

**State of Hawaii, Department of Health, Clean Air Branch**  
**2023 Maui Wildfires**  
**Ambient Community Air Monitoring and Sampling Weekly Report**  
**Lahaina, Maui**

**January 23 through January 29, 2025**

Tetra Tech, Inc. (Tetra Tech) prepared a Community Air Monitoring and Sampling Plan (CAMSP) to address the evaluation and documentation of air quality and inhalation exposure risks during debris removal operations performed in response to the 2023 Maui Wildfires. Air monitoring and sampling as prescribed in the CAMSP will continue until debris removal activities are complete or until HDOH advises otherwise.

Particulate monitoring and air sampling occurred from January 23 through January 29, 2025, at the community locations listed below and shown on **Figure 1**.

- WW Pump Station #4 (AM-02)
- Opukea Townhomes (AM-05)
- Lahaina Pump Station #6 (AM-08)
- Maria Lanakila Catholic Church (AM-09)

Real-time air quality monitoring for particulate matter was collected at each community location over a 24-hour period each day in accordance with the CAMSP. Ambient air monitoring was performed to assess the presence of airborne particulates with a particle size diameter of 10 micrometers ( $\mu\text{m}$ ), which is the size that is recognized as being small enough to be inhaled into a person's lungs. This particle size diameter is recognized for health evaluations and is identified as "PM<sub>10</sub>". Monitoring for PM<sub>10</sub> was conducted 24 hours a day, 7 days a week from January 23 through January 29, 2025 at each of the community locations. Ambient air monitoring results were compared to the National Ambient Air Quality Standard (NAAQS) for PM<sub>10</sub>, 24-hour time-weighted average of 150 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), which was selected as the screening level for this activity.

This weekly report does not address air quality monitoring results for fine particulate matter (particle size diameter of 2.5  $\mu\text{m}$  or less [PM<sub>2.5</sub>]). This was not necessary because the Department of Health/U.S. Environmental Protection Agency (EPA) monitors for this parameter at six locations in Lahaina, and the results from that monitoring are accessible at <https://fire.airnow.gov/>.

Air samples were analyzed for asbestos and 16 metals, including antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, molybdenum, nickel, selenium, thallium, vanadium, and zinc. Analytical results were compared to Site Screening Action Levels (SSALs) as presented in the CAMSP.

### ***Air Monitoring Results***

In addition to the air sampling activities, real-time PM<sub>10</sub> concentrations were collected at each of the four monitoring locations throughout this reporting period. Monitoring was conducted 24 hours a day at each station.

The PM<sub>10</sub> monitoring results were found to have exceeded the 150  $\mu\text{g}/\text{m}^3$  TWA screening level on two days: at the Lahaina Pump Station #6 monitoring location on January 26, and at the Maria Lanakila Catholic Church and Lahaina Pump Station #6 monitoring locations on January 27 as shown in **Table 1**.

The air monitoring and sampling stations at Lahaina Pump Station #6 and Maria Lanakila Catholic Church exceedances may have been attributable to high humidity. The exceedances on January 26 and 27 are described below:

- On January 26, no United States Army Corps of Engineers (USACE) debris crews were observed near the Lahaina Pump Station #6 monitoring station. Air monitoring data were not related to USACE operations because debris removal operations were not being conducted near this monitoring location.
  - Humidity averaged 75 percent at Lahaina Pump Station #6 with humidity reaching as high as 86 percent throughout the day. Excessive humid conditions can create a cumulative build-up on the particulate measurement tape utilized at the monitoring stations. The heating element used in the instrument is not able to evaporate the excess moisture resulting in the reporting of elevated particulate data.
- On January 27, United States Army Corps of Engineers (USACE) debris crews were observed near the Lahaina Pump Station #6 monitoring station. Elevated particulate data contributing to the TWA exceedance was recorded in the early morning and late evening, outside of USACE debris crew operational hours. Air monitoring data were not related to USACE operations because debris removal operations were not being conducted in the early morning and late evening.
  - Humidity averaged 72 percent at Lahaina Pump Station #6 with humidity reaching as high as 88 percent throughout the day. Excessive humid conditions can create a cumulative build-up on the particulate measurement tape utilized at the monitoring stations. The heating element used in the instrument is not able to evaporate the excess moisture resulting in the reporting of elevated particulate data.
- On January 27, no United States Army Corps of Engineers (USACE) debris crews were observed near the Maria Lanakila Catholic Church monitoring station. Air monitoring data were not related to USACE operations because debris removal operations were not being conducted near this monitoring location.
  - Humidity averaged 75 percent at Maria Lanakila Catholic Church with humidity reaching as high as 94 percent throughout the day. Excessive humid conditions can create a cumulative build-up on the particulate measurement tape utilized at the monitoring stations. The heating element used in the instrument is not able to evaporate the excess moisture resulting in the reporting of elevated particulate data.

### ***Air Sampling Results***

A total of 28 samples for asbestos fibers were collected during this reporting period. All analytical results from this reporting period were below the SSAL for asbestos of 0.003 structures per cubic centimeter (s/cc), as results were below the laboratory's analytical sensitivity (see **Table 2**). The laboratory included the comment "Numerous gypsum fibers present" for samples collected at the following monitoring stations:

- Opukea Townhomes on January 23 through 26
- WW Pump Station #4 on January 23 through 26
- Lahaina Pump Station #6 on January 23 through 26
- Maria Lanakila Catholic Church on January 23 through 27

Gypsum is a common material used in drywall, plaster, and cement, so its presence in the sample filters likely resulted from debris removal operations or other disturbances of built-environment fire debris. The presence of gypsum fibers in the samples was not sufficient to obscure asbestos analyses; nor did this pose a health and safety concern. Occupational health exposure thresholds for gypsum are 5 milligrams per cubic meter (mg/m<sup>3</sup>) for respirable dust, and 10 mg/m<sup>3</sup> and 15 mg/m<sup>3</sup> for total dust (both as time-weighted averages), specified by the National Institute for Occupational Safety and Health (NIOSH) and the Occupational Safety and Health Administration (OSHA). While total dust sampling was not performed, results of size-discriminated particulate sampling (PM<sub>10</sub>) at these locations did not approach these thresholds and are orders of magnitude less than occupational gypsum exposure criteria.

Low levels of metals were detected from samples collected at all community locations. However, all detections were below their respective SSALs (see **Table 2**).

Laboratory data sheets conveying asbestos and metals results are in **Appendix 1**.

### ***Meteorological Summary***

Overall wind conditions during this weekly event averaged 1.3 miles per hour and were generally from a south-southeast direction. **Table 3** summarizes the collected meteorological data.

### ***Quality Control Summary***

This section presents quality control measures implemented throughout the air monitoring and sampling reporting period. All references and standard operating procedures (SOPs) are included in the CAMSP.

Air monitoring was performed using Met One Instruments, Inc., environmental beta attenuation mass monitors (E-BAM) to allow comparison to NAAQS for particulates. E-BAMs are factory-calibrated annually and do not require daily calibrations. Leak checks and a flow audit were performed before each monitoring activity, in accordance with the manufacturer's procedures.

Asbestos sampling was performed using Casella Vortex 3 (or similar) air sampling pumps. Sampling flow rates were determined and documented by pre- and post-calibration of each sampling pump, using a primary calibration standard. Pump calibration and sampling were performed according to Tetra Tech SOPs 064-2 "Calibration of Air Sampling Pump" and 073-3, "Air Quality Monitoring" and EPA Environmental Response Team (ERT) SOPs 2008 "General Air Monitoring and Sampling Guidelines" and 2015 "Asbestos Air Sampling," included in the CAMSP.

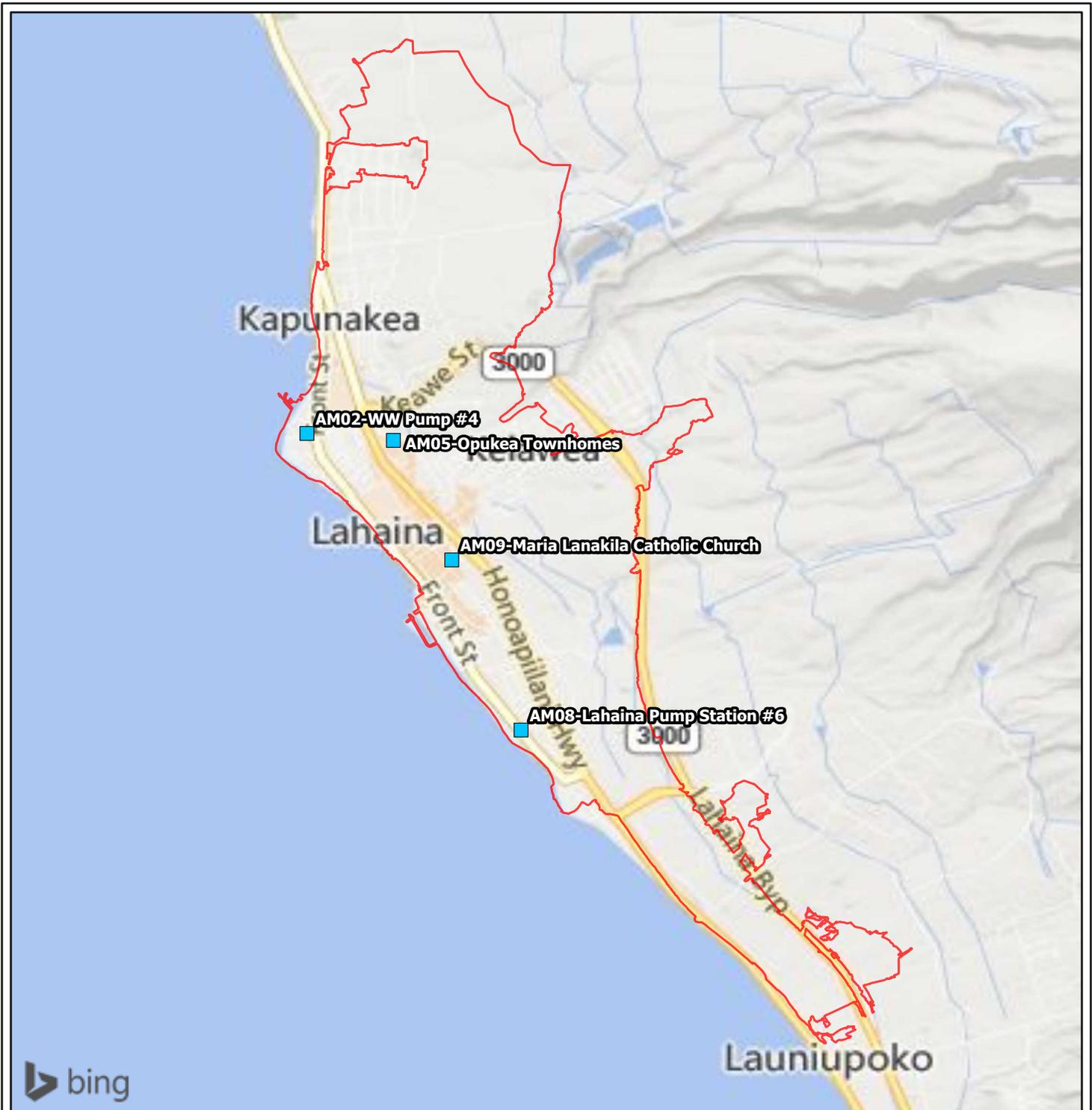
Sampling for metals occurred using Tisch Environmental High Volume Air Samplers (or equivalent) in accordance with the following methods:

- EPA Compendium Method IO-2.1, Sampling of Ambient Air for Total Suspended Particulate Matter (SPM) and for PM<sub>10</sub> by Use of a High Volume (HV) Sampler
- EPA Compendium Method IO-3.5: Compendium of Methods for Determination of Inorganic Compounds in Ambient Air: Determination of Metals in Ambient Particulate Matter Via Inductively Coupled Plasma/Mass Spectrometry (ICP/MS) EPA/625/R-96/010a
- EPA 40 *Code of Federal Regulations* (CFR) Part 50, Method for Determination of Lead in Total Suspended Particulate Matter
- EPA 40 CFR Part 58, Appendix E: Probe and Monitoring Path Siting Criteria for Ambient Air Quality Monitoring
- American Society for Testing and Materials (ASTM) SOPs for Lead Monitoring by Use of a Total Suspended Particulate (TSP) High Volume Sampler

Field technicians conducted photographic and written documentation in accordance with Tetra Tech SOP No. 024-4, "Recording of Notes in Field Logbook".

Following receipt of air sampling results from off-site analytical laboratories, analytical data were compared to SSALs and are maintained in an electronic database. All data were subjected to Level 1 data verification and are reviewed by an industrial hygienist.

## **Attachments**



- Lahaina Fire Perimeter
- Air Sampling Locations

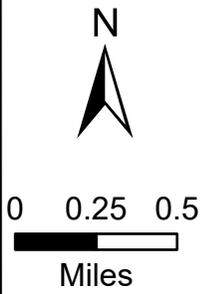


Figure 1  
Air Sampling Locations

Hawaii DOH  
2023 Lahaina Wildfire

**Table 1**  
**State of Hawaii, Department of Health, Clean Air Branch**  
**Particulate Monitoring Results for PM<sub>10</sub>**  
**Maui Wildfires, Lahaina**  
**January 23 through January 29, 2025**

Screening Level		TWA Results 150 (µg/m <sup>3</sup> )
1/23/2025	Opukea Townhomes (AM-05)	11
	WW Pump Station #4 (AM-02)	9.8
	Maria Lanakila Catholic Church (AM-09)	130
	Lahaina Pump Station #6 (AM-08)	9.6
1/24/2025	Opukea Townhomes (AM-05)	12
	WW Pump Station #4 (AM-02)	8.8
	Maria Lanakila Catholic Church (AM-09)	65
	Lahaina Pump Station #6 (AM-08)	6.8
1/25/2025	Opukea Townhomes (AM-05)	9.7
	WW Pump Station #4 (AM-02)	7.9
	Maria Lanakila Catholic Church (AM-09)	10
	Lahaina Pump Station #6 (AM-08)	5.5
1/26/2025	Opukea Townhomes (AM-05)	9.3
	WW Pump Station #4 (AM-02)	8.6
	Maria Lanakila Catholic Church (AM-09)	14
	Lahaina Pump Station #6 (AM-08)	<b>222</b>
1/27/2025	Opukea Townhomes (AM-05)	10
	WW Pump Station #4 (AM-02)	11
	Maria Lanakila Catholic Church (AM-09)	<b>223</b>
	Lahaina Pump Station #6 (AM-08)	<b>282</b>
1/28/2025	Opukea Townhomes (AM-05)	7.4
	WW Pump Station #4 (AM-02)	5.8
	Maria Lanakila Catholic Church (AM-09)	121
	Lahaina Pump Station #6 (AM-08)	5.9
1/29/2025	Opukea Townhomes (AM-05)	8.2
	WW Pump Station #4 (AM-02)	6.8
	Maria Lanakila Catholic Church (AM-09)	8.2
	Lahaina Pump Station #6 (AM-08)	5.0

**Notes:**

µg/m<sup>3</sup> = micrograms per cubic meter

TWA = 24-Hour Time-Weighted Average

TWA calculation results are shown in two significant figures

**Shaded cell indicates an exceedance of screening level**

**Table 2**  
**State of Hawaii, Department of Health, Clean Air Branch**  
**Asbestos and Metals Sampling Results**  
**Maui Wildfires, Lahaina**  
**January 23 through January 29, 2025**

Analyte		Asbestos	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Manganese	Molybdenum	Nickel	Selenium	Thallium	Vanadium	Zinc
Units*		s/cc	µg/m <sup>3</sup>															
Site Screening Action Level		0.003 <sup>1</sup>	0.7	0.05	1.2	0.05	0.02	12	0.01	240	1.5	0.12	4.8	0.02	48	24	0.24	1200
1/23/2025	Opukea Townhomes (AM-05)	<0.0024	0.000150	0.000142	0.00391	0.00000467	0.0000112	ND	0.000145	0.0772	0.000342	0.00433	0.00292	0.000917	0.000230	ND	0.000595	ND
	WW Pump Station #4 (AM-02)	<0.0024	0.000236	0.000181	0.00330	0.00000344	0.0000106	ND	0.0000939	0.0649	0.000366	0.00284	0.00253	0.000795	0.000235	0.000000704	0.000460	ND
	Maria Lanakila Catholic Church (AM-09)	<0.0024	0.000107	0.000202	0.00304	0.00000316	0.0000427	ND	0.000103	0.0255	0.000367	0.00339	0.00145	0.000747	0.000243	ND	0.000455	ND
	Lahaina Pump Station #6 (AM-08)	<0.0024	0.000191	0.000187	0.00257	0.00000280	0.0000316	ND	0.000128	0.0372	0.000415	0.00314	0.00200	0.00185	0.000223	ND	0.000384	ND
1/24/2025	Opukea Townhomes (AM-05)	<0.0024	0.000265	0.000198	0.00717	0.0000110	0.0000174	0.00225	0.000392	0.0930	0.000481	0.0102	0.00325	0.00160	0.000341	0.00000132	0.00148	ND
	WW Pump Station #4 (AM-02)	<0.0024	0.000397	0.000365	0.00906	0.0000171	0.0000200	0.00247	0.000489	0.0653	0.00115	0.0139	0.00284	0.00178	0.000368	0.00000152	0.00191	ND
	Maria Lanakila Catholic Church (AM-09)	<0.0024	0.000203	0.000404	0.00852	0.00000786	0.0000299	ND	0.000273	0.0335	0.000502	0.00675	0.00196	0.00118	0.000378	0.00000125	0.00101	ND
	Lahaina Pump Station #6 (AM-08)	<0.0024	0.000187	0.000235	0.00386	0.00000425	0.0000171	ND	0.000131	0.0521	0.000581	0.00389	0.00201	0.000887	0.000273	0.00000105	0.000691	ND
1/25/2025	Opukea Townhomes (AM-05)	<0.0024	0.000220	0.000257	0.00635	0.0000150	0.0000291	0.00244	0.000522	0.131	0.000485	0.0152	0.00355	0.00152	0.000342	0.00000301	0.00158	ND
	WW Pump Station #4 (AM-02)	<0.0024	0.000398	0.000318	0.00887	0.0000183	0.0000367	0.00248	0.000470	0.0627	0.00133	0.0152	0.00254	0.00174	0.000385	0.00000336	0.00164	ND
	Maria Lanakila Catholic Church (AM-09)	<0.0024	0.000165	0.000253	0.00411	0.00000810	0.0000331	ND	0.000287	0.0308	0.000508	0.00832	0.00175	0.000978	0.000335	0.00000300	0.000836	ND
	Lahaina Pump Station #6 (AM-08)	<0.0024	0.000121	0.000200	0.00390	0.00000519	0.0000246	ND	0.000170	0.0511	0.000314	0.00506	0.00165	0.000811	0.000301	0.00000261	0.000552	ND
1/26/2025	Opukea Townhomes (AM-05)	<0.0024	0.000120	0.000219	0.00470	0.0000128	0.0000248	ND	0.000361	0.112	0.000384	0.0128	0.00280	0.00102	0.000216	0.00000148	0.00122	ND
	WW Pump Station #4 (AM-02)	<0.0024	0.000225	0.000144	0.00464	0.00000635	0.000115	ND	0.000177	0.0651	0.000344	0.00534	0.00223	0.000824	0.000187	0.00000151	0.000632	ND
	Maria Lanakila Catholic Church (AM-09)	<0.0024	0.0000889	0.000159	0.00294	0.00000326	0.0000193	ND	0.0000931	0.0437	0.000250	0.00297	0.00186	0.000609	0.000163	0.000000755	0.000374	ND
	Lahaina Pump Station #6 (AM-08)	<0.0024	0.000119	0.000225	0.00245	0.00000363	0.00000987	ND	0.000120	0.0639	0.000196	0.00397	0.00201	ND	0.000154	ND	0.000457	ND
1/27/2025	Opukea Townhomes (AM-05)	<0.0024	0.000112	0.000125	0.00327	0.00000480	0.00000915	ND	0.000162	0.0849	0.000195	0.00476	0.00270	0.000912	0.000137	ND	0.000572	ND
	WW Pump Station #4 (AM-02)	<0.0024	0.000246	0.000161	0.00399	0.00000487	0.0000109	ND	0.000144	0.0693	0.000374	0.00447	0.00241	0.000962	0.000157	0.000000754	0.000541	ND
	Maria Lanakila Catholic Church (AM-09)	<0.0024	0.000101	0.000212	0.00290	0.00000424	0.0000116	ND	0.000140	0.0331	0.000302	0.00420	0.00174	0.000842	0.000137	ND	0.000445	ND
	Lahaina Pump Station #6 (AM-08)	<0.0024	0.000133	0.000223	0.00231	0.00000312	0.0000133	ND	0.000122	0.0357	0.000245	0.00357	0.00157	0.000752	0.000131	ND	0.000376	ND
1/28/2025	Opukea Townhomes (AM-05)	<0.0024	0.000151	0.000216	0.00536	0.0000135	0.0000189	0.00295	0.000542	0.0910	0.000328	0.0137	0.00248	0.00212	0.000120	0.000000963	0.00154	ND
	WW Pump Station #4 (AM-02)	<0.0024	0.000147	0.000266	0.00523	0.0000147	0.0000162	0.00215	0.000420	0.0641	0.00123	0.0131	0.00250	0.00145	0.000129	0.000000773	0.00137	ND
	Maria Lanakila Catholic Church (AM-09)	<0.0024	0.0000846	0.000217	0.00358	0.00000869	0.0000207	0.00217	0.000486	0.0267	0.000509	0.00974	0.00156	0.00622	0.0000937	ND	0.00105	ND
	Lahaina Pump Station #6 (AM-08)	<0.0024	0.0000996	0.000244	0.00291	0.00000972	0.000678	ND	0.000288	0.0302	0.000342	0.00777	0.00107	0.00127	0.0000918	0.00000402	0.000802	ND
1/29/2025	Opukea Townhomes (AM-05)	<0.0024	0.000211	0.000210	0.00545	0.0000134	0.0000143	0.00256	0.000538	0.0869	0.000354	0.0137	0.00286	0.00178	0.000196	0.00000104	0.00160	ND
	WW Pump Station #4 (AM-02)	<0.0024	0.000375	0.000252	0.00853	0.0000182	0.0000211	0.00236	0.000520	0.118	0.00109	0.0158	0.00397	0.00168	0.000238	0.00000111	0.00171	ND
	Maria Lanakila Catholic Church (AM-09)	<0.0024	0.000168	0.000144	0.00355	0.00000573	0.0000111	ND	0.000181	0.0385	0.000409	0.00510	0.00192	0.000860	0.000199	ND	0.000614	ND
	Lahaina Pump Station #6 (AM-08)	<0.0024	0.000113	0.000138	0.00303	0.00000460	0.0000107	ND	0.000164	0.0446	0.000287	0.00480	0.00156	0.000833	0.000146	ND	0.000518	ND
95% Upper Confidence Limit <sup>2</sup>		NA	0.000220	0.000240	0.00534	0.0000110	0.0000470	0.00258	0.000350	0.0738	0.000580	0.00981	0.00253	0.00159	0.000260	0.00000220	0.000112	NA

**Notes:**

<sup>1</sup> Asbestos result determined by transmission electron microscopy (TEM) in accordance with ISO Method 10312. PCMe results are presented.

