



## Field Report, City of Los Banos, CA

### **Plant Profile:**

Location: Los Banos, CA

Startup date: 1970s

Service population: 32,000

Flow: 3,300,000 gpd

Lagoons: 570 acres, 11 feet deep



In a few short weeks Los Banos' 570 acres of wastewater lagoons turned from a healthy emerald green color to grey, then black and red. Rotten egg odors were coming from the lagoons and citizens were beginning to complain of the smell.

Two cheese plants and domestic wastewater from the city discharge into the lagoon system. The speculation was that CIP (cleaning in place) disinfectants and cleaners were entering the lagoon system in very large quantities upsetting the biology of the lagoon's ecosystem.

After unsuccessfully treating the lagoons with sodium nitrate to control odors, Royal Lloyd, Grade 4 Wastewater Treatment Plant Supervisor, began treatment with BIO ENERGIZER and SuperPhos to control odors and turn the pond system around.

Within two weeks the lagoons began to turn green, and at three weeks the odors were completely gone. At the four week period, lagoons were back to their emerald green color. Royal attributed his plant turn around to the BIO ENERGIZER application.

BIO ENERGIZER is a broad-spectrum bio-activator containing over 29 essential microbial growth-promoting factors. By design, BIO ENERGIZER is a balanced formulation of vitamins, trace nutrients, enzymes, organic acids, and bio-stimulants that motivate the existing microbial community to greater metabolic capacity and efficiency. BIO ENERGIZER is not a bacterium but a true bio-stimulant.

For over fifteen years wastewater operators have continued to use BIO ENERGIZER to cut odors, reduce BOD, and save money on sludge removal, handling, and hauling costs.

### **Operators Using BIO ENERGIZER Report:**

- 1) **The elimination of expensive dredging costs.** BIO ENERGIZER converts sludge into gases and water, reducing sludge accumulations. No draining, drying, excavating, or inconvenient down time.
- 2) **The reduction of odors and aeration costs.** Probiotics enhance aerobic and facultative biological eco-systems to reduce the production of objectionable and offensive odors and enhances dissolved oxygen levels.
- 3) **Increases in BOD removal efficiency.** BIO ENERGIZER improves treatment plant removal efficiency to increase plant treatment capacity and more easily meet effluent requirements.

BIO ENERGIZER enhances endogenous respiration for faster and more complete oxidation of sludge into carbon dioxide and water. BIO ENERGIZER is non-toxic, safe, and presents no danger to personnel.