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Trevali Mining Corporation

TV-T: $0.36 | Rating: Buy | Target price: $0.80

Think Zinc

Mining

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Company Profile

Trevali Mining Corporation is a zinc-focused, base metals mining company with one producing mine in Peru and another mine starting up in Canada. In Peru, the company is actively producing zinc and lead-silver concentrates from its 2,000tpd Santander mine. In New Brunswick, Trevali is commissioning its 3,000tpd Caribou mine and mill, and is expected to reach commercial production by Q3/16. Trevali also owns the past-producing Halfmile mine and Stratmat deposit, which, like Caribou, are located in the Bathurst Mining Camp of northern New Brunswick.

Source: BigCharts.com

Market and Company Data

Ticker	TV-T	**Shares-basic O/S (M)**	378.8
Rating	Buy	**Shares-FD ITM O/S (M**	386.3
Risk	High	**Market Cap (M)**	$138.3
Price	$0.37	**Float O/S (M)**	337.1
1-Yr Target	$0.80	**Enterprise Value* (M)**	$189.6
Valuation Method	4.0x '16 / 3.0x '17 CF	**Control Blocks:**	
Dividend Yield	0.0%	Glencore	5.2%
1-Yr ROR	119.2%	**Year End**	Dec. 31
52 Wk High-Low	$1.24 - $0.245	**NAVPS**	$1.00
Avg Daily Vol (K)	1,357	**P/NAV**	0.4x

Estimates	**2014**	**2015**	**2016E**	**2017E**	**2018E**
EBITDA (C$M)	$18.1	$16.3	$85.0	$85.0	$125.7
EPS (C$ fd)	($0.03)	($0.05)	$0.12	$0.18	$0.21
CFPS (C$ fd)	$0.06	$0.06	$0.19	$0.26	$0.29
Valuation Metrics	**2014**	**2015**	**2016E**	**2017E**	**2018E**
EV/EBITDA	10.5x	11.6x	2.2x	2.2x	1.5x
P/E	nmf	nmf	3.2x	2.0x	1.7x
P/CFPS	6.0x	6.5x	2.0x	1.4x	1.3x
Operating Data	**2014**	**2015**	**2016E**	**2017E**	**2018E**
Zn (US$/lb)	$0.96	$0.84	$0.75	$0.85	$1.00
Zn prodn (k lbs)	50,449	54,148	142,972	165,964	163,041

Company reports in C$, metals prices are in US$
Source: Company reports; Capital IQ; LBS.

Think Zinc

Differentiated from base metals producer peers. We are initiating coverage of Trevali Mining Corporation with a Buy rating and a $0.80 target price. Trevali is unique among base metals companies as a zinc-focused producer. The company has two operating mines: the Santander mine in Peru and the Caribou mine in New Brunswick.

- **Steady production from the Santander mine.** The mine is an underground 2,000tpd operation which produced 54.1m lbs of zinc, 30.2mlbs of lead, and 1moz of silver in 2015. Trevali is planning to double capacity to 4,000 tpd in the next few years if zinc prices improve.
- **Caribou approaching commercial production.** The Caribou mine is expected to reach commercial production by Q3/16. Due to the fine grained nature of the ore and metallurgical challenges, the startup has been slow but steady, building on experience acquired from previous operators and benefitting from help from Glencore. A copper circuit will be installed next year.
- **Other projects offer optionality.** Trevali also has several earlier stage projects that could be advanced in the event of a stronger zinc price. In particular, we note the proximity of the past-producing Halfmile mine and the Stratmat deposit, which, like Caribou, are in the Bathurst mining camp of northern New Brunswick.
- **Trevali is attractively leveraged to zinc...** Among base metals, we like the prospects for zinc in 2016 the most, as we believe the longest down cycle in the zinc price since the 1920s is ending. We expect a modest increase in demand combined with reduced production growth to lead to a concentrate market deficit over the next few years.
- **...But needs higher prices.** 2015 was a challenging year, with weak base metal prices. At a zinc price below US$0.80/lb, operations are marginal; however, profitability improves considerably at a zinc price above $0.85/lb. For 2016, we estimate EPS of $0.12 and CFPS of $0.19, improving in 2017.
- **Attractive valuation.** Our $NAV_{8\%}$ based on a long-term zinc price of US$1.00/lb, is $1.00. The NAV improves by 8% for each US$0.10/lb increase in the price of zinc. The company's 2016 EV/EBITDA of 2.2x and P/CF of 2.0x compare favourably to peers trading at 4.1x and 6.5x, respectively.
- **We are initiating coverage of Trevali Mining with a Buy rating and a target price of $0.80.** Our target price is based on a blend of our multiple of 4.0x 2016 CF and 3.0x 2017 CF, which corresponds to 0.8x our $NAV_{8\%}$. We believe Trevali is well positioned to benefit from a resurgent zinc market, relative to its copper dominant peers.

Investment Thesis

Buy Rating with a $0.80 Target

We are initiating coverage of Trevali Mining with a Buy rating with a one-year target price of $0.80, implying a total return of 100%. The company is well positioned to take advantage of its unique status as a zinc-focused producer, in a market that we believe will improve materially in 2016. Our target price is based on a blend of our multiple of 4.0x 2016 CF and 3.0x 2017 CF, which corresponds to 0.8x our $NAV_{8\%}$.

Investment Positives

Santander is now at steady state production after a successful startup. The potential for a doubling of capacity at the mine provides further optionality, under favourable zinc prices.

A slow but steady startup at Caribou. Now that Caribou has successfully integrated the Isamills, and recoveries are improving steadily, the operation is approaching commercial production.

Zinc outlook encouraging

Zinc supply is constrained. Zinc demand slowed in 2015, but we forecast a pickup in demand over the next two years in China and the rest of the world. In the last year, the closure of several large zinc mines has brought the zinc market back into balance, and the concentrate market has moved into deficit. The response from China, the world's largest producer of zinc, and historically the source of "hidden supplies", will be critical in determining the eventual amount of inventory available, and the price of zinc. Overall, we believe the downside is limited from current levels.

Best leverage to the zinc price

Trevali is unique relative to other base metals producers, as it offers the most exposure to zinc, mostly unhedged. A US$0.10 increase in the zinc price increases our NAV by 8%. Based on our price forecast, we estimate Trevali will generate $0.26/sh in cash flow in 2017, Caribou's first full year of commercial production, when we expect the zinc price to average US$0.85. Lead and silver are meaningful by-products; we expect they will contribute 28% and 10% to revenues, respectively, next year.

Construction capex is complete

Ongoing expenditures should be manageable. With the impending commercial startup of the Caribou mine and steady state production at Santander, operational risk has been mostly eliminated, and capital requirements will fall significantly. We expect management will be opportunistic, but will exercise caution when evaluating the expansion at Santander or the development of other assets.

Glencore support

Glencore is providing technical and financial support to Trevali for both of its mines. At Santander, Glencore is the miner and operator of the plant. Glencore's offtake agreement for Santander's production aligns its interests with Trevali to meet production targets. Most recently, Glencore allowed Trevali a temporary suspension of repayments of loans for the purchase of the Santander mill to enable the most effective use of limited cash flow from the mine in the current zinc market. Glencore is also providing support to the startup at Caribou.

Additional properties provide upside. Trevali has several properties that, in a more favourable zinc environment, would offer attractive upside. For now, the company will pursue development at Santander, targeting the Fatima zone, in addition to testing the Magistral zone at depth.

Investment Risks

Needs higher zinc prices

At zinc prices below US$0.80/lb, the company does not generate free cash flow. We estimate that Trevali needs a sustained zinc price in excess of US$0.85/lb in order to become profitable on an all-in cost basis.

Balance sheet at risk

For a company of Trevali's size, debt is high, and with negative cash flow, cash liquidity is an issue. Fortunately, Trevali has deferred debt repayments, and the recent equity issue will help to make up any shortfall. But Trevali needs better zinc prices for operations to be sustainable over the longer term. In the event of a prolonged downturn in the zinc market, the company may have to resort to additional financing – and dilution - at a depressed share price.

Not a priority among base metals equities

For now, the market favours larger, more established and liquid base metals producers. With two small mines and a market capitalization of just $138m, investors may wait for the metals market to return with more conviction before considering Trevali.

Mixed record for zinc producers

The history of zinc-focused producers has been mixed for companies such as Breakwater, Nyrstar, and Blue Note, to name a few. While Trevali is uniquely positioned to capitalize on a recovering zinc market, the company will need to reconsider its strategy if the zinc market falters in the longer term.

Short mine lives

Caribou has a mine life of 6.5 years, and Santander has a mine life of 9 years, so there is limited time to operate before the company needs to either add to the reserves or develop a new mine for its portfolio. Investors may balk at assets that are not “company makers”.

Limited M&A interest?

The partnership with Glencore cuts both ways: on one hand, it provides technical expertise and financial security to Trevali, but on the other hand, the offtake agreement may limit the interest from potential buyers of the company who would like more control over the metal sales.

Valuation

NAV of $1.07

Our $NAV_{8\%}$ for Trevali of $386m, or C$1.00/sh, is derived primarily from the discounted cash flow from our model of the Santander and Caribou mines (Exhibit 1). Santander represents the largest component of the valuation, or 52%, while the Caribou mine is 36% of NAV. The company also has approximately $20m in cash, and long term debt and finance lease of $111.8m ($0.29/sh). Trevali's mines have limited reserves, but given the potential for adding to the mine lives, we have modeled Santander based on a 12-year mine life, and Caribou based on a 9-year mine life. In the current metals environment, we have accorded limited value to the development projects, the Halfmile mine and Stratmat property in New Brunswick, as well as the Ruttan property in Manitoba.

Strong leverage to the zinc price

The valuation is significantly leveraged to the zinc price, as Trevali's metal production is entirely unhedged. A US$0.10/lb rise in the zinc price, along with a proportional price rise in other metals, results in an 8% increase to the NAV from our long term zinc price of US$1.00/lb. For now, the operations will benefit from a weak C$ and Peruvian Sole. Given the near-term upside potential of zinc, we believe the valuation has more appreciation potential than its copper-based peers.

