

Från: Strömberg, Bo
Skickat: den 15 december 2020 12:12
Till: 'Lotta Rubio Lind'
Kopia: tim hicks; Tamara Baldwin (tdb@galson-sciences.co.uk); Egan, Michael; Öberg, Henrik; Liu, Jinsong
Ämne: Comments on LOT meeting notes nr 1 and some additional LOT related questions to SKB

Hej Lotta

Comments on the notes from meeting 1 is that a few clarifications are needed and that the background of a few topics could be briefly explained for readability purposes:

- Regarding the first topic, could you add a couple of sentences about the nature and extent of LOT international collaboration and when it formally ended
- At this meeting we also asked if the empirical and theoretical basis for the original LOT objectives related to copper corrosion stated in e.g. SKB IPR-99-01 still remain valid. Some comment about this would be helpful in either this one or the final third note.
- Regarding topic 2, the basis for SSM's statement on SKB's original planned length of duration of S2 and A3 (5 years) can be found in e.g. SKB IPR-99-01. SKB's stated reasons for the change of plans is very short and could be clarified in the notes. There were some reasons discussed at the meeting not mentioned in the preliminary notes for instance SKB's overall time plans.
- Regarding topic 3, could you clarify what is Antura. Just for making the notes more understandable could you add a couple of sentences to clarify the meaning of results from Mössbauer (Fe(II) Fe(III) ratio) in the context of the LOT experiments. In the context of the Äväs system used for water chemistry work at Äspö, were there any deviations or unexpected events during the analysis related to LOT? A similar question could be asked about tunnel activities documented in the daily logs?
- Regarding topic 5, I think we had a slightly longer discussion about the filming of the tunnel work and the issue of an independent observer e.g. whom could in principle have been engaged for such a task. For instance we also discussed the size of the film both in terms of length and data storage, and that the film on the website is just a small fraction. It could also be mentioned if and how the full length film could be accessed. Regarding accessibility of samples see separate question from Galson below.
- Regarding topic 9, in addition to ISO certification there was a discussion on whether or not contractors in this case Swerim/Kimab used laboratory notes and whether or not they provided separate technical report along with the main SKB TR-20-14 which could be mentioned. I think SKB mentioned that some of the appendices to the main report were provided directly by the contractor, which was perhaps for instance the TEM work mentioned in the notes topic 10.
- Regarding topic 11, in addition to audits conducted by SKB, whether or not external and internal audits at the supplier company independent of SKB has been conducted would also be of interest to note.
- Regarding topic 12, there was a discussion of alternatives to the present arrangement with KIMAB/Swerim, for instance a collaborative effort of different Swedish academic institutions and other international suppliers. I recall a brief discussion of advantages and disadvantages of these alternatives, and also that this was considered for upcoming projects related to LOT, Minican and the prototype repository. A summary of this discussion would be helpful.
- Regarding topic 13, a rephrasing of the discussion sentence is recommended. It is not exactly clear what is meant. Is the meaning that the quality standards implemented for the previous

phases would not have fulfilled today's requirements. Cannot recall this discussion were there any concrete examples mentioned?

- Regarding topic 14, see separate comment from Galson.

The following are separate questions from Galson:

- The PMP (Section 4.7) states that SKB is willing to distribute bentonite samples on request to anyone interested in doing analyses – Does this literally mean anyone or only research organisations previously engaged in SKB related projects?
- In the meeting note for the RISE/SWERIM visit, it is stated that visual inspection of the samples on arrival was carried out by RISE, as well as the microscopy and gravimetry measurements, and that XRD, SEM and TEM measurements, and the spectroscopic measurements EDS and GDOES, were performed by researchers at SWERIM. However, SKB's presentation in September states that RISE performed all the measurements apart from FIB/TEM, which were performed by SWERIM. Which of the two is correct?
- A very minor editorial comment on the minutes from QA meeting 1, which is that seam is spelt with an 'a' in se~~a~~m drilling.
- T. Sandén of Clay Tech, rather than a member of SKB staff, is identified as the Retrieval WP manager and activity leader. This is allowed according to the Äspö HRL facility working instruction, but the purchasing instruction requires that contacts with tenderers by such staff are limited and only refer to technical issues, and that the external staff member should not be allowed to independently make and communicate decisions with direct influence on the choice of supplier. The Retrieval WP plan [§5.1] summarises the responsibilities of the WP manager. These responsibilities include management of internal resources and checking that invoices linked to the WP are correct before forwarding them to the main LOT project manager. In addition, the WP manager prepares tender documents, evaluates quotes and writes technical specifications for the work orders [11, §14.1]. Evaluation of quotes by a non-SKB WP manager would appear to be conflict with the requirements of SKB's purchasing instruction. Is this a correct interpretation of the documents? Or is there an exclusion documented somewhere?
- Can a copy of the completed Excel template files used to submit the copper measurement result data to SICADA be supplied?

Best regards Bo



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