

## PRECISION PROSPECTING

DIGITAL EXPLORATION USING AI











## THE EAGLEYE PROCESS



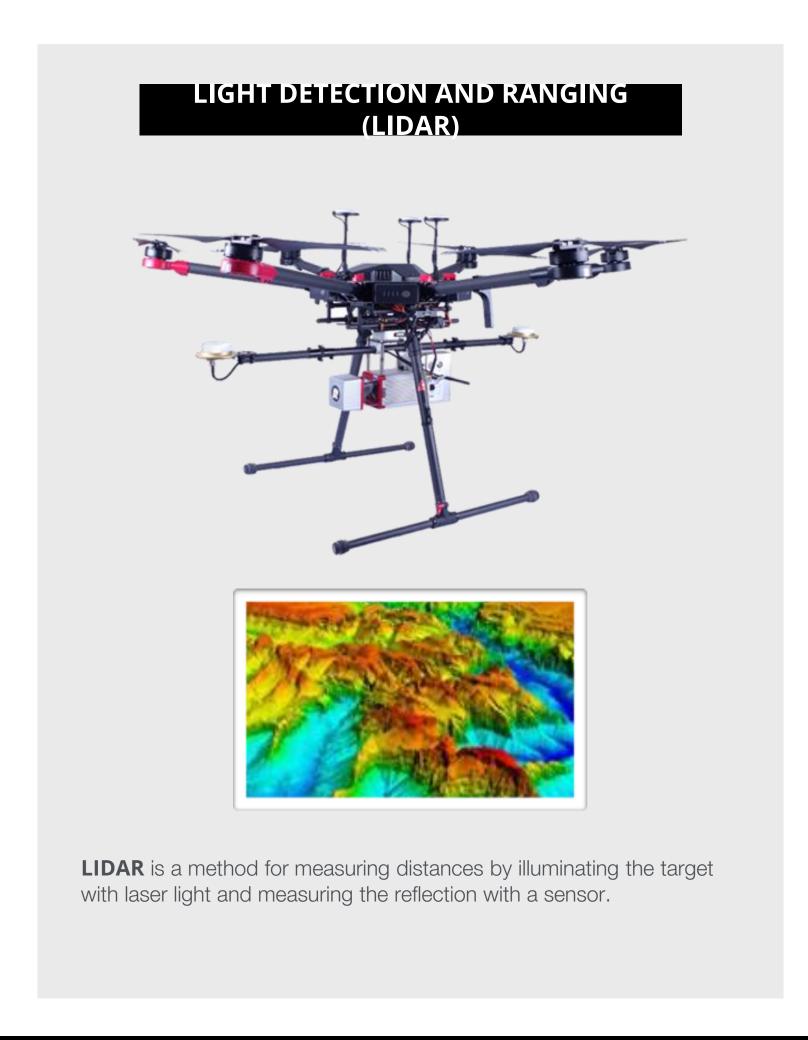
All Historical Data

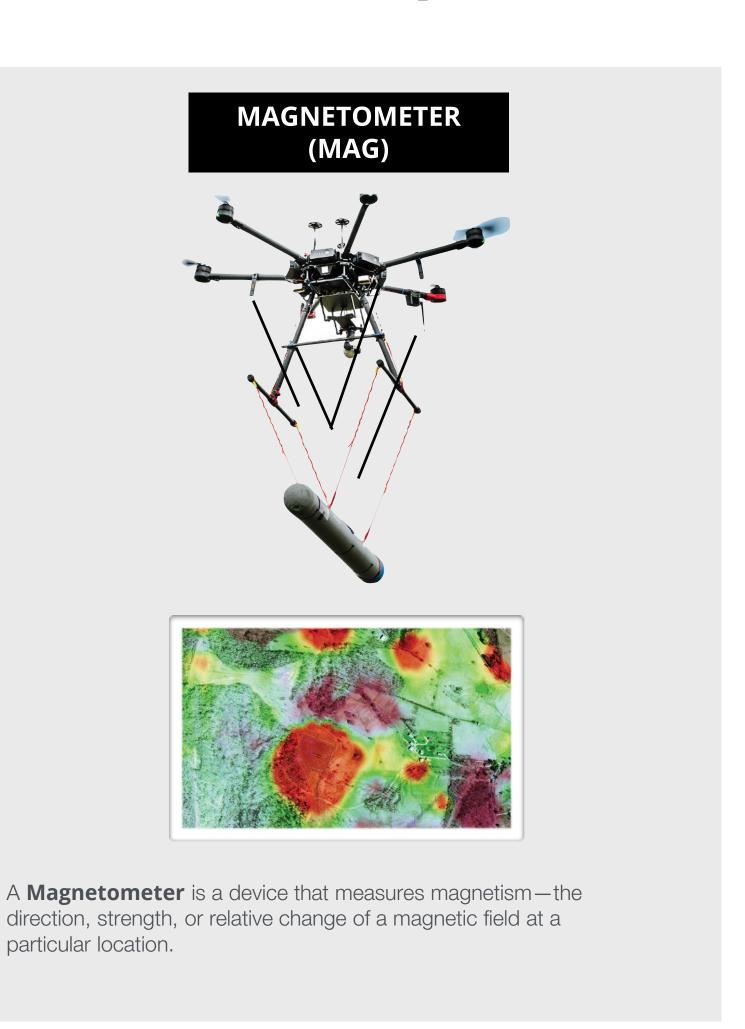
- Select Your Sensors
- Select Your Area of Focus
- Acquire Data

