



Zenith
MINERALS
LIMITED

12th August 2019

Burro Creek – East Lithium Clay Project Update

- Burro Creek East property increased in acreage by over 250%;
- Significant regional exploration upside as a result of a major increase in project size with new leases staked at Wickieup and Burro Creek East;
- Updated additional Exploration Target for Burro Creek East;
- Maiden Inferred Mineral Resource for the Burro Creek East lithium prospect, for the small area drilled to date (14 drill holes);
- Metallurgical testwork results completed on composite drill samples at Burro Creek East show lithium recoveries up to 85% and potassium recoveries up to 82%;
- Planned programs:
 - First-pass drilling Burro Creek West and Wikieup areas;
 - Resource extension & infill drilling - Burro Creek East;
 - Detailed metallurgical testwork leading to an initial scoping study.

Zenith Minerals Limited (“Zenith” or “the Company”) is pleased to advise that it has increased its acreage at the Burro Creek East property by 250%, a significant increase to the Company’s land position in Arizona. Approvals are in place to commence test drilling (up to 154 holes) at Burro Creek East. JV partner Bradda Head Limited (Bradda Head) has also provided its maiden Mineral Resource, along with an updated additional Exploration Target for the Burro Creek East lithium clay zone. The Burro Creek East project the focus of this release represents a small fraction (18%) of the joint venture partners total Arizona lithium clay land holdings (5121 acres) that includes Burro Creek East (937 acres), Burro Creek West (1487 acres) and Wikieup (2697 acres).

Within the Arizona lithium clay holdings and forming a small portion of the total prospective area is the Burro Creek East zone that was the subject of initial drill testing in mid-2018 (14 RC holes for 923 metres). Bradda Head’s independent consulting group SRK Consulting (UK) Limited (SRK) provided a maiden Inferred Mineral Resource estimate of 42.6 million tonnes @ 818 ppm Li (lithium) and 3.3% K (potassium) using a lower cut-off grade of 300 ppm Li for the near surface lithium clay mineralisation at the Burro Creek East area (Table 2). The Burro Creek project located in Arizona USA is part of the American Lithium joint venture with Bradda Head Limited (Figure 1).

A new Exploration Target¹ (excluding the Burro Creek East Mineral Resource) for the original Burro Creek East area only (prior to the new ground being acquired) is increased to 20 to 60 million tonnes at 600 to 1000ppm Li (Table 1). The combined new Inferred Mineral Resource and new Exploration Target* total is larger than the previously released Exploration Target of 30 to 50 Mt @ 1000 to 1100 ppm Li (ASX release 19th June 2018).

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.

Corporate Details

ASX: ZNC

Issued Shares (ZNC) 212.8M

Unlisted options 4.15M

Mkt. Cap. (\$0.07) A\$16M

Cash (30th Jun 19) A\$1.1M

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. 13.4%

J P Morgan 6.8%

Nada Granich 5.4%

Miquilini 4.3%

Abingdon 4.1%

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Bradda Head has recently strengthened its Board with the appointment of Ian Stalker and Euan Jenkins adding significant technical and finance expertise (see biographies overleaf).

Background on the Burro Creek Project

The Burro Creek lithium clay project is located in central western Arizona, USA within an active mining district, Freeport McMoRan's operating Bagdad porphyry copper mine is located 10km from the Burro Creek project. A gas pipeline and high voltage power line are both located within 1km of the project whilst significant volumes of fresh water were intersected beneath the lithium bearing clays that may provide future process water needs. The Burro Creek project is subject to an exclusive option to purchase as detailed in Zenith's ASX Release 10th November 2016.

Assay results from the maiden drill program at Burro Creek East show that the higher-grade portion of the lithium bearing clay zone is a near surface, flat lying horizon extending over 900m by 400m within the eastern project state leases previously reported (ASX Release 19th June 2018). Significant lithium rich drill intersections that form the core of the maiden mineral resource estimate include:

- BCRC18-01 - 22.9m @ 1088ppm Li & 2.94% K from 4.68m depth, and 9.1 m @ 1325ppm Li and 3.04% K from 33.5m depth;
- BCRC18-14 - 24.4m @ 1361ppm Li & 3.23% K from 19.8m depth.

In addition, mapping and surface sampling in the Burro Creek Western claims identified further widespread, high-grade, flat-lying lithium clays at surface with the new areas greater in size to the zone of lithium mineralisation discovered in the current drill program at Burro Creek East (ASX Release 19th June 2018). This area will be the focus of future resource drilling (Figure 1).

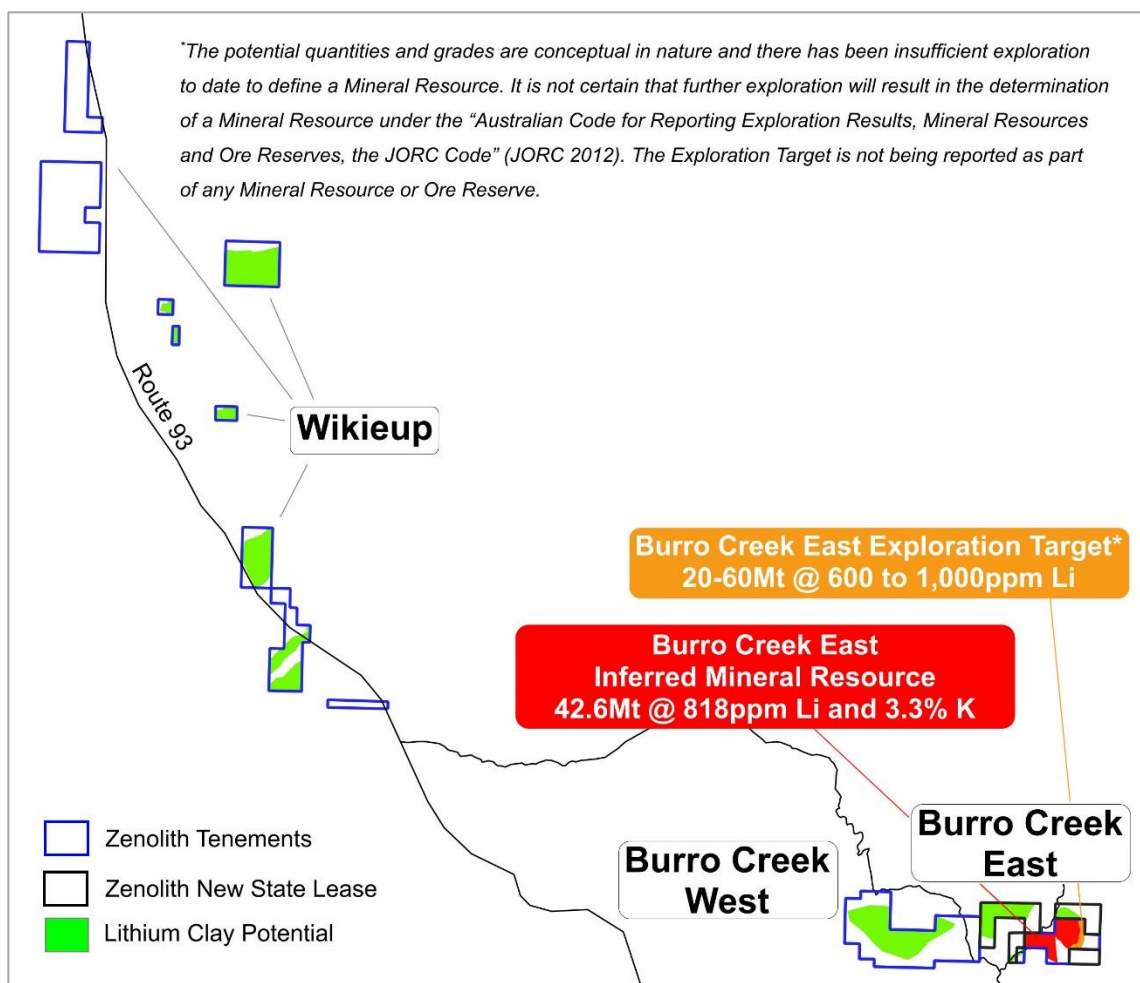


Figure 1: Burro Creek – Wikieup Project Area Showing Lithium Clay Inferred Mineral Resource East Zone and Exploration Target*



