Federal Remediation Technology Roundtable Meeting

December 7, 2005
Arlington, VA

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EPA-Office of Superfund Remediation and Technology Innovation

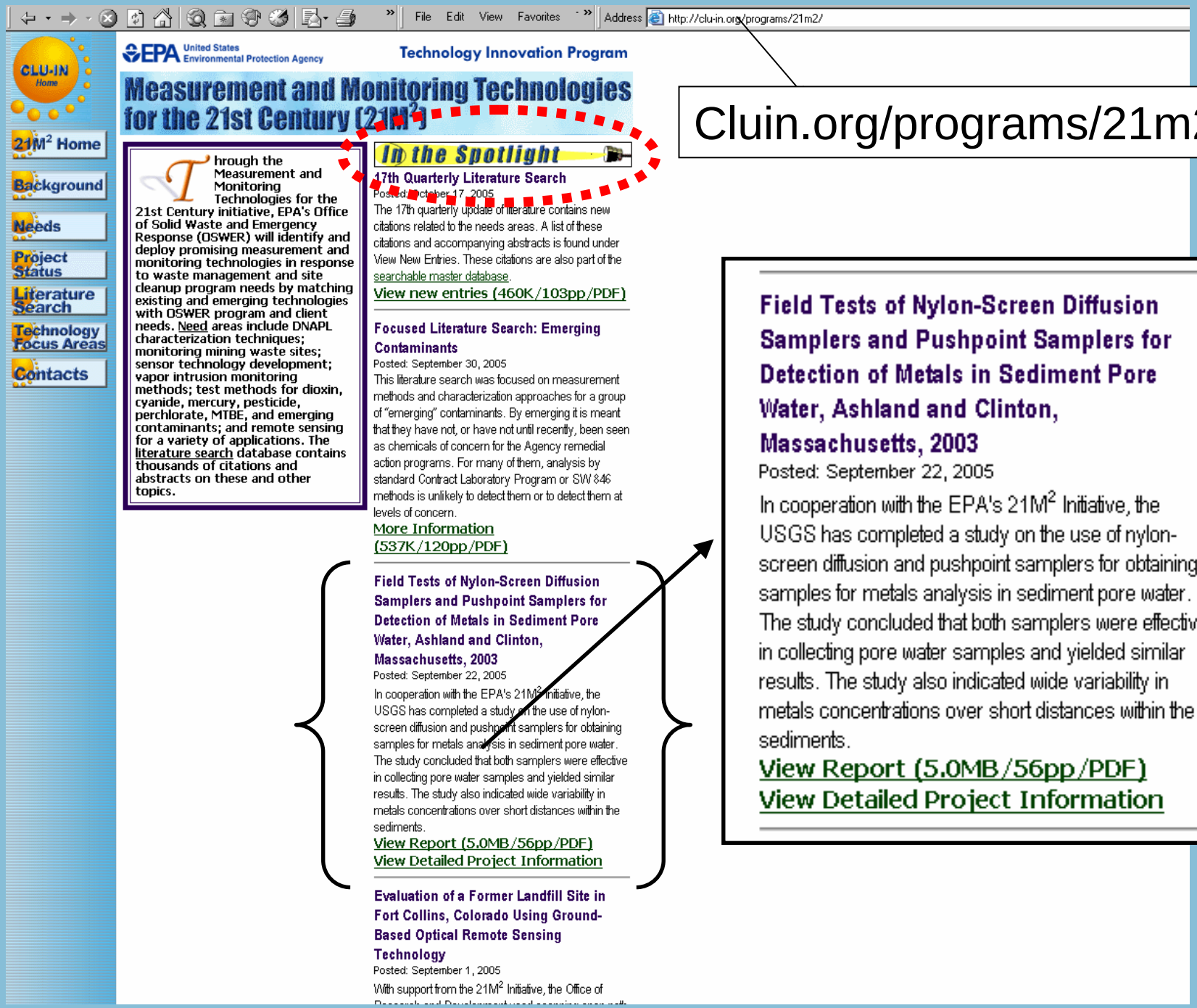
How do I use…?

