



ASX & MEDIA RELEASE

Zenith
Minerals
Limited

ABN 96 119 397 938

QUARTERLY ACTIVITY REPORT FOR THE PERIOD ENDING 30th SEPTEMBER 2018

HIGHLIGHTS

ASX CODE: ZNC

Exploration / Development

- Kavaklitepe Gold - Turkey
- American Lithium
 - Zacatecas – Mexico
 - San Domingo – USA
 - Burro Creek – USA
 - Wilson Salt Flat – USA
 - Spencer - USA
- Split Rocks Lithium, Gold & Cobalt – Aus
- Tate River Gold - Aus
- Develin Creek Copper-Zinc-Gold

Details as at 30th Sep 2018

Issued Shares (ZNC)	212.8 m
Unlisted options	2.5 m
Mkt. Cap. (\$0.0.8)	A\$18m
Cash as at 30 th Sep 2018	A\$1.9m
Debt	Nil

Directors

Michael Clifford	Managing Director
Mike Joyce	Non Exec Chairman
Stan Macdonald	Non Exec Director
Julian Goldsworthy	Non Exec Director
Graham Riley	Non Exec Director

Major Shareholders

HSBC Custody, Nom.	12.8%
Nada Granich	5.4%
Miquilini	4.3%
JP Morgan	4.1%
Abingdon	4.1%

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Split Rocks Lithium-Gold Project – Western Australia

Aircore drill programs re-commenced during the quarter at Split Rocks to test lithium and gold targets. The program will provide a first pass test of five of the lithium soil targets (Anomalies 1, 3, 4, 5 and 6) with around 100 drill holes and is anticipated to take approximately 2 to 3 weeks to complete.

Infill drilling has recently been completed to test the potential for one or more modest scale, laterite gold surface deposits of a similar style to that currently being mined and treated at the adjoining Dulcie Heap Leach gold operation. Assay results are awaited.

Kavaklitepe Gold Project - Turkey

A ~1,700 metre RC drill program has commenced with the aim of scoping out the size and grade of the gold mineralised system at the Kuzey Prospect, one of 3 gold mineralised zones within the Kavaklitepe Gold Project. Drilling is anticipated to take approximately 3 weeks to complete, with assays results likely to be available a few weeks later. Program to follow-up on 2016 drill results including: **16m @ 4.7 g/t, 9m @ 5.2g/t and 7.8m @ 7.3g/t gold.**

American Lithium JV

Burro Creek Lithium Clay Project – Arizona USA

Maiden Mineral Resource Estimate pending for the Burro Creek project.

Additionally, the partners have identified new lithium opportunities and are progressing to complete on, to add to the portfolio. Bradda Head Ltd intends to list its share of the American Lithium JV interests on London's Alternative Investment Market (AIM). In this regard Allenby Capital have been appointed as Bradda Head's Nominated Advisor.

Other Australian Projects

Surface sampling in the Tate River Gold Project returned encouraging first pass results, including: North East Prospect rocks up to 2.1g/t gold whilst wide spaced (400m x 100m) soil sampling returned high-order gold results up to 0.2g/t gold. In addition, rock samples taken at the Far North prospect returned up to 1.7g/t gold. The Company is seeking a joint venture partner to advance this large prospective land-holding.

2,300 surface samples taken last quarter from the Develin Creek copper-zinc project in Queensland were shipped to Perth and have undergone quarantine procedures to allow them to be released to the Company for analysis.

ZENITH'S EXPLORATION PROJECTS

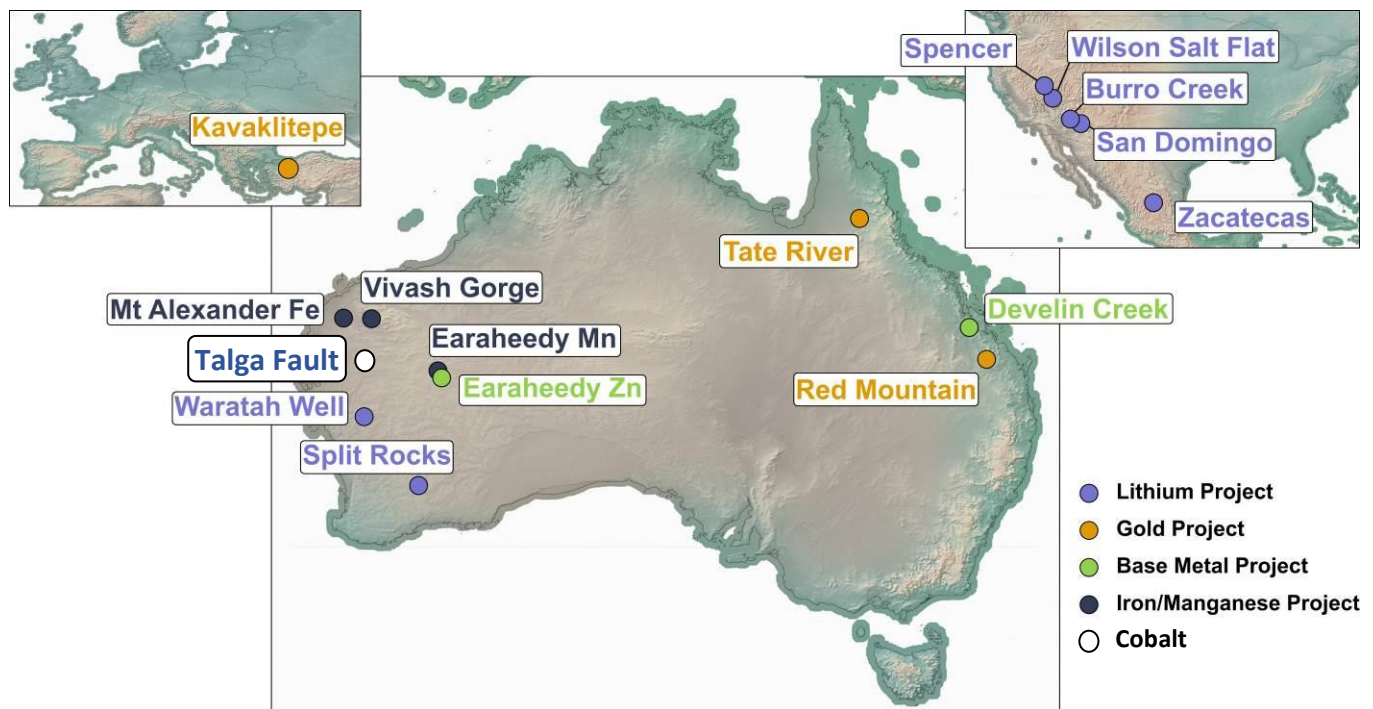


Figure 1: Zenith Project Locations

SPLIT ROCKS LITHIUM & GOLD PROJECT – WA (Zenith 100%)

- The 100% owned Split Rocks Project covers a large portion (total area >500sqkm) of the Forrestania Greenstone Belt of Western Australia. This emerging lithium district is host to the new Earl Grey lithium deposit containing 189Mt @ 1.5% Li₂O (KDR ASX Release 19th Mar 2018).
- RC drill testing of the Dulcie lithium pegmatite target was completed, confirming the presence of thick pegmatite bodies (up to 79m downhole widths) – results confirm the pegmatites contain broad anomalous levels of lithium throughout 79m @ 284ppm Li₂O with a peak value of 1m @ 1072ppm Li₂O. The pegmatite body remains open to the north and west.
- Significant gold mineralisation intersected at the Duclic Prospect including: 5m @ 2.51 g/t gold including 1m @ 8.79 g/t gold, 2m @ 6.54g/t gold (end of hole) as detailed in ZNC ASX Release 5th June 2018 – follow-up drilling yet to be completed.

Activities During the Quarter

Aircore drill programs re-commenced during the quarter at the Split Rocks project to test lithium and gold targets.

Split Rocks Lithium Targets

As detailed in Zenith's ASX releases on (21st Sept 2018, 17th April 2018, 14th September 2017, 4th December 2017, 6th July 2018 and 14th August 2018) first pass surface samples taken at Split Rocks, to date covering approximately 20% of the Company's tenements, have defined seven large, coherent lithium anomalies with variable levels of associated caesium, tantalum and rubidium surrounding granite bodies that may be potential source rocks for lithium bearing pegmatites (Figure 2). Three soil anomalies (Lithium Anomaly 1, 2 and 4) as detailed in Zenith's ASX Release 6th July 2018 returned results up to 134ppm lithium.

The tenor of these large-scale lithium anomalies is comparable with competitor surface results that upon drilling have returned significant bedrock lithium mineralisation in several instances. Field follow-up indicated very little to no outcrop in the areas of the lithium soil anomalies and that drill testing will be required.

RAB drilling of lithium soil anomalies in the western portion of the Split Rocks project testing Lithium Anomaly 4 during the quarter was abandoned due to heavy rainfall after only one line of drilling (6 holes). The planned drill program recommenced post the quarter and is currently in progress. The program will provide a first pass test of five of the lithium soil targets (Anomalies 1, 3, 4, 5 and 6) with around 100 drill holes anticipated to take approximately 2 to 3 weeks to complete.

Further surface sampling is required to better define Anomaly 7 whilst additional sampling at Anomaly 2 returned further anomalous results confirming the first round of results that again require additional follow-up sampling.

