



FLORIDA DEPARTMENT OF Environmental Protection

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Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Interim Secretary

VIA EMAIL
Read Receipt Requested

August 10, 2021

Stephen Cantin
Corporate Quality Assurance Officer
Advanced Environmental Laboratories, Inc.
9610 Princess Palm Avenue
Tampa, FL 33619
E-mail: scantin@aellab.com

Re: Alternative Limited-Use Methods Approval for Advanced Environmental Laboratory, Inc.
Tampa Location

Dear Mr. Cantin,

The Aquatic Ecology and Quality Assurance Section (AEQAS) of the Department of Environmental Protection (department) has reviewed the method validation information submitted by Advanced Environmental Laboratory, Inc.- Tampa Location (AEL-Tampa) and has approved limited-use alternative sample preparation procedures for EPA Method 8270D in single ion mode (SIM) and DEP method FL-PRO 2018 in which a single aliquot of sample water is used to perform sample extraction procedures for both analyses. The method modifications include the addition of SIM surrogates to FL-PRO samples [including quality control (QC) samples] prior to extraction and the addition of acid preservation to samples analyzed for polycyclic aromatic hydrocarbon (PAH) analysis by EPA method 8270D in SIM. The preparation steps for both methods are combined for the creation of the extract, and the resulting extract is analyzed separately for each method. No modifications to either method occur beyond the preparation of the extract. This approval is for limited-use by AEL-Tampa for non-potable groundwater samples. This letter provides an approval order for alternative methods as required in paragraphs 62-160.220(7)(a) and 62-160.330(8)(a), Florida Administrative Code (F.A.C.).

Scope of Approval

The alternative methods for the addition of SIM surrogates to FL-PRO samples [including quality control (QC) samples] prior to extraction and the addition of acid preservation to samples analyzed for PAH analysis by EPA method 8270D in SIM as described in the AEL-Tampa Standard Operating Procedures (SOP) listed below are approved as limited-use field and laboratory methods, as defined in Rule 62.160.120(13), F.A.C., and as designated in paragraphs 62-160.220(7)(a) and 62-160.330(8)(a), F.A.C., and DEP-QA-001/01, which is incorporated by reference in subsection 62-160.800(5), F.A.C.

A copy of this approval letter and the following supporting documents, which are located on the AEQAS [Alternative Method Approvals Webpage](#), describe the specific procedures, demonstration of equivalency, and data usability recommendations for this approval.

- The AEL-Tampa SOP titled, "Standard Operating Procedure for Method 8270C/D/E SIM Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) in Selective Ion Mode (SIM) (SOP No. SVOC-028, Revision No. 12, Effective date 2020-12-22)."
- The AEL-Tampa SOP titled, "Standard Operating Procedure for FL-PRO 2018 Determination of Petroleum Range Organics (SOP No. SVOC-004, Revision No. 11, Effective date 1/13/2021)."

These approvals are for use exclusively by Advanced Environmental Laboratory, Inc.-Tampa location, DOH ID E84589, per paragraphs 62-160.220(6)(a) and 62-160.330(6)(a), F.A.C., for the analysis of total petroleum hydrocarbons (TPH) and PAH in non-potable water samples collected from a groundwater matrix where chlorine is not suspected to be present. These alternative methods may not be used for other matrices, analytes, methods or sample concentration ranges or by another laboratory without separate review and approval by the department. These alternative methods may not be used for analysis of discharges regulated under the National Pollutant Discharge Elimination System (NPDES) permit program (Subsection 62-160.330(9), F.A.C) or for analysis of compliance samples under the Safe Drinking Water Act (Subsection 62-160.330(10), F.A.C). These alternative methods may not be used for Department of Defense (DOD) Environmental Laboratory Accreditation Program (ELAP) certified laboratory analyses.

