

KITIMAT AIRSHED GROUP

Quarterly Air Quality Data Reports 2024

July – September 2024

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Kitimat Airshed Group Society

Quarterly Data Summary Reports for [July 1 to September 30 2024](#):

The third quarterly data summary report includes ambient air quality stations in Kitimat, Kitimaat Village and Terrace. These reports are automatically generated using unverified data extracted from the BC Air Data Archive (Envista database) managed by the Ministry of Environment and Climate Change Strategy (BCENV). Summary reports will be posted quarterly to provide an overview of the air quality status in the Kitimat Terrace airshed.

The Data Review Committee works collaboratively to bring the reports to the public. The air quality stations are owned and operated by Rio Tinto in the vicinity of Haisla Village, Kitimat and Lakelse Lake. RT also manages the maintenance and calibration activities through Trinity Consultants. Maintenance reports are provided at the end of the station reports. The Data Review Committee reviews the reports and provides context and comment.

Updates in the community include the following:

- LNG Canada began flaring September 2024

Observations by the KAG for this quarter:

- SO₂ exceedances happened on multiple occasions, with the highest value reaching 85.8 ppb, recorded at Kitimat Haul Road
- PM_{2.5} exceeded the 24-hour objective on August 17, 2024, with a concentration of 28.1 µg/m³
- Kitimat Riverlodge experienced notable downtime due to SO₂ equipment malfunction from September 15-16, 2024
- Power outages affected SO₂ monitoring at Industrial Ave from August 4-6, 2024

Submitted by Lindsay Sackett, Fraser Basin Council On
behalf of the Kitimat Airshed Group



Automated Data Summary for

Kitimat Yacht Club 2024 Q3

Provided to the Kitimat Airshed Group by the
B.C. Ministry of Environment and Climate Change Strategy

Generated:
1 October 2024

Note

This report is generated automatically and contains unvalidated data.

Kitimat Yacht Club

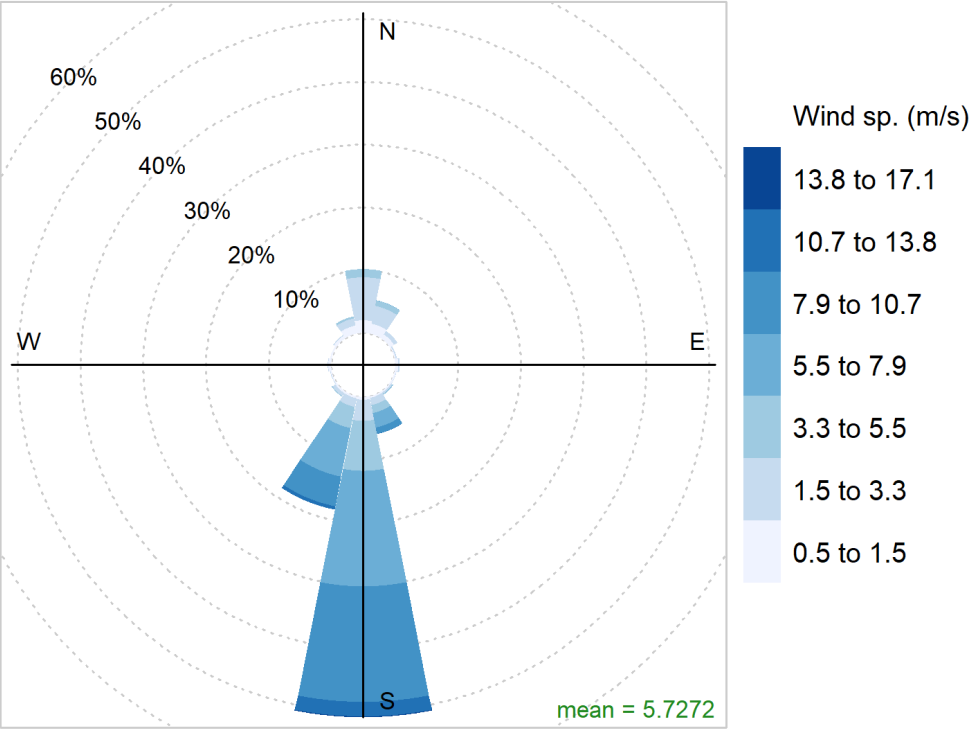
2024 Q3

Parameter	Unit	Avg Prd	Obj	Excd	Qtr Avg	% Neg	Min	Max	Prd of Max	% Comp	Comp
Wind spd	m/s	1 H			5.8	0.0	0.42	14.62	2024-08-18 19:00:00	98.9	Y
Temp	°C	1 H			16.5		5.9	31.1	2024-08-18 14:00:00	98.9	Y

Avg = Average; Comp = Completeness; Excd = number of exceedances; Neg = negative data; Obj = Air quality objective; Prd = Period; Qtr = Quarter
Comp threshold is 60%

Parameter	Conversion	Unit	Notes
Wind spd			
Temp			

Windrose
Kitimat Yacht Club - 2024 Q3



calms = 0.05%



Automated Data Summary for

Kitimat Haul Road 2024 Q3

Provided to the Kitimat Airshed Group by the
B.C. Ministry of Environment and Climate Change Strategy

Generated:
1 October 2024

Note

This report is generated automatically and contains unvalidated data.

Kitimat Haul Road

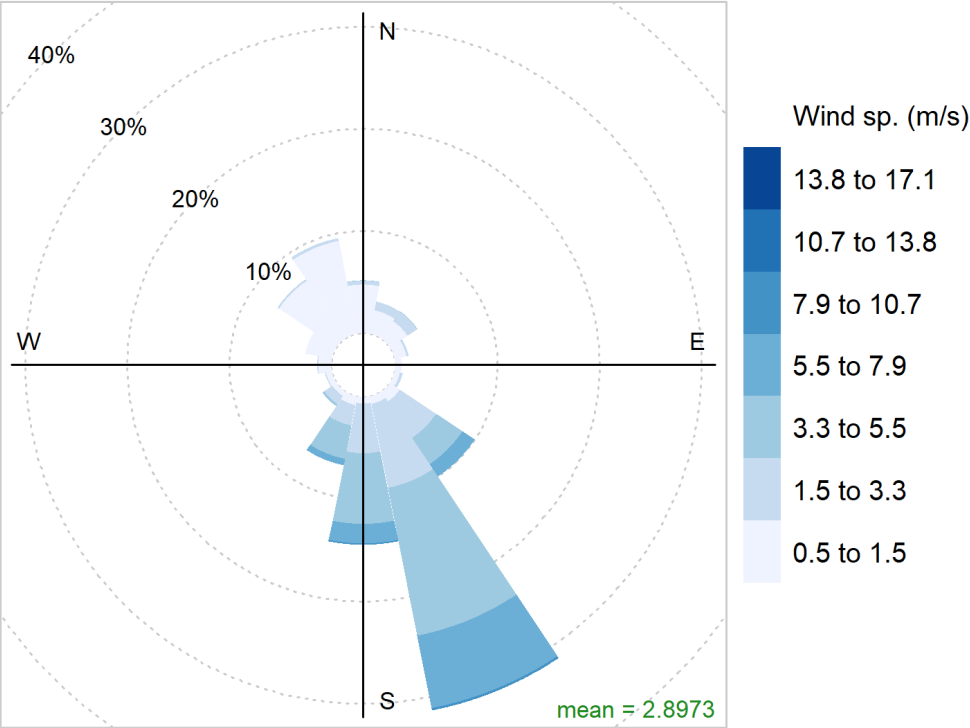
2024 Q3

Parameter	Unit	Avg Prd	Obj	Excd	Qtr Avg	% Neg	Min	Max	Prd of Max	% Comp	Comp
SO2	ppb	1 H	70	3	6.2	12.5	-0.9	85.8	2024-07-09 11:00:00	93.4	Y
HF	ppb	1 H	63	0	0.2	0.0	0.1	0.3	More than 5 occurrences (n = 20)	93.5	Y
	ppb	24 H			0.2	0.0	0.1	0.3	More than 5 occurrences (n = 6)	97.8	Y
PM2.5	ug/m3	1 H			7.9	0.0	0	99	2024-08-16 15:00:00	98.1	Y
	ug/m3	24 H	25	1	7.8	0.0	1.9	28.1	2024-08-17	98.9	Y
Wind spd	m/s	1 H			2.9	0.0	0.38	9.57	2024-09-23 17:00:00	98.9	Y
Temp	°C	1 H			16.6		5	33	2024-08-18 15:00:00	98.9	Y

