

# Trail Area Health & Environment Committee



## MINUTES

**Meeting: Tuesday, November 24, 2015**  
**City of Trail – Committee Room #2**  
**7:00 pm**

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### Committee Members in Attendance:

Mike Martin, Chair, City of Trail  
Lisa Pasin, Alternate Chair, City of Trail  
Marylynn Rakuson, Community Member  
Dawn Tomlin, Interior Health  
Steve Como, USWA 480 Rep.  
Sonia Tavares, Community Member

Ron Joseph, Community Member  
Diane Langman, Councillor, Village of Warfield  
Jeannine Stefani, Interior Health  
Brad McCandlish, BC Ministry of Environment  
Mark Tinholt, Teck Trail Operations  
Tiffany Armstrong, Community Member

### Others in Attendance:

Bruce Enns, SNC-Lavalin Inc.  
Cindy Hall, SNC-Lavalin Inc.  
Ruth Beck, Program Manager  
Chris D'Odorico, Teck Trail Operations  
Kerry Wall, Interior Health

Richard Deane, Teck Trail Operations  
Andrea McCormick, SNC-Lavalin Inc.  
Liz Anderson, SNC-Lavalin Inc.  
Sheri Regnier, Trail Daily Times

### MEETING MINUTES: Dated September 8, 2015

Minutes from September 8, 2015 unanimously approved.

After a round of introductions, Mike commended the attendees on the great turnout.

### PRESENTATIONS, REPORTS, DISCUSSIONS & RECOMMENDATIONS:

#### **Presentation:**

#### ***2015 Children's Lead Testing Clinic Results; attached***

Jeannine and Mark shared a PowerPoint presentation. Jeannine gave the results from the clinic and highlighted that the geomean for children's blood lead in 2015 is 4.5 µg/dL and 90% of children tested were under 10 µg/dL. This year all samples were venous (no capillary, or 'finger-poke', tests were taken) and the participation rate was 76%. Also of note, 60% of all children that were tested have lead levels under 5 µg/dL and Area 3 (comprised of the neighbourhoods closest to the smelter) had the lowest average result to date: 4.8 µg/dL. Mike commended the hard work Jeannine has put into the clinics.

Mark presented slides that offer a comparison to other cities and smelters from around the world. It was noted that the title of the first slide ("Comparison with other smelter sites") is misleading as there are non-smelter cities listed (to provide an idea of background lead levels). Ron asked for clarification of the technology used at the Port Pirie and Torreon smelters. Those two smelters are still using the old blast furnace technology and have focused their efforts on fugitive dust reduction. You can see on the graph that their lead levels have decreased significantly through those efforts and Mark noted that as Teck improves the containment of fugitive dust on the Trail site we expect to see a similar step change.

Jeannine presented the concluding messages and noted that the geomean of 4.5 µg/dL does not meet the THEC's 2015 goal of 4.0 µg/dL. Ron commented that regardless, these results still merit a 'job well-done', especially from the perspective of where we started out 20 years ago.

### ***Business related to Lead Testing Clinic Results – Media Release***

Ruth presented the proposed media release and read it aloud.

**Motion** to adopt the media release 'as is' made by Ron; Marylynn seconded. Motion carried.

Note: during the discussion of the Blood Lead Objectives Working Group, the media release was revisited. It was agreed to add a statement at the end of the release: "The THEC is currently in the process of developing new goals for children's lead levels and actions to improve air quality and reduce lead exposure for 2020". The committee accepted this amendment to the media release.

**ACTION:** Mark to send the finalized media release to Ruth and Liz

**ACTION:** Liz to send the final media release to Sandy Lucchini for distribution

### **Program Updates and Business Arising:**

#### **Blood Lead Objectives Setting Working Group**

Mike reminded the committee that the Blood Lead Objectives Setting Working Group (BLOWG) was tasked with providing recommended draft blood lead objectives for 2020. The recommendations are draft as there will be many opportunities for input from the Committee.

Mark presented the recommended goals for 2020:

- A geomean (average) blood lead level of 3.5 µg/dL
- 95% of children will have a blood lead <10 µg/dL

The participation goal will be discussed at the Winter Workshop. Mark presented the reasoning behind the goals and highlighted the recent step change that can be illustrated on the air lead/blood lead relationship graph: it is a log-log relationship and from 2010 to present, a definite shift to lower blood lead is notable. Chris commented that the illustration shows that pre-2010, the air goal of 0.2 µg/m<sup>3</sup> would have corresponded to a blood lead of 5 µg/dL. This speaks to how the aspects of the program (soil program, Healthy Families Healthy Homes Program, Home Renovation Support) are working. Mark continued the presentation and spoke of the 'shift of the BLL histogram to the left': we are steadily moving to a point where 95% of children will have blood lead levels under 10 µg/dL.

Discussion turned to the fact that other sources of lead than the smelter can contribute to children's lead levels. Ron pointed out that one outlier blood lead result can skew the average and asked if we consider factors such as the age of the home and presence of lead paint. Cindy added that we do note such things anecdotally. We can provide lead paint screening for homeowners who give their consent, but it's not always easy to get consent if they are renters. Bruce and Jeannine commented that we track risk factors such as target shooting, lure making, imported pottery, jewelry, toys, lead paint, etc. Mark added that we hold a case management workshop to review what can be done for families where kids are testing high. Ruth pointed out that we are only assuming that we've detected a cause. The US says to assume there is lead paint in your home if it was built before the 1970s. We have the data, but what does it mean and what is a constructive form of communicating it? These issues will be discussed in greater detail at the Winter Workshop as well as in the case management workshop.

Jeannine explained why we stop inviting children to clinics at 36 months old; at that developmental stage, children are better at washing their hands, not as oral, and not likely to be crawling. Children are most vulnerable at younger ages, so we focus on the 0-36 month age group.

Mark continued the presentation by presenting the distribution graph that illustrates how we can expect to achieve both blood lead goals: the geomean of 3.5 µg/dL and 95% under 10 µg/dL. Mark also presented a list of actions the THEC should consider (in addition to Teck's Fugitive Dust Reduction Program) that will contribute to lower blood leads in Trail. These actions will be brought forward at the Winter Workshop.

Mike formally concluded the Blood Lead Objectives Working Group and thanked Mark for his extensive research.

**Family Health:** report attached

Jeannine presented her report.

**Air Quality:** *report attached*

Mark presented Teck's air quality report.

**Air Quality Technical Working Group:** minutes attached

Ron presented the minutes from the most recent AQTWG meeting. He highlighted that they held an informal meeting with the Ministry of Environment regarding SO<sub>2</sub> guidelines. THEC may be impacted in the future as SO<sub>2</sub> might become something we address as a committee.

**Home & Garden/Program Office:** *report attached*

Cindy presented the Home & Garden report. Mike thanked Sheri Regnier for her Trail Times article on radon. Mike commended Cindy on the progress of Healthy Families Healthy Homes. Ron expressed interest in participating in the Lead Safe Home Renovation video reviews.

**Program Manager:**

No formal report; Ruth has been busy supporting the other work that's been presented. Mike shared that the Program Manager contract with Ruth has been renewed for 2016. He commended Ruth as a tremendous asset to the program. Ruth added that her specific project focus for 2016 will be the public consultation and refining the THEP website.

**Executive Committee:**

Ruth presented a verbal report from the Executive Committee.

1. Draft agenda for the Winter Workshop:
  - a. Human health risks from lead & other metals; the pathways for lead exposure: a refresher on how to prevent exposure
  - b. Potential refinements to the Program
  - c. Public Consultation: let's get on the same page about what we're taking to the publicThe Winter Workshop will require approximately 4-5 hours of meeting time. Ruth is proposing to hold it in a conference center such as the Best Western and to provide dinner to attendees. Daycare will be provided. Ruth will send out a Doodle Poll to set a workshop date in late February or Early March.
2. Sustainable Governance  
Ruth will be convening a meeting of the Sustainable Governance Working Group in the near future. She will send a Doodle Poll to the members of that group.
3. Membership of the THEC  
As the Winter Workshop will be an ideal opportunity for people to be educated on the program, members may want to keep an eye out for people who might be interested in joining the THEC.

**Consultation Working Group:**

Ruth presented a verbal report from the Consultation Working Group. This working group hires and oversees the public consultation consultant and the implementation of the consultation plan. At the last meeting, a hiring sub-committee was created. It is the hope that a consultant will be hired by the end of January 2016. This consultant will work with the Consultation Working Group to develop the scope of the consultation.

**Community Check-In:**

Ron expressed concern over any impact that more stringent carbon restrictions may have on Teck's budget for the THEP. Richard stated that BC is already ahead of the curve with a carbon tax that Teck is paying and so Teck has already factored it into their budget. Brad added that as BC is already involved with cap and trade for carbon emissions he doesn't foresee additional impacts.

