## **Alyssa Bryant**

From: Sent: To: Subject: Martha Oswald Monday, September 12, 2016 8:19 AM Alyssa Bryant FW: Evidentiary Hearing

From: Douglas Hoffman [mailto:pearhoff@cpinternet.com]
Sent: Sunday, September 11, 2016 8:09 AM
To: Council <Council@duluthmn.gov>
Cc: Zack Filipovich <zfilipovich@DuluthMN.gov>; Jay Fosle <JFosle@DuluthMN.gov>; Howie Hanson
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Westerlund <ewesterlund@DuluthMN.gov>
Subject: Evidentiary Hearing

To: Duluth City Councilors

RE: Resolution for evidentiary hearing

Date: Sept. 10th, 2016

## Dear Councilors-

I am writing to support the resolution put forth by Councilors Anderson, Sipress and Westerlund requesting an evidentiary hearing in regards to the proposed permits by Polymet to begin sulfide oar mining in our region. I would like to elaborate my concerns, so that you might further understand my support for these councilors' efforts.

I am a family physician in town, and along with hundreds of other healthcare professionals within our state, have voiced my concern about the potential impacts that sulfide mining in our area may have on human health. Even with the best technology, sulfide mining has never been done without toxic drainage. Due to the sulfur content of the exposed rock, acid mine drainage containing sulfuric acid and toxic metals leaches into the surrounding environment, especially in water-rich environments such as ours. These multiple toxins pose very real risks to human health.

The World Health Organization lists ten chemicals of major concern to human health. Sulfide mining releases at least five of these including mercury (and the sulfates that methylate mercury already in the environment to it's toxic form- methylmercury), arsenic, lead, asbestos, and air pollution. I could elaborate on all of the known deleterious human health effects from each of these toxins, but my letter would be unbearably lengthy. Suffice it to say for now that these risks include but are not limited to neurodevelopmental disorders (ADHD, autism spectrum disorders, intellectual disability, etc.), cancers, heart disease, and lung disease. There exists a body of growing evidence within the medical literature that environmental toxins are causing a greater burden of disease on society. As a healthcare provider, I alongside countless colleagues AM VERY

CONCERNED about opening the door to an industry with such an abysmal track record, without adequate scrutiny as to the effects on human health for generations to come. Once the permits are issued and the sulfide-oar containing rock is exposed to air and water, the toxic leachate will persist for centuries.

The Minnesota Department of Natural Resources (MNDNR) is making a decision on whether to allow a project that will create long term water pollution, as well as whether PolyMet needs to provide financial assurance to fund hundreds of years of water quality treatment. I'm not convinced that such security is even feasible. The MNDNR also permits the PolyMet tailings waste facility, which if ever would collapse in a disaster similar to that at Mount Polley in British Columbia just two years ago, could result in massive release of toxic chemicals. These chemicals, as stated above, have known carcinogenic, neurodevelopmental and other known deleterious affects to human health.

The administrative law judge process would allow science and medical experts to put on the record their concerns about toxic leachate and resulting long-term health consequences to the downstream Duluth community. This process would also allow examination of evidence and witnesses to evaluate whether a project requiring long-term treatment of polluted water should be allowed and if so, whether PolyMet has provided adequate funds for hundreds of years of treatment. The hearing would also provide an opportunity to analyze the risks of dam collapse releasing overwhelming toxic pollution to downstream communities.

As physicians, we take an oath before we receive our MD degree: The Hippocratic Oath. The primary tenant of the Hippocratic Oath is to "first, do no harm". As citizens of a community that will be affected by this decision for centuries to come, we must demand scrutiny of the risks and benefits of this industry, allow this to be vetted in an evidence-based judicial process, and assure that we are "first, doing no harm" before any permitting is allowed. I sincerely thank Councilors Anderson, Sipress and Westerlund for putting this resolution forward, and I support their resolution calling for an evidentiary hearing in regards to the proposed permits by PolyMet to begin sulfide oar mining in our region. We must collectively insure that the health of many generations to come is not put at risk.

Sincerely,

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