

KAISER ***ALUMINUM***

Status Update

April 15, 2014

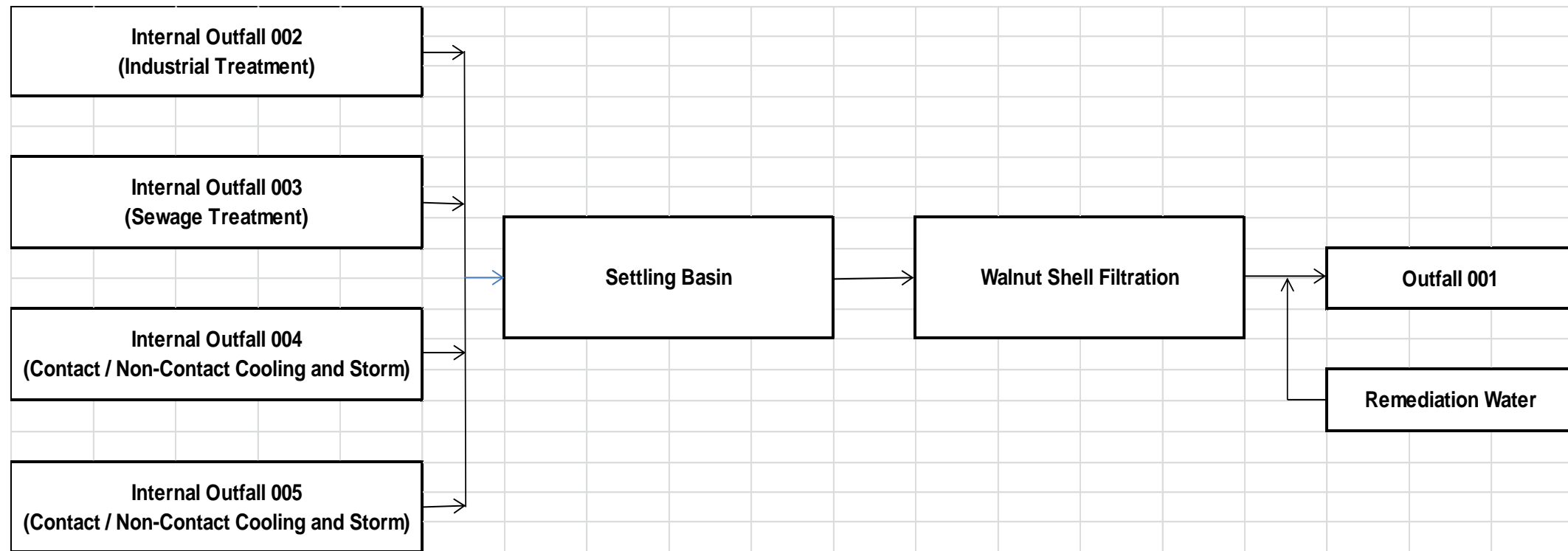
Agenda

- **Overview**
- **Review of Obligations**
- **NPDES Performance**

Agenda

- Overview
- Review of Obligations
- NPDES Performance

Schematic Diagram



Agenda

- Overview
- Review of Obligations
- NPDES Performance

Review of Obligations

- **NPDES Permit**
 - **Engineering Report for Treatment Technology – July 1, 2014**
 - **Phosphorous Treatment Technology – July 1, 2016**
 - **Meet Final Water Quality Based Effluent Limits – July 1, 2021**

