Configurations

The OIL-Wader comprises a UviLux fluorometer, a 5-metre cable (longer cables are available) and the Hawk handheld display and logging unit.

The OIL-Wader Pro provides two UviLux fluorometers, configured for refined and crude hydrocarbons, securely mounted in a frame for ease of deployment. Data streams from both fluorometers are combined and reported in real-time on the Hawk data logger.

The Hawk incorporates a rechargeable battery pack, charged via the USB cable supplied.
If required, the rechargeable battery pack can be replaced with standard disposable cells. User programmable thresholds allow data to be presented in a Red, Amber, Green (RAG) format, so that the operator is clearly notified when PAH levels become significant. A plotting feature is also provided so that trends in the data can be clearly identified.

Specification

UviLux Fluorometer

Size	Ø70 x 150 mm
Weight	800 g

UviLux Hydrocarbon Performance

	PAH fuel	CDOM (crude)
Sensitivity (QSU)	0.06	0.03
Calibrated range (QSU)	600	600
Example compound: sensitivity - range (ppb)	**BTEX*:** 3.0 – 50,000	**Perylene:** 0.003 – 50

***BTEX** is Benzene, Toluene, Ethylbenzene, p-Xylene, m-Xylene, o-Xylene at equal ppb concentrations

Hawk handheld display and logging unit

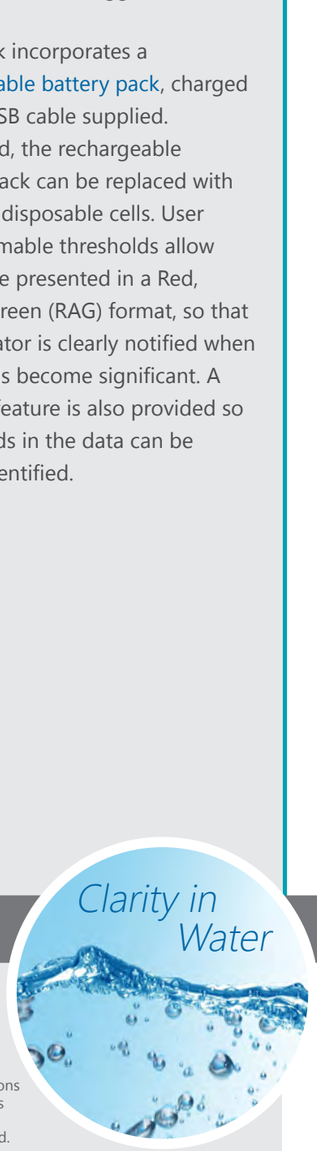
Display	320 x 240 pixel qVGA backlit LCD
Display size	70 x 50 mm
Size	210 x 110 x 45 mm
Weight	500 g
Memory capacity	2 Gbyte
IP rating	IP67
Operating temperature	-2 °C to 40 °C
Storage temperature	-40 °C to 70 °C

OIL-Wader

Battery duration	4 hours continuous use

OIL-Wader Pro

Battery duration	2 hours continuous use
Overall size mm	200 x 200 x 100 mm
Weight	2.5 kg



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Contact us today to see how we can help you

