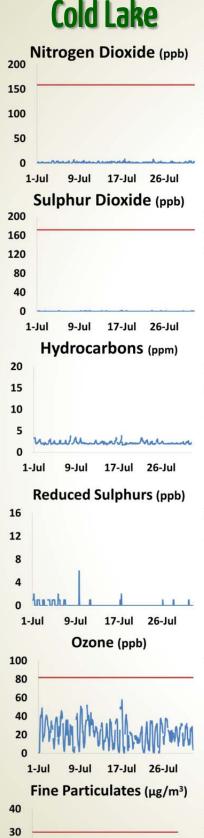
# Air Quality Monitoring DASHBOARD REPORT





# **Continuous Monitoring Stations**

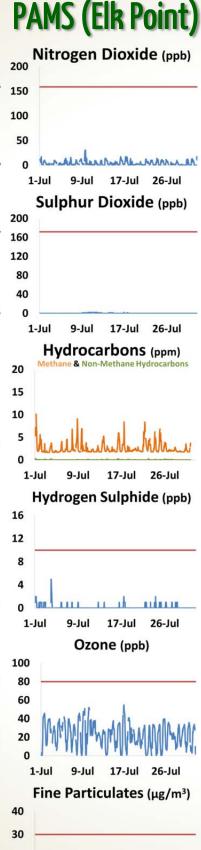
## **Cold Lake**



20

10

## PAMS (Elk Point)



20

10

17-Jul

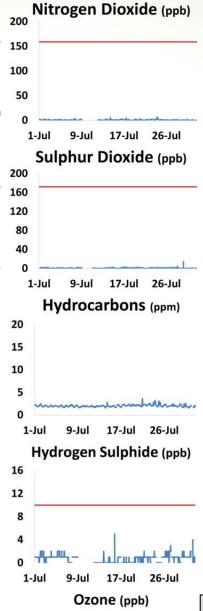
26-Jul

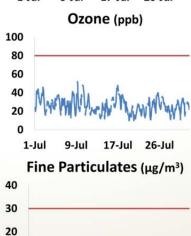
9-Jul

17-Jul

26-Jul

## St. Lina





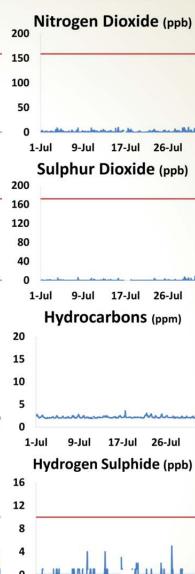
9-Jul

17-Jul

26-Jul

10

## Maskwa



- 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 onemonth period; the red line indicates the applicable Alberta Ambient Air Quality Objective (AAAQO) established for the respective parameter.
- The Elk Point station had operational uptime on the particulate matter analyzer of 39.7% (Reference #274987). The internal temperature sensor failed June 27th; a replacement was installed on July 18th.
- The St. Lina station had operation uptime on the particulate matter analyzer at 46.4% (Reference #2749878)
- The St. Lina station had operational uptime on the hydrogen sulphide analyzer of 85.1% (Reference #274989). The calibration instrument was found to be faulty.

## Notable observations for July 2013:

17-Jul

26-Jul

9-Jul

# **Passive Monitoring Stations**



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

Minimum-Maximum-Average (ppb)