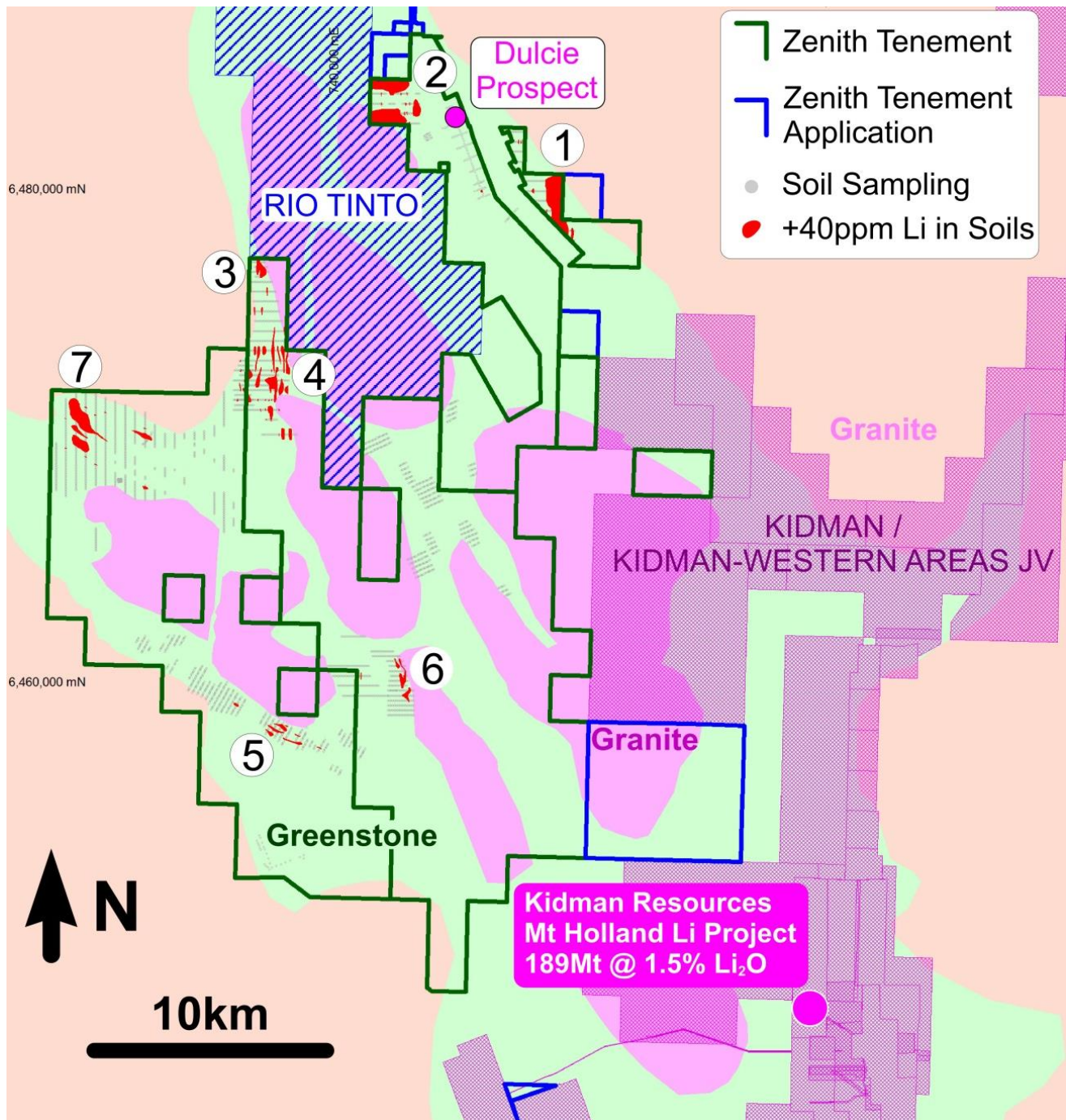


Figure 2: Split Rocks Project Lithium Drill Targets

Split Rocks – Dulcie Lithium Prospect

Zenith's Dulcie lithium prospect is a 950-metre-long zone of pegmatites, from which shallow aircore drill holes in Zenith's maiden program returned strongly anomalous lithium results up to 2m @ 0.12%Li₂O.

As previously announced, (ASX Release 14th August 2018) the lithium content of the Dulcie pegmatites in 4m composite samples is strongly anomalous in the northern most drill hole ZDRC006 (80m @ 353ppm Li₂O) (Figures 3 & 4). One metre resampling completed during the quarter confirmed the tenor of the 4m composite samples, ZDRC006 (79m @ 284ppm Li₂O), with a peak value of 1m @ 1072ppm Li₂O. The pegmatite body remains open to the north and east.

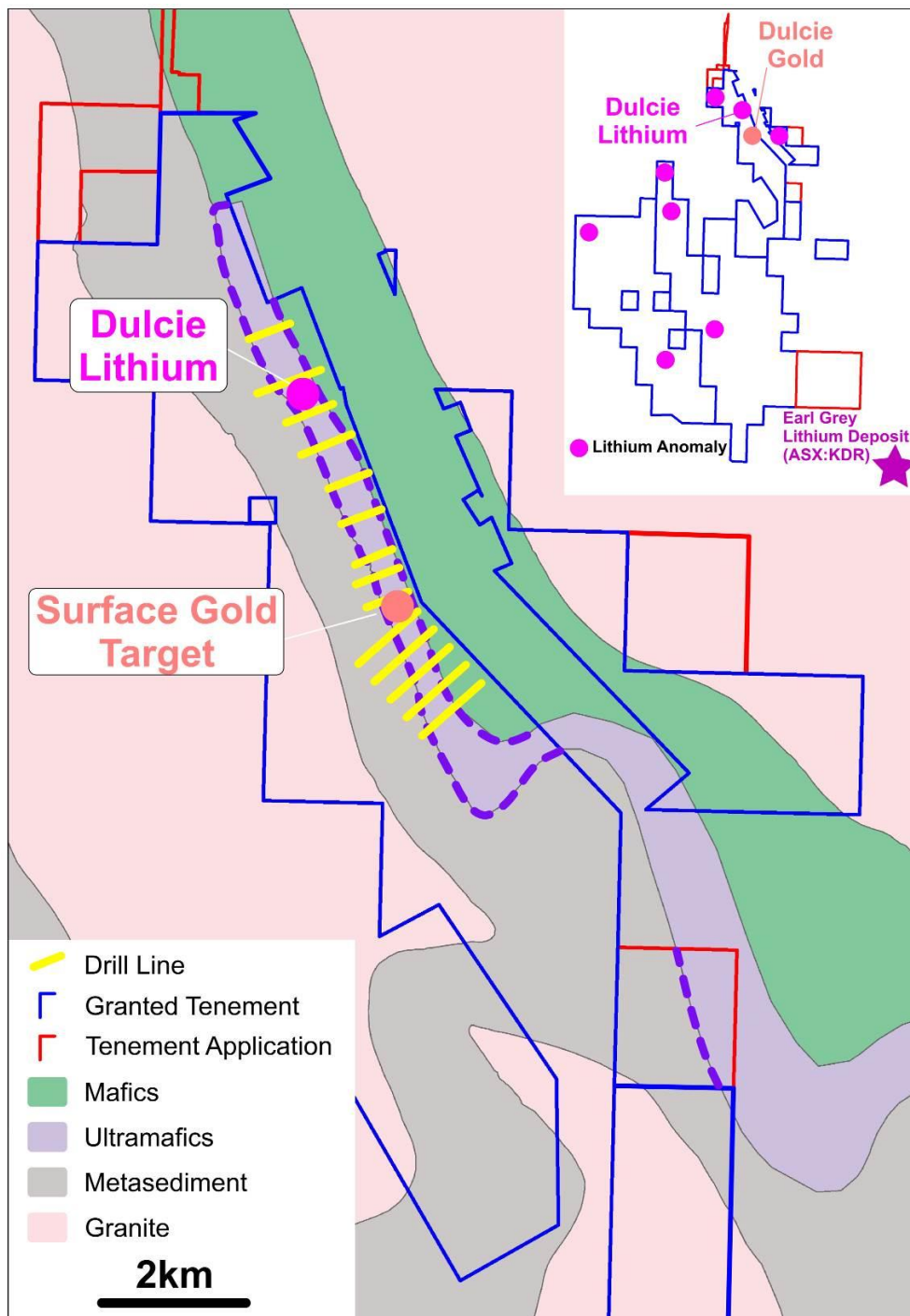


Figure 3: Split Rocks Project Dulcie Prospect Location Plan

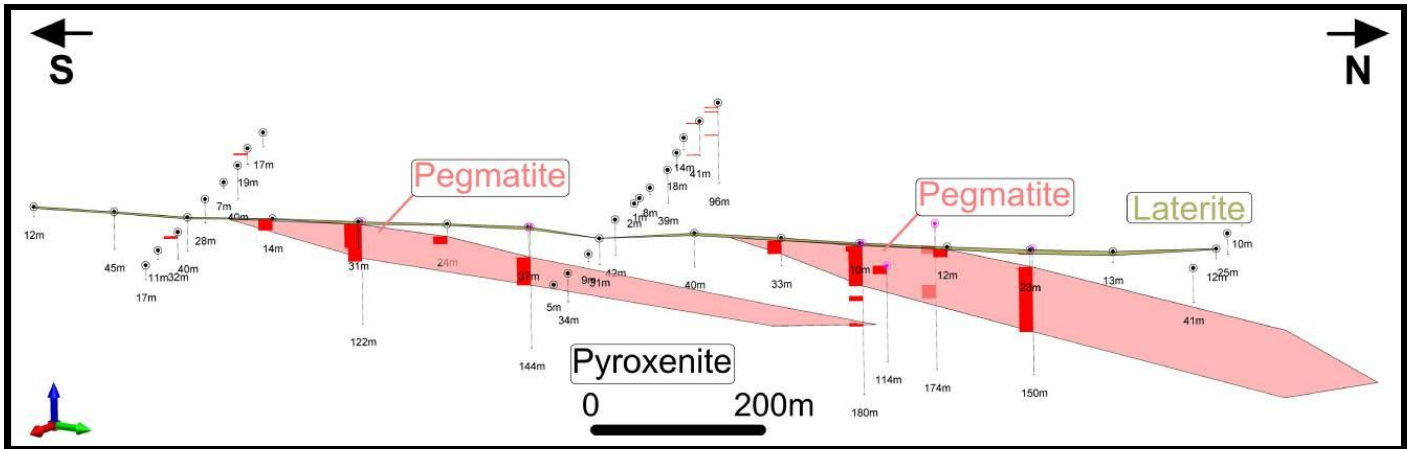


Figure 4: Dulcie Lithium Prospect – Long Section (looking west).

