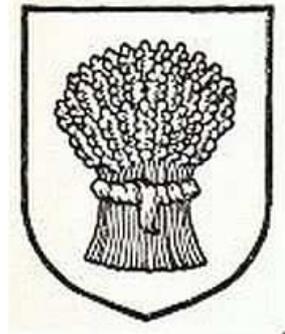


Sunday, July 31, 2022



HALLGARTEN & COMPANY

Portfolio Strategy

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Model Resources Portfolio: The Pain Goes On

Performance Review – July 2022

Model Resources Portfolio

The Pain Goes On

- + **Lithium holds at high levels due to a near panic sentiment sweeping the batteries metals space with regard to securing supplies**
- + **Antimony continues to hold up as all crumbles around it**
- + **We have the sneaking suspicion that the US DoD or the Pentagon are creating a shadow strategic reserve in critical metals. Are we mistaken?**
- + **Oil sustained its rally**
- ✗ **Baltic Dry is diving again, good news for shippers but a signal of slacker activity in bulk minerals all around**
- ✗ **Higher interest rates are taking away the metaphorical “punchbowl” that Central Banks never dared do over the last thirty years of asset inflation**
- ✗ **Chinese property companies that dodged a meltdown last year seem to be headed back into stormy territory again**
- ✗ **Sabre-rattling over Taiwan by China appears to be powered by a mistaken misreading of the West**

Chinese Exceptionalism and Its Fallacies

As is now well-known the Chinese zero-Covid strategy has backfired badly and produced a serious own-goal for the already battered economy. Over this issue is now laid a globally softened economy, high energy import costs, high metals import costs, declining labour competitiveness, a renascent property crisis and a frenzy of sabre-rattling over the issue of Taiwan.

Behind this latter move is a severe misinterpretation that the West is somehow “fighting a war” against Russia and cannot deal with a new “front” in a rewording of the ancient adage of having “only one enemy at any time”. But no-one in the West thinks that the West is in a war in or with Russia. Even as proxy wars go, it is scarcely more than peeling off small bills from the West’s military budgets and redeploying second hand or excess equipment. Another dangerous fallacy is that the People’s Liberation Army, which has scarcely been on manoeuvres of any relevance since over-running some Tibetan monks many decades ago, is somehow invincible. Overweening confidence was a term made for this situation.

Speaking of a different kind of weaning, the West is in a very slow process of girding its most vulnerable private parts from the panda’s groping paws. However, as in 1938, when all sides were not as ready for war as they would have liked to be, so the process of disengaging from China’s grip on many specialty metals of strategic importance is only in early days.... However, on the other side China is seeing its grip on certain key metals starting to fade rapidly with Rare Earths, Antimony, Tungsten and Tin being

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poignant examples of secular decline.

Then there is the issue of long shipping supply lines. China has terrible supply issues in foodstuffs and key base metals with horrific vulnerability in its iron ore, copper, nickel, tin, zinc, manganese, chrome, vanadium and niobium supplies that a few Western submarines in the Pacific and Indian Oceans could exacerbate within a few weeks, if not days. Diego Garcia is not a US base for nothing.

But as the history books tell us the minds of vulnerable leaders are not havens of logicity. The Ukraine was supposed to fold fast and yet has not. We have not heard that old chestnut “it’ll be over by Christmas” that fooled the masses in 1914 and 1939, as seemingly politicians in the West have some historical awareness after all.

So how to interpret China’s Pelosiphobia? They seem to be the only ones who are afraid of an octogenarian congresswoman from California. Their overreaction shows a total lack of “je ne sais quoi”. To not take further action would involve the massive “loss of face” that only politicians East of Suez cannot cope with. But as we have noted before who cares if they lose face? Why are Asian leaders the only ones not allowed to lose face? Get used to it is our advice.

Doom & Gloom – Really?

We thought we would offer this chart and let it speak for itself on how dire things are in the metals space. It compares the prices of the metals we most look at in December 2019 and the prices currently.

The outstanding strength of Antimony is clearly evident, while its running mate, Tin, is still up mightily despite having lost half its gains in the last two months.