<sup>2</sup> 95% UCL determined through 'best fit' lognormal or normal parametric statistics via W test

s/cc = structures per cubic centimeter

µg/m<sup>3</sup> = micrograms per cubic meter

NA = Not Applicable

ND = Not detected at or above the laboratory reporting limit

\* Laboratory data provided in nanograms per cubic meter, however data presented has been converted to micrograms per cubic meter so data was comparable to the Site Screening Action Levels presented in the CAMSP

**Table 3**  
**State of Hawaii, Department of Health, Clean Air Branch**  
**Averaged Meteorological Data**  
**Maui Wildfires, Lahaina**  
**January 23 through January 29, 2025**

Date	Station ID	Weather Station Name	Wind Speed (mph)	Wind Direction (angle)	Temperature (°F)	Rel Humidity (%)	Baro Pressure (mBar)
1/23/2025	AM-02	WW Pump Station #4	0.6	SSW	74	68	761.5
1/23/2025	AM-09	Maria Lanakila Catholic Church	1.0	S	73	70	760.9
1/23/2025	AM-05	Opukea Townhomes	0.8	E	74	69	760.7
1/23/2025	AM-08	Lahaina Pump Station #6	1.2	S	73	68	761.3
1/24/2024	AM-02	WW Pump Station #4	0.8	SSE	74	70	762.5
1/24/2024	AM-09	Maria Lanakila Catholic Church	1.0	SSE	75	68	761.9
1/24/2024	AM-05	Opukea Townhomes	1.0	ESE	76	67	761.6
1/24/2024	AM-08	Lahaina Pump Station #6	1.3	SSE	74	68	762.3
1/25/2025	AM-02	WW Pump Station #4	0.8	S	76	68	762.2
1/25/2025	AM-09	Maria Lanakila Catholic Church	1.0	SSE	77	67	761.7
1/25/2025	AM-05	Opukea Townhomes	1.1	SE	77	66	761.4
1/25/2025	AM-08	Lahaina Pump Station #6	1.4	SE	76	67	762.0
1/26/2025	AM-02	WW Pump Station #4	1.0	SE	76	74	763.0
1/26/2025	AM-09	Maria Lanakila Catholic Church	0.9	SE	76	75	762.5
1/26/2025	AM-05	Opukea Townhomes	1.1	SE	77	74	762.2
1/26/2025	AM-08	Lahaina Pump Station #6	1.6	SE	75	75	762.8
1/27/2024	AM-02	WW Pump Station #4	1.3	SE	74	77	761.9
1/27/2024	AM-09	Maria Lanakila Catholic Church	2.1	SSE	75	75	761.4
1/27/2024	AM-05	Opukea Townhomes	1.8	E	75	75	761.1
1/27/2024	AM-08	Lahaina Pump Station #6	2.7	SSE	74	72	761.6
1/28/2025	AM-02	WW Pump Station #4	1.4	SE	73	68	760.4
1/28/2025	AM-09	Maria Lanakila Catholic Church	1.8	SSE	74	67	759.8
1/28/2025	AM-05	Opukea Townhomes	1.8	ESE	73	68	759.6
1/28/2025	AM-08	Lahaina Pump Station #6	2.2	SE	73	66	760.1
1/29/2025	AM-02	WW Pump Station #4	1.0	SSE	75	71	759.5
1/29/2025	AM-09	Maria Lanakila Catholic Church	1.2	S	75	71	759.0
1/29/2025	AM-05	Opukea Townhomes	1.4	SE	76	71	758.7
1/29/2025	AM-08	Lahaina Pump Station #6	2.1	SSE	75	70	759.3

**Notes:**

°F - Fahrenheit

mBar - millibar

mph - miles per hour

# Appendix 1

Please note, comments pertaining to gypsum may be mentioned in the lab reports below. Gypsum is a common ingredient in drywall, plaster and cement so its presence in the sample filters is likely due to debris removal operations or other disturbances of built-environment fire debris. A more indepth discussion can be found in the attached weekly report.



**EMSL Analytical, Inc.**  
 200 Route 130 North Cinnaminson, NJ 08077  
 Tel/Fax: (800) 220-3675 / (856) 786-5974  
<http://www.EMSL.com> / [cinnaaslab@EMSL.com](mailto:cinnaaslab@EMSL.com)

**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
 Denver, CO, 80202

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 01/31/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-AM05-012325-AB</b>	<b>Sample Description:</b>	<b>DI915176</b>
EMSL Sample Number:	042501793-0001	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7198.3
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	4		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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<http://www.EMSL.com> / [cinnasblab@EMSL.com](mailto:cinnasblab@EMSL.com)

EMSL Order ID: **042501793**  
 Client: **Tetra Tech**  
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID:		042501793-0001					Customer Sample:		MFL-AM05-012325-AB		
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
B1	C8	None Detected									
B1	A7	None Detected									
B2	H9	None Detected									
B2	F10	None Detected									
B3	A6	None Detected									

Abbreviations used:  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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<http://www.EMSL.com> / [cinnaaslab@EMSL.com](mailto:cinnaaslab@EMSL.com)

**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
 Denver, CO, 80202

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 01/31/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-AM02-012325-AB</b>	<b>Sample Description:</b>	<b>DL915219</b>
EMSL Sample Number:	042501793-0002	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7181.9
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042501793**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

<b>EMSL Sample ID: 042501793-0002</b>			<b>Customer Sample: MFL-AM02-012325-AB</b>								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
B5	I7	None Detected									
B5	H5	None Detected									
B6	C2	None Detected									
B6	D1	None Detected									
B7	J8	None Detected									

*Abbreviations used:*  
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 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
 Denver, CO, 80202

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 01/31/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-AM09-012325-AB</b>	<b>Sample Description:</b>	<b>DL915218</b>
EMSL Sample Number:	042501793-0003	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7189.0
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042501793**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042501793-0003			Customer Sample: MFL-AM09-012325-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
C1	A4	None Detected									
C1	B3	None Detected									
C2	D7	None Detected									
C2	E9	None Detected									
C3	J3	None Detected									

*Abbreviations used:*  
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 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
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**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 01/31/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-AM08-012325-AB</b>	<b>Sample Description:</b>	<b>DL915221</b>
EMSL Sample Number:	042501793-0004	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7241.1
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042501793**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

<b>EMSL Sample ID: 042501793-0004</b>			<b>Customer Sample: MFL-AM08-012325-AB</b>								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
C5	E3	None Detected									
C5	D4	None Detected									
C6	J5	None Detected									
C6	H3	None Detected									
C7	I8	None Detected									

*Abbreviations used:  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled*



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
 Denver, CO, 80202

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 01/31/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Customer Sample Number:** MFL-FB01-012325-AB      **Sample Description:** DL915237

EMSL Sample Number: 042501793-0005      Sample Matrix: Air  
 Magnification used for fiber counting: 20,000      Volume (L) : 0.0  
 Aspect ratio for fiber definition: 3:1      Area of original collection filter (mm<sup>2</sup>): 385  
 Minimum Length (µm): ≥ 0.5      Grid Opening Area (mm<sup>2</sup>): 0.0129  
 Chi<sup>2</sup> Test for Random Distribution on Filter: N/A (N/A)      Grid Openings Analyzed: 10  
 Minimum Level of analysis (chrysotile): CD      Analyst: S. Richey  
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 2  
 Target Analytical Sensitivity (Structures/cc): 0.001

**Analytical Sensitivity (Structures/cc):** N/A      **Limit of Detection (Structures/cc):** N/A

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 23.18			
<b>Total Amphibole</b>	ADX	0	0	< 23.18			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 23.18			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures</b>	-	0	0	< 23.18			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 23.18			
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 23.18			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 23.18			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures (PCMe)</b>	-	0	0	< 23.18			

**Comment**

Approved Signatory

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EMSL Order ID: 042501793

Client: Tetra Tech

Project ID: Maui Fires Lahaina

### ISO 10312 Determination of Asbestos Fibers Direct Transfer Transmission Electron Microscopy

#### Analytical Bench Sheet Data

EMSL Sample ID:		042501793-0005					Customer Sample:		MFL-FB01-012325-AB		
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
D1	J9	None Detected									
D1	J7	None Detected									
D1	I8	None Detected									
D1	I6	None Detected									
D2	A3	None Detected									
D2	A5	None Detected									
D2	B4	None Detected									
D3	H7	None Detected									
D3	H5	None Detected									
D3	G6	None Detected									

Abbreviations used:

XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled

XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
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**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 01/31/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-AM05-012425-AB</b>	<b>Sample Description:</b>	<b>DL915202</b>
EMSL Sample Number:	042501793-0006	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7222.9
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042501793**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

<b>EMSL Sample ID: 042501793-0006</b>			<b>Customer Sample: MFL-AM05-012425-AB</b>								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
D5	J8	None Detected									
D5	I9	None Detected									
D6	A7	None Detected									
D6	B8	None Detected									
D7	C9	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 02/04/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Customer Sample Number:** MFL-AM02-012425-AB      **Sample Description:** DL915201

EMSL Sample Number: 042501793-0007      Sample Matrix: Air  
 Magnification used for fiber counting: 20,000      Volume (L): 7245.4  
 Aspect ratio for fiber definition: 3:1      Area of original collection filter (mm<sup>2</sup>): 385  
 Minimum Length (µm): ≥ 0.5      Grid Opening Area (mm<sup>2</sup>): 0.0129  
 Chi<sup>2</sup> Test for Random Distribution on Filter: N/A (N/A)      Grid Openings Analyzed: 5  
 Minimum Level of analysis (chrysotile): CD      Analyst: S. Richey  
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 8  
 Target Analytical Sensitivity (Structures/cc): 0.001

**Analytical Sensitivity (Structures/cc): 0.0008      Limit of Detection (Structures/cc): 0.0024**

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole</b>	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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EMSL Order ID: **042501793**  
 Client: **Tetra Tech**  
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: <b>042501793-0007</b>			Customer Sample: <b>MFL-AM02-012425-AB</b>								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
E1	G9	None Detected									
E1	F6	None Detected									
E2	J10	None Detected									
E2	I7	None Detected									
E3	D8	None Detected									

Abbreviations used:  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 02/04/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-AM09-012425-AB</b>	<b>Sample Description:</b>	<b>DL915252</b>
EMSL Sample Number:	042501793-0008	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7247.6
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	8		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042501793**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

<b>EMSL Sample ID: 042501793-0008</b>			<b>Customer Sample: MFL-AM09-012425-AB</b>								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
E5	I5	None Detected									
E5	D6	None Detected									
E6	A2	None Detected									
E6	C1	None Detected									
E7	B4	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Project: Maui Fires Lahaina**

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 02/03/2025  
**Report Date:** 02/04/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-AM08-012425-AB</b>	<b>Sample Description:</b>	<b>DL915227</b>
EMSL Sample Number:	042501793-0009	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7112.3
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



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<http://www.EMSL.com> / [cinnaslab@EMSL.com](mailto:cinnaslab@EMSL.com)

**EMSL Order ID: 042501793**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042501793-0009			Customer Sample: MFL-AM08-012425-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
F1	B6	None Detected									
F1	E7	None Detected									
F2	J5	None Detected									
F2	I4	None Detected									
F3	A6	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
 Denver, CO, 80202

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 02/03/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Customer Sample Number:** MFL-FB01-012425-AB      **Sample Description:** DL915205

EMSL Sample Number: 042501793-0010      Sample Matrix: Air  
 Magnification used for fiber counting: 20,000      Volume (L): 0.0  
 Aspect ratio for fiber definition: 3:1      Area of original collection filter (mm<sup>2</sup>): 385  
 Minimum Length (µm): ≥ 0.5      Grid Opening Area (mm<sup>2</sup>): 0.0129  
 Chi<sup>2</sup> Test for Random Distribution on Filter: N/A (N/A)      Grid Openings Analyzed: 10  
 Minimum Level of analysis (chrysotile): CD      Analyst: S. Richey  
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 2  
 Target Analytical Sensitivity (Structures/cc): 0.001

**Analytical Sensitivity (Structures/cc):** N/A      **Limit of Detection (Structures/cc):** N/A

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 23.18			
<b>Total Amphibole</b>	ADX	0	0	< 23.18			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 23.18			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures</b>	-	0	0	< 23.18			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 23.18			
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 23.18			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 23.18			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures (PCMe)</b>	-	0	0	< 23.18			

**Comment**

Approved Signatory

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<http://www.EMSL.com> / [cinnaslab@EMSL.com](mailto:cinnaslab@EMSL.com)

EMSL Order ID: **042501793**  
 Client: **Tetra Tech**  
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID:		042501793-0010						Customer Sample:		MFL-FB01-012425-AB	
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
F5	J6	None Detected									
F5	J4	None Detected									
F5	H7	None Detected									
F5	H5	None Detected									
F6	I4	None Detected									
F6	I2	None Detected									
F6	G1	None Detected									
F7	D3	None Detected									
F7	D5	None Detected									
F7	F4	None Detected									

Abbreviations used:  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
 Denver, CO, 80202

**Project: Maui Fires Lahaina**

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 02/03/2025  
**Report Date:** 02/04/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-AM05-012525-AB</b>	<b>Sample Description:</b>	<b>DL915226</b>
EMSL Sample Number:	042501793-0011	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7222.2
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042501793**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042501793-0011			Customer Sample: MFL-AM05-012525-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
G1	E7	None Detected									
G1	F8	None Detected									
G2	A5	None Detected									
G2	C6	None Detected									
G3	B9	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 02/03/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-AM02-012525-AB</b>	<b>Sample Description:</b>	<b>DL915200</b>
EMSL Sample Number:	042501793-0012	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7147.1
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042501793**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042501793-0012			Customer Sample: MFL-AM02-012525-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
G5	A7	None Detected									
G5	B8	None Detected									
G6	C9	None Detected									
G6	E10	None Detected									
G7	J5	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
 Denver, CO, 80202

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 02/03/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-AM09-012525-AB</b>	<b>Sample Description:</b>	<b>DL915212</b>
EMSL Sample Number:	042501793-0013	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7216.4
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



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**EMSL Order ID: 042501793**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042501793-0013			Customer Sample: MFL-AM09-012525-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
H1	B5	None Detected									
H1	D7	None Detected									
H2	J6	None Detected									
H2	I8	None Detected									
H3	A4	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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 1560 Broadway, Suite 1400  
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**Phone:** (703) 489-2674  
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**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 02/03/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-AM08-012525-AB</b>	<b>Sample Description:</b>	<b>DL915198</b>
EMSL Sample Number:	042501793-0014	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7220.8
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042501793**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042501793-0014			Customer Sample: MFL-AM08-012525-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
H5	E2	None Detected									
H5	G4	None Detected									
H6	B6	None Detected									
H6	D3	None Detected									
H7	J8	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 02/03/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

### ISO 10312 Determination of Asbestos Fibers Direct Transfer Transmission Electron Microscopy

<b>Customer Sample Number:</b>	MFL-FB01-012525-AB	<b>Sample Description:</b>	DL915231
EMSL Sample Number:	042501793-0015	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	0.0
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	2		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc):</b>	<b>N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 23.18			
<b>Total Amphibole</b>	ADX	0	0	< 23.18			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 23.18			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures</b>	-	0	0	< 23.18			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 23.18			
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 23.18			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 23.18			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures (PCMe)</b>	-	0	0	< 23.18			

**Comment**

Approved Signatory

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EMSL Order ID: **042501793**  
 Client: **Tetra Tech**  
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID:		042501793-0015					Customer Sample:		MFL-FB01-012525-AB		
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
I1	J5	None Detected									
I1	J3	None Detected									
I1	H6	None Detected									
I1	H4	None Detected									
I2	G7	None Detected									
I2	G5	None Detected									
I2	F6	None Detected									
I3	C9	None Detected									
I3	C7	None Detected									
I3	B8	None Detected									

Abbreviations used:  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
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**Project: Maui Fires Lahaina**

**Phone:** (703) 489-2674  
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**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 02/03/2025  
**Report Date:** 02/04/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-AM05-012625-AB</b>	<b>Sample Description:</b>	<b>DL915234</b>
EMSL Sample Number:	042501793-0016	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7207.4
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	4		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042501793**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042501793-0016			Customer Sample: MFL-AM05-012625-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
15	J9	None Detected									
15	I8	None Detected									
16	H6	None Detected									
16	G5	None Detected									
17	F4	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



**EMSL Analytical, Inc.**  
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<http://www.EMSL.com> / [cinnaaslab@EMSL.com](mailto:cinnaaslab@EMSL.com)

**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
 Denver, CO, 80202

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 02/03/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-AM02-012625-AB</b>	<b>Sample Description:</b>	<b>DL915244</b>
EMSL Sample Number:	042501793-0017	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7222.9
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	4		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042501793**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042501793-0017			Customer Sample: MFL-AM02-012625-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
J1	B7	None Detected									
J1	C8	None Detected									
J2	A5	None Detected									
J2	D6	None Detected									
J3	J4	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
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 1560 Broadway, Suite 1400  
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**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 02/03/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Customer Sample Number:** MFL-AM09-012625-AB      **Sample Description:** DL915228

EMSL Sample Number: 042501793-0018      Sample Matrix: Air  
 Magnification used for fiber counting: 20,000      Volume (L): 7217.8  
 Aspect ratio for fiber definition: 3:1      Area of original collection filter (mm<sup>2</sup>): 385  
 Minimum Length (µm): ≥ 0.5      Grid Opening Area (mm<sup>2</sup>): 0.0129  
 Chi<sup>2</sup> Test for Random Distribution on Filter: N/A (N/A)      Grid Openings Analyzed: 5  
 Minimum Level of analysis (chrysotile): CD      Analyst: S. Richey  
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 4  
 Target Analytical Sensitivity (Structures/cc): 0.001

**Analytical Sensitivity (Structures/cc): 0.0008      Limit of Detection (Structures/cc): 0.0024**

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole</b>	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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<http://www.EMSL.com> / [cinnasblab@EMSL.com](mailto:cinnasblab@EMSL.com)

EMSL Order ID: **042501793**  
 Client: **Tetra Tech**  
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: <b>042501793-0018</b>			Customer Sample: <b>MFL-AM09-012625-AB</b>								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
J5	E7	None Detected									
J5	F6	None Detected									
J6	A3	None Detected									
J6	B4	None Detected									
J7	I9	None Detected									

Abbreviations used:  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
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 1560 Broadway, Suite 1400  
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**Phone:** (703) 489-2674  
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**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 02/04/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-AM08-012625-AB</b>	<b>Sample Description:</b>	<b>DL915247</b>
EMSL Sample Number:	042501793-0019	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7285.1
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	4		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042501793**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042501793-0019			Customer Sample: MFL-AM08-012625-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
K1	J8	None Detected									
K1	H7	None Detected									
K2	A5	None Detected									
K2	C6	None Detected									
K3	D7	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
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 1560 Broadway, Suite 1400  
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**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 02/04/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-FB01-012625-AB</b>	<b>Sample Description:</b>	<b>DL915195</b>
EMSL Sample Number:	042501793-0020	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	0.0
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	2		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc):</b>	<b>N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

**Comment**

Approved Signatory

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EMSL Order ID: 042501793

Client: Tetra Tech

Project ID: Maui Fires Lahaina

### ISO 10312 Determination of Asbestos Fibers Direct Transfer Transmission Electron Microscopy

#### Analytical Bench Sheet Data

EMSL Sample ID: 042501793-0020		Customer Sample: MFL-FB01-012625-AB									
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
K5	C6	None Detected									
K5	C8	None Detected									
K5	D5	None Detected									
K5	D7	None Detected									
K6	J4	None Detected									
K6	J2	None Detected									
K6	I3	None Detected									
K7	B7	None Detected									
K7	A8	None Detected									
K7	A6	None Detected									

Abbreviations used:

XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled

XCGBLD - Crosses Countable Grid Bar Length Doubled



**EMSL Analytical, Inc.**  
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 Tel/Fax: (800) 220-3675 / (856) 786-5974  
<http://www.EMSL.com> / [cinnaaslab@EMSL.com](mailto:cinnaaslab@EMSL.com)

**EMSL Order:** 042501793  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
 Denver, CO, 80202

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 01/29/2025 09:35 AM  
**Analysis Date:** 01/31/2025  
**Report Date:** 02/04/2025

**Project: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>Lab Blank</b>	<b>Sample Description: Lab Blank</b>
EMSL Sample Number:	042501793-0021	Sample Matrix: Air
Magnification used for fiber counting:	20,000	Volume (L): 0.0
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ): 385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ): 0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed: 10
Minimum Level of analysis (chrysotile):	CD	Analyst: S. Richey
Minimum Level of analysis (amphibole):	ADX	
Estimated Particulate Loading on Filter %:	1	
Target Analytical Sensitivity (Structures/cc):	0.001	
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc): N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

