

## Ambient Air Quality Report for Metro Vancouver Waste-to-Energy Facility

### Monthly Summary Report - December 2021

Prepared January 17, 2022

Metro Vancouver operates a network of ambient air quality monitoring stations in Metro Vancouver and the Fraser Valley. Two of these monitoring stations, Burnaby South (T018) and WTEF (S150) are located near to Metro Vancouver's Waste-to-Energy Facility.

Data in this summary report is considered preliminary. While some preliminary quality assurance and quality control has been applied to the data, it is subject to change, without notice, pending the completion of additional quality assurance, quality control and verification procedures by Metro Vancouver at a future time.

Data in this report are compared to ambient air quality objectives. More information on ambient air quality objectives can be found at: <http://www.metrovancover.org/services/air-quality/about/air-quality-monitoring/ambient-air-quality-objectives/>

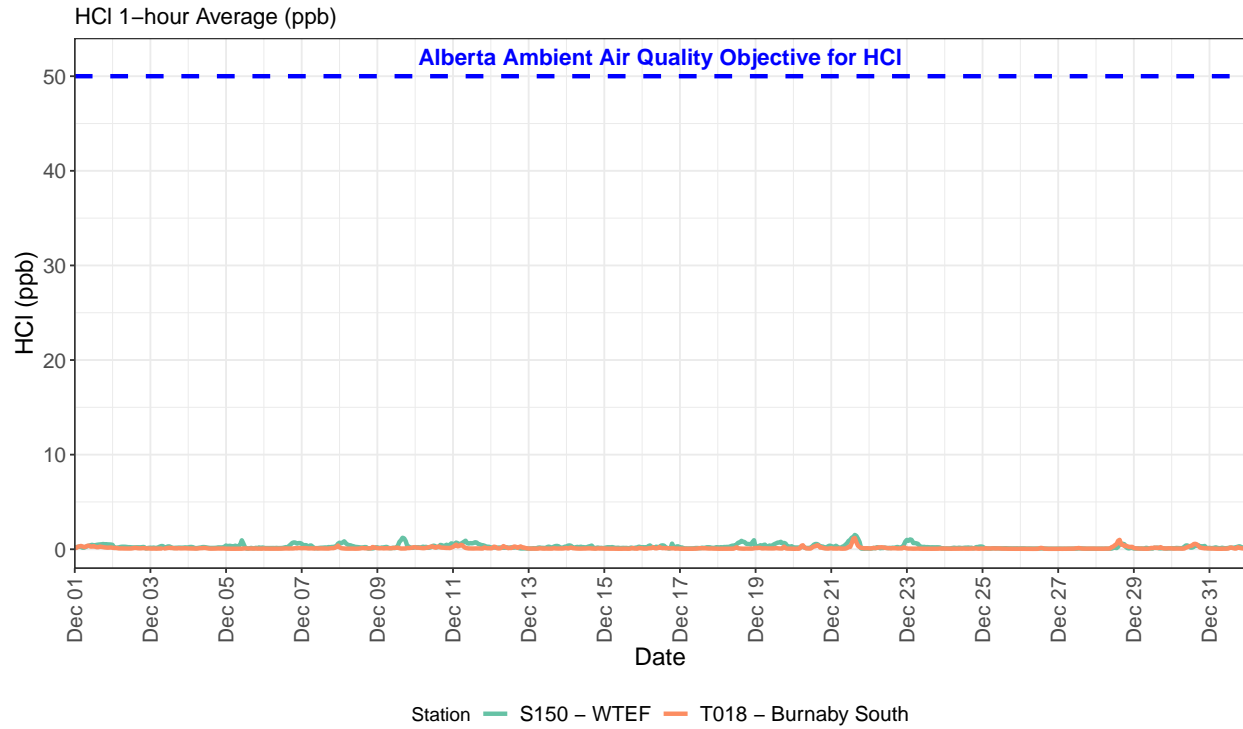
For additional information, please see:

Current Air Quality (<http://airmap.ca>)

Air Quality Monitoring (<http://www.metrovancover.org/services/air-quality/about/air-quality-monitoring>)

