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Recent drilling of high-grade gold targets in Western Australia

Company Update



Zenith
MINERALS
LIMITED

28th October 2019



Summary

Outstanding gold & lithium portfolio in Australia & USA

New Rare Earths (REE) Project – Wyoming USA

Significant current & upcoming exploration activity focussed on;

- High-grade gold at Split Rocks – returned up to 10m @ 2.20g/t Au (incl 6m @ 3.32 g/t Au) and 5m @ 3.23 g/t Au¹, and lithium target definition
- Awaiting results from further REE sampling at Laramie Wyoming. First pass sampling up to 0.54% TREO²
- Advancing QLD gold target to drill status, awaiting infill sampling results
- External funding for several projects spreads risk and increases exposure to success, drilling of two partnered projects before end of year



¹ZNC ASX Release 28 Oct 19

²ZNC ASX Release 17 Oct 19

Rights Issue - Use of Funds

Non-renounceable 1:6 entitlement offer at 5.5c to raise ~\$1.95 million¹. Funds from the raising are intended to be applied towards accelerating activity at the following projects, in addition to general working capital requirements:

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

Further work to include;

- extensional drilling to follow-up gold mineralisation at the Dulcie Heap Leach Operation (DHLGO) target*.
- defining lithium targets adjacent to WES / SQM's Earl Grey Deposit.

Laramie REE Project – Wyoming USA (100% owned)

Finalising leasing and advancing the project toward initial first pass drill testing of the Laramie REE project.

Red Mountain Gold Project – QLD (100% owned)

Advancing the Red Mountain project to define drill targets

Advancing other 100% owned projects towards drill testing including the Develin Creek Copper-Zinc Project – QLD and the Waratah Well Lithium Project – WA



¹ZNC ASX Release 28 Oct 19

*Note Zenith holds gold rights below 6 metres depth beneath the operating 3rd party gold heap leach mine at Dulcie see ASX release 21 Mar 19

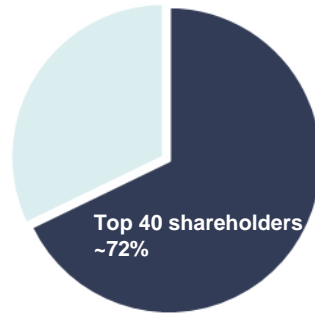
Corporate Structure

ZNC Share Price



Major Shareholders

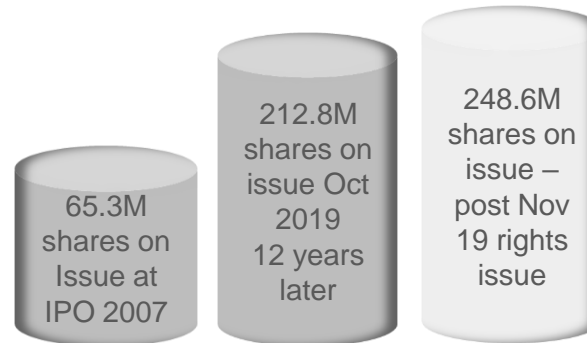
HSBC Custody. Nom	13.4%
J P Morgan Nom.	6.8%
Granich	5.4%
Miquilini	4.3%
Abingdon	4.1%



Tight supportive register
Directors ~14%
Top 40 ex-ASX:GIR holders & UK sophisticated

Capital Structure – ASX: ZNC

Share Price (25 Oct 19)	\$0.063
Shares on Issue - ZNC fully paid ordinary	213m
Shares on Issue –post Entitlement Offer (fully subscribed)	248m
Market Capitalisation	\$13.4m
Cash (30 Sept 19)	\$0.64m
Listed Equities 4.67m RTR Shares (25 Oct 19)	\$0.36m



