Report:

New Observations and Exploration Vectoring at the Thompson Knolls Cu-Mo-(Au) Skarn-Porphyry System (Amended)

by

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Executive Summary

The skarn alteration intersected at Thompson Knolls shows a spatial mineralogical and geochemical variability, which may be useful as an exploration vector. With only three drill holes that intersected significant skarn alteration, the overall geological model and its implications for exploration targeting remain highly speculative. The geometry and mineralogy of intersected skarn alteration suggest that there is a high potential for undiscovered skarn and porphyry mineralization. Our geochemical and mineralogical vectoring approach remains somewhat vague because of the limited number of boreholes. Nevertheless, we can constrain the SW as the most likely direction from where the ore fluid likely came.

Introduction

I visited the Thompson Knolls project on April 3rd/4th 2024 with Chad Abarbanel. During the visit we noticed significant inconsistencies and shortcoming of the previous log data of intersected skarn alteration. For a better understanding of the skarn characteristics, to improve the geological model and to develop exploration vectors Chad Abarbanel re-logged all drillholes (TK3/3a, TK5, TK6, TK8, & TK14), which intersected skarn alteration during a site visit in June 2024. In the following report we provide a summary and synthesis of the updated logging data and discuss their implications for exploration targeting.

Skarn characteristics

The new logging data implies discontinuous skarn packages that are intersected in drill holes TK6, 8, 9 and 14 as well as at the very bottom of TK5 (Fig. 1). This observation is an important update (Fig. 7) to the continuous skarn bodies assumed in the previous model. Intersected exoskarn is characterized by mainly pyroxene and serpentine, whereas endoskarn comprises abundant pale red garnet and pyroxene. Exoskarn is more abundant and endoskarn is invariably related to dikes or slivers of intrusive rocks. Copper mineralization is mainly related to retrograde skarn alteration, which consists of mostly chalcopyrite, pyrrhotite, pyrite, minor magnetite and serpentine. Figure 2 shows that most of the copper grade, with only few exceptions, is spatially related to skarn zones. Skarn alteration is also associated with veinlet and stockwork zones that contain a high abundance of Mn-oxides. The highest abundances of Mn-oxides were recognized in TK 8 & 14.

