

Industrial

Date Completed:

2009

Construction Cost:

\$35 Million

Client or Owner's Rep:

Mr. Don Phillips, PE
Sr. Project Manager

Highlights:

- ✓ **Innovative Project Execution with Creative Design, Equipment Selection, Procurement and Construction**
- ✓ **Concept through Startup in a Record Four Months**
- ✓ **Client Savings: \$1 MM/day in Revenue Loss**

Photo: *Circular Oil/Water Separator Followed by Dissolved Nitrogen Flotation (DNF)*

Refinery Wastewater Treatment Plant Alon | Big Spring, Texas

Project Description | The project included construction of a new 2,500 gpm Wastewater Treatment Plant (WWTP) to replace the fire damaged WWTP. The refinery had a major fire resulting in more than \$500 MM damage including the wastewater treatment plant. The extent of fire damage to the existing WWTP wasn't realized until 4 months before the re-start of the refinery. The refinery will be losing \$1 MM/day in revenue if the production is not started within 4 months.

Englobal Team (composing of KGI, WesTech and Conex Construction) won the bid against two other major EPC companies. The two other bids required a minimum 10 months with a higher total installed cost. KGI was instrumental in developing a project execution plan to complete the project from concept through start-up in four months using an innovative project execution plan by utilizing creative ideas for design, equipment selection, procurement and construction.

Services Provided | KGI was a sub-consultant to Englobal Engineering, Inc. KGI was responsible for conceptual, FEL and detailed design for the new WWTP to replace the existing WWTP. The project was completed in a record time of four months from concept thru start-up in association with ENGlobal, WesTech and Conex. Some of the major improvements included:

- Circular Oil/Water Separators with Nitrogen Blanketing and Purge Control System
- Dissolved Nitrogen Flotation (DNF) Units
- Aeration Tanks with Diffused Aeration System
- Secondary Clarifiers
- Multi Stage Centrifugal Blowers
- VOC Control System
- Solids Handling System
- Provisions for future Filters.

