

Sludge Removal Cost Analysis Using BIO ENERGIZER[®]

REPORT

Location: Wastewater Lagoons in Bakersfield, CA

Average Wastewater Lagoon Sludge Removal Costs in California

Based on data provided by a City in CA, the following are costs for dredging and hauling sludge from wastewater lagoons in California:

- 1) Dredging Costs between \$220 and \$337 per dry ton of dredged, pressed and stacked (piled) sludge. Average cost per dry ton to excavate sludge and pile on site: **\$278.50** per dry ton
- 2) Trucking and Tipping Fees for hauling and land filling range between \$50 and \$75 per dry ton. Average cost to haul and land fill: **\$62.50** per dry ton
- 3) Total Average Cost for Sludge Removal and Disposal of sludge from wastewater lagoons in central California: **\$341** per dry ton

Dry Tons of Sludge Removed by Adding BIO ENERGIZER[®]

10 acres x 43,560 ft²/acre x 2.170 ft x 7.48 gallons/ft³ x 8.34 lbs/gallon x .043 /2000 = **1,268 dry tons removed**

Cost of 1,268 dry tons of sludge removed by dredging and hauling

1,268 dry tons x \$341 = **\$432,388**

Cost of BIO ENERGIZER[®] Used to date

BIO ENERGIZER[®] was introduced directly to Pond # 2 in December. Pond # 2 realized 24 inches of sludge reduction in 12 months or about 2 inches of sludge reduction per month.

In one year a City in California purchased **\$111,000** worth of BIO ENERGIZER[®]

Cost to remove **1,268 tons** of sludge using BIO ENERGIZER[®]: **\$111,000**

Savings in Sludge Removal Costs by Using BIO ENERGIZER[®]:

$\$432,388 - 111,000 = \mathbf{\$321,388}$

Probiotic Solutions® Product Information

BIO ENERGIZER® is a broad-spectrum bio-activator containing over 30 essential microbial growth-promoting ingredients. By design, BIO ENERGIZER® is a balanced formulation of vitamins, trace nutrients, enzymes, organic acids, and biostimulants that motivate the existing microbial community to greater metabolic capacity and efficiency. BIO ENERGIZER® is not a bacterium nor an inoculum.

For many years, wastewater operators have continued to use BIO ENERGIZER® to cut their sludge hauling costs.

Operators Using BIO ENERGIZER® Report:

- 1) Increases in BOD removal efficiency.** BIO ENERGIZER® improves treatment plant removal efficiency to increase plant treatment capacity and more easily meet effluent requirements.
- 2) 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.
- 3) The reduction of odors and aeration costs.** BIO ENERGIZER® enhances aerobic and facultative biological eco-systems to reduce the production of objectionable and offensive odors. BIO ENERGIZER® also increases the dissolved oxygen levels which decreases the need for aeration.

BIO ENERGIZER® enhances endogenous respiration for faster and more complete oxidation of sludge into carbon dioxide and water.



**Our Probiotic Solutions® Products
are Highly Efficient and Effective Due
to Our Unique Delivery System**

*Call Toll Free Today for Your Free
Quote and System Evaluation.*

1 (800) 961-1220