

**From:** [Kreusch, Arleen K LRB](#)  
**To:** ["Annlyon16@aol.com"](#)  
**Cc:** [Busse, John H LRB](#); [Staten, Jane M LRB](#); [Barker, Michelle C LRB](#); [Frederick, William T LRB](#); [Keil, Karen G LRB](#); [gardella@acsu.buffalo.edu](#); [Daniel.Stapleton@niagaracounty.com](#); [James.devald@niagaracounty.com](#)  
**Subject:** RE: January 12 NFSS Conference Call (UNCLASSIFIED)  
**Date:** Tuesday, January 11, 2011 3:43:09 PM  
**Attachments:** [Figure 3-11.pdf](#)

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Classification: UNCLASSIFIED  
Caveats: NONE

Hello Ann,

Some upper groundwater-bearing zone wells were noted to have elevated uranium concentrations based upon Remedial Investigation (RI) field sampling. Subsequent sampling of these wells was conducted as part of an RI data gap analysis (to report trends in the RI Report Addendum) to determine if there was an increasing trend that might indicate that a source term (e.g. remnants from a former rad. storage pile, manhole breach, etc.) was present. Since in-house personnel were scheduled to sample various Environmental Surveillance Program (ESP) wells as part of the ESP, in-house personnel were used to sample these additional locations for the RI Report Supplemental Sampling. These samples were not intended (at the time of collection) to be incorporated into the ESP. However, in 2008, based upon the completion of the RI Report and subsequent public comment, groundwater wells OW11B, 302A, and A42 (and others) were added to the ESP. Trends, however, will be presented in the RI Report Addendum as originally intended.

Figure 3-11 from the RI is attached.  
Arleen

-----Original Message-----

From: Annlyon16@aol.com [<mailto:Annlyon16@aol.com>]  
Sent: Tuesday, January 11, 2011 12:22 PM  
To: Kreusch, Arleen K LRB  
Cc: Busse, John H LRB; Staten, Jane M LRB; Barker, Michelle C LRB; Frederick, William T LRB; Keil, Karen G LRB; [gardella@acsu.buffalo.edu](#); [Daniel.Stapleton@niagaracounty.com](#); [James.devald@niagaracounty.com](#)  
Subject: Re: January 12 NFSS Conference Call (UNCLASSIFIED)

Arleen,

I would be grateful if an electronic copy of fig 3-11 from the NFSS RIR could be also sent out to the call participants in time for tomorrow's discussion. Thank you.

I also have a question about the uranium data just issued for well OW-11B. Your email states most of the uranium data for well OW-11B was collected as part of the Environmental Surveillance Program (ESP), but well OW-11B was not added to the program until 2008. The well was initially sampled in 2000 and again in 2003 as part of the NFSS Remedial Investigation (RI).

Combining data from the ESP and RI gives a total of six published sample results, covering the years 2000, 2003, 2008 and 2009 (sampling twice a year in 2008 and 2009).

Please explain where the additional 5 data points for 2004, 2005 and 2006 have mysteriously appeared from: there is no corresponding data in the 2004, 2005 and 2006 ESP reports or the RI/ RI Addendum. I was under the impression that USACE data collection at the NFSS was a transparent process.

Using the published data, the seasonal trend in well OW-11B is steadily increasing.

The Fall trend is:

133.32pCi/L in 2000, 176pCi/L in 2008 and 247pCi/L in 2009 The Spring trend is, 216.5pCi/L in 2003, 253.7pCi/L in 2008 and 274pCi/L in 2009.

Note: Historically, pre-existing contamination around the IWCS resulted in uranium levels of up to 90 pCi/L in some IWCS monitoring wells. In 2003, 1000pCi/L of uranium was detected in groundwater both south and east of the IWCS.

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The additional 5 mystery data points appear in the table "Total Isotopic Uranium Data for Wells Near the IWCS (1997 -2010)" and the chart "Total Isotopic Uranium Concentration in Groundwater at OW11B."

Ann Roberts

In a message dated 1/10/2011 2:27:03 P.M. Central Standard Time, Arleen.K.Kreusch@usace.army.mil writes:

Classification: UNCLASSIFIED  
Caveats: NONE

Hello Ann,

To address your concerns regarding the IWCS integrity, total isotopic uranium and total radium-226 data from wells around the IWCS (EU 10) have been tabulated and graphed. In addition, statistical analyses have been performed on the uranium data by a person not affiliated with the project. Since the majority of the data depicted on the graphs was collected as part of the Environmental Surveillance Program (ESP), we have included two figures that show total isotopic uranium and total radium-226 data collected as part of the RI and RIR Addendum effort.

Arleen

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