

# Rare earths expert Alastair Neill on Vital Metals

written by | August 5, 2022

“Overall Vital appears well on the way to producing commercial quantities of rare earth concentrate, a first in Canada.” – Alastair Neill, President, Critical Minerals Institute

[Vital Metals Limited](#) (ASX: VML | OTCQB: VTMXF) is an Australian listed company whose subsidiary, [Cheetah Resources](#), is developing the Nechalacho project in the Northwest Territories of Canada. The deposit was previously owned by [Avalon Advanced Materials Inc.](#) (TSX: AVL | OTCQB: AVLNF), and they sold the rights in 2019 to Cheetah for the material 150 meters above sea level. Avalon retained the rights to the basal zone deposit which is underground. The deposit is reported to have 94.7 million tonnes at 1.46% REO (0.1% Nd/Pr cutoff). The mineral hosting the rare earths is bastnaesite, which is good as this mineral has been processing successfully for many years.

Vital raised A\$45 million recently through a targeted share placement at A\$0.04 per share. According to their [press release](#) the funds will be used for:

- Finalisation of construction activities and undertake commissioning, ramp-up and operations at its Rare Earth Extraction Facility in Saskatoon, which will produce a rare earth carbonate product
- Accelerated development of Tardiff deposit at Nechalacho, Canada, including mining studies

## **A strong balance sheet for ongoing working capital requirements**

This project is the most advanced rare earth project currently in Canada. The initial focus is the North T zone which has a

resource of 101,000 metric tonnes at 9.01% contained Total Rare Earth Oxides (TREO). Based on tests run at their Saskatoon rare earth extraction plant they can get a 75% recovery to produce a 43.7% concentrate. Based on this, the deposit would produce 6,825 metric tonnes of TREO which would contain 1,600 tonnes of Neodymium (Nd) and Praseodymium (Pr). Tests have been done using X-ray Transmission (XRT) to sort the ore as the ore is hosted in quartz, which is white, and the rare earth mineral which is red. This is a simple way to upgrade the TREO content at site.

There is an offtake agreement with REEtec, a Norwegian company that is developing a new rare earth separation process. The agreement is for Vital to deliver 1,000 tonnes per year (TPY) of TREO (excluding Cerium (Ce)). Based on that Ce will be eliminated before shipping the concentrate to Norway. This is a step that has been done before by Molycorp in the 1980s. It reduces the material handling by 50% and obviously the size of downstream processing equipment. The North T zone will provide 3,400 of the 5,000 tonnes which means Cheetah will have to open the Basal zone to meet the balance of the supply contract.

Looking at today's prices on Shanghai Metal Market (SMM) the separated value of this contract is over US\$286 million. Assuming Vital gets 1/3 of the value for the concentrate this would produce revenues of over US\$95 million of which US\$92 million would come from Nd/Pr. Details of the agreement are not revealed so REEtec may be a toll arrangement which could produce more revenue for Vital though I expect the initial target would be to sell La, Nd and Pr in Europe as there are customers in Europe.

Interestingly the extraction plant is located beside the Saskatchewan Research Council (SRC) which has announced that they will be building a rare earth separation facility to

process monazite by 2024. SRC has two rare earth experts from China on staff. SRC is also putting in an Nd/Pr metal facility which takes the oxide to the next level in the supply chain.

In addition to the Nechalacho project, Vital has a project in Tanzania called Wigu Hill. Vital has signed a project development and option agreement with Montero Mining & Exploration Ltd. (TSXV: MON), to acquire and develop the Wigu Hill project. The Wigu Hill project is a light rare earth element deposit and consists of a large carbonite complex with bastnaesite mineralization with a NI 43-101 Inferred resource estimate of 3.3Mt at 2.6% light REOs. This is also a bastnaesite mineral.

Overall Vital appears well on the way to producing commercial quantities of rare earth concentrate, a first in Canada. Questions that do need to be answered are what are the costs of operating an open pit mine in Northern Canada and the costs to transport material to Saskatoon.

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## **Jack Lifton, Byron King and Vital Metals' Geoff Atkins on the global rare earths market**

written by InvestorNews | August 5, 2022

In this episode of the Critical Minerals Corner, Critical Materials' industry expert and InvestorIntel Editor-in-Chief Jack Lifton is joined by Critical Minerals Corner Co-Host & InvestorIntel Columnist Byron King, and Geoff Atkins, Managing

Director of [Vital Metals Limited](#) (ASX: VML) to discuss how Vital Metals plans to guarantee feedstock to the non-Chinese rare earths supply chain and about how a rare earths project is different from any other mining project.

In this InvestorIntel interview, which may also be viewed on YouTube ([click here to subscribe to the InvestorIntel Channel](#)), the panel discussed the high grades of neodymium and praseodymium found at Vital Metals' Nechalacho Rare Earths Project in Canada. With a growing push from the governments globally to establish rare earths supply chains outside of China, Geoff provided an update on Vital's off-take agreements signed with new separation facilities entering Europe and North America.

To watch the full interview, [click here](#).