**Comment**

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



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http://www.EMSL.com / cinnaslab@EMSL.com

EMSL Order ID: 042501793

Client: Tetra Tech

Project ID: Maui Fires Lahaina

### ISO 10312 Determination of Asbestos Fibers Direct Transfer Transmission Electron Microscopy

#### Analytical Bench Sheet Data

EMSL Sample ID: 042501793-0021			Customer Sample: Lab Blank								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
A1	C4	None Detected									
A1	C6	None Detected									
A1	D5	None Detected									
A1	D7	None Detected									
A2	A7	None Detected									
A2	A9	None Detected									
A2	B6	None Detected									
A3	J6	None Detected									
A3	J4	None Detected									
A3	I5	None Detected									

Abbreviations used:  
XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
XCGBLD - Crosses Countable Grid Bar Length Doubled



# Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Order Number / Lab Use Only

EMSL Analytical, Inc.  
200 Route 130 North  
Cinnaminson, NJ 08077

## #042501793

PHONE: (800) 220-3675  
EMAIL: [CinnAsblab@EMSL.com](mailto:CinnAsblab@EMSL.com)

EMSL ANALYTICAL, INC.  
TESTING LABS • PRODUCTS • TRAINING

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

Customer Information	Customer ID:	Billing ID:
	Company Name: <b>Tetra Tech</b>	Company Name:
	Contact Name: <b>Chelsea Saber</b>	Billing Contact:
	Street Address: <b>1560 Broadway STE 1400</b>	Street Address:
	City, State, Zip: <b>Denver, CO 80202</b> Country: <b>USA</b>	City, State, Zip: Country:
Phone: <b>(703) 489-2674</b>	Phone:	
Email(s) for Report: <b>chelsea.saber@tetratech.com</b>	Email(s) for Invoice:	

RECEIVED  
EMSL  
CINNAMINSON, NJ  
25 JAN 29 AM 9:39

Project Name/No: <b>Maui Fires Lahaina</b>		Purchase Order: <b>1207085</b>
EMSL LIMS Project ID: (If applicable, EMSL will provide)	US State where samples collected: <b>HI</b>	State of Connecticut (CT) must select project location: <input type="checkbox"/> Commercial (Taxable) <input type="checkbox"/> Residential (Non-Taxable)
Sampled By Name: <b>Shanna A. Epstein</b>	Sampled By Signature: <i>[Signature]</i>	No. of Samples in Shipment: <b>20</b>
Turn-Around-Time (TAT)		
<input type="checkbox"/> 3 Hour <input type="checkbox"/> 4-4.5 Hour AHERA ONLY <input type="checkbox"/> 8 Hour <input type="checkbox"/> 24 Hour <input type="checkbox"/> 32 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input checked="" type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week		

<b>PCM Air</b> <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> NIOSH 7400 w/ 8hr. TWA <b>PLM - Bulk (reporting limit)</b> <input type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) <input type="checkbox"/> POINT COUNT <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1,000 (<0.1%) POINT COUNT w/ GRAVIMETRIC <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1,000 (<0.1%) <input type="checkbox"/> NIOSH 9002 (<1%) <input type="checkbox"/> NYS 198.1 (Friable - NY) <input type="checkbox"/> NYS 198.8 NOB (Non-Friable - NY) <input type="checkbox"/> NYS 198.8 (Vermiculite SM-V)	<b>TEM - Air</b> <input type="checkbox"/> AHERA 40 CFR, Part 783 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input checked="" type="checkbox"/> ISO 10312* <b>TEM - Bulk</b> <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (Non-Friable-NY) <input type="checkbox"/> TEM EPA 600/R-93/116 w Milling Prep (0.1%)	<b>TEM - Settled Dust</b> <input type="checkbox"/> Microvac - ASTM D5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Qualitative via Filtration Prep <input type="checkbox"/> Qualitative via Drop Mount Prep <b>Soil - Rock - Vermiculite (reporting limit)*</b> <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<0.25%) <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<0.1%) <input type="checkbox"/> TEM EPA 600/R-93/116 with milling prep (<0.1%) <input type="checkbox"/> TEM Qualitative via Filtration Prep <input type="checkbox"/> TEM Qualitative via Drop Mount Prep
--	--	--

\*Please call with your project-specific requirements.

Positive Stop - Clearly Identified Homogeneous Areas (HA)      Filter Pore Size (Air Samples)     0.8um     0.45um

Sample Number	Sample Location / Description	Volume, Area or Homogeneous Area	Date / Time Sampled (Air Monitoring Only)
MFL-AM05-012325-AB	DL915176	7,198.334	01/23/25 1054
MFL-AM02-012325-AB	DL915219	7,181.906	01/23/25 1109
MFL-AM09-012325-AB	DL915218	7,189.036	01/23/25 1253
MFL-AM08-012325-AB	DL915221	7,241.108	01/23/25 1314
MFL-FB01-012325-AB	DL915237	0	01/23/25 1200
MFL-AM05-012425-AB	DL915202	7,222.920	01/24/25 1054
MFL-AM02-012425-AB	DL915201	7,245.365	01/24/25 1111
MFL-AM09-012425-AB	DL915252	7,247.611	01/24/25 1253

All samples received acceptable for analysis.

20

Method of Shipment: <b>Fedex</b>	Sample Condition Upon Receipt:
Relinquished by: <b>Shanna Epstein</b>	Received by: <i>[Signature]</i> - FedEX
Date/Time: <b>01/27/25 1100</b>	Date/Time: <b>1/29/25 9:35A</b>
Relinquished by:	Received by:

Controlled Document - COC-05 Asbestos R16 10/26/2021  AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.



**Stage 1 Data Verification Checklist – Asbestos**  
**HDOH CAB – Ambient Community Air Sampling – Lahaina**  
**Task Order No. 23141**

Reviewed by:

Kierra Johnson 02/06/2025 and Shanna Vasser 02/07/2025

Laboratory: EMSL Analytical, Inc. – North Cinnaminson, NJ

Collection date(s): 01/23/2025 – 01/26/2025

Report No: 42501793

- √ 1. Chain of custody (CoC) documentation is present.
- √ 2. Sample receipt condition information is present and acceptable.
- √ 3. Laboratory conducting the analysis is identified.
- √ 4. All samples submitted to the laboratory are accounted for.
- √ 5. Requested analytical methods were performed.
- √ 6. Analysis dates are provided.
- √ 7. Analyte results are provided.
- NA 8. Result qualifiers and definitions are provided.
- √ 9. Result units are reported.
- √ 10. Requested reporting limits are present.
- NA 11. Method detection limits are present.
- √ 12. Sample collection date and time are present.
- √ 13. No detections in field QC blanks (lot/media blanks, field blanks, etc.).

Discrepancies: None.

Notes: None.



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<http://www.EMSL.com> / [cinnaaslab@EMSL.com](mailto:cinnaaslab@EMSL.com)

**EMSL Order:** 042502129  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** Maui Fires

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
 Denver, CO, 80202

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 02/03/2025 12:30 PM  
**Analysis Date:** 02/06/2025  
**Report Date:** 02/12/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Customer Sample Number:** MFL-AM05-012725-AB      **Sample Description:** DL915229

EMSL Sample Number: 042502129-0001      Sample Matrix: Air  
 Magnification used for fiber counting: 20,000      Volume (L): 7186.1  
 Aspect ratio for fiber definition: 3:1      Area of original collection filter (mm<sup>2</sup>): 385  
 Minimum Length (µm): ≥ 0.5      Grid Opening Area (mm<sup>2</sup>): 0.0127  
 Chi<sup>2</sup> Test for Random Distribution on Filter: N/A (N/A)      Grid Openings Analyzed: 5  
 Minimum Level of analysis (chrysotile): CD      Analyst: G.Barry  
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 5  
 Target Analytical Sensitivity (Structures/cc): 0.001

**Analytical Sensitivity (Structures/cc): 0.0008      Limit of Detection (Structures/cc): 0.0024**

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**

Approved Signatory

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**EMSL Order ID: 042502129**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042502129-0001			Customer Sample: MFL-AM05-012725-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
A5	A6	None Detected									
A5	F4	None Detected									
A5	I7	None Detected									
A6	E3	None Detected									
A6	E8	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042502129  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** Maui Fires

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
 Denver, CO, 80202

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 02/03/2025 12:30 PM  
**Analysis Date:** 02/06/2025  
**Report Date:** 02/12/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Customer Sample Number:** MFL-AM02-012725-AB      **Sample Description:** DL915225

EMSL Sample Number: 042502129-0002      Sample Matrix: Air  
 Magnification used for fiber counting: 20,000      Volume (L): 7200.5  
 Aspect ratio for fiber definition: 3:1      Area of original collection filter (mm<sup>2</sup>): 385  
 Minimum Length (µm): ≥ 0.5      Grid Opening Area (mm<sup>2</sup>): 0.0127  
 Chi<sup>2</sup> Test for Random Distribution on Filter: N/A (N/A)      Grid Openings Analyzed: 5  
 Minimum Level of analysis (chrysotile): CD      Analyst: G.Barry  
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 5  
 Target Analytical Sensitivity (Structures/cc): 0.001

**Analytical Sensitivity (Structures/cc): 0.0008      Limit of Detection (Structures/cc): 0.0024**

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

**Comment**

Approved Signatory

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**EMSL Order ID: 042502129**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042502129-0002			Customer Sample: MFL-AM02-012725-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
B1	B7	None Detected									
B1	E3	None Detected									
B1	J6	None Detected									
B2	G4	None Detected									
B2	C8	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042502129  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** Maui Fires

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
 Denver, CO, 80202

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 02/03/2025 12:30 PM  
**Analysis Date:** 02/06/2025  
**Report Date:** 02/12/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Customer Sample Number:** MFL-AM09-012725-AB      **Sample Description:** DL915206

EMSL Sample Number: 042502129-0003      Sample Matrix: Air  
 Magnification used for fiber counting: 20,000      Volume (L): 7248.8  
 Aspect ratio for fiber definition: 3:1      Area of original collection filter (mm<sup>2</sup>): 385  
 Minimum Length (µm): ≥ 0.5      Grid Opening Area (mm<sup>2</sup>): 0.0127  
 Chi<sup>2</sup> Test for Random Distribution on Filter: N/A (N/A)      Grid Openings Analyzed: 5  
 Minimum Level of analysis (chrysotile): CD      Analyst: G.Barry  
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 6  
 Target Analytical Sensitivity (Structures/cc): 0.001

**Analytical Sensitivity (Structures/cc): 0.0008      Limit of Detection (Structures/cc): 0.0024**

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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<http://www.EMSL.com> / [cinnasblab@EMSL.com](mailto:cinnasblab@EMSL.com)

EMSL Order ID: 042502129

Client: Tetra Tech

Project ID: Maui Fires Lahaina

### ISO 10312 Determination of Asbestos Fibers Direct Transfer Transmission Electron Microscopy

#### Analytical Bench Sheet Data

EMSL Sample ID: 042502129-0003			Customer Sample: MFL-AM09-012725-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
B5	B3	None Detected									
B5	E7	None Detected									
B5	I5	None Detected									
B6	D2	None Detected									
B6	G4	None Detected									

Abbreviations used:

XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled

XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042502129  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** Maui Fires

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
 Denver, CO, 80202

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 02/03/2025 12:30 PM  
**Analysis Date:** 02/06/2025  
**Report Date:** 02/12/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Customer Sample Number:** MFL-AM08-012725-AB      **Sample Description:** DL915211

EMSL Sample Number: 042502129-0004      Sample Matrix: Air  
 Magnification used for fiber counting: 20,000      Volume (L): 7237.5  
 Aspect ratio for fiber definition: 3:1      Area of original collection filter (mm<sup>2</sup>): 385  
 Minimum Length (µm): ≥ 0.5      Grid Opening Area (mm<sup>2</sup>): 0.0127  
 Chi<sup>2</sup> Test for Random Distribution on Filter: N/A (N/A)      Grid Openings Analyzed: 5  
 Minimum Level of analysis (chrysotile): CD      Analyst: G.Barry  
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 5  
 Target Analytical Sensitivity (Structures/cc): 0.001

**Analytical Sensitivity (Structures/cc): 0.0008      Limit of Detection (Structures/cc): 0.0024**

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**

Approved Signatory

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**EMSL Order ID: 042502129**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042502129-0004			Customer Sample: MFL-AM08-012725-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
C1	A5	None Detected									
C1	F8	None Detected									
C1	J4	None Detected									
C2	B7	None Detected									
C2	E9	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042502129  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** Maui Fires

**Attn: Chelsea Saber**  
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**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 02/03/2025 12:30 PM  
**Analysis Date:** 02/06/2025  
**Report Date:** 02/12/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-FB01-012725-AB</b>	<b>Sample Description:</b>	<b>DL915197</b>
EMSL Sample Number:	042502129-0005	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	0.0
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0127
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	1		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc):</b>	<b>N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
Actinolite	ADX	0	0	< 23.54			
Amosite	ADX	0	0	< 23.54			
Anthophyllite	ADX	0	0	< 23.54			
Crocidolite	ADX	0	0	< 23.54			
Tremolite	ADX	0	0	< 23.54			
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
Other Minerals	-	0	0	< 23.54			
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
Actinolite	ADX	0	0	< 23.54			
Amosite	ADX	0	0	< 23.54			
Anthophyllite	ADX	0	0	< 23.54			
Crocidolite	ADX	0	0	< 23.54			
Tremolite	ADX	0	0	< 23.54			
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
Other Minerals	-	0	0	< 23.54			
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			

**Comment**

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**EMSL Order ID: 042502129**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042502129-0005			Customer Sample: MFL-FB01-012725-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
C5	I4	None Detected									
C5	F7	None Detected									
C5	E3	None Detected									
C5	B5	None Detected									
C6	D6	None Detected									
C6	E3	None Detected									
C6	H4	None Detected									
C7	A2	None Detected									
C7	D7	None Detected									
C7	I6	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042502129  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** Maui Fires

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**Phone:** (703) 489-2674  
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**Received Date:** 02/03/2025 12:30 PM  
**Analysis Date:** 02/07/2025  
**Report Date:** 02/12/2025

**ISO 10312 Determination of Asbestos Fibers**  
**Direct Transfer Transmission Electron Microscopy**

**Customer Sample Number:** MFL-AM05-012825-AB      **Sample Description:** DL915224

EMSL Sample Number: 042502129-0006      Sample Matrix: Air  
 Magnification used for fiber counting: 20,000      Volume (L): 7309.9  
 Aspect ratio for fiber definition: 3:1      Area of original collection filter (mm<sup>2</sup>): 385  
 Minimum Length (µm): ≥ 0.5      Grid Opening Area (mm<sup>2</sup>): 0.0127  
 Chi<sup>2</sup> Test for Random Distribution on Filter: N/A (N/A)      Grid Openings Analyzed: 5  
 Minimum Level of analysis (chrysotile): CD      Analyst: S. Richey  
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 4  
 Target Analytical Sensitivity (Structures/cc): 0.001

**Analytical Sensitivity (Structures/cc): 0.0008      Limit of Detection (Structures/cc): 0.0024**

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

**Comment**

Approved Signatory

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**EMSL Order ID: 042502129**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042502129-0006			Customer Sample: MFL-AM05-012825-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
D1	H8	None Detected									
D1	G7	None Detected									
D2	I6	None Detected									
D2	F4	None Detected									
D3	B9	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042502129  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** Maui Fires

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**Fax:** N/A  
**Received Date:** 02/03/2025 12:30 PM  
**Analysis Date:** 02/07/2025  
**Report Date:** 02/12/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Customer Sample Number:** MFL-AM02-012825-AB      **Sample Description:** DL915217

EMSL Sample Number: 042502129-0007      Sample Matrix: Air  
 Magnification used for fiber counting: 20,000      Volume (L): 7164.0  
 Aspect ratio for fiber definition: 3:1      Area of original collection filter (mm<sup>2</sup>): 385  
 Minimum Length (µm): ≥ 0.5      Grid Opening Area (mm<sup>2</sup>): 0.0127  
 Chi<sup>2</sup> Test for Random Distribution on Filter: N/A (N/A)      Grid Openings Analyzed: 5  
 Minimum Level of analysis (chrysotile): CD      Analyst: S. Richey  
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 4  
 Target Analytical Sensitivity (Structures/cc): 0.001

**Analytical Sensitivity (Structures/cc): 0.0008      Limit of Detection (Structures/cc): 0.0024**

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

**Comment**

Approved Signatory

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<http://www.EMSL.com> / [cinnaslab@EMSL.com](mailto:cinnaslab@EMSL.com)

**EMSL Order ID: 042502129**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042502129-0007			Customer Sample: MFL-AM02-012825-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
D5	B4	None Detected									
D5	C7	None Detected									
D6	I5	None Detected									
D6	J6	None Detected									
D7	E7	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042502129  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** Maui Fires

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
 Denver, CO, 80202

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 02/03/2025 12:30 PM  
**Analysis Date:** 02/07/2025  
**Report Date:** 02/12/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Customer Sample Number:** MFL-AM09-012825-AB      **Sample Description:** DL915250

EMSL Sample Number: 042502129-0008      Sample Matrix: Air  
 Magnification used for fiber counting: 20,000      Volume (L): 7199.2  
 Aspect ratio for fiber definition: 3:1      Area of original collection filter (mm<sup>2</sup>): 385  
 Minimum Length (µm): ≥ 0.5      Grid Opening Area (mm<sup>2</sup>): 0.0127  
 Chi<sup>2</sup> Test for Random Distribution on Filter: N/A (N/A)      Grid Openings Analyzed: 5  
 Minimum Level of analysis (chrysotile): CD      Analyst: S. Richey  
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 4  
 Target Analytical Sensitivity (Structures/cc): 0.001

**Analytical Sensitivity (Structures/cc): 0.0008      Limit of Detection (Structures/cc): 0.0024**

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

**Comment**

Approved Signatory

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<http://www.EMSL.com> / [cinnasblab@EMSL.com](mailto:cinnasblab@EMSL.com)

EMSL Order ID: 042502129  
 Client: Tetra Tech  
 Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042502129-0008			Customer Sample: MFL-AM09-012825-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
E1	J3	None Detected									
E1	I4	None Detected									
E2	H7	None Detected									
E2	G8	None Detected									
E3	J9	None Detected									

Abbreviations used:  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042502129  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** Maui Fires

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
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**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 02/03/2025 12:30 PM  
**Analysis Date:** 02/07/2025  
**Report Date:** 02/12/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Customer Sample Number:** MFL-AM08-012825-AB      **Sample Description:** DL915222

EMSL Sample Number: 042502129-0009      Sample Matrix: Air  
 Magnification used for fiber counting: 20,000      Volume (L): 7194.8  
 Aspect ratio for fiber definition: 3:1      Area of original collection filter (mm<sup>2</sup>): 385  
 Minimum Length (µm): ≥ 0.5      Grid Opening Area (mm<sup>2</sup>): 0.0127  
 Chi<sup>2</sup> Test for Random Distribution on Filter: N/A (N/A)      Grid Openings Analyzed: 5  
 Minimum Level of analysis (chrysotile): CD      Analyst: S. Richey  
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 4  
 Target Analytical Sensitivity (Structures/cc): 0.001

**Analytical Sensitivity (Structures/cc): 0.0008      Limit of Detection (Structures/cc): 0.0024**

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 47.09</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**

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**EMSL Order ID: 042502129**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042502129-0009			Customer Sample: MFL-AM08-012825-AB								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
E5	H8	None Detected									
E5	I9	None Detected									
E6	A7	None Detected									
E6	B6	None Detected									
E7	J5	None Detected									

*Abbreviations used:*  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042502129  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** Maui Fires

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
 Denver, CO, 80202

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 02/03/2025 12:30 PM  
**Analysis Date:** 02/07/2025  
**Report Date:** 02/12/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-FB01-012825-AB</b>	<b>Sample Description:</b>	<b>DL915236</b>
EMSL Sample Number:	042502129-0010	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	0.0
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0127
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	1		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc):</b>	<b>N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
Actinolite	ADX	0	0	< 23.54			
Amosite	ADX	0	0	< 23.54			
Anthophyllite	ADX	0	0	< 23.54			
Crocidolite	ADX	0	0	< 23.54			
Tremolite	ADX	0	0	< 23.54			
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
Other Minerals	-	0	0	< 23.54			
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
Actinolite	ADX	0	0	< 23.54			
Amosite	ADX	0	0	< 23.54			
Anthophyllite	ADX	0	0	< 23.54			
Crocidolite	ADX	0	0	< 23.54			
Tremolite	ADX	0	0	< 23.54			
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
Other Minerals	-	0	0	< 23.54			
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			

**Comment**

Approved Signatory

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EMSL Order ID: 042502129

Client: Tetra Tech

Project ID: Maui Fires Lahaina

### ISO 10312 Determination of Asbestos Fibers Direct Transfer Transmission Electron Microscopy

#### Analytical Bench Sheet Data

EMSL Sample ID:		042502129-0010						Customer Sample:		MFL-FB01-012825-AB	
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
F1	J4	None Detected									
F1	J2	None Detected									
F1	I5	None Detected									
F1	I3	None Detected									
F2	C7	None Detected									
F2	C5	None Detected									
F2	B6	None Detected									
F3	G5	None Detected									
F3	F6	None Detected									
F3	F4	None Detected									

Abbreviations used:

XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled

XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042502129  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** Maui Fires

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**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 02/03/2025 12:30 PM  
**Analysis Date:** 02/07/2025  
**Report Date:** 02/12/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Customer Sample Number:** MFL-AM05-012925-AB      **Sample Description:** DL915253

EMSL Sample Number: 042502129-0011      Sample Matrix: Air  
 Magnification used for fiber counting: 20,000      Volume (L): 7172.7  
 Aspect ratio for fiber definition: 3:1      Area of original collection filter (mm<sup>2</sup>): 385  
 Minimum Length (µm): ≥ 0.5      Grid Opening Area (mm<sup>2</sup>): 0.0127  
 Chi<sup>2</sup> Test for Random Distribution on Filter: N/A (N/A)      Grid Openings Analyzed: 5  
 Minimum Level of analysis (chrysotile): CD      Analyst: G.Barry  
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 5  
 Target Analytical Sensitivity (Structures/cc): 0.001