Limiting shareholder dilution
Lean
Tightly held
Experienced Board & Management



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ASX:ZNC

Split Rocks: Gold

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

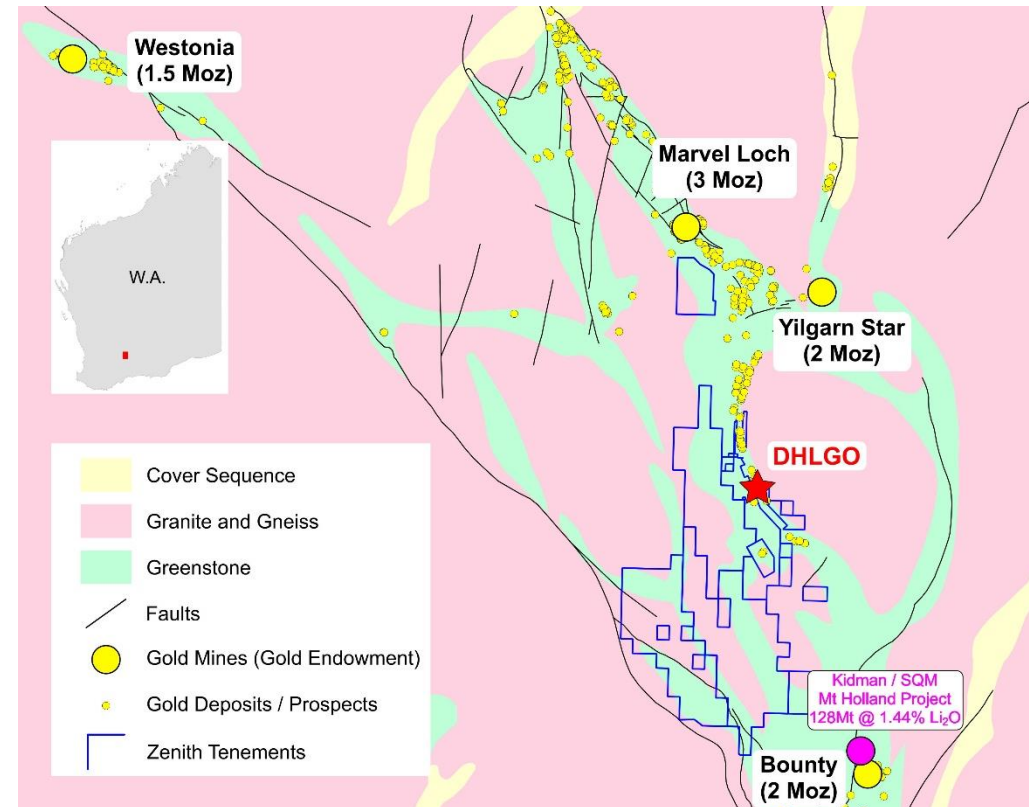
**Initial Phase 1 Drilling
Completed – Oct 19**

**High-grade gold
intersected in very wide
spaced RC drilling**

Results include²:

- 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

**Follow-up drilling to be
planned**



650 sq km of tenure - surrounded by major gold deposits

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: Gold

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

Initial Phase 1 Drill Program

Completed (16 RC holes):

- Testing high-grade gold targets over 4km of strike
- Limited previous deeper (>75m depth) drill holes, results include¹:

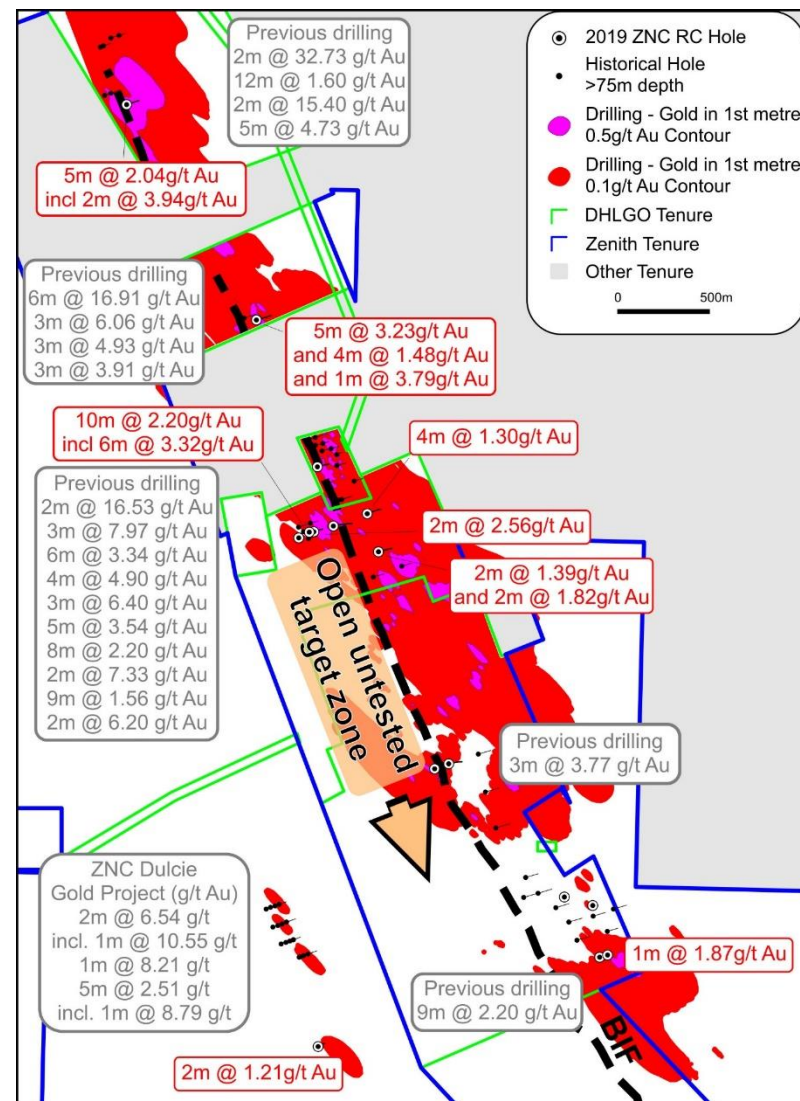
- 6.0m @ 16.91 g/t Au
- 2.0m @ 32.73 g/t Au
- 2.0m @ 16.53 g/t Au
- 2.0m @ 15.40 g/t Au

ZNC results include²:

- 10m @ 2.02 g/t Au
(incl 6m @ 3.32 g/t Au)
- 5m @ 3.23 g/t Au
- 5m @ 2.04 g/t Au
- Follow-up drilling planned

