

SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

CLIENT # S061
REPORT # 21-328

SUBMITTED BY:
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Case Narrative

Date: August 5, 2021

General Information

Client: Sacramento Metropolitan Air Quality Management District
Client Number: S061
Report Number: 21-328
Sample Description: 47mm Teflon filters
Sample Numbers: 21-T1687 – 21-T1692, 21-T1699 – 21-T1701, 21-T1715, 21-T1719, 21-T1721,
21-T1724, 21-T2021 – 21-T2024, 21-T2072 – 21-T2077

Analysis

Analytes: Particulate Mass, XRF Metals (Na – Pb)
Analytical Protocols: Gravimetry (PM_{2.5}): 40 CFR 50 Appendix L (10/17/06 version)
Gravimetry (PM₁₀): 40 CFR 50 Appendix J (8/7/87 version)
X-Ray Fluorescence: EPA IO-3.3 (June 1999 version)
Analytical Notes: No problems were encountered during the analyses. Results have **not** been blank corrected.
QA/QC Review: All of the data have been reviewed by the analysts performing the analyses and the project manager. All of the quality control and sample-specific information in this package is complete and meets or exceeds the minimum requirements for acceptability.
Comments: If you have any questions or concerns regarding this analysis, please feel free to contact the project manager.
Disclaimer: This report shall not be reproduced, except in full, without the written approval of the laboratory. The results only represent that of the samples as received into the laboratory.

 8/5/21
Project Manager
Paul Duda

Lab ID: 21-T1689
Site: VFW PM2.5
Sample Date: 7/15/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	118.	± 10.			16.39	± 1.613
XRF						
Na	3.789	± 0.4576	3.211	± 0.4738	0.5262	± 0.0688
Mg	0.9684	± 0.1107	0.8207	± 0.1168	0.1345	± 0.0168
Al	1.571	± 0.0915	1.331	± 0.1369	0.2182	± 0.0168
Si	4.032	± 0.2057	3.417	± 0.3380	0.5600	± 0.0400
P	0.1028	± 0.0170	0.0871	± 0.0162	0.0143	± 0.0025
S	2.854	± 0.1446	2.419	± 0.2388	0.3964	± 0.0282
Cl	1.061	± 0.0565	0.8992	± 0.0900	0.1474	± 0.0108
K	0.4339	± 0.0249	0.3677	± 0.0376	0.0603	± 0.0046
Ca	0.9074	± 0.0463	0.7690	± 0.0761	0.1260	± 0.0090