Split Rocks Gold Results

Significant gold mineralisation was intersected in several drill holes in the south of the Dulcie prospect area (ZNC ASX Release 12th Apr 2018). Zenith's maiden aircore drill program confirmed the presence of gold mineralisation first identified in historic exploration in 1998 returning intersections of **5m @ 2.51 g/t gold including 1m @ 8.79 g/t gold** as well as outlining new gold mineralisation on Zenith's southernmost drill lines up to **2m @ 6.54g/t gold (end of hole)** – as detailed in ZNC ASX Release 5th June 2018.

The planned program to use an RC drill rig to drill test beneath and down dip of the better gold intersections reported above (**such as 2m @ 6.54g/t gold (end of hole)**) was cancelled due to excessive rainfall. Follow-up testing is still to be completed.

In addition, gold within surficial laterite has been outlined with results including **4m @ 1.16 g/t gold from surface** (ASX Release 31st July 2018). Infill drilling has recently been completed to test the potential for one or more modest scale, laterite gold, surface deposits of a similar style to that currently being mined and treated at the adjoining Dulcie Heap Leach gold operation (Figure 5). Assay results are awaited.

Planned Programs at Split Rocks

The planned drill program to test the lithium targets recommenced post the end of the quarter and is currently in progress. The program will provide a first pass test of five of the lithium soil targets (Anomalies 1, 3, 4, 5 and 6) with around 100 drill holes anticipated to take approximately 2 to 3 weeks to complete.

Assay results are awaited for drilling of both the lithium pegmatite and laterite gold surface targets.

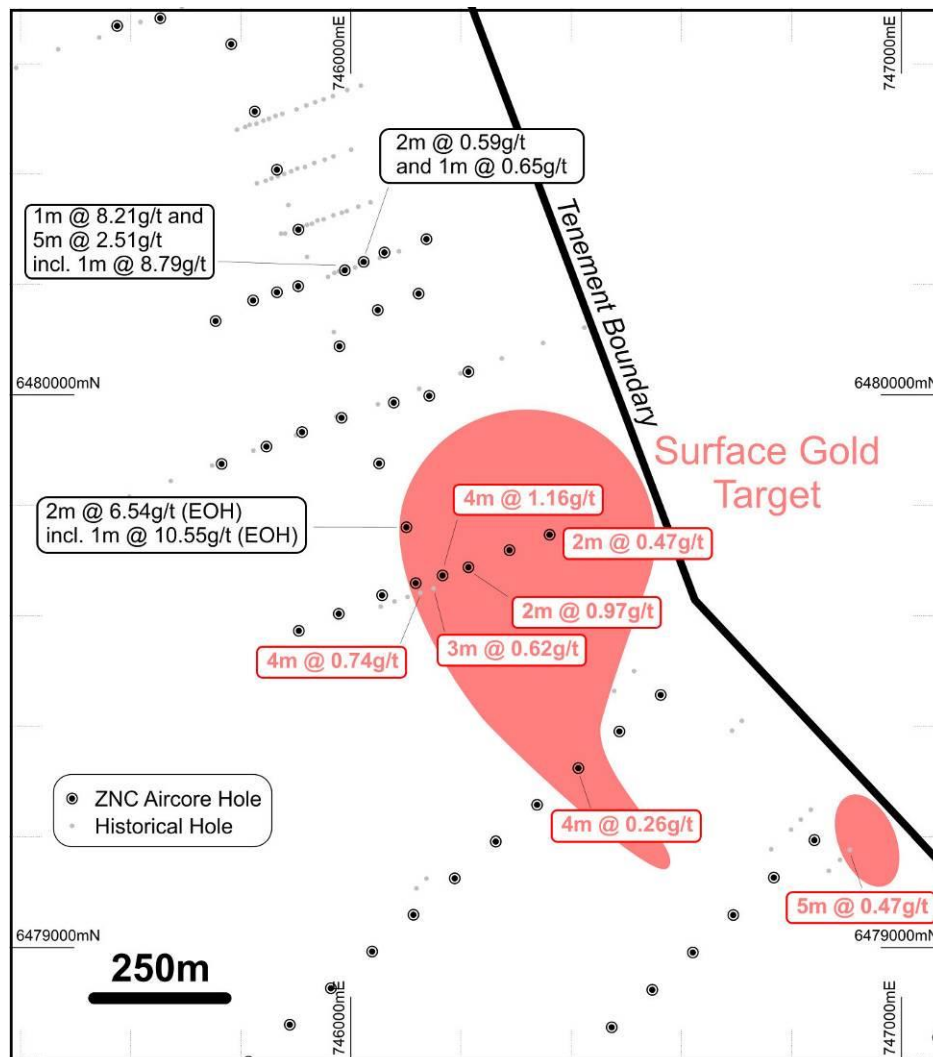


Figure 5: Split Rocks Dulcie Plan Showing Gold Significant Gold Results and Surface Gold Target Zone

AMERICAN LITHIUM JOINT VENTURE

The American Lithium Joint Venture includes a US\$5 million farm-in deal with a private company controlled by prominent UK investor Jim Mellon (Bradda Head Ltd) (ASX Release 7th March 2017) to jointly unlock the potential of Zenith's USA and Mexican lithium project portfolio.

Additionally, the partners have identified new lithium opportunities and are progressing to complete on, to add to the portfolio. Bradda Head Ltd intends to list its share of the American Lithium JV interests on London's Alternative Investment Market (AIM). In this regard Allenby Capital have been appointed as Bradda Head's Nominated Advisor.



BURRO CREEK LITHIUM CLAY PROJECT – ARIZONA, USA (Option to Earn 100%)

- Widespread, near surface lithium results were intersected in the maiden drill program at the Burro Creek project (ZNC – ASX Release 19/06/18) Nevada USA, including:
 - Hole BCRC18-01 - 22.9 metres @ 1088ppm lithium and 2.94% potassium from 4.68m depth, and 9.1 metres @ 1325ppm lithium and 3.04% potassium from 33.5 metres depth;
 - Hole BCRC18-04 – 19.8 metres @ 1180ppm lithium and 2.23% potassium from 21.3 metres depth;
 - Hole BCRC18-14 - 24.4 metres @ 1361ppm lithium and 3.23% potassium from 19.8m depth.
- Depending on the cut-off grade used the lithium mineralised portion of the clay averages 23 to 54 metres in thickness, whilst recent testwork indicates a bulk density of 1.6 to 1.8 g/cm³.
- Drilling to date has tested only 1/4 of the total project area that has recently been expanded by staking claims to the west;
- Mapping and sampling in the western claim area returned further widespread, high-grade lithium clays at surface with two new areas identified each equal in size to the zone of lithium mineralisation discovered in the current drill program;
- Maiden mineral resource estimate pending; and
- Further metallurgical testwork returned results consistent with earlier testwork.

Activities During the Quarter

Data compilation, interpretation and geological modelling as part of the maiden mineral resource estimate has been completed. The mineral resource consultant is yet to provide the JV with the completed estimate.

Exploration Target

Based on the drilling activity noted above, and surface sampling and mapping in the western claim area Zenith and Bradda Head have estimated an Exploration Target¹ for the Burro Creek project of 30-50 million tonnes at 1000 to 1100ppm lithium Li and 2% to 3% potassium (refer to Zenith ASX Release 19th June 2018). The upcoming maiden resource estimate will report on the eastern claim area only, representing approximately 1/3 of the Exploration Target¹. It is expected that the western claim area targets will be the subject of a future drill campaign.

Exploration Target ¹	Tonnes	Lithium Grade	Potassium Grade
Burro Creek Project	30 – 50 million	1000 to 1100ppm	2 to 3%

¹The potential quantities and grades are conceptual in nature and there has been insufficient exploration to date to define a Mineral Resource. It is not certain that further exploration will result in the determination of a Mineral Resource under the “Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves, the JORC Code” (JORC 2012). The Exploration Target is not being reported as part of any Mineral Resource or Ore Reserve.

Planned Activities

Maiden mineral resource estimate pending.

