

# Search Minerals Magnetic Separation of Bulk Samples Commences at SGS Canada

written by Raj Shah | February 16, 2022

February 16, 2022 ([Source](#)) – **Search Minerals Inc.** (TSXV: SMY | OTCQB: SHCMF) (“**Search**” or the “**Company**”), is pleased to announce that two bulk samples of mineralization from Deep Fox and Foxtrot have been received and are being processed in our **PHASE 1** magnetic separation program at SGS Canada (Lakefield) (“**SGS**”). The Deep Fox sample comprises 52.9 metric tonnes recovered from the exposed surface of the deposit. Similarly, the Foxtrot sample comprises 19.8 tonnes of surface material.

The **SGS** program involves crushing and grinding the bulk samples and feeding a series of magnetic separation devices to produce:

- (1) a magnetic concentrate by Low Intensity Magnetic Separation (LIMS) containing predominantly magnetite (an iron oxide mineral),
- (2) a magnetic concentrate by Wet High Intensity Magnetic Separation (WHIMS) containing the majority of the rare earth element values in the original sample and
- (3) a final non-magnetic material fraction containing non-magnetic material, including the zircon mineral containing zirconium and hafnium.

The testing will be carried out at a scale of over 500 kg per hour of material treatment for the next few weeks. The results of the testing will be used as part of our “scale up” to a full commercial magnetic separation plant. The LIMS concentrate will be evaluated for sale as a potential iron ore concentrate. The

WHIMS concentrate will comprise 18-20 tonnes of material from the two bulk samples. This concentrate will be used as material for our **PHASE 2** program to further study and scale up the Direct Extraction Process for rare earth recovery. Finally, the non-magnetic concentrate will be studied for zirconium and hafnium recovery by flotation.

Dr. David Dreisinger, Director/Vice-President of Metallurgy states; "The benefit of producing a concentrate, using the grinding and magnetic circuit, prior to our proprietary Direct Extraction Process, is the reduction in size of equipment and reduced chemical and energy use to obtain similar overall recoveries of saleable rare earth elements."

Greg Andrews, President/CEO states; "We continue with our "Sprint to Production" and this is a very important step to scale up and produce more material for further separation into individual oxides of the permanent magnet material, Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy) and Terbium (Tb). These are the key elements which create the value in the rare earth element supply chain. Upon producing the oxides, Search will demonstrate the transformation of the permanent magnet oxides into metal."

#### **Qualified Person:**

Dr. David Dreisinger, Ph.D., P.Eng, is the Company's Vice President, Metallurgy, and Qualified Person (as defined by National Instrument 43-101) who has supervised the preparation of and approved the technical information reported herein. The company will endeavour to meet high standards of integrity, transparency, and consistency in reporting technical content, including geological and assay (e.g., REE) data.

#### **About Search Minerals Inc.**

Led by a proven management team and board of directors, Search is focused on finding and developing Critical Rare Earths Elements (CREE), Zirconium (Zr) and Hafnium (Hf) resources within the emerging Port Hope Simpson – St. Lewis CREE District of South East Labrador. The Company controls a belt 63 km long and 2 km wide and is road accessible, on tidewater, and located within 3 local communities. Search has completed a preliminary economic assessment report for **FOXTROT**, and a resource estimate for **DEEP FOX**. Search is also working on three exploration prospects along the belt which include: **FOX MEADOW**, **SILVER FOX** and **AWESOME FOX**.

Search has continued to optimize our patented Direct Extraction Process technology with the support from the Department of Industry, Energy and Technology, Government of Newfoundland and Labrador, and from the Atlantic Canada Opportunity Agency. We have completed two pilot plant operations and produced highly purified mixed rare earth carbonate concentrate and mixed REO concentrate for separation and refining. We also recognize the continued support by the Government of Newfoundland and Labrador for its Junior Exploration Program.

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