Data is checked and analyzed by our proven Al algorithms.

Work with our team to plan the highest probability of success for drill sites.

## DRONES CAN FLY CLOSER, INCREASE ACCURACY





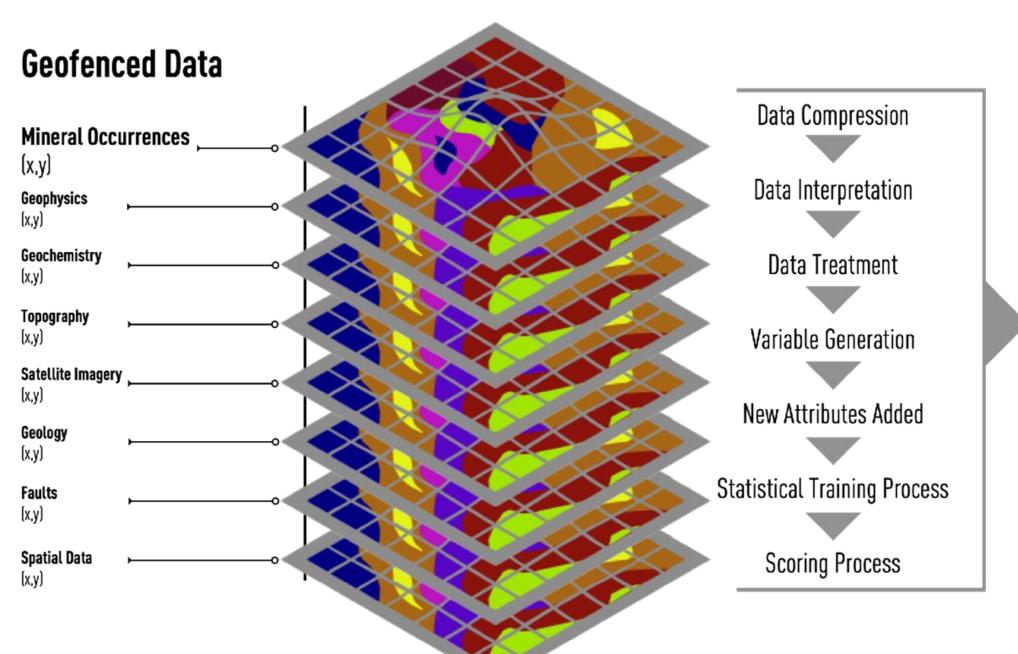




#### ARTIFICIAL INTELLIGENCE



## Computer Aided Resources Detection System



**Prospectivity Map** 

Data is entered into the Computer Aided Resources Detection System (CARDS) in the form of geo-referenced database.

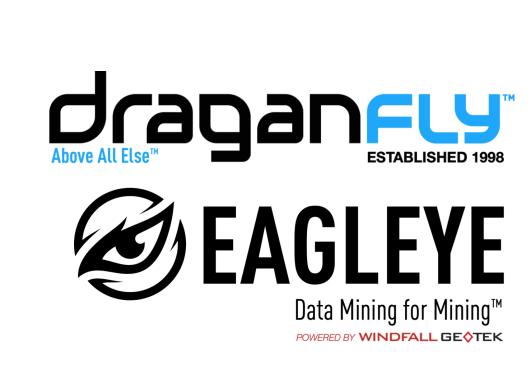
Each point in the database is linked to its own set of characteristics extracted from geological maps, geophysical surveys, drill results, assays etc.

