



# The Future of Mineral Exploration

Precious Metals Summit Zurich



# FORWARD LOOKING STATEMENT

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Forward looking information in this presentation includes, but is not limited to, statements with respect to the Company's future plans to acquire additional targets or properties including equity positions with partners, enter into joint venture, earn-in, royalty or streaming structure agreements, or dispose of properties, achieve an income stream which would permit it to pay a dividend on its outstanding shares, the timing and amount of future exploration and expenditures and the possible results of such exploration.

Forward looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward looking information. Such risks include, among others, the risk that the Company will not be successful in completing additional acquisitions, risks relating to the results of exploration activities and risks relating to the ability of the Company to enter into joint venture, earn-in, royalty or streaming structure agreements, or dispose of properties, future prices of mineral resources; accidents, labor disputes and other risks of the mining industry including continued community and government support of the Company's projects. The Company believes that the expectations reflected in such forward looking information are reasonable, but no assurance can be given that these expectations will prove to be correct and such forward-looking information should not be unduly relied upon. These statements speak only as of the date of this presentation. The Company does not intend, and does not assume any obligation, to update any forward-looking information except as required by law.











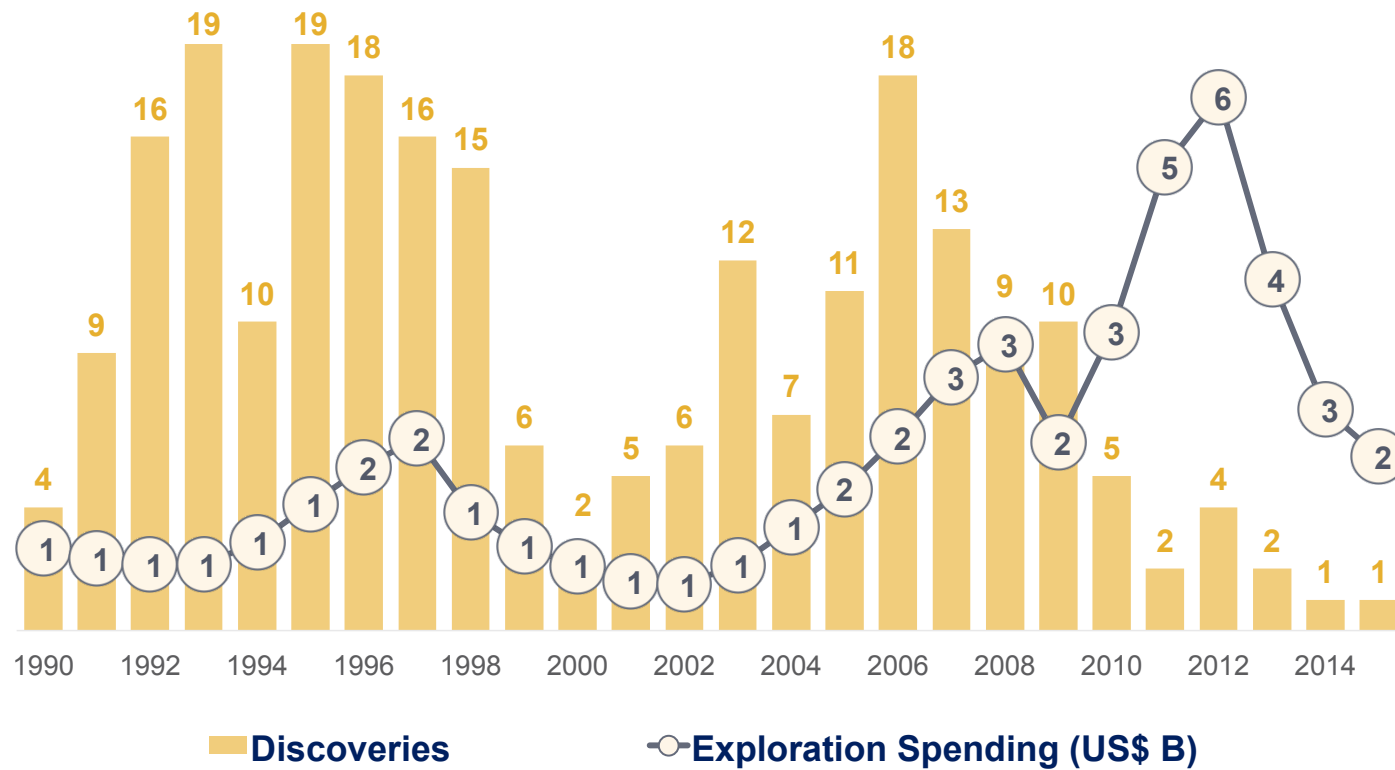




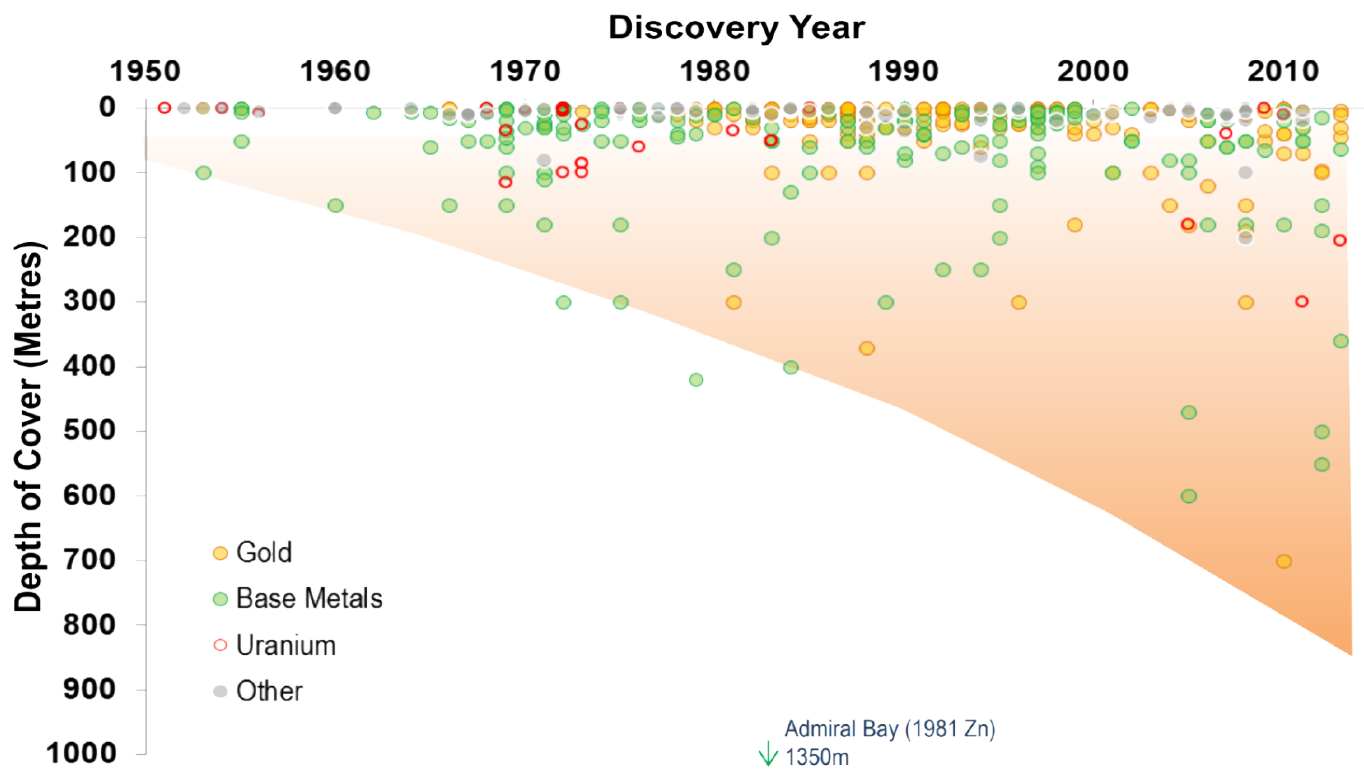




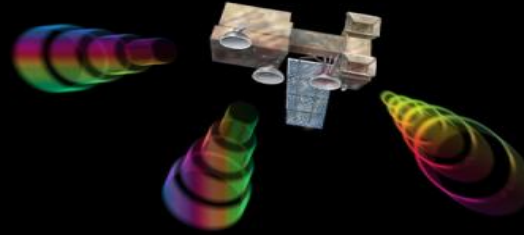
## Major Gold Discoveries vs Global Exploration Spending