**Analytical Sensitivity (Structures/cc): 0.0008      Limit of Detection (Structures/cc): 0.0024**

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

**Comment**

Approved Signatory

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 200 Route 130 North Cinnaminson, NJ 08077  
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<http://www.EMSL.com> / [cinnasblab@EMSL.com](mailto:cinnasblab@EMSL.com)

EMSL Order ID: **042502129**  
 Client: **Tetra Tech**  
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: <b>042502129-0011</b>			Customer Sample: <b>MFL-AM05-012925-AB</b>								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
F6	A7	None Detected									
F6	F4	None Detected									
F6	J8	None Detected									
F7	C6	None Detected									
F7	H6	None Detected									

Abbreviations used:  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042502129  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** Maui Fires

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
 Denver, CO, 80202

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 02/03/2025 12:30 PM  
**Analysis Date:** 02/08/2025  
**Report Date:** 02/12/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Customer Sample Number:** MFL-AM02-012925-AB      **Sample Description:** DL915207

EMSL Sample Number: 042502129-0012      Sample Matrix: Air  
 Magnification used for fiber counting: 20,000      Volume (L): 7207.1  
 Aspect ratio for fiber definition: 3:1      Area of original collection filter (mm<sup>2</sup>): 385  
 Minimum Length (µm): ≥ 0.5      Grid Opening Area (mm<sup>2</sup>): 0.0127  
 Chi<sup>2</sup> Test for Random Distribution on Filter: N/A (N/A)      Grid Openings Analyzed: 5  
 Minimum Level of analysis (chrysotile): CD      Analyst: G.Barry  
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 6  
 Target Analytical Sensitivity (Structures/cc): 0.001

**Analytical Sensitivity (Structures/cc): 0.0008      Limit of Detection (Structures/cc): 0.0024**

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

**Comment**

Approved Signatory

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EMSL Order ID: 042502129

Client: Tetra Tech

Project ID: Maui Fires Lahaina

### ISO 10312 Determination of Asbestos Fibers Direct Transfer Transmission Electron Microscopy

#### Analytical Bench Sheet Data

EMSL Sample ID:		042502129-0012		Customer Sample:		MFL-AM02-012925-AB					
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
G1	B3	None Detected									
G1	E7	None Detected									
G1	I5	None Detected									
G2	H8	None Detected									
G2	D7	None Detected									

Abbreviations used:

XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled

XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042502129  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** Maui Fires

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 Tetra Tech  
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**Phone:** (703) 489-2674  
**Fax:** N/A  
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**Analysis Date:** 02/08/2025  
**Report Date:** 02/12/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Customer Sample Number:** MFL-AM09-012925-AB      **Sample Description:** DL915241

EMSL Sample Number: 042502129-0013      Sample Matrix: Air  
 Magnification used for fiber counting: 20,000      Volume (L): 7230.3  
 Aspect ratio for fiber definition: 3:1      Area of original collection filter (mm<sup>2</sup>): 385  
 Minimum Length (µm): ≥ 0.5      Grid Opening Area (mm<sup>2</sup>): 0.0127  
 Chi<sup>2</sup> Test for Random Distribution on Filter: N/A (N/A)      Grid Openings Analyzed: 5  
 Minimum Level of analysis (chrysotile): CD      Analyst: G.Barry  
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 5  
 Target Analytical Sensitivity (Structures/cc): 0.001

**Analytical Sensitivity (Structures/cc): 0.0008      Limit of Detection (Structures/cc): 0.0024**

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

**Comment**

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EMSL Order ID: **042502129**  
 Client: **Tetra Tech**  
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: <b>042502129-0013</b>			Customer Sample: <b>MFL-AM09-012925-AB</b>								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
G5	A5	None Detected									
G5	D8	None Detected									
G5	H5	None Detected									
G6	J4	None Detected									
G6	G3	None Detected									

Abbreviations used:  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042502129  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** Maui Fires

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**Analysis Date:** 02/08/2025  
**Report Date:** 02/12/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Customer Sample Number:** MFL-AM08-012925-AB      **Sample Description:** DL915214

EMSL Sample Number: 042502129-0014      Sample Matrix: Air  
 Magnification used for fiber counting: 20,000      Volume (L): 7240.6  
 Aspect ratio for fiber definition: 3:1      Area of original collection filter (mm<sup>2</sup>): 385  
 Minimum Length (µm): ≥ 0.5      Grid Opening Area (mm<sup>2</sup>): 0.0127  
 Chi<sup>2</sup> Test for Random Distribution on Filter: N/A (N/A)      Grid Openings Analyzed: 5  
 Minimum Level of analysis (chrysotile): CD      Analyst: G.Barry  
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 6  
 Target Analytical Sensitivity (Structures/cc): 0.001

**Analytical Sensitivity (Structures/cc): 0.0008      Limit of Detection (Structures/cc): 0.0024**

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	-	0	0	< 47.09	< 0.0024	Not Applicable - 0.0024	

**Comment**

Approved Signatory

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EMSL Order ID: **042502129**  
 Client: **Tetra Tech**  
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: <b>042502129-0014</b>			Customer Sample: <b>MFL-AM08-012925-AB</b>								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
H3	A5	None Detected									
H3	E7	None Detected									
H3	J4	None Detected									
H4	B2	None Detected									
H4	D5	None Detected									

Abbreviations used:  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042502129  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** Maui Fires

**Attn: Chelsea Saber**  
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**Phone:** (703) 489-2674  
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**Analysis Date:** 02/08/2025  
**Report Date:** 02/12/2025

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

<b>Customer Sample Number:</b>	<b>MFL-FB01-012925-AB</b>	<b>Sample Description:</b>	<b>DL915251</b>
EMSL Sample Number:	042502129-0015	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	0.0
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0127
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	2		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc):</b>	<b>N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
Actinolite	ADX	0	0	< 23.54			
Amosite	ADX	0	0	< 23.54			
Anthophyllite	ADX	0	0	< 23.54			
Crocidolite	ADX	0	0	< 23.54			
Tremolite	ADX	0	0	< 23.54			
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
Other Minerals	-	0	0	< 23.54			
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
Actinolite	ADX	0	0	< 23.54			
Amosite	ADX	0	0	< 23.54			
Anthophyllite	ADX	0	0	< 23.54			
Crocidolite	ADX	0	0	< 23.54			
Tremolite	ADX	0	0	< 23.54			
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
Other Minerals	-	0	0	< 23.54			
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			

**Comment**

Approved Signatory

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EMSL Order ID: **042502129**  
 Client: **Tetra Tech**  
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID:		042502129-0015					Customer Sample:		MFL-FB01-012925-AB		
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
H5	A4	None Detected									
H5	C8	None Detected									
H5	E3	None Detected									
H5	G6	None Detected									
H7	B7	None Detected									
H7	F7	None Detected									
H7	H8	None Detected									
H8	A5	None Detected									
H8	D8	None Detected									
H8	I4	None Detected									

Abbreviations used:  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



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**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 02/03/2025 12:30 PM  
**Analysis Date:** 02/06/2025  
**Report Date:** 02/12/2025

### ISO 10312 Determination of Asbestos Fibers Direct Transfer Transmission Electron Microscopy

<b>Customer Sample Number:</b>	<b>Lab Blank</b>	<b>Sample Description: Lab Blank</b>
EMSL Sample Number:	042502129-0016	Sample Matrix: Air
Magnification used for fiber counting:	20,000	Volume (L): 0.0
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ): 385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ): 0.0127
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed: 10
Minimum Level of analysis (chrysotile):	CD	Analyst: G.Barry
Minimum Level of analysis (amphibole):	ADX	
Estimated Particulate Loading on Filter %:	1	
Target Analytical Sensitivity (Structures/cc):	0.001	
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc): N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
Actinolite	ADX	0	0	< 23.54			
Amosite	ADX	0	0	< 23.54			
Anthophyllite	ADX	0	0	< 23.54			
Crocidolite	ADX	0	0	< 23.54			
Tremolite	ADX	0	0	< 23.54			
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
Other Minerals	-	0	0	< 23.54			
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
Actinolite	ADX	0	0	< 23.54			
Amosite	ADX	0	0	< 23.54			
Anthophyllite	ADX	0	0	< 23.54			
Crocidolite	ADX	0	0	< 23.54			
Tremolite	ADX	0	0	< 23.54			
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			
Other Minerals	-	0	0	< 23.54			
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.54</b>			

**Comment**

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.  
 200 Route 130 North Cinnaminson, NJ 08077  
 Tel/Fax: (800) 220-3675 / (856) 786-5974  
<http://www.EMSL.com> / [cinnaslab@EMSL.com](mailto:cinnaslab@EMSL.com)

EMSL Order ID: **042502129**  
 Client: **Tetra Tech**  
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers  
 Direct Transfer Transmission Electron Microscopy**

**Analytical Bench Sheet Data**

EMSL Sample ID: 042502129-0016			Customer Sample: Lab Blank								
Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
A1	I4	None Detected									
A1	G7	None Detected									
A1	D4	None Detected									
A1	B8	None Detected									
A2	I8	None Detected									
A2	E3	None Detected									
A2	B6	None Detected									
A3	A8	None Detected									
A3	E8	None Detected									
A3	J8	None Detected									

Abbreviations used:  
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled  
 XCGBLD - Crosses Countable Grid Bar Length Doubled



# Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Order Number / Lab Use Only

EMSL Analytical, Inc.  
200 Route 130 North  
Cinnaminson, NJ 08077

EMSL ANALYTICAL, INC.  
TESTING LABS • PRODUCTS • TRAINING

## #042502129

PHONE: (800) 220-3675  
EMSL CinnAslab@EMSL.com

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

Customer Information	Customer ID:	Billing ID:
	Company Name: <b>Tetra Tech</b>	Company Name:
	Contact Name: <b>Chelsea Saber</b>	Billing Contact:
	Street Address: <b>1560 Broadway STE 1400</b>	Street Address:
	City, State, Zip: <b>Denver, CO 80202</b> Country: <b>USA</b>	City, State, Zip: <b>Country:</b>
	Phone: <b>(703) 489-2674</b>	Phone:
Email(s) for Report: <b>chelsea.saber@tetratech.com</b>	Email(s) for Invoice:	

RECEIVED  
EMSL  
CINNAMINSON, NJ  
2025 FEB -3 P 12:31

Project Name/No: <b>Maui Fires Lahaina</b>		Purchase Order: <b>1207085</b>
EMSL LMS Project ID:	US State where samples collected: <b>Hi</b>	State of Connecticut (CT) must select project location: <input type="checkbox"/> Commercial (Taxable) <input type="checkbox"/> Residential (Non-Taxable)
Sampled By Name: <b>Shanna Epstein</b>	Sampled By Signature: <i>[Signature]</i>	No. of Samples in Shipment: <b>15</b>

Turn-Around-Time (TAT)

3 Hour  4-4.5 Hour (AHERA ONLY)  6 Hour  24 Hour  32 Hour  48 Hour  72 Hour  96 Hour  1 Week  2 Week

TEM Air 3-6 Hour, please call ahead to schedule. 32 Hour TAT available for select tests only; samples must be submitted by 11:30 am.

<p><b>PCM Air</b></p> <p><input type="checkbox"/> NIOSH 7400</p> <p><input type="checkbox"/> NIOSH 7400 w/ 8hr. TWA</p> <p><b>PLM - Bulk (reporting limit)</b></p> <p><input type="checkbox"/> PLM EPA 600/R-93/116 (&lt;1%)</p> <p><input type="checkbox"/> PLM EPA NOB (&lt;1%)</p> <p><b>POINT COUNT</b></p> <p><input type="checkbox"/> 400 (&lt;0.25%) <input type="checkbox"/> 1,000 (&lt;0.1%)</p> <p><b>POINT COUNT w/ GRAVIMETRIC</b></p> <p><input type="checkbox"/> 400 (&lt;0.25%) <input type="checkbox"/> 1,000 (&lt;0.1%)</p> <p><input type="checkbox"/> NIOSH 9002 (&lt;1%)</p> <p><input type="checkbox"/> NYS 198.1 (Friable - NY)</p> <p><input type="checkbox"/> NYS 198.6 NOB (Non-Friable - NY)</p> <p><input type="checkbox"/> NYS 198.8 (Vermiculite SM-V)</p>	<p><b>Test Selection</b></p> <p><b>TEM - Air</b></p> <p><input type="checkbox"/> AHERA 40 CFR, Part 763</p> <p><input type="checkbox"/> NIOSH 7402</p> <p><input type="checkbox"/> EPA Level II</p> <p><input checked="" type="checkbox"/> ISO 10312*</p> <p><b>TEM - Bulk</b></p> <p><input type="checkbox"/> TEM EPA NOB</p> <p><input type="checkbox"/> NYS NOB 198.4 (Non-Friable-NY)</p> <p><input type="checkbox"/> TEM EPA 600/R-93/116 w Milling Prep (0.1%)</p> <p><b>Other Test (please specify)</b></p>	<p><b>TEM - Settled Dust</b></p> <p><input type="checkbox"/> Microvac - ASTM D5755</p> <p><input type="checkbox"/> Wipe - ASTM D6480</p> <p><input type="checkbox"/> Qualitative via Filtration Prep</p> <p><input type="checkbox"/> Qualitative via Drop Mount Prep</p> <p><b>Soil - Rock - Vermiculite (reporting limit)*</b></p> <p><input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (&lt;0.25%)</p> <p><input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (&lt;0.1%)</p> <p><input type="checkbox"/> TEM EPA 600/R-93/116 with milling prep (&lt;0.1%)</p> <p><input type="checkbox"/> TEM Qualitative via Filtration Prep</p> <p><input type="checkbox"/> TEM Qualitative via Drop Mount Prep</p>
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\*Please call with your project-specific requirements.

Positive Stop - Clearly Identified Homogeneous Areas (HA)  Filter Pore Size (Air Samples)  0.8um  0.45um

Sample Number	Sample Location / Description	Volume, Area or Homogeneous Area	Date / Time Sampled (Air Monitoring Only)
MFL-AM05-012725-AB	DL915229	7,186.053	01/27/25 1051
MFL-AM02-012725-AB	DL915225	7,200.479	01/27/25 1104
MFL-AM09-012725-AB	DL915206	7,248.816	01/27/25 1255
MFL-AM08-012725-AB	DL915211	7,237.542	01/27/25 1311
MFL-FB01-012725-AB	DL915197	0	01/27/25 1200
MFL-AM05-012825-AB	DL915224	7,309.872	01/28/25 1054
MFL-AM02-012825-AB	DL915217	7,164.000	01/28/25 1108
MFL-AM09-012825-AB	DL915250	7,199.192	01/28/25 1251

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)  
All samples received acceptable for analysis.

Method of Shipment: <b>Fedex</b>	Sample Condition Upon Receipt:
Relinquished by: <b>Shanna Epstein</b> Date/Time: <b>01/30/25 1100</b>	Received by: <i>[Signature]</i> Date/Time: <b>01/30/25 1230</b>
Relinquished by:	Received by:

Controlled Document - COC-05 Asbestos R16 10/20/2021  AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature).

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.



**Stage 1 Data Verification Checklist – Asbestos**  
**HDOH CAB – Ambient Community Air Sampling – Lahaina**  
**Task Order No. 23141**

Reviewed by:

Kierra Johnson 02/12/2025 and Shanna Vasser 2/13/2025

Laboratory: EMSL Analytical, Inc. – North Cinnaminson, NJ

Collection date(s): 01/27/2025 – 01/29/2025

Report No: 42502129

- √ 1. Chain of custody (CoC) documentation is present.
- √ 2. Sample receipt condition information is present and acceptable.
- √ 3. Laboratory conducting the analysis is identified.
- √ 4. All samples submitted to the laboratory are accounted for.
- √ 5. Requested analytical methods were performed.
- √ 6. Analysis dates are provided.
- √ 7. Analyte results are provided.
- NA 8. Result qualifiers and definitions are provided.
- √ 9. Result units are reported.
- √ 10. Requested reporting limits are present.
- NA 11. Method detection limits are present.
- √ 12. Sample collection date and time are present.
- √ 13. No detections in field QC blanks (lot/media blanks, field blanks, etc.).

Discrepancies: None.

Notes: None.



Eastern Research Group  
601 Keystone Park Drive  
Suite 700  
Morrisville, NC 27560

February 11, 2025

Ms. Chelsea Saber  
Tetra Tech, Inc.  
1777 Sentry Pkwy, Bldg 12  
Blue Bell, PA 19422  
Project Name: Lahaina fires

Dear Ms. Chelsea Saber,

This report contains the analytical results for the sample(s) received under chain(s) of custody by Eastern Research Group on 02/03/25 10:38.

Values below the MDL for QC results in this report are recorded as ND, however the actual values are reported in the accompanying Excel report with a "U" flag (Under the detection limit). The actual values are reported in AQS.

This test is accredited under the 2016 TNI Standard for Environmental Laboratories (FL DOH Certification # E87673). All analyses were performed as described in the US EPA-approved QAPP, under the contract for National Hazardous Air Pollutant Support (US EPA Contract No. 68HERH22D0002). This cover page is an integral part of this report, and any exceptions or comments are noted on the last page.

Release of the data contained in this data package and in the data submitted in the electronic data deliverable, has been authorized by the Program Manager, or the Program Manager's designee as verified by the following signature.

The issuance of the final Certificate of Analysis takes precedence over any previous Report. If you have any questions, please contact me at 919-468-7924.

Sincerely,

Julie Swift  
Program Manager  
[julie.swift@erg.com](mailto:julie.swift@erg.com)

The information contained in this report and its attachment(s) are intended only for the use of the individual to whom it is addressed and may contain information that is privileged, confidential, or exempt from disclosure. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this report is strictly prohibited. If you have received this report in error, please notify [julie.swift@erg.com](mailto:julie.swift@erg.com) and delete the report without retaining any copies.



# CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.  
1777 Sentry Pkwy, Bldg 12  
Blue Bell, PA 19422

ATTN: Ms. Chelsea Saber

PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001

REPORTED: 02/11/25 12:55

SUBMITTED: 02/03/25

AQS SITE CODE:

SITE CODE: Lahaina fires

## ANALYTICAL REPORT FOR SAMPLES

<u>SampleName</u>	<u>LabNumber</u>	<u>Matrix</u>	<u>Sampled</u>	<u>Received</u>
MFL-AM05-012325-HM	5020334-01	Air	01/23/25 23:59	02/03/25 10:38
MFL-AM02-012325-HM	5020334-02	Air	01/23/25 23:59	02/03/25 10:38
MFL-AM09-012325-HM	5020334-03	Air	01/23/25 23:59	02/03/25 10:38
MFL-AM08-012325-HM	5020334-04	Air	01/23/25 23:59	02/03/25 10:38
MFL-AM05-012425-HM	5020334-05	Air	01/24/25 23:59	02/03/25 10:38
MFL-AM02-012425-HM	5020334-06	Air	01/24/25 23:59	02/03/25 10:38
MFL-AM09-012425-HM	5020334-07	Air	01/24/25 23:59	02/03/25 10:38
MFL-AM08-012425-HM	5020334-08	Air	01/24/25 23:59	02/03/25 10:38
MFL-FB01-012425-HM	5020334-09	Air	01/24/25 00:00	02/03/25 10:38
MFL-AM05-012525-HM	5020334-10	Air	01/25/25 23:59	02/03/25 10:38
MFL-AM02-012525-HM	5020334-11	Air	01/25/25 23:59	02/03/25 10:38
MFL-AM09-012525-HM	5020334-12	Air	01/25/25 23:59	02/03/25 10:38
MFL-AM08-012525-HM	5020334-13	Air	01/25/25 23:59	02/03/25 10:38
MFL-AM05-012625-HM	5020334-14	Air	01/26/25 23:59	02/03/25 10:38
MFL-AM02-012625-HM	5020334-15	Air	01/26/25 23:59	02/03/25 10:38
MFL-AM09-012625-HM	5020334-16	Air	01/26/25 23:59	02/03/25 10:38
MFL-AM08-012625-HM	5020334-17	Air	01/26/25 23:59	02/03/25 10:38
MFL-FB01-012625-HM	5020334-18	Air	01/26/25 00:00	02/03/25 10:38
MFL-AM05-012725-HM	5020334-19	Air	01/27/25 23:59	02/03/25 10:38
MFL-AM02-012725-HM	5020334-20	Air	01/27/25 23:59	02/03/25 10:38
MFL-AM09-012725-HM	5020334-21	Air	01/27/25 23:59	02/03/25 10:38



# CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.  
 1777 Sentry Pkwy, Bldg 12  
 Blue Bell, PA 19422  
**ATTN:** Ms. Chelsea Saber

**FILE #:** 4205.00.003.001  
**REPORTED:** 02/11/25 12:55  
**SUBMITTED:** 02/03/25  
**AQS SITE CODE:**

<b>PHONE:</b> (703) 885-5495	<b>FAX:</b>		<b>SITE CODE:</b>	Lahaina fires
MFL-AM08-012725-HM	5020334-22	Air	01/27/25 23:59	02/03/25 10:38
MFL-AM05-012825-HM	5020334-23	Air	01/28/25 23:59	02/03/25 10:38
MFL-AM02-012825-HM	5020334-24	Air	01/28/25 23:59	02/03/25 10:38
MFL-AM09-012825-HM	5020334-25	Air	01/28/25 23:59	02/03/25 10:38
MFL-AM08-012825-HM	5020334-26	Air	01/28/25 23:59	02/03/25 10:38
MFL-FB01-012825-HM	5020334-27	Air	01/28/25 00:00	02/03/25 10:38
MFL-AM05-012925-HM	5020334-28	Air	01/29/25 23:59	02/03/25 10:38
MFL-AM02-012925-HM	5020334-29	Air	01/29/25 23:59	02/03/25 10:38
MFL-AM09-012925-HM	5020334-30	Air	01/29/25 23:59	02/03/25 10:38
MFL-AM08-012925-HM	5020334-31	Air	01/29/25 23:59	02/03/25 10:38



# CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.  
 1777 Sentry Pkwy, Bldg 12  
 Blue Bell, PA 19422  
 ATTN: Ms. Chelsea Saber  
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM05-012325-HM      **Lab ID:** 5020334-01      **Sampled:** 01/23/25 23:59  
**Matrix:** Air      **Sample Volume:** 2016.137 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/04/25 16:51  
**Comments:** Q8525991 MS/MSD - Received in good condition.

## Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.150	SL	0.0282	
Arsenic	7440-38-2	0.142		0.00717	
Barium	7440-39-3	3.91		1.24	
Beryllium	7440-41-7	0.00467		0.00153	
Cadmium	7440-43-9	0.0112		0.00413	
Chromium	7440-47-3	1.45	U	1.97	
Cobalt	7440-48-4	0.145		0.0420	
Copper	7440-50-8	77.2	QM-07	0.607	
Lead	7439-92-1	0.342		0.108	
Manganese	7439-96-5	4.33		0.449	
Molybdenum	7439-98-7	2.92		0.318	
Nickel	7440-02-0	0.917		0.596	
Selenium	7782-49-2	0.230		0.00815	
Thallium	7440-28-0	6.28E-4	U	6.95E-4	
Vanadium	7440-62-2	0.595		0.0370	
Zinc	7440-66-6	11.8	U	92.0	



# CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.  
 1777 Sentry Pkwy, Bldg 12  
 Blue Bell, PA 19422  
 ATTN: Ms. Chelsea Saber  
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM02-012325-HM      **Lab ID:** 5020334-02      **Sampled:** 01/23/25 23:59  
**Matrix:** Air      **Sample Volume:** 2065.536 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/04/25 22:48  
**Comments:** Q8525990 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.236	SL	0.0276	
Arsenic	7440-38-2	0.181		0.00700	
Barium	7440-39-3	3.30		1.21	
Beryllium	7440-41-7	0.00344		0.00150	
Cadmium	7440-43-9	0.0106		0.00403	
Chromium	7440-47-3	1.31	U	1.92	
Cobalt	7440-48-4	0.0939		0.0410	
Copper	7440-50-8	64.9		0.592	
Lead	7439-92-1	0.366		0.106	
Manganese	7439-96-5	2.84		0.439	
Molybdenum	7439-98-7	2.53		0.310	
Nickel	7440-02-0	0.795		0.582	
Selenium	7782-49-2	0.235		0.00796	
Thallium	7440-28-0	7.04E-4		6.78E-4	
Vanadium	7440-62-2	0.460		0.0361	
Zinc	7440-66-6	10.1	U	89.8	



# CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.  
 1777 Sentry Pkwy, Bldg 12  
 Blue Bell, PA 19422  
 ATTN: Ms. Chelsea Saber  
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM09-012325-HM      **Lab ID:** 5020334-03      **Sampled:** 01/23/25 23:59  
**Matrix:** Air      **Sample Volume:** 2032.643 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/04/25 23:01  
**Comments:** Q8525989 - Received in good condition.

## Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.107	SL	0.0280	
Arsenic	7440-38-2	0.202		0.00712	
Barium	7440-39-3	3.04		1.23	
Beryllium	7440-41-7	0.00316		0.00152	
Cadmium	7440-43-9	0.0427		0.00410	
Chromium	7440-47-3	1.18	U	1.95	
Cobalt	7440-48-4	0.103		0.0416	
Copper	7440-50-8	25.5		0.602	
Lead	7439-92-1	0.367		0.107	
Manganese	7439-96-5	3.39		0.446	
Molybdenum	7439-98-7	1.45		0.315	
Nickel	7440-02-0	0.747		0.592	
Selenium	7782-49-2	0.243		0.00808	
Thallium	7440-28-0	5.61E-4	U	6.89E-4	
Vanadium	7440-62-2	0.455		0.0367	
Zinc	7440-66-6	9.33	U	91.2	



# CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.  
 1777 Sentry Pkwy, Bldg 12  
 Blue Bell, PA 19422  
 ATTN: Ms. Chelsea Saber  
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
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 AQS SITE CODE:  
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**Description:** MFL-AM08-012325-HM      **Lab ID:** 5020334-04      **Sampled:** 01/23/25 23:59  
**Matrix:** Air      **Sample Volume:** 1907.155 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/04/25 23:15  
**Comments:** Q8525985 - Received in good condition.

## Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.191	SL	0.0299	
Arsenic	7440-38-2	0.187		0.00758	
Barium	7440-39-3	2.57		1.31	
Beryllium	7440-41-7	0.00280		0.00162	
Cadmium	7440-43-9	0.0316		0.00437	
Chromium	7440-47-3	1.16	U	2.08	
Cobalt	7440-48-4	0.128		0.0444	
Copper	7440-50-8	37.2		0.642	
Lead	7439-92-1	0.415		0.114	
Manganese	7439-96-5	3.14		0.475	
Molybdenum	7439-98-7	2.00		0.336	
Nickel	7440-02-0	1.85		0.630	
Selenium	7782-49-2	0.223		0.00862	
Thallium	7440-28-0	5.29E-4	U	7.35E-4	
Vanadium	7440-62-2	0.384		0.0391	
Zinc	7440-66-6	13.6	U	97.3	



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FILE #: 4205.00.003.001  
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 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
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**Description:** MFL-AM05-012425-HM      **Lab ID:** 5020334-05      **Sampled:** 01/24/25 23:59  
**Matrix:** Air      **Sample Volume:** 2000.205 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/04/25 23:28  
**Comments:** Q8525984 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.265	SL	0.0285	
Arsenic	7440-38-2	0.198		0.00723	
Barium	7440-39-3	7.17		1.25	
Beryllium	7440-41-7	0.0110		0.00155	
Cadmium	7440-43-9	0.0174		0.00416	
Chromium	7440-47-3	2.25		1.98	
Cobalt	7440-48-4	0.392		0.0423	
Copper	7440-50-8	93.0		0.612	
Lead	7439-92-1	0.481		0.109	
Manganese	7439-96-5	10.2		0.453	
Molybdenum	7439-98-7	3.25		0.320	
Nickel	7440-02-0	1.60		0.601	
Selenium	7782-49-2	0.341		0.00822	
Thallium	7440-28-0	0.00132		7.00E-4	
Vanadium	7440-62-2	1.48		0.0373	
Zinc	7440-66-6	21.2	U	92.7	



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**Description:** MFL-AM02-012425-HM      **Lab ID:** 5020334-06      **Sampled:** 01/24/25 23:59  
**Matrix:** Air      **Sample Volume:** 2102.086 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/04/25 23:41  
**Comments:** Q8525982 - Received in good condition.

## Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.397	SL	0.0271	
Arsenic	7440-38-2	0.365		0.00688	
Barium	7440-39-3	9.06		1.19	
Beryllium	7440-41-7	0.0171		0.00147	
Cadmium	7440-43-9	0.0200		0.00396	
Chromium	7440-47-3	2.47		1.89	
Cobalt	7440-48-4	0.489		0.0402	
Copper	7440-50-8	65.3		0.582	
Lead	7439-92-1	1.15		0.104	
Manganese	7439-96-5	13.9		0.431	
Molybdenum	7439-98-7	2.84		0.305	
Nickel	7440-02-0	1.78		0.572	
Selenium	7782-49-2	0.368		0.00782	
Thallium	7440-28-0	0.00152		6.66E-4	
Vanadium	7440-62-2	1.91		0.0354	
Zinc	7440-66-6	24.8	U	88.2	



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**Description:** MFL-AM09-012425-HM      **Lab ID:** 5020334-07      **Sampled:** 01/24/25 23:59  
**Matrix:** Air      **Sample Volume:** 2020.548 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/04/25 23:55  
**Comments:** Q8525981 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.203	SL	0.0282	
Arsenic	7440-38-2	0.404		0.00716	
Barium	7440-39-3	8.52		1.24	
Beryllium	7440-41-7	0.00786		0.00153	
Cadmium	7440-43-9	0.0299		0.00412	
Chromium	7440-47-3	1.74	U	1.96	
Cobalt	7440-48-4	0.273		0.0419	
Copper	7440-50-8	33.5		0.606	
Lead	7439-92-1	0.502		0.108	
Manganese	7439-96-5	6.75		0.449	
Molybdenum	7439-98-7	1.96		0.317	
Nickel	7440-02-0	1.18		0.595	
Selenium	7782-49-2	0.378		0.00813	
Thallium	7440-28-0	0.00125		6.93E-4	
Vanadium	7440-62-2	1.01		0.0369	
Zinc	7440-66-6	14.2	U	91.8	



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**Description:** MFL-AM08-012425-HM      **Lab ID:** 5020334-08      **Sampled:** 01/24/25 23:59  
**Matrix:** Air      **Sample Volume:** 1941.507 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 00:08  
**Comments:** Q8525980 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.187	SL	0.0293	
Arsenic	7440-38-2	0.235		0.00745	
Barium	7440-39-3	3.86		1.29	
Beryllium	7440-41-7	0.00425		0.00159	
Cadmium	7440-43-9	0.0171		0.00429	
Chromium	7440-47-3	1.37	U	2.04	
Cobalt	7440-48-4	0.131		0.0436	
Copper	7440-50-8	52.1		0.630	
Lead	7439-92-1	0.581		0.112	
Manganese	7439-96-5	3.89		0.467	
Molybdenum	7439-98-7	2.01		0.330	
Nickel	7440-02-0	0.887		0.619	
Selenium	7782-49-2	0.273		0.00846	
Thallium	7440-28-0	0.00105		7.22E-4	
Vanadium	7440-62-2	0.691		0.0384	
Zinc	7440-66-6	11.6	U	95.5	



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 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
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**Description:** MFL-FB01-012425-HM      **Lab ID:** 5020334-09      **Sampled:** 01/24/25 00:00  
**Matrix:** Air      **Sample Volume:** 2000.205 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 00:21  
**Comments:** Q8525970 Field Blank - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.0196	SL, U	0.0285	
Arsenic	7440-38-2	0.00253	U	0.00723	
Barium	7440-39-3	0.929	U	1.25	
Beryllium	7440-41-7	2.66E-4	U	0.00155	
Cadmium	7440-43-9	7.00E-4	U	0.00416	
Chromium	7440-47-3	0.779	U	1.98	
Cobalt	7440-48-4	0.00824	U	0.0423	
Copper	7440-50-8	0.590	U	0.612	
Lead	7439-92-1	0.0271	U	0.109	
Manganese	7439-96-5	0.113	U	0.453	
Molybdenum	7439-98-7	0.173	U	0.320	
Nickel	7440-02-0	0.360	U	0.601	
Selenium	7782-49-2	0.00229	U	0.00822	
Thallium	7440-28-0	6.39E-5	U	7.00E-4	
Vanadium	7440-62-2	0.0291	U	0.0373	
Zinc	7440-66-6	3.89	U	92.7	



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 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM05-012525-HM      **Lab ID:** 5020334-10      **Sampled:** 01/25/25 23:59  
**Matrix:** Air      **Sample Volume:** 1989.316 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 00:34  
**Comments:** Q8525977 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.220	SL	0.0286	
Arsenic	7440-38-2	0.257		0.00727	
Barium	7440-39-3	6.35		1.26	
Beryllium	7440-41-7	0.0150		0.00155	
Cadmium	7440-43-9	0.0291		0.00419	
Chromium	7440-47-3	2.44		2.00	
Cobalt	7440-48-4	0.522		0.0425	
Copper	7440-50-8	131		0.615	
Lead	7439-92-1	0.485		0.110	
Manganese	7439-96-5	15.2		0.456	
Molybdenum	7439-98-7	3.55		0.322	
Nickel	7440-02-0	1.52		0.604	
Selenium	7782-49-2	0.342		0.00826	
Thallium	7440-28-0	0.00301		7.04E-4	
Vanadium	7440-62-2	1.58		0.0375	
Zinc	7440-66-6	17.8	U	93.2	



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 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
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**Description:** MFL-AM02-012525-HM      **Lab ID:** 5020334-11      **Sampled:** 01/25/25 23:59  
**Matrix:** Air      **Sample Volume:** 2070.752 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 01:33  
**Comments:** Q8525976 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.398	SL	0.0275	
Arsenic	7440-38-2	0.318		0.00698	
Barium	7440-39-3	8.87		1.21	
Beryllium	7440-41-7	0.0183		0.00149	
Cadmium	7440-43-9	0.0367		0.00402	
Chromium	7440-47-3	2.48		1.92	
Cobalt	7440-48-4	0.470		0.0409	
Copper	7440-50-8	62.7		0.591	
Lead	7439-92-1	1.33		0.105	
Manganese	7439-96-5	15.2		0.438	
Molybdenum	7439-98-7	2.54		0.310	
Nickel	7440-02-0	1.74		0.581	
Selenium	7782-49-2	0.385		0.00794	
Thallium	7440-28-0	0.00336		6.76E-4	
Vanadium	7440-62-2	1.64		0.0360	
Zinc	7440-66-6	28.6	U	89.6	



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**Description:** MFL-AM09-012525-HM      **Lab ID:** 5020334-12      **Sampled:** 01/25/25 23:59  
**Matrix:** Air      **Sample Volume:** 2023.253 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 02:01  
**Comments:** Q8525975 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.165	SL	0.0281	
Arsenic	7440-38-2	0.253		0.00715	
Barium	7440-39-3	4.11		1.24	
Beryllium	7440-41-7	0.00810		0.00153	
Cadmium	7440-43-9	0.0331		0.00412	
Chromium	7440-47-3	1.69	U	1.96	
Cobalt	7440-48-4	0.287		0.0418	
Copper	7440-50-8	30.8		0.605	
Lead	7439-92-1	0.508		0.108	
Manganese	7439-96-5	8.32		0.448	
Molybdenum	7439-98-7	1.75		0.317	
Nickel	7440-02-0	0.978		0.594	
Selenium	7782-49-2	0.335		0.00812	
Thallium	7440-28-0	0.00300		6.92E-4	
Vanadium	7440-62-2	0.836		0.0368	
Zinc	7440-66-6	13.0	U	91.7	



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 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
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**Description:** MFL-AM08-012525-HM      **Lab ID:** 5020334-13      **Sampled:** 01/25/25 23:59  
**Matrix:** Air      **Sample Volume:** 1731.736 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 02:15  
**Comments:** Q8525973 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.121	SL	0.0329	
Arsenic	7440-38-2	0.200		0.00835	
Barium	7440-39-3	3.90		1.45	
Beryllium	7440-41-7	0.00519		0.00179	
Cadmium	7440-43-9	0.0246		0.00481	
Chromium	7440-47-3	1.79	U	2.29	
Cobalt	7440-48-4	0.170		0.0489	
Copper	7440-50-8	51.1		0.707	
Lead	7439-92-1	0.314		0.126	
Manganese	7439-96-5	5.06		0.523	
Molybdenum	7439-98-7	1.65		0.370	
Nickel	7440-02-0	0.811		0.694	
Selenium	7782-49-2	0.301		0.00949	
Thallium	7440-28-0	0.00261		8.09E-4	
Vanadium	7440-62-2	0.552		0.0430	
Zinc	7440-66-6	10.3	U	107	



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**Description:** MFL-AM05-012625-HM      **Lab ID:** 5020334-14      **Sampled:** 01/26/25 23:59  
**Matrix:** Air      **Sample Volume:** 1979.549 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 02:28  
**Comments:** Q8525964 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.120	SL	0.0288	
Arsenic	7440-38-2	0.219		0.00731	
Barium	7440-39-3	4.70		1.27	
Beryllium	7440-41-7	0.0128		0.00156	
Cadmium	7440-43-9	0.0248		0.00421	
Chromium	7440-47-3	1.86	U	2.01	
Cobalt	7440-48-4	0.361		0.0427	
Copper	7440-50-8	112		0.618	
Lead	7439-92-1	0.384		0.110	
Manganese	7439-96-5	12.8		0.458	
Molybdenum	7439-98-7	2.80		0.324	
Nickel	7440-02-0	1.02		0.607	
Selenium	7782-49-2	0.216		0.00830	
Thallium	7440-28-0	0.00148		7.08E-4	
Vanadium	7440-62-2	1.22		0.0376	
Zinc	7440-66-6	11.6	U	93.7	



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FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM02-012625-HM      **Lab ID:** 5020334-15      **Sampled:** 01/26/25 23:59  
**Matrix:** Air      **Sample Volume:** 2127.043 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 02:41  
**Comments:** Q8525962 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.225	SL	0.0268	
Arsenic	7440-38-2	0.144		0.00680	
Barium	7440-39-3	4.64		1.18	
Beryllium	7440-41-7	0.00635		0.00145	
Cadmium	7440-43-9	0.115		0.00392	
Chromium	7440-47-3	1.30	U	1.87	
Cobalt	7440-48-4	0.177		0.0398	
Copper	7440-50-8	65.1		0.575	
Lead	7439-92-1	0.344		0.102	
Manganese	7439-96-5	5.34		0.426	
Molybdenum	7439-98-7	2.23		0.301	
Nickel	7440-02-0	0.824		0.565	
Selenium	7782-49-2	0.187		0.00773	
Thallium	7440-28-0	0.00151		6.59E-4	
Vanadium	7440-62-2	0.632		0.0350	
Zinc	7440-66-6	12.4	U	87.2	



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 Blue Bell, PA 19422  
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FILE #: 4205.00.003.001  
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 SUBMITTED: 02/03/25  
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**Description:** MFL-AM09-012625-HM      **Lab ID:** 5020334-16      **Sampled:** 01/26/25 23:59  
**Matrix:** Air      **Sample Volume:** 2028.916 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 02:54  
**Comments:** Q8525961 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.0889	SL	0.0281	
Arsenic	7440-38-2	0.159		0.00713	
Barium	7440-39-3	2.94		1.23	
Beryllium	7440-41-7	0.00326		0.00152	
Cadmium	7440-43-9	0.0193		0.00411	
Chromium	7440-47-3	1.06	U	1.96	
Cobalt	7440-48-4	0.0931		0.0417	
Copper	7440-50-8	43.7		0.603	
Lead	7439-92-1	0.250		0.107	
Manganese	7439-96-5	2.97		0.447	
Molybdenum	7439-98-7	1.86		0.316	
Nickel	7440-02-0	0.609		0.593	
Selenium	7782-49-2	0.163		0.00810	
Thallium	7440-28-0	7.55E-4		6.90E-4	
Vanadium	7440-62-2	0.374		0.0367	
Zinc	7440-66-6	8.40	U	91.4	



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 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
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**Description:** MFL-AM08-012625-HM      **Lab ID:** 5020334-17      **Sampled:** 01/26/25 23:59  
**Matrix:** Air      **Sample Volume:** 1921.359 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 03:08  
**Comments:** Q8525959 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
<b>Antimony</b>	<b>7440-36-0</b>	<b>0.119</b>	SL	<b>0.0296</b>	
<b>Arsenic</b>	<b>7440-38-2</b>	<b>0.225</b>		<b>0.00753</b>	
<b>Barium</b>	<b>7440-39-3</b>	<b>2.45</b>		<b>1.30</b>	
<b>Beryllium</b>	<b>7440-41-7</b>	<b>0.00363</b>		<b>0.00161</b>	
<b>Cadmium</b>	<b>7440-43-9</b>	<b>0.00987</b>		<b>0.00434</b>	
Chromium	7440-47-3	1.81	U	2.07	
<b>Cobalt</b>	<b>7440-48-4</b>	<b>0.120</b>		<b>0.0440</b>	
<b>Copper</b>	<b>7440-50-8</b>	<b>63.9</b>		<b>0.637</b>	
<b>Lead</b>	<b>7439-92-1</b>	<b>0.196</b>		<b>0.113</b>	
<b>Manganese</b>	<b>7439-96-5</b>	<b>3.97</b>		<b>0.472</b>	
<b>Molybdenum</b>	<b>7439-98-7</b>	<b>2.01</b>		<b>0.334</b>	
Nickel	7440-02-0	0.609	U	0.626	
<b>Selenium</b>	<b>7782-49-2</b>	<b>0.154</b>		<b>0.00855</b>	
Thallium	7440-28-0	6.99E-4	U	7.29E-4	
<b>Vanadium</b>	<b>7440-62-2</b>	<b>0.457</b>		<b>0.0388</b>	
Zinc	7440-66-6	10.1	U	96.5	



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**Description:** MFL-FB01-012625-HM      **Lab ID:** 5020334-18      **Sampled:** 01/26/25 00:00  
**Matrix:** Air      **Sample Volume:** 1979.549 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 03:21  
**Comments:** Q8525958 Field Blank - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.0194	SL, U	0.0288	
Arsenic	7440-38-2	0.00281	U	0.00731	
Barium	7440-39-3	1.03	U	1.27	
Beryllium	7440-41-7	2.58E-4	U	0.00156	
Cadmium	7440-43-9	0.00103	U	0.00421	
Chromium	7440-47-3	0.846	U	2.01	
Cobalt	7440-48-4	0.00961	U	0.0427	
Copper	7440-50-8	0.246	U	0.618	
Lead	7439-92-1	0.0214	U	0.110	
Manganese	7439-96-5	0.119	U	0.458	
Molybdenum	7439-98-7	0.141	U	0.324	
Nickel	7440-02-0	0.384	U	0.607	
Selenium	7782-49-2	0.00176	U	0.00830	
Thallium	7440-28-0	5.47E-5	U	7.08E-4	
Vanadium	7440-62-2	0.0299	U	0.0376	
Zinc	7440-66-6	3.66	U	93.7	



