ASX / MEDIA ANNOUCEMENT 15 JULY 2019

TANDO APPOINTS MASTERMINES AS ASIA MARKETING CONSULTANTS

KEY POINTS

- **Asia focussed commodity marketing advisor Mastermines appointed by Tando.**
- **Mastermines has extensive experience in China with consumers of vanadium and other economic elements associated with vanadium, including both the steelmaking and battery sectors.**
- **Mastermines will assist the Company in the development of the Steelpoortdrift (SPD) Vanadium Project.**
  - Assistance in preparation of marketing materials in both English and Chinese.
  - Introductions to Chinese Vanadium processing and chemical experts.
  - Participation assistance at specific targeted Chinese vanadium events.
  - The development of strategic relationships with potential partners in the steel, alloy, chemical and battery sectors within Asia

Tando Resources (**ASX:TNO**, **Tando** or **the Company**) is pleased to announce the appointment of Asia focussed commodity marketing advisors Mastermines to assist in the development of strategic commercial relationships with potential partners in the development of the world class Steelpoortdrift (SPD) Vanadium Project in South Africa.

The Steelpoortdrift Vanadium Project is one of the world's largest and highest grade deposits comprising an Indicated and Inferred Mineral Resource of 612Mt at an in situ grade of 0.78% V_2O_5, including a shallow high-grade resource of 169Mt at an in situ grade of 1.07% V_2O_5 (refer ASX Announcement 19 April 2019).

Tando recently completed a Scoping Study into the SPD Project which focussed on the economic parameters of production and sale of a +2% vanadium concentrate to end users. The Company has also expanded its studies to include development of downstream processing opportunities, which utilises the high-quality concentrate generated by the Project to produce value added specialist products suitable for the steel, renewable energy and industrial minerals markets.

The appointment of Mastermines is anticipated to both aid the development of the entire Steelpoortdrift project, and to specifically assist the Company in identifying suitable consumers of vanadium, titanium and iron products in each of these markets in Asia who could represent customers or potential partners in the development of the project.

Suite 2, 1 Altona Street, West Perth, Western Australia
T: (08) 6559 1792 **E:** contact@tandoresources.com.au
www.tandoresources.com.au

CHINA AND VANADIUM

China is a major producer of Vanadium and are extremely skilled in cost effective processing techniques. However, most resources within China are of a lower grade or produced at a high cost relative to existing production. Working together with the Chinese will enable Tando to identify the most realistic value add to our high-grade concentrate while forming new relationships. Coupled with the extensive practical mining skills of respected industry specialists and proposed directors Jurie Wessels and Nico van der Hoven, Tando will seek to fast track the project with realistic objectives.

Tando Managing Director Bill Oliver said:

> "*The Scoping Study showed what an exceptional project SPD is from a technical and financial perspective. Now we have the opportunity to explore the use of the high-quality concentrate produced at the Steelpoortdrift Project as a feedstock of a modern plant to produce specialist vanadium products used by the steel and renewable industries. Our ambition and goal is to generate vanadium and related Fe and Ti products using innovative, low CAPEX methodologies,*" Mr Oliver said.
>
> "*The Project now has real momentum which will gain pace with the commencement of studies into the various processing options. With the addition of Mastermines as a strategic consultant the Company is poised to establish the Steelpoortdrift Vanadium Project as a globally significant vanadium project.*"

BACKGROUND ON MASTERMINES

Mastermines is a niche mining materials marketing consultancy that is focused on the Asian region. The team are also involved in the research of new energy materials and provide commentary on Vanadium through various media outlets. Their website at Vanadium World is followed by analysts, media, investors, funds, battery suppliers and miners. Through relationships with leading professors associated with universities, Mastermines have visited many industry professionals within the steel, alloys and battery markets.

Mastermines Director David Gillam said:

> "*The high grade of SPD concentrate creates numerous possibilities for additional downstream value, and this will be an additional focus of our work. We expect the initial few months to be extremely busy as we seek to ensure that the Asian market is aware of the world-class scale and quality of the project.*
>
> "*Of particular interest to Mastermines is the proximity of under-utilised infrastructure close to the project. We also see a distinct advantage having major shareholders that are expected to join the board with proven track records in exploration, construction and operation of mining companies. Our objective is to present the project to industry professionals and assist management in the possible collaboration with Asian experts and potential partners. Above all, we will be focused on assisting with the continual advancement of the project in the shortest possible timeframe.*

BACKGROUND OF THE SPD PROJECT

Currently approximately 85% of the world's vanadium is produced in China, Russia and South Africa. The SPD Vanadium Project is located in one of these producing regions and has the potential to be globally significant based on its tonnage and grade in concentrate (Figure 1).

