



Canadian
Water & Wastewater
Technologies

POLLUTANT DESTRUCTION

**Industrial wastewaters • Sulfides
Landfill leachates**

Advanced Oxidation Process

Meet your wastewater disposal targets with a highly effective Advanced Oxidation Process. The proprietary chemical mixture of **BIPERLIMINATE™** easily destroys refinery wastes, leachates, chemical residues, and a wide range of pollutants, converting them into harmless carbon dioxide, vinegar and carboxylic acids, and water. In the process harmful chemicals from industrial and landfill activities are prevented from disrupting your wastewater treatment plant.

BIPERLIMINATE™ treats refractory wastewaters at an operating cost 5-20 times lower than existing AOPs and other environmentally unsound methods, such as incineration. AOPs such as UV+peroxide or Ozone are not as safe or easy to handle. Neither are they as selective to polluting organic compounds as Biperliminate™. Our oxidant leaves behind much of the mud and background organics, going after the large polluting molecules it prefers to "eat". With selectivity, Biperliminate™ can treat more volume with less oxidant, making it the cheapest AOP known.

Biperliminate™ can also replace your hydrogen sulfide or odour control chemicals, destroying other polluting chemicals at the same time, even at close to freezing temperatures.

There's no need to haul away wastes for disposal with an on-site wastewater treatment system. A Biperliminate™ system's footprint is scaleable, depending on the volume of wastewater. A larger system treating landfill leachate at 250-350 m³/day would be delivered to site in a 20ft container. The system is even portable to other sites. Typical operating cost is less than \$1/m³.

Biperliminate™ is successfully used on refractory wastes with aromatic functionality and many other difficult-to-treat organic chemical contaminants, such as phenols, polychlorinated biphenyls, creosotes, naphthenic acids, and a wide range of difficult to treat industrial wastewaters.

Start with a consultation on your water composition and a pilot run today.



BIPERLIMINATE™



bipurewater.com

BIPERLIMINATE™



BEFORE:
Brownfield
contaminated with PAH
(Naphthalene)
1100 micron/L

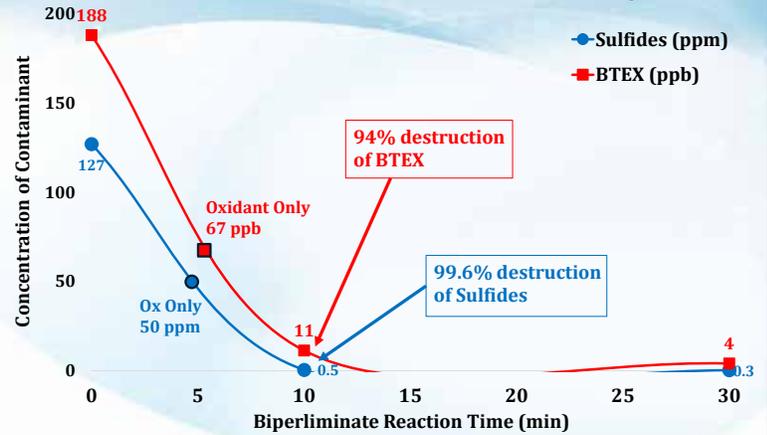
**AFTER
TREATMENT**
>99% destruction
in 10 minutes

- Lowest cost AOP known
- Safer than ozone
- Poly Aromatic Hydrocarbons (PAHs), Phenol, Petroleum Hydrocarbons, BTEX are easily destroyed
- Custom systems are optimized with mechanical and chemical adjustments
- Selectivity for target toxins against background mud and organics
- Lower cost than other wastewater treatment methods, including GAC

British Columbia Municipal Landfill Leachate

Replaces current H₂S treatment and destroys primary pollutant BTEX to less than detectable limit

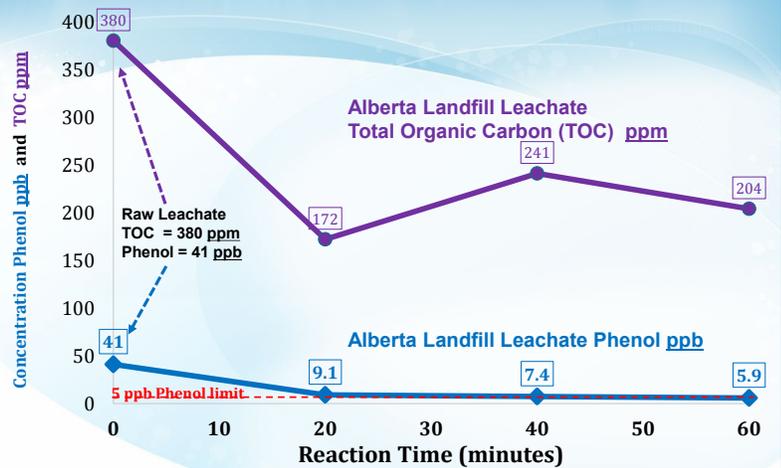
Biperliminate™ Destruction of Sulfides + BTEX in Landfill Leachate (BC Municipality), 60 cents/m³ oxidant
99.6% destruction of Sulfides and 94% of BTEX in 10 min of Biperliminate™



Alberta Landfill Leachate

Outside temperature 2°C

Biperliminate™ Small oxidant dose (\$1.70/m³) lowers Phenol* by >85%



*Tested by Caro Analytical Services

*first run testing

See our CASE STUDIES:

<http://bipurewater.com/advanced-oxidation-process/>



info@bipurewater.com
Toll-free: 1-888-901-3111
#2 - 9790 190th Street
Surrey (Vancouver), BC, Canada

bipurewater.com