Attractive multiples

Our base case, using the long term forward zinc price of US$1.00/lb, results in a NAV of $1.00/sh. At the present share price, the company is trading at a P/NAV of 0.4x, P/2016 CF of 2.0x, and EV/ 2016 EBITDA of 2.2x. By comparison, the average peer group comparables have a P/NAV of 0.5x, a P/2016CF of 3-4x, and EV/EBITDA of 5-7x. Our price target is $0.80, based on a weighting of 4.0x 2016 CF and 3.0x our 2017 CF, and represents a one-year return of 2.1x. This target also represents a multiple of 0.8x NAV.

Risk to the valuation

The most significant risk to the valuation comes down to the success of the start of commercial production at Caribou. The mine is about two quarters behind schedule (although the SRK PEA study modeled commercial production in mid-2016), as it currently deals with recovery issues, but throughput and recoveries have been improving, and the performance of the Isamills have not been an issue. Based on our discussions with the company, we are comfortable with the progress toward commercial production.

Exhibit 1. Trevali Mining - Net Asset Value

Operations:	$NAV_{8\%}$ (C$m)	per share	$NAV_{10\%}$ (C$m)	per share
Santander Mine	$198.9	$0.51	$179.8	$0.47
Caribou Mine	$139.0	$0.36	$129.1	$0.33
Halfmile Mine	$60.0	$0.16	$60.0	$0.16
Stratmat Project	$30.0	$0.08	$30.0	$0.08
Other Properties	$10.0	$0.03	$10.0	$0.03
Sub Total	**$437.9**	**$1.13**	**$408.8**	**$1.06**
Working capital	$9.4	$0.02	$9.4	$0.02
Long term debt	($61.2)	($0.16)	($61.2)	($0.16)
Total Net Asset Value:	**$386.1**	**$1.00**	**$357.0**	**$0.92**
Fully diluted shares outstanding	**386.3**		**386.3**	
NAV/sh C$	**$1.00**		**$0.92**	

NAV/sh Sensitivity Analysis

		LT Zinc price (US$/lb)				
		$0.80	**$0.90**	**$1.00**	**$1.10**	**$1.20**
Discount Rate	**0%**	$1.26	$1.33	$1.44	$1.48	$1.52
	6%	$0.95	$1.00	$1.09	$1.10	$1.14
	8%	$0.88	$0.92	$\boxed{\$1.00}$	$1.01	$1.04
	10%	$0.81	$0.85	$0.92	$0.94	$0.96
	12%	$0.76	$0.79	$0.86	$0.87	$0.89

Source: Company reports, LBS estimates

Company Profile

Two producing zinc-dominant mines

Trevali is a zinc-focused, base metals mining company with one producing mine in Peru and another mine starting up in Canada (Exhibit 3). In Peru, the company is actively producing zinc and lead-silver concentrates from its 2,000tpd Santander mine. In New Brunswick, Trevali is commissioning its 3,000tpd Caribou mine and mill, and is expected to begin commercial production in Q2/16. Trevali also owns the past-producing Halfmile mine and Stratmat deposit, which like Caribou, are located in the Bathurst Mining Camp of northern New Brunswick. We summarize the resources for the company's assets in Exhibit 4.

Exhibit 2: Trevali Mining - Financial and Operating Summary

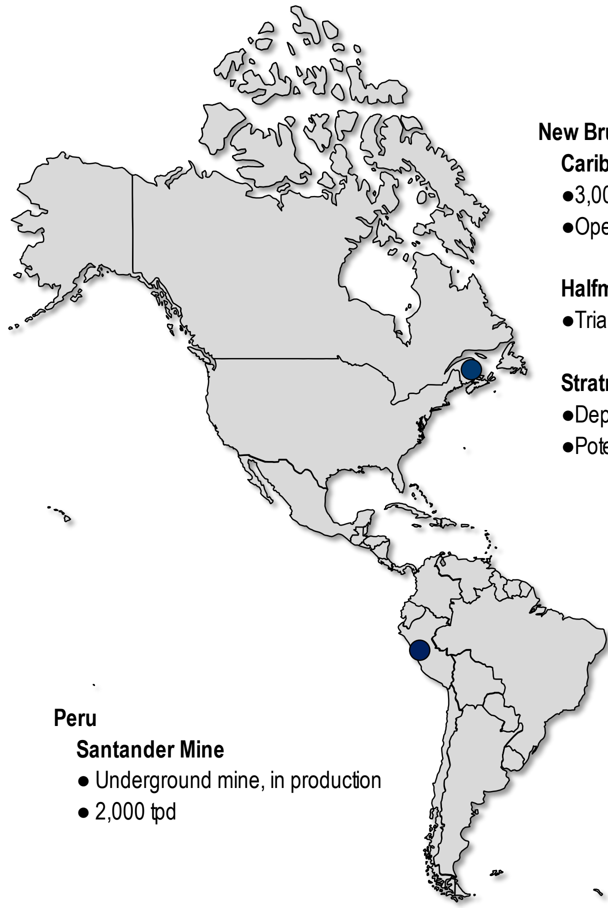
	2014	2015	2016E	2017E
Operating Data				
Zinc production (k lbs)	49,020	54,148	142,972	165,964
Lead production (k lbs)	22,585	30,237	58,636	66,213
Silver production (k oz)	915	1,055	1,509	1,649
Cash Costs per Zn Eq lb (US$/lb)	$0.37	$0.44	$0.57	$0.59
Financial Data				
Revenue ($000)	94,181	106,351	254,041	337,827
EBITDA ($000)	3,159	16,310	85,003	113,460
Net Income ($000)	(7,006)	(14,299)	42,818	70,702
Per Share Metrics				
EPS	(0.03)	($0.05)	$0.12	$0.18
CFPS	0.03	$0.06	$0.19	$0.26

Source: LBS, company reports

Differentiated from copper peers

Business strategy. Trevali is one of the few publicly traded pure-play zinc producers. Management has assembled a portfolio of zinc-dominant mineral assets at various stages of development in politically friendly jurisdictions. The Santander and Caribou mines offer stable production with longer term growth. As a result, Trevali is best positioned among its peers to leverage a strong zinc price. The exploration assets at Halfmile and Stratmat provide further optionality in a stronger zinc price environment.

Exhibit 3: Location of key assets, Trevali Mining



Source: Company reports

Exhibit 4. Resources, Trevali Mining

	Tonnes	Zinc %	Lead %	Copper %	Silver g/t	Gold g/t	Zinc m lbs	Lead m lbs	Copper m lbs	Silver m oz
Indicated Resources							**Contained Metal**			
Santander	6,264,000	3.62	1.30	0.07	43		500	180	10	8.7
Halfmile	6,262,000	8.13	2.58	0.22	31		1122	356	30	6.2
Caribou (M&I)	7,230,000	6.99	2.93	0.43	84	0.89	1115	468	69	19.6
Total Indicated	**19,756,000**						**2,737**	**1,004**	**109**	**34.5**
Inferred Resources							**Contained Metal**			
Santander	13,845,000	4.62	0.4	0.11	21		1410	121	35	9.4
Halfmile	6,078,000	6.69	1.83	0.14	21		896	245	19	4
Stratmat	5,524,000	6.11	2.59	0.4	54	0.6	744	315	49	9.6
Caribou	3,660,000	6.95	2.81	0.32	78	1.23	560	227	26	9.2
Ruttan	19,750,000	1.47		1.17			640		509	
Total Inferred	**48,857,000**						**4,250**	**908**	**638**	**32.2**

Source: Company reports

Santander Mine

Overview

Mine purchased in 2007. Trevali acquired the Santander zinc-lead-silver mine in Peru, through a 50-year assignment in December 2007, with Compañia Minerales Santander S.A.C. Trevali has the exclusive right for a period of 50 years (with an automatic 50-year extension) to engage in exploration, development, exploitation, processing and commercialization activities at the Santander Property. In addition, Trevali Peru has effectively acquired approximately 97% of the current outstanding qualified liabilities of Santander.

Returned to commercial production in 2014. The Santander mine was formerly a producing mine which Trevali returned to commercial production in January 2014. The Santander property is located in west-central Peru, on the western edge of the Altiplano, which forms the Western Cordillera of the Andes, in the Central Peruvian Polymetallic Belt, approximately 215km east-northeast of Lima. The property is accessible by road and is situated in moderate to locally steep terrain at an elevation ranging from 4,200m to 5,000m above sea level. The property covers an area of 4,455ha (44km^2). Santander has its own power source, an existing camp capable of housing several hundred workers and a 2,000tpd mill.

History

Prior to Trevali, 34-year production history. Zinc-lead mineralization was discovered and explored on the property at least as far back as the early 1900s. Sporadic exploration work continued until the mid-1950s when St. Joe Lead developed and commenced production of the Santander Pipe in 1958. Modern mining activities continued on the principal Santander Pipe until 1992 to an approximate depth of 480m. The Santander Pipe operated both as an open pit and underground operation. During the 34-year production history, approximately 8mt of mineralized material was mined, historically grading in excess of 7% zinc, 1- 4% lead and 60 g/t silver with additional copper credits. Due to a combination of political conditions, hyper-inflation and low metal prices, mining ceased in approximately 11% zinc mineralization at 480-500m below surface.

Glencore Agreements for the Mine Operation and Offtake Sales

Mill purchased in 2010. Trevali purchased Glencore's 2,000tpd mill for the Santander mine on a lease-to-own basis and signed a long-term concentrate offtake agreement for that mine in 2010. The mill and flotation plant were constructed by Glencore and acquired by Trevali for US$37m less 18% IGV (general sales tax in Peru). In late 2012, Glencore also provided a US$20m working capital facility for the commissioning and ramp-up of Santander. Repayment of the plant and working capital facility were being made on a monthly basis over a five-year term from the start of commercial production, with payments based on the amount of ore processed and the zinc price. Any unpaid balance is due at the end of the term, and the working capital facility can be pre-paid at any stage without penalty. Recently, payments were suspended due to the commodity price environment. Glencore gave Trevali a one-year break from the finance lease payments on the Santander mill until October 30, 2016, or when zinc prices go back to US$0.90/lb for an average of 10 days. Glencore's life-of-mine concentrate offtake agreement with Trevali for 100% of the Santander project production is at International Benchmark (market price) terms.

Infrastructure

Infrastructure includes a 2,000tpd mill, a 400-person camp, and associated support facilities**.** Glencore, as part of the formal agreement, has provided and will operate on a contract basis the 2,000-tonne-per-day concentrate plant to produce zinc and lead-silver concentrates. The mine site is connected to the Peruvian National Energy Grid in addition to the Tingo run-of-river hydroelectric generating plant.

