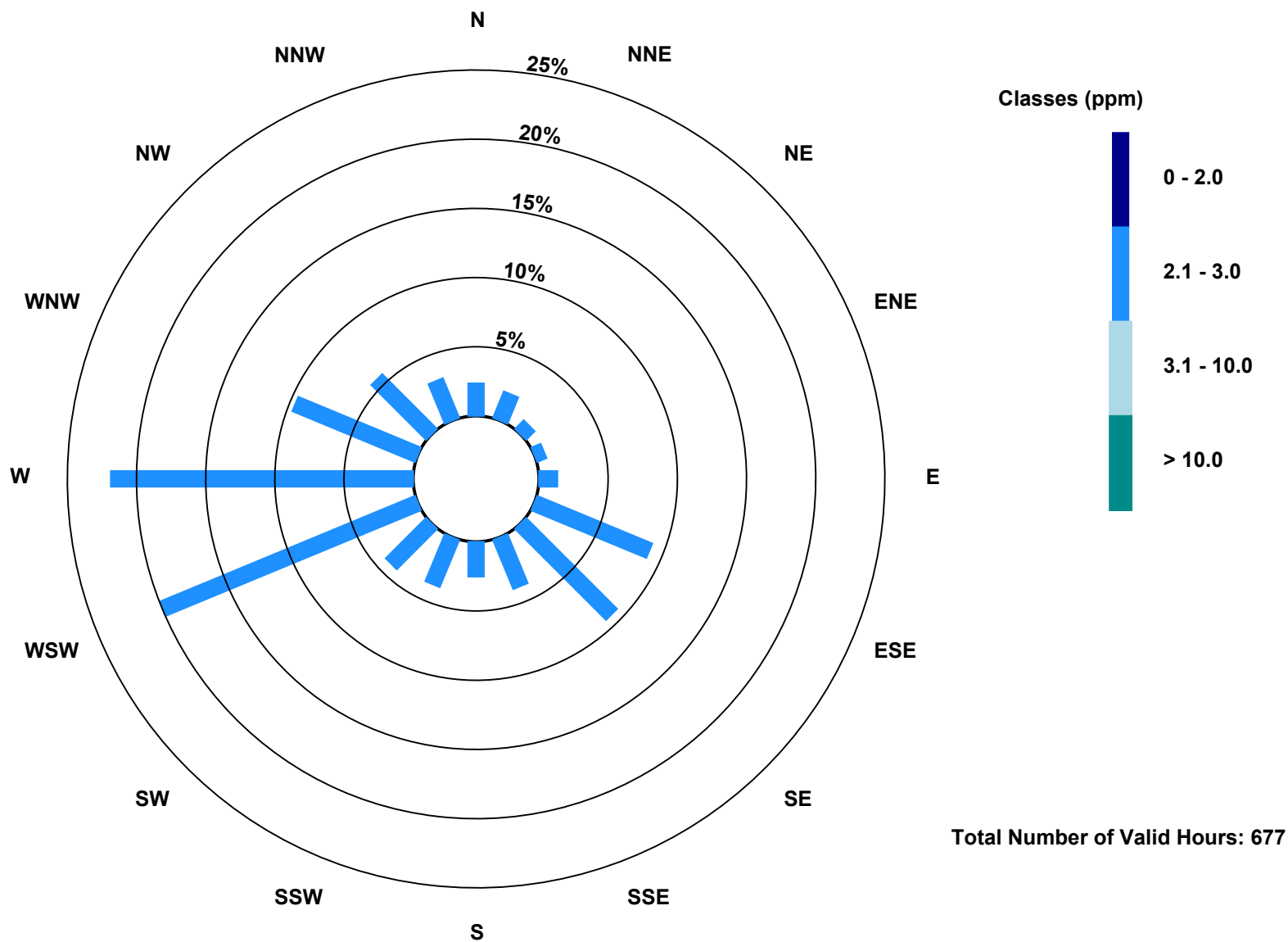


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Total Hydrocarbons (THC) - ppm

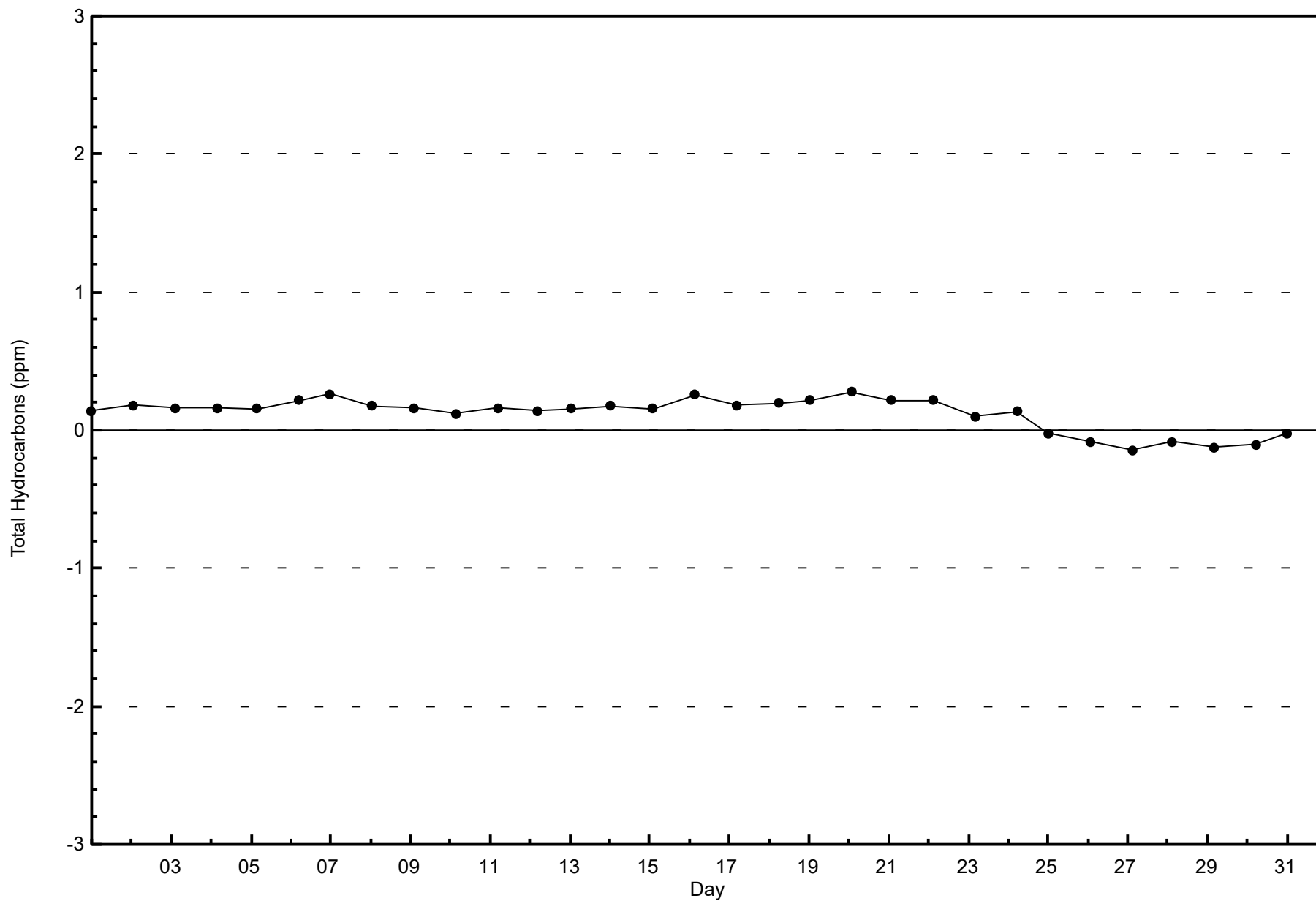
Surmont 2





Wood Buffalo Environmental Association
Zero Responses

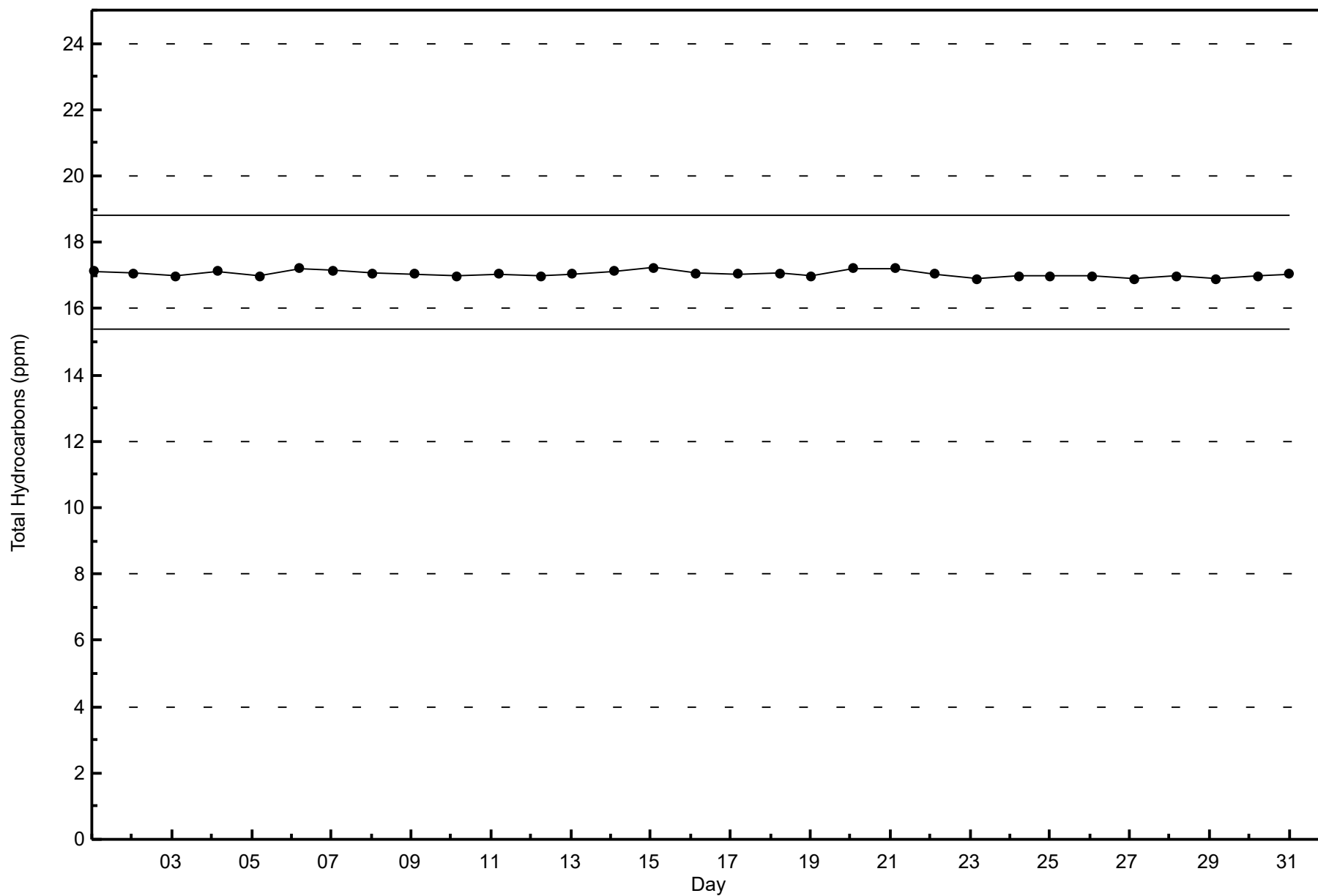
Total Hydrocarbons (THC) - ppm
Surmont 2 - July 2026





Wood Buffalo Environmental Association
Span Responses

Total Hydrocarbons (THC) - ppm
Surmont 2 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

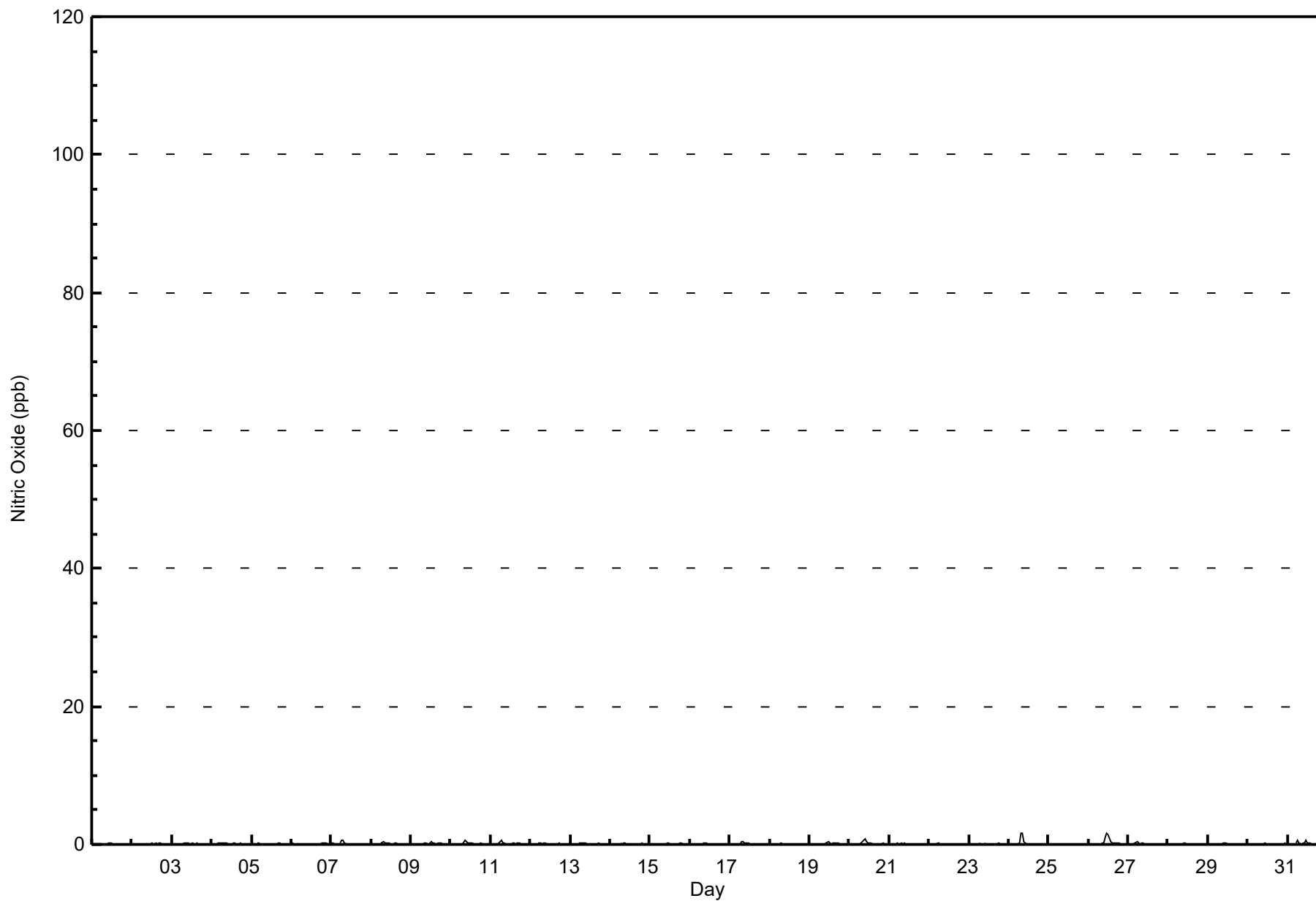
Surmont 2 - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.7 ppb on Jul 24 09:00 Maximum Daily Average: 0.3 ppb on Jul 26																			Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 36 Percent Operational Time: 99.9							
Minimum Value: 0.0 ppb on Jul 2 22:00 Minimum Daily Average: 0.0 ppb on Jul 22 Maximum Diurnal Average: 0.2 ppb at hour 9 Minimum Diurnal Average: 0.0 ppb at hour 24 Monthly Average: 0.09 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.1 P ₉₀ = 0.2 P ₉₉ = 0.6																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.0	0.0	0.0	0.0	Z	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	
2-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	
3-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	
4-Jul	0.1	Z	0.0	0.1	0.2	0.3	0.3	0.3	0.1	0.3	0.1	0.1	0.1	0.1	0.2	0.0	0.0	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	
5-Jul	0.1	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	
6-Jul	0.1	0.0	0.0	Z	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	0.2	0.2	0.1	0.0	0.0	0.1	
7-Jul	0.2	0.1	0.0	0.0	Z	0.3	0.6	0.7	0.3	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	0.0	0.0	0.1	
8-Jul	0.0	0.0	0.0	0.0	0.1	Z	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	
9-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	
10-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.6	0.4	0.2	0.2	0.3	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	
11-Jul	0.0	0.0	Z	0.0	0.0	0.3	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	
12-Jul	0.0	0.0	0.0	Z	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	
13-Jul	0.0	0.0	0.0	0.0	Z	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	
14-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	
15-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.1	
16-Jul	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	
17-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.4	0.3	0.2	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	0.0	0.1	
18-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	
19-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.1	0.1	0.4	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	
20-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.4	0.8	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	
21-Jul	Z	0.1	0.0	0.0	0.0	0.1	0.1	0.3	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	
22-Jul	0.0	Z	0.1	0.0	0.0	0.1	0.1	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	M	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	
24-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.2	1.7	1.7	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	
25-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
26-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.2	1.1	1.7	1.5	0.5	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.3	
27-Jul	Z	0.1	0.1	0.1	0.1	0.4	0.3	0.0	0.1	0.3	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
28-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
29-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	
30-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.3	0.0	0.1	
31-Jul	0.0	0.0	0.0	0.0	Z	0.2	0.5	0.2	0.1	0.2	0.2	0.5	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
0.0 0.0 0.0 0.0 0.0 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 0.0 0.0 0.0																								Diurnal Average		
0.2 0.2 0.1 0.1 0.2 0.4 0.6 1.7 1.7 0.8 1.1 1.7 1.5 0.5 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.3 0.1																								Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance																										



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Surmont 2 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Surmont 2 - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Surmont 2 - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	16	14	6	6	9	64	62	26	18	27	28	131	152	60	36	21	676
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	14	6	6	9	64	62	26	18	27	28	131	152	60	36	21	676

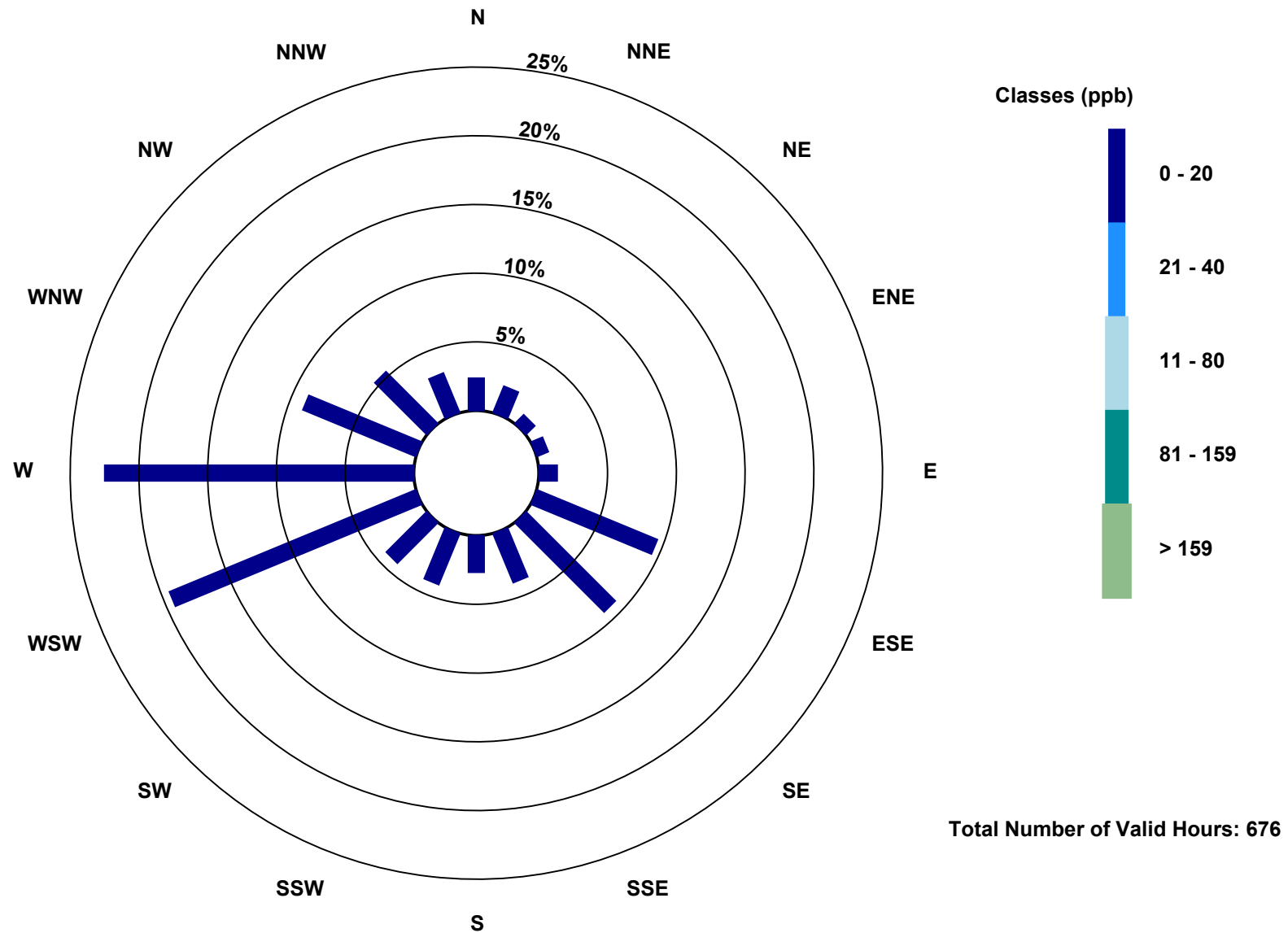
Total Number of Valid Hours: 676

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

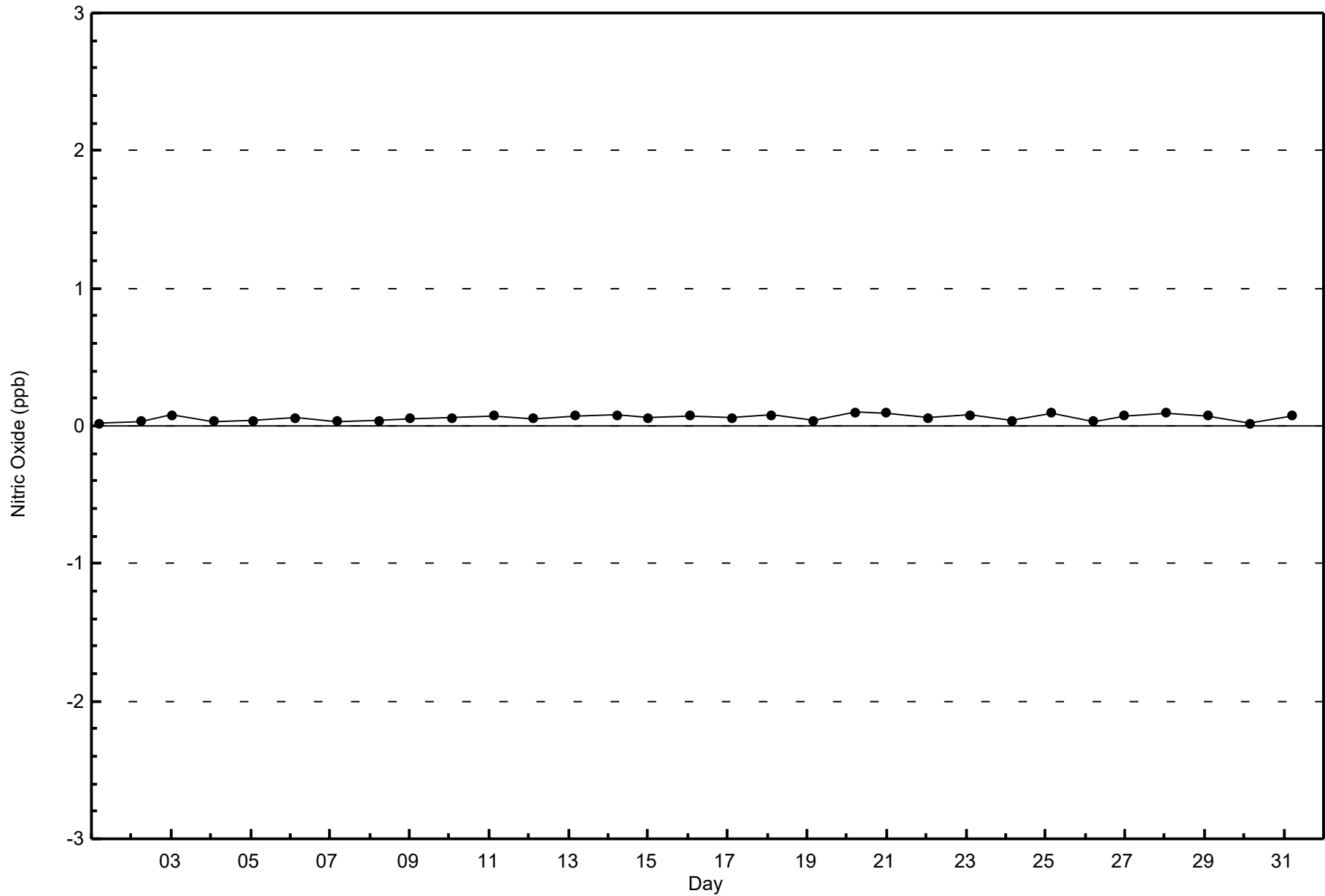
Nitric Oxide (NO) - ppb
Surmont 2





Wood Buffalo Environmental Association
Zero Responses

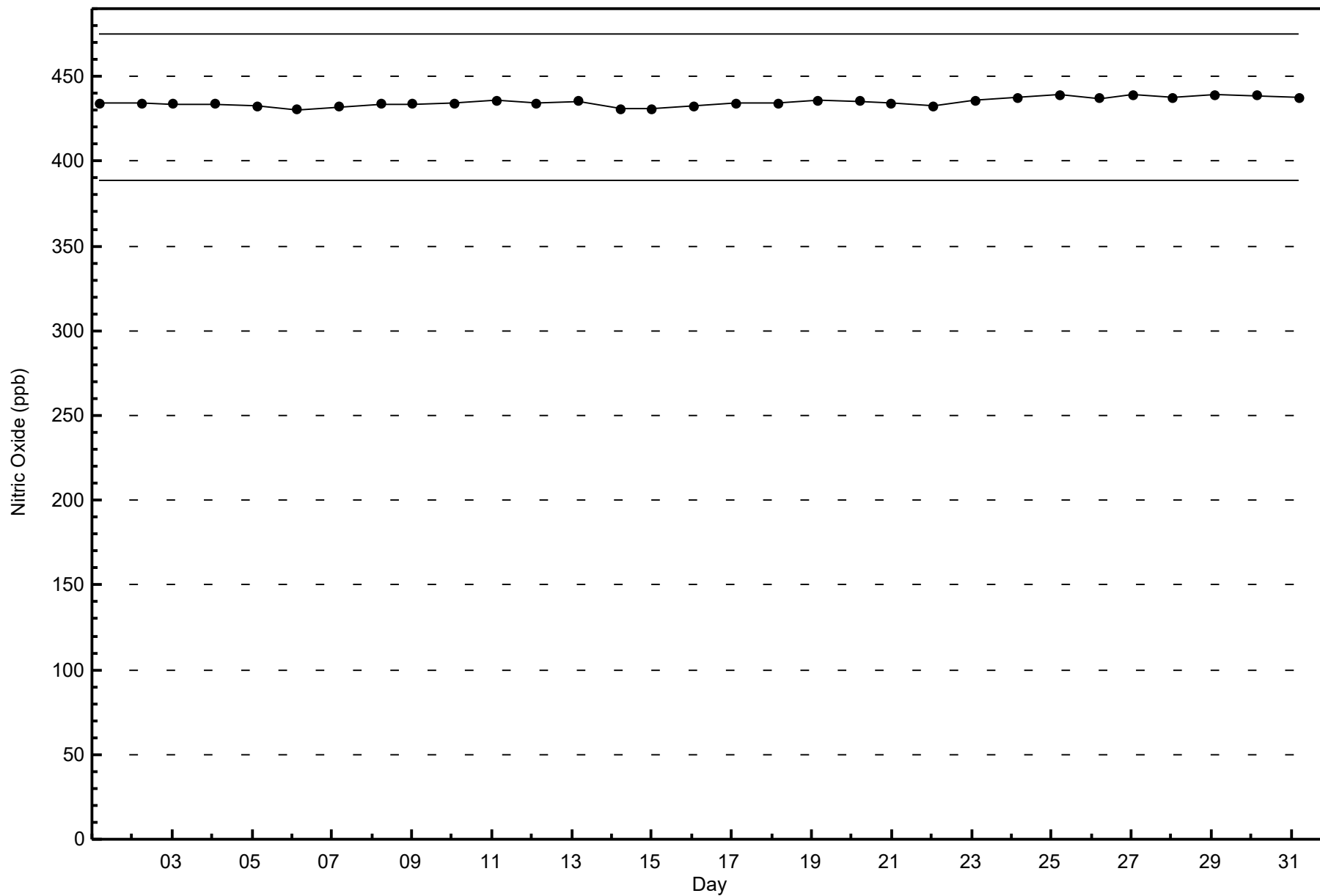
Nitric Oxide (NO) - ppb
Surmont 2 - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Surmont 2 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

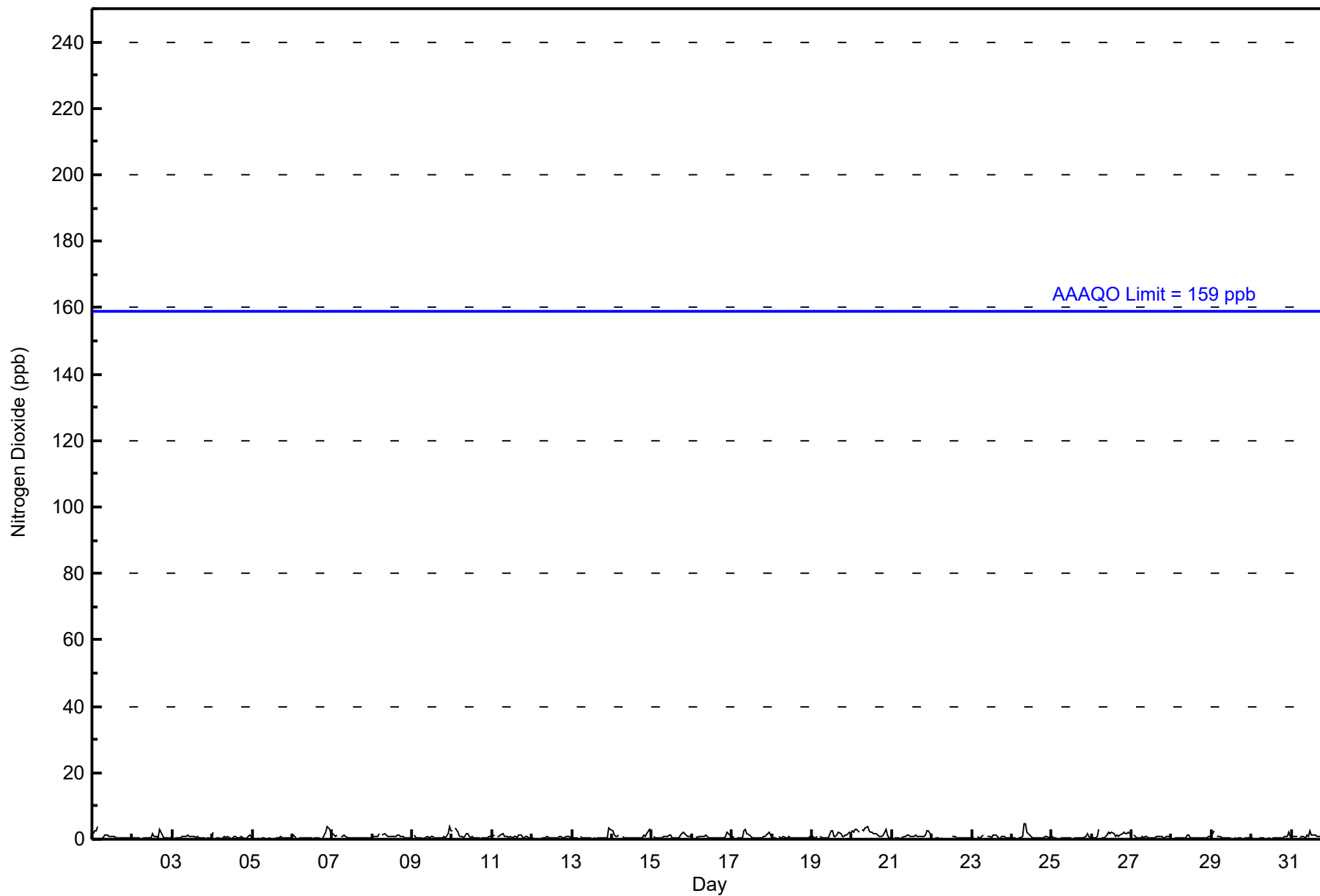
Surmont 2 - July 2026

Number of Exceedances (AAAQO): Maximum Value: 4.7 ppb on Jul 24 09:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 2.0 ppb on Jul 20							Hours in Service: 744	
Minimum Value: 0.2 ppb on Jul 3 21:00 Maximum Diurnal Average: 1.2 ppb at hour 23 Monthly Average: 0.80 ppb																			Minimum Daily Average: 0.3 ppb on Jul 5 Minimum Diurnal Average: 0.5 ppb at hour 6 Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.6 Q ₃ = 0.9 P ₉₀ = 1.6 P ₉₉ = 3.4							Hours of Data: 707	
																										Hours of Missing Data: 37	
																										Hours of Calibration: 36	
																										Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	1.7	2.6	2.7	3.8	Z	0.4	0.6	1.2	1.3	1.2	1.0	1.0	0.8	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	1.0	3.8	
2-Jul	0.5	0.4	0.4	0.4	0.6	Z	0.5	0.5	0.5	0.4	0.4	0.4	1.5	0.9	1.0	0.6	3.0	2.2	1.2	0.4	0.5	0.4	0.4	0.5	0.8	3.0	
3-Jul	Z	0.6	0.6	0.6	0.4	0.4	0.7	0.9	0.8	1.1	1.0	0.7	0.8	0.7	0.6	0.7	0.5	0.4	0.5	0.5	0.2	0.3	0.3	0.2	0.6	1.1	
4-Jul	2.0	Z	0.5	0.6	0.3	0.2	0.4	0.9	0.6	1.0	0.3	0.2	0.6	0.8	0.9	0.4	0.6	0.7	0.3	0.3	0.2	0.8	1.3	1.0	0.6	2.0	
5-Jul	0.4	0.3	Z	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.6	0.7	0.3	0.4	0.4	0.3	0.4	0.3	0.3	0.7	
6-Jul	1.3	0.7	0.5	Z	0.4	0.5	0.3	0.4	0.4	0.3	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.6	1.3	2.0	3.9	2.9	1.4	0.8	3.9	
7-Jul	1.7	1.4	0.9	1.1	Z	0.7	0.8	1.4	1.0	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.7	1.7	
8-Jul	0.4	0.9	1.0	1.0	1.5	Z	1.3	1.6	1.1	0.8	1.0	0.9	0.9	0.9	0.9	1.3	1.1	0.7	0.8	0.5	0.4	0.5	0.6	0.5	0.9	1.6	
9-Jul	Z	1.4	0.6	0.3	0.4	0.4	0.2	0.3	0.6	0.7	0.4	0.7	0.8	0.6	0.4	0.3	0.5	0.5	0.6	0.7	0.3	1.6	3.9	2.5	0.8	3.9	
10-Jul	2.5	Z	3.2	2.2	0.8	0.8	1.0	0.6	1.9	1.7	0.9	0.5	0.8	0.5	0.3	0.5	0.3	0.2	0.6	0.3	0.5	0.6	1.0	0.8	1.0	3.2	
11-Jul	1.0	1.1	Z	1.0	1.0	1.1	1.6	1.0	1.0	0.7	0.5	0.7	0.5	0.9	1.0	0.5	1.2	1.4	0.6	0.4	0.8	0.7	0.3	0.6	0.9	1.6	
12-Jul	0.4	0.2	0.2	Z	0.2	0.2	0.5	0.6	0.6	0.7	0.3	0.3	0.3	0.3	0.3	0.4	0.7	0.7	0.5	0.5	0.8	0.9	0.9	0.4	0.5	0.9	
13-Jul	0.3	0.3	0.3	0.4	Z	1.0	0.5	0.4	0.5	0.4	0.3	0.3	0.2	0.3	0.2	0.3	0.4	0.4	0.3	0.4	0.4	0.5	3.4	3.0	0.6	3.4	
14-Jul	2.7	1.3	1.0	0.7	1.1	Z	0.9	0.6	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	1.1	1.0	1.8	3.1	1.7	0.9	3.1	
15-Jul	Z	0.9	0.5	0.4	0.5	0.4	0.6	0.7	0.8	0.8	1.2	1.2	0.5	0.3	0.4	0.5	0.5	1.2	1.9	2.1	1.4	1.0	0.8	0.9	0.8	2.1	
16-Jul	1.7	Z	0.9	0.6	0.7	0.9	1.0	0.7	1.1	0.8	0.6	0.6	0.3	0.4	0.3	0.5	0.4	0.5	0.3	0.3	0.9	2.3	1.6	1.0	0.8	2.3	
17-Jul	0.7	0.6	Z	0.5	0.4	0.3	0.6	2.5	3.1	1.7	1.2	0.9	0.6	0.4	0.4	0.5	0.5	0.4	0.4	0.7	1.0	1.5	2.0	1.1	1.0	3.1	
18-Jul	0.5	0.5	0.5	Z	0.8	0.5	0.6	0.8	0.3	0.5	0.7	0.5	0.3	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.5	0.8	
19-Jul	0.8	0.6	0.6	1.0	Z	0.8	0.6	0.5	0.5	0.5	0.6	2.6	2.4	0.9	0.7	1.1	2.1	1.8	0.7	0.8	1.1	1.2	2.1	1.6	1.1	2.6	
20-Jul	2.4	2.1	2.8	3.1	2.2	Z	2.8	2.5	3.6	3.9	2.7	2.0	2.0	1.8	1.7	1.2	1.0	1.0	0.8	1.2	2.8	1.2	0.6	0.5	2.0	3.9	
21-Jul	Z	0.4	0.4	0.3	0.3	0.2	0.4	1.0	0.8	1.1	1.1	0.9	0.8	0.9	1.4	0.8	0.9	0.7	0.7	0.9	1.1	2.5	2.7	1.4	0.9	2.7	
22-Jul	1.1	Z	0.4	0.3	0.3	0.2	0.3	C	C	C	C	C	0.9	1.0	0.8	0.5	0.5	0.5	0.6	0.6	0.5	0.6	0.4	0.4	0.6	1.1	
23-Jul	0.4	0.8	Z	0.7	0.6	0.6	0.8	1.1	M	1.0	0.8	0.8	0.6	1.1	1.2	0.8	0.5	0.2	1.0	0.7	0.4	0.4	0.3	0.4	0.7	1.2	
24-Jul	0.6	0.3	0.3	Z	0.4	0.3	0.7	4.5	4.7	2.3	1.6	0.9	0.6	0.5	0.4	0.4	0.4	0.6	0.5	0.5	0.7	0.7	0.6	0.8	1.0	4.7	
25-Jul	0.9	0.5	0.6	0.6	Z	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.4	0.5	0.4	0.4	0.4	0.4	0.8	1.8	0.8	0.4	0.5	1.8	
26-Jul	0.3	0.3	0.4	0.9	2.8	Z	0.6	0.5	0.7	1.1	2.0	1.8	2.2	1.5	1.0	1.1	0.8	1.1	1.9	2.0	1.8	1.9	2.3	1.6	1.3	2.8	
27-Jul	Z	1.2	0.7	0.5	0.4	0.3	0.8	0.5	0.7	0.9	0.6	0.5	0.5	0.6	0.6	0.8	0.9	0.8	0.7	0.6	0.6	0.8	0.7	0.7	0.7	1.2	
28-Jul	0.8	Z	0.5	0.4	0.4	0.3	0.4	0.5	0.5	1.3	1.2	0.5	0.4	0.4	0.3	0.3	0.5	0.4	0.4	0.4	0.4	0.3	1.0	0.9	0.5	1.3	
29-Jul	1.0	2.6	Z	0.8	0.7	0.7	0.5	0.5	0.4	0.5	0.4	0.4	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.4	0.4	0.3	0.5	2.6	
30-Jul	0.4	0.2	0.2	Z	0.5	0.4	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.4	0.4	0.9	0.8	2.1	0.8	0.5	2.1	
31-Jul	0.9	0.7	0.7	0.8	Z	0.5	0.7	0.9	0.6	1.2	1.0	2.4	1.4	1.3	1.2	1.0	0.9	0.9	0.8	0.5	0.5	0.3	0.3	0.3	0.9	2.4	
1.1 0.9 0.8 0.9 0.7 0.5 0.7 1.0 1.0 0.9 0.8 0.8 0.7 0.7 0.6 0.6 0.7 0.7 0.6 0.7 0.8 1.0 1.2 0.9																										Diurnal Average	
2.7 2.6 3.2 3.8 2.8 1.1 2.8 4.5 4.7 3.9 2.7 2.6 2.4 1.8 1.7 1.3 3.0 2.2 1.9 2.1 2.8 3.9 3.9 3.0																										Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Surmont 2 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Surmont 2 - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
41 - 60	0	0.00	100.00
61 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Surmont 2 - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	16	14	6	6	9	64	62	26	18	27	28	131	152	60	36	21	676
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	14	6	6	9	64	62	26	18	27	28	131	152	60	36	21	676

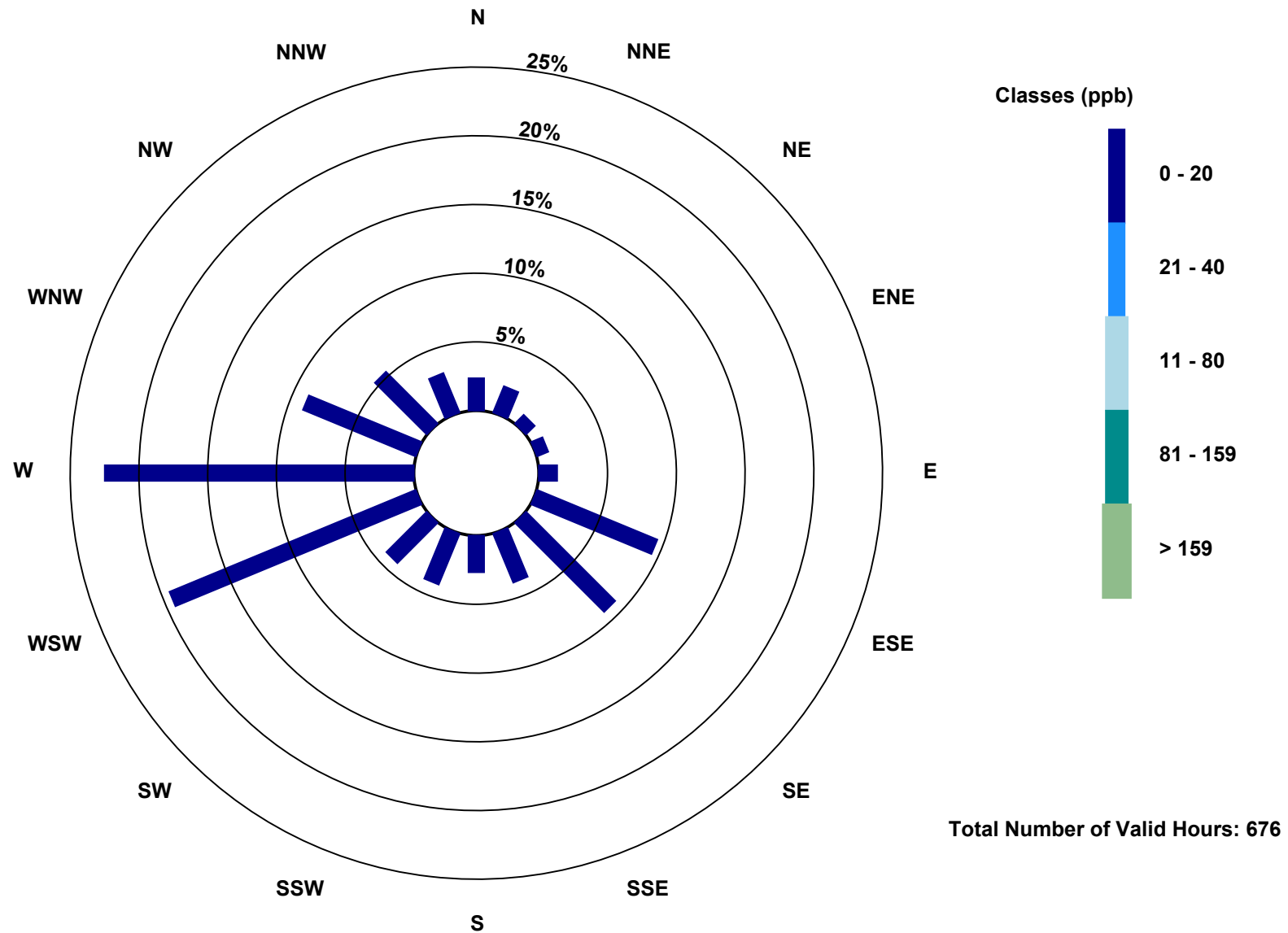
Total Number of Valid Hours: 676

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

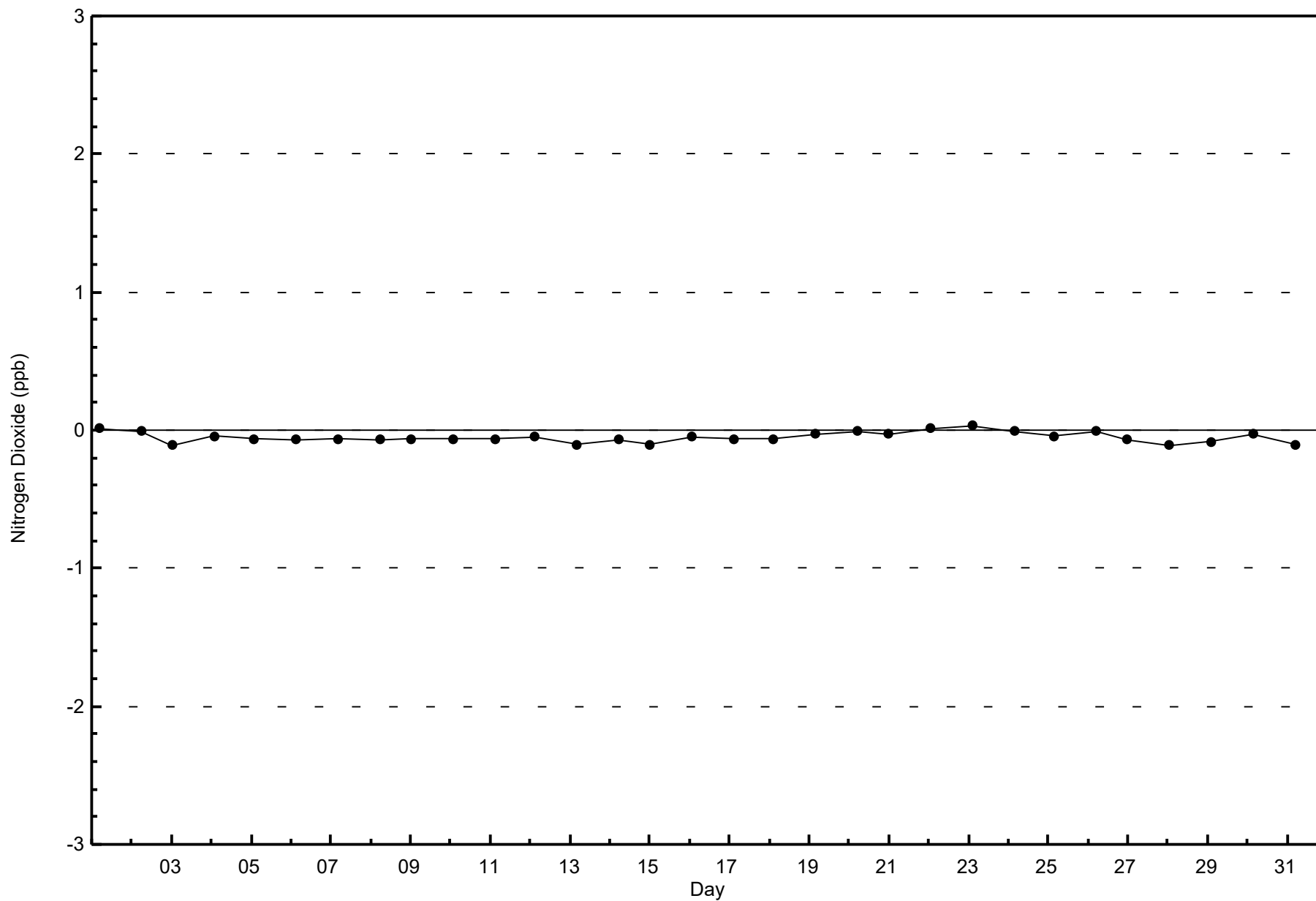
Nitrogen Dioxide (NO₂) - ppb
Surmont 2





Wood Buffalo Environmental Association
Zero Responses

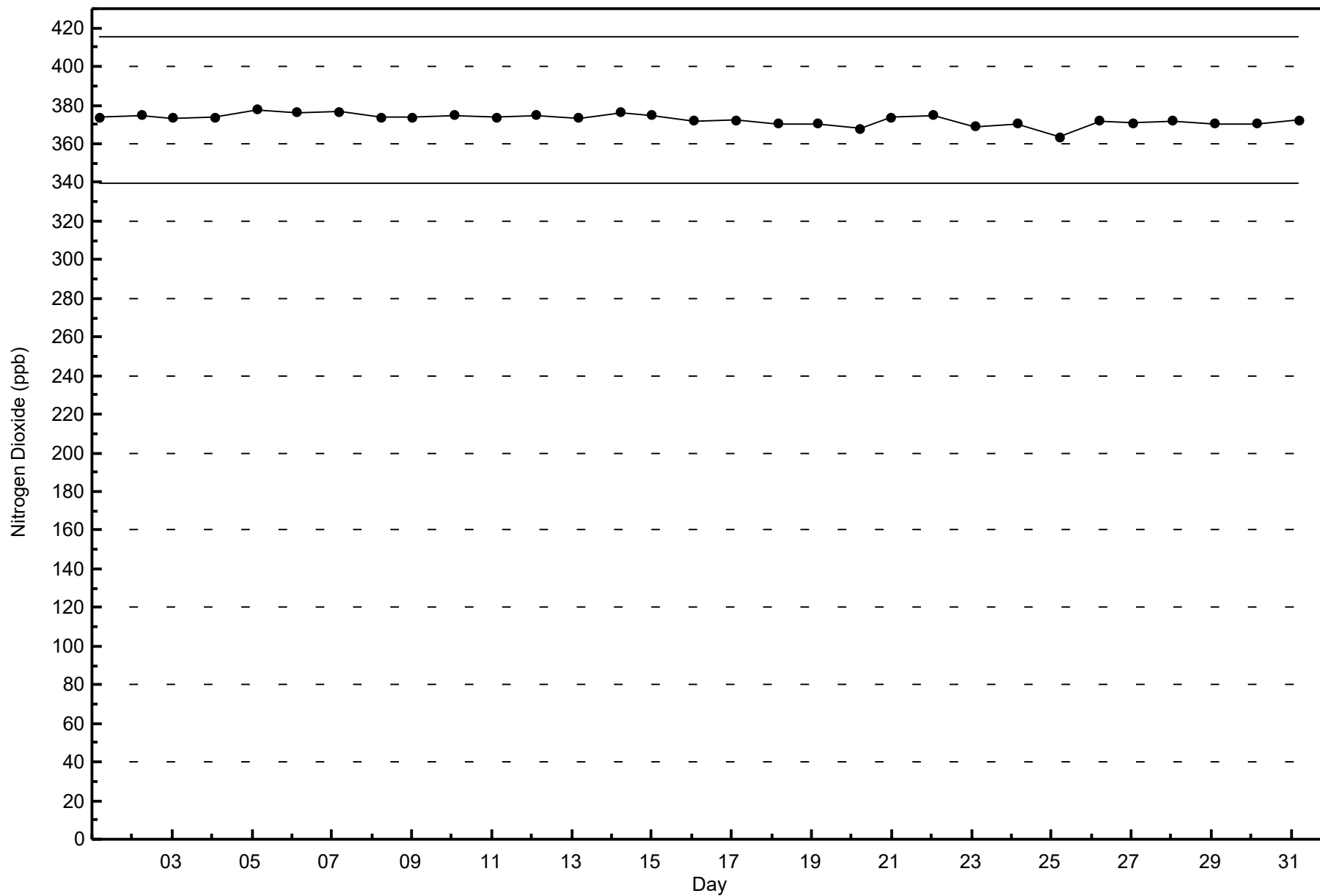
Nitrogen Dioxide (NO₂) - ppb
Surmont 2 - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Surmont 2 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

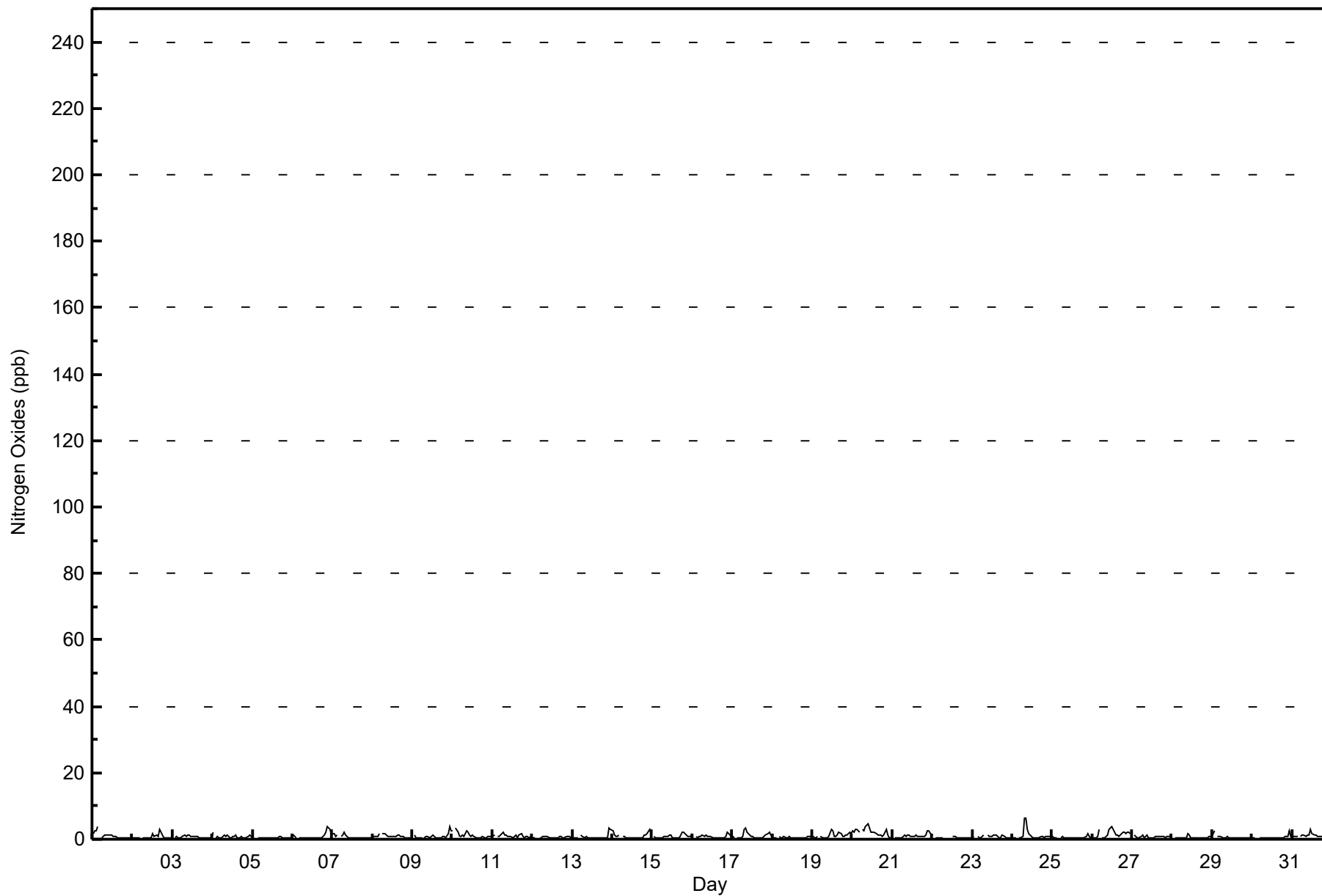
Surmont 2 - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																			Hours in Service: 744							
Maximum Value: 6.4 ppb on Jul 24 09:00 Maximum Daily Average: 2.1 ppb on Jul 20																			Hours of Data: 707							
Minimum Value: 0.2 ppb on Jul 30 03:00 Minimum Daily Average: 0.4 ppb on Jul 5																			Hours of Missing Data: 37							
Maximum Diurnal Average: 1.3 ppb at hour 23 Minimum Diurnal Average: 0.6 ppb at hour 6																			Hours of Calibration: 36							
Monthly Average: 0.89 ppb Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.6 Q ₃ = 1.0 P ₉₀ = 1.8 P ₉₉ = 3.6																			Percent Operational Time: 99.9							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	1.7	2.6	2.7	3.8	Z	0.5	0.7	1.3	1.4	1.3	1.1	1.1	0.9	0.9	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	1.1	3.8
2-Jul	0.5	0.4	0.4	0.4	0.6	Z	0.5	0.5	0.5	0.5	0.5	0.5	1.7	1.0	1.1	0.7	3.1	2.3	1.3	0.4	0.5	0.4	0.4	0.5	0.8	3.1
3-Jul	Z	0.6	0.6	0.6	0.4	0.4	0.8	1.2	1.0	1.4	1.2	0.8	0.9	0.8	0.7	0.8	0.6	0.5	0.6	0.6	0.3	0.3	0.3	0.2	0.7	1.4
4-Jul	2.1	Z	0.5	0.7	0.5	0.5	0.7	1.2	0.7	1.3	0.4	0.3	0.7	0.9	1.1	0.4	0.6	0.9	0.4	0.4	0.3	0.8	1.4	1.1	0.8	2.1
5-Jul	0.5	0.5	Z	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.4	0.2	0.2	0.3	0.3	0.4	0.7	0.8	0.4	0.4	0.4	0.3	0.4	0.3	0.4	0.8
6-Jul	1.4	0.7	0.5	Z	0.4	0.5	0.3	0.4	0.4	0.4	0.5	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.7	1.5	2.2	4.0	2.9	1.4	0.9	4.0
7-Jul	1.9	1.5	0.9	1.1	Z	1.0	1.4	2.1	1.3	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.8	2.1	
8-Jul	0.4	0.9	1.0	1.0	1.6	Z	1.5	1.9	1.3	1.0	1.1	1.0	1.0	1.0	1.0	1.4	1.2	0.8	0.9	0.6	0.4	0.5	0.6	0.5	1.0	1.9
9-Jul	Z	1.4	0.6	0.3	0.4	0.4	0.2	0.3	0.7	0.8	0.5	1.0	1.2	0.9	0.5	0.4	0.6	0.6	0.7	0.8	0.3	1.6	3.9	2.5	0.9	3.9
10-Jul	2.5	Z	3.2	2.2	0.8	0.8	1.1	0.7	2.5	2.1	1.1	0.7	1.1	0.7	0.3	0.6	0.4	0.3	0.7	0.4	0.5	0.6	1.0	0.8	1.1	3.2
11-Jul	1.0	1.1	Z	1.0	1.0	1.4	2.1	1.2	1.1	0.8	0.6	0.8	0.6	1.0	1.1	0.6	1.3	1.6	0.7	0.5	0.9	0.7	0.3	0.6	1.0	2.1
12-Jul	0.4	0.2	0.2	Z	0.3	0.4	0.8	0.7	0.7	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.7	0.8	0.6	0.6	0.9	0.9	0.9	0.4	0.6	0.9
13-Jul	0.3	0.3	0.3	0.4	Z	1.2	0.7	0.5	0.7	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.5	0.5	0.4	0.5	0.4	0.5	3.4	3.0	0.7	3.4
14-Jul	2.7	1.3	1.0	0.7	1.1	Z	1.0	0.7	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	1.2	1.1	1.8	3.1	1.7	0.9	3.1
15-Jul	Z	0.9	0.5	0.4	0.5	0.4	0.6	0.7	0.9	0.9	1.4	1.3	0.6	0.4	0.4	0.5	0.6	1.3	2.1	2.2	1.5	1.0	0.8	0.9	0.9	2.2
16-Jul	1.7	Z	0.9	0.6	0.7	1.0	1.1	0.8	1.3	1.0	0.7	0.7	0.4	0.5	0.4	0.6	0.5	0.6	0.4	0.4	1.0	2.3	1.6	1.0	0.9	2.3
17-Jul	0.7	0.6	Z	0.5	0.4	0.3	0.7	2.9	3.4	1.9	1.3	1.0	0.7	0.5	0.5	0.6	0.6	0.5	0.5	0.8	1.1	1.6	2.1	1.1	1.1	3.4
18-Jul	0.5	0.5	0.5	Z	0.8	0.5	0.6	0.9	0.4	0.6	0.8	0.6	0.4	0.5	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.9
19-Jul	0.8	0.6	0.6	1.0	Z	0.8	0.6	0.6	0.6	0.6	0.7	3.0	2.6	1.0	0.9	1.2	2.2	1.9	0.8	0.9	1.1	1.2	2.1	1.6	1.2	3.0
20-Jul	2.4	2.1	2.8	3.1	2.2	Z	2.9	2.6	4.0	4.7	3.2	2.3	2.2	2.0	1.8	1.3	1.1	1.1	0.8	1.3	2.9	1.2	0.6	0.5	2.1	4.7
21-Jul	Z	0.5	0.4	0.3	0.3	0.3	0.5	1.3	0.8	1.2	1.2	0.9	0.9	1.0	1.5	0.9	1.0	0.8	0.8	0.9	1.1	2.5	2.7	1.4	1.0	2.7
22-Jul	1.1	Z	0.5	0.3	0.3	0.3	0.4	C	C	C	C	C	0.9	1.0	0.8	0.5	0.5	0.5	0.6	0.6	0.5	0.6	0.4	0.4	0.6	1.1
23-Jul	0.4	0.8	Z	0.7	0.6	0.6	0.8	1.2	M	1.1	0.9	0.9	0.7	1.2	1.3	0.9	0.5	0.2	1.1	0.8	0.4	0.4	0.3	0.4	0.7	1.3
24-Jul	0.6	0.3	0.3	Z	0.4	0.3	0.9	6.2	6.4	2.8	1.8	1.0	0.6	0.5	0.4	0.4	0.4	0.7	0.6	0.5	0.7	0.7	0.6	0.8	1.2	6.4
25-Jul	0.9	0.5	0.6	0.6	Z	0.5	0.6	0.4	0.5	0.4	0.3	0.3	0.2	0.2	0.4	0.5	0.4	0.4	0.4	0.4	0.8	1.8	0.8	0.4	0.5	1.8
26-Jul	0.3	0.3	0.4	0.9	2.8	Z	0.6	0.5	0.8	1.3	3.1	3.5	3.7	2.0	1.2	1.3	1.0	1.3	2.1	2.1	1.8	1.9	2.3	1.6	1.6	3.7
27-Jul	Z	1.3	0.8	0.6	0.5	0.7	1.1	0.5	0.8	1.2	0.6	0.6	0.5	0.6	0.7	0.8	0.9	0.8	0.7	0.6	0.6	0.8	0.7	0.7	0.7	1.3
28-Jul	0.8	Z	0.5	0.4	0.4	0.3	0.4	0.5	0.5	1.6	1.5	0.5	0.4	0.4	0.3	0.3	0.5	0.4	0.4	0.4	0.4	0.3	1.0	0.9	0.6	1.6
29-Jul	1.0	2.6	Z	0.8	0.7	0.7	0.5	0.6	0.5	0.7	0.6	0.5	0.3	0.3	0.4	0.3	0.4	0.4	0.3	0.3	0.4	0.5	0.4	0.3	0.6	2.6
30-Jul	0.4	0.2	0.2	Z	0.5	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.4	0.5	0.9	0.8	2.4	0.8	0.5	2.4
31-Jul	0.9	0.7	0.7	0.8	Z	0.7	1.2	1.1	0.7	1.4	1.2	2.9	1.6	1.4	1.3	1.0	0.9	0.9	0.8	0.5	0.5	0.3	0.3	0.3	0.9	2.9
1.1 0.9 0.8 0.9 0.7 0.6 0.8 1.1 1.2 1.1 1.0 1.0 0.9 0.7 0.7 0.6 0.8 0.8 0.7 0.7 0.8 1.0 1.3 0.9																								Diurnal Average		
2.7 2.6 3.2 3.8 2.8 1.4 2.9 6.2 6.4 4.7 3.2 3.5 3.7 2.0 1.8 1.4 3.1 2.3 2.1 2.2 2.9 4.0 3.9 3.0																								Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Surmont 2 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Surmont 2 - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Surmont 2 - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	16	14	6	6	9	64	62	26	18	27	28	131	152	60	36	21	676
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	14	6	6	9	64	62	26	18	27	28	131	152	60	36	21	676

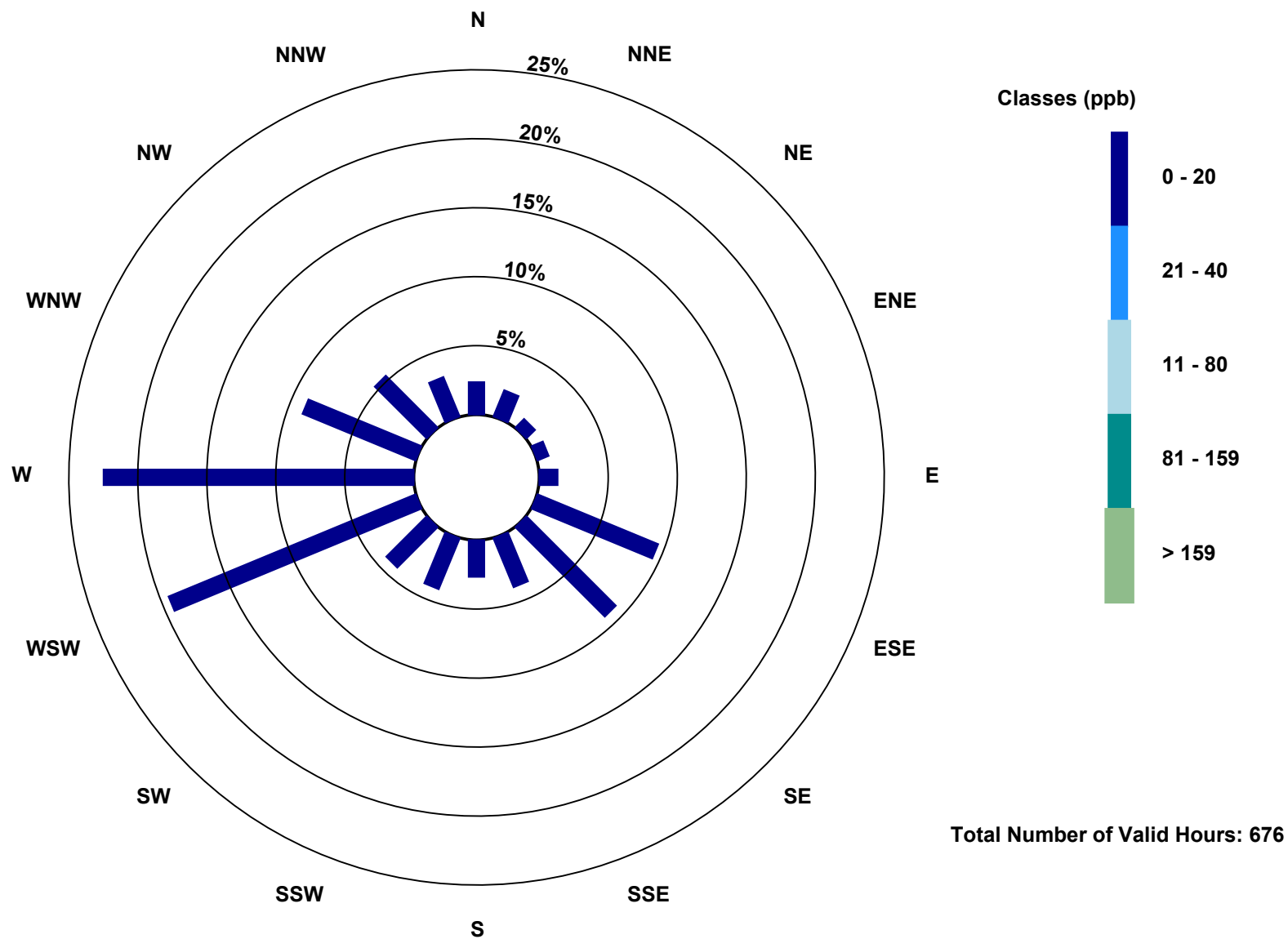
Total Number of Valid Hours: 676

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

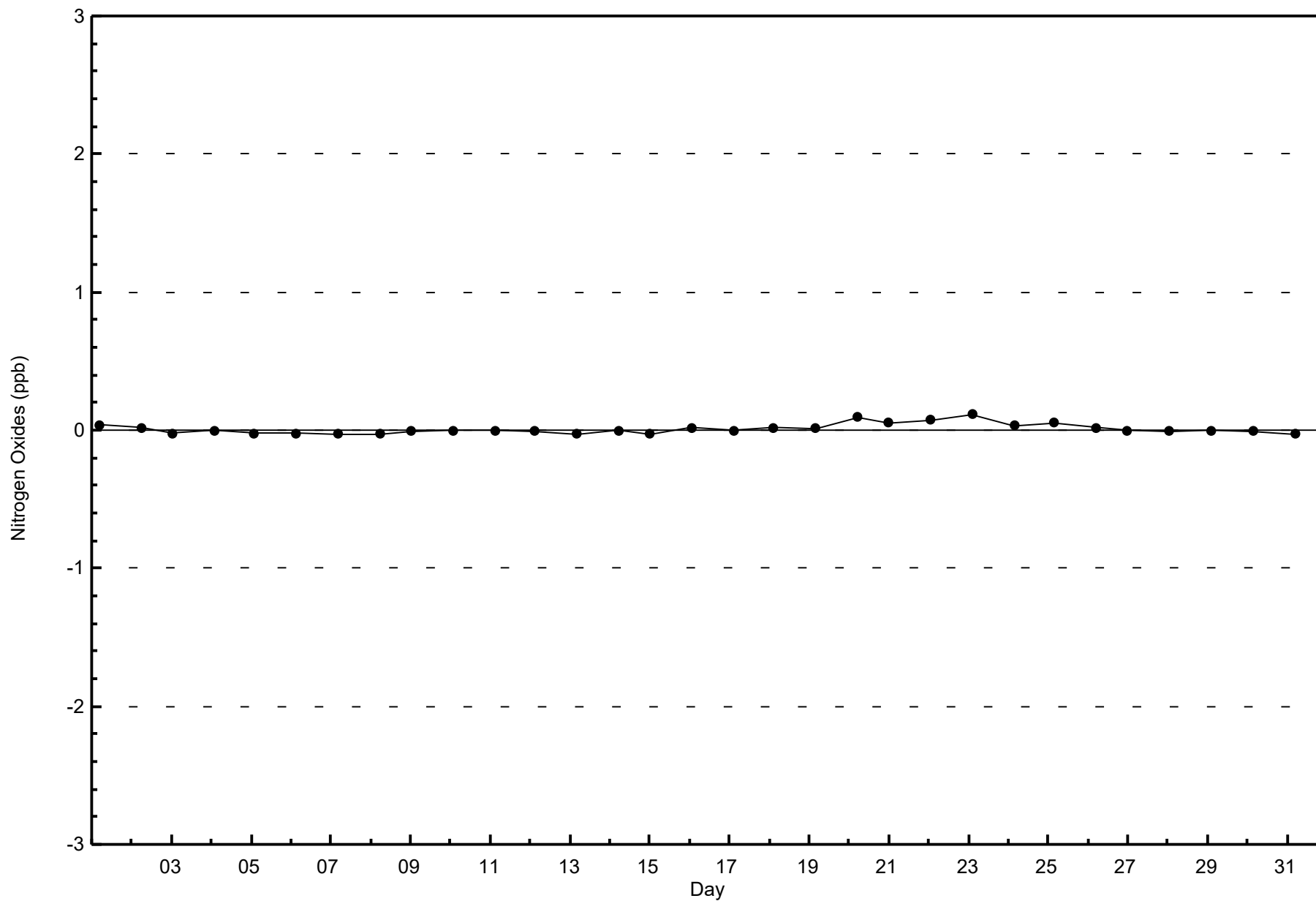
Nitrogen Oxides (NO_x) - ppb
Surmont 2





Wood Buffalo Environmental Association
Zero Responses

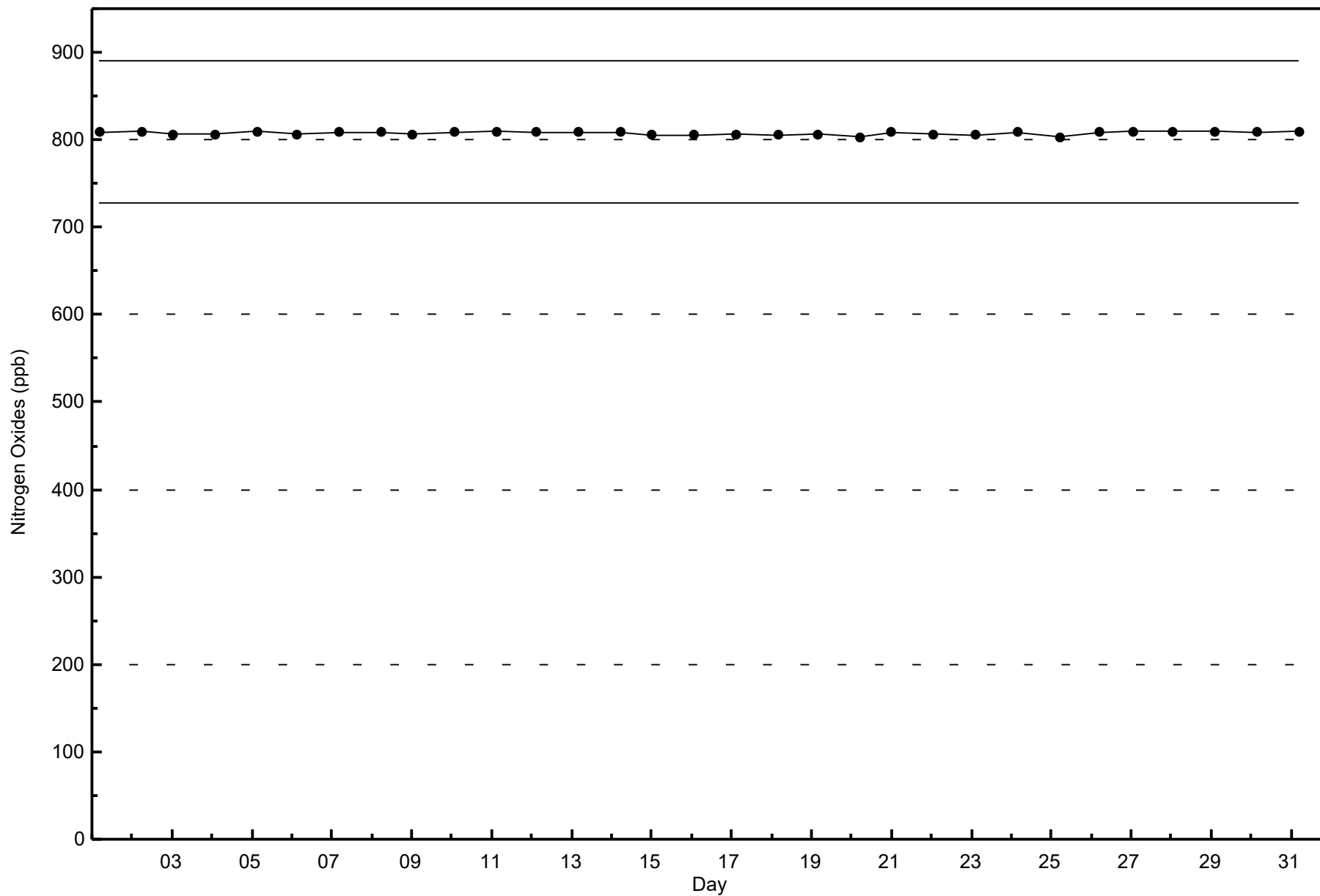
Nitrogen Oxides (NO_x) - ppb
Surmont 2 - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Surmont 2 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

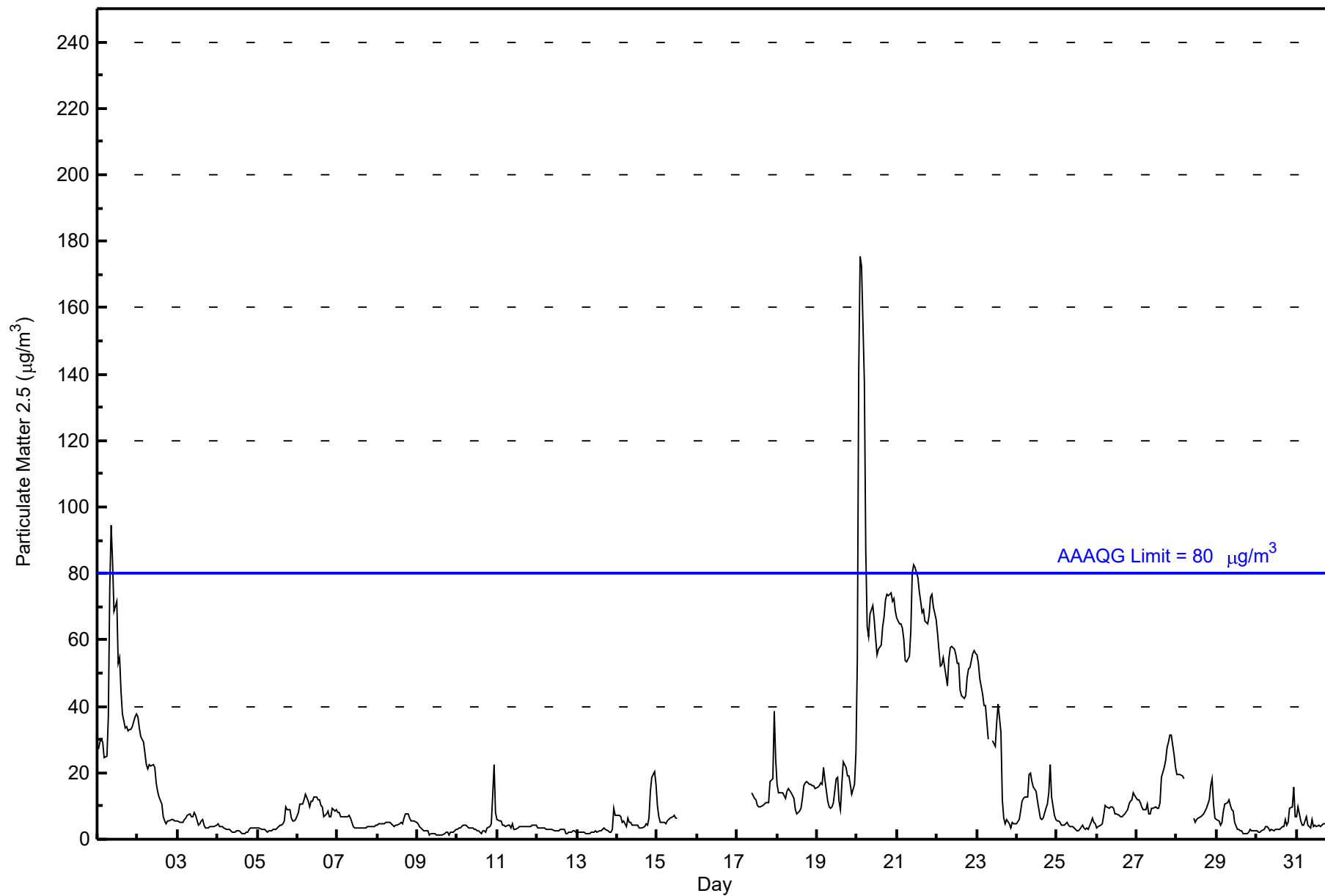
Surmont 2 - July 2026

Number of Exceedances (AAAQO): 1-hr: 10 24-hr: 4 Maximum Value: 175.6 µg/m³ on Jul 20 03:00 Maximum Daily Average: 81.9 µg/m³ on Jul 20																				Hours in Service: 744 Hours of Data: 694							
Minimum Value: 1.1 µg/m³ on Jul 9 13:00 Minimum Daily Average: 2.2 µg/m³ on Jul 9 Maximum Diurnal Average: 19.2 µg/m³ at hour 3 Minimum Diurnal Average: 12.8 µg/m³ at hour 16 Monthly Average: 15.56 µg/m³ Percentiles: P ₁ = 1.5 P ₁₀ = 2.6 Q ₁ = 3.7 Median = 6.4 Q ₃ = 15.7 P ₉₀ = 52.8 P ₉₉ = 82.8																				Hours of Missing Data: 50 Hours of Calibration: 1 Percent Operational Time: 93.4							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	27.2	29.2	30.0	29.2	24.8	25.2	37.0	75.4	94.7	83.5	68.8	71.7	53.1	54.5	44.6	37.8	33.4	34.0	32.7	32.9	32.9	34.0	36.8	37.5	44.2	94.7	
2-Jul	36.8	33.4	30.9	29.3	26.0	22.5	21.3	22.6	22.1	22.6	21.8	17.1	14.2	12.9	10.7	6.8	5.4	4.7	5.3	5.4	5.8	6.0	5.6	5.5	16.4	36.8	
3-Jul	5.4	5.2	5.2	4.9	5.8	6.2	7.1	7.7	6.8	6.9	8.2	7.4	4.1	4.8	5.7	5.8	4.3	3.4	3.5	3.7	3.7	3.9	3.9	4.1	5.3	8.2	
4-Jul	4.6	3.9	4.0	3.6	3.5	3.1	3.0	3.1	2.5	2.3	2.2	2.3	2.5	2.4	2.1	1.7	1.9	2.2	2.1	3.1	3.2	3.6	3.3	3.6	2.9	4.6	
5-Jul	3.3	3.3	3.2	3.0	2.9	2.7	2.2	2.5	2.7	2.8	2.9	2.9	3.3	4.1	4.1	4.7	5.6	9.9	9.0	9.0	6.2	5.4	5.4	5.9	4.5	9.9	
6-Jul	8.0	10.8	10.7	10.5	11.9	13.5	11.3	9.8	11.5	11.5	12.7	12.6	11.7	11.8	10.2	9.6	6.8	7.7	8.5	6.8	6.7	9.4	8.4	9.0	10.1	13.5	
7-Jul	8.2	8.1	6.9	6.8	6.9	6.7	6.7	7.3	6.4	3.9	3.6	3.5	3.4	3.3	3.5	3.4	3.5	3.6	3.8	3.8	3.7	3.9	3.9	4.1	5.0	8.2	
8-Jul	4.3	4.6	4.7	4.7	4.6	5.0	5.1	5.0	4.7	4.0	4.0	4.1	4.1	4.7	5.2	4.6	6.3	7.7	7.4	6.4	5.5	5.4	5.5	5.2	5.1	7.7	
9-Jul	4.9	3.9	3.5	3.1	2.6	2.6	2.3	1.5	1.5	1.6	1.6	1.3	1.1	1.1	1.1	1.2	1.8	2.0	2.1	1.4	1.9	2.3	2.7	2.8	2.2	4.9	
10-Jul	3.1	3.3	3.6	4.2	4.4	4.3	3.7	3.5	3.2	3.2	2.9	2.8	2.4	2.7	1.9	2.3	2.5	2.2	3.3	3.8	4.5	13.2	22.5	8.0	4.6	22.5	
11-Jul	6.1	5.6	5.7	4.3	4.1	3.9	4.2	4.1	3.3	4.8	3.0	3.2	3.3	3.7	3.9	3.6	3.8	3.8	3.9	3.8	3.9	4.0	4.4	4.3	4.1	6.1	
12-Jul	3.3	3.6	3.5	3.4	3.6	3.1	2.8	2.8	2.8	2.9	2.7	2.7	2.7	2.7	2.8	3.1	2.8	1.9	1.7	2.1	2.2	2.6	2.5	2.0	2.8	3.6	
13-Jul	2.2	2.1	2.1	2.0	2.0	1.9	1.8	1.8	2.2	2.3	2.1	2.6	2.2	2.5	2.6	3.0	3.4	2.9	2.5	2.2	2.1	2.9	9.4	7.2	2.8	9.4	
14-Jul	7.4	7.0	6.6	5.3	5.6	4.0	6.3	5.1	5.3	4.0	4.2	4.3	4.4	3.2	3.4	3.4	3.8	4.7	4.4	6.6	14.5	18.6	20.2	16.3	7.0	20.2	
15-Jul	10.3	6.9	5.2	5.1	5.0	4.8	5.3	5.8	6.5	6.9	7.1	6.5	6.4	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	--	10.3	
16-Jul	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	--	--	
17-Jul	DF	DF	DF	DF	DF	DF	DF	DF	DF	DF	14.0	12.3	11.7	10.2	9.8	9.7	10.1	10.4	11.0	10.9	10.9	17.6	18.3	38.6	24.1	--	38.6
18-Jul	16.3	14.0	13.9	14.2	13.2	12.2	14.3	15.1	13.8	13.3	12.1	8.9	7.8	8.6	9.5	12.2	16.3	16.8	17.3	16.6	16.3	16.0	16.3	15.4	13.8	17.3	
19-Jul	15.6	16.2	16.8	16.4	21.7	17.9	11.4	9.7	9.4	9.8	11.0	18.3	18.7	11.5	8.7	16.4	23.5	21.7	19.2	18.9	16.3	13.4	16.3	25.7	16.0	25.7	
20-Jul	54.0	140.8	175.6	172.4	137.6	86.7	64.0	61.1	67.9	70.2	66.1	60.4	55.6	57.0	58.6	63.8	67.1	71.9	73.6	73.1	74.3	71.8	72.5	68.4	81.9	175.6	
21-Jul	66.4	64.6	64.9	63.7	60.2	53.7	53.3	55.0	62.7	80.2	82.7	81.9	78.9	74.7	71.6	68.4	69.0	65.9	64.9	67.3	73.1	73.6	69.9	66.3	68.0	82.7	
22-Jul	62.0	56.6	52.3	52.6	54.7	49.1	46.1	54.3	57.6	58.0	57.4	55.6	52.9	52.9	44.9	43.4	42.3	43.0	48.6	51.1	51.8	55.7	56.9	55.9	52.3	62.0	
23-Jul	55.5	52.9	48.1	43.7	40.2	40.3	35.3	30.0	C	29.8	28.6	27.9	35.2	40.8	32.3	11.9	6.3	4.5	5.9	4.8	3.6	5.3	4.7	4.7	25.7	55.5	
24-Jul	4.8	6.1	8.5	11.5	12.2	12.6	12.9	19.5	20.0	17.5	15.7	14.3	11.3	8.9	6.3	6.0	6.5	9.4	10.4	14.0	22.4	12.5	7.2	6.0	11.5	22.4	
25-Jul	5.6	5.3	5.0	4.4	4.4	4.8	5.1	4.4	3.8	3.9	3.4	2.8	2.7	2.5	2.8	4.0	3.5	2.8	3.5	3.1	5.2	6.5	4.9	4.8	4.1	6.5	
26-Jul	3.2	3.7	4.1	4.5	7.4	10.3	9.7	9.4	9.8	9.8	9.5	7.6	7.6	7.3	7.0	7.0	7.3	7.8	8.7	10.8	11.5	12.0	14.0	13.1	8.5	14.0	
27-Jul	11.9	12.0	10.8	9.8	9.0	9.1	10.7	7.8	7.7	9.2	9.2	9.6	9.3	9.4	11.2	18.6	21.6	23.6	27.6	29.4	31.5	31.5	25.3	21.6	15.7	31.5	
28-Jul	19.6	19.4	19.3	19.1	18.4	DF	DF	DF	DF	DF	6.4	5.1	5.8	6.4	6.7	7.2	7.8	8.3	9.3	11.8	16.0	18.3	10.6	6.2	11.7	19.6	
29-Jul	6.0	5.4	4.2	5.1	8.7	10.6	11.1	12.0	10.1	8.8	8.5	5.1	2.8	3.0	2.5	2.6	1.9	1.8	1.8	2.1	2.8	2.6	2.6	2.6	5.2	12.0	
30-Jul	2.6	1.9	2.0	2.4	3.0	3.9	3.8	3.2	2.7	2.9	2.7	2.8	3.0	3.2	3.1	3.6	3.8	5.8	4.4	4.9	9.2	9.6	15.6	6.9	4.5	15.6	
31-Jul	7.0	9.9	5.4	4.4	4.3	5.4	6.9	4.1	3.5	5.9	3.8	4.0	4.0	4.4	3.9	4.1	4.6	4.6	4.5	4.2	4.3	4.6	4.8	5.2	4.9	9.9	
16.1 18.6 19.2 18.7 17.5 15.2 14.5 15.9 16.5 17.1 15.9 15.4 14.2 14.3 13.1 12.8 13.0 13.4 13.8 14.3 15.6 16.1 17.1 15.3																								Diurnal Average			
66.4 140.8 175.6 172.4 137.6 86.7 64.0 75.4 94.7 83.5 82.7 81.9 78.9 74.7 71.6 68.4 69.0 71.9 73.6 73.1 74.3 73.6 72.5 68.4																								Diurnal Maximum			
C - Calibration DF - DAS Failure																											
Alberta Ambient Air Quality Guideline/Objectives: 1-hr: 80 µg/m³ 24-hr: 29 µg/m³																											



Wood Buffalo Environmental Association
Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Surmont 2 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Surmont 2 - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Number of Hours	%	Cumulative %
0 - 5	316	45.53	45.53
6 - 15	202	29.11	74.64
16 - 25	57	8.21	82.85
26 - 80	110	15.85	98.70
> 81.0	9	1.30	100.00

Total Number of Valid Hours: 694

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Surmont 2 - July 2026

Concentration Ranges (µg/m ³)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	3	4	2	5	4	13	24	14	11	21	18	62	83	28	9	2	303
6 - 15	12	8	3	1	1	23	20	4	3	4	4	34	39	16	12	8	192
16 - 25	0	0	0	0	0	9	7	0	2	0	1	13	10	8	5	1	56
26 - 80	0	2	1	0	4	15	9	5	1	1	6	17	12	10	8	7	98
> 81.0	1	0	0	0	0	2	0	0	0	0	0	0	0	1	4	1	9
Totals	16	14	6	6	9	62	60	23	17	26	29	126	144	63	38	19	658

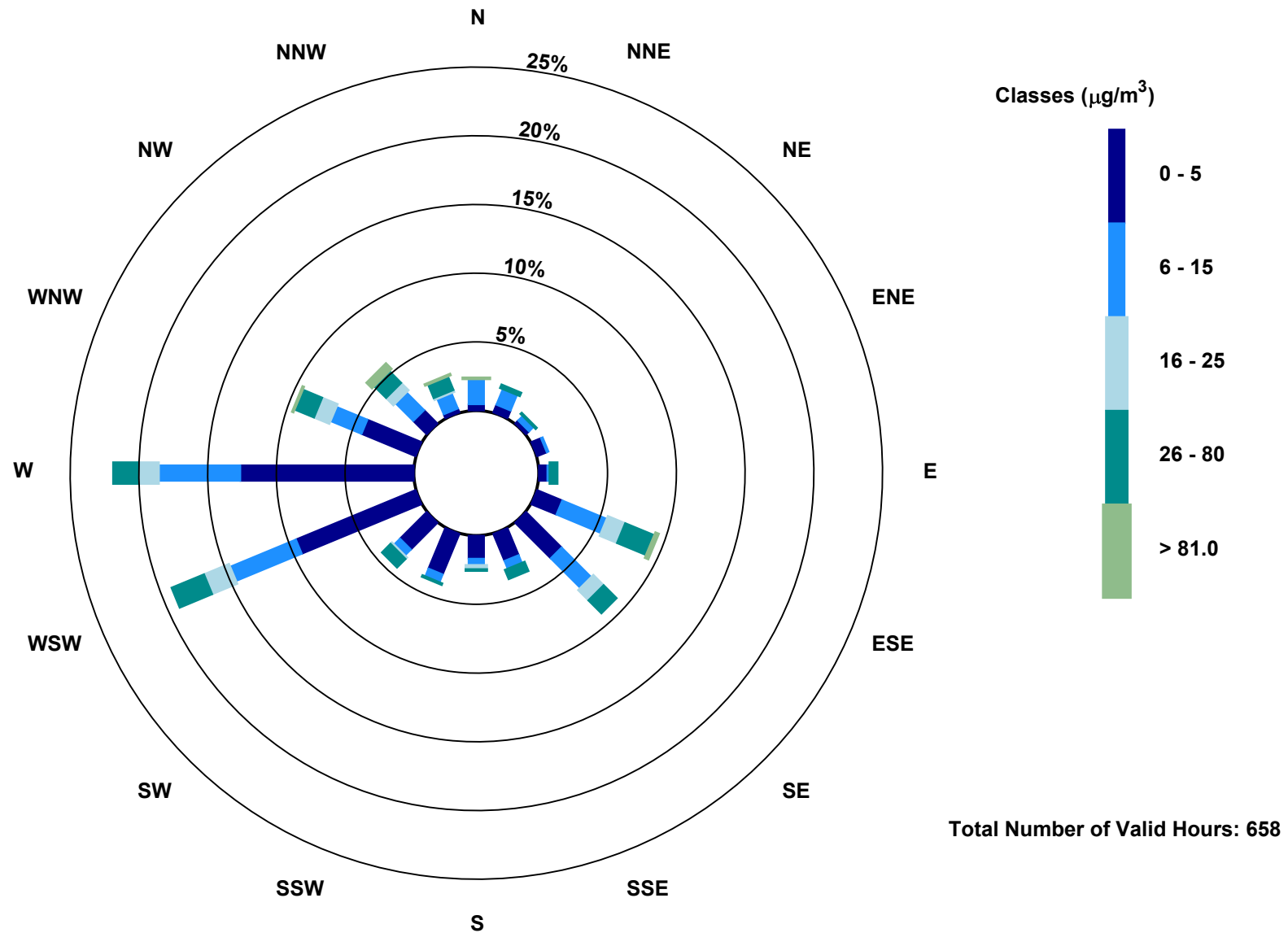
Total Number of Valid Hours: 658

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Surmont 2





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

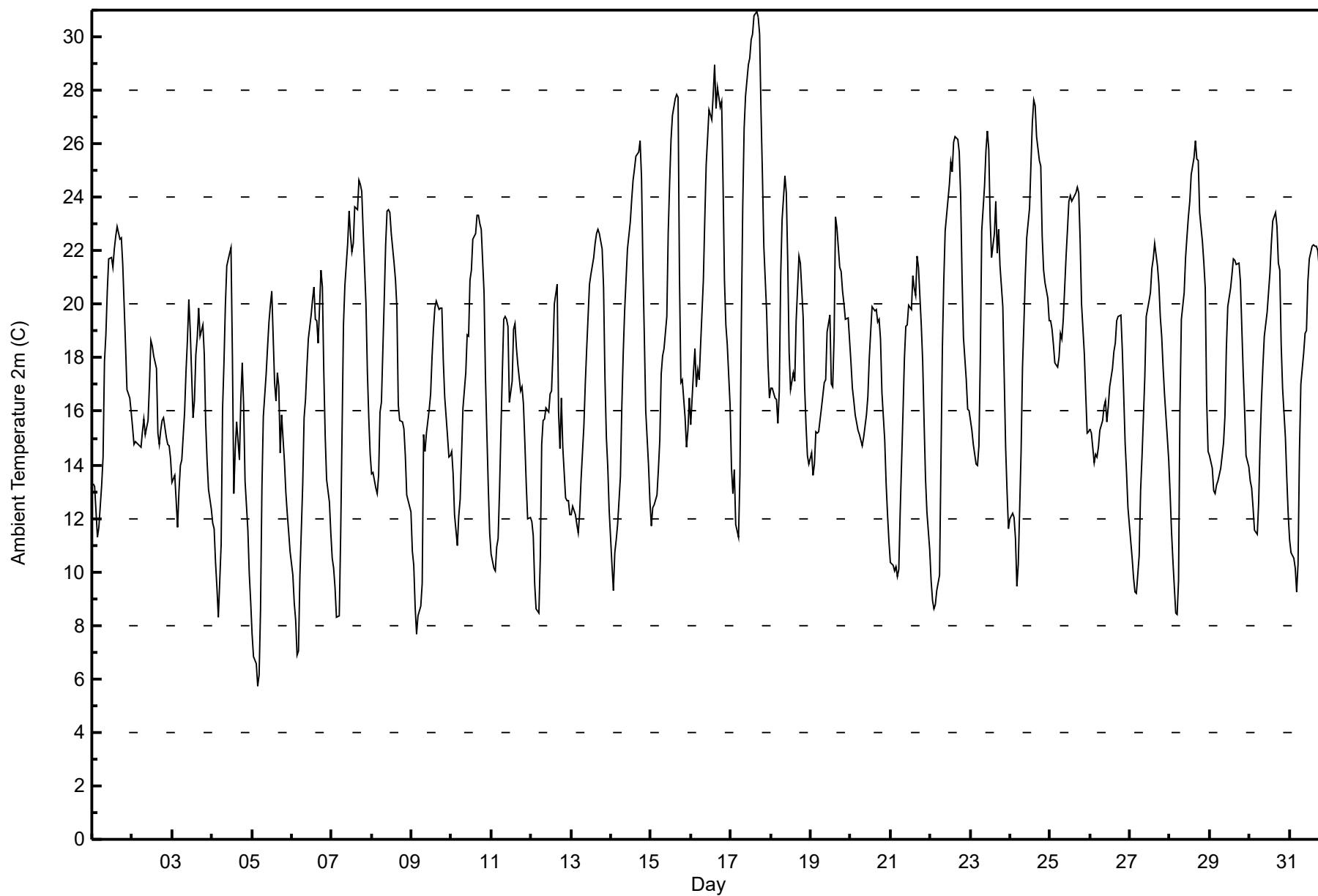
Surmont 2 - July 2026

Maximum Value: 31.0 C on Jul 17 16:00																				Maximum Daily Average: 22.6 C on Jul 17					Hours in Service: 744	
Minimum Value: 5.7 C on Jul 5 04:00																				Minimum Daily Average: 13.6 C on Jul 5					Hours of Data: 744	
Maximum Diurnal Average: 22.2 C at hour 16																				Minimum Diurnal Average: 11.6 C at hour 4					Hours of Missing Data: 0	
Monthly Average: 17.41 C																				Percentiles: P ₁ = 7.9 P ₁₀ = 11.2 Q ₁ = 14.0 Median = 17.1 Q ₃ = 20.9 P ₉₀ = 23.8 P ₉₉ = 29.0					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	13.3	13.2	12.2	11.3	11.7	13.2	14.3	17.9	18.9	20.5	21.7	21.7	21.4	22.1	22.5	22.9	22.4	22.5	21.5	19.9	18.5	16.8	16.5	16.0	18.0	22.9
2-Jul	15.4	14.7	14.9	14.7	14.7	14.7	15.2	15.7	15.1	15.6	17.0	18.6	18.4	18.1	17.6	15.2	14.8	15.3	15.7	15.7	15.0	14.8	14.7	14.2	15.7	18.6
3-Jul	13.4	13.6	12.6	11.7	13.0	14.0	14.2	16.0	17.5	18.7	20.2	19.0	15.7	16.4	18.1	18.8	19.8	18.8	19.2	18.1	15.6	14.1	13.1	12.4	16.0	20.2
4-Jul	11.8	11.6	10.4	9.4	8.3	11.0	16.1	17.8	20.0	21.4	21.9	22.1	18.1	12.9	14.6	15.6	14.2	16.5	17.8	16.2	13.4	11.6	9.9	8.9	14.6	22.1
5-Jul	7.7	6.8	6.6	5.7	6.1	8.5	13.1	15.8	17.4	18.4	19.3	20.0	20.5	17.1	16.4	17.4	16.9	14.5	15.8	14.1	13.0	12.2	11.5	10.8	13.6	20.5
6-Jul	9.9	8.8	8.2	6.9	7.1	9.8	13.2	15.7	16.4	17.6	18.7	19.6	20.2	20.6	19.5	19.4	18.5	21.3	20.6	17.5	15.1	13.5	12.6	11.5	15.1	21.3
7-Jul	10.5	10.1	9.4	8.3	8.4	11.4	15.3	19.2	20.7	22.3	23.5	22.6	22.0	22.3	23.6	23.5	24.6	24.5	24.2	22.7	20.0	17.5	15.8	14.4	18.2	24.6
8-Jul	13.7	13.7	13.1	12.9	13.6	16.0	16.3	20.2	22.2	23.5	23.5	23.4	22.7	21.5	20.9	19.9	16.2	15.6	15.6	15.4	14.4	12.8	12.7	12.2	17.2	23.5
9-Jul	10.8	10.2	8.7	7.7	8.4	8.7	9.6	15.1	14.5	15.2	16.1	16.7	18.0	19.1	19.8	20.1	19.8	19.9	19.9	17.9	16.6	15.1	14.3	14.4	14.9	20.1
10-Jul	14.5	13.7	12.1	11.0	12.1	12.7	14.4	16.1	17.4	18.9	18.8	20.9	21.3	22.5	22.6	23.3	23.4	23.0	22.8	20.4	17.3	15.2	13.2	11.4	17.5	23.4
11-Jul	10.7	10.1	10.1	10.9	11.3	13.0	17.4	19.5	19.5	19.5	19.2	16.3	17.1	19.1	19.3	18.4	17.8	16.8	16.9	16.3	14.9	13.3	12.0	12.1	15.5	19.5
12-Jul	11.9	11.3	9.6	8.6	8.5	10.5	14.8	15.6	15.7	16.1	16.0	16.6	16.8	18.2	20.0	20.7	16.0	14.6	16.5	14.7	12.8	12.7	12.7	12.1	14.3	20.7
13-Jul	12.2	12.5	12.1	11.7	11.4	12.2	13.4	15.5	17.0	18.3	19.5	20.7	21.1	21.8	22.3	22.6	22.8	22.6	22.1	20.6	17.2	15.0	13.9	12.3	17.1	22.8
14-Jul	10.3	9.3	10.7	11.2	11.8	13.5	16.2	18.2	19.7	20.9	22.1	23.1	23.9	24.6	25.1	25.5	25.7	26.1	24.8	21.4	18.8	16.0	14.0	12.6	18.6	26.1
15-Jul	11.7	12.4	12.5	12.9	13.8	14.9	17.4	18.1	18.3	19.5	22.7	24.6	26.2	27.1	27.7	27.9	27.7	21.1	17.1	17.2	15.7	14.7	15.3	16.5	18.9	27.9
16-Jul	15.5	17.5	18.3	16.9	17.6	17.2	18.5	20.9	23.2	25.2	26.2	27.3	26.9	27.8	28.9	27.3	28.1	27.4	27.6	24.5	20.9	19.2	18.5	16.2	22.4	28.9
17-Jul	13.9	13.0	13.8	11.8	11.3	13.6	19.2	23.6	26.6	27.8	29.0	29.2	29.9	30.1	30.8	31.0	30.7	30.1	27.2	24.8	22.2	19.7	17.8	16.5	22.6	31.0
18-Jul	16.9	16.8	16.5	16.4	15.5	16.8	21.1	23.2	24.8	24.2	21.6	18.2	16.8	17.5	17.1	19.4	20.6	21.8	21.5	19.5	17.0	15.5	14.3	14.0	18.6	24.8
19-Jul	14.4	13.6	14.0	15.2	15.2	15.3	16.1	16.6	17.1	17.2	18.9	19.6	17.0	16.9	18.8	23.3	22.9	21.4	21.2	20.5	20.0	19.4	19.5	18.7	18.0	23.3
20-Jul	17.8	16.9	16.4	15.9	15.3	15.2	14.9	14.7	15.0	15.9	16.6	18.0	19.0	19.9	19.8	19.8	19.3	19.4	18.7	16.7	14.9	13.3	12.1	11.1	16.5	19.9
21-Jul	10.4	10.3	10.1	10.2	9.8	10.1	12.2	16.0	18.0	19.2	19.2	20.0	19.8	21.1	20.6	20.4	21.8	21.4	19.2	17.8	15.6	13.5	12.2	10.8	15.8	21.8
22-Jul	9.7	8.9	8.6	8.8	9.3	9.9	14.1	18.3	20.9	22.7	23.9	24.5	25.3	24.9	26.0	26.3	26.2	25.7	24.1	21.0	18.8	17.2	16.1	16.0	18.6	26.3
23-Jul	15.6	15.3	14.7	14.1	14.0	14.7	18.0	22.8	24.4	25.7	26.5	25.8	23.2	21.8	22.6	23.8	21.9	22.8	21.4	19.9	17.3	14.6	13.0	11.6	19.4	26.5
24-Jul	12.0	12.2	12.0	11.2	9.4	10.3	14.5	17.7	19.3	21.1	22.5	23.6	25.2	26.8	27.6	27.4	26.3	25.4	25.2	22.5	21.3	20.8	20.2	19.4	19.7	27.6
25-Jul	19.4	19.1	18.5	17.8	17.6	18.0	18.9	18.7	19.4	21.8	22.8	23.9	24.1	23.8	24.0	24.2	24.4	24.2	22.4	20.0	18.1	16.6	15.2	15.3	20.3	24.4
26-Jul	15.3	15.2	14.1	14.4	14.3	14.7	15.3	15.6	16.2	16.4	15.6	16.2	16.9	17.6	18.2	18.6	19.4	19.5	19.6	18.3	16.6	14.8	13.7	12.4	16.2	19.6
27-Jul	11.1	10.5	9.8	9.2	9.2	10.6	13.0	14.3	15.8	17.3	19.6	20.1	20.5	21.3	21.7	22.3	21.5	20.8	19.5	18.8	17.7	16.7	15.0	14.2	16.3	22.3
28-Jul	12.9	11.5	10.4	8.4	8.4	9.7	16.1	19.4	20.4	21.8	22.5	23.3	23.9	24.9	25.5	26.1	25.5	25.4	23.4	22.4	21.6	20.6	16.4	14.5	19.0	26.1
29-Jul	14.4	13.9	13.0	12.9	13.2	13.4	13.8	14.3	14.8	15.8	18.4	19.9	20.6	21.1	21.7	21.6	21.5	21.5	20.8	19.1	17.4	16.0	14.4	13.9	17.0	21.7
30-Jul	13.4	13.1	12.4	11.6	11.4	12.6	14.8	16.5	17.7	18.8	19.7	20.4	21.2	22.3	23.1	23.4	22.9	21.5	21.3	18.5	16.9	15.0	13.5	12.1	17.3	23.4
31-Jul	11.2	10.7	10.5	10.2	9.2	10.3	14.5	17.0	18.2	18.9	19.0	20.9	21.7	22.2	22.2	22.2	22.2	22.0	21.4	19.2	17.7	16.2	15.4	14.8	17.0	22.2
13.0 12.6 12.1 11.6 11.6 12.8 15.4 17.6 18.8 19.9 20.7 21.2 21.1 21.4 21.9 22.2 21.8 21.4 20.8 19.1 17.2 15.6 14.5 13.7																										Diurnal Average
19.4 19.1 18.5 17.8 17.6 18.0 21.1 23.6 26.6 27.8 29.0 29.2 29.9 30.1 30.8 31.0 30.7 30.1 27.6 24.8 22.2 20.8 20.2 19.4																										Diurnal Maximum



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Surmont 2 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Surmont 2 - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	43	5.78	5.78
10 - 20	482	64.78	70.56
> 20	219	29.44	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

Surmont 2 - July 2026

Maximum Value: 99.9 % on Jul 5 05:00																				Maximum Daily Average: 90.8 % on Jul 2					Hours in Service: 744		
Minimum Value: 23.9 % on Jul 16 15:00																				Minimum Daily Average: 51.6 % on Jul 16					Hours of Data: 744		
Maximum Diurnal Average: 90.6 % at hour 5																				Minimum Diurnal Average: 53.5 % at hour 16					Hours of Missing Data: 0		
Monthly Average: 71.61 %																				Percentiles: P ₁ = 28.0 P ₁₀ = 42.6 Q ₁ = 55.3 Median = 75.4 Q ₃ = 88.7 P ₉₀ = 96.5 P ₉₉ = 99.4					Hours of Calibration: 0		
																									Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	79.3	81.2	85.1	88.6	88.9	87.1	86.5	66.0	61.0	55.2	49.3	51.1	49.7	49.9	46.8	45.7	43.9	45.4	56.7	63.2	72.2	79.5	79.8	83.2	66.5	88.9	
2-Jul	85.9	88.2	87.1	87.6	86.4	86.4	85.5	87.3	96.4	96.1	91.7	81.9	79.4	81.9	84.1	96.4	95.2	97.4	95.7	94.9	98.2	98.8	98.2	98.7	90.8	98.8	
3-Jul	99.2	99.7	99.2	99.7	99.9	97.4	96.3	88.1	82.2	76.1	70.0	75.5	91.6	93.3	84.8	76.8	68.8	72.1	74.7	80.6	90.8	95.0	97.4	98.5	87.8	99.9	
4-Jul	99.2	99.2	98.7	99.2	99.3	93.9	83.4	76.0	55.0	49.0	41.4	39.8	62.4	95.5	92.1	84.6	91.4	82.2	73.9	81.8	93.3	96.3	97.6	98.8	82.7	99.3	
5-Jul	98.6	99.3	99.6	99.6	99.9	98.3	82.1	68.5	59.9	51.9	49.6	46.8	44.3	55.7	59.6	57.0	62.5	82.7	70.0	77.8	77.6	79.2	84.0	88.8	74.7	99.9	
6-Jul	91.9	94.1	93.2	95.8	96.1	87.7	74.8	65.3	62.9	59.7	53.9	49.1	44.8	45.1	56.9	53.5	55.5	44.0	50.5	63.8	78.2	85.1	87.5	91.3	70.0	96.1	
7-Jul	93.7	95.0	96.2	97.1	97.9	90.1	78.3	61.1	54.4	42.0	39.7	44.7	48.1	50.2	43.7	45.8	40.0	41.4	43.0	49.4	61.1	69.6	75.1	81.4	64.1	97.9	
8-Jul	85.8	85.4	88.8	91.0	88.2	76.4	76.5	63.9	57.0	52.1	50.1	49.6	50.2	56.9	65.2	65.4	91.0	97.8	97.1	93.2	94.9	98.8	99.2	99.3	78.1	99.3	
9-Jul	98.8	97.7	98.5	95.7	90.8	96.1	92.9	55.7	55.2	56.5	52.7	52.7	47.5	44.4	43.0	38.1	40.5	42.3	42.8	53.9	63.6	69.9	74.6	75.2	65.8	98.8	
10-Jul	74.5	78.1	86.0	91.0	88.1	86.4	83.3	74.8	69.2	60.8	63.8	51.8	40.7	39.7	42.1	38.4	38.6	39.9	39.4	48.3	61.7	66.9	77.0	84.7	63.5	91.0	
11-Jul	88.9	89.2	90.2	89.7	89.7	84.3	71.4	66.6	64.7	63.9	61.6	85.1	85.5	72.1	71.2	78.7	82.6	90.5	90.6	90.5	95.0	97.8	98.6	98.5	83.2	98.6	
12-Jul	97.0	97.9	98.7	99.4	99.6	97.0	88.8	83.1	79.8	74.6	76.5	73.3	71.7	64.9	57.7	56.9	77.2	85.7	77.7	89.0	97.2	92.3	81.7	78.8	83.2	99.6	
13-Jul	78.5	77.6	78.9	80.2	79.4	73.5	66.7	59.9	55.3	51.9	48.1	41.7	37.7	35.0	32.1	28.7	27.2	27.7	30.3	35.2	49.5	57.6	67.4	78.7	54.1	80.2	
14-Jul	88.0	91.4	83.8	80.2	75.6	67.3	61.1	55.6	49.2	41.7	36.5	34.3	32.8	29.7	27.4	28.5	28.6	28.4	35.7	48.7	64.0	72.3	79.2	83.8	55.2	91.4	
15-Jul	87.7	86.7	87.0	87.8	84.2	84.4	72.1	71.8	69.3	64.6	51.4	45.3	38.0	34.8	35.3	36.7	40.4	66.3	88.7	89.0	94.3	96.2	89.9	81.4	70.1	96.2	
16-Jul	89.5	81.9	73.1	77.8	72.9	75.3	71.8	63.3	53.3	47.1	46.2	32.0	29.9	27.2	23.9	32.7	30.9	33.6	28.9	32.8	46.9	51.5	51.3	65.6	51.6	89.5	
17-Jul	77.8	80.3	73.6	81.8	84.5	81.0	67.6	54.9	40.5	35.8	32.8	32.3	29.6	27.6	25.9	26.4	28.6	33.4	43.0	48.9	64.6	71.4	77.1	81.7	54.2	84.5	
18-Jul	80.5	77.7	77.3	76.5	81.3	80.0	62.3	52.4	47.4	50.3	63.1	85.8	89.5	84.3	85.2	78.0	69.2	63.0	60.9	73.2	87.9	92.4	96.0	96.3	75.4	96.3	
19-Jul	95.6	96.5	96.0	90.5	97.1	96.6	94.6	93.8	93.6	94.0	86.9	81.6	94.0	94.6	87.0	69.3	69.6	80.7	74.7	77.3	73.8	73.2	76.2	79.3	86.1	97.1	
20-Jul	84.3	84.0	84.2	85.9	87.7	86.4	85.5	86.2	86.0	83.6	81.6	76.8	73.8	70.7	70.8	70.4	70.2	67.4	68.9	82.7	88.8	93.1	96.5	97.5	81.8	97.5	
21-Jul	98.4	98.8	98.8	98.8	99.1	99.1	95.9	83.1	70.4	62.0	61.8	59.2	59.6	54.5	56.3	59.5	50.0	55.4	69.5	76.0	84.4	90.0	92.4	95.8	77.9	99.1	
22-Jul	97.8	98.1	98.1	98.5	99.1	98.3	90.1	67.6	59.7	52.5	45.2	43.3	41.7	45.6	39.0	38.4	37.4	40.5	48.6	65.0	74.9	81.5	84.9	77.7	67.6	99.1	
23-Jul	80.9	85.0	90.6	95.3	96.7	94.4	83.0	63.4	58.4	53.0	49.0	52.9	64.9	71.5	65.3	53.3	51.7	42.4	52.5	54.9	61.9	74.0	81.8	88.8	69.4	96.7	
24-Jul	88.5	86.9	88.1	91.2	96.6	95.1	81.2	73.1	68.4	63.2	59.8	55.5	49.2	43.9	40.4	41.6	47.8	59.3	55.6	54.9	58.4	55.0	56.6	61.3	65.5	96.6	
25-Jul	62.2	62.5	65.1	67.9	68.7	67.9	64.9	65.7	64.3	55.7	51.3	47.0	44.5	45.9	45.1	44.0	44.4	45.6	54.6	61.2	67.9	74.1	81.7	80.8	59.7	81.7	
26-Jul	80.2	78.8	85.2	83.9	90.5	93.7	93.6	91.7	89.0	87.7	91.1	87.6	83.4	79.4	76.1	75.1	71.2	71.1	71.3	77.6	84.1	90.7	94.1	96.0	84.3	96.0	
27-Jul	97.3	98.2	98.5	98.2	98.9	98.6	95.6	92.4	87.8	82.0	73.0	70.8	68.1	64.6	63.7	57.7	62.7	62.7	67.6	68.9	78.0	78.6	83.6	82.9	80.4	98.9	
28-Jul	87.1	92.2	93.2	96.8	97.4	96.2	75.9	62.0	52.0	43.5	41.8	41.0	42.5	38.5	33.0	34.7	37.2	35.7	44.4	49.2	50.6	55.7	83.3	98.1	61.7	98.1	
29-Jul	97.8	93.4	93.2	92.6	91.8	90.3	88.0	85.8	83.1	79.3	68.2	57.1	50.8	47.1	44.9	44.1	44.0	43.1	45.6	51.9	64.3	68.5	74.8	77.0	69.9	97.8	
30-Jul	76.4	74.6	78.7	84.7	86.8	83.4	76.8	71.3	65.1	60.5	54.9	51.8	50.3	47.6	44.6	43.7	43.5	56.7	55.4	68.1	72.8	77.6	83.8	88.1	66.6	88.1	
31-Jul	92.4	94.3	95.8	95.6	96.3	95.6	86.4	81.2	80.1	71.0	70.6	60.4	57.8	56.2	55.3	57.8	59.3	63.0	71.0	80.5	85.5	87.9	89.3	90.1	78.1	96.3	
88.2 88.5 89.1 90.3 90.6 88.3 81.1 72.0 66.8 61.8 58.5 56.7 56.6 56.4 54.8 53.5 54.9 58.0 60.6 67.2 75.4 79.7 83.6 86.4																										Diurnal Average	
99.2 99.7 99.6 99.7 99.9 99.1 96.3 93.8 96.4 96.1 91.7 87.6 94.0 95.5 92.1 96.4 95.2 97.8 97.1 94.9 98.2 98.8 99.2 99.3																										Diurnal Maximum	

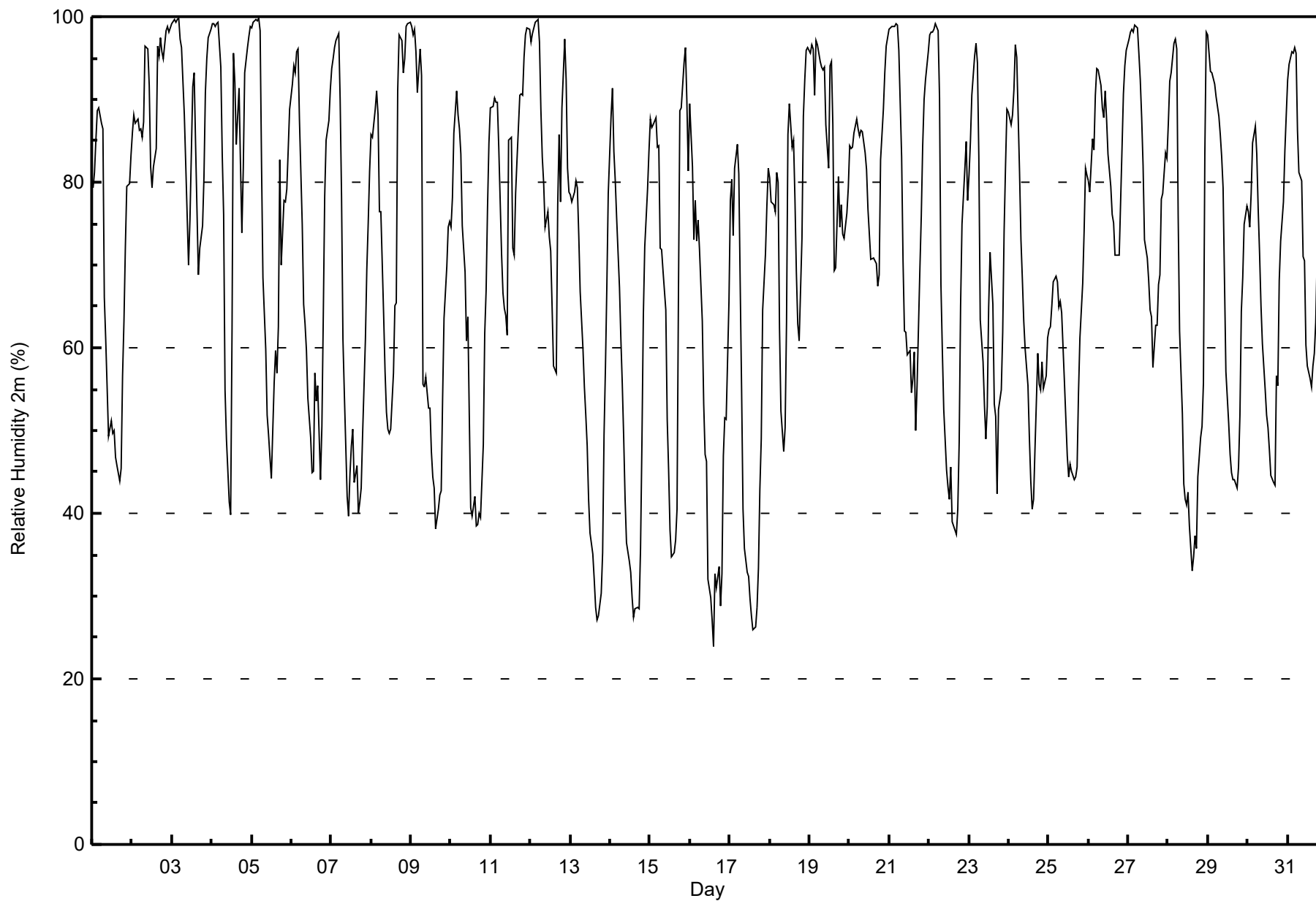


Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Surmont 2 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %
Surmont 2 - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	56	7.53	7.53
40 - 60	172	23.12	30.65
60 - 80	200	26.88	57.53
80 - 100	316	42.47	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

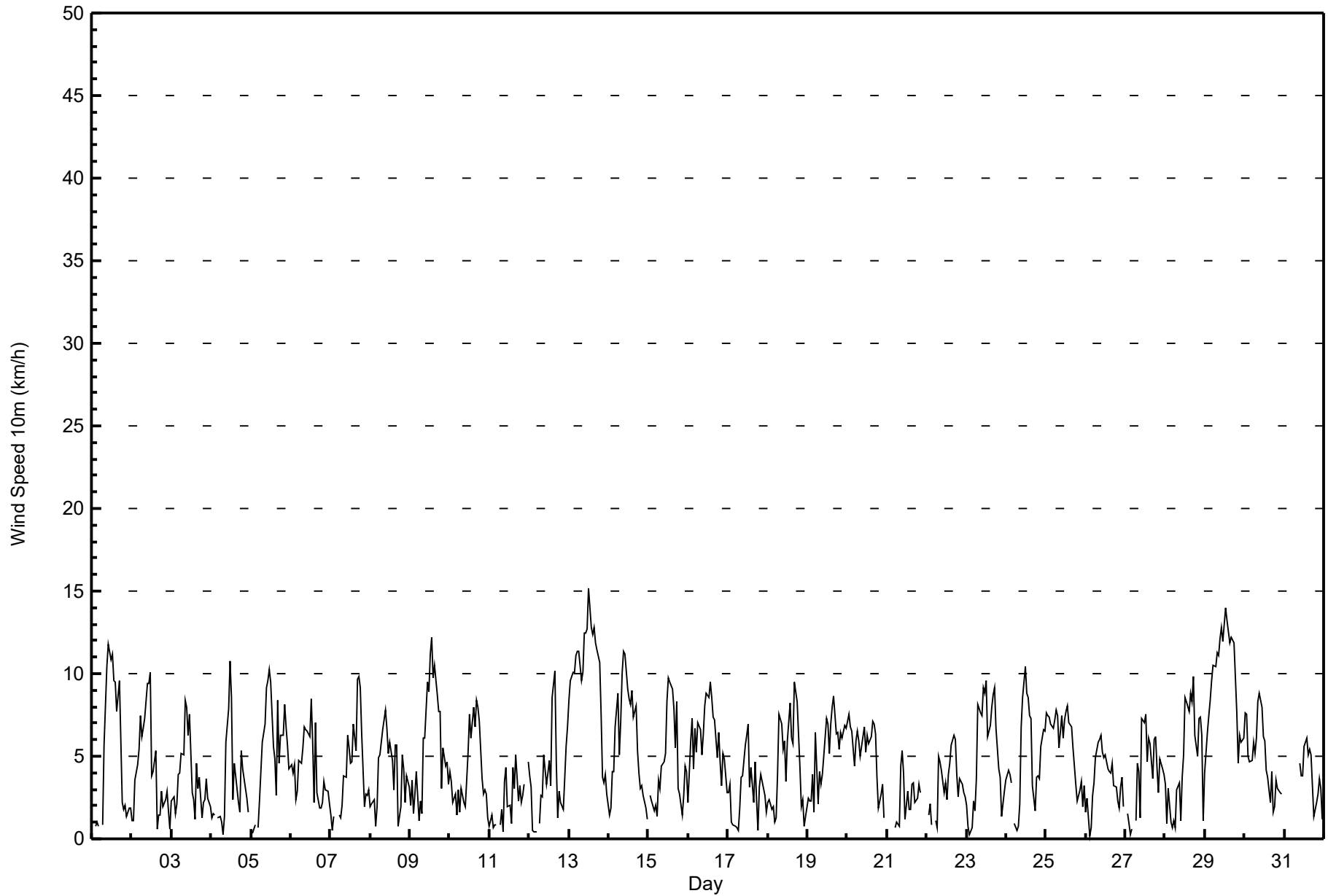
Surmont 2 - July 2026

Maximum Speed: 15 km/h on Jul 13 13:00																		Maximum Daily Speed Average: 9.8 km/h on Jul 13										Hours in Service: 744	
Minimum Speed Value: 0 km/h on Jul 26 03:00																		Minimum Daily Speed Average: 1.3 km/h on Jul 22										Hours of Data: 708	
Maximum Diurnal Speed Average: 2.9 km/h at hour 23																		Minimum Diurnal Speed Average: 1.2 km/h at hour 14										Hours of Missing Data: 36	
Monthly Average Velocity: 2.0 km/h 253.8 deg																		Percentiles: P ₁ = 0 P ₁₀ = 1 Q ₁ = 2 Median = 4 Q ₃ = 7 P ₉₀ = 9 P ₉₉ = 13										Percent Operational Time: 95.2	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
1-Jul	UO	UO	W1	WSW1	WSW1	UO	W1	ESE6	ESE8	ESE10	ESE12	ESE11	ESE11	ESE14	ESE9	ESE8	ESE10	SE6	SSE2	WSW2	W2	WSW1	S2	SE2	ESE4.6	ESE12			
2-Jul	SSE1	WSW1	SE4	ESE5	ESE5	ESE7	ESE6	SE7	ESE7	ESE9	SE9	SE10	SSW4	WSW4	W5	ESE1	WSW1	ENE1	SE3	SSE2	ESE2	ESE3	SSE2	SSW1	SE3.2	SE10			
3-Jul	SE2	SSE3	SW2	S2	SE4	ESE4	SE5	SE5	SE8	SE8	SSE6	ESE8	SSE3	NW2	WNW1	W5	NW3	WSW4	W1	SSE2	SE2	WSW4	WSW2	SSW2	SSE2.1	SE8			
4-Jul	SSW1	WSW2	SW1	UO	ESE1	ESE1	SE1	SSW0	SSE1	ESE6	SE8	ESE11	WSW9	SW2	SE5	SE4	WSW2	SW2	W5	W4	W4	WSW2	WSW2	UO	S1.6	ESE11			
5-Jul	UO	S0	WSW1	UO	SSW1	W2	WSW4	WSW6	W7	WNW9	W10	W10	WNW9	WNW6	WNW5	WNW3	W8	WSW5	WNW6	W6	W8	W7	WNW6	W4	W5.4	W10			
6-Jul	W5	WSW4	WSW4	WSW2	WSW3	W5	WNW5	NW6	NW7	NW7	NW7	NW6	WNW8	N6	N2	NNW7	N3	NNW2	N2	WNW2	WSW3	WSW3	WSW3	W2	WNW3.5	WNW8			
7-Jul	WSW1	WSW1	SW1	UO	UO	ESE1	NE1	E2	ESE4	SE4	ESE6	SE6	SE5	E5	E7	E5	ESE10	ESE10	ESE9	ESE6	SE2	SSW3	SW3	SW3	ESE3.4	ESE10			
8-Jul	SW2	SSW2	SE2	SSW1	SSE2	SE5	ESE5	SSE7	SSE7	SSE8	S7	SSW5	SE6	S5	SSW3	WSW6	W6	S1	WSW2	W5	WSW4	WSW2	WSW4	WSW3	S2.7	SSE8			
9-Jul	W2	W4	SW1	WSW3	W4	S1	S2	N2	W6	WSW6	WSW9	WSW9	WSW11	WSW12	WSW10	WSW11	WSW9	WSW8	WSW8	S3	SSE5	SSW4	S5	SSW3	WSW5.0	WSW12			
10-Jul	SSW4	SW3	SE2	ENE3	NW1	W3	W2	WSW3	SSW2	SSW2	SSE4	SSE5	SW8	SW6	SE8	WSW7	W8	W8	WSW7	W4	WSW3	WSW3	WSW3	WSW1	SW2.9	W8			
11-Jul	WSW1	W1	SW1	WSW1	SW1	UO	ENE1	NE2	NW0	NW4	W4	NW2	NNE2	N1	E4	NNE3	NNW5	NW2	WNW3	WNW2	W3	WSW3	UO	W5	WNW1.3	NNW5			
12-Jul	W4	WSW3	ENE1	SW0	SW0	UO	NE1	W3	SW3	W5	W3	NW4	NNW5	ESE3	SE9	SE10	WSW5	ENE1	WSW3	SSW2	S2	SSW4	WSW6	W7	SW1.6	SE10			
13-Jul	W8	W10	W10	WSW10	WSW11	WSW11	W11	W10	WSW10	WSW12	WSW12	W13	W15	W13	W12	W13	W12	W11	W11	W8	WSW4	W3	W4	WSW3	W9.8	W15			
14-Jul	WSW1	WSW2	W4	W4	WSW7	WSW9	W5	W7	W10	W11	WNW11	W9	W9	W8	W9	W7	WNW8	WNW5	W4	W3	WSW3	WSW3	WSW2	W1	W5.8	W11			
15-Jul	UO	SW3	SW2	SSW2	SW2	S1	SE4	SE3	ESE4	ESE5	SE5	SE8	SE10	SE10	SE9	SE8	SSE6	NNW8	NW3	NW3	SSE1	SW3	SSW4	SSW4	SSE2.8	SE10			
16-Jul	SW2	WSW6	W7	W4	WSW7	WSW5	WSW7	WSW7	SW5	SSE6	SE8	WSW9	W9	WSW9	W9	W7	W7	W5	W6	W5	WSW3	WSW5	WSW5	WSW3	WSW5.2	WSW9			
17-Jul	WSW3	WSW3	WNW1	ESE1	ESE1	WSW1	W1	WNW2	NNW4	N4	NNE6	NNE6	NNE7	NNE3	NNE4	ENE2	N5	NE2	W0	WSW3	WSW4	WSW3	WSW3	SW2	NNW1.4	NNE7			
18-Jul	WSW2	WSW2	SSW2	SW2	SSW1	SSW1	SE4	ESE8	SE7	W5	WNW6	WNW4	ESE6	ESE8	SE6	SE6	SE10	SE9	SE8	ESE4	WSW2	W2	WSW1	W1	SSE2.5	SE10			
19-Jul	W2	WSW2	W2	S4	WNW2	W6	W2	WNW4	WNW3	WNW4	NW5	NNW7	WNW7	W5	W7	WNW8	NW9	WNW6	WNW6	WNW5	NW6	WNW6	NW7	NW7	WNW4.7	NW9			
20-Jul	NW7	NW8	NW7	NNW7	NW4	NW6	NW6	NW6	NNW5	NNW6	NNW7	NNW5	NNE6	NNW6	NNW6	WNW7	WNW7	W6	W4	W2	W3	WSW3	SW1	UO	NW4.8	NW8			
21-Jul	UO	UO	UO	UO	UO	SE1	ESE1	NNE1	WNW4	WNW5	WNW4	N1	NW3	E2	SE2	ESE3	SW3	W2	W2	WSW3	WSW3	UO	WSW2	UO	----	WNW5			
22-Jul	UO	SE1	SW2	ESE1	UO	E1	SSE1	WNW5	NW5	NW4	WNW3	SSW3	E2	E4	SSE5	SE6	SE6	SE6	SSE4	SW3	WSW4	WSW3	WSW3	WSW3	S1.3	SE6			
23-Jul	SW2	SW1	WNW0	ESE1	ESE2	NE2	WSW4	WSW8	W8	W7	W9	W9	WNW10	NW6	NNW7	NW8	NW9	WNW9	N7	WNW4	W4	WSW1	WSW2	WSW3	WNW4.0	WNW10			
24-Jul	WSW4	WSW4	WSW4	WSW3	UO	W1	ESE1	NW1	S2	SE7	ESE9	ESE10	SE9	SE9	SE7	SE7	SE3	WSW2	W4	W4	WSW4	WSW6	WSW7	WSW6	S2.2	ESE10			
25-Jul	WSW8	WSW7	W7	WNW7	WNW7	W7	W8	W7	WNW6	W7	W6	W7	W8	W8	WSW7	W7	W5	W4	W3	W2	W3	WSW3	W2	WSW3	W5.8	W8			
26-Jul	W2	W2	WSW0	W1	WNW3	NW3	NNW5	N6	NNE6	N6	NNW5	N5	NNW5	NNW4	N4	NNW4	NNE5	NNE3	N3	NW2	NW2	W3	W4	WNW2	NNW2.9	N6			
27-Jul	UO	W1	W1	WSW0	W1	UO	NE1	ESE5	SSE4	SSE1	WNW7	WNW7	W8	NW5	NNW6	NW6	WNW4	W6	WNW6	W4	WSW3	WSW5	W4	W4	W2.9	W8			
28-Jul	WNW3	W1	WSW3	SE1	W1	S1	ESE1	WNW3	W3	SE1	S4	SSE5	ESE9	ESE8	SE8	ESE9	ESE8	ESE10	ESE6	SE5	ESE7	ESE7	WSW6	ESE1	SE3.1	ESE10			
29-Jul	S4	WSW6	WSW7	WSW8	WSW10	W11	W10	W11	W11	W12	W13	W12	W14	W13	W13	W12	W12	W12	W10	W8	WNW5	W6	WSW6	WSW6	W9.4	W14			
30-Jul	WSW8	W8	WNW5	W5	WNW5	WNW6	WNW5	WNW6	WNW8	W9	WNW8	WNW6	NW6	NNE4	N4	NNE2	WNW4	WNW2	WNW2	WSW4	W3	W3	WSW3	UO	WNW4.3	W9			
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	ESE5	SE4	S4	SE6	ESE6	SE5	SE5	ESE5	SE3	SE1	SW2	SSW3	SW4	WSW3	SW1	----	ESE6			
WSW2.7WSW2.8WSW2.3WSW1.8WSW2.1WSW2.1WSW1.4 W1.7WSW1.9WSW1.7WSW2.1WSW1.6 W2.3WSW1.2 SW1.2WSW1.6 W2.2 W1.9 W2.2WSW2.4WSW2.2WSW2.8WSW2.9WSW2.6 W8 W10 W10WSW10WSW11WSW11 W11 W11 W11WSW12 W13 W13 W15 W13 W13 W13 W12 W12 W11 W8 W8 ESE7 NW7 W7																								Diurnal Average	Diurnal Maximum				
UO - Unstable Operation																													
All monthly, daily, and diurnal averages have been calculated using vector methods																													



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Surmont 2 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Surmont 2 - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	438	61.86	61.86
6 - 11	251	35.45	97.32
12 - 19	19	2.68	100.00
20 - 28	0	0.00	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Surmont 2 - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	12	9	6	6	8	28	33	19	17	28	30	95	80	36	20	11	438
6 - 11	4	5	0	0	1	36	32	7	1	0	2	42	61	30	20	10	251
12 - 19	0	0	0	0	0	1	0	0	0	0	0	3	15	0	0	0	19
20 - 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	14	6	6	9	65	65	26	18	28	32	140	156	66	40	21	708

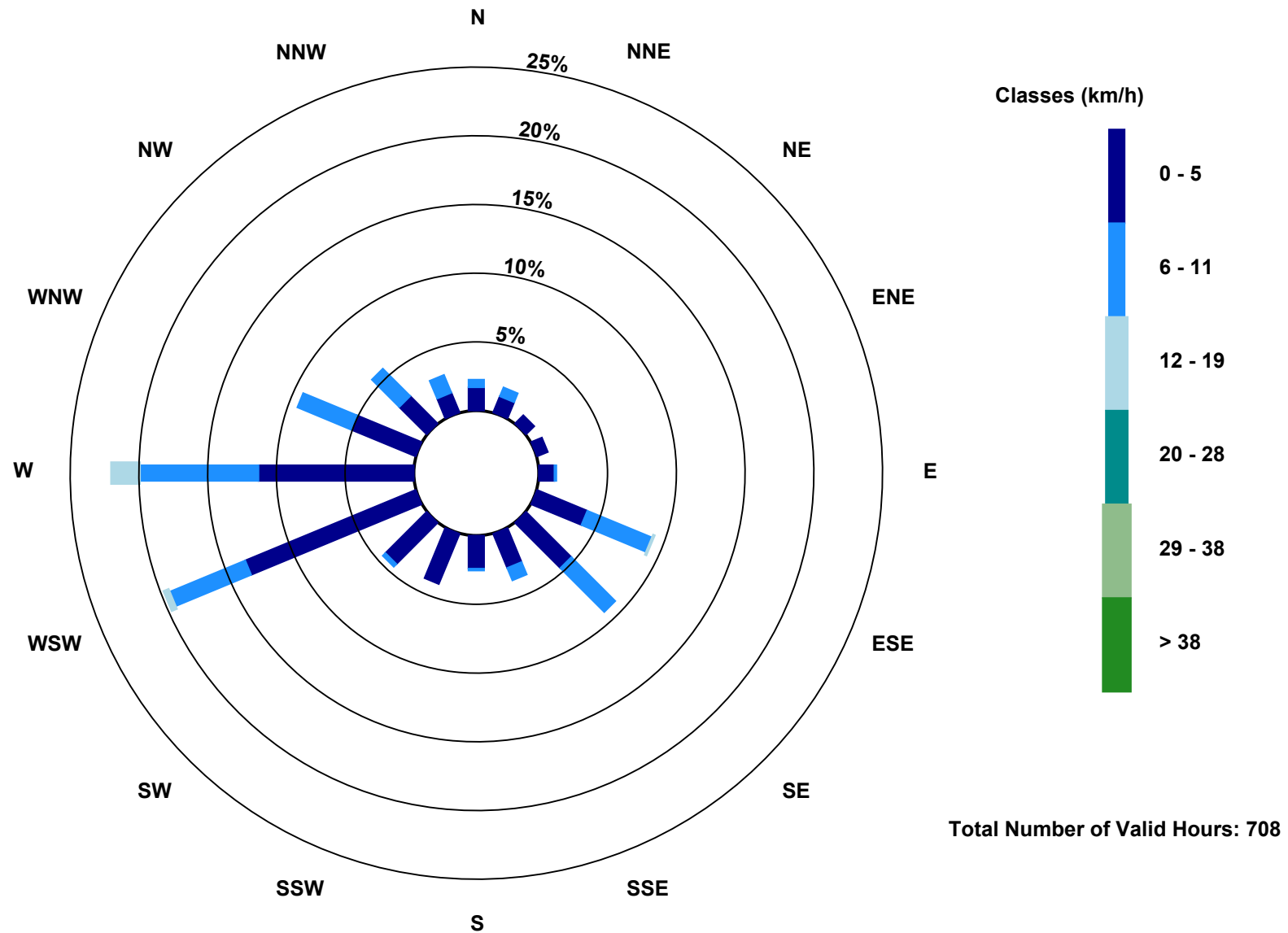
Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Surmont 2





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h
Surmont 2 - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 7 km/h on Jul 4 13:00																	Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 0 Percent Operational Time: 95.2									
Minimum Value: 0 km/h on Jul 25 21:00																										
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 1 Median = 2 Q ₃ = 3 P ₉₀ = 4 P ₉₉ = 5																										
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	UO	UO	1	1	1	UO	1	3	2	4	4	4	4	4	3	3	4	2	1	1	1	1	1	1	1	4
2-Jul	1	1	1	2	2	2	2	2	3	3	3	4	3	2	3	1	2	1	1	1	2	1	1	1	1	4
3-Jul	2	2	2	1	2	2	2	2	3	3	3	3	2	1	1	2	2	2	1	1	1	1	1	1	1	3
4-Jul	1	1	1	UO	1	1	1	1	1	3	3	4	7	4	2	2	2	2	2	2	1	1	1	1	UO	7
5-Jul	UO	1	2	UO	1	1	2	2	3	3	4	4	3	3	2	2	5	2	3	3	3	3	2	2	5	
6-Jul	1	1	1	1	2	2	2	3	3	3	3	3	4	3	2	4	2	1	1	1	1	2	2	2	4	
7-Jul	1	1	1	UO	UO	1	1	1	2	2	3	2	2	2	3	2	4	4	3	3	2	1	1	1	4	
8-Jul	1	1	1	1	1	2	2	3	3	3	3	3	3	2	2	4	3	1	2	1	1	1	1	1	4	
9-Jul	1	2	1	1	2	1	1	2	3	3	4	4	4	5	4	5	4	3	4	2	2	2	2	2	5	
10-Jul	2	2	1	1	1	2	2	2	1	1	2	3	3	3	4	3	3	3	3	2	1	1	1	1	4	
11-Jul	1	2	1	1	1	UO	1	1	1	1	2	2	1	1	2	1	2	1	1	1	1	1	UO	2	2	
12-Jul	2	2	1	1	1	UO	1	2	1	2	2	2	2	3	4	4	5	1	2	1	1	2	3	3	5	
13-Jul	3	4	4	3	4	4	4	4	4	5	5	5	6	5	5	5	5	5	4	3	1	1	1	1	6	
14-Jul	2	2	1	1	3	2	3	3	4	4	4	4	3	4	4	3	3	2	2	1	1	1	1	1	4	
15-Jul	UO	1	1	1	1	1	1	1	2	1	2	3	5	4	4	4	3	6	2	1	2	1	2	2	6	
16-Jul	1	3	3	2	3	2	2	2	2	3	4	4	4	4	4	3	3	3	2	2	1	1	1	1	4	
17-Jul	1	1	2	1	1	1	1	1	1	2	2	3	3	3	3	3	2	2	1	1	1	1	1	1	3	
18-Jul	1	1	1	1	1	1	2	3	3	4	4	3	5	4	4	2	4	3	3	2	1	1	1	2	5	
19-Jul	2	2	2	2	2	3	2	2	1	1	2	4	3	2	2	3	4	2	2	2	3	2	3	2	4	
20-Jul	3	3	3	3	2	2	3	3	2	2	3	2	2	2	3	3	2	2	2	1	1	2	1	UO	3	
21-Jul	UO	UO	UO	UO	UO	1	1	2	1	2	2	1	1	2	1	1	2	1	1	1	2	UO	1	UO	2	
22-Jul	UO	1	1	1	UO	1	1	2	2	1	2	2	2	2	2	2	3	2	2	1	1	1	2	1	3	
23-Jul	1	1	1	1	2	2	4	3	3	3	4	3	4	3	4	4	4	4	3	2	1	1	2	1	4	
24-Jul	1	1	1	1	UO	1	1	1	1	3	3	3	3	4	3	3	3	1	1	1	1	2	2	2	4	
25-Jul	2	2	3	3	3	2	3	3	2	3	2	3	3	3	3	3	3	2	2	1	0	1	1	2	3	
26-Jul	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	2	
27-Jul	UO	1	1	1	1	UO	1	2	2	2	3	3	3	2	3	3	2	3	3	2	1	2	1	1	3	
28-Jul	1	1	2	1	1	1	1	2	2	2	2	2	3	3	3	4	3	4	2	2	3	3	5	2	5	
29-Jul	3	3	3	3	4	4	4	4	4	5	5	5	5	5	5	5	5	4	4	3	2	2	2	2	5	
30-Jul	2	2	2	2	2	2	2	3	3	3	3	3	3	2	2	2	2	1	1	1	1	1	1	UO	3	
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	1	2	2	2	2	2	2	2	1	1	1	1	1	2	1	2	
Diurnal Maximum																										
UO - Unstable Operation																										



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

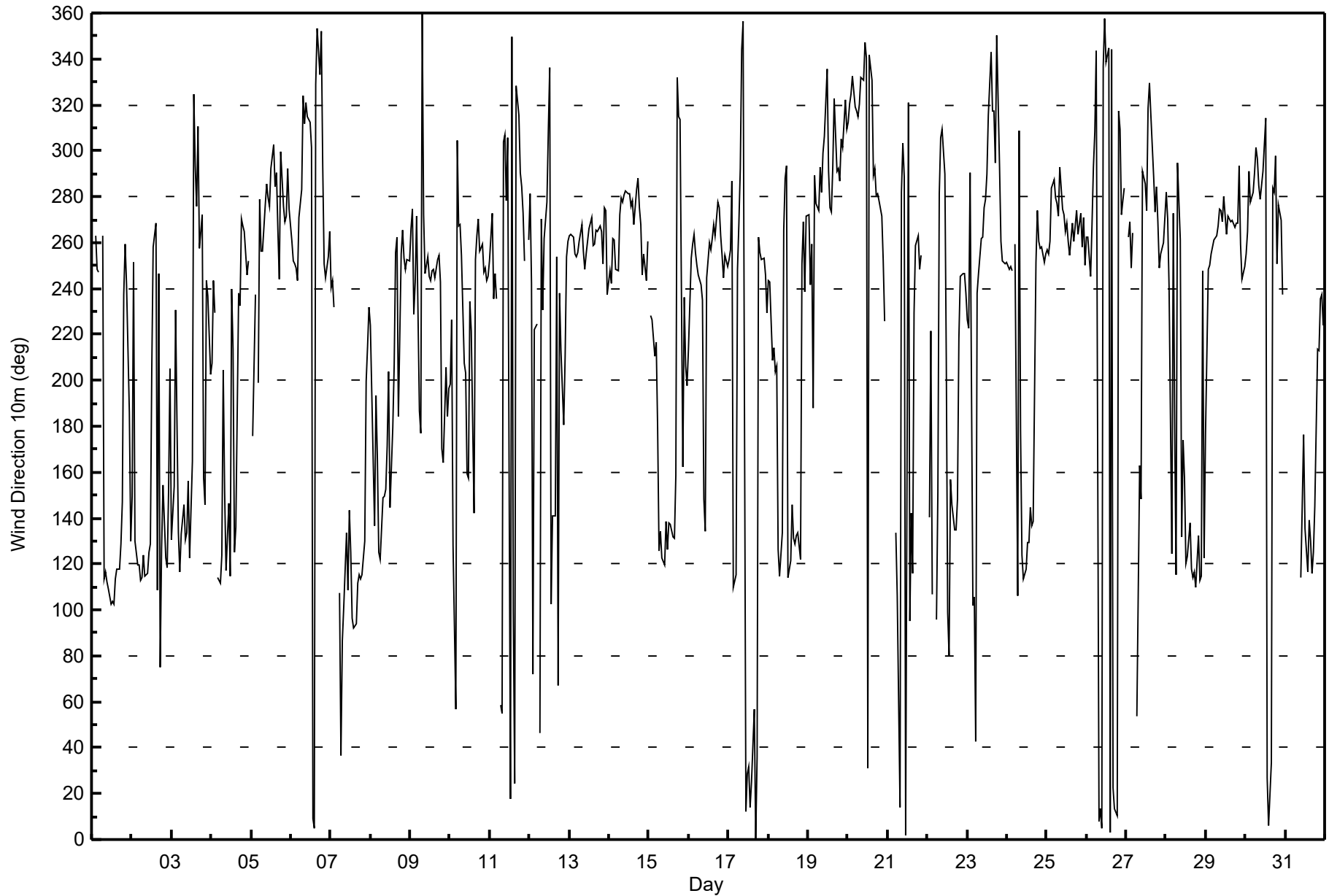
Surmont 2 - July 2026

Direction of Maximum Speed: 266 deg on Jul 13 13:00																				Hours in Service:		744			
Direction of Maximum Daily Speed Average: 260.8 deg on Jul 13																				Hours of Data:		708			
Direction of Minimum Speed: 246 deg on Jul 26 03:00										Direction of Minimum Daily Speed Average: 1.3 deg on Jul 22										Hours of Missing Data:		36			
Monthly Average Direction: 253.8 deg																				Percent Operational Time:		95.2			
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	UO	UO	263	249	247	UO	263	113	117	112	109	103	104	103	113	118	118	129	147	237	259	241	186	130	116.9
2-Jul	150	251	130	120	120	113	114	124	115	116	125	129	204	258	268	108	246	75	127	154	123	119	152	205	130.8
3-Jul	130	154	230	181	134	117	133	146	131	134	156	123	165	324	294	276	311	258	272	157	146	243	237	202	159.0
4-Jul	208	243	229	UO	114	112	124	204	152	117	146	115	240	214	125	136	238	232	270	268	265	246	252	UO	183.5
5-Jul	UO	176	237	UO	199	279	256	256	276	285	279	276	292	303	284	291	265	244	299	276	269	272	292	274	277.1
6-Jul	261	252	251	249	243	271	283	324	312	321	315	313	302	9	5	329	353	333	352	294	251	245	254	265	299.4
7-Jul	241	243	232	UO	UO	108	36	87	102	134	109	144	125	96	92	94	112	115	113	115	130	199	215	232	118.8
8-Jul	224	195	137	193	166	125	122	149	149	153	171	204	145	179	207	256	262	184	255	265	253	248	253	252	189.7
9-Jul	266	275	229	243	271	187	177	360	272	247	254	245	243	248	248	245	253	254	243	170	164	205	184	196	241.1
10-Jul	198	226	128	57	305	267	268	254	208	203	159	157	234	221	142	252	263	270	257	259	247	249	244	245	231.7
11-Jul	252	273	235	247	235	UO	59	55	304	307	278	306	17	350	99	24	328	315	290	285	273	252	UO	261	301.7
12-Jul	281	242	72	222	225	UO	46	270	231	262	278	309	336	103	141	141	254	67	238	213	181	210	254	261	232.7
13-Jul	263	263	262	255	254	256	260	268	256	248	255	261	266	271	259	259	265	265	267	265	251	275	274	237	260.8
14-Jul	248	242	262	261	248	248	272	279	278	281	282	281	281	276	279	268	283	288	275	268	246	255	244	261	272.0
15-Jul	UO	228	226	211	217	179	126	134	123	119	139	126	138	137	132	131	158	332	315	314	162	236	206	198	150.0
16-Jul	214	253	259	264	256	250	246	241	235	148	134	245	260	257	262	268	263	278	275	263	255	245	254	250	249.6
17-Jul	253	257	287	110	116	248	268	293	344	356	12	29	31	14	25	57	0	36	262	255	253	253	246	229	343.4
18-Jul	244	243	209	214	204	206	126	115	134	266	288	294	114	122	146	131	129	132	134	122	251	269	238	271	148.5
19-Jul	272	241	259	188	289	277	274	293	282	299	306	336	291	275	273	293	323	291	292	287	305	301	322	309	294.2
20-Jul	312	321	325	333	319	318	315	320	332	330	347	340	31	342	331	289	292	281	281	278	271	252	226	UO	317.8
21-Jul	UO	UO	UO	UO	UO	133	106	14	282	303	288	2	321	95	142	116	230	259	263	248	254	UO	247	UO	--
22-Jul	UO	140	221	107	UO	96	151	282	306	310	290	209	99	80	157	146	135	135	148	218	245	246	247	238	190.6
23-Jul	227	223	291	102	105	43	238	247	262	262	275	279	290	315	343	317	317	294	350	294	261	252	251	251	287.9
24-Jul	251	248	250	248	UO	260	106	308	178	124	114	118	129	129	144	137	139	251	274	261	258	258	251	255	177.5
25-Jul	257	255	261	284	287	280	277	272	293	275	272	265	269	261	254	268	261	268	274	264	273	258	271	250	268.9
26-Jul	263	263	246	268	293	308	344	8	13	5	337	357	339	345	3	344	23	13	11	317	309	272	278	284	340.6
27-Jul	UO	262	269	249	264	UO	54	108	163	148	291	286	274	319	330	316	289	273	284	269	249	255	260	271	280.7
28-Jul	282	271	241	124	273	180	115	294	261	132	174	157	120	123	138	118	114	117	110	132	113	115	248	123	134.5
29-Jul	177	248	250	255	258	261	263	267	275	274	269	280	264	272	270	269	270	267	268	269	294	260	244	249	265.1
30-Jul	255	265	291	278	282	290	302	297	285	279	291	303	314	27	6	33	284	282	298	251	276	270	237	UO	288.6
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	114	145	176	135	117	139	130	116	125	145	214	213	236	237	224	--
Diurnal Average																									
251.7 253.9 253.5 252.4 254.1 257.6 257.0 264.6 256.3 254.3 252.4 248.7 258.9 255.1 217.7 243.8 264.4 263.3 267.3 254.4 249.2 247.8 250.0 250.4																									
UO - Unstable Operation																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Surmont 2 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg
Surmont 2 - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 111 deg on Jul 2 17:00																		Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 0 Percent Operational Time: 95.2								
Minimum Value: 11 deg on Jul 21 20:00																										
Percentiles: P ₁ = 14 P ₁₀ = 26 Q ₁ = 36 Median = 47 Q ₃ = 62 P ₉₀ = 77 P ₉₉ = 98																										
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	UO	UO	42	53	47	UO	83	27	30	28	26	31	25	29	26	35	31	46	64	39	16	33	69	40	83	
2-Jul	64	52	47	31	30	19	29	34	29	27	37	45	81	52	37	83	111	67	57	57	40	36	83	82	111	
3-Jul	76	70	75	50	51	57	54	64	36	50	63	47	84	74	99	43	62	30	55	50	60	24	25	38	99	
4-Jul	62	30	55	UO	24	55	75	100	73	36	49	27	67	79	41	47	63	95	40	33	22	28	39	UO	100	
5-Jul	UO	77	71	UO	70	60	46	38	41	43	48	42	47	58	44	60	31	45	50	39	30	37	36	33	77	
6-Jul	26	20	16	69	72	39	46	59	55	60	59	74	55	60	85	65	74	91	71	54	31	24	52	54	91	
7-Jul	56	61	47	UO	UO	66	75	65	51	71	48	51	45	42	38	40	34	31	27	32	69	51	35	28	75	
8-Jul	39	57	50	35	59	36	39	54	59	59	61	68	62	61	72	42	63	81	62	24	18	26	23	19	81	
9-Jul	68	32	60	64	43	73	64	98	45	56	44	47	53	48	61	50	45	43	53	79	55	66	63	89	98	
10-Jul	75	80	68	63	95	75	83	44	74	81	72	66	54	74	55	59	41	38	40	38	17	15	32	41	95	
11-Jul	58	72	82	89	86	UO	81	53	96	43	37	79	65	80	48	44	52	76	51	64	34	30	UO	26	96	
12-Jul	51	49	81	88	77	UO	78	56	75	39	45	68	69	87	58	46	83	93	78	55	66	64	60	44	93	
13-Jul	32	32	30	31	29	32	33	37	36	37	39	41	35	38	37	37	38	37	38	34	29	43	31	33	43	
14-Jul	40	60	21	19	19	21	48	39	37	36	42	48	46	50	45	45	44	41	37	20	37	40	44	49	60	
15-Jul	UO	53	53	53	53	52	34	41	36	35	53	44	53	51	46	60	63	70	61	66	81	46	54	65	81	
16-Jul	68	45	37	65	37	40	25	23	52	46	61	46	38	42	48	39	41	39	37	27	16	11	13	21	68	
17-Jul	36	32	94	37	58	73	82	46	51	63	56	65	56	99	83	86	53	79	100	13	11	18	25	58	100	
18-Jul	28	25	33	29	22	41	37	34	45	67	49	77	79	46	74	50	41	44	49	42	62	61	83	82	83	
19-Jul	58	85	77	63	88	43	81	40	35	48	76	56	54	41	28	47	58	49	44	44	60	55	58	51	88	
20-Jul	58	61	58	52	68	61	57	67	61	55	55	63	48	60	59	53	45	39	33	32	30	21	64	UO	68	
21-Jul	UO	UO	UO	UO	UO	85	52	77	45	47	41	80	58	90	78	42	70	60	19	11	41	UO	11	UO	90	
22-Jul	UO	37	37	30	UO	40	68	39	52	62	77	66	89	63	65	53	43	46	51	50	30	19	24	21	89	
23-Jul	43	89	54	63	25	92	77	46	46	40	39	37	44	61	64	57	59	52	57	38	26	35	45	32	92	
24-Jul	20	20	25	26	UO	77	81	92	91	42	34	29	47	50	53	49	82	65	26	18	15	19	18	23	92	
25-Jul	26	27	34	38	36	29	37	37	38	34	42	45	42	40	44	36	40	39	35	30	16	16	38	28	45	
26-Jul	55	35	98	84	42	49	58	47	48	50	52	49	50	59	60	58	53	65	54	54	46	16	16	26	98	
27-Jul	UO	48	62	71	65	UO	48	29	69	89	43	45	42	71	64	62	35	35	34	27	20	19	23	30	89	
28-Jul	41	56	50	83	96	71	77	71	60	104	86	73	42	45	51	44	31	27	22	41	29	28	87	79	104	
29-Jul	66	51	58	40	39	36	37	40	39	40	37	44	36	36	38	36	36	36	40	32	55	28	23	24	66	
30-Jul	24	30	42	33	39	37	45	43	42	42	52	57	60	69	72	97	48	53	63	13	28	25	14	UO	97	
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	27	68	65	41	32	52	36	26	24	69	36	56	30	23	19		69
76 89 98 89 96 92 83 100 96 104 86 80 89 99 99 97 111 95 100 79 81 66 87 89																										
Diurnal Maximum																										
UO - Unstable Operation																										



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS30 ELLS RIVER JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ELLS RIVER (AMS30)
JULY 2026

MONTHLY SUMMARY for
AMD SECTION III.B.1(c)

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	704	35	40	99.33	-	-	16.3	0	2.8	0
TRS (ppb) Average	703	35	41	99.19	4.3	0	4.1	0	0.7	0
THC (ppm) Average	704	35	40	99.33	-	-	4.4	-	2.6	-
NMHC (ppm) Average	704	35	40	99.33	-	-	0.26	-	0.053	-
CH4 (ppm) Average	704	35	40	99.33	-	-	4.3	-	2.6	-
NO2 (ppb) Average	697	36	47	98.52	-	-	34	0	7.7	-
NO (ppb) Average	697	36	47	98.52	-	-	77.3	-	14	-
NOX (ppb) Average	697	36	47	98.52	-	-	102.7	-	21.7	-
PM2.5 (ug/m3) Average	690	0	54	92.74	-	-	238.6	34	96.6	7
Temperature 2 m (C) Average	744	0	0	100	-	-	31.8	-	23.4	-
Relative Humidity (%) Average	744	0	0	100	-	-	96.8	-	85.3	-
Wind Speed 10 m (km/h) Average	740	0	4	99.46	-	-	29	-	16	-
Wind Direction 10 m (deg) Average	740	0	4	99.46	-	-	-	-	-	-
Global Solar Radiation (W/m2) Average	744	0	0	100	-	-	997.9	-	355.6	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ELLS RIVER (AMS30)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	704	0.66	2	-	0	0	0	0.1	0.3	1.1	16.3
TRS (ppb) Average	703	0.37	0.4	-	0	0.1	0.2	0.2	0.4	0.7	4.1
THC (ppm) Average	704	2.17	0.3	-	1.9	2	2	2.1	2.2	2.4	4.4
NMHC(ppm) Average	704	0.01	0.032	-	0	0	0	0	0	0	0.26
CH4(ppm) Average	704	2.16	0.3	-	1.9	2	2	2.1	2.2	2.4	4.3
NO2 (ppb) Average	697	3.69	4.7	-	0	0.1	0.4	1.9	5.2	10.1	34
NO (ppb) Average	697	2.02	6.8	-	0	0	0	0.3	0.9	3.6	77.3
NOX (ppb) Average	697	5.72	10.1	-	0	0.2	0.6	2.2	6.7	13.8	102.7
PM2.5 (ug/m3) Average	690	22.6	34.2	-	0.7	2.9	6	10.6	21.9	63.2	238.6
Temperature 2 m (C) Average	744	18.61	4.4	-	9.5	13.1	15.1	18.2	21.6	24.8	31.8
Relative Humidity (%) Average	744	70.12	18.5	-	26.4	42.3	56.9	72.8	86.4	92.3	96.8
Wind Speed 10 m (km/h) Average	740	8.2	5	-	0	3	5	7	11	15	29
Wind Direction 10 m (deg) Average	740	231	-	-	-	-	-	-	-	-	-
Global Solar Radiation (W/m2) Average	744	227.36	267.1	-	0	0	1	118.9	385.1	679.6	997.9

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ELLS RIVER (AMS30)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
AIR QUALITY ANALYZERS	13 Jul 2026 09:00	13 Jul 2026 13:00	5	Station power failure
NO2	14 Jul 2026 10:00	14 Jul 2026 15:00	6	Maintenance - replaced sample pump
TRS	19 Jul 2026 10:00	19 Jul 2026 10:00	1	Maintenance - verify daily QA response
PM2.5	11 Jul 2026 20:00	13 Jul 2026 08:00	37	Unstable Operation - flatline in analyzer output signal
PM2.5	18 Jul 2026 09:00	18 Jul 2026 12:00	4	Unstable Operation - flatline in analyzer output signal
PM2.5	25 Jul 2026 06:00	25 Jul 2026 13:00	8	Unstable Operation - flatline in analyzer output signal
Wind Speed, Wind Direction	04 Jul 2026 22:00	04 Jul 2026 22:00	1	Flat line in sensor output signal
Wind Speed, Wind Direction	18 Jul 2026 05:00	18 Jul 2026 05:00	1	Flat line in sensor output signal
Wind Speed, Wind Direction	31 Jul 2026 21:00	31 Jul 2026 22:00	2	Flat line in sensor output signal



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

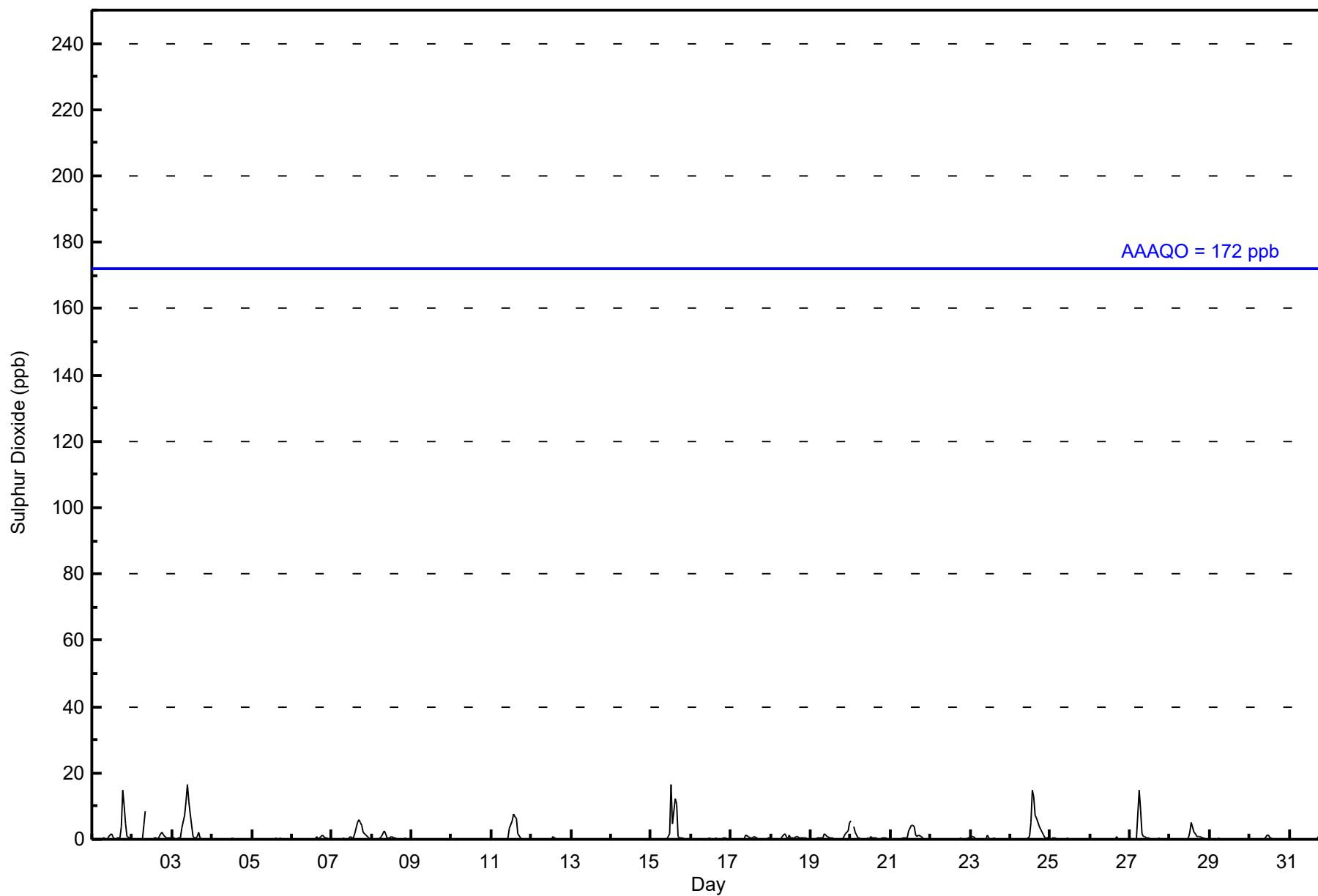
Ells River - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																			Hours in Service: 744							
Maximum Value: 16.3 ppb on Jul 15 13:00 Maximum Daily Average: 2.8 ppb on Jul 3																			Hours of Data: 704							
Minimum Value: 0.0 ppb on Jul 1 04:00 Minimum Daily Average: 0.0 ppb on Jul 13																			Hours of Missing Data: 40							
Maximum Diurnal Average: 1.4 ppb at hour 15 Minimum Diurnal Average: 0.1 ppb at hour 5																			Hours of Calibration: 35							
Monthly Average: 0.66 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 1.1 P ₉₉ = 11.6																			Percent Operational Time: 99.3							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	Z	0.1	0.0	0.0	0.0	0.1	0.3	0.3	0.2	0.2	1.0	1.8	0.9	0.2	0.2	0.2	0.3	3.9	14.9	10.0	4.8	0.9	0.4	0.2	1.8	14.9
2-Jul	0.1	Z	0.0	0.0	0.0	0.0	0.1	4.4	8.3	C	C	C	C	0.6	0.3	0.1	0.8	1.8	2.2	1.3	0.4	0.3	0.4	0.3	1.1	8.3
3-Jul	0.5	0.4	Z	0.3	0.2	0.2	3.3	7.4	11.6	16.3	11.4	7.7	0.7	0.3	0.3	0.6	2.0	0.5	0.1	0.1	0.1	0.1	0.1	0.0	2.8	16.3
4-Jul	0.1	0.0	0.1	Z	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
5-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
6-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1	1.0	1.2	0.8	0.3	0.2	0.0	0.0	0.2	1.2
7-Jul	Z	0.1	0.1	0.2	0.1	0.0	0.1	0.4	0.2	0.2	0.5	0.7	0.4	0.5	1.7	5.1	6.1	4.9	4.1	2.1	1.1	0.6	0.5	0.2	1.3	6.1
8-Jul	0.2	Z	0.2	0.2	0.2	0.2	0.9	2.7	1.6	0.4	0.3	0.2	0.7	0.4	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.4	2.7
9-Jul	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.2
10-Jul	0.0	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
11-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.4	3.4	5.4	7.6	6.8	6.5	1.6	0.5	0.1	0.0	0.0	0.0	0.0	0.0	1.4	7.6
12-Jul	0.0	0.0	0.1	0.0	0.0	Z	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.6	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
13-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PF	PF	PF	PF	PF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1
15-Jul	0.1	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.7	1.5	16.3	4.9	12.3	10.8	0.9	0.3	0.5	0.4	0.2	0.0	0.0	0.0	2.2	16.3
16-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.0	0.2	0.2	0.2	0.1	0.2	0.2	0.5	0.3	0.1	0.1	0.1	0.5
17-Jul	0.0	0.1	0.1	0.0	Z	0.0	0.0	0.1	0.1	1.2	1.0	0.4	0.3	0.6	0.8	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	1.2
18-Jul	0.2	0.1	0.1	0.1	0.0	Z	0.2	0.7	1.8	0.7	0.1	1.5	0.4	0.4	0.6	0.8	0.7	0.4	0.4	0.5	0.3	0.2	0.1	0.1	0.5	1.8
19-Jul	Z	0.2	0.2	0.2	0.3	0.4	0.4	0.5	1.8	1.1	0.8	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.7	1.7	2.4	4.9	0.7	4.9
20-Jul	5.3	Z	3.8	2.0	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.9	0.4	0.2	0.2	0.1	0.2	0.1	0.6	0.4	0.2	0.2	0.2	0.7	5.3
21-Jul	0.2	0.1	Z	0.1	0.1	0.0	0.1	0.3	0.4	0.3	0.6	2.5	4.3	4.4	4.0	1.5	0.9	1.3	0.8	0.4	0.2	0.2	0.1	0.1	1.0	4.4
22-Jul	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.2	0.1	0.2	0.4	0.6	0.1	0.6
23-Jul	0.6	0.7	0.7	0.1	0.1	Z	0.2	0.2	0.2	0.2	1.2	0.3	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	1.2
24-Jul	0.1	0.1	0.1	0.0	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.8	5.2	14.7	12.8	7.3	6.2	3.8	3.0	2.1	1.1	0.6	0.4	0.8	2.6	14.7
25-Jul	Z	0.6	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.6
26-Jul	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
27-Jul	0.0	0.0	Z	0.0	0.0	14.9	8.9	1.6	0.9	0.8	0.4	0.4	0.2	0.2	0.1	0.2	0.1	0.3	0.2	0.2	0.1	0.1	0.1	0.1	1.3	14.9
28-Jul	0.1	0.0	0.1	Z	0.0	0.1	0.1	0.1	0.2	0.1	0.2	0.3	2.2	5.3	2.1	1.6	1.0	1.0	0.9	0.4	0.2	0.2	0.1	0.1	0.7	5.3
29-Jul	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2
30-Jul	0.2	0.1	0.1	0.2	0.1	Z	0.1	0.2	0.1	0.2	1.3	1.1	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.2	1.3
31-Jul	Z	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.5	1.2	0.9	0.4	0.1	0.0	0.0	0.2	1.2
																									Diurnal Average	
																									Diurnal Maximum	
Z - zerospan C - Calibration PF - Power Failure																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Ells River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Ells River - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	694	98.58	98.58
11 - 20	10	1.42	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Ells River - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	46	27	20	13	12	17	40	75	86	83	88	34	47	34	35	33	690
11 - 20	0	0	0	0	0	1	2	7	0	0	0	0	0	0	0	0	10
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	46	27	20	13	12	18	42	82	86	83	88	34	47	34	35	33	700

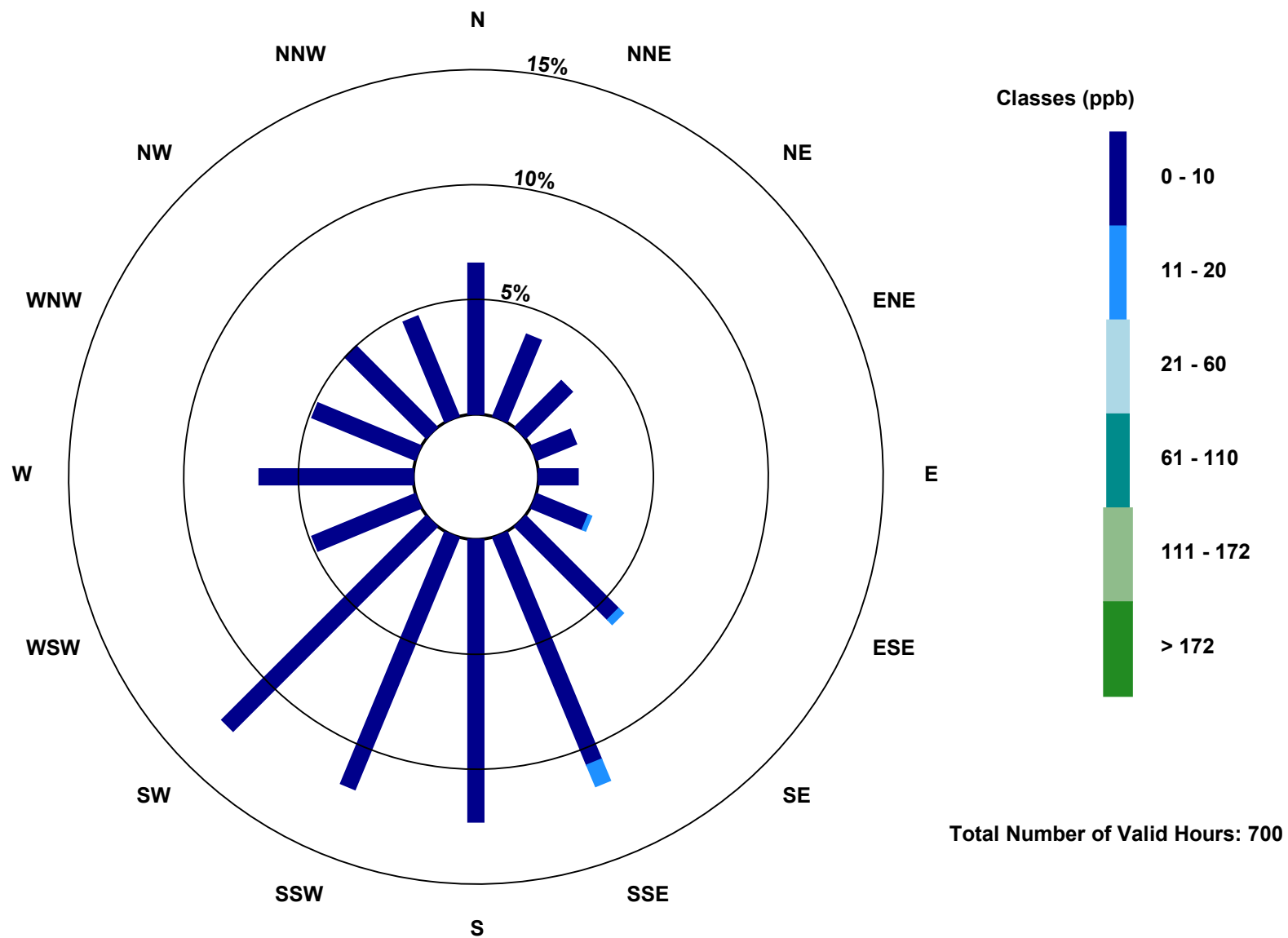
Total Number of Valid Hours: 700

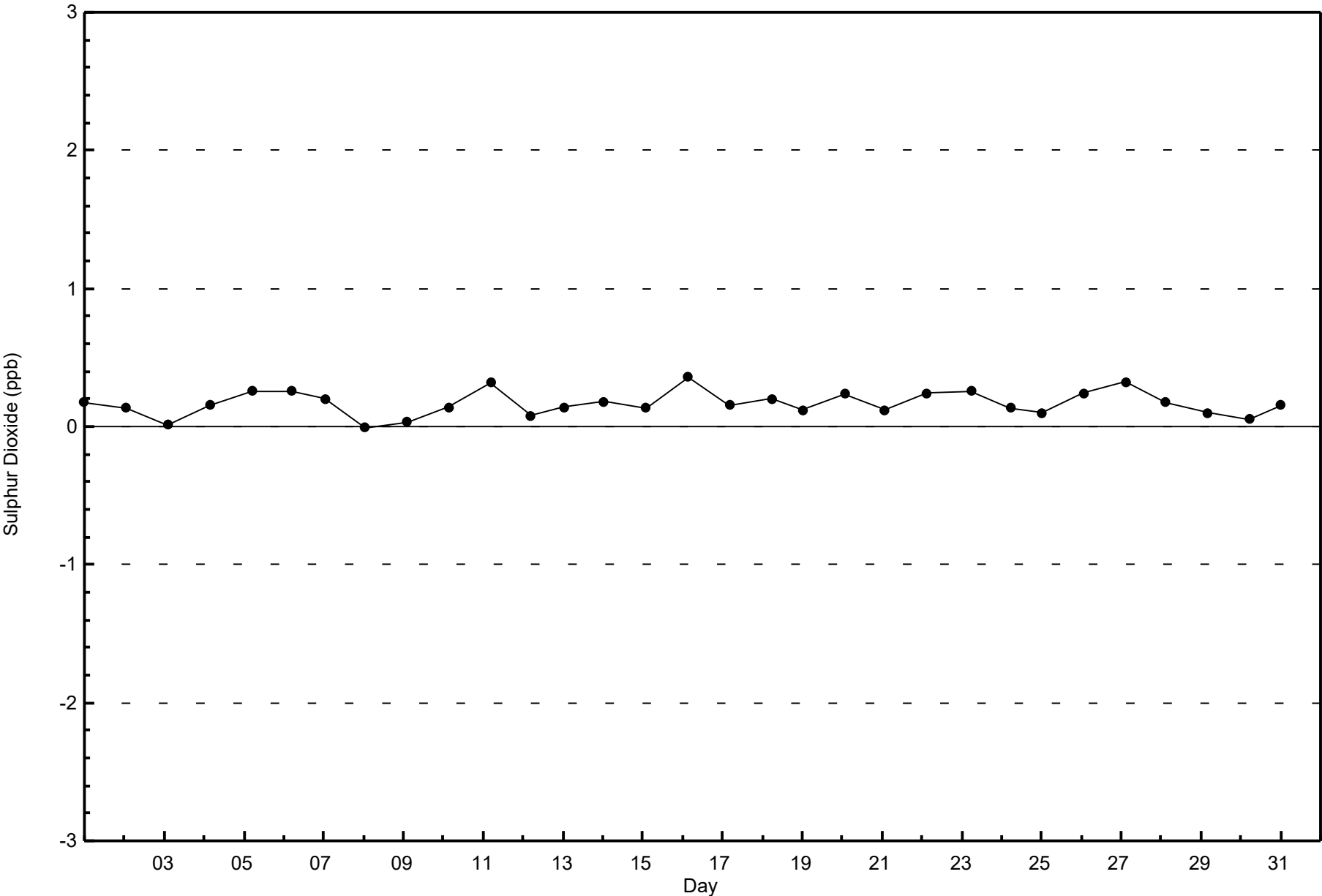
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Sulphur Dioxide (SO₂) - ppb
Ells River

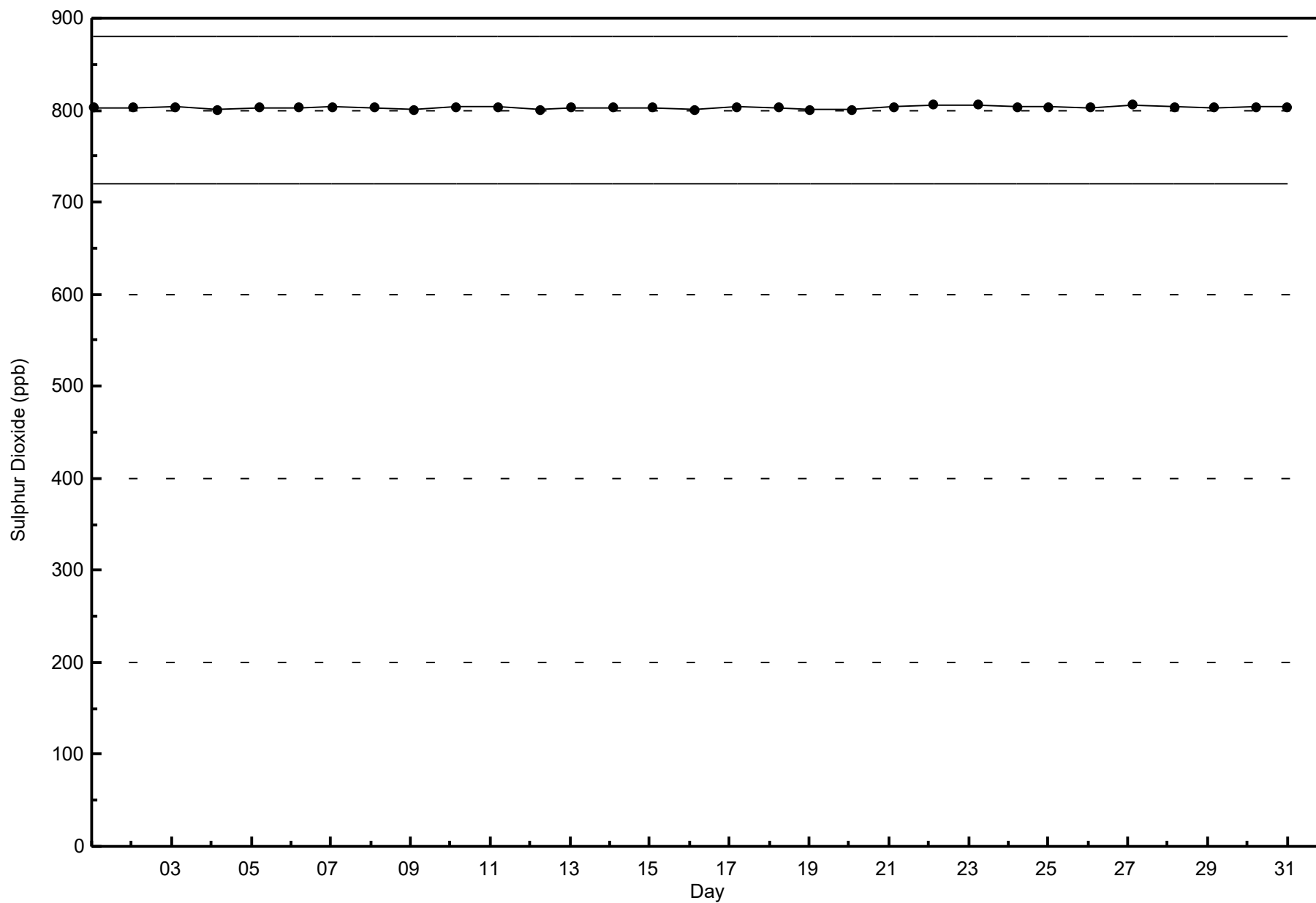






Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Ells River - July 2026





Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Ells River - July 2026

Number of Exceedences (AAAQG): 30-Min: 0																			Periods in Service: 1488							
Maximum Value: 4.3 ppb on Jul 23 01:30 Maximum Daily Average: 0.7 ppb on Jul 11																			Periods of Valid Data: 1405							
Minimum Value: 0.0 ppb on Jul 3 18:00 Minimum Daily Average: 0.2 ppb on Jul 29																			Periods of Invalid Data: 83							
Maximum Diurnal Average: 0.6 ppb at hour 6 Minimum Diurnal Average: 0.2 ppb at hour 18																			Periods of Calibration: 70							
Monthly Average: 0.37 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 0.7 P ₉₉ = 1.9																			Percent Operational Time: 99.1							
Day	Period Ending At (MST)																								Daily Average	Daily Maximum
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00		
1-Jul	0.7 0.6	Z SP	1.6 1.3	1.4 1.2	0.9 1.3	1.7 1.4	1.6 1.4	0.9 0.6	0.5 0.4	0.4 0.3	0.3 0.4	0.3 0.2	0.2 0.2	0.3 0.3	0.2 0.2	0.3 0.2	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.3	0.2 0.3	0.2 0.2	0.5 0.4	0.5	1.7	
2-Jul	0.3 0.3	0.2 0.3	Z SP	0.5 0.4	0.4 0.3	0.2 0.2	0.3 0.3	0.7 1.0	0.4 0.3	0.3 0.5	0.5 0.7	0.4 0.6	M 0.7	0.3 0.2	0.2 0.1	0.1 0.1	0.1 0.4	0.4 0.3	0.3 0.6	0.7 0.4	0.5 0.4	0.4 0.4	0.5 0.6	0.4	1.0	
3-Jul	0.6 0.7	0.8 0.7	0.7 0.8	Z SP	0.5 0.4	0.4 0.6	0.7 0.6	0.7 0.5	0.3 0.3	0.2 0.2	0.2 0.1	0.2 0.2	0.1 0.1	0.1 0.1	0.1 0.0	0.1 0.1	0.2 0.2	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.1	0.1 0.1	0.2 0.2	0.3	0.8	
4-Jul	0.3 0.5	0.8 0.7	1.2 0.9	1.7 1.0	Z SP	0.9 0.9	0.7 0.4	0.3 0.3	0.2 0.2	0.1 0.1	0.2 0.2	0.1 0.1	0.0 0.1	0.1 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	0.2 0.2	0.3 0.3	0.2	1.7	
5-Jul	0.8 0.6	0.3 0.3	0.4 0.5	0.4 0.4	0.4 0.4	Z SP	0.5 0.3	0.3 0.3	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.2 0.1	0.1 0.2	0.1 0.2	0.1 0.2	0.3 0.2	0.1 0.1	0.1 0.2	0.2 0.2	0.2 0.2	0.3 0.4	0.5 0.4	0.3	0.8	
6-Jul	Z SP	0.3 0.5	0.4 0.4	0.4 0.5	0.5 0.5	0.4 0.4	0.4 0.3	0.3 0.2	0.2 0.2	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 0.2	0.1 0.2	0.1 0.2	0.4 0.4	0.3 0.3	0.2	0.5	
7-Jul	0.4 0.6	Z SP	1.0 1.0	1.1 0.9	1.2 1.1	0.9 0.7	0.6 0.6	0.7 0.7	0.5 0.4	0.4 0.3	0.3 0.2	0.2 0.2	0.1 0.1	0.1 0.1	0.2 0.2	0.2 0.1	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.1	0.2 0.2	0.3 0.3	0.2 0.5	0.4	1.2	
8-Jul	1.6 1.2	0.4 0.3	Z SP	1.2 1.6	1.7 1.4	1.3 1.2	0.7 0.9	1.2 1.9	1.6 0.6	0.5 0.3	0.3 0.3	0.2 0.3	0.3 0.3	0.2 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.2 0.2	0.6	1.9	
9-Jul	0.4 0.2	0.2 0.2	0.2 0.3	Z SP	0.5 0.6	0.6 0.5	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.3	C C	C C	C C	C C	0.1 0.1	0.1 0.1	0.1 0.1	0.0 0.0	0.1 0.1	0.1 0.1	0.1 0.1	0.2 1.0	0.7 0.3	0.3	1.0	
10-Jul	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.4	Z SP	0.9 0.7	0.7 0.6	0.4 0.9	0.4 0.2	0.2 0.2	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	0.2 0.1	0.3 0.4	0.3 0.4	0.2	0.9	
11-Jul	0.5 0.7	0.6 0.5	0.8 1.1	1.6 1.0	1.5 1.4	Z SP	1.0 1.3	1.0 0.8	0.7 0.5	0.4 0.3	0.2 0.3	0.3 0.3	1.3 0.6	1.1 1.5	2.2 1.6	2.0 1.2	0.6 0.2	0.2 0.1	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.7	2.2	
12-Jul	Z SP	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.1	0.2 0.1	0.2 0.1	0.2 0.2	0.3 1.2	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 0.2	0.1 0.2	0.2	0.2	1.2	
13-Jul	0.2 0.2	Z SP	0.2 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.2 0.2	0.2 0.2	PF PF	PF PF	PF PF	PF PF	PF 0.2	0.1 0.1	0.2 0.2	0.1 0.2	0.1 0.2	0.1 0.1	0.1 0.2	0.1 0.2	0.2 0.2	0.2 0.3	0.2 0.2	0.2	0.3	
14-Jul	0.2 0.2	0.3 0.3	Z SP	0.3 0.4	0.4 0.3	0.4 0.4	0.2 0.2	0.2 0.2	0.2 0.2	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	0.2 0.2	0.3 0.3	0.3 0.3	0.3 0.4	0.2	0.4	
15-Jul	0.5 0.6	0.7 0.7	0.7 0.6	Z SP	1.5 1.3	0.6 2.2	1.3 1.0	0.9 0.6	0.4 0.3	0.3 0.3	0.5 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.2 0.3	0.3 0.2	0.2 0.2	0.4	2.2	



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Ells River - July 2026

Day	Period Ending At (MST)																								Daily Average	Daily Maximum
	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00		
16-Jul	0.2 0.3	0.2 0.2	0.5 0.4	0.5 0.3	Z SP	0.5 0.4	0.4 0.3	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.3	0.2 0.1	0.2 0.2	0.1 0.1	0.2 0.2	0.2 0.2	0.3 0.3	0.4 0.4	0.6 0.6	0.7 0.6	0.3	0.7
17-Jul	0.5 0.8	0.7 1.5	0.8 0.7	0.4 0.6	0.6 0.6	Z SP	0.7 0.6	0.5 0.4	0.3 0.3	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.2	0.2 0.1	0.2 0.2	0.3 0.3	0.4 0.4	0.5 0.6	0.6 0.7	0.8 0.6	0.4	1.5
18-Jul	Z SP	0.6 0.6	0.5 0.5	0.5 0.5	0.4 0.4	0.5 0.7	0.6 0.7	0.6 0.7	0.7 0.5	0.4 0.1	0.1 0.0	0.0 0.1	0.1 0.0	0.0 0.0	0.1 0.1	0.1 0.0	0.0 0.0	0.0 0.1	0.1 0.2	0.1 0.3	0.2 0.4	0.4 0.2	0.3 0.2	0.2 0.2	0.3	0.7
19-Jul	0.3 0.3	Z SP	0.3 0.4	0.4 0.4	0.8 0.8	1.0 1.0	1.0 0.9	1.0 1.0	1.3 0.8	0.5 M	M 0.2	0.1 0.1	0.1 0.2	0.1 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.0	0.1 0.1	0.1 0.1	0.2 0.1	0.4 0.3	0.6 0.7	0.6 0.6	0.4	1.3
20-Jul	0.5 0.7	0.6 0.7	Z SP	1.1 0.8	0.6 0.5	0.5 0.5	0.6 0.4	0.5 0.4	0.4 0.5	0.4 0.4	0.4 0.4	0.5 0.5	0.4 0.4	0.4 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.4	1.1
21-Jul	0.3 0.3	0.8 0.3	0.4 0.5	Z SP	0.6 0.9	1.7 0.7	0.6 0.6	0.6 0.7	0.7 0.7	0.7 0.5	0.5 0.4	0.4 0.4	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.2 0.1	0.2 0.2	0.2 0.2	0.3 0.3	0.4	1.7
22-Jul	0.3 0.4	0.3 0.3	0.3 0.3	0.3 0.3	Z SP	0.7 0.6	0.6 0.4	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.0 0.1	0.0 0.0	0.0 0.0	0.0 0.2	0.1 0.0	0.0 0.0	0.2 1.2	1.9 3.2	3.9 4.3	0.5	4.3	
23-Jul	4.2 3.4	4.3 2.3	3.0 0.9	1.1 1.2	1.1 1.0	0.9 0.8	Z SP	0.6 0.3	0.3 0.3	0.2 0.2	0.5 0.4	0.3 0.2	0.2 0.2	0.2 0.2	0.3 0.2	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	0.2 0.2	0.3 0.2	0.7	4.3
24-Jul	Z SP	0.3 0.3	0.3 0.3	0.8 0.5	0.4 0.5	0.4 0.6	0.4 0.4	0.4 0.3	0.2 0.2	0.2 0.1	0.1 0.2	0.5 0.6	0.5 0.4	0.5 0.9	0.8 0.7	0.6 0.3	0.2 0.2	0.3 0.2	0.3 0.4	0.4 0.3	0.4 0.5	0.2 0.2	0.2 0.3	0.4 0.4	0.4	0.9
25-Jul	0.4 0.4	Z SP	0.4 0.4	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.1	0.1 0.1	0.1 0.0	0.0 0.1	0.1 0.0	0.0 0.1	0.1 0.2	0.2 0.2	0.2 0.2	0.2 0.3	0.2 0.2	0.2	0.4
26-Jul	0.3 0.3	0.4 0.5	Z SP	0.6 0.5	0.6 0.5	0.6 0.6	0.7 0.6	0.6 0.6	0.6 0.5	0.5 0.5	0.5 0.5	0.4 0.4	0.4 0.4	0.4 0.3	0.4 0.3	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.2 0.2	0.3 0.2	0.2 0.2	0.4	0.7
27-Jul	0.2 0.2	0.3 0.3	0.3 0.3	Z SP	0.3 0.3	0.3 0.6	0.4 1.0	1.5 1.5	1.4 1.1	0.9 0.7	0.4 0.6	0.9 0.8	0.7 0.6	0.4 0.3	0.3 0.3	0.2 0.2	0.3 0.4	0.3 0.3	0.3 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.5	1.5
28-Jul	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.3	Z SP	0.3 0.3	0.2 0.3	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	0.2 0.2	0.3 0.6	0.5 0.3	0.2 0.3	0.4 0.5	0.4 0.5	0.6 0.6	0.6 0.5	0.5 0.4	0.4 0.4	0.4 0.3	0.2 0.2	0.2 0.2	0.3	0.6
29-Jul	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.3 0.3	Z SP	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.2	0.1 0.1	0.1 0.1	0.2 0.1	0.2 0.2	0.2 0.2	0.3 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2 0.2	0.2	0.3
30-Jul	Z SP	0.3 0.2	0.2 0.2	0.2 0.3	0.3 0.3	0.3 0.3	0.3 0.3	0.3 0.2	0.2 0.2	0.2 0.2	0.3 0.4	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.1	0.2 0.1	0.1 0.2	0.1 0.2	0.1 0.2	0.2 0.2	0.2 0.3	0.3 0.4	0.4 0.6	0.7 0.4	0.3	0.7
31-Jul	0.5 0.4	Z SP	0.4 0.4	0.4 0.4	0.5 0.5	0.4 0.4	0.3 0.3	0.2 0.2	0.2 0.2	0.2 0.1	0.1 0.2	0.2 0.2	0.5 0.2	0.2 0.1	0.1 0.1	0.1 0.3	0.2 0.2	0.3 0.7	1.0 1.7	2.9 1.7	1.4 1.3	1.1 1.1	0.8 0.7	0.6 0.4	0.5	2.9
0.6 0.5 0.6 0.6 0.6 0.6 0.6 0.5 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.2 0.3 0.4 0.5																								Diurnal Average		
4.2 4.3 3.0 1.7 1.7 2.2 1.6 1.9 1.6 0.9 0.7 0.9 0.7 1.5 1.6 2.2 2.0 0.7 1.7 2.9 1.4 1.2 3.2 4.3																								Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance PF - Power Failure SP - Span																										
Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb																										



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

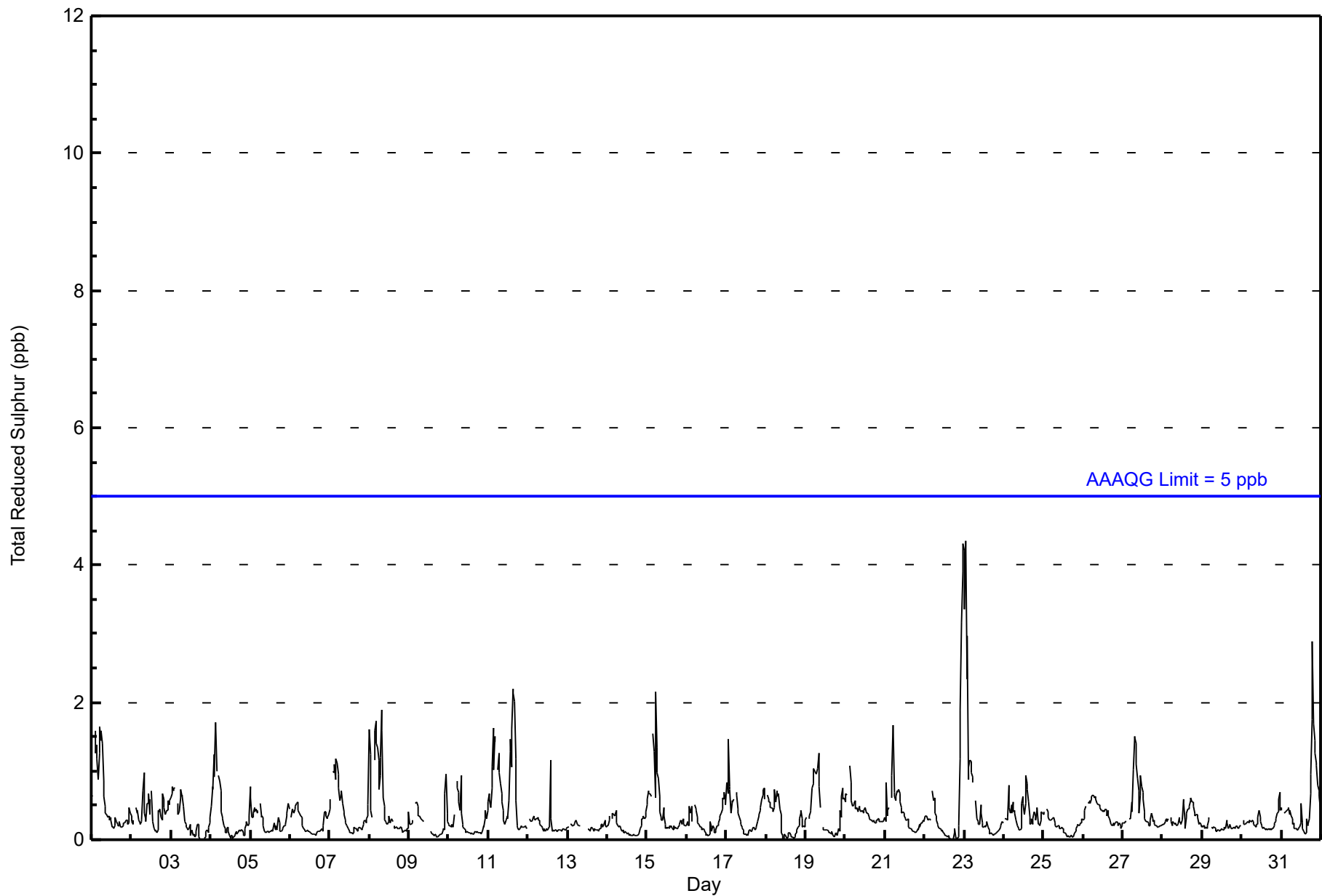
Ells River - July 2026

Maximum Value: 4.1 ppb on Jul 23 00:00										Maximum Daily Average: 0.7 ppb on Jul 11										Hours in Service: 744							
Minimum Value: 0.0 ppb on Jul 3 20:00										Minimum Daily Average: 0.2 ppb on Jul 29										Hours of Data: 703							
Maximum Diurnal Average: 0.6 ppb at hour 6										Minimum Diurnal Average: 0.2 ppb at hour 18										Hours of Missing Data: 41							
Monthly Average: 0.37 ppb										Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 0.7 P ₉₉ = 1.6										Hours of Calibration: 35							
																				Percent Operational Time: 99.2							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.6	Z	1.4	1.3	1.1	1.5	1.5	0.7	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.4	0.5	1.5
2-Jul	0.3	0.3	Z	0.4	0.4	0.2	0.3	0.8	0.3	0.4	0.6	0.5	0.8	0.2	0.1	0.1	0.3	0.4	0.3	0.6	0.4	0.4	0.5	0.5	0.5	0.4	0.8
3-Jul	0.6	0.7	0.8	Z	0.4	0.5	0.7	0.6	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.8
4-Jul	0.4	0.8	1.1	1.4	Z	0.9	0.6	0.3	0.2	0.1	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	1.4	
5-Jul	0.7	0.3	0.4	0.4	0.4	Z	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.3	0.1	0.1	0.2	0.2	0.4	0.5	0.3	0.7	
6-Jul	Z	0.4	0.4	0.5	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.3	0.4	0.2	0.5	
7-Jul	0.5	Z	1.0	1.0	1.2	0.8	0.6	0.7	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	1.2	
8-Jul	1.4	0.4	Z	1.4	1.6	1.2	0.8	1.6	1.1	0.4	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.5	1.6	
9-Jul	0.3	0.2	0.3	Z	0.5	0.5	0.4	0.3	0.3	C	C	C	C	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.8	0.3	0.2	0.8	
10-Jul	0.2	0.2	0.2	0.3	Z	0.8	0.6	0.7	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.2	0.8	
11-Jul	0.6	0.5	0.9	1.3	1.5	Z	1.1	0.9	0.6	0.4	0.2	0.3	0.4	1.4	1.3	2.2	1.6	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.7	2.2	
12-Jul	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.7	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.7	
13-Jul	0.2	Z	0.2	0.2	0.2	0.3	0.2	0.2	PF	PF	PF	PF	PF	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.3	
14-Jul	0.2	0.3	Z	0.3	0.3	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.2	0.4	
15-Jul	0.6	0.7	0.6	Z	1.4	1.4	1.2	0.8	0.4	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.4	1.4	
16-Jul	0.2	0.2	0.4	0.4	Z	0.5	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.4	0.6	0.6	0.3	0.6	
17-Jul	0.7	1.1	0.8	0.5	0.6	Z	0.7	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.5	0.7	0.7	0.4	1.1	
18-Jul	Z	0.6	0.5	0.5	0.4	0.6	0.6	0.6	0.6	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.2	0.4	0.2	0.2	0.3	0.6	
19-Jul	0.3	Z	0.3	0.4	0.8	1.0	1.0	1.0	1.0	M	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.7	0.6	0.4	1.0	
20-Jul	0.6	0.7	Z	1.0	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.4	1.0	
21-Jul	0.3	0.6	0.4	Z	0.8	1.2	0.6	0.7	0.7	0.6	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	1.2	
22-Jul	0.3	0.3	0.3	0.3	Z	0.6	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.7	2.5	4.1	0.5	4.1	
23-Jul	3.8	3.3	1.9	1.1	1.1	0.9	Z	0.4	0.3	0.2	0.5	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.7	3.8	
24-Jul	Z	0.3	0.3	0.6	0.4	0.5	0.4	0.3	0.2	0.2	0.2	0.6	0.4	0.7	0.8	0.4	0.2	0.3	0.4	0.3	0.4	0.2	0.2	0.4	0.4	0.8	
25-Jul	0.4	Z	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.3	0.2	0.4	
26-Jul	0.3	0.5	Z	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.4	0.6	
27-Jul	0.2	0.3	0.3	Z	0.3	0.4	0.7	1.5	1.3	0.8	0.5	0.9	0.6	0.4	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.5	1.5	
28-Jul	0.2	0.2	0.3	0.3	Z	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.4	0.4	0.2	0.4	0.5	0.6	0.5	0.4	0.4	0.3	0.2	0.2	0.3	0.6	
29-Jul	0.2	0.2	0.2	0.2	0.3	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	
30-Jul	Z	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.5	0.6	0.3	0.6	
31-Jul	0.4	Z	0.4	0.4	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.1	0.1	0.2	0.2	0.5	1.4	2.3	1.3	1.1	0.8	0.5	0.5	2.3	
0.6 0.5 0.6 0.6 0.6 0.6 0.6 0.5 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.2 0.3 0.4 0.5																								Diurnal Average			
3.8 3.3 1.9 1.4 1.6 1.5 1.5 1.6 1.3 0.8 0.6 0.9 0.8 1.4 1.3 2.2 1.6 0.6 1.4 2.3 1.3 1.1 2.5 4.1																								Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																											
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA																											



Wood Buffalo Environmental Association
Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Ells River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Ells River - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	699	99.43	99.43
3 - 4	4	0.57	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Reduced Sulphur (TRS) - ppb
Ells River - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	46	27	21	13	12	20	40	85	85	76	87	36	47	32	35	33	695
3 - 4	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	4
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	46	27	21	13	12	20	40	87	87	76	87	36	47	32	35	33	699

Total Number of Valid Hours: 699

Total Number of Hours: 744

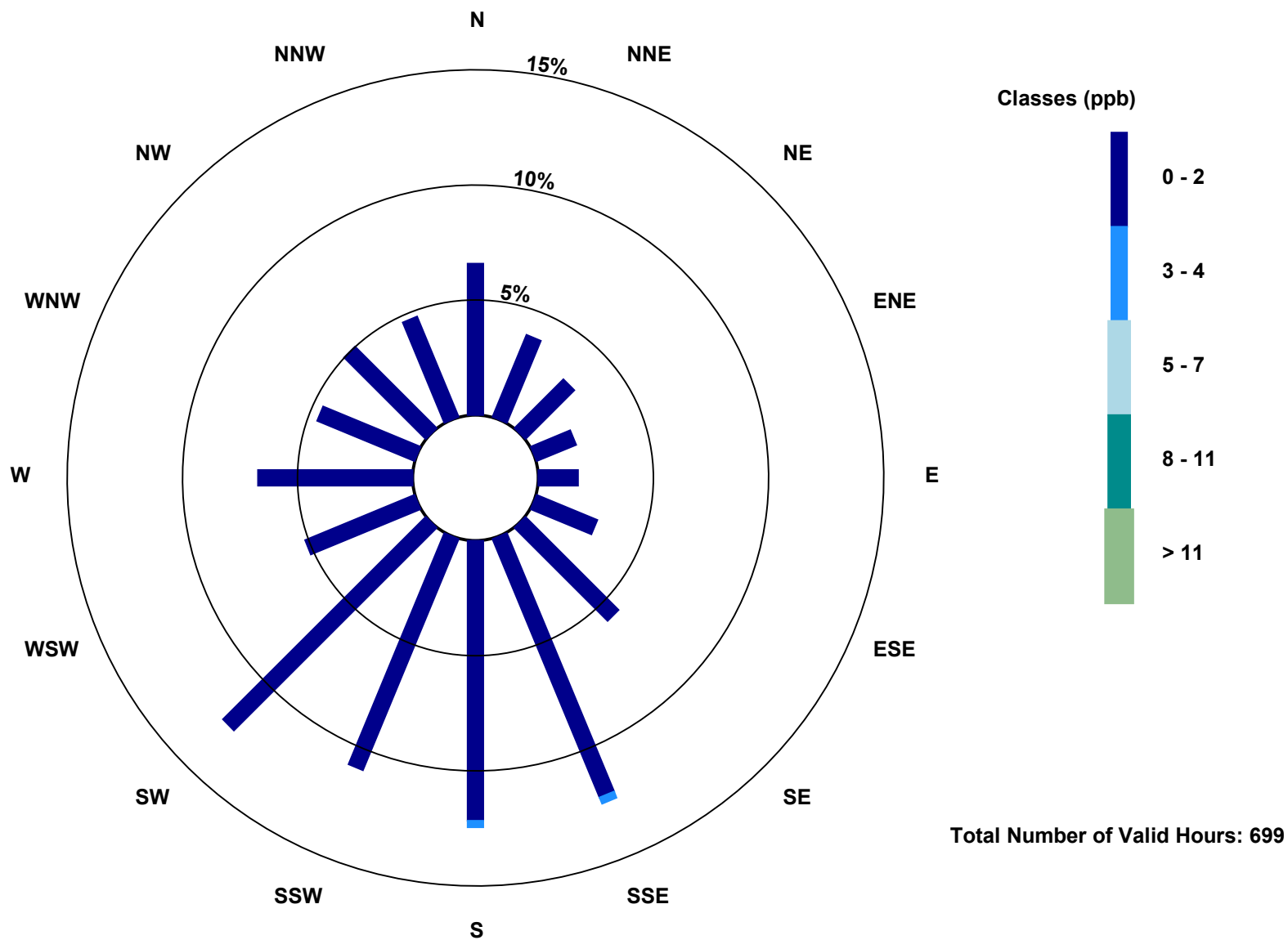


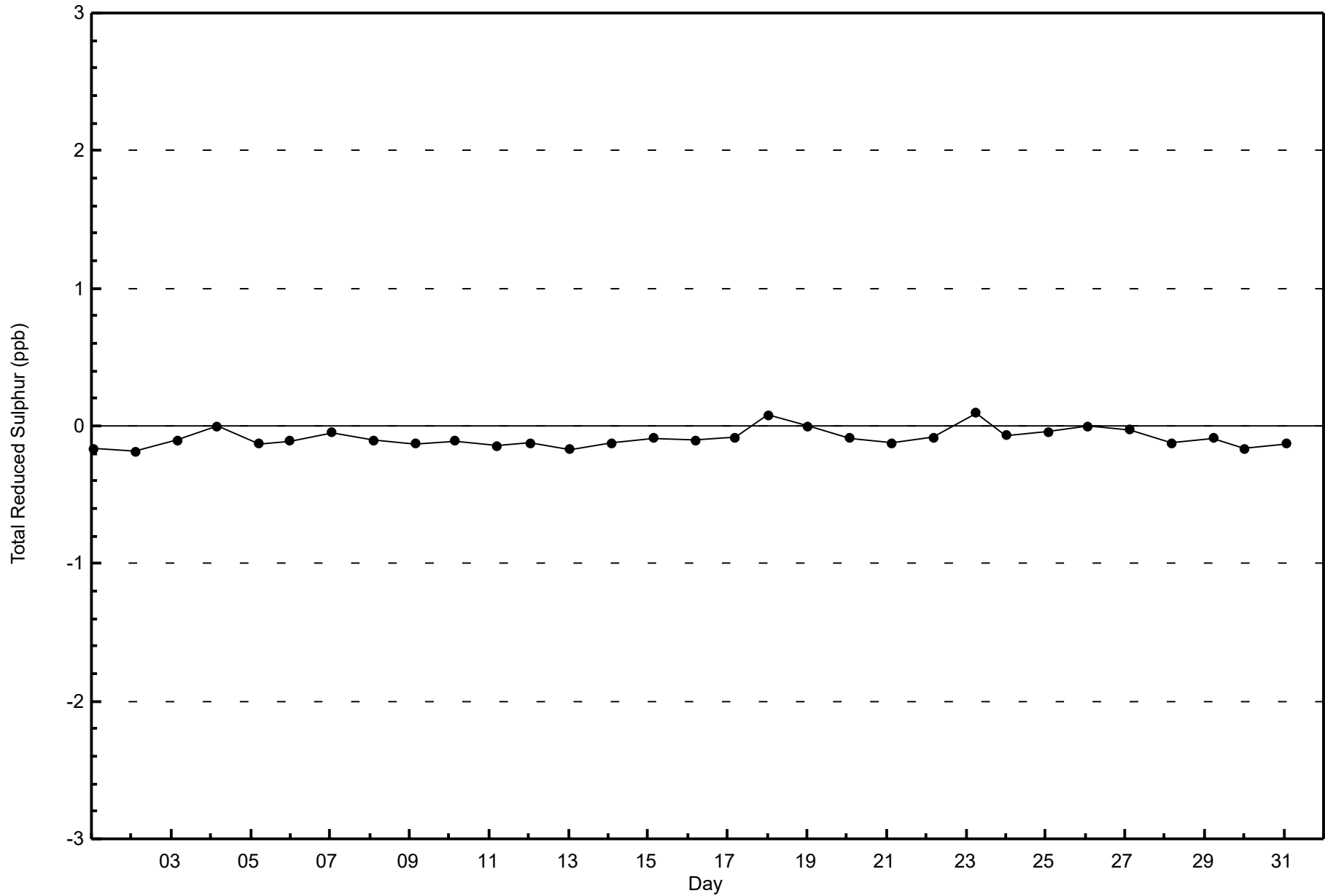
Wood Buffalo Environmental Association

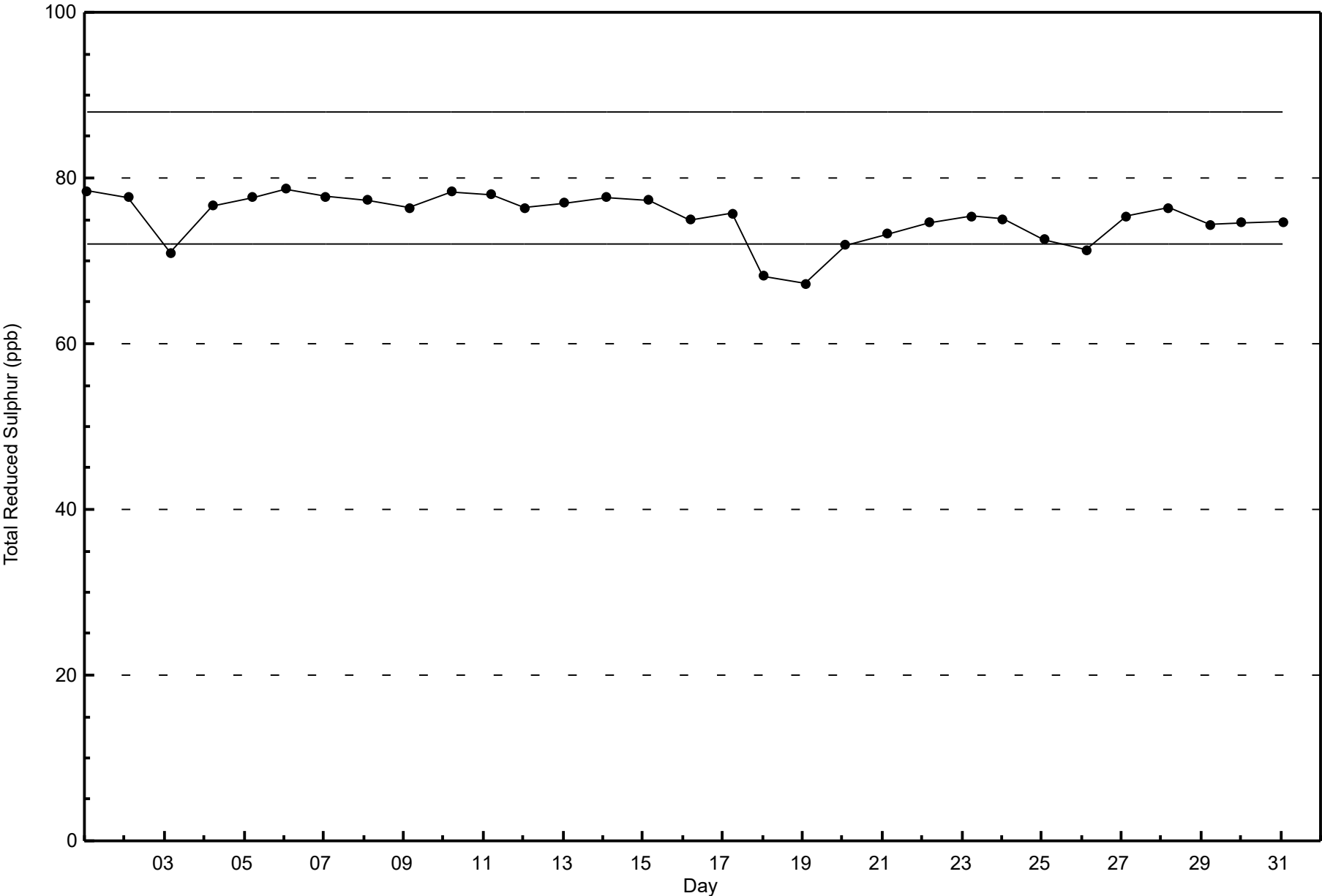
Wind Rose Jul 2026

Total Reduced Sulphur (TRS) - ppb

Ells River









Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

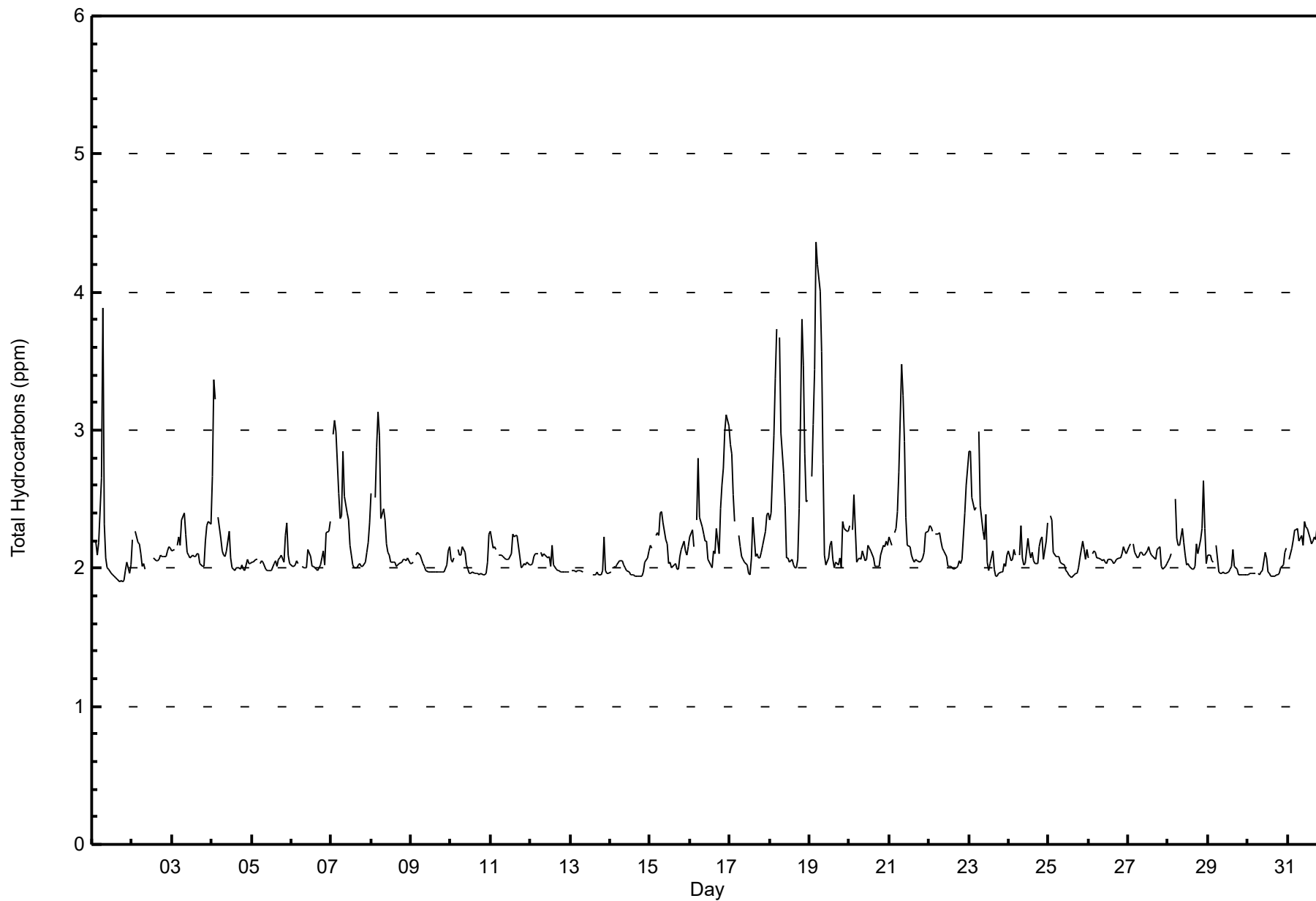
Ells River - July 2026

Maximum Value: 4.4 ppm on Jul 19 05:00																			Maximum Daily Average: 2.6 ppm on Jul 18							Hours in Service: 744	
Minimum Value: 1.9 ppm on Jul 1 17:00																			Minimum Daily Average: 2.0 ppm on Jul 13							Hours of Data: 704	
Maximum Diurnal Average: 2.4 ppm at hour 5																			Minimum Diurnal Average: 2.0 ppm at hour 16							Hours of Missing Data: 40	
Monthly Average: 2.17 ppm																			Percentiles: P ₁ = 1.9 P ₁₀ = 2.0 Q ₁ = 2.0 Median = 2.1 Q ₃ = 2.2 P ₉₀ = 2.4 P ₉₉ = 3.6							Hours of Calibration: 35	
																										Percent Operational Time: 99.3	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	Z	2.2	2.2	2.1	2.2	2.6	3.9	2.3	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	3.9	
2-Jul	2.2	Z	2.3	2.2	2.2	2.1	2.0	2.0	2.0	C	C	C	C	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.3	
3-Jul	2.1	2.1	Z	2.2	2.2	2.2	2.4	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.2	2.3	2.3	2.3	2.2	2.4	
4-Jul	2.7	3.4	3.2	Z	2.4	2.2	2.1	2.1	2.1	2.1	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.2	3.4	
5-Jul	2.0	2.0	2.1	2.1	Z	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.0	2.2	2.3	2.1	2.0	2.1	2.3	
6-Jul	2.0	2.0	2.0	2.1	2.0	Z	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.3	2.3	2.3	2.1	2.3	
7-Jul	Z	3.0	3.1	3.0	2.5	2.4	2.4	2.9	2.5	2.4	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.3	3.1	
8-Jul	2.5	Z	2.5	2.9	3.1	3.0	2.4	2.4	2.4	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.3	3.1	
9-Jul	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.0	2.0	2.2	
10-Jul	2.1	2.0	2.1	Z	2.1	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.2	
11-Jul	2.3	2.1	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	
12-Jul	2.0	2.0	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	
13-Jul	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	PF	PF	PF	PF	PF	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.0	2.0	2.2	
14-Jul	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.0	2.1	
15-Jul	2.2	2.1	Z	2.2	2.3	2.2	2.4	2.4	2.3	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.1	2.2	2.2	2.4	
16-Jul	2.2	2.3	2.2	Z	2.3	2.8	2.4	2.3	2.2	2.2	2.2	2.1	2.0	2.0	2.1	2.1	2.3	2.1	2.4	2.6	2.7	3.0	3.1	3.0	2.4	3.1	
17-Jul	2.9	2.8	2.5	2.3	Z	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.4	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.4	2.4	2.2	2.9	
18-Jul	2.3	2.4	3.0	3.4	3.7	Z	3.7	3.0	2.7	2.4	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.1	2.4	3.8	3.5	2.8	2.5	2.5	2.6	3.8	
19-Jul	Z	2.7	3.0	3.4	4.4	4.2	4.0	3.6	2.8	2.1	2.0	2.1	2.2	2.2	2.1	2.0	2.0	2.0	2.1	2.0	2.3	2.3	2.3	2.3	2.6	4.4	
20-Jul	2.3	Z	2.3	2.5	2.0	2.1	2.1	2.1	2.1	2.0	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.1	2.5	
21-Jul	2.2	2.2	Z	2.3	2.3	2.4	2.7	3.5	3.3	2.9	2.4	2.2	2.2	2.1	2.1	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.3	2.3	2.3	3.5	
22-Jul	2.3	2.3	2.3	Z	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.4	2.6	2.7	2.2	2.7	
23-Jul	2.8	2.9	2.5	2.4	2.4	Z	3.0	2.5	2.3	2.2	2.4	2.0	2.0	2.0	2.1	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.2	3.0	
24-Jul	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.3	2.1	2.0	2.0	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.2	2.2	2.2	2.1	2.2	2.3	2.1	2.3	
25-Jul	Z	2.4	2.3	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.4	
26-Jul	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2	
27-Jul	2.2	2.2	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.0	2.0	2.0	2.0	2.1	2.2	
28-Jul	2.1	2.1	2.1	Z	2.5	2.2	2.2	2.2	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.2	2.3	2.6	2.3	2.0	2.2	2.6	
29-Jul	2.1	2.1	2.1	2.0	Z	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.2	
30-Jul	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.1	2.1	2.0	2.0	2.1	
31-Jul	Z	2.1	2.1	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.3	2.4	2.5	2.6	2.3	2.6	
2.2 2.3 2.3 2.3 2.4 2.3 2.4 2.3 2.2 2.1 2.1 2.1 2.0 2.0 2.0 2.0 2.0 2.0 2.1 2.1 2.2 2.2 2.2 2.2																								Diurnal Average			
2.9 3.4 3.2 3.4 4.4 4.2 4.0 3.6 3.3 2.9 2.4 2.3 2.3 2.2 2.4 2.2 2.3 2.2 2.4 3.8 3.5 3.0 3.1 3.0																								Diurnal Maximum			
Z - zerospan		C - Calibration				PF - Power Failure																					