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FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM05-012725-HM      **Lab ID:** 5020334-19      **Sampled:** 01/27/25 23:59  
**Matrix:** Air      **Sample Volume:** 1972.104 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 03:34  
**Comments:** Q8525954 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.112	SL	0.0289	
Arsenic	7440-38-2	0.125		0.00733	
Barium	7440-39-3	3.27		1.27	
Beryllium	7440-41-7	0.00480		0.00157	
Cadmium	7440-43-9	0.00915		0.00422	
Chromium	7440-47-3	1.42	U	2.01	
Cobalt	7440-48-4	0.162		0.0429	
Copper	7440-50-8	84.9		0.620	
Lead	7439-92-1	0.195		0.111	
Manganese	7439-96-5	4.76		0.460	
Molybdenum	7439-98-7	2.70		0.325	
Nickel	7440-02-0	0.912		0.610	
Selenium	7782-49-2	0.137		0.00833	
Thallium	7440-28-0	5.60E-4	U	7.10E-4	
Vanadium	7440-62-2	0.572		0.0378	
Zinc	7440-66-6	12.1	U	94.1	



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FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM02-012725-HM      **Lab ID:** 5020334-20      **Sampled:** 01/27/25 23:59  
**Matrix:** Air      **Sample Volume:** 2121.69 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 04:33  
**Comments:** Q8525953 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.246	SL	0.0268	
Arsenic	7440-38-2	0.161		0.00682	
Barium	7440-39-3	3.99		1.18	
Beryllium	7440-41-7	0.00487		0.00146	
Cadmium	7440-43-9	0.0109		0.00393	
Chromium	7440-47-3	1.43	U	1.87	
Cobalt	7440-48-4	0.144		0.0399	
Copper	7440-50-8	69.3		0.577	
Lead	7439-92-1	0.374		0.103	
Manganese	7439-96-5	4.47		0.427	
Molybdenum	7439-98-7	2.41		0.302	
Nickel	7440-02-0	0.962		0.567	
Selenium	7782-49-2	0.157		0.00775	
Thallium	7440-28-0	7.54E-4		6.60E-4	
Vanadium	7440-62-2	0.541		0.0351	
Zinc	7440-66-6	10.1	U	87.4	



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FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM09-012725-HM      **Lab ID:** 5020334-21      **Sampled:** 01/27/25 23:59  
**Matrix:** Air      **Sample Volume:** 1985.704 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/04/25 20:23  
**Comments:** Q8525952 MS/MSD - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.101	SL	0.0287	
Arsenic	7440-38-2	0.212		0.00728	
Barium	7440-39-3	2.90		1.26	
Beryllium	7440-41-7	0.00424		0.00156	
Cadmium	7440-43-9	0.0116		0.00420	
Chromium	7440-47-3	1.38	U	2.00	
Cobalt	7440-48-4	0.140		0.0426	
Copper	7440-50-8	33.1		0.616	
Lead	7439-92-1	0.302		0.110	
Manganese	7439-96-5	4.20		0.456	
Molybdenum	7439-98-7	1.74		0.323	
Nickel	7440-02-0	0.842		0.606	
Selenium	7782-49-2	0.137		0.00828	
Thallium	7440-28-0	5.53E-4	U	7.05E-4	
Vanadium	7440-62-2	0.445		0.0375	
Zinc	7440-66-6	9.14	U	93.4	



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FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM08-012725-HM      **Lab ID:** 5020334-22      **Sampled:** 01/27/25 23:59  
**Matrix:** Air      **Sample Volume:** 1938.312 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 04:46  
**Comments:** Q8525950 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.133	SL	0.0294	
Arsenic	7440-38-2	0.223		0.00746	
Barium	7440-39-3	2.31		1.29	
Beryllium	7440-41-7	0.00312		0.00159	
Cadmium	7440-43-9	0.0133		0.00430	
Chromium	7440-47-3	1.31	U	2.05	
Cobalt	7440-48-4	0.122		0.0436	
Copper	7440-50-8	35.7		0.631	
Lead	7439-92-1	0.245		0.112	
Manganese	7439-96-5	3.57		0.468	
Molybdenum	7439-98-7	1.57		0.331	
Nickel	7440-02-0	0.752		0.620	
Selenium	7782-49-2	0.131		0.00848	
Thallium	7440-28-0	4.98E-4	U	7.23E-4	
Vanadium	7440-62-2	0.376		0.0384	
Zinc	7440-66-6	8.24	U	95.7	



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 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
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**Description:** MFL-AM05-012825-HM      **Lab ID:** 5020334-23      **Sampled:** 01/28/25 23:59  
**Matrix:** Air      **Sample Volume:** 2019.629 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 04:59  
**Comments:** Q8525948 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.151	SL	0.0282	
Arsenic	7440-38-2	0.216		0.00716	
Barium	7440-39-3	5.36		1.24	
Beryllium	7440-41-7	0.0135		0.00153	
Cadmium	7440-43-9	0.0189		0.00412	
Chromium	7440-47-3	2.95		1.97	
Cobalt	7440-48-4	0.542		0.0419	
Copper	7440-50-8	91.0		0.606	
Lead	7439-92-1	0.328		0.108	
Manganese	7439-96-5	13.7		0.449	
Molybdenum	7439-98-7	2.48		0.317	
Nickel	7440-02-0	2.12		0.595	
Selenium	7782-49-2	0.120		0.00814	
Thallium	7440-28-0	9.63E-4		6.94E-4	
Vanadium	7440-62-2	1.54		0.0369	
Zinc	7440-66-6	16.1	U	91.8	



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 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
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**Description:** MFL-AM02-012825-HM      **Lab ID:** 5020334-24      **Sampled:** 01/28/25 23:59  
**Matrix:** Air      **Sample Volume:** 2152.025 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 05:13  
**Comments:** Q8525947 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.147	SL	0.0265	
Arsenic	7440-38-2	0.266		0.00672	
Barium	7440-39-3	5.23		1.16	
Beryllium	7440-41-7	0.0147		0.00144	
Cadmium	7440-43-9	0.0162		0.00387	
Chromium	7440-47-3	2.15		1.84	
Cobalt	7440-48-4	0.420		0.0393	
Copper	7440-50-8	64.1		0.569	
Lead	7439-92-1	1.23		0.101	
Manganese	7439-96-5	13.1		0.421	
Molybdenum	7439-98-7	2.50		0.298	
Nickel	7440-02-0	1.45		0.559	
Selenium	7782-49-2	0.129		0.00764	
Thallium	7440-28-0	7.73E-4		6.51E-4	
Vanadium	7440-62-2	1.37		0.0346	
Zinc	7440-66-6	24.4	U	86.2	



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FILE #: 4205.00.003.001  
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 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
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**Description:** MFL-AM09-012825-HM      **Lab ID:** 5020334-25      **Sampled:** 01/28/25 23:59  
**Matrix:** Air      **Sample Volume:** 1930.336 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 05:26  
**Comments:** Q8525946 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.0846	SL	0.0295	
Arsenic	7440-38-2	0.217		0.00749	
Barium	7440-39-3	3.58		1.30	
Beryllium	7440-41-7	0.00869		0.00160	
Cadmium	7440-43-9	0.0207		0.00432	
Chromium	7440-47-3	2.17		2.06	
Cobalt	7440-48-4	0.486		0.0438	
Copper	7440-50-8	26.7		0.634	
Lead	7439-92-1	0.509		0.113	
Manganese	7439-96-5	9.74		0.469	
Molybdenum	7439-98-7	1.56		0.332	
Nickel	7440-02-0	6.22		0.623	
Selenium	7782-49-2	0.0937		0.00851	
Thallium	7440-28-0	6.26E-4	U	7.26E-4	
Vanadium	7440-62-2	1.05		0.0386	
Zinc	7440-66-6	14.9	U	96.1	



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FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
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**Description:** MFL-AM08-012825-HM      **Lab ID:** 5020334-26      **Sampled:** 01/28/25 23:59  
**Matrix:** Air      **Sample Volume:** 1781.463 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 05:39  
**Comments:** Q8525945 - Received in good condition.

## Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.0996	SL	0.0320	
Arsenic	7440-38-2	0.244		0.00812	
Barium	7440-39-3	2.91		1.41	
Beryllium	7440-41-7	0.00972		0.00174	
Cadmium	7440-43-9	0.678		0.00468	
Chromium	7440-47-3	2.04	U	2.23	
Cobalt	7440-48-4	0.288		0.0475	
Copper	7440-50-8	30.2		0.687	
Lead	7439-92-1	0.342		0.122	
Manganese	7439-96-5	7.77		0.509	
Molybdenum	7439-98-7	1.07		0.360	
Nickel	7440-02-0	1.27		0.675	
Selenium	7782-49-2	0.0918		0.00922	
Thallium	7440-28-0	0.00402		7.86E-4	
Vanadium	7440-62-2	0.802		0.0418	
Zinc	7440-66-6	10.3	U	104	



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FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-FB01-012825-HM      **Lab ID:** 5020334-27      **Sampled:** 01/28/25 00:00  
**Matrix:** Air      **Sample Volume:** 2019.629 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 05:53  
**Comments:** Q8525943 Field Blank - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.0203	SL, U	0.0282	
Arsenic	7440-38-2	0.00192	U	0.00716	
Barium	7440-39-3	0.947	U	1.24	
Beryllium	7440-41-7	2.10E-4	U	0.00153	
Cadmium	7440-43-9	0.00118	U	0.00412	
Chromium	7440-47-3	0.762	U	1.97	
Cobalt	7440-48-4	0.00996	U	0.0419	
Copper	7440-50-8	0.361	U	0.606	
Lead	7439-92-1	0.0232	U	0.108	
Manganese	7439-96-5	0.137	U	0.449	
Molybdenum	7439-98-7	0.129	U	0.317	
Nickel	7440-02-0	0.362	U	0.595	
Selenium	7782-49-2	0.00185	U	0.00814	
Thallium	7440-28-0	5.83E-5	U	6.94E-4	
Vanadium	7440-62-2	0.0258	U	0.0369	
Zinc	7440-66-6	3.27	U	91.8	



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FILE #: 4205.00.003.001  
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 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM05-012925-HM      **Lab ID:** 5020334-28      **Sampled:** 01/29/25 23:59  
**Matrix:** Air      **Sample Volume:** 1990.393 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 06:06  
**Comments:** Q8525944 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.211	SL	0.0286	
Arsenic	7440-38-2	0.210		0.00727	
Barium	7440-39-3	5.45		1.26	
Beryllium	7440-41-7	0.0134		0.00155	
Cadmium	7440-43-9	0.0143		0.00419	
Chromium	7440-47-3	2.56		1.99	
Cobalt	7440-48-4	0.538		0.0425	
Copper	7440-50-8	86.9		0.615	
Lead	7439-92-1	0.354		0.110	
Manganese	7439-96-5	13.7		0.455	
Molybdenum	7439-98-7	2.86		0.322	
Nickel	7440-02-0	1.78		0.604	
Selenium	7782-49-2	0.196		0.00826	
Thallium	7440-28-0	0.00104		7.04E-4	
Vanadium	7440-62-2	1.60		0.0374	
Zinc	7440-66-6	15.5	U	93.2	



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 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
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**Description:** MFL-AM02-012925-HM      **Lab ID:** 5020334-29      **Sampled:** 01/29/25 23:59  
**Matrix:** Air      **Sample Volume:** 2121.69 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 06:19  
**Comments:** Q8525942 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.375	SL	0.0268	
Arsenic	7440-38-2	0.252		0.00682	
Barium	7440-39-3	8.53		1.18	
Beryllium	7440-41-7	0.0182		0.00146	
Cadmium	7440-43-9	0.0211		0.00393	
Chromium	7440-47-3	2.36		1.87	
Cobalt	7440-48-4	0.520		0.0399	
Copper	7440-50-8	118		0.577	
Lead	7439-92-1	1.09		0.103	
Manganese	7439-96-5	15.8		0.427	
Molybdenum	7439-98-7	3.97		0.302	
Nickel	7440-02-0	1.68		0.567	
Selenium	7782-49-2	0.238		0.00775	
Thallium	7440-28-0	0.00111		6.60E-4	
Vanadium	7440-62-2	1.71		0.0351	
Zinc	7440-66-6	26.3	U	87.4	



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FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM09-012925-HM      **Lab ID:** 5020334-30      **Sampled:** 01/29/25 23:59  
**Matrix:** Air      **Sample Volume:** 1959.182 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 06:32  
**Comments:** Q8525941 - Received in good condition.

### Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.168	SL	0.0291	
Arsenic	7440-38-2	0.144		0.00738	
Barium	7440-39-3	3.55		1.28	
Beryllium	7440-41-7	0.00573		0.00158	
Cadmium	7440-43-9	0.0111		0.00425	
Chromium	7440-47-3	1.53	U	2.03	
Cobalt	7440-48-4	0.181		0.0432	
Copper	7440-50-8	38.5		0.624	
Lead	7439-92-1	0.409		0.111	
Manganese	7439-96-5	5.10		0.463	
Molybdenum	7439-98-7	1.92		0.327	
Nickel	7440-02-0	0.860		0.614	
Selenium	7782-49-2	0.199		0.00839	
Thallium	7440-28-0	6.98E-4	U	7.15E-4	
Vanadium	7440-62-2	0.614		0.0380	
Zinc	7440-66-6	12.4	U	94.7	



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FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM08-012925-HM      **Lab ID:** 5020334-31      **Sampled:** 01/29/25 23:59  
**Matrix:** Air      **Sample Volume:** 1685.509 m<sup>3</sup>      **Received:** 02/03/25 10:38  
**Filter ID:**      **Analysis Date:** 02/05/25 07:31  
**Comments:** Q8525940 - Received in good condition.

## Inorganics by Compendium Method IO-3.5

<u>Analyte</u>	<u>CAS Number</u>	<u>Results</u>		<u>MDL</u>	
		<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.113	SL	0.0338	
Arsenic	7440-38-2	0.138		0.00858	
Barium	7440-39-3	3.03		1.49	
Beryllium	7440-41-7	0.00460		0.00183	
Cadmium	7440-43-9	0.0107		0.00494	
Chromium	7440-47-3	1.67	U	2.36	
Cobalt	7440-48-4	0.164		0.0502	
Copper	7440-50-8	44.6		0.726	
Lead	7439-92-1	0.287		0.129	
Manganese	7439-96-5	4.80		0.538	
Molybdenum	7439-98-7	1.56		0.380	
Nickel	7440-02-0	0.833		0.713	
Selenium	7782-49-2	0.146		0.00975	
Thallium	7440-28-0	7.87E-4	U	8.31E-4	
Vanadium	7440-62-2	0.518		0.0442	
Zinc	7440-66-6	9.31	U	110	



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FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502006 - B5B0406

### Calibration Blank (2502006-CCB1)

Prepared & Analyzed: 02/04/25

Antimony	1.10		ng/l							
Arsenic	0.526		ng/l							
Barium	2.39		ng/l							
Beryllium	-0.346		ng/l							U
Cadmium	0.00198		ng/l							
Chromium	3.72		ng/l							
Cobalt	0.199		ng/l							
Copper	12.0		ng/l							
Lead	3.54		ng/l							
Manganese	2.88		ng/l							
Molybdenum	22.6		ng/l							
Nickel	0.330		ng/l							
Selenium	7.13		ng/l							
Thallium	0.840		ng/l							
Vanadium	24.1		ng/l							
Zinc	-6.58		ng/l							U

### Calibration Blank (2502006-CCB2)

Prepared & Analyzed: 02/04/25

Antimony	0.563		ng/l							
Arsenic	-1.82		ng/l							U
Barium	1.85		ng/l							
Beryllium	-0.711		ng/l							U
Cadmium	0.114		ng/l							
Chromium	3.76		ng/l							
Cobalt	-0.0272		ng/l							U
Copper	8.43		ng/l							
Lead	2.24		ng/l							
Manganese	1.33		ng/l							
Molybdenum	5.06		ng/l							
Nickel	1.05		ng/l							
Selenium	4.07		ng/l							
Thallium	0.795		ng/l							
Vanadium	22.0		ng/l							
Zinc	14.9		ng/l							

### Calibration Blank (2502006-CCB3)

Prepared & Analyzed: 02/04/25

Antimony	0.286		ng/l							
Arsenic	-2.22		ng/l							U
Barium	2.05		ng/l							
Beryllium	-0.680		ng/l							U

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FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502006 - B5B0406

### Calibration Blank (2502006-CCB3) Contin

Prepared & Analyzed: 02/04/25

Cadmium	0.00583		ng/l							
Chromium	3.34		ng/l							
Cobalt	0.0222		ng/l							
Copper	11.1		ng/l							
Lead	2.88		ng/l							
Manganese	1.37		ng/l							
Molybdenum	7.05		ng/l							
Nickel	5.48		ng/l							
Selenium	-0.193		ng/l							U
Thallium	1.13		ng/l							
Vanadium	11.8		ng/l							
Zinc	-14.0		ng/l							U

### Calibration Blank (2502006-CCB4)

Prepared: 02/04/25 Analyzed: 02/05/25

Antimony	0.455		ng/l							
Arsenic	-5.26		ng/l							U
Barium	2.26		ng/l							
Beryllium	-0.877		ng/l							U
Cadmium	0.0694		ng/l							
Chromium	3.43		ng/l							
Cobalt	0.162		ng/l							
Copper	11.5		ng/l							
Lead	2.28		ng/l							
Manganese	2.00		ng/l							
Molybdenum	6.48		ng/l							
Nickel	1.73		ng/l							
Selenium	15.1		ng/l							
Thallium	1.03		ng/l							
Vanadium	5.14		ng/l							
Zinc	-27.4		ng/l							U

### Calibration Blank (2502006-CCB5)

Prepared: 02/04/25 Analyzed: 02/05/25

Antimony	0.702		ng/l							
Arsenic	0.398		ng/l							
Barium	1.36		ng/l							
Beryllium	-1.28		ng/l							U
Cadmium	-0.00874		ng/l							U
Chromium	2.18		ng/l							
Cobalt	0.0588		ng/l							
Copper	8.81		ng/l							

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502006 - B5B0406

### Calibration Blank (2502006-CCB5) Contin

Prepared: 02/04/25 Analyzed: 02/05/25

Lead	2.01		ng/l							
Manganese	0.912		ng/l							
Molybdenum	7.37		ng/l							
Nickel	3.21		ng/l							
Selenium	-2.82		ng/l							U
Thallium	1.03		ng/l							
Vanadium	4.92		ng/l							
Zinc	-18.8		ng/l							U

### Calibration Blank (2502006-CCB6)

Prepared: 02/04/25 Analyzed: 02/05/25

Antimony	0.745		ng/l							
Arsenic	1.95		ng/l							
Barium	1.87		ng/l							
Beryllium	-1.10		ng/l							U
Cadmium	0.0734		ng/l							
Chromium	2.64		ng/l							
Cobalt	-0.0960		ng/l							U
Copper	8.25		ng/l							
Lead	2.27		ng/l							
Manganese	0.338		ng/l							
Molybdenum	6.41		ng/l							
Nickel	2.42		ng/l							
Selenium	6.88		ng/l							
Thallium	1.18		ng/l							
Vanadium	2.72		ng/l							
Zinc	-19.7		ng/l							U

### Calibration Blank (2502006-CCB7)

Prepared: 02/04/25 Analyzed: 02/05/25

Antimony	0.714		ng/l							
Arsenic	-4.45		ng/l							U
Barium	2.17		ng/l							
Beryllium	-1.30		ng/l							U
Cadmium	0.121		ng/l							
Chromium	2.45		ng/l							
Cobalt	0.189		ng/l							
Copper	7.31		ng/l							
Lead	2.46		ng/l							
Manganese	2.23		ng/l							
Molybdenum	7.40		ng/l							
Nickel	1.69		ng/l							

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 AQS SITE CODE:  
 SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502006 - B5B0406

### Calibration Blank (2502006-CCB7) Contin

Prepared: 02/04/25 Analyzed: 02/05/25

Selenium	-1.17		ng/l							U
Thallium	1.11		ng/l							
Vanadium	-6.15		ng/l							U
Zinc	-7.30		ng/l							U

### Calibration Check (2502006-CCV1)

Prepared & Analyzed: 02/04/25

Antimony	20100		ng/l	20008		101	90-110			
Arsenic	20000		ng/l	20004		99.8	90-110			
Barium	200000		ng/l	200200		100	90-110			
Beryllium	5190		ng/l	5002.5		104	90-110			
Cadmium	20200		ng/l	20014		101	90-110			
Chromium	242000		ng/l	240050		101	90-110			
Cobalt	50700		ng/l	50020		101	90-110			
Copper	2.07E6		ng/l	2.0020E6		103	90-110			
Lead	199000		ng/l	200060		99.7	90-110			
Manganese	492000		ng/l	498900		98.6	90-110			
Molybdenum	50400		ng/l	50005		101	90-110			
Nickel	123000		ng/l	120040		102	90-110			
Selenium	20100		ng/l	20002		101	90-110			
Thallium	487		ng/l	499.95		97.5	90-110			
Vanadium	19900		ng/l	20030		99.4	90-110			
Zinc	519000		ng/l	500000		104	90-110			

### Calibration Check (2502006-CCV2)

Prepared & Analyzed: 02/04/25

Antimony	19900		ng/l	20008		99.5	90-110			
Arsenic	19800		ng/l	20004		99.0	90-110			
Barium	197000		ng/l	200200		98.4	90-110			
Beryllium	5140		ng/l	5002.5		103	90-110			
Cadmium	20100		ng/l	20014		100	90-110			
Chromium	248000		ng/l	240050		103	90-110			
Cobalt	49500		ng/l	50020		98.9	90-110			
Copper	2.04E6		ng/l	2.0020E6		102	90-110			
Lead	200000		ng/l	200060		100	90-110			
Manganese	496000		ng/l	498900		99.4	90-110			
Molybdenum	49600		ng/l	50005		99.1	90-110			
Nickel	120000		ng/l	120040		99.9	90-110			
Selenium	19900		ng/l	20002		99.5	90-110			
Thallium	476		ng/l	499.95		95.3	90-110			
Vanadium	20200		ng/l	20030		101	90-110			
Zinc	514000		ng/l	500000		103	90-110			

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# CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.  
 1777 Sentry Pkwy, Bldg 12  
 Blue Bell, PA 19422  
 ATTN: Ms. Chelsea Saber  
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502006 - B5B0406

