Technical Expert Working Group (TEWG) Conference Call

Friday December 16, 2011
10:00 – 11:00 a.m.

CALL SUMMARY

Attendees:

EPA Region 3 and contractors: Bill Arguto, Wendy Gray, George Rizzo, Michelle Hoover, Enid Chiu, Kathy Martel (Cadmus), Anne Jaffe Murray (Cadmus)

The Washington Aqueduct: Anne Spiesman

DC Water and contractors: Maureen Schmelling, Sarah Neiderer, John Civardi (Hatch Mott McDonald)

DC Department of the Environment: William Slade

Concerned Citizen: Susan Kanen

Agenda and Housekeeping Issues

Bill Arguto led the call. He received email communications prior to the call with a general interest in new agenda items for this call. If anyone would like to add agenda topics, please send this request to Mr. Arguto prior to the meeting. The meeting agenda is included as Attachment A to this call summary. The calls for the next year have been scheduled for March 2nd, May 18th, August 24th and November 30th at 10 am.

Summary of Discussions by Topic Area

1. Washington Aqueduct Pipe Loop Update

Prior to the call, Mike Chicoine distributed graphs showing total and dissolved lead concentrations for the pipe loops of both of Washington Aqueduct's water treatment plants for the 2011 calendar year. The graphs also included results for Dalecarlia treatment plant pipe loops for the period of March 2005 to December 2011. The results for the Fall 2011 period are consistent with previous years. Susan Kanen thinks the new format for the graphs is excellent and thanked Mr. Chicoine for addressing her concerns. Ms. Kanen has some other concerns with the pipe loop data and plans to contact Mike Chicoine by email to discuss these concerns.

Regarding the on-going study on particulate lead in the pipe loops and samples collected for analysis at University of Cincinnati, the Washington Aqueduct is continuing to work with their consultant (CDM) to elicit useful findings from the analysis.

Susan Kanen asked Anne Spiesman if she could elaborate on the on-going maintenance issues with the pipe loop and appurtenances, and their effects on the pipe loop data. Ms. Kanen also asked about the apparent divergence of results of the three loops beginning around January 2010. Ms. Spiesman agreed that the Washington Aqueduct continues to have maintenance issues with pumps that have been operating for a long time. Susan Kanen plans to contact Lloyd Stowe for more information.

2. DC Water Pipe Loop Update

Maureen Schmelling distributed DC Water's latest pipe loop data prior to the call. The graph shows that all of the Fall 2011 samples had lead concentrations less than 5 ppb.

Susan Kanen asked Ms. Schmelling to comment on the calculations Ms. Kanen discussed during the last TEWG call. Maureen Schmelling had not reviewed these calculations. Ms. Kanen invited the call attendees to discuss her calculations during this or the next TEWG call, or via email at any time.

Ms. Kanen also made some suggestions for experimenting with the pipe loop's various run times and stagnation times prior to sampling. Ms. Schmelling suggested that Ms. Kanen contact industry researchers to further explore these topics. She clarified that DC Water participates in research studies such as those funded by the Water Research Foundation. Ms. Schmelling stated that DC Water's pipe loops are used to evaluate lead leaching trends in the operating system and were designed for this purpose. The pipe loop design and operating scheme have been previously reviewed by many industry experts and Ms. Schmelling is confident that the current setup is providing information that meets DC Water's needs. DC Water is not planning to change the current operating procedures.and as a water utility she does not think that DC Water has the resources to conduct additional research.

3. DC Water Update on Posting Data to the Website

Sarah Neiderer said that internal review of the proposed website content should be completed today and she estimates that the data will be posted within the next month. Ms. Neiderer raised a concern with posting the address block where monitoring was conducted; the address of individual sample sites cannot be posted due to privacy issues. The concern is that customers that live within the same block may assume the lead concentration of their tap water is the same as the posted sampling results when they may actually have different results due to differences in the service line and plumbing materials. This is especially of concern where the lead sampling results are low. Ms. Neiderer asked the question, "Are we doing the public a favor by posting this data?" She further questioned whether posting the information would discourage additional lead testing due to low results. She clarified that DC Water wants to prevent lead exposure and encourage lead testing, especially at households with pregnant women or young children.

