



GreatWestern

MINERALS GROUP LTD **TSX.V-GWG**

April 2010

Great Western Minerals Group

TSX-V: "GWG"
OTCQX: "GWMGF"

Recent Price: C\$ 0.20
52 Week High: C\$ 0.46
52 Week Low: C\$ 0.10

Shares Outstanding: 243 MM
Market Cap: \$48 MM
Working Capital: \$5 MM

Company Overview: Great Western Minerals Group Ltd. is a Canadian-based company with six rare earth exploration and development properties in North America with an option to participate in the development of a sizable property in South Africa. In addition, as part of the Company's strategy to pursue a vertically-integrated business model, the Company's wholly-owned subsidiaries of Less Common Metals Limited located in Birkenhead UK, and Great Western Technologies Inc., located in Troy, Michigan, produce a variety of specialty alloys for use in the battery, magnet and aerospace industries. The Company has an established customer base of well-known, blue chip global users in those industries. GWMG has a knowledgeable, experienced Management Team, Board of Directors, and Advisory Board with extensive experience in all aspects of the business, including exploration and development, mining operations, specialized product development, sales and marketing.

The Challenge for REE users: An Impending Rare Earth Element Shortage: Global industry giants across a wide range of sectors are extremely concerned about the impending shortage of REE. Those giants need REE to maintain leadership in their respective sectors. China currently controls the REE sector as the primary supplier to the global industry, producing over 97% of the world's supply of REE. By 2014, the demand for REE is projected to exceed supply as China is expected to consume all that it produces. Lack of access to secure supply could be economically crippling for many global industries that rely on REE.

Properties and Projects:

The Steenkampskraal Rare Earth Mine. In January 2009, GWMG entered into an option agreement with Rare Earth Extraction Co. Ltd. ("Rareco") of Stellenbosch, South Africa, to refurbish, re-commission, and operate the currently abandoned Steenkampskraal underground mine in the Western Cape, South Africa. The Company has paid out its options commitments and is negotiating the supply agreements and considering alternatives to increase its involvement in this project. Should this project proceed as anticipated, this could be the first rare earth mine in production outside of China.

This 474 hectare property is located approximately 70 km north of the town of Vanrhynsdorp, population 4,000, in the Western Cape Province of South Africa and is approximately 350 km north and west of Cape Town. Infrastructure is excellent, with access to the site by paved and gravel roads and close proximity to rail and sea-port; the governments are pro-development, and there is technical expertise available as well as a trainable work force.

The main rare earth-bearing mineral is monazite and is hosted by an igneous intrusive dyke system. From previous work, the mineral deposit was determined to be tabular in shape with a known strike length of 400m and has been traced down dip for 250m. Thickness ranges from 0.3m to 4.0m and the average in-situ grade is 16.74% total rare earth oxide ("TREO"), making it one of the highest grade rare earth deposits known to exist. The deposit also contains significant amounts of copper, gold and phosphate which could be recovered as by-products. Very little exploration work has been done on the property and the deposit remains open along strike and at depth.

Hoidas Lake is GWMG's initial REE project, located 50km, northeast of Uranium City in Northern Saskatchewan. This is an advanced property with a proven resource which is being further developed. In November 2009, GWMG announced that the overall resource estimate increased by 123% to 2,560,835 tonnes from the previous value of 1,150,000 tonnes. This includes an increase of over 1200% in the Measured category to 963,808 tonnes from the previous estimate of 80,000 tonnes, and an increase of 49% in the Indicated category to 1,597, 027 tonnes from the previous estimate of 1,070,000 tonnes. A Metallurgy Study continues to optimize previously defined processes, and examine new potential alternatives to the extraction of rare earths from the Hoidas Lake mineralization.

The Preliminary Economic Assessment Report (PEAR) is being developed and will be updated, based on results from metallurgical testing and the 2008 winter exploration drilling program. Completion of the current stage of the PEAR leading to a Hoidas Lake Feasibility Study is dependent upon the successful completion of metallurgical testing and optimization of defined processes. Permitting efforts would be initiated once the final feasibility study is completed and a decision to proceed with the project is made.

The **Deep Sands** project is a 168 km² (65 mi²), Iron and REE-enriched mineral sand in west central Utah. The project area is 190 km (120 miles) SW of Salt Lake City and about 135 km (85 miles) NW of Delta Utah. Two drilling programs have been completed and an evaluation of the data compiled is expected to be completed by year end, with the intention developing a NI 43-101 resource report.

The **Douglas River** Property consists of two claims (totalling 803 hectares) approximately 21 km south of the former Cluff Lake Uranium mine and approximately 420 km NW of La Ronge SK. Historic trench sampling yielded rare earth element grades of up to 10% yttrium with accompanying high grades of heavy rare earths ("HREE") including Dysprosium with grades up to 0.89%. Dysprosium is the most sought after REE by the Japanese magnet manufacturers. The planned exploration program includes geological mapping, trenching, soil and litho geochemistry in order to identify drill targets.

The **Benjamin River** rare earth element project is located approximately 53 km west of Bathurst, New Brunswick. The property consists of 493 claim hosting a heavy rare earth element enriched, apatite-diopside-magnetite vein. Access to the property is via paved highway and logging road. Additional infrastructure includes a railroad within 10 km, ports within 50 km, and power lines also within 2 km. The heavy rare earth elements such as dysprosium are critical to the production of high temperature permanent magnets used in hybrid vehicles.

Value-Added Processing Facilities:

Less Common Metals is a profitable, leading global manufacturer and supplier of rare-earth-based alloys, high purity metals, and ultra-high-purity indium. LCM has established excellent long term relationships with a wide range of blue-chip customers who operate in technically demanding industries such as automotive, aerospace, nuclear and defense.

Other specialty alloys produced in Birkenhead include Neodymium-Iron-Boron and Samarium Cobalt alloys for the permanent magnet industry, magneto-optic and magnetostrictive materials, hydrogen storage systems, high purity Rare Earth metals, ultra high purity Indium, and master alloys used in the production of other specialty alloys. LCM manufactures approximately 20% of the estimated global consumption which is estimated at 1,000 tonnes per annum (tpa).

Great Western Technologies is an ISO 9001:2000-certified research and manufacturing facility with state-of-the-art engineering technology for the production of REE materials, powders, and custom vacuum-grade specialty alloys. From its 12,000 ft² manufacturing facilities in Troy MI, GWTI produces a wide range of alloys utilizing rare earths and aluminum, copper, cobalt, iron, nickel and titanium. In addition, GWTI manufactures special alloys for the Battery Industry and Hydrogen Storage Applications. GWTI provides special processes for a wide range of applications.

GWTI is one of few facilities in North America that can produce ground powders in an inert environment, and has the capability to provide materials of exceptionally high purity with its vacuum melt furnaces. The GWTI plants have four hydrogen-safe areas that can be used to activate hydrogen storage materials. In September 2009, GWTI was awarded a DARPA contract to develop a set of aluminum-based high strength alloys.

Further information on the Great Western Minerals Group of Companies can be obtained from our websites:

Great Western Minerals Group: www.gwmg.ca
Great Western Technologies: www.greatwesterntech.com
Less Common Metals: www.lesscommonmetals.com

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Forward Looking Statements

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