

PCB Permit Requirements

Kaiser Aluminum

Pat Hallinan

Permit Manger, ERO Water Quality Program



Overview

- EPA Recommendations
- BMP Plan Requirements
- Permit Calculations for PCBs (Interim and Final Limits)





EPA Recommendations

EPA's Plan for Addressing PCBs in the Spokane River dated July 13, 2015

General and specific recommendations
applicable to Kaiser

- 9 regarding permit monitoring,
reporting, and BMP plan content
- 2 recommendations for Ecology



EPA Recommendations

- Three (3) monitoring recommendations:
 - Quarterly monitoring using EPA method 1668C
 - Receiving water monitoring upstream and downstream of the discharge
 - Separate monitoring of groundwater remediation discharge



EPA Recommendations

- Three (3) BMP Plan recommendations
 - Should consider the assessment by Task Force of the optimal mix of BMPs applicable to the permitted source
 - Require an update if Ecology determines BMP plan is not reducing PCBs to the ‘maximum extent practicable’
 - Should address water conservation



EPA Recommendations

- Three (3) reporting recommendations
 - Annual report of PCB monitoring results and activities
 - Summary of PCB data
 - Comparison of PCB data over the previous 12 months to older data
 - Estimate of reduction in PCB loading/concentration achieved through BMPs
 - Additional BMPs planned for upcoming year



EPA Recommendations

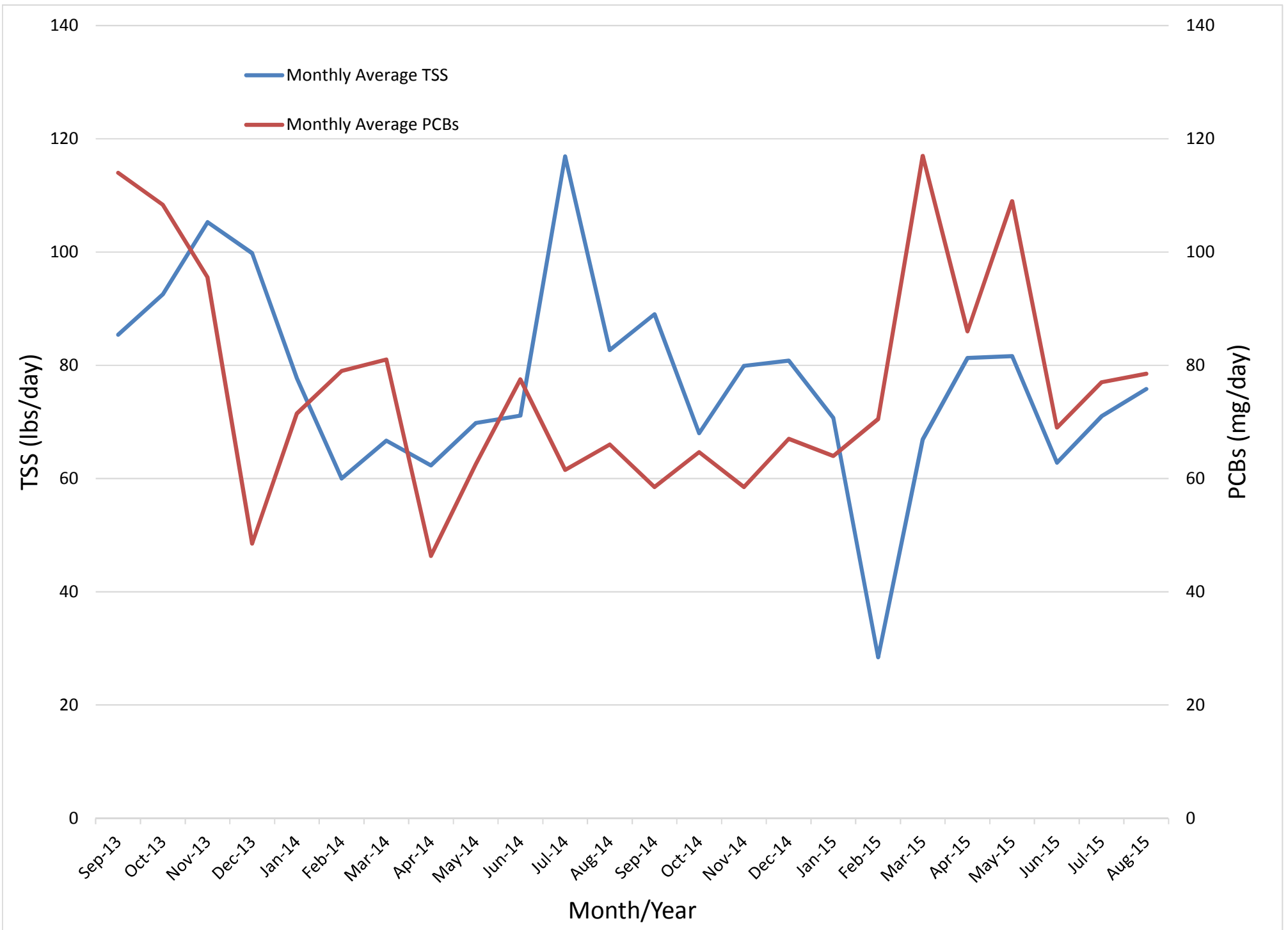
- Three (3) reporting recommendations
 - Report “dioxin like” congeners
 - Report complete congener analysis as attachments on DMRs



