TETRA TECH

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December 3, 2023

Mr. Josh Peters
On-Scene Coordinator
U.S. Environmental Protection Agency, Region 5
Superfund and Emergency Management Division
2565 Plymouth Road
Ann Arbor, MI 48105

Subject: **Data Validation Report**
E Palestine Site - ER
EPA Contract No.: 68HE0519D0005
Task Order/Task Order Line-Item No.: 68HE0520F0032/0001EB201
Document Tracking No. 2355

Dear Mr. Peters:

Tetra Tech, Inc. (Tetra Tech) is submitting this data validation report for seven air samples (including two field duplicate samples and one field blank sample) collected at the E Palestine site. The samples were collected on November 10, 2023, and were analyzed for acrylates by Eurofins Analytics, LLC. The final laboratory data package was received on November 15, 2023.

Analytical data were evaluated in general accordance with the Tetra Tech *Quality Assurance Project Plan East Palestine Train Derailment Site East Palestine, Addendum 4*, Revision 0 (September 2023), the Tetra Tech *Quality Assurance Project Plan, East Palestine Train Derailment Site, East Palestine, Columbiana County, Ohio,* Revision 3 (April 2023), the Tetra Tech *Quality Assurance Project Plan, Superfund Technical Assessment and Response Team (START V), EPA Region 5,* Revision 4 (August 2022), and the *National Functional Guidelines (NFG) for Organic Superfund Methods Data Review* (November 2020).

No qualification or rejection of results was required for these data packages. The results may be used as reported by the laboratory.

Please contact me if you have any questions regarding this data validation report.

Sincerely,

Casey Cormier

Digitally signed by Casey Cormier
Date: 2023.12.03 11:46:24 -05'00'

Environmental Chemist

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Enclosure

cc: Karl Schultz, Tetra Tech Program Manager
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Mayra Arroyo Ortiz, Tetra Tech Project Document Control Coordinator
TO-TOLIN File

ATTACHMENT

DATA VALIDATION REPORT
EUROFINS ANALYTICS, LLC NOS. B317-073

DATA VALIDATION CHECKLIST – STAGE 2A
EPA REGION 5 START CONTRACT

Site Name	E Palestine Site - ER	TO/TOLIN No.	68HE0520F0032/0001EB201
Document Tracking No.	2355		
Laboratory Report No.	B317-073	Laboratory	Eurofins Analytics, LLC – Ashland, VA
Analyses	2-Ethylhexyl acrylate and n-butyl acrylate by laboratory standard operating procedure (SOP) IHGC-P029		
Samples and Matrix	Seven air samples including one field blank and two field duplicates		
Collection Date(s)	11/10/2023		
Field Duplicate Pairs	ADV-SS-01/-01B/20231110-ES / ADV-SS-01/01-B/20231110-ESD ADV-IA-01/01-B/20231110-ES / ADV-IA-01/01-B/20231110-ESD		
Field QC Blanks	FB-20231110		

INTRODUCTION

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the Tetra Tech *Quality Assurance Project Plan East Palestine Train Derailment Site East Palestine, Addendum 4*, Revision 0 (September 2023), the Tetra Tech *Quality Assurance Project Plan, East Palestine Train Derailment Site, East Palestine, Columbiana County, Ohio,* Revision 3 (April 2023), the Tetra Tech *Quality Assurance Project Plan, Superfund Technical Assessment and Response Team (START V), EPA Region 5*, Revision 4 (August 2022), and the EPA *National Functional Guidelines (NFG) for Organic Superfund Methods Data Review* (November 2020).

OVERALL EVALUATION

No rejection or qualification of results was required for this data package. The results may be used as reported by the laboratory.