Addition of SIM surrogates to the FL-PRO and QC samples prior to extraction is approved for TPH. Alternative preservation by acidification of PAH samples for extraction is approved for the following parameters, listed with their CAS numbers:

- Naphthalene (91-20-3)
- 2-Methylnaphthalene (91-57-6)
- 1-Methylnaphthalene (90-12-0)
- Acenaphthylene (208-96-8)
- Acenaphthene (83-32-9)
- Fluorene (86-73-7)
- Phenanthrene (85-01-8)
- Anthracene (120-12-7)
- Fluoranthene (206-44-0)
- Pyrene (129-00-0)
- Benzo[a]anthracene (56-55-3)
- Chrysene (218-01-9)
- Benzo[b]fluoranthene (205-99-2)
- Benzo[k]fluoranthene (207-08-9)
- Benzo[a]pyrene (50-32-8)
- Indeno(1,2,3-cd)pyrene (193-39-5)
- Dibenzo(a,h)anthracene (53-70-3)
- Benzo[g,h,i]perylene (191-24-2)

Basis for Approval

AEQAS reviewed validation documentation submitted by AEL-Tampa, including standard operating procedures, instrument results, demonstrations of equivalency, and associated records for the requested method modifications, and a summary of the materials and conclusions of the review are outlined below.

Acidification of PAH samples

The FL-PRO method requires that samples be preserved to $\leq 6^{\circ}\text{C}$ and pH less than 2 using either hydrochloric acid or sulfuric acid (see table FS 1000-5 in DEP-SOP-001/01, revision date, January 2017). To show that acidification of the sample to pH less than 2 during the extraction procedure for PAH analysis does not have an effect on PAH results, AEL-Tampa conducted an equivalency study in which samples were analyzed with and without acid preservation and were shown to be equivalent at the 95% confidence level using the overlap of confidence intervals procedure in section 4.1 of “Alternative and Modified Laboratory Methods” (DEP-QA-001/01, rev. Jan 2017). Both treatments met the temperature preservation requirement of $\leq 6^{\circ}\text{C}$. Overlap of the confidence intervals for the method detection limit (MDL), practical quantitation limit (PQL), precision and accuracy of the modified method (acid preservation) were sufficiently comparable to the unmodified method to show equivalency between the two sample treatments for the PAH analytes listed in the Scope of Approval, above. AEL-Tampa also evaluated overlap of the confidence

intervals for percent recoveries and showed that they were consistent with the established AEL-Tampa control limits for each of the PAH analytes and the surrogate samples.

AEL-Tampa defines the PQL as the lowest calibration standard or lowest quantitation limit of the method and matrix with a concentration greater than that of the MDL (SOP No. SVOC-028, Revision No. 12, Effective date 2020-12-22). The spiking concentration for the equivalency study (5 µg/mL) was set at the PQL of the unmodified method.

Addition of SIM surrogates to the FL-PRO and QC samples prior to extraction

To demonstrate that the addition of SIM surrogates, consisting of a stock PAH surrogate standard, in addition to FL-PRO surrogates [*Ortho*-terphenyl (OTP, C₁₉) and Nonatriacontane (C₃₉)] to the FL-PRO samples (and QC samples) prior to extraction does not affect the outcome of FL-PRO results, AEL-Tampa added these as spiking solutions to the samples and determined percent recoveries for each. Percent recoveries were compared to the single-laboratory method acceptance criteria for surrogate recovery in water specified by the FL-PRO method and the percent recoveries met the acceptance criteria. Furthermore, the addition of PAH surrogates to the FL-PRO samples was shown to have no measurable effect on the TPH MDL. AEL-Tampa also performed an Initial Demonstration of Capability (DoC) for the FL-PRO method with the addition of PAH surrogates, and the percent recoveries for the DoC were within acceptance criteria for the method.

Data Usability

Use of this alternative method must satisfy DEP data quality objectives for the project, permit, rule, contract, order, or data use for which it is performed, as described in paragraph 62-160.330(3)(a), F.A.C. The laboratory will indicate on the lab report that the alternative method was used for the applicable analytes.

