



Former ASARCO Smelter

The Texas Custodial Trust: Project Overview & Site Tour

Presented to

United States Environmental Protection Agency Administrator *Lisa Jackson*

United States Congressman *Silvestre Reyes*

U.S. EPA Region 6 Regional Administrator *Alfredo Armendariz*

January 27, 2011



Safety Moment

Worked approximately 11,000 field man-hours to date with ZERO INJURIES

Take Away Points

- **Trust Mission**
- **Stakeholder Buy-in**
- **Asset Recovery Optimization**
- **Innovative, Sustainable, Green Remedy**
- **End Vision Compatible with City Master Plan**

Trust Purpose and Objectives

■ Purpose

- Carry out the requirements of the Texas Custodial Trust
 - ◆ Addressing contamination on and in structures, soils, surface water and groundwater
 - ◆ Remediating the Site to standards that are protective of human health and the environment with the oversight of TCEQ
 - ◆ Ultimately to sell, transfer or otherwise dispose of the property

■ Objectives

- Implement a technically rigorous remedy
- Ensure a viable and beneficial final site end use
- Facilitate community participation
- Effective management of site assets to increase remediation fund
- Efficient and objective procurement of project resources

Remediation Timeline Estimate

2010

2011

2012

2013

2014

2015

PLANNING & PROCUREMENT



SITE DEMOLITION



SURFACE SOILS & SURFACE WATER REMEDY



GROUNDWATER REMEDY



LONG TERM MAINTENANCE

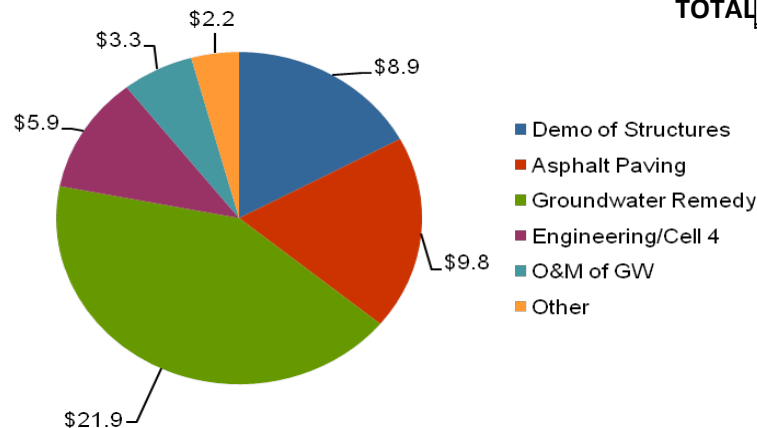


PROPERTY DISPOSITION



Available Trust Funding for Remedy (TCEQ Estimate)

Demolition of Construction	\$8,883,799
Groundwater Construction and Operation	
Groundwater Construction	\$7,095,000
Long-term Operation of Groundwater System	\$14,773,372
Asphalt Paving	\$9,815,000
Fencing	\$68,628
Engineering Design and Construction of Disposal Unit Cell 4	\$5,848,000
Long Term Monitoring of Engineering Control and Groundwater	\$3,284,095
<i>SUBTOTAL FOR WASTE MANAGEMENT</i>	\$49,767,894
Other Identified Costs	\$2,237,293
TOTAL	\$52,005,187



Source: TCEQ, 2009

The Community Effort

The Community Outreach effort has been higher than anticipated due to diverse stakeholders, a high level of community involvement, local government involvement and various community activist groups.

Avenues for Community Input

- Website: (www.RecastingTheSmelter.com)
 - The website is aimed at providing the public with current site information and activities.
- Blog:
 - Gives the community a forum to post their opinions and input.
- Access to media:
 - Interfaced with National Public Radio (NPR), Wall St Journal, El Paso, Inc., El Paso Times, Il Diario and KVIA.com
- Ex-ASARCO Employee Group:
 - Intensive One-on-one interaction (site tours, meetings, written communications, incorporation of concerns into work plan)
- Elected Officials:
 - Frequent briefings to federal, state, and local officials

El Paso Based Contractors

- We Have Utilized Local Labor & Resources As Much As Possible, ~\$1.5MM to date



www.RecastingtheSmelter.com

Constant Outreach with University of Texas El Paso (UTEP) Including:

1. Internships

- We have developed 3 UTEP Student Internships with UTEP's Center for Environmental Resource Management (CERM). Students are currently working on the project.