Metals - Pre-Pandemic to Now				
	Unit	End 2019	August 2022	Change %
Lead	lb	\$0.87	\$0.93	6.9%
	tonne	\$1,917	\$2,050	
Zinc	lb	\$1.04	\$1.60	53.8%
	tonne	\$2,292	\$3,526	
Copper	lb	\$2.80	\$3.55	26.8%
	tonne	\$6,171	\$7,824	
Gold	oz	\$1,520	\$1,776	16.8%
Silver	oz	\$17.85	\$20.01	12.1%
Uranium (spot)	lb	\$25.15	\$48.50	92.8%
Antimony	tonne	\$6,050	\$13,600	124.8%
Tungsten APT	MTU	\$240	\$343	42.7%
Tin	tonne	\$17,200	\$24,445	42.1%
Cobalt	lb	\$14.63	\$22.43	53.3%
Vanadium	lb	\$6.00	\$7.40	23.3%
Nickel	lb	\$6.30	\$10.05	59.5%
	tonne	\$13,885	\$22,150	
Molybdenum	lb	\$9.21	\$14.17	53.9%

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Jervois Global - Cobalt Champion?

In last month's review of the state of the Cobalt scene we pointed out how dire the choice of real Cobalt players was despite this metal's importance to the nascent battery "revolution". In particular the preponderance of fakers was made particularly evident by the almost total absence of progress by listed Cobalt players towards any sort of production except for a couple of notable exceptions. One of those exceptions was Jervois Global (ASX: JRV, TSX: JRV).

A soft earnings report related to its Finnish refining operations sent investors into a tizzy so we felt it was a good opportunity to add the company to our Model Resources Portfolio.

It is worth highlighting the news over the past month and reiterating our thoughts conveyed in last month's Review.

Jervois Global is the prime survivor (and performer) from the recent crop of Cobalt "developers". Its asset base in Cobalt consists of its 100%-owned Idaho Cobalt Operations (ICO) and its Cobalt processing plants in Finland and Brazil.

The Idaho project came on board via the merger in July 2019 with eCobalt Solutions (TSE:ECS), this brought along the relatively advanced but perpetually stop-start construction project in Idaho.

The transaction followed upon Jervois's earlier takeover of M2 Cobalt Corp, an East African-focused exploration company with assets in Uganda. It might be remembered that Uganda (at the Kasese site) had long been one of the few primary Cobalt producers in the world (with Morocco being the other notable example).

The Processing Side

Then Jervois acquired the Sao Miguel Paulista (SMP) nickel and Cobalt refinery in Sao Paulo, Brazil from Companhia Brasileira de Alumínio (part of the Votorantim grouping) in September 2020. The SMP Refinery had annual refined production capacity of 25,000 metric tonnes of nickel and 2,000 metric tonnes of Cobalt and was on care and maintenance. The cash purchase price was R\$125mn (US\$22.5mn), payable in tranches.

Following the end of the quarter the conditions precedent were met and the transaction closed, triggering a US\$8.7mn payment. JRV continues to evaluate the project before FID, which it expects to do in the near term. The Stage 1 restart is focussed on producing 10k tpa of nickel in product and 2k tpa of refined Cobalt metal, with first production expected in late 2022. The BFS for the POX plant is expected in SepQ'22.

The Finnish processing plant had a long history as it had originally belonged to Outokumpu. When Jervois, in September 2021 purchased from Freeport McMoran all the shares of Freeport Cobalt Oy, and four affiliated entities from Koblitti Chemicals Holdings Ltd. (KCHL), for US\$160 million it finally became clear that the "rubber was hitting the road" at Jervois.

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Idaho

Jervois has stated that it expects to commence mill commissioning in Idaho in September 2022, with full production forecast for February 2023. This will be the US's first Cobalt mine "for generations" when commercial production commences later this year.

An official opening ceremony for the ICO mine is scheduled at site for early October, with expected participation of U.S. political leadership and Australian government delegates. Jervois trumpets that it remains actively engaged with the U.S. government with regard to the geopolitical and economic importance of their endeavour. In a sign of its drift to a US-orientation, it has recently announced the change of its accounting currency to the US\$.

Construction continues, with JRV expecting first ore through the mill in the December quarter of this year and full rate production in March quarter of 2023. In the latest quarter the company spent US\$25.6mn which takes the total CapEx expended to US\$66.9mn of the estimated US\$107.5mn.

