

# INNOVATIVE AIHR SHARK PASSIVE DIRECTIONAL SAMPLER: FAST TRACKING ON SLIGHTEST EMISSIONS

FACT SHEET - 2019

The AIHR Shark is a state-of-the-art handsfree tool from SGS Galson that monitors emission levels caused by refinery activity or off-site sources. It is the perfect enhancement to complement an EPA 325 fenceline monitoring program.

The Shark collects low-level VOCs (including benzene) onto a sample media when deployed for as short as one week for troubleshooting or two weeks in-line with TD tubes. The data from the Shark can be automatically uploaded into the web-based Chemrose Software. The solution map is available instantly to vector the location of the source. (example image shown below).

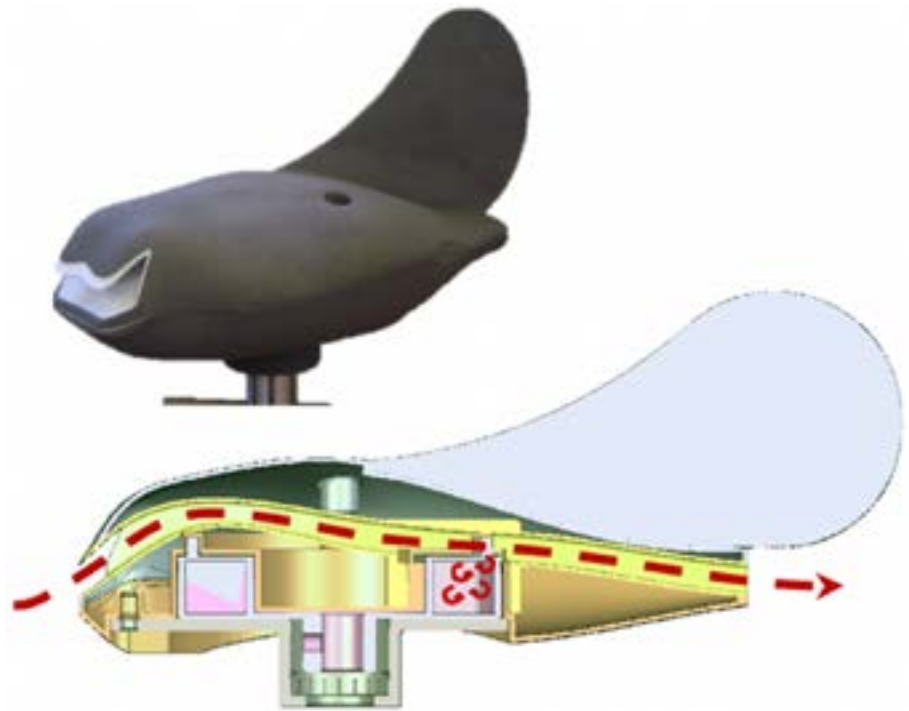
The Shark can be analyzed for all VOCs allowing for potential “fingerprinting” sources so identification of source can be determined through the combined analysis and directional information provided.

From there, the vectoring can be combined with our other leak detection equipment. For example, the Shark can be used with SGS Galson’s real-time portable instruments such as the PPB RAE and the stationary *Smart Sense* real-time monitoring and sampling initiation system to further characterize and pinpoint the emission source.

## THE SHARK

The AIHR Shark offers a uniquely innovative approach for you to get into and stay in compliance for your fenceline monitoring.

- Cost effective
- Ideal for any location within a refinery



- Has no requirement for electricity or sample pumps
- Needs limited technical experience to use and is maintenance free
- Includes a low-level directional indicator
- Uses preventive, post exceedance, or tiered investigative approach
- Offers forensic fingerprinting with additional analytes
- Requires only one-week deployment for troubleshooting or two weeks in-line with TD tubes
- Delivers custom electronic deliverables uploaded into any mapping software for triangulation
- and “pinpointing” of emission sources
- Avoids expensive theoretical modelling
- Allows discounts in conjunction with annual EPA 325 analytical program

## HOW DOES THE SHARK WORK?

A unique flow-through design (that looks like the killer fish) and wind vane allows for the air flow to be directed onto one of 12 passive collection devices, all at a fixed 30-degree rotation. By analyzing the collection devices after performing sampling, higher concentrations in each of the devices provide an indication of source direction. A map provides geocoded



Example: AIHR Sharks surround the perimeter of the potential sources. Through vectoring, the emission source can be tracked prior to or post exceedance of a benzene “hit” on a TD Tube.

locations and the location of benzene sources can be approximated by vectors. In conditions with multiple obstructions such as refinery structures, the AIHR Shark provides a truer wind direction compared to regional wind data. Even at low wind speeds, gusts are sufficient to orient the AIHR Shark into the correct directional sample position based on changing wind directions.

### ASSURANCES

The AIHR Shark assures:

#### Easy Ordering

- Determine compounds of interest
- Pinpoint locations for deployment
- Develop sampling plan with media replacement

- Design mounting needs (fixed or tripod)
- Decide data requirements (electronic data delivery)

#### Simple Deployment

- Deploy with media
- Install (latitude and longitude noted)
- Remove media at end of sampling period

#### Quality Lab Processing

- Media arrives, sample confirmation emailed to you
- Results in 5 business days, or free!
- PDF report and electronic data deliverables are emailed to you

Experience the future of IH analysis and monitoring solutions with the AIHR Shark!

### WHY SGS

SGS is the world's leading inspection, verification, testing and certification company. SGS is recognized as the global benchmark for quality and integrity. With more than 97,000 employees, SGS operates a network of over 2,600 offices and laboratories around the world.

### TO LEARN MORE VISIT

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