9 February 2017

WOLFSBERG LITHIUM PROJECT CLOSER TO FAST TRACK PRODUCTION

Highlights

- **A spodumene concentrate of 5.3% Li_2O produced by Dense Media Separation with magnetic separation has been achieved**
- **Samples are now being assessed for suitability in glass-ceramic production by a leading European producer**
- **Laser sensor sorting shown to effectively reject waste dilution from Run of Mine**
- **Test work into flotation/magnetic separation and conversion of spodumene concentrate into battery grade lithium carbonate and hydroxide has begun**

European Lithium Limited (ASX:**EUR,** FRA:**PF8**) (the **Company**) is pleased to report the progress of metallurgical optimisation at its 100% owned advanced Wolfsberg Lithium Project (**Wolfsberg**), in Austria.

Steve Kesler, CEO, commented "The successful use of sensor sorting to reject waste dilution from Run of Mine is important for the economic mining and processing of the generally narrow pegmatite veins at Wolfsberg. The ability to produce an early DMS concentrate opens up the potential to fast track lithium sales into the European glass-ceramic market whilst the conversion plant is being developed. We will now be working hard over the next 3 months on the conversion of spodumene concentrate from Wolfsberg into battery grade lithium carbonate and hydroxide".

Metallurgical Testwork

1. **Sensor Based Sorting**

Mining of the pegmatite veins will result in a degree of waste dilution both from internal dilution from interbedding of waste in the pegmatite veins and external dilution from the hanging and footwalls. Removal of this waste would be beneficial in increasing Li_2O grade and reducing process plant size.

The metallurgical optimisation testwork is being undertaken by Dorfner Anzaplan, Germany who have good experience with the use of sensor based sorting to reject waste from the process plant feed. Testing of the applicability of sensor based sorting to the Wolfsberg ore has been completed.

The Company had undertaken mining in 2013 to obtain 500 tonnes of amphibolite hosted pegmatite (**AHP**) and 500 tonnes of mica schist hosted pegmatite (**MHP**) for further metallurgical testwork. Mined material included waste dilution. This material was crushed to -70mm in a jaw crusher at the mineral processing facility of KMI in Wolfsberg and stored there for future use.

Four tonne representative samples were taken from each ore type and shipped to the laboratory of Dorfner Anzaplan in Hirschau, Germany. The four tonne samples were wet classified into two size ranges for the sensor based sorting tests, -70 +25mm and -25 + 8mm.

The size distribution of the samples are presented in Table 1.

Product Fraction	AHP wt%	MHP wt%
-70 + 25 mm	50.9	37.3
-25 + 8 mm	27.1	32.2
-8mm	22.0	30.5
Head	100.0	100.0

Table 1: Size distribution of the AHP and MHP samples

Both samples contained a relatively high proportion of -8mm material which is not amenable to sorting. However, for future process design, crusher selection to minimise fines production can be incorporated.

The sorting tests were carried out at the TOMRA facility in Germany under Dorfner Anzaplan supervision. Sensor based sorting exploits the pronounced colour differences between the lithium bearing pegmatite and host rock and interbedding. Laser based sorting was selected rather than optical because the dark host rock particles were partly coated with thin bright mica layers. The laser light induces a ''scattering" effect from the quartz and feldspar contained in the pegmatite. The coarser (-70 + 25 mm) fraction was sorted using a double sided laser scanning system and the finer (-25 + 8 mm) fraction using a single sided laser scanning system. A representation of sensor sorting is illustrated in Figure 1.