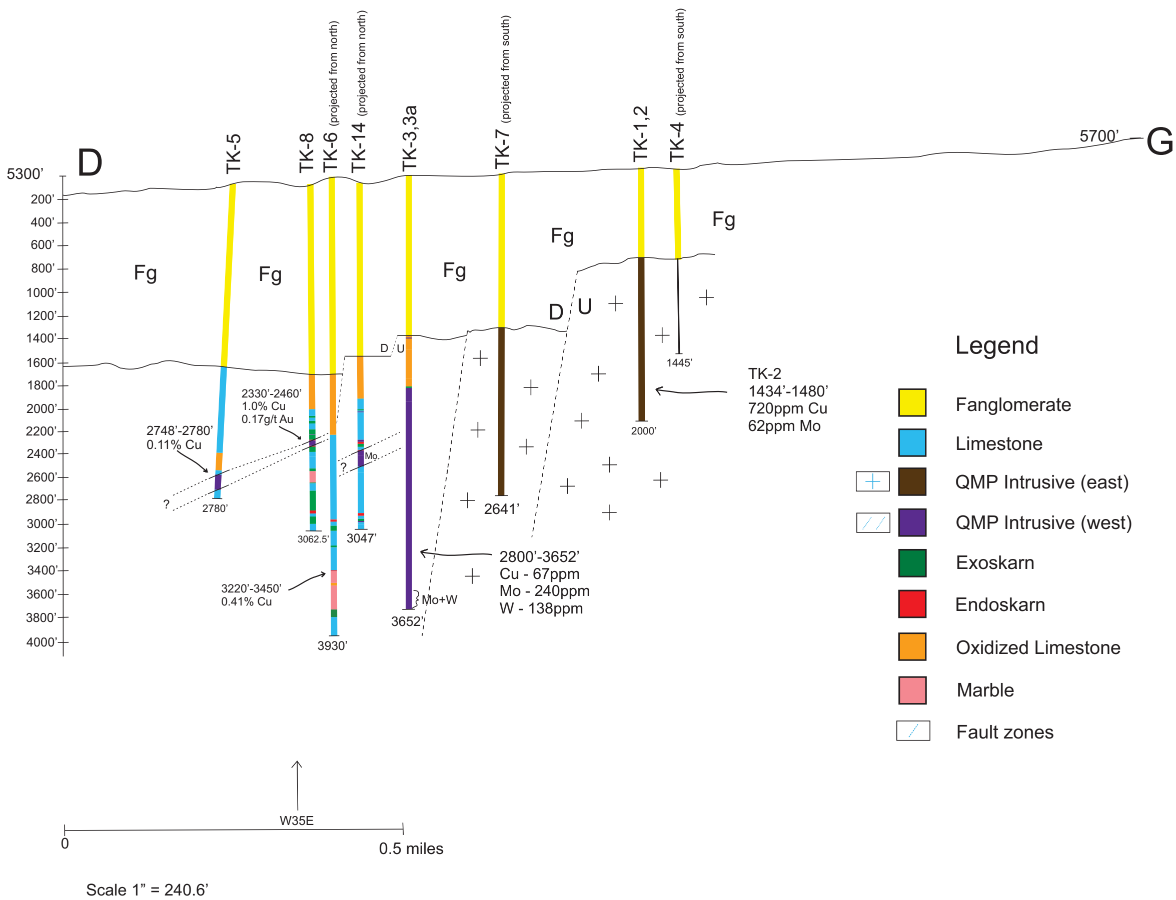

Figure 1 Geological cross-section including the observations from the drill core logging.

