

# Boab Metals Limited

7 December 2021

## Improved recoveries add value

BML ASX \$0.34 TARGET PRICE \$0.85

75% owned Sorby Hills Lead Silver Project in WA has a completed a Preliminary Feasibility Study and is moving towards financial close in mid 2022 and then construction. Production planned to be 47Ktpa lead and 1.4Mozpa silver in concentrate for 10 years.

Resources

BUY

Michael Harrowell  
+61 418 167 933  
[mrh@rawsonlewis.com](mailto:mrh@rawsonlewis.com)



**RAWSON LEWIS**

## New metallurgical results point to a project upgrade in DFS

Boab has indicated the Definitive Feasibility Study completion is likely to be Q2 2022 (per September 2021 quarterly). The results of metallurgical testing included a number of news items

- Better recoveries from processing oxide and fresh ores separately. PFS assumed blending oxide and fresh together.
- Higher lead recoveries in oxides, and silver in fresh ore
- Lower recoveries from the Norton deposit may be offset by selective mining.

## Boab share price not tracking the rising lead price

Typically, mining company share prices go up and down with the A\$ prices of the relevant commodities, even those companies that are not yet in production. Boab was moving with the lead and silver prices until April 2021. We expect this disconnect will resolve, with either the lead price coming down or the Boab share price going up.

## Investment case for Boab

- The AUD lead price has averaged A\$1.30/lb for the last four years and in that time has never been below A\$1.00/lb. At spot prices, Boab is worth A\$1.03/sh.
- Boab is the most leveraged ASX listed equity to lead price upside. A\$0.10/lb increase in lead price adds ~20cps to our valuation.

## Lead leveraged to a global boom in vehicle purchases

- Until 2020, the global auto fleet was aging, with below trend sales for the prior three years. That trend has reversed with COVID 19, and a multi-year recovery in demand is underway.
- Lead acid batteries remain the core power source for the Start/Light/Ignition in internal combustion vehicles, and Light/Ancillary power source in electric vehicles.
- The lead price continued to outperform market expectations this year, and we are heading into the Northern Hemisphere seasonal winter demand peak, with greenhouse induced weather extremes, including extreme cold events which stimulate replacement battery demand like the Texas event in February 2021.

## Company Data

Shares Outstanding (M)	152
Price (\$/sh)	0.340
Market Capitalisation (\$M)	51.8
Free Float (%)	100%
Free Float Market Capitalisation (\$M)	51.8
12 Month Low (\$/sh)	0.335
12 Month High (\$/sh)	0.585
Average Daily Volume ('000)	412

Data Source: ASX, Company, Rawson Lewis est.

Earnings Summary (A\$M)				
Year end June	FY21	FY22	FY23	FY24
Sales revenue	0.5	0.0	0.0	175.9
EBITDA	-5.0	-1.5	-3.3	103.4
PBT	-5.0	-1.4	-7.2	66.0
Underlying NPAT	-5.0	-1.0	-5.0	46.2
Reported NPAT	-5.0	-1.0	-5.0	46.2
Reported EPS (c)	-3.3	-0.4	-2.1	19.7
Underlying EPS (c)	-3.3	-0.4	-2.1	19.7
DPS (c)	0	0	0	0
PER	na	na	na	1.7
Franking (%)	na	na	na	na
Dividend Yield (%)	na	na	na	na
Gross Yield (%)	na	na	na	na

## Price Graph to 7 Dec 2021



Source: IRESS, Share price A\$/sh LHS, Turnover millions of shares RHS

## Directors & Management

Gary Comb	Chairman
Simon Noon	Managing Director
Richard Monti	Non-Executive Director
Andrew Parker	Non-Executive Director

