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May 15, 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. 1833**

Dear Mr. Peters:

Tetra Tech, Inc. (Tetra Tech) is submitting this data validation report for thirty five air samples collected at the E Palestine Site. The samples were collected on March 20, 2023 and were analyzed for 2-Ethylhexyl Acrylate and n-Butyl Acrylate by method IHGC-P029 (IH9805) by Eurofins Analytics Ashland, Virginia. The final laboratory data package was received on May 3, 2023.

Analytical data were evaluated in general accordance with 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 rejection of results was required for this data package, except that two samples were analyzed that had recorded “pump fault” on the chain of custody; thus, the volume of air collected is unknown and those results should be disregarded as noted in the attached documentation. The results may be used as qualified based on the findings of this validation effort. If you have any questions regarding this data validation report, please feel free to contact me.

Sincerely,

Bruce Welch
Digitally signed by Bruce Welch
Date: 2023.05.15 19:13:02 -05'00'

Enclosure

cc: Karl Schultz, Tetra Tech Program Manager
Dustin Grams, Tetra Tech Project Manager
Mayra ArroyoOrtiz, Tetra Tech Project Document Control Coordinator
TO-TOLIN File

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ATTACHMENT

**DATA VALIDATION REPORT
EUROFINS ANALYTICS REPORT NOS. B081-011 AND B081-012**

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

Site Name	E Palestine Site - ER	TO/TOLIN No.	68HE0520F0032/0001EB201
Document Tracking No.	DTN 1833a	Laboratory	Eurofins Analytics, LLC, Ashland VA
Laboratory Report No.	B081-011		
Analyses	2-Ethylhexyl Acrylate and n-Butyl Acrylate by method IHGC-P029 (IH9805)		
Samples and Matrix	Seventeen (17) Air Samples		
Collection Date(s)	03/20/2023		
Field Duplicate Pairs	NA		
Field QC Blanks	EPD-ST-FB-032023-1		

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, 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 of results was required for this data package; except that two samples (EPD-ST-WA-31-032023-1 and EPD-ST-WA-6-032023-1) were analyzed that were identified in the chain of custody (COC) as having “Pump Fault”. The results for these two samples should be disregarded; all other results may be used as qualified based on the findings of this validation effort.

Data completeness:

Within Criteria	Exceedance/Notes
Y	Level II SDG did not have required QC forms thus a level IV package was reviewed.

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	There were samples present on the COC, with remarks stating “PUMP FAULT.” Results for these samples may be disregarded: EPD-ST-WA-06-032023-1 and EPD-ST-WA-03-032023-2.

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

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
NA	

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

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
Y	

Sample dilutions:

Within Criteria	Exceedance/Notes
NA	

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [specify]:

Within Criteria	Exceedance/Notes
NA	

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

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.
NF	The tentatively identified compound was manually searched for but was not found in the sample.

E PALESTINE SITE - ER AIR ANALYTICAL RESULTS SUMMARY
EUROFINS ANALYTICS REPORT NO. B081-011

Sample_ID	Method	CAS#	Analyte	Lab_Result	Lab_Qual	MDL	RL	Units	VAL_Result	VAL_Qual
EPD-ST-8H-DW-01-032023-1	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-8H-DW-01-032023-1	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.013	U			0.013 ppm	0.013	U
EPD-ST-8H-WA-04-032023-1	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.018	U			0.018 ppm	0.018	U
EPD-ST-8H-WA-04-032023-1	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.012	U			0.012 ppm	0.012	U
EPD-ST-DW-01-032023-1	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.027	U			0.027 ppm	0.027	U
EPD-ST-DW-01-032023-1	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.018	U			0.018 ppm	0.018	U
EPD-ST-DW-01-032023-2	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-DW-01-032023-2	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-FB-032023-1	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	2.8	U			2.8 ug	2.8	U
EPD-ST-FB-032023-1	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	1.3	U			1.3 ug	1.3	U
EPD-ST-UW-01-032023-1	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-UW-01-032023-1	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-UW-01-032023-2	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.027	U			0.027 ppm	0.027	U
EPD-ST-UW-01-032023-2	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.018	U			0.018 ppm	0.018	U
EPD-ST-WA-01-032023-1	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.035	U			0.035 ppm	0.035	U
EPD-ST-WA-01-032023-1	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.024	U			0.024 ppm	0.024	U
EPD-ST-WA-01-032023-2	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-WA-01-032023-2	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-02-032023-1	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.026	U			0.026 ppm	0.026	U
EPD-ST-WA-02-032023-1	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.017	U			0.017 ppm	0.017	U
EPD-ST-WA-02-032023-2	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-02-032023-2	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-03-032023-1	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.027	U			0.027 ppm	0.027	U
EPD-ST-WA-03-032023-1	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.018	U			0.018 ppm	0.018	U
EPD-ST-WA-04-032023-1	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-04-032023-1	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-04-032023-2	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-WA-04-032023-2	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-05-032023-1	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-WA-05-032023-1	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-05-032023-2	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-WA-05-032023-2	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-06-032023-2	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-06-032023-2	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U

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

Site Name	E Palestine Site - ER	TO/TOLIN No.	68HE0520F0032/0001EB201
Document Tracking No.	DTN 1833b	Laboratory	Eurofins Analytics, LLC, Ashland VA
Laboratory Report No.	B081-012	Analyses	
		2-Ethylhexyl Acrylate and n-Butyl Acrylate by method IHGC-P029 (IH9805)	
Samples and Matrix	Eighteen (18) Air Samples		
Collection Date(s)	03/20/2023		
Field Duplicate Pairs	NA		
Field QC Blanks	EPD-ST-FB-032023-2		

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, 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 of results was required for this data package. The results may be used as qualified based on the findings of this validation effort. .