## HCl (hydrogen chloride) Monthly Summary - WTEF and Burnaby South

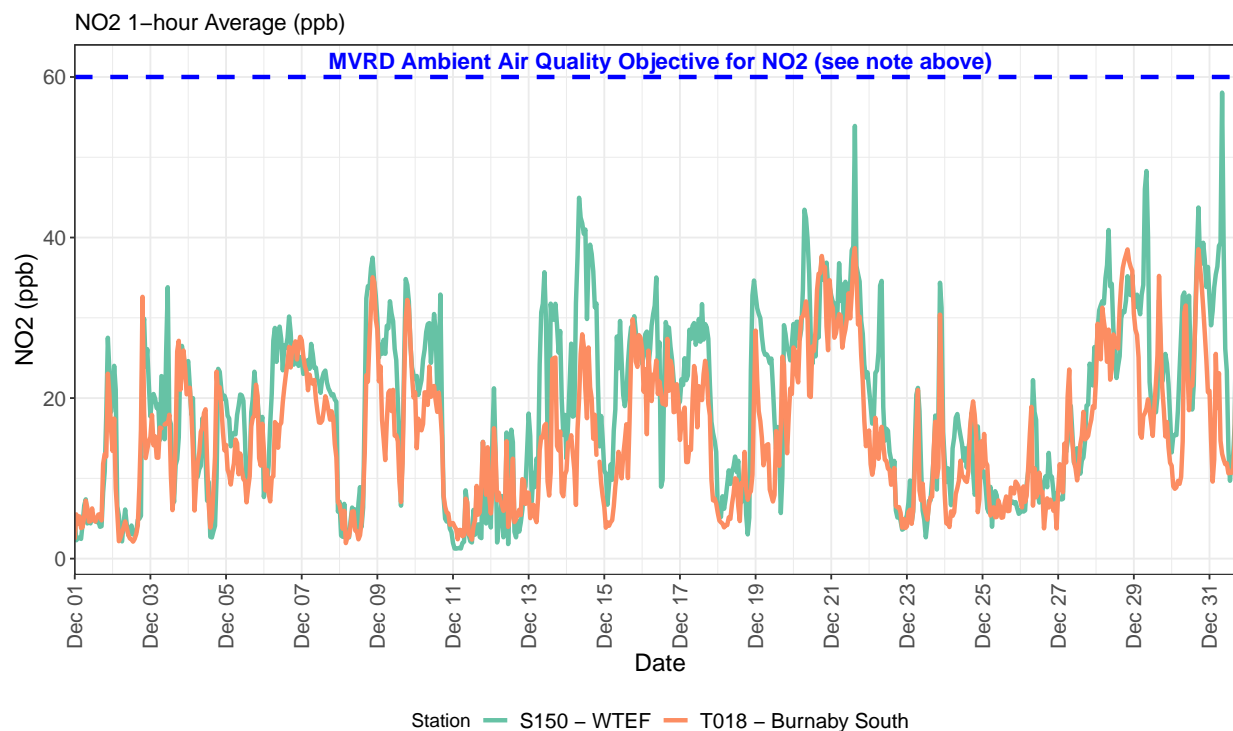
Metro Vancouver does not have an ambient air quality objective for hydrogen chloride (HCl). The Province of Alberta has a 1-hour objective for HCl of 50 ppb.



Date	Daily Average HCl Concentration (ppb)		Daily 1-hour Maximum HCl Concentration (ppb)	
	S150 - WTEF	T018 - Burnaby South	S150 - WTEF	T018 - Burnaby South
2021-12-01	0.4	0.3	0.6	0.4
2021-12-02	0.2	0.1	0.5	0.2
2021-12-03	0.2	0.1	0.3	0.2
2021-12-04	0.2	0.1	0.3	0.1
2021-12-05	0.3	0.1	0.9	0.1
2021-12-06	0.3	0.1	0.7	0.1
2021-12-07	0.3	0.1	0.6	0.4
2021-12-08	0.3	0.1	0.8	0.2
2021-12-09	0.4	0.1	1.2	0.2
2021-12-10	0.3	0.2	0.6	0.3
2021-12-11	0.6	0.2	0.9	0.5
2021-12-12	0.2	0.2	0.2	0.3
2021-12-13	0.2	0.1	0.4	0.1
2021-12-14	0.2	0.1	0.4	0.2
2021-12-15	0.2	0.1	0.3	0.1
2021-12-16	0.3	0.1	0.6	0.2
2021-12-17	0.1	0.1	0.2	0.1
2021-12-18	0.5	0.1	1.0	0.2
2021-12-19	0.4	0.1	0.8	0.3
2021-12-20	0.3	0.2	0.6	0.4
2021-12-21	0.5	0.3	1.5	1.2
2021-12-22	0.2	0.1	0.8	0.2
2021-12-23	0.4	0.1	1.0	0.1
2021-12-24	0.2	0.1	0.3	0.1
2021-12-25	0.1	0.1	0.3	0.1
2021-12-26	0.1	0.1	0.1	0.1
2021-12-27	0.1	0.1	0.1	0.1
2021-12-28	0.2	0.3	0.6	1.0
2021-12-29	0.1	0.1	0.2	0.2
2021-12-30	0.2	0.2	0.4	0.6
2021-12-31	0.2	0.1	0.3	0.2