How is… applicable?

Improve Technology Awareness

– User's guides

– Technology demos and reports



Cluin.org/programs/21m2/

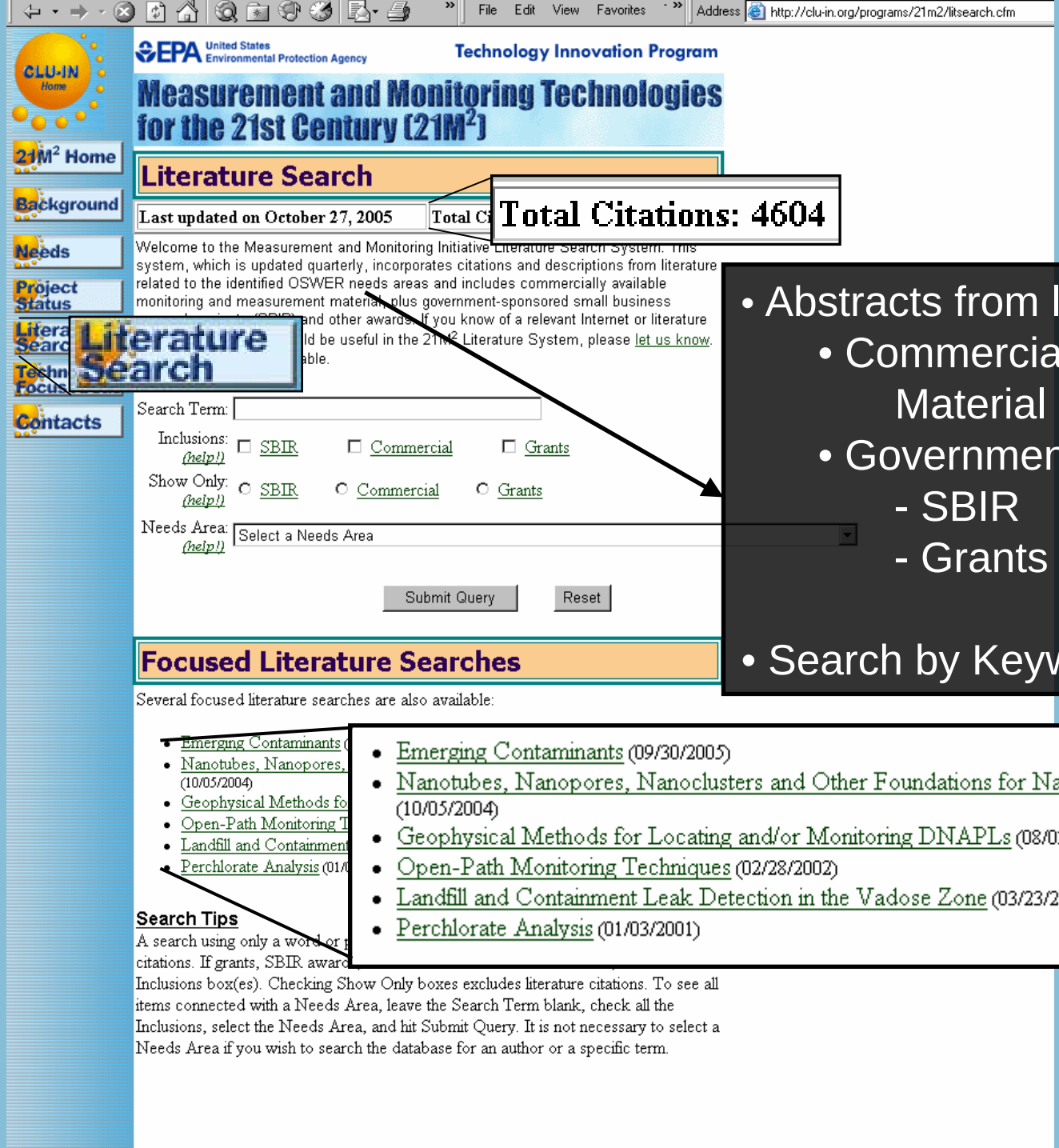
Field Tests of Nylon-Screen Diffusion Samplers and Pushpoint Samplers for Detection of Metals in Sediment Pore Water, Ashland and Clinton, Massachusetts, 2003