## Shareholders at 29 Nov 21

Villiers	10.54%
Zero Nominees	8.36%
Citicorp	3.59%
Directors	2.40%

## Boab Metals Limited

BML-ASX

Share Price A\$/sh				0.340
Price Target A\$/sh				0.850
<b>PROFIT AND LOSS A\$M</b>	<b>FY21F</b>	<b>FY22F</b>	<b>FY23F</b>	<b>FY24F</b>
Total Revenue - BML 75% share	0.5	0.0	0.0	175.9
COGS	0.0	0.0	-1.8	-70.9
Gross Profit	0.5	0.0	-1.8	104.9
Gross Profit Margin	na	na	na	59.7%
SG&A	-5.4	-1.5	-1.5	-1.5
EBITDA - Reported	-5.0	-1.5	-3.3	103.4
D&A	0.0	0.0	0.0	-30.4
EBIT - Reported	-5.0	-1.5	-3.3	73.0
Total Financial Income	0.0	0.1	-3.9	-7.1
PBT	-5.0	-1.4	-7.2	66.0
Tax Expense	0.0	0.4	2.2	-19.8
NPAT	-5.0	-1.0	-5.0	46.2
Minorities	0.0	0.0	0.0	0.0
Earned for Ordinary	-5.0	-1.0	-5.0	46.2
EPS A cps	-3.26	-0.41	-2.14	19.68
Ordinary shares M	152	235	235	235
Dividend A cps	0.0	0.0	0.0	0.0
EBITDA Margin %	na	na	na	58.8%
Return on Equity:	na	na	na	47.4%
Return on Invested Capital:	na	na	na	37.2%
PER	na	na	na	1.73
Price/Book	3.05	1.38	1.51	0.81
Book value A\$/sh	0.11	0.25	0.23	0.42
<b>VALUATION (NPV)</b>	<b>FY21F</b>	<b>FY22F</b>	<b>FY23F</b>	<b>FY24F</b>
Sorby Hills (BML 75% share)	147.7	174.8	277.1	307.7
Exploration	15.0	15.0	15.0	15.0
Corporate Overhead	-7.8	-7.6	-7.3	-7.0
Cash on hand	12.9	19.9	24.1	38.3
Debt	0.0	0.0	-100.0	-80.0
Net Working Capital	-0.9	-2.4	-10.6	21.1
Valuation A\$M	166.9	199.8	198.2	295.1
Valuation A\$/sh	1.1	0.9	0.8	1.3
Discount Rate	10.5%			
<b>OPERATING DATA (100% basis)</b>	<b>FY21F</b>	<b>FY22F</b>	<b>FY23F</b>	<b>FY24F</b>
Ore Processed Kt	0	0	0	1400
Lead Grade %	0.0%	0.0%	0.0%	5.5%
Silver Grade g/t	0.0	0.0	0.0	51.6
Lead Contained Kt	0	0	0	77
Silver Contained Koz	0	0	0	2323
Lead Recovery	0.0%	0.0%	0.0%	90.5%
Silver Recovery	0.0%	0.0%	0.0%	80.5%
Recovered Lead Kt	0.0	0.0	0.0	69.7
Recovered Silver Koz	0	0	0	1871
Conc Grade Lead	0.0%	0.0%	0.0%	62.0%
Conc Grade Silver	0	0	0	518
Concentrate Prodn Kt (dry)	0.00	0.00	0.00	112.42
<b>Sales</b>				
Concentrate Sold Kt dry	0	0	0	112
Lead Contained Kt	0.0	0.0	0.0	69.7
Silver Contained Koz	0	0	0	1871
Lead Payable Mlb	0.0	0.0	0.0	146.0
Silver Payable Moz	0.00	0.00	0.00	1.78
Lead Revenue A\$M	0.0	0.0	0.0	200.9
Silver Revenue A\$M	0.0	0.0	0.0	61.1
Treatment Charges A\$M	0.0	0.0	0.0	-27.5
Net Revenue A\$M	0.0	0.0	0.0	234.5

<b>CASH FLOW YE June</b>	<b>FY21F</b>	<b>FY22F</b>	<b>FY23F</b>	<b>FY24F</b>
Receipts from customers	0.0	0.0	0.0	157.0
Payments to Suppliers	-1.7	-0.1	5.0	-85.3
Interest (Paid) / Received	0.0	0.1	-3.9	-7.1
Tax (Paid)	0.0	0.0	0.0	0.0
Operating cashflow	-4.6	0.0	1.1	64.6
Capital expenditure	0.0	-23.3	-96.9	-28.3
Asset Sales				
Acquisitions				
Divestments				
Other Investing				
Investing cashflow	0.1	-33.3	-96.9	-30.4
Free Cash Flow	-4.4	-33.2	-95.8	34.2
Net Equity Raisings	15.1	40.2	0.0	0.0
Proceeds from Pre Sales	0.0	0.0	0.0	0.0
Shares Repurchased				
Net Borrowing	-0.1	0.0	100.0	-20.0
Ordinary Dividends paid	0.0	0.0	0.0	0.0
Other	-0.6	0.0	0.0	0.0
Financing cashflow	14.4	40.2	100.0	-20.0
Exchange rate adjustment	0.0	0.0	0.0	0.0
Net change in cash	10.0	7.0	4.2	14.2
<b>BALANCE SHEET YE June</b>	<b>FY21F</b>	<b>FY22F</b>	<b>FY23F</b>	<b>FY24F</b>
Cash	12.9	19.9	24.1	38.3
Receivables	0.4	0.4	0.4	19.3
Inventories	0.0	0.0	0.0	12.9
Total Current Assets	13.3	20.3	24.4	70.5
PP&E	0.0	23.3	120.2	118.1
Intangibles				
Expln & Mine Devt	5.2	15.3	15.3	17.3
Deferred Tax Asset	0.0	1.9	4.1	4.1
Total Non Current Assets	5.4	40.7	139.8	139.7
Total Assets	18.7	61.0	164.2	210.2
Trade Payables	1.3	2.7	11.0	11.0
Prepaid Revenue	0.0	0.0	0.0	0.0
Borrowings	0.0	0.0	100.0	80.0
Leveraged Leases				
Current Tax Liabilities	0.0	0.0	0.0	19.8
Deferred Tax Liabilities	0.2	0.2	0.2	0.2
Provisions	0.2	0.1	0.1	0.1
Total Liabilities	1.7	3.0	111.3	111.1
Net Assets	17.0	57.9	52.9	99.1
Issued Capital	47.7	87.9	87.9	87.9
Reserves	1.3	1.3	1.3	1.3
Retained Profits	-32.0	-33.0	-38.0	8.2
Shareholder Equity	17.0	56.2	51.2	97.4
<b>ASSUMPTIONS</b>	<b>FY21F</b>	<b>FY22F</b>	<b>FY23F</b>	<b>FY24F</b>
Lead Price US\$/lb	0.00	1.01	1.02	1.03
Silver Price US\$/oz	0.00	25.28	25.53	25.79
AUSUSD	0.00	0.75	0.75	0.75
Cost Inflation	0.0%	1.0%	1.0%	1.0%
<b>Unit Costs</b>				
Mining A\$/lb Lead				0.23
Processing G&A A\$/lb				0.26
Selling Costs A\$/lb				0.34
By product A\$/lb				-0.40
C1 costs A\$/lb				0.43
Sustaining Capex A\$/lb				0.02
AISC A\$/lb				0.45

