

GRASSROOTS EXPLORATION:

The Art And Science Of Effective Field Geology

For grassroots exploration programs, the main goal is to identify discrete areas of interest (AOI) with the intent of developing specific drilling targets. Extensive preliminary research is conducted utilizing a variety of sources and methods such as geodatabase compilation of publicly available data, airborne geophysics data, satellite imagery, and identifying other regional AOI based on selective lithologies, structures, alteration types, and other possible mineralization indicators.

Sometimes previous mapping, mining, or exploration efforts can provide clues as to where to begin targeting, but our geologists are encouraged to think independently and “outside the box” to avoid overlooking mineralization indicators that may have been previously missed (or misinterpreted) by other groups. This objective approach is essential to adhering to the scientific method and avoiding common pitfalls in exploration tactics.

When first on the ground, the mapping geologists perform regional reconnaissance mapping and sampling. During this phase, the mapping crews will systematically cover large areas of land. They will sample and document specific lithologies, structures, alteration types, or other areas of possible mineralization, based on preliminary research. However, they will attempt to map and sample throughout all rock types in an effort to develop an unbiased and robust data set with expansive and balanced geographical coverage, including samples that will ultimately provide “background” data.

After blanketing a region with mapping data, the geologists can begin to piece together general geological interpretations and observations. Once sample assay data starts coming back from the labs, the geologists can begin to identify anomalous geochemical signatures and can develop localized AOIs for follow-up investigation. Once discrete localized AOIs are developed, the geologists will return and perform higher-density sampling in conjunction with higher-resolution, detailed mapping.



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- Brandon Isakson

