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**A preliminary study for revegetation of spent shale from the Clean Surface Oil Shale (C-SOS) process spent shale in Utah**

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To provide perspective on reclamation requirements for lands disturbed by oil-shale excavation and shale retorted by the C-SOS process, we analyzed retorted samples, conducted greenhouse and leaching experiments, and reviewed the reclamation literature. High levels of alkalinity, soluble salts, and sodium in the C-SOS-retorted shale severely limited plant growth. Greenhouse and leaching experiments indicated that successful reclamation required either leaching of salts, or isolation of plant roots from retorted shale by adding either topsoil or a capillary barrier. A review of reclamation literature addressing oil shale retorted by other processes indicates that reclamation for C-SOS-processed shale will be similar. The coarser particle size of shale processed by this method may reduce capillary salinization of the surface after leaching and irrigation, and may reduce the need for a capillary barrier.