2. Archive Donation

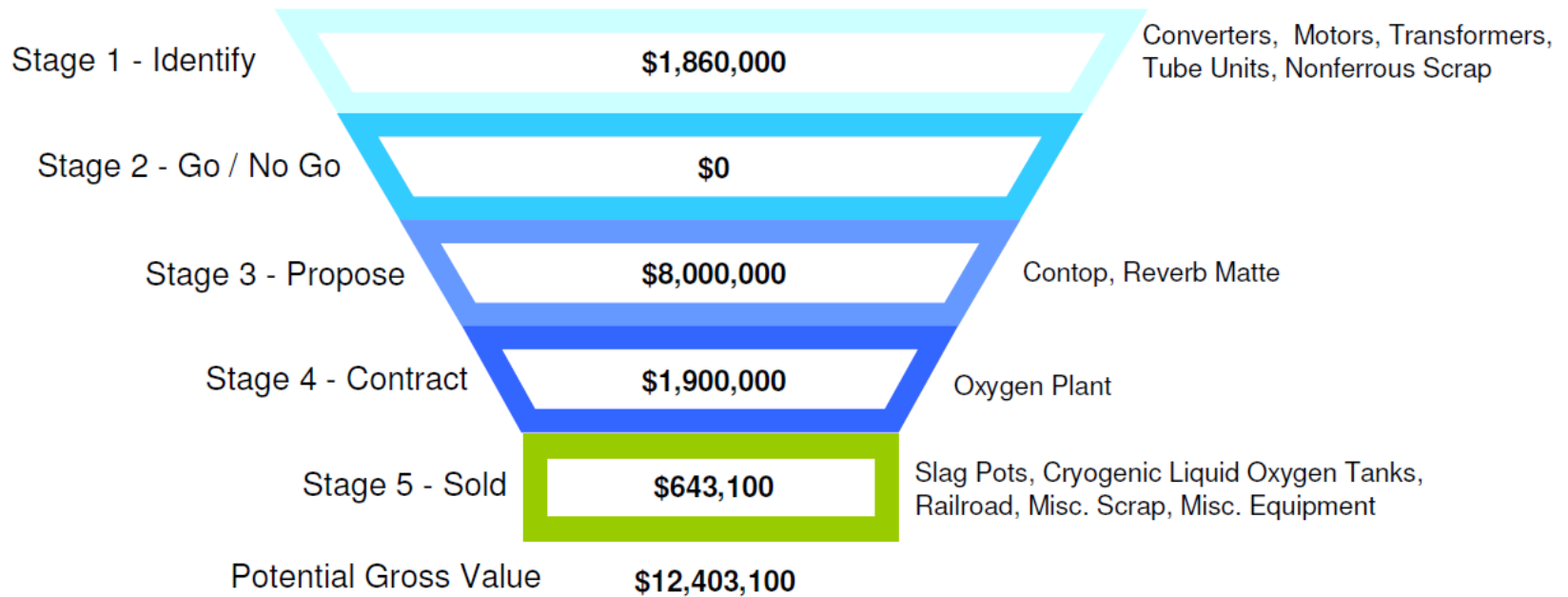
- Deed of Gift: Donations to the UTEP Special Collections Department
Additional donations to: El Paso Historical Commission and El Paso Museum of History
- Materials included: old records, payroll ledgers, photographs, maps, blueprints, and equipment manuals.