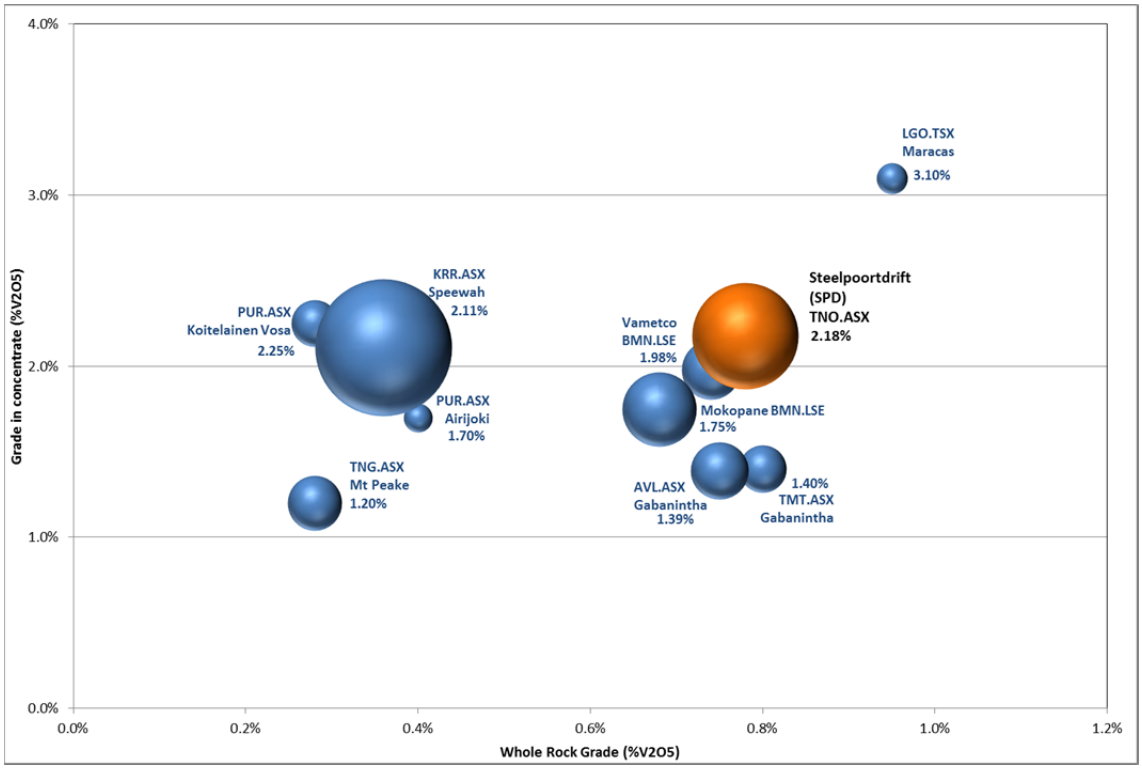

Figure 1. *Global vanadium projects categorised by resource grade and grade in concentrate. Label states concentrate grade based on reported test-work. Bubble size denotes tonnage. Refer Appendix 1 for details and sources of information.*

The Steelpoortdrift (SPD) Vanadium Project is located in a similar geological setting to the mining operations of Rhovan (Glencore), Vametco (Bushveld Minerals) and Mapochs in the Gauteng and Limpopo provinces of South Africa (Figure 2). Both the Rhovan and Vametco processing plants include refining to generate products used in the global steel making industry and aim to develop downstream processing to produce materials used in the battery market.

The Steelpoort region around the SPD Vanadium Project contains critical infrastructure which reduces the pre-production capital expenditure needed for the project such as:

- High voltage power lines and sub stations operated by the state provider ESKOM,
- Water resources including the De Hoop Dam 15km south of the project,
- Rail links,
- Sealed roads around the project area,
- Mining service companies and support business in the immediate area,
- Available skilled workforce within the local community and the region.