ZACATECAS LITHIUM BRINE PROJECT – MEXICO

- Tenure (26,000 acres) over system of salt lakes within emerging lithium brine district in central Mexico;
- Lithium brines to 2.1% lithium reported in regional sampling program conducted by the Mexican Federal Government from solar evaporation ponds for salt production on adjacent salt lake (10km west of Zenith's new tenure).
- Government results confirm lithium enriched source brines are present in the district, as well as demonstrating that concentration of lithium by solar evaporation methods is possible: Four water samples returned 1.2%, 1.4%, 1.4% and 2.1% lithium, these very high-grade lithium brines are like post-concentration brine feedstock to lithium brine production facilities;
- Systematic surface geochemical sampling by Zenith on salt pans returned highly anomalous lithium in surface sediments up to 1046ppm Li - comparable to and higher than those from competitor lithium brine projects in Mexico and the USA;
- Initial 11-hole shallow auger drilling program with strong lithium in salt lake sediments up to 0.09% Li;
- Near surface water samples are not strongly saline, perhaps due to rainwater dilution. However, lithium and total salinity in brine samples increase with depth in all holes pointing to deeper target;
- Ground based magnetotelluric (MT) geophysical surveys indicate conductive layer beneath the Illescas salt lake; 200 – 400m thick, 2.5km in length sited below strongly anomalous surface sample results, representing a compelling lithium brine drill target;
- Conductive layer defined at the San Vicente-San Juan salt lake concession, target zone is 100m to 200m in thickness, at a depth of 50 to 300m depth below surface; and
- Permitting for drill testing at San Vicente target completed.

Activities During the Quarter

Drilling permit received for the San Vicente drill target (Figure 6).

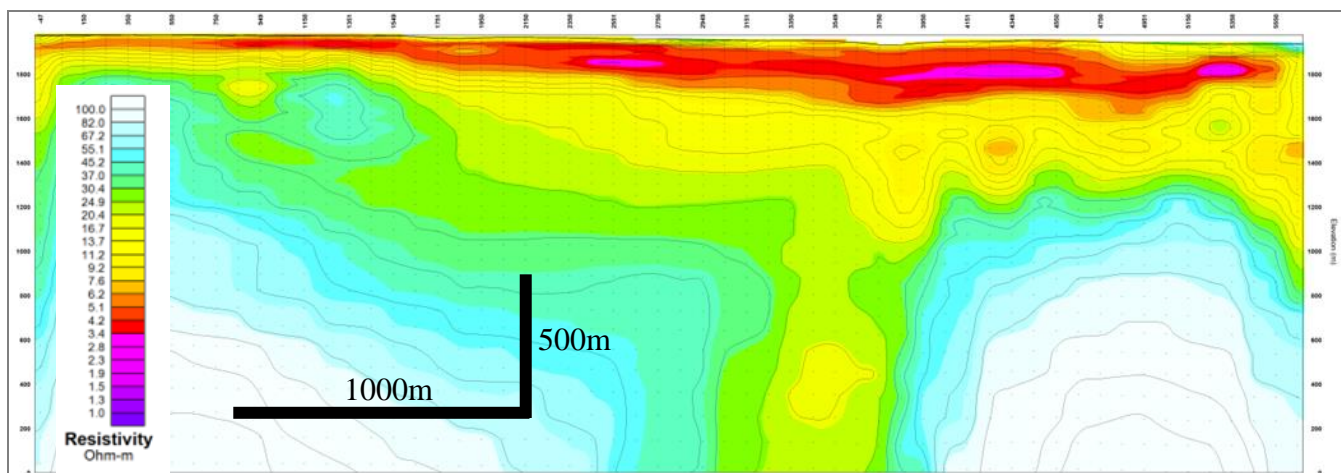


Figure 6: San Vicente-San Juan Salt Lake Cross Section with Magnetotellurics Profile
Showing Strong Conductive Anomaly (purple-red zone) the Lithium Brine Target Zone (NB: Conductor considered open to northeast onto adjoining San Juan Concession – apparent termination due to end of line effect)

Planned Programs at Zacatecas

Drill testing to proceed on Bradda Head re-listing on AIM.

WILSON SALT FLAT LITHIUM BRINE PROJECT – NEVADA USA

- Sampling by Zenith returned up to 192ppm lithium from salt lake surface;
- The high-grade lithium surface sample results are coincident with gravity low anomalies reflecting basin sedimentary sequences that potentially host lithium brines.
- Both aeromagnetic and gravity modelling indicate complex basement geology indicative of major faults capable of channelling and focusing lithium enriched geothermal fluids; and
- Ground based magnetotelluric (MT) geophysical surveys indicates conductive layer in upper 200 – 300m below surface, representing a lithium brine drill target.

Activities During the Quarter

Nil this quarter.

Planned Activities

An initial 2-hole drilling program has been permitted to test structural and stratigraphic targets identified by geophysical surveys. Given success with these preliminary exploratory drill holes in finding brine aquifers and lithium, additional holes would be placed to expand on the information relating to basin hydrogeology, leading to resource estimation. Drilling planned to commence following Bradda Head re-listing on AIM.

SAN DOMINGO LITHIUM PEGMATITE PROJECT – ARIZONA USA

- Abundant lithium bearing pegmatite dykes within Zenith's claims over an area 9km by 1.5km;
- Initial continuous rock chip sampling returned very encouraging results up to 5m @ 1.97% Li₂O including 2.4m @ 2.49% Li₂O within 14.1m zone @ 1.02%Li₂O from spodumene rich pegmatites;
- In the SW of the project area select grab samples returned high-grade lithium from pegmatite dykes of 5.8% and 8.0% Li₂O. Systematic composite rock chip sampling of more strongly weathered spodumene rich pegmatite returned: 2.9m @ 0.86% Li₂O, 2.8m @ 0.69% Li₂O, 3m @ 0.71% Li₂O, and 3m @ 0.56% Li₂O, the latter two samples are part of a near true width zone of 12.7m @ 0.45% Li₂O; and
- Lithium as spodumene and amblygonite concentrates along with tantalum was produced from pegmatites within the district during the period 1947 – 1952.

Activities During the Quarter

Nil this quarter.

Planned Programs

Initial drill testing of the western San Domingo claim lithium pegmatite targets followed by drilling of the central and eastern pegmatite targets is planned.

SPENCER LITHIUM BRINE PROJECT – NEVADA USA

- Initial reconnaissance sampling by Zenith returned up to 550ppm lithium in surface sediments - comparable to and higher than those from competitor lithium brine projects in the USA;
- The high-grade lithium surface sample results are coincident with gravity low anomalies reflecting basin sedimentary sequences that potentially host lithium brines.
- Local geothermal springs indicate active circulating hot waters capable of leaching lithium whilst both aeromagnetic and gravity modelling indicate complex basement geology indicative of major faults capable of channelling and focusing lithium enriched geothermal fluids; and
- Infill surface sampling and ground based geophysical surveys are planned prior to drill testing.

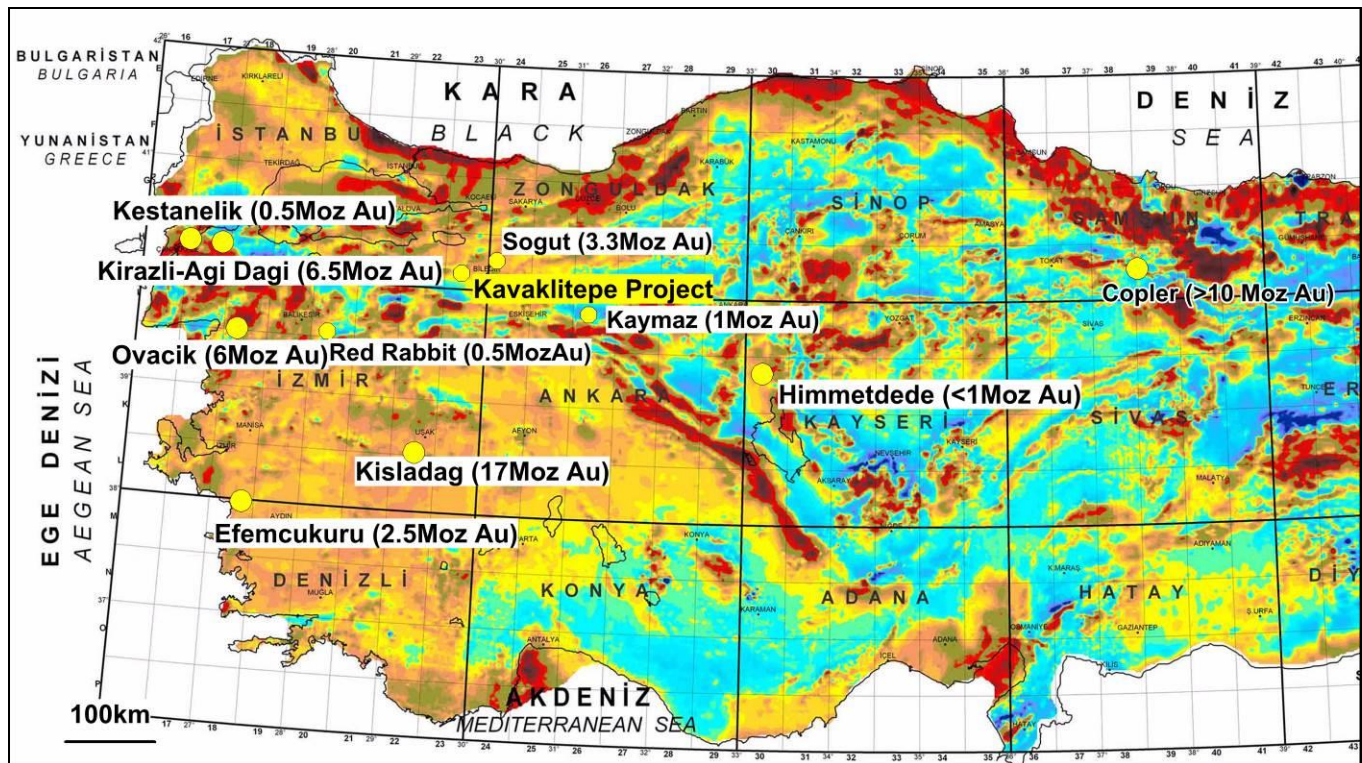
Activities During the Quarter

Nil this quarter

Planned Activities

Infill surface sampling and electrical geophysical surveys followed by drilling are the next steps in exploration of the Spencer project.

