



# SW-846 DRAFT METHODS

## Testing Hydrocarbons by Ultraviolet Fluorescence

May 30, 2024

To: U.S. EPA SW-846 Methods Program Dept.  
Office of Resource Conservation and Recovery  
1200 Pennsylvania Ave., NW (5304T)  
Washington DC, 20460

I would like to submit five new test methods prepared for approval in U.S. EPA's SW-846 Compendium. These methods were peer reviewed and edited by two industry experts, with special thanks to Dr. Nancy Rothman of New Environmental Horizons, Inc. in New Jersey and Jerry Parr of Catalyst Information Resources, LLC (and NELAC) in Texas. The methods provide quick, low cost analysis and detect a wide range of contaminants in soil and water.

These methods were developed using the EPA SW-846 Style Guide. The format and boilerplate descriptions used and repeated in many of the sections were taken from this document for consistency with other methods.

Method performance tables listed in each method were developed to meet EPA's Validation and Peer Review of U.S. Environmental Protection Agency Chemical Methods of Analysis. This includes general fluorescence of hydrocarbons within each method, proficiency sample analysis and correlation to other determinative methods. Sitalab has a large supporting data package available complete with all the findings referenced in each method.

### Method Numbers and Names Given

<u>Method No.</u>	<u>Method Type</u>
8000 Series	Organic Determinative Methods
80xx	GC Determinative/Various Detectors
81xx	GC Determinative/Various Detectors
82xx	GC Determinative/Mass Spec Detectors
83xx	HPLC Determinative/Various Detectors
832x	HPLC Determinative/Mass Spec Detectors
84xx	IR Determinative
85xx	UV/Vis Determinative
New!	
86xx	UVF Determinative
8630	Gasoline Range Organics (GRO)
8640	Diesel Range Organics (DRO)
8650	Total Petroleum Hydrocarbons (TPH GRO + DRO)
8660	Total Petroleum Hydrocarbons (TPH)
8670	Polycyclic Aromatic Hydrocarbons (PAHs)

Note: 8650 uses the GRO and DRO methods to report TPH as the sum of the two fractions. 8660 differs from 8650, it's site-specific and uses the source oil for calibration and analysis.

- The UVF methods are determinative, providing quantitative results and quality for the 8000 Series.
- The 86xx category is new. The five method numbers proposed are available and have not been used before.
- Test names given for each method are similar to other test method names for consistency. These names are subject to change, if needed.
- Space is available in this numbering sequence to add additional UVF test methods in the future. For example, TPH oil in water (OIW) analysis mentioned in 8660 without solvent extraction would be beneficial to industry. The EPH Aromatics analysis mentioned in 8670 may have demand and would provide better clarity from PAHs.

I look forward to your support. Please contact me if you have questions or need more information. Thank you.

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