

# Laboratory Services





## **Analytical Testing Laboratory**

Specialised in environmental testing.



For NEA & PUB discharge limit control parameters



Boiler water, steam, condensate and demineralised water



Wastewater control parameters

### **Research & Development Laboratory**

Equipped to conduct treatability assessments of different types of wastewater, as well as cost-optimisation and troubleshooting studies to improve plant efficiencies.



## Wastewater Treatability Studies

- Overall treatability assessment of wastewater
- Biodegradability rate of wastewater
- Simulation of treatment processes
- Impact assessment on existing treatment facilities
- Projection of treatment performance and treatment costs



# Process Troubleshooting & Optimisation

- Biological system monitoring
- Early toxicity detection
- Process optimization projects

## **What We Offer**









#### **Water-related Testing**

Our testing parameters cover a wide range of components. We conduct detailed tests and measurements to provide a comprehensive report.



#### **Aggregate Organic Constituents**

Biological Oxygen Demand (BOD) Chemical Oxygen Demand (COD) Cyanide (as CN) Oil & Grease (Total)

Oil & Grease (HC & non-HC), Phenolic Compounds (as Phenol) Surfactant - Anionic Surfactant -Cationic

Surfactant – Non ionic (as MBAS) Total Organic Carbon (TOC)



#### **Physical & Aggregate Properties**

Colour (Hazen units) Conductivity Mixed Liquid Suspended Solids (MLSS) Mixed Liquid Volatile Suspended Solids (MLVSS) Oxygen Uptake Rate (OUR) pH Value Total Alkalinity

Specific Oxygen Uptake Rate (SOUR) Total Dissolved Solids (TDS) Total Hardness (TH) Total Suspended Solids (TSS) Turbidity (NTU) Volatile Fatty Acid (VFA) **Volatile Suspended Solids** 



#### Non-Metallic Constituents & Chemical Contaminants

Ammonia (NH3-N) Ammonia (NH3-N) (Distillation) Silica (as SiO2) Sulphide (as S2-) **Total Nitrogen** 

Total Kjeldahl Nitrogen (TKN) Total Phosphorus (as P) Fluoride (as F) Chloride (as CI) Nitrite (NO2)

Bromide (as Br) Nitrate (as NO3) Phosphate (as PO4) Sulphate (as SO4) Chlorine (Free)

#### **Metal Elements**

Aluminum (as Al) Arsenic (as As) Barium (as Ba) Beryllium (as Be) Boron (as B) Cadmium (as Cd) Calcium (as Ca) Copper (as Cu)

Chromium (as Cr) Iron (as Fe) Lead (as Pb) Magnesium (as Mg) Manganese (as Mn) Mercury (as Hg) Molybdenum (as Mo) Nickel (as Ni)

Selenium (as Se) Silver (as Ag) Sodium (as Na) Strontium (as Sr) Tin (as Sn) Zinc (as Zn)



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