Data completeness:

Within Criteria	Exceedance/Notes
Y	Level II SDG did not have required QC forms thus a level IV package was reviewed.

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

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes						
Y	The following sample IDs were corrected in the EDD and results summary table during validation: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th style="text-align: center;">Incorrect Sample ID</th> <th style="text-align: center;">Correct Sample ID</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">EPD-ST-UW-01-0322023-4</td> <td style="text-align: center;">EPD-ST-UW-01-032023-4</td> </tr> <tr> <td style="text-align: center;">EPD-ST-WA-01-0322023-3</td> <td style="text-align: center;">EPD-ST-WA-01-032023-3</td> </tr> </tbody> </table>	Incorrect Sample ID	Correct Sample ID	EPD-ST-UW-01-0322023-4	EPD-ST-UW-01-032023-4	EPD-ST-WA-01-0322023-3	EPD-ST-WA-01-032023-3
Incorrect Sample ID	Correct Sample ID						
EPD-ST-UW-01-0322023-4	EPD-ST-UW-01-032023-4						
EPD-ST-WA-01-0322023-3	EPD-ST-WA-01-032023-3						

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	

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

Laboratory duplicates:

Within Criteria	Exceedance/Notes
NA	

Field duplicates:

Within Criteria	Exceedance/Notes
NA	

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
Y	

Sample dilutions:

Within Criteria	Exceedance/Notes
NA	

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	

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

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [specify]:

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.
NF	The tentatively identified compound was manually searched for but was not found in the sample.

E PALESTINE SITE - ER AIR ANALYTICAL RESULTS SUMMARY
EUROFINS ANALYTICS REPORT NO. B081-012

Sample_ID	Method	CAS#	Analyte	Lab_Result	Lab_Qual	MDL	RL	Units	VAL_Result	VAL_Qual
EPD-ST-8H-WA-03-032023-2	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-8H-WA-03-032023-2	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.013	U			0.013 ppm	0.013	U
EPD-ST-DW-01-032023-3	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.027	U			0.027 ppm	0.027	U
EPD-ST-DW-01-032023-3	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.018	U			0.018 ppm	0.018	U
EPD-ST-DW-01-032023-4	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.031	U			0.031 ppm	0.031	U
EPD-ST-DW-01-032023-4	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.021	U			0.021 ppm	0.021	U
EPD-ST-FB-032023-2	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	2.8	U			2.8 ug	2.8	U
EPD-ST-FB-032023-2	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	1.3	U			1.3 ug	1.3	U
EPD-ST-UW-01-032023-3	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.027	U			0.027 ppm	0.027	U
EPD-ST-UW-01-032023-3	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.018	U			0.018 ppm	0.018	U
EPD-ST-UW-01-032023-4	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-UW-01-032023-4	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-01-032023-4	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-01-032023-4	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-01-032023-3	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.027	U			0.027 ppm	0.027	U
EPD-ST-WA-01-032023-3	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.018	U			0.018 ppm	0.018	U
EPD-ST-WA-02-032023-3	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-02-032023-3	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-02-032023-4	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.035	U			0.035 ppm	0.035	U
EPD-ST-WA-02-032023-4	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.023	U			0.023 ppm	0.023	U
EPD-ST-WA-03-032023-3	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.026	U			0.026 ppm	0.026	U
EPD-ST-WA-03-032023-3	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.017	U			0.017 ppm	0.017	U
EPD-ST-WA-03-032023-4	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.031	U			0.031 ppm	0.031	U
EPD-ST-WA-03-032023-4	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-04-032023-3	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-04-032023-3	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-04-032023-4	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-04-032023-4	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-05-032023-3	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.026	U			0.026 ppm	0.026	U
EPD-ST-WA-05-032023-3	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.017	U			0.017 ppm	0.017	U
EPD-ST-WA-05-032023-4	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.032	U			0.032 ppm	0.032	U
EPD-ST-WA-05-032023-4	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.022	U			0.022 ppm	0.022	U
EPD-ST-WA-06-032023-3	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.027	U			0.027 ppm	0.027	U
EPD-ST-WA-06-032023-3	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.018	U			0.018 ppm	0.018	U
EPD-ST-WA-06-032023-4	Rohm & Haas	IH9805 103-11-7	2-Ethylhexyl acrylate	0.031	U			0.031 ppm	0.031	U
EPD-ST-WA-06-032023-4	Rohm & Haas	IH9805 141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U