Air Quality Monitoring

DASHBOARD REPORT

June-July 2015

LICA

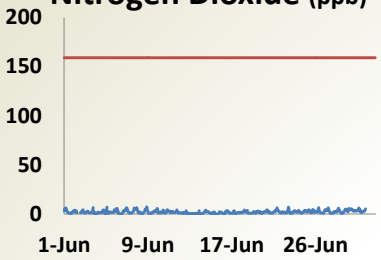
Lakeland Industry & Community Association

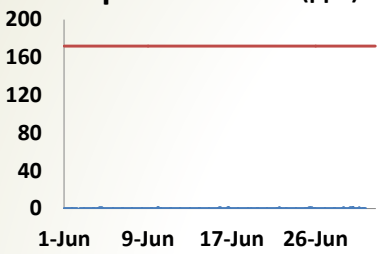
Continuous Monitoring Stations

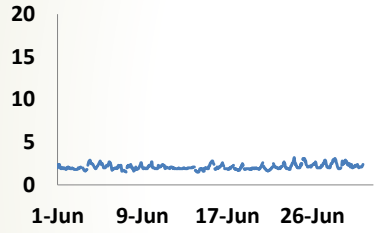
June 2015

LICA Lakeland Industry & Community Association

Cold Lake

Nitrogen Dioxide (ppb)


Sulphur Dioxide (ppb)


Hydrocarbons (ppm)


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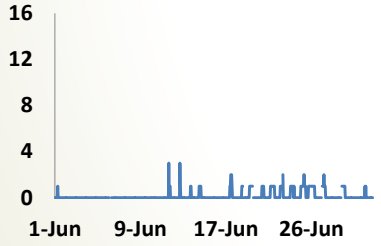

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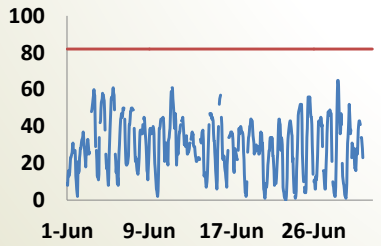

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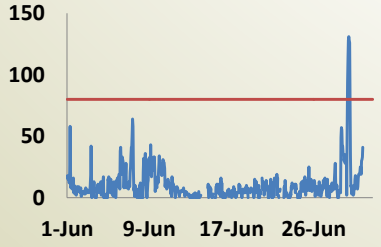
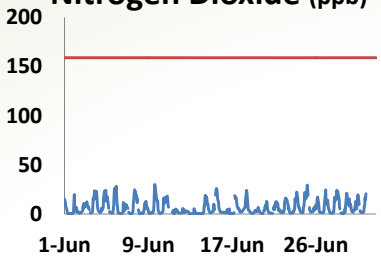


PAMS (Elk Point)

Nitrogen Dioxide (ppb)


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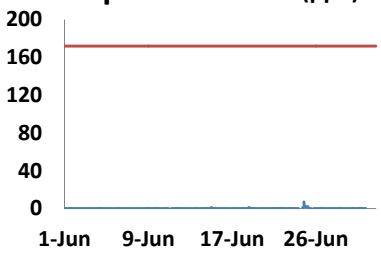
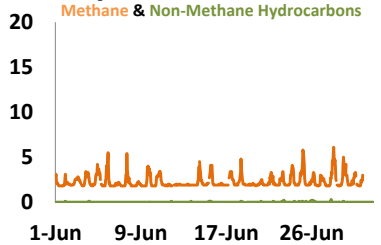


Hydrocarbons (ppm)
Methane & Non-Methane Hydrocarbons



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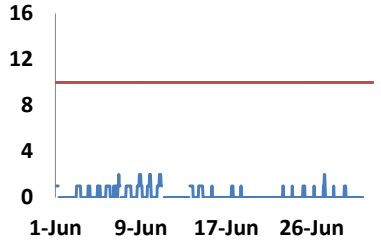

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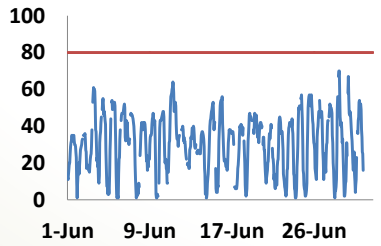
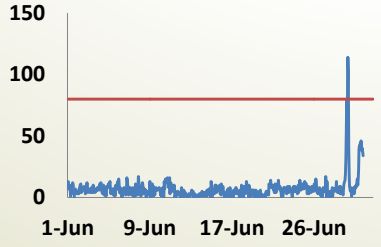
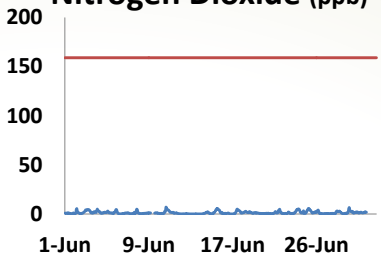


Fine Particulates (µg/m³)


St. Lina

Nitrogen Dioxide (ppb)


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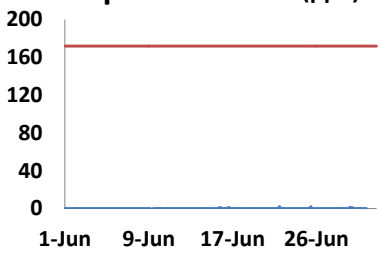

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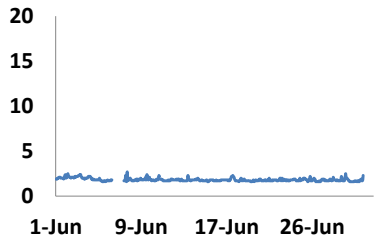

