Ferroux Property Opinion Summary

Ferroux Property — Geological Opinion Summary

Claim: 1136051, Greenwood Mining Division, BC | **Location:** Mount Ferroux area, near Beaverdell/Carmi | **NTS:** 82E/11 (Wilkinson Creek)

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1. Location, Access and Physiography

The Ferroux property is centred on Mount Ferroux, approximately 52 km southeast of Kelowna and 10 km northwest of Beaverdell, within NTS map area 82E/11. Access is via the Wilkinson Creek logging road, which branches west from Highway 33 roughly 65 km south of Kelowna, with additional spur roads (Wilkinson Ferroux Creek FSR and logging roads) reaching the claim itself. Roads are generally snow-free from May to October, and because most of the ground has been logged, access within the claim boundaries has historically been rated as excellent.

The property lies within the Okanagan Highlands, with elevations ranging from roughly 800 m in the Wilkinson/Ferroux Creek valleys up to 1,670 m along the higher ridges (Mount Ferroux itself reaching 1,525–1,750 m in the adjacent historical reports). Relief is moderate near the Ferroux Creek valley and steepens toward the property margins. Much of the ground is clear-cut with young spruce regrowth.

2. Regional and Property Geology

Regionally, the area is underlain by a Jurassic-to-Tertiary succession mapped by Templeman-Kluit (1989, GSC Open File 1969): oldest Anarchist Group metavolcanics/metasediments; the Okanagan Batholith and related Nelson Plutonic rocks (Jurassic-to-Early Mesozoic granodiorite); Tertiary Coryell syenite/quartz monzonite stocks; and Tertiary Marron Group volcanics (andesite–dacite–trachyte), which on the property is termed the “Marama Dacite.” Later assessment work (Schindler, 2005) on adjoining ground refers to essentially the same package under different names — “West Kettle Formation” for the Jurassic intrusive basement and “Nipple Mountain Series”/Kettle River Formation for the Eocene volcanic cover — a nomenclature discrepancy across sources that is noted but not yet reconciled.

On the property itself, three rock units have been mapped: **Jurassic Nelson granodiorite** (leucocratic, fine-to-medium grained, with epidote/chlorite alteration and only minor disseminated sulphides); **Tertiary Marama dacite** (fine-grained feldspar porphyry, commonly silicified and chlorite-altered, locally with volcanic breccia and columnar-jointed flows); and a **quartz monzonite**, the least areally extensive but geologically most important unit — consistently mineralized with up to 15% disseminated pyrrhotite plus lesser arsenopyrite, chalcopyrite and pyrite, and host to essentially all of the anomalous gold recognized on the property to date.

3. Structure

Structure is the organizing control on mineralization at Ferroux. The claims straddle **Ferroux Creek**, which is interpreted as a **north-trending fault** and the single largest structural feature on the property; nearly all other mapped faults and shears are parallel or sub-parallel to it. This faulting is of direct exploration significance because the gold-bearing quartz monzonite occurs specifically along these fault zones — within and adjacent to the faults, the quartz monzonite is characteristically brecciated, silicified and gossanous, carrying up to 10% disseminated pyrite ± pyrrhotite.

The relationship is best illustrated at the **north end of the property**, where two north-trending faults intersect one west-trending fault; this intersection area exposes the only large surface exposures of quartz monzonite on the claims and hosts the property's best rock and soil geochemical anomalies (including the 340 ppb Au and 720 ppb Au rock values, and the strongest coincident Cu-Zn-Au-Ag-As soil anomaly). A second, separate structural feature — a **northwesterly-trending shear zone** — crosses the Wilkinson Creek Road at the south end of the property, cutting through mineralized quartz monzonite on the WT6 claim; this shear was noted (via old pits and trenches) even before Minnova's 1988–1990 work. The 1990 trenching program subsequently confirmed a series of **east-west trending fault zones** cutting the northern quartz monzonite body, several of which carry the property's highest gold values (up to 720 ppb Au), together with a contact zone between the quartz monzonite and the Marama dacite that is itself locally mineralized (up to 93 ppb Au, 310 ppm Zn). Because these faults are not well exposed at surface, follow-up geophysics (IP was suggested in 1989 specifically to help discriminate quartz monzonite from Marama dacite at depth) and closer-spaced soil/trench coverage have consistently been recommended to better define their extent.

4. Exploration History and Geochemistry

Minnova Inc. staked the WT claim group in 1988 following regional heavy-mineral sampling, then carried out a grass-roots 1989 program (AR 19,108: 1:10,000 mapping plus contour and grid soil sampling) that outlined multi-element (Cu-Zn-As-Au-Ag-Hg) soil anomalies and gold-bearing quartz monzonite concentrated on the northern part of the property. This directly justified a 1990 backhoe trenching program (AR 20,070: nine trenches, 355 m), which returned the property's best assay to date — 720 ppb Au (0.72 g/t) from Trench B, with associated Zn and Cu — confirming the fault-controlled model. Two later (2005) assessment reports by Schindler on adjoining, tenure-distinct ground (the "FER" and "Nipple" claims) documented decorative/flagstone (dacite welded ash and talus) potential in the same general area but did not test for, or mention, the precious/base-metal vein-fault mineralization on file for Ferroux — the connection of these two reports to the current claim 1136051 remains unconfirmed.

Across the historical rock and soil datasets, gold shows only a weak correlation with other elements property-wide, but a clear Au–Cu correlation emerges when the quartz monzonite alone is considered — consistent with the interpretation of a fault-controlled, quartz-monzonite-hosted gold system, described in the historical reports as having porphyry-style characteristics.

5. Opinion and Recommendations

The historical data support a fault-controlled precious/base-metal target hosted in the quartz monzonite along the Ferroux Creek fault system and its east-west cross faults, with the strongest documented results concentrated at the north end of the property. The work to date is early-stage (mapping, soil geochemistry, limited trenching) and has not been followed up since 1990.

Recommended next steps: - Digitize all historical exploration data (claims, sample locations, assay results, mapped geology and structure) into a modern GIS database as the foundation for further work. - Compile all additional data available from open sources (e.g., BC's geoscience/assessment-report databases) to fill gaps and check for more recent work in the area. - Conduct a field visit to map and resample the known precious- and base-metal occurrences, particularly the north-end fault intersection zone. - Expand soil/rock sampling and consider a geophysical (e.g., IP) survey to trace the mineralized structures under cover, as recommended historically but never completed. - If resampling reproduces the historical anomalous results, advance to a drill program targeting the fault-controlled quartz monzonite mineralization.