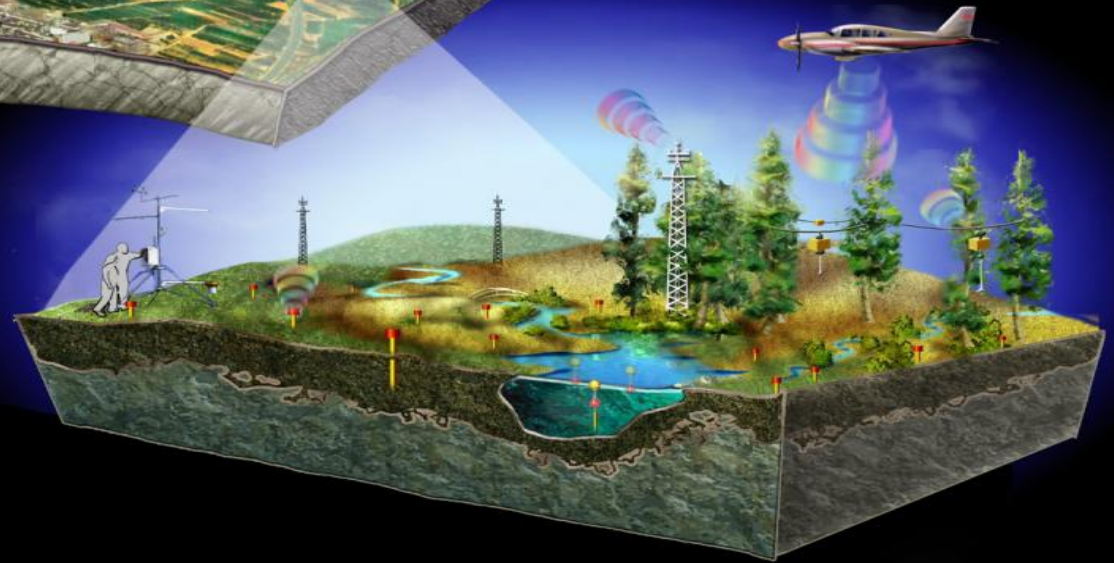




Depths of Discovery in Australia 1950 – 2013. Source: Schodde, 2014



# Next Level Data

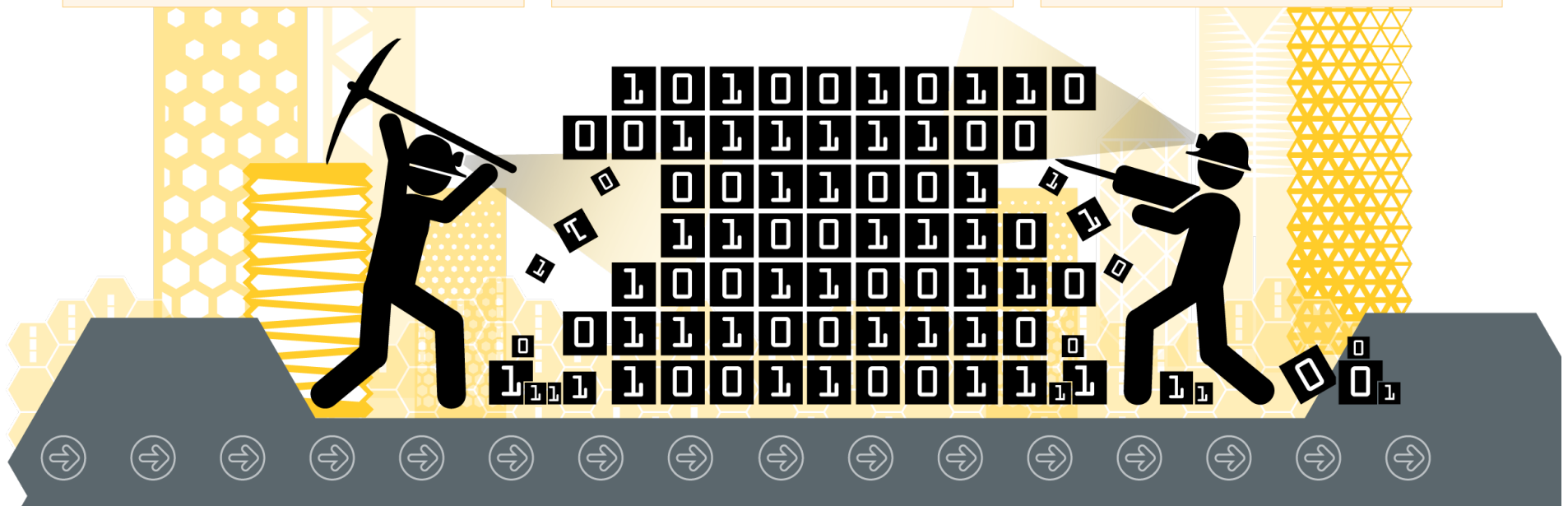


# THE APPROACH

Mineral deposits form  
for a reason.

Machine learning links  
this “reason” to available geoscience  
data to understand  
the relationship.

With that “relationship”  
we can predict likelihood  
of mineralization in new exploration  
regions.



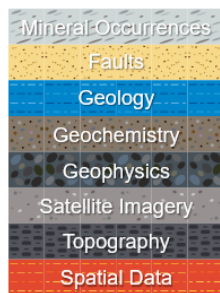


# THE SERVICES WORKFLOW

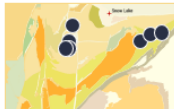
The application of artificial intelligence in mineral exploration

## Training Data

Input Data

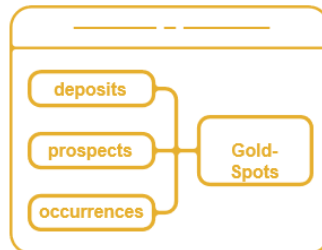


**Prospectivity map with known deposits**  
Galley et al., 2007



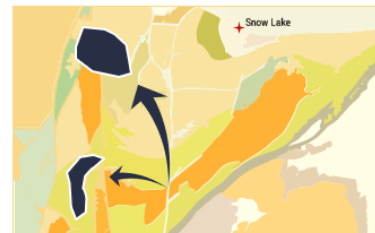
## Apply Learning Algorithms

Data is cleansed, transformed, interpreted and then used to train machines in order to predict targets