Burro Creek East Exploration Target

SRK has prepared an Exploration Target estimate for the Burro Creek Eastern licence area which is additional to the maiden Mineral Resource. The Exploration Target relates to the northern part of the Eastern fault block and the western part of the Central fault block zones at Burro Creek East, where drill holes did not penetrate below the lapilli tuff, and therefore the extent of the lower Li-bearing clay-rich tuff is unconfirmed in these parts of the model. Additionally, there is no drilling in the far east, west, and southern parts of the deposit model, and so the lateral extent of the clay-rich tuff is unconfirmed in these regions.

SRK estimates an Exploration Target of between 20 to 60 Mt of material grading between 600 and 1,000 ppm Li for the Burro Creek East area only. The potential quantity and grade stated is conceptual in nature, such that there has been insufficient exploration to estimate a Mineral Resource and that it is uncertain if further exploration will result in the estimation of an additional Mineral Resource.

Note the Burro Creek East Exploration Target (Table 1) is in addition to the Burro Creek East maiden Inferred Mineral Resource as detailed in the section below.

Table 1: Burro Creek East Exploration Target¹

Exploration Target ¹	Tonnes (millions)	Lithium Grade (ppm Li)	Potassium Grade (%K)
Burro Creek East	20 – 60	600 to 1000	Not estimated

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.

Burro Creek East Mineral Resource

A maiden Inferred Mineral Resource of 42.6Mt @ 818ppm Li and 3.3% K has been prepared by independent consulting group SRK in accordance with JORC 2012 guidelines for the near surface lithium clay mineralisation at the Burro Creek East lithium prospect in Arizona USA, part of the American Lithium joint venture with Bradda Head Limited. The Burro Creek East zone is a very small portion of the total lithium clay prospective area held by the joint venture partners. Bradda Head’s independent consulting group SRK Consulting (UK) Limited (SRK) has now provided the partners with a maiden Inferred Mineral Resource estimate for the near surface lithium clay mineralisation at the Burro Creek East area.

Table 2 Burro Creek East - Mineral Resource

Category	Tonnes (Mt)	Mean Grade		Contained Metal	
		Li (ppm)	K (%)	Tonnes LCE	Tonnes K
Measured	-	-	-	-	-
Indicated	-	-	-	-	-
Inferred	42.6	818	3.3	185,000	1,400,000

*Notes:

- Mineral Resource statement prepared in accordance with JORC Code 2012 Edition.
- Mineral Resources are reported as undiluted. No mining recovery has been applied.
- SRK considers there to be reasonable prospects for economic extraction by completing a pit optimisation and cut-off grade analysis.
- Tonnages are reported in metric units.
- Rounding as required by reporting guidelines may result in apparent summation differences between tonnes, grade and contained metal content.
- Conversion factor of Li metal to lithium carbonate (LCE) = 5.323



The Mineral Resource was estimated using a 300 ppm L lower cut-off grade. Lithium bearing clays are flat lying and near surface with intersections in excess of 20 metre thickness reported at +1000 ppm, illustrating potential for coherent higher-grade zones (Figure 2);

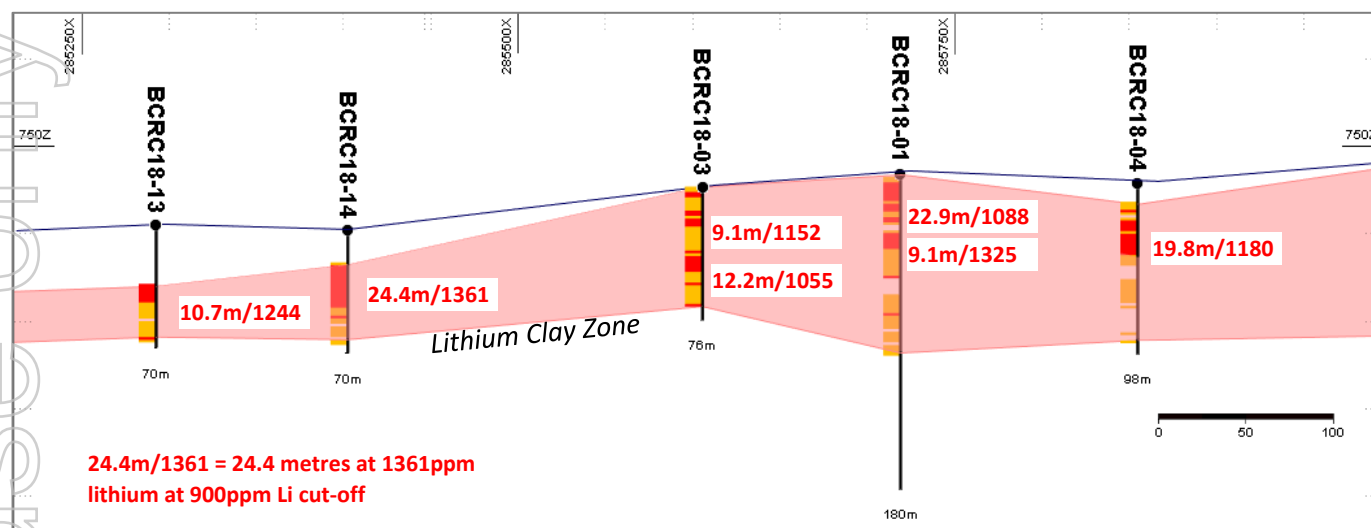


Figure 2: Burro Creek East Drill Cross Section A – A' Showing Lithium Results

The Company provides below a summary of information material to understanding the maiden Burro Creek East Inferred Mineral Resource for which further details are appended at the end of this announcement in JORC 2012 Table format.

Geology and Geological Interpretation	<p>The Project area lies within the Transition Zone between the Colorado Plateau and the Basin and Range provinces. The basement geology is dominated by Pre-Cambrian granitic intrusions and metamorphic rocks which are overlain mainly by Tertiary sediments, pyroclastics, and lava flows.</p> <p>The local stratigraphy of the Tertiary volcano-sedimentary sequence overlying Proterozoic basement comprises a succession of conglomerates and fluvial sediments, followed by intercalated lacustrine sediments, tuffs, pyroclastics, and basalts. The sequence was deposited in basins that developed as a result of Miocene and Oligocene faulting and was affected by a more recent phase of faulting in the Pliocene. The sequence was subject to partial erosion by river channels during the Pleistocene and was most recently capped by basalt flows of the Sanders Formation.</p> <p>The lithium is present in saponite, a smectite-group clay mineral, which is found in the Miocene-Pliocene Wider Formation; a package of basalts, sediments, lacustrine clays, and tuffs that have been variably altered by hydrothermal and hot spring fluids. The lithium grade correlates with the changing proportion of clay content, which may be an original sedimentary feature or may be due to varying degrees of alteration related to post depositional circulation of hydrothermal fluids and hot springs and associated with proximity to late faults that cross-cut the region.</p>
Sampling and Sub-sampling Techniques	Reverse circulation drilling was used to obtain 1.52m samples via a cyclone from which 2 kg was riffle split and sent to ALS Laboratories in Vancouver.
Drilling Techniques	The resource drill hole database comprises 14 RC holes for a total of 923.5m. Drill hole depths vary from 15m to 180m, with an average depth of 66m.
Criteria used for Classification	<p>The Mineral Resource for the Burro Creek East deposit has been classified in accordance with the guidelines outlined in the "Australian Code for Reporting of Identified Mineral Resources and Ore Reserves" (JORC, 2012 edition). Assessment criteria include drillhole spacing, sample locations, sampling density, lode geometry, reliability of data, geological confidence and grade continuity.</p> <p>The Burro Creek East Mineral Resource has been classified as wholly Inferred considering the above parameters.</p>