### Calibration Check (2502006-CCV3)

Prepared & Analyzed: 02/04/25

Antimony	20300		ng/l	20008		101	90-110			
Arsenic	19900		ng/l	20004		99.3	90-110			
Barium	201000		ng/l	200200		100	90-110			
Beryllium	5170		ng/l	5002.5		103	90-110			
Cadmium	20300		ng/l	20014		101	90-110			
Chromium	249000		ng/l	240050		104	90-110			
Cobalt	49700		ng/l	50020		99.4	90-110			
Copper	2.05E6		ng/l	2.0020E6		102	90-110			
Lead	202000		ng/l	200060		101	90-110			
Manganese	503000		ng/l	498900		101	90-110			
Molybdenum	50200		ng/l	50005		100	90-110			
Nickel	120000		ng/l	120040		99.7	90-110			
Selenium	20300		ng/l	20002		101	90-110			
Thallium	466		ng/l	499.95		93.2	90-110			
Vanadium	20400		ng/l	20030		102	90-110			
Zinc	516000		ng/l	500000		103	90-110			

### Calibration Check (2502006-CCV4)

Prepared: 02/04/25 Analyzed: 02/05/25

Antimony	20400		ng/l	20008		102	90-110			
Arsenic	20100		ng/l	20004		101	90-110			
Barium	208000		ng/l	200200		104	90-110			
Beryllium	5220		ng/l	5002.5		104	90-110			
Cadmium	20600		ng/l	20014		103	90-110			
Chromium	254000		ng/l	240050		106	90-110			
Cobalt	50800		ng/l	50020		101	90-110			
Copper	2.10E6		ng/l	2.0020E6		105	90-110			
Lead	205000		ng/l	200060		102	90-110			
Manganese	511000		ng/l	498900		102	90-110			
Molybdenum	51600		ng/l	50005		103	90-110			
Nickel	123000		ng/l	120040		102	90-110			
Selenium	20300		ng/l	20002		101	90-110			
Thallium	470		ng/l	499.95		94.1	90-110			
Vanadium	20700		ng/l	20030		103	90-110			
Zinc	524000		ng/l	500000		105	90-110			

### Calibration Check (2502006-CCV5)

Prepared: 02/04/25 Analyzed: 02/05/25

Antimony	20500		ng/l	20008		103	90-110			
Arsenic	20200		ng/l	20004		101	90-110			
Barium	201000		ng/l	200200		100	90-110			
Beryllium	5310		ng/l	5002.5		106	90-110			

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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502006 - B5B0406

### Calibration Check (2502006-CCV5) Contin

Prepared: 02/04/25 Analyzed: 02/05/25

Cadmium	20600		ng/l	20014		103	90-110			
Chromium	250000		ng/l	240050		104	90-110			
Cobalt	50500		ng/l	50020		101	90-110			
Copper	2.12E6		ng/l	2.0020E6		106	90-110			
Lead	203000		ng/l	200060		102	90-110			
Manganese	505000		ng/l	498900		101	90-110			
Molybdenum	51200		ng/l	50005		102	90-110			
Nickel	122000		ng/l	120040		102	90-110			
Selenium	19800		ng/l	20002		99.1	90-110			
Thallium	465		ng/l	499.95		93.0	90-110			
Vanadium	20300		ng/l	20030		102	90-110			
Zinc	523000		ng/l	500000		105	90-110			

### Calibration Check (2502006-CCV6)

Prepared: 02/04/25 Analyzed: 02/05/25

Antimony	20900		ng/l	20008		105	90-110			
Arsenic	20500		ng/l	20004		102	90-110			
Barium	207000		ng/l	200200		104	90-110			
Beryllium	5490		ng/l	5002.5		110	90-110			
Cadmium	20900		ng/l	20014		104	90-110			
Chromium	258000		ng/l	240050		108	90-110			
Cobalt	51600		ng/l	50020		103	90-110			
Copper	2.16E6		ng/l	2.0020E6		108	90-110			
Lead	207000		ng/l	200060		104	90-110			
Manganese	521000		ng/l	498900		104	90-110			
Molybdenum	52300		ng/l	50005		105	90-110			
Nickel	124000		ng/l	120040		104	90-110			
Selenium	20100		ng/l	20002		100	90-110			
Thallium	466		ng/l	499.95		93.2	90-110			
Vanadium	20900		ng/l	20030		104	90-110			
Zinc	531000		ng/l	500000		106	90-110			

### Calibration Check (2502006-CCV7)

Prepared: 02/04/25 Analyzed: 02/05/25

Antimony	20800		ng/l	20008		104	90-110			
Arsenic	20300		ng/l	20004		101	90-110			
Barium	206000		ng/l	200200		103	90-110			
Beryllium	5190		ng/l	5002.5		104	90-110			
Cadmium	20700		ng/l	20014		103	90-110			
Chromium	254000		ng/l	240050		106	90-110			
Cobalt	50900		ng/l	50020		102	90-110			
Copper	2.12E6		ng/l	2.0020E6		106	90-110			

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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502006 - B5B0406

### Calibration Check (2502006-CCV7) Contin

Prepared: 02/04/25 Analyzed: 02/05/25

Lead	205000		ng/l	200060		102	90-110			
Manganese	512000		ng/l	498900		103	90-110			
Molybdenum	51500		ng/l	50005		103	90-110			
Nickel	122000		ng/l	120040		102	90-110			
Selenium	20400		ng/l	20002		102	90-110			
Thallium	463		ng/l	499.95		92.5	90-110			
Vanadium	20600		ng/l	20030		103	90-110			
Zinc	527000		ng/l	500000		105	90-110			

### High Cal Check (2502006-HCV1)

Prepared & Analyzed: 02/04/25

Antimony	39700		ng/l	40016		99.2	95-105			
Arsenic	39600		ng/l	40008		99.0	95-105			
Barium	402000		ng/l	400400		100	95-105			
Beryllium	10100		ng/l	10005		101	95-105			
Cadmium	39300		ng/l	40028		98.3	95-105			
Chromium	475000		ng/l	480100		99.0	95-105			
Cobalt	98500		ng/l	100040		98.5	95-105			
Copper	3.93E6		ng/l	4.0040E6		98.2	95-105			
Lead	399000		ng/l	400120		99.7	95-105			
Manganese	986000		ng/l	997800		98.8	95-105			
Molybdenum	100000		ng/l	100010		100	95-105			
Nickel	236000		ng/l	240070		98.3	95-105			
Selenium	40100		ng/l	40004		100	95-105			
Thallium	1000		ng/l	999.90		100	95-105			
Vanadium	40300		ng/l	40060		101	95-105			
Zinc	990000		ng/l	1.0000E6		99.0	95-105			

### Initial Cal Blank (2502006-ICB1)

Prepared & Analyzed: 02/04/25

Antimony	2.86		ng/l							
Arsenic	-4.70		ng/l							U
Barium	2.53		ng/l							
Beryllium	-7.16E-7		ng/l							U
Cadmium	0.224		ng/l							
Chromium	8.08		ng/l							
Cobalt	0.660		ng/l							
Copper	44.7		ng/l							
Lead	14.5		ng/l							
Manganese	9.16		ng/l							
Molybdenum	25.4		ng/l							
Nickel	0.959		ng/l							

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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502006 - B5B0406

### Initial Cal Blank (2502006-ICB1) Continuu

Prepared & Analyzed: 02/04/25

Selenium	8.94		ng/l							
Thallium	1.47		ng/l							
Vanadium	32.0		ng/l							
Zinc	14.8		ng/l							

### Initial Cal Check (2502006-ICV1)

Prepared & Analyzed: 02/04/25

Antimony	19700		ng/l	20000		98.6	90-110			
Arsenic	19900		ng/l	20000		99.3	90-110			
Barium	201000		ng/l	200000		101	90-110			
Beryllium	5290		ng/l	5000.0		106	90-110			
Cadmium	20300		ng/l	20000		101	90-110			
Chromium	244000		ng/l	240000		102	90-110			
Cobalt	49600		ng/l	50000		99.2	90-110			
Copper	2.02E6		ng/l	2.0000E6		101	90-110			
Lead	200000		ng/l	200000		99.9	90-110			
Manganese	488000		ng/l	500000		97.6	90-110			
Molybdenum	49500		ng/l	50000		98.9	90-110			
Nickel	120000		ng/l	120000		100	90-110			
Selenium	20300		ng/l	20000		101	90-110			
Thallium	485		ng/l	500.00		97.0	90-110			
Vanadium	20400		ng/l	20000		102	90-110			
Zinc	518000		ng/l	500000		104	90-110			

### Interference Check A (2502006-IFA1)

Prepared & Analyzed: 02/04/25

Antimony	0.00		ng/l				80-120			U
Arsenic	0.00		ng/l				80-120			U
Barium	0.00		ng/l				80-120			U
Beryllium	0.00		ng/l				80-120			U
Cadmium	0.00		ng/l				80-120			U
Chromium	0.00		ng/l				80-120			U
Cobalt	0.00		ng/l				80-120			U
Copper	0.00		ng/l				80-120			U
Lead	0.00		ng/l				80-120			U
Manganese	0.00		ng/l				80-120			U
Molybdenum	304000		ng/l	300000		101	80-120			U
Nickel	0.00		ng/l				80-120			U
Selenium	0.00		ng/l				80-120			U
Thallium	0.00		ng/l				80-120			U
Vanadium	0.00		ng/l				80-120			U
Zinc	0.00		ng/l				80-120			U

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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502006 - B5B0406

### Interference Check B (2502006-IFB1)

Prepared & Analyzed: 02/04/25

Antimony	20200		ng/l	20008		101	80-120			
Arsenic	20000		ng/l	20004		100	80-120			
Barium	199000		ng/l	200200		99.2	80-120			
Beryllium	5120		ng/l	5002.5		102	80-120			
Cadmium	19600		ng/l	20014		97.7	80-120			
Chromium	234000		ng/l	240050		97.4	80-120			
Cobalt	49400		ng/l	50020		98.7	80-120			
Copper	1.90E6		ng/l	2.0020E6		95.0	80-120			
Lead	204000		ng/l	200060		102	80-120			
Manganese	477000		ng/l	498900		95.7	80-120			
Molybdenum	355000		ng/l	350000		101	80-120			
Nickel	116000		ng/l	120040		96.3	80-120			
Selenium	19000		ng/l	20002		94.8	80-120			
Thallium	498		ng/l	499.95		99.5	80-120			
Vanadium	18600		ng/l	20030		92.7	80-120			
Zinc	473000		ng/l	500000		94.6	80-120			

Batch B5B0406 - ICP-MS Extraction

### Blank (B5B0406-BLK1)

Prepared & Analyzed: 02/04/25

Antimony	ND	0.0350	ng/m <sup>3</sup> Air							SL, U
Arsenic	ND	0.00889	ng/m <sup>3</sup> Air							U
Barium	ND	1.54	ng/m <sup>3</sup> Air							U
Beryllium	ND	0.00190	ng/m <sup>3</sup> Air							U
Cadmium	ND	0.00512	ng/m <sup>3</sup> Air							U
Chromium	ND	2.44	ng/m <sup>3</sup> Air							U
Cobalt	ND	0.0520	ng/m <sup>3</sup> Air							U
Copper	ND	0.752	ng/m <sup>3</sup> Air							U
Lead	ND	0.134	ng/m <sup>3</sup> Air							U
Manganese	ND	0.557	ng/m <sup>3</sup> Air							U
Molybdenum	ND	0.394	ng/m <sup>3</sup> Air							U
Nickel	ND	0.739	ng/m <sup>3</sup> Air							U
Selenium	ND	0.0101	ng/m <sup>3</sup> Air							U
Thallium	ND	8.61E-4	ng/m <sup>3</sup> Air							U
Vanadium	ND	0.0458	ng/m <sup>3</sup> Air							U
Zinc	ND	114	ng/m <sup>3</sup> Air							U

### LCS (B5B0406-BS1)

Prepared & Analyzed: 02/04/25

Antimony	0.847	0.0350	ng/m <sup>3</sup> Air	1.3835		61.2	80-120			SL
Arsenic	2.67	0.00889	ng/m <sup>3</sup> Air	2.7664		96.5	80-120			
Barium	28.3	1.54	ng/m <sup>3</sup> Air	27.686		102	80-120			

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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B5B0406 - ICP-MS Extraction

### LCS (B5B0406-BS1) Continued

Prepared & Analyzed: 02/04/25

Beryllium	1.34	0.00190	ng/m <sup>3</sup> Air	1.3836		97.1	80-120			
Cadmium	1.37	0.00512	ng/m <sup>3</sup> Air	1.3839		98.7	80-120			
Chromium	15.1	2.44	ng/m <sup>3</sup> Air	13.832		109	80-120			
Cobalt	1.35	0.0520	ng/m <sup>3</sup> Air	1.3835		97.4	80-120			
Copper	28.7	0.752	ng/m <sup>3</sup> Air	27.686		104	80-120			
Lead	13.6	0.134	ng/m <sup>3</sup> Air	13.833		98.0	80-120			
Manganese	8.47	0.557	ng/m <sup>3</sup> Air	8.2792		102	80-120			
Molybdenum	1.50	0.394	ng/m <sup>3</sup> Air	1.3831		108	80-120			
Nickel	3.18	0.739	ng/m <sup>3</sup> Air	2.7667		115	80-120			
Selenium	2.72	0.0101	ng/m <sup>3</sup> Air	2.7661		98.2	80-120			
Thallium	0.130	8.61E-4	ng/m <sup>3</sup> Air	0.13828		94.2	80-120			
Vanadium	2.78	0.0458	ng/m <sup>3</sup> Air	2.7700		100	80-120			
Zinc	ND	114	ng/m <sup>3</sup> Air	82.975			80-120			U

### LCS (B5B0406-BS2)

Prepared & Analyzed: 02/04/25

Antimony	0.864	0.0350	ng/m <sup>3</sup> Air	1.3835		62.4	80-120			SL
Arsenic	2.68	0.00889	ng/m <sup>3</sup> Air	2.7664		96.9	80-120			
Barium	28.4	1.54	ng/m <sup>3</sup> Air	27.686		103	80-120			
Beryllium	1.36	0.00190	ng/m <sup>3</sup> Air	1.3836		98.0	80-120			
Cadmium	1.36	0.00512	ng/m <sup>3</sup> Air	1.3839		98.5	80-120			
Chromium	15.3	2.44	ng/m <sup>3</sup> Air	13.832		110	80-120			
Cobalt	1.34	0.0520	ng/m <sup>3</sup> Air	1.3835		96.5	80-120			
Copper	28.5	0.752	ng/m <sup>3</sup> Air	27.686		103	80-120			
Lead	13.6	0.134	ng/m <sup>3</sup> Air	13.833		98.1	80-120			
Manganese	8.56	0.557	ng/m <sup>3</sup> Air	8.2792		103	80-120			
Molybdenum	1.51	0.394	ng/m <sup>3</sup> Air	1.3831		109	80-120			
Nickel	3.19	0.739	ng/m <sup>3</sup> Air	2.7667		115	80-120			
Selenium	2.74	0.0101	ng/m <sup>3</sup> Air	2.7661		98.9	80-120			
Thallium	0.130	8.61E-4	ng/m <sup>3</sup> Air	0.13828		94.0	80-120			
Vanadium	2.81	0.0458	ng/m <sup>3</sup> Air	2.7700		101	80-120			
Zinc	ND	114	ng/m <sup>3</sup> Air	82.975			80-120			U

### LCS (B5B0406-BS3)

Prepared & Analyzed: 02/04/25

Antimony	1.36	0.0350	ng/m <sup>3</sup> Air	1.3835		98.2	80-120			SL
Arsenic	2.68	0.00889	ng/m <sup>3</sup> Air	2.7664		96.9	80-120			
Barium	27.4	1.54	ng/m <sup>3</sup> Air	27.686		99.1	80-120			
Beryllium	1.34	0.00190	ng/m <sup>3</sup> Air	1.3836		96.7	80-120			
Cadmium	1.38	0.00512	ng/m <sup>3</sup> Air	1.3839		99.5	80-120			
Chromium	14.3	2.44	ng/m <sup>3</sup> Air	13.832		104	80-120			
Cobalt	1.34	0.0520	ng/m <sup>3</sup> Air	1.3835		96.7	80-120			

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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B5B0406 - ICP-MS Extraction

### LCS (B5B0406-BS3) Continued

Prepared & Analyzed: 02/04/25

Copper	28.0	0.752	ng/m <sup>3</sup> Air	27.686		101	80-120			
Lead	13.5	0.134	ng/m <sup>3</sup> Air	13.833		97.8	80-120			
Manganese	8.23	0.557	ng/m <sup>3</sup> Air	8.2792		99.4	80-120			
Molybdenum	1.34	0.394	ng/m <sup>3</sup> Air	1.3831		96.9	80-120			
Nickel	2.74	0.739	ng/m <sup>3</sup> Air	2.7667		99.1	80-120			
Selenium	2.73	0.0101	ng/m <sup>3</sup> Air	2.7661		98.8	80-120			
Thallium	0.131	8.61E-4	ng/m <sup>3</sup> Air	0.13828		94.6	80-120			
Vanadium	2.77	0.0458	ng/m <sup>3</sup> Air	2.7700		100	80-120			
Zinc	ND	114	ng/m <sup>3</sup> Air	82.975			80-120			U

### LCS (B5B0406-BS4)

Prepared & Analyzed: 02/04/25

Antimony	1.34	0.0350	ng/m <sup>3</sup> Air	1.3835		96.7	80-120			SL
Arsenic	2.66	0.00889	ng/m <sup>3</sup> Air	2.7664		96.1	80-120			
Barium	26.9	1.54	ng/m <sup>3</sup> Air	27.686		97.3	80-120			
Beryllium	1.36	0.00190	ng/m <sup>3</sup> Air	1.3836		98.0	80-120			
Cadmium	1.35	0.00512	ng/m <sup>3</sup> Air	1.3839		97.3	80-120			
Chromium	14.1	2.44	ng/m <sup>3</sup> Air	13.832		102	80-120			
Cobalt	1.32	0.0520	ng/m <sup>3</sup> Air	1.3835		95.4	80-120			
Copper	27.5	0.752	ng/m <sup>3</sup> Air	27.686		99.4	80-120			
Lead	13.4	0.134	ng/m <sup>3</sup> Air	13.833		96.7	80-120			
Manganese	8.10	0.557	ng/m <sup>3</sup> Air	8.2792		97.9	80-120			
Molybdenum	1.32	0.394	ng/m <sup>3</sup> Air	1.3831		95.3	80-120			
Nickel	2.69	0.739	ng/m <sup>3</sup> Air	2.7667		97.4	80-120			
Selenium	2.70	0.0101	ng/m <sup>3</sup> Air	2.7661		97.7	80-120			
Thallium	0.130	8.61E-4	ng/m <sup>3</sup> Air	0.13828		93.7	80-120			
Vanadium	2.76	0.0458	ng/m <sup>3</sup> Air	2.7700		99.8	80-120			
Zinc	ND	114	ng/m <sup>3</sup> Air	82.975			80-120			U

### Duplicate (B5B0406-DUP1)

Source: 5020334-01

Prepared & Analyzed: 02/04/25

Antimony	0.151	0.0282	ng/m <sup>3</sup> Air		0.150		0.864	10	SL	
Arsenic	0.143	0.00717	ng/m <sup>3</sup> Air		0.142		1.36	10		
Barium	4.12	1.24	ng/m <sup>3</sup> Air		3.91		5.23	10		
Beryllium	0.00469	0.00153	ng/m <sup>3</sup> Air		0.00467		0.385	10		
Cadmium	0.00877	0.00413	ng/m <sup>3</sup> Air		0.0112		24.3	10		
Chromium	ND	1.97	ng/m <sup>3</sup> Air		ND			10		U
Cobalt	0.143	0.0420	ng/m <sup>3</sup> Air		0.145		0.721	10		
Copper	81.8	0.607	ng/m <sup>3</sup> Air		77.2		5.76	10		
Lead	0.361	0.108	ng/m <sup>3</sup> Air		0.342		5.37	10		
Manganese	4.43	0.449	ng/m <sup>3</sup> Air		4.33		2.26	10		
Molybdenum	3.01	0.318	ng/m <sup>3</sup> Air		2.92		2.87	10		

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Tetra Tech, Inc.  
 1777 Sentry Pkwy, Bldg 12  
 Blue Bell, PA 19422  
 ATTN: Ms. Chelsea Saber  
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B5B0406 - ICP-MS Extraction

### Duplicate (B5B0406-DUP1) Continued

Source: 5020334-01

Prepared & Analyzed: 02/04/25

Nickel	0.875	0.596	ng/m <sup>3</sup> Air		0.917			4.68	10	
Selenium	0.237	0.00815	ng/m <sup>3</sup> Air		0.230			3.33	10	
Thallium	ND	6.95E-4	ng/m <sup>3</sup> Air		ND				10	U
Vanadium	0.622	0.0370	ng/m <sup>3</sup> Air		0.595			4.41	10	
Zinc	ND	92.0	ng/m <sup>3</sup> Air		ND				10	U

### Duplicate (B5B0406-DUP2)

Source: 5020334-21

Prepared & Analyzed: 02/04/25

Antimony	0.109	0.0287	ng/m <sup>3</sup> Air		0.101			8.01	10	SL
Arsenic	0.203	0.00728	ng/m <sup>3</sup> Air		0.212			4.68	10	
Barium	3.13	1.26	ng/m <sup>3</sup> Air		2.90			7.42	10	
Beryllium	0.00369	0.00156	ng/m <sup>3</sup> Air		0.00424			14.0	10	
Cadmium	0.0145	0.00420	ng/m <sup>3</sup> Air		0.0116			22.0	10	
Chromium	ND	2.00	ng/m <sup>3</sup> Air		ND				10	U
Cobalt	0.140	0.0426	ng/m <sup>3</sup> Air		0.140			0.516	10	
Copper	36.0	0.616	ng/m <sup>3</sup> Air		33.1			8.62	10	
Lead	0.247	0.110	ng/m <sup>3</sup> Air		0.302			20.0	10	
Manganese	3.92	0.456	ng/m <sup>3</sup> Air		4.20			6.96	10	
Molybdenum	1.85	0.323	ng/m <sup>3</sup> Air		1.74			5.84	10	
Nickel	0.823	0.606	ng/m <sup>3</sup> Air		0.842			2.20	10	
Selenium	0.144	0.00828	ng/m <sup>3</sup> Air		0.137			5.32	10	
Thallium	ND	7.05E-4	ng/m <sup>3</sup> Air		ND				10	U
Vanadium	0.434	0.0375	ng/m <sup>3</sup> Air		0.445			2.63	10	
Zinc	ND	93.4	ng/m <sup>3</sup> Air		ND				10	U

