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Technical Expert Working Group Conference Call

Friday September 17, 2010
10:00 – 11:00 a.m.

CALL SUMMARY

Attendees:

EPA Region 3 and contractors: Jennie Saxe, Bill Arguto, Kathy Martel, Anne Jaffe Murray

EPA ORD: Dave Wahman

Washington Aqueduct: Lloyd Stowe

DC Department of the Environment: William Slade, Pierre Erville

CDC Lead Branch: Tiffany Connor

DC Water and contractors: Steve Reiber (HDR)

Arlington County: Dave Hundelt

Parents for Nontoxic Alternatives: Ralph Scott

Clean Water Action: Paul Schwartz

Navy: Wendy Markos

Agenda and Housekeeping Issues

There were no changes or additions to the agenda. The meeting agenda is included as Attachment A to this call summary. Jennie Saxe noted that DC Water representatives were unable to participate in the call and she would give the update on their pipe loop and Lead and Copper Rule (LCR) monitoring results. Jennie also noted that the 2010 version of federal drinking water regulations are available and she will e-mail these documents to the Technical Expert Working Group (TEWG).

Summary of Discussions by Topic Area

1. Washington Aqueduct Pipe Loop Update

Total lead concentrations observed in Washington Aqueduct's (WA's) control pipe loop are consistent with historical trends. Dissolved lead levels are low and particulate lead levels are higher in warm weather. Peak levels of particulate lead have decreased from previous years but are higher than desired. WA is continuing to develop plans for additional pipe loop studies to investigate causative factors of the high particulate lead levels. Lead service lines have been harvested from the distribution system and are now being conditioned for future use in the pipe loops. Over the next 2 to 6 months, the pipe

loops will be re-built and a plan will be formulated for the new studies. Several questions were raised on the particulate lead level results and plans for future pilot studies:

1. Are the high particulate lead levels at WA an abnormality or a concern?
2. How are pilot studies designed to investigate probable cause of the high particulate lead levels? For example, does WA examine the interior surface of pipe samples?
3. If temperature differences between the pipe loop and home plumbing are a possible causative factor of the high particulate lead levels, why hasn't WA measured temperatures to date?
4. The discrepancy between WA and DC Water pipe loop results have existed for several years. Should the pipe loop investigations be given a higher priority?

Lloyd Stowe responded that the high particulate lead levels in the WA pipe loops are not a concern and are not representative of actual lead levels in the water distribution system. The high lead levels are expected to be related to the pipe loop configuration (e.g. diagonal configuration) or operating factors (e.g., water temperature). The pipe loop studies are not designed to investigate causes of historical lead levels but to evaluate future scenarios to make the pipe loops more representative of distribution system conditions. WA has conducted some temperature monitoring in the pipe loop and home plumbing systems that indicated a temperature difference exists. Water in a home plumbing system typically has a lower temperature because it is served from underground pipes in the distribution system. WA has finalized a new contract with CDM to conduct these pilot studies and the study plan is under development.

2. DC Water's Pipe Loop Update

Results from the pipe loop indicate that total lead levels are currently about 5 ppb.

3. Recap of LCR Monitoring January – June 2010

For the January to June 2010 LCR monitoring period, the 90th percentile lead level for first-draw samples was 7 ppb. Preliminary results for the July to December 2010 monitoring period are based on 19 first-draw and 18 second-draw samples. The 90th percentile lead levels are 8 ppb for both first- and second-draw samples. Only one sample, a second-draw sample, had a lead level greater than 15 ppb. A lead profile conducted last year at the sampling site with the high lead level showed that this home has galvanized piping.

4. Update on Washington Aqueduct Treatment Changes (Addition of Caustic Soda and Disinfectant Change from Chlorine Gas to Sodium Hypochlorite)

Hypochlorite feed for disinfection was initiated at the McMillan WTP several months ago without incident. The next step is to complete construction of caustic soda feed facilities at the both facilities and sodium hypochlorite storage and feed facilities at Dalecarlia. These new chemical feed facilities are expected to be on-line in the spring of 2011.

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WA is currently conducting a future treatment alternatives study to determine whether additional treatment should be provided to improve public health protection and/or to meet customer expectations. The first step is to complete a screening process by identifying potential water quality problems that could cause public health impacts and treatment and non-treatment options for addressing each water quality problem. A workshop will be held on October 14th to review and discuss the preliminary findings with technical experts and stakeholders. An information package will be distributed to workshop participants prior to the workshop date. Additional information is available on WA's website at: http://washingtonaqueduct.nab.usace.army.mil/fta.htm

The next TEWG call will be held on Friday December 3rd unless an earlier meeting is requested.