<p><i>Sample Analysis Method</i></p>	<p>Drilling samples were sent to an ALS Minerals ("ALS") preparation facility in Tucson, Arizona, USA ("ALS Tucson"), and thence on to ALS Vancouver, Canada, for multi-element analysis by inductively coupled plasma-mass spectrometry ("ICP-MS"). Each sample has also been subject to quantitative spectral analysis to assist in clay mineralogy definition. The spectral readings were completed by ALS in their Reno laboratory.</p> <p>Blanks, certified reference material for lithium, and potassium, duplicate samples were included in the analytical batches and indicate acceptable levels of accuracy and precision.</p>
<p><i>Estimation Methodology</i></p>	<p>Lithology wireframes defining major stratigraphic horizons and faults were modelled in 3D using Leapfrog software.</p> <p>A statistical analysis of Li grades with respect to depth, lithology, and relative position was carried out in order to determine the domaining approach for the estimation. Following this, SRK decided to estimate Li grades within a single Li-bearing clay-rich tuff unit, which, throughout much of the deposit area, is separated into an upper and lower layer by a thin internal lapilli tuff waste horizon. The mineralised unit was divided into two estimation domains, either side of a major N-S-striking fault.</p> <p>Sample data within the estimation wireframe boundaries was composited to lengths approximating 5 m.</p> <p>Histograms of composite data were reviewed for grade outliers. Following this analysis, no grade capping was applied.</p> <p>SRK reviewed the grade variability in composite data to determine an appropriate estimation approach.</p> <p>A block model was created in Datamine Studio RM software, with 25 x 25 x 5 m (ENz) parent blocks.</p> <p>Lithium and potassium grades were interpolated into blocks using an Inverse Distance Weighting ("IDW") algorithm.</p> <p>A mean density of 1.7 gcm⁻³ (based on averaged measurements of surface grab samples) was applied to all estimated blocks.</p> <p>A detailed validation of the block model was carried out, through global statistical and local visual comparisons of block grades against drillhole composites.</p> <p>The block model was classified according to JORC Code definitions and guidelines.</p> <p>A high-level open pit optimisation study was carried out to determine parts of the model which have a reasonable prospect for economic extraction; and</p> <p>An Inferred Mineral Resource was reported above a cut-off grade of 300 ppm Li in full accordance with the JORC Code.</p>
<p><i>Cut-off grades</i></p>	<p>SRK reviewed the quality and quantity of data with respect to the deposit block model and found that it is sufficient for the reporting of Inferred Mineral Resources only. Some parts of the model have been excluded from the Mineral Resource where there is a lack of exploration data.</p> <p>SRK has applied basic economic considerations to determine which portions of the block model have reasonable prospects for economic extraction by open-pit mining methods. To achieve this, SRK carried out a high-level pit optimisation study. As the Project is at an early stage, preliminary values were used for mining and processing parameters based on SRK's prior experience with deposits similar to Burro Creek, which yielded 300 ppm Li as a reasonable economic cut-off.</p>
<p><i>Mining and Metallurgical Modifying factors</i></p>	<p>Flora, fauna, heritage and archaeological studies have been completed over the mineral resource area and the project is currently permitted to allow the extraction of clay.</p> <p>Mineral Resources are reported as undiluted. No mining recovery has been applied.</p> <p>SRK considers there to be reasonable prospects for economic extraction by completing a pit optimisation and cut-off grade analysis.</p>



Near surface lithium clay mineralisation shows good continuity across the Burro Creek East project area (Figure 3).

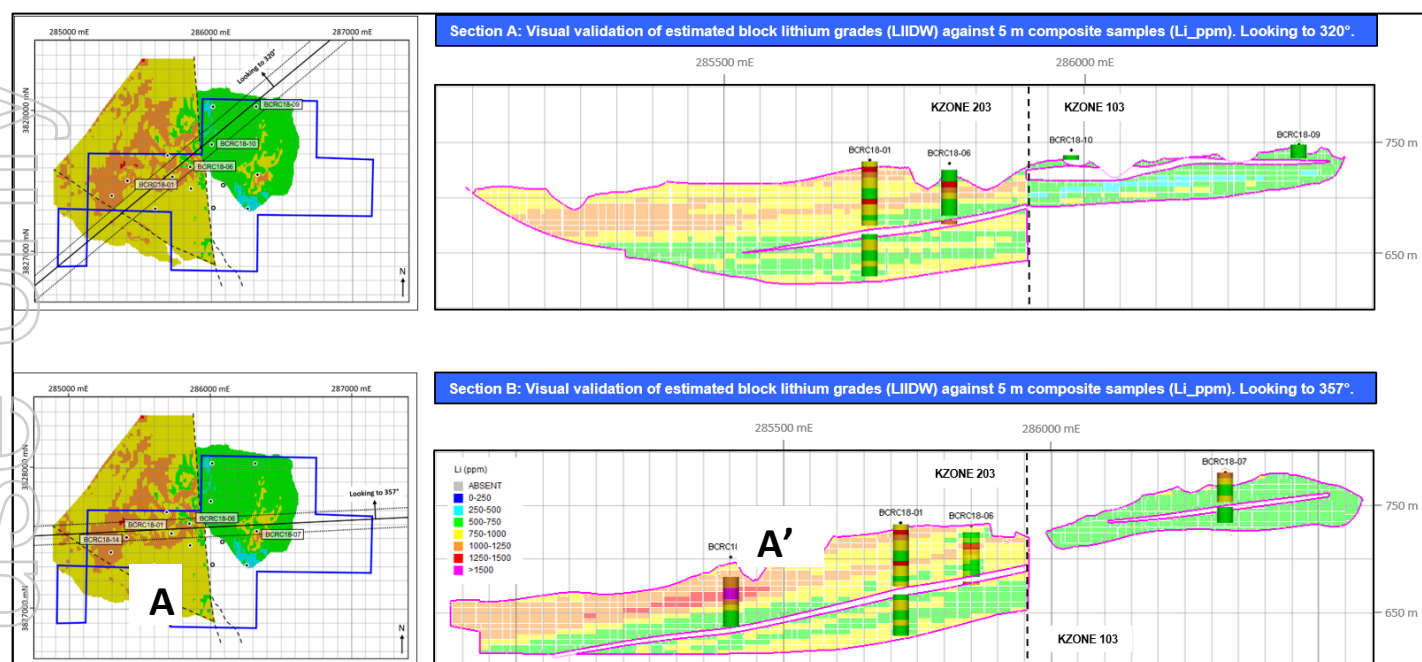


Figure 3: Burro Creek East Drill Block Model and Drill Hole Composite Lithium Grades

Project Comparatives

The Burro Creek lithium clay project in Arizona is comparable to other lithium projects in the USA and Mexico subject to resource and development studies.