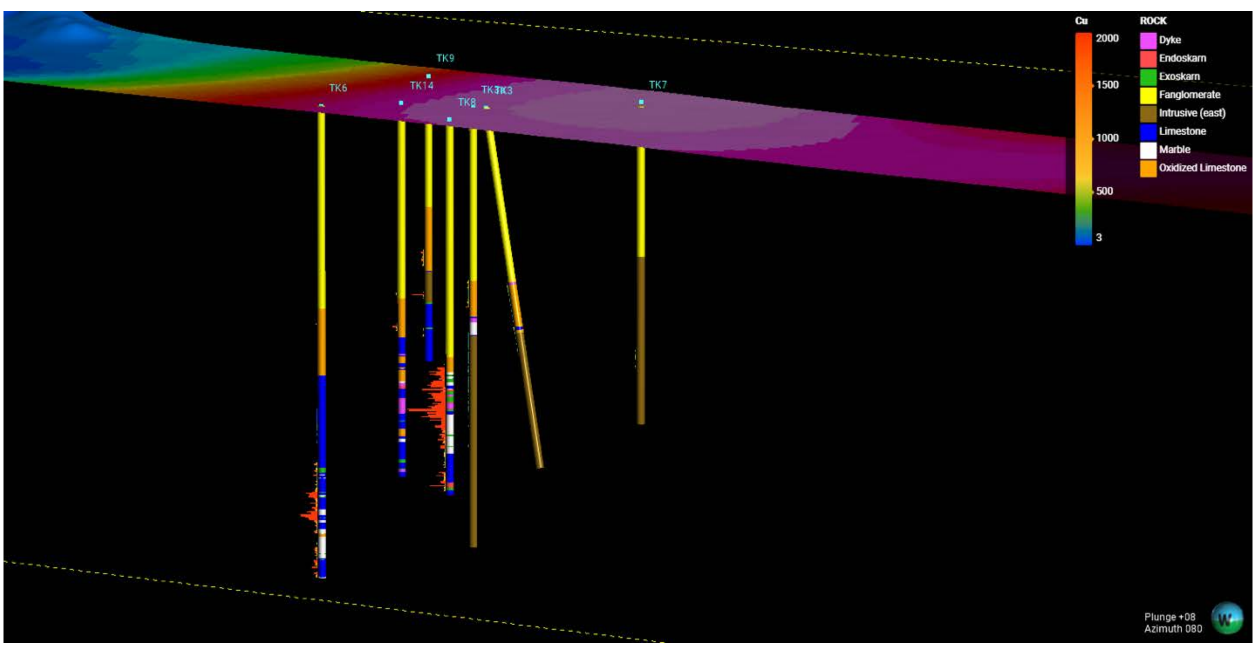

Figure 2 3D model of borehole data showing lithologies and Cu grade

Structural Situation and Stratigraphy

With the limited number of boreholes and structural data, the structural model remains highly speculative. Based on stratigraphic observations we can assume several parallel normal faults that cause a progressive down-drop of structural blocks towards NW / WNW.