Attachment A: Call Agenda

1. WA pipe loop data
2. DC Water's pipe loop data
3. Recap of LCR monitoring from Jan-Jun 2010
4. Update on WA caustic & hypochlorite project

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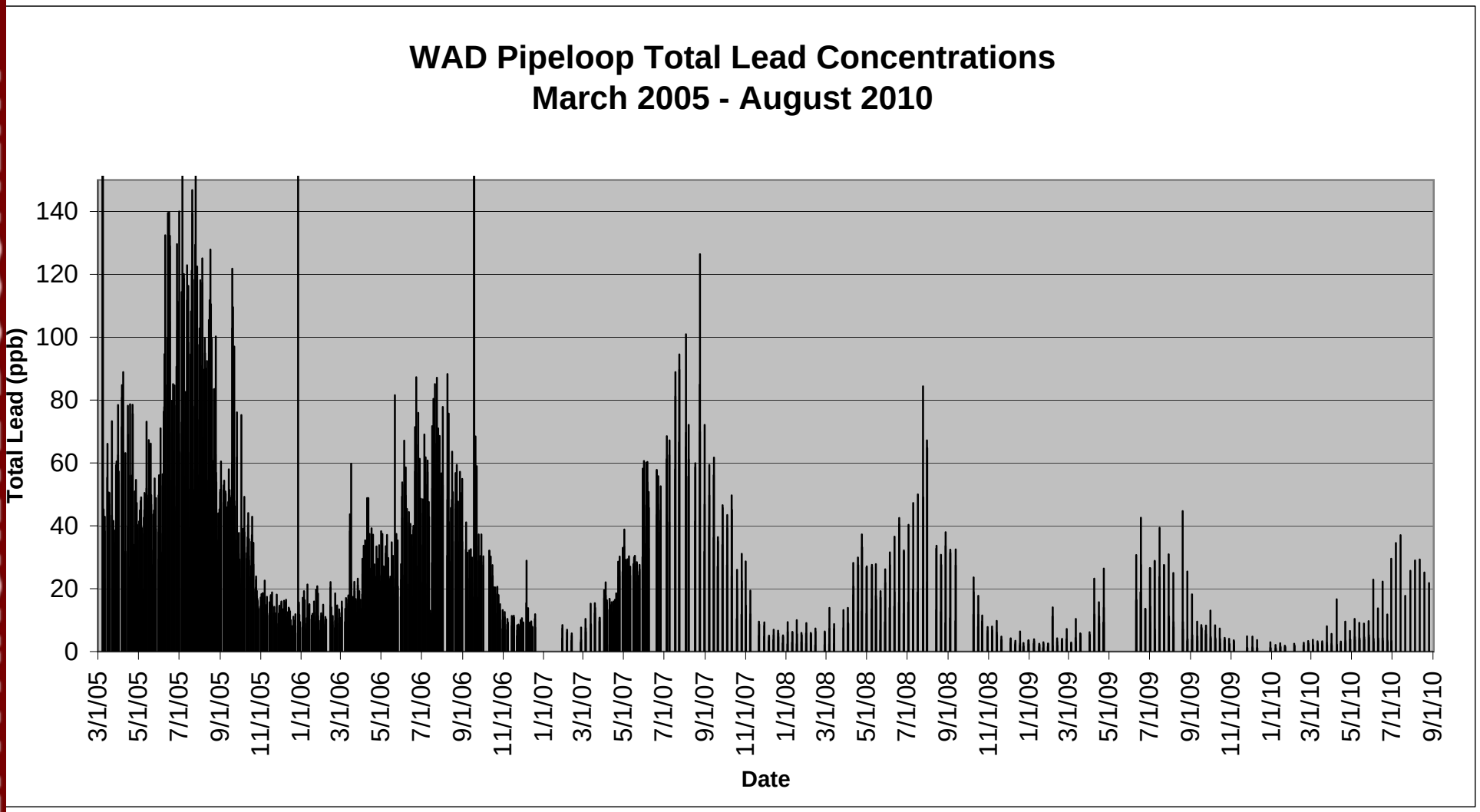
1. WA pipe loop data



