

Maiden drilling of exciting new gold target in Queensland
Drilling high-order gold targets in >10moz district Western Australia
Rapidly evolving new REE play in Wyoming USA
Partner funded drilling on WA zinc project & Turkish gold project

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ASX:ZNC





Why Zenith?

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1. Zenith today provides shareholders access to a focused, high impact gold, battery and base metals exploration program intended to maximise and leverage shareholder equity.
2. An experienced and shareholder aligned management team with over 100 years technical experience.
3. Quality portfolio of gold (Red Mountain, Split Rocks), rare earths (Laramie) and lithium projects (Split Rocks & USA).

Summary

Drilling 4 projects - 1st half 2020*

GOLD

First holes into newly discovered gold target Red Mountain - QLD



GOLD

Drilling high-order gold targets Split Rocks - WA



REE

Metallurgical testwork Laramie REE Project WY – USA



GOLD

Partner Drilling Kavaklitepe Gold discovery – Turkey



ZINC

Partner Drilling Earahedy Zinc discovery - WA



Li

Lithium Exploration – Split Rocks WA & USA JV

*Planned programs subject to permitting

²ZNC ASX Release 6 Nov 19, 14 Nov 19, 11 Feb 20

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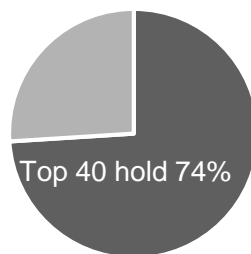
Corporate Structure

ZNC Share Price



Major Shareholders

HSBC Custody. Nom	12%
J P Morgan Nom.	6.1%
Granich	5.5%
Miquilini	4.4%
Abingdon	4.2%



Tight supportive register
Directors ~16%
Top 40 ex-ASX:GIR holders & UK sophisticated

Capital Structure

Share Price (21 Feb 20)	\$0.052
Shares on Issue - ZNC fully paid ordinary	243m
Market Capitalisation	\$13m
Cash (31 Dec 19)	\$1.5m
Listed Equities 4.51m RTR Shares (20 Feb 19)	\$0.37m



ASX:ZNC

Listed in 2007
Limiting shareholder dilution
Tightly held
Experienced Board & Management

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Our Focus is Discovery

100% Owned Projects – “Company maker size targets”