**NEXT MEETING: February 2016, date to be determined.**

# Fall 2015 Blood Lead Results



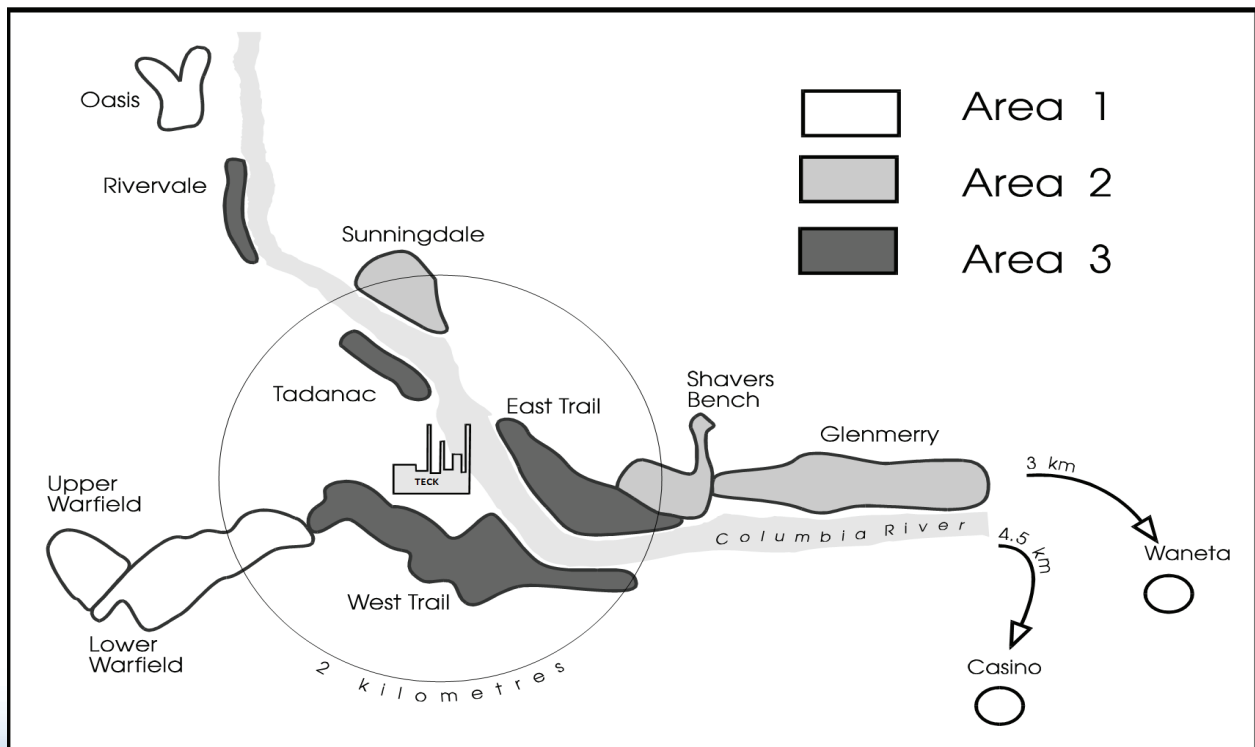
Interior Health  
*Every person matters*

## Who Was Tested in 2015?

- Target group:
  - Children aged 6-36 months, living in City of Trail or Rivervale (Area 2/3)
  - This is the group our results reflect
- Also:
  - New to area, up to age 5 years old
  - Previous case management for follow-up
  - Parents who requested testing for their child from any area



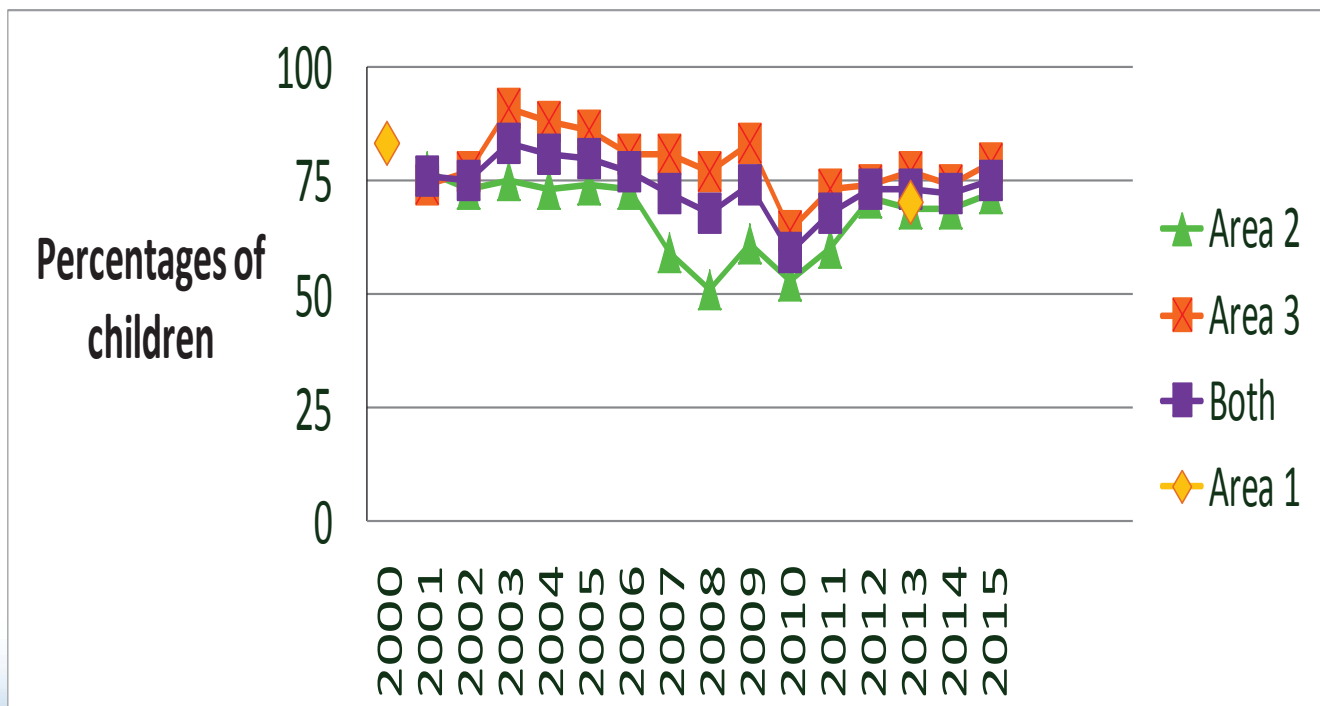
# “Areas” & Neighbourhoods



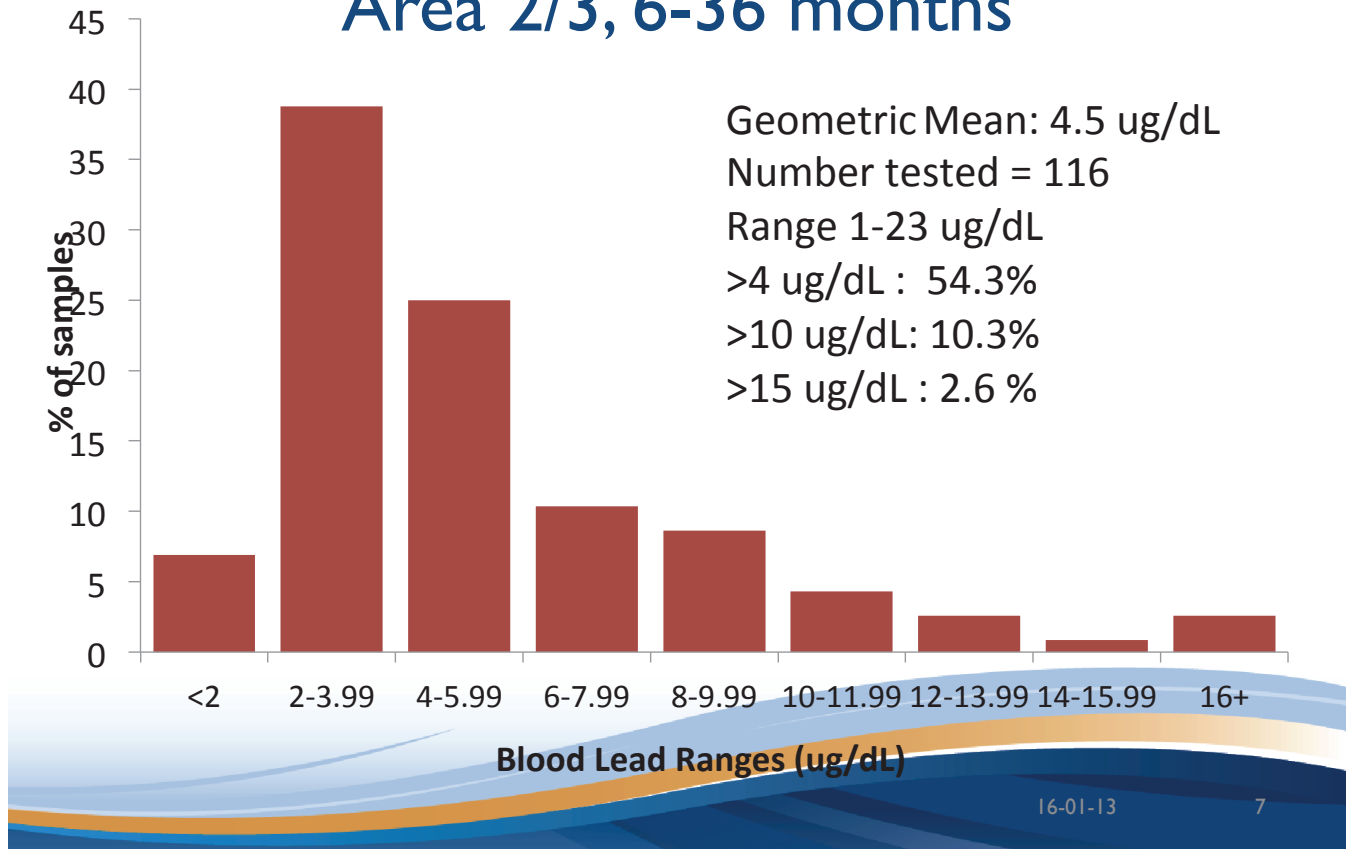
# Fall 2015 Total Participation By Target Areas 6-36 months

