From: Randall Fedors
Sent: Thursday, July 26, 2007 12:18 PM
To: Chandrika Manepally
Subject: RE: AGU abstract

Thoughts on salt deposition, based on my work with the National Park Service on damage to buildings caused by acid rain.

If the rock starts to dry out, then the salt deposition does migrate into the rock. We saw the highest levels of gypsum forming ~0.3 to 0.5 cm below the rock surface. This led to spallation of the outer 0.3 to 0.5 cm of the rock. The pollution related to acid rain was more than a cosmetic (just clean the surface), and in fact, it led to disfigurement of building features and functionality, and of disfigurement of statues.

However, with the rock staying wet (nearly saturated), one would expect salts to deposit only on the surface or 1 mm into the rock.

Of course, the depth dependence is a function of the UZ properties of the rock (wet or dry). I would guess that the Alamo rock stays pretty wet because the water table is in close proximity. The question is which scenario is analogous to YM.

--Randy

>>> Chandrika Manepally <cmanepally@cnwra.swri.edu> 07/25/2007 5:39:41 PM >>>

Randy
Looks like you are super busy now!
I guess we have a couple of topics to work on for AGU... I'll think about the evaporation topic a little more.I guess the deadline to send an abstract to NRC is 08/06.

I had a meeting with Ron today about the thermal seepage report. I also mentioned about the errors in the DTNs. He said he will take a look at it.
We also talked about using data (DST, LBT) to plug in the OM Phillips solution and Birkholzer solution... We'll need the DTNs for that task.

Regarding MPBXs, I'll check with Goodluck and Simon to see if they know anything about the duration when this data was collected...I'm not confident about getting anything... but will check and see.

A different topic came up during my discussion with Ron today. This is about the formation/deposition of the salt on the surface of the rock. This came up during the App 7 THC discussions. This was when Ron talked about the Alamo and how they were seeing salt deposits only on the surface. This was different than what DOE was saying i.e., salt deposition occurs even in the rock matrix, not just the surface... Do you know if there was any chemical analysis done at the DST esp., on core samples? Ron didn't know anything about it... We can look at the concentration in the rock matrix vs. the surface.

-Chandrika

-----Original Message-----
From: Randall Fedors [mailto:rwf@nrc.gov]
Sent: Wednesday, July 25, 2007 3:13 PM
To: Chandrika Manepally
Subject: Re: AGU abstract

Chandrika,

Okay, time to think about AGU. I will.

As for UZIG, I decided to cancel the poster because I have no time to work on it. It's pretty low on the priority list. With Gene signing on as PA branch chief, I took over some of his duties, e.g., UZ lead and backup for other ISIs). My boss concurred on the cancellation of the poster. Sorry. I suppose I could resurrect for AGU.

I'm at the LSO checking on Ron's DTNs. So far, one of the DTNs had typos (two parts of the ID were wrong, if I figured out the one he intended). I am also searching for data from the cooling period. All the data sets he provided were from the heatup period. Not sure what I will find for the MPBX holes. Maybe they stopped collecting data in those holes??

--Randy

>>> Chandrika Manepally <cmanepally@cnwra.swri.edu> 07/25/07 2:53 PM >>>
Hi Randy

Just was thinking about an abstract for AGU. Some topics to think about.

1. I don't know what happened to the session related to evaporation in
porous media. No response from the organizers. But I still think we should
look at that topic esp. examine its relevance to YM.
2. Since we have been working with TPA all year. maybe we can present
something about it...

Are you planning to present anything?

Also, for UZIG abstract. Did you get a chance to work on it?

-Chandrika

PS: Email/Phone connection has been restored.

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From: Randall Fedors

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