



# Microanalytics

## Contract Analytical Services - Case Study

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### Case Study #3

#### *Malodor / Malflavor in Bottled Drinking Water*

**Internal Reference:** Project Code Number K02227

**Industry:** Beverage

**Commodity:** Bottled Drinking Water

**Problem / Goal:** 'Putrid' malodor / malflavor in retain samples of 1 pint PET packaged bottled drinking water. Retains were odor defective samples from a previous odor quality excursion from several months prior which our clients were never able to resolve. The goal of this project was to determine if the source of this previous quality excursion was the same as a that of a more recent excursion which Microanalytics had just resolved.

**Analytical Approach:** AromaTrax™ MDGC-MS-O system utilized to isolate the 'character defining' malodorants.

**Findings:** This odor / flavor quality defect was found to be carried by two malodorants which were isomers of extreme odor potency. These odorants were characterized by odor characters which were virtually identical to each other and virtually identical to the composite malodor of the whole sample. It was quickly determined that these two malodorants were unrelated to those responsible for the more recent excursion.

**Resolution:** Based upon the above findings the client opted not to persue the challenge of identifying these odorants since that previous problem had not resurfaced. This decision was reinforced by the fact that we had been able to show the old problem to be unrelated to the more recent quality excursion.

**Comments:** The power of the AromaTrax system to resolve difficult odor / flavor problems was pointed up by this study. Two 'character defining' odorants were located and isolated very quickly; resolving a long standing problem for which other approaches had failed to produce any significant findings.

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### Links for More Information

Aroma and malodor contract services: [www.off-odor.com](http://www.off-odor.com)  
Analytical Instrumentation for aroma/odor analysis: [www.mdgc.com](http://www.mdgc.com)



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