Ioneer Limited (ASX:INR - market capitalisation \$A243 million as at 8th Aug 2019) recently announced 29th June 2019) that it is on track to complete a definitive feasibility study in Q3, 2019 for its Rhyolite Ridge lithium – boron project in Nevada, USA. The project contains a Measured and Indicated Mineral Resource of 154 million tonnes at 1650ppm lithium and 1.41% boron which INR – ASX Release 26th June 2019.

Mineral Resource	Tonnes	Lithium Grade	Boron Grade
Rhyolite Ridge	154 million	1650ppm	1.41%

Bacanora Lithium Limited (AIM:BCN - market capitalisation GBP53.78 million Source: BCN Corporate Presentation July 2019) are developing the Sonora lithium clay project in Mexico. Bacanora recently announced a cornerstone investment by top tier global lithium producer Gangfeng Lithium that will accelerate the projects construction timetable.

Burro Creek Metallurgical Testwork Results

Initial preliminary metallurgical testwork conducted on surface samples has provided encouraging results with calcine-water leaches recovering 89% lithium (ASX Release 1st May 2018) from Burro Creek clay samples using a similar method as being used in a pilot plant for the Sonora lithium clay project located in Mexico owned by Bacanora Minerals Limited.

These results are in addition to previous testwork (ASX Release 27th July 2017) that resulted in high lithium recoveries to 90% from simple acid leaching using a sulphuric acid leach at a temperature of 80°C. Acid consumption in those tests



was like that from tests on raw ore from the Rhyolite Ridge lithium project in Nevada reported on 1st June 2017 by Global Geoscience Limited.

Additional metallurgical testwork has been completed on representative sub-surface clay sample composites from the maiden drill program at Burro Creek East. The testwork was carried out under the supervision of J Litz and Associates at Hazen Laboratories in Colorado. The testwork program validates results from the initial testwork on surface samples with high lithium and potassium recoveries up to 85% and 82% respectively using the calcine-water leach methodology. Based on this new testwork initial, preliminary processing costs estimates were derived that have been used in the open pit optimisation shells used to constrain the Inferred Mineral Resource reported in this release.

American Lithium Joint Venture

The American lithium joint venture with Bradda Head includes including lithium brine, lithium pegmatite and lithium clay projects in the USA and a brine play in Mexico (Figure 4). Bradda Head has significantly grown the size of the portfolio during the Joint Venture to date, to the benefit of both joint venture parties. New joint venture projects secured, include an expansion of the Burro Creek landholdings and a Pennsylvanian lithium oil brine project as outlined in Zenith's ASX release dated 23rd April 2019.

The Nevada and Arizona lithium projects are perfectly positioned to provide future supply to the growing USA domestic lithium battery market.

Bradda Head currently holds 55% interest in the projects subject to fulfilling the expenditure requirements detailed above. Bradda Head has until 28th February 2021 to confirm that 55% interest. Zenith has a one-off right to contribute at 45% or be free carried at 30% to the completion of pre-feasibility studies on two projects.

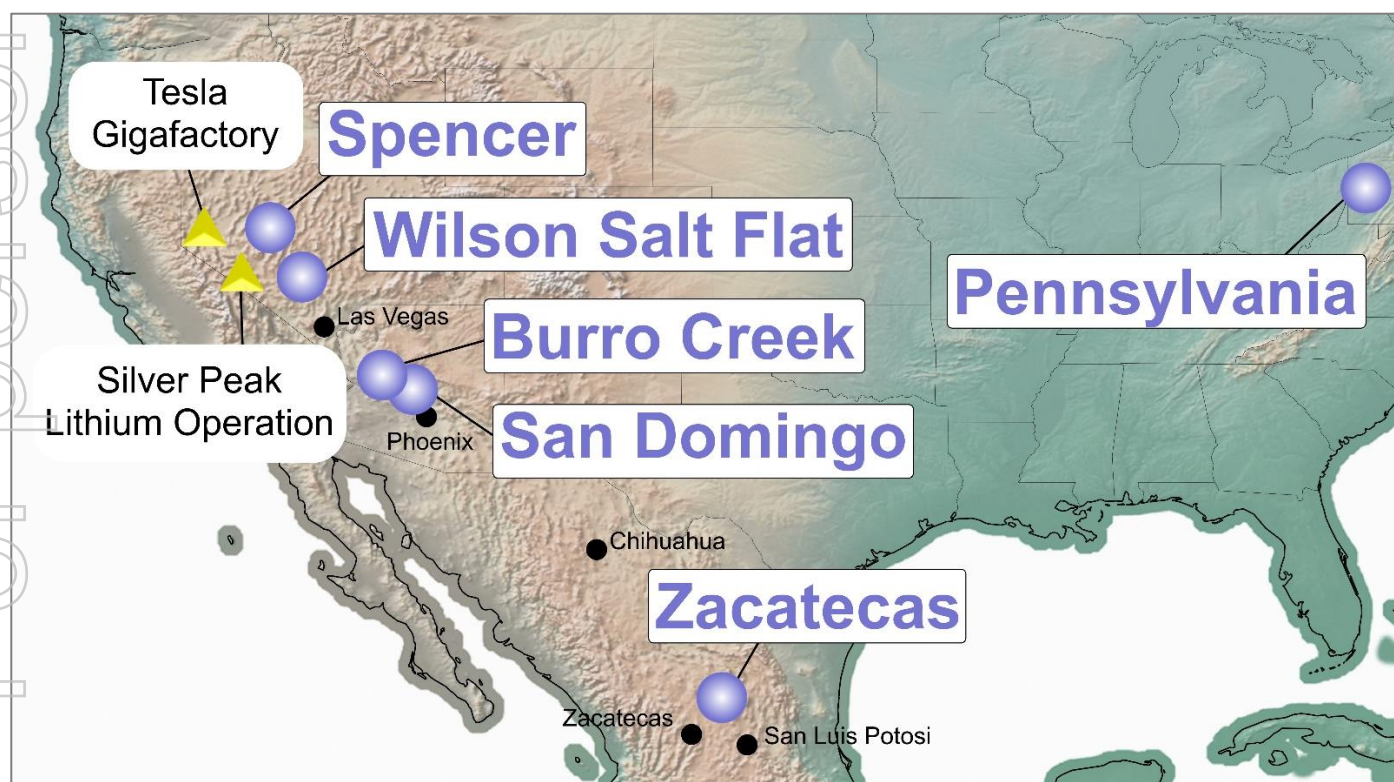


Figure 4: Zenith Minerals Limited – North & South American Lithium Projects



About Bradda Head

The vision of Bradda Head is to create value for shareholders through the acquisition and development of world class lithium deposits and resources. Bradda Head has recently made significant changes to its Board with the appointment of Ian Stalker and Euan Jenkins adding significant technical and finance expertise.