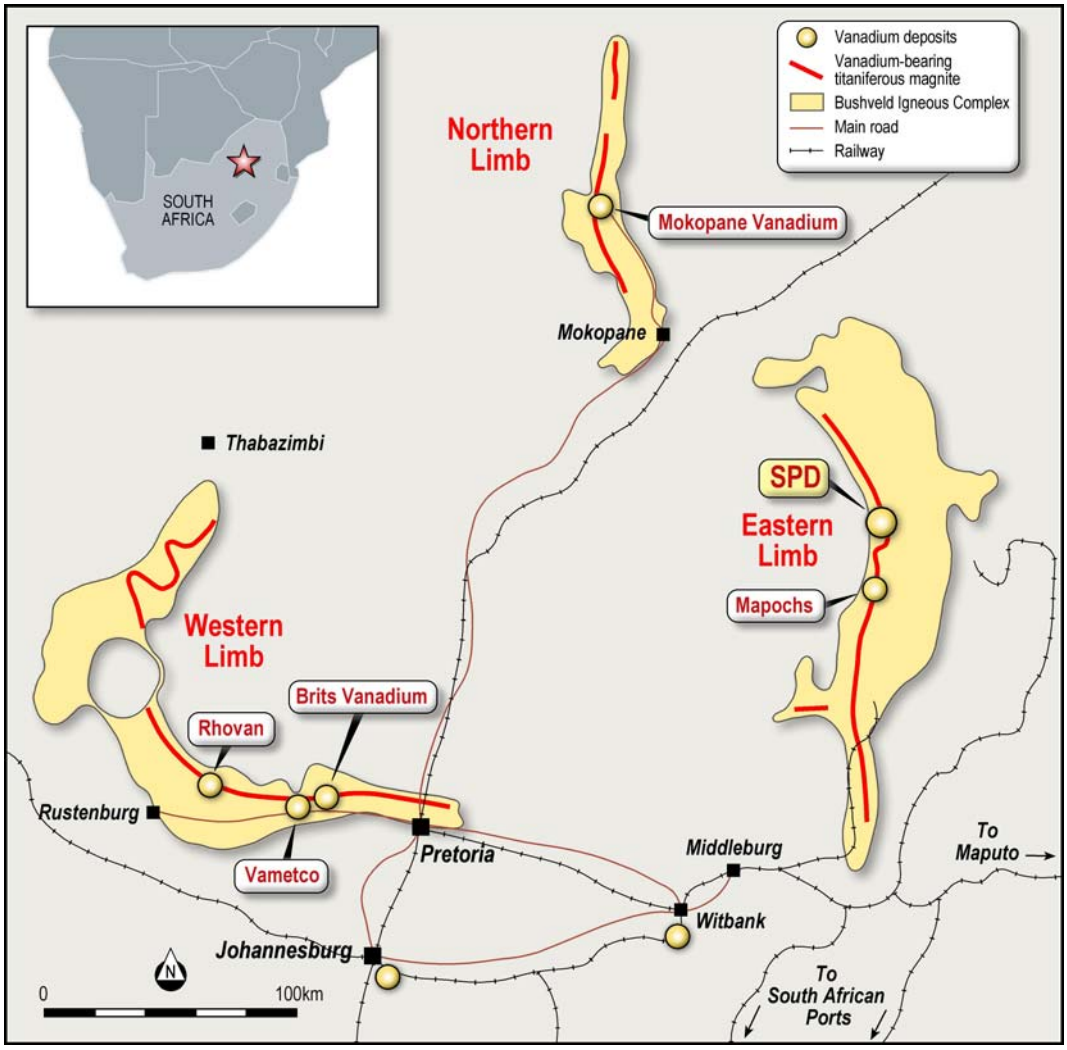

Figure 3. *Location of the SPD Vanadium Project and other vanadium deposits in the Bushveld Igneous Complex.*

BACKGROUND OF VANADIUM

Current day demand for vanadium arises from its established use in strengthening steel via various alloys. Consumption is currently increasing with the recent implementation of stricter standards on the strength of steel to be used in construction (specifically rebar). The use of vanadium in steel making accounts for over 90% of current vanadium demand in today's market (with the balance supplying chemical usages).

With strong demand forecast to continue, along with supply and substitution constraints, the outlook for vanadium remains positive. Recent price movements have emphasised the current low inventories of most end-users and traders. Additional longer term demand for vanadium arises from its usage in vanadium redox flow batteries (**VRFB**) which provide solutions for large scale energy storage.