Geology and Mineralization

Folded sedimentary rocks. The property is underlain by a package of Cretaceous clastic and carbonate sedimentary rocks that have been tightly folded into a series of northwest-trending anticlines and synclines. A large number of northeast to east-west trending faults and fractures are observed on the property and represent important mineralization controls. At a regional scale, the intersection of these faults and the northwest trending fold structures are the loci for intrusion of subvolcanic stocks, hydrothermal activity and associated polymetallic mineralization.

Polymetallic carbonate replacement deposit. Mineralization at the Santander Property can be classified as a polymetallic carbonate replacement deposit (CRD) or a high temperature carbonate (HTC) deposit type. Typically, such Carbonate Replacement Deposits can comprise multiple lens and have the potential to form significant mining camps. Such deposits also contain significant silver mineralization and are frequently observed in Mexico and Peru, the world's top silver producers. At the Santander property, silver, lead, zinc, copper and iron sulphide mineralization is intimately associated with garnet-rich skarn and/or associated lower temperature gangue which forms pipe-like, as well as replacement or "manto" type concentrations.

Five mineralized zones. The main mineralized concentration discovered to date, the Santander Pipe, occurs as an annular ring of massive to semi-massive sphalerite with accompanying argentiferous galena, pyrrhotite and minor chalcopyrite which surrounds a central core of garnetiferous skarn. The Santander Pipe had dimensions of 120m in diameter and was mined to a vertical depth of 480m using a combination of open pit and sub-level stoping methods. Mineralization remains open at depth. There are at least four other mineralized zones known on the property within the Magistral and Puajanca Prospects. These zones are more replacement or manto-like in character and were in the process of being explored and developed when operations ceased at the property in August 1992.

Resource

Potential for 20mt. The three Magistral deposits (North, Central and South), comprise the Indicated resource estimate of 6.26mt grading 3.62% Zn, 1.30% Pb and 43 g/t Ag, for a contained metal inventory of 500m lbs. zinc, 180 million lbs. lead and 8.7 million oz. silver; and an additional Inferred resource of 13.8mt at 4.62% Zn, 0.40% Pb and 21 g/t Ag, for a contained metal inventory of 1.4b lbs. zinc, 121m lbs. lead and 9.3m oz. silver. The resource utilized a 3% Zn-equivalent cut-off grade -- which is the nominal base case estimated grade of material that can be mined and processed considering all applicable costs. The mineral resources are based on ordinary-kriged (OK) capped values. The construction decision at Santander was based on the indicated and inferred mineral resources, there were no proven and probable mineral reserves, and no prefeasibility or feasibility studies undertaken before a construction decision was taken.

Exhibit 5. Resources, Santander mine

Resource	Tonnes	Zn %	Pb%	Ag (oz/t)
Indicated	6,264,000	3.62	1.3	1.25
Inferred	13,845,000	4.62	0.4	0.6

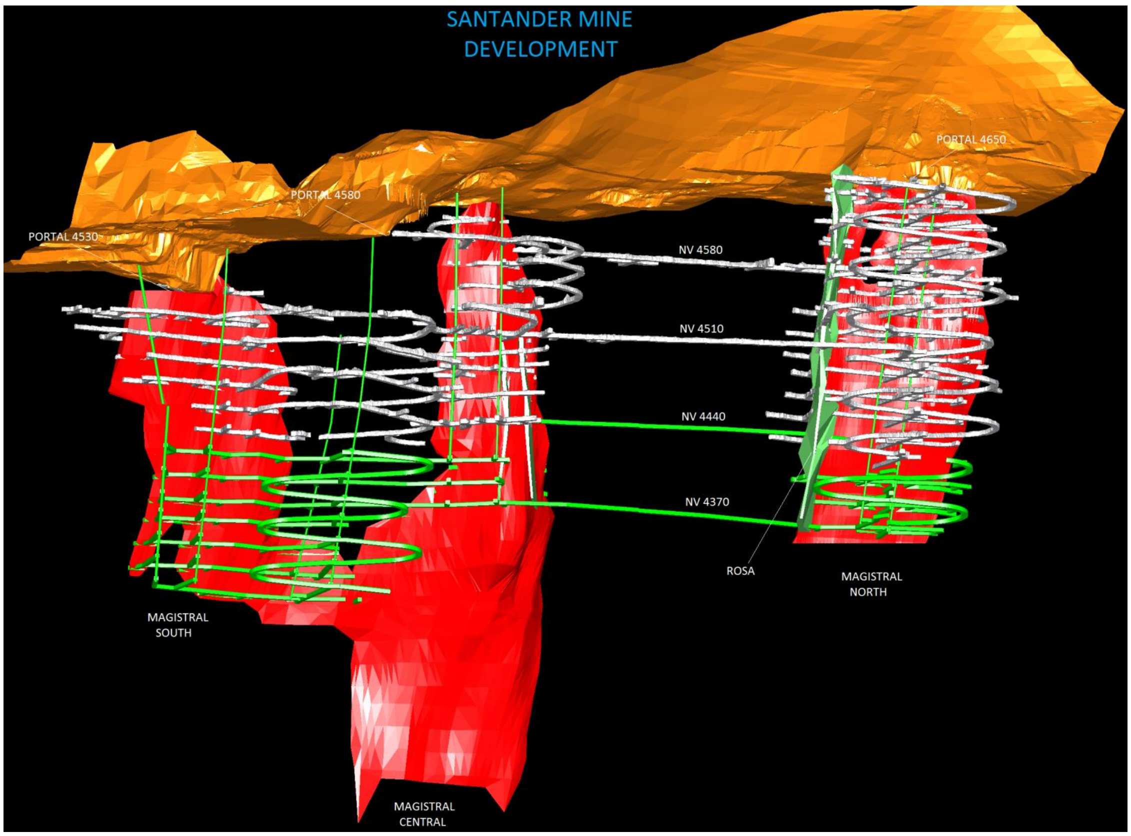
Source: Company reports

Mining

Underground mining is active on the three Magistral deposits – North, Central and South, in addition to the Rosa and Fatima high-grade lead-silver zones (Exhibit 6). The mine plan involves exploitation of the deposits from three portals and ramp systems and over 12km of underground development. Mining at the current rate of 2,000tpd is by longhole open stoping methods (modified Avoca) on 20m levels, with backfilling of waste rock as mining advances. Dilution is less than 10%.

Glencore is partner. Mining and mineral processing operations at the Santander Mine are undertaken with development partner Glencore, that has provided the mill and concentrate plant, and also serves as contract mill operator and contract miner, reporting to senior Trevali personnel. The company's objective is to eventually mine over 4,000 tpd of ore from the underground workings with a commensurate increase in processing capacity.

Exhibit 6. Santander Mine workings



Source: Company reports

Milling

Operating at steady state of 2,000tpd. Trevali achieved metallurgical plant commercial production at its Santander Zinc-Lead-Silver Mine in early 2014. The mill is now operating at full nameplate throughput of 2,000tpd and the operation is producing zinc and lead-silver concentrates. The mill has two ball mils, two rod mills and flotation tanks for ore with an average work index of 12. Coarse-grained mineralogy provides good recoveries to produce clean concentrates using standard sulphide flotation technology. Currently, the mill is performing at above design, averaging 90% for zinc, 89% for lead and 77% for silver.

Production Outlook

Production of 55mlbs of zinc and 25mlbs of lead projected in 2016. In 2015, Santander operations processed 778kt of feed to produce 54.1mlbs of zinc, 30.2mlbs of lead, and 1moz of silver. Average recoveries were 90% for zinc, 89% for lead, and 77% for silver, with concentrate grades of 50% for zinc, 58% for lead, containing 40.5oz/t silver, and head grades of 4.1% Zn, 2.1% Pb, 1.7oz/t Ag. Santander operations are currently in steady state 2,000tpd nameplate production, the mine achieved strong operational results in Q4/15. Guidance for 2016 is for 52-55mlbs of payable zinc in concentrate grading approximately 50% Zn at an average head grade of 4.2-4.4% Zn; 22-25m lbs of payable lead in concentrate grading approximately 56-58% Pb at an average head grade of 1.7-2.0% Pb, 800k-1m oz of payable silver at an average head grade of 1.5-1.8oz/t Ag. Cash costs are estimated at approximately US$40-43/t milled. All of the deposits currently being mined remain open for expansion.

Operating and Cost Parameters

We are modeling a mine life of approximately 12 years, based on an Indicated resource of 6.3mt and the conversion of 3mt of inferred resources. Santander is in the lowest cost quartile in the industry. Current operating costs are US$40-$45/t, although the company's outlook is for lower costs. The company is confident the mine can remain cash flow positive with a zinc price as low as US$1,500/t (US$0.68/lb). We summarize the operating and cost parameters for the Santander mine in Exhibit 7.

Exhibit 7. Operating and cost parameters for Santander mine

Location	Peru
Ownership	100%
Type of Deposit	Carbonate Replacement
Processing	Standard milling with flotation recovery.
Infrastructure	Underground mining operation, with mill, tailings facility and camp.
Tonnes Mined Annually	722kt
Daily Throughput	2,000 TPD
Annual Throughput	778kt
Estimated Mine Life	12 years
Grades	
Zinc	4.2-4.4%
Lead	1.7-2.0%
Silver	1.5-1.8 oz/t
Recoveries:	
Zinc	90%
Lead	89%
Silver	77%
Concentrate Grades	
Zinc	50%
Lead	56-58% Pb, 41oz/t Ag
Annual Payable Production	
Zinc	52-55m lbs
Lead	22-25m lbs
Silver	0.8-1.0m lbs
Costs	
Operating Cost per tonne milled	$40-$43/t
C1 Cash Cost after byproduct credits	$0.30/lb ZnEq
Annual Average Capex	$12m

Source: Company reports

Expansion Plans

Trevali plans to eventually double processing capacity at Santander to 4,000tpd, based on infrastructure which currently contains three portals with interconnected ramps. The mill and concentrator would require additional capacity for grinding, but existing facilities are already sized for an expansion. Construction would not likely begin until the zinc market improves, ideally to US$0.90/lb. Management would also look to invest at least US$5m in exploration to develop additional reserves. Once a decision is made, we would expect construction to take 12-18 months to reach completion, at a cost of approximately US$20m.