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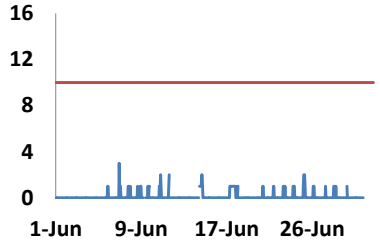

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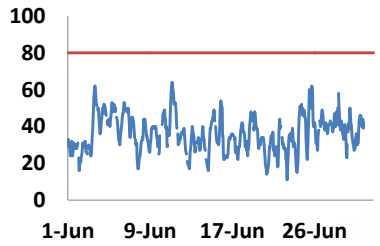
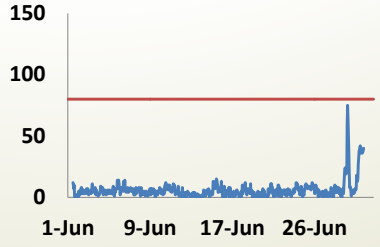


Fine Particulates (µg/m³)


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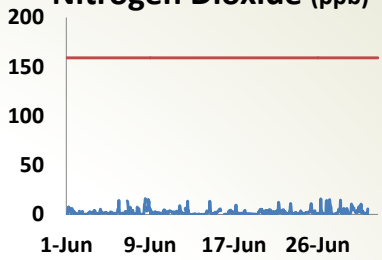
Nitrogen Dioxide (ppb)


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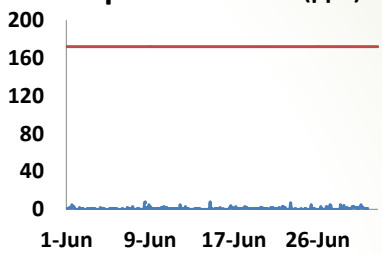

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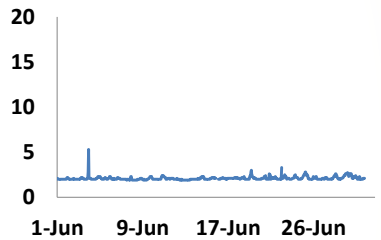

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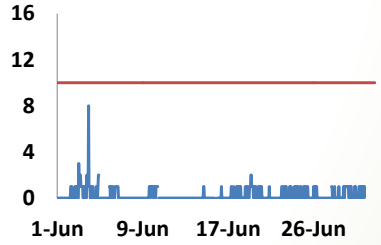

Notable observations for June 2015:

- Air quality was rated as "Low Risk" over 80% of the time at the Cold Lake, St. Lina, and portable monitoring stations.
- In this series of charts, the blue line indicates the pattern of measurements over a one-month period; the red line indicates the applicable Alberta Ambient Air Quality Objective (AAAQO) established for the respective parameter; in the case of Fine Particulates, the red line indicates the Alberta Ambient Air Quality Guideline.
- High particulate matter concentrations were caused by large forest fires burning both within the region and by smoke being carried into the local area from fires burning in other parts of Alberta.

Continuous Monitoring Stations

July 2015

LICA Lakeland Industry & Community Association

Cold Lake

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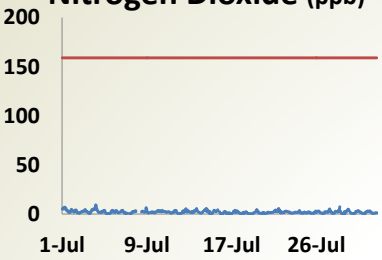

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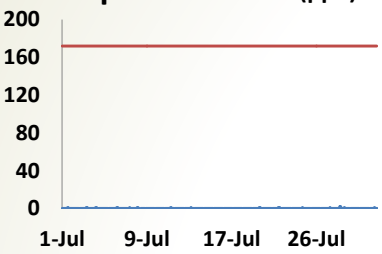

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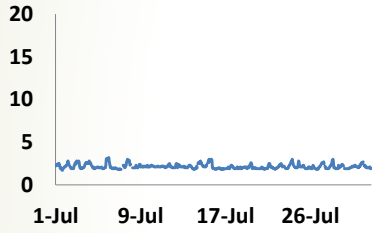

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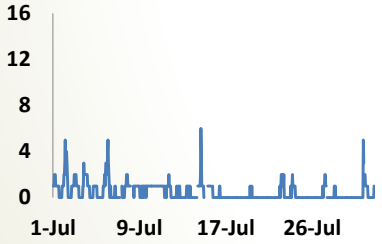

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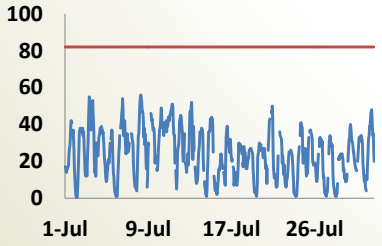

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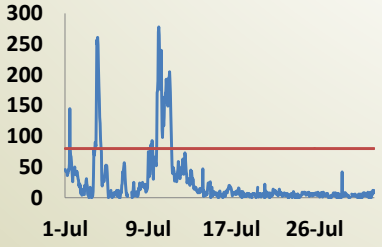

PAMS (Elk Point)