## What we learn from the metallurgical release

The Definitive Feasibility Study is planned for release in the June Quarter of 2022. The recent metallurgical test work will feed into that study. In terms of processing flowsheet, there are two obvious consequences:

- The option of upgrading ore using a Dense Media Separation circuit will not be pursued. This removes the potential A\$36M of capex which the DMS would have added.
- The flowsheet will be designed to process oxide and fresh ore separately.

**Table 1 Blended grades and recoveries of PFS vs recent testing and separate oxide and fresh data**

	PFS	Metallurgical Tests 19 November 2021					Norton
		Yr1&2	Yr 3&4	Yr 5+	B Pit	Omega	
Oxide - Lead	84.0%	89.9%	85.5%	79.9%			85.9%
Oxide Silver	94.4%	92.4%	88.3%	89.3%			89.9%
Fresh - Lead	94.9%	95.1%	95.1%	95.1%	95.1%	95.2%	78.1%
Fresh - Silver	78.2%	86.3%	86.3%	84.8%	83.9%	87.0%	77.9%
Blend- Lead	92.8%	91.0%	83.1%	92.6%			76.6%
Blend- Silver	79.2%	85.8%	72.5%	89.2%			75.8%

Source: BML PFS release 2020, Rawson Lewis interpretation of the data in the BML release 19/11/21

The metallurgical test work splits the ore into oxide and fresh. In the PFS, fresh ore provided 87% of the plant feed over the 10 year life, with oxide providing 13%. The recent drilling has identified more ore at depth, so updated Reserves could show a lower share of oxide in the DFS.

Assuming separate processing of oxide and fresh, there are some additional implications for the outcome of the DFS that are hinted at:

- Lead recovery of both oxide and fresh are likely to increase (2-6% for oxide and 0.2% fresh).
- Silver recoveries in the fresh ore are likely to increase significantly (6-10%) while oxide recoveries are likely to be lower than the PFS by 2-6%. The positive news on fresh ore recoveries will dominate because there is more fresh ore in the mine plan.
- The fresh ore recoveries from B Pit and Omega were better than the PFS and better than the Met Test Years 1-10 samples, suggesting that Norton dragged down the averages, particularly in years 3 and 4.
- Norton has demonstrated low average recoveries, but also high variability, and the company believes that the variability is spatially constrained. We interpret that to mean that selective mining is likely to deliver a higher recovery stream to the plant, with the balance being stockpiled for end on life processing. If this is the case, the initial mine plan for the DFS could show better recoveries than the Years 1-5+ shows currently.

In the PFS, Norton comprised 2.2Mt out of 13.6Mt of Reserves, or 16%. However, Norton is 20Mt out of 44Mt of the 2021 Resource. There is a significant amount of Resource to work with. The existing recoveries are not bad, but Norton has a lot of potential value to maximise and getting Norton right will have a significant bearing on the project valuation.

