

## ASX ANNOUNCEMENT

### LINDI JUMBO PROJECT - METALLURGY

## Excellent initial metallurgical test results for Lindi Jumbo

### Highlights

08 January 2016

- **Initial testwork confirms excellent metallurgical results from The Gilbert Arc**
- **Graphite recovery of >98%**
- **Concentrate grade of 95.7% TGC achieved**
- **A standardised and simple roughing flotation regime achieved excellent recovery with a coarse primary grind (P100 at 850µm)**
- **Excellent flake size retention with up to 57% Large and Jumbo flakes retained at concentrate grade of 94.3%**
- **Large flake graphite is of higher purity and better grades**
- **No significant deleterious elements identified**
- **Further work to optimise results ongoing**

### Overview

African focussed, ASX listed junior explorer Walkabout Resources Ltd, (ASX:WKT) is pleased to announce initial metallurgical test work conducted over four test regimes on core samples from the high grade ore zone at the Lindi Jumbo graphite project.

The preliminary flotation tests were planned with the intent to maintain the graphite flakes as coarse as possible, while achieving high recovery to concentrate.

Flotation test work was conducted by Nagrom Metallurgical under the consulting management of Perth based metallurgical specialist consultants, Battery Limits Pty Ltd.

Reflecting on the initial results, Managing Director of Walkabout, Allan Mulligan said *"We are very excited to achieve these results at such an early stage of the test work regime. Very few projects have been able to fast track to a stable test regime so efficiently."*

*These tests prove that Lindi Jumbo graphite can be recovered and that the high ratios of Jumbo flake are present. Graphite beneficiation is first about recovery and concentrate grade and then about flake size preservation. This will provide a strong base for optimising the quality of graphite product into concentrate and meet our objective of producing a niche, high grade, premium product."*

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### Testwork Results and Summary

A fresh ore high grade sample composite has been compiled from recent diamond drill program for preliminary metallurgical testwork.

The ore composite was generated to assess the ore's amenability to beneficiation by froth flotation and also to identify the nature, flake size and occurrence of the graphite in a selection of drill core samples, and flotation products.

|  |                         | Com Ro Sc Float Test    |       | Composite Rougher-Cleaner Float Test |       |                         |       |                         |       |                         |       |
|--|-------------------------|-------------------------|-------|--------------------------------------|-------|-------------------------|-------|-------------------------|-------|-------------------------|-------|
|  |                         | Test 0                  |       | Test 1                               |       | Test 2                  |       | Test 3                  |       | Test 4                  |       |
|  |                         | Flake Size Distribution | Grade | Flake Size Distribution              | Grade | Flake Size Distribution | Grade | Flake Size Distribution | Grade | Flake Size Distribution | Grade |
|  |                         | Mass %                  | TGC % | Mass %                               | TGC % | Mass %                  | TGC % | Mass %                  | TGC % | Mass %                  | TGC % |
| Gilbert Arc<br>High<br>Grade<br>Fresh Ore<br>Composite | Grade (TGC%)            |                         | 65.2% |                                      | 89.8% |                         | 94.3% |                         | 95.5% |                         | 95.7% |
|  | Jumbo (> 300µm)         | 64.8%                   | 72.1% | 31.7%                                | 94.6% | 22.0%                   | 96.4% | 16.7%                   | 96.3% | 17.1%                   | 97.0% |
|  | Large (180µm to 300µm)  | 18.6%                   | 61.2% | 36.1%                                | 92.1% | 35.1%                   | 95.2% | 35.3%                   | 96.6% | 35.1%                   | 96.5% |
|  | Large and Jumbo         | 83.4%                   |       | 67.8%                                |       | 57.1%                   |       | 52.0%                   |       | 52.2%                   |       |
|  | Medium (150µm to 180µm) | 4.2%                    | 65.3% | 8.1%                                 | 89.9% | 8.4%                    | 94.8% | 7.5%                    | 96.0% | 9.3%                    | 96.2% |
|  | Small (106µm to 150µm)  | 6.0%                    | 61.1% | 11.5%                                | 87.5% | 16.0%                   | 94.0% | 18.5%                   | 95.9% | 14.8%                   | 96.0% |
|  | Fine (75µm to 106µm)    | 3.0%                    | 59.6% | 6.5%                                 | 87.2% | 8.4%                    | 93.1% | 8.0%                    | 95.2% | 9.5%                    | 95.8% |
|  | < 75µm                  | 3.5%                    | 39.5% | 6.1%                                 | 80.0% | 10.0%                   | 87.7% | 14.1%                   | 91.1% | 14.3%                   | 91.3% |

Table 1: Summary of results for initial flotation test work

The testwork composite comprised sample intervals from drill holes;

- LJDD001
- LJDD002
- LJDD003

These holes are located within the high grade zone of the Gilbert Arc antiformal structure at the project (Refer ASX Release 08 December 2015). In addition a bulk sample of outcrop within the oxide zone has been received for testing.

Head assay value for the ore composite sample was 21.0% TGC. All assays are reported using the differential Loss on Ignition (LOI) method.

The preliminary flotation tests were planned with the intent to maintain the graphite flakes as coarse as possible, while achieving high recovery to concentrate. The flotation test regime performed to date was designed to establish standardise rougher flotation conditions and determine preliminary concentrate cleaning characteristics.

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For rougher flotation, ore was stage ground and wet screened at each target screen size, with each stage of rougher tailings re-ground and re-floated in a subsequent rougher flotation stage. Results from this stage are highlighted below;

- Multi stage rougher and scavenger flotation resulted in excellent recovery >98%
- Single stage grind rougher flotation maintained good overall recovery of 96% with only a modest increase in recovery achieved at finer grind sizes
- A standardised roughing flotation regime achieved good recovery at a coarse primary grind (P100 at 850 $\mu$ m), typically producing > 94% graphite recovery with a mass recovery of 32%-35%

The test procedure for cleaning involved rougher flotation using the conditions developed, followed by multiple cleaner flotation stages. The concentrate was subjected to a polishing grind to increase graphite particle liberation prior to each cleaner step. Cleaner flotation test work was focused on achieving graphite concentrates grading >94% TGC using typically 3-4 stages of cleaning and regrind.

- Excellent graphite recovery was maintained at >95%
- Concentrate grade >95% TGC were achieved at relatively coarse graphite particle size distribution



Image 1: Lindi Jumbo concentrate being float tested



Image 2: Secondary cleaner concentrate showing Jumbo flake sizes

In conclusion and encouraging to the Company are the following key points;

- High recoveries and high concentrate grade is achieved with a simple (P100 850 $\mu$ m) rougher stage followed by 2 and 4 stages of cleaner regrind and flotation
- Large and Jumbo flake sizes are retained and further scope for optimising the recovery of these fractions exists
- The coarse graphite is of higher purity and better grades
- The finer graphite, (-75 $\mu$ m) product has the lowest grade

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#### **Lindi Jumbo Graphite Project**

Walkabout intends to fast-track the exploration and project development at Lindi Jumbo to validate the structure of the deposit, the graphite grade, concentrate product grade and flake size distribution. These results will enable the early introduction of an end-user market partner to secure product off-take and clarify operational right-sizing.

The Company currently has an interest over four contiguous exploration licences in the area for a total exploration area of approximately 325 km<sup>2</sup>.

Details of Walkabout Resources' other projects are available at the Company's website, [www.wkt.com.au](http://www.wkt.com.au)

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