Recent Results

In mid-July Jervois reported its results for the June quarter of 2022. The company cited lower demand from the battery sector, in part due to Zero-COVID policy shutdowns in China, lower consumption of chemicals, catalysts and ceramics and weakened demand from the auto-sector. However, aerospace was positive and other powder metallurgy (hard tools, etc.) were stable. Our view is that it is inconsistent to be bullish on EV batteries and less than bullish on the prospects of Cobalt.

The latest results showed the company's main revenue-generating segment, Finland, with sales volume of 1,139 t (down a surprising 21% QoQ), but still sales in the half were 2,535 tonnes of Cobalt generating US\$196.3mn.

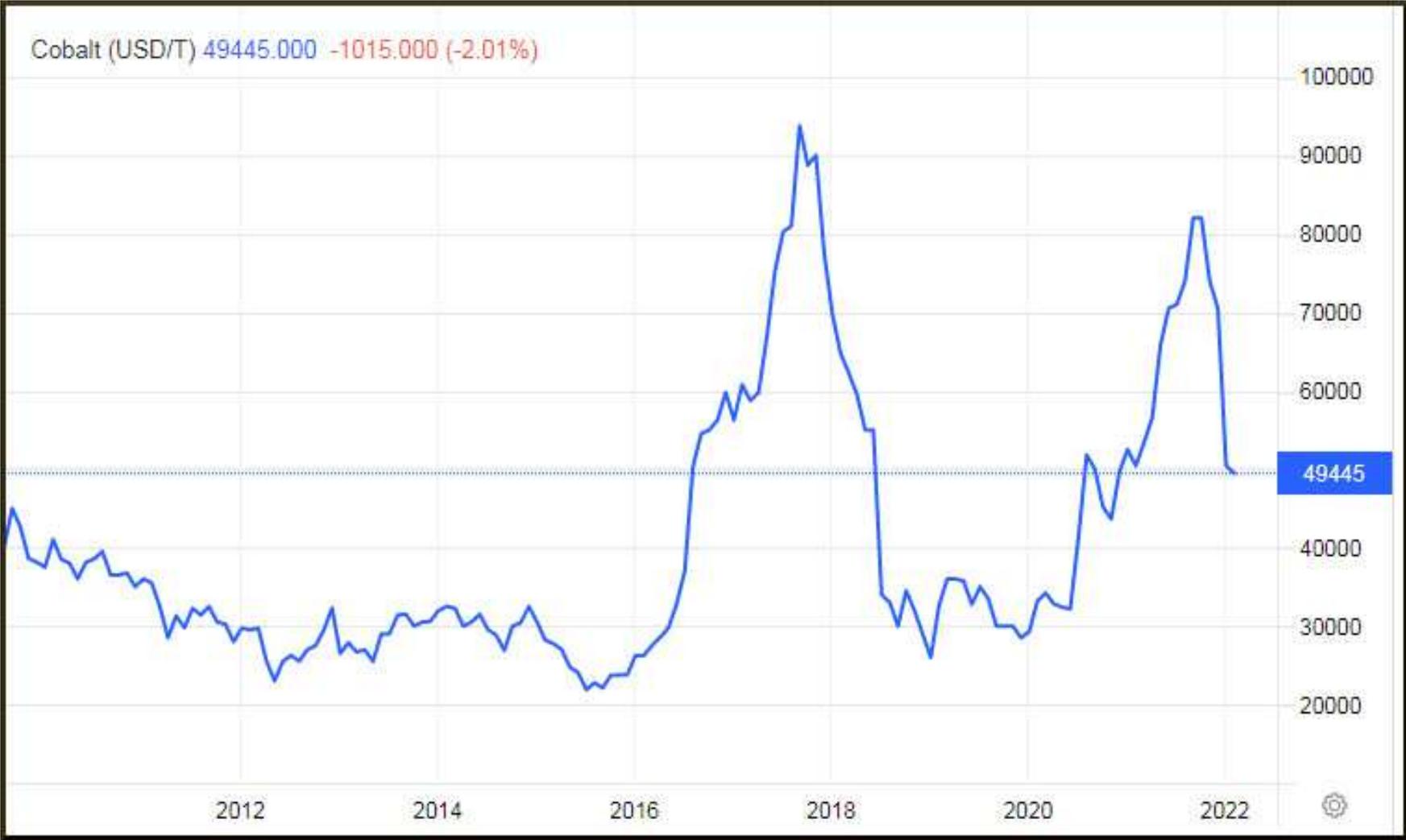
The company reported EBITDA for Finnish operations of US\$11.9mn in 2Q22, with EBITDA margins of 13%. Despite lower sales, margins were helped by lower feedstock costs as Cobalt fell and Cobalt payabilities fell with the price.