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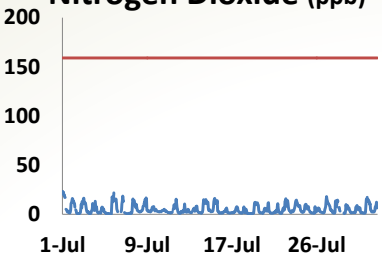
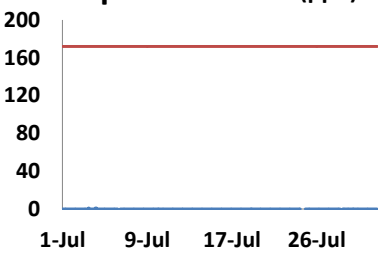
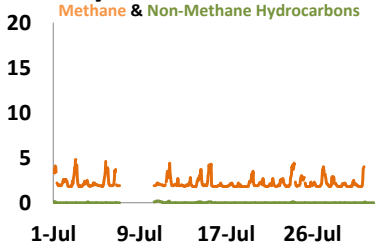
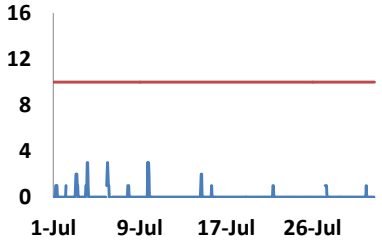


Sulphur Dioxide (ppb)


Hydrocarbons (ppm)
Methane & Non-Methane Hydrocarbons



Hydrogen Sulphide (ppb)


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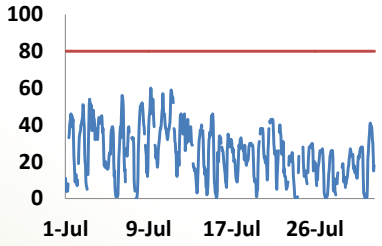
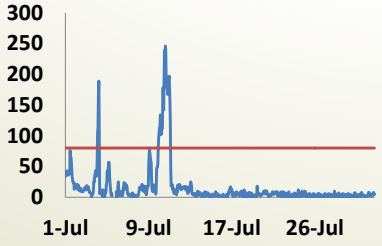
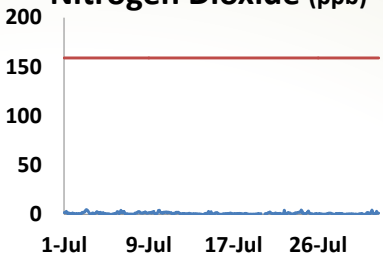


Fine Particulates (µg/m³)


St. Lina

Nitrogen Dioxide (ppb)


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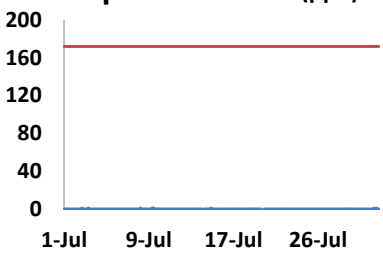

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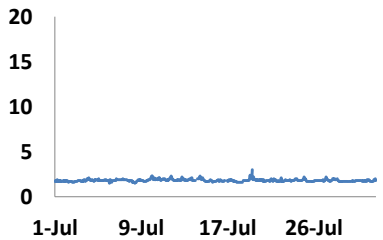

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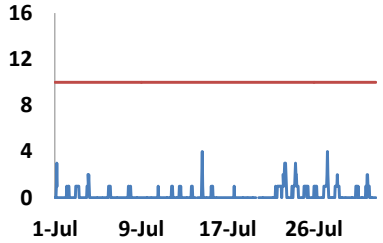

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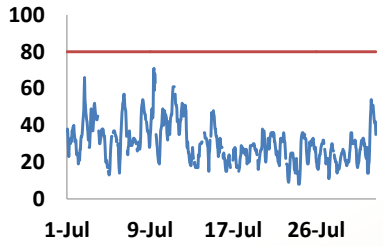

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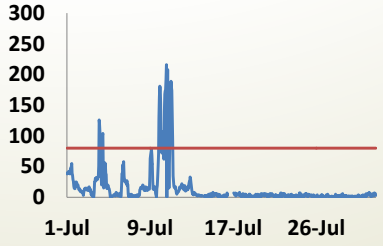

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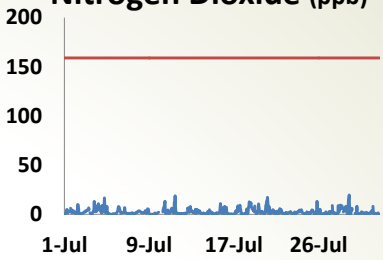

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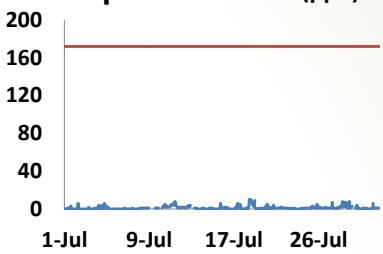

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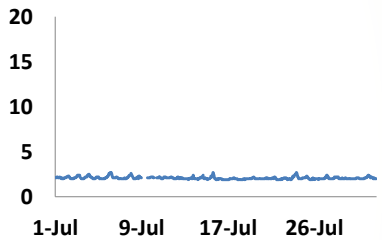

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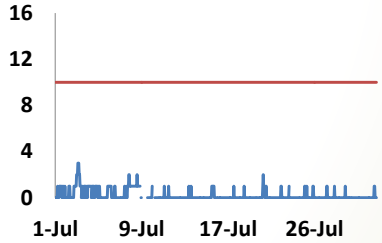

