



## Excellent Scoping Study Results for Mofe Creek Project

Low Capex, Low Cost, High Margin Operation Delivers Strong NPV and IRR

Tawana Resources NL (ASX: TAW) (“Tawana” or “the Company”) is very pleased to announce that the completed Scoping Study for its 100% owned Mofe Creek Iron Ore Project (“Mofe Creek” or “the Project”), has delivered excellent technical and financial results along with project design and development simplicity.

### Highlights

Key results from the Scoping Study for the Stage 1 development of a 2.5 Mtpa project are presented below:

Initial Mine Life	14 years
Production Target Profile	2.5 Mtpa
Capital Cost to Initial Production (incl 20% Contingency)	US\$52.9M
Revenue (@FOB price of US\$87/Dmt – Pre-Tax)	US\$2.5B
Operating Costs (LOM avg. Cash Costs - FOB)	US\$40.60 per tonne
Net Present Value (NPV @8% DCF, post Royalties @ 4.5%)	US\$435M
Internal Rate of Return (IRR) – Pre-Tax	55.8%
Total Project Capital cost (mine, logistics and port incl. 20% Contingency)	US\$280M – Staged across 4 years of prod’n
Timeline to initial production	15 months from approval of Mining Licence
Product Quality	64 – 68% Fe “Mofe Creek Premium Fines”

- Tawana will commence a Pre-Feasibility Study on the Mofe Creek Project immediately
- The Company will now further advance discussions with potential strategic partners, off-takers, debt providers and financiers, in order to fast-track the development of the Project



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## CAUTIONARY STATEMENT

The Scoping Study referred to in this announcement is based on lower-level technical and economic assessments, and are insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised.

The Scoping Study is preliminary in nature as its conclusions are drawn on inferred (74%) and indicated mineral resources (26%). The relative sequence of mining is the indicated mineral resource is assumed in Years 1 to 4, then the inferred mineral resource is assumed to commence in Year 4.

There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised. The stated production target is based on the Company's current expectations of future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met.

Further, the Company cautions that there is no certainty that the forecast financial information derived from production targets will be realised. All material assumptions underpinning the production targets and forecast financial information derived from the production targets are set out in Section 2 of this announcement.

The estimated mineral resources underpinning the Scoping Study production targets have been prepared by competent persons in accordance with the current JORC Code 2012 Edition and the current ASX Listing Rules.

## 1. Executive Chairman's Comments

Executive Chairman Wayne Richards said, "This study validates the opinion of the Executive Management team that Mofe Creek ticks all the boxes with low Capex, low operating costs, significant operating margins, a premium +65% iron product and a lifespan of at least 14 years. We are positioned to become a globally competitive, highly profitable producer with a long-term logistics plan that will ensure the timely and economic development of the Mofe Creek Project."

"It has strategically positioned the Project as a potential bottom quartile operating cost producer, with long-term logistics solutions designed to be implemented sequentially, from forecast cashflows and/or strategic funding".

Mr Richards said "the Company would utilise the Scoping Study to further advance discussions with potential strategic partners, off-takers, debt providers and financiers, in order to fast track the development of the Project".

## 2. Scoping Study Overview

In conjunction with the publication of a Maiden Mineral Resources Estimate for the Mofe Creek Project (refer ASX Release - dated 31<sup>st</sup> March 2014), Tawana has completed the required engineering, mining, metallurgical and environmental studies, along with the logistics design and costings, to finalise the Mofe Creek Project Scoping Study.

The Project Development Plan envisages a staged production ramp up commencing at 1 Mtpa (Stage 1A) then increasing production to 2.5 Mtpa (Stage 1B).



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The Project Development Plan and Scoping Study identified the opportunity to fast-track the initial 1Mtpa to 2.5 Mtpa production scenario, utilising the existing infrastructure within Liberia, including an all-weather sealed bitumen road from the Gofolo mine to the port of Monrovia, along with the existing deep-water port at Freeport-Monrovia. The initial production for the first three years acknowledges these current infrastructure facilities, however in anticipation of expansive growth beyond the capacity of Freeport, the study assumes an alternate transshipment and/or direct ship-loading facility on the coast of Liberia will be required.

The Tawana Project management team focused on the opportunity to accelerate initial production timelines whilst minimising initial capital expenditure. Consequently, work focused on Stage 1A and Stage 1B of the Development Plan and on final production based upon the near surface itabirite mineralisation.

