



Trail Health & Environment Committee Fugitive Dust Update

June 25, 2013

Fugitive Dust Project:

Project Goals



- Reduce fugitive dust emissions
 - Improve materials storage for raw materials, intermediate process materials and recycles at Trail Operations
 - Develop sustainable materials transportation, handling and recycling practices
 - Reduce fugitive emissions from existing processes and infrastructure
- Develop 5-year Plan with milestones and targets to achieve THEC 2018 ambient metal targets
 - Improve risk and source identification
 - Focus on continuous improvement
 - Develop improved control measures to prevent excursions from resulting in elevated fugitive emissions

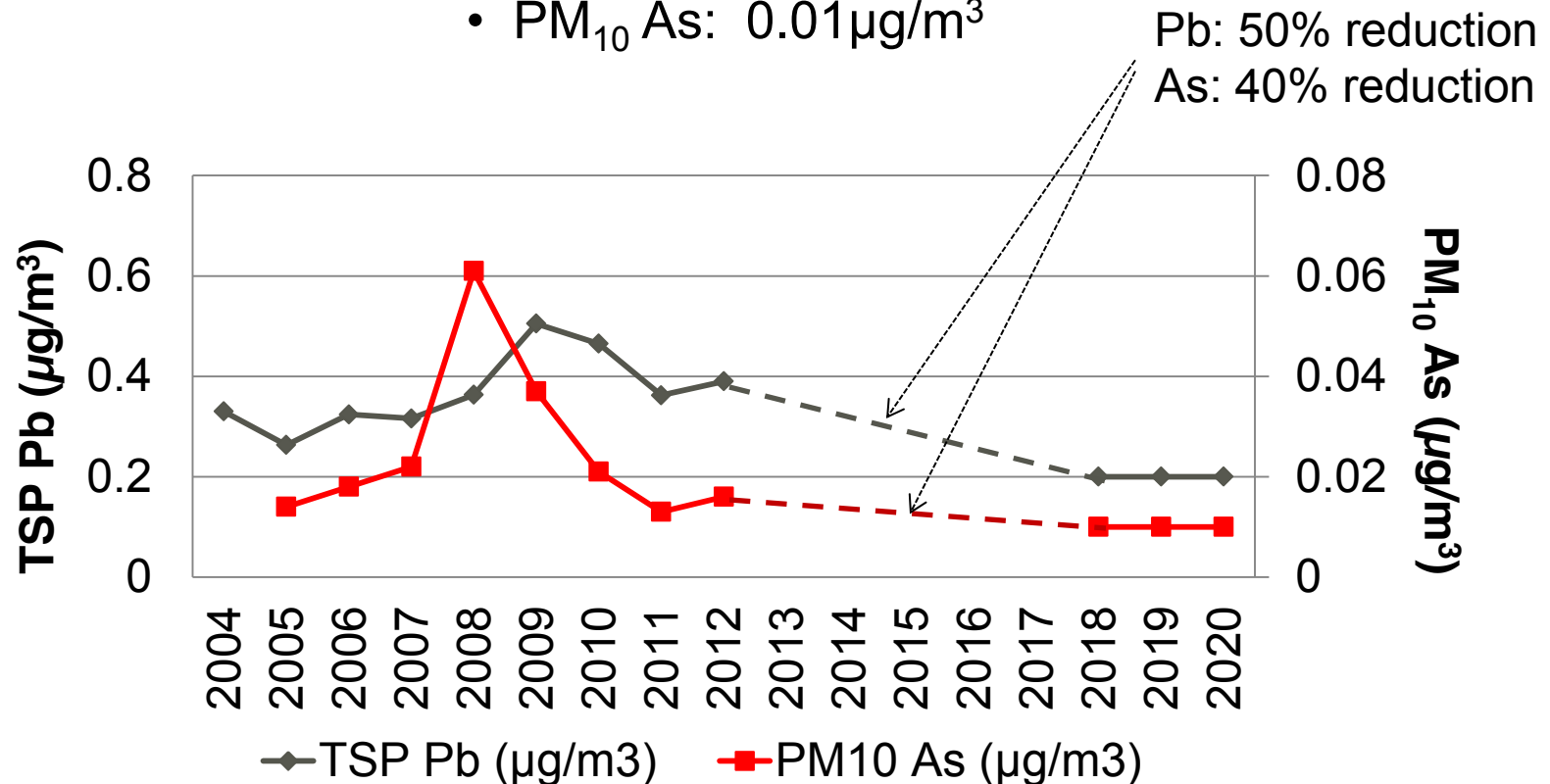
Fugitive Emissions

- Ambient Air Targets at Butler Park



Achieve 2018 targets:

- TSP Pb: $0.2 \mu\text{g}/\text{m}^3$
- PM₁₀ As: $0.01 \mu\text{g}/\text{m}^3$



Fugitive Dust Project:

Project Status – Materials Storage



Tadanac North Enclosure

- Site preparation underway
- Construction to commence first week of July
- Project complete October, 2013



Fugitive Dust Project:

Project Status – Materials Storage



Smelter Recycle Enclosure

- Feasibility study peer review underway

Roaster Feed Enclosure

- Engineering study initiated



Fugitive Dust Project:

Project Status – Transportation



Roadway Fugitive Dusts

- Sweeper and wash trucks targeting main sources
 - Monitor and track use weekly
- Truck wheel wash
 - One in use at Smelter Recycle Mix area
 - Second unit being installed near the Roasters
- Road sprinklers
 - Expanded use of sprinklers to new roadways

Fugitive Dust Project:

Project Status – Transportation



Fugitive Dust Project:

Project Status – Building Fugitives



Identified significant sources

- Work completed Spring 2013
- Key source of fugitive emissions identified
 - KIVCET
 - Lead Refinery
- Individual plants developing & implementing plans

Fugitive Dust Project:

Project Status – Improved Monitoring



XACT Monitor

- Butler Park Station
 - Useful tool for troubleshooting process issues
- Expanding to second XACT
 - Located North of the property, similar distance as Butler Park.
 - Commissioning underway this week
 - Operational mid-July

Fugitive Dust Project:

Project Status – Five Year Plan



Draft completed

- Elements include:
 - Enclosures – common element of successful fugitive emission reduction plans
 - Controlling & reducing fugitive emissions from buildings and roadways
 - Human factors – improving employee awareness of the issue and what they can do to facilitate improvement
 - Continues improvement – annual evaluation and adjustment of plans
- Reviews with Senior Management and Operating Managers underway