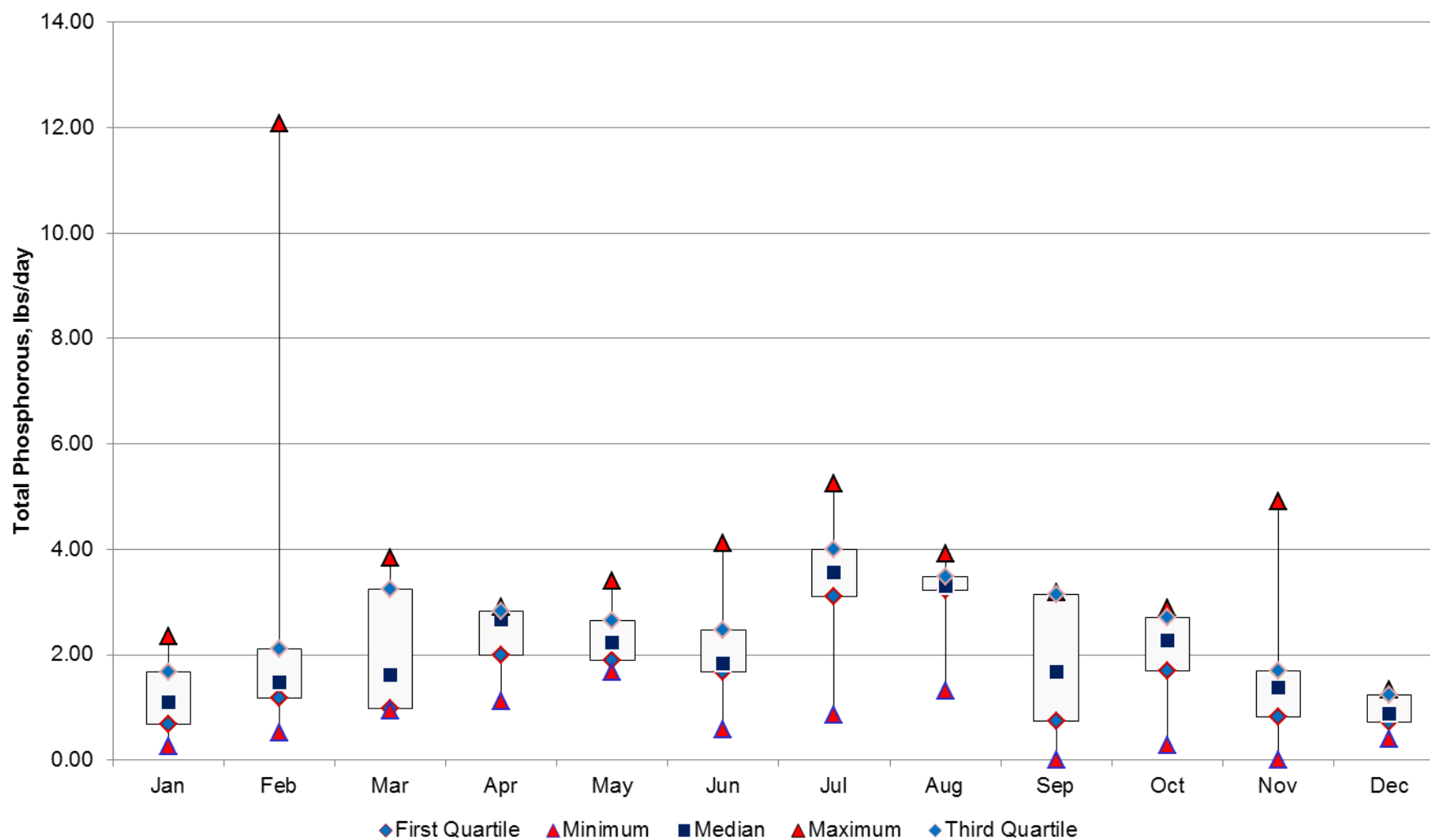
Agenda

- Overview
- Review of Obligations
- NPDES Performance

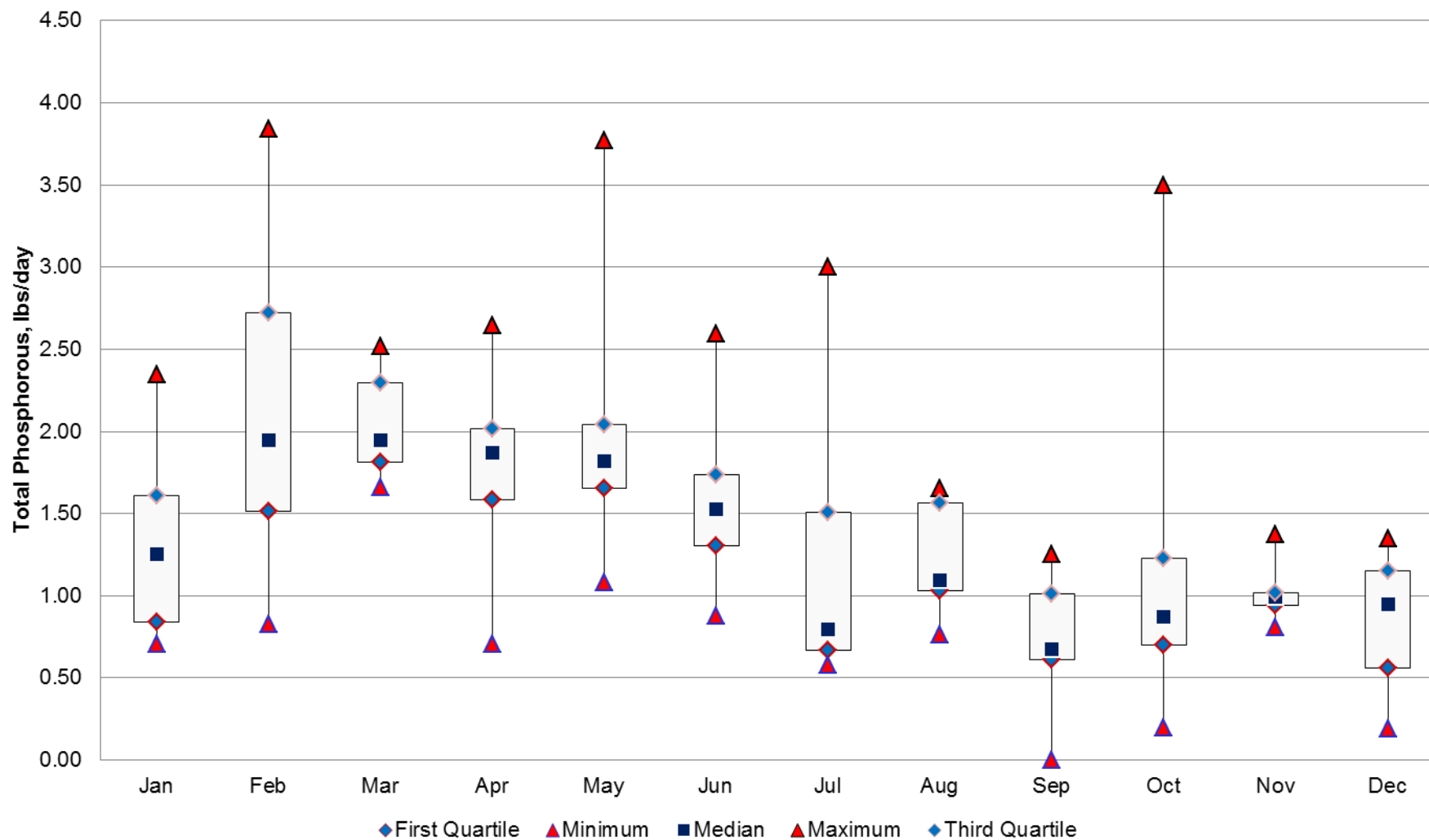
NPDES Performance

- **Three parameters related to the DO TMDL implementation will have future seasonal (March – October) effluent limits**
 - **Total Phosphorous**
 - **Carbonaceous Biological Oxygen Demand**
 - **Ammonia**
- **Monitoring data for these parameters has been collected since July 2011 as required by the facility's permit**