Participation for 2015				2014
Breakdown by Areas	# Children Contacted	# Children Participating	% Children Participating	
AREA 2 TOTAL	77	56	73%	69% (56)
AREA 3 TOTAL	79	63	80%	74% (63)
AREA 2 & 3	156	119	76%	72% (119)

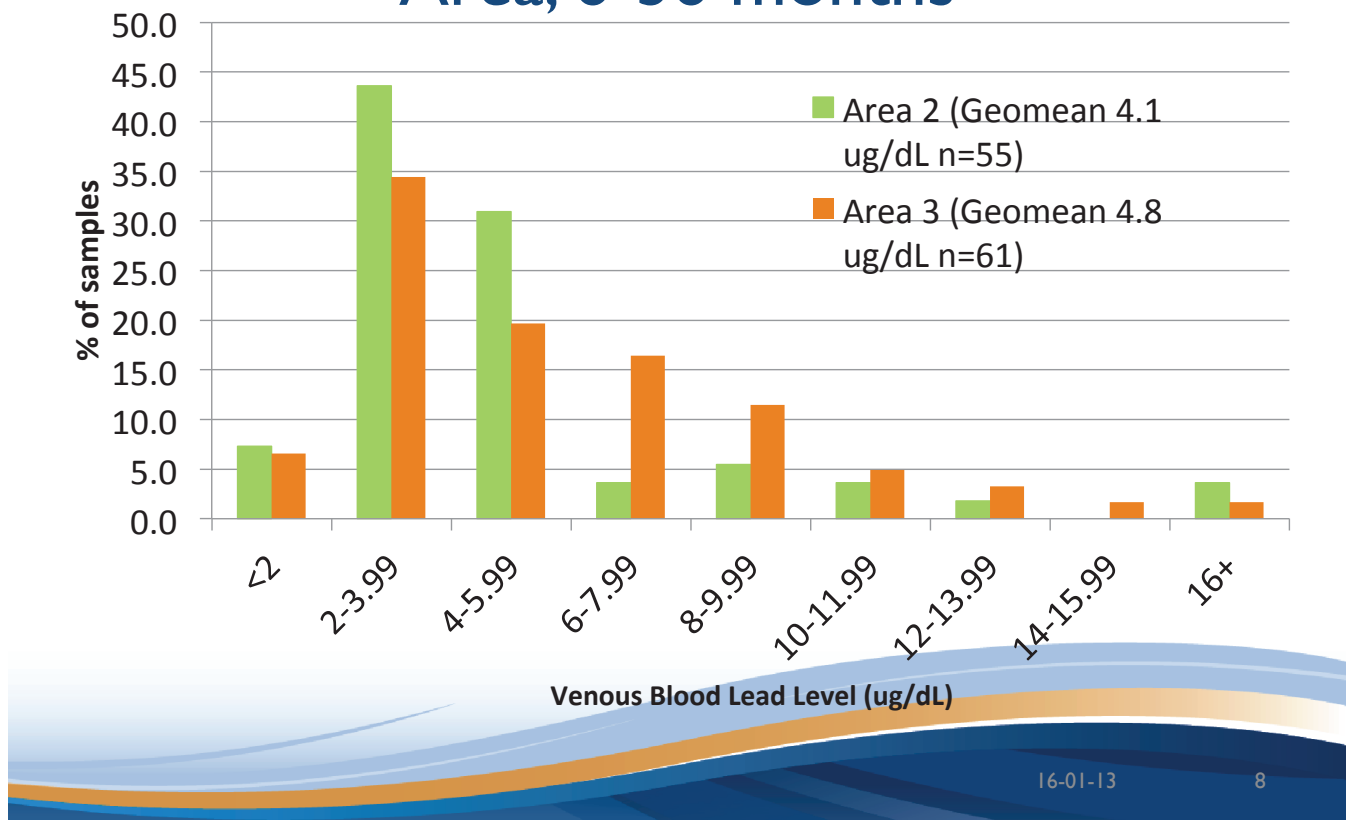
## Percentages for participation by area and general trend



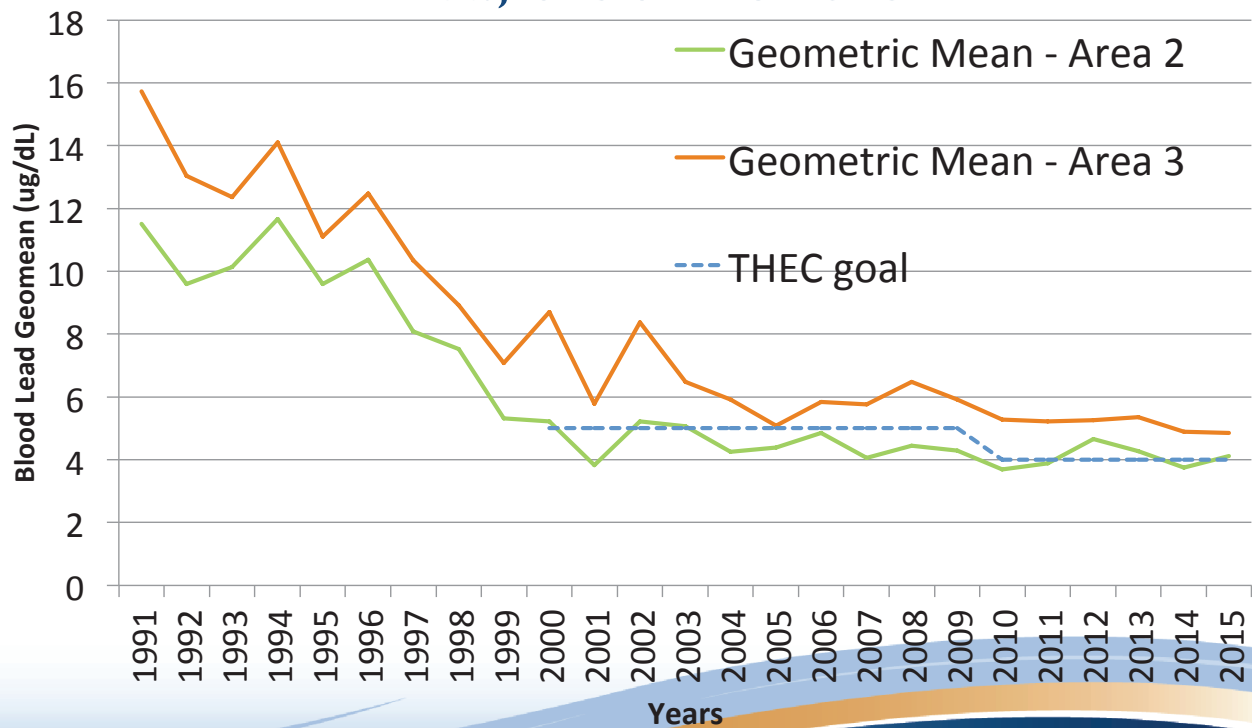
# 2015 Venous Blood Lead Ranges Area 2/3, 6-36 months



