



Farmington Air Monitoring

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Outline

- Northeast Air Monitoring Project
- Current monitoring
- Data access
- Compared to rest of B.C.
- Commission Air Tool (CAT) demonstration

NE Air Monitoring Project

- Public concern possible impacts from O&G activity on human health
- Provincial government, BC OGC and O&G industry partnership
- 3 new stations added between Dec 2013 and Jan 2014

NE Air Monitoring Project (cont'd)

- Each station measured:
 - Sulphur dioxide SO_2
 - Total Reduced Sulphur (TRS)
 - Meteorology
 - Temperature
 - Humidity
 - Wind speed and direction

NE Air Monitoring Project (cont'd)

- Phase 1 – Jan 2014 to Apr 2016:
 - Doig River First Nation Cultural Centre
 - Tomslake 197 Road
 - Farmington Community Hall
- Phase 2 – up until June 2017:
 - Rolla 213 Road
 - Taylor Lone Wolf Golf Course
 - Blueberry River First Nation School

NE Air Monitoring Project (cont'd)

Farmington results Jan 2014 to Apr 2016

Pollutant	BC Ambient Air Quality Objective	Maximum hourly concentration	Average concentration
SO ₂	70	10.5	0.4
TRS	5	3.1	0.2

Units are parts per billion (ppb)

Data Source: Northeast Air Quality Monitoring Assessment, Analysis of Results, Eric Taylor – BC Ministry of Environment, December 21, 2017

<http://www.bcogris.ca/sites/default/files/hs-2013-01-nebc-air-quality-assessment-report-year-3-moe-ver-1c.pdf>

NE Air Monitoring Project (cont'd)

Overall Conclusion:

“Ambient concentrations of pollutants associated with oil and gas development in the Peace region appear to be generally well below B.C. air quality objectives, and are unlikely to be impacting human health in areas well away from industrial activity. There is, therefore, little evidence that all three MoE air quality monitoring trailers should remain operating in northeast B.C., particularly since the OGC CAMEL station continues to operate.”

Source: Northeast Air Quality Monitoring Assessment, Analysis of Results, Eric Taylor – BC Ministry of Environment, December 21, 2017

<http://www.bccogris.ca/sites/default/files/hs-2013-01-nebc-air-quality-assessment-report-year-3-moe-ver-1c.pdf>

NE Air Monitoring Project (cont'd)

- Now complete
- Shift from full complement of three stations to having one in operation
- Farmington station reinstated
- No new permanent stations needed at this time beyond FSJ AQHI and Farmington

Current monitoring

- Phase 2 NE B.C. included increasing monitoring capabilities
- Farmington currently has SO₂ & TRS, with added
 - Nitrogen oxide (NO)
 - Nitrogen dioxide (NO₂)
 - Ozone (O₃)

Current monitoring (cont'd)

- Data recording restarted Dec. 10, 2017
- Independent contractor is maintaining with Commission and Ministry oversight, funding from BC Oil & Gas Research Innovation Society (BC OGRIS)
- Data online – validated to 2018, level 1 validated Jan to Apr 2019

Current monitoring (cont'd)

Farmington validated Dec. 10, 2017 to Apr. 1, 2019 (1.3 years)

Pollutant	BC Ambient Air Quality Objective	Maximum hourly concentration	Average concentration
SO ₂	70	44.5	0.4
TRS	5	2.4	0.6
NO	-	58.3	0.9
NO ₂	60	47.2	3.9
O ₃	82	63.9	31.1

Units are parts per billion (ppb)

- Ozone 8 hour objective 63 ppb, maximum recorded 60.4 ppb
- Single exceedance of 2 ppb 24 hour odour based TRS objective
Feb. 25, 2018, recorded level was 2.1 ppm

Data Source: British Columbia Oil & Gas Research and Innovation Society, Farmington Air Quality Monitoring Station Site Report, December 10, 2017 – April 1, 2019
Tropospheric Measurement Systems Inc.

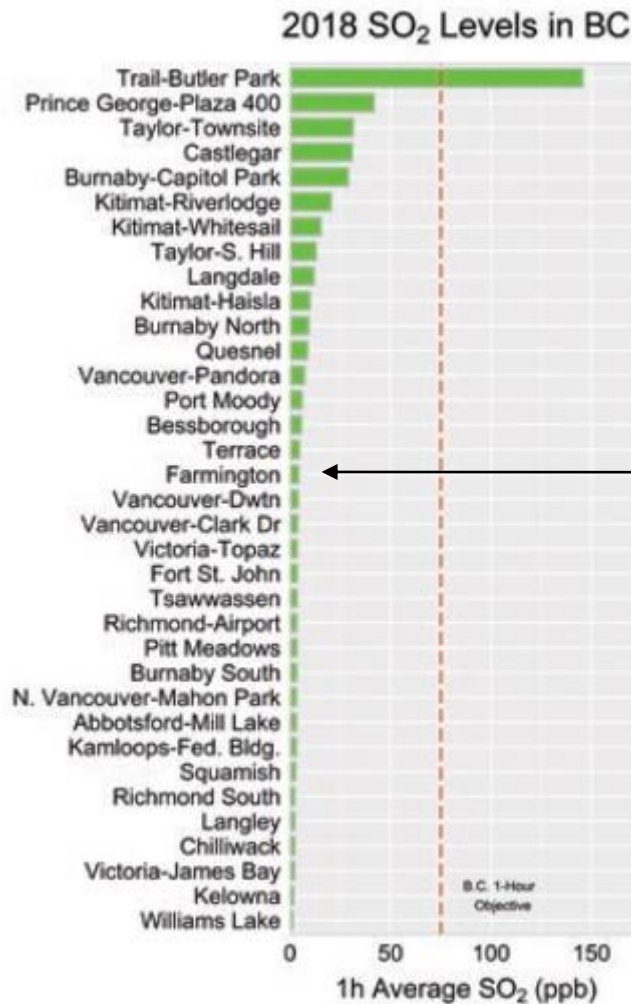
Data access

- Ambient air and/or meteorological monitoring is currently performed at 12 locations throughout NE B.C. Live data (not validated) can be accessed at:
https://envistaweb.env.gov.bc.ca/DynamicTable2.aspx?G_ID=324
- Report generation with BC Ambient Air Quality Archive <https://envistaweb.env.gov.bc.ca/>

Compared to the rest of B.C.

