

# GRAZING AS A DEMONSTRATION OF ACHIEVABLE AND SUSTAINABLE POSTMINE LAND USE AT THE BLACK MESA MINING COMPLEX<sup>1</sup>

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**Abstract.** The Surface Mining Control and Reclamation Act of 1977 (SMCRA) and the implementing regulatory programs require achievement of the designated postmine land uses and restoration of land utility on a sustainable level. The approved postmine land uses at the Black Mesa Mining Complex are livestock grazing, wildlife habitat, and cultural plant use. The local land users have identified livestock grazing as a primary postmine land use. While revegetation practices establish vegetation to meet all three postmine land uses, a majority of the reclaimed areas are maximized for forage quantity and quality. Peabody initiated a managed grazing program to maintain or enhance revegetated stand performance, demonstrate achievement and sustainability of land use, and provide a grazing resource to local residents. Since initiation of the grazing program in 1998 and continuing through 2005, over 4200 acres in 28 different pastures have been grazed to provide greater than 2 million pounds of forage to 865 animal units. Grazing plans have emphasized proper use with a deferred or rest rotation approach. Monitoring data indicates that in the grazed areas there is no stand deterioration and for a number of the vegetation parameters there have been improvements. Carrying capacity has remained consistent and grazing has been available even during the drought periods. The grazing program has provided education opportunities in grazing management for the more than 22 families involved in the program. The success of the reclaimed area grazing program is further supported by increased conception and calving rates, improved animal conditioning, better returns at sale, and easier herd management. Successful implementation of postmine land use is an effective measure of reclamation success.

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