

# An Analysis of Cost Factors in Geomorphic Mine Reclamation<sup>1</sup>

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**Abstract:** BRS, Inc. has completed over 20 large scale geomorphic mine reclamation projects or construction phases for the Wyoming Abandoned Mine Land program starting in 2007. The Wyoming AML has been a leader in geomorphic reclamation, which has yielded projects, which are more stable and require less maintenance, provide for increased vegetation diversity and habitat values, and are more aesthetically pleasing than traditional reclamation employed in the past. The construction cost total for the projects included in this presentation is approximately \$50 million, with over 27 million cubic yards of earthwork moved in the reclamation efforts, which reclaimed approximately 1,500 acres of abandoned, mine sites using geomorphic reclamation techniques. Reclaimed sites included open pits, highwalls, mine waste piles, degraded channels, and subsidence areas on both coal and uranium mine sites. Cost data has been tabulated and analyzed for each project. Factors including market forces, fuel costs, and site-specific conditions have been considered with respect to their impact on competitively bid geomorphic reclamation projects. The data shows that, properly planned and constructed, the earthwork costs for a geomorphic reclamation project are driven by the excavation parameters such as material type, haulage length and gradients, and other work requirements much like any other earthwork project without any significant increases in costs to complete the geomorphic reclamation projects.

**Additional Key Words:** Natural Regrade<sup>TM</sup>, Wyoming Abandoned Mine Land Program, construction costs

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