ZNC drilling two projects H1/2020

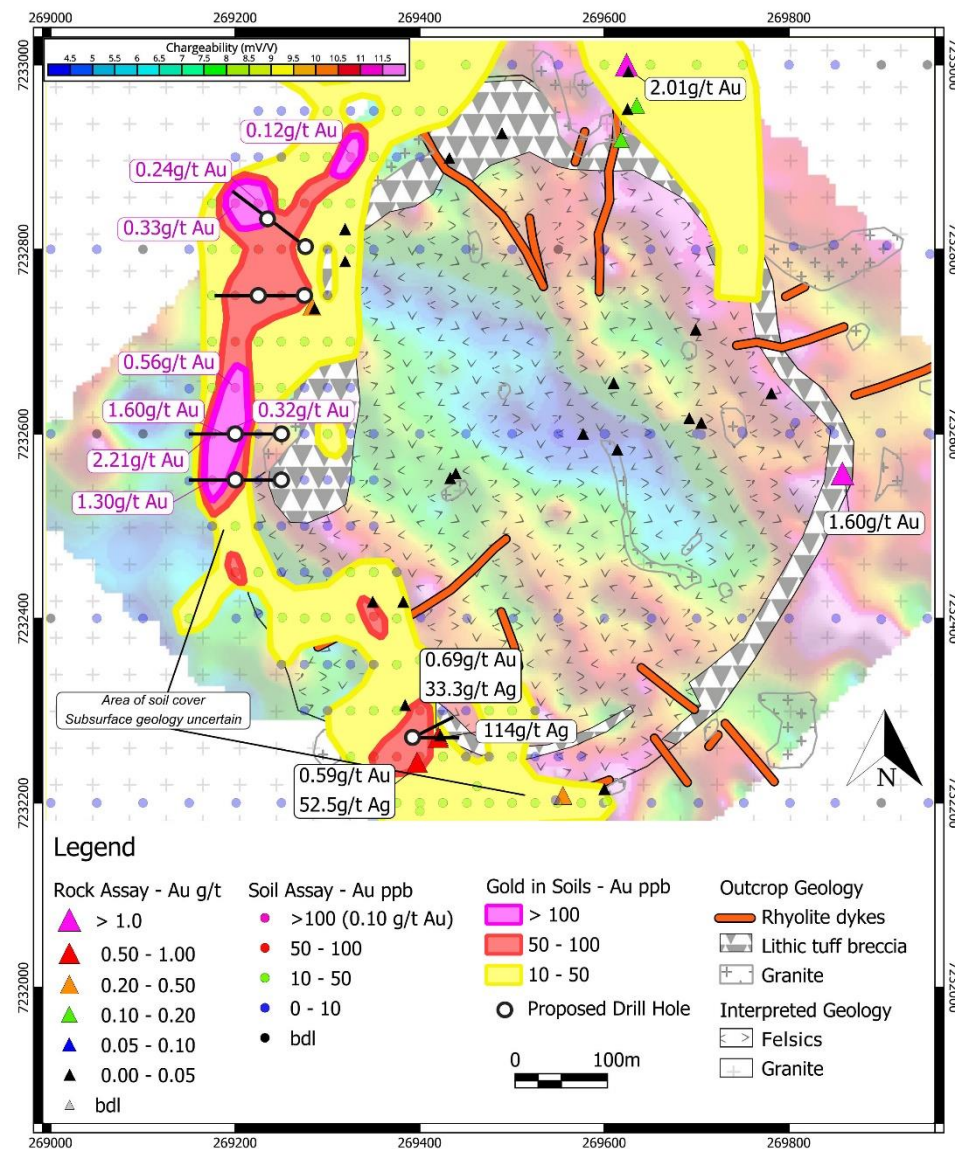
Red Mountain Gold

Ownership: 100%
Location: QLD
Commodity: Gold & Silver
Stage: Prospect

Newly discovered high-calibre drill target¹

- 800m long high-order gold anomaly: soils 2.2g/t Au, 1.6 g/t Au, 1.3 g/t Au, 0.56 g/t Au, 0.33 g/t Au
- Gold in rocks to 2.0 g/t Au & 114 g/t Ag (silver);
- Previously unknown volcanic breccia complex
- IP chargeability anomaly around breccia margin
- Zoned system
 - Cu-Mo-S-Ba-Mn core
 - Au-Ag-Pb-Zn-As-Te-Bi-Sb-Se-Ni-Co +/- Hg-Mn-U outer zone
- Gold mineralisation - western margin of breccia

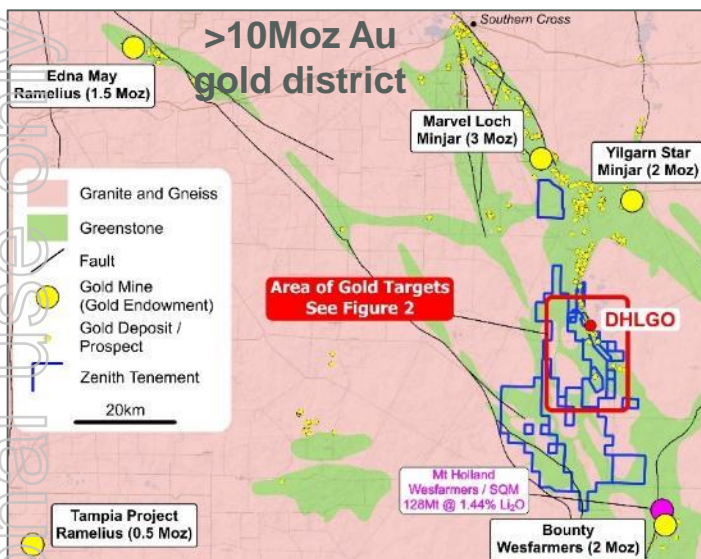
Next Steps: Maiden drilling March 2020



Red Mountain Soil and Rock Results with Geological Outlines over IP

Split Rocks Gold

Ownership: 100%
Location: WA
Commodity: Gold & Lithium
Stage: Drilling



650 sq km of tenure, most licences 100% owned

High-grade gold in wide spaced RC drilling beneath modest size operating 3rd party gold heap leach mine¹



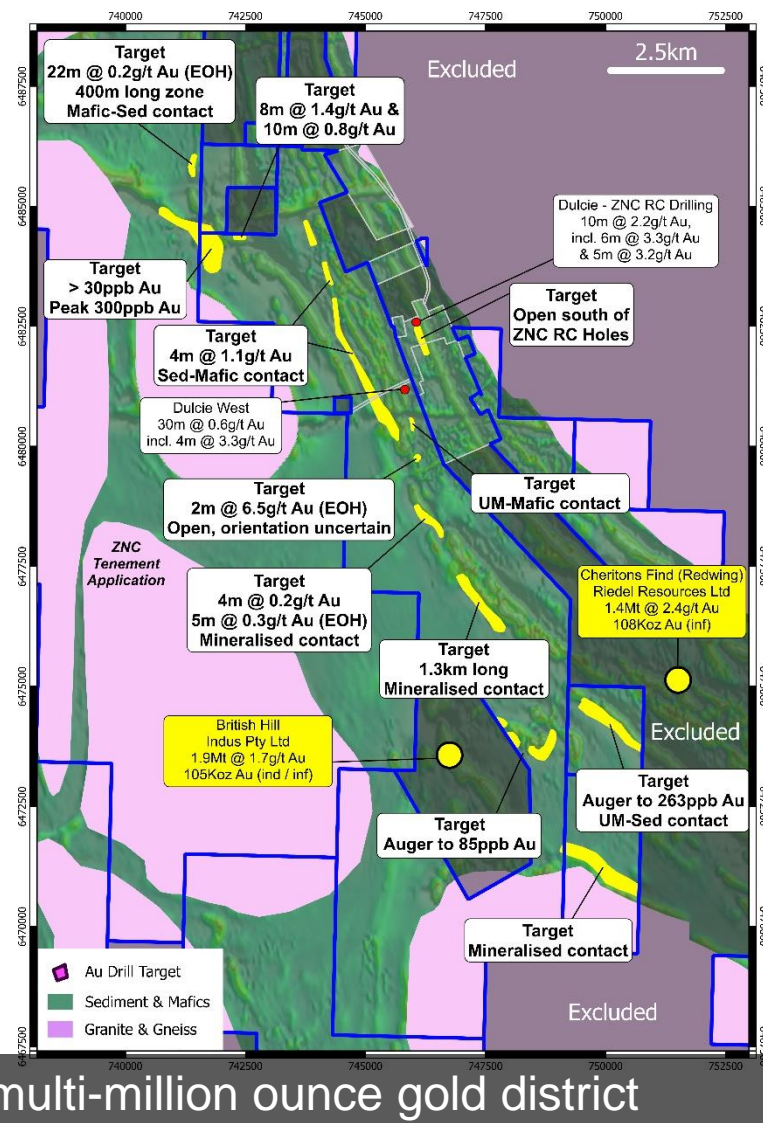
Historic results²:

