

Validating 842 2021.csv against ['842 2020.csv', '842 2019.csv', '842 2018.csv'] ...
05-Apr-2022 (13:57:24) (America/Edmonton)

1. Range in Values Checks

wind_direction_range_validator

(Quadrants with no data)

- January OK
- February OK
- March OK
- April OK
- May OK
- June OK
- July OK
- August OK
- September OK
- October OK
- November OK
- December OK

outlier_validator

(Reported concentrations that fall outside threshold = mean +/- std * 10)

January Data check criteria not met Elevated TRS values between Jan 1 and 5 was corrected on Jan 5.

- TRS: 2021-01-01 09:00:00 2.17 (-1.1544 .. 1.7346)
- TRS: 2021-01-02 01:00:00 1.74 (-1.1544 .. 1.7346)
- TRS: 2021-01-02 13:00:00 1.79 (-1.1544 .. 1.7346)
- TRS: 2021-01-02 16:00:00 1.75 (-1.1544 .. 1.7346)
- TRS: 2021-01-02 17:00:00 1.76 (-1.1544 .. 1.7346)
- TRS: 2021-01-02 18:00:00 1.77 (-1.1544 .. 1.7346)
- TRS: 2021-01-02 19:00:00 1.82 (-1.1544 .. 1.7346)
- TRS: 2021-01-02 21:00:00 1.8 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 00:00:00 2.07 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 01:00:00 1.78 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 02:00:00 1.83 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 03:00:00 1.75 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 06:00:00 1.77 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 07:00:00 1.81 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 08:00:00 1.78 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 10:00:00 1.75 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 11:00:00 1.75 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 13:00:00 1.81 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 14:00:00 1.78 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 15:00:00 1.79 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 16:00:00 1.83 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 17:00:00 1.81 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 18:00:00 1.83 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 19:00:00 1.82 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 20:00:00 1.84 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 21:00:00 1.87 (-1.1544 .. 1.7346)
- TRS: 2021-01-03 23:00:00 2.22 (-1.1544 .. 1.7346)
- TRS: 2021-01-04 00:00:00 1.96 (-1.1544 .. 1.7346)
- TRS: 2021-01-04 01:00:00 1.98 (-1.1544 .. 1.7346)
- TRS: 2021-01-04 02:00:00 2.02 (-1.1544 .. 1.7346)
- TRS: 2021-01-04 03:00:00 1.97 (-1.1544 .. 1.7346)

TRS: 2021-01-04 04:00:00 2.05 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 05:00:00 2.03 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 06:00:00 2.07 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 07:00:00 2.09 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 08:00:00 2.02 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 09:00:00 2.07 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 10:00:00 2.15 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 11:00:00 2.12 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 12:00:00 2.13 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 13:00:00 2.1 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 14:00:00 2.07 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 15:00:00 2.12 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 16:00:00 2.08 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 17:00:00 2.1 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 18:00:00 2.14 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 19:00:00 2.14 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 20:00:00 2.13 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 22:00:00 2.41 (-1.1544 .. 1.7346)
 TRS: 2021-01-04 23:00:00 2.25 (-1.1544 .. 1.7346)
 TRS: 2021-01-05 00:00:00 2.25 (-1.1544 .. 1.7346)
 TRS: 2021-01-05 01:00:00 2.28 (-1.1544 .. 1.7346)
 TRS: 2021-01-05 02:00:00 2.23 (-1.1544 .. 1.7346)
 TRS: 2021-01-05 03:00:00 2.22 (-1.1544 .. 1.7346)
 TRS: 2021-01-05 04:00:00 2.21 (-1.1544 .. 1.7346)
 TRS: 2021-01-05 05:00:00 2.21 (-1.1544 .. 1.7346)
 TRS: 2021-01-05 06:00:00 2.17 (-1.1544 .. 1.7346)
 TRS: 2021-01-05 07:00:00 2.19 (-1.1544 .. 1.7346)
 TRS: 2021-01-05 08:00:00 2.25 (-1.1544 .. 1.7346)
 TRS: 2021-01-05 09:00:00 2.18 (-1.1544 .. 1.7346)

