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Research and Mineral Mapping Subcommittee Minutes
March 22, 2021
9:00 a.m.

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Roll Call
Tim Eisele – present
Steve Kesler – present
Snehamoy Chatterjee – absent
Adam Wygant – absent
Sharon Schafer – absent
Mike Sweat – absent
Peter Rose – present
John Yellich – present

Guests
Dave Behrend
Kip

The meeting began at 9:08 a.m.

Lets start with section 2 edits. What we have is a good start. Could say manganese and critical minerals. we need other language if you use critical minerals. We could say diverse mineral resources. We could put in the critical minerals list and mention some exist in the state. Just take manganese out. We could say geochemistry. We don't do rock chemistry unless we do mineral mapping. Bill has an old map that Paul Daniels made.

There is intermittent manganese running up the Keweenaw that would be attractive. Jim DeGraff might know. A couple areas were exploited. I still have samples to work with. We could insert a sentence saying an example is manganese. There is manganese near Tilden. It's hydrothermal in Keweenaw. It is not investigated to date. There is some in the UP and Keweenaw, so it focuses in that area. At the end, you could say, in summary. Or say the state needs to understand.

Brownfield has two values: waste like tailings and low-grade ore. Do we need to explain tailings? Looking at tailings from processing and waste rock as well. Should we put definitions in for tailings and waste? We could say mineral processing and low-grade ore bodies. We could get rid of containing other minerals. We could say might be improved with new technology. We could say it contains minerals that might be extracted rather than other. And demand in society could be taken out. We could add have new need for minerals.

Is brownfield part of the same paragraph? You can make the point that brownfields need to be kept. We need brownfield in the first sentence. Brownfield sites where mining has occurred in the past has long term value. Brownfield sites represent past mining. Could say have continuing value to the state. Could still contain significant value. Ending tailings have to be treated.

Put the third sentence back in for the next section. Add mapping and geology information. The emphasis is on geology. We need to expand and clarify stuff from Tim. Add maps can provide information.

In the first part, add is essential for and get rid of Precambrian. Change to offers a chance to make significant changes in understanding geology in Precambrian. Older maps that were done in the 60s mapped locations. No formal survey. With LiDAR, could see physical changes.

Before high resolution, start new paragraph. Break at the end of the next sentence. Right after mapping, start a new paragraph. Not sure about providing better information on the glacial deposits that cover most of the state. Delete the rest of that sentence. Should we put a table here for minerals?   Yes, it should be included. We need ores and waste minerals. We need all these things. Should be rare earth elements in the next sentence.

Have questions about some. No commercial development. It could be here; reports they are here but not enough to find out. I will get the table together and send it. Manganese comes up again. That's a good way of saying it.

Let's move onto the next section. The first paragraph is good. Geowebface is average. Bedrock is better. Geowebface has oil and gas, and mining activity. We can transition into the second sentence.

For project development, you need site specific information based on project area. Get rid of the first part of the sentence and say information of this type if currently limited. Include geologic potential for mineral resources. There is higher relocation data; add mapping before data. Add locally characterization by mineral potential. Vast areas you don't know what they are. Local or regional? Result in local potential. Looking at areas that have current data. Look at land in those areas. We can't map the whole state. Local categorization is the base of this mapping. Could say higher resolution mapping and categorization of local mineral potential. Add similar information is needed for brownfield locations.

The next paragraph transitions into process. Where do we have acid mining drainage in Michigan? Not aware of us having any. Buck 9 area. Had to buy pyrite to make smelter work properly. If water leaks out of the mine, they are afraid it would be brine. Brine is everywhere in Michigan if you go deep enough. Wasn't Copperwood permitted? Yes. Wanted to move from old to the new. The current owner is growing marijuana there and doesn't want anyone in there. The last sentence should be part of the previous paragraph.

The data function is happening today. Mineral rights is a separate thing. It is part of the legal subcommittee. It is likely to get pulled completely. Put ownership on maps when we make them. Pulling from our database so it's not accurate. Michigan is not a recording state, so it makes things hard to track. It was a long time ago. You had to go to the courthouse to look for things.

The next paragraph is good. The next paragraph is regarding the MCGRRE facility.

Core repository has its own definition. They won't know what core repository means. It's drills, samples, and maps. Geologic core, samples, and mapping. Should we refine? No, I think it's good enough. We need geologic in there.

The land system is the natural forest system. Why put in abbreviations if we aren't going to use them? We can take them out later.

Public Comments
Dave Behrend – you mentioned tailings and mines; it is interesting on how you are covering different materials.

Adjournment
The meeting was adjourned at 11:01 a.m.