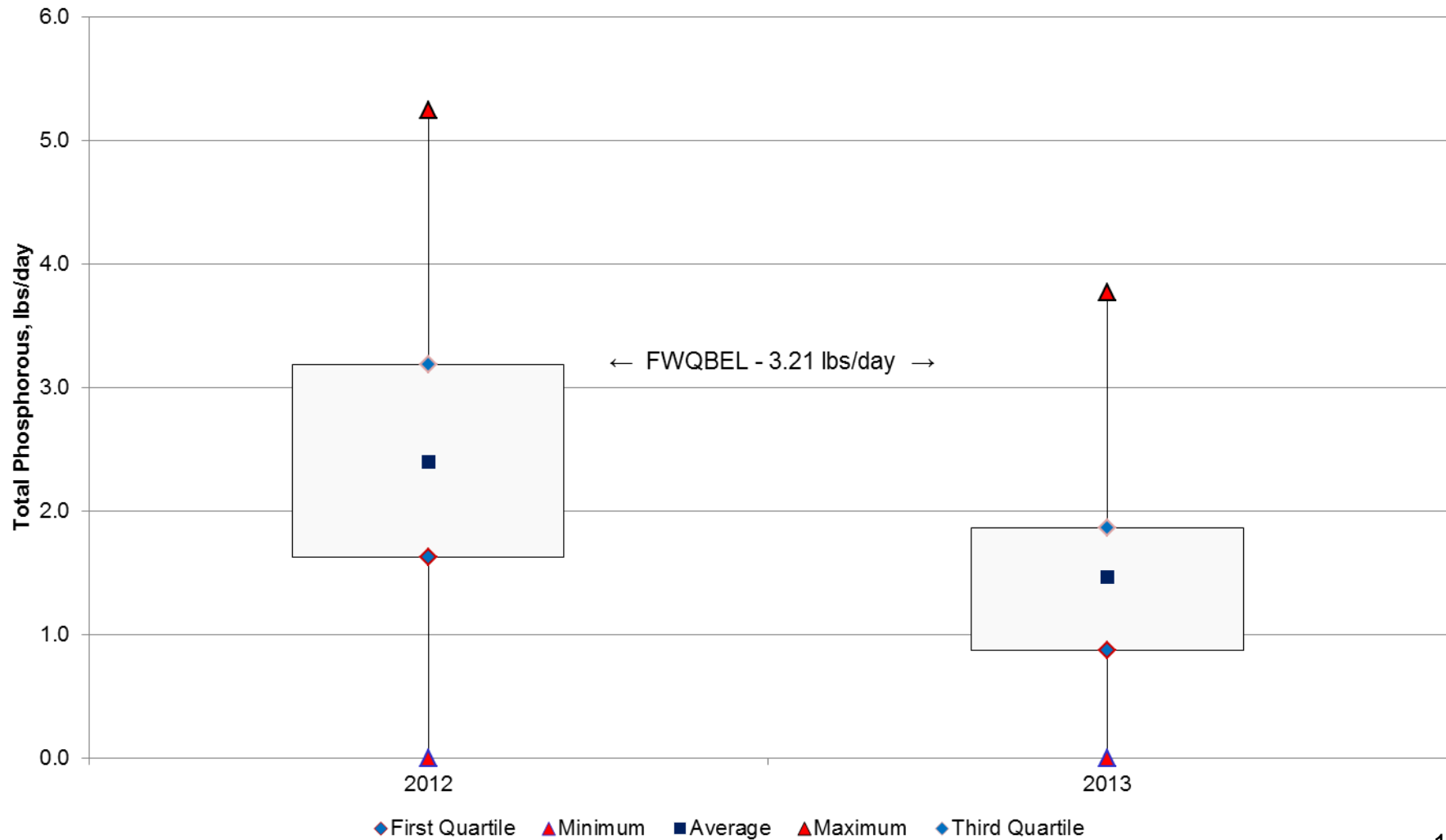
2012 Daily Total Phosphorous (Outfall 001)



