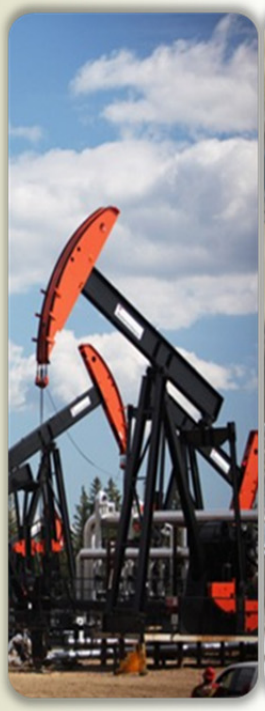
Air Quality Monitoring

DASHBOARD REPORT

April 2013



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Continuous Monitoring Stations

April 2013

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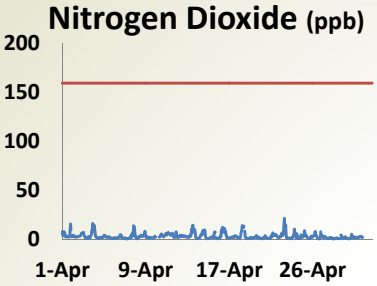
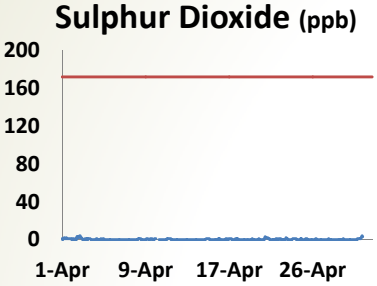
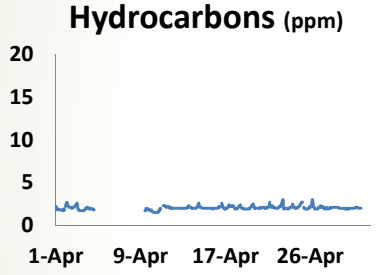
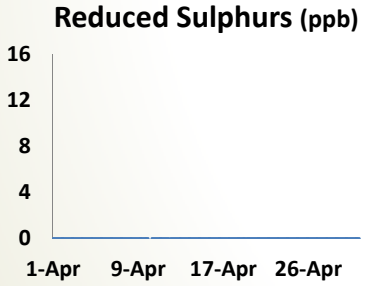
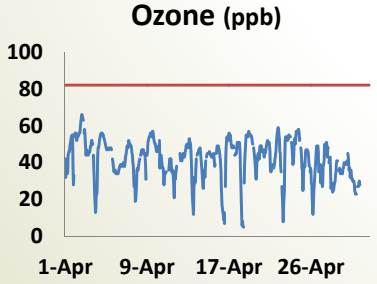
Cold Lake

