1st May 2018

Burro Creek Lithium Project USA - Drilling Commenced

- **Drilling and trenching has commenced to test large scale lithium (Li) clay target at the Burro Creek project in Arizona, USA with the aim of defining an initial mineral resource;**
- **Project area doubled in size with staking of new claims. Mapping and sampling of new claim area has also commenced;**
- **Geological mapping and seismic geophysical surveys confirm extensive zones of near surface, shallow dipping lithium bearing clay with true thickness up to 50 metres;**
- **Surface sampling by Zenith returned high-grade lithium results up to 33.6m metres at 0.1% Li and 15m @ 0.14% Li. These results are comparable to competitor lithium clay projects in USA and Mexico that are subject to feasibility studies and trial processing plants respectively;**
- **Initial preliminary metallurgical testwork returned positive results on Burro Creek clay samples, with lithium recoveries to 90% from simple acid leach, and to 89% via calcine-water leach process;**
- **New JV management team appointed to drive American Lithium JV projects forward.**

Zenith Minerals Limited ("Zenith" or "the Company") is pleased to advise that drilling and trenching has commenced at the Burro Creek lithium project in Arizona USA, part of the American Lithium joint venture with Bradda Head Limited (Figure 1). The key aim of the program is to obtain sufficient technical information on the lithium clays to allow for an initial mineral resource estimate to be calculated.

Drilling at Burro Creek

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. The Burro Creek project is subject to an exclusive option to purchase as detailed in Zenith's ASX Release 10th November 2016.

Surface sampling by the Company of the lithium clay exposures (ASX releases 10th November 2016 & 13th January 2017) returned results up to 33.6m @ 0.1% Li whilst grab samples of relict drill spoil from shallow holes completed during a small, historical program to test the clay for

Corporate Details

ASX: ZNC

Issued Shares (ZNC)	212.8M
Unlisted options	2.5M
Mkt. Cap. ($0.18)	A$38 M
Cash (31st Mar 18)	A$2.9 M
Debt	Nil

Directors

Michael Clifford:
Managing Director

Mike Joyce:
Non Exec Chairman

Stan Macdonald:
Non Exec Director

Julian Goldsworthy:
Non Exec Director

Major Shareholders

HSBC Custody. Nom.	12.8%
Nada Granich	5.4%
Miquilini	4.3%
J P Morgan	4.1%
Abingdon	4.1%

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industrial purposes returned results including: 0.17% Li and 0.13%Li (Figure 2). The lithium bearing clay zone is a near surface, flat lying horizon, with a true thickness greater than 30 metres, indicating excellent potential for large tonnages of lithium bearing clay within the Burro Creek project.