Ms. Kanen indicated she is more interested in seeing data posted with the sampling date than the address. Ms. Kanen suggested that she thinks that, DC Water has had gaps in the

LCR sampling, particularly in warmer months when lead levels are higher. Bill Arguto questioned the validity of this statement and asked Ms. Schmelling to explain the sampling schedule to Ms. Kanen. Ms. Schmelling said that DC Water performs LCR monitoring in two 6-month monitoring periods each year: January to June, and July to December. Samples are collected in the first five months of each monitoring period. No samples are collected in the last month (i.e. June and December) of each monitoring period to allow the labs sufficient time to complete sample analysis and prepare reports due to EPA. Further, Ms. Schmelling noted that historically the warmest temperatures are experienced from July to October, so June is not the highest priority month for observing peak lead levels.

Ms. Kanen also raised concerns about the period of time between the first draw and second draw sample collection. Maureen Schmelling agreed that the time between first and second draw samples is an interesting topic for EPA and DC Water. The time varies by sampling site because the samples are collected by homeowners. Ms. Schmelling clarified that second draw sampling is non-regulated and is completed by DC Water on a voluntary basis. She reported that DC Water has discussed alternatives, but has not specifically modified sampling instructions to limit the variability of second draw samples as collected by homeowners. Ms. Schmelling suggested that lead profile data is a true representation of the lead service line's effects on tap lead concentration. Ms. Kanen asked if lead profile data were available for the summer months. She explained that by her calculations using Washington Aqueduct data, with every 5°C increase in water temperature, lead levels double. Ms. Schmelling indicated they have performed lead profile data in the summer months. Ms. Schmelling estimated that DC Water conducts approximately one lead profile per month in response to LCR sample results exceeding 15 ppb. Sarah Neiderer indicated that lead profile data will be posted to the website in addition to the first and second draw samples within a month. Ms. Neiderer said that DC Water would notify the TEWG when the results have been posted.

4. DC Water Preliminary Lead and Copper Rule Results Update

Ms. Schmelling reported the 90th percentile lead levels for the July to December monitoring period were 5 ppb for first draw samples and 10 ppb for second draw samples. One hundred lead and copper samples were collected during the July to December 2011 monitoring period.

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

Anne Spiesman reported that both the caustic soda and sodium hypochlorite feed system projects were substantially completed in July 2011. The Washington Aqueduct is continuing to perform fine tuning and is evaluating additional feed points.

