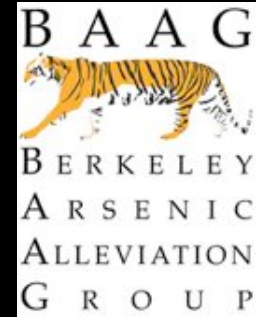


Recent Fieldwork, Preliminary Prototype, and Preliminary Survey Results for ARUBA in Bangladesh



Berkeley Arsenic Alleviation Group:
ARUBA Team

Johanna L. Mathieu (ME/LBNL)

Ashok Gadgil (CEE/LBNL)

Kristin Kowolik (LBNL/formerly Chemistry)

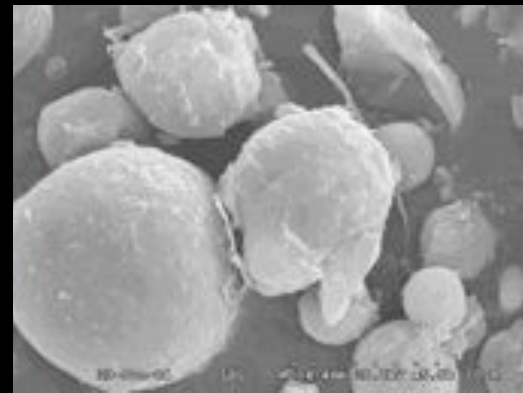
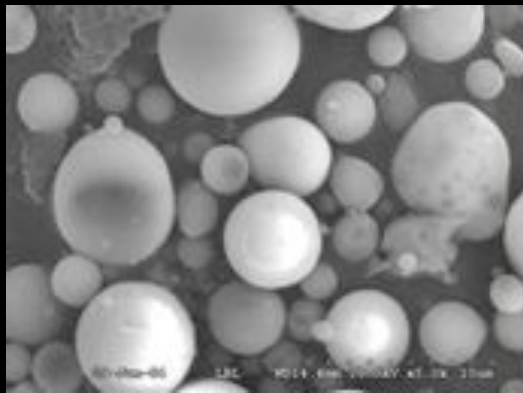
Will Babbitt (JMP)

Shefah Qazi (formerly Chemistry)

Tasnuva Khan (formerly Economics)

ARUBA – Arsenic Removal Using Bottom Ash

Bottom ash, waste from from coal-fire power plants, coated with rust (ferric hydr(oxide))



- Simple process at atmospheric pressure and room temperature

- Inexpensive, readily-available chemicals (FeSO_4 & NaOH)