Sc	0.0362	± 0.0068	0.0306	± 0.0063	0.0050	± 0.0010
Ti	0.1074	± 0.0079	0.0910	± 0.0102	0.0149	± 0.0013
* V	0.0113	± 0.0056	0.0096	± 0.0049	0.0016	± 0.0008
* Cr	0.0000	± 0.0045	0.0000	± 0.0038	0.0000	± 0.0006
Mn	0.0373	± 0.0102	0.0316	± 0.0090	0.0052	± 0.0014
Fe	1.620	± 0.0814	1.373	± 0.1353	0.2251	± 0.0159
* Co	0.0000	± 0.0090	0.0000	± 0.0077	0.0000	± 0.0013
* Ni	0.0023	± 0.0045	0.0019	± 0.0038	0.0003	± 0.0006
Cu	0.0384	± 0.0034	0.0326	± 0.0040	0.0053	± 0.0005
Zn	0.1085	± 0.0056	0.0919	± 0.0091	0.0151	± 0.0011
Ga	0.0068	± 0.0023	0.0057	± 0.0020	0.0009	± 0.0003
* As	0.0090	± 0.0045	0.0077	± 0.0039	0.0013	± 0.0006
* Se	0.0011	± 0.0034	0.0010	± 0.0029	0.0002	± 0.0005
Br	0.0124	± 0.0034	0.0105	± 0.0030	0.0017	± 0.0005
* Rb	0.0000	± 0.0045	0.0000	± 0.0038	0.0000	± 0.0006
Sr	0.0147	± 0.0045	0.0124	± 0.0040	0.0020	± 0.0006
* Y	0.0079	± 0.0056	0.0067	± 0.0048	0.0011	± 0.0008
Zr	0.0170	± 0.0056	0.0144	± 0.0049	0.0024	± 0.0008
* Nb	0.0045	± 0.0079	0.0038	± 0.0067	0.0006	± 0.0011
* Mo	0.0068	± 0.0102	0.0057	± 0.0086	0.0009	± 0.0014
* Ag	0.0000	± 0.0260	0.0000	± 0.0220	0.0000	± 0.0036
* Cd	0.0113	± 0.0260	0.0096	± 0.0220	0.0016	± 0.0036
* In	0.0056	± 0.0316	0.0048	± 0.0268	0.0008	± 0.0044
* Sn	0.0000	± 0.0475	0.0000	± 0.0402	0.0000	± 0.0066
* Sb	0.0000	± 0.0667	0.0000	± 0.0565	0.0000	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0096	0.0000	± 0.0016
* Ba	0.0000	± 0.0192	0.0000	± 0.0163	0.0000	± 0.0027
* La	0.0000	± 0.0147	0.0000	± 0.0124	0.0000	± 0.0020
* Ce	0.0147	± 0.0158	0.0124	± 0.0134	0.0020	± 0.0022
* Sm	0.0000	± 0.0136	0.0000	± 0.0115	0.0000	± 0.0019
* Eu	0.0000	± 0.0215	0.0000	± 0.0182	0.0000	± 0.0030
* Tb	0.0000	± 0.0531	0.0000	± 0.0450	0.0000	± 0.0074
* Hf	0.0000	± 0.0102	0.0000	± 0.0086	0.0000	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0086	0.0000	± 0.0014
* W	0.0000	± 0.0068	0.0000	± 0.0057	0.0000	± 0.0009
* Ir	0.0000	± 0.0056	0.0000	± 0.0048	0.0000	± 0.0008
* Au	0.0000	± 0.0068	0.0000	± 0.0057	0.0000	± 0.0009
* Hg	0.0079	± 0.0079	0.0067	± 0.0067	0.0011	± 0.0011
* Pb	0.0237	± 0.0124	0.0201	± 0.0107	0.0033	± 0.0017