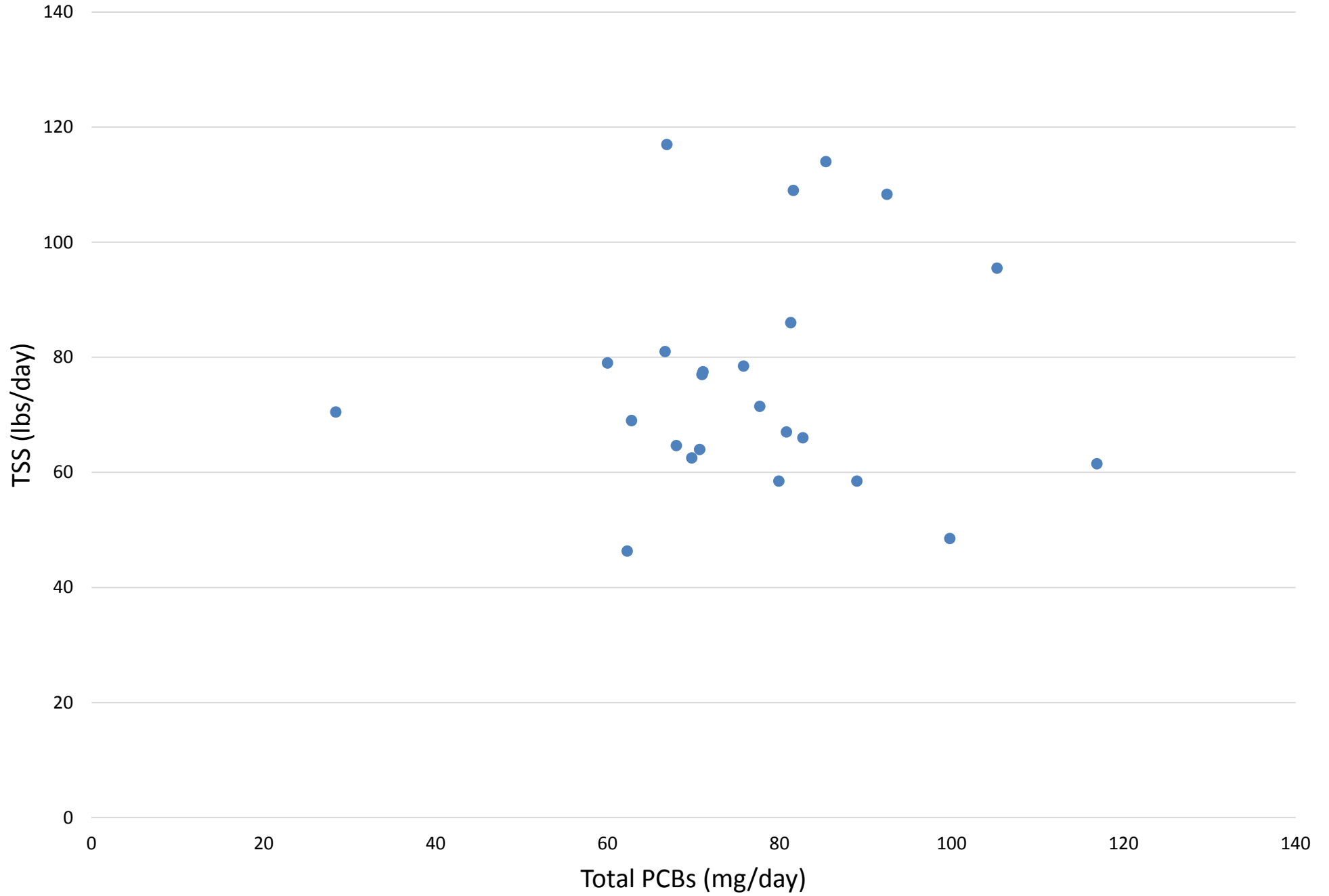
EPA Recommendations

- Two (2) for Ecology
 - Determine if TSS and PCB concentrations are correlated
 - If so, include AKART/performance-based effluent limits for TSS





TSS and PCB loads



EPA Recommendations

- Two (2) recommendations for Ecology
 - Determine if TSS and PCB concentrations are correlated
 - If so, include AKART/performance-based effluent limits for TSS





BMP Plan Requirements

BMP Plan

- BMP Plan Goal

The goal of the BMP plan is to maintain, or lower, effluent concentrations of total PCBs at or below current discharge levels through the evaluation and implementation of best management practices (BMPs)



BMP Plan

- Permit requires specific items
 - Quality Assurance/Quality Control (QA/QC) Plan for PCB Effluent Monitoring
 - PCB Source Identification and Cleanup
 - Influent PCB Design Criteria for Black Walnut Shell Filters
 - PCB Purchasing Standards
 - Site Demolition and Remodeling



BMP Plan

- Permit requires specific items
 - Compliance Schedule for Termination of Groundwater Remediation Flow through Outfall 007



BMP Plan

- BMP Plan can include other items:
 - substitution of materials; reformulation or redesign of products; modification of equipment, facilities, technology, processes, and procedures; and improvement in management, inventory control, materials handling or general operational phases of the facility



BMP Plan

- BMP Plan can include other items:
 - Consider BMPs listed in Comprehensive Plan if applicable to the facility





Permit Calculations for PCBs (Interim and Final Limits)

Why Interim and Final Limits?

