



**Breakaway  
Research**

May 2013

**Grant Craighead** | Research Manager  
gcraighead@breakawayinvestmentgroup.com

**Andrew McLeod** | Research Analyst  
amcleod@breakawayinvestmentgroup.com

### Company Information

ASX Code	CSD
Share Price	A\$0.08
Ord Shares	186.1m
Listed Options (CSDO)	61.7m
Unlisted Options	27.3m
<b>Market Cap A\$</b>	<b>A\$14.8m</b>
Cash (end Dec 12)	A\$0.2m
Total Debt	A\$0m
<b>Enterprise Value</b>	<b>A\$14.6m</b>

### Directors

Managing Director	Ralph De Lacy
Non-Executive Director	Andrew Kerr
Non-Executive Director	Darryl Harris
Non-Executive Director	Tong Si He

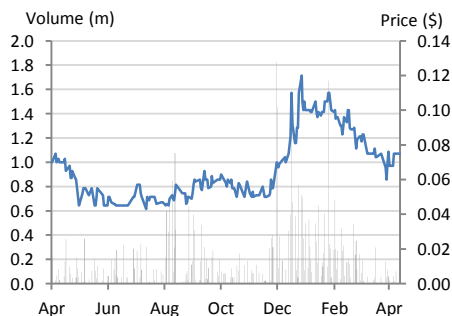
### Substantial Share Holders

Snow Peak Int.	19.6%
Beacon Minerals	8.2%
Ralph De Lacey	5.5%
Geocrystal Ltd.	5.4%
John Sainsbury	4.5%
<b>Top 20</b>	<b>63.9%</b>

### Company Details

Address	395 Lake Street, Cairns, 4870, QLD
Phone	+617 4032 3319
Web	www.csdtin.com.au

### 1 Year Price Chart



Source: Bloomberg

# Consolidated Tin Mines (CSD)

*On track to deliver first tin production by mid-2014*

**Recommendation: Speculative BUY**

## Company Update

### Key Points

- **Snow Peak Mining acquires 1Mtpa processing plant and prospective land package for A\$ 40M and seeks a JV with CSD**
- **CSD to re-commission the Mt Garnet concentrator for a 10% free carried share in short term profit**
- **Updated PFS (due by Sept 2013) will assess the economics of creating a designated tin circuit for CSD's Mt Garnet project**
- **7.3Mt @ 0.6% Sn JORC resource with a resource upgrade expected imminently (targeting an additional 2Mt)**
- **Economics of project likely to be enhanced through the recovery of fluorine and iron by products**
- **First tin production targeted for mid-2014**

*Consolidated Tin's major shareholder Snow Peak Mining has now completed the acquisition of the 'Kagara Central Region Project' which includes a 1Mtpa processing plant and a highly prospective land package. CSD is well advanced with a PFS assessing the economics of modifying the plant to process tin ore (sourced from the CSD's flagship Mt Garnet tin project) at the plant.*

### Company Update

Consolidated Tin (ASX: CSD) continues to make steady progress in its ambition of becoming the next Australasian tin producer, boosted by a strong relationship with Snow Peak Mining Pty Ltd.

Snow Peak Mining recently paid A\$ 40M for the Kagara Central Region Project which includes a 1Mtpa processing plant and a highly prospective land package. CSD has agreed to manage the re-commissioning of the 1Mtpa Mt Garnet processing facility (scheduled to re-open Sept. 2013) with ore to be initially sourced from the existing Baal Gammon and Balcooma/Surveyor mines, in return for a 10% free carried interest in any short term profit made.

A pre-feasibility study is well underway (due for completion in Sept. 2013) assessing the economics of processing ore from Consolidated Tin's Mt Garnet tin project at the Mt Garnet concentrator. In its current configuration, the plant is not set up to process tin ore and as such, modifications to at least one of the existing 0.5Mtpa circuits will be required (at a fraction of the cost of constructing a stand alone plant).

On the basis of a positive PFS, a JV company will likely be formed with Snow Peak and CSD each contributing their relative assets. Each company will then contribute to funding on a pro-rata basis for any plant modifications and upgrades.