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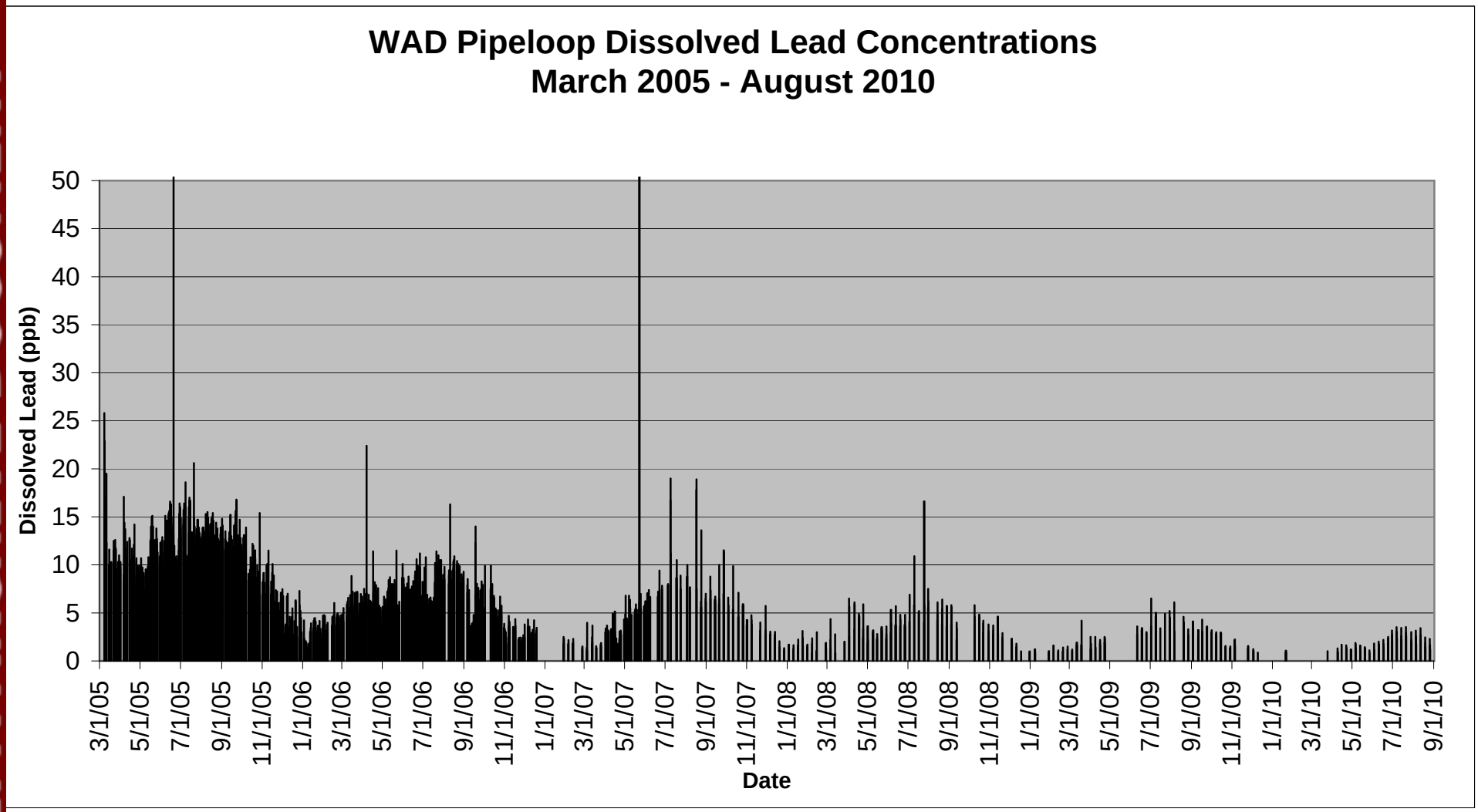