- Limits must control pollutants that are discharged at levels which will **cause, have the reasonable potential to cause, or contribute** to an excursion above water quality standards
- Permit must include requirements **necessary to achieve water quality standards** including State narrative criteria for water quality
- Goal of interim limit to prevent increases in pollutant loadings

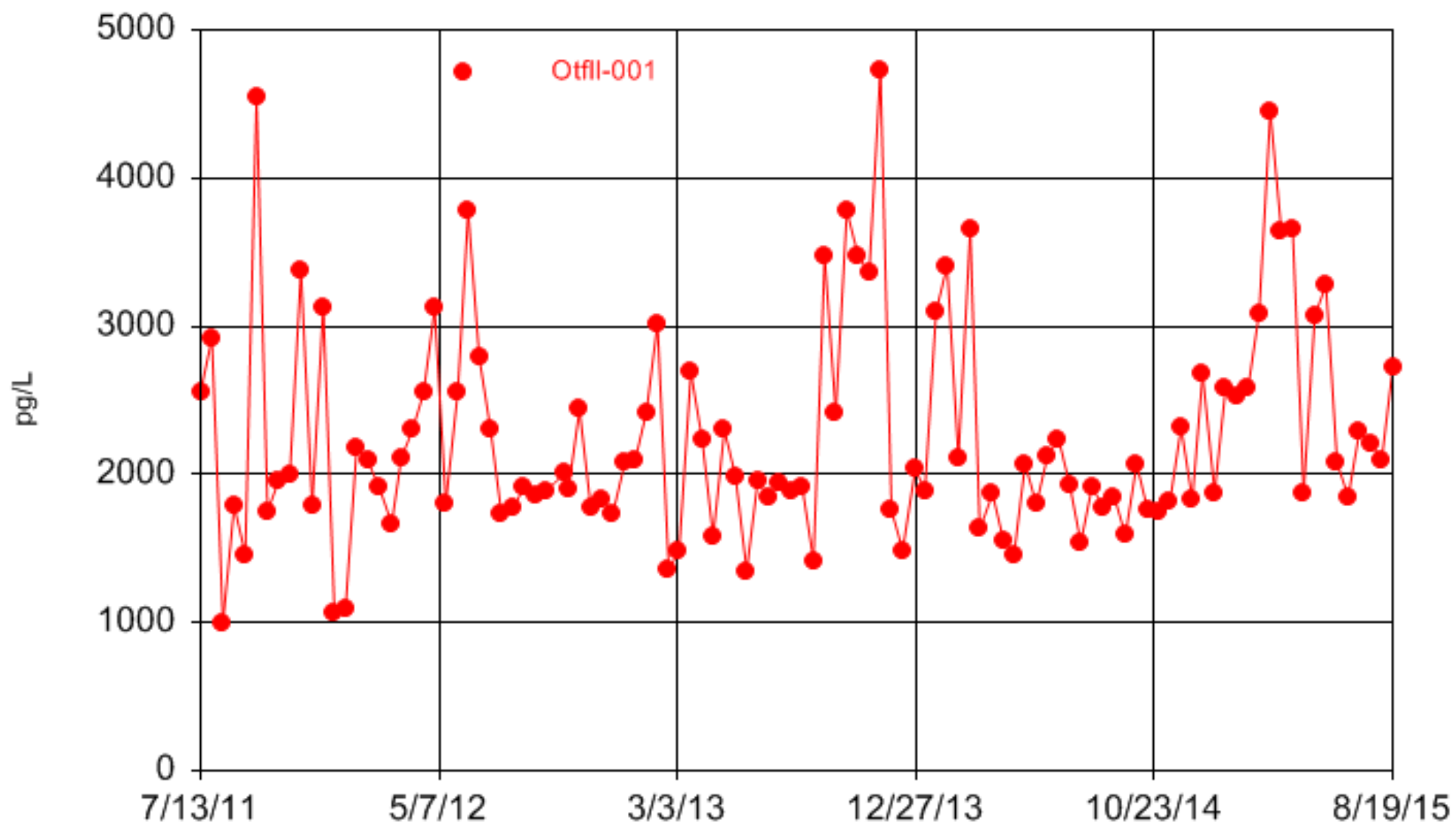


Permit Calculations for Interim Limit

- Looked at effluent data from July 2011 to August 2015
- Twice per month sampling frequency
- Uncorrected data