The principal activities completed as part of the Scoping Study assessment of Stage 1A and 1B included:

- Resource modelling by Coffey Mining Pty Ltd (“Coffey”);
- Mine planning and water management study by Coffey;
- Tailing storage study by Coffey;
- Environmental and social impacts review by Earth Systems - Perth and EarthCons, Monrovia;
- Metallurgical testing by ALS Laboratories, Perth;
- Conceptual flow sheet design by Tawana, Allegiant Minerals Engineering and Tenova Mining and Minerals Pty Ltd (“Tenova”);
- Processing plant and infrastructure design by Tenova;
- Road studies under the supervision of Tawana’s Project Manager: Mr Noel O’Brien and Tenova;
- Port stockpiling and barge loading plan by Tenova; and
- Barging, transshipment and port development/loading studies by PRDW.

All production, capital and operating cost estimates presented in this release relate to the Tenova review for Stage 1A and 1B of the Scoping Study.

The Scoping Study report provided by Tenova on the Mofe Creek Project Stage 1 Development includes:

- Preliminary optimisation, mining schedule and mining costs provided by Coffey;
- Run of Mine (“ROM”) and product stockpiling;
- Tailings storage management preliminary design and costs provided by Coffey;
- Preferred beneficiation plant, equipment selection and conceptual flow sheet design;
- Load out arrangements for road transport and port stockpiles;
- Planned use of the existing road transport system and staged independent road haulage enhancement program;
- Initial use of the deep-water iron ore export facilities at Freeport- Monrovia; and
- Development plans for barge loading and transshipment of ore to awaiting anchored vessels, off the coast of Liberia, from a new port location near to the Project site or interim barging to port of Monrovia



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The key considerations in the Scoping Study were a preliminary assessment of the preferred mining and processing design; the development and expandability of a staged development plan, reflective of the outstanding approvals and currently installed infrastructure; the simple transition from a smaller-scale to a larger-scale development, including streamlining safety designs, operational and transport efficiencies for shipping of the ore; and the diligent consideration to community and environmental impacts the Project may have on our stakeholders.

The 2.5 Mtpa Project Business Case is based on the Maiden Resource Estimate. Coffey has provided a provisional mining schedule and estimated mine operating costs with Tenova providing a Class 4 (-15%/+30%) capital cost estimate (excluding owners' costs and inclusive of a 20% Contingency) and operating cost estimate, including process, road transport, port infrastructure, and general and administrative expenses ("G&A").

The Company plans to produce a "Premium Fines" iron ore product grading 64-68% Fe from the Project. Based on the Maiden Resource the operating life of mine is estimated at 14 years. The first 4 years of mining are based on the indicated mineral resource at the Gofolo Main deposit (representing 16.5% of the total mineral resource inventory), with the remainder being 9.7% indicated at Zaway, and 73.8% inferred mineralisation for Gofolo, Zaway and Koehnko. Operating cash costs are expected to average US\$40.60 per tonne FOB ex-Liberia over the life of the mine.

The initial capital expenditure required for first production is estimated at US\$52.9 million (inclusive of a 20% contingency on CAPEX). The total capital cost required to achieve and sustain 2.5 Mtpa (including an independent haul road and transshipment facility at the coast of Liberia) is estimated at US\$280 million (inclusive of a 20% Contingency on CAPEX). The total capital cost could be reduced through leasing arrangements on trucks, plant and/or the new port facility, consideration to infrastructure/utilities (Build, Own, Operate and Transfer - "BOOT") agreements, improvements in tailings management and storage facilities, and future capital financing via cashflow from operations or off-take financing methodologies.

Further details of the key assumptions underpinning the Scoping Study are set out in the tables below:

Production Profile	
Stage 1A (Year 1&2)	1 Mtpa
Stage 1B (Year 3)	2.0 Mtpa
Stage 1B (Year 4-14 incl)	2.5 Mtpa
Life of Mine (LOM):	14 years including 10 years of steady state operation at 2.5 Mtpa
Strip Ratio:	0.52:1 (waste to ore) average LOM
<b>Final product grade:</b>	<b>64-68% Fe - Premium Fines Product</b>

Table 1 | Key Parameters for the complete Stage 1 development of the Mofe Creek Project



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Operating cash costs – FOB Liberia Coast - average over Life of Mine (US\$)	
Mining	\$13.44/t
Processing	\$13.19/t
Road Transport	\$ 3.82/t
Port Logistics	\$9.19/t
G&A	\$ 0.96/t
<b>TOTAL OPEX</b>	<b>\$40.60¢/t</b>

Table 2 | Operating Cost Summary - Life of Mine

The current operational life of the mine, based on the Maiden Resource Estimate, is 14 years, with a total production schedule of 29 Mt of final product, at an Average LOM operational cost of US\$40.60/t.