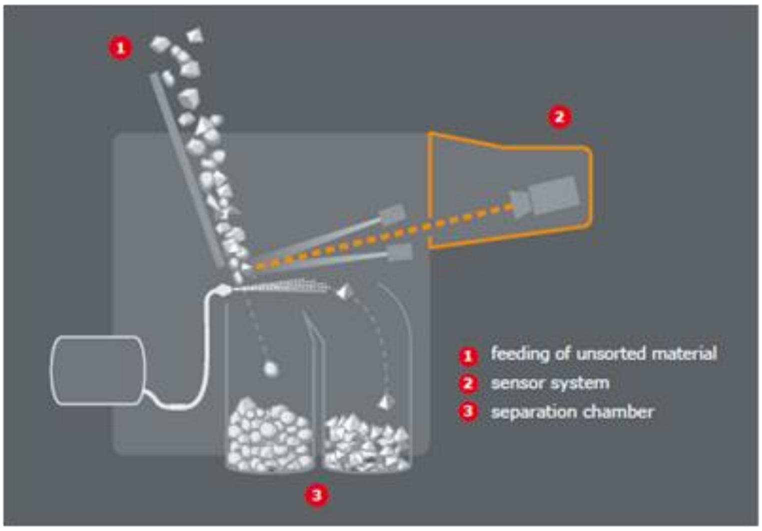

Figure 1: Schematic diagram of the sorting machine for finer particles

The throughput of the sorting machine increases with increasing particle size. For the -70 + 25 mm material tests were conducted with a throughput of 50tph whilst throughput for the -25 + 8 mm material reduced to 16tph. Tests were conducted on both size fractions for AHP and MHP ore types separately and combined. For each size fraction two different settings of the sorter were tested, the first targeting high lithium recovery and the second targeting high product quality with slightly lower lithium recovery. The products were analysed for Li_2O and for Fe_2O_3 and MgO which are markers for host rock (chlorite in MHP and hornblende in AHP).

The testing of MHP ore showed that 99% of the MgO was rejected indicating efficient separation of mica schist host rock. For the -70+25mm fraction 94% of the Li_2O was recovered whilst rejecting 27.7% of the feed. For the -25+8mm fraction 84% of the Li_2O was recovered whilst rejecting 31.9% of the feed. For both fractions the Li_2O was enriched from 1.0% in the feed to 1.2% in the product after sorting.

Figure 2 shows photographs of the light pegmatite product and darker host rock reject after sorting of the -70 + 25 mm material for high recovery.

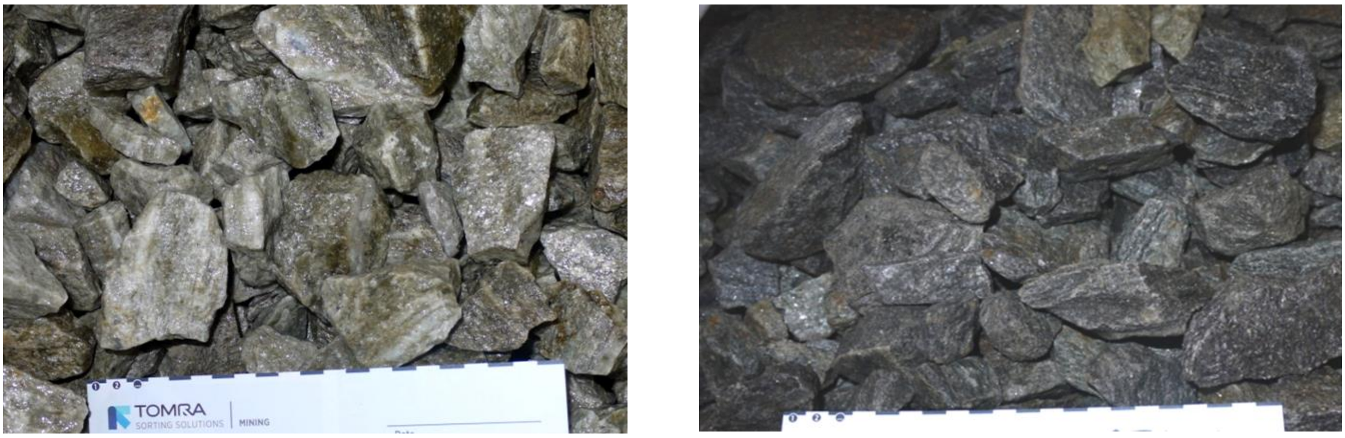

Figure 2: Sorting of -70 + 25 mm MHP. Lithium bearing pegmatite product (left) and mica schist reject (right).

The testing of AHP ore also showed that 99% of the MgO was rejected in both fractions indicating efficient separation of amphibolite host rock. For the -70+25mm fraction 93% of the Li_2O was recovered whilst rejecting 31.7% of the feed. For the -25+8 mm fraction 88% of the Li_2O was recovered whilst rejecting 31.1% of the feed. For both fractions Li_2O was enriched from 1.0% to 1.3% in the product after sorting.

Figure 3 shows photographs of the light pegmatite product and darker host rock reject after sorting of the -70 + 25 mm material for high recovery.