Monthy Nitrogen Dioxide: 2011 - 2012

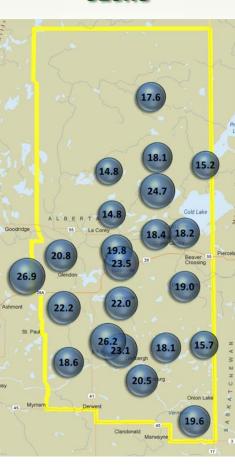
AverageJuly 2013

**Station ID Number** 

15

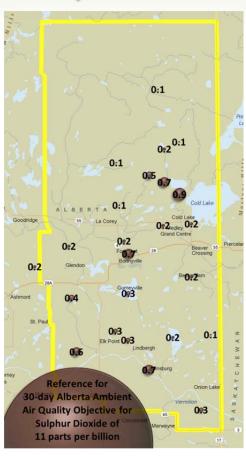
10

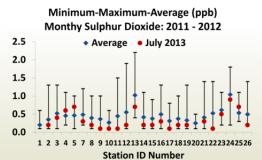
## **Ozone**



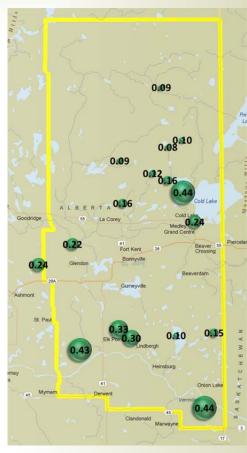
## 

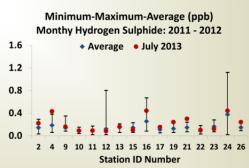
## **Sulphur Dioxide**





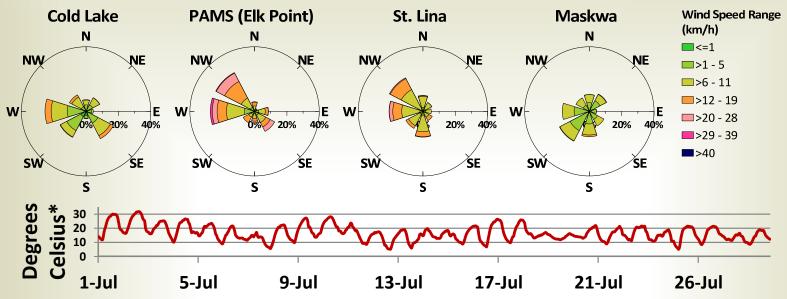
## Hydrogen Sulphide





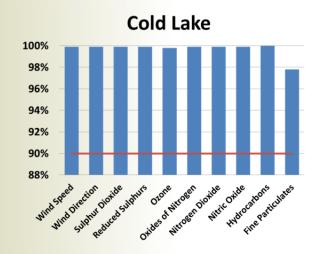
# Wind Speed, Wind Direction, Temperature

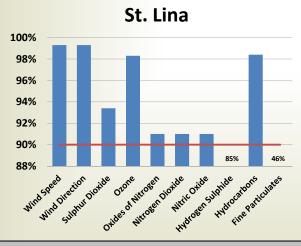


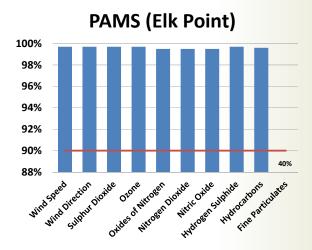


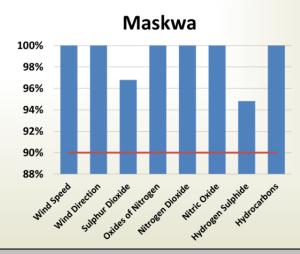
#### \* Temperature in Cold Lake

# **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). The Elk Point station had operational uptime on the particulate matter analyzer of 39.7% (Reference #274987). The internal temperature sensor failed June 27th; a replacement was installed on July 18th. The St. Lina station had operation uptime on the particulate matter analyzer at 46.4% (Reference #2749878). The St. Lina station had operation instrument was found to be faulty.

# Regional Monitoring Network Map





**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

- Sand River
- 2 Therien
- 3 Flat Lake
- Lake Eliza
- Telegraph Creek
- Muriel-Kehewin
- Dupre

- La Corey
- Wolf Lake 10
- 11 Foster Creek
- Primrose
- 13 Maskwa
- 14 Ardmore
- Frog Lake

- Clear Range
- 17 Fishing Lake
- 18 Beaverdam
- 19 Cold Lake South
- 20 Medley-Martineau
- 21 Fort George
- **Burnt Lake**

- Mahihkan
- 24 Hilda Lake
- 25 Town of Bonnyville
- St. Lina
- 27 **Portable Station**