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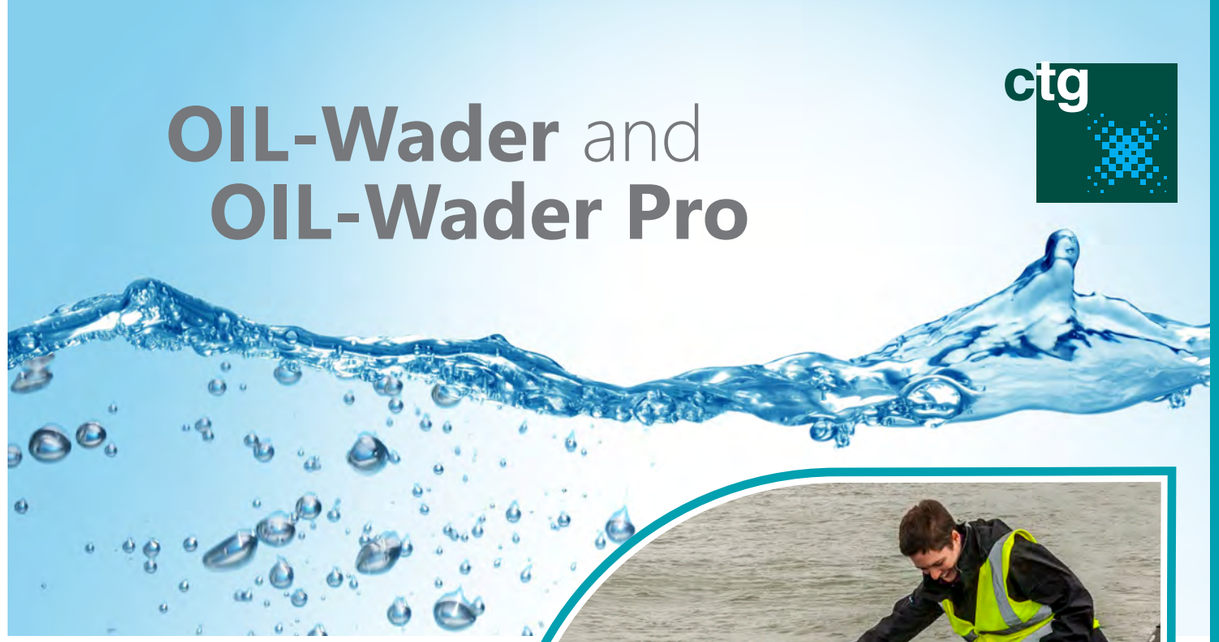
OIL-Wader and OIL-Wader Pro



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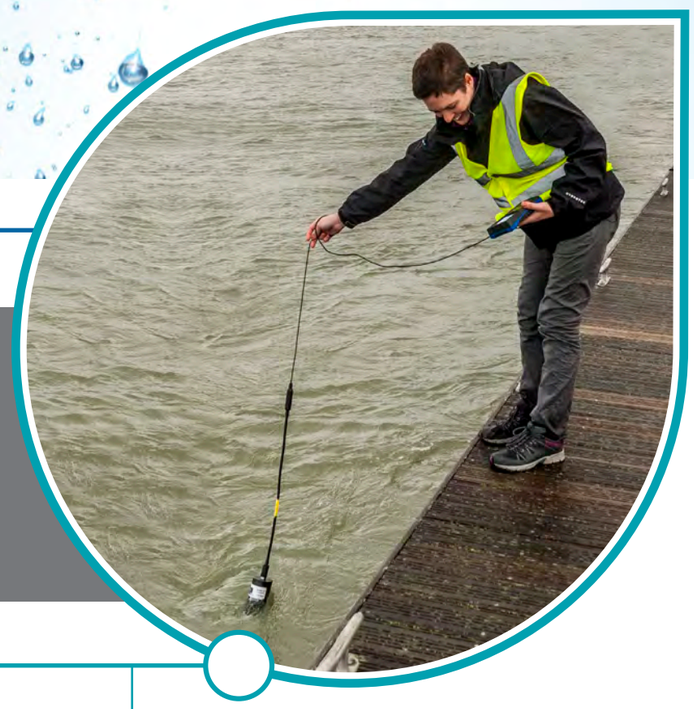
OIL-Wader systems provide real-time, highly sensitive, *in situ* detection of dissolved aromatic hydrocarbons.



Applications

- Pollution surveillance & investigative monitoring
- Point source hydrocarbon pollution tracking
- Hydrocarbon monitoring in ports and coastal areas
- Road and airport apron run-off monitoring

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Product Information

What can the OIL-Wader systems do for you?

How does it work?

