

# Where, Why, What And How To Analyse

You need to be sure

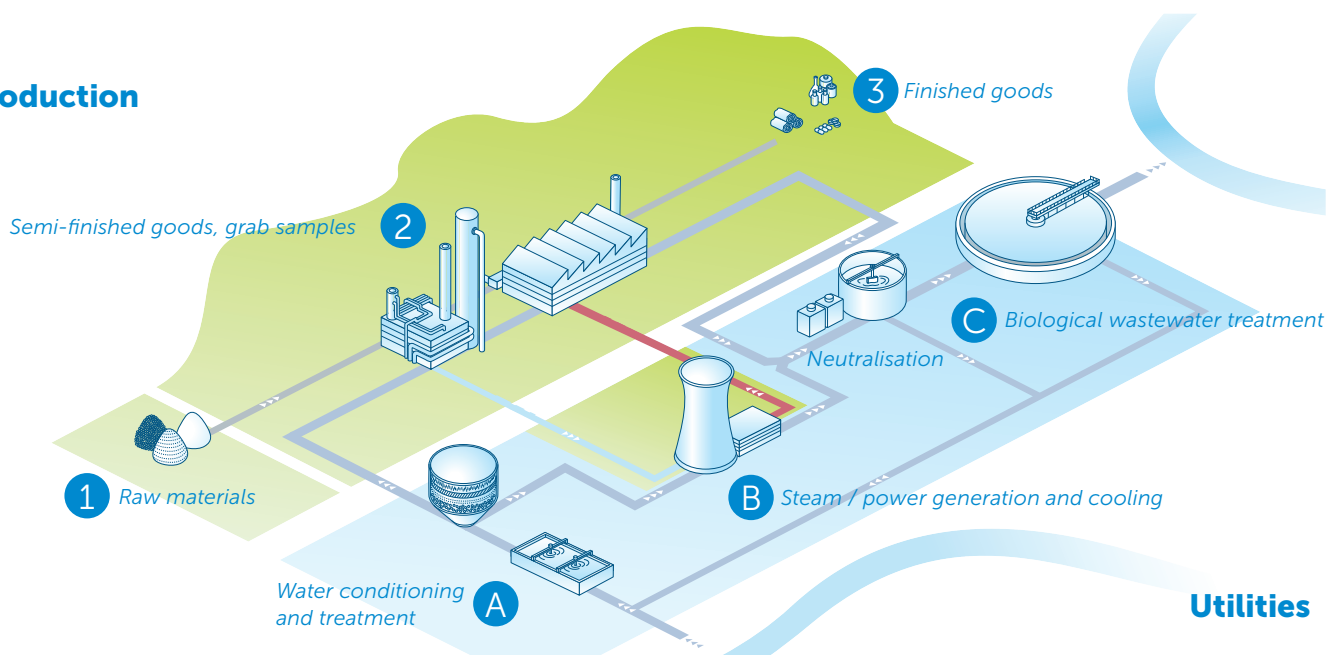
- That your products comply to your high quality standards
- That your production runs efficiently without unplanned interruptions
- That you do not suffer unnecessary product loss
- That your wastewater complies to regulatory requirements.

This means that the analytics processes and products you rely on to make informed decisions must be accurate, reliable and informative all the time.

The Hach analytics portfolio is designed to give you confidence. From a simple, dedicated meter to on-line measurement or wastewater treatment optimisation our solutions are based on years of innovation and a desire to provide the simplest way to results you can trust. Our products, application support and local service help you achieve:

- Maximised uptime of equipment and production
- Consistent, high quality finished products
- Analytics solutions that give a real return on your investment

## Production



Where	Why	What*	How
1 Delivery	Quality control, to ensure products comply to specifications and meet shelf life requirements	Acid / base capacity	▶
		Chloride	▶
		Colour number of liquids (e.g. oil)	▶
		Cyanide	▶
		Enzymatic analysis (e.g. glucose, fructose)	▶
		Metals (e.g. copper, lead, nickel)	▶
		Moisture (Karl Fischer)	▶
		Nitrate, Nitrite, Total Nitrogen	▶
		Organic acids	▶
		Particles	▶ ●
		pH value	▶ ●
		Phenol	▶
		Surfactants	▶
2 Production	Production performance, monitor processes such as CIP and detect product loss to control costs	Turbidity	▶ ●
		TOC (Total Organic Carbon)	●

▶ Lab analysis ● Online analysis

# INDUSTRY

Where	Why	What*	How
A Water conditioning and treatment	Process efficiency, control biocide dosing and cost	Chlorine total, free	▶ ●
	Quality control, simple check on incoming water quality	Conductivity	▶ ●
	Production performance, check impact on pre-treatment costs or potential for in-plant scale/deposits	Hardness	▶ ●
	Plant life/efficiency, check potential for in-plant corrosion	pH value	▶ ●
	Production performance, check potential for non-ionic inorganics to cause deposits	TOC	▶ ●
	Quality control, check effectiveness of filtration and microbiological quality	Turbidity	▶ ●
B Steam / power generation and cooling	Plant life/efficiency, control oxygen scavenger dosing that reduces corrosion	Oxygen	▶ ●
	Plant life/efficiency, control phosphate addition that reduces corrosion and deposits	Phosphate	▶ ●
	Plant life/efficiency, an indicator of efficiency loss in ion exchangers or membrane systems used for pre-treatment	Sodium	●
C Neutralisation	Regulatory compliance, monitor treatment process performance and ensure compliance with legal limit values	pH value	▶ ●
		Conductivity	▶ ●
		Redox potential	▶ ●
C Biological wastewater treatment	Regulatory compliance, monitor and optimise treatment process performance, and ensure compliance with legal limit values	Conductivity	▶ ●
		Flow	●
		Nutrients	▶ ●
		Oxygen	▶ ●
		pH value	▶ ●
		Sludge level	●
		Solids	▶ ●

\* For additional parameters and solutions please contact your local Hach representative or visit our website.



Benchtop and portable instruments for lab analysis inspection, maintenance and equipment qualification services available



Controllers and sensors for online analysis and cost-saving process optimisation

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