

# Lithium 2023 Recap & Thoughts on 2024

This year has been one of the most dramatic and controversial in the history of the lithium industry. Those of us that try to divine the future of the lightest metal are often wrong. Over the years I have always made the point that all I know when I make a multi – year price or supply/demand prediction is that it will be wrong.

My hope is that my prognostications are reasonably close. I wasn't the only one to call 2023 price incorrectly – exactly a year ago I ran a poll on twitter asking what people's 12/31/23 price expectations were. "Oops" may be the best word to describe what over 1,000 people thought.



Three years ago in late December, I called 2020 the year of the “lithium enema” where the lithium ion battery supply chain was “cleaned out” of excess inventory. I think the same applies to 2023 although the circumstances are a bit different.

Many banks, most notably Goldman Sachs, like to talk about the significance of lepidolite as part of a “massive supply response”. From my perspective, much of the excess lithium supply in 2023 was excess production of cathode and cells in 2022 while the China market was bidding up spodumene and lithium chemicals to nose bleed levels. Drawing the inventories down in 2023 slowed the purchase of lithium raw material dramatically especially in the first half of the year. The steep decline in the China spot price is the natural result. I have witnessed similar cycles in the battery supply chain since the 1990s.

I only allow myself 90 minutes to write my recollections of the past year and provide some initial thoughts on the future; however, this year before I started writing, I went back and read several reports written over the past couple of years by Goldman Sachs and Morgan Stanley.

If you go back and read the 2021 version of this note; I quoted Morgan Stanley's prediction in November 2021 that 2022 would see a China spot price of \$13K/MT by the second quarter. We all know that at that time China spot was in the midst of the panic driven run-up to over \$80K/kg.

I find it ironic that those who like to criticize my predictions continue to write to me or comment on my tweets or Linked In posts saying, “you were wrong, Morgan was right”. I have no issue admitting that I didn't see \$80K spot price in 2022 and was surprised by the magnitude of the 2023 spot price decline. As for Morgan, if you continually say price is going down, at some point you will seem to be correct but their November 2021 call on 2022 was comically off base.

Many see the China spot as the only meaningful price benchmark. The fact that the main contract price markets – Japan and Korea saw higher average prices for 2023 than 2022 should cause people to reevaluate how they think about price. Layer on the fact that in their latest quarterly earnings report the world’s largest lithium producer, Albemarle, also says their 2023 prices will be higher than 2022.

The western press and many banks like to tout an 80% lithium price decline in 2023. The reality of global average price is a much different story. Of course, Japan and Korea are much smaller lithium markets than China but they are significant and more quality conscious on average than China. China still has a large low end battery market that is much more flexible on using low quality raw materials.

Yes, China also makes top quality batteries and EVs. My point is extrapolating the global future of lithium price from what happens in China has always been a bad idea. Yesterday I ran another price poll on twitter. This year 88% of respondents feel the price will be below \$25K MT. Of course, the 12% “something else” could be lower than Goldman or higher than \$25K MT. I wasn’t specific.



China is feeling the pressure from the western rhetoric about “China free” supply chains and the rules in the Inflation Reduction Act that penalize batteries and battery materials from China. While China still receives most of the spodumene that Western Australia produces; over the remainder of the decade North America and the EU will begin competing for that material as cathode capacity is built in those jurisdictions and certain Aussie spodumene producers move downstream.

This year we saw China grow their internal lepidolite production and move rapidly to access more raw material from Africa. Investment Bank keyboard warriors were quick to believe virtually every press release related to African supply and declare yet again that “high prices have fixed high prices”. A gross oversimplification in my opinion. Both lepidolite and various lithium raw materials from Africa will add to supply over the remainder of the decade but not to the extent that many think. This supply will also help elevate the cost curve to levels that ensure any reasonable brine supplier and the tier one hardrock producers have attractive margins.

The precipitous drop in the China spot price has also dampened the enthusiasm for investment in small hard rock projects in both WA and Canada. Slowing supply to the market could cause another, brief record spot price later in the decade but I do not have the intestinal fortitude to make a specific call on this – at least not yet.

For the most part, the western press has not done a good job of understanding the lithium, battery or EV markets globally. None of the legacy US automakers are

**serious players in the EV market despite their bold announcements. Recently both GM and Ford have made downward adjustments to their fanciful long-term plans. The mainstream press seized upon these announcements to declare a downturn in EV sales when, in fact, globally EVs sales grew from ~10.5 million units in 2022 to almost 14 million units in 2023. Tesla and BYD currently dominate the EV landscape. Neither GM nor Ford have a top ten selling EV globally. Negative market sentiment towards lithium stocks was exacerbated by the “EV sky is falling” narrative.**