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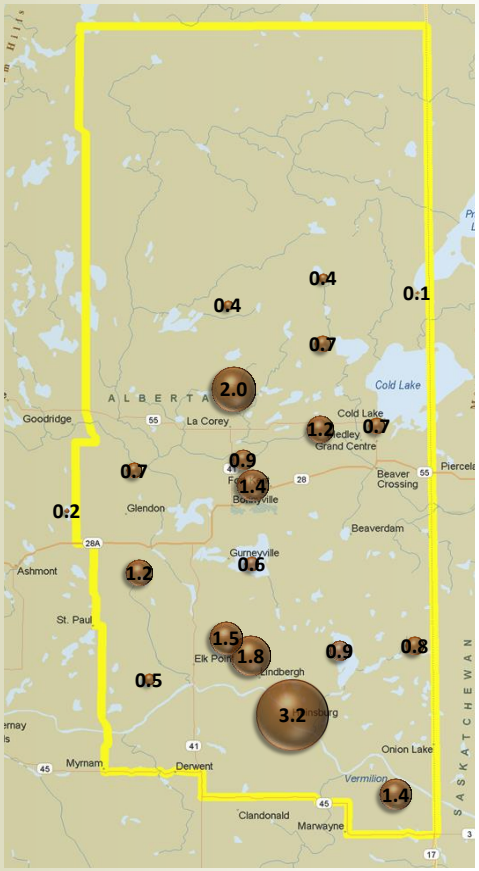
Passive Monitoring Stations

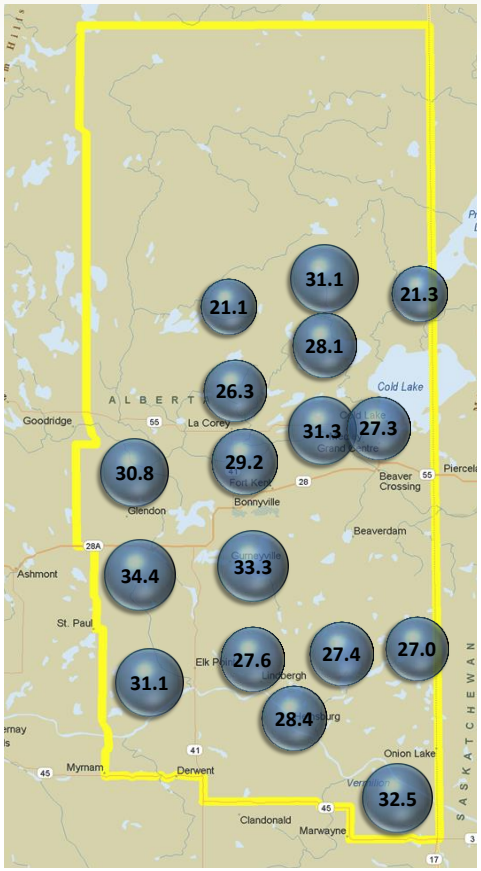
June-July 2015

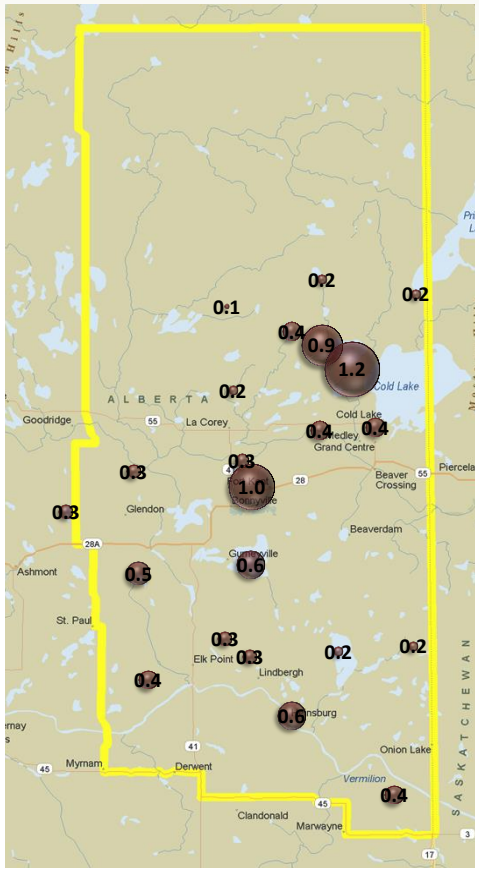
LICA Lakeland Industry & Community Association

This series of bubble maps present monthly average concentrations in parts per billion (ppb) over a two-month period. Displaying data this way illustrates the spatial patterns of the parameters monitored in the LICA passive monitoring network.