The company reduced its EBITDA guidance to US\$35-40mn (previously US\$50-55mn) due to 31% lower Cobalt pricing assumptions.

The balance sheet is firmly underpinned with US\$57.6mn in cash and US\$150mn in debt at the end of the June quarter. Subsequent to the end of the quarter JRV drew an additional US\$51mn from its notes facility to finish Idaho construction. Over the quarter JRV's working capital grew from US\$125mn to US\$162mn at its Finland operation.

Noting its inventory cover of 160 days (in 1Q22 it was 97 days) and thus in a strong position to operations and return to previous margin ratios.





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Jervois, through its “actions speak louder than words” approach has made clear that it is not just one of the horde of fakers in the Cobalt space. In the game of Monopoly where strategic Cobalt play pieces were the assets to go for and it would appear that Jervois had cleaned up several sides of the Monopoly board and brought them under its control. It has created the Cobalt major that the West was lacking.

We noted in the last Monthly that, at the then market cap of around AUD\$780mn, its valuation appeared rather ritzy despite the fact that it was trading at half its 12-month highs. We posited that, if it came significantly lower, then it would become a **LONG** candidate for the Model Resources Portfolio. With the Finnish “setback” during the month of July, such a buying opportunity has presented itself and we have added a **LONG** position to the model portfolio with a twelve-month target price of AUD 65 cents.

Portfolio Changes

Our major move during the month was the addition of a LONG position in Jervois Global to the portfolio. We shall most likely be closing out the **SHORT** in Aya Gold & Silver in the near future as it has performed fantastically (badly). And thus justified our stance.

Lithium Feeding Frenzy

Our presence at the Lithium Forum in Buenos Aires in late July showed that global doomsters in the equity markets have left the lights in the marquee of the Battery Metals Boom undimmed. The event bordered on a feeding frenzy and the local politics raised nary an eyebrow for participants, which is more than one can say about Chile or Mexico these days.

We were there in the company of Xantippe Resources (ASX:XTC), on which we shall be launching coverage in coming weeks.

As we noted in the previous Monthly the Argentine government had introduced a reference price of US\$53/kg for Argentine lithium. We commented that it appeared to us to be a shot across the bows of the cartel (and others) playing in the Argentine *salares* space. Transfer pricing has been rife in the mining industry for a couple of decades now and the government is moving in to stymie the practice. No sooner had we arrived in the sometime Paris of the South, than an expose revealed that Livent may very well have been indulging for a very long while in such practices.

Allkem (AKE.ax) stated that the new measure was merely a reference price to be used by regulatory authorities when reviewing lithium export data to counter under invoicing and improve price transparency. Allkem stated that the price is not to be used as a basis to calculate taxes, royalties, duties, nor is it a price cap (as has been suggested in some recent media).

For some perspective, in China, the CIF price for Lithium Carbonate still stands near its record levels, with the product quoted at RMB 476,500 per tonne.

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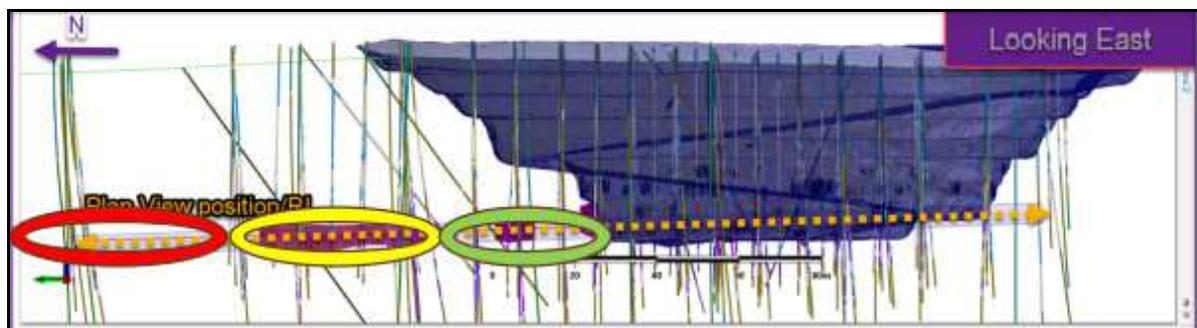
With Lithium in short supply, at least for now, the investment and development dollars are heading for the jurisdiction that provides most opportunities at the least degree of hassle. Perversely this is Argentina at the current time. It's not perfect, and the foreign exchange issues are a nightmare, but these pale in comparisons to the stones that the Chileans and Mexicans are putting in the way of developers.

