



PROJECT RASGAS - RAS LAFFAN  
QATAR

Capacity in IE : 3 x 4500  
Capacity in m<sup>3</sup> per day : 3 x 1440  
Year of construction : 2006  
Project owner : CTJV  
Consultant : Technip



## TYPE OF TREATMENT

### Water treatment

For each unit :

- Screening 2 mm
- Buffer tank 600 m<sup>3</sup>
- Aeration tank 2000 m<sup>3</sup> with air diffusers
- 2 blowers 74 kW
- Phosphate removal
- Deaerator
- Floating matters storage tank
- Settling tank Ø 14,50 m
- Sand filter 80 m<sup>3</sup>/h
- Sludge thickener with picket fence



### Sludge treatment

Common equipments for the 3 units :

- Anaerobic sludge digestion
- 2 sludge centrifuge decanters
- Mobile sludge storage skip

### Smells treatment

- Deodorizing of the waste water lifting station



## TECHNICAL DATA OF PLANT

	Capacity of treatment	Treated water discharge standards
Capacity of treatment	13 500 IE	
Daily volume	4 320 m <sup>3</sup> /d	
Peak flow	750 m <sup>3</sup> /h	
Biological oxygen demand (BOD5)	1 728 kg/d	50 mg/l
Chemical oxygen demand (COD)	2 970 kg/d	150 mg/l
Suspended solids	1 728 kg/d	50 mg/l
Total Kjeldahl nitrogen	192 kg/d	75 mg/l
Total nitrogen	192 kg/d	
Total phosphorus	48 kg/d	9,87 mg/l



The Inhabitant Equivalent (IE) is a notion used in sanitation to evaluate the size of waste water treatment plants, it corresponds to an estimate of pollution caused by the "inhabitant equivalent" defined thus :

- 60 g/inhabitant/day for DBO5
- 90 g/inhabitant/day for suspended matter
- 15 g/inhabitant/day for total nitrogen
- 4 g/inhabitant/day for total phosphor