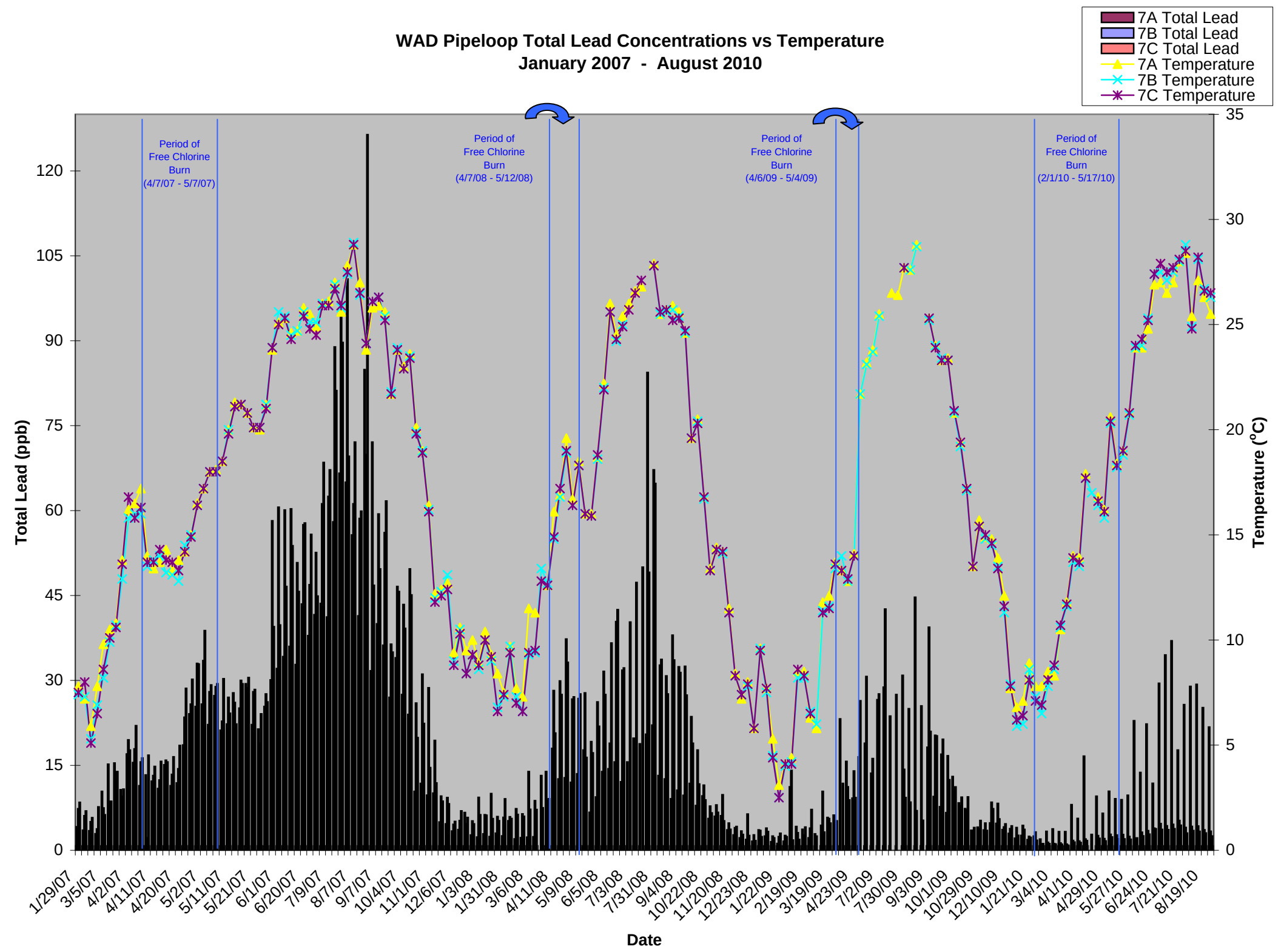
WAD Pipeloop Total Lead Concentrations vs Temperature
January 2007 - August 2010
7A Total Lead
7B Total Lead
7C Total Lead
7A Temperature
7B Temperature
7C Temperature
Period of Free Chlorine Burn (4/7/07 - 5/7/07)
Period of Free Chlorine Burn (4/7/08 - 5/12/08)
Period of Free Chlorine Burn (4/6/09 - 5/4/09)
Period of Free Chlorine Burn (2/1/10 - 5/17/10)
Total Lead (ppb)
Temperature (°C)
Date
0
15
30
45
60
75
90
105
120
0
5
10
15
20
25
30
35
1/29/07
3/5/07
4/2/07
4/11/07
4/20/07
5/2/07
5/11/07
5/21/07
6/1/07
6/20/07
7/9/07
8/7/07
9/7/07
10/4/07
11/1/07
12/6/07
1/3/08
1/31/08
3/6/08
4/11/08
5/9/08
6/5/08
7/3/08
7/31/08
9/4/08
10/22/08
11/20/08
12/23/08
1/22/09
2/19/09
3/19/09
4/23/09
7/2/09
7/30/09
9/3/09
10/1/09
10/29/09
12/10/09
1/21/10
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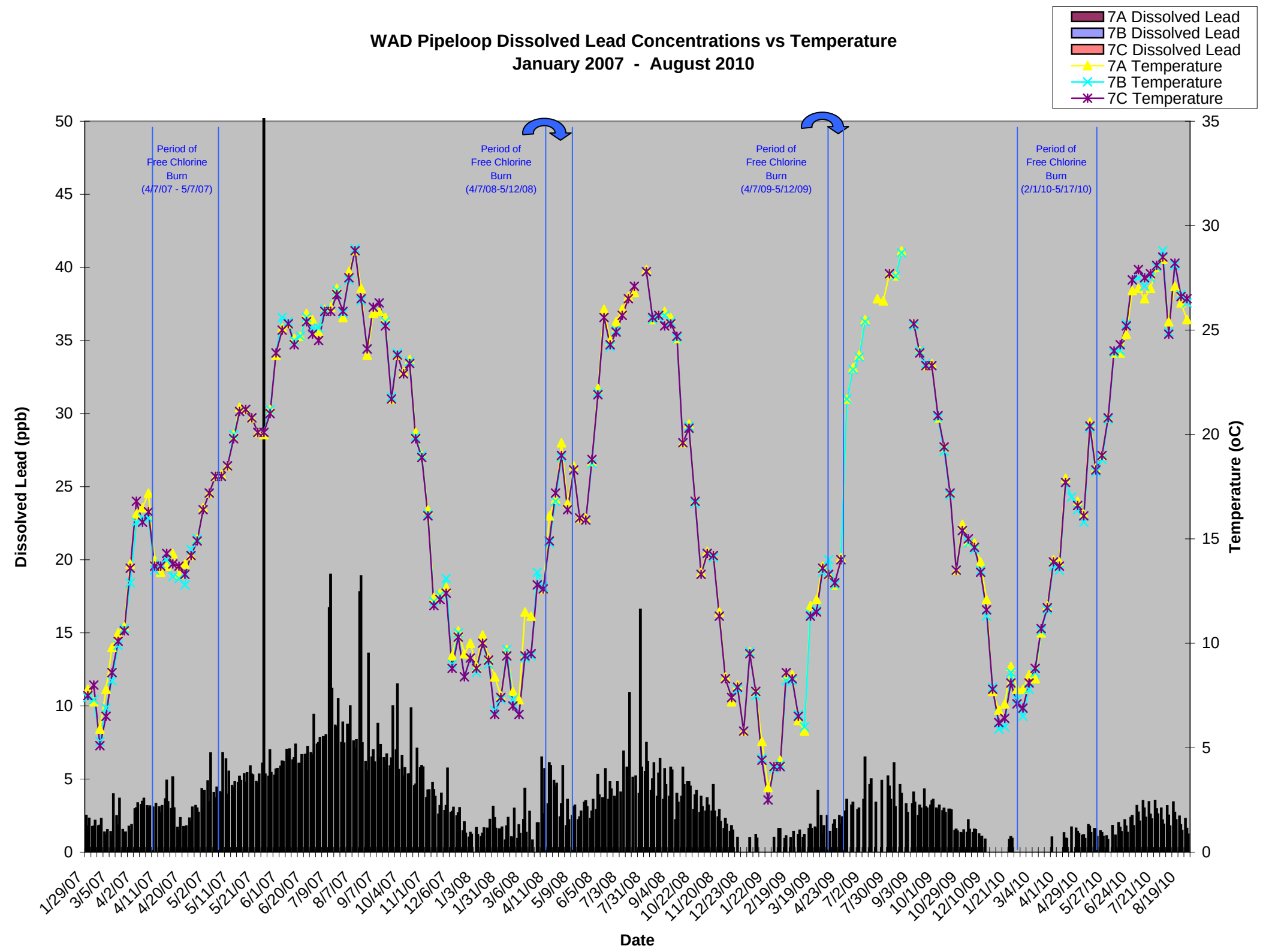
5/27/10
6/24/10
7/21/10
8/19/10