**Table 2 2020 PFS Reserves and Mine Plan**

	Mt	Lead %	Silver g/t	Lead Kt	Silver Moz
<b>B</b>					
Proven	0.6	3.7%	20	20.1	0.35
Probable	1.3	3.4%	20	41.9	0.80
<b>Total</b>	<b>1.8</b>	<b>3.4%</b>	<b>20</b>	<b>62.0</b>	<b>1.16</b>
<b>Omega</b>					
Proven	4.1	4.1%	43	168.1	5.67
Probable	5.5	3.1%	29	170.5	5.13
<b>Total</b>	<b>9.6</b>	<b>3.6%</b>	<b>35</b>	<b>338.6</b>	<b>10.80</b>
<b>Norton</b>					
Proven	2.1	4.0%	82	84.0	5.54
Probable	0.2	3.5%	48	7.0	0.31
<b>Total</b>	<b>2.2</b>	<b>4.0%</b>	<b>79</b>	<b>88.0</b>	<b>5.59</b>
<b>Total</b>					
Proven	6.8	4.0%	53	272.2	11.6
Probable	7.0	3.2%	28	219.4	6.2
<b>Total</b>	<b>13.6</b>	<b>3.6%</b>	<b>41</b>	<b>491.6</b>	<b>17.8</b>
Inferred	1.2	3.8%	25	44.2	0.9
<b>Mine Plan</b>	<b>14.76</b>	<b>3.6%</b>	<b>39.5</b>	<b>535.8</b>	<b>18.7</b>

Source: BML 2020 PFS

## Valuation

Our base case valuation and price target of A\$0.85/sh is based on the PFS economics with an assumed mine plan volume increase of 25% or 3mt using prices based on the averages of the last four years, and discounted at 10.5%. The number of shares reflects an issue of 80M shares at A\$0.50/sh which is a discount to our price target. If we used a more conservative target of 160M shares at A\$0.25/sh, our price target would fall to A\$0.63/sh, based on a 10.5% discount rate, also substantially above the current share price. The corporate overhead is higher in the Low Discount case simply because the discount rate is lower, while exploration and cash remain unchanged because they are not discounted.

**Table 3 Valuation scenarios**

	Low Discount A\$M	Base Case A\$M	Low Issue Price A\$M
All asset valued after tax			
Sorby Hills 75%	229.30	174.76	174.76
Exploration	15.00	15.00	15.00
Corporate Overhead	-9.15	-7.55	-7.55
Cash on hand	19.91	19.91	19.91
Debt	0.00	0.00	0.00
Net Working Capital	-2.35	-2.35	-2.35
Valuation A\$M	252.71	199.77	199.77
Post Issue Shares M	234.67	234.67	314.67
Valuation A\$/sh	1.08	0.85	0.63
Discount Rate	7.0%	10.5%	10.5%

Source: Rawson Lewis estimates

At current spot lead and silver prices flat in real terms forever, the valuation of Boab on our other base case assumptions is A\$1.02/sh.

If we applied the Capital Asset Pricing Model the estimate the discount rate, the outcome would be a discount rate of 7.0%, and using that discount rate, our base case valuation including base case commodity prices would increase to A\$1.08/sh.

## Boab share price should be responding to the higher metal prices

The Boab share price responded to some extent to the lead price until April 2021 and even more so to the silver price until October 2021.

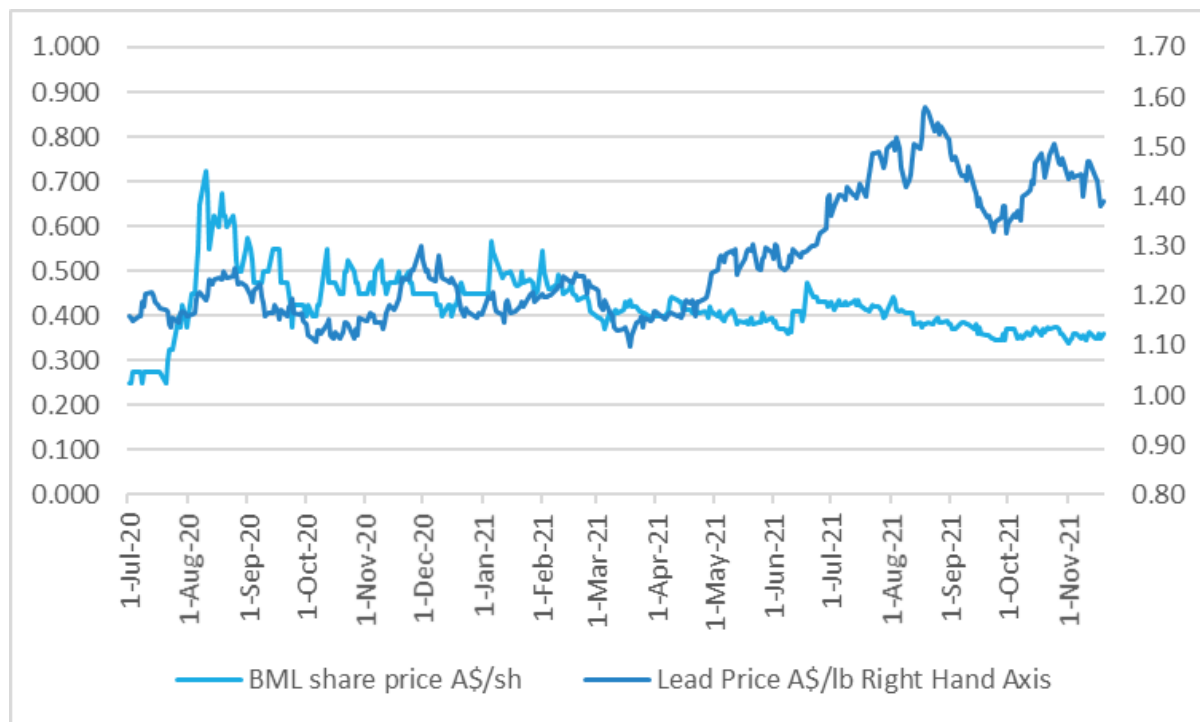
On our valuation, an A\$0.10/lb increase in the lead price over the life of the project adds A\$33M or A\$0.15/sh to the valuation.

