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## Itronics Updates Operation Results and Reports Full Year 2015 Sales

Fourth Quarter Sales Up 34 Percent; Full Year Down Slightly

RENO, NV--(Marketwired - January 20, 2016) - Itronics Inc. (OTC PINK: ITRO) a diversified fertilizer, silver, and mineral producer, today summarized its operations and diversification progress and announced sales results for the three months and twelve months ended December 31, 2015. Total fourth quarter sales increased by 34 percent with a 26 percent increase in fertilizer sales and a huge percentage increase in silver sales.

Total Revenues for the 12 months ended December 31, 2015 were \$1,841,901 compared to \$1,873,296 for 2014, a decrease of two percent. GOLD'n GRO fertilizer sales volume increased by 6 percent and revenues were up one percent due to a shift in product mix. Silver sales increased 1150 percent based in part on bullion produced by the Company's new refining technology in the fourth quarter. Beginning in 2016, a new revenue category, sales of "Silver-bearing Glass" will be included in silver sales.

## **Twelve Month Sales Results**

Unaudited Revenues for the fourth quarter, and 12 months ended December 31, 2015 together with comparative figures for 2014 are presented below:



## **Operational Developments**

One of the Company's fundamental strengths is its ability to invent, build and operate clean technology to completely convert certain categories of hazardous waste materials into cash through the production and sale of commercial goods. The Company is using this creative ability to diversify its operations by developing core clean technology extensions to establish year-round non-seasonal sales in new market segments. Completely converting hazardous photographic waste to GOLD'n GRO fertilizers, silver, and silver-bearing glass maximizes sustainability and makes the environment cleaner. The Company's award-winning GOLD'n GRO fertilizers make the environment greener.

<u>GOLD'n GRO fertilizers</u>: Two new field applications for one of the GOLD'n GRO multi-nutrient fertilizers are being introduced by our distributor this year. Initial sales for these new applications in 2015 produced a six percent increase in fertilizer volume sold and are expected to be continued and expanded in 2016.

The Company has identified a potential new environmental benefit that may be obtained by using GOLD'n GRO fertilizers. Based on experience obtained from the manufacturing process and from the leaching research and development work, Itronics has observed that the non-nutrient metals cadmium, lead, and mercury are not soluble in our fertilizers. Work with KAM-Thio has demonstrated cadmium, lead, and mercury can be removed from solutions treated with KAM-Thio. Vegetable growers have a need to minimize uptake of cadmium by vegetable crops. The Company and its distributor are planning field tests in 2016 to evaluate whether use of GOLD'n GRO fertilizers on vegetable crops may be able to reduce cadmium uptake from the soil by these crops.

Over time, cadmium levels have increased in some soils, leading to increases in cadmium uptake by crops. Cadmium has no known nutritional value to humans or plants, and it is known to be a health hazard for humans. Minimizing cadmium uptake is desirable to minimize its presence in the human diet.

<u>Silver Production:</u> The first bullion shipment using the new refining system was made in early October 2015. The furnaces reduce electrical power consumption by 44 percent with an increase in operating temperature of 12 percent.

In the fourth quarter the Company acquired and installed a new jaw crusher for crushing glass produced by the refining furnaces. The Company also installed a screening machine which will size the crushed glass so that it can be sold to a smelter. The glass has a small amount of silver in it and so sale of this glass for its silver content will produce a third category of revenue for the Company; "Silver-bearing Glass." The Company has an inventory of this glass which will be crushed and screened during the first quarter of 2016 for sale throughout the balance of 2016.

The FeLix, SuLix leaching technology pilot scale development is continuing and is being prepared for a five times scale up so that a larger quantity of leached solids can be passed to the refinery for silver separation and purification. About 75 percent or about 75 pounds out of each 100 pounds of the feed material to the leaching process is now being recovered in a liquid form that can be incorporated as raw material in the manufacture of the GOLD'n GRO fertilizers. All of the silver in the leach process feed materials is contained in the silver concentrates that are delivered to the refinery.

The new leaching technology has improved the productivity of the refining furnaces by approximately 10 times. The Company's project to scale up the leaching process will produce a larger quantity of silver concentrate to be passed to the refinery for silver separation and purification.

The Company has been processing silver-bearing photographic liquids and accumulating the silver-bearing solids since December 2013, so there is a back log of silver-bearing material available for leaching and transfer to the refinery. This back log of material, which is still increasing, must be processed with the expanded leach system which is now in final stages of engineering.

In the fourth quarter capital funding was obtained to construct the new prototype chemical reactor system for leaching and for improvements in electrical distribution and power stabilization for the R & D work area in the plant. Total capital to complete this pilot plant project is expected to be approximately \$50,000. The new leach reactor system and facility improvements should be complete in the first quarter of 2016 and are designed to increase the silver concentrate feed rate for the refinery by five times.

E-scrap processing feasibility study: In the second quarter 2015, Itronics announced that it had started a feasibility study to determine whether e-scrap processing can be integrated into the new refining operation. The Company has mounted a shredder on a portable base, installed the necessary electrical connections, and tested the shredder for suitability for shredding e-scrap to be used as feed to the refining furnaces. The Company has determined how much e-scrap can be introduced into each melt and will now produce silver bullion that is expected to contain some silver, gold, and palladium.

In October 2015 the Company acquired two grinders that will be used to reduce the shredded e-scrap to a fine powder in two stages in order to improve the ability of the production furnaces to process the material. The grinders will be installed in the first quarter 2016. The purpose of the grinders is to provide finely

ground material that will be used to determine how much additional e-scrap can be processed per melt due to improved processing efficiency. The Company is anticipating that a three to five times increase in the amount of e-scrap per melt may be possible.