THC: 2021-01-31 04:00:00 2.83 (1.2999 .. 2.7807)
 THC: 2021-01-31 05:00:00 2.99 (1.2999 .. 2.7807)
 THC: 2021-01-31 07:00:00 2.89 (1.2999 .. 2.7807)
 THC: 2021-01-31 08:00:00 2.88 (1.2999 .. 2.7807)
 THC: 2021-01-31 09:00:00 2.8 (1.2999 .. 2.7807)
 CH4: 2021-01-31 05:00:00 2.8 (1.3016 .. 2.7788)
 NMHC: 2021-01-30 22:00:00 0.04 (-0.0208 .. 0.0209)
 NMHC: 2021-01-30 23:00:00 0.03 (-0.0208 .. 0.0209)
 NMHC: 2021-01-31 02:00:00 0.05 (-0.0208 .. 0.0209)
 NMHC: 2021-01-31 03:00:00 0.07 (-0.0208 .. 0.0209)
 NMHC: 2021-01-31 04:00:00 0.15 (-0.0208 .. 0.0209)
 NMHC: 2021-01-31 05:00:00 0.19 (-0.0208 .. 0.0209)
 NMHC: 2021-01-31 06:00:00 0.13 (-0.0208 .. 0.0209)
 NMHC: 2021-01-31 07:00:00 0.18 (-0.0208 .. 0.0209)
 NMHC: 2021-01-31 08:00:00 0.17 (-0.0208 .. 0.0209)
 NMHC: 2021-01-31 09:00:00 0.16 (-0.0208 .. 0.0209)
 NMHC: 2021-01-31 10:00:00 0.03 (-0.0208 .. 0.0209)

Elevated THC, CH4 NMHC readings were reviewed, and data validities were confirmed. The cause was likely from local activities. No further action required.

February OK

Data validities were checked and confirmed. No further actions required.

March Data check criteria not met

NMHC: 2021-03-12 22:00:00 0.01 (-0.0049 .. 0.0049)
 NMHC: 2021-03-19 00:00:00 0.01 (-0.0049 .. 0.0049)
 NMHC: 2021-03-19 01:00:00 0.02 (-0.0049 .. 0.0049)
 NMHC: 2021-03-19 03:00:00 0.01 (-0.0049 .. 0.0049)
 NMHC: 2021-03-21 19:00:00 0.01 (-0.0049 .. 0.0049)
 NMHC: 2021-03-21 21:00:00 0.01 (-0.0049 .. 0.0049)
 NMHC: 2021-03-21 22:00:00 0.01 (-0.0049 .. 0.0049)
 NMHC: 2021-03-21 23:00:00 0.01 (-0.0049 .. 0.0049)
 NMHC: 2021-03-22 02:00:00 0.01 (-0.0049 .. 0.0049)
 NMHC: 2021-03-22 23:00:00 0.01 (-0.0049 .. 0.0049)

NMHC: 2021-03-28 09:00:00 0.01 (-0.0049 .. 0.0049)

Data validities were checked and confirmed. No further actions required.

April Data check criteria not met

THC: 2021-04-16 05:00:00 2.57 (1.5097 .. 2.4676)
THC: 2021-04-16 06:00:00 2.74 (1.5097 .. 2.4676)
CH4: 2021-04-16 05:00:00 2.52 (1.5105 .. 2.4668)
CH4: 2021-04-16 06:00:00 2.65 (1.5105 .. 2.4668)
NMHC: 2021-04-16 04:00:00 0.01 (0.0 .. 0.0)
NMHC: 2021-04-16 05:00:00 0.05 (0.0 .. 0.0)
NMHC: 2021-04-16 06:00:00 0.09 (0.0 .. 0.0)
NMHC: 2021-04-16 07:00:00 0.02 (0.0 .. 0.0)