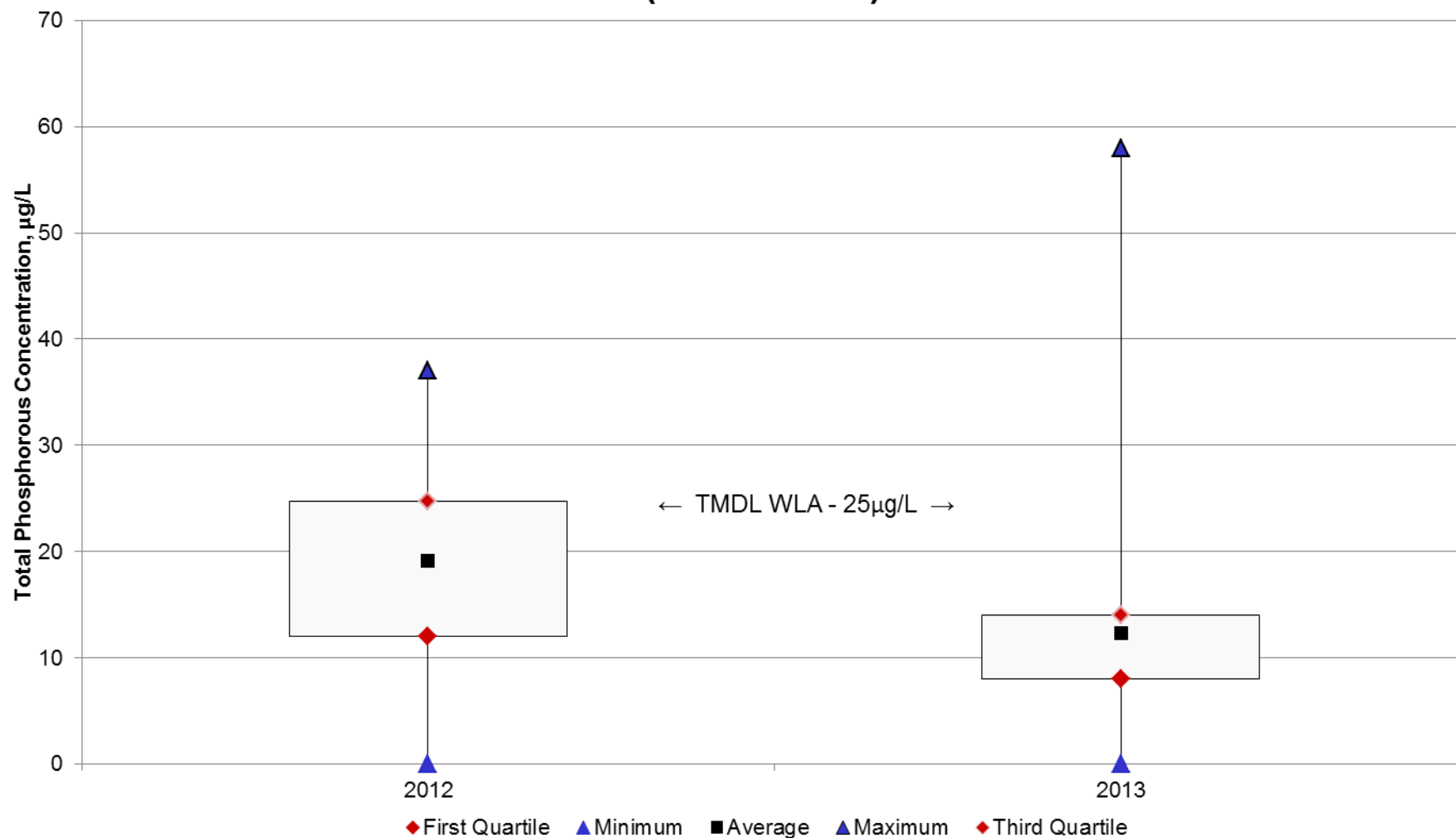
2013 Daily Total Phosphorous (Outfall 001)



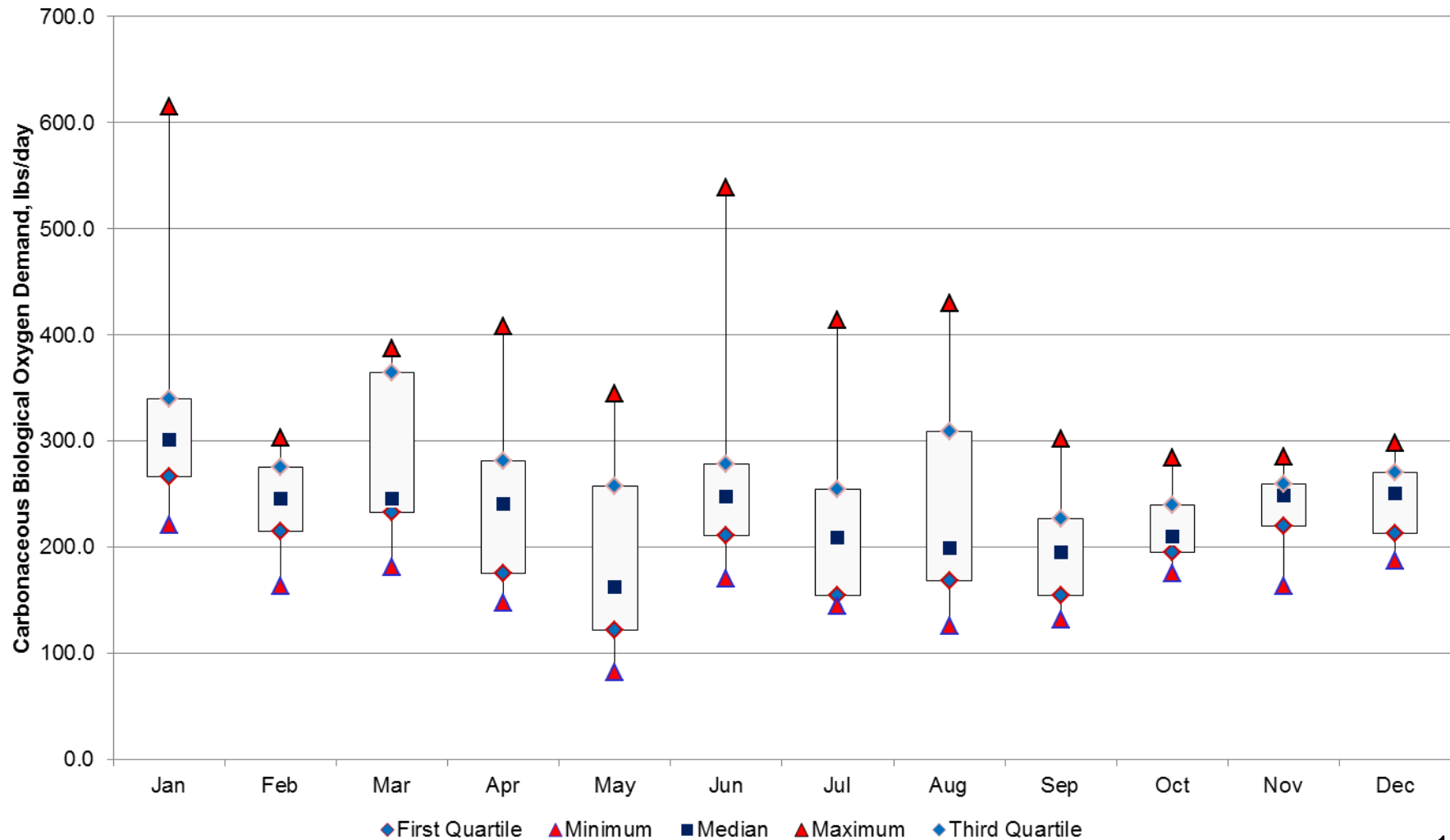
Seasonal Total Phosphorous (2012 and 2013)