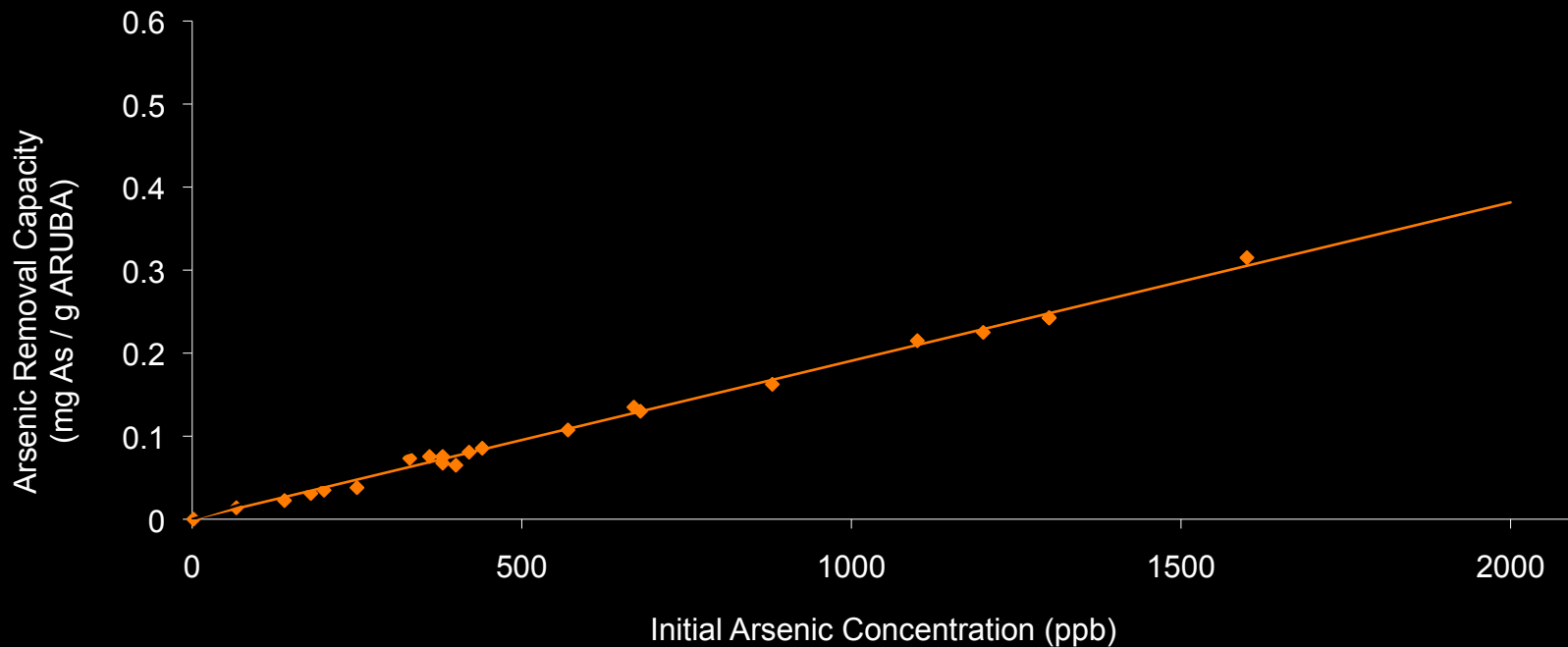
- Bottom ash: \$4/ton

- Large surface to volume ratio minimizes media required & waste

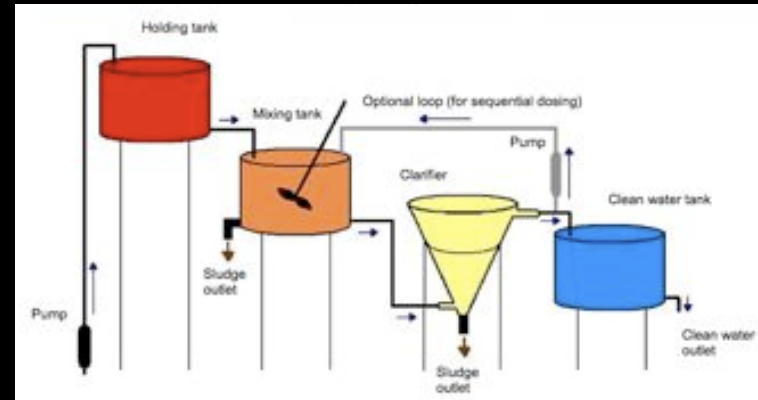
- Spent ARUBA is US EPA approved for disposal in municipal landfill

Arsenic Removal Capacity

Defined: mg arsenic removed per g ARUBA added
Field Results from Bangladesh and Cambodia



Summer 2008



Household Survey



Acknowledgements

UC Berkeley Blum Center for Developing Economies
National Collegiate Inventors and Innovators Alliance (NCIIA)
UC Berkeley Bears Breaking Boundaries Contest
Lawrence Berkeley National Laboratory (LBNL)
Bangladesh University of Engineering and Technology (BUET)
Bangladesh Rural Advancement Committee (BRAC)



Susan Amrose Addy

Dr. A.B.M. Badruzzaman

Dr. Lara Gundel

Nadia Madden

Mehmet Seflek

Mahbuba Iasmin Ahmad

Yola Bayram

The Khan Family

Iqbal & Kamal Quadir

Dr. Alice Agogino

Dr. Raymond Dod

Kosar Jahani

Melissa Quemada