## NO2 (nitrogen dioxide) Monthly Summary - WTEF and Burnaby South

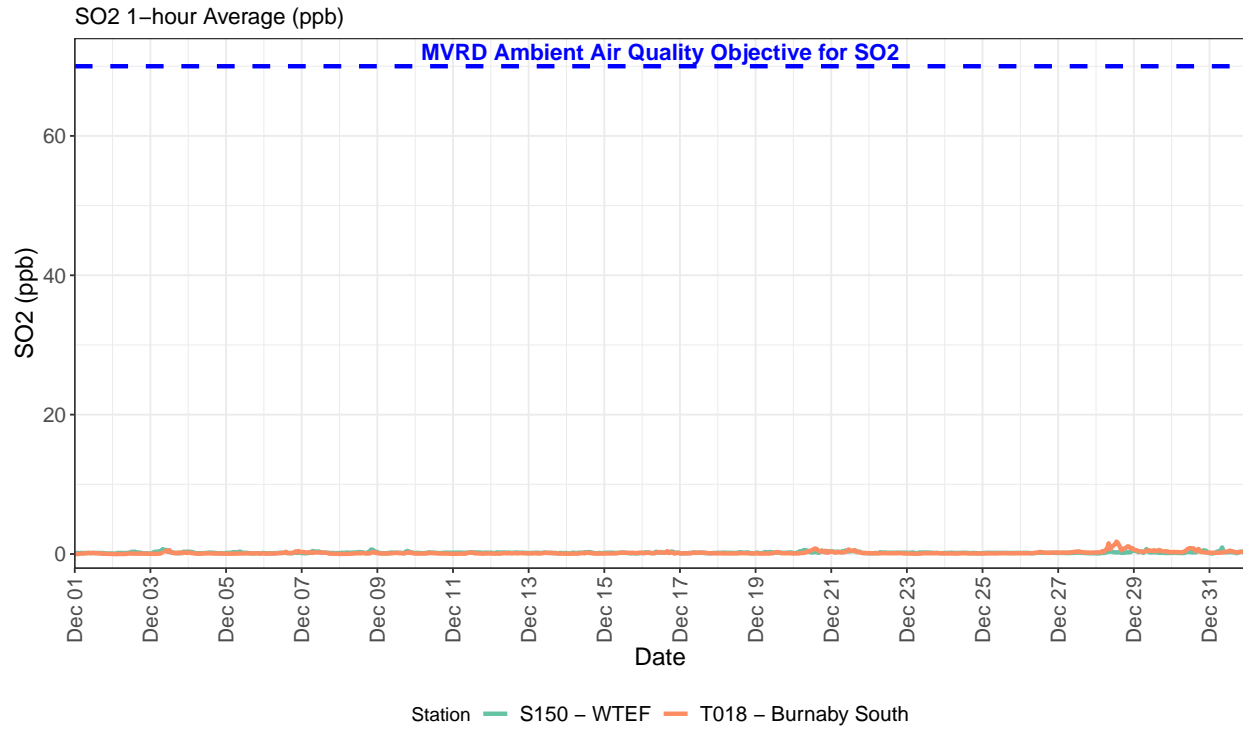
Metro Vancouver's ambient air quality objective for 1-hour NO2 is based on the analysis of three consecutive years of data, the annual 98th percentile of the daily maximum 1-hour concentration is averaged over three consecutive years. The dashed blue line in the figure below shows the numerical value of Metro Vancouver's 1-hour NO2 ambient air quality objective (60 ppb). If the preliminary NO2 data shown in this report has a concentration above the numerical value, it does not necessarily indicate an exceedance of the Metro Vancouver objective. Achievement of the objective is determined at the end of each calendar year.