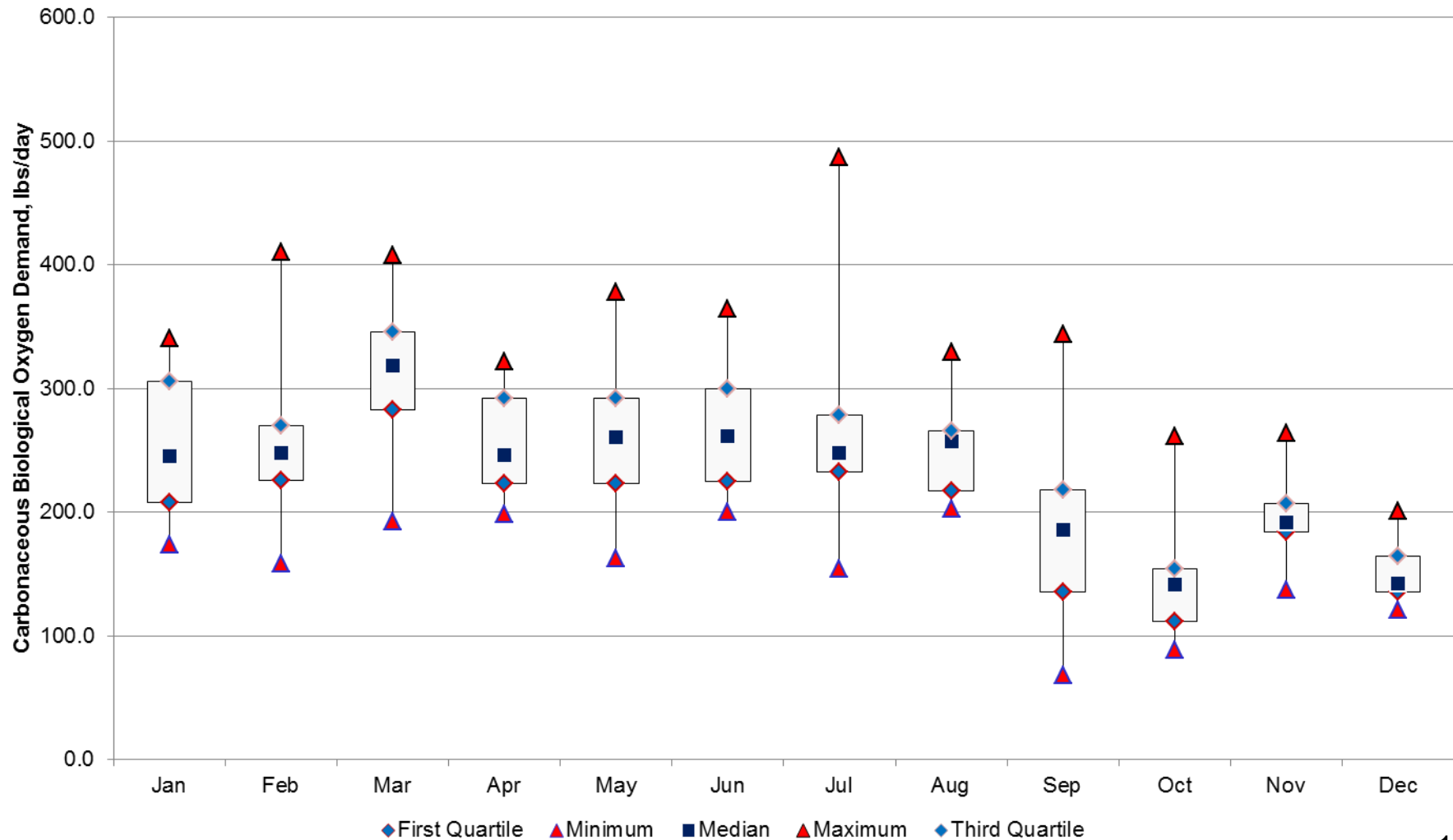
Seasonal Total Phosphorous Concentration (2012 - 2013)