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Ells River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Ells River - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	283	40.20	40.20
2.1 - 3.0	403	57.24	97.44
3.1 - 10.0	18	2.56	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Ells River - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	10	7	4	5	7	8	13	21	24	47	61	24	18	17	15	2	283
2.1 - 3.0	35	20	16	7	4	10	29	61	62	35	26	10	26	14	15	30	400
3.1 - 10.0	1	0	0	1	1	0	0	0	0	1	1	0	3	3	5	1	17
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	46	27	20	13	12	18	42	82	86	83	88	34	47	34	35	33	700

Total Number of Valid Hours: 700

Total Number of Hours: 744

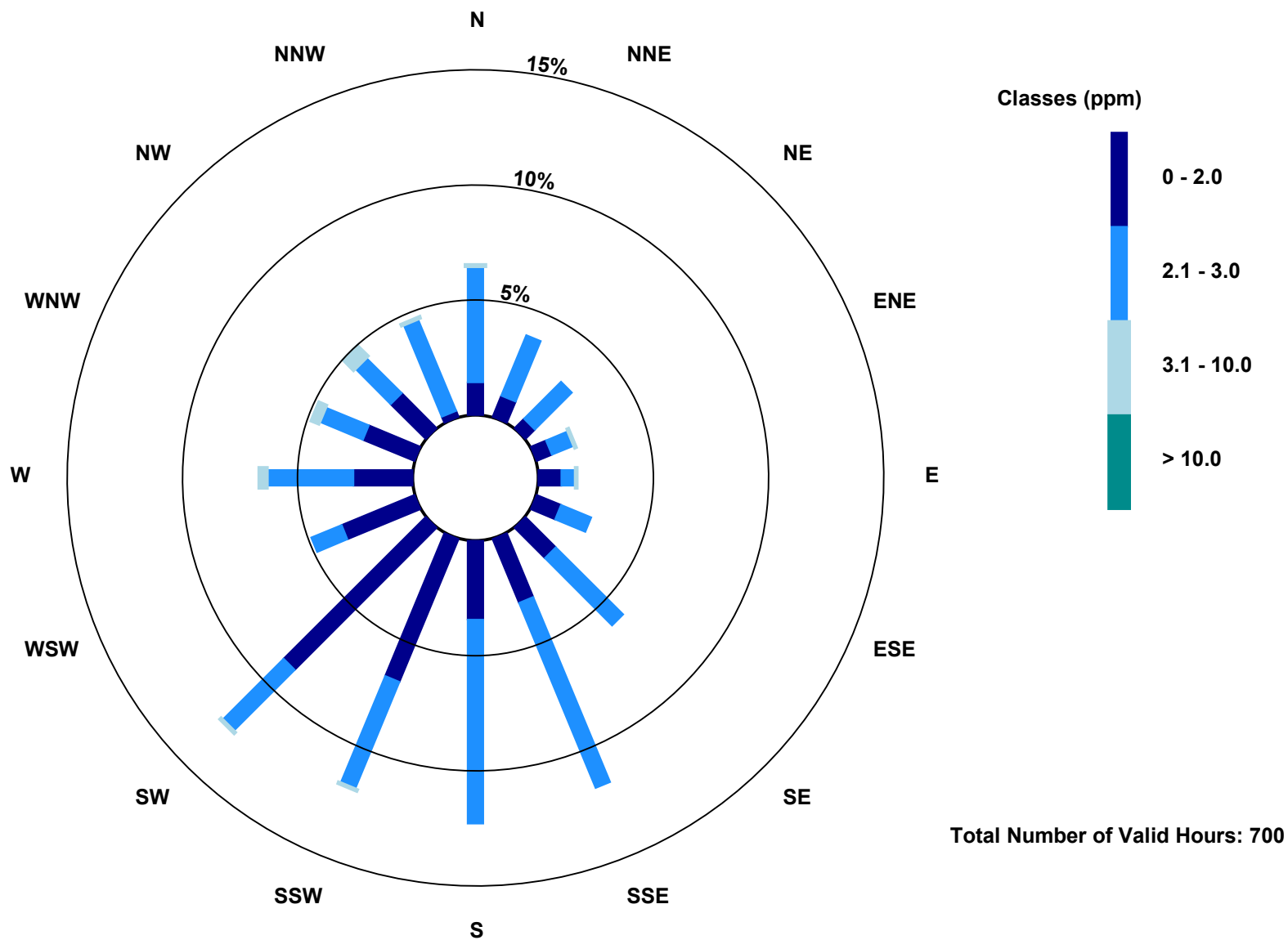


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Total Hydrocarbons (THC) - ppm

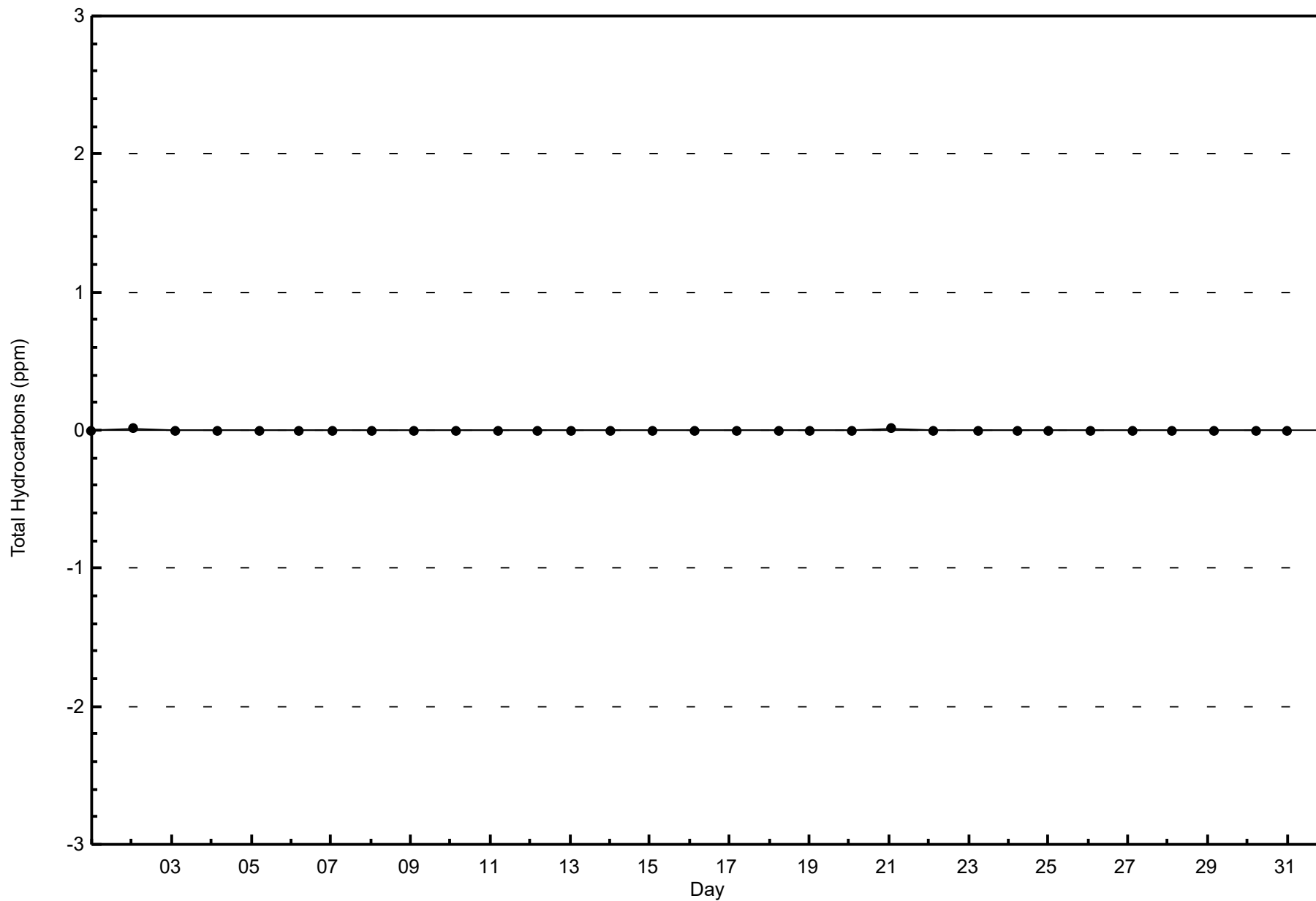
Ells River

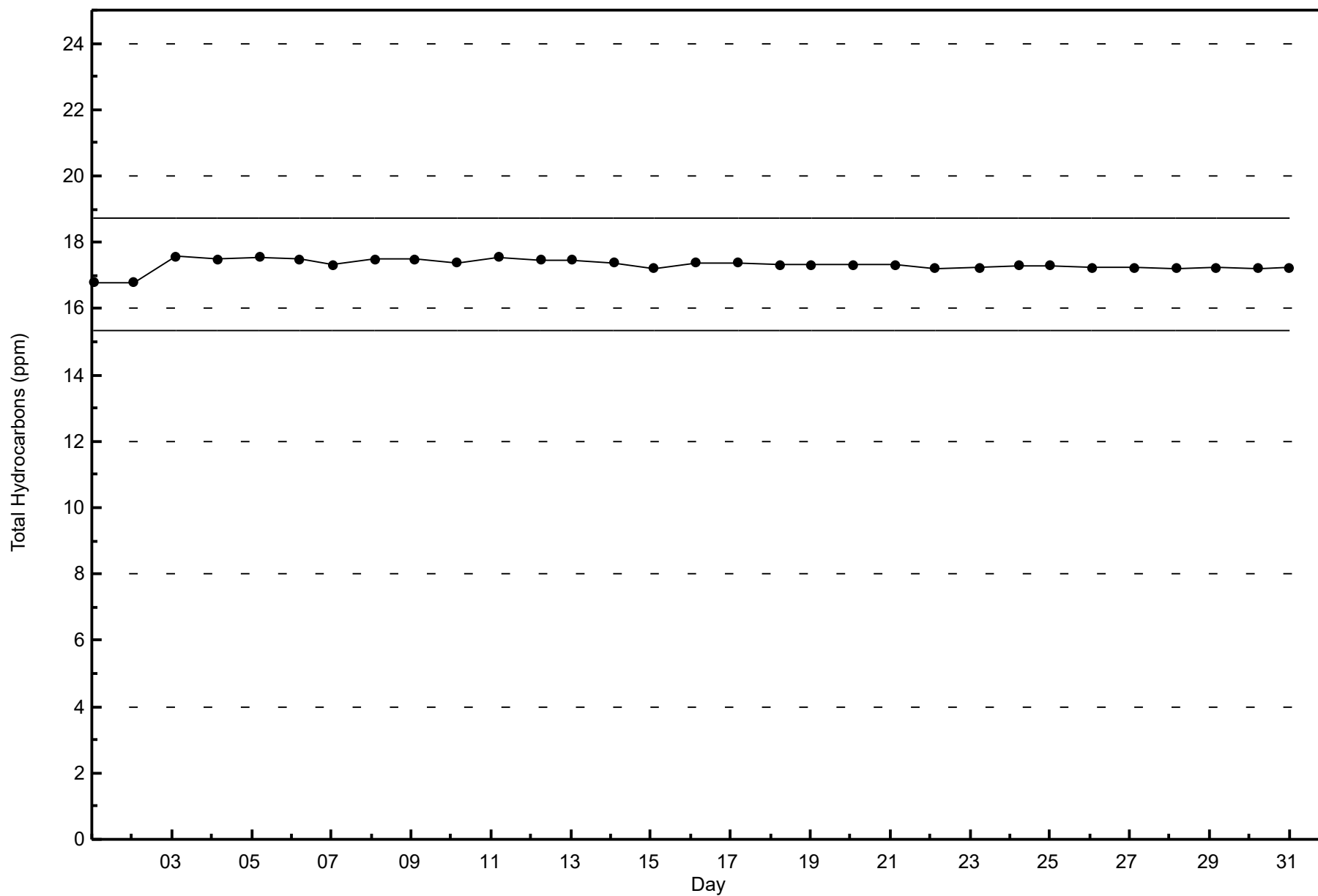




Wood Buffalo Environmental Association
Zero Responses

Total Hydrocarbons (THC) - ppm
Ells River - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

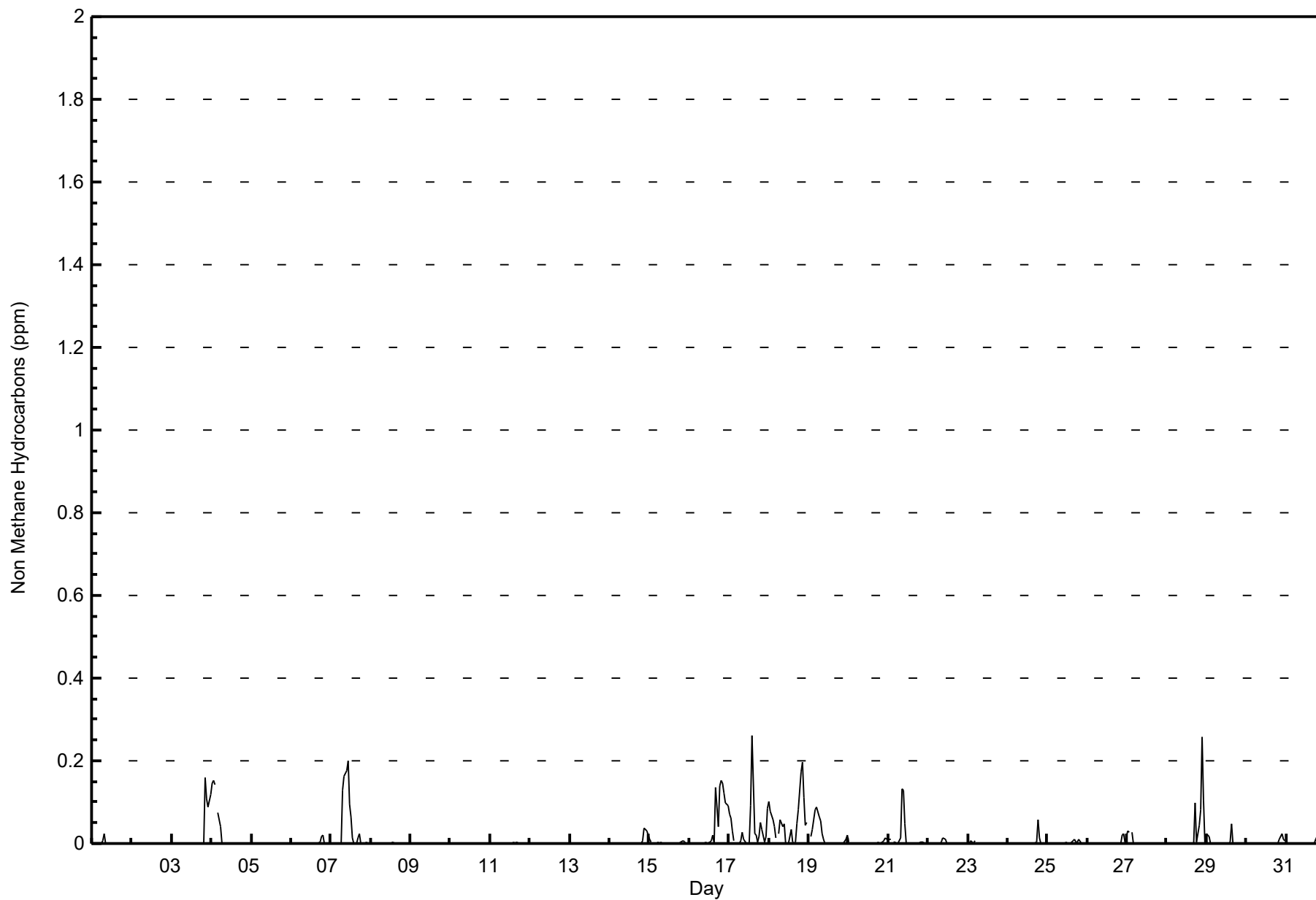
Ells River - July 2026

Maximum Value: 0.260 ppm on Jul 17 15:00																			Maximum Daily Average: 0.053 ppm on Jul 18										Hours in Service: 744	
Minimum Value: 0.000 ppm on Jul 1 02:00																			Minimum Daily Average: 0.000 ppm on Jul 2										Hours of Data: 704	
Maximum Diurnal Average: 0.024 ppm at hour 22																			Minimum Diurnal Average: 0.002 ppm at hour 13										Hours of Missing Data: 40	
Monthly Average: 0.010 ppm																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.2										Hours of Calibration: 35	
																													Percent Operational Time: 99.3	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Jul	Z	0.000	0.000	0.000	0.001	0.000	0.006	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.024				
2-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	C	C	C	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000				
3-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.158	0.110	0.087	0.119	0.021				
4-Jul	0.144	0.153	0.143	Z	0.075	0.042	0.001	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.024	0.153				
5-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000				
6-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.018	0.022	0.000	0.000	0.000	0.000	0.002	0.022				
7-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.127	0.162	0.175	0.200	0.096	0.066	0.013	0.000	0.000	0.014	0.025	0.000	0.000	0.000	0.000	0.003	0.001	0.002	0.038				
8-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002				
9-Jul	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001				
10-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000				
11-Jul	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.001	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004				
12-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000				
13-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	PF	PF	PF	PF	PF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000				
14-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.006	0.037	0.031	0.022	0.004	0.037				
15-Jul	0.010	0.003	Z	0.001	0.001	0.002	0.001	0.002	0.000	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.006	0.004	0.000	0.000	0.002	0.010				
16-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.001	0.000	0.000	0.003	0.001	0.002	0.007	0.020	0.000	0.135	0.039	0.140	0.152	0.147	0.122	0.099	0.090	0.042	0.152				
17-Jul	0.070	0.061	0.032	0.007	Z	0.001	0.001	0.008	0.028	0.011	0.000	0.000	0.001	0.092	0.260	0.025	0.022	0.004	0.016	0.050	0.035	0.005	0.016	0.084	0.036	0.260				
18-Jul	0.102	0.079	0.059	0.041	0.014	Z	0.022	0.058	0.042	0.046	0.000	0.000	0.000	0.034	0.003	0.000	0.004	0.047	0.083	0.174	0.196	0.112	0.044	0.052	0.053	0.196				
19-Jul	Z	0.017	0.035	0.058	0.083	0.088	0.066	0.056	0.023	0.011	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.020	0.020	0.088					
20-Jul	0.003	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.003	0.001	0.004	0.008	0.012	0.009	0.002	0.012				
21-Jul	0.009	0.009	Z	0.003	0.003	0.001	0.000	0.015	0.131	0.130	0.047	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.004	0.002	0.000	0.000	0.016	0.131			
22-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.003	0.013	0.011	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.001	0.002	0.001	0.013				
23-Jul	0.003	0.001	0.007	0.001	0.007	Z	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.007				
24-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.057	0.014	0.001	0.000	0.000	0.000	0.003	0.057				
25-Jul	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.001	0.000	0.000	0.006	0.010	0.002	0.005	0.010	0.000	0.000	0.000	0.000	0.002	0.010				
26-Jul	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.025	0.004	0.002	0.025				
27-Jul	0.031	0.027	Z	0.027	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.004	0.031				
28-Jul	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.099	0.002	0.044	0.081	0.257	0.105	0.000	0.026	0.257				
29-Jul	0.023	0.018	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.046				
30-Jul	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.011	0.023	0.011	0.007	0.023				
31-Jul	Z	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.025	0.031	0.031	0.023	0.030	0.007	0.031				
0.016 0.014 0.011 0.005 0.007 0.005 0.003 0.009 0.013 0.013 0.009 0.003 0.002 0.005 0.009 0.003 0.006 0.007 0.011 0.016 0.022 0.024 0.015 0.014																										Diurnal Average				
0.144 0.153 0.143 0.058 0.083 0.088 0.066 0.127 0.162 0.175 0.200 0.096 0.066 0.092 0.260 0.046 0.135 0.099 0.140 0.174 0.196 0.257 0.105 0.119																										Diurnal Maximum				
Z - zerospan C - Calibration PF - Power Failure																														



Wood Buffalo Environmental Association
Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm
Ells River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Ells River - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	581	82.53	82.53
0.006 - 0.05	77	10.94	93.47
0.06 - 0.1	36	5.11	98.58
> 0.1	10	1.42	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744



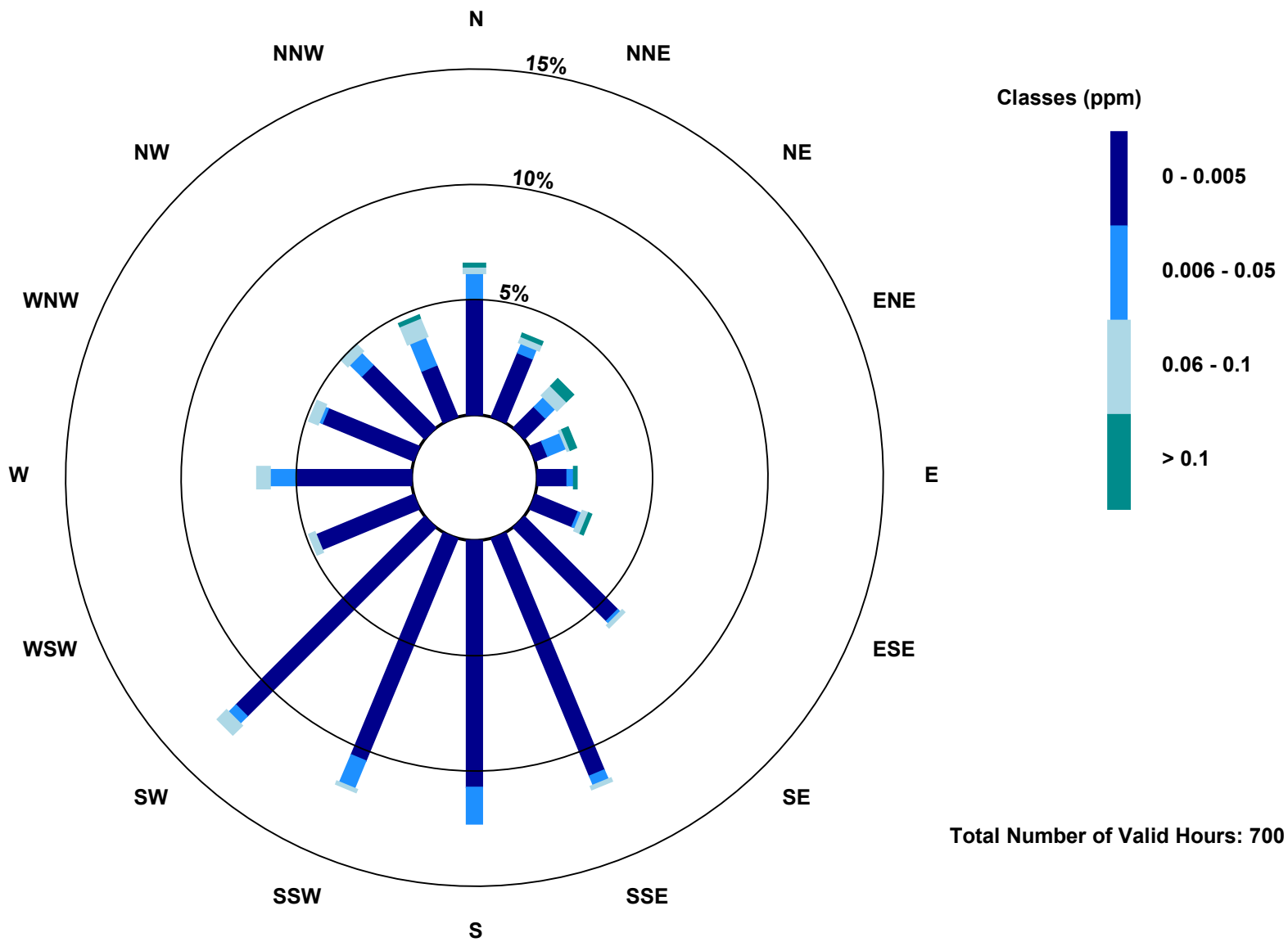
Wood Buffalo Environmental Association
Frequency Distribution

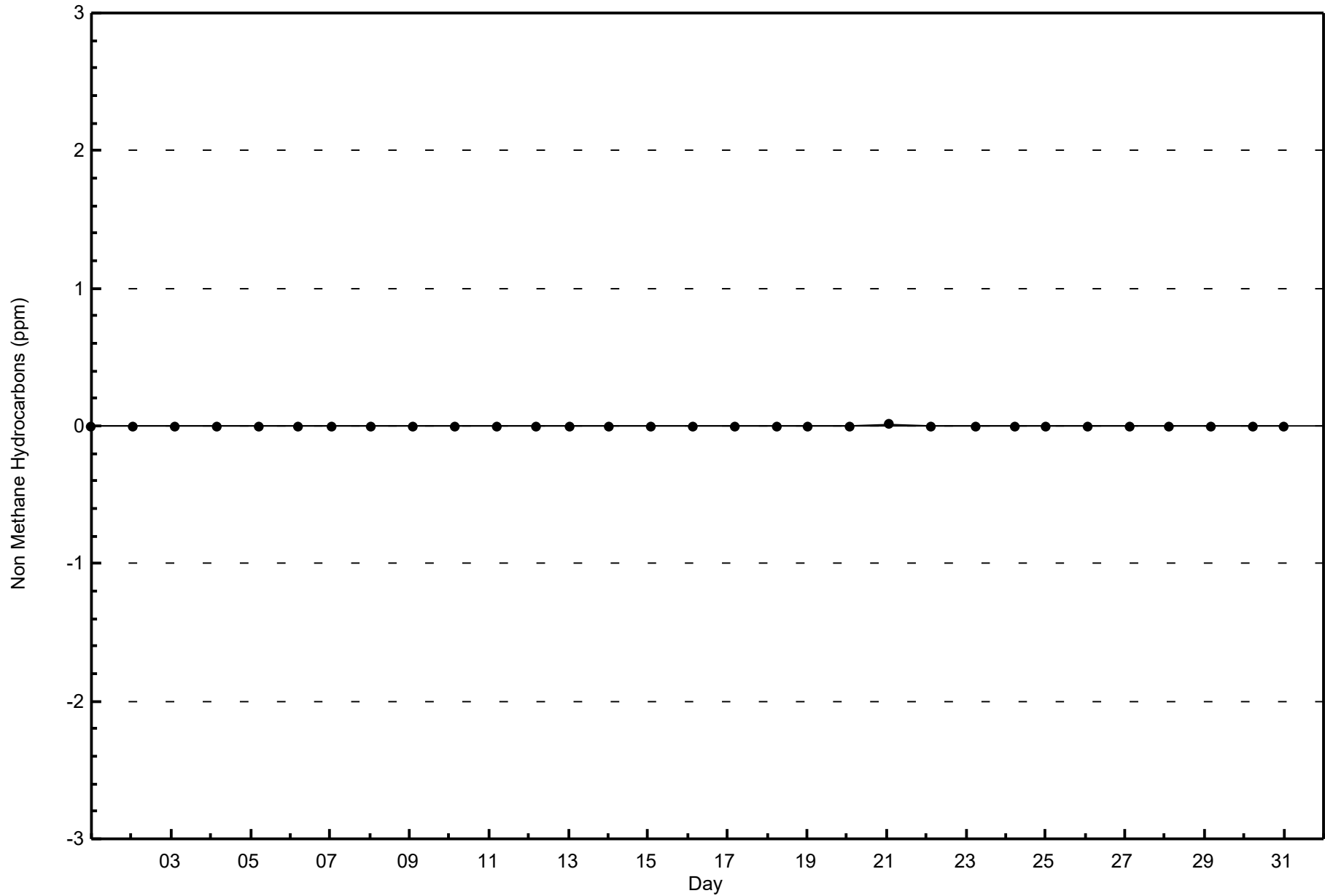
Non Methane Hydrocarbons (NMHC) - ppm
Ells River - July 2026

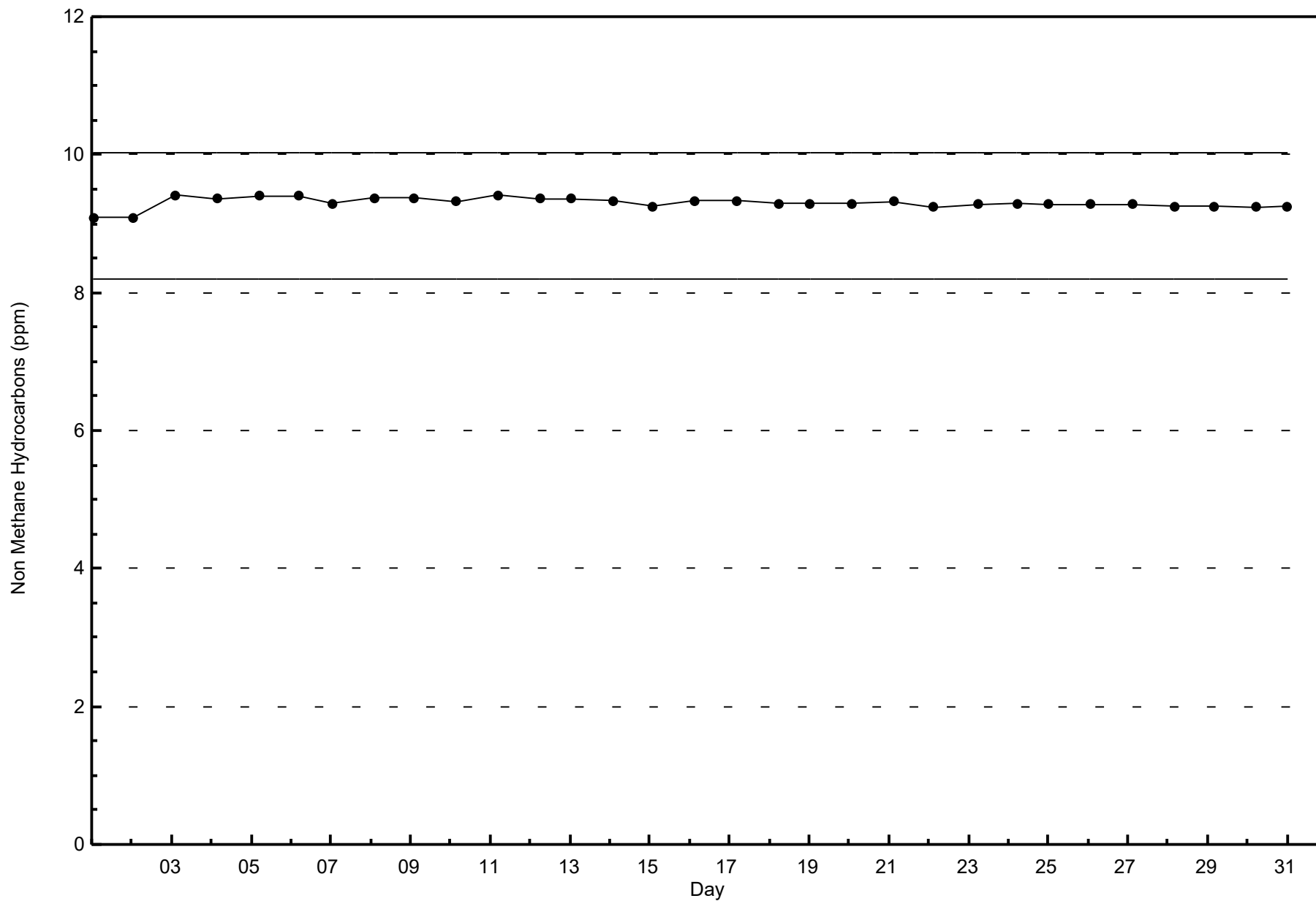
Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 0.005	35	21	9	4	9	14	40	78	75	73	81	32	35	30	27	17	580
0.006 - 0.05	8	3	4	6	2	1	1	3	11	9	3	0	8	1	5	9	74
0.06 - 0.1	2	2	4	1	0	2	1	1	0	1	4	2	4	3	3	6	36
> 0.1	1	1	3	2	1	1	0	0	0	0	0	0	0	0	0	1	10
Totals	46	27	20	13	12	18	42	82	86	83	88	34	47	34	35	33	700

Total Number of Valid Hours: 700

Total Number of Hours: 744









Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH₄) - ppm

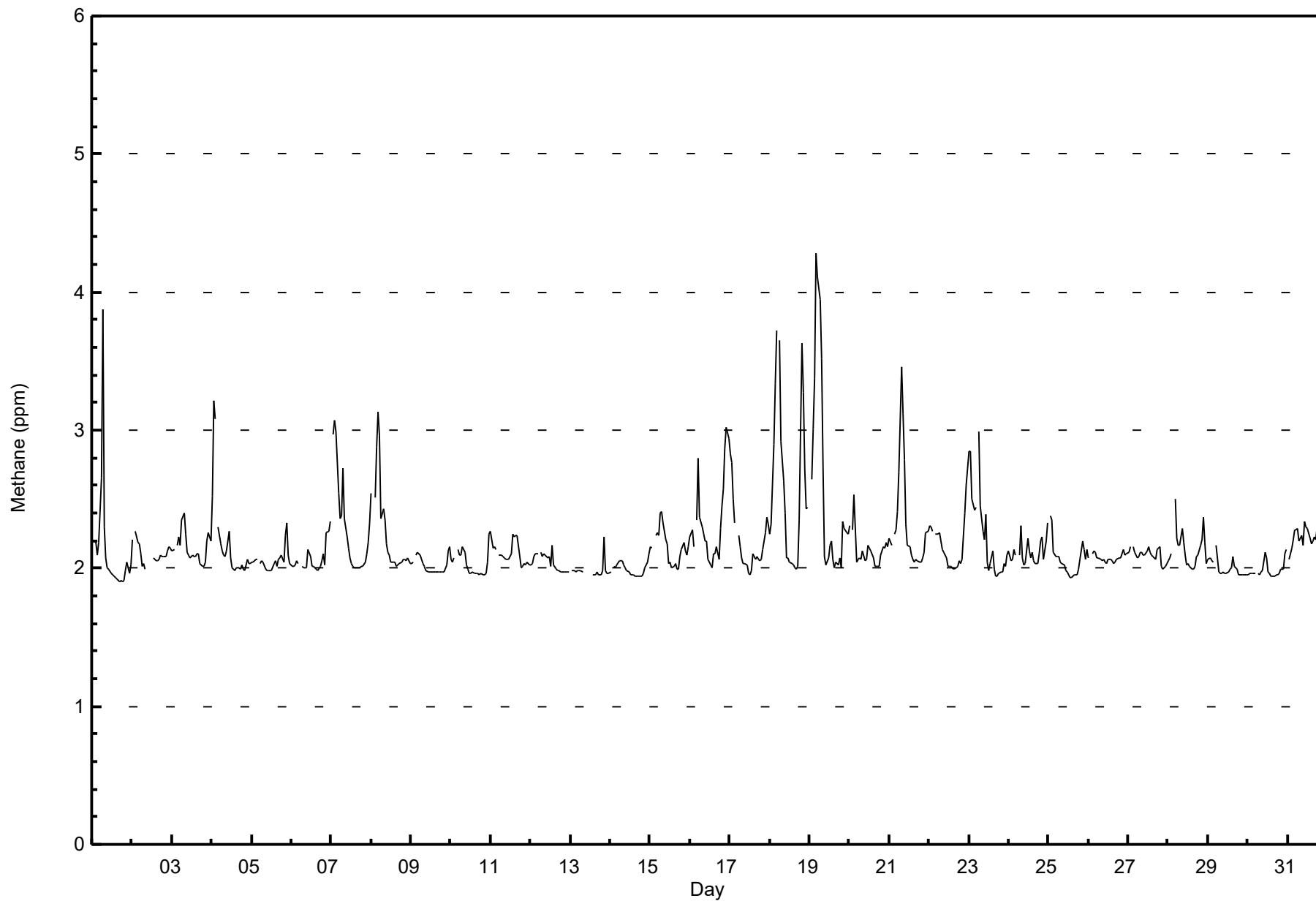
Ells River - July 2026

Number of Exceedances (AAAQO): Maximum Value: 4.3 ppm on Jul 19 05:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 2.6 ppm on Jul 19						Hours in Service: 744 Hours of Data: 704 Hours of Missing Data: 40 Hours of Calibration: 35 Percent Operational Time: 99.3					
Minimum Value: 1.9 ppm on Jul 1 17:00 Maximum Diurnal Average: 2.4 ppm at hour 5 Monthly Average: 2.16 ppm																			Minimum Daily Average: 2.0 ppm on Jul 13 Minimum Diurnal Average: 2.0 ppm at hour 18 Percentiles: P ₁ = 1.9 P ₁₀ = 2.0 Q ₁ = 2.0 Median = 2.1 Q ₃ = 2.2 P ₉₀ = 2.4 P ₉₉ = 3.5											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Jul	Z	2.2	2.2	2.1	2.2	2.6	3.9	2.3	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	3.9				
2-Jul	2.2	Z	2.3	2.2	2.2	2.1	2.0	2.0	2.0	C	C	C	C	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.3				
3-Jul	2.1	2.1	Z	2.2	2.2	2.2	2.4	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.2	2.3	2.2	2.1	2.4				
4-Jul	2.5	3.2	3.1	Z	2.3	2.2	2.1	2.1	2.1	2.1	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.2	3.2				
5-Jul	2.0	2.0	2.1	2.1	Z	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.0	2.2	2.3	2.1	2.0	2.1	2.3				
6-Jul	2.0	2.0	2.0	2.1	2.0	Z	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.3	2.3	2.3	2.1	2.3				
7-Jul	Z	3.0	3.1	3.0	2.5	2.4	2.4	2.7	2.4	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.3	3.1				
8-Jul	2.5	Z	2.5	2.9	3.1	3.0	2.4	2.4	2.4	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.3	3.1				
9-Jul	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.0	2.2				
10-Jul	2.1	2.0	2.1	Z	2.1	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.2				
11-Jul	2.3	2.1	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3				
12-Jul	2.0	2.0	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2				
13-Jul	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	PF	PF	PF	PF	PF	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.0	2.0	2.2				
14-Jul	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.1				
15-Jul	2.2	2.1	Z	2.2	2.3	2.2	2.4	2.4	2.3	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.4				
16-Jul	2.2	2.3	2.2	Z	2.3	2.8	2.4	2.3	2.2	2.2	2.2	2.1	2.0	2.0	2.1	2.1	2.2	2.1	2.3	2.5	2.6	2.9	3.0	2.9	2.3	3.0				
17-Jul	2.8	2.8	2.5	2.3	Z	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.4	2.3	2.2	2.8				
18-Jul	2.2	2.3	2.9	3.3	3.7	Z	3.7	2.9	2.6	2.4	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.3	3.6	3.3	2.7	2.4	2.4	2.6	3.7				
19-Jul	Z	2.6	3.0	3.4	4.3	4.1	3.9	3.5	2.7	2.1	2.0	2.1	2.2	2.2	2.1	2.0	2.0	2.0	2.1	2.0	2.3	2.3	2.3	2.3	2.6	4.3				
20-Jul	2.3	Z	2.3	2.5	2.0	2.1	2.1	2.1	2.1	2.0	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.2	2.2	2.1	2.5				
21-Jul	2.2	2.2	Z	2.3	2.3	2.4	2.7	3.5	3.1	2.8	2.3	2.2	2.2	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.3	2.3	2.3	3.5				
22-Jul	2.3	2.3	2.3	Z	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.4	2.6	2.7	2.2	2.7				
23-Jul	2.8	2.9	2.5	2.4	2.4	Z	3.0	2.5	2.3	2.2	2.4	2.0	2.0	2.0	2.1	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.2	3.0				
24-Jul	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.3	2.1	2.0	2.0	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.2	2.2	2.1	2.2	2.3	2.1	2.3				
25-Jul	Z	2.4	2.3	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.4				
26-Jul	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1				
27-Jul	2.1	2.2	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.0	2.0	2.0	2.1	2.2				
28-Jul	2.1	2.1	2.1	Z	2.5	2.2	2.2	2.2	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.4	2.2	2.0	2.1	2.5				
29-Jul	2.1	2.1	2.1	2.0	Z	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.2				
30-Jul	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.1	2.1	2.0	2.1				
31-Jul	Z	2.1	2.1	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.3	2.4	2.5	2.5	2.3	2.5				
2.2 2.3 2.3 2.3 2.4 2.3 2.4 2.3 2.2 2.1 2.1 2.1 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.1 2.1 2.2 2.2 2.2																								Diurnal Average						
2.8 3.2 3.1 3.4 4.3 4.1 3.9 3.5 3.1 2.8 2.4 2.3 2.3 2.2 2.2 2.2 2.2 2.2 2.2 2.3 3.6 3.3 2.9 3.0 2.9																								Diurnal Maximum						
Z - zerospan C - Calibration PF - Power Failure																														



Wood Buffalo Environmental Association
Hourly Averages

Methane (CH₄) - ppm
Ells River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Methane (CH₄) - ppm
Ells River - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	291	41.34	41.34
2.1 - 3.0	396	56.25	97.59
3.1 - 10.0	17	2.41	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Methane (CH₄) - ppm
Ells River - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	10	8	4	6	7	9	13	21	26	47	61	24	21	17	15	2	291
2.1 - 3.0	35	19	16	6	4	9	29	61	60	35	26	10	24	14	15	30	393
3.1 - 10.0	1	0	0	1	1	0	0	0	0	1	1	0	2	3	5	1	16
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	46	27	20	13	12	18	42	82	86	83	88	34	47	34	35	33	700

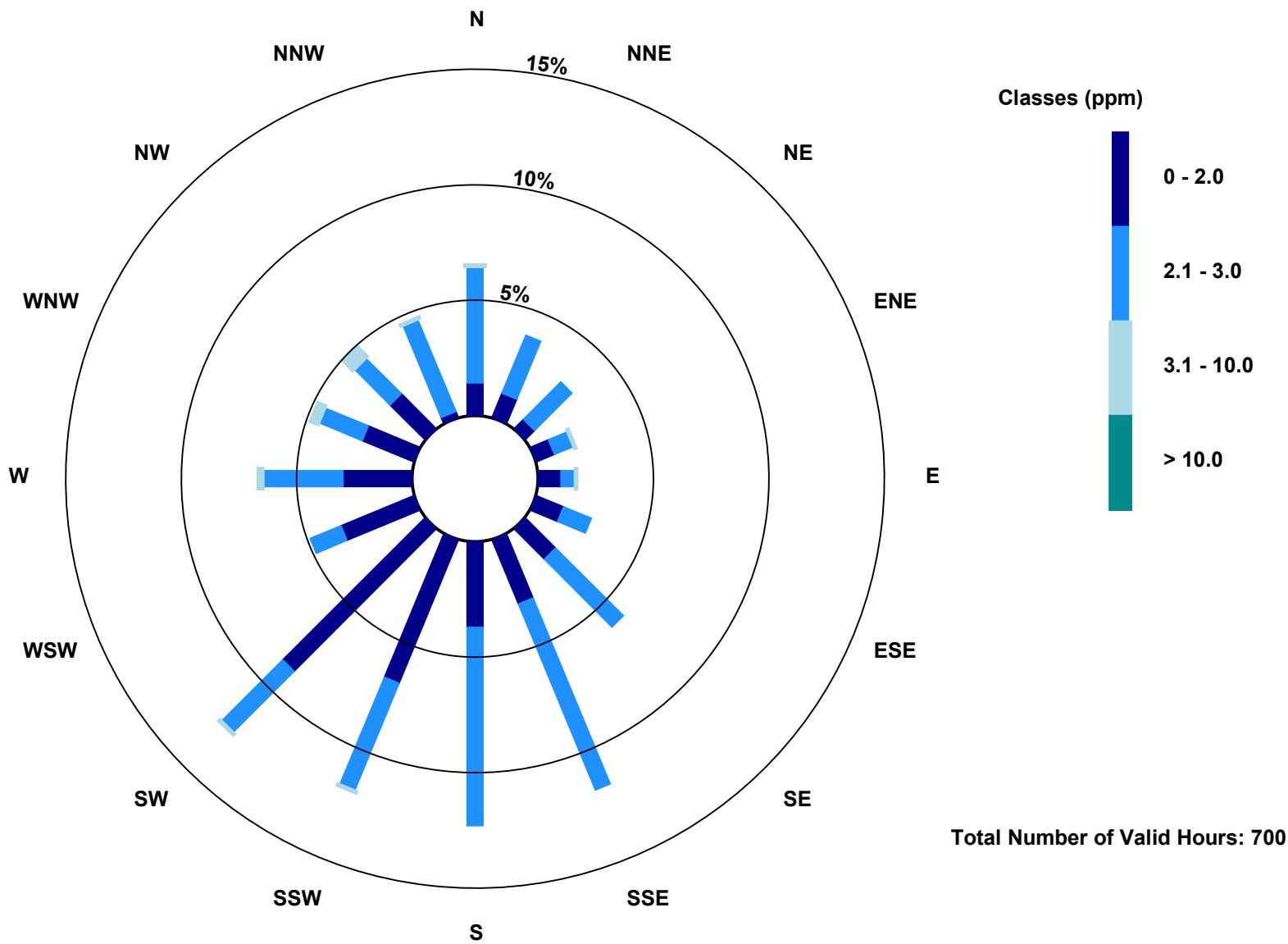
Total Number of Valid Hours: 700

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

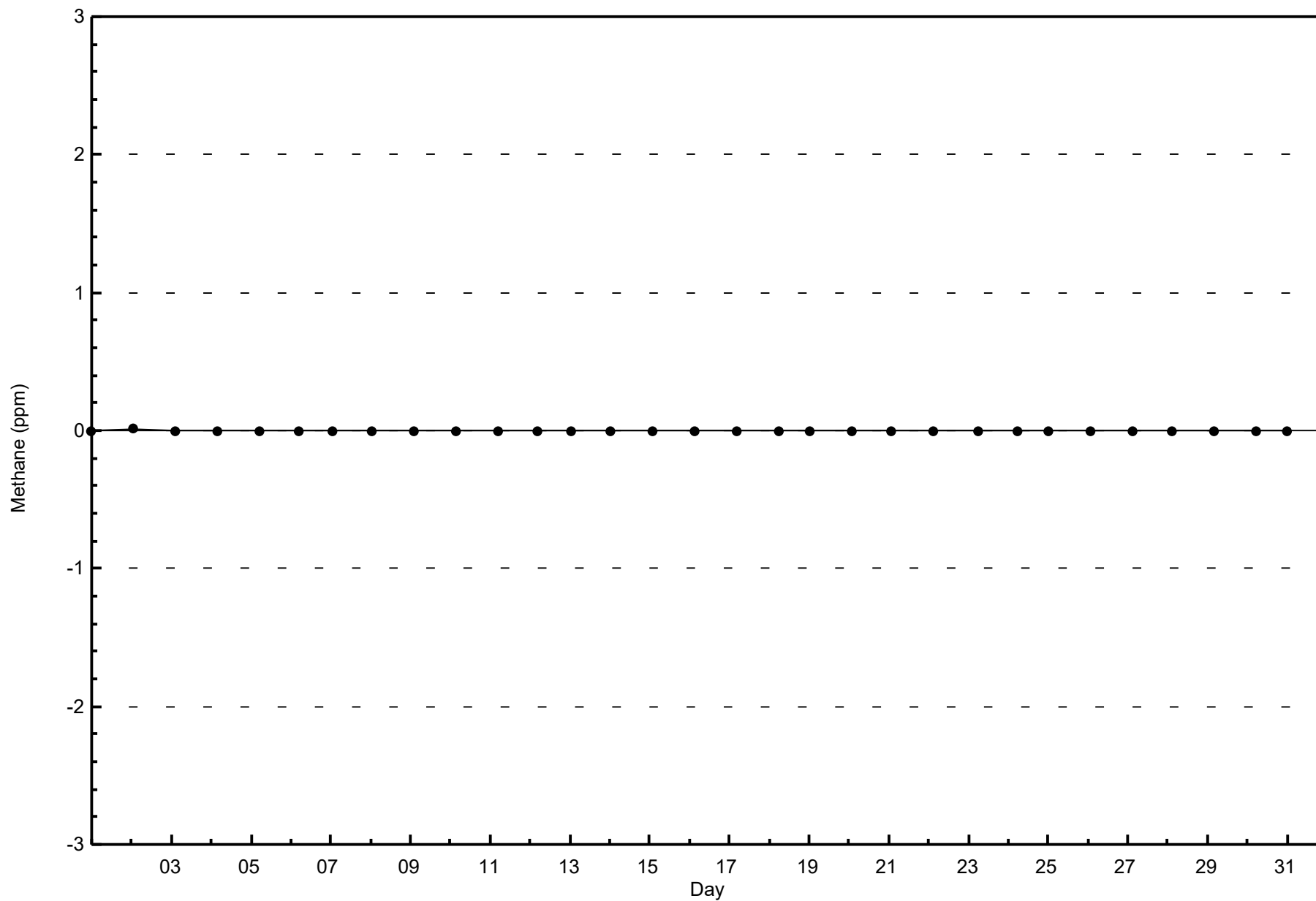
Methane (CH₄) - ppm
Ells River





Wood Buffalo Environmental Association
Zero Responses

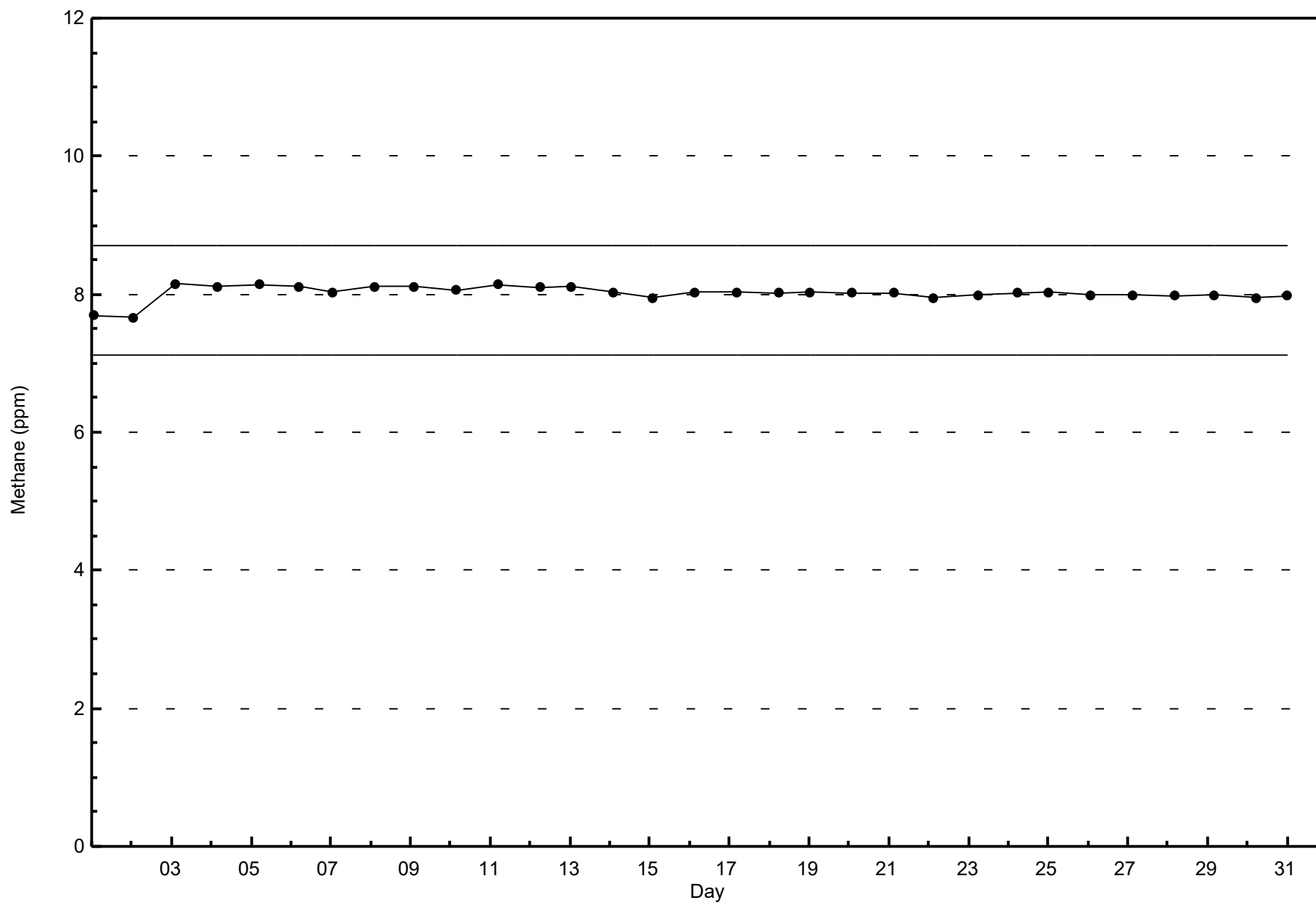
Methane (CH₄) - ppm
Ells River - July 2026





Wood Buffalo Environmental Association
Span Responses

Methane (CH₄) - ppm
Ells River - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

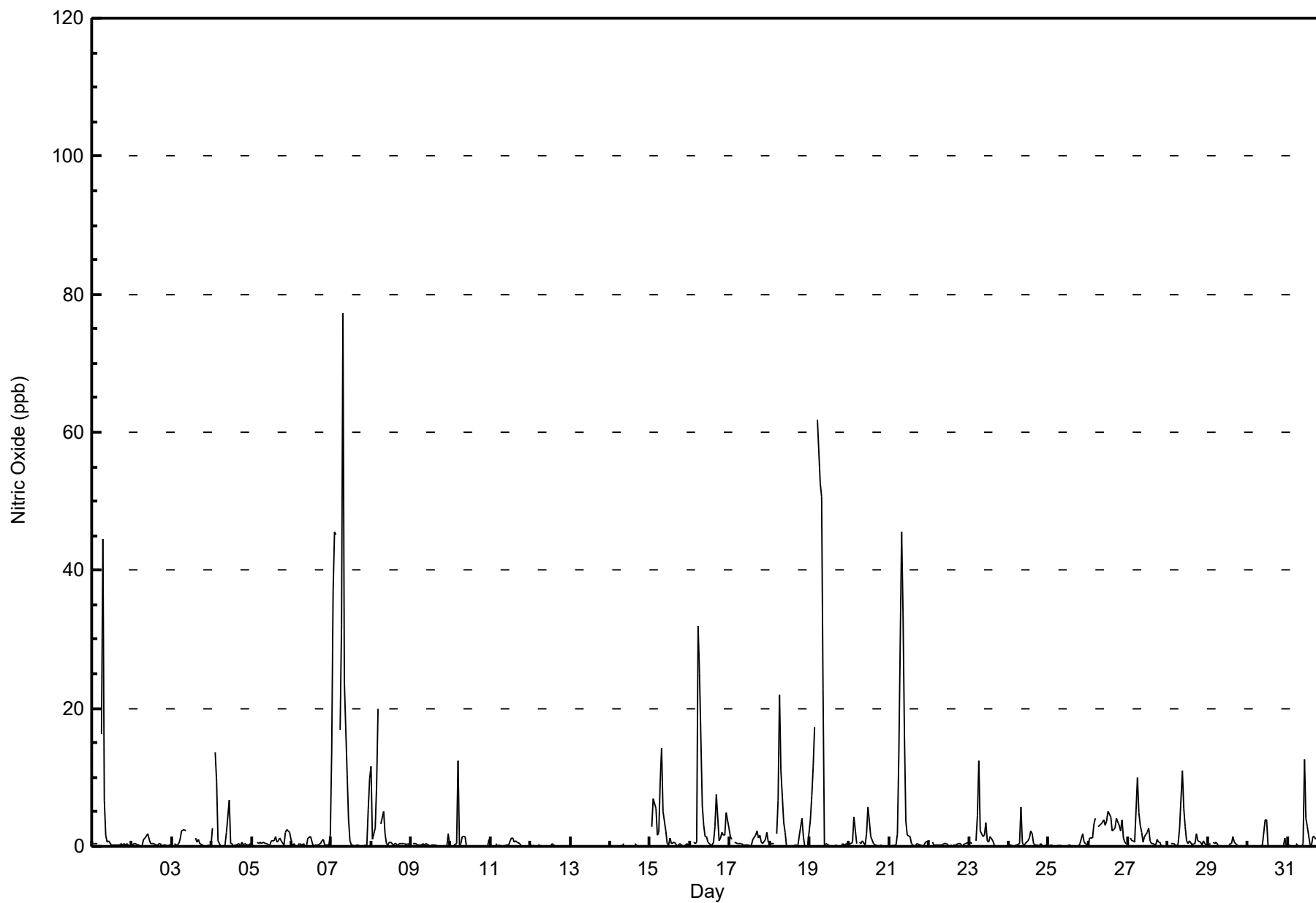
Ells River - July 2026

Maximum Value: 77.3 ppb on Jul 7 08:00																				Maximum Daily Average: 14.0 ppb on Jul 7					Hours in Service: 744		
Minimum Value: 0.0 ppb on Jul 2 19:00																				Minimum Daily Average: 0.0 ppb on Jul 13					Hours of Data: 697		
Maximum Diurnal Average: 7.8 ppb at hour 8																				Minimum Diurnal Average: 0.3 ppb at hour 22					Hours of Missing Data: 47		
Monthly Average: 2.02 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.3 Q ₃ = 0.9 P ₉₀ = 3.6 P ₉₉ = 44.5					Hours of Calibration: 36		
																									Percent Operational Time: 98.5		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.5	0.4	0.5	0.5	Z	16.3	44.5	6.7	1.7	0.7	0.7	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.2	0.4	0.3	0.4	0.0	0.2	3.3	44.5	
2-Jul	0.2	0.3	0.3	0.3	0.3	Z	0.3	1.0	1.3	1.8	1.0	0.4	0.5	0.4	0.2	0.2	0.4	0.5	0.0	0.1	0.2	0.0	0.1	0.2	0.4	1.8	
3-Jul	Z	0.4	0.2	0.3	0.5	1.1	2.3	2.5	2.3	C	C	C	C	C	1.2	0.6	1.1	0.3	0.1	0.0	0.0	0.0	0.3	0.0	0.7	2.5	
4-Jul	2.6	Z	13.7	9.4	0.8	0.1	0.0	0.0	0.2	2.0	6.7	0.5	0.4	0.0	0.2	0.2	0.3	0.0	0.7	0.3	0.4	0.2	0.2	0.4	1.7	13.7	
5-Jul	0.2	0.1	Z	0.6	0.3	0.6	0.3	0.6	0.5	0.3	0.3	0.3	0.8	0.9	1.5	0.5	0.9	1.3	0.9	0.2	2.1	2.4	2.1	2.0	0.9	2.4	
6-Jul	0.0	0.3	0.1	Z	0.1	0.3	0.2	0.4	0.0	0.1	1.3	1.4	0.5	0.0	0.3	0.2	0.3	0.3	0.7	1.0	0.1	0.2	0.1	1.7	0.4	1.7	
7-Jul	13.8	37.1	45.6	45.2	Z	16.8	32.2	77.3	23.8	10.4	3.8	0.7	0.3	0.1	0.0	0.2	0.2	0.0	0.1	0.0	0.2	0.0	5.3	9.8	14.0	77.3	
8-Jul	11.6	0.9	2.7	9.0	19.9	Z	3.3	5.0	1.8	0.5	0.2	0.5	0.6	0.1	0.4	0.3	0.1	0.3	0.4	0.4	0.3	0.3	0.4	0.3	2.6	19.9	
9-Jul	Z	0.5	0.5	0.4	0.1	0.3	0.2	0.3	0.1	0.4	0.1	0.0	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.2	0.3	1.9	
10-Jul	0.0	Z	0.2	0.3	12.3	0.2	0.4	1.5	1.5	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	1.0	0.8	12.3	
11-Jul	0.1	0.0	Z	0.4	0.0	0.1	0.0	0.1	0.0	0.1	0.3	0.1	1.3	1.3	0.7	0.8	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3	
12-Jul	0.3	0.0	0.1	Z	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	
13-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	PF	PF	PF	PF	PF	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
14-Jul	0.1	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.3	M	M	M	M	M	M	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.5	
15-Jul	Z	2.9	6.9	5.4	1.6	2.1	9.3	14.1	5.1	2.3	0.5	0.2	1.3	0.4	0.6	0.4	0.0	0.2	0.3	0.3	0.1	0.1	0.3	0.2	2.4	14.1	
16-Jul	0.3	Z	0.6	0.4	0.6	31.9	24.9	6.0	3.0	1.4	1.5	0.7	0.3	0.3	0.5	2.9	7.5	0.7	1.3	2.0	1.6	1.7	4.8	2.6	4.2	31.9	
17-Jul	1.3	1.1	Z	0.6	0.3	0.4	0.4	0.3	0.3	0.2	0.3	0.2	0.0	0.2	0.9	1.7	2.1	1.3	1.7	0.6	0.4	1.1	2.1	0.5	0.8	2.1	
18-Jul	0.4	0.4	0.4	Z	1.9	6.8	21.9	11.1	3.5	2.0	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.0	1.4	4.1	1.5	0.0	0.0	0.0	2.4	21.9	
19-Jul	3.8	7.3	11.5	17.4	Z	61.8	52.6	50.7	22.8	0.2	0.4	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.5	0.2	0.4	0.2	10.0	61.8	
20-Jul	0.3	0.4	0.5	4.3	0.4	Z	0.7	0.4	0.9	0.2	1.7	5.7	3.6	1.3	0.4	0.2	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.9	5.7	
21-Jul	Z	0.2	0.0	0.1	0.1	1.8	13.1	45.5	33.7	16.1	3.6	1.5	1.4	0.3	0.1	0.0	0.3	0.3	0.1	0.1	0.0	0.3	0.6	0.8	5.2	45.5	
22-Jul	0.7	Z	0.5	0.1	0.3	0.1	0.1	0.2	0.2	0.4	0.4	0.1	0.0	0.3	0.0	0.3	0.2	0.3	0.4	0.3	0.1	0.4	0.4	0.5	0.3	0.7	
23-Jul	0.2	0.6	0.3	Z	0.9	4.4	12.5	2.3	1.4	1.6	3.4	0.8	0.5	1.4	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.4	12.5	
24-Jul	0.1	0.1	0.0	Z	0.2	0.2	0.3	5.6	0.6	0.1	0.5	0.9	1.3	2.2	1.8	0.4	0.3	0.1	0.1	0.4	0.3	0.0	0.1	0.1	0.7	5.6	
25-Jul	0.0	0.2	0.1	0.0	Z	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.4	1.8	0.6	0.3	0.3	0.2	1.8	
26-Jul	0.3	1.2	1.3	3.2	4.0	Z	2.9	3.2	3.5	3.8	3.1	3.7	5.1	4.4	2.3	2.4	2.6	4.0	3.1	2.2	3.8	1.3	0.6	0.4	2.7	5.1	
27-Jul	Z	1.3	0.9	0.9	0.5	9.9	4.9	3.1	2.1	0.6	1.4	2.0	2.5	0.8	0.4	0.5	0.3	0.9	0.6	0.5	0.1	0.0	0.0	0.0	1.5	9.9	
28-Jul	0.0	Z	0.4	0.4	0.2	0.0	0.5	2.7	11.0	5.5	2.8	0.9	0.4	0.9	0.2	0.4	0.5	1.8	0.8	0.7	0.2	0.8	0.3	0.2	1.4	11.0	
29-Jul	0.3	0.4	Z	0.5	0.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3	1.4	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.4	
30-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	3.8	3.8	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.2	0.0	0.4	3.8	
31-Jul	0.0	0.3	0.0	0.0	Z	0.3	0.2	0.1	0.1	0.3	12.5	4.1	2.9	0.2	0.1	1.4	1.4	1.1	1.1	1.0	0.5	0.7	0.4	0.5	1.3	12.5	
1.4 2.2 3.2 4.0 1.8 6.0 7.4 7.8 4.1 1.8 1.8 1.0 0.9 0.6 0.5 0.5 0.7 0.5 0.4 0.5 0.5 0.3 0.7 0.7																								Diurnal Average			
13.8 37.1 45.6 45.2 19.9 61.8 52.6 77.3 33.7 16.1 12.5 5.7 5.1 4.4 2.3 2.9 7.5 4.0 3.1 4.1 3.8 2.4 5.3 9.8																								Diurnal Maximum			
Z - zerospan				C - Calibration				M - Maintenance				PF - Power Failure															



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Ells River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Ells River - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	681	97.70	97.70
21 - 40	8	1.15	98.85
41 - 80	8	1.15	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 697

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Ells River - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	45	25	20	13	11	21	40	84	82	80	82	35	46	32	29	32	677
21 - 40	1	1	0	0	0	0	0	1	1	0	0	0	0	0	3	1	8
11 - 80	0	0	0	0	0	0	0	0	0	1	0	0	1	2	3	1	8
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	46	26	20	13	11	21	40	85	83	81	82	35	47	34	35	34	693

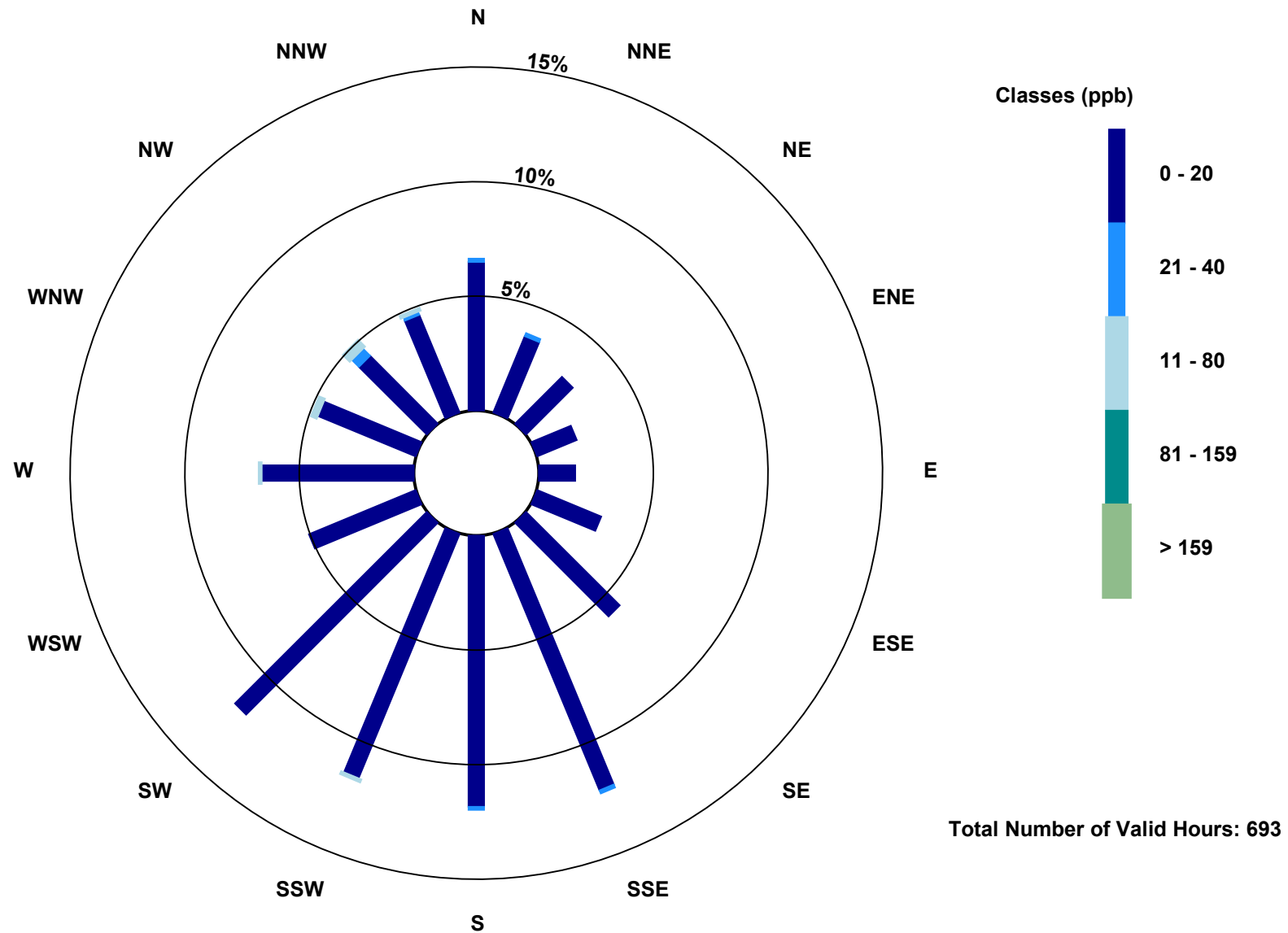
Total Number of Valid Hours: 693

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

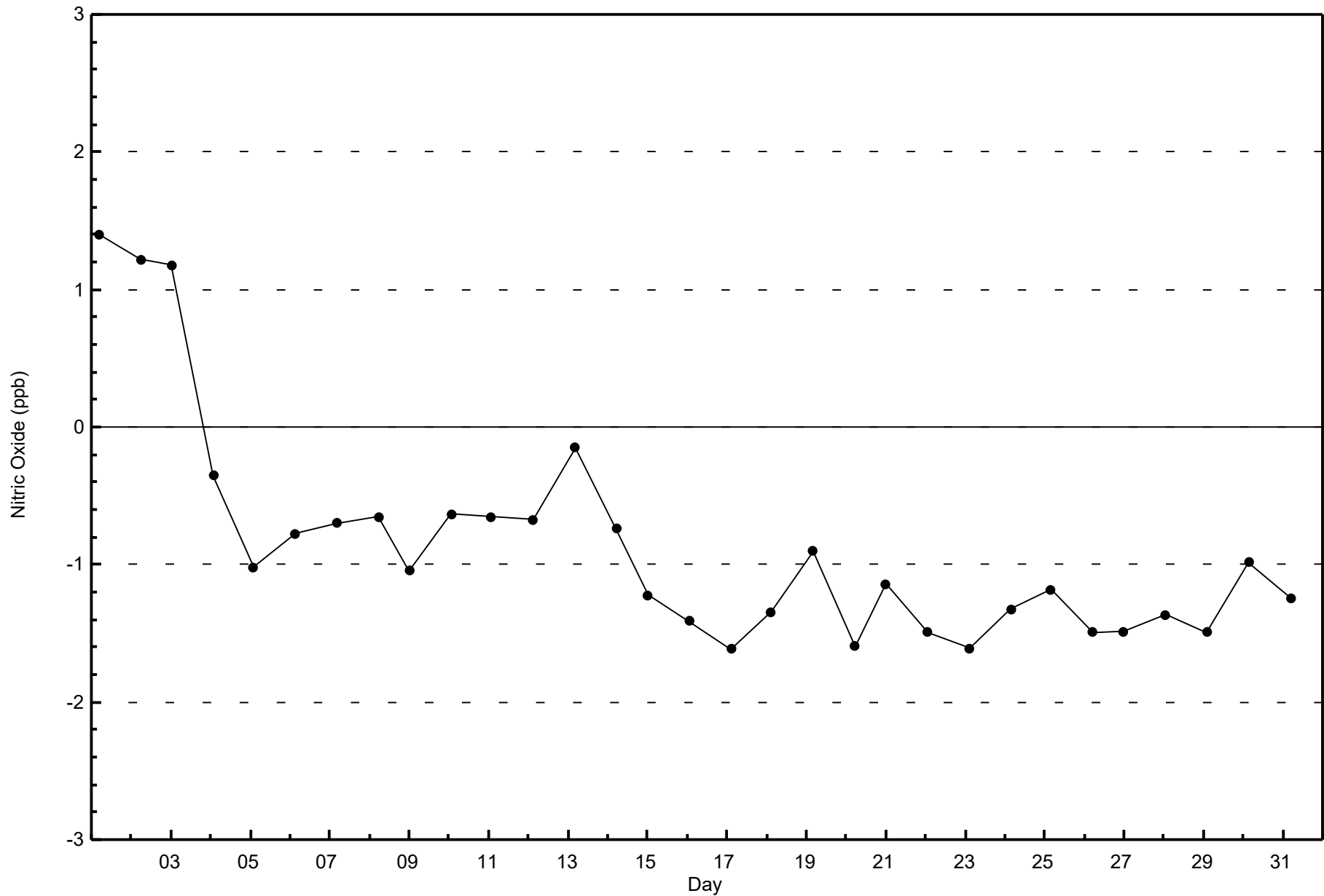
Nitric Oxide (NO) - ppb
Ells River





Wood Buffalo Environmental Association
Zero Responses

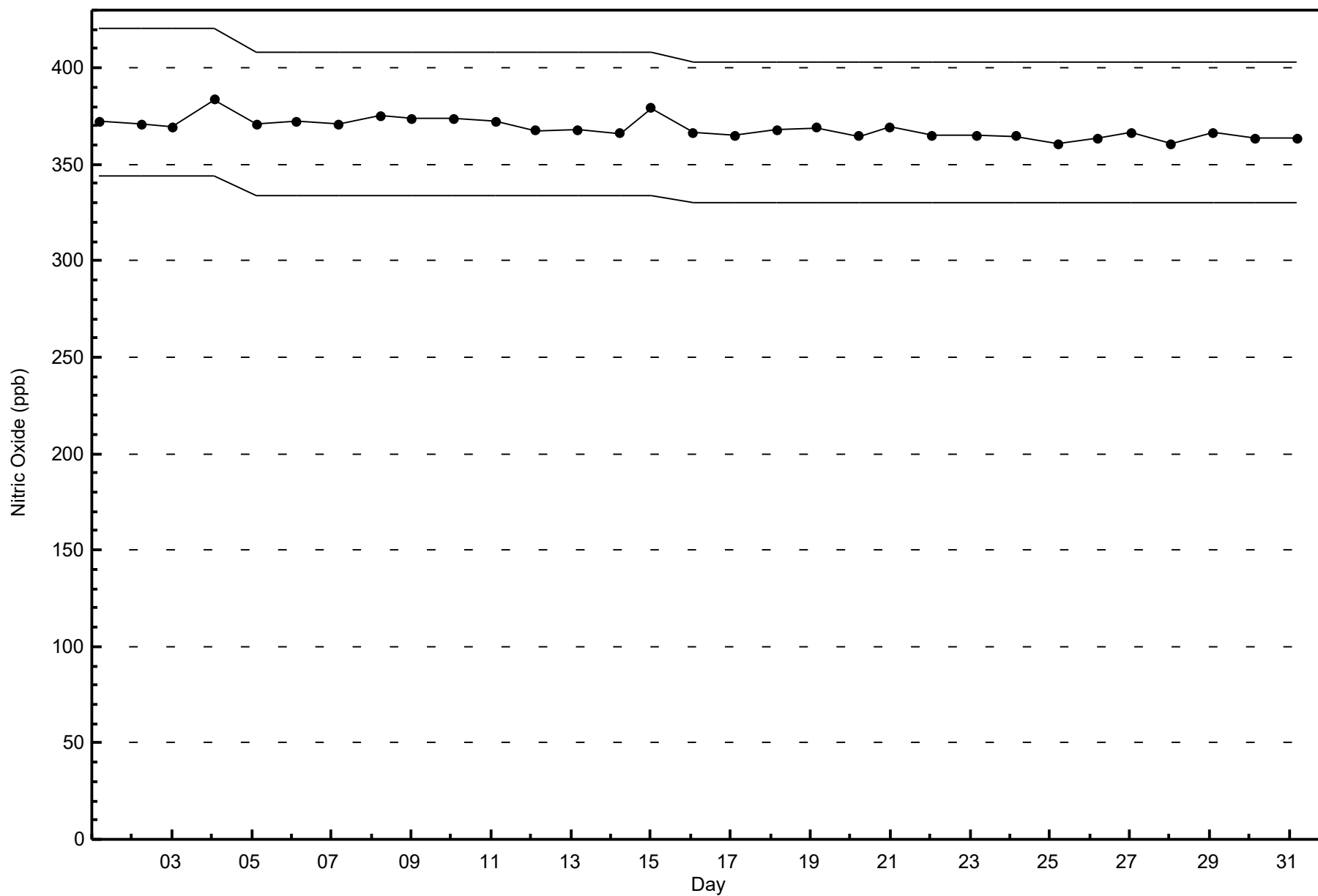
Nitric Oxide (NO) - ppb
Ells River - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Ells River - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

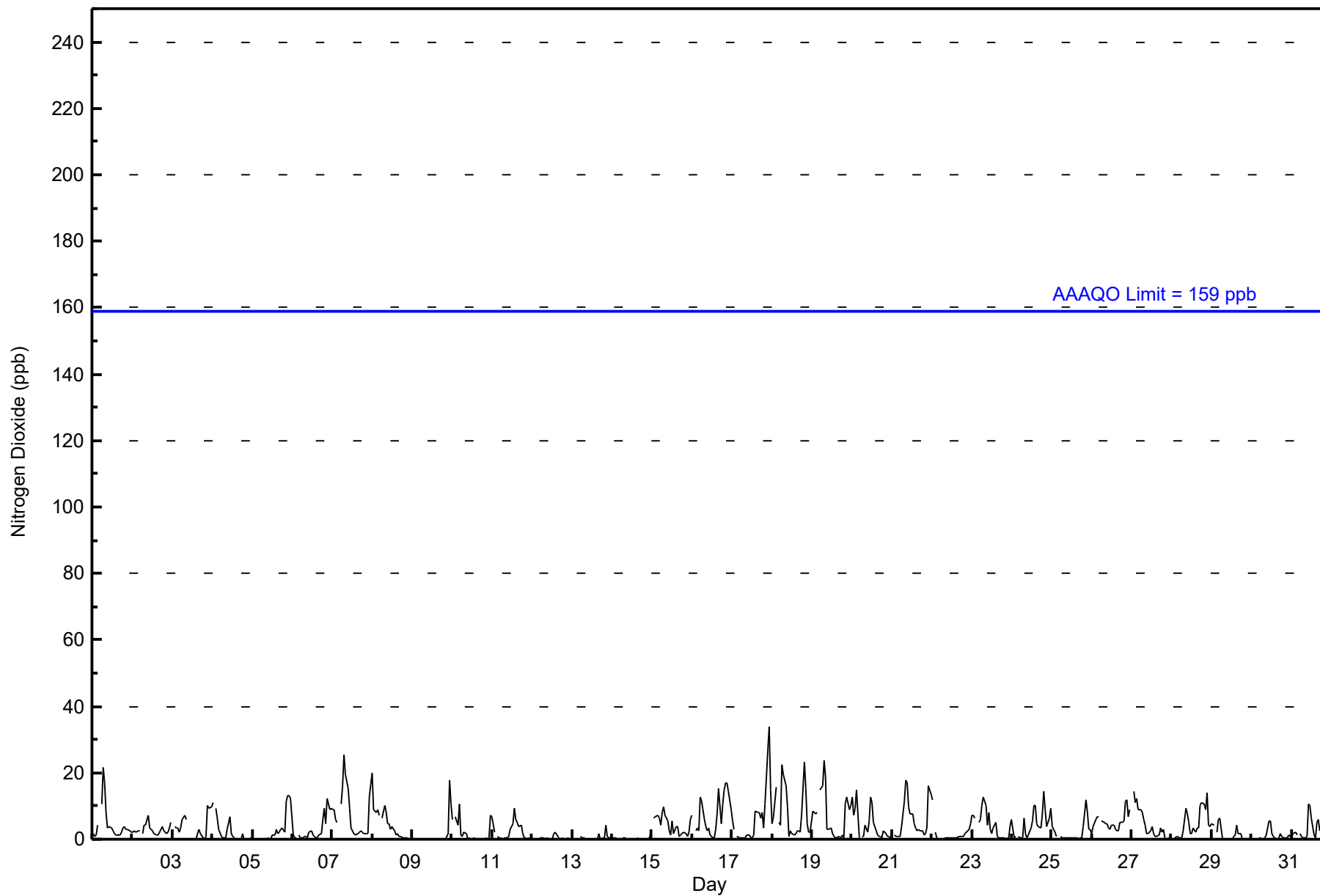
Ells River - July 2026

Number of Exceedances (AAAQO): Maximum Value: 34.0 ppb on Jul 17 23:00																		1-hr: 0 Maximum Daily Average: 7.7 ppb on Jul 7						24-hr: 0 Minimum Daily Average: 0.4 ppb on Jul 12 Minimum Diurnal Average: 2.1 ppb at hour 16 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.4 Median = 1.9 Q ₃ = 5.2 P ₉₀ = 10.1 P ₉₉ = 20.2						Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 3 15:00 Maximum Diurnal Average: 5.7 ppb at hour 23 Monthly Average: 3.69 ppb																								Hours of Data: 697							
																								Hours of Missing Data: 47							
																								Hours of Calibration: 36							
																								Percent Operational Time: 98.5							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jul	1.9	1.0	1.2	4.2	Z	10.8	21.7	16.8	8.0	3.6	3.8	3.3	2.5	1.5	1.4	1.4	1.1	2.0	3.2	3.9	3.1	2.9	2.5	2.3	4.5	21.7					
2-Jul	2.1	2.4	2.0	2.5	2.5	Z	1.6	4.3	4.2	7.1	3.6	2.8	2.4	1.9	1.2	1.4	2.0	3.0	4.0	2.5	1.9	2.2	3.5	5.0	2.9	7.1					
3-Jul	Z	3.9	3.4	3.5	2.0	3.3	5.8	7.1	5.9	C	C	C	C	C	0.0	1.7	2.9	1.5	0.3	0.2	0.9	10.0	9.2	9.7	4.0	10.0					
4-Jul	11.2	Z	9.5	6.4	2.9	0.7	0.4	0.3	0.4	2.8	6.9	1.8	0.8	0.6	0.0	0.0	0.1	0.2	1.5	0.0	0.0	0.0	0.2	0.5	2.1	11.2					
5-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.1	1.4	1.3	3.1	1.8	2.3	3.1	3.2	2.1	11.5	13.3	13.3	12.1	3.0	13.3					
6-Jul	1.1	0.5	0.5	Z	1.1	0.5	0.4	0.8	0.7	0.6	2.2	2.6	1.3	0.8	0.6	0.6	1.2	1.5	5.8	9.4	4.8	12.4	8.8	9.5	2.9	12.4					
7-Jul	8.9	8.8	6.1	5.0	Z	10.4	15.9	25.4	19.7	15.1	9.3	3.3	2.4	1.6	1.2	1.8	2.1	2.6	2.1	1.7	1.9	1.7	12.9	16.6	7.7	25.4					
8-Jul	20.1	9.0	7.9	8.8	7.0	Z	6.5	10.2	7.9	4.7	4.6	2.9	3.8	2.5	1.4	1.8	0.8	0.7	0.5	0.4	0.5	0.3	0.2	0.0	4.5	20.1					
9-Jul	Z	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.9	17.6	10.5	1.3	17.6					
10-Jul	6.0	Z	6.6	4.4	10.8	1.4	1.0	2.2	1.8	0.1	0.3	0.1	0.0	0.3	0.1	0.2	0.2	0.2	0.1	0.2	0.4	0.1	0.3	7.2	1.9	10.8					
11-Jul	6.8	2.1	Z	0.8	0.3	0.5	0.1	0.5	0.4	0.5	0.8	2.8	4.7	9.3	5.8	5.0	3.9	4.2	1.7	0.5	0.5	0.2	0.3	0.1	2.3	9.3					
12-Jul	0.2	0.1	0.2	Z	0.4	0.4	0.3	0.3	0.2	0.4	0.2	0.2	0.1	1.8	2.3	0.9	0.0	0.0	0.3	0.2	0.0	0.3	0.2	0.2	0.4	2.3					
13-Jul	0.1	0.0	0.1	0.0	Z	0.7	0.5	0.5	PF	PF	PF	PF	PF	0.0	0.2	0.1	1.9	0.0	0.3	0.3	4.3	0.8	0.3	0.5	0.6	4.3					
14-Jul	0.4	0.4	0.3	0.0	0.0	Z	0.3	0.4	0.5	M	M	M	M	M	M	0.3	0.1	0.0	0.1	0.0	0.1	0.1	0.3	2.1	--	2.1					
15-Jul	Z	6.2	6.9	7.0	6.2	4.4	8.1	9.8	7.0	5.5	2.7	1.3	5.4	1.8	3.8	3.8	0.8	1.1	1.7	2.2	1.9	0.9	2.0	6.0	4.2	9.8					
16-Jul	7.0	Z	2.6	3.4	2.6	12.6	11.4	5.9	3.7	2.4	3.2	1.4	0.5	0.3	3.1	7.5	15.3	4.8	10.8	14.9	16.9	16.8	14.5	9.0	7.4	16.9					
17-Jul	5.6	3.0	Z	1.0	0.6	0.4	0.4	0.4	0.3	1.1	1.2	0.6	0.5	1.2	8.3	8.2	7.9	6.2	8.1	3.2	10.4	26.5	34.0	14.9	6.3	34.0					
18-Jul	4.5	6.8	15.5	Z	5.1	4.2	22.3	19.6	16.1	9.8	0.9	2.5	1.6	1.2	1.5	2.6	2.4	2.2	7.4	23.1	15.2	4.5	2.1	2.0	7.5	23.1					
19-Jul	8.6	8.0	7.6	7.9	Z	14.7	16.3	23.6	18.6	2.8	2.9	3.2	1.5	1.0	0.3	0.4	0.7	0.6	1.3	0.6	10.8	12.9	9.1	10.2	7.1	23.6					
20-Jul	12.8	7.2	9.3	15.0	0.6	Z	1.0	1.0	4.3	2.3	5.4	12.9	10.9	5.2	2.7	1.1	0.8	0.9	0.5	2.4	1.8	0.8	0.7	0.3	4.3	15.0					
21-Jul	Z	1.4	0.8	0.9	0.7	1.0	3.9	11.3	17.9	17.0	9.8	7.5	7.5	4.5	3.6	2.4	3.0	2.6	2.4	1.3	1.8	3.6	16.1	13.7	5.9	17.9					
22-Jul	11.8	Z	2.2	0.5	0.2	0.2	0.2	0.1	0.3	0.4	0.5	0.5	0.4	0.3	0.5	0.5	0.7	0.9	0.7	0.7	1.7	2.5	3.1	4.5	1.5	11.8					
23-Jul	7.3	7.1	6.3	Z	5.0	6.0	10.3	12.5	10.0	4.3	8.2	2.8	1.5	3.6	5.2	0.9	0.4	0.3	0.5	0.3	0.2	0.3	0.2	3.7	4.2	12.5					
24-Jul	5.9	0.5	0.7	Z	0.7	0.5	0.6	6.3	1.9	0.6	1.1	3.6	5.4	10.1	10.3	4.8	4.0	3.4	7.6	14.2	9.0	3.8	6.4	9.2	4.8	14.2					
25-Jul	3.7	2.8	2.2	0.8	Z	1.0	0.6	0.6	0.5	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.1	0.4	0.5	3.8	11.9	8.1	3.1	2.9	2.0	11.9					
26-Jul	1.6	3.9	5.8	6.8	6.8	Z	5.7	4.9	4.6	4.5	3.4	2.9	4.4	4.1	2.8	2.7	2.7	4.9	5.0	5.7	11.4	11.7	6.8	9.1	5.3	11.7					
27-Jul	Z	14.4	10.9	12.2	8.8	9.1	8.2	5.9	4.4	1.7	1.5	2.4	3.8	1.9	0.8	0.7	1.3	3.3	2.1	2.9	0.6	0.2	0.3	0.2	4.2	14.4					
28-Jul	0.1	Z	0.4	0.7	0.5	0.3	0.4	2.6	9.4	7.7	5.0	1.8	1.5	3.3	2.0	3.4	3.4	10.1	11.0	10.5	8.7	14.1	4.4	3.8	4.6	14.1					
29-Jul	4.5	4.4	Z	2.0	6.1	6.5	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.0	1.2	4.3	1.5	1.7	0.1	0.0	0.0	0.0	0.0	0.0	1.5	6.5					
30-Jul	0.0	0.0	0.2	Z	0.5	0.3	0.2	0.2	0.6	1.3	5.4	5.5	1.6	0.7	0.6	0.2	0.3	1.5	0.7	0.4	0.6	0.3	1.1	0.8	1.0	5.5					
31-Jul	0.8	1.5	2.2	1.3	Z	1.6	0.9	0.5	0.5	0.7	10.6	10.1	6.2	1.1	0.6	5.2	5.8	2.6	3.4	3.9	3.6	3.0	1.9	0.9	3.0	10.6					
5.1 3.7 4.1 3.8 2.9 3.5 4.7 5.6 5.0 3.5 3.4 2.8 2.6 2.2 2.2 2.1 2.3 2.1 2.8 3.6 4.4 5.0 5.7 5.4																															
20.1 14.4 15.5 15.0 10.8 14.7 22.3 25.4 19.7 17.0 10.6 12.9 10.9 10.1 10.3 8.2 15.3 10.1 11.0 23.1 16.9 26.5 34.0 16.6																															
Diurnal Average																															
Diurnal Maximum																															
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																															
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																															



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Ells River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Ells River - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	690	99.00	99.00
21 - 40	7	1.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 697

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Ells River - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	44	26	20	13	11	21	40	85	83	81	82	35	47	34	32	32	686
21 - 40	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	7
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	46	26	20	13	11	21	40	85	83	81	82	35	47	34	35	34	693

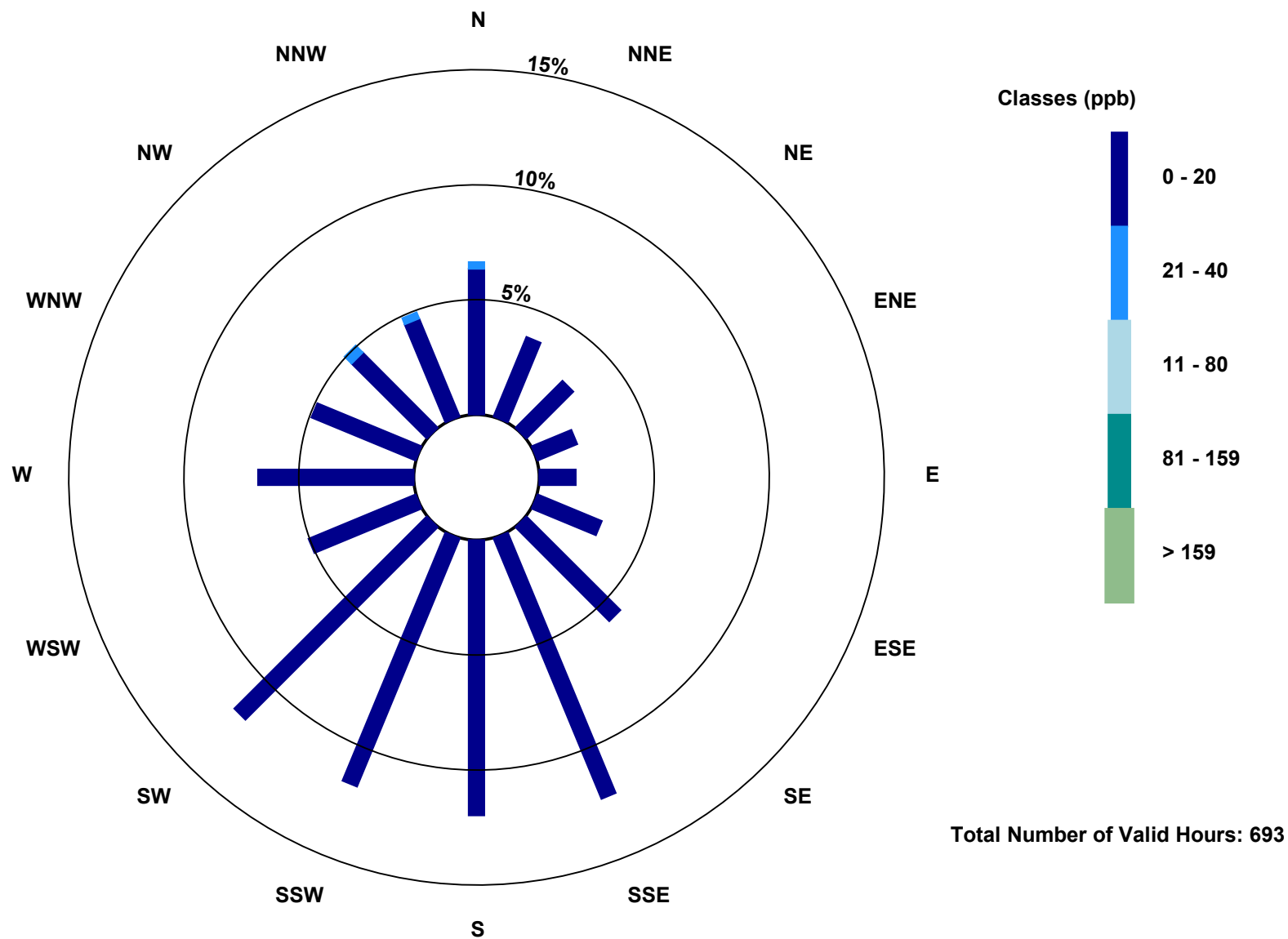
Total Number of Valid Hours: 693

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

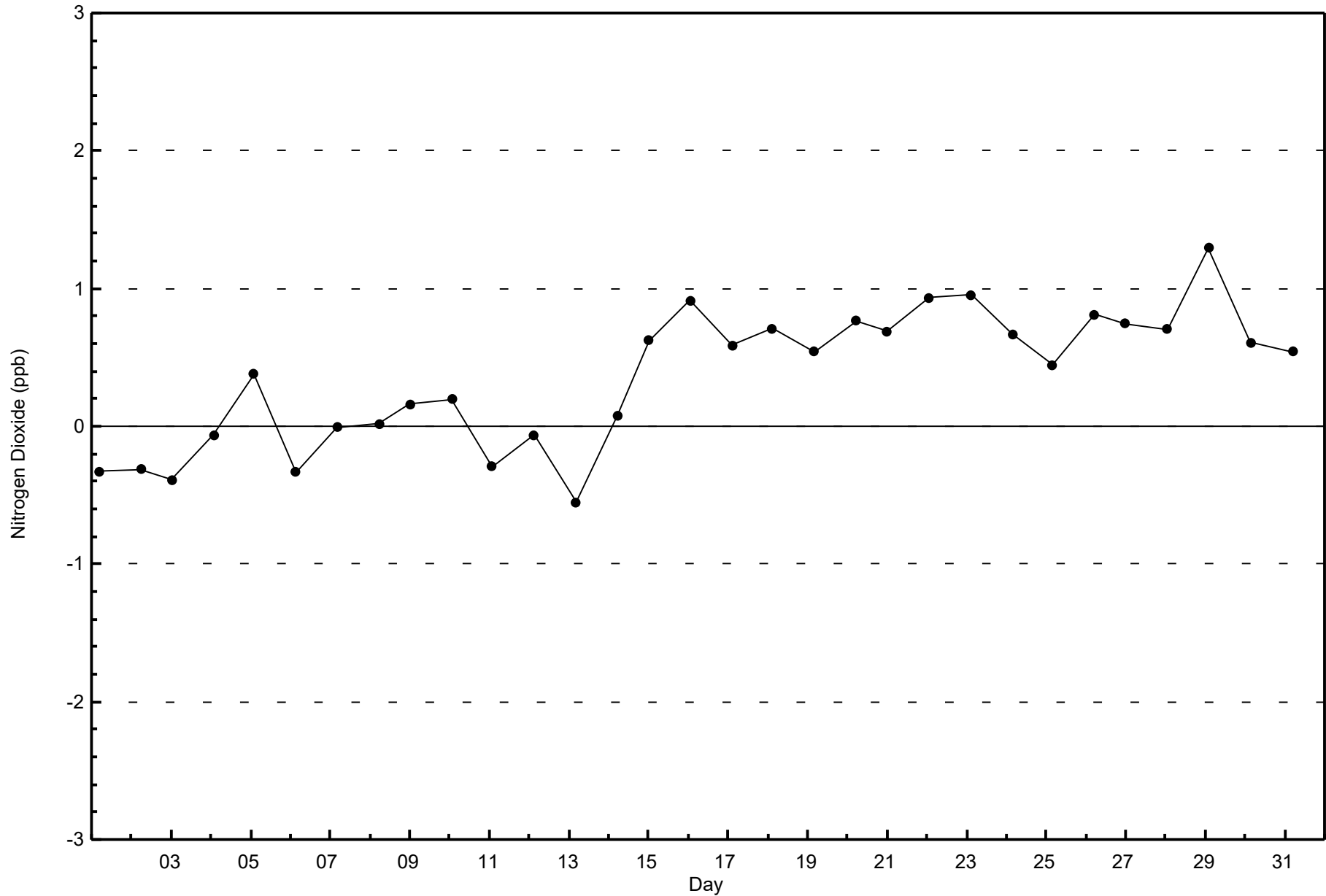
Nitrogen Dioxide (NO₂) - ppb
Ells River





Wood Buffalo Environmental Association
Zero Responses

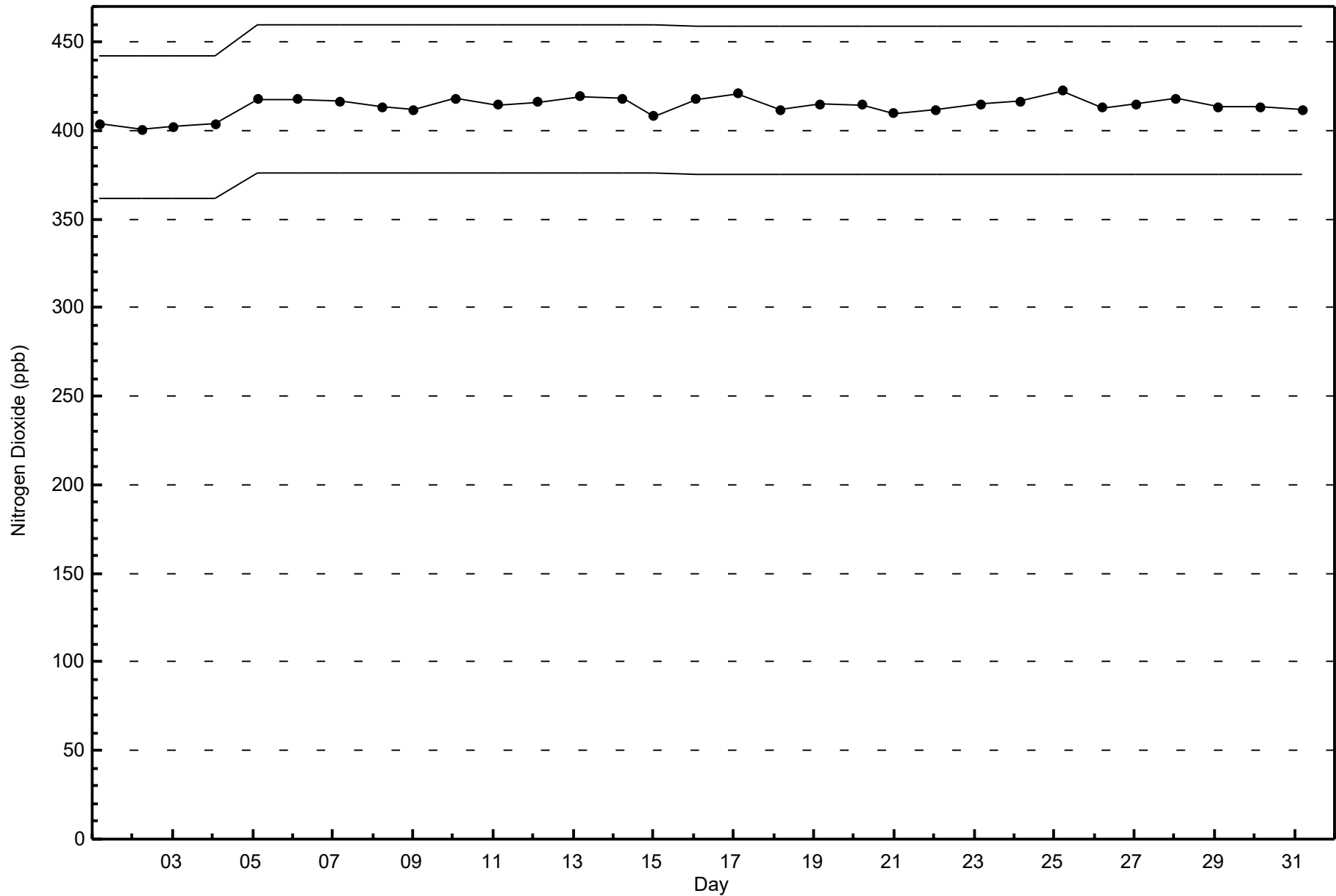
Nitrogen Dioxide (NO₂) - ppb
Ells River - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Ells River - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

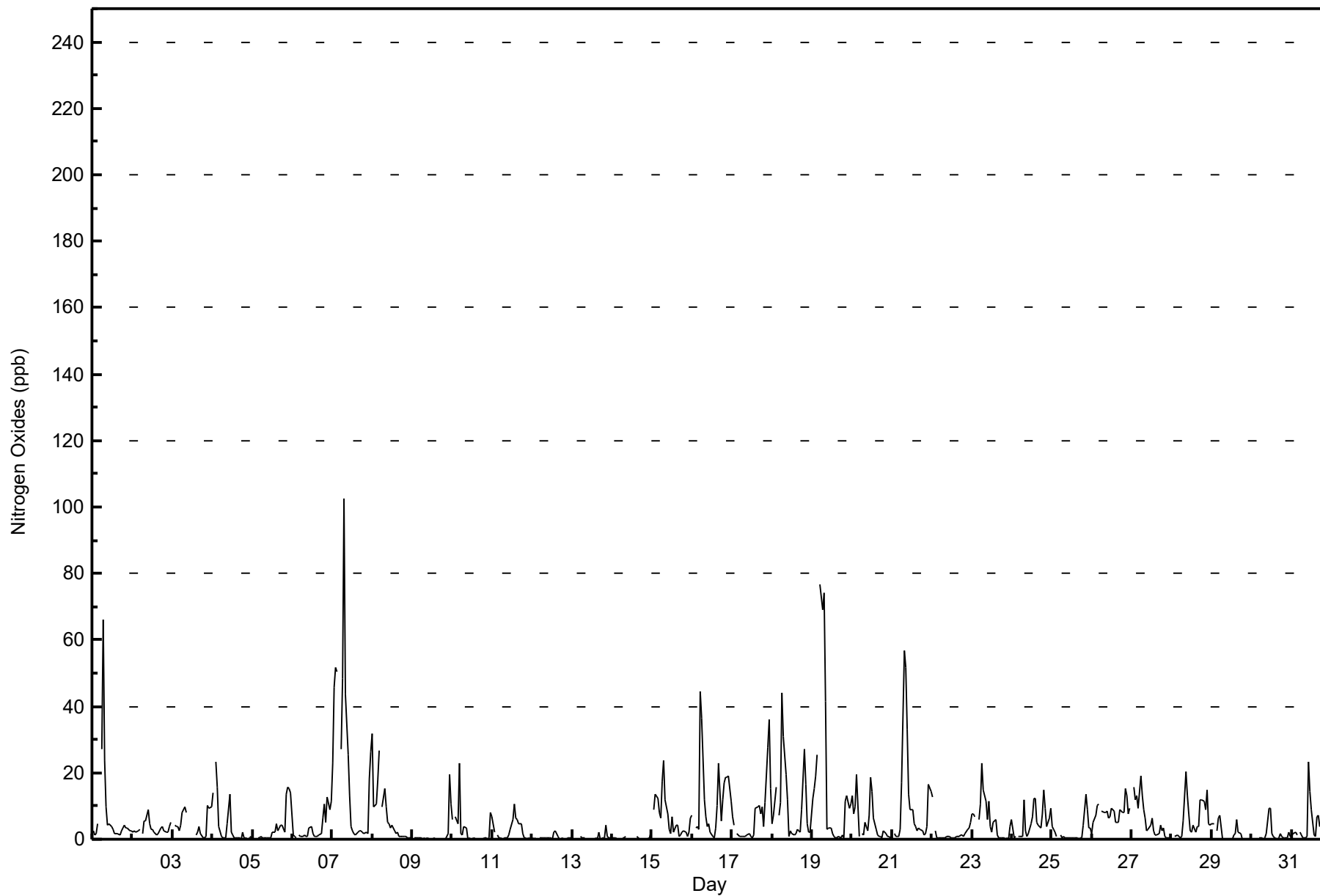
Ells River - July 2026

Maximum Value: 102.7 ppb on Jul 7 08:00																			Maximum Daily Average: 21.7 ppb on Jul 7																			Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 9 12:00																			Minimum Daily Average: 0.5 ppb on Jul 12																			Hours of Data: 697	
Maximum Diurnal Average: 13.4 ppb at hour 8																			Minimum Diurnal Average: 2.6 ppb at hour 18																			Hours of Missing Data: 47	
Monthly Average: 5.72 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 0.6 Median = 2.2 Q ₃ = 6.7 P ₉₀ = 13.8 P ₉₉ = 51.6																			Hours of Calibration: 36	
																																						Percent Operational Time: 98.5	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jul	2.4	1.4	1.7	4.7	Z	27.1	66.2	23.5	9.7	4.3	4.5	3.6	2.8	1.7	1.6	1.6	1.4	2.4	3.4	4.3	3.4	3.3	2.5	2.5	7.8	66.2													
2-Jul	2.3	2.7	2.3	2.8	2.8	Z	1.9	5.3	5.5	8.9	4.6	3.2	2.9	2.3	1.4	1.6	2.4	3.5	4.0	2.6	2.1	2.2	3.6	5.2	3.3	8.9													
3-Jul	Z	4.3	3.6	3.8	2.5	4.4	8.1	9.6	8.2	C	C	C	C	C	1.2	2.3	4.0	1.8	0.4	0.2	0.9	10.0	9.5	9.7	4.7	10.0													
4-Jul	13.8	Z	23.2	15.8	3.7	0.8	0.4	0.3	0.6	4.8	13.6	2.3	1.2	0.6	0.2	0.2	0.4	0.2	2.2	0.3	0.4	0.2	0.4	0.9	3.8	23.2													
5-Jul	0.2	0.1	Z	0.6	0.3	0.6	0.3	0.6	0.5	0.6	0.5	0.4	2.2	2.2	4.6	2.3	3.2	4.4	4.1	2.3	13.6	15.7	15.4	14.1	3.9	15.7													
6-Jul	1.1	0.8	0.6	Z	1.2	0.8	0.6	1.2	0.7	0.7	3.5	4.0	1.8	0.8	0.9	0.8	1.5	1.8	6.5	10.4	4.9	12.6	8.9	11.2	3.4	12.6													
7-Jul	22.7	45.9	51.7	50.2	Z	27.2	48.1	102.7	43.5	25.5	13.1	4.0	2.7	1.7	1.2	2.0	2.3	2.6	2.2	1.7	2.1	1.7	18.2	26.4	21.7	102.7													
8-Jul	31.7	9.9	10.6	17.8	26.9	Z	9.8	15.2	9.7	5.2	4.8	3.4	4.4	2.6	1.8	2.1	0.9	1.0	0.9	0.8	0.8	0.6	0.6	0.3	7.0	31.7													
9-Jul	Z	0.6	0.5	0.4	0.2	0.3	0.2	0.3	0.2	0.4	0.1	0.0	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	1.9	19.5	10.7	1.6	19.5													
10-Jul	6.0	Z	6.8	4.7	23.1	1.6	1.4	3.7	3.3	0.1	0.3	0.1	0.0	0.3	0.1	0.2	0.2	0.2	0.1	0.2	0.4	0.1	0.3	8.2	2.7	23.1													
11-Jul	6.9	2.1	Z	1.2	0.3	0.6	0.1	0.6	0.4	0.6	1.1	2.9	6.0	10.6	6.5	5.8	4.5	4.5	1.7	0.5	0.5	0.2	0.3	0.1	2.5	10.6													
12-Jul	0.5	0.1	0.3	Z	0.6	0.6	0.3	0.3	0.2	0.4	0.2	0.2	0.1	2.1	2.5	0.9	0.0	0.0	0.3	0.2	0.0	0.3	0.2	0.2	0.5	2.5													
13-Jul	0.1	0.0	0.1	0.0	Z	0.7	0.5	0.5	PF	PF	PF	PF	PF	0.0	0.2	0.1	2.0	0.0	0.3	0.3	4.3	0.8	0.3	0.5	0.6	4.3													
14-Jul	0.5	0.4	0.3	0.0	0.0	Z	0.4	0.5	0.8	M	M	M	M	M	M	0.8	0.1	0.0	0.1	0.0	0.1	0.1	0.3	2.1	-	2.1													
15-Jul	Z	9.1	13.8	12.4	7.8	6.5	17.4	23.9	12.1	7.8	3.2	1.5	6.7	2.2	4.4	4.2	0.8	1.3	2.0	2.5	2.0	1.0	2.3	6.2	6.6	23.9													
16-Jul	7.3	Z	3.2	3.8	3.2	44.5	36.3	11.9	6.7	3.8	4.7	2.1	0.8	0.6	3.6	10.4	22.8	5.5	12.1	16.9	18.5	18.5	19.3	11.6	11.6	44.5													
17-Jul	6.9	4.1	Z	1.6	0.9	0.8	0.8	0.7	0.6	1.3	1.5	0.8	0.5	1.4	9.2	9.9	10.0	7.5	9.8	3.8	10.8	27.6	36.1	15.4	7.0	36.1													
18-Jul	4.9	7.2	15.9	Z	7.0	11.0	44.2	30.7	19.6	11.8	0.9	2.6	1.6	1.2	1.5	2.8	2.6	2.2	8.8	27.2	16.7	4.5	2.1	2.0	10.0	44.2													
19-Jul	12.4	15.3	19.1	25.3	Z	76.5	68.9	74.3	41.4	3.0	3.3	3.4	1.5	1.0	0.3	0.4	0.9	0.6	1.3	0.6	11.3	13.1	9.5	10.4	17.1	76.5													
20-Jul	13.1	7.6	9.8	19.3	1.0	Z	1.7	1.4	5.2	2.5	7.1	18.6	14.5	6.5	3.1	1.3	1.0	0.9	0.5	2.5	1.8	0.8	0.7	0.3	5.3	19.3													
21-Jul	Z	1.6	0.8	1.0	0.8	2.8	17.0	56.8	51.6	33.1	13.4	9.0	8.9	4.8	3.7	2.4	3.3	2.9	2.5	1.4	1.8	3.9	16.7	14.5	11.1	56.8													
22-Jul	12.5	Z	2.7	0.6	0.5	0.3	0.3	0.3	0.5	0.8	0.9	0.6	0.4	0.6	0.5	0.8	0.9	1.2	1.1	1.0	1.8	2.9	3.5	5.0	1.7	12.5													
23-Jul	7.5	7.7	6.6	Z	5.9	10.4	22.8	14.8	11.4	5.9	11.6	3.6	2.0	5.0	6.0	1.1	0.4	0.3	0.5	0.3	0.2	0.3	0.2	3.8	5.6	22.8													
24-Jul	6.0	0.6	0.7	Z	0.9	0.7	0.9	11.9	2.5	0.7	1.6	4.5	6.7	12.3	12.1	5.2	4.3	3.5	7.7	14.6	9.3	3.8	6.5	9.3	5.5	14.6													
25-Jul	3.7	3.0	2.3	0.8	Z	1.1	0.6	0.9	0.5	0.3	0.4	0.4	0.5	0.4	0.4	0.3	0.1	0.5	0.5	4.2	13.7	8.7	3.4	3.2	2.2	13.7													
26-Jul	1.9	5.1	7.1	10.0	10.8	Z	8.6	8.1	8.1	8.3	6.5	6.6	9.5	8.5	5.1	5.1	5.3	8.9	8.1	7.9	15.2	13.0	7.4	9.5	8.0	15.2													
27-Jul	Z	15.7	11.8	13.1	9.3	19.0	13.1	9.0	6.5	2.3	2.9	4.4	6.3	2.7	1.2	1.2	1.6	4.2	2.7	3.4	0.7	0.2	0.3	0.2	5.7	19.0													
28-Jul	0.1	Z	0.8	1.1	0.7	0.3	0.9	5.3	20.4	13.2	7.8	2.7	1.9	4.2	2.2	3.8	3.9	11.9	11.8	11.2	8.9	14.9	4.7	4.0	6.0	20.4													
29-Jul	4.8	4.8	Z	2.5	6.5	7.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.4	1.5	5.7	2.1	1.8	0.1	0.0	0.0	0.0	0.0	0.0	1.7	7.1													
30-Jul	0.0	0.0	0.2	Z	0.5	0.3	0.2	0.2	0.6	1.5	9.2	9.3	1.8	0.7	0.6	0.2	0.3	1.6	0.7	0.4	0.6	0.3	2.3	0.8	1.4	9.3													
31-Jul	0.8	1.8	2.2	1.3	Z	1.9	1.1	0.6	0.6	1.0	23.1	14.2	9.1	1.3	0.7	6.6	7.2	3.7	4.5	4.9	4.1	3.7	2.3	1.4	4.3	23.1													
6.5 5.8 7.4 7.8 4.7 9.5 12.0 13.4 9.1 5.3 5.2 3.9 3.5 2.7 2.6 2.7 2.9 2.6 3.3 4.1 4.9 5.4 6.4 6.1																									Diurnal Average														
31.7 45.9 51.7 50.2 26.9 76.5 68.9 102.7 51.6 33.1 23.1 18.6 14.5 12.3 12.1 10.4 22.8 11.9 12.1 27.2 18.5 27.6 36.1 26.4																									Diurnal Maximum														
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																																							



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Ells River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Ells River - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	661	94.84	94.84
21 - 40	21	3.01	97.85
41 - 80	14	2.01	99.86
81 - 159	1	0.14	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 697

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Ells River - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	41	24	18	13	11	21	39	81	82	80	81	35	44	30	27	30	657
21 - 40	4	1	2	0	0	0	1	4	0	0	1	0	2	2	2	2	21
11 - 80	1	1	0	0	0	0	0	0	1	1	0	0	1	2	6	1	14
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	46	26	20	13	11	21	40	85	83	81	82	35	47	34	35	34	693

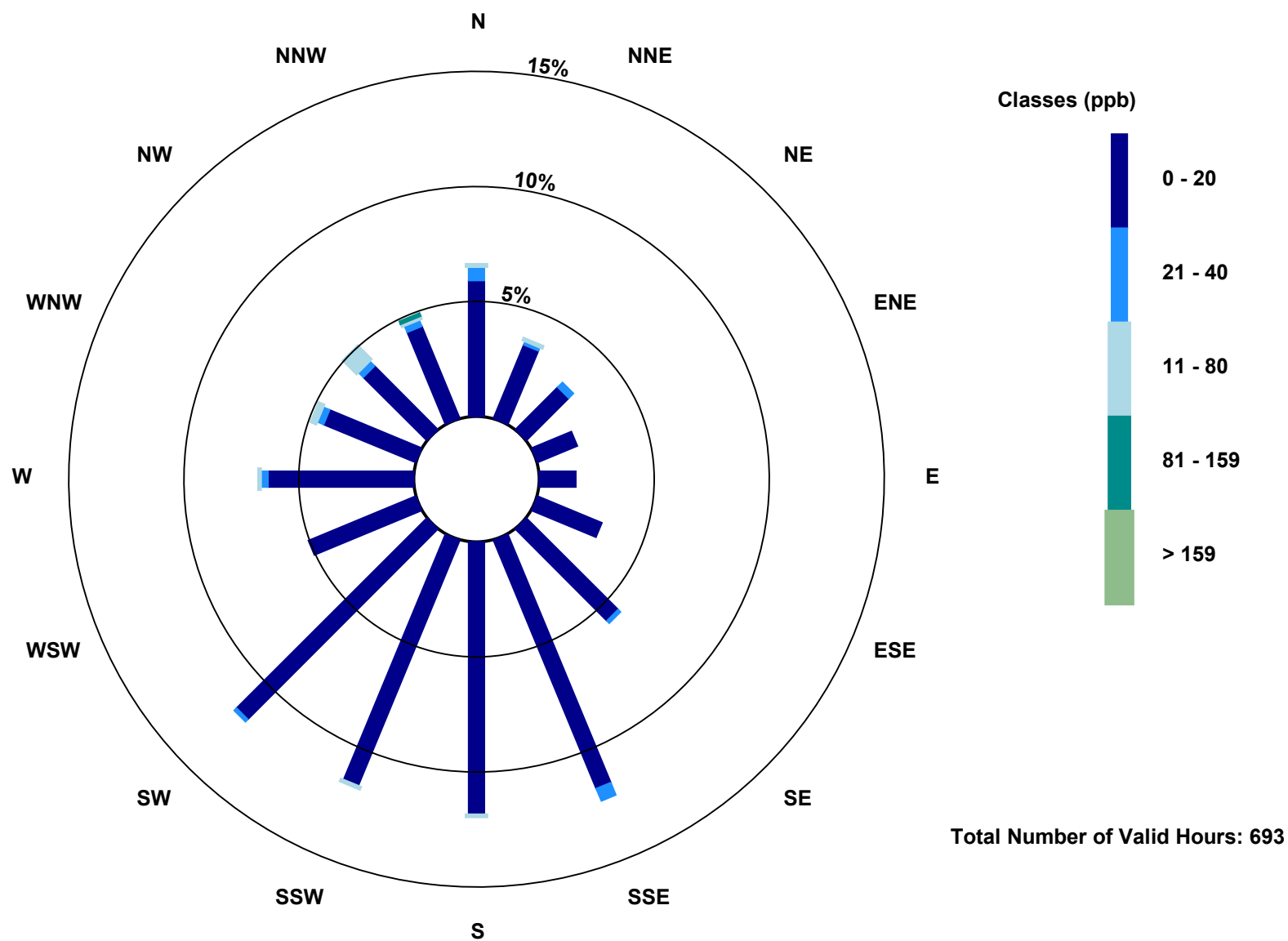
Total Number of Valid Hours: 693

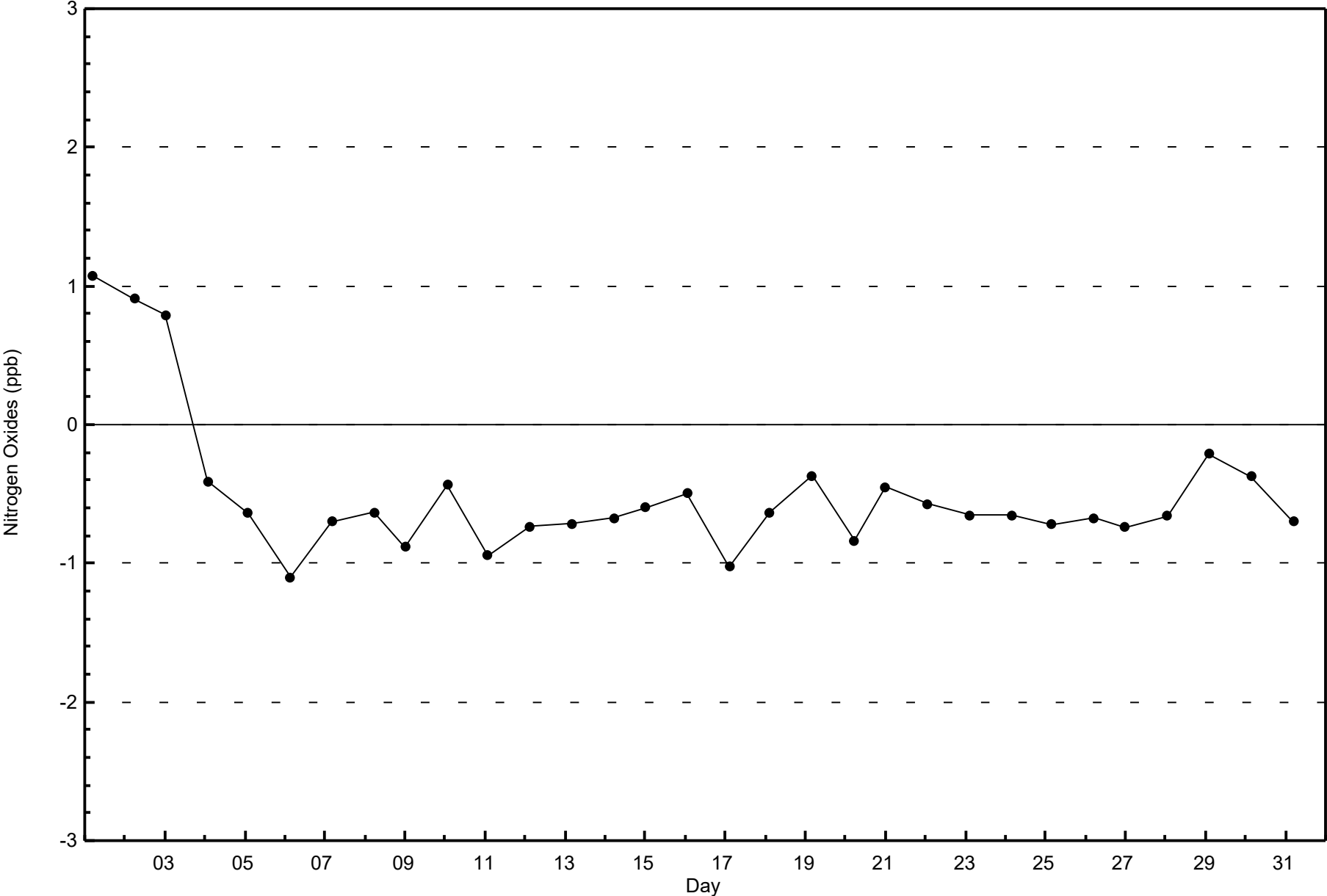
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Oxides (NO_x) - ppb
Ells River

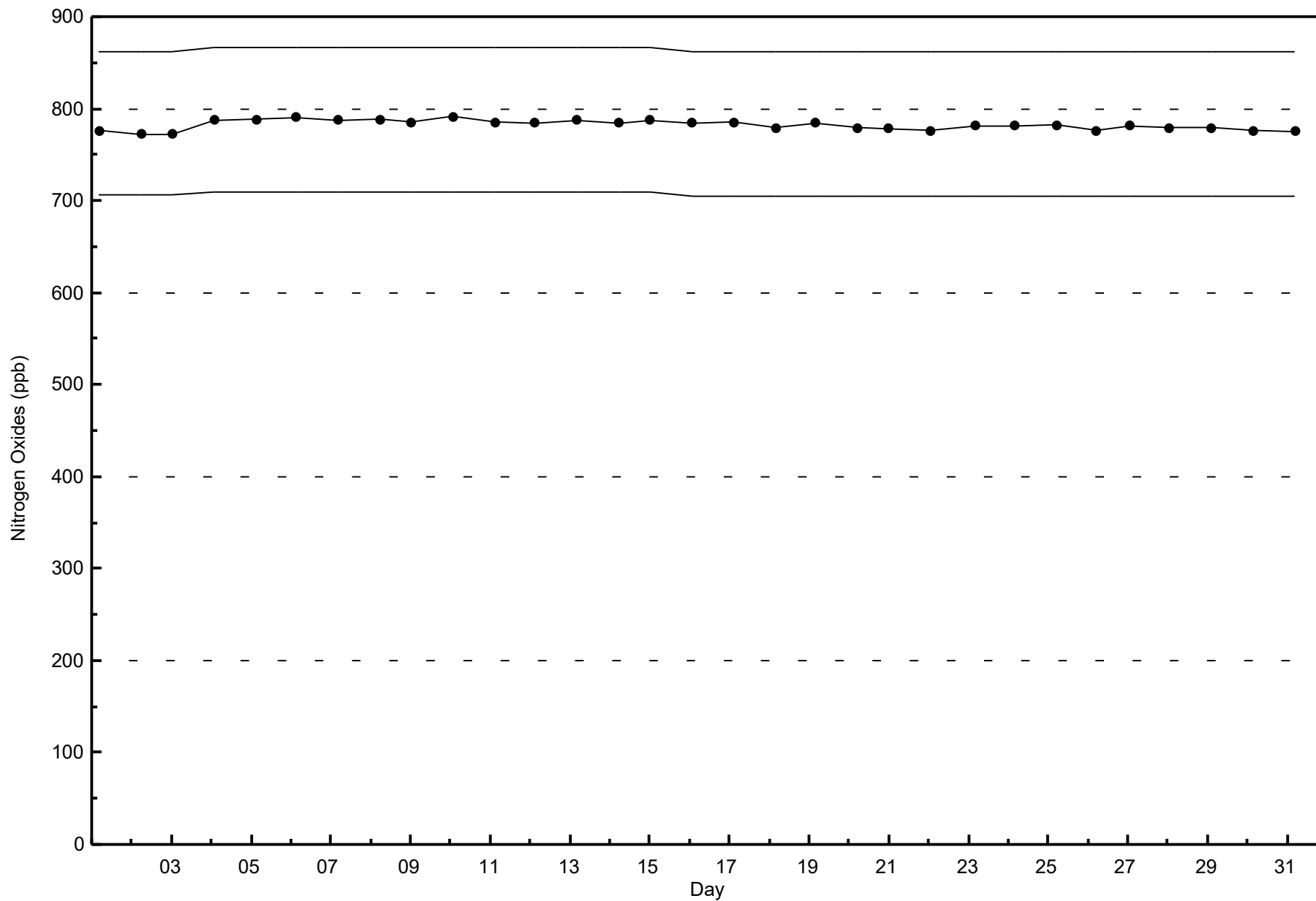






Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Ells River - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

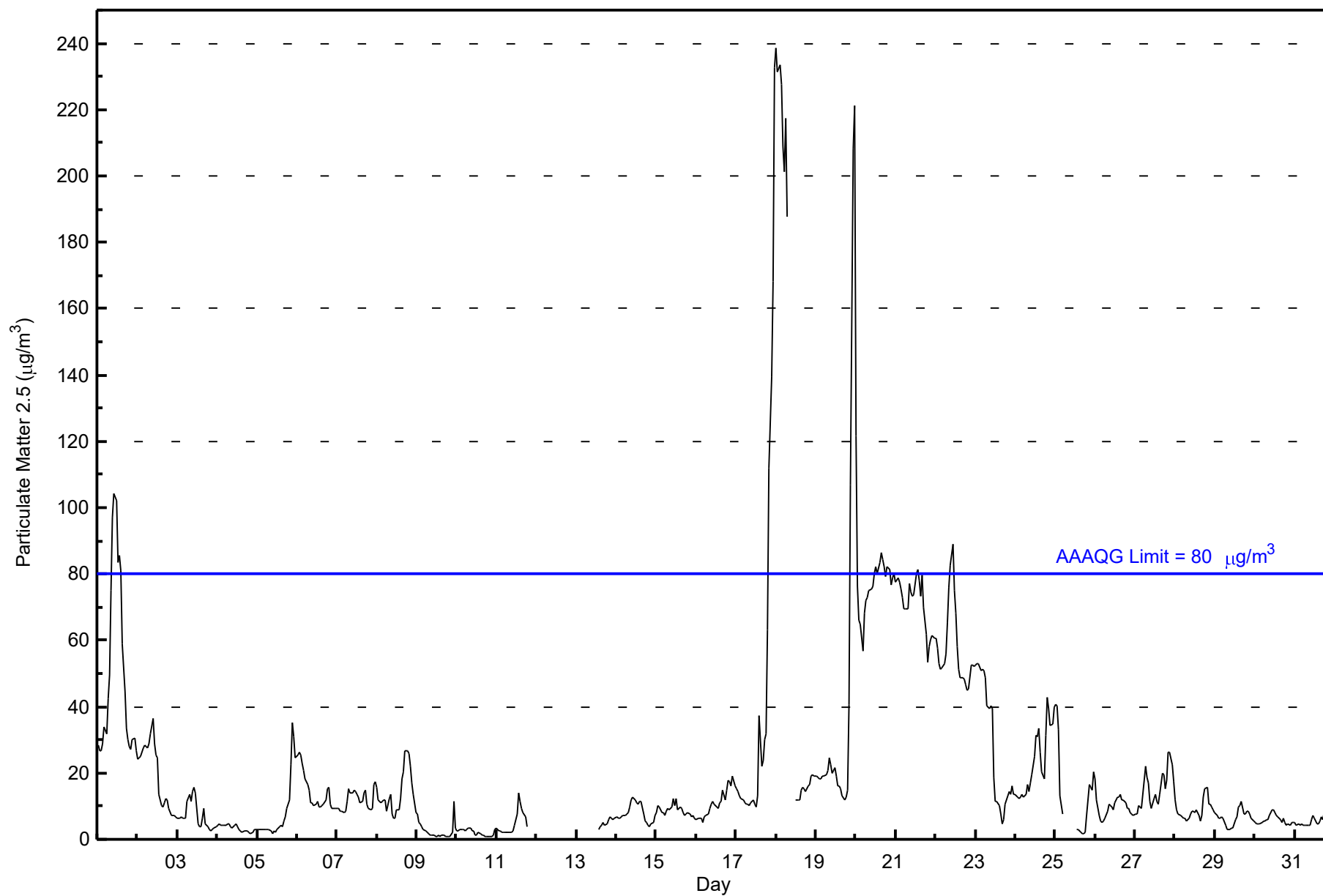
Ells River - July 2026

Number of Exceedances (AAAQO): 1-hr: 34 24-hr: 7 Maximum Value: 238.6 µg/m³ on Jul 18 01:00 Maximum Daily Average: 96.6 µg/m³ on Jul 18																					Hours in Service: 744 Hours of Data: 690						
Minimum Value: 0.7 µg/m³ on Jul 10 21:00 Minimum Daily Average: 2.0 µg/m³ on Jul 10 Maximum Diurnal Average: 32.2 µg/m³ at hour 24 Minimum Diurnal Average: 16.6 µg/m³ at hour 18 Monthly Average: 22.60 µg/m³ Percentiles: P ₁ = 1.0 P ₁₀ = 2.9 Q ₁ = 6.0 Median = 10.6 Q ₃ = 21.9 P ₉₀ = 63.2 P ₉₉ = 210.0																					Hours of Missing Data: 54 Hours of Calibration: 0 Percent Operational Time: 92.7						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	28.3	26.7	26.6	28.8	34.1	31.7	42.5	49.7	75.2	97.0	104.1	102.2	83.4	85.5	80.9	58.8	44.3	33.3	29.9	27.9	27.1	30.3	30.6	26.9	50.2	104.1	
2-Jul	24.4	24.8	25.1	27.7	28.3	27.8	27.6	28.7	31.9	36.4	28.8	25.5	24.6	13.6	10.2	9.8	10.9	12.3	12.0	9.2	7.3	7.0	7.2	6.7	19.5	36.4	
3-Jul	6.2	6.2	6.7	6.5	6.4	6.4	11.6	13.5	11.4	14.2	15.6	14.1	4.8	4.0	4.0	6.3	9.3	4.8	3.6	2.9	2.6	3.1	3.4	3.8	7.1	15.6	
4-Jul	4.2	4.7	4.3	4.2	4.4	4.2	4.6	4.6	3.8	3.5	4.3	4.5	3.7	3.1	2.4	2.2	2.4	2.6	2.7	2.2	1.7	2.1	2.8	3.0	3.4	4.7	
5-Jul	3.1	2.9	2.8	3.0	3.0	2.9	2.9	2.8	2.4	1.9	2.5	2.3	2.9	4.0	4.2	4.0	5.5	6.7	9.3	11.7	22.6	35.1	30.9	24.7	8.1	35.1	
6-Jul	25.5	26.2	25.6	22.9	20.8	18.4	16.6	14.9	11.0	10.9	10.2	10.7	11.4	9.6	9.9	10.3	10.8	11.8	15.1	15.7	10.7	9.4	9.5	9.3	14.5	26.2	
7-Jul	9.2	9.1	8.7	8.7	8.2	8.5	11.3	15.2	13.8	14.1	14.8	14.2	13.7	12.8	11.2	11.6	14.2	14.9	10.8	9.3	9.0	9.1	16.4	17.2	11.9	17.2	
8-Jul	15.7	11.7	11.1	11.6	12.0	11.8	8.4	12.1	13.7	7.7	6.5	6.5	8.9	9.0	12.3	18.3	20.3	26.9	26.9	25.9	21.9	17.0	13.5	8.1	14.1	26.9	
9-Jul	7.4	5.2	4.8	3.7	3.0	2.4	1.9	1.7	1.4	1.2	1.2	1.0	1.0	1.2	1.0	1.3	1.2	1.0	0.8	0.8	0.9	1.9	11.5	3.4	2.5	11.5	
10-Jul	2.7	2.7	2.8	3.0	3.1	2.7	3.0	3.3	3.2	2.5	2.4	1.4	1.3	2.0	1.5	1.2	1.2	1.0	1.1	1.0	0.7	0.9	1.2	2.8	2.0	3.3	
11-Jul	3.3	2.7	2.5	2.3	2.0	2.2	2.2	2.1	2.1	2.0	2.5	4.2	7.7	14.1	11.4	9.2	8.0	6.8	3.9	UO	UO	UO	UO	UO	4.8	14.1	
12-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--	
13-Jul	UO	UO	UO	UO	UO	UO	UO	UO	PF	PF	PF	PF	PF	PF	3.0	3.7	4.4	4.9	4.1	4.6	5.9	6.6	6.5	6.0	6.2	--	6.6
14-Jul	6.7	6.5	6.5	6.8	7.1	7.1	7.5	8.0	9.5	11.8	12.7	11.9	10.9	10.5	11.5	11.5	7.5	5.5	4.9	4.3	3.9	4.5	5.3	7.4	7.9	12.7	
15-Jul	7.9	10.0	9.7	8.1	8.0	7.2	8.3	9.5	9.0	9.9	12.3	10.1	12.4	8.7	9.7	9.5	8.0	7.0	7.7	7.9	7.5	7.0	7.0	6.4	8.7	12.4	
16-Jul	6.0	6.3	6.3	6.2	5.3	6.6	7.1	7.5	9.5	10.5	11.5	10.4	9.7	9.2	10.9	11.2	14.8	12.0	14.7	17.8	17.3	16.1	19.2	16.3	10.9	19.2	
17-Jul	15.4	14.2	13.3	12.3	11.8	10.9	10.6	10.7	10.1	10.9	11.8	10.7	9.8	13.2	37.4	22.0	23.9	30.0	32.0	63.1	112.1	139.6	168.0	232.6	42.8	232.6	
18-Jul	238.6	231.5	233.6	227.5	209.1	201.2	217.6	187.8	UO	UO	UO	UO	11.9	11.8	11.9	14.9	15.8	15.3	14.2	16.0	16.6	19.2	19.4	18.9	96.6	238.6	
19-Jul	19.1	18.4	18.4	18.3	19.1	19.1	19.5	21.0	24.5	22.4	19.9	21.7	19.2	16.0	16.1	15.4	13.0	11.8	12.7	14.8	40.8	106.6	207.9	221.1	39.0	221.1	
20-Jul	121.6	76.5	66.3	64.8	56.9	68.1	72.0	72.8	74.9	75.3	76.4	79.9	82.1	80.1	83.7	86.4	84.5	82.0	79.3	82.1	81.2	76.7	79.0	80.0	78.4	121.6	
21-Jul	77.6	78.8	77.7	75.5	72.9	69.7	69.7	69.6	76.9	74.5	73.1	73.8	80.1	81.3	77.8	73.3	79.9	70.0	62.0	53.5	57.9	60.0	61.4	60.7	71.2	81.3	
22-Jul	60.5	57.8	53.0	51.3	51.7	53.0	55.7	65.2	75.9	82.6	89.1	75.1	68.2	58.0	51.1	48.6	48.6	48.3	46.7	44.9	45.3	52.4	52.6	52.2	57.8	89.1	
23-Jul	52.6	53.1	52.9	50.9	51.4	51.0	48.8	40.3	39.3	40.3	39.5	18.6	11.2	11.6	10.1	7.5	4.9	6.1	10.6	13.2	14.2	13.7	15.9	13.4	28.0	53.1	
24-Jul	13.5	12.8	12.5	12.8	13.7	12.8	13.5	16.7	14.5	17.0	19.6	25.0	31.5	31.0	33.5	26.1	20.5	18.4	31.5	42.6	39.4	34.4	34.6	39.8	23.7	42.6	
25-Jul	40.7	40.4	32.9	13.1	7.7	UO	UO	UO	UO	UO	UO	UO	UO	UO	3.1	2.9	2.2	1.8	1.6	1.9	7.2	16.6	15.8	14.7	20.1	--	40.7
26-Jul	18.4	11.7	7.4	5.7	5.0	5.4	6.2	8.6	10.6	10.0	9.8	9.0	10.9	12.6	12.6	13.7	11.8	12.0	11.2	9.3	9.2	8.2	7.5	7.2	9.8	18.4	
27-Jul	7.6	7.7	10.2	9.6	9.5	17.7	21.8	18.7	16.9	11.5	9.1	12.3	13.7	11.5	10.8	13.7	20.0	19.7	15.4	17.9	26.3	26.1	22.3	17.4	15.3	26.3	
28-Jul	11.8	8.7	7.5	7.1	6.9	6.5	6.2	5.7	6.3	7.4	8.5	8.5	8.1	8.9	7.2	5.7	7.1	12.6	15.4	15.8	10.8	10.6	9.8	9.1	8.8	15.8	
29-Jul	8.1	7.3	6.4	6.5	6.6	6.5	4.2	3.0	2.9	2.9	3.5	3.2	6.0	7.0	9.9	10.2	11.3	7.6	7.6	8.5	8.5	7.7	6.3	5.6	6.6	11.3	
30-Jul	5.2	4.9	4.7	4.8	5.1	5.6	5.7	5.8	6.1	7.3	8.8	9.1	8.2	7.4	6.6	5.9	5.2	6.5	5.0	4.4	4.9	4.1	5.2	5.2	5.9	9.1	
31-Jul	5.0	4.4	4.5	4.4	4.5	4.4	4.3	4.1	4.2	4.1	6.0	7.2	6.2	4.6	4.7	5.6	6.8	6.0	7.9	8.6	7.4	7.3	7.7	8.2	5.8	8.6	
29.2 26.7 25.7 24.4 23.4 24.0 25.4 25.1 20.8 21.8 22.4 21.2 20.1 18.3 18.7 17.4 17.3 16.6 16.7 18.8 21.8 25.2 30.2 32.2																									Diurnal Average		
238.6 231.5 233.6 227.5 209.1 201.2 217.6 187.8 76.9 97.0 104.1 102.2 83.4 85.5 83.7 86.4 84.5 82.0 79.3 82.1 112.1 139.6 207.9 232.6																									Diurnal Maximum		
UO - Unstable Operation PF - Power Failure																											
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 µg/m³ 24-hr 29 µg/m³																											



Wood Buffalo Environmental Association
Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Ells River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Ells River - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Number of Hours	%	Cumulative %
0 - 5	161	23.33	23.33
6 - 15	301	43.62	66.96
16 - 25	71	10.29	77.25
26 - 80	125	18.12	95.36
> 81.0	32	4.64	100.00

Total Number of Valid Hours: 690

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Ells River - July 2026

Concentration Ranges ($\mu\text{g}/\text{m}^3$)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	0	2	0	0	2	2	3	11	36	28	32	13	14	9	5	3	160
6 - 15	19	23	18	9	6	9	17	46	26	26	29	10	19	13	18	11	299
16 - 25	16	0	1	3	3	6	5	6	3	4	1	2	7	5	5	4	71
26 - 80	10	3	2	1	0	1	14	21	20	10	5	8	8	8	7	7	125
> 81.0	2	0	0	0	1	2	3	3	2	1	0	3	2	0	2	10	31
Totals	47	28	21	13	12	20	42	87	87	69	67	36	50	35	37	35	686

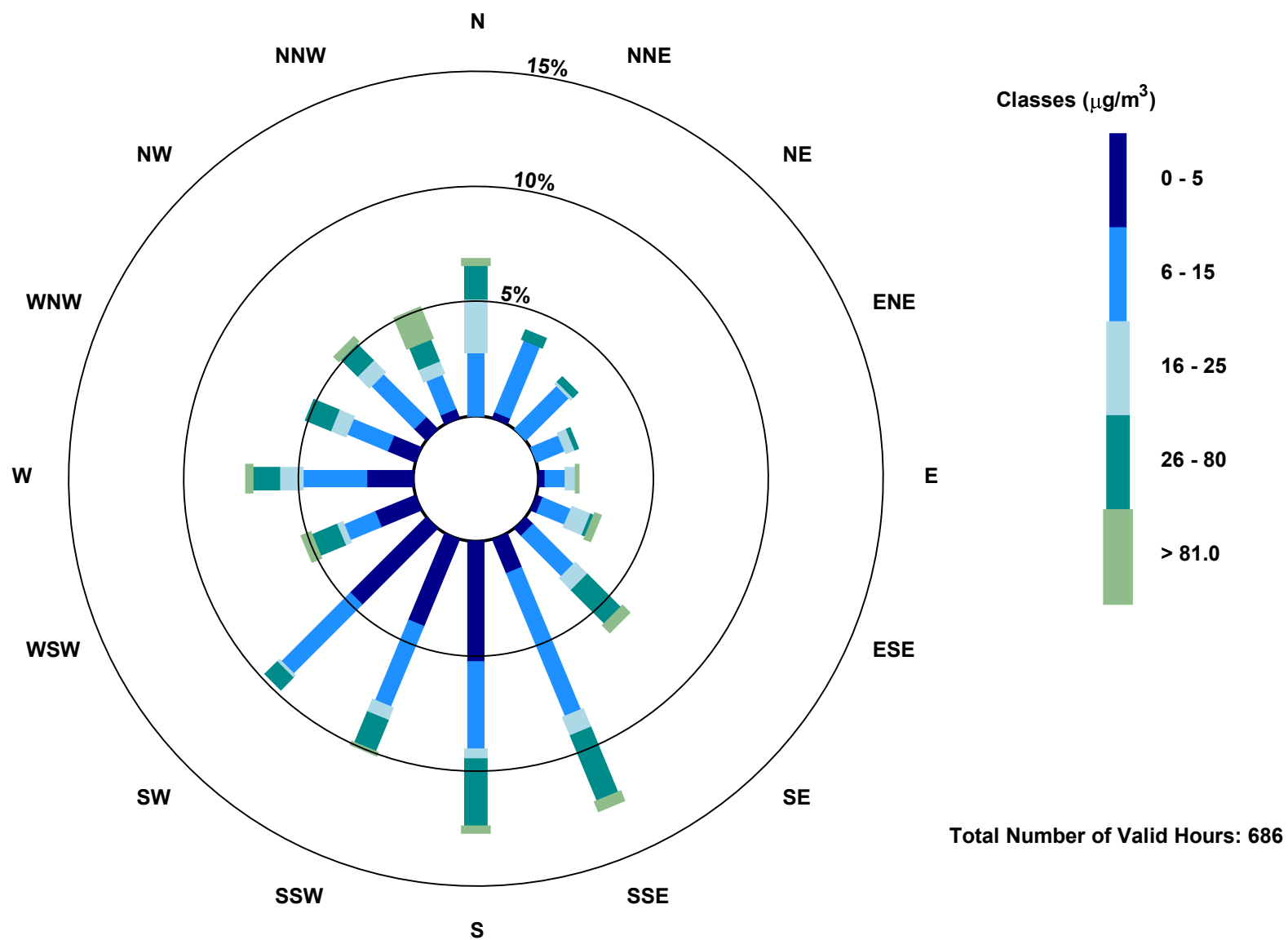
Total Number of Valid Hours: 686

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Ells River





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

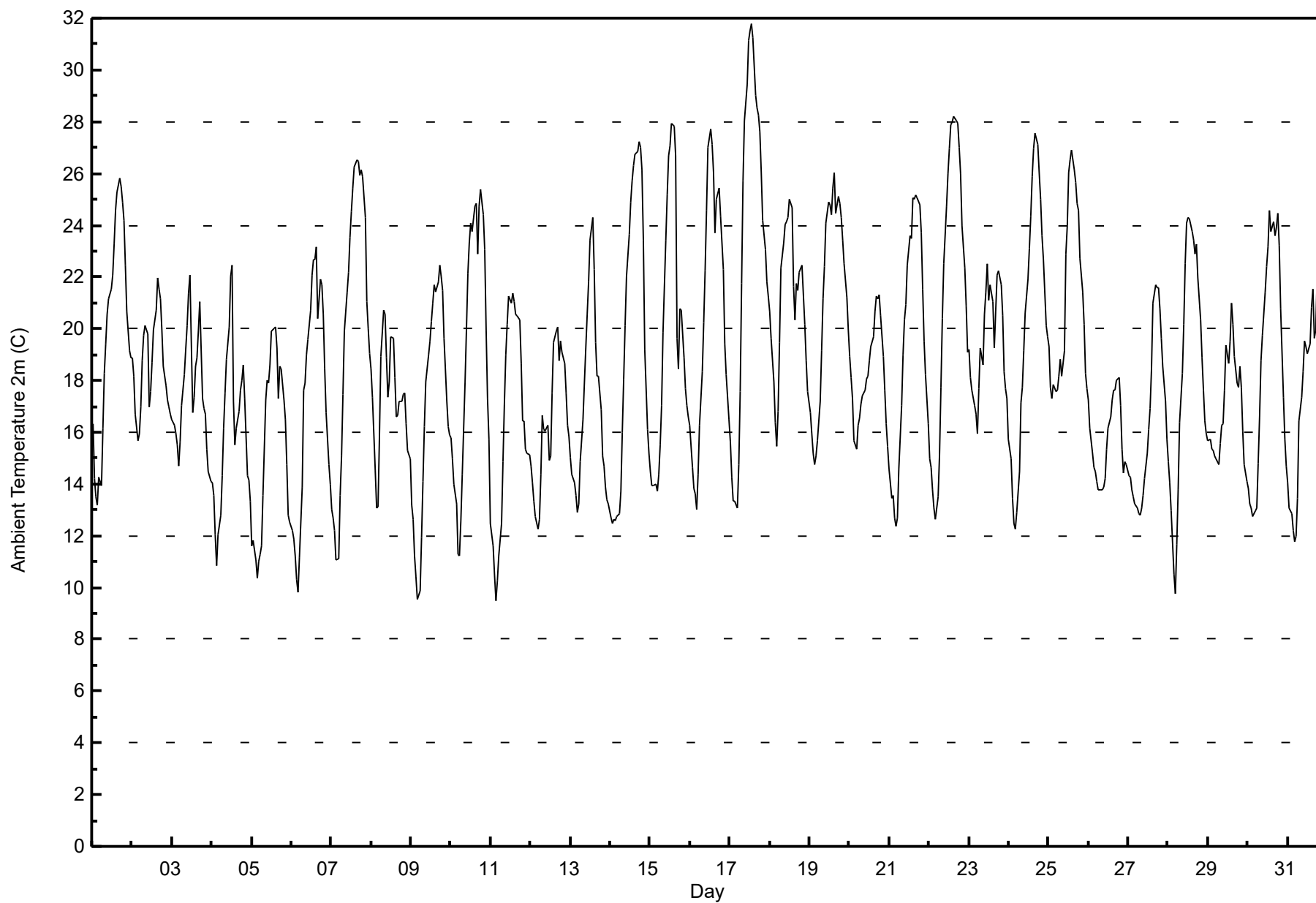
Ells River - July 2026

Maximum Value: 31.8 C on Jul 17 14:00																				Maximum Daily Average: 23.4 C on Jul 17					Hours in Service: 744			
Minimum Value: 9.5 C on Jul 11 04:00																				Minimum Daily Average: 15.5 C on Jul 5					Hours of Data: 744			
Maximum Diurnal Average: 22.8 C at hour 15																				Minimum Diurnal Average: 13.1 C at hour 5					Hours of Missing Data: 0			
Monthly Average: 18.61 C																				Percentiles: P ₁ = 10.4 P ₁₀ = 13.1 Q ₁ = 15.1 Median = 18.2 Q ₃ = 21.6 P ₉₀ = 24.8 P ₉₉ = 28.2					Hours of Calibration: 0			
																									Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																				Daily Average	Daily Maximum						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	16.3	14.2	13.5	13.2	14.3	13.9	16.1	18.3	19.4	20.6	21.1	21.5	22.1	23.3	24.6	25.2	25.8	25.5	24.9	24.2	22.4	20.7	19.2	18.9	20.0	25.8		
2-Jul	18.9	18.2	16.7	15.7	15.9	17.0	18.7	19.8	20.1	19.8	17.0	17.6	18.7	19.9	20.7	22.0	21.6	21.2	20.0	18.5	17.8	17.2	16.9	16.7	18.6	22.0		
3-Jul	16.5	16.3	15.9	15.5	14.7	15.6	17.0	18.2	19.2	20.1	21.4	22.1	16.7	17.3	18.6	18.9	19.9	21.1	17.3	16.9	16.7	15.4	14.5	14.1	17.5	22.1		
4-Jul	14.1	13.6	12.0	10.9	12.1	12.8	14.3	16.2	17.5	18.8	20.1	22.0	22.4	17.2	15.5	16.2	16.8	17.6	18.0	18.6	17.3	14.3	14.1	13.3	16.1	22.4		
5-Jul	11.6	11.8	11.1	10.3	11.0	11.3	11.6	13.6	17.3	18.0	17.9	18.6	19.9	20.0	20.1	19.2	17.3	18.5	18.4	17.3	16.5	14.8	12.8	12.5	15.5	20.1		
6-Jul	12.2	11.9	11.2	10.3	9.8	11.2	13.9	17.6	17.9	19.0	19.6	20.7	22.1	22.7	22.7	23.2	20.4	21.9	21.7	20.6	18.4	16.7	14.8	14.0	17.3	23.2		
7-Jul	13.0	12.7	12.2	11.1	11.1	13.6	15.1	17.5	19.9	21.4	22.2	23.5	24.5	25.5	26.3	26.5	26.4	25.9	26.2	25.9	24.3	21.0	20.0	19.0	20.2	26.5		
8-Jul	18.4	17.3	14.5	13.1	13.1	15.8	18.9	20.7	20.6	18.9	17.3	18.0	19.7	19.7	18.1	16.6	16.7	17.2	17.2	17.4	17.5	16.3	15.3	15.0	17.2	20.7		
9-Jul	13.2	12.6	11.2	10.4	9.6	9.9	11.9	14.1	16.2	18.0	19.0	19.5	20.3	21.0	21.7	21.4	21.8	22.4	22.0	21.5	19.7	17.2	16.2	15.9	16.9	22.4		
10-Jul	15.8	15.0	14.0	13.2	11.3	11.2	12.6	14.4	17.9	20.0	22.1	23.3	24.1	23.8	24.7	24.8	22.9	24.7	25.4	24.4	23.1	19.9	17.3	15.7	19.2	25.4		
11-Jul	12.5	11.6	10.5	9.5	10.3	11.2	12.5	14.9	17.1	19.0	20.2	21.3	21.0	21.3	21.0	20.5	20.5	20.4	18.7	16.4	16.5	15.4	15.2	15.1	16.3	21.3		
12-Jul	14.7	14.0	13.3	12.8	12.3	12.6	14.4	16.7	16.1	16.1	16.3	14.9	15.1	17.5	19.5	19.9	20.1	18.7	19.5	19.1	18.7	17.5	16.2	15.9	16.3	20.1		
13-Jul	15.1	14.4	14.0	13.5	12.9	13.2	14.9	16.5	17.9	19.3	20.6	21.8	23.4	24.3	22.3	19.5	18.2	18.2	16.9	15.1	14.7	13.9	13.4	13.2	17.0	24.3		
14-Jul	12.7	12.5	12.7	12.6	12.8	12.8	13.7	16.0	18.1	20.1	22.0	23.6	24.9	25.7	26.3	26.7	26.8	27.2	27.0	26.2	23.4	19.2	16.1	15.2	19.8	27.2		
15-Jul	14.5	13.9	14.0	14.0	13.7	14.4	15.5	17.0	19.8	23.4	25.2	26.7	27.1	27.9	27.8	26.7	19.6	18.4	20.8	20.7	18.8	17.7	17.1	16.6	19.6	27.9		
16-Jul	16.3	14.6	13.8	13.6	13.0	14.4	16.2	18.3	20.3	22.2	24.6	27.0	27.7	27.1	26.0	23.7	25.0	25.4	24.3	23.3	22.3	19.4	18.2	16.5	20.6	27.7		
17-Jul	15.6	14.3	13.4	13.3	13.1	14.8	17.6	21.8	25.7	28.0	29.5	31.1	31.5	31.8	31.2	29.0	28.5	28.2	27.6	26.0	24.2	23.0	21.8	21.3	23.4	31.8		
18-Jul	20.6	19.6	17.9	16.4	15.4	16.8	19.5	22.4	23.3	24.0	24.1	24.3	25.0	24.7	21.6	20.3	21.7	21.5	22.2	22.4	21.3	20.2	18.8	17.6	20.9	25.0		
19-Jul	16.7	15.9	15.2	14.8	15.1	15.6	17.2	19.2	21.2	22.4	24.1	24.9	24.8	24.4	25.4	26.0	24.5	25.1	24.9	24.3	23.4	22.5	21.2	19.9	21.2	26.0		
20-Jul	18.9	18.1	17.3	15.7	15.3	16.3	16.6	17.1	17.4	17.6	18.1	18.2	18.8	19.3	19.7	20.7	21.3	21.2	21.3	20.5	18.9	17.6	16.3	15.5	18.2	21.3		
21-Jul	14.6	13.5	13.6	12.7	12.4	12.7	14.6	17.0	19.0	20.4	20.9	22.5	23.6	23.5	25.1	25.0	25.2	25.1	24.8	23.7	21.6	19.5	18.2	16.3	19.4	25.2		
22-Jul	15.0	14.6	13.8	13.1	12.7	13.5	15.1	17.7	20.4	22.5	24.7	26.0	27.0	27.9	28.0	28.2	28.1	28.0	27.0	26.0	24.0	22.4	20.9	19.1	21.5	28.2		
23-Jul	19.2	18.1	17.6	17.0	16.7	15.9	17.7	19.2	18.6	20.6	21.4	22.5	21.1	21.7	21.0	19.2	20.6	22.1	22.2	21.7	20.5	18.3	17.7	17.3	19.5	22.5		
24-Jul	15.7	15.0	13.4	12.5	12.3	12.9	14.5	17.1	17.7	19.2	20.6	21.9	23.1	24.4	25.9	27.0	27.5	27.1	26.0	25.0	23.6	22.7	20.1	19.7	20.2	27.5		
25-Jul	19.3	17.7	17.3	17.8	17.6	17.6	18.2	18.8	18.2	19.1	22.9	24.0	26.0	26.5	26.9	26.1	25.7	24.8	24.6	22.7	21.4	20.2	18.3	17.7	21.2	26.9		
26-Jul	17.3	16.2	15.2	14.6	14.5	14.1	13.8	13.8	13.8	13.9	14.2	15.4	16.2	16.6	17.3	17.6	17.6	18.0	18.1	17.1	15.3	14.4	14.9	14.7	15.6	18.1		
27-Jul	14.3	14.3	13.8	13.5	13.2	13.1	12.9	12.8	13.1	13.5	14.2	15.2	16.1	16.9	18.4	21.0	21.7	21.6	21.6	20.8	19.6	18.5	17.2	15.7	16.4	21.7		
28-Jul	14.8	14.1	12.9	10.5	9.8	11.6	13.8	16.4	18.3	20.2	22.5	24.1	24.3	24.2	23.8	23.4	22.9	23.3	22.0	20.3	18.8	17.6	16.4	15.9	18.4	24.3		
29-Jul	15.7	15.7	15.4	15.3	15.1	15.0	14.8	15.6	16.3	16.3	17.6	19.4	18.7	19.5	21.0	20.2	18.9	17.9	17.7	18.5	17.7	16.0	14.7	14.1	17.0	21.0		
30-Jul	13.8	13.2	13.1	12.7	13.0	13.1	14.8	16.6	18.7	19.7	21.4	22.4	23.1	24.6	23.7	24.2	23.6	23.9	24.5	23.2	20.7	17.4	15.7	14.7	18.8	24.6		
31-Jul	14.1	13.0	12.8	12.2	11.8	12.0	13.5	16.4	17.4	18.3	19.5	19.3	19.0	19.4	20.8	21.5	19.6	19.9	22.0	21.6	19.6	17.5	16.0	14.9	17.2	22.0		
Diurnal Average																												
Diurnal Maximum																												



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Ells River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Ells River - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	5	0.67	0.67
10 - 20	471	63.31	63.98
> 20	268	36.02	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

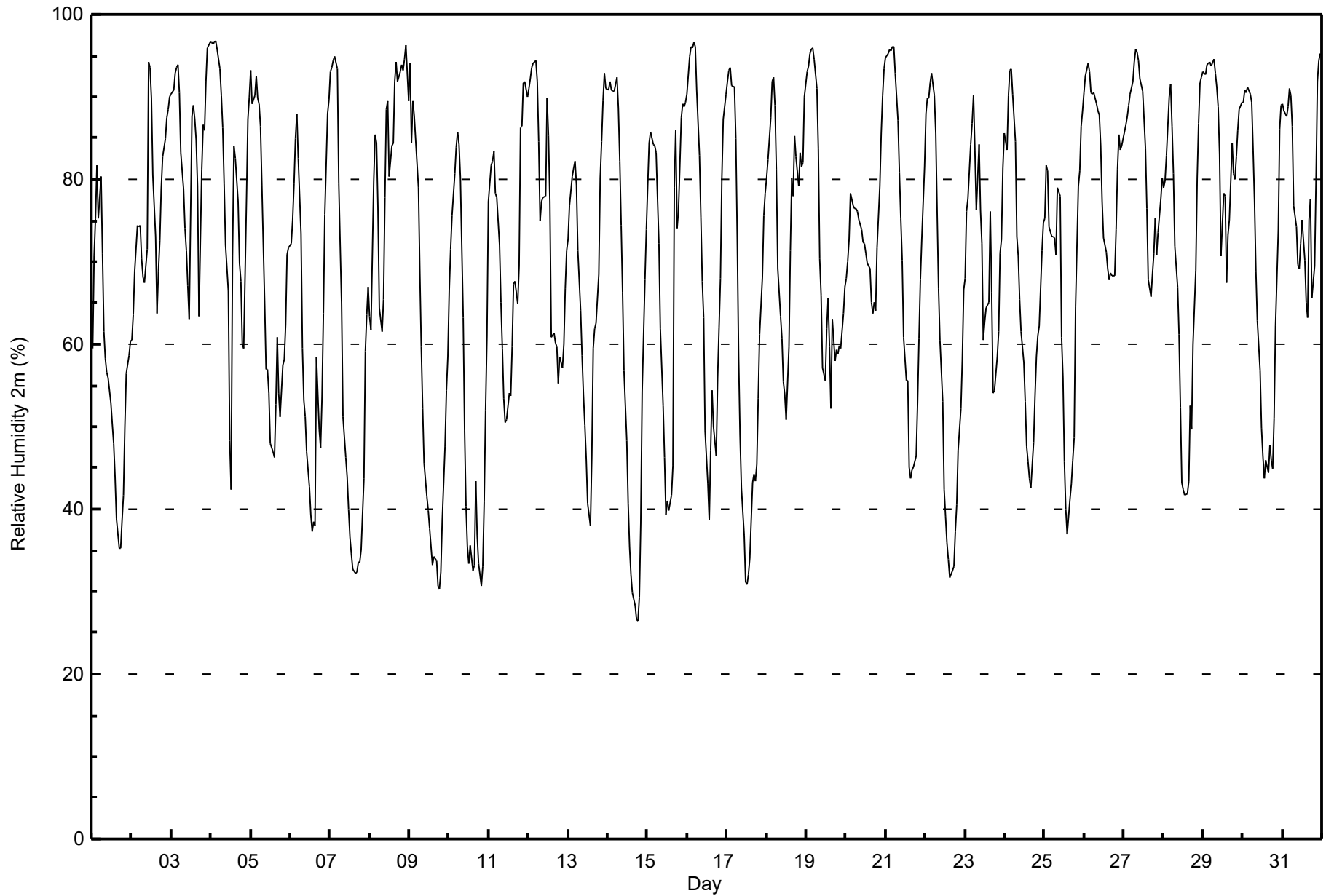
Ells River - July 2026

Maximum Value: 96.8 % on Jul 4 04:00																				Maximum Daily Average: 85.3 % on Jul 29					Hours in Service: 744	
Minimum Value: 26.4 % on Jul 14 19:00																				Minimum Daily Average: 53.4 % on Jul 10					Hours of Data: 744	
Maximum Diurnal Average: 88.5 % at hour 4																				Minimum Diurnal Average: 53.9 % at hour 15					Hours of Missing Data: 0	
Monthly Average: 70.12 %																				Percentiles: P ₁ = 30.8 P ₁₀ = 42.3 Q ₁ = 56.9 Median = 72.8 Q ₃ = 86.4 P ₉₀ = 92.3 P ₉₉ = 96.1					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	59.6	70.7	75.2	81.8	75.2	80.4	71.1	61.6	58.2	56.6	55.9	52.9	50.4	48.0	43.9	38.8	35.3	35.2	38.7	41.6	50.1	56.4	58.7	60.3	56.5	81.8
2-Jul	60.6	63.6	68.7	74.5	74.3	74.3	70.4	68.2	67.5	71.6	94.3	93.5	89.8	80.5	73.1	63.7	68.9	72.5	78.9	82.6	85.0	87.5	88.5	89.9	76.8	94.3
3-Jul	90.4	90.9	92.9	93.6	93.9	90.6	83.2	78.8	74.1	71.4	67.0	63.0	87.7	89.0	87.4	84.8	79.2	63.3	81.2	86.6	85.9	91.9	95.9	96.6	84.1	96.6
4-Jul	96.6	96.4	96.6	96.8	95.7	93.5	90.1	86.3	79.5	72.1	66.5	48.4	42.3	70.6	84.1	82.6	77.3	69.8	67.7	60.1	59.4	77.6	87.3	90.0	78.6	96.8
5-Jul	93.2	89.2	90.2	92.5	89.9	89.2	86.4	79.4	64.9	56.9	56.9	54.1	48.0	47.0	46.3	52.7	60.8	54.1	51.2	57.4	58.2	62.4	70.9	71.6	67.6	93.2
6-Jul	72.3	75.0	79.4	84.9	88.0	82.5	73.3	59.4	53.2	51.2	46.9	42.7	39.3	37.3	38.5	37.9	58.6	49.7	47.5	53.5	63.8	75.8	87.9	89.7	62.0	89.7
7-Jul	93.1	93.6	94.4	95.0	93.3	79.5	72.0	64.8	51.2	46.3	43.9	40.1	36.6	34.6	32.7	32.2	32.4	33.6	33.5	35.0	43.7	59.2	63.5	67.0	57.1	95.0
8-Jul	63.4	61.6	79.9	85.5	84.4	76.7	64.5	61.5	65.4	77.9	88.5	89.5	80.3	84.0	84.3	91.9	94.2	91.9	93.0	94.0	93.2	94.7	96.2	89.6	82.7	96.2
9-Jul	94.1	84.5	89.5	87.6	84.8	79.0	68.6	59.7	52.2	45.5	41.5	39.8	37.7	35.4	33.2	34.3	33.8	30.6	30.4	32.4	38.6	47.7	54.5	58.5	53.9	94.1
10-Jul	66.5	71.5	75.7	80.6	83.9	85.7	84.3	80.2	63.3	49.5	40.4	35.4	33.4	35.6	32.5	33.2	43.4	36.7	33.4	30.7	33.0	40.8	52.0	61.0	53.4	85.7
11-Jul	77.3	81.7	82.3	83.3	78.4	77.7	72.0	65.2	59.5	53.4	50.5	50.8	54.1	53.8	59.6	67.2	67.5	64.9	69.5	86.3	86.5	91.7	91.9	90.0	71.5	91.9
12-Jul	91.0	92.2	93.6	94.0	94.3	91.9	84.5	74.8	77.3	77.8	78.0	89.8	85.3	77.2	60.8	61.4	60.2	59.7	55.2	58.5	57.1	60.0	66.7	71.4	75.5	94.3
13-Jul	72.7	76.8	80.4	81.4	82.2	79.3	71.3	64.1	58.6	53.9	50.1	46.1	40.7	37.9	46.4	59.5	61.9	62.5	68.5	80.1	84.6	89.5	92.9	91.0	68.0	92.9
14-Jul	90.8	91.9	90.9	90.7	90.6	92.4	88.7	82.1	74.4	66.2	56.8	48.3	40.7	35.4	32.1	29.8	28.3	26.6	26.4	29.4	38.3	54.2	67.8	73.8	60.3	92.4
15-Jul	79.3	84.4	85.8	84.3	84.0	83.2	77.5	72.2	61.9	52.6	46.3	39.3	41.0	39.9	41.8	45.3	79.0	85.9	74.1	76.2	87.5	89.1	88.9	89.4	70.4	89.4
16-Jul	90.4	95.0	96.0	95.9	96.6	96.0	90.8	82.9	75.4	67.6	63.1	49.5	43.0	38.6	47.1	54.3	49.9	46.5	55.9	62.1	67.9	80.2	87.3	90.3	71.8	96.6
17-Jul	91.9	93.2	93.6	91.4	91.3	85.0	73.1	58.5	49.0	42.6	36.8	31.2	30.9	32.1	34.1	43.2	44.3	43.4	45.4	53.4	61.2	68.1	75.6	78.2	60.3	93.6
18-Jul	80.2	82.3	87.4	91.9	92.3	89.0	81.2	69.2	63.3	60.7	55.4	54.0	50.8	59.7	71.4	80.1	78.0	85.2	82.7	79.2	83.3	81.4	82.0	90.0	76.3	92.3
19-Jul	93.1	93.8	95.2	95.8	95.9	94.6	91.0	83.8	70.3	66.0	57.1	55.5	61.9	65.6	59.7	52.3	63.0	58.0	59.4	58.9	59.9	59.4	63.7	67.0	71.7	95.9
20-Jul	67.9	70.1	72.7	78.2	76.7	76.5	76.5	76.1	75.0	73.9	72.4	72.2	71.1	69.8	69.1	65.1	63.8	65.0	64.1	71.7	79.1	85.5	90.2	93.4	74.0	93.4
21-Jul	94.7	95.3	95.8	95.7	96.1	96.1	92.9	87.2	80.9	75.2	70.1	60.8	55.6	55.6	45.1	43.8	44.8	45.1	46.4	52.8	60.6	67.8	72.6	81.5	71.3	96.1
22-Jul	88.0	89.8	89.8	91.7	92.9	90.2	85.7	76.0	66.7	60.5	53.0	42.4	39.1	36.0	33.9	31.8	32.6	33.1	37.3	40.5	47.1	52.2	58.2	66.6	59.8	92.9
23-Jul	68.0	76.1	77.6	84.2	86.8	90.1	83.5	76.3	84.2	76.2	72.3	60.6	62.8	64.4	65.1	76.2	66.3	54.0	54.4	58.5	61.5	71.1	72.6	81.3	71.8	90.1
24-Jul	85.6	83.5	90.2	93.2	93.4	90.4	84.5	73.1	70.7	65.4	61.5	57.8	53.1	47.6	45.8	43.7	42.5	48.2	53.7	58.4	61.1	62.2	71.3	74.7	67.2	93.4
25-Jul	75.2	81.7	81.0	74.2	73.1	73.0	72.8	70.8	78.9	77.9	60.8	55.9	45.7	40.0	37.0	41.2	43.0	46.0	48.6	64.6	79.2	81.0	86.4	88.3	65.7	88.3
26-Jul	90.6	92.5	94.0	93.1	90.5	90.3	90.4	89.2	88.4	87.8	84.1	77.3	72.9	71.2	69.1	67.9	68.6	68.3	68.3	73.9	81.2	85.4	83.6	84.1	81.8	94.0
27-Jul	85.8	86.6	87.7	89.0	90.3	91.9	94.2	95.7	95.4	94.4	92.1	90.7	87.3	83.7	76.5	67.8	65.7	68.4	71.1	75.2	70.8	73.5	77.7	80.2	83.0	95.7
28-Jul	79.0	79.9	82.9	90.0	91.5	86.5	80.6	71.9	67.0	61.2	52.4	43.3	42.4	41.7	41.8	43.3	52.6	49.6	60.0	68.9	80.2	86.8	91.7	92.4	68.2	92.4
29-Jul	93.0	92.8	93.8	94.1	94.2	93.8	94.5	92.9	91.2	88.8	83.0	70.6	78.3	78.0	67.5	73.3	75.0	84.4	80.7	80.0	82.8	86.0	88.5	89.3	85.3	94.5
30-Jul	89.3	90.8	90.6	91.2	90.4	89.4	83.5	77.2	68.8	62.9	56.8	49.8	46.5	43.7	46.0	44.4	47.8	45.9	44.8	51.0	62.2	73.8	86.2	89.0	67.6	91.2
31-Jul	89.2	88.2	87.7	88.8	91.0	90.2	86.4	76.8	74.3	69.7	69.2	72.1	75.1	70.1	65.1	63.2	75.0	77.7	65.6	69.5	79.9	91.9	94.4	95.2	79.4	95.2
82.7 84.4 86.8 88.5 88.2 86.4 81.3 74.7 69.7 65.6 62.1 57.3 55.6 55.0 53.9 55.1 57.9 56.6 57.7 62.0 67.2 73.7 78.9 81.7																										Diurnal Average
96.6 96.4 96.6 96.8 96.6 96.1 94.5 95.7 95.4 94.4 94.3 93.5 89.8 89.0 87.4 91.9 94.2 91.9 93.0 94.0 93.2 94.7 96.2 96.6																										Diurnal Maximum



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Ells River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %
Ells River - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	61	8.20	8.20
40 - 60	159	21.37	29.57
60 - 80	245	32.93	62.50
80 - 100	279	37.50	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Global Radiation (GR) - W/m2

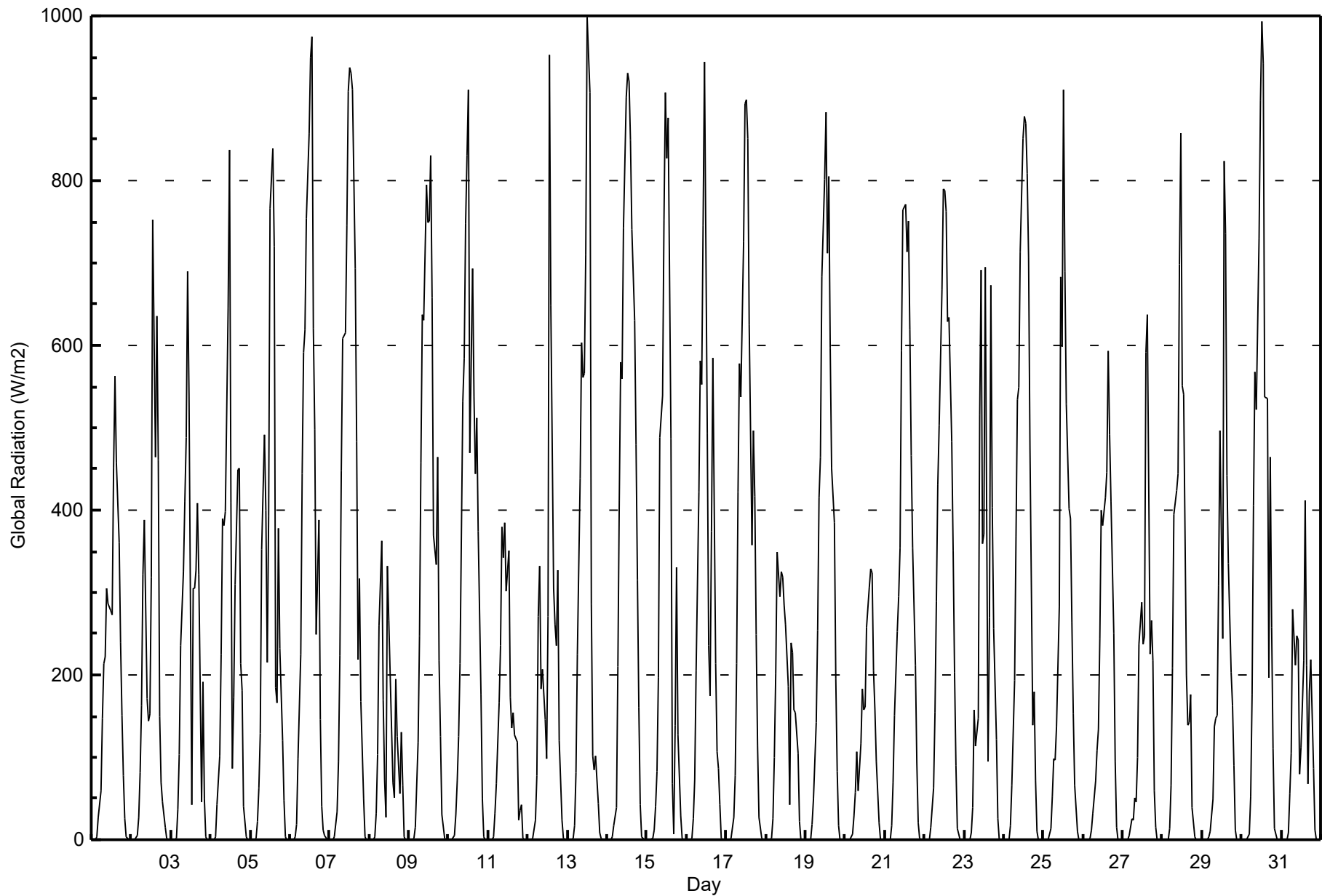
Ells River - July 2026

Maximum Value: 997.9 W/m2 on Jul 13 13:00																					Maximum Daily Average: 355.6 W/m2 on Jul 14										Hours in Service: 744	
Minimum Value: 0.0 W/m2 on Jul 1 01:00																					Minimum Daily Average: 102.5 W/m2 on Jul 8										Hours of Data: 744	
Maximum Diurnal Average: 605.3 W/m2 at hour 14																					Minimum Diurnal Average: 0.0 W/m2 at hour 1										Hours of Missing Data: 0	
Monthly Average: 227.36 W/m2																					Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 1.0 Median = 118.9 Q ₃ = 385.1 P ₉₀ = 679.6 P ₉₉ = 934.0										Hours of Calibration: 0	
																															Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																					Daily Average	Daily Maximum									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			22	23	24						
1-Jul	0.0	0.0	0.0	3.3	27.2	59.1	147.7	213.0	222.8	305.9	286.6	277.5	272.6	451.6	562.0	458.4	361.3	239.2	150.4	78.7	25.5	3.8	0.0	0.0	172.8	562.0						
2-Jul	0.0	0.0	0.0	5.1	27.3	80.6	162.1	321.3	387.8	170.3	143.4	152.5	318.7	753.0	465.2	634.8	461.4	149.6	69.0	46.4	15.2	2.5	0.0	0.0	181.9	753.0						
3-Jul	0.0	0.0	0.0	2.2	37.0	102.9	235.3	324.7	410.5	488.9	689.4	538.6	41.7	305.7	305.0	327.9	408.0	322.5	46.6	191.4	48.4	3.7	0.0	0.0	201.3	689.4						
4-Jul	0.0	0.0	0.0	4.0	41.6	101.3	225.5	389.3	381.6	398.4	646.2	838.1	408.7	87.0	172.9	309.4	449.3	450.9	212.9	181.2	40.8	3.2	0.0	0.0	222.6	838.1						
5-Jul	0.0	0.0	0.0	2.0	21.7	63.2	128.9	352.9	491.9	400.1	214.9	392.8	765.7	839.3	720.8	185.3	165.6	377.2	231.4	119.8	47.4	3.7	0.0	0.0	230.2	839.3						
6-Jul	0.0	0.0	0.0	2.8	18.1	99.1	225.7	443.9	592.1	619.2	754.5	858.2	949.8	975.2	620.6	499.1	249.4	387.7	145.5	41.3	11.6	4.5	0.0	0.0	312.4	975.2						
7-Jul	0.0	0.0	0.0	3.0	34.1	95.6	223.4	448.0	608.8	614.8	745.6	907.8	936.8	930.2	910.7	693.8	482.3	219.4	317.7	167.2	49.7	3.4	0.0	0.0	349.7	936.8						
8-Jul	0.0	0.0	0.0	2.9	32.9	102.9	259.9	362.3	169.0	73.3	26.7	331.5	265.9	134.5	70.1	50.9	194.6	125.1	56.4	130.8	66.2	3.7	0.0	0.0	102.5	362.3						
9-Jul	0.0	0.0	0.0	1.7	14.9	117.9	248.0	458.0	636.8	631.2	795.7	749.7	750.2	830.3	657.7	370.0	333.3	465.2	216.4	125.0	30.2	2.4	0.0	0.0	309.8	830.3						
10-Jul	0.0	0.0	0.0	4.8	30.7	71.2	124.8	213.9	532.4	584.5	747.7	830.7	910.2	470.1	693.0	536.5	443.7	511.2	374.6	175.9	49.7	3.5	0.0	0.0	304.5	910.2						
11-Jul	0.0	0.0	0.0	4.0	32.0	67.3	165.6	235.2	380.3	341.7	385.1	302.1	350.6	173.6	135.1	154.7	127.8	117.9	23.3	36.3	43.0	2.3	0.0	0.0	128.2	385.1						
12-Jul	0.0	0.0	0.0	1.9	23.2	78.5	270.6	332.2	182.6	207.4	145.2	97.5	271.9	952.0	649.1	305.4	260.8	234.8	327.7	120.2	24.5	1.3	0.0	0.0	187.0	952.0						
13-Jul	0.0	0.0	0.0	1.6	17.7	82.2	224.7	438.2	603.1	561.8	565.7	710.4	997.9	906.9	286.4	101.3	84.8	102.3	44.2	8.5	2.2	0.3	0.0	0.0	239.2	997.9						
14-Jul	0.0	0.0	0.0	3.7	16.3	39.1	209.3	411.3	580.3	560.2	742.0	901.8	930.3	919.8	848.4	740.7	630.2	480.1	314.7	161.0	41.6	2.6	0.0	0.0	355.6	930.3						
15-Jul	0.0	0.0	0.0	1.0	11.1	40.4	83.8	197.3	487.4	539.8	752.0	906.7	827.9	875.7	486.3	68.1	6.4	138.7	330.0	126.9	28.3	1.1	0.0	0.0	246.2	906.7						
16-Jul	0.0	0.0	0.0	0.9	24.6	72.1	205.5	421.8	581.3	553.2	746.0	943.7	493.4	234.8	173.9	374.7	584.6	214.2	106.1	87.2	41.7	2.1	0.0	0.0	244.2	943.7						
17-Jul	0.0	0.0	0.0	1.0	27.0	77.7	213.3	421.7	577.2	538.0	725.6	892.9	897.5	851.5	624.7	357.1	496.9	417.4	250.0	114.3	26.5	1.7	0.0	0.0	313.0	897.5						
18-Jul	0.0	0.0	0.0	1.8	25.5	99.6	201.7	349.2	295.3	324.8	319.3	285.4	261.6	185.7	42.8	238.7	227.5	157.0	153.7	105.2	21.2	0.8	0.0	0.0	137.4	349.2						
19-Jul	0.0	0.0	0.0	0.6	18.1	48.4	142.1	254.9	414.7	464.9	682.6	801.2	883.1	711.2	805.0	596.8	451.5	385.1	195.6	83.9	16.6	0.4	0.0	0.0	289.9	883.1						
20-Jul	0.0	0.0	0.0	0.1	6.9	28.6	57.3	107.5	59.2	117.0	183.5	157.9	161.9	258.0	307.4	329.4	323.8	205.4	157.9	94.7	20.1	0.5	0.0	0.0	107.4	329.4						
21-Jul	0.0	0.0	0.0	0.5	17.2	69.0	151.6	252.2	295.7	353.8	593.5	764.1	771.4	713.2	750.0	618.1	465.8	354.1	212.4	94.0	21.0	0.9	0.0	0.0	270.8	771.4						
22-Jul	0.0	0.0	0.0	0.5	14.5	63.1	154.7	289.6	431.3	503.1	668.2	790.2	787.8	762.6	628.5	634.4	483.3	351.5	203.4	89.3	13.4	0.4	0.0	0.0	286.2	790.2						
23-Jul	0.0	0.0	0.0	0.0	7.8	39.5	156.9	113.4	146.9	515.8	692.0	358.9	371.5	695.5	94.9	269.7	672.9	403.1	255.2	121.3	24.6	0.7	0.0	0.0	205.9	695.5						
24-Jul	0.0	0.0	0.0	0.3	16.9	66.7	193.5	368.5	533.3	549.9	714.0	850.4	878.6	868.8	808.0	706.1	474.1	139.7	180.2	71.7	9.7	0.1	0.0	0.0	309.6	878.6						
25-Jul	0.0	0.0	0.0	0.0	12.9	53.0	98.9	96.7	137.4	282.4	682.5	599.1	910.4	689.6	529.1	401.2	390.5	264.4	152.0	65.4	10.0	0.2	0.0	0.0	224.0	910.4						
26-Jul	0.0	0.0	0.0	0.0	2.0	12.4	32.6	70.8	109.1	134.4	244.1	400.3	380.8	415.9	445.7	593.9	491.7	410.7	250.2	94.8	15.5	0.2	0.0	0.0	171.0	593.9						
27-Jul	0.0	0.0	0.0	0.0	5.4	24.9	24.0	50.1	45.9	99.3	237.5	288.8	238.0	248.2	592.2	638.1	225.0	266.6	216.2	60.0	15.0	0.2	0.0	0.0	136.5	638.1						
28-Jul	0.0	0.0	0.0	0.2	13.4	66.6	208.3	395.4	424.6	443.9	697.7	858.2	550.2	541.3	199.7	138.6	141.5	175.8	38.6	4.2	0.8	0.0	0.0	0.0	204.1	858.2						
29-Jul	0.0	0.0	0.0	0.0	4.0	9.4	48.4	137.3	146.7	150.3	307.8	496.2	243.6	824.1	736.2	442.5	336.3	202.6	163.0	90.4	11.8	0.0	0.0	0.0	181.3	824.1						
30-Jul	0.0	0.0	0.0	0.0	6.6	51.9	175.5	405.3	567.8	521.4	730.5	896.3	993.0	941.6	538.1	535.9	197.4	464.5	258.4	110.8	13.9	0.2	0.0	0.0	308.7	993.0						
31-Jul	0.0	0.0	0.0	0.0	8.3	55.4	105.4	280.0	211.3	247.4	242.6	80.0	112.6	216.6	411.1	211.8	67.9	179.7	218.7	86.1	12.4	0.0	0.0	0.0	114.5	411.1						
0.0																					Diurnal Average											
0.0																					Diurnal Maximum											



Wood Buffalo Environmental Association
Hourly Averages

Global Radiation (GR) - W/m²
Ells River - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

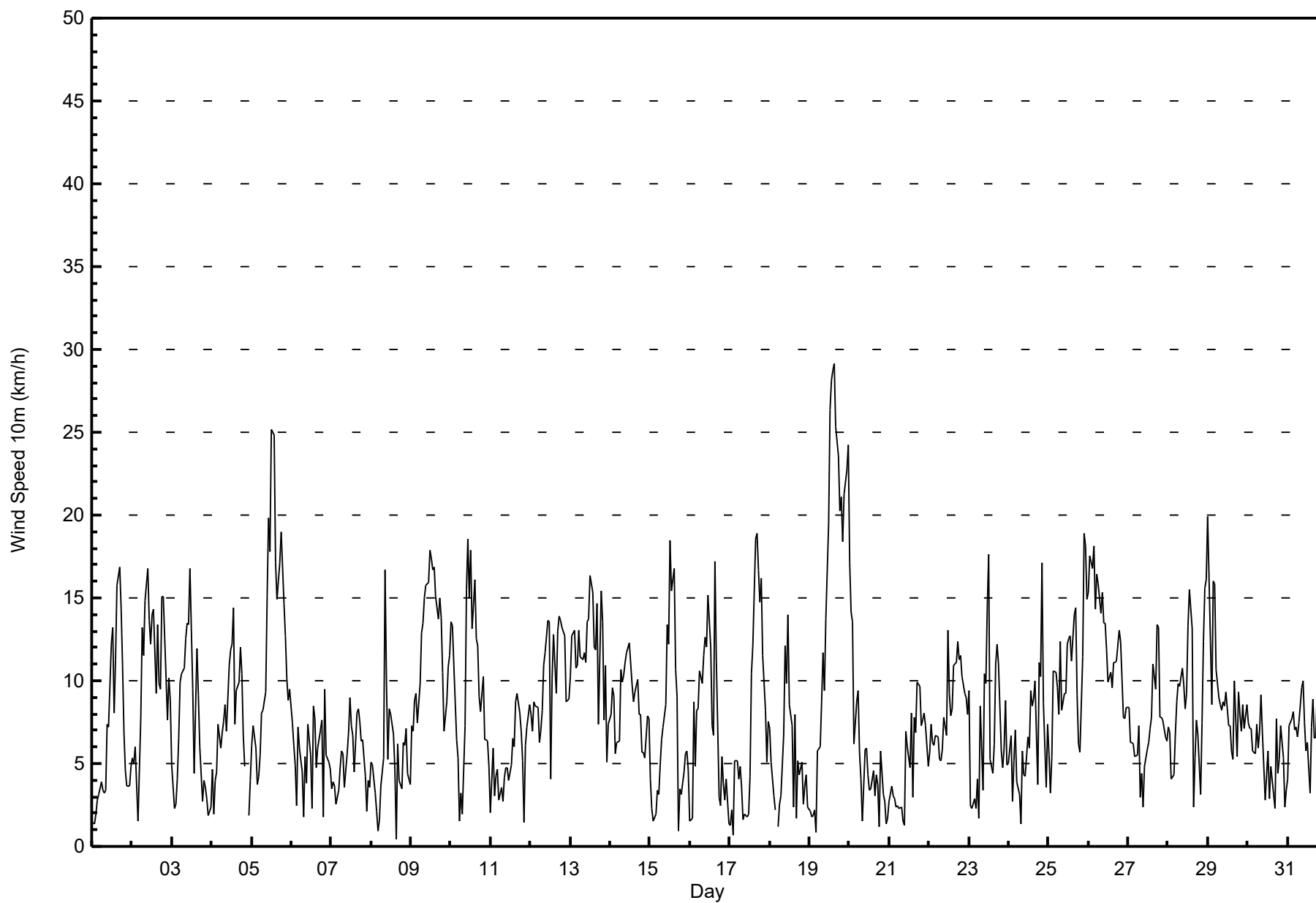
Ells River - July 2026

Maximum Speed: 29 km/h on Jul 19 16:00														Maximum Daily Speed Average: 14.4 km/h on Jul 19														Hours in Service: 744	
Minimum Speed Value: 0 km/h on Jul 8 16:00														Minimum Daily Speed Average: 0.3 km/h on Jul 24														Hours of Data: 740	
Maximum Diurnal Speed Average: 3.9 km/h at hour 10														Minimum Diurnal Speed Average: 0.8 km/h at hour 20														Hours of Missing Data: 4	
Monthly Average Velocity: 2.3 km/h 207.8 deg														Percentiles: P ₁ = 1 P ₁₀ = 3 Q ₁ = 5 Median = 7 Q ₃ = 11 P ₉₀ = 15 P ₉₉ = 24														Percent Operational Time: 99.5	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	NE1	WSW1	WNW2	NNW3	N3	WNW4	NW3	NNE3	ESE3	ESE7	E7	SE12	SE13	SSE8	SSE11	SSE16	SSE17	SSE14	SSE11	SSE7	SSE5	SE4	SSE4	SE5	SE5.0	SSE17			
2-Jul	SE5	SE5	SE6	SE2	SE5	SE8	SE13	SSE12	SSE15	SSE17	SSE14	SSE12	SSE14	S14	S9	S13	SSE10	SSE9	SE15	SE15	SSE10	SSE8	SE10	SE9	SSE10.0	SSE17			
3-Jul	S5	S2	ESE3	SE4	SSE7	SSE10	SSE10	SSE11	SSE13	SSE13	SE13	SSE17	W10	SW4	SSE8	SE12	SE9	S6	W3	E4	ESE4	ESE3	WSW2	W2	SSE5.9	SSE17			
4-Jul	WNW5	E2	SW4	SW5	SW7	S6	S7	S8	S9	SSE7	SSE11	SSE12	S12	SW14	SSW7	S9	SSW10	S12	S10	SW7	SW5	UO	NW2	SW4	S6.5	SW14			
5-Jul	SSW6	SW7	WSW6	SW4	WSW4	SSW5	SSW8	SSW8	W9	WNW15	WNW20	WNW18	NW25	NW25	NNW17	NNW15	NW16	NNW17	NW19	NNW15	NW13	NW10	WNW9	WNW9	NW9.7	NW25			
6-Jul	W7	WNW6	SW5	WSW2	W7	WSW6	W5	NW2	NW5	N4	NNW7	NNW5	W2	NW8	SW8	NW5	NNE6	E7	ENE8	NE2	WNW9	NNE6	WNW5	WNW5	NW3.0	WNW9			
7-Jul	NW3	NW4	WNW4	W3	NW3	NNW5	NNW6	NNW6	NNE4	NE6	NE7	NE9	NNE7	E7	NE5	ENE8	ENE8	E8	SE6	ESE6	E4	N2	NNW4	N4	NE3.1	NE9			
8-Jul	N5	N5	WNW3	W2	W1	S2	SSE4	SE5	SE17	SSW10	SSE5	SE8	ESE8	WNW7	W5	ESE0	S6	WSW4	S3	S6	SSW6	S7	SSW4	WSW4	S2.9	SE17			
9-Jul	S7	SW7	SSW9	SSW9	SSW7	SW10	SW13	SW13	SW15	SW16	SW16	SSW18	SSW17	SSW17	SSW17	SSW15	SSW14	SSW15	SSW14	SW11	S7	SSE9	SSE11	S12	SSW11.9	SSW18			
10-Jul	S14	S13	S11	S6	WNW5	W2	WNW3	SSE2	SSW7	SSW16	S19	SSW15	SSW18	S13	S16	SW13	W12	WNW9	WSW8	SW10	SW6	SSW6	SW6	W5	SSW8.2	S19			
11-Jul	W2	W6	SW3	S4	SSW5	WSW3	S4	SE3	SSE4	SE5	SSE5	NNW4	N5	SE6	SSE6	SSE9	SSE9	S8	WSW7	WSW5	SW1	WSW6	SW7	SW9	SSW3.2	SSE9			
12-Jul	SSW8	SSW7	SW9	SSW8	SW8	SW6	SSW7	SSW8	SSW11	SSW12	SSW14	S14	SW4	SSE10	S13	SSW9	SSW13	SSW14	SSW14	SSW13	SSW13	SW9	SW9	SW9	SSW9.5	SSW14			
13-Jul	SW10	SW13	SW13	SW11	SW11	SW13	SW11	SW11	SW12	SW11	SW14	WSW14	WSW16	SW15	W12	NNW12	NW15	W7	NNW15	WNW14	WNW8	SW11	SW5	SW7	WSW10.2	WSW16			
14-Jul	SW8	S10	SSW9	SSW6	SSW6	S6	SSW11	SSW10	SW10	SSW11	SW12	WSW12	W11	SW10	SW9	SW9	SSW10	SW8	SW8	SSW6	S6	S5	S8	S8	SSW8.1	WSW12			
15-Jul	S4	NW2	W2	SSW2	SSW3	SSW3	SSW5	S6	S7	SSE9	SSE13	SSE12	SE18	SSE15	SSE17	SSE11	SW9	SSW1	NNW3	SW3	SSW4	S6	SSW6	SSW5	SSE5.7	SE18			
16-Jul	SSE2	SSW2	S9	SSE5	S8	S8	SSE11	SSE10	SSE12	S13	S12	S15	SSW12	SSW7	NW7	NE17	NE11	NNE3	N2	NNW5	NNW4	W3	W4	SW1	S3.5	NE17			
17-Jul	WSW1	SW2	SW1	S5	S5	SSW4	S5	SSW4	W2	ENE2	NW2	NNW2	NE4	ENE10	NE12	N19	N19	N17	N15	N16	N12	N8	NNW5	NNW8	N4.7	N19			
18-Jul	NNW7	NNW5	NNW3	NNW2	UO	WSW1	NW3	SE3	S7	SW12	SSW10	ESE14	ESE9	W7	WSW2	ESE8	WNW2	W5	NW4	N5	ENE3	ESE4	SSE4	NNW2	SSW0.6	ESE14			
19-Jul	NW2	W2	NW2	W2	WNW1	SSW6	WNW6	NW9	N12	N9	N14	N19	N26	N28	N29	N29	N25	N24	N20	N21	NNW18	NNW21	NNW23	NNW24	N14.4	N29			
20-Jul	NNW17	NNW14	NNW14	W6	WNW9	NW9	W6	W4	N2	NNE6	ENE6	NNE4	NW3	WNW4	WSW5	W3	W4	WSW4	S1	ESE6	S3	SW3	W1	WNW2	NW3.3	NNW17			
21-Jul	W3	SSW4	WNW3	WSW3	W2	WSW2	SW2	NW2	NW2	SSE1	SE7	SE6	SSE5	SSE8	SW3	SE8	S7	SSE10	S10	S7	S8	S8	S7	S5	S4.0	SSE10			
22-Jul	S6	S7	S6	S6	S7	SSW7	S5	SSW5	SSW6	S8	SSW7	SSW13	WSW9	WSW8	SW8	S11	SSE11	SSE12	SE11	SSE11	SSE10	S9	S9	S8	S7.5	SSW13			
23-Jul	SSE9	SSE2	SSW2	SE3	NNW2	W4	NW2	NNW8	N3	NNW10	N10	NW14	NW18	NW5	WNW4	SSW6	SW11	WSW12	NNW11	W6	WSW5	W6	WNW9	N5	WNW4.6	NW18			
24-Jul	W5	W7	W3	WSW5	W7	W4	SW3	ESE1	SE6	SE4	ESE4	SE7	SE6	SSE9	SE8	SE9	SE10	ENE4	N11	NNW10	N17	N9	W4	WSW7	SSE0.3	N17			
25-Jul	WSW5	SSW3	SSW5	SW11	SW11	SW10	SW8	SW12	SW8	SW9	WSW9	SSW12	SW13	SW13	SW11	SSW14	SSW14	SW9	NW6	NNW6	N11	N19	N18	N15	WSW5.7	N19			
26-Jul	N15	NNE18	NNE17	NNE18	NNE14	NNE16	NNE16	NNE14	NNE15	NNE13	NNE13	NE12	NE10	NNE10	NNE10	NNE11	N11	NNE11	NNE13	NE12	NE10	ENE8	NE8	NE8	NNE12.4	NNE18			
27-Jul	NE8	NE6	ESE6	ESE6	ESE5	ESE6	E7	E3	E4	E2	SSE5	S6	SW6	SW7	S8	SSE11	SSE10	SSE13	SSE13	S8	SSW8	SSW8	SSW7	SSW6	SSE4.8	SSE13			
28-Jul	SW7	SW7	SW4	SSE4	SSE7	S9	SSE10	SSE10	SSE11	S10	SSE8	S9	SSE13	SE16	SE13	E2	NNE5	NE8	N7	ENE3	NNE7	ENE12	NE16	NNE16	SE4.0	NNE16			
29-Jul	NE20	NNE12	NNE9	N16	NNW16	NNW11	WSW9	WSW9	W8	WSW9	WSW8	W9	W7	ENE7	N6	N5	NNW10	SW5	WSW9	SW8	WSW7	SW9	SW7	SW9	WNW4.1	NE20			
30-Jul	SW7	WSW7	SW7	SW6	WSW6	SW7	SW6	WSW7	NW9	NW7	NW3	N4	N6	NE3	SSW5	ESE3	S2	SE8	S4	SSE5	S7	S5	SSW2	W3	SW2.7	NW9			
31-Jul	WSW4	S7	S8	S8	S7	S7	S7	S7	SSE10	S10	SSE7	S6	S6	SSE3	SE7	SSE9	SSE7	SSE7	SSE9	SSE6	UO	UO	NNW1	W3	S6.1	S10			
WSW1.5WSW1.8 SW2.3 SW2.4 SW2.8 SW3.3SSW3.6SSW3.4 S3.5SSW3.9 S3.7 S3.8SSW2.9SSW2.9SSW2.9SSE2.4SSW1.8 S2.1 SW1.5 SW0.8 W1.3 SW1.0WSW1.5 W1.9																								Diurnal Average					
NE20 NNE18 NNE17 NNE18 NNW16 NNE16 NNE16 NNE14 SE17 SSE17WNW20 N19 N26 N28 N29 N29 N25 N24 N20 N21 NNW18 NNW21 NNW23 NNW24																								Diurnal Maximum					
UO - Unstable Operation																													
All monthly, daily, and diurnal averages have been calculated using vector methods																													



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Ells River - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Ells River - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	235	31.76	31.76
6 - 11	341	46.08	77.84
12 - 19	149	20.14	97.97
20 - 28	13	1.76	99.73
29 - 38	2	0.27	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 740

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Ells River - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	14	5	5	4	7	11	12	18	17	20	21	19	31	16	20	15	235
6 - 11	10	10	10	8	5	9	20	48	58	42	56	18	17	13	9	8	341
12 - 19	15	13	5	1	0	1	10	22	15	23	18	4	2	5	6	9	149
20 - 28	6	0	1	0	0	0	0	0	0	0	0	0	0	1	2	3	13
29 - 38	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	47	28	21	13	12	21	42	88	90	85	95	41	50	35	37	35	740

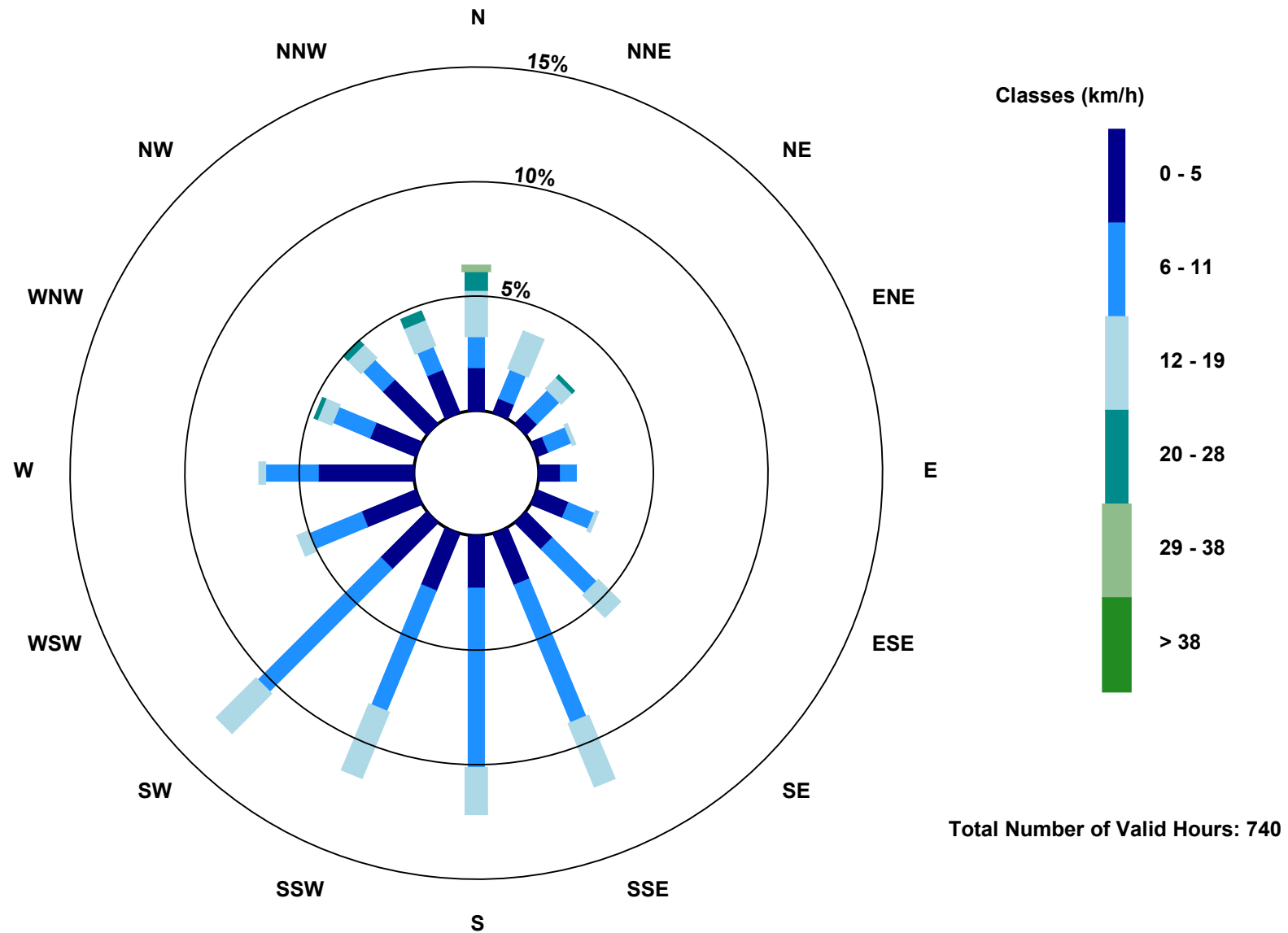
Total Number of Valid Hours: 740

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Ells River





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h
Ells River - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 9 km/h on Jul 16 15:00																		Hours in Service: 744																															
Minimum Value: 0 km/h on Jul 1 23:00																		Hours of Data: 740																															
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 2 Q ₃ = 3 P ₉₀ = 4 P ₉₉ = 6																		Hours of Missing Data: 4																															
																		Hours of Calibration: 0																															
																		Percent Operational Time: 99.5																															
Day	Hourly Period Ending At (MST)																								Daily Maximum																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jul	1	1	2	1	1	1	1	1	2	2	2	3	3	2	5	3	4	3	3	2	1	1	0	1	5																								
2-Jul	1	1	1	2	1	2	3	4	3	4	3	4	4	4	3	4	4	2	4	3	2	1	2	2	4																								
3-Jul	2	1	1	1	1	2	2	2	3	4	4	4	5	2	3	3	3	2	5	1	1	2	2	2	5																								
4-Jul	2	1	1	2	2	2	1	2	2	2	2	3	5	5	2	3	2	3	4	2	1	UO	3	3	5																								
5-Jul	2	2	2	3	2	1	2	2	4	7	5	5	5	5	5	5	5	4	5	4	3	4	2	1	7																								
6-Jul	2	2	1	3	1	2	3	2	2	3	3	3	3	4	3	3	4	2	2	2	3	4	1	2	4																								
7-Jul	1	1	1	1	1	2	1	1	2	3	3	4	4	4	4	3	3	2	2	2	1	1	1	1	4																								
8-Jul	1	1	1	1	1	1	2	4	3	4	3	3	4	4	3	2	2	2	2	1	2	1	4	2	4																								
9-Jul	1	1	2	2	2	3	3	4	4	5	5	5	6	5	5	5	4	5	5	4	1	2	2	2	6																								
10-Jul	3	3	2	3	2	1	1	2	4	5	5	5	6	6	5	5	4	2	3	4	1	1	1	4	6																								
11-Jul	1	3	2	2	2	1	1	2	1	2	2	1	2	2	2	1	1	2	2	2	1	1	3	2	3																								
12-Jul	2	2	2	2	2	2	2	3	3	3	5	6	4	3	3	3	4	4	3	4	4	3	3	3	6																								
13-Jul	3	4	4	3	3	4	4	4	4	3	5	5	5	5	5	5	5	4	5	4	5	3	2	2	5																								
14-Jul	3	2	2	2	2	2	2	3	3	3	4	4	4	4	4	3	4	3	2	1	1	2	1	1	4																								
15-Jul	2	1	1	2	1	1	2	2	2	3	3	4	4	4	4	4	7	6	1	1	1	2	3	2	7																								
16-Jul	2	2	1	2	3	2	2	2	2	3	3	4	4	2	9	5	4	3	3	4	3	2	2	2	9																								
17-Jul	2	1	1	3	1	1	1	1	2	1	2	2	3	4	4	3	2	2	2	2	2	2	1	1	4																								
18-Jul	1	1	1	1	UO	1	1	2	2	5	4	6	4	3	3	4	1	1	1	2	1	2	2	2	6																								
19-Jul	3	2	2	3	2	2	1	3	2	3	4	5	5	4	5	5	4	4	5	4	3	4	5	4	5																								
20-Jul	4	5	3	2	2	2	1	1	2	1	1	2	1	1	2	2	2	1	2	1	1	2	1	1	5																								
21-Jul	1	2	2	2	1	1	1	1	1	2	3	2	3	3	3	3	2	3	2	1	1	1	1	2	3																								
22-Jul	2	1	1	1	1	1	1	1	2	2	3	4	3	3	3	3	3	3	2	2	1	1	1	1	4																								
23-Jul	1	2	4	3	2	2	2	1	5	4	3	5	7	3	2	5	3	4	4	3	1	2	2	2	7																								
24-Jul	2	2	2	2	1	2	1	2	2	2	2	3	4	3	4	4	3	2	2	1	5	4	2	1	5																								
25-Jul	3	1	2	3	3	3	3	4	3	3	3	3	4	4	3	4	4	4	3	2	3	3	4	3	4																								
26-Jul	2	3	3	3	3	2	3	3	3	2	2	3	3	2	3	3	3	3	3	2	2	1	2	1	3																								
27-Jul	2	2	1	1	1	1	2	2	1	2	2	2	2	2	2	4	2	3	3	1	1	1	2	1	4																								
28-Jul	2	2	2	1	1	2	2	2	2	2	3	5	4	3	3	2	2	1	1	2	2	3	4	4	5																								
29-Jul	7	3	5	3	3	2	3	2	3	2	3	3	4	4	5	6	7	2	3	2	2	2	2	3	7																								
30-Jul	3	2	2	2	2	2	2	2	3	3	2	3	3	2	3	3	2	2	3	1	1	1	2	3	3																								
31-Jul	1	2	1	1	2	1	1	2	2	2	2	2	2	1	2	2	2	2	2	2	UO	UO	1	1	2																								
Diurnal Maximum																									7	5	5	3	3	4	4	4	5	7	5	6	7	6	9	6	7	6	5	4	5	4	5	4	
UO - Unstable Operation																																																	



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

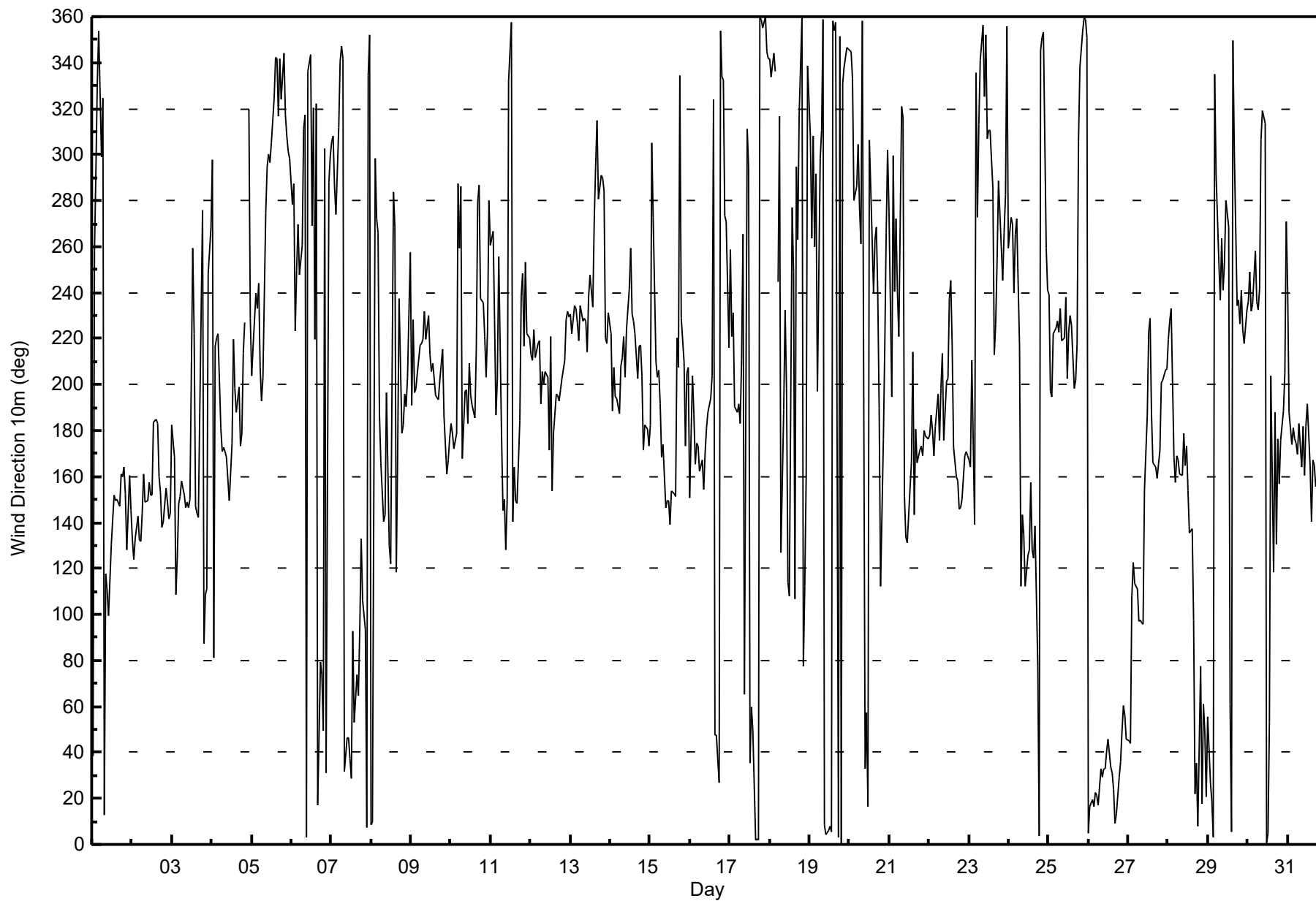
Ells River - July 2026

Direction of Maximum Speed: 354 deg on Jul 19 16:00																				Hours in Service:		744			
Direction of Maximum Daily Speed Average: 352.5 deg on Jul 19																				Hours of Data:		740			
Direction of Minimum Speed: 118 deg on Jul 8 16:00										Direction of Minimum Daily Speed Average: 0.3 deg on Jul 24										Hours of Missing Data:		4			
Monthly Average Direction: 207.8 deg																				Percent Operational Time:		99.5			
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	39	258	293	331	354	299	324	13	118	110	99	130	141	152	150	150	147	161	160	164	152	128	161	145	143.7
2-Jul	132	124	133	143	133	132	144	161	149	150	157	152	152	184	185	183	160	153	138	140	155	149	142	144	152.1
3-Jul	183	169	109	125	148	151	158	152	147	149	146	150	260	222	147	144	142	188	276	88	108	111	248	268	155.0
4-Jul	298	81	217	220	222	181	171	173	171	168	150	162	174	220	198	188	199	174	179	214	227	UO	320	229	189.0
5-Jul	204	217	240	233	244	207	193	203	274	295	300	297	305	325	342	342	317	342	324	344	317	308	301	298	304.9
6-Jul	278	287	224	249	270	248	260	311	317	3	336	343	269	320	220	322	17	79	74	49	303	31	288	300	307.7
7-Jul	306	308	286	274	312	340	347	342	32	46	47	37	29	93	53	74	64	94	133	106	94	7	334	352	38.5
8-Jul	8	10	299	272	266	187	166	140	143	196	164	130	122	284	268	118	172	237	179	183	196	190	203	257	180.2
9-Jul	191	228	197	198	205	217	218	219	232	220	230	213	206	209	203	195	193	202	209	215	186	161	167	177	205.8
10-Jul	183	179	172	179	287	259	286	168	197	198	183	210	195	191	186	215	279	287	237	235	221	203	223	280	207.6
11-Jul	260	267	228	187	203	256	177	145	150	128	150	332	357	140	164	150	148	184	239	249	216	253	222	220	195.7
12-Jul	213	210	224	212	218	219	192	206	200	206	203	172	221	154	179	196	195	193	198	202	211	228	232	229	202.5
13-Jul	231	222	234	233	227	219	234	228	229	227	214	238	248	234	271	295	315	281	291	290	285	220	218	231	246.2
14-Jul	222	188	208	194	194	188	208	212	221	203	224	241	260	231	228	222	203	217	217	204	172	182	181	174	211.1
15-Jul	182	305	273	210	203	206	192	169	174	147	149	149	139	154	152	151	220	207	334	229	210	173	205	207	168.8
16-Jul	151	204	187	165	174	173	162	167	155	170	181	188	194	204	324	48	47	27	354	334	333	274	271	216	171.5
17-Jul	258	221	231	190	188	192	183	211	266	65	311	294	36	60	50	2	3	2	360	359	355	360	345	342	3.4
18-Jul	342	334	344	336	UO	245	317	127	189	232	198	114	108	277	249	107	295	263	317	359	78	113	160	339	199.9
19-Jul	307	264	308	260	292	197	299	311	359	8	4	6	8	5	358	354	358	3	352	0	331	338	347	346	352.5
20-Jul	345	345	333	280	286	304	277	261	358	33	57	16	306	285	240	263	269	239	190	112	177	217	266	302	314.4
21-Jul	275	195	299	240	272	241	221	321	316	151	134	131	155	166	214	144	181	166	171	173	169	180	178	176	176.1
22-Jul	178	187	180	169	182	196	176	198	213	176	201	203	238	245	217	172	160	158	146	147	150	169	171	169	180.2
23-Jul	167	164	210	139	335	273	313	341	356	325	352	307	310	310	286	213	226	254	289	260	245	266	283	356	287.4
24-Jul	260	273	270	240	265	272	216	112	143	135	112	126	128	158	128	125	139	78	3	345	351	353	259	241	161.3
25-Jul	239	197	195	222	224	228	222	233	219	220	238	202	223	230	226	198	202	218	305	338	354	359	359	351	242.4
26-Jul	5	17	20	16	22	21	17	33	29	33	33	41	46	33	31	24	9	13	29	36	50	60	56	46	27.6
27-Jul	45	44	108	122	114	111	97	98	96	96	155	187	223	229	187	166	164	159	165	172	201	202	206	207	158.3
28-Jul	219	228	233	168	158	169	167	161	161	179	165	173	153	136	137	98	22	35	8	78	18	61	49	21	130.9
29-Jul	55	27	19	3	335	291	253	237	263	241	253	280	269	61	5	349	301	234	237	226	241	224	218	232	292.1
30-Jul	236	249	232	235	258	236	232	242	306	319	314	1	5	53	204	118	188	131	176	157	176	189	205	271	233.1
31-Jul	241	188	174	181	177	174	169	183	164	182	161	182	191	165	140	167	165	156	159	164	UO	UO	329	278	173.7
243.4 241.7 223.7 214.4 229.3 215.0 201.5 200.5 187.6 191.3 185.5 186.1 212.3 207.0 192.4 159.3 202.0 189.7 235.7 223.2 259.7 229.1 245.1 272.5																									
Diurnal Average																									
UO - Unstable Operation																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Ells River - July 2026