3. Faculty Forum

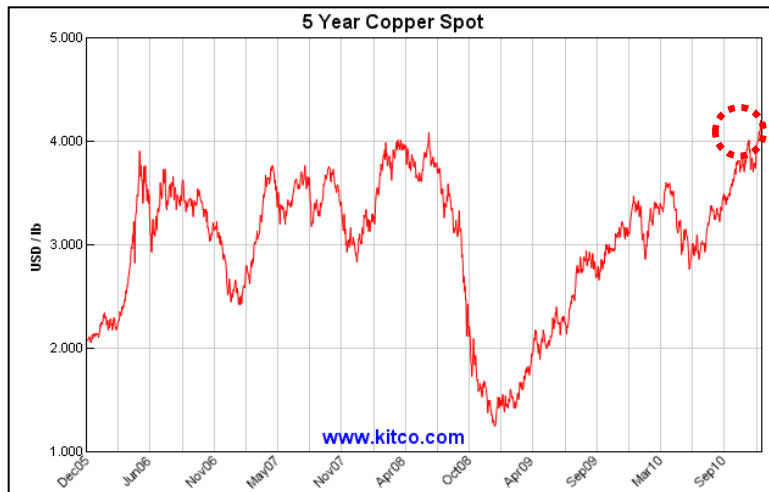
- To exchange ideas and potential technologies for the Site
- To provide an avenue for research at the site for UTEP students, (i.e. if the geology department would like to take samples)
- Forums are held every quarter

Asset Recovery Funnel

El Paso Smelter Asset Gross Sales Summary



Current Value of Metals is Driving Our Asset Recovery



Reference: www.infomine.com



Dismantling of the reverberatory furnace.



Copper matte exposed in the bottom of the furnace.

Remedy Development – Existing Data Review and Quality

- Extensive Data Set From Prior Work by ASARCO
- Samples collected using accepted practices
- Samples properly handled by field personnel and laboratories
- Certified laboratories performed the requested analyses
- Laboratory data validated by an independent third party
- Existing database streamlined and available to project team and public
- Database quality is sufficient for decision making



Smelter Data Gap Evaluation

- Reconstruct historical smelting processes
- Document Inputs to the processes
 - Ores and Concentrates
 - Encycle materials
- Recognize chemical reactions and products
- Document Outputs
 - Metal products, Slag, Trace metals
- Recommend future investigations
 - Define Analytes of Interest
 - Define potential pathways and sampling locations