Nitrogen Dioxide



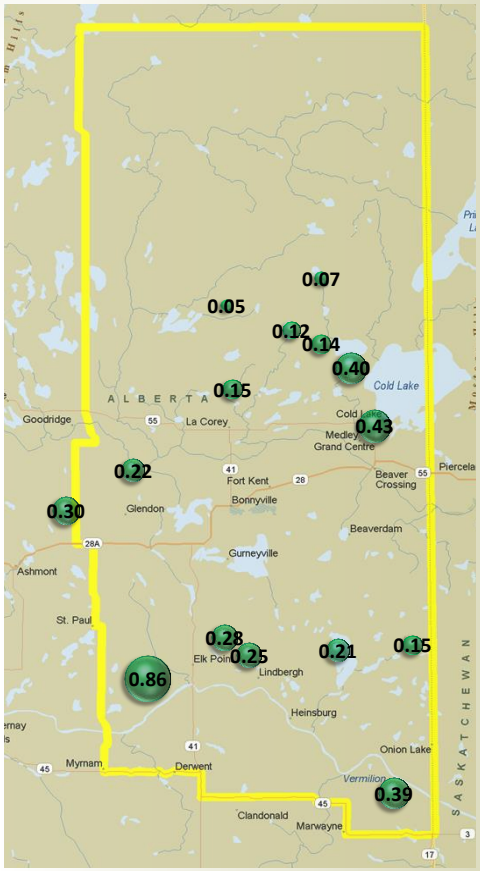


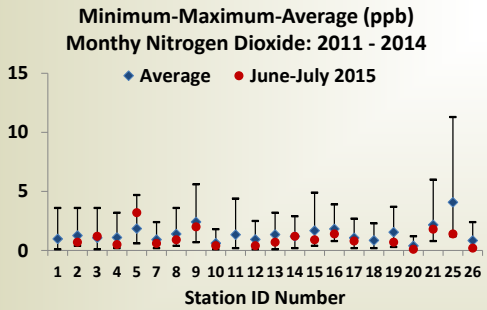


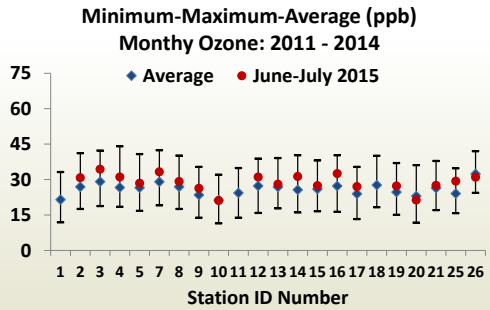
Ozone

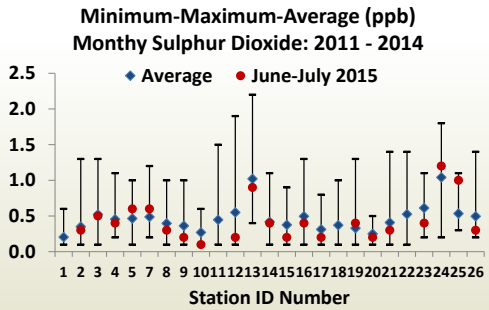
Sulphur Dioxide

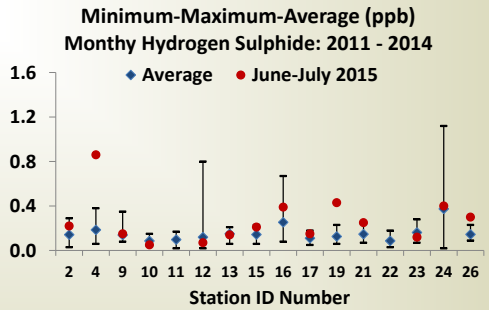
Hydrogen Sulphide







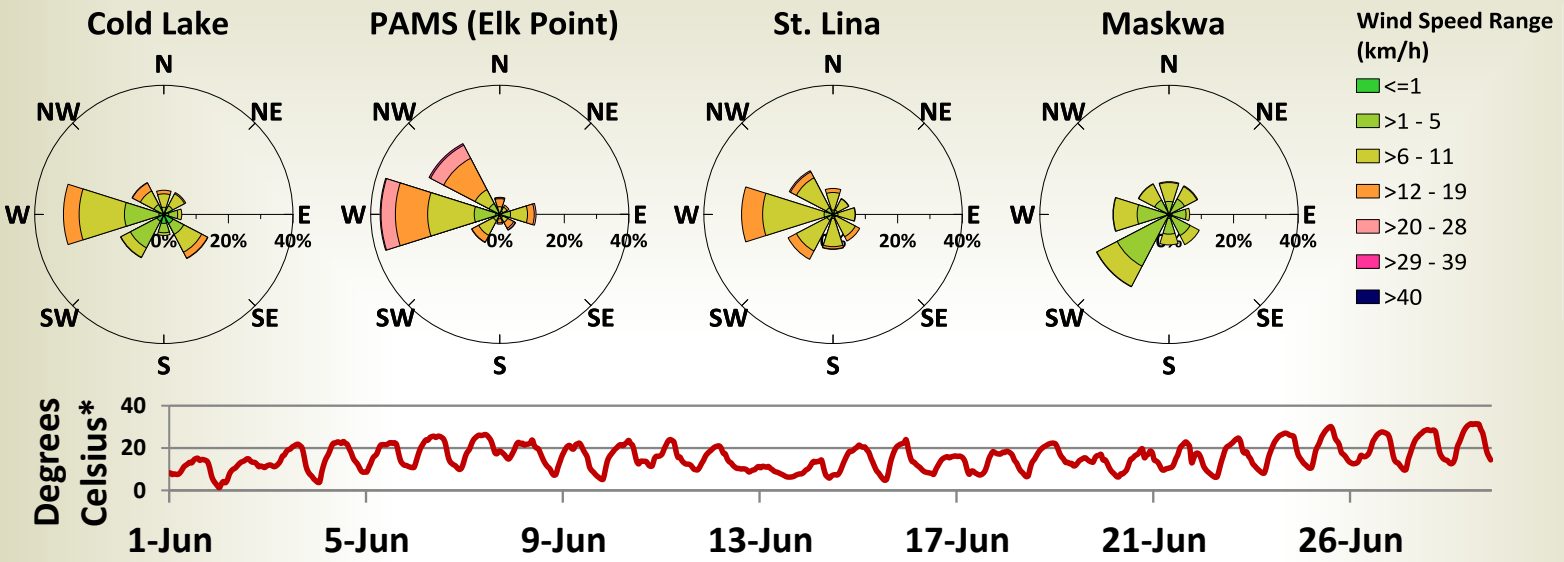




Wind Speed, Wind Direction, Temperature

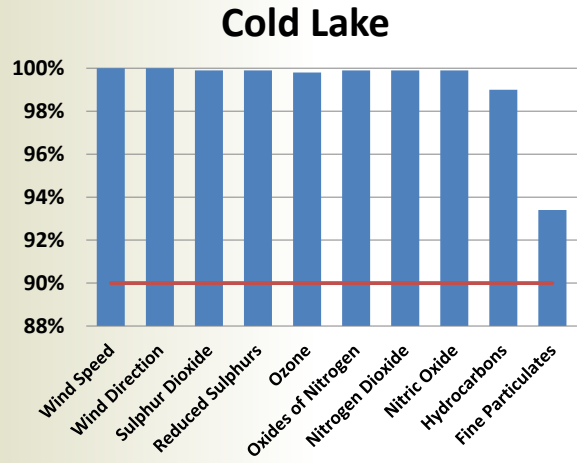
June 2015

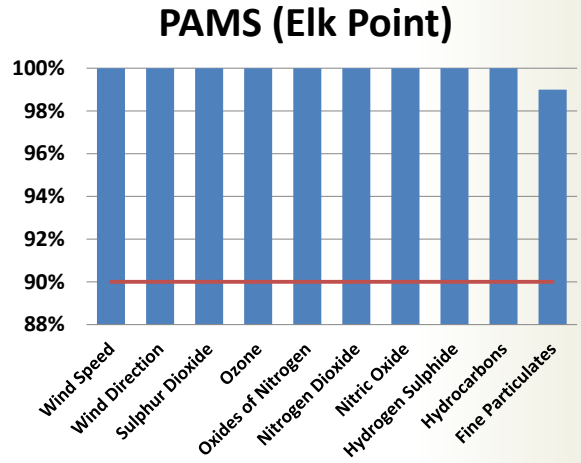
LICA Lakeland Industry & Community Association

