LVE 5

Session 2001

ANGLAIS

GROUPE 14

	Durée	*Coefficient*
BTS Chimiste	***2 heures***	***1***
BTS Techniques physiques pour l'industrie et le laboratoire	***2 heures***	***2***

DICTIONNAIRE BILINGUE AUTORISÉ.
L'USAGE DE LA CALCULATRICE EST INTERDIT.

Avant de composer, le candidat s'assurera que le sujet comporte bien 3 pages numérotées de 1/3 à 3/3.

I - COMPTE RENDU ***(10 points)***

Après avoir pris connaissance des deux documents, faites en un compte rendu **en français**.
(140/150 mots)

II - RÉDIGER EN ANGLAIS ***(10 points)***

BP AMOCO are involved in new energies such as solar energy or green fuels.
What energy sources will be used in the next century? Will some of those we use today be abandoned and why?
(150 mots)

Recipe for pure water

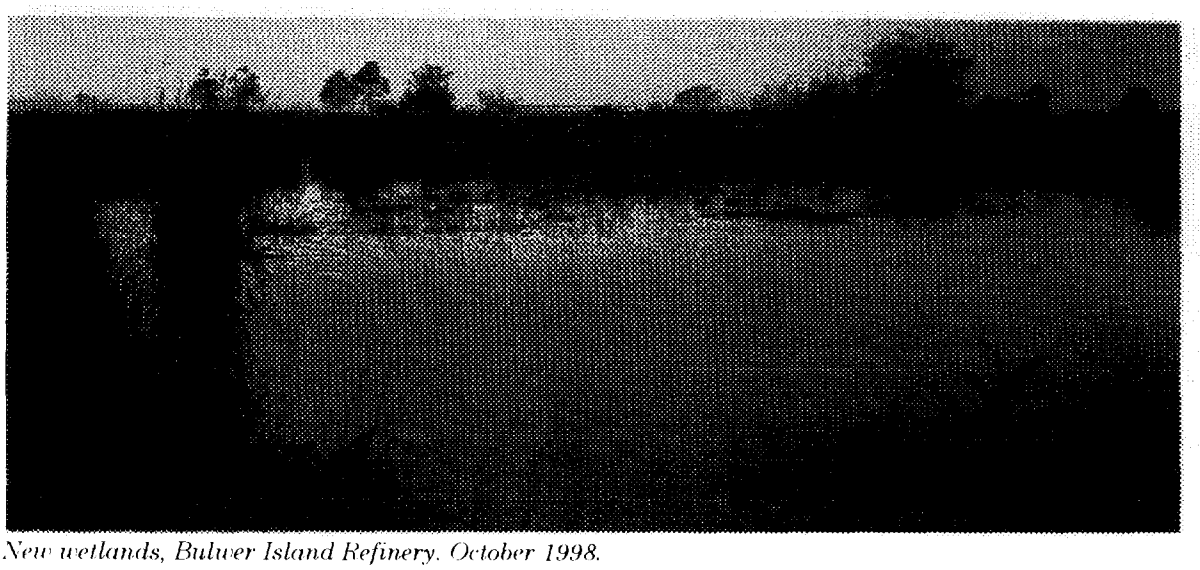
Cleaning up water contaminated with deadly chemicals is easy, say chemists who have discovered a cheap and easy way to break down organic poisons. Organic chemicals are among the world's most worrisome pollutants. They include PCBs, dioxin and military wastes. Since organic compounds consist almost entirely of carbon, hydrogen and oxygen, they can theoretically be broken down into water and carbon dioxide, along with trace quantities of relatively harmless ions such as nitrates, sulphates and chloride.

But until now, this process has required either very harsh and expensive conditions or equally toxic chemicals. Now chemists have come up with a simple recipe: dissolve a small amount of oxygen and carbon monoxide in the water containing any organic chemical, add a pinch of a cheap metal catalyst and cook at 85°C for several hours.

"At the end of the process you only need to filter off the metal "says one of the chemists." There's nothing organic left.

Adapted from New Scientist,
28 August 1999

28 August 1999 *New Scientist*



New wetlands, Bulwer Island Refinery. October 1998.

How we polish water in Australia.

For the past ten years we have promoted innovative ways to improve health, safety or the environment in a worldwide competition open to all BP Amoco and partner companies. One of the ten 1998 finalists, selected from 195 entries, was our Bulwer Island Refinery's scheme for purifying its waste water.

Entirely natural processes are used to create a very efficient water cleansing - or "polishing" - system. In the final stage water from the refinery enters a specially created wetland and after flowing slowly through impurity absorbing indigenous plants, emerges clean, pure and bright to rejoin the river.

So successful is the project that 96 species of birds have been attracted to the site. Obviously, creating wetlands is not something we do every day and so we teamed up with the University of Queensland.

The Bulwer Island Refinery's HSE Manager, Brian de Bruyn, and a team from a local high school carry out a routine check of water purity on the new wetland.

The wetlands were then started with 17,000 seedlings planted within two weeks by 16 people.

Now it's complete, the University monitors water purity and the growth of this natural system.

This project is an example of an essential industry and natural processes working together in genuine harmony.

In fact, this competition has led to many real benefits for health, safety and the environment and offers a prize for progress the whole world can share.

For more information on BP Amoco's environmental performance, contact our website: www.bpamoco.com/hse