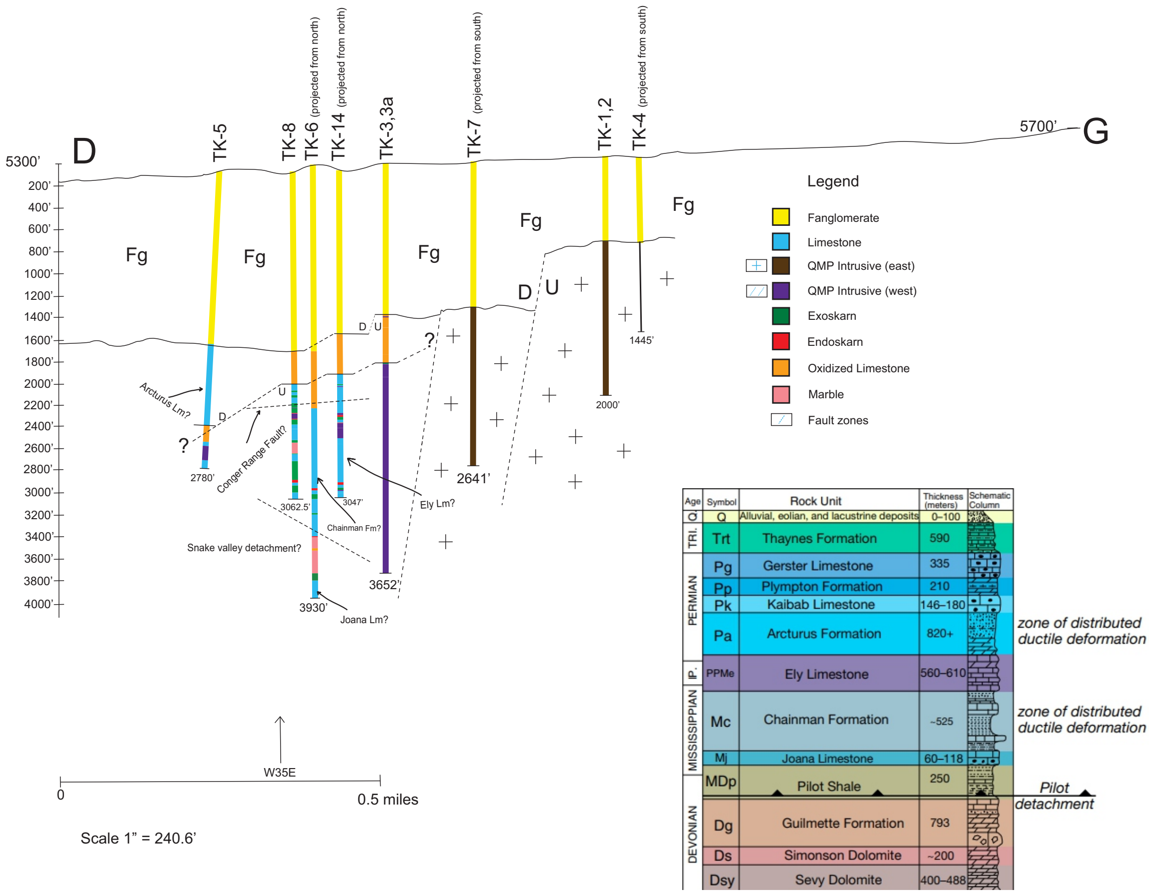

Figure 3 Structural observations

Implications for Exploration Targeting and Vectoring

Discontinuity of skarn packages, the high abundance of Mn oxides, the pale color of garnet, the garnet/pyroxene ratio, the absence of bornite, and the low chalcopyrite/(pyrite pyrrhotite) ratios consistently imply an intermediate to distal formation environment relative to the source of the hydrothermal ore fluid, which means that it is likely that the main Cu-skarn body and potential porphyry was not yet intersected (see Fig. 4; c.f.

Burisch report April 2024). The relatively high Cu grades associated with this intermediate-distal skarn is encouraging because the grade usually increases towards the source intrusion.

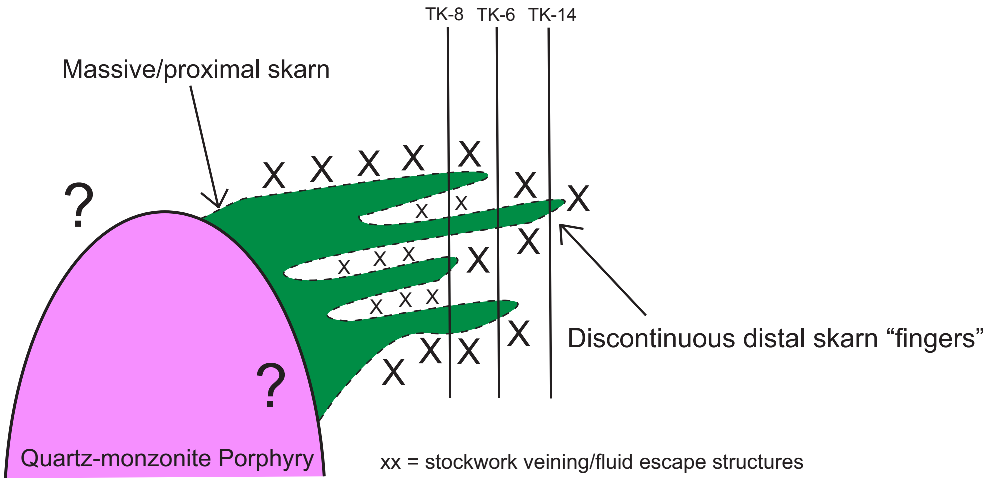

Figure 4: Schematic geological model of the Thompson Knolls skarn system. TK 6, 8 and 14 are shown with variable distance to the causative source intrusion.

Since Cu mineralization is mainly related to skarn alteration, we only focused on skarn intervals for vectoring. We plotted Cu/(Pb+Zn) (Fig. 6) as well as (Cu+Bi)/(Pb+Zn+Mn) (Fig. 5) for the intersected skarn intervals. Higher values (red) indicate a more proximal position than lower values (blue). TK 8 and 6 show distinctly higher Cu/(Pb+Zn) compared to TK14 and 9. The weighted average Cu/(Pb+Zn) values are 47.6 for TK 8, 22.4 for TK 6, 15.7 for TK 14 and 4.2 for TK 9 (Fig. 6 and 7). These values should systematically decrease with increasing distance to the fluid source. Other observations such as the garnet/pyroxene ratio are consistent with this assumption.