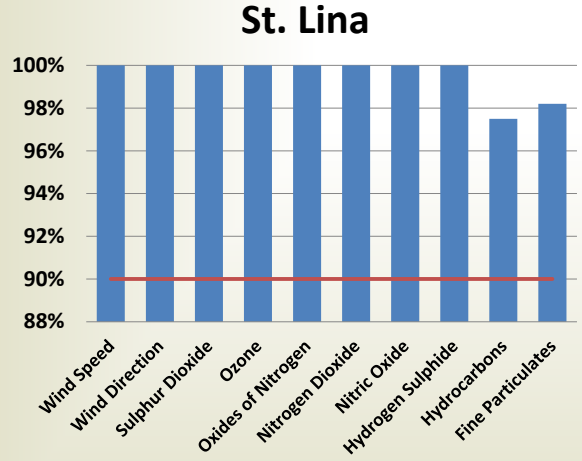


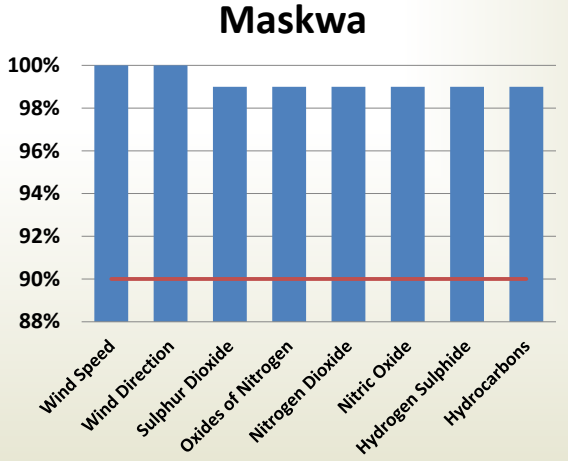
** Temperature in Cold Lake*

Operational Uptime







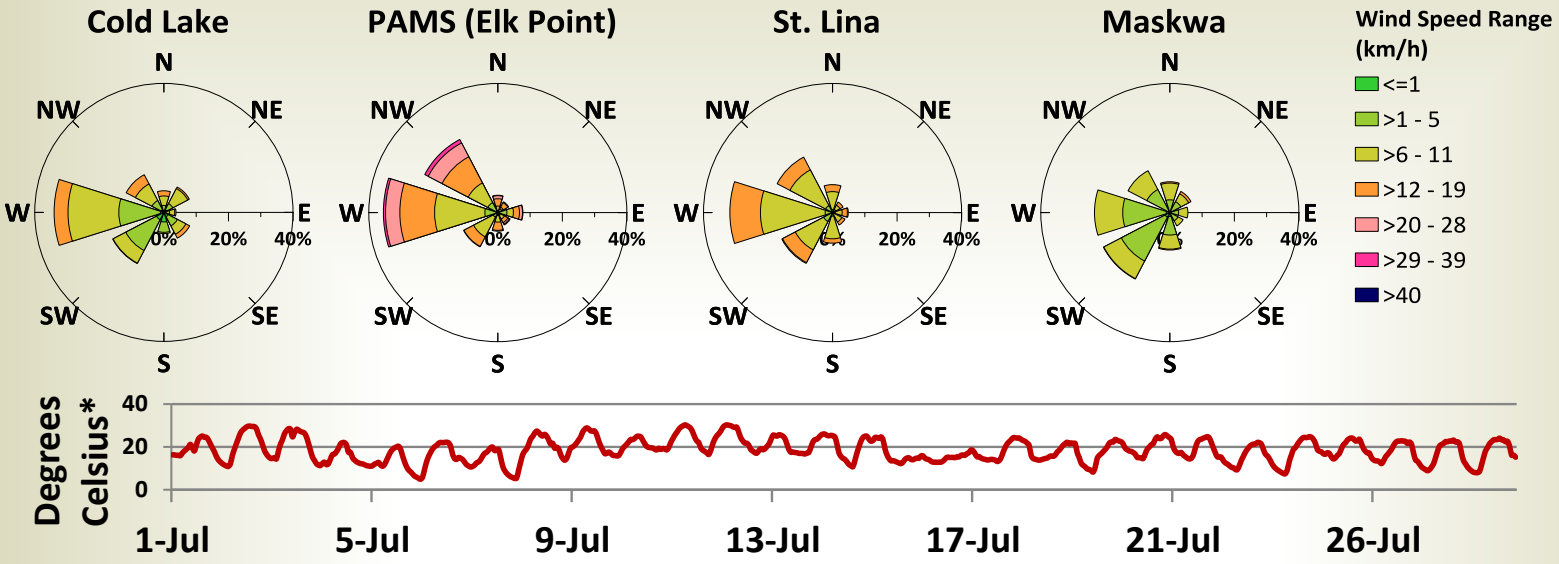


Notes on instrument uptime: The Alberta Air Monitoring Directive (1989) requires that real time instrumentation must be operational at least 90% of the time on a monthly basis (indicated by the red line on the above charts).

Wind Speed, Wind Direction, Temperature

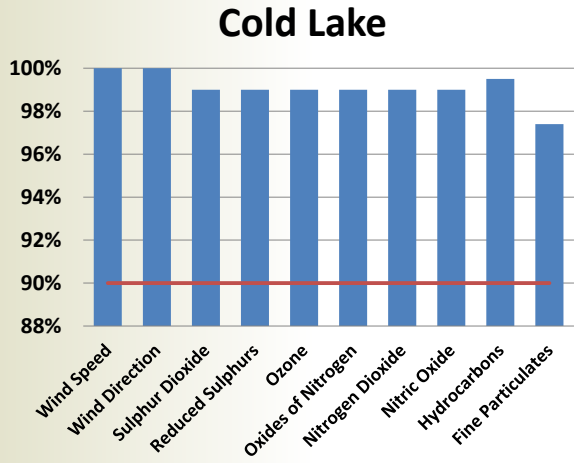