Posted: September 22, 2005

In cooperation with the EPA's 21M^2 Initiative, the USGS has completed a study on the use of nylon-screen diffusion and pushpoint samplers for obtaining samples for metals analysis in sediment pore water. The study concluded that both samplers were effective in collecting pore water samples and yielded similar results. The study also indicated wide variability in metals concentrations over short distances within the sediments.

View Report (5.0MB/56pp/PDF)

View Detailed Project Information



- Abstracts from literature:
  - Commercially Available Material
  - Government-Sponsored
    - SBIR
    - Grants
- Search by Keyword or Needs Area

EPA United States Environmental Protection Agency — Technology Innovation Program

Measurement and Monitoring Technologies for the 21st Century (21M²)

Active 21M² Projects

Project Title	Point of Contact	Project Details
…ole Measurement of …de, and Nitrate in	James Ursic U.S. EPA. Region 5	View
CZE Method(s) for Polar Organic Compounds ***(FY 1999)***	Barry Lesnik U.S. EPA, Office of Solid Waste	View
Dioxin Emission Monitoring System ***(FY 2004)***	Brian Gullet EPA ORD-RTP	View
Electrospray High Performance Liquid Chromatography/Mass Spectrometry (HPLC/ES/MS) Method ***(FY 1999)***	Barry Lesnik U.S. EPA, Office of Solid Waste	View
Evaluation of Open-Path Spectroscopy Technologies for Determining Fugitive Gaseous Emissions at Landfills ***(FY 2003)***	Susan Thorneloe Research Triangle Park	View
Field Analytic Technologies Encyclopedia (FATE) ***(FY 2001)***	Ann Eleanor U.S. EPA, Technology Innovation Office	View
FIELDS Software Online Tutorial ***(FY 2000)***	Brian Cooper U.S. EPA, Region 5	View
Geoelectric Surface for Organics ***(FY 2001)***	Anna Krasko U.S. EPA, Region 1	View
Radon Deficit Technique for DNAPL Characterization ***(FY 2004)***	Dick Goehlert EPA Region 1	View
Sensor Technologies Interfaced with In Situ Probe ***(FY 2001)***	Jerry Keefe U.S. EPA, Region 1	View
Use of Radon as a Tracer and Other Technologies to Characterize Vapor Intrusion ***(FY 2004)***	Ray Cody EPA Region 1	View

Completed 21M² Projects

Project Title	Point of Contact	Project Details
Field Method for Detecting Perchlorate ***(FY 2001)***	Joseph Eidelberg U.S. EPA, Region 9	View
Field Tests of Nylon Screen Diffusion		

