Enviroleach report remarkable progress on plant upgrades

Enviroleach Technologies {CSE: ETI}

Reported remarkable progress has been made on the upgrading of the Vancouver e-waste facility over the last three months with much of the upgrades and additions completed or nearly complete.

Enviroleach expects e-waste plant ramp-up in September

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Mr. Todd Beavis reports.

ENVIROLEACH TECHNOLOGIES INC. Q2 CORPORATE UPDATE

Update on Vancouver e-waste facility

Remarkable progress has been made on the upgrading of the Vancouver e-waste facility over the last three months with much of the upgrades and additions completed or nearly complete. The approximate 30-day delay in construction is due mostly to optimistic scheduling, equipment shipping delays, and manufacturer commissioning and training schedules. Current accomplishments to date include:

- All primary and secondary leach and chemical tanks, agitators and pumps are installed, complete with plumbing and electrical wiring.
- The vacuum belt filter for solid/liquid separation has been installed and will be commissioned the last week of July by the manufacturer.
- Electrical panels and control systems have been installed.
- Electrowinning cells and rectifier (power supply) have been installed.
- Automated system programming is complete.
- An optical sorter has been installed on the dry end to facilitate the removal of e-plastics from the circuit to optimise recoveries and create another saleable stream of material.
- A fine grinding mill has been installed to improve gold recoveries from the light/organic fraction.
- A pneumatic conveying system has been installed to improve the transfer of the light/organic fraction and

dust from dry-side of the recovery circuit to the wet line.
- Improvements in environmental safety and monitoring including improved dust control, ventilation, filtration and air scrubber installation.
- Employee training, certification and process safety management systems and protocols in place.
- Facility access/security protocols and systems in place.

Line commissioning, pretrials and additional training are scheduled to begin on July 22 and is estimated to take approximately 30 days. Ramp up to full-scale production is scheduled to commence the first week of September.

Duane Nelson, president and chief executive officer, stated: *"I am continually impressed with the dedication, adaptability and determination displayed by our employees, technicians and consultants. The process technologies and automation being developed and installed is highly advanced and does not exist anywhere in the world. The ability of these combined teams to work together to adapt to last-minute changes and revisions is a true testament to their commitment to this project. The delays to production are minor compared to the accomplishments we've made on many fronts over the last 12 months. Considering we started the design, engineering and construction of this facility only 11 months ago and given the magnitude, level of industrial automation and the complex nature of this project, I am very pleased with our current status."*

Update on chemistry and process improvements

The company's team of scientists and engineers continue to make significant advancements and improvements to its patent-pending chemistry and processes. These include improvements and enhancements to selective metal recoveries, leach

efficacy, reusability and economics in both the e-waste and conventional ores and concentrates.

The company has also recently developed a unique eco-friendly process for the selective recovery of base metals from printed circuit boards, including copper, tin and lead. The economic benefit derived from the recovery of these metals is substantial. Tin is currently valued at approximately $19 per kilogram and typical printed circuit boards contain between 25 to 100 kg of tin per tonne. The recovery and reuse of these base metals are one of the main recycling objectives for most original equipment manufacturers and is representative of Enviroleach’s commitment to facilitating a viable circular economy for the electronics manufacturing sector.

Update on mining sector

During the first half of 2019, Enviroleach has completed over 120 independent test programs for potential partners in the mining industry, with excellent results.

The company has just completed, and successfully tested, a mineral pilot plant at its Vancouver facility. It is scheduled to start pilot-scale tests on 100 kg samples from numerous mine operators starting the third week of July.

The pilot plant is designed to replicate full-scale operations which include the dissolution of precious metals and subsequent recovery using advanced electrowinning technologies. Mineral leach efficacy, recovery rates, electrowinning rates and cost analysis will be determined and documented from these tests.

The completion of this pilot scale plant and subsequent client-specific testing programs bring the company closer to the commercialisation of its technologies in the conventional gold mining sector.

Update on catalytic converter recycling

The company is pleased to report that continuing efforts to expand its capabilities for the recovery of precious metals has resulted in the ability to successfully dissolve platinum (Pt) from catalytic and converters into an aqueous solution. This complements the company's previously reported recoveries of palladium (Pd) from the same recycled materials.

Recent test work on samples, using modified conditions of Enviroleach's proprietary chemistry, was carried out to evaluate the extraction of platinum from automotive catalytic converters. The tests showed recoveries over 94.5 per cent of the contained platinum was achievable within 90 minutes.

A recent market report by Allied Market Research projects that the global automotive catalytic converter market size is expected to reach $183.4-billion by 2022, registering a compounded annual growth rate of 7.7 per cent from 2016 to 2022.

About Enviroleach Technologies Inc.

Enviroleach Technologies is a technology company engaged in the development and commercialisation of environmentally

friendly formulas and technologies for the treatment of materials in the mining and recycling sectors. Using its proprietary non-cyanide, water-based, neutral pH treatment process, Enviroleach extracts precious metals from ores, concentrates and e-waste using only Food and Drug Administration-approved additives and ambient temperature water.

Backed by the momentum of a first-class staff of scientists and engineers, tens of thousands individual assays, independent validations and strategic partners, Enviroleach’s technology will become the standard for the provision of eco-friendly methods for the hydrometallurgical extraction of precious metals in both the conventional mining and e-waste sectors.

We seek Safe Harbor.