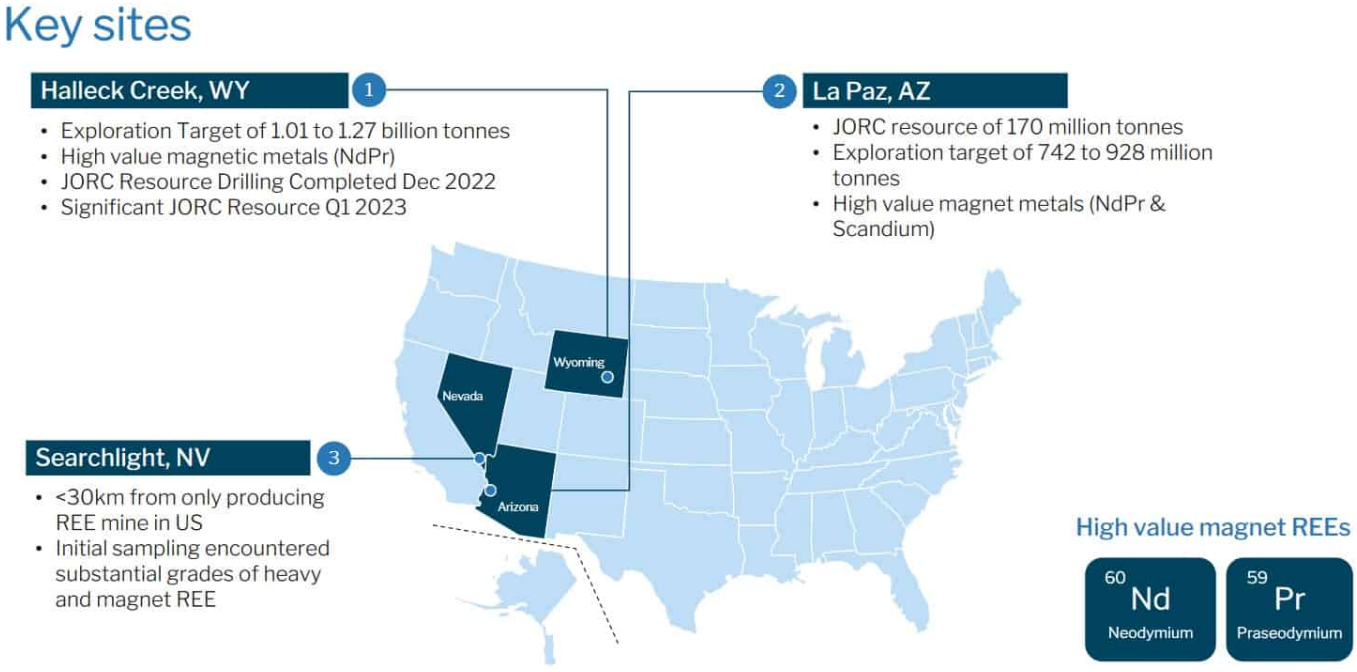
American Rare Earths Releases 1.43Bt Maiden Resource at the Halleck Creek Rare Earths Project in the USA

written by InvestorNews | April 3, 2023

American Rare Earths Limited (ASX: ARR | OTCQB: ARRNF) ("ARR") is focused on developing its 100% owned Halleck Creek Rare Earths Project in Wyoming and La Paz Scandium and Rare Earths Project in Arizona. ARR stated that these projects "both have potential to be among the largest, rare earths deposits in North America." The Company also owns the Searchlight Rare Earths Project in Nevada, USA.

American Rare Earths 3 projects in the USA



Source: Company presentation

Note: The Halleck Creek Project now has a resource not yet shown

on the image above (see below for details)

Halleck Creek Rare Earths Project in Wyoming – Maiden Resource – 1.43B tonnes

The Halleck Creek Project stands out for its good grade and potential huge size, as well as having the key magnet rare earths Neodymium and Praseodymium (NdPr).

ARR's March 17 news release gives some idea of the huge project size stating: *"Final drill assays indicate a significant rare earth deposit in Wyoming, spanning over 10 square kilometers to depths of 150 meters."*

Then on March 31, 2023, ARR announced some very important news when it reported a maiden JORC Resource estimate for its Halleck Creek Rare Earths Project. The news stated:

> *"The JORC Resource at Halleck Creek is **1.43 billion tonnes with an average TREO grade of 3,309 ppm, and an average NdPr grade of 734 ppm.** The JORC Resource estimate has exceeded expectations in comparison to previous exploration target estimates and has demonstrated the Halleck Creek project has the potential to become a world class deposit."*

Note: Bold emphasis by the author.

