

Galaxy Resources Ltd

LITHIUM COMPOUNDS - POWER TO THE PEOPLE

GXY

Capital Structure

Code	GXY	
Shares	1275	m.
SARs	34.1	
ITM Options	37.0	m. Av \$0.05
	1346	m.
Net debt (est)	\$ 19	m.
Price	\$ 0.076	per share
Market Cap'tn	\$ 97	m.
EV (est)	\$ 116	m.

Valuation

Asset	A\$m	\$/shr
Hardrock Li	125	\$ 0.093
Sal De Vida	152	\$ 0.113
Net cash	(17)	-\$ 0.013
Admin	(18)	-\$ 0.013
Total	242	\$ 0.180

Board & Management

Martin Rowley	Non-exec Chairman
Anthony Tse	Managing Director
Charles Whitfield	Exec Director
Jian-Nan Zhang	Non-exec Director

Opinion

Strachan Corporate estimates that Galaxy will generate cash flow of \$18 million by December '16 from farm-in payments and operations at the Mt Cattlin lithium-tantalum mine.

With net debt to about \$17 million, Galaxy is well placed to support ongoing development activities around the massive Sal de Vida lithium salar project in Argentina.

The outcome of Argentina's recent election is seen as being extremely positive for the development of Sal de Vida.

Galaxy is well placed as a speculative buy in the lithium industry.

Peter Strachan



Investment Drivers

- ◆ **Galaxy has reduced total debt** from around \$200 million to \$31 million since mid-2013. The company sold its Jiangsu lithium carbonate processing plant in China, converted debt to equity and repaid discounted convertible debt. Ahead of an anticipated initial payment of \$7 million from General Mining by March 2016, Galaxy now has one conventional debt facility and about \$12 million of cash.
- ◆ **Valuation:** A sum of the parts valuation indicates an achievable target of \$242 million or 18 cps.
- ◆ **In a deal that will deliver payment of \$25 million** over three years plus 50% of gross operating cash flow from sales of spodumene and tantalum, Galaxy farmed-out a 50% cash flow interest in its Mt Cattlin mine to General Mining. Operating funds flow is expected to commence during the June quarter of 2016. Strachan Corporate estimates annual operating cash flow to ramp up to \$18-\$20 million to Galaxy's account.
- ◆ **Galaxy is positioned to become a low cost supplier** of lithium compounds into an expanding market for lithium-ion batteries from its 100% owned Sal de Vida lithium brine project in Argentina. Demand for lithium compounds for use in batteries directed at consumer goods, communications and computing is forecast to grow at a rate of over 4% pa over the medium term and should rise by 7% pa once battery sales to storage applications and electric vehicles accelerate in the early 2020's.
- ◆ **Galaxy is examining a lower cost start-up option** at Sal de Vida costing ~US\$166 million for 7-8,000 tonne pa LCE, with a later expansion to full-scale 25,000 tpa plus addition of a potash recovery circuit as the market expands and the product gains market acceptance.
- ◆ **The lithium carbonate price has risen** from US\$5,500 to over US\$7,200 per tonne since initial feasibility work was undertaken on Sal de Vida in April 2013, lifting estimated NPV from US\$380 million to over US\$670 million for full-field development.
- ◆ **Galaxy is a lithium focused growth story**, trading at a discount it's to more advanced peers. Strachan Corporate expects that the stock will be re-rated as cash flow from Mt Cattlin is established, along with reduction in the technical and funding risks at Sal de Vida, through a clear path to start-up using a development funding partnership.
- ◆ **Strong institutional shareholder base:** Galaxy is 60% owned by institutional investors.

Lithium focus

Demand growth for lithium-ion batteries expected to support a rising price for lithium compounds . .

. . . Lithium carbonate price rises by ~30% over past two years.

Development of Galaxy's Sal de Vida project will provide integrated processing to Li-carbonate

Re-emerging as tantalum concentrate producer with lucrative spodumene co-product

Agreement for GMM to earn 50% of cash flow for \$25 m staged payment over 3 years.

Low cost start-up with ore ready to process

Sale of spodumene & tantalum concentrates to add income of >\$17m pa to Galaxy

Introduction

In mid 2012 Galaxy Resources merged with Canadian lithium developer Lithium One to create a significant force in the lithium supply chain. Following the sale of its Jiangsu lithium carbonate plant in northern China, the company's main focus is developing a 100% owned, lithium/potash brine project at Sal de Vida in Argentina. The company is also re-starting its Mt Cattlin spodumene/tantalum mine in the Southwest of Western Australia, after farming-out for 50% of operating cash flow to General Mining (GMM: ASX). General Mining has also agreed to earn a 50% interest in the James Bay hard rock spodumene development project in Canada. Galaxy's major focus remains to develop a significant presence in the global market for lithium compounds.

