COLORADO SCHOOL OF MINES RESEARCH INSTITUTE
REMEDIATION PROJECT SUMMARY

October 12, 2005

- The Colorado School of Mines Research Institute (CSMRI), a not-for-profit corporation, was established in 1949 as a separate corporation from the Colorado School of Mines under the laws of the State of Colorado. The purpose of CSMRI is to promote, encourage and aid scientific and technological investigation and research in the field of natural resources.

- CSMRI ceased active operations during 1987 and sold most of its real estate holdings in 1988. CSMRI leases the Site.

- The School is working to protect the public, protect the environment, and clean up the Site. The School has an obligation to be a good steward of taxpayer money in this effort.

- The CSMRI Site cleanup includes the cleanup of soils that contain naturally occurring metals and radionuclides. These metals and materials present in the soils are at concentrations similar to those found in minerals and ore outcroppings that occur naturally in many locations across Colorado.

- A portion of the Site soils were excavated in 2004 and are currently stored in bags. The soils average 10.5 picocuries per gram radium 226 with no correction for background. (Background levels are those concentrations of materials naturally occurring in a particular geologic formation. Picocuries per gram are a measure of radium content.) When corrected for background, the concentration of radium 226 is 4.4 picocuries per gram.

- A risk assessment demonstrated that even with many worst case and unlikely assumptions, the maximum exposure to a hypothetical person living on the landfill would be around one millirem per year. A millirem is the unit of measurement for the dose a person receives from radiation.

- For perspective, the average Colorado resident receives between 500 to 600 millirem of radiation per year from various sources. Because all soils, materials, and organisms contain minute quantities of radionuclides, we receive radiation from many sources including ourselves, other people, the sun, and the soils around us.

    - A person receives approximately two millirem of radiation from a spouse just from sleeping next to them over a year's time.
    - A person taking a cross-country airplane trip receives between two to five millirem during their time in the air.
    - A smoker ingests approximately 1,500 millirem of radiation per year from tobacco use.

- The Colorado Department of Public Health and Environment approved the Risk Assessment on August 25, 2005. The approval agreed that disposal of the soils at the BFI Foothills Landfill north of Golden, Colorado is safe.

- Shipment of the bagged soils should be completed this fall.

- Solid waste landfill disposal of minerals and soils that contain small concentrations of naturally occurring radionuclides has been approved on a case-by-case basis by the Colorado Department of Public Health and Environment numerous times in recent years.

- The BFI Landfill approved for disposal is a highly engineered facility with numerous measures designed to properly contain waste materials. The BFI Landfill has liner systems, leachate collection systems, leak detectors, intermediate layers of cover material, final cover, and many other systems and procedures to ensure the stability and safety of the facility. Disposal of the CSMRI soils at BFI is safe and effective. This has been confirmed by experts at the Colorado Department of Health, as well as other independent experts.

- Since 1987, when CSMRI ceased operations at the Site, several Site cleanup milestones have been completed. These include:
  - characterization and shipment of numerous drummed samples;
  - cleanup of a former tailings pond:
  - decontamination and demolition of buildings; and
  - decontamination and demolition of concrete and asphalt foundations and roadways.

- The total costs necessary to complete the cleanup of the remaining contaminated soils is unknown at this time. Excavation and characterization of the remaining soils will allow final cost estimates to be prepared.

If you have any questions regarding the site, please contact Linn Havelick, Director of Environmental Health and Safety at the Colorado School of Mines at (303) 273-3316 or via email at lhavelic@mines.edu.