

**Clay, Jim**

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**From:** Driscoll, Mark [drisc@umich.edu]  
**Sent:** Monday, February 07, 2011 5:04 PM  
**To:** Snell, William  
**Cc:** Blackburn, Robert; Simpson, Philip  
**Subject:** Eberline Soil Sample Results (Drain Tile) ...  
**Attachments:** 1012104.xls; FNRDDSoilSampleResultsEberline020311[1].doc

Bill:

The soil sample results arrived from Eberline Analytical late last week. The actual Eberline analyses document is the larger of the two documents attached (SKMBT / 864 KB) ... the other document (43 KB) is a summary table I created showing the radionuclide concentrations (pCi/g) vs the MDA concentration values.

The yellow highlighted values are those concentrations that were greater than the MDA ...

As you can see, none of the results are individually above their respective DCGL; however, we're perplexed why the C-14 value for the sample point right below the drain tile pipe resulted in an elevated result (9.6 pCi/g). The DCGL (soil) for C-14 is 12 pCi/g; so, we're concerned about the 'unity' factor issue.

We'd be most interested to know if the ORISE analyses exhibited a similar C-14 concentration for sample # UM-2010-09-16-D823-821.

Although I'm not an analytical lab rep, I would think it would be difficult to analyze for C-14 in soil with C-14 being a low-energy pure beta emitter. I would think there could be potential for interference from other beta emitters from known gamma / beta emitting radionuclides to make it 'appear' like there was elevated C-14 in the soil sample.

We're anxious to hear how the results match-up with the ORISE results ...

Thanks, Bill ...

Mark

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