May OK

June Data check criteria not met

NMHC: 2021-06-14 02:00:00 0.01 (0.0 .. 0.0)
NMHC: 2021-06-14 04:00:00 0.06 (0.0 .. 0.0)
NMHC: 2021-06-14 05:00:00 0.05 (0.0 .. 0.0)
NMHC: 2021-06-14 06:00:00 0.01 (0.0 .. 0.0)
NMHC: 2021-06-14 07:00:00 0.01 (0.0 .. 0.0)
NMHC: 2021-06-25 20:00:00 0.07 (0.0 .. 0.0)
NMHC: 2021-06-25 21:00:00 0.09 (0.0 .. 0.0)
NMHC: 2021-06-25 22:00:00 0.07 (0.0 .. 0.0)
NMHC: 2021-06-25 23:00:00 0.04 (0.0 .. 0.0)
NMHC: 2021-06-26 00:00:00 0.02 (0.0 .. 0.0)
NMHC: 2021-06-26 01:00:00 0.04 (0.0 .. 0.0)
NMHC: 2021-06-26 02:00:00 0.06 (0.0 .. 0.0)
NMHC: 2021-06-26 03:00:00 0.05 (0.0 .. 0.0)
NMHC: 2021-06-26 04:00:00 0.03 (0.0 .. 0.0)
NMHC: 2021-06-26 05:00:00 0.03 (0.0 .. 0.0)
NMHC: 2021-06-26 06:00:00 0.02 (0.0 .. 0.0)
NMHC: 2021-06-26 13:00:00 0.02 (0.0 .. 0.0)
NMHC: 2021-06-26 14:00:00 0.01 (0.0 .. 0.0)
NMHC: 2021-06-26 15:00:00 0.01 (0.0 .. 0.0)
NMHC: 2021-06-26 16:00:00 0.01 (0.0 .. 0.0)
NMHC: 2021-06-26 17:00:00 0.01 (0.0 .. 0.0)
NMHC: 2021-06-26 20:00:00 0.03 (0.0 .. 0.0)
NMHC: 2021-06-26 21:00:00 0.04 (0.0 .. 0.0)
NMHC: 2021-06-26 22:00:00 0.08 (0.0 .. 0.0)
NMHC: 2021-06-26 23:00:00 0.08 (0.0 .. 0.0)
NMHC: 2021-06-27 00:00:00 0.1 (0.0 .. 0.0)
NMHC: 2021-06-27 01:00:00 0.1 (0.0 .. 0.0)
NMHC: 2021-06-27 02:00:00 0.11 (0.0 .. 0.0)
NMHC: 2021-06-27 03:00:00 0.11 (0.0 .. 0.0)
NMHC: 2021-06-27 04:00:00 0.11 (0.0 .. 0.0)
NMHC: 2021-06-27 05:00:00 0.09 (0.0 .. 0.0)
NMHC: 2021-06-27 06:00:00 0.02 (0.0 .. 0.0)
NMHC: 2021-06-27 07:00:00 0.03 (0.0 .. 0.0)
NMHC: 2021-06-27 13:00:00 0.01 (0.0 .. 0.0)
NMHC: 2021-06-27 14:00:00 0.01 (0.0 .. 0.0)
NMHC: 2021-06-27 15:00:00 0.02 (0.0 .. 0.0)
NMHC: 2021-06-27 16:00:00 0.02 (0.0 .. 0.0)
NMHC: 2021-06-27 17:00:00 0.03 (0.0 .. 0.0)
NMHC: 2021-06-27 18:00:00 0.04 (0.0 .. 0.0)
NMHC: 2021-06-27 19:00:00 0.08 (0.0 .. 0.0)
NMHC: 2021-06-27 20:00:00 0.13 (0.0 .. 0.0)
NMHC: 2021-06-27 21:00:00 0.12 (0.0 .. 0.0)
NMHC: 2021-06-27 22:00:00 0.12 (0.0 .. 0.0)
NMHC: 2021-06-27 23:00:00 0.12 (0.0 .. 0.0)
NMHC: 2021-06-28 00:00:00 0.11 (0.0 .. 0.0)

Data validities for data collected on Jun 14 were checked and confirmed. No further actions required.

Elevated NMHC concentrations were recorded starting June 26 due to extreme hot ambient temperatures.