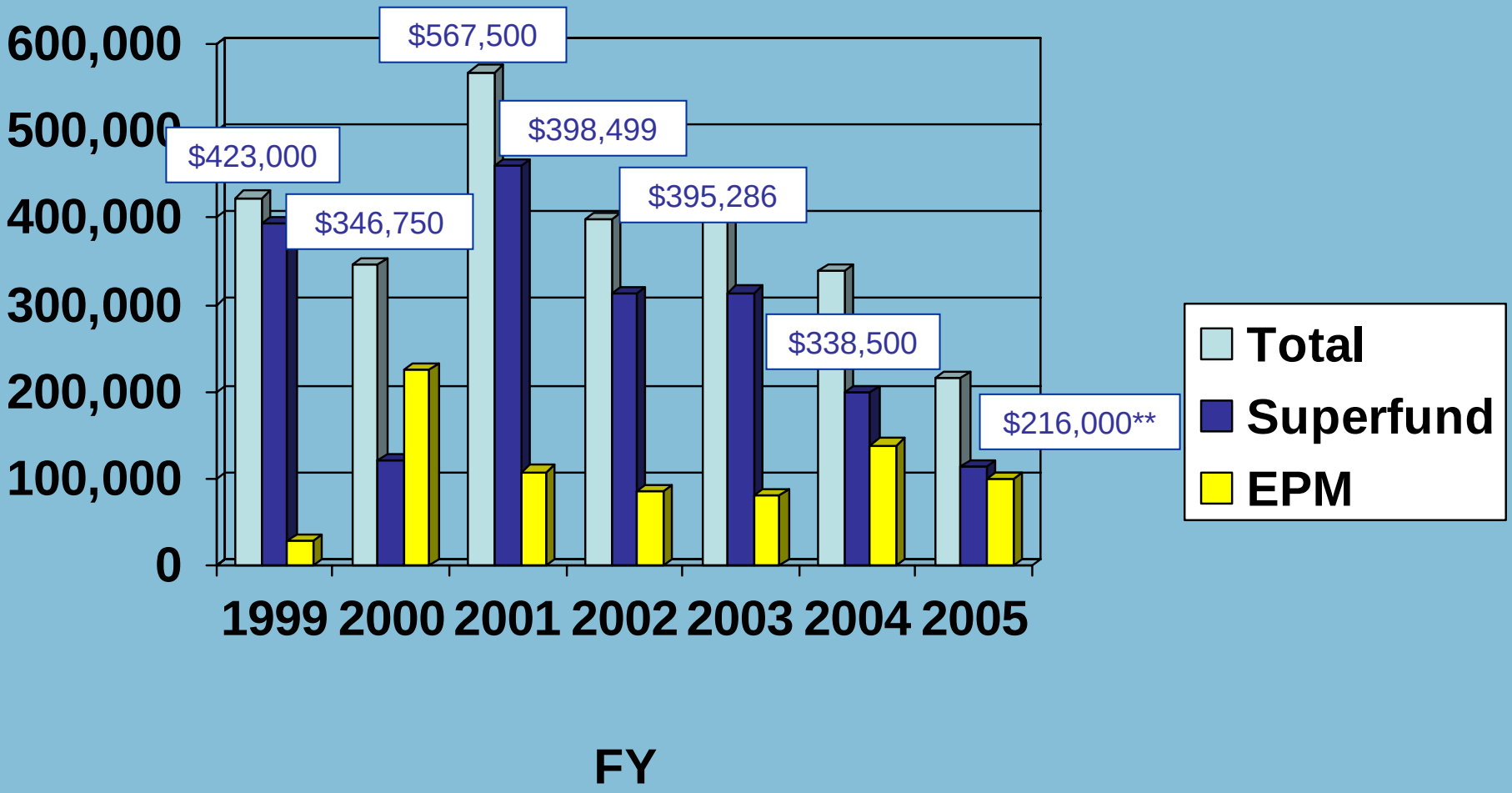
What are the selection criteria?

