

Elemental Minerals Announces Mineral Resource Update

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Kola deposit resource increased by 83%, new sylvinitic bearing footwall seam identified.

PERTH, Australia, May 8, 2012 /CNW/ - [Elemental Minerals Ltd.](#) (ASX: ELM) (TSX: ELM) ("Elemental" or "the Company") is pleased to announce its updated Mineral Resource estimate for the Kola deposit on the Sintoukola property located in the Republic of Congo (Figure 1).

HIGHLIGHTS:

- 265% increase in the tonnage of combined Measured and Indicated Mineral Resources to 959Mt at average grade of 15.33% K₂O (23.93% KCl) after completion of Phase 2 drilling program
- The tonnage of the combined Measured and Indicated Mineral Resource estimate increased to 513Mt at 15.33% K₂O (24.27% KCl). The updated Mineral Resource estimates for each category are presented in Tables 1 and 2 below along with supporting footwall and summary information on the data and methods used.

The large sylvinitic resource provides a significant competitive advantage and will underpin our new feasibility economics. What is particularly pleasing is the high conversion rate to Measured and Indicated Mineral Resource categories which was a key objective of the Phase 2 exploration programme while the new resource is also within our Phase 2 target range" said Iain Macpherson, CEO. "The increased tonnage and strategic nature reinforces our confidence that this project will be built."

The Mineral Resource estimates have been reported based on a "three seam" model to a cut-off grade of 10% K₂O for combined sylvinitic and carnallitic mineralisation and sylvinitic only mineralisation. Mineral Resources have been prepared by independent resource industry consultants CSA Global Pty Ltd ("CSA") and are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code", 2004 edition) which is consistent with Canadian Institute of Mining, Metallurgy and Petroleum (CIM) definition standards and hence complies with NI43-101.

The Mineral Resource estimate for the modelled mineralised zones at Kola is classified as Measured, Indicated and Inferred (Figure 2). This is based primarily on confidence in, and continuity of, the results from the drilling campaigns, and subsurface mapping of high density 2D seismic data. The results of the Mineral Resource estimate are provided in Tables 1 and 2 below:

Table 1: Mineral Resource estimate for sylvinitic and carnallitic mineralisation at a 10% K₂O cut-off grade

	Measured			Indicated			Inferred		
	tonnes	%K ₂ O	%KCl	tonnes	%K ₂ O	%KCl	tonnes	%K ₂ O	%KCl
Upper Seam	238 000 000	18.56	29.38	194 000 000	17.62	27.89	163 000 000	16.83	26.64
Lower Seam	280 000 000	12.55	19.87	247 000 000	12.71	20.12	227 000 000	12.63	19.99
Footwall Seam	-	0.00	0.00	-	0.00	0.00	123 000 000	18.34	29.03
Total	518 000 000	15.31	24.24	441 000 000	14.87	23.54	513 000 000	15.33	24.27

Table 2: Mineral Resource estimate for sylvinitic mineralisation only at a 10% K₂O cut-off grade

	Measured			Indicated			Inferred		
	tonnes	%K ₂ O	%KCl	tonnes	%K ₂ O	%KCl	tonnes	%K ₂ O	%KCl
Upper Seam	161 000 000	21.47	33.99	115 000 000	21.29	33.70	78 000 000	21.09	33.39
Lower Seam	69 000 000	18.45	29.21	68 000 000	18.27	28.92	60 000 000	18.33	29.02
Footwall Seam	-	0.00	0.00	-	0.00	0.00	123 000 000	18.34	29.03
Total	230 000 000	20.56	32.55	183 000 000	20.17	31.93	261 000 000	19.16	30.33

Notes:

1. Table 1 above presents the Mineral Resources, above a cut-off grade of 10% K₂O for both the mixed sylvinitic and carnallitic zone in the "Upper Seam" (US) and "Lower Seam" (LS) as well as the sylvinitic zone of the Footwall Mineralisation (FWMS).
2. Table 2 above presents the Mineral Resources, above a cut-off grade of 10% K₂O for the sylvinitic mineralisation in the "Upper Seam" (US), "Lower Seam" (LS) and the Footwall Mineralisation (FWMS).
3. Zones of geological uncertainty have been excluded (Figure 3)
4. Table entries are rounded to the second significant figure.
5. Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, marketing, or other relevant issues.