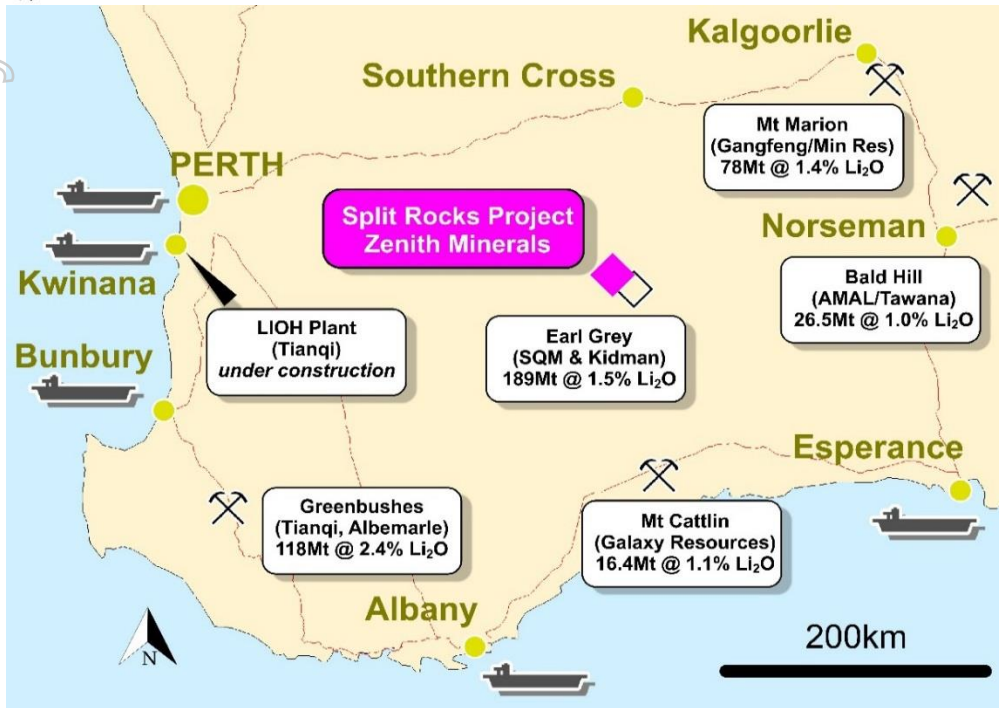


Drilling beneath operating 3rd party heap leach gold mine



Split Rocks: Lithium

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



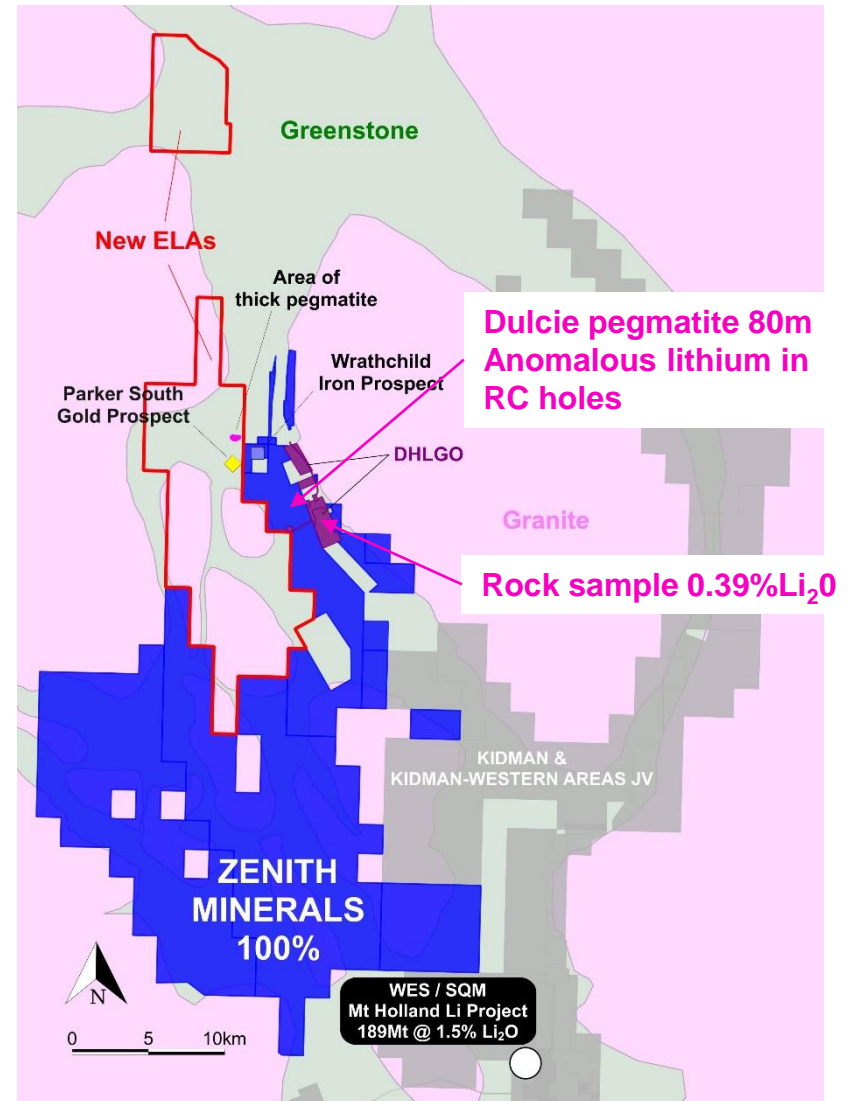
Major strategic ground holding adjacent to WES / SQM's Earl Grey Lithium Deposit. Recent WES takeover of KDR values 100% of project at ~\$A1.55 billion¹

Very large area (~650km²) with abundant pegmatites, Dulcie Lithium Prospect 80m thick pegmatite - anomalous Li in first pass RC drilling

Using surface geochemistry to screen land holding. Only 25% soil coverage to date.