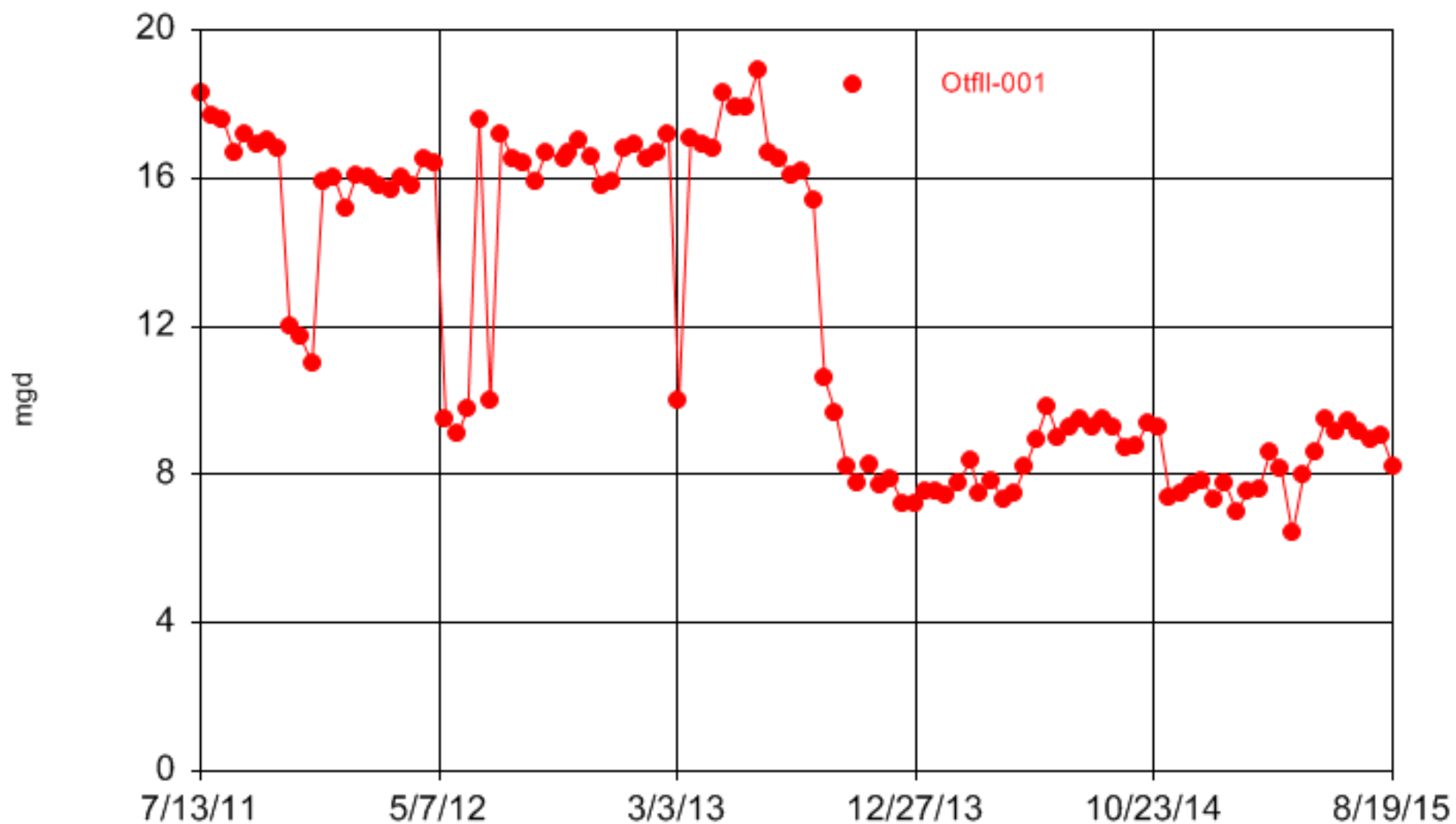


Time Series



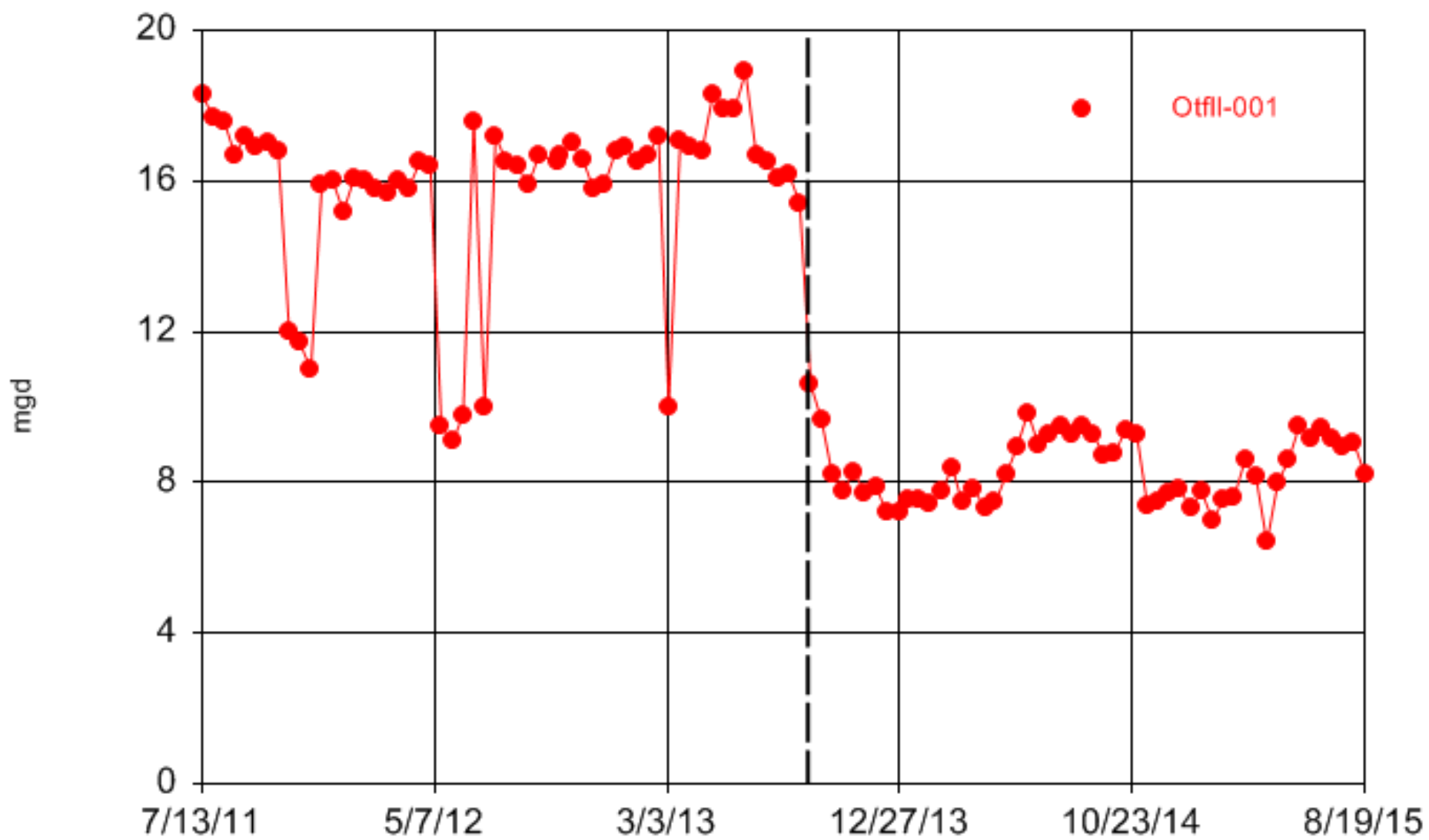
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Kaiser Client: GOVT. USE ONLY Data: Kaiser PCBs