Figure 3: Sorting of -70 + 25 mm AHP. Lithium bearing pegmatite product (left) and amphibolite reject (right)

Sorting tests were also carried out on a mixed MHP/AHP (1:1) with similar results. 99% of the MgO was rejected from both size fractions indicating efficient separation of host rock. Li_2O recovery was 90% in the coarse fraction and 87% in the finer fraction with upgrading of lithium from 1.0% Li2O to 1.3% Li_2O

The mined bulk samples were shown to have comprised about 30% waste dilution. Slightly better recovery was obtained from the coarser fraction as more accurate sorting is possible in coarse fractions if the feed shows the required liberation of minerals and through use of double sided rather than single sided detection systems.

Recombining the products after sorting for MHP and AHP separately with the -8mm material that was not sorted resulted in the following mass balances for the material going for processing:

- MHP had 92% Li_2O recovery in 79% of the initial mass resulting in an upgrading from 0.9% Li_2O to 1.1% Li_2O.
- AHP had 93% Li_2O recovery in 75% of the initial mass resulting in an upgrading from 1.0% Li_2O to 1.2% Li_2O

The sorted material was returned to Dorfner Anzaplan for further metallurgical studies.

2. Dense Media Separation

The AHP is coarsely crystallised whereas the MHP has experienced a re-crystallisation and is considerably finer grained. Initial DMS testwork has focused on the AHP to determine the potential to obtain an early spodumene concentrate for the glass-ceramic industry.

The testwork has been carried out by Metsolve in Langley, BC, Canada under Dorfner Anzaplan supervision. Metsolve is highly experienced in DMS and undertook similar work for the Nemaska Lithium project. Initial laboratory scale heavy liquid separation (**HLS**) tests were undertaken to serve as a basis for pilot plant work.

The AHP sample tested was the material after sensor based sorting which comprised the sorted -70 + 25mm fraction, the sorted -25 + 8 mm fraction and the unsorted -8mm fraction. 500kg of this combined sorted material was crushed and screened to a size suitable for DMS i.e. -5 +0.5 mm for HLS and then pilot plant work. HLS test work was carried out using lithium metatungstate as heavy medium which has a maximum SG of 2.95.

The sorted AHP after crushing and screening is described in Table 2. This shows that spodumene concentrates in the coarser fraction.

	Mass wt%	Li_2O wt%	Li_2O distribution wt%
Sorted AHP ore	75	1.2	93
-5 + 0.5 mm	50	1.6	72
-0.5mm	25	0.9	21

Table 2: Size distribution and Li2O grade of AHP for DMS testwork

HLS tests were conducted at four densities (2.95/2.85/2.75/2.65 g/cm3) for each of three size ranges (-5 + 3.35 mm, -3.35 + 1.4 mm and -1.4 + 0.5mm). The HLS test work demonstrated the potential of DMS to generate three fractions:

- a heavy fraction (>2.95 g/cm3) representing a high grade spodumene concentrate at 5.24% Li_2O with a lithium recovery of 59%. This grade is in the target range for glass-ceramic applications.
- an intermediate pre-concentration fraction (>2.65<2.95 g/cm3) that contains some residual spodumene at 1.63% Li_2O with a lithium recovery of 39.4% which would be further processed by flotation.
- A residual light fraction (<2.65 g/cm3) at 0.07% Li_2O with a lithium recovery of 1.6% which can be used as a feedstock for producing quartz and feldspar by-products. This fraction comprises 41.1% of the initial mass

Fe_2O_3 was also enriched with spodumene in the heavy fraction from a feed grade of 1.37% Fe_2O_3 to 3.55% Fe_2O_3 in the concentrate which is attributed to residual amphibolite (which has a higher SG than quartz or feldspar) from the unsorted -8mm material in the feed. The heavy fraction spodumene concentrate will require magnetic separation to reduce the iron content to levels acceptable to the glass-ceramic industry.

Similar HLS tests were conducted by Dorfner Anzaplan on the MHP which is more finely crystallised than the AHP. The three fractions generated were:

- a heavy fraction (>2.95 g/cm3) representing a medium grade spodumene concentrate at 3.1% Li_2O with a lithium recovery of 12.3%. This grade is too low for glass-ceramic applications and would be further processed by flotation.
- an intermediate pre-concentration fraction (>2.65<2.95 g/cm3) that contains some residual spodumene at 1.4% Li_2O with a lithium recovery of 78.7% which would be further processed by flotation.
- A residual light fraction (<2.65 g/cm3) at 0.3% Li_2O with a lithium recovery of 9% which can be used as a feedstock for producing quartz and feldspar by-products. This fraction comprises 33.2% of the initial mass.