The lead price is up A\$0/lb since April, and the Boab share price is flat A\$0.36/sh, which makes very little sense, even though the Net Present Value at spot has risen by around A\$0.38/sh.

We suspect part of the reason is that lead as a battery metal is seen as losing out to lithium batteries, and on that score we would like to make two points:

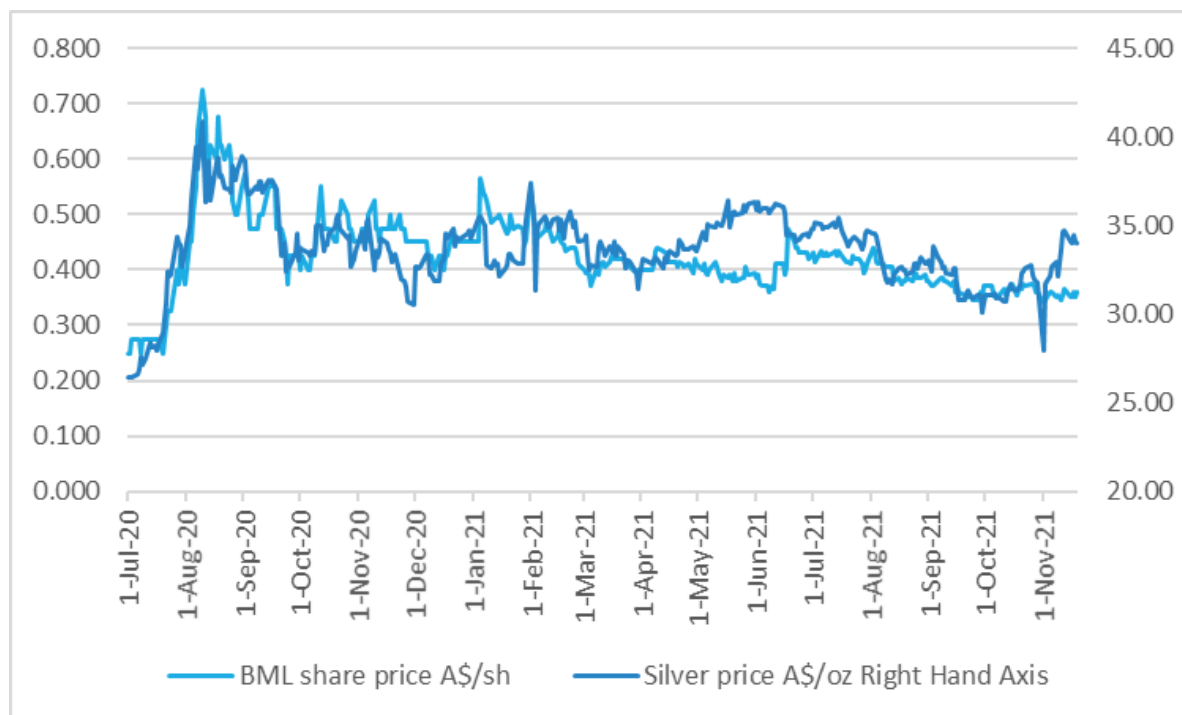
1. Investors are buying lithium shares because of the perception that the lithium price will stay high due to the strong uptake on lithium batteries. By definition, the ongoing high price of lithium which underpins current lithium stock share prices, will create space ongoing for lead acid batteries due to their lower cost, especially in emerging economies.
2. For long term back up power supplies, reliability is everything, and lithium just doesn't have the track record that lead acid has, and will take many years of testing to get there.