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg
Ells River - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 99 deg on Jul 23 03:00																		Hours in Service: 744 Hours of Data: 740 Hours of Missing Data: 4 Hours of Calibration: 0 Percent Operational Time: 99.5							
Minimum Value: 5 deg on Jul 21 22:00																									
Percentiles: P ₁ = 7 P ₁₀ = 12 Q ₁ = 16 Median = 24 Q ₃ = 39 P ₉₀ = 61 P ₉₉ = 89																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	56	60	56	27	33	26	30	58	56	21	21	19	11	19	21	13	13	15	14	16	20	9	10	11	60
2-Jul	10	8	10	85	22	10	11	18	15	15	14	12	12	20	25	25	46	14	11	9	10	9	9	14	85
3-Jul	32	55	24	23	9	11	16	19	19	20	17	25	28	52	29	12	23	39	89	32	32	50	73	83	89
4-Jul	39	64	34	25	25	16	21	23	21	30	17	19	23	27	16	20	22	20	21	37	25	UO	89	64	89
5-Jul	22	19	31	42	33	23	17	20	27	28	15	17	15	14	21	35	21	14	12	25	13	14	10	11	42
6-Jul	16	22	24	60	19	22	63	68	50	75	44	72	92	49	45	53	54	17	13	75	33	72	31	20	92
7-Jul	14	13	17	38	20	24	11	18	58	41	43	35	49	61	71	39	48	29	32	29	16	54	18	21	71
8-Jul	13	15	28	34	48	57	54	73	19	45	72	32	29	54	73	96	27	40	38	17	12	16	57	55	96
9-Jul	18	17	14	13	18	21	20	22	24	25	29	24	27	29	28	22	22	24	21	22	15	7	9	13	29
10-Jul	13	12	10	45	17	71	53	70	61	23	23	28	24	33	25	42	20	19	35	23	16	17	11	68	71
11-Jul	48	36	40	53	29	43	33	75	32	52	61	26	54	30	23	12	11	31	27	26	66	17	25	20	75
12-Jul	16	19	18	23	19	22	25	25	17	18	17	28	69	24	24	22	24	15	18	18	22	23	23	22	69
13-Jul	24	21	23	22	21	22	26	27	25	30	25	29	29	30	35	23	18	32	24	34	55	20	42	29	55
14-Jul	25	16	22	22	22	16	15	21	22	26	25	30	30	43	44	34	36	47	25	16	8	10	9	5	47
15-Jul	23	61	85	62	46	44	26	23	23	24	19	23	16	24	16	12	54	86	45	67	23	28	46	38	86
16-Jul	75	79	11	30	12	11	13	18	17	20	25	22	26	36	64	18	25	65	81	67	63	66	43	47	81
17-Jul	87	46	89	41	32	33	21	39	71	63	56	60	41	27	29	13	10	13	11	12	12	10	15	10	89
18-Jul	10	19	17	22	UO	60	32	54	25	25	45	33	39	29	86	38	85	19	29	28	58	34	48	41	86
19-Jul	68	69	33	88	91	21	25	19	17	19	19	15	11	12	15	13	14	13	14	13	13	11	14	11	91
20-Jul	12	16	11	25	18	12	17	23	73	13	22	39	35	43	44	65	38	33	82	18	34	60	53	28	82
21-Jul	37	37	27	40	42	55	52	42	63	94	23	44	72	38	92	38	45	20	15	14	10	5	6	17	94
22-Jul	10	12	16	8	15	16	16	29	26	35	61	25	32	37	34	23	26	15	9	7	7	13	6	7	61
23-Jul	9	81	99	82	85	51	64	17	89	22	31	21	20	33	39	47	26	23	22	21	20	18	14	52	99
24-Jul	54	17	77	31	9	47	42	83	42	63	71	49	61	35	39	32	20	53	9	13	13	27	33	11	83
25-Jul	20	25	35	18	19	19	20	21	24	24	30	25	28	26	26	18	19	50	32	34	12	12	13	12	50
26-Jul	13	14	11	10	10	10	10	12	11	12	14	19	22	23	24	26	28	18	16	19	12	11	12	12	28
27-Jul	12	24	15	22	26	24	15	57	21	67	29	38	27	28	30	29	18	12	13	18	13	13	17	16	67
28-Jul	20	21	31	28	12	11	14	14	15	19	31	52	24	13	11	60	25	18	12	64	21	18	17	16	64
29-Jul	17	16	39	14	12	17	23	20	23	26	30	31	49	39	84	61	46	54	20	21	22	20	19	21	84
30-Jul	44	23	28	30	31	25	29	34	24	37	85	66	41	74	56	78	66	29	51	17	13	8	71	66	85
31-Jul	30	11	6	7	10	10	11	17	19	15	20	28	20	43	24	26	15	11	15	11	UO	UO	42	30	43
87 81 99 88 91 71 64 83 89 94 85 72 92 74 92 96 85 86 89 75 66 72 89 83																									
Diurnal Maximum																									
UO - Unstable Operation																									



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

**AMS31
BLACKROD
JULY 2026**

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BLACKROD (AMS31)

JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	706	36	38	99.73	2.9	0	0.9	0
H2S (ppb) Average	698	37	46	98.79	0.9	0	0.3	0
THC(ppm) Average	707	35	37	99.73	9.3	-	3.3	-
NO2 (ppb) Average	708	36	36	100	8.9	0	2.9	-
NO (ppb) Average	708	36	36	100	38.5	-	6.2	-
NOX (ppb) Average	708	36	36	100	47.4	-	9.2	-
Temperature 2 m (C) Average	744	0	0	100	31.5	-	23	-
Relative Humidity (%) Average	744	0	0	100	98.7	-	90.2	-
Wind Speed 10 m (km/h) Average	744	0	0	100	22	-	14	-
Wind Direction 10 m (deg) Average	744	0	0	100	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BLACKROD (AMS31)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	706	0.16	0.3	-	0	0	0	0	0.2	0.4	2.9
H2S (ppb) Average	698	0.13	0.1	-	0	0	0.1	0.1	0.2	0.2	0.9
THC (ppm) Average	707	2.44	0.6	-	2.1	2.2	2.2	2.3	2.4	2.7	9.3
NO2 (ppb) Average	708	1.42	1.3	-	0.1	0.4	0.6	0.9	1.8	3.2	8.9
NO (ppb) Average	708	1.13	2.7	-	0	0	0.1	0.2	1	3	38.5
NOX (ppb) Average	708	2.54	3.7	-	0.2	0.5	0.7	1.1	2.9	6.5	47.4
Temperature 2 m (C) Average	744	17.78	4.7	-	6.4	11.7	14.4	17.6	20.9	24.3	31.5
Relative Humidity (%) Average	744	68.7	19.5	-	20.3	41.5	54.4	71.1	84.9	93.5	98.7
Wind Speed 10 m (km/h) Average	744	9.2	5	-	1	3	6	9	12	16	22
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BLACKROD (AMS31)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
SO2, H2S, THC	28 Jul 2026 12:00	28 Jul 2026 13:00	2	Maintenance - sample manifold cleaned
H2S	01 Jul 2026 08:00	01 Jul 2026 08:00	1	Unstable Operation - flatline in analyzer output signal
H2S	01 Jul 2026 15:00	01 Jul 2026 16:00	2	Unstable Operation - flatline in analyzer output signal
H2S	03 Jul 2026 01:00	03 Jul 2026 02:00	2	Unstable Operation - flatline in analyzer output signal
H2S	04 Jul 2026 16:00	04 Jul 2026 16:00	1	Unstable Operation - flatline in analyzer output signal
H2S	05 Jul 2026 13:00	05 Jul 2026 13:00	1	Unstable Operation - flatline in analyzer output signal



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

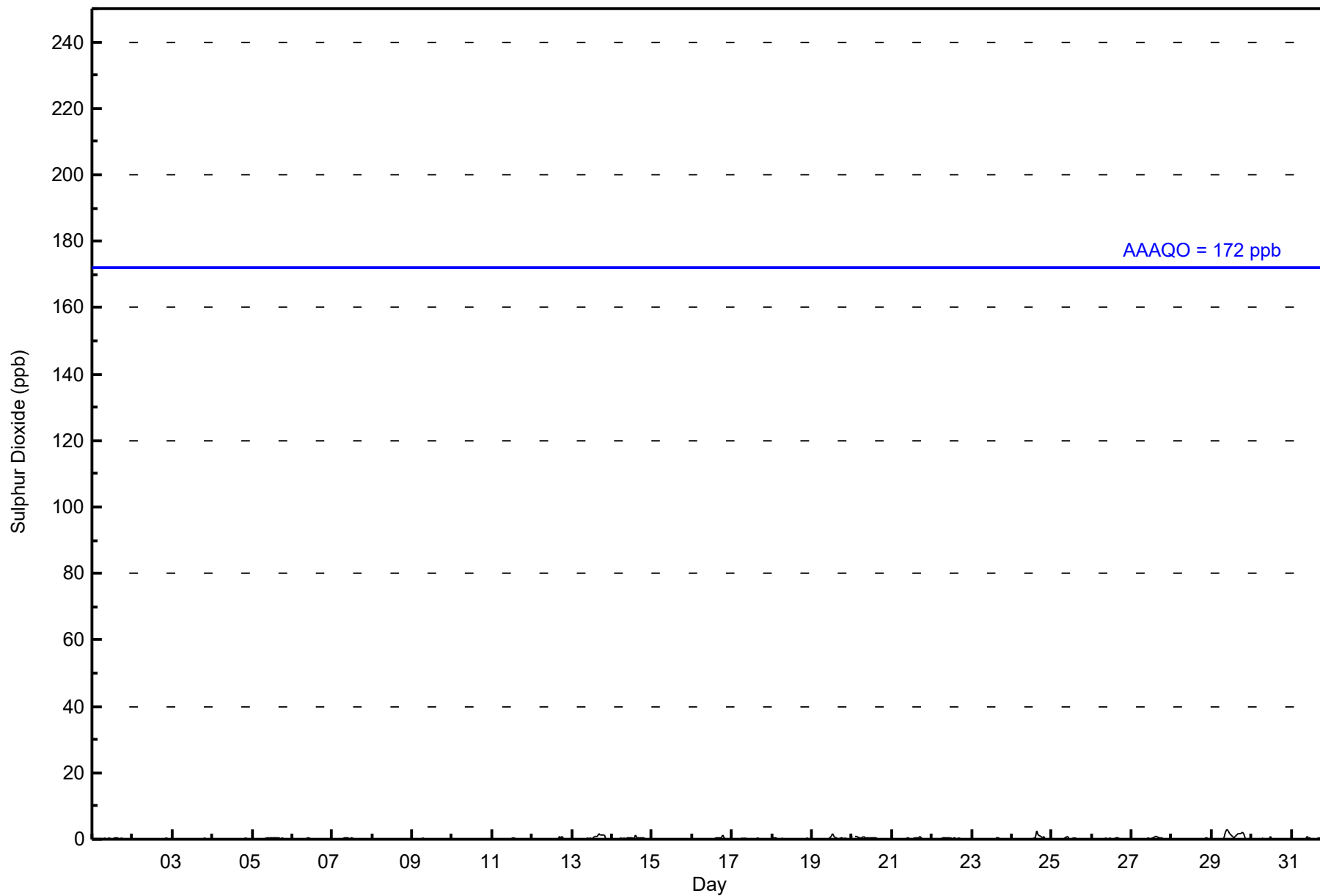
Blackrod - July 2026

Number of Exceedances (AAAQO): Maximum Value: 2.9 ppb on Jul 29 10:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 0.9 ppb on Jul 29						Hours in Service: 744		
Minimum Value: 0.0 ppb on Jul 2 10:00 Maximum Diurnal Average: 0.3 ppb at hour 17 Monthly Average: 0.16 ppb																			Minimum Daily Average: 0.0 ppb on Jul 10 Minimum Diurnal Average: 0.0 ppb at hour 2 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.2 P ₉₀ = 0.4 P ₉₉ = 1.7						Hours of Data: 706		
																									Hours of Missing Data: 38		
																									Hours of Calibration: 36		
																									Percent Operational Time: 99.7		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.4	0.2	0.1	0.3	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.4	
2-Jul	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.1	0.1	0.2
3-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2
4-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.3	0.1	0.0	0.0	0.0	0.3	
5-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.5	0.3	0.4	0.2	0.3	0.5	0.4	0.2	0.4	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.5	
6-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.3	0.5	0.1	0.2	0.2	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
7-Jul	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.3	0.2	0.1	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
8-Jul	0.0	Z	0.0	0.0	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	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
9-Jul	0.0	0.0	Z	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
10-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-Jul	0.0	0.0	0.0	0.1	Z	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
12-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.4	0.7	0.0	0.0	0.0	0.0	0.0	0.1	0.8	
13-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.3	0.1	0.7	0.7	0.7	1.8	1.2	1.3	1.2	0.1	0.0	0.1	0.0	0.4	1.8	
14-Jul	0.0	Z	0.0	0.2	0.2	0.2	0.2	0.3	0.1	0.4	0.4	0.3	0.6	0.2	1.1	0.5	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.2	0.3	1.1	
15-Jul	0.1	0.1	Z	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	
16-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.2	0.2	0.5	0.5	0.6	1.2	0.5	0.1	0.1	0.1	0.1	0.2	1.2	
17-Jul	0.1	0.0	0.1	0.0	Z	0.1	0.3	0.2	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.4	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.4	
18-Jul	0.1	0.2	0.2	0.2	0.2	Z	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.1	0.5	
19-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.7	1.5	0.7	0.6	0.4	0.2	0.4	0.3	0.2	0.2	0.2	0.2	0.6	0.3	1.5	
20-Jul	0.7	Z	0.9	0.8	0.3	0.3	0.6	0.7	0.3	0.3	0.2	0.2	0.3	0.4	0.4	0.1	0.1	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.3	0.9	
21-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.2	0.1	0.2	0.5	0.5	0.4	0.6	0.7	0.2	0.1	0.1	0.0	0.1	0.1	0.2	0.7	
22-Jul	0.1	0.1	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.4	
23-Jul	0.2	0.2	0.2	0.1	Z	0.1	0.0	0.1	0.1	C	C	C	C	C	0.5	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	
24-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.2	2.3	1.1	0.9	0.5	0.8	0.0	0.1	0.0	0.1	0.3	2.3	
25-Jul	Z	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.6	0.9	0.2	0.0	0.2	0.3	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.9	
26-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.1	0.1	0.2	0.0	0.2	0.4	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	
27-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.4	0.3	0.6	1.1	0.3	0.4	0.2	0.1	0.0	0.0	0.1	0.0	0.2	1.1	
28-Jul	0.1	0.1	0.1	Z	0.1	0.2	0.1	0.1	0.1	0.1	0.1	M	M	0.0	0.1	0.1	0.0	0.2	0.1	0.1	0.3	0.3	0.1	0.0	0.1	0.3	
29-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.5	2.1	2.9	2.7	1.8	0.9	0.3	0.9	1.2	1.7	1.5	2.2	1.7	0.5	0.0	0.0	0.0	0.9	2.9	
30-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.4	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	
31-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	1.0	
0.1 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.3 0.2 0.2 0.2 0.2 0.3 0.3 0.3 0.3 0.3 0.2 0.1 0.1 0.1 0.1 0.1																										Diurnal Average	
0.7 0.2 0.9 0.8 0.3 0.3 0.6 0.7 2.1 2.9 2.7 1.8 1.5 0.7 1.1 2.3 1.8 1.5 2.2 1.7 0.5 0.5 0.2 0.6																										Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Blackrod - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Blackrod - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	706	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Blackrod - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	16	15	17	13	10	44	103	156	108	34	24	30	36	42	29	29	706
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	15	17	13	10	44	103	156	108	34	24	30	36	42	29	29	706

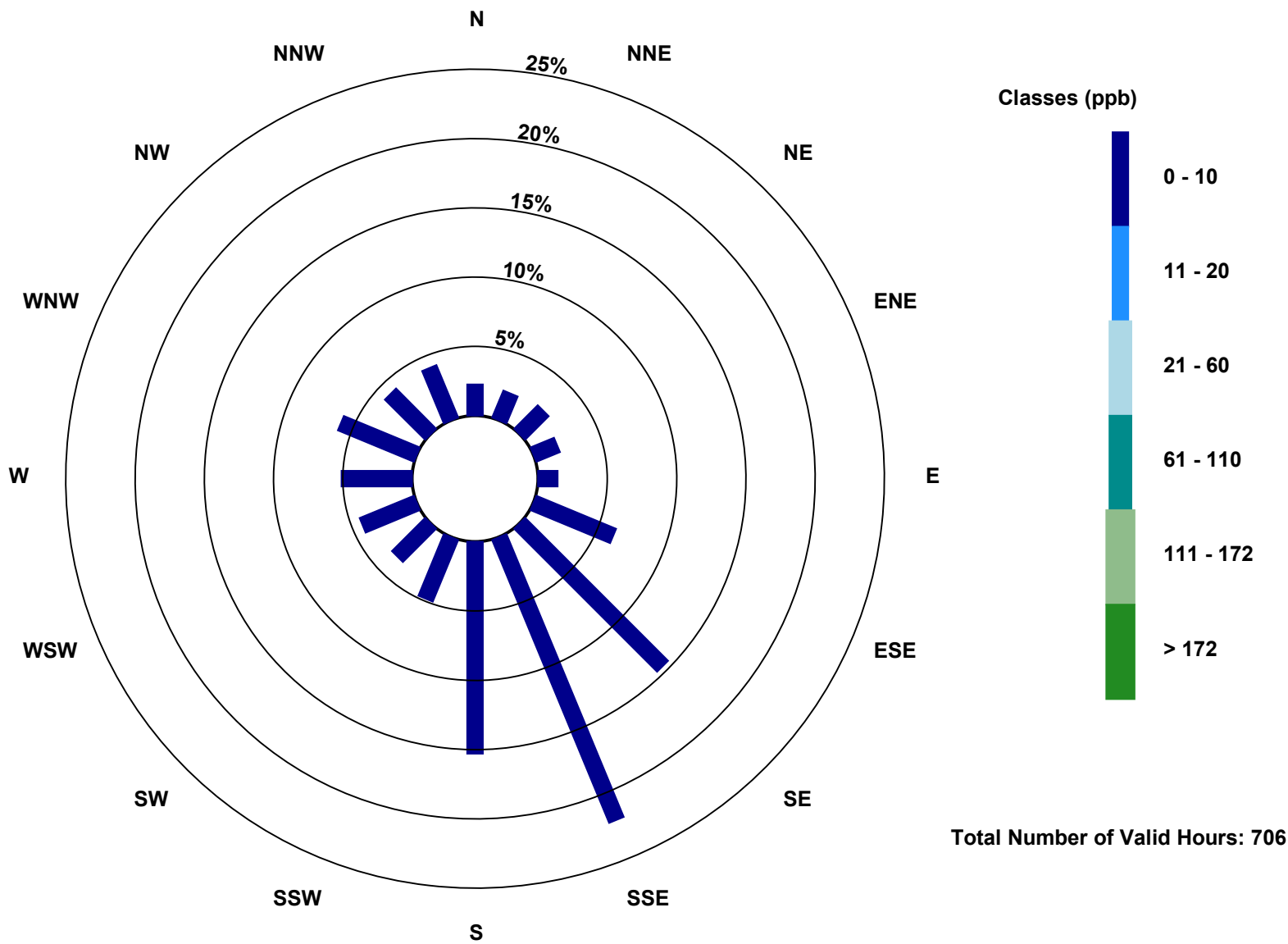
Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Sulphur Dioxide (SO₂) - ppb
Blackrod



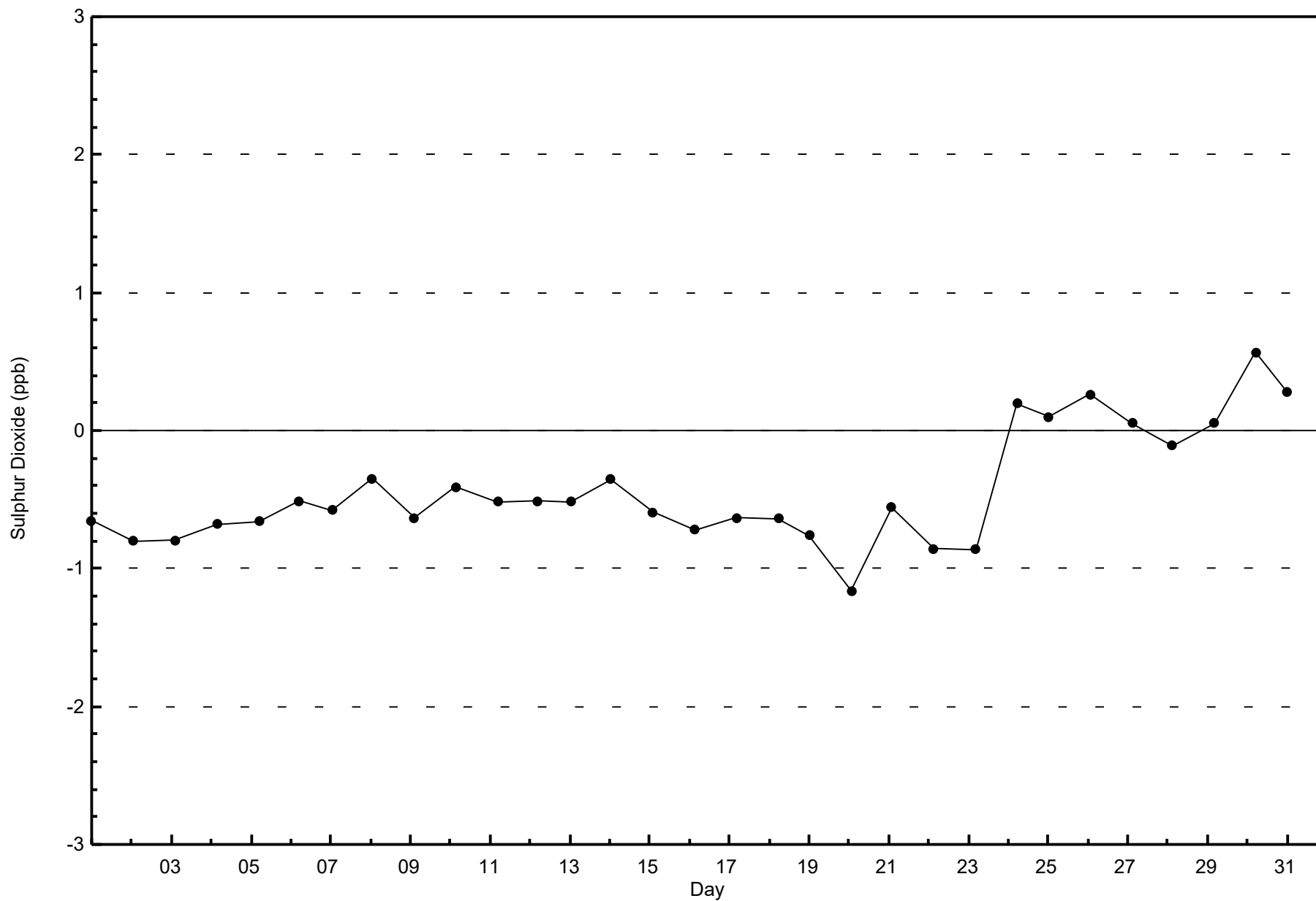


Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO₂) - ppb

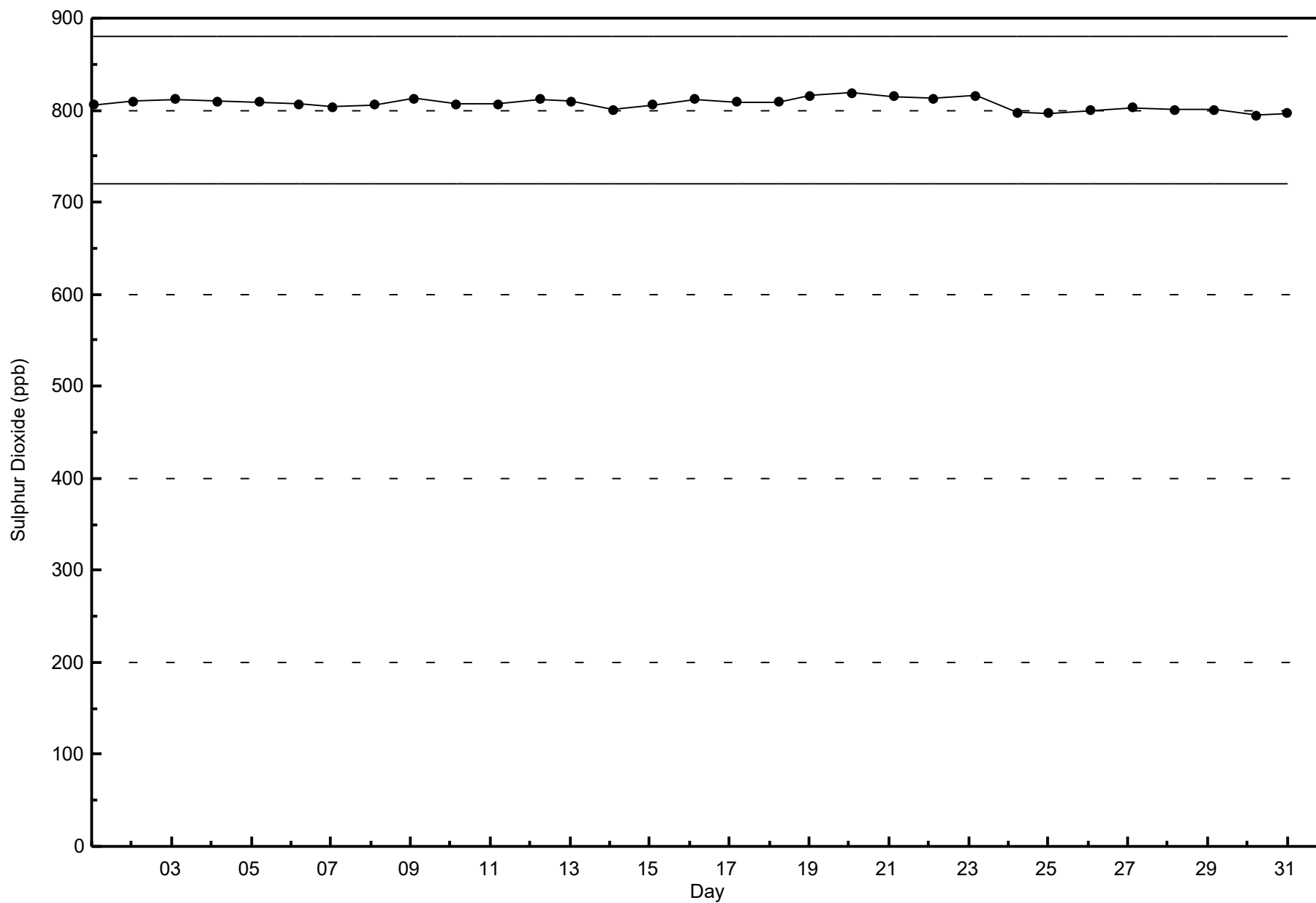
Blackrod - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Blackrod - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H₂S) - ppb

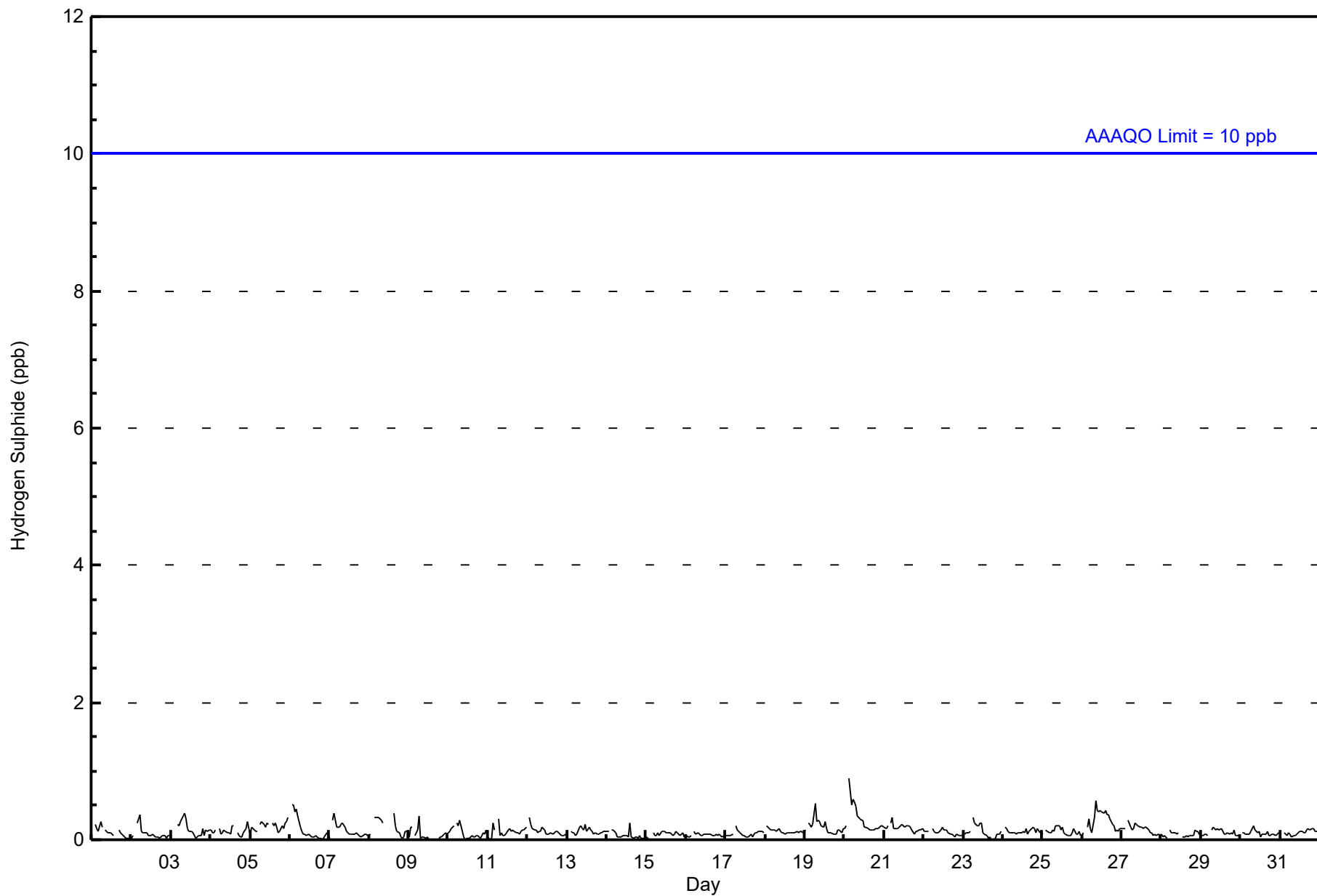
Blackrod - July 2026

Number of Exceedances (AAAQO): Maximum Value: 0.9 ppb on Jul 20 04:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 0.3 ppb on Jul 20																			Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 9 14:00 Maximum Diurnal Average: 0.2 ppb at hour 6 Monthly Average: 0.13 ppb																			Minimum Daily Average: 0.1 ppb on Jul 9 Minimum Diurnal Average: 0.1 ppb at hour 19 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.2 P ₉₉ = 0.5																			Hours of Data: 698	
																																						Hours of Missing Data: 46	
																																						Hours of Calibration: 37	
																																						Percent Operational Time: 98.8	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jul	0.1	Z	0.2	0.2	0.1	0.3	0.2	UO	0.1	0.1	0.1	0.1	0.1	0.1	UO	UO	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1													
2-Jul	0.0	0.1	Z	0.3	0.3	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1													
3-Jul	UO	UO	0.1	Z	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2													
4-Jul	0.1	0.1	0.1	0.2	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	UO	0.1	0.1	0.0	0.0	0.1	0.2	0.3	0.2	0.1	0.3													
5-Jul	0.1	0.2	0.2	0.1	0.1	Z	0.2	0.3	0.2	0.2	0.2	0.2	UO	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.3													
6-Jul	Z	0.5	0.5	0.4	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.5												
7-Jul	0.0	Z	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	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	0.4												
8-Jul	0.1	0.1	Z	0.3	0.3	0.3	0.3	0.3	0.3	C	C	C	C	C	C	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	--	0.4												
9-Jul	0.0	0.2	0.2	Z	0.1	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.4												
10-Jul	0.1	0.1	0.2	0.2	Z	0.2	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.3												
11-Jul	0.0	0.0	0.0	0.2	0.1	Z	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.3												
12-Jul	Z	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	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	0.3												
13-Jul	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2												
14-Jul	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.2												
15-Jul	0.0	0.0	0.0	Z	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	0.0	0.1	0.1												
16-Jul	0.1	0.0	0.0	0.1	Z	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	0.0	0.1	0.1	0.1	0.1												
17-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2												
18-Jul	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	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	0.2												
19-Jul	0.1	Z	0.2	0.2	0.2	0.2	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.5												
20-Jul	0.2	0.2	Z	0.9	0.5	0.6	0.6	0.5	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.9	0.9												
21-Jul	0.2	0.2	0.2	Z	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3												
22-Jul	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2												
23-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.3	0.2	0.2	0.2	0.3	0.3	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	0.3												
24-Jul	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2												
25-Jul	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2												
26-Jul	0.1	0.1	Z	0.2	0.3	0.2	0.1	0.3	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.6												
27-Jul	0.2	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3												
28-Jul	0.1	0.0	0.1	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	M	M	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1												
29-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.2	0.2	0.2	0.2	0.1	0.2	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	0.2												
30-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	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	0.2												
31-Jul	0.1	Z	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	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2												
0.1 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.2 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																										Diurnal Average													
0.2 0.5 0.5 0.9 0.5 0.6 0.6 0.5 0.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.3 0.2 0.2 0.2 0.3 0.3 0.3 0.3 0.3																										Diurnal Maximum													
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation																																							
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																																							



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Blackrod - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Blackrod - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	698	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 698

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Blackrod - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	17	16	17	11	11	48	104	146	106	33	25	31	37	42	28	26	698
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	16	17	11	11	48	104	146	106	33	25	31	37	42	28	26	698

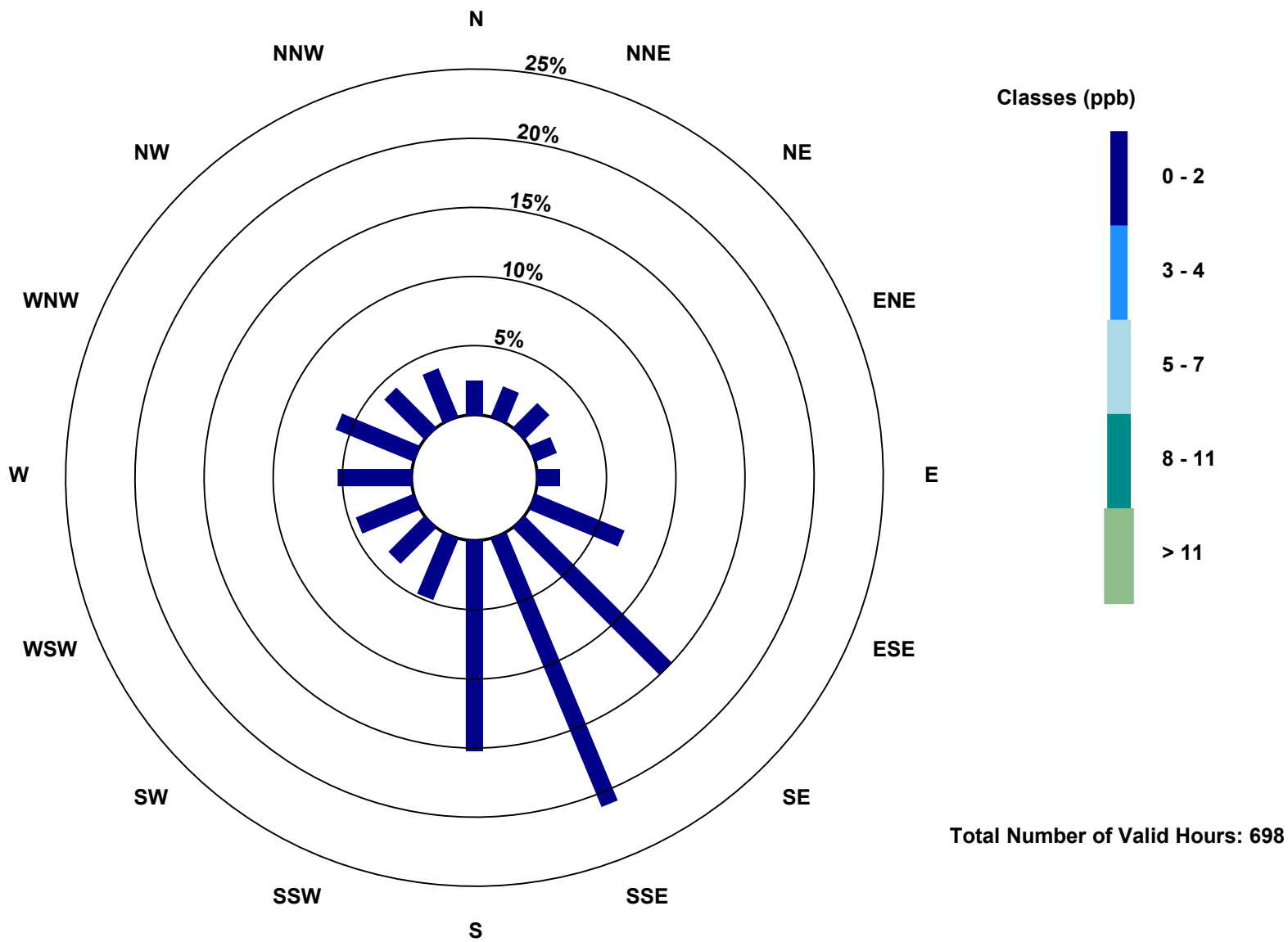
Total Number of Valid Hours: 698

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Hydrogen Sulphide (H₂S) - ppb
Blackrod



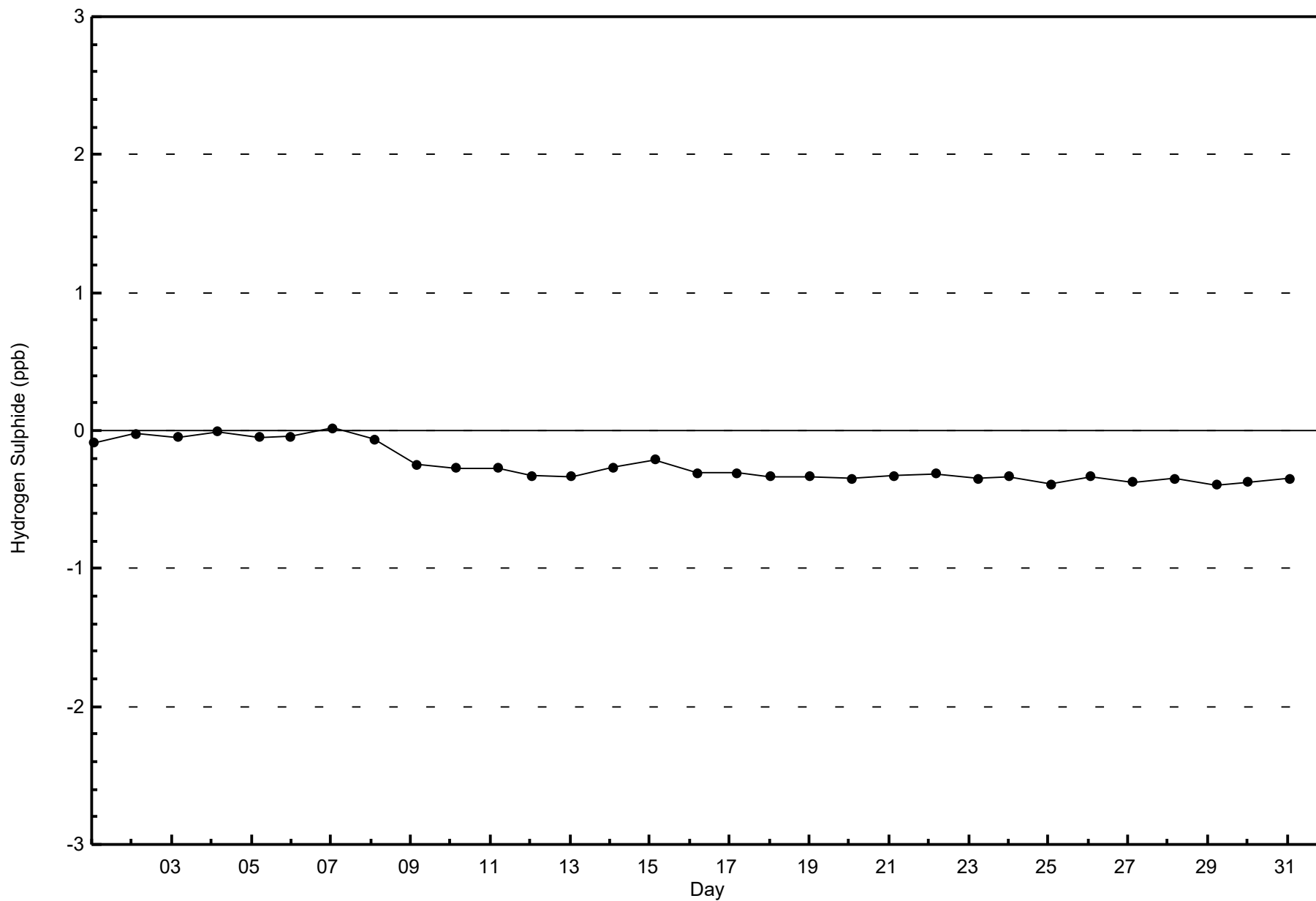


Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

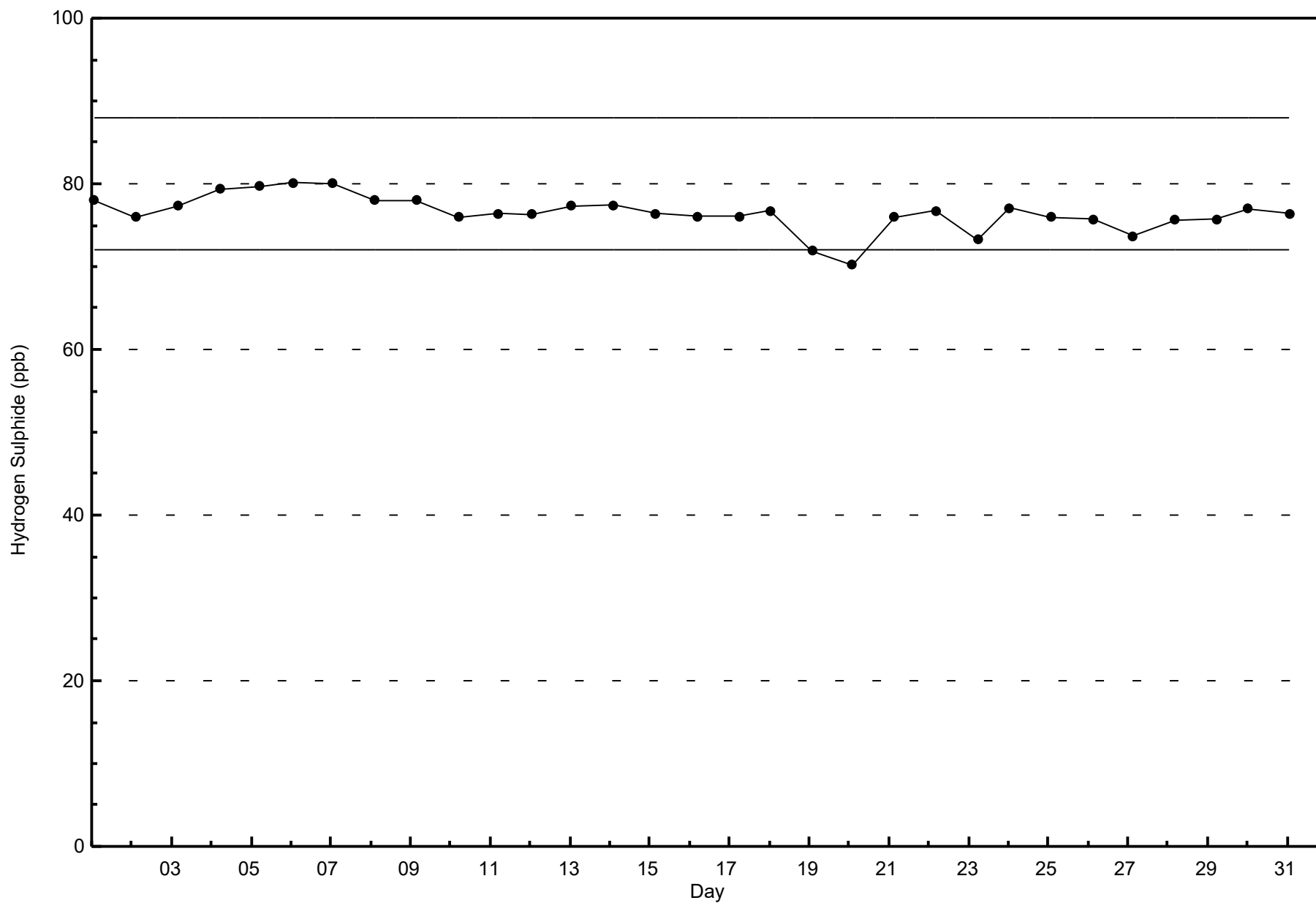
Blackrod - July 2026





Wood Buffalo Environmental Association
Span Responses

Hydrogen Sulphide (H₂S) - ppb
Blackrod - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

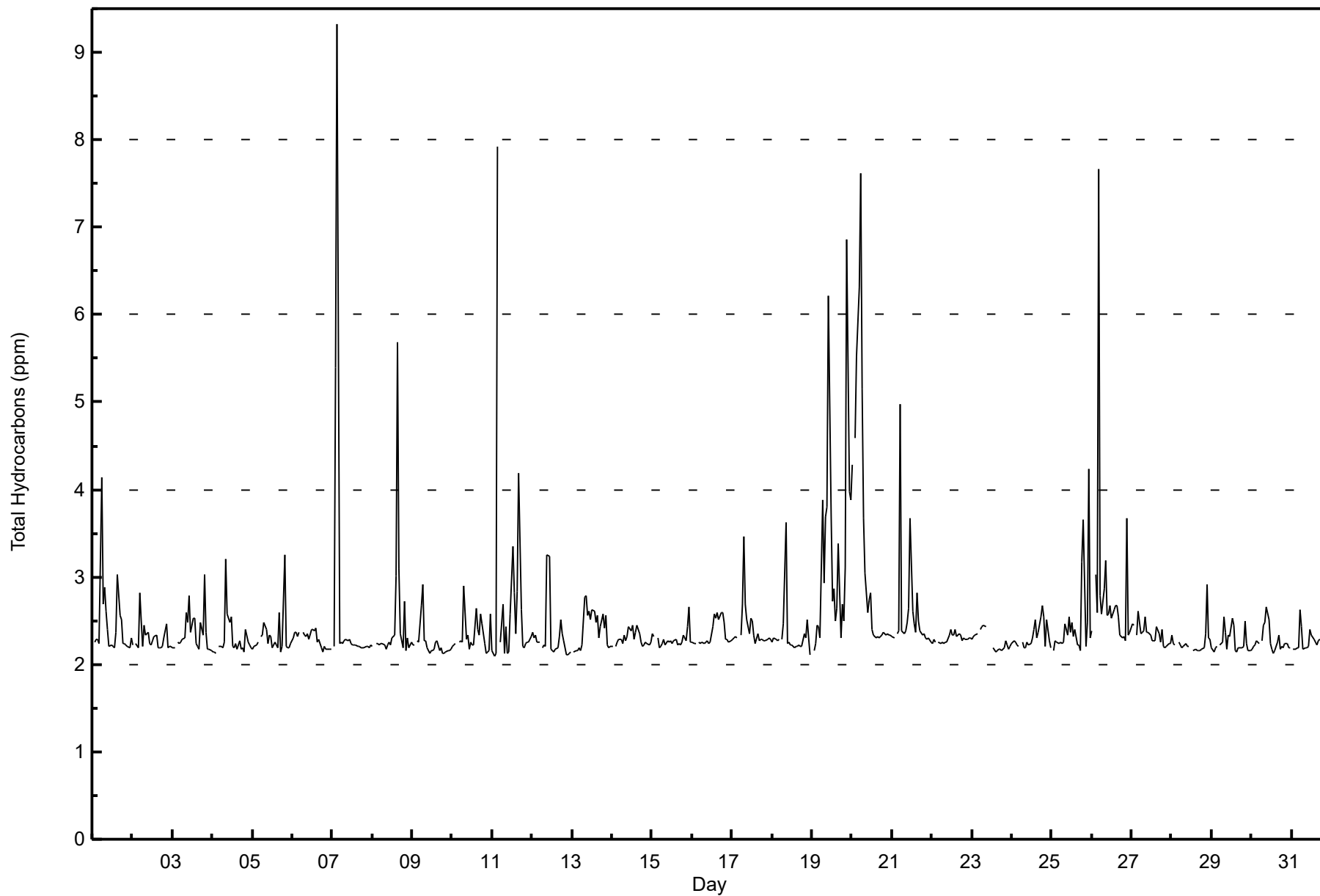
Blackrod - July 2026

Maximum Value: 9.3 ppm on Jul 7 04:00																		Maximum Daily Average: 3.3 ppm on Jul 20																		Hours in Service: 744	
Minimum Value: 2.1 ppm on Jul 11 02:00																		Minimum Daily Average: 2.2 ppm on Jul 9																		Hours of Data: 707	
Maximum Diurnal Average: 2.9 ppm at hour 4																		Minimum Diurnal Average: 2.2 ppm at hour 2																		Hours of Missing Data: 37	
Monthly Average: 2.44 ppm																		Percentiles: P ₁ = 2.1 P ₁₀ = 2.2 Q ₁ = 2.2 Median = 2.3 Q ₃ = 2.4 P ₉₀ = 2.7 P ₉₉ = 5.7																		Hours of Calibration: 35	
																																				Percent Operational Time: 99.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24													
1-Jul	Z	2.3	2.3	2.3	2.2	4.1	2.7	2.9	2.6	2.4	2.2	2.2	2.2	2.2	2.4	3.0	2.6	2.5	2.2	2.2	2.2	2.2	2.2	2.3	2.5	4.1											
2-Jul	2.2	Z	2.2	2.2	2.8	2.5	2.2	2.5	2.3	2.4	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.5	2.2	2.2	2.2	2.3	2.8										
3-Jul	2.2	2.2	Z	2.3	2.2	2.2	2.3	2.3	2.6	2.5	2.8	2.4	2.5	2.5	2.2	2.2	2.2	2.5	2.3	3.0	2.4	2.2	2.2	2.2	2.4	3.0											
4-Jul	2.1	2.1	2.1	Z	2.2	2.2	2.2	2.3	3.2	2.6	2.5	2.5	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.1	2.4	2.2	2.2	2.2	2.3	3.2											
5-Jul	2.2	2.2	2.2	2.3	Z	2.3	2.3	2.5	2.4	2.2	2.3	2.3	2.2	2.3	2.2	2.2	2.6	2.1	2.2	3.3	2.2	2.2	2.2	2.2	2.3	3.3											
6-Jul	2.3	2.4	2.4	2.3	2.4	Z	2.4	2.3	2.3	2.4	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.4											
7-Jul	Z	2.2	5.4	9.3	2.2	2.3	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.7	9.3											
8-Jul	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.3	3.0	5.7	3.1	2.4	2.2	2.7	2.2	2.3	2.2	2.3	2.5	5.7											
9-Jul	2.2	2.2	Z	2.3	2.2	2.7	2.9	2.3	2.3	2.2	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.9											
10-Jul	2.2	2.2	2.2	Z	2.2	2.3	2.3	2.9	2.3	2.3	2.2	2.3	2.2	2.2	2.6	2.4	2.3	2.6	2.5	2.2	2.1	2.1	2.2	2.6	2.3	2.9											
11-Jul	2.2	2.1	2.1	7.9	Z	2.2	2.7	2.1	2.4	2.1	2.1	2.6	3.4	2.8	2.4	2.8	4.2	2.6	2.2	2.2	2.2	2.3	2.3	2.3	2.7	7.9											
12-Jul	2.4	2.3	2.3	2.3	2.3	Z	2.2	2.2	2.2	3.3	3.2	2.2	2.2	2.1	2.2	2.2	2.3	2.5	2.3	2.3	2.1	2.1	2.1	2.1	2.3	3.3											
13-Jul	Z	2.1	2.2	2.2	2.2	2.2	2.2	2.8	2.8	2.6	2.6	2.5	2.6	2.6	2.5	2.6	2.3	2.4	2.6	2.4	2.6	2.2	2.2	2.2	2.4	2.8											
14-Jul	2.2	Z	2.2	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.4	2.4	2.3	2.3	2.2	2.2	2.3	2.2	2.2	2.3	2.3	2.4											
15-Jul	2.4	2.3	Z	2.3	2.2	2.2	2.2	2.3	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.7	2.3	2.3	2.7											
16-Jul	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.4	2.6	2.5	2.6	2.5	2.6	2.6	2.5	2.3	2.3	2.3	2.3	2.4	2.6											
17-Jul	2.3	2.3	2.3	2.3	Z	2.3	2.7	3.5	2.7	2.5	2.3	2.5	2.5	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	3.5											
18-Jul	2.3	2.3	2.3	2.3	2.3	Z	2.3	2.5	3.6	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.5	2.3	2.1	2.3	3.6											
19-Jul	Z	2.2	2.2	2.4	2.4	2.3	3.9	2.9	3.7	3.8	6.2	3.7	2.7	2.9	2.5	2.6	3.4	2.3	2.7	2.5	3.1	6.9	4.0	3.9	3.3	6.9											
20-Jul	4.3	Z	4.6	5.5	6.3	7.6	5.2	3.7	3.0	2.6	2.7	2.8	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	3.3	7.6											
21-Jul	2.3	2.3	Z	2.3	2.4	5.0	2.4	2.4	2.4	2.5	2.6	3.7	2.6	2.5	2.4	2.8	2.5	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.6	5.0											
22-Jul	2.2	2.3	2.3	Z	2.3	2.2	2.3	2.2	2.3	2.3	2.3	2.4	2.3	2.3	2.4	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4											
23-Jul	2.3	2.3	2.3	2.3	Z	2.4	2.4	2.4	2.4	C	C	C	C	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.3	2.4											
24-Jul	2.2	2.3	2.3	2.2	2.2	Z	2.2	2.2	2.2	2.3	2.2	2.2	2.3	2.4	2.5	2.3	2.4	2.5	2.7	2.5	2.2	2.5	2.3	2.2	2.3	2.7											
25-Jul	Z	2.2	2.3	2.3	2.2	2.2	2.2	2.3	2.5	2.3	2.5	2.4	2.5	2.3	2.4	2.2	2.2	2.2	3.2	3.7	2.2	2.5	4.2	2.3	2.5	4.2											
26-Jul	2.4	Z	3.0	2.6	7.7	2.8	2.6	2.9	3.2	2.6	2.6	2.7	2.5	2.6	2.7	2.7	2.5	2.3	2.3	2.3	2.3	3.7	2.3	2.4	2.8	7.7											
27-Jul	2.5	2.5	Z	2.3	2.6	2.4	2.4	2.4	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.4	2.2	2.2	2.2	2.2	2.2	2.3	2.6											
28-Jul	2.3	2.2	2.2	Z	2.3	2.2	2.2	2.2	2.2	2.2	2.2	M	M	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.4	2.9	2.3	2.3	2.3	2.9											
29-Jul	2.2	2.1	2.2	2.2	Z	2.2	2.2	2.5	2.4	2.2	2.3	2.3	2.5	2.5	2.2	2.1	2.2	2.2	2.2	2.2	2.5	2.2	2.2	2.2	2.3	2.5											
30-Jul	2.2	2.2	2.2	2.3	2.2	Z	2.3	2.5	2.5	2.7	2.5	2.2	2.2	2.1	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.7											
31-Jul	Z	2.2	2.2	2.2	2.2	2.6	2.4	2.2	2.2	2.2	2.2	2.4	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.6											
2.3 2.2 2.5 2.9 2.7 2.7 2.5 2.5 2.5 2.4 2.5 2.4 2.4 2.4 2.4 2.5 2.4 2.3 2.3 2.4 2.3 2.5 2.4 2.3																								Diurnal Average													
4.3 2.5 5.4 9.3 7.7 7.6 5.2 3.7 3.7 3.8 6.2 3.7 3.4 2.9 3.0 5.7 4.2 2.6 3.2 3.7 3.1 6.9 4.2 3.9																								Diurnal Maximum													
Z - zerospan C - Calibration M - Maintenance																																					



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Blackrod - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Blackrod - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	0	0.00	0.00
2.1 - 3.0	668	94.48	94.48
3.1 - 10.0	39	5.52	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Blackrod - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.1 - 3.0	10	14	16	12	9	43	102	155	107	33	24	29	36	43	22	13	668
3.1 - 10.0	6	1	1	1	1	1	1	1	1	1	0	1	0	0	7	16	39
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	15	17	13	10	44	103	156	108	34	24	30	36	43	29	29	707

Total Number of Valid Hours: 707

Total Number of Hours: 744

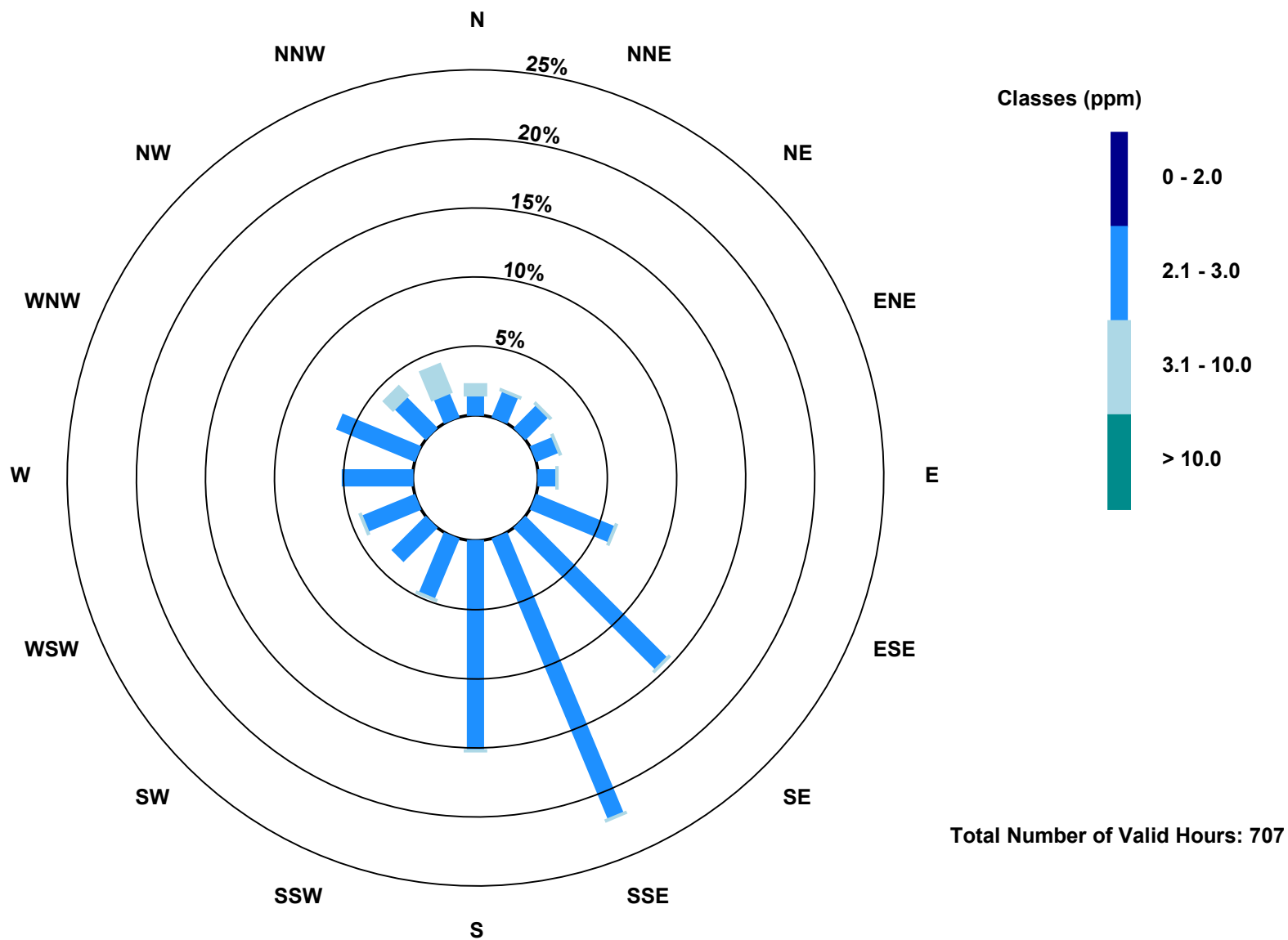


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Total Hydrocarbons (THC) - ppm

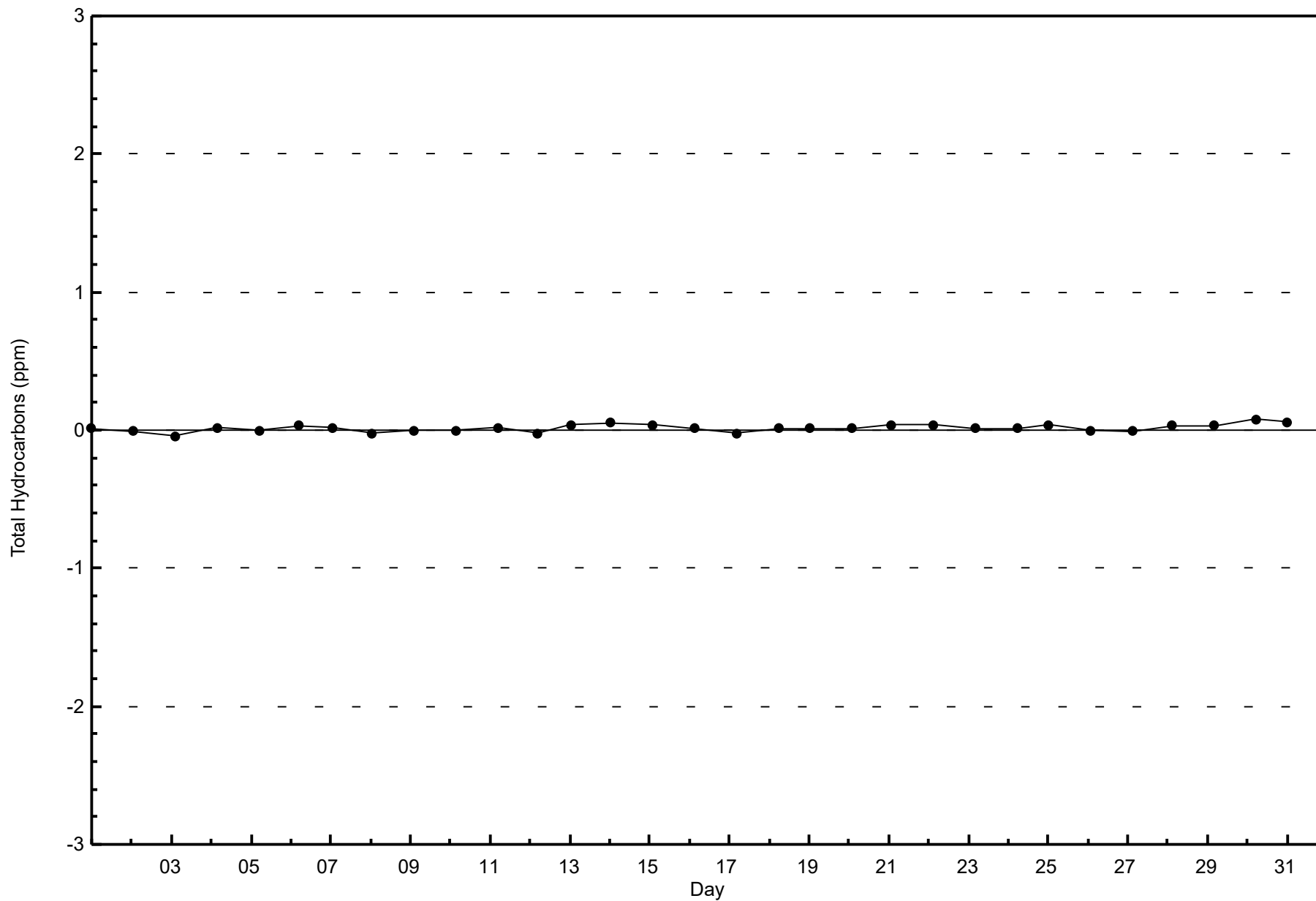
Blackrod

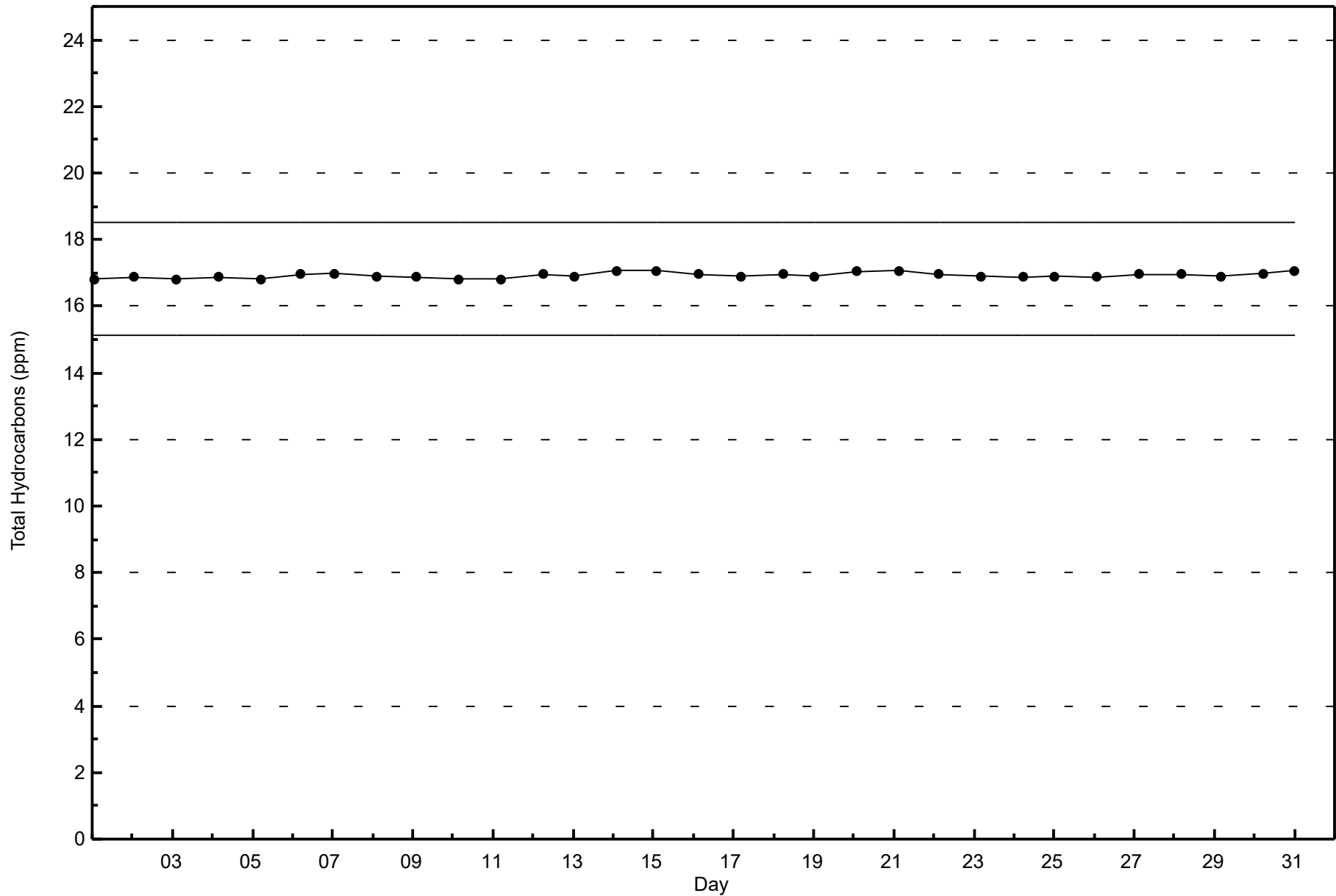




Wood Buffalo Environmental Association
Zero Responses

Total Hydrocarbons (THC) - ppm
Blackrod - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxide (NO) - ppb

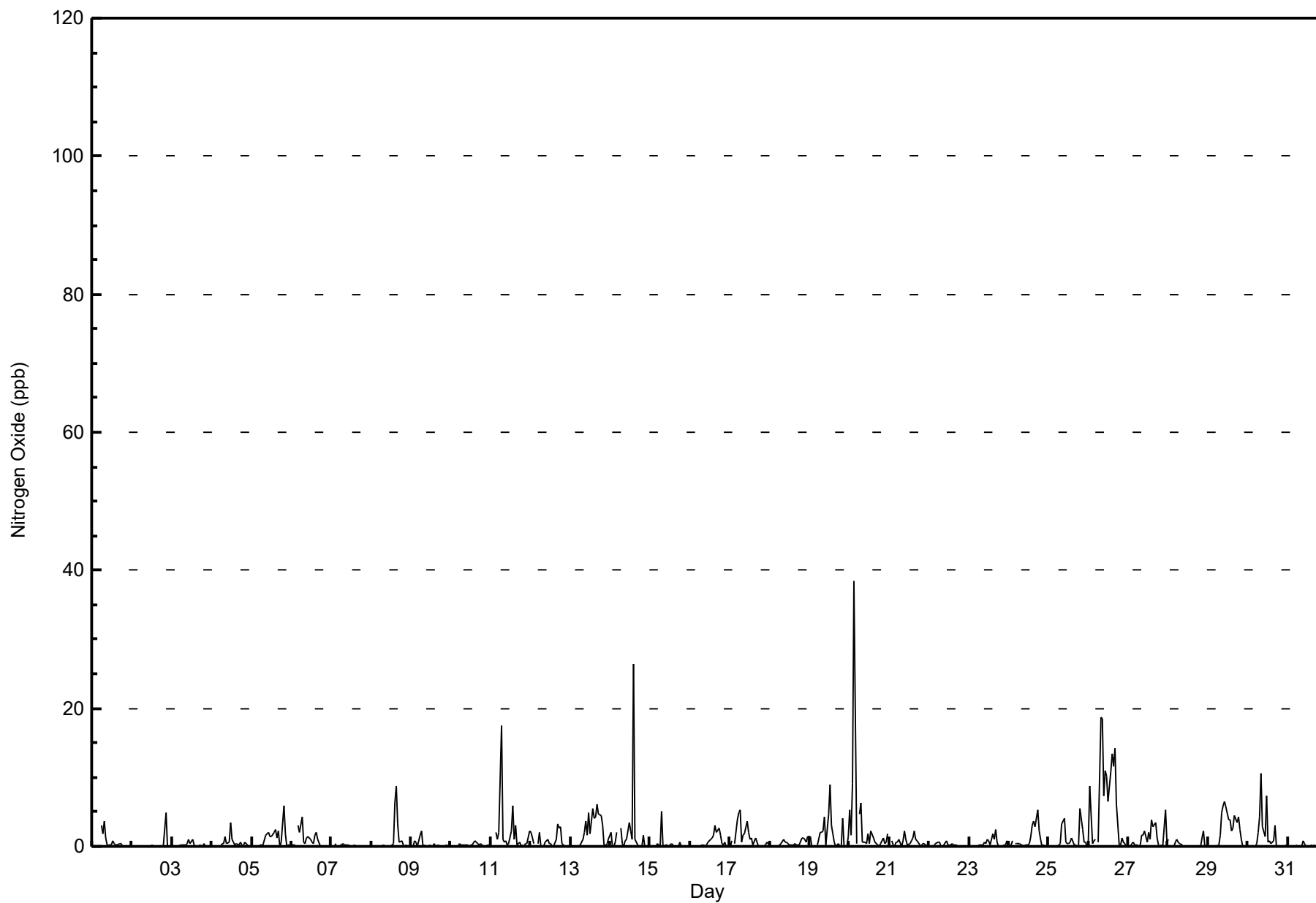
Blackrod - July 2026

Maximum Value: 38.5 ppb on Jul 20 04:00																				Maximum Daily Average: 6.2 ppb on Jul 26					Hours in Service: 744				
Minimum Value: 0.0 ppb on Jul 2 22:00																				Minimum Daily Average: 0.1 ppb on Jul 7					Hours of Data: 708				
Maximum Diurnal Average: 2.5 ppb at hour 15																				Minimum Diurnal Average: 0.3 ppb at hour 22					Hours of Missing Data: 36				
Monthly Average: 1.13 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 1.0 P ₉₀ = 3.0 P ₉₉ = 11.5					Hours of Calibration: 36				
																									Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	0.0	0.0	0.0	0.0	Z	3.0	1.8	3.6	1.2	0.1	0.2	0.3	0.8	0.3	0.2	0.2	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.6	3.6			
2-Jul	0.0	0.0	0.0	0.0	0.1	Z	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.2	4.8			
3-Jul	Z	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.4	1.0	0.4	1.1	0.1	0.0	0.0	0.0	0.3	0.1	0.5	0.1	0.0	0.1	0.1	0.2	1.1			
4-Jul	0.0	Z	0.0	0.0	0.0	0.1	0.4	0.4	1.4	0.4	0.7	3.5	0.9	0.6	0.2	0.3	0.3	0.6	0.1	0.0	0.6	0.1	0.1	0.0	0.5	3.5			
5-Jul	0.0	0.0	Z	0.0	0.1	0.1	0.1	0.3	1.6	1.8	2.0	1.5	1.4	2.1	2.4	1.2	2.2	0.1	0.6	5.9	1.9	0.1	0.2	0.1	1.1	5.9			
6-Jul	0.1	0.2	0.2	Z	3.0	2.1	4.2	0.5	0.5	1.1	1.4	1.0	0.5	0.4	1.6	1.9	0.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.9	4.2			
7-Jul	0.0	0.0	0.0	0.5	Z	0.1	0.3	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5			
8-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.4	6.2	8.8	3.2	0.6	0.7	0.2	0.0	0.2	0.1	0.1	0.9	8.8			
9-Jul	Z	0.1	0.8	0.6	0.0	1.6	2.2	0.1	0.2	0.1	0.1	0.2	0.1	0.0	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.3	2.2			
10-Jul	0.0	Z	0.0	0.0	0.0	0.5	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.7	0.6	0.4	0.1	0.3	0.0	0.0	0.0	0.3	0.2	0.2	0.7			
11-Jul	0.0	0.1	Z	2.1	1.0	2.0	17.5	1.0	0.7	0.7	0.3	0.4	2.2	5.9	1.1	3.0	0.2	0.7	0.1	0.3	0.1	0.4	0.5	2.3	1.8	17.5			
12-Jul	2.1	1.2	0.5	Z	0.4	2.0	0.0	0.1	0.1	0.6	1.1	0.3	0.4	0.1	0.1	1.1	3.2	2.7	2.8	0.5	0.0	0.0	0.0	0.0	0.8	3.2			
13-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.2	1.1	2.1	3.7	1.6	5.0	1.7	5.4	4.1	4.2	6.0	4.6	4.4	3.1	0.2	0.1	0.1	1.0	2.1	6.0			
14-Jul	2.0	0.0	0.0	0.5	2.1	Z	2.6	0.4	0.1	0.8	0.9	3.5	2.2	1.0	26.3	1.0	0.1	0.1	0.1	0.0	1.7	0.1	0.0	0.0	2.0	26.3			
15-Jul	Z	0.0	0.0	0.0	0.4	0.1	0.0	5.1	0.1	0.2	0.2	0.1	0.2	0.3	0.1	0.1	0.1	0.0	0.6	0.0	0.0	0.1	0.0	0.0	0.3	5.1			
16-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.1	0.3	0.7	1.0	1.2	1.7	3.1	2.1	2.6	1.7	0.5	0.1	0.5	0.0	0.0	0.7	3.1			
17-Jul	0.1	0.7	Z	0.4	3.8	4.9	5.4	0.5	1.6	1.8	3.6	2.0	0.9	1.3	0.3	1.2	0.5	0.0	0.1	0.1	0.0	0.1	0.7	0.4	1.3	5.4			
18-Jul	0.0	0.1	0.0	Z	0.1	0.1	0.2	0.3	1.1	0.7	0.5	0.3	0.2	0.1	0.3	0.4	0.2	0.1	0.2	1.2	1.1	1.1	0.6	1.5	0.5	1.5			
19-Jul	1.5	0.0	0.0	0.1	Z	0.2	2.0	2.0	2.2	4.3	0.3	4.6	8.9	3.0	1.7	0.7	0.1	0.4	0.1	0.0	4.1	0.0	0.0	1.4	1.6	8.9			
20-Jul	5.3	1.6	9.1	38.5	0.4	Z	4.7	6.3	0.6	0.6	0.3	1.7	0.4	2.1	1.2	0.6	0.4	0.2	0.1	0.3	1.2	0.3	0.6	1.9	3.4	38.5			
21-Jul	Z	0.8	0.1	0.1	0.6	0.6	0.9	0.1	0.7	2.2	1.0	0.2	0.4	0.7	1.3	2.2	0.9	0.9	0.1	0.0	0.3	0.4	0.1	0.1	0.6	2.2			
22-Jul	0.0	Z	0.0	0.0	0.4	0.5	0.5	0.0	0.0	0.2	0.8	0.1	0.1	0.1	0.3	0.2	0.3	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.8			
23-Jul	0.0	0.0	Z	0.0	0.1	0.1	0.1	0.1	0.1	0.7	0.4	0.9	0.8	0.3	1.8	1.0	2.5	0.5	0.1	0.1	0.1	0.2	0.1	0.9	0.5	2.5			
24-Jul	0.1	0.2	0.9	Z	0.4	0.4	0.4	0.2	0.2	0.1	0.1	0.3	0.4	1.5	3.0	3.6	2.9	5.3	2.3	1.1	0.1	0.2	0.0	0.0	1.0	5.3			
25-Jul	0.0	0.0	0.1	0.0	Z	0.0	0.1	0.4	3.2	4.1	0.6	0.3	0.3	0.5	1.3	0.2	0.1	0.0	0.1	5.5	2.4	0.6	0.6	0.0	0.9	5.5			
26-Jul	0.8	8.8	0.3	0.9	1.0	Z	0.6	18.7	18.5	7.3	10.9	10.1	6.6	10.7	13.5	11.6	14.3	6.2	0.1	0.1	1.1	0.6	0.4	0.1	6.2	18.7			
27-Jul	Z	0.0	0.3	0.6	0.1	0.1	0.1	0.2	1.6	1.7	2.3	0.6	2.0	1.0	3.8	2.8	3.4	1.2	0.2	0.0	0.1	0.1	5.3	0.5	1.2	5.3			
28-Jul	0.9	Z	0.1	0.0	0.6	1.1	0.6	0.4	0.3	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	1.2	2.2	0.1	0.0	0.4	2.2			
29-Jul	0.0	0.0	Z	0.0	0.0	0.1	0.2	1.6	4.9	5.8	6.5	5.6	3.8	3.8	2.3	2.6	4.5	3.4	4.3	2.5	1.1	0.0	0.0	0.1	2.3	6.5			
30-Jul	0.1	0.1	0.1	Z	0.1	0.5	2.0	4.2	10.5	2.8	1.4	7.3	0.7	0.7	0.4	0.9	3.1	0.0	0.0	0.0	0.0	0.1	0.0	0.2	1.5	10.5			
31-Jul	0.0	0.0	0.0	0.0	Z	0.2	0.0	0.0	0.0	0.9	0.4	0.1	0.1	0.1	0.2	0.0	0.1	0.0	0.0	0.1	0.3	0.1	0.0	0.0	0.1	0.9			
																									Diurnal Average				
																									Diurnal Maximum				
Z - zerospan C - Calibration																													



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxide (NO) - ppb
Blackrod - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxide (NO) - ppb
Blackrod - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	706	99.72	99.72
21 - 40	2	0.28	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxide (NO) - ppb
Blackrod - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	16	16	15	13	11	49	106	143	108	35	25	30	38	43	30	28	706
21 - 40	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	16	15	13	11	49	106	143	108	35	25	31	38	43	30	28	708

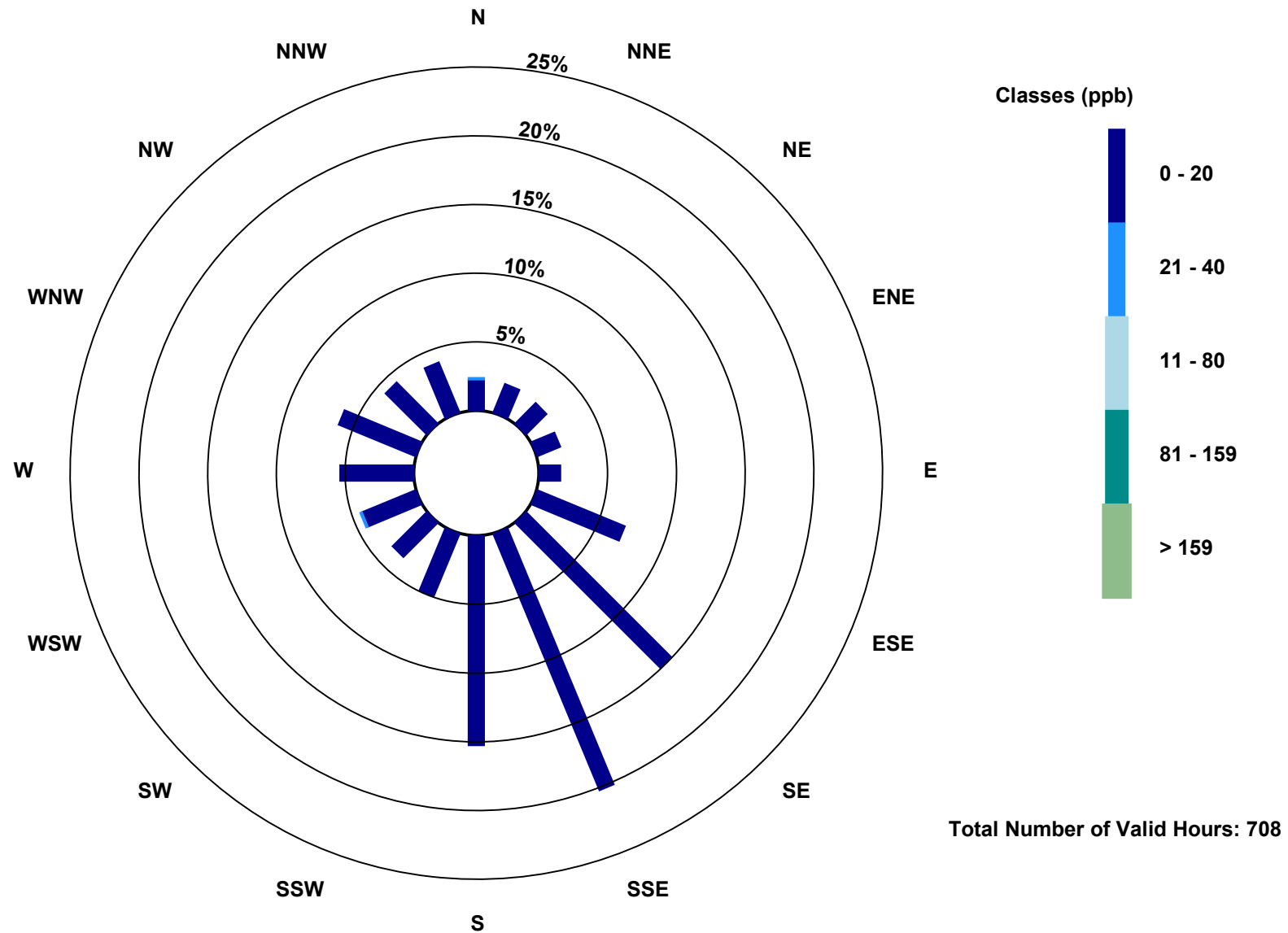
Total Number of Valid Hours: 708

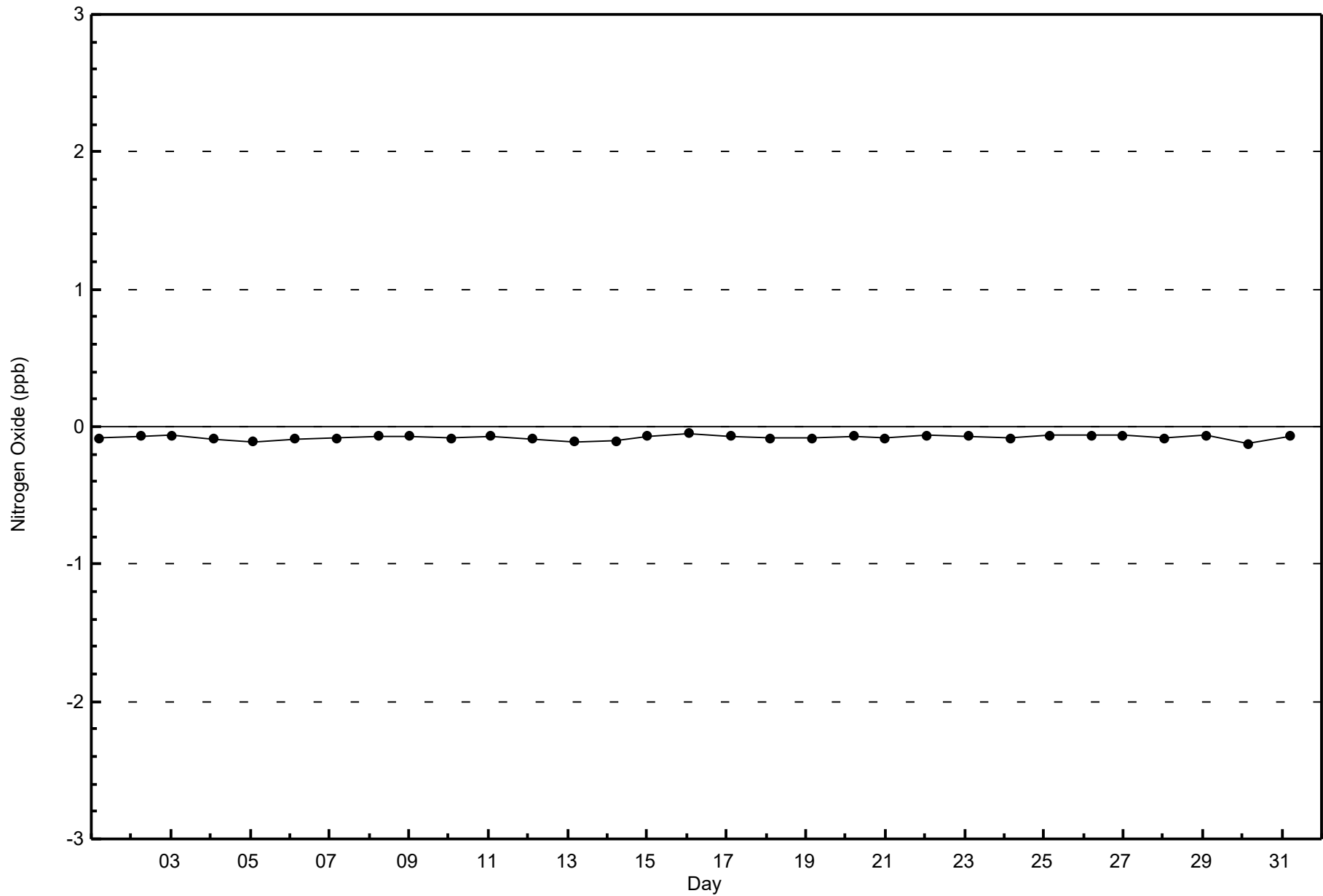
Total Number of Hours: 744

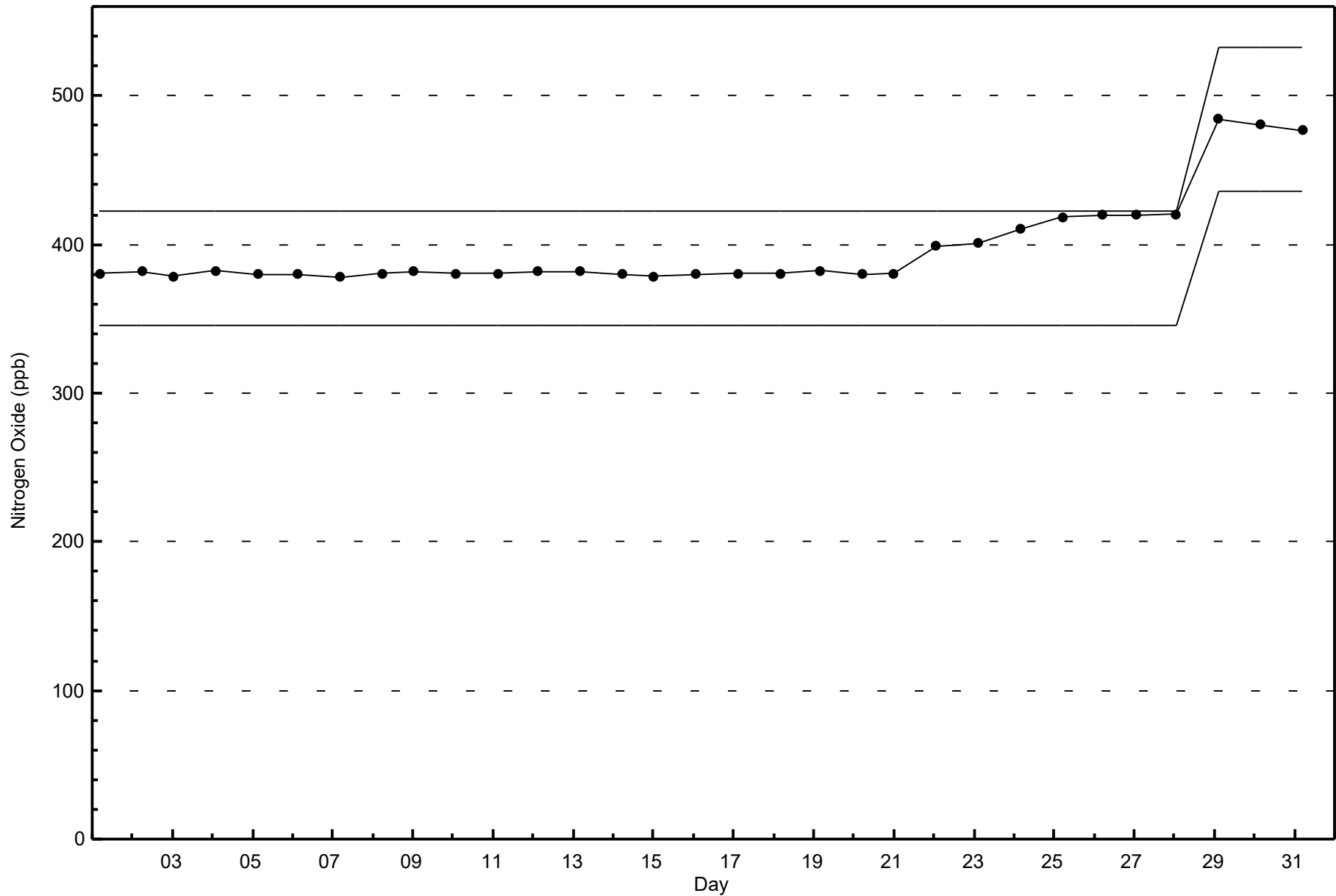


Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Oxide (NO) - ppb
Blackrod









Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

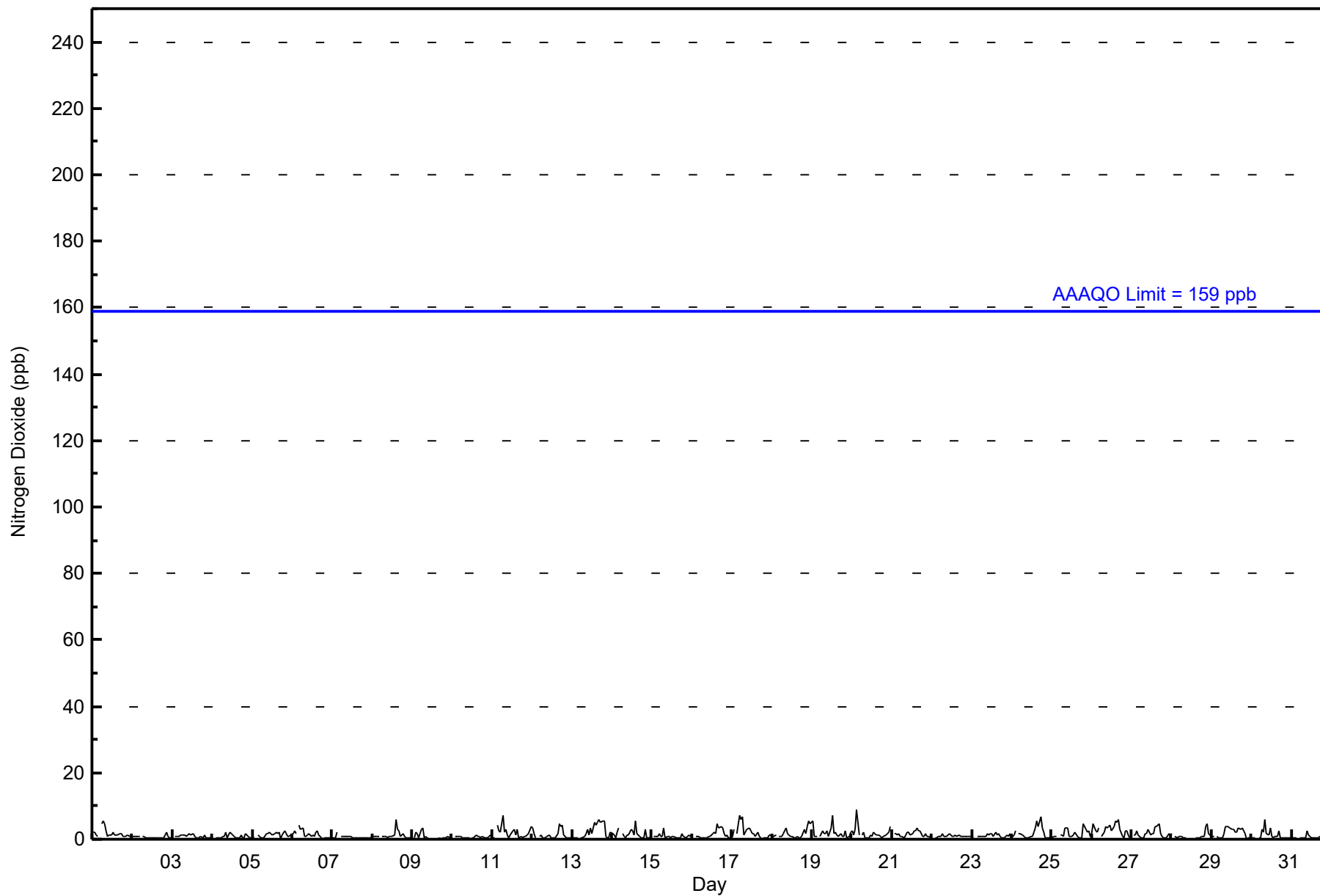
Blackrod - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 8.9 ppb on Jul 20 04:00 Maximum Daily Average: 2.9 ppb on Jul 26																			Hours in Service: 744 Hours of Data: 708							
Minimum Value: 0.1 ppb on Jul 9 13:00 Minimum Daily Average: 0.6 ppb on Jul 10 Maximum Diurnal Average: 1.9 ppb at hour 16 Minimum Diurnal Average: 1.1 ppb at hour 23 Monthly Average: 1.42 ppb Percentiles: P ₁ = 0.2 P ₁₀ = 0.4 Q ₁ = 0.6 Median = 0.9 Q ₃ = 1.8 P ₉₀ = 3.2 P ₉₉ = 6.1																			Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	2.1	2.3	1.3	1.0	Z	4.8	5.7	4.6	2.7	1.0	1.1	1.1	2.0	1.4	1.2	1.4	1.5	1.9	1.0	0.9	1.0	1.1	1.0	0.9	1.9	5.7
2-Jul	0.7	0.7	0.7	0.7	0.9	Z	0.9	0.7	0.6	0.6	0.5	0.4	0.6	0.5	0.4	0.4	0.4	0.5	0.5	0.6	2.3	0.8	0.6	0.5	0.7	2.3
3-Jul	Z	0.7	0.7	0.9	1.0	1.2	1.2	1.1	0.9	1.3	1.9	1.2	1.8	0.7	0.4	0.4	0.4	0.7	0.3	1.1	0.4	0.5	0.5	0.5	0.9	1.9
4-Jul	0.6	Z	0.6	0.6	0.6	0.5	0.8	1.0	2.2	0.6	2.2	1.7	1.4	0.9	0.5	0.6	0.5	1.1	0.6	0.3	1.7	0.8	0.4	0.4	0.9	2.2
5-Jul	0.4	0.7	Z	1.2	0.9	0.5	0.4	0.5	1.7	1.8	2.1	1.7	1.2	1.8	2.1	1.5	2.2	0.2	1.4	2.7	1.6	0.8	0.7	1.3	1.3	2.7
6-Jul	1.5	2.6	1.8	Z	4.2	2.8	3.6	0.9	0.8	1.4	1.9	1.0	1.2	0.7	2.1	2.7	1.4	0.3	0.2	0.3	0.3	0.4	0.4	0.3	1.4	4.2
7-Jul	0.3	0.3	0.6	2.0	Z	1.0	0.8	1.0	0.9	0.9	0.7	0.7	0.5	0.4	0.6	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.7	2.0
8-Jul	0.7	0.7	0.7	0.8	0.8	Z	0.8	0.8	0.7	0.6	0.7	0.8	0.7	1.2	6.0	3.0	2.4	0.9	1.5	1.0	0.3	0.5	0.4	0.4	1.1	6.0
9-Jul	Z	0.4	2.0	1.6	0.4	2.9	3.2	0.6	0.9	0.4	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.8	0.6	0.6	0.7	3.2
10-Jul	0.6	Z	0.8	0.7	0.7	1.0	0.6	0.6	0.4	0.4	0.3	0.2	0.3	0.4	1.1	0.9	0.8	0.5	0.8	0.3	0.5	0.6	0.7	1.4	0.6	1.4
11-Jul	0.3	0.4	Z	4.2	2.6	2.3	7.2	2.2	2.9	1.2	0.5	1.2	2.4	3.0	1.3	3.0	0.4	0.7	0.5	1.0	0.7	1.3	1.5	3.7	1.9	7.2
12-Jul	3.2	1.5	0.4	Z	0.7	1.4	0.3	0.3	0.3	0.7	1.3	0.6	0.6	0.4	0.4	1.5	4.6	4.0	4.1	1.1	0.5	0.6	0.6	0.5	1.3	4.6
13-Jul	0.5	0.4	0.4	0.5	Z	0.5	0.4	1.0	1.9	3.1	1.4	3.3	1.9	5.1	4.3	5.1	5.9	5.0	5.6	5.3	1.0	0.6	0.6	2.3	2.4	5.9
14-Jul	1.8	1.4	0.6	2.0	3.6	Z	1.8	1.0	0.4	1.1	1.1	2.9	2.7	1.1	5.7	1.9	0.7	0.5	0.6	0.6	2.8	0.6	0.6	0.8	1.6	5.7
15-Jul	Z	0.8	0.7	0.7	1.5	0.9	0.7	3.5	0.5	0.7	0.8	0.6	0.9	0.8	0.5	0.5	0.5	0.6	1.6	0.7	0.5	0.9	1.1	0.8	0.9	3.5
16-Jul	0.9	Z	0.9	0.8	0.7	0.6	0.6	0.6	0.6	0.5	0.7	0.7	1.6	2.0	1.9	4.6	3.2	4.0	3.6	1.6	0.8	1.4	0.6	0.6	1.5	4.6
17-Jul	0.7	2.8	Z	1.9	7.0	6.1	6.7	1.4	2.2	3.0	3.4	2.5	1.6	1.8	0.9	2.3	0.7	0.3	0.2	0.3	0.5	0.6	1.1	1.1	2.1	7.0
18-Jul	0.5	0.7	1.1	Z	0.9	0.8	0.9	1.6	3.3	1.9	1.1	0.9	0.8	0.6	0.6	0.9	0.6	0.6	0.7	3.0	1.6	4.0	5.3	4.6	1.6	5.3
19-Jul	5.4	0.9	0.7	0.7	Z	1.0	2.4	1.9	1.8	2.6	0.7	3.3	7.2	1.9	2.3	1.2	0.9	1.7	0.7	0.7	2.4	0.6	0.8	2.2	1.9	7.2
20-Jul	2.6	1.3	2.9	8.9	1.1	Z	1.4	2.1	0.4	0.6	0.6	1.2	0.8	2.1	1.4	1.2	1.1	0.9	0.6	1.0	1.3	1.5	2.3	3.9	1.8	8.9
21-Jul	Z	1.5	1.8	1.1	1.5	0.9	1.0	0.5	1.4	2.2	2.0	1.2	1.7	2.7	2.7	3.5	2.6	2.7	1.0	0.8	1.7	0.9	0.8	0.6	1.6	3.5
22-Jul	0.5	Z	0.6	0.5	0.8	1.0	1.5	0.9	0.8	1.0	1.7	1.1	1.0	1.0	1.4	0.9	1.4	0.7	0.7	0.8	0.8	0.7	0.8	0.8	0.9	1.7
23-Jul	0.7	0.8	Z	0.9	0.9	0.8	1.0	0.9	0.8	1.8	1.1	1.5	1.5	0.9	2.0	1.4	1.8	0.8	0.4	0.4	0.7	1.1	1.0	1.8	1.1	2.0
24-Jul	0.6	1.2	2.5	Z	1.5	1.6	1.4	0.9	0.6	0.4	0.6	0.8	1.0	2.0	3.3	5.3	3.8	6.6	3.4	2.0	0.5	0.6	0.5	0.7	1.8	6.6
25-Jul	0.6	0.8	0.9	0.8	Z	1.1	1.1	0.9	3.4	3.2	1.0	0.8	1.0	1.3	2.0	0.9	0.6	0.5	0.5	4.7	3.1	2.0	2.6	0.8	1.5	4.7
26-Jul	1.7	4.7	2.7	2.3	3.2	Z	0.8	2.2	4.0	3.3	3.7	4.2	2.6	3.9	5.7	5.0	6.1	2.9	0.7	0.6	2.6	2.7	1.3	0.5	2.9	6.1
27-Jul	Z	1.3	1.2	2.6	1.4	0.5	0.3	0.4	1.7	1.6	2.8	1.2	1.5	1.7	3.8	3.7	4.7	1.6	0.8	0.5	0.5	0.6	1.8	1.2	1.6	4.7
28-Jul	1.5	Z	0.7	0.6	0.9	1.0	1.0	0.6	0.5	C	C	C	C	C	0.3	0.3	0.4	0.5	0.7	0.8	3.7	4.8	1.7	1.1	1.2	4.8
29-Jul	0.9	0.9	Z	0.8	0.6	0.6	0.4	1.6	3.7	3.9	4.0	3.3	3.0	2.9	2.0	2.3	3.6	2.9	3.5	2.5	1.8	0.2	0.3	0.3	2.0	4.0
30-Jul	0.4	0.4	0.4	Z	0.6	0.5	2.8	2.2	5.8	1.6	1.1	3.4	1.0	0.5	0.8	0.9	2.7	0.3	0.3	0.4	0.5	0.4	0.5	0.5	1.2	5.8
31-Jul	0.4	0.3	0.3	0.2	Z	0.6	0.3	0.4	0.6	2.6	1.3	0.7	0.4	0.4	0.4	0.5	0.6	0.8	0.8	0.9	1.9	1.2	0.9	0.7	0.7	2.6
Diurnal Average																										
Diurnal Maximum																										
Z - zerospan C - Calibration																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Blackrod - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Blackrod - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	708	100.00	100.00
21 - 40	0	0.00	100.00
41 - 60	0	0.00	100.00
61 - 80	0	0.00	100.00
81 - 100	0	0.00	100.00
101 - 120	0	0.00	100.00
121 - 140	0	0.00	100.00
141 - 160	0	0.00	100.00
161 - 180	0	0.00	100.00
181 - 200	0	0.00	100.00
201 - 220	0	0.00	100.00
221 - 240	0	0.00	100.00
241 - 260	0	0.00	100.00
261 - 280	0	0.00	100.00
281 - 300	0	0.00	100.00
301 - 320	0	0.00	100.00
321 - 340	0	0.00	100.00
341 - 360	0	0.00	100.00
361 - 380	0	0.00	100.00
381 - 400	0	0.00	100.00
401 - 420	0	0.00	100.00
421 - 440	0	0.00	100.00
441 - 460	0	0.00	100.00
461 - 480	0	0.00	100.00
481 - 500	0	0.00	100.00
501 - 520	0	0.00	100.00
521 - 540	0	0.00	100.00
541 - 560	0	0.00	100.00
561 - 580	0	0.00	100.00
581 - 600	0	0.00	100.00
601 - 620	0	0.00	100.00
621 - 640	0	0.00	100.00
641 - 660	0	0.00	100.00
661 - 680	0	0.00	100.00
681 - 700	0	0.00	100.00
701 - 720	0	0.00	100.00
721 - 740	0	0.00	100.00
741 - 760	0	0.00	100.00
761 - 780	0	0.00	100.00
781 - 800	0	0.00	100.00
801 - 820	0	0.00	100.00
821 - 840	0	0.00	100.00
841 - 860	0	0.00	100.00
861 - 880	0	0.00	100.00
881 - 900	0	0.00	100.00
901 - 920	0	0.00	100.00
921 - 940	0	0.00	100.00
941 - 960	0	0.00	100.00
961 - 980	0	0.00	100.00
981 - 1000	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Blackrod - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	17	16	15	13	11	49	106	143	108	35	25	31	38	43	30	28	708
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	16	15	13	11	49	106	143	108	35	25	31	38	43	30	28	708

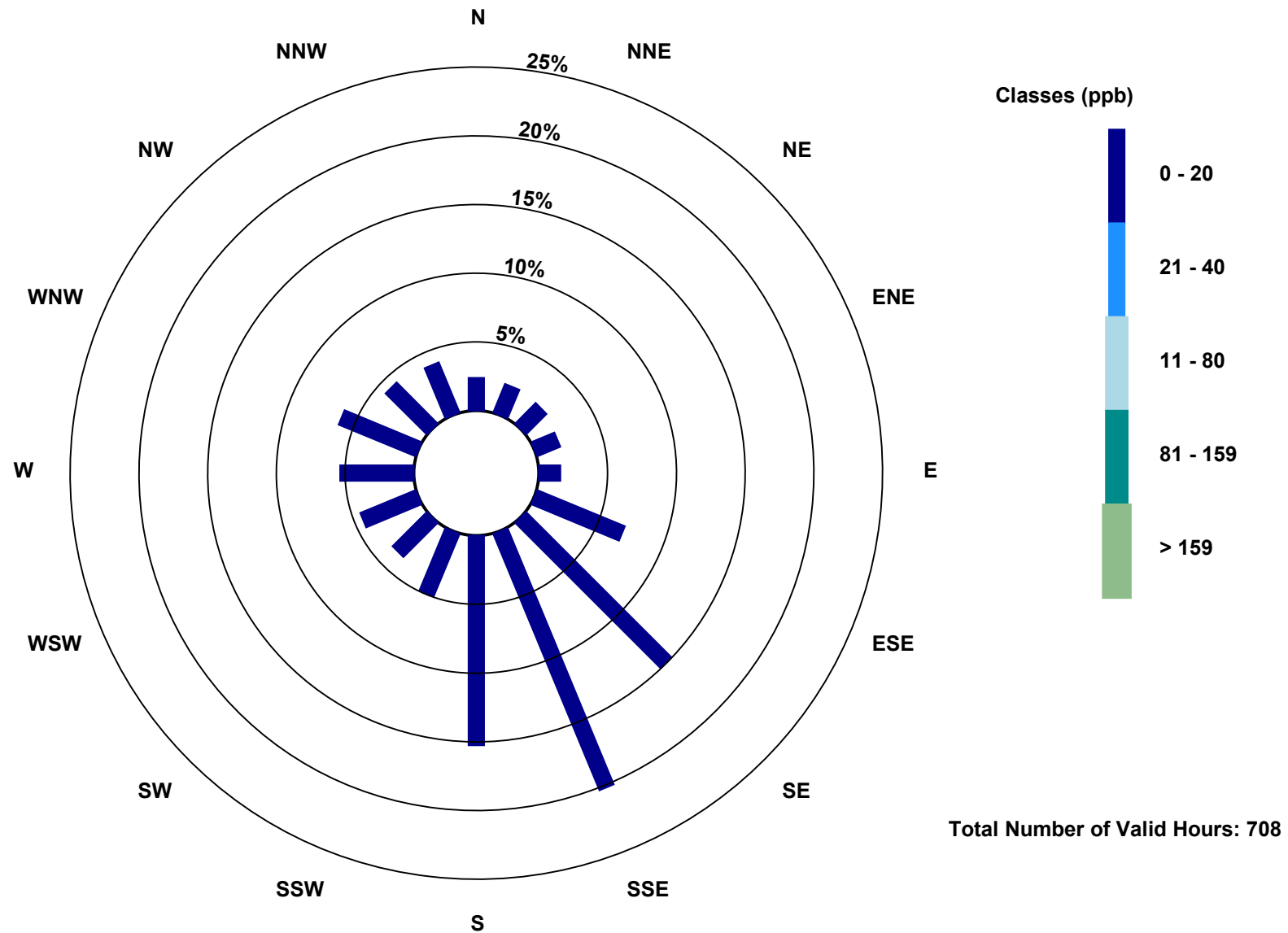
Total Number of Valid Hours: 708

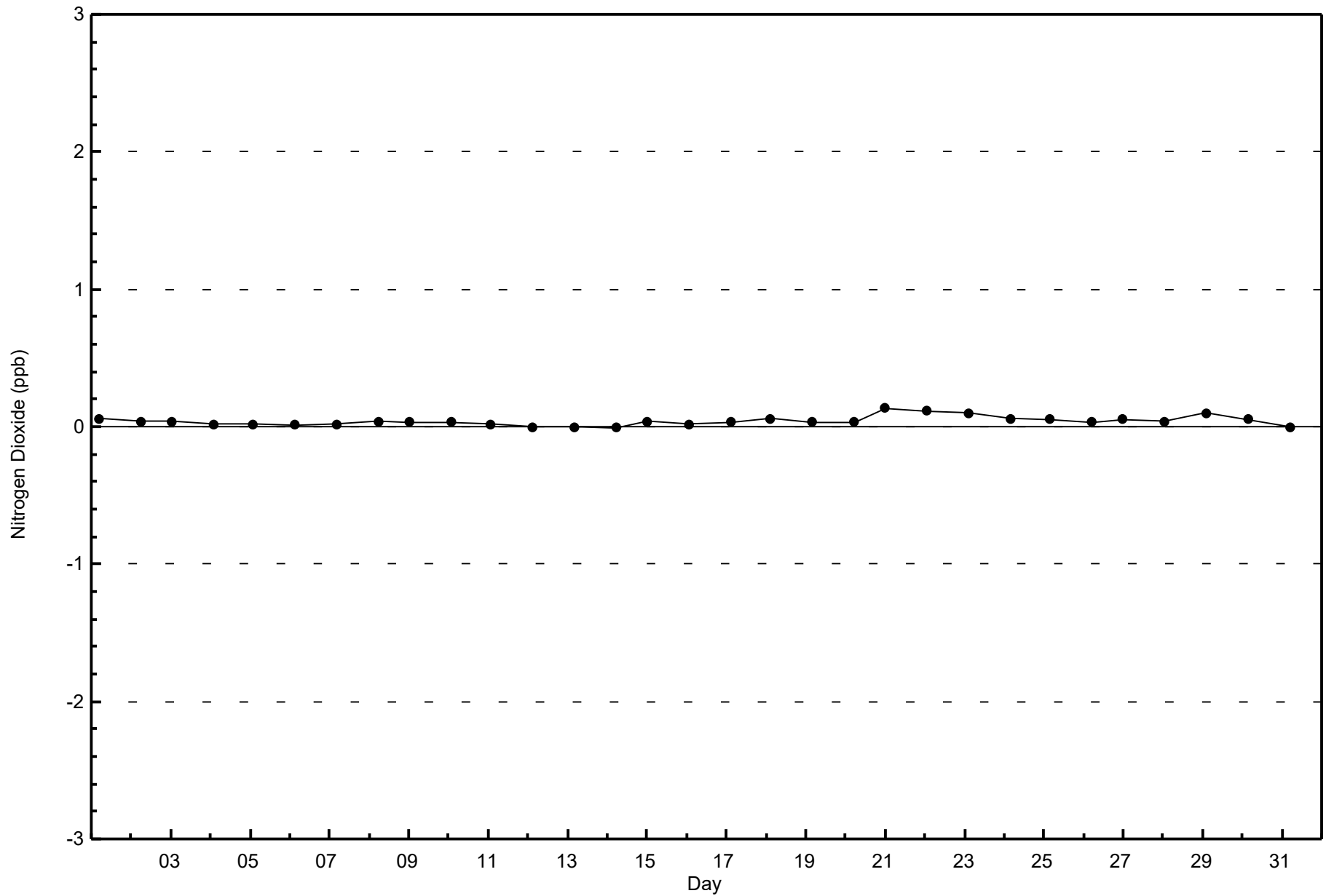
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Dioxide (NO₂) - ppb
Blackrod

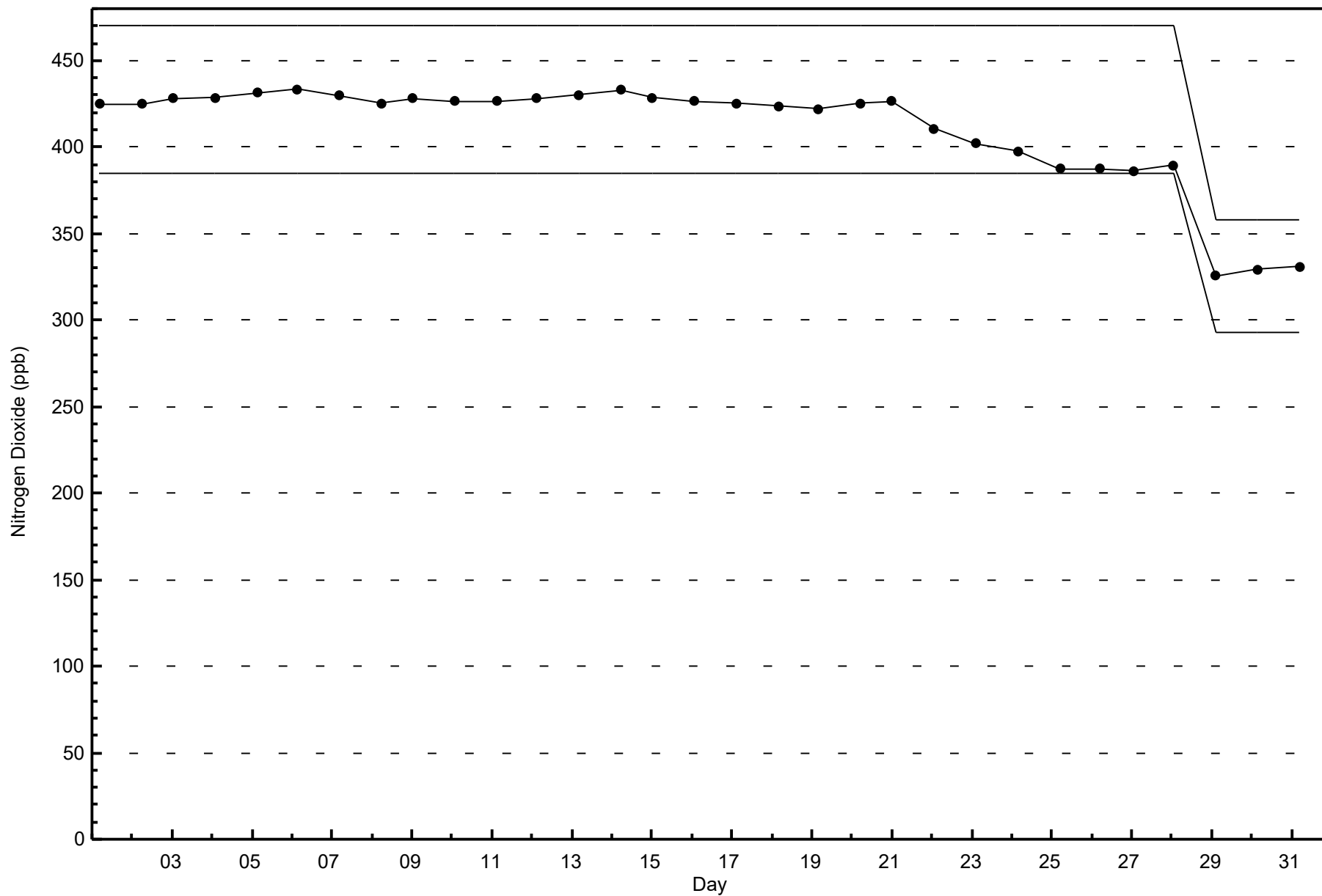






Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Blackrod - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

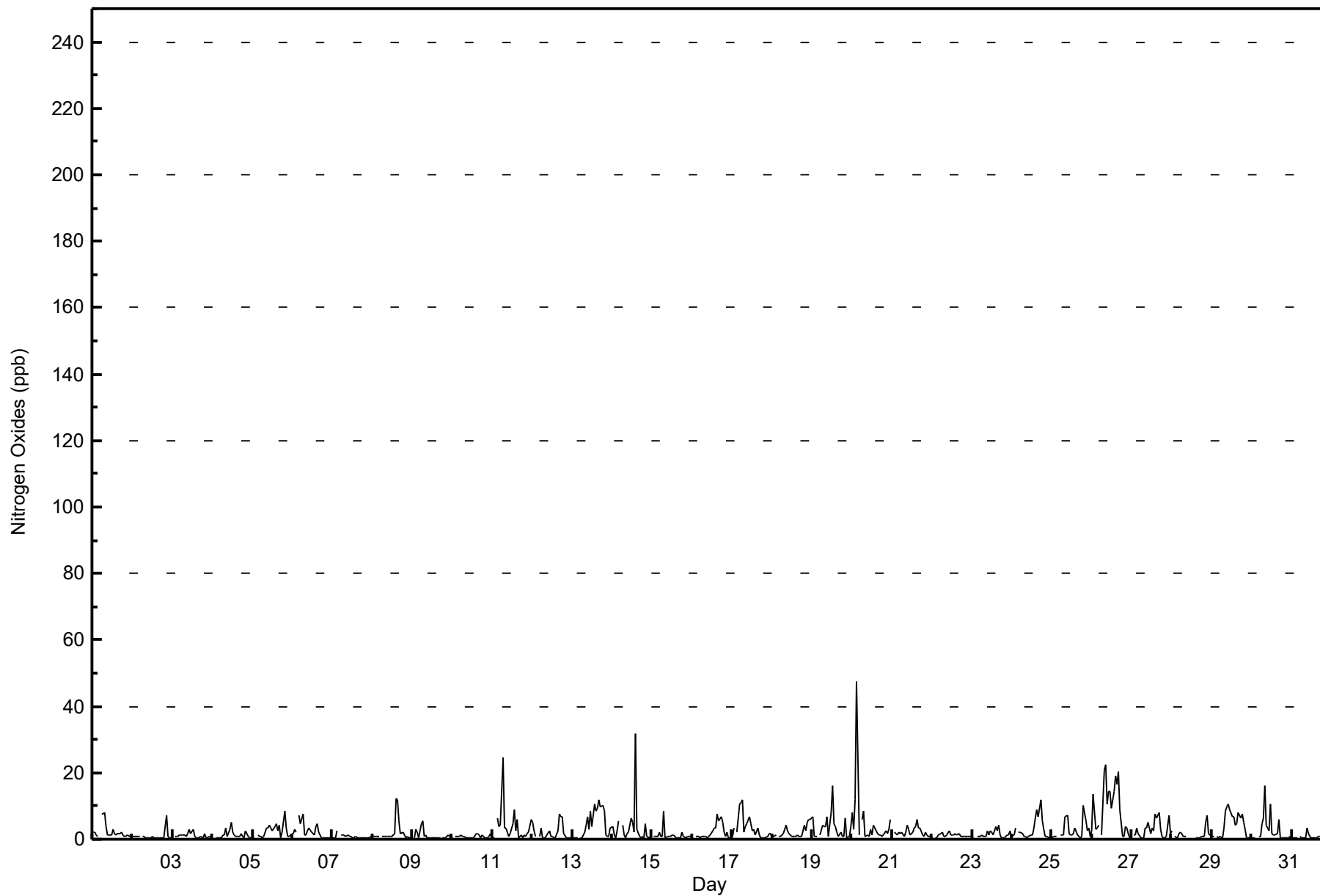
Blackrod - July 2026

Maximum Value: 47.4 ppb on Jul 20 04:00																				Maximum Daily Average: 9.2 ppb on Jul 26						Hours in Service: 744	
Minimum Value: 0.2 ppb on Jul 9 18:00																				Minimum Daily Average: 0.8 ppb on Jul 7						Hours of Data: 708	
Maximum Diurnal Average: 4.3 ppb at hour 15																				Minimum Diurnal Average: 1.4 ppb at hour 22						Hours of Missing Data: 36	
Monthly Average: 2.54 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.5 Q ₁ = 0.7 Median = 1.1 Q ₃ = 2.9 P ₉₀ = 6.5 P ₉₉ = 16.6						Hours of Calibration: 36	
																				Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	2.1	2.3	1.3	1.0	Z	7.8	7.5	8.2	3.9	1.1	1.3	1.4	2.8	1.7	1.4	1.6	1.9	2.2	1.1	0.9	1.0	1.1	1.0	0.9	2.4	8.2	
2-Jul	0.7	0.7	0.7	0.7	1.0	Z	1.0	0.8	0.6	0.6	0.5	0.5	0.7	0.6	0.4	0.4	0.5	0.5	0.5	0.6	7.1	0.8	0.6	0.5	0.9	7.1	
3-Jul	Z	0.7	0.7	0.9	1.1	1.4	1.3	1.2	1.0	1.7	2.9	1.6	2.9	0.8	0.4	0.4	0.4	1.0	0.4	1.6	0.5	0.5	0.6	0.6	1.1	2.9	
4-Jul	0.6	Z	0.6	0.6	0.6	0.6	1.2	1.4	3.6	1.0	2.9	5.2	2.3	1.5	0.7	0.9	0.8	1.7	0.7	0.3	2.3	0.9	0.5	0.4	1.4	5.2	
5-Jul	0.4	0.7	Z	1.2	1.0	0.6	0.5	0.8	3.3	3.6	4.1	3.2	2.6	3.9	4.5	2.7	4.4	0.3	2.0	8.6	3.5	0.9	0.9	1.4	2.4	8.6	
6-Jul	1.6	2.8	2.0	Z	7.2	4.9	7.8	1.4	1.3	2.5	3.3	2.0	1.7	1.1	3.7	4.6	2.3	0.4	0.3	0.3	0.3	0.4	0.4	0.3	2.3	7.8	
7-Jul	0.3	0.3	0.6	2.5	Z	1.1	1.1	1.3	1.1	1.2	0.9	0.8	0.6	0.5	0.7	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.8	2.5	
8-Jul	0.7	0.7	0.7	0.8	0.8	Z	0.8	0.9	0.8	0.7	0.8	0.9	0.8	1.6	12.2	11.8	5.6	1.5	2.2	1.2	0.3	0.7	0.5	0.5	2.1	12.2	
9-Jul	Z	0.5	2.8	2.2	0.4	4.5	5.4	0.7	1.1	0.5	0.3	0.4	0.2	0.2	0.6	0.3	0.4	0.2	0.3	0.3	0.4	1.1	0.7	0.6	1.0	5.4	
10-Jul	0.6	Z	0.8	0.7	0.7	1.5	0.7	0.7	0.6	0.6	0.4	0.3	0.4	0.5	1.8	1.5	1.2	0.6	1.1	0.3	0.5	0.6	1.0	1.6	0.8	1.8	
11-Jul	0.3	0.5	Z	6.3	3.6	4.3	24.7	3.2	3.6	1.9	0.8	1.6	4.6	8.9	2.4	6.0	0.6	1.4	0.6	1.3	0.8	1.7	2.0	6.0	3.8	24.7	
12-Jul	5.3	2.7	0.9	Z	1.1	3.4	0.3	0.4	0.4	1.3	2.4	0.9	1.0	0.5	0.5	2.6	7.8	6.7	6.9	1.6	0.5	0.6	0.6	0.5	2.1	7.8	
13-Jul	0.5	0.4	0.4	0.5	Z	0.6	0.6	2.1	4.0	6.8	3.0	8.3	3.6	10.5	8.4	9.3	11.9	9.6	10.0	8.4	1.2	0.7	0.7	3.3	4.6	11.9	
14-Jul	3.8	1.4	0.6	2.5	5.7	Z	4.4	1.4	0.5	1.9	2.0	6.4	4.9	2.1	32.0	2.9	0.8	0.6	0.7	0.6	4.5	0.7	0.6	0.8	3.5	32.0	
15-Jul	Z	0.8	0.7	0.7	1.9	1.0	0.7	8.6	0.6	0.9	1.0	0.7	1.1	1.1	0.6	0.6	0.6	0.6	2.2	0.7	0.5	1.0	1.1	0.8	1.2	8.6	
16-Jul	0.9	Z	0.9	0.8	0.7	0.6	0.7	0.7	0.9	0.6	1.0	1.4	2.6	3.2	3.6	7.7	5.3	6.6	5.3	2.1	0.9	1.9	0.6	0.6	2.2	7.7	
17-Jul	0.8	3.5	Z	2.3	10.8	11.0	12.1	1.9	3.8	4.8	7.0	4.5	2.5	3.1	1.2	3.5	1.2	0.3	0.3	0.4	0.5	0.7	1.8	1.5	3.5	12.1	
18-Jul	0.5	0.8	1.1	Z	1.0	0.9	1.1	1.9	4.4	2.6	1.6	1.2	1.0	0.7	0.9	1.3	0.8	0.7	0.9	4.2	2.7	5.1	5.9	6.1	2.1	6.1	
19-Jul	6.9	0.9	0.7	0.8	Z	1.2	4.4	3.9	4.0	6.9	1.0	7.9	16.1	4.9	4.0	1.9	1.0	2.1	0.8	0.7	6.5	0.6	0.8	3.6	3.5	16.1	
20-Jul	7.9	2.9	12.0	47.4	1.5	Z	6.1	8.4	1.0	1.2	0.9	2.9	1.2	4.2	2.6	1.8	1.5	1.1	0.7	1.3	2.5	1.8	2.9	5.8	5.2	47.4	
21-Jul	Z	2.3	1.9	1.2	2.1	1.5	1.9	0.6	2.1	4.4	3.0	1.4	2.1	3.4	4.0	5.7	3.5	3.6	1.1	0.8	2.0	1.3	0.9	0.7	2.2	5.7	
22-Jul	0.5	Z	0.6	0.5	1.2	1.5	2.0	0.9	0.8	1.2	2.5	1.2	1.1	1.1	1.7	1.1	1.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	1.1	2.5	
23-Jul	0.7	0.8	Z	0.9	1.0	0.9	1.1	1.0	0.9	2.5	1.5	2.4	2.3	1.2	3.8	2.4	4.3	1.3	0.5	0.5	0.8	1.3	1.1	2.7	1.6	4.3	
24-Jul	0.7	1.4	3.4	Z	1.9	2.0	1.8	1.1	0.8	0.5	0.7	1.1	1.4	3.5	6.3	8.9	6.7	11.9	5.7	3.1	0.6	0.8	0.5	0.7	2.8	11.9	
25-Jul	0.6	0.8	1.0	0.8	Z	1.1	1.2	1.3	6.6	7.3	1.6	1.1	1.3	1.8	3.3	1.1	0.7	0.5	0.6	10.2	5.5	2.6	3.2	0.8	2.4	10.2	
26-Jul	2.5	13.5	3.0	3.2	4.2	Z	1.4	20.9	22.5	10.6	14.6	14.3	9.2	14.6	19.2	16.6	20.4	9.1	0.8	0.7	3.7	3.3	1.7	0.6	9.2	22.5	
27-Jul	Z	1.3	1.5	3.2	1.5	0.6	0.4	0.6	3.3	3.3	5.1	1.8	3.5	2.7	7.6	6.5	8.1	2.8	1.0	0.5	0.6	0.7	7.1	1.7	2.8	8.1	
28-Jul	2.4	Z	0.8	0.6	1.5	2.1	1.6	1.0	0.8	C	C	C	C	C	0.3	0.3	0.4	0.5	0.7	0.8	4.9	7.0	1.8	1.1	1.6	7.0	
29-Jul	0.9	0.9	Z	0.8	0.6	0.7	0.6	3.2	8.6	9.7	10.5	8.9	6.8	6.7	4.3	4.9	8.1	6.3	7.8	5.0	2.9	0.2	0.3	0.4	4.3	10.5	
30-Jul	0.5	0.5	0.5	Z	0.7	1.0	4.8	6.4	16.3	4.4	2.5	10.7	1.7	1.2	1.2	1.8	5.8	0.3	0.3	0.4	0.5	0.5	0.5	0.7	2.7	16.3	
31-Jul	0.4	0.3	0.3	0.2	Z	0.8	0.3	0.4	0.6	3.5	1.7	0.8	0.5	0.5	0.6	0.5	0.7	0.8	0.8	1.0	2.2	1.3	0.9	0.7	0.9	3.5	
1.7 1.7 1.6 3.2 2.2 2.2 3.2 2.8 3.3 3.0 2.7 3.2 2.8 2.9 4.3 3.6 3.5 2.5 1.9 1.9 2.0 1.4 1.4 1.5																										Diurnal Average	
7.9 13.5 12.0 47.4 10.8 11.0 24.7 20.9 22.5 10.6 14.6 14.3 16.1 14.6 32.0 16.6 20.4 11.9 10.0 10.2 7.1 7.0 7.1 6.1																										Diurnal Maximum	
Z - zerospan C - Calibration																											



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Blackrod - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Blackrod - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	703	99.29	99.29
21 - 40	4	0.56	99.86
41 - 80	1	0.14	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Blackrod - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	14	15	15	13	11	49	106	143	108	35	25	30	38	43	30	28	703
21 - 40	2	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	4
11 - 80	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	16	15	13	11	49	106	143	108	35	25	31	38	43	30	28	708

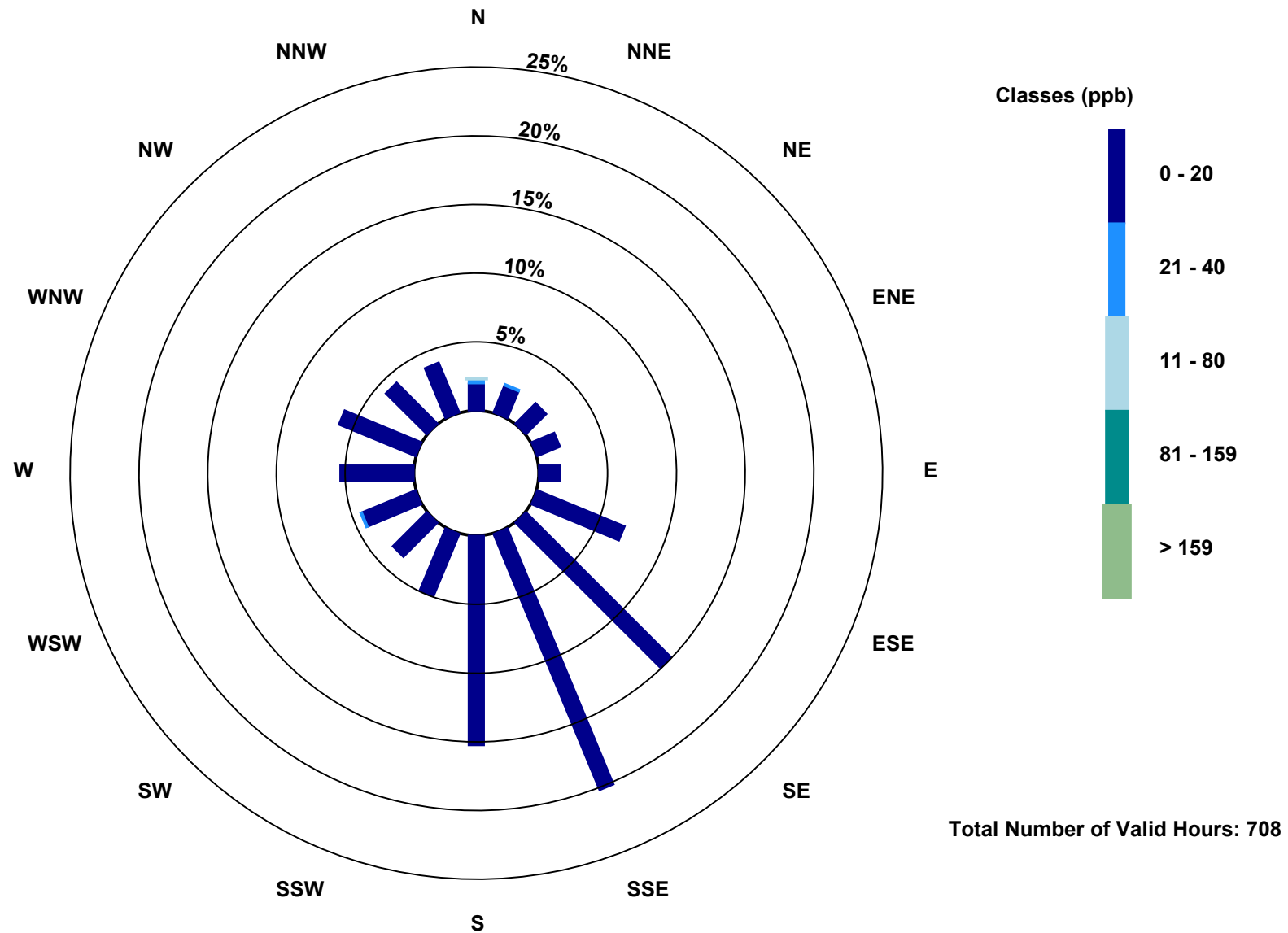
Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

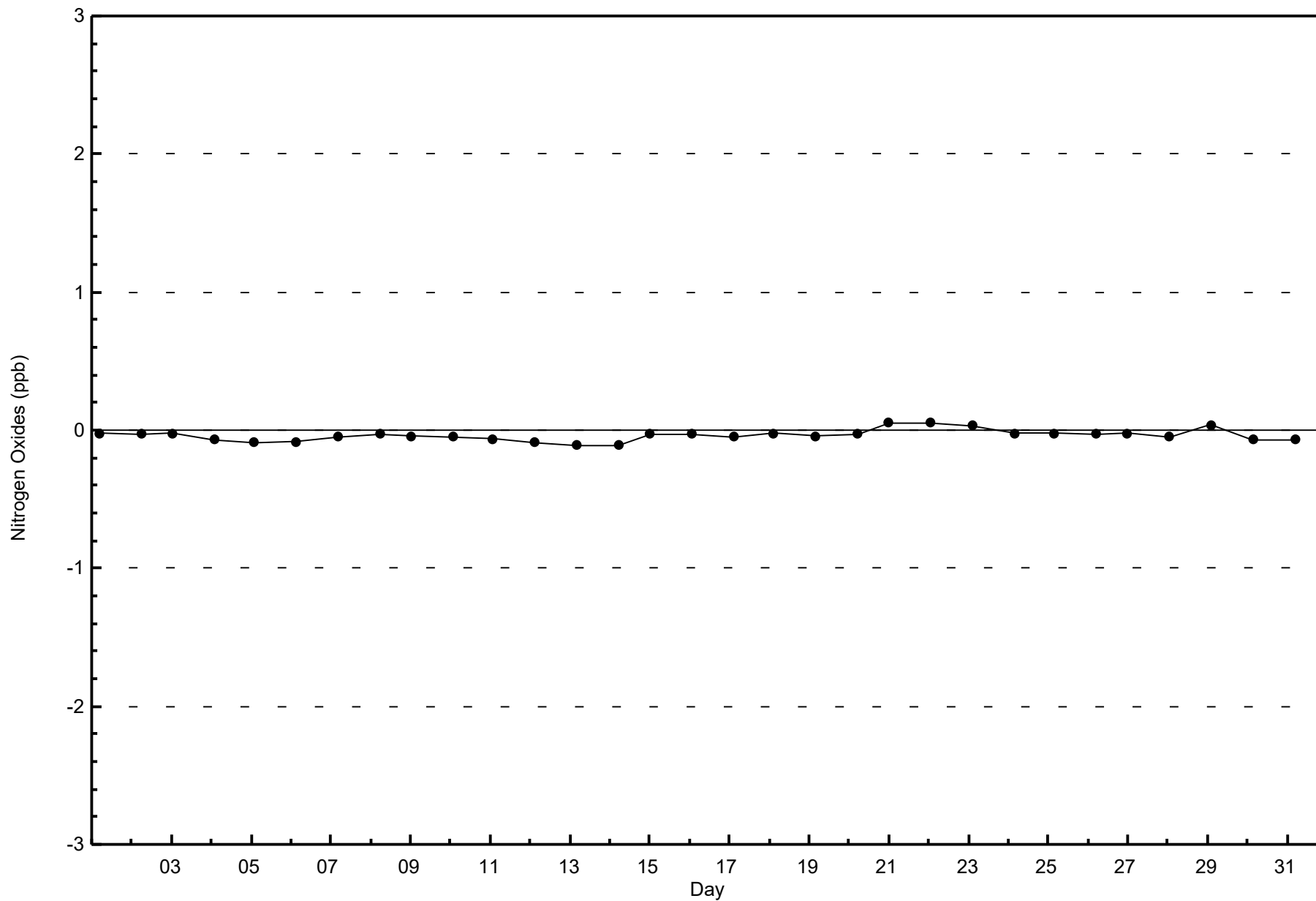
Nitrogen Oxides (NO_x) - ppb
Blackrod





Wood Buffalo Environmental Association
Zero Responses

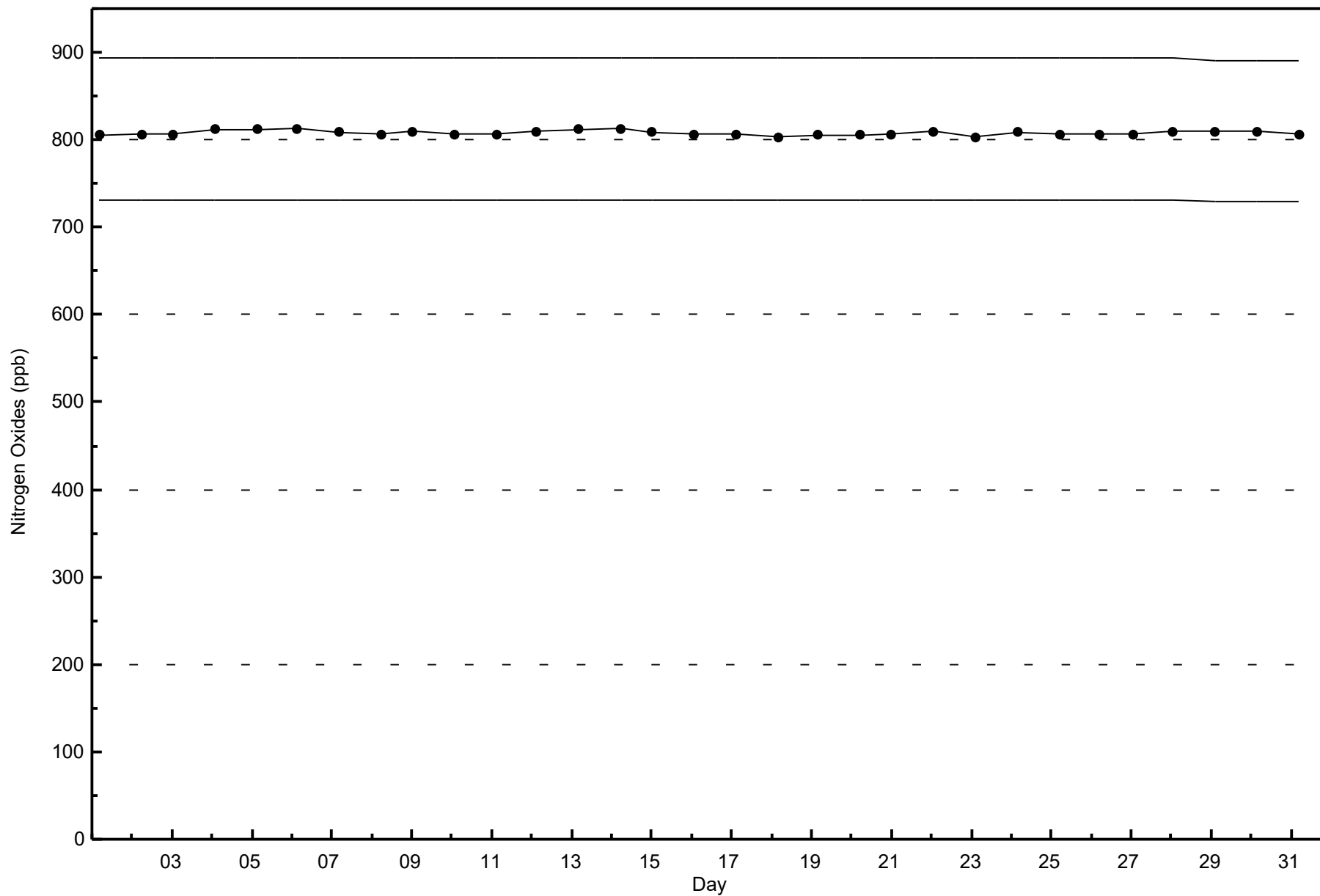
Nitrogen Oxides (NO_x) - ppb
Blackrod - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Blackrod - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

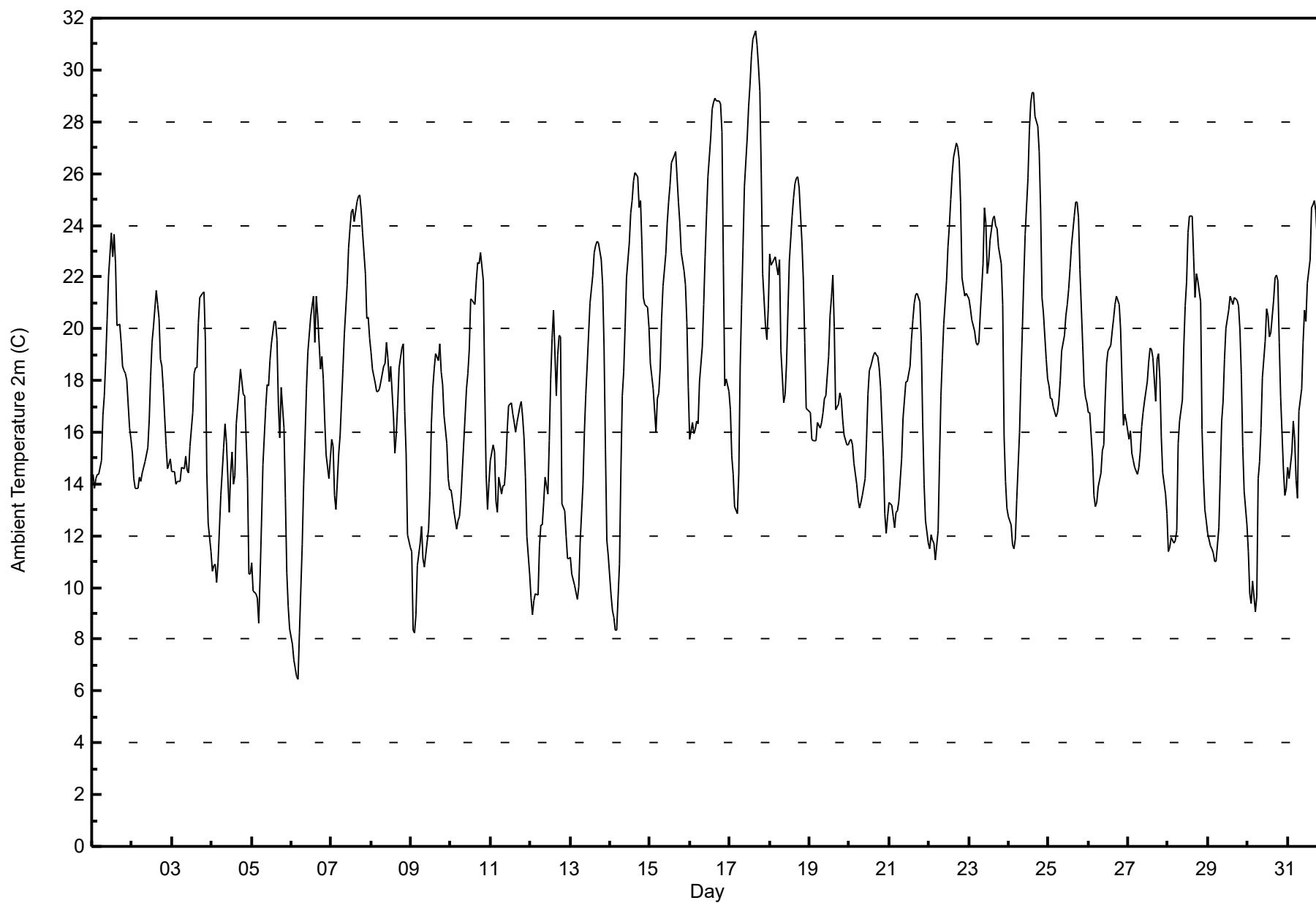
Blackrod - July 2026

Maximum Value: 31.5 C on Jul 17 16:00																				Maximum Daily Average: 23.0 C on Jul 17					Hours in Service: 744	
Minimum Value: 6.4 C on Jul 6 05:00																				Minimum Daily Average: 14.0 C on Jul 12					Hours of Data: 744	
Maximum Diurnal Average: 22.2 C at hour 16																				Minimum Diurnal Average: 13.3 C at hour 4					Hours of Missing Data: 0	
Monthly Average: 17.78 C																				Percentiles: P ₁ = 8.3 P ₁₀ = 11.7 Q ₁ = 14.4 Median = 17.6 Q ₃ = 20.9 P ₉₀ = 24.3 P ₉₉ = 29.1					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jul	14.4	13.8	14.2	14.4	14.4	14.9	16.7	17.4	18.7	20.3	22.0	23.7	22.8	23.7	22.5	20.1	20.2	19.5	18.5	18.4	18.3	18.0	16.2	15.8	18.3	23.7
2-Jul	15.2	14.2	13.8	13.8	14.2	14.1	14.4	14.6	14.9	15.4	16.5	18.2	19.5	20.1	21.5	20.9	20.4	18.8	18.6	17.7	15.5	14.6	14.8	15.0	16.5	21.5
3-Jul	14.5	14.5	14.0	14.1	14.1	14.1	14.6	14.6	15.1	14.5	14.5	15.4	16.8	18.3	18.5	18.5	20.2	21.2	21.4	21.4	19.5	14.5	12.5	11.4	16.2	21.4
4-Jul	10.7	10.8	10.9	10.2	11.0	13.5	14.5	15.4	16.3	15.6	12.9	14.4	15.2	14.0	14.3	16.3	17.7	18.5	18.0	17.5	17.4	14.2	10.5	10.5	14.2	18.5
5-Jul	11.0	9.9	9.8	9.6	8.6	10.4	12.5	14.8	17.0	17.8	17.8	18.8	19.4	20.3	20.3	19.6	17.1	15.8	17.7	16.2	13.5	10.6	9.3	8.4	14.4	20.3
6-Jul	7.8	7.2	6.9	6.6	6.4	8.2	11.6	14.0	15.8	17.7	19.1	20.5	20.9	21.3	19.5	21.2	20.5	18.4	18.9	18.1	16.5	15.2	14.2	15.0	15.1	21.3
7-Jul	15.7	15.5	13.5	13.0	15.2	15.9	17.2	18.4	19.8	21.7	23.1	23.9	24.5	24.6	24.1	24.9	25.1	25.2	24.6	23.7	22.2	20.4	20.5	19.6	20.5	25.2
8-Jul	19.1	18.4	17.9	17.6	17.6	17.7	17.9	18.5	18.7	19.5	18.9	18.0	18.5	16.6	15.2	15.9	17.1	18.5	19.2	19.4	16.8	15.2	12.1	11.5	17.3	19.5
9-Jul	11.4	8.4	8.3	9.0	10.8	11.7	12.4	11.1	10.8	11.3	12.3	13.7	16.3	17.7	18.4	19.0	18.8	19.4	18.3	17.8	16.6	15.6	14.2	13.8	14.0	19.4
10-Jul	13.8	13.4	13.0	12.3	12.6	12.8	13.4	14.5	16.6	17.7	18.3	19.2	21.1	21.1	20.9	21.9	22.6	22.5	22.9	21.9	17.8	14.4	13.0	14.1	17.1	22.9
11-Jul	14.9	15.5	15.3	13.4	12.9	14.3	13.6	13.9	13.9	14.7	16.1	17.0	17.1	16.7	16.4	16.0	16.4	17.0	17.2	16.6	15.8	14.2	12.0	10.5	15.1	17.2
12-Jul	9.6	9.0	9.5	9.8	9.7	11.6	12.4	12.4	13.3	14.2	13.6	15.7	18.0	19.6	20.7	17.4	19.0	19.7	19.7	13.2	13.0	12.0	11.1	11.1	14.0	20.7
13-Jul	11.2	10.5	10.1	9.8	9.6	10.1	11.8	14.0	16.0	17.5	18.6	19.8	21.0	22.1	22.9	23.2	23.4	23.3	22.7	21.7	19.3	15.4	11.8	11.2	16.5	23.4
14-Jul	9.7	9.1	8.8	8.3	8.4	10.9	14.5	17.4	18.3	20.1	21.9	23.3	24.5	24.9	25.7	26.0	25.8	24.7	25.0	23.2	21.2	20.9	20.8	20.1	18.9	26.0
15-Jul	18.6	18.1	17.7	16.0	17.3	17.5	18.5	20.4	21.7	22.9	24.1	24.9	25.6	26.4	26.7	26.8	25.9	24.9	24.1	22.9	22.3	21.7	20.2	17.7	21.8	26.8
16-Jul	15.7	16.4	15.9	16.1	16.4	16.3	18.0	19.3	20.9	22.8	24.4	25.9	27.4	28.5	28.8	28.9	28.8	28.8	28.7	27.6	22.5	17.8	18.0	17.6	22.1	28.9
17-Jul	16.9	15.1	14.4	13.1	12.9	14.5	18.5	20.9	23.2	25.5	27.4	28.6	29.5	30.6	31.2	31.5	31.0	30.1	29.2	26.0	22.1	20.1	19.6	20.8	23.0	31.5
18-Jul	22.9	22.5	22.7	22.8	22.4	22.1	22.6	19.2	17.1	17.5	18.7	20.6	22.6	24.4	25.1	25.6	25.8	25.9	25.4	23.3	21.9	19.5	16.9	16.9	21.8	25.9
19-Jul	16.8	15.7	15.7	15.7	15.7	16.4	16.2	16.4	16.8	17.3	17.4	18.9	20.5	21.2	22.1	20.1	16.9	17.1	17.5	17.3	16.5	15.9	15.5	15.5	17.3	22.1
20-Jul	15.7	15.7	15.5	14.8	14.0	13.4	13.1	13.3	13.6	14.2	15.7	17.5	18.4	18.6	19.0	19.1	19.0	18.9	18.5	17.8	15.0	12.9	12.1	12.7	15.8	19.1
21-Jul	13.3	13.2	12.8	12.3	12.9	13.0	13.3	15.0	16.6	17.2	18.0	17.9	18.6	19.6	20.3	21.0	21.3	21.4	21.1	19.6	16.4	14.0	12.6	11.7	16.4	21.4
22-Jul	11.5	12.0	11.8	11.7	11.1	12.2	14.9	17.4	18.8	20.2	21.9	23.2	24.0	25.0	26.0	26.6	27.2	27.0	26.5	24.9	22.0	21.3	21.4	21.3	20.0	27.2
23-Jul	21.2	20.8	20.3	19.9	19.5	19.4	19.5	20.6	22.5	24.7	24.1	22.1	22.6	23.4	24.2	24.4	24.0	23.9	23.2	22.5	20.9	15.9	14.1	13.0	21.1	24.7
24-Jul	12.8	12.4	11.6	11.5	11.9	13.4	16.0	18.1	20.0	21.9	23.7	25.8	27.7	28.7	29.1	29.1	28.2	27.8	26.8	24.6	21.2	20.6	18.8	18.0	20.8	29.1
25-Jul	17.8	17.3	17.3	17.0	16.6	16.7	17.2	18.0	19.1	19.7	20.5	20.9	21.6	22.3	23.2	24.3	24.9	24.9	24.3	22.3	19.4	17.8	17.4	17.1	19.9	24.9
26-Jul	16.7	16.8	15.0	13.6	13.1	13.3	13.9	14.5	15.3	15.5	17.2	18.7	19.2	19.4	19.9	20.4	20.9	21.3	20.9	20.0	18.0	16.3	16.7	16.4	17.2	21.3
27-Jul	15.7	16.0	15.2	14.9	14.6	14.4	14.6	15.3	16.2	16.8	17.2	17.9	18.7	19.3	19.2	18.9	17.2	18.8	19.0	18.0	15.8	14.4	13.6	12.9	16.4	19.3
28-Jul	11.4	11.6	11.9	11.7	11.8	12.2	15.6	16.4	17.3	19.3	20.9	21.8	23.7	24.4	24.4	22.8	21.2	22.2	21.9	21.0	16.1	14.3	13.0	12.6	17.5	24.4
29-Jul	12.1	11.6	11.5	11.3	11.0	11.0	12.3	14.4	16.4	17.2	18.8	20.0	20.7	21.3	21.1	20.9	21.2	21.1	20.9	19.9	18.2	15.4	13.7	12.4	16.4	21.3
30-Jul	11.4	9.8	9.4	10.2	9.1	9.7	14.2	14.9	16.2	18.1	19.5	20.8	20.5	19.7	19.9	21.1	22.0	22.1	21.9	19.4	17.4	14.5	13.6	13.8	16.2	22.1
31-Jul	14.6	14.2	15.2	16.5	15.7	14.1	13.5	16.8	17.7	19.5	20.7	20.3	21.7	22.7	24.7	24.8	24.9	24.6	23.5	22.5	19.8	18.6	18.8	17.2	19.3	24.9
14.3 13.9 13.5 13.3 13.3 13.9 15.1 16.2 17.2 18.3 19.2 20.2 21.2 21.8 22.1 22.2 22.1 22.0 21.8 20.5 18.3 16.3 15.1 14.7																										Diurnal Average
22.9 22.5 22.7 22.8 22.4 22.1 22.6 20.9 23.2 25.5 27.4 28.6 29.5 30.6 31.2 31.5 31.0 30.1 29.2 27.6 22.5 21.7 21.4 21.3																										Diurnal Maximum



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Blackrod - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Blackrod - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	31	4.17	4.17
10 - 20	480	64.52	68.68
> 20	233	31.32	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

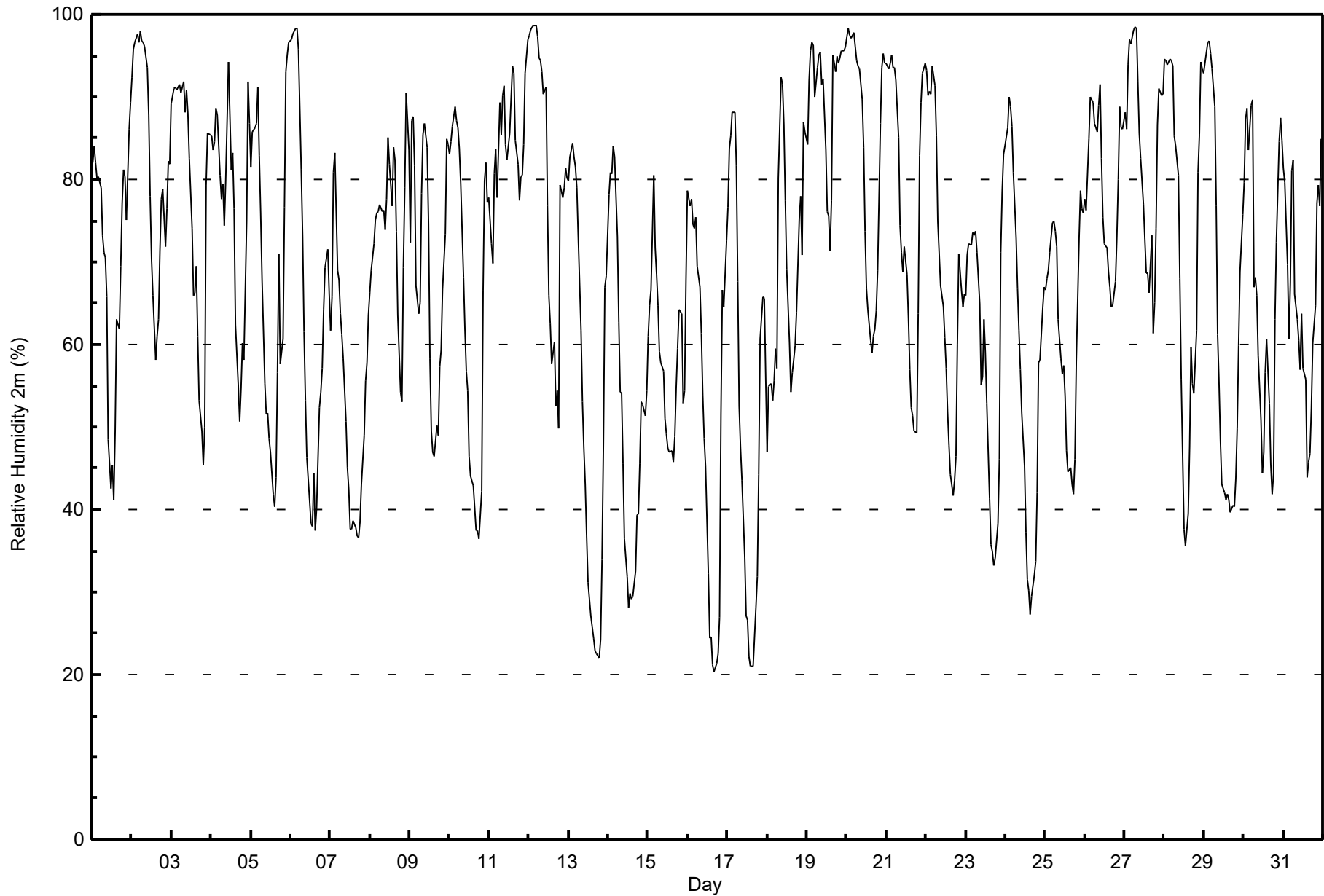
Blackrod - July 2026

Maximum Value: 98.7 % on Jul 12 04:00																				Maximum Daily Average: 90.2 % on Jul 19					Hours in Service: 744	
Minimum Value: 20.3 % on Jul 16 17:00																				Minimum Daily Average: 50.9 % on Jul 13					Hours of Data: 744	
Maximum Diurnal Average: 85.4 % at hour 4																				Minimum Diurnal Average: 50.2 % at hour 16					Hours of Missing Data: 0	
Monthly Average: 68.70 %																				Percentiles: P ₁ = 22.5 P ₁₀ = 41.5 Q ₁ = 54.4 Median = 71.1 Q ₃ = 84.9 P ₉₀ = 93.5 P ₉₉ = 98.2					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	82.0	84.0	81.9	80.3	80.3	79.0	73.3	71.3	70.6	65.7	48.4	42.5	45.4	41.2	49.6	63.1	61.8	69.5	77.2	81.1	80.3	75.1	86.1	89.4	70.0	89.4
2-Jul	92.4	95.8	96.6	97.7	96.7	97.9	96.7	96.7	96.1	93.5	87.8	78.0	70.4	65.9	58.1	61.0	63.1	71.4	77.7	78.9	71.8	76.5	82.1	81.8	82.7	97.9
3-Jul	89.2	90.9	91.2	90.8	91.2	91.5	90.5	91.9	88.1	90.8	88.0	82.6	74.0	65.9	66.3	69.5	60.9	53.3	49.4	45.5	50.0	79.2	85.5	85.5	77.6	91.9
4-Jul	85.2	83.5	84.6	88.6	87.8	80.6	77.6	79.5	74.5	79.8	94.3	87.8	81.2	83.2	76.4	62.3	55.0	50.7	54.7	60.2	58.1	74.9	91.8	86.8	76.6	94.3
5-Jul	81.5	85.8	86.3	86.8	91.2	83.0	75.9	67.7	55.3	51.6	51.7	48.7	46.9	41.8	40.4	43.8	56.6	71.0	57.7	60.7	76.6	93.0	95.1	96.6	68.6	96.6
6-Jul	96.9	97.6	97.9	98.3	98.4	95.8	81.2	73.1	61.5	53.2	46.3	41.0	38.4	38.0	44.5	37.4	40.1	52.4	54.2	57.2	64.2	69.3	71.5	66.2	65.6	98.4
7-Jul	61.7	65.7	80.9	83.1	69.0	67.8	63.8	61.3	58.3	50.7	45.2	42.3	37.7	37.7	38.6	37.8	36.7	36.6	38.5	43.1	48.9	55.6	57.8	63.5	53.4	83.1
8-Jul	66.2	69.0	72.1	75.0	76.0	76.2	76.9	76.1	76.2	74.0	77.7	85.2	81.9	76.9	83.9	82.5	73.7	63.5	54.3	53.0	69.4	79.0	90.5	83.6	74.7	90.5
9-Jul	72.4	87.2	87.6	81.7	67.1	63.8	65.1	78.2	85.4	86.9	83.9	74.5	58.4	49.6	47.0	46.4	50.2	49.0	57.3	59.4	66.5	73.3	84.9	84.2	69.2	87.6
10-Jul	83.1	84.6	86.5	88.8	87.1	86.2	83.8	79.5	68.1	61.8	56.8	54.5	46.4	44.1	42.9	40.2	37.5	37.4	36.5	42.3	66.5	79.8	82.0	77.2	64.7	88.8
11-Jul	77.8	72.3	69.9	80.7	83.7	77.8	89.3	85.5	90.2	91.4	84.2	82.4	85.6	89.8	93.7	92.8	84.7	81.8	77.4	80.3	80.5	84.3	92.8	97.0	84.4	97.0
12-Jul	97.5	98.1	98.6	98.7	98.6	97.3	94.8	94.4	93.0	90.3	91.2	76.8	65.9	62.5	57.5	60.3	52.6	54.4	49.8	79.3	77.9	79.0	81.3	80.2	80.4	98.7
13-Jul	79.8	82.7	84.4	82.7	81.5	79.0	73.0	61.7	53.1	47.5	43.1	36.8	31.2	27.1	25.7	24.3	23.0	22.5	22.1	24.3	33.9	48.0	67.0	68.3	50.9	84.4
14-Jul	78.1	80.8	80.7	84.0	82.8	73.0	62.7	54.3	54.0	45.7	36.4	31.9	28.1	29.9	29.1	29.4	32.5	39.3	39.4	45.7	53.0	52.7	51.4	54.4	52.1	84.0
15-Jul	61.1	64.8	66.6	80.4	71.7	68.5	64.8	59.2	57.9	56.8	51.1	49.2	47.5	47.0	47.2	45.7	48.8	54.7	59.5	64.3	63.8	52.8	54.4	67.8	58.6	80.4
16-Jul	78.7	76.8	77.6	74.6	74.0	75.5	69.6	67.0	61.3	53.9	48.7	45.3	32.2	24.5	24.6	21.1	20.3	21.3	22.6	26.9	51.5	66.6	64.6	72.6	52.2	78.7
17-Jul	76.6	83.7	85.2	88.2	88.1	81.6	67.6	52.5	47.4	43.6	34.3	27.2	26.6	22.2	21.0	21.0	24.6	28.2	31.8	44.2	60.7	65.8	65.6	56.0	51.8	88.2
18-Jul	47.0	55.0	55.2	53.3	55.6	59.4	57.1	80.2	92.3	91.5	86.6	77.4	69.1	60.1	54.2	56.6	58.2	59.9	63.9	75.2	78.0	70.8	87.0	85.7	67.9	92.3
19-Jul	84.2	92.1	95.6	96.6	96.3	90.0	93.6	95.1	95.5	91.6	92.2	83.5	76.0	75.6	71.4	77.5	95.2	93.1	94.9	94.0	94.8	95.5	95.5	96.1	90.2	96.6
20-Jul	97.3	98.4	97.5	97.2	97.8	96.2	94.5	93.8	93.5	89.7	83.9	73.7	66.8	64.3	60.6	59.1	61.0	61.9	64.1	68.9	86.7	93.5	95.2	94.1	82.9	98.4
21-Jul	94.1	93.4	94.1	95.0	93.5	93.6	92.1	85.0	74.3	71.1	68.9	71.9	68.5	63.2	56.9	52.4	51.4	49.4	49.4	63.7	82.8	89.3	92.9	94.0	76.7	95.0
22-Jul	93.2	90.1	90.7	90.4	93.7	91.3	85.2	75.0	71.1	67.0	64.6	60.8	57.1	51.9	47.8	44.2	41.8	43.6	46.4	59.9	71.0	66.4	64.6	66.1	68.1	93.7
23-Jul	65.9	70.9	72.3	72.1	73.5	73.2	73.7	71.2	65.0	55.1	56.2	63.1	59.0	52.8	41.4	35.7	35.0	33.3	34.0	38.4	46.2	71.1	78.5	83.0	59.2	83.0
24-Jul	84.1	86.3	90.0	88.9	86.4	80.9	72.9	66.8	61.6	56.9	51.7	45.2	37.3	31.6	30.1	27.2	29.4	32.0	33.7	42.0	57.9	58.1	64.4	66.9	57.6	90.0
25-Jul	66.6	68.0	68.9	71.2	74.7	74.9	73.7	71.9	63.0	58.4	56.4	57.5	53.7	47.1	44.6	45.2	43.0	41.9	46.2	57.9	72.9	78.6	76.5	75.9	62.0	78.6
26-Jul	77.6	76.2	84.9	90.0	89.7	89.3	86.7	85.7	89.0	91.5	82.5	75.5	72.2	71.8	68.8	66.9	64.7	64.8	67.6	73.0	79.9	88.9	86.3	86.2	79.6	91.5
27-Jul	88.1	86.1	93.9	97.0	96.5	98.2	98.5	98.3	91.9	85.7	82.5	77.0	72.6	68.7	68.6	66.3	73.3	61.3	65.1	74.1	86.6	91.1	90.2	90.4	83.4	98.5
28-Jul	94.6	94.4	93.8	94.6	94.4	93.7	85.3	84.0	80.6	68.0	55.8	46.6	37.7	35.6	39.4	47.6	59.7	55.2	54.1	61.6	80.9	85.5	94.2	93.4	72.1	94.6
29-Jul	92.8	95.4	96.7	96.8	95.2	93.3	88.9	76.7	61.2	55.4	48.4	43.0	42.1	41.2	41.9	41.2	39.7	40.5	40.4	43.7	49.8	59.9	68.8	75.7	63.7	96.8
30-Jul	79.6	87.3	88.6	83.5	89.1	89.6	67.0	68.2	65.9	58.7	50.9	44.5	46.9	56.6	60.7	52.9	45.5	41.9	44.5	63.1	72.4	84.5	87.4	84.7	67.3	89.6
31-Jul	81.4	79.7	69.7	60.8	67.5	81.0	82.4	66.2	63.0	60.6	57.0	63.7	57.2	55.7	43.8	45.7	46.7	52.2	60.2	64.8	77.2	79.3	76.8	84.9	65.7	84.9
Diurnal Average																										
Diurnal Maximum																										



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Blackrod - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %
Blackrod - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	65	8.74	8.74
40 - 60	178	23.92	32.66
60 - 80	241	32.39	65.05
80 - 100	260	34.95	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

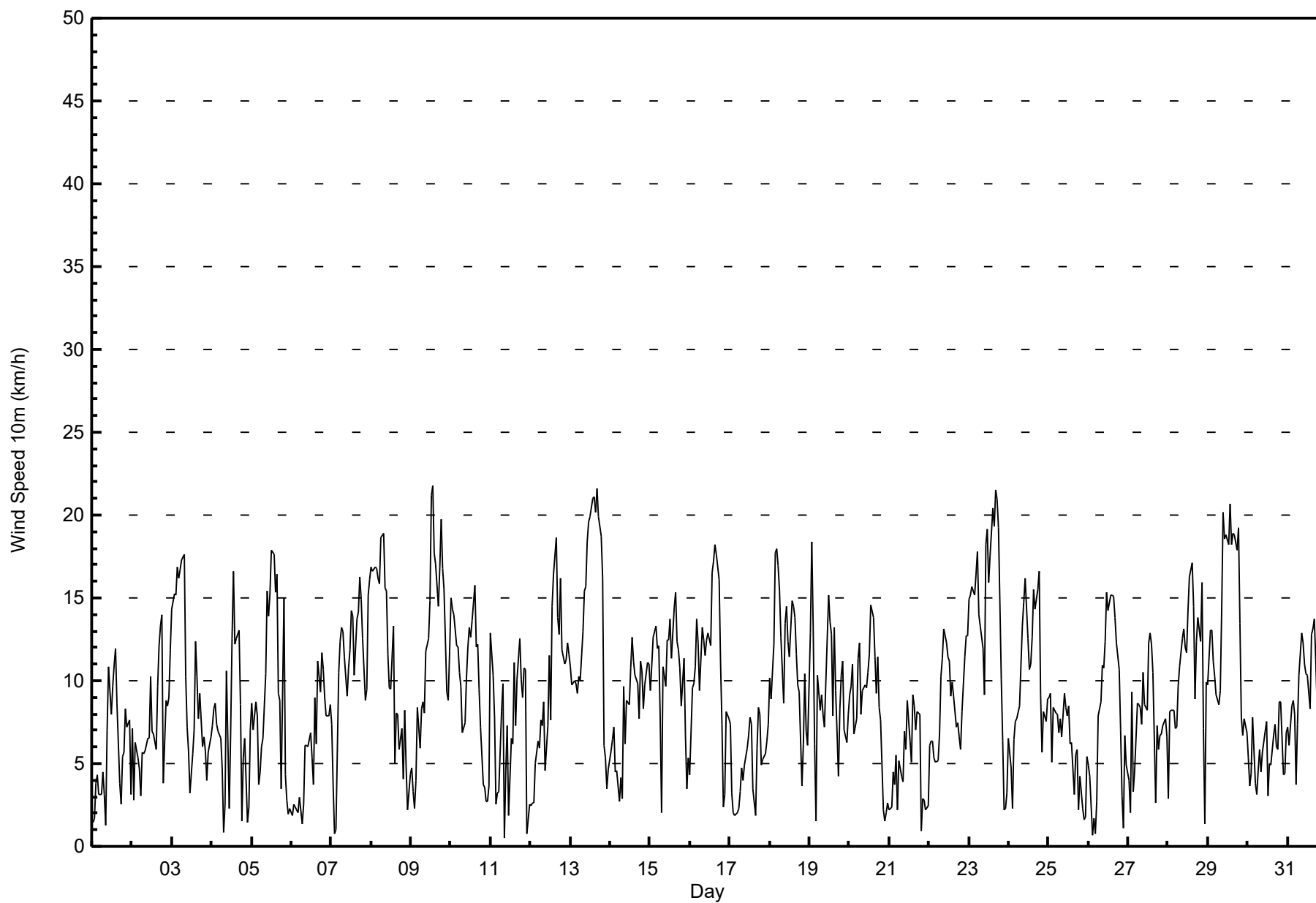
Blackrod - July 2026

Maximum Speed: 22 km/h on Jul 9 14:00															Maximum Daily Speed Average: 11.7 km/h on Jul 13										Hours in Service: 744	
Minimum Speed Value: 1 km/h on Jul 11 09:00															Minimum Daily Speed Average: 1.7 km/h on Jul 11										Hours of Data: 744	
Maximum Diurnal Speed Average: 7.0 km/h at hour 3															Minimum Diurnal Speed Average: 3.2 km/h at hour 22										Hours of Missing Data: 0	
Monthly Average Velocity: 4.1 km/h 181.9 deg															Percentiles: P ₁ = 1 P ₁₀ = 3 Q ₁ = 6 Median = 9 Q ₃ = 12 P ₉₀ = 16 P ₉₉ = 21										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	E1	SE2	SSE4	SSE4	SSE3	NNE3	NNE4	NNW3	WSW1	S7	SSE11	SE8	NE10	E11	SSE12	SSW9	WSW4	WNW3	NE5	NE6	NE8	ESE7	ENE8	ESE3	ESE2.7	SSE12
2-Jul	ESE7	SE3	SE6	ESE5	SSE5	NE3	SE6	S6	S6	S7	SSE7	SSE10	SSE7	SSE7	SSE6	SE10	ESE12	ESE13	ESE14	SSE4	N9	NE9	NE9	ESE12	SE5.7	ESE14
3-Jul	ESE14	SSE15	ESE15	SE17	SE16	SE17	SE17	SSE18	S10	SSW7	NW6	N3	W6	SSW7	SSE12	S10	SSE8	SSW9	SSW6	WSW7	S6	SE4	SE6	SE7	SSE7.8	SSE18
4-Jul	SE7	SE8	SE9	SE7	SSE7	SSE7	SE5	SE1	SSW3	SSW11	NE2	NW7	WNW13	WNW17	NW12	NW13	NW13	NW9	WSW1	SSE5	W7	W1	ESE2	SSE7	WSW2.1	WNW17
5-Jul	S9	SSE7	SSE9	SSE8	SE4	SSE4	S6	SSW7	W10	WNW15	W14	W15	WNW18	W18	W15	WNW16	NNW9	ENE9	W3	NNW15	NNE4	SE3	SE2	ESE2	W4.5	WNW18
6-Jul	ESE2	SE3	ESE2	E2	E2	SE3	SSW1	S3	WNW6	WNW6	WSW6	SW7	SW5	W4	NW9	NNW6	W11	S9	S12	S11	SSE9	SE8	SE8	SE9	SSW2.8	S12
7-Jul	SE7	ESE4	SE1	ESE1	SE11	SE12	SE13	SSE13	S11	SSE9	S11	SSE12	SSE14	SSE14	SSE10	SSE14	SSE14	SSE16	SSE15	SSE13	SE9	SE10	SE15	SE16	SSE10.7	SSE16
8-Jul	SE17	SE17	SE17	SE17	SSE16	SE16	SSE19	SSE19	SSE16	S15	SSE12	SSE10	SSW10	W13	NNW5	NNW8	NW8	WNW6	WNW7	WNW4	SSE8	SSE5	SE2	SSE4	SSE7.1	SSE19
9-Jul	SSE5	SE3	ESE2	SSE4	S8	SSW6	WSW8	S9	S8	S12	SSE13	S15	S21	S22	SSW18	SSW17	S14	S17	S20	S17	S15	SSE9	SE9	SSE12	S11.1	S22
10-Jul	SSE15	SE14	SSE14	SE12	SE12	SSE11	SSE10	SSW7	S7	S10	SSE12	S13	S13	S14	SW16	SSW12	SSW12	SSW10	SSW7	SSE4	SE4	ESE3	ESE3	SSE4	S8.7	SW16
11-Jul	SSE13	SE10	SE8	NNW3	NNE3	NW3	NNE8	ENE10	SE1	ESE5	ESE7	ENE2	N7	N6	WNW11	NW7	NW10	NW13	WNW10	W9	WSW11	W11	E1	NE3	NW1.7	SSE13
12-Jul	E2	SE3	SE3	SE5	SE6	ESE6	SSE8	SSE7	SSE9	WSW5	NNW7	NE12	ESE8	SSE15	S16	W19	WSW14	WSW13	WSW16	SSW12	S11	S11	S12	S12	S5.6	W19
13-Jul	S11	S10	SSE10	SSE10	SSE9	SSE10	S10	SW13	SW15	SW16	SW18	SW20	SW20	WSW21	WSW21	WSW20	WSW22	WSW20	WSW19	WSW16	SW6	S5	SE3	SSE5	SW11.7	WSW22
14-Jul	SSE6	SE6	SE7	SE4	SE5	SSE3	SSE4	SSW3	S10	S6	SW9	SW9	WSW11	SSW13	WSW11	SW10	SSW10	S8	S11	SSE11	SE8	SE10	SSE11	SSE11	S6.7	SSW13
15-Jul	SSE9	SSE11	SSE13	SSE13	SE12	SSE12	SSE8	E2	S11	S10	S12	S12	S14	S11	S14	S15	S12	S12	S11	S8	S11	SSW7	SW4	SSE5	S10.1	S15
16-Jul	SE4	SSE10	SSE10	SE11	SSE14	SSE12	SSE9	S13	S12	S12	SSE12	S13	SSW12	SW17	SW17	SW18	SW18	SW16	W11	WSW7	SE2	SE3	SSE8	SSE8	S9.1	SW18
17-Jul	SSE7	ESE3	SE2	ESE2	E2	ENE2	NNE3	NNW5	NW4	NE5	NNE6	NNW7	NNE8	NE7	NE3	WSW2	S6	SSE8	SSE8	SE5	ESE5	ESE6	ESE6	SE7	E2.2	SSE8
18-Jul	SE10	SE9	SE12	SE18	SE18	ESE17	SE15	SSE13	ENE9	ENE13	ENE15	E12	ESE11	ESE15	ESE15	SE14	SE12	SE10	SE9	ENE4	ENE6	W10	ENE7	ESE6	ESE9.6	SE18
19-Jul	SW13	SSE18	S13	S6	S2	WNW10	NW8	WNW9	NW8	NNW7	NNW10	NNW15	NNW14	NNW13	NNW8	NNW13	NW9	W4	NW8	NW10	NW11	NNW7	NW6	NNW8	NW5.8	SSE18
20-Jul	NNW9	NW10	NNW11	N7	NNW8	NNW11	NNW12	N8	NW9	NW10	NNW10	NNW10	WNW12	WNW15	WNW14	WNW11	NW9	WNW11	WNW8	WNW8	ESE2	ESE2	SSE2	ESE3	NW7.5	WNW15
21-Jul	ESE2	SE2	SE5	SSE4	SSE6	SSE2	SSE5	S4	W4	WNW7	NNW6	NNW9	NW6	W5	WNW9	WNW8	WSW7	W8	WNW8	SSE1	ESE3	ESE3	ESE2	SE2	W1.7	WNW9
22-Jul	SSE6	SE6	SSE6	SE5	SE5	SE5	SSE7	SSE10	S11	S13	S12	S11	S11	S9	SSW10	S9	SSW7	S7	SSE7	SSE6	SE8	SSE11	SSE13	SE13	SSE8.3	S13
23-Jul	SSE15	SSE15	SSE16	SSE15	ESE16	SE18	SSE14	S13	S12	SSW9	W18	WSW19	W16	WNW18	W20	WNW19	WNW22	WNW21	WNW19	WNW10	W6	SE2	ESE2	SE3	SW6.0	WNW22
24-Jul	SE7	SE5	ESE2	SE6	SE8	SE8	SSE8	S11	SSE13	SSE15	SSE16	S13	SSW11	SW11	WSW13	W16	WSW14	WSW16	WSW17	W9	S6	SSW8	SSE8	SSE9	SSW7.5	WSW17
25-Jul	SE9	SSE9	SSE5	S8	SSE8	S8	SSE7	S8	WSW7	W9	SSW8	SSW8	SSW8	W6	NW6	S3	S5	S6	S2	N4	ESE2	NNE2	E2	SE5	S4.0	SSE9
26-Jul	NE5	N4	SE1	ENE2	NE1	NE3	NNE8	N9	N11	NNE11	NNE12	N15	NNE14	N15	N15	N15	N14	NNE12	NNE11	NE7	E3	N1	E7	SE5	NNE7.4	N15
27-Jul	SSE4	SSE2	SSE9	ENE3	S5	S9	S9	S8	W7	WNW11	W9	NW8	WNW12	WNW13	WNW12	W10	NNE3	WNW7	SW6	S7	SSE7	SSE7	SSE8	SSE7	SW3.5	WNW13
28-Jul	ESE3	SSE8	SSE8	SE8	SE7	SE7	SSE10	S11	S13	SSE13	SSE12	SE12	SE14	SE16	SSE17	SSE14	SE9	SE12	SE14	SE12	SSW16	N7	SSE1	S10	SSE9.4	SSE17
29-Jul	S10	SSE13	SSE13	S11	SSE10	S9	SSW9	SW9	W14	W20	W19	WSW19	SW18	SW21	WNW18	WNW19	W19	W18	W19	W13	WSW8	S7	SSE8	SSE7	WSW10.1	SW21
30-Jul	SSE5	SE4	SSE4	SSE8	SE4	ESE3	WNW5	NW6	NNW4	NW6	NW7	WNW8	WNW3	SSE5	SSE5	S7	SSW7	S6	S6	SSE9	SSE9	SE4	SE4	SE7	S2.6	SSE9
31-Jul	ESE7	SE6	SE9	SE9	SE8	S4	S7	SE10	SSE13	SSE12	S11	SSE10	SSE10	SSE8	S13	S13	S14	S11	SSE8	SSE7	SSE7	SE8	SE9	SE5	SSE8.8	S14
SE6.4 SSE6.7 SSE7.0 SE6.6 SE6.8 SSE5.4 SSE5.2 S5.4SSW4.6SSW4.4SSW4.0SSW3.5 SW4.5 SW5.3 SW6.1WSW6.3WSW5.5 SW5.3 SW4.9SSW3.3 SSE3.5 SSE3.2 SE4.7 SE5.9																										Diurnal Average
SE17 SSE18 SE17 SE18 SE18 SE18 SSE19 SSE19 SSE16 W20 W19 SW20 S21 S22 WSW21WSW20WSW22WNW21 S20 S17 SSW16 SSE11 SE15 SE16																										Diurnal Maximum
All monthly, daily, and diurnal averages have been calculated using vector methods																										



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Blackrod - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Blackrod - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	170	22.85	22.85
6 - 11	349	46.91	69.76
12 - 19	210	28.23	97.98
20 - 28	15	2.02	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Blackrod - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	4	7	9	5	9	31	39	30	9	3	2	5	5	5	2	5	170
6 - 11	8	6	7	6	2	10	49	79	62	24	8	10	16	20	24	18	349
12 - 19	5	3	1	2	1	10	31	50	35	8	12	11	15	16	4	6	210
20 - 28	0	0	0	0	0	0	0	0	3	0	3	5	2	2	0	0	15
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	16	17	13	12	51	119	159	109	35	25	31	38	43	30	29	744

Total Number of Valid Hours: 744

Total Number of Hours: 744



Blackrod





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Blackrod - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 10 km/h on Jul 18 08:00																	Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0								
Minimum Value: 1 km/h on Jul 21 23:00																									
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 2 Q ₃ = 3 P ₉₀ = 5 P ₉₉ = 6																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	1	1	2	1	1	1	1	1	1	2	3	4	3	4	5	2	2	2	2	1	2	3	2	2	5
2-Jul	5	2	3	2	3	1	2	2	1	1	2	3	3	3	3	3	4	3	4	4	3	2	3	4	5
3-Jul	3	3	3	3	3	3	3	4	3	2	2	2	3	3	3	3	3	3	3	2	3	2	2	2	4
4-Jul	1	1	1	1	1	1	2	1	3	6	4	2	4	4	4	4	4	4	2	1	3	3	1	3	6
5-Jul	1	1	1	1	2	2	1	2	4	4	4	5	5	5	5	4	6	4	3	5	3	1	1	1	6
6-Jul	1	1	1	1	1	1	1	2	2	3	4	3	4	3	6	3	7	3	3	2	1	2	2	1	7
7-Jul	2	2	1	2	2	2	3	3	2	3	3	4	4	5	3	3	3	4	4	2	3	3	4	3	5
8-Jul	4	4	4	4	3	4	4	4	4	4	4	3	4	5	3	2	2	2	2	2	1	2	1	1	5
9-Jul	1	1	1	3	2	2	3	2	1	2	3	4	5	5	5	5	3	5	5	5	4	4	3	2	5
10-Jul	3	2	2	2	2	2	3	2	2	2	3	3	4	3	4	3	4	3	3	1	1	1	1	4	4
11-Jul	3	3	4	1	2	5	4	3	2	2	2	2	2	2	3	3	2	4	3	3	2	2	1	2	5
12-Jul	1	1	1	2	3	3	2	2	2	2	3	3	3	4	5	9	4	4	7	5	2	2	2	2	9
13-Jul	2	1	1	2	1	2	2	3	4	5	5	6	5	6	6	7	6	6	5	5	2	1	1	2	7
14-Jul	1	1	1	2	2	1	1	2	2	3	4	4	4	4	4	4	3	3	3	2	2	2	2	2	4
15-Jul	2	2	2	3	3	3	3	2	3	3	3	3	4	4	4	3	3	3	3	2	4	4	2	3	4
16-Jul	3	1	3	2	2	2	2	2	2	2	3	3	5	5	5	5	5	4	4	3	1	2	2	1	5
17-Jul	2	2	1	1	1	1	1	1	2	1	2	3	4	4	3	3	3	2	2	1	1	1	2	2	4
18-Jul	2	2	4	4	4	4	4	10	5	4	5	5	5	5	5	4	4	3	4	2	3	9	4	4	10
19-Jul	5	5	4	1	3	3	2	2	2	2	2	3	3	3	3	4	2	3	3	3	3	1	2	2	5
20-Jul	2	2	2	2	2	2	2	2	2	2	2	3	4	4	3	3	3	2	2	3	1	1	1	1	4
21-Jul	1	1	1	1	2	2	1	1	2	2	2	2	2	3	3	3	3	3	2	1	1	1	1	1	3
22-Jul	1	1	1	1	1	1	2	2	3	3	3	3	3	3	3	3	3	2	1	1	2	2	2	2	3
23-Jul	2	2	3	2	3	3	3	3	2	3	5	4	4	5	5	5	5	6	6	4	3	1	1	2	6
24-Jul	2	3	1	2	1	1	2	2	3	3	4	3	4	4	4	5	4	5	5	4	2	2	1	1	5
25-Jul	1	1	2	3	2	2	1	1	2	3	2	2	2	3	2	3	2	2	1	2	1	2	1	3	3
26-Jul	2	3	1	1	2	2	2	3	2	3	3	4	4	3	3	3	4	3	3	2	1	1	3	2	4
27-Jul	2	2	5	2	1	1	1	1	2	3	2	3	4	3	3	3	2	2	2	1	1	1	1	2	5
28-Jul	2	1	1	1	2	2	2	2	2	3	3	4	4	5	5	4	3	4	4	3	9	3	2	2	9
29-Jul	1	2	2	2	2	1	2	3	5	5	6	5	6	6	5	5	5	5	5	4	3	1	1	1	6
30-Jul	2	1	4	3	2	1	3	2	2	2	3	3	2	2	1	3	2	1	2	1	1	1	2	2	4
31-Jul	1	1	1	1	1	2	1	2	2	2	3	2	2	2	4	3	3	3	2	1	2	2	2	1	4
5 5 5 4 4 5 4 10 5 6 6 6 6 6 6 6 9 7 6 7 5 9 9 4 4																									
Diurnal Maximum																									



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

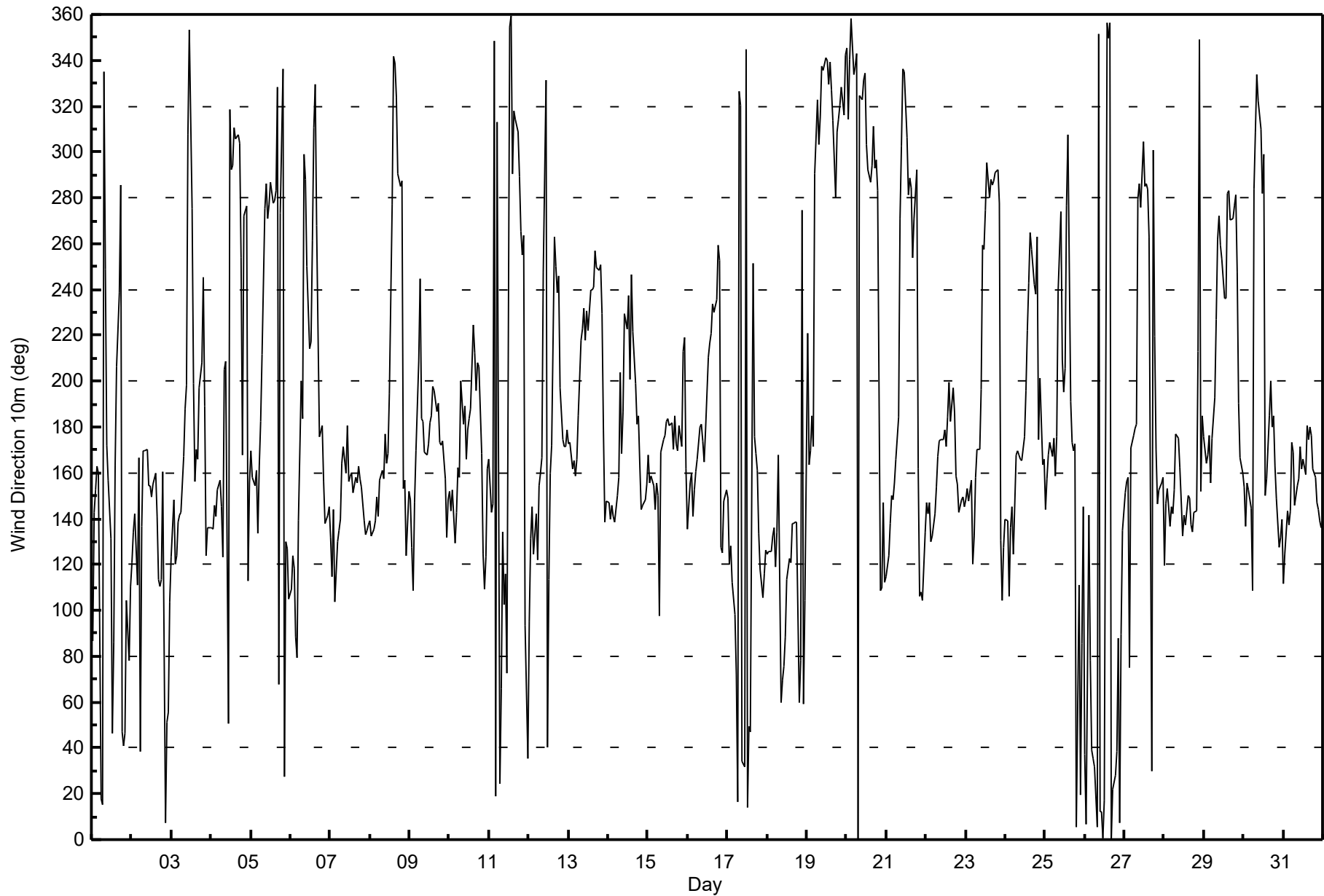
Blackrod - July 2026

Direction of Maximum Speed: 185 deg on Jul 9 14:00																					Hours in Service:		744		
Direction of Maximum Daily Speed Average: 220.9 deg on Jul 13																					Hours of Data:		744		
Direction of Minimum Speed: 134 deg on Jul 11 09:00										Direction of Minimum Daily Speed Average: 1.7 deg on Jul 11											Hours of Missing Data:		0		
Monthly Average Direction: 181.9 deg																					Percent Operational Time:				100.0
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	87	143	152	163	160	18	16	335	249	172	157	131	46	86	163	206	239	286	47	41	46	104	78	111	112.5
2-Jul	121	134	142	111	167	38	137	170	170	170	154	154	149	155	160	141	113	111	113	160	7	52	55	104	124.9
3-Jul	123	148	120	124	139	142	143	167	188	198	308	353	275	199	156	170	166	197	208	246	189	124	136	136	156.9
4-Jul	136	136	146	141	153	157	145	124	205	208	51	318	292	294	311	306	307	304	254	168	272	276	113	156	248.1
5-Jul	170	158	155	161	134	163	182	212	275	286	271	277	287	278	279	283	328	68	274	336	27	130	127	105	268.7
6-Jul	109	124	118	88	79	139	200	184	299	288	250	214	217	261	310	330	268	176	178	181	156	138	142	145	195.3
7-Jul	132	115	144	104	130	135	140	164	171	160	181	156	159	160	151	158	156	163	157	154	139	133	135	137	150.9
8-Jul	139	133	136	139	149	141	157	161	157	177	164	168	195	277	342	339	324	290	285	287	153	157	124	152	160.2
9-Jul	148	128	109	147	169	208	245	184	183	169	168	173	182	185	198	196	187	190	173	172	174	157	132	148	177.4
10-Jul	152	144	152	129	143	162	158	200	181	189	166	179	183	188	224	212	196	208	206	168	124	109	123	162	173.7
11-Jul	166	143	146	348	19	313	24	66	134	102	116	73	354	359	291	318	314	309	289	265	255	264	93	35	307.9
12-Jul	95	131	146	125	142	122	154	160	167	248	331	40	113	160	172	263	250	239	246	197	175	171	172	179	186.4
13-Jul	173	173	162	165	159	166	185	218	223	232	218	231	222	240	240	241	257	249	248	251	229	179	139	148	220.9
14-Jul	147	139	146	141	139	150	158	204	169	187	229	223	237	201	247	222	199	181	185	163	144	146	148	155	181.2
15-Jul	168	155	159	154	144	156	150	98	169	174	176	183	183	181	182	170	185	173	170	180	172	213	219	162	170.6
16-Jul	135	155	160	141	152	160	166	180	181	174	164	179	210	216	221	233	230	235	259	253	128	125	148	152	190.5
17-Jul	149	120	128	112	98	72	16	327	320	34	31	345	14	49	47	251	176	168	161	134	118	106	116	126	96.2
18-Jul	124	126	126	132	136	119	134	168	60	70	76	88	114	123	121	138	138	139	139	60	78	275	59	104	118.3
19-Jul	221	163	170	185	172	290	323	303	315	338	335	341	340	330	339	327	314	280	309	314	320	328	316	342	311.2
20-Jul	346	314	340	358	334	337	343	0	324	323	332	334	303	292	287	294	311	293	296	283	109	110	147	112	319.3
21-Jul	115	124	138	150	148	155	166	184	271	302	336	335	306	281	289	284	254	271	293	162	106	108	104	134	268.0
22-Jul	147	142	147	130	133	142	154	167	174	175	175	179	172	184	199	183	197	186	158	155	143	148	149	145	164.1
23-Jul	148	153	148	157	120	132	158	170	170	196	259	257	275	295	280	288	286	287	291	293	277	131	105	127	231.1
24-Jul	140	139	106	136	145	124	168	169	168	166	165	176	196	222	243	265	257	243	238	263	174	201	163	166	194.9
25-Jul	144	158	168	174	167	175	159	176	239	274	209	195	205	276	308	191	173	169	172	5	111	20	86	145	186.1
26-Jul	37	7	141	78	39	35	32	5	352	12	12	1	17	356	349	356	0	22	28	38	88	7	90	135	14.0
27-Jul	151	156	158	75	171	176	179	181	279	286	276	304	285	286	284	263	30	301	220	170	147	153	155	158	228.6
28-Jul	119	147	153	137	145	142	153	177	175	162	147	133	141	138	150	149	137	134	143	144	213	349	152	185	152.0
29-Jul	176	164	168	176	155	175	193	227	262	272	259	253	236	236	282	283	270	271	277	281	248	190	167	160	239.8
30-Jul	154	137	156	152	145	109	284	309	334	322	310	282	299	150	158	185	200	180	185	163	149	128	132	140	175.9
31-Jul	111	124	143	137	143	173	169	146	154	158	171	162	166	159	180	175	180	176	161	158	147	144	139	136	157.4
145.9 146.3 147.2 141.8 143.5 147.3 156.5 177.8 197.6 206.4 203.2 212.8 220.7 224.8 234.8 240.5 237.2 221.7 217.5 210.3 167.9 153.5 133.2 144.0																									
Diurnal Average																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Blackrod - July 2026





Wood Buffalo Environmental Association
Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg
Blackrod - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 105 deg on Jul 17 16:00																		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0							
Minimum Value: 8 deg on Jul 4 03:00																									
Percentiles: P ₁ = 9 P ₁₀ = 12 Q ₁ = 16 Median = 22 Q ₃ = 36 P ₉₀ = 55 P ₉₉ = 90																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	59	54	26	19	54	57	15	37	79	25	24	52	19	36	44	24	53	67	19	18	16	33	34	63	79
2-Jul	39	58	26	23	72	49	23	26	19	16	24	22	35	37	49	25	23	19	20	75	41	22	29	22	75
3-Jul	22	15	16	13	13	14	14	17	19	35	29	52	49	58	23	27	38	27	51	35	57	28	15	13	58
4-Jul	13	10	8	15	17	16	37	97	97	26	87	32	14	15	20	23	23	31	83	25	40	94	38	21	97
5-Jul	9	11	11	10	51	26	20	44	26	19	21	27	20	22	15	13	48	30	81	29	59	30	55	50	81
6-Jul	52	37	42	39	37	37	78	75	31	52	58	53	69	72	48	46	35	21	13	15	11	13	14	11	78
7-Jul	25	56	85	83	14	12	12	16	17	30	30	30	26	24	31	26	22	19	18	15	16	16	15	14	85
8-Jul	16	17	15	16	14	17	15	16	16	18	22	35	22	28	48	20	21	51	19	51	14	49	44	26	51
9-Jul	25	27	59	70	15	47	35	16	16	12	15	19	18	18	20	22	18	21	16	13	15	47	32	13	70
10-Jul	11	11	11	15	11	16	20	31	20	22	17	25	35	25	21	27	30	22	34	61	18	19	21	68	68
11-Jul	17	19	28	49	62	78	38	17	92	33	25	82	36	27	18	34	16	19	23	18	12	19	97	55	97
12-Jul	51	38	44	20	33	32	23	16	16	59	42	19	48	23	28	37	24	27	24	24	13	12	10	10	59
13-Jul	15	12	10	10	12	10	20	19	19	24	20	24	19	22	22	23	20	25	21	16	32	22	22	23	32
14-Jul	12	9	15	44	46	61	26	79	20	50	42	44	36	37	37	46	35	27	15	16	13	12	10	11	79
15-Jul	20	10	16	18	14	16	29	72	24	28	25	24	20	32	28	20	18	16	20	18	16	52	66	42	72
16-Jul	47	10	12	15	11	11	23	18	18	17	23	24	30	23	23	23	25	24	29	46	41	25	11	9	47
17-Jul	14	59	54	46	36	36	33	21	57	35	38	59	45	49	89	105	43	20	15	19	12	17	26	17	105
18-Jul	18	19	22	17	17	20	18	79	63	21	28	33	44	36	33	25	29	30	28	48	45	69	62	64	79
19-Jul	38	16	28	30	79	15	28	24	24	19	12	16	22	21	42	30	22	64	21	18	19	16	22	12	79
20-Jul	12	21	14	17	12	11	12	26	14	13	20	22	21	18	17	18	18	16	16	47	38	55	45	37	55
21-Jul	52	47	17	17	18	83	15	24	58	35	40	17	31	55	32	33	47	35	13	77	34	23	24	22	83
22-Jul	10	12	11	14	14	13	14	13	14	16	20	26	27	32	34	36	36	24	18	12	10	9	9	12	36
23-Jul	11	10	13	12	18	14	19	15	18	32	21	16	29	20	16	17	16	17	17	16	44	51	30	46	51
24-Jul	29	29	56	19	9	16	15	13	14	16	17	26	29	34	37	24	30	25	28	34	32	22	14	11	56
25-Jul	15	10	35	17	13	14	11	15	39	28	24	21	32	48	45	87	40	39	83	45	54	79	62	53	87
26-Jul	43	57	92	48	90	47	14	23	18	21	23	21	24	19	18	21	19	20	14	23	34	84	48	56	92
27-Jul	51	86	54	50	43	15	16	13	38	22	32	37	17	19	11	25	58	23	37	21	11	8	11	24	86
28-Jul	60	10	9	17	17	15	20	12	14	19	24	27	28	22	21	15	26	22	20	17	40	37	88	17	88
29-Jul	15	11	13	12	15	14	16	27	24	18	24	24	24	24	17	15	20	20	17	14	35	20	13	14	35
30-Jul	25	23	62	31	44	42	66	28	57	35	55	45	68	21	20	26	31	22	21	9	9	16	18	12	68
31-Jul	13	15	10	12	13	61	16	16	13	16	16	17	20	24	22	16	23	19	11	10	9	10	11	16	61
60 86 92 83 90 83 78 97 97 59 87 82 69 72 89 105 58 67 83 77 59 94 97 68																									
Diurnal Maximum																									



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS32 PIHEW POINT JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - PIHEW POINT (AMS32)

JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	702	35	42	99.06	117.2	0	12	0
H2S (ppb) Average	702	36	42	99.19	16.5	2	2.5	0
THC (ppm) Average	703	35	41	99.19	3.5	-	2.3	-
NMHC(ppm) Average	703	35	41	99.19	0.828	-	0.075	-
CH4(ppm) Average	703	35	41	99.19	3.5	-	2.3	-
Temperature (C) Average	744	0	0	100	32.4	-	24	-
Relative Humidity (%) Average	744	0	0	100	97.6	-	85.2	-
Wind Speed 10 m (km/h) Average	743	0	1	99.87	29	-	15	-
Wind Direction 10 m (deg) Average	743	0	1	99.87	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - PIHEW POINT (AMS32)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	702	1.95	7.8	-	0	0.1	0.1	0.2	0.6	4	117.2
H2S (ppb) Average	702	0.74	1.2	-	0	0.1	0.2	0.4	0.8	1.7	16.5
THC (ppm) Average	703	2.16	0.2	-	1.9	2	2.1	2.1	2.2	2.4	3.5
NMHC(ppm) Average	703	0.01	0.06	-	0	0	0	0	0	0	0.828
CH4(ppm) Average	703	2.15	0.2	-	1.9	2	2	2.1	2.2	2.4	3.5
Temperature 2 m (C) Average	744	19.05	4.1	-	11.9	13.9	15.8	18.6	21.7	25.1	32.4
Relative Humidity (%) Average	744	69.18	17.4	-	25.7	42.7	57.1	71.5	82.7	91.5	97.6
Wind Speed 10 m (km/h) Average	743	8.1	5	-	0	3	4	7	11	16	29
Wind Direction 10 m (deg) Average	743	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - PIHEW POINT (AMS32)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
H2S	02 Jul 2026 10:00	02 Jul 2026 10:00	1	Maintenance - sample manifold cleaned
SO2, H2S, THC/NMHC/CH4	08 Jul 2026 14:00	08 Jul 2026 15:00	2	Station power failure
SO2	22 Jul 2026 13:00	22 Jul 2026 15:00	3	Maintenance - WBEA internal audit
H2S	22 Jul 2026 12:00	22 Jul 2026 14:00	3	Maintenance - WBEA internal audit
THC/NMHC/CH4	22 Jul 2026 12:00	22 Jul 2026 13:00	2	Maintenance - WBEA internal audit
SO2, THC/NMHC/CH4	31 Jul 2026 09:00	31 Jul 2026 10:00	2	Maintenance - sample manifold cleaned
Wind Speed, Wind Direction	20 Jul 2026 23:00	20 Jul 2026 23:00	1	Flat line in sensor output signal



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

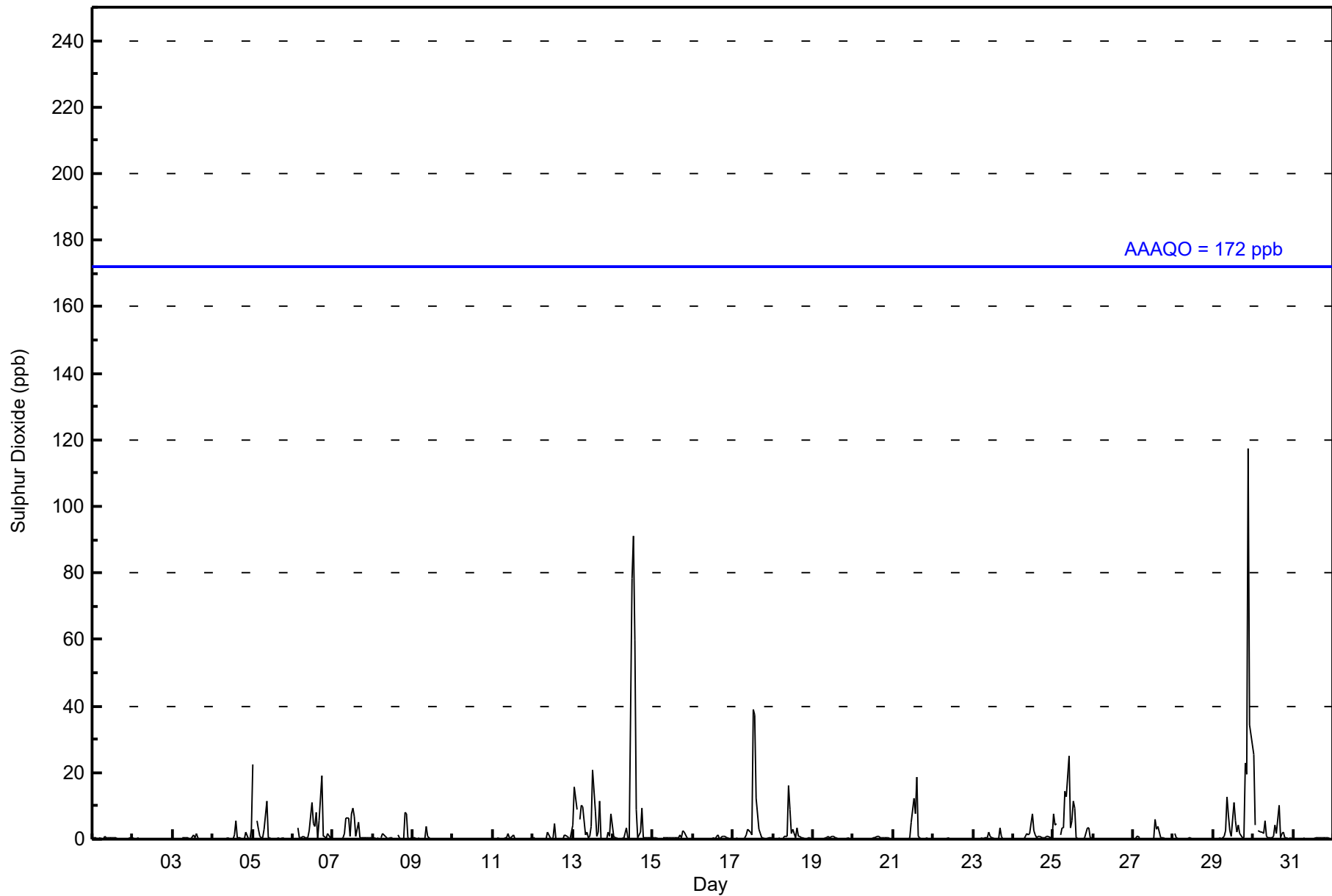
Pihew Point - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 117.2 ppb on Jul 29 22:00 Maximum Daily Average: 12.0 ppb on Jul 29																				Hours in Service: 744 Hours of Data: 702 Hours of Missing Data: 42 Hours of Calibration: 35 Percent Operational Time: 99.1						
Minimum Value: 0.0 ppb on Jul 2 14:00 Maximum Diurnal Average: 7.3 ppb at hour 13 Monthly Average: 1.95 ppb										Minimum Daily Average: 0.0 ppb on Jul 10 Minimum Diurnal Average: 0.4 ppb at hour 19 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.6 P ₉₀ = 4.0 P ₉₉ = 28.4																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.4	0.3	0.4	Z	0.2	0.2	0.2	1.0	0.5	0.4	0.6	0.6	0.5	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.3	1.0
2-Jul	0.4	0.2	0.2	0.2	Z	0.1	0.1	0.0	0.1	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
3-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.3	0.3	0.3	0.2	0.2	0.1	1.4	0.4	1.8	0.6	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.3	1.8
4-Jul	Z	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.3	0.2	0.2	0.1	1.5	5.7	0.3	0.4	0.1	0.1	0.0	2.1	0.1	0.0	3.0	0.6	5.7
5-Jul	22.5	Z	5.6	2.9	0.8	0.5	0.5	3.0	11.5	0.3	0.4	0.1	0.0	0.0	0.0	0.3	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	2.1	22.5
6-Jul	0.1	0.1	Z	3.4	0.3	0.6	1.0	0.3	0.5	0.5	2.6	11.0	4.5	3.8	8.0	0.2	5.3	19.0	0.7	1.0	0.2	1.7	0.4	0.3	2.8	19.0
7-Jul	0.1	0.1	0.1	Z	0.2	0.1	0.4	1.5	6.4	6.2	0.9	7.7	9.3	6.9	0.8	5.0	0.2	0.3	0.4	0.4	0.3	0.6	0.6	0.4	2.1	9.3
8-Jul	0.4	0.2	0.2	0.3	Z	0.6	1.6	0.8	0.3	0.1	0.3	0.4	0.2	PF	PF	1.4	0.4	0.1	0.2	8.0	7.5	0.4	0.2	0.5	1.2	8.0
9-Jul	0.5	0.3	0.1	0.1	0.3	Z	0.1	0.2	4.0	0.7	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.3	4.0
10-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2
11-Jul	0.2	Z	0.2	0.3	0.1	0.1	0.1	0.3	0.5	1.9	0.5	0.3	1.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.3	1.9
12-Jul	0.3	0.5	Z	0.1	0.0	0.1	0.1	0.1	0.1	2.2	0.3	0.1	0.5	4.6	0.2	0.1	0.2	0.1	0.1	1.5	0.8	0.3	0.1	2.3	0.6	4.6
13-Jul	4.3	15.5	8.8	Z	5.9	10.3	9.9	1.4	2.0	0.2	0.8	4.0	20.6	8.6	0.9	2.2	11.3	0.2	0.2	0.1	0.2	2.0	0.7	7.4	5.1	20.6
14-Jul	0.7	0.4	0.3	0.2	Z	0.3	0.2	1.8	3.4	0.2	0.1	78.5	91.2	59.8	8.9	0.2	2.3	9.2	0.3	0.2	0.3	0.4	0.3	0.3	11.3	91.2
15-Jul	0.2	0.3	0.3	0.2	0.2	Z	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.5	1.5	0.4	2.6	2.1	0.3	0.1	0.1	0.1	0.5	2.6
16-Jul	Z	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.1	1.0	1.2	0.1	0.6	0.9	0.7	0.2	0.3	0.2	0.3	0.3	1.2
17-Jul	0.3	Z	0.3	0.1	0.1	0.1	0.2	0.6	1.2	3.0	2.2	1.4	39.0	37.2	12.3	2.9	1.8	0.5	0.2	0.2	0.2	0.2	0.3	0.2	4.6	39.0
18-Jul	0.2	0.2	Z	0.3	0.1	0.1	0.2	0.7	0.9	16.1	8.9	1.8	2.9	0.5	3.4	1.0	0.7	0.5	0.3	0.2	0.1	0.2	0.3	0.2	1.7	16.1
19-Jul	0.2	0.1	0.1	Z	0.1	0.1	0.2	0.3	0.4	0.9	0.6	0.9	0.8	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.6	0.2	0.1	0.3	0.9
20-Jul	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.3	0.6	0.9	0.6	0.4	0.4	0.6	0.4	0.4	0.4	0.2	0.1	0.3	0.9
21-Jul	0.1	0.1	0.1	0.0	0.0	Z	0.2	0.1	0.1	0.2	0.6	5.1	12.4	7.5	18.4	0.7	0.3	0.2	0.1	0.2	0.2	0.1	0.1	0.1	2.0	18.4
22-Jul	Z	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.1	M	M	M	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
23-Jul	0.1	Z	0.2	0.1	0.1	0.5	0.2	0.5	0.6	2.2	0.7	0.4	0.2	0.1	0.1	0.1	3.3	0.9	0.1	0.2	0.1	0.2	0.1	0.1	0.5	3.3
24-Jul	0.1	0.2	Z	0.1	0.1	0.1	0.2	1.1	1.9	1.3	1.7	7.6	2.5	1.4	0.4	0.9	0.9	0.6	0.6	0.5	0.6	0.7	0.4	0.5	1.0	7.6
25-Jul	7.5	4.4	4.7	Z	1.4	3.3	3.5	14.2	12.6	25.1	3.6	5.6	11.3	9.5	0.3	0.2	0.2	0.2	0.2	0.3	3.4	3.4	0.4	0.2	5.0	25.1
26-Jul	0.1	0.1	0.1	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1
27-Jul	0.0	0.0	0.9	1.0	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	5.8	2.9	4.0	0.5	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.7	5.8
28-Jul	Z	1.5	0.6	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.2	1.5
29-Jul	0.0	Z	0.1	0.0	0.3	0.1	0.9	2.4	12.6	7.1	2.7	1.0	11.1	5.4	2.3	4.2	1.5	0.3	0.4	23.0	19.6	117.2	34.2	28.4	12.0	117.2
30-Jul	25.3	4.3	Z	2.6	2.2	2.1	1.8	5.5	0.8	0.5	0.4	0.6	0.8	4.2	1.7	10.1	0.3	1.7	2.1	0.3	0.4	0.2	0.2	0.2	3.0	25.3
31-Jul	0.2	0.2	0.2	Z	0.1	0.1	0.2	0.3	M	M	0.2	0.1	0.2	0.2	0.6	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.2	0.1	0.2	0.6
2.5 1.1 0.9 0.5 0.5 0.8 0.7 1.2 2.1 2.4 1.0 4.3 7.3 5.5 2.5 1.2 1.1 1.2 0.4 1.3 1.2 4.2 1.3 1.5																								Diurnal Average		
25.3 15.5 8.8 3.4 5.9 10.3 9.9 14.2 12.6 25.1 8.9 78.5 91.2 59.8 18.4 10.1 11.3 19.0 2.6 23.0 19.6 117.2 34.2 28.4																								Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Pihew Point - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Pihew Point - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	674	96.01	96.01
11 - 20	15	2.14	98.15
21 - 60	10	1.42	99.57
61 - 110	2	0.28	99.86
111 - 172	1	0.14	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 702

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Pihew Point - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	44	46	19	19	32	52	70	58	49	74	91	26	16	23	21	33	673
11 - 20	0	1	0	0	1	1	0	0	2	0	1	5	1	2	0	1	15
21 - 60	0	0	0	0	1	0	0	0	0	1	1	3	4	0	0	0	10
61 - 110	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	44	47	19	19	34	53	70	58	51	75	94	35	22	25	21	34	701

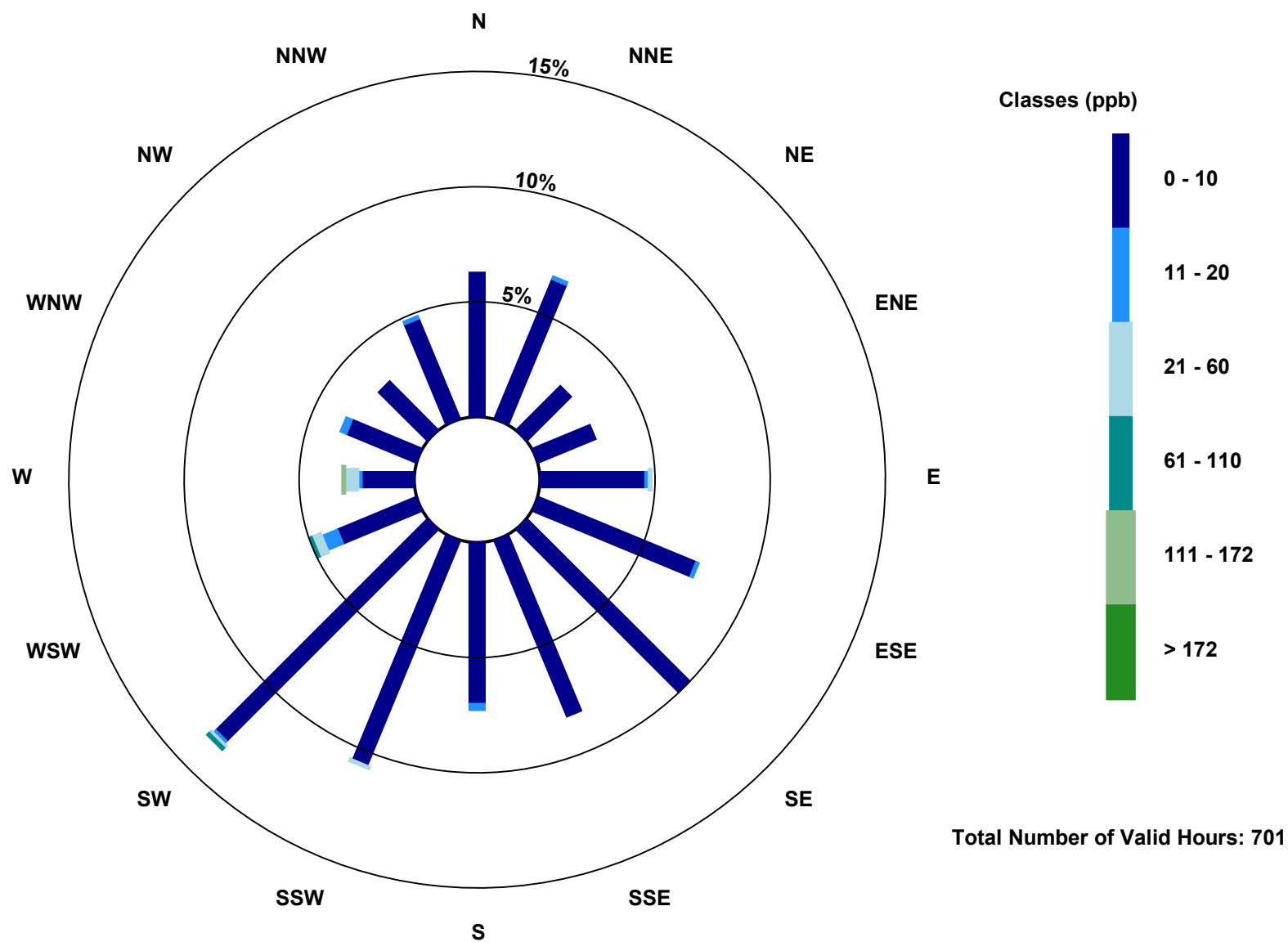
Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