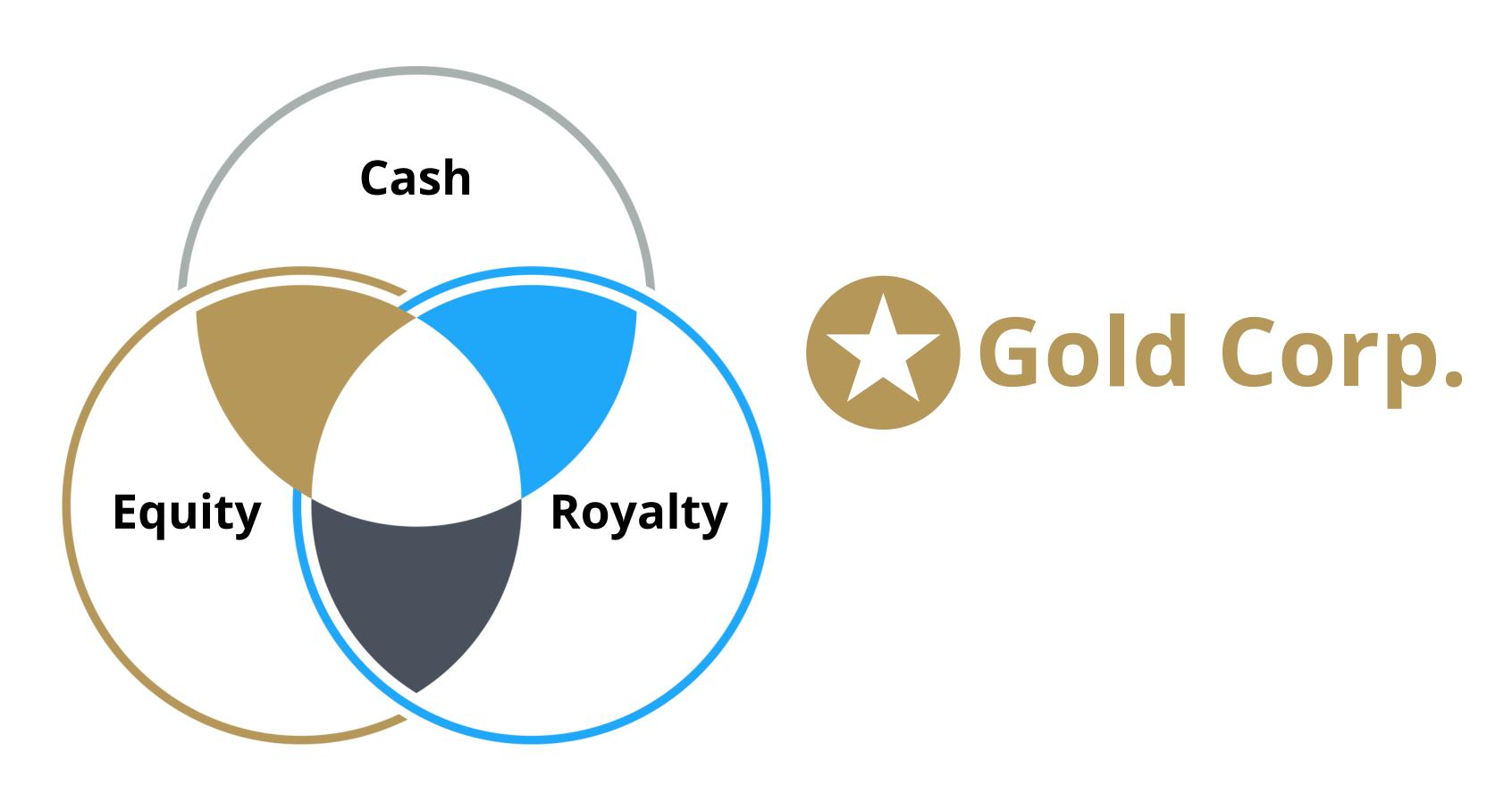
- **1. Map Formats:** Combines different map formats such as ArcGIS, Oasis, Montaj and MapInfo.
- 2. Mineral Exploration Data: Combines different layers of mineral exploration data.
- **3. Drill Holes & Rock Samples:** Project minimum requirements of 30-40 drill holes and rock samples.
- **4. Baseline Work**: Minimum requirements of 15 drill holes and rock samples to complete baseline work (The more drill holes and rock samples the better).
- **5. Multiple Layers:** Included are the (x,y) coordinates of the multiple layers of geophysics, geochemistry, topography, satellite, geology, faults, spatial data, etc...
- **6. Various Data Types:** Data utilization is optimized and prediction is maximized by combining various data types.