Capital Costs (US\$)	
Mine & Associated Infrastructure	\$ 5 M (assumes contract mining)
Processing Facilities (Stages 1A &1B)	\$ 76 M
Dedicated Haul Road	\$ 40 M
Port Development	\$ 73 M
Support infrastructure	\$ 44 M
Total Direct Costs	\$238 M ( including 14% EPCM)
Contingency (20% of Direct Costs)	\$ 42 M
<b>TOTAL CAPEX</b>	<b>\$280 M</b>

Table 3 | Capital Cost Summary for Stage 1

The capital cost estimates have been prepared in US dollars with a base date of June 2014, and have an accuracy range of +30% /-15%, including a Project Contingency of 20% of the CAPEX.

## 3. Production Timeline

The optimised Scoping Study for Stage 1 consists of a two-stage (Stages 1A and 1B) initial development plan based on the production of a high quality, premium fines product and planned as follows:

- Stage 1A: Initial production of 1.0 Mtpa for the first 24 months using the existing bitumen road and working port facilities at the port of Freeport- Monrovia; and
- Stage 1B: Ramp up of production to 2.0 Mtpa in Year 3 (then 2.5 Mtpa in Year 4) following the completion of the plant expansion, along with the addition of a dedicated haul road from the mine to the new coastal port location, and a barging/transshipment facility at the new coastal port location site.

The ramp-up to 2.5 Mtpa can be achieved by installing additional key plant and equipment within the original Gofolo Main beneficiation plant. It is assumed that trucking and/or barging of up to 2.5 Mtpa to the port of Monrovia could be sustained for a finite period; whilst the new haul road and port facility at the coastal location is approved, developed and commissioned.



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The Company has completed its Baseline Environmental review, and has commenced the Environmental, Social Impact Assessment (“ESIA”) Application process. Likewise, the process of defining the principles of a Mineral Development Agreement (“MDA”) with the Key Stakeholders in the Liberian Government has commenced. In the forthcoming period, the MDA, ESIA and Mining Licence will be expeditiously advanced, along with relevant local and state legislative approvals, including the confirmation of the new preferred port location on the Liberian Coast.

As soon as practical, after the new port (barging/transshipment facility) has been developed, the transport logistics processes will transition from road haulage to Monrovia, to dedicated road-train movements from the mine to the new port location. This process will be determined by the earliest completion of the port facility and/or the road, and is not subject to a tonnage constraint (i.e. the Company will migrate to this modus operandi - as soon as the preferred, longer-term logistics solution(s) is/are in place).

The plant design has been achieved by a modular approach to the site construction and the sequential development and installation of additional plant and equipment to expand production throughput. The location of the initial beneficiation plant will be at the Gofolo Main deposit, or so-called “Gofolo hub”.

Area	Stage 1A (US\$ M)	Stage 1B (US\$ M)
Mine & Associated Infrastructure	\$2.2	\$2.2
Processing Facilities Stage 1A	\$32.2	\$34.6
Haul Road	\$0.8	\$34.3
Port Development	\$0.0	\$64.1
Support Infrastructure	\$4.3	\$34.0
<b>Total Direct Costs</b>	<b>\$39.5</b>	<b>\$169.2</b>
EPCM @ 14% of Direct Costs	\$5.5	\$23.7
Contingency (20% of Direct Costs)	\$7.9	\$33.9
<b>Total Indirect Costs</b>	<b>\$13.4</b>	<b>\$57.6</b>
<b>Total Estimated Cost</b>	<b>\$52.9</b>	<b>\$226.8</b>

Table 5| CAPEX Summary for Stages 1A and 1B

Operating costs – average over Life of Mine (US\$)	Stage 1A (US\$ M)	Stage 1B (US\$ M)
Mining	\$5.4/t	\$14.0/t
Processing	\$20.0/t	\$12.7/t
Road Transport	\$10.2/t	\$3.4/t
Port	\$4.8/t	\$9.5/t
G&A	\$1.9/t	\$0.9/t
<b>TOTAL OPEX</b>	<b>\$42.30/t</b>	<b>\$40.50/t</b>

Table 6| OPEX Summary for Stages 1A and 1B





## 4. Forward Plan/Path Forward

The Scoping Study has successfully defined Tawana's Mofe Creek Project's optimal mining and processing/plant design parameters, initial throughput rate capacities and project life, and infrastructure requirements to support and transition the intended production and logistics profile of the Project. Tawana has likewise, designed the construction and location of the first and potential future beneficiation plants, logistics and port infrastructure solutions acknowledging the local communities and environmental sensitivities associated with the proposed areas of operation.