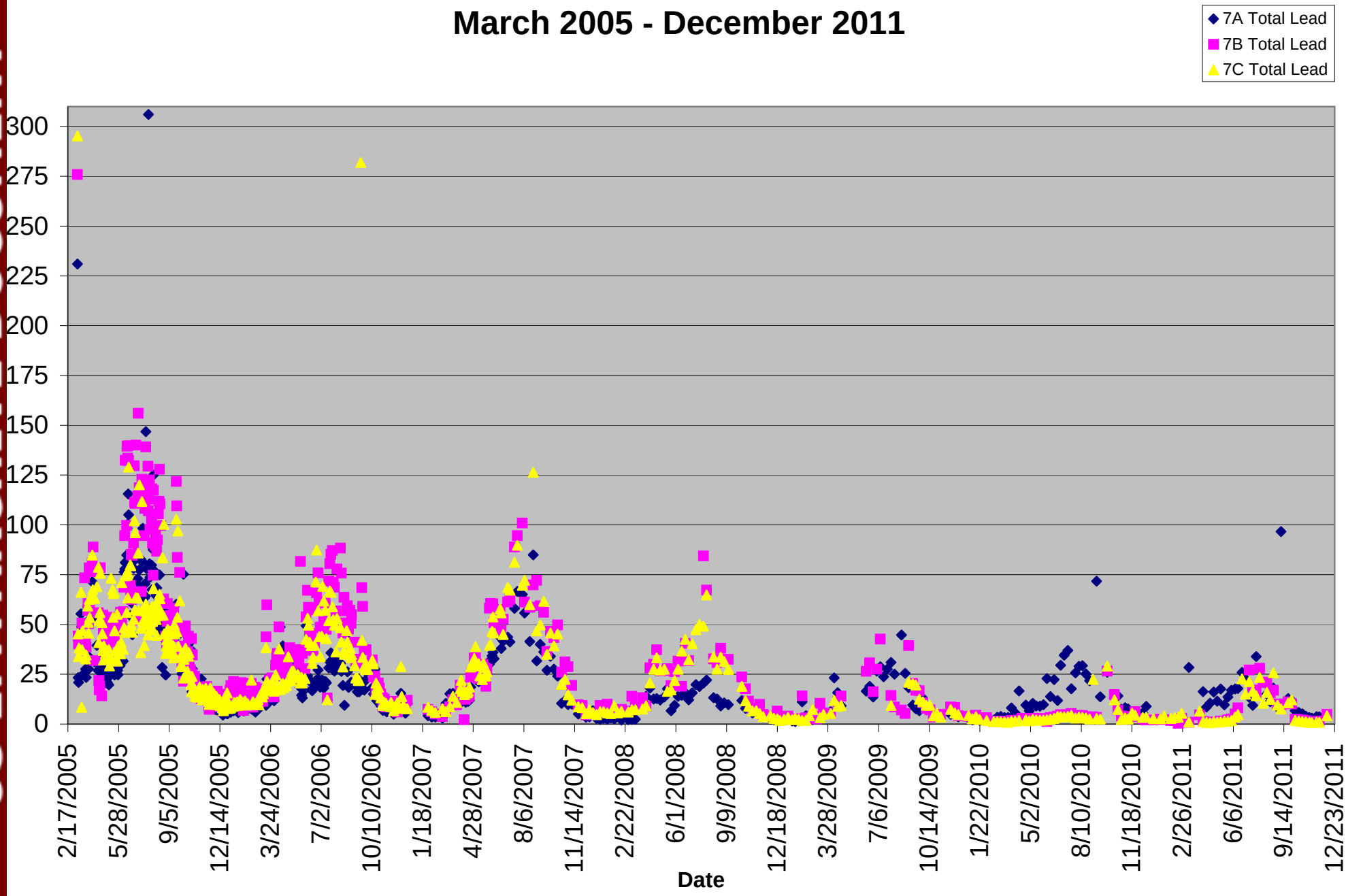
6. Other Items

The meeting notes will be prepared and distributed to TEWG members prior to the next call. The next call is scheduled for March 2nd at 10:00 a.m. EST. Bill Arguto requested that agenda topics be sent to him.

