

## Johnson, Bill H (DNR)

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**From:** Fred Marinelli <[REDACTED]>  
**Sent:** Wednesday, July 18, 2012 10:20 AM  
**To:** Peter J. Hinck  
**Cc:** Cory D. Anderson; Tina Pint; Al Trippel; Carlson, Erik (DNR); David Blaha; Houston Kempton; Paul Haby; John L. Adams; Jim Scott ([REDACTED])  
**Subject:** Re: Cat 1 stockpile pH

All,

I request that the updated package be posted on the Barr website, so we can compare model results with our independent calculations. Thanks. Fred

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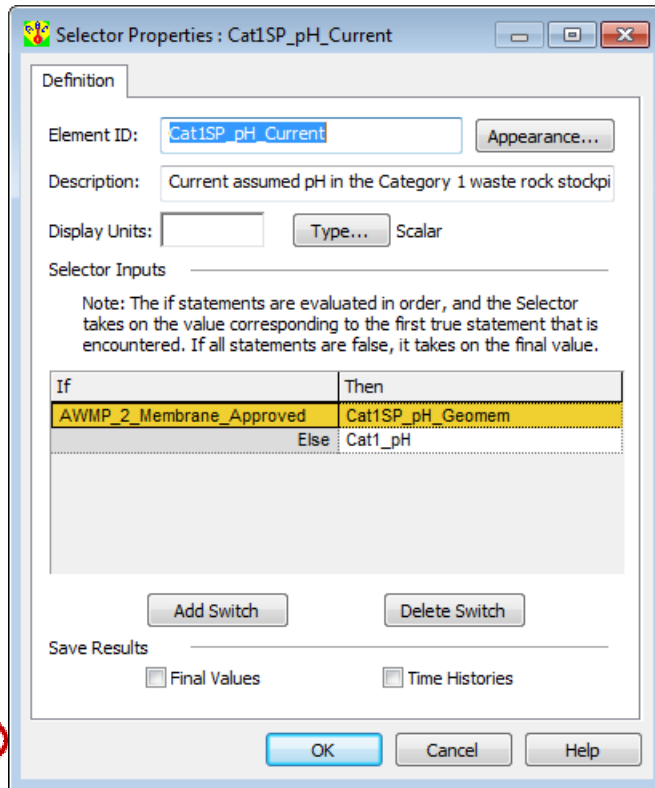
On Wed, Jul 18, 2012 at 9:09 AM, Peter J. Hinck <[REDACTED]> wrote:

Fred & Paul,

Thanks for identifying this.

You are correct that the model files submitted 2 weeks ago did not have the pH of the Category 1 Waste Rock Stockpile modeled correctly. This was the result of some testing that I was doing, and I neglected to change the value back before submitting the models. See the screen shot below for the correct (and current) modeling of the referenced element (Cat1SP\_pH\_Current), with the line that needs to change circled (I believe the version you have just lists this as "false").

Erik et al., this error was corrected prior to performing the modeling runs used in the AWMP Version 2, submitted last week. The full package of model results posted to the project website, however, were from a modeling run that included this error. The effect of this change on the ultimate concentrations in the Partridge River and groundwater is minimal, but it does represent an inconsistency in the model. Please advise if you'd like us to update the posted results spreadsheets.



Peter J. Hinck, PE

Water Resources Engineer

Minneapolis office: [REDACTED]

cell: [REDACTED]

[REDACTED]

[www.barr.com](http://www.barr.com)



**From:** Fred Marinelli [mailto:[REDACTED]]

**Sent:** Wednesday, July 18, 2012 9:42 AM

**To:** Peter J. Hinck; Cory D. Anderson; Tina Pint

**Cc:** Al Trippel; Carlson, Erik (DNR); David Blaha; Houston Kempton; Paul Haby; John L. Adams; Fred Marinelli

**Subject:**

Site: Mine Site

Activity: GoldSim Task 2 QA

Issue: Cat 1 stockpile

pH during closure with geomembrane installed

Model appears to be using a P50 pH = 7.25, which is appropriate for a soil cover.

Input tables indicate that the model should use P50 pH = 7.95 for a geomembrane cover.

We believe the programming issue is in Element ID: Cat1SP\_pH\_Current.

Cat 1 pH affects numerous geochemical calculations involving the concentration of constituents in Cat 1 seepage.

Recommend discussing this issue with Barr. Please provide authorization to forward this email to Peter Hinks and Tina Pint (if appropriate).

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**Fred Marinelli**

Senior Groundwater Hydrologist

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