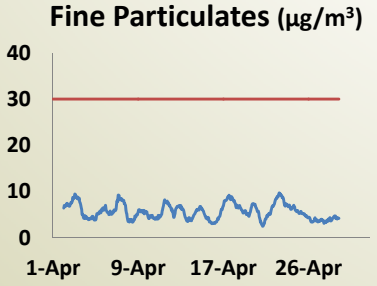




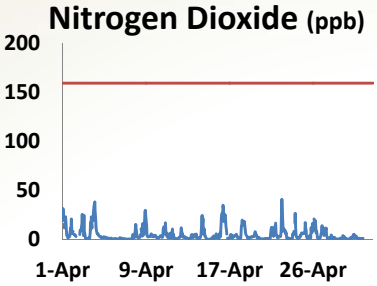


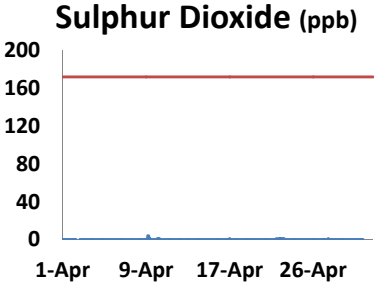


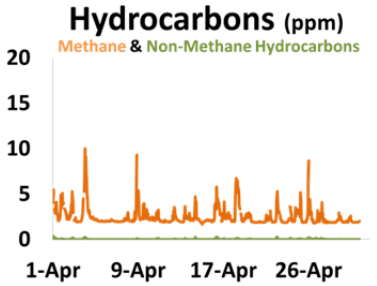


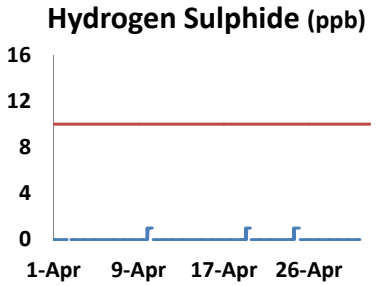


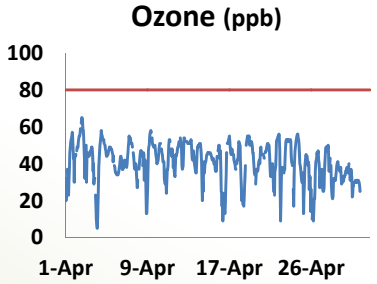
PAMS (Elk Point)