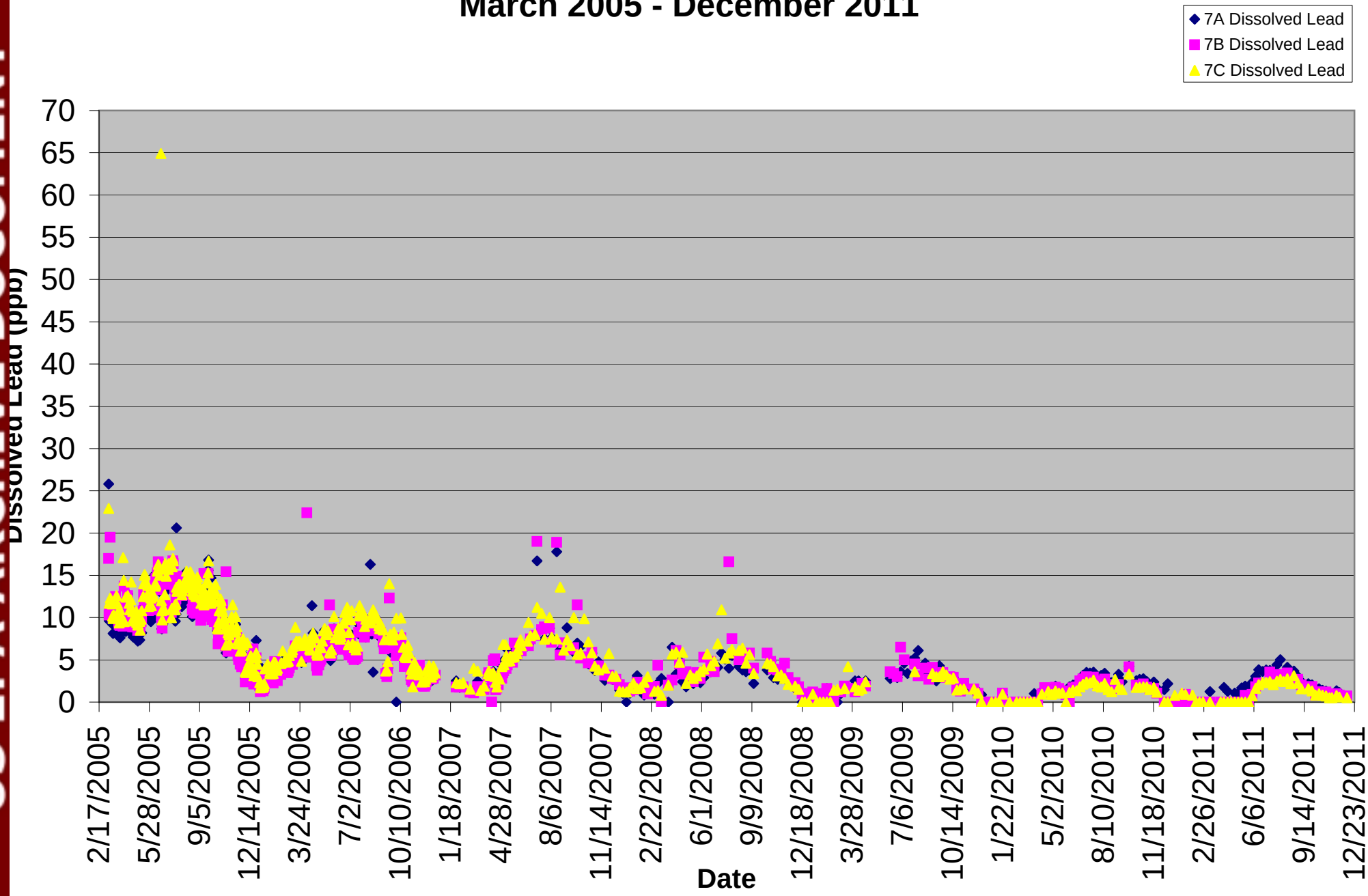
Attachment A: Call Agenda

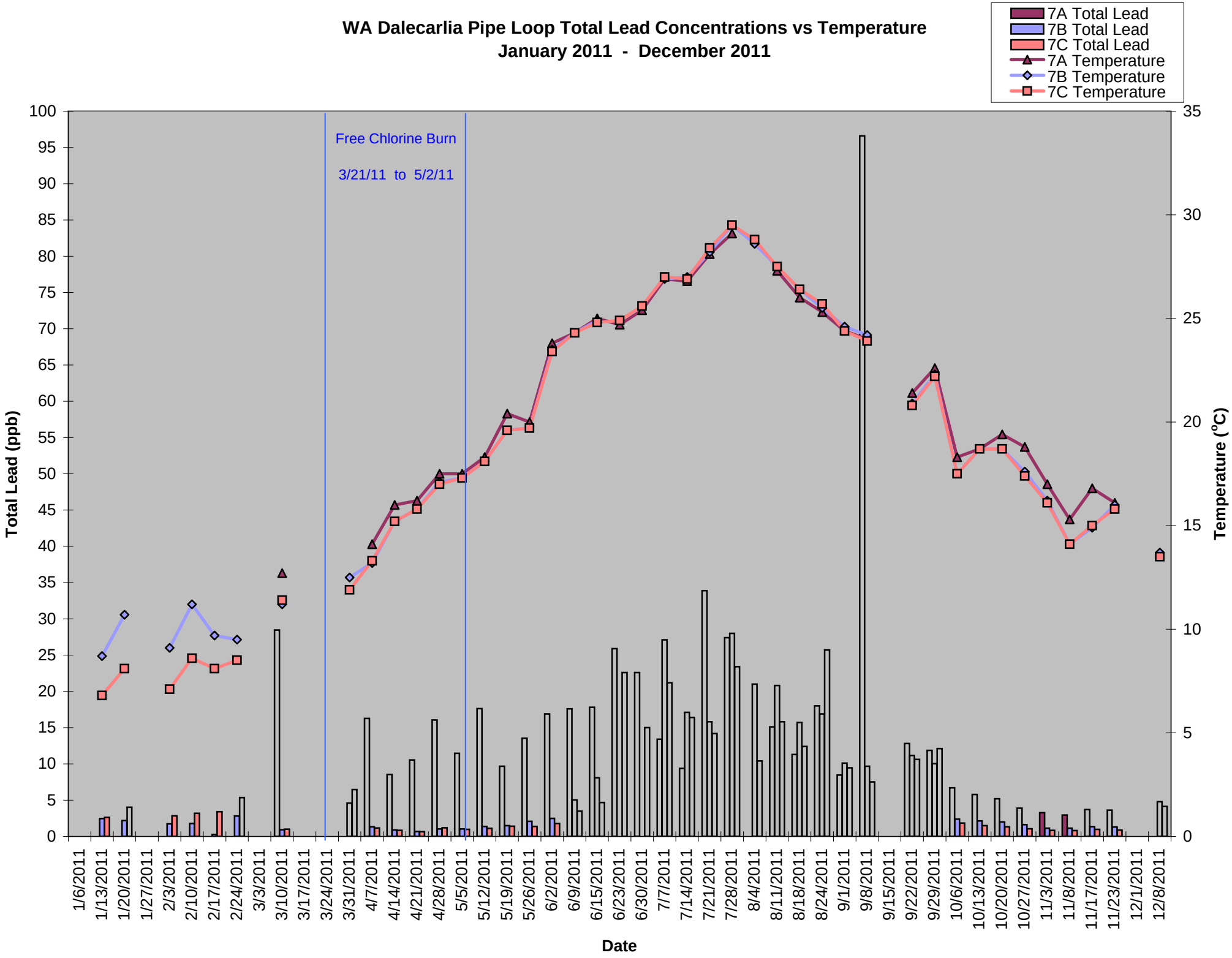
1. Washington Aqueduct pipe loop update
2. DC Water pipe loop update
3. DC Water update on posting data to website
4. DC Water preliminary lead and copper rule results update
5. Washington Aqueduct update on caustic/hypo project