Three main potash mineralised seams are present within the Kola deposit and are identified as: Upper Seam (US), Lower Seam (LS) and the Footwall Seam (FWMS). The US and LS can further be divided based on mineralogy into sylvinitic (USS / LSS) and carnallitic domains (USC / LSC) as illustrated in Figure 3. The FWMS is sylvinitic-dominant in the area that has been modelled for this Mineral Resource estimate.

The extent of potash mineralisation in these seams is shown in Figures 4 to 6. Based on the 29 boreholes that intersected significant potash mineralisation at Kola the US varies in thickness from 0 to 8.1m in the main sylvinitic-dominant area and from 0 to 9.6m within areas of carnallitic-dominant mineralisation. The LS varies in thickness from 0 to 5.8m in the sylvinitic-dominant mineralisation and 0 to 18.9m within the main carnallitic-dominant part of the seam. The FWMS sylvinitic mineralisation varies from 0 to 13.7m in thickness.

The mechanism for the formation of sylvinitic mineralisation is considered to have resulted from the downward and lateral movement of a salt (NaCl) saturated hydrous fluid which converted carnallitic to sylvinitic by removing its Mg (magnesium) content causing volume reduction of the seam and K (potassium) grade enrichment.

The sylvinitic mineralisation within the principal target horizons (Upper and Lower Seams) remains open in most directions from the Kola deposit as is illustrated by Figures 4 and 5. The recently announced Phase 2B drilling program is designed to evaluate the potential for extensions to the Upper and Lower Seam and the newly discovered FWMS with the aim of further increasing the size of the Kola deposit.

"I am extremely pleased that this major project milestone has been achieved on time and within budget. The larger sylvinitic focused resource, coupled with ongoing and now advanced engineering and environmental studies, including metallurgical test work, mean that we are on track for development and remain highly confident that we will bring this world-class project to fruition within the next three years. Furthermore these results points to the scalability of this deposit and future potential growth beyond the current planning ." concluded Elemental CEO Iain Macpherson.

Project Economics

This significantly increased Mineral Resource estimate will form the basis for an updated set of economics over those issued as part of the Company's Preliminary Economic Assessment ("PEA") contained within the NI 43-101 Technical Report, dated 1 August 2011, which was based on the maiden Mineral Resource estimate issued in Q2-2011. The PEA economic model is currently in the process of being revised on the basis of the enlarged Mineral Resource as the Company works towards completing a Pre-Feasibility Study (PFS), which is expected to be released in Q3-2012.

Given the ongoing work to update the PEA model, the existing scoping study economic analysis that was

based on the Phase 1 Mineral Resource in the 1 August 2011 technical report should therefore no longer be relied upon.

Supporting Information to the updated Mineral Resource Estimates

CSA Global of Perth, Australia completed all aspects geological and resource modelling for this update to the Kola deposit Mineral Resource estimates. CSA Global has been involved with the Sintoukola project as the company's geological consultants since Elemental acquired the project. They have provided technical advice and input during exploration planning, targeting studies and have been responsible for review and interpretation of exploration data, database management, and verification of QAQC results and estimation of Mineral Resources.

Exploration, Sampling and Analytical Methods

All exploration was managed by Elemental's staff following processes recommended by CSA and with periodic review and site visits by CSA Global Principal Geologist Dr Simon Dorling. The procedures followed and the data produced is of general industry practice and the procedures were appropriate for the deposit and style of mineralisation.

A total of 203 line kilometres of 2D seismic data were collected over two survey periods. High-resolution 2D seismic data was available over the central zone of the deposit, with lower density seismic data available along traverses peripheral to the deposit (Figure 2). Topographic control was provided by a digital elevation model based on data from a Lidar survey.

Elemental completed 36 vertical diamond drill holes during the Phase 1 and 2 exploration programs for a total of 11,954.7 metres. Of the 36 boreholes completed, four stopped short of the ore horizon due to in-hole technical problems (Figure 2). Only three of the 32 successful holes (EK_02, EK_16, EK_25) did not intersect significant potash. PQ sized cores were obtained through the evaporite sequence hosting the potash seams wherever possible. Drill hole collars were surveyed by DGPS by an independent surveying company. All holes were directionally surveyed and geophysically logged

All sylvinite- and carnallite-bearing intervals of each drill hole were sampled with one additional sample collected in the hanging wall and footwall of the mineralisation. A sample interval between 0.3 to 0.6m was chosen within the mineralisation. Drill core samples (PQ core diameter sizes) were split in half by a diamond saw cutting machine at the project site.