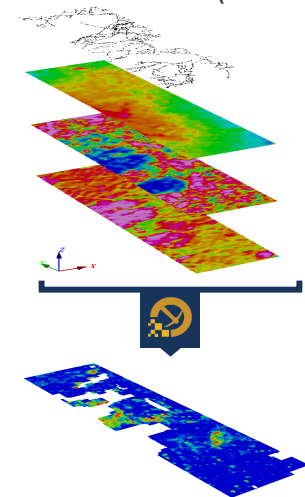
## Identify Targets

Targets are identified with high potential for mineralization



**Prospectivity zones**

**Data (Features)**



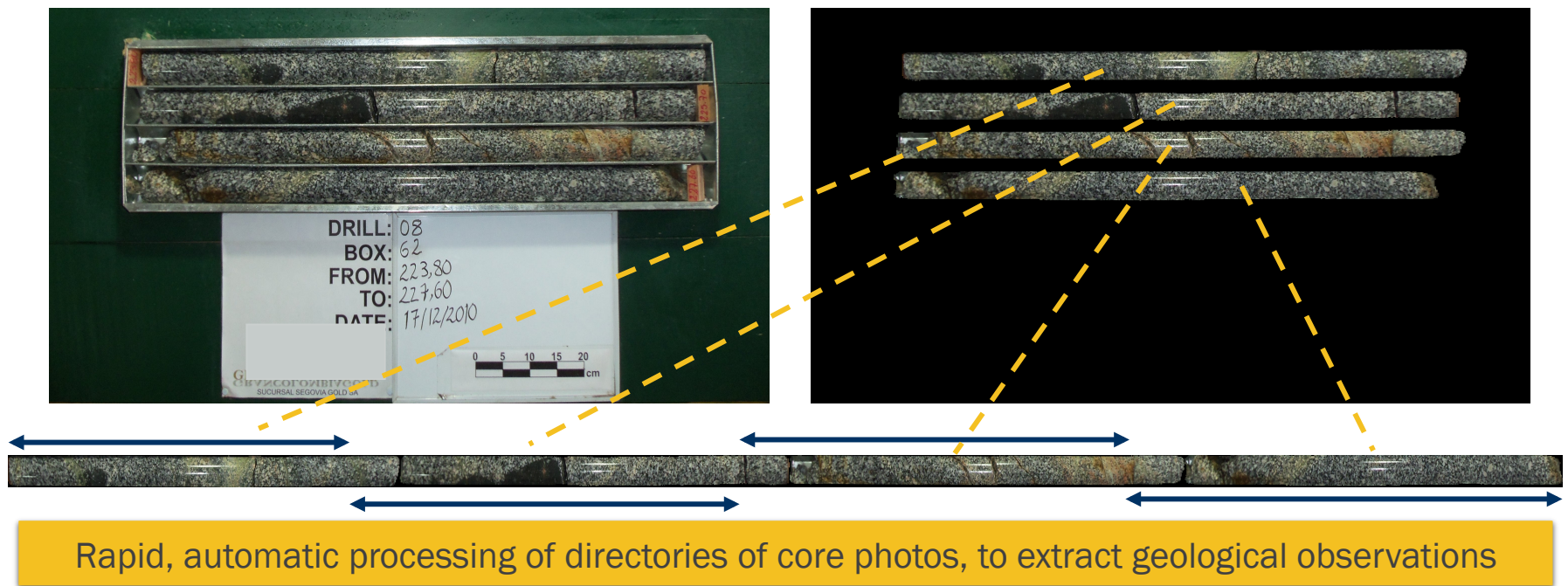
**Target Heat Map (Prospectivity map)**

**Why Now?...**

# **Cloud Computing A Digital Revolution**



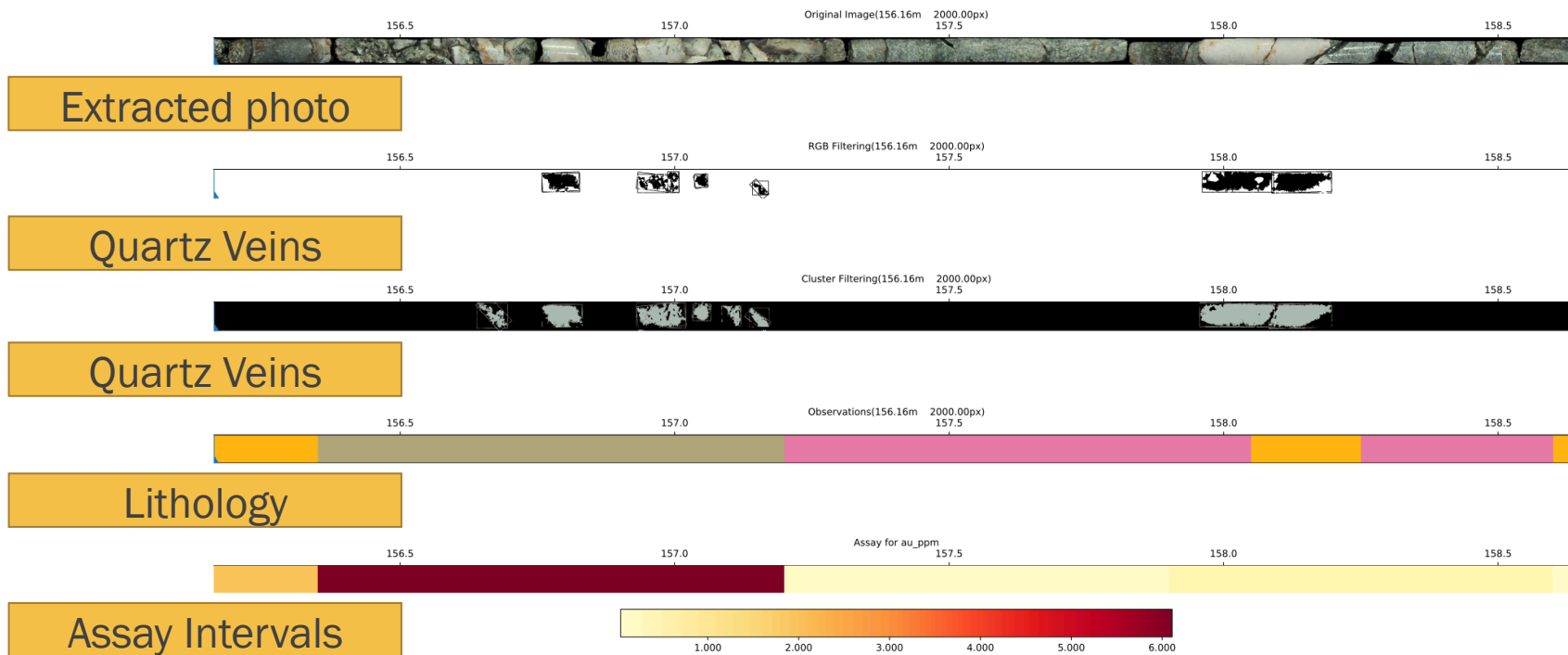
# Automated core re-logging



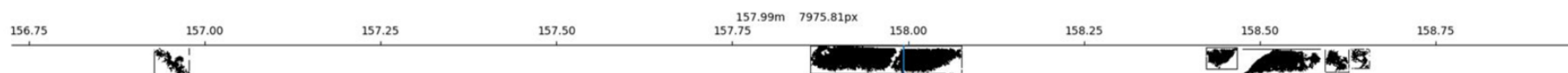


# Automated core re-logging

- Example from a quartz-hosted gold deposit



# Automated core re-logging

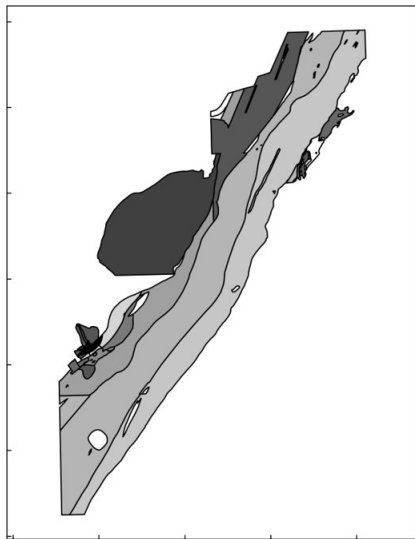


Depth	Start	End	AngleToImageHorizontal	BeginX	BeginY	BeginZ	MidX	MidY	MidZ	EndX	EndY	EndZ	BHID
134.22	134.17	134.27	0	931438.9	1268216	547.2521	931438.9	1268216	547.2021	931438.9	1268216	547.1521	DRILL_001 Box 29 (130.65 to 134.50)split.png
90.91	90.89	90.94	0	931442.3	1268018	597.544	931442.3	1268018	597.524	931442.3	1268018	597.494	DRILL_002 Box 23 (87.45 to 91.30)split.png
244.88	244.84	244.92	0	931594.8	1267895	402.8376	931594.8	1267895	402.7976	931594.8	1267895	402.7577	DRILL_006 Box 63(244.50 to 248.25)split.png
80.91	80.88	80.95	0	931602.9	1268080	563.3399	931602.9	1268080	563.3125	931602.9	1268080	563.2759	DRILL_009 Box 22 ( 77.65 to 81.45)split.png
81.17	81.15	81.2	0	931602.9	1268080	563.0931	931602.9	1268080	563.0748	931602.9	1268080	563.0474	DRILL_009 Box 22 ( 77.65 to 81.45)split.png
81.07	81.02	81.12	3.37	931602.9	1268080	563.2119	931602.9	1268080	563.1662	931602.9	1268080	563.1205	DRILL_009 Box 22 ( 77.65 to 81.45)split.png
153.2	153.2	153.21	104.59	931499.1	1268353	505.8644	931499.1	1268353	505.8644	931499.1	1268353	505.856	DRILL_011 Box 42 (150.50 to 154.25)split.png
153.16	153.11	153.2	0	931499.2	1268353	505.9398	931499.2	1268353	505.8979	931499.1	1268353	505.8644	DRILL_011 Box 42 (150.50 to 154.25)split.png
169.44	169.41	169.46	27.65	931490.2	1268352	492.4009	931490.1	1268352	492.376	931490.1	1268352	492.3594	DRILL_011 Box 47 (168.30 to 171.95)split.png

# GoldSpot AI works well in situations where there is a lack of labelled data or training data

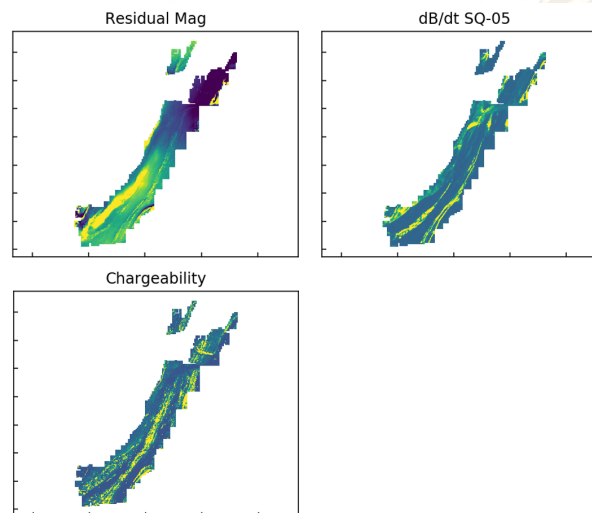
*A lack of labelled data proved no concern for this project with a wealth of Magnetic & EM survey data*