- B.C. State of the Air Report Published Annually by BC Lung Association
- 2019 is latest
https://bc.lung.ca/sites/default/files/1074-State%20Of%20The%20Air%202019_R9.pdf
- Farmington data included

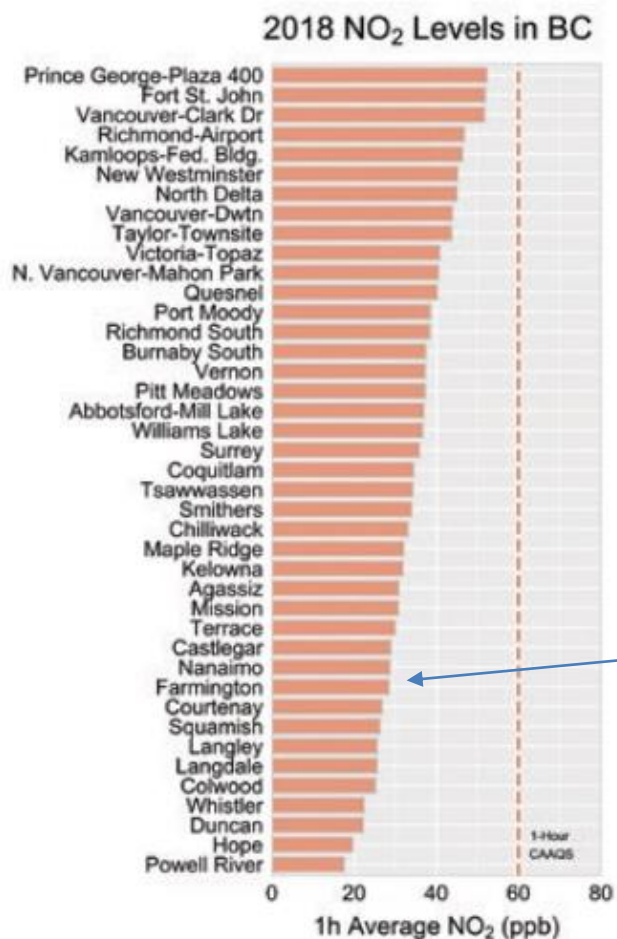
Compared to the rest of B.C. (cont'd)



Farmington

Annual 97.5th percentile of daily 1 hour maximum

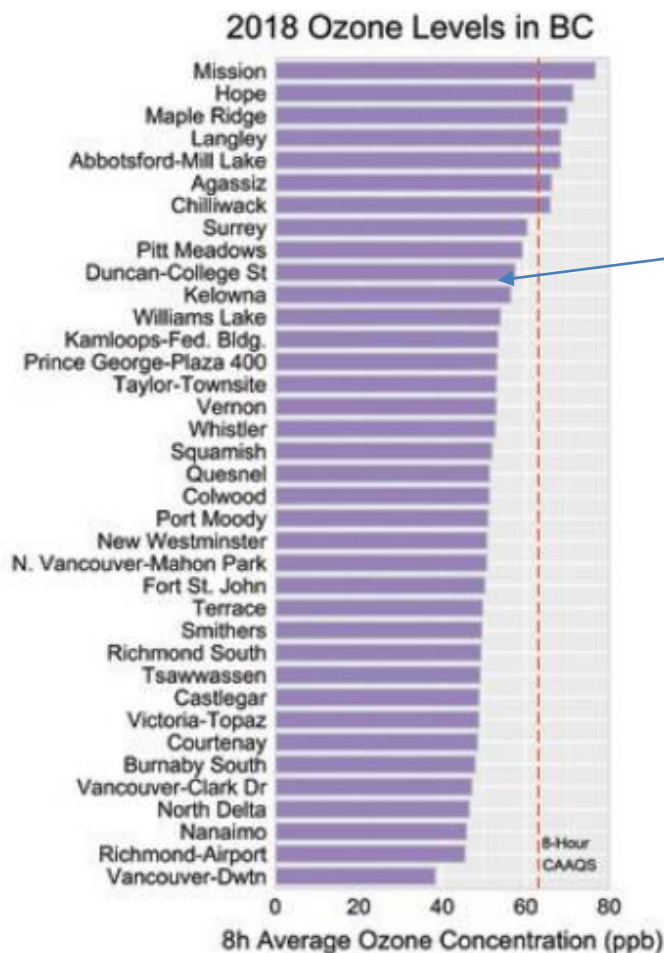
Compared to the rest of B.C. (cont'd)



Farmington

98th percentile of daily 1 hour maximum

Compared to the rest of B.C. (cont'd)



Farmington

2018 57.1 ppb

Monitor failed data capture rate was too low to include

4th highest daily 8 hour maximum concentration

Commission Air Tool (CAT)

Web-based map that provides information on air discharges from oil and gas operations

- Air Authorization and Registrations
- CAMEL (Commission Air Monitoring Environmental Laboratory)
- As regulatory requirements and air monitoring capabilities are enhanced and allow for improved reporting, the Commission will work to broaden the scope of CAT's ability to provide public facing air monitoring information.
- Access at: <https://bcogc.ca/public-zone/air-quality-0/commission-air-tool>



Questions?

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