- 6.0m @ 16.91 g/t Au
- 2.0m @ 32.73 g/t Au
- 2.0m @ 16.53 g/t Au
- 2.0m @ 15.40 g/t Au

Recent ZNC results²:

- 10m @ 2.20 g/t Au (incl 6m @ 3.32 g/t Au)
- 5m @ 3.23 g/t Au
- 5m @ 2.04 g/t Au

Next Steps: Multi-target drilling program planned H1/2020



12 drill targets in multi-million ounce gold district

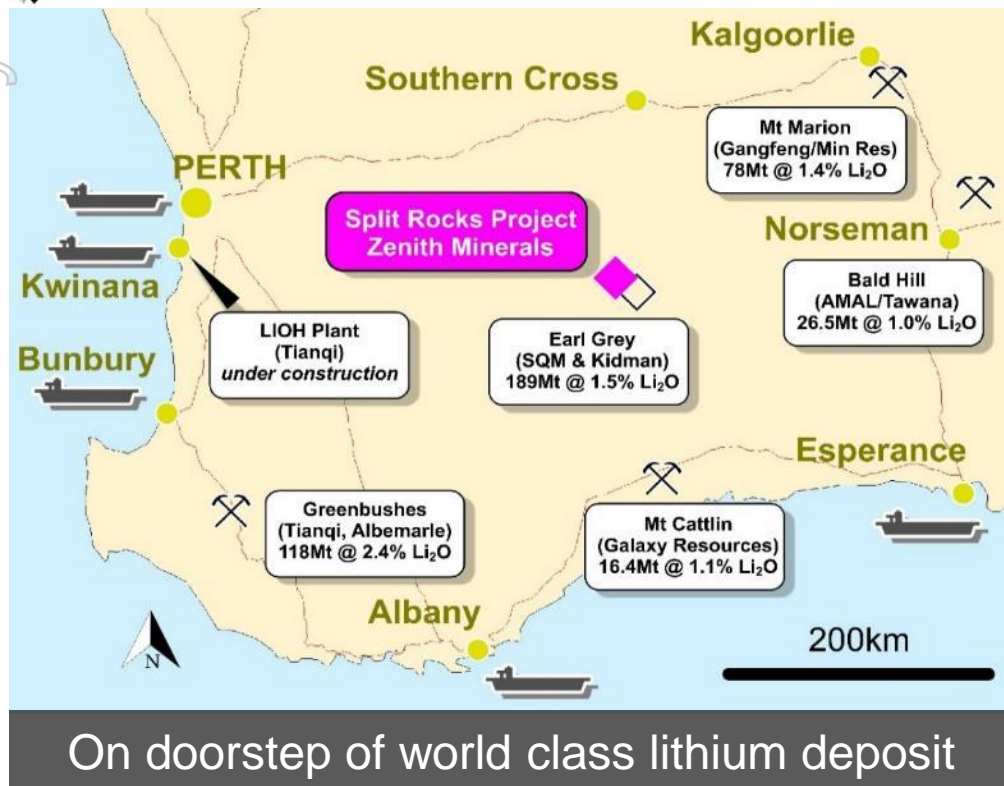
¹ ZNC ASX Release 12 Sep 19

² ZNC ASX Release 21 Oct 19 & 28 Oct 19

DHLGO = Dulcie Heap Leach Gold Operation, Zenith has subsurface rights (gold below 6m)¹