All sample preparation and analysis were carried out at laboratories that have been certified in accordance with ISO/IEC 17025. No aspect of laboratory sample preparation or analysis was conducted by an employee, officer, director or associate of Elemental. The majority of samples were processed and analysed by Genalysis, Perth, Australia for potassium, sodium, calcium, magnesium, chlorine, and sulphur by ICP-ES methods. The majority of potash samples were also assessed for their water insoluble content.

Elemental has used a combination of duplicates, checks, blanks and standards to ensure suitable quality control of their assay testing. Results of recent sampling have not identified any issues which materially affect the accuracy, reliability or representativeness of the results. The procedures and QA/QC management are consistent with industry good practice and the data produced is suitable for resource estimation.

In Situ Bulk Density

The in-situ bulk density determinations for each seam are based on a total of 42 physical density measurements from core and a qualitative assessment of mineralogy, mineralogical composition and wire-line density measurements. In-situ bulk densities of 2.0 t/m³ were assigned for the Upper, Lower and Footwall Seam (sylvinite-dominant mineralisation), and 1.7 t/m³ for the Upper and Lower Seam (carnallite-dominant mineralisation).

Database and Data Verification

CSA Global were responsible for data management and database validation. The cut-off date for receiving drilling data for the update of the Mineral Resource estimate was 16 April 2012. At this cut-off date complete assay results have been received for 26 of the 29 boreholes that contain significant potash mineralisation. Selected, narrow-interval core samples from EK_24 are undergoing geotechnical test-work before being forwarded for assaying; and Lower Seam results for EK_22 and EK_36 are expected shortly. The quality control protocols implemented at the project are considered to represent good industry practice and as a result the data is considered reliable.

Geological and Resource Modelling

Following compilation, review and interpretation of the latest geological, geophysical and analytical data an updated Mineral Resource was estimated for main potash-bearing (sylvinite and carnallite) horizons within the Kola deposit. The geological model at Kola now comprises five mineralisation domains within three distinct seams. The three mineralised seams are referred to as the Upper Seam (US), the Lower Seam (LS) and the Footwall Mineralisation (FWMS) with further subdivision of the US and LS seams into sylvinite (USS, LSS) and carnallite (USC, LSC) mineralogy. The FWMS was identified during the Phase 2 program and within the modelled area appears to be comprised entirely of sylvinite.

Based on the higher density of seismic data the "fault model" of 2011 was revised to a "disturbances area model" in which the disturbance is likely to be caused by removal of salt in the evaporite sequence which has led to sagging of the overlying strata and consequently to loss of seismic reflector continuity. The potash mineralisation within the footprint of these areas of geological uncertainty was not included in this Mineral Resource estimate and equates to approximately 7%.

Micromine 2011 software was used for interpretation of geological, seismic and drill hole data which then formed the basis of the revised geological model. GEMCOM Minex 6.1 software was used for geostatistical analysis of seam intersections and to create seam and assay grids for estimation of Mineral Resources. The gridding method used was Minex's general (or growth) method to generate geological surfaces such as Seam Floor (SF), Seam Roof (SR) and Seam Thickness (ST). Seam thickness is the underlying control for Minex gridded seam modelling, for which an east-west grid mesh dimension of 25 x 25m was chosen to honour both the closely spaced seismic points and borehole intersections.

Grade estimation relied on Inverse Distance Weighting to the power of 2 along a major axis 328° and with an anisotropic ratio of 1 (major axis): 0.8 (minor axis). Model validation was carried out visually, graphically and statistically to ensure that the seam model geology and grades accurately represented the drill hole data.

Mineral Resource Reporting and Classification

The Mineral Resource estimates have been reported based on a "three seam" model and a lower cut-off grade of 10% K₂O for combined sylvinite and carnallite mineralisation and sylvinite only mineralisation. Mineral Resource estimates are presented in terms of tonnes of K₂O and KCl. Sylvite is potassium chloride (KCl), and pure KCl represents 63.18% K₂O by weight. K₂O grade is converted to KCl grade (the basis used in potash sales) by multiplying by a factor of 1.583.

The result of this work is a substantial increase in the Mineral Resource estimates and raised confidence in the geological model which allowed an upgrade in the classification of the Mineral Resource estimates to Measured, Indicated and Inferred as listed in Tables 1 and 2 above.

