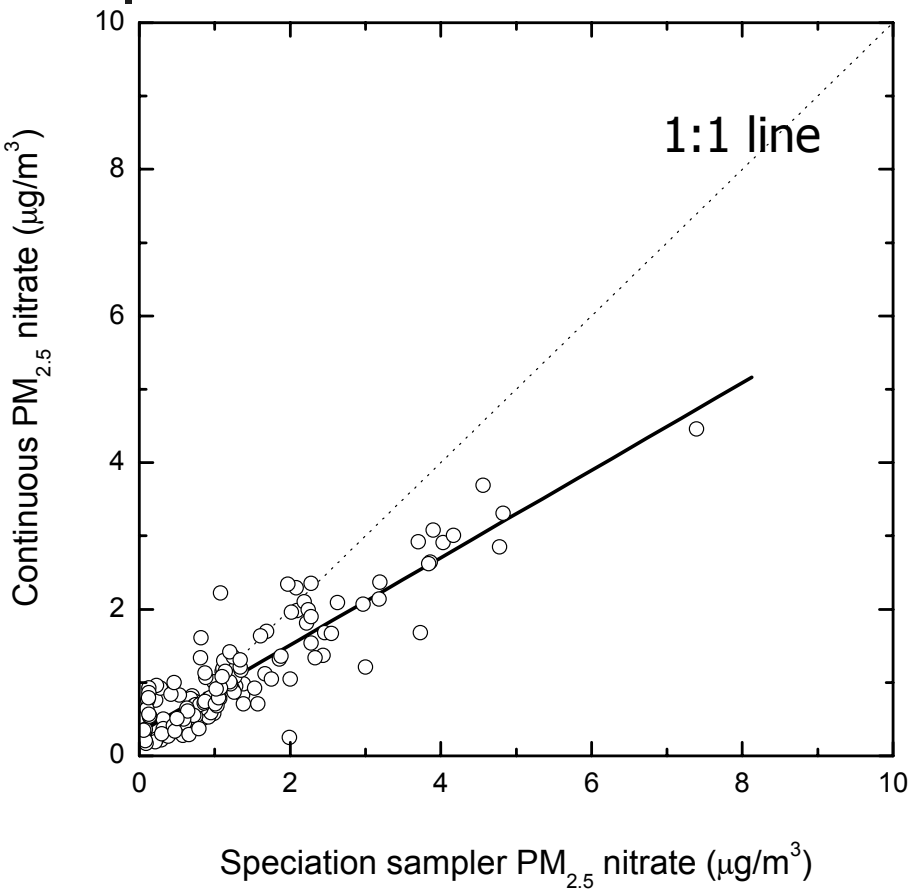
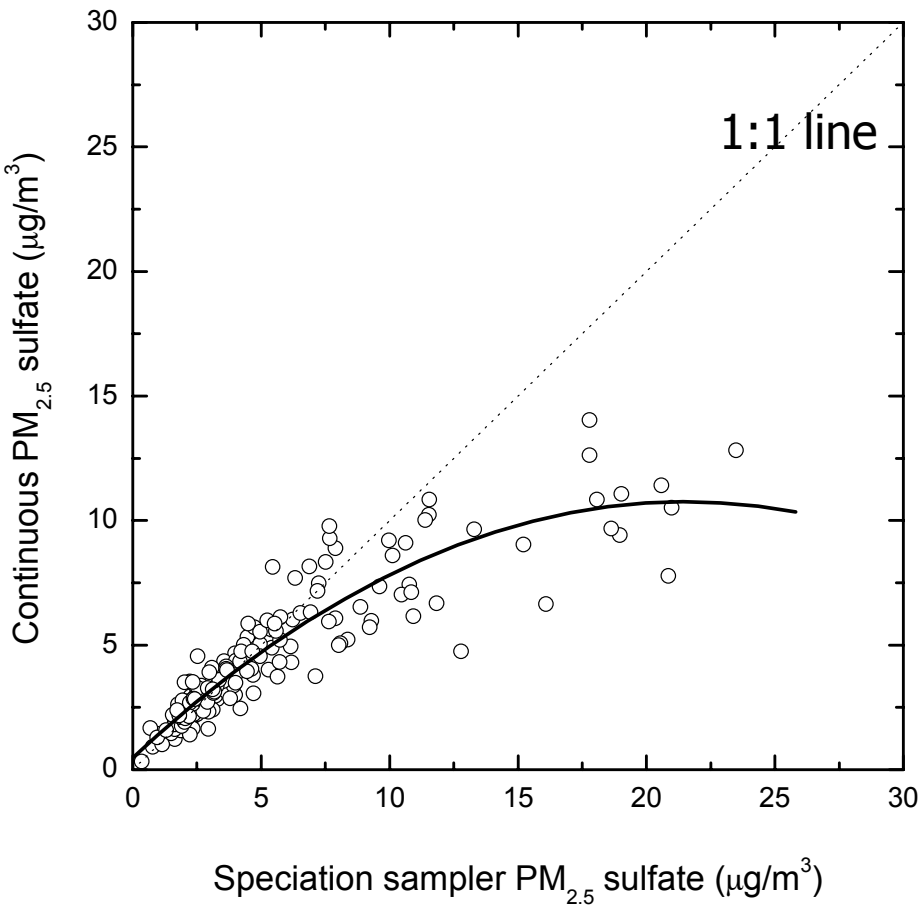
Overall performance of R&P 8400 instruments at PAQS

