

## Technical Memorandum (Canon City Milling Facility)

**To: Jim Cain, Environmental Coordinator/Radiation Safety Officer,  
Cotter Corporation**

**From: Errol P. Lawrence, HydroSolutions**

**Date: February 23, 2010**

**Subject: Review of the 4th quarter, 2009 water quality analytical results for the  
Cotter Corporation Canon City Milling Facility**

A review of the water quality analytical results from the fourth quarter sampling round of 2009 was performed. The data included radionuclides, trace metals, major ions, TDS, pH, alkalinity and conductivity results.

The analytical results for the fourth quarter sampling round were compared with historical results/trends to identify potential values that might be of concern with respect to changes in water quality and laboratory accuracy/validity.

Locations 002, 526, 710C, and 711A were not sampled during the fourth quarter because of insufficient flow. Locations 15B, 347 and 701, were dry and not sampled. Wells 114, 129, 173, 231, and 274 were not sampled because they were winterized during the sampling period. Well 15A, located north of the West SCS dam, which had insufficient flow for sampling for several years, has been sampled in all four quarters of 2009. Five new wells, 039, 040, 041, 042 and 043, were sampled three times in the fourth quarter.

Changes between the third and fourth quarter sampling events that are notable are indicated in the table below.

Review of 4th Quarter, 2009 Water Quality Analytical Results, Canon City Mill Site

Location ID	Parameter	Description
009	Uranium, sodium, calcium, chloride, magnesium and sulfate	Decreasing trends for these constituents continuing at this location
050B	Iron	Fe increased to highest levels recorded for this well
135	TDS	Value increased to highest level recorded for this well