The classification of Mineral Resources at the Kola potash deposit is based on the following criteria:

- "Measured" within a polygon that is based on the end-points of the Phase 2 seismic grid (pseudo 3D) and the drill holes included within it
- "Indicated" area based on a radius of 1 km around the "Measured" area which includes some 1 km spaced seismic and several drill holes
- "Inferred" area based on a radius of 2 km around the "Measured" or 1km around the "Indicated" area which includes some recent drill holes , regional seismic and regional but adjacent historic drill holes.

ABOUT ELEMENTAL MINERALS

Elemental Minerals Limited is an advanced mining exploration and development company that aims to grow shareholder value through its 93%-owned Sintoukola Potash Project on the Republic of Congo coastline. Elemental Minerals is dual listed on the Australian Stock Exchange and the Toronto Stock Exchange under the symbol ELM. For more information, visit www.elementalminerals.com

Competent Person / Qualified Person Statement:

Information in this report that relates to Exploration Results or Mineral Resources is based on information compiled by Dr Simon Dorling, Mr Jeff Elliott and Dr Andrew Scogings of CSA Global Pty Ltd, the Company's geological consultants. Dr. Dorling, Mr. Elliott and Dr. Scogings are members of the Australian Institute of Geoscientists (MAIG) and have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity they are undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code). Dr. Dorling, Mr. Elliott and Dr. Scogings are also Qualified Persons for the purposes of Canadian National Instrument 43-101 and they consent to the inclusion in this report of the Information, in the form and context in which it appears.

Further information respecting Elemental's Sintoukola Project is contained in a technical report entitled "NI 43-101 Technical Report, Sintoukola Potash Project, Republic of Congo" prepared by Neal Rigby of SRK Consulting (U.S.), Inc. and Messrs. Simon Dorling, Jeff Elliott, Andrew Scogings and Peter Davies of CSA Global Pty Ltd. for the Company dated August 1, 2011 with an effective date of June 10, 2011 (the "Technical Report"). The Technical Report can be accessed on the Company's profile on SEDAR.

Forward-Looking Statements

This news release contains statements that are "forward-looking". Generally, the words "expect," "potential", "intend," "estimate," "will" and similar expressions identify forward-looking statements. By their very nature, forward-looking statements are subject to known and unknown risks and uncertainties that may cause our actual results, performance or achievements, to differ materially from those expressed or implied in any of our forward-looking statements, which are not guarantees of future performance. Statements in this news release regarding the Company's business or proposed business, which are not historical facts, are "forward looking" statements that involve risks and uncertainties, such as resource estimates and statements that describe the Company's future plans, objectives or goals, including words to the effect that the Company or management expects a stated condition or result to occur. Since forward-looking statements address future events and conditions, by their very nature, they involve inherent risks and uncertainties. Actual results in each case could differ materially from those currently anticipated in such statements.

Investors are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date they are made.

www.elementalminerals.com

SOURCE Elemental Minerals Limited

Image with caption: "Figure 1: Location of Sintoukola Potash Permit and historic drill hole locations. (CNW Group/Elemental Minerals Limited)". Image available at: http://photos.newswire.ca/images/download/20120507_C5089_PHOTO_EN_13227.jpg

Image with caption: "Figure 2: Phase 1 and 2 borehole and Mineral Resource classification plan. (CNW

Group/Elemental Minerals Limited)". Image available at:

http://photos.newswire.ca/images/download/20120507_C5089_PHOTO_EN_13228.jpg

Image with caption: "Figure 3: Schematic illustration of the potash mineralisation domains and their distribution at the Kola deposit. (Not to scale) (CNW Group/Elemental Minerals Limited)". Image available at:

http://photos.newswire.ca/images/download/20120507_C5089_PHOTO_EN_13229.jpg

Image with caption: "Figure 4: Plan view showing isopach and grade distribution of the Upper Seam mineralisation. (CNW Group/Elemental Minerals Limited)". Image available at:

http://photos.newswire.ca/images/download/20120507_C5089_PHOTO_EN_13230.jpg

Image with caption: "Figure 5: Plan view showing isopach and grade distribution of the Lower Seam mineralisation. (CNW Group/Elemental Minerals Limited)". Image available at:

http://photos.newswire.ca/images/download/20120507_C5089_PHOTO_EN_13231.jpg

Image with caption: "Figure 6: Plan view showing isopach and grade distribution of the Footwall Seam sylvinite mineralisation (CNW Group/Elemental Minerals Limited)". Image available at:

http://photos.newswire.ca/images/download/20120507_C5089_PHOTO_EN_13232.jpg

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