#### PROSPECTING PARTNERSHIP

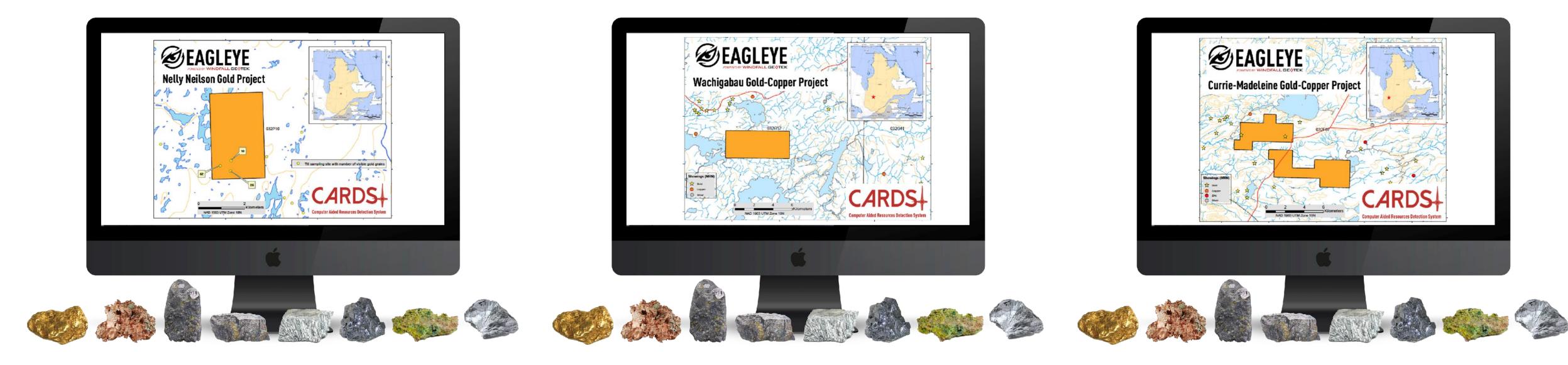
Shared Risk Shared Reward Payment Flexibility

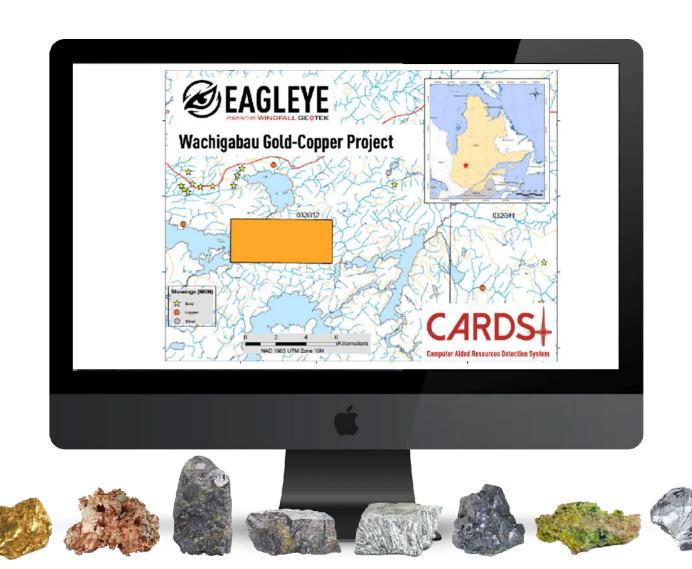


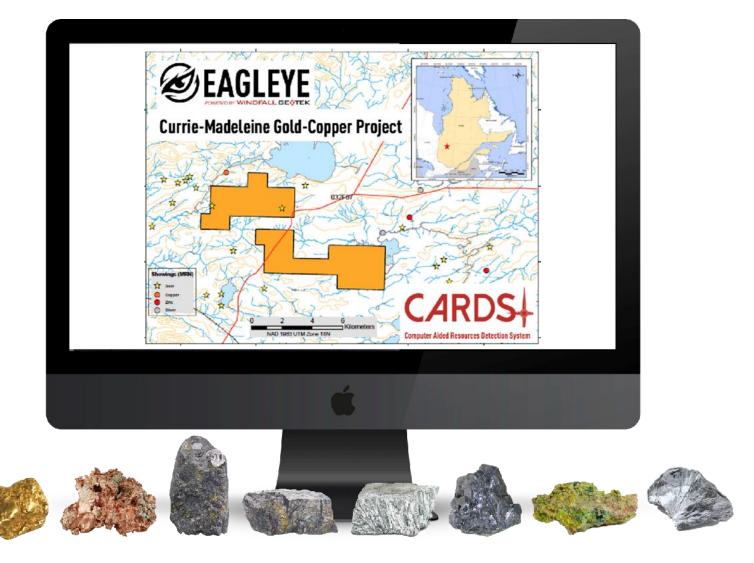


#### WHY EAGLEYE?

A successful project completed every 8 weeks.