Avg = Average; Comp = Completeness; Excd = number of exceedances; Neg = negative data; Obj = Air quality objective; Prd = Period; Qtr = Quarter
Comp threshold is 60%

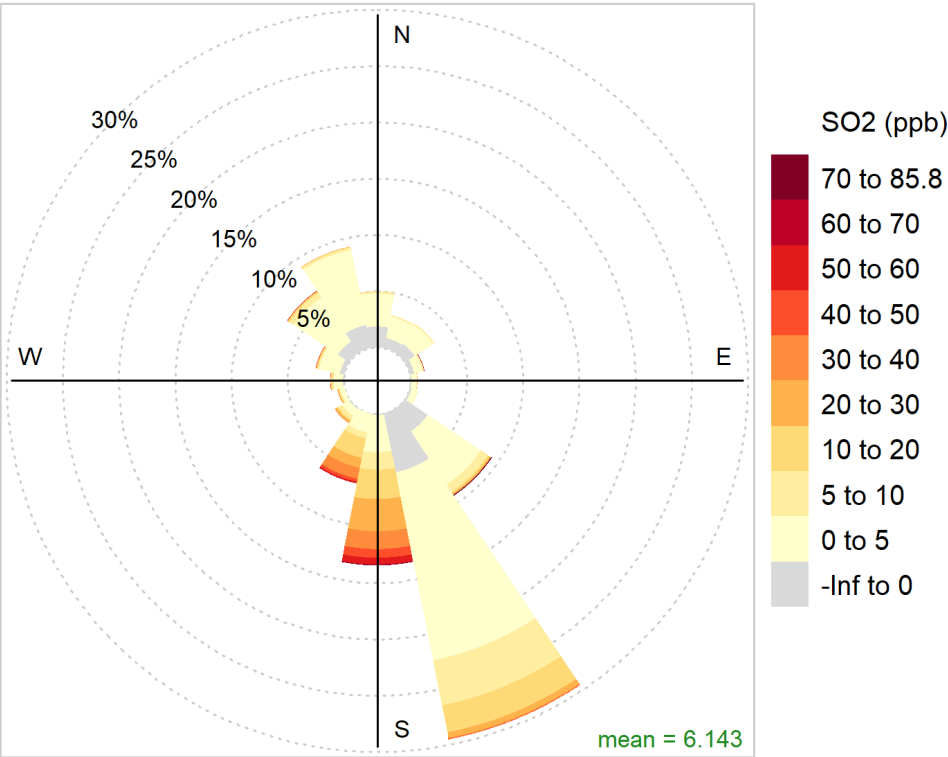
Parameter	Conversion	Unit	Notes
SO2	1 : 2.62	ppb : ug/m3	
HF	1 : 0.82	ppb : ug/m3	
PM2.5			
Wind spd			
Temp			

Windrose
Kitimat Haul Road - 2024 Q3

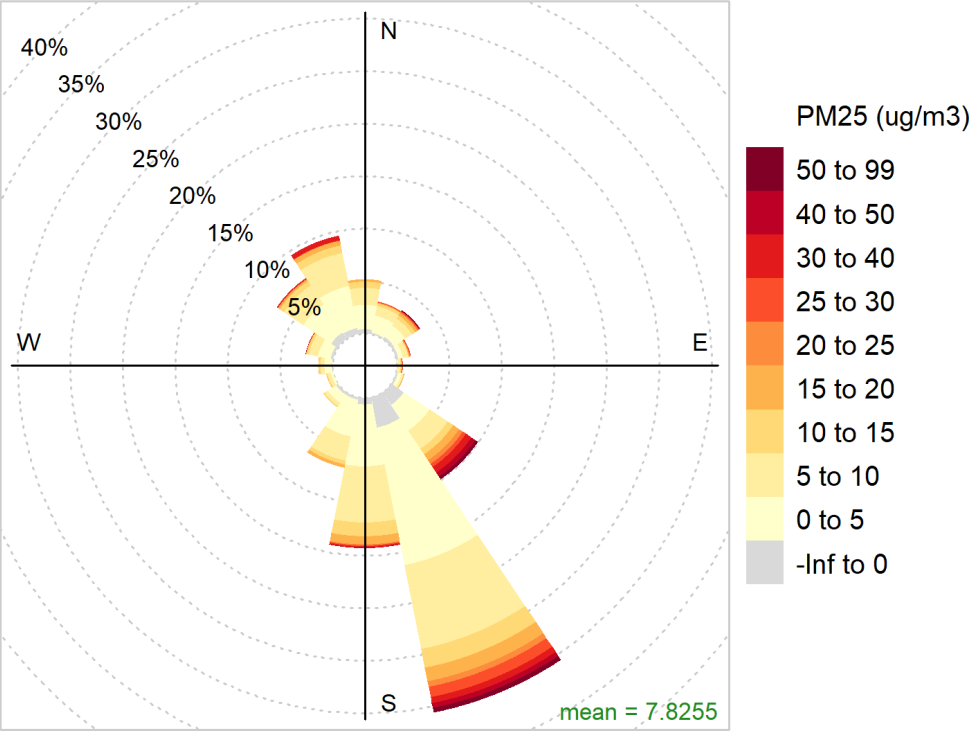


calms = 0.45%

SO2 pollution rose
Kitimat Haul Road - 2024 Q3



PM2.5 pollution rose
Kitimat Haul Road - 2024 Q3





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Environment and
Climate Change Strategy

Automated Data Summary for

Kitimat Whitesail 2024 Q3

Provided to the Kitimat Airshed Group by the
B.C. Ministry of Environment and Climate Change Strategy

Generated:
1 October 2024

Note

This report is generated automatically and contains unvalidated data.

Kitimat Whitesail

2024 Q3

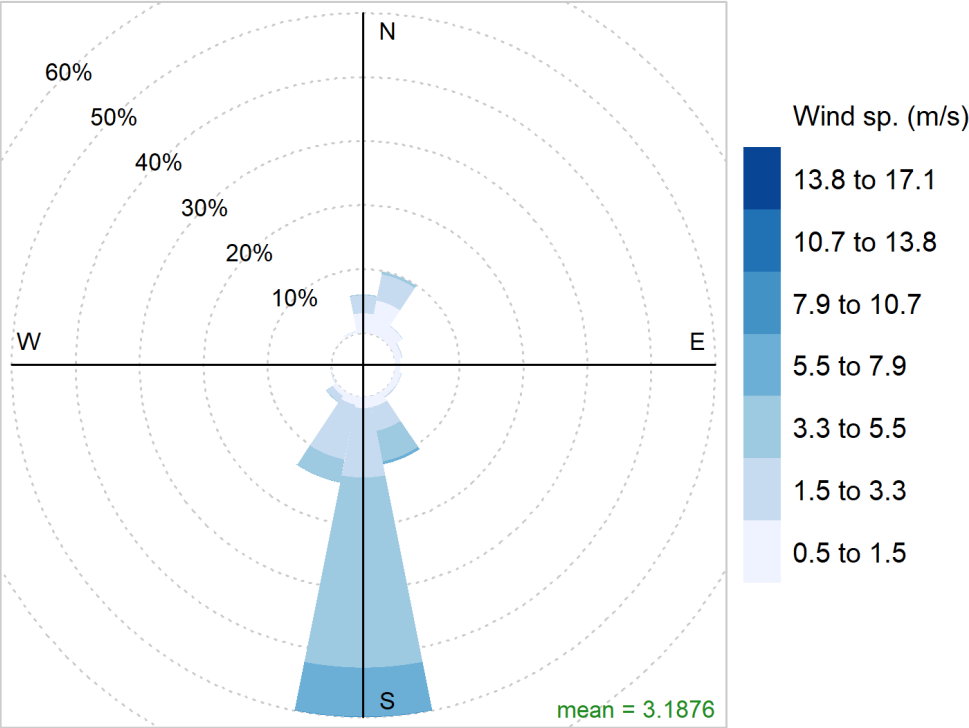
Parameter	Unit	Avg Prd	Obj	Excd	Qtr Avg	% Neg	Min	Max	Prd of Max	% Comp	Comp
AQHI		1 H					1	4	2024-08-16 22:00:00 2024-08-16 23:00:00 2024-08-17 00:00:00 2024-08-17 01:00:00 2024-08-17 02:00:00 2024-08-17 03:00:00	11.1	N
NO2	ppb	1 H	60	0	0.6	0.0	0	4.9	2024-09-04 18:00:00	92.3	Y
SO2	ppb	1 H	70	0	0.3	7.4	-0.9	16.6	2024-08-11 11:00:00	93.4	Y
O3	ppb	1 H	82	0	18.2	0.0	0.4	43.6	2024-08-16 18:00:00	93.3	Y
PM2.5	ug/m3	1 H			3.3	0.0	0	37	2024-08-16 22:00:00	96.9	Y
	ug/m3	24 H	25	0	3.2	0.0	0.2	22.5	2024-08-17	98.9	Y
Wind spd	m/s	1 H			3.1	0.0	0.01	8.05	2024-08-18 22:00:00	98.9	Y
Temp	°C	1 H			16.3		4	32.4	2024-08-18 15:00:00	98.9	Y
Humidity	% RH	1 H			74.6	0.0	20.1	100	2024-09-27 05:00:00 2024-09-28 09:00:00 2024-09-29 09:00:00 2024-09-29 10:00:00	98.9	Y