Exploration

Potential at depth. Recent exploration conducted by Trevali has consisted of geological prospecting, geophysical surveying and diamond drilling, predominantly focusing on the Magistral Deposits. The Magistral deposits have been drill delineated up to approximately 750m depth and remain open – downhole geophysics (EM) indicates mineralization extends at least another 500 metres vertically. The company received initial assay results from its 2015 resource definition and expansion program. This initial phase of drilling, designed to test the deeper levels of the Fatima and Magistral Central zones, intersected significant lead-silver-zinc mineralization: intercepts ranged from 2.7 to 42.15m downhole thickness (estimated 85-95% of true width) with grades ranging from 3.06% to 11.68% Zn, 0.17% to 2.93% Pb and 0.13 to 4.4 oz/t Ag. The results to date suggest that mineralization width and grade is increasing at depth and that the Magistral South and Central zones may merge into a single zone at depth. The area sits above and is spatially associated with a very large, strong geophysical anomaly that extends at least an additional 150-200m deeper than current drilling and remains open to the north, south, east and at depth. An approximate 3,000m underground drill program is planned for H1/16, which is anticipated to convert inferred tonnes to a higher confidence category and to follow up on 2015 exploration successes. Contingent on results, additional drilling may occur.

Caribou Mine

Overview

The Caribou project is a past producing polymetallic deposit, located 50 km west of Bathurst, New Brunswick (Exhibit 8). Trevali wholly owns the Caribou mine and mill complex, consisting of a historically developed underground mine and a fully permitted 3,000 tpd processing mill, flotation recovery plant, metallurgical and geochemical laboratories, and a tailings management facility. The re-opened Caribou mine makes use of the existing infrastructure on an already disturbed site, with a few modifications.

Exhibit 8. Location of Caribou Mine and nearby New Brunswick assets.

Source: Company reports

Permitting

The site is fully permitted and consists of a water treatment plant and sludge ponds, as well as a tailings management facility. The Caribou site was previously operated by various companies and the restart does not represent a significant variance in plan. Trevali has a Limited Environmental Liability agreement with the province of New Brunswick, where the province would accept the environmental liability associated with historic operations.

History

The operational history of the Caribou mine goes back over 40 years, most notably with the ownership of Breakwater Resources and Blue Note Mining. Breakwater operated Caribou in 1989 and 1990, and closed as a result of poor metallurgical recoveries. Blue Note acquired the mine in 2006 and reopened it in 2007, after investing $120m to upgrade the mine and mill, capitalizing on Breakwater's studies of using finer grind of the ore to improve recoveries. With the introduction of Isamills to produce an ultrafine grind, Blue Note managed to significantly improve recoveries of zinc and lead. Unfortunately, Blue Note shut down operations after only one year as a result of poor market conditions related to the Global Financial Crisis of 2008, even though metal recoveries were near design and throughput was increasing. Trevali acquired the property in 2012 for $22m; the acquisition includes a 10% NPI (net profits interest) royalty from a previous transaction.

Offtake

Zinc, lead and copper concentrate offtake agreements are in place with Glencore Xstrata plc, a large, diversified resource conglomerate and commodity trader, for LoM feed at International Benchmark terms, as defined by average respective commodity prices on the London Metal Exchange for the relative shipping period.

Geology

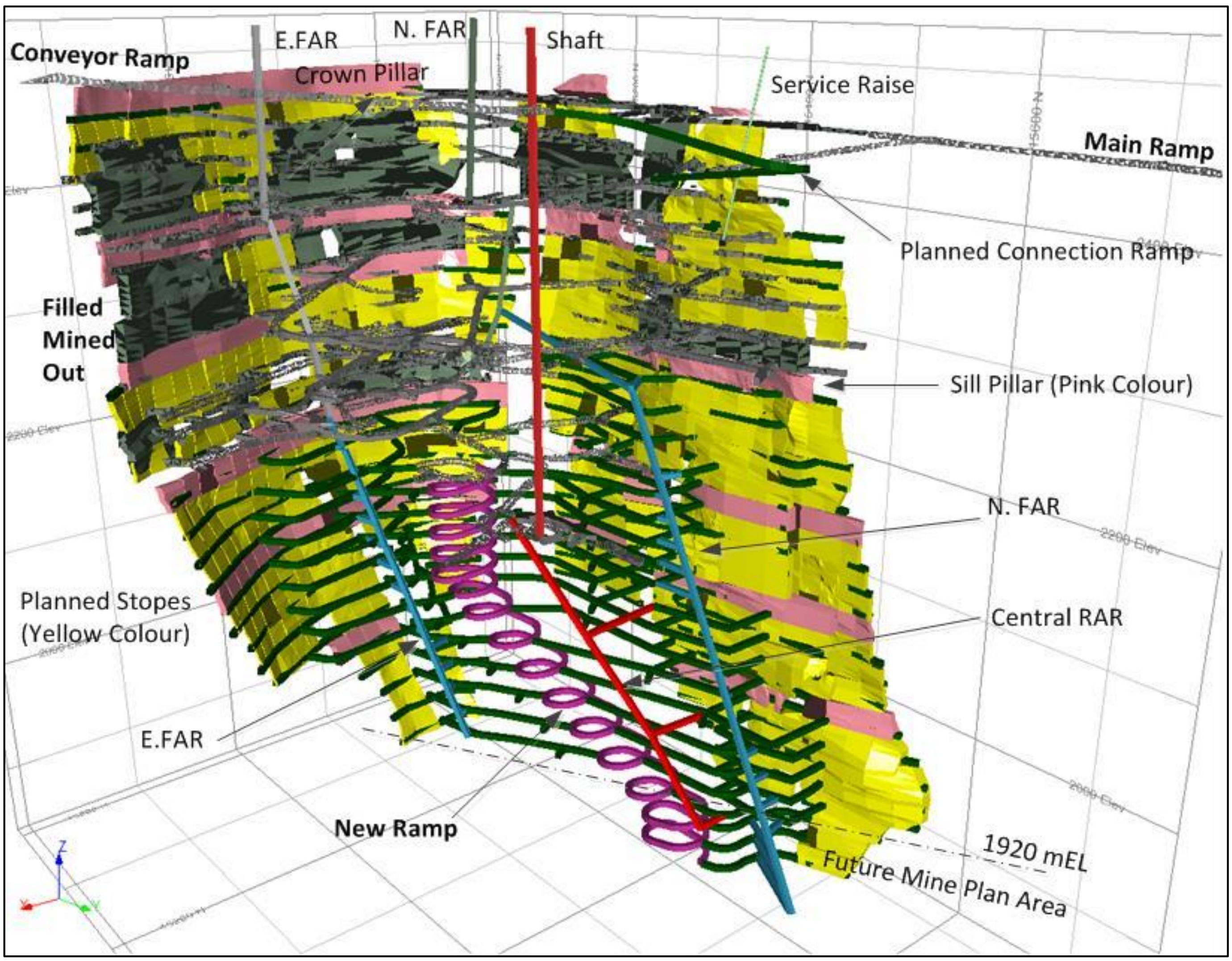
The Bathurst Mining Camp (BMC) occupies a roughly circular area of approximately 70 km diameter in the Miramichi Highlands of northern New Brunswick. The area boasts some 46 mineral deposits with defined tonnage and another hundred mineral occurrences, all hosted by Cambro-Ordovician rocks that were deposited in an ensialic back-arc basin. The rocks in the BMC are divided into five groups which are largely in tectonic contact with one another. The lower part of each group is dominated by felsic volcanic rocks and the upper part by mafic volcanic rocks, which are overlain by carbonaceous shale and pelagic chert. Most massive sulfide deposits of the Bathurst mining camp are associated with felsic volcanic rocks in each group.

Mining

The mine plan includes 87% of tonnes from modified AVOCA stoping with down holes on 20 m sublevels and waste rock fill, and 13% of tonnes from longhole retreat using up holes with no backfill for sill areas between mining fronts. Crown pillar recovery is not considered in the PEA due to lack of geotechnical information. The stopes employ unconsolidated waste rock as backfill, however, Trevali is evaluating the use of paste backfill to maximize mining recovery.

Access to the underground mine is by a connected dual ramp system from existing portals in the upper 100m of the mine and a single ramp system below. Mining is on retreat with remote mucking by LHDs. Stope sequencing is generally along strike from lens extremities or strategic starting points to access crosscuts. Plant feed is hauled to surface by 45t capacity trucks loaded by load-haul-dump vehicles (LHDs). Waste rock broken underground is hauled to empty stopes as backfill, or to surface. The current plan of operation is for contractor mining to continue through the development stage before making the transition to an owner-operated fleet in the first half of 2016. The Caribou mine plan is shown in Exhibit 9.

Exhibit 9. Caribou Mine plan



Source: Company reports

Milling

Trevali is using the same flowsheet as previous operator Blue Note, having installed a 22-foot SAG mill, which together with a ball mill, results in material of 80% passing 30-35 microns, in addition to the use of Isamills. The milling process begins with the grinding, separation and flotation of lead in a lead-copper concentrate, which is reground. The tails form part of the zinc circuit feed, while the lead-copper concentrate in excess of 12 microns is sent to the Isamill for regrinding. The reground product from the Isamill is combined with concentrate of less than 12 microns as feed for the primary cleaning stage. The primary cleaner lead-copper concentrate is then reground in an Isamill, generating a product of 8 microns, which goes to a second cleaning stage and separation from copper and zinc mineralization. The lead concentrate is further treated for third and fourth stage cleaning and dewatering, while the lead concentrate tailings are reconditioned before going to the copper flotation circuit. This concentrate undergoes two cleaning stages and then is dewatered. Finally, the lead scavenger and copper scavenger tailings are fed to the zinc recovery circuit and the zinc flotation circuit. The zinc concentrate is returned with mineralization in excess of 14 microns and is reground in a ball mill, followed by a four-stage cleaning process and dewatering. Tailings are recycled to the zinc gravity circuit. Trevali plans to start a copper circuit in H2/16.