Strachan Corporate sees strong growth in demand for lithium compounds used in the manufacture of lithium ion/polymer batteries, while other industrial uses show expansion in line with global economic growth. Sales of lithium compounds into the rechargeable battery market for mobile electronic consumer, communications and computing equipment are expanding rapidly while the price for high grade product has risen ~30% over the past two years to levels of ~US\$7,200 per tonne. Newly emerging trends towards battery use in transport equipment and power storage look set to provide a further upward step in market usage that will support expanded production of Li-ion batteries as the decade unfolds.

Sources of Lithium Carbonate

Most lithium carbonate is sourced from brines such as Galaxy's Argentinean Sal de Vida Salar from which industry experience demonstrates that production cost is typically lower than US\$2,500 per tonne of carbonate. The process of concentration, precipitation and purification of lithium product from brines is simpler than for spodumene feed, since lithium found in brines is already in solution. Hard rock sources such as Galaxy's Mt Cattlin and James Bay deposits typically grade 1% to 1.4% lithium oxide. The Greenbushes mine in Western Australia is not typical since it grades 3% lithium oxide and is considered an outlier of its type. Operating costs relating to the processing of a complex lithium silicate called spodumene (chemical formula $\text{LiAlSi}_2\text{O}_6$) are higher, typically ranging from US\$4,000 to US\$5,000 per tonne since spodumene concentrate must first be calcined and leached to deliver lithium into solution.

Mt Cattlin 50% after sale of 50% operating cash flow

The Mt Cattlin mine was placed on care and maintenance in July '12. The plant had achieved close to its design run-rate of 1 mt pa of ore during the June '12 quarter with an annualised rate of 876,000 tpa recorded over that entire quarter.

General Mining (GMM: ASX), controlled by Galaxy's founding MD Michael Fotios, is preparing to restarting the mine in March '16 to produce tantalum and spodumene concentrates from higher grade remaining ore. Galaxy has negotiated payment from GMM of \$25 million, staged over 3 years and will receive 50% of the project's operating cash flow from mineral sales.

Start-up at Mt Cattlin will benefit from an open pit that has already had 60% of its waste removed. It holds the potential to reprocess tailings from past mining, has about 70,000 tonnes of ore at the crusher on the run of mine pad, plus ore in the pit that has already been blasted on two benches and is ready to take to the concentrator. The plant has functioning administration offices, a laboratory plus water and power connected and also has stores of consumables worth about \$3 million, ready for use.

Mt Cattlin's total global mineralisation target, calculated to a maximum depth of ~60 metres has been estimated at nearly 25 million tonnes, containing 2 mt of spodumene and 6.6 m lb of Ta_2O_5 . When applying a cut-off grade of 0.4% Li_2O or 5.9% spodumene, remaining Reserves of 10 million tonnes containing 1.47 million tonnes of spodumene and 3.3 million lbs of tantalite is estimated.

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Mt Cattlin Resource & Reserve Estimates

