Giyani's Demonstration Plant Commences Commissioning

TORONTO, Ontario, October 22, 2024 – Giyani Metals Corp. (TSXV:EMM, GR:A2DUU8) ("**Giyani**" or the "**Company**"), developer of the K.Hill Battery-Grade Manganese Project in Botswana ("**K.Hill**" or "**the Project**"), is pleased to provide an update on construction of the Demonstration Plant ("**Demo Plant**") where the facility is moving into the commissioning phase.

Highlights:

- The Demo Plant in Johannesburg is now in the commissioning phase. Progress since the last report (see September 25, 2024 news release) includes the commissioning of the steam boiler, plant air supply system, and the demineralised water plant.
- The main control station hardware for the Yokogawa Distributed Control System ("**DCS**") has been installed, and the control room has been powered up. The DCS will be used to control the Demo Plant, enabling the facility to operate as a continuous process flow, rather than on a batch basis. The exciting milestone of first drive start and stop from the DCS has been achieved (see video here: https://www.youtube.com/@giyanimetals).
- The continuous process flow capability of the Demo Plant is a significant advantage for Giyani, as it enables the team to operate the facility at steady state and confirm the ability to produce consistent specification battery-grade manganese (HPMSM). By demonstrating this ability to potential offtake partners, Giyani can satisfy their requirements for a consistent product specification and production rate.
- Installation of the ISO-certified, independent laboratory is underway. The onsite lab will enable Giyani to test product quality ensuring a consistent specification, an important requirement for offtaker qualification to demonstrate the ability to produce a consistent product and a consistent quantity of product.
- As the Demo Plant is a smaller scale, direct copy of the proposed Commercial Plant, Giyani will better understand how the proposed Commercial Plant (to be built in Botswana) will respond in advance of construction, commissioning and ramp-up of that facility, planned for 2027. The Commercial Plant will be constructed adjacent to Giyani's extensive 100% owned manganese oxide ore sources in Southern Botswana.
- The Demo Plant enables further optimisation of the engineering design and flowsheet in order to reduce operating costs and carbon profiles, in parallel with the Definitive Feasibility Study ("**DFS**") which is underway, and expected to be complete in 2025.
- The Demo Plant remains on track for commissioning and production of up to 600kg a day of battery-grade manganese (HPMSM) in Q4 2024. HPMSM produced from the Demo Plant will be provided to offtakers for testing and qualification. Giyani will keep the market updated of progress at the Demo Plant.

Charles FitzRoy, President and CEO of the Company, commented:

"Giyani's Demo Plant is now entering the commissioning phase, in keeping with our target to deliver first production of battery-grade manganese in Q4 this year. The superiority of the Demo Plant in kind and size establishes a strong foundation for Giyani to engage with potential offtake partners: and offers Giyani many advantages that would not be available with other smaller or non-continuous facilities. In particular, the continuous process flow of the Demo Plant will allow the team to target steady-state operations over extended periods, consequently proving Giyani's ability to produce consistent battery-grade manganese and satisfy offtake requirements. Similarly, continuous operation at pre-commercial scale provides critical information for understanding how the Commercial Plant will respond, significantly de-risking the Project.

The successful construction and operation of the Demo Plant is, therefore, a crucial step in not only demonstrating the fundamental value of the Project to investors and potential offtake partners, but also in the Company's trajectory to becoming a leading producer of high-purity battery-grade manganese for the EV battery market.

The results of this undertaking will yield significant strategic and operational benefits, and we look forward to providing further updates in due course."

Figure 1: Demo Plant Overview Looking South

Demo Plant Construction Update

The Demo Plant, consisting of nine Process Modules (each a self-contained process system within a fixed frame), is largely at the status of Construction Complete, and the bulk of the plant has been handed over to the commissioning crews. A few further delivery items are due for delivery and installation shortly.

Progress since the last report (see September 25, 2024 news release) includes the commissioning of the steam boiler, plant air supply system, and the demineralised water plant. To achieve this, the main water lines have been filled and pressurised. All piping work is complete and the majority of cabling work is complete with only minor elements outstanding

The Demo Plant has been built from the southern end where the Crystallizer Units (#8 in Figure 2) are located to the northern end where the milling and ore delivery units (#2 in Figure 2) are located (See Figure 2 for Demo Plant 3D render).