**Original Outdated  
Geological Map**



**Additional Data**

*Magnetic & EM survey (VTEM) over 225 layers*



**GoldSpot AI  
Approach**

*Field Validation*

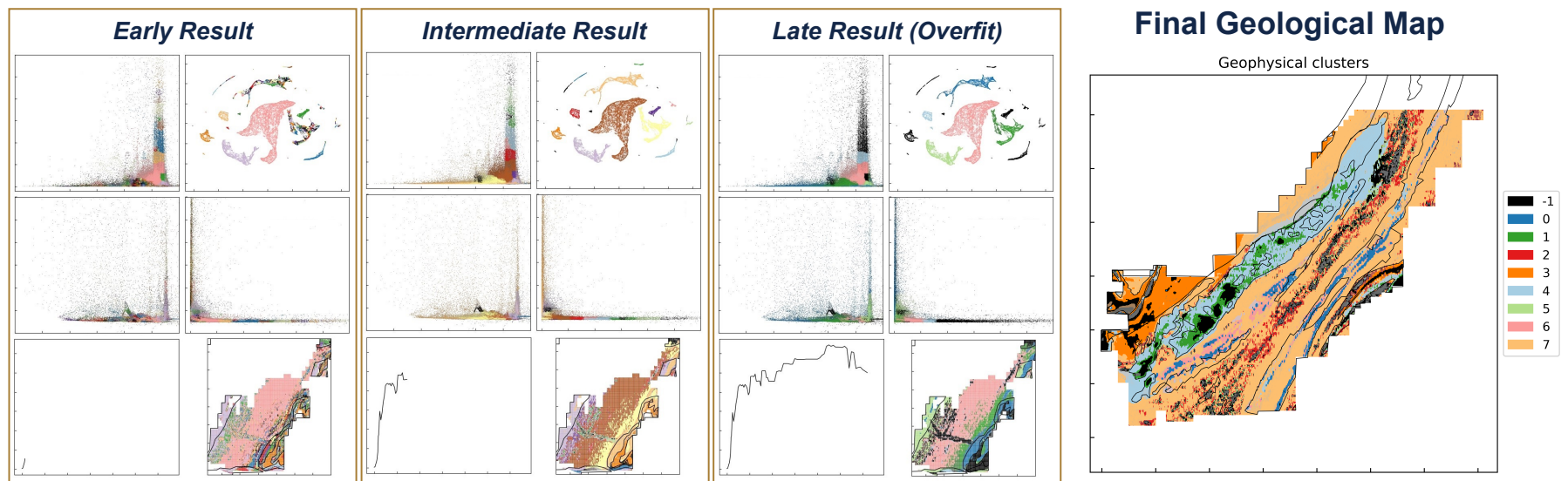
*Statistical  
techniques:*

*PCA*

*Clustering*

*Domain Expertise*

# Results were underpinned by field validation to ensure accuracy

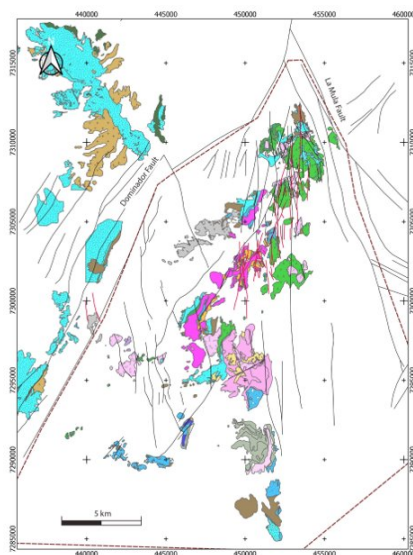




# Combining data & ML significantly improved geological mapping for a client site

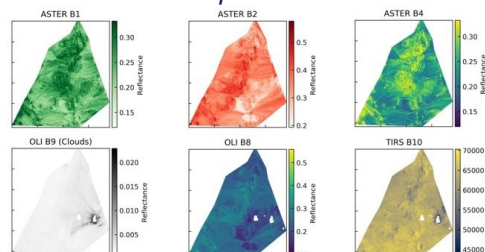
*A combination of domain expertise & supervised learning techniques*

**Original Geological Map**

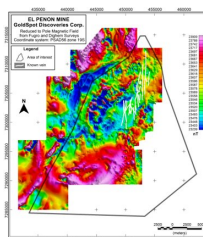


**Additional Data**

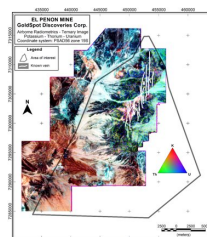
*Multispectral Data*



*Magnetic Data*



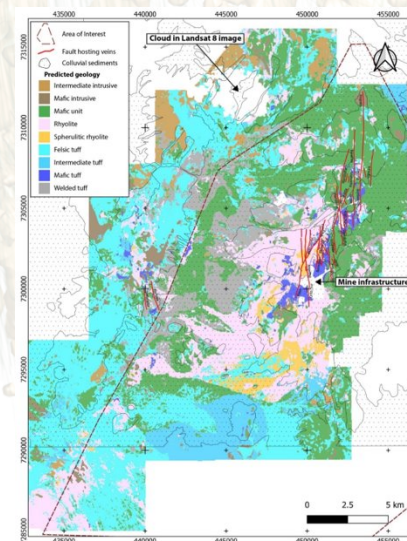
*Radiometric Data*



**GoldSpot AI Approach**

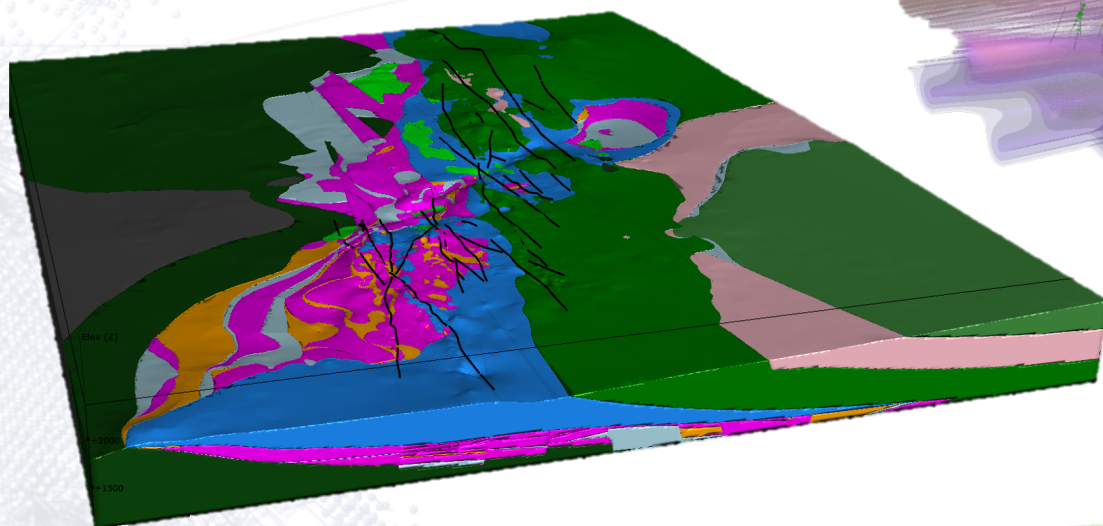
*Random forest  
Deep Learning  
Domain Expertise*