Avg = Average; Comp = Completeness; Excd = number of exceedances; Neg = negative data; Obj = Air quality objective; Prd = Period; Qtr = Quarter
Comp threshold is 60%

Parameter	Conversion	Unit	Notes
AQHI			
NO2	1 : 1.88	ppb : ug/m3	
SO2	1 : 2.62	ppb : ug/m3	
O3	1 : 1.96	ppb : ug/m3	
PM2.5			
Wind spd			

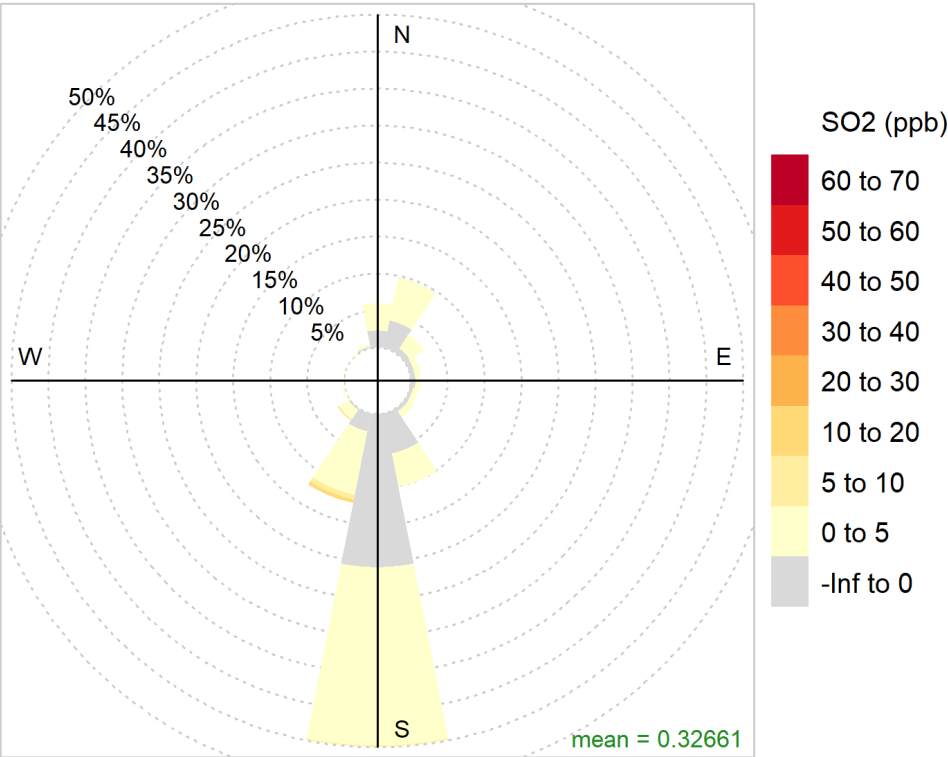
Parameter	Conversion	Unit	Notes
Temp			
Humidity			

Windrose
Kitimat Whitesail - 2024 Q3

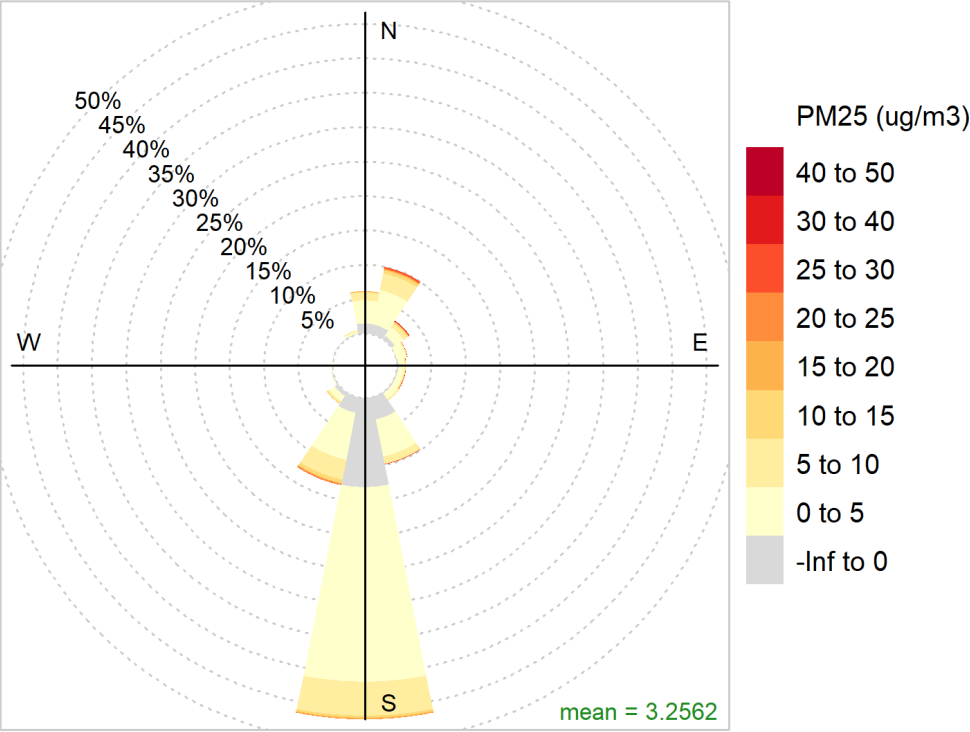


calms = 4.39%

SO2 pollution rose
Kitimat Whitesail - 2024 Q3



PM2.5 pollution rose
Kitimat Whitesail - 2024 Q3





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Automated Data Summary for
Terrace Skeena Middle School
2024 Q3

Provided to the Kitimat Airshed Group by the
B.C. Ministry of Environment and Climate Change Strategy

Generated:
1 October 2024

Note

This report is generated automatically and contains unvalidated data.