# 2015 Venous Blood Lead levels by Area, 6-36 months



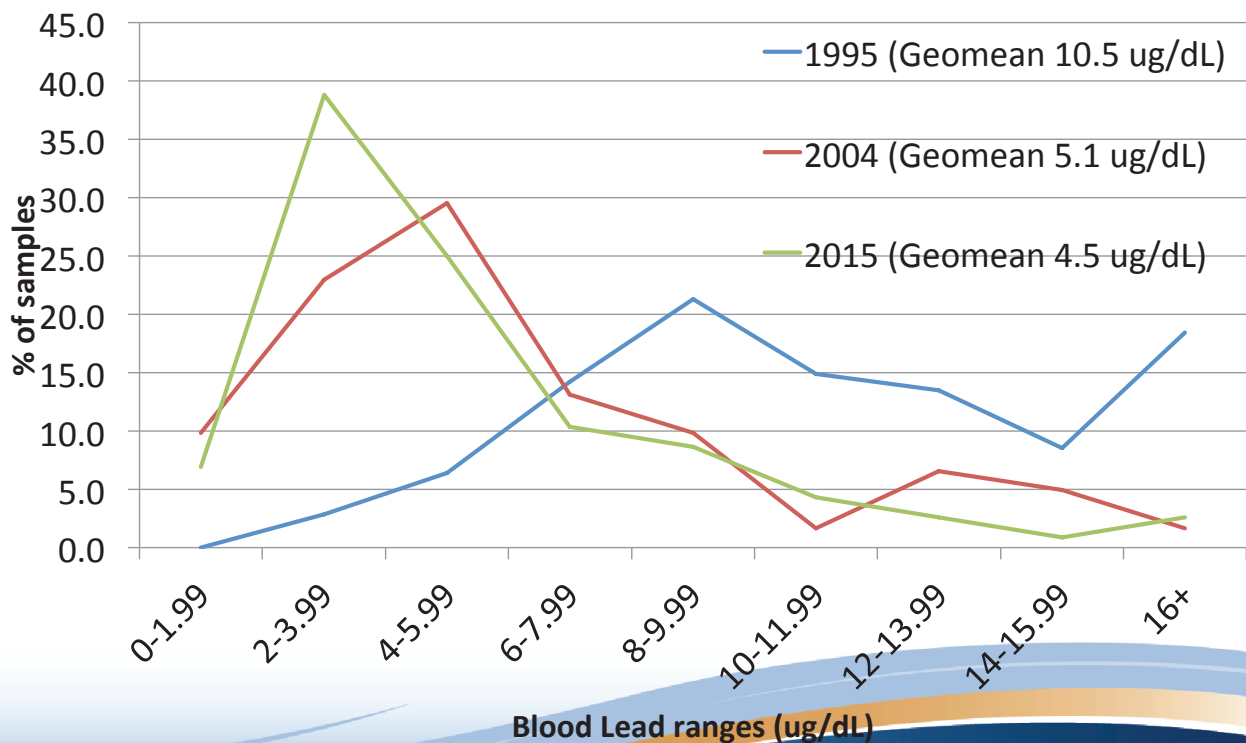
# 2015 Venous blood Lead Geomean by Area, 6-36 months



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# 1995, 2004, 2015 Venous Blood Lead Ranges Area 2/3, 6-36 months