The Company is focusing on disassembly of personal computer towers to obtain the e-scrap for refining and is planning on using the information being obtained to develop and evaluate the economics of a business model to accomplish the processing of pc computer circuit boards for refining.

**KAM-Thio Process Development:** Laboratory tests conducted by the Company have demonstrated that KAM-Thio has the ability to leach silver from the silver bearing glass slag generated by the Company's silver refinery. The tests have also demonstrated that KAM-Thio liquid is stable in the leaching application. Independent laboratory tests have demonstrated that KAM-Thio is able to neutralize the cyanide contained in spent cyanide solution generated by gold-silver leaching.

The amount of KAM-Thio required to neutralize cyanide is in a range appropriate for leaching gold and silver from ore. The next step for KAM-Thio technology development is to conduct a series of tests on silver-gold ore samples to measure the silver-gold leaching capabilities of KAM-Thio.

The amount of KAM-Thio needed to neutralize cyanide in gold-silver leaching solutions is several times greater than is required for fertilization of plants. Because of this there is the potential to dilute the neutralized cyanide water with fresh water and use it as a fertilizer for reclamation and re-vegetation at the mine site. This is an environmentally attractive way of using the water at the end of the leaching cycle.

Based upon information already developed, it is apparent that KAM-Thio has the potential to be a versatile product for improving residual recovery of gold and silver from ore while neutralizing cyanide and providing fertilizer water for mine site reclamation.

Zinc Flue Dust Process Development: Itronics previously announced a technical breakthrough by successfully testing electrowinning as a process to recover metallic zinc powder from zinc enriched liquids that are produced by leaching zinc oxide from zinc bearing flue dust. The innovative zinc recycling technology the Company is developing is expected to eliminate the waste completely by converting all components to saleable goods. The process being developed may use up to 40 percent less electrical energy compared to conventional zinc refining. The potential energy savings would be a strong economic driver for the project.

Battery Recycling Evaluation: Itronics is studying the potential use of the electricity generating contents of silver batteries and "non-rechargeable" alkaline batteries as a source of raw material for use in manufacturing the GOLD'n GRO fertilizers and for silver production. The alkaline batteries contain potassium, zinc, and manganese which may be recoverable using the Itronics ZinLix leaching technology and are raw materials needed for manufacturing GOLD'n GRO fertilizers. If the ZinLix process works, it will provide a stable, lower cost domestic source of critical raw materials needed for GOLD'n GRO manufacturing and would represent another technological breakthrough for the Company. A decision has not yet been made to begin a laboratory evaluation to determine whether the ZinLix technology will work. If a positive decision is made, then a project will be initiated to develop the ability to use this battery waste as a raw material source in future years for GOLD'n GRO fertilizer manufacturing and for non-seasonal silver, zinc, and manganese product sales.

Once the Company has completed the installation and start-up of the grinders obtained to process e-scrap, it will be possible to evaluate processing of silver oxide batteries which have to be crushed or ground up prior to introduction into the refining furnace. Processing silver oxide batteries would increase the silver feed to the refinery and would be non-seasonal, a very positive outcome.

Auric Fulstone Project: A previous Itronics press release announced that its subsidiary, Whitney & Whitney, Inc., has identified surface high grade zinc-lead-silver mineralization at its Auric Gold & Minerals Fulstone copper-gold exploration project. Within the Auric Fulstone project area, the Company has discovered surface high grade zinc, lead, and silver mineralization that contain anomalous molybdenum in a large area that is geochemically anomalous for zinc. It has also discovered high grade copper mineralization that contains anomalous gold and molybdenum in a separate area that is anomalous for copper. Discovery of the potential for significant zinc, lead, silver, and molybdenum mineralization increases the economic attractiveness of the project by adding potentially significant near surface zinc, lead, silver, and molybdenum values to the over-all copper and gold values that are expected to be identified as the project is explored.

## **About Itronics:**

Headquartered in Reno, Nevada, Itronics Inc. is a "Creative Clean Technology" Company which produces GOLD'n GRO specialty liquid fertilizers and silver bullion. It owns a large Iron Oxide Copper Gold (IOCG) mineral property (the Auric Fulstone Project) in the prolific Yerington Copper Mining District in northwestern Nevada. Within the Auric Fulstone project area, the Company has discovered surface high grade zinc, lead, and silver mineralization that contain anomalous molybdenum in a large area that is geochemically anomalous for zinc. It has also discovered high grade copper mineralization that contains anomalous gold and molybdenum in a separate area that is anomalous for copper. The Company's goal is to achieve profitable clean technology driven organic growth in specialty GOLD'n GRO fertilizers, silver, zinc, and minerals. The Company's technologies maximize the recovery and use of metals and minerals and by doing this maximize sustainability.

Through its subsidiary, Itronics Metallurgical, Inc., Itronics is the only company with a fully permitted "Beneficial Use Photochemical, Silver, and Water Recycling" plant in the United States that converts 100 percent of the spent photoliquids into silver bullion, silver bearing glass, and GOLD'n GRO liquid fertilizers.

The Company is developing environmentally compatible waste processing and mining technology. Itronics has received numerous domestic and international awards that recognize its ability to successfully use science and engineering to create and implement new environmentally clean recycling and fertilizer technologies.

The Company's environmentally friendly GOLD'n GRO liquid fertilizers, which are extensively used in agriculture, can be used for lawns and houseplants, and are available at the Company's "e-store" on Amazon.Com at http://www.amazon.com/s/ref=bl\_sr\_lawn-garden?ie=UTF8&field-brandtextbin=GOLD%27n+GRO&node=2972638011

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