Terrace Skeena Middle School

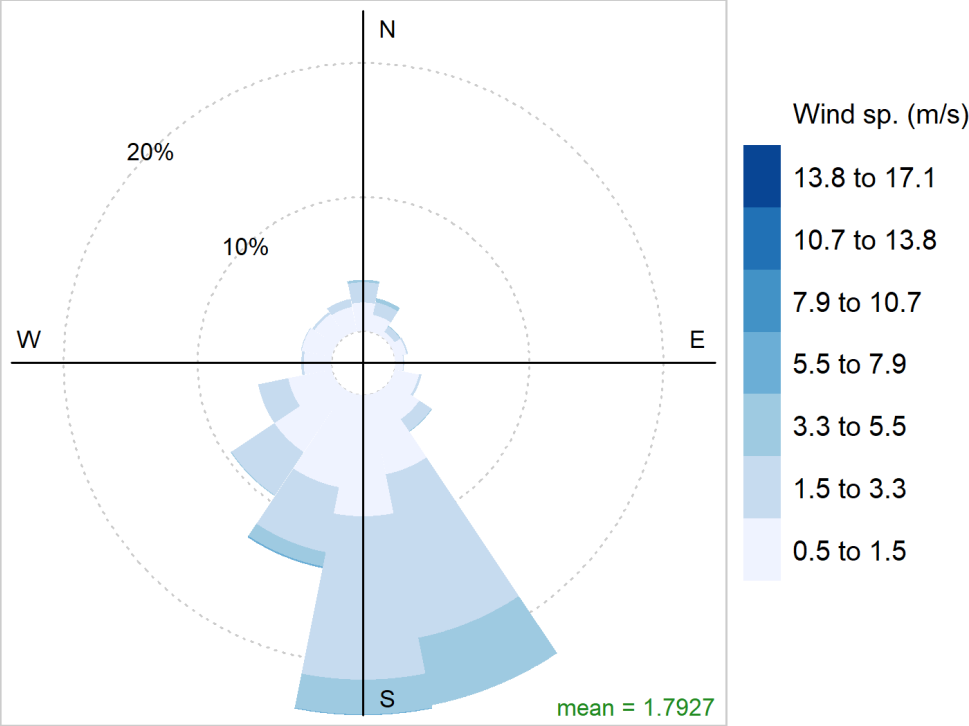
2024 Q3

Parameter	Unit	Avg Prd	Obj	Excd	Qtr Avg	% Neg	Min	Max	Prd of Max	% Comp	Comp
AQHI		1 H					1	4	More than 5 occurrences (n = 13)	98.6	Y
NO2	ppb	1 H	60	0	-0.9	77.2	-2.1	6.7	2024-09-26 8:00:00	94.3	Y
SO2	ppb	1 H	70	0	1.0	0.3	-0.4	7.8	2024-07-08 22:00:00	94.4	Y
O3	ppb	1 H	82	0	14.2	6.1	-5.6	47	2024-07-07 17:00:00	92.8	Y
PM2.5	ug/m3	1 H			5.0	0.0	0.8	38.5	2024-08-16 17:00:00	98.5	Y
	ug/m3	24 H	25	0	5.0	0.0	2.2	19.3	2024-08-16	98.9	Y
Wind spd	m/s	1 H			1.4	0.0	0	5.68	2024-09-19 14:00:00	98.9	Y
Temp	°C	1 H			17.6		2.7	33.9	2024-07-08 18:00:00	98.9	Y
Humidity	% RH	1 H			65.0	0.0	12.6	96.9	2024-09-22 03:00:00	98.9	Y

Avg = Average; Comp = Completeness; Excd = number of exceedances; Neg = negative data; Obj = Air quality objective; Prd = Period; Qtr = Quarter
Comp threshold is 60%

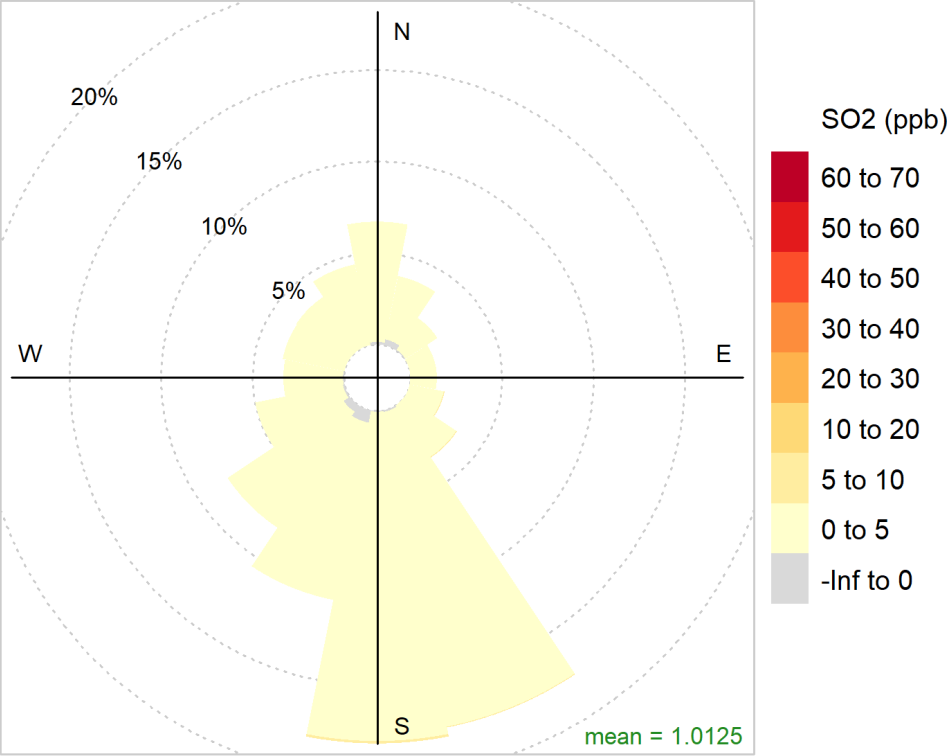
Parameter	Conversion	Unit	Notes
AQHI			
NO2	1 : 1.88	ppb : ug/m3	
SO2	1 : 2.62	ppb : ug/m3	
O3	1 : 1.96	ppb : ug/m3	
PM2.5			
Wind spd			
Temp			
Humidity			

Windrose
Terrace Skeena Middle School - 2024 Q3

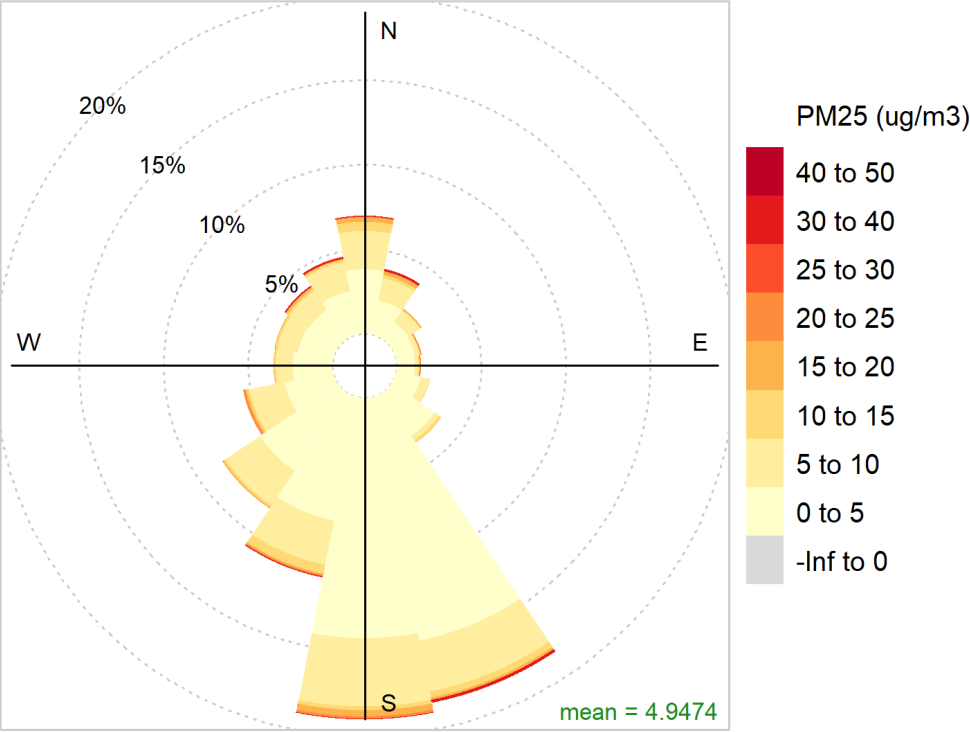


calms = 24.05%

SO2 pollution rose
Terrace Skeena Middle School - 2024 Q3



PM2.5 pollution rose
Terrace Skeena Middle School - 2024 Q3





Automated Data Summary for Kitimat Industrial Ave 2024 Q3

Provided to the Kitimat Airshed Group by the
B.C. Ministry of Environment and Climate Change Strategy

Generated:
1 October 2024

Note

This report is generated automatically and contains unvalidated data.