OPERATING IN 12 COUNTRIES FOR 15 YEARS WITH OVER 90 SUCCESSFUL PROJECTS









































































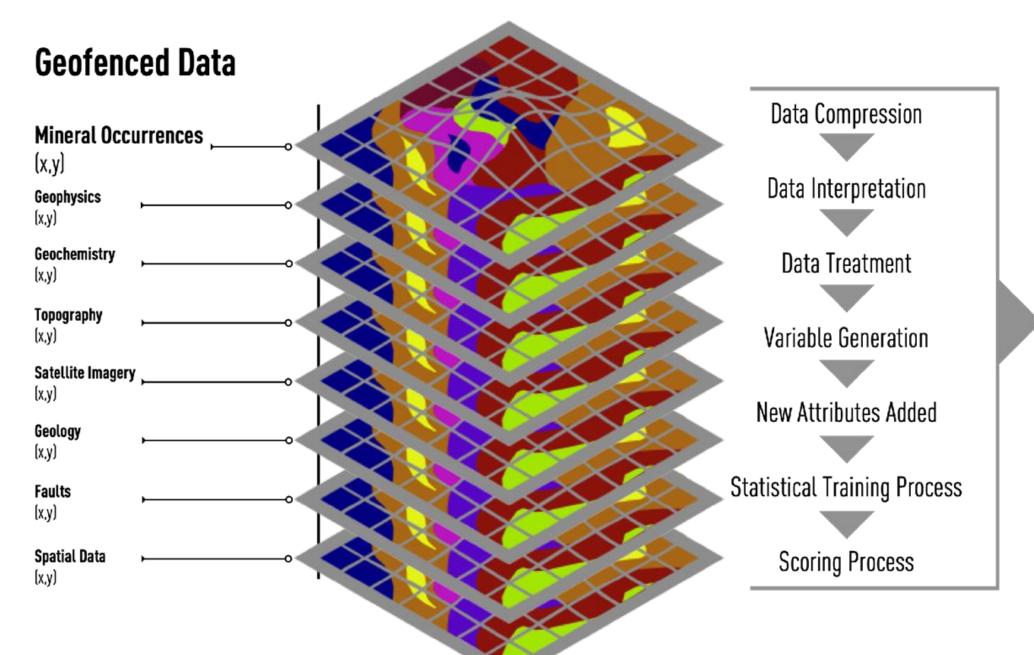


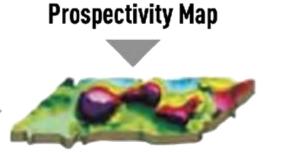




# DATA GATHERING & PROCESSING

(CARDS is not a GIS Software)





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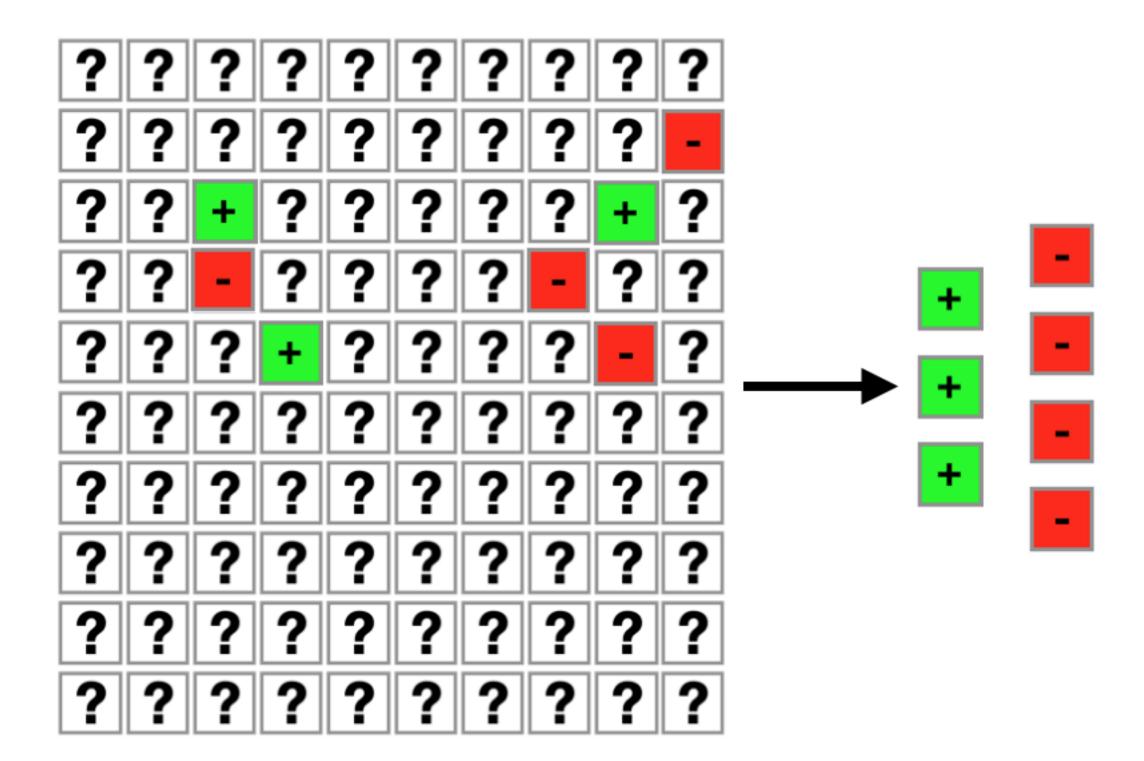
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#### **MODEL SET UP**

