From: James Winterle
Sent: Tuesday, June 27, 2006 9:00 AM
To: Alexander Sun; John Stamatkos; Paul Bertetti; Randall Fedors; Jack Parrott
Cc: Budhi Sagar; Cynthia Dinwiddie; Gordon Wittmeyer; 'rlenhard@cnwra.swri.edu'; Brittain Hill; Jack Guttmann; Jin-Ping Gwo; Eugene Peters
Subject: RE: High Flux Well 24P - Telecon

Randy,

Alex has a good point. Have we received a copy yet of the official report of the unexpected geologic condition? It would be good to know exactly what they are basing the assesment of high flow velocity on.

In the second slide that Alex provided from Barry Freifield's presentation, the conductivity estimate of 20 Darcies (~17 m/d) is prettly high. "How does that compare to the values in our 3D flow model?" At the location of well 24p, the lower volcanic aquifer (LVA, which includes the Bullfrog) is assigned a conductivity of only 0.5 m/d. However, in other parts of the model, the calibration of the model required the LVA unit to be designated as a fault zone (between Bow Ridge, Paintbrush, and Fortymile Wash Faults) with a much higher conductivity of 5 m/d. Hydrologically speaking, 5 m/d is not so different from 17/m/d -- especially when you consider that the 5 m/d has to represent a large area, and the 17 m/d is a point estimate that may reflect a local high-conductivity zone. It would be fairly easy to add a high-k feature to the 24p area of the model and see what effect it has on the calibration and flow paths; just need to find time to do it.

--Jim

P.S.: The following link is a to an article that explains the flowing fluid electrical conductivity logging method in more detail (see section 2 on methods). Might be good reading before the meeting.

http://esd.lbl.gov/research_summaries_04-05/fundamental_research/pdf/doughty.pdf

-----Original Message-----
From: Randall Fedors [mailto:RWF@nrc.gov]
Sent: Tuesday, June 27, 2006 5:52 AM
To: asun@cnwra.swri.edu; jstam@cnwra.swri.edu; jwinterle@cnwra.swri.edu; pbertetti@cnwra.swri.edu; Jack Parrott
Cc: bsagar@cnwra.swri.edu; cdinwiddie@cnwra.swri.edu; gwitt@cnwra.swri.edu; 'Robert Lenhard'; Brittain Hill; Eugene Peters; Jack Guttmann; Jin-Ping Gwo
Subject: RE: High Flux Well 24P - Telecon

Three more slides from Alex (attached) .....

>>> Alexander Sun <asun@cnwra.swri.edu> 06/26/2006 4:10 PM >>>

Randy,

Here are three slides for tomorrow's meeting. The first slide (prepared by Shannon Colton) shows fault trace maps overlaid on YM aerial photograph and aeromagnetic survey map. Note the fault trace map is slightly different from that of Britt's. The second slide gives a concise description about what the flowing FEC is. That's the logging method mentioned

in Jack Parrott's original email. The third slide is taken from Barry Freifeld's recent presentation given at Devils Hole workshop 06. I just received the presentation in mail last Friday. Eugene should have gotten a copy too.

If flowing FEC is used, it's supposed to measure fracture transmissivity under constant pumping rate. So the high hydraulic gradient is really introduced artificially through pumping. "Unexpected high transmissivity" makes more sense than the "unexpected high flow rate." Please let me know if you agree or disagree with my new idea.

Alex

-----Original Message-----
From: Randall Fedors [mailto:RWF@nrc.gov]
Sent: Monday, June 26, 2006 9:07 AM
To: asun@cnwra.swri.edu; jstam@cnwra.swri.edu; pbertetti@cnwra.swri.edu; Jack Parrott
Cc: bsagar@cnwra.swri.edu; cdinwiddie@cnwra.swri.edu; gwitt@cnwra.swri.edu; jwinterle@cnwra.swri.edu; Robert Lenhard; Brittain Hill; Eugene Peters; Jack Guttmann; Jin-Ping Gwo; Randall Fedors
Subject: High Flux Well 24P - Telecon

Item Type: Appointment
Start Date: Tuesday, 27 Jun 2006, 10:30:00am (Eastern Daylight Time)
Duration: 1 Hour
Place: T3-C2

Bridge Line 1-800-638-8081 passcode #6948
(From Wash DC 1-301-231-5539)

Tuesday June 27, 10:30a EST

POP

Develop ideas and information needs for assessing impact on DOE and NRC models and flux distributions for PA.

Tentative Agenda:

1. Questions we'll eventually need to answer:
   - Is this flux rate unexpected?
   - Will the flux rate cause a reassessment of models or data inputs?

   - When will we need answers (nothing now, we need to wait for more info!)

2. Summary: What we know so far about:
   - Well 24P cuttings log & downhole data
   - Measured flux rate, type of flow meters
   - Preliminary geologic overlay provided by Britt

3. Anticipated needs or activities

- Conceptualizations in DOE models, NRC models, and alternative models with more fault detail (??)
- Other measurements at Nye County wells, measurements in ESF
- Additional assessments by geologists
- Chemistry (Has the center sampled this well? Is chemistry available? ...)

4. Other suggestions?

Attachment is same as provided after last week's YM Team Meeting

Hearing Identifier: HLW_YuccaMountain_Hold_EX
Email Number: 91

Mail Envelope Properties (jwinterle@cnwra.swri.edu20060627085940)

Subject: RE: High Flux Well 24P - Telecon
Sent Date: 6/27/2006 8:59:40 AM
Received Date: 6/27/2006 8:59:40 AM
From: James Winterle

Created By: jwinterle@cnwra.swri.edu

Recipients:
"Budhi Sagar" <bsagar@cnwra.swri.edu>
Tracking Status: None
"Cynthia Dinwiddie" <cdinwiddie@cnwra.swri.edu>
Tracking Status: None
"Gordon Wittmeyer" <gwitt@cnwra.swri.edu>
Tracking Status: None
"'rlenhard@cnwra.swri.edu'" <rlenhard@cnwra.swri.edu>
Tracking Status: None
"Brittain Hill" <Brittain.Hill@nrc.gov>
Tracking Status: None
"Jack Guttmann" <Jack.Guttmann@nrc.gov>
Tracking Status: None
"Jin-Ping Gwo" <Jin-Ping.Gwo@nrc.gov>
Tracking Status: None
"Eugene Peters" <Eugene.Peters@nrc.gov>
Tracking Status: None
"Alexander Sun" <asun@cnwra.swri.edu>
Tracking Status: None
"John Stamatkos" <jstam@cnwra.swri.edu>
Tracking Status: None
"Paul Bertetti" <pbertetti@cnwra.swri.edu>
Tracking Status: None
"Randall Fedors" <Randall.Fedors@nrc.gov>
Tracking Status: None
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Tracking Status: None

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MESSAGE	4728	6/27/2006 8:59:40 AM

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