

STATE OF  
COLORADO

Czapla - DNR, Dustin &lt;dustin.czapla@state.co.us&gt;

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**P2023012**

1 message

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**tom miller** <skiscalpel@gmail.com>

Tue, Oct 3, 2023 at 10:49 AM

To: "Czapla - DNR, Dustin" &lt;dustin.czapla@state.co.us&gt;

Hello Dustin,

the opportunity to comment again on this project is appreciated. I am commenting on the applicant's responses to my objection. I am agreeable to including my well in a water sampling plan if the permit is approved. However, I still firmly believe there is a finite threat to my water quality and or quantity from the proposed activities. The exact nature and type of rock formation present is somewhat irrelevant. It is documented that contaminants can be transported through many mechanisms: "Typical pathways at mine sites include transport through air, leaching, infiltration through the soil/vadose zone, movement through alluvial aquifers and fractures in bedrock, transport in groundwater, discharge to surface water, transport in surface water and sediment, and uptake and transfer via biological pathways" (1). Again, the proposed drilling is at the top of the hillside where my well is located. Local features indicate that surface and ground water flow eastwardly in a direction from the proposed drilling site toward my well location.

Sampling before, during, and after drilling is better than nothing. I would like to see it as a permit requirement, not just a plan. Additionally, I would propose that there is a split done with the samples with separate chains of custody. The elements tested for should be reviewed by a third party.

Technical research recommends that geochemical techniques and methodologies are used to characterize mine waste drainage *at the exploration phase* which is not being done (1). Water sampling is a bare minimum.

Projects where the applicant has published plans for extensive exploration and mining expectations need to be evaluated in that context and with advanced planning and characterization, including evaluation of potential future impacts on the environment, local residents and competing uses.

Tom Miller

(1) Predicting Water Quality at Hardrock Mines Methods and Models, Uncertainties, and State-of-the-Art Ann S. Maest Buka Environmental Boulder, Colorado James R. Kuipers Kuipers & Associates Butte, Montana Contributing Authors: Constance L. Travers and David A. Atkins Stratus Consulting, Inc. Boulder, Colorado