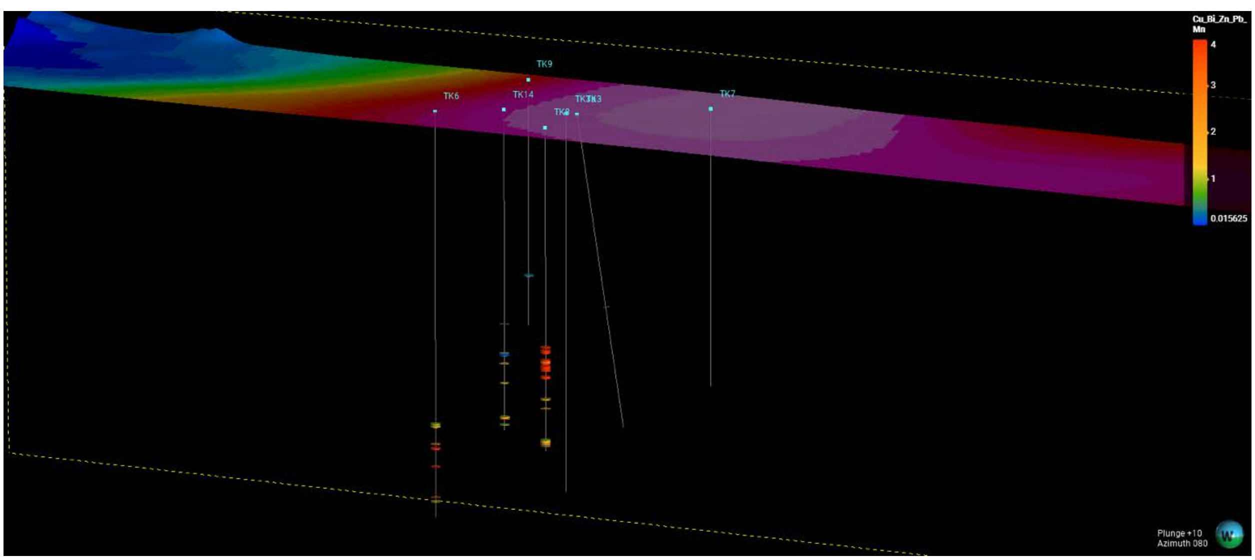

Figure 5 (Cu+Bi)/(Zn+Pb+Mn) for intersected skarn intervals

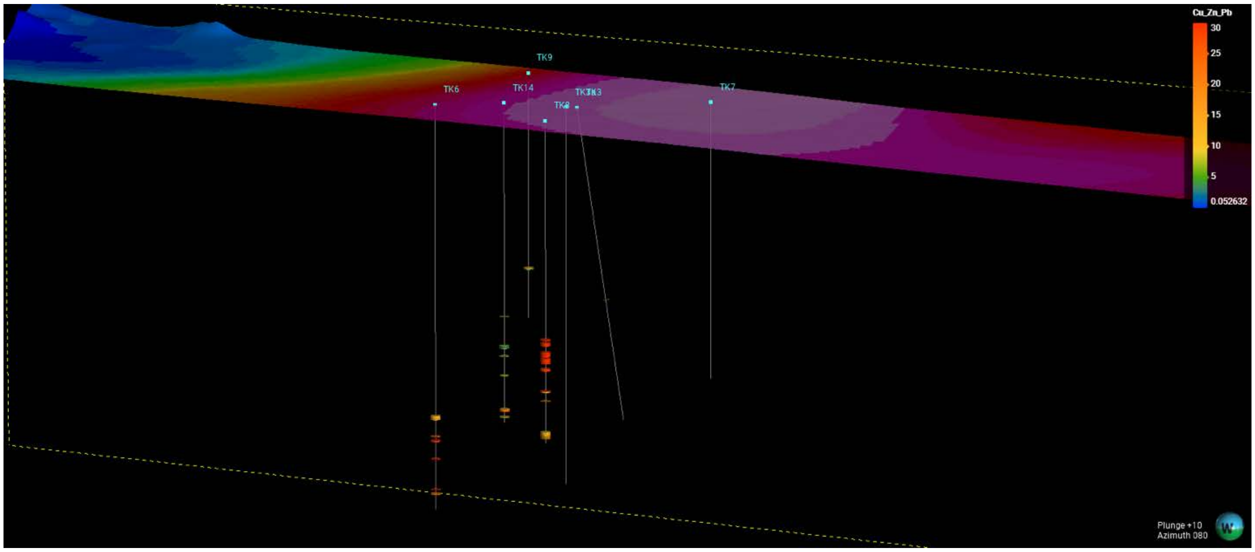

Figure 6 Cu/(Pb+Zn) for intersected skarn intervals

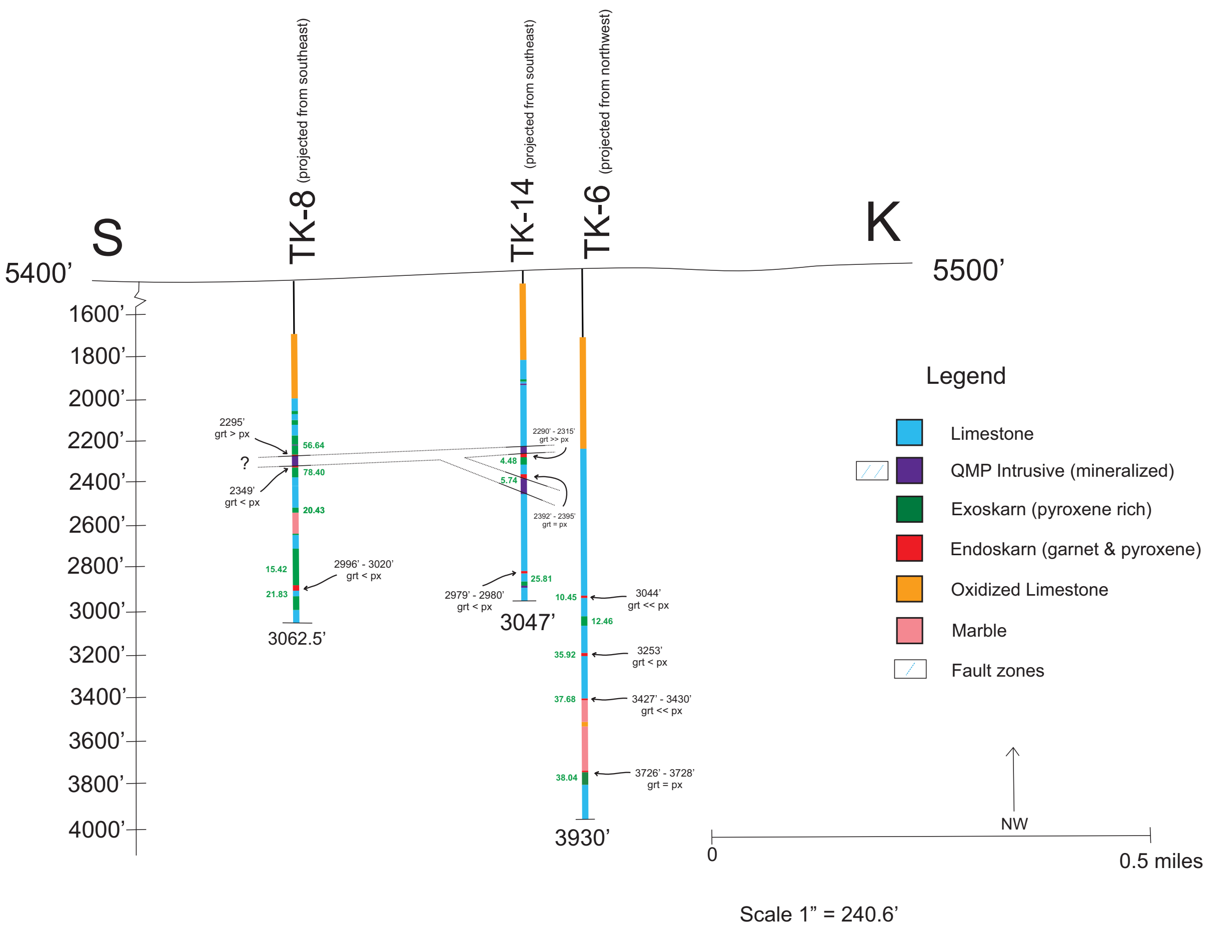

Figure 7 Cross-section with boreholes TK 8, 6 and 14, which include the main skarn intersections. The diagram includes the lithology, the garnet/pyroxene ratio and the Cu/(Pb+Zn) ratios for each skarn interval (green numbers), which was used to

constrain the relative distance of each borehole relative to its hydrothermal fluid source. The post-mineralization cover was excluded.