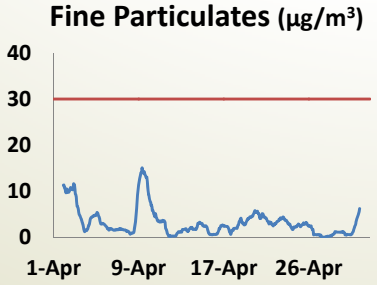




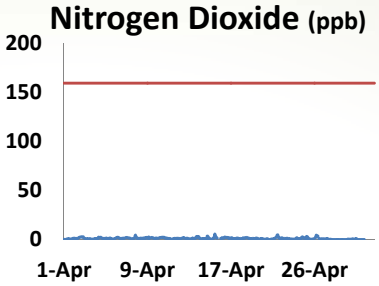


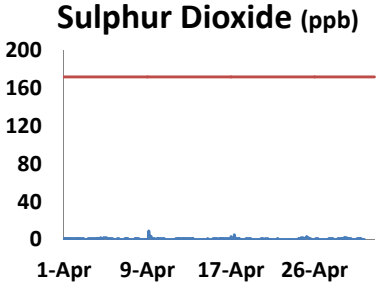


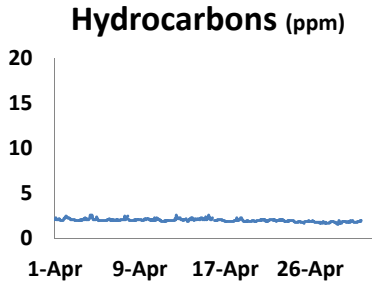


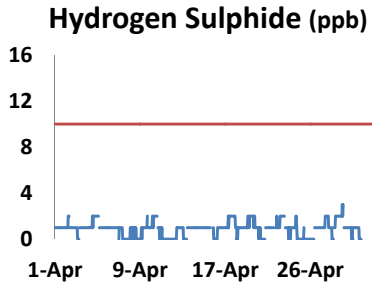


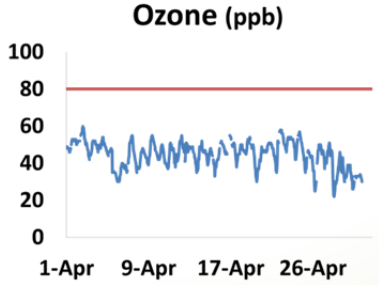
St. Lina

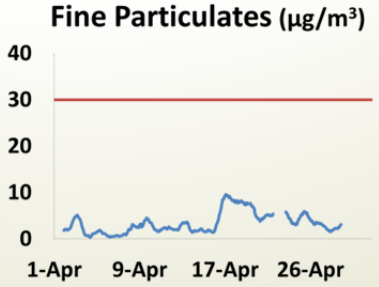




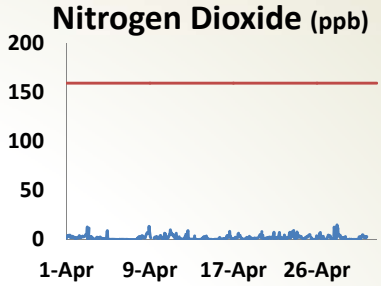


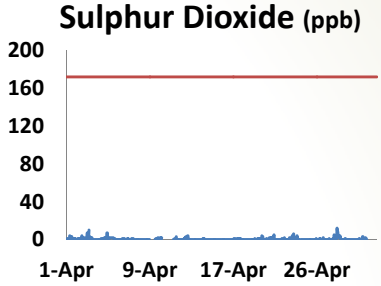


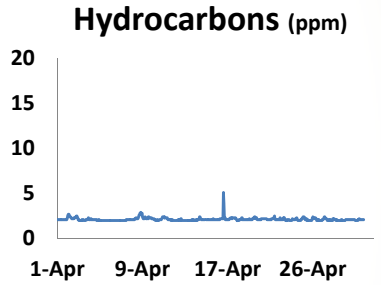


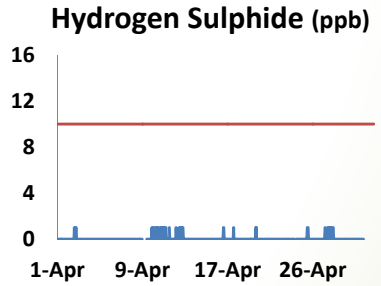


Maskwa









Notable observations for April 2013:

- Air quality was rated as "Low Risk" over 90% 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.
- A failed pump at the Cold Lake station required the invalidation of 113 hours of hydrocarbon monitoring data. This resulted in 84% uptime for April 2013 (reference #270764).
- A switch valve in the particulate matter analyzer was replaced at the PAMS station. This resulted in a prolonged re-stabilization period during which data had to be invalidated. This resulted in 87% uptime for April 2013 for fine particulate matter (reference #270765).

Passive Monitoring Stations

April 2013

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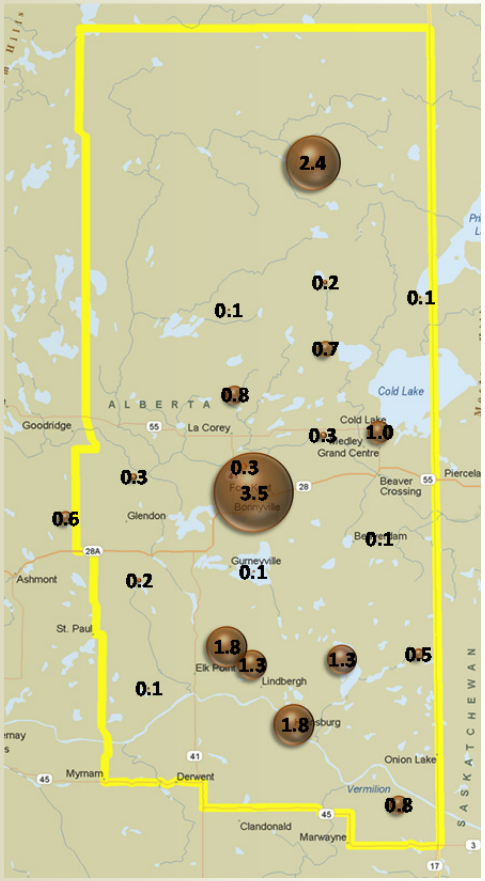
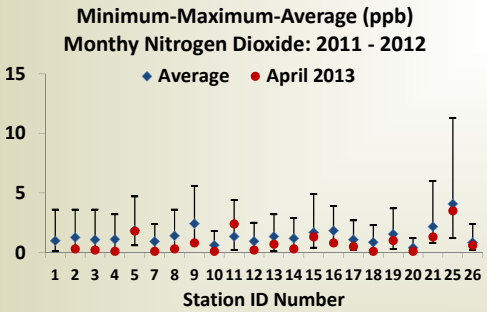
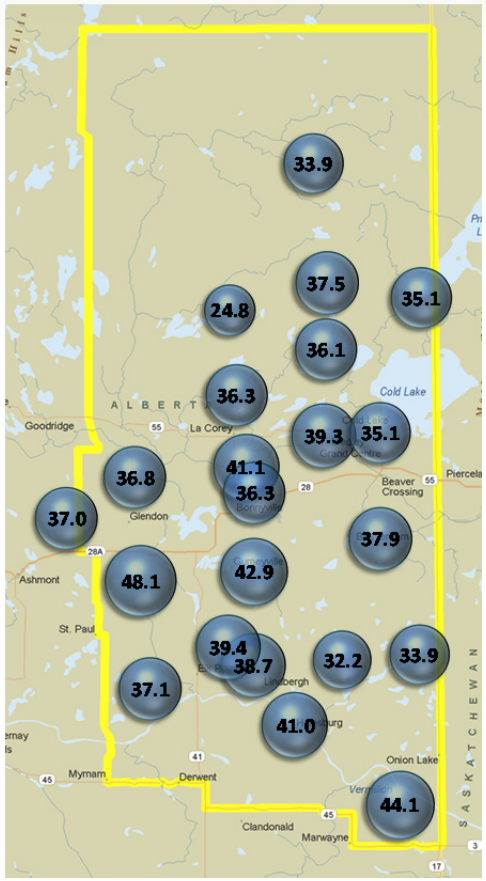
This series of bubble maps present monthly average concentrations in parts per billion (ppb).
Displaying data this way illustrates the spatial patterns of the parameters monitored in the LICA passive monitoring network.

