

**Table 12. Comparative Analysis of Removal Action Alternatives
Idol City Mine EE/CA**

Assessment Criteria	Alternative 1 No Action	Alternative 2 Excavation and Off-site Disposal	Alternative 3 Excavation and On-site Disposal	Alternative 4 Adit Discharge Treatment
Compliance with Removal Action Goals and Objectives				
Attributes:	Does not comply	Waste material removed from site and physical hazards mitigated.	Waste material encapsulated on site and physical hazards mitigated.	Water discharging from open adit treated.
Advantages:	None	+Eliminates potential exposure at site	+Reduces exposure potential at site	+Improves water quality
Overall Protectiveness of Public Health, Safety and Welfare				
Attributes:	No protection	All waste material exceeding cleanup levels removed from site.	All waste material exceeding cleanup levels encapsulated on site.	Water discharging from open adit treated to cleanup levels to the extent possible.
Advantages:	None	+Higher level of human protection +Eliminates potential for future releases at the site	+High level of human protection +Eliminates risk to community from long-distance transport of waste	+Improves human protection
Environmental Protectiveness				
Attributes:	No protection	All waste material exceeding cleanup levels removed from site.	All waste material exceeding cleanup levels encapsulated on site.	Water discharging from open adit treated to cleanup levels to the extent possible. Settling pond and wetland may be a potential point of exposure.
Advantages:	None	+Higher level of ecological protection +Eliminates potential for future releases at the site	+High level of ecological protection	+Improves ecological protection
Compliance with ARARs				
Attributes:	Does not comply	Complies	Complies	May require construction of both features (settling pond and wetlands) to comply.
Advantages:	None	+Eliminates potential for future non-compliances from waste material	+Compliant for waste material	+Addresses surface water quality compliance
Long-term Effectiveness and Permanence				
Attributes:	No action	Waste source removed from site. Bat gate may be subject to vandalism. Backfilled shafts may be prone to collapse.	Waste source encapsulated on site. Effectiveness dependent on cover selection. Bat gate may be subject to vandalism. Backfilled shafts may be prone to collapse.	Improves surface water quality but will require periodic removal and disposal of sludge and replacement of wetland organic substrate.
Advantages:	None	+Most effective and permanent long term	+Effective and provides long-term permanence	+Intended to address long term surface water quality

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Reduction of Toxicity, Mobility and Volume				
Attributes:	No action	No reduction in toxicity or mobility, but waste is removed from site.	No reduction in toxicity or mobility, but waste is encapsulated.	Improves surface water quality by precipitation and settling, but will generate sludge with high concentrations of metals.
Advantages:	None	+Complete reduction of waste volume +Most likely for reduction of mobility	+Significant reduction of waste volume +Reduction in mobility dependent on cover option selected; option b will be more effective at minimizing mobility.	+Reduces metals loading to streams
Short-Term Effectiveness				
Attributes:	No action	Waste removed from the site within one field season.	Waste encapsulated on site within one field season. Short-term effectiveness will depend on cover selected; option b will be more effective in the short term.	Settling pond is intended to be immediately effective. Wetlands are dependent on effectiveness of pond.
Advantages:	None	+Most easily constructed +Minimal risk to community and workers	+Easily constructed +Minimal risk to community and workers +Does not require off-site transport of waste	+Easily constructed +Quickly effective
Implementability				
Attributes:	Not applicable	Waste removal, transport, and site reclamation accomplished using standard construction equipment and methods.	Waste removal, transport, site reclamation, and repository construction accomplished using standard construction equipment and methods.	Construction of settling pond and wetland may be difficult because of limited area and riparian zone.
Advantages:	None	+Easiest to implement; technically and administratively feasible.	+Easily implemented; technically and administratively feasible.	+Implementable; technically and administratively feasible.
State and Federal Agency, and Community Acceptance				
Attributes:	Not acceptable	Waste removed from site and physical hazards mitigated.	Waste encapsulated on site and physical hazards mitigated.	Water quality improvements implemented on site.
Advantages:	None	+Most acceptable	+Acceptable	+Acceptable
Estimated Total Present Worth Cost				
Attributes:	\$0	\$541,746	Geosynthetic Cover Option = \$259,045 Soil Cover Option = \$210,736	Settling pond = \$18,637 Aerobic Wetland = \$30,562
Advantages:	+\$541,746		+\$282,701 for geosynthetic cover +\$331,010 for soil cover	Aerobic wetland approximately \$10,000 less if constructed with other alternatives