Inputs

Chalcopyrite, CuFeS_2



Galena, PbS



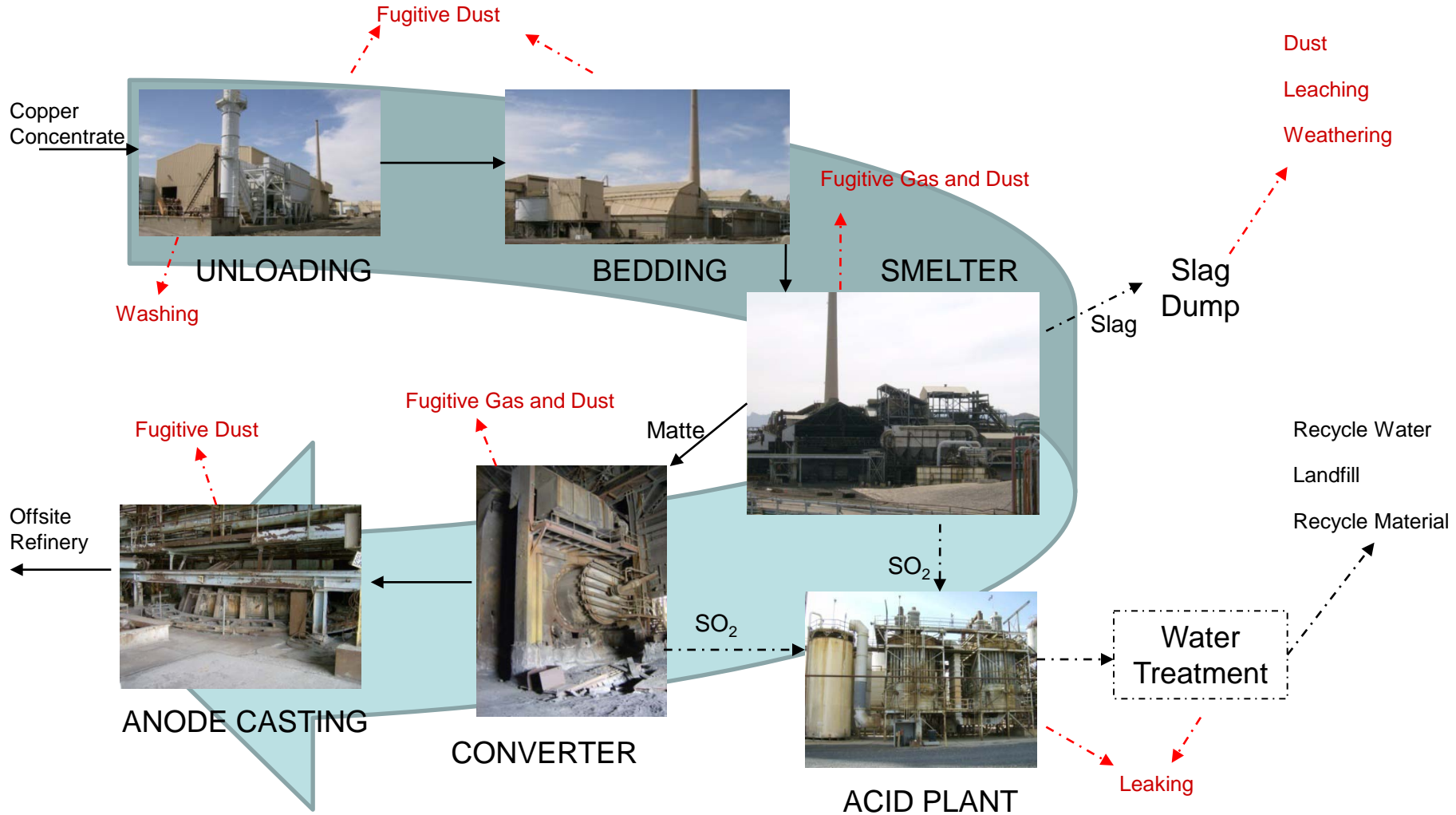
Sphalerite, ZnS



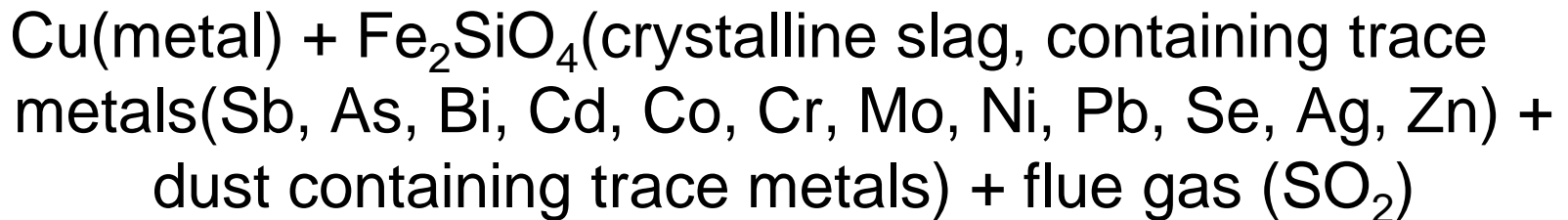
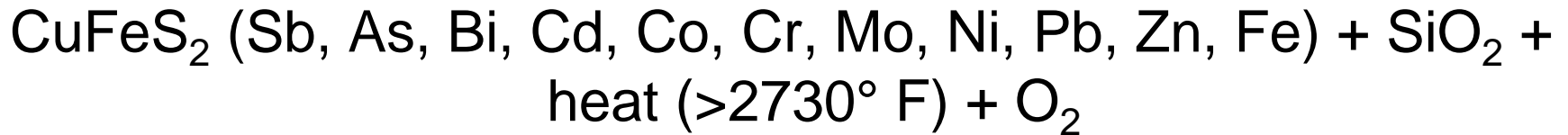
The screenshot shows a web browser window displaying the EPA Region 6 website. The page title is "Region 6" and the URL is "http://www.epa.gov/region6/asarco_documents/asarco_documents.html". The page content is titled "ASARCO related documents" and lists various documents related to ASARCO properties in El Paso, Texas. The documents listed include:

- Clean Air Act, Texas Commission on Environmental Quality
- Restoration of the Smelter (Trustee's Web site for ASARCO property) [PDF document]
- Analysis of Risk Factors for Childhood Blood Lead Levels, El Paso, Texas, 1997-2002, April 25, 2004, Texas Department of State Health Services
- El Paso Multiple Sclerosis (MS) Study, Texas Department of State Health Services
- Airborne Soil Cleanup Levels, Agency for Toxic Substances and Disease Registry
- ASARCO Bankruptcy Settlement
- Settlement Agreement Regarding Past Costs, September 28, 2007
- Order Approving Past Costs, December 4, 2007
- Stouabon Exhibit A
- Order Approving Litigation Regarding Future Cost Claims, November, 3, 2007
- EPA Response to Request/ASARCO Settlement Statement, (1998 Confidential Document) July 31, 1998
- EPA Inspection Report for Encino, January 1997, Part 1
- EPA Inspection Report for Encino, January 1997, Part 2
- EPA Inspection Report for Encino, June 1997
- EPA Inspection Report for Encino, June 1997, with attachments
- Rocky Mountain: Federal Hazardous Waste Manifest
- National Enforcement Investigation Center Report for Encino, 1998
- Explanation of Differences for Basin F Leads (Rocky Mountain Area)
- Notifications from Encino regarding waste from Mexico, December 1985
- Quartzite Lake River Form N, 1993
- Tru Park Lake River Form N, 1993

Smelting Process



Primary Copper Smelting (415,000 tons/year)



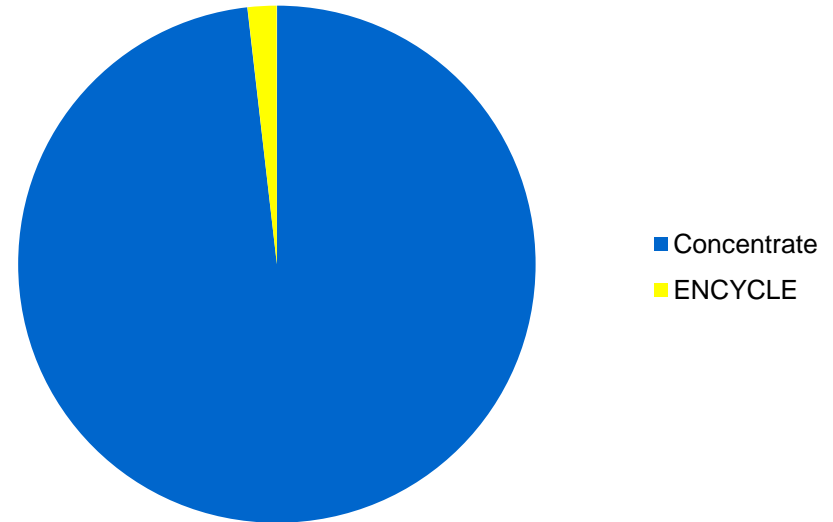
Secondary Smelting Records Review

- USEPA Region 6 Website
 - ENCYCLE Records (46,486 tons, 1992-1997)
 - 17 records, 2176 pages
 - 300 Manifests
- Get the Lead Out Website
 - No Additional Information
- Smelter Records
 - 37 Records
 - One Manifest (14.9 tons, April 1998)

Secondary Smelting

Waste Codes Shipped to ENCYCLE (Majority)

Code	Description/Contains
D001	Ignitable
D002	Corrosive
D003	Reactive
D005	Barium
D006	Cadmium
D007	Chromium
D008	Lead
D010	Selenium
D011	Sliver
F006	Wastewater treatment sludge, electroplating
F039	Leachate from waste treatment
K002	Wastewater treatment sludge, chromium
K046	Wastewater treatment sludge, lead