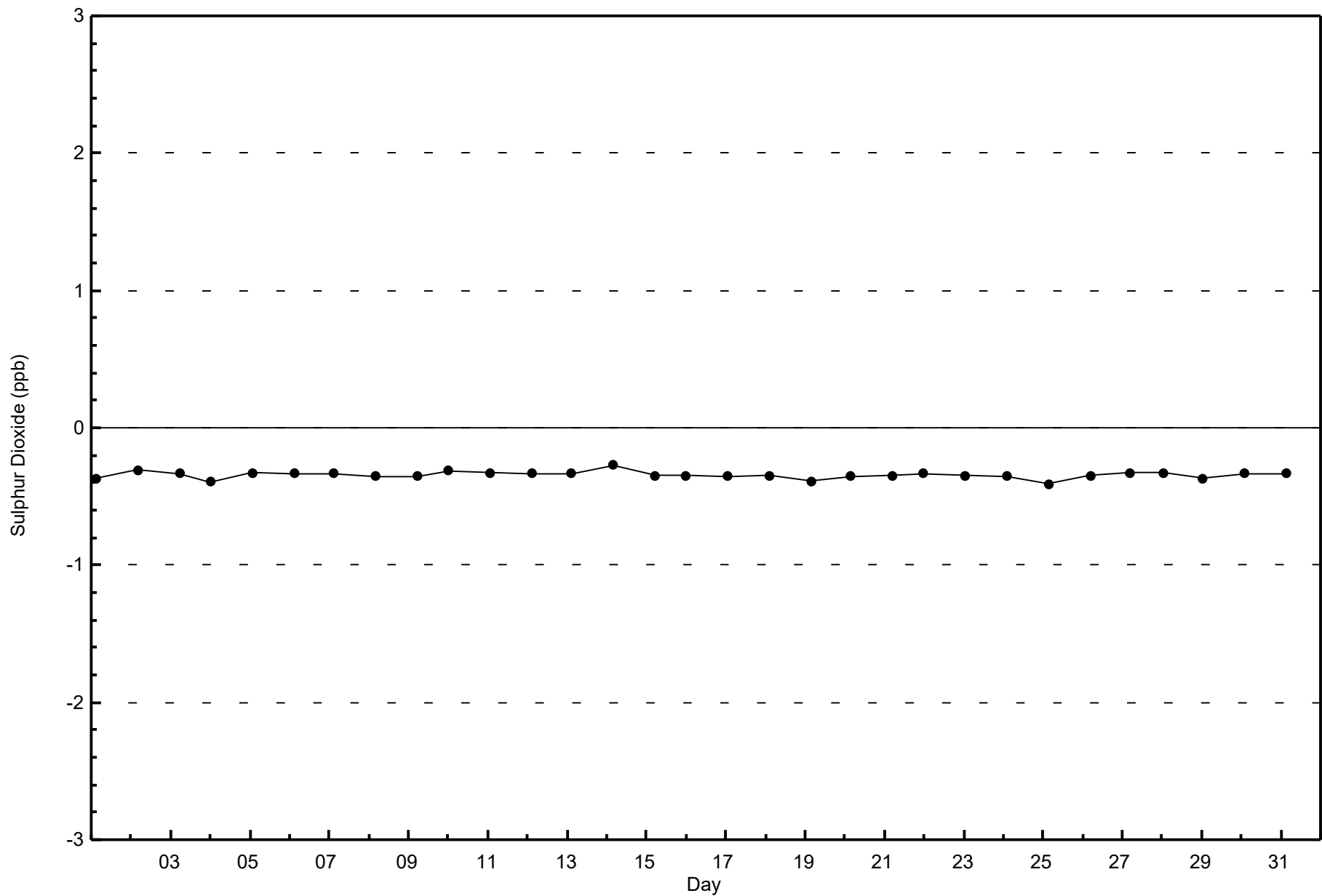
Sulphur Dioxide (SO₂) - ppb
Pihew Point





Wood Buffalo Environmental Association
Zero Responses

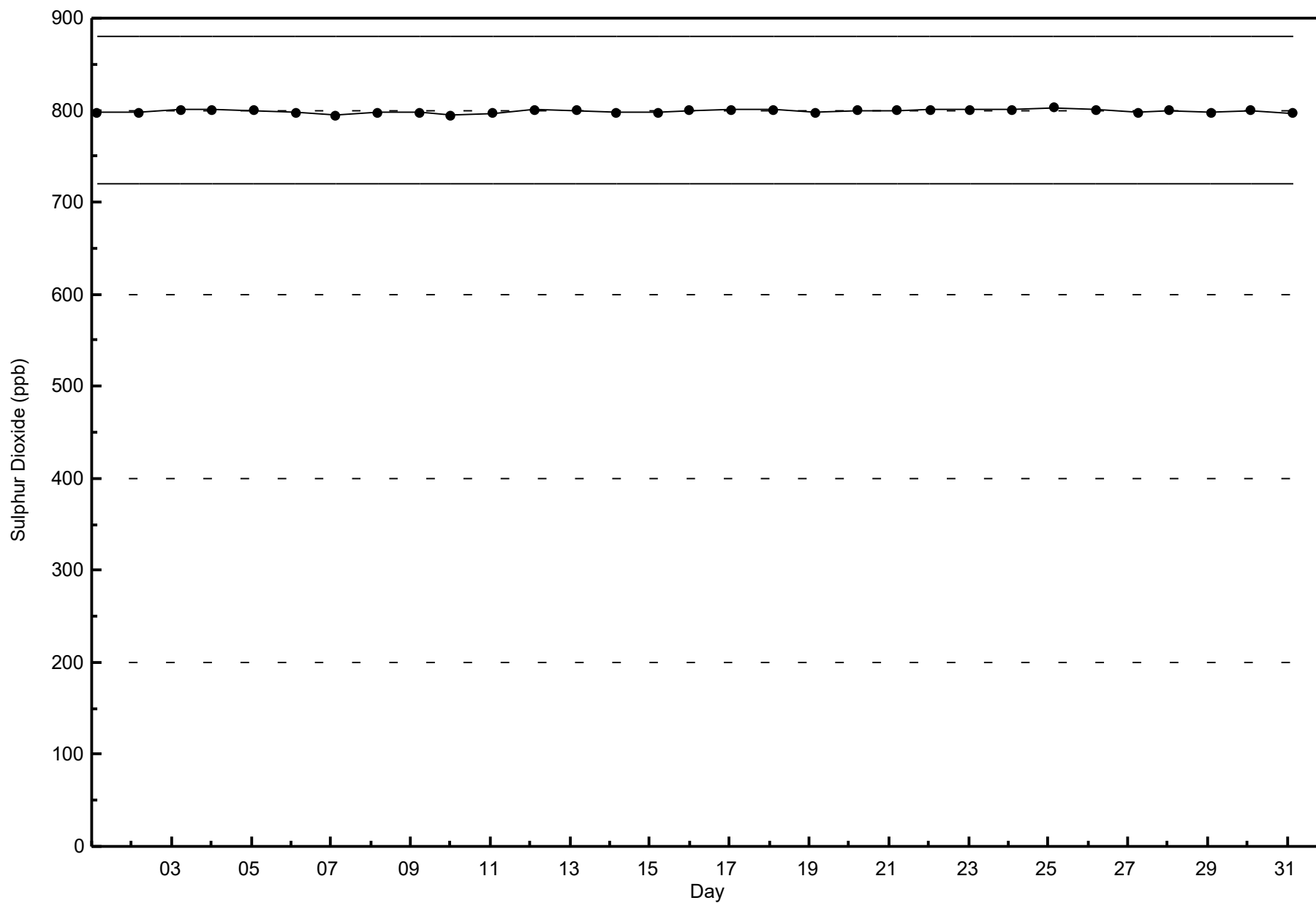
Sulphur Dioxide (SO₂) - ppb
Pihew Point - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Pihew Point - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H₂S) - ppb

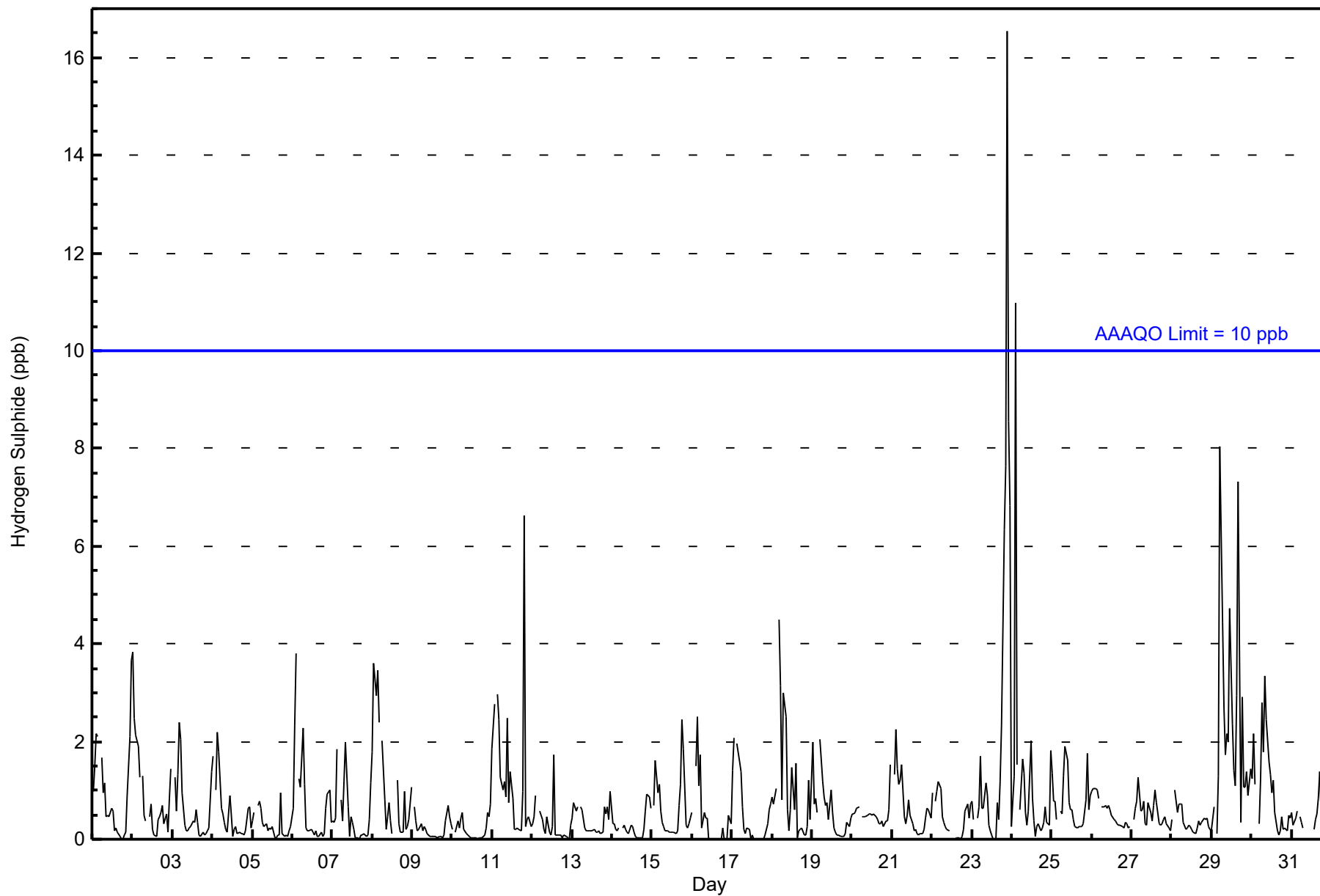
Pihew Point - July 2026

Number of Exceedances (AAAQO): Maximum Value: 16.5 ppb on Jul 23 22:00																				1-hr: 2 Maximum Daily Average: 2.5 ppb on Jul 23					24-hr: 0					Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 1 18:00 Maximum Diurnal Average: 1.5 ppb at hour 3 Monthly Average: 0.74 ppb																				Minimum Daily Average: 0.2 ppb on Jul 10 Minimum Diurnal Average: 0.3 ppb at hour 15 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.4 Q ₃ = 0.8 P ₉₀ = 1.7 P ₉₉ = 6.6										Hours of Data: 702	
																														Hours of Missing Data: 42	
																														Hours of Calibration: 36	
																														Percent Operational Time: 99.2	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jul	1.0	1.5	2.1	2.1	Z	1.7	1.0	1.1	0.5	0.5	0.5	0.6	0.6	0.2	0.2	0.1	0.1	0.0	0.0	0.1	0.2	0.9	2.1	3.7	0.9	3.7					
2-Jul	3.8	2.5	2.1	1.9	1.3	Z	1.3	0.5	0.4	M	0.5	0.7	0.2	0.1	0.1	0.4	0.5	0.5	0.7	0.3	0.5	0.1	0.8	1.4	0.9	3.8					
3-Jul	Z	1.3	0.6	1.3	2.4	2.0	1.0	0.3	0.2	0.2	0.2	0.3	0.4	0.3	0.6	0.4	0.1	0.1	0.1	0.1	0.1	0.2	0.2	1.4	0.6	2.4					
4-Jul	1.7	Z	1.0	2.2	1.8	0.6	0.5	0.3	0.2	0.1	0.9	0.5	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.6	0.7	0.2	0.6	2.2					
5-Jul	0.4	0.6	Z	0.7	0.8	0.6	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.0	0.0	0.1	0.1	1.0	0.1	0.1	0.1	0.1	0.2	0.3	0.3	1.0					
6-Jul	0.6	2.3	3.8	Z	1.2	1.1	2.3	1.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.0	0.2	0.1	0.1	0.6	0.9	1.0	0.3	0.7	3.8					
7-Jul	0.4	0.3	0.4	1.8	Z	0.8	0.4	1.2	2.0	0.7	0.1	0.5	0.4	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.4	1.1	0.5	2.0					
8-Jul	1.8	3.6	2.9	3.4	2.4	Z	2.0	0.8	0.2	0.5	0.7	0.4	0.1	PF	PF	1.2	0.3	0.1	0.1	1.0	0.2	0.3	0.4	1.1	1.1	3.6					
9-Jul	Z	0.7	0.4	0.2	0.2	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.7	0.5	0.3	0.2	0.7					
10-Jul	0.2	Z	0.2	0.4	0.2	0.4	0.5	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.5	0.7	0.2	0.7					
11-Jul	1.8	2.8	Z	3.0	2.4	1.3	1.0	1.2	0.9	2.5	0.8	1.4	0.8	0.2	0.2	0.2	0.2	0.2	1.0	6.6	0.3	0.4	0.5	0.3	1.3	6.6					
12-Jul	0.3	0.5	0.9	Z	0.6	0.5	0.4	0.2	0.1	0.4	0.1	0.1	0.3	1.7	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.3	0.3	1.7					
13-Jul	0.4	0.8	0.6	0.7	Z	0.7	0.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.7	0.5	0.7	0.4	1.0	0.4	1.0					
14-Jul	0.3	0.3	0.2	0.2	0.2	Z	0.2	0.3	0.2	0.2	0.1	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.2	0.6	0.9	0.9	0.6	0.3	0.9					
15-Jul	Z	0.7	1.6	1.0	1.1	0.6	0.4	0.3	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.7	1.1	2.4	1.8	0.3	0.2	0.3	0.4	0.6	2.4					
16-Jul	0.6	Z	1.5	2.5	1.1	1.7	0.2	0.6	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.5	0.3	0.4	2.5					
17-Jul	1.4	2.1	Z	2.0	1.6	1.4	0.7	0.2	0.1	0.2	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.6	0.7	0.5	2.1					
18-Jul	0.9	0.7	1.0	Z	4.5	3.1	0.8	3.0	2.5	0.6	0.2	0.6	1.5	0.6	1.6	0.0	0.2	0.2	0.2	0.1	0.1	0.3	1.2	0.4	1.1	4.5					
19-Jul	2.0	0.7	0.8	0.6	Z	2.0	1.2	0.9	0.7	0.8	0.4	1.0	0.6	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.4	0.6	2.0					
20-Jul	0.5	0.5	0.5	0.6	0.7	Z	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.4	0.4	0.6	1.5	0.5	1.5					
21-Jul	Z	1.3	2.2	1.4	1.1	1.2	1.5	0.4	0.3	0.5	0.8	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.4	0.6	0.6	0.4	0.6	2.2					
22-Jul	1.0	Z	0.8	1.0	1.2	1.0	0.5	0.3	0.3	0.2	0.2	M	M	M	0.0	0.0	0.0	0.0	0.1	0.2	0.6	0.7	0.4	0.7	0.5	1.2					
23-Jul	0.8	0.4	Z	0.4	0.6	1.7	0.6	0.6	1.1	0.9	0.3	0.2	0.1	0.0	0.0	0.7	0.4	1.2	2.3	6.3	7.6	16.5	8.6	6.8	2.5	16.5					
24-Jul	0.2	1.3	11.0	1.5	Z	0.6	1.6	1.4	0.6	0.3	0.6	2.0	0.8	0.4	0.1	0.3	0.3	0.2	0.2	0.4	0.7	0.3	0.3	1.8	1.2	11.0					
25-Jul	1.4	0.8	0.8	0.4	Z	0.6	0.5	1.3	1.9	1.6	0.8	0.6	0.6	0.4	0.3	0.2	0.3	0.2	0.3	0.3	0.8	1.7	0.6	0.9	0.8	1.9					
26-Jul	1.0	1.0	1.0	1.0	0.8	Z	0.7	0.7	0.7	0.6	0.7	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.4	0.3	0.2	0.3	0.6	1.0					
27-Jul	Z	0.4	0.6	0.8	1.3	0.6	0.6	0.8	0.3	0.3	0.8	0.5	0.4	0.7	1.0	0.7	0.3	0.3	0.3	0.4	0.5	0.3	0.2	0.2	0.5	1.3					
28-Jul	0.4	Z	1.0	0.6	0.7	0.7	0.7	0.3	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.2	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.2	0.4	1.0					
29-Jul	0.2	0.7	Z	0.1	1.3	8.0	4.4	2.7	1.7	2.2	2.0	4.7	2.4	1.4	1.1	2.9	7.3	0.3	2.9	1.1	1.1	1.4	0.9	1.4	2.3	8.0					
30-Jul	1.2	2.2	1.1	Z	0.3	1.2	2.8	1.8	3.3	2.5	1.6	1.3	0.9	1.2	0.5	0.2	0.1	0.2	0.5	0.2	0.2	0.2	0.5	0.4	1.1	3.3					
31-Jul	0.5	0.3	0.4	0.6	Z	0.5	0.4	0.2	C	C	C	C	C	0.2	0.4	0.5	0.8	1.4	0.5	0.5	0.6	1.1	0.6	0.4	0.6	1.4					
1.0 1.2 1.5 1.2 1.2 1.3 1.0 0.8 0.7 0.6 0.5 0.6 0.4 0.3 0.3 0.3 0.4 0.3 0.4 0.7 0.6 1.0 0.8 1.0																								Diurnal Average							
3.8 3.6 11.0 3.4 4.5 8.0 4.4 3.0 3.3 2.5 2.0 4.7 2.4 1.7 1.6 2.9 7.3 1.4 2.9 6.6 7.6 16.5 8.6 6.8																								Diurnal Maximum							
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																															
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																															



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Pihew Point - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Pihew Point - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	674	96.01	96.01
3 - 4	18	2.56	98.58
5 - 7	5	0.71	99.29
8 - 11	3	0.43	99.72
> 11	2	0.28	100.00

Total Number of Valid Hours: 702

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Pihew Point - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	45	46	17	20	35	51	66	51	55	71	96	33	16	18	20	33	673
3 - 4	0	0	1	0	0	2	5	1	2	0	0	0	5	2	0	0	18
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
> 11	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2
Totals	45	46	18	20	35	53	71	52	57	71	96	33	22	26	23	33	701

Total Number of Valid Hours: 701

Total Number of Hours: 744



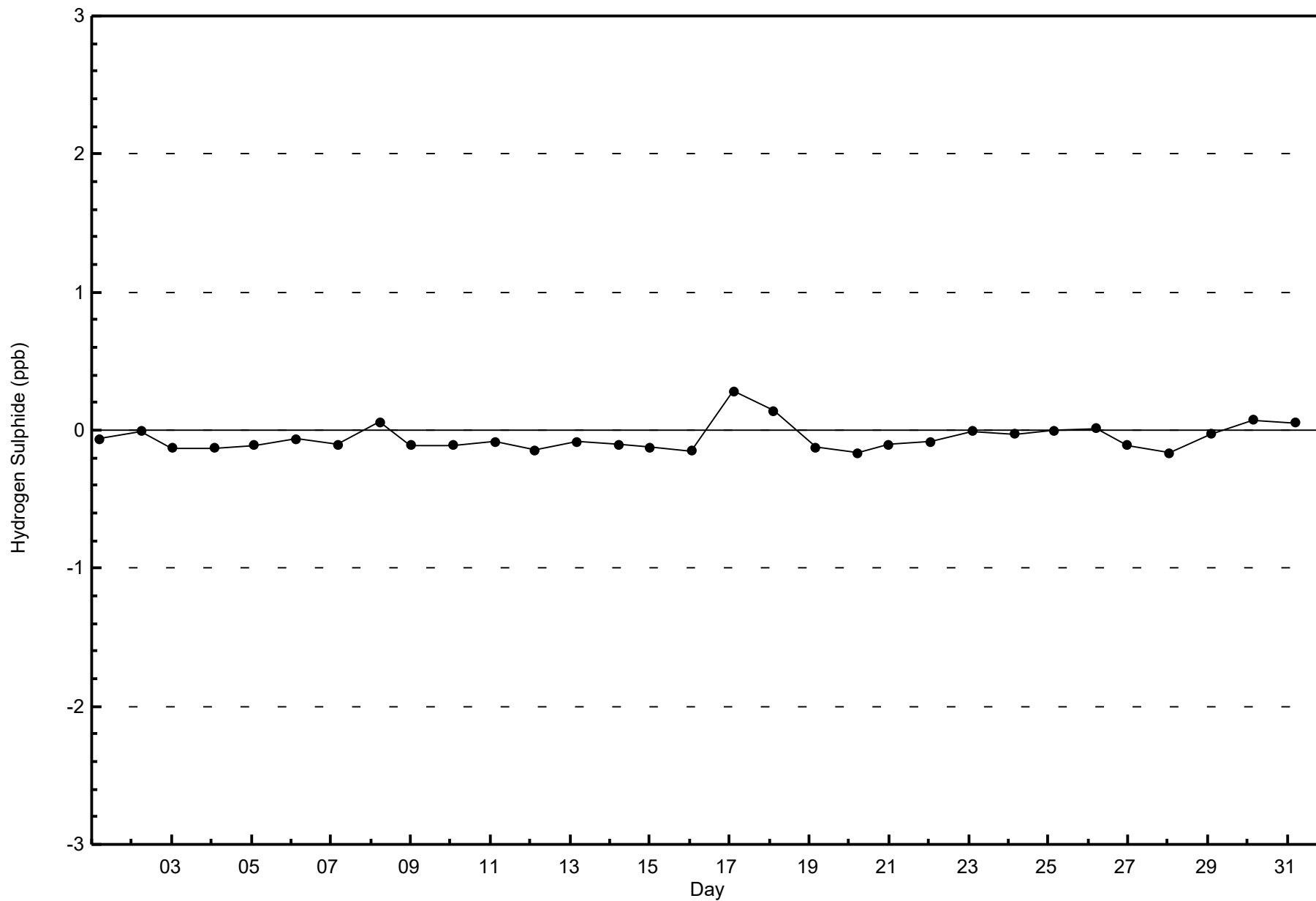
Hydrogen Sulphide (H₂S) - ppb
Pihew Point





Wood Buffalo Environmental Association
Zero Responses

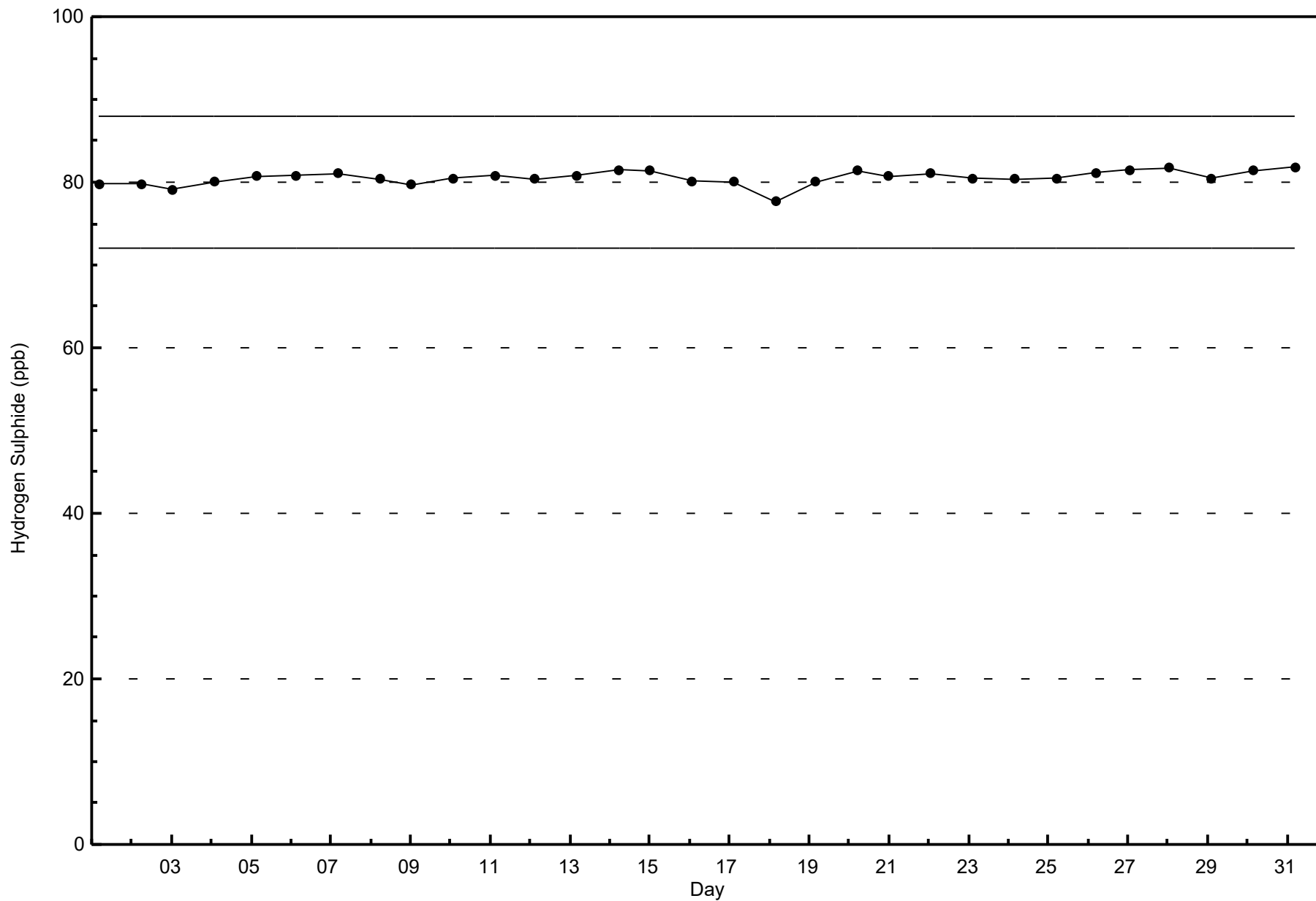
Hydrogen Sulphide (H₂S) - ppb
Pihew Point - July 2026





Wood Buffalo Environmental Association
Span Responses

Hydrogen Sulphide (H₂S) - ppb
Pihew Point - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

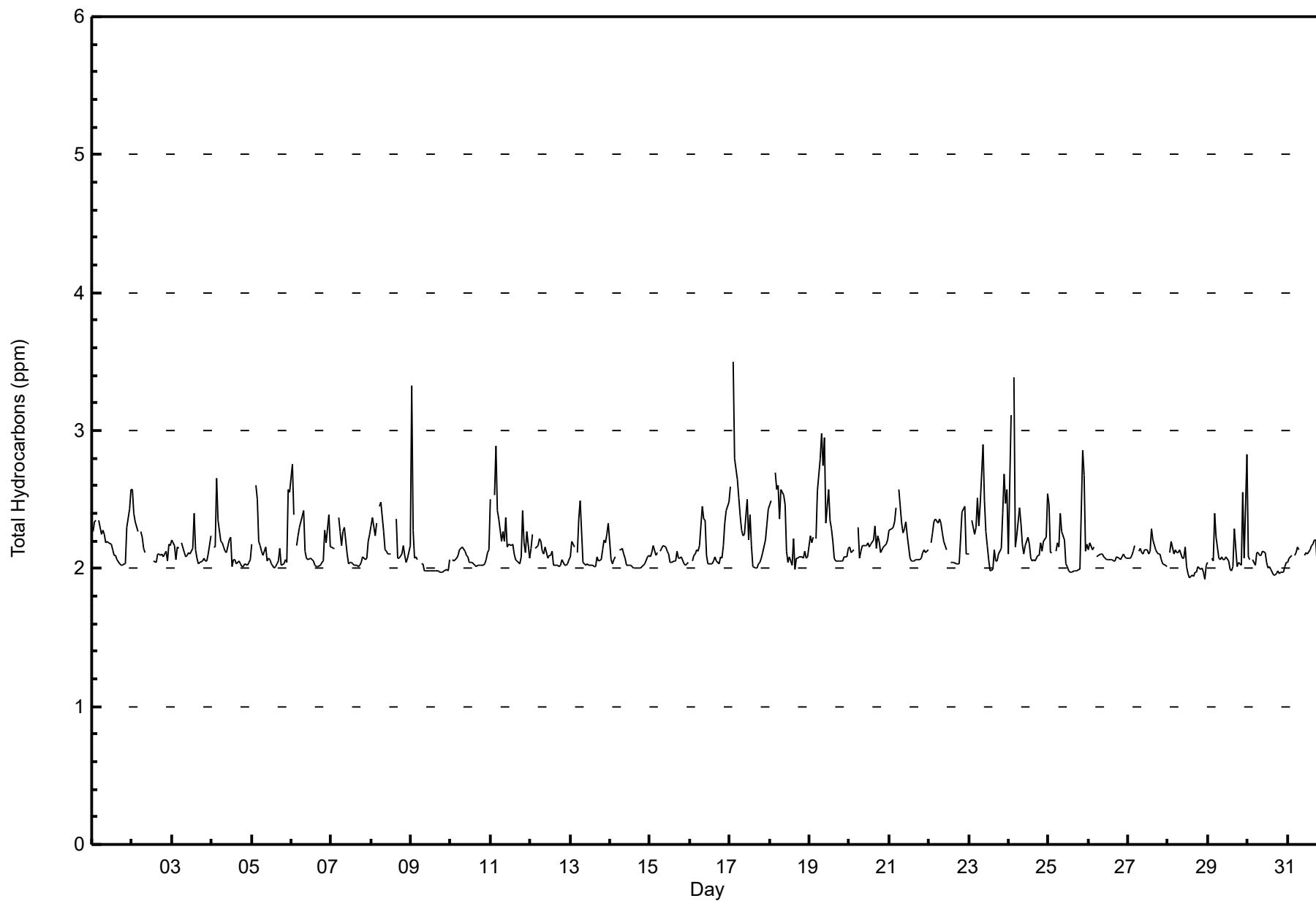
Pihew Point - July 2026

Maximum Value: 3.5 ppm on Jul 17 03:00																			Maximum Daily Average: 2.3 ppm on Jul 17																			Hours in Service: 744	
Minimum Value: 1.9 ppm on Jul 28 23:00																			Minimum Daily Average: 2.0 ppm on Jul 30																			Hours of Data: 703	
Maximum Diurnal Average: 2.3 ppm at hour 4																			Minimum Diurnal Average: 2.1 ppm at hour 18																			Hours of Missing Data: 41	
Monthly Average: 2.16 ppm																			Percentiles: P ₁ = 2.0 P ₁₀ = 2.0 Q ₁ = 2.1 Median = 2.1 Q ₃ = 2.2 P ₉₀ = 2.4 P ₉₉ = 2.9																			Hours of Calibration: 35	
																																						Percent Operational Time: 99.2	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jul	2.3	2.3	2.4	Z	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.3	2.4	2.6	2.2	2.6													
2-Jul	2.6	2.4	2.3	2.3	Z	2.3	2.2	2.1	2.1	C	C	C	C	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.6													
3-Jul	2.2	2.2	2.1	2.2	2.1	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.1	2.4														
4-Jul	Z	2.2	2.2	2.7	2.4	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.7														
5-Jul	2.2	Z	2.6	2.5	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.0	2.6	2.6	2.2														
6-Jul	2.8	2.4	Z	2.2	2.2	2.3	2.4	2.4	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.2	2.4	2.2	2.2	2.8													
7-Jul	2.2	2.1	2.1	Z	2.4	2.3	2.2	2.3	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.1	2.4													
8-Jul	2.3	2.4	2.2	2.3	Z	2.4	2.5	2.3	2.1	2.1	2.1	2.1	2.1	PF	PF	2.4	2.1	2.1	2.1	2.2	2.1	2.0	2.1	2.2	2.2	2.5													
9-Jul	3.3	2.3	2.1	2.1	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	3.3														
10-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2													
11-Jul	2.5	Z	2.5	2.9	2.4	2.4	2.2	2.3	2.2	2.4	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.1	2.4	2.2	2.1	2.3	2.1	2.3	2.9													
12-Jul	2.1	2.2	Z	2.1	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.2													
13-Jul	2.1	2.2	2.2	Z	2.1	2.4	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.1	2.5													
14-Jul	2.1	2.0	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1													
15-Jul	2.1	2.1	2.2	2.1	2.1	Z	2.1	2.1	2.2	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.2													
16-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.2	2.5	2.4	2.3	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.2	2.3	2.4	2.5	2.2	2.5													
17-Jul	2.6	Z	3.5	2.8	2.6	2.5	2.4	2.3	2.2	2.2	2.5	2.2	2.4	2.2	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.3	2.4	2.3	3.5													
18-Jul	2.5	2.5	Z	2.7	2.6	2.6	2.4	2.6	2.5	2.5	2.1	2.0	2.1	2.0	2.2	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.7													
19-Jul	2.2	2.2	2.2	Z	2.2	2.6	2.8	3.0	2.7	3.0	2.3	2.6	2.4	2.3	2.2	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.3	3.0													
20-Jul	2.2	2.1	2.1	2.1	Z	2.3	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.3													
21-Jul	2.3	2.3	2.3	2.3	2.4	Z	2.6	2.3	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.6													
22-Jul	Z	2.2	2.3	2.3	2.4	2.3	2.4	2.3	2.3	2.2	2.1	M	M	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.4	2.5	2.1	2.1	2.2	2.5													
23-Jul	2.1	Z	2.3	2.2	2.3	2.5	2.3	2.5	2.9	2.5	2.3	2.2	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.4	2.7	2.5	2.6	2.3	2.9													
24-Jul	2.1	3.1	Z	3.4	2.2	2.2	2.4	2.3	2.2	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.5	2.3	3.4													
25-Jul	2.5	2.1	2.1	Z	2.1	2.2	2.2	2.4	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.9	2.7	2.1	2.2	2.2	2.9													
26-Jul	2.1	2.2	2.1	2.2	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2													
27-Jul	2.1	2.1	2.1	2.1	2.2	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.3													
28-Jul	Z	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.2													
29-Jul	2.0	Z	2.1	2.1	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.6	2.1	2.8	2.1	2.8													
30-Jul	2.1	2.1	Z	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1													
31-Jul	2.0	2.1	2.1	Z	2.1	2.1	2.2	2.1	M	M	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.0	2.0	2.1	2.3	2.2	2.1	2.1	2.3													
2.3 2.2 2.2 2.3 2.2 2.3 2.2 2.2 2.2 2.2 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.2 2.2 2.2																									Diurnal Average														
3.3 3.1 3.5 3.4 2.6 2.6 2.8 3.0 2.9 3.0 2.5 2.6 2.4 2.4 2.3 2.4 2.3 2.2 2.2 2.4 2.9 2.7 2.6 2.8																									Diurnal Maximum														
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																																							



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Pihew Point - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Pihew Point - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	177	25.18	25.18
2.1 - 3.0	522	74.25	99.43
3.1 - 10.0	4	0.57	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Pihew Point - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	8	4	4	5	4	5	18	10	8	34	56	6	4	3	2	6	177
2.1 - 3.0	36	42	14	14	30	48	52	47	43	42	38	29	18	22	18	28	521
3.1 - 10.0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	1	0	4
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	44	47	19	19	34	53	70	58	51	76	94	35	22	25	21	34	702

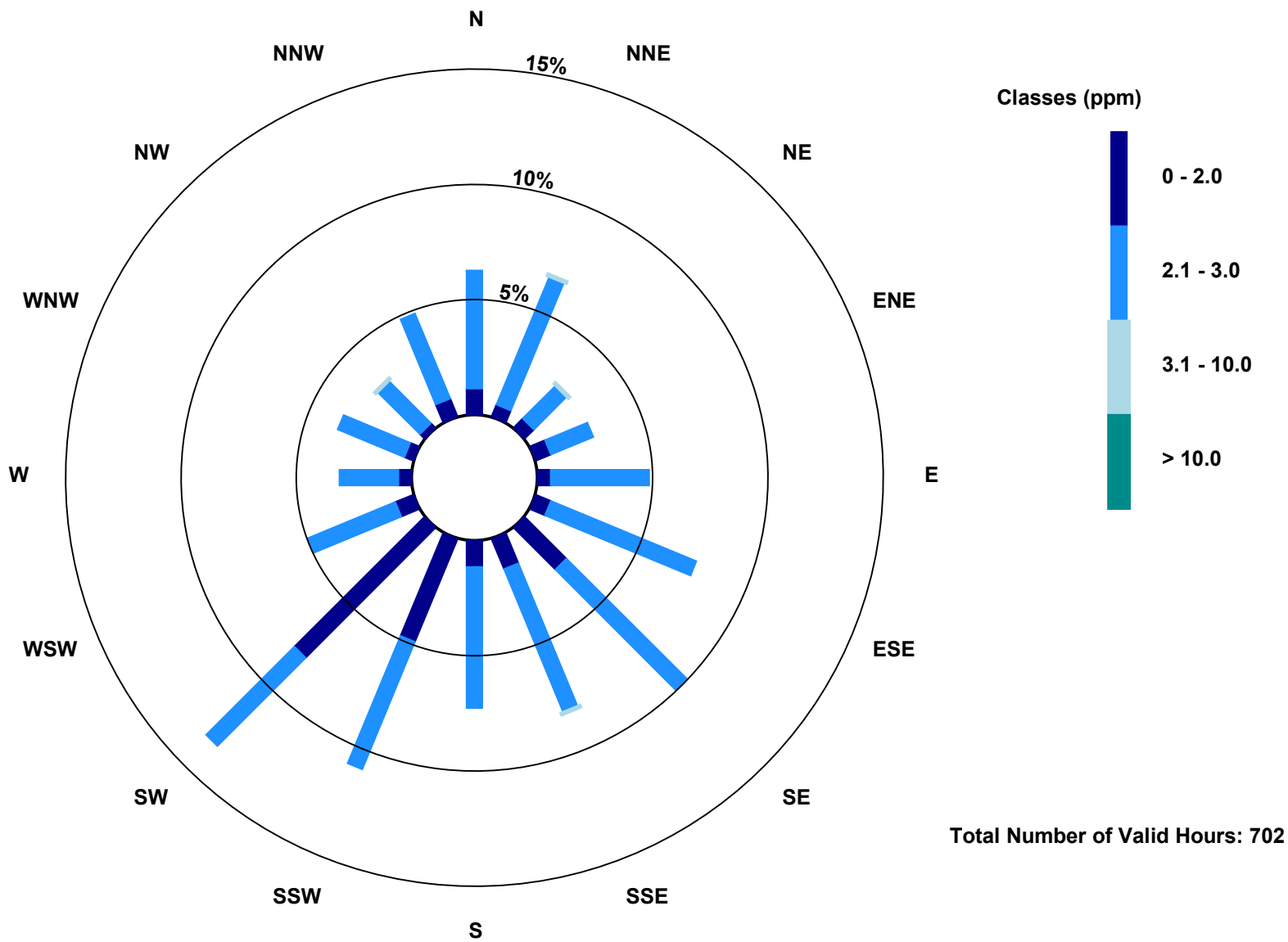
Total Number of Valid Hours: 702

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Total Hydrocarbons (THC) - ppm
Pihew Point

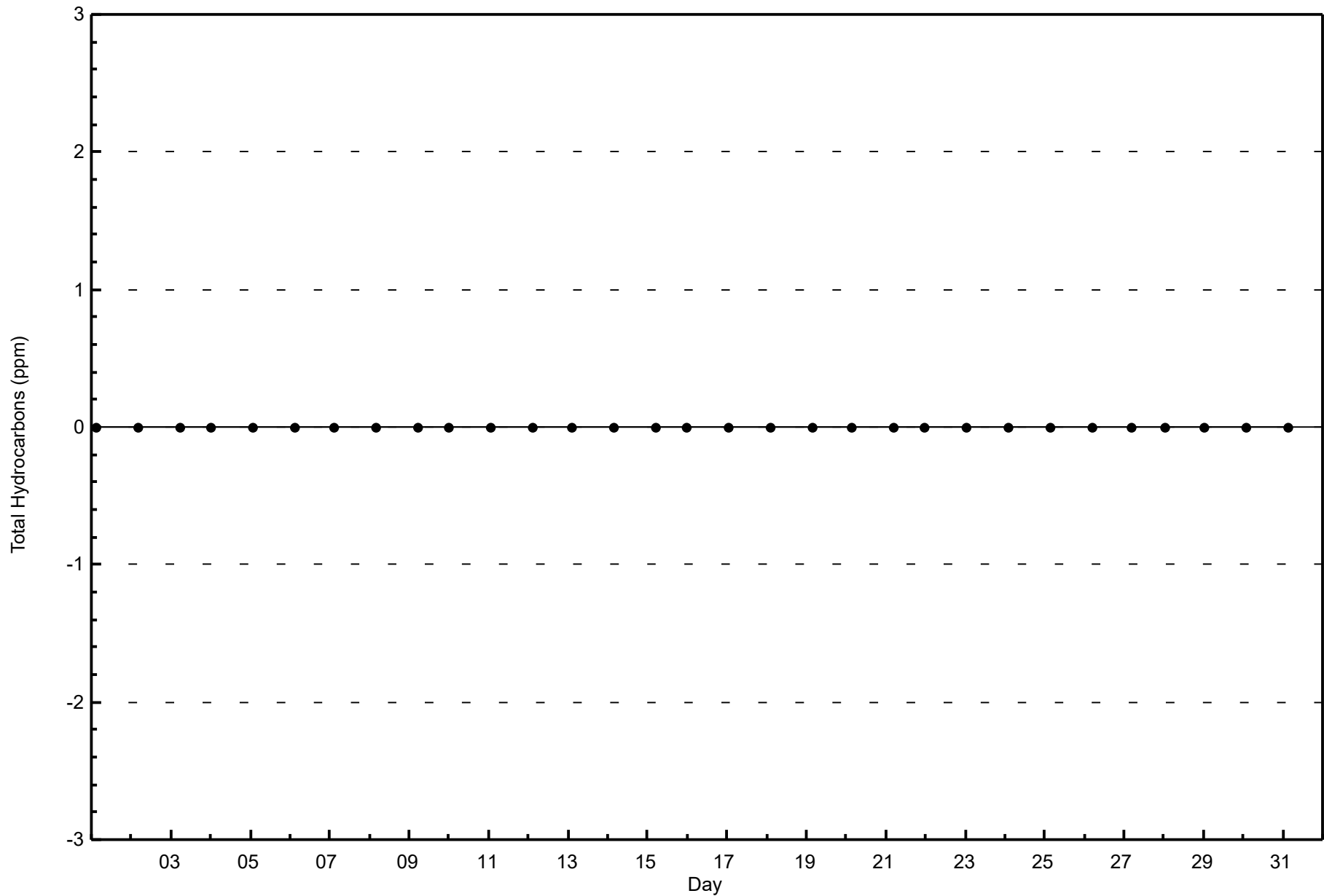


Total Number of Valid Hours: 702



Wood Buffalo Environmental Association
Zero Responses

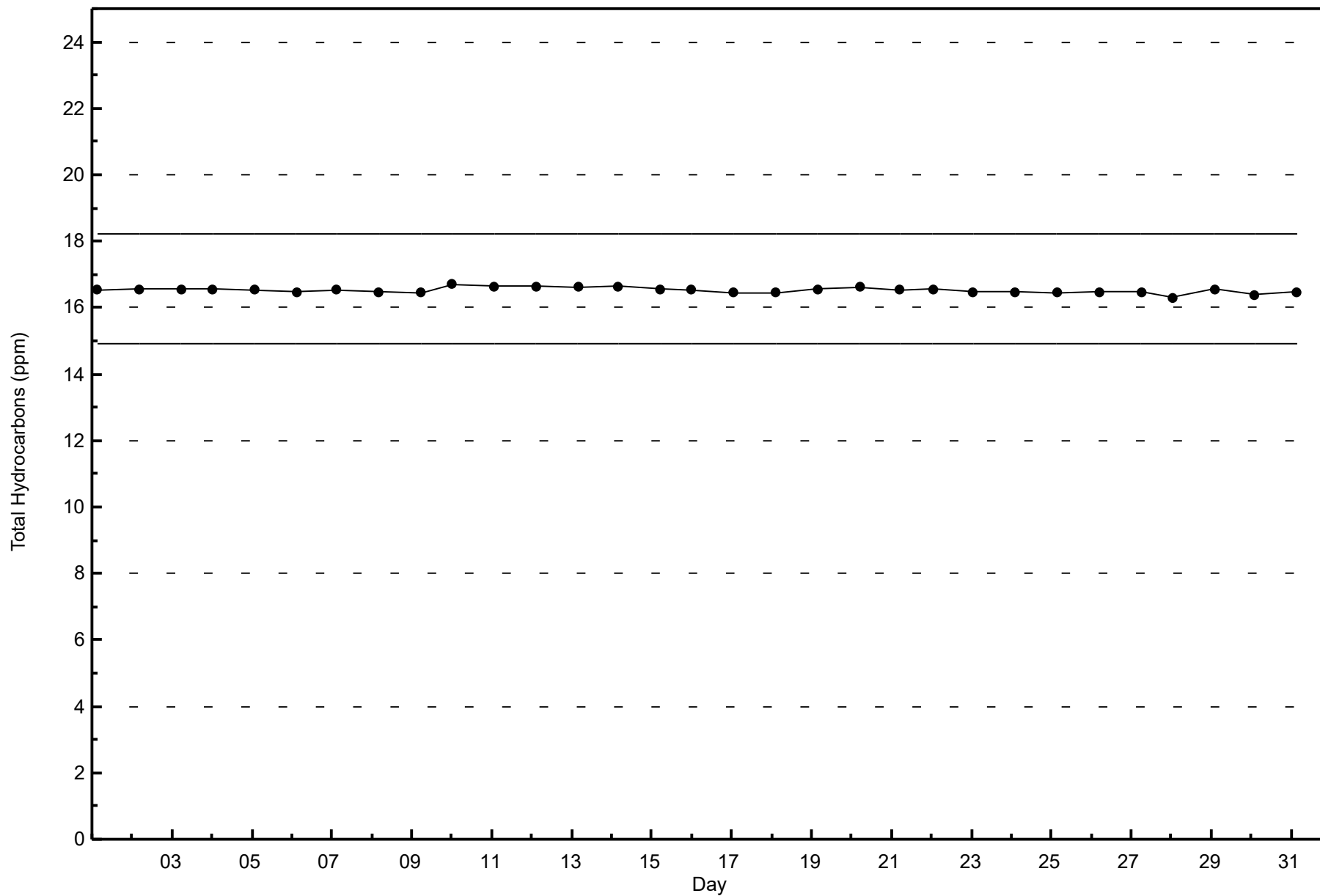
Total Hydrocarbons (THC) - ppm
Pihew Point - July 2026





Wood Buffalo Environmental Association
Span Responses

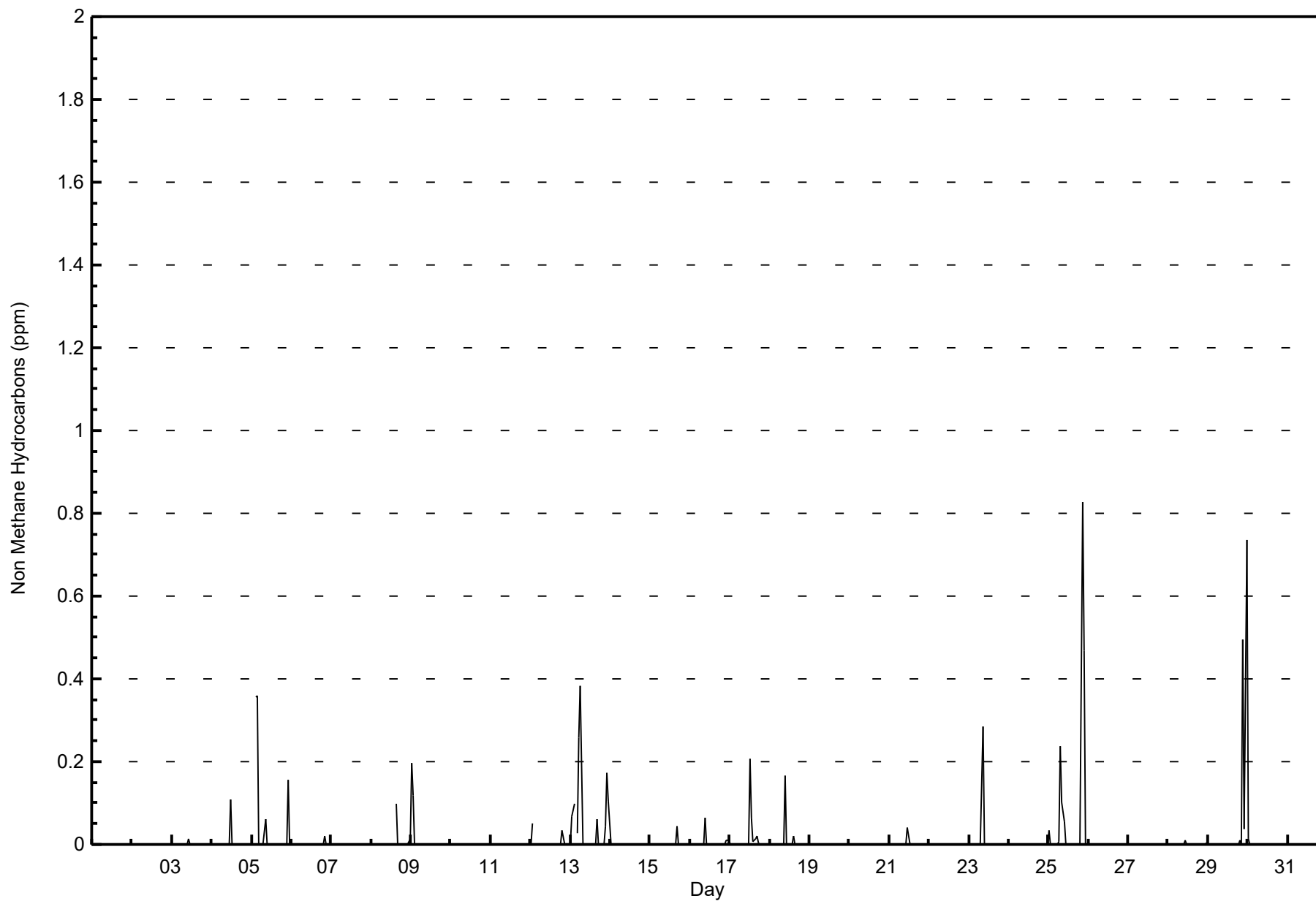
Total Hydrocarbons (THC) - ppm
Pihew Point - July 2026





Wood Buffalo Environmental Association
Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm
Pihew Point - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Pihew Point - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	653	92.89	92.89
0.006 - 0.05	22	3.13	96.02
0.06 - 0.1	13	1.85	97.87
> 0.1	15	2.13	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm
Pihew Point - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 0.005	42	47	18	19	31	50	68	56	50	73	89	21	16	23	17	32	652
0.006 - 0.05	0	0	0	0	2	2	1	2	0	1	3	4	3	0	3	1	22
0.06 - 0.1	0	0	0	0	1	1	1	0	1	1	0	4	1	2	0	1	13
> 0.1	2	0	1	0	0	0	0	0	0	1	2	6	2	0	1	0	15
Totals	44	47	19	19	34	53	70	58	51	76	94	35	22	25	21	34	702

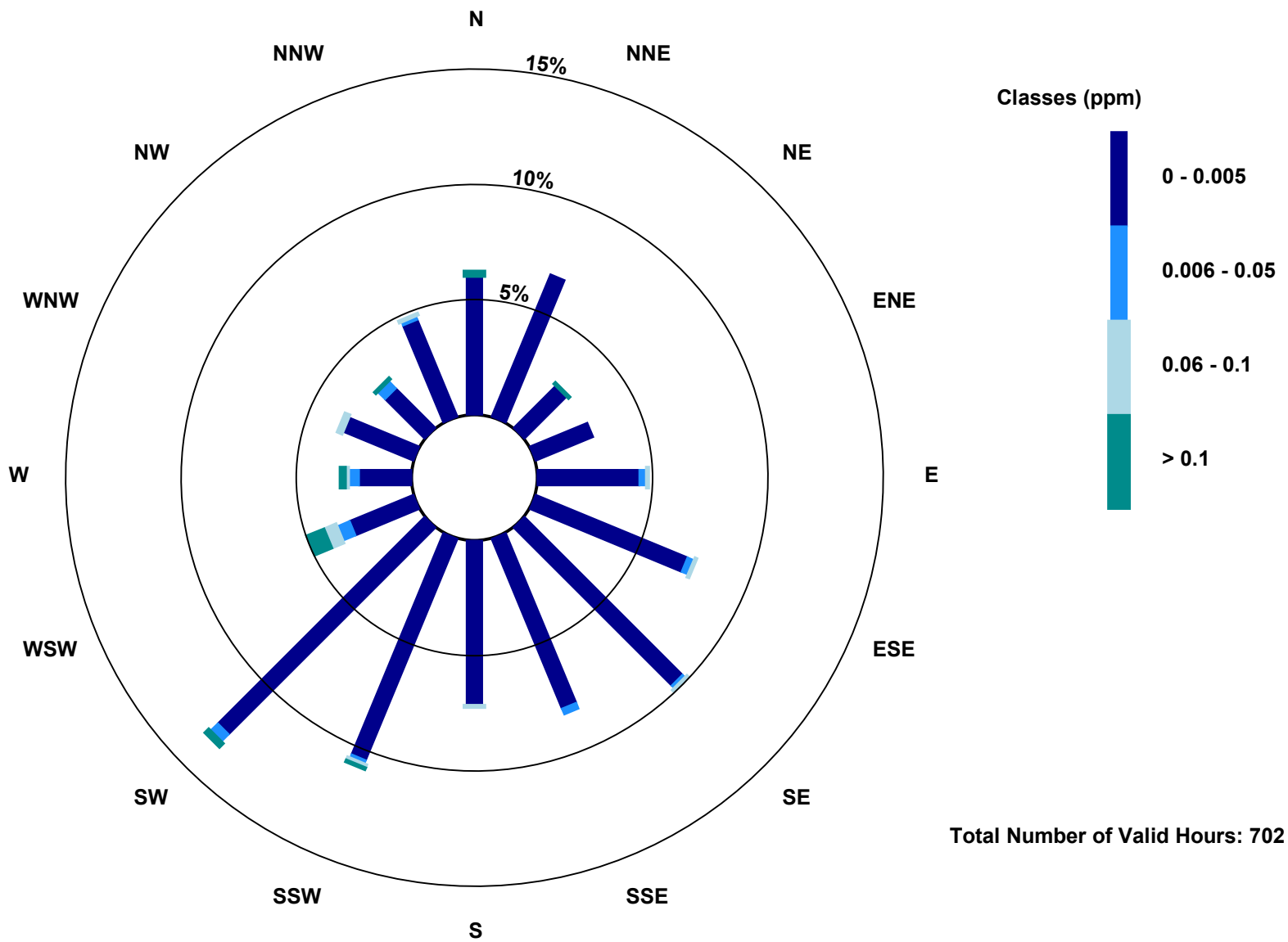
Total Number of Valid Hours: 702

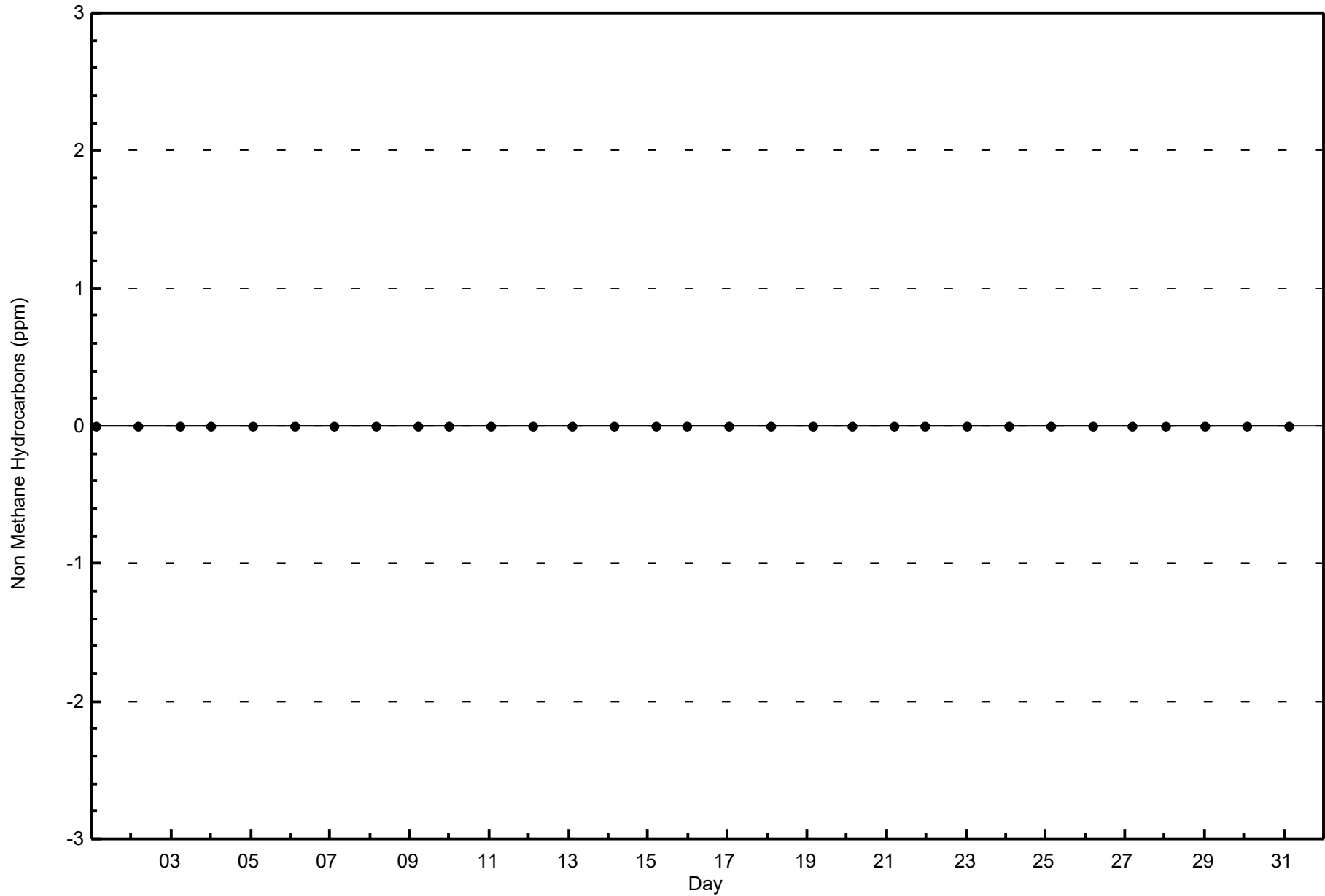
Total Number of Hours: 744

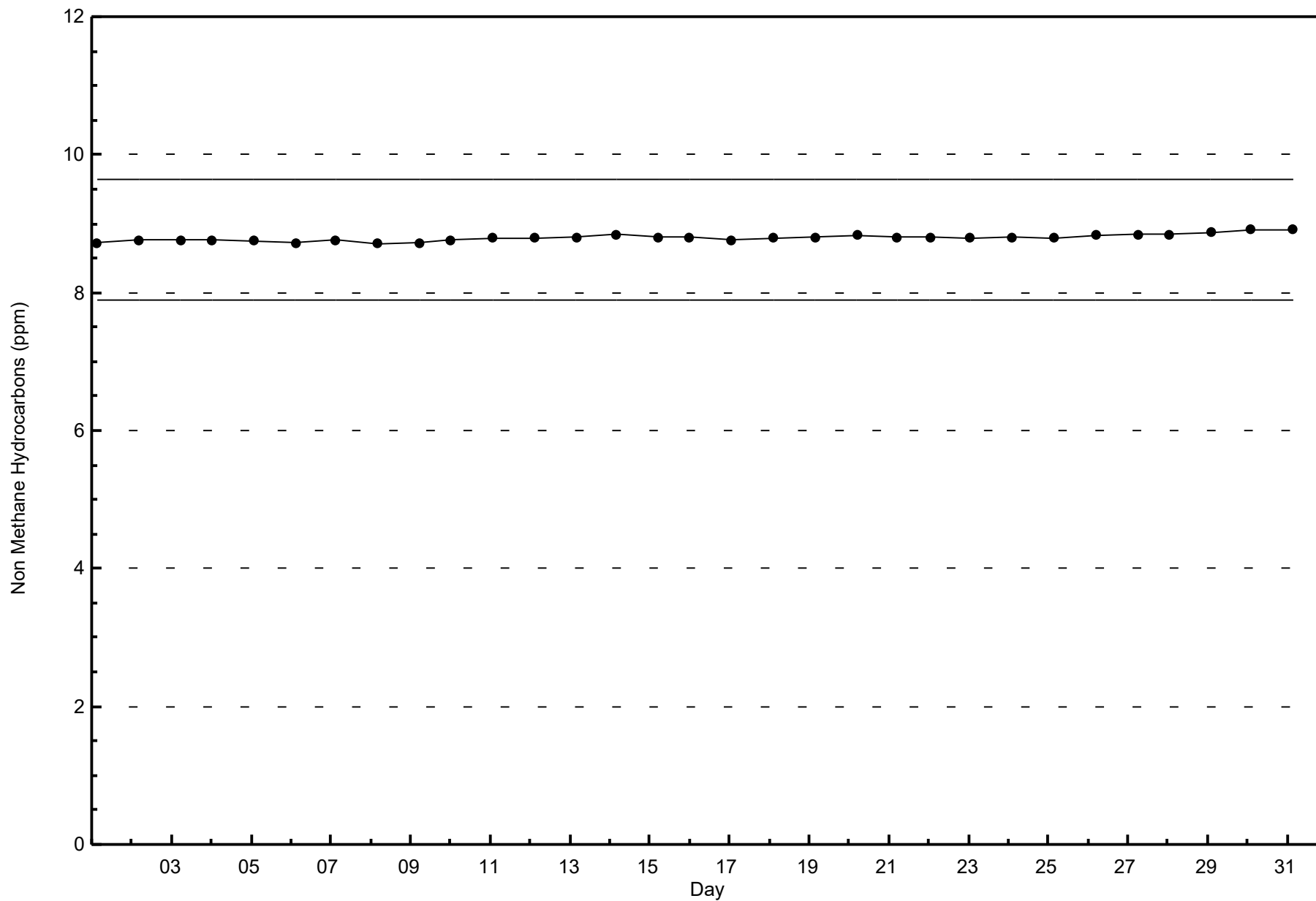


Wood Buffalo Environmental Association
Wind Rose Jul 2026

Non Methane Hydrocarbons (NMHC) - ppm
Pihew Point









Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH₄) - ppm

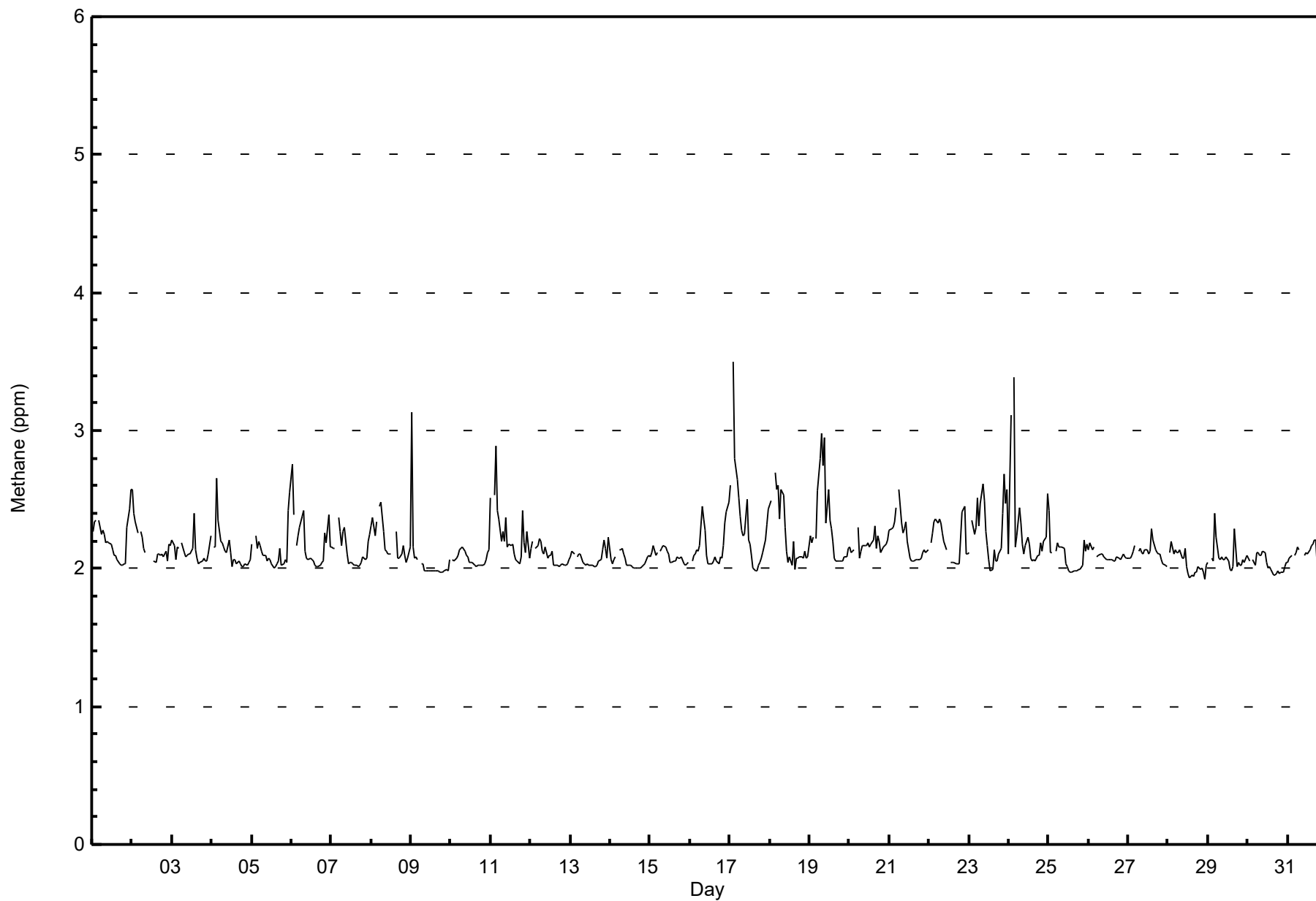
Pihew Point - July 2026

Number of Exceedances (AAAQO): Maximum Value: 3.5 ppm on Jul 17 03:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 2.3 ppm on Jul 17																			Hours in Service: 744 Hours of Data: 703 Hours of Missing Data: 41 Hours of Calibration: 35 Percent Operational Time: 99.2			
Minimum Value: 1.9 ppm on Jul 28 23:00 Maximum Diurnal Average: 2.3 ppm at hour 4 Monthly Average: 2.15 ppm																			Minimum Daily Average: 2.0 ppm on Jul 30 Minimum Diurnal Average: 2.1 ppm at hour 18 Percentiles: P ₁ = 2.0 P ₁₀ = 2.0 Q ₁ = 2.0 Median = 2.1 Q ₃ = 2.2 P ₉₀ = 2.4 P ₉₉ = 2.8																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum															
1-Jul	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.4	2.6	2.2	2.6														
2-Jul	2.6	2.4	2.3	2.3	Z	2.3	2.2	2.1	2.1	C	C	C	C	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.6													
3-Jul	2.2	2.2	2.1	2.2	2.1	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.4														
4-Jul	Z	2.2	2.2	2.7	2.4	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.7														
5-Jul	2.2	Z	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.4	2.6	2.1	2.6														
6-Jul	2.8	2.4	Z	2.2	2.2	2.3	2.4	2.4	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.2	2.4	2.2	2.2	2.8														
7-Jul	2.2	2.1	2.1	Z	2.4	2.3	2.2	2.3	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.1	2.4														
8-Jul	2.3	2.4	2.2	2.3	Z	2.4	2.5	2.3	2.1	2.1	2.1	2.1	2.1	PF	PF	2.3	2.1	2.1	2.1	2.1	2.2	2.1	2.0	2.1	2.2	2.2	2.5														
9-Jul	3.1	2.2	2.1	2.1	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	3.1														
10-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2														
11-Jul	2.5	Z	2.5	2.9	2.4	2.4	2.2	2.3	2.2	2.4	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.1	2.4	2.2	2.1	2.3	2.1	2.3	2.3	2.9														
12-Jul	2.1	2.2	Z	2.1	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2														
13-Jul	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.2														
14-Jul	2.1	2.0	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1														
15-Jul	2.1	2.1	2.2	2.1	2.1	Z	2.1	2.1	2.2	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.2														
16-Jul	Z	2.1	2.1	2.1	2.1	2.1	2.2	2.5	2.4	2.3	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.2	2.3	2.4	2.5	2.2	2.5															
17-Jul	2.6	Z	3.5	2.8	2.6	2.5	2.4	2.3	2.2	2.2	2.5	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.3	2.4	2.3	3.5															
18-Jul	2.5	2.5	Z	2.7	2.6	2.6	2.4	2.6	2.5	2.3	2.1	2.0	2.1	2.0	2.2	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.7														
19-Jul	2.2	2.2	2.2	Z	2.2	2.6	2.8	3.0	2.7	3.0	2.3	2.6	2.4	2.3	2.2	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	3.0														
20-Jul	2.2	2.1	2.1	2.1	Z	2.3	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3														
21-Jul	2.3	2.3	2.3	2.3	2.4	Z	2.6	2.3	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.6														
22-Jul	Z	2.2	2.3	2.3	2.4	2.3	2.4	2.3	2.3	2.2	2.1	M	M	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.4	2.5	2.1	2.1	2.2	2.5															
23-Jul	2.1	Z	2.3	2.2	2.3	2.5	2.3	2.5	2.6	2.5	2.3	2.2	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.4	2.7	2.5	2.6	2.3	2.7															
24-Jul	2.1	3.1	Z	3.4	2.2	2.2	2.4	2.3	2.2	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.5	2.3	3.4															
25-Jul	2.4	2.1	2.1	Z	2.1	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.2	2.1	2.4															
26-Jul	2.1	2.2	2.1	2.2	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2															
27-Jul	2.1	2.1	2.1	2.1	2.2	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.3															
28-Jul	Z	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.2															
29-Jul	2.0	Z	2.1	2.1	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.4															
30-Jul	2.1	2.1	Z	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1														
31-Jul	2.0	2.1	2.1	Z	2.1	2.1	2.2	2.1	M	M	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.0	2.0	2.1	2.3	2.1	2.1	2.1	2.3															
2.3 2.2 2.2 2.3 2.2 2.3 2.2 2.2 2.2 2.2 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.2 2.2																								Diurnal Average		2.2															
3.1 3.1 3.5 3.4 2.6 2.6 2.8 3.0 2.7 3.0 2.5 2.6 2.4 2.4 2.3 2.3 2.3 2.2 2.2 2.4 2.4 2.7 2.5 2.6																								Diurnal Maximum		2.6															
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																																									



Wood Buffalo Environmental Association
Hourly Averages

Methane (CH₄) - ppm
Pihew Point - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Methane (CH₄) - ppm
Pihew Point - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	182	25.89	25.89
2.1 - 3.0	517	73.54	99.43
3.1 - 10.0	4	0.57	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Methane (CH₄) - ppm
Pihew Point - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	8	4	4	5	4	5	18	10	8	34	58	6	5	3	3	7	182
2.1 - 3.0	36	42	14	14	30	48	52	47	43	42	36	29	17	22	17	27	516
3.1 - 10.0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	1	0	4
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	44	47	19	19	34	53	70	58	51	76	94	35	22	25	21	34	702

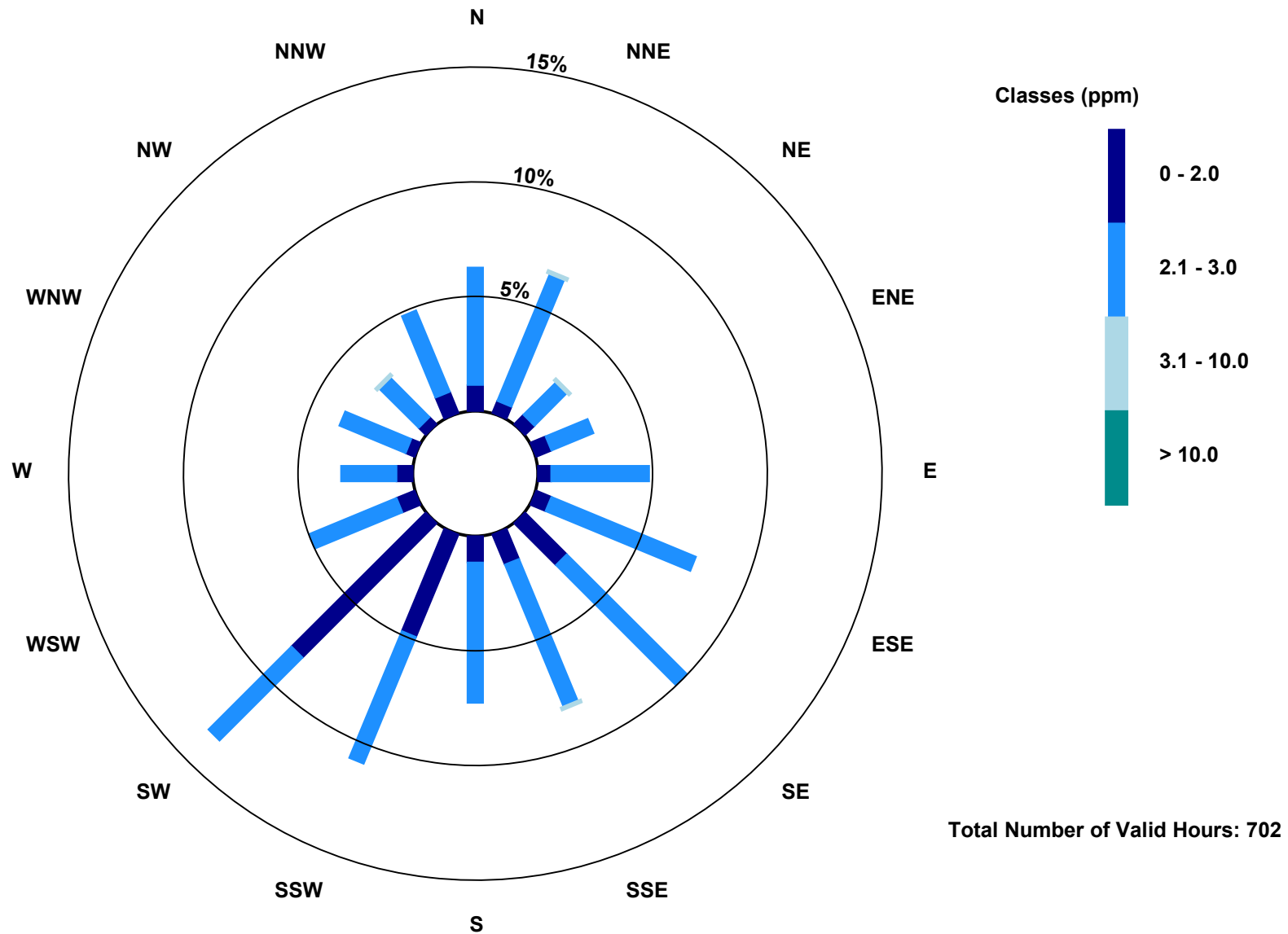
Total Number of Valid Hours: 702

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

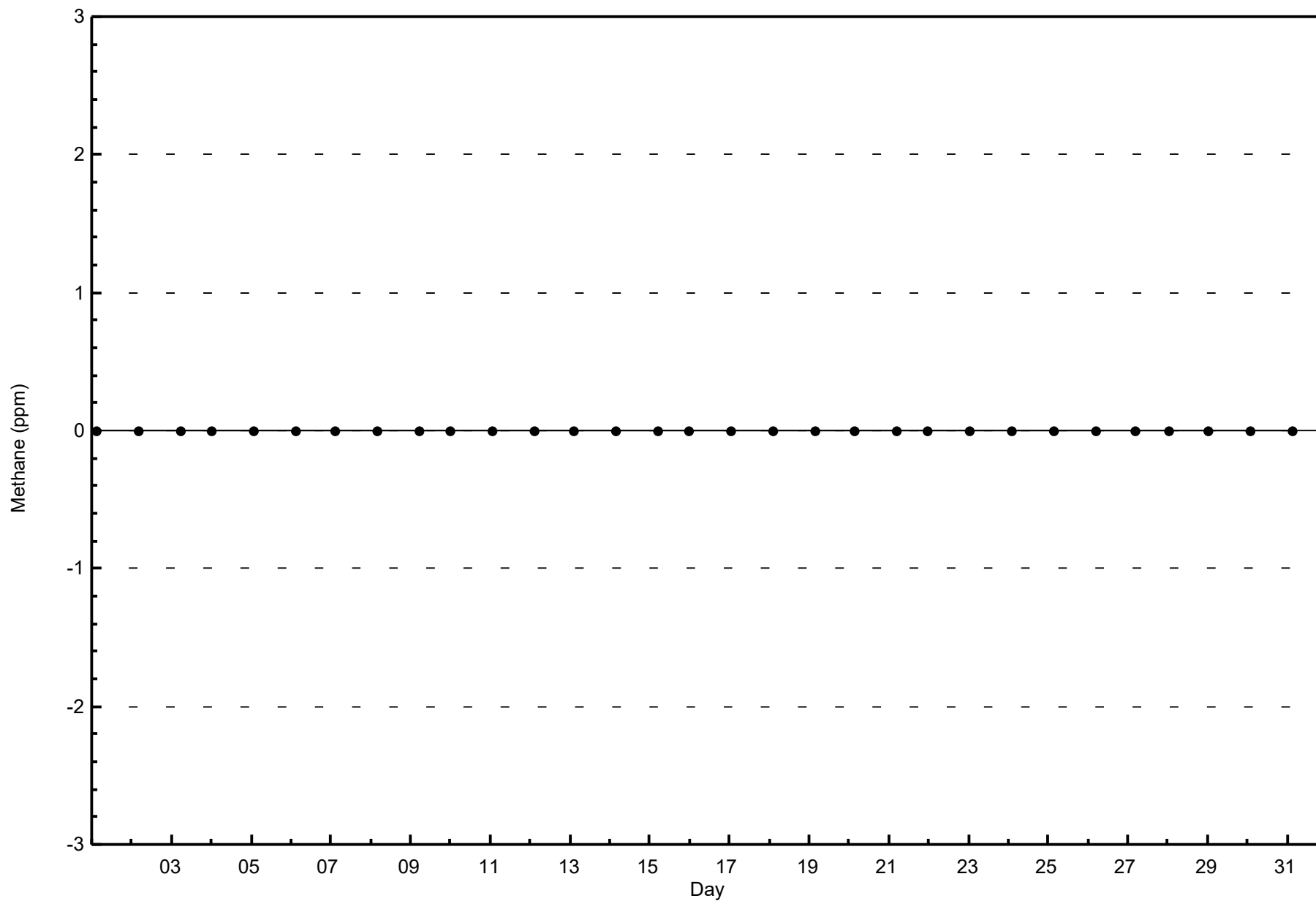
Methane (CH₄) - ppm
Pihew Point





Wood Buffalo Environmental Association
Zero Responses

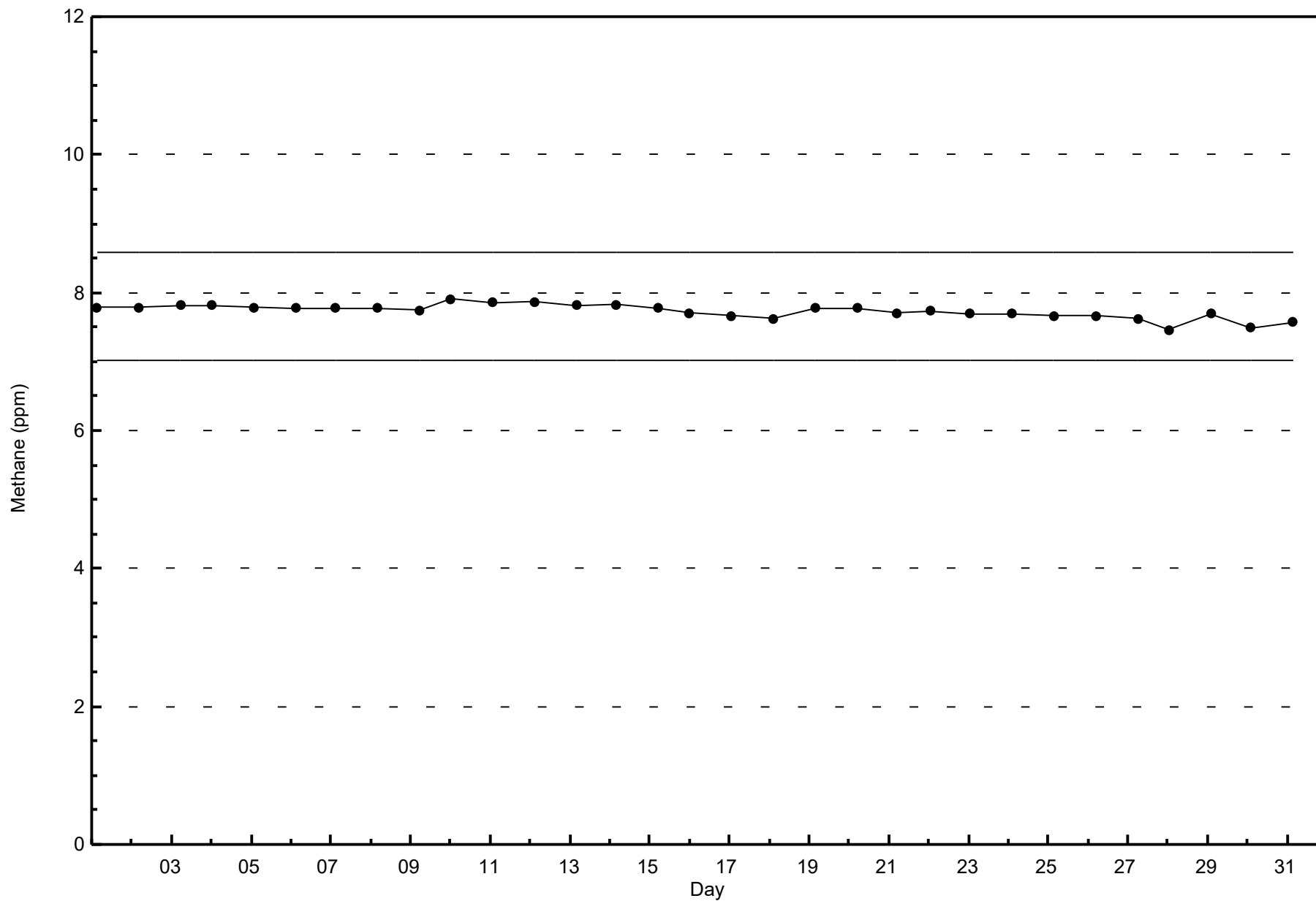
Methane (CH₄) - ppm
Pihew Point - July 2026





Wood Buffalo Environmental Association
Span Responses

Methane (CH₄) - ppm
Pihew Point - July 2026

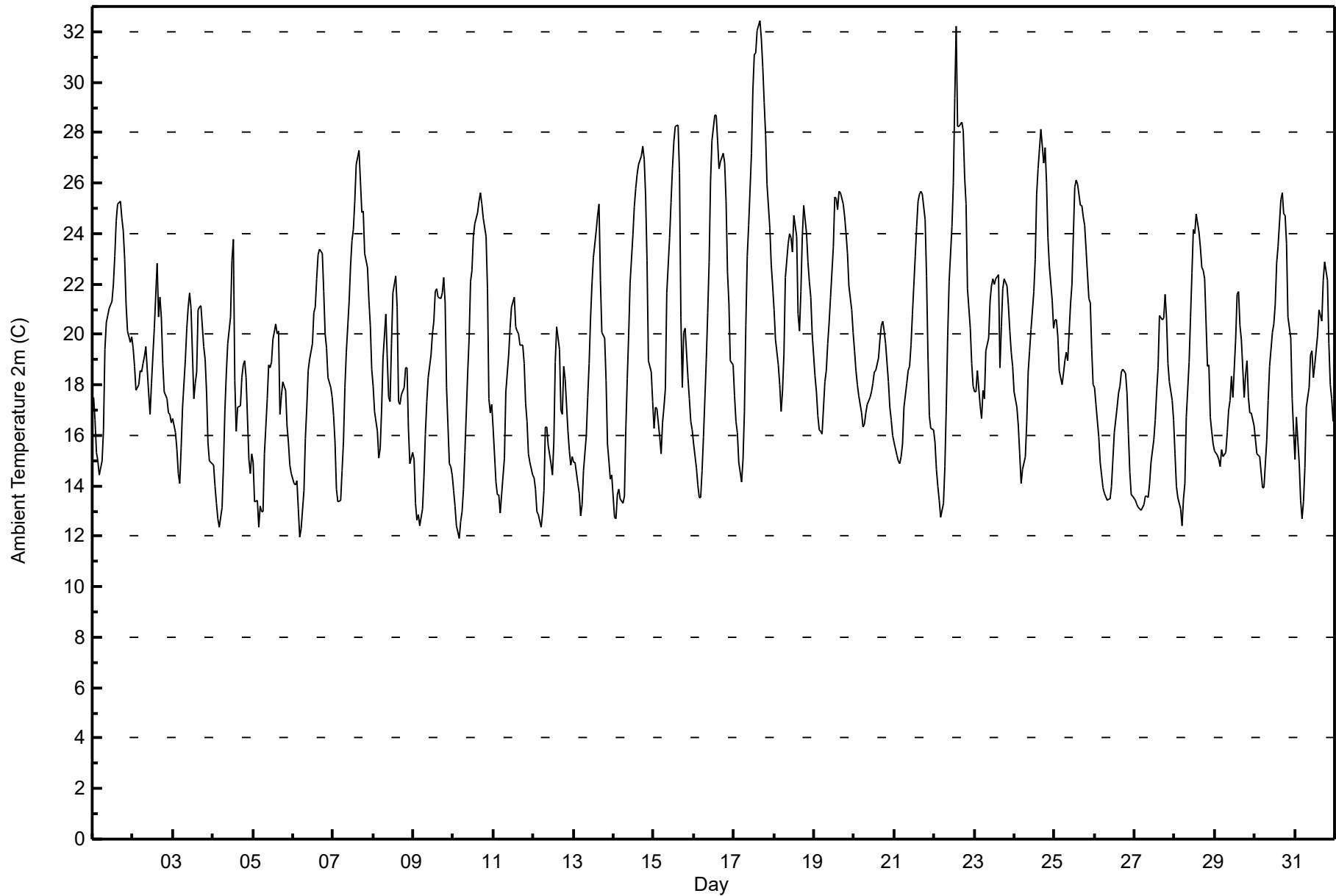


Maximum Value: 32.4 C on Jul 17 16:00										Maximum Daily Average: 24.0 C on Jul 17										Hours in Service: 744						
Minimum Value: 11.9 C on Jul 10 04:00										Minimum Daily Average: 15.7 C on Jul 26										Hours of Data: 744						
Maximum Diurnal Average: 23.2 C at hour 15										Minimum Diurnal Average: 14.2 C at hour 5										Hours of Missing Data: 0						
Monthly Average: 19.05 C										Percentiles: P ₁ = 12.4 P ₁₀ = 13.9 Q ₁ = 15.8 Median = 18.6 Q ₃ = 21.7 P ₉₀ = 25.1 P ₉₉ = 29.5										Hours of Calibration: 0						
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	17.5	16.6	15.4	15.0	14.4	15.0	16.2	19.4	20.4	20.8	21.0	21.3	22.0	23.1	24.5	25.1	25.3	24.6	24.1	23.0	21.2	20.1	19.7	19.9	20.2	25.3
2-Jul	19.4	18.7	17.8	18.0	18.5	18.5	18.8	19.1	19.5	17.7	16.8	18.1	19.2	20.2	22.8	20.7	21.5	20.6	18.8	17.8	17.5	16.9	16.8	16.5	18.8	22.8
3-Jul	16.7	16.1	15.4	14.5	14.1	15.5	17.1	19.0	20.3	21.1	21.7	21.0	17.4	18.1	18.5	21.0	21.1	21.1	19.5	19.0	17.7	15.7	15.0	14.9	18.0	21.7
4-Jul	14.8	14.0	13.3	12.7	12.4	13.1	14.9	17.0	18.5	19.7	20.7	22.9	23.8	18.2	16.2	17.1	17.2	18.3	18.8	19.0	18.3	15.1	14.5	15.3	16.9	23.8
5-Jul	15.0	13.3	13.4	12.3	13.2	13.0	13.0	15.2	17.5	18.8	18.7	18.9	19.8	20.4	20.0	20.1	16.8	17.5	18.1	17.8	16.4	15.7	14.8	14.5	16.4	20.4
6-Jul	14.1	14.0	14.2	13.1	12.0	12.3	13.8	15.9	17.1	18.6	19.0	19.6	20.9	21.1	22.2	23.1	23.4	23.2	21.7	20.0	19.4	18.3	17.9	17.5	18.0	23.4
7-Jul	16.8	15.7	13.9	13.4	13.4	14.6	15.8	17.9	19.3	21.3	22.7	23.7	24.2	25.3	26.7	27.3	26.0	24.8	24.9	23.2	22.6	21.4	20.4	18.6	20.6	27.3
8-Jul	17.9	16.9	16.2	15.1	15.5	17.0	19.1	20.8	19.1	17.5	17.3	19.6	21.7	22.3	21.1	17.4	17.2	17.6	17.9	18.7	18.7	16.3	14.9	15.3	18.0	22.3
9-Jul	15.1	13.3	12.7	12.9	12.4	13.1	14.4	16.0	17.4	18.3	19.2	20.0	20.5	21.7	21.8	21.5	21.4	21.7	22.3	21.2	17.9	14.9	14.7	14.5	17.5	22.3
10-Jul	13.8	13.2	12.4	11.9	12.6	13.0	13.9	15.3	18.5	19.9	22.1	22.6	23.9	24.4	24.8	25.3	25.6	25.2	24.6	23.9	21.8	17.5	16.9	17.2	19.2	25.6
11-Jul	16.3	14.2	13.6	13.7	12.9	13.7	15.1	17.7	18.4	19.2	20.3	21.1	21.5	20.3	20.2	20.0	19.6	19.6	18.8	17.3	16.6	15.3	14.9	14.4	17.3	21.5
12-Jul	14.3	13.9	13.0	12.9	12.4	12.9	13.8	16.3	16.3	15.6	14.9	14.4	15.7	18.9	20.3	19.4	17.0	16.9	18.8	18.2	16.2	15.4	14.8	15.2	15.7	20.3
13-Jul	14.9	14.9	14.1	13.7	12.8	13.2	14.6	16.0	17.5	18.9	20.6	22.0	23.1	24.1	24.7	25.2	22.2	20.1	19.9	18.2	15.6	15.0	14.3	14.5	17.9	25.2
14-Jul	12.8	12.7	13.6	13.9	13.5	13.3	13.6	16.3	18.3	20.0	22.0	23.9	25.1	25.8	26.3	26.8	27.1	27.5	26.9	25.5	22.9	18.9	18.5	17.4	20.1	27.5
15-Jul	16.3	17.1	17.1	16.0	15.2	16.5	17.1	17.8	21.7	23.8	25.2	26.6	27.6	28.2	28.3	26.4	20.7	17.9	20.1	20.3	18.3	17.4	16.5	16.2	20.3	28.3
16-Jul	15.6	14.7	14.1	13.5	13.6	14.6	15.9	19.0	20.9	22.9	26.0	27.7	28.7	28.7	27.7	26.6	26.8	27.2	26.8	25.3	22.5	21.3	18.9	18.8	21.6	28.7
17-Jul	17.6	16.5	16.1	15.0	14.2	15.0	17.0	20.3	23.1	24.3	27.2	29.7	31.1	31.1	32.1	32.4	31.7	30.6	29.2	27.9	25.9	24.2	22.8	21.9	24.0	32.4
18-Jul	21.0	19.8	18.8	18.0	16.9	17.8	19.2	22.2	23.6	24.0	23.8	23.3	24.7	23.9	20.8	20.1	21.7	23.9	25.1	24.0	22.9	22.1	21.5	20.0	21.6	25.1
19-Jul	18.4	17.7	16.8	16.2	16.1	16.0	18.1	18.6	19.6	20.5	21.5	23.5	25.5	25.4	25.0	25.7	25.6	25.2	24.6	24.0	23.2	21.9	21.0	20.1	21.3	25.7
20-Jul	19.3	18.5	18.0	17.6	16.9	16.3	16.5	16.9	17.3	17.5	17.8	18.0	18.5	18.6	19.1	19.8	20.4	20.5	20.1	19.6	18.1	17.1	16.6	16.0	18.1	20.5
21-Jul	15.7	15.2	15.0	14.9	15.1	15.6	17.1	18.1	18.6	18.7	19.6	20.8	23.1	24.3	25.3	25.5	25.6	25.5	24.5	22.3	19.2	16.8	16.3	16.2	19.5	25.6
22-Jul	15.7	14.7	14.0	13.4	12.8	13.3	14.8	17.2	20.0	22.1	24.3	26.0	29.4	32.2	28.2	28.3	28.4	28.1	26.2	25.2	21.8	20.3	18.8	17.9	21.4	32.2
23-Jul	17.7	17.7	18.6	17.2	16.6	17.8	17.4	19.3	19.8	21.3	21.9	22.2	22.0	22.2	22.4	18.7	20.3	21.8	22.2	21.9	21.2	20.1	19.3	18.7	19.9	22.4
24-Jul	17.7	17.1	16.4	15.2	14.1	14.7	15.1	16.6	18.5	19.3	20.2	21.7	23.0	25.5	26.6	27.4	28.1	26.8	27.4	26.0	23.8	22.7	21.4	20.2	21.1	28.1
25-Jul	20.6	20.6	19.9	18.6	18.0	18.5	19.0	19.3	18.9	21.2	22.0	23.9	25.8	26.1	25.9	25.1	25.1	24.7	24.3	23.4	21.4	21.3	19.4	18.0	21.7	26.1
26-Jul	17.9	17.2	15.9	15.0	14.4	13.9	13.7	13.4	13.5	13.5	14.0	15.0	16.1	17.1	17.7	18.0	18.5	18.6	18.4	17.7	16.1	14.5	13.7	13.6	15.7	18.6
27-Jul	13.4	13.3	13.1	13.1	13.1	13.3	13.6	13.6	13.6	14.1	14.9	15.8	16.6	17.7	18.7	20.8	20.6	20.6	21.6	20.7	18.8	18.1	17.4	16.6	16.4	21.6
28-Jul	15.3	14.0	13.5	13.1	12.4	13.5	14.1	16.8	18.9	20.7	22.4	24.2	24.0	24.8	24.0	23.4	22.7	22.5	22.2	18.8	18.8	16.7	16.2	15.6	18.7	24.8
29-Jul	15.4	15.2	15.1	14.8	15.4	15.2	15.3	16.1	17.0	17.4	18.3	17.5	19.9	21.6	21.7	20.4	19.8	17.5	18.4	19.0	17.5	16.9	16.9	16.4	17.4	21.7
30-Jul	15.8	15.3	15.2	15.2	13.9	14.0	14.9	15.9	17.4	18.7	20.1	20.4	21.2	22.8	23.5	25.4	25.6	24.8	24.7	23.6	20.7	19.9	17.4	16.2	19.3	25.6
31-Jul	15.0	16.7	14.9	13.4	12.7	13.4	14.7	17.1	17.9	19.2	19.3	18.3	18.8	20.0	21.0	20.7	20.5	22.1	22.9	22.2	19.6	18.0	17.4	16.6	18.0	22.9
19.05																									Diurnal Average	
21.0																									Diurnal Maximum	



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Pihew Point - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Pihew Point - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	0	0.00	0.00
10 - 20	464	62.37	62.37
> 20	280	37.63	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

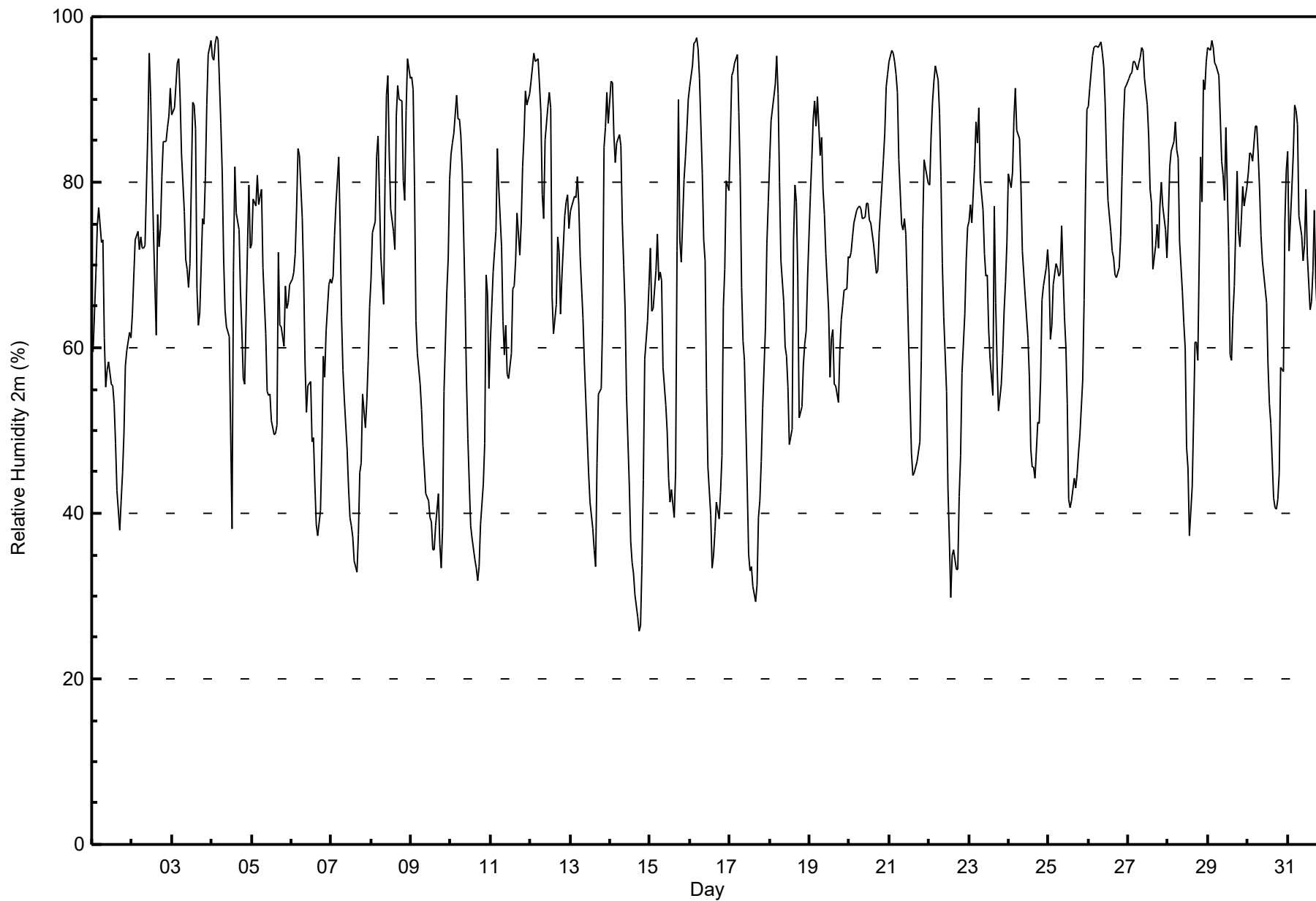
Pihew Point - July 2026

Maximum Value: 97.6 % on Jul 4 04:00																			Maximum Daily Average: 85.2 % on Jul 26						Hours in Service: 744	
Minimum Value: 25.7 % on Jul 14 18:00																			Minimum Daily Average: 53.4 % on Jul 9						Hours of Data: 744	
Maximum Diurnal Average: 86.2 % at hour 5																			Minimum Diurnal Average: 53.1 % at hour 15						Hours of Missing Data: 0	
Monthly Average: 69.18 %																			Percentiles: P ₁ = 31.6 P ₁₀ = 42.7 Q ₁ = 57.1 Median = 71.5 Q ₃ = 82.7 P ₉₀ = 91.5 P ₉₉ = 96.8						Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jul	59.5	64.3	69.0	74.8	76.9	72.6	73.1	61.1	55.2	57.2	58.3	55.5	55.4	53.2	48.5	42.7	38.0	41.5	44.9	49.6	57.7	59.7	61.9	61.1	58.0	76.9
2-Jul	64.1	68.6	73.0	74.1	71.8	73.4	72.0	72.1	72.4	86.1	95.7	90.3	81.9	74.0	61.5	76.1	72.2	74.4	80.6	85.0	84.9	86.6	88.0	91.3	77.9	95.7
3-Jul	88.2	89.0	91.8	94.3	94.9	90.2	83.5	76.5	70.7	69.4	67.3	70.2	89.6	89.3	86.5	67.2	62.8	64.3	75.6	74.9	80.6	89.3	95.4	97.1	81.6	97.1
4-Jul	95.0	94.8	96.8	97.6	97.3	87.2	81.1	70.9	64.6	62.5	61.4	49.8	38.1	69.4	81.9	76.3	74.2	66.7	61.9	56.3	55.6	72.2	79.6	72.1	73.5	97.6
5-Jul	72.6	78.0	77.2	80.9	77.3	78.3	79.2	69.7	61.7	54.7	54.3	54.4	51.2	49.5	49.7	50.7	71.6	62.7	62.6	60.2	67.4	64.7	65.5	67.6	65.1	80.9
6-Jul	68.4	69.2	71.4	76.9	84.0	83.2	75.8	68.6	58.2	52.1	55.4	56.0	48.7	49.2	43.4	38.6	37.3	40.4	48.0	59.0	56.5	62.0	67.5	68.3	59.9	84.0
7-Jul	67.8	68.7	73.6	77.3	83.1	74.5	63.8	57.3	53.7	47.6	43.1	39.4	38.4	37.1	34.2	32.9	37.5	44.9	46.2	54.4	50.4	53.5	58.5	64.9	54.3	83.1
8-Jul	68.3	73.9	75.2	83.1	85.6	78.5	71.1	65.3	80.5	90.4	92.9	83.2	76.7	74.0	71.9	88.0	91.6	89.9	89.8	80.2	77.7	88.6	94.9	92.5	81.8	94.9
9-Jul	92.8	91.3	79.5	63.2	59.4	55.5	52.6	48.1	45.5	42.3	41.5	39.5	39.0	35.6	35.6	38.5	42.3	36.3	33.3	38.4	54.8	66.7	70.8	80.3	53.4	92.8
10-Jul	83.4	84.7	85.9	90.4	87.6	87.7	85.6	81.3	65.9	56.0	48.9	43.6	38.5	36.9	34.4	33.4	31.8	33.5	38.7	43.5	48.6	68.9	66.5	55.0	59.6	90.4
11-Jul	60.6	69.2	71.7	74.1	84.0	79.3	72.2	63.2	59.1	62.7	56.8	56.3	59.3	67.1	67.5	70.6	76.2	71.2	75.1	81.9	85.6	91.0	89.3	90.7	72.3	91.0
12-Jul	92.2	94.0	95.5	94.7	94.8	91.9	88.6	78.5	75.6	85.1	89.1	90.9	89.0	66.1	61.7	65.3	73.4	71.5	64.1	68.7	76.0	77.6	78.5	74.4	80.7	95.5
13-Jul	76.5	77.2	78.2	78.1	80.7	77.3	71.0	63.5	58.1	53.7	49.3	44.9	41.3	38.2	35.6	33.6	46.1	54.4	55.2	63.4	84.2	86.6	90.9	87.1	63.5	90.9
14-Jul	92.3	92.0	85.7	82.3	84.7	85.8	84.4	75.3	70.0	64.7	54.2	43.3	36.6	34.0	32.7	30.1	27.4	25.7	26.5	33.7	44.0	58.6	63.3	67.4	58.1	92.3
15-Jul	72.0	64.4	64.8	69.4	73.8	68.2	69.1	68.2	57.6	53.0	49.8	44.3	41.3	42.9	39.4	45.1	71.7	90.0	73.0	70.3	80.3	83.0	86.2	89.9	65.3	90.0
16-Jul	91.5	94.1	96.8	96.9	97.4	96.1	92.6	81.0	73.0	70.5	55.1	45.6	39.8	33.4	35.0	37.8	41.4	39.2	42.6	46.9	64.9	69.5	80.2	79.0	66.7	97.4
17-Jul	85.7	92.8	93.3	94.4	95.5	88.5	80.8	67.4	60.8	58.5	43.5	35.0	33.0	33.6	31.3	29.3	31.4	39.4	41.6	46.3	52.7	62.6	72.6	77.6	60.3	95.5
18-Jul	82.8	87.5	90.4	91.9	95.3	90.7	79.9	70.6	65.6	60.2	59.0	55.3	48.3	50.2	73.1	79.7	77.6	68.8	51.5	53.0	58.0	60.5	62.0	68.5	70.0	95.3
19-Jul	78.5	82.7	87.6	89.8	86.7	90.4	83.2	85.4	79.2	76.1	71.4	64.3	56.4	61.2	62.1	55.6	55.5	53.4	59.7	63.5	65.0	66.9	67.1	71.0	71.4	90.4
20-Jul	70.8	71.5	73.4	75.1	76.6	76.9	77.1	76.8	75.6	75.7	77.4	77.5	75.5	75.1	72.6	70.8	68.9	69.4	73.9	76.8	82.7	85.9	91.6	93.1	76.7	93.1
21-Jul	94.5	95.9	95.6	94.6	93.1	90.8	82.6	74.9	74.2	75.6	73.8	67.2	53.7	47.4	44.5	44.8	45.6	46.3	48.7	58.6	74.2	82.7	81.7	79.8	71.7	95.9
22-Jul	79.7	85.6	89.7	92.3	94.1	92.3	88.3	80.7	70.1	63.8	54.8	43.0	36.8	29.8	35.0	35.6	33.2	33.2	42.0	46.9	57.0	64.1	70.6	74.5	62.2	94.1
23-Jul	75.3	77.3	75.2	82.3	87.2	84.7	89.0	80.4	76.6	71.3	68.7	68.8	62.2	58.6	54.3	77.1	65.4	57.9	52.4	55.5	59.3	64.5	67.9	72.7	70.2	89.0
24-Jul	81.0	79.2	81.1	87.7	91.3	86.3	85.2	79.4	71.6	69.0	66.2	61.2	56.5	47.8	45.6	45.7	44.3	50.9	50.8	56.1	65.7	67.5	69.6	71.8	67.2	91.3
25-Jul	69.1	61.0	62.7	67.6	70.2	69.6	68.6	68.9	74.7	63.7	60.1	53.1	41.7	40.7	41.5	44.2	43.0	44.7	47.2	49.4	56.2	65.8	78.9	88.8	59.6	88.8
26-Jul	89.2	91.4	95.2	96.3	96.5	96.4	96.3	96.9	95.6	93.9	89.5	82.7	77.8	74.1	71.8	70.9	68.8	68.4	69.6	73.4	80.7	87.2	91.4	91.6	85.2	96.9
27-Jul	92.6	93.0	93.3	94.6	94.7	93.5	94.4	95.1	96.3	95.9	92.6	89.2	85.6	79.1	77.4	69.5	72.4	74.9	72.0	77.1	80.0	77.2	74.3	70.9	84.8	96.3
28-Jul	75.7	81.8	83.7	85.0	87.3	83.9	82.8	72.9	66.8	63.0	60.0	47.9	45.5	37.3	43.2	51.3	60.6	60.6	58.5	83.1	77.7	92.4	91.2	94.6	70.3	94.6
29-Jul	96.2	96.0	97.1	96.2	94.5	94.1	92.8	87.7	82.6	80.9	77.8	86.6	72.3	59.2	58.5	63.9	67.4	81.3	74.0	72.2	75.4	79.4	77.1	79.6	80.9	97.1
30-Jul	81.3	83.6	83.4	82.5	86.8	86.8	83.4	79.2	73.6	70.5	67.2	65.4	58.0	53.2	50.9	41.9	40.7	40.6	41.7	44.9	57.6	57.1	75.1	81.3	66.1	86.8
31-Jul	83.7	71.7	79.4	83.4	89.3	88.7	87.0	75.8	73.6	70.5	72.3	79.2	71.3	64.6	65.6	69.2	76.7	68.2	64.2	69.4	80.3	80.9	81.4	82.2	76.2	89.3
80.0 81.4 82.8 84.6 86.2 83.7 80.2 74.0 69.6 67.6 64.8 60.8 56.1 53.6 53.1 54.1 56.4 56.9 57.0 61.1 67.5 73.3 77.1 78.6																									Diurnal Average	
96.2 96.0 97.1 97.6 97.4 96.4 96.3 96.9 96.3 95.9 95.7 90.9 89.6 89.3 86.5 88.0 91.6 90.0 89.8 85.0 85.6 92.4 95.4 97.1																									Diurnal Maximum	



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Pihew Point - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Pihew Point - July 2026

Maximum Speed: 29 km/h on Jul 5 14:00																	Maximum Daily Speed Average: 12.6 km/h on Jul 26										Hours in Service: 744	
Minimum Speed Value: 0 km/h on Jul 8 06:00																	Minimum Daily Speed Average: 1.2 km/h on Jul 27										Hours of Data: 743	
Maximum Diurnal Speed Average: 2.9 km/h at hour 14																	Minimum Diurnal Speed Average: 0.9 km/h at hour 18										Hours of Missing Data: 1	
Monthly Average Velocity: 1.5 km/h 246.5 deg																	Percentiles: P ₁ = 1 P ₁₀ = 3 Q ₁ = 4 Median = 7 Q ₃ = 11 P ₉₀ = 16 P ₉₉ = 23										Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	ESE1	ESE1	S4	S4	SSW4	SSW4	SSE1	ESE7	ESE10	ESE10	ESE10	ESE10	ESE7	SSE4	SE6	SE8	SE8	SSE5	SSW2	SE3	SE2	ESE4	E4	ESE5	SE4.6	ESE10		
2-Jul	ESE4	SE3	SE4	ESE7	ESE9	ESE9	ESE11	SE7	SE7	SE7	SE6	ESE12	S8	SSW7	SSW9	SE9	ESE10	ESE10	ESE10	SE8	SE6	SE5	SE8	ESE9	SE7.1	ESE12		
3-Jul	SE8	SSW3	SSE1	SSE4	SE3	S4	SSE6	SE7	SE7	SE7	ESE9	SSE6	WSW11	NNE4	ESE9	S5	SW8	SSW5	E2	NE8	NE6	NNE5	NE3	E2	SE3.0	WSW11		
4-Jul	SE3	SSE1	N1	SSW5	S4	SSW7	SE3	S4	S4	SSE5	ESE7	SE6	S6	SW19	WSW7	SW8	SW9	SW11	SW12	SW11	SW6	SSE4	S3	SW11	SSW5.2	SW19		
5-Jul	WSW10	SW9	WSW10	WSW9	W10	SW5	SW7	WSW9	WNW10	NW17	WNW19	NW19	NW22	NNW29	N21	N16	NNW16	NNW11	NNW13	NNW18	N12	NNW23	NW17	NW18	NW11.6	NNW29		
6-Jul	NW13	WNW10	WNW9	WSW5	N2	WNW2	WNW5	NW5	N7	NW6	NNW7	E6	E6	E5	SW15	SW11	S2	NNE5	NE11	NE5	NW18	WNW8	N5	N10	NW3.8	NW18		
7-Jul	NNE9	NNE6	NNE3	NNE3	NNE5	NNE4	ENE5	ENE4	NE4	ENE5	E6	E5	ENE7	E6	SE1	S4	S4	SE3	ESE3	E6	ESE7	ESE6	ESE6	ESE4	ENE3.7	NNE9		
8-Jul	SE2	SE5	SE5	SE3	NE4	S0	E3	SSE4	ESE5	S3	E4	E11	E8	ESE5	NW3	WNW1	S3	SSW5	SSW6	W9	WSW5	S3	SE4	WSW5	SSE1.9	E11		
9-Jul	NE1	SSW7	SW10	SW13	SW14	SW14	SW15	WSW18	SW19	SW18	SW17	SW18	SW18	SW17	SW15	SSW11	SSW5	SW12	SW17	SSW11	ESE2	SSE2	SE2	SSE4	SW11.1	SW19		
10-Jul	SSE4	SE3	S2	SSE3	S6	NNW1	NNE2	WSW2	SSW6	SSW9	SSE7	SSW9	SSW12	SSW10	SSW11	SSW13	SW18	SW14	SW10	SSW5	SSW7	NW1	WSW5	SW6	SSW6.2	SW18		
11-Jul	NNW3	SE2	SW3	S2	S4	SSE4	SSE2	E3	SE3	E5	ESE4	E5	E5	SE6	ESE4	ESE5	S3	SSW4	WSW5	WNW10	NNE6	WSW3	SW8	SW8	SSE1.5	WNW10		
12-Jul	SW6	SSW6	S3	SSW8	SSW4	SSW5	S5	SSW8	SW13	SW7	SW11	SW12	ESE8	SE9	SSW7	SW13	SSW7	SSW8	SW14	SW16	SW14	SW14	SW14	WSW20	SW8.7	WSW20		
13-Jul	WSW23	WSW21	WSW18	WSW17	WSW14	WSW16	SW15	SW17	SW15	SW16	SW17	SW19	SW20	SW20	SW20	SW20	NNW21	NNE11	NNW9	NW15	N10	SW8	WSW3	W5	WSW12.2	WSW23		
14-Jul	SSW6	SSW5	SW11	SW7	SW8	SSW6	SW9	SW11	SW11	SW11	SW17	WSW14	SW13	WSW11	SW11	SSW10	SW10	SW9	SSW9	SSW6	SSE5	SE4	SE4	SE4	SW8.1	SW17		
15-Jul	SSE4	SE5	SSE4	S3	SSE3	S3	SSE3	S4	S5	SSE5	SSE6	SE8	SE10	SE10	SE8	SSE4	WSW13	E16	ESE12	SE3	SSW3	SSW2	SSW2	SE3	SSE4.5	E16		
16-Jul	SSE3	SSE2	SE3	SE4	ESE4	SSE4	SSE5	ESE7	ESE9	ESE8	SSW7	SSW9	SW14	SSW9	SW7	N9	ENE10	E8	NNE4	N7	NNE5	N5	NW0	NNW3	SE1.9	SW14		
17-Jul	S1	S1	SSE3	S6	SSE3	S6	SSE4	S4	ESE3	E5	ENE3	ENE2	SSW1	E5	ESE4	SE4	SSE3	N11	N14	N12	NNE13	NNE13	NNE12	N13	NE2.8	N14		
18-Jul	NNE10	N6	N5	NNE3	S5	SSE3	SSW3	NE3	WSW3	WSW11	SSW7	ESE15	SE7	WSW8	NW7	N10	ENE6	E6	SE11	ESE13	ESE12	ESE11	ESE10	SE6	ESE2.8	ESE15		
19-Jul	ENE1	NNE4	N4	NNE2	ESE3	SW3	NNW4	N14	N11	NNW8	NNW10	WNW8	N12	N22	N24	NNE21	N28	N28	NNW24	NNW21	N17	NNW16	NNW18	N18	N12.5	N28		
20-Jul	N24	N21	N18	N15	NW19	NNW14	N12	NNW11	NNW10	NNW7	N6	NNW9	NNW13	NNW10	NW8	NW8	NNW6	NW3	ENE3	NE4	S3	SSW5	UO	S2	NNW8.7	N24		
21-Jul	SSE4	S4	S2	SE1	S4	SSW4	SSW2	SW4	SSE2	ESE5	ESE4	E4	S2	SSW5	S5	SSW8	S6	SSW6	SSW4	SSW1	NNE1	E1	NE1	S5	S2.7	SSW8		
22-Jul	S7	SSE4	S4	SSE4	SSE4	S4	S4	SSW4	SSW4	S5	SSW8	SW11	SW8	SW8	SSW8	S7	S6	SSE5	SE5	SE5	SE4	SSE2	SE3	ESE3	S4.7	SW11		
23-Jul	SE3	SE5	SSW4	SSE4	ESE3	S3	SSW3	N3	N9	NNW17	N21	N15	NW24	NNW20	N10	W7	W9	WNW14	WNW15	WNW12	WNW9	W8	WNW11	NW14	NW7.3	NNW24		
24-Jul	NNW14	NW15	NW8	NNE7	NNE6	N4	SSW2	S1	SE2	E7	E8	E9	E9	SSE4	E7	E9	ESE8	SE5	SE5	SSE3	S2	NNW13	WNW4	SW7	NE1.9	NW15		
25-Jul	WSW8	SW9	SW7	SW8	SW10	SW11	SW12	WSW17	WSW13	WSW13	SW14	SW15	SW16	SW13	SW18	SW18	SW18	SW17	SW14	SW6	SW3	N9	NNE20	NNE15	SW9.3	NNE20		
26-Jul	NNE14	NNE15	N17	N17	NNE13	NNE13	NNE13	NNE14	NNE10	NNE13	NNE16	NNE13	NNE12	NNE9	NNE10	NNE11	NNE9	NNE11	NNE11	NNE13	NNE13	NNE13	NE12	NE11	NNE12.6	N17		
27-Jul	NE9	NE7	ENE5	ENE6	ENE5	ENE6	ENE8	NE5	NE7	ENE4	E4	SSW1	SW5	WSW7	NNW8	SE3	SE5	S5	SSW5	SSW4	SSW5	SSW7	SW12	SW7	ESE1.2	SW12		
28-Jul	SW5	SSW5	SW6	SSW4	SSW4	SSE4	SSE4	SSE4	SSE6	SE6	E9	SE6	SSE6	SE7	SSE4	ESE4	ENE8	ENE8	NNE8	NE5	NNE10	NE9	NNE22	NE17	E3.3	NNE22		
29-Jul	ENE23	E5	SSE5	S5	WNW13	WNW16	W17	W16	W16	W13	WNW13	WNW12	WNW15	WNW17	WNW16	W13	NW16	NNW23	W13	W13	WSW13	W15	W15	W14	WNW10.6	NNW23		
30-Jul	W14	W14	W17	W16	SSW4	WSW8	W7	W7	WNW11	NW9	NNW6	WNW1	N6	NW7	NE4	SSW6	SSW7	WSW5	W2	SSW6	SSE2	SSE4	SE3	SE4	W4.7	W17		
31-Jul	SW3	SW8	SSW3	SSE4	SSE5	SSE5	SSE4	SSE2	SE4	SSE4	SE5	SSE4	SSW8	S4	E4	SE3	E3	ESE4	SE4	SE3	SE3	SSE4	S4	S3	SSE3.3	SSW8		
NW1.1 W1.5WSW2.2 SW2.0 SW1.8 SW2.6 SW2.0 SW2.5 SW2.0WSW1.7 SW1.2 S1.9WSW2.8WSW2.9WSW2.5 SW2.5WSW1.8 W0.9 W1.3WNW1.5NNW1.1 NW1.5NNW1.3 NW1.4																										Diurnal Average		
N24 WSW21WSW18WSW17 NW19WNW16 W17WSW18 SW19 SW18 N21 NW19NNW24NNW29 N24 NNE21 N28 N28 NNW24 NNW21 NW18NNW23 NNE22 WSW20																										Diurnal Maximum		
UO - Unstable Operation																												
All monthly, daily, and diurnal averages have been calculated using vector methods																												



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

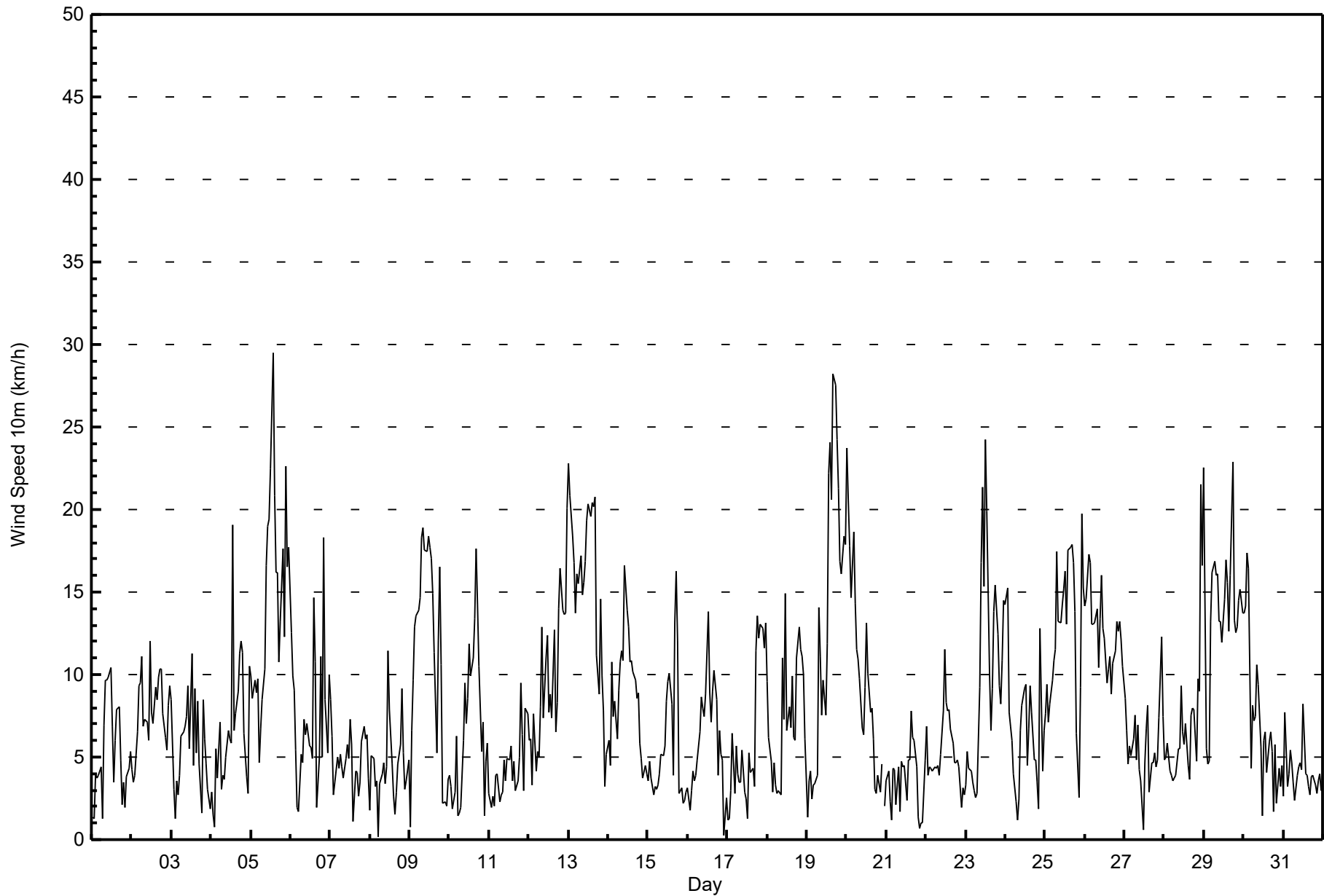
Pihew Point - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 11 km/h on Jul 15 17:00																		Hours in Service: 744							
Minimum Value: 1 km/h on Jul 7 19:00																		Hours of Data: 743							
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 2 Q ₃ = 4 P ₉₀ = 5 P ₉₉ = 7																		Hours of Missing Data: 1							
																		Hours of Calibration: 0							
																		Percent Operational Time: 99.9							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	2	2	1	2	1	2	1	3	3	3	3	2	2	2	2	4	4	2	1	1	1	1	1	1	4
2-Jul	2	1	2	2	3	3	3	3	3	3	2	4	4	3	4	3	3	4	3	3	2	2	2	3	4
3-Jul	3	2	2	1	1	2	2	3	3	3	4	5	7	4	3	2	2	2	2	2	2	1	1	1	7
4-Jul	1	2	2	1	2	3	1	2	2	2	3	2	3	11	3	3	2	3	3	3	2	1	3	3	11
5-Jul	4	2	3	2	3	2	2	3	4	6	6	6	8	5	5	4	6	3	2	4	2	5	3	3	8
6-Jul	3	3	2	3	3	2	2	2	2	2	3	2	3	3	4	4	2	5	3	2	4	3	2	1	5
7-Jul	1	2	1	1	2	2	1	1	1	2	2	2	2	2	3	3	2	1	1	1	1	1	1	1	3
8-Jul	2	1	1	1	1	1	2	1	3	4	3	3	3	3	7	3	1	2	4	3	4	2	1	3	7
9-Jul	2	2	5	3	3	4	4	5	5	5	5	5	5	4	5	6	2	6	5	5	1	3	2	2	6
10-Jul	2	2	2	2	3	2	1	2	3	4	3	4	5	4	4	5	5	4	4	3	3	1	2	2	5
11-Jul	3	1	2	1	2	1	1	1	1	2	2	2	2	2	2	2	1	2	1	3	2	2	2	3	3
12-Jul	2	1	2	4	2	2	2	4	3	3	4	4	4	3	3	6	3	5	5	6	4	3	3	5	6
13-Jul	5	4	4	6	4	4	4	5	4	4	4	5	6	5	5	6	5	4	5	4	4	4	2	2	6
14-Jul	3	3	4	3	3	2	3	3	3	3	4	4	4	4	4	4	3	4	3	1	1	1	1	1	4
15-Jul	1	1	2	2	2	2	2	1	2	2	2	4	4	4	3	2	11	8	4	2	1	2	1	2	11
16-Jul	2	2	2	1	2	2	2	2	3	3	3	3	4	4	4	4	3	2	5	4	3	3	1	1	5
17-Jul	2	2	2	1	2	2	1	1	1	2	1	1	2	2	2	2	1	5	2	2	2	2	2	2	5
18-Jul	2	2	2	1	2	1	2	1	2	4	4	6	4	4	5	3	3	3	5	4	3	3	2	3	6
19-Jul	2	2	2	2	2	1	4	3	3	2	2	2	6	5	5	6	6	5	5	4	4	3	3	4	6
20-Jul	5	4	4	4	2	3	2	2	2	2	2	2	3	3	2	2	2	2	2	1	1	1	UO	2	5
21-Jul	1	2	2	2	2	1	1	1	1	2	2	2	3	3	2	3	2	2	2	1	1	1	1	3	3
22-Jul	2	2	2	1	1	1	2	1	2	2	3	4	3	3	3	3	3	2	2	1	1	1	1	2	4
23-Jul	1	2	3	2	2	2	2	4	2	4	4	3	7	5	3	6	4	4	4	4	2	2	2	5	7
24-Jul	3	4	3	1	2	2	1	1	2	2	2	2	2	3	3	3	3	2	3	2	2	4	2	2	4
25-Jul	2	3	3	3	3	3	4	5	3	4	4	4	4	4	4	4	4	4	3	5	2	4	4	4	5
26-Jul	3	4	3	4	3	2	2	3	3	2	3	3	3	3	3	3	3	3	2	2	2	2	2	2	4
27-Jul	2	2	2	2	2	2	2	1	1	2	1	2	3	3	3	2	2	2	2	2	2	2	2	4	4
28-Jul	2	2	2	2	3	1	1	2	2	2	2	3	3	3	2	2	1	1	2	3	2	5	5	7	7
29-Jul	6	4	2	2	4	4	4	4	5	4	4	4	4	5	5	5	5	9	4	3	3	3	4	4	9
30-Jul	3	4	4	5	3	3	3	3	2	3	3	2	3	3	3	3	2	3	2	2	1	1	1	2	5
31-Jul	1	4	2	2	2	2	2	1	2	1	2	2	3	2	2	2	1	2	1	1	1	1	1	1	4
6 4 5 6 4 4 4 5 5 6 6 6 8 11 7 6 11 9 5 6 4 5 5 7																									
Diurnal Maximum																									
UO - Unstable Operation																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Pihew Point - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Pihew Point - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	310	41.72	41.72
6 - 11	260	34.99	76.72
12 - 19	145	19.52	96.23
20 - 28	27	3.63	99.87
29 - 38	1	0.13	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Pihew Point - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	8	14	11	10	18	24	48	56	49	38	8	10	2	5	5	4	310
6 - 11	14	16	7	9	16	27	28	6	9	37	43	12	7	10	7	12	260
12 - 19	15	17	2	0	1	5	0	0	0	2	46	11	14	11	11	10	145
20 - 28	8	3	0	1	0	0	0	0	0	0	4	3	0	0	1	7	27
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	45	50	20	20	35	56	76	62	58	77	101	36	23	26	24	34	743

Total Number of Valid Hours: 743

Total Number of Hours: 744

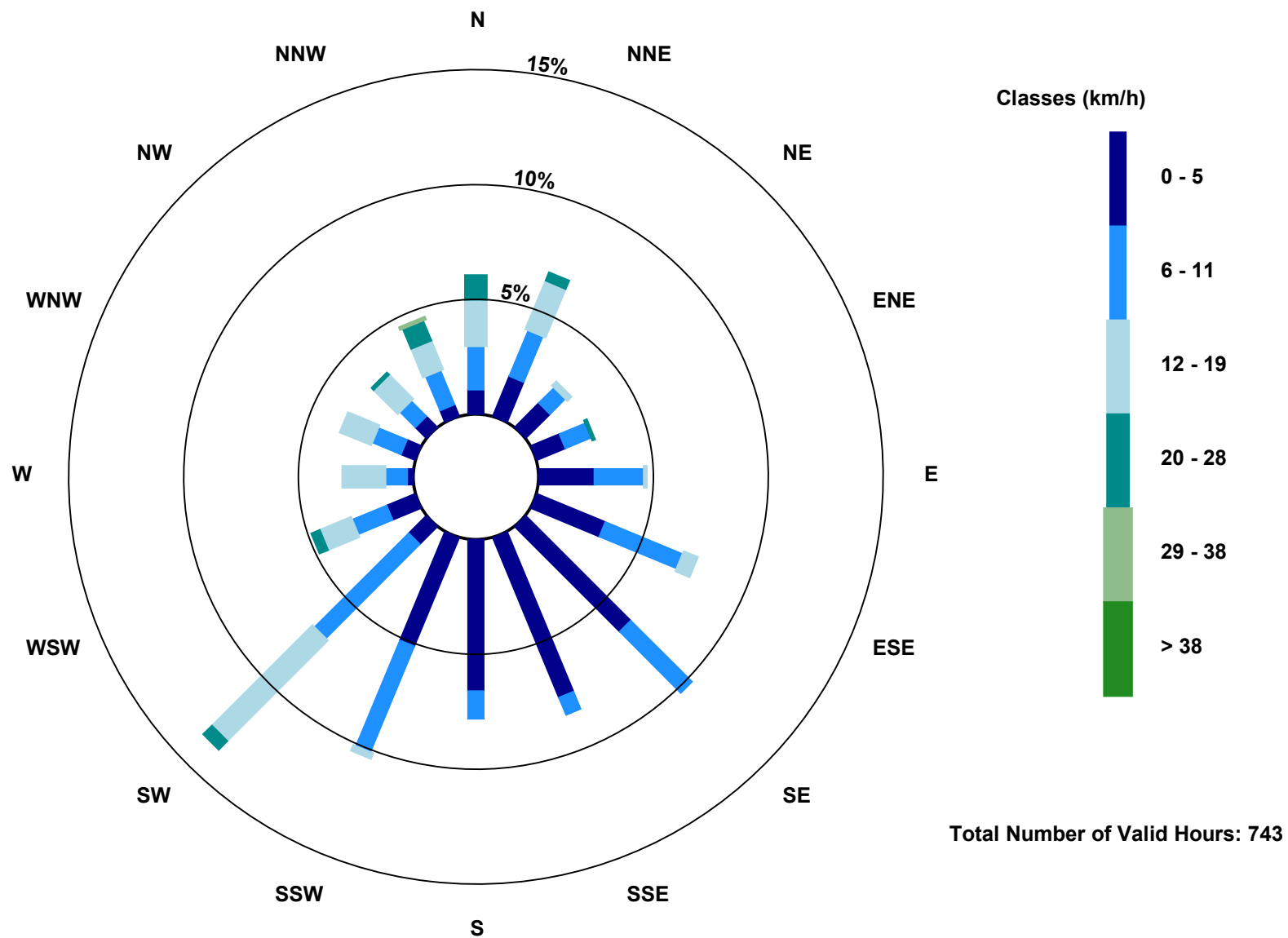


Wood Buffalo Environmental Association

Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h

Pihew Point





Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Pihew Point - July 2026

Direction of Maximum Speed: 334 deg on Jul 5 14:00																					Hours in Service:		744			
Direction of Maximum Daily Speed Average: 20.1 deg on Jul 26																					Hours of Data:		743			
Direction of Minimum Speed: 180 deg on Jul 8 06:00										Direction of Minimum Daily Speed Average: 1.2 deg on Jul 27											Hours of Missing Data:		1			
Monthly Average Direction: 246.5 deg																					Percent Operational Time:		99.9			
Day	Hourly Period Ending At (MST)																								Daily Average	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	102	120	189	180	199	197	150	118	119	111	109	113	111	155	141	134	142	167	199	141	140	108	99	107		131.7
2-Jul	122	143	146	119	121	122	118	139	134	144	142	117	171	196	205	134	108	122	116	127	136	129	127	123		133.1
3-Jul	124	198	168	149	146	172	149	135	137	128	119	167	237	17	103	187	215	192	101	37	55	32	49	92		136.0
4-Jul	145	148	360	192	182	209	130	188	187	159	117	125	170	232	249	217	233	226	220	218	229	165	183	233		206.2
5-Jul	248	236	247	237	277	216	216	239	289	309	302	306	314	334	351	3	334	299	338	344	357	328	317	322		313.1
6-Jul	314	297	295	239	359	301	291	320	2	315	336	79	91	87	234	217	173	17	39	49	310	299	1	10		321.1
7-Jul	17	28	29	28	14	32	74	67	53	77	84	81	63	84	144	180	175	131	120	87	106	107	102	108		76.3
8-Jul	130	137	138	141	38	180	80	165	118	186	95	88	90	105	309	292	182	198	207	267	239	179	143	254		147.4
9-Jul	43	209	216	219	222	228	231	238	236	230	222	223	223	224	219	210	197	214	218	212	121	162	141	167		220.9
10-Jul	165	134	169	150	175	338	32	237	204	212	164	200	212	209	211	213	225	228	214	203	192	304	244	232		208.6
11-Jul	346	126	229	170	190	154	149	99	143	93	114	86	101	135	119	112	175	199	254	301	29	243	225	219		161.9
12-Jul	232	213	188	207	200	198	173	209	220	229	224	218	112	129	194	224	205	212	217	223	226	224	225	241		214.3
13-Jul	243	244	242	248	240	237	234	232	223	228	234	229	229	233	227	228	331	24	342	308	352	233	250	262		246.5
14-Jul	210	195	215	227	219	213	217	232	231	214	222	237	236	239	217	213	220	218	212	194	160	146	131	142		216.6
15-Jul	147	133	160	170	151	177	163	180	172	163	163	126	141	132	137	162	257	100	114	139	193	193	193	136		148.2
16-Jul	161	164	130	137	103	151	159	122	116	116	201	199	217	207	234	359	63	95	13	11	24	1	305	342		136.0
17-Jul	190	171	162	186	161	176	165	191	106	81	70	58	198	83	103	143	162	354	6	9	13	15	12	9		37.4
18-Jul	12	349	5	31	181	164	202	41	258	245	201	109	138	251	309	7	77	87	129	120	118	113	118	129		112.8
19-Jul	57	21	359	18	118	215	333	353	349	347	333	291	356	9	360	16	353	356	345	345	350	340	344	351		352.4
20-Jul	0	3	356	355	323	331	350	330	337	345	352	341	335	337	322	325	331	316	64	54	171	212	UO	177		343.6
21-Jul	167	186	187	140	185	202	211	222	147	109	105	79	183	212	190	207	180	197	208	212	25	97	41	174		180.1
22-Jul	171	164	183	153	157	169	175	203	208	190	204	219	220	214	209	182	176	154	136	138	141	154	142	122		182.6
23-Jul	135	124	194	150	102	171	197	350	2	329	349	351	326	329	350	278	281	287	298	293	284	281	284	312		315.8
24-Jul	331	314	307	16	17	354	203	172	139	81	83	88	83	159	92	97	116	141	137	157	191	345	297	230		46.4
25-Jul	238	230	221	216	221	234	231	245	243	249	223	225	233	223	221	220	225	224	220	218	219	350	16	16		235.2
26-Jul	15	13	6	8	22	21	13	31	23	20	21	29	14	21	16	16	17	15	17	29	26	26	34	38		20.1
27-Jul	53	47	69	67	60	72	72	34	34	63	81	199	230	241	331	146	139	173	201	192	196	208	215	218		119.2
28-Jul	220	209	214	201	207	165	162	163	161	129	94	136	155	137	147	107	68	58	27	36	28	56	31	43		88.7
29-Jul	61	81	147	177	286	283	278	268	265	280	290	291	282	282	297	281	307	331	278	266	257	260	265	261		283.6
30-Jul	261	274	265	264	200	249	277	272	295	312	341	298	356	324	56	207	212	252	262	210	163	155	136	130		265.6
31-Jul	215	225	202	161	164	159	152	152	142	167	138	154	213	189	88	142	91	116	141	141	138	151	169	186		163.3
324.8 262.7 245.8 215.3 217.1 219.7 213.8 235.4 232.3 238.0 219.9 188.3 239.8 253.1 250.1 220.0 256.9 265.2 259.0 296.2 342.0 325.7 345.6 309.4																										
Diurnal Average																										
UO - Unstable Operation																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

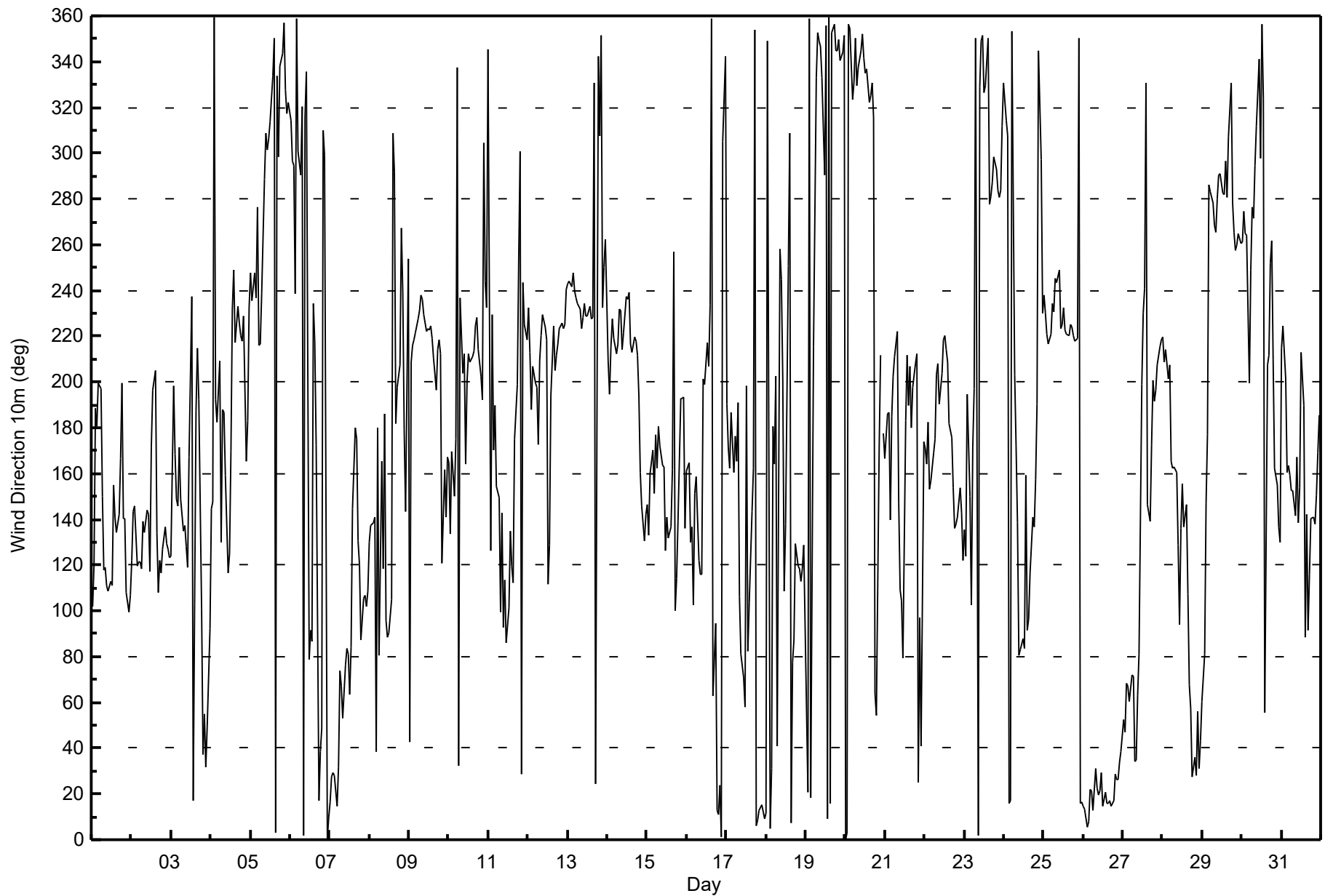
Pihew Point - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 112 deg on Jul 10 03:00																			Hours in Service: 744						
Minimum Value: 7 deg on Jul 20 22:00																			Hours of Data: 743						
Percentiles: P ₁ = 11 P ₁₀ = 17 Q ₁ = 21 Median = 32 Q ₃ = 53 P ₉₀ = 68 P ₉₉ = 100																			Hours of Missing Data: 1						
																			Hours of Calibration: 0						
																			Percent Operational Time: 99.9						
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	68	73	11	29	18	25	80	36	32	26	27	29	37	78	49	49	54	75	92	27	62	18	15	19	92
2-Jul	35	43	49	27	33	31	30	54	49	50	56	30	59	58	46	43	30	30	29	36	35	38	34	30	59
3-Jul	29	47	52	29	51	59	49	54	60	49	39	68	45	66	32	59	25	54	71	16	18	21	29	61	71
4-Jul	46	82	92	21	54	43	58	47	57	56	44	53	57	24	34	28	20	22	18	20	34	34	77	26	92
5-Jul	25	16	22	20	24	44	23	34	34	25	23	20	27	14	20	21	26	34	15	18	17	11	12	12	44
6-Jul	15	22	23	78	101	87	51	42	30	46	27	34	44	68	21	33	91	76	19	40	22	28	28	11	101
7-Jul	12	20	41	27	20	41	26	22	32	34	41	58	32	42	97	71	57	27	26	20	16	16	17	21	97
8-Jul	70	31	23	38	24	95	60	63	72	101	67	25	25	59	92	93	82	55	53	28	49	72	26	65	101
9-Jul	82	31	34	13	16	18	19	17	17	19	22	20	21	21	24	45	80	43	18	28	57	65	91	84	91
10-Jul	82	79	112	103	74	105	100	109	55	29	61	52	45	39	28	28	20	21	29	52	56	96	32	25	112
11-Jul	73	46	51	48	61	45	54	38	47	28	60	34	44	45	50	42	70	65	39	28	15	53	13	16	73
12-Jul	27	22	66	35	48	39	55	34	18	27	20	18	52	38	50	29	47	39	22	18	17	17	16	15	66
13-Jul	14	15	17	18	17	18	19	18	18	21	20	19	19	20	19	20	29	21	34	22	27	36	70	50	70
14-Jul	32	30	21	22	23	34	21	18	20	28	19	23	25	32	31	30	27	55	24	24	15	30	22	33	55
15-Jul	41	27	62	55	48	67	60	53	58	59	63	55	55	51	49	66	62	30	26	72	30	66	73	69	73
16-Jul	52	64	65	43	63	58	49	40	32	40	54	57	23	33	45	47	21	24	82	67	53	23	88	31	88
17-Jul	89	57	56	17	61	25	35	48	63	24	24	68	101	45	67	58	50	34	18	12	11	12	12	10	101
18-Jul	12	30	22	23	51	35	46	24	69	35	55	27	62	36	58	14	45	26	37	32	30	26	28	43	69
19-Jul	75	42	50	52	52	44	59	15	17	17	15	23	42	17	19	20	19	16	15	14	15	11	14	17	75
20-Jul	17	14	15	17	14	19	15	14	15	28	29	15	14	17	18	18	21	54	43	29	50	7	UO	52	54
21-Jul	41	20	31	56	22	25	75	27	63	33	41	61	86	76	70	44	52	50	70	102	62	85	91	26	102
22-Jul	25	45	37	27	27	39	49	33	45	46	46	27	33	40	35	52	55	53	28	27	33	51	28	56	56
23-Jul	38	25	69	61	36	60	68	81	22	14	16	19	20	12	27	65	32	24	23	22	22	21	21	26	81
24-Jul	11	17	33	19	18	37	69	97	93	41	22	25	23	68	53	28	37	45	49	66	88	22	49	19	97
25-Jul	18	20	38	24	21	18	21	19	20	22	18	19	18	24	18	15	18	17	15	57	61	52	12	14	61
26-Jul	17	17	15	16	17	15	13	15	20	16	17	19	18	23	24	24	32	24	17	12	12	11	14	18	32
27-Jul	21	23	32	24	24	30	23	34	15	40	36	96	67	38	45	73	58	74	50	55	47	24	14	49	96
28-Jul	40	43	28	46	59	43	52	54	51	53	27	59	58	56	59	57	20	14	15	67	14	34	13	28	67
29-Jul	15	58	58	61	35	23	21	22	22	25	26	25	29	26	23	31	21	14	23	20	22	20	21	20	61
30-Jul	19	24	20	21	74	29	38	33	20	23	36	88	25	47	67	65	43	53	85	33	85	25	45	58	88
31-Jul	55	42	47	46	39	44	71	85	52	42	51	49	27	55	56	45	44	30	37	25	35	27	23	42	85
89 82 112 103 101 105 100 109 93 101 67 96 101 78 97 93 91 76 92 102 88 96 91 84																									
Diurnal Maximum																									
UO - Unstable Operation																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Pihew Point - July 2026





WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS33 MONDAY CREEK JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MONDAY CREEK (AMS33)
JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	707	35	37	99.73	9.1	0	1.6	0
H2S (ppb) Average	706	36	38	99.73	0.7	0	0.2	0
NO2 (ppb) Average	708	36	36	100	17.8	0	3.6	-
NO (ppb) Average	708	36	36	100	35.1	-	5	-
NOX (ppb) Average	708	36	36	100	52.9	-	8.6	-
Temperature 2 m (C) Average	744	0	0	100	31	-	24.5	-
Relative Humidity (%) Average	744	0	0	100	100	-	84.6	-
Wind Speed 10 m (km/h) Average	742	0	2	99.73	28	-	19	-
Wind Direction 10 m (deg) Average	742	0	2	99.73	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MONDAY CREEK (AMS33)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	707	0.43	0.7	-	0	0	0	0.2	0.5	1.1	9.1
H2S (ppb) Average	706	0.14	0.1	-	0	0	0.1	0.1	0.2	0.3	0.7
NO2 (ppb) Average	708	1.39	1.4	-	0.2	0.5	0.7	1.1	1.6	2.4	17.8
NO (ppb) Average	708	0.43	2	-	0	0	0	0	0.2	0.7	35.1
NOX (ppb) Average	708	1.81	3.1	-	0.2	0.5	0.7	1.2	1.9	3.3	52.9
Temperature 2 m (C) Average	744	18.34	4.9	-	7.4	11.7	14.8	18.2	21.8	24.9	31
Relative Humidity (%) Average	744	67.25	20.8	-	21.4	38.3	49.3	69.5	85.3	94.9	100
Wind Speed 10 m (km/h) Average	742	8.8	6	-	0	3	4	8	12	16	28
Wind Direction 10 m (deg) Average	742	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MONDAY CREEK (AMS33)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
H2S, SO2	27 Jul 2026 15:00	27 Jul 2026 16:00	2	Maintenance - sample manifold cleaned
Wind Speed, Wind Direction	22 Jul 2026 06:00	22 Jul 2026 06:00	1	Flat line in sensor output signal
Wind Speed, Wind Direction	27 Jul 2026 03:00	27 Jul 2026 03:00	1	Flat line in sensor output signal



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

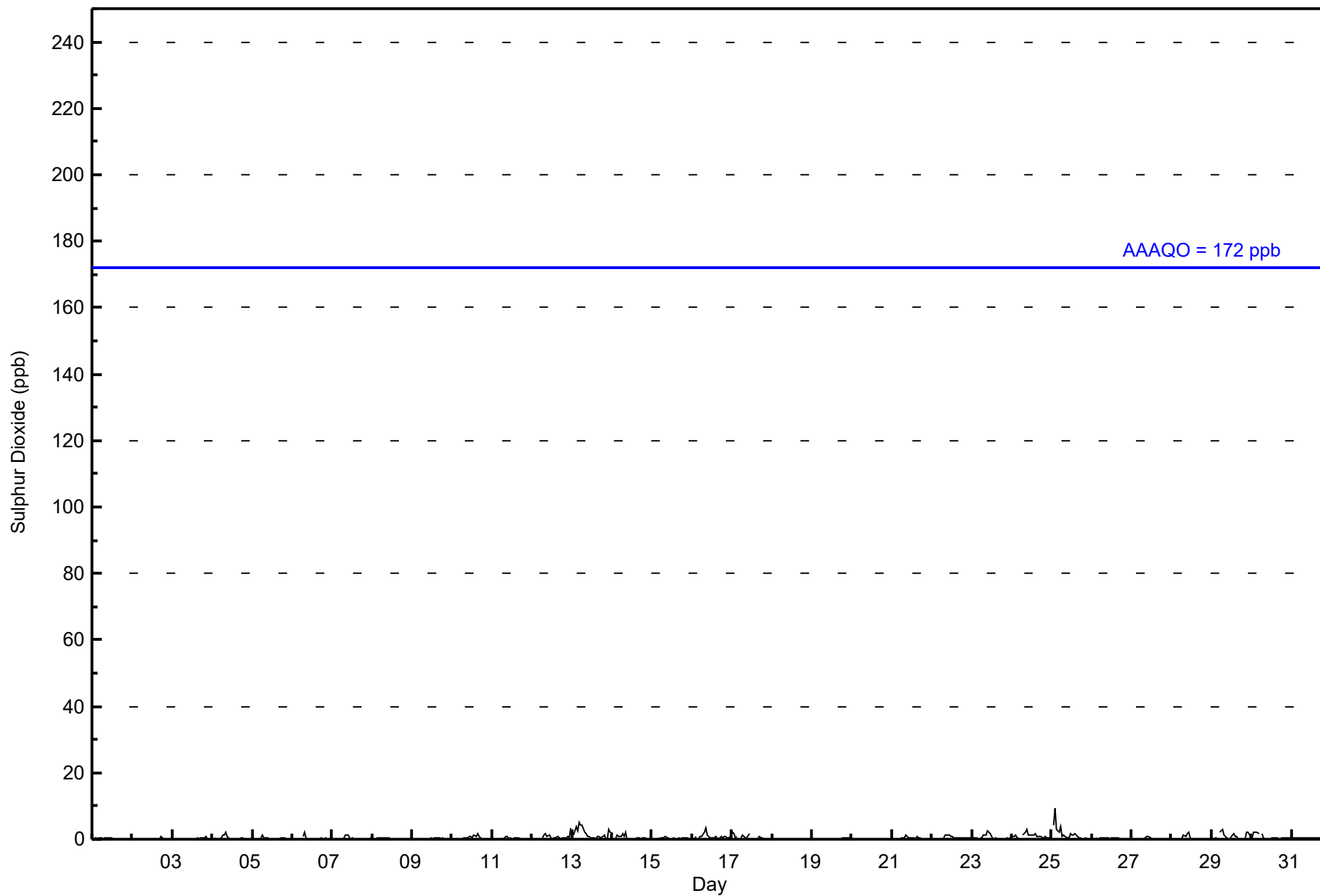
Monday Creek - July 2026

Number of Exceedances (AAAQO): Maximum Value: 9.1 ppb on Jul 25 03:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 1.6 ppb on Jul 13						Hours in Service: 744 Hours of Data: 707		
Minimum Value: 0.0 ppb on Jul 2 04:00 Maximum Diurnal Average: 0.9 ppb at hour 9 Monthly Average: 0.43 ppb																			Minimum Daily Average: 0.0 ppb on Jul 18 Minimum Diurnal Average: 0.2 ppb at hour 21 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.2 Q ₃ = 0.5 P ₉₀ = 1.1 P ₉₉ = 3.6						Hours of Missing Data: 37 Hours of Calibration: 35 Percent Operational Time: 99.7		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	Z	0.2	0.3	0.2	0.2	0.3	0.1	0.3	0.3	0.3	0.4	0.3	0.1	0.2	0.2	0.0	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.2	0.4
2-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.1	1.0	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.1	1.0
3-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.0	0.6	0.2	0.4	0.6	0.1	0.0	0.0	0.1	0.6	
4-Jul	0.0	0.0	0.3	Z	0.1	0.3	1.3	1.2	2.0	0.7	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.3	0.6	0.0	0.0	0.0	0.0	0.0	0.3	2.0	
5-Jul	0.0	0.0	0.0	0.0	Z	0.2	1.3	0.4	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.2	0.1	0.1	0.1	0.2	1.3	
6-Jul	0.1	0.2	0.2	0.1	0.1	Z	1.0	2.0	0.4	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.0	0.3	0.1	0.0	0.0	0.2	2.0	
7-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.4	1.2	0.4	0.2	0.3	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	1.4	
8-Jul	0.3	Z	0.6	0.5	0.3	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.6	
9-Jul	0.0	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.5	0.2	0.2	0.3	0.3	0.3	0.1	0.3	0.1	0.1	0.2	0.0	0.1	0.1	0.5	
10-Jul	0.0	0.0	0.0	Z	0.0	0.1	0.1	0.2	0.3	0.2	0.7	1.0	0.5	1.1	0.8	1.6	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.6	
11-Jul	0.0	0.0	0.1	0.0	Z	0.1	0.1	0.3	0.7	0.8	0.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.8	
12-Jul	0.0	0.1	0.1	0.0	0.1	Z	0.5	1.3	1.5	0.9	1.3	0.5	0.1	0.3	0.5	0.8	0.3	0.0	0.5	0.5	0.3	0.9	0.4	3.6	0.6	3.6	
13-Jul	Z	1.2	3.9	2.5	5.0	4.3	4.0	2.1	1.7	0.9	0.8	0.6	0.6	0.4	0.1	0.8	0.9	0.4	0.9	1.1	0.0	0.2	2.9	2.0	1.6	5.0	
14-Jul	1.5	Z	0.5	1.4	0.7	1.0	1.6	0.8	2.2	0.0	0.1	0.0	0.0	0.1	0.2	0.5	0.3	0.2	0.4	0.3	0.2	0.2	0.2	0.2	0.5	2.2	
15-Jul	0.2	0.2	Z	0.3	0.1	0.3	0.4	0.4	0.9	0.4	0.2	0.1	0.2	0.2	0.0	0.1	0.2	0.1	0.3	0.3	0.3	0.3	0.0	0.0	0.2	0.9	
16-Jul	0.2	0.1	0.9	Z	0.6	0.9	0.7	2.2	3.6	1.4	0.9	0.6	0.5	0.5	0.7	0.3	0.2	0.6	0.4	0.8	0.9	0.5	0.2	0.8	0.8	3.6	
17-Jul	2.3	1.8	0.5	0.7	Z	0.4	1.3	0.7	0.5	0.5	1.5	C	C	C	C	0.5	0.7	0.4	0.3	0.0	0.0	0.1	0.0	0.0	0.6	2.3	
18-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
19-Jul	Z	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.3	0.4	0.3	0.1	0.1	0.4	
20-Jul	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.2	
21-Jul	0.0	0.1	Z	0.1	0.2	0.1	0.3	0.4	1.2	0.8	0.5	0.5	0.4	0.2	0.1	0.6	0.5	0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.3	1.2	
22-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.2	0.5	1.4	1.1	1.1	1.0	0.9	0.6	0.5	0.3	0.5	0.5	0.4	0.5	0.3	0.3	0.3	0.3	0.5	1.4	
23-Jul	0.3	0.2	0.2	0.3	Z	0.3	0.4	1.1	1.3	2.5	2.1	1.7	0.9	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.5	0.6	2.5	
24-Jul	1.1	0.7	1.2	0.5	0.2	Z	1.1	1.7	2.0	3.0	1.2	1.2	1.3	1.3	1.7	1.0	1.0	0.8	0.5	0.6	0.7	0.5	0.6	1.1	1.1	3.0	
25-Jul	Z	4.1	9.1	3.1	1.9	3.9	0.9	1.1	0.9	0.3	0.6	1.6	1.3	1.3	1.6	0.8	0.2	0.2	0.2	0.1	0.3	0.2	0.2	0.1	1.5	9.1	
26-Jul	0.2	Z	0.4	0.2	0.1	0.2	0.3	0.5	0.4	0.3	0.4	0.2	0.6	0.4	0.4	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	
27-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.5	1.0	0.8	0.4	0.0	0.0	M	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	
28-Jul	0.0	0.1	0.0	Z	0.0	0.0	0.1	1.2	0.9	1.6	1.9	0.6	0.2	0.1	0.2	0.2	0.2	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.3	1.9	
29-Jul	0.0	0.1	0.3	0.3	Z	2.1	3.0	1.4	0.7	0.2	0.1	0.2	1.1	1.7	0.8	0.8	0.1	0.1	0.1	0.2	0.2	1.9	2.1	0.9	0.8	3.0	
30-Jul	0.6	2.3	2.0	2.1	1.5	Z	1.7	0.4	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.3	0.4	0.3	0.3	0.4	0.4	0.6	2.3	
31-Jul	Z	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.2	0.4	0.4	0.4	0.4	0.6	0.6	0.5	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.4	0.6	
0.3 0.5 0.8 0.5 0.5 0.6 0.7 0.7 0.9 0.6 0.5 0.4 0.4 0.4 0.3 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.3 0.4																									Diurnal Average		
2.3 4.1 9.1 3.1 5.0 4.3 4.0 2.2 3.6 3.0 2.1 1.7 1.3 1.7 1.7 1.6 1.0 1.0 0.9 1.1 0.9 1.9 2.9 3.6																									Diurnal Maximum		
Z - zerospan C - Calibration M - Maintenance																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Monday Creek - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Monday Creek - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	707	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Monday Creek - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	11	19	10	16	18	23	76	54	30	50	68	65	117	70	56	23	706
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	19	10	16	18	23	76	54	30	50	68	65	117	70	56	23	706

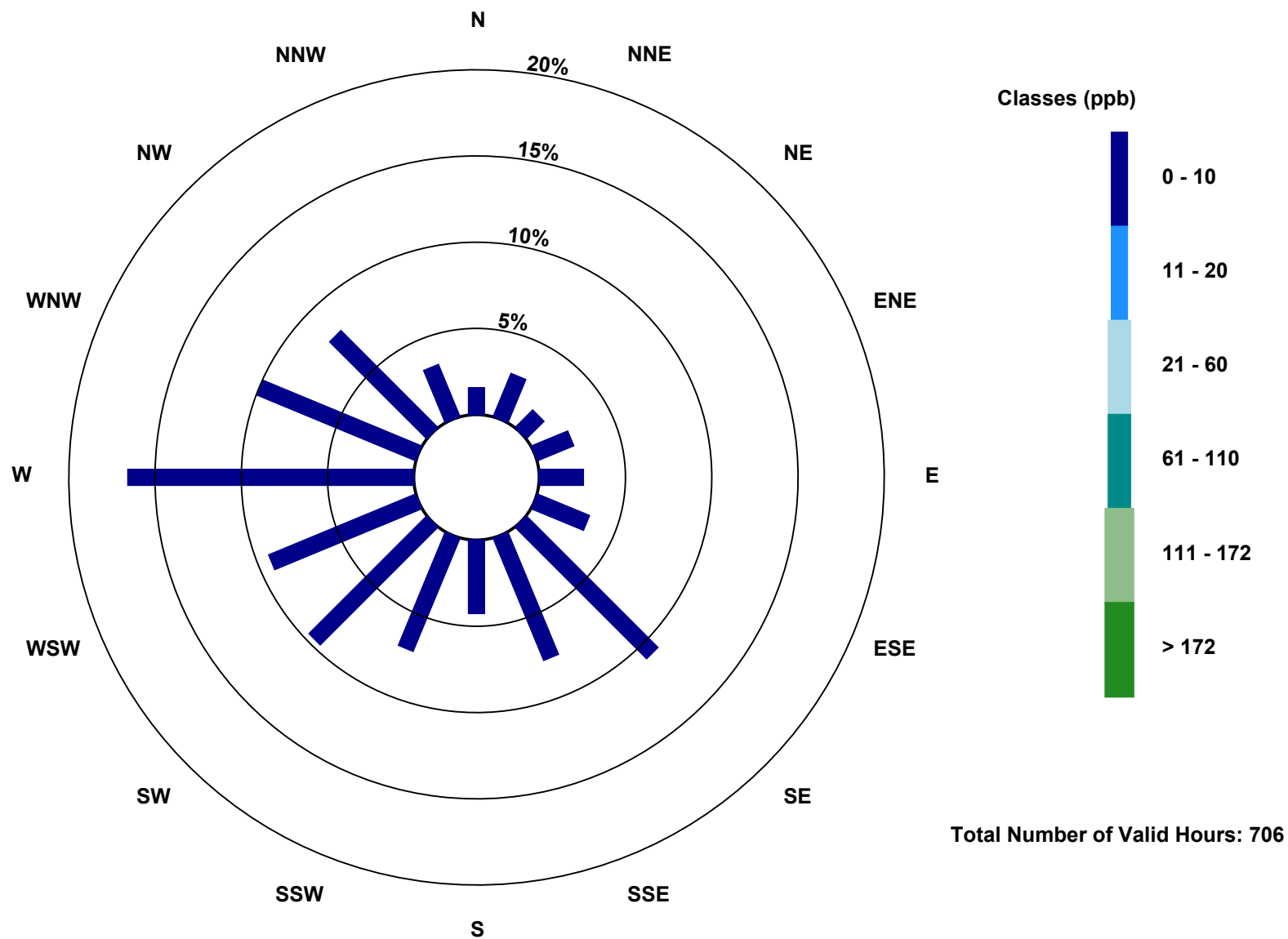
Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

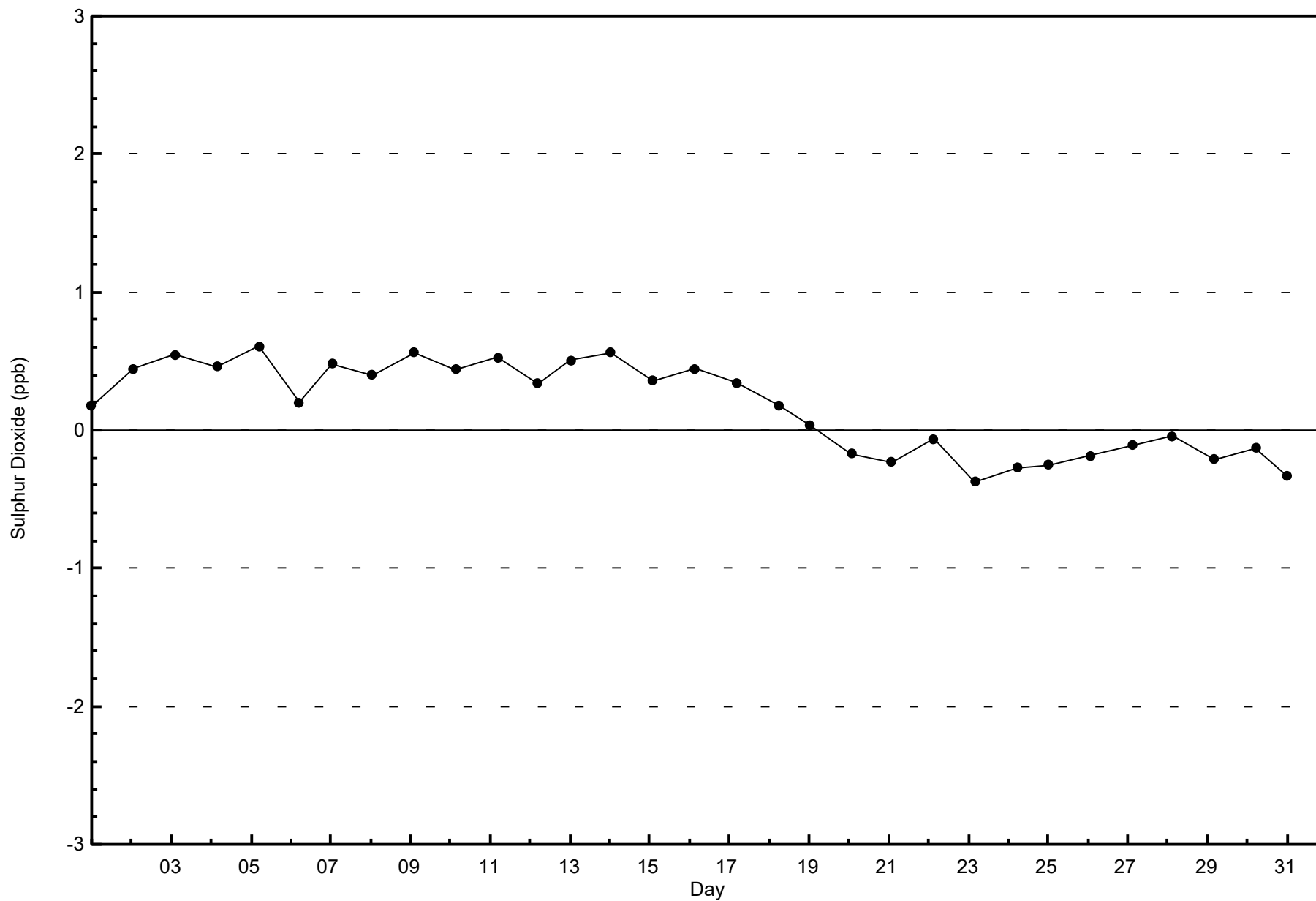
Sulphur Dioxide (SO₂) - ppb
Monday Creek





Wood Buffalo Environmental Association
Zero Responses

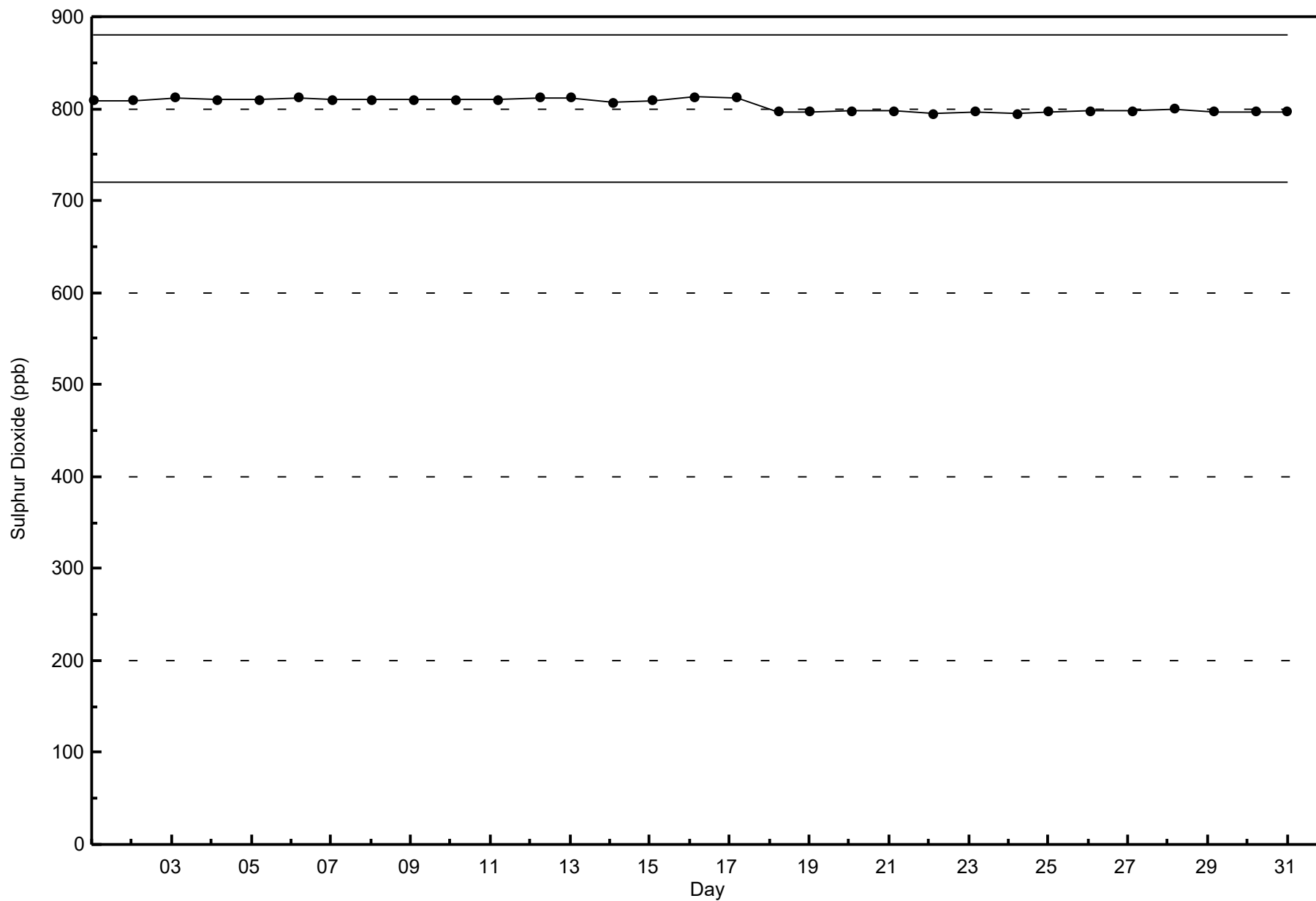
Sulphur Dioxide (SO₂) - ppb
Monday Creek - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Monday Creek - July 2026

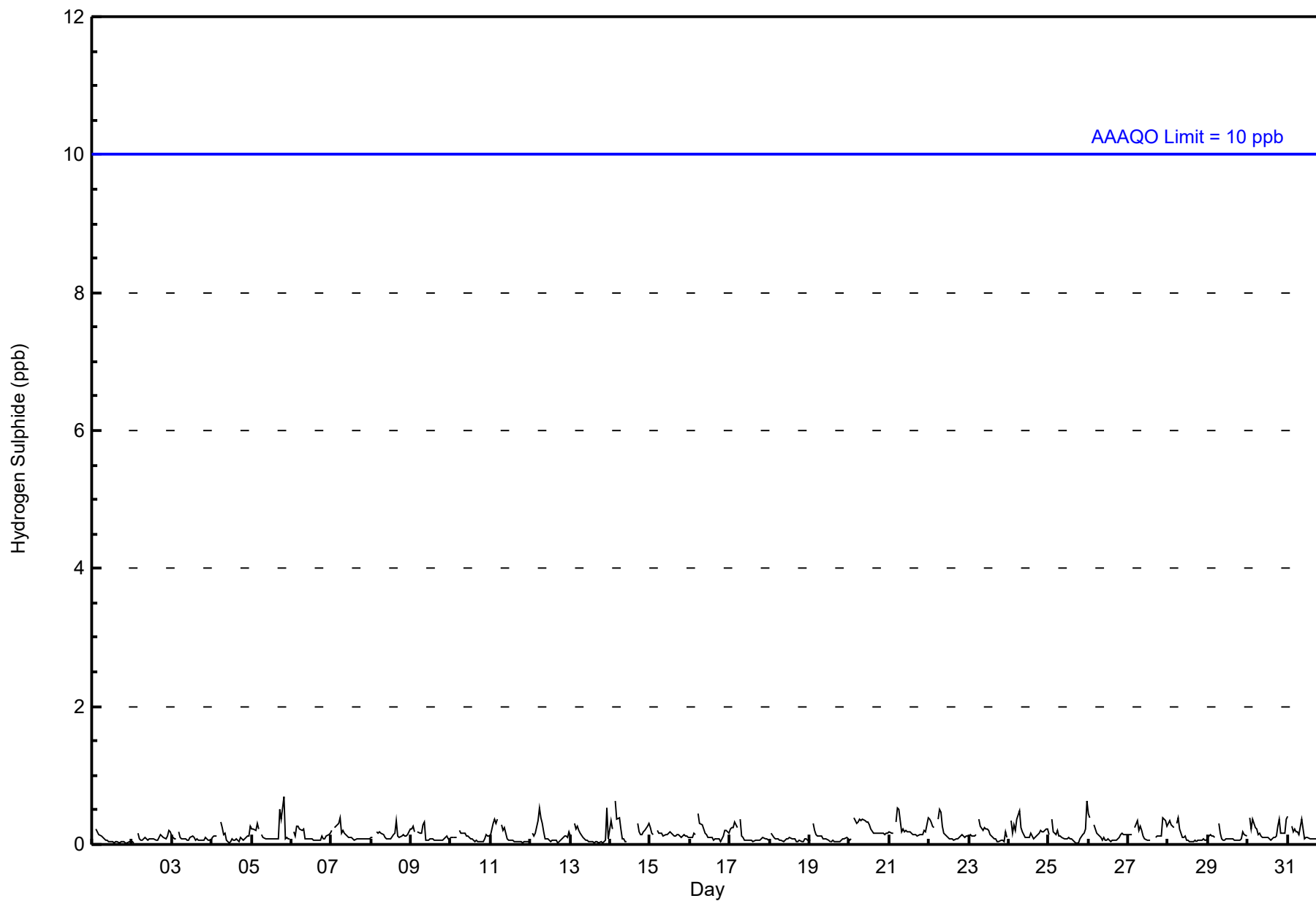


Number of Exceedances (AAAQO): Maximum Value: 0.7 ppb on Jul 5 20:00										1-hr: 0 24-hr: 0 Maximum Daily Average: 0.2 ppb on Jul 20										Hours in Service: 744							
Minimum Value: 0.0 ppb on Jul 4 11:00 Maximum Diurnal Average: 0.3 ppb at hour 6 Monthly Average: 0.14 ppb										Minimum Daily Average: 0.1 ppb on Jul 1 Minimum Diurnal Average: 0.1 ppb at hour 15 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.5										Hours of Data: 706							
																				Hours of Missing Data: 38							
																				Hours of Calibration: 36							
																				Percent Operational Time: 99.7							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	
2-Jul	0.0	0.0	Z	0.2	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	0.2	0.2	0.1	0.2	
3-Jul	0.1	0.1	0.1	Z	0.2	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	0.2	
4-Jul	0.1	0.1	0.1	0.1	Z	0.3	0.3	0.1	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.3	
5-Jul	0.2	0.2	0.2	0.3	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.4	0.7	0.1	0.1	0.1	0.1	0.2	0.7	
6-Jul	Z	0.2	0.1	0.3	0.3	0.2	0.2	0.2	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	0.2	0.1	0.3	
7-Jul	0.2	Z	0.2	0.3	0.3	0.4	0.2	0.2	0.2	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	0.4	
8-Jul	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.3	
9-Jul	0.2	0.3	0.2	Z	0.2	0.2	0.2	0.3	0.3	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	0.3	
10-Jul	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	
11-Jul	0.1	0.3	0.4	0.3	0.4	Z	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.4	
12-Jul	Z	0.2	0.1	0.2	0.3	0.5	0.4	0.3	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.5	
13-Jul	0.1	Z	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.1	0.1	0.5	
14-Jul	0.3	0.2	Z	0.6	0.4	0.4	0.2	0.1	0.1	0.0	0.0	C	C	C	C	C	0.3	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.6	
15-Jul	0.2	0.2	0.1	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	
16-Jul	0.1	0.1	0.2	0.1	Z	0.5	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.5	
17-Jul	0.2	0.2	0.3	0.3	0.3	Z	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	
18-Jul	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.2	
19-Jul	0.1	Z	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.3	
20-Jul	0.1	0.1	Z	0.4	0.3	0.3	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	
21-Jul	0.2	0.2	0.2	Z	0.3	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.2	0.5	
22-Jul	0.4	0.3	0.3	0.2	Z	0.4	0.5	0.5	0.3	0.2	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	0.2	0.5	
23-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.4	
24-Jul	Z	0.4	0.2	0.3	0.2	0.4	0.5	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	
25-Jul	0.1	Z	0.4	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.6	0.1	0.6
26-Jul	0.4	0.4	Z	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.4	
27-Jul	0.1	0.1	0.1	Z	0.2	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	M	M	0.1	0.1	0.1	0.1	0.4	0.3	0.3	0.2	0.4	
28-Jul	0.3	0.3	0.3	0.2	Z	0.3	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	
29-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.3	0.2	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	0.2	0.1	0.1	0.1	0.3	
30-Jul	Z	0.4	0.2	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.2	0.2	0.2	0.4	0.2	0.4	
31-Jul	0.4	Z	0.3	0.2	0.2	0.2	0.2	0.1	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.2	0.4	
																								Diurnal Average			
																								Diurnal Maximum			
Z - zerospan C - Calibration M - Maintenance																											
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H_2S) - ppb
Monday Creek - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Monday Creek - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	706	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Monday Creek - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	11	22	11	16	17	22	77	56	33	46	69	64	115	69	54	22	704
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	22	11	16	17	22	77	56	33	46	69	64	115	69	54	22	704

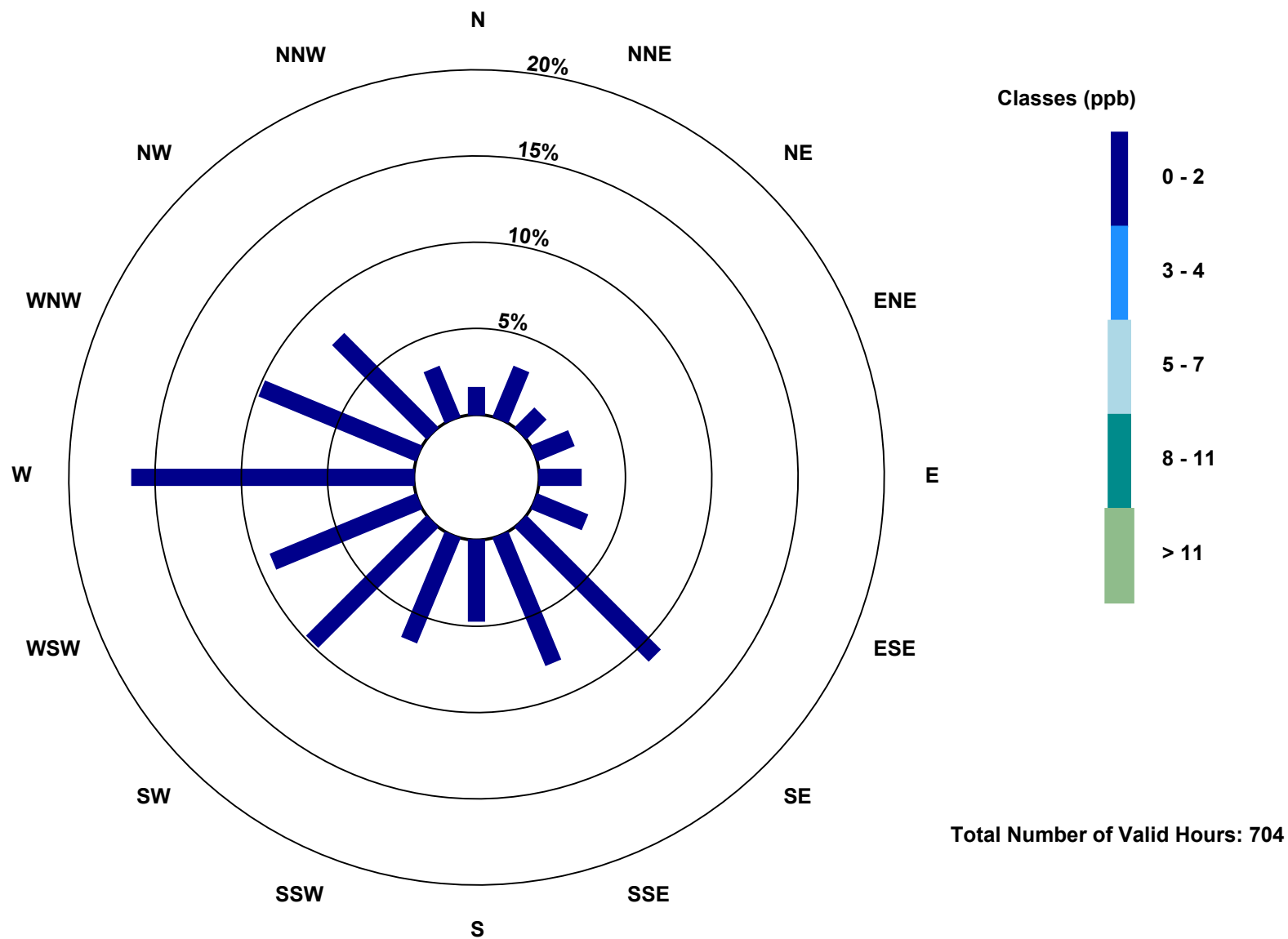
Total Number of Valid Hours: 704

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

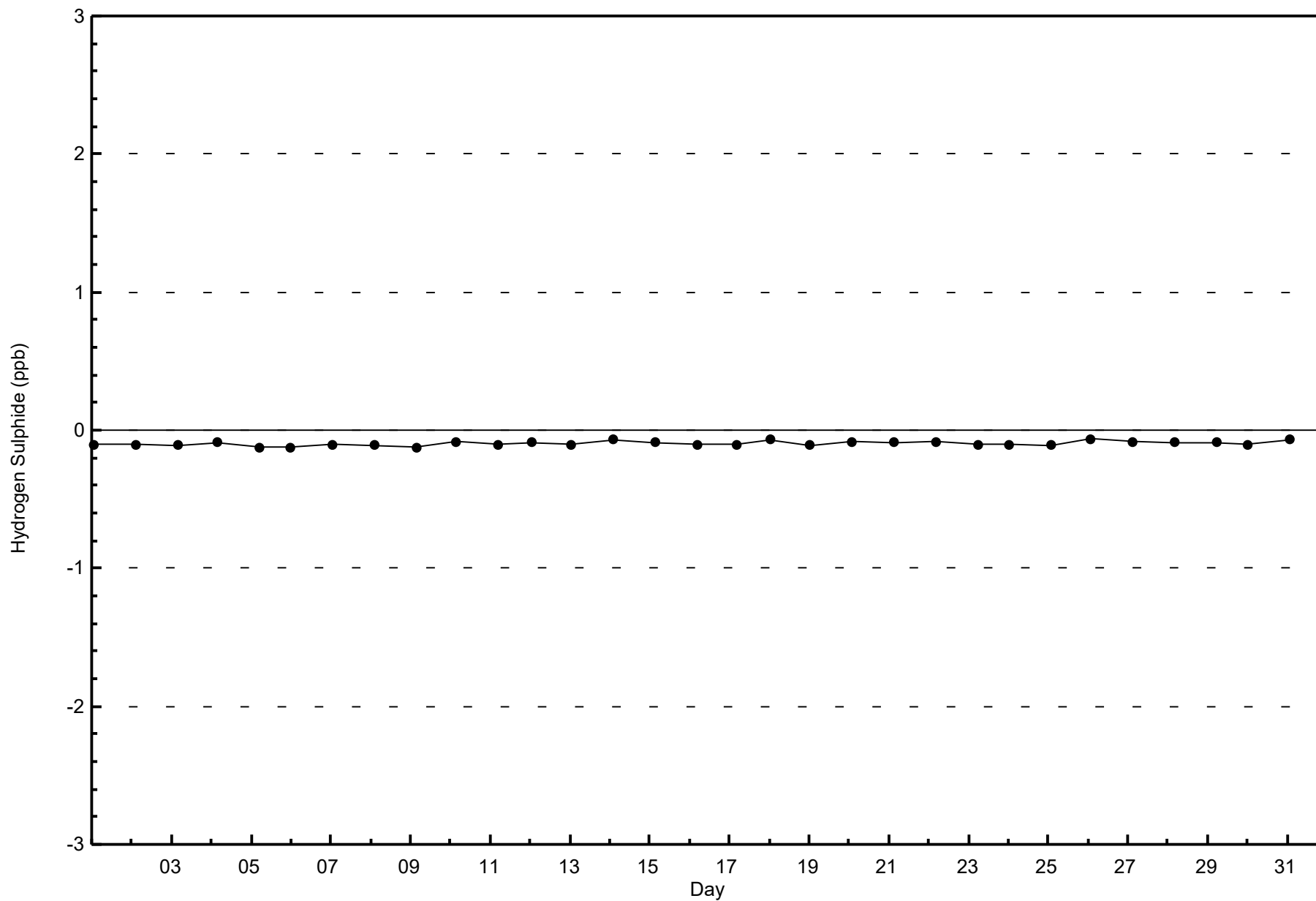
Hydrogen Sulphide (H₂S) - ppb
Monday Creek





Wood Buffalo Environmental Association
Zero Responses

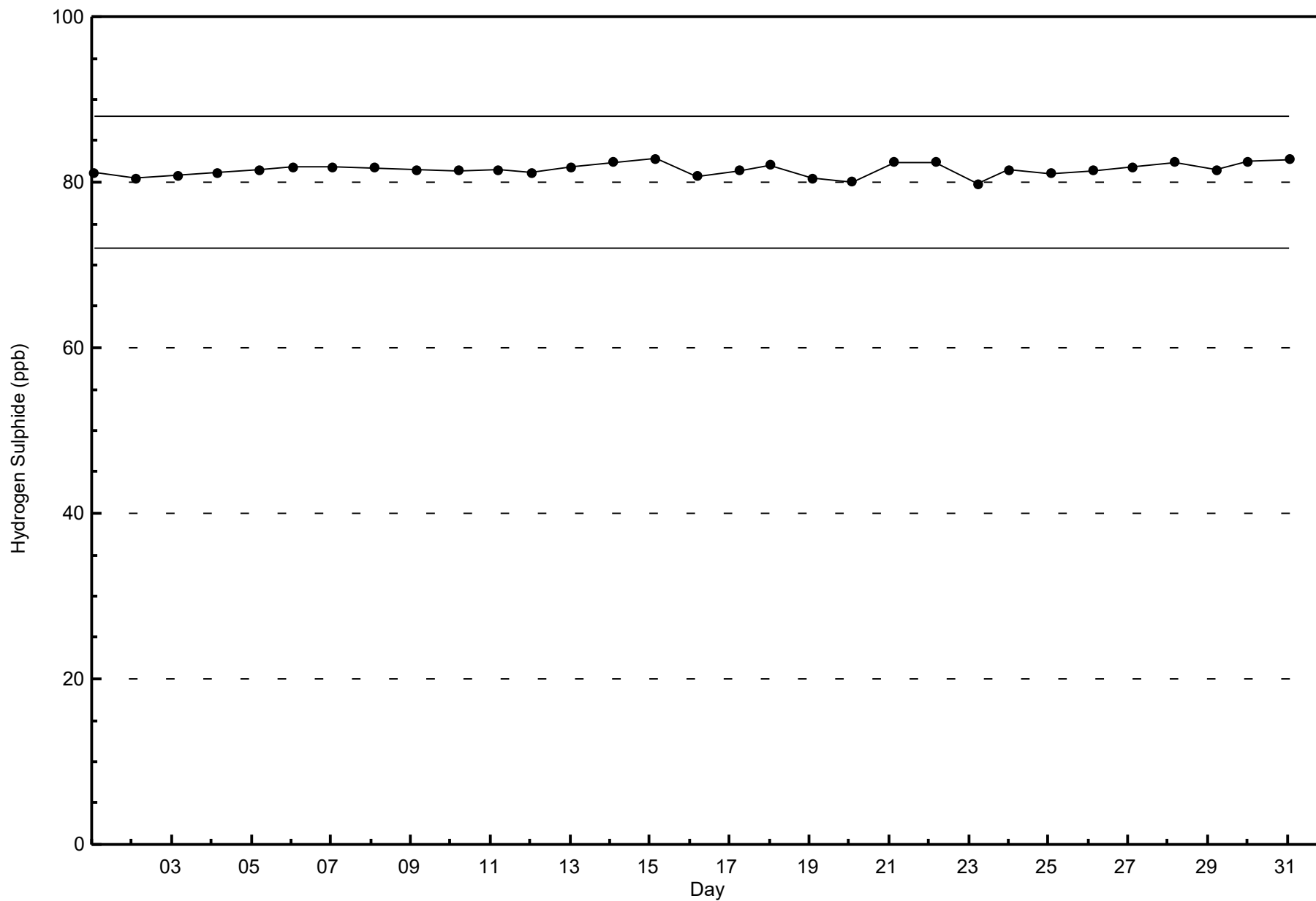
Hydrogen Sulphide (H₂S) - ppb
Monday Creek - July 2026





Wood Buffalo Environmental Association
Span Responses

Hydrogen Sulphide (H₂S) - ppb
Monday Creek - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

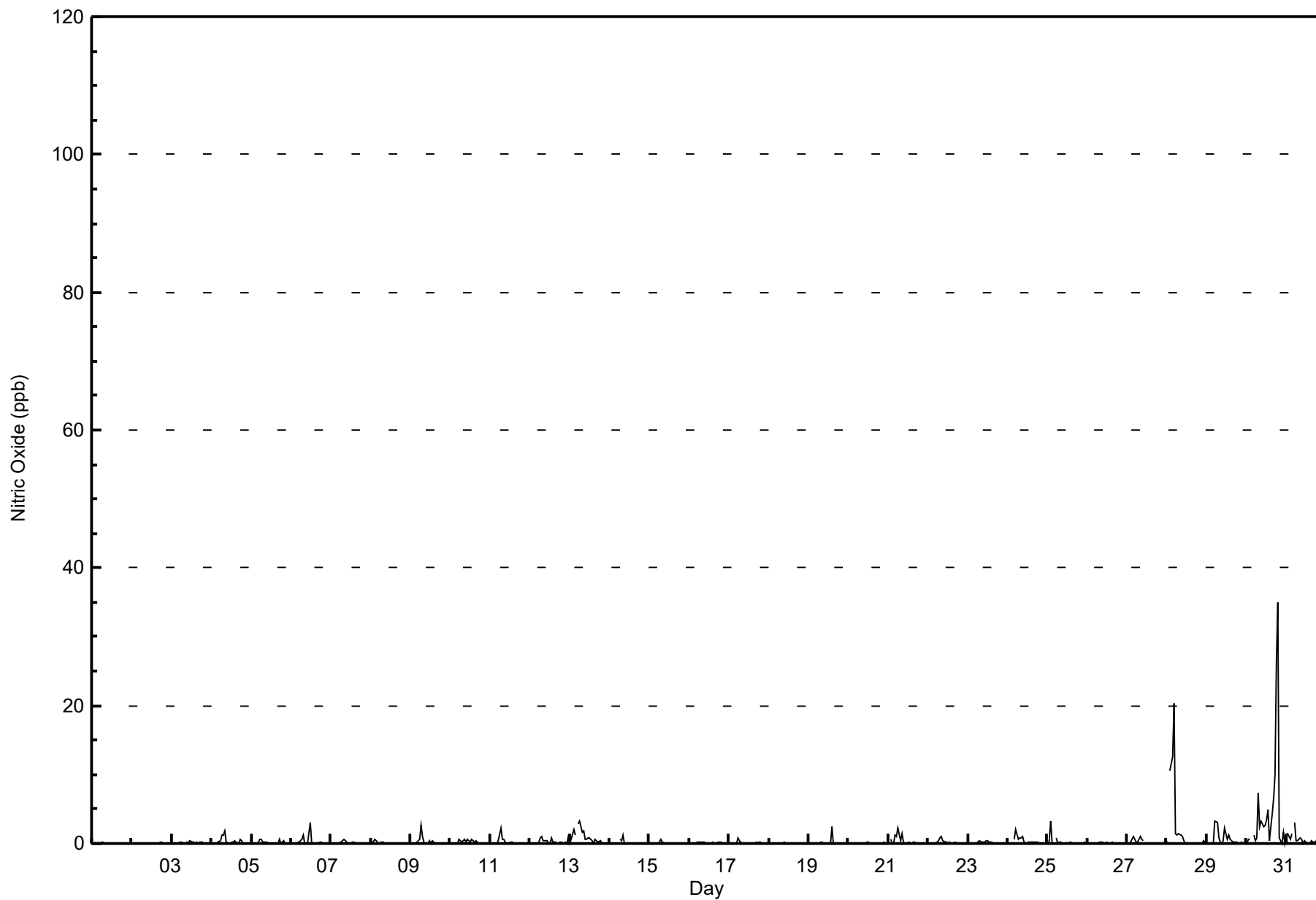
Monday Creek - July 2026

Maximum Value: 35.1 ppb on Jul 30 20:00																		Maximum Daily Average: 5.0 ppb on Jul 30								Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 1 01:00																		Minimum Daily Average: 0.0 ppb on Jul 2								Hours of Data: 708	
Maximum Diurnal Average: 1.2 ppb at hour 20																		Minimum Diurnal Average: 0.0 ppb at hour 22								Hours of Missing Data: 36	
Monthly Average: 0.43 ppb																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.2 P ₉₀ = 0.7 P ₉₉ = 6.4								Hours of Calibration: 36	
																										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.0	0.0	0.0	0.0	Z	0.2	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3-Jul	Z	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.0	0.3	0.2	0.2	0.0	0.2	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
4-Jul	0.0	Z	0.0	0.0	0.2	0.5	1.2	1.1	1.9	0.3	0.0	0.0	0.1	0.1	0.3	0.1	0.0	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.3	
5-Jul	0.0	0.0	Z	0.0	0.1	0.6	0.6	0.2	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.1	
6-Jul	0.0	0.0	0.0	Z	0.1	0.2	0.6	1.2	0.0	0.0	0.0	3.0	0.0	0.0	0.1	0.0	0.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	
7-Jul	0.0	0.0	0.0	0.0	Z	0.2	0.1	0.4	0.6	0.3	0.0	0.0	0.1	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
8-Jul	0.0	0.0	0.6	0.3	0.1	Z	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
9-Jul	Z	0.0	0.0	0.0	0.2	0.5	2.6	1.0	0.2	0.0	0.0	0.4	0.1	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	
10-Jul	0.0	Z	0.0	0.0	0.0	0.5	0.4	0.3	0.5	0.1	0.6	0.5	0.3	0.5	0.3	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	
11-Jul	0.0	0.1	Z	0.0	0.1	0.3	2.2	0.7	0.6	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	
12-Jul	0.0	0.0	0.0	Z	0.1	0.2	0.7	1.1	0.4	0.3	0.5	0.1	0.0	0.8	0.1	0.2	0.0	0.0	0.2	0.1	0.0	0.1	0.0	1.1	0.3		
13-Jul	0.0	0.7	2.0	1.1	Z	2.9	3.2	1.6	1.9	0.5	0.7	0.7	0.7	0.4	0.0	0.6	0.5	0.1	0.3	0.1	0.0	0.0	0.0	0.0	0.8		
14-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.6	0.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1		
15-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1		
16-Jul	0.0	Z	0.0	0.0	0.0	0.2	0.1	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.1		
17-Jul	0.0	0.0	Z	0.0	0.0	0.7	0.4	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1		
18-Jul	0.1	0.0	0.0	Z	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0		
19-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1		
20-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0		
21-Jul	Z	0.6	0.0	0.0	1.2	1.0	2.3	0.4	1.4	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.3		
22-Jul	0.0	Z	0.0	0.0	0.0	0.3	0.4	0.9	1.1	0.3	0.2	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2		
23-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.4	0.2	0.2	0.2	0.4	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1		
24-Jul	0.0	0.0	0.0	Z	0.5	2.0	0.6	0.7	0.9	1.1	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.2	0.3		
25-Jul	0.0	0.4	3.2	0.3	Z	0.8	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.3		
26-Jul	0.1	0.0	0.0	0.0	0.0	Z	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1		
27-Jul	Z	0.1	0.3	0.6	1.1	0.1	0.2	0.7	1.1	0.5	0.3	C	C	C	C	C	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.3		
28-Jul	0.2	Z	10.6	12.7	20.4	1.5	1.1	1.4	1.1	1.0	0.4	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	2.2		
29-Jul	0.0	0.0	Z	0.1	0.0	3.3	3.0	0.8	0.2	0.0	0.4	2.3	0.7	1.2	0.5	0.4	0.2	0.3	0.1	0.0	0.0	0.1	0.0	0.2	0.6		
30-Jul	0.0	0.6	0.6	Z	1.2	0.5	0.7	7.3	2.4	3.2	2.4	2.6	3.4	4.8	0.4	4.4	6.5	9.9	26.5	35.1	0.8	0.0	1.7	0.0	5.0		
31-Jul	1.2	1.5	0.6	1.4	Z	3.0	0.5	0.5	0.7	0.5	0.1	0.5	0.2	0.1	0.1	0.3	0.1	0.1	0.1	1.3	1.4	0.3	0.0	0.1	0.6		
0.1 0.2 0.7 0.6 1.0 0.8 0.7 0.7 0.6 0.3 0.2 0.4 0.2 0.3 0.2 0.3 0.3 0.4 0.9 1.2 0.1 0.0 0.1 0.1																										Diurnal Average	
1.2 1.5 10.6 12.7 20.4 3.3 3.2 7.3 2.4 3.2 2.4 3.0 3.4 4.8 2.5 4.4 6.5 9.9 26.5 35.1 1.4 0.3 1.7 1.1																										Diurnal Maximum	
Z - zerospan C - Calibration																											



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Monday Creek - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Monday Creek - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	706	99.72	99.72
21 - 40	2	0.28	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Monday Creek - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	11	21	11	16	19	20	78	56	31	52	62	68	115	72	52	20	704
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	21	11	16	19	20	78	56	31	52	62	68	115	72	54	20	706

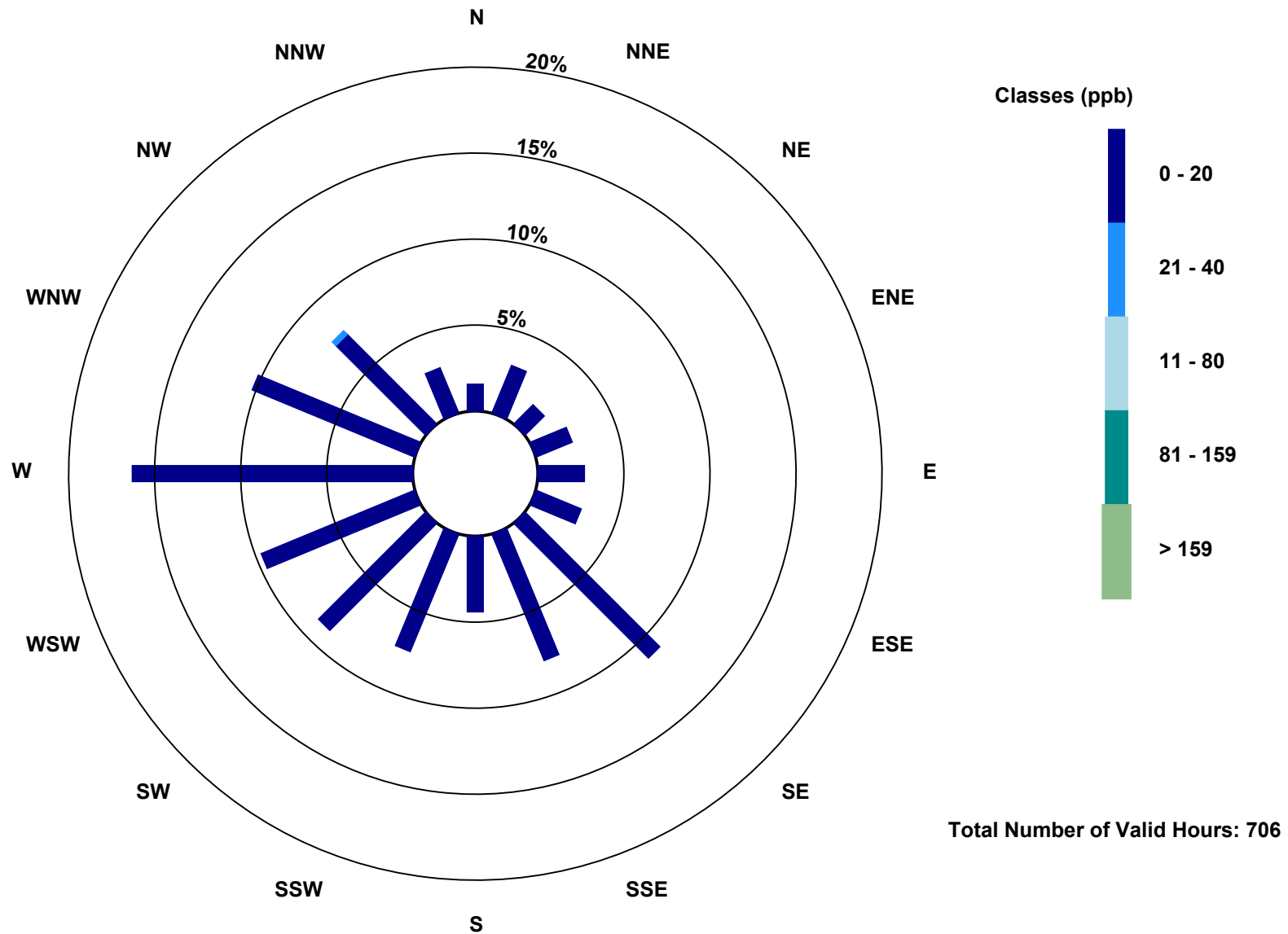
Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

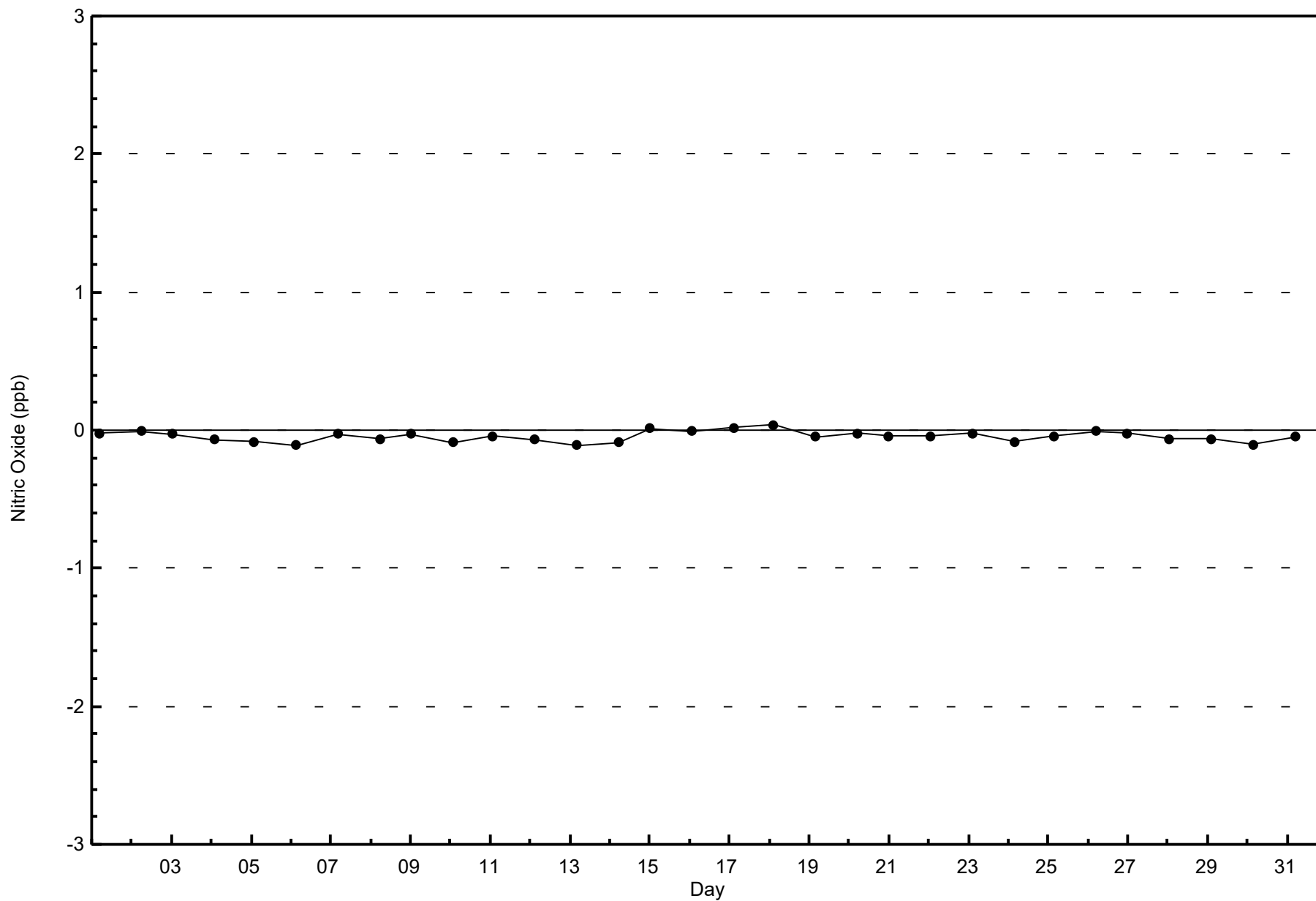
Nitric Oxide (NO) - ppb
Monday Creek





Wood Buffalo Environmental Association
Zero Responses

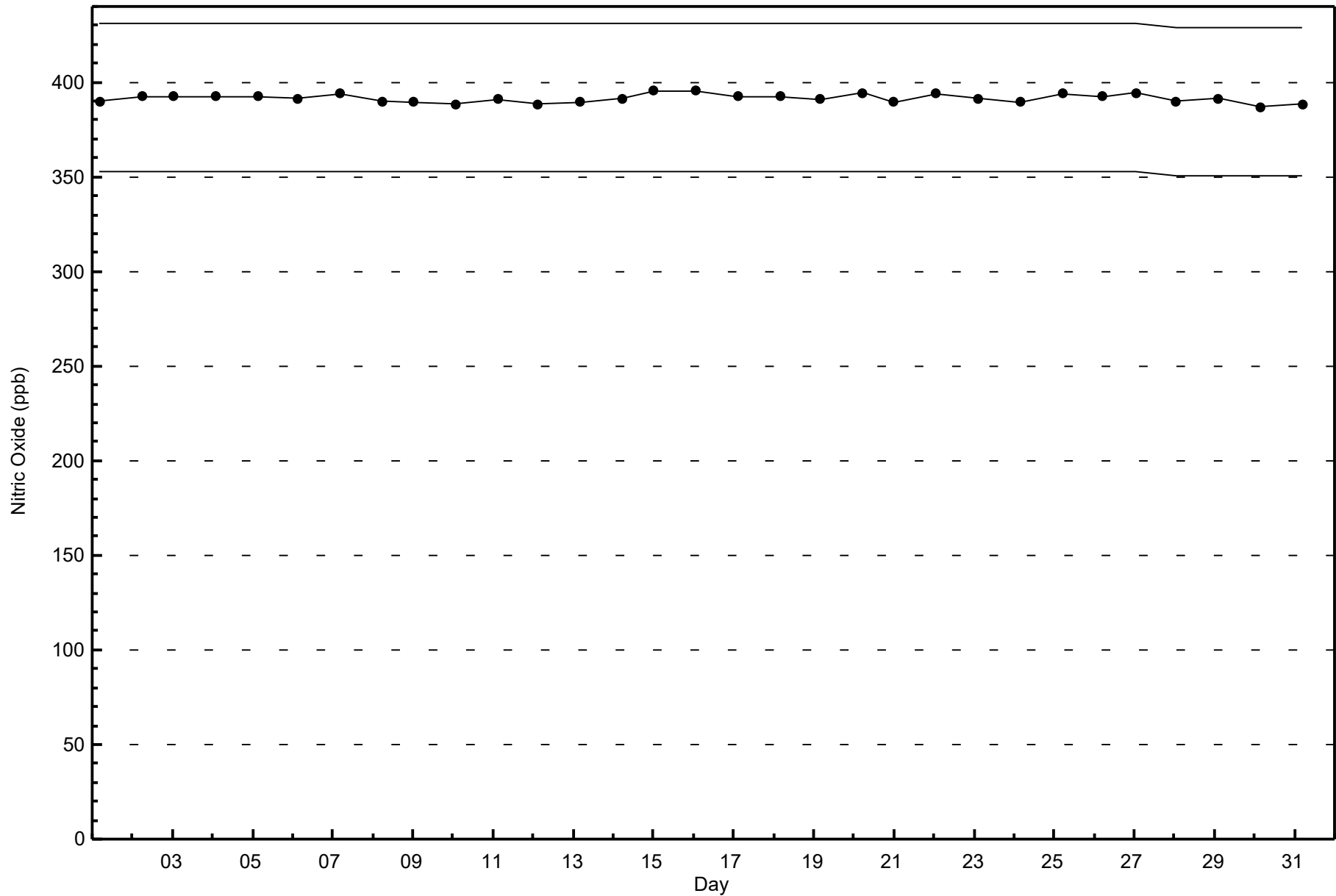
Nitric Oxide (NO) - ppb
Monday Creek - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Monday Creek - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

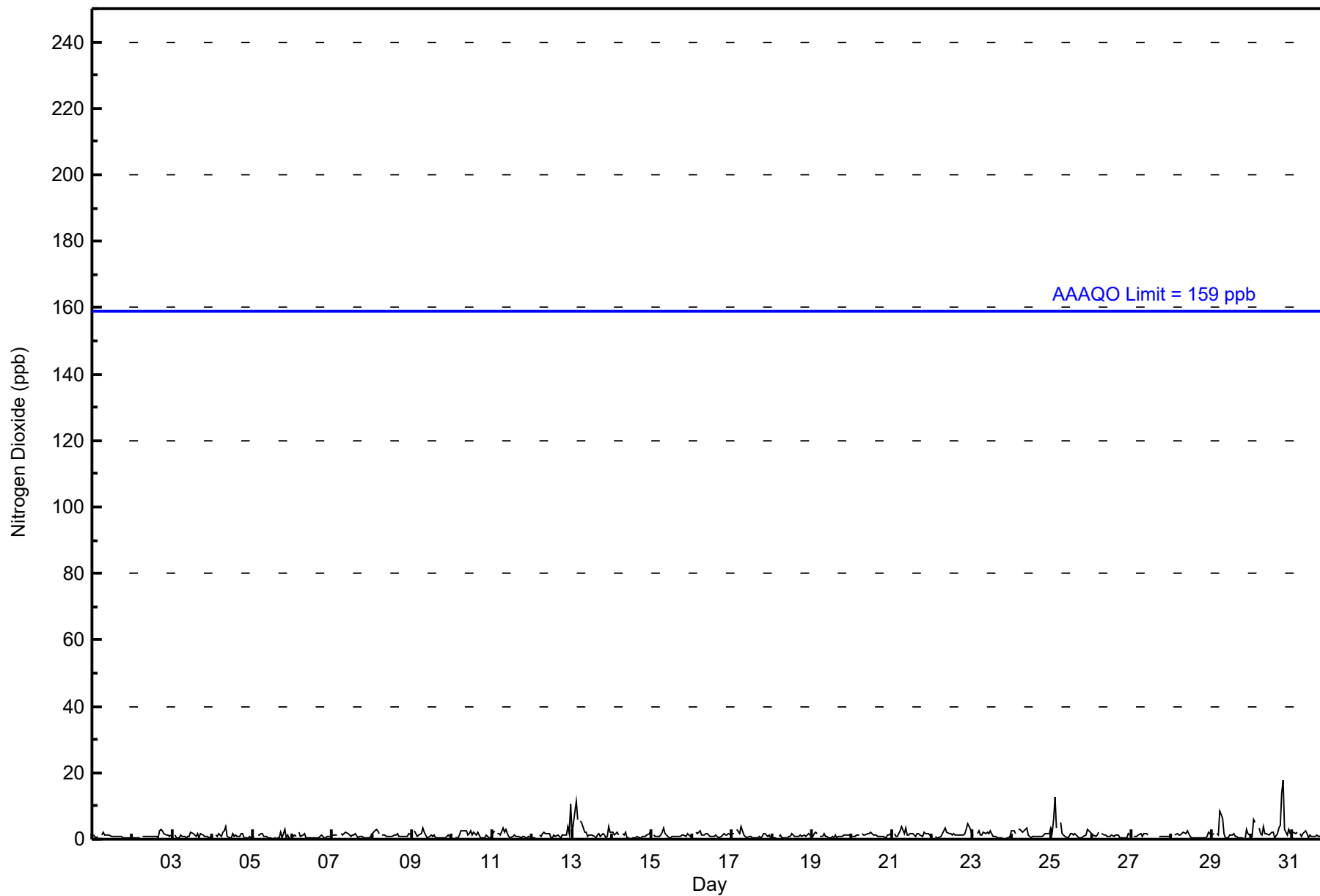
Monday Creek - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 17.8 ppb on Jul 30 20:00 Maximum Daily Average: 3.6 ppb on Jul 30																			Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0							
Minimum Value: 0.2 ppb on Jul 5 13:00 Maximum Diurnal Average: 2.2 ppb at hour 6 Monthly Average: 1.39 ppb																			Minimum Daily Average: 0.8 ppb on Jul 6 Minimum Diurnal Average: 0.9 ppb at hour 15 Percentiles: P ₁ = 0.2 P ₁₀ = 0.5 Q ₁ = 0.7 Median = 1.1 Q ₃ = 1.6 P ₉₀ = 2.4 P ₉₉ = 6.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	1.4	1.0	0.5	0.8	Z	1.2	2.1	1.4	1.3	1.3	1.4	0.9	0.8	0.7	0.8	0.7	0.7	0.7	0.6	0.6	0.5	0.5	0.6	0.5	0.9	2.1
2-Jul	0.5	0.5	0.6	0.6	0.5	Z	0.8	1.0	1.0	0.8	0.7	0.9	0.9	0.8	0.7	0.5	2.4	2.8	2.7	1.9	1.1	1.1	1.0	1.1	1.1	2.8
3-Jul	Z	1.2	0.6	0.4	0.5	1.1	0.9	0.7	0.6	0.9	0.8	2.0	1.6	1.1	0.8	1.6	0.5	1.8	1.1	0.8	1.0	1.0	0.6	0.9	1.0	2.0
4-Jul	0.8	Z	1.3	0.9	1.5	1.0	2.2	2.7	3.9	0.9	0.4	0.6	1.5	0.8	1.2	1.0	0.7	1.6	1.8	0.4	0.3	0.6	0.8	0.5	1.2	3.9
5-Jul	0.5	0.8	Z	1.1	1.1	1.9	1.6	0.7	0.8	0.5	0.3	0.3	0.2	0.4	0.2	0.4	0.4	2.1	0.6	2.9	0.6	1.1	0.3	0.2	0.8	2.9
6-Jul	0.7	1.2	0.9	Z	2.0	1.0	1.3	1.9	0.4	0.4	0.5	0.4	0.4	0.4	0.3	0.4	0.4	1.2	1.0	0.6	0.6	0.9	0.9	0.8	0.8	2.0
7-Jul	1.1	1.3	1.1	1.2	Z	1.6	1.4	1.5	2.0	1.6	1.1	0.9	1.1	1.3	1.8	0.6	0.8	0.7	0.8	0.5	0.4	0.4	0.6	0.9	1.1	2.0
8-Jul	1.6	2.2	3.0	2.5	1.8	Z	1.4	1.1	0.9	0.7	0.8	0.8	1.0	1.3	1.2	1.9	0.8	0.8	0.7	0.8	0.9	0.8	1.6	1.3	1.3	3.0
9-Jul	Z	2.6	1.9	0.7	1.4	1.7	3.6	2.3	1.1	0.4	0.7	1.4	0.8	1.2	0.6	0.6	0.6	0.5	0.4	0.5	0.6	1.1	0.8	0.4	1.1	3.6
10-Jul	0.4	Z	0.6	0.6	1.3	2.5	2.5	2.4	2.5	1.4	1.7	2.7	1.2	2.1	1.1	2.0	1.2	0.6	0.3	0.4	1.2	0.9	0.6	0.5	1.3	2.7
11-Jul	1.1	2.7	Z	1.8	1.7	1.2	3.4	2.0	3.1	1.9	0.9	0.6	0.7	1.2	0.8	0.8	0.8	0.6	0.7	0.7	0.4	0.4	0.8	0.5	1.3	3.4
12-Jul	0.4	0.4	0.4	Z	1.2	1.0	1.5	2.3	1.7	1.6	1.6	0.5	0.4	1.1	1.0	1.1	0.8	0.5	1.4	1.4	1.2	3.9	1.5	10.4	1.6	10.4
13-Jul	1.6	5.1	11.5	5.9	Z	5.5	4.5	2.2	2.2	0.9	1.1	1.2	1.3	0.8	0.4	1.4	1.5	0.7	1.6	1.1	0.4	0.8	4.0	2.0	2.5	11.5
14-Jul	2.3	1.2	1.8	2.0	1.3	Z	1.9	1.2	2.1	0.3	0.3	0.2	0.3	0.3	0.4	0.7	0.6	0.5	0.8	0.7	1.0	1.2	1.5	2.8	1.1	2.8
15-Jul	Z	1.2	0.8	1.0	0.9	1.3	2.0	3.2	1.8	1.0	0.5	0.5	0.7	0.7	0.7	0.7	0.7	0.8	1.3	1.1	1.0	1.6	1.3	0.9	1.1	3.2
16-Jul	1.2	Z	2.3	1.8	2.3	2.6	1.4	1.3	1.5	1.7	1.1	0.8	0.7	0.7	1.1	0.7	0.6	1.0	1.3	1.6	1.4	1.3	1.6	1.4	1.4	2.6
17-Jul	1.9	1.8	Z	2.9	1.7	4.0	2.4	1.4	0.8	0.6	0.7	0.8	0.6	0.5	0.5	0.6	0.9	0.6	0.7	1.9	1.5	0.8	1.2	0.5	1.3	4.0
18-Jul	0.4	0.6	0.5	Z	1.0	1.2	0.5	0.5	0.4	0.6	0.8	0.8	1.5	0.8	0.8	0.7	1.0	1.1	1.0	1.3	1.0	1.4	1.7	1.4	0.9	1.7
19-Jul	1.0	1.7	2.3	1.7	Z	0.9	0.8	1.8	1.0	0.7	0.6	0.6	0.7	0.6	1.4	0.6	0.7	0.9	1.0	1.1	1.2	1.4	1.1	0.9	1.1	2.3
20-Jul	0.9	0.9	1.0	1.3	1.4	Z	1.5	1.4	1.4	1.6	1.6	2.0	1.6	1.2	1.2	0.9	1.0	1.0	0.9	0.7	0.6	1.2	1.3	1.5	1.2	2.0
21-Jul	Z	1.7	1.0	0.8	1.7	2.5	3.9	1.6	3.4	1.3	1.2	1.5	1.6	1.2	1.0	1.7	1.6	1.2	0.9	2.3	1.9	1.5	1.6	0.9	1.7	3.9
22-Jul	0.8	Z	0.7	0.4	0.4	0.7	1.6	2.7	3.5	2.1	1.8	1.7	1.1	1.5	1.4	1.1	1.4	1.3	1.3	1.3	1.7	4.6	4.0	2.9	1.7	4.6
23-Jul	1.4	1.1	Z	1.7	2.7	1.2	1.4	2.3	1.9	2.2	1.8	2.5	1.5	0.7	0.7	0.6	0.5	0.3	0.3	0.2	0.2	0.4	0.3	0.7	1.2	2.7
24-Jul	2.4	2.4	1.7	Z	2.9	3.1	2.0	2.4	2.9	3.6	1.1	0.6	0.9	0.8	0.8	0.7	0.8	0.9	0.7	1.3	1.7	1.5	1.8	3.4	1.8	3.6
25-Jul	2.1	6.0	12.7	3.5	Z	5.1	1.6	1.2	0.9	0.6	1.0	1.7	1.6	1.3	1.9	1.0	0.4	0.5	0.5	0.8	1.3	3.0	2.4	2.3	2.3	12.7
26-Jul	1.7	1.3	0.9	1.1	2.0	Z	1.7	1.2	1.2	1.0	0.7	0.7	1.3	1.0	1.1	1.4	1.1	0.4	0.4	0.4	0.5	0.5	1.6	1.4	1.1	2.0
27-Jul	Z	1.0	0.9	0.7	1.4	1.8	1.0	1.9	1.9	1.7	1.3	C	C	C	C	C	0.8	0.7	0.9	0.8	0.8	0.8	0.8	1.0	1.1	1.9
28-Jul	1.1	Z	1.2	1.9	1.3	1.4	1.5	2.1	1.7	2.7	1.8	0.8	0.5	0.5	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.8	2.3	1.8	1.2	2.7
29-Jul	1.4	1.5	Z	1.7	1.4	8.3	6.3	1.6	0.5	0.4	0.4	1.3	1.3	1.9	1.0	1.0	0.3	0.3	0.4	0.2	0.2	2.8	1.8	0.8	1.6	8.3
30-Jul	0.9	5.9	5.1	Z	3.2	1.9	1.3	3.7	1.6	1.7	1.2	1.5	2.0	2.3	0.5	1.9	3.2	4.4	14.0	17.8	3.1	1.2	3.0	1.5	3.6	17.8
31-Jul	1.9	2.3	1.7	2.0	Z	1.8	0.8	1.8	2.5	1.6	0.6	1.1	0.9	0.8	0.9	1.2	1.0	0.8	1.2	2.9	4.6	3.1	0.7	1.2	1.6	4.6
																									Diurnal Average	
																									Diurnal Maximum	
Z - zerospan C - Calibration																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Monday Creek - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Monday Creek - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	708	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Monday Creek - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	11	21	11	16	19	20	78	56	31	52	62	68	115	72	54	20	706
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	21	11	16	19	20	78	56	31	52	62	68	115	72	54	20	706