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T1687
Site: Impact PM2.5
Sample Date: 7/15/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	817.	± 10.			113.5	± 5.841
XRF						
Na	1.920	± 0.4712	0.2350	± 0.0577	0.2666	± 0.0668
* Mg	0.3537	± 0.1243	0.0433	± 0.0152	0.0491	± 0.0174
Al	0.6192	± 0.0588	0.0758	± 0.0073	0.0860	± 0.0092
Si	1.181	± 0.0644	0.1445	± 0.0081	0.1640	± 0.0121
* P	0.0531	± 0.0181	0.0065	± 0.0022	0.0074	± 0.0025
S	2.372	± 0.1198	0.2903	± 0.0151	0.3294	± 0.0234
Cl	0.7966	± 0.0441	0.0975	± 0.0055	0.1106	± 0.0083
K	0.2362	± 0.0170	0.0289	± 0.0021	0.0328	± 0.0029
Ca	0.3108	± 0.0181	0.0380	± 0.0023	0.0432	± 0.0033
* Sc	0.0056	± 0.0068	0.0007	± 0.0008	0.0008	± 0.0009
Ti	0.0362	± 0.0056	0.0044	± 0.0007	0.0050	± 0.0008
* V	0.0113	± 0.0056	0.0014	± 0.0007	0.0016	± 0.0008
* Cr	0.0000	± 0.0056	0.0000	± 0.0007	0.0000	± 0.0008
* Mn	0.0023	± 0.0136	0.0003	± 0.0017	0.0003	± 0.0019
Fe	0.5198	± 0.0271	0.0636	± 0.0034	0.0722	± 0.0052
* Co	0.0000	± 0.0068	0.0000	± 0.0008	0.0000	± 0.0009
* Ni	0.0000	± 0.0045	0.0000	± 0.0006	0.0000	± 0.0006
Cu	0.0328	± 0.0045	0.0040	± 0.0006	0.0046	± 0.0007
Zn	0.0689	± 0.0045	0.0084	± 0.0006	0.0096	± 0.0008
* Ga	0.0023	± 0.0023	0.0003	± 0.0003	0.0003	± 0.0003
* As	0.0000	± 0.0045	0.0000	± 0.0006	0.0000	± 0.0006
* Se	0.0000	± 0.0034	0.0000	± 0.0004	0.0000	± 0.0005
* Br	0.0000	± 0.0045	0.0000	± 0.0006	0.0000	± 0.0006
* Rb	0.0102	± 0.0045	0.0012	± 0.0006	0.0014	± 0.0006
* Sr	0.0023	± 0.0045	0.0003	± 0.0006	0.0003	± 0.0006
* Y	0.0000	± 0.0056	0.0000	± 0.0007	0.0000	± 0.0008
* Zr	0.0158	± 0.0068	0.0019	± 0.0008	0.0022	± 0.0009
* Nb	0.0249	± 0.0102	0.0030	± 0.0012	0.0035	± 0.0014
* Mo	0.0102	± 0.0124	0.0012	± 0.0015	0.0014	± 0.0017
* Ag	0.0113	± 0.0260	0.0014	± 0.0032	0.0016	± 0.0036
* Cd	0.0192	± 0.0271	0.0024	± 0.0033	0.0027	± 0.0038
* In	0.0000	± 0.0429	0.0000	± 0.0053	0.0000	± 0.0060
* Sn	0.0452	± 0.0475	0.0055	± 0.0058	0.0063	± 0.0066
* Sb	0.0000	± 0.0667	0.0000	± 0.0082	0.0000	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0014	0.0000	± 0.0016
Ba	0.0497	± 0.0158	0.0061	± 0.0019	0.0069	± 0.0022
* La	0.0305	± 0.0113	0.0037	± 0.0014	0.0042	± 0.0016
* Ce	0.0260	± 0.0158	0.0032	± 0.0019	0.0036	± 0.0022
* Sm	0.0000	± 0.0158	0.0000	± 0.0019	0.0000	± 0.0022
* Eu	0.0000	± 0.0215	0.0000	± 0.0026	0.0000	± 0.0030
* Tb	0.0158	± 0.0305	0.0019	± 0.0037	0.0022	± 0.0042
* Hf	0.0090	± 0.0102	0.0011	± 0.0012	0.0013	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0012	0.0000	± 0.0014
* W	0.0000	± 0.0090	0.0000	± 0.0011	0.0000	± 0.0013
* Ir	0.0000	± 0.0068	0.0000	± 0.0008	0.0000	± 0.0009
* Au	0.0056	± 0.0068	0.0007	± 0.0008	0.0008	± 0.0009
* Hg	0.0170	± 0.0079	0.0021	± 0.0010	0.0024	± 0.0011
* Pb	0.0192	± 0.0113	0.0024	± 0.0014	0.0027	± 0.0016