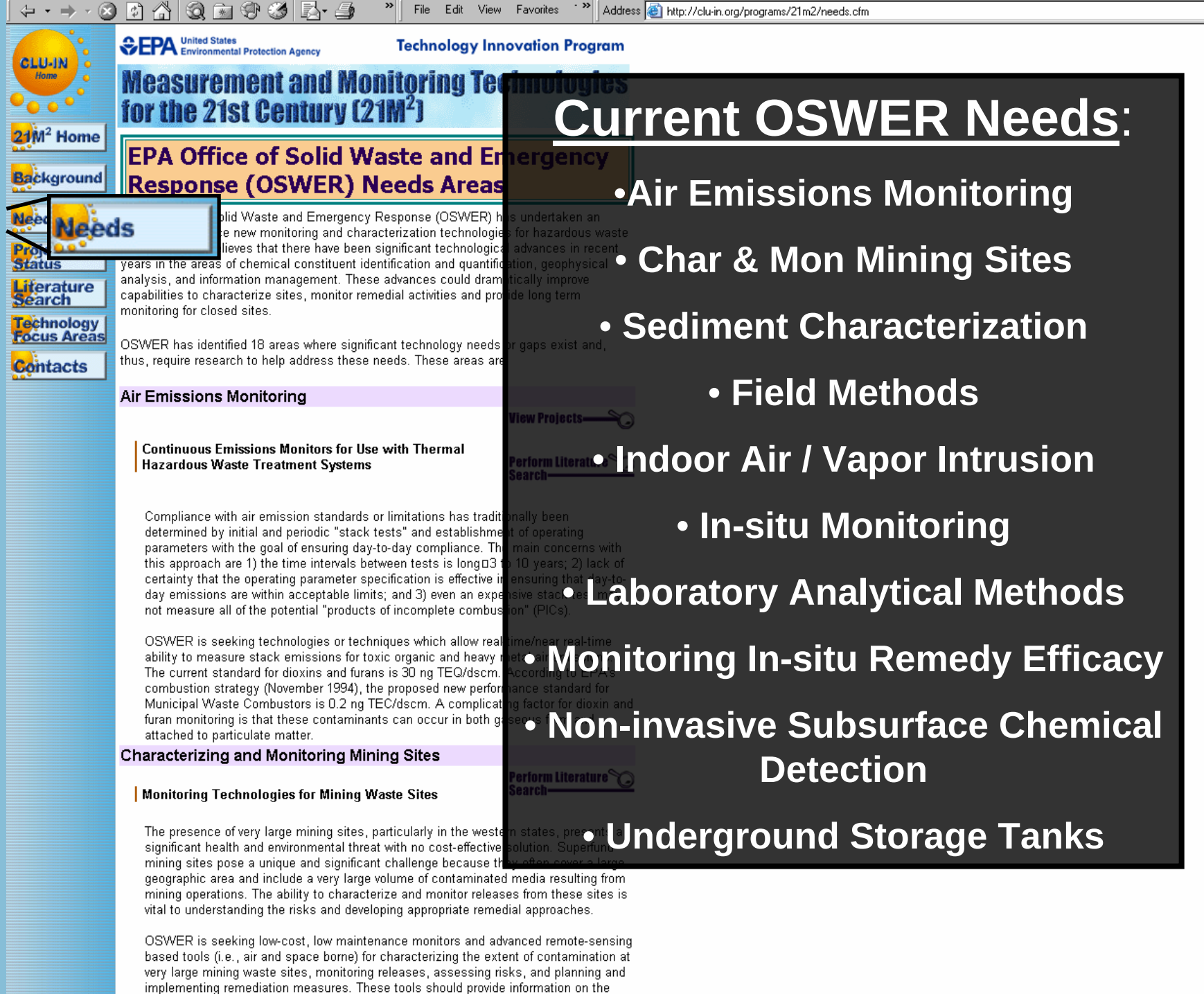
Funding?

Needs?