Time Series



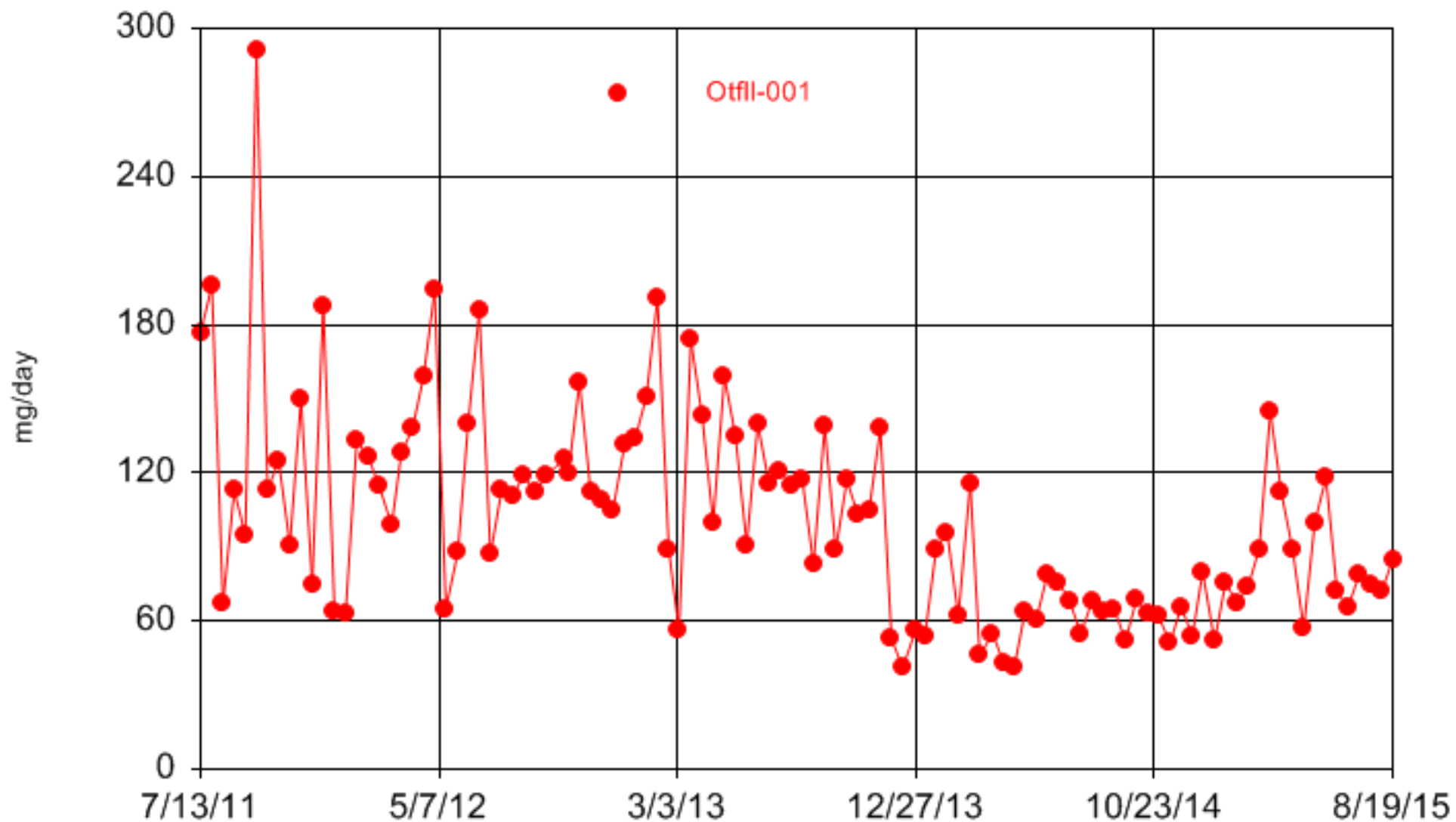
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Time Series



Constituent: Flow Analysis Run 8/8/2016 3:31 PM
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Time Series



