

## CSMRI SITE PROJECT SUMMARY

September 2010

### CURRENT SITE WORK

- The Colorado School of Mines (“School”) is starting additional investigation work at the Colorado School of Mines Research Institute (“Site”) to determine the source and extent of contamination that is resulting in elevated levels of uranium in ground water at the north end of the Site. No uranium contamination has been detected in Clear Creek itself.
- The work is scheduled to start in late September 2010 and will focus on an area adjacent to Clear Creek that had been previously remediated by the U.S. Environmental Protection Agency. The investigation will proceed by excavation of known contaminated soils in one-foot lifts, followed by testing of remaining soil with field analytical instrumentation. Additional excavation of soil will continue until contamination levels are found to be below Site tentative cleanup goals. Once clean soils are verified, excavations will be backfilled with clean, uncontaminated soil. The overall Site will be returned to its original grade and topography.
- The excavation will continue until clean soil is detected at excavation boundaries. However, Clear Creek will form a northern boundary for the investigation and no excavation will be performed within the Creek itself. A buffer zone sufficient to prevent contamination from entering the Creek will be maintained to separate work from the active river.
- Excavated soil will be placed into a lined and bermed stockpile on the upper terrace of the Site outside the main banks of Clear Creek. The stockpile will be evaluated to determine the volume and contaminant concentrations. This will allow the development of remedial alternatives. The selection of an alternative will be guided by factors such as landfill waste acceptance criteria, contaminant concentrations, and other factors.

### RECENTLY COMPLETED WORK

- The former operating area of the Colorado School of Mines Research Institute (“Site”) is located on the south bank of Clear Creek in Golden, Colorado at the north end of the Colorado School of Mines campus. Numerous environmental investigation and remediation projects have been completed at the Site since research operations ceased in 1987.
- Following work completed in 2007 a ground water monitoring well was placed in the area of the Site that had been previously remediated by the U.S. Environmental Protection Agency in 1992. Prior to the EPA action a tailings pond had been operated in that portion of the Site. The new well detected uranium in ground water at concentrations above regulatory limits. However, sampling has never detected contamination in Clear Creek itself.

**CSMRI SITE SUMMARY SEPTEMBER 2010**  
**PAGE TWO**

- Investigation, remediation, and disposal of contaminated soils from the upper terrace portion of the Site were completed in 2007. Approximately 13,000 cubic yards of soil were disposed of at the Foothills Landfill in Golden, Colorado. An additional approximately 200 cubic yards of soil that contained contamination at higher levels were disposed at the Clean Harbors U.S. Highway 36 Hazardous Waste Landfill in eastern Colorado.
- Following completion of the 2007 work and release of the upper terrace portion of the Site the School constructed a new soccer pitch on the southern portion of the Site. This work was completed in 2008 and 2009 and included installation of a storm water collection system that sent storm water to the flood plain portion of the Site.
- Increasing levels of uranium were seen in ground water at monitoring wells on the east portion of the Site in 2009. These were linked to the release of storm water onto the flood plain area. The storm sewer outfall was moved in 2010 to prevent that ponding. Moving the outfall was quickly shown to be effective at reducing the dissolution of uranium into ground water.
- In 2010 a roadway was constructed to allow access to the Site from the intersection of 11<sup>th</sup> and Maple Streets.
- The CDPHE allowed practice, training and competition to begin on the new Soccer Pitch in August 2010.
- During the summer of 2010 a number of test pits were dug in the flood plain area to help determine factors such as depth to bedrock, uranium solubility coefficients, soil types, and contaminant levels in soil and ground water. The work provided valuable information for development of the [Final Work Plan: Environmental Assessment and Characterization, Colorado School of Mines Research Institute Site, Flood Plain Area](#), August 2010.

Additional information regarding the Site can be found at:  
<http://www.is.mines.edu/ehs/CSMRI/CSMRI2007.htm>.

The Colorado School of Mines contact for the Site is Linn Havelick. Mr. Havelick may be contacted at (303) 273-3998 or via email at [Linn.Havelick@is.mines.edu](mailto:Linn.Havelick@is.mines.edu).