KAVAKLITEPE GOLD JOINT VENTURE



Kavaklitepe Project Location and Regional Gold Endowment (Image is Total Magnetic Intensity)

KAVAKLITEPE GOLD PROJECT – TURKEY (Zenith 30%)

- Two coherent plus 800-metre-long, high order gold in soil anomalies (+50 ppb), with peak soil sample values over 1 g/t gold;
- Continuous rock chip of 54.0m grading 3.33 g/t gold, including 21.5m grading 7.2 g/t gold within the northwest soil anomaly (Kuzey Zone);
- Continuous rock chip of 21m grading 2.67 g/t gold at the Discovery Zone, and 12m @ 2.5 g/t gold at the Guney Zone;
- Strong chargeable IP geophysical anomaly identified directly beneath high-grade surface rock chip samples (7.68, 22.7 g/t gold) and gold in soil (up to 6.05 g/t gold) at the Kuzey Zone;
- 2016 drill results include: 16m @ 4.7 g/t, 9m @ 5.2g/t and 7.8m @ 7.3g/t gold.

Activities During the Quarter

A ~1,700 metre RC drill program has commenced post quarter end (ASX Release 30th Oct 2018) with the aim of scoping out the size and grade of the gold mineralised system at the Kuzey Prospect, one of 3 gold mineralised zones within the Kavaklitepe Gold Project. Drilling is anticipated to take approximately 3 weeks to complete, with assays results likely to be available a few weeks later.

Background

During 2016 the maiden short-hole diamond drilling program (25 holes/2558.5m) using a mobile rig was completed at the Kavaklitepe gold project in western Turkey. Zenith considers the 2016 program to have been successful with sulphide-related gold mineralisation being discovered at both the Discovery Zone and Kuzey Zone, and with near surface high-grade oxide and transition gold mineralisation also intersected at Kuzey.

Kuzey Zone

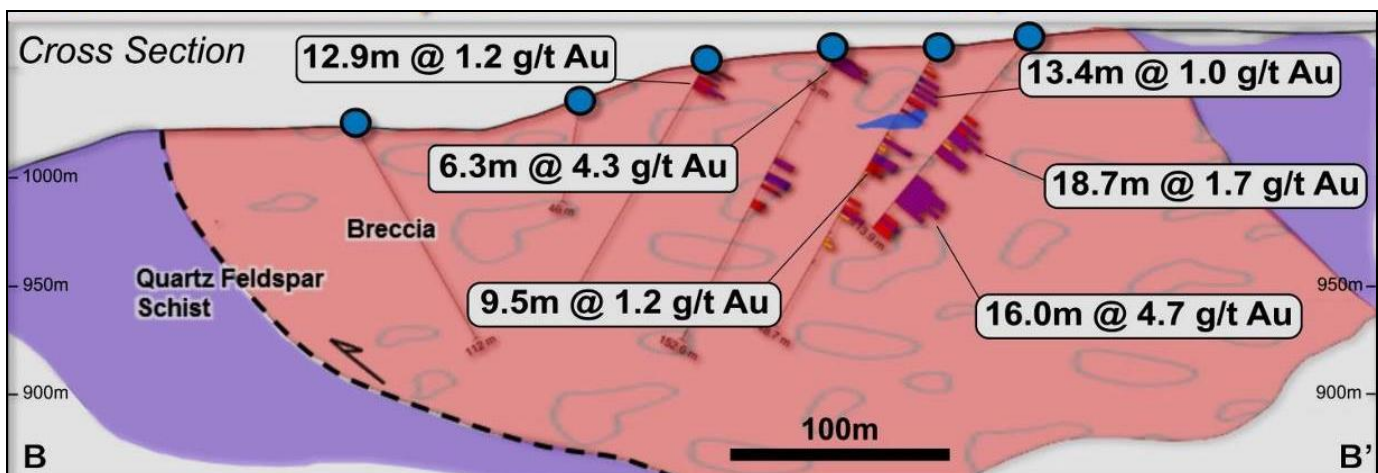
Drilling completed in 2016 (11 holes (KT-01 to KT-11, including KT-06A) provided an initial wide spaced test of only 360m of the 900m by 250m wide Kuzey Zone gold-in-soil anomaly target (Figures 7 & 8).

Near surface oxide and transition gold mineralisation is interpreted to occur as a flat lying zone extending over the full 360m length that has been drill tested to date. Better intersections that are considered close to true width of high-grade, near surface, gold mineralisation (previously reported) include: KT-01; **3.5m @ 5.5 g/t Au** from surface, KT-02; **9.0m @ 5.2 g/t Au** from surface, KT-03; **7.8m @ 7.3 g/t Au** from 3.3m depth, KT-05; **1.2m @ 10.8 g/t Au** from 14.7m (as part of a 16.9m mineralised zone with lower core recovery), KT-06; **6.3m @ 4.3 g/t Au** from surface, KT-06A ; **6.3m @ 3.6 g/t Au** from surface and KT-07 ; **12.9m @ 1.2 g/t Au** from surface.

Deeper drill results previously reported (5th October 2016) from the Kuzey Zone include: hole KT-09; an overall 67.7m gold mineralised zone from 46.2 to end of hole at 113.9m (true width unknown) including several zones of higher grade: **18.7m @ 1.7 g/t Au** from 50.2m, **16.0m @ 4.7 g/t Au** from 82.1m, (including **8.0 m @ 7.1 g/t Au**) and **8.8m @ 1.0 g/t Au** with the drill hole ending in mineralisation at 113.9m and hole KT-08; an overall 76.0m gold mineralised zone from 12.5m to 88.5m including: **13.4m @ 1.0 g/t Au** from 16.1m, **1.5m @ 1.3 g/t Au** from 33.0m, **2.0m @ 3.0 g/t Au** from 48.8m, and **9.5m @ 1.2 g/t Au** from 56.8m.

The, high-grade, wide, gold intersections in hole KT-09 are particularly significant, as they represent the best sulphide gold mineralisation intersected to date at Kavaklitepe. Sulphide gold intersections are down-hole widths as the orientation of that style of mineralisation is currently unknown. Gold mineralisation at the Kuzey Zone remains open to the north and east and is open along strike to the south (Figure 8) where drill holes KT-02, KT03 and KT05 only test a portion of the target zone (80m of width).

Reporting cut-off criteria and associated JORC tables are included in ASX release dated 22nd December 2016.



**Figure 7: Kavaklitepe Kuzey Zone Cross Section (B-B') -
Refer to Figure 8 for Location of this Cross Section**

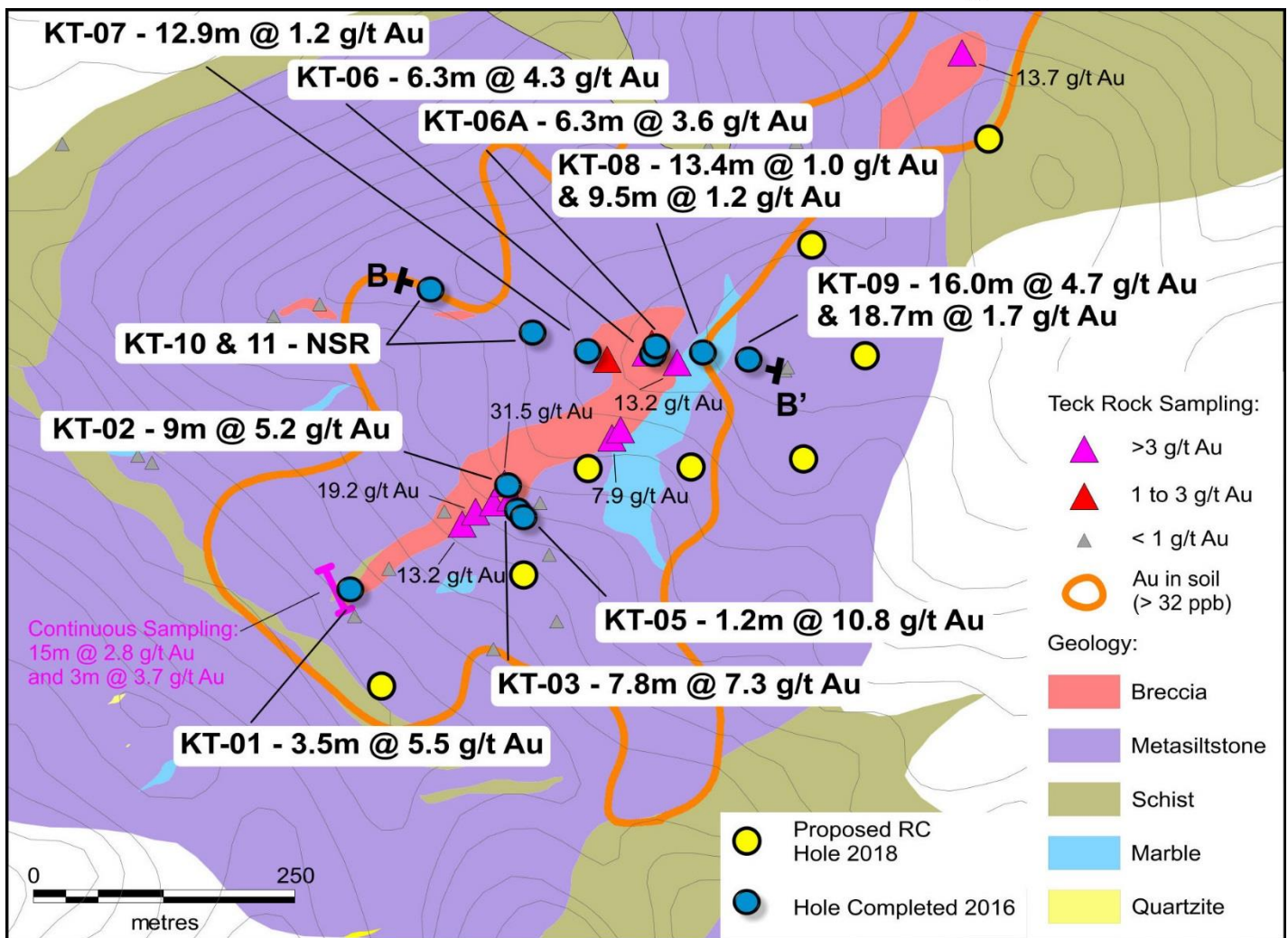


Figure 8: Kavaklitepe Kuzey Zone Drill Hole Locations, Gold Intersections, Location of Cross Section (B-B') and Proposed Drill Holes