(Local Ore Deposit Signature Learning)



Carried out by extracting the signature of each drill hole rock sample—Both positive and Negative—(Drill Holes/Rock Samples DNA):

- 1. **Mineral Applications:** Can be done with apatite, diamond, U, Ni, Cu, Zn, AU, AG, Pg, Pd
- 2. **Geologist Designation:** The +/- designation is given by the geologist working on the original property.
- 3. Data Transformation: Raw data is transformed into grid data.

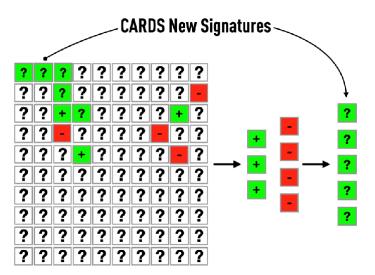
DNA is built by sampling (cataloging) Target +/- Drill Holes/Rock Samples and Neighbourhood Drill Holes/Rock Samples:

- 1. **Neighbourhood Size:** The neighbourhood size is calculated based on flight lines spacing's of any airborne geophysics survey data over area -i.e. -200 m flight lines means neighborhood size is ~ IsO-17sm (centered around target drill hole/rock sample).
- 2. This is so the system is only using the data from around each individual +/-drill hole/rock sample (not overlapping onto other flight lines).
- 3. **Geophysicians Interpolation:** This system does not interpolate data (interpolation is done by geophysicians).
- 4. Data Extrapolation: This system does not extrapolate or invent data.

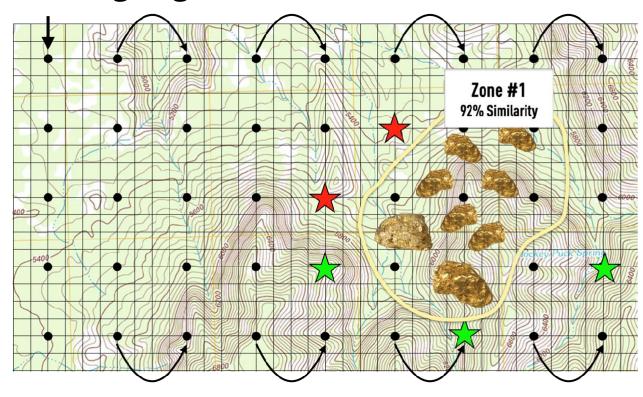


#### PREDICTIVE ANALYTICS

Data Mining, Machine Learning + Predictive Modelling



#### **Scoring Engine**



- **1. Layer Analysis:** Algorithms analyze each layer of information for every +/- drill holes/rock samples to create a new signature-for the mineralization that is being sought (gold, copper, kimberlites etc.).
- **2. Pattern Recognition:** Uses MCubiX data mining engine (with numerous different algorithms) to find patterns of information between +/- drill holes/rock samples.
- **3. Algorithm Automation:** The system uses computer algorithms to find the new patterns there is no human influence. Finds patterns invisible to the naked eye.
- **4. Mineralization Signature:** System shows where the new mineralization signature will be in clients exploration area.
- **5. Prediction Percentage:** Predictions are given a % cells rating: Targets over 80% are considered good and targets 90% and higher are best.
- **6. Spatial Data Points:** Millions of spatial data points and their relationships are analyzed in a rather short period of time —something that a human brain cannot do as ef efficiently and quickly as a computer.
- 7. Cross Validation: System is trained and "cross validated" on each model that CARDS generates.
- **8. High Probability Areas:** % cells feature "weeds" out unwanted (low %cells) targets and leave only the highest probability areas to find mineralization, which in some examples is as low as 5% of total original project area.
- 9. **Prediction Model:** This system interprets data and generates models and predictions from that data interpretation.