With the completion of construction, and the completion of C1 certification (see "**Stages of commissioning**" below), the exciting process of C2 and C3 commissioning has now commenced. The exciting milestone of the first drive start and stop from the DCS has been completed (see video here: https://www.youtube.com/@giyanimetals). The C2 and C3stages can be undertaken at an individual Process Module level, as units become available. Commissioning of the full process flow (C4 & C5) will commence once all the individual Process Modules are ready.

Stages of commissioning:

- C1 – Full mechanical completion (individual Process Modules)

- C2 – Dry testing, direction testing, loop testing (individual Process Modules)
- C3 – Cold/Water Commissioning, software testing (individual Process Modules)
- C4 – Hot Commissioning with reagents and steam (full Process)
- C5 – Production Ramp-up (full Process)

The commissioning process is being led by Desiree Meyer, Giyani's Lead Process Engineer. Desiree has extensive experience in commissioning hydrometallurgical facilities across Africa and she will lead the Minopex operations team in these efforts. By working through commissioning, Minopex will rapidly develop its familiarity with the facility, making Demo Plant production operations safer and more efficient.

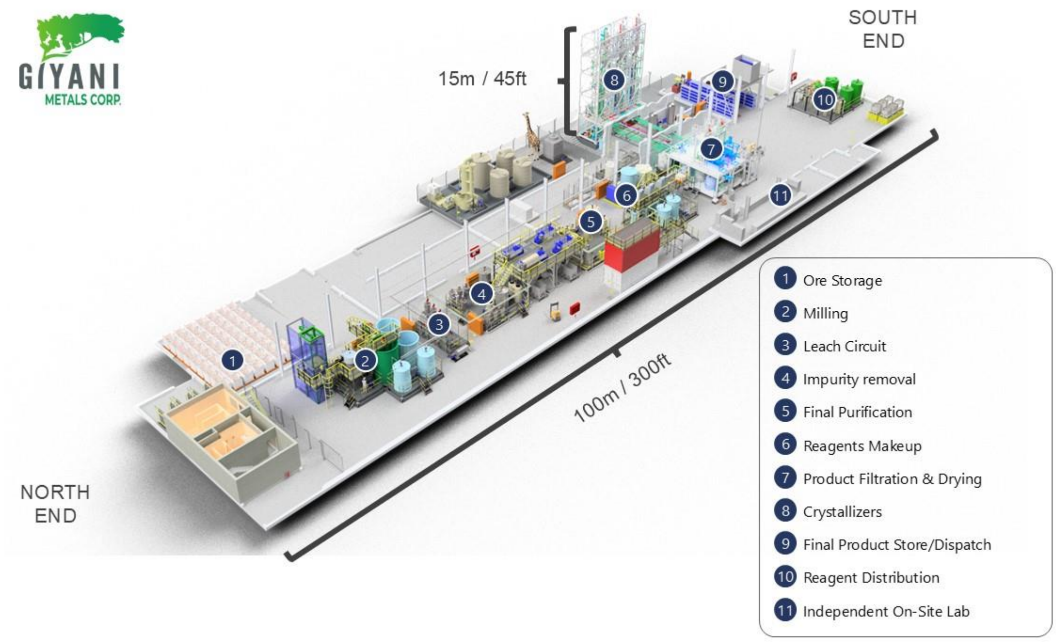

Figure 2: Demo Plant Render

As well as progress at the Demo Plant, concurrent metallurgical test-work is underway to further optimize the flowsheet. Giyani is focussed on further reducing reagent use and improving both the operating cost and carbon profiles for the Commercial Plant, planned for construction adjacent to Giyani's extensive 100% owned manganese oxide ore sources in Southern Botswana.

Construction Update

The Demo Plant is designed at a scale factor of approximately 1:10 to the planned Commercial Plant. This advantageously provides robust and reliable scale-up from the Demo Plant data when the Commercial Plant is implemented. To illustrate, the leach tanks have a 60cm diameter in the Demo Plant and this is expected to be 8-10x larger at approximately 5m in the Commercial Plant.