**Final Geological Map**



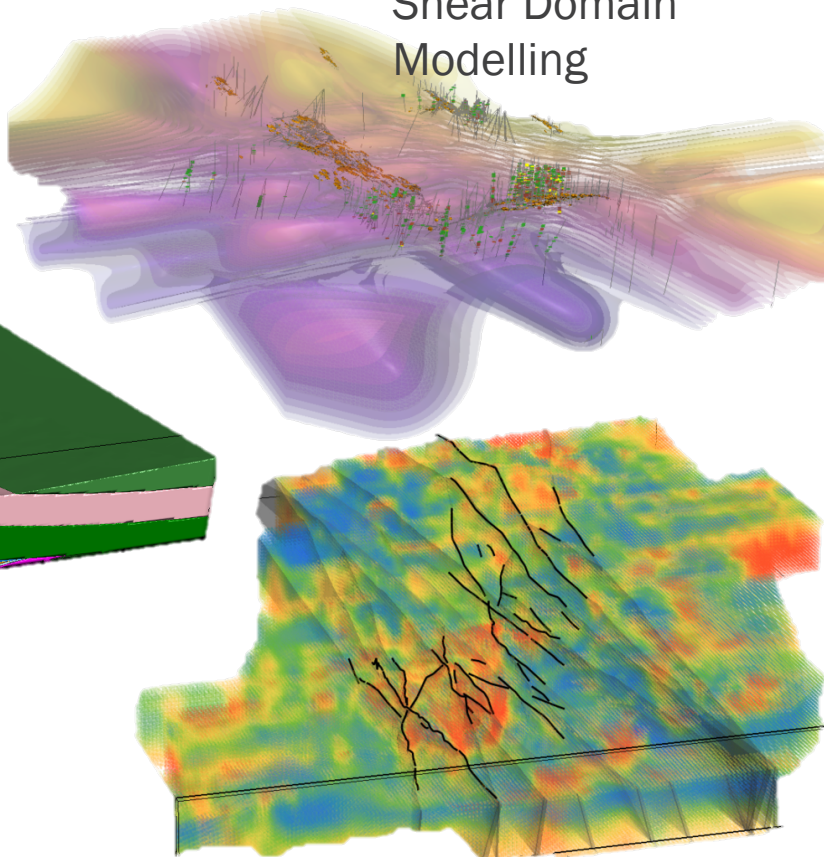
# Geological Modelling

Lithological Modelling

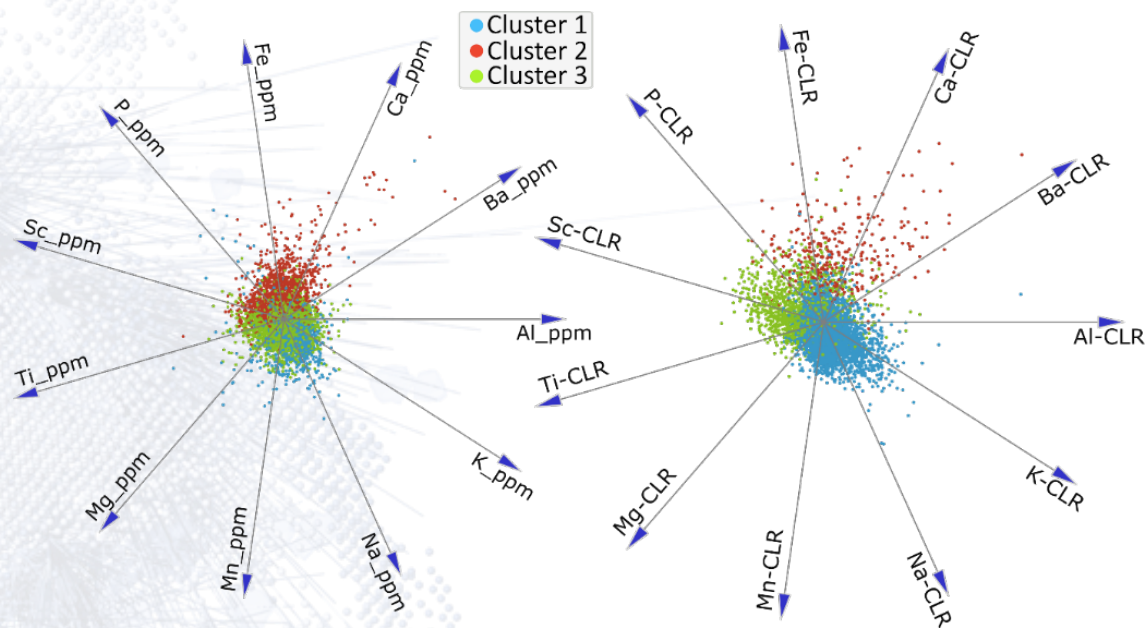


**GOLDSPOT**  
DISCOVERIES CORP.

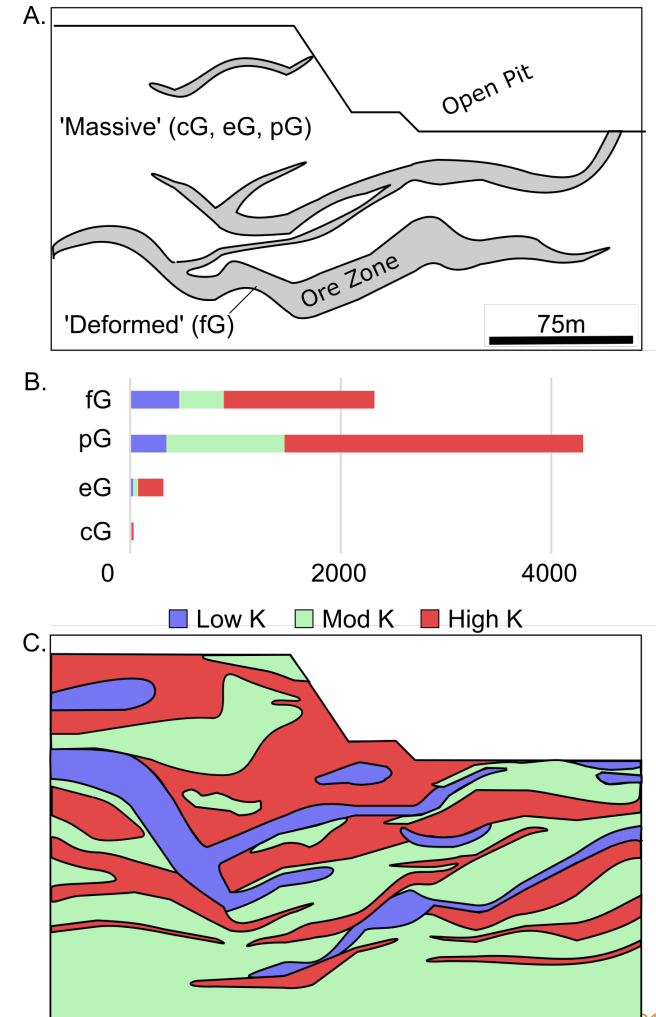
Shear Domain  
Modelling



# Multielement geochemistry – Machine-assisted interpretation

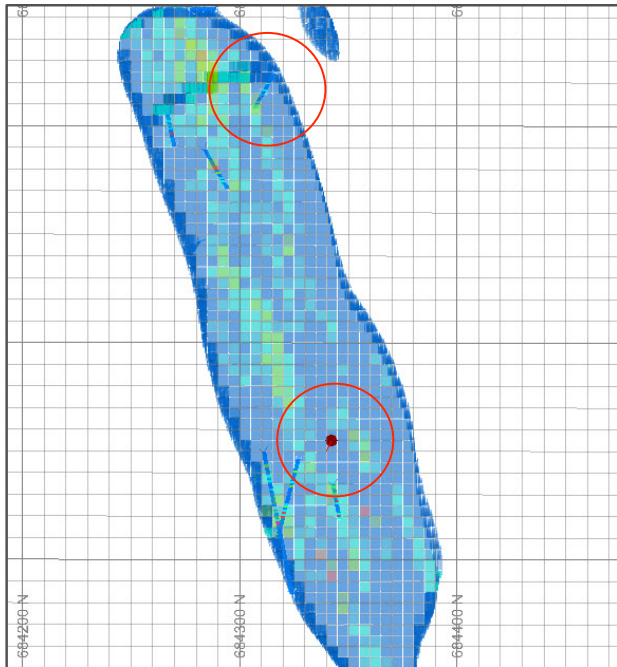


**GOLDSPOT**  
DISCOVERIES CORP.



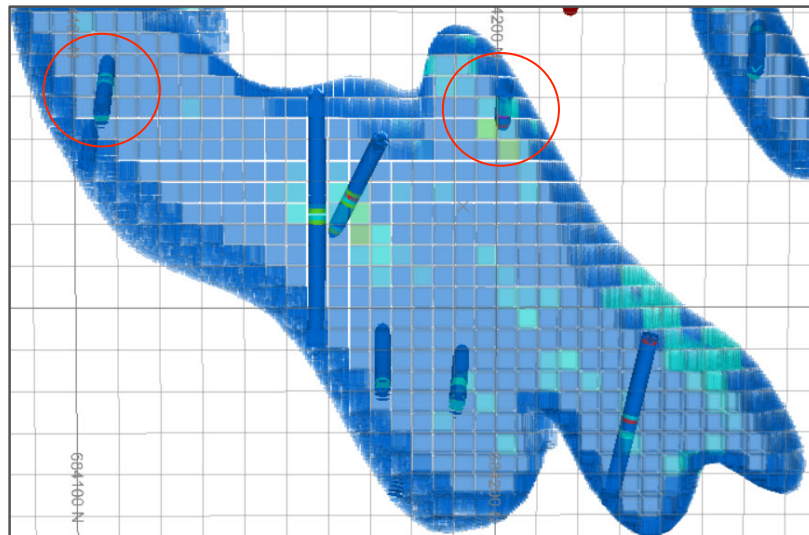