Soil anomalies of similar tenor to those defined by KDR - Ongoing drilling of soil targets

¹KDR ASX Release 11th July 2019



Laramie: REE - Wyoming USA

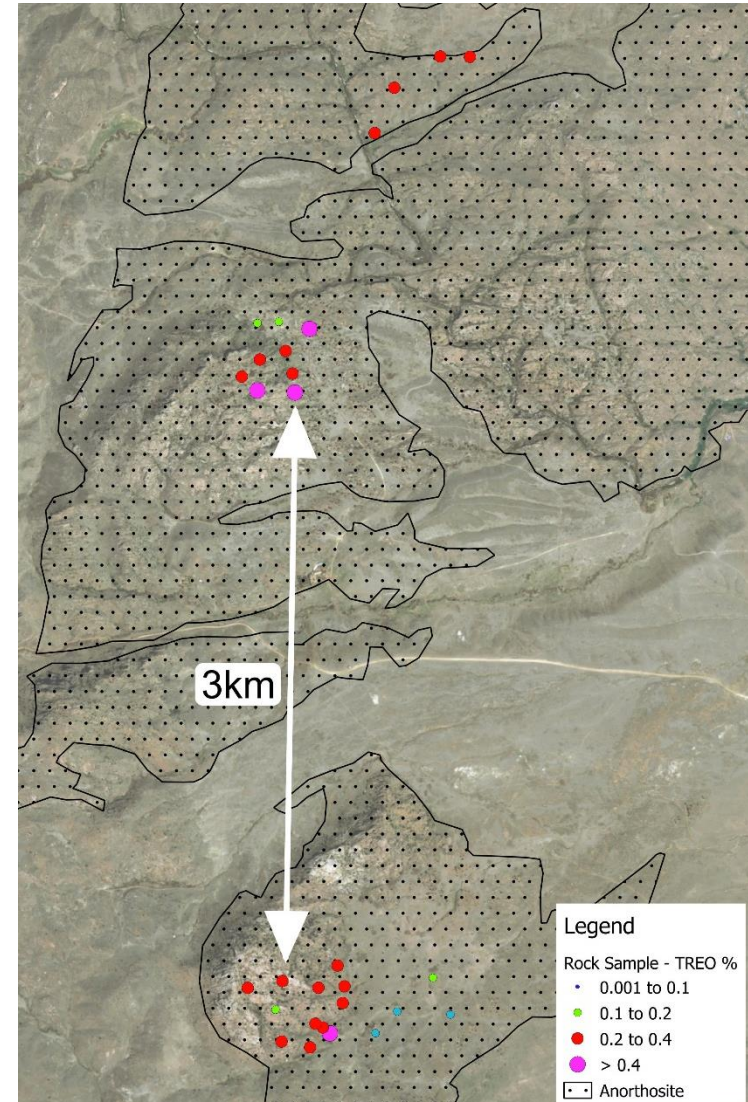
Ownership: 100%
Location: WY-USA
Commodity: Rare Earths
Stage: Prospects



Zenith surface rock sampling returned widespread TREO (Total Rare Earth Oxide) grades up to 0.54% in two initial sampling areas 3km apart with strong values of high-value neodymium, praseodymium and dysprosium¹.

Assays pending for more detailed & systematic traverse chip sampling & mapping to assess size potential, leading to drill testing.