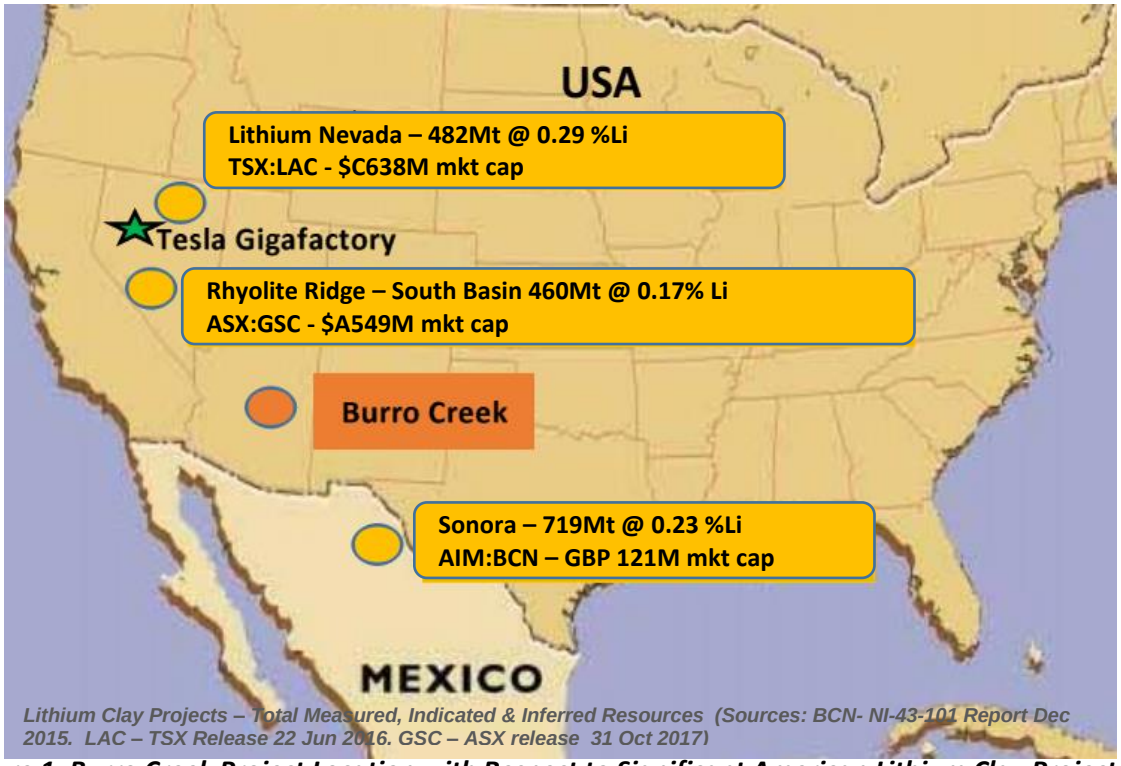


Figure 1: Burro Creek Project Location with Respect to Significant American Lithium Clay Projects (Company Market Capitalisation's as at 20th April 2018)

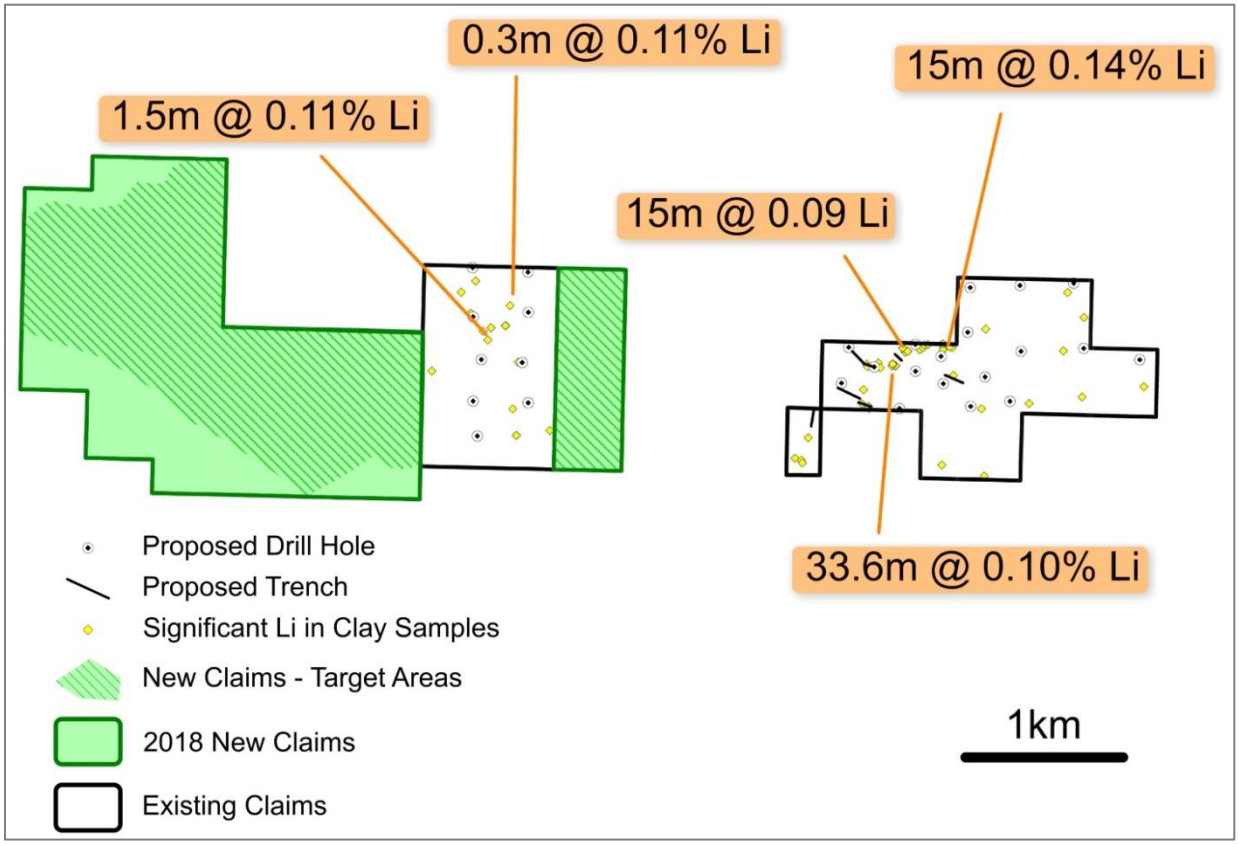


Figure 2: Burro Creek Surface Sample Results Map (continuous surface chip samples) Showing New Claim Areas and Proposed Drilling & Trenching

The Burro Creek lithium bearing clay zone is a near surface, flat lying horizon extending over 1700m by 1000m within the eastern project leases and a further 800m by 600m within the western lease areas. Observations from mapping and sampling programs indicate that the clay horizon generally has a true thickness greater than 30 m where it is exposed in gullies within gently undulating, poorly vegetated hills that comprise the eastern project area. Previous drilling to test the clay quality for industrial uses intersected clay units over thicknesses up to 20m in the western half of the project area, notwithstanding that drilling did not penetrate the full thickness of those clay beds which are up to 50 m thick in outcrop in the eastern area. The Company therefore concludes that there is excellent potential for large tonnages of lithium bearing clay within the Burro Creek project.

