Tsodilo Resources Ltd. Announces Exciting Metallurgical Results Confirm Premium Grade Magnetite Product Potential for the Xaudum Iron Ore Project

17.12.2013 | FSCwire

Toronto, Ontario CANADA, December 17, 2013 /FSC/ - Tsodilo Resources Ltd. (TSD - TSX Venture), ("Tsodilo" or the "Company") is pleased to announce new metallurgical magnetic concentrate test work results conducted by ALS Minerals Division, Iron Ore Technical Centre (Wangara, Perth, Western Australia).

Highlights

- All mineralized units within the Xaudum Iron Project are capable of producing premium grade magnetite product of >68% Fe.

- The test work confirms the coarse grained nature of all units showing good concentrate grades at coarse grind sizes.

- Good mass recoveries achieved for all mineralized units given the amount of magnetic minerals in the starting material.

- Test work confirms that partially oxidized (weathered) material can still be separated, with higher than expected mass recoveries given the degree of magnetism of the material.

The results of magnetic concentrate sizing test work, referred to as Davis Tube Recovery (DTR) sizing test work, confirm that there is a significant potential for a premium grade magnetite product in the order of >68% Fe that can be produced from the Xaudum Iron Project's full range of mineralized material including lower grade material and partially oxidized material, see Table 1.

Table 1. Interval average DTR sizing test work results for all composites at a P80 grind size of 60 microns, showing the potential Xaudum Iron Ore magnetite specifications (P80 is the grind size at which 80% of the material passes the screen)

Fe %	SiO2 %	Al2O3 %	P %	S %	P80 (Grind Size)
68.55	2.87	0.33	0.046	0.019	60 microns

The resulting concentrate specifications of very high grade Fe % and very low impurity levels coupled with moderate grinding are an exciting development for the project and indicate that there is significant potential for the project, which is presently in a resource evaluation stage. Other major elemental oxides not reported here such as MgO, CaO, K2O, Na2O, TiO2 and MnO are also significantly reduced to very low levels during the concentration process.

James M. Bruchs Chairman and CEO of Tsodilo Resource commented on the results saying, "These DTR test work results are very exciting and mark a major step forward for the Xaudum Iron Ore Project. Importantly, the results show that all current mineralized units can be up-graded to a premium grade magnetite product at good recoveries, even the partially oxidized material. This development highlights the huge potential of the project to produce a highly marketable product, and is an important step forward ahead of upcoming resource reporting planned for Q2 2014".

DTR sizing metallurgical test work was performed on 10 mineralized composites, spanning the full grade range of mineralized units, including Magnetite Banded Iron Formation (BIF) (MBA Geodomain), Magnetite Schist (DIM Geodomain) and partially oxidized (weathered) BIF (MBW Geodomain). The location and distribution of the holes selected for DTR sizing test work are shown on Figure 1. The Head grades (grade of

the material prior to magnetic concentration) of the 10 composites ranged from ~15% Fe for the DIM to ~45% Fe for the MBA and averaged 31% Fe. The composites generally consisted of 10 meters of core (totaling around 100 meters of core) which was coarsely crushed and homogenized. Each composite was ground to 5 different sizing fractions and the P80's were calculated for each size fraction. The Head, Concentrate, and Tails (material left over after concentration) fractions were chemically assayed using via X-Ray Fluorescence.

http://www.tsodiloresources.com/i/pdf/DTR_Press_Release_Appendix_12-17-2013-F.pdf

Figure 1: Ground magnetic interpreted first vertical derivative outline, indicating where the XIF magnetite mineralization body is interpreted below the Kalahari cover. Block dots represent all holes drilled in the area and the red dots are DTR composite holes.

Interval averaged results at P80 grind sizes of 100, 90, 80, 70, 60 and 50 microns are shown in Table 2, indicating that reasonable results are achievable at even coarser grind sizes. Optimal product specifications are still unknown but these results indicate a flexibility of the Xaudum Iron Formation to meet a wide range of future product specification.

Table 2. Interval averaged concentrate grade specifications at various P80 Grind Sizes for all composites. The average Head grade for these concentrates was Fe = 31.05%, SiO2 = 38.03%, Al2O3 = 5.10%, P = 0.258%, and S = 0.040%.