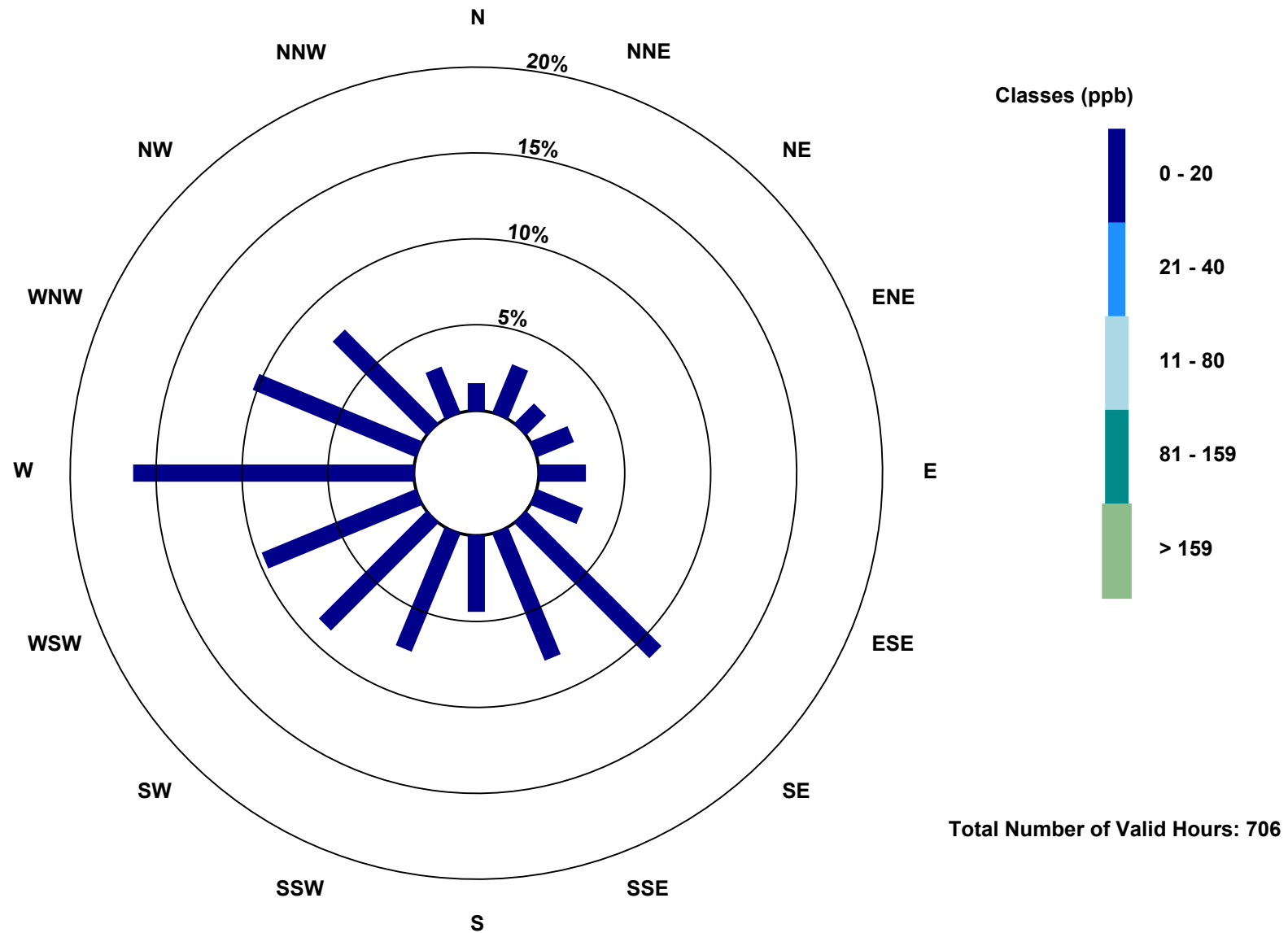
Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

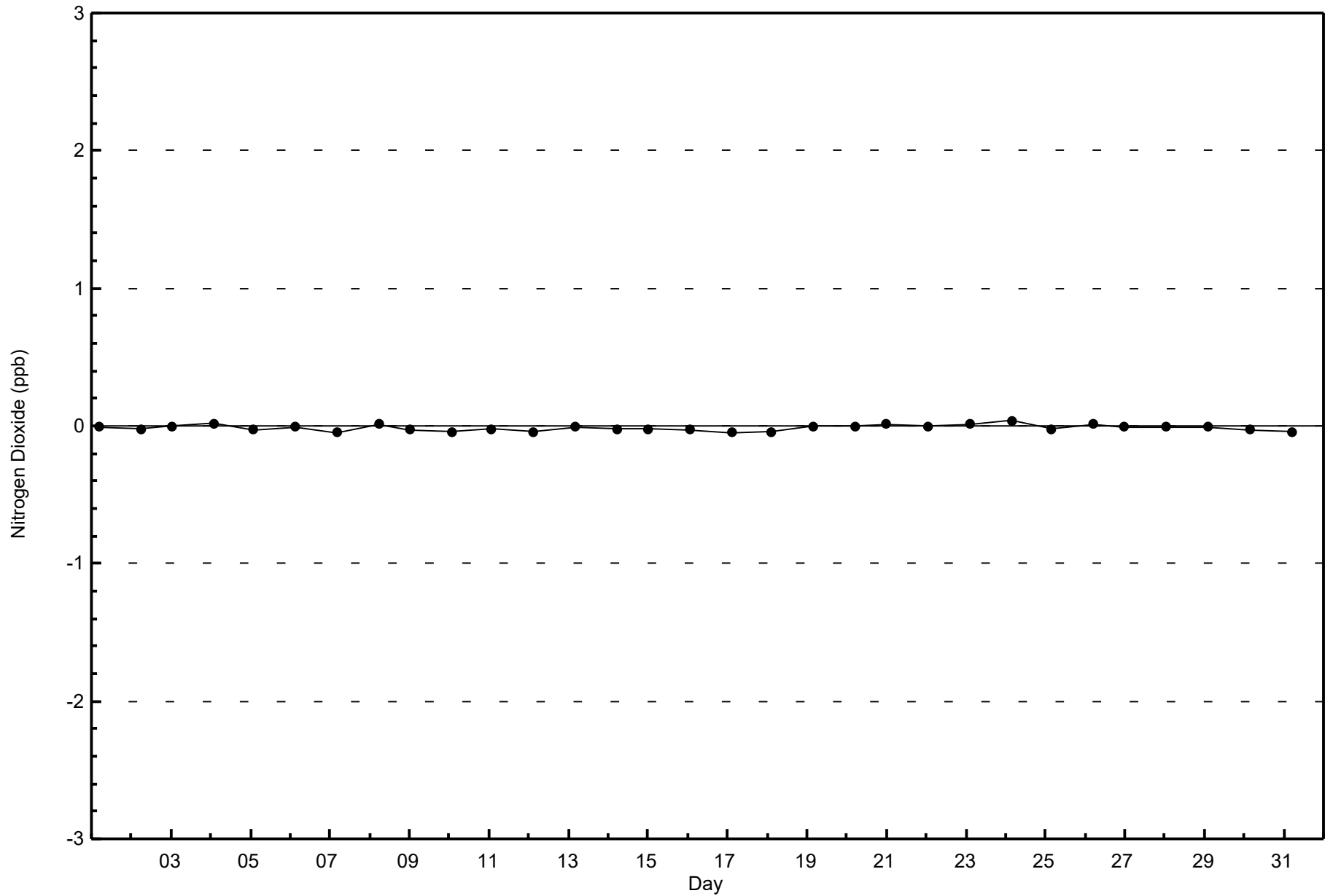
Nitrogen Dioxide (NO₂) - ppb
Monday Creek





Wood Buffalo Environmental Association
Zero Responses

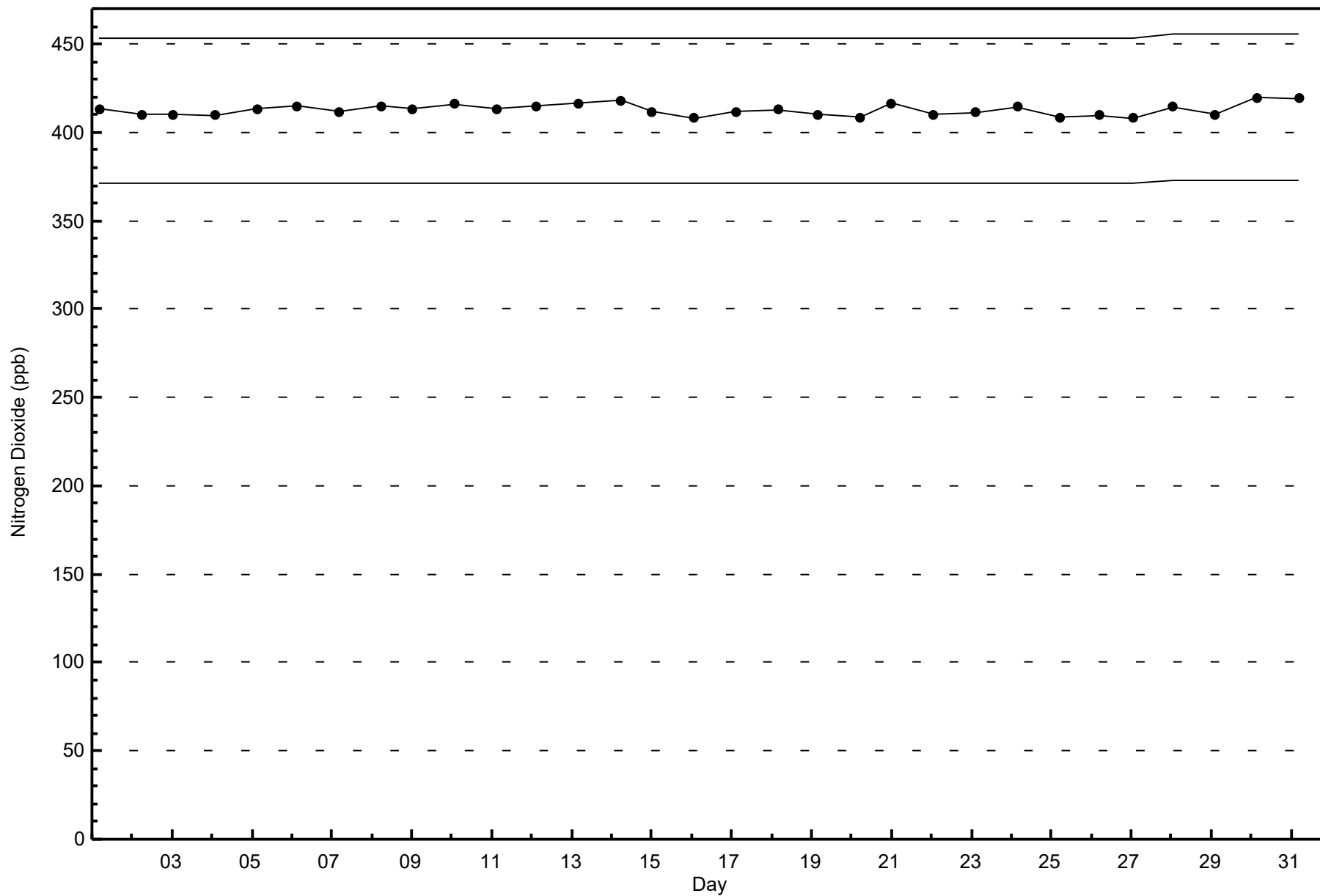
Nitrogen Dioxide (NO₂) - ppb
Monday Creek - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Monday Creek - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

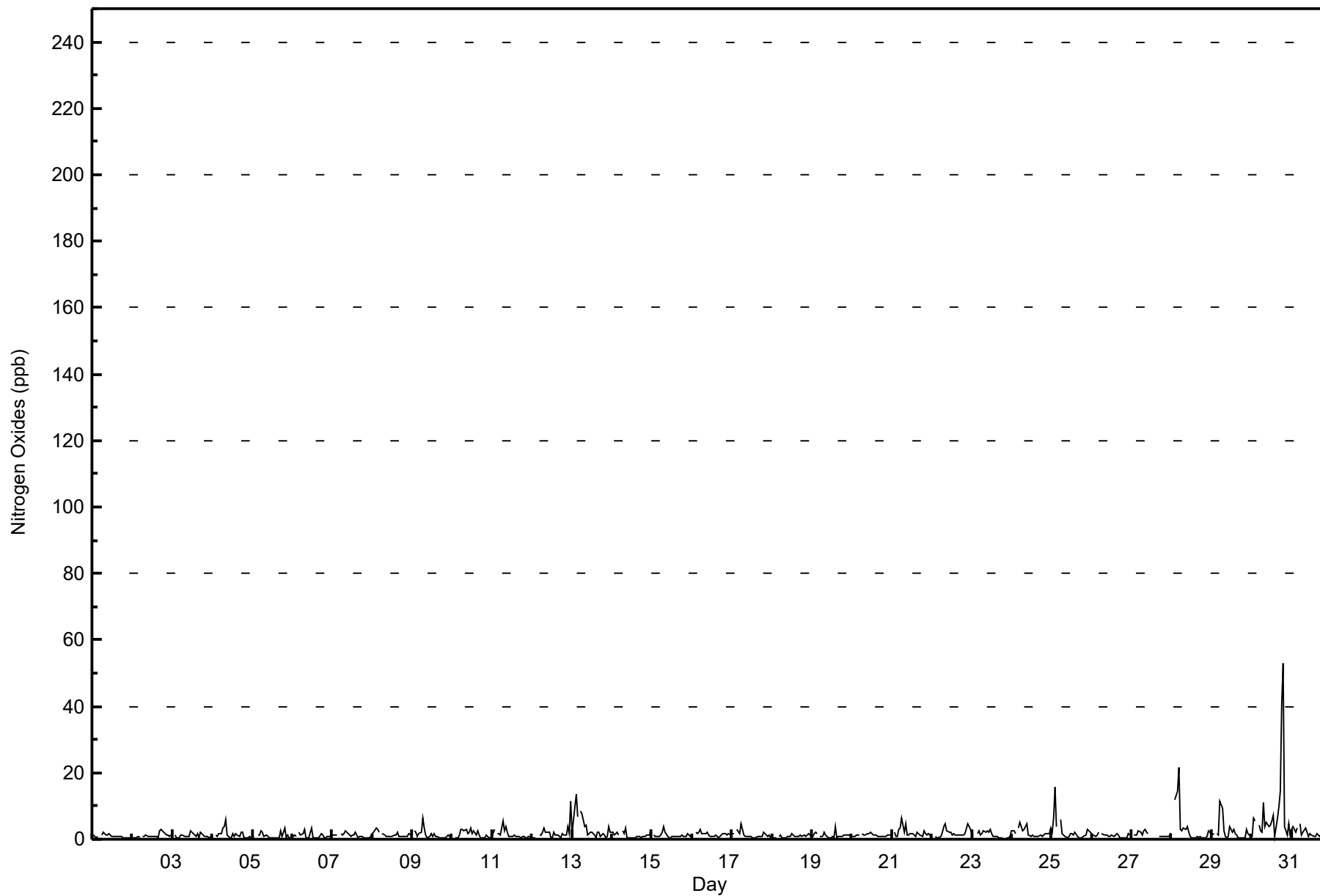
Monday Creek - July 2026

Maximum Value: 52.9 ppb on Jul 30 20:00																			Maximum Daily Average: 8.6 ppb on Jul 30							Hours in Service: 744	
Minimum Value: 0.2 ppb on Jul 23 21:00																			Minimum Daily Average: 0.9 ppb on Jul 1							Hours of Data: 708	
Maximum Diurnal Average: 3.0 ppb at hour 6																			Minimum Diurnal Average: 1.1 ppb at hour 15							Hours of Missing Data: 36	
Monthly Average: 1.81 ppb																			Percentiles: P ₁ = 0.2 P ₁₀ = 0.5 Q ₁ = 0.7 Median = 1.2 Q ₃ = 1.9 P ₉₀ = 3.3 P ₉₉ = 11.8							Hours of Calibration: 36	
																										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	1.4	1.0	0.5	0.8	Z	1.4	2.3	1.5	1.3	1.4	1.5	0.9	0.8	0.7	0.8	0.7	0.7	0.7	0.6	0.6	0.5	0.5	0.6	0.5	0.9	2.3	
2-Jul	0.5	0.5	0.6	0.6	0.5	Z	0.8	1.0	1.1	0.8	0.7	0.9	0.9	0.8	0.7	0.5	2.4	2.9	2.8	1.9	1.1	1.1	1.0	1.1	1.1	2.9	
3-Jul	Z	1.2	0.6	0.4	0.5	1.2	1.1	0.8	0.7	1.0	0.8	2.3	1.8	1.3	0.8	1.8	0.5	2.1	1.2	0.8	1.0	1.0	0.6	0.9	1.1	2.3	
4-Jul	0.8	Z	1.3	0.9	1.7	1.5	3.4	3.8	5.8	1.2	0.4	0.6	1.6	0.9	1.5	1.1	0.7	2.2	2.2	0.4	0.3	0.6	0.8	0.5	1.5	5.8	
5-Jul	0.5	0.8	Z	1.1	1.2	2.5	2.2	0.9	1.1	0.7	0.3	0.3	0.2	0.4	0.2	0.4	0.4	2.7	0.7	3.3	0.6	1.1	0.3	0.2	1.0	3.3	
6-Jul	0.7	1.2	0.9	Z	2.1	1.2	1.9	3.1	0.4	0.4	0.5	3.4	0.4	0.4	0.4	0.4	0.5	1.5	1.1	0.6	0.6	0.9	0.9	0.8	1.1	3.4	
7-Jul	1.1	1.3	1.1	1.2	Z	1.8	1.5	1.9	2.6	1.9	1.1	0.9	1.2	1.4	2.1	0.6	0.8	0.7	0.8	0.5	0.4	0.4	0.6	0.9	1.2	2.6	
8-Jul	1.6	2.2	3.6	2.8	1.9	Z	1.6	1.2	1.0	0.7	0.8	0.8	1.0	1.3	1.2	1.9	0.8	0.8	0.7	0.8	0.9	0.8	1.6	1.3	1.4	3.6	
9-Jul	Z	2.6	1.9	0.7	1.6	2.2	6.2	3.3	1.3	0.4	0.7	1.8	0.9	1.6	0.7	0.7	0.6	0.5	0.4	0.5	0.6	1.1	0.8	0.4	1.4	6.2	
10-Jul	0.4	Z	0.6	0.6	1.3	3.0	2.9	2.7	3.0	1.5	2.3	3.2	1.5	2.6	1.4	2.4	1.4	0.6	0.3	0.4	1.2	0.9	0.6	0.5	1.5	3.2	
11-Jul	1.1	2.8	Z	1.8	1.8	1.5	5.6	2.7	3.7	2.1	1.0	0.7	0.8	1.4	0.9	0.9	0.8	0.6	0.7	0.7	0.4	0.4	0.8	0.5	1.5	5.6	
12-Jul	0.4	0.4	0.4	Z	1.3	1.2	2.2	3.4	2.1	1.9	2.1	0.6	0.4	1.9	1.1	1.3	0.8	0.5	1.6	1.5	1.2	4.0	1.5	11.5	1.9	11.5	
13-Jul	1.6	5.8	13.5	7.0	Z	8.4	7.7	3.8	4.1	1.4	1.8	1.9	2.0	1.2	0.4	2.0	2.0	0.8	1.9	1.2	0.4	0.8	4.0	2.0	3.3	13.5	
14-Jul	2.3	1.2	1.8	2.0	1.3	Z	2.5	1.7	3.3	0.3	0.3	0.2	0.3	0.3	0.4	0.8	0.7	0.5	0.9	0.7	1.0	1.2	1.5	2.9	1.2	3.3	
15-Jul	Z	1.2	0.8	1.0	0.9	1.3	2.1	3.8	2.1	1.0	0.5	0.5	0.8	0.7	0.7	0.7	0.8	0.9	1.4	1.1	1.0	1.6	1.3	0.9	1.2	3.8	
16-Jul	1.2	Z	2.3	1.8	2.3	2.8	1.5	1.5	1.7	1.9	1.2	0.8	0.7	0.7	1.2	0.8	0.6	1.2	1.5	1.8	1.5	1.3	1.6	1.4	1.5	2.8	
17-Jul	1.9	1.8	Z	2.9	1.7	4.7	2.8	1.5	0.8	0.7	0.8	0.9	0.6	0.5	0.5	0.7	1.0	0.7	0.9	2.1	1.6	0.9	1.3	0.6	1.4	4.7	
18-Jul	0.5	0.6	0.5	Z	1.0	1.3	0.5	0.6	0.4	0.8	0.8	0.8	1.5	0.9	0.8	0.7	1.0	1.1	1.0	1.3	1.0	1.4	1.8	1.4	0.9	1.8	
19-Jul	1.0	1.7	2.3	1.7	Z	0.9	0.8	2.0	1.1	0.7	0.6	0.6	0.7	0.6	3.9	0.6	0.7	0.9	1.0	1.1	1.2	1.4	1.1	0.9	1.2	3.9	
20-Jul	0.9	0.9	1.0	1.3	1.4	Z	1.5	1.4	1.4	1.7	1.7	2.1	1.8	1.3	1.2	0.9	1.0	1.0	0.9	0.7	0.6	1.3	1.3	1.5	1.3	2.1	
21-Jul	Z	2.3	1.0	0.8	2.9	3.5	6.2	2.0	4.8	1.4	1.3	1.6	1.7	1.3	1.0	1.9	1.7	1.3	0.9	2.4	1.9	1.5	1.6	0.9	2.0	6.2	
22-Jul	0.8	Z	0.7	0.4	0.4	1.0	2.0	3.6	4.6	2.4	2.0	1.9	1.1	1.6	1.5	1.2	1.5	1.4	1.3	1.3	1.7	4.6	4.0	2.9	1.9	4.6	
23-Jul	1.4	1.1	Z	1.7	2.7	1.2	1.5	2.7	2.1	2.4	2.0	2.9	1.8	0.8	0.8	0.7	0.5	0.3	0.3	0.2	0.2	0.4	0.3	0.7	1.2	2.9	
24-Jul	2.4	2.4	1.7	Z	3.4	5.1	2.6	3.1	3.8	4.7	1.3	0.7	1.1	0.9	0.9	0.9	0.9	1.1	0.8	1.4	1.8	1.5	1.8	3.6	2.1	5.1	
25-Jul	2.1	6.4	15.9	3.8	Z	5.9	1.6	1.3	1.0	0.6	1.0	1.8	1.6	1.4	2.0	1.0	0.4	0.5	0.5	0.8	1.3	3.1	2.6	2.3	2.6	15.9	
26-Jul	1.8	1.3	0.9	1.1	2.0	Z	1.8	1.4	1.4	1.2	0.8	0.8	1.5	1.0	1.1	1.5	1.1	0.4	0.4	0.4	0.5	0.5	1.7	1.4	1.1	2.0	
27-Jul	Z	1.1	1.2	1.3	2.5	1.9	1.2	2.6	3.0	2.2	1.6	C	C	C	C	C	0.9	0.7	0.9	0.8	0.8	0.8	0.8	1.6	1.4	3.0	
28-Jul	1.3	Z	11.8	14.6	21.7	2.9	2.6	3.5	2.8	3.7	2.2	0.9	0.5	0.5	0.4	0.6	0.6	0.6	0.5	0.5	0.5	0.9	2.6	2.1	3.4	21.7	
29-Jul	1.4	1.5	Z	1.8	1.4	11.6	9.3	2.4	0.7	0.4	0.8	3.6	2.0	3.1	1.5	1.4	0.5	0.6	0.5	0.2	0.2	2.9	1.8	1.0	2.2	11.6	
30-Jul	0.9	6.5	5.7	Z	4.4	2.4	2.0	11.0	4.0	4.9	3.6	4.1	5.4	7.1	0.9	6.3	9.7	14.3	40.5	52.9	3.9	1.2	4.7	1.5	8.6	52.9	
31-Jul	3.1	3.8	2.3	3.4	Z	4.8	1.3	2.3	3.2	2.1	0.7	1.6	1.1	0.9	1.0	1.5	1.1	0.9	1.3	4.2	6.0	3.4	0.7	1.3	2.3	6.0	
1.3 2.1 2.9 2.2 2.6 3.0 2.7 2.5 2.3 1.6 1.2 1.5 1.3 1.3 1.1 1.2 1.2 1.5 2.3 2.8 1.2 1.4 1.5 1.6																									Diurnal Average		
3.1 6.5 15.9 14.6 21.7 11.6 9.3 11.0 5.8 4.9 3.6 4.1 5.4 7.1 3.9 6.3 9.7 14.3 40.5 52.9 6.0 4.6 4.7 11.5																									Diurnal Maximum		
Z - zerospan C - Calibration																											



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Monday Creek - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Monday Creek - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	705	99.58	99.58
21 - 40	1	0.14	99.72
41 - 80	2	0.28	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Monday Creek - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	11	21	11	16	19	20	78	56	31	51	62	68	115	72	52	20	703
21 - 40	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	21	11	16	19	20	78	56	31	52	62	68	115	72	54	20	706

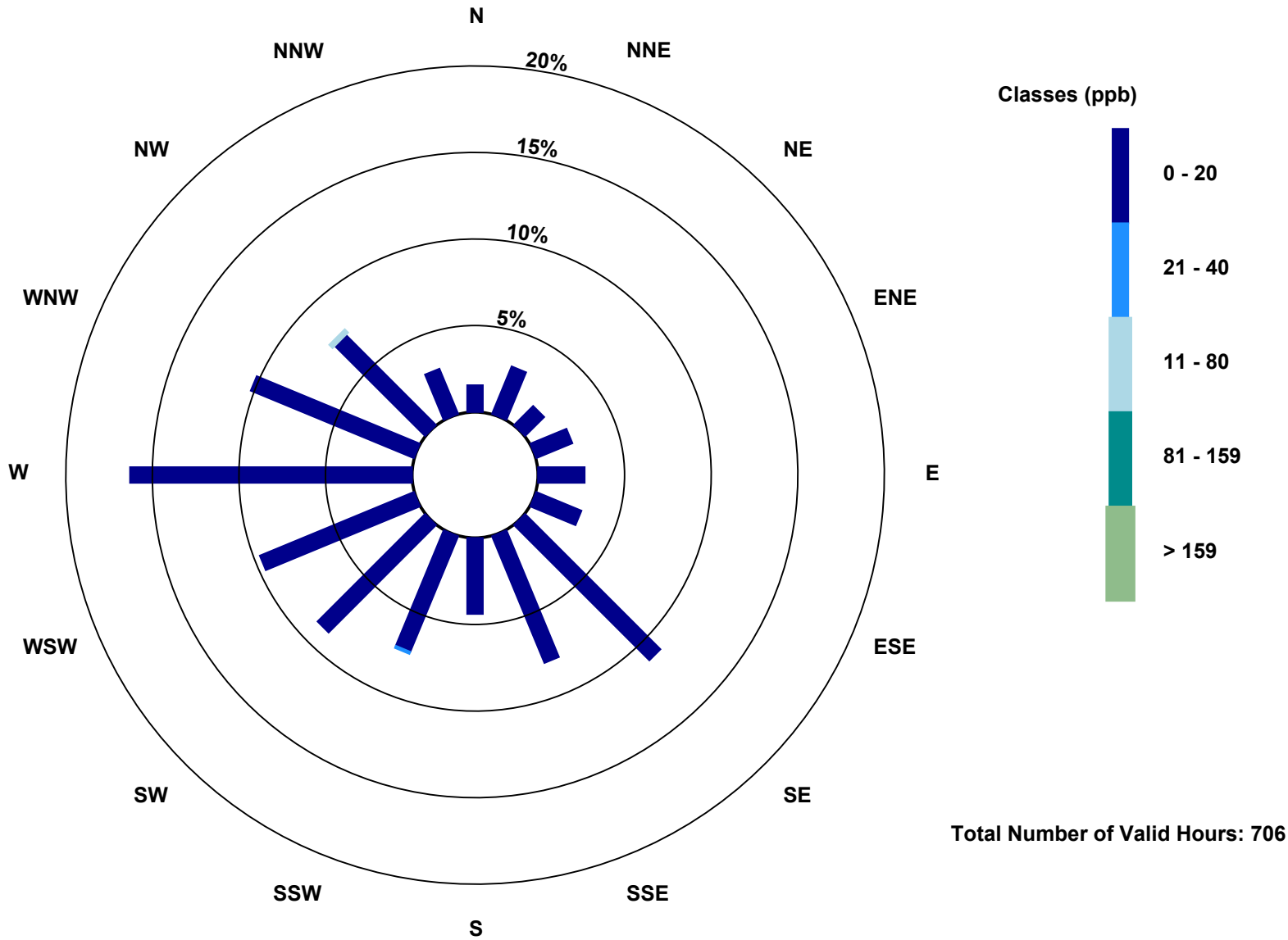
Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

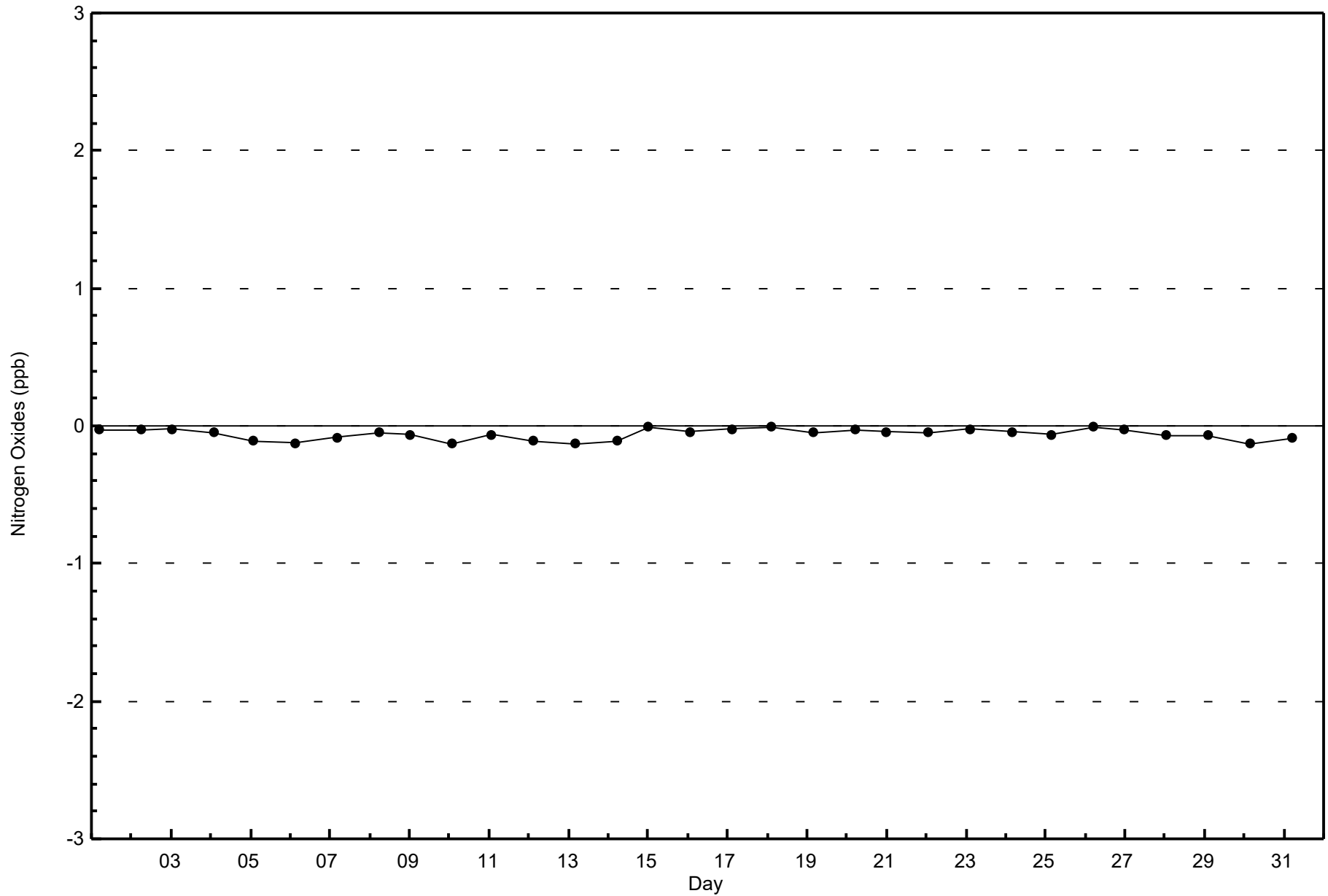
Nitrogen Oxides (NO_x) - ppb
Monday Creek





Wood Buffalo Environmental Association
Zero Responses

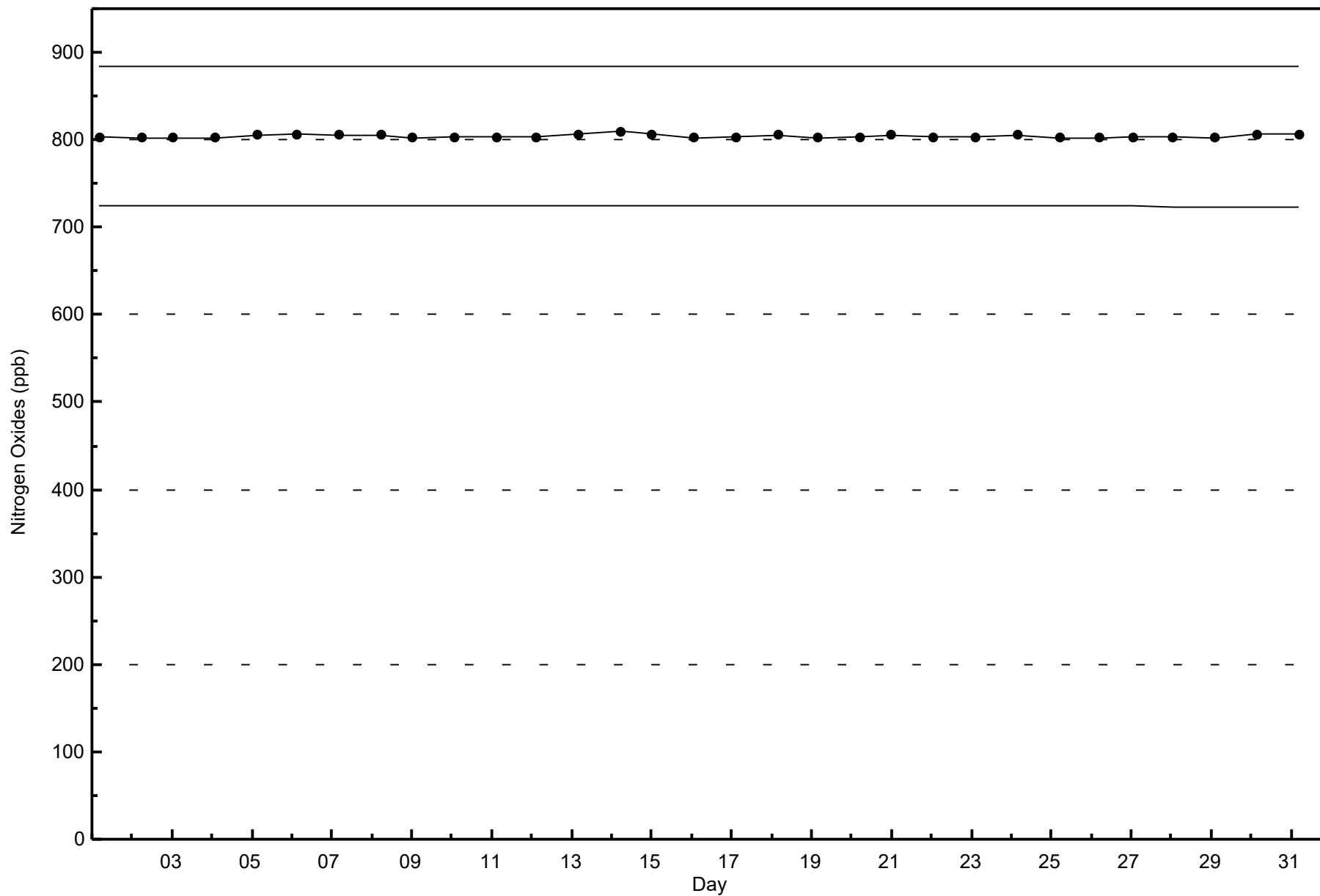
Nitrogen Oxides (NO_x) - ppb
Monday Creek - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Monday Creek - July 2026

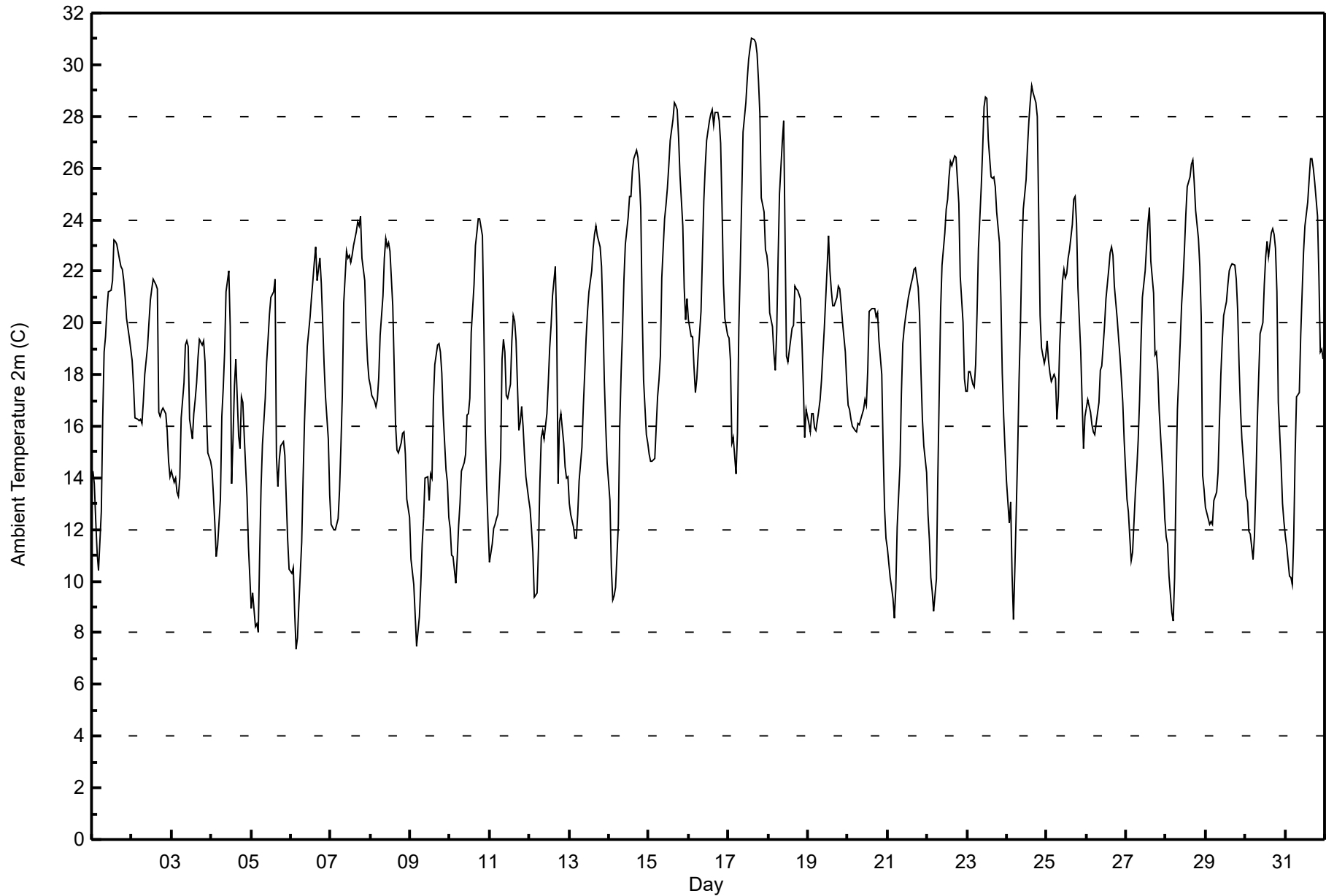


Maximum Value: 31.0 C on Jul 17 15:00																				Maximum Daily Average: 24.5 C on Jul 17					Hours in Service: 744				
Minimum Value: 7.4 C on Jul 6 04:00																				Minimum Daily Average: 13.6 C on Jul 9					Hours of Data: 744				
Maximum Diurnal Average: 22.9 C at hour 15																				Minimum Diurnal Average: 12.4 C at hour 5					Hours of Missing Data: 0				
Monthly Average: 18.34 C																				Percentiles: P ₁ = 8.5 P ₁₀ = 11.7 Q ₁ = 14.8 Median = 18.2 Q ₃ = 21.8 P ₉₀ = 24.9 P ₉₉ = 29.3					Hours of Calibration: 0				
																									Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	14.3	13.8	12.4	11.1	10.4	12.7	16.3	18.9	19.5	20.5	21.2	21.2	21.6	23.2	23.1	23.1	22.5	22.2	22.1	21.6	21.0	20.2	19.4	19.0	18.8	23.2			
2-Jul	18.5	17.6	16.3	16.3	16.2	16.3	16.1	17.0	18.0	19.1	20.0	20.9	21.3	21.7	21.5	21.3	16.5	16.4	16.6	16.7	16.5	15.9	14.7	14.1	17.7	21.7			
3-Jul	14.3	13.9	14.0	13.5	13.3	14.0	16.3	17.7	19.2	19.3	19.1	16.3	15.5	16.5	17.1	17.7	18.6	19.4	19.1	19.3	18.5	16.5	15.0	14.7	16.6	19.4			
4-Jul	14.3	13.3	12.2	11.0	11.4	13.2	16.4	17.4	18.9	21.2	22.0	19.9	13.8	15.5	17.6	18.6	15.6	15.1	17.1	16.9	15.6	13.3	11.3	10.2	15.5	22.0			
5-Jul	9.0	9.6	8.2	8.3	8.0	11.0	13.6	15.3	17.1	18.5	19.4	20.3	21.0	21.2	21.7	14.8	13.7	14.7	15.2	15.4	14.8	13.2	11.6	10.5	14.4	21.7			
6-Jul	10.3	10.5	8.8	7.4	7.8	9.1	11.5	14.0	16.2	17.8	19.1	20.2	21.0	21.6	22.3	22.9	21.7	22.5	21.5	20.0	18.4	17.1	15.5	13.3	16.3	22.9			
7-Jul	12.2	12.1	12.0	12.0	12.4	13.5	15.2	17.2	20.8	22.8	22.5	22.6	22.3	22.6	23.0	23.6	23.9	23.7	24.1	22.5	21.6	19.8	18.5	17.8	19.1	24.1			
8-Jul	17.6	17.2	17.0	16.8	17.1	17.9	19.5	21.0	22.5	23.3	22.9	23.1	22.8	20.7	18.3	16.1	15.1	15.0	15.4	15.7	15.8	14.9	13.2	12.5	18.0	23.3			
9-Jul	10.8	10.4	9.9	8.7	7.5	8.6	9.8	11.5	12.4	14.0	14.1	13.1	14.1	14.0	17.0	18.4	19.1	19.2	18.9	18.1	16.4	14.3	13.9	12.5	13.6	19.2			
10-Jul	12.0	11.0	10.9	9.9	10.9	12.2	13.0	14.3	14.6	14.9	16.4	16.5	17.1	19.6	21.5	23.0	23.5	24.0	24.0	23.4	19.9	15.9	13.7	12.2	16.4	24.0			
11-Jul	10.7	11.4	12.1	12.2	12.4	12.6	14.8	18.6	19.3	18.9	17.2	17.1	17.6	19.3	20.3	20.1	19.3	15.8	16.2	16.8	16.0	14.9	14.1	13.2	15.9	20.3			
12-Jul	12.8	12.0	11.1	9.4	9.5	11.3	13.8	15.5	15.9	15.5	16.5	17.7	19.0	19.9	21.0	22.2	19.9	13.8	16.1	16.5	15.4	14.4	14.0	14.0	15.3	22.2			
13-Jul	13.0	12.6	12.1	11.7	11.7	12.6	13.9	15.2	16.8	18.1	19.4	20.4	21.2	22.0	22.9	23.4	23.8	23.4	22.9	22.2	20.3	17.7	16.0	14.6	17.8	23.8			
14-Jul	13.1	10.5	9.3	9.5	9.8	12.2	16.0	18.1	19.7	21.7	23.1	24.1	24.9	24.9	25.9	26.4	26.7	26.4	25.6	24.4	20.5	17.8	15.7	15.4	19.2	26.7			
15-Jul	14.9	14.7	14.6	14.8	15.9	17.1	17.8	18.7	21.8	24.0	24.6	25.2	26.1	27.1	27.9	28.5	28.4	28.3	27.2	25.7	23.7	21.4	20.1	20.9	22.1	28.5			
16-Jul	20.1	19.5	19.5	18.3	17.3	17.9	18.8	20.4	22.6	24.7	26.1	27.1	27.8	28.1	28.3	27.7	28.1	28.1	27.8	26.9	24.5	21.5	20.2	19.5	23.4	28.3			
17-Jul	19.4	18.5	15.3	15.5	14.1	15.7	19.9	22.1	24.7	27.4	28.5	29.5	30.2	30.6	31.0	31.0	30.9	30.4	29.4	28.1	24.8	24.3	22.8	22.6	24.5	31.0			
18-Jul	22.1	20.4	19.8	18.8	18.2	19.6	22.5	25.0	27.0	27.8	23.2	18.7	18.5	19.4	19.8	19.9	21.4	21.3	21.2	20.9	19.4	17.6	15.6	16.6	20.6	27.8			
19-Jul	16.1	15.8	16.5	16.5	15.9	15.8	16.6	17.0	17.8	18.8	19.8	22.1	23.4	22.0	21.3	20.6	20.6	21.0	21.4	21.3	20.7	20.0	18.9	17.7	19.1	23.4			
20-Jul	16.8	16.6	16.3	16.0	15.8	15.8	16.1	16.0	16.3	16.7	17.0	16.8	18.2	20.4	20.6	20.5	20.6	20.2	20.4	19.3	18.0	15.1	12.8	11.7	17.2	20.6			
21-Jul	11.3	10.2	9.7	9.4	8.6	9.7	12.1	14.5	17.3	19.2	19.8	20.2	21.0	21.2	21.5	21.8	22.1	22.1	21.4	20.3	18.1	16.3	15.3	14.2	16.5	22.1			
22-Jul	12.6	11.6	10.1	9.6	8.8	10.1	14.0	17.3	20.5	22.2	23.5	24.4	24.8	25.7	26.3	26.1	26.5	26.4	25.5	24.6	21.8	20.0	17.9	17.4	19.5	26.5			
23-Jul	17.4	18.1	18.1	17.6	17.5	18.4	20.4	22.9	25.3	26.7	28.3	28.7	28.7	27.1	25.6	25.6	25.7	25.3	24.3	23.1	21.0	18.0	16.4	15.1	22.3	28.7			
24-Jul	13.9	12.3	13.1	10.3	8.5	10.5	15.0	17.8	20.0	22.8	24.4	25.5	26.8	27.8	28.6	29.2	28.9	28.5	28.0	24.2	20.3	19.0	18.4	18.7	20.5	29.2			
25-Jul	19.3	18.6	18.1	17.7	18.0	17.9	16.3	17.1	19.1	21.6	22.1	21.7	21.9	22.5	22.8	23.8	24.8	24.9	23.9	21.4	18.9	16.9	15.1	16.4	20.0	24.9			
26-Jul	16.7	17.0	16.6	16.0	15.8	15.7	16.1	16.9	18.2	18.4	19.1	19.9	20.9	22.1	22.7	23.0	22.6	21.4	20.2	19.4	18.7	17.8	16.9	15.5	18.7	23.0			
27-Jul	13.2	12.7	11.7	10.8	11.1	13.5	14.3	15.4	17.0	19.2	21.0	22.0	23.0	23.9	24.5	22.4	21.1	18.7	18.9	18.1	16.6	15.6	13.8	12.4	17.1	24.5			
28-Jul	11.7	11.4	10.2	8.8	8.5	10.2	13.7	16.7	19.3	20.7	21.6	22.9	24.2	25.3	25.6	26.2	26.3	25.4	24.3	23.3	22.2	20.2	14.1	13.6	18.6	26.3			
29-Jul	12.8	12.4	12.2	12.3	12.2	13.1	13.4	14.2	16.1	18.0	19.3	20.3	20.8	21.5	22.0	22.2	22.3	22.2	21.7	20.5	18.4	16.7	15.5	14.1	17.3	22.3			
30-Jul	13.3	13.1	11.9	11.8	10.9	11.8	13.7	16.2	17.9	19.6	20.0	21.5	22.6	23.2	22.6	23.5	23.7	23.5	22.9	21.2	16.9	14.6	13.0	12.3	17.6	23.7			
31-Jul	11.8	11.3	10.2	10.1	9.9	11.7	14.9	17.2	17.3	19.5	21.2	22.7	23.7	24.7	25.5	26.4	26.4	26.0	25.4	24.1	21.8	18.9	19.0	18.6	19.1	26.4			
14.4 13.9 13.2 12.6 12.4 13.6 15.5 17.3 19.0 20.4 21.0 21.4 21.8 22.4 22.9 22.9 22.6 22.1 21.9 21.0 19.2 17.4 15.9 15.2																									Diurnal Average				
22.1 20.4 19.8 18.8 18.2 19.6 22.5 25.0 27.0 27.8 28.5 29.5 30.2 30.6 31.0 31.0 30.9 30.4 29.4 28.1 24.8 24.3 22.8 22.6																									Diurnal Maximum				



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Monday Creek - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Monday Creek - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	30	4.03	4.03
10 - 20	433	58.20	62.23
> 20	281	37.77	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

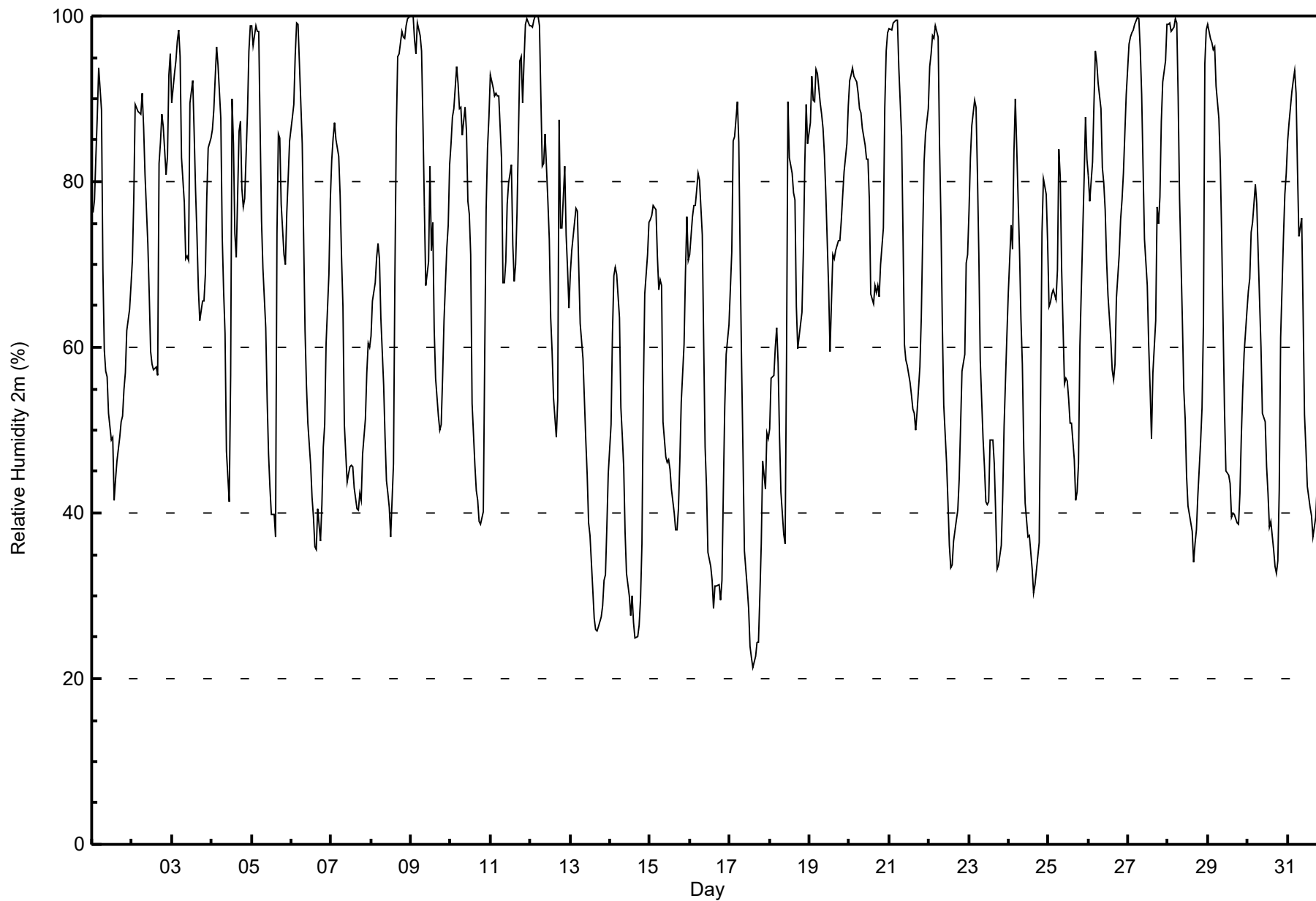
Monday Creek - July 2026

Maximum Value: 100.0 % on Jul 9 00:00																				Maximum Daily Average: 84.6 % on Jul 11										Hours in Service: 744			
Minimum Value: 21.4 % on Jul 17 15:00																				Minimum Daily Average: 46.8 % on Jul 13										Hours of Data: 744			
Maximum Diurnal Average: 88.6 % at hour 5																				Minimum Diurnal Average: 48.7 % at hour 15										Hours of Missing Data: 0			
Monthly Average: 67.25 %																				Percentiles: P ₁ = 25.3 P ₁₀ = 38.3 Q ₁ = 49.3 Median = 69.5 Q ₃ = 85.3 P ₉₀ = 94.9 P ₉₉ = 99.7										Hours of Calibration: 0			
																								Percent Operational Time: 100.0									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24									
1-Jul	76.2	77.8	83.1	88.0	93.7	88.6	69.3	59.7	57.1	56.4	52.0	48.9	49.2	41.5	44.1	46.3	49.1	51.0	51.7	54.9	56.9	62.1	64.6	67.5	62.1	93.7							
2-Jul	70.6	77.9	89.2	88.5	88.3	88.1	90.7	86.6	80.8	72.6	66.4	59.5	58.0	57.2	57.6	56.6	82.3	84.8	88.1	86.6	80.9	83.1	92.9	95.4	78.4	95.4							
3-Jul	89.6	93.1	94.6	97.0	98.3	95.1	82.8	77.4	70.7	71.1	70.5	89.5	92.3	85.9	78.9	73.6	67.1	63.1	65.6	65.7	68.8	78.2	84.1	85.3	80.8	98.3							
4-Jul	86.4	88.7	92.5	96.3	94.0	87.7	73.4	66.8	61.7	47.4	41.3	56.6	90.0	84.6	73.8	70.9	86.2	87.4	79.1	77.0	78.0	88.3	95.8	98.8	79.3	98.8							
5-Jul	98.8	96.4	98.8	98.2	98.2	86.4	75.2	69.5	62.3	53.8	47.1	43.0	39.8	39.8	37.1	73.7	85.7	85.2	77.3	71.2	69.9	76.3	80.5	84.9	72.9	98.8							
6-Jul	87.7	89.3	95.3	99.2	99.0	94.3	84.7	73.2	62.1	55.5	50.9	45.8	41.9	39.5	36.0	35.6	40.5	36.7	41.0	48.0	50.7	60.5	68.9	77.8	63.1	99.2							
7-Jul	82.5	85.3	87.1	85.0	83.0	78.3	70.9	64.9	50.8	43.8	44.7	45.5	45.8	45.5	43.1	40.5	40.4	42.4	41.6	47.1	51.4	56.9	60.5	60.0	58.2	87.1							
8-Jul	61.4	65.6	67.9	70.8	72.5	70.6	63.6	55.4	49.2	43.9	42.3	40.7	37.0	46.0	68.4	86.1	95.1	95.4	98.2	97.4	97.3	98.8	99.7	100.0	71.8	100.0							
9-Jul	100.0	100.0	97.2	95.4	99.1	97.6	95.7	87.1	76.9	67.5	70.3	81.8	71.8	75.0	62.2	56.3	51.8	50.0	50.7	56.5	63.2	72.1	74.7	82.1	76.5	100.0							
10-Jul	84.5	87.8	88.8	93.9	91.9	88.8	89.1	85.7	88.9	86.2	77.6	76.2	71.2	53.3	45.7	42.7	41.5	39.0	38.6	40.2	59.0	76.7	84.1	87.9	71.6	93.9							
11-Jul	93.0	91.3	90.3	90.6	90.4	90.3	82.7	67.8	67.8	70.3	77.3	79.8	82.0	72.4	68.0	69.9	76.2	94.5	95.0	89.6	94.6	99.1	99.7	98.8	84.6	99.7							
12-Jul	98.8	98.6	99.4	100.0	100.0	98.8	90.1	81.9	82.3	85.7	77.7	73.0	63.5	59.5	53.8	49.1	53.5	87.5	74.5	74.4	81.9	73.5	69.5	64.8	78.8	100.0							
13-Jul	69.0	71.7	75.1	76.9	76.4	69.5	62.8	58.6	53.8	48.8	44.6	38.8	37.2	30.6	27.3	25.9	25.7	26.2	27.4	28.7	31.9	32.5	38.2	44.7	46.8	76.9							
14-Jul	50.7	61.7	68.6	69.6	68.9	63.6	52.7	49.4	45.6	37.7	32.7	30.0	27.7	29.9	26.7	25.0	25.0	26.5	29.7	36.3	54.5	66.4	71.2	75.1	46.9	75.1							
15-Jul	75.5	76.0	77.0	76.6	71.1	67.0	68.2	67.5	51.0	46.8	46.1	46.4	45.3	42.9	40.0	37.9	38.0	40.6	46.3	53.4	60.3	69.0	75.8	70.5	57.9	77.0							
16-Jul	71.2	75.8	77.2	77.1	78.9	81.0	80.2	73.5	60.3	48.0	43.1	35.3	33.5	31.9	28.4	31.2	31.2	31.4	29.5	31.8	42.8	53.0	59.2	62.8	52.9	81.0							
17-Jul	67.0	71.5	84.9	85.5	89.6	84.8	70.5	57.8	47.1	35.5	31.0	28.5	23.8	22.6	21.4	22.7	24.4	24.4	30.0	36.3	46.3	43.0	49.7	49.0	47.8	89.6							
18-Jul	50.2	56.2	56.6	60.0	62.4	58.2	49.4	42.5	37.5	36.4	58.4	89.6	82.9	81.0	78.6	77.9	64.9	59.9	61.4	64.3	71.5	82.0	89.4	84.6	64.8	89.6							
19-Jul	87.2	92.7	89.9	89.6	93.6	93.1	89.5	88.1	86.4	83.1	78.4	67.0	59.5	65.4	71.2	70.8	71.8	73.0	72.9	75.2	78.4	81.1	84.6	89.1	80.5	93.6							
20-Jul	92.2	92.9	93.7	92.7	92.0	90.8	88.9	88.3	86.5	84.4	82.8	82.8	77.8	66.4	65.2	67.4	66.6	67.4	66.1	70.0	74.4	89.0	95.7	98.1	82.2	98.1							
21-Jul	98.5	98.4	99.1	99.3	99.6	99.5	93.7	85.4	73.4	60.4	58.5	57.8	55.7	54.2	52.5	52.1	50.0	52.3	57.6	63.5	73.3	82.4	85.8	88.8	74.7	99.6							
22-Jul	93.8	95.5	97.6	97.4	98.8	97.4	84.4	75.4	62.8	53.1	46.0	41.3	36.1	33.4	33.7	36.6	39.2	40.4	44.1	50.5	57.1	59.2	70.2	71.1	63.1	98.8							
23-Jul	76.4	82.9	86.7	89.8	89.0	81.1	71.2	58.4	48.9	45.6	41.4	41.1	41.4	48.7	48.8	45.9	39.9	33.2	33.7	36.1	42.1	50.5	56.0	61.5	56.3	89.8							
24-Jul	66.6	74.7	71.8	83.6	90.0	84.1	71.5	63.4	58.0	47.8	41.3	37.2	37.3	35.3	33.1	30.4	31.4	34.7	36.5	54.2	73.9	80.4	78.5	72.7	57.8	90.0							
25-Jul	64.9	65.4	66.4	67.0	65.7	69.3	83.9	80.5	69.4	55.7	56.3	56.0	53.7	50.8	50.8	46.5	41.5	42.5	46.0	60.2	73.7	80.3	87.8	82.6	63.2	87.8							
26-Jul	80.8	77.6	82.4	89.4	95.8	94.3	91.8	88.8	81.7	79.9	76.5	70.4	66.3	61.0	57.3	56.0	57.9	65.9	71.3	75.4	77.8	81.1	85.8	90.6	77.3	95.8							
27-Jul	96.6	97.5	98.0	98.4	99.0	99.8	99.6	96.0	90.5	81.7	73.1	67.4	60.4	55.0	49.0	56.9	63.1	77.0	75.0	78.2	87.3	92.1	94.6	99.1	82.7	99.8							
28-Jul	98.9	99.2	98.1	98.7	99.7	99.2	90.1	78.0	63.3	54.9	51.4	44.4	40.9	39.8	37.9	34.1	36.3	38.0	42.0	48.6	52.8	62.8	94.2	98.3	66.7	99.7							
29-Jul	98.9	97.3	96.8	95.9	96.3	91.4	87.7	82.3	73.5	62.9	52.6	45.0	44.6	43.5	39.5	40.0	39.8	38.9	38.6	42.3	49.4	55.0	59.4	64.4	64.0	98.9							
30-Jul	66.8	68.3	73.9	75.0	79.7	77.3	71.4	65.5	59.9	52.0	51.0	45.6	42.4	38.4	38.9	35.6	33.6	32.7	34.2	42.8	61.1	73.2	78.5	81.0	57.5	81.0							
31-Jul	85.0	87.1	90.9	92.2	93.4	90.7	81.5	73.4	75.6	64.3	51.8	47.8	43.2	40.7	39.6	37.1	38.4	39.6	43.2	49.1	57.6	70.5	65.0	68.9	63.6	93.4							
81.3 83.7 86.1 87.7 88.6 85.7 79.3 72.5 65.7 59.1 56.0 55.2 53.3 50.7 48.7 49.4 51.2 53.6 54.4 58.2 65.1 71.9 77.2 79.2																										Diurnal Average							
100.0 100.0 99.4 100.0 100.0 99.8 99.6 96.0 90.5 86.2 82.8 89.6 92.3 85.9 78.9 86.1 95.1 95.4 98.2 97.4 97.3 99.1 99.7 100.0																										Diurnal Maximum							



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Monday Creek - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %
Monday Creek - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	94	12.63	12.63
40 - 60	186	25.00	37.63
60 - 80	218	29.30	66.94
80 - 100	242	32.53	99.46

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

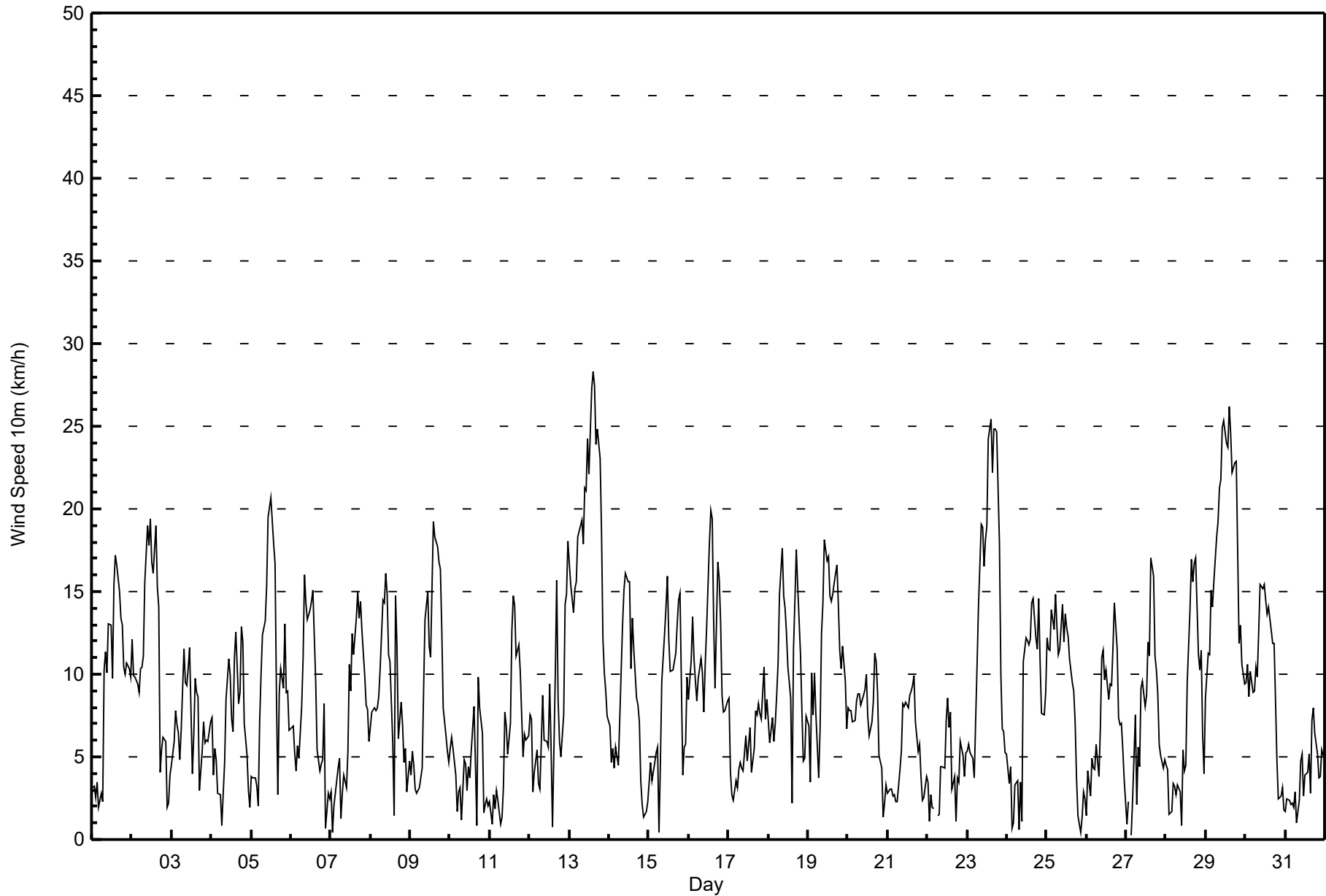
Monday Creek - July 2026

Maximum Speed: 28 km/h on Jul 13 15:00														Maximum Daily Speed Average: 18.6 km/h on Jul 13														Hours in Service: 744	
Minimum Speed Value: 0 km/h on Jul 27 04:00														Minimum Daily Speed Average: 0.5 km/h on Jul 10														Hours of Data: 742	
Maximum Diurnal Speed Average: 5.7 km/h at hour 12														Minimum Diurnal Speed Average: 2.6 km/h at hour 22														Hours of Missing Data: 2	
Monthly Average Velocity: 3.7 km/h 252.5 deg														Percentiles: P ₁ = 1 P ₁₀ = 3 Q ₁ = 4 Median = 8 Q ₃ = 12 P ₉₀ = 16 P ₉₉ = 25														Percent Operational Time: 99.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	E3	E3	E3	E3	SW2	NW3	E2	ESE10	ESE11	SE10	ESE13	ESE13	SE10	SE15	SE17	SE17	SE15	SE13	SE13	SE10	SE10	SE11	SE10	SE10	SE8.9	SE17			
2-Jul	SE12	SE10	SE10	SE9	SE9	SE10	SE10	SSE11	SSE15	SE19	SSE18	SSE19	SSE17	SSE16	SSE19	SSE15	WSW14	WSW4	E5	ESE6	SSE6	SW2	SW2	SE4	SSE9.8	SSE19			
3-Jul	ESE5	ESE6	SE8	SE7	SSE6	SSE5	SSE7	S12	S9	SSW9	SSW10	WSW12	S4	SSW6	W10	W9	WNW9	WNW3	SSE5	SSE7	S6	SSE6	SSE6	S7	S4.9	WSW12			
4-Jul	SSW7	S4	SSW6	S5	SSW3	S3	ESE1	SSE3	SSE5	SE8	SE11	SW10	WNW7	NE7	E11	E13	N8	W9	WNW13	W12	W7	WSW5	SW3	SW2	SSW2.2	WNW13			
5-Jul	SSW4	SSW4	SW4	W3	SW2	W7	W10	W12	WNW13	WNW15	WNW20	WNW20	WNW21	WNW18	NW17	N9	S3	WSW9	W10	W9	WNW13	W9	W9	W7	WNW9.2	WNW21			
6-Jul	WNW7	WNW7	W5	W4	WSW6	WSW5	W8	W11	WNW16	WNW14	NW13	NW14	NW14	WNW15	NW12	NNW10	NE5	W4	WNW5	NW5	W8	NW1	S3	SSE2	WNW6.9	WNW16			
7-Jul	SSE3	E0	NNW2	SSW3	S4	SSW5	SSE1	SE3	ENE4	NE3	E5	E11	ESE9	E12	E11	ESE13	SE15	SE13	SE14	SE13	SE10	SE8	SSE8	SSE6	SE6.3	SE15			
8-Jul	SSE7	SSE8	SSE8	SSE8	SSE8	SSE9	SSE10	SSW15	SSW14	S16	SSE15	S11	SSE11	SE6	SE1	W15	NNW12	NW6	WNW8	W7	WSW5	WSW6	SW3	S5	S5.4	S16			
9-Jul	SSW4	WSW5	W5	WSW3	S3	SW3	SW4	WSW4	W9	W13	W15	W12	WSW11	SSW15	SW19	SW18	SW18	SW17	SW16	SW13	SSW8	SSW6	SSE5	SSE5	SW8.5	SW19			
10-Jul	SE5	SE6	SE5	SE4	SSW2	SW3	SSE3	SSW1	SE5	S5	S3	SW4	SW4	NNW5	NNW8	NNW5	S1	WNW10	NNW8	NNW6	NNE2	SE2	SSE2	E2	SSW0.5	WNW10			
11-Jul	WSW2	W1	SE3	S2	SE3	SE2	NNW1	SSW1	W3	W8	NW7	NNE5	NE7	NNE13	NNE15	NNE14	N11	NNW12	N10	NNW8	NW5	W6	WNW6	WNW6	NNW3.9	NNE15			
12-Jul	WNW8	WNW7	WSW3	SSE4	SSW5	WSW3	W3	W6	WNW9	WNW6	W6	N6	N9	NNE6	ESE1	SSW10	W16	NW8	WSW6	SW5	S8	WSW14	WSW15	WSW18	W5.3	WSW18			
13-Jul	WSW17	WSW15	WSW14	W15	W16	W18	W19	W19	W18	WSW21	WSW21	WSW24	WSW22	W27	W28	W27	W24	W25	W23	W19	W12	W10	W9	W7	W18.6	W28			
14-Jul	W7	SW5	SSW5	SW4	SSW6	SW5	W7	W10	W13	WNW15	NW16	NW16	NW16	NW10	WNW13	W12	W9	WSW8	W7	W4	SW2	SSW1	S2	SE2	W6.8	NW16			
15-Jul	ESE3	SE5	SE4	SE5	SSE5	SE6	NNE0	ESE5	SSE10	SSE12	SE14	SE16	SSE12	SSW10	SSW10	SSE11	SSW11	SW13	SSW14	SW15	WSW4	ENE6	SE6	SSW10	S6.8	SE16			
16-Jul	SSW8	SW11	SW13	SSW11	SSW10	SW8	WSW10	WSW11	WSW10	S8	SW11	SW13	WSW18	WSW20	WSW19	W13	NW9	WSW17	WSW16	WSW13	WSW9	SW8	SW8	SW8	WSW11.0	WSW20			
17-Jul	SW9	SW4	SW3	SW2	WNW4	SW3	WNW4	WNW5	WNW4	WNW4	NNE6	NE5	NNE6	NNE7	NNE4	ENE6	ENE8	ENE8	ENE8	ENE8	E7	ESE10	SE7	SE8	ENE1.9	ESE10			
18-Jul	SE7	SE6	SE7	SE6	SE7	SE9	SE11	SE15	SE18	SE15	NNW14	NNE12	ENE10	ESE9	ENE2	ESE12	ESE14	SE18	SE15	SE11	ESE8	E5	N5	NNE7	ESE7.1	SE18			
19-Jul	WNW7	WSW3	W10	WNW8	NNW10	NW8	W4	W7	WNW12	NW14	NW18	NW17	NW17	NNW15	NW14	WNW15	WNW15	WNW17	NW14	NW11	NW10	NW12	NW10	NW7	NW10.9	NW18			
20-Jul	WNW8	NW8	NNW8	NW7	NW7	NNW8	NW9	NNW9	NNW8	N9	NNW9	NNW10	N7	NNE6	NW7	NW8	NW11	NNW11	NNW9	NW5	NW4	W1	WSW2	W3	NNW6.9	NW11			
21-Jul	SW3	SW3	SSW3	SSW3	SW3	WSW2	WSW2	WNW4	WSW5	WNW8	WNW8	WNW8	NW8	NW9	NW9	W9	W10	NW7	NW5	WNW6	WSW4	SW2	SW3	SW4	W4.6	W10			
22-Jul	SSW3	SW1	SSW3	S2	S2	UO	WSW1	SSE1	W4	WSW4	WSW4	W7	SW9	WSW7	WNW8	NW3	ENE4	ESE1	ENE4	E4	SE6	SSE5	SSE4	SSE5	SW1.7	SSW9			
23-Jul	SSE5	SSE6	S5	S5	SSE4	SSW7	SW10	SW14	SW19	SW19	WSW17	W18	W19	NW24	NW25	NW22	WNW25	WNW25	WNW25	NW18	NW10	W7	W7	WNW5	W10.8	NW25			
24-Jul	WSW5	W3	W4	NNE1	S1	SSW3	SW4	WSW1	SSE3	W1	WSW11	SW12	WSW12	WSW12	WSW12	WSW14	SW15	WSW12	SW11	SW15	SW11	SW8	WSW8	WSW9	WSW7.5	SW15			
25-Jul	W12	W11	W11	W14	W13	W15	W13	W11	W12	WNW14	W12	W14	W13	W12	W11	W9	WNW9	NW7	NW4	SE1	ENE0	ESE1	SSW3	SW2	W8.9	W15			
26-Jul	S1	S4	SSE3	SSW5	SE4	WSW4	WNW6	NW4	N7	NNE11	NE11	NE10	NE8	NNE9	NNE9	NNE12	NNE14	NNE12	NE7	ENE7	ENE7	ENE5	ENE4	NE5.2	NNE14				
27-Jul	NNW1	NNE2	UO	W0	SW2	SE8	S2	W6	WNW4	SW9	W10	WNW8	NW9	NW12	NW11	WNW17	WNW16	W11	WNW10	WNW9	W6	W5	S4	SSW5	W5.6	WNW17			
28-Jul	SW4	W4	E1	S2	SSW3	SW3	SSW3	W3	N3	E1	SSW5	WSW4	SE4	SE9	SE14	SE17	SE16	SE17	SE17	SE11	SE10	SSW11	WNW6	S4	SSE5.2	SE17			
29-Jul	SSW9	SW11	SW11	WSW15	WSW14	WSW16	W18	W19	W21	W22	W25	W25	W24	W24	W26	W25	WNW22	WNW23	WNW23	WNW17	W12	W13	W11	W9	W17.4	W26			
30-Jul	W9	W11	WSW9	W10	W9	W9	W10	WNW10	WNW13	WNW15	WNW15	WNW15	WNW14	WNW14	WNW14	NW13	WNW12	NW12	NW9	NW5	SW2	SSE3	SW3	SSE2	WNW9.1	WNW15			
31-Jul	SSE2	ESE2	SE2	ESE2	ESE2	NE2	S3	SW1	WSW2	SE5	SSE5	WSW3	SSW4	SW4	SE5	SW3	SW7	SSW8	SW6	SW5	SW4	S4	S5	S5	S2.9	SSW8			
SW3.5 SW3.0 SW3.3 SW3.0 SW3.0 SW3.0 SW3.0 WSW4.4 WSW4.4 WSW4.6 W5.1 W5.7 W5.0 W4.5 W5.1 W4.4 W5.2 W5.5 W4.5 W3.7 WSW2.6 SW2.6 SW2.7 SW2.9																								Diurnal Average					
WSW17 WSW15 WSW14 W15 W16 W18 W19 W19 W21 W22 W25 W25 W24 W27 W28 W27 W27 W25 W25 W25 W19 WNW13 WSW14 WSW15 WSW18																								Diurnal Maximum					
UO - Unstable Operation																													
All monthly, daily, and diurnal averages have been calculated using vector methods																													



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Monday Creek - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Monday Creek - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	254	34.23	34.23
6 - 11	282	38.01	72.24
12 - 19	175	23.58	95.82
20 - 28	31	4.18	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 742

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Monday Creek - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	2	6	4	7	13	10	21	27	27	25	40	26	20	10	11	5	254
6 - 11	9	9	7	9	4	8	37	21	5	24	15	15	52	29	24	14	282
12 - 19	0	7	0	0	2	5	24	10	2	4	15	23	34	26	19	4	175
20 - 28	0	0	0	0	0	0	0	0	0	0	0	5	14	9	3	0	31
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	22	11	16	19	23	82	58	34	53	70	69	120	74	57	23	742

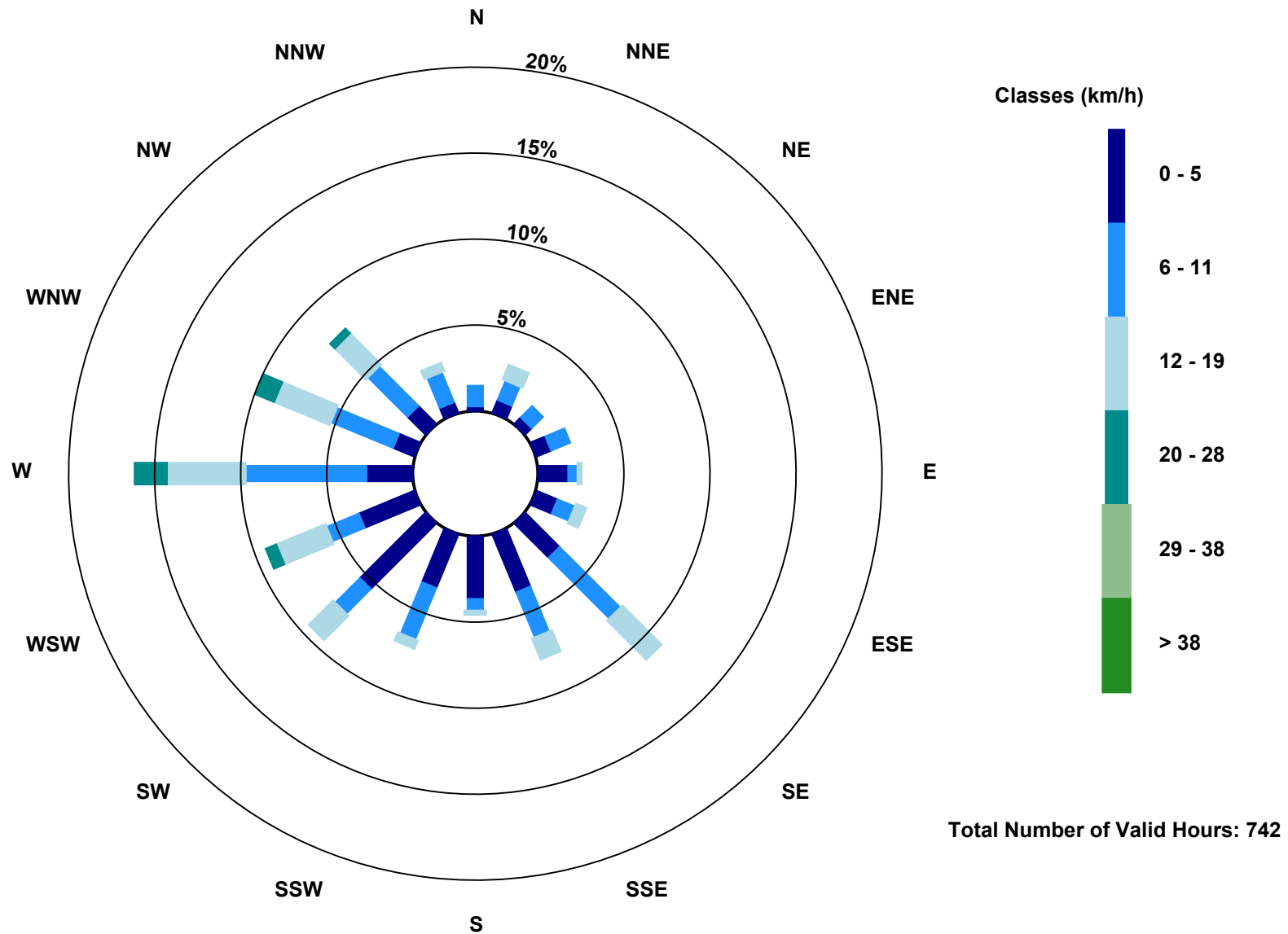
Total Number of Valid Hours: 742

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Monday Creek





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h
Monday Creek - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																	Hours in Service: 744									
Maximum Value: 9 km/h on Jul 12 17:00																	Hours of Data: 742									
Minimum Value: 0 km/h on Jul 21 22:00																	Hours of Missing Data: 2									
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 1 Median = 2 Q ₃ = 3 P ₉₀ = 5 P ₉₉ = 7																	Hours of Calibration: 0									
																	Percent Operational Time: 99.7									
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	1	1	1	1	1	1	2	5	3	3	3	3	4	4	4	4	3	3	3	2	2	2	2	2	5	
2-Jul	3	2	2	2	2	2	2	3	4	4	4	5	4	5	6	6	4	3	2	2	2	1	1	1	6	
3-Jul	1	1	1	2	2	2	2	3	3	3	4	6	2	2	3	2	2	2	1	2	1	1	1	3	6	
4-Jul	1	2	1	1	2	1	1	1	2	3	4	7	7	3	2	3	5	3	3	2	3	1	1	2	7	
5-Jul	1	1	1	1	1	3	2	2	3	5	4	5	5	4	5	6	2	2	2	2	3	2	1	2	6	
6-Jul	2	1	1	1	1	2	2	3	4	4	4	4	4	4	5	4	3	3	4	5	3	2	2	1	5	
7-Jul	1	1	2	2	1	2	1	2	1	2	3	4	2	2	2	3	3	3	3	3	2	1	1	1	4	
8-Jul	1	2	2	2	2	2	3	4	4	5	4	3	5	1	2	4	4	2	2	2	2	2	1	1	5	
9-Jul	1	1	2	1	1	1	1	1	3	3	3	3	4	4	5	5	5	4	4	3	2	1	1	1	5	
10-Jul	1	1	1	1	2	2	1	2	1	1	2	2	2	3	2	2	3	3	2	2	1	1	1	1	3	
11-Jul	3	1	1	1	1	1	3	1	2	2	1	1	3	3	3	3	4	5	2	2	1	1	1	2	5	
12-Jul	2	2	1	1	1	1	1	2	2	4	2	2	3	3	3	4	9	8	2	2	3	4	4	4	9	
13-Jul	4	3	3	4	3	4	4	4	5	6	5	6	6	7	6	6	6	5	5	5	2	2	3	2	7	
14-Jul	3	1	1	1	1	1	3	2	3	4	5	4	4	4	5	4	4	4	3	2	2	2	2	1	5	
15-Jul	1	1	2	1	1	1	1	1	3	4	5	5	4	4	4	4	4	4	4	5	3	2	3	3	5	
16-Jul	2	2	3	3	2	2	3	3	2	2	4	4	4	5	6	5	3	4	4	4	3	2	1	2	6	
17-Jul	2	1	1	1	1	1	2	1	2	1	2	3	3	3	3	3	3	3	2	1	1	1	1	1	3	
18-Jul	2	1	1	1	1	2	2	4	5	7	6	6	6	4	4	3	5	4	4	2	3	1	3	2	7	
19-Jul	4	3	3	4	3	2	1	2	3	3	4	4	5	4	3	3	3	4	3	3	3	3	3	1	5	
20-Jul	2	2	2	1	2	2	2	2	2	2	3	3	2	3	2	2	3	2	2	2	1	3	2	1	3	
21-Jul	2	1	1	1	1	2	1	1	2	3	2	2	2	2	2	3	3	2	2	1	1	0	1	1	3	
22-Jul	1	1	2	3	2	UO	1	1	2	2	2	3	3	3	3	2	2	1	1	1	1	1	1	1	3	
23-Jul	1	1	1	1	1	2	3	3	5	5	5	5	5	6	7	6	6	7	5	6	3	1	1	1	7	
24-Jul	1	1	1	1	1	1	1	1	1	2	3	4	4	4	4	5	4	3	3	6	4	2	1	3	6	
25-Jul	3	3	4	3	3	4	3	2	3	4	3	3	3	3	2	2	3	2	2	1	1	1	2	1	4	
26-Jul	2	2	1	2	2	2	2	2	2	3	3	3	4	3	3	3	3	3	2	2	2	2	2	1	4	
27-Jul	1	1	UO	1	4	3	2	2	2	2	3	2	3	3	3	3	4	5	3	1	1	1	1	1	5	
28-Jul	1	2	3	1	1	1	1	1	1	2	3	3	3	5	4	4	3	4	4	2	2	9	7	2	9	
29-Jul	2	3	2	4	3	4	4	5	5	5	5	5	5	6	7	6	5	5	5	4	2	3	2	1	7	
30-Jul	1	2	2	2	2	1	2	2	3	4	4	4	4	4	3	3	3	3	2	1	2	1	3	1	4	
31-Jul	1	1	1	1	1	3	1	1	1	3	3	2	2	2	3	3	3	3	1	1	1	2	1	1	3	
4 3 4 4 4 4 4 5 5 7 6 7 7 7 7 7 6 9 8 5 6 4 9 7 4																										
Diurnal Maximum																										
UO - Unstable Operation																										



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

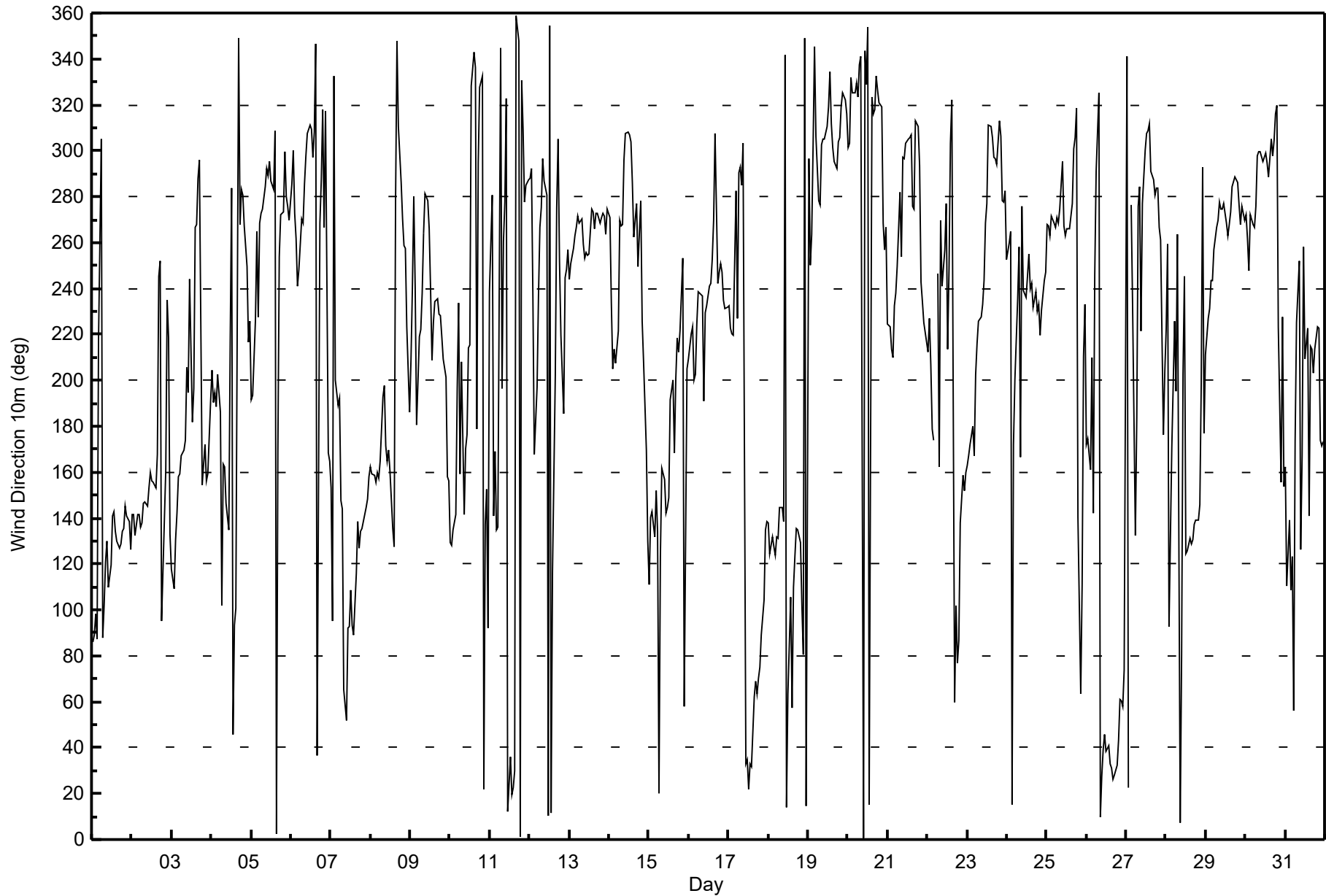
Monday Creek - July 2026

Direction of Maximum Speed: 273 deg on Jul 13 15:00																				Hours in Service:		744			
Direction of Maximum Daily Speed Average: 264.8 deg on Jul 13																				Hours of Data:		742			
Direction of Minimum Speed: 276 deg on Jul 27 04:00										Direction of Minimum Daily Speed Average: 0.5 deg on Jul 10										Hours of Missing Data:		2			
Monthly Average Direction: 252.5 deg																				Percent Operational Time:		99.7			
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	86	89	98	87	217	305	88	102	121	130	110	120	141	143	135	130	127	129	134	136	145	141	139	126	128.0
2-Jul	142	141	132	142	142	136	138	147	147	145	153	160	156	155	153	168	245	252	95	117	161	235	219	133	152.6
3-Jul	118	109	130	142	158	159	167	169	174	206	195	244	182	196	267	268	288	296	154	164	172	156	159	191	185.7
4-Jul	205	190	195	188	203	186	102	163	163	146	135	218	284	46	93	100	349	268	283	281	267	249	216	226	210.5
5-Jul	192	194	226	265	228	268	273	274	284	292	289	295	287	283	309	2	169	254	272	273	300	280	276	270	282.4
6-Jul	286	300	273	262	241	248	271	269	286	298	307	311	309	297	308	347	36	268	288	318	267	317	169	165	293.2
7-Jul	153	95	332	200	189	192	148	144	66	52	92	93	109	94	89	116	139	127	134	136	142	145	148	158	125.2
8-Jul	163	159	159	155	160	157	165	193	198	172	165	169	161	136	128	278	347	311	286	270	258	258	224	186	188.9
9-Jul	208	240	280	240	181	219	222	238	264	281	278	266	239	209	225	234	236	229	228	219	209	202	158	156	233.7
10-Jul	129	128	135	142	196	234	159	208	142	170	177	214	215	328	343	336	179	295	327	333	22	137	152	92	208.8
11-Jul	239	281	141	169	135	136	345	197	261	278	323	12	36	19	22	30	359	348	1	330	309	278	285	287	348.4
12-Jul	288	292	238	168	197	237	267	275	297	287	281	10	354	12	116	202	275	305	252	219	186	244	248	257	264.4
13-Jul	244	251	257	263	267	271	268	270	259	253	256	255	255	274	273	266	273	273	269	271	272	271	264	275	264.8
14-Jul	271	234	205	214	208	221	270	267	268	296	307	308	307	304	286	263	277	249	264	278	225	208	170	130	275.2
15-Jul	111	140	143	132	152	134	20	123	162	157	142	145	149	192	200	168	201	218	213	221	253	58	130	205	172.1
16-Jul	209	220	223	200	203	224	239	237	237	191	229	233	241	242	252	270	308	242	247	251	247	235	231	232	236.9
17-Jul	232	223	220	220	283	227	291	293	285	303	33	35	22	33	32	62	69	63	70	75	89	104	135	139	68.2
18-Jul	138	125	132	127	124	132	131	145	144	139	342	14	64	106	57	110	123	136	135	130	102	80	349	15	115.4
19-Jul	297	250	263	303	346	307	278	277	303	305	305	310	319	334	312	301	295	292	304	306	319	325	322	316	306.9
20-Jul	301	304	332	325	325	330	324	338	341	0	344	329	354	15	323	316	318	333	327	321	319	268	257	267	328.0
21-Jul	225	223	213	210	232	238	250	282	254	297	296	303	305	306	307	276	274	313	311	293	243	234	225	217	279.5
22-Jul	213	227	207	179	174	UO	247	163	270	241	257	277	214	248	303	322	60	102	77	86	138	159	152	160	215.3
23-Jul	163	167	172	180	167	203	216	226	227	233	244	268	277	311	311	305	297	297	294	313	307	278	278	283	274.4
24-Jul	253	260	265	15	172	200	235	258	166	276	239	236	245	255	240	242	232	239	230	233	219	231	243	247	237.8
25-Jul	268	267	263	271	268	267	271	268	275	295	267	263	266	266	266	277	301	306	318	140	63	111	210	233	271.7
26-Jul	172	174	161	210	142	246	291	325	10	27	39	46	38	41	33	31	26	28	33	43	61	61	58	74	37.4
27-Jul	341	22	UO	276	233	132	184	276	284	222	277	300	307	309	312	291	288	281	284	284	267	261	176	204	280.0
28-Jul	223	259	93	171	198	226	195	264	7	81	203	245	125	126	131	129	130	137	139	139	146	198	293	177	153.2
29-Jul	211	227	231	244	244	257	266	270	277	275	275	277	269	263	268	273	284	289	287	286	277	268	276	270	269.1
30-Jul	272	262	248	272	268	267	276	298	300	300	295	297	299	295	289	305	298	305	316	320	223	155	227	154	287.9
31-Jul	162	111	139	108	123	56	173	225	252	126	167	258	209	223	141	215	214	203	214	223	223	174	172	174	186.7
222.9 221.7 215.1 216.9 216.6 230.1 244.8 244.3 249.0 252.6 266.3 272.5 272.1 278.3 280.8 270.6 279.3 271.3 266.3 258.9 236.4 226.6 224.8 217.4																									
Diurnal Average																									
UO - Unstable Operation																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Monday Creek - July 2026





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg
Monday Creek - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 100 deg on Jul 24 10:00																		Hours in Service: 744 Hours of Data: 742 Hours of Missing Data: 2 Hours of Calibration: 0 Percent Operational Time: 99.7							
Minimum Value: 7 deg on Jul 17 22:00																									
Percentiles: P ₁ = 9 P ₁₀ = 12 Q ₁ = 15 Median = 20 Q ₃ = 35 P ₉₀ = 59 P ₉₉ = 92																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	18	9	36	20	50	32	69	19	14	19	16	18	19	19	15	18	15	13	13	13	14	12	13	11	69
2-Jul	13	12	11	12	12	11	13	16	15	15	18	19	21	22	20	22	19	51	35	17	31	53	33	37	53
3-Jul	19	11	10	12	18	22	23	24	33	37	30	31	51	25	19	15	22	83	19	17	13	12	13	18	83
4-Jul	11	37	21	22	47	28	87	48	35	33	35	51	69	43	22	18	49	27	14	12	18	22	28	55	87
5-Jul	32	28	12	39	80	17	13	16	21	18	16	15	18	18	40	56	78	29	13	15	16	10	8	14	80
6-Jul	17	15	19	29	16	28	14	15	16	20	24	25	27	21	32	42	70	70	65	58	27	85	64	63	85
7-Jul	28	83	69	49	14	59	74	55	52	68	57	21	19	11	12	19	17	14	15	11	12	10	12	15	83
8-Jul	16	15	16	17	18	19	22	19	21	22	24	22	23	94	16	26	33	11	13	24	21	38	21	94	
9-Jul	28	20	24	39	24	28	17	20	18	13	11	19	21	17	19	19	19	17	17	16	15	14	21	18	39
10-Jul	16	10	13	22	63	75	29	79	38	24	66	46	56	56	30	61	98	31	24	23	63	73	36	43	98
11-Jul	60	82	47	73	55	52	85	86	44	32	21	39	21	17	15	13	30	40	23	19	32	14	19	24	86
12-Jul	15	15	56	22	17	23	48	27	15	35	34	36	34	57	99	35	48	73	33	26	21	21	13	15	99
13-Jul	13	14	14	17	12	12	12	14	17	19	17	18	19	14	17	16	16	13	13	13	11	11	11	9	19
14-Jul	27	19	10	13	15	23	18	20	19	18	20	21	21	28	31	38	47	38	22	39	80	75	56	49	80
15-Jul	18	17	33	19	13	15	89	22	26	25	23	21	33	37	44	38	32	19	18	17	74	36	51	29	89
16-Jul	25	18	14	18	18	18	15	18	20	35	27	26	20	19	19	34	32	17	17	18	15	16	11	10	35
17-Jul	14	21	26	65	38	37	44	32	39	45	45	68	64	49	80	63	48	24	14	9	14	7	15	10	80
18-Jul	14	14	12	11	10	10	12	18	17	31	28	44	37	20	81	13	17	13	15	13	13	16	36	23	81
19-Jul	51	69	25	43	20	25	41	30	17	16	16	20	19	20	17	14	12	12	14	16	18	15	16	19	69
20-Jul	15	16	18	17	14	14	16	19	18	21	30	22	36	45	32	24	21	19	19	33	28	81	59	14	81
21-Jul	24	15	12	21	29	52	54	28	40	26	31	26	27	23	22	25	21	26	30	16	21	15	18	12	54
22-Jul	11	76	42	75	17	UO	45	64	56	52	61	43	36	56	46	79	60	91	19	24	14	12	10	13	91
23-Jul	15	13	16	26	33	18	15	14	14	17	20	18	24	17	18	18	17	15	13	17	18	10	8	12	33
24-Jul	12	32	17	76	57	22	25	97	53	100	26	23	26	26	29	19	19	16	14	21	19	17	11	16	100
25-Jul	12	11	16	10	10	11	11	11	13	16	20	14	15	16	14	25	19	23	58	65	72	58	54	56	72
26-Jul	94	28	55	30	27	43	16	49	35	15	25	32	33	36	29	28	20	13	14	14	12	21	14	14	94
27-Jul	63	35	UO	81	93	23	72	28	46	25	29	37	46	20	22	11	12	14	14	11	14	11	32	9	93
28-Jul	29	37	68	62	19	23	41	43	63	99	57	83	76	44	22	16	16	15	13	13	16	47	78	73	99
29-Jul	33	13	13	14	14	17	14	13	12	14	14	15	15	17	15	15	14	15	11	11	10	9	9	9	33
30-Jul	8	12	13	10	9	10	13	22	15	19	20	19	19	26	19	17	24	19	18	31	46	30	49	47	49
31-Jul	47	28	26	31	24	74	28	91	49	33	45	62	58	61	53	90	52	24	19	14	24	28	15	17	91
94 83 69 81 93 75 89 97 63 100 66 83 76 61 99 90 98 91 65 65 80 85 78 73 Diurnal Maximum																									
UO - Unstable Operation																									



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS34 HANGINGSTONE EXPANSION JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - HANGINGSTONE EXPANSION (AMS34)
JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	703	35	41	99.19	15.6	0	4.2	0
H2S (ppb) Average	702	36	42	99.19	2.5	0	0.7	0
NO2 (ppb) Average	703	35	41	99.19	16.3	0	4.3	-
NO (ppb) Average	703	35	41	99.19	47.2	-	5.2	-
NOX (ppb) Average	703	35	41	99.19	58	-	9.5	-
Temperature 2 m (C) Average	744	0	0	100	30.6	-	24.1	-
Relative Humidity (%) Average	744	0	0	100	100	-	89.3	-
Wind Speed 10 m (km/h) Average	744	0	0	100	32	-	16	-
Wind Direction 10 m (deg) Average	744	0	0	100	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - HANGINGSTONE EXPANSION (AMS34)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	703	0.8	1.9	-	0	0	0	0.1	0.6	2.2	15.6
H2S (ppb) Average	702	0.25	0.3	-	0	0.1	0.1	0.2	0.3	0.6	2.5
NO2 (ppb) Average	703	1.45	1.5	-	0	0.2	0.6	1	1.8	3.1	16.3
NO (ppb) Average	703	0.57	2.3	-	0	0	0	0.2	0.4	1.1	47.2
NOX (ppb) Average	703	2.02	3.4	-	0	0.3	0.7	1.2	2.2	4.2	58
Temperature 2 m (C) Average	744	17.63	4.3	-	8.1	12.4	14.4	17.3	20.5	23	30.6
Relative Humidity (%) Average	744	67.79	19	-	24	41.6	53.1	69.8	84.1	92.6	100
Wind Speed 10 m (km/h) Average	744	8.7	4	-	1	5	6	8	11	14	32
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - HANGINGSTONE EXPANSION (AMS34)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
AIR QUALITY ANALYZERS	15 Jul 2026 17:00	15 Jul 2026 17:00	1	Station power failure
AIR QUALITY ANALYZERS	18 Jul 2026 13:00	18 Jul 2026 15:00	3	Station power failure
AIR QUALITY ANALYZERS	19 Jul 2026 02:00	19 Jul 2026 02:00	1	Station power failure
AIR QUALITY ANALYZERS	23 Jul 2026 08:00	23 Jul 2026 08:00	1	Station power failure



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

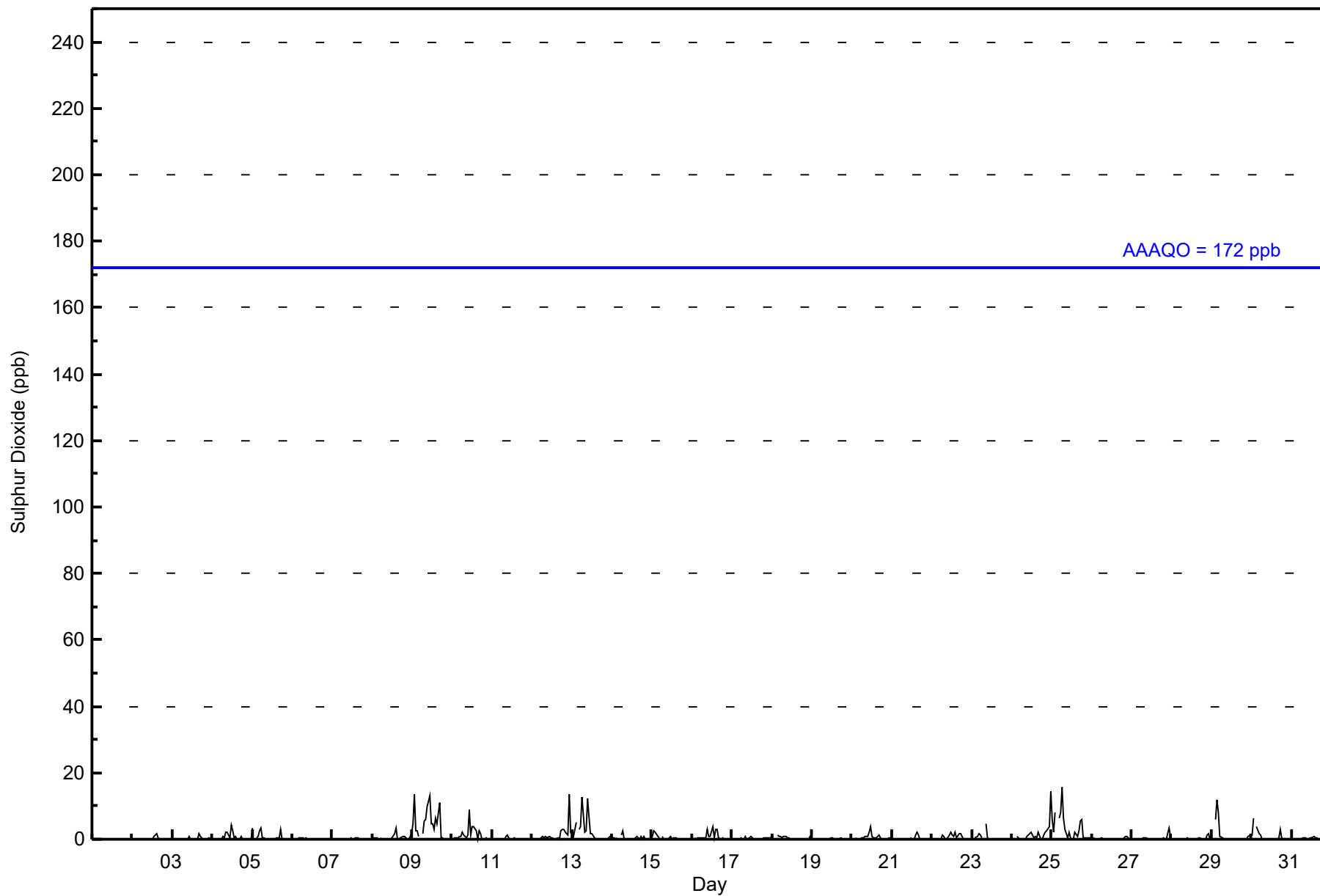
Hangingsstone Expansion - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																			Hours in Service: 744							
Maximum Value: 15.6 ppb on Jul 25 07:00																			Maximum Daily Average: 4.2 ppb on Jul 9		Hours of Data: 703					
Minimum Value: 0.0 ppb on Jul 1 01:00																			Minimum Daily Average: 0.0 ppb on Jul 1		Hours of Missing Data: 41					
Maximum Diurnal Average: 1.4 ppb at hour 7																			Minimum Diurnal Average: 0.3 ppb at hour 21		Hours of Calibration: 35					
Monthly Average: 0.80 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.6 P ₉₀ = 2.2 P ₉₉ = 12.0		Percent Operational Time: 99.2					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Jul	0.0	0.1	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.8	1.5	0.6	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	
3-Jul	0.0	0.0	0.1	0.1	0.1	Z	0.1	0.0	0.0	0.0	0.7	0.2	0.0	0.0	0.0	0.2	1.5	0.7	0.0	0.0	0.0	0.1	0.3	0.2	0.2	
4-Jul	Z	0.1	0.1	0.1	0.1	0.1	0.9	0.5	2.1	2.2	0.5	4.2	2.7	0.4	0.7	0.1	0.1	0.8	0.1	0.0	0.0	0.1	0.0	0.0	0.7	
5-Jul	3.5	Z	0.3	0.7	2.5	3.5	0.5	0.3	0.1	0.0	0.0	0.0	0.2	0.1	0.4	0.2	0.5	2.8	0.2	0.2	0.1	0.0	0.0	0.0	0.7	
6-Jul	0.1	0.1	Z	0.2	0.3	0.3	0.6	0.1	0.5	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.1	
7-Jul	0.0	0.0	0.0	Z	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.3	0.1	0.2	0.3	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	
8-Jul	0.3	0.4	0.3	0.4	Z	0.3	0.1	0.1	0.1	0.1	0.0	0.2	0.3	1.6	3.2	0.2	0.2	0.3	0.6	0.7	0.3	0.1	0.1	1.9	0.5	
9-Jul	4.5	13.5	2.4	2.7	0.9	Z	1.5	5.6	5.8	9.7	13.1	4.8	4.7	3.1	6.2	4.6	11.0	0.3	0.6	0.1	0.1	0.1	0.1	0.1	4.2	
10-Jul	Z	0.4	0.4	0.6	0.7	0.9	1.9	1.1	0.6	1.1	8.7	1.4	3.8	3.7	2.5	0.2	2.3	1.8	0.2	0.0	0.2	0.0	0.0	0.1	1.4	
11-Jul	0.2	Z	0.0	0.1	0.1	0.0	0.0	0.0	0.7	1.2	0.4	0.1	0.1	0.5	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	
12-Jul	0.1	0.1	Z	0.2	0.0	0.4	0.7	0.4	0.8	0.6	0.7	0.2	0.3	0.2	0.1	0.6	0.1	2.6	3.1	3.0	1.9	1.4	13.6	1.9	1.4	
13-Jul	2.5	0.9	5.1	Z	2.9	3.6	12.8	2.3	2.5	12.2	6.8	1.9	1.6	0.6	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.6	0.8	2.5	
14-Jul	0.4	0.2	0.1	0.3	Z	1.1	2.4	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.6	1.0	0.1	1.1	0.0	1.0	0.1	0.0	0.0	0.5	0.4	
15-Jul	0.8	2.7	2.1	0.9	0.6	Z	0.7	0.1	0.1	0.1	0.4	0.7	0.2	0.2	0.3	0.1	PF	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.5	
16-Jul	Z	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.5	3.0	0.8	0.9	3.9	0.3	2.8	3.0	0.3	0.0	0.6	0.0	0.1	0.1	0.0	0.0	0.8	
17-Jul	0.1	Z	0.1	0.1	0.2	0.3	0.1	0.2	0.9	0.2	0.5	0.9	0.3	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.5	0.5	0.6	0.6	0.3	
18-Jul	0.7	0.9	Z	1.2	0.8	0.7	0.6	1.0	0.7	0.2	0.3	0.1	PF	PF	PF	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.6	0.4	
19-Jul	0.0	PF	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.1	0.2	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.1	
20-Jul	0.1	0.1	0.1	0.2	Z	0.5	0.6	0.4	0.7	0.7	1.9	3.8	0.9	0.4	0.5	0.8	1.4	0.6	0.1	0.1	0.1	0.1	0.3	0.5	0.7	
21-Jul	0.6	0.2	0.2	0.1	0.0	Z	0.6	C	C	C	C	0.2	0.2	0.0	1.1	2.1	1.4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	
22-Jul	Z	0.1	0.1	0.0	0.0	0.0	1.1	0.8	0.1	0.1	1.4	2.2	1.3	0.7	2.3	0.2	1.8	1.5	0.8	0.1	0.1	0.2	0.1	0.1	0.7	
23-Jul	0.3	Z	0.4	0.7	1.7	1.2	0.3	PF	4.5	0.3	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	
24-Jul	0.4	0.0	Z	0.8	0.3	0.2	0.1	0.0	0.1	0.8	1.2	2.2	1.1	0.3	1.0	0.6	2.0	0.2	0.1	1.3	2.3	2.5	3.9	14.6	1.6	
25-Jul	5.8	2.2	8.2	Z	6.5	7.9	15.6	6.2	2.9	0.3	2.0	0.5	0.0	0.1	2.0	0.8	2.4	5.3	5.8	0.3	0.6	0.2	0.4	0.3	3.3	
26-Jul	0.1	0.2	0.1	0.0	Z	0.1	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.2	0.9	0.9	0.4	0.2	
27-Jul	0.1	0.0	0.1	0.2	0.1	Z	0.3	0.4	0.6	0.3	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.3	0.2	0.1	3.3	0.7	0.3	
28-Jul	Z	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.5	0.1	0.0	0.0	0.2	0.0	0.0	0.2	0.2	0.0	0.0	0.0	1.4	1.8	0.2	0.2	
29-Jul	0.1	Z	5.8	12.0	7.9	0.6	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8	1.3	1.3	
30-Jul	1.5	6.2	Z	3.7	1.8	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.8	0.2	0.1	0.2	0.0	0.1	0.1	0.8	
31-Jul	0.3	0.2	0.1	Z	0.1	0.1	0.1	0.2	0.2	0.0	0.0	0.4	0.6	0.7	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.2	
0.9 1.2 1.0 1.0 1.1 0.9 1.4 0.7 0.8 1.1 1.3 0.8 0.8 0.5 0.9 0.5 0.9 0.7 0.4 0.3 0.3 0.3 0.9 0.8																										
5.8 13.5 8.2 12.0 7.9 7.9 15.6 6.2 5.8 12.2 13.1 4.8 4.7 3.7 6.2 4.6 11.0 5.3 5.8 3.0 2.3 2.5 13.6 14.6																										
Z - zerospan C - Calibration PF - Power Failure																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Hangingstone Expansion - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Hangingsstone Expansion - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	694	98.72	98.72
11 - 20	9	1.28	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Hangingstone Expansion - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	11	14	11	5	17	29	44	73	93	108	71	81	65	29	29	14	694
11 - 20	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	0	9
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	14	11	5	17	29	44	73	93	108	79	82	65	29	29	14	703

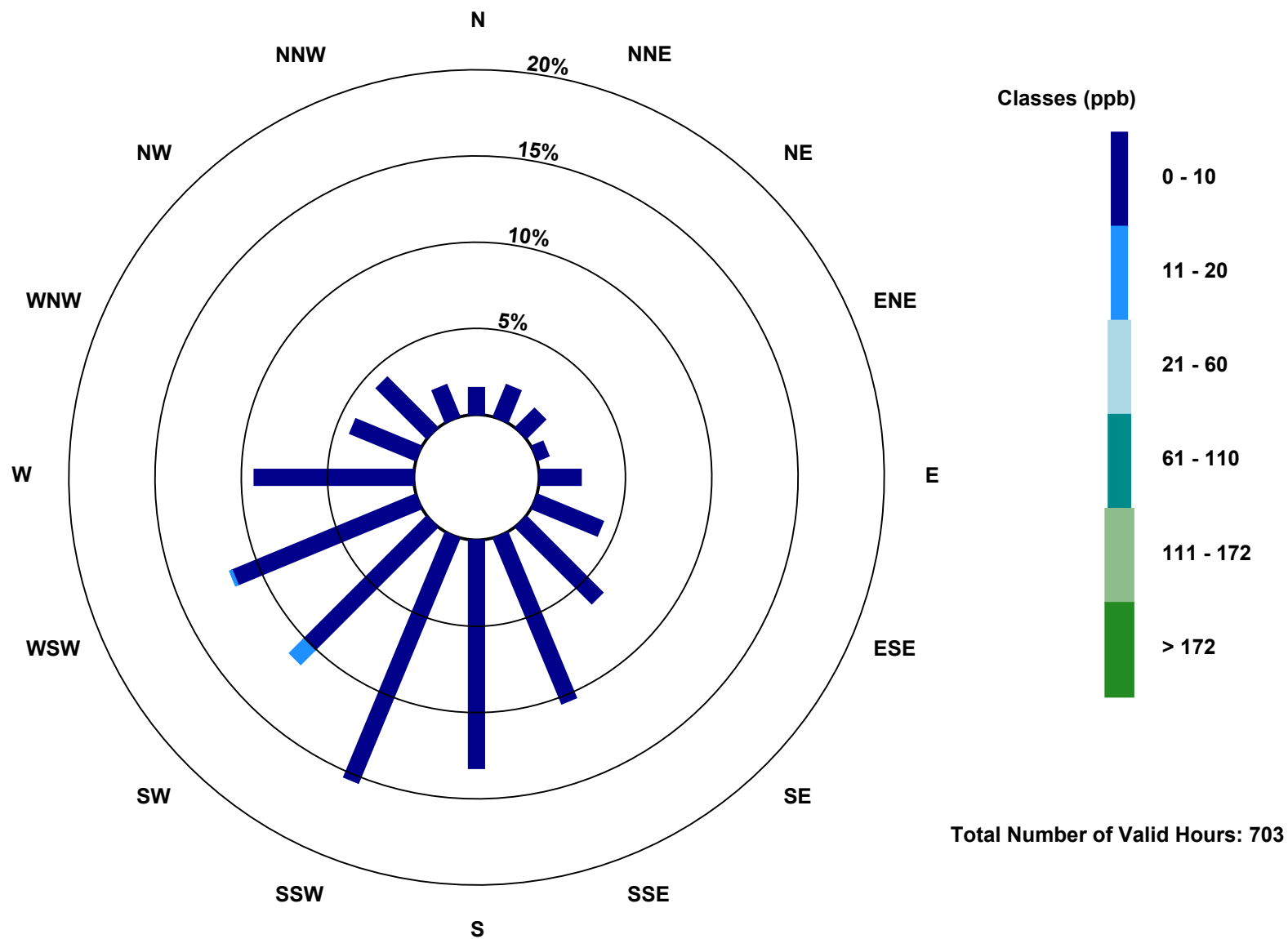
Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Sulphur Dioxide (SO₂) - ppb
Hangingstone Expansion



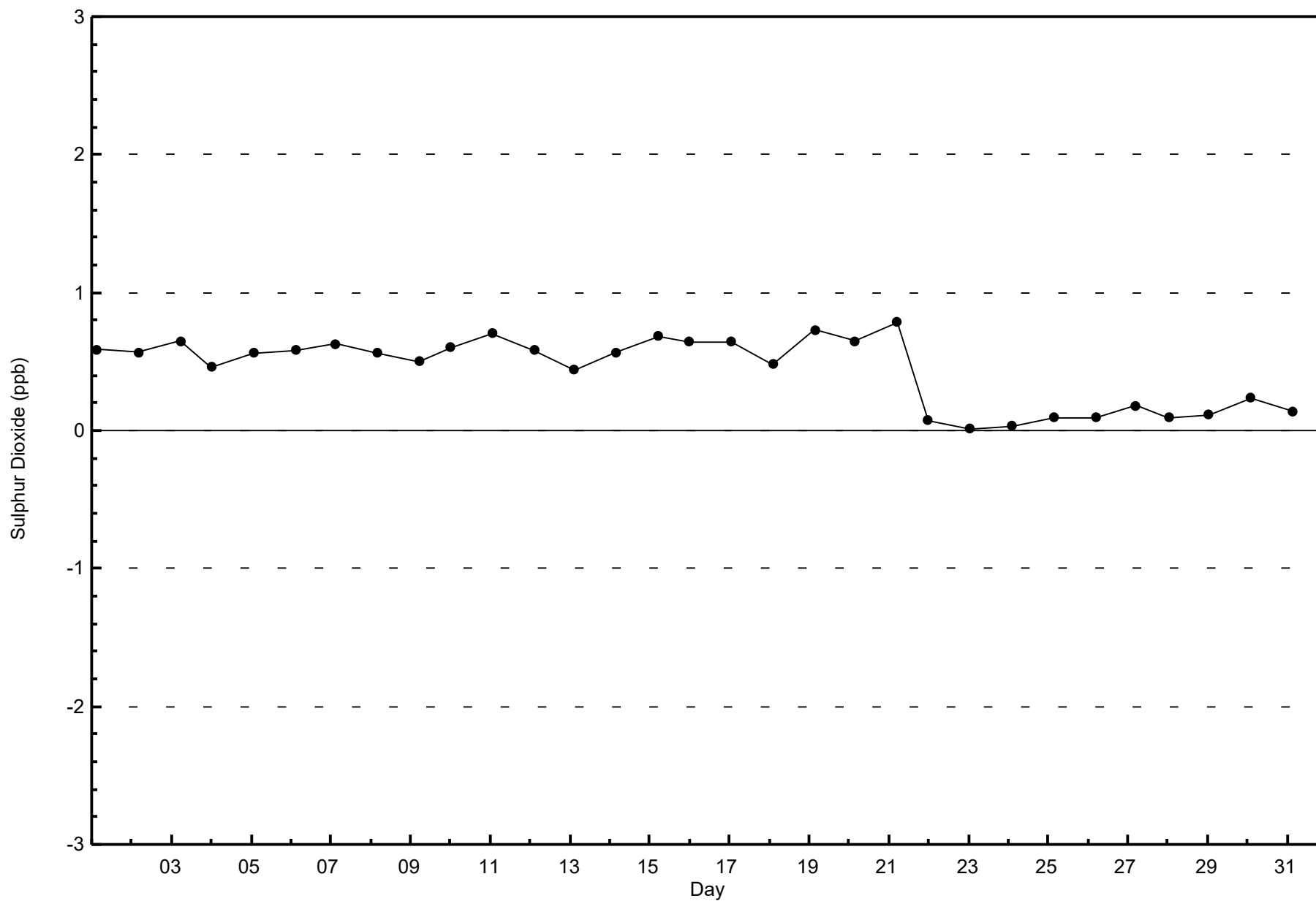


Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO₂) - ppb

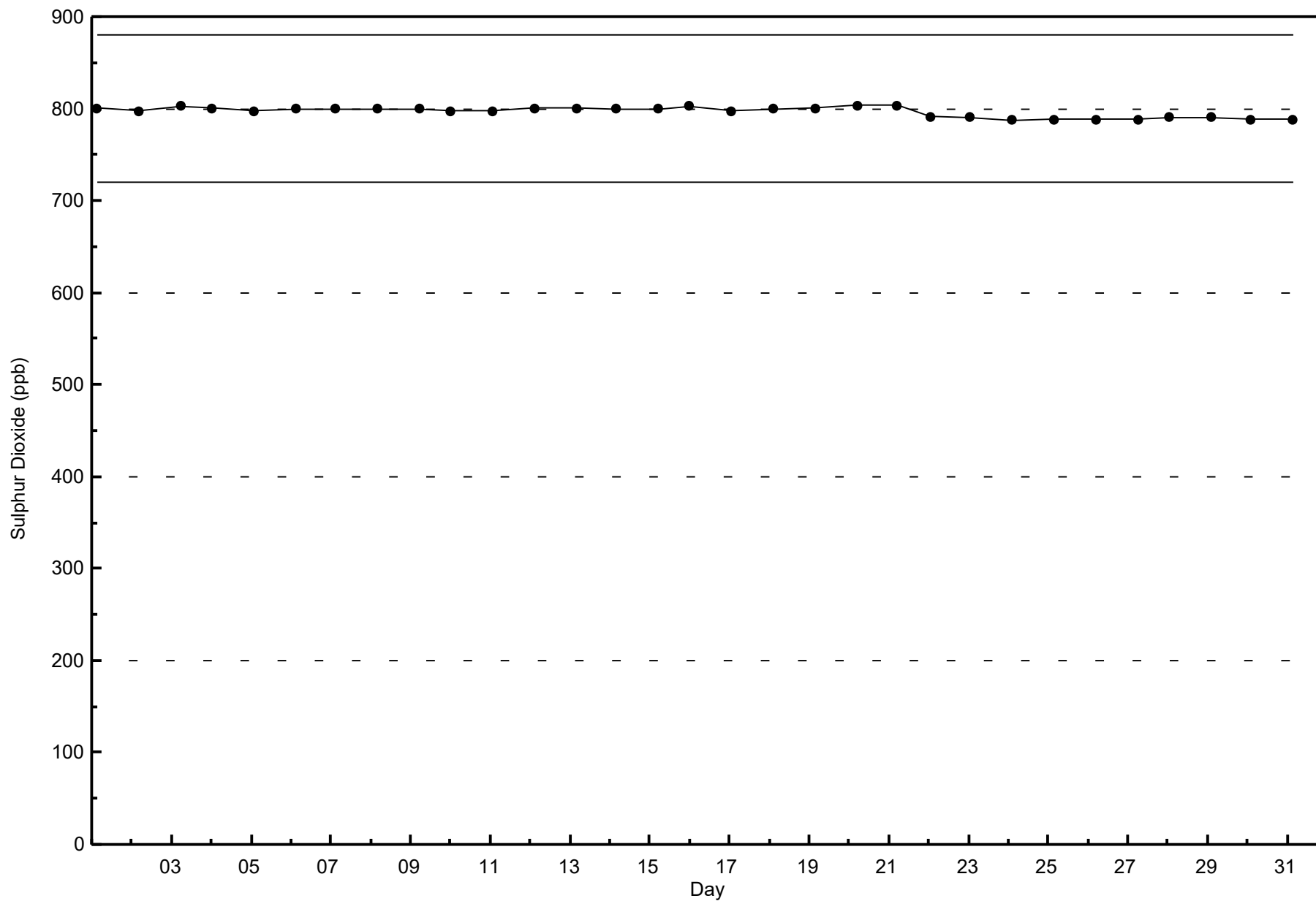
Hangingstone Expansion - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Hangingstone Expansion - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H₂S) - ppb

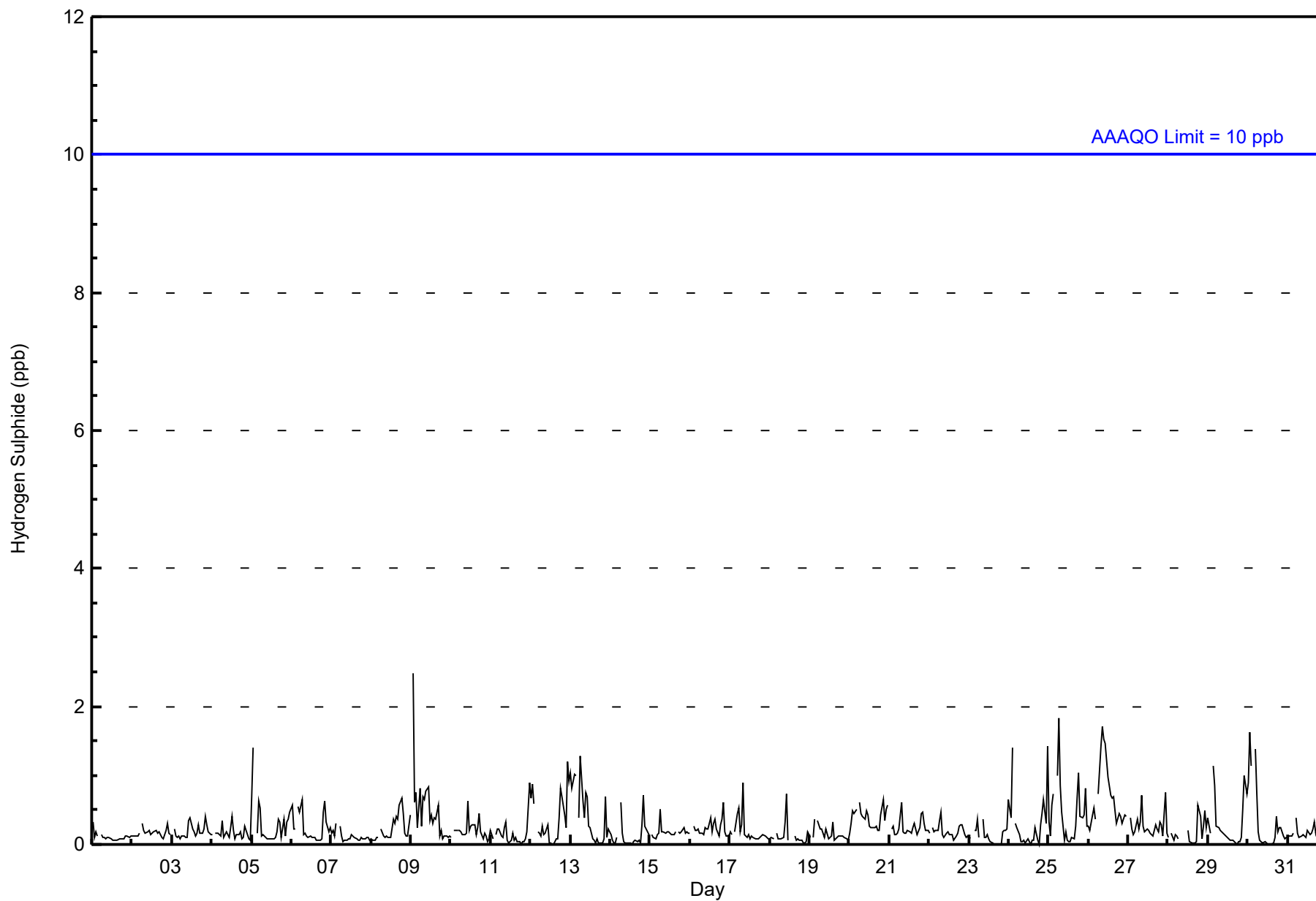
Hangingsstone Expansion - July 2026

Number of Exceedances (AAAQO):										1-hr: 0 24-hr: 0										Hours in Service: 744									
Maximum Value: 2.5 ppb on Jul 9 02:00										Maximum Daily Average: 0.7 ppb on Jul 26										Hours of Data: 702									
Minimum Value: 0.0 ppb on Jul 12 14:00										Minimum Daily Average: 0.1 ppb on Jul 1										Hours of Missing Data: 42									
Maximum Diurnal Average: 0.4 ppb at hour 2										Minimum Diurnal Average: 0.1 ppb at hour 14										Hours of Calibration: 36									
Monthly Average: 0.25 ppb										Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.6 P ₉₉ = 1.4										Percent Operational Time: 99.2									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	0.3	0.1	0.2	0.1	Z	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	0.3			
2-Jul	0.1	0.1	0.1	0.1	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.3			
3-Jul	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.2	0.4	0.3	0.2	0.1	0.4				
4-Jul	0.1	Z	0.2	0.2	0.2	0.1	0.4	0.1	0.1	0.2	0.1	0.2	0.4	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.1	0.1	0.1	0.2	0.4			
5-Jul	0.7	1.4	Z	0.2	0.6	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.3	0.1	0.4	0.1	0.3	0.4	0.5	0.3	1.4			
6-Jul	0.6	0.2	0.2	Z	0.6	0.5	0.6	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.6	0.3	0.2	0.2	0.2	0.6			
7-Jul	0.2	0.2	0.1	0.3	Z	0.3	0.1	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	0.3			
8-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.3	0.4	0.4	0.6	0.7	0.5	0.2	0.1	0.1	0.4	0.2	0.7			
9-Jul	Z	2.5	0.6	0.8	0.2	0.8	0.3	0.7	0.6	0.8	0.8	0.3	0.4	0.3	0.4	0.4	0.6	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.5	2.5			
10-Jul	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.6	0.2	0.3	0.3	0.3	0.1	0.3	0.4	0.2	0.1	0.2	0.1	0.0	0.1	0.2	0.6			
11-Jul	0.2	0.1	Z	0.1	0.2	0.2	0.1	0.1	0.2	0.3	0.1	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.9	0.2	0.9			
12-Jul	0.7	0.9	0.6	Z	0.2	0.2	0.1	0.3	0.2	0.2	0.3	0.0	0.0	0.0	0.0	0.1	0.1	0.4	0.8	0.7	0.4	0.2	1.2	0.9	0.4	1.2			
13-Jul	1.0	0.8	1.0	1.0	Z	0.4	1.3	0.6	0.4	0.7	0.7	0.3	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.7	0.1	0.2	0.4	1.3			
14-Jul	0.1	0.1	0.0	0.0	0.1	Z	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.3	0.7	0.3	0.2	0.1	0.1	0.7			
15-Jul	Z	0.1	0.1	0.1	0.1	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	PF	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5			
16-Jul	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.3	0.2	0.2	0.4	0.2	0.3	0.4	0.2	0.1	0.3	0.4	0.6	0.2	0.1	0.1	0.2	0.6			
17-Jul	0.2	0.1	Z	0.2	0.4	0.5	0.2	0.3	0.9	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	0.2	0.9			
18-Jul	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.3	0.7	0.1	PF	PF	PF	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.1	0.7			
19-Jul	0.1	PF	0.1	0.4	Z	0.4	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4			
20-Jul	0.2	0.3	0.5	0.5	0.5	Z	0.6	0.4	0.4	0.4	0.5	0.4	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.4	0.6	0.4	0.5	0.6	0.4	0.6			
21-Jul	Z	0.2	0.3	0.1	0.1	0.2	0.2	0.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.2	0.4	0.5	0.3	0.2	0.2	0.2	0.6			
22-Jul	0.2	Z	0.2	0.2	0.2	0.2	0.4	0.5	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.3	0.3	0.3	0.1	0.1	0.1	0.2	0.5			
23-Jul	0.1	0.1	Z	0.2	0.2	0.4	0.1	PF	0.4	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.1	0.4			
24-Jul	0.6	0.4	1.4	Z	0.3	0.2	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.3	0.4	0.7	0.3	1.4	0.3	1.4			
25-Jul	0.3	0.1	0.6	0.7	Z	1.0	1.8	0.8	0.5	0.1	0.2	0.1	0.0	0.0	0.1	0.1	0.3	0.7	1.0	0.4	0.4	0.4	0.8	0.3	0.5	1.8			
26-Jul	0.3	0.2	0.4	0.5	0.4	Z	0.7	1.4	1.7	1.5	1.5	1.2	1.0	0.7	0.7	0.7	0.5	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.7	1.7			
27-Jul	Z	0.4	0.2	0.2	0.2	0.4	0.2	0.3	0.7	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.3	0.2	0.2	0.3	0.3	0.1	0.8	0.2	0.3	0.8			
28-Jul	0.1	Z	0.2	0.1	0.1	0.1	0.1	C	C	C	C	C	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.4	0.1	0.3	0.5	0.2	0.2	0.6			
29-Jul	0.4	0.2	Z	1.1	0.9	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.5	1.0	0.7	0.3	1.1			
30-Jul	0.9	1.6	1.1	Z	1.4	0.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.3	1.6			
31-Jul	0.1	0.1	0.1	0.2	Z	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.2	0.4			
																									Diurnal Average				
																									Diurnal Maximum				
Z - zerospan C - Calibration PF - Power Failure																													
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																													



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Hangingstone Expansion - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Hangingstone Expansion - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	702	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 702

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Hangingstone Expansion - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	11	14	11	6	16	29	44	71	89	104	85	82	68	29	28	15	702
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	14	11	6	16	29	44	71	89	104	85	82	68	29	28	15	702

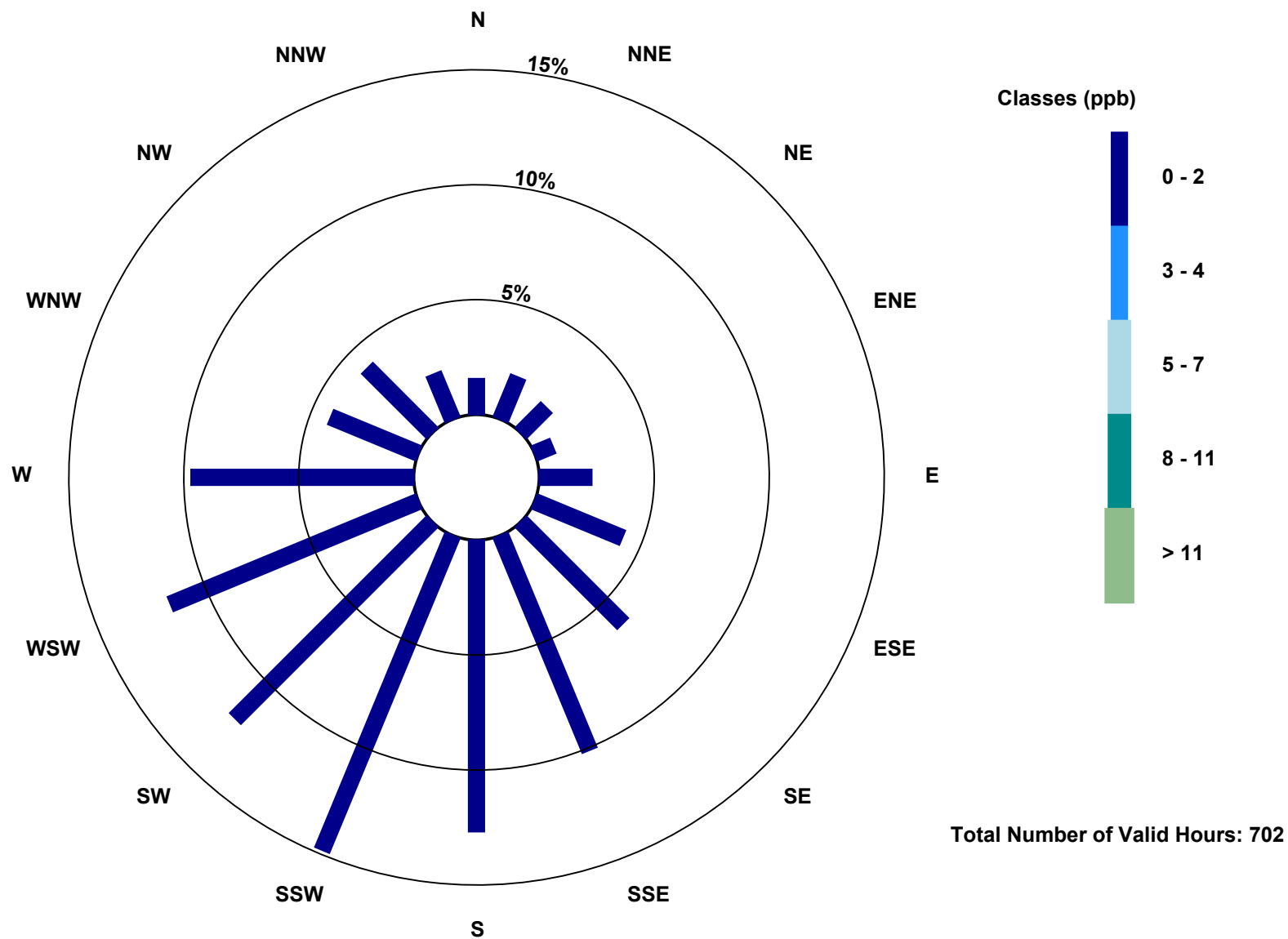
Total Number of Valid Hours: 702

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

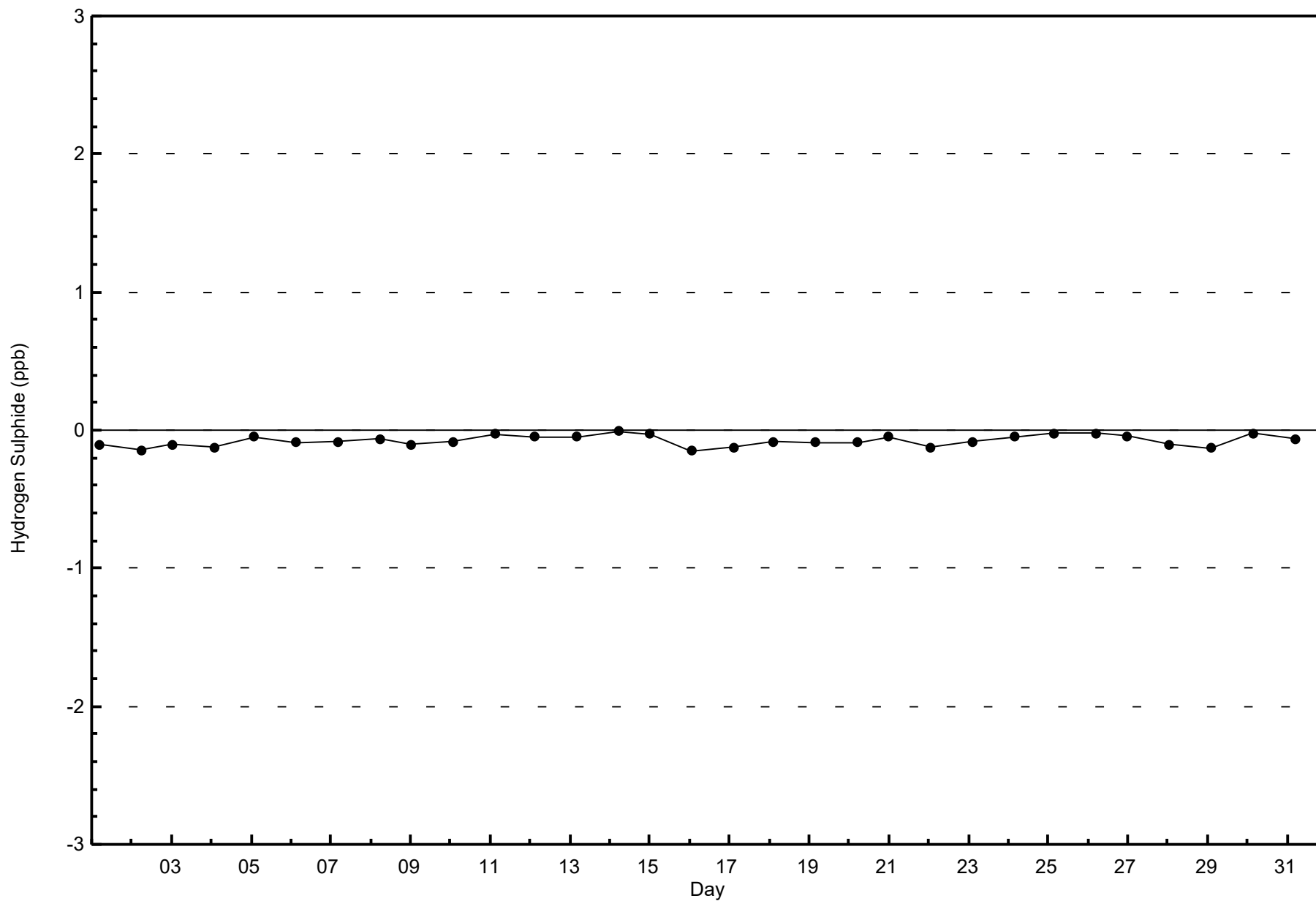
Hydrogen Sulphide (H₂S) - ppb
Hangingstone Expansion





Wood Buffalo Environmental Association
Zero Responses

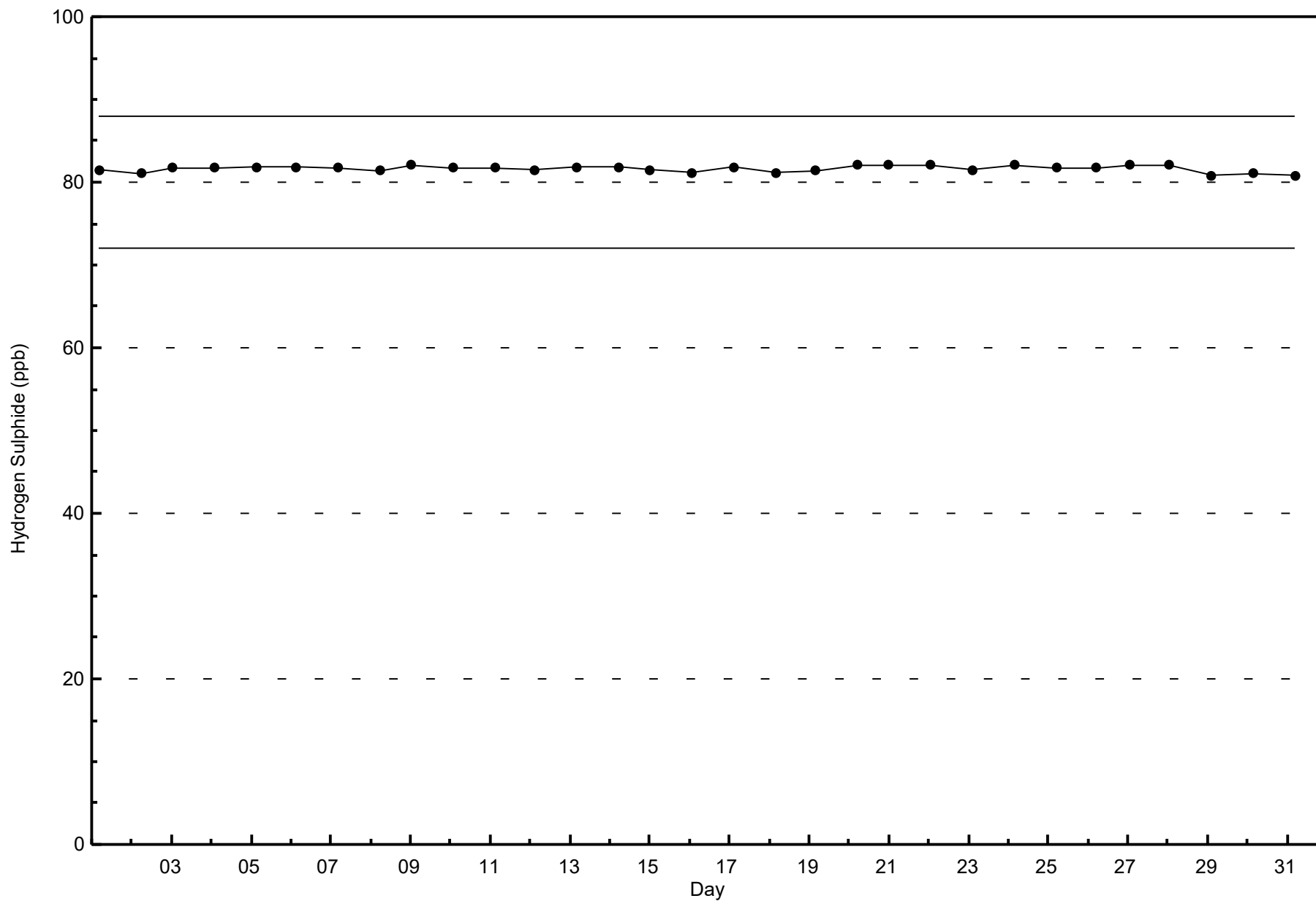
Hydrogen Sulphide (H₂S) - ppb
Hangingstone Expansion - July 2026





Wood Buffalo Environmental Association
Span Responses

Hydrogen Sulphide (H₂S) - ppb
Hangingstone Expansion - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

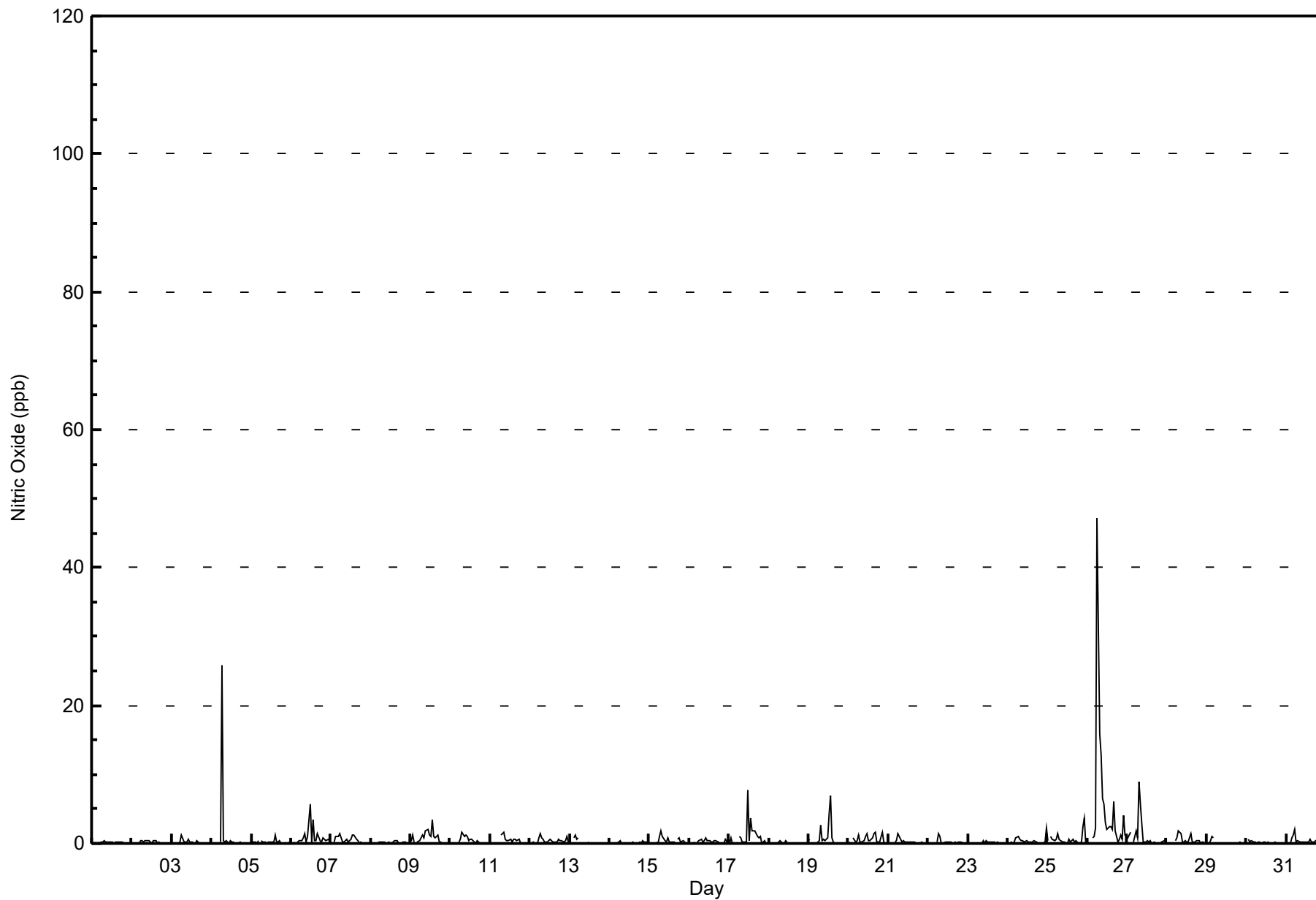
Hangingsstone Expansion - July 2026

Maximum Value: 47.2 ppb on Jul 26 07:00																				Maximum Daily Average: 5.2 ppb on Jul 26					Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 2 20:00																				Minimum Daily Average: 0.1 ppb on Jul 18					Hours of Data: 703	
Maximum Diurnal Average: 3.1 ppb at hour 7																				Minimum Diurnal Average: 0.1 ppb at hour 1					Hours of Missing Data: 41	
Monthly Average: 0.57 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 1.1 P ₉₉ = 6.4					Hours of Calibration: 35	
																									Percent Operational Time: 99.2	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	0.1	Z	0.0	0.0	0.0	0.2	0.1	0.4	0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.3	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.4
2-Jul	0.0	0.0	Z	0.1	0.1	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.0	0.5	0.4	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.5
3-Jul	0.0	0.0	0.0	Z	0.0	0.2	1.2	0.2	0.2	0.2	0.5	0.1	0.1	0.0	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.2
4-Jul	0.0	0.0	0.0	0.0	Z	0.1	25.9	0.3	0.3	0.5	0.1	0.5	0.3	0.3	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.1	1.3	25.9
5-Jul	0.2	0.2	0.1	0.1	0.3	Z	0.3	0.2	0.2	0.1	0.1	0.3	0.2	0.3	1.3	0.2	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.3
6-Jul	Z	0.1	0.1	0.1	0.2	0.4	0.3	0.9	1.4	0.1	1.0	5.7	0.2	3.5	0.4	0.4	1.5	0.3	0.2	0.9	0.6	0.4	0.7	0.1	0.8	5.7
7-Jul	0.2	Z	0.1	1.1	1.1	1.5	0.8	0.3	0.3	0.5	0.2	0.5	0.5	1.1	1.2	0.7	0.3	0.1	0.3	0.1	0.1	0.0	0.0	0.0	0.5	1.5
8-Jul	0.0	0.0	Z	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.5	0.3	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.5
9-Jul	0.4	1.2	0.2	Z	0.2	0.4	0.8	1.1	0.8	1.8	2.0	1.2	0.9	3.5	1.0	0.9	1.1	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.8	3.5
10-Jul	0.0	0.0	0.0	0.1	Z	0.2	0.5	1.6	1.0	1.2	1.1	0.4	0.5	0.5	0.2	0.0	0.5	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.4	1.6
11-Jul	0.0	0.0	0.0	0.0	0.0	Z	1.2	1.4	1.6	0.5	0.5	0.5	0.6	0.3	0.7	0.5	0.3	0.7	0.1	0.1	0.0	0.1	0.1	0.1	0.4	1.6
12-Jul	Z	0.1	0.1	0.1	0.1	0.7	1.5	0.9	0.7	0.3	0.3	0.4	0.6	0.5	0.2	0.2	0.1	0.6	0.4	0.3	0.2	0.3	1.0	0.2	0.4	1.5
13-Jul	0.3	Z	0.7	1.2	0.6	0.7	C	C	C	C	C	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.2
14-Jul	0.0	0.0	Z	0.0	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.5	0.3	0.2	0.0	0.1	0.5
15-Jul	0.0	0.1	0.0	Z	0.1	0.1	1.0	1.8	0.9	0.4	0.3	0.8	0.3	0.1	0.2	0.2	PF	0.5	0.9	0.2	0.4	0.3	0.0	0.0	0.4	1.8
16-Jul	0.1	0.1	0.1	0.1	Z	0.3	0.4	0.6	0.2	0.5	0.7	0.3	0.4	0.1	0.3	0.3	0.4	0.2	0.1	0.0	0.0	0.1	0.7	0.0	0.3	0.7
17-Jul	0.0	0.9	0.0	0.0	0.0	Z	1.0	0.8	0.3	0.3	0.2	7.8	0.4	3.6	1.9	1.9	1.5	1.1	0.9	1.1	0.0	0.4	0.0	0.0	1.0	7.8
18-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.1	0.1	0.5	0.2	PF	PF	PF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
19-Jul	0.5	PF	0.0	0.0	0.0	0.0	0.5	2.7	0.5	0.6	0.4	0.8	4.4	6.8	0.8	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.8	6.8
20-Jul	0.1	0.2	Z	0.8	0.2	0.4	1.2	0.3	0.2	0.4	1.1	1.5	0.5	0.3	0.8	1.5	1.7	0.3	0.1	0.2	1.7	0.2	0.1	0.1	0.6	1.7
21-Jul	0.0	0.0	0.1	Z	0.3	0.3	1.4	0.6	0.1	0.4	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.2	1.4
22-Jul	0.0	0.0	0.0	0.0	Z	0.2	1.5	1.0	0.0	0.1	0.1	0.3	0.1	0.1	0.1	0.0	0.3	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.2	1.5
23-Jul	0.0	0.1	0.1	0.1	0.0	Z	0.3	PF	0.0	0.3	0.1	0.5	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.5
24-Jul	Z	0.1	0.2	0.0	0.2	0.7	1.1	0.6	0.4	0.4	0.1	0.4	0.2	0.2	0.1	0.2	0.3	0.2	0.0	0.1	0.1	0.1	0.3	2.2	0.4	2.2
25-Jul	0.4	Z	1.0	0.7	0.4	0.6	1.4	0.6	0.3	0.3	0.2	0.0	0.1	0.6	0.1	0.5	0.2	0.3	0.3	0.1	0.2	2.4	3.6	0.0	0.6	3.6
26-Jul	0.1	0.1	Z	0.7	0.9	2.1	47.2	15.8	12.9	6.4	5.7	3.1	2.1	2.4	2.5	2.1	6.0	1.9	0.2	0.6	1.3	0.7	4.1	1.3	5.2	47.2
27-Jul	0.9	1.1	1.7	Z	0.1	1.7	0.9	9.0	5.7	2.8	0.2	0.1	0.4	0.2	0.3	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.3	0.1	1.1	9.0
28-Jul	0.0	0.0	0.0	0.1	Z	0.3	0.8	1.9	1.4	0.2	0.1	0.3	0.2	0.1	1.4	0.1	0.3	0.1	0.3	0.3	0.1	0.2	0.1	0.0	0.4	1.9
29-Jul	0.0	0.0	0.5	1.0	0.9	Z	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	1.0
30-Jul	Z	0.5	0.2	0.3	0.2	0.2	0.0	0.2	0.2	0.1	0.2	0.2	0.1	0.3	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.5
31-Jul	0.0	Z	0.0	0.9	1.1	2.1	0.1	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.5	0.1	0.2	0.1	0.5	0.1	0.0	0.0	0.0	0.0	0.3	2.1
Diurnal Average																										
Diurnal Maximum																										
Z - zerospan C - Calibration PF - Power Failure																										



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Hangingsstone Expansion - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Hangingstone Expansion - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	701	99.72	99.72
21 - 40	1	0.14	99.86
41 - 80	1	0.14	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Hangingstone Expansion - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	11	12	12	6	17	28	43	74	91	109	83	75	68	29	29	14	701
21 - 40	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11 - 80	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	13	12	6	17	28	43	74	91	110	83	75	68	29	29	14	703

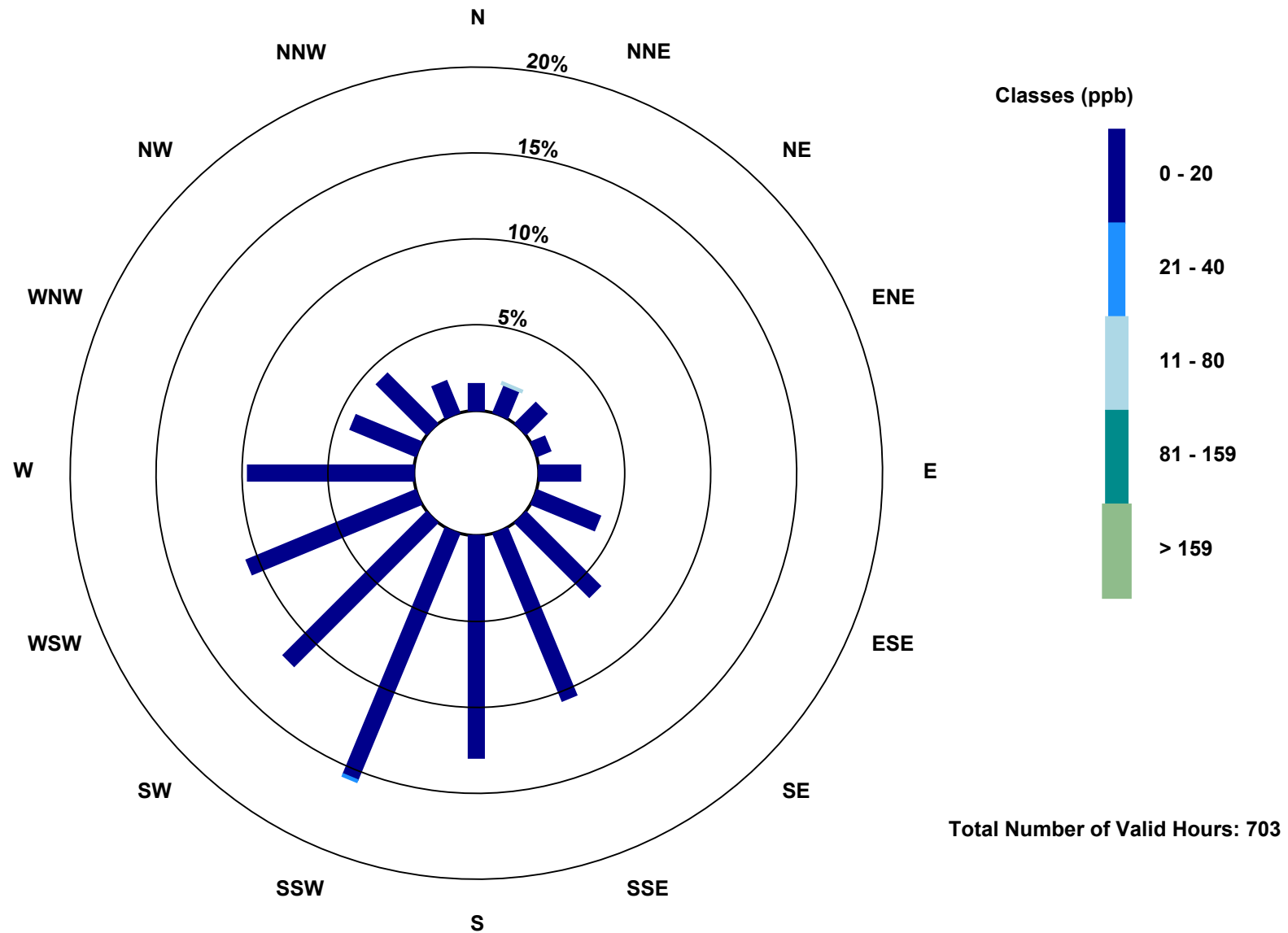
Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

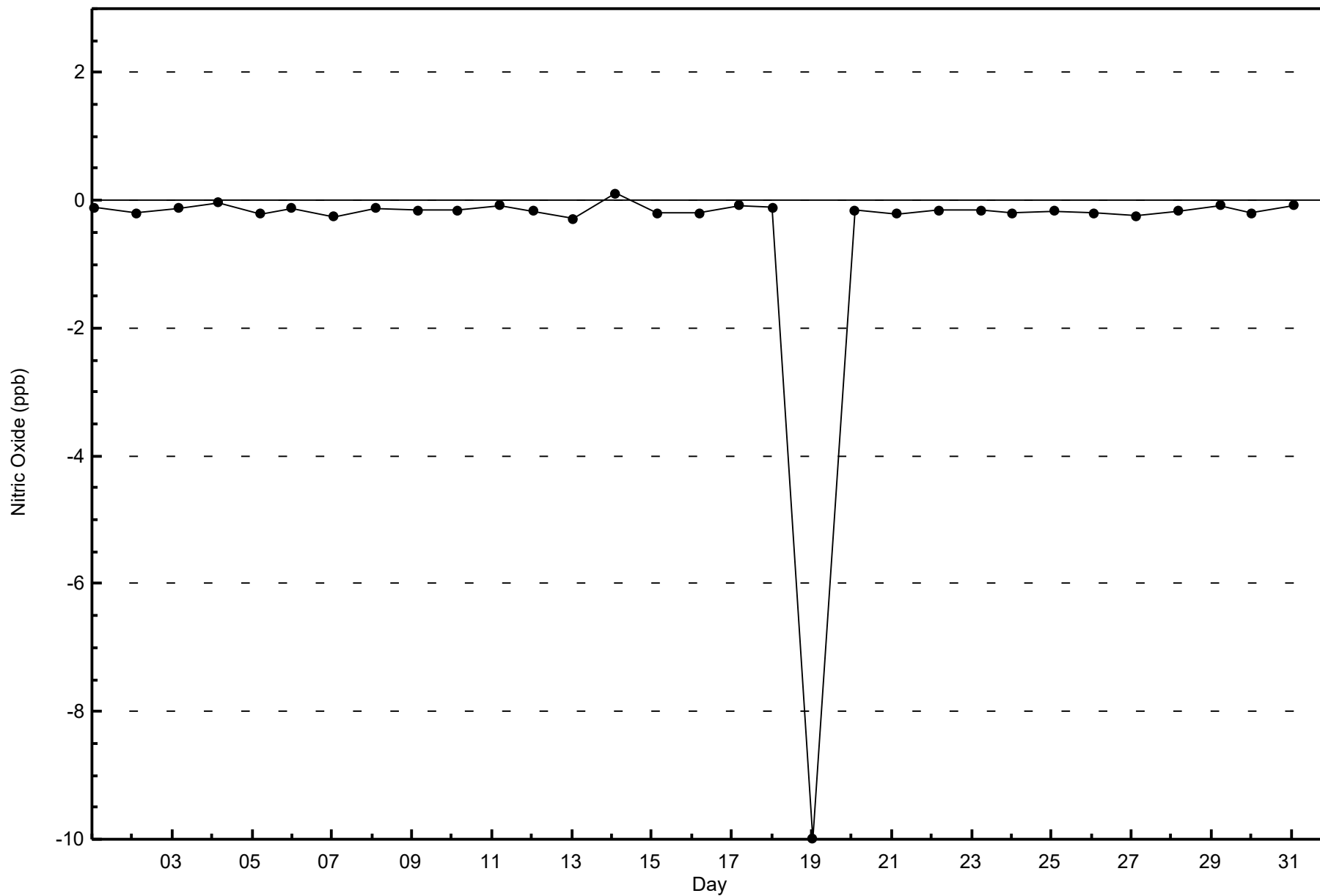
Nitric Oxide (NO) - ppb
Hangingstone Expansion





Wood Buffalo Environmental Association
Zero Responses

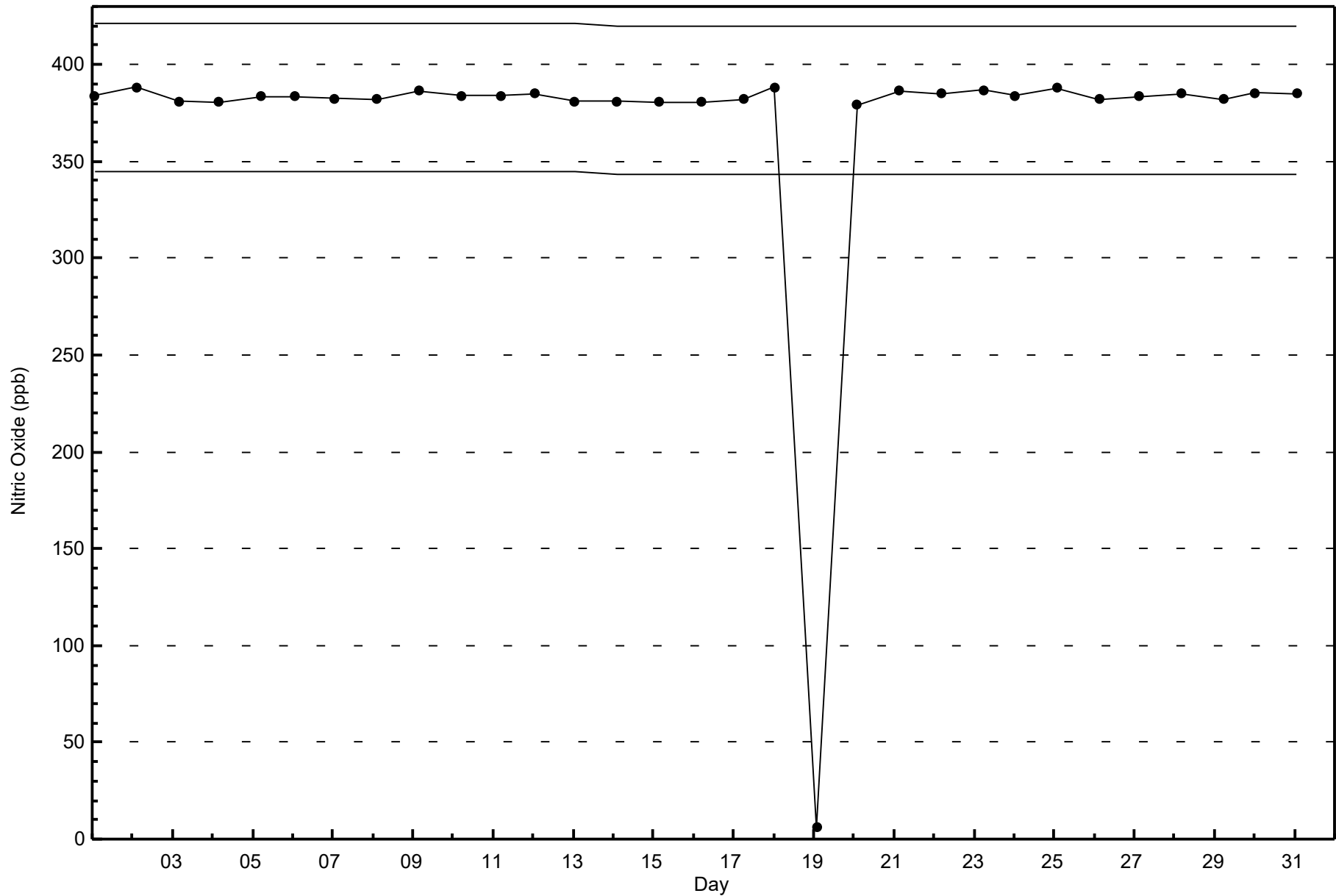
Nitric Oxide (NO) - ppb
Hangingstone Expansion - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Hangingstone Expansion - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

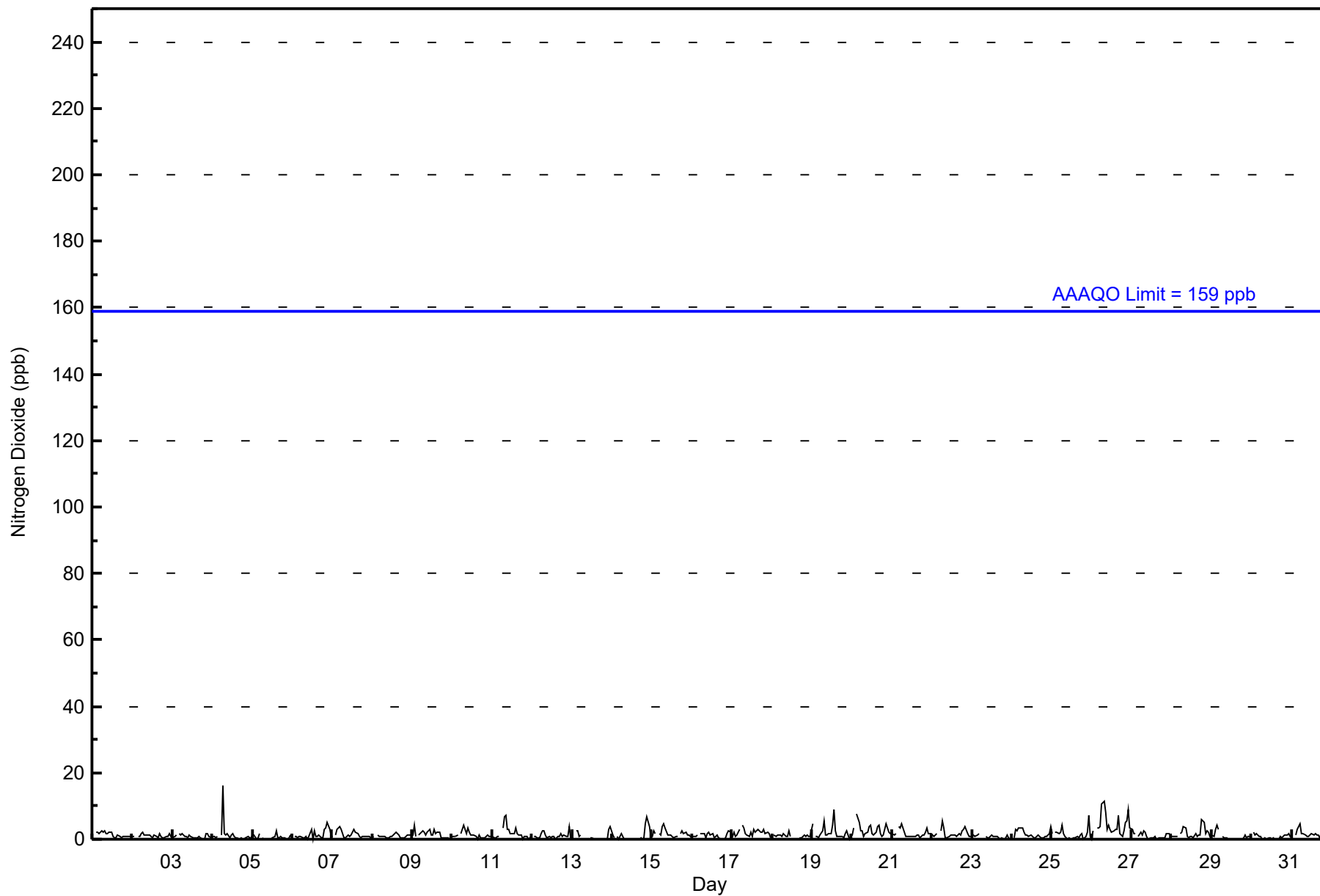
Hangingsstone Expansion - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																			Hours in Service: 744							
Maximum Value: 16.3 ppb on Jul 4 07:00 Maximum Daily Average: 4.3 ppb on Jul 26																			Hours of Data: 703							
Minimum Value: 0.0 ppb on Jul 3 20:00 Minimum Daily Average: 0.6 ppb on Jul 5																			Hours of Missing Data: 41							
Maximum Diurnal Average: 3.0 ppb at hour 7 Minimum Diurnal Average: 0.8 ppb at hour 18																			Hours of Calibration: 35							
Monthly Average: 1.45 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 0.6 Median = 1.0 Q ₃ = 1.8 P ₉₀ = 3.1 P ₉₉ = 7.3																			Percent Operational Time: 99.2							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	2.3	Z	2.2	2.3	1.6	2.4	2.0	2.6	1.5	1.8	2.3	2.0	1.0	0.6	0.6	1.1	0.8	0.6	0.7	1.0	0.7	1.0	0.8	0.7	1.4	2.6
2-Jul	0.8	0.9	Z	0.8	0.9	1.9	2.0	1.2	1.2	1.4	1.4	0.8	0.5	1.2	0.9	0.5	1.8	1.0	0.6	0.6	0.7	0.7	1.8	0.8	1.1	2.0
3-Jul	0.3	0.8	1.3	Z	1.5	1.2	1.7	0.8	0.7	0.5	1.3	0.7	0.5	0.3	0.3	0.6	0.7	0.4	0.1	0.0	1.7	1.9	0.8	0.5	0.8	1.9
4-Jul	0.8	0.8	0.6	0.7	Z	1.2	16.3	1.5	1.4	1.8	0.6	1.4	1.7	0.7	0.5	0.3	0.2	0.4	0.1	0.1	0.3	0.8	0.5	0.5	1.4	16.3
5-Jul	1.4	1.4	0.2	0.5	1.5	Z	0.6	0.2	0.0	0.1	0.1	0.1	0.5	0.7	2.4	0.6	0.6	0.8	0.3	0.3	0.0	0.1	0.3	1.1	0.6	2.4
6-Jul	Z	0.9	0.7	0.3	0.7	0.9	0.5	0.5	1.0	0.1	0.8	2.8	0.1	2.4	0.9	0.7	1.2	0.6	0.5	3.0	3.2	4.9	2.8	0.9	1.3	4.9
7-Jul	0.9	Z	1.1	3.1	3.9	2.9	1.5	0.5	0.5	1.3	0.7	1.3	2.3	2.9	2.3	1.6	0.9	0.4	1.0	0.7	0.7	0.7	0.8	0.5	1.4	3.9
8-Jul	0.5	0.8	Z	1.1	0.9	1.0	0.8	0.7	0.4	0.3	0.6	0.9	0.7	1.5	2.0	1.7	1.4	0.5	0.5	0.5	0.8	1.2	1.4	1.1	0.9	2.0
9-Jul	1.4	4.2	1.0	Z	1.2	2.0	2.5	2.1	1.4	2.2	2.8	1.4	1.3	2.9	1.7	2.0	2.2	0.4	0.3	0.4	0.4	0.4	0.2	0.3	1.5	4.2
10-Jul	0.8	0.7	0.8	1.2	Z	1.8	2.9	4.2	1.9	3.2	2.2	1.2	1.2	1.4	0.7	0.1	1.4	0.5	0.4	0.5	1.0	1.3	1.0	0.8	1.4	4.2
11-Jul	1.0	0.6	0.5	0.8	0.9	Z	3.6	6.9	7.0	3.1	2.9	1.9	1.6	1.5	3.4	1.9	1.3	1.3	0.2	0.9	0.7	0.7	0.2	0.7	1.9	7.0
12-Jul	Z	0.8	1.0	0.3	0.5	1.5	2.7	2.5	1.2	0.4	0.7	0.6	0.9	0.8	0.2	1.0	0.8	1.5	1.0	1.1	0.9	0.7	4.0	0.6	1.1	4.0
13-Jul	0.9	Z	2.5	2.6	1.0	1.2	C	C	C	C	C	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	3.7	0.9	3.7
14-Jul	1.4	0.3	Z	0.7	0.1	1.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.4	0.2	0.3	4.5	6.7	3.8	0.7	1.0	6.7
15-Jul	0.8	2.4	1.5	Z	1.6	1.3	3.7	4.5	3.5	1.4	1.1	1.4	0.8	0.5	0.8	1.0	PF	1.9	2.5	1.7	2.1	1.4	1.3	0.7	1.7	4.5
16-Jul	1.0	0.7	1.0	1.1	Z	1.8	1.7	1.8	0.6	1.6	2.1	1.3	1.5	0.4	1.0	1.2	0.6	0.2	0.1	0.2	0.5	1.6	2.5	2.1	1.2	2.5
17-Jul	0.7	2.2	1.0	1.3	2.8	Z	4.2	3.3	1.5	1.1	0.7	2.2	0.8	3.1	2.1	3.0	2.5	2.1	2.2	2.9	1.7	2.2	1.5	0.6	2.0	4.2
18-Jul	Z	1.4	1.0	1.3	1.2	1.2	0.9	1.7	0.9	0.8	2.7	1.0	PF	PF	PF	0.1	0.2	0.4	0.4	1.1	0.9	1.1	0.9	1.0	1.0	2.7
19-Jul	4.6	PF	1.0	0.8	0.6	1.1	2.4	5.6	1.4	1.1	1.6	1.8	4.2	9.0	2.5	0.8	0.7	1.0	0.8	0.5	1.5	2.6	0.0	0.9	2.0	9.0
20-Jul	1.3	3.3	Z	7.6	4.9	2.4	2.4	1.0	1.6	2.2	3.8	4.3	1.9	1.2	2.3	3.9	4.1	1.7	0.8	1.2	4.8	3.4	2.3	1.7	2.8	7.6
21-Jul	1.7	1.2	1.5	Z	3.7	3.3	4.8	2.0	0.7	0.8	0.7	0.8	0.8	0.7	1.0	1.4	1.1	0.5	1.1	1.2	2.1	3.6	1.7	1.9	1.7	4.8
22-Jul	1.2	1.0	1.3	1.7	Z	2.5	5.5	3.6	0.6	0.5	0.8	1.2	1.2	1.1	1.3	0.7	1.9	1.3	2.4	3.0	3.9	1.9	0.7	0.7	1.7	5.5
23-Jul	1.0	1.1	1.0	1.3	1.5	Z	2.1	PF	1.0	0.6	0.4	1.0	1.1	1.0	0.8	1.0	0.6	0.0	0.3	0.0	0.4	1.1	0.3	0.1	0.8	2.1
24-Jul	Z	0.4	2.8	2.6	3.4	3.5	3.4	2.0	1.1	1.1	0.7	1.1	0.7	0.6	0.6	0.9	1.3	0.4	0.3	0.3	1.0	1.0	1.7	3.8	1.5	3.8
25-Jul	1.5	Z	2.1	2.3	1.7	2.1	4.2	1.5	0.7	0.1	0.4	0.2	0.0	0.5	0.6	0.7	0.6	1.4	1.5	0.2	0.7	2.0	7.0	1.0	1.4	7.0
26-Jul	0.2	2.4	Z	3.4	3.5	3.8	10.8	11.5	7.9	3.0	4.2	2.9	2.1	2.4	3.1	2.8	7.3	1.5	0.9	2.5	5.2	5.4	8.9	3.5	4.3	11.5
27-Jul	2.9	1.9	1.5	Z	0.9	2.0	1.2	2.6	2.2	0.9	0.2	0.3	0.5	0.5	0.8	0.2	0.3	0.3	0.3	0.4	0.6	1.6	1.6	1.2	1.1	2.9
28-Jul	0.7	0.7	0.7	1.0	Z	1.7	2.3	4.0	3.6	0.8	0.5	0.9	0.7	0.5	1.7	0.7	1.3	1.4	5.9	5.1	1.6	2.6	2.2	1.0	1.8	5.9
29-Jul	1.1	0.9	2.9	4.2	2.8	Z	0.8	0.4	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.4	1.4	0.4	0.7	1.0	0.8	4.2
30-Jul	Z	2.2	1.3	1.5	0.9	0.8	0.2	0.1	0.3	0.1	0.3	0.5	0.2	0.5	0.1	0.1	0.2	0.7	0.3	1.0	1.4	1.2	1.8	0.9	0.7	2.2
31-Jul	1.0	Z	1.4	2.9	4.0	4.7	1.5	1.5	1.3	0.9	0.8	1.2	1.6	1.2	1.6	1.3	1.3	0.5	1.6	1.7	0.9	0.6	0.6	0.9	1.5	4.7
1.2 1.4 1.3 1.8 1.9 2.0 3.0 2.4 1.6 1.1 1.3 1.2 1.0 1.3 1.2 1.0 1.3 0.8 0.9 1.1 1.5 1.8 1.8 1.2																									Diurnal Average	
4.6 4.2 2.9 7.6 4.9 4.7 16.3 11.5 7.9 3.2 4.2 4.3 4.2 9.0 3.4 3.9 7.3 2.1 5.9 5.1 5.2 6.7 8.9 3.8																									Diurnal Maximum	
Z - zerospan C - Calibration PF - Power Failure																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Hangingstone Expansion - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Hangingstone Expansion - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	703	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Hangingstone Expansion - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	11	13	12	6	17	28	43	74	91	110	83	75	68	29	29	14	703
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	13	12	6	17	28	43	74	91	110	83	75	68	29	29	14	703

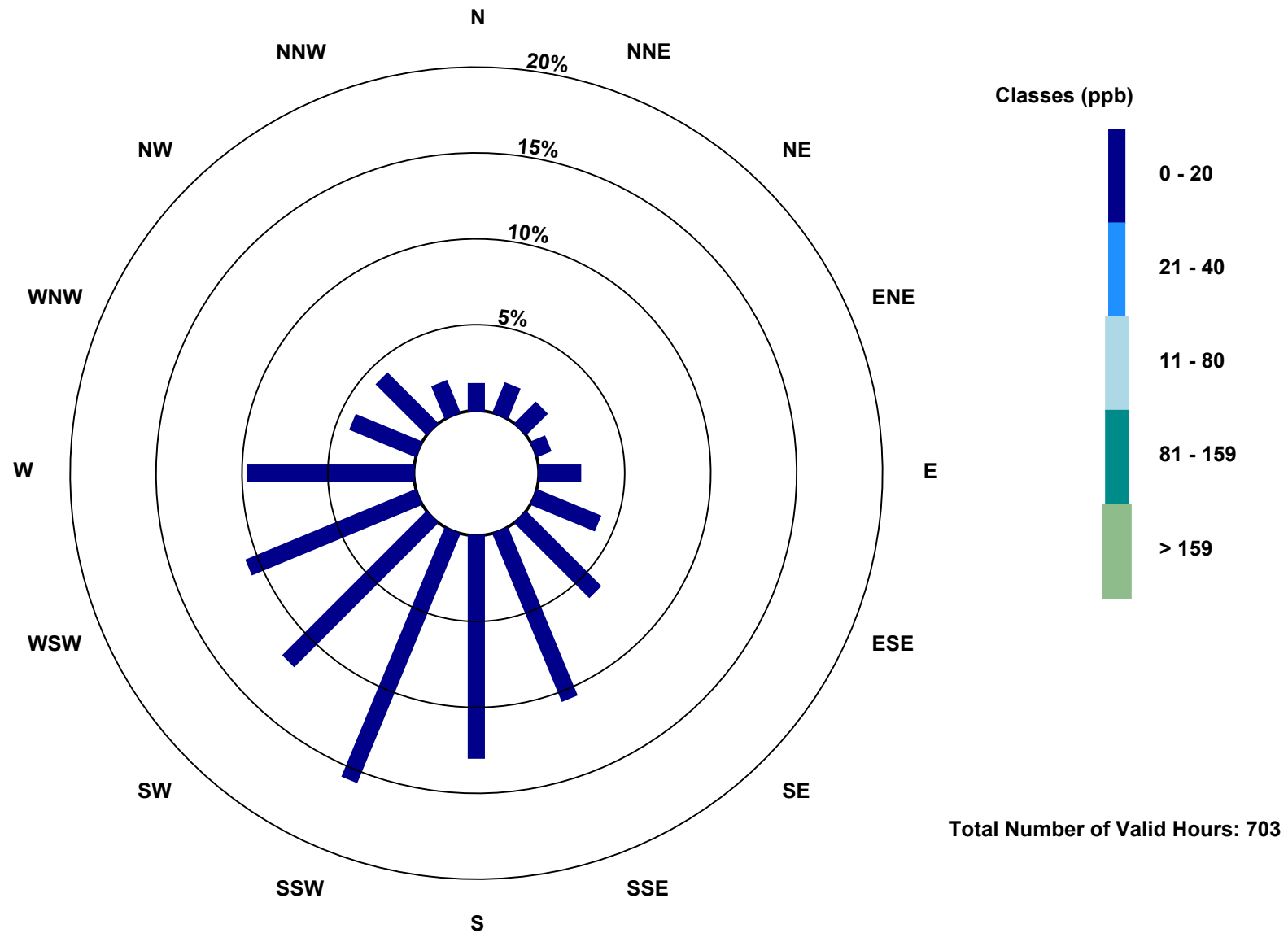
Total Number of Valid Hours: 703

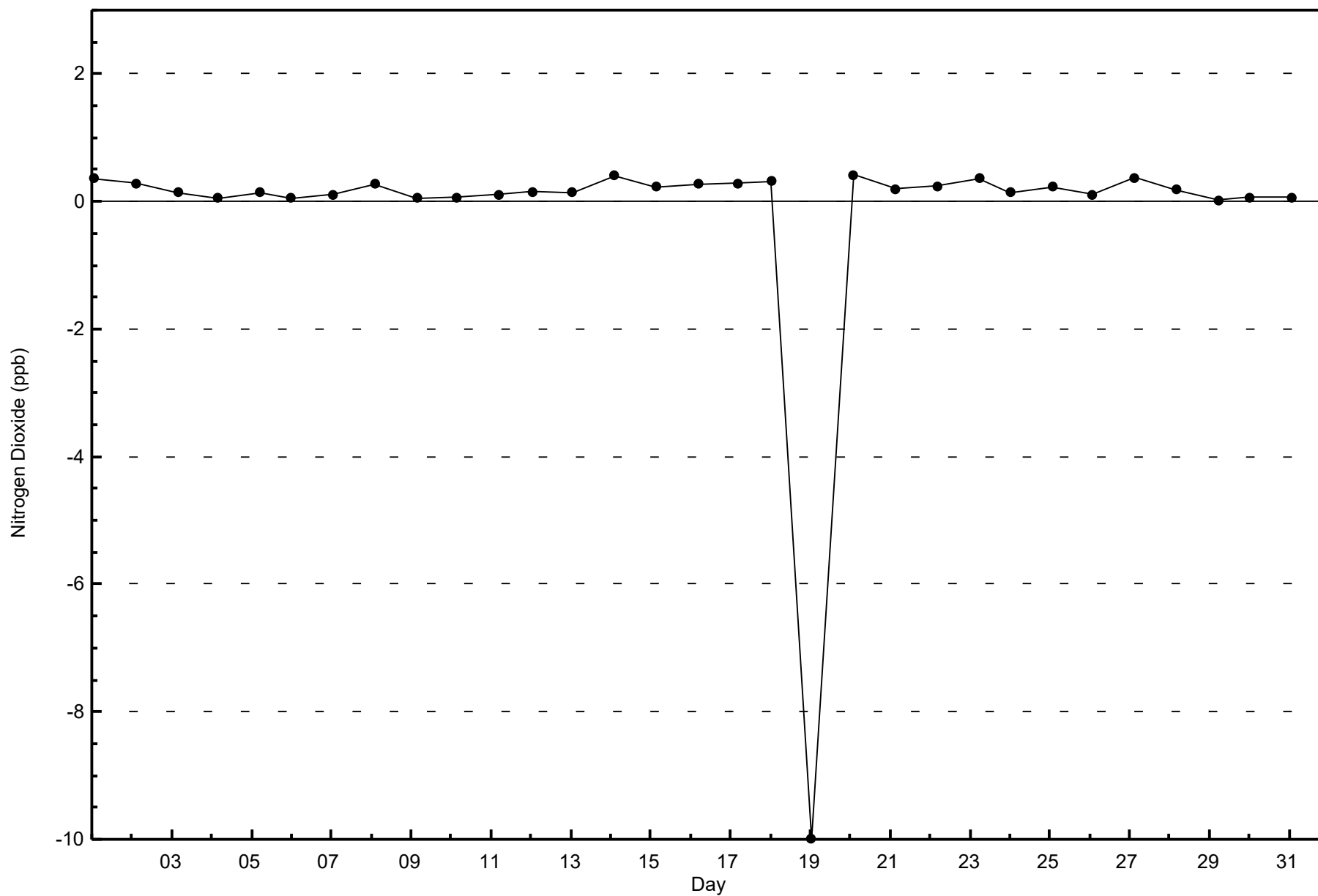
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Dioxide (NO₂) - ppb
Hangingstone Expansion

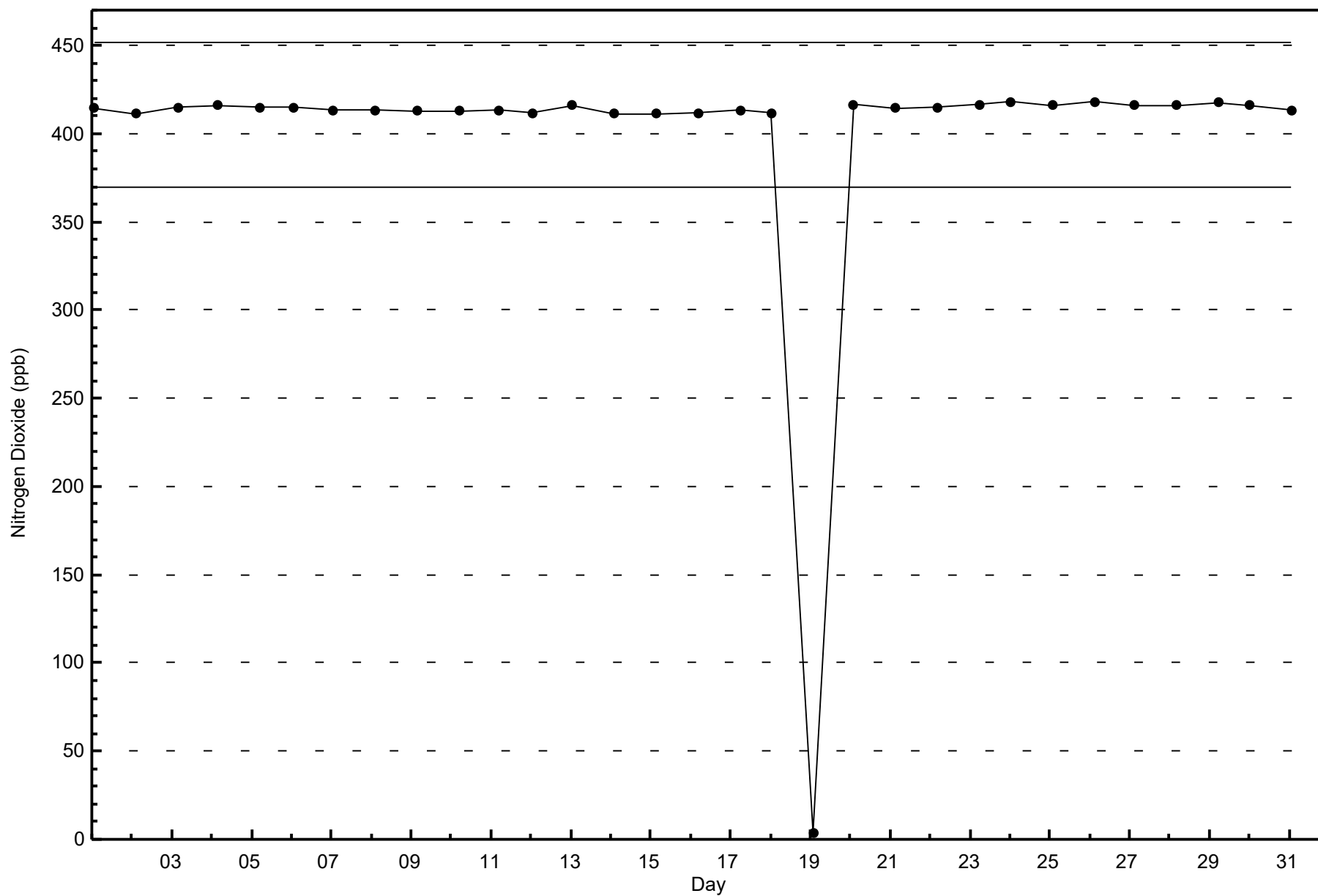






Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Hangingstone Expansion - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

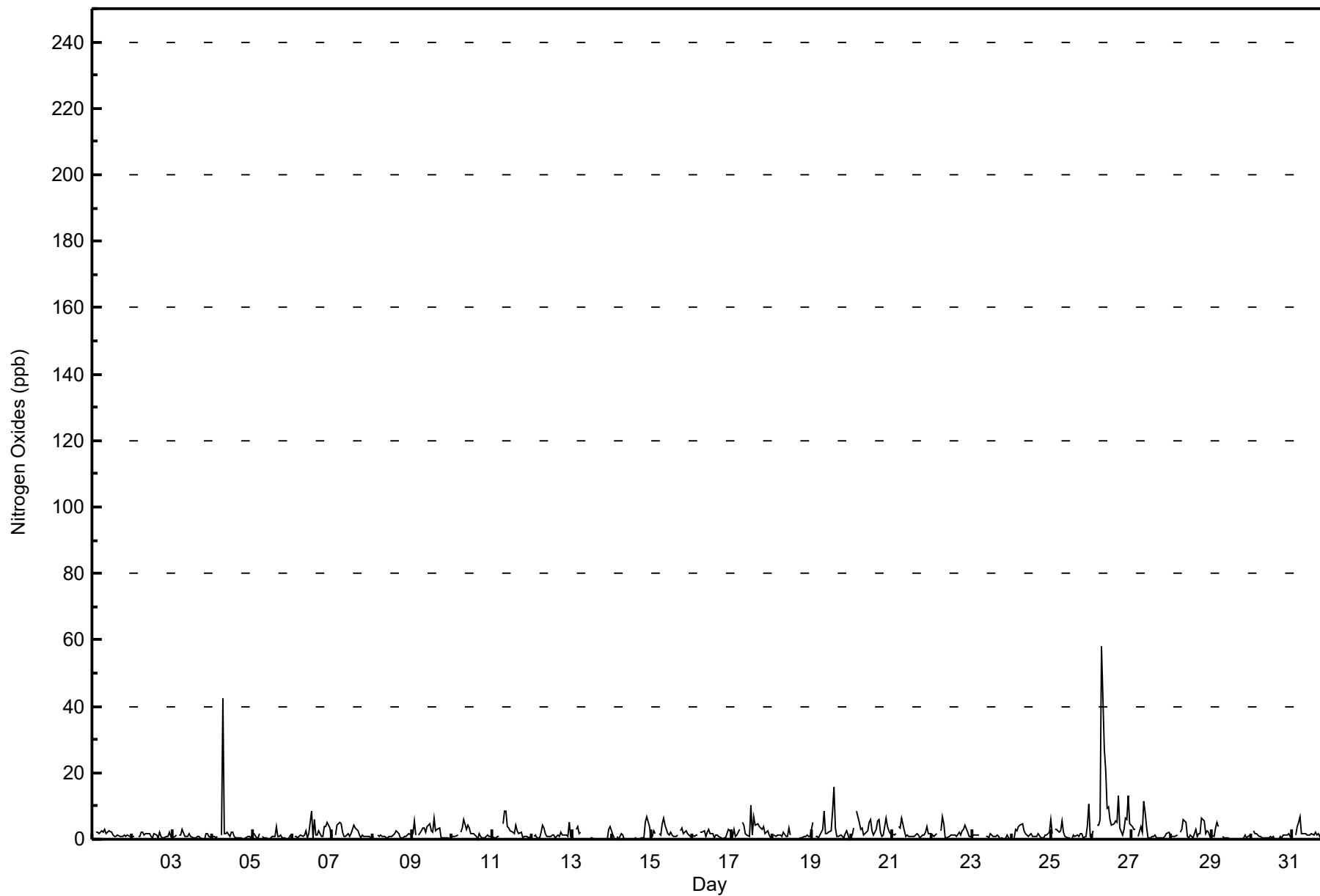
Hangingsstone Expansion - July 2026

Maximum Value: 58.0 ppb on Jul 26 07:00																				Maximum Daily Average: 9.5 ppb on Jul 26					Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 13 14:00																				Minimum Daily Average: 0.8 ppb on Jul 5					Hours of Data: 703	
Maximum Diurnal Average: 6.1 ppb at hour 7																				Minimum Diurnal Average: 1.0 ppb at hour 18					Hours of Missing Data: 41	
Monthly Average: 2.02 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.3 Q ₁ = 0.7 Median = 1.2 Q ₃ = 2.2 P ₉₀ = 4.2 P ₉₉ = 11.6					Hours of Calibration: 35	
																									Percent Operational Time: 99.2	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	2.4	Z	2.2	2.3	1.6	2.6	2.1	3.0	1.6	2.0	2.6	2.2	1.2	0.7	0.7	1.4	1.0	0.8	0.8	1.1	0.7	1.1	0.9	0.8	1.6	3.0
2-Jul	0.8	0.9	Z	0.9	1.0	2.2	2.3	1.4	1.5	1.7	1.8	1.0	0.5	1.7	1.3	0.6	2.1	1.0	0.6	0.6	0.7	0.7	1.9	0.9	1.2	2.3
3-Jul	0.3	0.8	1.3	Z	1.5	1.4	2.9	1.0	0.9	0.7	1.8	0.8	0.6	0.3	0.3	1.0	0.9	0.4	0.1	0.0	1.7	1.9	0.8	0.5	1.0	2.9
4-Jul	0.8	0.8	0.6	0.7	Z	1.3	42.2	1.8	1.7	2.3	0.7	1.9	2.0	1.0	0.6	0.3	0.2	0.6	0.1	0.1	0.3	0.8	0.6	0.6	2.7	42.2
5-Jul	1.6	1.6	0.3	0.6	1.8	Z	0.9	0.4	0.2	0.2	0.2	0.4	0.7	1.0	3.7	0.8	0.8	1.1	0.3	0.3	0.0	0.1	0.3	1.2	0.8	3.7
6-Jul	Z	1.0	0.8	0.4	0.9	1.3	0.8	1.4	2.4	0.2	1.8	8.5	0.3	5.9	1.3	1.1	2.7	0.9	0.7	3.9	3.8	5.3	3.5	1.0	2.2	8.5
7-Jul	1.1	Z	1.2	4.2	5.0	4.4	2.3	0.8	0.8	1.8	0.9	1.8	2.8	4.0	3.5	2.3	1.2	0.5	1.3	0.8	0.8	0.7	0.8	0.5	1.9	5.0
8-Jul	0.5	0.8	Z	1.1	1.0	1.1	1.0	0.9	0.6	0.4	0.7	1.0	0.8	1.8	2.5	2.0	1.7	0.6	0.6	0.7	0.9	1.3	1.5	1.3	1.1	2.5
9-Jul	1.8	5.4	1.2	Z	1.4	2.4	3.3	3.2	2.2	4.0	4.8	2.6	2.2	6.4	2.7	2.9	3.3	0.6	0.5	0.5	0.5	0.4	0.2	0.3	2.3	6.4
10-Jul	0.8	0.7	0.8	1.3	Z	2.0	3.4	5.8	2.9	4.4	3.3	1.6	1.7	1.9	0.9	0.1	1.9	0.7	0.4	0.6	1.0	1.3	1.0	0.8	1.7	5.8
11-Jul	1.0	0.6	0.5	0.8	0.9	Z	4.8	8.3	8.6	3.6	3.4	2.4	2.2	1.8	4.1	2.4	1.6	2.0	0.3	1.0	0.7	0.8	0.3	0.8	2.3	8.6
12-Jul	Z	0.9	1.1	0.4	0.6	2.2	4.2	3.4	1.9	0.7	1.0	1.0	1.5	1.3	0.4	1.2	0.9	2.1	1.4	1.4	1.1	1.0	5.0	0.8	1.5	5.0
13-Jul	1.2	Z	3.2	3.8	1.6	1.9	C	C	C	C	C	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	3.7	1.1	3.8
14-Jul	1.4	0.3	Z	0.7	0.1	1.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.2	0.4	0.4	0.3	5.0	7.0	4.0	0.7	1.1	7.0
15-Jul	0.8	2.5	1.5	Z	1.7	1.4	4.7	6.3	4.4	1.8	1.4	2.2	1.1	0.6	1.0	1.2	PF	2.4	3.4	1.9	2.5	1.7	1.3	0.7	2.1	6.3
16-Jul	1.1	0.8	1.1	1.2	Z	2.1	2.1	2.4	0.8	2.1	2.8	1.6	1.9	0.5	1.3	1.5	1.0	0.4	0.2	0.2	0.5	1.7	3.2	2.1	1.4	3.2
17-Jul	0.7	3.1	1.0	1.3	2.8	Z	5.2	4.1	1.8	1.4	0.9	10.0	1.2	6.7	4.0	4.9	4.0	3.2	3.1	4.0	1.7	2.6	1.5	0.6	3.0	10.0
18-Jul	Z	1.4	1.0	1.3	1.2	1.2	1.0	2.1	1.0	0.9	3.2	1.2	PF	PF	PF	0.1	0.2	0.4	0.4	1.1	0.9	1.1	0.9	1.0	1.1	3.2
19-Jul	5.1	PF	1.0	0.8	0.6	1.1	2.9	8.3	1.9	1.7	2.0	2.6	8.6	15.8	3.3	1.0	0.8	1.1	0.8	0.5	1.5	2.6	0.1	0.9	2.8	15.8
20-Jul	1.4	3.5	Z	8.4	5.1	2.8	3.6	1.3	1.8	2.6	4.9	5.8	2.4	1.5	3.1	5.4	5.8	2.0	0.9	1.4	6.5	3.6	2.4	1.8	3.4	8.4
21-Jul	1.7	1.2	1.6	Z	4.0	3.6	6.2	2.6	0.8	1.2	0.8	0.9	0.9	0.8	1.2	1.7	1.3	0.5	1.2	1.2	2.2	3.7	1.7	1.9	1.9	6.2
22-Jul	1.2	1.0	1.3	1.7	Z	2.7	7.0	4.6	0.6	0.6	0.9	1.5	1.3	1.2	1.4	0.7	2.2	1.4	2.6	3.1	4.1	1.9	0.7	0.7	1.9	7.0
23-Jul	1.0	1.2	1.1	1.4	1.5	Z	2.4	PF	1.0	0.9	0.5	1.5	1.3	1.1	1.0	1.2	0.8	0.1	0.4	0.0	0.5	1.2	0.4	0.1	0.9	2.4
24-Jul	Z	0.5	3.0	2.6	3.6	4.2	4.5	2.6	1.5	1.5	0.8	1.5	0.9	0.8	0.7	1.1	1.6	0.6	0.3	0.4	1.1	1.1	2.0	6.0	1.9	6.0
25-Jul	1.9	Z	3.1	3.0	2.1	2.7	5.6	2.1	1.0	0.4	0.6	0.2	0.1	1.1	0.7	1.2	0.8	1.7	1.8	0.3	0.9	4.4	10.6	1.0	2.1	10.6
26-Jul	0.3	2.5	Z	4.1	4.4	5.9	58.0	27.3	20.8	9.4	9.9	6.0	4.2	4.8	5.6	4.9	13.3	3.4	1.1	3.1	6.5	6.1	13.0	4.8	9.5	58.0
27-Jul	3.8	3.0	3.2	Z	1.0	3.7	2.1	11.6	7.9	3.7	0.4	0.4	0.9	0.7	1.1	0.3	0.5	0.4	0.4	0.4	0.7	1.7	1.9	1.3	2.2	11.6
28-Jul	0.7	0.7	0.7	1.1	Z	2.0	3.1	5.9	5.0	1.0	0.6	1.2	0.9	0.6	3.1	0.8	1.6	1.5	6.2	5.4	1.7	2.8	2.3	1.0	2.2	6.2
29-Jul	1.1	0.9	3.4	5.2	3.7	Z	0.9	0.4	0.4	0.3	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.4	1.5	0.4	0.8	1.1	0.9	5.2
30-Jul	Z	2.7	1.5	1.8	1.1	1.0	0.2	0.3	0.5	0.2	0.5	0.7	0.3	0.8	0.1	0.1	0.2	1.0	0.3	1.1	1.4	1.2	1.8	0.9	0.8	2.7
31-Jul	1.0	Z	1.4	3.8	5.1	6.8	1.6	1.8	1.6	1.1	1.1	1.4	1.8	1.3	2.1	1.4	1.5	0.6	2.1	1.8	0.9	0.6	0.6	0.9	1.8	6.8
																									Diurnal Average	
																									Diurnal Maximum	
Z - zerospan C - Calibration PF - Power Failure																										



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Hangingstone Expansion - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Hangingsstone Expansion - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	699	99.43	99.43
21 - 40	2	0.28	99.72
41 - 80	2	0.28	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Hangingstone Expansion - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	9	12	12	6	17	28	43	74	91	109	83	75	68	29	29	14	699
21 - 40	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
11 - 80	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	13	12	6	17	28	43	74	91	110	83	75	68	29	29	14	703

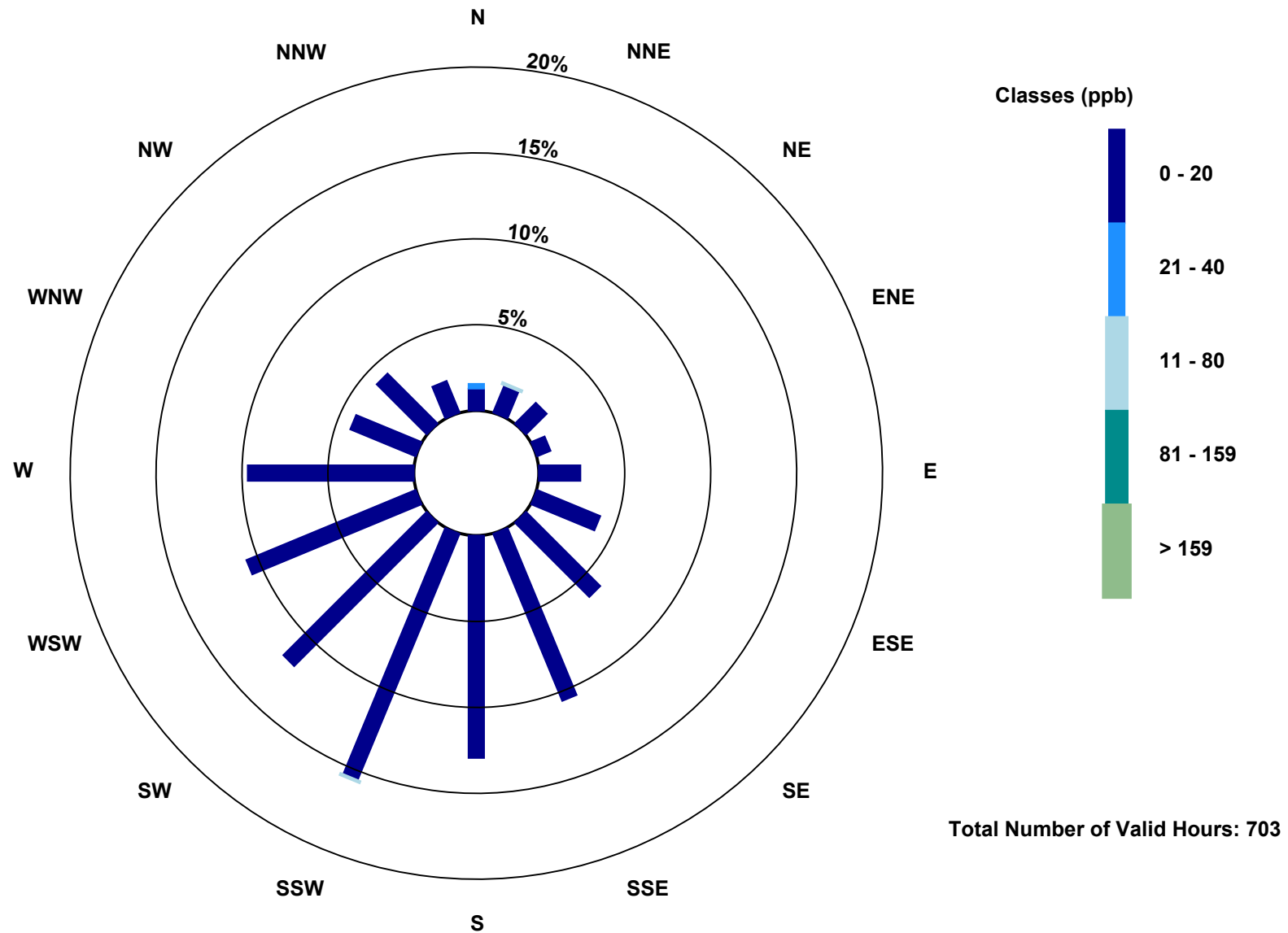
Total Number of Valid Hours: 703

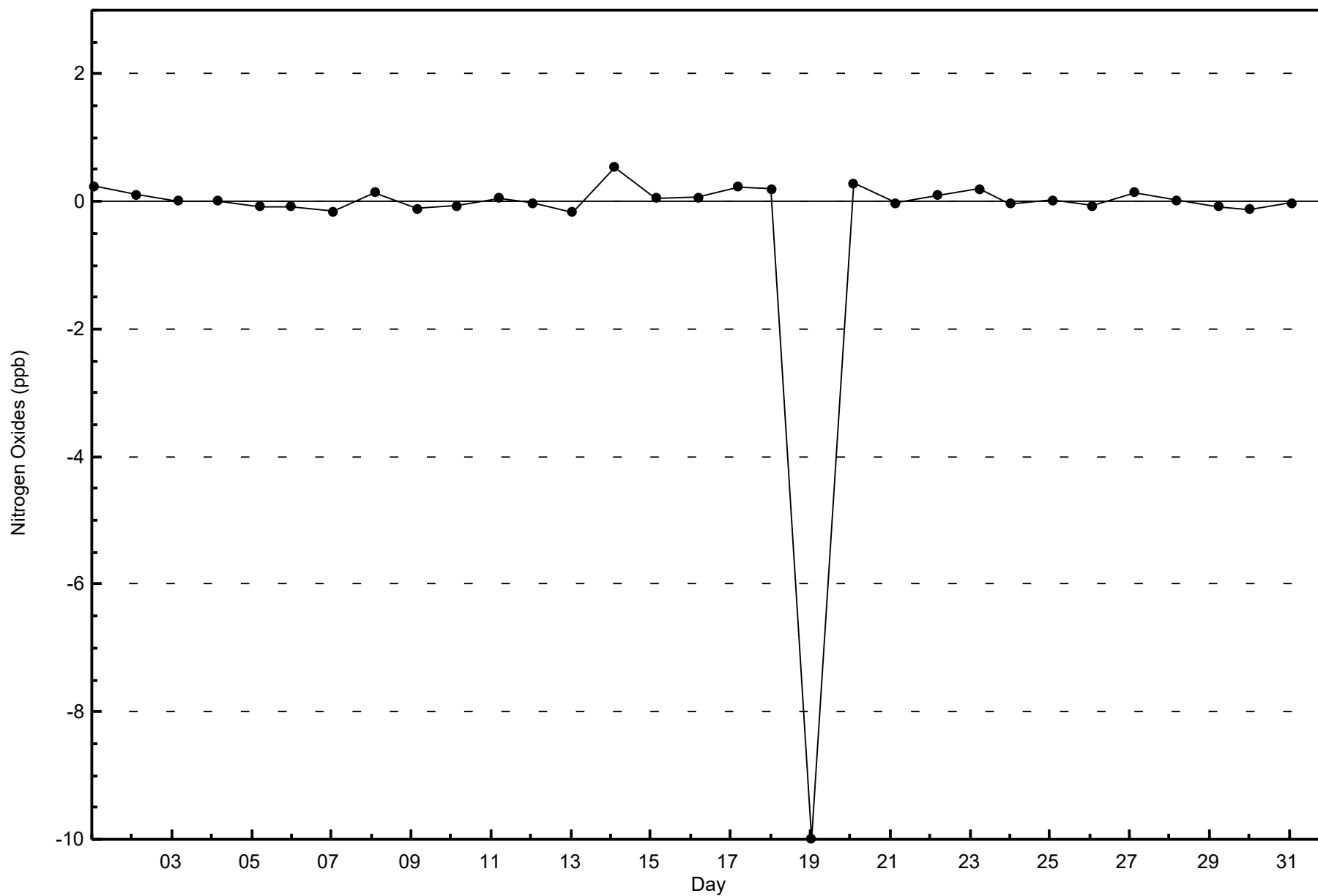
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Oxides (NO_x) - ppb
Hangingstone Expansion

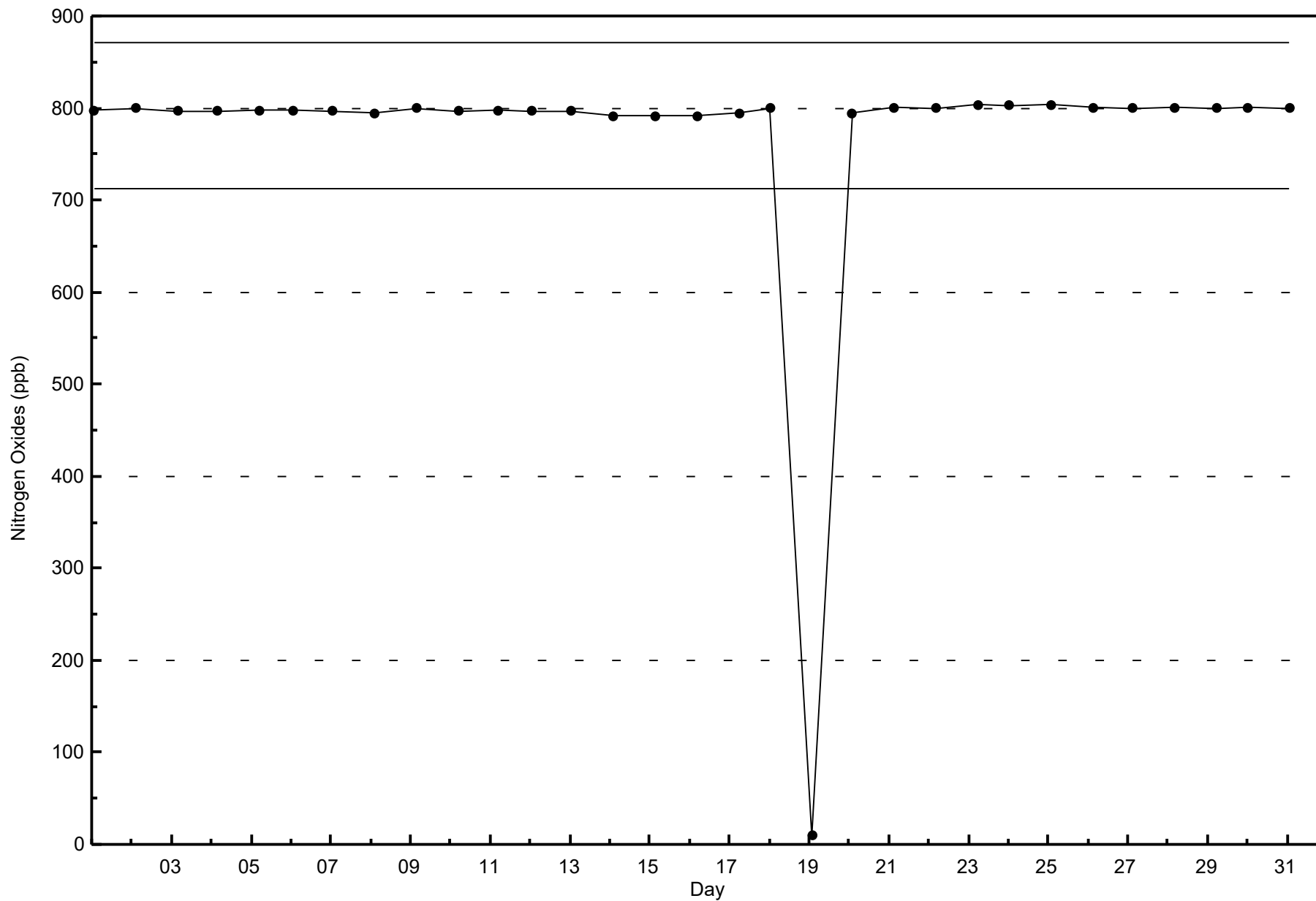






Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Hangingstone Expansion - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