WAD Pipeloop Dissolved Lead Concentrations vs Temperature
January 2007 - August 2010
7A Dissolved Lead
7B Dissolved Lead
7C Dissolved Lead
7A Temperature
7B Temperature
7C Temperature
Period of Free Chlorine Burn (4/7/07 - 5/7/07)
Period of Free Chlorine Burn (4/7/08-5/12/08)
Period of Free Chlorine Burn (4/7/09-5/12/09)
Period of Free Chlorine Burn (2/1/10-5/17/10)
Dissolved Lead (ppb)
Temperature (oC)
Date
0
5
10
15
20
25
30
35
40
45
50
1/29/07
3/5/07
4/2/07
4/11/07
4/20/07
5/2/07
5/11/07
5/21/07
6/1/07
6/20/07
7/9/07
8/7/07
9/7/07
10/4/07
11/1/07
12/6/07
1/3/08
1/31/08
3/6/08
4/11/08
5/9/08
6/5/08
7/3/08
7/31/08
9/4/08
10/22/08
11/20/08
12/23/08
1/22/09
2/19/09
3/19/09
4/23/09
7/2/09
7/30/09
9/3/09
10/1/09
10/29/09
12/10/09
1/21/10
3/4/10
4/1/10
4/29/10
5/27/10
6/24/10
7/21/10
8/19/10

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2. DC Water's pipe loop data