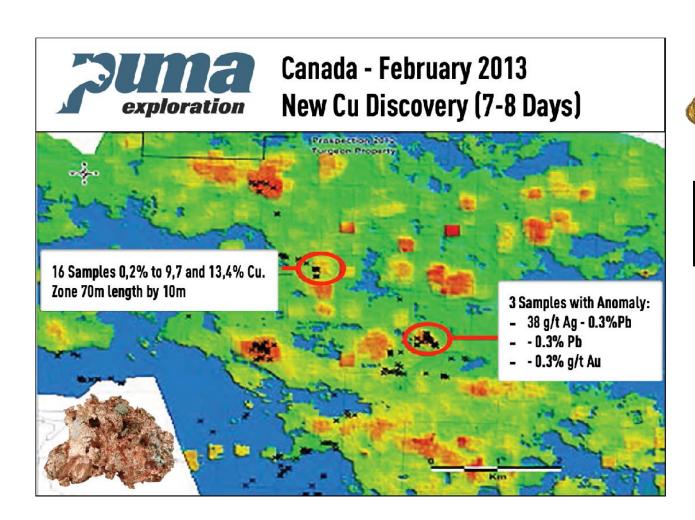


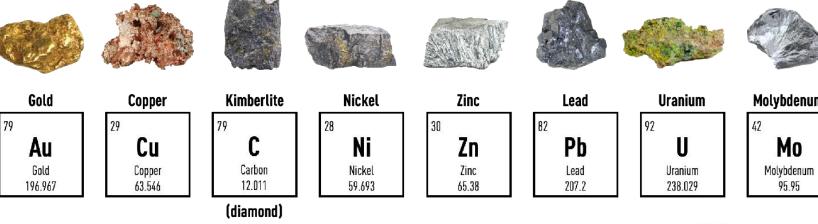
#### **PRESENTATION**

Map Rendering of Potential Ore Zones



#### TARGET DISCOVERIES

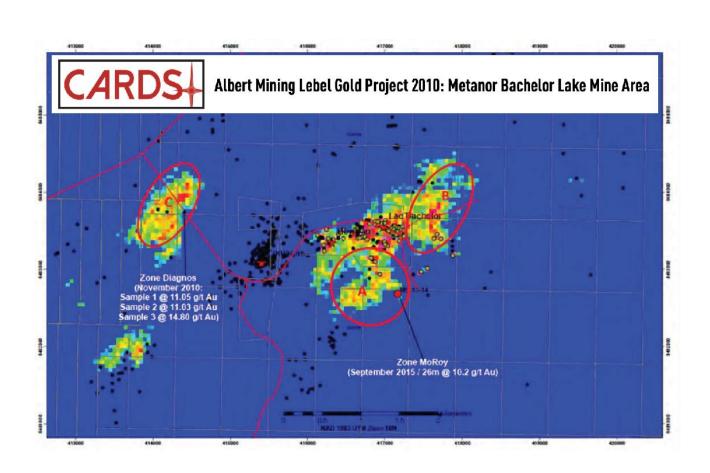




- 1. This system is prone to find shallow mineralization (considering that most airborne surveys have shallow penetration).
- 2. It can be very useful to find deeper mineralization but would have to be used in conjunction with a deep penetrating airborne survey.
- 3. Useful to find buried mineralization (shallow or deep).



Outputs are easily integrated to different map formats.



### TURNING DIRT INTO DATA

#### The Best Place to Find a Mine is Next to a Mine



EAGLEYE's Computer Aided Resources Detection System (CARDS) is a state-of-the-art AI system used to identify areas with a high statistical probability of containing mineral deposits.

The backbone of CARDS is EAGLEYE's Knowledge Extraction Data Mining Engine (KEDME).

KEDME uses Al driven pattern recognition algorithms to learn the signatures of positive and negative data points and create a model that can make predictions on the positive or negative nature of new data points.

CARDS uses these powerful algorithms to analyze digitally compiled historical exploration data and identify zones with a high potential for the discovery of mineral deposits.



# POWER OF PREDICTIVE ANALYTICS

EAGLEYE's predictive analytics uses historical data, statistical algorithms and machine learning techniques to identify the likelihood of future outcomes. Our goal is to go beyond knowing what has been discovered to providing a best assessment of what will be discovered in the future.

EAGLEYE's predictive models use known results to develop (or train) a model that can be used to predict values for different or new data.

Modelling provides results in the form of predictions that represent a probability of the target variable based on estimated significance from a set of input variables.

This is vastly different from **descriptive models** that help us understand what was discovered, or **diagnostic models** that help us understand key relationships and determine why something was discovered.

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#### **FEATURES**

- 1. Multiple Historical Data Sources
- 2. Mapping Integration
- 3. Predictive Analytics

#### **BENEFITS**

- 1. Initial Low Cost of Entry
- 2. Superior Data Analysis
- 3. Superior on Prospect Analysis
  (flight crews are Geologist or Geophysicist)
- 4. Shared Risk

## The Process

1

2

3

4

#### **ENGAGE**

**7-14 days** 

- 1. Deposit
- 2. Gather all public and available data on a property
- 3. Process Data Using EAGLEYE™
- 4. Identify Prospective Targets to Fly

#### **DESIGN**

**7-14 days** 

- 1. Design a magnetometer survey program
- 2. \$50-\$250K Plus Equity or Yield Participation (depending on scope)

