



CASE STUDY

Monitoring VOCs at the Intake of a Wastewater Plant

Application Dossier: No. VIII

Application

Monitoring VOCs at the Intake of a Wastewater Plant

Product

MS1200-GAS, 4-20 mA output, audible and visual alert output.

MS1200
Oil in Water Monitor



Application

Monitoring wastewater coming into a treatment plant to detect fuel from surface runoff.

Customer

Wastewater plant, UK.

Problem

Waste Water entering a treatment plant is a combination of domestic and commercial waste water and surface runoff. All of these could have high levels of fuel in them, but particularly during high rainfall which washes fuels into drains.

These high levels have the potential to produce dangerous levels of gases within the enclosed screen building.

Product

MS1200, 4-20 mA output, audible and visual alert output.

Installation Facts

The MS1200-GAS is a version of the MS1200 that was previously used to detect gases in drains (now replaced by the MS1800). The sample is taken from above the channel directly via a pipe without any sampling tank. The drain is a partly open channel, and the instrument provides an audible alarm as well as a visual flashing alarm light when VOC levels higher than those set by the client are detected.

Additionally, this system has a high-level flow protection where, in the case of the inlet water being very high, it switches automatically to an alternative intake above the raised water level.



Unit installed in a wastewater plant in Scotland to detect high levels of VOCs.

Did you know?

Volatile Organic Compounds (VOCs) in wastewater systems present not only environmental and health challenges but also significant safety risks due to their potential for reaching explosive concentrations. Many VOCs, such as benzene, methane, and certain solvents, are highly flammable.

In wastewater systems, these compounds can accumulate in confined spaces, such as sewers, tanks, or treatment units.

When VOC vapors mix with air at specific concentrations, they can form explosive mixtures, posing a serious risk to workers and infrastructure. Ignition sources, such as sparks from equipment or static electricity, can trigger explosions under these conditions.

The risk of explosive levels of VOCs is particularly high in facilities handling industrial effluents or oil and gas processing wastewater, where large quantities of volatile substances are present.

Proper ventilation, continuous monitoring of VOC concentrations, and the implementation of explosion-proof equipment are critical safety measures.

Proactive management and strict adherence to safety protocols are essential to safeguarding both human lives and facility operations.

Why Multisensor?

The customer needed a contactless system to detect VOCs in a challenging water sample.



For more information

Visit: www.multisensor.co.uk
Contact: info@multisensor.co.uk

Front Image Credit: shutterstock_619248512

HEAD OFFICE UNITED KINGDOM

Multisensor Systems Ltd.

Alexandra Court
Carrs Road
Cheadle
SK8 2JY
United Kingdom

T: +44 (0)161 491 5600
E: info@multisensor.co.uk



Multisensor Systems Limited reserves the right to revise any specifications and data contained within this document without notice.

Multisensor Systems is a developer and supplier of Water and Gas Analysers specialising in oil in water and hydrocarbon analysers, oil in water detectors, VOC monitors and THM analysers based in the United Kingdom.

The contents of this publication are provided to you "as is" without warranty of any kind, and are subject to change without notice. Multisensor systems does not assume any responsibility or liability for any damage, whether direct or indirect, relating to the use of this publication.

Multisensor Systems Ltd., Alexandra Court, Carrs Road, Cheadle, SK8 2JY, United Kingdom

©2010-Present, Multisensor Systems Limited

CHANGELOG

MSS DOCUMENT CHANGE RECORD
Document Ref 1-000193

Date	Version	Changed By	Checked By	ECN
26/02/2025	1.0	GO	LR	0225-06