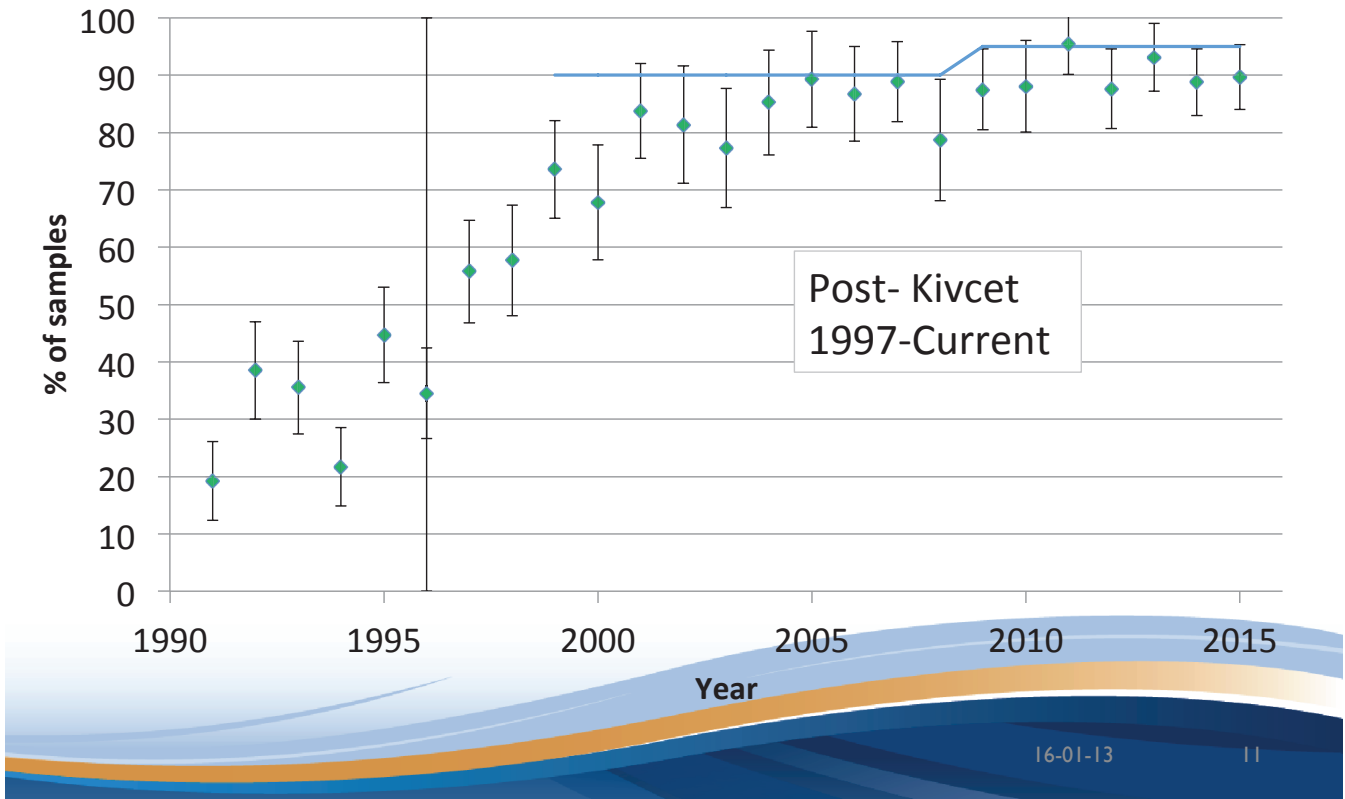


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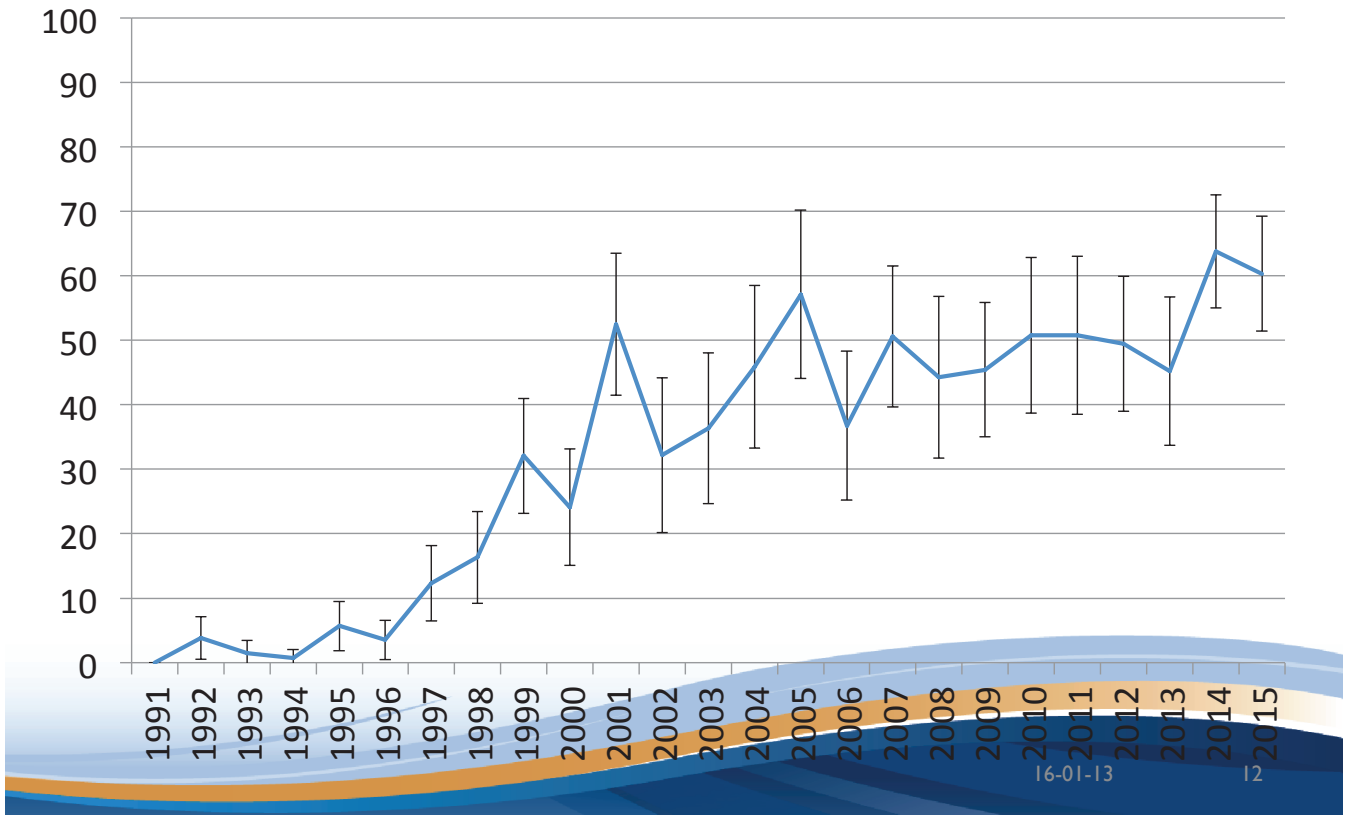
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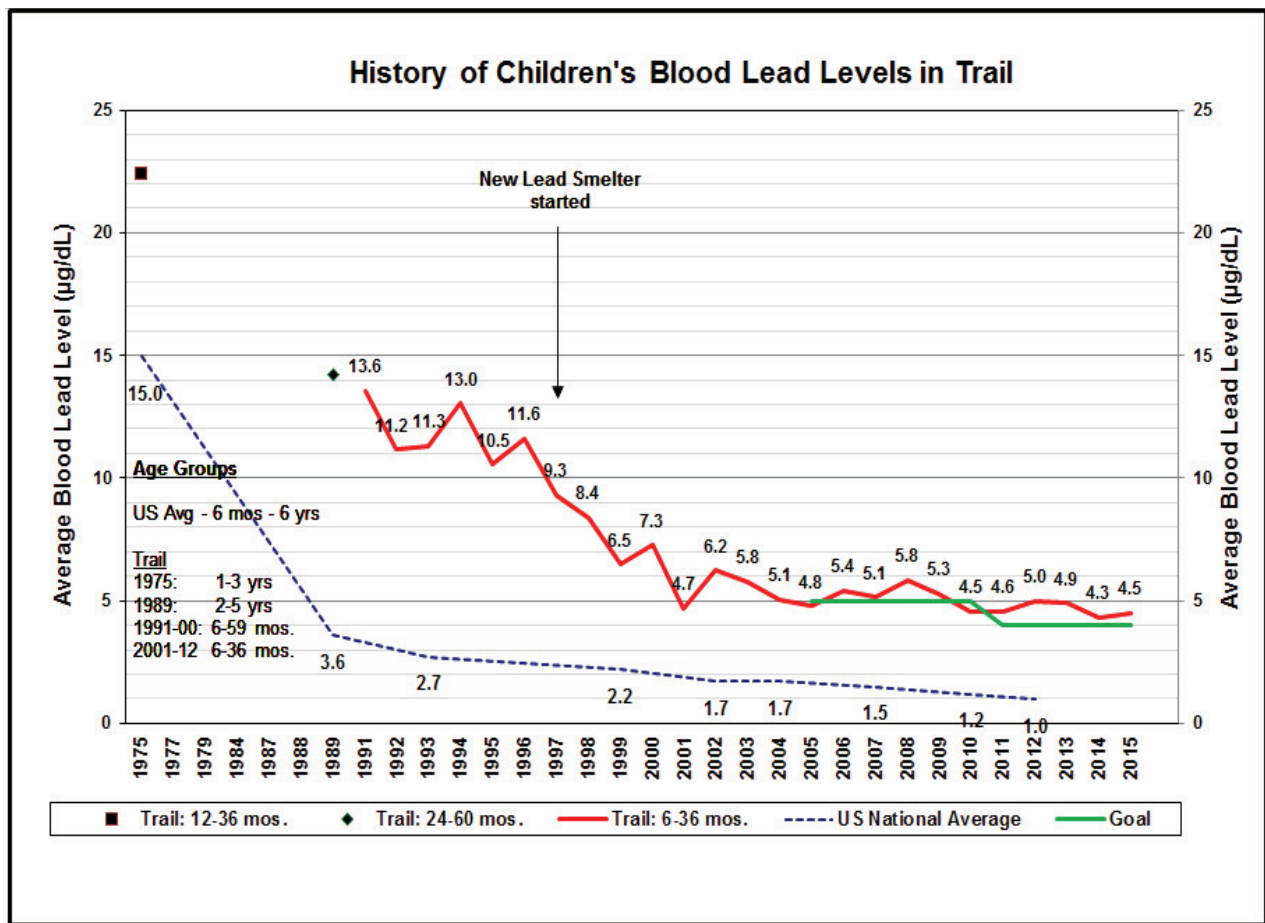


# 1991-2015% of venous blood lead samples, <10 ug/dL, area 2/3, 6-36 months



# Proportion of Venous Samples <5ug/dL





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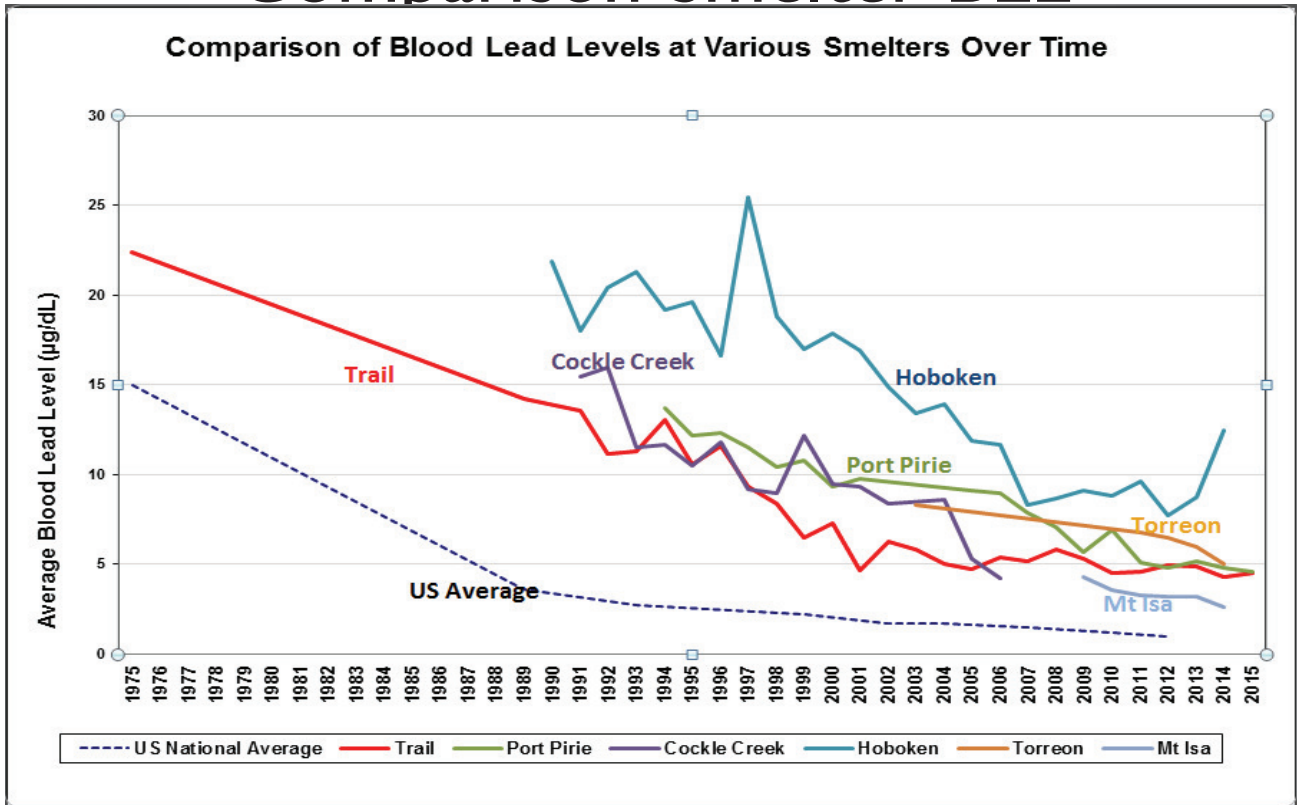
## Comparison with other smelter

