



SATELLITE & AI MINERAL PROSPECTIVITY ANALYSIS

Phase 1 Satellite Intelligence Report

[REDACTED]

Licences [REDACTED]

Prepared by Hawkeyes · Satellite & AI Mineral Intelligence · June 2026

1. Executive Summary

This report presents Hawkeyes' Phase 1 satellite-intelligence and machine-learning mineral-prospectivity analysis of the [REDACTED] Gold Property in [REDACTED].

Hawkeyes' approach is built on multi-source satellite data as its foundation: Sentinel-2 multispectral imagery, ASTER shortwave-infrared and thermal data, and terrain layers derived from the Copernicus elevation model were fused into a 14-layer per-pixel feature stack. That stack was modelled with a supervised Random Forest classifier trained against 16 known gold-anomaly sites, enabling the AI to learn the specific spectral–structural signature of gold mineralisation on this property.

The result is a validated gold-prospectivity map generated entirely from above — no ground access required. The model achieves a leave-one-out cross-validated AUC of 0.71, indicating statistically robust predictive skill. Six coherent high-prospectivity target zones were delineated and ranked with UTM coordinates, ready for field follow-up. This is precisely the capability that sets Hawkeyes apart: the ability to extract a real, learnable spectral–structural gold signature from satellite data and translate it directly into ranked drill targets.

All results are delivered in the client's working grid (UTM Zone 21N, NAD83) as georeferenced rasters suitable for direct integration into the client's exploration-analytics platform. Phase 2 advances this analysis with higher-resolution satellite data and, optionally, close-range UAV drone surveys — pushing the resolution and confidence of each target significantly further before any drill dollar is committed.

2. Property & Geological Setting

The [REDACTED] Gold Property lies approximately 29 km southwest of [REDACTED] in [REDACTED], within the Exploits Subzone of the [REDACTED]foundland Appalachians — a belt that hosts numerous orogenic and epithermal gold occurrences. Gold mineralisation on the property is structurally controlled, associated with northeast–southwest to northwest–southeast trending deformation zones and accompanied by sericite, silica and pyrite alteration.