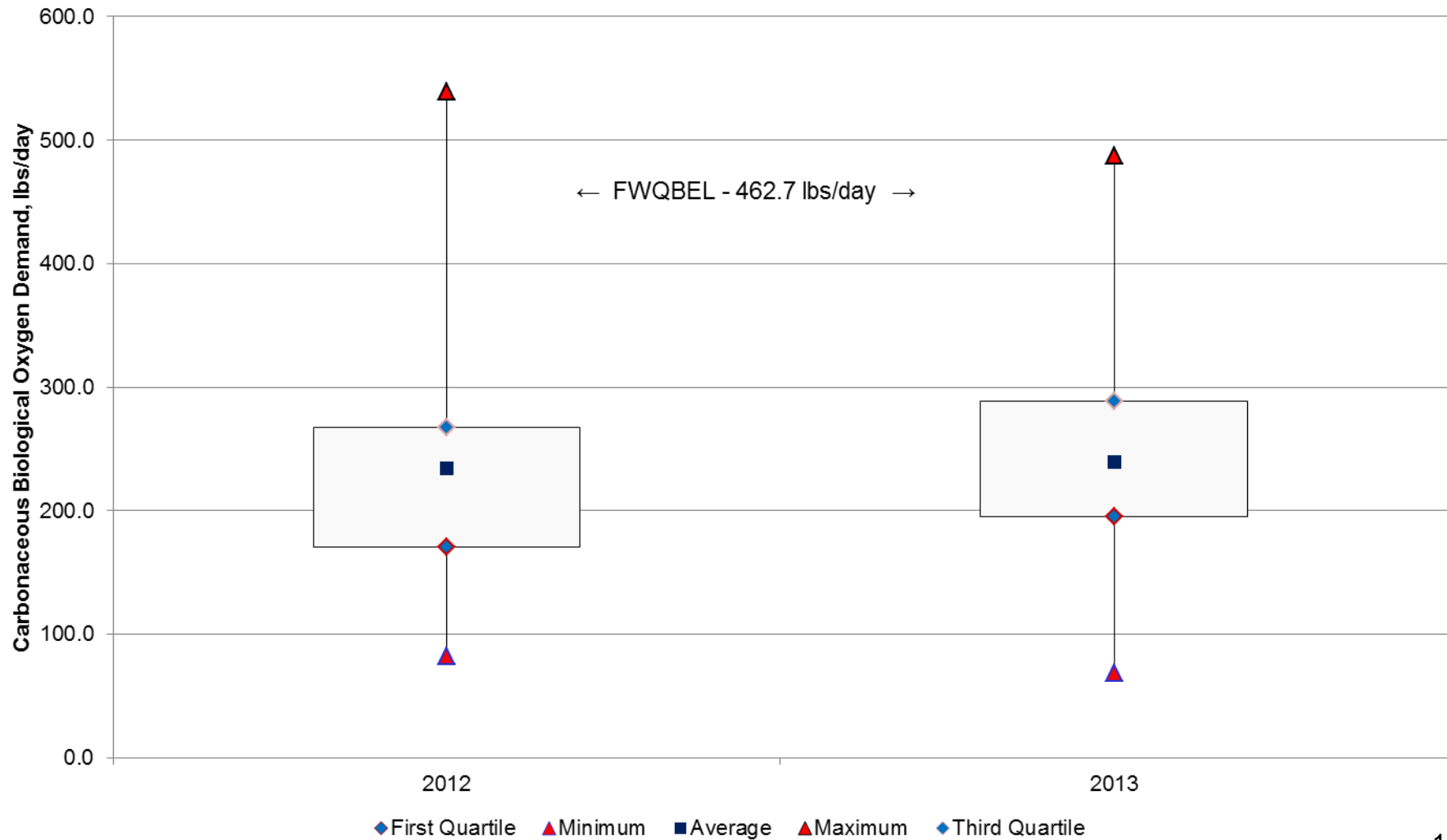
2012 Daily Carbonaceous Biological Oxygen Demand (Outfall 001)