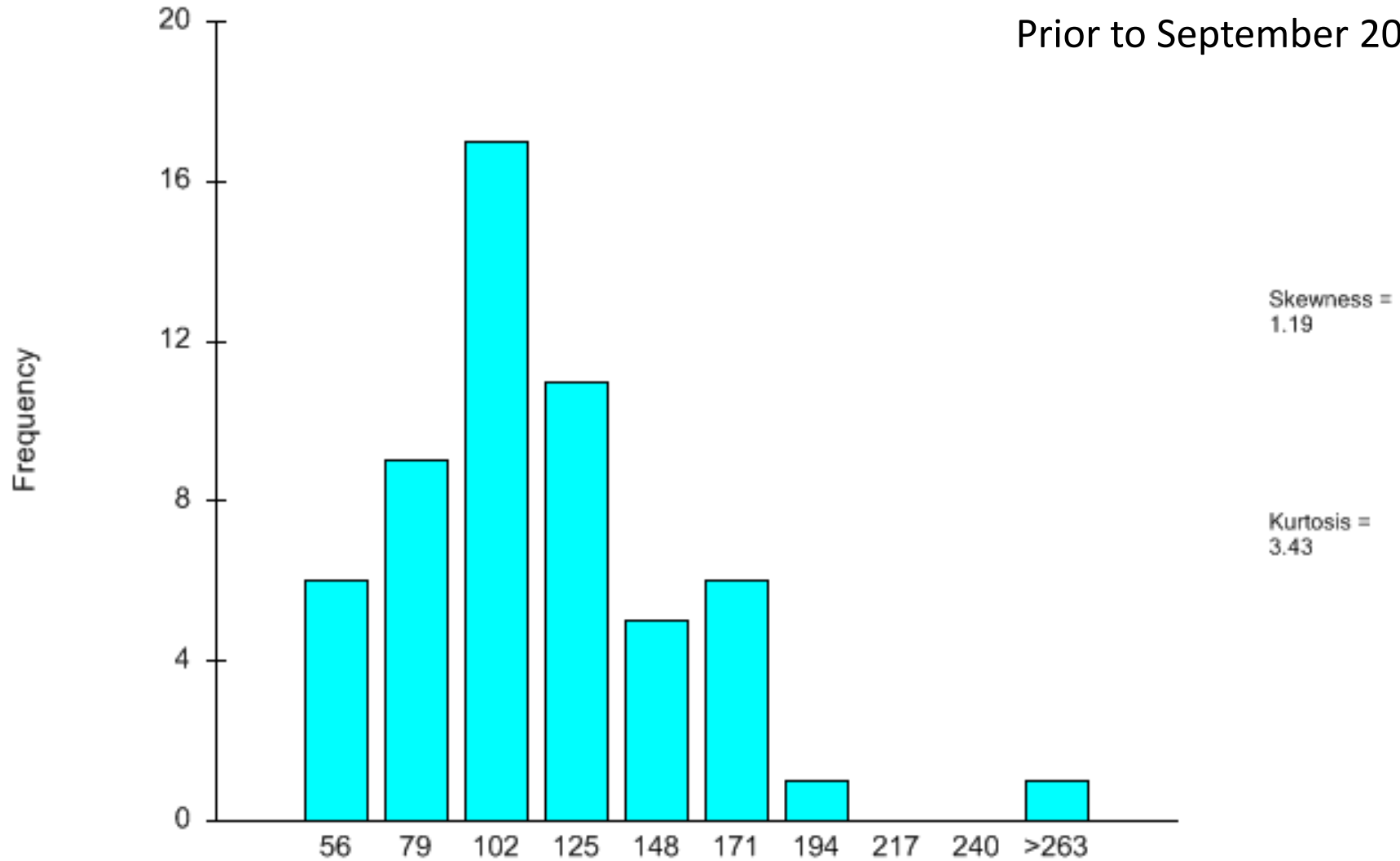
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Kaiser Client: GOVT. USE ONLY Data: Kaiser PCBs

