

AGNICO EAGLE – École Mine (Joubi)

Val-d’Or, CANADA

AeroVision™ Magnetics in partnership with Devbrio Geophysics

We present the results of an AeroVision™ UAV magnetic survey flown over Agnico Eagle’s École Mine (Joubi) property near Val-d’Or, Quebec. The 77-km survey was conducted in December 2017 by Devbrio Geophysics, using **their onboard Acquisition, Navigation and Collision Avoidance System (ANCAS)**, which allows the UAV to fly safely at lower altitude, down to 8 meters above tree tops.

The area had been previously flown with a helicopter-towed magnetic system.

Heliborne survey:

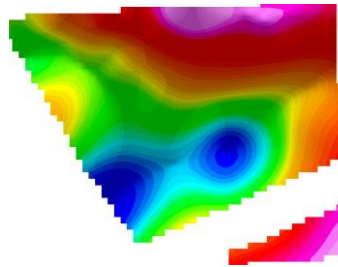
Average altitude: 156m; standard deviation: 63m; average sample interval: 7m.

AeroVision survey:

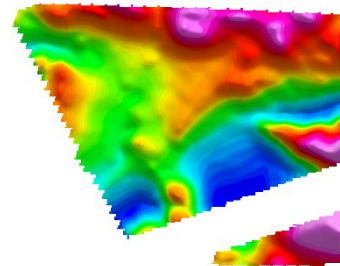
Average altitude: 30m; standard deviation: 0.7m; average sample interval: 1m.

The improved resolution of the drone-towed system is evident in a side-by-side comparison

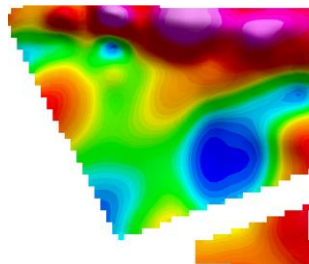
**Helicopter Mag, First Total
Magnetic Intensity**



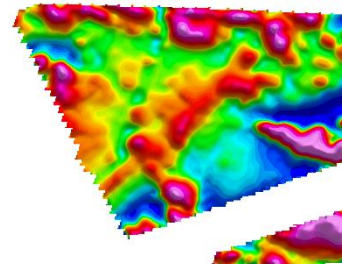
**AeroVision™ Mag, Total
Magnetic Intensity**



**Helicopter Mag, First
Vertical Derivative**



**AeroVision™ Mag, First
Vertical Derivative**



Our expertise,
your discovery

AeroVision™ Magnetics

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UAV Specifications

UAV Model	DJI M600
Magnetometer	Scintrex Cs-VL Cesium Vapor
Acquisition system	Devbrio ANCAS
Type of flight	Autonomous with user control
Navigation type	GPS + Lidar

Magnetometer system

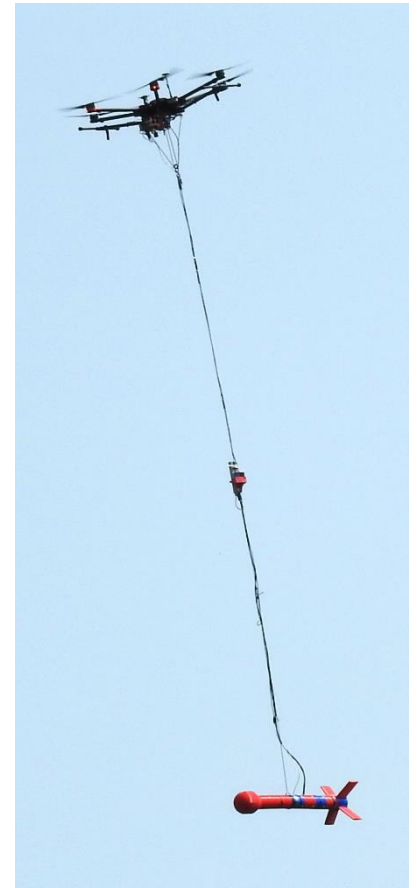
Magnetometer resolution	1.2m ground resolution
Magnetometer quality	>98% valid measurements

Flight parameters

Acquisition speed	12 m/s
Height above obstacles	5 m
Endurance	18-25 minutes
Temperature range	-10°C to 40°C

Safety features

Collision avoidance rate	50 Hz
Obstacles detection	Up to 70 m
Telemetry type	Double redundant
Camera type	Double redundant 1080p
Navigation protections	Multiple geofences and exclusion zones



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