### **About Vital Metals Limited**

Vital Metals Limited is Canada's first rare earths producer following commencement of production at its Nechalacho rare earths project in Canada in June 2021. It holds a portfolio of rare earths, technology metals and gold projects located in Canada, Africa and Germany.

### **Nechalacho Rare Earth Project – Canada**

The Nechalacho project is a high grade, light rare earth (bastnaesite) project located at Nechalacho in the Northwest Territories of Canada and has potential for a start-up operation exploiting high-grade, easily accessible near surface mineralisation. The Nechalacho Rare Earth Project hosts within the Upper Zone, a JORC Resource of **94.7MT at 1.46% TREO** comprised of a Measured Resource of 2.9MT at 1.47% TREO, an Indicated Resource of 14.7MT at 1.5% TREO, and an Inferred Resource of 77.1MT at 1.46% TREO.

To learn more about Vital Metals Limited, [click here](#)

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If you have any questions surrounding the content of this

interview, please contact us at +1 416 792 8228 and/or email us direct at [info@investorintel.com](mailto:info@investorintel.com).

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# **Viscount Mining's Jim MacKenzie with Chris Thompson on Rediscovering Silver, Gold, and Copper on its Nevada Properties**

written by InvestorNews | August 5, 2022

In a recent InvestorIntel Interview, Chris Thompson spoke with Jim MacKenzie, President, CEO and Director of [Viscount Mining Corp.](#) (TSXV: VML | OTCQX: VLMGF) about recent significant milestones achieved at Viscount's high-grade gold and silver projects in Nevada.

In this InvestorIntel video, which may also be viewed on YouTube ([click here to subscribe to the InvestorIntel Channel](#)), MacKenzie said that Viscount has two projects in the US "that can both be company builders on their own." He continued by providing an update on Viscount's Silver Cliff Project in Colorado, where they continue to hit high-grade silver very close to the surface. Jim also provided [an update](#) on the company's Cherry Creek Project in Nevada where recently identified multiple gold, silver and base metal targets were located doubling the project's active area of active operation.

To watch the full interview, [click here](#)

### **About Viscount Mining:**

Viscount Mining is a project generator and an exploration company with a portfolio of silver and gold properties in the Western United States, including Silver Cliff in Colorado and Cherry Creek in Nevada.

The Cherry Creek exploration property is in an area commonly known as the Cherry Creek Mining District, located approximately 50 miles north of the town of Ely, White Pine County, Nevada. Cherry Creek consists of 562 unpatented and 17 patented claims as well as mill rights and is comprised of more than 7,011 hectares. Cherry Creek includes more than 20 past producing mines.

The Silver Cliff property in Colorado lies within the historic Hardscrabble Silver District in the Wet Mountain Valley, Custer County, south-central Colorado. It is located 44 miles WSW of Pueblo, Colorado, and has year-around access by paved road. The property consists of 96 claims on 944 hectares where high grade silver, gold and base metal production came from numerous mines during the period 1878 to the early 1900's. The property underwent substantial exploration between 1967 and 1984.

The property is interpreted to encompass a portion of a large caldera and highly altered sequence of tertiary rhyolitic flows and fragmental units which offers potential to host deposits with both precious and base metals. This has been demonstrated in the mineralization historically extracted from the numerous underground and surface mining operations. Drilling in the 1980s by Tenneco resulted in a historical pre-feasibility study on which basis it was planned to bring the property to production. The plan was abandoned following takeover by another company.

To learn more about Viscount Mining Corp., [click here](#)

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interview, please email [info@investorintel.com](mailto:info@investorintel.com).

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# Vital Metals' Geoff Atkins on the countdown to rare earths production May 2021

written by InvestorNews | August 5, 2022

In a recent InvestorIntel interview, Tracy Weslosky spoke with Geoff Atkins, Managing Director of [Vital Metals Limited](#) (ASX: VML) about beginning production at its Nechalacho rare earths project in 2021.

In this InvestorIntel interview, which may also be viewed on YouTube ([click here to subscribe to the InvestorIntel Channel](#)), Mr. Atkins said the company's philosophy is to enter production in the shortest amount of time using the least amount of capital. Vital Metals initially wants to focus on gaining customer acceptance and proving its ability to ramp up production. "Then we move to a larger operation, which is more typical of what you see people looking at developing in rare earths," said Mr. Atkins.

He also commented on the competitive advantages of Nechalacho, most notably its long-life potential, its mineralogy, and most importantly, the minimal expenditure required for infrastructure. Further discussion on an offtake agreement with REEtec also provides Vital Metals with a cornerstone customer with expertise in separation technology of rare earths. Mr. Atkins believes REEtec's experience will contribute to the

company's success.

To watch the full interview, [click here](#)

### **About Vital Metals Limited**

Vital Metals Limited is an explorer and developer focussing on rare earths, technology metals, and gold projects. Their projects are located across a range of jurisdictions in Canada, Africa and Germany.

### **Nechalacho Rare Earth Project – Canada**

The Nechalacho project is a high-grade, light rare earth (bastnaesite) project located at Nechalacho in the Northwest Territories of Canada and has potential for a start-up operation exploiting high-grade, easily accessible near-surface mineralization. The Nechalacho Rare Earth Project hosts within the Upper Zone, a measured, indicated, and inferred JORC Resource of 94MT at 1.46% TREO.

