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Itronics Updates Breakthrough E-Scrap Recycling Progress

RENO, NV--(Marketwired - May 02, 2017) - Itronics Inc. (OTC PINK: ITRO) a diversified fertilizer and silver producing green technology Company, today announced that it has received a payment from its first shipment of silver bullion produced by its breakthrough e-scrap (personal computer circuit boards) refining technology.

E-scrap is a "cost saving" and "revenue expanding" raw material for Itronics' silver refining operations. The e-scrap is completely converted to saleable goods and green energy. Using e-scrap as a "raw material" represents a new "Zero Waste" technology for Itronics and is expected to significantly increase the profitability of its refining operation and the Company's bottom line.

Itronics is successfully capturing all of the base and precious metals contained in the ground up circuit boards (e-scrap). The metals include silver, gold, palladium, copper and tin. The technology partitions the silver and copper into the bullion, and copper and silver bearing glass slag. Virtually all of the gold and palladium are being recovered into the bullion in payable amounts.

"Optimization results are exceeding our expectations. Between early January and mid-April the amount of silver bullion being recovered per melt has tripled. Process optimization is continuing, and further furnace and production improvements are being identified and implemented," said Dr. John Whitney, Itronics President.

Itronics continues its feasibility study to determine whether e-scrap can be integrated into the silver refining operation as a raw material. One objective of the study is to determine whether e-scrap could be used to expand refining revenues and add a non-seasonal precious metal bearing raw material to the process. The metal recovery concept is to use the silver recovered from photographic liquids to collect the metals contained in the e-scrap into a saleable form. The e-scrap is now being successfully used as a "cost reducing" "raw material" in the silver refining process.

The Company now has enough information to develop a detailed revenue and operating cost model. Once on-going operating procedures are established, this detailed model will be used for operations material balance and accounting control, annual production planning, and for feasibility studies of expansion options. Based on information obtained to date, the Company is defining a pilot plant operating schedule which it hopes to implement in late May. Silver bullion shipped in the second quarter will be reported in the third quarter sales results.

The benefits of using the e-scrap as a raw material in the silver refining operation include:

1. Revenues generated by the refining operation will continue to be primarily from silver, but will be expanded by 20 to 30 percent by gold recovery and sale. The operation will continue to be a silver refinery, but will benefit from significant gold by-product credits. Palladium, copper, and tin are also being recovered in measurable amounts.
2. Copper contained in the e-scrap improves total silver recovery from Itronics' silver concentrates that are produced by recovery from photographic liquids. The silver recovery improvement is economically significant and will expand silver sales.
3. Virtually all of the gold and palladium contained in the e-scrap is being recovered into the bullion, a significant economic benefit which is expected to increase sales by 20 to 30 percent. The modified refining chemistry is very efficient at recovering the gold and palladium into the bullion so that only very minor amounts of these metals are left in the copper and silver bearing glass that will be sold to copper smelters.
4. The circuit board base material is mainly fiberglass that has been impregnated by organic fire-proofing compounds which contain significant heat energy:
 - a. Our high tech modifications to the melting furnaces improved the energy efficiency of the furnaces so that they are able to use the energy content of the ground up circuit boards to reduce the energy costs of the melting process by about 50 percent. Capturing this "green energy" is very important and the 50 percent reduction in energy cost per melt is a significant contribution to profitability.
 - b. The mineral content of the fiberglass is now being successfully used as replacement flux, substituting for virgin flux materials that would normally be purchased from outside suppliers. The savings from the mineral flux material in the circuit boards is also a significant contribution to process profitability.
5. The Company has invented, developed, and tested a complex proprietary computer program that is able to use the measured composition of several different raw materials, including e-scrap, plus fluxes to formulate and produce a new chemical composition of glass that is able to reject all of the base and precious metals recovered from the e-scrap into the silver bullion, except for a very small amount of silver and copper which remains in the copper-silver glass. The glass also has excellent fluidity at temperatures above 2000 degrees Fahrenheit, a desirable characteristic for metal recovery. The Company's plan is to sell this glass to a copper smelter. Revenue from the sale of this copper-silver glass is expected to further improve the profitability of the operation.

Production of a formulated glass slag sets the stage for future production of glass tile as another value-added product whose formulation would use raw materials sourced from two additional large volume industrial waste streams generated by certain large scale industries. This new tile manufacturing possibility is another "Zero Waste" technology in Itronics' portfolio of "Zero Waste" technologies for future development. The Company has already demonstrated in laboratory testing that its new KAM-Thio leaching technology is able to completely remove the silver from the glass. In addition, the Company has also demonstrated through proto-type development that the glass can be used as an ingredient in making glass tile. The current plan is to sell the copper-silver bearing glass slag to a copper smelter, but the Company believes that as it expands and becomes financially stronger, development of tile manufacturing may become economically attractive.

Itronics is aggressively advancing development of its portfolio of integrated "Zero Waste" technologies, which now includes the "break-through" e-scrap recycling technology, to establish non-seasonal sales and to diversify sales by expanding the number of metals being sold. Base and precious metals prices are expected to continue to increase, so adding gold, palladium, and copper to the sales mix will expand and stabilize revenues as the silver refining operation is expanded.

About Itronics

Headquartered in Reno, Nevada, Itronics Inc. is a "Creative Green Technology" Company which produces GOLD'n GRO specialty liquid fertilizers, silver

bullion, and silver-bearing glass. 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 uses 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 GOLD'n GRO liquid fertilizers, silver bullion, and silver bearing glass. This is internationally recognized award winning "Zero Waste" Technology. The Company is developing a portfolio of environmentally compatible "Zero waste" processing and mining technologies. Itronics has received numerous domestic and international awards that recognize its ability to successfully use chemical science and engineering to create and implement new environmentally clean recycling and fertilizer technologies.

The Company's environmentally friendly award winning GOLD'n GRO liquid fertilizers, which are extensively used in agriculture, are 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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