WA Dalecarlia Pipe Loop Total Lead Concentrations
March 2005 - December 2011



WA Dalecarlia Pipe Loop Dissolved Lead Concentrations
March 2005 - December 2011




WA Dalecarlia Pipe Loop Total Lead Concentrations vs Temperature
January 2011 - December 2011
7A Total Lead
7B Total Lead
7C Total Lead
7A Temperature
7B Temperature
7C Temperature
Free Chlorine Burn
3/21/11 to 5/2/11
Total Lead (ppb)
Temperature (°C)
Date
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
100
1/6/2011
1/13/2011
1/20/2011
1/27/2011
2/3/2011
2/10/2011
2/17/2011
2/24/2011
3/3/2011
3/10/2011
3/17/2011
3/24/2011
3/31/2011
4/7/2011
4/14/2011
4/21/2011
4/28/2011
5/5/2011
5/12/2011
5/19/2011
5/26/2011
6/2/2011
6/9/2011
6/15/2011
6/23/2011
6/30/2011
7/7/2011
7/14/2011
7/21/2011
7/28/2011
8/4/2011
8/11/2011
8/18/2011
8/24/2011
9/1/2011
9/8/2011
9/15/2011
9/22/2011
9/29/2011
10/6/2011
10/13/2011
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11/23/2011