Discovery and Guney Zones

2016 drilling at the Discovery Zone (2 holes (KT-18A and KT-23) intersected gold mineralisation over a 23.5m interval from 22.5m to 46.0m depth with results including: **9.4m @ 1.5 g/t Au** and **3.5m @ 2.1 g/t Au** (true width intervals). The near surface gold mineralisation dips to the northwest and is 60m down dip of previously reported continuous roadside surface sample results that include: 21.0m @ 2.7 g/t Au and 27.0m @ 1.4 g/t Au (Figure 9). The roadside sampling was conducted as an initial test of the 400m long gold-in-soil anomaly at the Discovery Zone.

The new **Discovery Zone** gold mineralisation remains open to the northeast and southwest and is open down dip. A second drill hole 275m southwest along strike where surface rock chip samples returned up to 2.4g/t Au, intersecting 1.3m @ 1.3 g/t Au within a 17.9m wide altered zone from 17.5m to 35.4m with associated anomalous silver, arsenic and antimony.

Drilling at the **Guney Zone** (11 holes (KT-12 to KT-17 & KT-19 to KT-22 & KT-24 to KT-25) has been technically difficult, intersecting a thick, flat-lying, massive sequence of calc-silicate rocks which contained multiple underground cavities up to 4 metres deep that caused several holes to fail at shallow depths and provided locally only very poor diamond drill core sample recoveries. Hole KT-12 returned 1.2m @ 1.4g/t Au from 12.5m and 1.3m @ 0.6g/t Au from 17.2m before being abandoned in a cavity and drill hole KT-21 drilled on the northern part of the prospect intersected a wide zone (30.7 m) of silicified and altered breccia crosscutting a meta-siltstone rock sequence from 54.9m to 85.6m with associated higher concentrations of trace elements arsenic, antimony and silver more similar to those returning significant gold intersections at the Kuzey and Discovery zones.

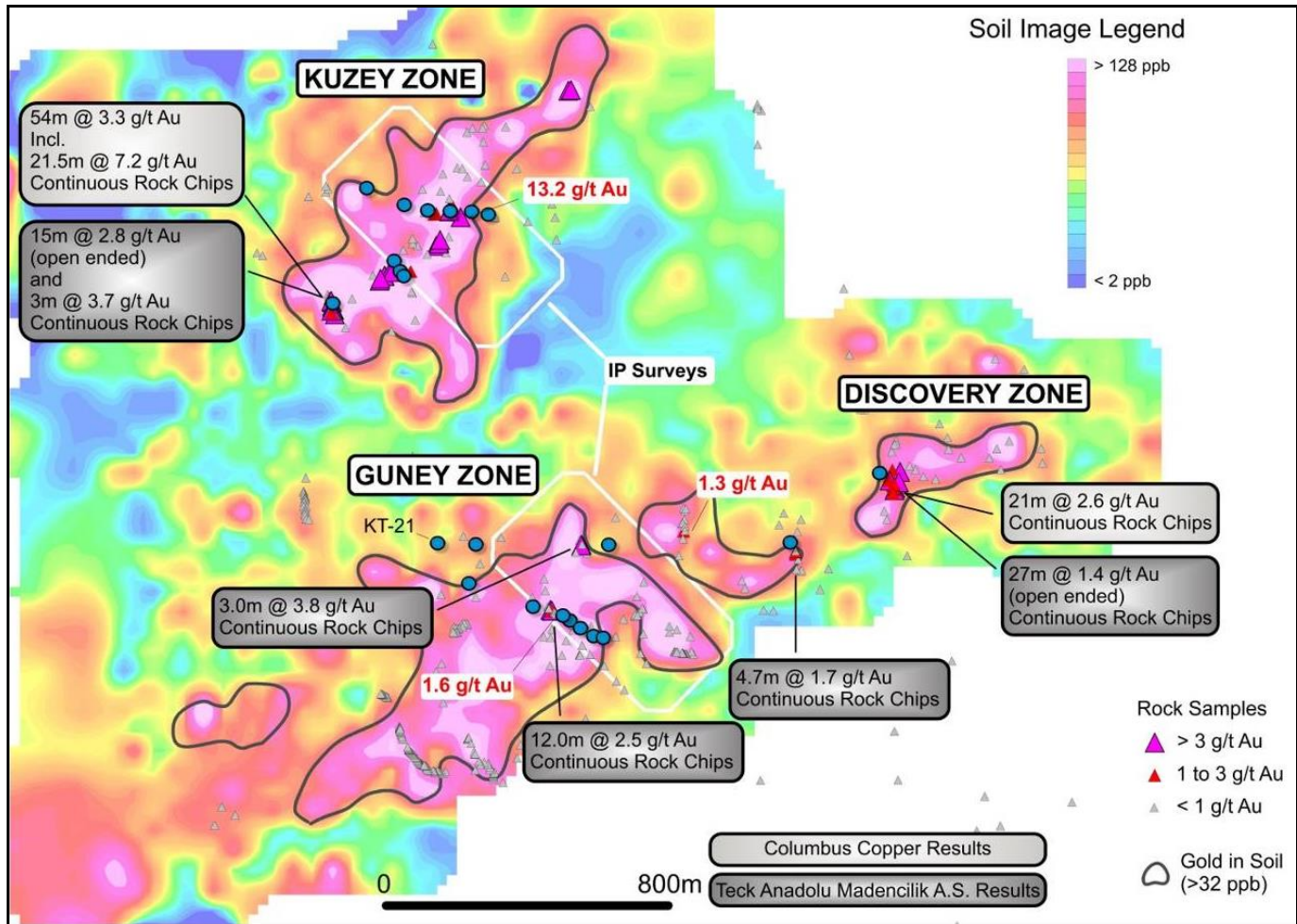
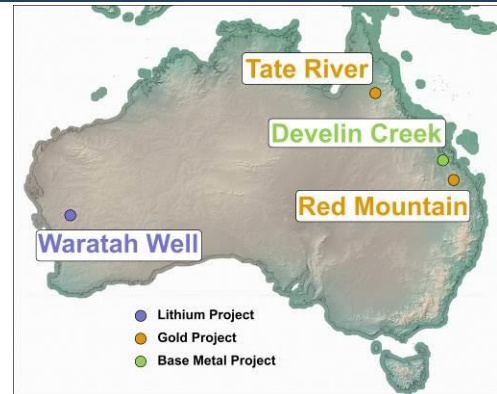


Figure 9: Plan Showing Kavaklitepe Project Gold Geochemistry

OTHER AUSTRALIAN EXPLORATION PROJECTS

The Company is continuing to explore projects that possess strong technical merit. The Company's focus is advancing its project portfolio of high-quality lithium, gold and base metals projects.



DEVELIN CREEK COPPER-ZINC-GOLD-SILVER PROJECT – QUEENSLAND (Zenith 100%)

- Inferred Mineral Resource (JORC 2012) of: 2.57Mt @ 1.76% copper, 2.01% zinc, 0.24g/t gold and 9.6g/t silver (2.62% CuEq) released to ASX on the 15th February 2015.
- Upside to resource grades with Zenith RC hole twinning previous 1993 percussion hole returning significantly higher copper, zinc, gold and silver grades (300% to 700% higher);
- Initial metallurgical testwork results show positive first stage “rougher” recoveries of 90%;
- Highly prospective host rock extends for up to 50km north - south in Develin Creek tenure;
- Wilsons Copper Prospect up to 2.7% copper and 0.4% zinc in surface gossans;
- Systematic soil geochemical program continued with 2300 samples collected during the quarter;
- Drilling planned to test new targets and twin historical potentially ineffective drill holes.

Activities During the Quarter

2,300 surface samples taken last quarter were shipped to Perth and have undergone quarantine procedures to allow them to be released to the Company.

Planned Activities

Geochemical analyses (pXRF) are to be completed for 2,300 surface samples.

TATE RIVER GOLD PROJECT – QLD (Zenith Earning up to 70%)

- Widespread bedrock gold mineralisation confirmed by Zenith excavator trenching program at the Guppy Strike prospect: with results including: 5m @ 3.92g/t Au, 3m @ 1.72 g/t Au, 3m @ 1.09 g/t Au and 2m @ 0.82g/t Au. Wide zones of strongly anomalous gold i.e. Trench GT12 (entire length average 166m @ 0.14g/t Au) indicate large scale gold mineralised system.
- Setting and geochemical association is indicative of an intrusion related gold system. Nearby deposits of this type include Mungana / Red Dome gold mine that had gold endowment of 2.7Moz Au.
- The Company commenced assessing the large gold prospective land-holding as part of the wider Tate River project area.