### Duplicate (B5B0406-DUP3)

Source: 5020334-11

Prepared: 02/04/25 Analyzed: 02/05/25

Antimony	0.394	0.0275	ng/m <sup>3</sup> Air		0.398			1.21	10	SL
Arsenic	0.320	0.00698	ng/m <sup>3</sup> Air		0.318			0.783	10	
Barium	8.81	1.21	ng/m <sup>3</sup> Air		8.87			0.670	10	
Beryllium	0.0184	0.00149	ng/m <sup>3</sup> Air		0.0183			0.413	10	
Cadmium	0.0373	0.00402	ng/m <sup>3</sup> Air		0.0367			1.82	10	
Chromium	2.49	1.92	ng/m <sup>3</sup> Air		2.48			0.488	10	
Cobalt	0.472	0.0409	ng/m <sup>3</sup> Air		0.470			0.311	10	
Copper	63.3	0.591	ng/m <sup>3</sup> Air		62.7			0.900	10	
Lead	1.33	0.105	ng/m <sup>3</sup> Air		1.33			0.131	10	
Manganese	15.2	0.438	ng/m <sup>3</sup> Air		15.2			0.0519	10	
Molybdenum	2.54	0.310	ng/m <sup>3</sup> Air		2.54			0.165	10	
Nickel	1.76	0.581	ng/m <sup>3</sup> Air		1.74			1.09	10	
Selenium	0.385	0.00794	ng/m <sup>3</sup> Air		0.385			0.135	10	
Thallium	0.00335	6.76E-4	ng/m <sup>3</sup> Air		0.00336			0.317	10	
Vanadium	1.63	0.0360	ng/m <sup>3</sup> Air		1.64			0.915	10	

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 AQS SITE CODE:  
 SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B5B0406 - ICP-MS Extraction

**Duplicate (B5B0406-DUP3) Continued** Source: 5020334-11 Prepared: 02/04/25 Analyzed: 02/05/25

Zinc	ND	89.6	ng/m <sup>3</sup> Air		ND				10	U
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**Duplicate (B5B0406-DUP4)** Source: 5020334-31 Prepared: 02/04/25 Analyzed: 02/05/25

Antimony	0.114	0.0338	ng/m <sup>3</sup> Air		0.113			0.900	10	SL
Arsenic	0.139	0.00858	ng/m <sup>3</sup> Air		0.138			0.602	10	
Barium	3.04	1.49	ng/m <sup>3</sup> Air		3.03			0.380	10	
Beryllium	0.00459	0.00183	ng/m <sup>3</sup> Air		0.00460			0.289	10	
Cadmium	0.0107	0.00494	ng/m <sup>3</sup> Air		0.0107			0.352	10	
Chromium	ND	2.36	ng/m <sup>3</sup> Air		ND				10	U
Cobalt	0.166	0.0502	ng/m <sup>3</sup> Air		0.164			1.25	10	
Copper	44.8	0.726	ng/m <sup>3</sup> Air		44.6			0.325	10	
Lead	0.288	0.129	ng/m <sup>3</sup> Air		0.287			0.442	10	
Manganese	4.83	0.538	ng/m <sup>3</sup> Air		4.80			0.489	10	
Molybdenum	1.56	0.380	ng/m <sup>3</sup> Air		1.56			0.138	10	
Nickel	0.839	0.713	ng/m <sup>3</sup> Air		0.833			0.734	10	
Selenium	0.153	0.00975	ng/m <sup>3</sup> Air		0.146			4.31	10	
Thallium	ND	8.31E-4	ng/m <sup>3</sup> Air		ND				10	U
Vanadium	0.523	0.0442	ng/m <sup>3</sup> Air		0.518			0.870	10	
Zinc	ND	110	ng/m <sup>3</sup> Air		ND				10	U

**Matrix Spike (B5B0406-MS1)** Source: 5020334-01 Prepared & Analyzed: 02/04/25

Antimony	0.828	0.0282	ng/m <sup>3</sup> Air	1.1164	0.150	60.8	80-120			SL
Arsenic	2.26	0.00717	ng/m <sup>3</sup> Air	2.2324	0.142	95.1	80-120			
Barium	25.5	1.24	ng/m <sup>3</sup> Air	22.342	3.91	96.6	80-120			
Beryllium	1.13	0.00153	ng/m <sup>3</sup> Air	1.1166	0.00467	101	80-120			
Cadmium	1.09	0.00413	ng/m <sup>3</sup> Air	1.1168	0.0112	96.3	80-120			
Chromium	12.3	1.97	ng/m <sup>3</sup> Air	11.162	ND	110	80-120			
Cobalt	1.20	0.0420	ng/m <sup>3</sup> Air	1.1164	0.145	94.6	80-120			
Copper	100	0.607	ng/m <sup>3</sup> Air	22.342	77.2	103	80-120			
Lead	11.2	0.108	ng/m <sup>3</sup> Air	11.163	0.342	96.9	80-120			
Manganese	10.4	0.449	ng/m <sup>3</sup> Air	6.6812	4.33	91.5	80-120			
Molybdenum	3.92	0.318	ng/m <sup>3</sup> Air	1.1161	2.92	89.8	80-120			
Nickel	2.96	0.596	ng/m <sup>3</sup> Air	2.2327	0.917	91.5	80-120			
Selenium	2.32	0.00815	ng/m <sup>3</sup> Air	2.2322	0.230	93.7	80-120			
Thallium	0.102	6.95E-4	ng/m <sup>3</sup> Air	0.11159	ND	91.6	80-120			
Vanadium	2.73	0.0370	ng/m <sup>3</sup> Air	2.2353	0.595	95.4	80-120			
Zinc	ND	92.0	ng/m <sup>3</sup> Air	66.960	ND		80-120			U

**Matrix Spike (B5B0406-MS2)** Source: 5020334-21 Prepared & Analyzed: 02/04/25

Antimony	0.791	0.0287	ng/m <sup>3</sup> Air	1.1336	0.101	60.9	80-120			SL
Arsenic	2.37	0.00728	ng/m <sup>3</sup> Air	2.2667	0.212	95.1	80-120			

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FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B5B0406 - ICP-MS Extraction

### Matrix Spike (B5B0406-MS2) Continued Source: 5020334-21 Prepared & Analyzed: 02/04/25

Barium	25.4	1.26	ng/m <sup>3</sup> Air	22.685	2.90	99.2	80-120			
Beryllium	1.12	0.00156	ng/m <sup>3</sup> Air	1.1337	0.00424	98.8	80-120			
Cadmium	1.13	0.00420	ng/m <sup>3</sup> Air	1.1339	0.0116	98.8	80-120			
Chromium	13.0	2.00	ng/m <sup>3</sup> Air	11.333	ND	115	80-120			
Cobalt	1.24	0.0426	ng/m <sup>3</sup> Air	1.1336	0.140	97.2	80-120			
Copper	56.7	0.616	ng/m <sup>3</sup> Air	22.685	33.1	104	80-120			
Lead	11.4	0.110	ng/m <sup>3</sup> Air	11.334	0.302	98.3	80-120			
Manganese	10.7	0.456	ng/m <sup>3</sup> Air	6.7836	4.20	95.7	80-120			
Molybdenum	2.88	0.323	ng/m <sup>3</sup> Air	1.1332	1.74	99.8	80-120			
Nickel	3.05	0.606	ng/m <sup>3</sup> Air	2.2669	0.842	97.3	80-120			
Selenium	2.32	0.00828	ng/m <sup>3</sup> Air	2.2664	0.137	96.3	80-120			
Thallium	0.106	7.05E-4	ng/m <sup>3</sup> Air	0.11330	ND	93.9	80-120			
Vanadium	2.72	0.0375	ng/m <sup>3</sup> Air	2.2696	0.445	100	80-120			
Zinc	ND	93.4	ng/m <sup>3</sup> Air	67.986	ND		80-120			U

### Matrix Spike Dup (B5B0406-MSD1) Source: 5020334-01 Prepared & Analyzed: 02/04/25

Antimony	0.806	0.0282	ng/m <sup>3</sup> Air	1.1164	0.150	58.8	80-120	2.76	20	SL
Arsenic	2.31	0.00717	ng/m <sup>3</sup> Air	2.2324	0.142	96.9	80-120	1.83	20	
Barium	26.1	1.24	ng/m <sup>3</sup> Air	22.342	3.91	99.5	80-120	2.51	20	
Beryllium	1.13	0.00153	ng/m <sup>3</sup> Air	1.1166	0.00467	100	80-120	0.675	20	
Cadmium	1.12	0.00413	ng/m <sup>3</sup> Air	1.1168	0.0112	99.2	80-120	2.93	20	
Chromium	12.5	1.97	ng/m <sup>3</sup> Air	11.162	ND	112	80-120	2.04	20	
Cobalt	1.23	0.0420	ng/m <sup>3</sup> Air	1.1164	0.145	97.4	80-120	2.53	20	
Copper	105	0.607	ng/m <sup>3</sup> Air	22.342	77.2	124	80-120	4.51	20	QM-07
Lead	11.5	0.108	ng/m <sup>3</sup> Air	11.163	0.342	100	80-120	3.07	20	
Manganese	10.7	0.449	ng/m <sup>3</sup> Air	6.6812	4.33	95.5	80-120	2.52	20	
Molybdenum	4.06	0.318	ng/m <sup>3</sup> Air	1.1161	2.92	102	80-120	3.51	20	
Nickel	3.07	0.596	ng/m <sup>3</sup> Air	2.2327	0.917	96.4	80-120	3.64	20	
Selenium	2.45	0.00815	ng/m <sup>3</sup> Air	2.2322	0.230	99.3	80-120	5.29	20	
Thallium	0.105	6.95E-4	ng/m <sup>3</sup> Air	0.11159	ND	94.4	80-120	3.01	20	
Vanadium	2.80	0.0370	ng/m <sup>3</sup> Air	2.2353	0.595	98.8	80-120	2.69	20	
Zinc	ND	92.0	ng/m <sup>3</sup> Air	66.960	ND		80-120		20	U

### Matrix Spike Dup (B5B0406-MSD2) Source: 5020334-21 Prepared & Analyzed: 02/04/25

Antimony	0.834	0.0287	ng/m <sup>3</sup> Air	1.1336	0.101	64.7	80-120	5.27	20	SL
Arsenic	2.39	0.00728	ng/m <sup>3</sup> Air	2.2667	0.212	96.2	80-120	1.09	20	
Barium	25.6	1.26	ng/m <sup>3</sup> Air	22.685	2.90	100	80-120	0.911	20	
Beryllium	1.14	0.00156	ng/m <sup>3</sup> Air	1.1337	0.00424	99.9	80-120	1.05	20	
Cadmium	1.15	0.00420	ng/m <sup>3</sup> Air	1.1339	0.0116	101	80-120	1.88	20	
Chromium	13.0	2.00	ng/m <sup>3</sup> Air	11.333	ND	115	80-120	0.143	20	

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B5B0406 - ICP-MS Extraction

**Matrix Spike Dup (B5B0406-MSD2) ContirSource: 5020334-21** Prepared & Analyzed: 02/04/25

Cobalt	1.24	0.0426	ng/m <sup>3</sup> Air	1.1336	0.140	97.0	80-120	0.132	20	
Copper	57.5	0.616	ng/m <sup>3</sup> Air	22.685	33.1	108	80-120	1.33	20	
Lead	11.4	0.110	ng/m <sup>3</sup> Air	11.334	0.302	97.9	80-120	0.404	20	
Manganese	10.7	0.456	ng/m <sup>3</sup> Air	6.7836	4.20	95.8	80-120	0.0922	20	
Molybdenum	2.95	0.323	ng/m <sup>3</sup> Air	1.1332	1.74	107	80-120	2.73	20	
Nickel	3.00	0.606	ng/m <sup>3</sup> Air	2.2669	0.842	95.1	80-120	1.59	20	
Selenium	2.32	0.00828	ng/m <sup>3</sup> Air	2.2664	0.137	96.5	80-120	0.218	20	
Thallium	0.107	7.05E-4	ng/m <sup>3</sup> Air	0.11330	ND	94.0	80-120	0.0935	20	
Vanadium	2.71	0.0375	ng/m <sup>3</sup> Air	2.2696	0.445	99.7	80-120	0.486	20	
Zinc	ND	93.4	ng/m <sup>3</sup> Air	67.986	ND		80-120		20	U

**Post Spike (B5B0406-PS1) Source: 5020334-01** Prepared & Analyzed: 02/04/25

Antimony	0.377	0.0282	ng/m <sup>3</sup> Air	0.22320	0.150	102	75-125			SL
Arsenic	1.23	0.00717	ng/m <sup>3</sup> Air	1.1160	0.142	97.7	75-125			
Barium	6.05	1.24	ng/m <sup>3</sup> Air	2.2320	3.91	95.9	75-125			
Beryllium	0.240	0.00153	ng/m <sup>3</sup> Air	0.22320	0.00467	105	75-125			
Cadmium	0.125	0.00413	ng/m <sup>3</sup> Air	0.11160	0.0112	102	75-125			
Chromium	2.60	1.97	ng/m <sup>3</sup> Air	1.1160	ND	233	75-125			
Cobalt	0.368	0.0420	ng/m <sup>3</sup> Air	0.22320	0.145	100	75-125			
Copper	89.8	0.607	ng/m <sup>3</sup> Air	11.160	77.2	113	75-125			
Lead	23.0	0.108	ng/m <sup>3</sup> Air	22.320	0.342	102	75-125			
Manganese	6.53	0.449	ng/m <sup>3</sup> Air	2.2320	4.33	98.4	75-125			
Molybdenum	4.05	0.318	ng/m <sup>3</sup> Air	1.1160	2.92	102	75-125			
Nickel	3.14	0.596	ng/m <sup>3</sup> Air	2.2320	0.917	99.5	75-125			
Selenium	1.35	0.00815	ng/m <sup>3</sup> Air	1.1160	0.230	101	75-125			
Thallium	0.0546	6.95E-4	ng/m <sup>3</sup> Air	5.5800E-2	ND	97.9	75-125			
Vanadium	1.72	0.0370	ng/m <sup>3</sup> Air	1.1160	0.595	101	75-125			
Zinc	ND	92.0	ng/m <sup>3</sup> Air	22.320	ND		75-125			U

**Post Spike (B5B0406-PS2) Source: 5020334-21** Prepared & Analyzed: 02/04/25

Antimony	0.328	0.0287	ng/m <sup>3</sup> Air	0.22662	0.101	100	75-125			SL
Arsenic	1.33	0.00728	ng/m <sup>3</sup> Air	1.1331	0.212	98.3	75-125			
Barium	5.18	1.26	ng/m <sup>3</sup> Air	2.2662	2.90	101	75-125			
Beryllium	0.240	0.00156	ng/m <sup>3</sup> Air	0.22662	0.00424	104	75-125			
Cadmium	0.129	0.00420	ng/m <sup>3</sup> Air	0.11331	0.0116	104	75-125			
Chromium	2.56	2.00	ng/m <sup>3</sup> Air	1.1331	ND	226	75-125			
Cobalt	0.368	0.0426	ng/m <sup>3</sup> Air	0.22662	0.140	101	75-125			
Copper	45.5	0.616	ng/m <sup>3</sup> Air	11.331	33.1	110	75-125			
Lead	23.3	0.110	ng/m <sup>3</sup> Air	22.662	0.302	102	75-125			
Manganese	6.49	0.456	ng/m <sup>3</sup> Air	2.2662	4.20	101	75-125			

Eastern Research Group

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# CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.  
 1777 Sentry Pkwy, Bldg 12  
 Blue Bell, PA 19422  
 ATTN: Ms. Chelsea Saber  
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B5B0406 - ICP-MS Extraction

**Post Spike (B5B0406-PS2) Continued**      **Source: 5020334-21**      Prepared & Analyzed: 02/04/25

Molybdenum	2.90	0.323	ng/m <sup>3</sup> Air	1.1331	1.74	102	75-125			
Nickel	3.11	0.606	ng/m <sup>3</sup> Air	2.2662	0.842	100	75-125			
Selenium	1.28	0.00828	ng/m <sup>3</sup> Air	1.1331	0.137	101	75-125			
Thallium	0.0548	7.05E-4	ng/m <sup>3</sup> Air	5.6655E-2	ND	96.7	75-125			
Vanadium	1.61	0.0375	ng/m <sup>3</sup> Air	1.1331	0.445	103	75-125			
Zinc	ND	93.4	ng/m <sup>3</sup> Air	22.662	ND		75-125			U

**Dilution Check (B5B0406-SRL1)**      **Source: 5020334-01**      Prepared & Analyzed: 02/04/25

Antimony	0.149	0.141	ng/m <sup>3</sup> Air		0.150			0.575	10	SL
Arsenic	0.135	0.0359	ng/m <sup>3</sup> Air		0.142			4.76	10	
Barium	ND	6.21	ng/m <sup>3</sup> Air		ND				10	U
Beryllium	ND	0.00767	ng/m <sup>3</sup> Air		ND				10	U
Cadmium	ND	0.0207	ng/m <sup>3</sup> Air		ND				10	U
Chromium	ND	9.85	ng/m <sup>3</sup> Air		ND				10	U
Cobalt	ND	0.210	ng/m <sup>3</sup> Air		ND				10	U
Copper	78.6	3.03	ng/m <sup>3</sup> Air		77.2			1.77	10	
Lead	ND	0.541	ng/m <sup>3</sup> Air		ND				10	U
Manganese	4.51	2.25	ng/m <sup>3</sup> Air		4.33			4.04	10	
Molybdenum	2.93	1.59	ng/m <sup>3</sup> Air		2.92			0.432	10	
Nickel	ND	2.98	ng/m <sup>3</sup> Air		ND				10	U
Selenium	0.236	0.0408	ng/m <sup>3</sup> Air		0.230			2.91	10	
Thallium	ND	0.00347	ng/m <sup>3</sup> Air		ND				10	U
Vanadium	0.671	0.185	ng/m <sup>3</sup> Air		0.595			12.0	10	
Zinc	ND	460	ng/m <sup>3</sup> Air		ND				10	U

**Dilution Check (B5B0406-SRL2)**      **Source: 5020334-21**      Prepared & Analyzed: 02/04/25

Antimony	ND	0.143	ng/m <sup>3</sup> Air		ND				10	SL, U
Arsenic	0.219	0.0364	ng/m <sup>3</sup> Air		0.212			2.99	10	
Barium	ND	6.31	ng/m <sup>3</sup> Air		ND				10	U
Beryllium	ND	0.00778	ng/m <sup>3</sup> Air		ND				10	U
Cadmium	ND	0.0210	ng/m <sup>3</sup> Air		ND				10	U
Chromium	ND	10.0	ng/m <sup>3</sup> Air		ND				10	U
Cobalt	ND	0.213	ng/m <sup>3</sup> Air		ND				10	U
Copper	33.8	3.08	ng/m <sup>3</sup> Air		33.1			2.37	10	
Lead	ND	0.549	ng/m <sup>3</sup> Air		ND				10	U
Manganese	4.32	2.28	ng/m <sup>3</sup> Air		4.20			2.85	10	
Molybdenum	1.79	1.61	ng/m <sup>3</sup> Air		1.74			2.61	10	
Nickel	ND	3.03	ng/m <sup>3</sup> Air		ND				10	U
Selenium	0.123	0.0414	ng/m <sup>3</sup> Air		0.137			10.7	10	
Thallium	ND	0.00353	ng/m <sup>3</sup> Air		ND				10	U

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FILE #: 4205.00.003.001  
 REPORTED: 02/11/25 12:55  
 SUBMITTED: 02/03/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B5B0406 - ICP-MS Extraction

**Dilution Check (B5B0406-SRL2) Continue** Source: 5020334-21 Prepared & Analyzed: 02/04/25

Vanadium	0.526	0.188	ng/m <sup>3</sup> Air		0.445			16.7	10	
Zinc	ND	467	ng/m <sup>3</sup> Air		ND				10	U



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**FILE #:** 4205.00.003.001  
**REPORTED:** 02/11/25 12:55  
**SUBMITTED:** 02/03/25  
**AQS SITE CODE:**  
**SITE CODE:** Lahaina fires

## Notes and Definitions

U Under Detection Limit  
SL The spike recovery was outside acceptance limits. Reported value may be biased low.  
QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD.  
ND Analyte NOT DETECTED  
NR Not Reported  
MDL Method Detection Limit  
RPD Relative Percent Difference

Note: This test is accredited under the 2016 TNI Standard.

**Stage 1 Data Verification Checklist – Metals**  
**HDOH CAB – Ambient Community Air Sampling – Lahaina**  
**Task Order No. 23141**

Reviewed by:

Kierra Johnson 02/11/2025 and Shanna Vasser 2/13/2025

Laboratory: Eastern Research Group – Morrisville, NC

Collection date(s): 01/23/2025 – 01/29/2025

Report No: 5020334

- √ 1. Chain of custody (CoC) documentation is present.
- √ 2. Sample receipt condition information is present and acceptable.
- √ 3. Laboratory conducting the analysis is identified.
- √ 4. All samples submitted to the laboratory are accounted for.
- √ 5. Requested analytical methods were performed.
- √ 6. Analysis dates are provided.
- √ 7. Analyte results are provided.
- √ 8. Result qualifiers and definitions are provided.
- √ 9. Result units are reported.
- NA 10. Requested reporting limits are present.
- √ 11. Method detection limits are present.
- √ 12. Sample collection date and time are present.
- √ 13. No detections in field QC blanks (lot/media blanks, field blanks, etc.).

Discrepancies: None.

Notes: None.