12/1/2011
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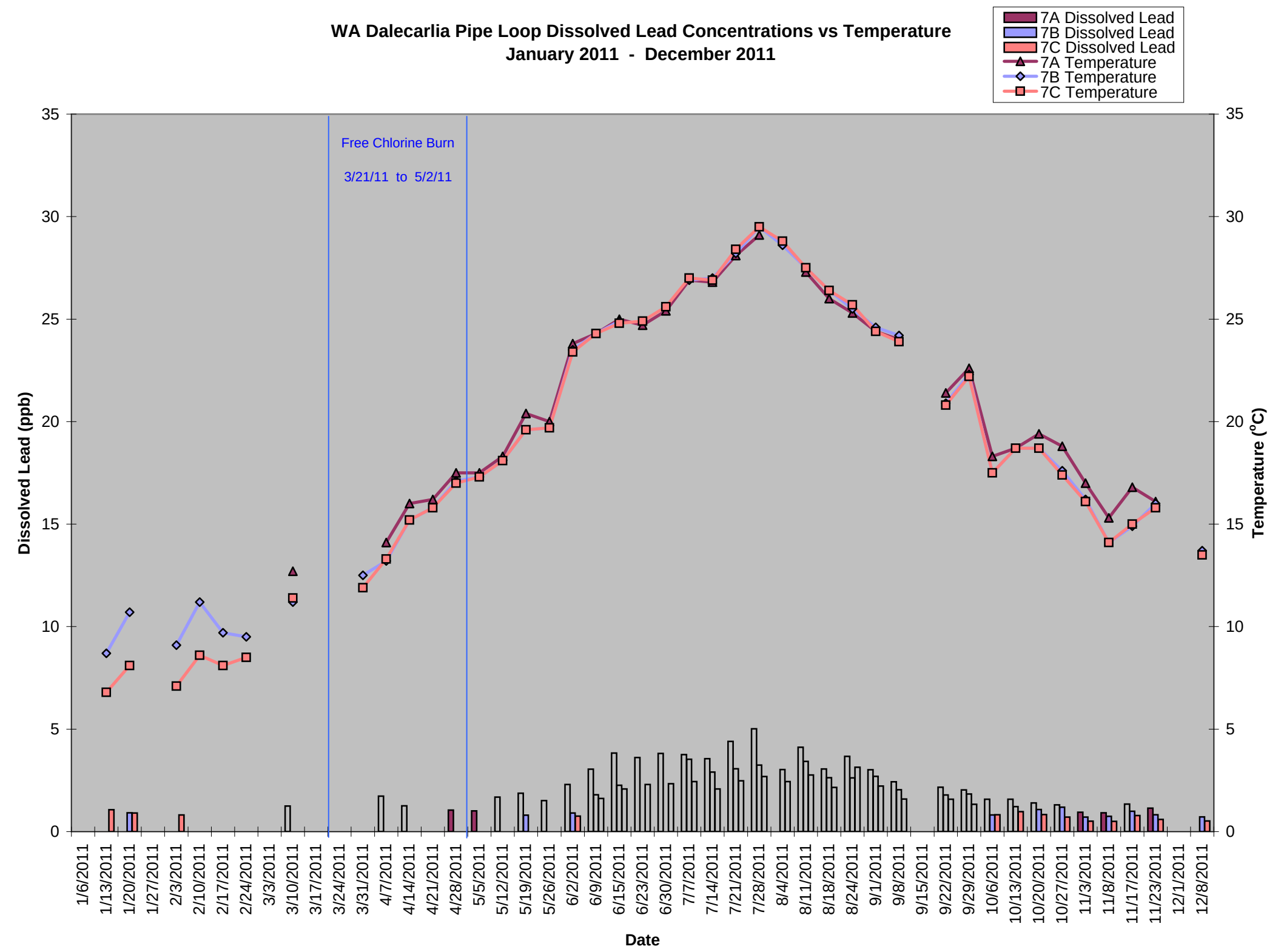
WA Dalecarlia Pipe Loop Dissolved Lead Concentrations vs Temperature
January 2011 - December 2011
7A Dissolved Lead
7B Dissolved Lead
7C Dissolved Lead
7A Temperature
7B Temperature
7C Temperature
Free Chlorine Burn
3/21/11 to 5/2/11
Dissolved Lead (ppb)
Temperature (°C)
Date
0
5
10
15
20
25
30
35
1/6/2011
1/13/2011
1/20/2011
1/27/2011
2/3/2011
2/10/2011
2/17/2011
2/24/2011
3/3/2011
3/10/2011
3/17/2011
3/24/2011
3/31/2011
4/7/2011
4/14/2011
4/21/2011
4/28/2011
5/5/2011
5/12/2011
5/19/2011
5/26/2011
6/2/2011
6/9/2011
6/15/2011
6/23/2011
6/30/2011
7/7/2011
7/14/2011
7/21/2011
7/28/2011
8/4/2011
8/11/2011
8/18/2011
8/24/2011
9/1/2011
9/8/2011
9/15/2011
9/22/2011
9/29/2011
10/6/2011
10/13/2011
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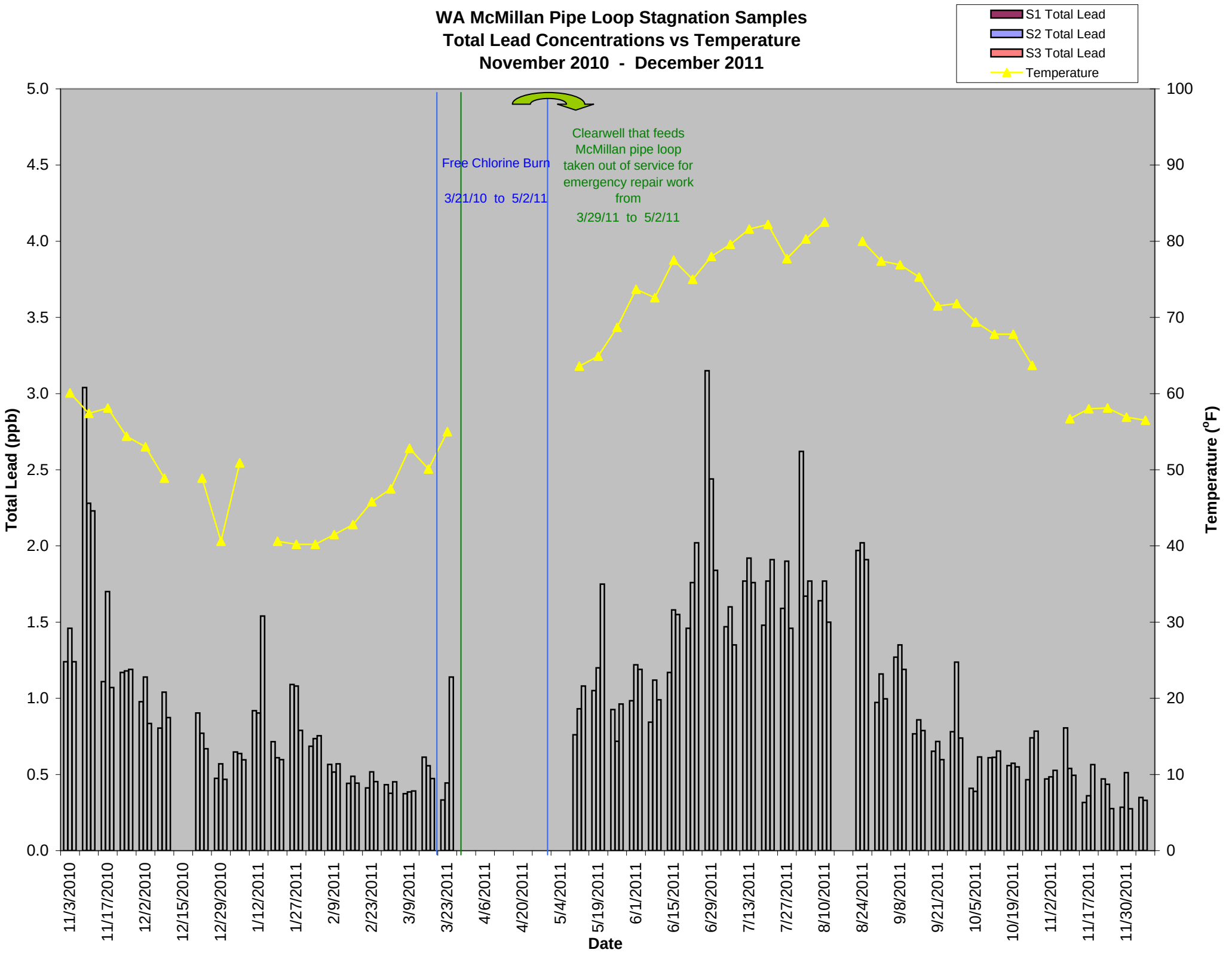
11/23/2011
12/1/2011
12/8/2011