Within the Plant, the following progress has been made since the last Demo Plant update in September:

- All Process Modules have been installed.
- The ventilation circuits have been commissioned.
- Piping installation is complete across the Demo Plant.
- Cabling for power and instrument signalling is near completion, and nine of the Process Skid Motor Control Centre Panels are live.

- The preparatory modifications to the laboratory room are near complete, and most of the laboratory equipment has been delivered in preparation for installation and commissioning.

Demo Plant Operations Update

Giyani is continuing with software finalisation on the Yokogawa DCS software that will be used to operate Giyani's fully continuous Demo Plant. The ability to continuously operate at this pre-commercial scale will allow Giyani to understand how the Commercial Plant will respond ahead of construction, minimizing issues that could arise during ramp-up and operations. Unlike a lab- or pilot-scale operation, a full, industrial control system is required to operate this large-scale, automated, hydrometallurgical plant.

The development of all process standard operating procedures ("**SOPs**") is complete and Minopex are reviewing and refining these procedures to ISO International Standards. As the Demo Plant is a direct copy of the anticipated Commercial Plant, albeit at a 1:10 scale, the overall operating requirements and system requirements are very similar. Alongside the engineering, commercial and research benefits of the Demo Plant, the development of SOPs will facilitate a smooth transition to full-scale production.

The independent, fully ISO-certified laboratory will allow commercial-level metal accounting and provide rapid assay turnaround times to enable effective operation of the Demo Plant. The laboratory equipment, which includes ICP-OES and XRF machines, has been delivered to site.