Operating Costs and Parameters

Our model is based on the resource estimate used in the June 2014 PEA, with LOM ore of 6.15mt grading 6.11% zinc, 2.49% lead, 0.34% copper, 67.8g/t silver, and 0.86g/t gold for a 6.3-year mine life, in addition to factoring 70% of the inferred resource of 3.7mt, and considering a dilution of 15% for a mine life of approximately 10 years. The Caribou project total capital cost estimate is $125.1 million, comprised of approximately $40m in pre-production capital and $88.8 million in sustaining capital. The capital cost estimates include a $6 million contingency for the mine and $0.7 million for the process plant. Our operating and cost parameters are shown in Exhibit 10. Site operating costs averaging $74.77 per tonne processed are estimated for the period from startup through to 2021, consisting of $37.06/t-milled mine operating cost, $30.14/t-milled mill operating cost, $1.59/t milled environmental operating cost, and $5.99/t-milled G&A operating cost. Operating and cost parameters for the Caribou mine are summarized in Exhibit 10.

Exhibit 10. Operating and cost parameters for Caribou mine

Location	Bathurst Mining Camp, New Brunswick
Ownership	100%
Type of Deposit	VMS Polymetallic
Processing	Standard milling with Fine-Grinding Isamills and flotation recovery.
Infrastructure	Underground mining operation and processing mill.
Tonnes Mined Annually	1,000kt
Daily Mill Throughput	3,000tpd
Annual Mill Throughput	1,000kt
Estimated Mine Life	9 Years
Grades	
Zinc	7.0%
Lead	2.9%
Copper	0.4%
Silver	84.4oz/t
Gold	0.9g/t
Recoveries	
Zinc	71%
Lead	57%
Silver	30%
Concentrate Grades	
Zinc	50%
Lead-Silver	45%
Annual Payable Production	
Zinc	92m lbs
Lead	31m lbs
Silver	730k oz
Costs	
Operating Cost per tonne milled	C$73/t
C1 Cash Cost after byproduct credits	$0.70/lb
Annual Average Capex	$10m

Source: Company reports

Update and Outlook

In 2015, underground mineral pre-commercial production during the year was 280.2kt. Mill throughput was 369kt with recoveries averaging 66% for zinc, 48% for lead and 25% for silver. Average head grades were 5.31% Zn, 1.99% Pb, and 1.74oz/t Ag with production of 27.1kt of zinc concentrate averaging 48% Zn and 9.47kt of lead-silver concentrate averaging 38% Pb and 16.8oz/t Ag. Pre-commercial metal production was 23.9mlbs of zinc, 7.3mlbs of lead, and 185.5koz of silver. No guidance has been provided for 2016.

The focus in 2016 has been on mill throughput and recovery improvements, in addition to grind optimization, zinc and lead circuit pumping enhancements, and ongoing copper circuit metallurgical test work. At 2015 year-end, when running at higher throughput rates coupled with design zinc grades, the Caribou zinc circuit was constrained in processing more than approximately 2,000 tpd without overloading both the pumping infrastructure and rougher circuit. This situation was due to excessive amounts of zinc metal in the system that was restricting the mill to 6.5tph of metal (2,000tpd). Consequently, upgrade modifications were undertaken primarily on the zinc circuit. Specifically, the zinc pump and sump capacity was increased and handling optimized, which resulted in the Caribou mill throughput increasing to 110 tph (2,640 tpd) in early January and up to 120-125 tph (2,880-3,000 tpd) recently without any adverse effects. Additional capacity will be further added during future scheduled maintenance periods. Zinc flotation kinetics were also modified by moving to a two-stage conditioner system, baffles and inter-cell partitions were also added to the zinc cleaner-rougher cells in order to both increase cell residence time and to prevent asymmetric performance between the two banks of cells. The Isamills have been de-risked and are performing well, operating at design recovery rate with two of three units in operation, mostly for lead ore. In the longer term, management believes it may only need one Isamill. Recoveries are approaching the 82% design rate.

The company anticipates entering into the production phase at the mine by Q3/16 (70% of nameplate capacity for 60 days), compared to original guidance for Q1/16. Full capacity production could be several quarters away. Management is also planning to bring a copper circuit on line, but most likely in 2017 once commercial production has been established for the zinc circuit.

Exploration

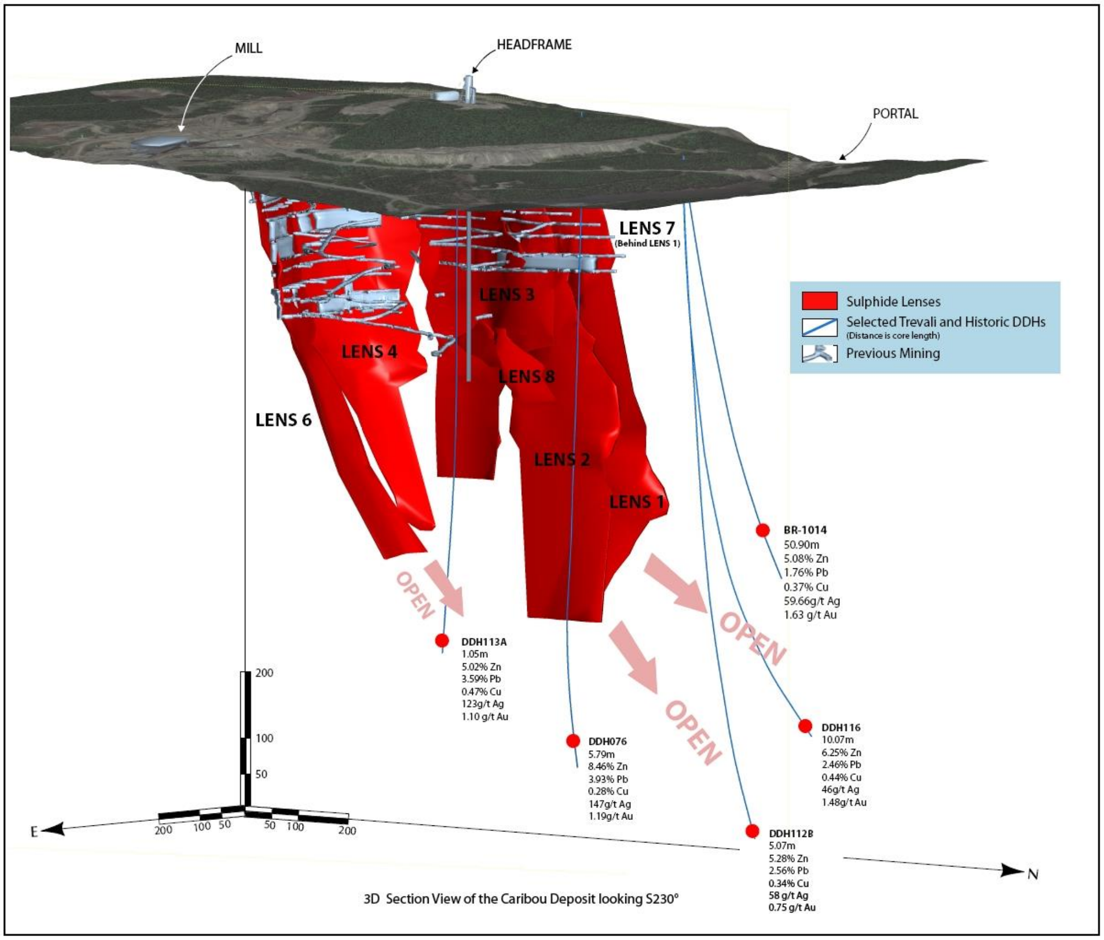
Limited mine life, but with potential for more. The current mine plan is based on resources sufficient for a 6.5-year mine life (Exhibit 11), however, the deposit is open for expansion that we believe could take the mine life to 8-10 years. Caribou has attractive exploration upside, as the deposit remains open to depth. In addition to the zinc mineralization identified in seven zones in the deposit, the company has identified copper feeder zones which were never previously targeted. Recent deep drilling has encountered massive sulphides approximately 450m below the current defined resource (Exhibit 12). Historic deep holes encountered significant mineralized intervals, including DDH076 with 5.8m of 8.4% Zn, 3.9% Pb, 0.3% Cu, 147g/t Ag, and 1.2g/t Au.

Exhibit 11. Resources, Caribou mine

Resource	Tonnes	Zn %	Cu%	Pb%	Ag (g/t)	Au (g/t)
Measured & Indicated	7,230,000	6.99	0.43	2.93	84.4	0.9
Inferred	3,660,000	6.95	0.32	2.81	78.3	1.2

Source: Company reports

Exhibit 12. 3D Section view of the Caribou deposit looking south



Source: Company reports

Halfmile and Stratmat

Overview

In proximity to Caribou. The wholly-owned Halfmile mine and Stratmat deposit are also located in the Bathurst mining camp in northeast New Brunswick, approximately 20 km south of the Caribou mine. The Halfmile Lake Property is situated approximately 60 km southwest of Bathurst, and 70 km northwest of Miramichi. The property covers three mineral claim groups and an area of 1,105 ha. The Stratmat Property is situated approximately 45 km southwest of Bathurst, and 55 km northwest of Miramichi (Exhibit 8). The property consists of 54 mineral claims and covers an area of 829 ha.

The Halfmile mine is fully permitted for an underground mine, with production levels in place (Exhibit 13). The mine was developed in 2011 with trial underground mining and production in early 2012. Over 100kt of material was processed on a toll basis through the Brunswick #12 mill nearby, providing metallurgical recovery data. The Halfmile mine benefits from a coarser grained mineralization compared to the Caribou deposit. The operation produced saleable concentrates averaging 53.7% Zn concentrate, 45.8% Pb concentrate (with 680g/t Ag), and 27% copper concentrate (with 325g/t Ag and 2.7g/t Au). Mining at Halfmile was halted in May 2012 in order to evaluate the options of the mine to feed the Caribou mill or to maintain a separate stand-alone mill. Glencore holds a right of first refusal on concentrate offtake produced from Halfmile and Stratmat, in addition to a 2% net smelter royalty as part of the Xstrata property purchase agreement. Teck Resources holds a 2.5% royalty over a portion of the Halfmile property. We estimate a standalone mine and mill complex on site would cost in the range of $150-$170m.

The Stratmat deposit is a multi-lens zinc-lead-silver-copper-gold rich volcanogenic massive sulphide deposit. Recently, zones of copper-gold mineralization were discovered. The near-surface sulphide deposit remains open for expansion along strike and at depth. If a production decision goes ahead, Stratmat could be developed through a new milling complex that would service Halfmile as well.