**Figure 1 Boab share price v lead price in A\$/lb**



Source: LME, ASX

Figure 2 Boab share price v silver price in A\$/oz



Source: LME, ASX

## Lead market tighter than expected – an ongoing theme

The International Lead Zinc Study Group produces supply demand forecasts in April and October each year. The 2021 demand forecast has been upgraded 3.5% between April and November 2021.

60% of refined lead supply comes from recycled vehicle batteries, and 86% of demand is from lead acid battery manufacturers. We believe the demand estimates for 2022 and 2023 significantly underestimate underlying demand in the vehicle sector in particular.

Table 4 Forecast upgraded for 2021 and very thin surpluses to 2022 create room for upside surprise

Date of Forecast Forecast Period	Apr-21 2021	Oct-21 2021	Oct-21 2022	Change 2021	Change 2022/21
Demand	11.97	12.39	12.61	3.5%	1.8%
Mine Supply	4.75	4.68	4.81	-1.5%	2.8%
Scrap Supply	7.32	7.74	7.82	5.8%	1.0%
Refined Supply	12.07	12.42	12.63	2.9%	1.7%
Increase in Inventory	0.096	0.027	0.024	-71.9%	-11.1%

Source: ILZSG press releases

[https://www.ilzsg.org/pages/1134/document.aspx?ff\\_aa\\_document\\_type=R](https://www.ilzsg.org/pages/1134/document.aspx?ff_aa_document_type=R)

## Lead will benefit from catch up demand for motor vehicles irrespective of EV boom

We have all heard the COVID stories about the increased cost of buying a new or second hand motor car. Vehicle makers have struggled with supply, and the lack of computer chips is sighted as the main reason. The real reason is that the average age of the world's auto fleet has been rising, and for various

reasons, auto buyers were deferring purchases since 2013 (Figure 3), and the correction started in 2020, catching car makers by surprise.

Just as the auto makers have been surprised, the ILZSG analysts have also been surprised, and we expect positive surprise to continue for multiple years.

Rawson Lewis expects the underlying demand for motor vehicles is for over 10%pa compound growth to 2023 to restore the global fleet to its normal age balance. Actual demand will be lower, because of the capacity issues (including computer chip availability). Because supply of vehicles will be less than underlying demand, the compound growth will be less than 10%pa but is likely to continue to grow for longer ie past 2023.

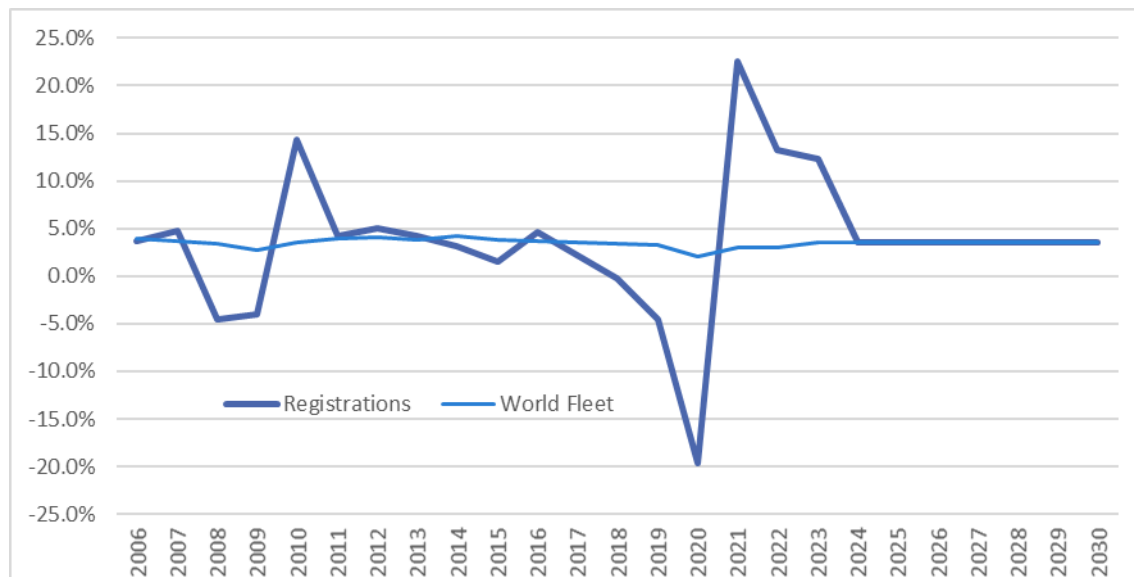
Given the lead price held up in 2020, in a year when vehicle production is estimated to have fallen 20%, the increase in demand for vehicles and the refilling of the supply chain in 2021-2023 is likely to result in very strong growth in mined lead.