WA McMillan Pipe Loop Stagnation Samples
Total Lead Concentrations vs Temperature
November 2010 - December 2011
S1 Total Lead
S2 Total Lead
S3 Total Lead
Temperature
Free Chlorine Burn
3/21/10 to 5/2/11
Clearwell that feeds McMillan pipe loop taken out of service for emergency repair work from
3/29/11 to 5/2/11
Total Lead (ppb)
Temperature (°F)
Date
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
0
10
20
30
40
50
60
70
80
90
100
11/3/2010
11/17/2010
12/2/2010
12/15/2010
12/29/2010
1/12/2011
1/27/2011
2/9/2011
2/23/2011
3/9/2011
3/23/2011
4/6/2011
4/20/2011
5/4/2011
5/19/2011
6/1/2011
6/15/2011
6/29/2011
7/13/2011
7/27/2011
8/10/2011
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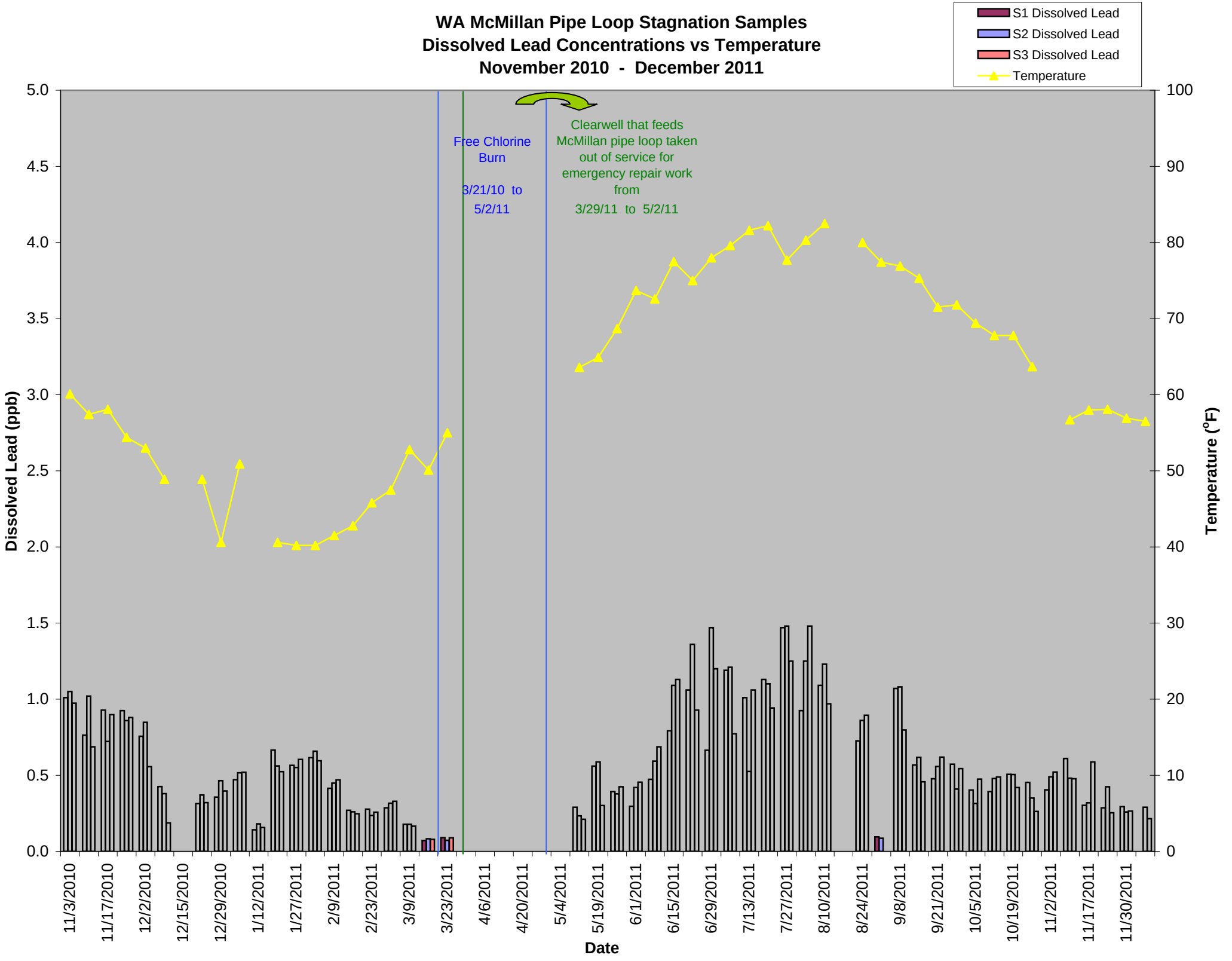
9/8/2011
9/21/2011
10/5/2011
10/19/2011
11/2/2011
11/17/2011
11/30/2011


WA McMillan Pipe Loop Stagnation Samples
Dissolved Lead Concentrations vs Temperature
November 2010 - December 2011
S1 Dissolved Lead
S2 Dissolved Lead
S3 Dissolved Lead
Temperature
Free Chlorine Burn
3/21/10 to 5/2/11
Clearwell that feeds McMillan pipe loop taken out of service for emergency repair work from
3/29/11 to 5/2/11
Dissolved Lead (ppb)
Temperature (°F)
Date
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
100
90
80
70
60
50
40
30
20
10
0
11/3/2010
11/17/2010
12/2/2010
12/15/2010
12/29/2010
1/12/2011
1/27/2011
2/9/2011
2/23/2011
3/9/2011
3/23/2011
4/6/2011
4/20/2011
5/4/2011
5/19/2011
6/1/2011
6/15/2011
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11/30/2011