Histogram

Otfll-001

Prior to September 2013



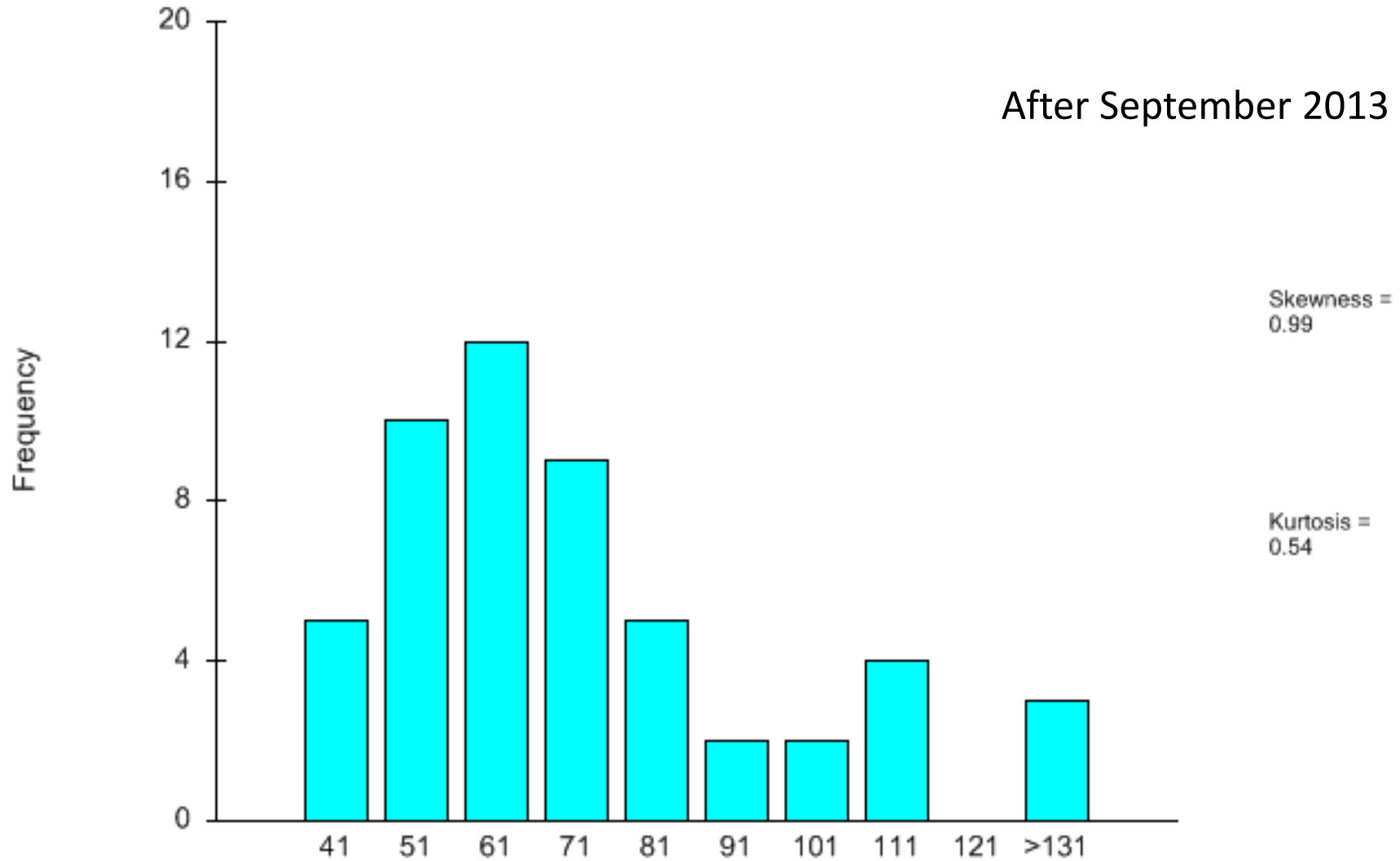
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Kaiser Client: GOVT. USE ONLY Data: Kaiser PCBs

Histogram

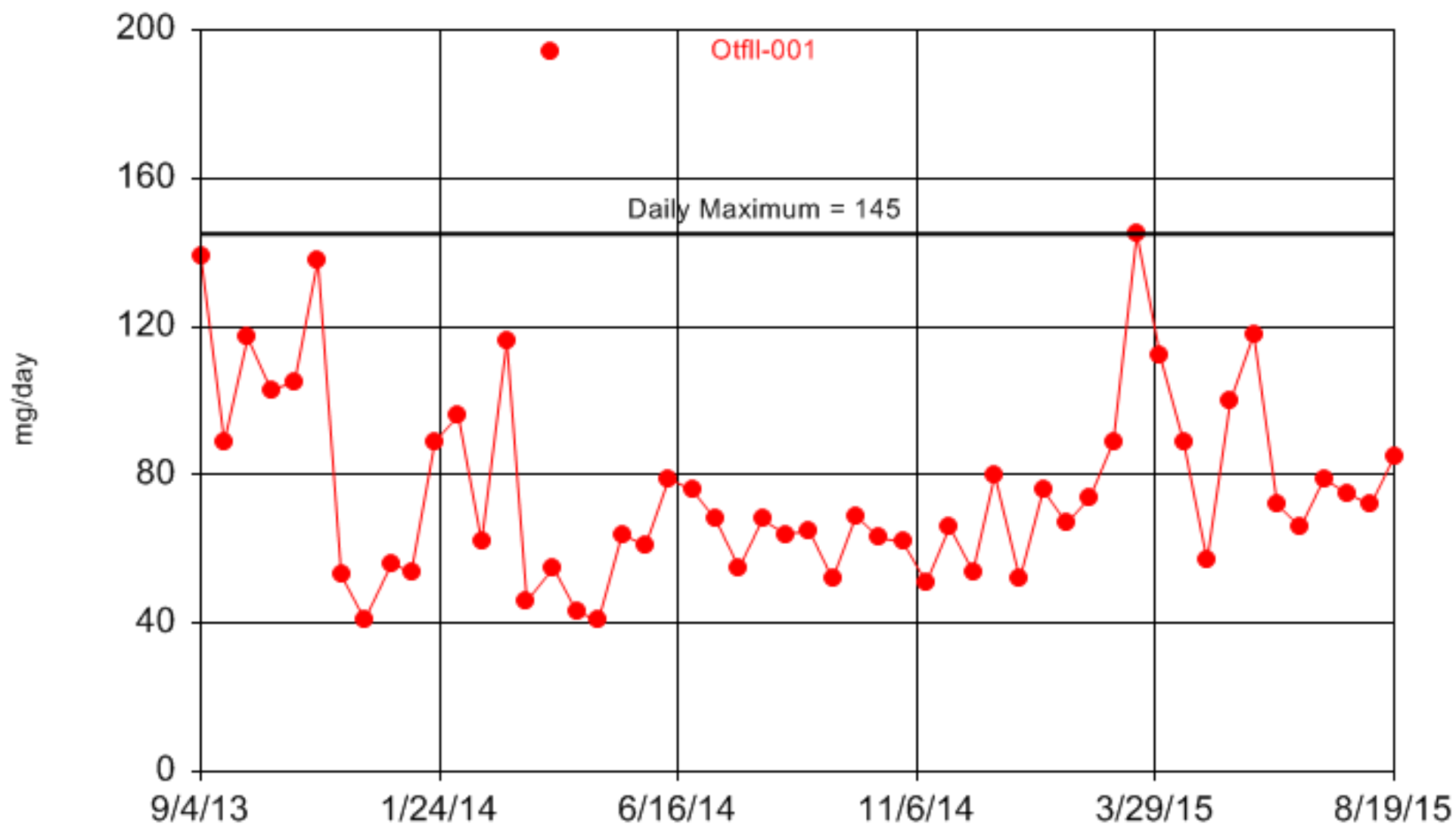
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After September 2013