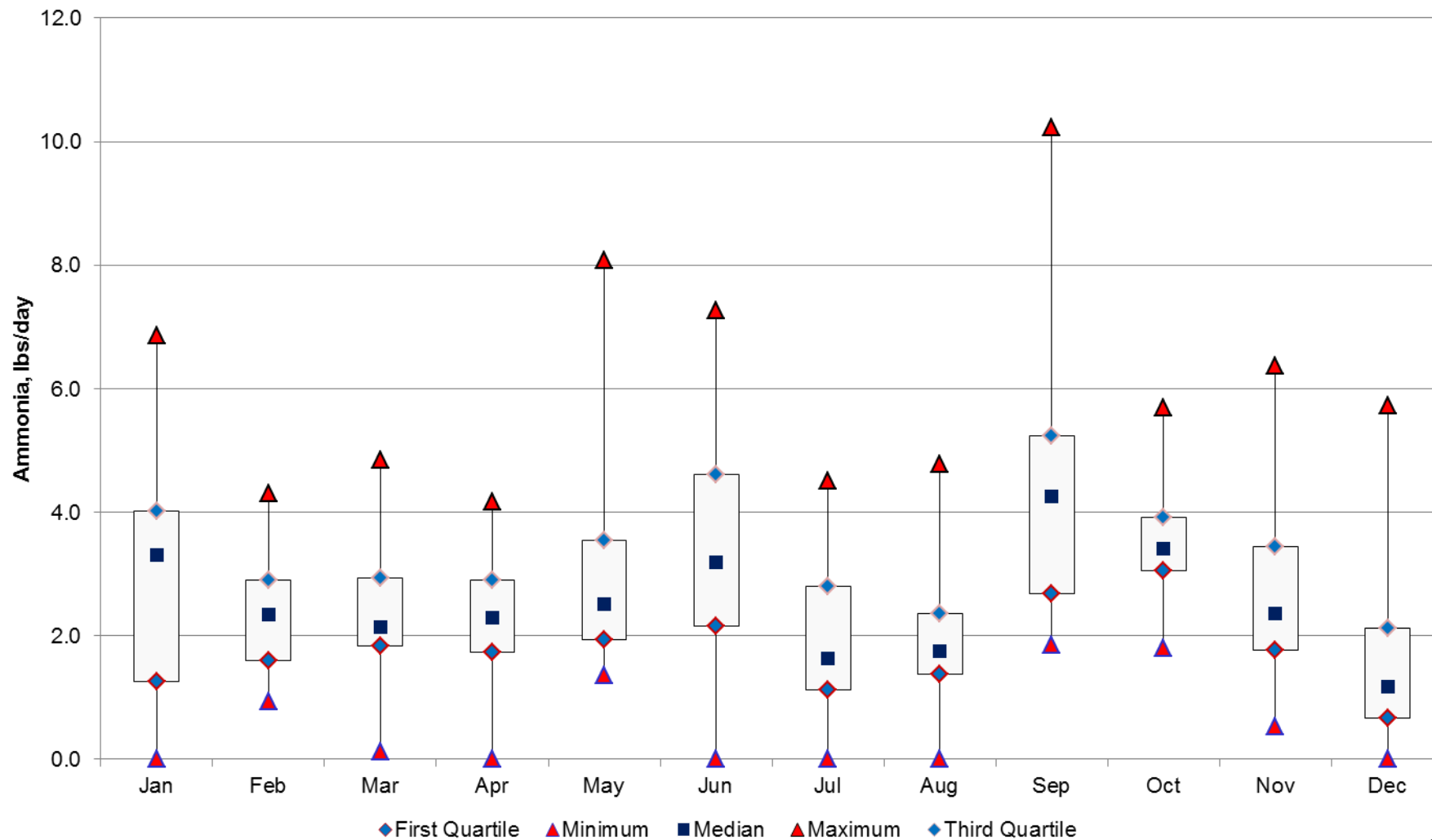
2013 Daily Carbonaceous Biological Oxygen Demand (Outfall 001)



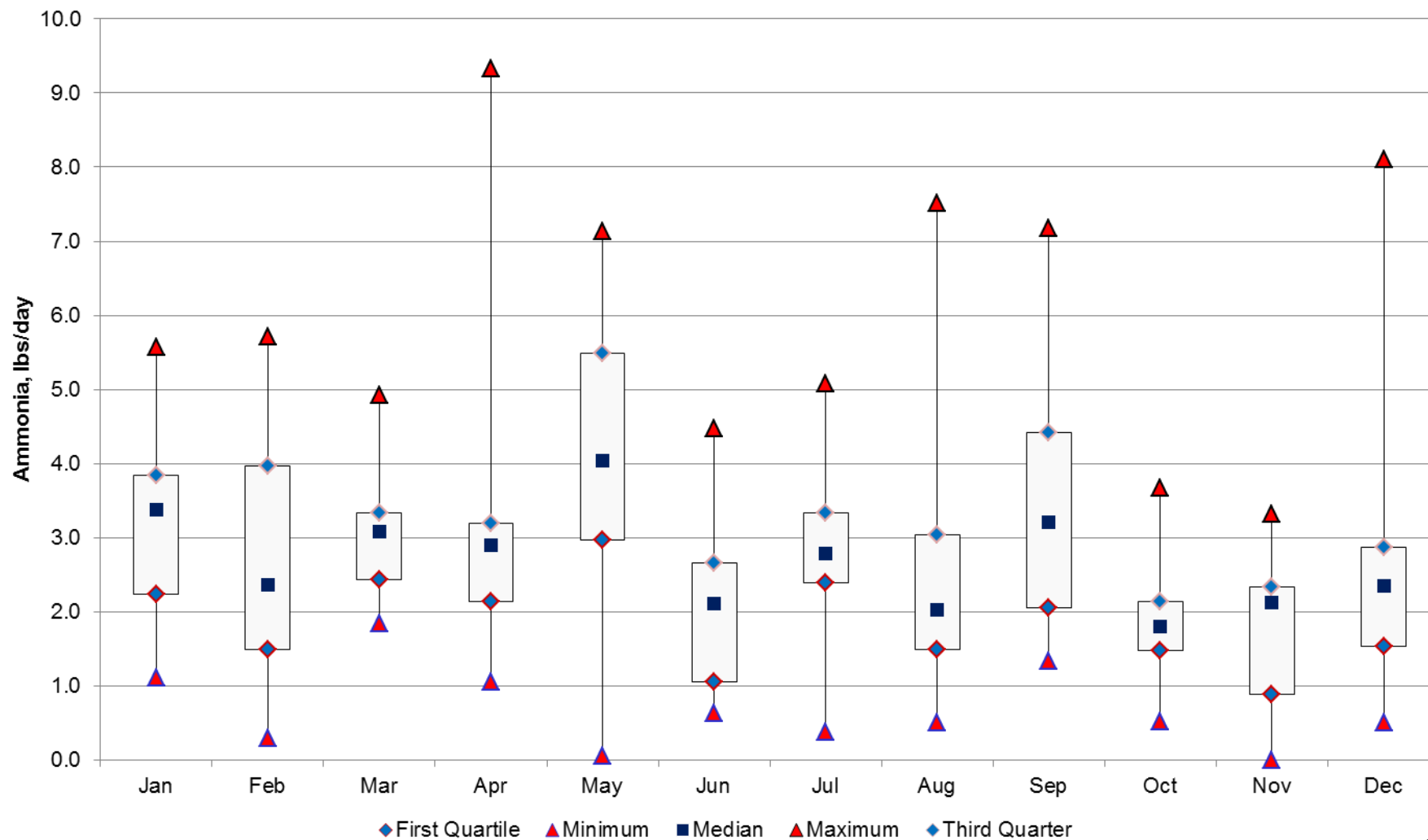
Seasonal Carbonaceous Biological Oxygen Demand (2012 and 2013)



