

## MEXICAN GOLF COURSE REDUCES ALGAE WITH MOLEAERS INNOVATIVE NANOBUBBLE SOLUTION

Las Lomas Golf Club, located in Guadalajara, Mexico, was suffering from unsightly and malodorous algae in the lakes and ponds at the course. Algae growth in water is common in bodies of water with continuous exposure to sunlight, poor circulation, and low oxygen levels. These conditions provide the perfect anoxic and stagnant environment for harmful algae blooms (HAB) to occur. The algae cause the water to have a green appearance and foul smell, causing a negative impact to the golf course and its patrons.

Typical treatment options include the addition of costly chemicals or increasing the dissolved oxygen (DO) of the water, as oxygen is a natural treatment method for algae. Las Lomas wanted to evaluate their treatment options before implementing them across the entire property. Having heard of Moleaer's success with algae control, Las Lomas wanted to test the power of nanobubbles at their resort. In May 2018, they deployed a 200 gpm Moleaer nanobubble generator on one of their lakes to eliminate the algae.

**Client:**

Anguiano y Wong Asesores S.A. de C.V.

**Type:**

Algae Control

**Unit Type:**

200 GPM

**Installed:**

May 2018

**Benefits:**

Increased DO by 770%

Eliminated the Need for Chemical Treatments

Successful Reduction in Algal Biomass

**Pond Size:**

264,000 Gallons



*Water conditions before installation of the Moleaer nanobubble generator.*



*Installation of the Moleaer nanobubble generator does not require submersion into the pond.*



*Algae along the shore was completely eliminated after 6 days, dramatically improving the water quality and clarity.*

Moleaer's gas-injection technology produces trillions of neutrally buoyant, negatively charged nanobubbles approximately 100nm in diameter. At that size, bubbles stay suspended in water for long periods of time, efficiently mixing throughout the entire water column. This enables the nanobubbles to transfer oxygen with greater than 90% efficiency while also increasing the oxidation reduction potential (ORP). The nanobubbles effectively oxygenate the entire body of water in warm temperatures independent of depth, providing a distinct advantage over other aeration methods. The Moleaer system is simple to install and chemical-free, making it an environmentally friendly solution for algae control.

Before deploying the Moleaer nanobubble generator, the lake's dissolved oxygen measured at 0.46ppm. Over the course of six days, the DO of the lake rose to 4ppm, an increase of 770%. At some areas of the lake, the DO rose to 6ppm. The net effect was the rapid degradation and elimination of the algae in the lake's water.

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