Kitimat Industrial Ave

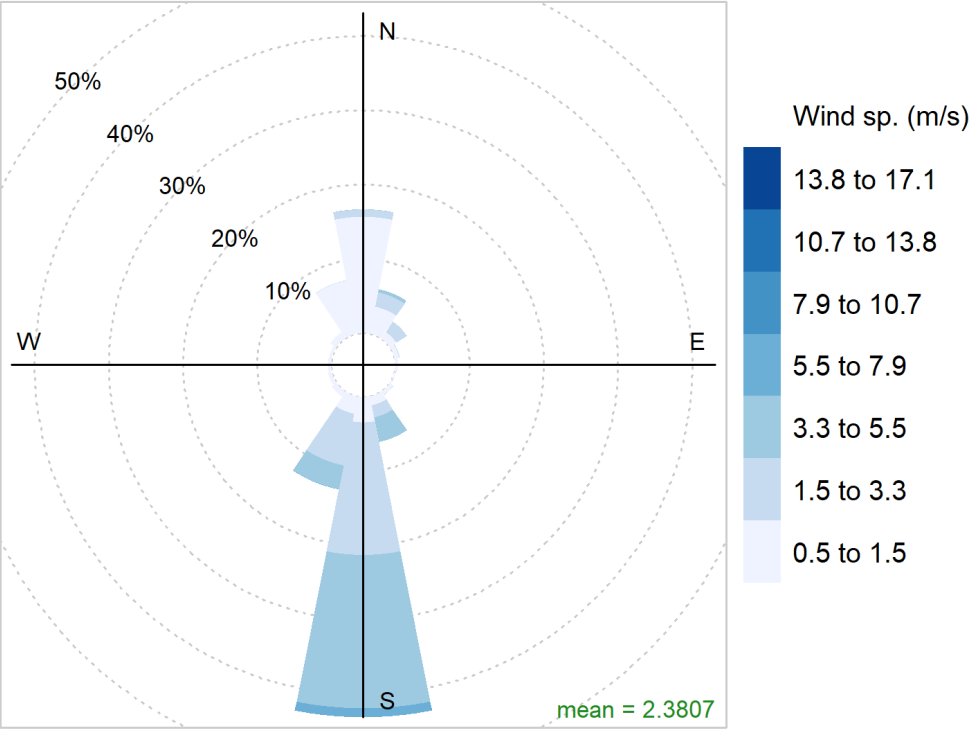
2024 Q3

Parameter	Unit	Avg Prd	Obj	Excd	Qtr Avg	% Neg	Min	Max	Prd of Max	% Comp	Comp
SO2	ppb	1 H	70	0	2.2	2.6	-0.4	52.4	2024-08-31 13:00:00	87.0	Y
Wind spd	m/s	1 H			2.4	0.0	0.5	6.9		94.6	Y
Temp	°C	1 H			17.0		6.4	34.7	2024-08-06 15:00:00	94.6	Y
Humidity	% RH	1 H			70.7	0.0	14.6	96.2	2024-08-27 08:00:00	94.6	Y

Avg = Average; Comp = Completeness; Excd = number of exceedances; Neg = negative data; Obj = Air quality objective; Prd = Period; Qtr = Quarter
Comp threshold is 60%

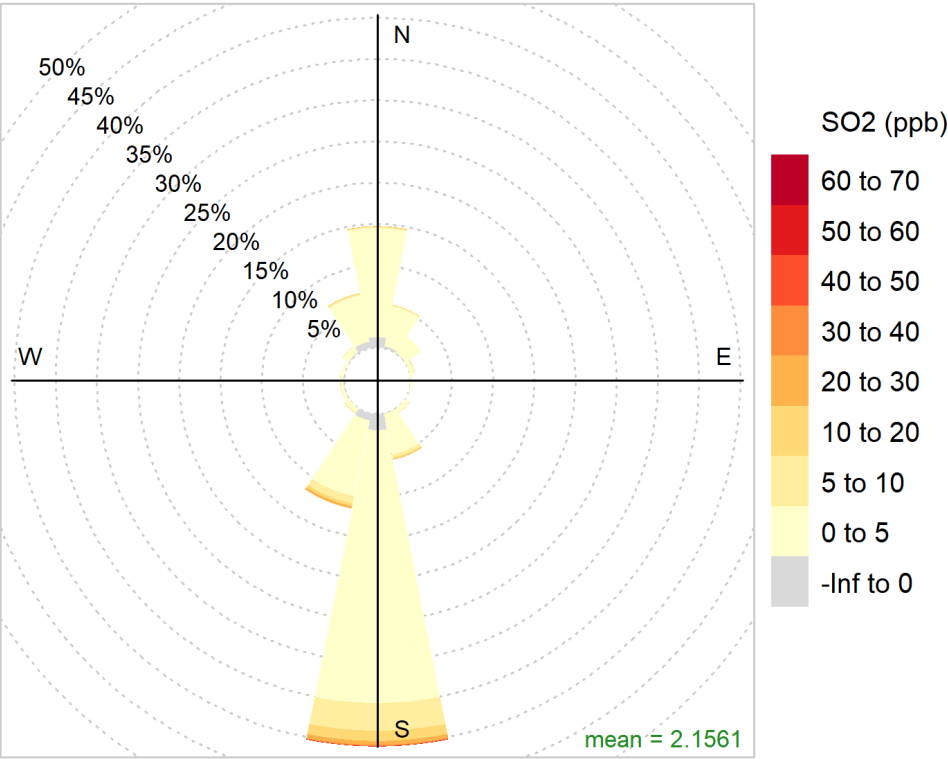
Parameter	Conversion	Unit	Notes
SO2	1 : 2.62	ppb : ug/m3	
Wind spd			
Temp			
Humidity			

Windrose
Kitimat Industrial Ave - 2024 Q3



calms = 0.00%

SO2 pollution rose
Kitimat Industrial Ave - 2024 Q3





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Automated Data Summary for Kitimat Haisla Village 2024 Q3

Provided to the Kitimat Airshed Group by the
B.C. Ministry of Environment and Climate Change Strategy