# Resource Optimisation



## Resources Category Domain Optimisation

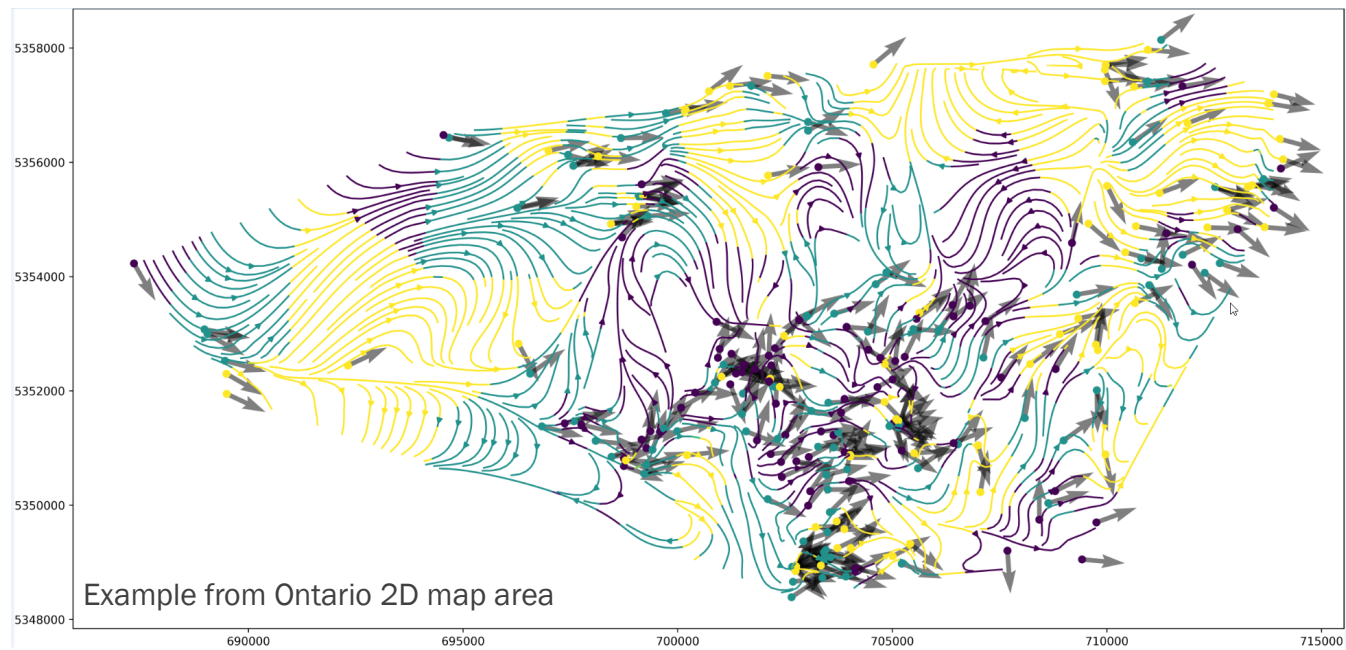
- Tools to target optimal locations for drilling, with potential for resource category upgrades.
- This approaches can be combined with ML prospectivity work to rank targets





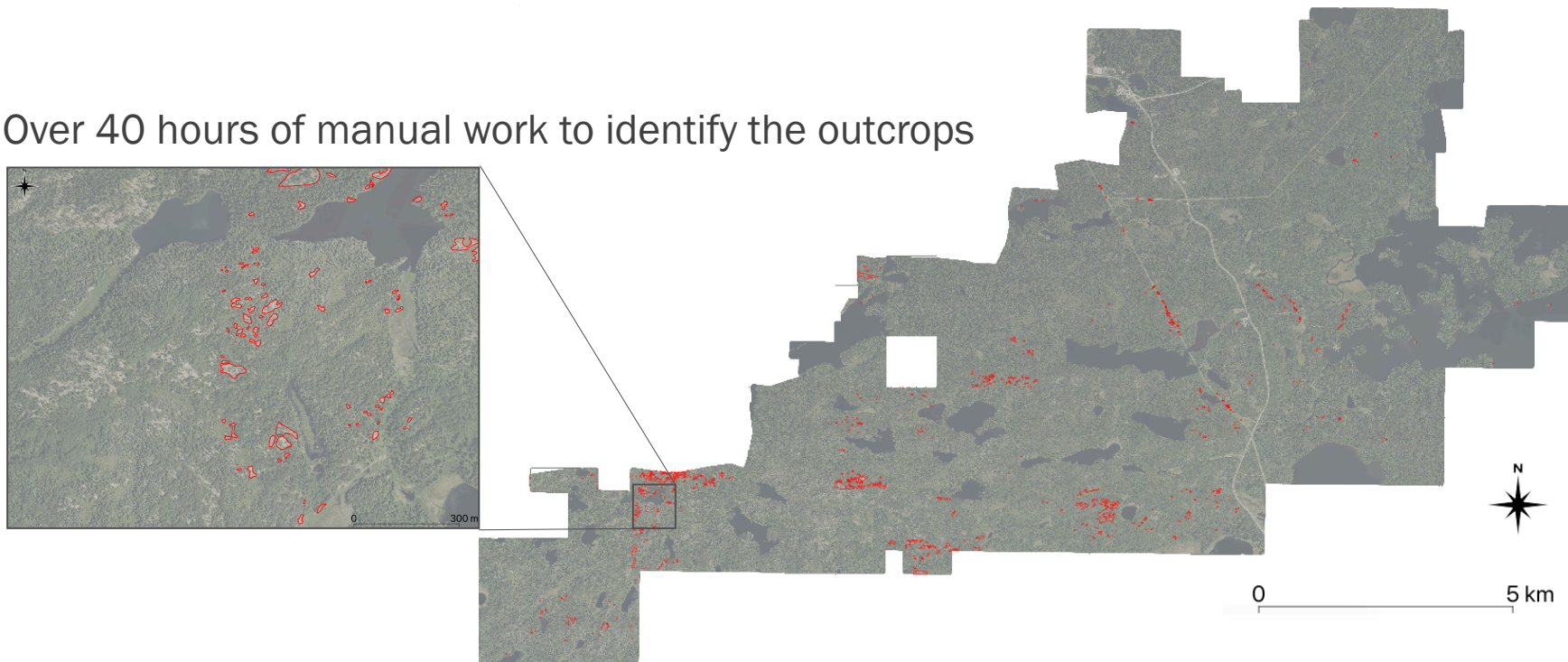
# Shear zone characterization

Constraining Shear intensity in 2D and 3D for structural domaining



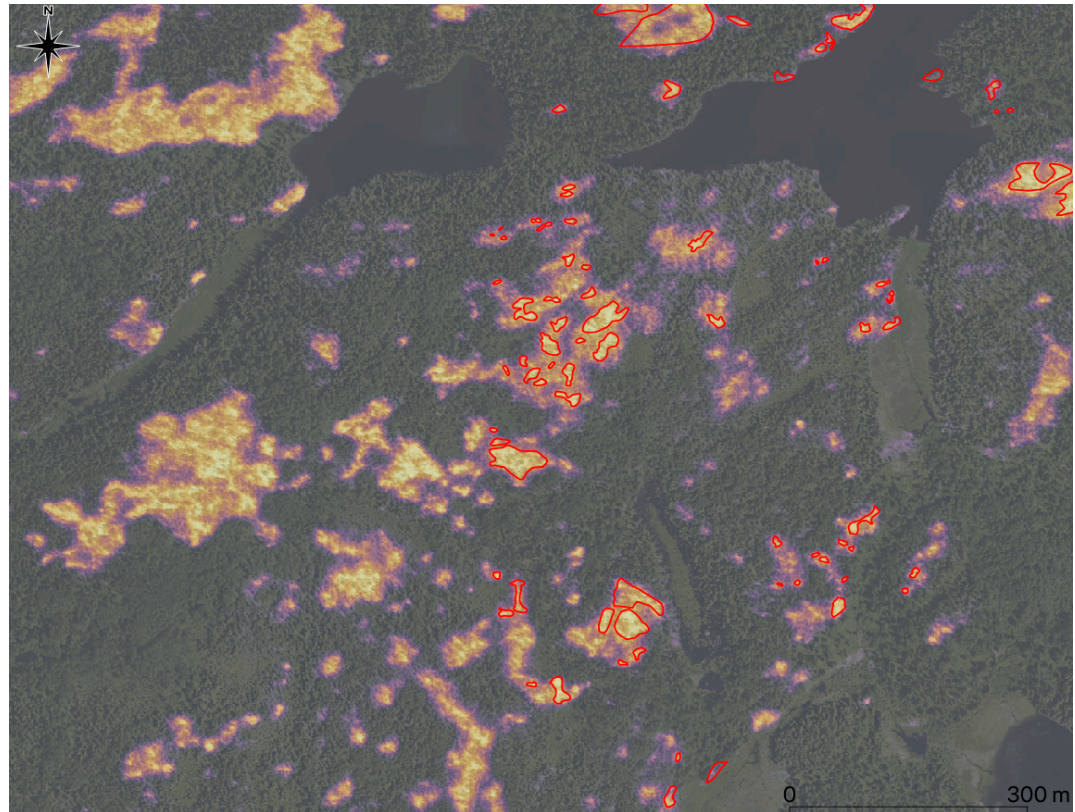
# Deep Learning Outcrop detector – Pre-field traverse planning