Split Rocks Lithium

Ownership: 100%
Location: WA
Commodity: Gold & Lithium
Stage: Prospects



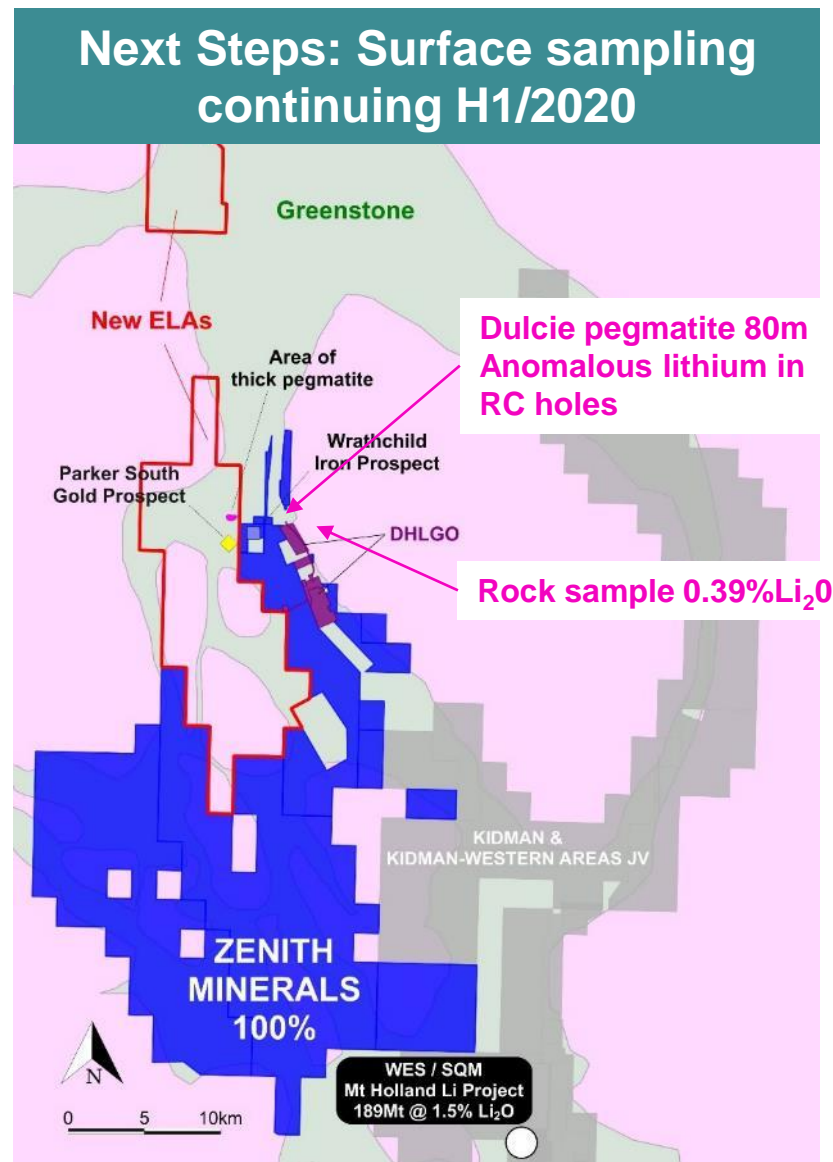
Major strategic ground holding adjacent to WES / SQM's Earl Grey Lithium Deposit valued at ~\$A1.55 billion¹

650km², abundant pegmatites, Dulcie Lithium Prospect 80m thick pegmatite - anomalous Li in first pass RC drilling

Surface geochemistry as screening tool, only 25% coverage to date

Soil anomalies of similar tenor to those defined by KDR

¹KDR ASX Release 11th July 2019





Laramie REE - WY USA

Ownership:	100%
Location:	WY-USA
Commodity:	Rare Earths
Stage:	Prospects



Excellent Location

30km to Interstate

35km to Rail

Abundant low-cost commercial electricity

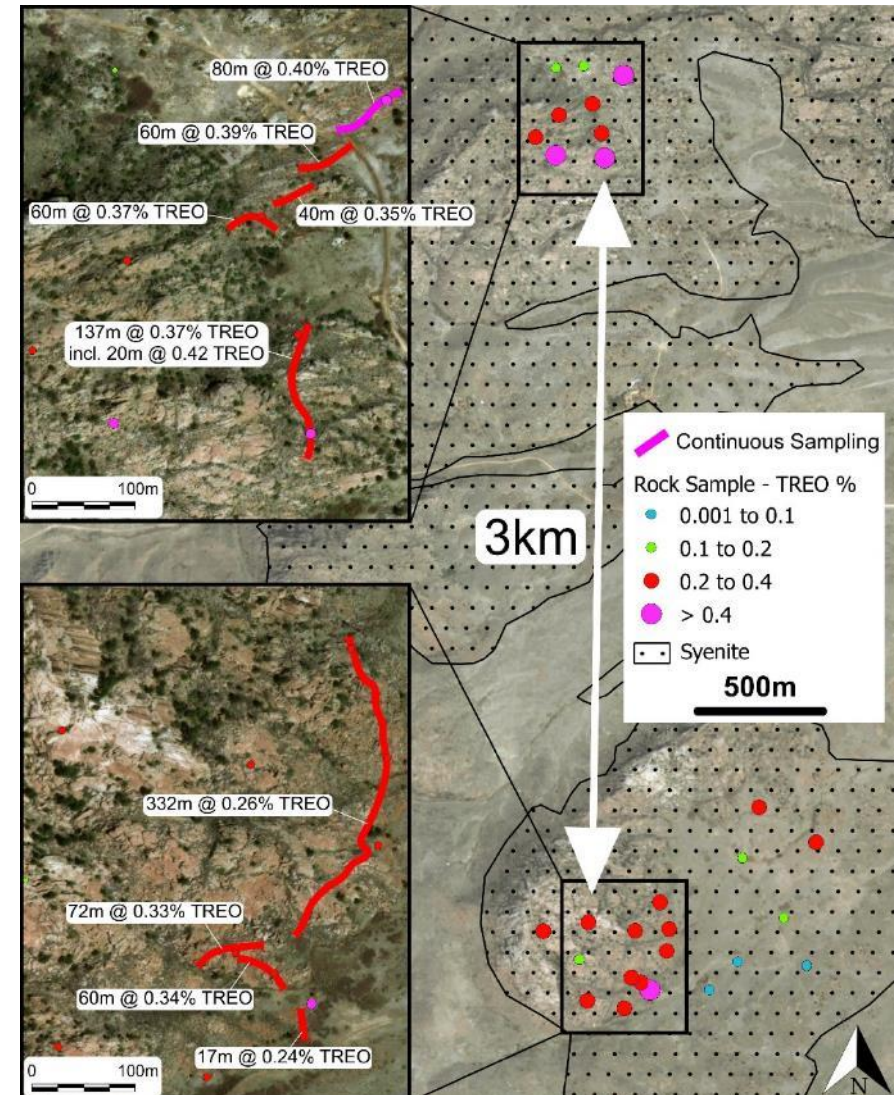
Multiple existing major mining operations