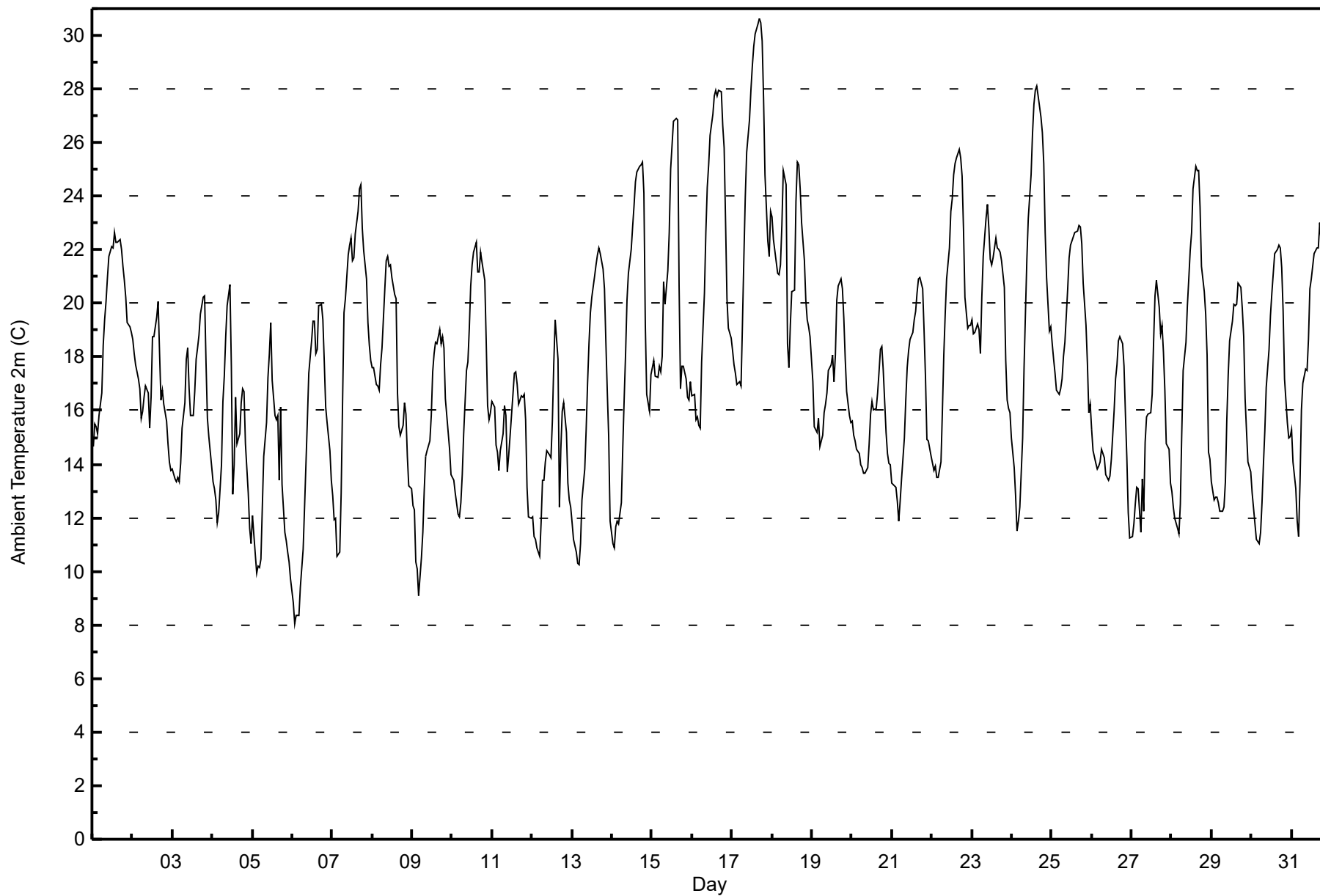
Hangingsstone Expansion - July 2026

Maximum Value: 30.6 C on Jul 17 17:00																				Maximum Daily Average: 24.1 C on Jul 17					Hours in Service: 744	
Minimum Value: 8.1 C on Jul 6 02:00																				Minimum Daily Average: 13.4 C on Jul 5					Hours of Data: 744	
Maximum Diurnal Average: 21.4 C at hour 16																				Minimum Diurnal Average: 13.5 C at hour 5					Hours of Missing Data: 0	
Monthly Average: 17.63 C																				Percentiles: P ₁ = 9.8 P ₁₀ = 12.4 Q ₁ = 14.4 Median = 17.3 Q ₃ = 20.5 P ₉₀ = 23.0 P ₉₉ = 28.0					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	14.6	15.5	15.4	15.1	15.8	16.6	18.4	19.4	20.1	21.0	21.8	22.1	22.1	22.6	22.3	22.3	22.4	22.0	21.4	20.9	20.2	19.3	19.1	18.9	19.5	22.6
2-Jul	18.7	18.1	17.7	17.2	16.8	15.7	16.0	16.5	16.9	16.7	15.4	16.5	18.8	18.7	19.5	20.0	18.2	16.4	16.8	16.2	15.6	14.8	14.1	13.8	16.9	20.0
3-Jul	13.8	13.4	13.4	13.5	13.3	14.0	15.4	16.3	17.9	18.3	16.8	15.8	15.8	16.7	17.9	18.3	18.8	19.6	20.2	20.3	17.8	15.7	15.0	13.9	16.3	20.3
4-Jul	13.4	13.1	12.7	11.8	12.2	14.0	16.3	17.3	18.7	19.9	20.7	17.7	12.9	14.0	16.5	14.8	15.1	16.3	16.8	16.7	14.8	12.9	11.6	11.0	15.0	20.7
5-Jul	12.1	11.4	9.9	10.2	10.1	10.4	12.4	14.3	15.6	17.2	18.1	19.3	17.1	15.8	15.7	15.8	13.4	16.1	13.2	11.5	11.2	10.7	10.4	9.7	13.4	19.3
6-Jul	8.8	8.1	8.3	8.3	8.3	9.4	10.8	12.4	14.1	15.6	17.4	18.6	19.3	19.3	18.1	18.3	19.9	20.0	19.4	17.8	16.1	15.6	14.5	13.4	14.7	20.0
7-Jul	12.8	11.9	12.0	10.6	10.7	12.9	16.4	19.7	20.2	21.8	22.2	22.5	21.6	21.7	22.6	23.4	24.3	24.5	22.8	22.0	20.9	19.3	18.4	17.9	18.9	24.5
8-Jul	17.6	17.6	17.0	16.9	16.8	17.7	18.4	20.6	21.6	21.7	21.4	21.5	21.0	20.3	20.2	16.6	15.4	15.1	15.5	16.3	15.8	14.3	13.2	13.1	17.7	21.7
9-Jul	12.5	12.3	10.4	10.1	9.1	10.5	11.5	13.1	14.3	14.5	14.9	15.8	17.4	18.2	18.6	18.5	19.0	18.5	18.8	18.3	16.5	15.2	14.5	13.6	14.8	19.0
10-Jul	13.5	13.4	12.9	12.1	12.0	12.6	13.6	15.1	17.5	17.8	19.1	20.7	21.5	21.9	22.3	21.2	21.2	21.9	21.5	20.9	18.6	16.2	15.7	15.9	17.5	22.3
11-Jul	16.3	16.1	14.7	14.4	13.7	14.5	15.1	16.2	15.8	13.7	14.3	15.1	16.6	17.4	17.4	17.0	16.2	16.5	16.5	16.6	15.7	13.1	12.0	12.0	15.3	17.4
12-Jul	12.1	11.3	11.2	10.9	10.5	11.8	13.4	13.4	14.1	14.5	14.4	14.2	15.6	17.8	19.4	17.9	12.4	14.6	16.0	16.3	15.2	13.3	12.7	12.4	14.0	19.4
13-Jul	11.8	11.2	10.7	10.3	10.3	11.1	12.7	13.8	15.3	17.0	18.5	19.7	20.2	21.0	21.4	21.8	22.1	21.9	21.3	20.5	18.5	16.7	15.0	11.9	16.4	22.1
14-Jul	11.0	10.9	11.7	11.9	11.8	12.6	14.6	16.5	18.1	20.1	21.1	22.0	22.9	23.6	24.5	24.9	25.1	25.2	25.3	24.1	19.2	16.6	16.0	17.3	18.6	25.3
15-Jul	17.6	17.9	17.3	17.2	17.6	17.5	18.0	20.8	20.0	21.2	22.6	25.0	25.9	26.8	26.9	26.8	20.7	16.8	17.7	17.6	17.2	16.5	16.4	17.1	20.0	26.9
16-Jul	16.6	16.6	15.7	15.7	15.4	15.3	17.8	20.4	22.6	24.3	25.2	26.3	27.1	27.7	27.9	27.7	28.0	27.9	26.7	25.8	23.1	20.2	19.1	18.7	22.2	28.0
17-Jul	18.2	17.7	17.4	17.0	17.1	16.9	19.2	21.7	24.0	25.7	26.8	27.9	28.8	29.6	30.1	30.4	30.6	30.5	29.8	27.7	24.8	22.3	21.7	23.4	24.1	30.6
18-Jul	23.2	22.4	21.6	21.1	21.1	21.4	22.9	25.0	24.4	18.5	17.6	19.2	20.4	20.5	23.8	25.3	25.2	24.3	23.0	21.6	20.1	19.4	19.2	18.8	21.7	25.3
19-Jul	17.1	15.4	15.3	15.2	15.7	14.6	15.1	15.9	16.3	16.7	17.5	17.7	18.1	17.1	18.1	20.1	20.7	20.9	20.5	19.4	17.9	16.7	15.8	15.5	17.2	20.9
20-Jul	15.6	15.1	14.9	14.6	14.4	14.0	13.8	13.6	13.6	13.9	14.7	15.9	16.3	16.0	16.1	16.6	17.4	18.3	18.4	17.5	15.2	14.4	14.0	14.0	15.3	18.4
21-Jul	13.3	13.2	13.1	12.6	11.9	12.6	13.5	15.0	16.4	17.6	18.3	18.7	18.9	19.4	19.7	20.4	20.9	21.0	20.5	19.0	17.2	14.9	14.9	14.3	16.6	21.0
22-Jul	14.0	13.8	13.9	13.5	13.5	14.1	16.0	18.1	19.6	20.9	22.1	23.4	23.9	24.8	25.2	25.4	25.7	25.4	24.8	22.7	20.2	19.1	19.2	19.2	19.9	25.7
23-Jul	19.4	18.9	18.9	19.2	19.0	18.1	20.2	21.8	23.2	23.7	22.8	21.6	21.5	21.7	22.4	22.1	22.0	21.9	21.6	20.6	17.9	16.4	16.1	15.9	20.3	23.7
24-Jul	15.0	13.9	12.8	11.5	11.9	12.4	15.0	17.6	19.7	21.7	23.2	24.8	26.3	27.4	28.0	28.1	27.8	26.9	26.4	25.2	22.6	21.0	19.0	19.1	20.7	28.1
25-Jul	18.5	17.9	17.4	16.8	16.6	16.8	17.2	18.0	18.5	20.5	21.7	22.2	22.3	22.5	22.6	22.7	22.9	22.8	22.2	20.8	19.2	17.8	15.9	16.2	19.6	22.9
26-Jul	15.3	14.5	14.0	13.8	13.9	14.1	14.5	14.3	13.6	13.5	13.4	13.6	14.2	16.0	17.2	17.7	18.6	18.8	18.5	17.7	15.8	14.3	12.2	11.3	15.0	18.8
27-Jul	11.3	11.7	12.5	13.1	13.1	11.5	13.5	12.3	14.8	15.8	15.9	15.9	16.6	18.5	20.3	20.8	19.9	18.9	19.2	18.2	16.8	14.8	14.6	13.3	15.5	20.8
28-Jul	13.0	12.4	12.0	11.6	11.4	12.5	15.2	17.5	18.5	19.9	20.9	22.0	22.6	24.3	25.1	25.0	25.0	23.6	21.4	20.4	19.6	18.1	14.4	14.2	18.4	25.1
29-Jul	13.3	12.6	12.8	12.8	12.5	12.3	12.3	12.4	13.4	15.7	17.3	18.6	19.3	20.0	19.9	19.9	20.8	20.6	19.8	18.8	16.4	15.2	14.1	13.7	16.0	20.8
30-Jul	12.9	12.3	11.8	11.2	11.0	11.4	12.6	14.0	15.3	16.9	18.3	19.6	20.4	21.1	21.9	22.0	22.2	22.1	21.4	19.7	17.2	15.6	15.0	15.0	16.7	22.2
31-Jul	15.3	14.1	13.1	11.9	11.3	13.4	16.0	17.0	17.5	17.5	18.7	20.5	20.9	21.9	22.0	22.1	22.1	23.0	22.3	20.6	19.1	18.8	18.5	17.6	18.1	23.0
14.8 14.3 13.9 13.6 13.5 14.0 15.4 16.8 17.8 18.5 19.1 19.8 20.2 20.8 21.4 21.4 21.1 21.0 20.6 19.7 18.0 16.4 15.6 15.2																									Diurnal Average	
23.2 22.4 21.6 21.1 21.1 21.4 22.9 25.0 24.4 25.7 26.8 27.9 28.8 29.6 30.1 30.4 30.6 30.5 29.8 27.7 24.8 22.3 21.7 23.4																									Diurnal Maximum	



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Hangingstone Expansion - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Hangingstone Expansion - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	9	1.21	1.21
10 - 20	522	70.16	71.37
> 20	213	28.63	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

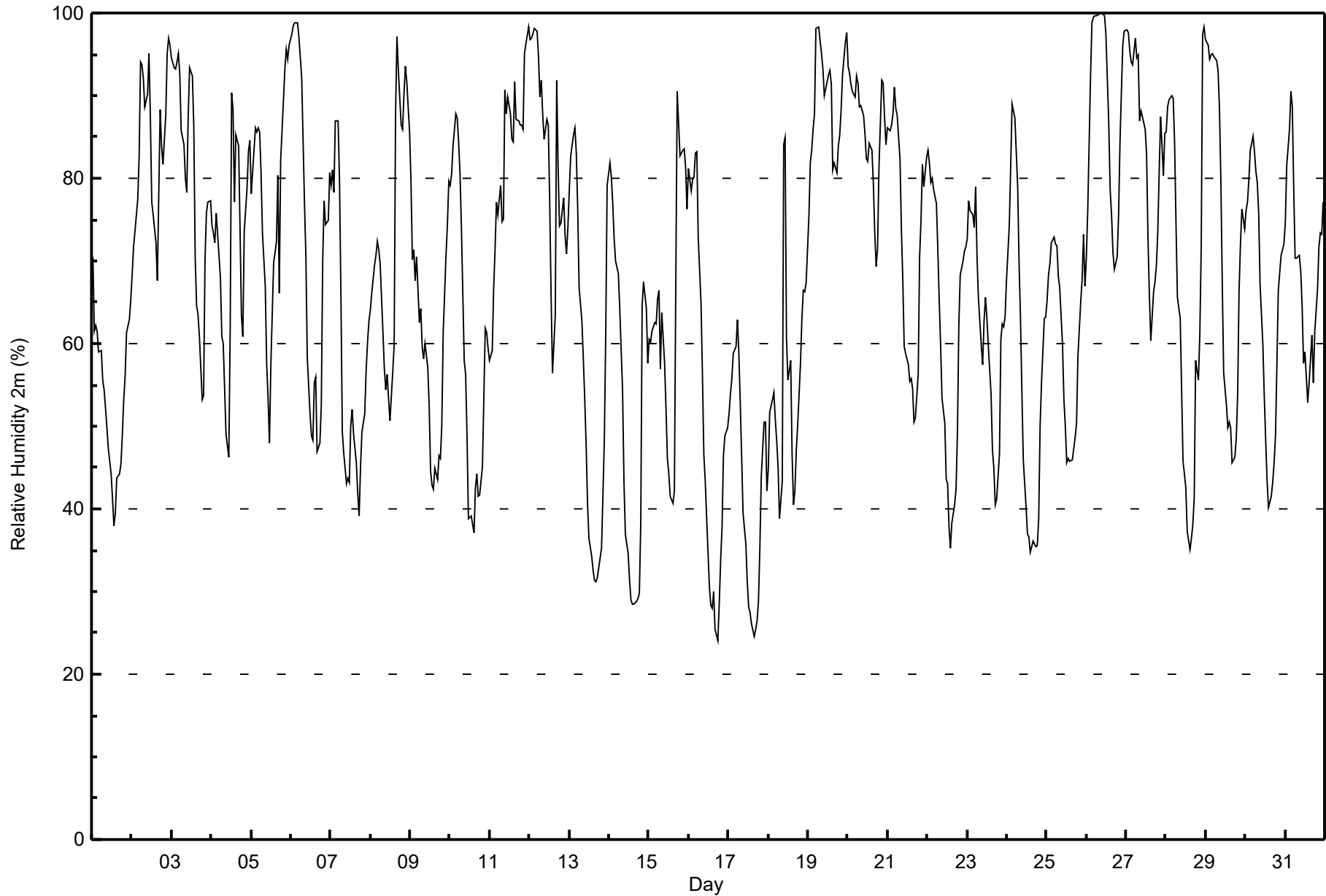
Hangingsstone Expansion - July 2026

Maximum Value: 100.0 % on Jul 26 09:00																				Maximum Daily Average: 89.3 % on Jul 19					Hours in Service: 744				
Minimum Value: 24.0 % on Jul 16 18:00																				Minimum Daily Average: 42.4 % on Jul 17					Hours of Data: 744				
Maximum Diurnal Average: 81.6 % at hour 5																				Minimum Diurnal Average: 53.0 % at hour 15					Hours of Missing Data: 0				
Monthly Average: 67.79 %																				Percentiles: P ₁ = 28.0 P ₁₀ = 41.6 Q ₁ = 53.1 Median = 69.8 Q ₃ = 84.1 P ₉₀ = 92.6 P ₉₉ = 99.2					Hours of Calibration: 0				
																				Percent Operational Time: 100.0									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	70.6	61.5	62.2	61.6	59.0	59.2	55.6	54.4	52.2	49.9	47.3	44.3	41.2	37.9	39.4	43.7	44.3	45.5	49.0	53.3	56.1	61.4	62.9	65.3	53.2	70.6			
2-Jul	68.3	71.6	73.6	77.5	82.6	94.0	93.7	92.0	88.7	90.2	95.1	87.4	77.1	75.6	72.1	67.6	78.1	88.3	83.9	81.7	87.6	95.1	97.0	96.1	84.0	97.0			
3-Jul	94.5	93.4	93.2	94.0	95.0	92.6	85.7	84.1	79.9	78.3	87.4	93.3	92.4	86.3	70.3	64.6	63.5	60.8	53.2	53.8	70.1	75.8	77.0	77.3	79.9	95.0			
4-Jul	74.3	73.4	72.3	75.7	73.3	68.0	60.9	60.0	54.5	49.0	46.2	62.2	90.3	88.4	77.1	85.3	83.8	73.8	63.5	60.8	73.5	78.7	83.3	84.6	71.4	90.3			
5-Jul	78.2	80.8	86.0	85.7	86.1	85.7	80.6	73.4	67.0	57.6	53.4	47.9	57.5	69.8	71.1	72.4	80.4	66.1	82.1	89.4	93.2	95.6	94.4	96.2	77.1	96.2			
6-Jul	97.5	98.5	98.9	98.9	98.8	97.2	92.2	84.5	76.9	70.6	58.2	51.4	48.9	48.3	55.3	56.0	47.0	48.0	52.6	70.1	77.3	74.4	75.0	80.6	73.2	98.9			
7-Jul	79.2	81.0	78.2	86.9	86.9	79.7	65.9	49.2	46.8	43.0	43.7	43.3	50.0	51.9	49.1	45.5	41.8	39.2	45.0	49.3	51.6	56.8	60.2	62.6	57.8	86.9			
8-Jul	64.0	66.1	69.6	70.7	72.5	71.4	69.7	61.3	56.9	54.4	56.3	53.5	50.7	56.6	59.8	87.8	97.1	93.1	86.4	85.9	90.1	93.6	91.6	85.7	72.7	97.1			
9-Jul	79.6	70.2	71.3	67.6	70.5	62.5	64.3	59.6	58.2	60.0	57.2	52.4	44.6	42.8	42.4	44.9	43.6	46.5	46.0	50.1	61.3	70.6	74.3	79.7	59.2	79.7			
10-Jul	79.2	80.5	84.0	87.9	87.3	84.3	80.5	74.0	58.0	56.2	48.7	38.8	39.0	39.1	37.2	42.5	44.2	41.5	41.8	45.1	53.4	61.8	61.4	59.5	59.4	87.9			
11-Jul	57.9	59.1	66.7	71.3	77.1	75.6	79.1	74.7	75.1	90.7	87.8	89.9	87.8	84.7	84.4	91.7	87.2	86.9	86.4	86.5	85.9	95.1	96.2	98.3	82.3	98.3			
12-Jul	96.8	97.0	97.5	98.2	97.8	94.8	89.8	91.9	87.7	84.7	87.2	86.5	77.4	65.7	56.5	63.6	91.9	81.4	74.2	74.6	77.5	73.0	70.8	74.0	82.9	98.2			
13-Jul	78.6	82.6	85.2	86.1	83.1	76.2	66.8	62.8	58.1	53.3	47.7	40.6	36.5	34.2	32.6	31.4	31.2	31.7	34.0	35.2	41.8	48.2	61.2	79.1	54.9	86.1			
14-Jul	81.8	80.2	77.0	72.8	70.1	68.5	64.3	59.3	54.5	43.4	36.9	34.6	31.3	29.0	28.4	28.5	28.8	29.2	29.8	38.2	64.7	67.5	64.3	57.5	51.7	81.8			
15-Jul	60.5	60.1	61.5	62.5	62.4	65.4	66.4	56.9	63.8	57.6	52.2	46.2	44.2	41.6	40.7	42.3	67.5	90.6	86.6	82.7	83.4	83.5	81.3	76.2	64.0	90.6			
16-Jul	81.2	78.6	79.8	80.2	83.1	83.2	72.9	65.0	56.5	46.6	43.4	39.0	30.5	28.3	28.0	30.0	25.4	24.0	28.5	33.7	37.8	46.4	48.8	49.8	50.9	83.2			
17-Jul	51.6	53.8	55.7	58.9	59.6	62.9	58.9	52.8	46.2	39.6	35.8	31.2	28.1	27.5	26.1	24.6	25.5	26.4	28.8	35.3	43.8	50.6	50.5	42.2	42.4	62.9			
18-Jul	44.8	51.7	53.2	54.1	50.9	48.3	45.1	38.9	43.3	84.1	84.8	60.7	55.6	57.9	46.6	40.6	42.2	47.1	50.2	57.7	63.0	66.5	66.3	67.4	55.0	84.8			
19-Jul	75.5	81.8	83.4	85.9	87.8	98.1	98.3	96.6	95.1	93.2	90.0	91.8	92.6	93.1	91.4	81.0	81.9	80.7	83.9	85.3	88.3	92.6	96.5	97.6	89.3	98.3			
20-Jul	93.5	92.7	91.4	90.4	89.9	92.4	91.5	88.7	88.8	87.6	85.5	82.4	82.0	84.2	83.4	79.3	73.4	69.4	71.4	81.4	91.8	91.5	87.4	84.1	85.6	93.5			
21-Jul	86.1	85.7	86.5	87.8	90.9	88.4	87.7	82.4	74.0	67.8	59.7	58.8	57.5	55.5	55.7	54.6	50.6	51.0	56.3	70.4	74.9	81.6	79.0	82.5	71.9	90.9			
22-Jul	83.4	81.9	79.6	80.0	78.6	77.0	71.4	65.3	59.7	53.4	50.3	43.6	43.1	37.9	35.3	38.3	40.5	42.4	49.2	62.2	68.2	70.0	71.2	71.7	60.6	83.4			
23-Jul	72.6	77.3	76.2	75.6	74.0	79.1	70.3	65.5	59.9	57.4	62.7	65.6	63.2	59.8	53.9	47.1	44.9	40.5	41.1	46.5	60.5	62.3	62.1	63.2	61.7	79.1			
24-Jul	67.6	74.2	81.4	89.0	88.2	87.4	79.0	69.7	63.1	54.2	45.9	40.3	37.0	36.7	34.7	35.4	36.1	35.4	35.6	38.8	50.1	55.3	63.0	63.2	56.7	89.0			
25-Jul	65.2	68.2	69.7	72.2	72.9	72.1	71.9	68.1	66.7	59.8	53.1	50.0	45.6	46.0	45.8	46.0	47.2	48.7	50.3	58.4	65.1	67.8	73.2	66.9	60.5	73.2			
26-Jul	70.3	76.0	92.3	98.8	99.4	99.7	99.7	99.8	100.0	100.0	99.8	99.6	97.3	86.7	78.6	75.6	71.0	69.0	70.5	75.4	84.3	90.4	96.2	97.8	88.7	100.0			
27-Jul	97.9	97.6	95.5	94.0	93.7	96.9	94.6	95.0	86.9	88.1	87.5	85.9	82.9	72.8	65.8	60.3	66.2	67.4	69.4	73.5	80.8	87.4	80.4	85.5	83.6	97.9			
28-Jul	85.7	88.7	89.4	90.0	89.7	84.2	74.4	65.6	63.0	54.3	45.7	44.3	42.5	37.3	35.1	36.4	38.1	41.3	58.0	55.6	61.1	71.8	97.4	98.4	64.5	98.4			
29-Jul	96.8	96.2	94.5	95.0	95.2	94.8	94.2	93.0	88.6	79.8	67.4	56.5	52.6	49.8	50.5	49.9	45.7	46.3	48.4	53.9	66.4	72.0	76.3	73.8	72.4	96.8			
30-Jul	76.1	77.1	79.8	83.4	85.1	83.3	80.9	79.5	75.8	67.2	59.9	53.5	48.3	43.3	40.2	41.6	43.2	45.6	48.8	57.5	66.5	70.7	71.3	72.0	64.6	85.1			
31-Jul	74.6	81.5	85.9	90.4	88.6	78.9	70.3	70.4	70.6	68.7	64.5	57.6	59.1	52.9	55.3	58.1	61.0	55.2	61.3	66.7	71.7	73.4	73.2	77.2	69.5	90.4			
76.9 78.0 79.7 81.4 81.6 80.7 76.7 72.1 68.3 65.8 62.6 59.1 57.6 55.5 53.0 53.7 55.6 55.3 57.0 61.6 69.1 73.6 75.6 76.3																										Diurnal Average			
97.9 98.5 98.9 98.9 99.4 99.7 99.7 99.8 100.0 100.0 99.8 99.6 97.3 93.1 91.4 91.7 97.1 93.1 86.6 89.4 93.2 95.6 97.4 98.4																										Diurnal Maximum			



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Hangingstone Expansion - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %
Hangingstone Expansion - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	62	8.33	8.33
40 - 60	206	27.69	36.02
60 - 80	238	31.99	68.01
80 - 100	236	31.72	99.73

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

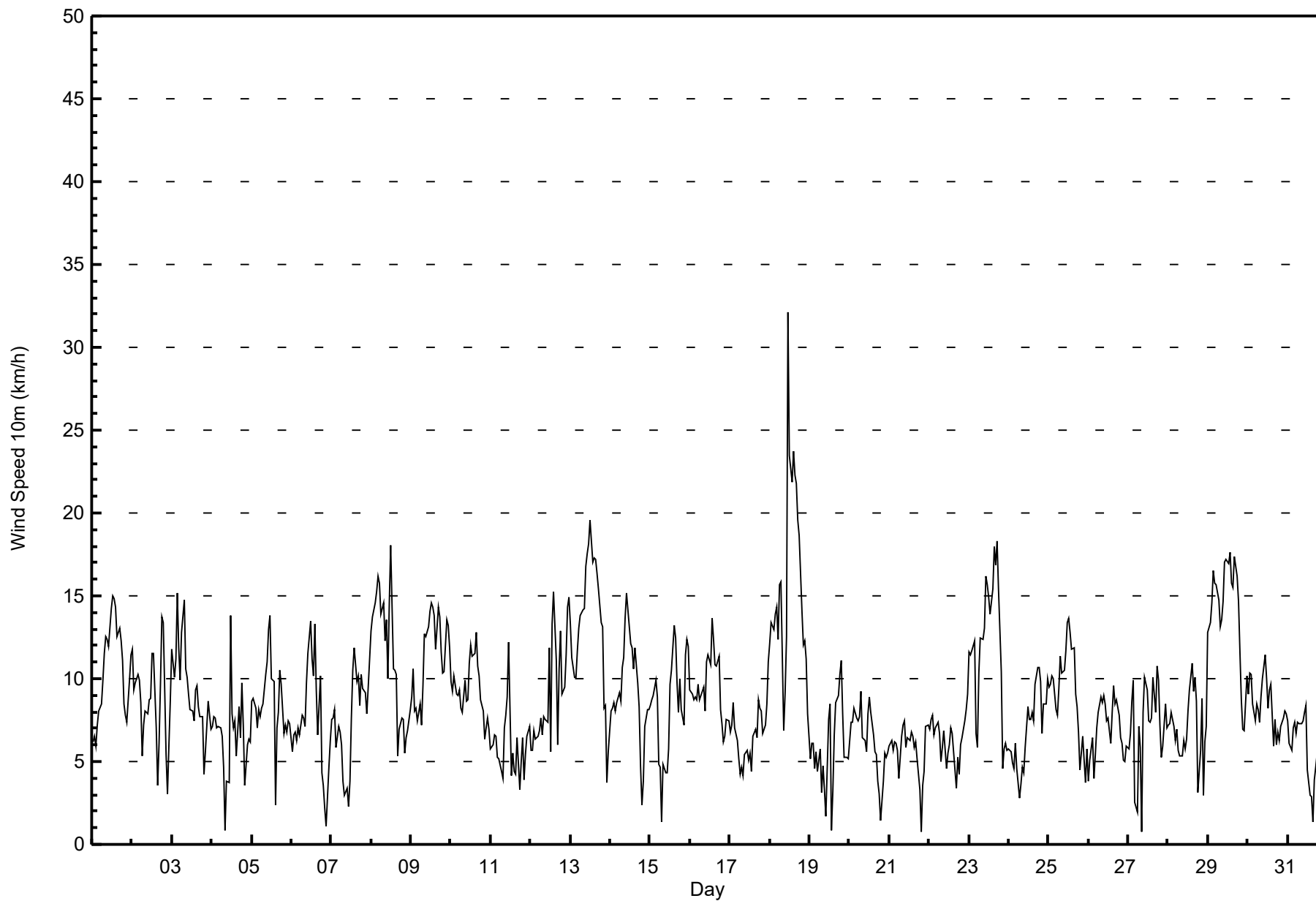
Hangingsstone Expansion - July 2026

Maximum Speed: 32 km/h on Jul 18 12:00														Maximum Daily Speed Average: 14.1 km/h on Jul 18														Hours in Service: 744	
Minimum Speed Value: 1 km/h on Jul 21 20:00														Minimum Daily Speed Average: 1.4 km/h on Jul 17														Hours of Data: 744	
Maximum Diurnal Speed Average: 6.7 km/h at hour 3														Minimum Diurnal Speed Average: 2.9 km/h at hour 20														Hours of Missing Data: 0	
Monthly Average Velocity: 4.5 km/h 207.8 deg														Percentiles: P ₁ = 2 P ₁₀ = 5 Q ₁ = 6 Median = 8 Q ₃ = 11 P ₉₀ = 14 P ₉₉ = 19														Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	ESE6	ESE7	ESE6	ESE7	ESE8	SE8	SE10	SE12	SE13	ESE12	ESE12	ESE14	SE15	SE15	SE14	ESE13	ESE13	ESE12	ESE11	SE8	SE8	SE7	SE10	SE11	SE10.4	SE15			
2-Jul	SSE12	SSE9	SE10	SSE10	SSE10	SSE9	SSE5	SSE7	SE8	SE8	SSE9	S9	SSW12	SSW12	SW7	WSW4	ESE6	SSE10	SSE14	SSE13	WSW5	SW3	SE6	SE9	SSE7.5	SSE14			
3-Jul	SSE12	SSE10	SSE11	SSE15	SSE12	S10	S13	S15	S11	S10	SW9	SW8	W8	WSW7	W9	W10	WSW8	WSW8	W8	W4	SSE6	SSE7	S9	S7	SSW7.0	SSE15			
4-Jul	SSW7	SSW8	SSW8	SSW7	SSW7	SSW7	SSW7	S5	E1	N4	S4	SW14	SSW8	SSW7	S7	WSW5	WNW8	SW6	W10	W7	SSW4	SSW6	SSW6	SSW6	SSW5.3	SW14			
5-Jul	SW9	SW9	SSW8	SSW7	SSW8	SSW8	SSW8	WSW8	W10	W11	W13	W14	NW10	NNE10	WNW2	SW7	SW8	W11	NW10	WSW7	WSW7	WSW7	WSW7	WSW7	WSW6.5	W14			
6-Jul	SW6	SSW7	SSW7	SSW6	SSW7	SSW7	WSW8	W8	W7	WNW10	WNW12	WNW13	WNW11	WNW10	NNW13	NE9	N7	N10	NNE4	E4	ESE2	NNW1	E5	SE6	WNW3.2	WNW13			
7-Jul	ESE8	SSE8	SSE8	SE6	SE7	SSW7	SE6	ESE4	SSE3	NE3	SE2	E4	NE8	E11	E12	E10	ESE10	SE8	ESE10	ESE9	SE9	SE8	SE10	SSE11	ESE6.7	E12			
8-Jul	SSE13	SSE14	SSE15	SSE15	SSE16	S16	S14	S15	S12	S14	SSE10	SSE15	SSE18	SSW11	SW11	WSW10	SSW5	SW7	SW8	WSW8	S5	SSW6	SSW7	SSW8	S9.9	SSE18			
9-Jul	SSW9	SW11	SSW8	SSW8	SSW7	SW8	SSW7	SW10	WSW13	SW13	SW13	SW14	SW15	SW14	SW14	SW12	SW12	SW14	SSW14	SSW12	SSW10	S10	S14	S13	S12	SSW10.9	SW15		
10-Jul	S10	S9	S10	S9	S9	S9	S8	S8	SSW10	SSW9	SW9	SSW11	SW12	SW11	SW11	WSW13	SSW11	SW10	SW9	SSW8	S6	S7	S8	S7	SSW8.5	WSW13			
11-Jul	S6	S6	S7	S6	S5	S5	SSE4	S4	SSW7	SSW8	SSE9	SE12	SE4	WNW6	NW4	WNW4	NW6	NNW3	WNW5	WNW6	NNW4	W5	WSW6	WSW7	SSW3.0	SE12			
12-Jul	SW6	SSW6	SSW7	SSW6	S7	SSW7	SSW8	SSW7	SW8	WSW8	W7	NW12	E6	SE13	SSE15	SW11	SW6	SW11	WSW13	SW9	SW9	SSW11	SW14	WSW15	SW7.3	SSE15			
13-Jul	WSW13	WSW11	SW10	SW10	SSW12	SW13	SW14	WSW14	WSW14	SW17	WSW18	WSW18	WSW20	W17	WSW17	W17	WSW16	W15	W13	W13	WSW8	WSW8	NNW4	S6	WSW12.4	WSW20			
14-Jul	S8	S8	S9	SSW8	SSW9	SSW9	SW9	WSW11	W11	W14	W15	W13	W12	WNW12	W11	W12	W10	W8	W5	SSW2	SE4	SE7	SSE8	SSE8	WSW6.6	W15			
15-Jul	S8	S9	SSE9	SSE10	S9	S5	SSE5	S1	S5	S4	SSW4	SE6	SSE10	SSE11	SSE13	SE12	NW10	ENE8	E10	SE8	ESE7	ESE11	SE12	SSE12	SSE6.7	SSE13			
16-Jul	S9	S9	S9	SSW9	S9	S10	S9	SSW9	S9	SSW8	SSW11	SW11	WSW11	WSW14	WSW12	SW11	WSW11	WSW11	WSW8	WSW7	SW6	SSW7	SSW8	SSW7	SSW8.2	WSW14			
17-Jul	SSW7	SSW7	SSW9	SSW7	SSW6	SSW5	SSW4	SW5	W4	NW5	NNW6	NNW5	N6	NW4	NNE7	NNE7	NE6	NE9	E8	E8	ESE7	ESE7	ESE8	SE11	ESE1.4	SE11			
18-Jul	SE12	SSE13	SSE13	SSE14	SSE14	SSE12	SSE16	SE16	SW7	W9	ENE13	ESE32	ESE23	ESE22	SE24	SE22	SE22	SE20	SSE19	SSE14	SE12	SE12	SE11	S8	SE14.1	ESE32			
19-Jul	E5	SE6	SSW6	SW5	SSE6	SSW4	SSW6	SSW3	W5	W3	W2	NNW8	NNE9	NE1	SW3	WNW7	NW9	NW9	NW10	NW11	WNW8	W5	WSW5	WNW5	WNW2.9	NW11			
20-Jul	NNW6	N7	N7	N8	NNW8	NW7	NNW8	NW9	NW6	WNW6	WNW6	NW8	NW9	NW8	NNW7	N6	NNW5	NW4	NW3	ENE1	SSE4	S6	S5	SSW5	NW4.5	NW9			
21-Jul	S6	S6	SSW6	SSW6	S6	SSW6	SSW4	SW6	W7	W7	W6	WSW6	W6	W7	WSW7	SSW6	W6	W5	SW3	WSW1	SW4	SSW4	S7	S7	SW4.7	W7			
22-Jul	SSW7	S8	SSW8	SSW7	SSW7	S7	SSW7	SW5	W6	W7	W5	SSW5	WSW6	SW7	W7	W6	SW3	S5	S4	SSE6	SSE6	SSE7	SSE8	SSE9	SSW5.0	SSE9			
23-Jul	S12	SSE11	SSE12	S12	SSW7	S6	SSW10	SSW12	WSW12	W13	WNW16	WNW16	NW15	NW14	NW15	NW18	NW17	NW18	NW15	NW10	WNW5	WSW6	WSW6	WSW6	W7.2	NW18			
24-Jul	WSW6	WSW6	SW5	SSW5	S6	S5	S3	SSE4	S5	S4	WSW6	SSW8	SSW8	SW8	SW8	SW7	SW10	WSW11	WSW11	WSW10	SW7	SW8	SSW8	SW10	SW6.3	WSW11			
25-Jul	SSW9	SSW10	SW10	SSW8	SW8	SW9	SW11	WSW10	WSW11	WSW12	WSW13	WSW14	WSW13	WSW12	WSW12	WSW9	WSW8	WSW7	SW4	SW6	SSW5	SW4	SSW6	SSW6	SW8.8	WSW14			
26-Jul	WSW4	NNW5	NNE6	NE4	NE5	NE7	NNE8	N9	N9	NNE9	N8	NNE7	NNE8	NE6	NNE8	N10	NNE8	NNE9	NNE8	NE6	NE6	ENE5	ESE5	E6	NNE6.0	N10			
27-Jul	E6	E7	E9	ESE10	SSW3	ENE2	ESE7	NW6	SW1	W8	WNW10	W9	W7	WNW7	WNW8	W10	WSW8	WSW11	WSW10	SW7	SW5	SSW6	SSW8	SSW7	WSW3.2	WSW11			
28-Jul	SSW7	SSW7	S8	SSW7	S6	S7	S6	SSW5	SSW5	S6	S6	SSE6	SE8	SSE9	SSE11	SE9	ESE10	SE9	ENE3	E6	ESE9	SSW3	SW6	SSE7	SSE5.8	SSE11			
29-Jul	SSW13	SSW13	SW15	SW17	WSW16	WSW16	WSW15	WSW13	WSW14	W15	WSW17	W17	W17	W18	W16	W16	W17	W16	W15	WNW12	W9	SW7	SSW7	SW10	WSW13.2	W18			
30-Jul	SW9	SW10	SW10	SW8	SW7	WSW8	WSW8	W7	WNW9	W10	W11	WNW10	WNW8	NW9	WNW10	W6	W8	WSW6	SSW7	S6	S7	S8	S8	S8	WSW6.4	W11			
31-Jul	S7	S6	S6	SSE7	SSE7	SSE7	S7	S7	S7	S7	S8	S8	S5	SSW3	WNW3	SW1	SSE4	SE5	SSE5	SSE6	SSE7	SSE9	S9	S8	SSE5.9	SSE9			
S6.3 S6.4 S6.7 S6.6 S6.5 S6.0 SSW5.8 SSW5.2 SW5.4 WSW5.3 WSW5.1 SW4.5 SW3.9 SW3.9 WSW4.2 WSW4.2 WSW3.6 WSW3.8 SW3.4 SSW2.9 S3.5 S4.9 S5.8 S6.4																								Diurnal Average					
WSW13 SSE14 SSE15 SW17 SSE16 S16 SSE16 SE16 WSW14 WSW17 WSW18 ESE32 ESE23 ESE22 SE24 SE22 SE22 SSE20 SSE19 SSE14 SE12 S14 SW14 WSW15																								Diurnal Maximum					
All monthly, daily, and diurnal averages have been calculated using vector methods																													



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Hangingstone Expansion - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Hangingstone Expansion - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	115	15.46	15.46
6 - 11	476	63.98	79.44
12 - 19	145	19.49	98.92
20 - 28	7	0.94	99.87
29 - 38	1	0.13	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Hangingstone Expansion - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	1	1	4	4	5	3	4	9	16	20	14	6	10	6	5	7	115
6 - 11	10	13	8	1	11	20	28	42	70	90	58	48	36	17	17	7	476
12 - 19	0	0	0	1	1	6	12	26	12	8	15	27	22	6	8	1	145
20 - 28	0	0	0	0	0	2	3	1	0	0	0	1	0	0	0	0	7
29 - 38	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	14	12	6	17	32	47	78	98	118	87	82	68	29	30	15	744

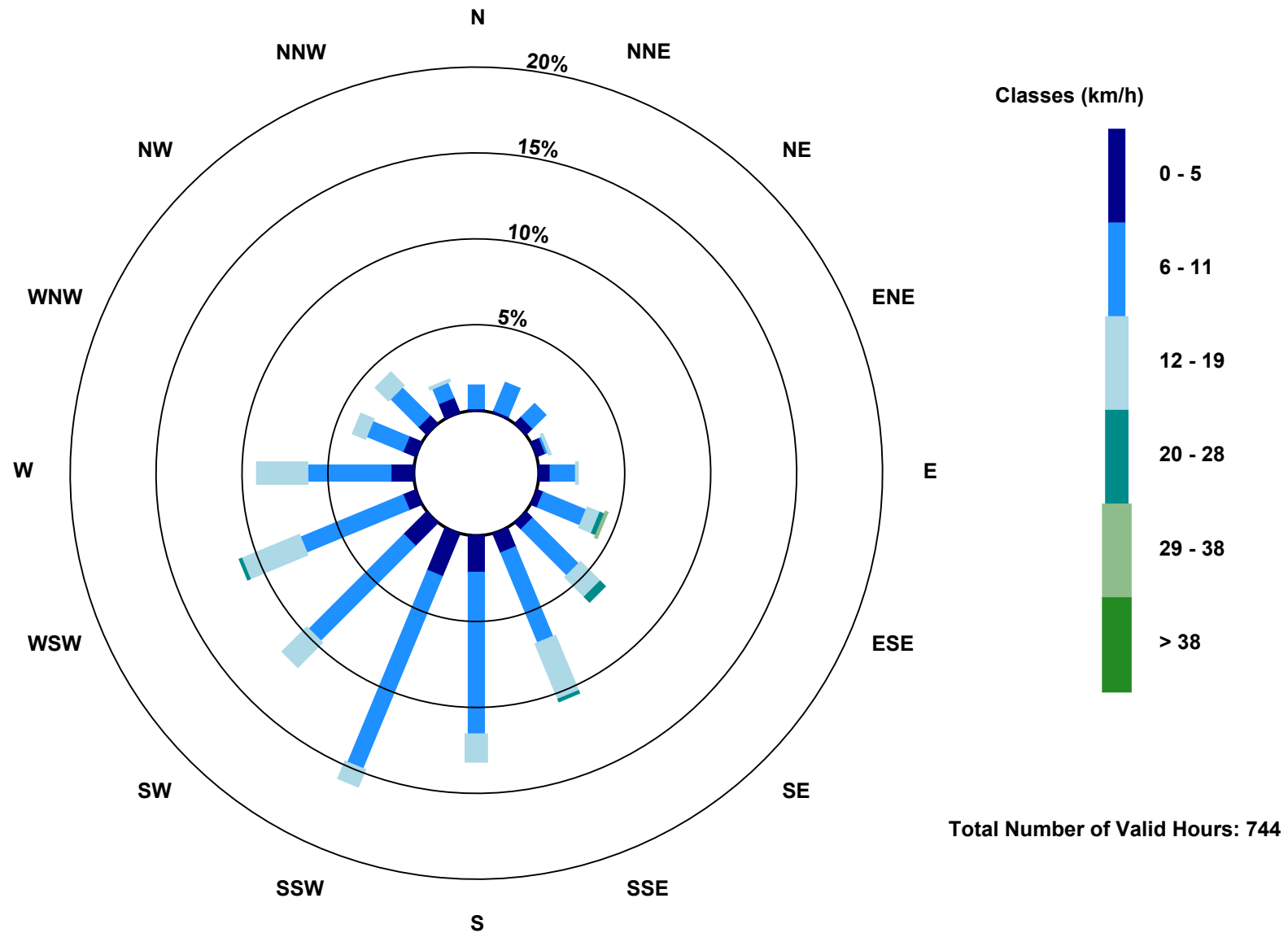
Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Hangingstone Expansion





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Hangingsstone Expansion - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0																		Hours in Service: 744							
Maximum Value: 10 km/h on Jul 18 12:00																		Hours of Data: 744							
Minimum Value: 0 km/h on Jul 7 05:00																		Hours of Missing Data: 0							
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 2 Q ₃ = 4 P ₉₀ = 4 P ₉₉ = 7																		Hours of Calibration: 0							
																		Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	1	1	1	1	2	2	3	4	4	3	4	4	4	5	4	4	4	4	4	2	2	2	3	3	5
2-Jul	3	2	3	2	3	2	1	2	2	2	4	3	4	4	3	3	5	3	4	4	2	1	1	2	5
3-Jul	3	3	4	4	3	3	4	4	4	3	3	3	2	2	3	3	3	3	2	2	1	1	1	2	4
4-Jul	1	2	2	2	2	2	2	1	1	1	3	8	4	3	2	2	3	2	3	2	1	2	2	2	8
5-Jul	2	3	2	2	3	2	2	3	3	4	4	4	6	6	4	3	3	6	4	2	2	2	2	2	6
6-Jul	2	1	2	2	2	2	3	2	2	3	4	4	4	3	6	3	2	3	2	1	1	3	1	1	6
7-Jul	1	1	1	1	0	1	2	1	2	2	2	2	2	3	4	3	4	3	4	2	2	2	2	2	4
8-Jul	3	3	3	4	4	4	4	4	4	4	3	5	5	5	4	4	2	3	3	3	1	1	1	2	5
9-Jul	2	3	2	2	2	3	2	4	5	5	5	5	5	5	5	5	5	4	4	3	3	3	3	3	5
10-Jul	3	2	2	2	2	2	2	2	3	3	3	4	4	5	4	5	3	3	3	2	1	1	1	1	5
11-Jul	1	2	2	1	1	1	1	1	4	3	2	3	4	2	2	1	3	1	1	2	2	2	2	2	4
12-Jul	2	1	2	1	2	2	2	3	3	3	2	4	4	4	5	8	4	4	4	3	4	4	5	5	8
13-Jul	5	4	3	3	3	4	5	5	5	6	6	6	6	6	5	6	5	5	4	4	2	3	2	2	6
14-Jul	1	2	2	2	2	3	3	4	4	5	4	4	4	5	4	4	4	4	3	2	1	1	1	1	5
15-Jul	1	1	2	2	2	2	2	1	1	2	2	4	4	4	5	4	8	2	3	2	2	3	3	3	8
16-Jul	2	2	2	2	2	2	2	2	2	3	4	4	4	5	4	4	3	4	3	2	2	2	2	2	5
17-Jul	1	1	2	2	2	1	2	2	1	2	2	2	3	3	3	3	3	3	2	2	1	1	1	3	3
18-Jul	3	3	3	3	3	3	5	5	6	4	7	10	8	6	7	8	7	6	5	4	3	3	3	3	10
19-Jul	2	2	2	2	4	3	2	1	2	1	2	1	2	2	1	2	2	2	2	3	2	2	1	1	4
20-Jul	2	3	1	2	2	2	2	2	2	1	2	2	2	2	2	1	1	1	2	1	1	1	1	1	3
21-Jul	1	1	1	1	1	2	2	2	2	2	3	2	2	2	2	2	3	1	2	1	1	1	1	1	3
22-Jul	2	2	1	1	2	2	2	2	2	2	2	3	3	4	3	3	2	2	1	1	1	1	1	2	4
23-Jul	3	2	2	3	4	3	3	4	4	4	4	5	4	3	4	5	4	5	4	3	1	1	1	1	5
24-Jul	2	1	2	1	1	1	1	1	2	2	3	3	3	4	4	3	4	4	4	3	2	3	3	3	4
25-Jul	3	3	3	3	3	2	3	4	3	3	4	4	4	4	4	4	3	3	2	2	2	1	2	2	4
26-Jul	2	1	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1	1	2
27-Jul	2	2	2	3	3	2	3	3	2	3	3	3	2	2	3	3	3	4	3	3	2	2	3	2	4
28-Jul	2	2	2	2	2	2	1	2	2	2	2	3	3	3	3	3	3	3	1	1	2	7	4	3	7
29-Jul	4	4	5	5	5	5	5	4	4	5	5	5	5	6	5	4	5	5	5	4	5	2	2	4	6
30-Jul	3	3	3	3	2	3	3	2	2	3	4	3	3	3	3	2	3	2	2	1	1	1	1	1	4
31-Jul	1	1	2	1	1	1	1	1	1	2	2	3	1	1	1	1	1	1	1	1	1	2	2	1	3
Diurnal Maximum																									



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

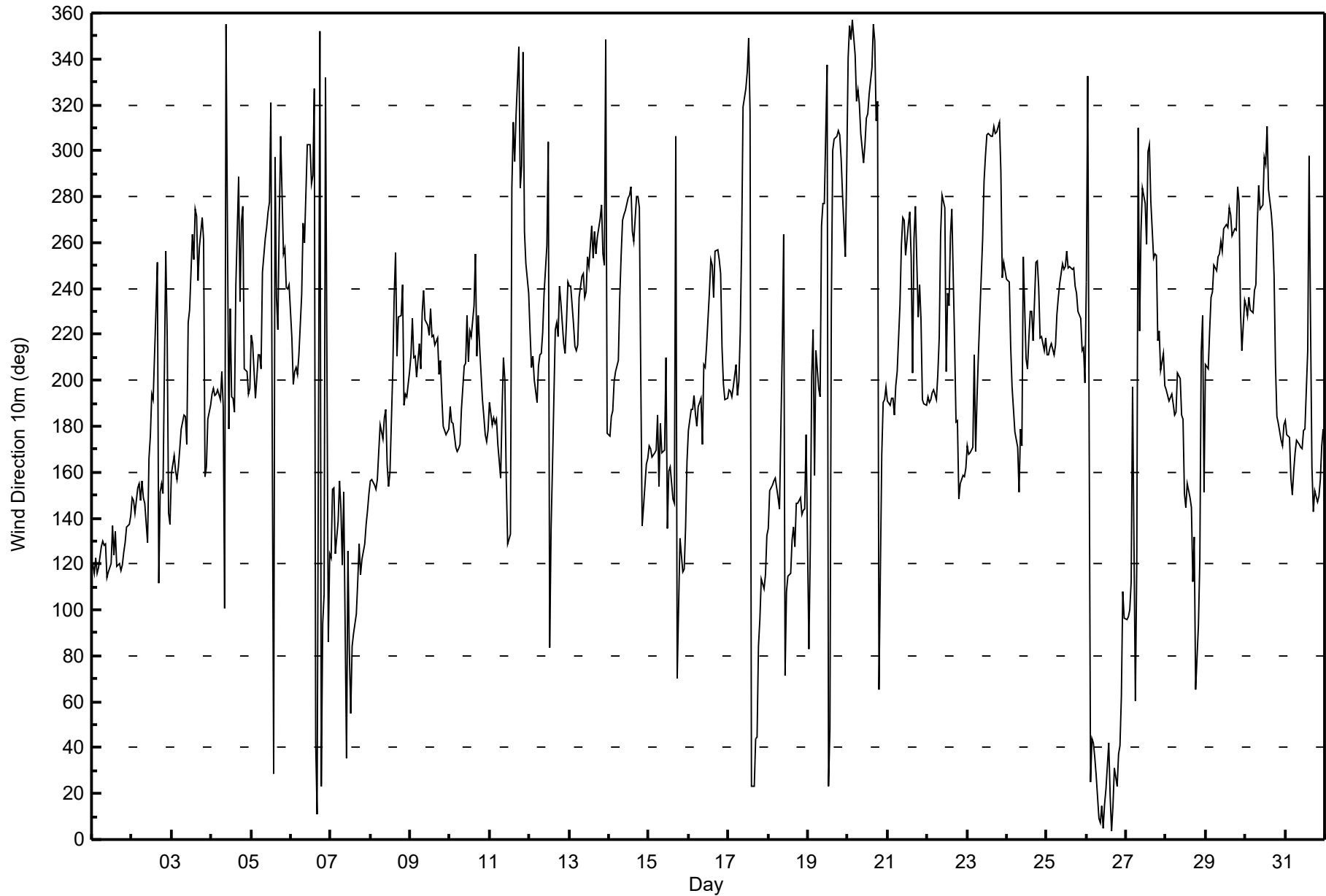
Hangingstone Expansion - July 2026

Direction of Maximum Speed: 119 deg on Jul 1 00:00 Direction of Maximum Daily Speed Average: 0.0 deg on Jan 1																				Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0					
Direction of Minimum Speed: 119 deg on Jul 1 00:00 Direction of Minimum Daily Speed Average: 0.0 deg on Jan 1																				Percent Operational Time: 100.0					
Monthly Average Direction: -- deg																									
Day	Hourly Period Ending At (MST)																				Daily Average				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		21	22	23	24
1-Jul	119	116	123	116	118	127	130	128	129	114	117	120	137	124	134	119	120	117	120	125	129	136	137	141	--
2-Jul	149	148	142	153	155	148	156	149	146	129	166	175	194	192	230	252	112	151	155	151	256	220	142	137	--
3-Jul	159	167	160	157	162	170	178	185	184	172	225	230	263	252	275	271	244	258	271	261	158	162	183	189	--
4-Jul	194	196	193	194	196	192	204	188	101	355	179	231	193	192	186	241	288	234	269	276	205	204	194	196	--
5-Jul	220	216	192	201	211	211	205	247	262	266	273	278	321	29	297	236	222	271	306	255	257	241	240	242	--
6-Jul	218	198	204	206	202	211	237	269	260	282	303	303	285	289	327	42	11	352	23	94	107	332	86	124	--
7-Jul	123	152	153	124	138	156	144	119	151	36	126	82	55	84	90	98	113	129	116	122	129	137	143	151	--
8-Jul	156	157	154	153	157	169	180	175	184	187	164	154	160	204	236	255	211	228	228	242	189	194	193	204	--
9-Jul	211	227	210	211	201	216	205	229	239	226	224	219	231	219	219	215	219	203	209	193	180	176	178	179	--
10-Jul	188	182	181	171	169	170	172	187	206	207	228	208	222	219	233	255	210	228	215	192	184	176	173	178	--
11-Jul	190	181	184	182	183	172	157	187	210	200	157	129	133	284	312	295	315	345	284	294	343	265	251	238	--
12-Jul	221	206	211	200	190	206	211	212	221	238	259	304	84	135	163	222	225	219	241	234	216	212	226	243	--
13-Jul	241	241	225	215	213	215	236	246	246	236	239	254	250	268	253	265	255	263	270	276	255	250	348	177	--
14-Jul	176	184	187	200	204	208	236	254	270	272	274	279	281	284	265	261	280	280	275	202	137	145	164	166	--
15-Jul	171	170	166	168	169	185	154	181	169	169	210	136	161	162	148	146	306	70	101	131	117	118	136	165	--
16-Jul	178	187	187	193	185	180	189	192	172	207	205	216	239	253	250	236	257	257	252	247	214	198	192	192	--
17-Jul	196	195	193	197	207	193	199	221	260	319	327	334	349	316	23	23	44	45	84	96	113	109	116	132	--
18-Jul	135	152	154	156	158	153	149	144	214	263	72	108	114	116	131	136	127	146	147	149	142	143	144	176	--
19-Jul	83	128	202	222	159	213	196	193	267	277	277	337	23	48	231	300	305	306	309	307	297	280	254	293	--
20-Jul	340	355	349	357	342	321	327	320	308	294	303	314	316	325	336	355	348	313	321	65	168	190	191	197	--
21-Jul	191	189	192	192	185	198	204	233	259	271	270	254	268	273	253	203	262	276	228	242	226	192	190	189	--
22-Jul	193	190	192	195	196	191	203	219	264	281	275	204	238	233	263	275	216	182	182	148	155	159	158	161	--
23-Jul	172	168	168	171	211	169	193	212	245	262	286	298	307	308	306	307	310	308	308	312	291	244	252	248	--
24-Jul	244	243	214	197	187	177	171	151	179	171	254	210	205	218	230	230	218	251	252	240	219	219	213	218	--
25-Jul	211	211	214	216	211	215	229	236	242	251	248	250	256	249	249	248	249	241	238	230	227	213	214	199	--
26-Jul	243	332	25	44	42	36	28	9	7	15	5	15	22	42	19	4	15	31	23	37	41	62	108	96	--
27-Jul	96	97	100	112	197	61	121	310	221	265	284	277	260	300	303	278	253	255	254	217	222	204	212	198	--
28-Jul	196	193	191	194	190	185	186	203	201	185	183	151	144	155	149	145	112	132	65	93	122	213	228	151	--
29-Jul	207	205	221	236	238	250	248	254	255	260	256	266	268	267	275	272	263	266	265	284	278	231	213	235	--
30-Jul	232	228	236	231	229	239	242	268	285	275	276	297	294	311	283	273	264	246	206	184	181	174	172	181	--
31-Jul	182	177	175	157	150	160	169	174	172	171	170	178	179	213	298	225	163	143	152	147	149	157	172	179	--
Diurnal Average																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Hangingstone Expansion - July 2026





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Hangingstone Expansion - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 103 deg on Jul 27 09:00																			Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0						
Minimum Value: 6 deg on Jul 22 21:00																									
Percentiles: P ₁ = 9 P ₁₀ = 15 Q ₁ = 19 Median = 25 Q ₃ = 31 P ₉₀ = 42 P ₉₉ = 85																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	8	9	8	10	15	17	20	19	19	20	24	22	21	23	22	23	22	20	20	19	19	18	19	18	24
2-Jul	18	18	19	16	18	18	19	19	20	20	31	21	32	29	45	64	54	21	19	20	43	41	25	18	64
3-Jul	19	19	19	17	21	21	22	23	28	27	33	35	26	29	22	30	38	34	27	35	13	11	15	17	38
4-Jul	18	20	18	20	19	22	27	25	91	46	70	31	55	31	35	28	25	45	25	23	44	26	20	19	91
5-Jul	27	29	20	24	26	26	25	35	27	29	27	27	29	25	87	36	37	47	38	37	24	23	24	26	87
6-Jul	28	16	21	24	24	29	30	26	35	28	26	21	32	30	30	24	32	20	21	18	79	89	32	11	89
7-Jul	11	15	11	23	10	12	18	34	72	74	78	62	18	17	19	25	29	33	23	16	15	15	15	15	78
8-Jul	16	16	16	16	17	20	20	20	24	24	23	21	18	33	41	34	46	29	29	29	19	22	19	24	46
9-Jul	24	29	25	25	20	26	25	32	29	32	31	32	32	35	31	34	33	27	28	25	18	18	19	19	35
10-Jul	21	18	18	16	15	15	17	22	29	28	35	35	35	36	36	31	29	34	35	21	15	11	10	13	36
11-Jul	23	16	24	15	19	24	21	36	32	43	22	20	86	24	31	23	27	26	25	20	35	23	24	26	86
12-Jul	25	19	25	21	19	25	26	29	35	32	31	18	69	23	23	53	51	30	27	31	35	28	29	27	69
13-Jul	28	28	30	28	26	27	32	28	29	29	29	30	29	28	29	28	29	27	26	22	24	30	59	23	59
14-Jul	12	17	18	23	23	27	33	29	25	26	25	29	32	39	39	33	29	33	40	38	14	7	8	11	40
15-Jul	12	14	13	16	14	51	30	91	21	29	56	83	32	28	23	25	75	29	18	17	22	21	18	20	91
16-Jul	16	19	18	21	17	16	20	23	20	34	30	34	41	34	35	33	27	26	27	25	28	18	16	17	41
17-Jul	17	18	16	18	15	12	24	32	35	30	41	56	57	73	49	40	45	23	20	15	11	13	12	18	73
18-Jul	19	16	16	16	17	19	19	21	67	36	39	20	19	18	20	20	21	20	18	18	18	19	18	37	67
19-Jul	31	33	31	59	66	50	29	52	34	42	82	19	27	100	48	17	14	14	12	13	14	26	19	29	100
20-Jul	18	27	15	18	16	12	14	13	15	19	24	21	18	16	21	23	22	36	25	27	35	13	14	16	36
21-Jul	15	15	16	16	18	20	33	30	30	31	43	37	42	30	35	47	46	32	45	73	33	20	16	17	73
22-Jul	19	17	16	19	20	17	25	34	26	32	53	60	50	50	46	50	68	35	25	10	6	8	12	14	68
23-Jul	16	15	15	17	70	59	22	28	29	29	20	19	17	19	20	26	18	15	16	13	26	15	21	22	70
24-Jul	24	20	30	14	11	21	40	37	37	51	52	38	43	51	45	45	32	27	27	30	25	31	28	27	52
25-Jul	26	27	28	27	28	28	28	30	30	28	30	27	26	27	29	28	29	31	29	26	27	25	23	22	31
26-Jul	29	32	16	20	18	16	21	18	18	19	16	18	23	27	28	18	24	20	16	16	13	20	11	8	32
27-Jul	15	15	14	18	79	67	56	39	103	36	22	29	30	31	35	24	26	26	26	31	31	20	27	22	103
28-Jul	20	17	16	19	21	18	22	28	35	33	43	36	28	31	23	27	24	26	35	21	18	90	44	44	90
29-Jul	28	27	30	28	31	27	28	26	27	28	26	27	28	26	24	25	26	25	25	26	32	25	27	31	32
30-Jul	29	30	30	31	33	29	27	27	25	28	29	28	38	30	35	31	31	39	29	19	14	11	11	16	39
31-Jul	16	13	20	10	7	10	13	16	17	18	20	21	25	43	46	79	19	20	13	12	13	14	17	16	79
Diurnal Maximum																									



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS505 SAWBONES BAY JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - SAWBONES BAY (AMS505)
JULY 2026

MONTHLY SUMMARY for
AMD SECTION III.B.1(c)

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	706	35	38	99.6	30.4	0	9.4	0
H2S (ppb) Average	701	40	43	99.6	2.2	0	0.9	0
NO2 (ppb) Average	705	37	39	99.73	14.5	0	6.7	-
NO (ppb) Average	705	37	39	99.73	14	-	4.5	-
NOX (ppb) Average	705	37	39	99.73	26.7	-	11.2	-
Temperature 2 m (C) Average	744	0	0	100	31	-	24.5	-
Relative Humidity (%) Average	744	0	0	100	98.9	-	84.5	-
Wind Speed 10 m (km/h) Average	744	0	0	100	30	-	20	-
Wind Direction 10 m (deg) Average	744	0	0	100	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - SAWBONES BAY (AMS505)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	706	1.95	4	-	0	0	0.1	0.3	1.5	6.1	30.4
H2S (ppb) Average	701	0.34	0.4	-	0	0.1	0.1	0.2	0.4	0.8	2.2
NO2 (ppb) Average	705	2.95	2.7	-	0	0.4	1	2.2	4	6.7	14.5
NO (ppb) Average	705	1.37	2.2	-	0	0	0.1	0.5	1.7	3.8	14
NOX (ppb) Average	705	4.32	4.7	-	0	0.5	1.1	2.7	5.7	10.4	26.7
Temperature 2 m (C) Average	744	18.35	4.9	-	8.2	12.2	14.7	18.1	21.7	25	31
Relative Humidity (%) Average	744	67.23	20.1	-	23.8	39.3	50.7	70.4	84.3	93.3	98.9
Wind Speed 10 m (km/h) Average	744	9.5	6	-	0	3	5	9	13	17	30
Wind Direction 10 m (deg) Average	744	227.4	0	-	0	-	-	-	-	-	0

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - SAWBONES BAY (AMS505)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
H2S, NO2, SO2	04 Jul 2026 13:00	04 Jul 2026 14:00	2	Station power failure
H2S, SO2	29 Jul 2026 14:00	29 Jul 2026 14:00	1	Maintenance - sample manifold cleaned



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

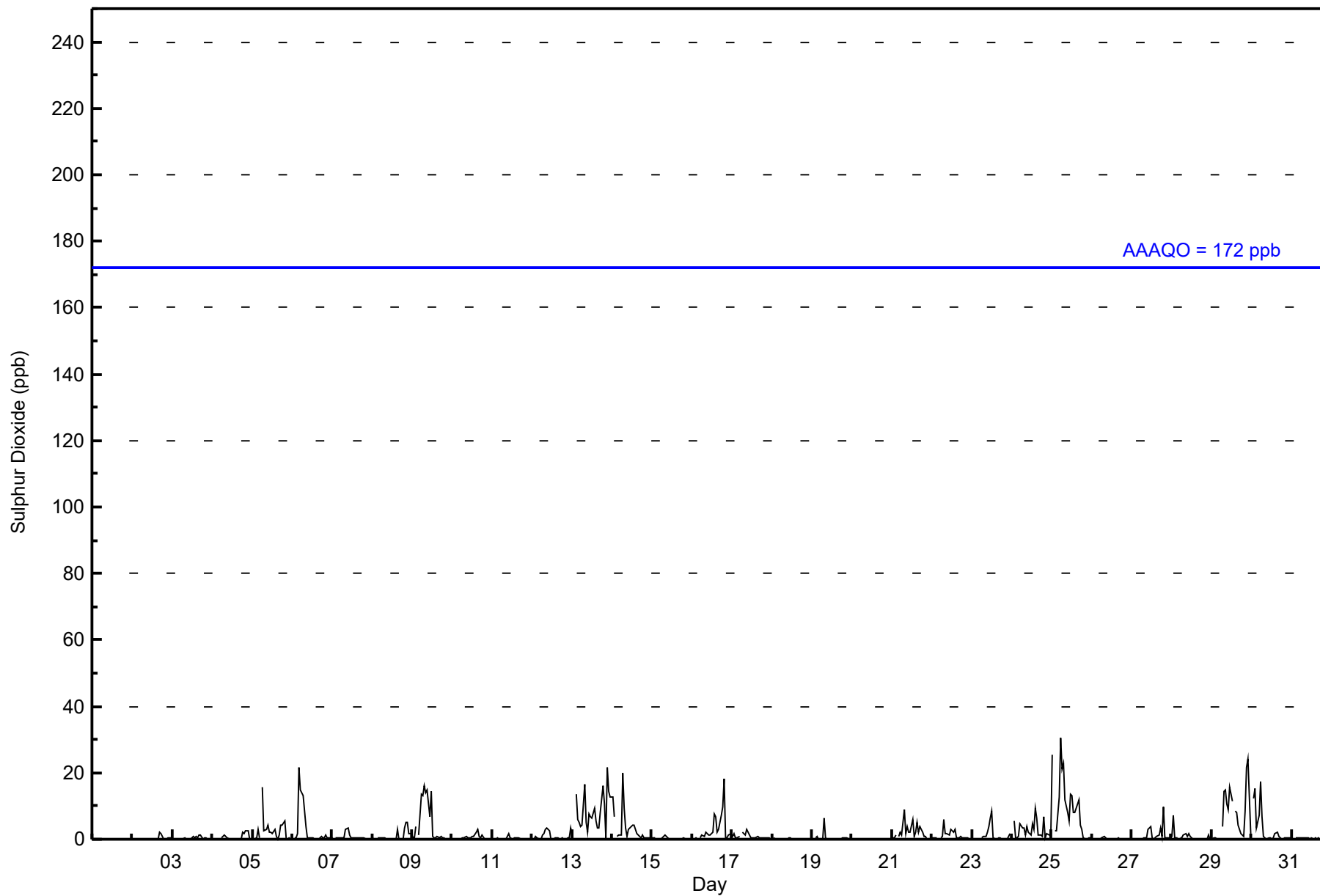
Sawbones Bay - July 2026

Number of Exceedances (AAAQO): Maximum Value: 30.4 ppb on Jul 25 06:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 9.4 ppb on Jul 25							Hours in Service: 744 Hours of Data: 706 Hours of Missing Data: 38 Hours of Calibration: 35 Percent Operational Time: 99.6			
Minimum Value: 0.0 ppb on Jul 1 08:00 Maximum Diurnal Average: 4.1 ppb at hour 8 Monthly Average: 1.95 ppb																			Minimum Daily Average: 0.0 ppb on Jul 1 Minimum Diurnal Average: 0.7 ppb at hour 21 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.3 Q ₃ = 1.5 P ₉₀ = 6.1 P ₉₉ = 21.1										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	0.0	Z	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
2-Jul	0.0	0.0	Z	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	2.1	1.8	0.7	0.1	0.1	0.5	0.4	0.3	0.3	0.1			
3-Jul	0.1	0.1	0.0	Z	0.1	0.0	0.1	0.2	0.1	0.0	0.0	0.2	0.7	0.2	0.9	0.2	1.2	1.4	0.2	0.4	0.3	0.0	0.1	0.0	0.3	1.4			
4-Jul	0.1	0.0	0.1	0.2	Z	0.3	1.0	1.4	0.9	0.5	0.1	0.1	PF	PF	0.0	0.2	0.0	0.1	2.2	1.5	2.5	2.6	0.1	0.1	0.7	2.6			
5-Jul	0.1	0.0	0.4	3.0	0.5	Z	15.6	2.4	2.8	4.1	2.0	1.9	1.8	2.8	0.7	0.1	1.2	4.3	4.4	5.7	0.1	0.0	0.5	0.2	2.4	15.6			
6-Jul	Z	0.2	0.5	1.7	21.5	14.9	13.3	8.6	3.9	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.9	0.2	0.3	1.5	0.4	0.4	0.3	3.1	21.5			
7-Jul	0.4	Z	0.5	0.5	0.3	0.2	0.3	0.3	3.1	3.5	1.2	0.6	0.4	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.6	3.5			
8-Jul	0.2	0.5	Z	0.6	0.4	0.4	0.4	0.3	0.1	0.2	0.1	0.1	0.1	0.0	0.0	3.0	0.1	0.0	0.0	3.2	5.0	5.3	1.7	1.5	1.0	5.3			
9-Jul	0.3	0.4	4.0	Z	1.5	13.4	13.1	15.9	14.0	14.7	6.6	14.6	0.7	0.6	0.2	1.0	0.6	1.0	0.4	0.2	0.0	0.0	0.0	0.0	4.5	15.9			
10-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.3	0.6	0.7	0.5	0.3	0.5	0.7	1.0	2.0	3.0	0.9	0.3	1.1	0.0	0.1	0.0	0.1	0.0	0.5	3.0			
11-Jul	0.1	0.1	0.1	0.5	0.2	Z	0.2	0.1	0.1	1.0	1.8	0.3	0.1	0.3	0.3	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.3	1.8			
12-Jul	Z	0.2	0.7	0.6	0.0	0.2	1.3	1.6	3.1	3.5	2.6	0.1	0.0	0.1	0.3	0.3	0.2	0.0	0.4	0.0	0.2	0.3	0.5	3.5	0.8	3.5			
13-Jul	1.4	Z	13.5	5.8	5.0	3.7	4.4	16.6	5.3	2.1	7.6	6.7	6.5	9.2	5.6	3.6	3.5	7.9	16.2	10.5	0.6	21.7	14.4	12.8	8.0	21.7			
14-Jul	12.9	6.8	Z	0.8	1.5	1.5	19.7	9.1	3.2	0.8	2.9	4.0	4.3	4.1	2.8	1.6	0.8	0.6	1.3	0.2	0.2	0.3	0.3	0.3	3.5	19.7			
15-Jul	0.3	0.2	0.2	Z	0.2	0.2	0.6	0.8	1.1	0.3	0.2	C	C	C	C	0.0	0.0	0.0	0.1	0.5	0.0	0.0	0.0	0.0	0.3	1.1			
16-Jul	0.0	0.1	0.2	0.2	Z	0.3	1.2	0.8	2.0	1.8	1.2	1.3	2.2	7.8	6.6	2.3	2.9	7.4	9.9	18.3	0.3	0.3	1.1	1.5	3.0	18.3			
17-Jul	0.7	1.7	0.5	0.5	0.9	Z	2.2	1.6	1.2	3.2	1.2	0.5	0.5	0.3	0.6	0.8	0.6	0.5	0.3	0.4	0.4	0.5	0.4	0.2	0.8	3.2			
18-Jul	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3			
19-Jul	0.0	Z	0.4	0.7	0.0	0.0	0.0	6.2	0.4	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.2	0.4	0.5	0.2	0.3	0.2	0.2	0.4	6.2			
20-Jul	0.1	0.1	Z	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.2			
21-Jul	0.2	0.6	1.4	Z	0.9	2.0	1.3	9.1	1.9	3.6	2.1	2.2	6.0	1.0	2.2	5.0	1.9	3.9	2.3	0.8	0.9	0.2	0.2	0.2	2.2	9.1			
22-Jul	0.5	0.6	0.6	0.2	Z	0.4	1.1	5.8	1.5	1.8	1.1	2.9	2.7	2.1	2.8	0.2	0.3	1.0	0.6	0.4	0.4	0.3	0.2	0.2	1.2	5.8			
23-Jul	0.1	0.1	0.2	0.2	0.1	Z	0.4	0.8	0.7	2.2	3.6	6.3	8.5	0.2	0.2	0.2	0.5	0.3	0.1	0.0	0.1	0.1	0.8	1.8	1.2	8.5			
24-Jul	Z	5.3	0.4	0.4	0.8	4.8	3.3	3.3	1.1	3.8	2.0	1.4	4.5	2.8	9.4	6.5	1.4	1.2	0.9	6.7	0.2	1.7	1.4	0.8	2.8	9.4			
25-Jul	25.6	Z	2.6	2.4	12.6	30.4	21.1	22.7	11.9	8.0	5.6	13.5	13.3	7.9	8.0	10.7	11.7	4.1	3.1	0.3	0.2	0.2	0.2	0.2	9.4	30.4			
26-Jul	0.2	0.2	Z	0.1	0.0	0.0	0.3	0.8	0.3	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.8			
27-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.5	0.4	0.4	2.9	3.8	0.4	0.0	0.2	0.9	1.2	3.4	0.8	9.9	0.3	0.2	0.6	0.4	1.1	9.9			
28-Jul	0.8	7.0	0.5	0.3	Z	0.2	0.3	1.1	1.9	0.9	1.6	0.9	0.3	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	1.4	0.1	0.8	7.0			
29-Jul	0.1	0.2	0.3	0.1	0.1	Z	3.6	14.6	15.0	10.6	9.0	15.7	11.6	M	8.3	8.2	4.4	1.5	1.2	0.8	8.6	21.7	24.0	1.6	7.3	24.0			
30-Jul	Z	12.3	15.1	3.6	7.1	17.4	6.6	1.1	0.2	0.2	0.4	0.2	0.2	0.2	1.8	2.1	0.7	0.3	0.2	0.2	0.3	0.3	0.3	0.2	3.1	17.4			
31-Jul	0.2	Z	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.0	0.1	0.1	0.2	0.3			
1.7 1.5 1.6 0.9 2.1 3.5 3.6 4.1 2.5 2.2 1.8 2.6 2.3 1.5 1.8 1.6 1.2 1.4 1.5 2.0 0.7 1.8 1.6 0.9																								Diurnal Average					
25.6 12.3 15.1 5.8 21.5 30.4 21.1 22.7 15.0 14.7 9.0 15.7 13.3 9.2 9.4 10.7 11.7 7.9 16.2 18.3 8.6 21.7 24.0 12.8																								Diurnal Maximum					
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																													
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																													



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Sawbones Bay - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Sawbones Bay - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	666	94.33	94.33
11 - 20	32	4.53	98.87
21 - 60	8	1.13	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Sawbones Bay - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	19	20	12	11	20	21	52	84	67	53	57	40	67	82	34	27	666
11 - 20	0	0	0	0	0	0	0	0	0	0	0	10	21	1	0	0	32
21 - 60	0	0	0	0	0	0	0	0	0	0	0	2	6	0	0	0	8
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	19	20	12	11	20	21	52	84	67	53	57	52	94	83	34	27	706

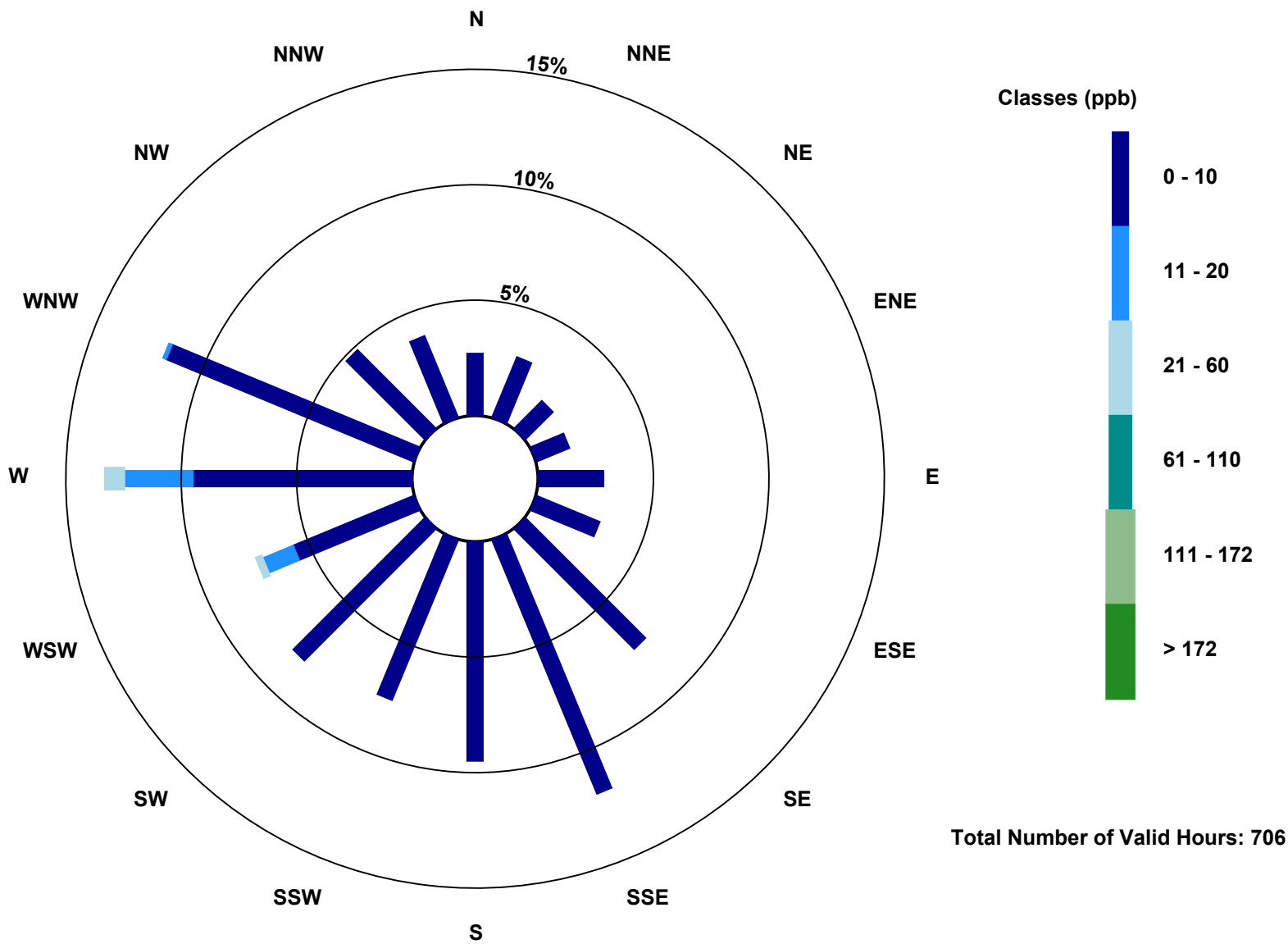
Total Number of Valid Hours: 706

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

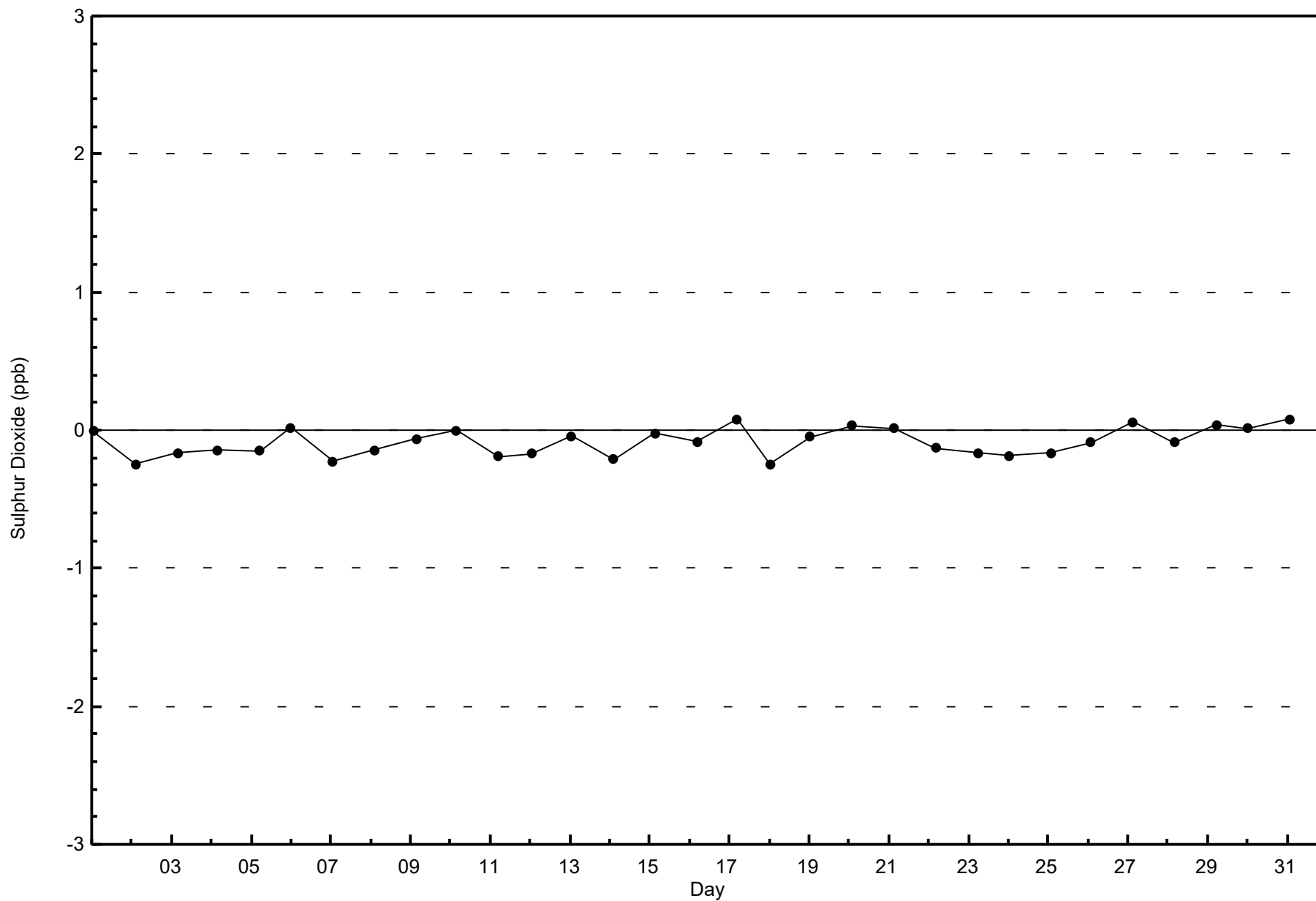
Sulphur Dioxide (SO₂) - ppb
Sawbones Bay





Wood Buffalo Environmental Association
Zero Responses

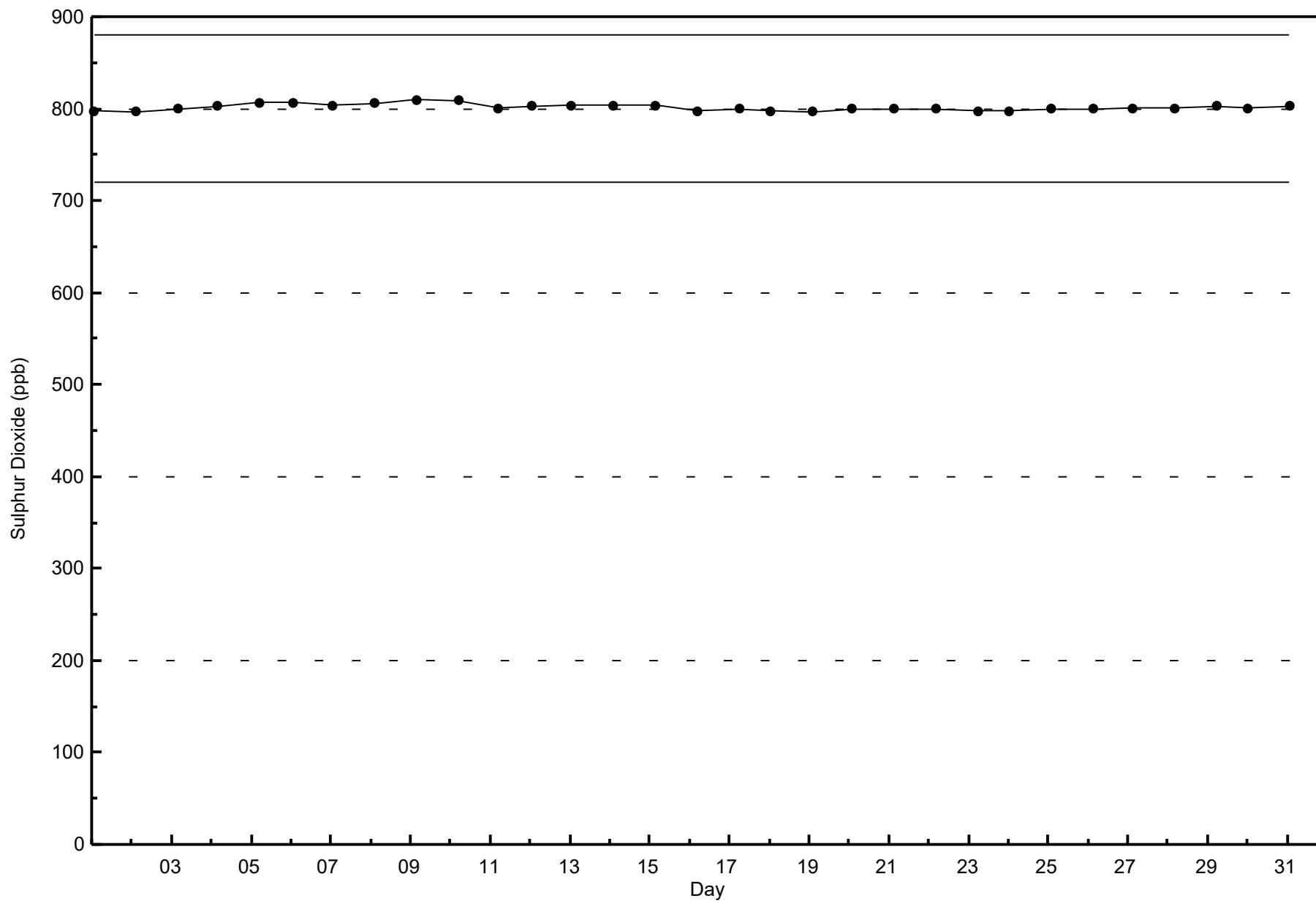
Sulphur Dioxide (SO₂) - ppb
Sawbones Bay - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Sawbones Bay - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H2S) - ppb

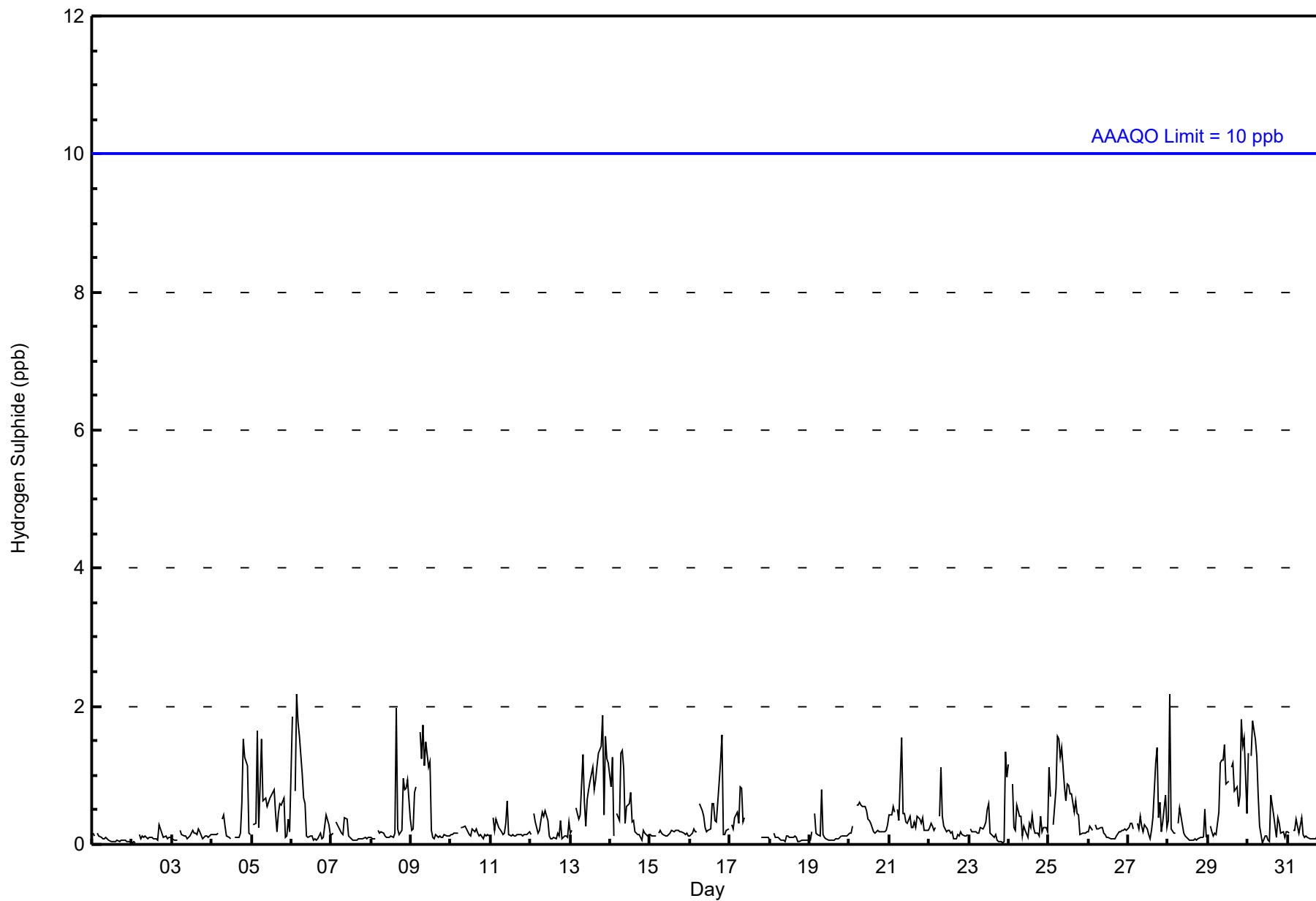
Sawbones Bay - July 2026

Number of Exceedances (AAAQO): Maximum Value: 2.2 ppb on Jul 28 02:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 0.9 ppb on Jul 13							Hours in Service: 744 Hours of Data: 701	
Minimum Value: 0.0 ppb on Jul 30 10:00 Maximum Diurnal Average: 0.6 ppb at hour 8 Monthly Average: 0.34 ppb																			Minimum Daily Average: 0.1 ppb on Jul 1 Minimum Diurnal Average: 0.2 ppb at hour 14 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 0.8 P ₉₉ = 1.8							Hours of Missing Data: 43 Hours of Calibration: 40 Percent Operational Time: 99.6	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.2	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.2	
2-Jul	0.0	0.0	0.0	Z	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	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.3	
3-Jul	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	
4-Jul	0.1	0.1	0.1	0.1	0.2	Z	0.4	0.4	0.3	0.1	0.1	0.1	PF	PF	0.1	0.1	0.1	0.2	0.6	1.5	1.3	1.1	0.2	0.1	0.4	1.5	
5-Jul	Z	0.3	0.3	1.6	0.2	0.8	1.5	0.6	0.7	0.6	0.6	0.7	0.7	0.8	0.4	0.2	0.5	0.6	0.6	0.7	0.1	0.1	0.4	0.2	0.6	1.6	
6-Jul	1.9	Z	0.8	2.2	1.8	1.6	1.0	0.7	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.4	0.3	0.1	0.6	2.2	
7-Jul	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.1	0.4	0.4	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	0.4	
8-Jul	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	2.0	0.2	0.1	0.2	0.9	0.8	0.8	0.9	0.4	0.4	2.0	
9-Jul	0.2	0.2	0.8	0.8	Z	1.6	1.2	1.7	1.1	1.5	1.1	1.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.6	1.7	
10-Jul	0.1	0.1	0.2	0.2	0.2	Z	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	
11-Jul	Z	0.4	0.2	0.4	0.3	0.2	0.2	0.1	0.2	0.3	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.6	
12-Jul	0.1	Z	0.5	0.3	0.2	0.2	0.4	0.5	0.4	0.5	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.3	0.1	0.1	0.1	0.3	0.2	0.5	
13-Jul	0.2	0.2	Z	0.5	0.5	0.4	0.4	1.3	0.6	0.3	0.7	0.8	0.9	1.1	0.8	0.9	1.1	1.3	1.4	1.9	0.4	1.6	1.2	1.2	0.9	1.9	
14-Jul	0.8	1.3	0.1	Z	0.4	0.3	1.3	1.4	1.1	0.3	0.6	0.6	0.8	0.3	0.3	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.5	1.4	
15-Jul	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	
16-Jul	0.1	0.2	0.2	0.2	0.2	Z	0.6	0.5	0.4	0.3	0.2	0.2	0.2	0.6	0.6	0.3	0.3	0.9	1.2	1.6	0.1	0.1	0.2	0.2	0.4	1.6	
17-Jul	Z	0.3	0.2	0.4	0.5	0.3	0.8	0.8	0.3	0.4	C	C	C	C	C	C	C	C	C	0.1	0.1	0.1	0.1	0.1	--	0.8	
18-Jul	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	
19-Jul	0.1	0.2	Z	0.4	0.2	0.1	0.1	0.8	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	0.2	0.8	
20-Jul	0.2	0.2	0.3	Z	0.6	0.6	0.6	0.6	0.5	0.6	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.6	
21-Jul	0.4	0.4	0.5	0.5	Z	0.5	0.3	1.6	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.3	0.2	0.4	0.4	0.3	0.4	0.2	0.2	0.2	0.4	1.6	
22-Jul	0.2	0.3	0.3	0.2	0.2	Z	0.4	1.1	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	1.1	
23-Jul	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.5	0.6	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	1.3	1.0	0.3	1.3	
24-Jul	1.2	Z	0.9	0.2	0.2	0.6	0.4	0.4	0.1	0.3	0.2	0.1	0.3	0.2	0.4	0.2	0.2	0.2	0.1	0.4	0.2	0.2	0.2	0.2	0.3	1.2	
25-Jul	1.1	0.7	Z	0.3	0.8	1.6	1.5	1.3	1.4	0.8	0.6	0.9	0.8	0.7	0.7	0.5	0.6	0.4	0.4	0.1	0.2	0.2	0.2	0.2	0.7	1.6	
26-Jul	0.2	0.3	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	
27-Jul	0.2	0.3	0.3	0.2	Z	0.3	0.2	0.4	0.3	0.2	0.3	0.2	0.1	0.1	0.2	0.4	1.2	1.4	0.4	0.6	0.2	0.3	0.7	0.2	0.4	1.4	
28-Jul	0.4	2.2	0.2	0.2	0.2	Z	0.3	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.1	0.3	2.2		
29-Jul	Z	0.3	0.2	0.1	0.2	0.1	0.5	1.2	1.2	1.2	1.4	0.9	0.9	M	1.1	1.2	0.8	0.8	0.6	0.7	1.8	1.4	1.5	0.5	0.8	1.8	
30-Jul	1.3	Z	1.3	1.8	1.5	1.3	0.7	0.3	0.1	0.0	0.1	0.1	0.1	0.0	0.7	0.4	0.3	0.1	0.4	0.3	0.2	0.2	0.1	0.2	0.5	1.8	
31-Jul	0.2	0.2	Z	0.2	0.2	0.4	0.3	0.2	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.4	
0.4 0.3 0.3 0.5 0.4 0.5 0.5 0.6 0.4 0.3 0.3 0.3 0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.4 0.3 0.3 0.3 0.2																										Diurnal Average	
1.9 2.2 1.3 2.2 1.8 1.6 1.5 1.7 1.4 1.5 1.4 1.2 0.9 1.1 1.1 2.0 1.2 1.4 1.4 1.9 1.8 1.6 1.5 1.2																										Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance PF - Power Failure																											
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Sawbones Bay - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Sawbones Bay - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	701	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Sawbones Bay - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	18	18	9	9	21	22	53	87	67	52	56	52	95	83	34	25	701
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	18	18	9	9	21	22	53	87	67	52	56	52	95	83	34	25	701

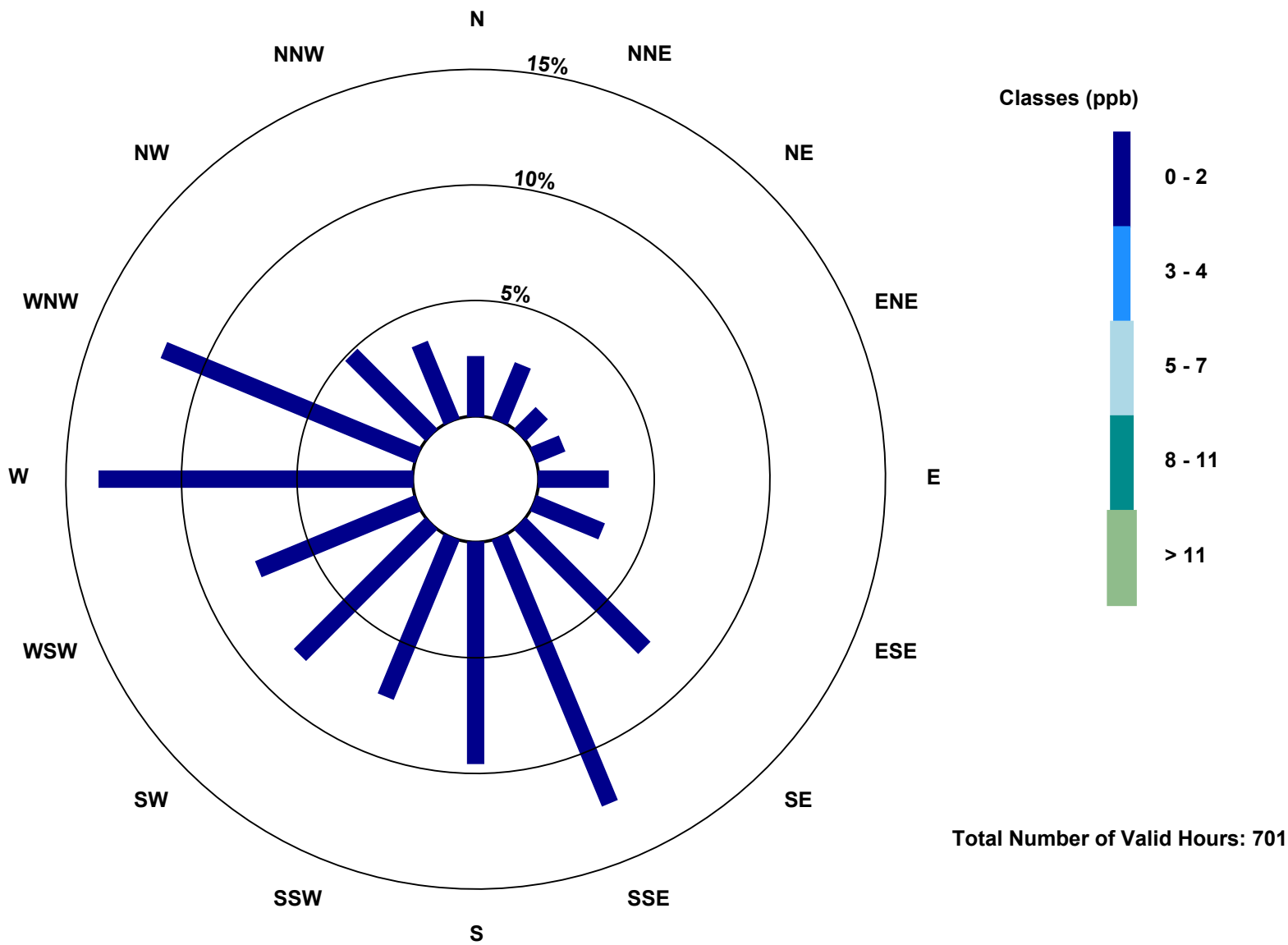
Total Number of Valid Hours: 701

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

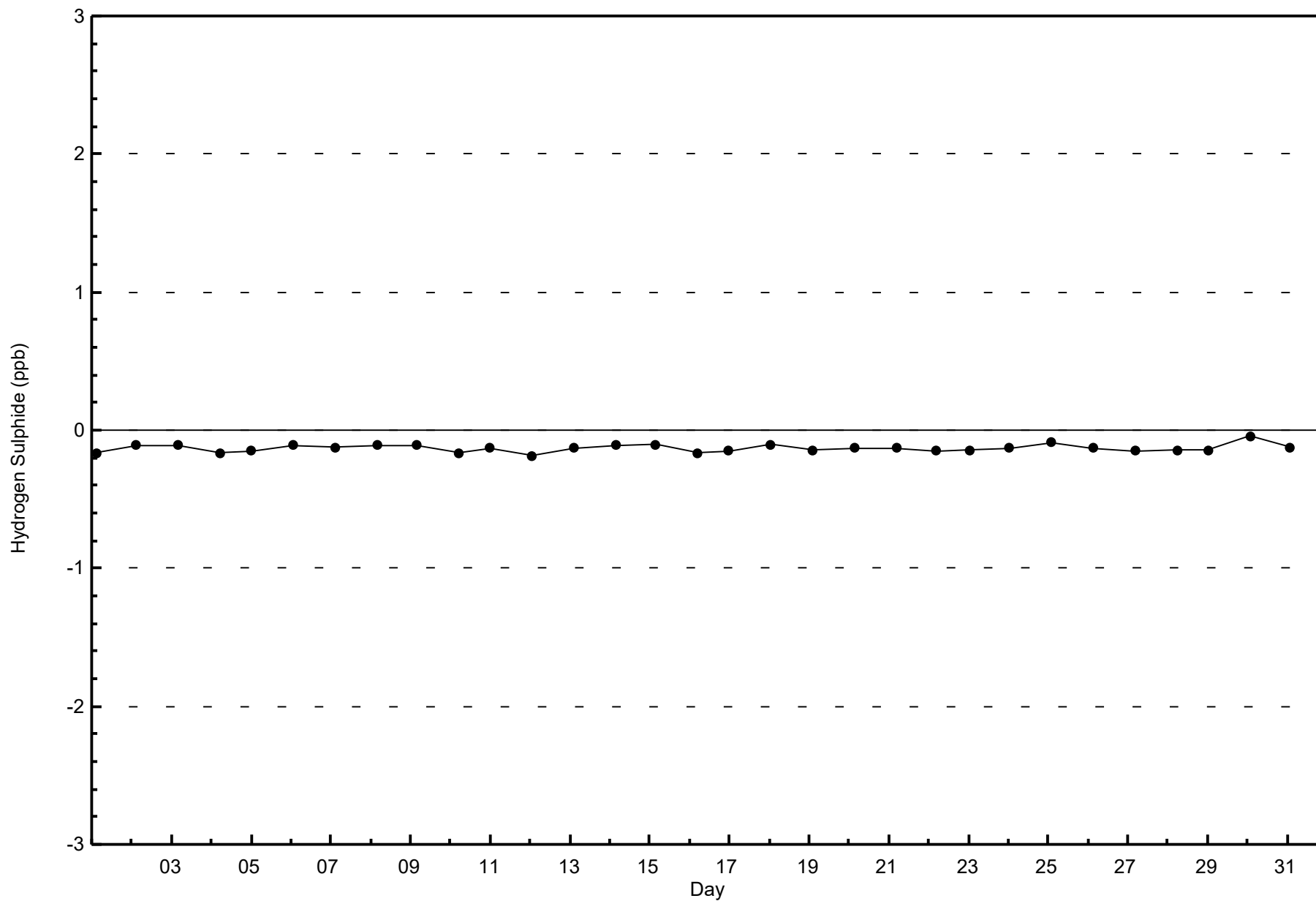
Hydrogen Sulphide (H₂S) - ppb
Sawbones Bay

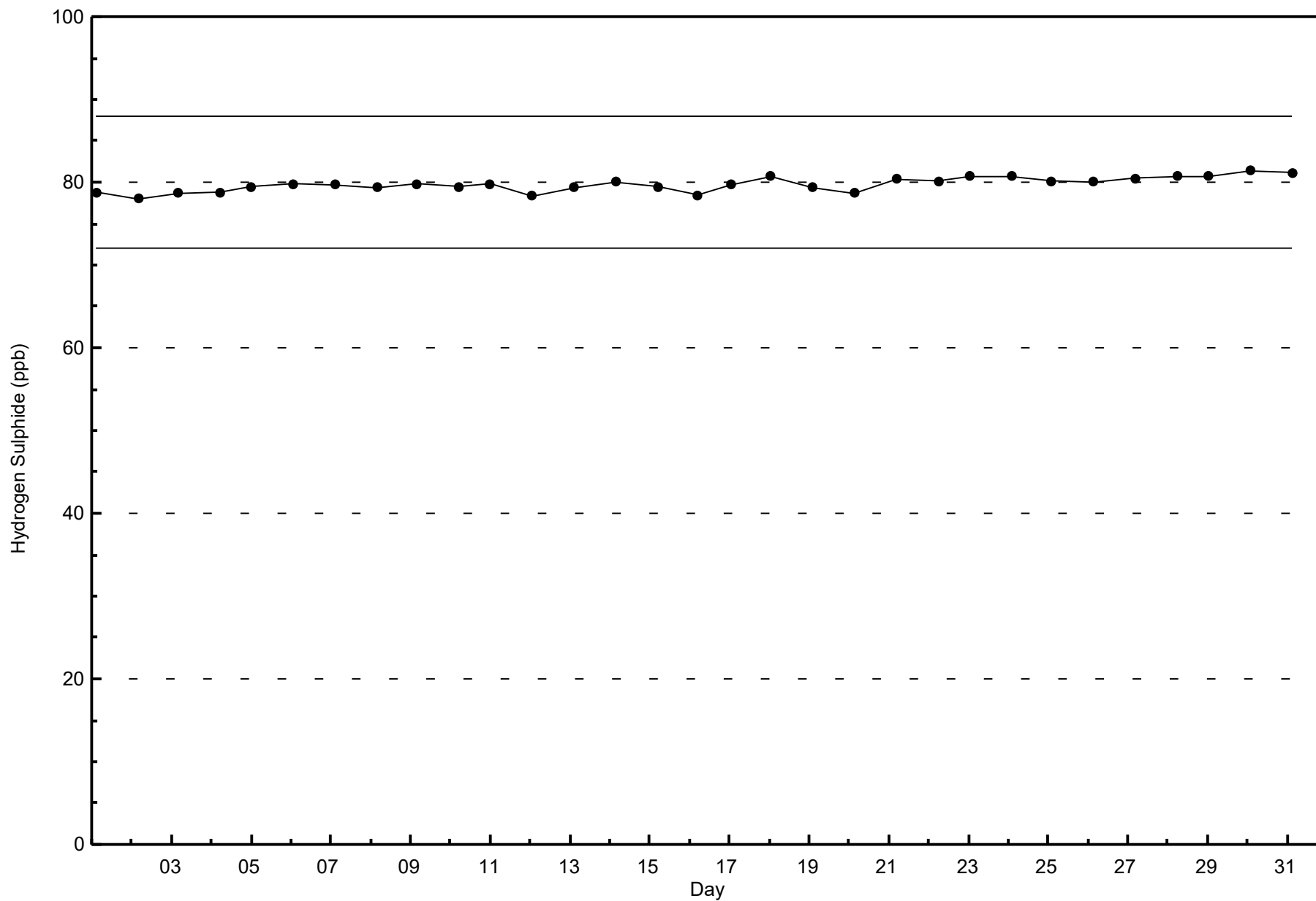




Wood Buffalo Environmental Association
Zero Responses

Hydrogen Sulphide (H₂S) - ppb
Sawbones Bay - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

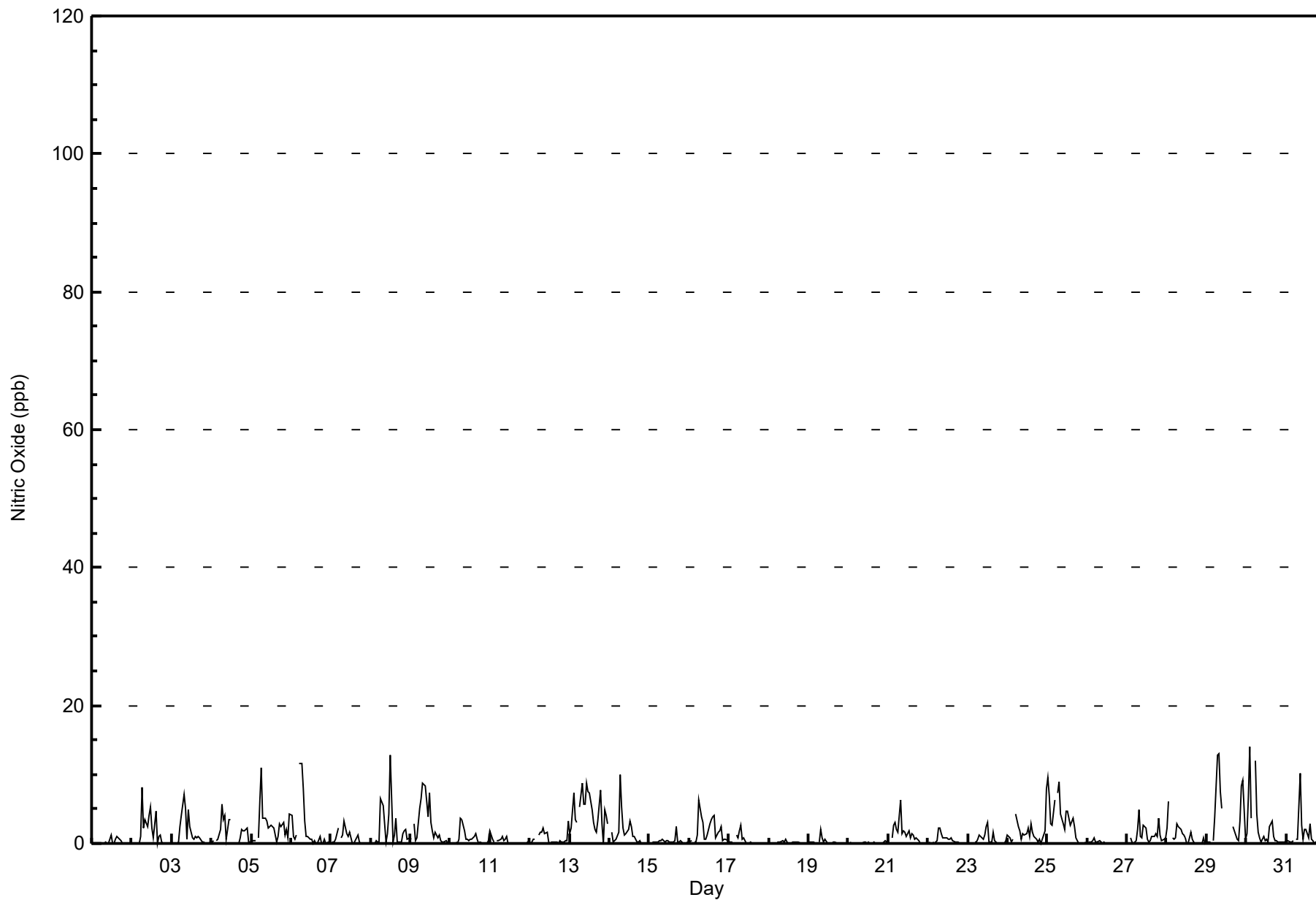
Sawbones Bay - July 2026

Maximum Value: 14.0 ppb on Jul 30 03:00																			Maximum Daily Average: 4.5 ppb on Jul 13							Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 1 19:00																			Minimum Daily Average: 0.1 ppb on Jul 20							Hours of Data: 705	
Maximum Diurnal Average: 3.9 ppb at hour 7																			Minimum Diurnal Average: 0.4 ppb at hour 21							Hours of Missing Data: 39	
Monthly Average: 1.37 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.5 Q ₃ = 1.7 P ₉₀ = 3.8 P ₉₉ = 10.9							Hours of Calibration: 37	
																										Percent Operational Time: 99.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	0.0	0.0	0.0	0.0	0.1	Z	0.0	0.1	0.1	0.0	0.0	1.3	0.0	0.1	0.6	0.9	0.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.3	
2-Jul	Z	0.0	0.0	0.0	0.0	1.1	8.2	2.2	3.5	2.4	4.1	5.3	2.3	0.8	4.6	0.1	1.1	1.1	0.2	0.1	0.1	0.1	0.0	0.1	1.6	8.2	
3-Jul	0.1	Z	0.1	0.1	0.1	2.5	4.0	7.0	5.0	0.7	4.9	2.4	0.9	0.5	1.0	0.8	1.0	0.8	0.3	0.2	0.1	0.0	0.0	0.2	1.4	7.0	
4-Jul	0.2	0.4	Z	0.3	0.7	2.1	5.6	3.4	4.1	0.6	3.4	3.4	PF	PF	0.0	0.1	0.0	0.8	2.0	1.8	1.9	2.2	0.2	0.2	1.6	5.6	
5-Jul	0.1	0.3	0.3	Z	0.8	6.2	10.9	3.7	3.6	3.2	2.3	2.4	2.7	2.3	1.2	0.1	1.0	2.8	2.4	3.0	1.3	2.1	0.9	4.3	2.5	10.9	
6-Jul	4.2	0.9	0.6	1.3	Z	11.5	11.7	7.9	3.4	1.1	1.1	0.5	0.5	0.1	0.4	0.0	0.1	1.0	0.0	0.0	0.5	0.1	0.2	0.1	2.0	11.7	
7-Jul	0.0	0.1	0.1	0.5	2.2	Z	0.8	1.2	3.4	1.5	1.0	1.6	0.8	0.1	0.1	0.9	1.1	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.7	3.4	
8-Jul	Z	0.1	0.1	0.3	0.1	0.2	6.4	5.6	2.8	0.2	1.3	4.2	12.8	0.1	1.3	3.7	0.1	0.1	0.2	1.4	1.9	2.0	0.7	0.8	2.0	12.8	
9-Jul	0.6	Z	2.8	0.5	0.8	5.1	6.4	8.8	8.6	8.4	3.8	7.4	3.0	1.8	0.9	1.7	0.9	1.1	0.4	0.3	0.3	0.3	0.0	0.0	2.8	8.8	
10-Jul	0.0	0.1	Z	0.1	0.1	0.7	3.7	3.5	1.9	0.6	0.7	0.4	0.7	0.6	1.1	1.4	0.6	0.1	0.2	0.0	0.0	0.1	0.1	0.3	0.7	3.7	
11-Jul	1.8	0.5	0.3	Z	0.3	0.5	0.7	1.1	0.5	0.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.3	1.8	
12-Jul	0.1	0.3	0.6	0.6	Z	1.2	1.6	1.7	2.3	1.4	1.6	0.3	0.0	0.1	0.1	0.2	0.1	0.0	0.4	0.2	0.2	0.3	0.4	3.2	0.7	3.2	
13-Jul	1.5	2.3	7.4	3.4	3.0	Z	5.3	8.6	5.6	5.7	8.8	7.5	7.2	5.0	3.1	2.1	1.6	3.2	7.7	2.8	0.1	4.9	4.0	2.8	4.5	8.8	
14-Jul	Z	1.6	0.1	0.5	0.6	1.7	10.0	5.3	2.3	1.2	1.4	2.0	3.2	2.5	1.0	1.0	0.3	0.2	0.3	0.0	0.0	0.1	0.0	0.0	1.5	10.0	
15-Jul	0.1	Z	0.1	0.1	0.1	0.1	0.4	0.4	0.6	0.1	0.5	0.3	0.1	0.1	0.1	0.5	2.4	0.2	0.2	0.4	0.0	0.0	0.1	0.2	0.3	2.4	
16-Jul	0.3	0.3	Z	0.1	0.1	1.3	6.3	3.9	3.1	0.6	0.6	1.2	2.8	3.5	3.8	4.1	0.8	1.7	1.9	2.5	0.3	0.5	0.5	0.5	1.8	6.3	
17-Jul	0.1	0.3	0.1	Z	1.1	0.8	1.8	2.6	0.6	0.8	0.1	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.4	2.6	
18-Jul	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.1	0.4	0.2	0.6	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.6	
19-Jul	0.2	0.1	0.3	0.1	0.0	Z	0.1	2.0	0.7	0.2	0.5	0.0	0.0	0.0	0.0	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.0	
20-Jul	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.4	0.2	0.1	0.4	
21-Jul	0.5	Z	0.8	2.7	3.0	1.9	1.7	6.3	1.5	1.8	1.6	1.1	1.7	0.8	1.4	1.2	0.7	0.7	0.5	0.0	0.0	0.0	0.1	0.0	1.3	6.3	
22-Jul	0.0	0.1	Z	0.1	0.1	0.5	2.3	2.3	1.5	0.9	0.9	0.8	0.6	0.6	0.8	0.5	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.5	2.3	
23-Jul	0.0	0.0	0.1	Z	0.1	0.2	0.6	1.2	0.8	0.6	1.3	2.4	3.1	0.1	0.1	1.6	0.5	0.1	0.0	0.0	0.1	0.0	0.1	0.3	0.6	3.1	
24-Jul	1.3	0.7	0.2	0.6	Z	4.2	2.5	1.8	0.6	1.4	1.3	1.5	2.3	1.1	2.9	1.7	1.0	0.7	0.1	0.5	0.1	0.7	1.8	7.8	1.6	7.8	
25-Jul	9.7	6.8	2.8	2.7	6.2	Z	7.4	8.9	4.3	2.8	2.0	4.7	4.7	3.7	2.7	3.6	2.5	0.8	0.3	0.0	0.0	0.0	0.1	0.2	3.3	9.7	
26-Jul	Z	0.1	0.1	0.4	0.7	0.2	0.2	0.4	0.3	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	
27-Jul	0.1	Z	0.7	0.1	0.1	0.5	2.1	4.9	1.1	0.9	2.7	2.2	0.7	0.3	0.4	1.1	1.0	1.5	1.0	3.7	1.3	0.4	0.6	0.8	1.2	4.9	
28-Jul	2.3	6.0	Z	0.8	0.6	0.8	2.8	2.5	2.0	1.4	1.3	0.8	0.1	0.0	1.6	0.6	0.2	0.0	0.0	0.0	0.1	0.0	0.7	0.0	1.1	6.0	
29-Jul	0.2	0.3	0.2	Z	0.4	3.8	12.8	13.0	7.6	5.1	C	C	C	C	C	C	C	2.4	1.1	0.5	0.3	3.3	8.4	9.1	0.6	13.0	
30-Jul	1.5	6.7	14.0	3.7	Z	11.9	4.4	1.6	0.8	0.2	1.0	0.4	0.6	0.3	2.4	3.3	1.0	0.3	0.5	0.2	0.1	0.1	0.2	0.2	2.4	14.0	
31-Jul	0.4	0.3	0.3	0.2	0.5	Z	0.7	0.7	10.2	2.5	0.7	1.9	2.0	0.7	2.9	0.7	0.4	0.0	0.2	0.1	0.1	0.1	0.1	0.0	1.1	10.2	
1.0 1.1 1.2 0.7 0.8 2.4 3.9 3.6 2.7 1.5 1.7 1.9 1.8 0.9 1.2 1.1 0.7 0.6 0.6 0.6 0.4 0.7 0.7 0.8																									Diurnal Average		
9.7 6.8 14.0 3.7 6.2 11.9 12.8 13.0 10.2 8.4 8.8 7.5 12.8 5.0 4.6 4.1 2.5 3.2 7.7 3.7 3.3 8.4 9.1 7.8																									Diurnal Maximum		
Z - zerospan C - Calibration PF - Power Failure																											



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Sawbones Bay - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Sawbones Bay - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	705	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Sawbones Bay - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	17	20	13	11	19	22	53	88	69	52	55	52	89	85	32	28	705
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	20	13	11	19	22	53	88	69	52	55	52	89	85	32	28	705

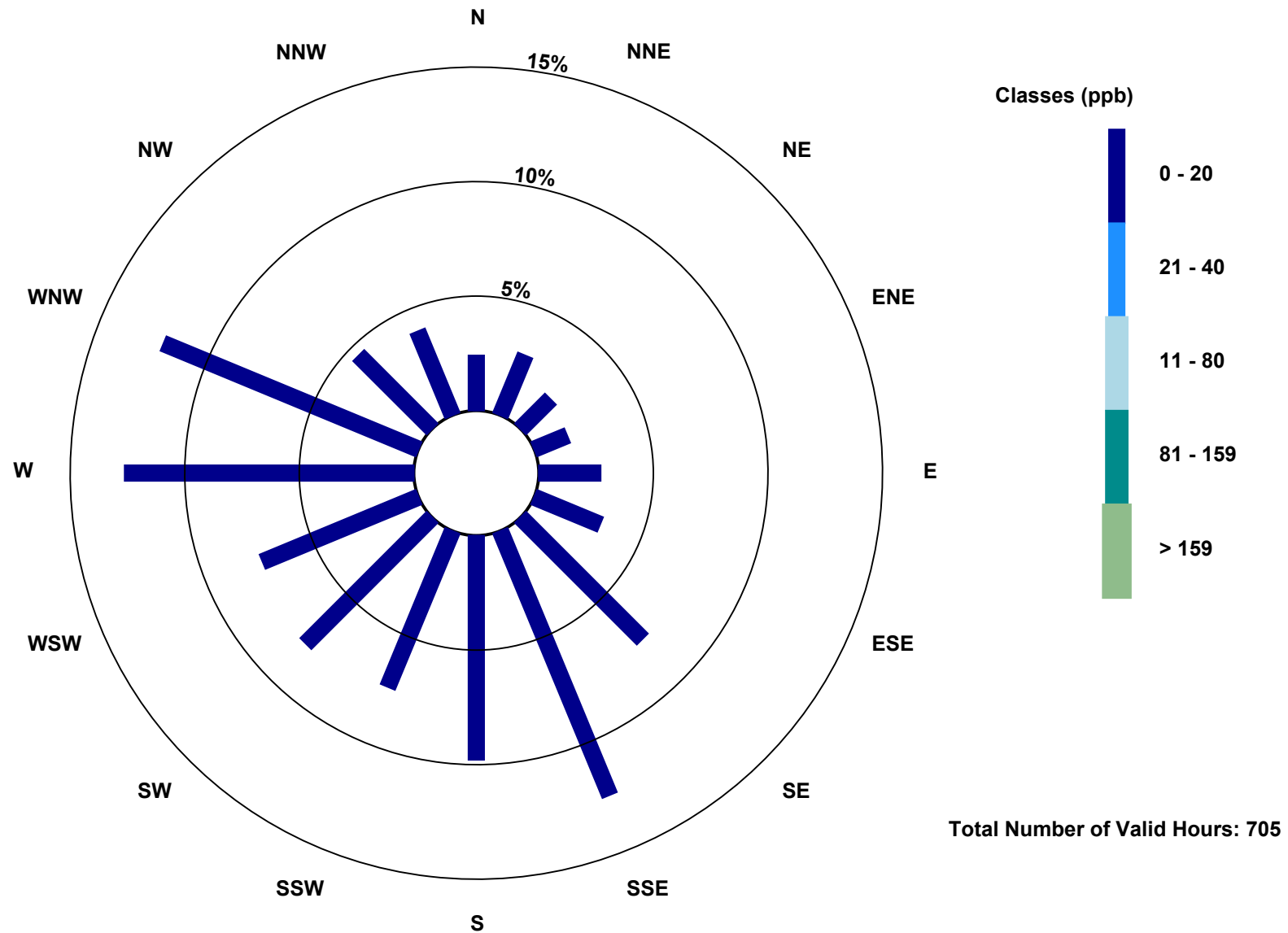
Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

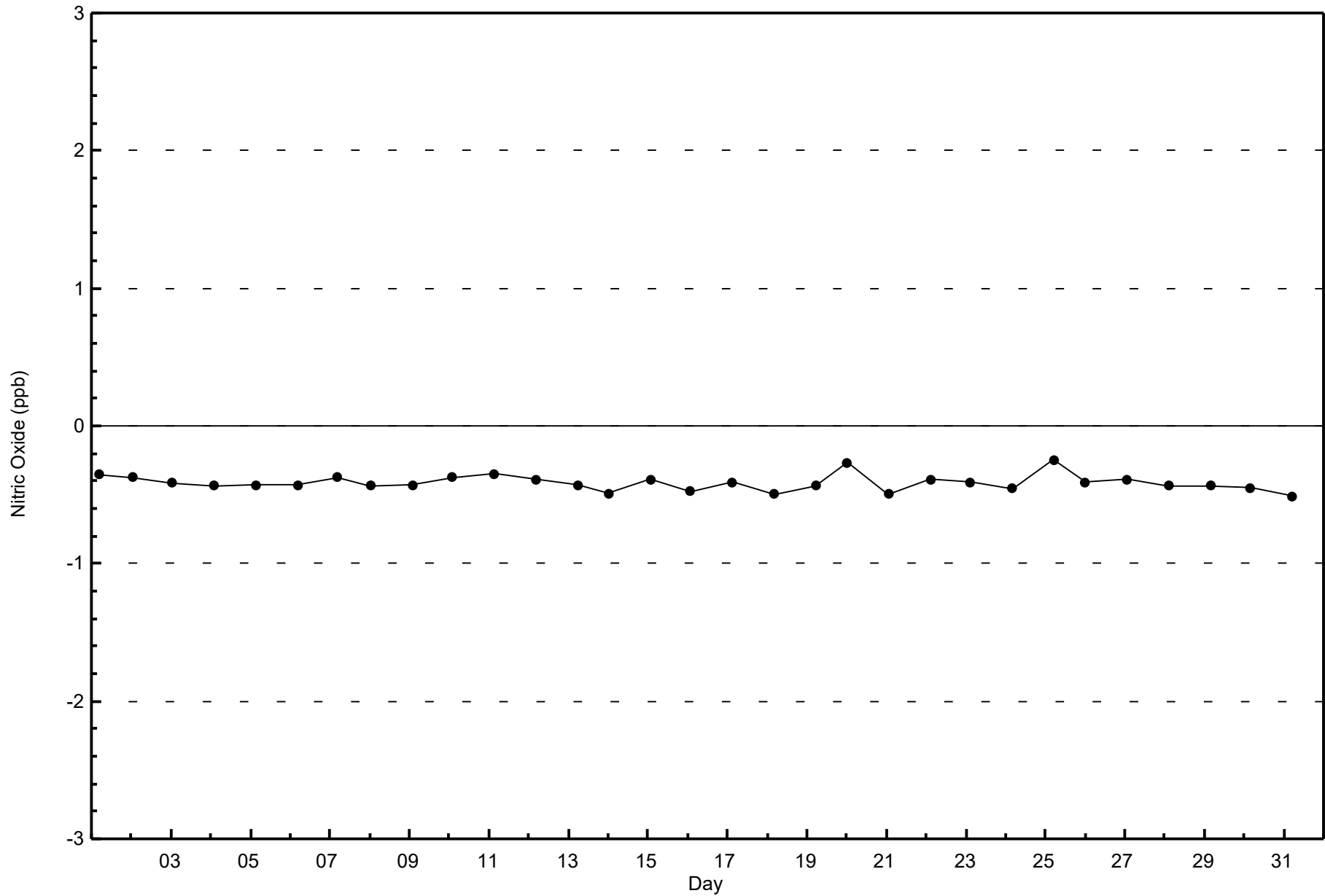
Nitric Oxide (NO) - ppb
Sawbones Bay





Wood Buffalo Environmental Association
Zero Responses

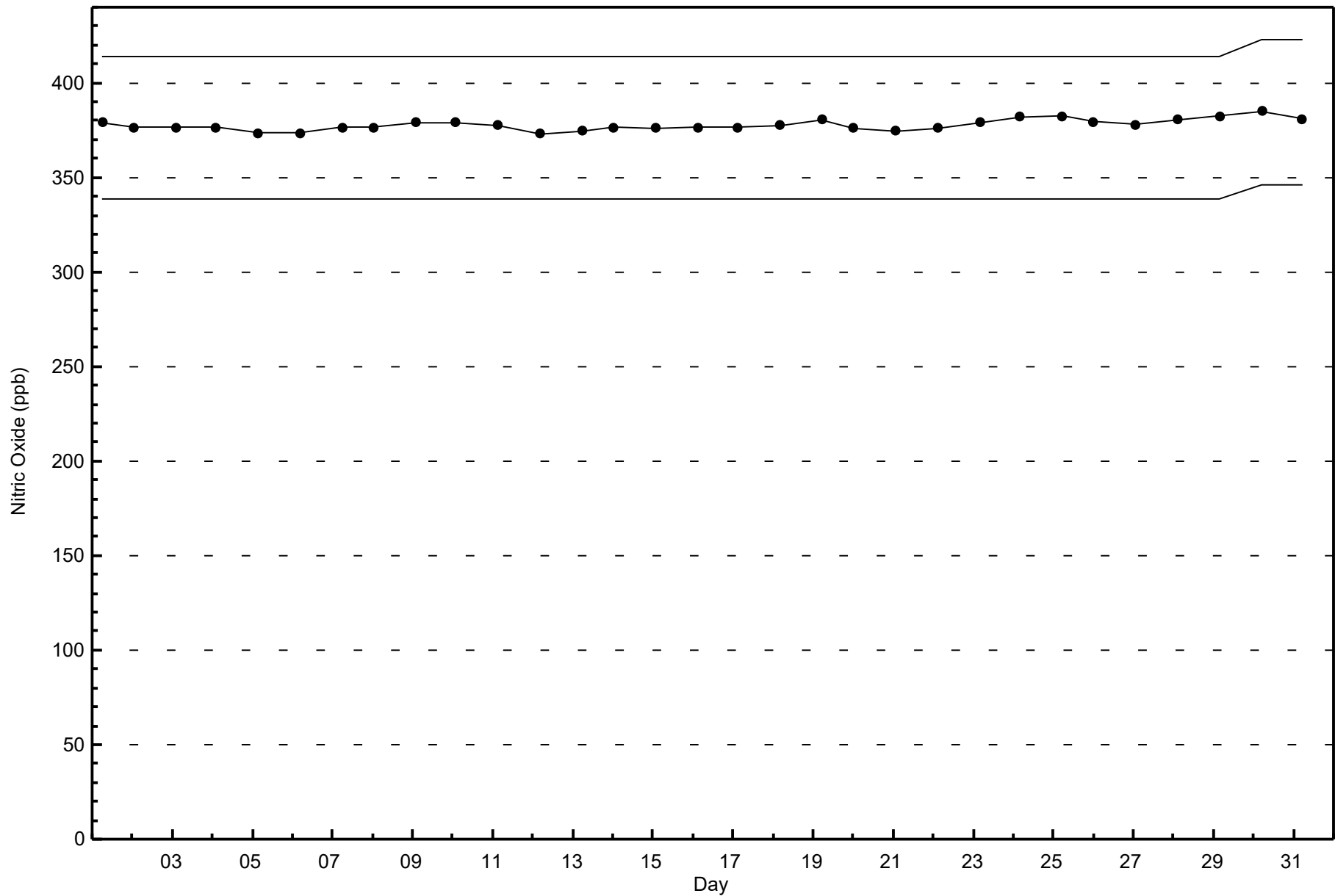
Nitric Oxide (NO) - ppb
Sawbones Bay - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Sawbones Bay - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

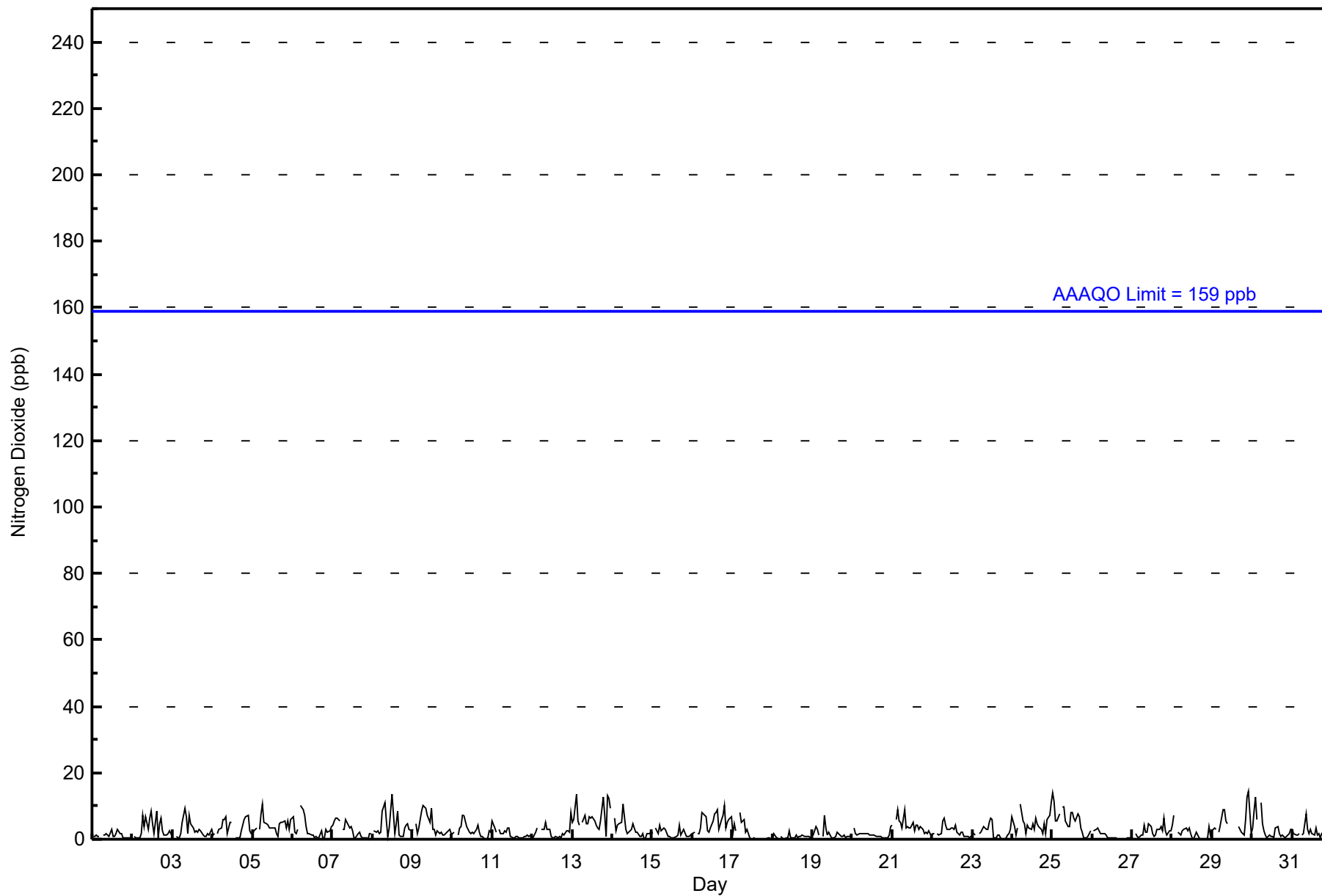
Sawbones Bay - July 2026

Number of Exceedances (AAAQO): Maximum Value: 14.5 ppb on Jul 29 23:00																				1-hr: 0 Maximum Daily Average: 6.7 ppb on Jul 13				24-hr: 0 Minimum Daily Average: 0.7 ppb on Jul 18 Minimum Diurnal Average: 1.6 ppb at hour 21 Percentiles: P ₁ = 0.1 P ₁₀ = 0.4 Q ₁ = 1.0 Median = 2.2 Q ₃ = 4.0 P ₉₀ = 6.7 P ₉₉ = 12.7				Hours in Service: 744 Hours of Data: 705 Hours of Missing Data: 39 Hours of Calibration: 37 Percent Operational Time: 99.7			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jul	0.9	0.8	1.2	1.0	0.7	Z	1.2	1.3	1.7	1.3	1.0	2.9	0.8	0.7	1.8	3.0	1.8	1.7	0.5	0.5	0.5	0.5	0.4	0.4	1.2	3.0					
2-Jul	Z	0.7	0.5	0.3	0.5	1.6	7.0	3.7	6.7	3.1	6.4	8.3	4.6	1.5	8.5	0.3	4.5	6.5	2.4	1.3	1.3	1.7	2.5	1.7	3.3	8.5					
3-Jul	0.8	Z	0.9	0.6	0.4	1.9	5.2	9.3	6.9	1.8	7.1	4.5	3.4	2.3	2.7	2.1	3.0	2.4	1.2	1.0	0.7	1.5	1.4	2.8	2.8	9.3					
4-Jul	1.4	1.9	Z	1.5	3.1	3.4	5.8	6.1	6.6	1.5	5.2	4.9	PF	PF	0.4	0.6	0.5	2.5	4.4	5.8	6.6	7.3	2.4	1.9	3.5	7.3					
5-Jul	1.8	2.4	3.2	Z	3.0	7.8	10.6	5.0	4.7	4.2	3.4	3.3	3.6	3.4	1.9	0.7	4.5	5.0	5.0	5.4	3.6	5.3	2.8	6.1	4.2	10.6					
6-Jul	6.7	2.3	1.7	3.1	Z	10.0	8.8	7.1	4.0	1.7	1.7	1.2	1.2	0.4	0.8	0.4	0.5	2.6	0.2	0.3	2.8	2.0	2.5	4.0	2.9	10.0					
7-Jul	4.1	5.4	6.5	6.3	5.3	Z	2.9	3.0	5.9	4.1	3.2	3.8	2.6	0.5	0.4	1.9	2.1	0.9	0.6	0.3	0.3	0.2	1.8	1.9	2.8	6.5					
8-Jul	Z	2.5	2.1	2.4	1.7	2.0	8.5	10.9	5.4	0.7	3.5	8.5	13.5	1.9	4.6	8.6	1.1	0.7	0.8	3.6	4.4	4.8	2.8	2.7	4.2	13.5					
9-Jul	3.0	Z	4.6	1.6	3.2	8.5	10.0	9.6	9.2	7.3	5.1	9.3	3.1	2.9	1.4	2.4	1.6	2.2	1.1	1.1	1.7	2.5	3.1	1.6	4.2	10.0					
10-Jul	1.6	2.0	Z	1.4	3.2	3.7	7.1	7.1	3.9	3.1	2.1	1.9	2.3	1.9	2.9	4.1	2.2	0.7	0.9	0.2	0.2	0.6	2.4	2.3	2.5	7.1					
11-Jul	5.5	3.5	2.2	Z	2.9	1.6	1.7	2.6	2.3	3.2	3.4	0.7	0.5	0.6	0.7	0.7	0.6	0.5	0.6	0.8	0.9	1.1	1.0	1.4	1.7	5.5					
12-Jul	0.6	1.3	2.1	3.4	Z	2.9	2.9	3.0	4.9	2.9	2.9	0.7	0.5	0.6	0.8	0.6	0.8	0.6	1.7	1.4	2.7	2.6	2.2	8.0	2.2	8.0					
13-Jul	4.9	5.9	13.5	5.7	4.2	Z	5.1	7.4	4.8	4.5	6.9	6.5	6.9	5.7	4.3	3.6	3.1	5.4	12.9	7.2	1.0	13.3	12.2	9.2	6.7	13.5					
14-Jul	Z	6.2	2.7	4.1	4.8	5.2	10.8	6.6	3.1	1.9	2.3	2.9	4.5	3.6	2.2	2.1	1.0	0.8	1.7	0.2	0.4	1.7	1.9	2.7	3.2	10.8					
15-Jul	1.9	Z	3.5	1.7	4.4	2.5	3.1	3.3	2.9	0.7	0.9	0.6	0.4	0.6	0.7	1.3	4.2	1.3	2.2	3.0	0.8	0.7	0.7	1.4	1.9	4.4					
16-Jul	1.9	2.3	Z	1.6	1.5	3.5	8.1	7.2	6.8	2.5	2.3	3.3	5.5	7.8	8.1	8.8	2.8	5.8	7.2	10.1	3.6	5.0	5.9	6.7	5.1	10.1					
17-Jul	1.8	4.5	2.7	Z	7.9	5.0	5.3	5.8	2.2	2.9	0.5	0.2	0.1	0.4	0.0	0.2	0.2	0.0	0.0	0.0	0.1	0.3	0.4	0.1	1.8	7.9					
18-Jul	0.1	1.6	0.3	0.4	Z	0.8	0.5	0.1	0.4	0.4	2.5	0.4	0.3	0.3	1.2	0.5	0.8	0.8	1.1	1.0	0.8	0.8	0.8	0.6	0.7	2.5					
19-Jul	1.1	2.7	3.7	2.9	1.1	Z	1.0	7.2	3.2	1.2	2.1	0.6	0.4	0.4	0.7	2.0	1.6	0.9	1.0	1.1	0.6	0.9	0.9	1.1	1.7	7.2					
20-Jul	Z	3.6	1.8	1.4	1.6	1.7	1.9	1.7	1.7	1.6	1.4	1.3	1.4	1.1	0.8	0.7	0.8	0.9	0.6	0.5	0.5	0.5	1.1	3.8	1.4	3.8					
21-Jul	4.2	Z	6.0	8.7	5.6	5.0	3.5	8.7	3.5	3.9	3.6	3.2	5.0	2.7	4.3	4.4	2.9	3.9	3.0	1.5	2.2	1.6	2.4	1.0	3.9	8.7					
22-Jul	1.7	1.8	Z	1.7	1.3	1.8	5.7	6.3	4.4	2.8	2.8	3.4	3.3	2.9	4.3	2.1	1.2	2.1	2.2	0.8	0.7	0.8	0.6	0.8	2.4	6.3					
23-Jul	1.4	1.7	1.1	Z	1.9	2.2	3.1	3.8	3.1	2.9	5.0	6.2	6.1	0.6	0.4	1.4	1.3	0.4	0.2	0.2	0.5	1.1	1.6	3.1	2.1	6.2					
24-Jul	6.6	3.7	1.4	3.2	Z	10.7	5.6	4.6	1.9	4.3	3.4	3.0	4.5	2.9	6.3	4.7	3.7	3.1	1.5	4.7	1.7	6.0	7.2	11.0	4.6	11.0					
25-Jul	13.9	11.4	5.5	5.5	7.7	Z	9.9	9.8	5.5	3.9	3.9	8.2	8.1	6.2	5.6	7.7	6.6	3.3	2.2	0.5	0.3	0.7	1.7	2.4	5.7	13.9					
26-Jul	Z	2.6	2.8	3.5	2.6	1.6	1.9	1.8	1.1	0.5	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.3	1.0	3.5					
27-Jul	0.4	Z	1.5	0.7	0.3	1.1	1.2	4.4	2.3	2.3	4.8	3.9	1.5	0.8	1.4	3.0	3.1	3.8	2.6	6.5	2.6	1.3	2.4	2.7	2.4	6.5					
28-Jul	4.2	7.3	Z	2.1	1.8	1.4	2.5	3.1	3.4	2.6	3.2	1.7	0.3	0.2	2.1	1.2	0.3	0.2	0.2	0.2	0.2	0.4	3.7	1.4	1.9	7.3					
29-Jul	2.4	3.6	2.9	Z	2.1	4.1	9.1	9.0	5.7	4.7	C	C	C	C	C	C	3.8	2.3	1.5	1.4	5.9	12.8	14.5	1.8	--	14.5					
30-Jul	3.5	8.5	12.7	5.8	Z	11.2	4.8	2.4	1.4	0.4	1.4	0.7	0.8	0.5	3.3	4.0	1.5	0.7	1.4	0.8	0.3	1.2	1.8	2.8	3.1	12.7					
31-Jul	2.8	1.5	1.3	1.2	1.9	Z	1.1	1.5	7.5	2.9	1.5	2.9	1.9	1.4	3.6	1.4	1.5	0.3	1.9	0.8	1.4	1.2	3.5	1.8	2.0	7.5					
Diurnal Average																															
Diurnal Maximum																															
Z - zerospan C - Calibration PF - Power Failure																															
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																															



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Sawbones Bay - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Sawbones Bay - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	705	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Sawbones Bay - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	17	20	13	11	19	22	53	88	69	52	55	52	89	85	32	28	705
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	20	13	11	19	22	53	88	69	52	55	52	89	85	32	28	705

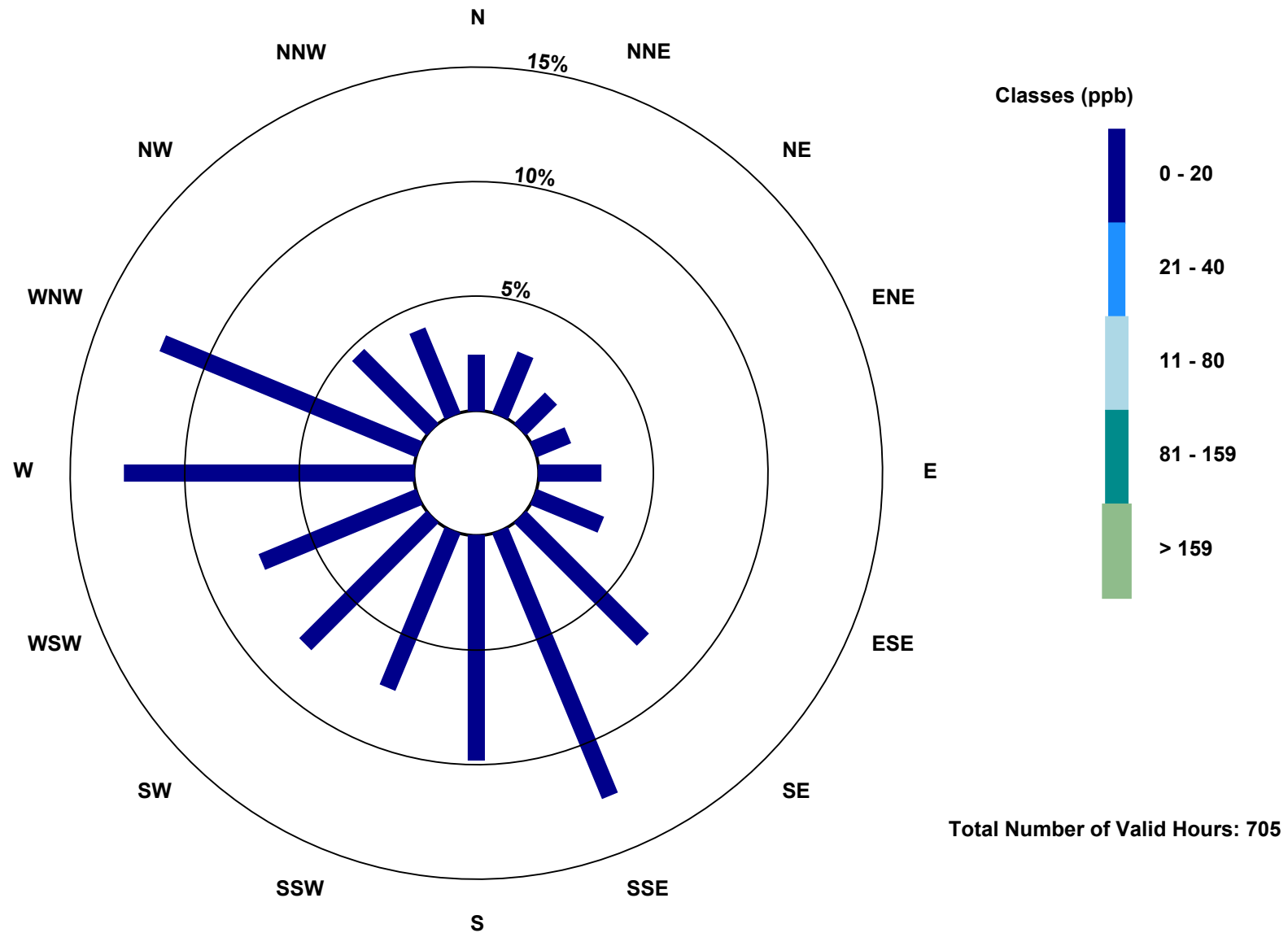
Total Number of Valid Hours: 705

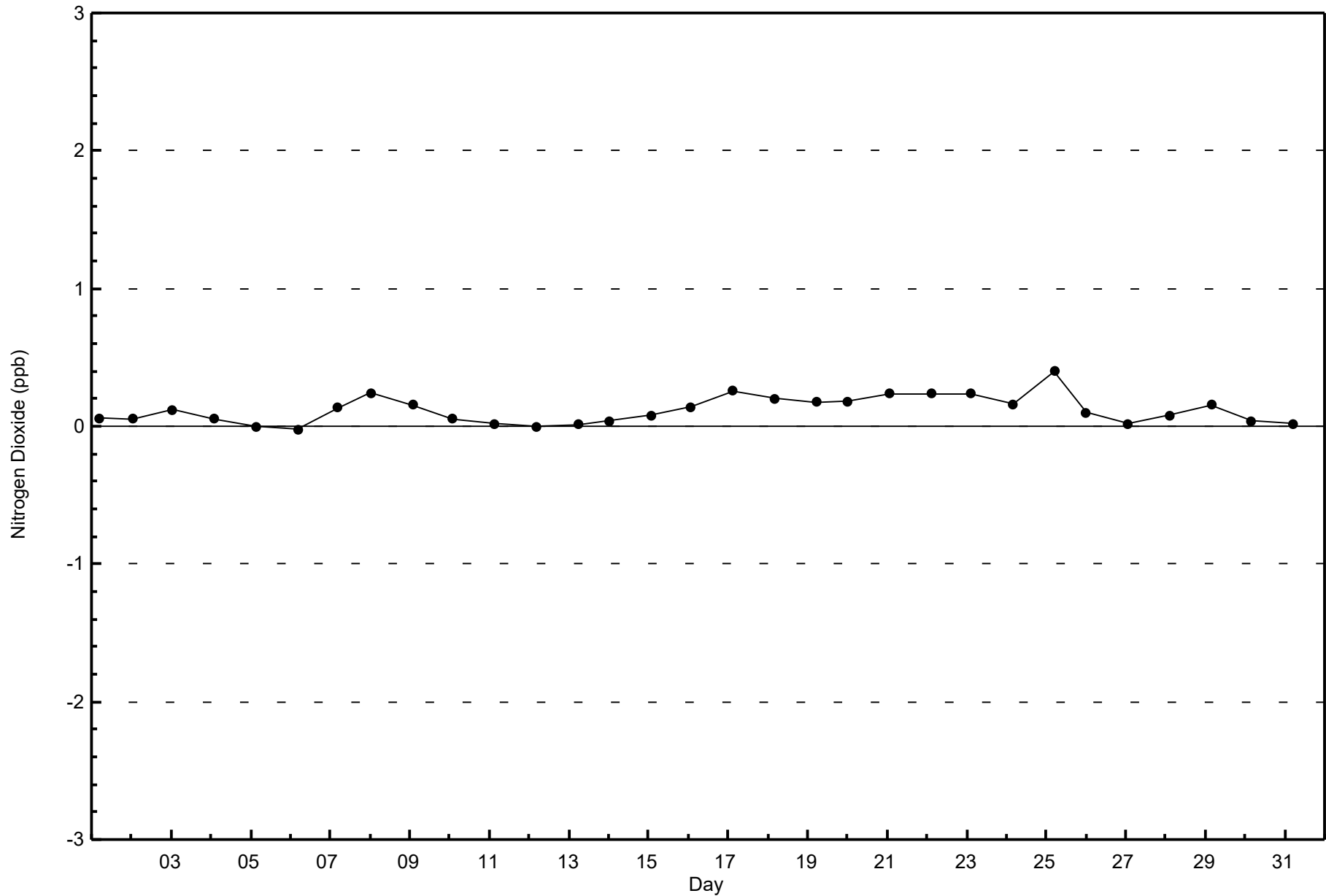
Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Dioxide (NO₂) - ppb
Sawbones Bay

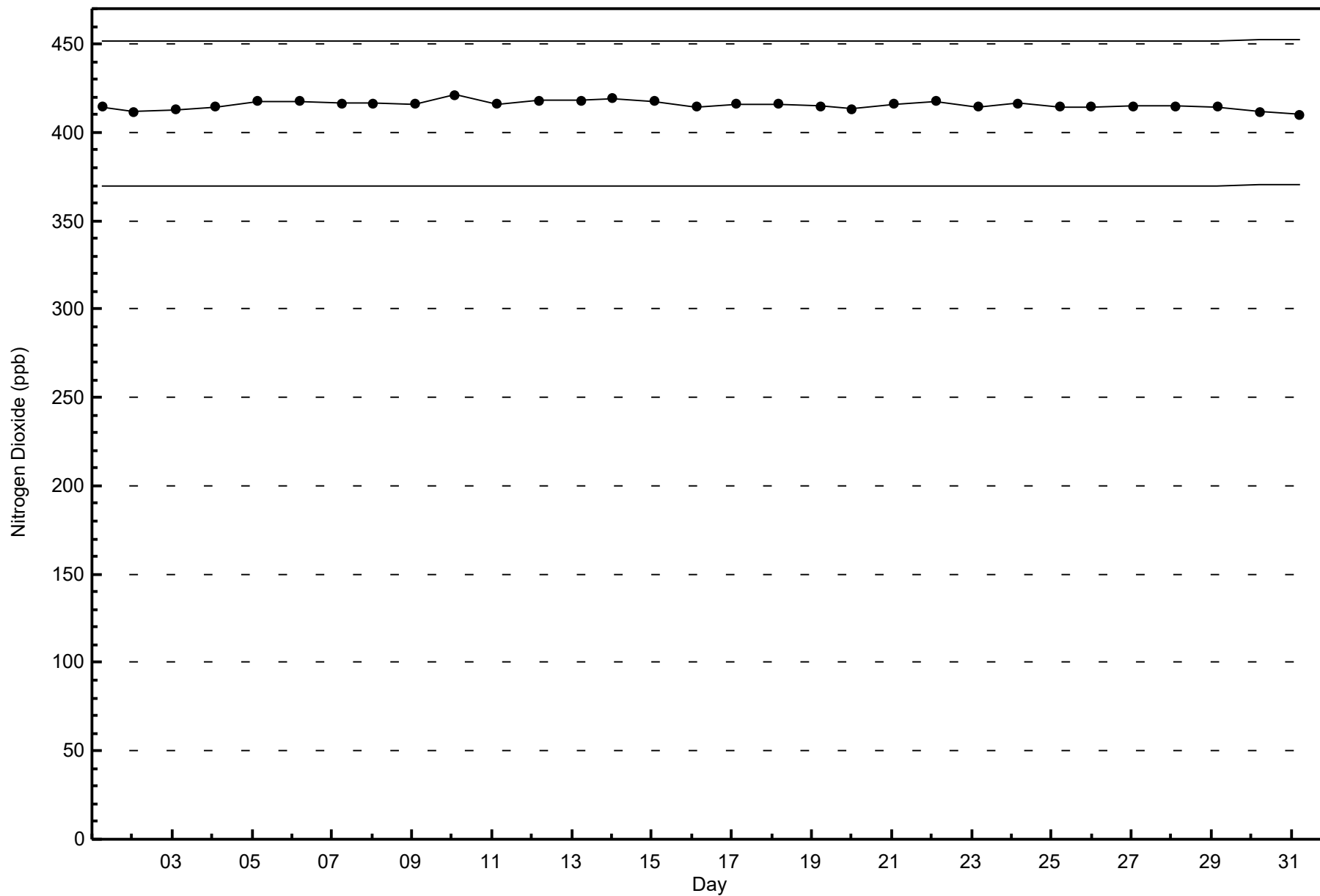






Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Sawbones Bay - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

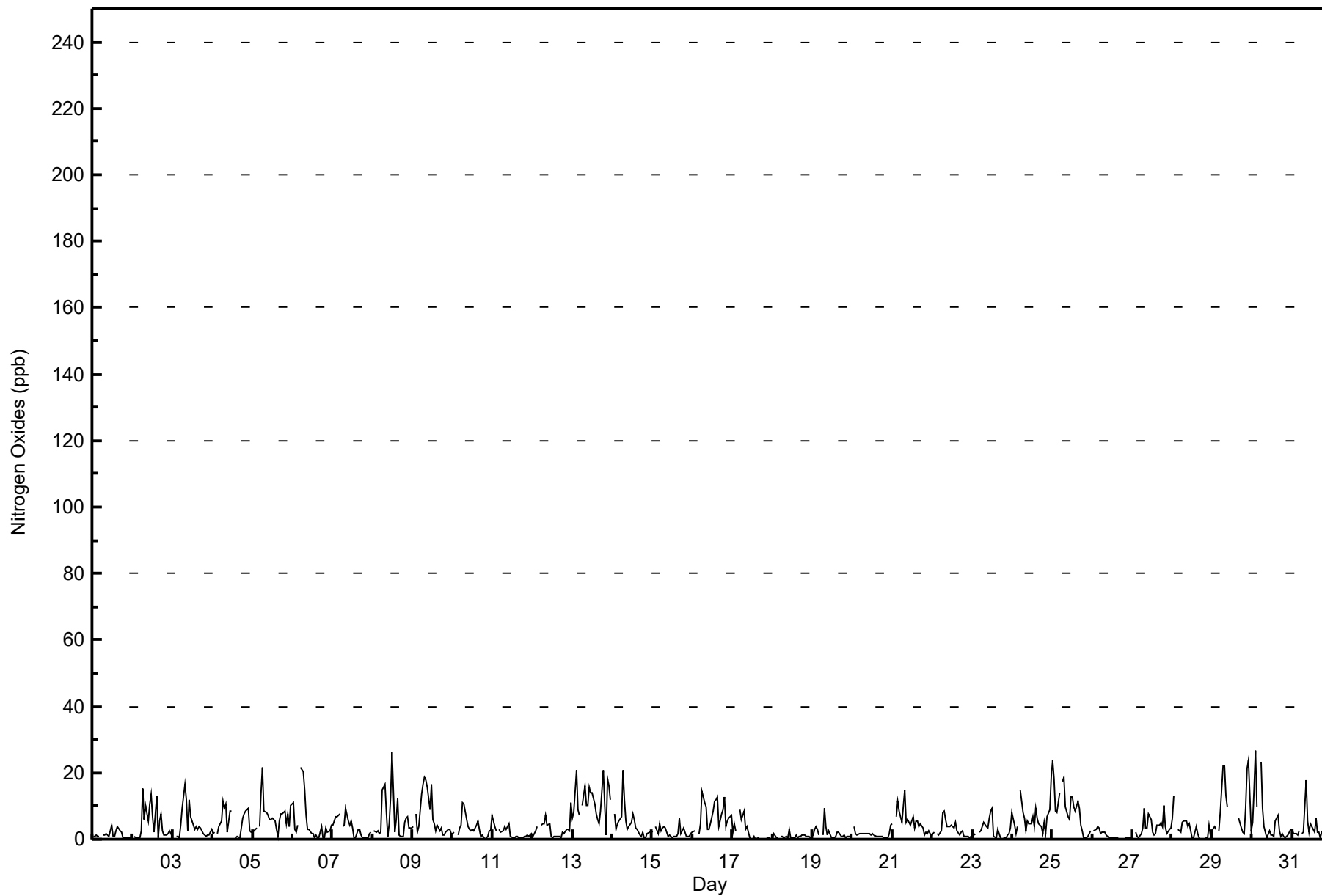
Sawbones Bay - July 2026

Maximum Value: 26.7 ppb on Jul 30 03:00																		Maximum Daily Average: 11.2 ppb on Jul 13										Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 17 19:00																		Minimum Daily Average: 0.9 ppb on Jul 18										Hours of Data: 705	
Maximum Diurnal Average: 8.9 ppb at hour 7																		Minimum Diurnal Average: 2.0 ppb at hour 21										Hours of Missing Data: 39	
Monthly Average: 4.32 ppb																		Percentiles: P ₁ = 0.2 P ₁₀ = 0.5 Q ₁ = 1.1 Median = 2.7 Q ₃ = 5.7 P ₉₀ = 10.4 P ₉₉ = 21.5										Hours of Calibration: 37	
																												Percent Operational Time: 99.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	0.9	0.8	1.2	1.0	0.8	Z	1.2	1.4	1.8	1.3	1.0	4.2	0.8	0.8	2.4	3.9	2.4	2.2	0.5	0.5	0.5	0.5	0.4	0.4	1.3	4.2			
2-Jul	Z	0.7	0.5	0.3	0.5	2.7	15.2	5.9	10.2	5.5	10.5	13.6	6.9	2.3	13.1	0.4	5.6	7.6	2.6	1.4	1.4	1.8	2.5	1.8	4.9	15.2			
3-Jul	0.9	Z	1.0	0.7	0.5	4.4	9.2	16.3	11.9	2.5	12.0	6.9	4.3	2.8	3.7	2.9	4.0	3.2	1.5	1.2	0.8	1.5	1.4	3.0	4.2	16.3			
4-Jul	1.6	2.3	Z	1.8	3.8	5.5	11.4	9.5	10.7	2.1	8.6	8.3	PF	PF	0.4	0.7	0.5	3.3	6.4	7.6	8.5	9.5	2.6	2.1	5.1	11.4			
5-Jul	1.9	2.7	3.5	Z	3.8	14.0	21.5	8.7	8.3	7.4	5.7	5.7	6.3	5.7	3.1	0.8	5.5	7.8	7.4	8.4	4.9	7.4	3.7	10.4	6.7	21.5			
6-Jul	10.9	3.2	2.3	4.4	Z	21.5	20.5	15.0	7.4	2.8	2.8	1.7	1.7	0.5	1.2	0.4	0.6	3.6	0.2	0.3	3.3	2.1	2.7	4.1	4.9	21.5			
7-Jul	4.1	5.5	6.6	6.8	7.5	Z	3.7	4.2	9.3	5.6	4.2	5.4	3.4	0.6	0.5	2.8	3.2	1.1	0.6	0.3	0.3	0.2	1.9	1.9	3.5	9.3			
8-Jul	Z	2.6	2.2	2.7	1.8	2.2	14.9	16.5	8.2	0.9	4.8	12.7	26.3	2.0	5.9	12.3	1.2	0.8	1.0	5.0	6.3	6.8	3.5	3.5	6.3	26.3			
9-Jul	3.6	Z	7.4	2.1	4.0	13.6	16.4	18.4	17.8	15.7	8.9	16.7	6.1	4.7	2.3	4.1	2.5	3.3	1.5	1.4	2.0	2.8	3.1	1.6	7.0	18.4			
10-Jul	1.6	2.1	Z	1.5	3.3	4.4	10.8	10.6	5.8	3.7	2.8	2.3	3.0	2.5	4.0	5.5	2.8	0.8	1.1	0.2	0.2	0.7	2.5	2.6	3.3	10.8			
11-Jul	7.3	4.0	2.5	Z	3.2	2.1	2.4	3.7	2.8	3.8	4.5	0.7	0.5	0.6	0.7	0.7	0.6	0.5	0.6	0.8	0.9	1.2	1.0	1.8	2.0	7.3			
12-Jul	0.7	1.6	2.7	4.0	Z	4.1	4.5	4.7	7.2	4.3	4.5	1.0	0.5	0.7	0.9	0.8	0.9	0.6	2.1	1.6	2.9	2.9	2.6	11.2	2.9	11.2			
13-Jul	6.4	8.2	20.9	9.1	7.2	Z	10.4	16.0	10.4	10.2	15.7	14.0	14.1	10.7	7.4	5.7	4.7	8.6	20.6	10.0	1.1	18.2	16.2	12.0	11.2	20.9			
14-Jul	Z	7.8	2.8	4.6	5.4	6.9	20.8	11.9	5.4	3.1	3.7	4.9	7.7	6.1	3.2	3.1	1.3	1.0	2.0	0.2	0.4	1.8	1.9	2.7	4.7	20.8			
15-Jul	2.0	Z	3.6	1.8	4.5	2.6	3.5	3.7	3.5	0.8	1.4	0.9	0.5	0.7	0.8	1.8	6.6	1.5	2.4	3.4	0.8	0.7	0.8	1.6	2.2	6.6			
16-Jul	2.2	2.6	Z	1.7	1.6	4.8	14.4	11.1	9.9	3.1	2.9	4.5	8.3	11.3	11.9	12.9	3.6	7.5	9.1	12.6	3.9	5.5	6.4	7.2	6.9	14.4			
17-Jul	1.9	4.8	2.8	Z	9.0	5.8	7.1	8.4	2.8	3.7	0.6	0.2	0.2	0.6	0.1	0.3	0.2	0.0	0.0	0.1	0.1	0.3	0.4	0.2	2.2	9.0			
18-Jul	0.2	1.7	0.4	0.5	Z	1.0	0.7	0.2	0.8	0.6	3.1	0.5	0.4	0.4	1.4	0.6	0.9	0.9	1.2	1.1	0.9	0.8	0.8	0.6	0.9	3.1			
19-Jul	1.3	2.8	4.0	3.0	1.1	Z	1.1	9.2	3.9	1.4	2.6	0.6	0.4	0.4	0.7	2.3	1.9	1.0	1.0	1.1	0.6	0.9	0.9	1.1	1.9	9.2			
20-Jul	Z	3.7	1.8	1.4	1.6	1.7	1.9	1.7	1.8	1.7	1.5	1.4	1.6	1.2	0.8	0.8	0.9	0.9	0.7	0.6	0.6	0.6	1.5	4.0	1.5	4.0			
21-Jul	4.7	Z	6.8	11.4	8.6	6.9	5.2	15.0	5.0	5.7	5.2	4.3	6.7	3.5	5.7	5.6	3.6	4.6	3.5	1.5	2.2	1.6	2.5	1.0	5.3	15.0			
22-Jul	1.7	1.9	Z	1.8	1.4	2.3	8.0	8.6	5.9	3.7	3.7	4.2	3.9	3.5	5.1	2.6	1.3	2.3	2.4	0.8	0.7	0.8	0.6	0.8	3.0	8.6			
23-Jul	1.4	1.7	1.2	Z	2.0	2.4	3.7	5.0	3.9	3.5	6.3	8.6	9.2	0.7	0.5	3.0	1.8	0.5	0.2	0.2	0.6	1.1	1.7	3.4	2.7	9.2			
24-Jul	7.9	4.4	1.6	3.8	Z	14.9	8.1	6.4	2.5	5.7	4.7	4.5	6.8	4.0	9.2	6.4	4.7	3.8	1.6	5.2	1.8	6.7	9.0	18.8	6.2	18.8			
25-Jul	23.6	18.2	8.3	8.2	13.9	Z	17.3	18.7	9.8	6.7	5.9	12.9	12.8	9.9	8.3	11.3	9.1	4.1	2.5	0.5	0.3	0.7	1.8	2.6	9.0	23.6			
26-Jul	Z	2.7	2.9	3.9	3.3	1.8	2.1	2.2	1.4	0.6	0.5	0.4	0.4	0.4	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.3	1.1	3.9			
27-Jul	0.5	Z	2.2	0.8	0.4	1.6	3.3	9.3	3.4	3.2	7.5	6.1	2.2	1.1	1.8	4.1	4.1	5.3	3.6	10.2	3.9	1.7	3.0	3.5	3.6	10.2			
28-Jul	6.5	13.3	Z	2.9	2.4	2.2	5.3	5.6	5.4	4.0	4.5	2.5	0.4	0.2	3.7	1.8	0.5	0.2	0.2	0.2	0.3	0.4	4.4	1.4	3.0	13.3			
29-Jul	2.6	3.9	3.1	Z	2.5	7.9	21.9	22.0	13.3	9.8	C	C	C	C	C	C	6.2	3.4	2.0	1.7	9.2	21.2	23.6	2.4	--	23.6			
30-Jul	5.0	15.2	26.7	9.5	Z	23.1	9.2	4.0	2.2	0.6	2.4	1.1	1.4	0.8	5.7	7.3	2.5	1.0	1.9	1.0	0.4	1.3	2.0	3.0	5.5	26.7			
31-Jul	3.2	1.8	1.6	1.4	2.4	Z	1.8	2.2	17.7	5.4	2.2	4.8	3.9	2.1	6.5	2.1	1.9	0.3	2.1	0.9	1.5	1.3	3.6	1.8	3.2	17.7			
4.0 4.6 4.6 3.5 3.7 6.4 8.9 8.9 6.8 4.2 4.8 5.2 4.8 2.8 3.7 3.6 2.8 2.6 2.7 2.6 2.0 3.3 3.5 3.6																									Diurnal Average				
23.6 18.2 26.7 11.4 13.9 23.1 21.9 22.0 17.8 15.7 15.7 16.7 26.3 11.3 13.1 12.9 9.1 8.6 20.6 12.6 9.2 21.2 23.6 18.8																									Diurnal Maximum				
Z - zerospan C - Calibration PF - Power Failure																													



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Sawbones Bay - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Sawbones Bay - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	692	98.16	98.16
21 - 40	13	1.84	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Sawbones Bay - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	17	20	13	11	19	22	53	88	68	52	55	46	83	85	32	28	692
21 - 40	0	0	0	0	0	0	0	0	1	0	0	6	6	0	0	0	13
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	20	13	11	19	22	53	88	69	52	55	52	89	85	32	28	705

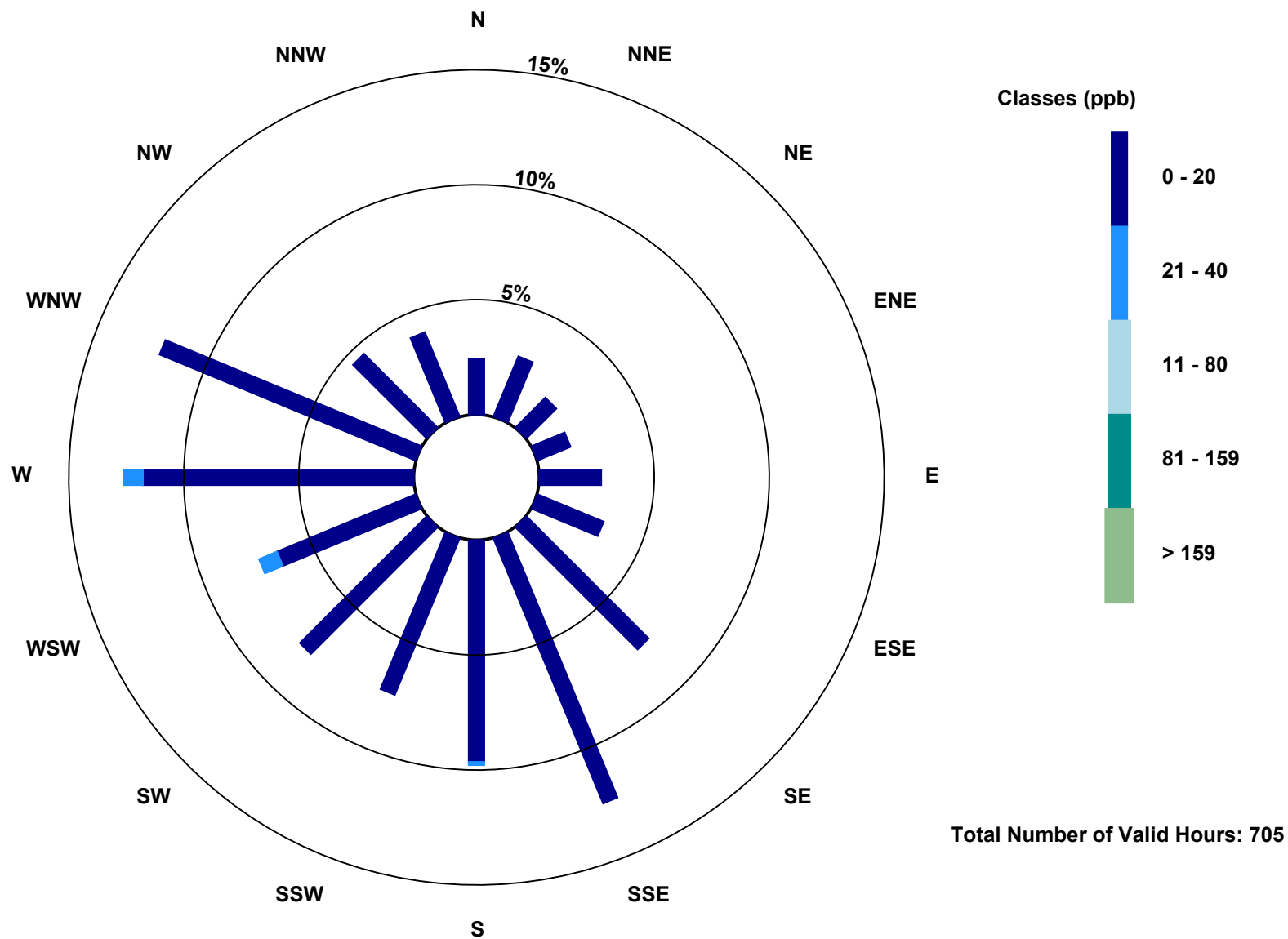
Total Number of Valid Hours: 705

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

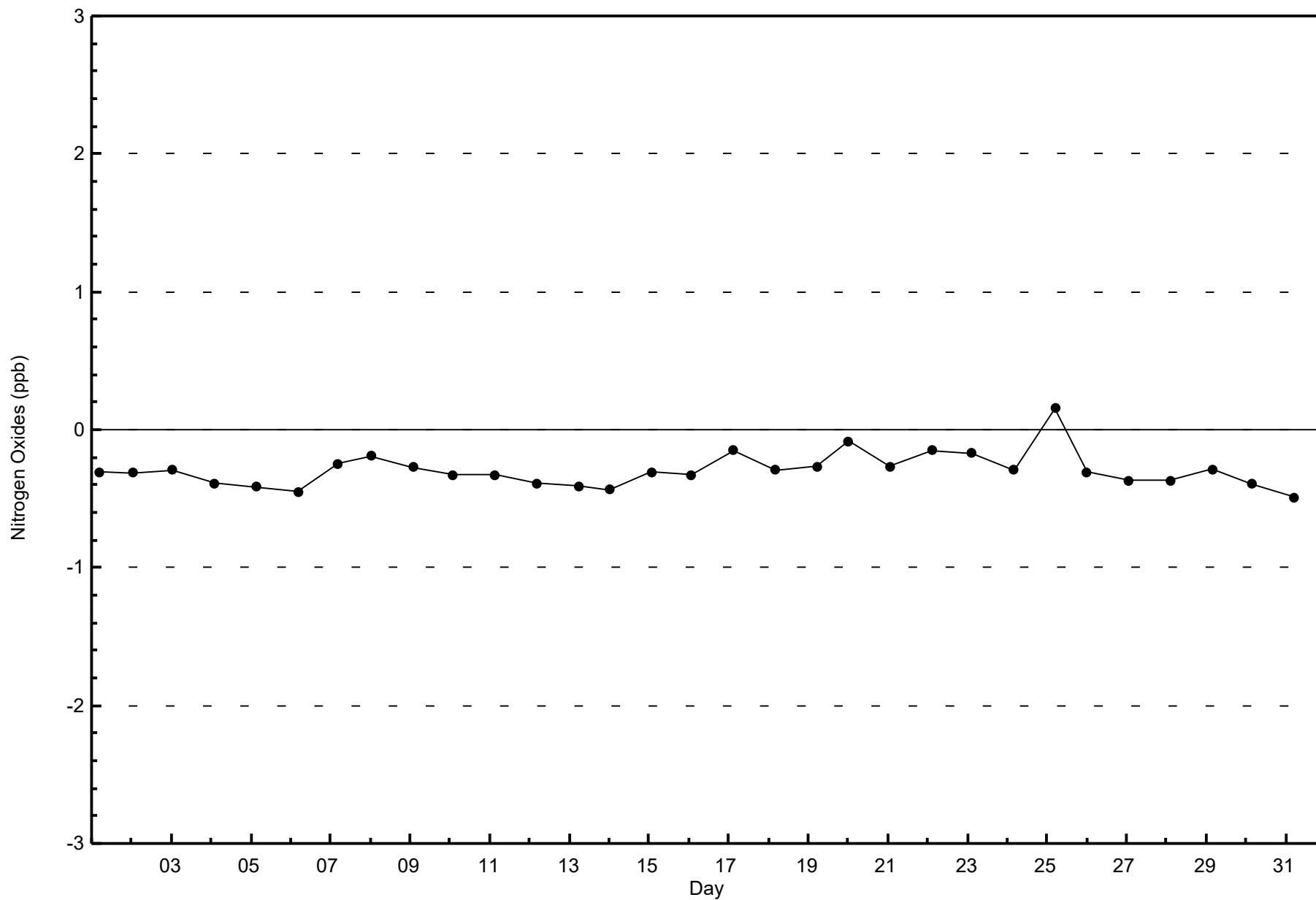
Nitrogen Oxides (NO_x) - ppb
Sawbones Bay





Wood Buffalo Environmental Association
Zero Responses

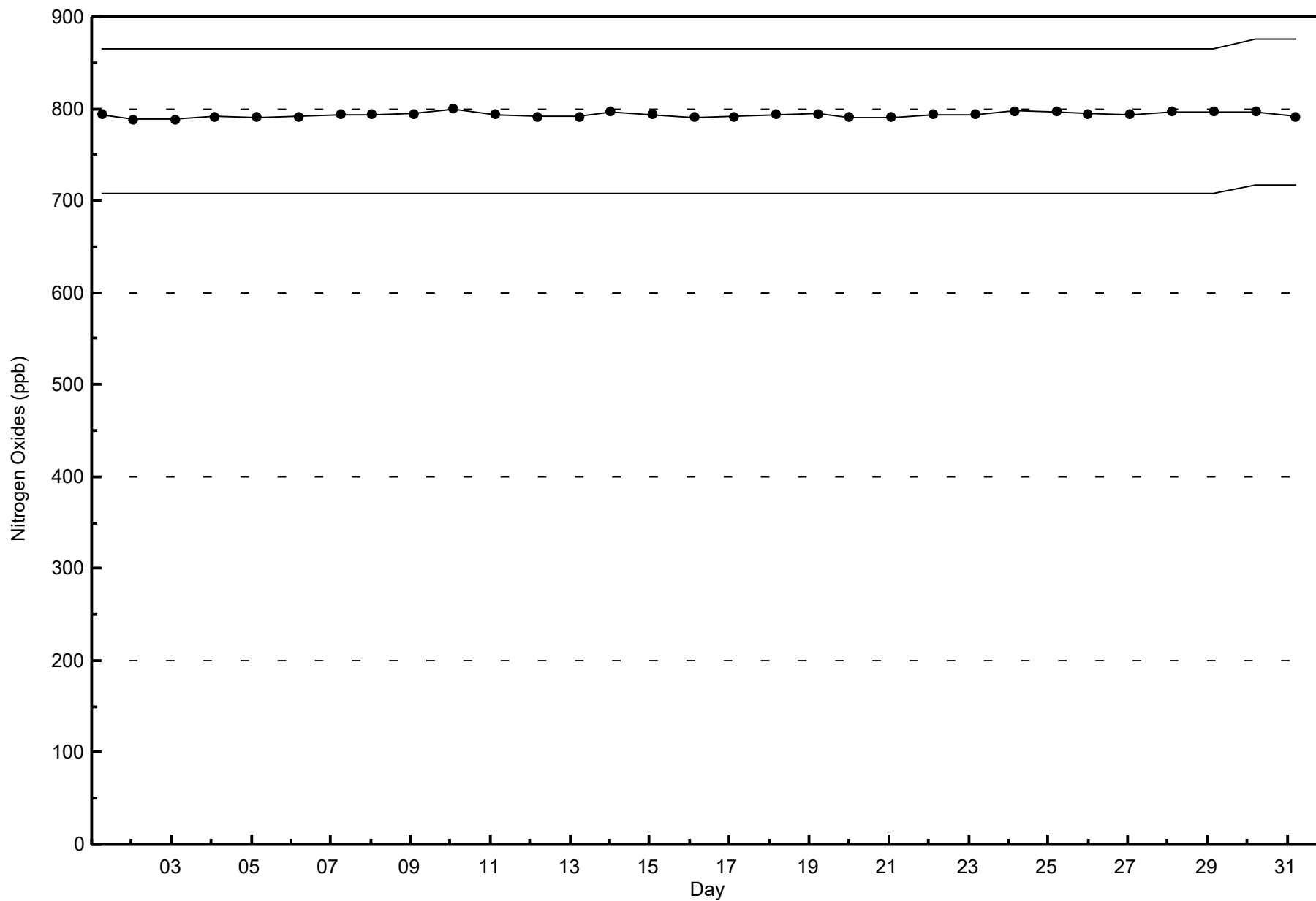
Nitrogen Oxides (NO_x) - ppb
Sawbones Bay - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Sawbones Bay - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

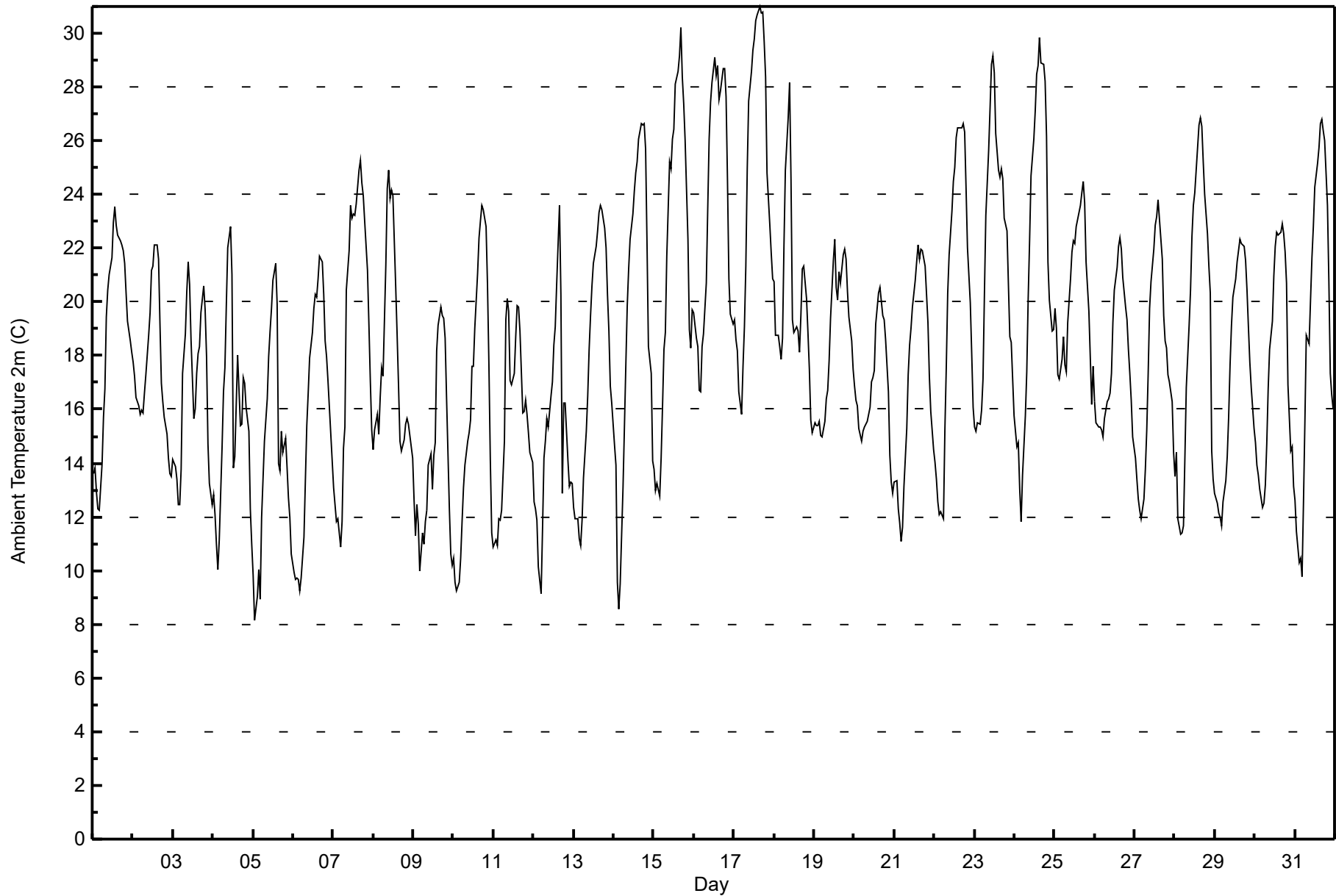
Sawbones Bay - July 2026

Maximum Value: 31.0 C on Jul 17 16:00																			Maximum Daily Average: 24.5 C on Jul 17							Hours in Service: 744	
Minimum Value: 8.2 C on Jul 5 02:00																			Minimum Daily Average: 14.1 C on Jul 9							Hours of Data: 744	
Maximum Diurnal Average: 22.9 C at hour 16																			Minimum Diurnal Average: 12.7 C at hour 5							Hours of Missing Data: 0	
Monthly Average: 18.35 C																			Percentiles: P ₁ = 9.5 P ₁₀ = 12.2 Q ₁ = 14.7 Median = 18.1 Q ₃ = 21.7 P ₉₀ = 25.0 P ₉₉ = 29.7							Hours of Calibration: 0	
																										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	13.6	13.8	12.9	12.3	12.2	14.0	15.7	16.8	19.5	20.5	21.0	21.7	22.9	23.5	22.9	22.5	22.3	22.1	21.9	21.4	20.3	19.3	18.6	18.1	18.7	23.5	
2-Jul	17.7	17.2	16.4	16.1	15.8	16.0	15.9	16.6	17.3	18.8	19.6	21.2	21.3	22.1	22.1	21.6	19.2	17.0	16.3	15.7	15.1	14.2	13.6	13.5	17.5	22.1	
3-Jul	14.1	13.9	13.4	12.5	12.5	13.7	17.3	18.8	20.4	21.5	20.7	18.6	15.7	16.0	17.3	18.1	18.3	19.6	20.6	19.7	18.0	14.7	13.2	12.5	16.7	21.5	
4-Jul	12.8	12.1	11.0	10.0	11.2	14.6	16.7	17.6	19.9	22.0	22.8	21.0	13.8	14.2	16.1	18.0	15.4	15.4	17.2	17.0	16.1	15.2	12.3	11.0	15.6	22.8	
5-Jul	9.8	8.2	9.1	10.0	8.9	12.0	13.4	14.8	16.4	18.0	18.9	19.8	20.8	21.4	19.9	14.0	13.7	15.2	14.4	14.9	13.9	12.7	12.0	10.6	14.3	21.4	
6-Jul	9.9	9.6	9.7	9.7	9.2	9.7	11.2	13.4	15.4	16.6	17.9	18.9	19.8	20.3	20.2	20.9	21.7	21.5	20.3	18.6	18.0	17.1	15.1	14.1	15.8	21.7	
7-Jul	13.1	12.4	11.8	12.0	10.9	11.8	14.6	15.3	20.5	21.9	23.6	23.1	23.3	23.2	23.6	24.9	25.3	24.4	24.0	23.0	21.2	19.2	17.1	15.2	19.0	25.3	
8-Jul	14.5	15.3	15.8	15.1	16.4	17.5	17.3	21.4	24.2	24.9	23.8	24.1	23.9	20.6	18.7	16.9	14.8	14.5	14.9	15.4	15.7	15.4	15.0	14.2	17.9	24.9	
9-Jul	12.6	11.3	12.4	11.7	10.0	11.4	11.0	11.8	12.3	14.0	14.4	13.0	14.3	14.7	18.2	19.1	19.8	19.5	19.4	18.6	16.4	12.3	10.6	10.2	14.1	19.8	
10-Jul	10.5	9.6	9.2	9.6	10.4	11.8	13.1	13.9	14.8	15.1	15.6	17.6	17.6	19.0	21.1	22.4	23.0	23.6	23.4	22.8	20.7	17.7	14.1	11.4	16.2	23.6	
11-Jul	10.9	11.1	10.9	11.9	11.9	12.3	14.8	19.3	20.1	19.6	17.1	16.9	17.3	18.7	19.9	19.8	18.9	15.9	15.9	16.4	15.8	15.1	14.4	14.0	15.8	20.1	
12-Jul	12.6	12.3	11.9	10.2	9.1	11.5	14.2	14.8	15.6	15.4	16.5	17.0	18.4	19.1	20.7	23.6	20.3	12.9	16.2	16.2	14.1	13.1	13.3	13.2	15.1	23.6	
13-Jul	12.3	11.9	11.9	11.2	10.9	11.9	13.4	15.2	16.5	18.2	19.5	20.6	21.4	22.1	22.7	23.4	23.6	23.4	22.7	22.0	20.3	18.9	16.9	16.3	17.8	23.6	
14-Jul	14.7	13.9	9.6	8.6	9.5	13.1	15.4	17.7	19.9	21.2	22.3	23.3	24.1	24.8	25.2	26.1	26.7	26.6	26.7	25.7	22.2	18.3	17.4	14.1	19.4	26.7	
15-Jul	13.8	13.0	13.3	12.8	14.2	16.1	18.2	18.9	21.7	25.2	24.9	26.1	26.4	28.1	28.6	29.1	30.2	28.4	27.4	26.0	22.3	19.0	18.3	19.7	21.7	30.2	
16-Jul	19.6	18.6	18.3	16.7	16.7	18.3	18.8	20.7	23.4	26.0	27.4	28.2	29.1	28.4	28.8	27.5	27.9	28.7	28.7	27.6	24.5	20.9	19.5	19.2	23.5	29.1	
17-Jul	19.3	18.6	18.2	16.7	15.8	17.6	19.1	21.3	25.0	27.5	28.6	29.4	29.8	30.5	30.7	31.0	30.8	30.8	29.7	28.4	24.8	22.8	21.8	20.8	24.5	31.0	
18-Jul	20.7	18.8	18.8	18.3	17.9	18.6	22.1	24.9	26.9	28.2	24.5	19.3	18.9	19.1	18.9	18.1	19.5	21.2	21.3	20.1	18.9	17.5	15.6	15.1	20.1	28.2	
19-Jul	15.5	15.4	15.4	15.5	15.0	15.0	15.6	16.4	16.7	17.8	19.4	21.5	22.4	20.5	20.0	21.1	20.7	21.7	22.0	21.6	20.4	19.5	18.5	17.5	18.5	22.4	
20-Jul	16.9	16.3	16.1	15.3	14.8	15.2	15.3	15.4	15.6	16.1	17.0	17.2	17.5	19.2	20.4	20.6	20.0	19.5	19.3	18.6	16.6	14.3	13.3	12.9	16.8	20.6	
21-Jul	13.3	13.3	12.3	11.8	11.1	11.6	13.1	15.3	17.3	18.4	19.0	19.8	20.8	21.5	22.1	21.6	21.9	21.9	21.3	20.3	19.2	17.3	15.9	14.5	17.3	22.1	
22-Jul	14.0	13.4	12.6	12.1	12.2	12.0	15.2	17.6	20.3	21.7	23.4	24.5	25.0	26.1	26.5	26.5	26.5	26.6	26.3	24.2	22.0	19.9	18.1	16.1	20.1	26.6	
23-Jul	15.4	15.2	15.5	15.5	16.0	17.1	20.3	23.2	25.7	27.2	28.8	29.2	28.5	26.3	24.9	24.6	25.0	24.6	23.1	22.6	20.7	18.7	18.5	17.1	21.8	29.2	
24-Jul	15.8	14.6	14.8	13.0	11.8	13.6	15.8	17.4	20.1	22.3	24.7	26.1	27.1	28.5	28.8	29.9	28.9	28.8	28.2	26.2	21.5	20.1	18.9	18.9	21.5	29.9	
25-Jul	19.7	19.0	17.3	17.1	17.9	18.7	17.7	17.4	19.2	20.9	21.8	22.3	22.2	22.8	23.1	23.6	24.1	24.5	23.7	21.5	19.6	17.9	16.2	17.6	20.2	24.5	
26-Jul	16.3	15.5	15.3	15.3	15.2	15.0	15.7	16.3	16.4	16.6	17.4	19.2	20.4	21.3	22.1	22.4	22.0	20.9	19.8	19.3	18.2	17.3	16.4	15.0	17.9	22.4	
27-Jul	14.2	13.4	12.7	12.2	12.0	12.7	13.7	15.3	17.3	19.7	20.8	22.0	22.8	23.2	23.8	23.1	21.6	19.5	18.5	18.3	17.3	17.0	16.3	14.4	17.6	23.8	
28-Jul	13.5	14.4	11.9	11.4	11.4	11.7	14.2	16.8	19.1	20.4	22.4	23.6	24.0	24.9	26.6	26.9	26.5	25.2	24.0	22.6	21.3	20.3	14.4	13.4	19.2	26.9	
29-Jul	12.8	12.5	12.1	12.0	11.7	12.6	13.3	14.2	15.7	17.7	19.1	20.2	20.8	21.5	21.9	22.3	22.2	22.1	21.5	20.4	19.1	17.8	16.8	15.3	17.3	22.3	
30-Jul	14.8	13.9	13.6	13.1	12.4	12.5	13.2	14.7	16.8	18.2	19.3	21.0	22.1	22.6	22.5	22.6	22.9	22.5	21.9	20.7	16.9	14.5	14.6	13.1	17.5	22.9	
31-Jul	12.6	11.5	10.3	10.5	9.8	12.5	15.5	18.8	18.4	20.1	21.7	22.8	24.3	25.1	25.8	26.6	26.8	26.4	26.0	23.6	20.7	17.3	16.6	16.0	19.2	26.8	
14.4 13.9 13.4 12.9 12.7 13.9 15.5 17.2 19.0 20.4 21.1 21.6 21.8 22.2 22.7 22.9 22.6 22.1 21.8 21.0 19.1 17.3 15.9 15.0																										Diurnal Average	
20.7 19.0 18.8 18.3 17.9 18.7 22.1 24.9 26.9 28.2 28.8 29.4 29.8 30.5 30.7 31.0 30.8 30.8 29.7 28.4 24.8 22.8 21.8 20.8																										Diurnal Maximum	



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Sawbones Bay - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Sawbones Bay - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	19	2.55	2.55
10 - 20	456	61.29	63.84
> 20	269	36.16	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

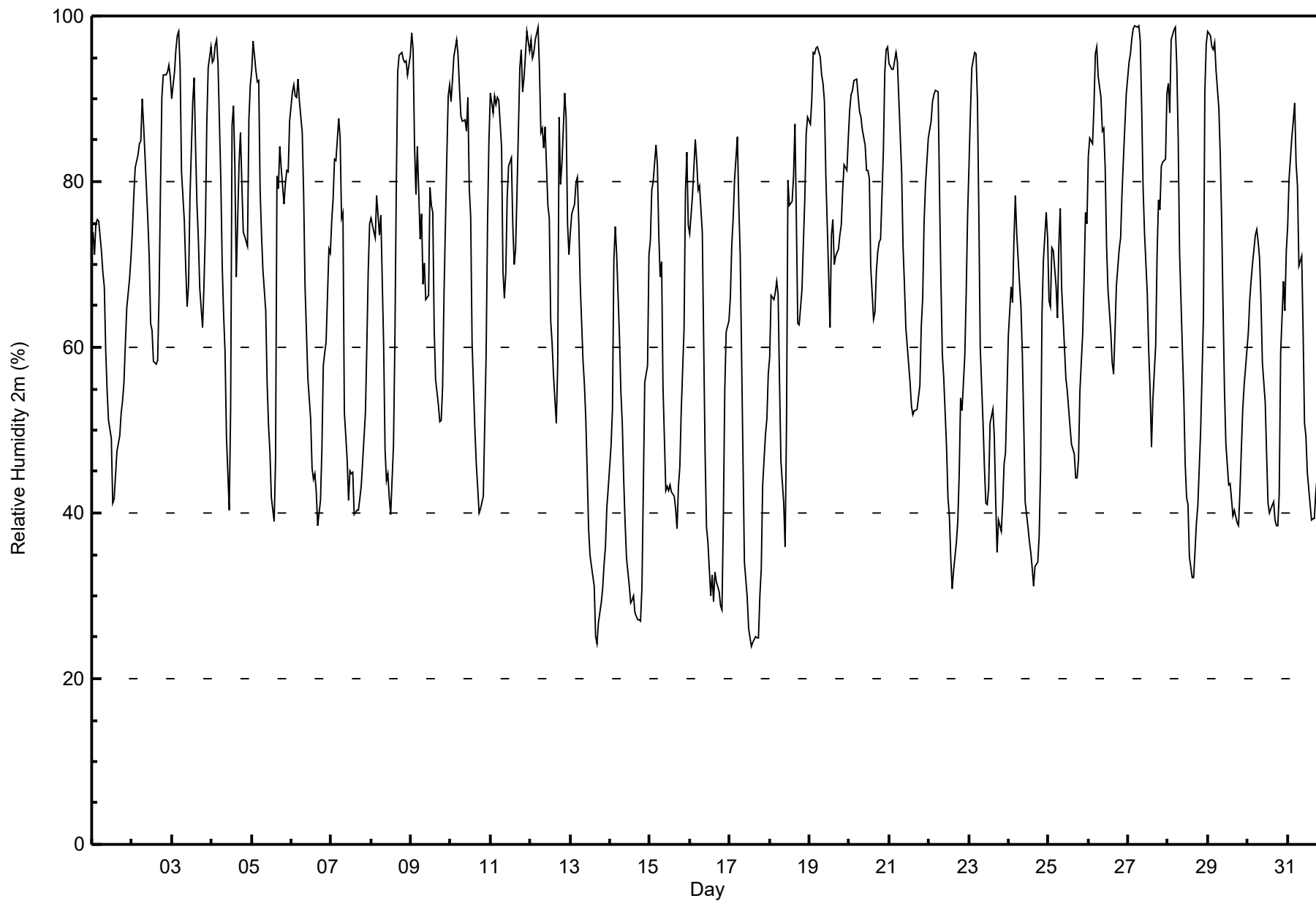
Sawbones Bay - July 2026

Maximum Value: 98.9 % on Jul 27 07:00																				Maximum Daily Average: 84.5 % on Jul 11					Hours in Service: 744		
Minimum Value: 23.8 % on Jul 17 14:00																				Minimum Daily Average: 45.4 % on Jul 14					Hours of Data: 744		
Maximum Diurnal Average: 87.3 % at hour 5																				Minimum Diurnal Average: 50.1 % at hour 15					Hours of Missing Data: 0		
Monthly Average: 67.23 %																				Percentiles: P ₁ = 25.5 P ₁₀ = 39.3 Q ₁ = 50.7 Median = 70.4 Q ₃ = 84.3 P ₉₀ = 93.3 P ₉₉ = 98.2					Hours of Calibration: 0		
																									Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																				Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			21	22	23	24	
1-Jul	74.0	71.3	74.9	75.3	75.3	71.5	69.0	67.2	59.7	54.8	51.2	49.0	41.1	41.7	44.5	47.5	49.4	52.0	53.6	55.7	60.6	64.8	68.3	70.9	60.1	75.3	
2-Jul	74.1	78.3	81.7	83.3	84.5	84.9	90.0	86.8	83.1	75.5	70.8	63.0	62.0	58.2	58.0	58.5	66.1	79.0	90.2	92.8	92.8	93.3	94.0	92.8	78.9	94.0	
3-Jul	90.0	93.3	95.9	97.6	98.1	93.8	81.2	75.2	69.7	64.9	67.5	78.0	89.7	92.6	84.3	77.4	73.1	67.2	62.4	67.4	74.3	87.0	93.8	96.4	82.1	98.1	
4-Jul	94.4	94.8	96.5	97.2	94.2	80.2	69.8	63.9	59.6	49.2	40.4	52.8	86.7	89.2	81.9	68.5	82.1	85.9	79.7	74.0	73.3	72.2	87.4	91.6	77.7	97.2	
5-Jul	93.5	96.9	93.3	92.0	92.1	79.0	73.6	69.3	64.4	55.6	50.5	47.2	41.9	38.9	46.4	80.7	79.2	84.2	81.7	77.3	79.8	81.4	81.2	87.3	73.6	96.9	
6-Jul	90.8	91.6	90.3	90.2	92.4	89.7	85.9	78.5	67.3	61.9	56.2	51.4	45.4	44.0	44.7	42.6	38.5	41.5	47.6	57.8	59.3	60.6	71.9	71.4	65.5	92.4	
7-Jul	75.2	77.9	82.8	82.5	87.6	85.3	75.5	76.3	52.2	46.5	41.5	45.1	44.7	44.9	39.8	40.3	40.3	41.6	43.3	46.1	52.1	60.0	69.1	74.9	59.4	87.6	
8-Jul	75.7	74.8	73.3	78.3	75.9	73.5	76.0	60.2	47.7	44.0	44.8	41.8	39.8	48.1	60.7	79.3	93.3	95.2	95.6	94.8	94.5	94.5	92.8	95.2	72.9	95.6	
9-Jul	98.0	96.0	84.3	78.4	84.3	73.0	76.2	67.6	70.2	65.7	66.2	79.3	77.2	76.3	62.2	56.2	53.1	51.0	51.2	55.3	66.4	83.1	90.3	91.8	73.1	98.0	
10-Jul	89.7	92.3	95.1	97.0	95.3	91.4	88.0	87.4	87.5	86.0	90.1	79.1	75.8	60.4	50.0	45.9	43.0	40.0	40.4	42.1	50.7	59.2	74.9	85.0	72.8	97.0	
11-Jul	90.7	88.3	90.3	89.3	90.1	89.8	84.2	69.1	65.9	69.0	78.2	81.8	82.9	74.8	70.0	71.9	78.8	93.8	95.9	90.8	92.6	95.3	98.2	95.8	84.5	98.2	
12-Jul	97.1	94.9	95.6	97.1	98.6	93.6	85.9	86.4	84.1	86.6	77.1	75.6	63.3	60.5	56.5	50.8	58.0	87.8	79.7	82.2	90.6	87.6	74.9	71.2	80.7	98.6	
13-Jul	74.0	76.0	77.2	79.9	80.6	75.0	67.8	58.6	55.5	51.4	45.0	38.1	34.8	32.3	31.2	25.0	24.2	26.8	29.2	30.9	33.8	36.0	40.7	43.0	48.6	80.6	
14-Jul	48.1	52.6	70.5	74.6	71.2	61.2	54.5	50.9	44.0	38.7	34.6	31.3	29.2	29.6	29.9	28.0	27.2	27.2	27.0	31.1	43.0	55.8	57.7	71.2	45.4	74.6	
15-Jul	72.9	78.9	80.0	84.4	82.0	73.5	68.4	70.4	55.2	42.8	43.3	42.7	43.4	42.6	42.0	40.5	38.1	43.1	45.7	52.5	62.1	78.8	83.6	74.8	60.1	84.4	
16-Jul	73.8	78.3	81.7	85.0	82.6	78.9	79.4	73.9	60.3	47.2	38.3	36.5	30.0	32.5	29.3	32.9	31.7	30.5	28.7	28.2	39.4	54.7	61.9	63.2	53.3	85.0	
17-Jul	66.1	72.3	75.6	80.4	85.5	77.2	71.1	58.9	46.5	34.0	29.8	26.1	24.9	23.8	24.3	25.1	25.0	25.0	29.9	33.3	43.4	49.4	51.4	56.8	47.3	85.5	
18-Jul	58.9	66.2	65.8	66.6	67.9	66.5	56.0	46.3	41.1	36.0	50.8	80.1	77.1	77.6	80.7	86.9	75.6	62.9	62.7	67.0	72.6	77.7	85.8	87.9	67.4	87.9	
19-Jul	87.0	89.8	95.6	95.4	96.1	96.4	95.2	92.9	91.8	89.6	80.9	68.8	62.5	73.6	75.5	70.0	71.0	71.8	73.5	74.8	79.0	82.0	81.4	85.2	82.5	96.4	
20-Jul	88.7	90.6	91.0	92.2	92.3	90.3	88.5	87.7	86.3	84.4	81.4	81.3	80.3	69.7	63.3	64.2	69.2	71.6	72.7	73.0	83.8	93.3	95.9	96.3	82.8	96.3	
21-Jul	94.3	93.6	93.6	94.6	95.5	94.4	89.9	81.1	72.3	67.6	62.4	60.1	55.7	52.9	51.8	52.4	52.3	52.6	55.4	62.5	66.0	75.1	79.6	85.3	72.5	95.5	
22-Jul	86.3	87.3	89.7	90.6	91.0	90.9	78.7	68.0	59.2	56.2	48.0	41.9	39.7	34.5	30.8	33.0	36.4	38.9	44.6	53.9	52.4	58.9	66.6	75.9	60.6	91.0	
23-Jul	82.0	88.3	93.8	95.6	95.4	89.9	76.3	60.1	50.8	45.5	41.2	41.1	43.0	50.8	52.6	49.3	41.6	35.3	39.2	37.8	41.2	45.9	47.3	54.0	58.2	95.6	
24-Jul	61.4	67.3	65.4	72.9	78.3	73.8	67.6	65.0	59.1	50.7	41.3	38.3	36.6	35.3	33.3	31.2	33.5	34.0	37.3	45.4	64.1	70.5	76.3	73.3	54.7	78.3	
25-Jul	65.6	64.9	72.0	71.7	67.5	63.6	72.3	76.7	67.1	59.9	56.2	54.7	52.6	50.3	48.4	47.2	44.2	44.2	46.4	54.7	61.8	68.4	76.2	74.9	60.9	76.7	
26-Jul	83.1	85.2	84.5	88.9	95.5	96.3	92.7	90.1	86.1	86.4	81.6	72.2	66.9	61.9	58.2	56.8	61.8	67.5	71.9	73.2	78.7	82.6	86.6	90.6	79.1	96.3	
27-Jul	94.4	95.5	97.3	98.6	98.8	98.6	98.9	97.0	89.0	79.3	73.9	66.4	59.6	55.0	48.0	53.8	60.4	71.4	77.8	76.6	81.9	82.4	82.7	90.6	80.3	98.9	
28-Jul	91.8	88.3	97.2	98.3	98.7	94.1	85.5	71.5	59.8	54.0	45.9	41.9	41.0	34.7	32.2	32.3	35.4	38.7	40.9	49.8	56.6	63.7	90.8	96.6	64.1	98.7	
29-Jul	98.2	97.6	96.3	96.0	96.8	93.4	88.9	83.0	75.0	64.6	54.7	48.3	43.3	43.6	41.7	39.6	40.3	38.7	38.5	42.6	47.5	52.5	55.4	59.7	64.0	98.2	
30-Jul	61.9	65.8	68.1	70.2	73.5	74.2	72.7	70.6	65.6	58.1	53.5	47.2	41.2	39.9	40.5	41.4	39.1	38.5	38.4	42.4	59.4	67.9	64.3	71.6	56.9	74.2	
31-Jul	74.5	80.3	85.4	87.3	89.5	82.2	79.5	69.8	71.1	62.0	50.8	49.3	44.8	40.9	39.2	39.3	39.3	42.4	44.5	57.4	70.3	80.8	77.0	79.0	64.0	89.5	
80.8 82.9 85.0 86.5 87.3 83.1 78.7 72.9 66.0 60.3 56.4 55.2 53.5 52.0 50.1 50.6 51.7 54.2 55.7 58.8 65.3 71.5 76.1 79.2																										Diurnal Average	
98.2 97.6 97.3 98.6 98.8 98.6 98.9 97.0 91.8 89.6 90.1 81.8 89.7 92.6 84.3 86.9 93.3 95.2 95.9 94.8 94.5 95.3 98.2 96.6																										Diurnal Maximum	



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Sawbones Bay - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %
Sawbones Bay - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	83	11.16	11.16
40 - 60	188	25.27	36.42
60 - 80	239	32.12	68.55
80 - 100	234	31.45	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

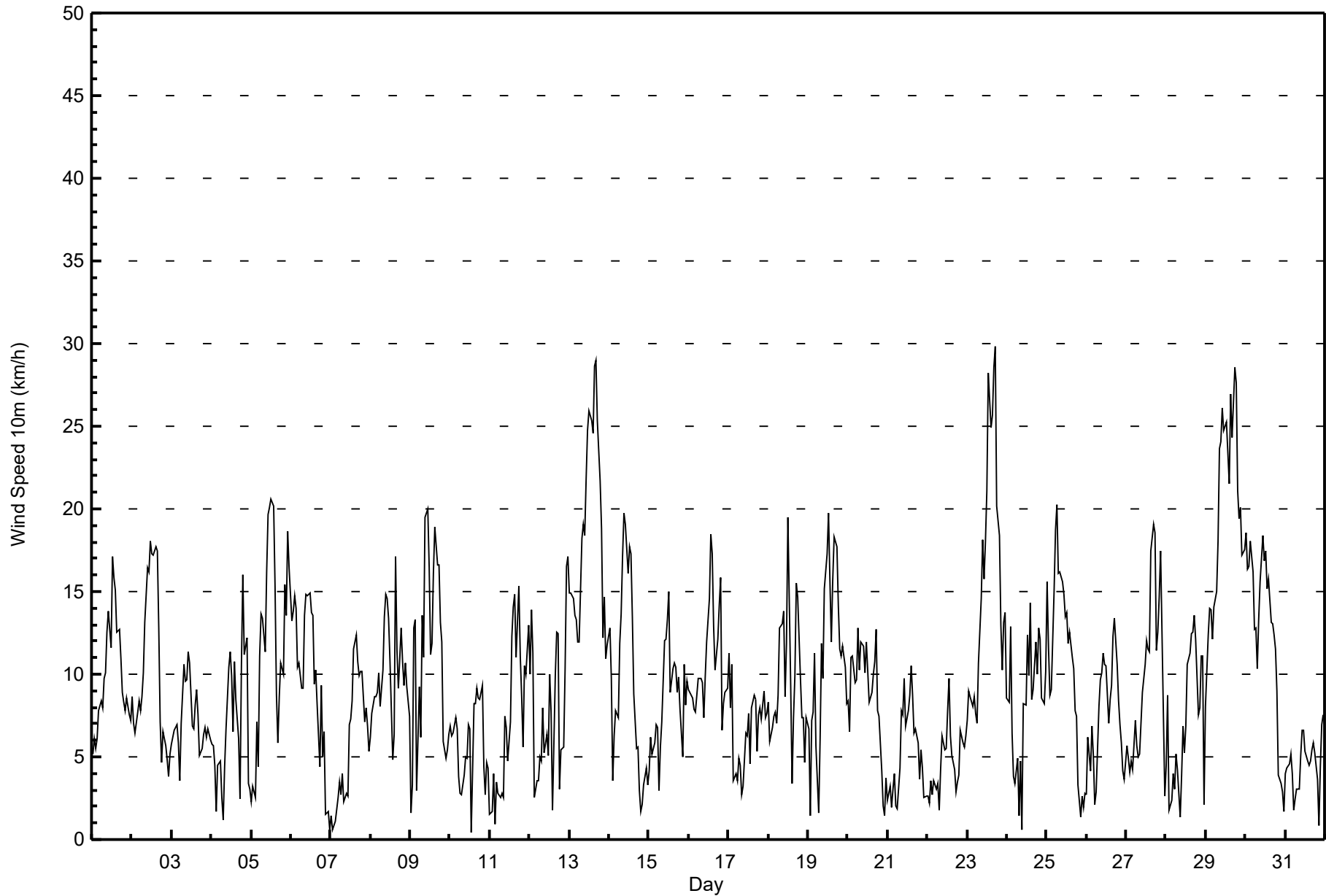
Sawbones Bay - July 2026

Maximum Speed: 30 km/h on Jul 23 18:00										Maximum Daily Speed Average: 18.5 km/h on Jul 29										Hours in Service: 744						
Minimum Speed Value: 0 km/h on Jul 10 14:00										Minimum Daily Speed Average: 1.1 km/h on Jul 17										Hours of Data: 744						
Maximum Diurnal Speed Average: 6.6 km/h at hour 18										Minimum Diurnal Speed Average: 2.4 km/h at hour 21										Hours of Missing Data: 0						
Monthly Average Velocity: 4.0 km/h 248.4 deg										Percentiles: P ₁ = 1 P ₁₀ = 3 Q ₁ = 5 Median = 9 Q ₃ = 13 P ₉₀ = 17 P ₉₉ = 27										Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jul	E5	E6	ESE6	E6	E8	E8	E8	E10	ESE10	E13	E14	E12	E17	ESE16	ESE15	SE13	SE13	SSE11	SE9	SE8	SE8	SE9	SE8	SE7	ESE9.3	E17
2-Jul	SE9	SE7	ESE6	SE8	SE8	SE8	SE9	SE10	SSE13	SSE16	SSE16	SSE18	SSE17	SE17	SSE18	SSE17	SSW13	SW7	ENE5	E7	SE6	S5	S4	SE5	SSE9.4	SSE18
3-Jul	SE6	SE7	ESE7	ESE7	SE6	SSE4	SSE7	SSE11	SSE10	SSE10	SSE11	SSW11	SSW7	S7	SSW8	SSW9	WSW8	SSW5	SSW5	S6	SSE7	SSE6	SSE7	S6	S6.4	SSE11
4-Jul	S6	S6	S4	SSE2	S4	S5	SSW3	WNW1	S4	SSE7	SE10	SSE11	NW10	NE7	E11	E8	N6	WSW2	WSW11	W16	W11	W12	SSW3	S3	SSW2.5	W16
5-Jul	SSE2	S3	S3	SW7	S4	WSW11	W14	WNW13	W11	W16	W20	WNW20	WNW21	W20	NNW15	NNW9	WSW6	WSW9	WSW11	W10	WNW15	WNW14	WNW19	WNW16	W10.5	WNW21
6-Jul	WNW13	WNW14	WNW15	W14	W10	W11	WSW9	WSW9	W14	WNW15	NW15	WNW15	WNW14	NW14	NW9	NNW10	NW8	WNW4	NNE9	ENE5	SW6	W2	ESE2	S1	WNW8.2	WNW15
7-Jul	SSE1	SE1	NNW1	S1	SSE3	E3	S3	SSE4	NE2	NE3	S3	SE7	SE7	SE8	E12	SE12	SSE11	SSE10	SE10	SSE10	SE7	SE8	SSE7	S5	SE5.2	SE12
8-Jul	SSE6	SSE8	SSE9	SSE9	SSE9	SSE10	SSE8	S10	S13	SSE15	SSE15	SE13	S11	SSE5	E6	W17	NNW11	NW9	WNW13	WNW11	W9	W11	W9	SW7	SSW5.2	W17
9-Jul	SSW2	SSW3	W13	WNW13	SW3	W9	W6	W14	WSW11	W19	W20	WSW16	SSW11	S12	SSW16	SW19	SSW17	SW17	SSW13	SSW12	S6	SSW5	S5	S6	SW9.4	W20
10-Jul	S7	S6	S6	S7	S7	S4	SSE3	SSE3	SE4	SSE5	SSE5	S7	S7	E0	WNW8	W8	WNW9	WNW9	WNW8	NW9	NNW4	ESE3	SSE5	ESE4	SSW2.4	NW9
11-Jul	SSE2	WSW2	SSE4	S1	SSE3	SE3	SSE3	S3	SSW3	SW7	WNW7	N5	NNE7	NNE12	NNE14	NNE15	N11	NW15	N11	NNW9	NW6	WNW11	WNW10	WNW13	NNW4.0	NW15
12-Jul	WNW10	WNW14	WNW11	SSE3	S4	S4	SW5	W5	SW8	WSW5	W6	NNW5	NW10	NNW8	NE2	S10	W13	NW12	S3	S5	S6	SSW10	SW17	SW17	WSW5.3	SW17
13-Jul	SW15	SW15	WSW15	WSW14	SW13	SW12	WSW12	W18	WSW19	SW18	WSW22	WSW25	W26	W25	W25	W29	W29	W25	W22	W19	WNW12	W15	WSW11	WSW12	WSW17.7	W29
14-Jul	WNW13	W10	SSE4	SSW6	SSW8	SSW7	WSW12	W14	W17	WNW20	W19	W16	W18	W17	WNW13	W9	W5	WNW6	W3	N2	ESE2	SSW3	S4	SE3	W8.0	WNW20
15-Jul	SSE4	SSE6	SSE5	SSE6	S7	SSE7	SSE3	SSE6	SSE7	SSE12	SSE12	SSE13	SE15	S9	SSE10	SSE11	S10	S9	SW10	SW8	N5	ENE11	SE8	SSW10	SSE7.0	SE15
16-Jul	SSW9	SSW9	SSW9	S8	S8	SSW9	SSW10	SSW10	SW10	SSW7	SSW10	SW12	SW15	WSW19	SW17	WSW13	WNW10	WSW12	W14	W16	SW7	SSW8	SSW9	SSW9	SW9.5	WSW19
17-Jul	SW11	SW8	SW11	SW4	SW4	SSW4	WSW5	WNW4	W3	W3	NNE6	NE6	N8	NNW5	NE8	NNE9	NE8	ENE5	ENE8	ENE8	ENE7	E9	ESE7	SSE8	ENE1.1	SW11
18-Jul	SSE8	SSE6	SE7	ESE7	ESE8	ESE7	SE9	SSE13	SE13	SSE14	NW9	N12	ENE19	E9	N3	ESE7	SE10	SE16	SE15	SE10	ESE7	ESE7	NNW5	N7	ESE6.4	ENE19
19-Jul	NNW7	S1	WSW7	NW8	NW11	NW6	ENE2	WSW6	WNW12	NW10	NW15	NW17	NNW20	NNW16	NNW12	WNW16	WNW18	WNW18	NW14	NW12	NW11	NW12	NNW10	NW8	NW10.2	NNW20
20-Jul	NW8	NW7	NNW11	NNW11	N10	NNW10	NNW13	N10	N12	NNW12	NNW10	NW12	NNW10	N8	NNW9	NW10	NW11	NW13	NNW8	NW7	NNE4	NNE2	S1	WNW4	NNW8.4	NNW13
21-Jul	W2	WSW3	SSW2	SW3	SW4	SSW2	S2	SW4	SW8	WSW8	WNW10	W7	W8	W9	SW11	WNW9	W6	W7	W6	W4	WSW5	SW4	S3	ESE3	WSW4.5	SW11
22-Jul	SE3	ESE2	SSE4	SE3	S4	S3	SSW3	NW2	W4	WSW6	WSW5	WSW5	WSW8	SSW10	WSW6	WNW5	WNW4	WNW3	SSW3	SSE4	SE7	SE6	SE6	SSE6	SSW2.6	SSW10
23-Jul	S7	S9	S9	S8	S9	S8	S7	SSW11	SSW15	SW18	SW16	WSW18	W21	NW28	NW25	WNW26	WNW29	WNW30	WNW20	WNW18	WNW13	WNW10	WNW13	WNW14	W10.9	WNW30
24-Jul	W9	WNW8	WNW13	WNW6	SW4	WSW3	SW5	W1	SE5	S1	SW8	SW8	WSW12	SW10	W14	WSW8	SW9	SW12	SW10	SW13	SSW12	SW9	SW8	SW10	WSW7.3	W14
25-Jul	WSW16	WSW12	SW9	SW9	WSW15	WSW19	W20	W16	W16	W16	W15	W13	W14	WSW12	WSW13	W11	W10	W8	WNW7	NW3	NW1	N3	SSW2	W3	W10.4	W20
26-Jul	N3	S6	SSE4	S7	S5	SSE2	WNW3	NNW8	NNE10	NNE10	NNE11	ENE11	NE10	NNE7	NNE8	N9	NNE12	NNE13	NNE11	NNE8	NE7	NE6	NE4	NNE4	NNE5.2	NNE13
27-Jul	N6	N5	NNE4	NE5	NE4	ESE7	SE6	SW5	SSW5	SSW7	WSW9	W11	WNW12	NW12	WNW11	WNW17	WNW19	W19	WNW11	W13	WNW15	WNW17	W8	SW3	WNW6.6	WNW19
28-Jul	SW4	WSW9	SSE2	SSE2	S4	S3	SSW5	SW4	WSW1	WSW4	SSW7	S5	E7	ESE11	SSE11	SE12	SE13	SE14	SE12	SE8	ESE8	SSE11	WNW11	NE2	SSE4.7	SE14
29-Jul	S8	SW12	SW14	SW14	SSW12	SW14	WSW15	W18	W24	W24	W26	W25	W25	W23	W22	W27	W24	WNW29	WNW28	WNW21	W19	W20	W17	WNW18	W18.5	WNW29
30-Jul	W19	W16	WSW16	W18	W16	W13	WNW13	WNW10	WNW13	WNW16	WNW18	WNW17	WNW17	WNW15	W16	W13	WNW13	WNW12	WNW12	WNW9	NNW4	SSE3	SSE3	SSE2	WNW11.7	W19
31-Jul	SSE4	SSE4	SSE5	S5	SSE4	SSE2	SE2	S3	SSW3	SSE5	SE7	SSE7	S5	SSW5	SW4	S5	SSE5	SSE6	SSW5	NNW4	NE1	SSE4	S7	S8	S4.0	S8
SW3.3 SW4.0 SW3.7 SW3.2SSW3.6SSW3.6 SW3.9SW4.3WSW4.9WSW5.3WSW5.8WSW5.6 W5.0 W4.5 W4.0 W5.4 W6.1 W6.6 W4.5 W4.2 W2.4 SW2.9 SW3.5 SW3.4																									Diurnal Average	
W19 W16WSW16 W18 W16WSW19 W20 W18 W24 W24 W26 W25 W26 NW28 NW25 W29 W29WNW30WNW28WNW21 W19 W20WNW19WNW18																									Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using vector methods																										