Generated:
1 October 2024

Note

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Kitimat Haisla Village

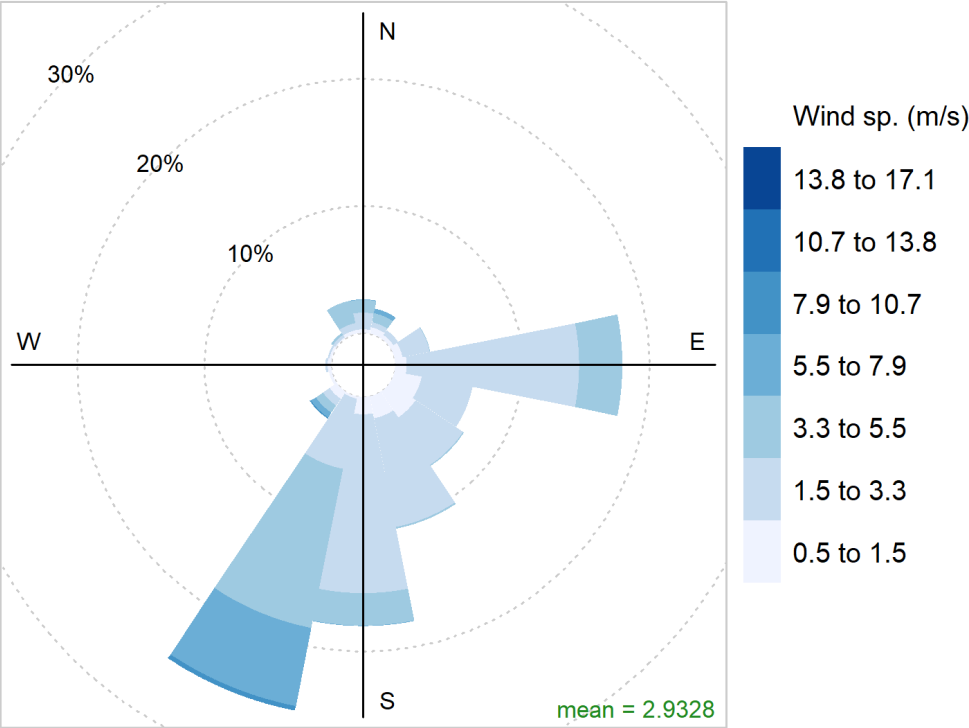
2024 Q3

Parameter	Unit	Avg Prd	Obj	Excd	Qtr Avg	% Neg	Min	Max	Prd of Max	% Comp	Comp
AQHI		1 H					1	3	2024-08-17 13:00:00 2024-08-17 15:00:00 2024-08-17 16:00:00 2024-08-17 17:00:00 2024-08-17 18:00:00	36.0	N
NO2	ppb	1 H	60	0	0.2	7.6	-0.2	6.6	2024-08-16 17:00:00	81.4	Y
SO2	ppb	1 H	70	0	0.4	2.8	-0.1	28.8	2024-08-31 11:00:00	93.4	Y
O3	ppb	1 H	82	0	19.1	0.0	1.6	44.9	2024-09-24 16:00:00	93.7	Y
PM2.5	ug/m3	1 H			2.4	0.0	0	38	2024-08-17 00:00:00	93.3	Y
	ug/m3	24 H	25	0	2.4	0.0	0	22.5	2024-08-17	93.5	Y
Wind spd	m/s	1 H			2.9	0.0	0.33	9.37	2024-07-25 19:00:00	98.7	Y
Temp	°C	1 H			16.6		6.5	31	2024-08-18 14:00:00	98.7	Y

Avg = Average; Comp = Completeness; Excd = number of exceedances; Neg = negative data; Obj = Air quality objective; Prd = Period; Qtr = Quarter
Comp threshold is 60%

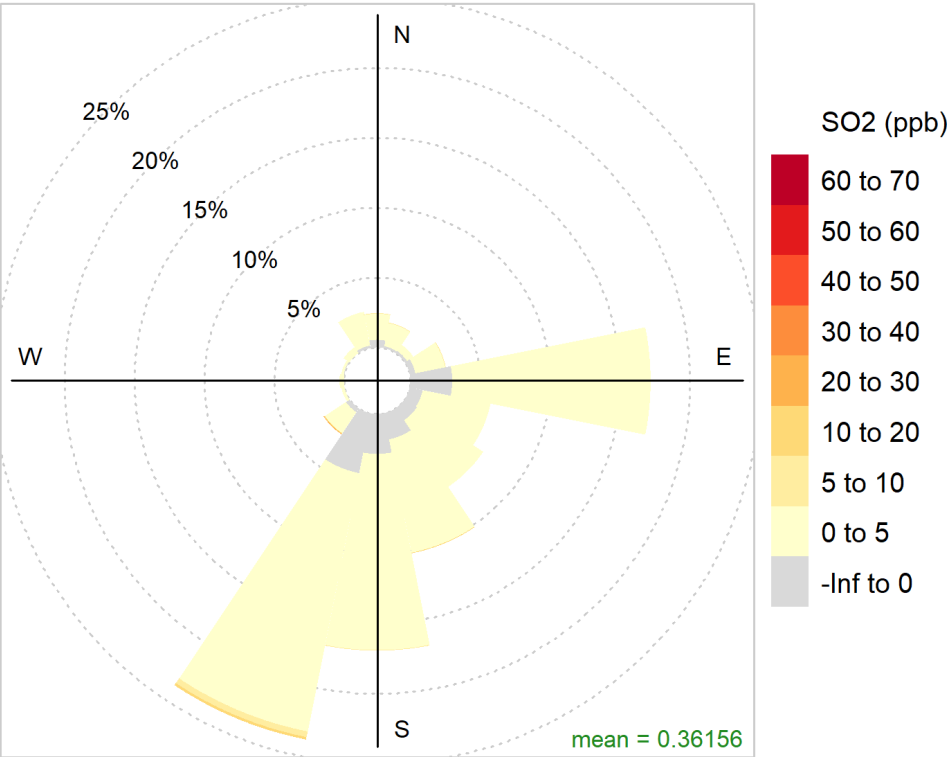
Parameter	Conversion	Unit	Notes
AQHI			
NO2	1 : 1.88	ppb : ug/m3	
SO2	1 : 2.62	ppb : ug/m3	
O3	1 : 1.96	ppb : ug/m3	
PM2.5			
Wind spd			
Temp			

Windrose
Kitimat Haisla Village - 2024 Q3

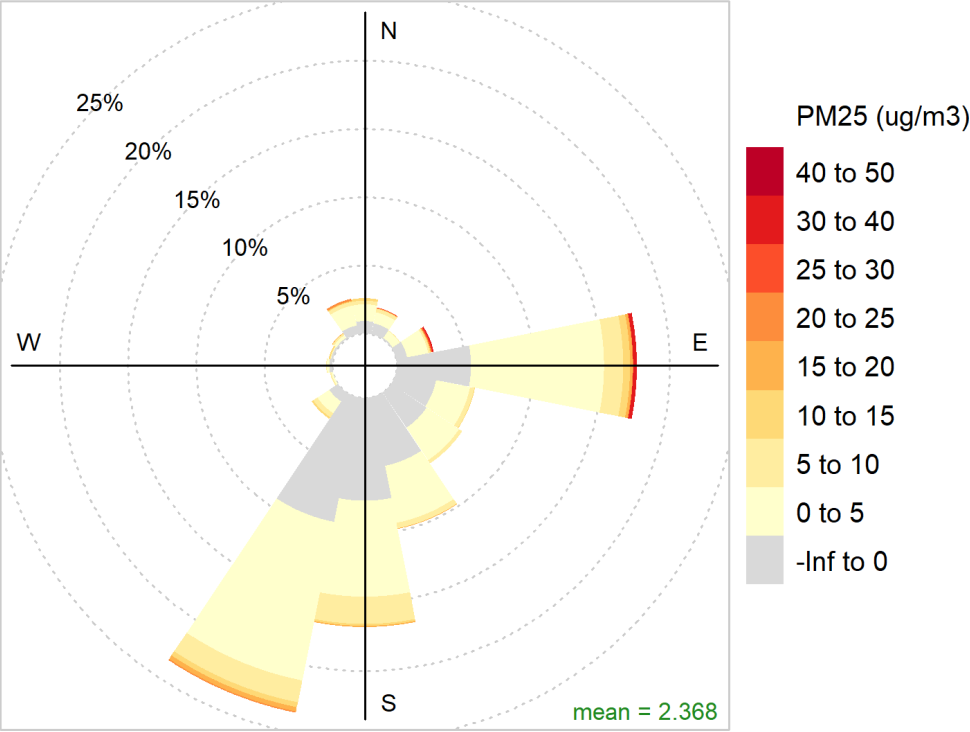


calms = 0.05%

SO2 pollution rose
Kitimat Haisla Village - 2024 Q3



PM2.5 pollution rose
Kitimat Haisla Village - 2024 Q3





Automated Data Summary for

Kitimat Riverlodge 2024 Q3

Provided to the Kitimat Airshed Group by the
B.C. Ministry of Environment and Climate Change Strategy