NMHC: 2021-06-28 01:00:00 0.08 (0.0 .. 0.0)
NMHC: 2021-06-28 02:00:00 0.07 (0.0 .. 0.0)
NMHC: 2021-06-28 03:00:00 0.07 (0.0 .. 0.0)
NMHC: 2021-06-28 04:00:00 0.03 (0.0 .. 0.0)
NMHC: 2021-06-28 05:00:00 0.03 (0.0 .. 0.0)
NMHC: 2021-06-28 06:00:00 0.03 (0.0 .. 0.0)
NMHC: 2021-06-28 08:00:00 0.05 (0.0 .. 0.0)
NMHC: 2021-06-28 09:00:00 0.06 (0.0 .. 0.0)
NMHC: 2021-06-28 10:00:00 0.07 (0.0 .. 0.0)
NMHC: 2021-06-28 11:00:00 0.08 (0.0 .. 0.0)
NMHC: 2021-06-28 12:00:00 0.11 (0.0 .. 0.0)
NMHC: 2021-06-28 13:00:00 0.14 (0.0 .. 0.0)
NMHC: 2021-06-28 14:00:00 0.11 (0.0 .. 0.0)
NMHC: 2021-06-28 15:00:00 0.07 (0.0 .. 0.0)
NMHC: 2021-06-28 16:00:00 0.06 (0.0 .. 0.0)
NMHC: 2021-06-28 17:00:00 0.06 (0.0 .. 0.0)
NMHC: 2021-06-28 18:00:00 0.09 (0.0 .. 0.0)
NMHC: 2021-06-28 19:00:00 0.26 (0.0 .. 0.0)
NMHC: 2021-06-28 20:00:00 0.24 (0.0 .. 0.0)
NMHC: 2021-06-28 21:00:00 0.2 (0.0 .. 0.0)
NMHC: 2021-06-28 22:00:00 0.18 (0.0 .. 0.0)
NMHC: 2021-06-28 23:00:00 0.14 (0.0 .. 0.0)
NMHC: 2021-06-29 00:00:00 0.11 (0.0 .. 0.0)
NMHC: 2021-06-29 01:00:00 0.1 (0.0 .. 0.0)
NMHC: 2021-06-29 02:00:00 0.09 (0.0 .. 0.0)
NMHC: 2021-06-29 03:00:00 0.07 (0.0 .. 0.0)
NMHC: 2021-06-29 04:00:00 0.03 (0.0 .. 0.0)
NMHC: 2021-06-29 05:00:00 0.01 (0.0 .. 0.0)
NMHC: 2021-06-29 07:00:00 0.03 (0.0 .. 0.0)
NMHC: 2021-06-29 08:00:00 0.03 (0.0 .. 0.0)
NMHC: 2021-06-29 09:00:00 0.03 (0.0 .. 0.0)
NMHC: 2021-06-29 10:00:00 0.05 (0.0 .. 0.0)
NMHC: 2021-06-29 11:00:00 0.07 (0.0 .. 0.0)
NMHC: 2021-06-29 12:00:00 0.07 (0.0 .. 0.0)
NMHC: 2021-06-29 13:00:00 0.07 (0.0 .. 0.0)
NMHC: 2021-06-29 14:00:00 0.08 (0.0 .. 0.0)
NMHC: 2021-06-29 15:00:00 0.07 (0.0 .. 0.0)
NMHC: 2021-06-29 16:00:00 0.07 (0.0 .. 0.0)
NMHC: 2021-06-29 17:00:00 0.09 (0.0 .. 0.0)
NMHC: 2021-06-29 18:00:00 0.11 (0.0 .. 0.0)
NMHC: 2021-06-29 19:00:00 0.2 (0.0 .. 0.0)
NMHC: 2021-06-29 20:00:00 0.28 (0.0 .. 0.0)
NMHC: 2021-06-29 21:00:00 0.26 (0.0 .. 0.0)
NMHC: 2021-06-29 22:00:00 0.19 (0.0 .. 0.0)
NMHC: 2021-06-29 23:00:00 0.13 (0.0 .. 0.0)
NMHC: 2021-06-30 00:00:00 0.08 (0.0 .. 0.0)
NMHC: 2021-06-30 01:00:00 0.05 (0.0 .. 0.0)
NMHC: 2021-06-30 02:00:00 0.02 (0.0 .. 0.0)
NMHC: 2021-06-30 03:00:00 0.01 (0.0 .. 0.0)
NMHC: 2021-06-30 04:00:00 0.01 (0.0 .. 0.0)
NMHC: 2021-06-30 06:00:00 0.04 (0.0 .. 0.0)
NMHC: 2021-06-30 07:00:00 0.07 (0.0 .. 0.0)
NMHC: 2021-06-30 08:00:00 0.08 (0.0 .. 0.0)
NMHC: 2021-06-30 09:00:00 0.08 (0.0 .. 0.0)
NMHC: 2021-06-30 10:00:00 0.1 (0.0 .. 0.0)
NMHC: 2021-06-30 11:00:00 0.08 (0.0 .. 0.0)
NMHC: 2021-06-30 12:00:00 0.11 (0.0 .. 0.0)
NMHC: 2021-06-30 13:00:00 0.12 (0.0 .. 0.0)
NMHC: 2021-06-30 14:00:00 0.12 (0.0 .. 0.0)
NMHC: 2021-06-30 15:00:00 0.15 (0.0 .. 0.0)