Local engineering and construction companies

Widespread surface REE mineralisation over hundreds of metres¹

▣ TREO (Total Rare Earth Oxide) up to 0.60% in 3 initial sampling areas

High percentage of high-value Nd, Pr & Dy¹

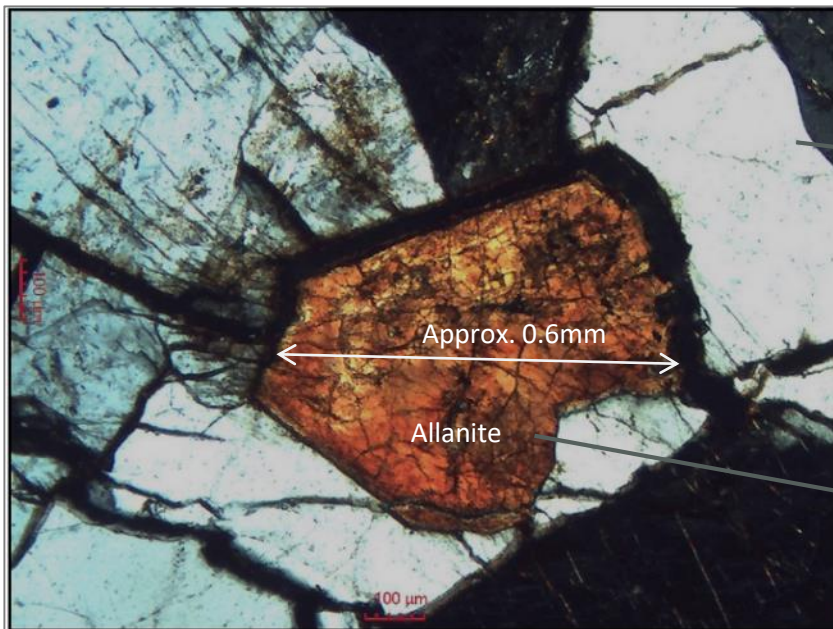


Laramie REE - WY USA

Ownership: 100%
Location: WY-USA
Commodity: Rare Earths
Stage: Prospects

Large scale at surface REE target
Metallurgy is key to projects potential

Next Steps: Further metallurgical test work



Client Sample No: **RMP-032**
Subhedral grain of brown allanite in quartz/feldspar – 50X PL

REE mineral allanite is coarse grained (0.4mm to 2.5mm) as distinct mineral grains. DCM reported that*the large size of the allanite crystals should facilitate liberation upon grinding*.....from the syenite host rock¹

**Non-magnetic
Concentrate (very
low REE content) –
73% of mass**



**Magnetic
Concentrate (high
REE content) –
27% of mass**



Mineral separation by **magnetic methods** recovered 87% of the REE minerals into 27% of the mass whilst rejecting 73% of the waste material at a crush size of -0.5mm

Mineral separation using **gravity methods** recovered 76% of the REE minerals into 22% of the mass whilst rejecting 78% of the waste material at a crush size of -2mm

Our Focus is Discovery

Partnered Projects – “A free option paid for by others”

Increased Spending
Increasing Chance of Success
Sharing Risk



Partners drilling two projects H1/2020

USA Lithium JV

Zenith 45%
Bradda Head Ltd initial 55%
Location: USA
Commodity: Lithium
Stage: Resource