Bradda Head is headed up by Managing Director **John McGoldrick** who has over 38 years of upstream oil experience in a variety of senior management roles, notably at Enterprise Oil where he was responsible for its US operations up until Shell's takeover in 2002. Since then John has served as Executive Chairman of Caza Oil & Gas Inc. (formerly Falcon Bay Energy LLC), a US onshore exploration and production company, which he took public in Toronto and London (AIM) in 2007, becoming non-executive Chairman in 2010. From 2008 to 2013, John was a non-executive Director of Vanguard Natural Resources LLC, formerly a NYSE-listed Oil & Gas company focused on the US. In January 2012 John joined Dart Energy International as CEO, subsequently becoming MD of Dart Energy in March 2013. He held this post until Dart Energy's sale to IGas at the end of 2014. John is currently Non-Executive Chairman of Curzon Energy PLC (Standard List), whilst the Board includes:

Ian Stalker, Independent Non-Executive Chairman is a senior international mining executive with over 45 years of hands-on experience in resource development. He has directed over twelve major mining projects, from initial exploration drilling to start-up, including gold, base metal, uranium and industrial minerals. Mr Stalker was President and Chief Executive Officer of LSC Lithium Corp. a TSX Venture Exchange quoted company, which was sold to Pluspetrol Resources Corporation BV. for approximately C\$111 million in March 2019. Mr Stalker was Chairman and interim CEO of TSX Venture listed Plateau Energy Metals, a lithium and uranium development company from 2013 to March 2019. From 2009 to 2011 Ian was CEO and later a non-executive director of Berkeley Resources Ltd, an ASX and AIM quoted company with its main asset being a uranium development project in Spain. He was CEO of UraMin Inc. from 2005 until its acquisition by Areva S.A. in 2007 for US\$2.5 billion. Prior to joining UraMin, between 2005 and 2007 Mr Stalker was Vice President of Gold Fields Ltd, the fourth largest gold producer in the world at the time.

Euan Jenkins finished his 31-year career in banking at J P Morgan in London after lengthy periods at ABN Amro and McIntosh Securities. Since then Euan has been involved in several capital raisings, seed capital investments and advising companies across a broad range of industries both in Australia and Europe. These include gold, base metals and battery metals industries; biotech, and the property sector. Euan has amassed significant knowledge of financial and jurisdictional systems globally having worked in Melbourne, Sydney, New York, London and Switzerland.

About Zenith

Zenith acts as a mineral project generator/incubator with a clear strategy for adding shareholder value. It uses its proven generative skills to move fast to acquire projects, with a current focus on gold and lithium opportunities. Most projects are generated in-house and acquired 100% through staking. Smart, cost-effective exploration programs are completed by Zenith teams to progress projects and add value. Experience and corporate skills deliver value-add to shareholders by either progressing projects towards development on a 100% basis or partnering with other groups who have the financial capability or specialist skills required to unlock project value, whilst sharing the project risk.

A balance is sought between diluting shareholders at the corporate level across all project opportunities by raising new capital, or project partnering and diluting individual project interests through farm-out. Zenith was listed in 2007 and over the 12 years of its existence the Board has remained mindful of diluting shareholders with only 213 million ordinary shares issued in that time. This focus on maintaining a tight capital structure retains significant potential leverage for shareholders in the event of discovery.

Project partnering increases the level of annual spend on Zenith's projects increasing the chance of exploration success whilst sharing project risk.

Zenith currently has 5 mineral projects for which partners are providing funding (American Lithium JV, Kavaklitepe Gold, Earahedy Zinc, Vivash Iron and Talga Fault Cobalt) whilst Zenith is advancing 5 exploration projects in Australia (Split



Rocks Lithium, Waratah Well Lithium, Develin Creek Copper-Zinc, Red Mountain Gold-Silver and Tate River Gold) using shareholders' funds.

Competent Persons Statement

The information in this report that relates to the Mineral Resource Estimate and Exploration Target at Burro Creek East is based on information compiled by Martin Pittuck, who is a Chartered Engineer with the Institute of Materials Minerals and Mining and an employee of SRK Consulting (UK) Limited. Mr Pittuck 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 Pittuck consents to the inclusion of excerpts from the SRK report in this ASX release in the form and context in which they appear.

The information in this report that relates to Exploration Results on Zenith's projects other than the Mineral Resource Estimate and Exploration Target at Burro Creek East is based on information compiled by Mr Michael Clifford, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith Minerals Limited. 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.

12th August 2019

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Kavaklitepe Gold Project, Turkey (~25% ZNC diluting) - Drilling results include: KT-77: 20.0m @ 15.60 g/t Au, including 12.0m @ 24.67 g/t Au, KT-78: 16.0m @ 4.72 g/t Au, including 8.0m @ 7.99 g/t Au, KT-64: 44.0m @ 1.90 g/t Au, including 8.0m @ 5.50 g/t Au, KT-56: 24.0m @ 2.14 g/t Au; including 4.0m @ 5.45 g/t Au, and KT-53: 36.0m @ 2.06g/t Au, including 8.0m @ 4.14 g/t Au, KT-09: 16m @ 4.7 g/t Au, KTRC-35: 24m @ 4.15 g/t Au , KT-02: 9m @ 5.25 g/t Au, KT-03: 7.8m @ 7.3 g/t Au and KTRC-29: 28m @ 2.78 g/t Au (ASX Release 20th June 2019). Follow-up program design in progress.

American Lithium Projects (Bradda Head earning initial 55%)

Zacatecas Lithium Brine Project, Mexico - Lithium brines to 2.1% lithium reported in sampling conducted by the Mexican Government from solar evaporation ponds for salt production (10km west of Zenith's new tenure) - Compelling geophysical targets – Drill ready.

San Domingo Lithium, Arizona USA - 9km x 1.5km lithium pegmatite field, initial surface sampling returned: 5m @ 1.97%Li₂O including 2.4m @ 2.49% Li₂O (ASX Release 18th Oct 2017) - Drill permits received.

Spencer & Wilson Salt Flat Lithium Brine Projects, Nevada USA - Two lithium brine targets in producing lithium region - Geophysical surveys & infill sampling prior to drilling

Burro Creek Lithium, Arizona USA (ZNC option to acquire) - Maiden Mineral Resource Estimate for Burro Creek East 42.6Mt @ 818ppm Li & 3.3%K (ASX Release 12/08/2019), resource extension drilling planned.

Australian Projects

Develin Creek Copper-Zinc-Silver-Gold, QLD (ZNC 100%) - 3 known VHMS massive sulphide deposits - JORC resources, 50km of strike of host rocks. 2011 drilling: 13.2m @ 3.3% copper, 4.0% zinc, 30g/t silver & 0.4g/t gold - Drilling planned to extend known deposits, geophysics, geochemistry to detect new targets (ASX Release 15th Feb 2015).

Split Rocks Lithium, Nickel-Cobalt & Gold, WA (ZNC 100%) - 100% owned exploration licences covering 500km² in emerging Forrestania lithium district.

Tate River Gold QLD (ZNC earning up to 70%) - Trenching returned 5m @ 3.9g/t Au as well as widespread strongly anomalous gold zones such as 166m @ 0.14g/t Au (ASX Release 21st Sep 2017).

Red Mountain Gold-Silver Project QLD (ZNC 100%) - Reconnaissance rock chip sampling results up to 114 g/t silver and 2.01 g/t gold, associated with large, strong, gold-silver soil anomaly (ASX Release 1st July 2019). Follow-up mapping & sampling planned.

Waratah Well Lithium-Tantalum Project WA (ZNC 100%) - Extensive outcropping pegmatites (3km x 2km) encouraging lithium rock chip sample results up to 1.75% Li₂O as well as widespread, high-grade tantalum up to 1166ppm Ta₂O₅ (ASX Release 29th Jul 2017 & 27th Apr 2018).

Earaheedy Manganese Project, WA (ZNC 100%) - Manganese province discovered by ZNC, potential DSO drill intersections (+40%Mn).