For additional information or questions about these approvals, please contact Jessica Patronis(AEQAS) at (850) 245-8980 or Sarah Noble (AEQAS) at (850) 245-8533.

Effective Date of Approval and Notice of Rights

Pursuant to requirements in paragraph 62-160.220(7)(a), F.A.C., the department will send a notice of approval of this alternative method to subscribers enrolled to receive the Quality of Science e- Newsletter. The department will also post an approval letter and your alternative method SOP on the AEQAS webpage designated for alternative method approvals.

This action is final and effective on the date mailed (via e-mail) unless a sufficient petition for an administrative hearing is timely filed under sections 120.569 and 120.57 of the Florida Statutes as provided below. If a sufficient petition for an administrative hearing is timely filed, this agency action becomes only proposed agency action, subject to the result of the administrative review process. Therefore, on the filing of a timely and sufficient petition, this action will not be final and effective until further order of the department. Because an administrative hearing may result in the reversal or substantial modification of this action, the petitioner is advised not to proceed until the deadlines noted below for filing a petition for an administrative hearing or request for an extension of time have expired. Mediation is not available.

A person whose substantial interests are affected by the department's action may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received by the clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000. The petitioner shall also mail a copy of the petition to the Advanced Environmental Laboratory, Inc.- Tampa location, at the address indicated above at the time of filing.

Under rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the department's action may also request an extension of time to file a petition for an administrative hearing. The department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399- 3000, or via electronic correspondence at Agency_Clerk@dep.state.fl.us, before the applicable deadline. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon. If a request is filed late, the department may still grant it upon a motion by the requesting party showing that the failure to file a request for an extension of time before the deadline was the result of excusable neglect.

If a timely and sufficient petition for an administrative hearing is filed, other persons whose substantial interests will be affected by the outcome of the administrative process have the right to petition to intervene in the proceeding. Intervention will be permitted only at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-106.205, F.A.C.

In accordance with rules 28-106.111(2) and 62-110.106(3)(a), F.A.C., petitions for an administrative hearing by the petitioner must be filed within 21 days of receipt of

this written notice. Petitions filed by any persons who were not entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within 21 days of publication of the notice, if published, or within 21 days of receipt of the written notice, whichever occurs first. Under section 120.60(3) of the Florida Statutes, however, any person who has asked the department for notice of agency action may file a petition within 21 days of receipt of such notice, regardless of the date of publication.

The failure of any person to file a petition for an administrative hearing within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes.

A petition that disputes the material facts on which the department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, any e-mail address, any facsimile number, and telephone number of the petitioner, if the petitioner is not represented by an attorney or a qualified representative; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how the petitioner received notice of the agency decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts on which the department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301, F.A.C. Under paragraphs 120.569(2)(c) and (d) of the Florida Statutes, a petition for administrative hearing must be dismissed by the agency if the petition does not substantially comply with the above requirements or is untimely filed.

This determination constitutes an order of the department. Subject to the provisions of paragraph 120.68(7)(a) of the Florida Statutes, which may require a remand for an administrative hearing, the applicant has the right to seek judicial review of the order under section 120.68 of the Florida Statutes, by the filing of a notice of appeal under rule 9.110 of the Florida Rules of

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Appellate Procedure with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000, or via electronic correspondence at Agency_Clerk@dep.statefl.us; and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days from the date when the final order is filed with the Clerk of the department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION



David Whiting, Deputy Director
Division of Environmental Assessment and Restoration
2600 Blair Stone Road
Tallahassee, FL 32399
Tel: 850-245-8191

Copies furnished to:

Kenneth Hayman, DEP, Office of
General Counsel File

CERTIFICATE OF SERVICE

The undersigned duly designated clerk hereby certifies that this determination, including all copies, was emailed before the close of business on, August 10, 2021, to the above listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to 120.52(7) Florida Statutes,
with the designated department Clerk,
receipt of which is hereby acknowledged.

Ashley Phillips

Clerk

8/10/2021

Date