- Instruments were run continuously from July 1, 2001 to August 31, 2002.
- Sulfate 24-hour average data recovery > 90% for all of the study months besides November 2001.
- Nitrate 24-hour average data recovery > 80% for all months besides August 2002.
- Data loss was associated with vacuum pump failures or excessive flash strip breakages within a single month.

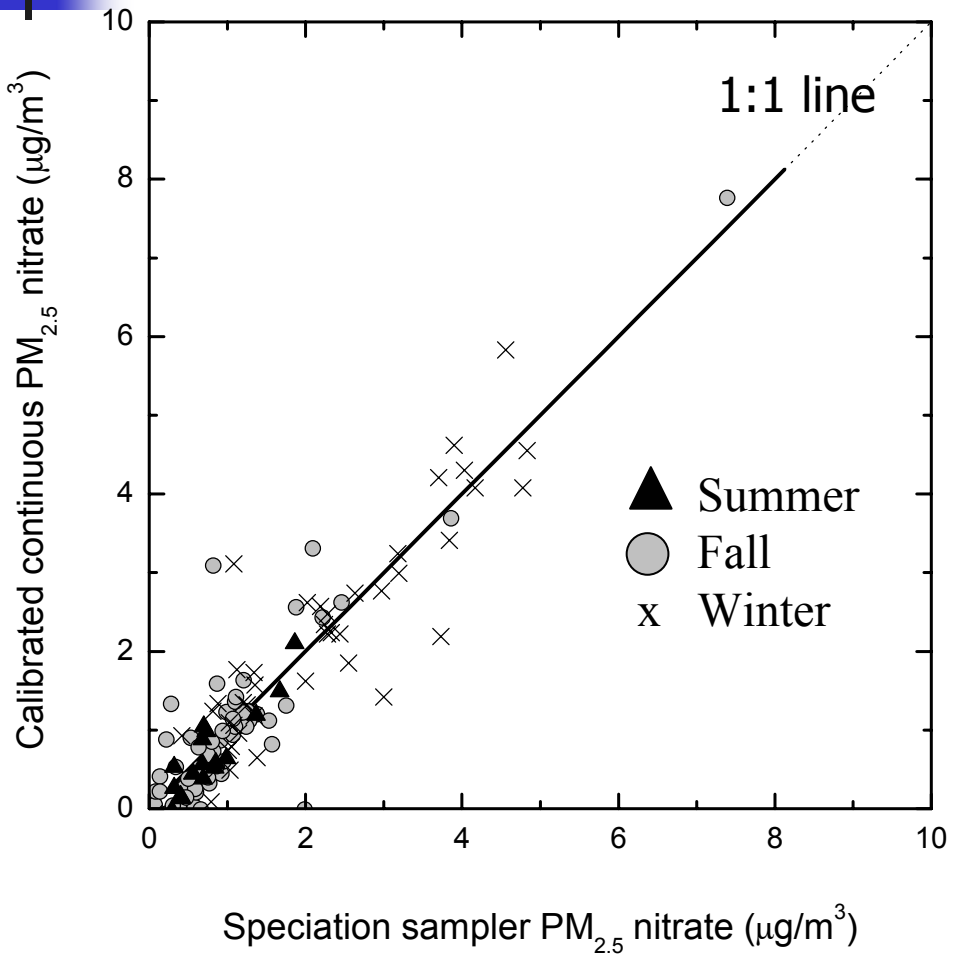
PAQS R&P 8400 measurements required correction and calibration