July 2015

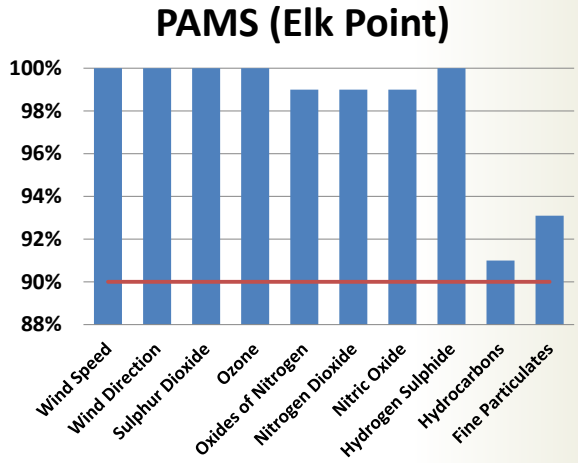
LICA Lakeland Industry & Community Association

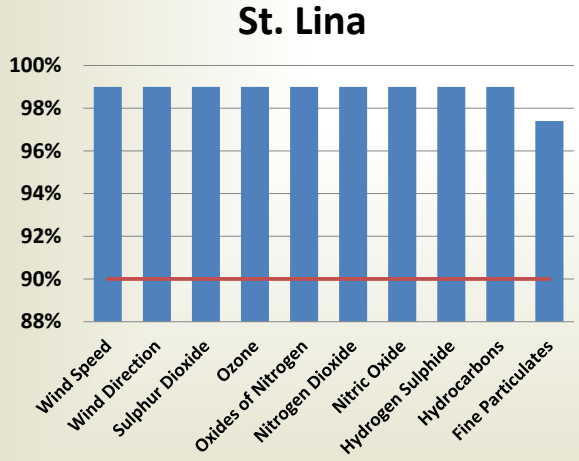


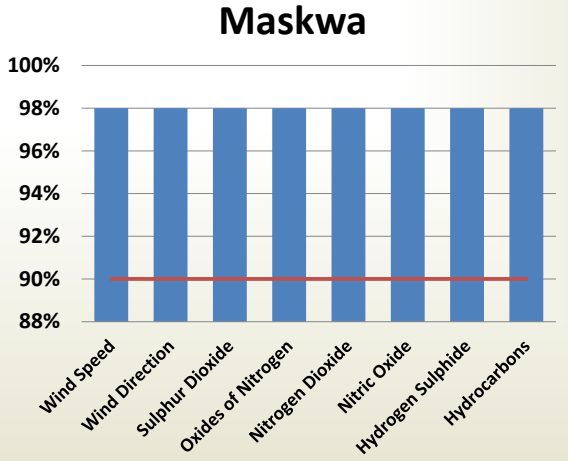
** Temperature in Cold Lake*

Operational Uptime









Notes on instrument uptime: The Alberta Air Monitoring Directive (1989) requires that real time instrumentation must be operational at least 90% of the time on a monthly basis (indicated by the red line on the above charts).