Over 40 hours of manual work to identify the outcrops



# Deep Learning Outcrop detector – Pre-field traverse planning

- Deeplearning Algorithm correctly identify outcrops
- New outcrops identified with increase precision





# Our current and future success hinges on the inter-disciplinary team

*The team comprises of subject-matter experts covering geology to data science, including 9 PhDs*

## Expertise, Experience & Education

Data Cleaning & Digitization	Interpretation & Mapping	Geological Modelling	Structural Geology	Geochemistry	Geology	Geophysics
Predictive Modelling	Strategy	Consulting	Research	Resource Estimation	Capital Markets	Governance
Ph.D. Mineral Engineering	Ph.D. Theoretical Partical Physics	M.Sc. Earth Sciences	P. Eng	Ph.D. Earth Sciences	P. Geo	MBA
CFA Charterholder	M.Sc. Financial Economics	M.Sc. Statistics	M. Eng	Ph.D. Computational Chemistry		

# Technical, Research, and AI Talent

Chris MacInnis, P.Geo.  
VP, Technical Services

Brenda Sharp, M.Sc.,  
P.Geo  
Chief Geophysicist

Michael Cain, P.Eng.  
Geophysicist

Sarane Sterckx, M.Sc.  
Associate

Vivien Janvier, Ph.D.,  
P.Geo  
Geologist

Mireille Pelletier, M.Sc.  
Geologist

William Oswald, Ph.D.  
Associate

Charles Bérubé, Ph.D.  
Geological Data Scientist

Fabien Rabayrol, Ph.D.,  
Associate

Shervin Azad, M.Sc.,  
P.Geo.  
Geophysicist Data  
Scientist

Véronique Bouzaglou,  
Ph.D.  
Geological Data Scientist

Grace Dupuis, Ph.D.  
Data Scientist

Louis Beaupre  
Associate

Frédéric Courchesne,  
M.Sc.  
Data Scientist

Lindsay Hall, M.Sc.,  
P.Geo.  
Senior Geologist

Shawn Hood, Ph.D, P.Geo  
VP, Technical Services

Maxine Létourneau, P.Eng  
Associate

Max Tian, M.Sc.  
Data Scientist

Xun Wang, Ph.D.  
Data Scientist

Minghao Lyu  
Data Engineer

Peter McIntyre, P.Geo.  
Principal Geologist

Jordan Black, P.Eng.  
Associate

Pejman Shamsipour,  
Ph.D.  
Geological Data Scientist



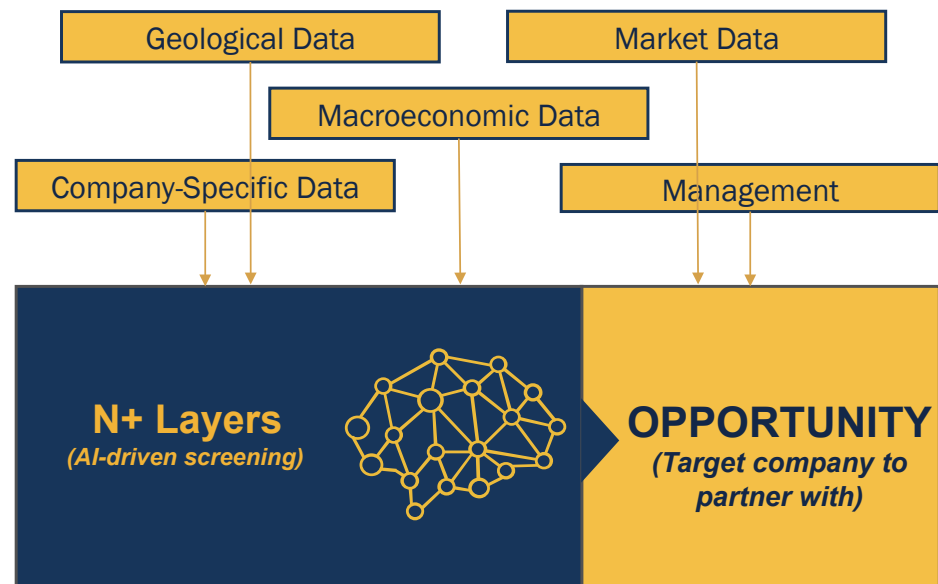
**We Use a Quant-Approach to Make Investments**



# RESOURCE QUANTAMENTAL

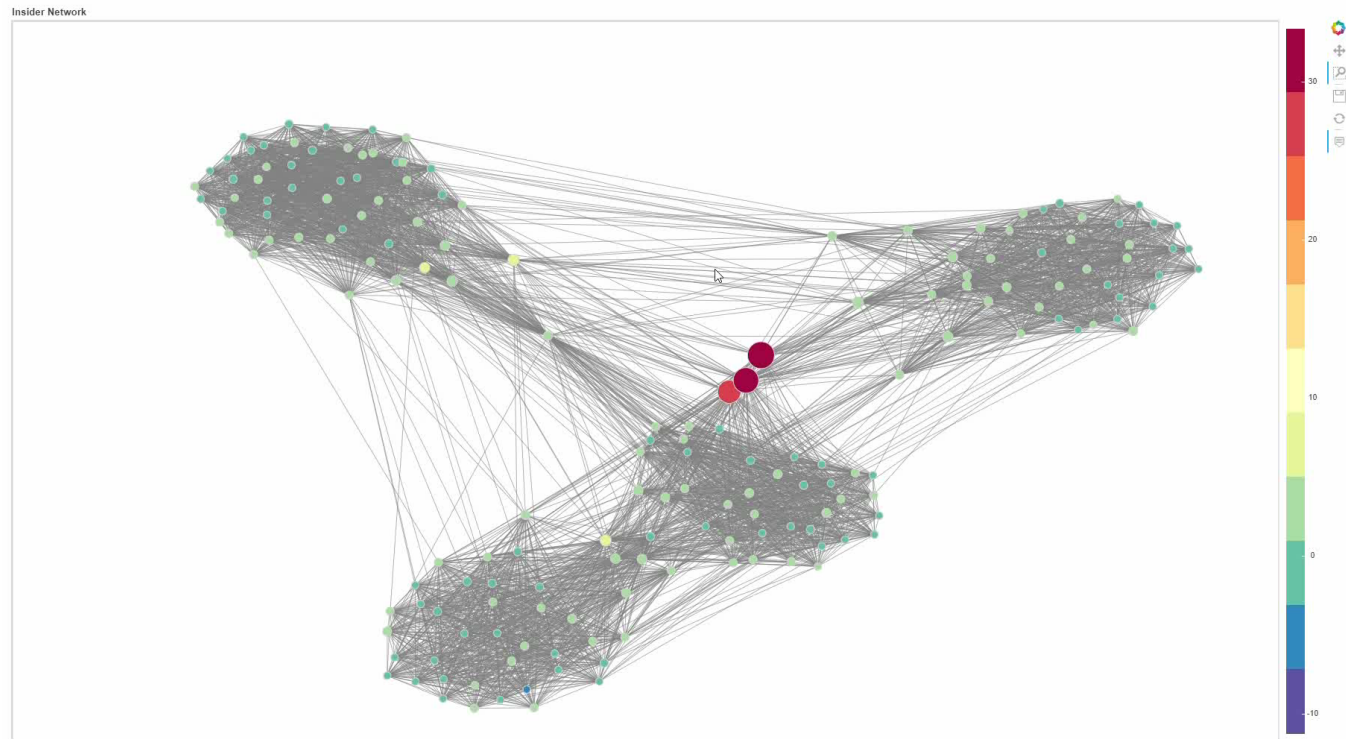
RQ combines the best of technology, people, data, and AI to identify long-term growth through partnerships, investments, and royalties.

RQ uses the most robust and comprehensive database ever created in the resource business, taking over two years to assemble. When combined with machine learning, Goldspot will be able to identify the best projects and teams to work with worldwide, resulting in alpha generating investments and royalties. In addition, RQ can be leveraged in many different ways.