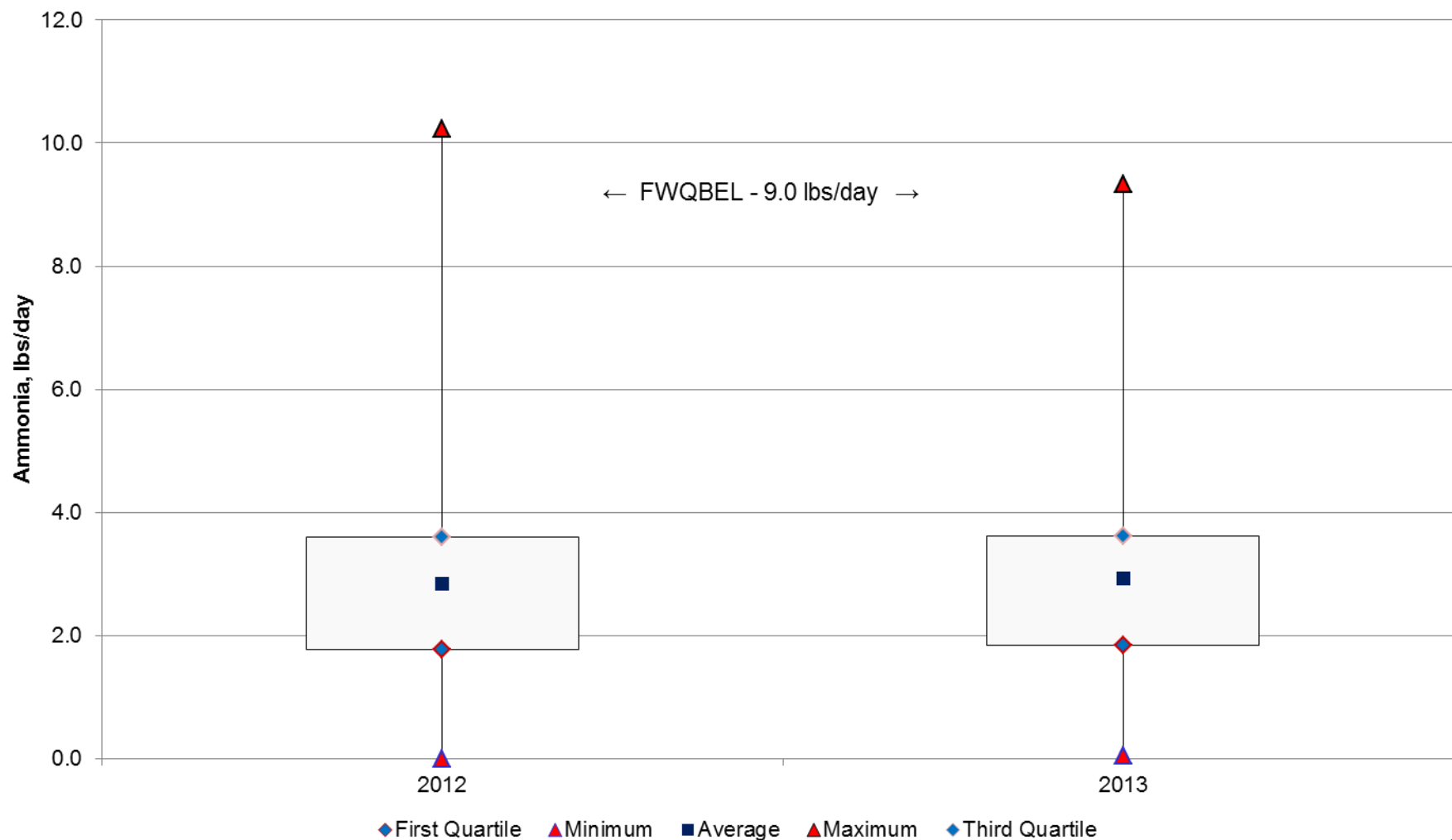
2012 Daily Ammonia (Outfall 001)



2013 Daily Ammonia (Outfall 001)



Seasonal Ammonia (2012 and 2013)



KAISER
ALUMINUM