Generated:
1 October 2024

Note

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Kitimat Riverlodge

2024 Q3

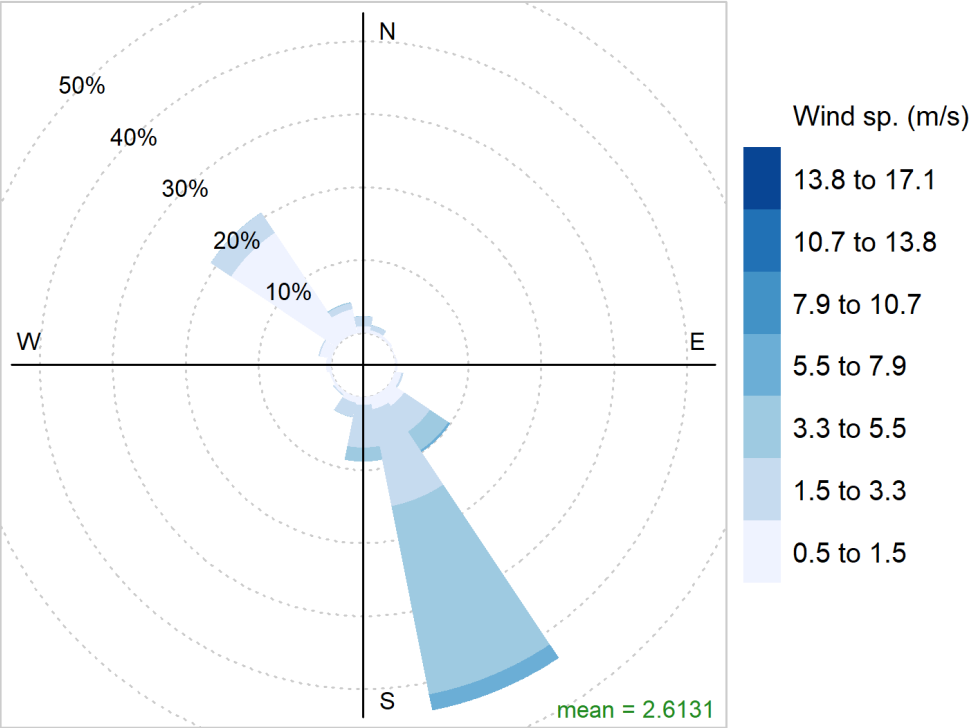
Parameter	Unit	Avg Prd	Obj	Excd	Qtr Avg	% Neg	Min	Max	Prd of Max	% Comp	Comp
AQHI		1 H					1	3	2024-07-09 12:00:00 2024-08-16 17:00:00 2024-08-16 18:00:00 2024-08-16 19:00:00	51.8	N
NO2	ppb	1 H	60	0	0.5	3.9	-0.2	5.8	2024-09-26 6:00:00	93.9	Y
SO2	ppb	1 H	70	0	0.7	5.7	-0.3	60.9	2024-07-09 10:00:00	93.5	Y
O3	ppb	1 H	82	0	18.4	0.0	0.4	43.3	2024-08-16 17:00:00	93.9	Y
HF	ppb	1 H	63	0	0.3	0.0	0.1	0.5	2024-07-16 23:00:00	93.4	Y
	ppb	24 H			0.3	0.0	0.1	0.4	2024-07-16 2024-07-17 2024-07-20 2024-08-09 2024-08-10	98.9	Y
PM2.5	ug/m3	1 H			3.2	0.0	0	35	2024-08-16 18:00:00	97.1	Y
	ug/m3	24 H	25	0	3.2	0.0	0.2	20.5	2024-08-17	98.9	Y
PM10	ug/m3	1 H			7.6	0.0	0	95	2024-08-17 20:00:00	98.0	Y
	ug/m3	24 H	50	0	7.6	0.0	0.5	31.9	2024-08-17	98.9	Y
Wind spd	m/s	1 H			2.6	0.0	0.25	7.42	2024-07-31 18:00:00	98.9	Y
Temp	°C	1 H			16.5		4.2	32.7	2024-08-18 15:00:00	98.9	Y

Avg = Average; Comp = Completeness; Excd = number of exceedances; Neg = negative data; Obj = Air quality objective; Prd = Period; Qtr = Quarter
Comp threshold is 60%

Parameter	Conversion	Unit	Notes
AQHI			
NO2	1 : 1.88	ppb : ug/m3	
SO2	1 : 2.62	ppb : ug/m3	
O3	1 : 1.96	ppb : ug/m3	

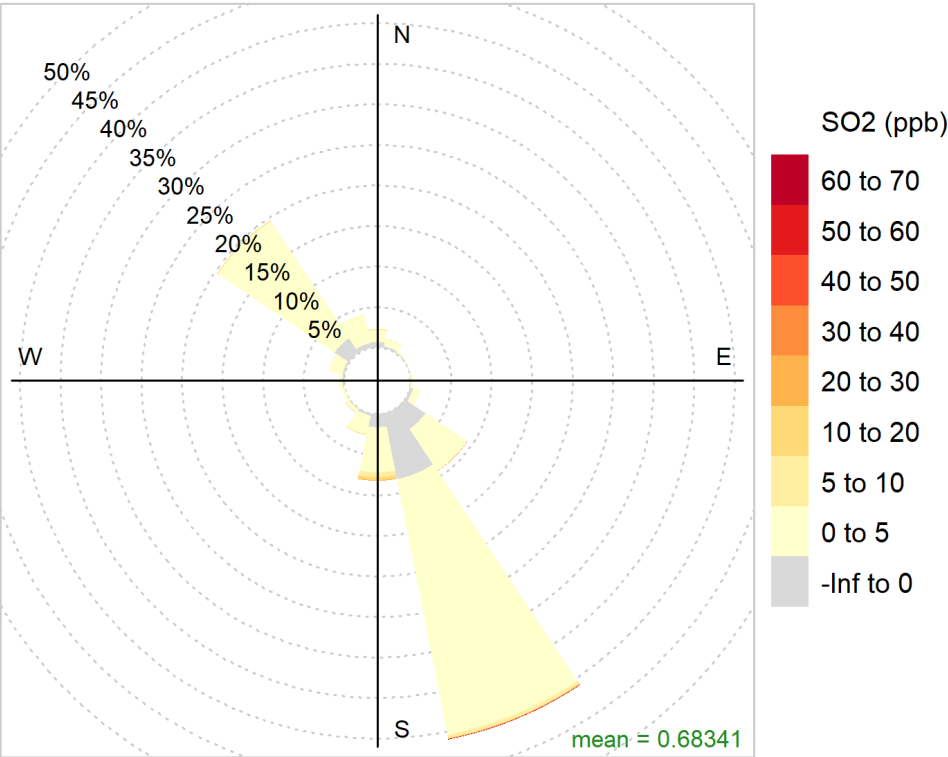
Parameter	Conversion	Unit	Notes
HF	1 : 0.82	ppb : ug/m3	
PM2.5			
PM10			
Wind spd			
Temp			