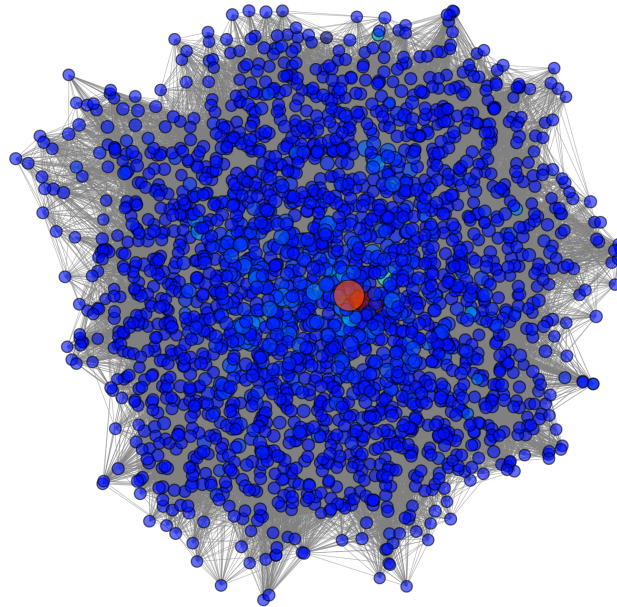


# Connectedness of Mining Insiders





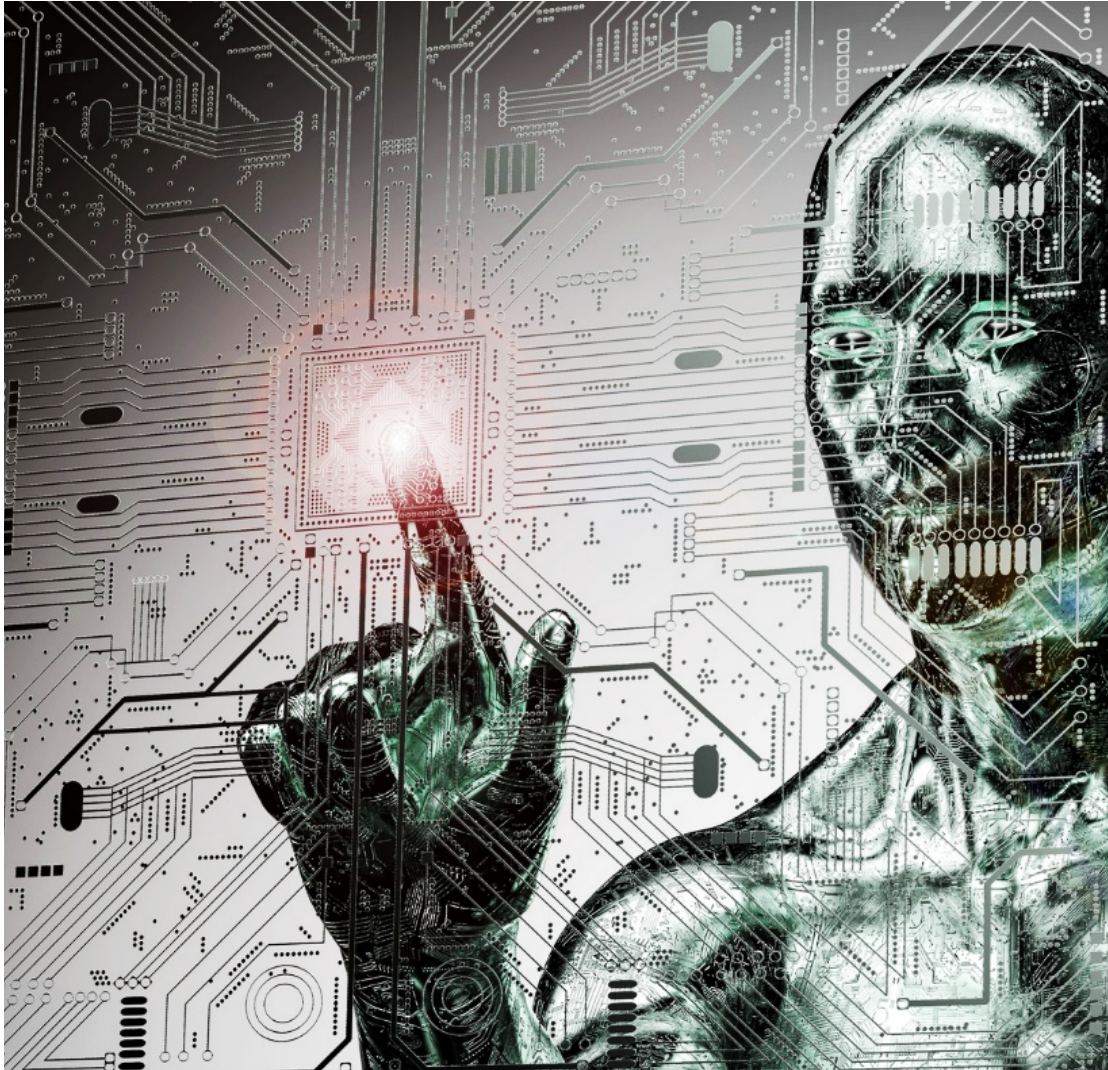
# Deep-Dive into Most Connected Insider Sub-Networks





# Magnitude of Nickel Financings





## THE SMARTEST MONEY

Geological Data

Market Data

Management

Macroeconomic data

Company-Specific

**N+ Layers**



INVESTMENT  
RECOMMENDATION

**Buy**



**Sell**

# TRUE BELIEVERS







# The technology has been validated with industry leaders

## Past & Current Clients



**HOCHSCHILD MINING**



**SPROTT MINING INC.**

**INTEGRA**  
RESOURCES

**McEWEN MINING**



**YAMANAGOLD**



**VALE**

To date, GoldSpot is working with some of the mining industry's most respected leaders to identify new targets and develop new technology and techniques.

# MONETIZATION STRATEGY



## REVENUE-GENERATING SERVICES

### Examples

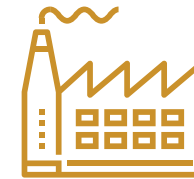
- Hochschild Mining
- McEwen Mining
- Sprott Mining
- Yamana Gold



## RESOURCE QUANTAMENTAL

### Case Study RQ

- AI-driven opportunity generator points us to ideal companies to work with
- Further assess data to validate partnership opportunity
- Leads to investments & royalties



## INVESTMENTS & ROYALTIES

### Case Study in Junior X

- Invest in Junior X through private placement
- Establish a service arrangement to leverage our team & technology
- Receive a royalty
- Deliver targets and make a discovery

**Investors don't need  
another exploration  
gamble...**



**They need a new way to  
play the mining space.**





# GoldSpot Capital Structure: October 2019

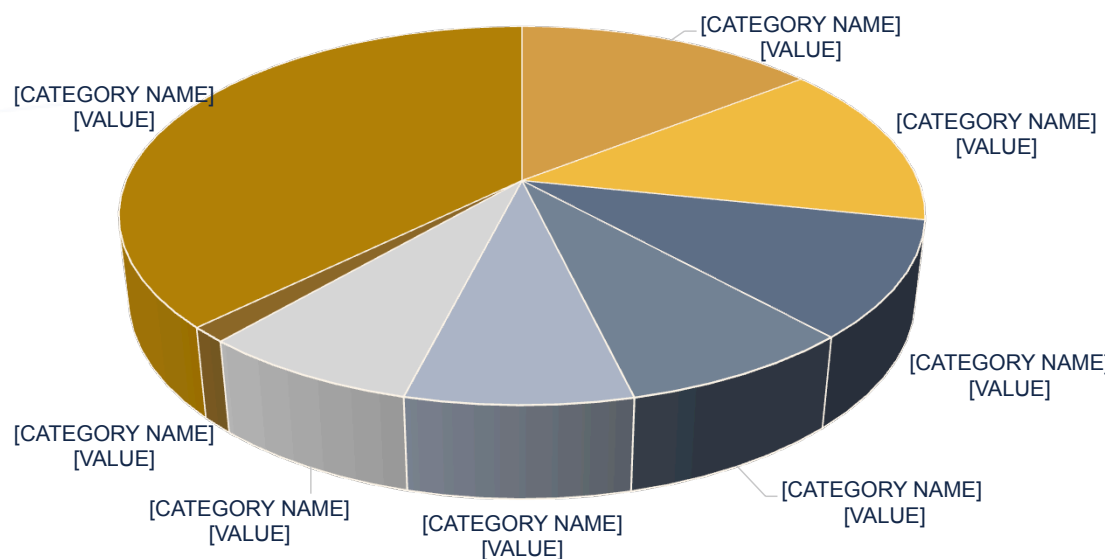


*Capital Structure as of June 30, 2019*

Shares Outstanding	94.7 MM
Broker Warrants	1.5 MM
Options	7.4 MM
Fully Diluted	103.6 MM
Cash & Investments	9.3 MM
Debt Outstanding	N/A



## Ownership Structure



# GOLDSPOT

DISCOVERIES CORP.

Unlocking the value of discovery through A.I.

## Corporate Office

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