¹ ZNC ASX Release 17 Oct 19



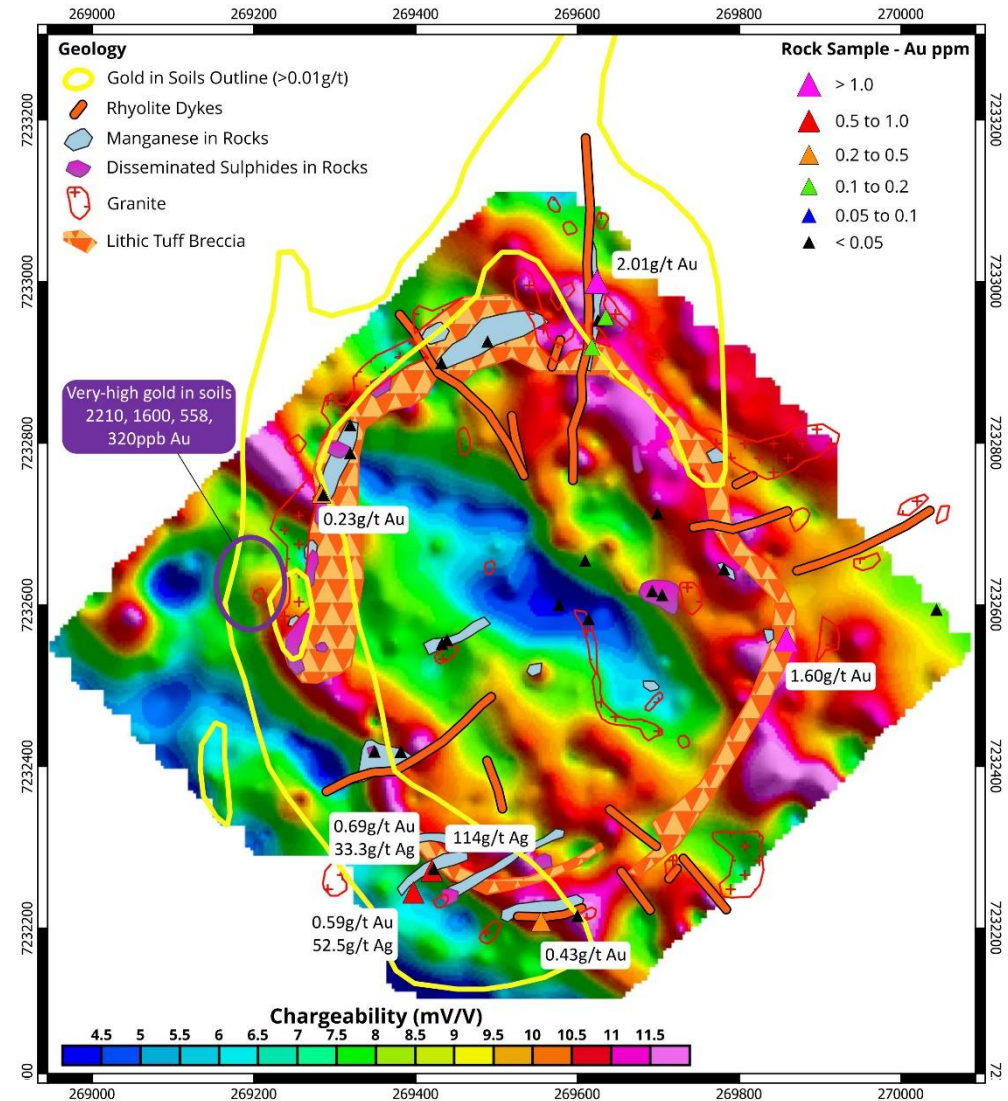
Red Mountain: Gold

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

Recent field work returned further encouraging results, including¹;

- High-grade gold in soils up to 2210 ppb Au (2.2g/t Au), 1600 ppb Au (1.6 g/t Au), 550ppb Au and 320ppb Au;
- Gold in rock sample results up to 2.0 g/t Au and 114 g/t Ag (silver);
- Detailed geological mapping by Zenith outlined a previously unknown felsic volcanic breccia complex;
- IP chargeability anomaly coincident with breccia margin
- Gold mineralisation appears to be focused on the margins of the breccia system.

Infill soil sampling completed - results expected Nov 19



Red Mountain Soil and Rock Results with Geological Outlines over IP

¹ ZNC ASX Releases 24 Sep 19 & 25 Oct 19

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 Zenith 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

Note: Zacatecas lithium target in Mexico no longer meets investment criteria & Zenith has agreed for the project to be surrendered