The growth rate of the global vehicle fleet has been very stable over the 2005 to 2019 period at between 2.8%pa to 4.1%pa.

The change in vehicle registrations has been much more volatile, with two years of declines at -5% in 2008 and 2009 before rebounding strongly in 2010 at 15%.

In 2017-2020, the vehicle industry has seen a severe downturn, which started well before COVID, and to catch up to the trend growth in total vehicle fleet, a much stronger growth phase is required. Because of the recovery in H2 2020, 2021 is virtually guaranteed to be over 20% growth after which we would expect to see a number of very strong years (see Figure 3).

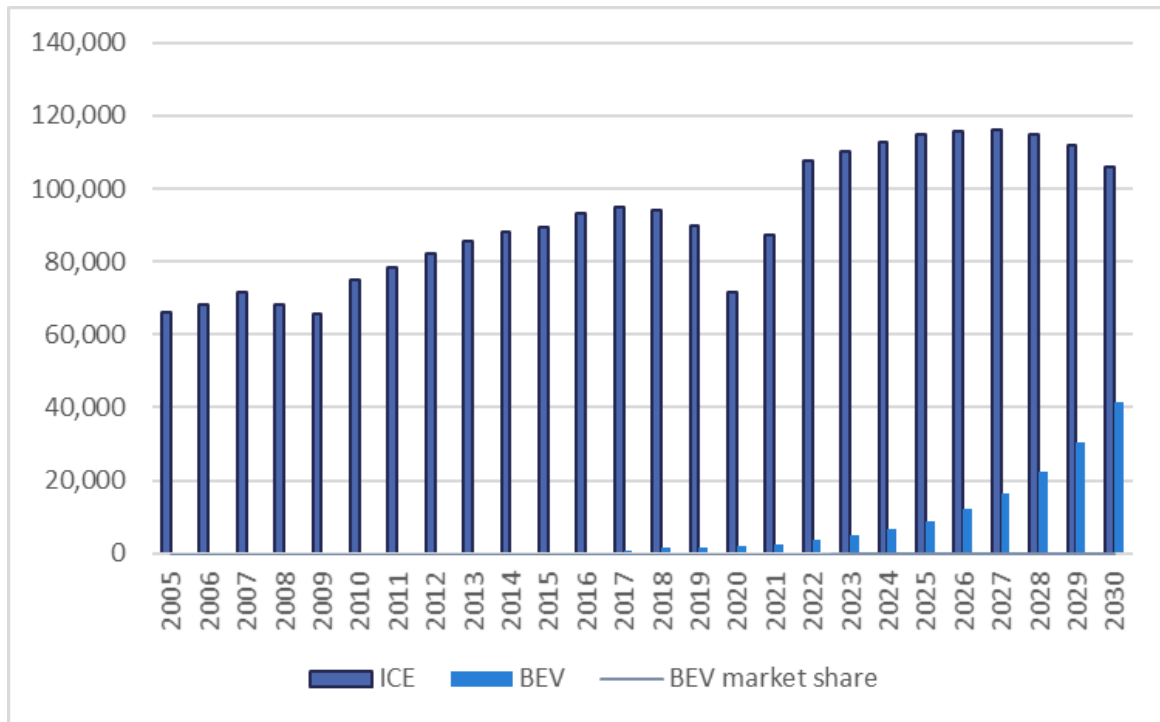
**Figure 3 Yearly change in Global Vehicle Fleet and Vehicle Registrations**



Source: OICA, Rawson Lewis estimates

Even if Electric Vehicle purchases grow at 40% pa compound growth, the demand for internal combustion engine vehicles will still stage a very strong recovery in the next few years (Figure 4). Note that almost all EVs include a lead acid battery to manage non traction functions like headlights and interior lighting and instruments.

**Figure 4 New vehicle registrations showing ICE (Internal Combustion Engine) vehicles and BEV (Battery Electrical Vehicle) registrations separately. BEV registrations grow to 28% of total by 2030**



Source: History to 2020 from OICA, forecasts by Rawson Lewis

Looking at new vehicle registrations in Figure 4, split into Internal Combustion Engine and Battery Electric Vehicles, the return of total registrations to its growth trend after the 2008-2009 downturn is clear, and we expect the same return to trend following the current downturn, but this time with a greater contribution from Battery Electric Vehicles. None the less, the required recovery in ICE Vehicles is likely to be very strong, and that strength is likely to be impacting the lead pricing now.

Based on EIA forecasts, we assume 36% pa growth in new Battery Electric Vehicle, registrations, rising to 28% of new registrations in 2030, taking the BEV fleet to 140m vehicles by 2030, or 6.6% of the total vehicle fleet. This may appear to be a surprisingly low number to some, but is consensus.