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

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down-hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. 	<ul style="list-style-type: none"> Drill chips were collected in 5 ft (1.52 m) intervals from the inner tube of a reverse circulation drill rig using an attached cyclone.
	<ul style="list-style-type: none"> Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	<ul style="list-style-type: none"> Assay samples were prepared at the ALS facility in Tucson, USA. They were dried for 24 hours at $\leq 80^{\circ}\text{C}$. Very wet samples were broken up (whilst still bagged) and dried for a further 12–24 hours. Subsequent preparation was carried out according to ALS standard procedure, PREP-31y, comprising initial crushing (70% passing a 2.0 mm mesh), separation of a 250g sample via a rotary splitter, and pulverisation (>85% passing a 75-aperture mesh). The first two sample submissions were sent to the ALS laboratory in Elko, USA, for hyperspectral analysis. Subsequent prepared sample pulps were sent to the ALS laboratory, North Vancouver, Canada for multi-element assays. These laboratories are ISO 14001-2004 certified.
	<ul style="list-style-type: none"> Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> These procedures are considered industry-standard practice.
Drilling techniques	<ul style="list-style-type: none"> Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). 	<ul style="list-style-type: none"> Bradda Head Holdings Limited (BHHL) drilled 14 holes in 2018 using a reverse circulation ("RC") drilling rig. 13 of 14 holes were drilled with a hammer bit. Various bits were tested during drilling of the first hole. Initial holes were drilled dry; subsequent holes were drilled wet where necessary to facilitate rapid drilling through clay units.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. 	<ul style="list-style-type: none"> Sample recoveries were estimated based on the observations of the senior geologist and driller, and approximate calculations based on dry sample weights versus percentage sample split. Dry-sampled Li-bearing clay recovery is estimated to be >70% (averaging 80%). Wet-sample Li-bearing clay is estimated at 60% (the lower recovery is thought to be due to loss in subterranean fractures).
	<ul style="list-style-type: none"> Measures taken to maximise sample recovery and ensure representative nature of the samples. 	<ul style="list-style-type: none"> Water injection rates were carefully controlled during wet drilling to ensure no sample loss due to overflow.
	<ul style="list-style-type: none"> Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> No material biases in recovery have been identified with respect to grade or particle size, except for limited "blow-by" loss of fine material from the cyclone.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. 	<ul style="list-style-type: none"> Geological logging of core chips was carried out on site during drilling by a Company geologist or geotechnician for the full length of all drillholes. Notes on estimated recovery, drilling rates and groundwater were also recorded. All chip trays were photographed.



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. 	<ul style="list-style-type: none"> Each sample has also been subject to quantative spectral analysis to assist in clay mineralogy definition. An ASD TerraSpec® 4 high-resolution spectral scanner and aiSIRIS™ spectral interpretation system (ALS code HYP-PKG) was employed for hyperspectral analysis of crushed reject splits at ALS Elko, USA.
	<ul style="list-style-type: none"> The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> 100%
	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. 	<ul style="list-style-type: none"> No drill core.
	<ul style="list-style-type: none"> If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. 	<ul style="list-style-type: none"> During dry drilling, sample chips were collected directly from the cyclone in plastic buckets, which were then weighed using a hanging scale and emptied into a Gilson splitter. 5ft samples weighing up to 45 kg were split 3–4 times to obtain 4–8 kg sub-samples. Geological reference samples were collected from all sub-samples using a PVC “sample spear” and placed into the chip tray for logging. Samples for assay were split in two and labelled with the same number; one sample was retained as a precaution.
	<ul style="list-style-type: none"> For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	<ul style="list-style-type: none"> During wet drilling, samples were split directly beneath the cyclone using a rotating cylindrical wet splitter. Samples for assay were split in two, as for dry drilling samples, using a Y pipe. Geological reference samples were collected from the reject pipe using a sieve strainer.
	<ul style="list-style-type: none"> Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 	<ul style="list-style-type: none"> Assay samples were prepared at the ALS facility in Tucson, USA, following ALS standard procedure, PREP-31y. This comprises initial crushing (70% passing a 2.0 mm mesh), separation of a 250g sample via a rotary splitter, and pulverisation (>85% passing a 75-aperture mesh). Pulps were then sent to Elko, USA, or ALS Vancouver, Canada, for analysis.
	<ul style="list-style-type: none"> Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. 	<ul style="list-style-type: none"> A total of 19 field sample duplicates were sent to ALS Minerals for assay as part of the Project’s QA/QC procedures. This represents 2.8% of all samples submitted. Analysis of the duplicate assays versus the primary assays indicates only small variability of lithium grade for material sampled from the same drilled intervals (high repeatability).
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Each sub-sample was 250g in weight which is appropriate to test for the grain size of material.
	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 	<ul style="list-style-type: none"> Assays were carried out at ISO 14001-2004 certified ALS laboratories in Elko, USA and Vancouver, Canada. Sample pulps were prepared using four-acid digestion (code ME-MS61) and a full elemental analysis was carried out via inductively coupled plasma-mass spectrometry (ICP-MS).
	<ul style="list-style-type: none"> For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. 	<ul style="list-style-type: none"> An ASD TerraSpec® 4 high-resolution spectral scanner and aiSIRIS™ spectral interpretation system (ALS code HYP-PKG) was employed for hyperspectral analysis of crushed reject splits at ALS Elko, USA.
	<ul style="list-style-type: none"> Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> A full Quality Assurance and Quality Control (“QA/QC”) programme was employed, including submission of field duplicated and certified external Li standards and blanks. CRMs were inserted at 6.84% and over 85% returned assay values with 2 sd of the mean. Blanks were inserted at 2.18% and performed within industry-accepted standards. Duplicates were inserted at 2.8%; the results were deemed acceptable. SRK has not identified any material issues with regards to the QAQC sample performance. Industry-standard practice procedures have been used at all stages of sample analysis and QAQC procedures. SRK considers that the assay data for drilling and sampling is accurate, precise, was collected and measured according to industry best practice, and is suitable for use in an MRE.



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. 	<ul style="list-style-type: none"> SRK CP has reviewed the geology on a site visit prior to undertaking this MRE commission and before drilling had commenced and considers the Client sampling techniques and understanding of the geology to be good. No site visit has been carried out as part of this work and the RC chips were not reviewed. In addition 2 Bradda Head JV company personnel have been to the project area and observed representative drill chips.
	<ul style="list-style-type: none"> The use of twinned holes. 	<ul style="list-style-type: none"> No twinned holes.
	<ul style="list-style-type: none"> Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	<ul style="list-style-type: none"> Logging was entered on paper logs, which were also photographed. Data was entered and stored electronically in an Excel spreadsheet database. Sample start and end measurements were converted from feet to metres before SRK uploaded data into modelling software. No material data recording issues were identified.
	<ul style="list-style-type: none"> Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> No adjustments made.
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. 	<ul style="list-style-type: none"> Collar locations were recorded using a handheld Garmin GPSmap® 62st GPS, accurate to 3 m. No down-hole surveys were carried out. Holes are assumed to be vertical.
	<ul style="list-style-type: none"> Specification of the grid system used. 	<ul style="list-style-type: none"> All coordinates are reported in UTM NAD83 Zone 12.
	<ul style="list-style-type: none"> Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> Collar elevations were determined using the X-Y location and a 1-m topographic map (generated from 5 -m-resolution (X-Y) satellite data, but with an unknown vertical accuracy).
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. 	<ul style="list-style-type: none"> Collar locations were restricted by limited site access routes. Drill hole spacing is approximately 150 m in the centre of the licence area and up to 400 m on the periphery. Drill spacing averages 290 m east of the N-S fault; 220 m west of the fault.
	<ul style="list-style-type: none"> Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. 	<ul style="list-style-type: none"> The drill spacing is adequate to establish confidence in the geological continuity of unit such that an Inferred classification can be applied.
	<ul style="list-style-type: none"> Whether sample compositing has been applied. 	<ul style="list-style-type: none"> Samples were upward-composited to approximately 5 m lengths (equal lengths within lithological units).
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 	<ul style="list-style-type: none"> The deposit stratigraphy is sub-horizontal (dips of <15°). Vertical holes were drilled, intersecting the Li-bearing clay-rich tuff close to perpendicular to the orientation of the unit.
	<ul style="list-style-type: none"> If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> No bias is identified with respect to the orientation of the drill holes.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Labelled samples were placed in woven polypropylene sacks (rice sacks) by WIM geological staff at the end of each shift and sealed with cable ties. Sealed rice sacks were transported to a locked, private trailer facility in Wikieup, Arizona, at the end of each day, by WIM staff. Samples were in the direct custody of WIM personnel at all times until handed over to ALS staff at ALS Tucson. Sample security is not considered an issue for the Project.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> SRK reviewed the sample techniques and did not identify any material issues.



Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. 	<ul style="list-style-type: none"> The Burro Creek East Project area comprises 11 Arizona State Leases covering an area of 3.79km² east of Burro Creek at Six Mile Crossing. Zenolith (USA) Inc the joint venture entity acquired the title to these leases as of October 2016, and will maintain 100% ownership providing they honour the JV terms are detailed in ZNC ASX release dated 19th June 2018.
	<ul style="list-style-type: none"> The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The Burro Creek project is subject to an option agreement that is detailed in Zenith's ASX Release dated 10th November 2016. SRK has not identified any issues with respect to the security of the tenure.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Initial exploration work from April–September 1983 focussed on Mg-smectites in the Burro Creek area, carried out by GSA Resources Inc. on behalf of Vanderbilt Minerals Corp. 10/23 drillholes are located within the current Burro Creek East licence area. The results have not been reviewed as part of this MRE. Unilever (UK) and Procter & Gamble (USA) also tested white Ca-bearing clays for use in laundry products during with late 1980s.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The deposit comprises Li-bearing, hydrothermally altered, clay-rich tuffaceous sediments, affected by Pliocene faulting. They form part of a Tertiary sedimentary package deposited on top Proterozoic basement rocks.
Drillhole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: <ul style="list-style-type: none"> easting and northing of the drillhole collar elevation or RL (Reduced Level – elevation above sea level in meters) of the drillhole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> Drilling details are reported in ZNC ASX release dated 19th June 2018. The Mineral Resource is based on 923.5 m of drilling from 14 RC drillholes.
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> Drilling details are reported in ZNC ASX release dated 19th June 2018.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. 	<ul style="list-style-type: none"> The deposit is sub-horizontal (maximum dips of 15°) and drillholes were drilled vertically in order to intersect mineralised strata close to perpendicular. It should be noted that no down-hole surveys were carried out to confirm the orientation of drillholes; however, SRK are satisfied with the quality of the drilling.
	<ul style="list-style-type: none"> If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> Refer to details above.
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being 	<ul style="list-style-type: none"> Refer to diagrams in this release and in ZNC ASX release dated 19th June 2018.



Criteria	JORC Code explanation	Commentary
	<i>reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	
Balanced reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> As a Mineral Resource is reported herein, no Exploration Results are reported separately. The reader is also directed to ZNC ASX release dated 19th June 2018 for the background on drilling details.
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> The Client has carried out a surface sampling programme on their Burro Creek West licences, which have similar surface outcrops to those observed at Burro Creek East, including clay-rich tuffs, tuffaceous sediments and basalts. In a clay-rich tuff unit equivalent to the Li-bearing unit in Burro Creek East (the focus of the MRE presented herein) sample assays average 762.8 ppm Li (maximum value of 1310 ppm), which is comparable to the surface sample results for Burro Creek East. Initial preliminary metallurgical testwork has been completed on bulk surface samples and is summarised in the text of this release. Further metallurgical testwork has commenced on drill samples. Drilling intersected significant quantities of fresh water below the lithium clay target horizons, the water would appear to be suitable for future mineral processing. The state leases confer water rights.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). 	Planned programs: <ul style="list-style-type: none"> First-pass drilling Burro Creek West and Wikieup areas; Resource extension & infill drilling - Burro Creek East; Detailed metallurgical testwork leading to an initial scoping study.
	<ul style="list-style-type: none"> Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Refer to Figure 1 in text of this release where it can be seen that the lateral extent of the Mineral Resource is limited to the original set of licences; subsequent to the resource estimation a number of additional licence areas have been secured which surround the Mineral Resource and which contain similar geology in outcrop according to Zenolith's geologists.



Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. 	<ul style="list-style-type: none"> Paper logging sheets were photographed to provide a digital back-up of the original hard copies and to allow the digital database to be checked for errors.
	<ul style="list-style-type: none"> Data validation procedures used. 	<ul style="list-style-type: none"> SRK reviewed the Excel database and imported the data into 3D visualisation software to validate against georeferenced geological maps and sections, and the topography model. SRK is satisfied that the database is accurate, of good quality, and may be used in the construction of an MRE.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. 	<ul style="list-style-type: none"> SRK CP reviewed the geology on a site visit in July 2017 prior to undertaking this MRE commission and before drilling had commenced.
	<ul style="list-style-type: none"> If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> The CP considers the Client sampling techniques and understanding of the geology to be good. It was not deemed necessary to carry out a subsequent site visit so soon after the first; therefore, no site visit was undertaken as part of this work.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. 	<ul style="list-style-type: none"> SRK is confident the geological interpretation of this deposit is supported by the drilling data and adequate for the reporting of Inferred Mineral Resources – the geology is simple, with sub-horizontal stratigraphy and estimated offsets of ≤80 m across faults with linear surface traces.
	<ul style="list-style-type: none"> Nature of the data used and of any assumptions made. 	<ul style="list-style-type: none"> As above. Subsequent infill drilling is recommended to refine the interpretation of changes in thickness and/or pinch-outs of particular stratigraphic horizons, especially the Li-bearing clay-rich tuff and internal lapilli tuff horizon.
	<ul style="list-style-type: none"> The effect, if any, of alternative interpretations on Mineral Resource estimation. 	<ul style="list-style-type: none"> No alternative interpretations are proposed at this stage.
	<ul style="list-style-type: none"> The use of geology in guiding and controlling Mineral Resource estimation. 	<ul style="list-style-type: none"> Li mineralisation is confined to one stratigraphic unit. The interpretation of the geology, i.e. the altered, tuffaceous sedimentary layers, is a fundamental basis of the MRE.
	<ul style="list-style-type: none"> The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> Intervals of higher grades and patterns in grade variability with depth are identified in individual drill holes, but have not been correlated between drill holes. SRK interpret this to relate to thin layers or lenses of more clay-rich host rock within the Li-bearing tuff unit. Subsequent infill drilling is recommended to confirm this interpretation, with the aim of delineating high-grade sub-domains within the Li-bearing clay-rich tuff.
Dimensions	<ul style="list-style-type: none"> The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. 	<ul style="list-style-type: none"> The Mineral Resource comprises a sub-horizontal to gently dipping Li-bearing clay unit, mostly divided into an upper and lower layer by an internal barren lapilli tuff. In places the upper layer is exposed at surface. East of the main N-S fault, the upper layer has a lateral extent of approximately 0.25 km² in plan and is 5–27 m thick; the lower layer is only 0.1 km² in plan and around 15 m thick. West of the N-S fault, the upper layer has a lateral extent of approximately 0.3 km² in plan and is 20–58 m thick; the lower layer is around 0.2 km² in plan, and up to 38 m thick.
Estimation and modelling techniques	<ul style="list-style-type: none"> The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. 	<ul style="list-style-type: none"> Li block grades were estimated using Inverse Distance Weighting (IDW), interpolated from 5 m composite samples within a single mineralisation domain, confined to the wireframe of the Li-bearing clay unit. Given the wide spacing of drilling data compared with the small-scale grade variability with depth this is an appropriate method for estimation. 5 m composites were found to reflect underlying patterns in grade distribution with an appropriate degree on smoothing such that no additional grade caps were applied. The estimation was carried out using Datamine Studio RM software. The search ellipse parameters were defined such that block grades required interpolation from at least two drillholes, and that only samples at an appropriate stratigraphic level (i.e. upper clay layer or lower clay layer) were used to inform blocks.
	<ul style="list-style-type: none"> The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. 	<ul style="list-style-type: none"> This is a maiden Mineral Resource Statement – no previous check estimates are available.
	<ul style="list-style-type: none"> The assumptions made regarding recovery of by-products. 	<ul style="list-style-type: none"> K grades were also estimated within the Li-bearing mineralisation domain as roach leach



