

Asarco El Paso Smelter - Cost Estimate Waste Management [Present Value Calculation]				
Sitewide Evaluation - June 2008				
El Paso, Texas				
	Quantities	units	Unit Price	Total
<b>Demolition of Structures [One time]</b>				
Demolition of Structures (steel)	264,141	sq. ft.	\$11	\$2,905,551
Demolition of Structures (Brick and concrete)	191,157	sq. ft.	\$17.50	\$3,345,248
Demolition of Structures (Wood railroad trussels)	40,025	sq. ft.	\$40	\$1,601,000
Demolition of Structures (I-10 Bridge and Slag bridge)	17,625	sq. ft.	\$16	\$282,000
Demo	1	Lump Sum	\$750,000	\$750,000
<b>Subtotal of demolition of structure</b>				<b>\$8,883,799</b>
<b>Groundwater [construction and 50 years operation]</b>				
<b>Construction [One time]</b>				
Slurry Wall (Bentonite soil mix, 3 feet wide) Design and installation	3,000	feet	\$590	\$1,770,000
Additional Extraction Wells will use existing wells whenever possible	50	well	\$4,500	\$225,000
Injection Well (800 foot injection well for discharge of treated groundwater)	1	well	\$100,000	\$100,000
Design and Construction of Groundwater Treatment system	1	system	\$5,000,000	\$5,000,000
<b>Subtotal of Groundwater construction</b>				<b>\$7,095,000</b>
<b>Continuous operation [Present value of 50 years annuity factor of 25.72976]</b>				
Operation and Maintenance (electrical and general maintenance)	25.72976	Annual Cost	\$350,000	\$9,005,416
Guard to protect equipment and GW system (1 guard \$ 25 an hour)	25.72976	Annual Cost	\$213,600	\$5,495,877
Monitor Well Plugging and Abandonment [One time charge 50 years later, using Presnet Value factor of 0.22811 ]	0.22811	Lump Sum	\$64,800	\$14,782
Semi-annual groundwater reports [2 reports per year @ \$5000 per report]	25.72976	Annual Cost	\$10,000	\$257,298
<b>Subtotal of Groundwater operation</b>				<b>\$14,773,372</b>
<b>Subtotal of Groundwater construction and operation</b>				<b>\$21,868,372</b>
<b>Asphalt Paving to manage exposure [One time]</b>				
Acreage left to be paved from May 20, 2005 Corrective Action Directive letter	16	acres	\$130,000	\$2,080,000
Northern Section of Smelter	8	acres	\$130,000	\$975,000
Former Building and Process footprint	52	acres	\$130,000	\$6,760,000
<b>Subtotal of asphalt paving</b>				<b>\$9,815,000</b>
<b>Fen</b>	2800	feet	\$25	<b>\$68,628</b>
<b>Engineering Design and Construction of Disposal unit Cell 4 [One time]</b>				
Engineer and Construction of Cell 4 for disposal of:	1	Cell	\$4,000,000	\$4,000,000
Minus 50 Slag waste pile (255,111 cubic yds)				
Abrasive Blasting Area (1,111 cubic yds.)				
Soil underneath Process area ( 20,000 cubic yds Estimated)				
Category I soils from May 5, 2005 letter (25,000 cubic yds Estimated)				
Excavation and Disposal of material in Cell 4 [One time]	303,000	cubic yds.	\$6	\$1,818,000
Verification of Waste Excavation of materials to Cell 4	100	soil samples	\$250	\$25,000
Completion Report	1	report	\$5,000	\$5,000
<b>Subtotal of design and construction of disposal unit cell 4</b>				<b>\$5,848,000</b>
<b>Long term monitoring of engineering control and groundwater [Present Valueof 400 years annuity factor of 33.333]</b>				
Annual site inspection report is covered under the groundwater report for the first 50 years	0	reports	\$0	\$0
Monitoring and Sampling (Management of Waste) 30 wells biannual (\$150 per sample)	33.333	Annual Cost	\$9,000	\$299,997
TCEQ Oversight	33.333	Annual Cost	\$11,024	\$367,463
TCEQ travel (once a year)	33.333	Annual Cost	\$1,000	\$33,333
Anna	33.332	Annual Cost	\$5,000	\$166,660
General repairs per year (Fence and Asphalt Cap)				
Assume 1% of fence is required repair [1300 lf x \$25 LF]	33.333	Annual Cost	\$32,500	\$1,083,323
Assume 0.5% of 98 Acres asphalt cover is required repair [\$2.00/sf x 20,000 SF]	33.333	Annual Cost	\$40,000	\$1,333,320
<b>Subtotal of long term monitoring</b>				<b>\$3,284,095</b>
<b>Con</b>	0	Lump Sum	\$0	<b>\$0</b>
<b>SUE</b>				<b>\$49,767,893</b>
<b>Oth</b>				<b>\$2,237,293</b>
<b>TOTAL</b>				<b>\$52,005,186.00</b>

