



Energizer Resources Molo Pilot Plant Results Yield 97.7% Ct Extra-Large Flake Graphite Concentrate

TORONTO, ONTARIO, January 31, 2014 – Energizer Resources Inc. (TSX:EGZ) (OTCQX:ENZR) (FWB:YE5) ("Energizer" or the "Company") is pleased to report results from the Company's pilot plant operation from its flagship Molo flaked graphite project. The primary objectives for running a pilot scale plant were as follows:

- Confirm the robustness of the proposed metallurgical flowsheet that was first developed on a laboratory scale under continuous pilot scale conditions;
- Develop process design criteria for the ongoing Molo Full Feasibility Study, and
- Generate large samples of concentrate for evaluation by potential off take partners

The following results confirm the robustness of the proposed flow sheet and that the graphite flakes from the Molo deposit can be upgraded to high-grade graphite concentrate by means of simple flotation.

Highlights:

- The average mass recovery into the large and extra-large flake category (greater than +80 mesh) was **43.5%** based on the results of fifteen size fraction analyses of the combined concentrate;
- The average grade of the extra-large flake (greater than +48 mesh) was **97.7% Ct**;
- The average grade of the large flake (greater than +80 mesh) was **97.4% Ct**;
- The average grade of the medium flake (greater than +200 mesh) was **96.7% Ct**;
- The majority of the impurities reported to the small flake size fractions (-400 mesh)
- The average total carbon content of twelve pilot plant surveys was **93.7% Ct** at an average carbon recovery of 90.3%.

The average composition of the combined concentrate of fifteen size fraction analyses is shown in Table 1.

Table 1: Molo Average Flake Size Analysis

Size mesh	Mass as Percentage of Total Concentrate Mass in %	Grade % C(t)
48	15.7	97.7
65	17.6	97.4
80	10.2	96.7
100	9.7	96.4
150	15.0	96.1
200	10.1	95.2
-200	21.6	88.2

Richard Schler, CEO of Energizer stated, “We are very pleased that the results of the pilot plant study confirms we have a high proportion of premium extra-large and large flake graphite in our Molo deposit. It should also be noted that these particular flake size fractions achieved purities in excess of 97% C(t) by means of simple flotation. This potentially gives us a significant commercial advantage on two fronts 1) the jumbo and large flake products can be sold at a premium for the emerging graphite markets and 2) we should see cost advantages in producing the required purities as well as for upgrading to battery grade material. Metallurgy results have already confirmed that 100% of the Molo graphite concentrate can be upgraded to greater than 99.9% purity.”

**All carbon analyses were performed by SGS and are reported as total carbon C (t). The analytical methods that were used to determine the metallurgical results included total carbon analysis by Leco on all flotation products and the size fractions of the final concentrates. The lower grade tailings products were analyzed by the graphitic carbon method to discount the organic carbon and carbonate carbon in the samples.*

The pilot plant metallurgical testing was completed by SGS Canada Inc. (“SGS”) on a 200 tonne bulk composite sample consisting of a 50:50 blend of high-grade and low-grade mineralization. The average head grade of the bulk sample was 7.98% C(t) based on the mass balances of twelve circuit surveys. The pilot plant was operated targeting a concentrate grade of greater than 95% C(t) in the size fractions greater than 200 mesh, while minimizing flake degradation. The concentrate grades of the coarse flakes were consistently 95% C(t) or higher, while the mass recovery into the large flake (+80 mesh) concentrates varied between 27.9% and 52.6%

The pilot plant was operated under a host of different conditions ranging from 90.8% C(t) concentrate grade at 94.3% recovery to 97.5% C(t) concentrate grade at 87.1% recovery for the twelve surveys at which the circuit was deemed stable. This operating strategy was employed to determine the impact of altering process variables on key metallurgical performance indicators such as concentrate grade, flake size distribution, and carbon recovery.

About SGS Metallurgical Services (Lakefield)

SGS Canada Inc. ("SGS") is recognized as a world leader in the development of concentrator flowsheet design and pilot plant testing programs. SGS' Metallurgical Services division was founded over half a century ago. Its metallurgists, hydro-metallurgists and chemical engineers are experienced in all the major physical and chemical separation processes utilized in the recovery of metals and minerals contained in resource properties around the world.

Qualified Person

The technical information presented in this press release has been reviewed by Oliver Peters, M.Sc., MBA, P.Eng. (Ontario), Principal Metallurgist and President of Metpro Management Inc. and a Qualified Person under NI 43-101.

About Energizer Resources

Energizer Resources Inc. is a mineral exploration and development company based in Toronto, Canada, which is focused on developing its 100%-owned flagship Molo flaked Graphite Project located near Fotadrevo, in southern Madagascar.

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