NMHC: 2021-06-30 16:00:00 0.18 (0.0 .. 0.0)
NMHC: 2021-06-30 17:00:00 0.18 (0.0 .. 0.0)
NMHC: 2021-06-30 18:00:00 0.14 (0.0 .. 0.0)
NMHC: 2021-06-30 19:00:00 0.17 (0.0 .. 0.0)
NMHC: 2021-06-30 20:00:00 0.12 (0.0 .. 0.0)
NMHC: 2021-06-30 21:00:00 0.08 (0.0 .. 0.0)
NMHC: 2021-06-30 22:00:00 0.05 (0.0 .. 0.0)
NMHC: 2021-06-30 23:00:00 0.01 (0.0 .. 0.0)

July Data check criteria not met

NMHC: 2021-07-01 05:00:00 0.06 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 06:00:00 0.06 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 07:00:00 0.07 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 08:00:00 0.09 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 09:00:00 0.11 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 10:00:00 0.1 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 11:00:00 0.09 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 12:00:00 0.09 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 13:00:00 0.09 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 14:00:00 0.1 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 15:00:00 0.11 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 16:00:00 0.1 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 17:00:00 0.1 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 18:00:00 0.09 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 19:00:00 0.07 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 20:00:00 0.06 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 21:00:00 0.06 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 22:00:00 0.05 (-0.0236 .. 0.0239)
NMHC: 2021-07-01 23:00:00 0.06 (-0.0236 .. 0.0239)
NMHC: 2021-07-02 00:00:00 0.05 (-0.0236 .. 0.0239)
NMHC: 2021-07-02 01:00:00 0.03 (-0.0236 .. 0.0239)
NMHC: 2021-07-02 02:00:00 0.03 (-0.0236 .. 0.0239)
NMHC: 2021-07-02 06:00:00 0.03 (-0.0236 .. 0.0239)
NMHC: 2021-07-02 07:00:00 0.04 (-0.0236 .. 0.0239)
NMHC: 2021-07-02 08:00:00 0.04 (-0.0236 .. 0.0239)

Elevated NMHC concentrations were recorded starting June 26 due to extreme hot ambient temperatures. The event end on July 2.

NMHC: 2021-07-07 22:00:00 0.03 (-0.0236 .. 0.0239)
NMHC: 2021-07-09 20:00:00 0.04 (-0.0236 .. 0.0239)
NMHC: 2021-07-09 21:00:00 0.07 (-0.0236 .. 0.0239)
NMHC: 2021-07-09 22:00:00 0.04 (-0.0236 .. 0.0239)
NMHC: 2021-07-13 19:00:00 0.06 (-0.0236 .. 0.0239)
NMHC: 2021-07-13 20:00:00 0.08 (-0.0236 .. 0.0239)
NMHC: 2021-07-14 20:00:00 0.08 (-0.0236 .. 0.0239)

Elevated NMHC recorded between July 7 and 14 were due to wildfire from north Saskatchewan.

NMHC: 2021-07-18 02:00:00 0.03 (-0.0236 .. 0.0239)
NMHC: 2021-07-20 01:00:00 0.03 (-0.0236 .. 0.0239)

Data collected between July 18 and 20 were checked. Data validities were confirmed.