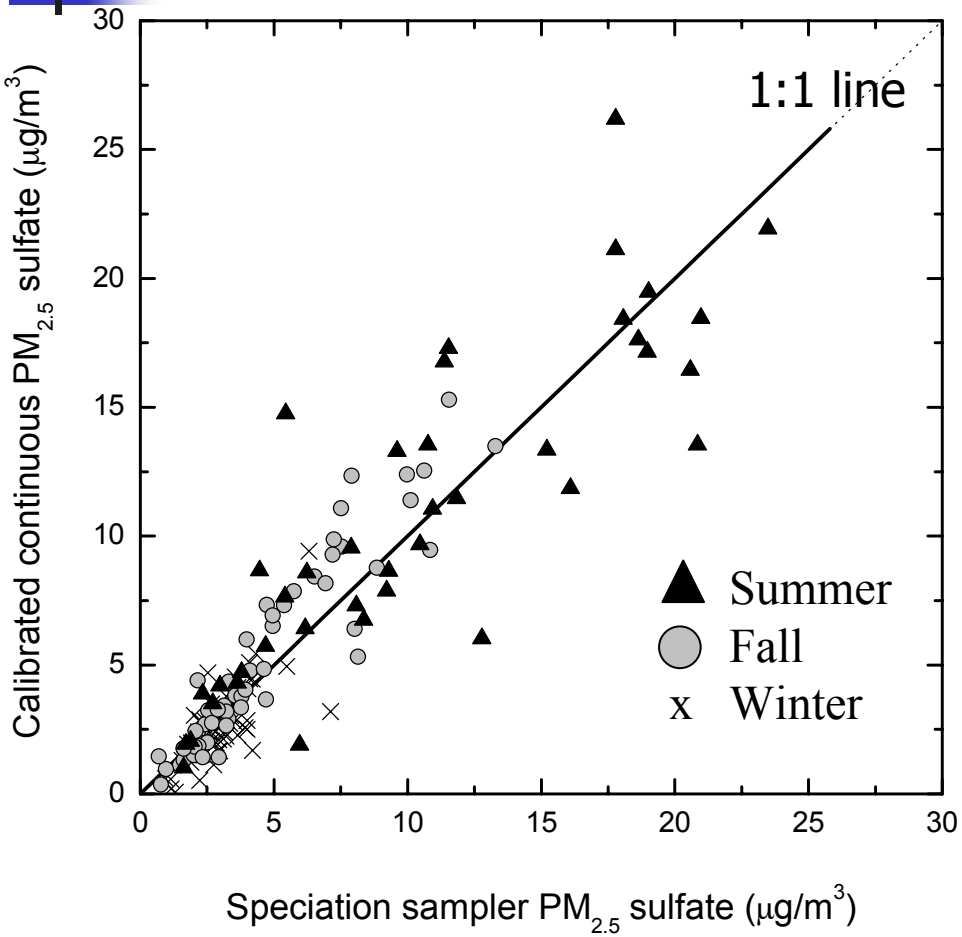
Shown: comparison of collocated measurements from July 2001 to March 2002.

Final continuous nitrate measurements at PAQS



- Measurements are corrected for instrument offset, actual conversion efficiency, gas analyzer efficiency and reaction cell vacuum drift, and sample flow rate drift.
- Measurements are also calibrated using collocated speciation sampler measurements ($y=0.77x+0.27$ with $R^2=0.9143$).

Final continuous sulfate measurements at PAQS



- Measurements are corrected for instrument offset, actual conversion efficiency, gas analyzer efficiency, and drift in sample flow rate.
- Measurements are also calibrated using collocated speciation sampler measurements ($y=0.67x+0.65$ with $R^2=0.9104$).