Applying advanced technologies to create a sustainable industry
Company snapshot

LIT is the only company worldwide with the ability to process all lithium silicates without roasting.

BOARD OF DIRECTORS

George Bauk (non-executive chairman)
Expert in specialty metals, particularly rare earths – project management, marketing and financing.

Adrian Griffin (managing director)
Exploration, production, mine management.

Bryan Dixon (non-executive director)
Corporate, finance, mine development.

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What else is happening?
Acquisition of 100% of Greenbushes project completed
Priority entitlement in the float of MetalsTech Limited (ASX:MTC) - live
Award of Sileach™ engineering study pending
Further pilot testing scheduled for December 2016
Drilling at Electra (Sonora County, Mexico) early 2017
Proposed float of graphite assets and priority entitlement
Lithium – what’s it all about?

It’s about the biggest change in energy management since the industrial revolution
  • Portable power in the palm of your hand
  • Green power where ever it is required

It’s about batteries
  • The possibilities are limitless
  • Revolution in transport
  • Renewable power 24 hours a day
  • The common man becomes a power trader

33rd most common element
  • Crustal abundance about 20ppm
  • Elevated levels in pegmatites, clays and brines

More lithium is rejected as waste than enters the lithium supply chain
  • Lithium Australia is focused on commercial treatment of the “too-hard-basket”

The recycling imperative
  • Current estimate only 100t LCE out of 180,000t consumption is recycled
  • Add the sensitivity of conflict metals, mainly cobalt
The drivers to change in the lithium industry

Lithium Australia holds the key to a new future in energy management by supplying a low-cost, green alternative to conventional lithium production

Lithium Australia’s goal to establish production hubs with:

• 100% ownership of Sileach™ and Liena™ technologies*
• Low energy processes
• Low exposure to mining
• Strong by-product revenue credit

The Team

• Motivated professionals – project development, financing, IP
• Significant equity in the company

Australian government support

• Grants from state and federal governments
• IP agreement with ANSTO Minerals (a division of the Australian Nuclear Science and Technology Organisation

* Lithium Australia also holds exclusive licences for the LMax process (Platypus Minerals owner and licensor). The licence agreement provides exclusive licensing rights in Western Australia and two other locations globally.
Feed is dominated by two countries

2015 global lithium production 33,860 tpa

BRINES

Chile 38%
Argentina 8%
USA 4%
Brazil <1%
Zimbabwe 3%
China 6%

HARD ROCK

Australia 40%
Portugal 1%
Zimbabwe 3%
USA 4%
Processing innovation creates a paradigm change

Froth flotation is widely considered to be the greatest invention to ever come out of the Antipodes. It took a brewer, a metallurgist, a mining engineer and others to turn the waste dumps of Broken Hill into ore and untold wealth.

“In Broken Hill led the world in the profitable treatment of zinc-lead sulfides. At the turn of the 20th century, three out of every four tons that came out of the mine could not be treated. It was stacked in huge dumps along the line of lode; dumps that would mark the grave of Broken Hill unless silver, zinc and lead could be separated cheaply,

In 1902 D.G. Delprat, the general manager of Broken Hill Proprietary Company Limited, invented a process that promised to extract the treasure in the dump. He added oil, salt cake and other chemicals to a tank of pulped ore, and pumped air in through a blower at the bottom. He was delighted to observe that the particles of minerals clung to the rising air bubbles and overflowed the tank which the barren particles sank to the bottom. His company erected the first efficient flotation plant in the world

The Sileach™ process has the potential to transform the lithium industry the way froth flotation did for the base metals industry. This innovative halogen based process is owned 100% by Lithium Australia. Sileach™ potentially provides a means of recovering lithium from waste materials and low-grade concentrates. Sileach™ has a very low energy footprint and is capable of generating significant by-product credits. If the anticipated low operating cost can be achieved, many lithium occurrences, both waste and low-grade ore, will become viable.
From alpha-spodumene to zinnwaldite, Sileach™ - the ultimate processing solution

Acid leach – variable leach time with the most commonly available lithium mineral, spodumene, unreactive.

Sileach™ elevates most minerals to a common extraction curve
Sileach™ designed to rapidly digest any silicate mineral.

