Corrective action report

2/23/16

Name:

Site: SJ

Parameter/SN: O3 709

Attached files:

1. 08-18-15 709 Verif failed.pdf
2. 08-12-15 709 1-pt.pdf
3. 08-18-15 1757 Cal.pdf
4. 08-19-15 1757 1-pt.pdf

Problem identification:

* The St Johns ozone analyzer SN 709 failed the quality control check on August 18, 2015 at 14:11.
* See file: **08-18-15 709 Verif failed.pdf**, which indicates:
* Data collected before this QC verification and after the last passing QC check is suspect.

Problem diagnosis:

* *Equipment*
  + As diagnosed by R.B., site operator, the instrument part malfunction on SN 252 was due to a failing analyzer pump that was producing low sample flow.
* *Data*
  + The last passing QC check was on 8/12/15 at 19:15 (see file **08-12-15 709 1-pt.pdf**), and there were no site visits or QC checks conducted in the 4 days between 8/12 and 8/18/15.

Immediate solution:

* *Equipment* 
  + The St Johns Site ozone data gathering operation was remedied with replacement of a recently calibrated/verified 400T ozone analyzer (SN 1757). The calibration conducted by the site operator R.B. on 8/18 passed, as shown in the file **08-18-15 1757 Cal.pdf**.
* *Data*
  + Data collected between 8/12/15 at 19:15 and 8/18/15 at 19:48 will be invalidated with null value code AN (equipment malfunction).

Permanent solution:

* *Equipment* 
  + The St Johns Site ozone analyzer SN 1757 is operating within QC limits, and the site operator verified this again on 8/19 with a site visit and QC check at 11:06 (see file **08-19-15 1757 1-pt.pdf**). The analyzer SN 709 that failed has had the pump replaced by the manufacturer.
* *Data*
  + Some data loss is unavoidable, and this data invalidation does not affect the quarterly dataset quality, as the completeness of this quarter’s data is now 92%, well above the quality control limit of 75%.