

**THE LIFE CYCLE OF A PASSIVE TREATMENT SYSTEM:
A STUDY OF THE OPEN LIMESTONE CHANNEL AT SOVERN RUN #
62¹**

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Abstract: Limestone has long been the single most cost effective treatment in efforts to combat acid mine drainage. Over time, the constant degradation and inundation by iron sludge reduces the limestone's ability to neutralize the mine drainage. In September of 2003, a reworking of the open limestone channel at Sovern Run #62 was performed to increase the channel's ability to raise the pH, generate alkalinity, and precipitate metals. We will discuss the life cycle from the channel's initial installation to present day. Aspects including cost, performance, and the chemical parameters such as acidity, alkalinity, pH and metal concentrations will be examined.

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