NMHC: 2021-07-29 20:00:00 0.04 (-0.0236 .. 0.0239)
NMHC: 2021-07-30 19:00:00 0.03 (-0.0236 .. 0.0239)
NMHC: 2021-07-30 20:00:00 0.06 (-0.0236 .. 0.0239)
NMHC: 2021-07-31 18:00:00 0.05 (-0.0236 .. 0.0239)
NMHC: 2021-07-31 19:00:00 0.14 (-0.0236 .. 0.0239)
NMHC: 2021-07-31 21:00:00 0.05 (-0.0236 .. 0.0239)
NMHC: 2021-07-31 22:00:00 0.04 (-0.0236 .. 0.0239)
NMHC: 2021-07-31 23:00:00 0.04 (-0.0236 .. 0.0239)

Elevated NMHC recorded between July 29 and Aug 5 were caused by BV wildfire.

Elevated NMHC recorded between July 29 and Aug 5 were caused by BV wildfire.

August Data check criteria not met

NMHC: 2021-08-01 00:00:00 0.04 (-0.0179 .. 0.018)
NMHC: 2021-08-01 01:00:00 0.03 (-0.0179 .. 0.018)
NMHC: 2021-08-01 02:00:00 0.02 (-0.0179 .. 0.018)
NMHC: 2021-08-01 03:00:00 0.03 (-0.0179 .. 0.018)
NMHC: 2021-08-01 04:00:00 0.05 (-0.0179 .. 0.018)
NMHC: 2021-08-01 05:00:00 0.04 (-0.0179 .. 0.018)

NMHC: 2021-08-04 18:00:00 0.04 (-0.0179 .. 0.018)
NMHC: 2021-08-04 19:00:00 0.07 (-0.0179 .. 0.018)
NMHC: 2021-08-04 20:00:00 0.08 (-0.0179 .. 0.018)
NMHC: 2021-08-04 21:00:00 0.07 (-0.0179 .. 0.018)
NMHC: 2021-08-04 22:00:00 0.05 (-0.0179 .. 0.018)
NMHC: 2021-08-04 23:00:00 0.03 (-0.0179 .. 0.018)
NMHC: 2021-08-05 13:00:00 0.02 (-0.0179 .. 0.018)
NMHC: 2021-08-05 14:00:00 0.03 (-0.0179 .. 0.018)
NMHC: 2021-08-05 16:00:00 0.02 (-0.0179 .. 0.018)
NMHC: 2021-08-05 17:00:00 0.02 (-0.0179 .. 0.018)
NMHC: 2021-08-05 19:00:00 0.02 (-0.0179 .. 0.018)
NMHC: 2021-08-05 20:00:00 0.02 (-0.0179 .. 0.018)
NMHC: 2021-08-05 21:00:00 0.04 (-0.0179 .. 0.018)

September OK
October OK
November OK

December Data check criteria not met **Data validity was checked and confirmed. No further actions required.**

NMHC: 2021-12-07 09:00:00 0.06 (-0.0103 .. 0.0105)

range_of_change_spike_validator

(Reported concentrations that exceed pre-defined max_delta {'CO': 10000.0, 'PM2.5': 50.0, 'NO2': 30.0, 'O3': 50.0, 'SO2': 40.0})

January OK
February OK
March OK
April OK
May OK
June OK
July OK
August OK
September OK
October OK
November OK
December OK

2. Sticking Values Checks

sticking_parameter_validator

(Non-zero values that repeat more than 12 times consecutively)

January Data check criteria not met **Data validities were checked and confirmed. No further actions required.**

THC: 2021-01-16 09:00:00 sticking value found 1.86, count = 12

CH4: 2021-01-16 09:00:00 sticking value found 1.86, count = 12

February Data check criteria not met **Data validities were checked and confirmed. No further actions required.**

THC: 2021-02-03 07:00:00 sticking value found 1.9, count = 12

THC: 2021-02-25 05:00:00 sticking value found 2.04, count = 12

THC: 2021-02-26 05:00:00 sticking value found 2.07, count = 12

CH4: 2021-02-03 07:00:00 sticking value found 1.9, count = 12

CH4: 2021-02-25 05:00:00 sticking value found 2.04, count = 12

CH4: 2021-02-26 05:00:00 sticking value found 2.07, count = 12

March Data check criteria not met **Data validities were checked and confirmed. No further actions required.**