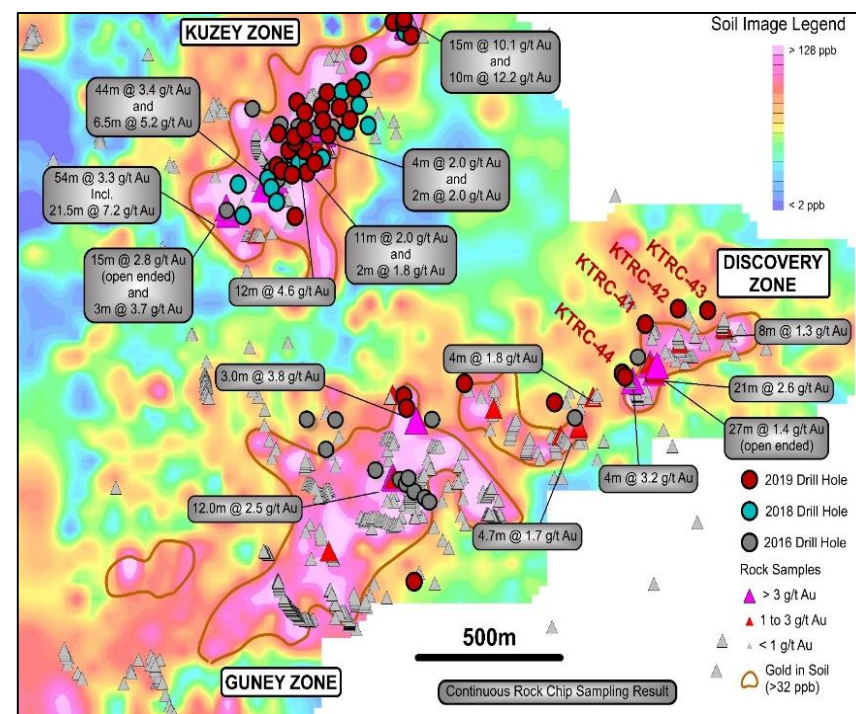
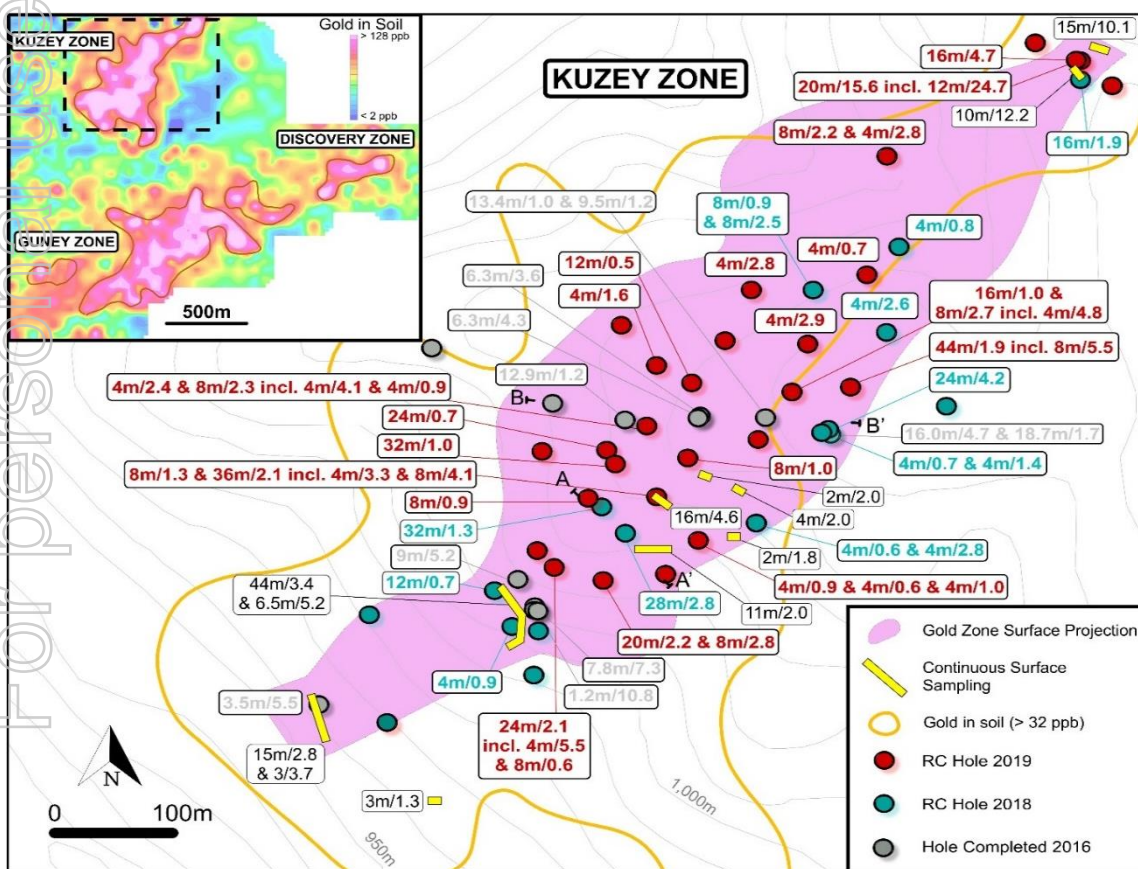
Kavaklitepe: Gold