Essential Cesium

We remain somewhat torn on Essential Metals (ESS.ax) as it hovers between being a rather unexciting Lithium play and being the only listed company to have been a newcomer to the Cesium production scene in the last ten years (or more).

For the brief few shining moments in which Essential (then called Pioneer Resources) was a Cesium producer from the Sinclair deposit on its Pioneer Dome project, its main (or maybe only) buyer was China's Sinomine Resource Group, sometimes referred to as China Mineral Resources.

The problem for all putative Cesium producers is that pollucite (the host mineral) tends to appear in pods and that these pods vary in size with the LCT pegmatites that host them and they can peter out or just be ornery to uncover. The only thing that works is drilling which might randomly intersect a pod or more concerted mining of the pegmatite for Lithium with the Cesium being chance "icing on the cake" should a pod be stumbled upon.



The cross-section above represents drilling done at the Sinclair deposit in 2018-19 with the three Cesium target zones along strike shown. As things turned out only the yellow area proved to have pollucite intersections promising Cesium potential.

It might be recalled that we pointed out several years ago that the US government had made a grave mistake in allowing Cabot Corp, the specialty chemicals group, to sell its Specialty Fluids division, which essentially controlled the world's stock of Cesium above ground, to Sinomines in a particularly serious own-goal in the midst of all the gum-flapping in Washington about Chinese domination of strategic minerals.

For those not versed in the ways of the Cesium space a seemingly unrelated announcement of a

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development in Africa reflects somewhat on Essential. Earlier this year the Bikita Minerals lithium mine, which has been in operation since around 1950 and is located in the Bikita hills of Masvingo province in Zimbabwe, was acquired by Sinomine for \$180mn.

In late June, Sinomines launched a US\$200mn project to build a lithium plant and expand existing operations at the Bikita Minerals lithium mine in Zimbabwe.

The Bikita mine predominantly produces petalite, a lithium mineral that is used in the ceramic and glass industries, but is also known to produce Cesium, for which Sinomine has been an eager buyer.

The new investment will allow the mine to produce spodumene which is more useful for battery production than petalite.

The investment is also expected to position the oft-overlooked country as a major player in the battery mineral supply chain while bringing value growth to the manufacturing industry chain.

With the new investment, Sinomines plans to increase the mining and processing capacity at the Bikita mine to 1.2mn tpa by the end of this year and intends to build a new ore production line with a 2mn tpa capacity. Though how much value Sinomines will allow to stay in Zimbabwe is debatable.

From all this, the market interprets the Sinomine move as a Lithium play and, by and large, it is but there are easier places to play for that mineral than Zimbabwe. But there are currently, unless Essential comes up with something new, no other places for the Chinese or anybody else to lay their hands on any Cesium.

For all intents and purposes, it appears as if Essential has returned to the Lithium fold, but we find this hard to believe as Cesium has proven to be low-hanging and lucrative fruit in the past. We therefore reiterate our **LONG** rating in the Model Resources Portfolio and are raising our target price from 30cts to 60 cts.

Parting Shot

We are enjoying the first wave of lawsuits starting to roll in at the LME for its feckless handling of their bailout of Mr Big Swinging Appendage, or whatever he is called, in the Nickel space, at the expense of the real users of the LME. Let them be the first of many. Some have posited that the LME will quietly settle them to make them go away, but knowing the inveterate gossips that the metal trading community are, we would expect then everyone to file suit to get a settlement if they suspect they have been bested by Elliott Partners or their ilk.

What to do? A plethora of lawsuits might end up with a lot of LME communications with Mr Now Shrunken Appendage, and his Chinese bankers, seeing the cold light of day in the English court system. This would not do as it would show that the shots are called in the LME C-Suite, not in Hong Kong, but in Beijing.