ARR's CEO stated:

> *"With a maiden JORC Resource estimate of 1.43 billion tonnes this project is strategically significant, containing over 4.73 million tonnes of rare earth oxides. With only a quarter of the licence area drilled and remaining open at depth, the upside potential is significant. The Halleck Creek project is shaping up to be a strategic asset for the USA to supply rare earths*

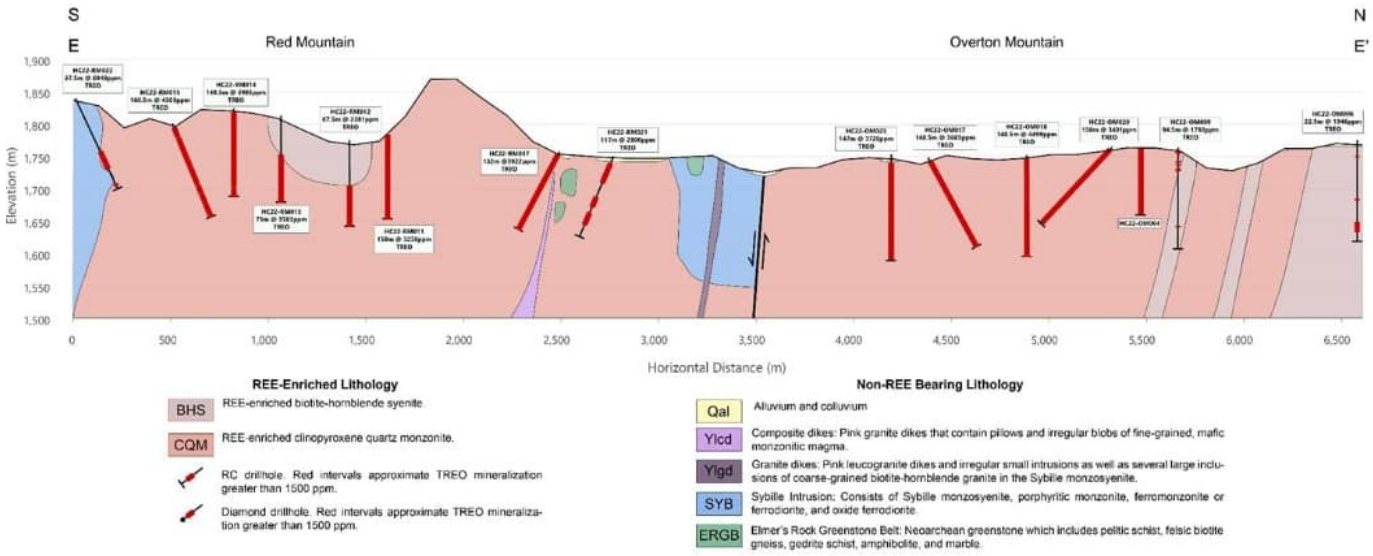
for future generations...

Global magnetic rare earth oxide consumption is forecast to more than triple by 2035. The US government has made no secret that it is seeking to onshore supply of all critical materials for supply chain and national security purposes. There is only one producing rare earth mine within the USA, the Mountain Pass mine in California. The USA needs a number of these mines to secure onshore supply of rare earths and we believe Halleck Creek is part of the future solution.“

Halleck Creek test work already demonstrates that the ore responds well to conventional processing technology, which reduces operating and capital costs. The ore has exceptionally low levels of radioactive penalty elements such as uranium and thorium, which is great news as this allows for further reducing processing costs while boosting the ESG profile. Finally, the Project is close to infrastructure and a highly skilled workforce.

The next steps for the Project include metallurgical test work and a Scoping Study later in 2023.

Halleck Creek Project cross section below provides an overview of the Red Mountain and Overton Mountain areas



Cross Section of Overton Mountain and Red Mountain

Source: ARR news release March 17, 2023

Why is American Rare Earths' stock price virtually unchanged since the great resource announcement?

A "world class deposit" and in the USA. This is superb news for the Company, yet the stock price barely moved. Why?

The reason may be that Tesla recently announced plans to eliminate the use of rare earths in its 'next generation' EVs. This is the platform to build a cheaper EV, often called Tesla Model 2 or the Tesla Compact Car. It remains to be seen if this change will succeed or eventually move across to all Tesla models. Some of Tesla's Investor Day 2023 comments were:

> *"We have designed our next drive unit, which uses a permanent magnet motor, to not use any rare earth materials at all……so we can make lower-cost products that are still efficient and compelling, and we can make them at scale."*

To be clear, it still needs still to be seen if Tesla can

achieve this goal. We need to remember that the most powerful and efficient electric motors use the magnet rare earths NdPr. By having an efficient motor, you use less power and can therefore use a smaller battery for the same output, thereby reducing battery costs.

Furthermore, EV drivetrains (essentially the motors) are just one part of the global total demand picture for Neodymium Iron Boron ("NdFeB") magnets, representing 21% of rare earths demand in 2022. Other key demand drivers for NdFeB magnets include wind turbine motors, electrical appliances (PCs, smartphones, etc), and various other electric motor uses.

What this all means is that while EVs are an important driver of NdPr demand, they are by no means the only driver. Also, for now, NdFeB magnets remain the preferable option for use in most EVs, especially those sold into western markets where quality matters.

Tesla boasted at Tesla Battery Day in 2020 that they would start producing lithium from clay using only salt. Of course, this has never happened. Perhaps that was a ploy to get lithium prices lower while Tesla continued to secure supply. One can question Tesla's motives regarding rare earths, only time will tell.

Closing remarks

The current dip in sentiment in the magnet rare earths space caused mostly by the Tesla news but also by a Q1/2023 China EV sales slowdown, should only be a temporary blip along the way for what still looks like a very strong decade for the magnet rare earths.

Companies such as American Rare Earths that can progress large-scale quality projects in the USA should do very well.

American Rare Earths trades on a market cap of A$93 million.

ARR is definitely worth a second look after the recent great resource announcement at Halleck Creek and the potential for Halleck Creek to become the largest North American rare earths deposit and a world-class deposit.