

For Immediate Release

## Seneca Western Minerals Purchases Second Eco-Tec Produced Water Treatment System for its California Oil Production Operations

January 2011 *Pickering, Ontario* – Eco-Tec Inc. (Pickering, Ontario, Canada) is pleased to announce the sale of a Produced Water Treatment System to Seneca Western Minerals, to be installed in Seneca's Maricopa, California oil production operations. Seneca is expanding production operations at its Maricopa site which requires steam injection in order to allow the heavy oil to flow at acceptable rates. The water treatment system to be provided by Eco-Tec will soften the produced water from the oil production operation and allow it to be used to feed new steam generators which are being installed at the site.



*The Eco-Tec system treating produced water at Seneca's North Lost Hills, California operations. Seneca has order two similar systems for its Maricopa operations.*

Seneca based their decision on the success of a similar Eco-Tec water treatment system which has been operating for more than one year at Seneca's North Lost Hills, California oil fields.

A significant feature of the Eco-Tec system is its ability to produce very soft (<0.2 ppm hardness) water from water which contains high concentrations of dissolved solids (6500 ppm) and high hardness (450 ppm). Normally such water requires softening in one or two stages of strong acid cation (SAC) exchange resins which are brine regenerated followed by a polishing stage of weak acid cation (WAC) exchange which is regenerated with hydrochloric acid and caustic. The Eco-Tec RecoPur<sup>®</sup> system consists of a compact two-stage softener with strong and weak acid cation resins beds, both of which are regenerated using only brine. This results in significant operating cost savings and improved safety since no acid or caustic needs to be stored or handled at the site.

The Eco-Tec water treatment system consists of two trains of Spectrum Plus Micro Media filters which remove oil and suspended solids from produced water which has been through primarily and secondary (IGF) oil removal. The filtered water then passes through two trains of strong and weak cation exchangers which are brine regenerated. The systems will produce a combined capacity of 10,000 BPD (292 gpm, 66 m<sup>3</sup>/hr) of treated low hardness water.

The system is compact, skid mounted, totally factory assembled including resin installed, and fully automated eliminating the need for operator attention. The first system installed at Seneca was operational within one week of being installed and continues to allow Seneca to operate its steam generator uninterrupted. In fact Seneca has experienced significant reliability improvements in its steam generator and steam distribution piping which it attributes to the better quality water being produced by the Eco-Tec system compared with the previous system.

### About Eco-Tec ([www.eco-tec.com](http://www.eco-tec.com))

Eco-Tec is an award-winning, globally recognized manufacturer of water purification, gas processing, and chemical recovery systems for industrial operations. Eco-Tec provides proven integrated technologies based on proprietary technologies that offer significant cost reduction and superior process efficiency. Eco-Tec has provided more than 1500 systems in over 55 countries, and is represented in all major markets.

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