#### **PROCESS**

15-40 days

- 1. Fly the magnetometer survey
- 2. Process the additional data through EAGLEYE $^{\text{TM}}$ .
- 3. Providing Target Report

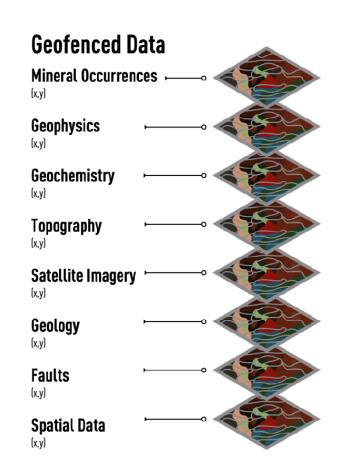
#### **EVALUATE**

**7-14 days** 

- 1. Evaluate Targets
- 2. Determine Drill Program



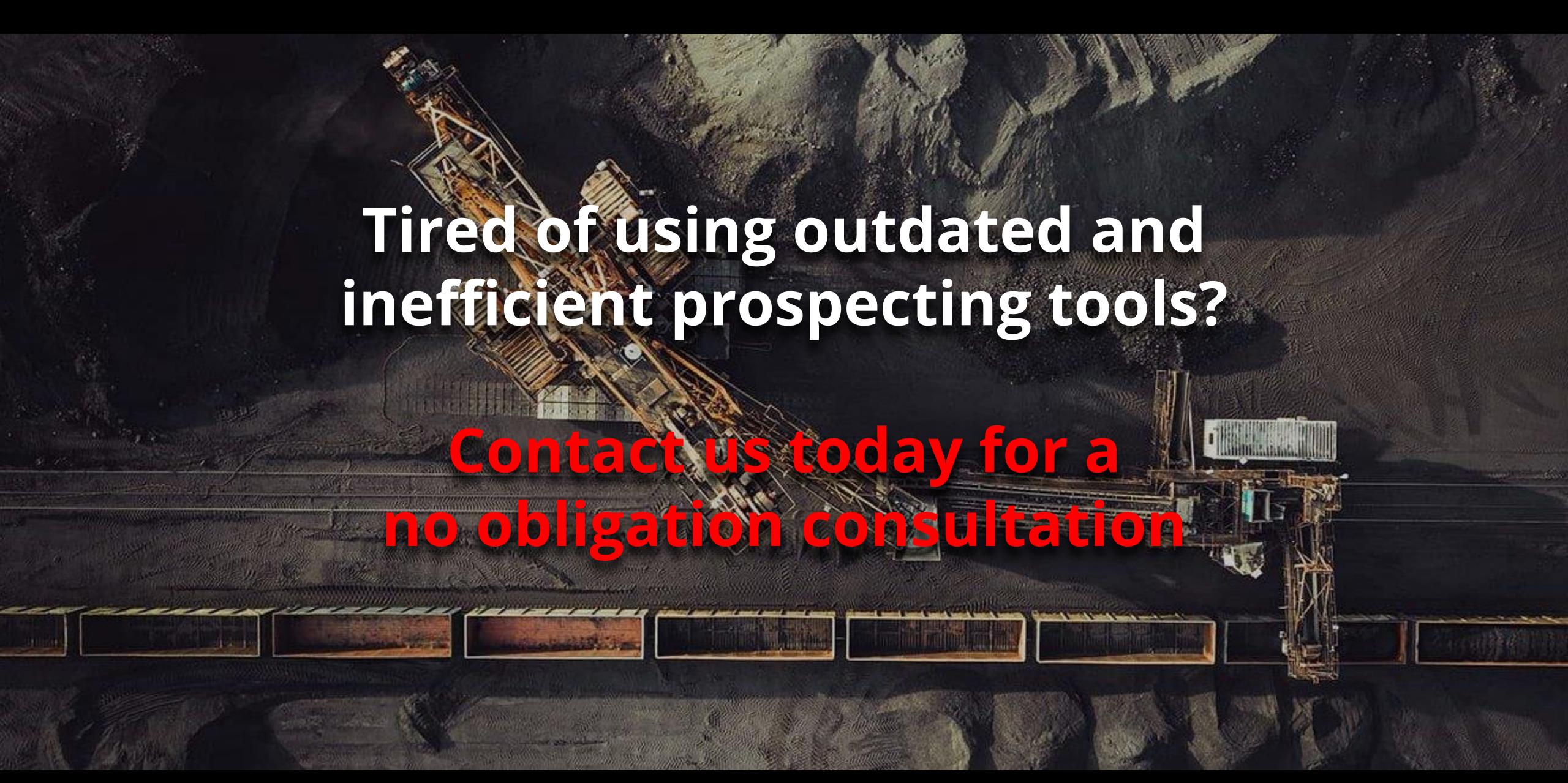
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