

***Compressive strength of concrete made from mixtures of Portland cement and combusted Piceance Basin oil shale fly ash***

Roger Moore

*Retired, USA*

Burned oil shale is used with cement in countries outside the United States. Combusted oil shale is a potential by-product of shale oil production. In 1990, Occidental Oil Shale Inc., under a contract from the Department of Energy, combusted oil shale from the C-b tract at two fluid bed boiler manufacturing test facilities. The combusted fly ash was tested as a cement additive by the University of Pittsburgh with good strength results. In July 2011, the fly ash was tested again as a cement additive achieving high strength concrete. The results are presented for 100 % shale fly ash and mixtures of cement and shale fly ash.