## Investment Thesis

### Processing Plant Secured

*Kagara project  
acquired for A\$ 40M*

*Project includes  
1mtpa plant +  
prospective land  
package*

*Plant to be re-  
commissioned by  
September 2013*

On the 25<sup>th</sup> January 2013, Snow Peak Mining completed the acquisition of the Kagara Central Region Project for total consideration of A\$ 40M. The project is strategically located just 9km (by sealed road, on the Kennedy Highway) to the company's flagship Gillian tin deposit (which hosts near surface JORC resource of 3Mt @ 0.78% Sn).

The Kagara Central Region Project includes a highly prospective and proven package of copper and base metal assets including the Baal Gammon and Balcooma/Surveyor mines and a 1Mtpa processing plant (the Mt Garnet concentrator).

The processing facilities currently incorporate copper and polymetallic circuits, each with a 0.5Mtpa capacity. It is envisaged the plant will be re-commissioned in its current configuration by September 2013, processing ore from the existing Baal Gammon and Balcooma/Surveyor deposits (included in the acquisition).

As previously stated, CSD will manage the Project on behalf of Snow Peak as a separate entity and will receive a 10% free carried interest on any short term profit as compensation.

*All major  
infrastructure and  
permitting in place*

### Mt Garnet Concentrator – Owned by Snow Peak Mining



Source: Consolidated Tin

### Mt Garnet Pre-Feasibility Study

*PFS due on CSD's Mt  
Garnet Tin Project*

On the 3<sup>rd</sup> of May 2012, Snow Peak and Consolidated Tin entered into a heads of agreement for a A\$3 million funding package to be used for the completion of a Pre-Feasibility Study of the Mt Garnet Tin Project. In consideration of this payment, CSD issued Snow Peak 27.3m unlisted options which have an exercise price of 7 cents and expire 31 Dec 2013. These options are currently 'in-the-money' and should Snow Peak exercise it would raise an additional A\$ 1.9m for the company.

The PFS study was due for completion at the end of 2012, however it has been justifiably delayed given the recent developments surrounding the Kagara plant acquisition. The PFS is now scheduled for completion by September 2013 and is expected to highlight significant cost savings and favourable project economics.



## Formation of a Joint Venture Company

*JV company to be formed*

Assuming an economically attractive PFS, a Joint Venture Company is envisaged with Consolidated Tin contributing its tin projects and Snow Peak contributing the 'Kagara Central Region Project'.

*A tin circuit to be built at a fraction of the cost of a stand alone operation*

In its current state, the processing plant is not configured to process tin ore and as such, a tin circuit will need to be installed. Importantly, all the existing infrastructure including the costly crush & grind facilities can still be utilised, significantly reducing the costs compared to a stand alone operation. No formal decision has yet been made on how this additional circuit will be funded (estimated costing's to be delivered with PFS) however, it is envisaged the CAPEX would likely be split on a pro-rata basis. First tin production is then envisaged for Q2 2014.

## Value Proposition

*CSD trading a significant discount to the Kagara Central region Project acquisition price*

The formation of a JV company, with Snow Peak contributing the Kagara Central Region Project and Consolidated Tin contributing the Mt Garnet Tin Project, highlights the apparent 'discount' CSD is currently trading at.

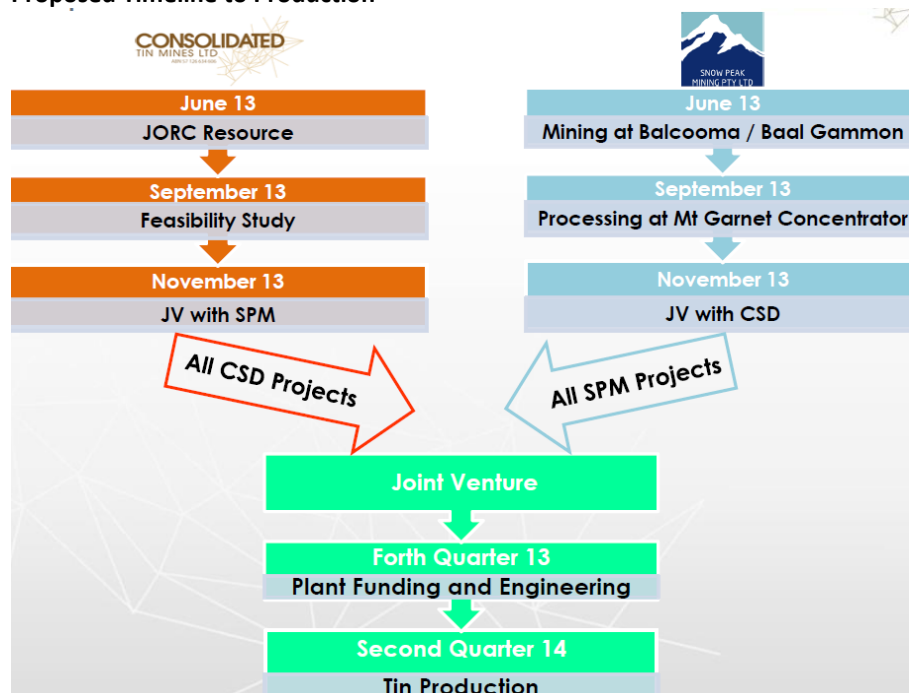
Snow Peak Mining paid a total of A\$ 40M for the Kagara Central Region Project (representing its half of the JV company) while CSD currently has a current EV of just A\$14.6M (representing the other half of the JV company).