The fluid migration pathways deduced from this observation are shown in Fig. 8 A. Again, with only four available boreholes, vectoring remains highly speculative. Potential scenarios that are consistent with the estimated fluid flow paths are shown in Figs. 8 B, C and D. It is important to note that models shown in the figures only partly account for post-mineralization faulting. TK 5 indicates a down-drop of the original geology and therefore any potential mineralization in the subsurface is likely to be intersected significantly deeper towards west. Consequently, the possible scenario shown in Fig 8 B would mean that most of the skarn and related porphyry would be down-dropped. The scenario shown in Fig. 8 C is consistent with geophysical data that indicate an anomaly (e.g., intrusion) SW of TK 8, and is based on our current understanding the most favorable. However, two fluid sources related to separate intrusions shown in Fig. 8 D or a single fluid source from the NW cannot be entirely ruled out.

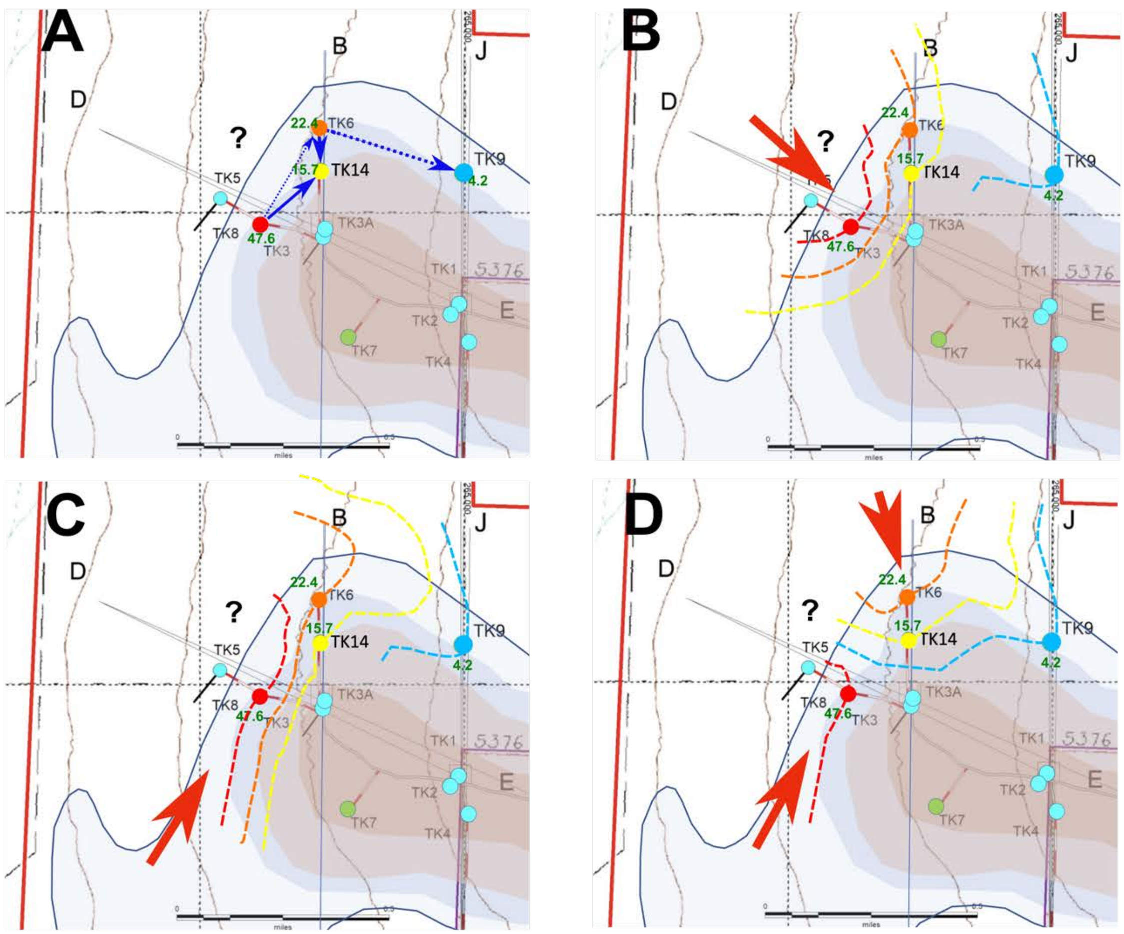

Figure 8 A) Estimated fluid flow paths between the boreholes that intersected skarn alteration indicated as blue arrows based on petrographic observations and geochemical whole rock ratios. Green numbers indicate the weighted average of the Cu/(Pb+Zn) of skarn intersections within the individual boreholes B) to D): Estimated fluid flow path from where the mineralizing fluids came (red arrow). Dotted lines represent hypothetical isochemical lines (dotted colored lines) of Cu/(Pb+Zn) in skarn alteration: colors indicate the relative distance to the fluid source from distal (blue) to intermediate (red).

Recommendation for Drilling

With the limited number of boreholes, it is not possible to assess the probability of the three presented hypothetical scenarios. Mineralogical and geochemical arguments consistently suggest that TK 8 intersected the most proximal skarn of all boreholes. In combination with the geophysical data indicating an anomaly SW of TK 8, the scenarios shown in Fig 8 C and D seem to be the most probable. This all suggests that the ore fluid came from the SW/SWS. Therefore, the area SW of TK8 has the highest probability to intersect higher grade skarn- and potentially porphyry-style Cu mineralization with drilling. The