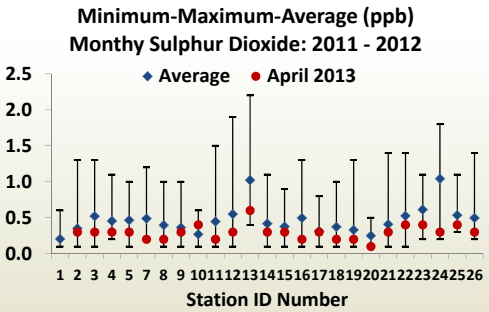
Nitrogen Dioxide



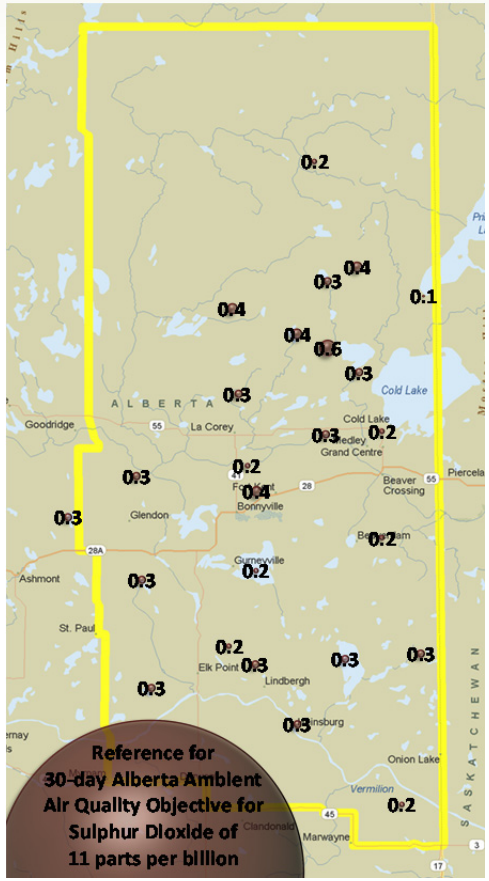


Ozone

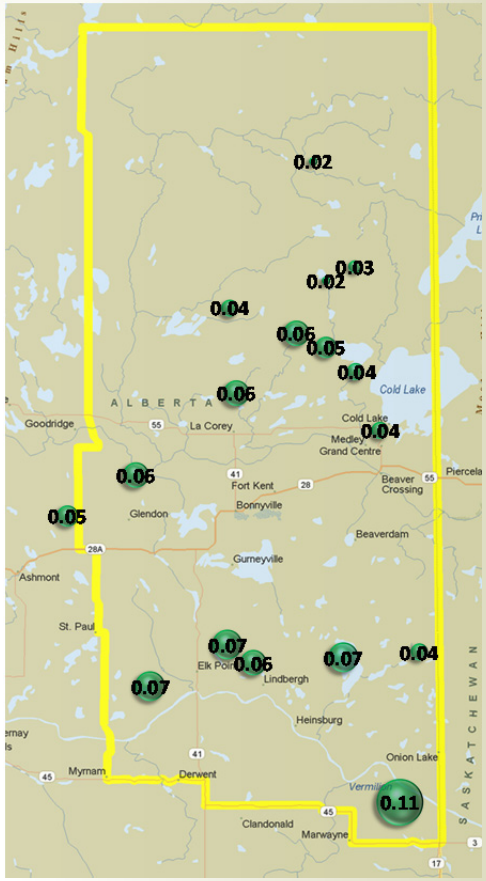


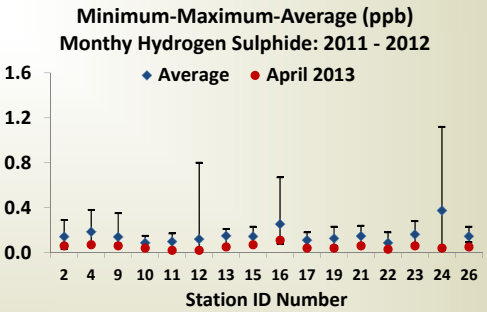


Sulphur Dioxide



Hydrogen Sulphide





