sembcorp

www.sembcorp.com/sg

Laboratory Services

A trusted provider of environmental testing services



SINGAPORE APEX CORPORATE SUSTAINABLITY AWARDS 2023









Analytical Testing Laboratory

- Recognised international standard ISO/IEC 17025:2017 for environmental testing.
- Specialist in testing and managing environmental tests.



For NEA & PUB discharge limit control parameters



Boiler water, steam, condensate and demineralised water



Wastewater control parameters



Energy feed, waste elements and calorific values

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



Analytical Services



Comprehensive Testing



Test Reports

Energy-related Testing

Equipped to test energy feed such as biosludge, woodchip, oily sludge, coal, ash, other fuel oils and diesel.

f The test areas are:

Higher Heating Value (HHV) MJ/kg Lower Heating Value (LHV) MJ/kg Water / Moisture Content (Distillation / Volumetric Karl Fisher / Gravimetric), wt% Inherit Water (Moisture), wt% by Gravimetric Volatile Matter, wt% Carbon, Hydrogen, Nitrogen and Sulphur, wt% by CHNS Analyzer Fluoride, Chloride, Bromide, Sulphur by combustion / IC, wt% Elements by XRF, wt% to wt ppm (more than 40 elements such as Na, Mg, Al, S, PB, etc) Ash Content, wt%vav

Water-related Testing

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

\mathbb{X} 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)*

A Physical & Aggregate Properties

Colour (Hazen and Lovibond 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 Cl)* 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)* Silica (as SiO2) Silver (as Ag)* Sodium (as Na) Strontium (as Sr) Tin (as Sn)* Zinc (as Zn)*



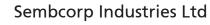


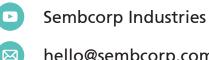
Email us at hello@sembcorp.com or scan to visit our website

Are you a Sembcorp Customer? Contact your Account Manager to find out more.



www.sembcorp.com/sg





hello@sembcorp.com