The MHP has been shown not to be amenable to DMS for production of a suitable concentrate for glass-ceramic use. However, there may be an option for pre-concentration before flotation.

Pilot plant testwork has been completed at the Metsolve facilities on the 500kg of AHP using a two stage triflow separator (Condor). Ferrosilicon was used as the dense media. The first stage operated with a cut SG of 2.95 to prepare a spodumene concentrate, the second stage with a SG of 2.7 to prepare an intermediate concentrate which will go for flotation testwork and the tailings light fraction which will go for feldspar and quartz separation. The further processing will be undertaken at the Dorfner Anzaplan facility in Germany. The pilot plant produced the following fractions:

- a heavy fraction (>2.95 g/cm3) representing a high grade spodumene concentrate at 4.7% Li_2O with a lithium recovery of 39.7%. This grade is in the target range for glass-ceramic applications.
- an intermediate pre-concentration fraction (>2.7<2.95 g/cm3) that contains some residual spodumene at 2.7% Li_2O with a lithium recovery of 45.1% which would be further processed by flotation.
- A residual light fraction (<2.7 g/cm3) at 0.4% Li_2O with a lithium recovery of 15.2% which can be used as a feedstock for producing quartz and feldspar by-products.

The grade and recovery of the spodumene concentrate was lower than in the HLS tests mainly caused by reduced selectivity in the finest size fraction due to more turbulent conditions in the DMS separator compared to optimum lab conditions during HLS testing. Nevertheless the concentrate is close to the target range for glass-ceramic applications (>5% Li_2O). The Fe_2O_3 content of the spodumene concentrate was enriched from1.5% Fe_2O_3 in the feed to 3.6% Fe_2O_3 in the concentrate which is attributed to residual amphibole from the -8mm fraction of the host rock that by-passed the sensor sorting. Magnetic separation was tested to reduce the Fe_2O_3 content by removal of the residual amphibolite.

3. Magnetic Separation

For magnetic separation the DMS concentrate was crushed to -0.5mm and screened into a -0.5+0.1mm fraction and a -0.1mm fraction. For the coarser fraction dry high gradient belt magnetic separation was applied and for the finer fraction wet magnetic separation.

For the coarser fraction a concentrate was produced with 5.5% Li_2O and Fe_2O_3 reduced to 0.7%. Li_2O recovery was 94%.

For the finer fraction a concentrate was produced with 4.1% Li_2O and Fe_2O_3 reduced to 1.4%. However, Li_2O recovery was only 55%. Further test work is required to improve Li_2O recovery from this finer fraction.

Combining the product of both fractions a spodumene concentrate with 5.3% Li_2O and 0.8% Fe_2O_3 was produced at a 86.6% Li_2O recovery.

4. Flow Sheet

An overall flow sheet for the sensor sorting and DMS is shown in Figure 4.

This flowsheet results in a rejection of 22.6% of the Run of Mine (**ROM**) as waste by sensor sorting. There is an intermediate recovery of Li_2O of 87.5% into DMS concentrate (16.5%) and flotation feed (71%). The flotation feed is reduced to 59.2% of the ROM mass whilst grade is increased from 1.0% Li_2O in ROM to 1.2% Li_2O in the flotation feed.

