

Tawana Resources NL
(Incorporated in Australia)
(Registration number ACN 085 166 721)
Share code on the JSE Limited: TAW
ISIN: AU000000TAW7
Share code on the Australian Stock Exchange Limited: TAW
ISIN: AU000000TAW7
("Tawana" or "the Company")

PLEASE NOTE: ALL GRAPHICS AS WELL AS APPENDIX 1, HAVE BEEN REMOVED FOR SENS PURPOSES. PLEASE REFER TO TAWANA WEBSITE FOR THE COMPLETE ANNOUNCEMENT

Premium Grade Plus 68 Percent Fe Product Confirmed

HIGHLIGHTS

- Diamond core metallurgical testwork has confirmed a **premium grade plus 68% Fe product with plus 43% mass yield** is achievable at a 0.5mm crush sizing on transitional friable itabirite mineralisation
- **Exceptionally low combined SiO₂ and Al₂O₃** contaminant levels (smaller than 2.2% SiO₂ and smaller than 0.6% Al₂O₃) achieved in the final product
- Current +65% Fe concentrates attracting a \$US\$9-\$10/tonne price premium to 62% Fe product (CFR into Tianjin). Results confirm the saleability of Tawana's product into this pricing regime
- Testwork confirms a low Crushing Work Index averaging 3.5 kWh/t - confirming the soft, friable nature of mineralisation and low potential power demand for processing
- Preliminary Process Flowsheet for beneficiation now developed – confirming design simplicity and processing flexibility
- License Application for pilot mining and test-pit/pilot plant operation being fast-tracked, to commence early site development and metallurgical processing opportunity
- Representative HQ diamond core samples from the Gofolo and Zaway maiden resource drilling programme utilised in test work program
- Testwork was conducted by ALS Perth utilising wet tabling techniques to replicate a gravity / spirals processing plant circuit

Tawana Resources NL (ASX: TAW) (the Company or Tawana) is very pleased to announce the results of full HQ diamond core metallurgical testwork from its 100% owned Mofe Creek Iron Ore Project in Liberia, West Africa.

Managing Director, Len Kolff, said, "The testwork confirms the production possibility to generate premium grade 65% to 68% Fe final product concentrates at 43% to 48% mass yields, with very low contaminants".

"These results are extremely encouraging given the exceptionally high grade Fe product produced and the superior mass recoveries achieved. With no fine grinding and low work indices confirmed, the potential exists for a very simplistic gravity beneficiation circuit capable of generating a premium quality product at potentially very low capital intensity."

"Full diamond core results reported here, along with previously announced RC metallurgical results for the Koehnko prospect, confirm that all three drilled prospects on the Mofe Creek Iron Ore Project can be simply and efficiently upgraded utilising simple gravity beneficiation processing."

"The Mofe Creek Project is one of the closest located iron ore projects to an operating iron exporting port in West Africa, with a demonstrated potential to generate a premium grade quality product," Mr Kolff said.

“With the Company’s recent funding success, and its intention to fast-track the development of the pilot mining permit and Mineral Development Agreement, the project is now well funded and strategically positioned to rapidly advance its development,” Executive Chairman, Wayne Richards said.

Metallurgical Testwork Results

Metallurgical test results utilising full HQ diamond drill core from the maiden resource drilling campaign has demonstrated the potential to generate a premium quality concentrate product grading 65% to 68% Fe with low SiO₂ and Al₂O₃ levels. It also confirmed the expectations from earlier testing using “RC chip” samples.

The final product concentrate grades, along with their corresponding main mass yields are presented, at varying recoveries, in Tables 1 and 2 below.