discontinuity and the sub-horizontal geometry indicate that significant lateral fluid flow occurred. Therefore, I recommend focusing on step-out drilling instead of targeting areas below the target depth of TK 8. The main focus of the step-out drillings should be SW of TK8 to test lateral continuation of the skarn. Depending on the available funds and the company's strategy, I would recommend 2 drill holes approximately SW of TK8 with a spacing of 350 to 500 feet (maybe a third one if the first two were successful). One infill drill hole halfway between TK 8 and TK6 could help to improve the geological model and vectoring. However, this borehole is not expected to intersect better mineralization than intersected in TK8 and therefore is of lower priority than the step-out drillings.

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Qualifications

I, Prof. Dr. Mathias Burisch-Hassel of Golden, CO, USA, hereby certify that:

- I am a graduate of University of Freiburg, Germany (M.S, Geology, 2012) and University of Tübingen, Germany (Ph.D, Geosciences, 2016).
- I have practiced my profession as a geologist continuously since 2012, working as a Research Associated from 2013-2016 at the University of Tübingen, as an Assistant Professor from 2016-2022 at TU Bergakademie Freiberg and as an Associate Professor at the Colorado School of Mines
- I have published widely in international refereed journals on subjects related to Li-Sn-W greisen, skarn, carbonate replacement, and epithermal vein ore-deposit formation. I have consulted to the mineral industry and governments as a university professor from 2018 until now.
- I am a Lindgren Fellow of the Society of Economic Geologists and was awarded the SEG Lindgren Medal in 2020; I am also a member of the German Mineralogical Society (DMG) and was awarded the Victor-Goldschmidt Medal of the DMG in 2020.
- I have no direct or indirect interest in BCM Resources, in the property described in this report, or in any other properties in the region.
- I hereby grant permission for the use of this report in its full and unedited form in a Statement of Material Facts or for similar purpose. Written permission must be obtained from me before publication or distribution of any excerpt or summary.

M. Burisch

Mathias Burisch-Hassel June 23rd, 2024