Activities During the Quarter

Both initial and infill soil sample assay results were received during the quarter. The assay results defined new gold targets at the Far North & North East Prospects (ASX Release 2nd September 2018).

Systematic soil sampling and rock samples (taken by the soil sampling crew) in this initial assessment of the north east of the Tate River project area have confirmed the presence of gold bearing quartz veins and vein breccia.

At the North East prospect rock sample results returned up to 2.1g/t gold with associated high arsenic and antimony in colloform banded quartz veins and quartz breccia hosted by rhyolite, and schist whilst wide spaced (400m x 100m) soil sampling returned high-order gold results up to 0.2g/t gold. In addition, rock samples taken at the Far North prospect returned up to 1.7g/t gold also with strong arsenic & antimony hosted in quartz veins, whilst a single rock sample of a quartz vein in an area of soil cover 1.3km west of the Guppy Strike Prospect returned 1.17g/t gold in association with strong bismuth & tellurium (Figure 10).

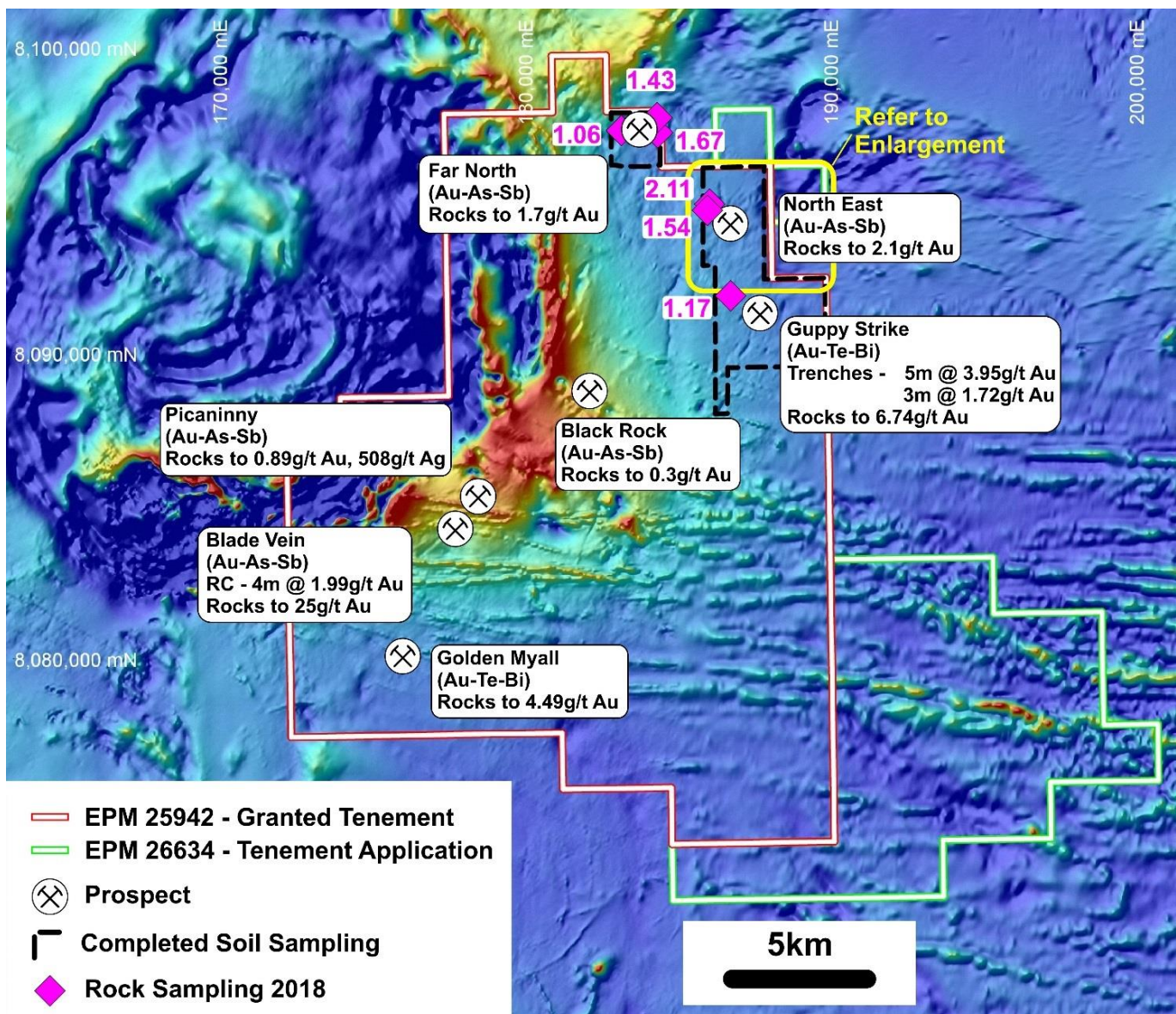


Figure 10: Tate River Prospect Locations and North East & Far North Targets

Planned Activities

The Company is seeking a joint venture partner to advance this large prospective land-holding.

RED MOUNTAIN GOLD-SILVER PROJECT – QLD (Zenith 100%)

- Initial reconnaissance field work by Zenith returned highly encouraging silver and gold rock chip sample results up to 114 g/t silver and 0.69 g/t gold;
- 1km long, high-order (>100 ppb) silver soil geochemical anomaly confirmed with results up to 1 g/t silver. Open ended silver soil anomaly provides target scale and immediate follow-up opportunity;
- Mineralisation hosted in felsic volcanic sequence that has not been previously recognized in this area and does not appear on regional government geological maps.

Activities During the Quarter

Nil this quarter.

Planned Activities

Follow-up mapping and sampling to define the extents of the gold-silver mineralisation is planned along with trenching to test the true thickness of the poorly exposed gold-silver zones and to track mineralisation where it extends beneath shallow soil cover to the southwest is planned.

WARATAH WELL LITHIUM-TANTALUM PROJECT – WA (Zenith 100%)

- Waratah Well Project covers area of extensive outcropping pegmatites (3km x 2km) in area where no reported previous exploration for lithium;
- Widespread, high-grade tantalum up to 1166ppm Ta₂O₅ (ZNC ASX release - 27/04/18);
- Initial tantalum deportment study confirms the potential for a marketable tantalum product;
- Conceptual lithium target beneath tantalum bearing pegmatites.

Activities During the Quarter

Further surface sampling was completed during the quarter that confirmed the widespread nature of the high-grade tantalum mineralisation.

Planned Activities

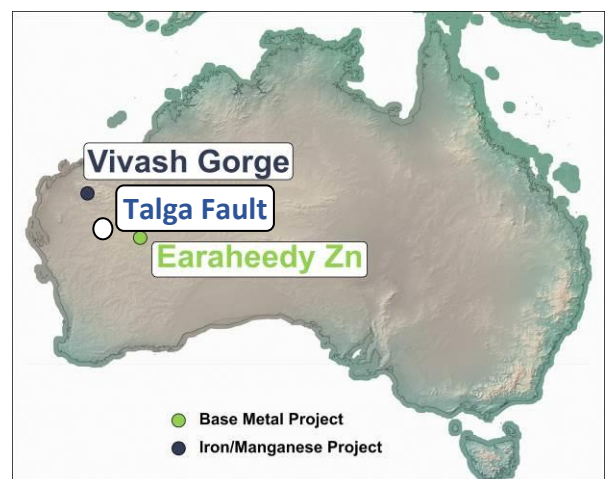
The Company is seeking a partner to progress the evaluation and potential development of this high-grade tantalum opportunity.

JOINT VENTURES & OPTIONS ON ZENITH PROPERTIES

The company has continued to implement its strategy of being an exploration project generator. Projects are either advanced by the Company's experienced team applying innovative exploration techniques or by partners who have the technical and financial capability depending on how the Board believes shareholders' best interests are served.

The company has three projects optioned to partners:

- Earacheedy Zinc;
- Vivash Iron; and
- Talga Fault Cobalt



EARAHEEDY ZINC PROJECT – WA (Zenith 100%, ASX: RTR option to acquire 75%)

- **Wide spaced drilling defined stratiform zinc and lead mineralisation over 20km of strike within carbonate sediments of the Earaheedy Basin in Western Australia.**
- **Historical drilling intercepted high-grade zinc up to 18.6% within an intersection 3.3m @ 11.2% Zn, and 0.93% Pb from 150m. Other drill-holes include 2m @ 8.23% Zn and 2.77% Pb from 103m.**
- **Coarse grain sphalerite (Zn) and galena (Pb) with pyrite and marcasite occurs as breccias, veins and replacement zones within carbonates.**
- **Mineralisation style like Mississippi Valley Type (MVT) large, high-grade base metal deposits that include the Devonian Lennard Shelf deposits of the Kimberley Region of Western Australia.**
- **Gravity survey outlined several non-magnetic and non-topographic related gravity anomalies and trends that lies close to both northwest (basement faults) and northeast (cross faults) that provide potential new target zones structures;**
- **Drill testing planned by RTR.**

Activities During the Quarter

Rumble Resources completed infill ground gravity survey and partial leach geochemistry program over areas where previous explorers have defined significant Zn mineralisation including: 7.3m @ 6.12% Zn, 0.77% Pb (inc. 3.3m @ 11.2% Zn, 0.93% Pb).

Planned Activities

Gravity modelling is scheduled to aid Rumble in final drill target delineation prior to upcoming RC/diamond drilling program, which has \$100,000 WA Government - EIS funding available towards drilling costs.