Sileach™ is a halogen based digestion system

- processing occurs at atmospheric pressure;
- energy requirement is low;
- the carbon footprint is small;
- recovery from most lithium minerals is high, and
- extensive by-product credits are possible.
Sileach™ the path to commercial production

**Process development**
- IP development at ANSTO and Murdoch University
- Committed to engineering studies and plant design

**Commercialization agreement with Pilbara Minerals (ASX:PLS)**
- LIT and PLS agree to proceed to 50/50 JV on feasibility completion

**Alliances and joint ventures**
- Alix Resources Corp (AIX TSX:V) Electra Project, Sonora, Mexico
- Cazaly Resources Limited (ASX:CAZ) Goldfields Lithium Alliance
- Focus Minerals Limited (ASX:FML) Coolgardie Rare Metals Venture
- Tungsten Mining NL (ASX:TGN) Seabrook Rare Metals Venture
- Venus Metals Corporation Limited (ASX:VMC) Pilgangoora exploration
- MetalsTech Limited (ASX:MTC) Sileach™ licence in Quebec, Canada
Aspirational statement

The performance of the Sileach™ process

- Low energy consumption
- Strong by-product revenue streams

[Diagram showing 2016 industrial grade lithium carbonate price US$7,125/t]

Present hard rock operating cost

Target hydrometallurgical cost

[Source: Deutsche Bank]
Sileach™ achieves a world first

ANSTO Minerals successfully pilot test the Sileach™ process

Murdoch University by-product evaluation and impurity deportment
Strategic positions in the global hot spots

Lithium Australia – working towards resource security
  • Combining technology with a global resource portfolio

Global alliances
  • Australia
  • Canada
  • Mexico

Lithium Australia 100%
  • Greenbushes (WA)
  • Ravensthorpe (WA)
  • Lake Johnston (WA)
  • Gascoyne (WA)
  • Bynoe (NT)
  • Cape York (Qld)
Conclusion – the key to sustainability

Lithium Australia – developing a sustainable lithium future
  • Well advanced down the commercialization path
  • Low-energy footprint
  • High by-product credits
  • Key partnership to supply spodumene concentrates

Potential to capitalize on low-cost feed
  • Potential to process off-spec mineral concentrates
  • Plan to harness the value of waste streams
  • Focus on tailings, low-grade concentrates and unconventional lithium minerals

Bridging the recycling gap
  • Evaluating the enormous potential of recycling

Lithium Australia – developing a sustainable lithium future
  • Well advanced down the commercialization path

Resource availability underpinned by a global evaluation program
  • Well advanced exploration programs
  • Strategic partnerships
  • Established in the major lithium provinces
He is qualified as a Competent Person

Mr Griffin is a shareholder in, and includes mineral species widely

as it is applied to mineral species, and not

respect of commodity prices, operating costs and results,

statements regarding targets, estimates and assumptions in

looking statements, and may include, among other things,

anticipated events or results reflected in such forward

events or results to differ materially from estimated or

unknown risks and uncertainties that could cause actual

social uncertainties and contingencies, involve known and

technical, business, economic, competitive, political and

number of estimates and assumptions that, while considered

forward-looking statements are necessarily based on a

looking statements. Such factors include, but are not limited to:

competition; mineral prices; ability to meet additional funding

requirements; exploration, development and operating risks;

unsurable risks; uncertainties inherent in ore reserve and

resource estimates; dependence on third-party smelting

facilities; factors associated with foreign operations and

related regulatory risks; environmental regulation and

liability; currency risks; effects of inflation on results of

operations; factors relating to title to properties; native title

and Aboriginal heritage issues; dependence on key

personnel, and share-price volatility. They also include

unanticipated and unusual events, many of which it is

beyond the Company’s ability to control or predict.

Many known and unknown factors could cause actual events

or results to differ materially from estimated or anticipated

events or results reflected in such forward-looking

statements. Such factors include, but are not limited to:

- competition; mineral prices; ability to meet additional funding requirements; exploration, development and operating risks; uninsured risks; uncertainties inherent in ore reserve and resource estimates; dependence on third-party smelting facilities; factors associated with foreign operations and related regulatory risks; environmental regulation and liability; currency risks; effects of inflation on results of operations; factors relating to title to properties; native title and Aboriginal heritage issues; dependence on key personnel, and share-price volatility. They also include unanticipated and unusual events, many of which it is beyond the Company’s ability to control or predict.

Photographs in this presentation do not depict assets of the Company.

COMPETENT PERSON’S STATEMENT

The information in this report that relates to reporting of Exploration Results is based on and fairly represents information and supporting documentation prepared by Adrian Griffin, a member of the Australasian Institute of Mining and Metallurgy. Mr Griffin is a shareholder in, and managing director of, LIT and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration. He is qualified 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 Griffin consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The reporting of mineral species is generic in nature, and the term ‘lepidolite’ – as it is applied to mineral species, and not necessarily locality names – includes mineral species widely considered to be part of the solid solution series of polythionite/trilithionite, of which the Competent Person considers lepidolite to be approximately a median member. It is also acknowledged that material processed from Lepidolite Hill has bulk compositions tending towards trilithionite, although the rubidium concentration is outside the range generally expected in such minerals.

Similarly, the term ‘zinnwaldite’ has been applied to minerals approximating the accepted composition of zinnwaldite but with variations tending towards lepidolite. This terminology is considered acceptable by the Competent Person.