Wind Speed, Wind Direction, Temperature

April 2013

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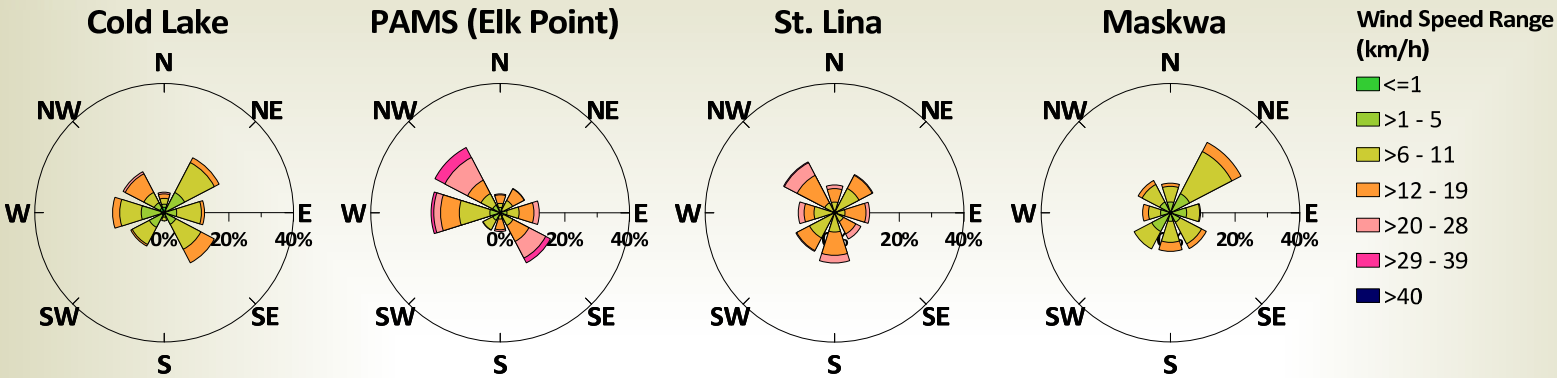
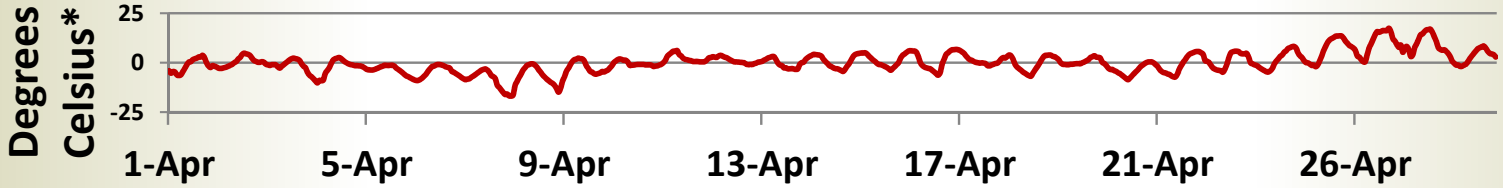
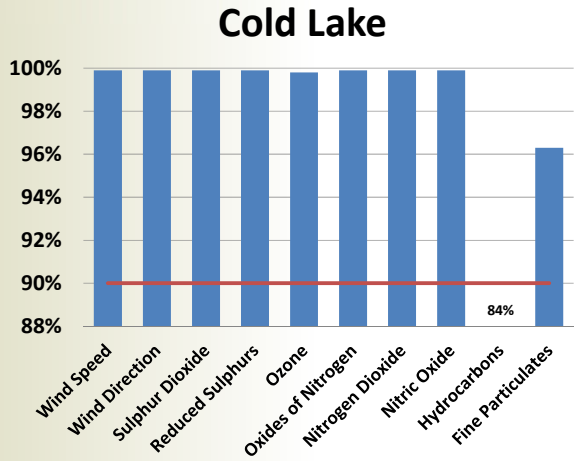
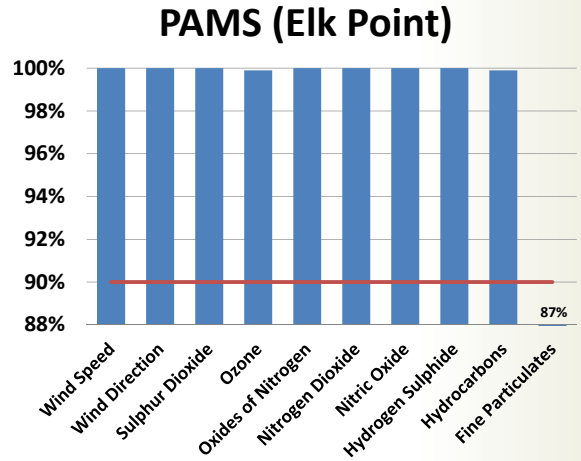