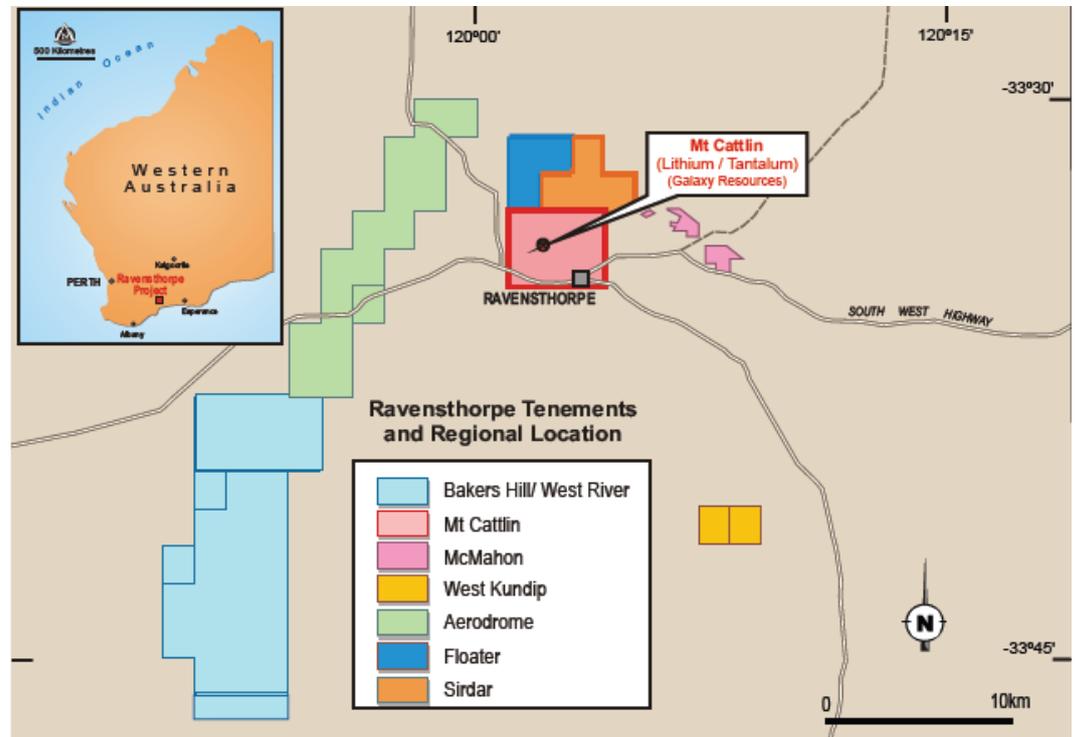
Mt Cattlin	mt	Spodumene	Li ₂ O	Ta ₂ O ₅
Resource	16.4	14.7%	1.08%	0.016%
Containing		2.41 mt	390 m lb	5.7 m lb
High Grade Reserve	9.97	14.7%	1.04%	0.015%
Containing		1.47 mt	229 m lb	3.3 m lb

Source: Galaxy, Strachan Corporate Pty Ltd

Strachan Corporate believes that the Mt Cattlin mine will not be resource constrained. Drilling to the west and northwest of known mineralisation expanded known zones of relatively shallow lithium mineralisation. Bore-hole GX849 recorded an intercept of **14 metres from 50 metres depth, grading 25% spodumene** and bore-hole GX850 hit **10 metres from 53 metres depth grading 26% spodumene**, showing much higher grades than the Reserve average at slightly deeper extensions. The project should be able to look forward to at least a 20 year project life with further extensions reliant on applying capital to drilling and the presumption of commercial grades and supportive commodity prices over the projected project life.

Deep drilling programmed for long term planning

Mt Cattlin Location Map



Source: Galaxy, Strachan Corporate Pty Ltd

Lateral & depth extensions offer expanded mine life

The Mt Cattlin ore zone occurs within a layered volcanic sequence of rocks containing hard and brittle, mineralised pegmatite sandwiched between equally hard basalt layers. Mining to depths of about 50 metres will present little difficulty, despite a need for drill and blast mining operations virtually from the surface. Drilling to about 120 metres has shown repetitions of flat lying, mineralised pegmatite below the presently defined open pit mineralisation. This mineralisation could enable mining operations to be extended at depth, either by deepening open pits or by application of underground mining extraction techniques. On balance, underground methods may prove to be more profitable than deepening open pits, provided that deeper mineralisation with sufficient lithium and tantalum grades can be established. Mining plans envisage the eventual low cost disposal of waste and tailings into mined voids, following a period of surface disposal.

Hard waste ideal for value adding road metal sales

Tailings material or crushed waste rock may ultimately find a market as aggregates for road building or other industrial materials, representing an additional revenue stream for the project.

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When last in operation, the mine produced a lithium oxide concentrate via heavy medium separation from ore crushed to 100% less than 12 mm, using a specific gravity cut of 2.9 gram per cubic centimetre. The light fraction was subject to further grinding followed by wet magnetic and gravity separation. Prior to commissioning, GMM plans to improve the crushing circuit to reduce size to 6 mm and add a mica scavenging circuit to improve spodumene concentrate quality. With these improvements, shipping out of the nearby port of Esperance should be possible, resulting in considerable transport cost savings.

GMM will target annual spodumene production of 111,500 tonnes plus 85,924 tonnes of tantalite from processing 800,000 tpa of ore. Strachan Corporate calculates a pre-tax NPV₈ of \$170 million for Galaxy's interest in Mt Cattlin.

Low cost magnetic & gravity separation of spodumene & tantalum concentrates

A peak recovery target of 75% for spodumene and +65% for tantalum has been set for operations by 2017, which is close to rates achieved when the plant was put on care & maintenance in July '12.

Sal De Vida 100%

Galaxy's Sal de Vida salar project is part of a larger series of salar lithium accumulations located in Argentina, near the borders with Chile and Bolivia at an altitude of 4,025 metres. The western Salar del Hombre Muerto is owned by leading lithium company FMC, which has operated its El Fenix production facility for 20 years and currently produces about 16% of global lithium supply.