Bradda Head

JV manager

Spending US\$5M on 5 lithium projects in JV with

Before Feb 2021

Bradda Head
Spending
US\$5M for
55%

Zenith
45%

Zenith

US\$5M free carry on BH JV

5 USA lithium projects in JV with Bradda Head

Does NOT include Zenith's Australian lithium projects

Burro Creek – maiden JORC Mineral Resource, extension drilling planned

Wilson Salt Flat – lithium brine target ready for drill testing

San Domingo – lithium pegmatite target ready for drill testing

Pennsylvania – large lithium oil brine play



Kavaklitepe Gold

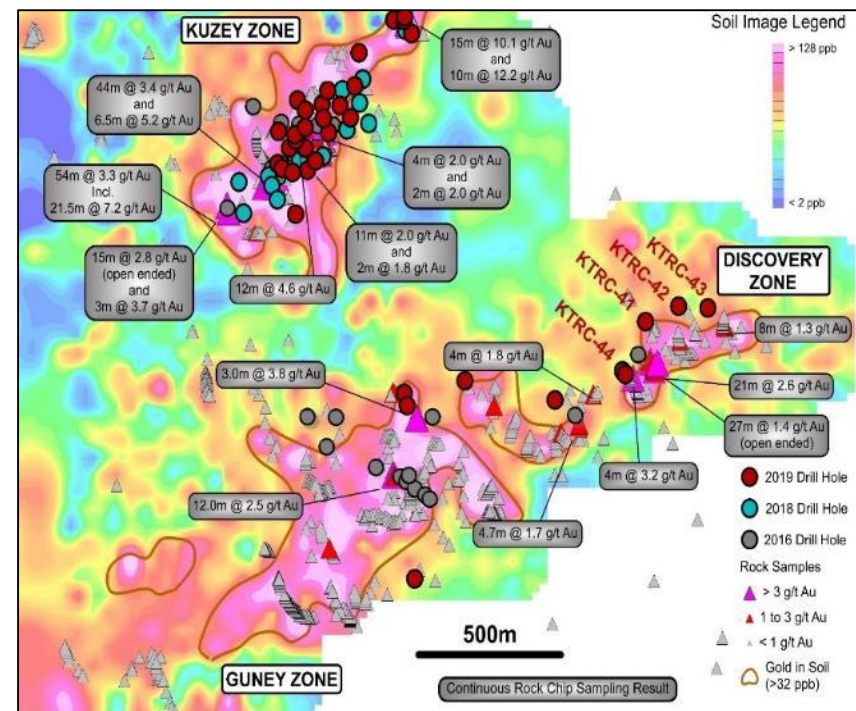
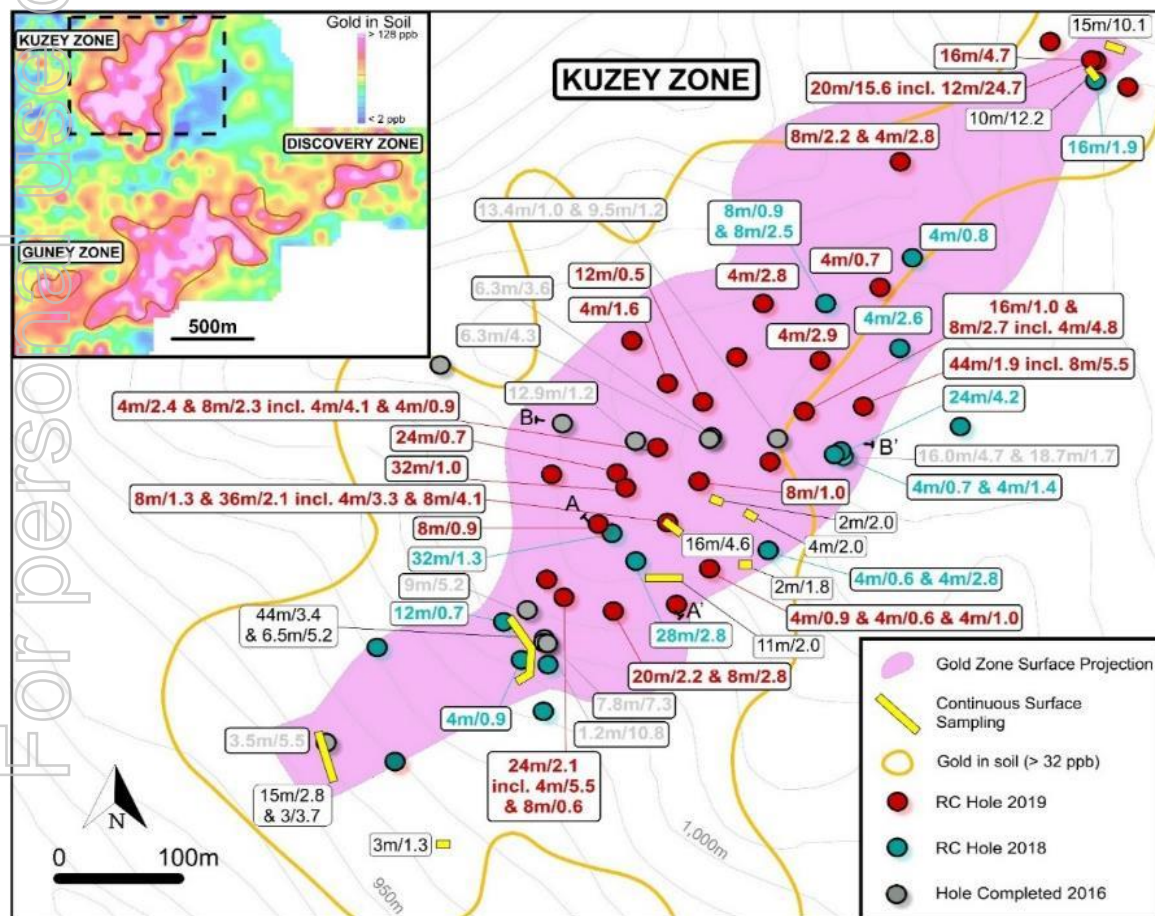
Ownership: ~23%
Location: Turkey
Commodity: Gold
Stage: Drilling

~30km south west of major new 3Moz gold mine Sogut (Koza)

2019 drilling: 20m @ 15.6 g/t Au, 16m @ 4.7 g/t Au, 36m @ 2.1 g/t Au, 44m @ 1.9 g/t Au¹