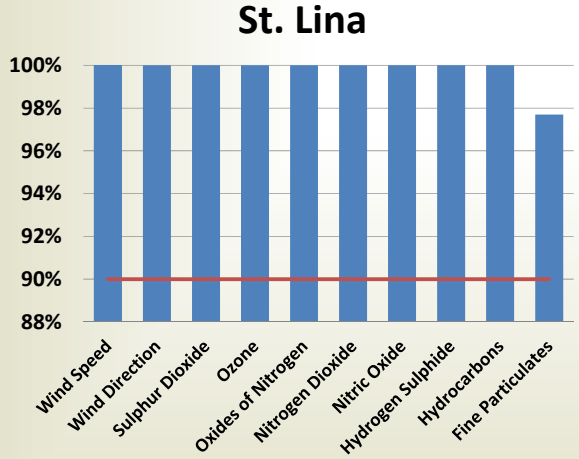


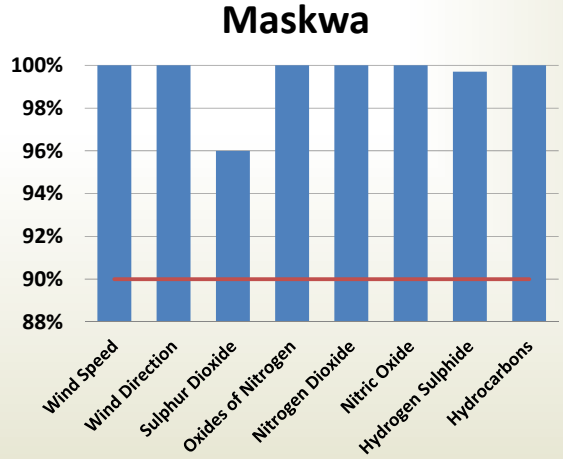
** Temperature in Cold Lake*

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). A failed pump at the Cold Lake station required the invalidation of 113 hours of hydrocarbon monitoring data. This resulted in 84% uptime for April 2013 (reference #270764). A switch valve in the particulate matter analyzer was replaced at the PAMS station. This resulted in a prolonged re-stabilization period during which data had to be invalidated. This resulted in 87% uptime for April 2013 for fine particulate matter (reference #270765).