MODEL RESOURCES PORTFOLIO @ END JULY							
Security	Ticker	Currency	Price	Change		12-mth Target	
				last 12 mths	last mth		
LONG EQUITIES							
Diversified Large/Mid-Cap	Hochschild	HOC.L	GBP	0.813	-47%	-15%	£3.40
	Sherritt International	S.to	CAD	0.42	-5%	2%	\$0.95
Uranium	Sprott Physical Uranium	U-UN.to	CAD	15	30%	8%	\$18.70
	GoviEx	GXU.v	CAD	0.30	25%	25%	\$0.45
Zinc/Lead Plays	WisdomTree Zinc ETF	ZINC.L	USD	9.19	2%	-6%	\$14.00
	Altaley Mining	ATLY.v	CAD	0.17	-78%	-6%	\$0.90
Silver Explorer	Southern Silver Exploration	SSV.v	CAD	0.23	-36%	7%	\$0.75
Silver ETF	IShares Silver ETF	SLV	USD	18.70	-21%	0%	\$26.00
Gold Producer	Soma Gold	SOMA.v	CAD	0.37	9%	19%	\$1.20
	Orvana Minerals	ORV.to	CAD	0.33	-3%	0%	\$0.60
Gold/Antimony Developer	Perpetua Resources	PPTA.to	CAD	3.51	-48%	-17%	\$16.00
Metallurgical Coal	Colonial Coal	CAD.v	CAD	2.20	156%	12%	\$2.45
Project Generator	Altus Strategies	ALS.L	GBP	0.45	-25%	7%	£1.00
Royalties	Elemental Royalties	ELE.v	CAD	1.20	-11%	-18%	\$2.30
Copper Explorers	Panoro Minerals	PML.v	CAD	0.14	17%	0%	\$0.30
	Phoenix Copper	PXC.L	GBP	0.29	-55%	-21%	£0.90
	C3 Metals	CCCM.v	CAD	0.06	-67%	20%	\$0.44
Tungsten Producer	Almonty Industries	AII.to	CAD	0.90	-10%	6%	\$1.25
Graphite Developer	Blencowe Resources	BRES.L	GBP	0.03	-38%	3%	£0.22
Cobalt	Jervois Global	JRV.ax	AUD	0.40	-14%	-25%	\$0.65
Vanadium Developer	Vanadium Resources	VRB.v	CAD	0.08	60%	0%	\$0.08

MODEL RESOURCES PORTFOLIO @ END JULY							
Security	Ticker	Currency	Price	Change		12-mth Target	
				last 12 mths	last mth		
LONG EQUITIES							
Lithium	Neometals	NMT.ax	AUD	1.11	68%	22%	\$1.50
	Lithium Power Intl	LPI.ax	AUD	0.54	100%	29%	\$0.80
Cesium/Lithium	Essential Metals	ESS.ax	AUD	0.49	250%	32%	\$0.60
Scandium Developer	Scandium International	SCY.to	CAD	0.08	-60%	-20%	\$0.25
Gold Explorer	Cabral Gold	CBR.v	CAD	0.28	-44%	8%	\$0.60
	BTU Metals	BTU.v	CAD	0.04	-67%	0%	\$0.12
	Desert Gold	DAU.v	CAD	0.08	-50%	-20%	\$0.35
	Gunpoint Exploration	GUN.v	CAD	0.63	-3%	19%	\$0.75
	Bold Ventures	BOL.v	CAD	0.10	0%	0%	\$0.18
	MetalsTech	MTC.ax	AUD	0.37	48%	6%	\$0.68
Rare Earths	Rainbow Rare Earths	RBW.L	GBP	0.1175	0%	-5%	£0.30
	Neo Performance Materials	NEO.to	CAD	14.55	-22%	17%	\$24.00
	Aclara	ARA.to	CAD	0.28	n/a	-30%	n/a
Tin Miners	Alphamin	AFM.v	CAD	0.75	-11%	-10%	\$2.00
	Metals X	MLX.ax	AUD	0.32	14%	-3%	\$0.45
Oil & Gas	Shell	SHEL.L	EURO	21.35	50%	-1%	£24.00
SHORT EQUITIES							
Shorts	NioCorp	NB.to	CAD	0.85	-34%	-6%	\$0.40
	Aya Gold & Silver	AYA.to	CAD	7.38	-30%	13%	\$8.00
	Galane Gold	GG.v	CAD	0.08	-58%	-11%	\$0.06
	Texas Mineral Resources	TMRC	USD	1.93	29%	3%	\$0.30

Important disclosures

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