City/Region	Country	Nature of site	Age of kids tested	Year	Geomean Blood Lead Level (µg/dL)
La Oroya	Peru	Pb smelter closed 2009	< 6 yrs	2011	~10
Hercalaneum	U.S.A.	Primary Pb smelter -closed	< 6 yrs	2003	8.0
Hoboken (Moretusburg)	Belgium	Secondary Pb smelter	2.5-6 yrs	2015	5.6
Torreón	Mexico	Primary Pb smelter	<16 yrs	2014	5.2 avg
Rouyn-Noranda QC	Canada	Primary Cu smelter	6 mos to 5 yrs	1999	5.2
Broken Hill	Australia	Pb mining	1-4 yrs	2014	5.2
Port Pirie	Australia	Primary Pb smelter	<5 yrs	2015	4.6
<b>Trail BC</b>	<b>Canada</b>	<b>Primary Pb smelter</b>	<b>0.5 to 3 yrs</b>	<b>2015</b>	<b>4.5</b>
Belledune, NB	Canada	Pb smelter, industry	3-6 yrs	2005	3.5
Hamilton, ON	Canada	Urban/city centre	< 6 yrs	2008	3.0
Mount Isa	Australia	Primary Pb smelter/mine	1-5 yrs	2014	2.6
Flin Flon, MB	Canada	Closed Cu smelter	0.5 - 6 yrs	2011	1.4
St Johns, Nfld	Canada	Urban	1-5 yrs	2011	1.2
<b>Nation-wide</b>	<b>U.S.A.</b>	<b>Urban/rural (NHANES)</b>	<b>1 to 5 yrs</b>	<b>2012</b>	<b>1.0</b>
<b>Nation-wide</b>	<b>Canada</b>	<b>Urban/rural (CHMS)</b>	<b>3-5 yrs</b>	<b>2013</b>	<b>0.8</b>
Vancouver	Canada	Urban/city centre	2-3 years	1994	5.4
Fraser Health	Canada	Urban/city centre	0-5 years	2014	<2

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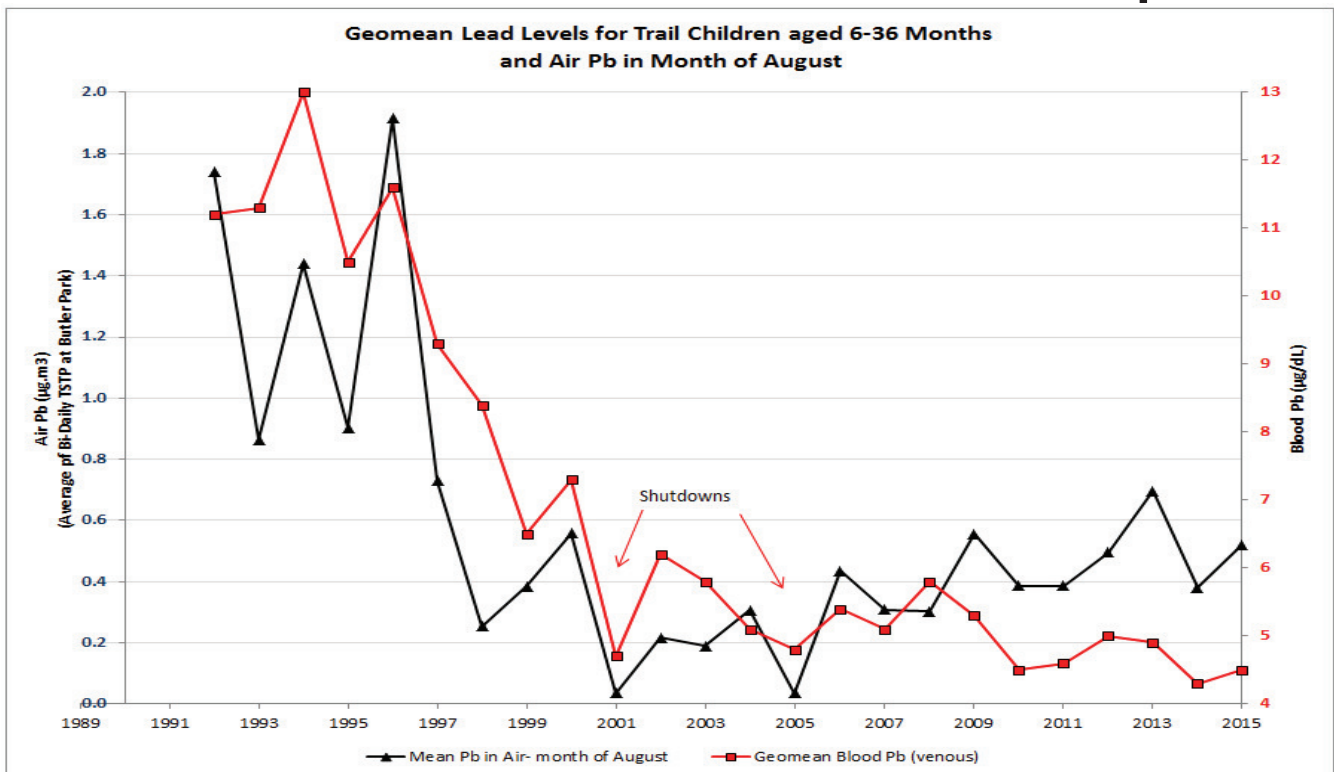
# Comparison Smelter BLL



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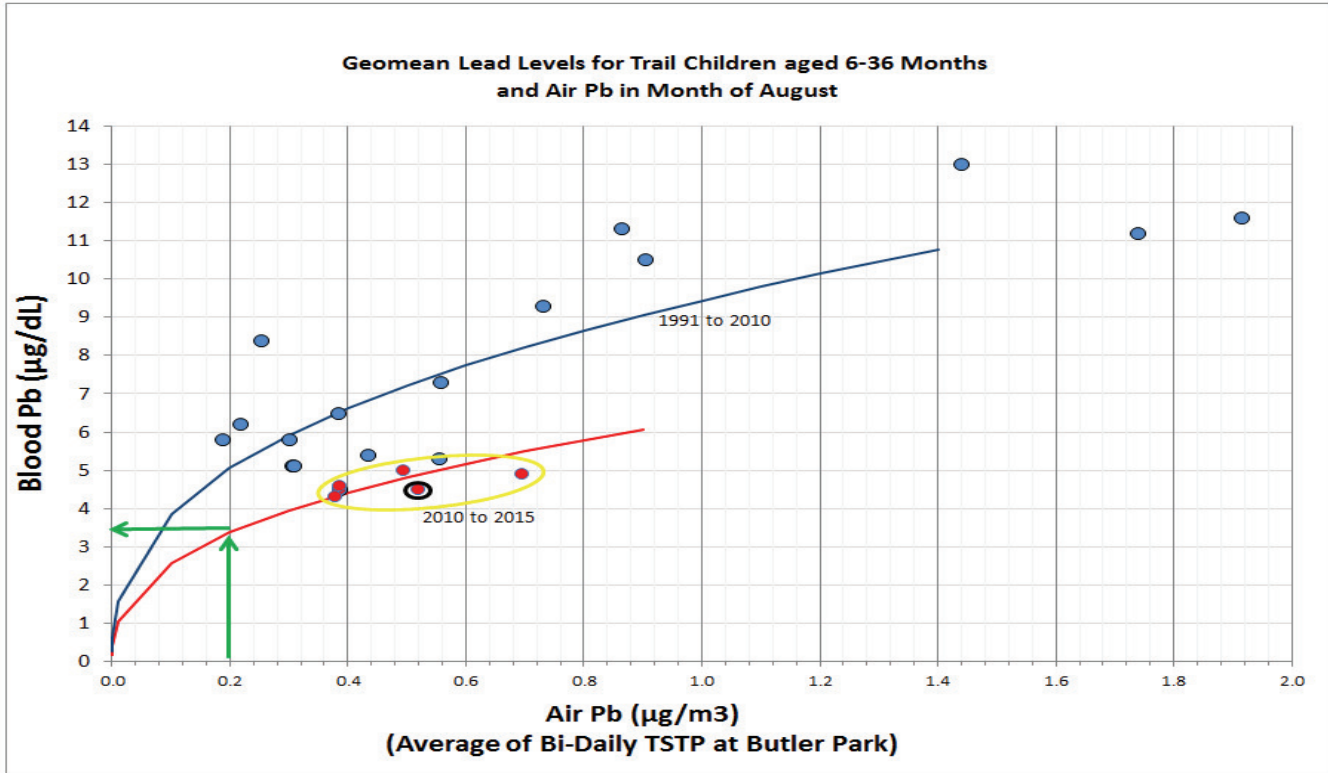
# Air Pb / Blood PB Relationship



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# Air Pb / Blood Pb Relationship



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## Concluding Messages

- We continue to have a high level of participation in this voluntary program
- The blood lead results for 2015 are not significantly different from 2014. For example, the 2015 geomean (“average”) of 4.5 micrograms per decilitre is not statistically different from the 2014 result of 4.3
- The 2015 blood lead geomean did not meet the THEC’s 2015 objective of 4.0 micrograms per decilitre. However the greatest benefits of the Fugitive Dust Reduction Program have yet to be realized. The smelter recycle building currently under construction is anticipated to reduce fugitive dust by 25%.