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Sawbones Bay - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Sawbones Bay - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	193	25.94	25.94
6 - 11	321	43.15	69.09
12 - 19	193	25.94	95.03
20 - 28	32	4.30	99.33
29 - 38	5	0.67	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Sawbones Bay - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	7	4	8	4	3	6	8	41	37	20	15	12	9	9	3	7	193
6 - 11	10	11	6	6	13	15	35	37	35	26	25	19	26	23	19	15	321
12 - 19	2	5	0	1	5	2	12	15	2	8	20	20	41	44	11	5	193
20 - 28	0	0	0	0	0	0	0	0	0	0	0	3	19	7	2	1	32
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	19	20	14	11	21	23	55	93	74	54	60	54	97	86	35	28	744

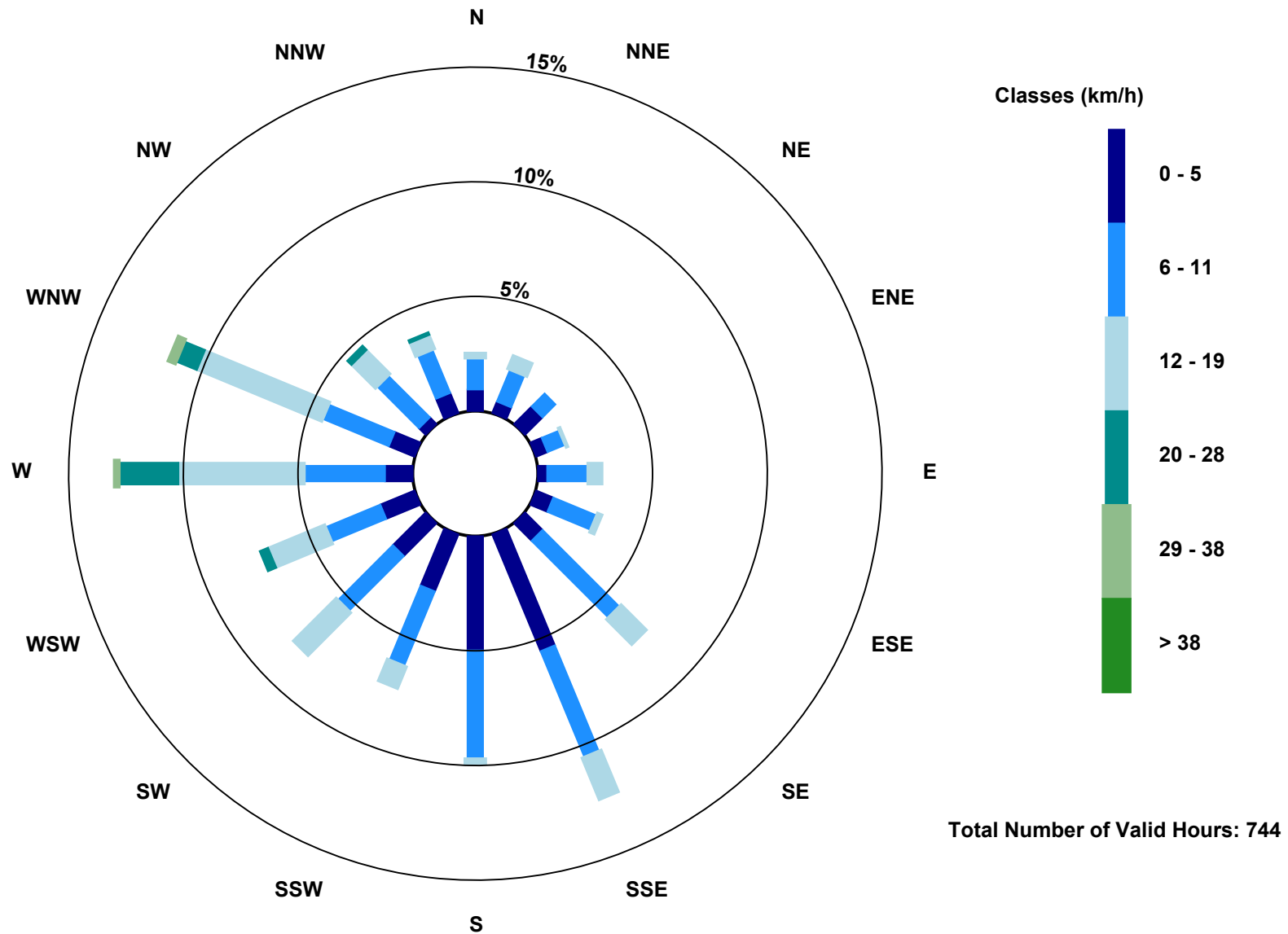
Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Sawbones Bay





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Sawbones Bay - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 12 km/h on Jul 12 17:00 Minimum Value: 0 km/h on Jul 26 23:00 Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 3 Q ₃ = 4 P ₉₀ = 5 P ₉₉ = 7																		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Maximum
1-Jul	1	1	1	1	1	1	1	2	3	3	3	4	5	5	5	4	4	4	3	3	2	2	2	2	5
2-Jul	2	2	1	2	2	2	3	3	4	6	5	6	5	5	5	5	6	6	2	1	1	1	1	1	6
3-Jul	1	1	1	1	1	1	2	4	4	3	4	5	5	2	3	3	3	2	2	2	1	1	1	1	5
4-Jul	1	1	2	1	2	1	1	1	2	3	4	4	9	2	2	3	4	2	4	4	4	5	2	2	9
5-Jul	2	2	1	3	2	4	3	3	3	5	5	5	6	5	6	5	5	6	3	4	3	4	3	4	6
6-Jul	2	3	2	3	3	2	3	2	4	4	4	4	4	3	3	3	3	3	2	1	4	4	1	1	4
7-Jul	2	2	1	1	1	1	1	2	2	2	3	3	3	3	3	4	4	3	3	3	2	2	1	1	4
8-Jul	1	2	2	2	2	3	2	4	5	5	5	5	4	1	2	7	4	3	4	3	4	6	3	2	7
9-Jul	2	2	5	3	3	3	4	3	5	4	5	5	4	4	6	5	6	5	4	4	2	1	1	1	6
10-Jul	1	1	1	1	2	1	2	2	1	1	2	2	3	2	4	4	3	3	3	2	3	1	1	1	4
11-Jul	1	2	1	2	1	1	2	1	1	3	3	1	2	2	3	3	3	8	3	2	2	2	2	5	8
12-Jul	2	3	3	2	2	1	2	2	3	5	3	2	3	3	3	4	12	9	2	2	1	4	4	5	12
13-Jul	4	4	4	5	5	3	3	5	5	6	6	7	8	7	7	7	6	6	6	4	3	5	3	4	8
14-Jul	3	3	2	3	2	2	3	3	4	4	5	5	6	5	5	5	4	4	2	2	1	2	2	2	6
15-Jul	2	1	1	1	1	1	2	2	3	4	4	5	5	4	4	4	4	5	4	5	3	3	2	3	5
16-Jul	3	3	3	2	2	3	3	3	3	3	4	4	6	6	6	5	4	4	5	4	2	2	2	2	6
17-Jul	2	2	2	4	1	2	2	1	1	2	3	3	4	4	4	4	4	3	2	2	1	1	1	1	4
18-Jul	2	1	2	1	2	2	3	4	4	6	7	3	9	3	4	2	5	4	4	3	2	1	2	2	9
19-Jul	3	2	5	4	3	3	1	3	2	4	4	4	5	4	3	3	3	3	3	2	2	2	3	1	5
20-Jul	2	1	3	2	2	2	3	2	3	3	2	3	3	3	3	2	2	3	2	2	1	1	1	1	3
21-Jul	2	2	1	1	2	2	1	2	3	2	3	3	4	3	3	3	3	3	2	2	2	2	2	1	4
22-Jul	1	1	2	1	1	2	2	2	3	2	3	3	3	4	4	3	2	2	1	2	1	1	1	1	4
23-Jul	1	1	1	2	2	1	2	4	5	5	5	5	6	6	6	5	6	6	6	4	2	2	3	3	6
24-Jul	3	4	3	3	2	1	2	1	2	2	3	4	4	4	5	4	3	4	3	7	4	3	2	2	7
25-Jul	6	3	2	2	6	4	4	4	3	3	3	4	4	4	4	4	3	2	2	3	2	2	2	2	6
26-Jul	1	2	2	1	2	1	2	3	2	2	3	3	3	3	3	3	3	3	2	2	1	1	0	1	3
27-Jul	1	1	1	1	1	3	2	2	2	3	4	4	4	4	4	4	4	6	3	2	2	3	6	2	6
28-Jul	3	3	2	1	2	2	1	2	1	2	3	3	4	4	3	4	4	5	3	2	2	5	11	4	11
29-Jul	3	4	4	3	3	4	4	5	5	5	6	6	7	7	6	6	5	6	7	6	4	5	4	4	7
30-Jul	4	4	5	3	4	3	3	2	3	3	4	4	5	4	4	5	4	3	3	2	2	2	2	1	5
31-Jul	2	1	1	1	2	1	1	1	1	2	3	2	2	2	3	3	2	2	2	2	2	3	1	1	3
Diurnal Maximum																									



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

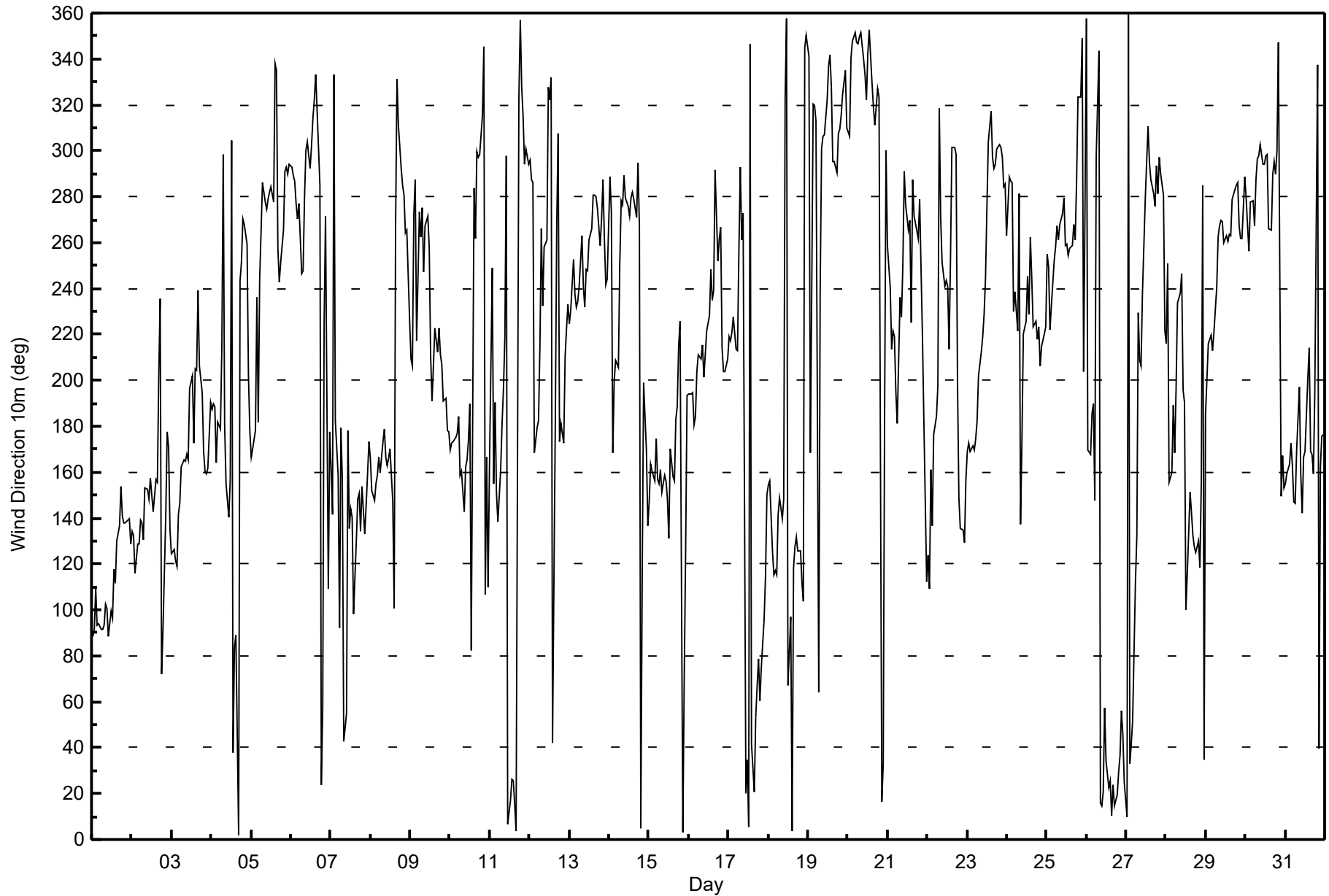
Sawbones Bay - July 2026

Direction of Maximum Speed: 294 deg on Jul 23 18:00																				Hours in Service:		744			
Direction of Maximum Daily Speed Average: 261.4 deg on Jul 29																				Hours of Data:		744			
Direction of Minimum Speed: 82 deg on Jul 10 14:00										Direction of Minimum Daily Speed Average: 1.1 deg on Jul 17										Hours of Missing Data:		0			
Monthly Average Direction: 248.4 deg																				Percent Operational Time:		100.0			
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	88	91	109	93	94	92	91	93	102	101	88	99	96	117	112	130	137	154	141	138	138	138	140	129	113.0
2-Jul	134	133	116	129	129	139	138	131	153	152	148	157	150	143	157	156	202	236	72	92	142	178	171	135	148.2
3-Jul	125	126	122	119	141	147	162	165	165	168	165	197	202	173	205	204	239	206	195	169	161	159	162	190	170.8
4-Jul	187	190	189	164	182	179	213	299	181	155	140	157	304	38	84	89	2	243	252	270	268	259	202	178	208.1
5-Jul	166	170	178	236	182	244	265	286	278	274	279	282	285	278	338	335	258	243	252	266	291	293	290	294	278.2
6-Jul	293	289	287	277	270	277	246	248	280	300	304	292	302	315	322	333	317	285	24	57	225	271	109	178	293.7
7-Jul	161	142	333	182	159	92	179	157	43	55	178	135	144	140	99	131	148	151	134	154	133	146	159	173	139.6
8-Jul	166	152	147	155	159	167	160	173	179	167	163	166	170	147	101	267	331	311	292	285	281	264	266	226	199.5
9-Jul	209	206	272	288	217	273	263	275	247	267	271	258	211	191	206	222	212	223	211	207	191	192	178	177	235.2
10-Jul	170	173	173	175	177	184	159	161	142	162	165	174	189	82	284	262	300	297	299	315	345	107	167	110	209.1
11-Jul	162	249	155	190	151	138	161	181	197	219	298	7	17	26	26	15	4	323	357	328	315	294	301	294	337.7
12-Jul	296	287	286	168	179	183	215	266	232	258	261	328	322	332	42	183	267	308	173	181	173	211	223	233	253.1
13-Jul	225	230	253	237	232	234	241	263	241	232	248	248	261	266	281	281	280	275	259	270	287	262	241	244	257.1
14-Jul	289	273	168	199	209	205	250	278	277	290	279	276	272	279	282	279	271	295	267	5	115	199	169	137	268.1
15-Jul	147	164	161	156	175	157	155	161	151	158	156	148	131	170	158	156	183	189	214	226	3	71	126	193	160.1
16-Jul	194	194	195	180	184	204	211	209	215	201	211	221	228	248	235	239	292	252	262	267	214	204	204	209	224.7
17-Jul	219	217	221	228	214	213	256	293	261	273	20	35	5	347	41	20	53	67	78	60	75	96	115	150	68.8
18-Jul	154	156	125	115	117	115	142	149	139	148	323	358	67	97	4	119	128	132	126	126	112	104	345	350	114.9
19-Jul	341	169	241	320	320	313	64	238	301	306	307	322	337	341	327	296	295	291	308	309	315	324	335	310	312.2
20-Jul	308	306	341	348	352	347	346	350	351	340	333	322	342	352	330	319	311	319	327	323	16	33	187	300	334.8
21-Jul	259	241	213	222	219	195	181	236	228	250	291	276	265	270	225	287	271	269	262	279	249	219	183	112	252.1
22-Jul	124	109	161	136	176	184	198	319	271	251	241	243	241	213	253	301	302	298	200	149	135	135	129	157	206.0
23-Jul	169	173	169	171	170	175	183	202	212	219	229	245	275	304	318	297	292	294	301	303	302	297	284	286	269.9
24-Jul	263	289	287	286	230	238	221	281	137	175	220	226	245	229	262	245	223	226	218	224	206	215	220	223	236.3
25-Jul	255	249	222	233	252	258	267	261	268	273	280	259	260	254	258	259	268	261	287	323	323	349	204	276	261.5
26-Jul	358	170	168	185	190	148	298	344	16	14	21	57	34	23	26	11	24	14	20	29	37	56	46	25	27.6
27-Jul	10	359	33	41	52	112	132	230	209	206	238	279	295	311	295	288	282	276	293	281	297	290	281	222	286.1
28-Jul	216	251	156	160	189	169	196	234	238	246	196	190	100	116	152	142	132	128	125	130	119	156	285	35	156.1
29-Jul	185	216	218	220	213	221	241	262	267	270	269	260	263	261	264	263	279	283	285	286	267	261	262	288	261.4
30-Jul	279	267	256	277	278	267	287	296	298	303	294	294	298	299	266	265	290	296	290	300	347	149	167	153	284.0
31-Jul	155	159	163	173	163	147	146	169	197	159	142	167	169	200	214	169	168	159	195	337	40	162	176	176	170.0
230.1 223.4 220.9 216.9 202.9 210.8 225.3 241.9 238.6 241.1 255.4 251.3 269.6 271.4 273.3 263.6 274.8 270.8 268.9 273.0 264.6 235.2 232.2 234.6																									
Diurnal Average																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Sawbones Bay - July 2026





Wood Buffalo Environmental Association
Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg
Sawbones Bay - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 107 deg on Jul 10 14:00																									Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0
Minimum Value: 7 deg on Jul 1 01:00 Percentiles: P ₁ = 9 P ₁₀ = 13 Q ₁ = 17 Median = 23 Q ₃ = 36 P ₉₀ = 59 P ₉₉ = 93																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	7	8	12	9	8	9	11	14	19	20	19	26	22	26	23	23	25	21	23	21	20	20	19	21	26
2-Jul	19	23	15	16	20	19	20	21	23	22	25	23	24	27	22	22	48	76	31	12	24	15	18	24	76
3-Jul	17	15	15	15	17	25	19	24	27	30	26	35	37	21	29	25	38	45	29	21	18	15	16	15	45
4-Jul	16	15	22	55	37	21	68	88	31	42	35	29	54	47	16	27	60	72	24	15	29	22	60	60	88
5-Jul	62	61	59	41	42	25	16	19	26	24	21	21	21	23	47	52	61	46	23	40	10	10	10	11	62
6-Jul	9	8	11	13	14	15	23	23	22	18	23	20	19	21	23	25	32	70	18	20	53	93	49	101	101
7-Jul	81	99	62	82	48	22	57	60	71	84	92	33	38	31	21	28	29	24	22	19	17	14	18	12	99
8-Jul	13	14	15	15	17	20	17	24	24	25	25	23	27	41	31	17	40	18	11	15	40	33	26	24	41
9-Jul	80	63	33	12	53	25	51	15	26	15	17	24	23	26	26	21	24	22	23	23	21	15	10	11	80
10-Jul	14	11	11	12	15	31	65	49	45	20	29	20	29	107	45	44	38	38	30	13	46	35	9	30	107
11-Jul	55	78	15	79	29	25	24	47	41	30	37	25	19	16	18	17	26	33	18	15	26	10	13	10	79
12-Jul	9	12	12	52	22	27	39	48	32	64	46	49	25	28	100	36	60	29	65	33	20	23	16	20	100
13-Jul	19	20	19	25	24	25	23	17	23	21	22	23	23	21	17	16	16	17	19	17	20	18	19	20	25
14-Jul	20	34	31	30	13	18	23	16	20	14	22	23	25	25	32	57	72	95	84	86	30	58	28	49	95
15-Jul	36	13	11	20	13	19	63	18	33	27	26	29	28	41	38	32	30	29	26	80	50	31	23	24	80
16-Jul	22	21	21	19	24	23	20	22	28	34	34	30	30	30	29	39	37	25	26	16	25	17	16	15	39
17-Jul	18	20	16	73	33	50	33	30	54	56	53	52	57	84	54	41	38	64	26	11	13	11	18	14	84
18-Jul	15	13	15	11	13	16	20	22	26	30	65	23	19	24	74	26	20	22	22	20	17	12	53	17	74
19-Jul	36	93	53	53	21	50	73	41	14	18	15	16	18	17	21	12	11	10	15	13	12	14	13	11	93
20-Jul	13	15	16	14	15	16	17	17	18	19	20	16	24	32	32	24	15	15	19	13	15	32	67	21	67
21-Jul	44	39	53	20	43	74	53	46	25	31	22	61	52	45	29	30	44	38	27	29	32	39	67	48	74
22-Jul	49	63	39	28	39	34	46	58	59	42	50	71	41	34	60	69	69	81	37	17	14	12	10	14	81
23-Jul	10	12	12	14	15	15	21	22	21	21	22	28	25	13	16	13	14	13	13	14	10	9	11	13	28
24-Jul	30	38	13	31	40	29	33	75	45	102	39	51	31	36	28	44	31	26	22	26	21	21	19	17	102
25-Jul	18	20	20	20	22	13	14	16	16	17	19	22	22	27	26	25	22	31	20	85	70	43	79	68	85
26-Jul	73	13	35	20	25	52	79	28	17	19	25	24	24	59	29	29	17	16	15	15	15	11	18	16	79
27-Jul	11	10	11	12	21	28	35	30	32	35	31	38	31	25	28	19	15	17	16	16	10	9	45	63	63
28-Jul	71	26	66	56	57	39	28	43	95	61	44	66	53	32	33	28	26	25	19	19	16	29	55	78	95
29-Jul	31	19	18	19	19	20	22	17	15	15	17	18	19	24	19	17	17	14	13	13	13	12	12	17	31
30-Jul	13	19	20	15	15	23	18	14	13	13	16	22	18	20	22	31	27	24	15	17	37	48	73	80	80
31-Jul	18	13	18	9	29	23	34	23	25	24	32	21	43	50	67	69	43	23	34	40	79	48	12	12	79
81 99 66 82 57 74 79 88 95 102 92 71 57 107 100 69 72 95 84 86 79 93 79 101																									
Diurnal Maximum																									



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

**AMS506
JACKFISH 1
JULY 2026**

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - JACKFISH 1 (AMS506)

JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	708	35	36	99.87	12.4	0	2.4	0
H2S (ppb) Average	697	37	47	98.66	15.9	1	1.4	0
NO2 (ppb) Average	681	40	63	96.91	16.3	0	4.1	-
NO (ppb) Average	681	40	63	96.91	6.6	-	1.4	-
NOX (ppb) Average	681	40	63	96.91	20.7	-	5.4	-
Temperature 2 m (C) Average	744	0	0	100	31	-	24.3	-
Relative Humidity (%) Average	744	0	0	100	100	-	88.8	-
Wind Speed 10 m (km/h) Average	739	0	5	99.33	12	-	7	-
Wind Direction 10 m (deg) Average	739	0	5	99.33	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - JACKFISH 1 (AMS506)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	708	0.43	1	-	0	0	0	0.1	0.4	1.1	12.4
H2S (ppb) Average	697	0.42	0.9	-	0	0	0.1	0.2	0.4	0.8	15.9
NO2 (ppb) Average	681	1.4	1.5	-	0.1	0.4	0.6	1	1.6	2.6	16.3
NO (ppb) Average	681	0.43	0.8	-	0	0	0	0.1	0.4	1.1	6.6
NOX (ppb) Average	681	1.82	2.2	-	0.1	0.5	0.7	1.1	2	3.6	20.7
Temperature 2 m (C) Average	744	17.99	4.9	-	7.1	11.9	14.3	17.6	21.5	24.6	31
Relative Humidity (%) Average	744	72.65	20.1	-	26.1	45.4	55.7	74.7	90.9	98.8	100
Wind Speed 10 m (km/h) Average	739	4	3	-	0	1	2	4	5	8	12
Wind Direction 10 m (deg) Average	739	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - JACKFISH 1 (AMS506)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
SO2, H2S	30 Jul 2026 13:00	30 Jul 2026 13:00	1	Maintenance - sample manifold cleaned
H2S	25 Jul 2026 08:00	25 Jul 2026 09:00	2	Maintenance - verify daily QA response
H2S	28 Jul 2026 11:00	28 Jul 2026 12:00	2	Maintenance - verify daily QA response
H2S	29 Jul 2026 11:00	29 Jul 2026 15:00	5	Maintenance - multi-point verification check
NO2	30 Jul 2026 17:00	31 Jul 2026 09:00	17	Unstable Operation - inconsistent response
NO2	31 Jul 2026 10:00	31 Jul 2026 15:00	6	Maintenance - analyzer replaced
Wind Speed, Wind Direction	01 Jul 2026 01:00	01 Jul 2026 01:00	1	Flat line in sensor output signal
Wind Speed, Wind Direction	03 Jul 2026 21:00	03 Jul 2026 22:00	2	Flat line in sensor output signal
Wind Speed, Wind Direction	10 Jul 2026 21:00	10 Jul 2026 21:00	1	Flat line in sensor output signal
Wind Speed, Wind Direction	11 Jul 2026 10:00	11 Jul 2026 10:00	1	Flat line in sensor output signal



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

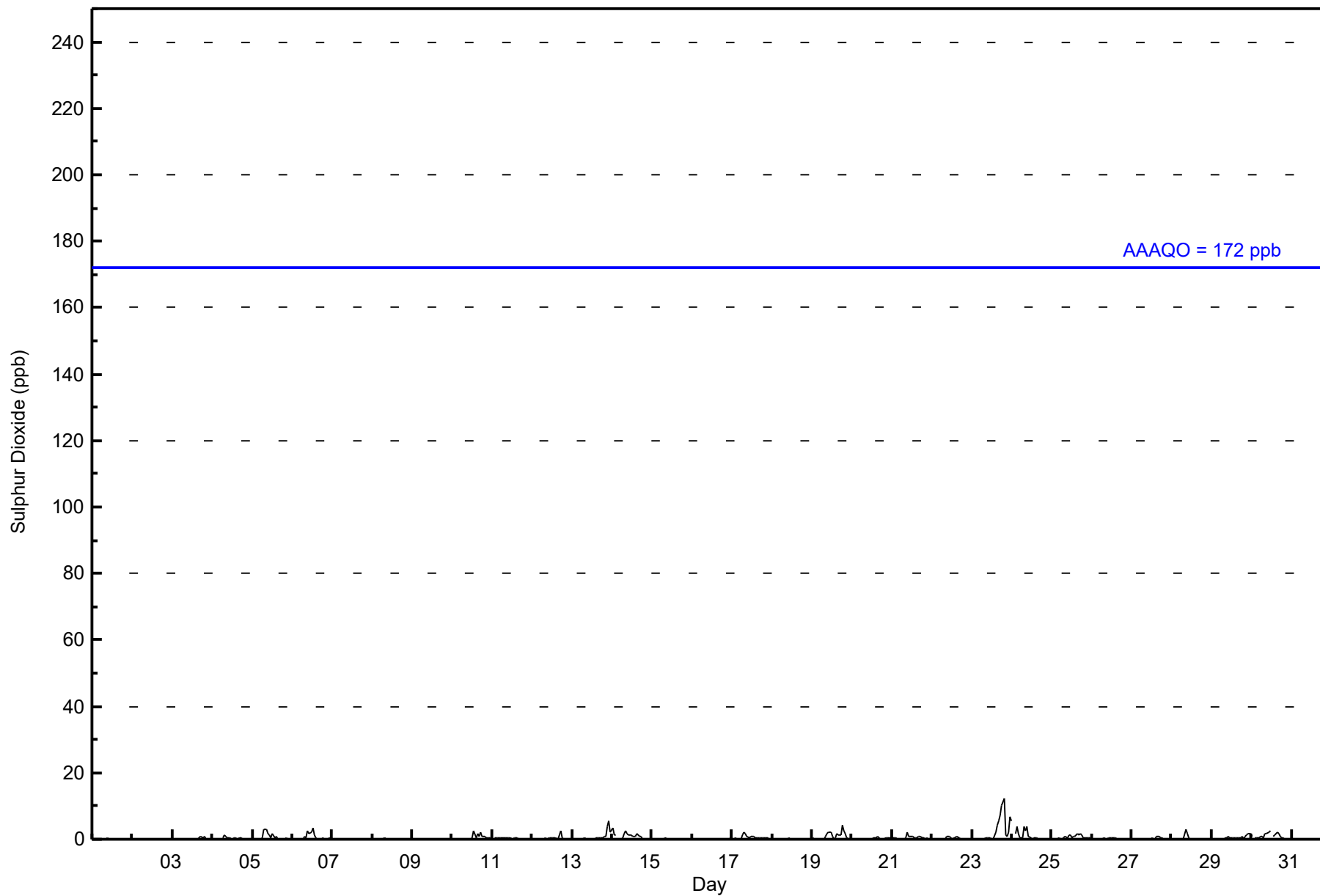
Jackfish 1 - July 2026

Number of Exceedances (AAAQO): Maximum Value: 12.4 ppb on Jul 23 20:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 2.4 ppb on Jul 23						Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 35 Percent Operational Time: 99.9			
Minimum Value: 0.0 ppb on Jul 3 02:00 Maximum Diurnal Average: 0.7 ppb at hour 10 Monthly Average: 0.43 ppb																			Minimum Daily Average: 0.0 ppb on Jul 9 Minimum Diurnal Average: 0.1 ppb at hour 2 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.4 P ₉₀ = 1.1 P ₉₉ = 4.4									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jul	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2	
2-Jul	0.0	0.0	0.1	Z	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.2	
3-Jul	0.1	0.0	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.3	0.7	0.4	0.7	0.2	0.1	0.0	0.0	0.2	0.7		
4-Jul	0.0	0.1	0.1	0.0	0.0	Z	0.6	1.2	0.9	0.3	0.2	0.2	0.0	0.4	0.6	0.2	0.3	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.3	1.2		
5-Jul	Z	0.1	0.0	0.0	0.1	0.0	0.3	2.9	2.9	1.8	1.1	0.3	1.6	0.6	0.6	0.1	0.1	0.0	0.1	0.1	0.5	0.2	0.1	0.0	0.6	2.9		
6-Jul	0.1	Z	0.0	0.1	0.1	0.2	0.2	0.7	0.6	2.5	1.8	2.2	3.4	1.4	0.3	0.0	0.1	0.1	0.4	0.1	0.0	0.0	0.4	0.4	0.7	3.4		
7-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1		
8-Jul	0.1	0.1	0.2	Z	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2		
9-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
10-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.4	2.5	0.5	1.8	0.9	2.0	0.7	0.8	0.3	0.4	0.4	0.4	0.5	2.5		
11-Jul	Z	0.4	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.4	0.4	0.4	0.2	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.4		
12-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.1	0.5	0.4	0.3	0.3	0.5	0.1	1.2	2.3	0.3	0.2	0.0	0.0	0.0	0.0	0.3	2.3		
13-Jul	0.0	0.0	Z	0.0	0.1	0.0	0.2	0.5	0.1	0.1	0.2	0.1	0.1	0.1	0.4	0.5	0.6	0.6	0.5	0.7	0.9	3.9	5.4	2.1	0.7	5.4		
14-Jul	3.4	1.3	1.2	Z	0.1	0.1	0.4	1.6	2.5	1.6	1.1	1.2	0.8	0.9	0.8	1.7	0.9	0.8	0.1	0.1	0.0	0.0	0.0	0.0	0.9	3.4		
15-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3		
16-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2		
17-Jul	Z	0.2	0.2	0.2	0.1	0.2	1.1	2.3	1.9	0.9	0.6	0.8	0.8	0.8	0.5	0.3	0.5	0.6	0.4	0.4	0.4	0.3	0.2	0.0	0.6	2.3		
18-Jul	0.1	Z	0.1	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4		
19-Jul	0.3	0.1	Z	0.1	0.1	0.0	0.0	0.1	0.9	1.6	2.3	1.9	0.8	0.1	0.2	1.7	1.3	1.1	4.2	2.7	1.8	0.5	0.1	0.0	1.0	4.2		
20-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.4	0.8	0.3	0.2	0.2	0.2	0.4	0.4	0.3	0.3	0.2	0.8		
21-Jul	0.5	0.2	0.3	0.2	Z	0.1	0.1	0.2	0.3	1.9	0.8	0.8	1.0	0.5	0.5	0.6	0.8	0.7	0.4	0.3	0.1	0.2	0.1	0.1	0.5	1.9		
22-Jul	0.1	0.1	0.0	0.0	0.1	Z	0.1	0.0	0.2	0.9	0.9	0.5	0.2	0.6	0.5	1.0	0.5	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.3	1.0		
23-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.5	0.5	0.4	0.2	0.2	2.0	4.4	5.5	7.2	10.3	12.4	1.5	0.7	1.9	6.9	2.4	12.4		
24-Jul	5.3	Z	1.8	3.8	1.6	0.6	0.6	3.8	2.7	4.0	0.7	0.3	0.2	0.2	0.5	0.3	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	1.2	5.3		
25-Jul	0.0	0.1	Z	0.1	0.3	0.1	0.0	0.3	0.6	0.6	1.4	1.1	0.5	0.9	0.9	1.9	1.2	1.7	1.2	0.6	0.4	0.3	0.3	0.3	0.6	1.9		
26-Jul	0.2	0.1	0.1	Z	0.2	0.2	0.1	0.3	0.1	0.1	0.3	0.4	0.4	0.3	0.3	0.2	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.4		
27-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.1	0.7	0.7	0.4	0.3	0.1	0.1	0.0	0.1	0.0	0.1	0.7		
28-Jul	0.0	0.0	0.0	0.0	0.0	0.0	Z	0.0	2.8	1.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.8		
29-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.4	0.7	0.3	0.2	0.3	0.2	0.3	0.4	0.6	0.7	0.1	0.7	1.3	1.7	1.5	0.4	1.7		
30-Jul	1.0	Z	0.5	0.3	0.5	1.0	1.0	0.5	1.6	1.7	2.1	2.5	M	0.9	1.4	2.3	1.8	0.7	0.2	0.2	0.1	0.1	0.1	0.1	0.9	2.5		
31-Jul	0.1	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1		
Diurnal Average																												
Diurnal Maximum																												
Z - zerospan C - Calibration M - Maintenance																												
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																												



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Jackfish 1 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Jackfish 1 - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	707	99.86	99.86
11 - 20	1	0.14	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Jackfish 1 - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	25	10	2	1	6	13	49	65	92	75	133	44	50	41	53	43	702
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	25	10	2	1	6	13	49	65	92	75	133	44	50	42	53	43	703

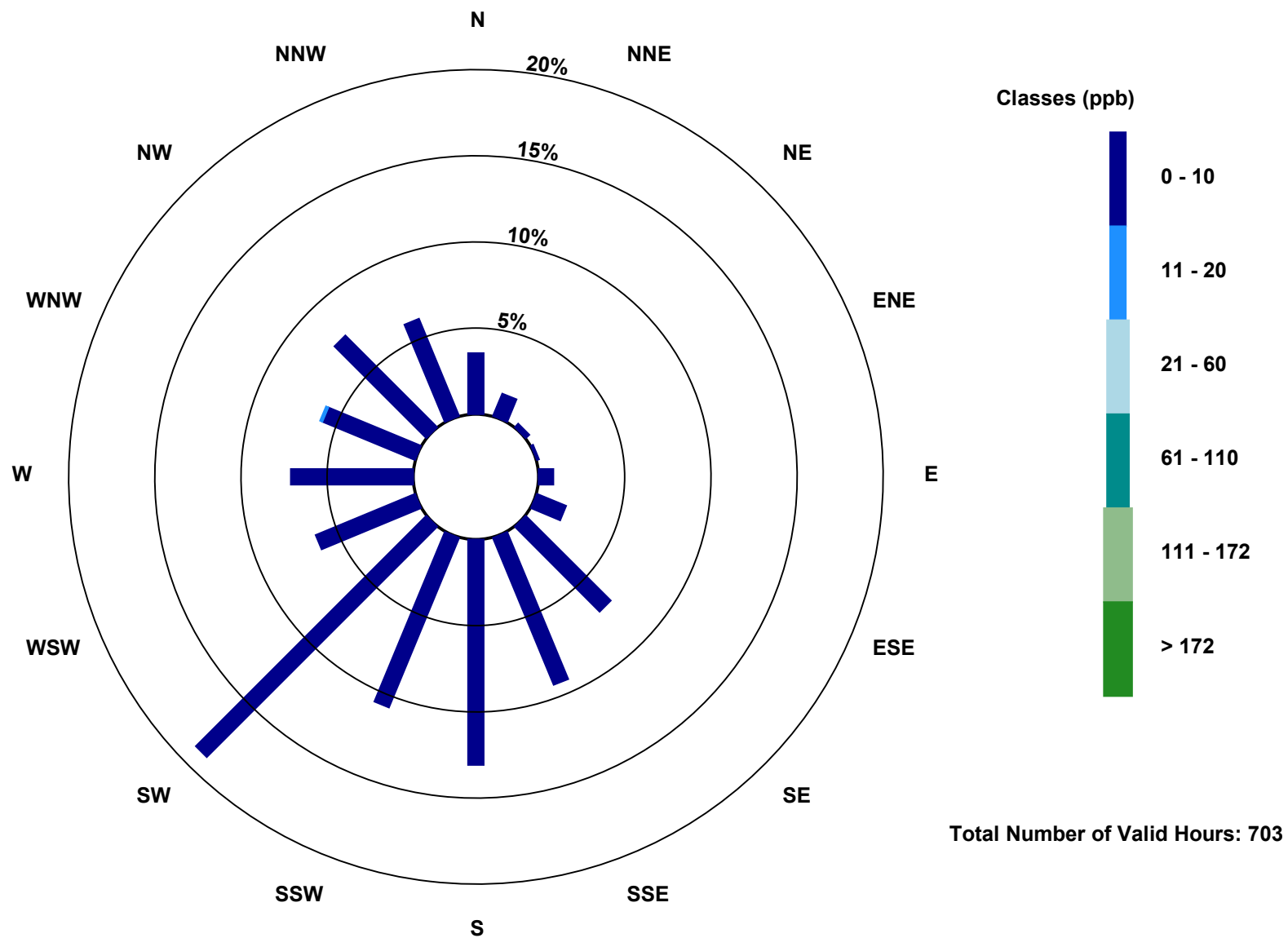
Total Number of Valid Hours: 703

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

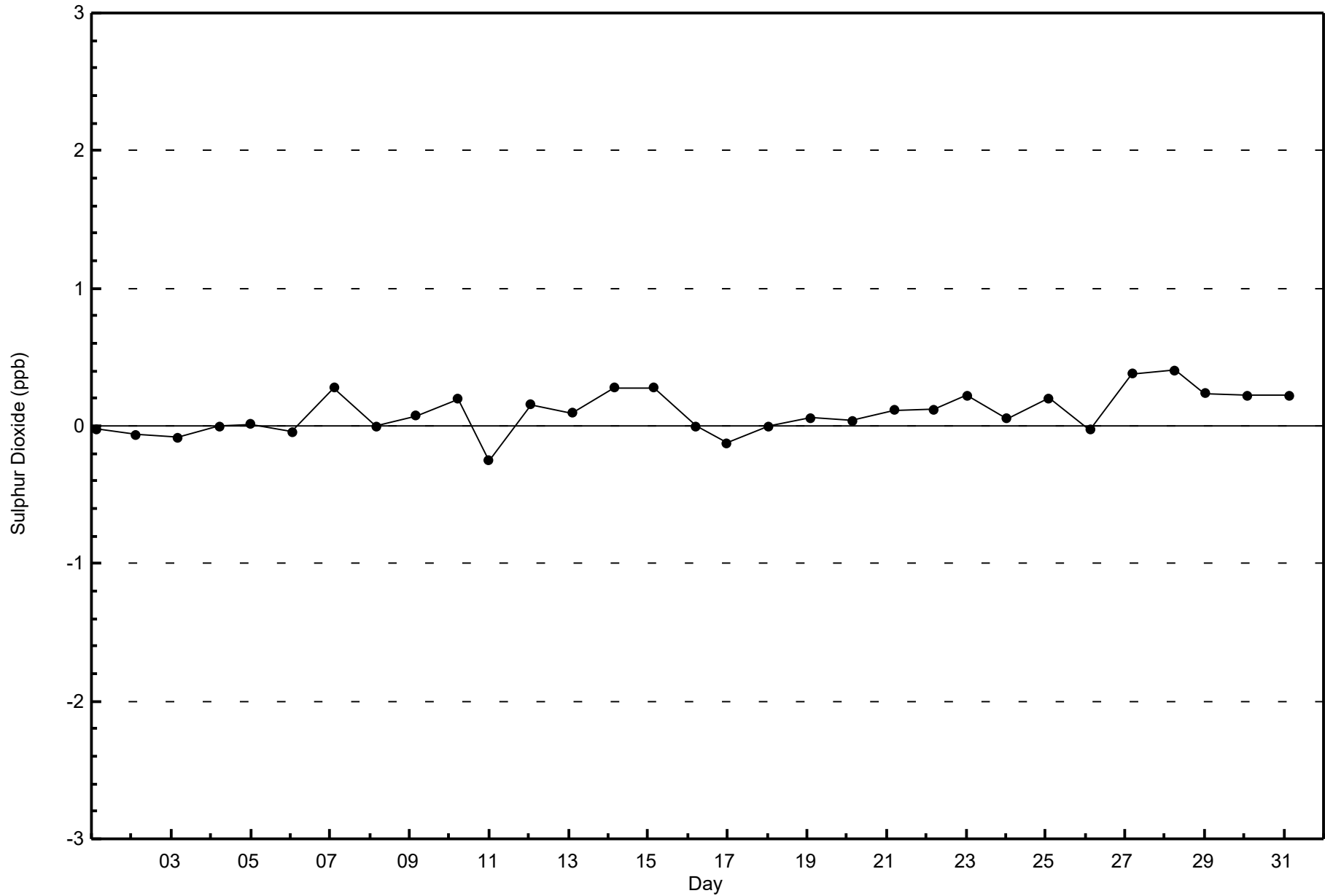
Sulphur Dioxide (SO₂) - ppb
Jackfish 1





Wood Buffalo Environmental Association
Zero Responses

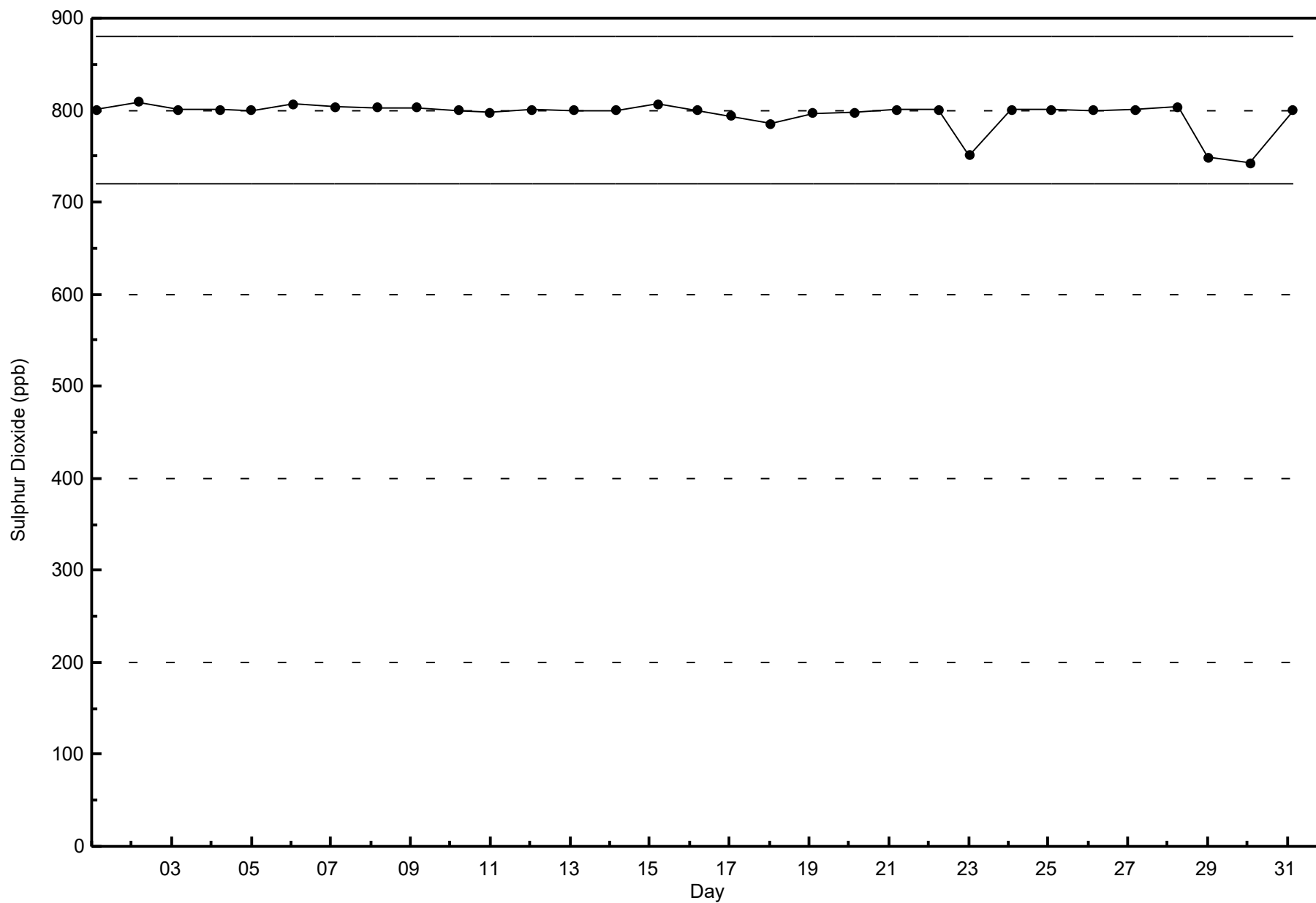
Sulphur Dioxide (SO₂) - ppb
Jackfish 1 - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Jackfish 1 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H2S) - ppb

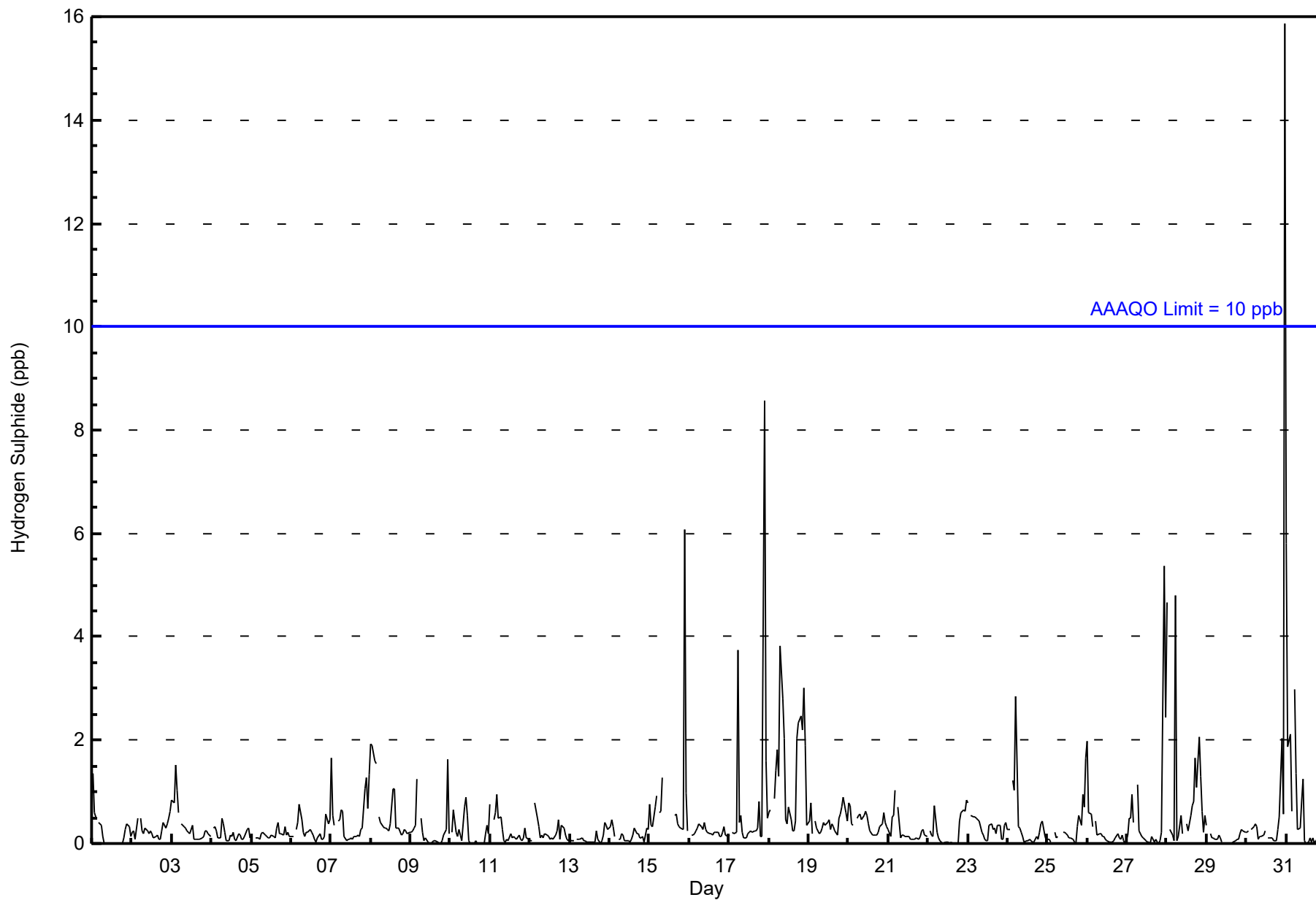
Jackfish 1 - July 2026

Number of Exceedances (AAAQO): Maximum Value: 15.9 ppb on Jul 31 00:00																				1-hr: 1 Maximum Daily Average: 1.4 ppb on Jul 18					24-hr: 0 Minimum Daily Average: 0.1 ppb on Jul 13 Minimum Diurnal Average: 0.2 ppb at hour 12 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 0.8 P ₉₉ = 3.9					Hours in Service: 744 Hours of Data: 697 Hours of Missing Data: 47 Hours of Calibration: 37 Percent Operational Time: 98.7	
Minimum Value: 0.0 ppb on Jul 1 08:00 Maximum Diurnal Average: 1.0 ppb at hour 22 Monthly Average: 0.42 ppb																															
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jul	1.4	0.6	0.5	Z	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.3	0.1	0.2	1.4					
2-Jul	0.2	0.2	0.1	0.5	Z	0.5	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.3	0.4	0.3	0.4	0.5	0.6	0.3	0.6					
3-Jul	0.8	0.8	1.5	1.0	0.6	Z	0.4	0.3	0.3	0.2	0.2	0.2	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.4	1.5					
4-Jul	Z	0.3	0.3	0.3	0.1	0.1	0.5	0.4	0.2	0.0	0.1	0.2	0.1	0.2	0.1	0.0	0.2	0.2	0.1	0.1	0.1	0.3	0.3	0.1	0.2	0.5					
5-Jul	0.2	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.4	0.2	0.2	0.1	0.3	0.2	0.2	0.1	0.2	0.4					
6-Jul	0.1	0.1	Z	0.3	0.4	0.8	0.5	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.6	0.4	0.4	0.2	0.8					
7-Jul	1.6	0.5	0.3	Z	0.4	0.5	0.6	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.3	0.3	1.1	1.3	0.7	1.3	0.5	1.6					
8-Jul	1.9	1.9	1.6	1.5	Z	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.4	1.1	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.6	1.9					
9-Jul	0.2	0.2	0.3	0.3	1.3	Z	0.5	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.3	1.6	0.2	0.2	1.6					
10-Jul	Z	0.2	0.6	0.2	0.1	0.3	0.2	0.0	0.7	0.9	0.5	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.2	0.2	0.9					
11-Jul	0.8	Z	0.5	0.6	1.0	0.5	0.5	0.3	0.1	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.3	0.1	0.1	0.3	1.0					
12-Jul	0.1	0.1	Z	0.8	0.5	0.3	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.5	0.1	0.3	0.3	0.2	0.1	0.1	0.2	0.8					
13-Jul	0.1	0.1	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.1	0.1	0.4	0.3	0.3	0.1	0.4					
14-Jul	0.3	0.5	0.3	0.1	Z	0.1	0.1	0.2	0.2	0.1	0.0	0.1	0.0	0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.3	0.3	0.2	0.5					
15-Jul	0.8	0.4	0.3	0.7	0.9	Z	0.6	0.6	1.3	C	C	C	C	C	C	0.5	0.6	0.4	0.3	0.3	0.3	6.1	1.0	0.2	--	6.1					
16-Jul	Z	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.2	0.1	0.2	0.4					
17-Jul	0.2	Z	0.2	0.2	0.2	3.7	0.4	0.5	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.8	0.1	0.1	8.6	1.6	0.5	0.8	8.6					
18-Jul	0.6	0.6	Z	0.9	1.4	1.8	1.3	3.8	2.8	2.0	0.5	0.4	0.7	0.5	0.2	0.3	0.4	2.0	2.3	2.5	2.2	3.0	1.9	0.3	1.4	3.8					
19-Jul	0.4	0.8	0.2	Z	0.4	0.3	0.2	0.2	0.3	0.4	0.3	0.4	0.5	0.3	0.4	0.3	0.2	0.2	0.5	0.6	0.7	0.9	0.6	0.4	0.4	0.9					
20-Jul	0.8	0.7	0.4	0.3	Z	0.5	0.5	0.6	0.5	0.5	0.6	0.5	0.4	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.4	0.6	0.4	0.3	0.4	0.8					
21-Jul	0.3	0.1	0.5	0.5	1.0	Z	0.7	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.2	1.0					
22-Jul	Z	0.3	0.2	0.1	0.7	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.6	0.6	0.8	0.2	0.8					
23-Jul	0.8	Z	0.6	0.5	0.5	0.5	0.5	0.4	0.2	0.2	0.1	0.1	0.1	0.3	0.4	0.3	0.3	0.2	0.3	0.4	0.1	0.1	0.3	0.4	0.3	0.8					
24-Jul	0.3	0.3	Z	1.2	1.0	2.8	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.4	0.4	0.1	0.1	0.4	2.8					
25-Jul	0.1	0.1	0.0	Z	0.2	0.1	0.1	M	M	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.3	0.5	0.4	1.0	0.7	1.7	0.3	1.7					
26-Jul	2.0	0.6	0.6	0.3	Z	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2	2.0					
27-Jul	0.2	0.5	0.5	0.9	0.4	Z	1.1	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.2	5.4	2.4	0.6	5.4					
28-Jul	4.7	Z	0.3	0.1	0.1	4.8	0.1	0.1	0.5	0.2	M	M	0.4	0.2	0.5	0.7	0.8	1.6	1.1	2.1	1.3	0.6	0.2	0.6	1.0	4.8					
29-Jul	0.4	Z	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.0	M	M	M	M	M	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.4					
30-Jul	0.2	0.3	Z	0.3	0.3	0.4	0.3	0.1	0.1	0.1	0.2	0.3	M	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.5	2.0	0.6	15.9	1.0	15.9					
31-Jul	5.8	1.9	2.1	0.6	Z	3.0	1.3	0.3	0.3	0.8	1.3	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.2	0.4	0.3	0.3	0.8	5.8					
0.9 0.5 0.5 0.5 0.5 0.9 0.4 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.3 0.4 1.0 0.6 0.9																								Diurnal Average							
5.8 1.9 2.1 1.5 1.4 4.8 1.3 3.8 2.8 2.0 1.3 0.5 0.7 1.1 1.0 0.7 0.8 2.0 2.3 2.5 2.2 8.6 5.4 15.9																								Diurnal Maximum							
Z - zerospan C - Calibration M - Maintenance																															
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																															



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Jackfish 1 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Jackfish 1 - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	684	98.13	98.13
3 - 4	6	0.86	99.00
5 - 7	5	0.72	99.71
8 - 11	1	0.14	99.86
> 11	1	0.14	100.00

Total Number of Valid Hours: 697

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Jackfish 1 - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	25	10	2	1	5	13	44	58	84	73	136	42	48	41	54	43	679
3 - 4	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	6
5 - 7	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	5
8 - 11	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
> 11	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Totals	25	10	2	1	5	13	46	61	87	77	137	42	48	41	54	43	692

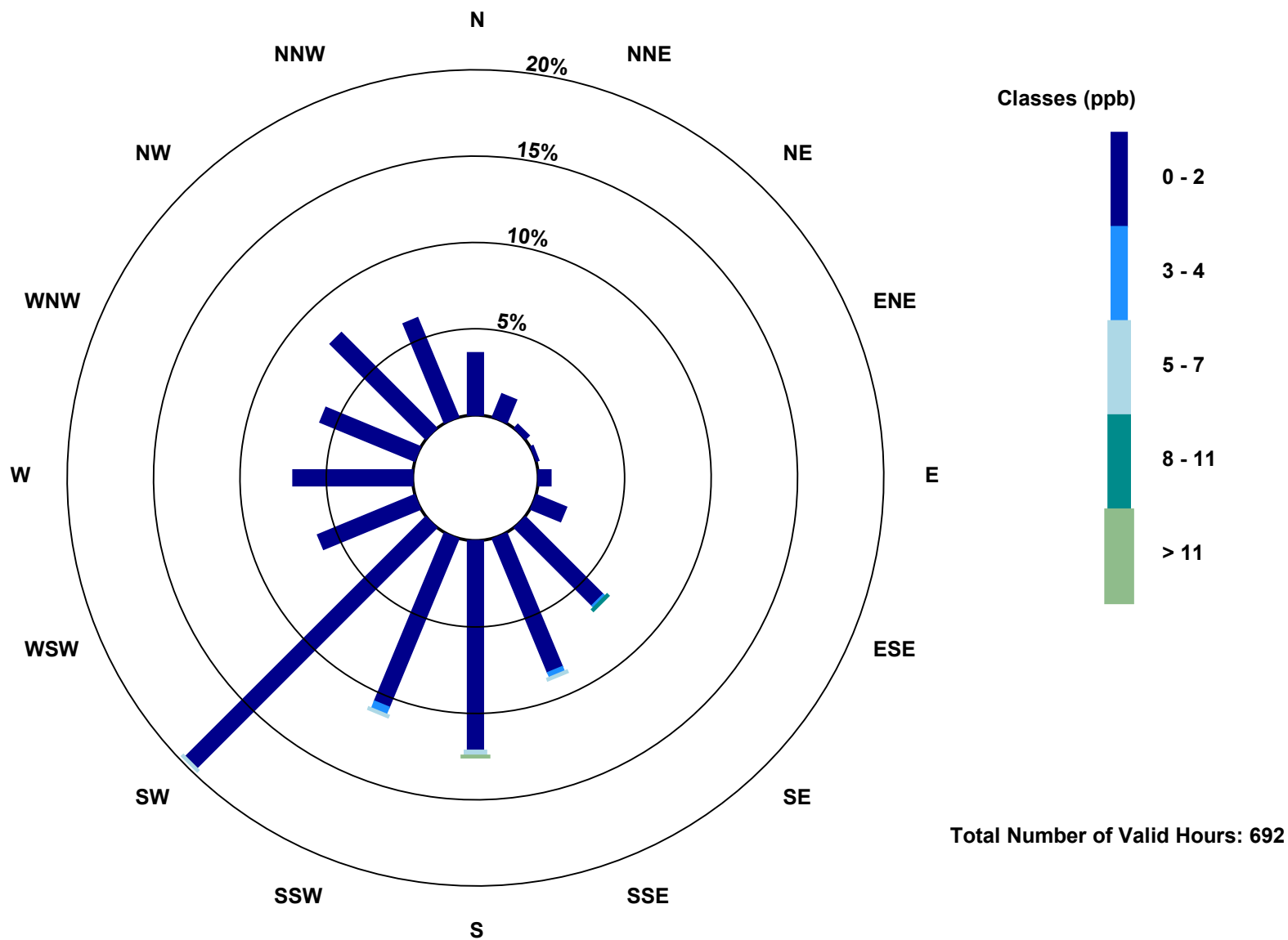
Total Number of Valid Hours: 692

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

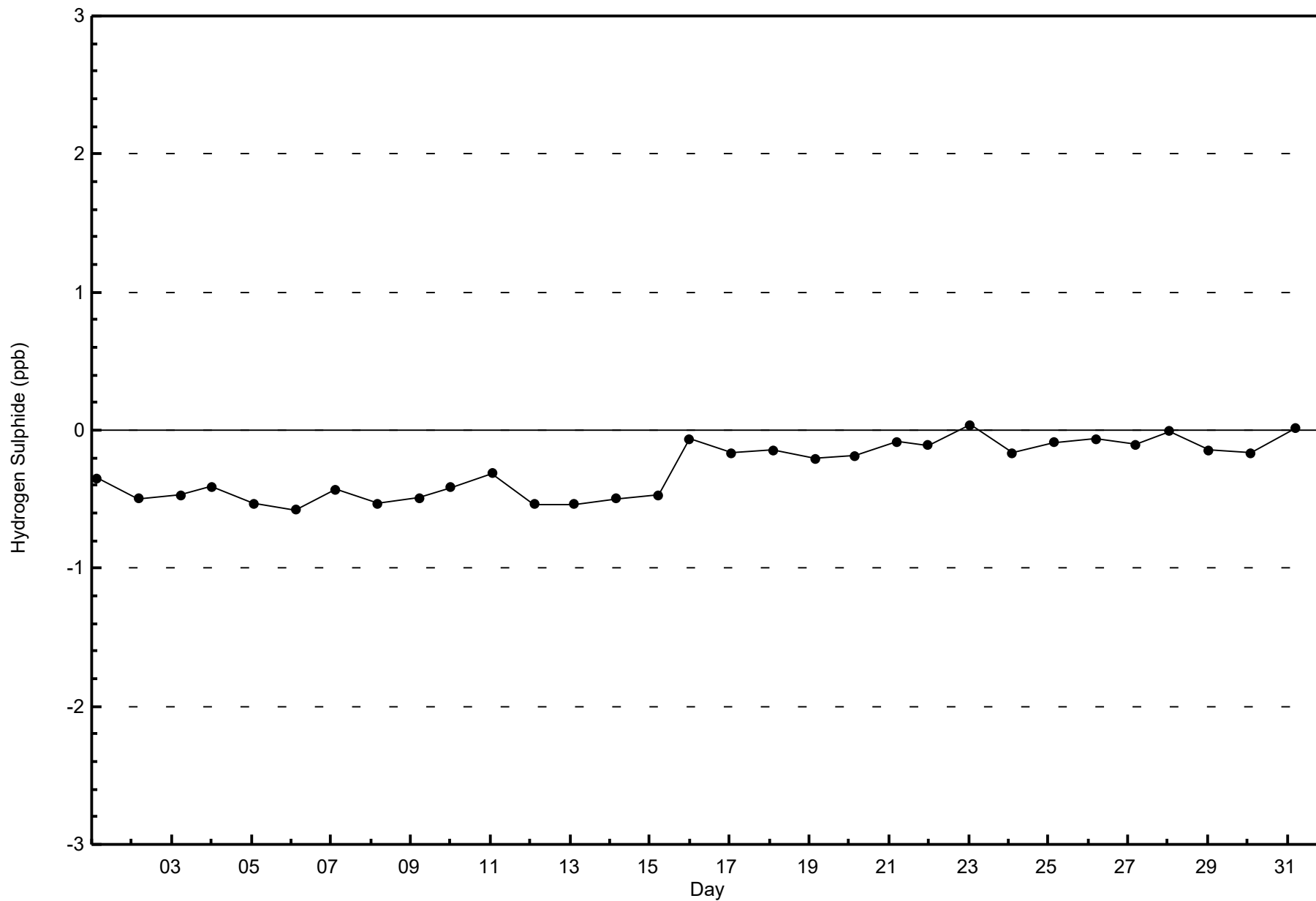
Hydrogen Sulphide (H₂S) - ppb
Jackfish 1





Wood Buffalo Environmental Association
Zero Responses

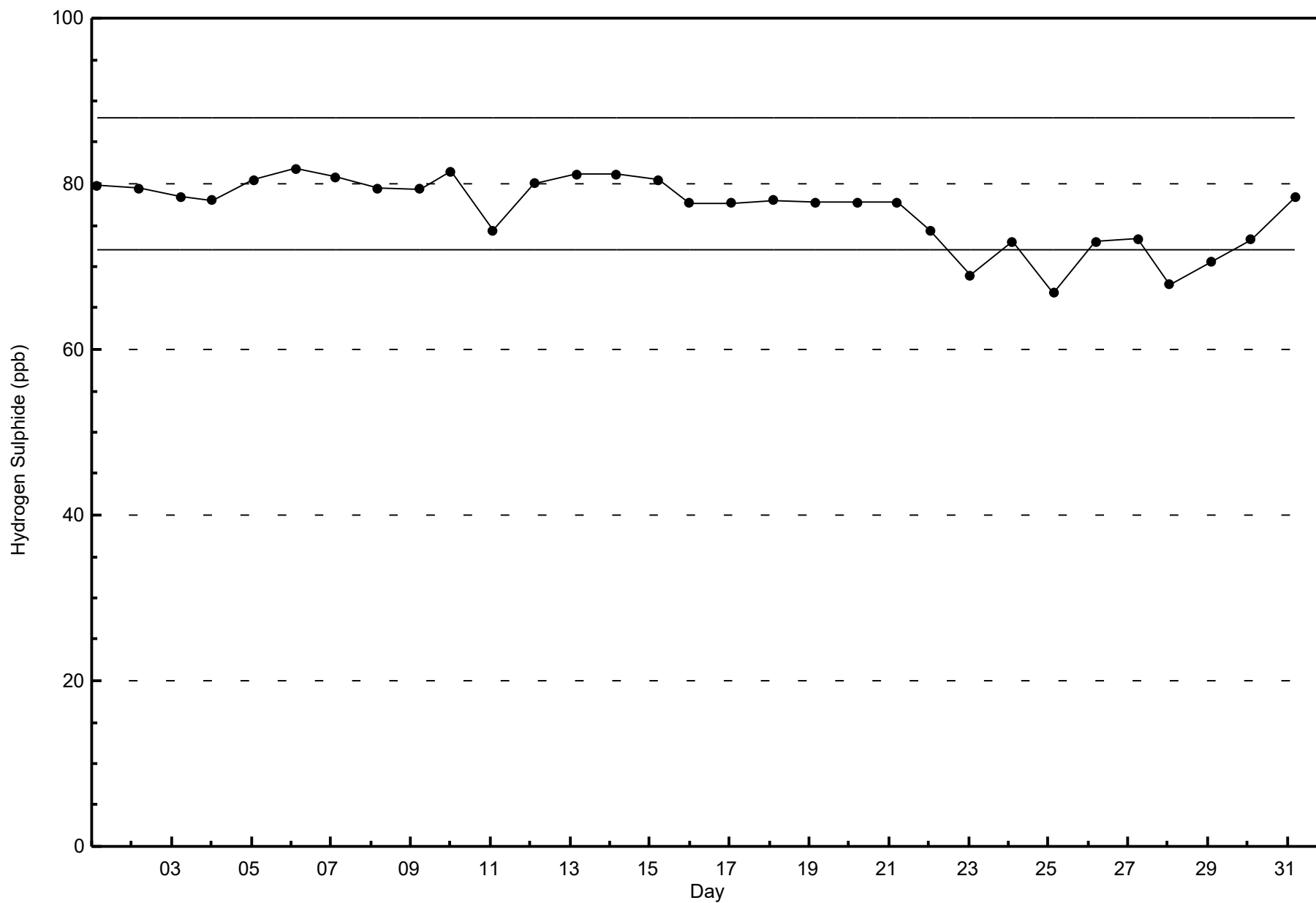
Hydrogen Sulphide (H₂S) - ppb
Jackfish 1 - July 2026





Wood Buffalo Environmental Association
Span Responses

Hydrogen Sulphide (H₂S) - ppb
Jackfish 1 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

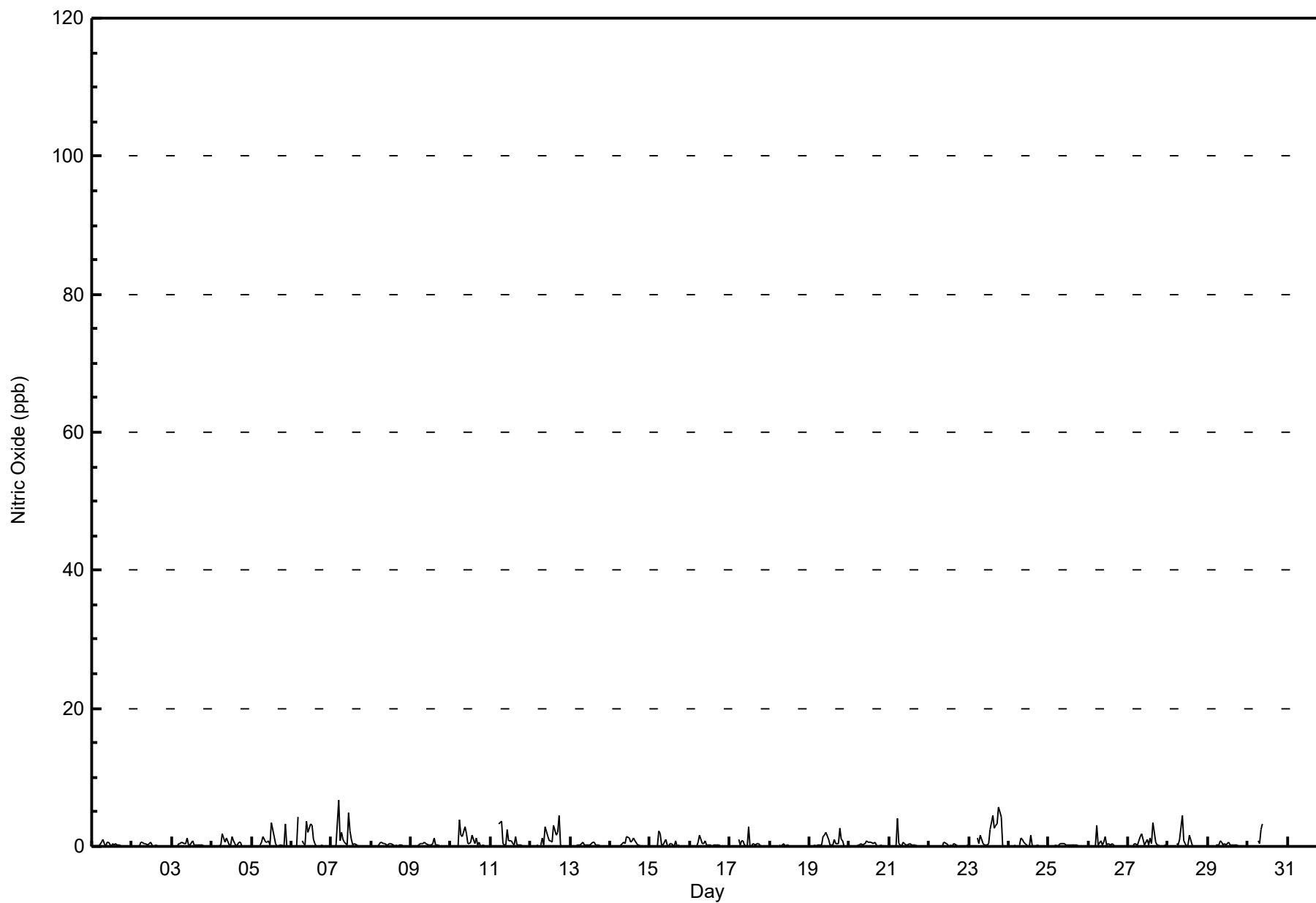
Jackfish 1 - July 2026

Maximum Value: 6.6 ppb on Jul 7 05:00																			Maximum Daily Average: 1.4 ppb on Jul 23										Hours in Service: 744	
Minimum Value: 0.0 ppb on Jul 2 20:00																			Minimum Daily Average: 0.1 ppb on Jul 18										Hours of Data: 681	
Maximum Diurnal Average: 1.0 ppb at hour 6																			Minimum Diurnal Average: 0.0 ppb at hour 22										Hours of Missing Data: 63	
Monthly Average: 0.43 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.4 P ₉₀ = 1.1 P ₉₉ = 4.3										Hours of Calibration: 40	
																													Percent Operational Time: 96.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Jul	Z	0.0	0.1	0.0	0.1	0.7	1.0	0.3	0.1	0.5	0.6	0.0	0.4	0.3	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0				
2-Jul	0.0	Z	0.0	0.0	0.1	0.6	0.6	0.5	0.5	0.2	0.3	0.7	0.1	0.1	0.2	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.7				
3-Jul	0.1	0.0	Z	0.1	0.4	0.3	0.6	0.5	0.4	1.2	0.3	0.2	0.8	0.3	0.2	0.1	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.3	1.2				
4-Jul	0.1	0.1	0.1	Z	0.1	0.1	1.9	1.1	0.5	1.2	0.1	0.2	1.5	0.8	0.4	0.1	0.5	0.6	0.1	0.1	0.1	0.0	0.0	0.0	0.4	1.9				
5-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.6	1.4	0.5	0.5	0.9	0.2	3.4	1.5	0.4	0.1	0.1	0.1	0.2	0.1	3.2	0.0	0.0	0.0	0.6	3.4				
6-Jul	0.0	0.0	0.0	0.0	4.3	Z	0.7	0.5	0.2	3.6	2.0	3.3	3.0	1.0	0.4	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.8	4.3				
7-Jul	Z	0.0	0.0	0.0	6.6	0.7	2.1	1.1	0.6	0.1	4.8	2.3	1.1	0.2	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	6.6				
8-Jul	0.0	Z	0.0	0.0	0.1	0.4	0.6	0.4	0.4	0.2	0.2	0.4	0.4	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.6				
9-Jul	0.0	0.0	Z	0.0	0.1	0.4	0.3	0.3	0.6	0.5	0.2	0.3	0.1	0.4	1.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.2	1.1				
10-Jul	0.1	0.1	0.1	Z	0.1	3.9	1.7	1.4	2.9	1.8	0.4	0.4	0.5	1.6	0.5	1.3	0.2	0.5	0.1	0.1	0.0	0.0	0.1	0.0	0.8	3.9				
11-Jul	0.1	0.1	0.1	0.1	Z	3.3	3.7	0.5	0.3	0.2	2.4	0.9	0.8	0.4	0.2	1.4	0.1	0.3	0.2	0.1	0.0	0.1	0.1	0.1	0.7	3.7				
12-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.3	1.2	0.3	2.8	1.4	0.9	0.7	0.7	3.1	1.6	2.1	4.6	0.1	0.1	0.1	0.0	0.0	0.0	0.9	4.6				
13-Jul	Z	0.0	0.1	0.0	0.2	0.3	0.3	0.6	0.3	0.1	0.2	0.1	0.1	0.6	0.6	0.3	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.6				
14-Jul	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.5	0.7	0.5	1.3	1.3	0.6	0.7	1.2	0.9	0.3	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.4	1.3				
15-Jul	0.1	0.1	Z	0.1	0.1	2.2	1.8	0.2	0.2	1.0	0.2	0.0	0.5	0.3	0.1	0.8	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.4	2.2				
16-Jul	0.0	0.0	0.0	Z	0.1	0.5	1.6	0.4	0.4	0.7	0.2	0.2	0.2	0.0	0.1	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.6				
17-Jul	0.0	0.0	0.0	0.0	Z	1.1	0.2	0.9	0.9	0.2	0.1	2.9	0.1	0.1	0.3	0.2	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.3	2.9				
18-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.2	0.0	0.3	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3				
19-Jul	Z	0.1	0.0	0.2	0.1	0.2	0.1	0.2	1.5	1.7	2.0	1.1	0.1	0.2	0.2	0.9	0.5	0.5	2.6	1.0	0.7	0.0	0.0	0.0	0.6	2.6				
20-Jul	0.2	Z	0.0	0.0	0.1	0.2	0.2	0.4	0.2	0.5	0.8	0.5	0.5	0.5	0.4	0.6	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.3	0.8				
21-Jul	0.1	0.1	Z	0.0	0.1	4.0	0.3	0.1	0.6	0.4	0.3	0.2	0.4	0.2	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.3	4.0				
22-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.1	0.5	0.5	0.3	0.1	0.2	0.1	0.4	0.3	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.5				
23-Jul	0.1	0.0	0.1	0.1	Z	1.2	0.5	1.7	0.5	0.3	0.2	0.1	0.4	2.5	4.4	2.7	3.1	3.3	5.7	4.4	0.0	0.0	0.0	0.0	1.4	5.7				
24-Jul	0.0	0.0	0.0	0.0	0.1	Z	0.2	1.2	1.0	0.7	0.3	0.1	0.1	1.6	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.3	1.6				
25-Jul	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.4	0.4	0.3	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.4				
26-Jul	0.1	Z	0.1	0.1	0.0	3.0	0.1	0.9	0.3	0.7	1.4	0.2	0.3	0.1	0.4	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.4	3.0				
27-Jul	0.0	0.0	Z	0.1	0.4	0.2	0.9	1.3	1.8	0.9	0.1	1.0	0.2	1.2	0.4	3.4	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.6	3.4				
28-Jul	0.1	0.0	0.0	0.1	Z	0.4	0.2	0.9	4.4	0.9	0.5	0.1	0.2	1.6	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	4.4				
29-Jul	0.0	0.0	0.0	0.0	Z	0.3	0.2	0.8	0.6	0.3	0.4	0.3	0.6	0.3	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.8				
30-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.7	0.4	2.5	3.2	C	C	C	C	C	C	C	UO	UO	UO	UO	UO	UO	UO	--	3.2				
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	M	M	M	M	M	C	C	C	C	0.0	0.0	0.0	0.0	0.0	--	0.0				
																									Diurnal Average					
																									Diurnal Maximum					
Z - zerospan																									C - Calibration					
																									M - Maintenance					
																									UO - Unstable Operation					



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Jackfish 1 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Jackfish 1 - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	681	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 681

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Jackfish 1 - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	25	10	2	1	6	13	48	62	79	76	131	43	51	44	44	42	677
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	25	10	2	1	6	13	48	62	79	76	131	43	51	44	44	42	677

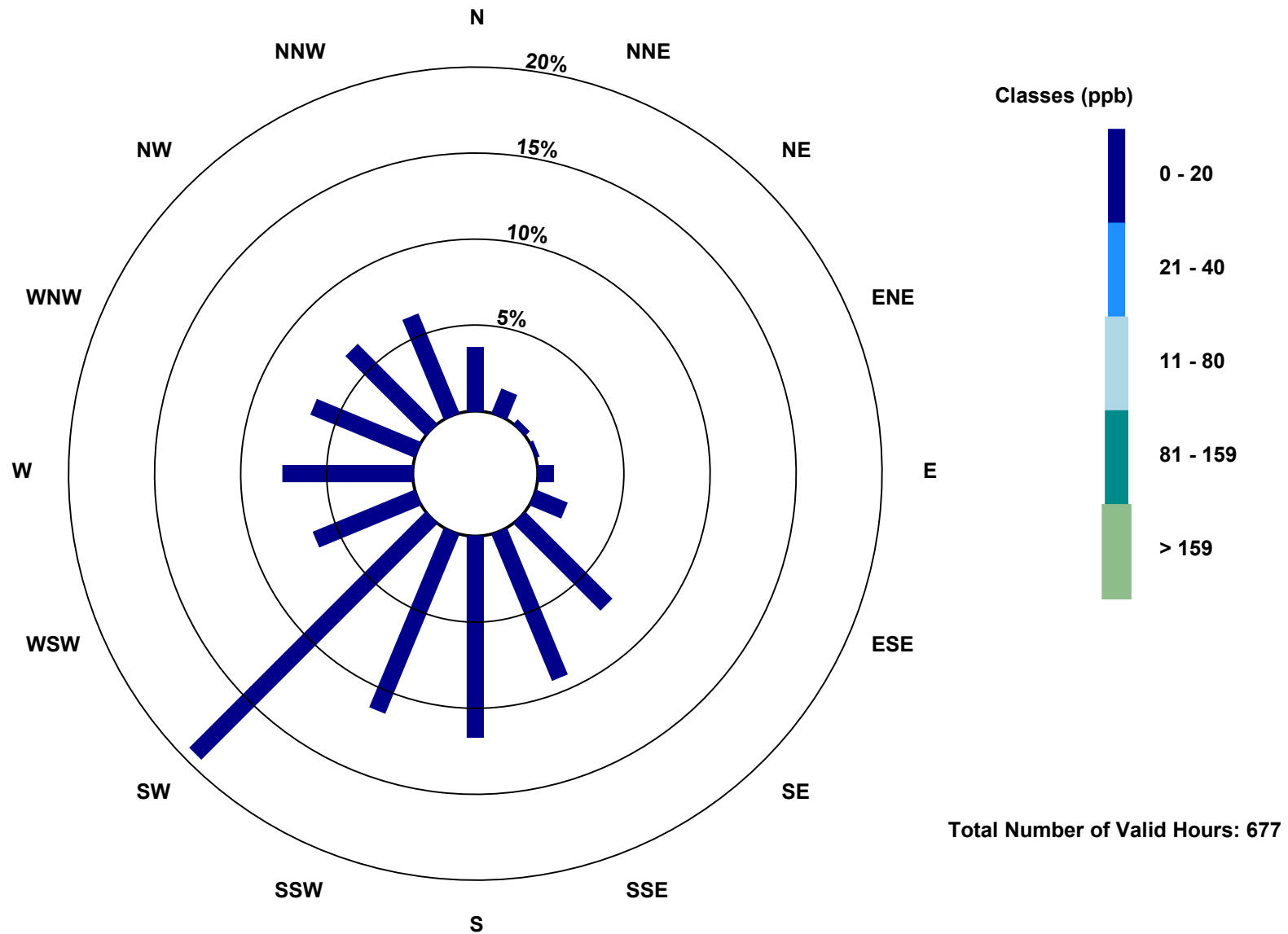
Total Number of Valid Hours: 677

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

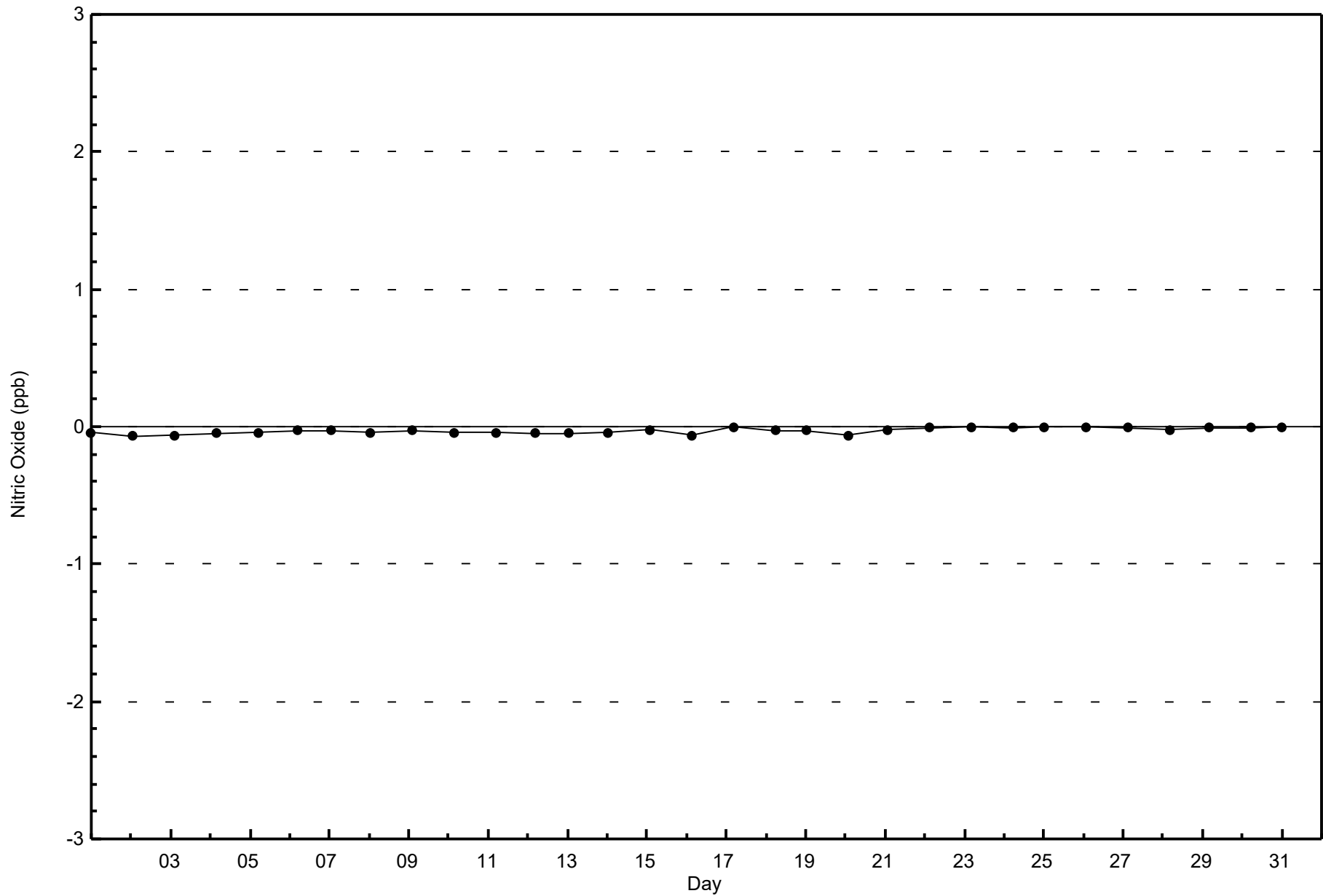
Nitric Oxide (NO) - ppb
Jackfish 1





Wood Buffalo Environmental Association
Zero Responses

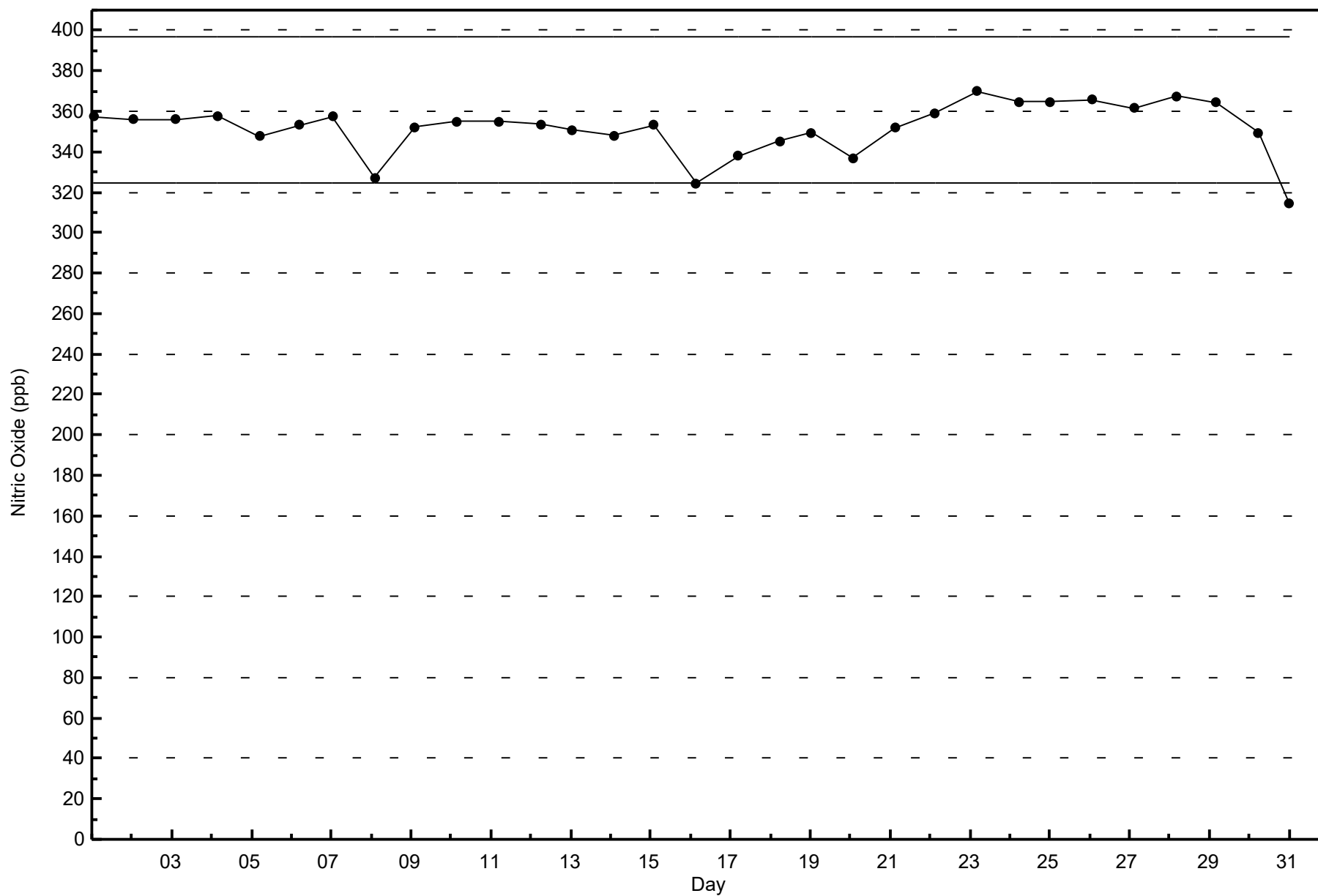
Nitric Oxide (NO) - ppb
Jackfish 1 - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Jackfish 1 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

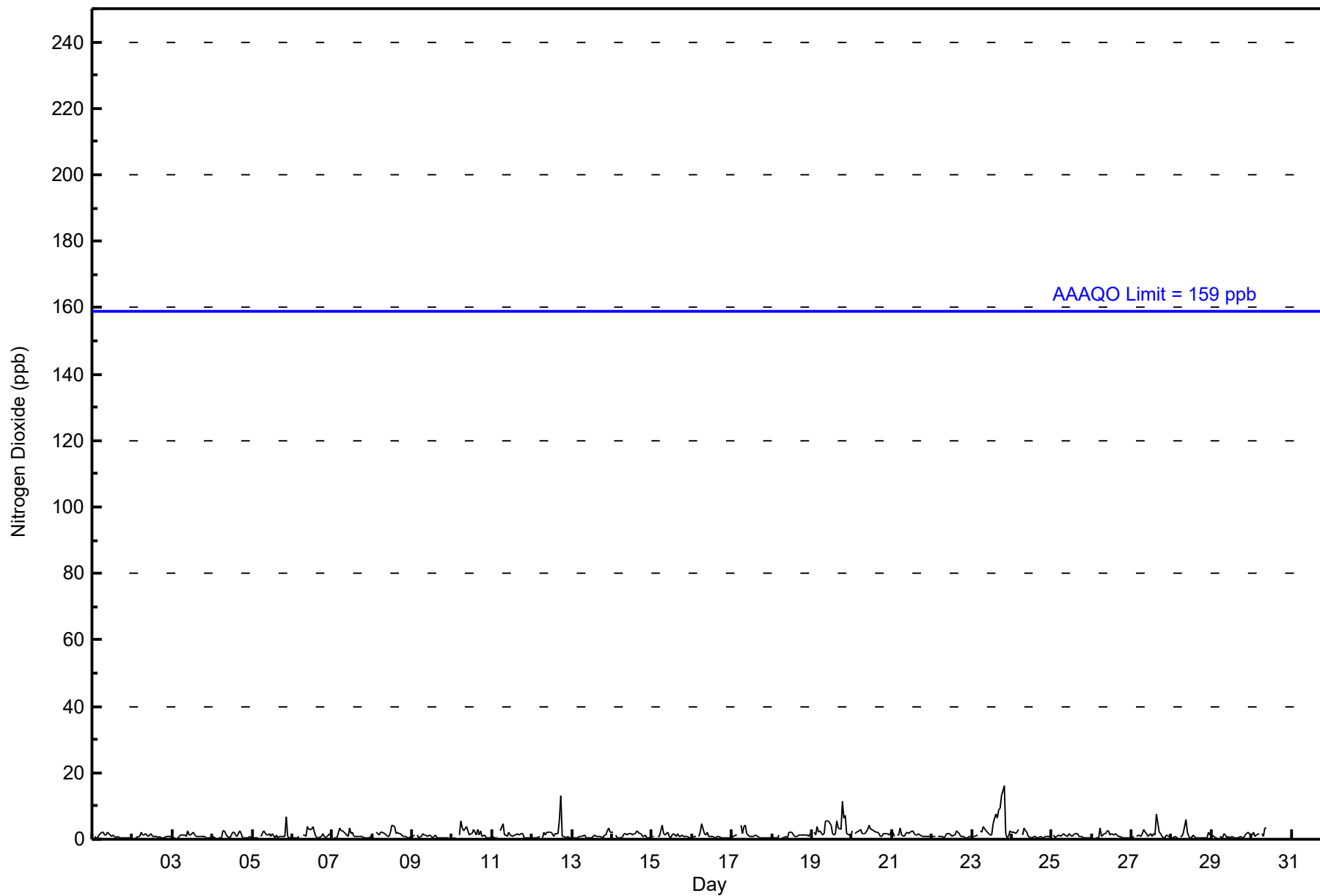
Jackfish 1 - July 2026

Number of Exceedances (AAAQO): Maximum Value: 16.3 ppb on Jul 23 20:00																				1-hr: 0 Maximum Daily Average: 4.1 ppb on Jul 23					24-hr: 0 Minimum Daily Average: 0.8 ppb on Jul 9 Minimum Diurnal Average: 0.7 ppb at hour 3 Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.6 Median = 1.0 Q ₃ = 1.6 P ₉₀ = 2.6 P ₉₉ = 7.6					Hours in Service: 744 Hours of Data: 681 Hours of Missing Data: 63 Hours of Calibration: 40 Percent Operational Time: 96.9	
Minimum Value: 0.1 ppb on Jul 31 20:00 Maximum Diurnal Average: 2.0 ppb at hour 6 Monthly Average: 1.40 ppb																															
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jul	Z	0.8	0.5	0.6	1.1	2.2	2.0	1.2	1.2	2.0	1.8	1.0	1.1	0.9	0.6	0.9	0.6	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.9	2.2					
2-Jul	0.4	Z	0.5	0.7	0.8	2.0	1.2	1.2	1.5	0.8	1.1	1.7	1.0	0.9	1.0	0.6	0.7	0.6	0.5	0.6	0.8	0.8	0.8	0.8	0.9	2.0					
3-Jul	0.5	0.5	Z	0.5	1.0	1.1	1.3	1.1	1.0	2.6	1.1	1.1	2.1	1.3	0.8	0.8	0.8	0.9	0.9	0.9	0.4	0.4	0.5	0.5	1.0	2.6					
4-Jul	0.8	0.3	0.3	Z	0.5	0.5	2.5	2.4	1.5	0.7	0.6	1.1	2.0	2.0	1.2	0.7	2.6	1.9	0.5	0.3	0.5	0.4	0.8	0.4	1.1	2.6					
5-Jul	0.3	0.3	0.3	0.3	Z	0.8	1.5	2.6	1.4	1.2	1.6	0.7	1.6	0.6	1.2	0.5	0.9	1.0	1.0	0.7	6.7	0.7	0.6	0.3	1.2	6.7					
6-Jul	0.3	0.3	0.3	0.5	0.9	Z	1.2	1.1	0.8	4.0	2.8	3.1	4.0	2.0	0.8	0.5	0.6	0.8	1.6	0.7	0.4	0.7	1.8	1.0	1.3	4.0					
7-Jul	Z	0.4	0.4	0.4	3.5	2.5	2.6	2.3	1.7	1.0	3.2	1.9	2.0	0.9	1.0	0.7	0.8	0.7	0.7	0.6	0.5	0.5	0.5	0.9	1.3	3.5					
8-Jul	1.3	Z	2.1	1.8	1.4	2.3	2.1	1.5	1.3	0.9	0.9	2.1	4.2	3.8	1.9	2.2	1.8	1.9	0.9	0.8	0.8	0.6	0.5	0.8	1.6	4.2					
9-Jul	0.7	1.3	Z	1.2	0.6	1.0	1.6	1.4	1.4	1.0	1.1	0.7	0.5	1.0	1.1	0.5	0.6	0.4	0.3	0.4	0.3	0.4	0.2	0.6	0.8	1.6					
10-Jul	0.2	0.3	0.5	Z	1.2	5.3	3.4	2.5	3.8	2.7	1.3	1.6	1.6	2.9	1.3	3.0	1.4	2.6	0.8	1.2	0.4	0.4	0.4	0.6	1.7	5.3					
11-Jul	0.7	0.4	0.5	0.5	Z	2.4	4.7	1.4	1.4	1.0	2.2	1.4	1.0	1.4	1.4	1.5	1.2	1.9	1.6	0.5	0.6	0.6	0.4	0.3	1.3	4.7					
12-Jul	0.6	0.4	0.5	0.5	0.8	Z	0.6	2.3	1.1	2.1	2.0	2.0	1.9	0.9	1.9	1.9	5.9	13.0	0.8	0.7	0.3	0.7	0.4	0.4	1.8	13.0					
13-Jul	Z	0.4	0.4	0.5	0.7	0.7	0.8	1.1	0.4	0.3	0.4	0.4	0.5	1.2	1.0	0.9	1.0	0.8	0.6	1.1	1.4	2.6	3.2	2.1	1.0	3.2					
14-Jul	2.3	Z	1.1	0.6	0.4	0.5	1.0	1.5	1.8	1.1	1.5	1.9	1.4	1.8	1.8	2.7	1.6	1.5	0.9	0.9	1.4	0.5	0.5	0.7	1.3	2.7					
15-Jul	0.7	0.8	Z	0.7	0.7	2.6	4.3	1.8	1.4	2.2	0.7	0.6	1.3	1.5	1.0	1.9	0.9	0.8	1.1	0.8	0.8	0.8	0.6	0.6	1.2	4.3					
16-Jul	0.6	0.8	0.8	Z	1.0	2.2	4.7	1.6	1.2	2.0	1.0	1.0	0.9	0.6	0.6	0.7	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.6	1.0	4.7					
17-Jul	0.9	1.0	1.1	1.1	Z	4.1	1.8	4.0	4.1	1.6	1.0	0.8	0.9	0.9	1.3	0.7	0.6	0.6	0.5	0.3	0.3	0.4	0.4	0.3	1.2	4.1					
18-Jul	0.8	0.4	0.3	0.3	1.3	Z	0.6	0.4	1.0	0.6	2.2	2.2	2.1	0.7	0.8	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.0	1.6	1.0	2.2					
19-Jul	Z	2.3	1.1	3.8	2.1	2.7	1.4	1.8	5.3	5.6	5.5	4.2	1.6	1.3	1.5	5.5	3.6	3.1	11.6	6.3	7.0	1.6	1.4	1.0	3.5	11.6					
20-Jul	2.5	Z	1.7	2.0	2.5	2.8	1.8	1.8	1.6	2.9	4.3	3.0	3.1	2.7	2.3	2.2	1.5	0.9	0.9	1.6	1.9	1.9	1.2	1.5	2.1	4.3					
21-Jul	2.9	0.7	Z	1.3	1.1	3.3	1.1	0.7	1.6	2.1	1.6	2.0	2.5	1.5	1.4	1.4	1.6	1.2	0.9	0.8	0.8	0.9	1.0	1.0	1.5	3.3					
22-Jul	0.8	0.8	0.8	Z	0.9	1.0	0.9	0.6	0.7	1.5	1.6	1.3	0.8	1.3	1.2	2.7	1.8	0.9	1.0	0.8	0.6	0.6	0.9	0.7	1.1	2.7					
23-Jul	0.6	0.7	0.9	1.4	Z	2.5	2.1	3.9	2.4	2.1	1.5	1.2	1.4	4.8	7.8	6.3	9.1	9.2	13.0	16.3	1.8	0.6	1.0	2.7	4.1	16.3					
24-Jul	2.1	2.0	1.5	2.1	2.9	Z	1.1	3.4	2.5	2.1	0.9	0.5	0.4	1.0	0.8	0.5	0.5	1.0	0.6	0.5	0.7	0.9	0.7	0.8	1.3	3.4					
25-Jul	Z	1.4	0.5	0.8	1.2	0.7	1.4	1.7	1.3	1.0	1.8	1.4	0.8	1.3	1.8	1.5	0.8	0.9	0.7	0.4	0.4	0.6	0.5	0.4	1.0	1.8					
26-Jul	0.3	Z	0.5	0.4	0.5	3.2	0.8	1.8	1.5	2.4	2.4	1.1	1.6	1.2	1.5	1.1	0.8	0.7	0.4	0.5	0.4	0.3	0.4	0.5	1.1	3.2					
27-Jul	0.5	0.8	Z	0.9	1.1	0.9	1.5	3.0	2.2	1.9	0.8	1.7	0.7	1.8	1.3	7.6	2.1	1.6	0.7	0.5	0.4	1.4	0.8	0.5	1.5	7.6					
28-Jul	0.5	0.5	0.7	0.6	Z	0.9	0.7	1.6	5.8	2.1	0.8	0.6	0.5	1.3	0.3	0.5	0.4	0.4	0.4	0.4	0.4	0.6	2.2	1.4	1.0	5.8					
29-Jul	1.1	0.7	0.6	0.6	Z	0.7	0.6	1.6	1.1	0.6	0.8	0.4	0.7	0.6	0.5	0.6	0.6	0.7	0.6	0.4	1.1	1.8	2.0	1.3	0.9	2.0					
30-Jul	1.4	2.0	0.8	1.3	1.7	Z	1.5	0.9	3.4	3.3	C	C	C	C	C	C	C	UO	UO	UO	UO	UO	UO	UO	UO	--	3.4				
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	M	M	M	M	M	C	C	C	C	0.1	0.3	0.2	0.2	0.6	--	0.6				
1.0 0.8 0.7 1.0 1.2 2.0 1.8 1.8 1.9 1.8 1.7 1.5 1.5 1.5 1.4 1.8 1.6 1.8 1.6 1.4 1.1 0.8 0.9 0.8																								Diurnal Average							
2.9 2.3 2.1 3.8 3.5 5.3 4.7 4.0 5.8 5.6 5.5 4.2 4.2 4.8 7.8 7.6 9.1 13.0 13.0 16.3 7.0 2.6 3.2 2.7																								Diurnal Maximum							
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation																															
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																															



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Jackfish 1 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Jackfish 1 - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	681	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 681

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Jackfish 1 - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	25	10	2	1	6	13	48	62	79	76	131	43	51	44	44	42	677
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	25	10	2	1	6	13	48	62	79	76	131	43	51	44	44	42	677

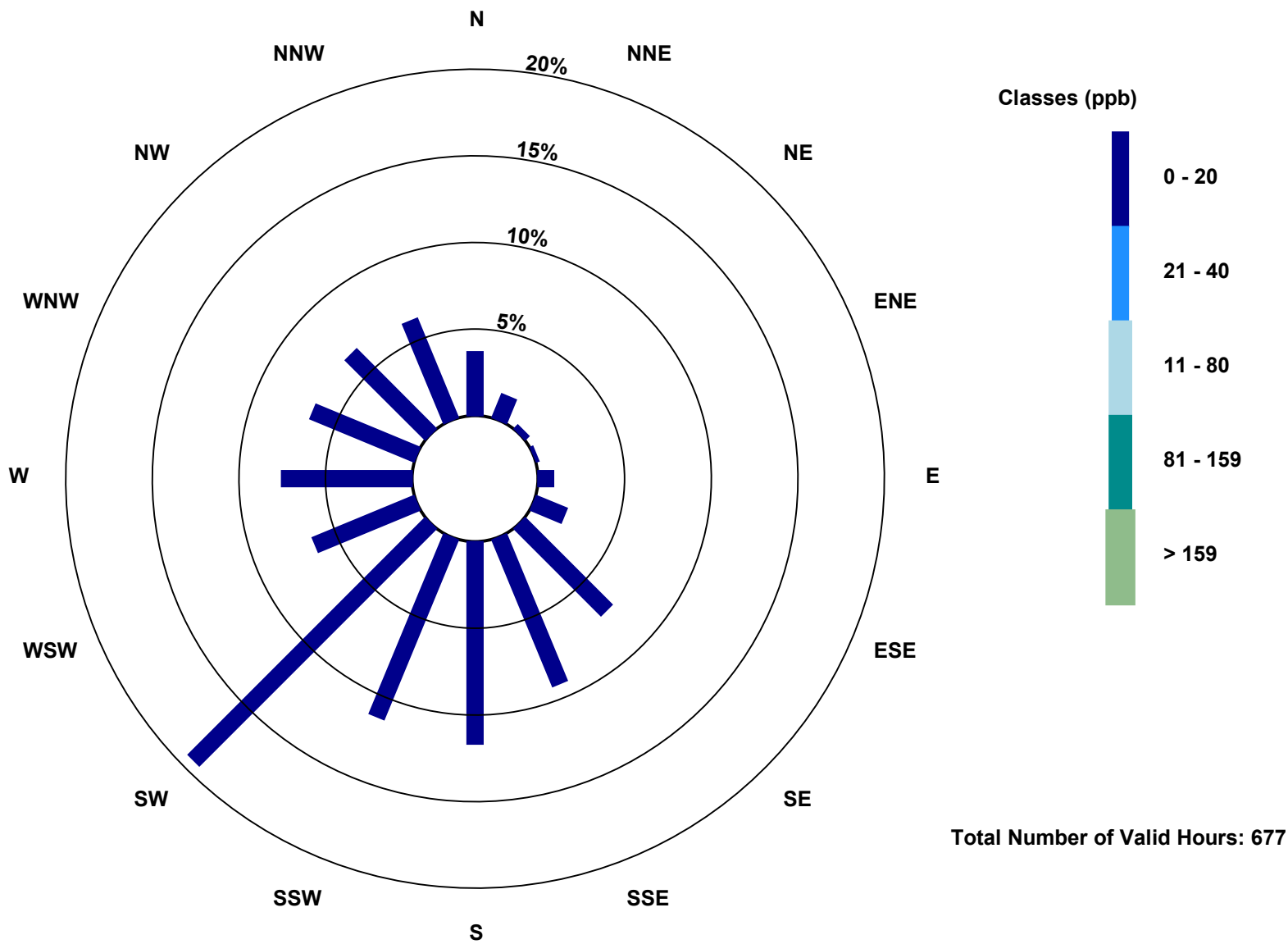
Total Number of Valid Hours: 677

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

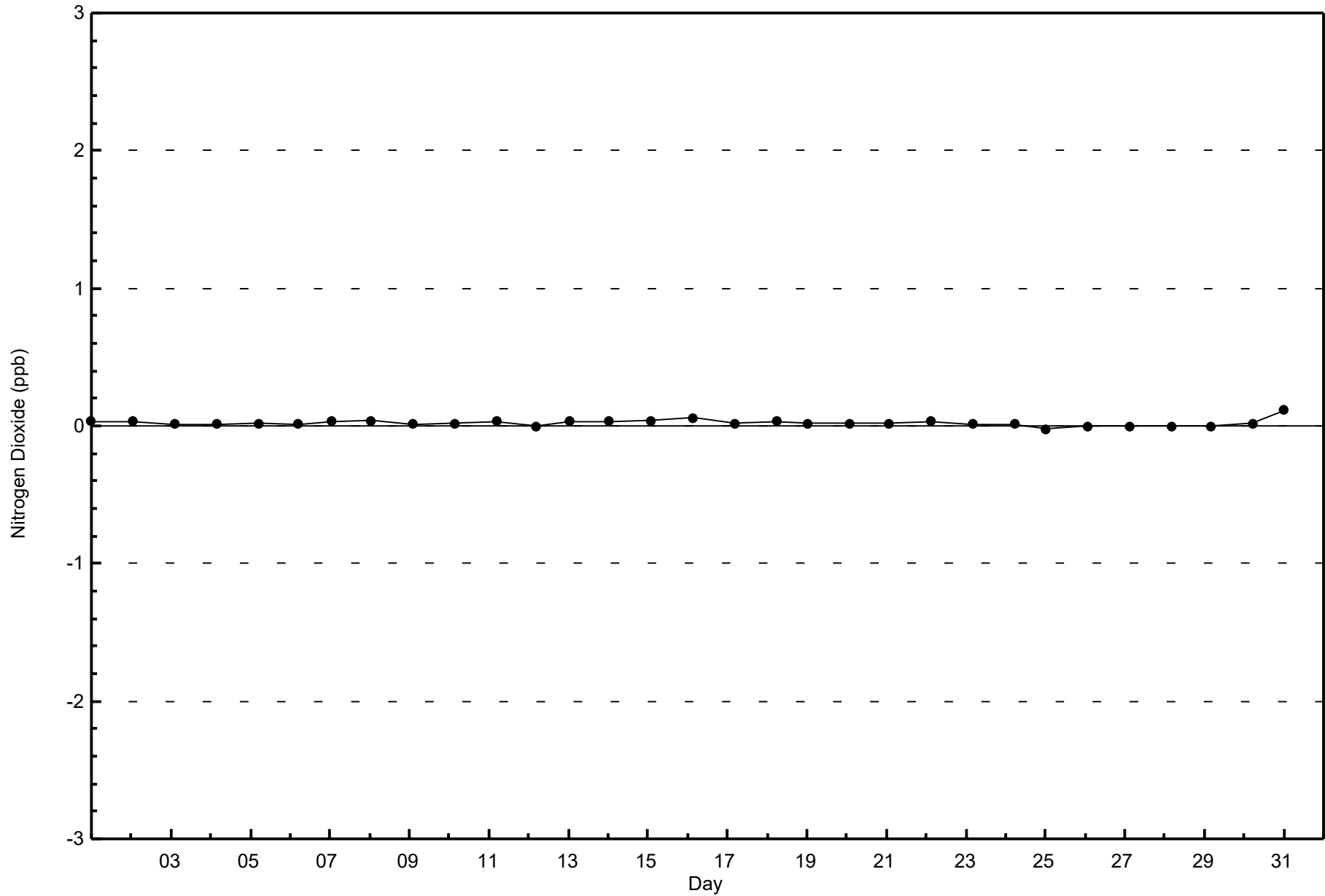
Nitrogen Dioxide (NO₂) - ppb
Jackfish 1





Wood Buffalo Environmental Association
Zero Responses

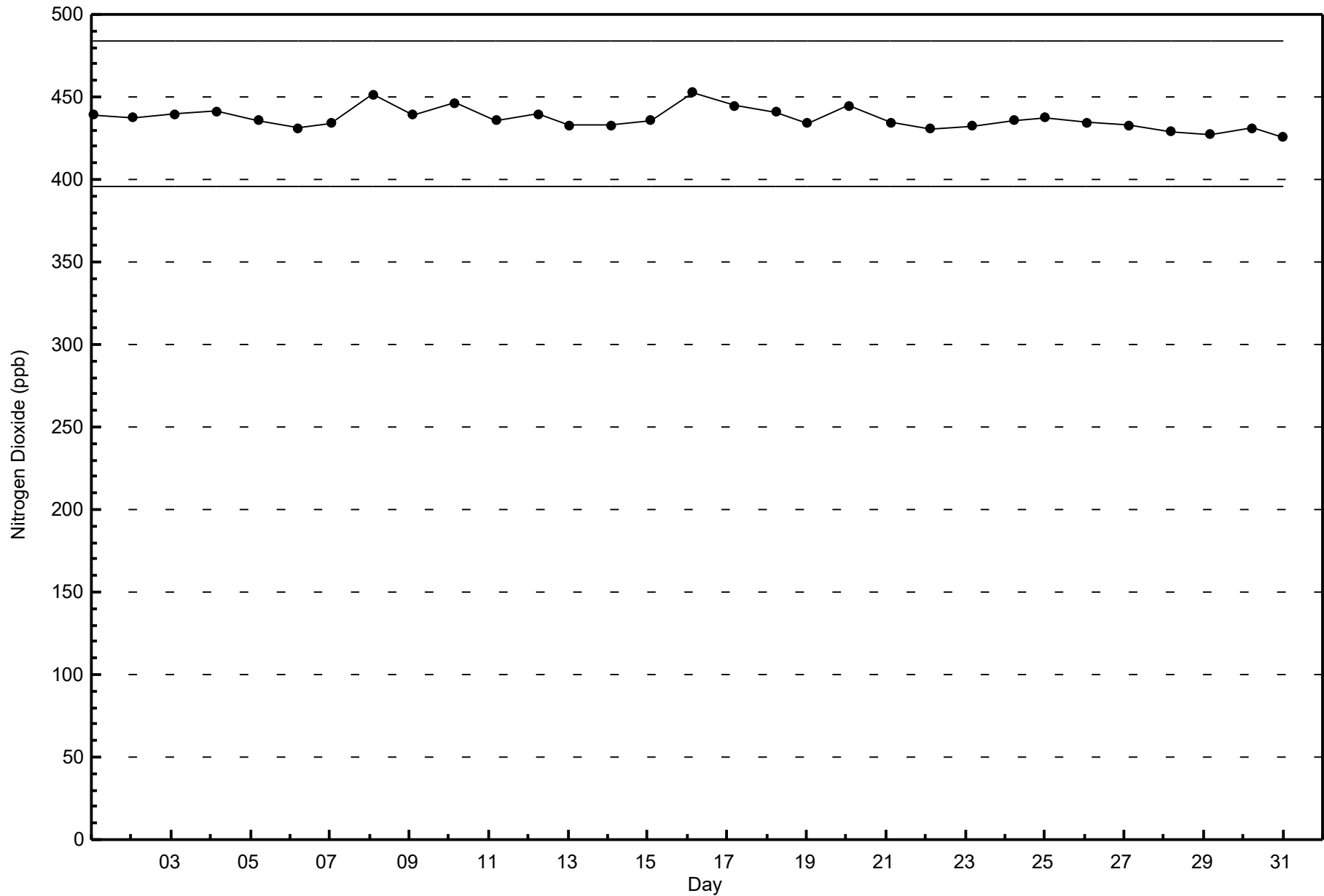
Nitrogen Dioxide (NO₂) - ppb
Jackfish 1 - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Jackfish 1 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

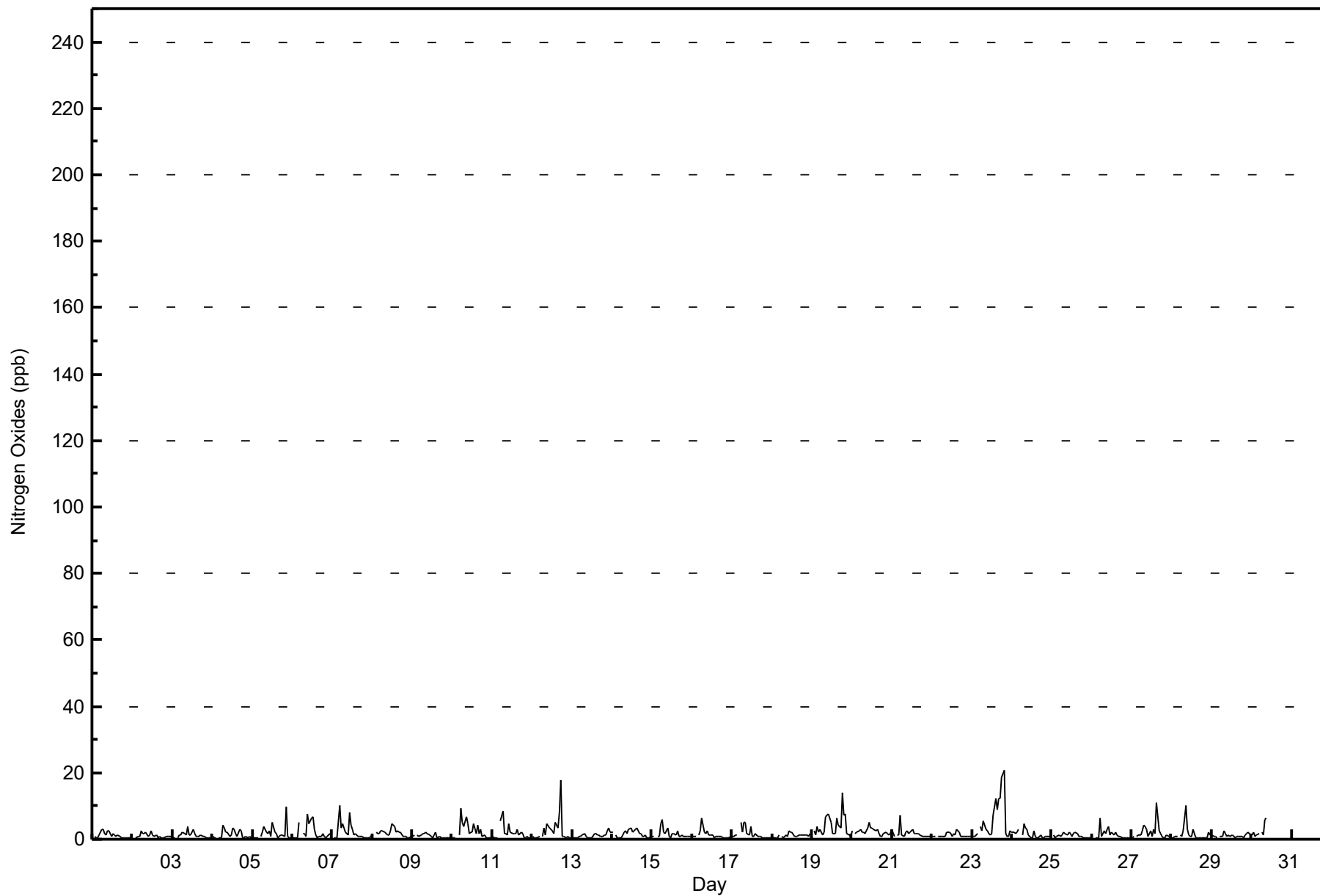
Jackfish 1 - July 2026

Maximum Value: 20.7 ppb on Jul 23 20:00																			Maximum Daily Average: 5.4 ppb on Jul 23							Hours in Service: 744	
Minimum Value: 0.1 ppb on Jul 31 20:00																			Minimum Daily Average: 1.0 ppb on Jul 9							Hours of Data: 681	
Maximum Diurnal Average: 2.9 ppb at hour 6																			Minimum Diurnal Average: 0.8 ppb at hour 3							Hours of Missing Data: 63	
Monthly Average: 1.82 ppb																			Percentiles: P ₁ = 0.3 P ₁₀ = 0.5 Q ₁ = 0.7 Median = 1.1 Q ₃ = 2.0 P ₉₀ = 3.6 P ₉₉ = 11.2							Hours of Calibration: 40	
																										Percent Operational Time: 96.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	Z	0.8	0.6	0.6	1.2	2.9	3.0	1.5	1.3	2.5	2.4	1.0	1.5	1.2	1.0	1.1	0.7	0.5	0.5	0.4	0.4	0.5	0.5	0.4	1.2	3.0	
2-Jul	0.4	Z	0.5	0.7	0.9	2.6	1.8	1.7	2.0	1.0	1.4	2.4	1.1	1.0	1.2	0.6	0.7	0.6	0.6	0.6	0.9	0.9	0.9	0.9	1.1	2.6	
3-Jul	0.6	0.5	Z	0.6	1.4	1.4	1.9	1.6	1.4	3.8	1.4	1.3	2.9	1.6	1.0	0.9	1.0	1.1	1.0	1.0	0.4	0.5	0.6	0.5	1.2	3.8	
4-Jul	0.9	0.4	0.4	Z	0.6	0.6	4.4	3.5	2.0	1.9	0.7	1.3	3.5	2.8	1.6	0.8	3.1	2.5	0.6	0.4	0.6	0.4	0.8	0.4	1.5	4.4	
5-Jul	0.3	0.3	0.3	0.3	Z	0.9	2.1	4.0	1.9	1.7	2.5	0.9	5.0	2.1	1.6	0.6	1.0	1.1	1.2	0.8	9.9	0.7	0.6	0.3	1.7	9.9	
6-Jul	0.3	0.3	0.3	0.5	5.2	Z	1.9	1.6	1.0	7.6	4.8	6.4	7.0	3.0	1.2	0.5	0.7	0.8	1.7	0.7	0.4	0.7	1.8	1.0	2.1	7.6	
7-Jul	Z	0.4	0.4	0.4	10.1	3.2	4.7	3.4	2.3	1.1	8.0	4.2	3.1	1.1	1.5	0.9	0.8	0.7	0.7	0.6	0.5	0.5	0.5	0.9	2.2	10.1	
8-Jul	1.3	Z	2.1	1.8	1.5	2.7	2.7	1.9	1.7	1.1	1.1	2.5	4.6	4.0	2.0	2.4	1.9	2.1	1.0	0.9	0.9	0.6	0.5	0.8	1.8	4.6	
9-Jul	0.7	1.3	Z	1.2	0.7	1.4	1.9	1.7	2.0	1.5	1.3	1.0	0.6	1.4	2.2	0.6	0.7	0.4	0.4	0.4	0.4	0.5	0.3	0.7	1.0	2.2	
10-Jul	0.3	0.4	0.6	Z	1.3	9.2	5.1	3.9	6.7	4.5	1.7	2.0	2.1	4.5	1.8	4.3	1.6	3.1	0.9	1.3	0.4	0.4	0.5	0.6	2.5	9.2	
11-Jul	0.8	0.5	0.6	0.6	Z	5.7	8.4	1.9	1.7	1.2	4.6	2.3	1.8	1.8	1.6	2.9	1.3	2.2	1.8	0.6	0.6	0.7	0.5	0.4	1.9	8.4	
12-Jul	0.7	0.5	0.6	0.6	0.9	Z	0.9	3.5	1.4	4.9	3.4	2.9	2.6	1.6	5.0	3.5	8.0	17.6	0.9	0.8	0.4	0.7	0.4	0.4	2.7	17.6	
13-Jul	Z	0.4	0.5	0.5	0.9	1.0	1.1	1.7	0.7	0.4	0.6	0.5	0.6	1.8	1.6	1.2	1.3	0.9	0.7	1.2	1.4	2.6	3.2	2.1	1.2	3.2	
14-Jul	2.3	Z	1.1	0.6	0.4	0.5	1.2	2.0	2.5	1.6	2.8	3.2	2.0	2.5	3.0	3.6	1.9	1.7	0.9	0.9	1.4	0.5	0.6	0.7	1.6	3.6	
15-Jul	0.8	0.9	Z	0.8	0.8	4.8	6.1	2.0	1.6	3.2	0.9	0.6	1.8	1.8	1.1	2.7	1.0	1.0	1.2	0.8	0.8	0.8	0.7	0.7	1.6	6.1	
16-Jul	0.6	0.8	0.8	Z	1.1	2.7	6.3	2.0	1.6	2.7	1.2	1.2	1.1	0.6	0.7	0.9	0.9	0.7	0.5	0.5	0.5	0.5	0.5	0.6	1.3	6.3	
17-Jul	0.9	1.0	1.1	1.1	Z	5.2	2.0	4.9	5.0	1.8	1.1	3.7	1.0	1.0	1.6	0.9	0.9	0.9	0.6	0.3	0.3	0.4	0.4	0.3	1.6	5.2	
18-Jul	0.8	0.4	0.3	0.3	1.3	Z	0.8	0.4	1.3	0.7	2.4	2.3	2.2	0.8	0.8	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.0	1.6	1.1	2.4	
19-Jul	Z	2.4	1.1	4.0	2.2	2.9	1.5	2.0	6.8	7.3	7.5	5.3	1.7	1.5	1.7	6.4	4.1	3.6	14.2	7.3	7.7	1.6	1.4	1.0	4.1	14.2	
20-Jul	2.7	Z	1.7	2.0	2.6	3.0	2.0	2.2	1.8	3.4	5.1	3.5	3.6	3.2	2.7	2.8	1.7	1.0	1.0	1.7	2.0	1.9	1.2	1.6	2.4	5.1	
21-Jul	3.0	0.8	Z	1.3	1.2	7.3	1.4	0.8	2.2	2.5	1.9	2.2	2.9	1.7	1.5	1.5	1.8	1.3	1.0	0.8	0.8	0.9	1.0	1.0	1.8	7.3	
22-Jul	0.8	0.8	0.8	Z	0.9	1.0	1.0	0.7	0.8	2.0	2.1	1.6	0.9	1.5	1.3	3.1	2.1	1.0	1.0	0.8	0.7	0.7	1.0	0.8	1.2	3.1	
23-Jul	0.7	0.7	1.0	1.5	Z	3.7	2.6	5.6	2.9	2.4	1.7	1.3	1.8	7.3	12.2	9.0	12.2	12.5	18.7	20.7	1.8	0.6	1.0	2.7	5.4	20.7	
24-Jul	2.1	2.0	1.5	2.1	3.0	Z	1.3	4.6	3.5	2.8	1.2	0.6	0.5	2.6	1.0	0.6	0.6	1.1	0.6	0.6	0.8	1.0	0.7	0.8	1.5	4.6	
25-Jul	Z	1.4	0.5	0.8	1.3	0.8	1.5	2.1	1.7	1.3	2.0	1.5	1.0	1.5	2.0	1.8	1.0	1.0	0.8	0.5	0.4	0.6	0.5	0.5	1.2	2.1	
26-Jul	0.4	Z	0.6	0.5	0.5	6.2	0.9	2.7	1.8	3.1	3.8	1.3	1.9	1.3	1.9	1.3	0.9	0.8	0.5	0.5	0.4	0.3	0.4	0.5	1.4	6.2	
27-Jul	0.5	0.8	Z	1.0	1.5	1.1	2.4	4.3	4.0	2.8	0.9	2.7	0.9	3.0	1.7	11.0	2.7	1.8	0.8	0.6	0.5	1.5	0.9	0.6	2.1	11.0	
28-Jul	0.6	0.5	0.7	0.7	Z	1.3	0.9	2.5	10.2	3.0	1.3	0.7	0.7	2.9	0.4	0.6	0.5	0.4	0.4	0.4	0.4	0.6	2.2	1.4	1.4	10.2	
29-Jul	1.1	0.7	0.6	0.6	Z	1.0	0.8	2.4	1.7	0.9	1.2	0.7	1.3	0.9	0.6	0.8	0.7	0.8	0.7	0.4	1.1	1.8	2.0	1.3	1.0	2.4	
30-Jul	1.4	2.0	0.8	1.3	1.7	Z	2.2	1.3	5.9	6.5	C	C	C	C	C	C	C	UO	UO	UO	UO	UO	UO	UO	--	6.5	
31-Jul	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	M	M	M	M	M	C	C	C	C	0.1	0.3	0.2	0.2	0.6	--	0.6	
1.0 0.8 0.8 1.0 1.8 2.9 2.5 2.5 2.7 2.7 2.4 2.1 2.1 2.1 2.0 2.3 2.0 2.2 1.9 1.6 1.3 0.8 0.9 0.9																										Diurnal Average	
3.0 2.4 2.1 4.0 10.1 9.2 8.4 5.6 10.2 7.6 8.0 6.4 7.0 7.3 12.2 11.0 12.2 17.6 18.7 20.7 9.9 2.6 3.2 2.7																										Diurnal Maximum	
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation																											



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Jackfish 1 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Jackfish 1 - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	680	99.85	99.85
21 - 40	1	0.15	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 681

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Jackfish 1 - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	25	10	2	1	6	13	48	62	79	76	131	43	51	43	44	42	676
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	25	10	2	1	6	13	48	62	79	76	131	43	51	44	44	42	677

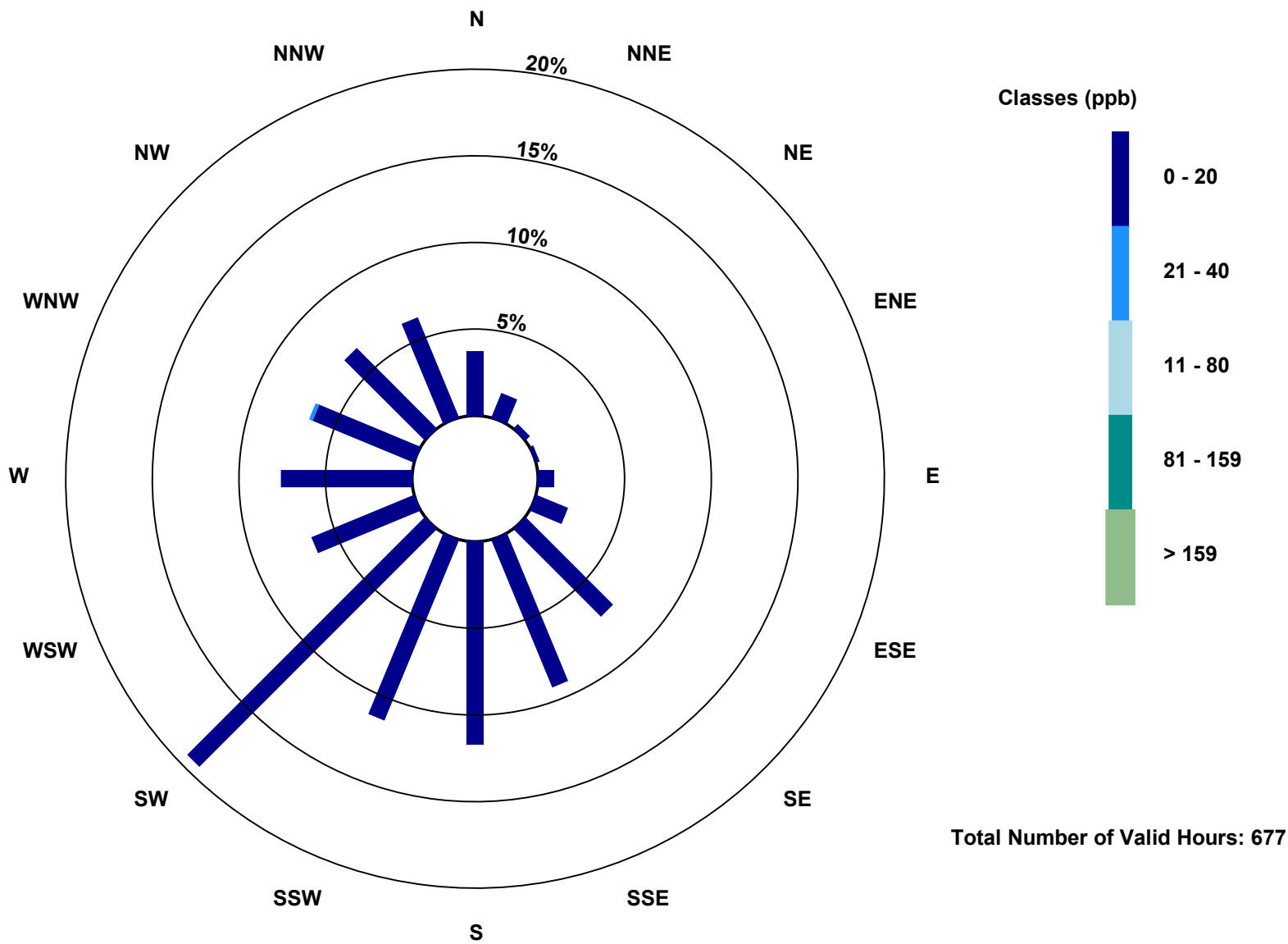
Total Number of Valid Hours: 677

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Nitrogen Oxides (NO_x) - ppb
Jackfish 1



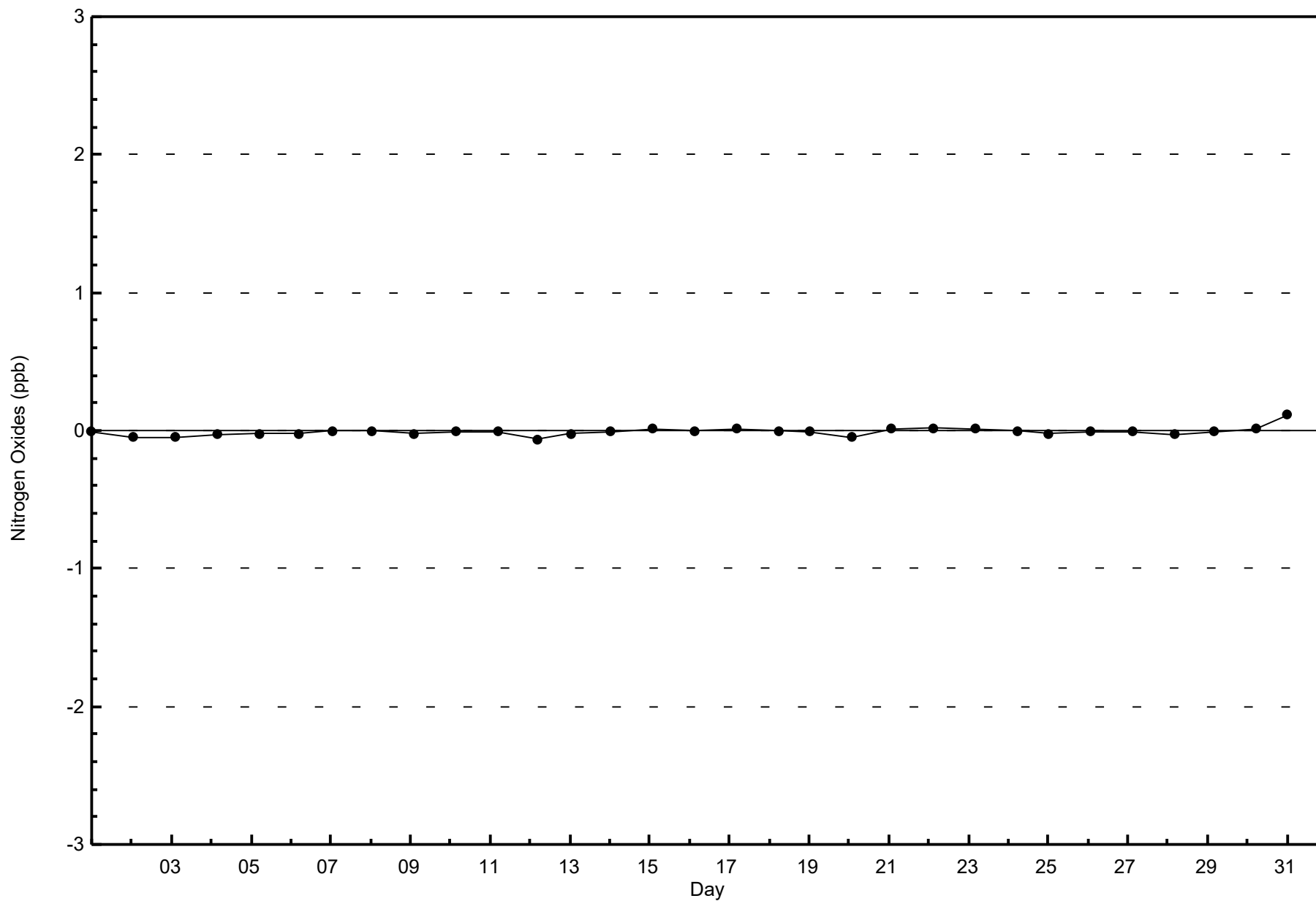


Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_x) - ppb

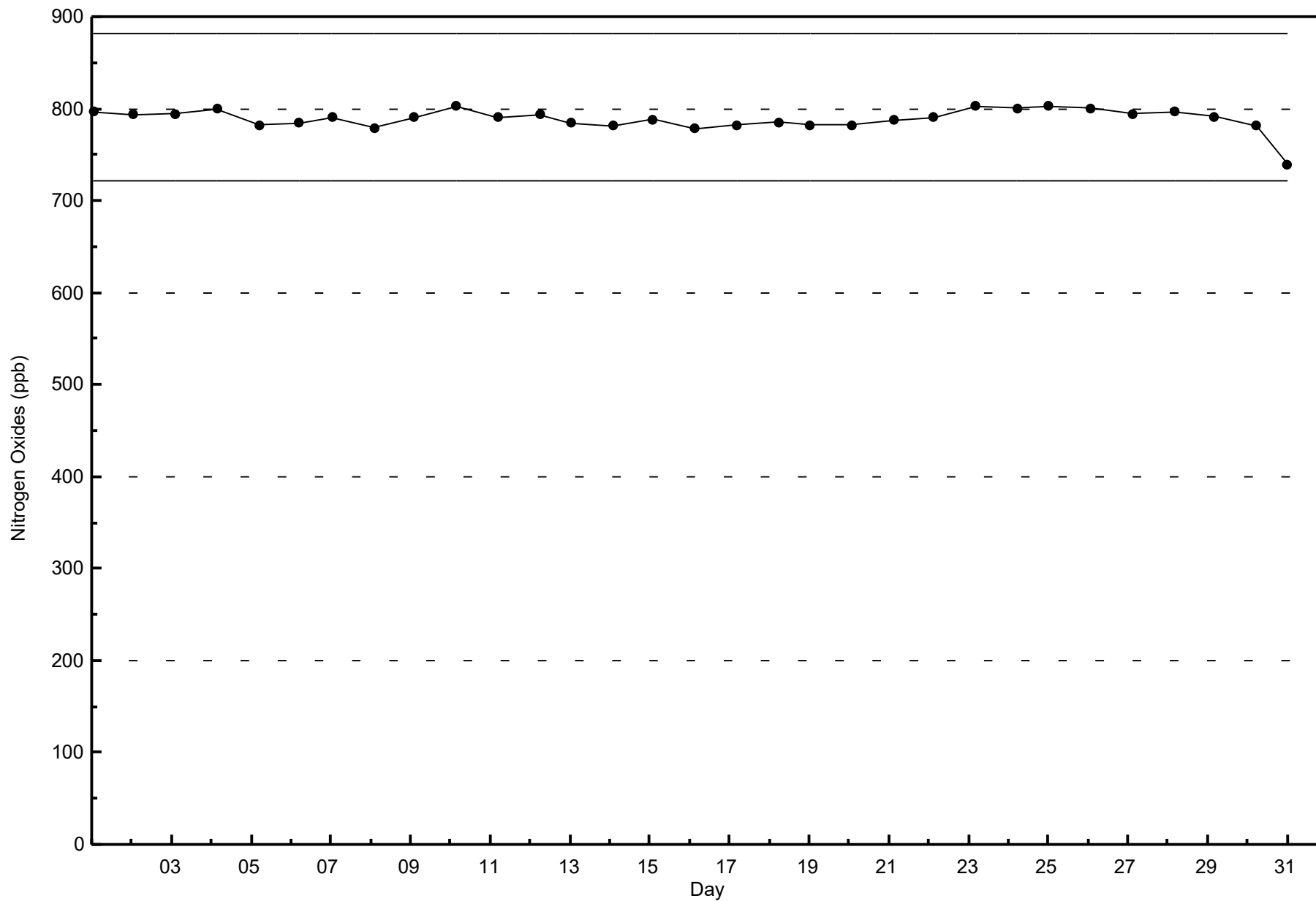
Jackfish 1 - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Jackfish 1 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

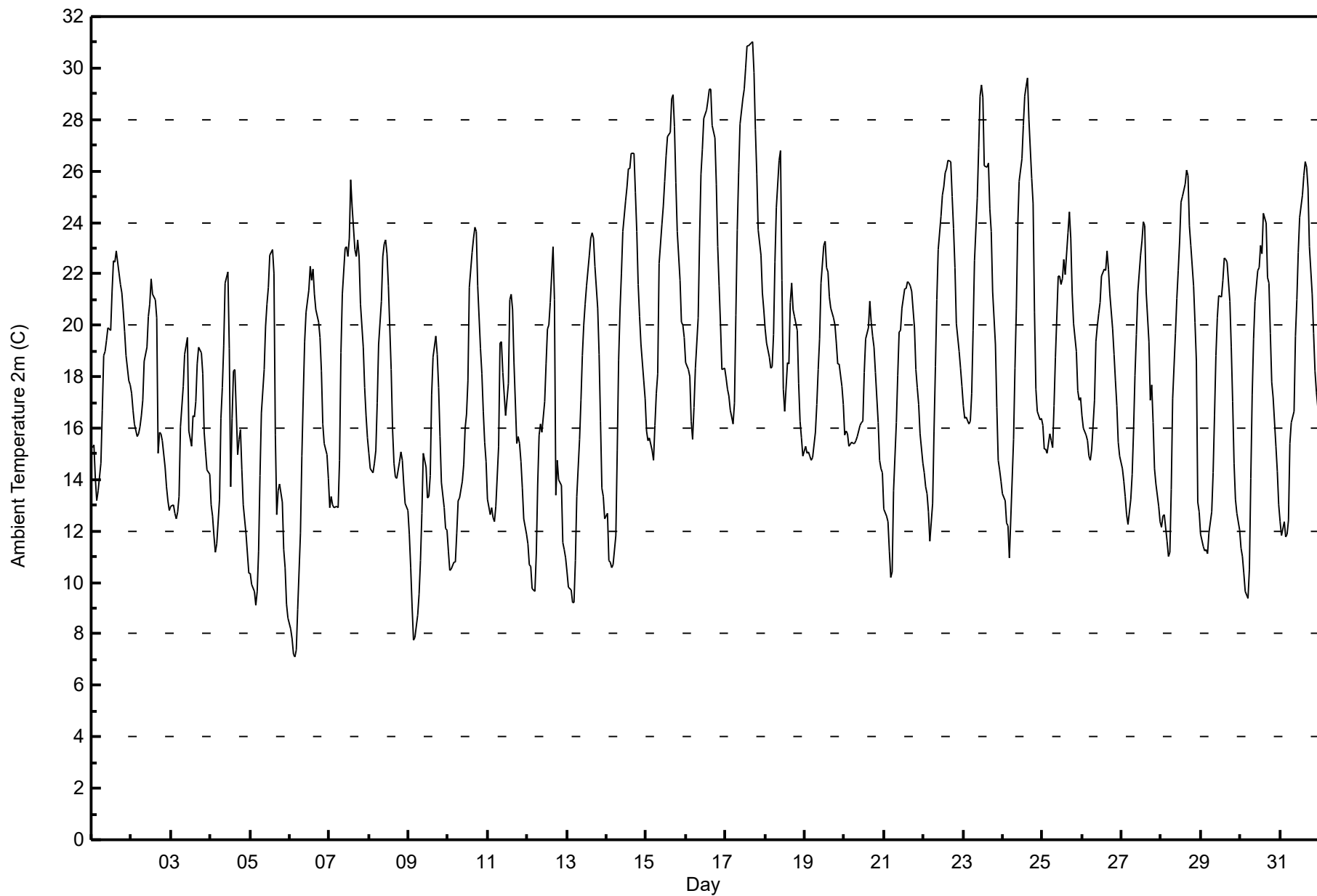
Jackfish 1 - July 2026

Maximum Value: 31.0 C on Jul 17 17:00																			Maximum Daily Average: 24.3 C on Jul 17							Hours in Service: 744	
Minimum Value: 7.1 C on Jul 6 04:00																			Minimum Daily Average: 13.2 C on Jul 9							Hours of Data: 744	
Maximum Diurnal Average: 23.0 C at hour 15																			Minimum Diurnal Average: 12.6 C at hour 5							Hours of Missing Data: 0	
Monthly Average: 17.99 C																			Percentiles: P ₁ = 8.7 P ₁₀ = 11.9 Q ₁ = 14.3 Median = 17.6 Q ₃ = 21.5 P ₉₀ = 24.6 P ₉₉ = 29.3							Hours of Calibration: 0	
																										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	15.2	15.3	14.0	13.2	13.5	14.6	16.7	18.8	19.0	19.4	19.9	19.8	21.3	22.5	22.5	22.9	22.0	21.6	21.3	20.6	19.7	18.8	17.8	17.7	18.7	22.9	
2-Jul	17.3	16.7	16.2	15.7	15.8	16.0	16.5	17.1	18.6	19.2	20.3	20.8	21.8	21.2	21.0	20.3	15.0	15.8	15.8	15.5	14.5	13.7	13.2	12.8	17.1	21.8	
3-Jul	13.0	13.0	12.7	12.5	12.8	13.4	16.1	17.6	18.9	19.2	19.5	15.9	15.3	16.5	16.4	17.1	18.5	19.1	18.9	18.1	15.8	15.1	14.4	14.2	16.0	19.5	
4-Jul	13.0	12.6	11.8	11.2	11.5	13.2	16.4	17.6	19.2	21.6	22.1	19.1	13.7	16.4	18.2	18.3	15.0	15.5	15.9	14.4	13.0	11.9	11.1	10.3	15.1	22.1	
5-Jul	10.4	9.9	9.7	9.1	9.7	11.2	14.2	16.6	18.3	19.9	20.8	21.5	22.7	22.9	22.0	15.7	12.6	13.6	13.8	13.1	11.3	10.6	9.1	8.6	14.5	22.9	
6-Jul	8.2	7.8	7.2	7.1	7.4	8.9	12.0	14.9	17.3	19.4	20.5	21.4	22.3	21.8	22.2	21.2	20.6	20.1	19.5	18.2	16.1	15.4	15.0	14.0	15.8	22.3	
7-Jul	12.9	13.3	13.0	12.9	13.0	12.9	14.8	18.9	21.2	23.0	23.0	22.7	23.4	25.7	24.6	22.9	22.7	23.3	22.7	20.8	19.2	17.6	16.5	15.6	19.0	25.7	
8-Jul	15.0	14.4	14.3	14.6	15.1	17.0	19.3	20.9	22.7	23.2	23.3	22.8	21.5	18.3	16.0	14.7	14.1	14.1	14.7	15.1	14.7	13.8	13.1	12.8	16.9	23.3	
9-Jul	11.9	10.6	9.1	7.8	7.9	8.7	9.5	10.8	12.7	15.0	14.5	13.3	13.4	14.2	17.3	18.7	19.6	18.9	17.6	15.7	13.9	12.9	12.1	12.1	13.2	19.6	
10-Jul	11.2	10.5	10.5	10.8	10.8	12.0	13.2	13.3	14.0	14.6	16.0	16.5	17.8	21.5	22.8	23.4	23.8	23.7	21.5	19.1	18.1	16.7	15.4	14.7	16.3	23.8	
11-Jul	13.2	12.6	12.9	12.5	12.3	13.0	15.3	19.3	19.4	18.1	17.3	16.5	17.7	21.0	21.2	20.6	18.5	15.4	15.7	15.4	14.7	13.7	12.5	11.9	15.9	21.2	
12-Jul	11.5	10.7	10.6	9.8	9.7	11.1	13.8	15.7	16.2	15.9	17.1	18.5	19.8	20.0	20.9	23.1	21.0	13.4	14.7	14.0	13.8	11.6	11.3	11.0	14.8	23.1	
13-Jul	10.4	9.8	9.7	9.2	9.2	10.8	13.3	15.5	17.1	18.8	20.0	20.8	21.5	22.8	23.4	23.6	23.4	22.3	20.7	18.9	16.3	13.6	13.3	12.5	16.5	23.6	
14-Jul	12.7	10.9	10.8	10.6	10.7	11.8	15.1	18.7	20.6	22.0	23.7	24.8	25.4	26.1	26.1	26.7	26.7	25.2	23.6	21.6	20.3	19.3	17.8	17.2	19.5	26.7	
15-Jul	15.9	15.5	15.6	15.1	14.8	16.1	17.3	18.1	22.4	23.9	24.6	25.6	26.6	27.3	27.5	28.8	28.9	27.7	25.5	23.6	21.7	20.1	20.0	19.5	21.8	28.9	
16-Jul	18.5	18.3	18.0	16.3	15.6	16.8	18.3	20.3	23.4	25.9	26.8	28.0	28.4	28.7	29.2	29.2	27.8	27.3	25.5	23.1	21.5	20.0	18.3	18.3	22.6	29.2	
17-Jul	18.0	17.5	17.3	16.7	16.2	17.0	20.4	23.7	25.9	27.8	28.8	29.2	30.0	30.8	30.9	31.0	31.0	29.8	27.6	25.9	23.7	22.7	21.2	20.6	24.3	31.0	
18-Jul	19.8	19.3	18.8	18.3	18.4	19.6	22.4	24.6	26.4	26.8	21.7	17.5	16.7	18.6	18.5	20.9	21.6	20.6	20.3	19.8	17.8	16.3	15.6	14.9	19.8	26.8	
19-Jul	15.3	15.0	15.1	14.9	14.7	14.9	15.8	16.9	18.3	19.5	21.6	23.1	23.2	22.2	22.1	21.1	20.7	20.3	20.0	19.3	18.5	18.5	17.6	16.9	18.6	23.2	
20-Jul	15.7	15.9	15.8	15.3	15.5	15.4	15.4	15.5	15.7	16.1	16.2	16.3	18.2	19.5	19.9	20.9	20.1	19.6	19.1	18.2	16.2	14.7	14.4	14.2	16.8	20.9	
21-Jul	12.9	12.6	12.4	11.2	10.2	10.4	13.5	16.2	18.1	19.8	19.8	20.7	21.4	21.4	21.7	21.7	21.5	21.3	19.9	18.3	17.6	16.9	15.8	14.6	17.1	21.7	
22-Jul	14.2	13.7	13.4	12.7	11.6	13.1	15.9	18.4	21.0	22.9	24.3	25.0	25.4	25.9	26.1	26.4	26.4	25.0	23.8	22.3	20.1	19.0	18.3	17.6	20.1	26.4	
23-Jul	16.9	16.4	16.5	16.2	16.3	17.4	19.8	22.5	25.0	26.9	28.9	29.3	28.8	26.2	26.2	26.3	24.5	23.7	21.3	19.3	16.8	14.8	14.4	13.9	21.2	29.3	
24-Jul	13.5	13.2	12.3	12.2	10.9	12.5	15.5	18.3	20.7	23.9	25.6	26.5	27.8	28.9	29.3	29.6	28.0	25.7	24.7	20.5	17.5	16.6	16.3	16.4	20.3	29.6	
25-Jul	16.1	15.2	15.2	15.0	15.8	15.5	15.2	16.9	18.7	21.9	21.9	21.6	21.8	22.6	22.0	23.6	24.4	23.3	21.3	20.1	19.0	17.5	17.1	17.2	19.1	24.4	
26-Jul	16.5	16.0	15.7	15.5	14.9	14.7	15.2	17.1	19.4	20.0	20.5	20.9	21.9	22.2	22.1	22.9	22.2	21.2	19.8	18.9	17.9	16.9	15.5	14.9	18.4	22.9	
27-Jul	14.4	13.9	13.3	12.6	12.3	13.2	14.2	16.0	18.0	19.6	21.2	22.7	23.3	24.0	23.8	21.3	19.4	17.1	17.7	16.2	14.4	13.8	12.9	12.4	17.0	24.0	
28-Jul	12.1	12.6	12.6	11.6	11.0	11.2	13.6	17.1	19.7	21.1	22.1	23.2	24.8	25.0	25.5	26.1	25.8	23.8	23.1	21.5	20.1	18.6	13.2	12.7	18.7	26.1	
29-Jul	11.9	11.4	11.3	11.3	11.1	11.9	12.8	14.3	16.5	18.8	20.3	21.2	21.1	21.7	22.6	22.5	22.5	20.9	19.2	17.0	14.6	13.3	12.7	12.1	16.4	22.6	
30-Jul	11.4	11.0	10.4	9.7	9.4	10.5	14.0	17.3	19.5	20.9	22.1	22.2	23.1	22.8	24.3	24.0	21.9	21.7	19.7	17.8	17.2	15.3	14.3	13.0	17.2	24.3	
31-Jul	12.4	11.8	12.3	11.8	11.9	12.4	15.4	16.2	16.7	19.6	21.0	22.8	24.2	25.1	25.8	26.4	26.1	25.3	23.0	21.2	19.7	18.2	17.4	16.8	18.9	26.4	
Diurnal Average																											
Diurnal Maximum																											



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Jackfish 1 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Jackfish 1 - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	25	3.36	3.36
10 - 20	462	62.10	65.46
> 20	257	34.54	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

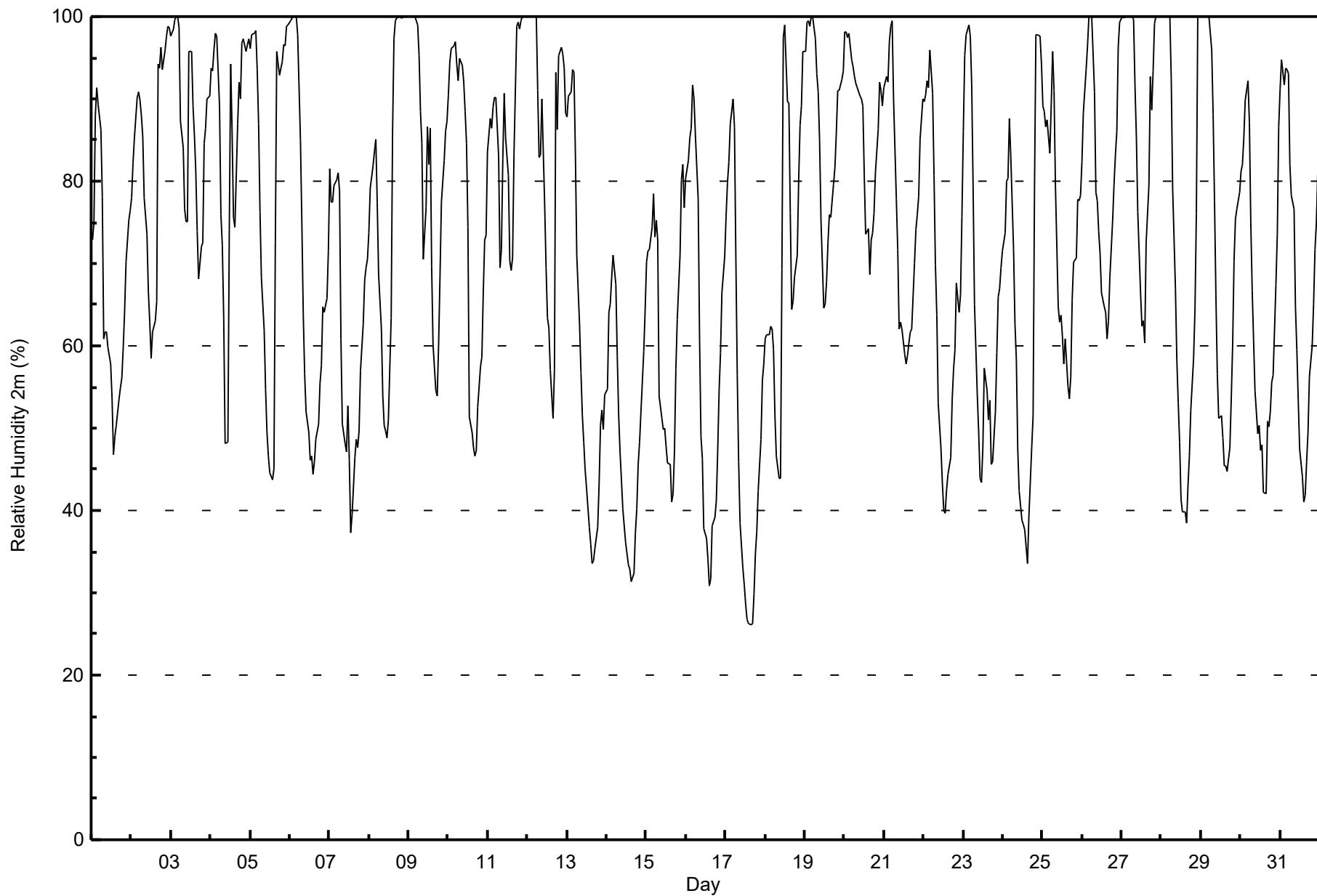
Jackfish 1 - July 2026

Maximum Value: 100.0 % on Jul 3 05:00																				Maximum Daily Average: 88.8 % on Jul 27				Hours in Service: 744		
Minimum Value: 26.1 % on Jul 17 16:00																				Minimum Daily Average: 49.2 % on Jul 14				Hours of Data: 744		
Maximum Diurnal Average: 92.1 % at hour 5																				Minimum Diurnal Average: 54.4 % at hour 15				Hours of Missing Data: 0		
Monthly Average: 72.65 %																				Percentiles: P ₁ = 31.1 P ₁₀ = 45.4 Q ₁ = 55.7 Median = 74.7 Q ₃ = 90.9 P ₉₀ = 98.8 P ₉₉ = 100.0				Hours of Calibration: 0		
																								Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	72.8	75.0	87.9	91.3	89.3	86.3	78.2	60.9	61.8	61.7	59.9	57.7	53.6	46.7	48.9	50.4	53.5	55.0	56.2	59.9	64.3	70.2	75.3	76.4	66.4	91.3
2-Jul	77.9	82.2	85.3	90.1	90.9	89.9	88.0	85.5	78.0	73.5	66.7	62.9	58.5	61.7	63.1	65.4	94.3	93.7	96.2	93.6	95.9	97.7	98.8	98.6	82.8	98.8
3-Jul	97.7	98.5	99.7	100.0	100.0	98.7	87.2	84.1	76.7	75.1	75.1	95.8	95.8	89.1	85.7	81.3	73.9	68.1	72.0	72.5	84.6	86.5	90.0	90.3	86.6	100.0
4-Jul	93.8	93.4	95.9	98.0	97.7	89.2	75.9	72.2	63.3	48.1	48.2	74.1	94.3	86.1	75.5	74.4	87.0	92.1	90.0	96.9	97.2	95.8	96.7	97.2	84.7	98.0
5-Jul	96.1	97.8	97.9	98.2	93.5	86.9	76.3	68.3	61.8	54.7	49.6	46.6	44.6	43.8	45.1	72.5	95.8	94.2	92.9	94.5	96.6	96.5	98.8	99.0	79.2	99.0
6-Jul	99.5	99.8	99.9	100.0	100.0	97.8	84.9	74.9	64.0	56.6	52.0	49.4	46.2	46.7	44.4	45.8	48.7	50.5	55.5	57.7	64.8	64.1	65.8	71.5	68.4	100.0
7-Jul	81.6	77.5	77.4	79.4	80.1	80.9	78.8	60.8	50.6	48.1	47.1	52.6	46.0	37.3	39.6	46.4	48.7	47.6	49.7	56.9	62.8	67.9	69.5	70.4	60.7	81.6
8-Jul	73.7	79.1	81.9	83.6	85.0	77.5	68.7	62.0	53.9	50.4	49.6	48.8	51.0	63.4	85.9	97.3	99.6	99.8	100.0	99.9	99.8	100.0	100.0	100.0	79.6	100.0
9-Jul	100.0	100.0	100.0	100.0	100.0	99.0	95.2	88.5	84.5	70.6	76.7	86.6	82.1	86.5	69.7	60.2	54.6	53.9	60.1	68.5	77.5	82.5	86.1	87.3	82.1	100.0
10-Jul	90.6	94.5	96.0	96.4	96.9	94.2	92.2	95.0	94.1	92.1	88.5	84.7	74.4	51.3	49.5	47.6	46.6	47.3	52.6	57.4	58.6	66.4	73.0	73.4	75.5	96.9
11-Jul	83.6	87.6	86.4	89.0	90.2	90.1	83.0	69.4	71.7	82.7	90.7	85.3	80.7	70.4	69.1	70.6	83.2	98.8	99.3	98.4	99.5	100.0	100.0	100.0	86.7	100.0
12-Jul	100.0	100.0	100.0	100.0	100.0	100.0	91.0	82.9	83.2	89.9	77.1	69.6	63.3	62.2	57.0	51.2	57.1	93.1	86.3	95.3	96.3	95.5	93.7	88.4	84.7	100.0
13-Jul	87.8	90.3	90.9	93.5	93.2	83.4	71.0	62.6	56.9	51.6	48.3	44.9	42.7	37.9	35.9	33.6	33.9	35.4	38.0	43.3	50.3	52.2	49.9	54.1	57.6	93.5
14-Jul	54.8	64.0	65.1	68.4	71.0	67.5	58.7	51.7	47.1	43.7	40.1	36.2	34.8	33.4	32.9	31.3	32.4	37.2	40.2	45.6	48.3	52.0	59.3	64.5	49.2	71.0
15-Jul	70.2	71.4	71.7	74.5	78.5	73.3	75.2	72.9	53.9	51.1	49.8	50.0	47.9	45.8	45.5	41.1	42.0	47.1	57.2	63.2	71.1	80.1	82.0	76.7	62.2	82.0
16-Jul	80.4	82.6	85.2	86.4	91.8	90.0	85.7	77.8	60.7	48.9	46.3	37.8	36.7	34.1	30.8	31.7	38.2	39.1	41.2	47.3	54.6	59.2	66.5	70.8	59.3	91.8
17-Jul	75.7	79.9	82.3	86.9	90.1	86.6	70.7	56.5	46.0	38.4	33.0	31.0	28.6	26.7	26.2	26.1	26.3	29.7	34.8	37.4	42.4	48.6	55.7	57.8	50.7	90.1
18-Jul	60.8	61.3	61.4	62.3	62.1	59.5	51.5	46.5	43.9	43.9	69.3	97.5	99.0	89.6	89.5	76.0	64.4	65.4	68.2	71.0	79.9	86.9	89.2	95.8	70.6	99.0
19-Jul	95.8	99.3	99.4	98.8	100.0	99.9	97.3	93.0	90.9	84.9	75.3	64.5	65.1	67.7	72.6	75.9	75.6	79.6	81.7	86.0	91.0	91.1	92.4	93.5	86.3	100.0
20-Jul	98.1	98.2	97.5	97.9	94.8	93.9	92.7	91.9	91.4	90.3	90.0	89.2	80.8	73.6	74.3	68.7	72.8	73.7	76.0	81.1	86.3	92.0	91.0	89.1	86.9	98.2
21-Jul	91.3	92.7	92.1	97.0	98.9	99.5	90.0	77.9	71.7	62.1	62.8	62.1	58.9	57.8	58.9	60.4	61.7	62.0	70.1	74.1	76.0	78.1	85.1	90.1	76.3	99.5
22-Jul	89.6	90.5	92.3	91.3	95.9	90.6	80.6	69.9	63.8	53.0	47.5	43.3	40.0	39.6	42.6	44.4	46.4	53.4	57.0	59.5	67.6	64.1	66.3	75.7	65.2	95.9
23-Jul	86.2	95.3	97.8	99.0	97.6	91.7	79.3	65.1	54.0	49.5	43.8	43.4	47.7	57.3	54.6	51.1	53.4	45.7	45.9	52.1	59.2	65.9	67.0	69.5	65.5	99.0
24-Jul	71.6	73.7	80.0	80.3	87.6	83.1	71.7	62.7	58.3	47.4	42.3	38.8	38.4	37.7	35.7	33.6	39.3	47.5	51.6	79.0	97.9	97.8	97.7	94.3	64.5	97.9
25-Jul	89.1	88.5	86.6	87.4	83.3	89.3	95.8	90.9	79.5	64.8	62.9	63.7	61.2	57.7	60.9	55.1	53.6	56.3	65.6	70.2	70.6	77.7	77.7	78.3	73.6	95.8
26-Jul	82.3	88.2	93.6	96.5	100.0	100.0	99.9	90.8	78.6	77.6	73.9	71.1	66.4	64.7	64.1	60.9	63.0	68.2	75.2	79.6	83.3	86.1	96.2	99.4	81.7	100.0
27-Jul	100.0	99.9	100.0	100.0	100.0	100.0	100.0	99.7	91.7	85.4	76.2	66.4	62.4	63.0	60.4	72.5	79.5	92.7	88.7	93.3	99.2	100.0	99.9	100.0	88.8	100.0
28-Jul	100.0	100.0	100.0	100.0	100.0	100.0	92.4	79.2	67.0	58.4	53.0	48.3	41.4	39.8	39.8	38.5	43.1	46.7	52.2	58.5	64.3	76.0	100.0	100.0	70.8	100.0
29-Jul	100.0	100.0	100.0	100.0	100.0	100.0	96.0	88.2	77.7	66.2	56.7	51.3	51.6	48.8	45.5	45.4	44.7	47.7	53.6	60.2	70.4	75.4	76.5	78.7	72.3	100.0
30-Jul	81.2	82.0	85.3	89.9	92.2	87.0	75.0	66.9	60.7	54.6	49.4	50.3	47.4	47.9	42.3	42.0	50.8	50.1	52.0	55.5	56.4	67.4	73.6	86.6	64.4	92.2
31-Jul	91.2	94.8	91.6	93.7	93.6	93.1	82.1	78.4	76.6	64.8	59.5	53.4	47.5	44.1	41.0	41.9	46.0	49.6	56.3	60.1	65.1	71.6	74.9	81.4	68.8	94.8
86.2 88.3 89.7 91.3 92.1 89.7 82.7 75.1 68.2 62.6 60.0 59.9 57.7 55.2 54.4 54.6 58.4 62.0 65.0 70.0 75.2 78.9 82.2 84.2																								Diurnal Average		
100.0 100.0 100.0 100.0 100.0 100.0 100.0 99.7 94.1 92.1 90.7 97.5 99.0 89.6 89.5 97.3 99.6 99.8 100.0 99.9 99.8 100.0 100.0 100.0																								Diurnal Maximum		



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Jackfish 1 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %
Jackfish 1 - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	44	5.91	5.91
40 - 60	179	24.06	29.97
60 - 80	211	28.36	58.33
80 - 100	265	35.62	93.95

Total Number of Valid Hours: 744

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

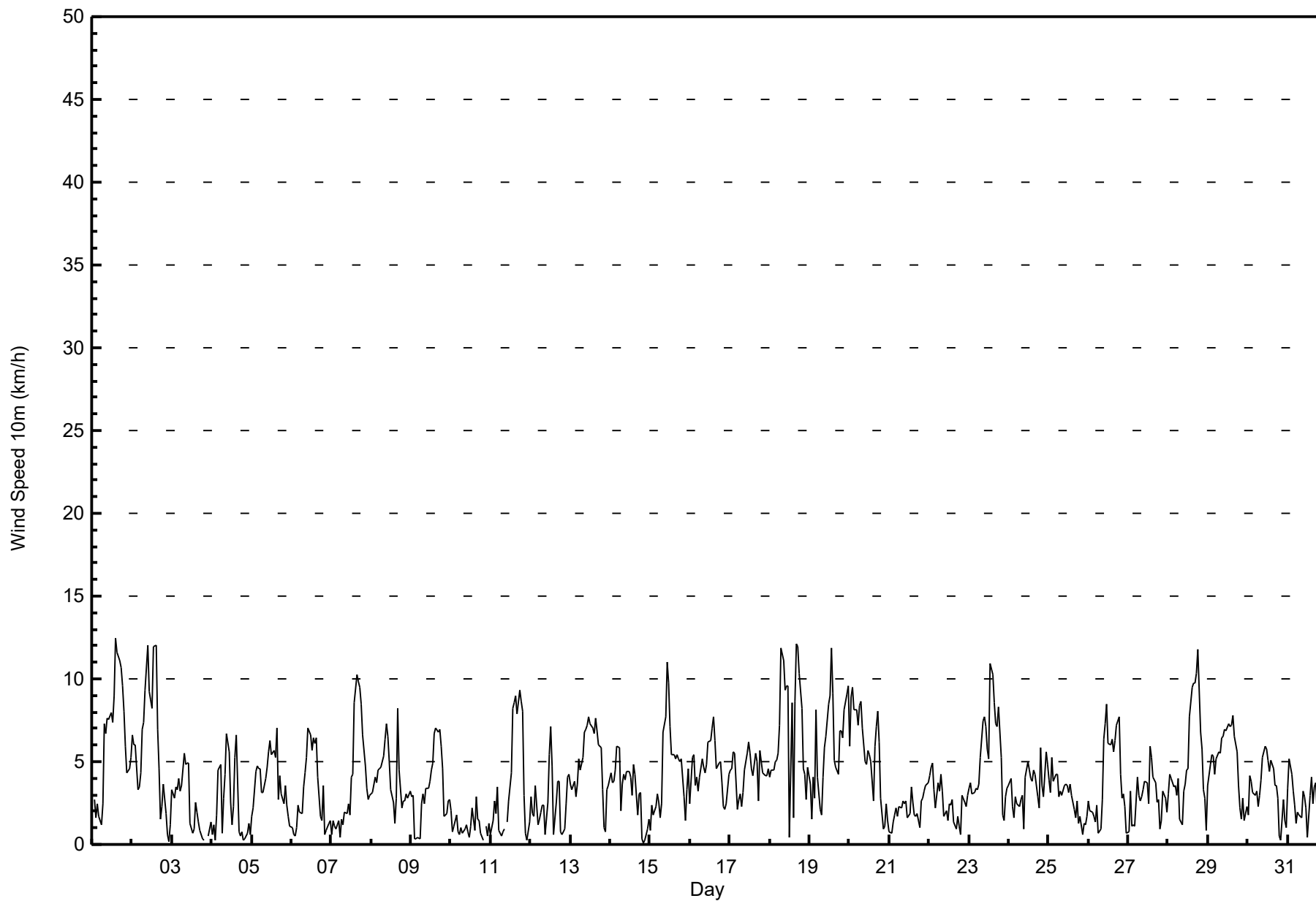
Jackfish 1 - July 2026

Maximum Speed: 12 km/h on Jul 1 15:00														Maximum Daily Speed Average: 6.3 km/h on Jul 1														Hours in Service: 744	
Minimum Speed Value: 0 km/h on Jul 14 21:00														Minimum Daily Speed Average: 0.2 km/h on Jul 17														Hours of Data: 739	
Maximum Diurnal Speed Average: 2.4 km/h at hour 3														Minimum Diurnal Speed Average: 0.7 km/h at hour 15														Hours of Missing Data: 5	
Monthly Average Velocity: 1.4 km/h 222.6 deg														Percentiles: P ₁ = 0 P ₁₀ = 1 Q ₁ = 2 Median = 4 Q ₃ = 5 P ₉₀ = 8 P ₉₉ = 12														Percent Operational Time: 99.3	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jul	UO	S3	SSE2	SSE2	SSE2	SSE1	E2	ESE7	ESE7	SE8	ESE8	ESE8	ESE7	ESE9	ESE12	SE12	ESE11	SE11	SE10	SE8	SSE6	SSE4	SE5	SE5	SE6.3	ESE12			
2-Jul	SSE7	SE6	SE6	SSE3	SSE3	SSE4	SE7	SE7	SSE9	SE12	SSE9	SSE9	SSE8	SE12	SSE12	S7	SW5	SW2	SE2	SSE4	SSW2	SW1	SW0	SSE1	SSE5.4	SE12			
3-Jul	S3	SSE3	SSE4	S3	S4	S3	S4	SSW6	S5	SSW5	SSW5	W1	S1	SW1	WSW3	WSW2	WSW1	WSW1	SSW0	SSW0	UO	UO	S0	SSW1	SSW2.3	SSW6			
4-Jul	S1	S1	S0	SW2	SW4	SW5	ESE1	S3	SSE4	SE7	SE6	SW3	SW1	NNE2	E5	E7	WNW1	W1	WSW1	W0	SW0	SW1	SW1	WSW1	SSE1.3	SE7			
5-Jul	SW2	SW2	SW4	SW5	SW5	SW5	SW3	W3	W4	NW5	NW6	WNW6	WNW5	WNW6	WNW5	NNW7	SE3	SW4	SW3	SW2	WNW4	SW2	WSW2	W1	W2.8	NNW7			
6-Jul	W1	SSW1	E0	S1	S2	SSE2	SSW2	WSW3	WNW4	NW5	NW7	NNW7	NW6	NW6	NNW6	N6	N4	N2	W1	W4	SSE1	SW1	SE1	SSW1	NW2.0	NNW7			
7-Jul	S1	S1	SW1	WSW1	SSW1	SW0	S2	ESE1	SSE2	N2	SSW2	SE2	SSE4	S4	SE9	SE10	SE10	ESE10	SE8	SE7	SE5	S3	S3	S3	SSE3.4	SE10			
8-Jul	S3	S3	SSE4	SSE4	SSE5	S5	S5	SSW5	S6	S7	S7	SSW5	SSW3	SE3	S1	WNW3	NNW8	NW4	W2	SW3	SW3	SW3	SW3	SSW3	SSW2.7	NNW8			
9-Jul	SSW3	SW3	SW0	S0	S0	SSE0	S2	SSW3	W2	NW3	WNW3	W4	SSW4	SSW5	SSW7	SW7	SSW7	SW7	SSW6	SSW5	S2	S2	S3	S3	SW2.9	SW7			
10-Jul	S2	S1	S1	S2	S1	S1	SW1	WSW1	SSE1	SSE1	SSE1	W0	NW1	NW2	NNW1	NW3	W2	NW1	NW1	SSW0	UO	SSE1	S1	S1	SW0.5	NW3			
11-Jul	S1	S1	SSW3	S2	S4	S1	S1	SSE1	SW1	UO	NNW1	N3	N4	N8	N9	N9	NNW8	NNW9	NNW9	NNW8	NNW3	SSE1	WNW0	W1	NNW2.5	NNW9			
12-Jul	WNW3	WNW2	S2	S4	S1	SW2	SW2	SSW2	WSW2	W1	WNW3	N5	NNW7	N5	N1	SSW3	W4	NW4	SW1	SSE1	S1	SW2	SW4	SW4	W1.2	NNW7			
13-Jul	SW4	SW3	SW4	SW3	SW4	SW5	WSW4	W5	WSW7	WSW7	W7	W8	W7	W7	WNW7	WNW8	WNW7	WNW6	WNW6	SW3	SW1	SE1	SW3	SW4	W4.5	W8			
14-Jul	SW4	SW4	SSW4	SW4	SW6	SW6	SW2	SW4	W4	W4	WNW4	NW4	W4	WNW3	WNW5	NW4	WNW2	WSW3	SW3	SSW0	SW0	SW0	SW1	SW2	WSW2.7	SW6			
15-Jul	S1	S2	S2	SSE2	SSE3	S3	SSW2	SSE2	SSE7	SSE8	SE11	SE10	SSE7	S5	SSE5	SSE5	SSW5	SSW5	SSW5	SSW5	SW3	SSE1	S3	S5	S4.2	SE11			
16-Jul	SSW2	SSW5	SSW5	S4	S4	SSW3	SW4	SW5	SW5	S4	SW5	SW6	WSW6	SW7	SW8	WSW6	W5	SW5	SW5	SSW4	SSW2	SSW2	SW2	SSW4	SW4.3	SW8			
17-Jul	SW4	SW5	SW6	SW6	WSW2	SSW3	SW3	NW2	N3	N4	N6	N6	NNW6	NNW5	NE4	NNE6	NNE5	NE3	SE6	ESE5	SE4	SE4	SSE4	SSE5	NNE0.2	N6			
18-Jul	S4	SSE5	S4	SSE5	SSE5	SSE5	SSE7	SSE12	SSE11	SSE9	NNW10	NNW10	NNW0	ESE9	E2	SE9	SE12	SE12	SE10	SE8	SE5	SE4	NW3	NNW5	SE4.5	SE12			
19-Jul	NW4	WSW2	SW4	WNW3	NNW8	NW4	SW2	WNW2	NW4	NW6	NW7	NNW9	NW9	NNW12	NW9	NW5	NW5	WNW4	NW7	NW7	NW6	NW8	NNW9	NNW10	NW5.6	NNW12			
20-Jul	NW6	NNW9	NNW9	NNW8	NNW8	NNW7	NNW8	NNW9	NNW7	NNW5	NW5	NNW6	N5	N5	NW3	N6	NNW7	NNW8	NNW6	NW3	WNW1	WSW1	WSW2	NW1	NNW5.4	NNW9			
21-Jul	WSW1	W1	W1	WSW2	SSW2	SSW2	SW2	SW2	SW3	W2	WSW3	W2	WSW2	SW3	W3	W2	W2	W2	SW1	SW3	SW3	SW3	SW4	SW4	WSW2.0	SW4			
22-Jul	SW4	SW5	SW5	SW3	SW2	SW4	SW3	SW4	SW3	SSW2	SSW2	W1	S2	SW2	SW3	SW1	WSW1	SSW2	SW1	SE1	SSE3	S3	S2	SSE3	SSW2.4	SW5			
23-Jul	SSE3	S4	S3	S3	S3	S3	S4	SSW5	SSW7	SW8	SW7	WSW6	WNW5	NW11	NW10	NW9	NW7	NW7	NW8	WNW5	WNW2	SSW1	SW3	SW3	W3.1	NW11			
24-Jul	SSW4	SW4	SSW2	SSW2	SW3	SSW2	SSW2	S3	S3	W1	WSW4	WSW5	WSW4	W4	W4	WSW4	WSW4	SSW3	SW2	SSW6	SSW4	SSW3	SW6	SW5	SW3.2	SSW6			
25-Jul	SW4	SW3	SW5	SW4	SSW4	SW4	W3	WSW3	W3	WNW4	W4	W4	WSW3	W4	W3	WSW2	WSW2	SW3	SSW1	SSE2	WSW1	W1	SW1	SSW2	WSW2.5	SW5			
26-Jul	S3	S2	S2	SSW2	SSE1	SSW2	NW1	S1	NNW3	N6	NNE7	NNE8	NNE6	N6	NNE6	N6	N6	N7	N8	NNE4	NNE3	NE3	E2	ENE1	NNE2.8	NNE8			
27-Jul	NNW1	NNW3	NW1	WNW1	W1	SSE4	SSE3	SSW3	SW3	SSW3	WSW4	WSW4	W2	NNW6	NNW5	WNW4	WNW4	WSW3	SW3	WSW1	SW1	SW3	S3	SSW2	WSW1.6	NNW6			
28-Jul	SW3	SW4	SW4	SW4	SW4	SSW3	SW4	SW1	SE1	S3	SSE4	SE4	SSE5	SE8	SE10	SE10	SE10	SE10	SE12	SE7	SSE6	SSW3	NNW3	SSE1	SSE4.0	SE12			
29-Jul	SSW4	SSW5	SW5	SW5	SW4	SW5	WSW6	WNW6	WNW6	WNW7	WNW7	W7	WNW7	W7	W7	W8	WNW7	WNW6	WNW4	WNW2	S1	SW3	W1	WNW2	W4.3	W8			
30-Jul	WSW2	SW4	SW4	SW3	SW3	SW3	W2	NW3	NW4	NW5	NW6	NW6	NW5	NW4	NW5	NW5	NW4	NNW4	NW3	NW0	SW0	S3	SW1	S1	WNW2.4	NW6			
31-Jul	S3	S5	S4	SSW3	SSW2	SSW1	SSE2	S2	S2	SSE3	SSE3	SW2	SSE0	SSE3	SSE4	S2	S4	SSW4	SSW2	SSW1	SW1	S2	S3	S3	S2.5	S5			
SSW2.0SSW2.3SSW2.4SSW2.2SSW2.2SSW2.3SSW2.0SSW2.0SSW1.9SSW1.4WSW1.6WNW1.8																										Diurnal Average			
SSE7 NNW9 NNW9 NNW8 NNW8 NNW7 NNW8 SSE12 SSE11 SE12 SE11 SE10 NW9 SE12 ESE12 SE12 SE12 SE12 SE12 SE8 NW6 NW8 NNW9 NNW10																										Diurnal Maximum			
UO - Unstable Operation																													
All monthly, daily, and diurnal averages have been calculated using vector methods																													



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Jackfish 1 - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Jackfish 1 - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	561	75.91	75.91
6 - 11	168	22.73	98.65
12 - 19	10	1.35	100.00
20 - 28	0	0.00	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 739

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Jackfish 1 - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	12	5	2	1	5	3	16	56	92	75	134	38	45	29	35	13	561
6 - 11	13	5	0	0	1	9	27	13	4	7	11	6	7	15	20	30	168
12 - 19	0	0	0	0	0	1	6	2	0	0	0	0	0	0	0	1	10
20 - 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	25	10	2	1	6	13	49	71	96	82	145	44	52	44	55	44	739

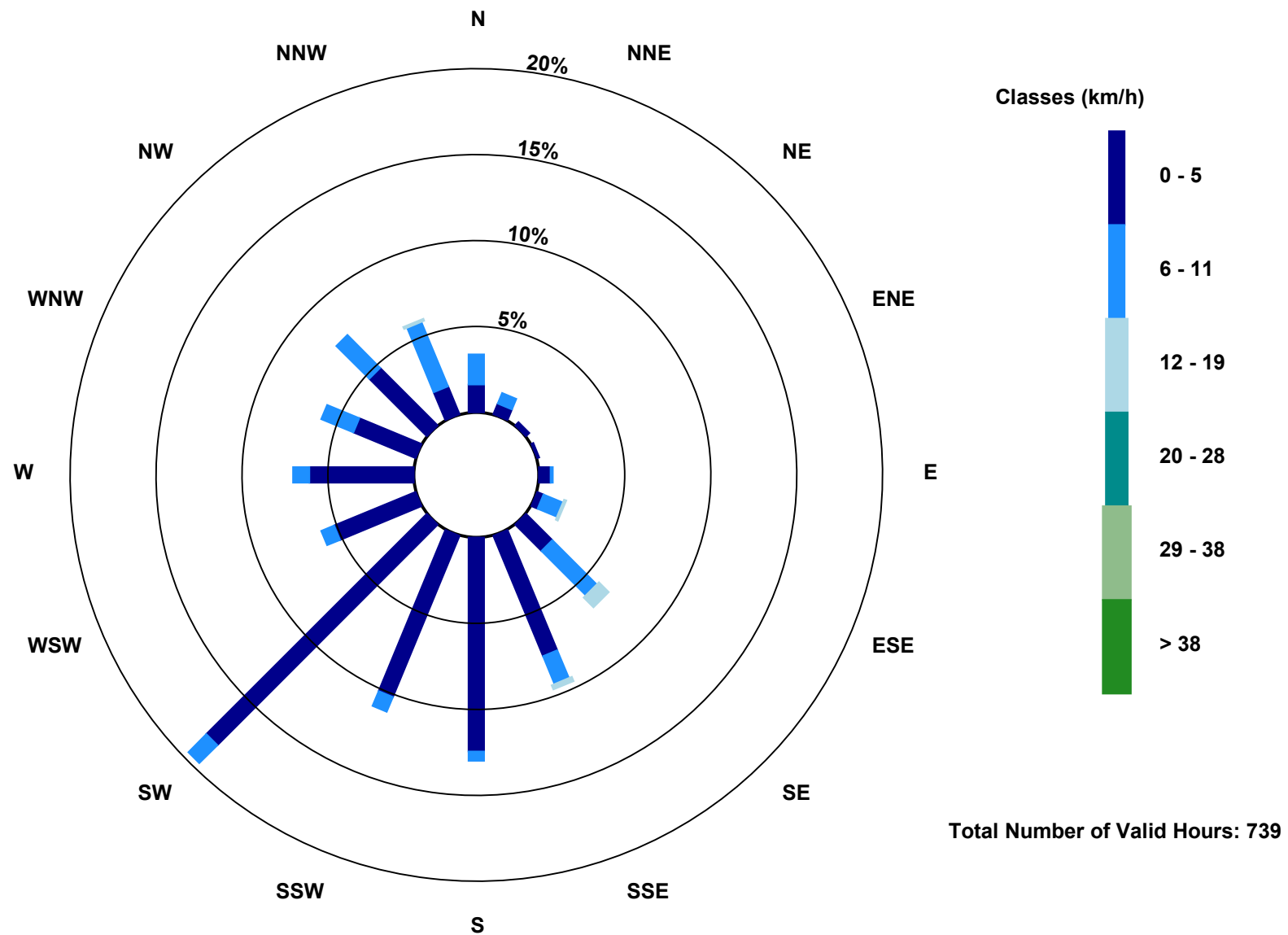
Total Number of Valid Hours: 739

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Jackfish 1





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Jackfish 1 - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 5 km/h on Jul 2 15:00																	Hours in Service: 744 Hours of Data: 739 Hours of Missing Data: 5 Hours of Calibration: 0 Percent Operational Time: 99.3								
Minimum Value: 0 km/h on Jul 14 21:00																									
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 1 Median = 2 Q ₃ = 2 P ₉₀ = 3 P ₉₉ = 4																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	UO	1	1	1	1	1	2	3	3	3	3	3	3	4	4	4	4	4	3	3	3	2	2	2	4
2-Jul	3	2	2	2	2	3	3	3	4	4	4	4	4	5	5	4	2	1	2	1	1	1	1	1	5
3-Jul	2	2	1	1	2	1	2	2	2	2	2	2	1	2	2	2	2	2	1	1	UO	UO	1	2	2
4-Jul	1	2	1	2	2	2	2	1	2	2	4	3	2	3	3	3	4	1	2	1	1	1	1	1	4
5-Jul	2	2	1	1	1	2	1	2	2	2	3	3	2	3	3	4	1	2	1	1	2	1	1	1	4
6-Jul	1	1	1	1	1	2	1	2	2	2	3	3	2	3	3	2	3	2	1	3	2	1	1	2	3
7-Jul	1	1	1	1	1	1	1	1	1	2	2	3	2	3	4	3	4	3	3	2	2	1	1	1	4
8-Jul	1	1	1	1	2	2	2	2	3	4	3	3	2	1	2	3	3	3	1	1	1	1	1	1	4
9-Jul	1	2	1	1	1	1	1	1	2	1	2	2	2	2	3	3	3	3	3	2	1	1	1	1	3
10-Jul	2	1	2	2	1	1	2	1	1	1	1	1	2	2	2	2	2	2	2	1	UO	2	1	2	2
11-Jul	1	2	1	2	2	2	1	1	1	UO	2	2	2	3	3	3	2	3	2	2	2	1	1	1	3
12-Jul	1	1	1	1	2	2	2	2	1	1	1	2	3	2	2	2	4	5	1	1	2	3	3	3	5
13-Jul	3	3	3	3	3	3	2	3	3	3	4	4	3	4	3	4	4	3	3	3	1	1	1	1	4
14-Jul	1	2	1	1	2	2	2	2	2	2	2	2	3	3	2	2	2	2	2	1	0	1	1	2	3
15-Jul	1	1	1	1	1	1	1	1	3	3	4	4	3	3	3	3	2	3	2	2	2	1	2	2	4
16-Jul	2	3	3	2	2	2	2	3	2	2	2	3	3	3	4	3	3	3	3	2	2	2	2	2	4
17-Jul	2	2	2	1	2	1	1	1	2	2	2	3	3	2	3	3	3	2	2	2	1	2	1	1	3
18-Jul	2	1	1	1	2	2	3	4	4	5	4	4	2	4	2	3	4	4	4	4	2	2	2	1	5
19-Jul	1	2	2	2	3	3	2	1	2	2	2	3	3	4	3	2	2	2	2	2	2	2	2	3	4
20-Jul	2	3	2	2	2	2	2	2	2	2	1	2	2	2	2	2	3	2	2	2	1	1	1	2	3
21-Jul	1	1	1	1	1	2	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	2
22-Jul	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	2
23-Jul	1	1	1	1	2	2	2	2	4	3	3	3	2	4	4	3	2	3	3	2	1	1	1	1	4
24-Jul	1	1	2	2	1	2	1	1	1	2	3	3	3	2	2	3	3	2	1	4	2	2	2	2	4
25-Jul	2	2	2	1	1	2	2	2	2	1	2	2	2	2	2	2	2	1	1	1	1	1	1	1	2
26-Jul	1	1	1	2	1	1	1	1	2	2	3	3	2	2	3	2	2	2	3	2	1	2	1	1	3
27-Jul	1	1	1	1	2	1	2	1	2	2	2	2	2	3	3	1	2	2	2	1	1	1	1	1	3
28-Jul	1	1	1	1	1	2	1	1	1	2	2	2	2	3	4	4	3	4	5	3	3	4	3	2	5
29-Jul	2	2	3	3	2	2	3	3	3	3	3	4	4	3	4	4	4	3	2	2	1	2	1	2	4
30-Jul	1	1	1	1	2	1	2	1	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	2
31-Jul	1	1	2	2	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	2
3 3 3 3 3 3 3 4 4 5 4 4 4 5 5 4 4 5 5 4 3 4 3 3																									
Diurnal Maximum																									
UO - Unstable Operation																									



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

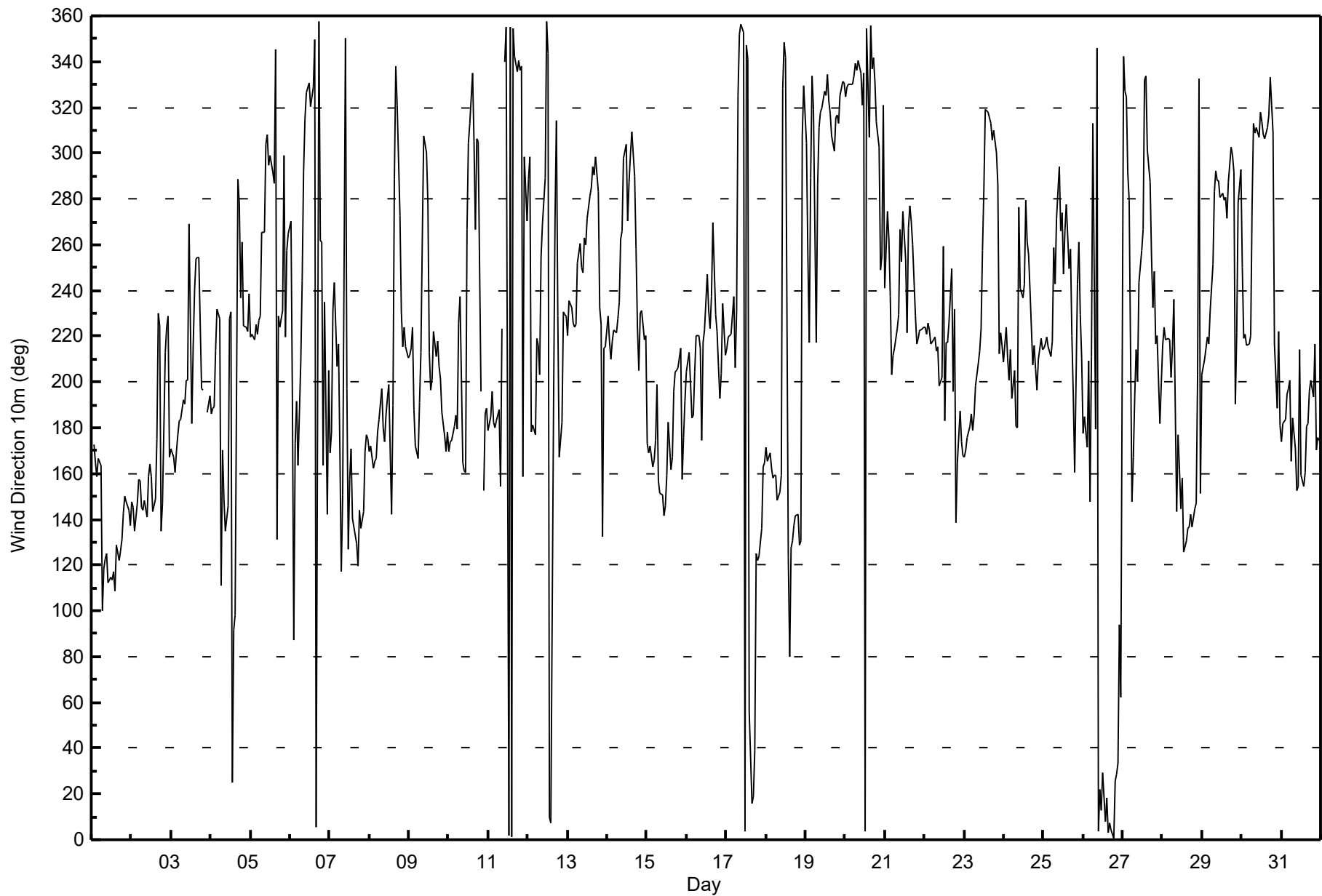
Jackfish 1 - July 2026

Direction of Maximum Speed: 108 deg on Jul 1 15:00 Direction of Maximum Daily Speed Average: 127.2 deg on Jul 1																				Hours in Service: 744 Hours of Data: 739					
Direction of Minimum Speed: 230 deg on Jul 14 21:00										Direction of Minimum Daily Speed Average: 0.2 deg on Jul 17										Hours of Missing Data: 5					
Monthly Average Direction: 222.6 deg																				Percent Operational Time: 99.3					
Day	Hourly Period Ending At (MST)																								Daily Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	UO	173	165	158	166	163	100	118	123	125	112	115	113	117	108	129	122	127	131	143	150	148	144	137	127.2
2-Jul	148	145	135	147	157	157	145	144	149	141	158	164	159	143	149	175	230	225	135	147	213	224	229	167	153.9
3-Jul	171	167	160	169	177	183	184	192	190	201	201	269	182	216	241	254	255	254	197	197	UO	UO	187	194	193.1
4-Jul	186	188	189	214	232	228	111	170	149	135	146	228	231	25	92	98	289	277	237	261	224	224	222	239	163.6
5-Jul	220	221	218	225	221	227	229	266	266	304	308	295	299	292	287	345	131	229	224	231	299	220	257	265	265.0
6-Jul	270	193	87	173	191	164	208	244	292	315	326	331	320	325	329	349	6	358	262	261	164	235	142	205	310.6
7-Jul	169	178	231	243	207	217	170	117	151	350	197	127	157	171	140	133	129	120	144	136	143	170	177	175	146.3
8-Jul	170	172	162	165	167	178	184	197	180	174	185	193	199	142	190	289	338	321	273	231	216	224	216	211	195.9
9-Jul	212	215	224	188	172	167	191	213	262	308	300	279	213	197	201	222	211	218	207	201	187	177	170	178	215.1
10-Jul	170	174	175	181	185	180	226	238	165	161	161	267	304	313	335	305	267	306	305	196	UO	153	186	188	226.6
11-Jul	179	185	196	183	180	183	188	154	223	UO	340	355	2	355	1	355	342	336	340	336	338	159	298	271	341.7
12-Jul	289	298	178	181	177	219	216	203	255	269	289	358	343	10	7	193	271	314	229	167	183	231	229	229	268.8
13-Jul	220	235	232	226	224	225	252	260	250	248	263	260	272	281	285	294	290	298	283	232	225	133	215	215	258.9
14-Jul	229	218	210	218	223	221	227	235	262	266	297	304	270	287	300	310	290	258	224	205	230	231	218	220	252.1
15-Jul	173	169	172	163	166	174	199	157	151	151	142	146	159	183	162	167	196	204	205	206	215	157	176	191	169.9
16-Jul	204	213	200	184	185	204	220	220	215	175	217	223	247	231	223	237	270	229	222	207	193	204	235	212	218.1
17-Jul	215	220	220	221	237	207	231	326	352	356	352	4	347	341	56	16	19	39	125	122	124	136	163	165	33.1
18-Jul	172	165	169	163	158	159	159	148	152	159	329	348	342	123	80	127	131	137	142	142	129	131	308	330	142.8
19-Jul	305	255	217	289	333	319	217	286	311	318	320	327	325	335	323	318	308	301	316	317	313	325	331	331	318.1
20-Jul	325	329	330	330	330	333	339	336	340	335	321	335	4	355	307	356	337	342	331	313	303	249	255	321	333.4
21-Jul	241	274	262	238	203	212	215	224	229	267	253	274	254	222	267	277	270	260	229	216	219	223	223	224	236.5
22-Jul	224	221	226	223	216	218	220	214	216	198	202	259	183	217	217	226	250	196	232	138	165	187	174	168	209.7
23-Jul	167	170	176	180	186	179	186	198	208	214	224	258	284	319	318	316	313	306	310	300	286	212	222	216	259.6
24-Jul	209	224	211	201	214	193	205	181	180	276	241	237	243	279	261	256	240	207	216	206	197	210	219	214	222.8
25-Jul	215	217	219	215	211	218	259	243	271	294	266	274	247	266	278	250	258	220	194	161	243	261	230	211	239.7
26-Jul	178	185	172	209	147	211	313	180	346	4	22	13	29	8	18	3	8	4	1	26	28	34	94	62	15.6
27-Jul	342	327	324	292	279	147	167	194	214	200	243	258	266	332	334	301	287	255	232	248	216	220	182	200	254.9
28-Jul	216	224	218	219	218	202	216	236	143	177	162	145	158	126	130	136	137	142	137	145	147	203	333	151	158.0
29-Jul	203	210	215	220	217	232	251	283	292	288	288	281	282	279	281	272	287	303	299	291	190	221	278	293	266.7
30-Jul	250	219	221	216	217	220	277	313	309	311	307	318	314	308	306	311	316	333	321	308	217	189	222	181	287.5
31-Jul	174	182	184	195	197	200	165	184	171	152	154	214	159	155	161	181	182	196	200	193	217	170	175	175	178.7
207.6 208.2 204.7 206.3 208.5 206.6 207.6 206.6 212.2 213.6 256.8 288.3 277.7 299.3 275.7 284.9 277.6 255.1 217.1 196.1 187.4 197.4 214.7 211.7																									
Diurnal Average																									
UO - Unstable Operation																									
All monthly, daily, and diurnal averages have been calculated using vector methods																									



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Jackfish 1 - July 2026





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Jackfish 1 - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 113 deg on Jul 24 10:00																		Hours in Service: 744							
Minimum Value: 8 deg on Jul 27 02:00																		Hours of Data: 739							
																		Hours of Missing Data: 5							
Percentiles: P ₁ = 11 P ₁₀ = 19 Q ₁ = 29 Median = 44 Q ₃ = 64 P ₉₀ = 75 P ₉₉ = 98																		Hours of Calibration: 0							
																		Percent Operational Time: 99.3							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jul	UO	9	18	15	14	30	33	26	24	27	26	26	33	36	30	32	28	28	26	31	34	32	30	26	36
2-Jul	35	33	25	30	29	34	31	34	36	31	40	41	43	33	39	50	40	71	49	35	33	45	75	15	75
3-Jul	27	25	17	23	36	40	54	54	54	59	54	64	62	51	34	43	56	64	71	58	UO	UO	51	27	71
4-Jul	21	32	51	20	21	33	83	34	36	33	44	59	72	62	45	33	83	64	69	57	51	40	23	36	83
5-Jul	21	17	19	25	24	29	45	75	64	59	58	60	64	71	70	54	61	39	45	40	43	54	46	67	75
6-Jul	74	80	64	68	36	58	79	53	58	48	32	37	44	58	62	28	66	85	77	64	77	74	64	70	85
7-Jul	69	17	52	52	50	67	81	92	76	89	75	90	53	65	38	27	30	28	35	28	28	18	16	20	92
8-Jul	15	18	18	25	27	44	52	58	54	52	52	60	38	43	84	51	24	38	43	24	27	21	18	23	84
9-Jul	36	46	80	80	30	25	41	25	54	59	62	71	46	55	57	57	51	48	52	47	28	17	20	22	80
10-Jul	66	65	20	20	21	33	67	45	23	20	60	51	62	74	94	73	88	65	86	83	UO	78	66	48	94
11-Jul	78	77	26	41	13	74	78	59	32	UO	59	28	30	33	34	30	29	26	25	17	58	74	84	48	84
12-Jul	34	40	61	18	22	21	44	36	66	103	66	37	30	44	80	62	68	64	19	35	25	35	48	60	103
13-Jul	57	54	48	40	53	56	69	73	58	60	68	61	70	69	75	68	72	67	75	86	109	87	34	19	109
14-Jul	38	29	22	20	18	22	32	53	66	77	67	68	68	68	63	61	102	67	72	61	66	43	61	46	102
15-Jul	79	9	14	46	12	15	32	22	36	40	32	35	50	53	48	51	55	56	55	43	45	55	37	50	79
16-Jul	60	36	43	41	49	52	45	51	52	51	58	56	66	62	59	66	74	66	50	35	34	41	53	34	74
17-Jul	39	26	22	21	65	36	32	43	42	50	51	56	57	64	70	56	59	77	27	18	15	23	17	23	77
18-Jul	24	22	24	24	23	30	35	34	35	51	29	45	99	27	87	23	27	30	33	34	21	20	53	17	99
19-Jul	57	60	36	67	16	61	64	68	28	21	30	21	19	21	19	25	31	36	21	18	21	15	15	16	68
20-Jul	14	15	13	13	15	15	16	19	18	22	24	27	35	41	57	38	31	22	22	33	35	19	17	73	73
21-Jul	90	62	60	14	43	56	23	44	52	85	80	82	87	72	82	70	69	69	73	13	15	15	13	15	90
22-Jul	17	16	20	33	13	14	17	26	43	95	96	93	85	86	75	93	100	59	43	65	16	15	9	10	100
23-Jul	10	15	24	27	45	48	53	45	43	43	46	70	67	25	23	33	28	38	31	39	62	50	26	21	70
24-Jul	21	18	35	68	24	49	58	46	60	113	83	68	73	75	81	76	61	41	39	40	40	51	23	23	113
25-Jul	41	65	31	37	31	36	65	66	74	59	64	67	73	72	67	90	76	32	68	33	83	73	55	51	90
26-Jul	33	31	17	35	29	36	48	90	83	33	39	35	47	45	46	47	31	31	29	36	36	44	33	73	90
27-Jul	35	8	35	37	76	32	32	41	41	57	77	66	73	39	41	30	46	66	44	39	39	19	24	48	77
28-Jul	33	21	22	22	29	44	26	71	84	71	77	61	59	45	32	34	34	33	30	33	30	79	84	94	94
29-Jul	32	43	48	49	47	57	72	74	67	66	63	64	67	70	71	64	71	70	96	102	76	63	91	60	102
30-Jul	71	31	22	30	51	30	67	47	43	45	46	43	48	54	54	46	57	51	53	87	97	12	21	69	97
31-Jul	10	11	13	12	46	52	26	21	37	33	72	57	107	80	55	83	51	43	36	16	76	49	16	23	107
90 80 80 80 76 74 83 92 84 113 96 93 107 86 94 93 102 85 96 102 109 87 91 94																									
Diurnal Maximum																									
UO - Unstable Operation																									



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS508
KIRBY NORTH
JULY 2026

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

August 31, 2026

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - KIRBY NORTH (AMS 508)
JULY 2026

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	583	27	27	100	6.7	0	1.5	0
H2S (ppb) Average	562	27	27	100	0.6	0	0.3	0
THC (ppm) Average	583	27	27	100	2.9	-	2.4	-
NO2 (ppb) Average	537	28	28	100	4.4	0	1.5	-
NO (ppb) Average	537	28	28	100	18.6	-	1.5	-
NOX (ppb) Average	537	28	28	100	18.6	-	2.4	-
Temperature 2 m (C) Average	586	0	0	100	30.6	-	23.7	-
Relative Humidity (%) Average	586	0	0	100	98.8	-	86.1	-
Wind Speed 10 m (km/h) Average	589	0	0	100	25	-	17	-
Wind Direction 10 m (deg) Average	589	0	0	100	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - KIRBY NORTH (AMS508)
JULY 2026

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

Parameter	Number	Mean	StnDev	Total	Percentile						
					Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	583	0.37	0.8	-	0	0	0	0.2	0.3	0.9	6.7
H2S (ppb) Average	562	0.14	0.1	-	0	0.1	0.1	0.1	0.2	0.2	0.6
THC (ppm) Average	583	2.28	0.1	-	2.1	2.1	2.2	2.3	2.3	2.4	2.9
NO2 (ppb) Average	537	0.96	0.6	-	0	0.4	0.6	0.8	1.2	1.7	4.4
NO (ppb) Average	537	0.29	1.1	-	0	0	0	0.1	0.2	0.6	18.6
NOX (ppb) Average	537	1.24	1.3	-	0.2	0.4	0.6	0.9	1.4	2.3	18.6
Temperature 2 m (C) Average	586	18	4.6	-	6.9	11.9	14.8	17.6	21	24.4	30.6
Relative Humidity (%) Average	586	68.88	19.9	-	21.6	40.9	52	70.4	86.7	94.3	98.8
Wind Speed 10 m (km/h) Average	589	9.2	5	-	0	4	6	8	12	15	25
Wind Direction 10 m (deg) Average	589	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - KIRBY NORTH (AMS508)
JULY 2026

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
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No operational issues to report



Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO₂) - ppb

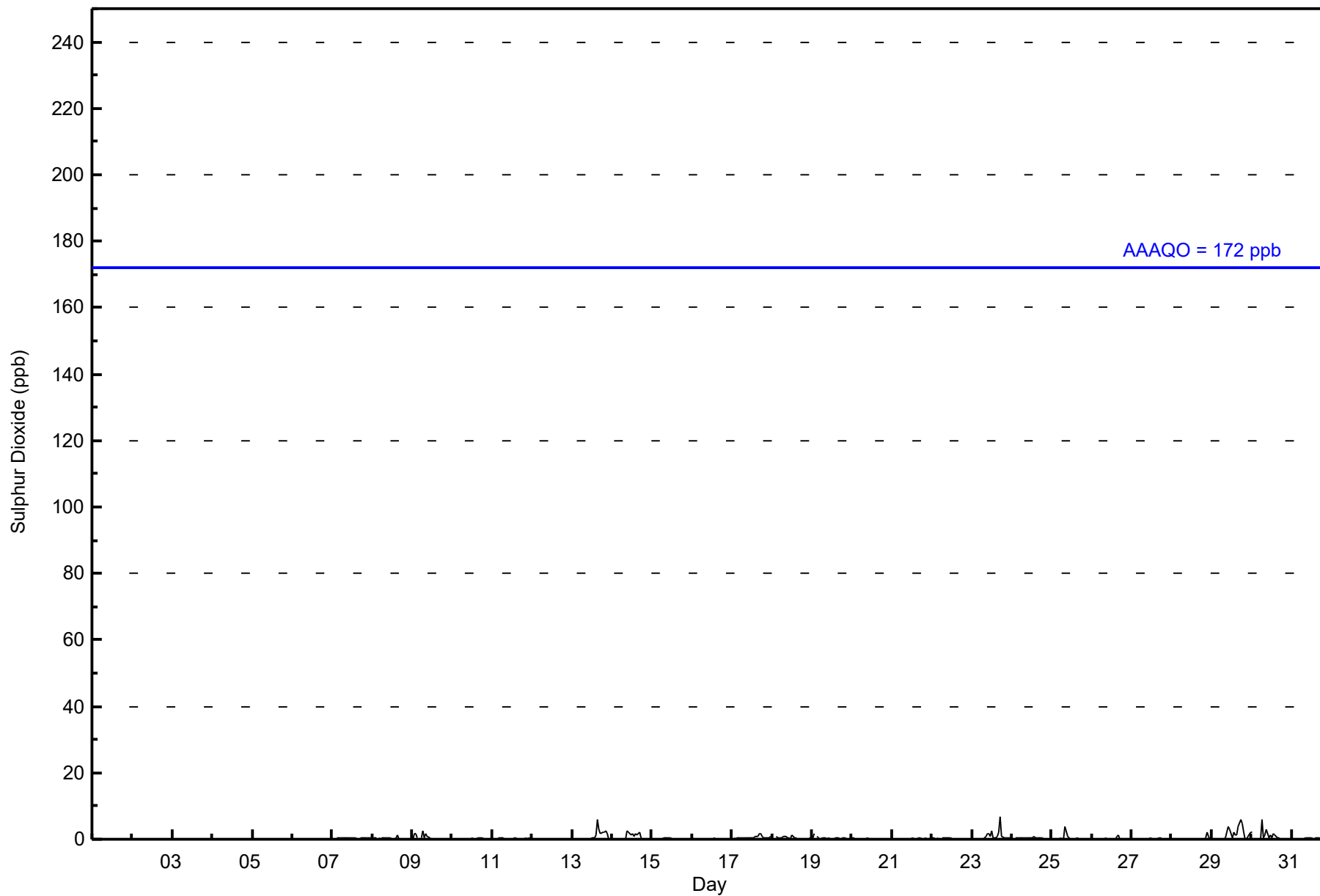
Kirby North - July 2026

Number of Exceedances (AAAQO): Maximum Value: 6.7 ppb on Jul 23 18:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 1.5 ppb on Jul 29						Hours in Service: 610 Hours of Data: 583	
Minimum Value: 0.0 ppb on Jul 6 17:00 Maximum Diurnal Average: 0.8 ppb at hour 18 Monthly Average: 0.37 ppb																			Minimum Daily Average: 0.1 ppb on Jul 20 Minimum Diurnal Average: 0.1 ppb at hour 5 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.9 P ₉₉ = 3.7						Hours of Missing Data: 27 Hours of Calibration: 27 Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
3-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
4-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
5-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
6-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	--	0.1
7-Jul	0.1	0.2	Z	0.2	0.3	0.3	0.2	0.4	0.4	0.4	0.5	0.3	0.3	0.3	0.3	0.1	0.2	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.3	0.5
8-Jul	0.3	0.3	0.4	Z	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.2	1.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	1.4
9-Jul	0.1	1.6	1.7	0.3	Z	0.3	2.5	0.3	1.6	0.8	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.5	2.5
10-Jul	0.1	0.1	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.5	0.2	0.1	0.2	0.5	0.6	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.6
11-Jul	Z	0.0	0.0	0.1	0.2	0.3	0.5	0.1	0.0	0.0	0.0	0.0	0.1	0.5	0.2	0.1	0.2	0.1	0.1	0.2	0.3	0.2	0.4	0.2	0.2	0.5
12-Jul	0.5	Z	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.5
13-Jul	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	1.2	6.1	3.2	1.9	2.1	2.2	2.5	1.9	0.0	0.0	1.0	6.1
14-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	2.7	2.0	1.4	1.5	0.9	1.8	1.4	2.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.7
15-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.5	0.4	0.3	0.3	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.5
16-Jul	0.3	0.1	0.1	0.1	0.0	Z	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.0	0.0	0.1	0.1	0.3
17-Jul	Z	0.3	0.2	0.2	0.2	0.3	0.2	0.5	0.2	0.3	0.3	0.4	0.3	0.5	0.7	0.9	1.8	1.5	0.8	0.5	0.4	0.6	0.4	0.7	0.5	1.8
18-Jul	0.8	Z	0.7	0.6	0.5	0.6	0.3	0.8	0.6	0.5	0.2	0.2	1.1	0.5	0.5	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.5	0.4	1.1
19-Jul	0.3	1.7	Z	0.7	0.4	0.2	0.3	0.5	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.4	0.3	0.1	0.1	0.1	0.3	1.7
20-Jul	0.2	0.3	0.1	Z	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
21-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.1	0.0	0.1	0.5	0.3	0.2	0.2	0.2	0.1	0.2	0.3	0.1	0.5
22-Jul	0.2	0.2	0.1	0.2	0.2	Z	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.3
23-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.1	1.6	1.6	0.9	2.7	0.3	0.5	1.0	2.3	6.7	1.0	0.3	0.3	0.4	0.4	0.5	1.0	6.7
24-Jul	0.5	Z	0.3	0.5	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.5	0.9	0.4	0.3	0.3	0.4	0.2	0.0	0.1	0.1	0.1	0.0	0.3	0.9
25-Jul	0.0	0.0	Z	0.0	0.0	0.2	0.0	0.2	3.7	0.8	0.2	0.1	0.1	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	3.7
26-Jul	0.0	0.0	0.1	Z	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.1	0.2	1.0	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.3
27-Jul	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
28-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.0	0.1	0.3	2.3	0.7	0.0	0.2	2.3
29-Jul	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.2	3.6	2.9	0.5	2.1	1.1	1.1	3.8	5.9	4.7	2.2	0.1	0.1	1.0	2.1	1.5	5.9
30-Jul	2.0	Z	0.1	0.0	0.1	0.2	6.0	0.6	1.2	3.0	0.5	1.3	0.6	1.9	1.2	0.3	0.3	0.2	0.1	0.0	0.1	0.1	0.0	0.1	0.9	6.0
31-Jul	0.1	0.0	Z	0.0	0.1	0.1	0.0	0.1	0.3	0.4	0.4	0.3	0.2	0.2	0.5	0.3	0.3	0.3	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.5
0.3 0.2 0.2 0.2 0.1 0.2 0.5 0.2 0.5 0.6 0.5 0.4 0.4 0.4 0.4 0.6 0.7 0.8 0.4 0.3 0.2 0.2 0.2 0.2 0.2 Diurnal Average																										
2.0 1.7 1.7 0.7 0.5 0.6 6.0 0.8 3.7 3.0 3.6 2.9 2.7 2.1 1.8 6.1 3.8 6.7 4.7 2.2 2.5 2.3 1.0 2.1 Diurnal Maximum																										
Z - zerospan C - Calibration NS - Not in Service																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																										



Wood Buffalo Environmental Association
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Kirby North - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Kirby North - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	583	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 583

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Sulphur Dioxide (SO₂) - ppb
Kirby North - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 10	14	12	14	8	7	20	44	58	65	63	83	65	19	34	35	24	565
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	14	12	14	8	7	20	44	58	65	63	83	65	19	34	35	24	565