+40 year project life

Sal de Vida	LCE	Potash
		Mt.
Resources	4.0	16.0
Reserves	1.1	4.2

Sal de Vida is estimated to hold a Measured and Indicated Resource containing just over 4 million tonnes of lithium carbonate equivalent (LCE) and 16 mt of potash. Reserves of 1.14 mt of LCE plus 4.2 mt of KCl equivalent should support a project life of over 40 years at final run-rate of 25,000 tpa of LCE.

Possible 8Kt pa LCE start-up rate

Armed with an April 2013 Definitive Feasibility Study that assesses capital and operating costs and consequent economics for a 25,000 tpa Li-carbonate project, Galaxy is now considering a staged development. Initial capital costs and market risk for the project are likely be moderated by commencing production at an initial rate of 8,000 tonnes per annum of lithium product. Once the project's process is refined and markets for product are established, output can be lifted

Sal de Vida—Capex	@ 25 Ktpa	@ 8 Ktpa
	US\$m.*	
General	7.0	4.0
Brine extraction	26.2	11.8
Evaporation ponds	88.4	39.8
Li carbonate plant	61.8	27.8
Potash plant	26.0	0.0
Reagents	6.0	3.0
Power & Infrastructure	50.2	30.1
Other	10.1	4.0
Direct costs	275.7	120.5
EPCM	35.6	15.7
Owners costs	13.0	10.0
Freight	11.4	5.0
Total indirect	60.0	30.7
Total costs	335.7	151.2
Contingency	33.5	15.1
Total Capital Investment	369.2	166.3

* Strachan Corporate estimate

to a target rate of 25,000 tonnes pa of lithium product, while adding a potash (potassium) recovery circuit, funded out of operating cash flow as the market opportunity develops.

Strachan Corporate has modified the company's capital cost estimate of US\$369 million for a 25,000 tpa project to estimate a more manageable capital cost of US\$166 million for start-up rate of 8,000 tpa of lithium product without an initial potash circuit.

The company is confident that it has the skills required to produce high quality, >99.5% pure Li₂CO₃ product to capture premium prices of around US\$7,200 per tonne for battery grade material.

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Located high in the Argentinean Andes

Sal de Vida Location Map



Source: Galaxy

The company has begun to move towards attracting a development partner who might also be an off-take partner. Galaxy might aim to attract a buyer for ~40% of the project with funds thus released, supporting the equity component for its retained 60%. Strachan Corporate believes that Sal de Vida could begin developing its plant with the aim of commencing production by late 2018, after a 15 month ramp-up period from early Salar cell development.

Comparative grades

Development likely to follow farm-in funding negotiations



Source: Galaxy

With a stronger balance sheet and cash flow from Mt Cattlin, the company is in a position to fully explore opportunities for joint venture and other funding mechanisms with downstream lithium off-take partners. While the lithium carbonate price remains firm, current competitive conditions for engineering and project development should enable Galaxy to revisit capital and operating cost estimates with a view to achieving significant cost reductions prior to a final investment decision.

Current business environment is favourable for project cost reduction

At an average Li_2CO_3 price of US\$6,395 per tonne (currently US\$7,200/t), depending on grade the DFS expects a full-scale project to deliver an operating cash flow before interest and tax of US\$118 million pa, which corresponds to a pre-tax NPV₁₀ of \$645 million.

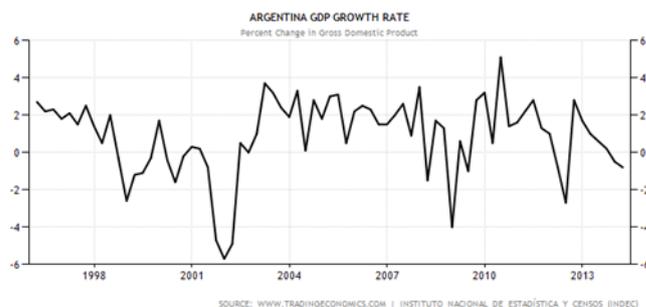
Significant development value upside for Galaxy

The company will work towards achieving generous project financing facilities through its Chinese banking and joint venture partner connections. Progress could then commence with possible new equity, along with ~US\$130 million of project debt.

Argentina remains a solid mining destination

Argentina

Argentina consistently ranks poorly on tables of country risk. It's political and economic landscape has moved through several cycles since the country went bankrupt in 2001. In 2012 the country took control of Repsol's 51% interest in Argentina's largest oil company YPF, effectively nationalising it and causing a further deterioration in its global financial standing. Beyond that, the country remains relatively stable for miners and there has been little interference in this part of its economy.