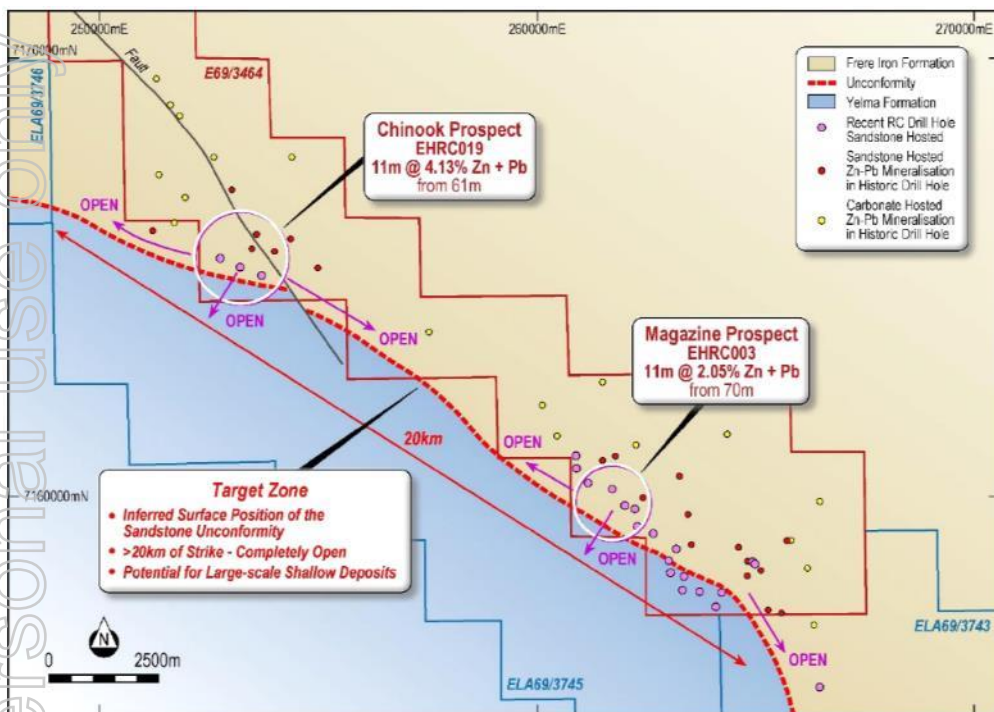
Joint Venture with Turkish affiliate of Teck ~77% / 23%, option to dilute to 5% net profit royalty

**Next Steps: Partner funded drilling
H1/2020 testing for major
extensions**



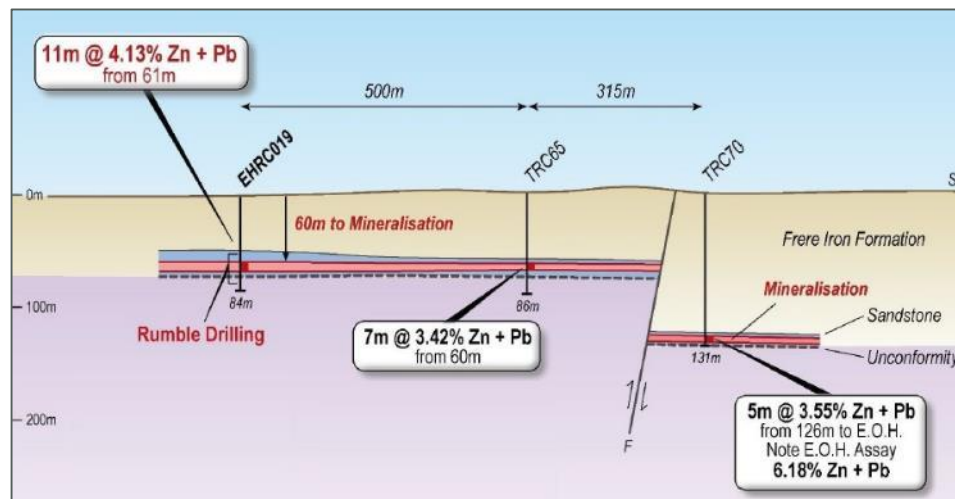
Earaheedy Zinc

Ownership: 25% Free carry to BFS
Location: WA-Aus
Commodity: Zinc
Stage: Drilling



Discovery of shallow, flat-lying sandstone hosted zinc-lead in 2 areas 10km apart.

Results incl: 11m @ 4.13% Zn+Pb, 12.8 g/t Ag from 61m



Next Steps: Partner funded step-out drilling H1/2020

Exploration Target¹:
40Mt to 100Mt @ 3.5% Zn-Pb to 4.5% Zn-Pb

Potential for Earaheedy to be a world class Tier 1 base metal province.

¹The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. (ZNC & RTR ASX Releases 23 Jan 20).

Drilling at 3 gold and 1 zinc project in 1st half 2020

Red Mountain Gold Project – QLD (100%)

RC Drilling planned March 2020 – fully permitted

Split Rocks Project Gold & Lithium Project – WA (100%)

Drill campaign planned to test multiple gold targets H1/2020

Lithium targets adjacent to WES/SQM's Earl Grey Lithium Deposit.

Laramie REE Project – Wyoming USA (100%)

Further metallurgical test work, finalise leasing & advance to drill testing

Earaheedy Zinc Project (ZNC free carried to BFS)

Partner funded drilling of new near surface zinc discovery - planned H1/2020

Kavaklitepe Gold Project (ZNC 23% diluting)

Teck funded drilling to test scale of gold discovery



Disclaimer & JORC Statements

Forward looking statements

Some statements in this presentation regarding estimates or future events are forward looking statements. They involve risk and uncertainties that could cause actual results to differ from estimated results. Forward-looking statements include estimates of future production, reserve and mineralised material estimates, capital costs, and other estimates or prediction of future activities. They include statements preceded by words such as "believe", "estimate", "expect", "intend", "will" and similar expressions. Actual results could differ materially depending on such things as political events, labour relations, currency fluctuations and other general economic conditions, market prices for Zenith Minerals Limited products, timing of permits and other government approvals and requirements, change in operating conditions, lower than expected ore grades, unexpected ground and mining conditions, availability and cost of materials and equipment, and risks generally inherent in the ownership and operation of mining properties and investment in foreign countries.