Regional Monitoring Network Map

April 2013

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

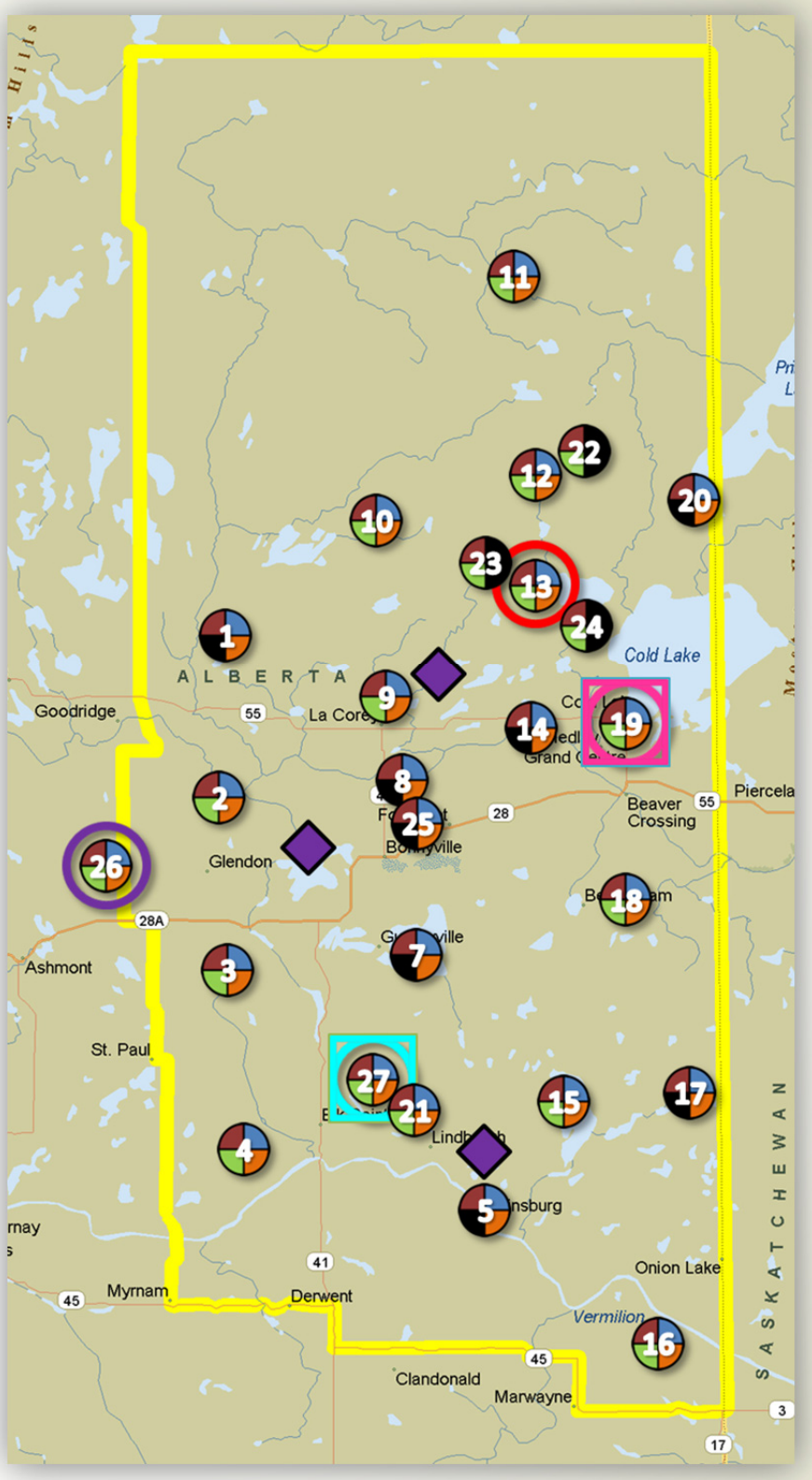
Continuous Monitor:
Sulphur Dioxide, Hydrogen Sulphide, Oxides of Nitrogen, Ozone, Total Hydrocarbons, Particulate Matter, Meteorology

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		