Groundwater Remedy Costs by EPA

($2.4 MM Capital; $2.9MM O&M; Total $5.3MM)

Table 12-2	
Cost Estimate Summary	
Description	**Cost**
CAPITAL COSTS	
Reductive dechlorination (2003) [a,b]	$1,333,494
In situ oxidation (2004)	$304,272
Extraction well and piping installation	$119,731
Treatment system facilities	$47,797
Discharge piping	$6,399
Injection well installation	$31,188
Monitoring well installation	$106,433
Subtotal (Construction)	**$1,949,314**
Subtotal (Discounted) [c]	**$1,783,140**
Bid Contingencies (5%)	$89,000
Scope Contingencies (20%)	$357,000
Total Construction	**$2,229,140**
Engineering Design (5% of total)	$111,000
Bonding and insurance of construction workers (3% of total)	$67,000
Field and laboratory testing during construction (1% of total)	$22,000
Reporting during construction (1% of total)	$22,000
Total Capital Cost	**$2,451,140 Capital**
OPERATIONS AND MAINTENANCE COSTS	
Extraction wells	$274,231
Treatment system [d]	$460,069
Injection wells	$140,333
Well monitoring	$2,072,990
Treatment system monitoring	$1,841,781
Subtotal O&M	**$4,789,404**
Subtotal O&M (Discounted) [e]	**$2,912,577 O&M**
TOTAL PRESENT VALUE	**$5,363,717 Total NPV**

Notes: Undiscounted costs are based on 2001 dollars and were estimated using RACER™, with an accuracy of -30% to +50%. Costs were based on a 20-year duration for remedial action, plus 3 additional years for compliance monitoring.

a For cost estimating purposes, it was assumed that Hydrogen Release Compound (HRC®) would be used.

b A start date of March 2003 was used in the cost calculations. The actual start date may be later.

c A 7% discount rate was assumed.

d The O&M costs include the cost of discharge of half the water to injection wells and the remainder to POTW.

Reference: Record of Decision, Sept. 2002