Composites 3 and 9: Final Beneficiation results of the oxidised Transitional Friable Itabirite at - 0.50mm to plus.045mm size fraction

Composite 3 (Gofolo Main)							Composite 9 (Zaway)						
CUMULATIVE GRADE RETAINED							CUMULATIVE GRADE RETAINED						
Yield %	Fe%	SiO2 %	Al2O 3%	P%	TiO2 %	LOI%	Yield %	Fe%	SiO2 %	Al2O 3%	P%	TiO2 %	LOI %
37.03	69.03	1.21	0.52	0.009	0.09	-1.52	31.82	67.96	2.70	0.67	0.022	0.06	-0.65
43.05	68.06	2.19	0.59	0.013	0.09	-1.21	40.53	67.06	3.74	0.75	0.025	0.06	-0.55
48.11	64.67	6.67	0.62	0.015	0.09	-0.96	47.69	64.95	6.15	0.87	0.031	0.06	-0.34

Table 1 | Product grades and mass yield % at a 0.5mm crush by composite ID

Composites 2 and 8: Final Beneficiation results of the oxidised, Friable Itabirite Mineralisation at minus0.50mm to plus0.045mm size fraction

Composite 2 (Gofolo Main)							Composite 8 (Zaway)						
CUMULATIVE GRADE RETAINED							CUMULATIVE GRADE RETAINED						
Yield %	Fe%	SiO2 %	Al2O 3%	P%	TiO2 %	LOI%	Yield %	Fe%	SiO2 %	Al2O 3%	P%	TiO2 %	LOI %
19.94	63.28	1.54	1.54	0.068	0.17	5.01	7.24	68.29	1.52	0.50	0.021	0.15	0.49
29.77	61.32	1.73	1.73	0.076	0.16	5.89	29.43	67.26	2.32	0.58	0.029	0.15	0.73
38.72	59.62	6.21	1.89	0.082	0.15	6.51	39.23	65.56	4.10	0.68	0.036	0.15	1.03

Table 2 | Product grades and mass yield % at a 0.5mm crush by composite ID

Approximately 3,000 kg of full HQ drill core was utilised for the program. Ten (10) representative composites of the mineralisation lithologies from the Gofolo Main and Zaway Main prospects were subjected to numerous tests, designed to provide technical and metallurgical information to progress the Process Plant design, for the Project.

Composite identification, mineralisation type and in-situ head grades of the representative friable oxidised and friable transitional itabirite material from the Gofolo and Zaway main deposits, are presented in the following table:

Description		In-situ Head Grades		
Composite	Location/mineralisation	Fe%	SiO ₂ %	Al ₂ O ₃ %
Comp 3	Gofolo Mail – Transitional Friable Itabirite	37.36	44.4	0.70
Comp 9	Zaway – Transitional Friable Itabirite	38.57	43.3	1.09
Comp 2	Gofolo Mail – Oxidised Friable Itabirite	47.14	20.4	3.68
Comp 8	Zaway – Oxidised Friable Itabirite	38.26	41.1	1.66

Table 3 | Composite identification, mineralisation type and in-situ head grades

Testwork results confirmed the potential for the design and construction of a low capital intensity processing plant with simple gravity beneficiation equipment. These results have demonstrated that Zaway mineralisation is equally as amenable to beneficiation and upgrade as the Gofolo mineralisation. Koehnko metallurgical results from RC drill chips announced previously (refer ASX announcement 21 January 2014) also demonstrated that the Koehnko mineralisation generated an excellent 'premium grade' product.

The generation of these excellent metallurgical final results for Gofolo and Koehnko were a significant achievement for both the Company and the Mofe Creek Project as they demonstrated that a 'Premium' (**plus68% Fe**) grade quality product could be achieved at a 1 to 0.5mm comminution (crush), utilising a simple gravity beneficiation process. The 0.5mm crush and screen testwork results provide a high degree of confidence that a highly marketable final product with very low combined SiO₂ and Al₂O₃ at high mass yield (43% to 48%) can be produced.

These core samples likewise confirmed the soft, friable nature of the coarse-grained mineralisation and the highly favourable low contaminant mineralogy, making it ideal for beneficiation, with the added benefit of the mineralisation being located at or near to surface, and potentially "free-dig".