Date	Daily Average NO2 Concentration (ppb)		Daily 1-hour Maximum NO2 Concentration (ppb)	
	S150 - WTEF	T018 - Burnaby South	S150 - WTEF	T018 - Burnaby South
2021-12-01	7.7	7.8	27.5	23.0
2021-12-02	10.9	8.4	29.9	32.6
2021-12-03	19.4	17.2	33.8	27.1
2021-12-04	13.8	14.4	24.6	23.3
2021-12-05	17.1	13.0	23.3	21.7
2021-12-06	23.0	18.6	30.2	27.6
2021-12-07	21.9	19.3	26.8	27.2
2021-12-08	14.2	11.9	37.5	35.1
2021-12-09	25.6	19.8	34.8	32.2
2021-12-10	20.1	15.6	32.9	23.9
2021-12-11	4.4	6.0	14.5	14.5
2021-12-12	8.0	8.0	21.2	16.2
2021-12-13	21.8	12.2	35.7	25.1
2021-12-14	29.4	16.7	45.0	27.9
2021-12-15	21.0	14.5	30.2	29.8
2021-12-16	24.7	21.7	35.0	27.4
2021-12-17	24.4	16.9	31.7	24.6
2021-12-18	11.1	7.6	34.6	20.0
2021-12-19	23.4	15.9	32.8	28.4
2021-12-20	32.2	29.3	43.5	37.7
2021-12-21	32.7	28.4	53.9	38.7
2021-12-22	15.1	10.6	34.6	17.5
2021-12-23	12.4	10.7	34.4	30.4
2021-12-24	13.0	10.1	18.1	19.6
2021-12-25	7.1	7.9	10.9	15.5
2021-12-26	10.2	8.3	22.2	18.9
2021-12-27	14.9	14.5	26.4	23.6
2021-12-28	31.1	30.1	40.9	38.5
2021-12-29	28.0	20.6	48.3	35.2
2021-12-30	28.4	22.2	43.7	38.5
2021-12-31	31.6	19.4	58.1	38.9

## SO2 (sulphur dioxide) Monthly Summary - WTEF and Burnaby South

Metro Vancouver's ambient air quality objective for 1-hour SO2 is a never to exceed objective. The dashed blue line in the figure below shows the numerical value of the SO2 objective, 70 ppb.



Date	Daily Average SO2 Concentration (ppb)		Daily 1-hour Maximum SO2 Concentration (ppb)	
	S150 - WTEF	T018 - Burnaby South	S150 - WTEF	T018 - Burnaby South
2021-12-01	0.1	0.1	0.2	0.2
2021-12-02	0.2	0.0	0.3	0.1
2021-12-03	0.3	0.2	0.7	0.6
2021-12-04	0.2	0.1	0.4	0.2
2021-12-05	0.2	0.1	0.4	0.1
2021-12-06	0.1	0.2	0.2	0.4
2021-12-07	0.2	0.2	0.4	0.3
2021-12-08	0.3	0.1	0.6	0.3
2021-12-09	0.2	0.1	0.4	0.3
2021-12-10	0.2	0.1	0.2	0.2
2021-12-11	0.2	0.1	0.2	0.2
2021-12-12	0.2	0.1	0.2	0.1
2021-12-13	0.2	0.1	0.2	0.2
2021-12-14	0.2	0.1	0.3	0.2
2021-12-15	0.1	0.1	0.2	0.2
2021-12-16	0.2	0.2	0.4	0.4
2021-12-17	0.1	0.1	0.2	0.2
2021-12-18	0.2	0.1	0.3	0.1
2021-12-19	0.2	0.1	0.3	0.3
2021-12-20	0.3	0.3	0.6	0.8
2021-12-21	0.3	0.3	0.5	0.7
2021-12-22	0.2	0.1	0.3	0.1
2021-12-23	0.2	0.1	0.2	0.1
2021-12-24	0.1	0.1	0.2	0.1
2021-12-25	0.2	0.1	0.2	0.1
2021-12-26	0.2	0.2	0.2	0.3
2021-12-27	0.1	0.2	0.2	0.4
2021-12-28	0.2	0.8	0.4	1.8
2021-12-29	0.3	0.4	0.7	0.7
2021-12-30	0.3	0.4	0.6	0.8
2021-12-31	0.3	0.3	0.9	0.5