As we noted earlier, the rate of EV production and sales is likely to be restricted by slower growth in raw materials supply, which is very good for battery element producers, and it is also very good for lead producers, and Lead Acid Batteries add to the total battery supply, even retaining its role as the power source for lighting and instrumentation in EVs.



***This Research Report has been prepared and issued by Rawson Lewis Pty Ltd ("Rawson Lewis") (ABN 630 685 371) and remains the property of Rawson Lewis. No material contained in this Research may be reproduced or distributed, except as allowed by the Copyright Act, without the prior written approval of Rawson Lewis.***

This report is subject to the disclosures and restrictions set out below. Consistent with the AFSL under which Rawson Lewis operates, this report has been prepared for "Sophisticated Investors" as defined in the Corporations Act. This report is not to be provided to retail investors.

#### **Analyst Certification:**

The research analyst identified on the cover of this report individually certifies that in respect of each security or issuer that the research analyst covers that: this report accurately reflects his personal views about any and all of the subject issuer(s) or securities; and no part of the research analyst's compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or views expressed by the research analyst(s) in this report.

#### **General Disclosure**

Rawson Lewis and its associates (as defined in Chapter 1 of the Corporations Act 2001), officers, directors, employees and agents, from time to time, may own or have positions in securities of the company(ies) covered in this report and may trade in the securities mentioned either as principal or agent or may be materially interested in such securities.

Rawson Lewis does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Rawson Lewis is receiving compensation to provide research services on the Company.

Contact with the company has been made during the preparation of this report for assistance with the verification of facts.

#### **Disclaimer & Warning**

This report may contain general advice or recommendations which, while believed to be accurate at the time of publication, are not appropriate for all persons or accounts. This report does not purport to contain all the information that a prospective investor may require. Before making an investment or trading decision, the recipient must consider market developments subsequent to the date of this document, and whether the advice is appropriate in light of his or her financial circumstances or seek further advice on its appropriateness or should form his/her own independent view given the person's investment objectives, financial situation and particular needs regarding any securities or Financial Products mentioned herein. Information in this document has been obtained from sources believed to be true but neither Rawson Lewis nor its associates make any recommendation or warranty concerning the Financial Products or the accuracy, or reliability or completeness of the information or the performance of the companies referred to in this document. Past performance is not indicative of future performance. This document is not an offer, invitation, solicitation or recommendation with respect to the subscription for, purchase or sale of any Financial Product, and neither this document or anything in it shall form the basis of any contract or commitment. Although every attempt has been made to verify the accuracy of the information contained in the document, liability for any errors or omissions (except any statutory liability which cannot be excluded) is specifically excluded by Rawson Lewis, its associates, officers, directors, employees and agents. The securities of such company (ies) may not be eligible for sale in all jurisdictions or to all categories of investors.

**Analysts' Compensation:** The research analysts responsible for the preparation of this report receive compensation based upon various factors, including the quality and accuracy of the analyst(s) research, client evaluation feedback, independent survey rankings and overall firm revenues, which include revenues from, among other business units and corporate finance.

**Other International Investors:** International investors outside the US, UK, UAE or Canada are encouraged to contact their local regulatory authorities to determine whether any restrictions apply to their ability to purchase this investment and should seek their own advice.

**Recipient Representations/Warranties:** By accepting this report, the recipient represents and warrants that he or she is entitled to receive such report in accordance with the restrictions set out in this document and agrees to be bound by the limitations contained herein. Any failure to comply with these limitations may constitute a violation of law.

#### **Meanings of Rawson Lewis Stock Ratings**

**Buy** – Describes stocks that we expect to provide a total return (price appreciation plus gross yield) of 10% or more within a 12-month period.

**Hold** – Describes stocks that we expect to provide a total return (price appreciation plus gross yield) of 0% to 10% within a 12-month period.

**Underperform** – Describes stocks that we expect to provide a total return (price appreciation plus gross yield) of less than 0% within a 12-month period.

**NR** – The investment rating and price target have been temporarily suspended. Such suspensions are in compliance with applicable regulations and/or Rawson Lewis Pty Ltd policies.

**CS** – Coverage Suspended. Rawson Lewis Pty Ltd has suspended coverage of this company.

Copyright Rawson Lewis Pty Ltd

Rawson Lewis Pty Ltd  
ACN 630 685 371  
Corp Authorised Rep of AFSL 464545

**SYDNEY**  
Level 40, 2 Park Street  
Sydney NSW 2000

**MELBOURNE**  
Level 14, 440 Collins St  
Melbourne VIC 3000

P: +61 2 9263 2805  
[www.rawsonlewis.com](http://www.rawsonlewis.com)