Rumble Resources Limited Transaction

An option agreement was executed with Rumble Resources Limited (RTR) over the Earaheedy Zinc project, as announced to the ASX by RTR on the 12th October 2017. Zenith received RTR shares worth \$50,000 as an initial option payment. RTR may purchase a 75% interest in the Earaheedy Zinc project for \$550k in shares within 2 years, subject to a 2-year extension (for a further payment of \$200k cash/shares at ZNC's election). Upon exercise of option to purchase the Earaheedy Zinc project by RTR, ZNC is then free carried at 25% to the end of a BFS.

VIVASH GORGE IRON PROJECT – WA (ZENITH 100%, OPTION TO RTX)

- **The Vivash Gorge project covers areas of prospective Brockman and Marra Mamba iron formations along strike of Rio Tinto Iron Ore's Brockman 4 operating iron ore mine in the Pilbara region of Western Australia.**
- **RTX preparing for heritage clearances in late 2018 and drilling in 2019.**

Activities During the Quarter

Rio Tinto Exploration Pty Ltd (RTX) progressed land access arrangements and planning of heritage clearances and site access to facilitate drilling.

Planned Activities

Preparation of drill program as part of RTX's broader 2019 Pilbara drilling programs.

Background on Vivash Gorge Iron Project

The Vivash Gorge Iron Project (exploration licence E47/3071) is situated approximately 80km west of Tom Price in the Pilbara region of Western Australia. The project covers approximately 8km of strike of prospective Brockman and Marra Mamba iron formations along trend of Rio Tinto Iron Ore's Brockman 4 operating iron ore mine.

Option Terms

- RTX paid Zenith an initial option fee of \$50k for a 1-year option period (post land access, including heritage clearances) to exclusively explore the Vivash Gorge iron project;
- RTX able to extend the option period by a further 2 years by paying Zenith \$50k/annum;
- RTX able to exercise option to acquire 100% of the Vivash Gorge iron project before the end of the option period by paying Zenith a once off cash payment of \$500k;
- RTX to pay a success fee to Zenith of a further \$1.0m when RTX expends more than \$7.5m on the Vivash Gorge iron project, excluding tenement rents, rates & native title related costs;
- Should RTX on-sell the Vivash Gorge project to a third party within 5 years of acquiring it, an on-sale payment of 10% of the consideration would be payable to Zenith; and
- Other terms and conditions that are of an industry standard nature.

TALGA FAULT COBALT PROJECT – WA (ZENITH 100%, OPTION TO ION/ASX:GPP)

- The Talga Fault project covers areas prospective for cobalt mineralisation.
- Evaluation to commence once land access obtained.

Activities During the Quarter

Post quarter -a binding term sheet was executed with Ion Minerals Pty Ltd (Ion) whereby Ion has the right to explore, and an option to acquire an initial 70% of, Zenith's Talga Fault Cobalt Project. Ion Minerals Pty Ltd was recently acquired by Greenpower Energy Limited (ASX:GPP 12th Oct 2018). Transaction is subject to conditions precedent including approval by GPP.

Background on Vivash Gorge Iron Project

The Ashburton cobalt project area is focused on the northern limit of the Bangemall Basin, around the Talga Fault where the basin abuts the Ashburton Basin. Historic exploration activities using a target model for sedex style base metal deposits in 2008 – 2009 reported anomalous cobalt values associated with manganese rich shale sequences adjacent to the Talga Fault zone. Zenith has submitted exploration licence applications that are considered highly prospective for cobalt, with historically reported surface samples up to 0.8%Co (GPP:ASX Release 30th Oct 2018).

Option Terms

- \$60k cash up-front, non-refundable for a 1-year option to purchase 70%;
- Can extend for further 1 year for an additional \$30k cash & \$30k scrip;
- Can extend for a further 2 years for \$150K cash or scrip at Zenith's election.
- \$100k minimum expenditure, keeping the project in good standing
- Ion can exercise the option and purchase the 70% interest for \$300K in scrip at any time during option period.
- Zenith can then convert remaining 30% to GPP equity or contribute on a pro rata basis.

MINERAL RESOURCES IN RETENTION

The Company has secured retention licences over the Earraheedy Manganese and Mt Alexander Iron deposits. The retention licence/status allows Zenith to hold the Mineral Resources but negates any ongoing Department of Mines statutory annual expenditure requirements for those licences for an extended period.

The Company regularly assesses the iron and manganese market conditions to determine if a development review of these assets is warranted.



MT ALEXANDER IRON PROJECT – WA (Zenith 100%)

Magnetite iron ore Mineral Resources are retained under retention licences pending an improvement in market conditions. Refer to the Company's website www.zenithmineralsl.com.au for further details.

EARAHEEDY MANGANESE PROJECT – WA (Zenith 100%)

Manganese Mineral Resources at Red Lake and Lockeridge are retained under retention licences pending an improvement in market conditions. Refer to the Company's website www.zenithminerals.com.au for further details.

NEW OPPORTUNITIES

In conjunction with its American lithium JV partner Bradda Head Ltd, the Company is progressing towards completion on an additional lithium opportunity.

CORPORATE

Nil

COMPETENT PERSONS STATEMENTS

The information in this report that relates to Zenith Exploration Results and Exploration Targets 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.

The information in this Report that relates to in-situ Mineral Resources at the Develin Creek project is based on information compiled by Ms Fleur Muller an employee of Geostat Services Pty Ltd. Ms Muller takes overall responsibility for the Report. She is a Member of the AusIMM and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity she is undertaking, to qualify as a Competent Person in terms of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 Edition). Ms Muller consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

The information in this report that relates to Mineral Resources at Zenith's Red Lake Earraheedy project is based on information compiled by Mr Dmitry Pertel, a Competent Person who is a fulltime employee of CSA Global Pty Ltd and a member of the Australian Institute of Geoscientists (AIG). Mr Pertel has sufficient experience 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 Mineral Resources and Ore Reserves". Mr Pertel consents to the inclusion of such information in this report in the form and context in which it appears.

The information in this report that relates to Mineral Resources at Zenith's Lockeridge - Earraheedy project, Mt Alexander project and Mt Alexander West project is based on information compiled by Mr Rodney Michael Joyce, a Competent Person who is a director of the Company and a Member of the AusIMM. Mr Joyce has sufficient experience 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 Mineral Resources and Ore Reserves". Mr Joyce consents to the inclusion of such information in this report in the form and context in which it appears.

The information in this report that relates to Zenith Exploration Targets at Mt Alexander is based on information compiled by R M Joyce, who is a director of the Company and a Member of the AusIMM. Mr Joyce 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 Joyce consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

The Company has released all material information that relates to Exploration Results, Mineral Resources and Reserves, Economic Studies and Production for its 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.

Zenith Minerals Limited

31st Oct 2018

For further information contact;

Directors Michael Clifford or Mike Joyce

Phone 08 9226 1110

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

Name of entity

Zenith Minerals Limited

ABN

96 119 397 938

Quarter ended ("current quarter")

30 September 2018

Consolidated statement of cash flows		Current Quarter \$A'000	Year to Date (3 months) \$A'000
1. Cash flows from operating activities			
1.1 Receipts from customers		60	60
1.2 Payments for			
(a) exploration & evaluation		(310)	(310)
(b) development		-	-
(c) production		-	-
(d) staff costs		(159)	(159)
(e) administration and corporate costs		(123)	(123)
1.3 Dividends received (see note 3)		-	-
1.4 Interest received		1	1
1.5 Interest and other costs of finance paid		-	-
1.6 Income taxes paid		-	-
1.7 Research and development refunds		-	-
1.8 Other (provide details if material)		-	-
1.9 Net cash from / (used in) operating activities		(531)	(531)

2. Cash flows from investing activities			
2.1 Payments to acquire:			
(a) property, plant and equipment		(4)	(4)
(b) tenements (see item 10)		(6)	(6)
(c) investments		-	-
(d) other non-current assets		-	-

Consolidated statement of cash flows		Current Quarter \$A'000	Year to Date (3 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	11	11
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	1	1

3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	-	-
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	-	-

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	2,450	2,450
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(531)	(531)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	1	1
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-
4.5	Effect of movement in exchange rates on cash held	17	17
4.6	Cash and cash equivalents at end of period	1,937	1,937

5. Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1 Bank balances	1,922	1,922
5.2 Call deposits	15	15
5.3 Bank overdrafts	-	-
5.4 Other (provide details)	-	-
5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)	1,937	1,937

6. Payments to directors of the entity and their associates	Current quarter \$A'000
6.1 Aggregate amount of payments to these parties included in item 1.2	87
6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3	-
6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2	

Reimbursement to directors of administration and exploration expenses incurred on behalf of the Company and for the payment of director services.

7. Payments to related entities of the entity and their associates	Current quarter \$A'000
7.1 Aggregate amount of payments to these parties included in item 1.2	-
7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3	-
7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2	

8. Financing facilities available <i>Add notes as necessary for an understanding of the position</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1 Loan facilities		
8.2 Credit standby arrangements		
8.3 Other – Credit Card Facility	15	0
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		


Credit Card Facility with ANZ bank which is secured by a term deposit with a right of set off to the total limit of the credit card facility.

9. Estimated cash outflows for next quarter	\$A'000
9.1 Exploration and evaluation	300
9.2 Development	-
9.3 Production	-
9.4 Staff costs	100
9.5 Administration and corporate costs	70
9.6 Other (provide details if material)	-
9.7 Total estimated cash outflows	470

10. Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	-	-	-	-
10.2 Interests in mining tenements and petroleum tenements acquired or increased	E77/2513 E77/2515	Granted EL Granted EL	- -	100% 100%

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here: 

(Director /Company secretary)

Date: 31st October 2018

Print name: **Melinda Nelmes**

Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.