Geology and Mineralization

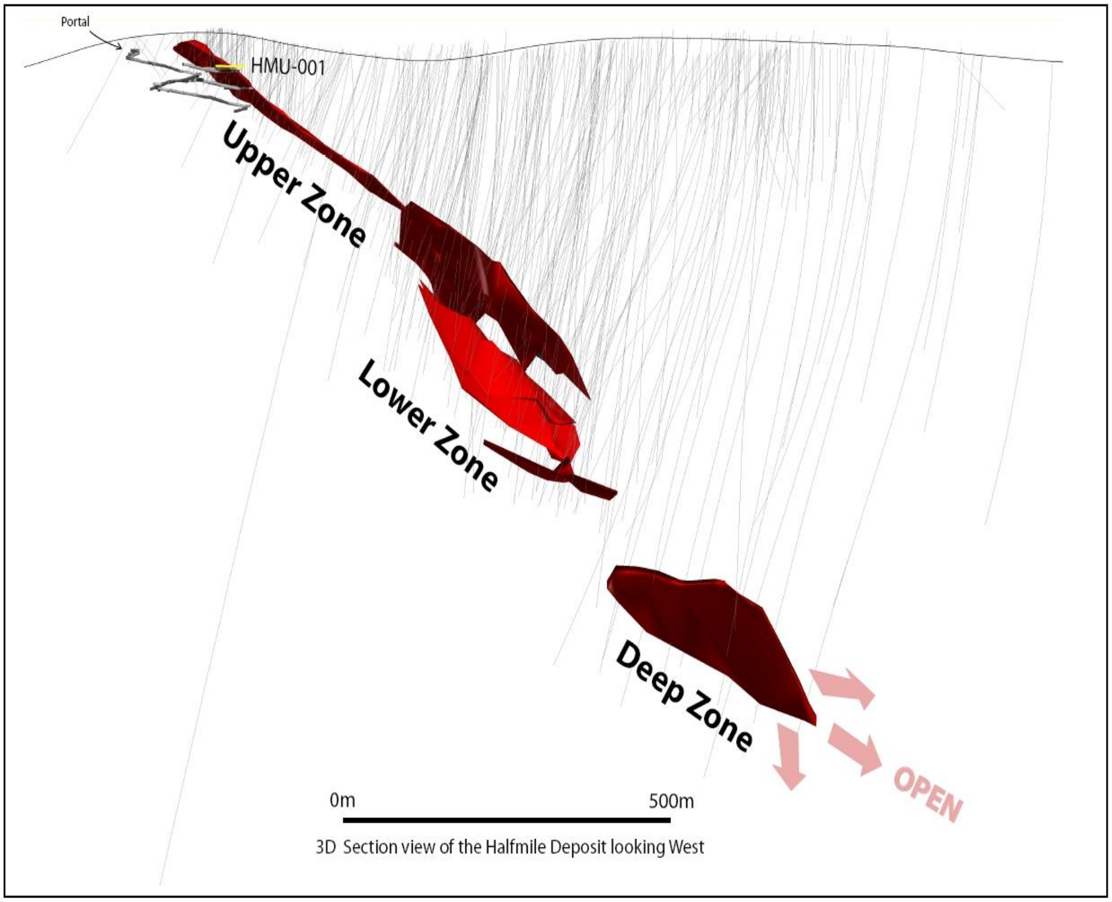
Folded, faulted Ordovician rocks. The Halfmile Lake and Stratmat areas are underlain by rocks of Ordovician age of the Tetagouche Group, which is composed primarily of dacitic to rhyolitic volcanic rocks disconformably underlain by quartz-wackes and pelites of the Miramichi Group. The Ordovician rocks of the Bathurst Camp have undergone greenschist facies metamorphism and a complex history of polyphase folding and faulting.

Mineralization of the deposits consists of banded pyrite-rich massive sulphides, breccia-matrix pyrrhotite-rich sulphides, black argillite and chert. The stratigraphy hosting the Halfmile Lake deposit is overturned. Within the Bathurst Mining Camp, most deposits are zoned vertically and laterally due to high temperature, vent proximal, veined and brecciated core to vent-distal hydrothermal sediments. The vent complex is commonly underlain by a highly deformed sulphide stringer zone that can extend hundreds of meters and cuts hydrothermally altered volcanic and sedimentary rocks. Hydrothermal alteration is zoned and laterally widespread.

Resource

The Halfmile deposit contains 1.1b lbs of zinc. The indicated resource contains 6.3mt averaging 8.13% zinc, 2.58% lead, 0.22% copper, and 30.8 g/t silver. The inferred resource contains an additional 6.0mt grading 6.69% zinc, 1.83% lead, 0.14% copper, and 20.5 g/t silver. The deposit has additional potential beyond the resource contained in the Upper and Lower zones. The Stratmat deposit contains 744m lbs of zinc. The inferred resource contains 5.5mt averaging 6.11% zinc, 2.59% lead, 0.4% copper, 54.2 g/t silver, and 0.6 g/t gold.

Exhibit 13. 3D Sectional view of the Halfmile deposit looking west



Source: Company reports

Outlook

Plans for a PEA incorporating Halfmile and Stratmat. At Halfmile, the company recently completed a geological confirmation drill program, the results of which will be utilized to revise the Halfmile geological model that will form the basis for future engineering studies. At Stratmat, the most recent resource estimate results and ongoing metallurgical testwork will be incorporated into a new Halfmile-Stratmat Preliminary Economic Assessment (PEA) that will examine the potential for a stand-alone milling solution for the deposits. Given current priorities on Caribou commissioning, this study may be deferred into the latter half of 2016.

Ruttan

Overview

A significant VMS deposit... The wholly-owned Ruttan Mine property is located approximately 21km east of the Village of Leaf Rapids, or 750km north-northwest of Winnipeg, Manitoba. The nine Copper claims cover an area of 1,994 ha and contain the former Ruttan Mine, tailings ponds, waste rock disposal areas and lands previously occupied by the mine-mill complex. The former Ruttan Mine closed in 2002 due to low metal prices. Production from open pit and underground operations at the mine from 1973-2002 was 55.2mt grading 1.23% copper and 1.41% zinc, a significant volcanogenic massive sulphide (VMS) deposit by world standards.

The Property

…And past producer. Both the open pit and the underground infrastructure on the Ruttan property are flooded. The near-pit surface run-off is currently channelled into the pit. Buildings related to the operation of the former mine have been demolished and some aspects of surface reclamation have been started by the Government of Manitoba. The two vendors of the claims retain a combined 4% net smelter royalty, which can be repurchased for a total of $3.5m.

Geology and Mineralization

Metamorphosed greenstone belt. The Copper claims are located in the west central portion of the Paleoproterozoic Rusty Lake greenstone belt. All units have been subjected to sub-greenschist to amphibolite facies metamorphism. The Ruttan deposit is contained in several large lenses of massive sulphide mineralization, which are hosted by a 75m-thick section consisting of volcaniclastic fragmental rocks of dacitic to rhyolitic composition. At least three periods of deformation have folded the ore bodies into steeply southeast plunging lenses separated by east-northeast trending shear zones. The Ruttan VMS deposits are comparable to other major districts. The Ruttan mine is classified as a bimodal-siliciclastic type of volcanogenic massive sulphide deposit (VMS), similar to those found in the Iberian Pyrite Belt of Portugal and Spain and in the Bathurst district of New Brunswick, Canada.

Outlook

Ruttan is estimated to host an inferred mineral resource of 19.75mt grading 1.17% copper and 1.47% zinc, using a 1.0% capped copper-equivalent cut-off grade. The exploration potential of the property appears good, particularly in the down-plunge extension of the remaining Hanging Wall Zinc zone. We do not expect Trevali to spend anything on Ruttan this year given current market conditions and the priority of other assets in the company's portfolio.

Capital Structure

Most options and warrants are well out of the money. Trevali shares are listed on the Toronto Stock Exchange (TSX) and in Peru on the Bolsa de Valores de Lima (BVL) under the symbol TV. The shares also trade on the Frankfurt Stock Exchange under the symbol 4TI. There are currently 378.8m shares issued and outstanding, and 393.1m shares fully diluted. There are 6.3m options – most exercisable between May 2018 and January 2020 - all of which are well out of the money, at exercise prices between \$0.62/sh and \$1.29/sh. In addition, there are 8.0m warrants, of which 7.5m are in the money at \$0.39/sh, with the remainder at \$1.04/sh. As a result, we count 386.3m fully diluted in-the-money shares (Exhibit 14).

Small holding by insiders. Institutional shareholders own approximately 50% of the company (Exhibit 15). The largest reporting shareholder is Glencore, with 5.2% of the issued and outstanding shares. Officers and directors retain a relatively small share of the company, with approximately 0.5% on an issued and outstanding basis.

Exhibit 14. Share capital, Trevali Mining

Shares Issued and outstanding	378.8m
Stock options	6.3m
Warrants	8.0m
Shares fully diluted	393.1m
Shares fully diluted ITM	386.3m

Source: Company reports

Exhibit 15. Major shareholders, Trevali Mining

Glencore	5.2%
J.P. Morgan Asset Mgmt	4.5%
Colonial First State	3.8%
Total funds/ institutions	**50%**

Source: Company reports

Share Price Performance

Shares underperforming the zinc price. In 2015, Trevali's share price decreased 63% compared to the S&P/TSX Global Base Metals Index, which decreased 47%, and Canadian base metals producers which were down by 52%, within the context of the zinc price which declined by 23%. Just as the shares have significantly underperformed the zinc price, we expect the stock to recover as the zinc price strengthens. Apart from a spike to \$0.52 at year-end, the stock in 2016 has been range bound, largely staying under \$0.40, despite a consistent appreciation in the zinc price since mid-February to US\$0.84/lb currently. Trevali is part of the S&P/TSX Global Mining Index, as well as the Global Base Metals and Equal Weight Global Base Metals sub-indices, and the SmallCap Index.

Financial Position

Higher debt load. For a company of its size, Trevali at year-end had a relatively high debt load based on loans and leases of approximately \$115.4m against a cash balance of \$6.3m, and working capital of \$9.4m. Cash has since been supplemented by an equity offering for aggregate gross proceeds of \$14.95m. Trevali currently has a debt to market capitalisation in excess of of 80% and debt to equity of 37%. Based on an anticipated positive cash flow from the company's Santander operations, the subsequent equity financing completed in March 2016, the company expects to have sufficient resources to meet its committed expenditures for the next twelve months. Fortunately, the company has deferred a key repayment on its senior notes by a year to August 2017, and has also delayed payment per ton of concentrate on its working capital and capital lease facility until October 2016.