Features

- Real-time display of dissolved aromatic hydrocarbon levels (in µg/l)
- User set Red, Amber, Green (RAG) data warning display
- Simple, single touch data logging (2Gbyte storage capacity)
- Position and time stamping of recorded data
- Uses rechargeable or disposable batteries
- High sensitivity

Introduction

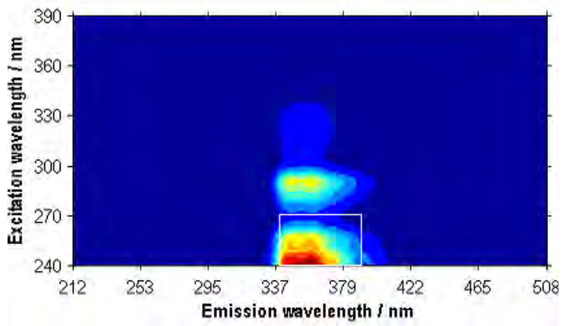
CTG's OIL-Wader and OIL-Wader Pro systems provide surveyors and regulators with real-time *in situ* measurement of dissolved Polycyclic Aromatic Hydrocarbon (PAH).

The OIL-Wader comprises a CTG UviLux fluorometer and a Hawk handheld display and logging unit. CTG's UviLux fluorometers detect UV fluorescence with industry-leading sensitivity and selectivity and have been optimised for minimal interference from water turbidity.

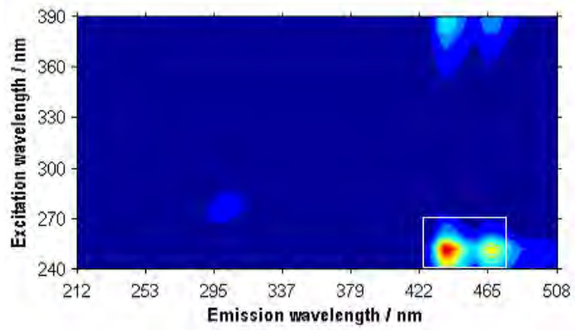
Data is displayed on the Hawk's colour touchscreen and logged internally. If required, the Hawk can be programmed to apply a user calibration to the reported values. The Hawk also incorporates a GPS receiver so that all logged data can be position and time stamped.

Examples of detectable compounds include:

- Carbazole
- Phenanthrene
- Naphthalene (NDSA)
- BTEX
- Perylene
- Pyrene (PTSA)
- Benzo[a]pyrene



Carbazole fluorescence map indicating UviLux (refined) measurement window



Perylene fluorescence map indicating UviLux (crude) measurement window

CTG's OIL-Wader and Oil-Wader Pro detect PAH fluorescence. When dissolved, PAH compounds absorb UV light and re-emit a fraction of this energy as fluorescence at longer wavelengths. Fluorescence intensity is directly proportional to PAH concentration. The technique is widely recognised as one of the most sensitive detection methods available.

CTG's UviLux sensors use a stabilised UV LED light source and a photomultiplier detector to provide exceptional measurement sensitivities. By exciting fluorescence at deep UV wavelengths the UviLux fluorometers can detect smaller PAH compounds typically associated with weathered oils.

CTG Hydrocarbon fluorometers have provided both scientists and regulators with a dependable sensor which has been used extensively during the post-Macondo spill in the Gulf of Mexico, as well as monitoring the impacts of the sinking of the Prestige and Costa Concordia vessels

Touch screen display

GPS position and time logged

2gb storage capacity

OIL-Wader and Oil-Wader Pro

The OIL-Wader comprises a single CTG UviLux fluorometer and a Hawk handheld display and logging unit. The UviLux fluorometer can be factory-configured for either refined or crude PAH detection. The OIL-Wader Pro includes an additional UviLux sensor for either refined and crude PAH determination, or for discriminating PAH from a high background of Coloured Dissolved Organic Matter (CDOM).

The second sensor in the OIL-Wader Pro provides inherent robustness to varying CDOM background, for example when correlating PAH levels across a wide range of locations.