

Compact ETP for KAR Refinery – Erbil, Iraq

EPC of green-field ETP



NAIAD Water Solutions has executed a compact ETP for the KAR Refinery in Erbil, Iraq.

The new, and more strict, environmental standards required the installation of a new Effluent Treatment Plant.

NAIAD Water Solutions has designed a compact ETP, which was manufactured and pre-assembled in a container structure. The ETP was delivered and assembled on-site where the commissioning was completed.

In order for the ETP to meet the specific conditions of the influent, which has a temperature of 70°C and an extremely high sulphur content, a multi-stage process was developed, which also includes cooling towers.

Features:

- Compact solution
- Capacity: 2.400 m³/d
- Multi-stage treatment



Client

Uni-Recycling

Type of Contract

EPC

Award of Contract

March 2013

Commissioning

July 2014

Capacity

2.400 m³/d

Raw Water

Crude Oil Processing
Effluents

Technology

Multi-Stage Treatment

Main Components and Process Steps:

The following process design was developed for the treatment of effluents resulted from the Crude Oil production process:

- Oil separators (Corrugated Plate Interceptor)
- DAF (Dissolved Air Flotation)
- Cooling tower
- Activated sludge treatment
- Lamella clarifiers



Parameter

Units

Limits

TSS

mg/l

30

THC

mg/l

5

COD

mg/l

150

BOD

mg/l

30

NH₄-N

mg/l

5

TP

mg/l

-

H₂S (as S)

mg/l

1

Phenols

mg/l

0,2