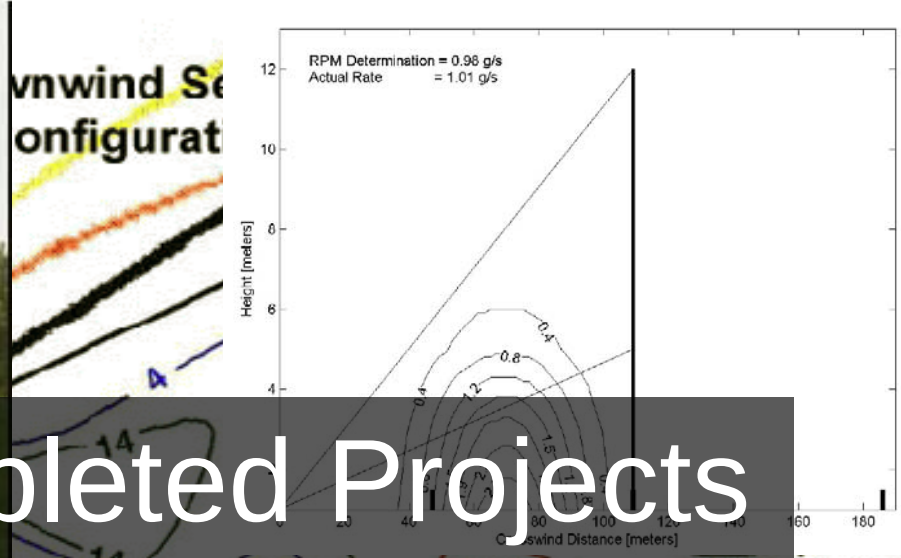
EPA requirements?

21M² Expenditures




File Edit View Favorites
Address http://clu-in.org/programs/21m2/needs.cfm
CLU-IN Home
EPA United States Environmental Protection Agency
Technology Innovation Program
Measurement and Monitoring Technologies for the 21st Century (21M²)
21M² Home
Background
Needs
Status
Literature Search
Technology Focus Areas
Contacts
EPA Office of Solid Waste and Emergency Response (OSWER) Needs Areas
Air Emissions Monitoring
Continuous Emissions Monitors for Use with Thermal Hazardous Waste Treatment Systems
Characterizing and Monitoring Mining Sites
Monitoring Technologies for Mining Waste Sites
View Projects
Perform Literature Search
Current OSWER Needs:
•Air Emissions Monitoring
• Char & Mon Mining Sites
• Sediment Characterization
• Field Methods
• Indoor Air / Vapor Intrusion
• In-situ Monitoring
• Laboratory Analytical Methods
• Monitoring In-situ Remedy Efficacy
• Non-invasive Subsurface Chemical Detection
• Underground Storage Tanks

Recently Completed Projects



USGS
science for a changing world

In cooperation with the
U.S. Environmental Protection Agency
Measurement and Monitoring for the 21st Century Initiative

Pushpoint Sampling for Defining Spatial and Temporal Variations in Contaminant Concentrations in Sediment Pore Water near the Ground-Water/ Surface-Water Interface

Scientific Investigations Report 2005-5036

U.S. Department of the Interior
U.S. Geological Survey

Zimmerman and others—Pushpoint Sampling for Defining Spatial and Temporal Variations in Contaminant Concentrations in Sediment Pore Water near the Ground-Water/Surface-Water Interface—SIR 2005-5036

CH_3CH_2HgCl
$HgCl_2$
$Hg(OH)_2$
$Hg(NO_3)_2$
$HgSO_4$
HgO
Hg^{2+} complexes
Hg^0
Hg^0-M^d
Hg^{2+} complexes^c
Hg_2Cl_2 (minor)
Hg_2Cl_2 (major)
HgS
$HgSe$

Recently Completed Projects

- Mercury Speciation analysis scheme using SW-846 Method 7473
- Open Path FTIR/TDL Surveys of Fugitive Emissions at R1 / R8 Landfills
- Pushpoint Sampling for Defining Spatial and Temporal Variations in Sediment Pore Water (USGS Report).
- Field Tests of Nylon Screen Diffusion Samplers and Push Point Samplers for Detection of Metals in Sediment Pore Water (USGS Report).

Reports Available at:

http://clu-in.org/programs/21m2/projects/

2005 Projects

- Development of a User's Guide: Tree Coring to Examine Subsurface Volatile Organic Compounds (R1 w/ USGS).
- Demonstrate Electrical Resistivity Tomography and Induced Polarization Tomography Methods for Characterization of Fractured Bedrock DNAPL Sites (R1).
- Demonstrate an Innovative Fence-Line Metal Emissions Monitor at Hazardous Waste Sites (RTP-ORD).