Information presented is a summary

This presentation aims to provide a high level summary of various technical aspects of the Company's projects. For more details on the underlying technical parameters the reader is referred to the ASX Reports on the Zenith Minerals Limited's website: www.zenithminerals.com.au

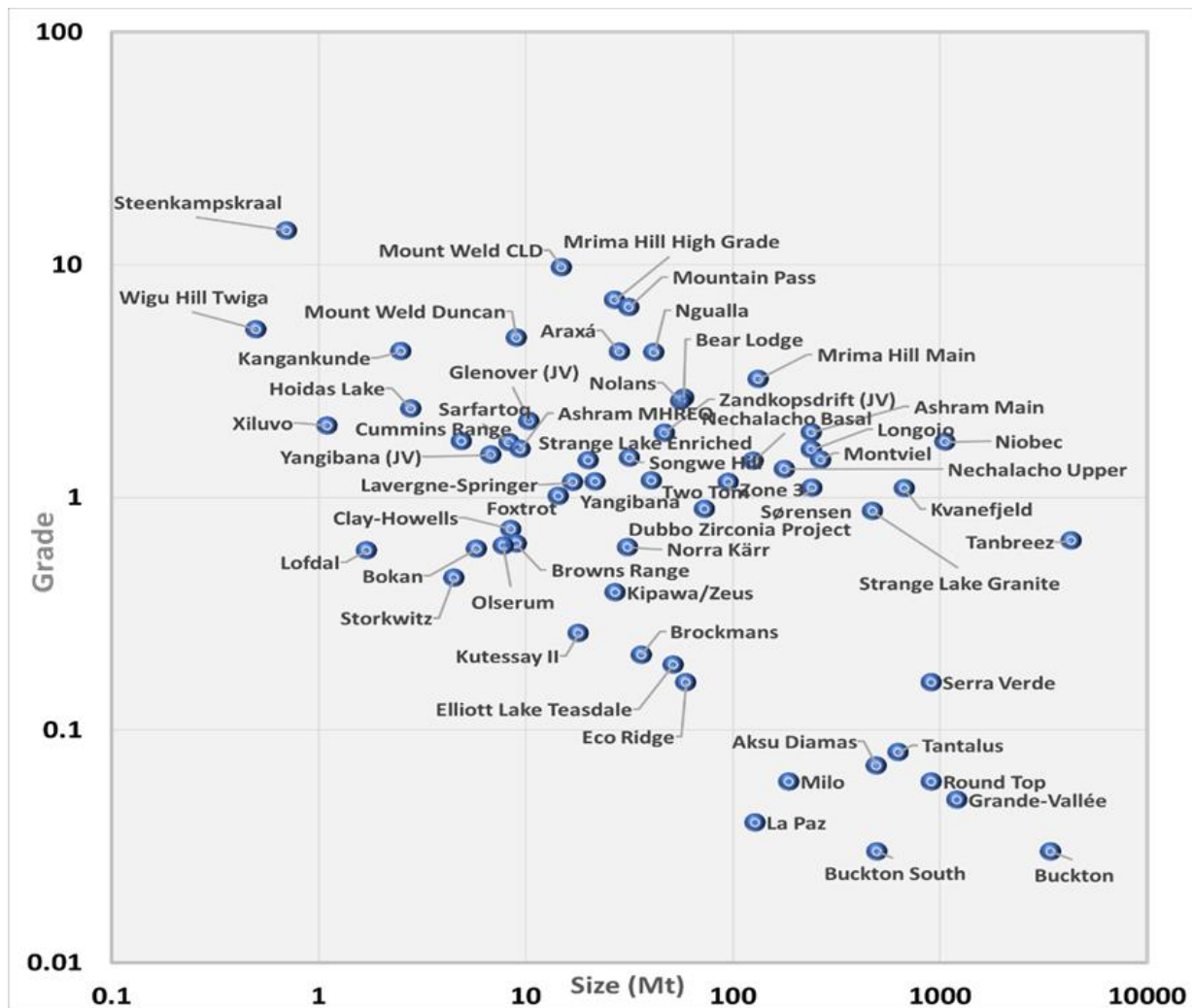
JORC competent persons statements

The information in this report that relates to Zenith Exploration Results is based on information compiled by Mr Michael Clifford, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith. Mr Clifford has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Clifford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Material ASX releases previously released

The Company has released all material information that relates to Exploration Results, Mineral Resources and Reserves, Economic Studies and Production for the Company's Projects on a continuous basis to the ASX and in compliance with JORC 2012. The Company confirms that it is not aware of any new information that materially affects the content of this ASX release. Material ASX releases related to the results reported in this report are listed on the respective project pages.

World REE Projects Size and Grade



Source:
<http://www.techmetalsresearch.com/metrics-indices/tmr-advanced-rare-earth-projects-index/> updated where new information available by Zenith 29-05-2019 from Company ASX reports and from SEDAR for TSX listed entities .