

## 2021 Q4 (October-December) Air Quality Monitoring Results



### Air Quality Health Index (AQHI) Ratings

The AQHI describes the level of health risk associated with an AQHI number. The higher the index number, the greater the health risks. The risk levels are further categorized as low, moderate, high or very high. Go to [our website's AQHI page](#) for more information. Seven of FAP's ten continuous air monitoring stations measure the substances required to calculate the AQHI.

October - December 2021		AQHI Risk Level (% of time)			
Station Name	Hours Monitored	Low	Moderate	High	Very High
Bruderheim	2145	95.29%	4.52%	0.19%	0.00%
Elk Island	2180	98.17%	1.33%	0.50%	0.00%
Fort Saskatchewan	2116	93.29%	6.24%	0.47%	0.00%
Gibbons	2166	95.85%	3.83%	0.32%	0.00%
Lamont County	2153	98.79%	1.02%	0.19%	0.00%
Redwater	2041	97.80%	1.86%	0.34%	0.00%
Town of Lamont *	1910	97.33%	2.36%	0.31%	0.00%
<b>Total hours</b>	<b>14711</b>	<b>14216</b>	<b>446</b>	<b>49</b>	<b>0</b>

October - December 2021		AQHI Risk Level (# of hours)			
Station Name	Hours Monitored	Low	Moderate	High	Very High
Bruderheim	2145	2044	97	4	0
Elk Island	2180	2140	29	11	0
Fort Saskatchewan	2116	1974	132	10	0
Gibbons	2166	2076	83	7	0
Lamont County	2153	2127	22	4	0
Redwater	2041	1996	38	7	0
Town of Lamont *	1910	1859	45	6	0
<b>Total hours</b>	<b>14711</b>	<b>14216</b>	<b>446</b>	<b>49</b>	<b>0</b>

\*The Keith Purves Portable Station reported AQHI in the Town of Lamont October through December 2021.

**Hours with a High or Very High Risk AQHI Rating – Q4 2021**

This table shows the number of hours with a high or very high risk AQHI rating during the fourth quarter of 2021, when they occurred and the likely cause, when identifiable.

FAP Continuous Air Quality Monitoring Station																
Event Dates	Bruderheim		Elk Island		Fort Sask.		Gibbons		Lamont County		Redwater		Keith Purves Portable*		Total Hours	Attributed Cause
	High Risk	Very High Risk	High Risk	Very High Risk	High Risk	Very High Risk	High Risk	Very High Risk	High Risk	Very High Risk	High Risk	Very High Risk	High Risk	Very High Risk		
Oct. 5 & 6	4	-	11	-	10	-	6	-	4	-	6	-	6	-	47	Wildfire smoke
Oct. 31	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	Multiple Sources
<b>Total hours</b>	<b>4</b>	<b>-</b>	<b>11</b>	<b>-</b>	<b>10</b>	<b>-</b>	<b>7</b>	<b>-</b>	<b>4</b>	<b>-</b>	<b>6</b>	<b>-</b>	<b>6</b>	<b>-</b>	<b>48</b>	

\* The Keith Purves Portable Station reported the AQHI in the Town of Lamont October through December 2021.

**Summary of Exceedances October – December 2021**

Air quality measurements are compared continuously to both 1-hour and 24-hour [Alberta Ambient Air Quality Objectives](#) (AAAQO). Any exceedance of an AAAQO is reported to the Alberta Government and the cause of the exceedance investigated.

One Hour Exceedances October – December 2021			
Parameter	Exceedances	Date	Attributed Cause
Fine Particulate Matter (PM <sub>2.5</sub> )	59	October 5 & 6	Wildfire smoke
	1	October 31	Multiple Sources
Total hours	60		

24 Hour Exceedances October – December 2021			
Parameter	Exceedances	Date	Attributed Cause
Fine Particulate Matter (PM <sub>2.5</sub> )	10	October 5 & 6	Wildfire smoke
Total days	10		

End of Report