The drill core composites were sequentially reduced to nominated top sizes of 35mm, 10mm, 6.3mm, 3.35mm, 2mm and 1mm. Each size fraction was subjected to full chemical assay characterisation testing to assist in the selection of crushing and size reduction parameters, and comminution design requirements. The comminution tests confirmed the soft and friable nature of the mineralisation with a low Crushing Work Index averaging 3.5 kWh/t and a low Ball Mill Work Index averaging 15.9 kWh/t.

Several beneficiation options were examined at each of the size fractions. These included crushing and screening, low and high intensity magnetic cobbing, jig stratification through the coarser fractions to de-sliming and wet tabling on the 1 mm material after de-sliming at 45 m.

The testwork culminated in the development of the proposed process flowsheet for the Project. This process and beneficiation process flowsheet is presented in Figure 2 overleaf.

Petrographic work demonstrated that the most effective liberation of the iron particles could be achieved at a 0.5mm crush size. Accordingly, efficiency tests were conducted at a 0.5mm crush size and wet tabling of all friable itabirite Composites 2, 3, 8 and 9, representing the friable itabirite mineralisation at Gofolo Main and Zaway.

Significant improvements in Fe%, SiO₂% and mass yield percentage were achieved, as compared with a coarser crush size. The final results from these tests were very similar to the exceptional results achieved utilising the RC samples at a 1mm crush (refer ASX announcement 21 January 2014).

Discussion of Results

An extensive metallurgical test work program was undertaken at the ALS Laboratories in Perth, over a duration of approximately 10 weeks, from March to May 2014. The testwork flow sheets are further highlighted in Appendix 1 of this report.

The testwork program was undertaken to support the design of the process flowsheet, develop the mass flow parameters for the plant, provide physical and material's handleability data for equipment selection and future power draw demands, and to provide technical and metallurgical confidence in the performance of the mineralisation under various operating scenarios.

The testwork program also provided invaluable data on the mineralisation, varying lithologies within the deposit, and the individual performance of each such lithology, under varying processing scenarios.

The results also assisted in the early-stage development of operating and/or blending strategies required, to optimise the entire deposits, whilst producing the most cost-effective premium product (at the optimal final product grade, composition and recovery).

The design flexibility and simplicity of the conceptual Process Flowsheet, will allow the operator to tailor the operational blending strategy at either the ROM pad or final product stockpiles., This will allow the operator to capitalise on the most effective grade and recovery – thereby adjusting the plant output, to capitalise on the product sales market, i.e. recovery vs product grade trade-offs, depending on sales price within the market. **Presently the iron ore market pays a sales price premium for plus65% Fe grade products – currently US\$9-10/tonne premium above the benchmark 62% Fe Index (CFR pricing into Tainjin).**

The low working indices on the mineralisation, supports the simple requirement for front-end equipment that has low power demand and acts more as a sizer, rather than a crusher. The proposed MMD sizers in the first two stages of comminution, confirm the soft nature of the mineralisation.

The friable and soft physical nature of the mineralisation, also re-confirms the non-requirement for “drill and blast” of the material in-situ. This will have a very positive financial upside in the mining costs, as there will be potentially no operating or capital requirements for the utilization of drill and blast equipment/operations. This will in effect also indirectly improve the inferred safety of the mining activities, and will allow for the location of the future plant processing facilities closer to the mine i.e. minimal material transport from mine to processing facility.

Material type/ Composition ID	Observations
CAP – Surface cap COMPS 1 and 7	<ul style="list-style-type: none"> - Form as a ferruginous cap over the deposits - Typically smaller than 60% Fe, 6-10% combined Si-Al, 3-8% LOI and moderate 15-20% mass yield at 1mm crush - Not tested at 0.5mm crush at time of reporting
Weathered Friable mineralisation COMPS 2 and 8	<ul style="list-style-type: none"> - Friable mineralisation with strong weathering overprint. - Forms over “oxide” (Fe-Si) Itabirite or over “silicate” (Fe-Si-amphibole) itabirite. - Typically 60-66% combined SiO₂-Al₂O₃, 0-6% LOI and 39% mass yield at a 0.5mm crush - Variability dependent on “oxide” vs “silicate” parent itabirite with Silicate type itabirite lower Fe% and higher contaminants %, and oxide itabirite higher Fe% and lower contaminants - Typically 3-4:1 oxide silicate lithologies
Transitional Friable mineralisation COMPS 3 and 9	<ul style="list-style-type: none"> - Friable mineralisation less impacted by weathering and resultant lower Al% and LOI% - Typically 65-69%Fe, 2-7 % combined SiO₂-Al₂O₃ and 40-48% mass yield at a 0.5mm crush. - Very low Al-no/little day.
Hard mineralisation COMPS 4 and 1-10	<ul style="list-style-type: none"> - “Hard” itabirite below base of oxidation; of either “silicate” or “oxide” type