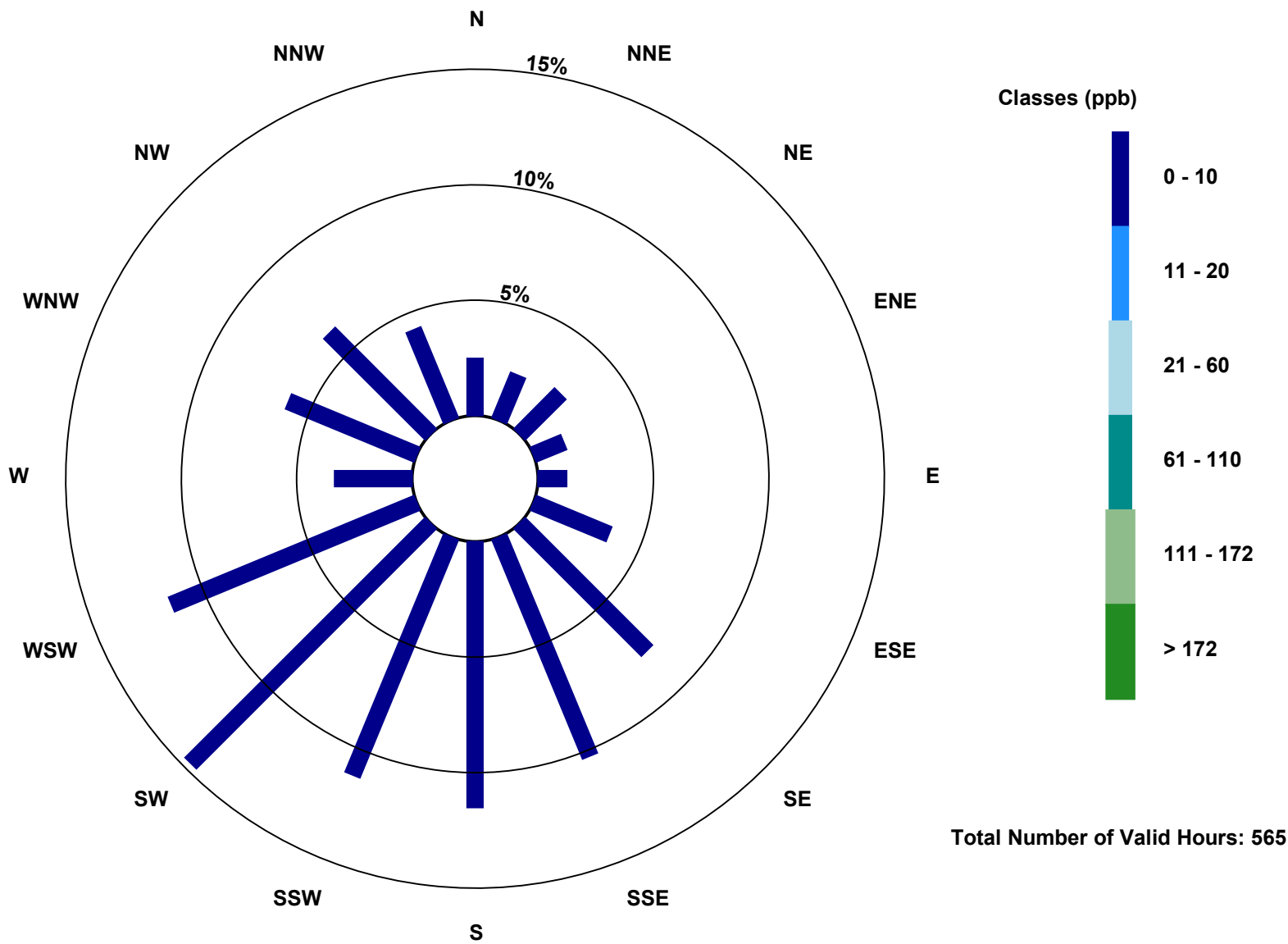
Total Number of Valid Hours: 565

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

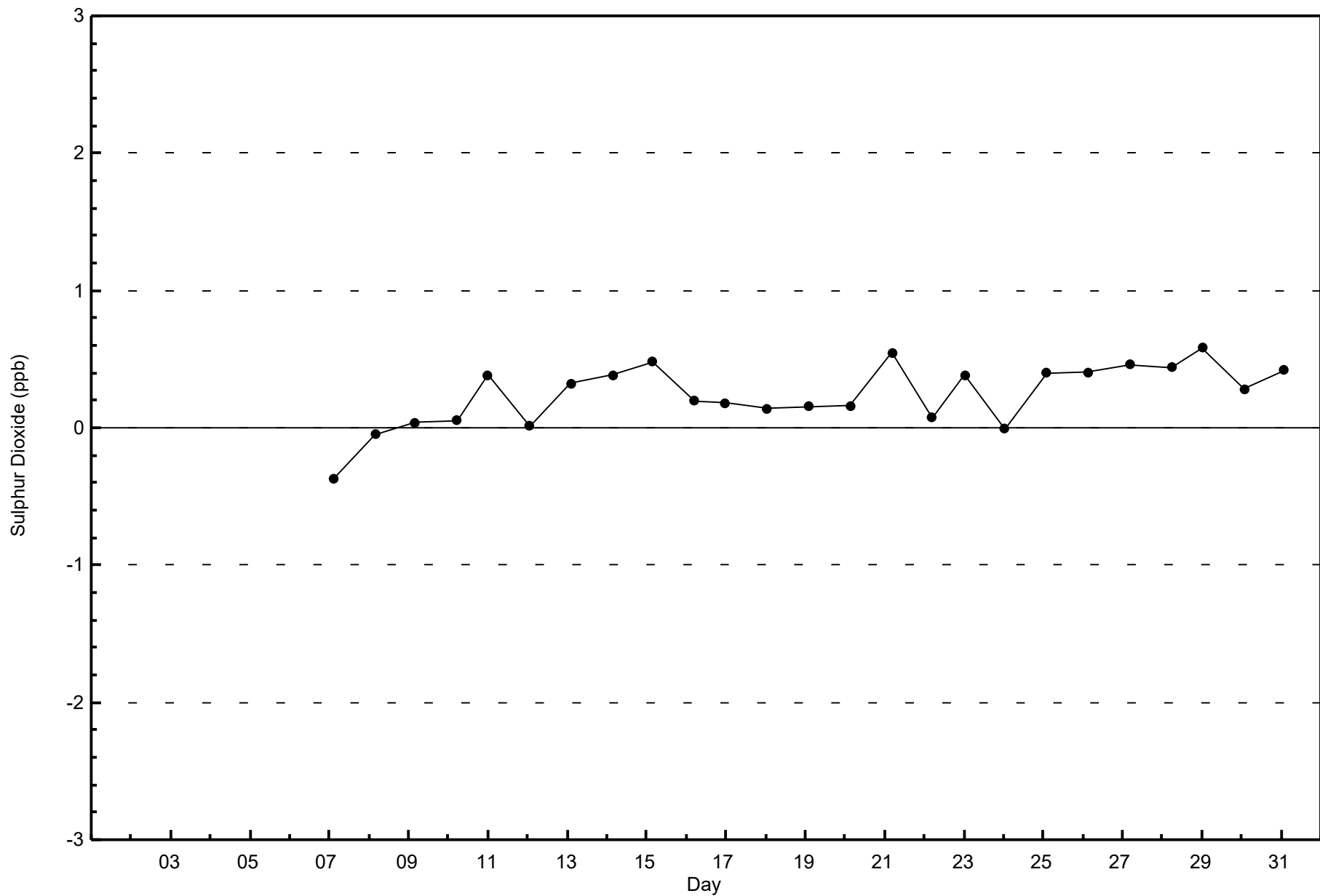
Sulphur Dioxide (SO₂) - ppb
Kirby North





Wood Buffalo Environmental Association
Zero Responses

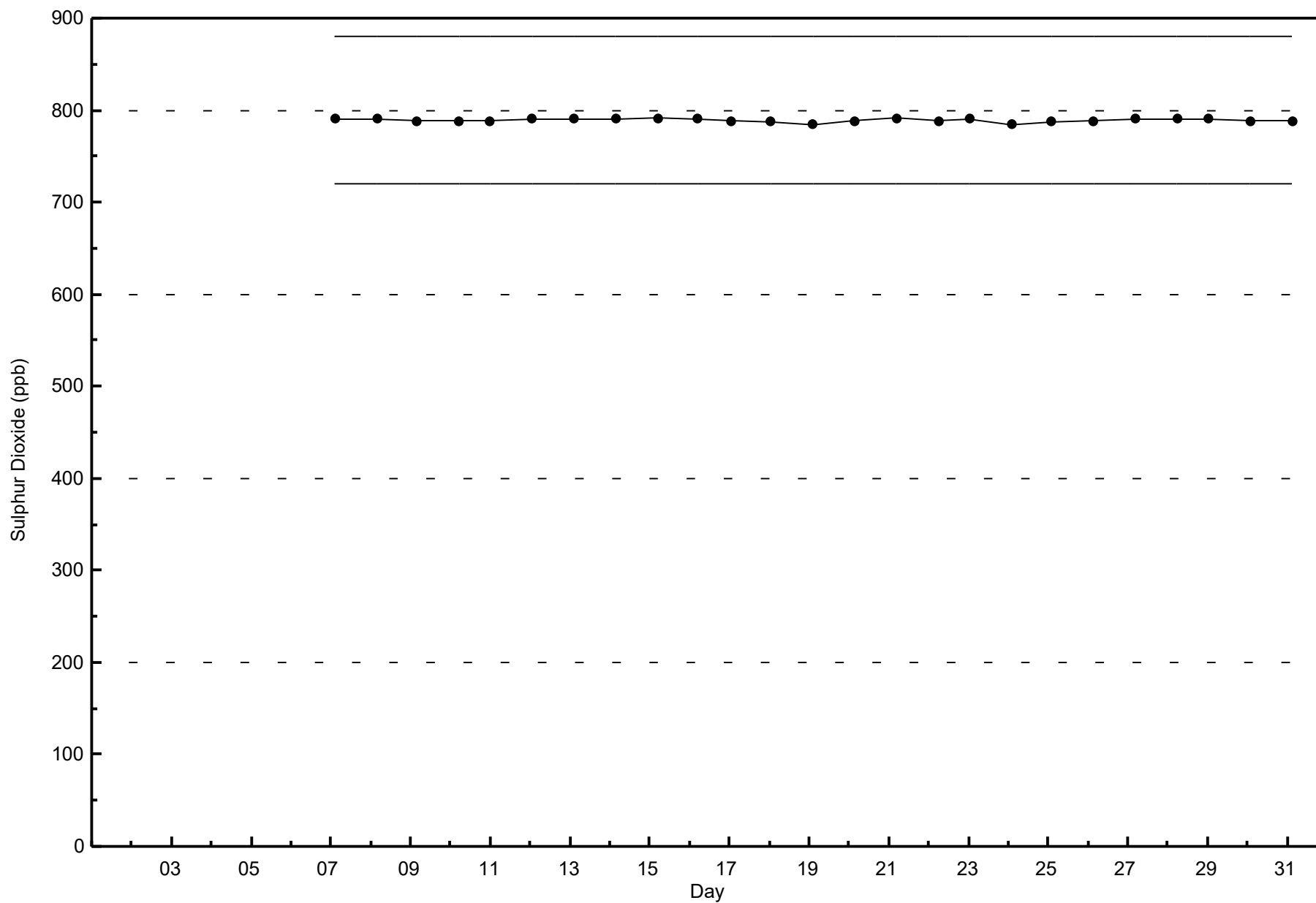
Sulphur Dioxide (SO₂) - ppb
Kirby North - July 2026





Wood Buffalo Environmental Association
Span Responses

Sulphur Dioxide (SO₂) - ppb
Kirby North - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H₂S) - ppb

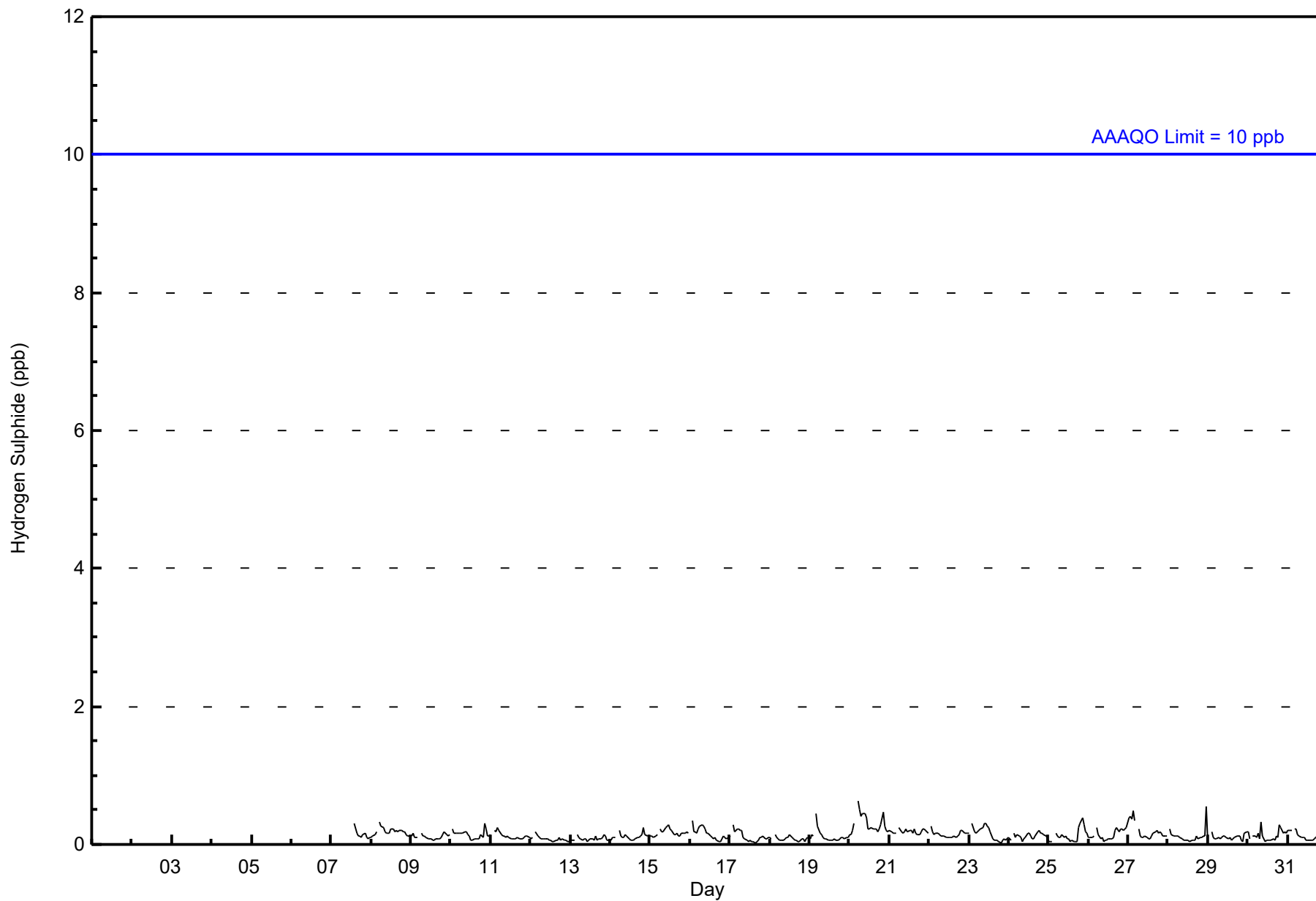
Kirby North - July 2026

Number of Exceedances (AAAQO): Maximum Value: 0.6 ppb on Jul 20 06:00																				1-hr: 0 24-hr: 0 Maximum Daily Average: 0.3 ppb on Jul 20					Hours in Service: 589 Hours of Data: 562		
Minimum Value: 0.0 ppb on Jul 17 16:00 Maximum Diurnal Average: 0.2 ppb at hour 6 Monthly Average: 0.14 ppb																				Minimum Daily Average: 0.1 ppb on Jul 12 Minimum Diurnal Average: 0.1 ppb at hour 15 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.2 P ₉₉ = 0.5					Hours of Missing Data: 27 Hours of Calibration: 27 Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
3-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
4-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
5-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
6-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
7-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	--	0.3
8-Jul	0.1	0.1	0.1	0.2	Z	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.3
9-Jul	0.1	0.2	0.1	0.1	0.1	Z	0.2	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	0.2	0.1	0.1	0.1	0.1	0.2
10-Jul	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.1	0.1	0.3
11-Jul	0.1	Z	0.2	0.2	0.2	0.2	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	0.2
12-Jul	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	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	0.1	0.0	0.0	0.1	0.2
13-Jul	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	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
14-Jul	0.1	0.1	0.1	0.1	Z	0.2	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	0.2	0.1	0.1	0.1	0.1	0.2
15-Jul	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3
16-Jul	Z	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.1	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	0.3
17-Jul	0.1	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.1	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	0.3
18-Jul	0.1	0.1	Z	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	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1
19-Jul	0.1	0.1	0.1	Z	0.4	0.3	0.2	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	0.4
20-Jul	0.1	0.1	0.2	0.3	Z	0.6	0.5	0.4	0.5	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.3	0.2	0.2	0.3	0.6
21-Jul	0.2	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
22-Jul	Z	0.3	0.2	0.1	0.2	0.2	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	0.2	0.2	0.2	0.2	0.2	0.1	0.3
23-Jul	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.3
24-Jul	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2
25-Jul	0.0	0.0	0.0	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.3	0.4	0.3	0.2	0.2	0.1	0.4	0.4
26-Jul	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.3
27-Jul	0.4	0.4	0.4	0.5	0.4	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.5
28-Jul	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.1	0.5
29-Jul	0.1	Z	0.2	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	0.0	0.2	0.2	0.1	0.2
30-Jul	0.2	0.1	Z	0.1	0.1	0.1	0.2	0.1	0.3	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.2	0.2	0.1	0.3
31-Jul	0.2	0.2	0.2	Z	0.2	0.2	0.2	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	0.2	0.2	0.1	0.1	0.1	0.1	0.2
0.1 0.2 0.2 0.2 0.2 0.2 0.2 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 0.2 0.1 0.1 0.1 0.1																									Diurnal Average		
0.4 0.4 0.4 0.5 0.4 0.6 0.5 0.4 0.5 0.5 0.4 0.3 0.2 0.2 0.3 0.2 0.2 0.3 0.2 0.3 0.5 0.3 0.2 0.5																									Diurnal Maximum		
Z - zerospan C - Calibration NS - Not in Service																											
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Kirby North - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Kirby North - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	562	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 562

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Hydrogen Sulphide (H₂S) - ppb
Kirby North - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2	14	12	14	8	7	20	44	56	69	60	82	64	19	34	35	24	562
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	14	12	14	8	7	20	44	56	69	60	82	64	19	34	35	24	562

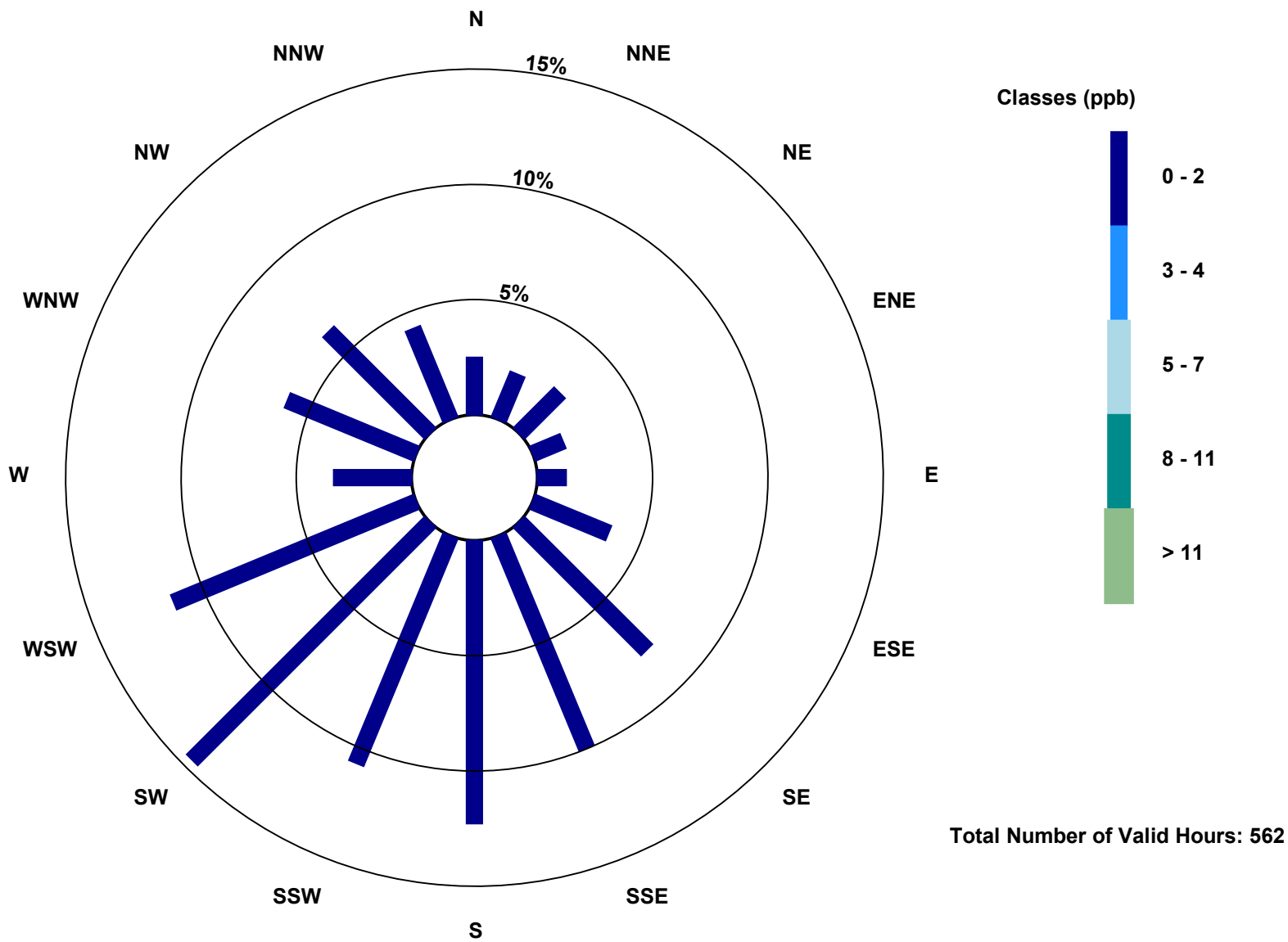
Total Number of Valid Hours: 562

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

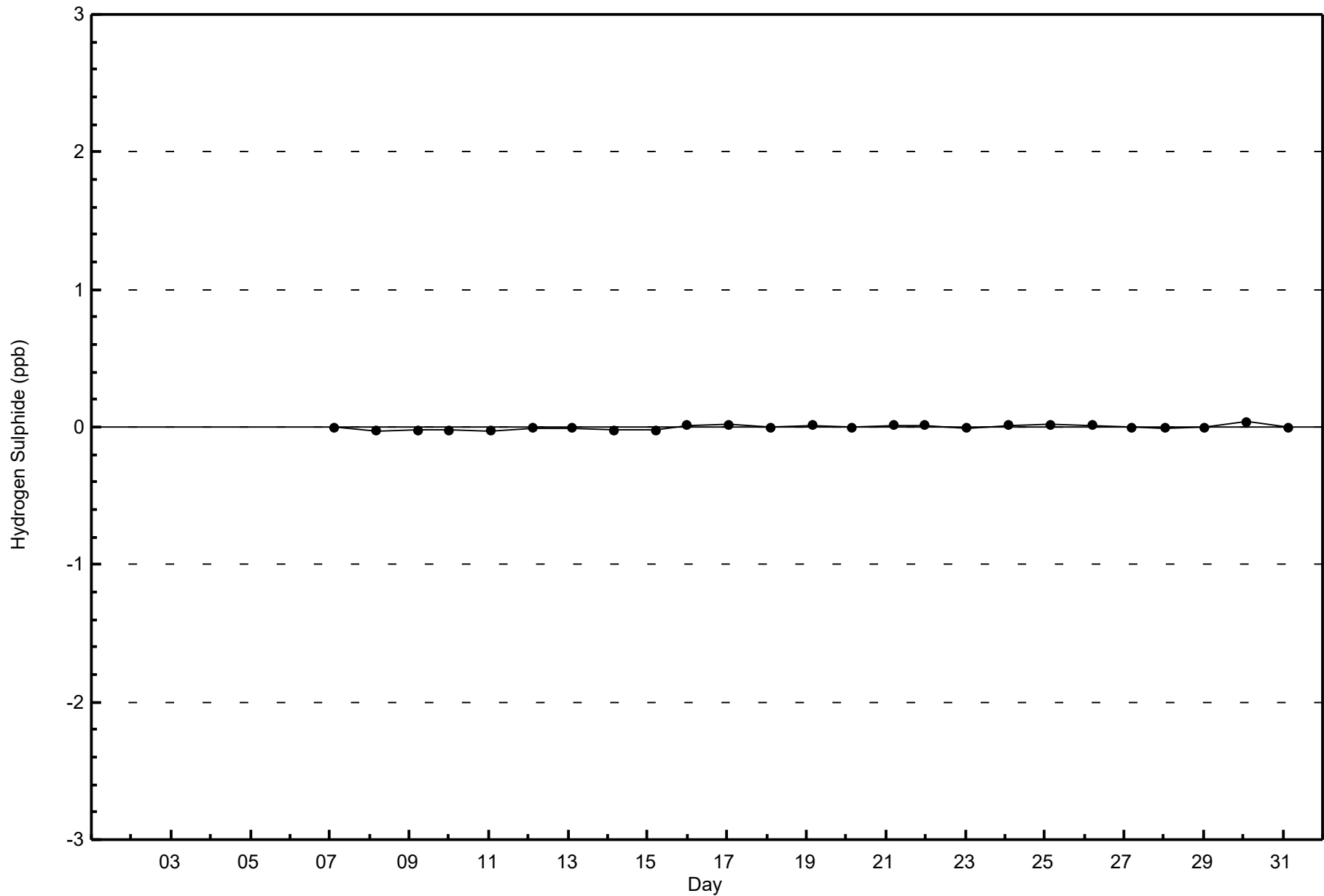
Hydrogen Sulphide (H₂S) - ppb
Kirby North





Wood Buffalo Environmental Association
Zero Responses

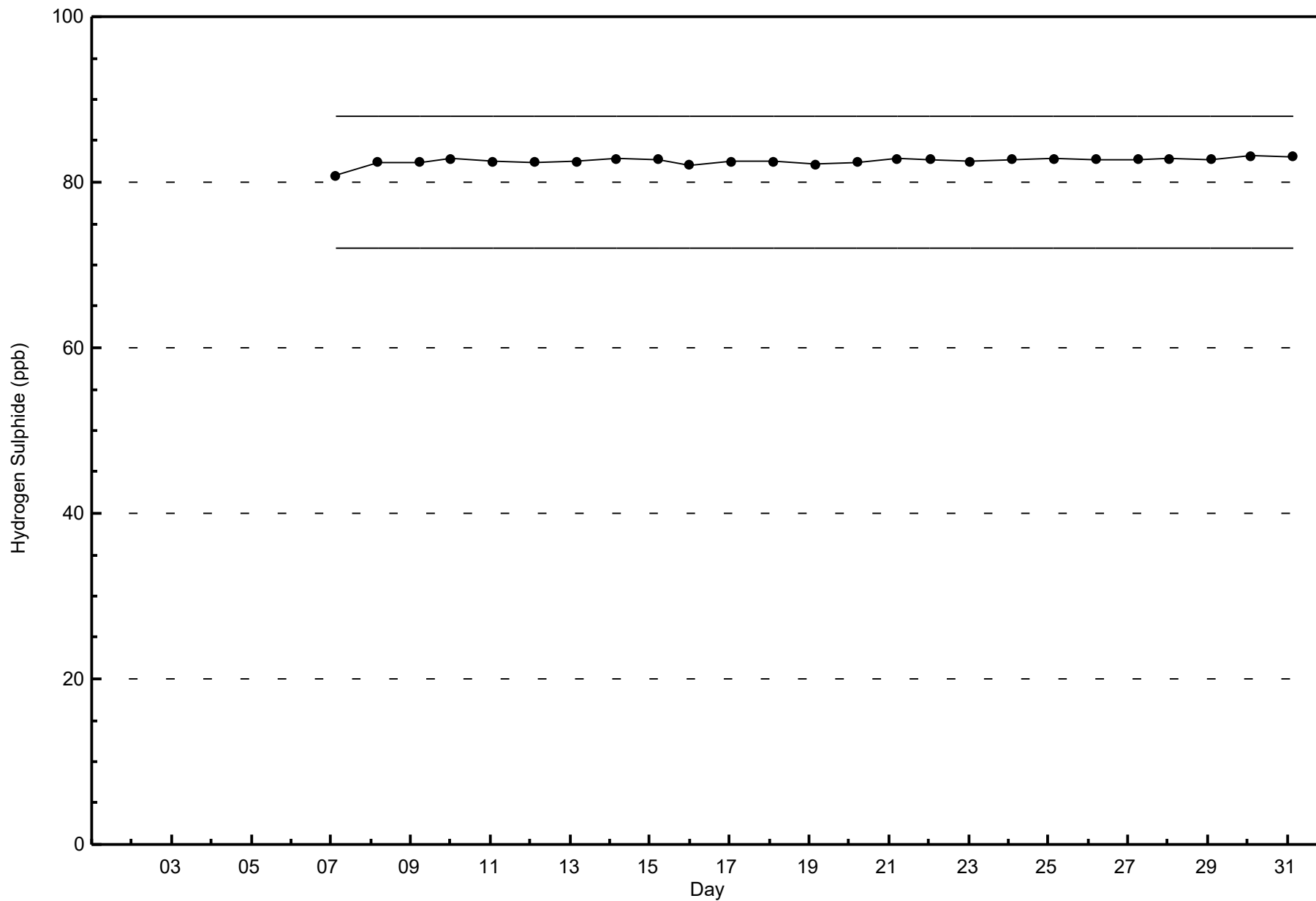
Hydrogen Sulphide (H₂S) - ppb
Kirby North - July 2026





Wood Buffalo Environmental Association
Span Responses

Hydrogen Sulphide (H₂S) - ppb
Kirby North - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

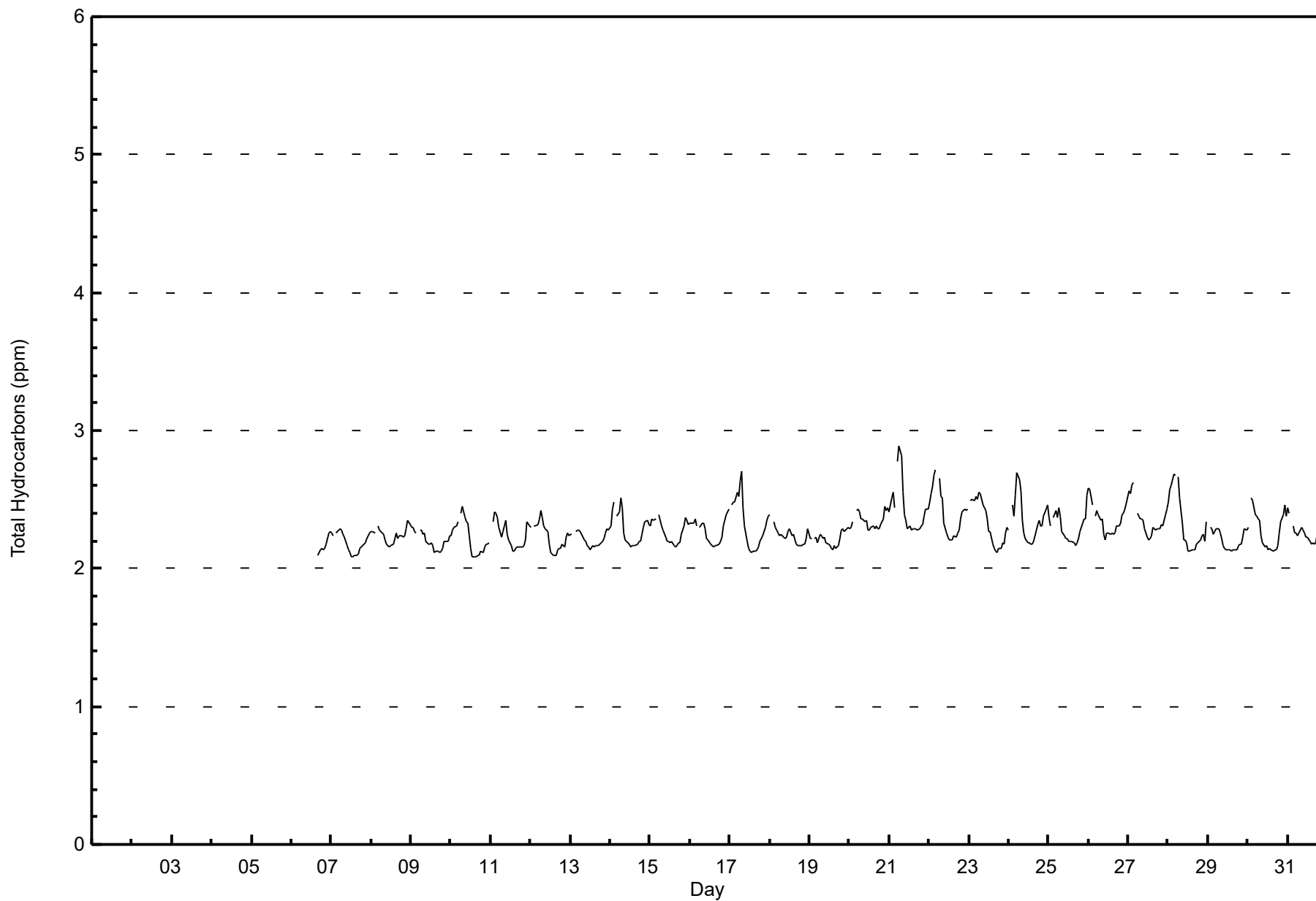
Kirby North - July 2026

Maximum Value: 2.9 ppm on Jul 21 07:00																		Maximum Daily Average: 2.4 ppm on Jul 21								Hours in Service: 610	
Minimum Value: 2.1 ppm on Jul 7 14:00																		Minimum Daily Average: 2.2 ppm on Jul 7								Hours of Data: 583	
Maximum Diurnal Average: 2.4 ppm at hour 3																		Minimum Diurnal Average: 2.2 ppm at hour 15								Hours of Missing Data: 27	
Monthly Average: 2.28 ppm																		Percentiles: P ₁ = 2.1 P ₁₀ = 2.1 Q ₁ = 2.2 Median = 2.3 Q ₃ = 2.3 P ₉₀ = 2.4 P ₉₉ = 2.7								Hours of Calibration: 27	
																										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
2-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
3-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
4-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
5-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
6-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	--	2.3	
7-Jul	2.3	2.2	Z	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3	
8-Jul	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.3	2.2	2.4	
9-Jul	2.3	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.3	
10-Jul	2.2	2.3	2.3	2.3	2.3	Z	2.4	2.4	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.4	
11-Jul	Z	2.3	2.4	2.4	2.4	2.3	2.2	2.3	2.3	2.4	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.4	
12-Jul	2.3	Z	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.4	
13-Jul	2.2	2.2	Z	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.3	
14-Jul	2.3	2.4	2.5	Z	2.4	2.4	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.3	2.3	2.5	
15-Jul	2.3	2.4	2.3	2.4	Z	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.3	2.3	2.3	2.4	
16-Jul	2.3	2.3	2.3	2.4	2.3	Z	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.4	2.4	2.3	2.4	
17-Jul	Z	2.5	2.5	2.5	2.6	2.5	2.6	2.7	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.4	2.4	2.3	2.7	
18-Jul	2.4	Z	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.4	
19-Jul	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.3	
20-Jul	2.3	2.3	2.3	Z	2.4	2.4	2.4	2.4	2.4	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.5	2.4	2.4	2.3	2.5	
21-Jul	2.4	2.5	2.5	2.4	Z	2.8	2.9	2.8	2.6	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.9	
22-Jul	2.5	2.5	2.6	2.7	2.7	Z	2.7	2.5	2.5	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.7	
23-Jul	Z	2.5	2.5	2.5	2.5	2.5	2.6	2.5	2.5	2.4	2.4	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.6	
24-Jul	2.3	Z	2.5	2.4	2.5	2.7	2.6	2.6	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.5	2.4	2.7	
25-Jul	2.4	2.3	Z	2.4	2.4	2.4	2.4	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.4	2.5	2.3	2.5	
26-Jul	2.6	2.6	2.5	Z	2.4	2.4	2.4	2.3	2.4	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.5	2.4	2.6	
27-Jul	2.6	2.5	2.6	2.6	Z	2.4	2.4	2.4	2.4	2.4	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.6	
28-Jul	2.5	2.6	2.6	2.7	2.7	Z	2.7	2.5	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.3	2.7	
29-Jul	Z	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.3	
30-Jul	2.3	Z	2.5	2.5	2.4	2.4	2.4	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.4	2.5	2.4	2.3	2.5	
31-Jul	2.4	2.4	Z	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.3	2.4	
2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.3 2.3 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.3 2.3 2.3 2.3																										Diurnal Average	
2.6 2.6 2.6 2.7 2.7 2.8 2.9 2.8 2.6 2.4 2.4 2.4 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.4 2.4 2.5 2.5 2.5																										Diurnal Maximum	
Z - zerospan C - Calibration NS - Not in Service																											



Wood Buffalo Environmental Association
Hourly Averages

Total Hydrocarbons (THC) - ppm
Kirby North - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm
Kirby North - July 2026

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	0	0.00	0.00
2.1 - 3.0	583	100.00	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 583

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Total Hydrocarbons (THC) - ppm
Kirby North - July 2026

Concentration Ranges (ppm)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.1 - 3.0	14	12	14	8	7	20	44	58	65	63	83	65	19	34	35	24	565
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	14	12	14	8	7	20	44	58	65	63	83	65	19	34	35	24	565

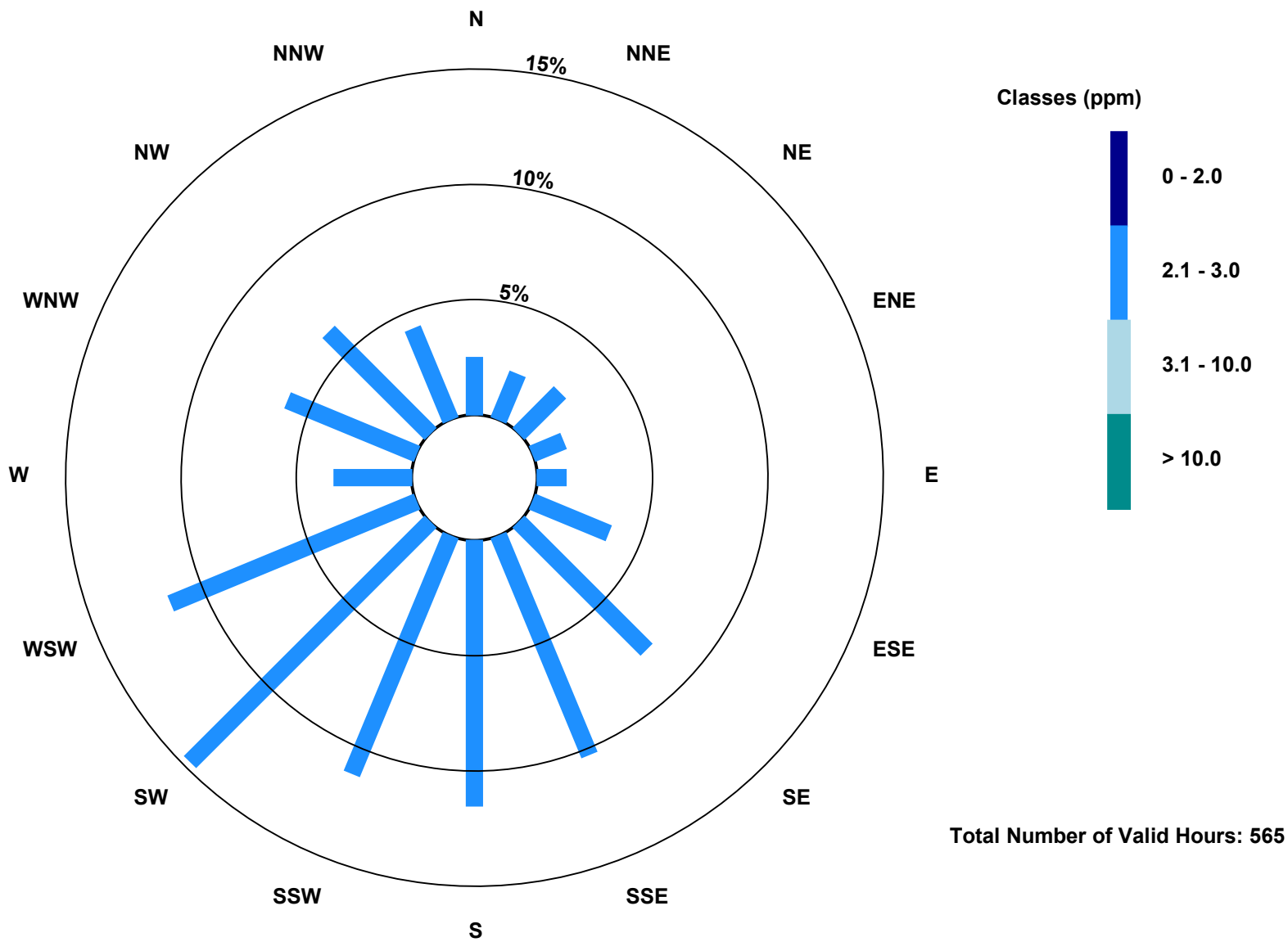
Total Number of Valid Hours: 565

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Total Hydrocarbons (THC) - ppm
Kirby North



Total Number of Valid Hours: 565

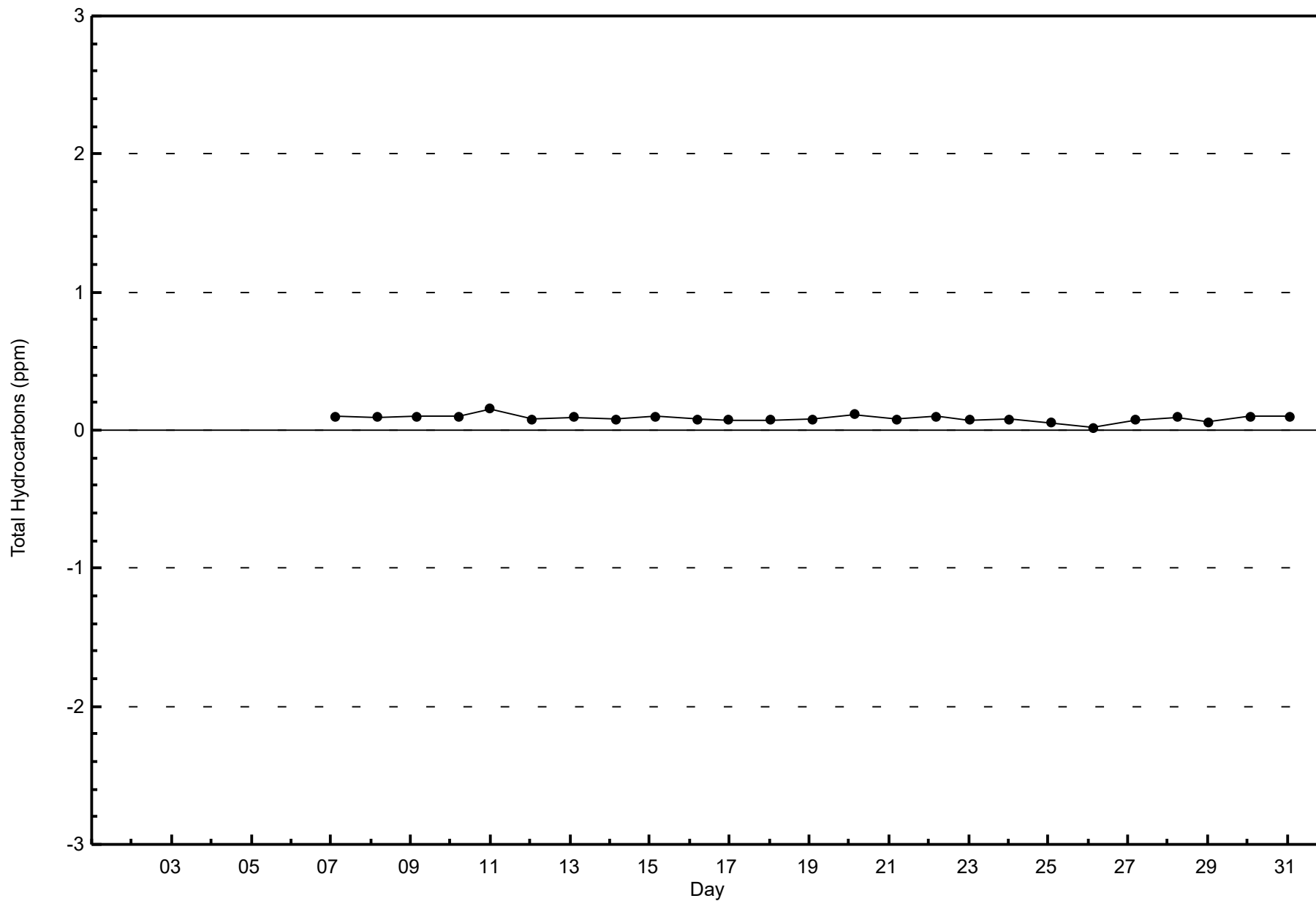


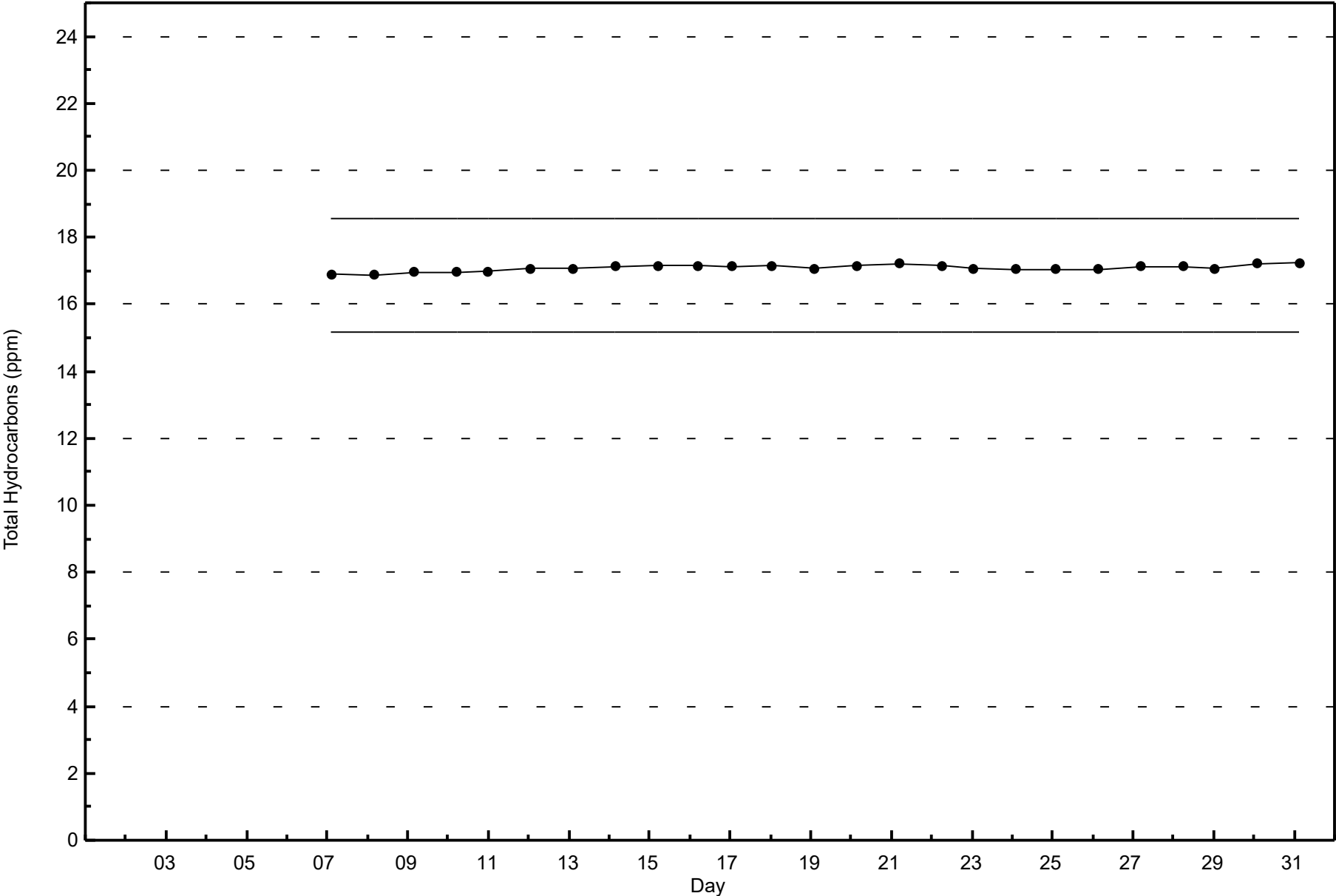
Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Kirby North - July 2026







Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

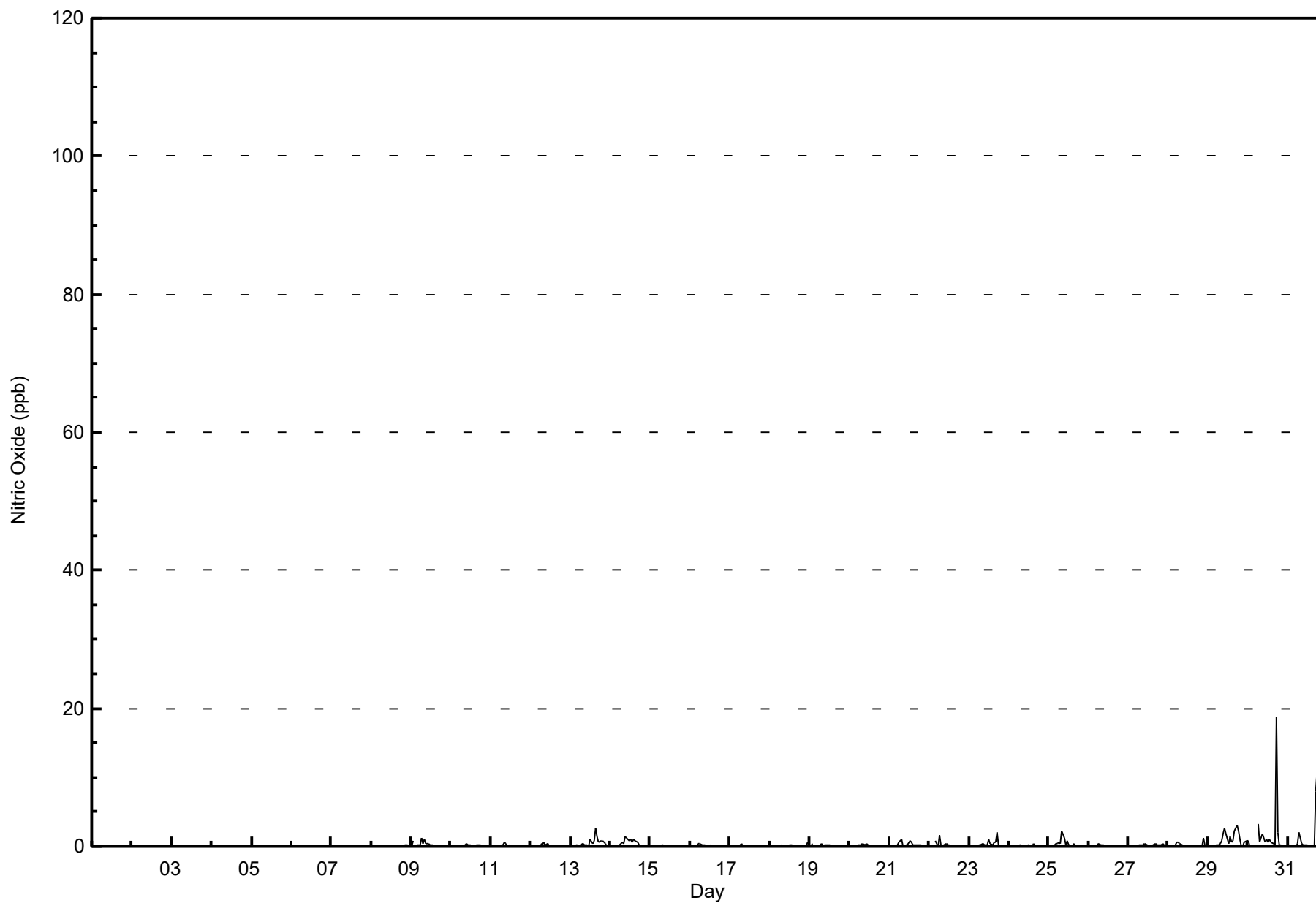
Kirby North - July 2026

Maximum Value: 18.6 ppb on Jul 30 18:00																			Maximum Daily Average: 1.5 ppb on Jul 30							Hours in Service: 565	
Minimum Value: 0.0 ppb on Jul 9 18:00																			Minimum Daily Average: 0.0 ppb on Jul 17							Hours of Data: 537	
Maximum Diurnal Average: 1.4 ppb at hour 18																			Minimum Diurnal Average: 0.0 ppb at hour 3							Hours of Missing Data: 28	
Monthly Average: 0.29 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.6 P ₉₉ = 2.6							Hours of Calibration: 28	
																										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
2-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
3-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
4-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
5-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
6-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
7-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
8-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	C	C	0.0	0.1	0.1	0.1	0.2	0.3	0.2	0.0	--	0.3	
9-Jul	0.0	0.8	Z	0.1	0.2	0.2	1.1	0.4	0.9	0.3	0.5	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.2	1.1	
10-Jul	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	
11-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.2	0.5	0.4	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.5	
12-Jul	0.2	0.0	0.0	0.1	0.1	Z	0.4	0.1	0.6	0.3	0.4	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.6	
13-Jul	Z	0.1	0.1	0.2	0.3	0.1	0.1	0.3	0.1	0.3	0.2	0.1	0.9	0.4	0.9	2.6	1.4	0.7	0.8	0.7	0.6	0.4	0.0	0.0	0.5	2.6	
14-Jul	0.0	Z	0.0	0.0	0.0	0.1	0.5	0.6	0.4	1.5	1.2	0.7	1.0	0.7	0.9	0.8	0.6	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.4	1.5	
15-Jul	0.0	0.1	Z	0.1	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	
16-Jul	0.1	0.0	0.0	Z	0.0	0.4	0.3	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	
17-Jul	0.0	0.0	0.0	0.2	Z	0.1	0.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	
18-Jul	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.2	0.1	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1	0.6	
19-Jul	Z	0.4	0.0	0.1	0.1	0.0	0.1	0.4	0.0	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.4	
20-Jul	0.0	Z	0.0	0.1	0.1	0.1	0.2	0.1	0.3	0.3	0.4	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	
21-Jul	0.0	0.0	Z	0.0	0.1	0.2	0.6	0.9	0.1	0.1	0.3	0.2	0.7	0.5	0.1	0.3	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.2	0.9	
22-Jul	0.1	0.0	0.0	Z	0.8	0.0	1.6	0.2	0.1	0.2	0.4	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	1.6	
23-Jul	0.0	0.0	0.0	0.0	Z	0.1	0.2	0.2	0.3	0.3	0.3	0.2	1.1	0.4	0.2	0.6	0.7	2.1	0.2	0.0	0.0	0.0	0.0	0.1	0.3	2.1	
24-Jul	0.1	0.1	0.0	0.1	0.0	Z	0.2	0.3	0.1	0.0	0.1	0.1	0.2	0.1	0.1	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	
25-Jul	Z	0.0	0.0	0.0	0.3	0.4	0.5	0.4	2.2	1.2	0.3	0.8	0.2	0.2	0.1	0.3	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.3	2.2	
26-Jul	0.1	Z	0.0	0.0	0.0	0.1	0.4	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.4	
27-Jul	0.1	0.0	Z	0.1	0.1	0.1	0.3	0.2	0.1	0.1	0.4	0.3	0.1	0.1	0.1	0.1	0.4	0.2	0.2	0.3	0.3	0.3	0.0	0.1	0.2	0.4	
28-Jul	0.0	0.1	0.1	Z	0.3	0.6	0.6	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.3	0.0	0.2	1.2		
29-Jul	0.0	0.0	0.2	0.1	Z	0.3	0.1	0.5	0.7	1.8	2.6	1.8	0.4	1.4	0.6	0.7	2.3	3.0	2.1	1.1	0.0	0.1	0.5	0.8	0.9	3.0	
30-Jul	0.8	0.0	0.0	0.0	0.1	Z	3.3	0.7	1.2	1.9	0.6	1.1	0.7	1.1	0.5	0.3	0.1	18.6	2.1	0.1	0.1	0.0	0.0	0.0	1.5	18.6	
31-Jul	Z	0.3	0.1	0.1	0.0	0.0	0.3	2.0	0.3	0.3	0.2	0.1	0.1	0.0	0.1	0.1	0.0	7.9	11.0	0.0	0.0	0.0	0.0	0.0	1.0	11.0	
Diurnal Average																											
Diurnal Maximum																											
Z - zerospan C - Calibration NS - Not in Service																											



Wood Buffalo Environmental Association
Hourly Averages

Nitric Oxide (NO) - ppb
Kirby North - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb
Kirby North - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	537	100.00	100.00
21 - 40	0	0.00	100.00
41 - 60	0	0.00	100.00
61 - 80	0	0.00	100.00
81 - 100	0	0.00	100.00
101 - 120	0	0.00	100.00
121 - 140	0	0.00	100.00
141 - 160	0	0.00	100.00
161 - 180	0	0.00	100.00
181 - 200	0	0.00	100.00
> 200	0	0.00	100.00

Total Number of Valid Hours: 537

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitric Oxide (NO) - ppb
Kirby North - July 2026

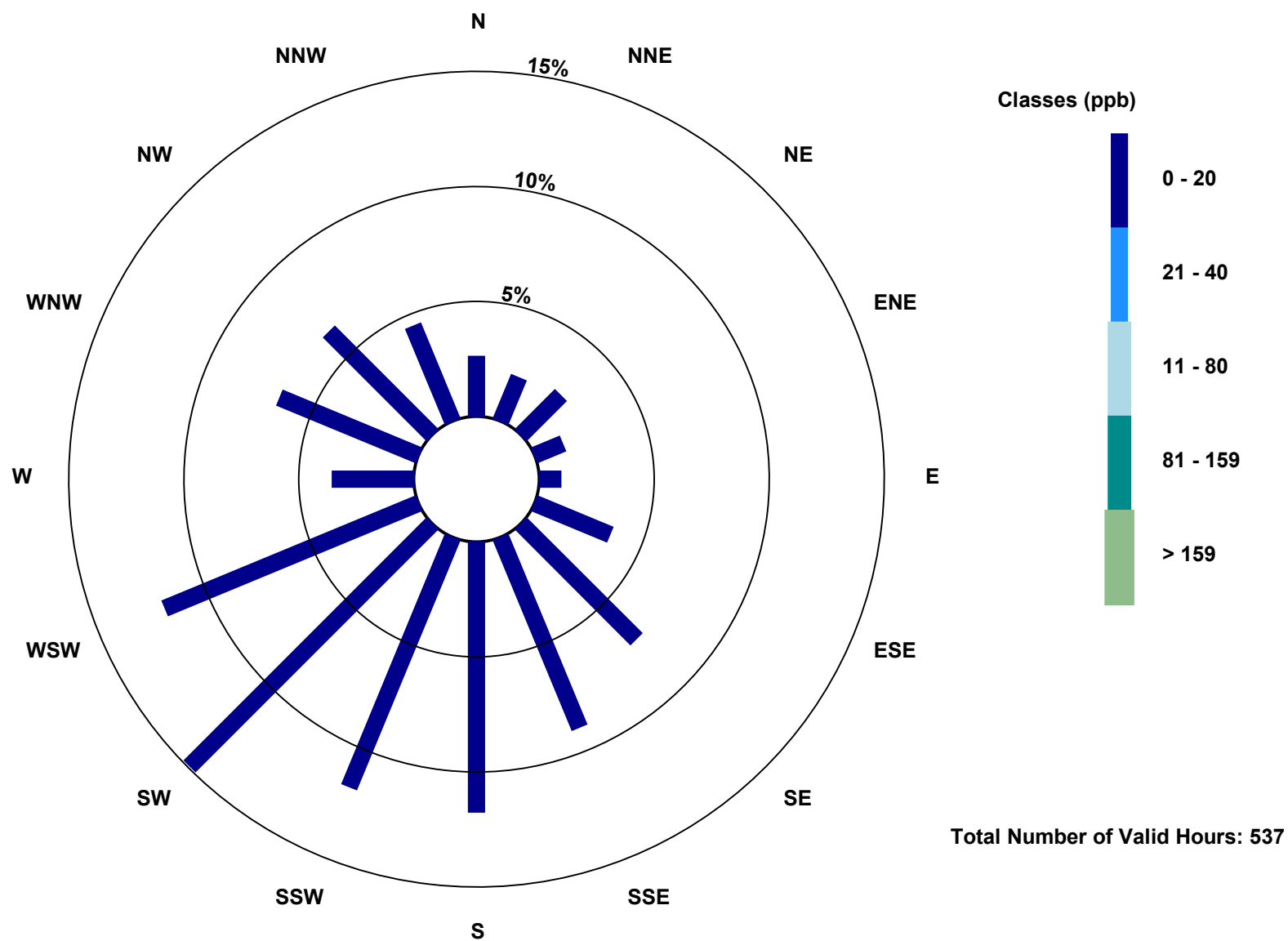
Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	14	11	13	7	5	19	38	48	63	63	80	64	19	35	34	24	537
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	14	11	13	7	5	19	38	48	63	63	80	64	19	35	34	24	537

Total Number of Valid Hours: 537

Total Number of Hours: 744



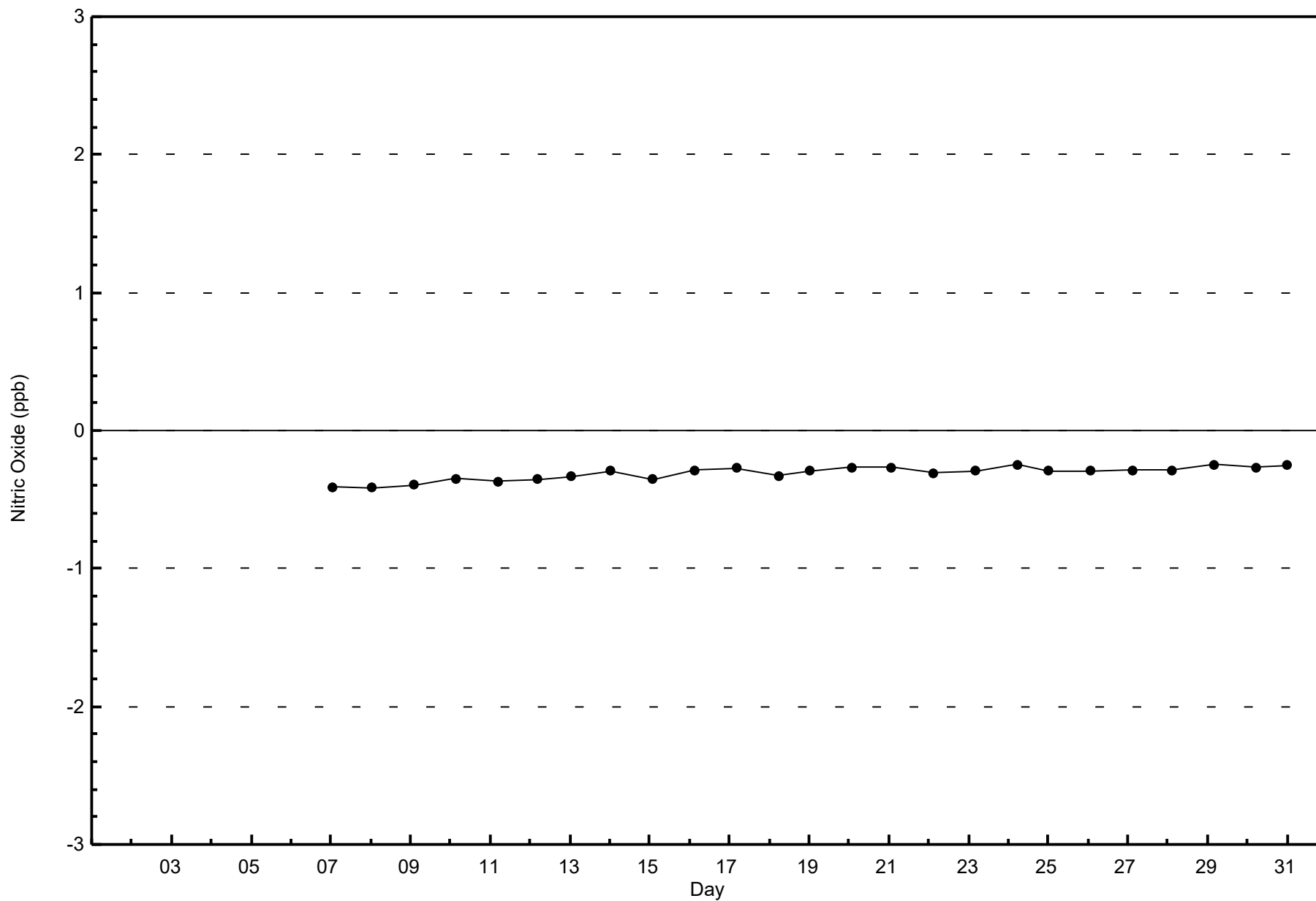
Nitric Oxide (NO) - ppb
Kirby North





Wood Buffalo Environmental Association
Zero Responses

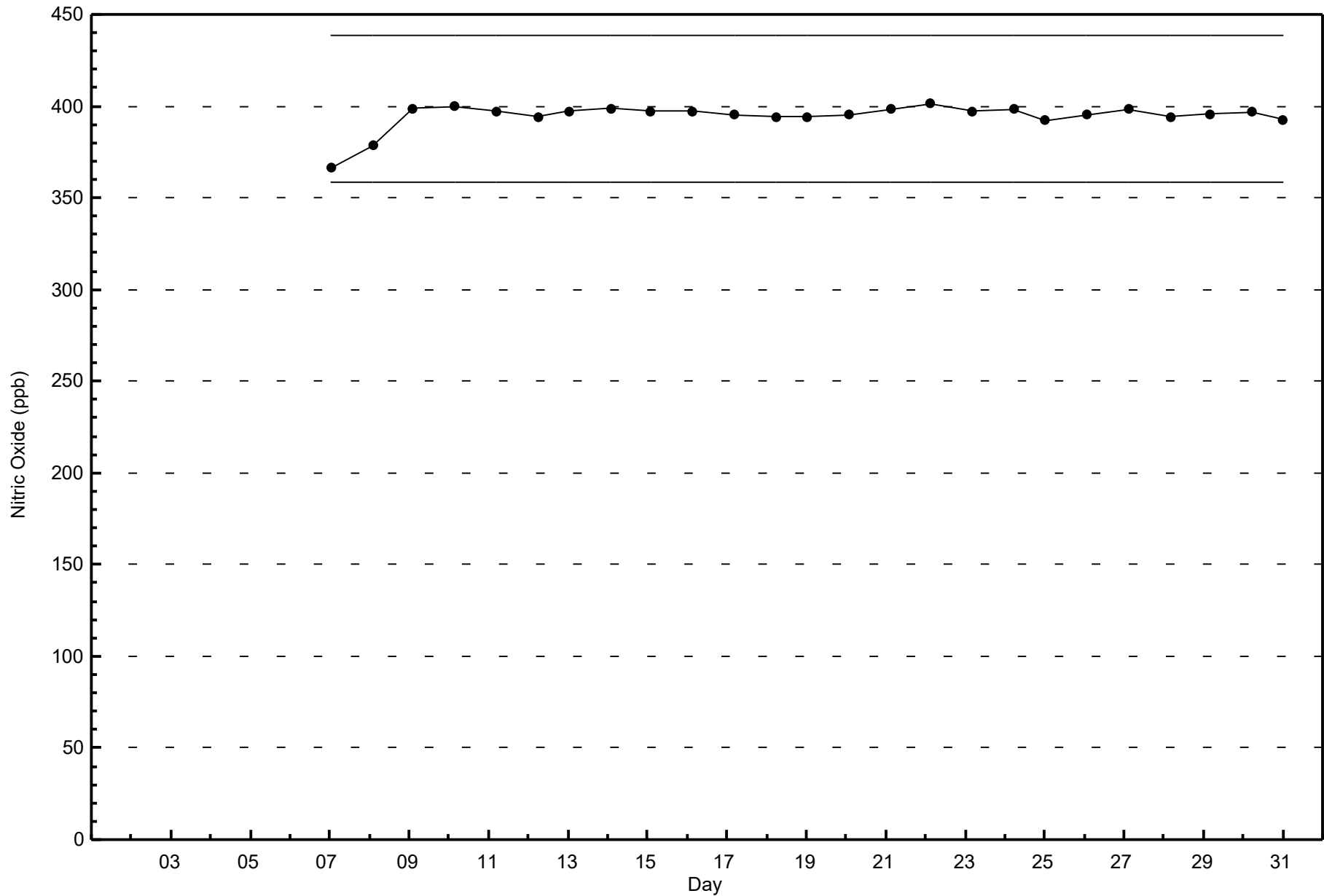
Nitric Oxide (NO) - ppb
Kirby North - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitric Oxide (NO) - ppb
Kirby North - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO₂) - ppb

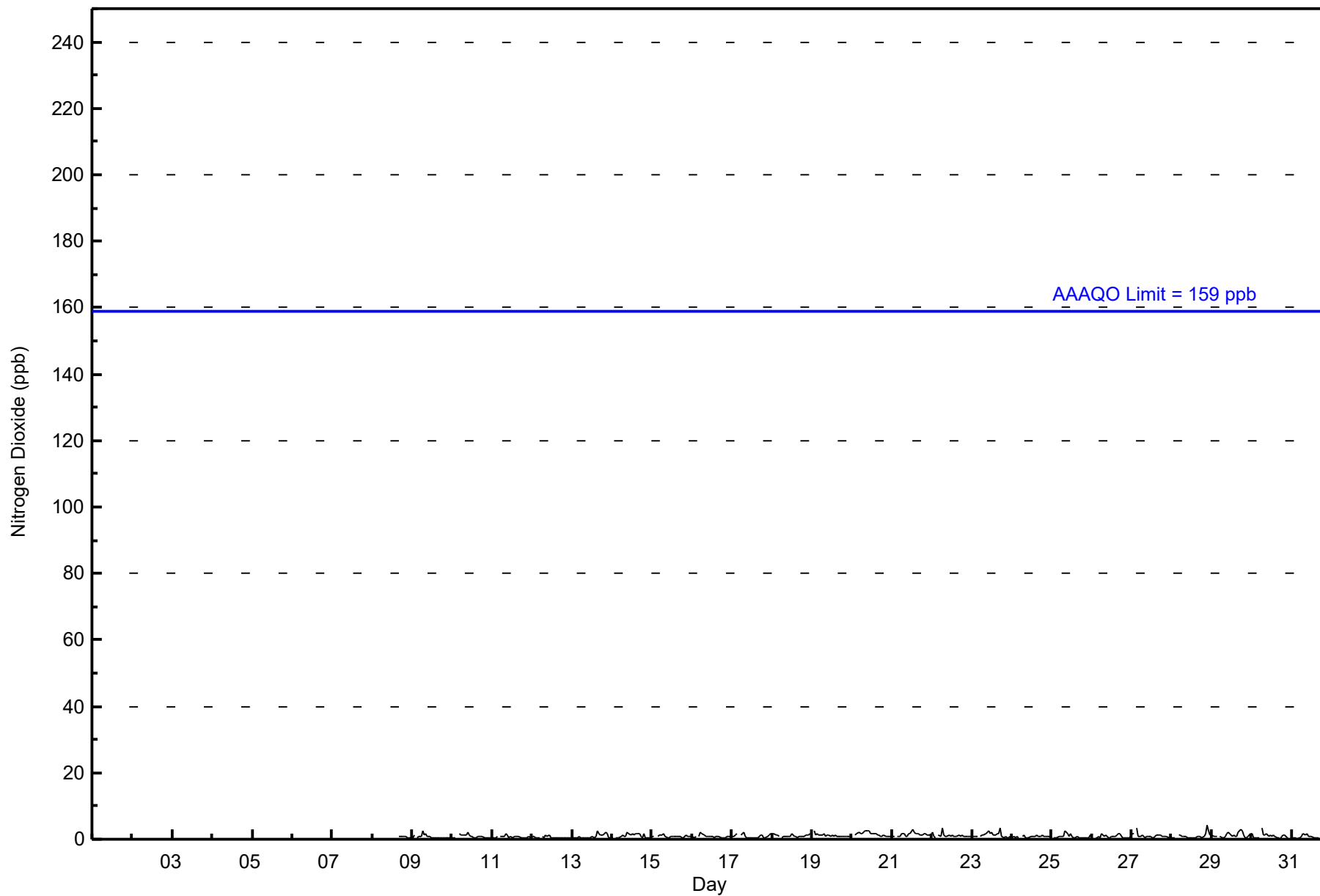
Kirby North - July 2026

Number of Exceedances (AAAQO): Maximum Value: 4.4 ppb on Jul 28 22:00																				1-hr: 0 24-hr: 0 Maximum Daily Average: 1.5 ppb on Jul 20					Hours in Service: 565 Hours of Data: 537		
Minimum Value: 0.0 ppb on Jul 30 18:00 Maximum Diurnal Average: 1.4 ppb at hour 7 Monthly Average: 0.96 ppb																				Minimum Daily Average: 0.6 ppb on Jul 12 Minimum Diurnal Average: 0.7 ppb at hour 3 Percentiles: P ₁ = 0.2 P ₁₀ = 0.4 Q ₁ = 0.6 Median = 0.8 Q ₃ = 1.2 P ₉₀ = 1.7 P ₉₉ = 2.9					Hours of Missing Data: 28 Hours of Calibration: 28 Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
3-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
4-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
5-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
6-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
7-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
8-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	C	C	0.8	0.9	0.8	0.7	0.8	0.6	0.6	0.5	--	0.9	
9-Jul	0.4	1.4	Z	0.5	0.7	0.9	2.5	1.2	1.6	0.7	0.7	0.5	0.5	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.7	2.5
10-Jul	0.3	0.4	0.5	Z	1.7	1.1	1.3	1.2	1.4	2.0	1.1	0.9	0.9	0.5	0.6	0.9	0.9	0.8	0.8	0.3	0.3	0.4	0.4	0.3	0.8	2.0	
11-Jul	0.3	0.4	0.5	0.8	Z	0.8	0.9	1.0	1.5	1.3	0.5	0.7	0.6	0.8	0.7	0.8	0.8	0.4	0.5	0.5	0.5	0.5	0.9	0.6	0.7	1.5	
12-Jul	0.9	0.7	0.6	0.5	0.5	Z	1.0	0.4	1.2	0.9	1.1	0.5	0.5	0.6	0.3	0.3	0.6	0.6	0.5	0.4	0.3	0.3	0.3	0.4	0.6	1.2	
13-Jul	Z	0.5	0.4	0.6	0.7	0.4	0.4	0.5	0.4	0.5	0.4	0.3	0.9	0.5	1.0	2.7	1.7	1.2	1.4	1.6	2.1	1.6	0.6	0.5	0.9	2.7	
14-Jul	0.3	Z	0.4	0.4	0.6	0.8	1.2	0.9	0.9	2.0	1.6	1.1	1.6	1.1	1.5	1.7	1.6	0.8	0.6	1.7	0.6	0.6	0.6	0.6	1.0	2.0	
15-Jul	0.8	0.9	Z	0.9	1.1	1.1	1.2	1.6	0.9	0.6	0.6	0.8	0.9	0.8	0.8	0.8	0.8	0.9	0.6	0.6	1.1	0.7	0.8	0.7	0.9	1.6	
16-Jul	0.9	0.6	0.9	Z	0.9	2.3	1.8	1.2	1.0	0.9	0.7	0.7	0.8	0.6	0.7	0.8	1.0	0.6	0.4	0.6	0.5	0.9	1.0	0.7	0.9	2.3	
17-Jul	0.9	1.0	1.1	1.7	Z	1.4	1.7	2.1	0.9	0.5	0.4	0.3	0.3	0.4	0.4	0.5	0.9	1.2	1.1	0.4	0.4	1.0	1.3	1.8	0.9	2.1	
18-Jul	1.9	1.6	1.3	1.1	1.0	Z	0.5	1.0	0.9	0.7	0.7	0.8	1.6	0.8	1.0	0.6	0.8	1.0	0.7	0.8	1.2	1.1	1.3	1.7	1.0	1.9	
19-Jul	Z	2.7	1.1	1.6	1.2	1.2	1.1	1.9	0.8	1.2	1.3	0.9	1.2	0.8	1.1	1.0	1.0	0.9	1.0	0.9	1.0	0.8	0.7	0.7	1.1	2.7	
20-Jul	0.8	Z	1.4	1.8	2.3	1.9	1.8	2.1	2.6	2.4	2.4	1.5	1.9	1.6	1.5	1.4	1.1	0.9	0.8	1.2	0.7	1.0	0.9	0.8	1.5	2.6	
21-Jul	0.7	0.8	Z	0.7	0.9	1.0	1.5	1.9	0.8	0.9	1.5	1.5	2.8	2.3	1.7	1.8	1.6	1.4	1.3	1.6	1.5	1.2	1.3	1.2	1.4	2.8	
22-Jul	2.0	0.8	0.6	Z	1.2	0.7	3.2	1.1	0.7	0.8	1.4	1.0	1.1	1.0	1.0	0.9	1.2	0.9	1.1	1.0	0.7	0.9	0.8	0.9	1.1	3.2	
23-Jul	0.7	0.7	0.7	0.8	Z	1.0	1.3	1.3	1.8	2.3	2.4	1.7	2.1	1.1	1.1	1.6	1.6	3.3	0.7	0.6	0.7	0.4	0.3	0.7	1.3	3.3	
24-Jul	0.6	0.7	0.4	0.9	0.6	Z	0.9	1.1	0.6	0.6	0.6	0.7	0.9	0.8	0.7	1.3	1.0	1.0	1.2	0.8	0.9	0.9	0.8	0.6	0.8	1.3	
25-Jul	Z	0.5	0.5	0.5	1.0	0.9	0.9	0.8	2.5	1.8	0.8	1.5	0.7	0.6	0.5	0.9	0.5	0.5	0.3	0.3	0.4	0.3	0.5	1.1	0.8	2.5	
26-Jul	0.9	Z	0.6	0.5	0.9	0.6	1.5	0.9	1.1	0.8	0.6	0.6	0.7	0.7	0.7	1.2	1.7	1.6	0.6	0.5	0.5	0.6	0.5	0.5	0.8	1.7	
27-Jul	1.5	1.6	Z	3.4	1.0	0.8	1.3	0.9	0.6	0.7	1.0	0.9	0.5	0.6	0.9	1.2	1.3	1.4	0.9	0.7	0.8	0.8	0.6	0.6	1.0	3.4	
28-Jul	0.5	0.4	0.6	Z	1.1	1.2	0.8	0.7	0.8	0.5	0.5	0.5	0.4	0.4	0.6	0.8	0.9	0.7	0.6	0.9	1.8	4.4	2.4	1.4	1.0	4.4	
29-Jul	1.4	0.7	0.9	0.7	Z	0.8	0.5	0.6	0.8	1.7	2.0	1.7	0.9	1.2	0.9	0.8	2.2	2.9	2.7	1.4	0.3	0.4	1.0	1.5	1.2	2.9	
30-Jul	1.7	0.4	0.3	0.4	0.6	Z	3.6	1.1	1.4	1.8	1.0	1.1	0.8	1.2	0.8	0.6	0.6	0.0	0.9	1.2	1.2	0.3	0.2	0.2	0.9	3.6	
31-Jul	Z	0.4	0.3	0.2	0.3	0.4	0.8	1.7	1.2	1.7	0.9	0.7	0.7	0.5	0.6	0.6	0.6	0.0	0.0	0.6	0.6	0.7	0.9	0.8	0.7	1.7	
Diurnal Average																											
Diurnal Maximum																											
Z - zerospan C - Calibration NS - Not in Service Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																											



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Kirby North - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Kirby North - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	537	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 537

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Dioxide (NO₂) - ppb
Kirby North - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	14	11	13	7	5	19	38	48	63	63	80	64	19	35	34	24	537
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	14	11	13	7	5	19	38	48	63	63	80	64	19	35	34	24	537

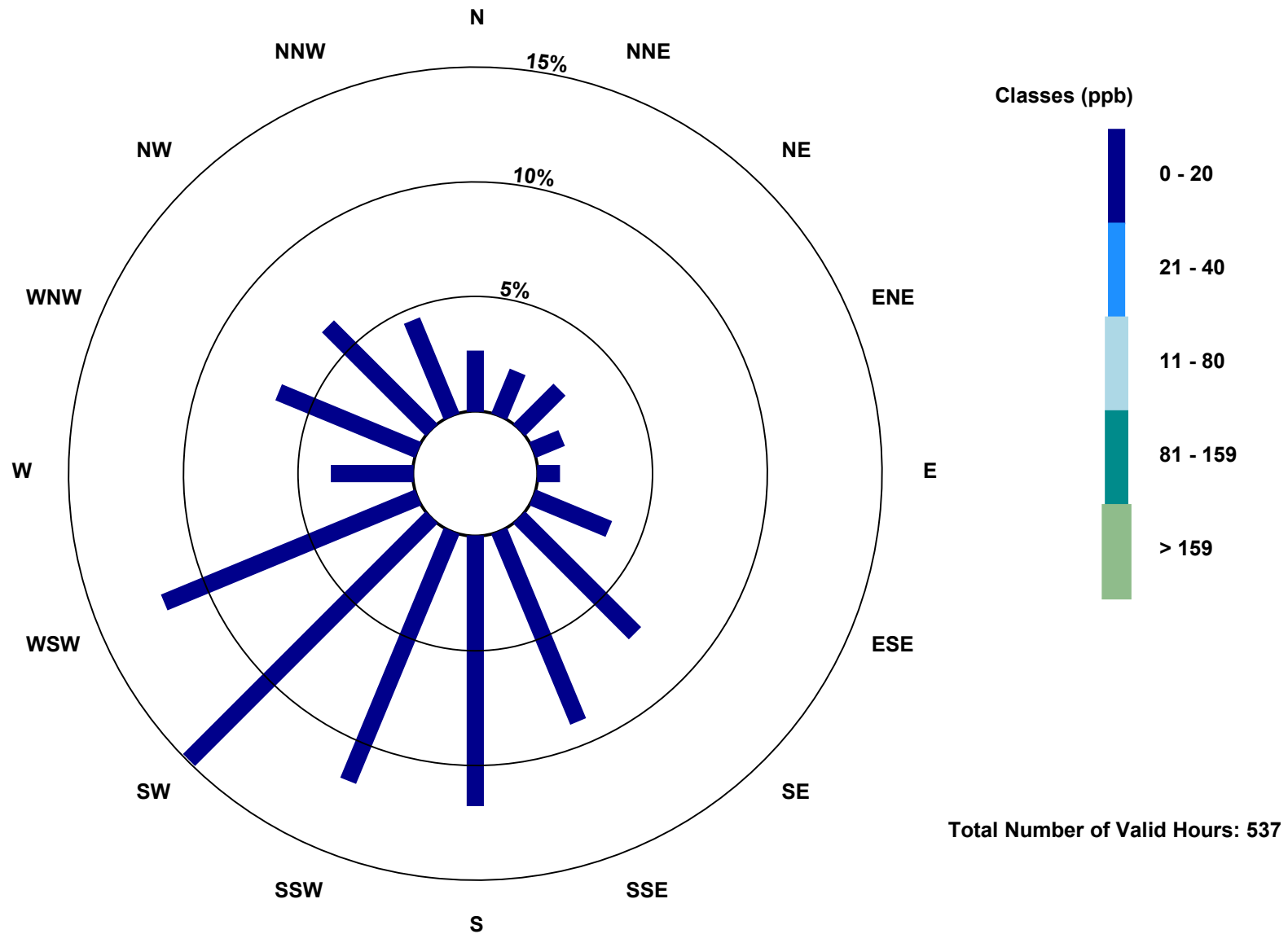
Total Number of Valid Hours: 537

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

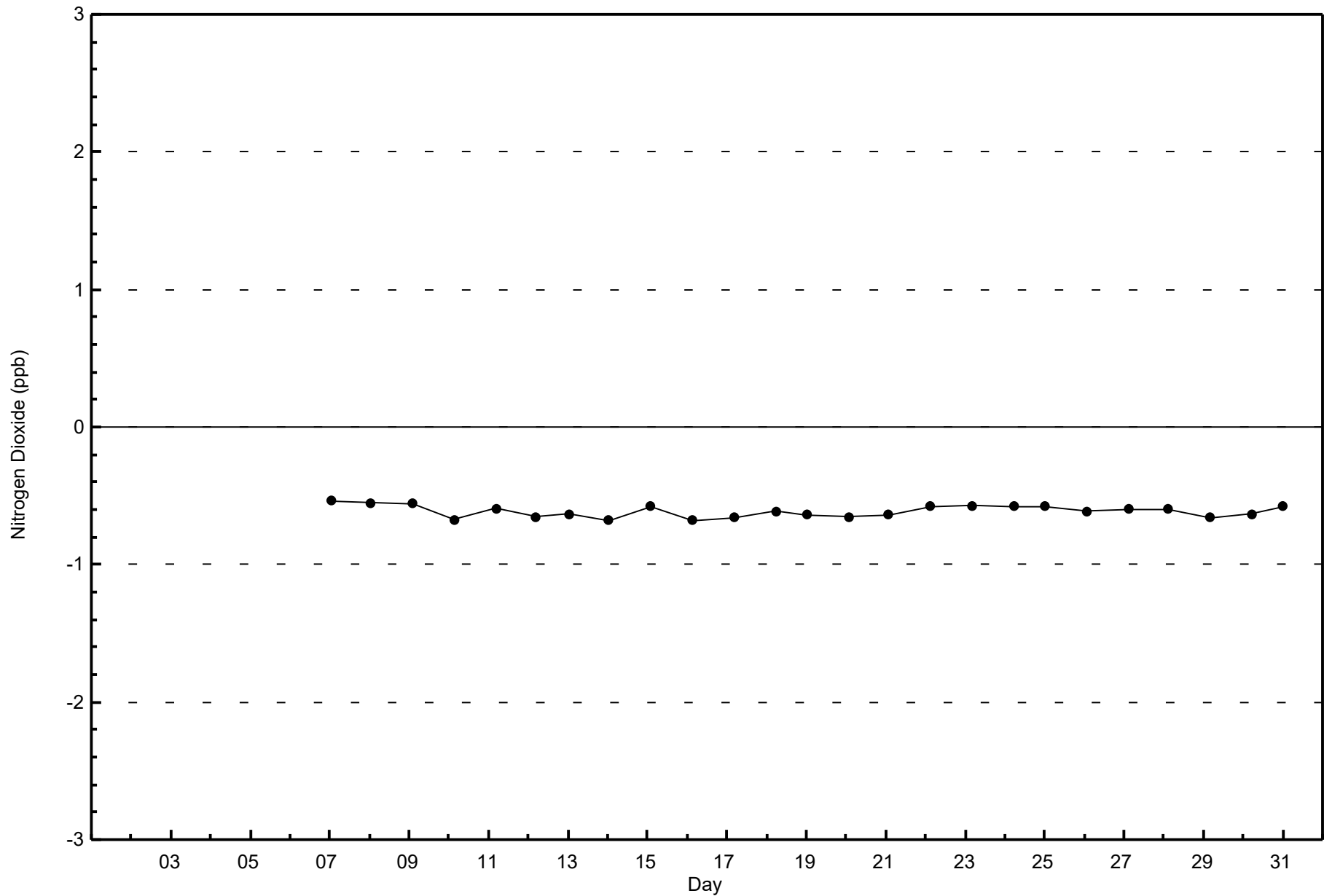
Nitrogen Dioxide (NO₂) - ppb
Kirby North





Wood Buffalo Environmental Association
Zero Responses

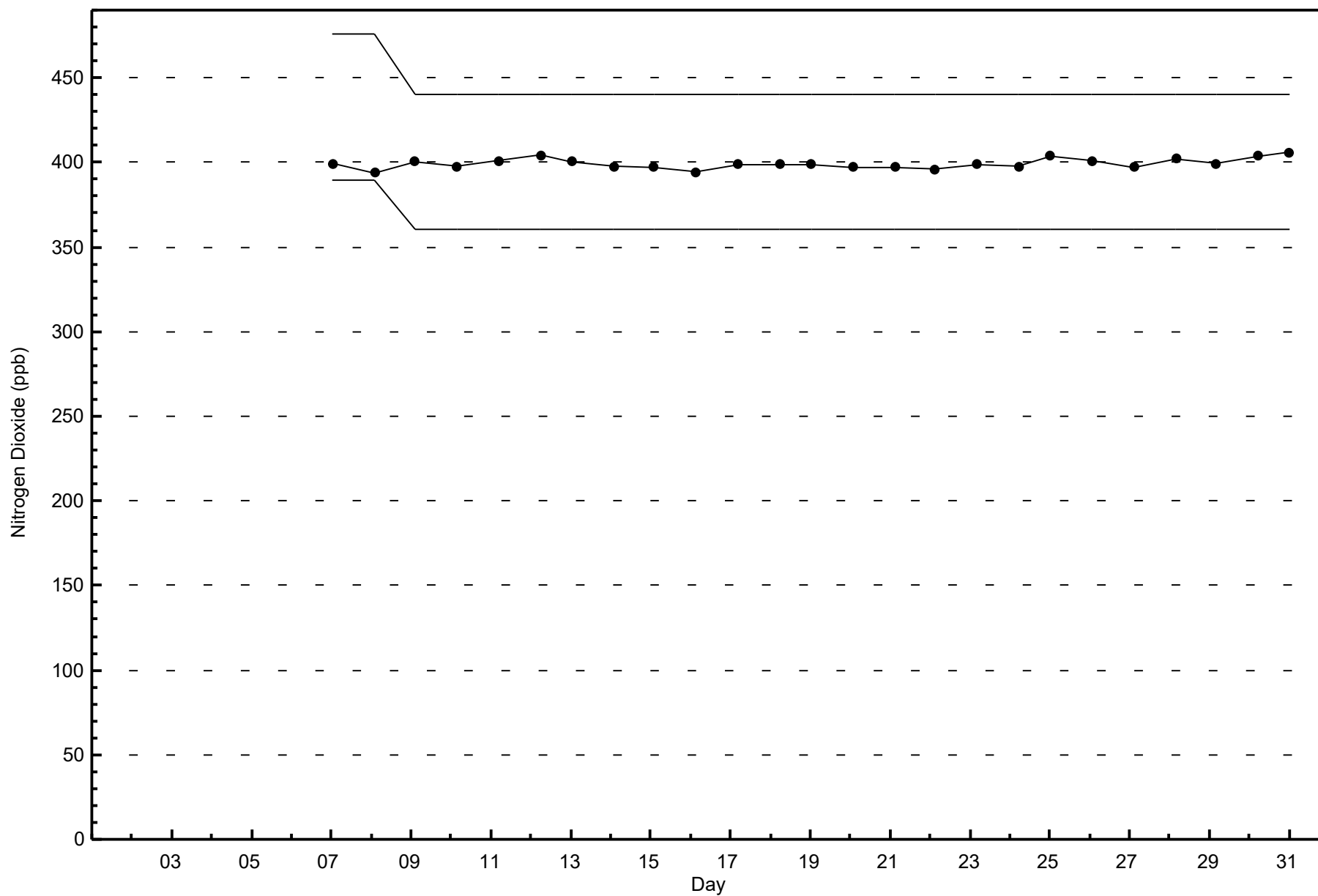
Nitrogen Dioxide (NO₂) - ppb
Kirby North - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Dioxide (NO₂) - ppb
Kirby North - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_x) - ppb

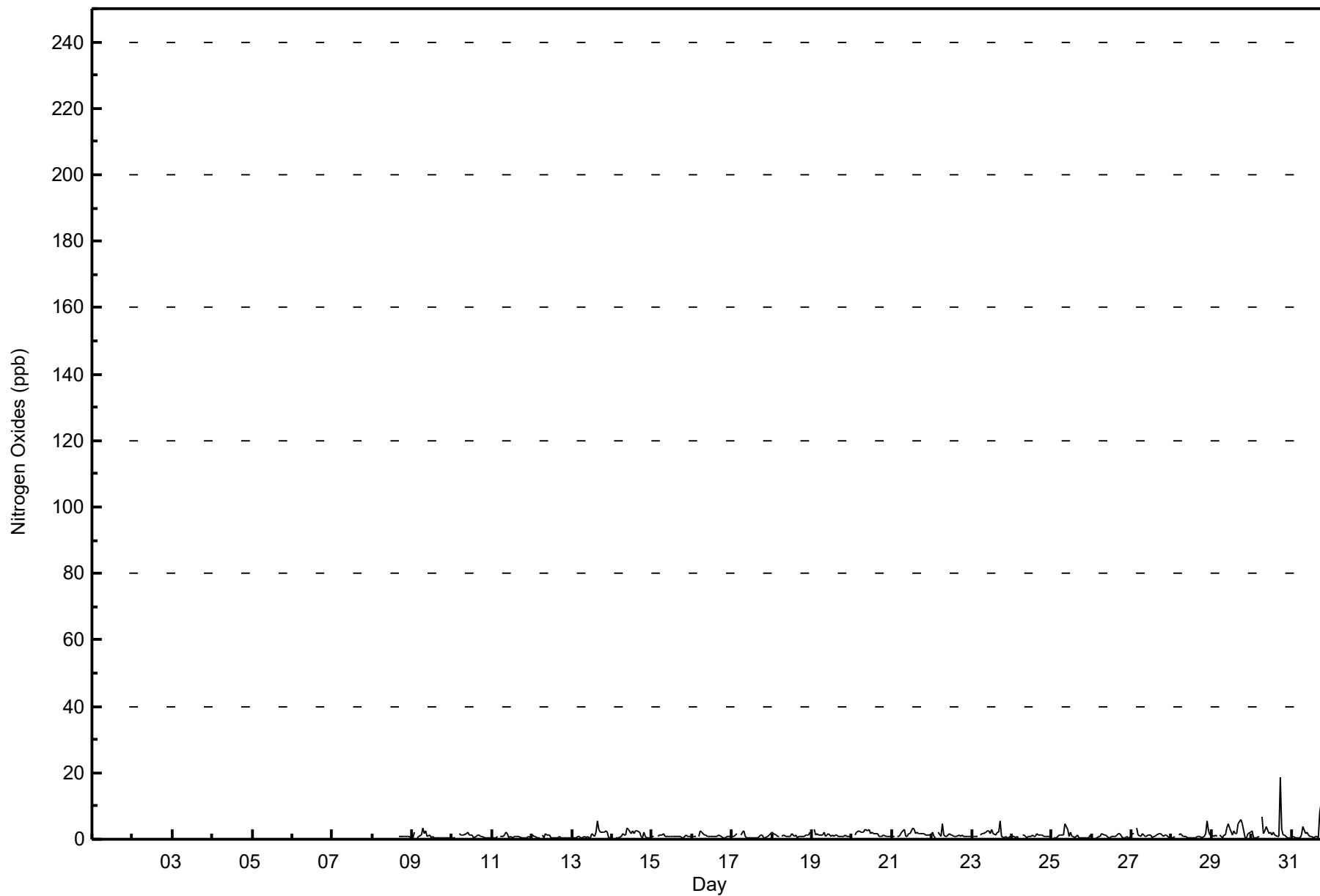
Kirby North - July 2026

Maximum Value: 18.6 ppb on Jul 30 18:00																				Maximum Daily Average: 2.4 ppb on Jul 30					Hours in Service: 565		
Minimum Value: 0.2 ppb on Jul 31 00:00																				Minimum Daily Average: 0.7 ppb on Jul 12					Hours of Data: 537		
Maximum Diurnal Average: 2.4 ppb at hour 18																				Minimum Diurnal Average: 0.7 ppb at hour 3					Hours of Missing Data: 28		
Monthly Average: 1.24 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.6 Median = 0.9 Q ₃ = 1.4 P ₉₀ = 2.3 P ₉₉ = 5.5					Hours of Calibration: 28		
																				Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
3-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
4-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
5-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
6-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
7-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
8-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	C	C	0.8	1.0	0.9	0.8	1.0	0.9	0.8	0.5	--	1.0	
9-Jul	0.4	2.2	Z	0.6	0.9	1.1	3.6	1.6	2.5	1.0	1.2	0.6	0.7	0.4	0.4	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.9	3.6	
10-Jul	0.3	0.4	0.5	Z	1.8	1.2	1.4	1.3	1.6	2.3	1.3	1.1	1.1	0.6	0.7	1.2	1.1	1.0	0.9	0.3	0.3	0.4	0.4	0.3	0.9	2.3	
11-Jul	0.3	0.4	0.5	0.8	Z	0.9	1.0	1.2	2.0	1.7	0.6	0.9	0.6	0.8	0.7	0.8	0.8	0.4	0.5	0.5	0.5	0.5	1.0	0.6	0.8	2.0	
12-Jul	1.1	0.7	0.6	0.6	0.6	Z	1.4	0.5	1.8	1.2	1.5	0.6	0.5	0.6	0.3	0.3	0.7	0.6	0.6	0.4	0.3	0.3	0.3	0.4	0.7	1.8	
13-Jul	Z	0.6	0.5	0.8	1.0	0.5	0.5	0.8	0.5	0.8	0.6	0.4	1.8	0.9	1.9	5.3	3.1	1.9	2.2	2.3	2.7	2.0	0.6	0.5	1.4	5.3	
14-Jul	0.3	Z	0.4	0.4	0.6	0.9	1.7	1.5	1.3	3.5	2.8	1.8	2.6	1.8	2.4	2.5	2.2	1.0	0.6	1.9	0.6	0.6	0.6	0.6	1.4	3.5	
15-Jul	0.8	1.0	Z	1.0	1.1	1.2	1.3	1.8	1.0	0.7	0.6	0.9	0.9	0.8	0.8	0.8	0.8	0.9	0.6	0.6	1.2	0.7	0.8	0.7	0.9	1.8	
16-Jul	1.0	0.6	0.9	Z	0.9	2.7	2.1	1.4	1.1	1.0	0.8	0.7	0.9	0.7	0.7	0.9	1.1	0.7	0.4	0.6	0.5	0.9	1.0	0.7	1.0	2.7	
17-Jul	0.9	1.0	1.1	1.9	Z	1.5	1.9	2.5	1.0	0.5	0.4	0.3	0.3	0.4	0.4	0.5	0.9	1.2	1.1	0.4	0.4	1.0	1.3	1.8	1.0	2.5	
18-Jul	1.9	1.6	1.3	1.1	1.0	Z	0.6	1.2	1.0	0.7	0.7	0.8	1.8	0.9	1.1	0.6	0.8	1.0	0.7	0.8	1.2	1.1	1.3	2.3	1.1	2.3	
19-Jul	Z	3.1	1.1	1.7	1.3	1.2	1.2	2.3	0.8	1.4	1.5	1.0	1.4	0.9	1.2	1.1	1.0	0.9	1.0	0.9	1.1	0.8	0.7	0.7	1.2	3.1	
20-Jul	0.8	Z	1.4	1.9	2.4	2.0	2.0	2.2	2.9	2.7	2.8	1.6	2.0	1.6	1.6	1.5	1.1	0.9	0.8	1.2	0.7	1.0	0.9	0.8	1.6	2.9	
21-Jul	0.7	0.8	Z	0.7	1.0	1.2	2.1	2.8	0.9	1.0	1.8	1.7	3.5	2.8	1.8	2.1	1.8	1.5	1.5	1.7	1.5	1.2	1.3	1.2	1.6	3.5	
22-Jul	2.1	0.8	0.6	Z	2.0	0.7	4.8	1.3	0.8	1.0	1.8	1.1	1.2	1.0	1.0	0.9	1.3	0.9	1.2	1.0	0.7	0.9	0.8	0.9	1.3	4.8	
23-Jul	0.7	0.7	0.7	0.8	Z	1.1	1.5	1.5	2.1	2.6	2.7	1.9	3.2	1.5	1.3	2.2	2.3	5.4	0.9	0.6	0.7	0.4	0.3	0.8	1.6	5.4	
24-Jul	0.7	0.8	0.4	1.0	0.6	Z	1.1	1.4	0.7	0.6	0.7	0.8	1.1	0.9	0.8	1.6	1.1	1.1	1.3	0.8	0.9	0.9	0.8	0.6	0.9	1.6	
25-Jul	Z	0.5	0.5	0.5	1.3	1.3	1.4	1.2	4.7	3.0	1.1	2.3	0.9	0.8	0.6	1.2	0.6	0.5	0.3	0.3	0.4	0.4	0.6	1.2	1.1	4.7	
26-Jul	1.0	Z	0.6	0.5	0.9	0.7	1.9	1.1	1.3	0.9	0.6	0.6	0.7	0.7	0.7	1.2	1.7	1.7	0.6	0.5	0.5	0.7	0.5	0.6	0.9	1.9	
27-Jul	1.6	1.6	Z	3.5	1.1	0.9	1.6	1.1	0.7	0.8	1.4	1.2	0.6	0.7	1.0	1.3	1.7	1.6	1.1	1.0	1.1	1.1	0.6	0.7	1.2	3.5	
28-Jul	0.5	0.5	0.7	Z	1.4	1.8	1.4	1.0	1.0	0.5	0.5	0.5	0.4	0.4	0.6	0.8	0.9	0.7	0.6	0.9	1.8	5.6	2.7	1.4	1.1	5.6	
29-Jul	1.4	0.7	1.1	0.8	Z	1.1	0.6	1.1	1.5	3.5	4.6	3.5	1.3	2.6	1.5	1.5	4.5	5.9	4.8	2.5	0.3	0.5	1.5	2.3	2.1	5.9	
30-Jul	2.5	0.4	0.3	0.4	0.7	Z	6.9	1.8	2.6	3.7	1.6	2.2	1.5	2.3	1.3	0.9	0.7	18.6	3.0	1.3	1.3	0.3	0.2	0.2	2.4	18.6	
31-Jul	Z	0.7	0.4	0.3	0.3	0.4	1.1	3.7	1.5	2.0	1.1	0.8	0.8	0.5	0.7	0.7	0.6	7.9	11.0	0.6	0.6	0.7	0.9	0.8	1.7	11.0	
Diurnal Average																											
Diurnal Maximum																											
Z - zerospan C - Calibration NS - Not in Service																											



Wood Buffalo Environmental Association
Hourly Averages

Nitrogen Oxides (NO_x) - ppb
Kirby North - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Kirby North - July 2026

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	537	100.00	100.00
21 - 40	0	0.00	100.00
41 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 537

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Nitrogen Oxides (NO_x) - ppb
Kirby North - July 2026

Concentration Ranges (ppb)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 20	14	11	13	7	5	19	38	48	63	63	80	64	19	35	34	24	537
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	14	11	13	7	5	19	38	48	63	63	80	64	19	35	34	24	537

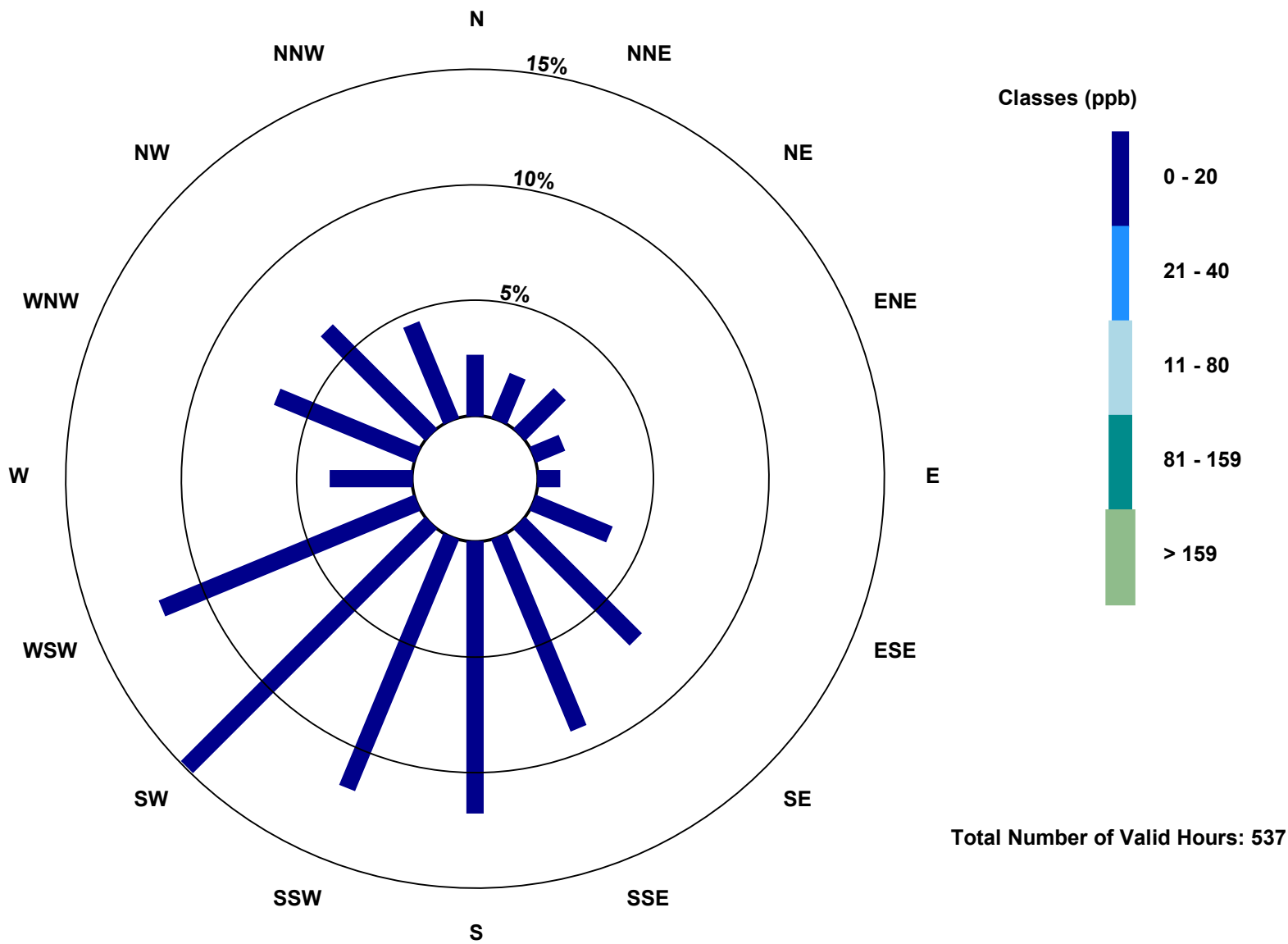
Total Number of Valid Hours: 537

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

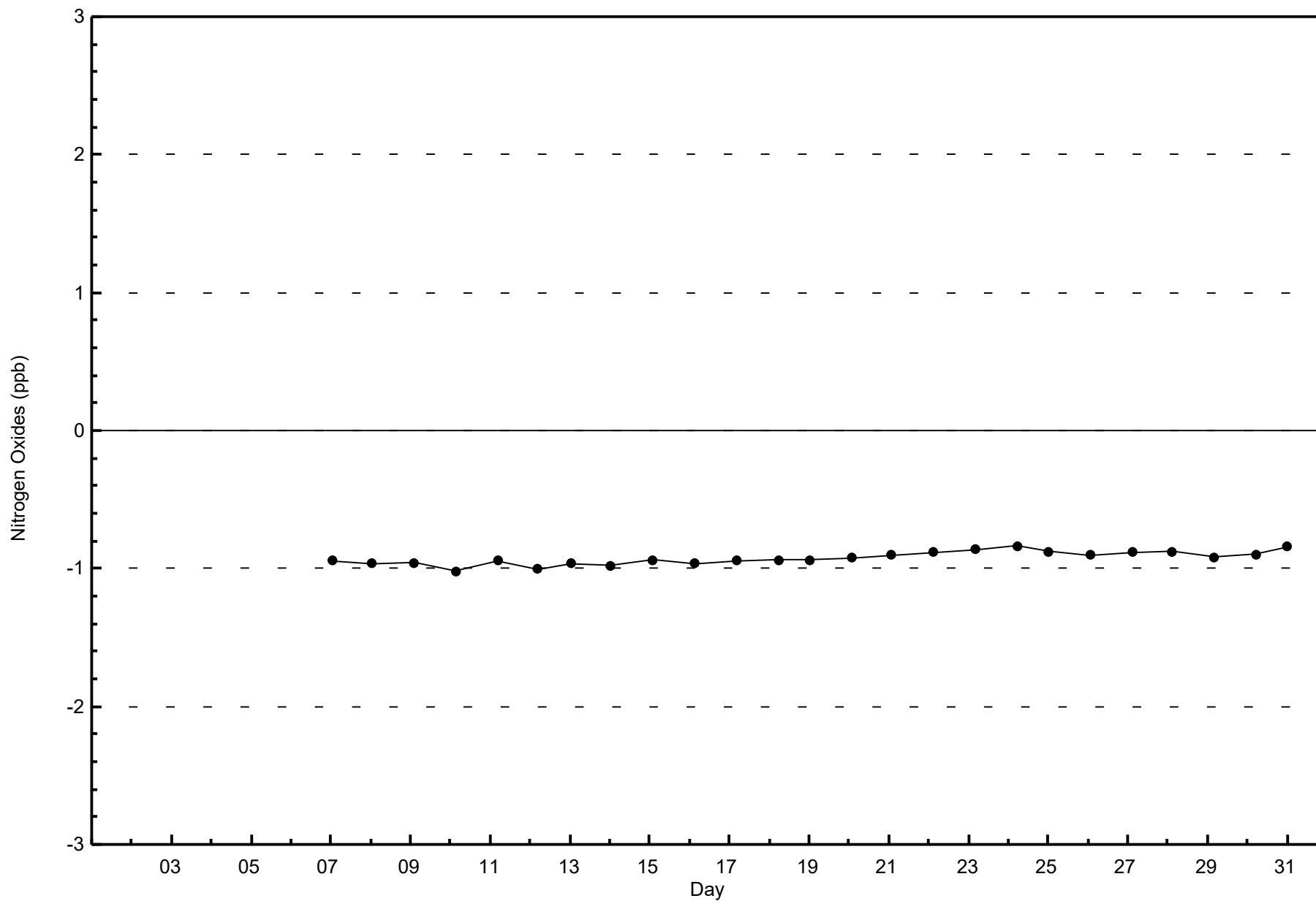
Nitrogen Oxides (NO_x) - ppb
Kirby North





Wood Buffalo Environmental Association
Zero Responses

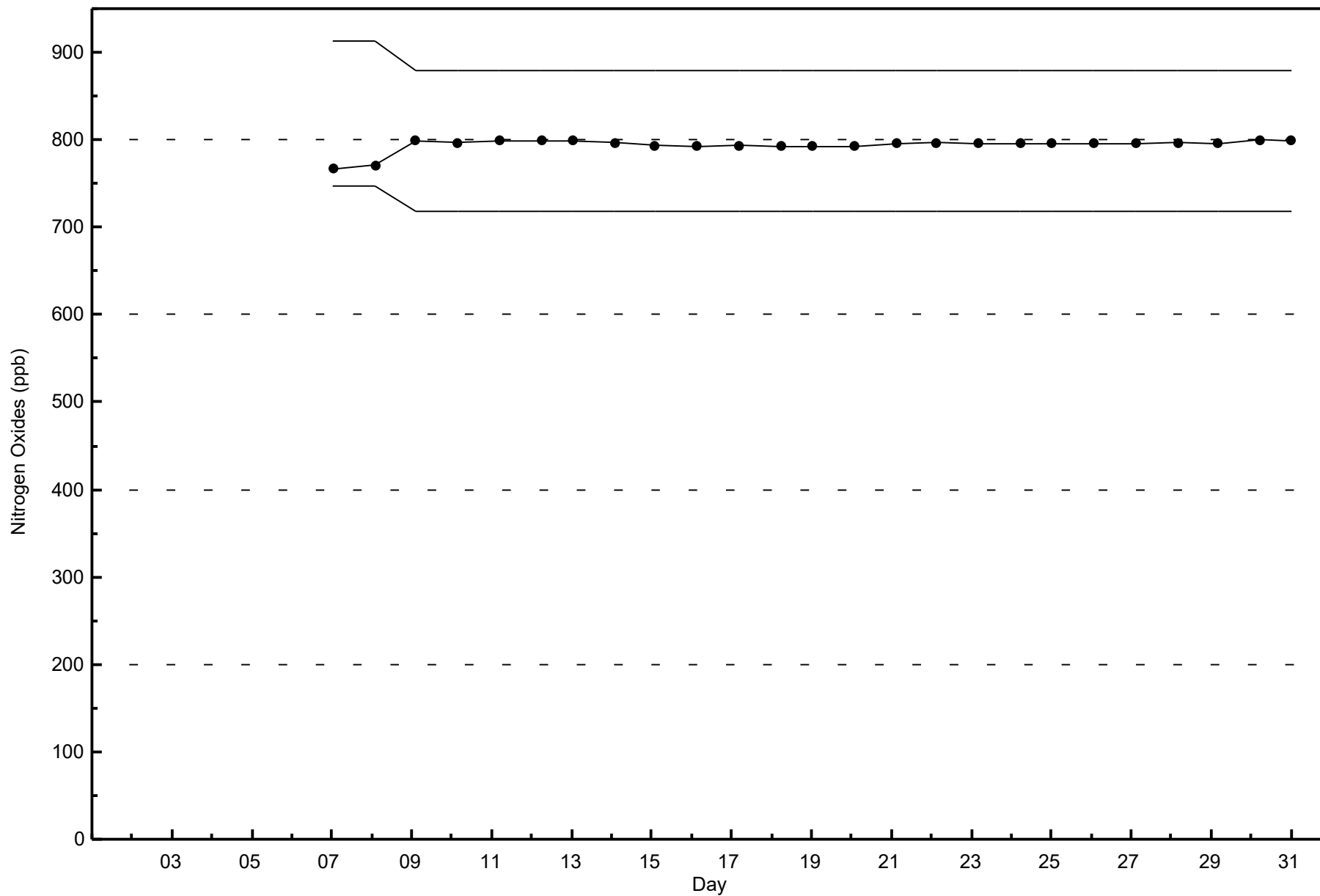
Nitrogen Oxides (NO_x) - ppb
Kirby North - July 2026





Wood Buffalo Environmental Association
Span Responses

Nitrogen Oxides (NO_x) - ppb
Kirby North - July 2026





Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

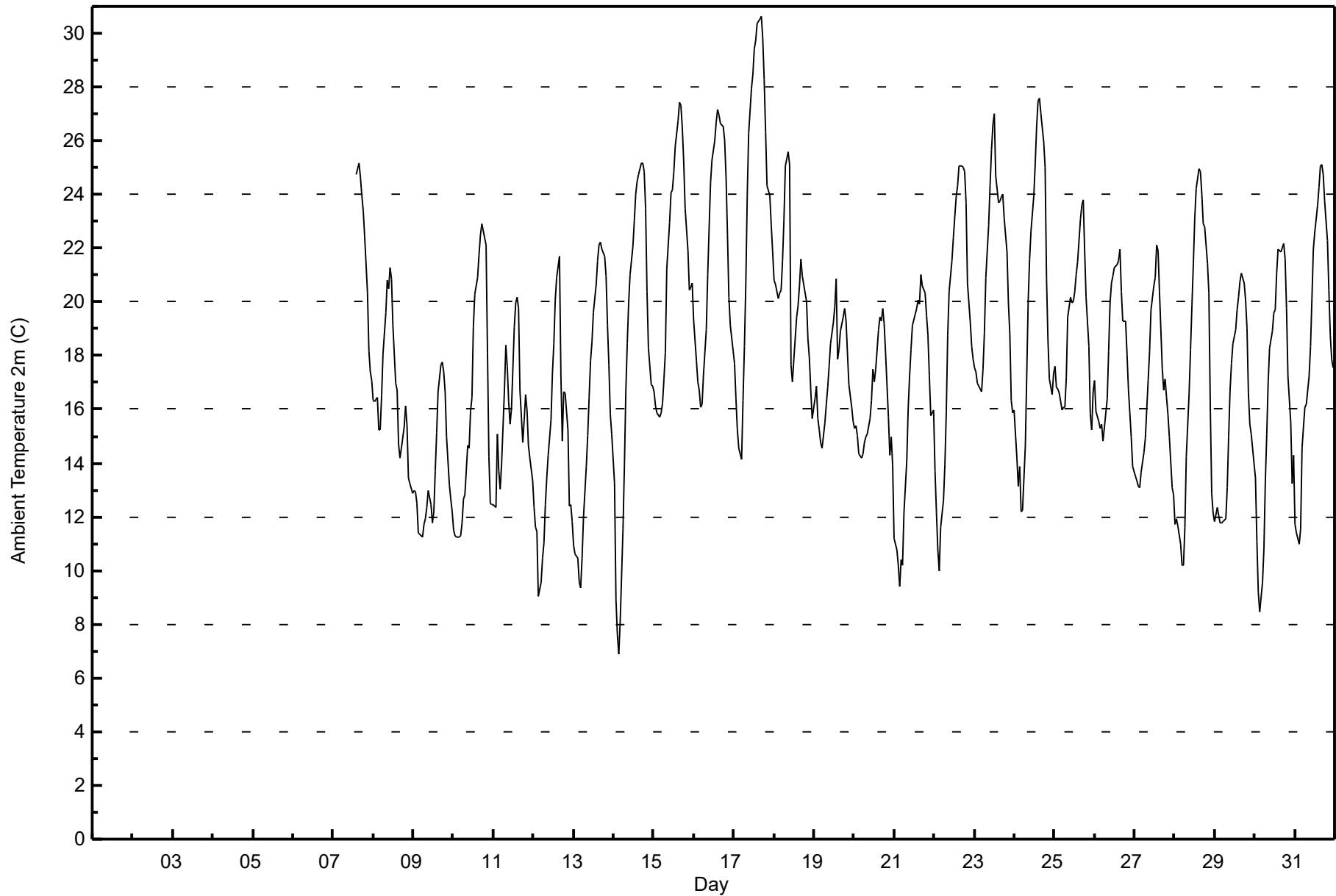
Kirby North - July 2026

Maximum Value: 30.6 C on Jul 17 17:00																				Maximum Daily Average: 23.7 C on Jul 17				Hours in Service: 586		
Minimum Value: 6.9 C on Jul 14 04:00																				Minimum Daily Average: 13.6 C on Jul 9				Hours of Data: 586		
Maximum Diurnal Average: 22.6 C at hour 16																				Minimum Diurnal Average: 13.0 C at hour 4				Hours of Missing Data: 0		
Monthly Average: 18.00 C																				Percentiles: P ₁ = 9.2 P ₁₀ = 11.9 Q ₁ = 14.8 Median = 17.6 Q ₃ = 21.0 P ₉₀ = 24.4 P ₉₉ = 28.6				Hours of Calibration: 0		
																								Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
3-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
4-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
5-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
6-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
7-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	25.2
8-Jul	16.3	16.3	16.5	15.3	15.3	16.5	18.1	19.6	20.8	20.5	21.3	20.9	19.1	17.0	16.7	14.7	14.2	14.5	15.3	16.2	15.4	13.5	13.3	12.9	16.7	21.3
9-Jul	13.0	12.9	12.5	11.4	11.3	11.2	11.7	12.0	12.3	13.0	12.4	11.8	12.2	13.7	15.1	16.7	17.6	17.7	17.4	16.6	15.0	13.2	12.7	12.2	13.6	17.7
10-Jul	11.5	11.3	11.2	11.2	11.3	11.8	12.6	12.8	14.6	14.6	15.9	16.5	19.1	20.3	20.9	21.8	22.5	22.9	22.6	22.1	18.1	14.3	12.5	12.4	16.0	22.9
11-Jul	12.5	12.4	15.1	13.7	13.0	14.0	16.7	18.4	17.6	16.3	15.4	16.0	19.1	19.9	20.2	19.8	16.7	14.8	15.6	16.6	16.0	14.7	14.2	13.4	15.9	20.2
12-Jul	12.3	11.6	11.4	9.1	9.5	10.4	11.0	12.4	13.4	14.3	15.6	17.4	18.4	20.1	20.9	21.7	17.3	14.8	16.6	16.6	15.2	12.4	12.4	11.8	14.5	21.7
13-Jul	10.9	10.6	10.4	9.6	9.4	10.5	12.0	13.9	15.0	16.5	17.8	18.5	19.6	20.7	21.5	22.1	22.2	22.0	21.7	20.9	19.1	17.7	15.8	15.1	16.4	22.2
14-Jul	13.2	8.9	7.6	6.9	8.1	11.5	13.9	16.6	18.4	20.0	21.0	22.1	23.0	24.0	24.5	24.8	25.2	25.2	24.9	23.5	20.4	18.3	16.9	16.9	18.2	25.2
15-Jul	16.6	16.1	15.8	15.7	15.9	16.2	17.1	18.1	21.2	23.0	24.1	24.2	24.8	25.8	26.7	27.5	27.3	26.5	25.2	23.5	21.9	20.4	20.6	20.7	21.5	27.5
16-Jul	19.3	17.8	17.0	16.7	16.1	16.2	17.3	19.0	21.0	22.8	24.4	25.3	26.0	26.7	27.1	27.0	26.6	26.5	26.0	24.6	22.5	20.2	19.1	18.2	21.8	27.1
17-Jul	17.7	16.4	15.2	14.6	14.2	16.4	18.4	20.7	24.0	26.2	28.0	28.5	29.4	29.7	30.4	30.5	30.6	29.8	28.3	26.3	24.3	24.0	22.9	21.9	23.7	30.6
18-Jul	20.8	20.6	20.1	20.3	20.5	21.5	23.1	25.1	25.6	25.1	17.6	17.0	17.8	19.4	19.9	20.6	21.6	21.0	20.7	20.0	18.6	17.9	16.7	15.7	20.3	25.6
19-Jul	16.4	16.9	15.7	15.2	14.8	14.6	15.5	16.2	16.8	17.6	18.4	19.2	19.8	20.9	17.9	18.2	18.9	19.5	19.7	19.3	18.1	16.9	16.1	15.5	17.4	20.9
20-Jul	15.3	15.4	15.0	14.4	14.2	14.3	14.7	15.0	15.1	15.6	16.4	17.5	17.0	17.5	19.0	19.4	19.3	19.8	19.2	18.1	15.7	14.3	15.0	13.9	16.3	19.8
21-Jul	11.2	10.7	10.2	9.4	10.4	10.2	12.1	14.1	16.0	17.2	18.3	19.1	19.5	19.7	20.1	19.9	21.0	20.6	20.3	19.5	18.7	17.2	15.7	16.0	16.1	21.0
22-Jul	13.7	12.2	10.8	10.0	11.6	12.6	13.9	15.9	18.7	20.4	21.5	22.4	23.2	23.9	24.3	25.1	25.1	25.0	24.9	23.7	20.7	19.2	18.4	17.8	19.0	25.1
23-Jul	17.5	17.4	17.0	16.7	16.7	17.5	18.9	20.9	22.8	24.3	25.6	26.6	27.0	24.7	23.7	23.7	23.9	24.0	23.1	21.8	19.9	18.8	16.3	15.8	21.0	27.0
24-Jul	16.0	14.2	13.1	13.9	12.2	12.2	14.7	17.3	20.0	21.6	22.7	24.0	25.2	26.5	27.5	27.6	27.0	26.0	25.0	20.9	18.6	17.1	16.5	17.3	19.9	27.6
25-Jul	17.6	16.8	16.8	16.6	16.0	16.1	16.1	17.2	19.4	20.2	20.0	20.0	20.4	21.0	21.5	23.0	23.6	23.8	21.9	20.2	18.3	15.8	15.2	16.7	18.9	23.8
26-Jul	17.1	15.9	15.5	15.3	15.4	14.8	15.3	16.4	18.2	20.0	20.7	21.0	21.3	21.4	21.5	22.0	20.4	19.3	19.3	18.1	16.7	15.9	15.0	13.9	17.9	22.0
27-Jul	13.5	13.3	13.1	13.1	13.6	14.4	14.9	16.0	17.1	18.2	19.7	20.6	20.9	22.1	21.9	20.4	17.5	16.7	17.1	16.4	15.8	15.0	13.1	12.8	16.6	22.1
28-Jul	11.7	11.9	11.6	11.0	10.2	10.2	11.6	14.2	16.6	18.2	19.8	21.5	23.1	24.2	25.0	24.8	24.0	22.9	22.8	21.5	20.3	16.1	12.9	12.2	17.4	25.0
29-Jul	11.8	12.3	12.0	11.8	11.8	11.8	11.9	13.1	15.0	16.7	17.7	18.4	19.0	19.7	20.2	20.7	21.1	20.7	20.1	19.0	16.6	15.4	15.1	14.0	16.1	21.1
30-Jul	13.4	11.1	9.2	8.5	9.6	10.8	13.3	15.1	17.0	18.3	18.9	19.6	19.7	21.1	21.9	21.8	22.0	22.2	21.6	19.7	17.2	15.5	13.2	14.3	16.5	22.2
31-Jul	11.7	11.4	11.0	11.6	14.6	15.4	16.1	16.2	17.3	18.3	20.1	22.0	22.6	23.6	24.3	25.1	25.1	24.7	23.8	22.3	20.4	18.7	17.9	17.6	18.8	25.1
14.6 13.9 13.5 13.0 13.1 13.8 15.0 16.5 18.1 19.1 19.7 20.4 21.1 21.8 22.3 22.6 22.2 21.8 21.5 20.4 18.6 16.8 15.8 15.4																										Diurnal Average
20.8 20.6 20.1 20.3 20.5 21.5 23.1 25.1 25.6 26.2 28.0 28.5 29.4 29.7 30.4 30.5 30.6 29.8 28.3 26.3 24.3 24.0 22.9 21.9																										Diurnal Maximum
NS - Not in Service																										



Wood Buffalo Environmental Association
Hourly Averages

Ambient Temperature 2m (AT2) - C
Kirby North - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C
Kirby North - July 2026

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	0	0.00	0.00
0 - 10	13	2.22	2.22
10 - 20	376	64.16	66.38
> 20	197	33.62	100.00

Total Number of Valid Hours: 586

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

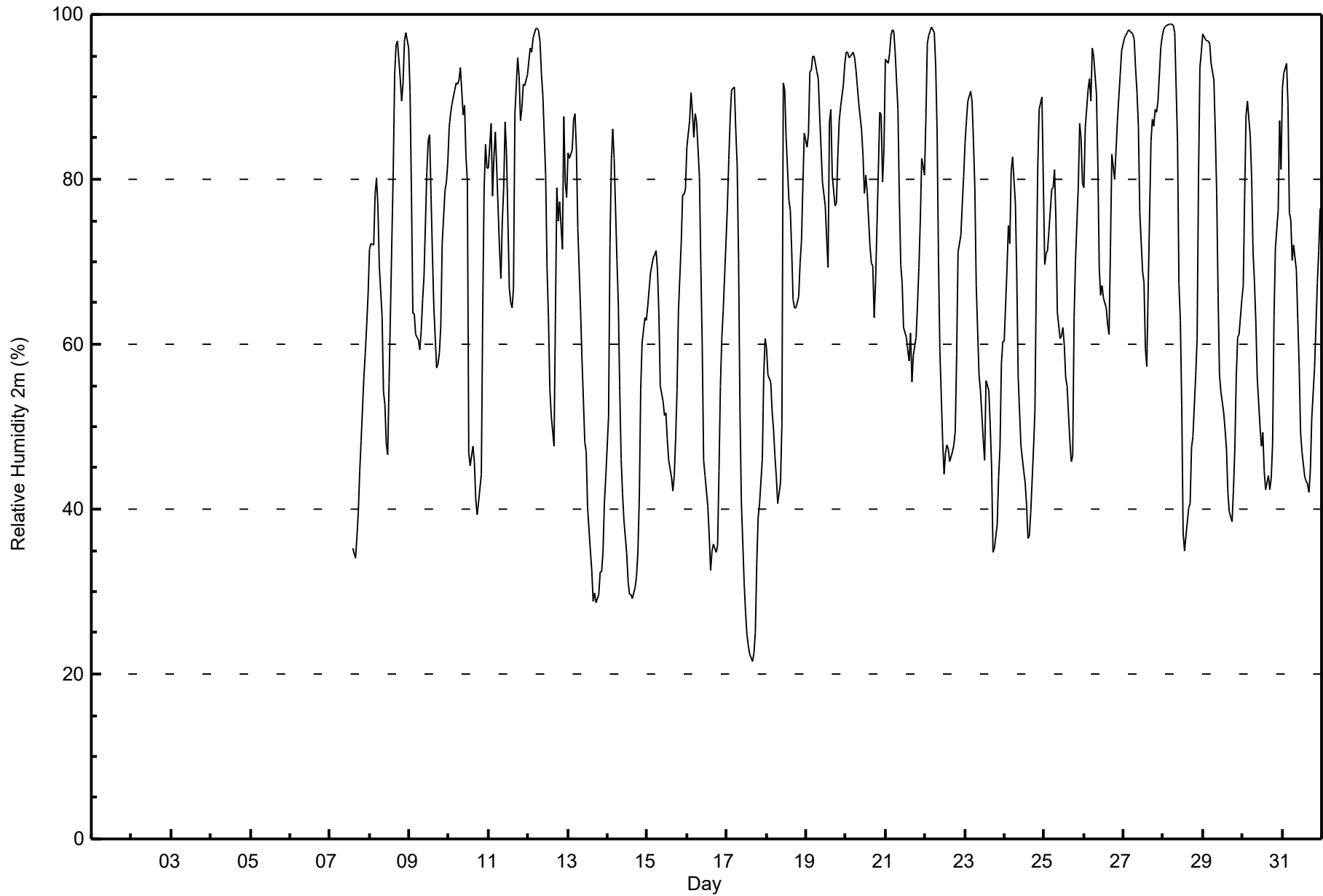
Kirby North - July 2026

Maximum Value: 98.8 % on Jul 28 06:00																				Maximum Daily Average: 86.1 % on Jul 27				Hours in Service: 586			
Minimum Value: 21.6 % on Jul 17 16:00																				Minimum Daily Average: 51.0 % on Jul 14				Hours of Data: 586			
Maximum Diurnal Average: 86.3 % at hour 4																				Minimum Diurnal Average: 51.1 % at hour 16				Hours of Missing Data: 0			
Monthly Average: 68.88 %																				Percentiles: P ₁ = 27.1 P ₁₀ = 40.9 Q ₁ = 52.0 Median = 70.4 Q ₃ = 86.7 P ₉₀ = 94.3 P ₉₉ = 98.5				Hours of Calibration: 0			
																								Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
2-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
3-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
4-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
5-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
6-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
7-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	35.2	34.1	36.6	39.7	44.6	48.3	56.1	59.0	62.4	66.1	--	66.1	
8-Jul	71.5	72.2	72.0	78.1	80.2	76.7	69.5	63.4	54.2	52.7	48.0	46.7	55.2	72.7	81.2	92.8	96.2	96.8	92.2	89.4	91.7	96.8	97.8	95.9	76.8	97.8	
9-Jul	90.6	78.2	63.7	63.8	61.2	60.5	59.4	61.8	65.4	68.3	80.8	84.8	85.3	78.1	71.0	64.5	57.2	57.6	58.9	62.3	72.2	78.7	79.7	82.1	70.3	90.6	
10-Jul	86.2	88.0	89.1	90.9	91.7	91.5	92.0	93.6	87.9	89.0	82.8	79.8	46.8	45.3	47.6	45.8	41.2	39.4	40.8	44.2	64.3	79.0	84.3	81.3	71.8	93.6	
11-Jul	81.4	86.8	78.0	82.6	85.8	81.3	71.5	67.9	74.9	78.9	86.9	83.2	66.7	65.2	64.3	66.8	88.0	94.7	92.5	87.1	88.6	91.6	91.3	92.7	81.2	94.7	
12-Jul	94.4	95.9	95.4	97.1	98.3	98.3	98.0	96.7	92.7	90.1	80.5	69.1	63.3	54.6	51.4	47.6	63.6	79.1	74.9	77.2	71.5	87.6	79.7	77.7	80.6	98.3	
13-Jul	83.2	82.6	83.6	87.4	88.0	83.5	74.0	63.8	58.1	53.2	48.1	47.0	40.1	35.0	32.6	28.9	29.8	28.6	29.7	32.4	32.3	34.7	40.6	43.9	52.5	88.0	
14-Jul	51.1	72.1	82.2	86.1	82.5	70.2	64.8	54.4	46.2	41.8	38.6	34.6	31.1	29.7	29.7	29.1	30.6	31.9	35.0	41.4	54.6	60.2	63.2	62.9	51.0	86.1	
15-Jul	64.6	66.5	68.7	70.5	70.8	71.4	68.9	63.7	54.9	53.0	51.4	51.7	48.4	46.0	43.9	42.2	44.0	48.6	54.5	64.1	72.3	78.2	78.1	78.8	60.6	78.8	
16-Jul	83.9	87.2	90.4	88.1	85.1	88.0	87.0	80.3	69.5	59.9	45.9	44.1	40.4	36.9	32.6	35.0	35.8	34.8	35.6	44.5	54.9	60.7	64.0	72.4	60.7	90.4	
17-Jul	76.8	82.3	87.5	90.8	91.3	85.9	81.8	70.3	51.8	40.9	31.0	27.5	24.7	23.4	22.3	21.6	22.6	25.1	33.4	38.9	40.8	46.1	56.2	60.7	51.4	91.3	
18-Jul	59.5	56.3	55.4	51.9	49.7	46.5	43.8	40.6	43.2	50.4	91.7	90.9	85.0	77.5	76.3	71.3	65.5	64.3	64.4	65.8	69.8	72.6	79.4	85.6	64.9	91.7	
19-Jul	83.8	85.6	93.0	93.2	94.9	94.9	93.1	92.2	87.7	83.7	79.6	76.8	72.8	69.3	87.0	88.5	80.6	76.8	77.1	82.8	87.1	88.8	91.5	94.1	85.6	94.9	
20-Jul	95.3	95.4	94.8	94.9	95.4	94.7	93.2	91.2	89.1	86.0	82.9	78.3	80.6	78.5	71.9	69.8	69.5	63.3	67.7	74.4	88.1	87.9	79.7	83.7	83.6	95.4	
21-Jul	94.5	94.1	95.3	97.4	98.1	98.0	95.5	88.5	77.8	69.7	67.4	62.0	60.8	59.2	58.0	61.3	55.4	58.7	60.9	64.9	69.3	75.1	82.6	80.5	76.0	98.1	
22-Jul	87.5	96.4	97.5	98.0	98.5	97.8	93.8	85.9	70.4	59.2	48.2	44.2	46.8	47.8	47.3	45.8	46.9	47.9	49.4	58.9	71.2	73.3	76.9	80.3	69.6	98.5	
23-Jul	84.4	87.2	89.5	90.7	89.4	84.7	79.0	67.1	56.2	54.4	51.6	48.5	45.9	55.6	54.3	50.1	45.2	34.7	35.2	38.1	44.0	47.4	57.7	60.3	60.5	90.7	
24-Jul	60.3	69.2	74.5	72.3	81.0	82.8	77.1	68.2	56.1	51.7	47.7	44.7	43.3	40.5	36.5	36.8	39.6	47.4	52.0	68.4	81.3	88.4	90.0	79.7	62.1	90.0	
25-Jul	69.7	71.0	71.3	73.7	78.9	79.0	81.2	75.1	63.9	60.6	61.0	61.9	59.9	56.0	55.0	48.2	45.8	46.4	63.2	70.2	79.2	86.8	84.9	79.5	67.6	86.8	
26-Jul	79.0	86.2	90.9	92.1	89.4	96.0	94.9	90.3	81.7	69.2	66.0	67.2	65.6	64.5	62.4	61.2	71.7	83.1	80.1	83.6	87.1	89.9	92.7	95.6	80.9	96.0	
27-Jul	97.1	97.5	97.8	98.1	98.1	97.6	96.9	93.3	90.5	86.5	75.9	68.8	67.4	59.5	57.3	66.7	84.6	87.3	86.4	88.6	88.2	89.6	95.9	97.4	86.1	98.1	
28-Jul	98.2	98.6	98.7	98.7	98.8	98.8	98.7	97.7	84.5	67.2	63.0	52.6	37.1	34.9	38.5	40.2	40.7	47.5	48.8	56.3	60.6	80.2	93.6	95.5	72.1	98.8	
29-Jul	97.6	96.9	96.7	96.9	96.4	94.1	92.0	85.8	78.3	65.9	56.3	54.3	51.8	49.6	47.3	42.0	39.6	38.5	42.3	47.5	56.1	60.8	61.3	65.5	67.2	97.6	
30-Jul	67.1	78.0	87.8	89.5	85.3	80.2	71.3	67.7	62.7	56.0	50.0	47.6	49.3	44.6	42.4	44.1	42.3	43.7	48.0	63.3	71.7	76.3	87.2	81.1	64.0	89.5	
31-Jul	91.1	92.9	94.0	89.0	75.9	75.1	70.2	72.1	69.1	63.0	57.3	49.4	47.0	43.9	43.3	43.0	42.0	44.8	51.1	57.2	62.2	67.4	71.4	76.4	64.5	94.0	
81.2 84.0 85.3 86.3 86.0 84.5 81.1 76.3 69.4 64.6 62.2 59.0 54.8 52.8 51.6 51.1 52.6 54.4 56.7 62.0 68.6 74.3 77.7 78.8																										Diurnal Average	
98.2 98.6 98.7 98.7 98.8 98.8 98.7 97.7 92.7 90.1 91.7 90.9 85.3 78.5 87.0 92.8 96.2 96.8 92.5 89.4 91.7 96.8 97.8 97.4																										Diurnal Maximum	
NS - Not in Service																											



Wood Buffalo Environmental Association
Hourly Averages

Relative Humidity 2m (RH2) - %
Kirby North - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %
Kirby North - July 2026

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	50	8.53	8.53
40 - 60	146	24.91	33.45
60 - 80	178	30.38	63.82
80 - 100	212	36.18	100.00

Total Number of Valid Hours: 586

Total Number of Hours: 744



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

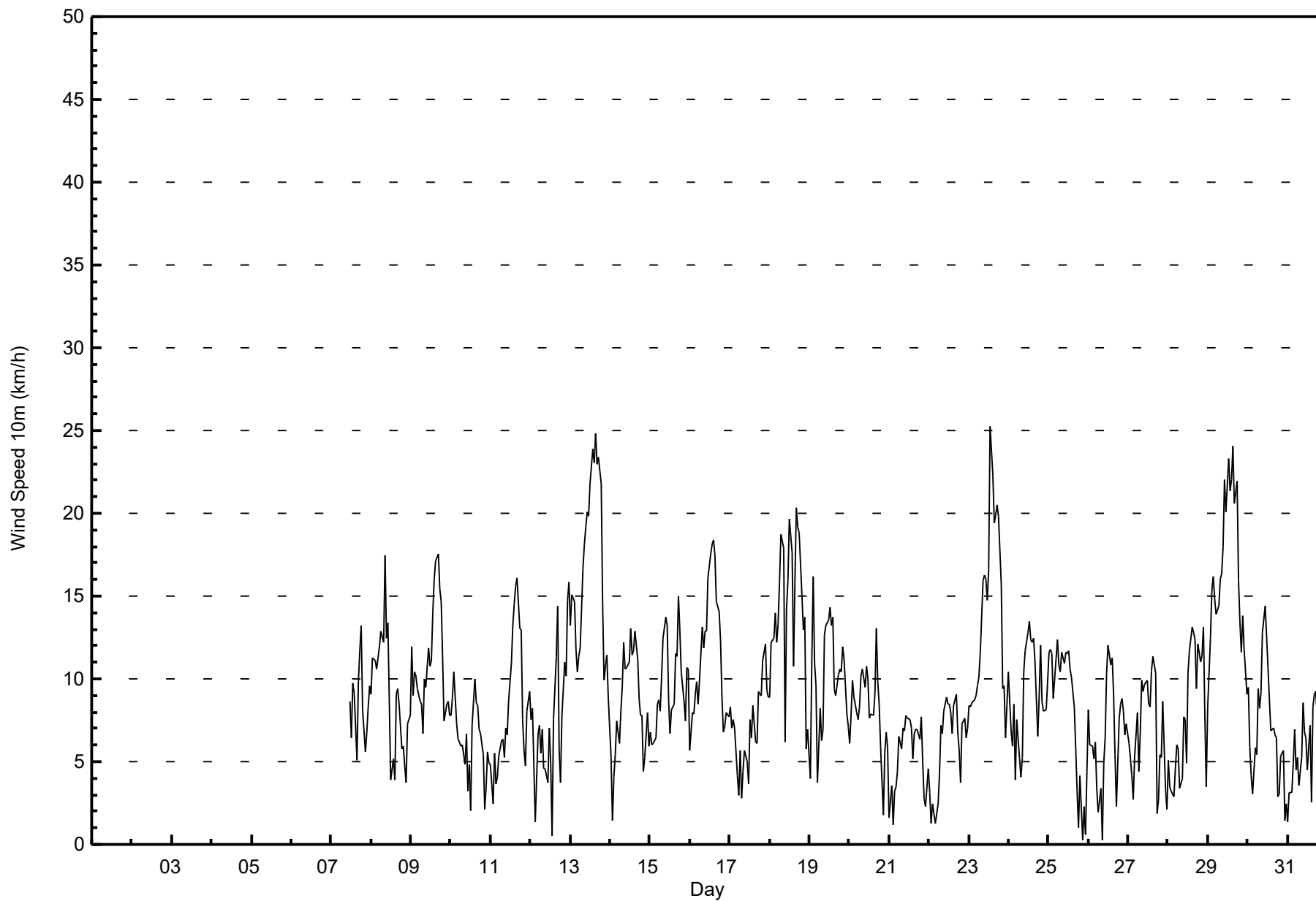
Kirby North - July 2026

Maximum Speed: 25 km/h on Jul 23 14:00										Maximum Daily Speed Average: 16.2 km/h on Jul 13										Hours in Service: 589						
Minimum Speed Value: 0 km/h on Jul 26 09:00										Minimum Daily Speed Average: 2.9 km/h on Jul 27										Hours of Data: 589						
Maximum Diurnal Speed Average: 6.2 km/h at hour 10										Minimum Diurnal Speed Average: 2.6 km/h at hour 21										Hours of Missing Data: 0						
Monthly Average Velocity: 4.3 km/h 219.6 deg										Percentiles: P ₁ = 1 P ₁₀ = 4 Q ₁ = 6 Median = 8 Q ₃ = 12 P ₉₀ = 15 P ₉₉ = 23										Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	---	---
2-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	---	---
3-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	---	---
4-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	---	---
5-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	---	---
6-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	---	---
7-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	---	E13
8-Jul	SSE9	SSE11	SSE11	SSE11	SSE11	SSE12	SSE13	SSE12	SSE17	S12	SSE13	S9	S4	E5	WSW4	NW9	N9	NW8	NW6	SW6	WSW5	SSW4	SW7	SW8	S5.6	SSE17
9-Jul	WSW12	WSW9	WNW10	WNW10	WNW9	WNW9	WNW8	NW7	WSW10	WSW10	SW12	SW11	SSW11	SSW14	SSW16	SSW17	SSW18	SSW15	SSW11	S7	SSE8	SSE9	SSE8	SW8.6	SSW18	
10-Jul	SSE8	SSE9	SSE10	SSE7	S6	S6	SSW6	SSE6	SSE5	S7	SSE3	S5	SSW2	SW7	SW10	WSW9	SW8	WNW7	W7	WNW5	ESE2	SE3	SE6	SE5	S4.3	SSE10
11-Jul	S5	SSE2	SSW6	S4	SE4	SE5	SE6	S6	SW5	NW7	NNE7	NE9	NE11	NNE13	NNE14	NNE16	NNW16	N13	NNW13	NNW8	NW6	WNW5	WNW8	WNW9	N3.7	NNW16
12-Jul	WNW8	WNW8	WNW5	SE1	S7	S7	S6	SSW7	SW5	WSW5	W4	N7	NNW5	SSE1	SSW8	SSW11	WNW14	NNW6	SW4	SSW8	SW11	SW10	SW15	SW16	SW5.0	SW16
13-Jul	SW13	SW15	SW15	SW12	SSW10	SSW11	SW12	SW17	SW18	SW19	SW20	SW20	WSW22	WSW24	WSW23	WSW25	WSW23	WSW23	WSW22	WSW15	WSW10	WSW11	WSW11	WSW9	WSW16.2	WSW25
14-Jul	SW5	S1	S4	SSE5	SSE7	S6	S8	SW10	WSW12	W11	W11	WSW11	WSW13	SW11	WSW12	WSW13	WSW11	WSW9	SSW8	SW8	S4	S5	SE8	SSE6	SW6.7	WSW13
15-Jul	SSE7	SSE6	SSE6	SSE6	SSE9	SSE9	SE8	SSE10	SE12	SE14	SSE13	SSE9	S7	SSE8	SSE8	SSE12	S11	SW15	SSW13	SSW10	SSW9	S7	SSE11	S11	S8.7	SW15
16-Jul	SSW6	S8	S8	S9	SSE10	S9	S10	SSW13	SSW12	SSW13	SSW13	SW16	SSW18	SW18	SSW18	SW17	SW15	SW14	SW12	SW9	SSW7	S7	S8	S8	SSW10.9	SSW18
17-Jul	S8	S7	S8	SSE7	S4	S3	S6	WSW3	NNW4	N6	N5	NE4	NNE8	ENE6	NNE8	NE6	ENE6	NE9	ENE9	E9	E11	ESE12	SE9	SE9	E3.5	ESE12
18-Jul	SE9	SE12	SE12	SE14	SE12	SE13	SE16	SE19	SE18	SE6	N14	NE16	ENE20	E18	ENE11	E16	ESE20	ESE19	ESE19	ESE15	ESE13	ESE14	N6	N7	ESE11.3	ESE20
19-Jul	NNE4	WSW11	SSW16	WSW11	NW10	NNW4	SW8	NW6	NNW7	WNW13	WNW13	NW14	WNW14	NW13	NW14	NW9	NW9	NW10	NW11	NW10	NW12	NW11	NW8	NNW7	WNW8.5	SSW16
20-Jul	NNW6	NNW8	N10	N9	NNW8	NNW8	NNW8	NNW10	NNW11	NNW10	NW11	NNW10	NW8	NW8	NW8	NW9	NW13	NW10	NW8	NNW6	NNW2	WNW5	WNW7	NW6	NNW7.9	NW13
21-Jul	NNW2	WNW4	ENE1	S3	SSW4	S4	S7	S6	SSW7	SW7	SW8	WSW8	W8	W7	WSW5	NNW7	WNW7	W7	WNW6	WNW8	W5	W3	S2	S5	WSW3.6	SW8
22-Jul	SSW3	SE1	SSE2	SSE2	S1	S2	S4	S7	SSW7	SW8	SW9	SW8	SW8	SW8	SW7	SSW8	SW9	SSW7	SSW6	SSE4	SE7	SE8	SSE6	SSE7	SSW5.1	SW9
23-Jul	SSE8	SSE8	SSE9	S9	S9	S10	S10	S12	SSW16	SSW16	SW16	SW15	W17	NW25	WNW22	WNW19	WNW20	W21	WNW20	NW16	WNW9	W10	SW6	WSW8	WSW8.7	NW25
24-Jul	WSW10	SW7	SW6	WSW8	SSW4	S8	SSE5	S4	SW5	SSW10	SSW12	SW13	SW13	SSW12	SSW12	SSW12	SW11	SSW6	SSW9	S12	S9	S8	S8	SW10	SSW8.5	SW13
25-Jul	SW12	SW12	SW12	SW9	SSW11	SW12	SW11	SW10	WSW12	WSW11	WSW12	WSW12	WSW12	WSW11	WSW10	WNW8	W6	W3	ESE1	SE4	SSE0	N2	SW1	SSW4	SW7.4	SW12
26-Jul	SSW8	SE6	S6	SSE5	SSE6	SSW3	SSE2	SSW3	N0	N5	N6	NNE10	NNE12	NE11	NNE11	NE9	E5	N2	N8	NE9	NE9	ENE8	NE7	NE7	NE3.6	NNE12
27-Jul	ENE6	NE5	NE4	NNE3	SE5	SE8	S4	SSW7	SSW10	SW9	WSW10	W10	WNW8	NW8	NW11	WNW11	WSW10	WNW2	SW3	WSW5	W5	WSW9	ESE3	ESE2	WSW2.9	WNW11
28-Jul	S5	SSE3	SSE3	SE3	S5	S6	S6	S3	SW4	SSW8	S8	SE5	SE10	SE12	SE13	ESE13	SE12	SE9	SE12	SE11	ESE11	WSW13	NW8	SSE3	SSE5.9	WSW13
29-Jul	S8	SSW12	SW15	SW16	SW15	SW14	SW14	SW16	WSW16	WSW18	WSW22	WSW20	WSW23	WSW21	WSW22	WSW24	WSW21	WSW22	WSW16	WSW13	SW12	SW14	WSW12	WSW9	WSW16.0	WSW24
30-Jul	WSW9	SSW6	SSW4	SSW3	SW6	SW5	W9	WNW8	W9	W13	WNW14	WNW13	WSW11	WSW9	NW7	NNW7	NW7	NNW6	WNW3	S3	SW5	SSW6	SE1	ESE2	W5.1	WNW14
31-Jul	SE1	ESE3	ESE3	ESE5	ESE7	ESE4	SE5	SSE4	SSE5	SE9	S7	S6	SW4	SW7	SW3	SW8	SW9	SW9	SW8	SSW5	S6	SSE6	SSE8	SSE8	S4.6	SW9
SSW4.4SSW4.2SSW4.8 S4.4 S4.7 S5.1SSW5.7SSW5.4 SW5.9 SW6.2WSW6.1WSW5.1WSW5.1WSW4.6WSW5.1WSW5.0WSW5.9WSW4.8WSW3.6 SW3.1SSW2.6SSW3.7SSW3.4SSW3.6																									Diurnal Average	
SW13 SW15 SSW16 SW16 SW15 SW14 SE16 SE19 SW18 SW19WSW22WSW20WSW23 NW25WSW23WSW25WSW23WSW23WSW22 NW16 ESE13 SW14 SW15 SW16																									Diurnal Maximum	
NS - Not in Service																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										



Wood Buffalo Environmental Association
Hourly Averages

Wind Speed 10m (WS10) - km/h
Kirby North - July 2026





Wood Buffalo Environmental Association
Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h
Kirby North - July 2026

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	122	20.71	20.71
6 - 11	313	53.14	73.85
12 - 19	130	22.07	95.93
20 - 28	24	4.07	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 589

Total Number of Hours: 744



Wood Buffalo Environmental Association
Frequency Distribution

Wind Speed 10m (WS10) - km/h
Kirby North - July 2026

Wind Speed Ranges (km/h)	Wind Direction																Totals
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
0 - 5	4	3	3	1	2	9	13	17	23	12	12	6	5	7	0	5	122
6 - 11	8	5	10	6	2	3	19	39	46	33	39	27	11	19	28	18	313
12 - 19	2	4	1	0	3	8	14	7	3	21	33	17	2	7	6	2	130
20 - 28	0	0	0	1	0	1	0	0	0	0	2	15	1	3	1	0	24
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	14	12	14	8	7	21	46	63	72	66	86	65	19	36	35	25	589

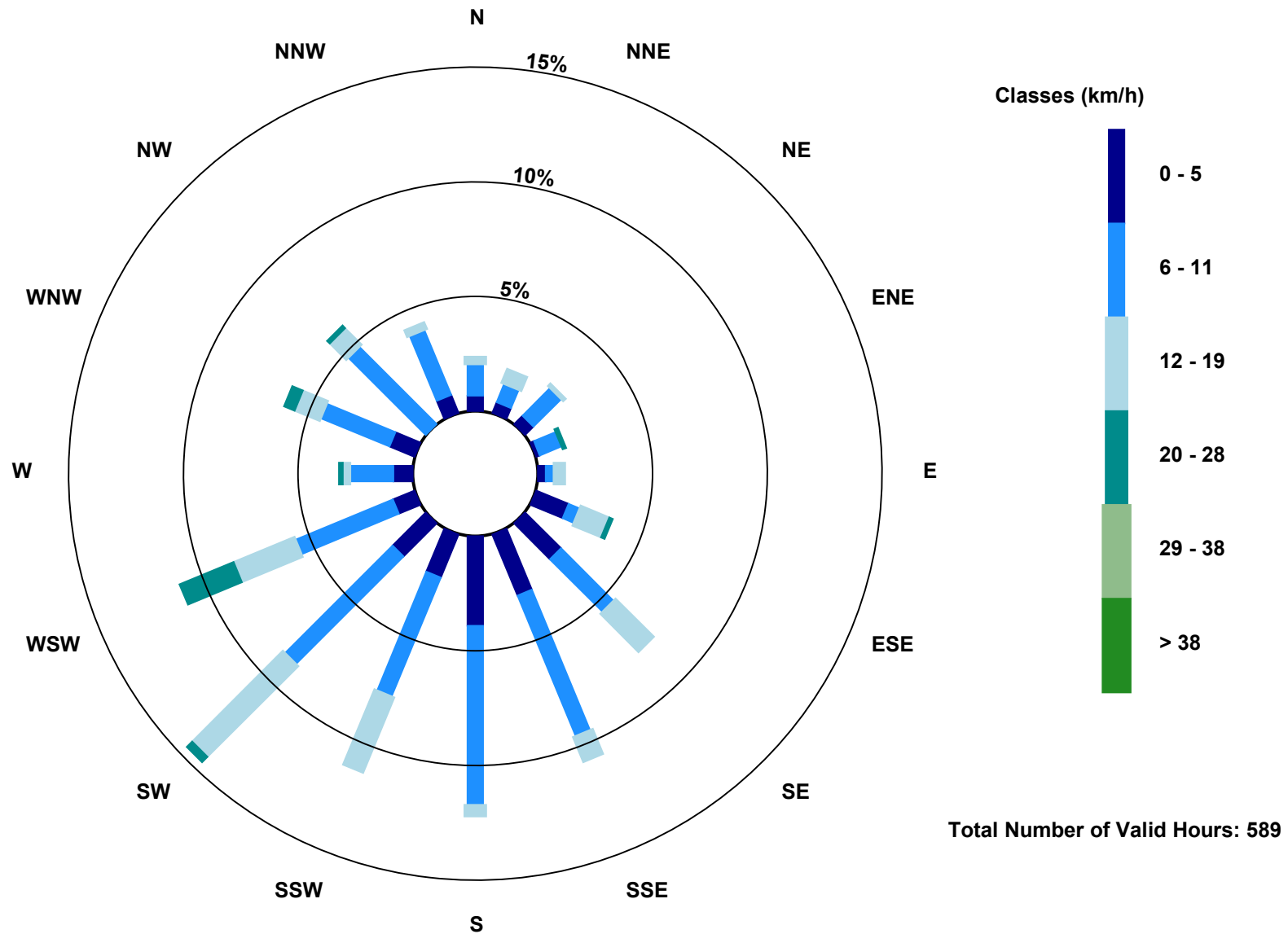
Total Number of Valid Hours: 589

Total Number of Hours: 744



Wood Buffalo Environmental Association
Wind Rose Jul 2026

Wind Speed 10m (WS10) - km/h
Kirby North





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Kirby North - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 9 km/h on Jul 28 22:00																		Hours in Service: 589 Hours of Data: 589 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0								
Minimum Value: 1 km/h on Jul 10 23:00																										
Percentiles: P ₁ = 1 P ₁₀ = 1 Q ₁ = 2 Median = 2 Q ₃ = 3 P ₉₀ = 4 P ₉₉ = 6																										
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
2-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
3-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
4-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
5-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
6-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
7-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5
8-Jul	2	3	3	3	2	3	4	4	5	5	5	4	3	4	4	4	2	2	3	4	3	3	3	3	3	5
9-Jul	2	2	3	2	2	2	3	3	3	3	3	3	4	4	4	5	5	4	4	4	2	2	2	2	2	5
10-Jul	2	2	2	2	1	1	2	2	2	1	1	2	2	4	3	3	3	2	3	2	2	1	1	2	2	4
11-Jul	2	2	2	2	2	2	1	2	2	2	2	2	3	3	3	3	5	3	3	3	1	2	3	3	3	5
12-Jul	2	2	3	3	2	2	2	2	3	2	2	2	4	2	3	5	7	2	2	2	4	2	3	4	4	7
13-Jul	3	3	3	2	2	3	3	4	4	5	5	5	6	6	6	7	6	6	5	4	3	3	2	2	2	7
14-Jul	3	2	2	2	1	1	2	3	3	3	4	4	5	4	4	4	3	3	2	2	1	1	1	1	1	5
15-Jul	1	1	2	1	2	2	2	3	4	4	5	4	3	3	4	4	4	4	3	3	2	1	3	4	4	5
16-Jul	3	2	2	2	2	2	3	3	3	4	3	4	4	5	5	5	5	5	3	2	1	1	1	1	1	5
17-Jul	1	2	1	2	3	2	2	1	1	2	2	3	4	4	3	3	2	2	2	1	2	2	2	2	2	4
18-Jul	2	3	3	3	3	3	4	5	6	7	4	4	4	5	5	5	6	5	5	4	3	3	2	3	3	7
19-Jul	4	6	5	3	3	3	3	3	2	3	3	3	4	4	4	3	3	3	3	3	3	3	3	3	2	6
20-Jul	1	2	2	2	2	2	2	3	3	3	3	3	2	2	2	3	3	3	2	2	2	2	1	2	3	3
21-Jul	1	1	1	2	2	2	1	1	2	2	2	3	3	3	2	2	2	2	2	1	2	2	2	1	3	3
22-Jul	2	1	2	2	2	2	2	2	2	2	2	3	3	4	3	3	3	2	1	1	1	1	1	1	1	4
23-Jul	1	1	2	2	2	2	2	3	4	4	4	4	4	6	6	6	5	5	5	4	2	3	1	2	2	6
24-Jul	2	3	2	2	2	1	2	1	2	3	3	4	3	4	4	3	3	2	5	4	2	2	1	2	2	5
25-Jul	2	2	2	2	2	3	2	3	3	3	3	2	2	2	2	2	2	1	1	1	2	1	1	3	3	3
26-Jul	4	1	1	1	1	1	2	2	2	3	2	4	3	3	3	3	2	2	2	1	1	1	1	1	1	4
27-Jul	1	1	2	3	3	2	2	2	2	3	3	3	2	3	3	3	4	2	1	2	1	3	1	1	1	4
28-Jul	3	2	1	1	2	2	2	3	2	2	3	3	3	3	4	3	4	3	4	3	3	9	4	3	9	9
29-Jul	2	3	4	4	4	3	3	4	4	5	6	5	6	5	6	6	6	6	5	4	2	2	3	2	2	6
30-Jul	2	3	3	2	2	2	2	2	2	4	4	4	2	4	3	2	3	2	2	2	1	1	1	1	1	4
31-Jul	2	1	1	2	1	1	1	1	2	2	2	2	2	2	2	3	3	3	2	1	1	1	1	2	2	3
Diurnal Maximum																										
NS - Not in Service																										



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

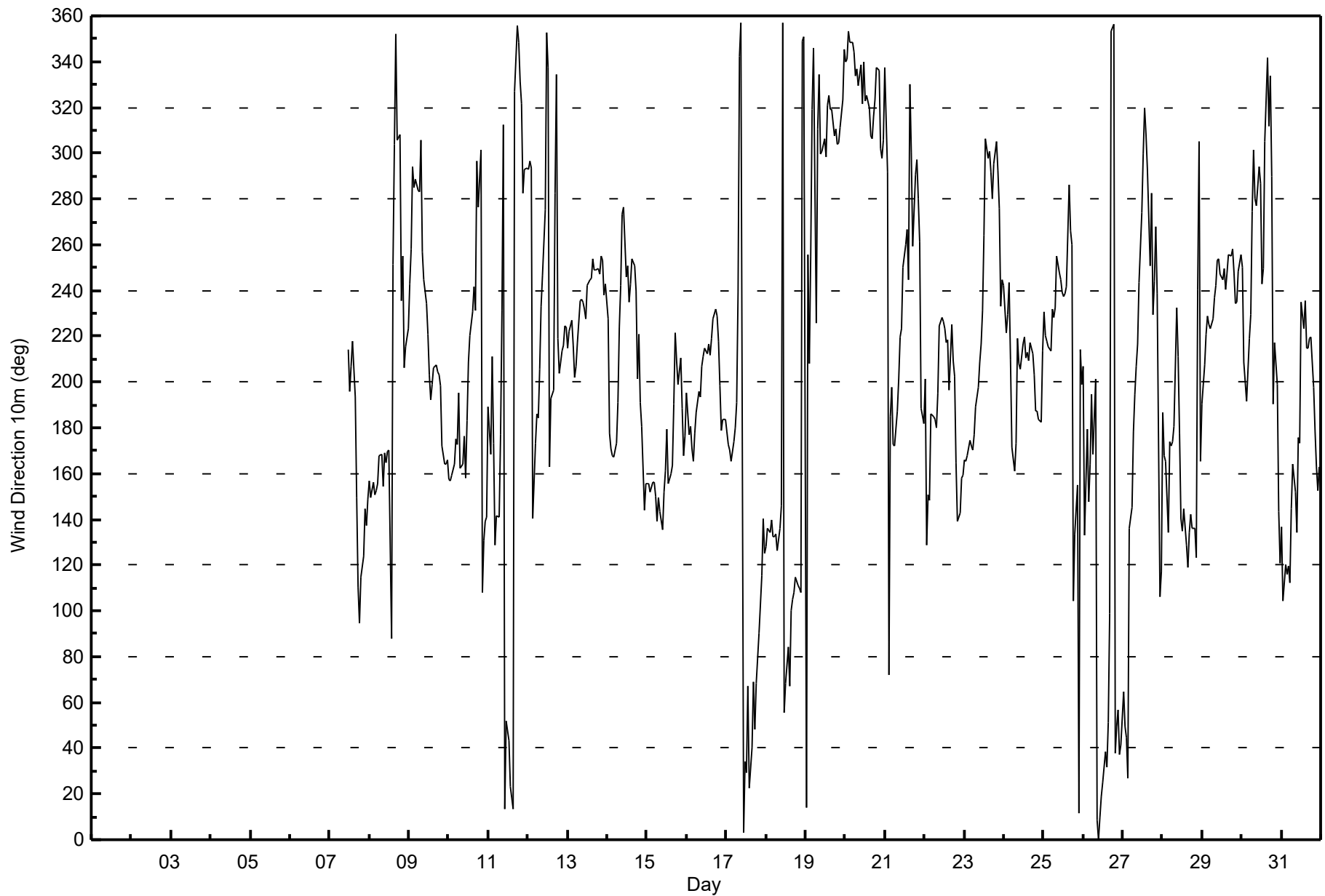
Kirby North - July 2026

Direction of Maximum Speed: 306 deg on Jul 23 14:00 Direction of Maximum Daily Speed Average: 237.3 deg on Jul 13																					Hours in Service: 589 Hours of Data: 589					
Direction of Minimum Speed: 8 deg on Jul 26 09:00										Direction of Minimum Daily Speed Average: 2.9 deg on Jul 27											Hours of Missing Data: 0					
Monthly Average Direction: 219.6 deg																					Percent Operational Time: 100.0					
Day	Hourly Period Ending At (MST)																								Daily Average	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
2-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
3-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
4-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
5-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
6-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
7-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	214	196	207	218	194	150	111	95	115	124	145	138	149		--
8-Jul	157	150	156	151	152	156	168	168	155	169	165	169	170	88	252	304	352	305	308	236	255	206	215	224		175.6
9-Jul	243	258	294	285	289	284	283	305	257	244	235	221	203	192	199	206	207	204	203	198	172	164	164	166		223.2
10-Jul	158	157	159	164	175	173	195	162	164	176	158	183	208	220	231	242	231	297	277	302	108	130	139	141		189.4
11-Jul	189	168	211	173	128	141	141	177	232	313	13	52	43	23	18	13	327	356	348	331	321	283	293	293		352.0
12-Jul	293	297	294	140	174	186	184	205	233	246	275	353	337	163	193	196	283	334	219	204	214	216	224	224		233.5
13-Jul	215	222	227	216	202	207	217	236	236	235	232	228	242	245	246	254	249	249	249	247	255	254	238	243		237.3
14-Jul	228	177	171	168	167	174	191	224	242	273	276	246	250	235	243	254	251	240	201	221	191	181	144	156		225.2
15-Jul	155	156	152	157	156	150	139	149	144	135	152	161	179	156	160	163	190	221	210	199	211	188	168	176		168.9
16-Jul	195	177	180	171	165	178	187	196	193	207	211	215	212	217	212	219	228	232	229	218	198	179	184	184		204.0
17-Jul	178	173	170	165	174	180	191	239	342	357	3	34	29	67	23	40	69	48	68	79	90	115	140	125		95.7
18-Jul	128	136	134	140	133	132	134	126	136	146	357	55	68	84	67	100	105	108	114	111	110	108	349	351		106.6
19-Jul	14	256	208	255	319	346	226	311	334	299	301	306	298	321	325	319	319	307	311	304	305	311	323	346		302.3
20-Jul	340	341	353	349	348	344	334	337	329	339	321	340	323	325	320	308	306	316	324	338	336	302	298	306		328.2
21-Jul	337	291	72	185	198	173	172	187	201	220	223	250	260	266	245	330	300	260	291	297	280	261	189	182		245.2
22-Jul	202	129	150	149	186	185	184	180	195	225	228	227	223	217	218	197	225	209	203	165	139	143	158	159		195.5
23-Jul	166	165	168	175	172	170	177	189	197	209	216	231	264	306	298	301	292	280	295	305	293	276	233	245		251.8
24-Jul	242	222	230	244	210	171	161	173	219	208	206	217	220	211	213	209	217	212	203	188	187	183	183	214		207.9
25-Jul	231	220	218	215	213	232	228	233	255	248	245	239	237	238	242	286	266	260	105	134	155	11	214	199		234.7
26-Jul	207	133	179	148	164	195	168	201	8	0	10	19	25	38	32	51	99	353	356	38	49	57	37	42		48.9
27-Jul	65	50	45	27	136	145	178	195	207	217	243	274	299	319	308	293	251	282	229	244	268	239	106	117		251.5
28-Jul	187	168	166	134	174	172	174	181	232	211	178	141	135	145	129	119	134	142	136	136	123	240	305	165		155.1
29-Jul	191	207	221	229	225	223	227	236	242	253	254	247	245	249	240	248	256	255	258	247	235	235	249	256		241.2
30-Jul	250	209	200	192	219	229	275	301	280	277	294	287	243	250	305	342	312	334	290	190	217	199	144	121		266.8
31-Jul	137	104	120	116	120	112	144	164	152	134	176	173	235	223	235	215	215	219	220	197	179	163	153	163		174.8
203.4 195.0 193.4 189.9 182.2 182.2 192.0 203.4 214.3 230.8 242.5 240.0 244.6 242.8 249.3 250.7 250.0 254.2 243.9 221.3 200.0 202.3 200.2 198.9																										
Diurnal Average																										
NS - Not in Service																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										



Wood Buffalo Environmental Association
Hourly Averages

Wind Direction 10m (WD10) - deg
Kirby North - July 2026





Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Kirby North - July 2026

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 108 deg on Jul 12 14:00																			Hours in Service: 589							
Minimum Value: 5 deg on Jul 22 21:00																			Hours of Data: 589							
Percentiles: P ₁ = 10 P ₁₀ = 14 Q ₁ = 16 Median = 21 Q ₃ = 32 P ₉₀ = 51 P ₉₉ = 89																			Hours of Missing Data: 0							
																			Hours of Calibration: 0							
																			Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
2-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
3-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
4-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
5-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
6-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--
7-Jul	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	35	46	37	64	77	40	25	17	19	16	13	12	16		77
8-Jul	16	17	19	15	16	19	22	25	22	26	26	25	49	83	87	52	16	23	51	51	49	64	40	36		87
9-Jul	13	22	23	16	16	20	25	22	28	24	14	23	22	23	22	22	20	19	20	20	17	16	16	16		28
10-Jul	14	14	16	14	15	15	19	34	34	19	60	42	86	68	29	32	30	43	29	24	74	16	10	32		86
11-Jul	21	56	34	51	24	24	18	25	32	21	19	19	25	20	20	15	20	24	16	17	14	27	19	18		56
12-Jul	19	17	57	74	15	18	27	20	45	54	62	37	69	108	49	30	50	38	61	24	23	14	14	15		108
13-Jul	15	14	14	14	16	16	18	15	16	16	16	17	18	16	18	15	17	15	15	17	20	18	15	15		20
14-Jul	58	97	48	19	12	16	19	24	16	29	30	33	32	31	34	29	29	30	23	15	20	21	13	17		97
15-Jul	13	10	11	11	14	16	18	21	21	22	26	47	45	47	43	32	29	19	17	18	15	24	19	21		47
16-Jul	35	17	17	17	16	18	19	20	22	25	23	22	21	19	20	19	20	17	15	16	13	12	13	15		35
17-Jul	10	12	10	31	85	69	27	43	37	39	50	88	44	63	40	51	47	18	13	9	11	14	14	13		88
18-Jul	12	15	15	17	14	15	16	17	20	89	28	33	13	18	37	19	16	16	14	14	13	14	55	36		89
19-Jul	69	66	22	28	35	67	26	36	24	18	19	18	16	19	18	15	17	15	16	18	18	16	18	15		69
20-Jul	14	17	15	14	15	15	17	17	16	19	19	22	20	20	28	26	17	17	17	12	35	14	11	28		35
21-Jul	51	41	57	30	40	24	15	20	22	29	29	39	37	35	39	23	33	28	23	15	22	67	73	24		73
22-Jul	59	42	45	40	80	31	43	21	24	26	23	29	32	36	44	30	21	23	15	34	5	9	10	12		80
23-Jul	14	14	15	15	14	16	20	22	19	19	17	22	29	16	19	20	22	18	18	16	17	21	19	17		29
24-Jul	16	23	19	25	58	14	25	37	36	25	23	23	21	31	28	22	19	18	22	23	17	15	14	21		58
25-Jul	14	13	14	17	13	17	16	18	24	19	16	15	15	15	18	33	37	44	53	14	98	44	79	27		98
26-Jul	29	28	26	24	17	35	59	40	94	46	37	32	20	20	19	26	42	77	20	12	10	9	11	14		94
27-Jul	10	12	16	51	57	22	33	24	20	23	25	33	26	26	23	15	27	91	41	37	24	22	32	55		91
28-Jul	51	66	38	34	30	25	23	57	49	27	39	60	30	26	26	22	19	17	17	18	15	60	38	77		77
29-Jul	19	20	16	15	14	16	14	15	17	19	16	20	17	17	18	16	19	18	20	17	11	11	18	21		21
30-Jul	19	26	56	55	26	30	22	19	25	24	22	26	19	42	54	39	28	37	54	47	16	19	71	43		71
31-Jul	66	23	15	18	8	12	20	19	21	20	29	35	41	34	89	37	23	19	14	18	16	15	11	17		89
69 97 57 74 85 69 59 57 94 89 62 88 86 108 89 77 50 91 61 51 98 67 79 77																										
Diurnal Maximum																										
NS - Not in Service																										



Appendix 1 - Summary of Ambient Air Quality Objectives (AAAQOs) and Ambient Air Quality Guidelines (AAAQGs) in July 2026

Site	Parameter	Date/Time	Reference	Period	Reported	Final	Status
Buffalo Viewpoint	PM2.5	1Jul26, 01:00		1-hr	101	101.1	exc
Buffalo Viewpoint	PM2.5	1Jul26, 02:00		1-hr	92	91.8	exc
Fort Chip	PM2.5	1Jul26, 02:00		1-hr	97	97.1	exc
Fort Hills	PM2.5	1Jul26, 02:00		1-hr	87	86.5	exc
Fort Chip	PM2.5	1Jul26, 03:00		1-hr	125	125.2	exc
Fort Chip	PM2.5	1Jul26, 04:00		1-hr	111	111.3	exc
Fort Chip	PM2.5	1Jul26, 05:00		1-hr	108	108.3	exc
Fort Chip	PM2.5	1Jul26, 06:00		1-hr	109	109.3	exc
Wapasu	PM2.5	1Jul26, 06:00		1-hr	90	90.0	exc
Fort Chip	PM2.5	1Jul26, 07:00		1-hr	117	117.2	exc
Wapasu	PM2.5	1Jul26, 07:00		1-hr	117	116.6	exc
Buffalo Viewpoint	PM2.5	1Jul26, 08:00		1-hr	92	92.4	exc
Fort Chip	PM2.5	1Jul26, 08:00		1-hr	132	132.1	exc
Anzac	PM2.5	1Jul26, 08:00		1-hr	84	84.0	exc
Wapasu	PM2.5	1Jul26, 08:00		1-hr	113	113.0	exc
Buffalo Viewpoint	PM2.5	1Jul26, 09:00		1-hr	119	119.1	exc
Patricia McInnes	PM2.5	1Jul26, 09:00		1-hr	83	82.8	exc
Fort Chip	PM2.5	1Jul26, 09:00		1-hr	139	138.5	exc
Barge Landing	PM2.5	1Jul26, 09:00		1-hr	107	107.0	exc
Anzac	PM2.5	1Jul26, 09:00		1-hr	98	97.9	exc
Wapasu	PM2.5	1Jul26, 09:00		1-hr	111	111.2	exc
Surmont 2	PM2.5	1Jul26, 09:00		1-hr	95	94.7	exc
Bertha Ganter	PM2.5	1Jul26, 10:00		1-hr	82	82.5	exc
Buffalo Viewpoint	PM2.5	1Jul26, 10:00		1-hr	124	124.0	exc
Patricia McInnes	PM2.5	1Jul26, 10:00		1-hr	91	91.1	exc
Athabasca Valley	PM2.5	1Jul26, 10:00		1-hr	91	91.0	exc
Fort Chip	PM2.5	1Jul26, 10:00		1-hr	127	126.7	exc
Barge Landing	PM2.5	1Jul26, 10:00		1-hr	107	107.4	exc
Ft. McKay S	PM2.5	1Jul26, 10:00		1-hr	101	100.8	exc
Anzac	PM2.5	1Jul26, 10:00		1-hr	89	89.1	exc
Wapasu	PM2.5	1Jul26, 10:00		1-hr	108	107.9	exc
Janvier	PM2.5	1Jul26, 10:00		1-hr	80	80.2	exc
Surmont 2	PM2.5	1Jul26, 10:00		1-hr	84	83.5	exc
Ells River	PM2.5	1Jul26, 10:00		1-hr	97	97.0	exc
Bertha Ganter	PM2.5	1Jul26, 11:00		1-hr	103	103.2	exc
Buffalo Viewpoint	PM2.5	1Jul26, 11:00		1-hr	115	115.3	exc
Patricia McInnes	PM2.5	1Jul26, 11:00		1-hr	93	93.3	exc
Athabasca Valley	PM2.5	1Jul26, 11:00		1-hr	95	95.0	exc
Fort Chip	PM2.5	1Jul26, 11:00		1-hr	119	118.6	exc
Barge Landing	PM2.5	1Jul26, 11:00		1-hr	124	123.6	exc
Ft. McKay S	PM2.5	1Jul26, 11:00		1-hr	115	115.3	exc
Anzac	PM2.5	1Jul26, 11:00		1-hr	84	84.4	exc
Wapasu	PM2.5	1Jul26, 11:00		1-hr	91	91.3	exc
Conklin	PM2.5	1Jul26, 11:00		1-hr	86	86.3	exc
Fort Hills	PM2.5	1Jul26, 11:00		1-hr	94	93.9	exc
Ells River	PM2.5	1Jul26, 11:00		1-hr	104	104.1	exc
Bertha Ganter	PM2.5	1Jul26, 12:00		1-hr	88	88.0	exc
Buffalo Viewpoint	PM2.5	1Jul26, 12:00		1-hr	107	106.8	exc
Patricia McInnes	PM2.5	1Jul26, 12:00		1-hr	87	86.6	exc
Athabasca Valley	PM2.5	1Jul26, 12:00		1-hr	91	90.7	exc
Fort Chip	PM2.5	1Jul26, 12:00		1-hr	109	109.3	exc
Barge Landing	PM2.5	1Jul26, 12:00		1-hr	101	101.2	exc
Ft. McKay S	PM2.5	1Jul26, 12:00		1-hr	102	102.3	exc
Anzac	PM2.5	1Jul26, 12:00		1-hr	82	82.3	exc
Fort Hills	PM2.5	1Jul26, 12:00		1-hr	123	123.3	exc
Ells River	PM2.5	1Jul26, 12:00		1-hr	102	102.2	exc
Buffalo Viewpoint	PM2.5	1Jul26, 13:00		1-hr	97	96.9	exc
Athabasca Valley	PM2.5	1Jul26, 13:00		1-hr	81	81.0	exc
Fort Chip	PM2.5	1Jul26, 13:00		1-hr	106	106.1	exc
Barge Landing	PM2.5	1Jul26, 13:00		1-hr	94	94.3	exc
Ft. McKay S	PM2.5	1Jul26, 13:00		1-hr	93	93.5	exc
Fort Hills	PM2.5	1Jul26, 13:00		1-hr	111	111.2	exc
Ells River	PM2.5	1Jul26, 13:00		1-hr	83	83.4	exc
Buffalo Viewpoint	PM2.5	1Jul26, 14:00		1-hr	92	92.1	exc
Fort Chip	PM2.5	1Jul26, 14:00		1-hr	112	111.8	exc
Barge Landing	PM2.5	1Jul26, 14:00		1-hr	99	98.8	exc
Ft. McKay S	PM2.5	1Jul26, 14:00		1-hr	96	95.6	exc
Fort Hills	PM2.5	1Jul26, 14:00		1-hr	109	109.4	exc



Site	Parameter	Date/Time	Reference	Period	Reported	Final	Status
Ells River	PM2.5	1Jul26, 14:00		1-hr	86	85.5	exc
Buffalo Viewpoint	PM2.5	1Jul26, 15:00		1-hr	81	80.8	exc
Fort Chip	PM2.5	1Jul26, 15:00		1-hr	113	113.1	exc
Barge Landing	PM2.5	1Jul26, 15:00		1-hr	95	95.3	exc
Ft. McKay S	PM2.5	1Jul26, 15:00		1-hr	89	88.6	exc
Fort Hills	PM2.5	1Jul26, 15:00		1-hr	90	90.4	exc
Ells River	PM2.5	1Jul26, 15:00		1-hr	81	80.9	exc
Fort Chip	PM2.5	1Jul26, 16:00		1-hr	87	87.4	exc
Bertha Ganter	PM2.5	1Jul26, 24:00	457084	24-hr	48	47.8	exc
Buffalo Viewpoint	PM2.5	1Jul26, 24:00	457083	24-hr	71	71.0	exc
Patricia McInnes	PM2.5	1Jul26, 24:00	457082	24-hr	55	54.6	exc
Athabasca Valley	PM2.5	1Jul26, 24:00	457081	24-hr	51	50.7	exc
Fort Chip	PM2.5	1Jul26, 24:00	457079	24-hr	85	85.0	exc
Barge Landing	PM2.5	1Jul26, 24:00	457078	24-hr	61	61.3	exc
Ft. McKay S	PM2.5	1Jul26, 24:00	457077	24-hr	55	55.2	exc
Anzac	PM2.5	1Jul26, 24:00	457076	24-hr	45	45.2	exc
Wapasu	PM2.5	1Jul26, 24:00	457057	24-hr	53	52.6	exc
Stony Mtn.	PM2.5	1Jul26, 24:00	457074	24-hr	35	42.7	exc
Conklin	PM2.5	1Jul26, 24:00	457073	24-hr	44	43.8	exc
Janvier	PM2.5	1Jul26, 24:00	457072	24-hr	40	40.3	exc
Fort Hills	PM2.5	1Jul26, 24:00	457071	24-hr	69	68.9	exc
Surmont 2	PM2.5	1Jul26, 24:00	457070	24-hr	44	44.2	exc
Ells River	PM2.5	1Jul26, 24:00	457069	24-hr	50	50.2	exc
Fort Chip	PM2.5	2Jul26, 03:00		1-hr	118	117.7	exc
Fort Chip	PM2.5	2Jul26, 04:00		1-hr	99	99.5	exc
Fort Chip	PM2.5	2Jul26, 05:00		1-hr	90	89.7	exc
Fort Chip	PM2.5	2Jul26, 06:00		1-hr	80	80.2	exc
Fort Chip	PM2.5	2Jul26, 24:00	457079	24-hr	37	36.9	exc
Ft. McKay S	PM2.5	6Jul26, 24:00	457077	24-hr	45	-	ret
Fort Chip	PM2.5	17Jul26, 15:00		1-hr	225	224.9	exc
Fort Chip	PM2.5	17Jul26, 16:00		1-hr	350	350.4	exc
Fort Chip	PM2.5	17Jul26, 17:00		1-hr	280	279.6	exc
Fort Chip	PM2.5	17Jul26, 18:00		1-hr	257	256.6	exc
Fort Chip	PM2.5	17Jul26, 19:00		1-hr	249	248.7	exc
Fort Hills	PM2.5	17Jul26, 20:00		1-hr	150	150.0	exc
Fort Chip	PM2.5	17Jul26, 20:00		1-hr	221	221.4	exc
Bertha Ganter	PM2.5	17Jul26, 21:00		1-hr	97	97.0	exc
Fort Hills	PM2.5	17Jul26, 21:00		1-hr	215	215.2	exc
Ells River	PM2.5	17Jul26, 21:00		1-hr	112	112.1	exc
Fort Chip	PM2.5	17Jul26, 21:00		1-hr	188	187.5	exc
Barge Landing	PM2.5	17Jul26, 21:00		1-hr	121	120.8	exc
Bertha Ganter	PM2.5	17Jul26, 22:00		1-hr	145	144.8	exc
Buffalo Viewpoint	PM2.5	17Jul26, 22:00		1-hr	135	135.0	exc
Fort Chip	PM2.5	17Jul26, 22:00		1-hr	156	156.4	exc
Ft. McKay S	PM2.5	17Jul26, 22:00		1-hr	116	115.9	exc
Fort Hills	PM2.5	17Jul26, 22:00		1-hr	253	253.1	exc
Ells River	PM2.5	17Jul26, 22:00		1-hr	140	139.6	exc
Barge Landing	PM2.5	17Jul26, 22:00		1-hr	212	211.5	exc
Bertha Ganter	PM2.5	17Jul26, 23:00		1-hr	181	181.0	exc
Buffalo Viewpoint	PM2.5	17Jul26, 23:00		1-hr	213	212.9	exc
Fort Chip	PM2.5	17Jul26, 23:00		1-hr	132	132.0	exc
Ft. McKay S	PM2.5	17Jul26, 23:00		1-hr	169	169.1	exc
Fort Hills	PM2.5	17Jul26, 23:00		1-hr	292	292.1	exc
Ells River	PM2.5	17Jul26, 23:00		1-hr	168	168.0	exc
Barge Landing	PM2.5	17Jul26, 23:00		1-hr	298	298.0	exc
Bertha Ganter	PM2.5	17Jul26, 24:00		1-hr	195	194.9	exc
Bertha Ganter	PM2.5	17Jul26, 24:00	457084	24-hr	40	40.4	exc
Buffalo Viewpoint	PM2.5	17Jul26, 24:00		1-hr	268	268.4	exc
Buffalo Viewpoint	PM2.5	17Jul26, 24:00	457083	24-hr	46	45.7	exc
Fort Chip	PM2.5	17Jul26, 24:00		1-hr	121	120.7	exc
Ft. McKay S	PM2.5	17Jul26, 24:00		1-hr	180	180.4	exc
Fort Hills	PM2.5	17Jul26, 24:00		1-hr	301	301.2	exc
Fort Hills	PM2.5	17Jul26, 24:00	457071	24-hr	77	77.2	exc
Ells River	PM2.5	17Jul26, 24:00		1-hr	233	232.6	exc
Ells River	PM2.5	17Jul26, 24:00	457069	24-hr	43	42.8	exc
Fort Chip	PM2.5	17Jul26, 24:00	457079	24-hr	98	97.7	exc
Barge Landing	PM2.5	17Jul26, 24:00		1-hr	283	282.7	exc
Barge Landing	PM2.5	17Jul26, 24:00	457078	24-hr	56	56.5	exc
Ft. McKay S	PM2.5	17Jul26, 24:00	457077	24-hr	39	38.8	exc
Bertha Ganter	PM2.5	18Jul26, 01:00		1-hr	209	209.1	exc
Buffalo Viewpoint	PM2.5	18Jul26, 01:00		1-hr	316	316.4	exc
Fort Chip	PM2.5	18Jul26, 01:00		1-hr	97	96.6	exc
Ft. McKay S	PM2.5	18Jul26, 01:00		1-hr	197	196.9	exc



Site	Parameter	Date/Time	Reference	Period	Reported	Final	Status
Fort Hills	PM2.5	18Jul26, 01:00		1-hr	298	297.7	exc
Ells River	PM2.5	18Jul26, 01:00		1-hr	239	238.6	exc
Barge Landing	PM2.5	18Jul26, 01:00		1-hr	208	207.5	exc
Bertha Ganter	PM2.5	18Jul26, 02:00		1-hr	225	225.5	exc
Buffalo Viewpoint	PM2.5	18Jul26, 02:00		1-hr	340	340.3	exc
Ft. McKay S	PM2.5	18Jul26, 02:00		1-hr	204	203.7	exc
Fort Hills	PM2.5	18Jul26, 02:00		1-hr	319	319.1	exc
Ells River	PM2.5	18Jul26, 02:00		1-hr	232	231.5	exc
Barge Landing	PM2.5	18Jul26, 02:00		1-hr	220	220.3	exc
Bertha Ganter	PM2.5	18Jul26, 03:00		1-hr	233	233.3	exc
Buffalo Viewpoint	PM2.5	18Jul26, 03:00		1-hr	311	310.7	exc
Ft. McKay S	PM2.5	18Jul26, 03:00		1-hr	211	211.3	exc
Fort Hills	PM2.5	18Jul26, 03:00		1-hr	320	320.2	exc
Ells River	PM2.5	18Jul26, 03:00		1-hr	234	233.6	exc
Barge Landing	PM2.5	18Jul26, 03:00		1-hr	226	226.1	exc
Bertha Ganter	PM2.5	18Jul26, 04:00		1-hr	234	234.4	exc
Buffalo Viewpoint	PM2.5	18Jul26, 04:00		1-hr	314	314.1	exc
Ft. McKay S	PM2.5	18Jul26, 04:00		1-hr	228	227.9	exc
Fort Hills	PM2.5	18Jul26, 04:00		1-hr	312	311.8	exc
Ells River	PM2.5	18Jul26, 04:00		1-hr	227	227.5	exc
Barge Landing	PM2.5	18Jul26, 04:00		1-hr	241	241.1	exc
Bertha Ganter	PM2.5	18Jul26, 05:00		1-hr	220	219.6	exc
Buffalo Viewpoint	PM2.5	18Jul26, 05:00		1-hr	272	271.6	exc
Fort Chip	PM2.5	18Jul26, 05:00		1-hr	91	91.5	exc
Ft. McKay S	PM2.5	18Jul26, 05:00		1-hr	236	236.3	exc
Fort Hills	PM2.5	18Jul26, 05:00		1-hr	336	336.2	exc
Ells River	PM2.5	18Jul26, 05:00		1-hr	209	209.1	exc
Barge Landing	PM2.5	18Jul26, 05:00		1-hr	272	271.6	exc
Bertha Ganter	PM2.5	18Jul26, 06:00		1-hr	210	210.0	exc
Buffalo Viewpoint	PM2.5	18Jul26, 06:00		1-hr	239	239.0	exc
Fort Chip	PM2.5	18Jul26, 06:00		1-hr	124	123.9	exc
Ft. McKay S	PM2.5	18Jul26, 06:00		1-hr	224	224.1	exc
Fort Hills	PM2.5	18Jul26, 06:00		1-hr	292	292.1	exc
Ells River	PM2.5	18Jul26, 06:00		1-hr	201	201.1	exc
Barge Landing	PM2.5	18Jul26, 06:00		1-hr	221	221.1	exc
Bertha Ganter	PM2.5	18Jul26, 07:00		1-hr	209	209.2	exc
Buffalo Viewpoint	PM2.5	18Jul26, 07:00		1-hr	98	97.7	exc
Fort Chip	PM2.5	18Jul26, 07:00		1-hr	127	126.7	exc
Ft. McKay S	PM2.5	18Jul26, 07:00		1-hr	233	232.8	exc
Fort Hills	PM2.5	18Jul26, 07:00		1-hr	275	274.8	exc
Ells River	PM2.5	18Jul26, 07:00		1-hr	218	217.6	exc
Barge Landing	PM2.5	18Jul26, 07:00		1-hr	204	204.3	exc
Bertha Ganter	PM2.5	18Jul26, 08:00		1-hr	192	192.1	exc
Fort Chip	PM2.5	18Jul26, 08:00		1-hr	138	138.2	exc
Ft. McKay S	PM2.5	18Jul26, 08:00		1-hr	215	215.1	exc
Fort Hills	PM2.5	18Jul26, 08:00		1-hr	240	240.3	exc
Ells River	PM2.5	18Jul26, 08:00		1-hr	188	187.8	exc
Barge Landing	PM2.5	18Jul26, 08:00		1-hr	193	192.8	exc
Bertha Ganter	PM2.5	18Jul26, 09:00		1-hr	130	130.1	exc
Fort Chip	PM2.5	18Jul26, 09:00		1-hr	126	125.6	exc
Ft. McKay S	PM2.5	18Jul26, 09:00		1-hr	147	147.1	exc
Fort Hills	PM2.5	18Jul26, 09:00		1-hr	136	136.1	exc
Barge Landing	PM2.5	18Jul26, 09:00		1-hr	149	148.9	exc
Bertha Ganter	PM2.5	18Jul26, 10:00		1-hr	84	83.7	exc
Fort Chip	PM2.5	18Jul26, 10:00		1-hr	104	104.2	exc
Ft. McKay S	PM2.5	18Jul26, 10:00		1-hr	85	87.1	exc
Fort Hills	PM2.5	18Jul26, 10:00		1-hr	134	134.4	exc
Barge Landing	PM2.5	18Jul26, 10:00		1-hr	107	107.4	exc
Fort Chip	PM2.5	18Jul26, 11:00		1-hr	84	84.5	exc
Fort Hills	PM2.5	18Jul26, 24:00	457071	24-hr	125	125.2	exc
Ells River	PM2.5	18Jul26, 24:00	457069	24-hr	81	96.6	exc
Bertha Ganter	PM2.5	18Jul26, 24:00	457084	24-hr	90	89.7	exc
Buffalo Viewpoint	PM2.5	18Jul26, 24:00	457083	24-hr	95	95.4	exc
Fort Chip	PM2.5	18Jul26, 24:00	457079	24-hr	70	70.1	exc
Barge Landing	PM2.5	18Jul26, 24:00	457078	24-hr	95	95.3	exc
Ft. McKay S	PM2.5	18Jul26, 24:00	457077	24-hr	91	91.2	exc
Fort Chip	PM2.5	19Jul26, 21:00		1-hr	102	101.6	exc
Fort Chip	PM2.5	19Jul26, 22:00		1-hr	242	241.8	exc
Fort Hills	PM2.5	19Jul26, 22:00		1-hr	133	133.3	exc
Ells River	PM2.5	19Jul26, 22:00		1-hr	107	106.6	exc
Bertha Ganter	PM2.5	19Jul26, 23:00		1-hr	187	187.4	exc
Buffalo Viewpoint	PM2.5	19Jul26, 23:00		1-hr	161	160.8	exc
Fort Chip	PM2.5	19Jul26, 23:00		1-hr	197	196.5	exc



Site	Parameter	Date/Time	Reference	Period	Reported	Final	Status
Barge Landing	PM2.5	19Jul26, 23:00		1-hr	156	155.8	exc
Ft. McKay S	PM2.5	19Jul26, 23:00		1-hr	180	193.0	exc
Fort Hills	PM2.5	19Jul26, 23:00		1-hr	277	277.3	exc
Ells River	PM2.5	19Jul26, 23:00		1-hr	208	207.9	exc
Bertha Ganter	PM2.5	19Jul26, 24:00		1-hr	234	233.8	exc
Buffalo Viewpoint	PM2.5	19Jul26, 24:00		1-hr	266	266.0	exc
Patricia McInnes	PM2.5	19Jul26, 24:00		1-hr	116	116.1	exc
Athabasca Valley	PM2.5	19Jul26, 24:00		1-hr	127	127.4	exc
Fort Chip	PM2.5	19Jul26, 24:00		1-hr	159	159.1	exc
Fort Chip	PM2.5	19Jul26, 24:00	457079	24-hr	42	42.2	exc
Ft. McKay S	PM2.5	19Jul26, 24:00		1-hr	251	251.4	exc
Ft. McKay S	PM2.5	19Jul26, 24:00	457077	24-hr	38	38.4	exc
Wapasu	PM2.5	19Jul26, 24:00		1-hr	149	149.3	exc
Fort Hills	PM2.5	19Jul26, 24:00		1-hr	286	286.1	exc
Fort Hills	PM2.5	19Jul26, 24:00	457071	24-hr	59	58.7	exc
Ells River	PM2.5	19Jul26, 24:00		1-hr	221	221.1	exc
Bertha Ganter	PM2.5	19Jul26, 24:00	457084	24-hr	36	36.4	exc
Buffalo Viewpoint	PM2.5	19Jul26, 24:00	457083	24-hr	45	45.4	exc
Barge Landing	PM2.5	19Jul26, 24:00	457078	24-hr	37	36.5	exc
Ells River	PM2.5	19Jul26, 24:00	457069	24-hr	39	39.0	exc
Bertha Ganter	PM2.5	20Jul26, 01:00		1-hr	126	125.9	exc
Buffalo Viewpoint	PM2.5	20Jul26, 01:00		1-hr	219	218.7	exc
Patricia McInnes	PM2.5	20Jul26, 01:00		1-hr	192	192.1	exc
Athabasca Valley	PM2.5	20Jul26, 01:00		1-hr	218	218.2	exc
Fort Chip	PM2.5	20Jul26, 01:00		1-hr	118	118.2	exc
Barge Landing	PM2.5	20Jul26, 01:00		1-hr	101	101.4	exc
Ft. McKay S	PM2.5	20Jul26, 01:00		1-hr	163	162.8	exc
Anzac	PM2.5	20Jul26, 01:00		1-hr	118	117.9	exc
Wapasu	PM2.5	20Jul26, 01:00		1-hr	157	157.1	exc
Fort Hills	PM2.5	20Jul26, 01:00		1-hr	102	101.8	exc
Ells River	PM2.5	20Jul26, 01:00		1-hr	122	121.6	exc
Buffalo Viewpoint	PM2.5	20Jul26, 02:00		1-hr	83	83.1	exc
Patricia McInnes	PM2.5	20Jul26, 02:00		1-hr	135	135.0	exc
Athabasca Valley	PM2.5	20Jul26, 02:00		1-hr	153	152.6	exc
Fort Chip	PM2.5	20Jul26, 02:00		1-hr	102	102.4	exc
Anzac	PM2.5	20Jul26, 02:00		1-hr	168	167.6	exc
Wapasu	PM2.5	20Jul26, 02:00		1-hr	103	103.3	exc
Fort Hills	PM2.5	20Jul26, 02:00		1-hr	82	82.5	exc
Surmont 2	PM2.5	20Jul26, 02:00		1-hr	141	140.8	exc
Fort Chip	PM2.5	20Jul26, 03:00		1-hr	97	96.7	exc
Anzac	PM2.5	20Jul26, 03:00		1-hr	165	164.5	exc
Janvier	PM2.5	20Jul26, 03:00		1-hr	115	115.3	exc
Surmont 2	PM2.5	20Jul26, 03:00		1-hr	176	175.6	exc
Fort Chip	PM2.5	20Jul26, 04:00		1-hr	112	111.7	exc
Anzac	PM2.5	20Jul26, 04:00		1-hr	148	147.9	exc
Conklin	PM2.5	20Jul26, 04:00		1-hr	94	93.8	exc
Janvier	PM2.5	20Jul26, 04:00		1-hr	146	145.9	exc
Fort Hills	PM2.5	20Jul26, 04:00		1-hr	86	86.2	exc
Surmont 2	PM2.5	20Jul26, 04:00		1-hr	172	172.4	exc
Buffalo Viewpoint	PM2.5	20Jul26, 05:00		1-hr	81	81.3	exc
Fort Chip	PM2.5	20Jul26, 05:00		1-hr	124	123.8	exc
Anzac	PM2.5	20Jul26, 05:00		1-hr	98	98.1	exc
Conklin	PM2.5	20Jul26, 05:00		1-hr	152	152.0	exc
Janvier	PM2.5	20Jul26, 05:00		1-hr	161	160.5	exc
Fort Hills	PM2.5	20Jul26, 05:00		1-hr	99	99.1	exc
Surmont 2	PM2.5	20Jul26, 05:00		1-hr	138	137.6	exc
Fort Chip	PM2.5	20Jul26, 06:00		1-hr	125	124.8	exc
Conklin	PM2.5	20Jul26, 06:00		1-hr	171	171.0	exc
Janvier	PM2.5	20Jul26, 06:00		1-hr	147	147.1	exc
Fort Hills	PM2.5	20Jul26, 06:00		1-hr	119	119.2	exc
Surmont 2	PM2.5	20Jul26, 06:00		1-hr	87	86.7	exc
Buffalo Viewpoint	PM2.5	20Jul26, 07:00		1-hr	86	86.0	exc
Fort Chip	PM2.5	20Jul26, 07:00		1-hr	131	131.1	exc
Conklin	PM2.5	20Jul26, 07:00		1-hr	148	148.5	exc
Janvier	PM2.5	20Jul26, 07:00		1-hr	107	107.4	exc
Fort Hills	PM2.5	20Jul26, 07:00		1-hr	112	112.4	exc
Buffalo Viewpoint	PM2.5	20Jul26, 08:00		1-hr	90	90.3	exc
Fort Chip	PM2.5	20Jul26, 08:00		1-hr	120	120.3	exc
Conklin	PM2.5	20Jul26, 08:00		1-hr	104	104.0	exc
Janvier	PM2.5	20Jul26, 08:00		1-hr	81	80.6	exc
Fort Hills	PM2.5	20Jul26, 08:00		1-hr	109	109.4	exc
Buffalo Viewpoint	PM2.5	20Jul26, 09:00		1-hr	88	87.6	exc
Fort Hills	PM2.5	20Jul26, 09:00		1-hr	134	133.7	exc



<u>Site</u>	<u>Parameter</u>	<u>Date/Time</u>	<u>Reference</u>	<u>Period</u>	<u>Reported</u>	<u>Final</u>	<u>Status</u>
Buffalo Viewpoint	PM2.5	20Jul26, 10:00		1-hr	95	94.9	exc
Stony Mtn.	PM2.5	20Jul26, 10:00		1-hr	84	84.2	exc
Fort Hills	PM2.5	20Jul26, 10:00		1-hr	138	138.4	exc
Buffalo Viewpoint	PM2.5	20Jul26, 11:00		1-hr	98	98.1	exc
Athabasca Valley	PM2.5	20Jul26, 11:00		1-hr	83	82.8	exc
Barge Landing	PM2.5	20Jul26, 11:00		1-hr	80	80.2	exc
Fort Hills	PM2.5	20Jul26, 11:00		1-hr	116	116.0	exc
Buffalo Viewpoint	PM2.5	20Jul26, 12:00		1-hr	101	100.9	exc
Athabasca Valley	PM2.5	20Jul26, 12:00		1-hr	83	83.4	exc
Barge Landing	PM2.5	20Jul26, 12:00		1-hr	80	80.4	exc
Fort Hills	PM2.5	20Jul26, 12:00		1-hr	128	128.2	exc
Buffalo Viewpoint	PM2.5	20Jul26, 13:00		1-hr	103	102.7	exc
Patricia McInnes	PM2.5	20Jul26, 13:00		1-hr	81	80.6	exc
Athabasca Valley	PM2.5	20Jul26, 13:00		1-hr	83	82.7	exc
Barge Landing	PM2.5	20Jul26, 13:00		1-hr	81	80.9	exc
Fort Hills	PM2.5	20Jul26, 13:00		1-hr	131	130.9	exc
Ells River	PM2.5	20Jul26, 13:00		1-hr	82	82.1	exc
Buffalo Viewpoint	PM2.5	20Jul26, 14:00		1-hr	102	101.6	exc
Patricia McInnes	PM2.5	20Jul26, 14:00		1-hr	83	83.3	exc
Athabasca Valley	PM2.5	20Jul26, 14:00		1-hr	86	86.1	exc
Barge Landing	PM2.5	20Jul26, 14:00		1-hr	80	80.1	exc
Ft. McKay S	PM2.5	20Jul26, 14:00		1-hr	81	80.6	exc
Ells River	PM2.5	20Jul26, 14:00		1-hr	80	80.1	exc
Buffalo Viewpoint	PM2.5	20Jul26, 15:00		1-hr	105	105.2	exc
Patricia McInnes	PM2.5	20Jul26, 15:00		1-hr	84	83.9	exc
Athabasca Valley	PM2.5	20Jul26, 15:00		1-hr	86	86.0	exc
Barge Landing	PM2.5	20Jul26, 15:00		1-hr	84	84.2	exc
Ft. McKay S	PM2.5	20Jul26, 15:00		1-hr	85	85.0	exc
Ells River	PM2.5	20Jul26, 15:00		1-hr	84	83.7	exc
Buffalo Viewpoint	PM2.5	20Jul26, 16:00		1-hr	106	106.2	exc
Patricia McInnes	PM2.5	20Jul26, 16:00		1-hr	89	88.6	exc
Athabasca Valley	PM2.5	20Jul26, 16:00		1-hr	99	99.4	exc
Barge Landing	PM2.5	20Jul26, 16:00		1-hr	82	82.5	exc
Ft. McKay S	PM2.5	20Jul26, 16:00		1-hr	85	86.3	exc
Anzac	PM2.5	20Jul26, 16:00		1-hr	82	82.1	exc
Stony Mtn.	PM2.5	20Jul26, 16:00		1-hr	81	80.7	exc
Fort Hills	PM2.5	20Jul26, 16:00		1-hr	91	91.4	exc
Ells River	PM2.5	20Jul26, 16:00		1-hr	86	86.4	exc
Buffalo Viewpoint	PM2.5	20Jul26, 17:00		1-hr	106	105.8	exc
Patricia McInnes	PM2.5	20Jul26, 17:00		1-hr	82	82.1	exc
Athabasca Valley	PM2.5	20Jul26, 17:00		1-hr	93	93.4	exc
Barge Landing	PM2.5	20Jul26, 17:00		1-hr	83	83.0	exc
Ft. McKay S	PM2.5	20Jul26, 17:00		1-hr	85	84.6	exc
Stony Mtn.	PM2.5	20Jul26, 17:00		1-hr	82	81.5	exc
Fort Hills	PM2.5	20Jul26, 17:00		1-hr	94	93.7	exc
Ells River	PM2.5	20Jul26, 17:00		1-hr	85	84.5	exc
Buffalo Viewpoint	PM2.5	20Jul26, 18:00		1-hr	103	103.3	exc
Athabasca Valley	PM2.5	20Jul26, 18:00		1-hr	88	88.1	exc
Barge Landing	PM2.5	20Jul26, 18:00		1-hr	83	83.4	exc
Ft. McKay S	PM2.5	20Jul26, 18:00		1-hr	81	81.1	exc
Stony Mtn.	PM2.5	20Jul26, 18:00		1-hr	81	80.7	exc
Fort Hills	PM2.5	20Jul26, 18:00		1-hr	100	100.1	exc
Ells River	PM2.5	20Jul26, 18:00		1-hr	82	82.0	exc
Buffalo Viewpoint	PM2.5	20Jul26, 19:00		1-hr	99	98.8	exc
Barge Landing	PM2.5	20Jul26, 19:00		1-hr	83	82.9	exc
Fort Hills	PM2.5	20Jul26, 19:00		1-hr	96	95.8	exc
Buffalo Viewpoint	PM2.5	20Jul26, 20:00		1-hr	96	95.8	exc
Barge Landing	PM2.5	20Jul26, 20:00		1-hr	80	80.5	exc
Fort Hills	PM2.5	20Jul26, 20:00		1-hr	96	96.4	exc
Ells River	PM2.5	20Jul26, 20:00		1-hr	82	82.1	exc
Buffalo Viewpoint	PM2.5	20Jul26, 21:00		1-hr	96	95.9	exc
Barge Landing	PM2.5	20Jul26, 21:00		1-hr	82	82.3	exc
Fort Hills	PM2.5	20Jul26, 21:00		1-hr	133	132.6	exc
Ells River	PM2.5	20Jul26, 21:00		1-hr	81	81.2	exc
Buffalo Viewpoint	PM2.5	20Jul26, 22:00		1-hr	94	93.9	exc
Barge Landing	PM2.5	20Jul26, 22:00		1-hr	84	83.7	exc
Fort Hills	PM2.5	20Jul26, 22:00		1-hr	87	87.1	exc
Buffalo Viewpoint	PM2.5	20Jul26, 23:00		1-hr	95	94.9	exc
Barge Landing	PM2.5	20Jul26, 23:00		1-hr	84	83.7	exc
Fort Hills	PM2.5	20Jul26, 23:00		1-hr	117	117.4	exc
Bertha Ganter	PM2.5	20Jul26, 24:00	457084	24-hr	71	71.4	exc
Buffalo Viewpoint	PM2.5	20Jul26, 24:00		1-hr	92	92.2	exc
Buffalo Viewpoint	PM2.5	20Jul26, 24:00	457083	24-hr	98	98.0	exc



<u>Site</u>	<u>Parameter</u>	<u>Date/Time</u>	<u>Reference</u>	<u>Period</u>	<u>Reported</u>	<u>Final</u>	<u>Status</u>
Patricia McInnes	PM2.5	20Jul26, 24:00	457082	24-hr	78	77.9	exc
Athabasca Valley	PM2.5	20Jul26, 24:00	457081	24-hr	84	84.4	exc
Fort Chip	PM2.5	20Jul26, 24:00	457079	24-hr	69	69.2	exc
Barge Landing	PM2.5	20Jul26, 24:00		1-hr	88	88.4	exc
Barge Landing	PM2.5	20Jul26, 24:00	457078	24-hr	76	76.0	exc
Ft. McKay S	PM2.5	20Jul26, 24:00	457077	24-hr	77	76.9	exc
Anzac	PM2.5	20Jul26, 24:00	457076	24-hr	85	85.1	exc
Wapasu	PM2.5	20Jul26, 24:00	457057	24-hr	65	65.4	exc
Fort Hills	PM2.5	20Jul26, 24:00		1-hr	120	120.4	exc
Stony Mtn.	PM2.5	20Jul26, 24:00	457074	24-hr	33	-	ret
Conklin	PM2.5	20Jul26, 24:00	457073	24-hr	74	73.6	exc
Janvier	PM2.5	20Jul26, 24:00	457072	24-hr	75	75.1	exc
Fort Hills	PM2.5	20Jul26, 24:00	457071	24-hr	107	107.7	exc
Surmont 2	PM2.5	20Jul26, 24:00	457070	24-hr	82	81.9	exc
Ells River	PM2.5	20Jul26, 24:00	457069	24-hr	78	78.4	exc
Buffalo Viewpoint	PM2.5	21Jul26, 01:00		1-hr	93	92.6	exc
Athabasca Valley	PM2.5	21Jul26, 01:00		1-hr	81	81.0	exc
Barge Landing	PM2.5	21Jul26, 01:00		1-hr	87	86.5	exc
Fort Hills	PM2.5	21Jul26, 01:00		1-hr	105	104.7	exc
Buffalo Viewpoint	PM2.5	21Jul26, 02:00		1-hr	93	92.6	exc
Barge Landing	PM2.5	21Jul26, 02:00		1-hr	88	87.5	exc
Fort Hills	PM2.5	21Jul26, 02:00		1-hr	111	111.5	exc
Buffalo Viewpoint	PM2.5	21Jul26, 03:00		1-hr	88	88.0	exc
Barge Landing	PM2.5	21Jul26, 03:00		1-hr	89	88.7	exc
Fort Hills	PM2.5	21Jul26, 03:00		1-hr	83	82.7	exc
Buffalo Viewpoint	PM2.5	21Jul26, 04:00		1-hr	86	86.4	exc
Barge Landing	PM2.5	21Jul26, 04:00		1-hr	91	91.1	exc
Fort Hills	PM2.5	21Jul26, 04:00		1-hr	123	123.3	exc
Buffalo Viewpoint	PM2.5	21Jul26, 05:00		1-hr	82	82.3	exc
Barge Landing	PM2.5	21Jul26, 05:00		1-hr	95	95.2	exc
Fort Hills	PM2.5	21Jul26, 05:00		1-hr	136	136.3	exc
Buffalo Viewpoint	PM2.5	21Jul26, 06:00		1-hr	81	80.7	exc
Barge Landing	PM2.5	21Jul26, 06:00		1-hr	89	88.5	exc
Fort Hills	PM2.5	21Jul26, 06:00		1-hr	89	88.6	exc
Buffalo Viewpoint	PM2.5	21Jul26, 07:00		1-hr	81	80.7	exc
Fort Hills	PM2.5	21Jul26, 07:00		1-hr	80	80.3	exc
Fort Hills	PM2.5	21Jul26, 08:00		1-hr	85	85.0	exc
Buffalo Viewpoint	PM2.5	21Jul26, 09:00		1-hr	86	86.0	exc
Fort Hills	PM2.5	21Jul26, 09:00		1-hr	96	95.9	exc
Buffalo Viewpoint	PM2.5	21Jul26, 10:00		1-hr	86	86.4	exc
Ft. McKay S	PM2.5	21Jul26, 10:00		1-hr	84	83.5	exc
Surmont 2	PM2.5	21Jul26, 10:00		1-hr	80	80.2	exc
Bertha Ganter	PM2.5	21Jul26, 11:00		1-hr	85	84.9	exc
Buffalo Viewpoint	PM2.5	21Jul26, 11:00		1-hr	85	85.1	exc
Barge Landing	PM2.5	21Jul26, 11:00		1-hr	82	82.0	exc
Ft. McKay S	PM2.5	21Jul26, 11:00		1-hr	93	92.8	exc
Surmont 2	PM2.5	21Jul26, 11:00		1-hr	83	82.7	exc
Buffalo Viewpoint	PM2.5	21Jul26, 12:00		1-hr	91	90.6	exc
Athabasca Valley	PM2.5	21Jul26, 12:00		1-hr	81	81.2	exc
Ft. McKay S	PM2.5	21Jul26, 12:00		1-hr	81	81.1	exc
Stony Mtn.	PM2.5	21Jul26, 12:00		1-hr	88	88.2	exc
Conklin	PM2.5	21Jul26, 12:00		1-hr	80	80.3	exc
Surmont 2	PM2.5	21Jul26, 12:00		1-hr	82	81.9	exc
Buffalo Viewpoint	PM2.5	21Jul26, 13:00		1-hr	93	93.5	exc
Ft. McKay S	PM2.5	21Jul26, 13:00		1-hr	86	85.6	exc
Ells River	PM2.5	21Jul26, 13:00		1-hr	80	80.1	exc
Buffalo Viewpoint	PM2.5	21Jul26, 14:00		1-hr	86	86.0	exc
Ft. McKay S	PM2.5	21Jul26, 14:00		1-hr	87	87.4	exc
Ells River	PM2.5	21Jul26, 14:00		1-hr	81	81.3	exc
Barge Landing	PM2.5	21Jul26, 15:00		1-hr	83	83.0	exc
Ft. McKay S	PM2.5	21Jul26, 15:00		1-hr	86	85.6	exc
Fort Hills	PM2.5	21Jul26, 15:00		1-hr	82	81.6	exc
Fort Hills	PM2.5	21Jul26, 17:00		1-hr	82	82.5	exc
Fort Hills	PM2.5	21Jul26, 18:00		1-hr	83	82.7	exc
Barge Landing	PM2.5	21Jul26, 16:00		1-hr	83	82.9	exc
Bertha Ganter	PM2.5	21Jul26, 24:00	457084	24-hr	68	67.9	exc
Buffalo Viewpoint	PM2.5	21Jul26, 24:00	457083	24-hr	80	79.6	exc
Patricia McInnes	PM2.5	21Jul26, 24:00	457082	24-hr	65	64.6	exc
Athabasca Valley	PM2.5	21Jul26, 24:00	457081	24-hr	69	69.2	exc
Fort Chip	PM2.5	21Jul26, 24:00	457079	24-hr	67	67.1	exc
Barge Landing	PM2.5	21Jul26, 24:00	457078	24-hr	77	76.9	exc
Ft. McKay S	PM2.5	21Jul26, 24:00	457077	24-hr	72	72.3	exc
Anzac	PM2.5	21Jul26, 24:00	457076	24-hr	66	65.9	exc



<u>Site</u>	<u>Parameter</u>	<u>Date/Time</u>	<u>Reference</u>	<u>Period</u>	<u>Reported</u>	<u>Final</u>	<u>Status</u>
Wapasu	PM2.5	21Jul26, 24:00	457057	24-hr	51	50.9	exc
Stony Mtn.	PM2.5	21Jul26, 24:00	457074	24-hr	54	72.6	exc
Conklin	PM2.5	22Jul26, 01:00		1-hr	81	81.1	exc
Conklin	PM2.5	22Jul26, 02:00		1-hr	81	81.5	exc
Conklin	PM2.5	22Jul26, 03:00		1-hr	83	82.9	exc
Conklin	PM2.5	21Jul26, 24:00	457073	24-hr	67	67.4	exc
Janvier	PM2.5	21Jul26, 24:00	457072	24-hr	62	62.3	exc
Fort Hills	PM2.5	21Jul26, 24:00	457071	24-hr	83	83.0	exc
Surmont 2	PM2.5	21Jul26, 24:00	457070	24-hr	68	68.0	exc
Ells River	PM2.5	21Jul26, 24:00	457069	24-hr	71	71.2	exc
Fort Chip	PM2.5	22Jul26, 09:00		1-hr	81	81.0	exc
Fort Chip	PM2.5	22Jul26, 10:00		1-hr	84	83.7	exc
Barge Landing	PM2.5	22Jul26, 10:00		1-hr	80	80.2	exc
Ft. McKay S	PM2.5	22Jul26, 10:00		1-hr	83	83.1	exc
Wapasu	PM2.5	22Jul26, 10:00		1-hr	84	83.6	exc
Fort Hills	PM2.5	22Jul26, 10:00		1-hr	86	85.8	exc
Ells River	PM2.5	22Jul26, 10:00		1-hr	83	82.6	exc
Bertha Ganter	PM2.5	22Jul26, 24:00	457084	24-hr	55	55.0	exc
Buffalo Viewpoint	PM2.5	22Jul26, 24:00	457083	24-hr	66	65.8	exc
Patricia McInnes	PM2.5	22Jul26, 24:00	457082	24-hr	53	52.7	exc
Athabasca Valley	PM2.5	22Jul26, 24:00	457081	24-hr	57	57.2	exc
Fort Chip	PM2.5	22Jul26, 24:00		1-hr	82	81.7	exc
Fort Chip	PM2.5	22Jul26, 24:00	457079	24-hr	77	77.4	exc
Barge Landing	PM2.5	22Jul26, 24:00	457078	24-hr	64	64.0	exc
Ft. McKay S	PM2.5	22Jul26, 24:00	457077	24-hr	59	58.6	exc
Anzac	PM2.5	22Jul26, 24:00	457076	24-hr	54	53.8	exc
Wapasu	PM2.5	22Jul26, 24:00	457057	24-hr	60	60.3	exc
Conklin	PM2.5	22Jul26, 24:00	457073	24-hr	59	59.2	exc
Janvier	PM2.5	22Jul26, 24:00	457072	24-hr	55	55.3	exc
Fort Hills	PM2.5	22Jul26, 24:00	457071	24-hr	68	67.7	exc
Surmont 2	PM2.5	22Jul26, 24:00	457070	24-hr	52	52.3	exc
Ells River	PM2.5	22Jul26, 24:00	457069	24-hr	58	57.8	exc
Fort Hills	PM2.5	23Jul26, 02:00		1-hr	98	97.8	exc
Fort Hills	PM2.5	23Jul26, 04:00		1-hr	93	93.2	exc
Fort Hills	PM2.5	23Jul26, 05:00		1-hr	92	91.6	exc
Fort Hills	PM2.5	23Jul26, 24:00	457071	24-hr	38	37.9	exc
Buffalo Viewpoint	PM2.5	23Jul26, 24:00	457083	24-hr	38	37.6	exc
Athabasca Valley	PM2.5	23Jul26, 24:00	457081	24-hr	31	31.3	exc
Barge Landing	PM2.5	23Jul26, 24:00	457078	24-hr	32	32.0	exc
Ft. McKay S	PM2.5	23Jul26, 24:00	457077	24-hr	30	29.8	exc
Fort Hills	PM2.5	24Jul26, 24:00	457071	24-hr	31	31.4	exc
Fort Hills	PM2.5	22Jul26, 11:00		1-hr	96.4		late
Fort Hills	PM2.5	22Jul26, 12:00		1-hr	95.391		late
Fort Hills	PM2.5	22Jul26, 21:00		1-hr	83.556		late
Wapasu	PM2.5	22Jul26, 12:00		1-hr	90.408		late
Wapasu	PM2.5	22Jul26, 11:00		1-hr	88.575		late
Wapasu	PM2.5	22Jul26, 13:00		1-hr	81		late
Fort Hills	PM2.5	21Jul26, 16:00		1-hr	93.2		late
Ells River	PM2.5	22Jul26, 11:00		1-hr	89.133		late
Barge Landing	PM2.5	19Jul26, 24:00		1-hr	230.5		late
Barge Landing	PM2.5	22Jul26, 11:00		1-hr	88.7		late
Barge Landing	PM2.5	22Jul26, 12:00		1-hr	90.1		late
Barge Landing	PM2.5	22Jul26, 13:00		1-hr	81		late
Buffalo Viewpoint	PM2.5	22Jul26, 11:00		1-hr	88.5		late
Buffalo Viewpoint	PM2.5	22Jul26, 12:00		1-hr	90.6		late
Buffalo Viewpoint	PM2.5	22Jul26, 13:00		1-hr	81.2		late
Fort Chip	PM2.5	22Jul26, 11:00		1-hr	86.6		late
Fort Chip	PM2.5	22Jul26, 12:00		1-hr	89.5		late
Fort Chip	PM2.5	22Jul26, 13:00		1-hr	85.2		late
Fort Chip	PM2.5	22Jul26, 17:00		1-hr	83.1		late
Fort Chip	PM2.5	22Jul26, 18:00		1-hr	84.5		late
Fort Chip	PM2.5	22Jul26, 19:00		1-hr	82.4		late
Fort Chip	PM2.5	22Jul26, 20:00		1-hr	83.5		late
Fort Chip	PM2.5	22Jul26, 21:00		1-hr	83.1		late
Fort Chip	PM2.5	22Jul26, 22:00		1-hr	85.8		late
Fort Chip	PM2.5	22Jul26, 23:00		1-hr	83		late
Bertha Ganter	PM2.5	22Jul26, 11:00		1-hr	80.9		late
Ft. McKay S	PM2.5	22Jul26, 11:00		1-hr	86.4	86.4	late
Ft. McKay S	PM2.5	22Jul26, 12:00		1-hr	87	87	late



Site

Parameter

Date/Time

Reference

Period

Reported

Final

Status

*status legend:

late

exceedance, raw values were not found to be in exceedance in real time, and/or were not reported,
but final values were found to be an exceedance after data processing.

exc

exceedance, raw values reported in real time were confirmed to be in exceedance after data processing.

nae

not an exceedance, raw values reported in real time were found not in exceedance after data processing.

ret

retracted, reported exceedance was found to be not an exceedance after investigation of measurement system status and/or validation
of raw data in conjunction with all associated measurement



End of Report

**ELECTRONIC TRANSFER SYSTEM
AIRDATA
SUBMISSION REPORT**

August 28, 2026
11:03:53 AM
Request # 4967069

Submitted by: EN6138_PARAM_KAUR
Submission Date: Aug 28, 2026 11:03:20 AM

File Type

Ambient Data

File Name

AMB-WBEA-202607-V00.xml

Total Number of Files: 1

*** End of Report ***

**ELECTRONIC TRANSFER SYSTEM
AIRDATA
SUBMISSION REPORT**

August 31, 2026
8:58:45 AM
Request # 4967268

Submitted by: EN6138_BAS
Submission Date: Aug 31, 2026 8:58:38 AM

File Type

Calibration Report

File Name

CAL-WBEA-202607.pdf

Total Number of Files: 1

*** End of Report ***

**ELECTRONIC TRANSFER SYSTEM
AIRDATA
SUBMISSION REPORT**

August 31, 2026
9:00:32 AM
Request # 4967271

Submitted by: EN6138_BAS
Submission Date: Aug 31, 2026 9:00:26 AM

File Type

Airshed Monitoring Report

File Name

WBEA-202607.pdf

Total Number of Files: 1

*** End of Report ***