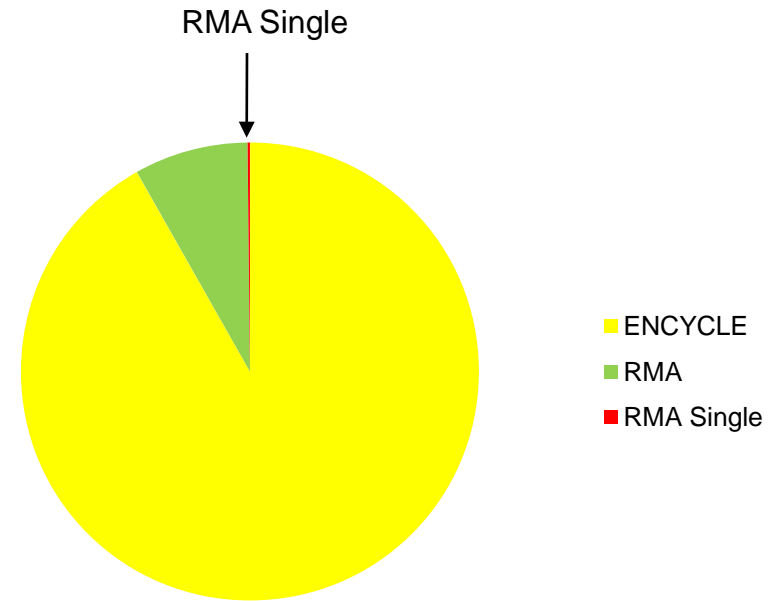


46,486 tons shipped to El Paso, 1992-1997

Secondary Smelting

Rocky Mountain Arsenal - Waste Codes Shipped to ENCYCLE

Code	Description/Contains
F039	Leachate/Brine
F001	Spent halogenated solvent
F002	Spent halogenated solvent
F003	Spent non-halogenated solvent
K033	Wastewater and scrub water, chlordane
K097	Vacuum stripper discharge, chlordane
P051	Endrin
P071	Methyl Parathion
U130	Hexachlorocyclopentadiene



Approximately 4,200 tons

Constituents of Concern

■ From RCRA Facility Investigation and Agreed Order

- Arsenic
- Cadmium
- Copper
- Chromium
- Iron
- Lead
- Selenium
- Zinc

Analytes of Interest Added by the Trust

- Antimony, Barium, Cobalt, Mercury, Molybdenum, Nickel, Silver, Hexavalent chromium (in select areas)
- Chlordane, endrin, hexachlorocyclopentadiene, methyl parathion
- Tetrachloroethylene, trichlorethylene, methylene chloride
- 1,1,1-Trichloroethane, 1,1,2, trichloroethane, carbon tetrachloride
- Chlorobenzene, ortho-dichlorobenzene, trichlorofluoromethane
- 1,1,2-Trichloro-1,2,2-trifluoroethane, dichlorodifluoromethane
- Xylene, acetone, ethyl acetate, ethyl benzene
- Ethyl ether, methyl isobutyl ketone
- n-Butyl alcohol, cyclohexanone, and methanol

Groundwater Remedy

■ ASARCO Proposed Remedy

- Cut-off Wall in Floodplain
- Containment with Pump and Treat
- No Source Control
- End Vision: Smelter

■ Trust Proposed Remedy

- Groundwater to Surface Water Diversion (keeping clean water clean)
- Point Source Removal and Treatment
- In-situ groundwater treatment
- Remediation of Rio Grande Floodplain
- End Vision: Redevelopment as part of City of El Paso Master Plan

For this to happen Parker Brothers Arroyo must be addressed

Parker Brothers Arroyo Status

- Currently slag filled arroyo located north of the main plant site
- No money allocated in the budget to address rehabilitation
- Waste landfills will be part of the final landscape
- Objectives are:
 - Remove/contain the slag,
 - Create surface water conveyance,
 - Make the arroyo more natural in appearance, and
 - Reduces groundwater flux.
- Arroyo rehabilitation is keeping with the City Master Plan
- Seeking additional funding sources to accomplish full redevelopment vision

Questions