The global move towards renewable energy generation will require a vast increase in energy storage installations with VRFBs forecast to make up a significant proportion. According to research conducted by Lazard (NYSE.LAZ) VRFB's already have a levelized cost of storage that is less than Li-ion battery storage by 26% to 32% on a comparative basis (full report available at https://www.lazard.com/perspective/).

VRFB technology was developed in Australia and has the following advantages:

- a substantially longer lifespan than most current batteries (up to 20 years),
- being able to hold charge for a substantial time (up to 12 months),
- the ability to discharge 100% of its charge without damage,
- scalability to enable larger scale storage facilities to be constructed, and
- greater chemical stability as only a single element is present in the electrolyte.

These features make VRFBs attractive for industrial facilities or community sized energy storage requirements.

For and on behalf of the board:

Mauro Piccini

Company Secretary

Media

For further information, please contact:

Paul Armstrong

Read Corporate

+61 8 9388 1474

Competent Persons Statements

The information in this announcement that relates to Exploration Results and other technical information relating to drilling and sampling at the Steelpoortdrift Vanadium complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (**JORC Code**) and has been compiled and assessed under the supervision of Mr Nico Denner, the principal of GEMECS (Pty) Ltd, consultants to the Company. Mr NJ Denner is a Fellow of the Geological Society of South Africa (GSSA) and a member of good standing of the South African Council for Natural Scientific Professions (SACNASP), both Recognised Professional Organisations under the JORC Code.. Mr NJ Denner is a geologist with 24 years' experience in the South African Mining Industry and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Denner consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Mineral Resources, including the Mineral Resources contained within the Production Target, complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (**JORC Code**) and that has been compiled, assessed and created by Mr Kerry Griffin BSc.(Geology), Dip Eng Geol., a Member of the Australian Institute of Geoscientists and a Principal Consultant at Mining Plus Pty Ltd, consultants to the Company. Mr Griffin has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Griffin is the competent person for the resource estimation and has relied on provided information and data from the Company, including but not limited to the geological model and database. Mr Griffin consents to the inclusion in this announcement of matters based on his information in the form and context in which it appears.

Disclaimer

Some of the statements appearing in this announcement may be in the nature of forward looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which Tando operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward looking statement. No forward looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside Tando's control.

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APPENDIX 1: Data and sources for Peer Comparison (Figure 1)

Company	Project	Stage	Resource Category	Resource Tonnes	Resource Grade	Concentrate Grade	Information Source
Largo LGO.TSX	Maracas (Campbell & Satellite Deposits)	Production	Measured, Indicated & Inferred (43-101)	49.25	0.99	3.10	43-101 Technical Report dated 26/10/2017 http://www.largoresources.com/operations/maracas-menchen-mine
Bushveld BMN.LSE [1]	Vametco	Production	Indicated & Inferred	187	0.78	1.98	AIM Announcement 22 May 2019 http://www.bushveldminerals.com/regulatory-news-rns/ ; https://www.bushveldminerals.com/bushveld-vametco/
	Mokopane	Development	Indicated & Inferred	298	0.68	1.75	Mokopane PFS Study Report Jan 2016 https://www.bushveldminerals.com/technical-reports/
TNG TNG.ASX	Mt Peake	Development	Measured, Indicated & Inferred	160	0.28	1.20	ASX Announcement 26/03/2013
King River KRR.ASX	Speewah	Development	Measured, Indicated & Inferred	4,712	0.30	2.11	ASX Announcement 02/11/2018 21/03/2018
Pursuit Minerals PUR.ASX [2]	Koitelainen Vosa	Development	Inferred	116.4	0.28	2.25	ASX Announcement 06/02/2019
	Airijoki	Development	Inferred	44.3	0.40	1.70	ASX Announcement 08/03/2019
Australian Vanadium AVL.ASX	Gabanintha	Development	Measured, Indicated & Inferred	176	0.77	1.40	ASX Announcement 26/09/2018, 19/12/2018
Technology Metals TMT.ASX	Gabaninth	Development	Indicated & Inferred	120	0.8	1.39 – 1.49	ASX Announcement 21/06/2018

Updates to Peer Comparison Table:

1. Bushveld - Vametco Mineral Resource Update announced May 22, 2019
2. Pursuit Minerals - Mineral Resources updated with provided information