Breakaway believes Consolidated Tin's current valuation (relative to the soon to be JV partner) is unwarranted. The combined entity is a near term producer with a fully permitted plant on the door step of a significant tin deposit, augmented by a highly prospective and proven package of copper and base metal assets including the Baal Gammon and Balcooma/Surveyor mines.

A clear path to production has now been forged in a market where few explorers have the opportunity to transition to 'producer' status. The significance of this JV should not be underestimated.

## Proposed Timeline to Production

*Near term production*



Source: Consolidated Tin



## Mt Garnet drill campaign - resource upgrade imminent

Consolidated Tin recently completed approximately ~10,000m of drilling within the Mt Garnet project (Gillian, Pinnacles and Deadmans Gully). The drilling campaign was largely designed to upgrade the category of the current JORC resource (7.3Mt @ 0.6% Sn) to mostly 'Indicated' and to target a further 1-2Mt in additional mineralisation.

### Current JORC Tin Resource

*2Mt Resource upgrade targeted*

Project	Measured		Indicated		Inferred		Total	
	Tonnes (t)	Sn (%)	Tonnes (t)	Sn (%)	Tonnes (t)	Sn (%)	Tonnes (t)	Sn (%)
Gillian	1,203,000	0.82	824,100	0.73	974,100	0.77	3,001,200	0.78
Pinnacles	-	-	218,200	0.49	1,652,700	0.39	1,870,900	0.40
Deadmans Gully	-	-	401,500	0.49	-	-	401,500	0.49
Windermere	-	-	-	-	2,103,000	0.55	2,103,000	0.55
<b>Sub Total</b>	<b>1,203,000</b>	<b>0.82</b>	<b>1,443,800</b>	<b>0.63</b>	<b>4,729,800</b>	<b>0.54</b>	<b>7,376,600</b>	<b>0.60</b>
Jeannie River	-	-	-	-	2,240,000	0.60	2,240,000	0.60
<b>Total</b>	<b>1,203,000</b>	<b>0.82</b>	<b>1,443,800</b>	<b>0.63</b>	<b>6,969,800</b>	<b>0.56</b>	<b>9,661,643</b>	<b>0.60</b>

Source: Consolidated Tin Mines

All assays have now been received (from ~10,000m already drilled) and will form the basis of the **resource upgrade** currently underway and due by the end of the (current) June Quarter.

### Metallurgical Test Work

*Economics likely to be enhanced by fluorine and iron credits*

Metallurgical studies are also in the process of being finalised. Test work indicates that fluorine and iron can both be recovered during a simplified processing route, further enhancing the economics of the project.

### Short Term Funding

*\$1M short term funding available*

Breakaway notes CSD had a cash balance of ~A\$0.2M as at end Mar 2013. Consolidated Tin are likely to raise additional capital (in the near term) to fund future exploration and complete necessary studies. In the interim, Snow Peak has again 'stepped up' and recently provided Consolidated Tin with a A\$ 1M short term loan facility. Under the terms agreed, Consolidated Tin will repay any amount drawn down within 2 months of first draw down.