Regional Monitoring Network Map

June-July 2015

LICA Lakeland Industry & Community Association

Passive Monitor:
Sulphur Dioxide

Passive Monitor:
Ozone

Passive Monitor:
Nitrogen Dioxide

Passive Monitor:
Hydrogen Sulphide

Continuous Monitor:
Sulphur Dioxide, Hydrogen Sulphide, Oxides of Nitrogen, Total Hydrocarbons, Meteorology

Continuous Monitor:
Sulphur Dioxide, Hydrogen Sulphide, Oxides of Nitrogen, Ozone, Methane/Non-Methane Hydrocarbons, Particulate Matter, Meteorology

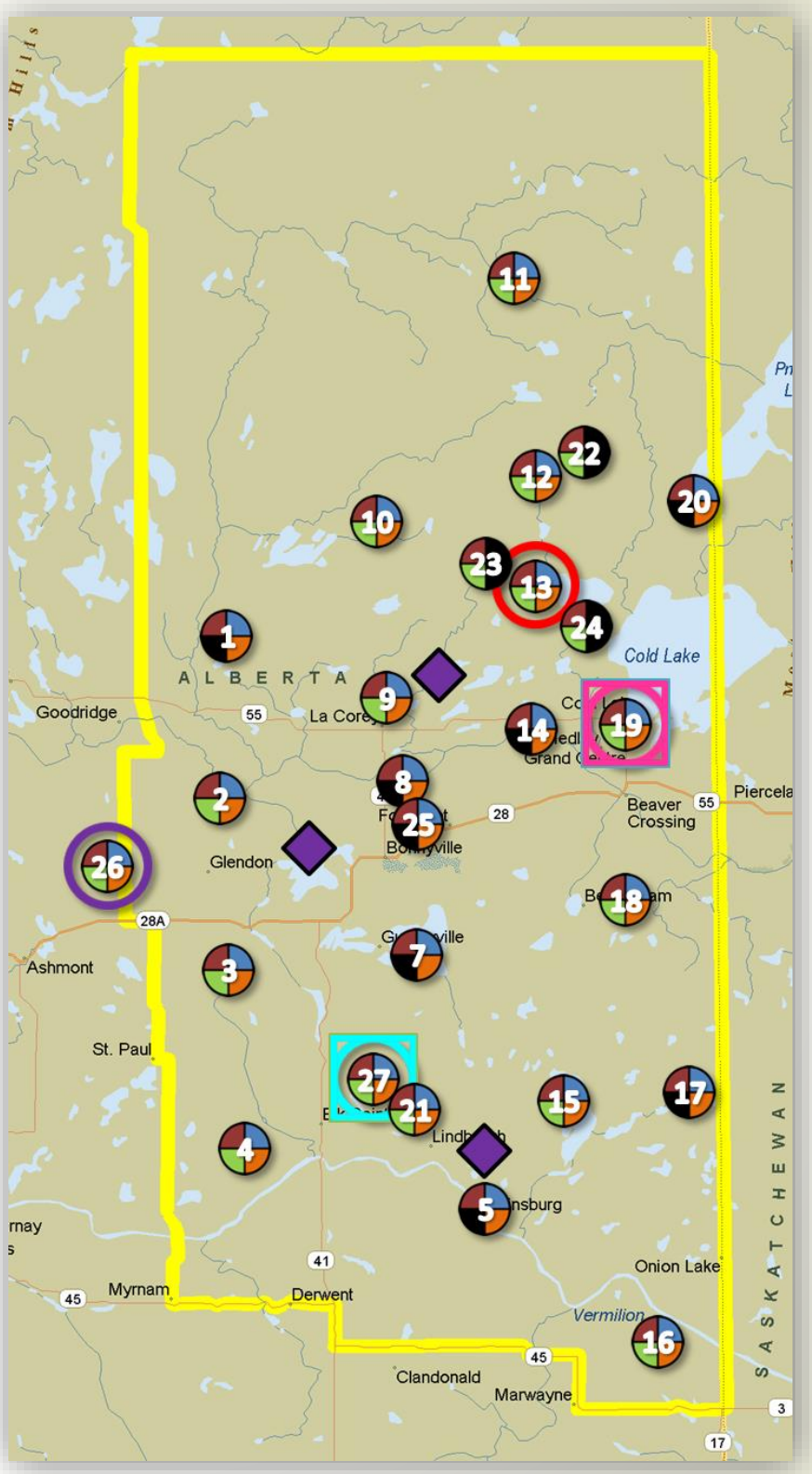
Continuous Monitor:
Sulphur Dioxide, Hydrogen Sulphide, Oxides of Nitrogen, Ozone, Total Hydrocarbons, Particulate Matter, Meteorology

Continuous Monitor:
Sulphur Dioxide, Total Reduced Sulphurs, Oxides of Nitrogen, Ozone, Total Hydrocarbons, Particulate Matter, Meteorology

Polycyclic Aromatic and Speciated Hydrocarbons:
Routine 1-in-6 Day Samples

Polycyclic Aromatic and Speciated Hydrocarbons:
Routine 1-in-6 Day Samples
High Non-Methane Hydrocarbon Triggered Samples

Soil Acidification Monitoring Plot:
pH, Soil Texture, Electrical Conductivity, Soluble Ions, Cation Exchange Capacity – Buffered,/Unbuffered, Exchangeable Cations, Total Carbon, Total Nitrogen, Total Sulphur, Available Ammonium, Available Nitrates, Available Phosphorous



Station Identification

1	Sand River	**9**	La Corey	**16**	Clear Range	**23**	Mahihkan
2	Therien	**10**	Wolf Lake	**17**	Fishing Lake	**24**	Hilda Lake
3	Flat Lake	**11**	Foster Creek	**18**	Beaverdam	**25**	Town of Bonnyville
4	Lake Eliza	**12**	Primrose	**19**	Cold Lake South	**26**	St. Lina
5	Telegraph Creek	**13**	Maskwa	**20**	Medley-Martineau	**27**	Portable Station
7	Muriel-Kehewin	**14**	Ardmore	**21**	Fort George		
8	Dupre	**15**	Frog Lake	**22**	Burnt Lake		