The key components of the debt are:

- **Working capital facility.** In November, 2012, the company closed a US$20m working capital facility from development partner Glencore. The secured working capital facility bears interest at LIBOR + 5%. The loan is repayable on a monthly basis over a five year repayment term based on a formula, which allocates the repayments between the working capital facility and the finance lease, based upon a sliding scale, which takes into account the price of zinc and the number of tonnes treated at the Santander mine ranging from $13/t (for zinc price up to US$2,205/t) to $28/t (for zinc price above US$2,645/t).
- **Finance Lease.** In January, 2014, Trevali completed the operational commissioning of the Santander plant under the terms of the Concentration Plant Sale Agreement. The plant purchase price of US$37.5m, excluding IGV, which bears no interest, and the US$20m loan, together with any default interest, as applicable, are to be paid by Trevali to Glencore on a monthly basis over a five year repayment term on a sliding scale basis as discussed above. The balance of the lease is $27.9m.
- **Senior secured notes**. In May, 2014, Trevali closed its offering of $52.5m 12.5% Senior Secured Notes due May 30, 2019, for aggregate proceeds of $51.45m. In Q4/15, Trevali amended its original note indenture with the holders of its senior secured notes to extend and expand the debt facility. Under the amended agreement, the company issued an additional $8.4m in new notes and received a waiver for the company's $7.5m amortization payment scheduled to be made on August 30, 2016, which will now be deferred until August 30, 2017.

Capex is reduced but still significant. With most development capital spending at both mines complete, we estimate capital commitments for both Santander and Caribou will be on the order of $20-$22m per year in 2016 and 2017. We do not expect an expansion to Santander to 4,000tpd will be considered until zinc reaches US$0.90/lb. We estimate the cost of this expansion would be approximately $20m. We expect spending on development projects and on exploration will be kept to a minimum.

Liquidity is no longer an issue. Following the most recent equity financing in March 2016 (Exhibit 16), and the amendment to its senior notes in December 2015, Trevali has approximately $20m in cash, which it estimates will be sufficient to maintain liquidity at least through 2016. In the current zinc price environment, Santander is free cash flow positive. The Caribou mine monthly burn rate is dropping as the company continues to ramp up production – management expects the mine to be cash flow neutral shortly, and positive in the second half of the year.

Exhibit 16. Recent equity deals, Trevali Mining

Date	Shares Issued	Price per Share	Proceeds	Details
March 2016	46.72m	$0.32	$15.0m	Marketed Deal
June 2015	30.0m	$1.02	$30.6m	Bought Deal
November 2013	55.43m	$0.83	$46.0m	Bought Deal
June 2013	18.17m	$0.60	$10.9m	Bought Deal
March 2013	5.0m	$1.00	$5.0m	Flow-Through

Source: Company reports

Financial Statements

Exhibit 17. Trevali Mining – Financial Statements

Income Statement (C$000)	2013	2014	2015	1QE	2QE	3QE	4QE	2016E	2017E
Revenue	**-**	**94,181**	**106,351**	**29,322**	**66,823**	**74,907**	**82,990**	**254,041**	**337,827**
Cost of Sales	-	(37,070)	(43,305)	(8,708)	(21,848)	(25,133)	(28,418)	(84,105)	(114,721)
Gross Profit	**-**	**57,111**	**63,046**	**20,614**	**44,976**	**49,774**	**54,572**	**169,936**	**223,105**
G&A	(5,287)	(5,581)	(5,939)	(1,755)	(1,755)	(1,755)	(1,755)	(7,020)	(7,020)
Other	(11,734)	(3,974)	(4,284)	-	-	-	-	-	-
EBITDA	**(5,287)**	**18,125**	**16,310**	**10,931**	**22,941**	**24,691**	**26,440**	**85,003**	**113,460**
DD&A	-	(10,992)	(15,526)	(3,700)	(7,579)	(7,541)	(7,504)	(26,325)	(30,210)
Interest Expense	(686)	(6,900)	(6,667)	(1,969)	(1,969)	(1,969)	(1,969)	(7,877)	(1,969)
Tax	2,236	(3,265)	(4,132)	-	(2,661)	(2,661)	(2,661)	(9,142)	(10,578)
Net income	**(15,471)**	**(7,006)**	**(14,299)**	**5,262**	**10,732**	**12,519**	**14,305**	**42,818**	**70,702**
EPS (diluted)	**($0.07)**	**($0.03)**	**($0.05)**	**$0.02**	**$0.03**	**$0.03**	**$0.04**	**$0.12**	**$0.18**
CFPS (diluted)	**($0.02)**	**$0.06**	**$0.06**	**$0.03**	**$0.05**	**$0.05**	**$0.06**	**$0.19**	**$0.26**
Weighted Avg Basic Shares O/S (000)	218,932	280,266	305,410	327,000	378,796	378,796	378,796	365,847	378,796
Weighted Avg Diluted Shares O/S (000)	218,932	280,266	305,410	327,000	386,299	386,299	386,299	371,474	386,299

Statement of Cash Flow (C$000)	2013	2014	2015	1QE	2QE	3QE	4QE	2016E	2017E
Operating Activities									
Net Income	(15,471)	(7,006)	(14,299)	5,262	10,732	12,519	14,305	42,818	70,702
DD&A	3	10,992	15,526	3,700	7,579	7,541	7,504	26,325	30,210
Other	10,812	3,901	17,332	-	-	-	-	-	-
Cash from Operating Activities	**(4,656)**	**7,887**	**18,559**	**8,962**	**18,311**	**20,060**	**21,810**	**69,142**	**100,912**
Investing Activities									
PP&E	(26,204)	39,336	(61,648)	(5,500)	(5,500)	(5,500)	(5,500)	(22,000)	(23,000)
Other	(4,741)	12,130	(7,667)	-	-	-	-	-	-
Cash from Investing Activities	**(30,945)**	**51,466**	**(69,315)**	**(5,500)**	**(5,500)**	**(5,500)**	**(5,500)**	**(22,000)**	**(23,000)**
Financing Activities									
Proceeds from debt issue	29,309	49,047	7,220	-	-	-	-	-	-
Debt repayment	(19,145)	(35,906)	(6,199)	(1,321)	(3,011)	(3,375)	(3,739)	(11,447)	(15,222)
Proceeds from share issuance	58,188	-	39,120	-	-	-	-	-	-
Other	-	(5,250)	(7,758)	-	-	-	-	-	-
Cash from Financing Activities	**68,352**	**7,891**	**32,383**	**(1,321)**	**(3,011)**	**(3,375)**	**(3,739)**	**(11,447)**	**(15,222)**
Increase (Decrease) in Cash	32,657	(11,303)	(18,345)	2,140	9,800	11,185	12,570	35,695	62,690
Cash at Beginning of Period	3,327	35,984	24,681	6,336	8,476	18,276	29,461	6,336	42,031
Cash at End of Period	35,984	24,681	6,336	8,476	18,276	29,461	42,031	42,031	104,722

Balance Sheet (C$000)	2013	2014	2015	1QE	2QE	3QE	4QE	2016E	2017E
Assets									
Cash & short-term investments	35,984	24,681	6,336	8,476	18,276	29,461	42,031	42,031	104,722
Receivables	25,880	29,225	29,512	29,512	29,512	29,512	29,512	29,512	29,512
Inventories	3,877	2,280	2,979	2,979	2,979	2,979	2,979	2,979	2,979
PP&E	306,885	356,580	447,382	449,182	447,103	445,062	443,057	443,057	435,847
Other	17,409	24,510	31,304	31,304	31,304	31,304	31,304	31,304	31,304
Total Assets	**390,035**	**437,276**	**517,513**	**521,454**	**529,174**	**538,318**	**548,884**	**548,884**	**604,364**
Liabilities									
Payables	34,923	17,933	29,188	29,188	29,188	29,188	29,188	29,188	29,188
LT Debt	55,454	71,789	83,934	83,934	83,934	83,934	83,934	83,934	83,934
Provisions	34,233	41,999	46,101	46,101	46,101	46,101	46,101	46,101	46,101
Deffered tax liabilities	9,981	13,988	18,619	18,619	18,619	18,619	18,619	18,619	18,619
Other	280	30,631	34,417	34,417	34,417	34,417	34,417	34,417	34,417
Total Liabilities	**134,871**	**176,340**	**212,259**	**212,259**	**212,259**	**212,259**	**212,259**	**212,259**	**212,259**
Equity	**255,164**	**260,936**	**305,254**	**309,195**	**316,915**	**326,059**	**336,625**	**336,625**	**392,105**
Total Liabilities and Equity	**390,035**	**437,276**	**517,513**	**521,454**	**529,174**	**538,318**	**548,884**	**548,884**	**604,364**

Source: Compay reports, LBS Estimates

Appendix I – Key Management and Directors

Mark Cruise, President, CEO and Director
Mr. Cruise is a base metal deposit specialist with over 20 years project experience from grass-roots exploration through resource definition to permitting and production in Europe and the Americas on behalf of Pasminco Exploration, Anglo American and TSX-listed companies. He completed a geology Ph.D. on the Irish zinc-lead orefield and was a member of Anglo American's Lisheen Zinc-Lead Mine feasibility and technical team in Ireland. Mr. Cruise co-founded Trevali in 2007 to position the company to take advantage of anticipated global Zn deficits.

Anna Ladd, CFO
Ms. Ladd has over 15 years of experience in financing and financial controls in relation to the mining industry from mine controller up to and including responsibility for multiple large scale open pit and underground base and precious metal production units. She has served as Vice President Finance and Chief Financial Officer for a number of TSX listed junior mining and development companies in addition to several mid-size to senior gold and base metal producers. A Certified Management Accountant, Ms. Ladd received a Bachelor of Commerce degree from the University of British Columbia in 1991 and a Masters of Arts in Economics from Queen's University in 1993.

Paul Keller, Chief Operating Officer
Mr. Keller brings extensive mine operations experience in Canada with 27 years of experience most recently as Manager of Technical Services for a major Canadian mining contractor where he led a team of engineers and designers on various mining contracts for major mining companies. Mr. Keller began his career with Rio Algom Limited and has also worked in various management roles with Barrick Gold's Hemlo mine in operations, engineering and maintenance. Mr. Keller holds a Bachelor of Engineering - Mining from Laurentian University and is a Professional Engineer.