Data completeness:

Within Criteria	Exceedance/Notes
N	The results for the field blank were reported in units of micrograms (µg) while the other sample results were reported in units of µg, milligrams per cubic meter (mg/m3), and parts per million (ppm) (volume) in the laboratory report and only in units of ppm in the laboratory electronic data deliverable (EDD). Therefore, the attached data table reports the results for the field blank in units of µg, and the field samples in units of ppm. Rohm & Haas IH9805 was cited in the AIHA certification as "IHGC-P029" and may be cited by the abbreviation "Rohm & Haas IH9805" or "IHGC-P029" interchangeably throughout the laboratory report. Note, the following fields in the laboratory EDD may be formatted as date only or as date/time: Date_Collected, Date_Received, Date_Extracted, and Date_Analyzed. The time value was not required to be provided in the EDD. If no time value was provided, then the entered value may appear as date only or with a default time value of 0:00, 00:00, or similar. Sample ADV-SS-10/10-B/20231110-ES was cancelled due to moisture visible in the tubes. Two samples were collected in series per location and are included in the COC as separate samples. The laboratory reported the samples collected in series as one sample in the laboratory report and EDD.

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	

Method blanks:

Within Criteria	Exceedance/Notes
Y	

Field blanks:

Within Criteria	Exceedance/Notes
Y	

Surrogates and labeled compounds:

Within Criteria	Exceedance/Notes
NA	

MS/MSDs:

Within Criteria	Exceedance/Notes
NA	

Laboratory duplicates:

Within Criteria	Exceedance/Notes
NA	

Field duplicates:

Within Criteria	Exceedance/Notes
Y	

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
N	The laboratory report(s) and the laboratory EDD have one or more minor discrepancies in the LCS/LCSD results (+/- 1 ug), RPDs (+/- 2%) and/or percent recoveries (+/- 1%) that were verified with the laboratory to be a significant figures issue. No qualifications were applied.

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Method detection limits were not reported. Nondetect sample results were reported as less than the reporting limit in the laboratory report and at the reporting limit (flagged U) in the validated EDD and attached analytical results summary.

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [None]:

Within Criteria	Exceedance/Notes
NA	

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

E PALESTINE SITE - ER AIR ANALYTICAL RESULTS SUMMARY
EUROFINS ANALYTICS, LLC REPORT NO. B317-073

Sample_ID	Method	CAS#	Analyte	Lab Result	Lab Qual	RL	Units	VAL_Result	VAL_Qual
ADV-IA-10/10-B/20231110-ES	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.006	U	0.006	ppm	0.006	U
ADV-IA-10/10-B/20231110-ES	IHGC-P029	141-32-2	n-Butyl acrylate	0.004	U	0.004	ppm	0.004	U
ADV-IA-01/01-B/20231110-ES	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.006	U	0.006	ppm	0.006	U
ADV-IA-01/01-B/20231110-ES	IHGC-P029	141-32-2	n-Butyl acrylate	0.004	U	0.004	ppm	0.004	U
ADV-IA-01/01-B/20231110-ESI	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.006	U	0.006	ppm	0.006	U
ADV-IA-01/01-B/20231110-ESI	IHGC-P029	141-32-2	n-Butyl acrylate	0.004	U	0.004	ppm	0.004	U
ADV-SS-01/-01B/20231110-ESI	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.006	U	0.006	ppm	0.006	U
ADV-SS-01/-01B/20231110-ESI	IHGC-P029	141-32-2	n-Butyl acrylate	0.004	U	0.004	ppm	0.004	U
ADV-SS-01/01-B/20231110-ES	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.006	U	0.006	ppm	0.006	U
ADV-SS-01/01-B/20231110-ES	IHGC-P029	141-32-2	n-Butyl acrylate	0.004	U	0.004	ppm	0.004	U
FB-20231110	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	2.8	U	2.8	ug	2.8	U
FB-20231110	IHGC-P029	141-32-2	n-Butyl acrylate	1.3	U	1.3	ug	1.3	U
ADV-AM-S/S-B/20231110-ES	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.006	U	0.006	ppm	0.006	U
ADV-AM-S/S-B/20231110-ES	IHGC-P029	141-32-2	n-Butyl acrylate	0.004	U	0.004	ppm	0.004	U