THC: 2021-03-09 20:00:00 sticking value found 1.87, count = 12
THC: 2021-03-11 01:00:00 sticking value found 1.87, count = 12
CH4: 2021-03-09 20:00:00 sticking value found 1.87, count = 12
CH4: 2021-03-11 01:00:00 sticking value found 1.87, count = 12

Data validities were checked and confirmed. No further actions

April Data check criteria not met required.

THC: 2021-04-08 12:00:00 sticking value found 1.92, count = 15
CH4: 2021-04-08 12:00:00 sticking value found 1.92, count = 15

May OK

June OK

Data validities were checked and confirmed. No further actions

July Data check criteria not met required.

THC: 2021-07-24 01:00:00 sticking value found 1.78, count = 16
CH4: 2021-07-24 01:00:00 sticking value found 1.78, count = 16

Data validities were checked and confirmed. No further actions

August Data check criteria not met required.

THC: 2021-08-18 00:00:00 sticking value found 1.89, count = 13
CH4: 2021-08-18 00:00:00 sticking value found 1.89, count = 13

September OK

Data validities were checked and confirmed. No further actions

October Data check criteria not met required.

THC: 2021-10-14 14:00:00 sticking value found 1.84, count = 14
CH4: 2021-10-14 14:00:00 sticking value found 1.84, count = 14

November OK

December OK

percent_zero_validator

(Reported concentrations that have more than 50% of zeros)

January OK
February OK
March OK
April OK
May OK
June OK
July OK
August OK
September OK
October OK
November OK
December OK

3. Related Parameter Checks

NOX_validator

(| (NO + NO2) - NOX | > 1 ppb or missing one or more concentrations)

January OK
February OK
March OK
April OK
May OK
June OK

July OK
August OK
September OK
October OK
November OK
December OK

THC_validator

(| (NMHC + CH4) - THC | > 0.1 ppm or missing one or more concentrations)

January OK
February OK
March OK
April OK
May OK
June OK
July OK
August OK
September OK
October OK
November OK
December OK

4. Shifts in Data Checks

baseline_shift_validator

(base_historical_mean is greater than 2 * base_target_mean or less than 0.5 *
base_target_mean)

January OK
February OK
March OK
April OK
May OK
June OK
July OK
August OK
September OK
October OK

November Data check criteria not met **Data validities were checked and confirmed. No further actions required.**
TRS: historical_percentile_10=0.15 historical_base_mean=0.04600000000000006
target_base_mean=0.12697674418604651

December Data check criteria not met **Data validities were checked and confirmed. No further actions required.**
TRS: historical_percentile_10=0.15 historical_base_mean=0.037391304347826095
target_base_mean=0.11394230769230765

shift_in_mean_validator

(pdiff > pdiff_threshold, pdiff_threshold=100%)

January Data check criteria not met **Data validities were checked and confirmed. No further actions required.**
NMHC: historical_mean=0.00041838163533754777 target_mean=0.0020821529745042493
pdiff=397.6683483787191% > 100%

February OK
March OK
April OK
May OK

June Data check criteria not met **elevated shift-in-mean value was likely due to wildfire
from north Saskatchewan**
NMHC: historical_mean=0.00041838163533754777 target_mean=0.014297124600638979
pdiff=3317.2447815746373% > 100%

July Data check criteria not met **elevated shift-in-mean value was likely due to wildfire
from north Saskatchewan**
NMHC: historical_mean=0.00041838163533754777 target_mean=0.005035360678925019
pdiff=1103.532911969838% > 100%

August Data check criteria not met **Elevated shift-in-mean value was likely due to BC
wildfire**
NMHC: historical_mean=0.00041838163533754777 target_mean=0.009420903954802249
pdiff=2151.748919906946% > 100%

September OK
October OK
November OK
December OK

Done. ... 05-Apr-2022 (13:58:02) (America/Edmonton)
Elapsed 38.17833948135376 seconds.