David Huberman, Chairman and Director
Mr. Huberman is president of Coda Consulting Corp., a business consulting firm, and has practised business law from 1972 until 1996 as a senior partner of a Canadian business law firm, specializing in corporate, commercial, banking, securities, regulatory and mining law. He served as a director of Ivanhoe Mines Ltd. (now renamed Turquoise Hill Resources) from 2003-2012 and as its Chairman from 2011-2012. From 1997 to 1999, he also served as executive vice-president and general counsel of Lions Gate Entertainment Corp.

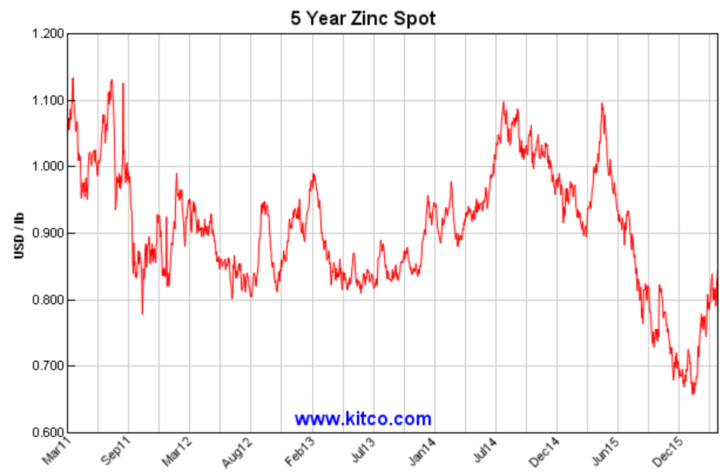
Peter Meredith, Director
Mr. Meredith is a Chartered Accountant with extensive experience in regulatory compliance and corporate finance, with an emphasis on public resource companies. He has held senior executive roles and has served on the Boards of Turquoise Hill Resources Ltd. (previously Ivanhoe Mines Ltd.), SouthGobi Resources Ltd, Great Canadian Gaming Corp., China Gold International Resources Corp Ltd., Ivanhoe Energy Inc., Entree Gold Inc., Ivanhoe Australia Ltd., Asia Gold Corp., Besra Gold Inc, Jinshan Gold Mines Inc. and Peregrine Diamonds. During his tenure with the Ivanhoe Group of Companies he participated in raising more than US$4b to advance the business interests of various companies within the group.

Appendix II – Zinc Market Outlook

- **Poised for recovery.** Zinc closed out 2015 poorly after falling by 20% to US$0.75/lb, making the current down cycle in the zinc price (approximately 5 years) the longest since the 1920s. The trend continued into 2016, with a slow start in January, but the zinc price is picking up momentum, up 20% since February. Looking ahead, we believe the zinc market is poised for change.
- **Zinc demand** decreased in 2015, and remains soft, but we believe global demand can recover in the next two years and grow by 2.5-3%, outpacing supply . Scotiabank estimates that global zinc demand should climb by about 3.6% in 2016 on strong world automotive sales and production, strength in infrastructure spending in China and India, and a recovery in European construction activity.
- **Mine supply** has contracted as a result of closures of key mines (Century, Lisheen), mine cutbacks by Glencore and other producers. These cuts will more than offset capacity expansion at Antamina in Peru, the startup of the Guo Jian Gou mine in China, and the growing zinc production from Nevsun's Bisha project in Eritrea. Overall, the outlook for mine expansion is limited from 2018-2020. In addition, stricter environmental regulations in China are expected to contribute to reduced production growth, particularly after 2016, when we expect zinc output to fall by over 3%.
- **Zinc concentrates and refined metal are in deficits.** We expect a zinc concentrate shortage in China in 2016, as the concentrate market moves into deficit. We believe zinc concentrate supply could fall to critically low levels later this year, and that zinc metal stocks will continue to fall steadily over the next three years. This shortage has already put pressure on smelters to obtain feed, and as a result, treatment charges have come down, now below US$150/t, compared to US$200/t for most of 2015.
- **Limited near-term incentive to add capacity.** According to Wood Mackenzie, an estimated zinc incentive price of US$3600/t (US$1.60/lb) would be required to support the equivalent amount in new mine capacity.
- **In conclusion, zinc is our preferred base metal in 2016**. We believe the downside is limited.

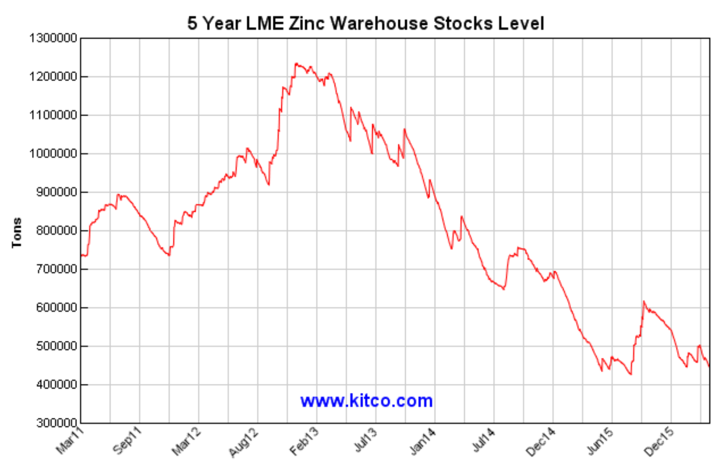
The risks to our outlook include: (1) the strength of the global economy and China's economy, and its impact on zinc demand; (2) the potential for the restart of idled mine capacity and higher existing mine production in response to a deficit and rising prices, or "hidden" stocks, particularly in China, which could push the market back into surplus.

Exhibit 17. Historical zinc spot price



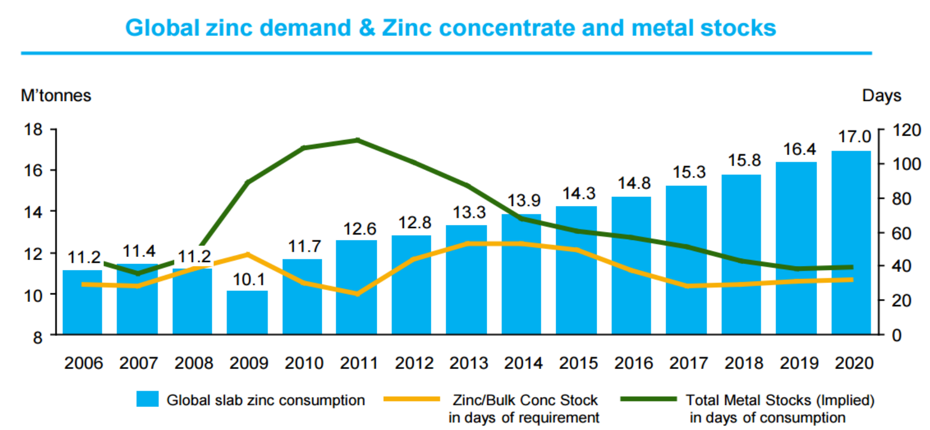
Source: Kitco.com

Exhibit 18. 5 Year LME Zinc Warehouse Stocks Level



Source: Kitco.com

Exhibit 19. Global Zinc demand & Zinc concentrate and metal stocks



Source: Wood Mackenzie

Appendix III - Important Disclosures

Company	Ticker	Disclosures*
Trevali Mining Corporation	TV-T	U, V

The analyst(s) certify that (1) the views expressed in this report in connection with securities or issuers they analyze accurately reflect their personal views and (2) no part of their compensation was, is, or will be directly or indirectly, related to the specific recommendations or views expressed by them in this report.

The Research Analyst's compensation is based on various performance and market criteria and is charged as an expense to certain departments of Laurentian Bank Securities (LBS), including investment banking.

* Legend

A	The Analyst, in his/her own account or in a related account, owns securities of this issuer.
D	A member of the Board of directors of LBS sits on the Board of directors of this issuer.
L	LBS collectively beneficially owns in excess of 1% of one or more classes of the issued and outstanding equity securities of this issuer.
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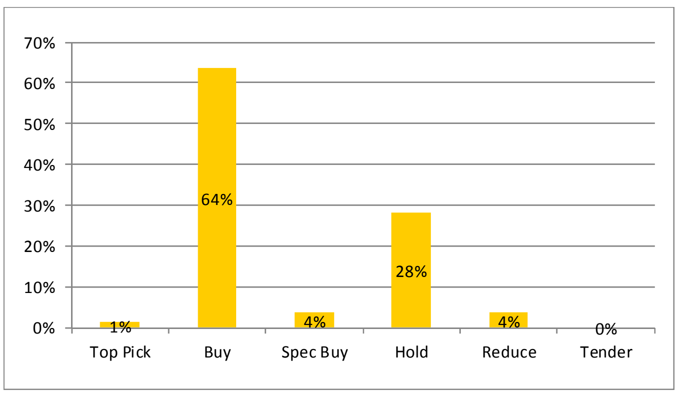
U	Within the last 24 months, LBS has undertaken an underwriting liability with respect to equity securities of, or has provided advice for a fee with respect to, this issuer.
V	The Analyst has visited material operations of this issuer.
P	This issuer paid a portion of the travel-related expenses incurred by the Analyst to visit material operations of this issuer.

Laurentian Bank Securities Equity Research Ratings Distribution



Percentage of companies covered by Laurentian Bank Securities Equity Research within each rating category.

Source: Laurentian Bank Securities

Terminology	LBS (Laurentian Bank Securities) recommendation/risk terminology is as follows:	
Recommendation	Top Pick	Our best investment idea, the greatest potential value appreciation.
	Buy	The stock is expected to generate significant risk-adjusted returns over the next 12 months.
	Hold	The stock is expected to generate modest risk-adjusted returns over the next 12 months.
	Reduce	The stock is expected to generate negative risk-adjusted returns over the next 12 months.
	Tender	Analyst is recommending that investors tender to a specific offering for the stock.
	Our ratings may be followed by "(S)" which denotes that the investment is speculative and has a higher degree of risk associated with it. Additionally, our target prices are based on a 12-month investment horizon.	
Risk Ratings	Low	Low financial/operational risk, high predictability of financial performance, low stock volatility.
	Medium	Moderate financial/operational risk, moderate predictability of financial performance, moderate stock volatility.
	High	High financial/operational risk, low predictability of financial performance, high stock volatility.

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