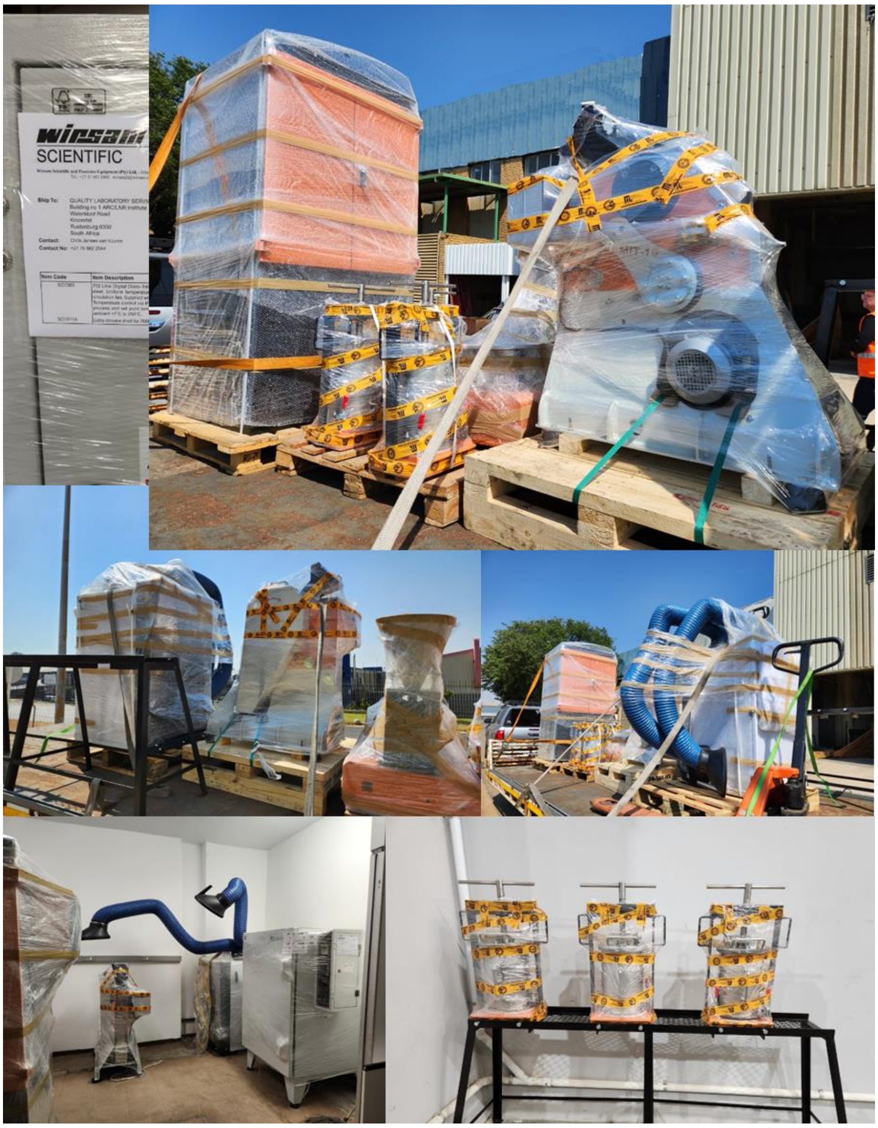

Figure 3: Laboratory Equipment Delivery and Installation

About Giyani

Giyani is focussed on becoming the dominant western-world producer of sustainable, low carbon high purity battery grade manganese for the electric vehicle ("**EV**") industry. The Company has developed a proprietary hydrometallurgical process to produce battery grade manganese (HPMSM), a lithium-ion battery cathode precursor material critical for EVs.

The Company has secured financing of US$26m from two strategic partners, ARCH Sustainable Resources Fund LP and the Industrial Development Corporation of South Africa, enabling it to progress the K.Hill battery-grade manganese project in Botswana to construction by building and operating the Demo Plant and completing a Definitive Feasibility Study in 2025.

Additional information and corporate documents may be found on www.sedarplus.ca and on Giyani Metals Corp. website at https://giyanimetals.com/.

About Minopex

Minopex is a global leader in plant operations and maintenance, employing over 2,000 personnel across different operations. With nearly three decades of experience, Minopex has collectively operated some 50 different processing facilities as well as having commissioned and ramped-up over 90 globally, establishing itself as a leader in a variety of minerals processing technologies. For more information about Minopex, visit: www.minopex.com.

Qualified Persons / NI 43-101 Disclosures

A National Instrument 43-101 ("**NI 43-101**") technical report including results of the PEA and the MRE can be found on SEDAR+ at www.sedarplus.ca and made available on the Company's website at https://giyanimetals.com/.

Justin Taylor CEng FIMMM QMR BSc Eng (Chem) is a qualified person, as defined by NI 43-101. Mr. Taylor is the Company's Group Process Engineer and has reviewed and approved the scientific and technical content contained in this news release but is not independent for the purposes of NI 43-101.

On behalf of Giyani Metals Corp.

Charles FitzRoy, President and CEO

Contact:

Giyani Metals Corp.	cfitzroy@giyanimetals.com
Charles FitzRoy, President & CEO	Tel: +1289-291-7632
Tavistock, Financial PR	giyani@tavistock.co.uk
Charles Vivian / Tara Vivian-Neal	+44 20 7920 3150

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This news release contains "forward-looking information" within the meaning of applicable Canadian securities legislation. All statements in this news release, other than statements of historical fact, that address events or developments that Giyani expects to occur, are "forward-looking statements". Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by the words "expects", "does not expect", "plans", "anticipates", "does not anticipate", "believes", "intends", "estimates", "projects", "potential", "scheduled", "forecast", "budget" and similar expressions, or that events or conditions "will", "would", "may", "could", "should" or "might" occur.

Such statements include without limitation: the Company the ongoing construction, commissioning and operation of the Demo Plant, and timing thereof, completion and timing of the DFS or at all.

All such forward-looking statements are based on the opinions and estimates of the relevant management as of the date such statements are made and are subject to certain assumptions, important risk factors and uncertainties, many of which are beyond Giyani's ability to control or predict. Forward-looking statements are necessarily based on estimates and assumptions that are inherently subject to known and unknown risks, uncertainties and other factors that may cause actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking statements. In the case of Giyani, these facts include anticipated operations in future periods, planned construction and development of its properties and facilities, and plans related to its business and other matters that may occur in the future. This information relates to analyses and other information that is based on expectations of future performance and planned work programs.

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