	<ul style="list-style-type: none"> - Typical 55-60 % Fe, 10-20 % Si and 25-40 % mass yield at 1mm crush - Not tested at 0.5mm crush at time of reporting
"Weathered Metaseds and Mafics COMPS 5 and 6	<ul style="list-style-type: none"> - Smaller than 40% Fe and smaller than 15% mass yield at 1 mm crush. - Not tested at 0.5mm crush at time of reporting

Head Grades of the 10 composite samples from Gofolo Main and Zaway Diamond Core Samples are presented below:

Sample ID	Fe(%)	SiO2(%)	Al2O3(%)	P(%)	TiO2(%)	LOI 1000(%)
COMP1	51.78	9.4	5.39	0.082	0.18	10.29
COMP 2	47.14	47.14	3.68	0.084	0.16	7.35
COMP 3	37.36	44.4	0.70	0.017	0.06	-0.07
COMP 4	35.85	44.6	0.50	0.045	0.04	-1.07
COMP 5	29.48	25.6	18.10	0.038	0.70	12.33
COMP 6	31.46	43.0	4.18	0.052	0.18	2.29
COMP 7	33.15	35.2	9.40	0.056	0.37	6.99
COMP 8	38.26	41.1	1.66	0.042	0.12	1.79
COMP 9	38.58	43.3	1.09	0.029	0.06	0.20
COMP 10	32.56	44.1	3.66	0.061	0.18	-0.57

Table 3 | Head grades for composites tested

About Tawana (ASX & JSE: TAW)

Tawana Resources NL ("Tawana" or "the Company") is an iron ore focused ASX and JSE-listed Company with its principal project in Liberia, West Africa. Tawana's 100 % owned Mofe Creek Project ("the Project") is a new discovery in the heart of Liberia's historic iron ore district, located 20 km from the coast and 80 km from the country's capital city and major port, Monrovia.

Tawana is committed to becoming a mid-tier iron ore producer through the development of the Mofe Creek Project, which covers 285 km² of highly prospective tenements in Grand Cape Mount County. The Project hosts high-grade friable itabirite mineralisation which can be easily upgraded to a premium quality iron ore product of plus 62- 68 % Fe grade, via simple, low capital intensity beneficiation.

The Company has concluded its maiden resource drilling program and rapidly nearing the completion of its Scoping Study on the Mofe Creek Project. The Scoping Study will consider both an early start-up, low capital cost project with a production rate of 1-2 million tonnes per annum (Mtpa), as well as a longer-term project capable of producing 5-10 Mtpa of iron ore product.

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Detailed information on all aspects of Tawana's projects can be found on the Company's website www.tawana.com.au.

15 May 2014
Sponsor

Competent Persons Statement

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Lennard Kolff van Oosterwijk, who is a Member of the Australian Institute of Geoscientists included in a list promulgated by the ASX from time to time. Len Kolff is a full-time employee of the company and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Len Kolff consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward Looking Statement

Statements regarding plans with respect to the Company's mineral properties, including statements, assumptions and targets relating to the Preliminary Assessment are forward looking statements. There can be no assurance that the Company's plans for development of its mineral properties will proceed as currently expected, nor in accordance with the Preliminary Assessment. There can also be no assurance that the Company will be able to confirm the presence of a mineral deposit, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of the Company's mineral properties, either in accordance with the Preliminary Assessment or otherwise.