Windrose
Kitimat Riverlodge - 2024 Q3

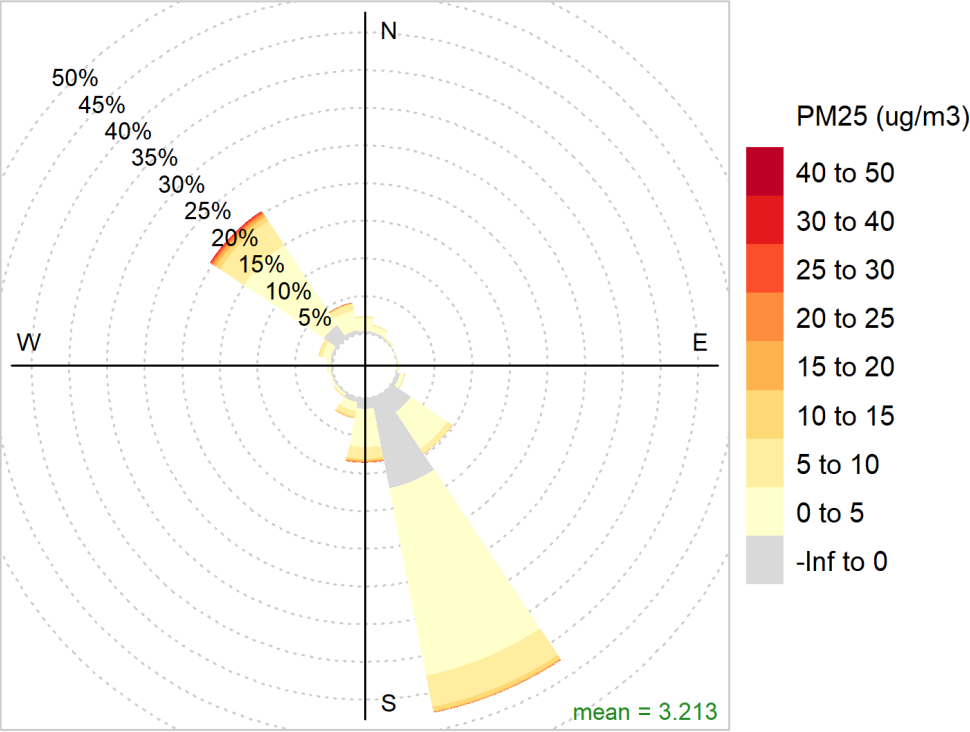


calms = 0.50%

SO2 pollution rose
Kitimat Riverlodge - 2024 Q3



PM2.5 pollution rose
Kitimat Riverlodge - 2024 Q3



Downtime and Maintenance Reports from Trinity Consultants

Significant Offline Periods						
Station	Start Date	Start Hour	End Date	End Hour	Parameters	Description
Riverlodge	2024-09-15	1700	2024-09-16	500	SO2	Flatlined / Malfunction
Industrial	2024-07-08	1400	2024-07-09	1000	SO2	Power Outage
Industrial	2024-08-04	1500	2024-08-06	1500	SO2	Power Outage
Maintenance						
Station	Start Date	Start Hour	End Date	End Hour	Parameters	Description
Village	2024-07-03	1500	2024-07-03	1500	SO2/O3/NOx	SO2 Filter Change
Village	2024-07-18	800	2024-07-18	800	SO2/O3/NOx	LNG NOx/O3 Filters Change
Village	2024-07-24	800	2024-07-24	1000	SO2/O3/NOx	LNG NOx Calibration
Village	2024-07-24	800	2024-07-24	1100	PM2.5	Monthly BAM Maintenance
Village	2024-07-24	1400	2024-07-24	1500	SO2/O3/NOx	LNG NOx Calibration
Village	2024-08-09	700	2024-08-09	800	SO2/O3/NOx	SO2 As Found MP Verification
Village	2024-08-09	900	2024-08-09	1600	SO2	SO2 Maintenance
Village	2024-08-09	1700	2024-08-09	1900	SO2/O3/NOx	SO2 Calibration
Village	2024-08-14	1500	2024-08-14	1600	SO2/O3/NOx	SO2 Maintenance
Village	2024-08-28	1200	2024-08-28	1200	PM2.5	Monthly BAM Maintenance
Village	2024-09-16	1100	2024-09-16	1400	SO2/O3/NOx	LNG NOx Calibration
Village	2024-09-19	1000	2024-09-19	1000	SO2/O3/NOx	LNG O3 As Found MP Verification
Village	2024-09-19	1100	2024-09-19	1100	SO2/O3/NOx	LNG O3/NOx Filter Changes
Village	2024-09-19	1400	2024-09-19	1400	PM2.5	Monthly BAM Maintenance
Haul Road	2024-07-02	1000	2024-07-02	1200	SO2/HF	SO2 Calibration
Haul Road	2024-07-03	1100	2024-07-03	1400	SO2/HF	SO2 Troubleshooting; SO2 Pump Swap; SO2 Calibration
Haul Road	2024-07-22	1300	2024-07-22	1300	PM2.5	Monthly BAM Maintenance

Haul Road	2024-07-24	600	2024-07-24	800	SO2/HF	SO2 Calibration
Haul Road	2024-08-28	1000	2024-08-28	1000	PM2.5	Monthly BAM Maintenance
Haul Road	2024-09-03	1300	2024-09-03	1300	SO2/HF	SO2/HF Filter Changes
Haul Road	2024-09-06	800	2024-09-06	1000	SO2/HF	SO2 Calibration
Haul Road	2024-09-12	1000	2024-09-12	1100	SO2/HF	SO2 As Found MP Verification
Haul Road	2024-09-12	1100	2024-09-12	1600	SO2/HF	SO2 Maintenance
Haul Road	2024-09-17	1200	2024-09-17	1400	SO2/HF	SO2 Calibration
Haul Road	2024-09-19	1000	2024-09-19	1000	PM2.5	Monthly BAM Maintenance
Haul Road	2024-09-23	1500	2024-09-23	1500	SO2/HF	HF As Found MP Verification
Industrial	2024-07-02	1300	2024-07-02	1300	SO2	SO2 Filter Change
Industrial	2024-07-24	500	2024-07-24	700	SO2	SO2 Calibration
Industrial	2024-08-07	1300	2024-08-07	1500	SO2	SO2 Calibration
Industrial	2024-09-04	1200	2024-09-04	1200	SO2	SO2 Filter Change
Industrial	2024-09-06	900	2024-09-06	1100	SO2	SO2 Calibration
Riverlodge	2024-07-02	1400	2024-07-02	1400	O3/NOx/SO2/HF	SO2 Filter Change
Riverlodge	2024-07-08	1100	2024-07-08	1100	O3/NOx/SO2/HF	SO2 Regulator Troubleshooting
Riverlodge	2024-07-18	1100	2024-07-18	1200	O3/NOx/SO2/HF	LNG NOx/O3 Filters Change
Riverlodge	2024-07-18	1100	2024-07-18	1400	PM10/PM2.5	Clock Reset
Riverlodge	2024-07-22	1000	2024-07-22	1100	PM10/PM2.5	Monthly BAM Maintenance
Riverlodge	2024-07-24	1400	2024-07-24	1700	O3/NOx/SO2/HF	SO2 Calibration; LNG NOx Calibration
Riverlodge	2024-08-02	900	2024-08-02	900	PM10/PM2.5	Clock Reset
Riverlodge	2024-08-14	1000	2024-08-14	1100	O3/NOx/SO2/HF	LNG NOx/O3 Filters Change
Riverlodge	2024-08-28	800	2024-08-28	900	PM10/PM2.5	Monthly BAM Maintenance
Riverlodge	2024-09-18	1500	2024-09-18	1500	O3/NOx/SO2/HF	LNG NOx/O3 Filters Change
Riverlodge	2024-09-18	1400	2024-09-18	1500	PM10/PM2.5	Monthly BAM Maintenance
Riverlodge	2024-09-19	1200	2024-09-19	1200	O3/NOx/SO2/HF	O3 As Found MP Verification
Riverlodge	2024-09-27	1000	2024-09-27	1000	PM10/PM2.5	Clock Reset
Riverlodge	2024-09-27	1000	2024-09-27	1100	O3/NOx/SO2/HF	HF As Found MP Verification

Whitesail	2024-07-01	1300	2024-07-01	1500	O3/NOx/SO2	SO2 Calibration
Whitesail	2024-07-03	900	2024-07-03	900	O3/NOx/SO2	Filters Changed
Whitesail	2024-07-22	1500	2024-07-22	1500	PM2.5	Monthly BAM Maintenance
Whitesail	2024-08-01	1000	2024-08-01	1000	O3/NOx/SO2	Filters Changed
Whitesail	2024-08-08	700	2024-08-08	800	O3/NOx/SO2	NOx As Found MP Verification
Whitesail	2024-08-08	1100	2024-08-09	700	NOx	Annual Maintenance
Whitesail	2024-08-09	800	2024-08-09	1000	O3/NOx/SO2	NOx Calibration
Whitesail	2024-08-09	1100	2024-08-13	700	NOx	Stabilizing Following Maintenance
Whitesail	2024-08-13	800	2024-08-13	1500	O3/NOx/SO2	NOx Calibration
Whitesail	2024-09-04	900	2024-09-04	900	O3/NOx/SO2	Filters Changed
Whitesail	2024-09-06	1200	2024-09-06	1300	O3/NOx/SO2	NOx Calibration
Whitesail	2024-09-19	1000	2024-09-19	1500	O3/NOx/SO2	NOx Calibration / O3 As Found MP Verification