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## **Jim MacKenzie on Viscount's high grade drill results from**

# “potentially the largest silver deposit in the US”

written by InvestorNews | August 5, 2022

In a recent InvestorIntel interview, Peter Clausi speaks with Jim MacKenzie, President, CEO and Director of [Viscount Mining Corp.](#) (TSXV: VML | OTCQB: VLMGF) about Viscount’s high grade silver assay results at Silver Cliff Project, which according to the company is “[potentially the largest silver deposit in the U.S.](#)”

In this InvestorIntel interview, which may also be viewed on YouTube ([click here to subscribe to the InvestorIntel Channel](#)) Jim starts: “I certainly think we are coming out of a bear market in the resource sector...(and) am extremely bullish on gold and silver.”

To watch the full interview, [click here](#)

## **About Viscount Mining:**

Viscount Mining is a project generator and an exploration company with a portfolio of silver and gold properties in the Western United States, including Silver Cliff in Colorado and Cherry Creek in Nevada.

The Silver Cliff property in Colorado lies within the historic Hardscrabble Silver District in the Wet Mountain Valley, Custer County, south-central Colorado. It is located 44 miles WSW of Pueblo, Colorado, and has year-around access by paved road. The property consists of 2,319.48 hectares where high grade silver, gold and base metal production came from numerous mines during the period 1878 to the early 1900’s. The property underwent substantial exploration between 1967 and 1984.

The property is interpreted to encompass a portion of a large caldera and highly altered sequence of tertiary rhyolitic flows and fragmental units which offers potential to host deposits with both precious and base metals. This has been demonstrated in the mineralization historically extracted from the numerous underground and surface mining operations. Drilling in the 1980s by Tenneco resulted in a historical pre-feasibility study on which basis it was planned to bring the property to production. The plan was abandoned following a takeover by another company.

The Cherry Creek exploration property is in an area commonly known as the Cherry Creek Mining District, located approximately 50 miles north of the town of Ely, White Pine County, Nevada. Cherry Creek consists of 320 unpatented and patented claims as well as mill rights and is comprised of more than 2,658 hectares. Cherry Creek includes more than 20 past producing mines.

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# **Vital Metals' Geoff Atkins on how Australia has a big part to play in the global rare**

# earths supply chain challenge

written by InvestorNews | August 5, 2022

In a recent InvestorIntel interview, Tracy Weslosky speaks with Geoff Atkins, Managing Director of [Vital Metals Limited](#) (ASX: VML), about how Joe Biden's victory will affect the critical materials market and how Australia has a big part to play in the global rare earths supply chain.

In this InvestorIntel interview, which may also be viewed on YouTube ([click here to subscribe to the InvestorIntel Channel](#)), Geoff went on to say that Biden's victory, combined with the rising demand for electric vehicles and is going to be a positive for the critical minerals industry overall – “We are in a bit of a perfect storm with regards to critical materials.”

Geoff then goes on to say, “We have a large consumer driven demand for energy efficiency, electrification, and miniaturization which all require critical minerals. At the same time, you have statutory and regulatory pushes for reduced emissions. Lastly you have a geopolitical situation which is also driving the need for diversified supply chain in these minerals.” Adding, “You add all of those three things together and you are left with a significant increase in demand and interest in the critical minerals space.”

To watch the full interview, [click here](#)

## **About Vital Metals Limited:**

Vital Metals is an explorer and developer with highly prospective mineral projects, focusing on the world-class rare earth Nechalacho project in Canada. They plan to commence production at Nechalacho in 2021, and aims to produce a minimum 5,000 tonnes of contained REO by 2025. Vital Metals aims to

become the lowest cost producer of mixed rare earth oxide outside of China by developing one of the highest grade rare earth deposits in the world and the only rare earth project capable of beneficiation solely by ore sorting. Vital's other projects include the high-grade Wigu Hill rare earth resource in Tanzania.

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# Vital Metals' Geoff Atkins on the race to produce rare earths in 2021

written by InvestorNews | August 5, 2022

In a recent InvestorIntel interview, Tracy Weslosky speaks with Geoff Atkins, Managing Director of [Vital Metals Limited](#) (ASX: VML), about the market interest in Vital Metals and signing a binding term sheet with the Saskatchewan Research Council (SRC) to negotiate a definitive agreements for the construction and operation of a rare earth extraction plant.

In this InvestorIntel interview, which may also be viewed on YouTube ([click here to subscribe to the InvestorIntel Channel](#)), Geoff started, "We are moving full steam ahead towards getting into production at Nechalacho Project in 2021." He continued by saying that Vital Metals is closest to production in the rare earths space which draws a lot of interest, he mentioned, only

one rare earths project went into production in the last decade.

Geoff also commented on the Vital Metals' binding term sheet with the Saskatchewan Research Council (SRC). He said, "The Saskatchewan Research Council has a lot experience with rare earths and we have agreed with them that they will build and operate a rare earths extraction plant for us."

To watch the full interview, [click here](#)

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