Criteria	JORC Code explanation	Commentary
		test-work indicates that potassium could be extracted as a by-product of processing for lithium.
	<ul style="list-style-type: none"> Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). 	<ul style="list-style-type: none"> Deleterious elements were not estimated; however, the presence of Mg and acid-consuming magnesite has been noted during metallurgical tests, both of which would affect metal recoveries. It is recommended that future modelling and metallurgical test-work take this into account.
	<ul style="list-style-type: none"> In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. 	<ul style="list-style-type: none"> A parent block size of 25 mE x 25 mN x 5 mRL was chosen to both reflect the scale of patterns in grade variability whilst taking the relatively wide (150–400 m) drill spacing into account. Sub-blocking (down to 5 x 5 x 1 m) was allowed to improve representation of thin horizons.
	<ul style="list-style-type: none"> Any assumptions behind modelling of selective mining units. 	<ul style="list-style-type: none"> Selective mining units were not considered, however the model block heights are comparable with the potential height of open-pit benches.
	<ul style="list-style-type: none"> Any assumptions about correlation between variables. 	<ul style="list-style-type: none"> No significant correlation relationships were identified.
	<ul style="list-style-type: none"> Description of how the geological interpretation was used to control the resource estimates. 	<ul style="list-style-type: none"> Li mineralisation is confined to one stratigraphic unit, separated into an upper and lower layer by an internal barren lapilli tuff. The interpretation of the geology, i.e. the extents mineralised layer and the internal waste horizon, is a fundamental basis of the MRE. The mineralised Li-bearing clay-rich tuff was modelled as one domain. The internal lapilli tuff waste horizon was also estimated to aid future mining dilution studies.
	<ul style="list-style-type: none"> Discussion of basis for using or not using grade cutting or capping. 	<ul style="list-style-type: none"> Following sample compositing to 5 m lengths no significant grade outliers were identified; therefore, no capping was applied.
	<ul style="list-style-type: none"> The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	<ul style="list-style-type: none"> Global statistical checks (comparison of block means and mean composite grades) were carried out and local visual comparison of block versus drill hole composite grades were completed in section and in 3D to validate the model. SRK deem that the block model estimate represents local patterns in grade with an adequate degree of smoothing, and that global means are consistent with the underlying composited data.
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> Tonnages were estimated based on dry density.
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> SRK estimated an economic cut-off grade of 300 ppm Li, based on a cut-off grade analysis and preliminary open pit optimisation study with a range of scenarios. All Inferred blocks in the model are above 300 ppm, therefore all Inferred material was reported.
Mining factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. 	<ul style="list-style-type: none"> SRK carried out a preliminary open pit optimisation analysis and found that the pit size is only restricted by the slope angle (45°) of the pit sides; i.e., all Inferred material is potentially mineable. It should be noted that as this is a maiden Resource Statements and the Project is at an early stage, the input values for many parameters are based on SRK's prior experience with similar projects. Processing costs were estimated at 5000 USD per tonne of lithium carbonate equivalent (LCE), and a long-term metal price of 18,000 USD/t_{LCE} was used. SRK assumed 5% dilution, 95% mining recovery, and 75% processing recovery.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made. 	<p>Preliminary metallurgical test-work was commissioned by the Client. Strong acid leaching will be required to release Li from saponite clay. Test results indicate that recoveries of 75% Li may be achievable. Further work is needed to understand the deleterious effect of Mg-clays and magnesite gangue.</p>



Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. 	<ul style="list-style-type: none"> Environmental factors have not been considered at this early stage.
Bulk density	<ul style="list-style-type: none"> Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. 	<ul style="list-style-type: none"> Dry in situ density values were determined from surface grab samples using the formula: $\text{Specific Gravity} = \frac{\text{weight in air}}{(\text{weight in air}) - (\text{weight submerged in water})}$
	<ul style="list-style-type: none"> The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit. 	<ul style="list-style-type: none"> To account for porosity, samples were dipped in paraffin wax prior to measurements
	<ul style="list-style-type: none"> Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	<ul style="list-style-type: none"> A mean density was applied to all blocks in the estimation. Density measurements were taken from surface grab samples. They may not be representative of the unweathered clay units at depth. SRK considers that the density used for tonnage reporting in this MRE may be low compared to reality. Future additional density test-work is strongly recommended.
Classification	<ul style="list-style-type: none"> The basis for the classification of the Mineral Resources into varying confidence categories. 	<ul style="list-style-type: none"> SRK classified parts of the block model as an Inferred Resource, based on an assessment of sample density, drillhole spacing, confidence in the geologic continuity of units and grade packages, and the quality of data.
	<ul style="list-style-type: none"> Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). 	<ul style="list-style-type: none"> An Inferred classification was applied to blocks within 150 m (the closest drill-spacing) of drillholes and in parts of the model where there were at least two adjacent drillhole intercepts in the mineralised clay-rich tuff at the same stratigraphic level.
	<ul style="list-style-type: none"> Whether the result appropriately reflects the Competent Person's view of the deposit. 	<ul style="list-style-type: none"> This classification was prepared by, and reflects the views of, the Competent Person.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Mineral Resource estimates. 	<ul style="list-style-type: none"> SRK is not aware of any prior Mineral Resource Statements for the Burro Creek East Project. The statement presented herein is a maiden Resource estimate. SRK is confident that this is an accurate reflection of the drilling data and is based on an adequate understanding of the geology and controls on grade distribution.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. 	<ul style="list-style-type: none"> The MRE was based on an interpolation using IDW, where block grades are estimated on the basis of the distance of the block from samples. SRK is satisfied that this is an appropriate method of estimation based on the sample density, and that there is confidence in the estimation such that a resource tonnage can be reported at a global average grade. SRK recommend that, following additional infill drilling and sampling, a geostatistical study (variography) is carried out in order to understand the distribution of and variability in Li grades. SRK envisage that the addition of more data may enable a more detailed modelling and sub-domaining of high-grade lenses or layers internal to the the main Li-bearing unit.
	<ul style="list-style-type: none"> The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should 	<ul style="list-style-type: none"> The Mineral Resource tonnes and grade are the total tonnage and average grade of all blocks above an open pit surface and above a cut off grade which has been applied to a



Criteria	JORC Code explanation	Commentary
	<i>be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i>	block model in which block grades have been individually estimated.(ie local grade estimation).
	<ul style="list-style-type: none">• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i>	<ul style="list-style-type: none">• No production data is available.