The positive results and findings of the Scoping Study have determined the expected timeline, capital expenditure requirements and operating costs for Mofe Creek at an initial Production rate of 2.5 Mtpa. The advantages of the Project's access to existing infrastructure and favourable mineralisation allow for the potential for a long mine life project at significantly higher production rates (to be defined in the Pre-Feasibility Study) along with lower-quartile competitive operating costs based on very low capital investment.

Mofe Creek's robust project fundamentals provide a platform for Tawana to further advance discussions and negotiations with potential strategic partners, financiers and/or off-take corporations.

Tawana continues to explore opportunities for collaboration and partnership with significant mining houses currently operating or proposing to operate mines within Liberia, as well as mining houses operating in other West-African countries. Discussions with potential Project (either at a Corporate or Project level) funders and/or product off-take/trading firms/end-user companies in Europe or China will also be progressed, as part of the Pre-Feasibility Study.

Currently, no binding agreements have been concluded with any party nor has any opportunity sufficiently progressed to be announced to the market. There is no guarantee that any agreement or transaction will eventuate from the Company's current discussions.

As previously outlined, Tawana has commenced the ESIA Application process, the MDA process and will coordinate both these activities to advance the longer-term requirement for the granting of a Mining License, for the entire (current and forecast) Mofe Creek Project.

An engineering and design company to champion the Pre-Feasibility Study will be appointed in the coming month, along with the principal sub-consultancy groups to affect the relevant studies for the Project. The Pre-Feasibility and exploration extension-drilling Program will commence in earnest later this month.



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## 5. About Tawana (ASX & JSE: TAW)

Tawana Resources NL 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 20km from the coast and 80km 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 285km<sup>2</sup> of highly prospective tenements in Grand Cape Mount County. The Project hosts high-grade friable itabirite mineralisation which can be easily upgraded to a superior quality iron ore product in the 64-68% Fe grade range, for which there is consistent global demand, attracting significant price premiums.

### About Liberia

Liberia is a democratic West African country with a modern and transparent mining code and a government proactively engaged with the mining industry to help unlock the value of its potential mineral wealth. Her Excellency President Ellen Johnson Sirleaf was Africa's first elected female head of state in 2005 and was re-elected in November 2011 for a second term. The country is hugely prospective for minerals exploration and production, hosting several world-class iron ore deposits. Liberia has historically been the largest exporter of iron ore in Africa and was the 5th largest iron ore producer globally during the 1960's to 1980's.

For further information please contact:

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Executive Chairman  
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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](http://www.tawana.com.au).

### Cautionary Statements

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Further, the Company cautions that there is no certainty that the forecast financial information derived from production targets will be realised. All material assumptions underpinning the production targets and forecast financial information derived from the production targets are set out in Section 2 of this announcement.

### Competent Persons Statement

The information in this report that relates to Mineral Resources or Ore Reserves is based on information compiled by Len Kolff and Iain Macfarlane, who are members of the Australian Institute of Geoscientists. 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





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Exploration Results, Mineral Resources and Ore Reserves'. Iain Macfarlane is a full-time employee of Coffey Mining Pty Ltd 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 and Iain Macfarlane consent 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

This announcement contains certain forward looking statements. These forward-looking statements are not historical facts but rather are based on the Company's current expectations, estimates and projections about the industry in which Tawana Resources NL operates, and beliefs and assumptions regarding the Company's future performance. Words such as "anticipates", "expects", "intends", "plans", "believes", "seeks", "estimates" "potential" and similar expressions are intended to identify forward-looking statements. These statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties and other factors, some of which are beyond the control of the Company, are difficult to predict and could cause actual results to differ materially from those expressed or forecasted in the forward-looking statements. Tawana Resources NL cautions shareholders and prospective shareholders not to place undue reliance on these forward-looking statements, which reflect the view of Tawana Resources NL only as of the date of this presentation. The forward-looking statements made in this release relate only to events as of the date on which the statements are made. Tawana Resources NL will not undertake any obligation to release publicly any revisions or updates to these forward-looking statements to reflect events, circumstances or unanticipated events occurring after the date of this presentation except as required by law or by any appropriate regulatory authority.