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## Concluding Messages

- The level of lead in air continues to have a significant influence on blood lead levels. Late summer 2015 conditions were record warm and dry. The level of lead in community air in August 2015 was higher than in August 2014.
- Teck’s Fugitive Dust Reduction Program currently offers the greatest opportunity to further reduce lead emissions to achieve our health and environment goals. In combination with our other programs (e.g. soils program, Healthy Families Healthy Homes, home reno support), we are on course to achieve lower blood lead goals in future.

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# Concluding Messages

- There has been significant improvement in children's blood lead levels over the past 20 years, and Trail is among the world's leading smelter communities in terms of low lead emissions and blood lead levels.
- There is no known threshold below which there is no effect from lead exposure. The lower the better.
- For information regarding lead, its effects, and the robust community supports available in the Trail area, please visit [www.thep.ca](http://www.thep.ca)

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**TRAIL  
A R E A  
HEALTH &  
ENVIRONMENT  
COMMITTEE**



**NEWS RELEASE**

**2015 Children's Lead Testing Results & Projects to Reduce Lead Exposure**

November 25, 2015 The Trail Area Health & Environment Committee (THEC) presented results of the 2015 children's blood lead testing clinic at its meeting last night. The average blood lead level for children aged 6 to 36 months in Trail and Rivervale is 4.5 µg/dL (micrograms per deciliter) with 90% of children testing below 10 µg/dL. There continues to be a very high participation rate of about 75% for this voluntary program, equal to the THEC's goal.

"The fall 2015 results are similar to 2014. Overall, children's lead exposure in Trail has been declining; the results from year to year show a trend of gradual improvement," said Dr. Kamran Golmohammadi, Medical Health Officer with Interior Health. "The children's lead testing program is very important for identifying the smaller group of young children who have slightly higher than average blood lead levels so that their lead exposure can be reduced."

Mayor Mike Martin, Chair of the Health & Environment Committee, says: "The THEC has done a good job over the years of facilitating reduced exposure of children to lead in our community. Unfortunately, we did not reach our goal of having an average of 4 µg/dL for children's lead levels by 2015 but we know that the greatest benefits of Teck's Fugitive Dust Reduction Program have yet to be realized. The smelter recycle building, currently under construction, is an example of this. It is important for Teck to continue its investments in reducing fugitive dust, which we believe offers the greatest opportunity to reduce children's lead levels."

Richard Deane, Manager of Public Affairs at Teck Trail Operations says: "Teck is committed to continuing to reduce lead emissions and meeting the Trail Area Health & Environment Committee's 2018 air quality goals. We have made significant reductions in air emissions in the past 20 years and are further

reducing emissions through the ongoing Fugitive Dust Reduction Program, a multi-year effort to continue to improve community air quality. The program includes the Smelter Recycle Building, currently under construction, which will reduce offsite dusting by an estimated 25%. It also includes two wheel washes and increased road cleaning to reduce tracking of materials onto roadways, reducing dust sources within the operating plants, and covering or coating materials stored in the open.”

The THEC is currently in the process of developing of new goals for children’s lead levels and actions to improve air quality and reduce lead exposure for 2020.

#### About the Trail Area Health & Environment Program

The Trail Area Health & Environment Program is a community-led program with five main areas of activity: Family Health, Home & Garden, Air Quality, Parks and Wildlands, and Property Development. THEC promotes a healthy environment through a comprehensive integrated program that successfully improves air quality and children’s blood lead levels, and promotes the health of the community. The Air Quality Program reduces smelter emissions and makes the largest contribution to achieving health and environment goals. All our activities work together to get the best results – lower exposure, lower health risks, and a healthier environment.

The Trail Area Health & Environment Committee (THEC) oversees the program. THEC is a partnership between the local community, Teck, the Ministry of Environment, and Interior Health. Over the past two decades of successful collaboration, children’s blood lead levels in Trail have reduced significantly and air quality has greatly improved. THEC’s community-led partnership has been recognized internationally as an effective collaborative model for safeguarding health and the environment. In 2011 the program received a Premier’s Innovation and Excellence Award for Partnership. For more information please visit [www.thep.ca](http://www.thep.ca)

#### For more information, contact:

Karl Hardt, Interior Health Communications (250) 354-3030

Mayor Mike Martin, Trail, Chair of the THEC (250) 364-0809

Richard Deane, Manager of Public Affairs, Teck Trail Operations (250) 364-4118



## FAMILY HEALTH REPORT

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November 24, 2015

### RECENT HIGHLIGHTS

1. Fall 2015 Blood Lead Clinic results
  2. Healthy Family Visits
  3. Community Outreach
  4. Winter Clinic planning
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### ADDITIONAL DETAILS

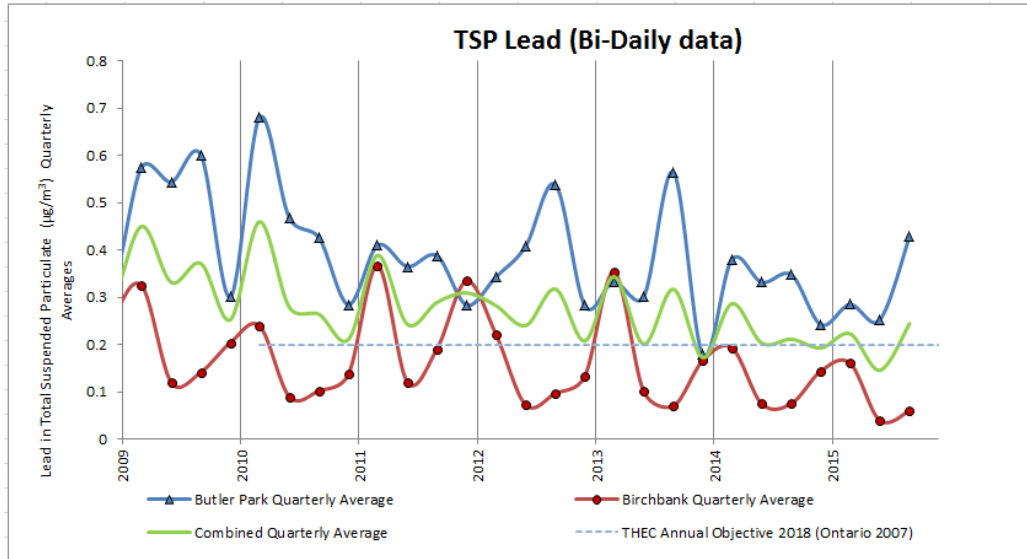
1. Fall 2015 Blood Lead Clinic results
  - See power point
2. Healthy Family Visits
  - 71 done 2015
  - 6 since September 8/2015
  - 2 were with Case Management visits
  - 1 visit scheduled
3. Community Outreach
  - Attended local pregnancy outreach program on November 10<sup>th</sup> and once a month.
  - Presenting with Cindy at the Lower Columbia Perinatal Committee on December 9<sup>th</sup>.
  - Presenting with Cindy at Prenatal Classes on December 10<sup>th</sup>.
4. Winter Clinic planning
  - Finalizing dates for Winter Clinic in February.
  - Audit pulled from the Public Health Information System to identify those that can be offered testing (ie those that weren't 6 months for the Fall 2015 clinic). Also to offer testing to Case Management children.
  - Around 45-50 children to be invited.



