

# A Pathway to Walk-Away? – 30 Year Old Technology to Suppress Acid Rock Drainage Revisited<sup>1</sup>

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**Abstract:** Patented controlled-release bactericide pellets formulated in the 1980s, coupled with surface-applied bactericide, were used at dozens of acid rock drainage (ARD) prone sites across the USA and internationally. In the late-1990s, usage of this technology virtually ceased when the sole vendor of the bactericide products closed its doors. The primary goal of these products was facilitating revegetation on acid generating mine wastes; decreasing ARD flow, metals/acidity loading, and sulfate were secondary benefits. At the time, state agencies and mining companies alike viewed bactericide applications as temporary remedies. In hindsight, were they right? This paper considers available data for selected sites to assess the long-term conditions two or more decades after bactericide applications. The paper also examines several promising 21st century technologies that might capitalize on this earlier work and be combined with bactericides to fashion a practical “Pathway to Walk-Away” for mining companies and government agencies which are saddled with ARD treatment in perpetuity.

Additional Key Words: Bactericides, Case Studies, ProMac, Probiotic Organic Passivation

Optional Data: Project Locations:

Lat. 37.79°N, Long. 81.26°W

Lat. 45.45°N, Long. 80.87°W

Lat. 41.09°N, Long. 79.98°W

Lat. 37.07° N, Long. 82.71 W

Lat. 39.32° N, Long. 80.34° W

Lat. 38.93° N, Long. 79.96° W

Lat. 39.2° N, Long. 106.4° W

Lat. 40.86° N, Long. 78.86° W

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