Initial preliminary metallurgical testwork conducted on surface samples has continued to impress with calcine-water leaches recovering 89% lithium (up from 75% on previous tests (ASX Release 27th July 2017) on 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 (AIM:BCN - market capitalisation GBP121 million as at 20th April 2018).

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 80^0C. Acid consumption in those tests was similar to that from tests on raw ore from the Rhyolite Ridge lithium project in Nevada reported on 1st June 2017 by Global Geoscience Limited (ASX:GSC - market capitalisation $A549 million as at 20th April 2018).

Further definitive metallurgical testwork is planned once representative sub-surface clay samples are available from this trenching and drilling program.

Management Team Appointed by Bradda Head

Zenith is very pleased that Bradda Head has recently appointed a new management team to drive the American Lithium JV forward. John M^{c}Goldrick the new Executive Chairman and Jim Guilinger the Chief Operating Officer both have extensive USA exploration and development experience.

John has over 36 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 in 2007, becoming non-executive Chairman in 2010. From 2008 to 2013, John was a non-executive Director of Vanguard Natural Resources LLC, 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.

With more than 40 years in the minerals industry, Jim has completed numerous industrial and strategic minerals market studies and investigations for clients and companies around the world. Prior to forming World Industrial Minerals, Jim was Director of Exploration and Development in Mexico for Eldorado and managed numerous precious, base, and industrial minerals projects. He has been a private consultant for more than 19 years and President of the Company for 15 years. Jim lives in Colorado, USA.

American Lithium Portfolio

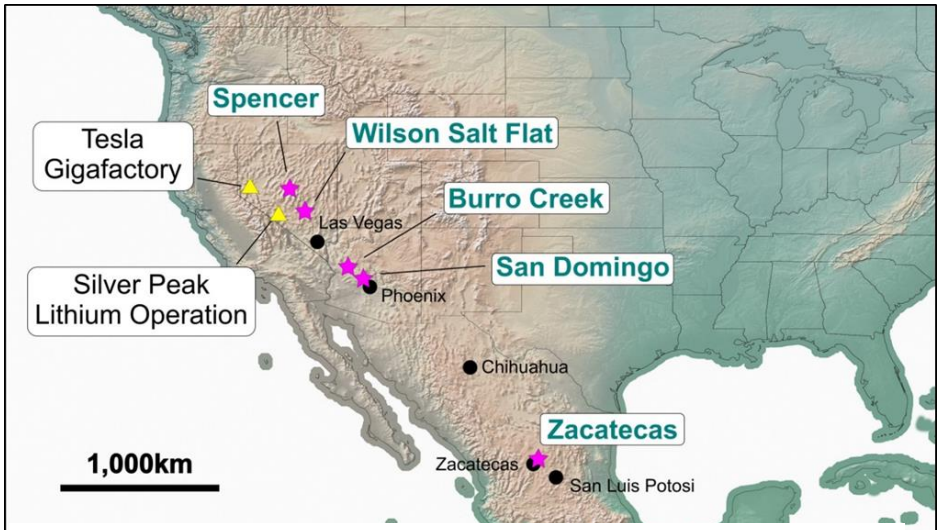
Zenith assembled an outstanding lithium project portfolio including lithium brine, lithium pegmatite and lithium clay targets in the USA and Mexico which are now the subject of a joint venture with Bradda Head Limited.

Lithium projects worldwide are of three types: brines, pegmatites and clays. The major lithium brine operations are located in South America (Chile, Argentina and Bolivia), China and Nevada, USA. Traditionally lithium brines are extracted from salt lakes into surface ponds where they are concentrated by solar evaporation and then fed into a processing facility with output as lithium carbonate for sale to battery manufacturers. Zenith's Mexican and Nevada lithium projects are lithium brine plays. Zenith's **Spencer** and **Wilson Salt Flat** brine projects in Nevada, USA are close to both Tesla's Gigafactory and to Albermarle Corporation's Silver Peak-Clayton Valley lithium brine operation, the only operational lithium project in the USA. Zenith's three new concessions:

Illescas, San Juan and San Vicente make up the **Zacatecas** lithium brine project in the emerging lithium brine district of San Luis Potosi State, Mexico.