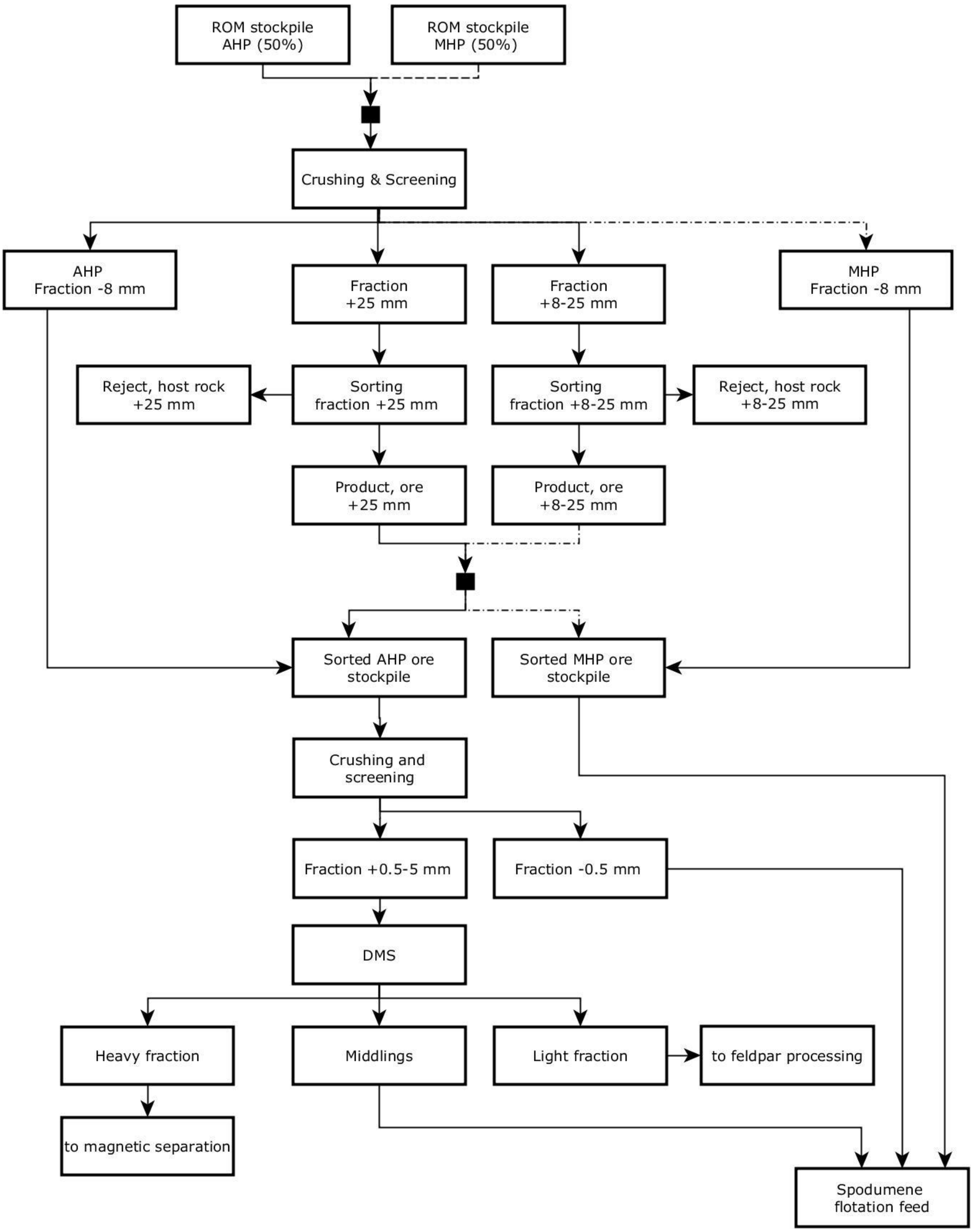

Figure 4: Flow sheet for the sensor sorting and DMS

5. Further Test Work

Test work has now commenced on flotation and magnetic separation to produce a flotation concentrate of 6% Li_2O and by-products of feldspar, quartz and mica.

Test work into the conversion of spodumene concentrate into lithium carbonate and lithium hydroxide is being carried out in parallel using the DMS spodumene concentrate.

A sample of DMS concentrate has been sent to a major glass-ceramic producer in Europe to assess its suitability for use in their production process.

Dr Steve Kesler
Chief Executive Officer
European Lithium Limited

END

Visit the Company's website to find out more about the advanced Wolfsberg Lithium Project located in Austria.

Competent Person's Statement

The information in this announcement pertaining to the Wolfsberg Lithium Project, and to which this statement is attached, relates to Project Development and Metallurgical Studies and is based on and fairly represents information and supporting documentation provided by the Company and its Consultants and summarized by Dr Steve Kesler who is a Qualified Person and is a Fellow of the Institute of Materials, Minerals and Mining and a Charted Engineer with over 40 years' experience in the mining and resource development industry. Dr Kesler has sufficient experience, as to qualify as a Competent Person as defined in the 2012 edition of the "Australian Code for Reporting of Mineral Resources and Ore reserves". Dr Kesler consents to the inclusion in the report of the matters based on information in the form and context in which it appears. The company is reporting progress on project development and metallurgical results under the 2012 edition of the Australasian Code for the Reporting of Results, Minerals Resources and Ore reserves (JORC code 2012).