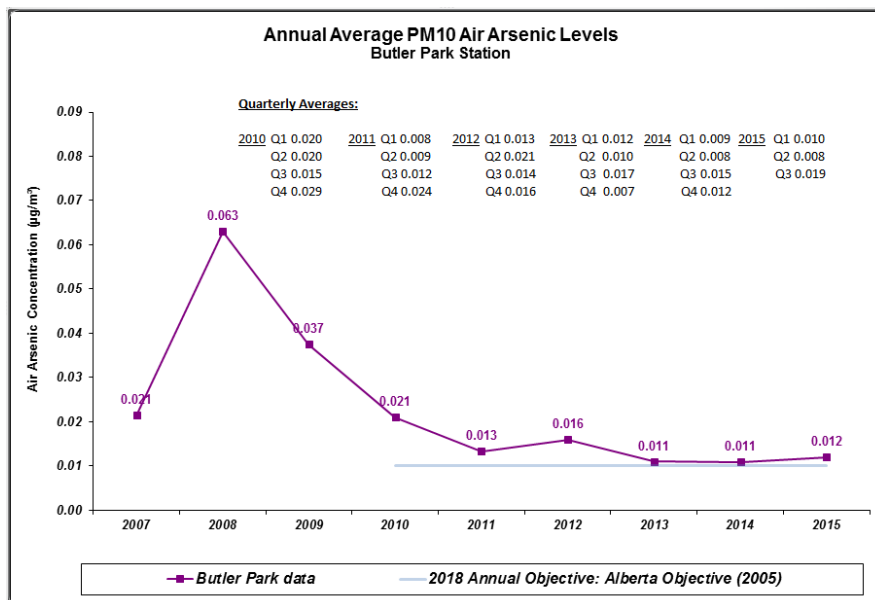
November 24, 2015

## RECENT HIGHLIGHTS

- Lead in Air:** The chart shows quarterly averages for Lead in air (measured in Total Suspended Particulate) for Butler Park (blue), Birchbank (red), and the average between the two (green), in comparison to the 2018 THEC Air Quality Objective (dashed line). Quarterly averages for Lead in ambient air are expected to have some variability due to season, weather, predominant wind and operational variance. The most recent quarterly result (e.g. 0.42  $\mu\text{g}/\text{m}^3$  at Butler Park) reflects the record hot dry weather in July and August.



- Arsenic in Air:** The chart shows the annual average for Arsenic in air (measured as inhalable  $\text{PM}_{10}$  fraction) for Butler Park (purple) in comparison to the 2018 THEC Air Quality Objective (blue line). Improvements between 2008 and 2011 appear to be the result of maintenance of the Continuous Drossing Furnace and Refinery Scrubber Stack. The 2015 average to date is 0.012  $\mu\text{g}/\text{m}^3$  and reflective of the hot dry weather in July and August 2015.



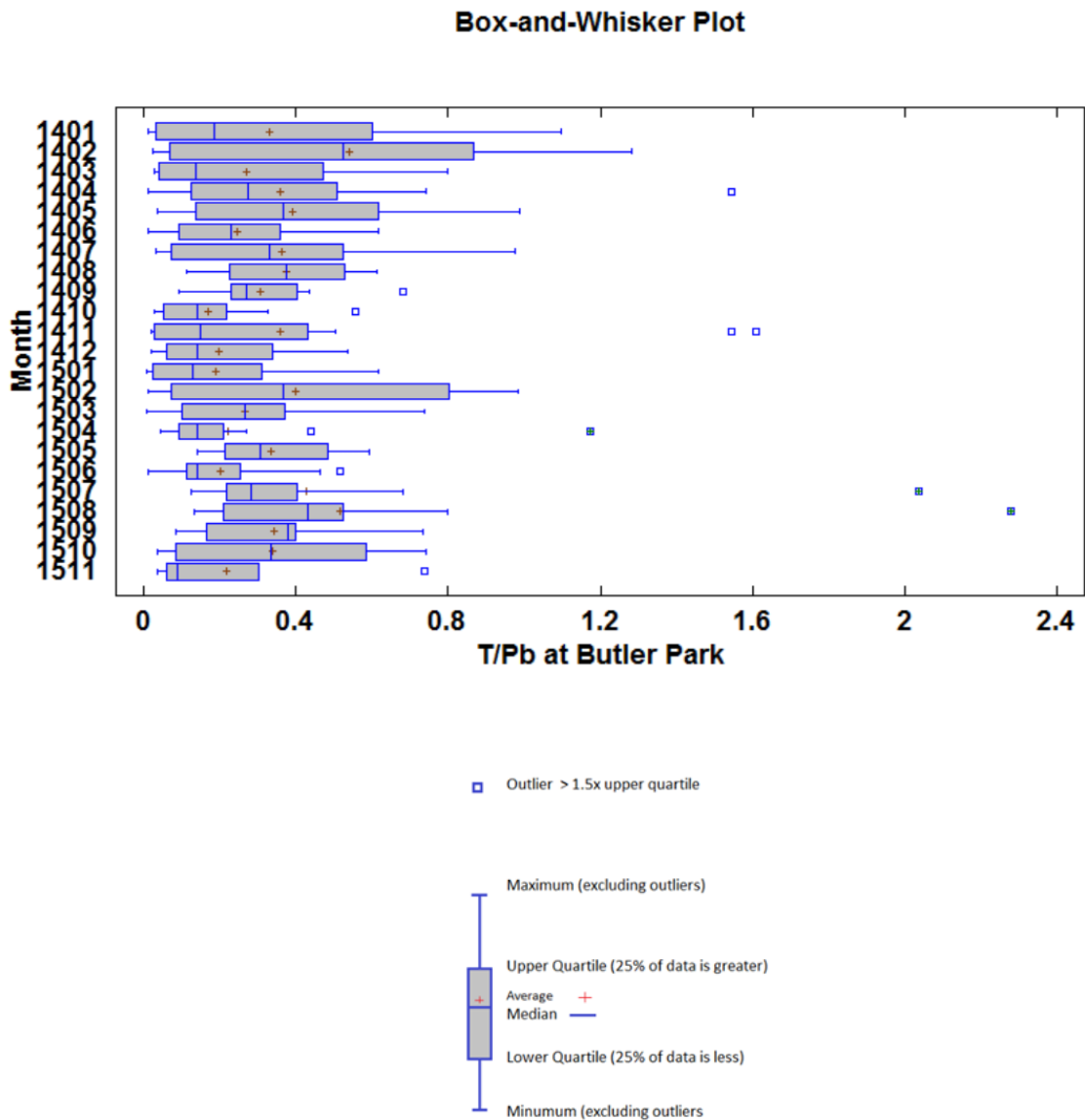
- 3. The Air Quality Technical Working Group met on November 4. Minutes of the meeting are attached.

ISSUES FOR DISCUSSION

None brought forward.

BACKUP DETAIL FOR REFERENCE:

Box Plot for last two years of Air Quality, Butler Park



**Trail Health & Environment Committee  
Air Quality Technical Working Group**

**MINUTES**

**Meeting: Wednesday, Nov 4, 2015**



**In Attendance:**

Ron Joseph, Community Rep, Chair  
Mark Tinholt, Teck, Secretary  
Mike Martin, City of Trail  
Chris D'Odorico, Teck  
Bill Jankola, Teck  
Suzanne Belanger, Teck

**Guests**

Kris Ord, MOE Executive Director, Env Standards Branch  
Glen Okrainetz, MOE Clean Air Section, Victoria  
Natalie Suzuki, MOE Clean Air Section, Victoria  
David Ewing, Teck

**Regrets:**

Brad McCandlish, BC MoE  
Gord DeRosa, Community Rep

**MEETING MINUTES:**

1. Representatives from MOE Victoria attended to present on MOE Provincial SO<sub>2</sub> Guidelines and Canadian Air Quality Standards (CAAQS) for SO<sub>2</sub>. Information shared regarding past, ongoing and future priorities for Trail to provide context as to how to interpret/apply the guidance; further communications to be arranged.
2. Inventory of Air Emissions and Priorities: Teck gave overview of how community input fits in to overall Environmental Aspects Assessment process. Completed preliminary review of individual ranks from community members as to what they personally see as the order of priorities. Largely, the ranks were in agreement, some will require more discussion when all members can be present.
3. Summary of Excursions/Feedbacks over period since last Sept meeting. Most of the feedbacks were related to visibility from the Lead Stack.
4. Next meeting tba

November 24, 2015

### RECENT HIGHLIGHTS

1. Great news from the Community Program Office (CPO) – There has been a lot of traffic at the CPO for Home Reno Support Program (HRSP) requests and for Radon Kits. We have already surpassed our 2014 tally of 91 for HRSP; we're currently at 101 requests. The City of Trail declared November as Radon Aware Month and the attention it received in the newspaper has resulted in a rush on radon detection kits. Last year we gave out 32 kits; in this month alone, we've given out 69! The total number of kits given out this year currently stands at 102. One anecdotal observation: people who are 60 and older are the majority of those coming in for radon kits and mentioning that they read about it in the newspaper.  
If you are interested in testing for radon in your home, kits are available through Liz for a suggested donation of 15\$.
2. We have completed all 8 onsite video shoots for the Lead Safe Renovation Video series. We have one more interview session set up for Nov 26<sup>th</sup> and then our videographer can really start digging into the editing. The review committee should start seeing some drafts by the beginning of December.
3. Our Healthy Homes Program is caught up for all types of services for families with young children - YTD 78 HH visits have been completed for 2015. There is currently no waiting list for home visits or for soil testing and yard improvement work is already being planned for next spring. This gives us the opportunity to do follow-up with those that need it (i.e. paint screening) and to work on soil testing requests from the rest of the community.