**All the talk about the IRA being a “game changer” and spurring massive investment seemed overblown to me in 2022. The past year did little to change my opinion. The Biden Administration’s focus on subsidizing battery factories has resulted in many announcements which feels to many like success. From my perspective the lack of focus on funding domestic critical metals production and cathode, LFP in particular, will leave the US dependent on China for years to come.**

**Look for reality to sink in and the US to gradually make some accommodation for Chinese products across the battery supply chain but not until after the 2024 Presidential election.**

**Until the legacy US automakers can make low to mid-priced EVs that people want, North America will continue to be an EV adoption laggard. Unfortunately, the North American focus on high nickel cathode was the wrong choice which led to an excess of global hydroxide projects. Elon made the call on LFP ahead of the curve but legacy automakers were slow to follow. There will always be a place for hydroxide capacity but carbonate and LFP should be the focus in North America and the EU if mass EV adoption is the goal.**

**Despite all the buzz about Chinese lepidolite supply and hype about how fast Africa will grow, I tend to follow what is happening in South America with more interest. In Argentina, Cauchari, (the LAAC & Ganfeng JV “Mineral Exar”) began the ramp up to an ultimate goal of 40K MT. In August, I did a fly over several other projects in the Argentina Puna. Progress is evident and that was before the election of a new President that has stated his intentions to eliminate barriers to developing lithium projects. It is too early to know how successful he will be in dealing with the economic issues that have long stymied development of lithium in Argentina but I choose to be optimistic.**

**Brazil has become a hotbed for hard rock projects in South America. Sigma began shipping spodumene this year and a few other projects in the area show promise.**

**Probably the biggest story in South American brine was the MOU announced a few days ago between SQM and Codelco (representing the Chilean government). Should the MOU turn into executed agreements, it paves the way for increased production in the Atacama. From my perspective SQM had no choice but to play**

ball with Codelco given their agreement with CORFO (the government entity managing the state owned mineral concessions in the Atacama) expires in 2030.

The two major US lithium stories were the end of the legal wranglings and the beginning of construction at Lithium Americas' Thacker Pass project and Exxon's announcement that they intend to produce lithium from Smackover brine in Arkansas. A company the size of Exxon stating they believe they can produce commercially in the next few years using DLE is a significant event. Exxon's move gives additional credibility to what Standard Lithium has been doing nearby in El Dorado and what Albemarle has talked about doing in Magnolia. The US has a number of smaller projects in development and will could be producing much more lithium than Canada by 2028.

I remain hopeful yet skeptical of Canada's ability to get out of the way of the many Aussies trying to build projects in Quebec and Ontario. In addition, some of these projects are marginal at low lithium prices. I plan to do a podcast episode in early January with Patriot Battery Metals which is clearly the highest profile hard rock project in Canada. I don't want any hate mail from western Canada so I will say I am watching the oilfield brine projects.

**Of course, you can't write a year end wrap up without talking about WA and #ChrisGina. My question is: will Gina continue to dabble or begin to build a lithium empire? Chris Ellison has clearly stated he is making up his strategy as he goes along. It shows. I enjoy watching his moves**

Is Gina morphing into #lithium Barbie? You have to love the WA #lithium landscape. Looking forward to 2024. Will \$SQM agree that \$AZS team colors are pink?



but his desired end game isn't clear to me. A Min Res move into brine would be an interesting statement. From my perspective, the performance of Mt. Marion & Wodgina brings Min Res lithium operational prowess into question but I wouldn't bet against Chris Ellison and I remain a Min Res shareholder.

My largest WA shareholding is Pilbara Minerals. I look forward to seeing how they move to mid and downstream. I am hoping market conditions in 2024 lead to a dusting off of the BMX before year end but I am not predicting it.

**I was happy to see Liontown remain independent, was impressed by the project team when I visited Kathleen Valley and will continue to watch the build with interest.**

**From my perspective the Allkem merger with Livent brings two companies that couldn't fulfill their promise as independents into a combined entity that will struggle to show the promised synergy. Perhaps the merged company is acquired down the road by a larger entity with the vision and balance sheet to turn their multiple non producing assets into a much more significant volume player. Both companies have been talking a good expansion game for years with precious little to show for it.**

**I would be remiss if I didn't thank my many 2023 podcast guests. At the end of 2022, we had downloads in 157 countries. As of today, that number sits at 181 of the 195 countries on the planet. I am not certain I will ever get a listener in North Korea but I am hoping to crest 190 countries in the coming year. If you had told me when I entered the industry in 1990 that in 2023, I would be recording long form conversations about lithium that would be heard in most of countries on the planet, I would have suggested you might need to visit a shrink or drug rehab center.**

**My allowed time is about over. MS Word tells me I don't have any spelling errors but I doubt that. Likely I missed something you may consider critical but that is the nature of just sitting down and pounding the keyboard for 90 minutes without a plan.**

**Please forgive the typos and Happy New Year. I have football to watch.**