### Mt Garnet - Project Summary

#### Gillian Deposit

*Flagship deposit*

Gillian is the most advanced of the three key projects at Mt Garnet and controls on the mineralisation are well understood. 1,000m of drilling was recently completed at the deposit and was largely for the purpose of 'infill drilling' and testing the extent of the down dip extensions of the mineralisation. Assays recently received from this campaign continue to demonstrate broad zones of high grade shallow mineralisation **including 30m @ 1.02% Sn** from 3m below surface and **20m @ 1.31% Sn** from 15m below surface. Breakaway expects the upcoming resource upgrade will largely constitute a shift in resources from the 'Inferred' category to mostly 'Measured and Indicated' resources rather than a meaningful increase to the total tonnes.



### Pinnacles

The Pinnacles deposit currently hosts a near surface JORC resource of 1.8Mt @ 0.40 % Sn with potential to host several million tonnes of resource with further exploration. Additional opportunity exists, with significant magnetite iron ore and fluorine mineralisation co-existing within the deposit and likely to be recovered in the overall processing route and then on-sold as by-products.

*Significant exploration potential still exists*

Consolidated Tin has drilled over 10,000m since the last resource review, much of which has been 'resource extension' drilling. Exploration results from this extensional drilling, outside of the current resource limits, bode well for the company to meet its short term exploration target of identifying an additional 1-2Mt of resource @ ~0.6% Sn. Recent highlights include **6m @ 1.84% Sn and 10m @ 1.19% Sn**.

### Windermere/Deadmans Gully

Windermere hosts a JORC Inferred Resource of 2.1Mt @ 0.55% Sn, while the nearby Deadmans Gully contributes a further 401,500t @ 0.49% Sn (Indicated) giving a total JORC Resource of 2.5Mt @ 0.5% Sn for 12,500t of contained tin.

*Pipeline of projects*

Consolidated Tin recently completed another 500m of RC drilling at the Deadmans Gully prospect which intersected further broad widths of mineralisation. Highlights include 36m @ 0.52% Sn (from surface) and 23m at 0.48% Sn (from 10m below surface).

### Jeannie River

Jeannie River currently hosts a JORC Inferred Resource of 2.24Mt @ 0.6% Sn with significant exploration potential and provides an excellent pipeline for the company. Exploration at the project is expected at a controlled pace as the primary focus is still the Mt Garnet project. In time, Jeannie River may warrant a standalone operation to augment production from Mt Garnet.

### The Tin Price

*CSD estimates operating costs at ~US\$12,000/t*

The chart below shows the price per tonne of tin over a 10 year period. Although the PFS has not yet been released, Consolidated Tin estimates operating costs of ~US\$12,000/t (against a current (Mar 2013) tin price of US\$23,300).

*Strong tin price on an upward trend.*



Source: Indexmundi



### **Analyst Verification**

We, Grant Craighhead and Andrew McLeod, as the Research Analysts, hereby certify that the views expressed in this research accurately reflect our personal views about the subject securities or issuers and no part of analyst compensation is directly or indirectly related to the inclusion of specific recommendations or views in this research.

### **Disclosure**

Breakaway Investment Group (AFSL 290093) may receive corporate advisory fees, consultancy fees and commissions on sale and purchase of the shares of Consolidated Tin and may hold direct and indirect shares in the company. It has also received a commission on the preparation of this research note.

### **Disclaimer**

Any observations, conclusions, deductions, or estimates of figures that have been made by Breakaway Research and the Breakaway Investment Group in this report should not be relied upon for investment purposes and the reader should make his or her own investigations. This publication has been issued on the basis that it is only for the information and exclusive use of the particular person to whom it is provided. Any recommendations contained herein are based on a consideration of the securities alone. In preparing such general advice no account was taken of the investment objectives, financial situation and particular needs of a particular person. Before making an investment decision on the basis of this advice, investors and prospective investors need to consider, with or without the assistance of a securities adviser, whether the advice is appropriate in light of the particular investment needs, objectives and financial circumstances of the investor or the prospective investor. Although the information contained in this publication has been obtained from sources considered and believed to be both reliable and accurate, no responsibility is accepted for any opinion expressed or for any error or omission that may have occurred therein.

**Breakaway Investment Group**  
AFSL 290093 ABN 84127962387  
T+61292621363  
F+61292792727  
PO Box H116 Australia Square  
Sydney, NSW 2001  
Suite 505, 35 Lime Street,  
Sydney, NSW 2000