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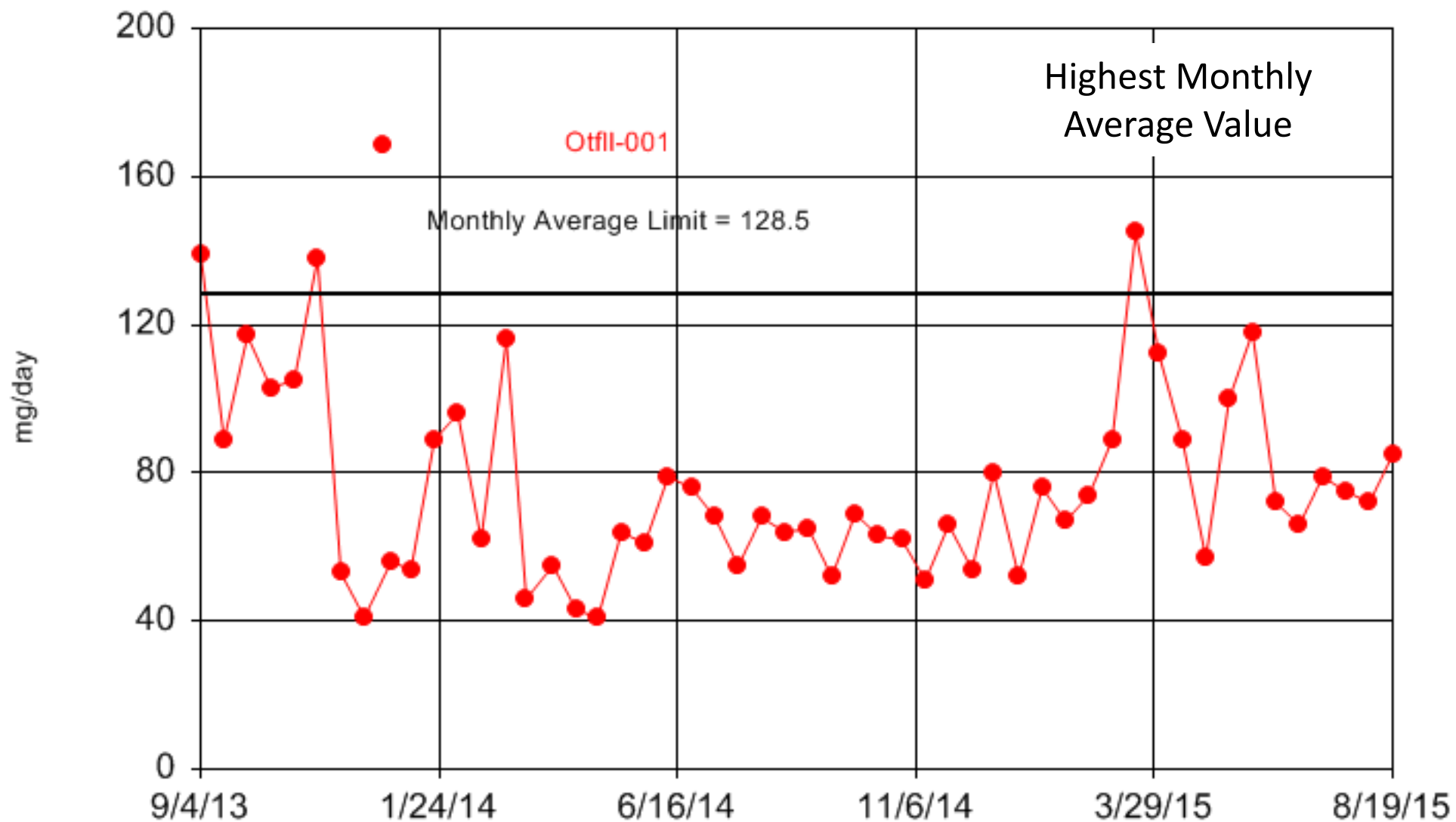
Time Series



Constituent: PCBs-mg/day Analysis Run 8/8/2016 4:02 PM

Kaiser Client: GOVT. USE ONLY Data: Kaiser PCBs

Time Series



Constituent: PCBs-mg/day Analysis Run 8/9/2016 10:19 AM
Kaiser Client: GOVT. USE ONLY Data: Kaiser PCBs



Questions and discussion