

PROJECT NAME

Oxidation pond system for Al Shaiba

CLIENT

US Aid via PVA Consulting Engineers

LOCATION

Iraq

PROJECT VALUE

R 2,000,000

SERVICES

Detail civil and mechanical design

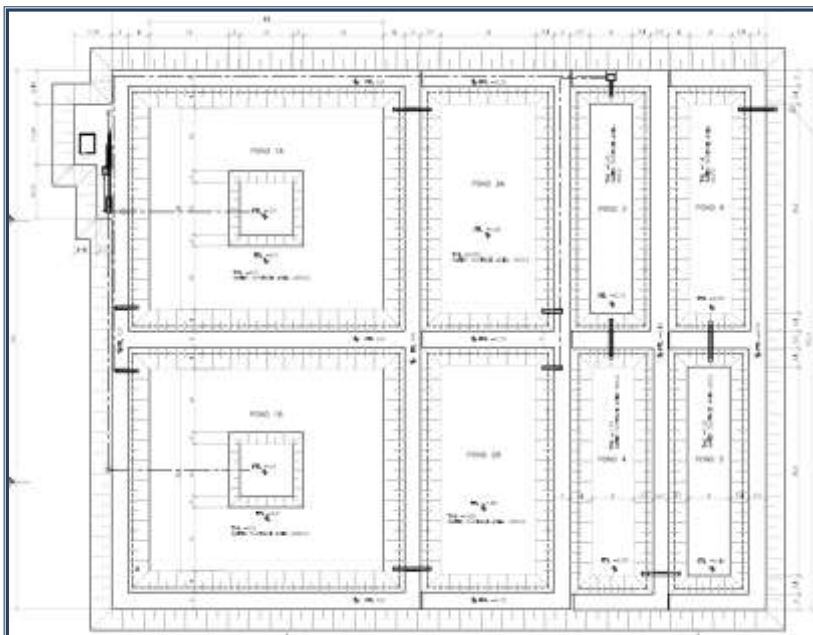
TIME FRAME

July 2009 to September 2009



A pond system was constructed for an army base camp in Iraq housing about 1,000 soldiers. The pond system consisted of an inlet works which received the water borne sewage from the camp. This inlet works is equipped with a fine screen unit whereafter the water is discharged to the primary oxidation pond. From the primary pond, the water is treated through a series of facultative ponds to eventually produce a final effluent which is of sufficient quality to be irrigated onto pastures.

A specifically challenging aspect of this project was communication via the locally based engineer and obtaining the required geotechnical and surveying information from site. The geotechnical evaluation was done locally in South Africa after clay samples were taken on site and shipped to a South African soils laboratory. The design was finalised and drawings were provided to the site engineer and contractor. The construction of the 12,000 m² size pond system was done within a period of 40 days.



The layout of the ponds was closely matched to the topography of the land and the use of the engineering design package "Civil 3D" provided the Engineer with the required tools to optimise his design.

The software helps with geospatial analysis to optimise material usage, and 3D visualisations to better understand project impacts on the environment. The drawing indicates the series of ponds