Regional Soil Pb Analysis Guidelines

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1 Introduction

Developing methods to analyze harzards, such as contaminated soils and waters requires adhearance to strict field, laboratory, and documentation protocols for three reasons.

First, as enviroronmental scientists, our aim is to collect valid data. In the cases of analytic chemistry, generating spurious data because of flawed methods is not only frustrating, but can lead to the wrong conclusion.

Second, in the case of contaminents, there may be legal implications, thus, if the hope to that the data might be used to make a legal case – following reliable and tested methods is key.

Finally, our stakeholders deserve the best. Regional or local residents invest (even emotionally) on the results of scientific studies. When the methods are not well develop, implemented or poorly documents, the study can re-enforce injustices.

1.1 Background

Heavy metals in soils are a well known issue...

Lead Resources and Soils:
`https://www.atsdr.cdc.gov/csem/csem.asp?csem=7&po=8`
(look under soil heading)

2 Practices Sessions

Session 1 : Tutorial on Field Methods and Random Sampling

gis: Mapping Park Data –

`https://goo.gl/hwBZQm`

Session 2 : Soil Sampling – SOP31

Session 3 : Pb Extraction SOP35, pH SOP33, texture SOP32

Session 4 : ICP-MS Analysis SOP70

Session 5 : Literature Review

Session 6 : Expert Teams

Industrial Sources

Use in Industry (except gasoline)

"Ethyl" gas and airplane fuels

Atmospheric transport and deposition

Aquatic fate & transport

Sinks

Food web dynamics

Toxicity (non-human)

Human health effects (physiological, toxicity)

Public health effects (crime, IQ, etc)

	Student	Presentation.Date	Topic
1	Bebe	10/10/2017	Use in Industry (except gasoline)
2	Sarah	10/10/2017	Ethyl gas and airplane fuels
3	Katherine	10/10/2017	Atmospheric transport & deposition
4	Brooke	10/10/2017	Aquatic fate & transport
5	Kyle	10/10/2017	Sinks
6	Caroline	10/10/2017	Food web dynamics
7	Kihara	10/17/2017	Toxicity (non-human)
8	Mina	10/17/2017	Human health effects (physiological, toxicity)
9	Meily	10/17/2017	Public health effects (crime, IQ, etc)
10	Chris	10/17/2017	Los Angeles Pb History
11	Troy	10/17/2017	California Pb Regulatory History

Session 7 : Data Analysis (Results)

`http://claremont.maps.arcgis.com/apps/GeoForm/viewer.html?appid=31f6fe27f5ef464bb6f58aa5a03baeab`

Session 8 : Final Report