Argentina's GDP fell by ~2.1% in 2014 and inflation remains high at 38%. Economic reform in Argentina, led by a newly elected and strongly pro-business President Macri, should open up the free flow of funds into and out of Argentina over the coming 9-12 months, supporting Galaxy's project development funding and operations.

Newly elected President Macri supports mining

James Bay 100% (GMM earning 50%)

Galaxy has agreed to farm-out 50% of the James Bay Pegmatite project in Quebec. The deposit holds total Indicated and Inferred Resources of 22.1 mt grading 1.28% Li₂O, which is similar in size and extent to the Mt Cattlin deposit. Metallurgical test work indicates that James Bay mineralisation can be adapted to the same processing route employed at Mt Cattlin to produce a spodumene concentrate.

Spodumene project

General Mining has agreed to earn a 50% interest in the James Bay project by spending \$5 million on development work.

Financial Position

Galaxy holds approximately \$12 million of cash and has a 3-year, \$31 million debt facility with a 10% pa coupon.

Galaxy will receive an initial payment of \$7 million in early 2016, plus annual payments of \$6 million from General Mining paid quarterly over three years, once the mine is in operation. The company will also be entitled to 50% of the operating cash flow that is generated by the Mt Cattlin operation.

Directors

Martin Rowley Chairman

Martin was a co-founder of TSX and LSE-listed First Quantum Minerals Ltd and remains its Executive Director, Business Development. First Quantum is one of the world's largest copper production companies and owns the Ravensthorpe nickel project in Western Australia. He was previously non-executive Chairman of Lithium One Inc., which was acquired by Galaxy in July 2012.

Anthony Tse Managing Director

Anthony is a Hong Kong resident and was previously the Chief Executive Officer of CSN Corporation, a home shopping television channel in China. Prior to this, he worked in strategy, development and M&A roles at the TOM Group for more than eight years. Prior to joining the TOM Group, Mr Tse spent more than five years at News Corporation's STAR TV.

Charles Whitfield Executive Director

Charles has an MBA from Columbia University and is the Principal Investment Officer of Drumrock Capital, an investment firm providing capital and advisory services to start-up and early round companies. He was formerly a Managing Director with Citigroup where he held the position of head of the corporate equity solutions group (Asia Pacific).

Jian-Nan Zhang Non Executive Director

Mr Zhang is the Deputy General Manager of Fengli Group (Australia) Pty Ltd, a subsidiary of the Fengli Group in China, which is a leading private industrial group in China, holding interests in iron and steel, commodities trading, shipping and wharf operation related businesses. He is a Galaxy shareholder and was previously Managing Director of Winy Trade & Investment in China.

S.W.O.T Analysis

Strengths

RIISING DEMAND FOR LITHIUM: Auto makers are initiating programmes to develop fully electrical or hybrid electric vehicles, using Li-ion batteries. Chinese battery makers are gearing up to expand capacity. Warren Buffett and Tesla have invested in the industry ahead of roll-out for mass domestic power storage applications.

SKILLED TECHNICAL MANAGEMENT: Galaxy's new technical and financial team has proven ability.

LARGE RESOURCE BASE: The company's Resources at Mt Cattlin, James Bay and Sal de Vida are well understood and the projects do not appear to be resource constrained.

LOCATION: Projects are well located with respect to transport, services, labour and utilities.

Opportunities

EXPLORATION: Galaxy has extensive lithium Resources and has established relationships with customers.

DEVELOPMENT: James Bay Li project provides a development option to serve the North American market, where Tesla is building a battery mega-factory.

Weaknesses

FUNDING: The company must attract funding for development of Sal de Vida. It has manageable debt as it makes the transition to generating operating cash from Mt Cattlin tantalum and lithium mine in 2016.

SMALL COMPANY: Risk adverse equity markets find smaller companies to be high risk.

START-UP PROJECTS: Galaxy will need the ongoing support of customers and its banks.

Threats

FUNDING: Strong relationships with Chinese banks and potential joint venture partners should assist in this task.

COMPETITION: Rising prices for lithium minerals are likely to draw in additional suppliers, potentially leading to lower commodity prices. Galaxy will need to work closely with customers to ensure that it is not in competition. Operating in an environment where Chinese producers and customers are major players presents special marketing risks.

TECHNOLOGY CHANGE: Technology in the lightweight battery industry is rapidly evolving, but Li-ion is likely to be at the heart of this industry for decades.

Disclaimer

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