Lithium pegmatite projects are exploited as traditional hard rock open pit mines (eg Australia's Greenbushes Mine) where concentrates of the primary lithium mineral spodumene are sold to third party processors who convert the concentrates to lithium compounds suitable for use by battery manufacturers. Zenith's **San Domingo** project in Arizona contains abundant spodumene bearing lithium pegmatites over 9 km strike.

Zenith's **Burro Creek** lithium clay project in Arizona is comparable to other lithium clay projects in the USA and Mexico subject to resource and development studies (e.g: Sonora project (Banacora – TSX).



Location Map – American Lithium JV - USA & Mexico Lithium Projects

Zenith's Nevada, Arizona and Mexico lithium projects are perfectly positioned to provide future supply to the growing USA domestic lithium battery market. Tesla Corporation has commenced construction of its lithium battery manufacturing facility (Gigafactory) outside Reno Nevada.

Bradda Head - American Lithium Joint Venture

The American lithium transaction with Bradda Head included a cash refund of Zenith's historic expenditure of US$500,000 (~A$660,000), US$5 million (A$6.6 million) in exploration expenditures by Bradda Head for 55% project interest, a one off right for Zenith to contribute at 45%, or be free carried at 30% to the end of pre-feasibility studies on two projects. In addition, Jim Mellon (Deputy Chairman of Bradda Head) and other sophisticated investors completed a concurrent share placement of A$1.5 million (ASX Release 15th March 2017).

Zenith has agreed to restructure the joint venture so that Bradda Head currently holds 55% interest in the projects (subject to fulfilling the expenditure requirements detailed above) with the benefit of reducing the administration burden to Zenith. It was also agreed to extend the period within which Bradda Head may confirm its 55% interest until 28th February 2021, due to delays in the restructure of the joint venture, and tenement grant.

Key Zenith personnel will initially dedicate up to 25% of their time to the advancement of the American lithium projects at cost, to ensure seamless progression of the projects and allow transfer of the technical knowledge base. The partners have also agreed to collaborate on any additional lithium projects that either party acquires within the same jurisdictions.

The transaction brings together the financial strength and market contacts of Bradda Head with the strong technical knowledge of the Zenith team and its USA and Mexican associates to advance these exciting lithium projects.

Bradda Head Ltd now plans to advance the American lithium JV projects prior to listing its interests in the joint venture on London's Alternative Investment Market (AIM) later in 2018.

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Michael Clifford, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith 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.

1st May 2018

For further information contact:

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Zenith is advancing its project portfolio of high-quality, gold, lithium and base metal projects:

Kavaklitepe Gold Project, Turkey (ZNC 30%, Teck 70%)

- Recent (2013) grass roots gold discovery in Tethyan Belt where continuous rock chip sampling to: 54m @ 3.33g/t gold, including 21.5m @ 7.2 g/t gold. Initial 2016 drill results include: 9 m @ 5.2 g/t Au from surface, 7.8 m @ 7.3 g/t Au from 3.3 m and 16.4m @ 4.7 g/t Au from 82.1m depth. Follow-up drilling planned 2018 (ASX Release 5th Oct 2016).

<u>American Lithium Projects (Bradda Head earning initial 55%)</u>

Zacatecas Lithium Brine Project, Mexico

- New tenure (26,000 acres) over extensive system of salt lakes within an emerging lithium brine district
- 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) - Electrical geophysical surveys planned

San Domingo Lithium, Arizona USA

- 9km x 1.5km lithium pegmatite field, initial surface sampling returned: 5m @ 1.97%Li_2O including 2.4m @ 2.49% Li_2O (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)

- Large scale lithium (Li) clay target under exclusive option - Positive initial metallurgical testwork to assess ease of extracting lithium. Trenching and drilling in May 2018.

<u>Australian Projects</u>

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 500km^2 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%)

- Initial reconnaissance rock chip sampling results up to 114 g/t silver and 0.69 g/t gold, associated with strong, open ended silver soil anomaly (ASX Release 25th July 2017). Follow-up sampling planned

Waratah Well Lithium -Tantalum Project WA (ZNC 100%)

- Extensive outcropping pegmatites (3km x 2km) encouraging lithium rock chip sample results up to 0.34% Li_2O as well as widespread, high-grade tantalum up to 1166ppm Ta_2O_5 (ASX Release 29th July 2017).

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

Mt Alexander Iron Ore, WA (ZNC 100%) - JORC magnetite Resource 566 Mt @ 30.0% Fe close to West Pilbara coast, 50% of target untested (ASX Release June Qtly 2015)- Seeking development partner/ buyer for iron project.

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.