P80 microns	Fe %	SiO2 %	Al2O3 %	P %	S %
50	69.11	2.29	0.31	0.040	0.015
60	68.55	2.87	0.33	0.046	0.019
70	67.86	3.47	0.36	0.053	0.023
80	67.23	4.06	0.38	0.060	0.026
90	66.48	4.76	0.41	0.068	0.028
100	65.51	5.79	0.49	0.070	0.029

Table 2 shows that the general trend of the data is to produce excellent concentrate grades at grind sizes 50 to 100 microns for all mineralized units at good recoveries. This means that even the Magnetic Schist (DIM Geodomain) which is relatively low grade can be considered ore, as well as the oxidized (weathered) BIF (MBW). Further details on the DTR test work including Geodomain specific results and DTR sizing curve graphs can be found at the Company web site by following this link http://www.tsodiloresources.com/i/pdf/DTR_Press_Release_Appendix_12-17-2013-F.pdf.

About Tsodilo Resources Limited:

Tsodilo Resources Ltd. is an international diamond and metals exploration company engaged in the search for economic diamond and metal deposits at its Newdico (Pty) Limited ("Newdico") and Gcwihaba Resources (Pty) Limited ("Gcwihaba") projects in northwest Botswana. The Company has a 98% stake in Newdico (895 km2 under Precious Stone - diamond licenses). The Gcwihaba project area: 2,404 km2 under Precious Stone - diamond licenses; 11,158 km2 Metal (base, precious, platinum group, and rare earth) licenses; and, 6,925 km2 under Radioactive Minerals licenses is 100% held by the Company. Tsodilo manages the exploration of both the Newdico and Gcwihaba license areas. Overall supervision of the Company's exploration program is the responsibility of Dr. Mike de Wit, President and COO of the Company and a "qualified person" as such term is defined in National Instrument 43-101. Dr. de Wit has reviewed the information contained herein and approved the contents of this Press Release. Further to this, the supervision of the Xaudum Iron Ore project is the responsibility of Dr. Alistair Jeffcoate, Chief Geologist and Project Manager for the Company and a "qualified person" as such term is defined in National Instrument 43-101. Dr. Jeffcoate has also reviewed the information contained herein and approved the contents of this press release.

The Company has offices in Toronto, Canada and Gaborone and Maun, Botswana. Please visit the Company's website, www.TsodiloResources.com for additional information and background on our projects.

National Instrument 43-101 - Standards of Disclosure for Mineral Projects, Form 43-101F1 and Companion Policy 43-101CP requires that the following disclosure be made: All references contained herein with respect to the potential quantity and grade derived by any method is at this stage of development conceptual in nature. At the present time, there has been insufficient exploration to define a mineral resource and it is uncertain if further exploration will result in the target being delineated as a mineral resource.

This press release contains forward-looking statements. All statements, other than statements of historical fact, that address activities, events or developments that the Company believes, expects or anticipates will or may occur in the future (including, without limitation, statements relating to the development of the Company's projects) are forward-looking statements. These forward-looking statements reflect the current expectations or beliefs of the Company based on information currently available to the Company. Forward-looking statements are subject to a number of risks and uncertainties that may cause the actual results of the Company to differ materially from those discussed in the forward-looking statements, and even if such actual results are realized or substantially realized, there can be no assurance that they will have the expected consequences to, or effects on the Company. Factors that could cause actual results or events to differ materially from current expectations include, among other things, changes in equity markets, political developments in Botswana and surrounding countries, changes to regulations affecting the Company's activities, uncertainties relating to the availability and costs of financing needed in the future, the uncertainties involved in interpreting exploration results and the other risks involved in the mineral exploration business. Any forward-looking statement speaks only as of the date on which it is made and, except as may be required by applicable securities laws, the Company disclaims any intent or obligation to update any forward-looking statement, whether as a result of new information, future events or results or otherwise. Although the Company believes that the assumptions inherent in the forward-looking statements are reasonable, forward-looking statements are not guarantees of future performance and accordingly undue reliance should not be put on such statements due to the inherent uncertainty therein.

The TSX Venture Exchange has not reviewed and does not accept responsibility for the adequacy or accuracy of this news release. This news release may contain assumptions, estimates, and other forward-looking statements regarding future events. Such forward-looking statements involve inherent risks and uncertainties and are subject to factors, many of which are beyond the Company's control, which may cause actual results or performance to differ materially from those currently anticipated in such statements.

FOR FURTHER INFORMATION PLEASE CONTACT:

James M. Bruchs, Chairman and Chief Executive Officer
JBruchs@TsodiloResources.com

Dr. Mike de Wit, President and Chief Operating Officer
MdeWit@TsodiloResources.com

Tsodilo Resources Ltd.
Head Office
Telephone +1 416 572 2033
Facsimile + 1 416 987 4369
Website http://www.TsodiloResources.com