Ownership: ~25%
Location: Turkey
Commodity: Gold
Stage: Drilling

Joint Venture with Turkish affiliate of Teck ~75% / 25%, ZNC can contribute at ~25% or option to dilute to a 5% NPI

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

2019 drill results include¹: **20m @ 15.6 g/t Au, 16m @ 4.7 g/t Au, 36m @ 2.1 g/t Au, 44m @ 1.9 g/t Au** (4m composite)

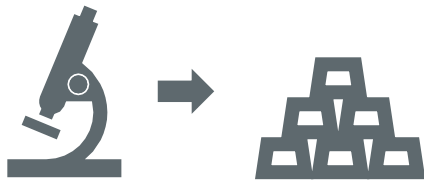


Zenith to dilute or divest/monetise?

Focus on Discovery

100% Owned ZNC Projects

Our Aim is Discovery



Split Rocks Lithium & Gold - WA

Red Mountain Gold – QLD

Laramie REE – Wyoming USA

**Develin Creek –
JORC Copper-Zinc Resource QLD**



Partnering? →

**Waratah Well –
Lithium – Fertile LCT Field**

Partners Spending \$\$ on ZNC Projects

Increased Spending
Increasing Chance of Success
Sharing Risk



\$1.5M received in cash & shares from deals on ZNC projects since Feb 17

**American Li – Bradda Head JV
Major drill campaign planned**

**Kavaklitepe Gold – Teck JV
Turkey**

**Earaheedy Zinc – Optioned to
ASX:RTR - Drilling 2019**

**Vivash Iron - Optioned to Rio Tinto
Expl Pty Ltd - Drilling 2019**

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

- ZNC initial wide spaced drill program returned up to 10m @ 2.20g/t Au (incl 6m @ 3.32 g/t Au) and 5m @ 3.23 g/t Au¹
- Previous results: **6.0m @ 16.91 g/t Au, 2.0m @ 32.73 g/t Au, 2.0m @ 16.53 g/t Au²**
- Major ground holding (650sq km) adjacent to WES / SQM Earl Grey Lithium Deposit
- Recent KDR takeover by WES (values Earl Grey project at ~\$A1.55 billion³)
- 80m thick pegmatite drilled with anomalous lithium, surface sampling to 0.39%Li₂O⁴

Red Mountain Gold – QLD (100% owned)

- Felsic volcanic breccia complex
- High-grade gold in soils to 2.2g/t Au⁵
- IP Geophysical survey defined coincident chargeability anomaly⁶
- Follow-up soil program completed - results expected Nov 19

Laramie REE – USA (100% owned)

- Initial phase of sampling returned widespread TREO (Total Rare Earth Oxide) grades up to 0.54% with strong values of high-value neodymium, praseodymium and dysprosium⁷.
- Assays pending for systematic traverse chip sampling & mapping to assess size potential, leading to drill testing.

Partners drilling ZNC projects in 2nd half 2019

- Vivash Iron - Rio Tinto Exploration Pty Ltd – drilling in progress
- Earaheedy Zinc (identified new Zn mineralisation⁸) – ASX:RTR Drilling late 2019
- Kavaklitepe Gold – High-grade gold near surface i.e. 20m @ 15.6 g/t Au⁹
- Bradda Head US\$5M spend before Feb 2021 on 5 USA lithium projects

¹ZNC ASX Release 28 Oct 19

² ZNC ASX Release 12 Sep 19

³ KDR ASX Release 11 Jul 19

⁴ZNC ASX Release 13 May 19

⁵ZNC ASX Release 24 Sep 19

⁶ZNC ASX Release 25 Oct 19

⁷ZNC ASX Release 17 Oct 19

⁸ RTR ASX Release 22 Aug 19

⁹ZNC ASX Release 1 Oct 19

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.