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T1719
Site: Sump50 PM2.5
Sample Date: 7/15/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	58.	± 10.			8.056	± 1.446
XRF						
Na	2.474	± 0.4791	4.265	± 1.106	0.3436	± 0.0687
Mg	0.5187	± 0.1186	0.8943	± 0.2562	0.0720	± 0.0169
Al	0.4045	± 0.0542	0.6975	± 0.1523	0.0562	± 0.0080
Si	0.5006	± 0.0373	0.8631	± 0.1621	0.0695	± 0.0062
* P	0.0113	± 0.0181	0.0195	± 0.0314	0.0016	± 0.0025
S	2.404	± 0.1209	4.144	± 0.7443	0.3338	± 0.0237
Cl	1.125	± 0.0599	1.940	± 0.3501	0.1563	± 0.0114
K	0.2000	± 0.0158	0.3448	± 0.0654	0.0278	± 0.0026
Ca	0.2701	± 0.0158	0.4656	± 0.0848	0.0375	± 0.0029
Sc	0.0203	± 0.0068	0.0351	± 0.0132	0.0028	± 0.0010
* Ti	0.0113	± 0.0056	0.0195	± 0.0103	0.0016	± 0.0008
* V	0.0011	± 0.0056	0.0019	± 0.0097	0.0002	± 0.0008
* Cr	0.0000	± 0.0056	0.0000	± 0.0097	0.0000	± 0.0008
* Mn	0.0215	± 0.0136	0.0370	± 0.0242	0.0030	± 0.0019
Fe	0.2396	± 0.0136	0.4130	± 0.0750	0.0333	± 0.0025
* Co	0.0056	± 0.0068	0.0097	± 0.0118	0.0008	± 0.0009
* Ni	0.0011	± 0.0045	0.0019	± 0.0078	0.0002	± 0.0006
Cu	0.0373	± 0.0034	0.0643	± 0.0125	0.0052	± 0.0005
Zn	0.0689	± 0.0045	0.1188	± 0.0219	0.0096	± 0.0008
* Ga	0.0011	± 0.0034	0.0019	± 0.0059	0.0002	± 0.0005
* As	0.0000	± 0.0045	0.0000	± 0.0078	0.0000	± 0.0006
* Se	0.0011	± 0.0034	0.0019	± 0.0059	0.0002	± 0.0005
Br	0.0136	± 0.0034	0.0234	± 0.0071	0.0019	± 0.0005
* Rb	0.0056	± 0.0045	0.0097	± 0.0080	0.0008	± 0.0006
* Sr	0.0000	± 0.0045	0.0000	± 0.0078	0.0000	± 0.0006
* Y	0.0000	± 0.0056	0.0000	± 0.0097	0.0000	± 0.0008
* Zr	0.0011	± 0.0068	0.0019	± 0.0117	0.0002	± 0.0009
* Nb	0.0000	± 0.0090	0.0000	± 0.0156	0.0000	± 0.0013
* Mo	0.0237	± 0.0124	0.0409	± 0.0226	0.0033	± 0.0017
* Ag	0.0056	± 0.0260	0.0097	± 0.0448	0.0008	± 0.0036
* Cd	0.0203	± 0.0260	0.0351	± 0.0452	0.0028	± 0.0036
* In	0.0000	± 0.0429	0.0000	± 0.0740	0.0000	± 0.0060
* Sn	0.0904	± 0.0475	0.1559	± 0.0861	0.0126	± 0.0066
* Sb	0.0226	± 0.0667	0.0390	± 0.1151	0.0031	± 0.0093
Cs	0.0373	± 0.0113	0.0643	± 0.0224	0.0052	± 0.0016
Ba	0.0554	± 0.0113	0.0955	± 0.0255	0.0077	± 0.0016
* La	0.0000	± 0.0113	0.0000	± 0.0195	0.0000	± 0.0016
* Ce	0.0000	± 0.0158	0.0000	± 0.0273	0.0000	± 0.0022
* Sm	0.0000	± 0.0147	0.0000	± 0.0253	0.0000	± 0.0020
* Eu	0.0000	± 0.0215	0.0000	± 0.0370	0.0000	± 0.0030
* Tb	0.0045	± 0.0260	0.0078	± 0.0448	0.0006	± 0.0036
* Hf	0.0113	± 0.0102	0.0195	± 0.0179	0.0016	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0175	0.0000	± 0.0014
* W	0.0000	± 0.0068	0.0000	± 0.0117	0.0000	± 0.0009
* Ir	0.0113	± 0.0056	0.0195	± 0.0103	0.0016	± 0.0008
* Au	0.0000	± 0.0068	0.0000	± 0.0117	0.0000	± 0.0009
* Hg	0.0000	± 0.0079	0.0000	± 0.0136	0.0000	± 0.0011
* Pb	0.0023	± 0.0113	0.0039	± 0.0195	0.0003	± 0.0016

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T1688
Site: ST56 PM2.5
Sample Date: 7/15/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	70.	± 10.			9.722	± 1.472
XRF						
Na	2.641	± 0.4271	3.773	± 0.8141	0.3668	± 0.0621
Mg	0.6034	± 0.1028	0.8620	± 0.1917	0.0838	± 0.0149
Al	0.4995	± 0.0497	0.7135	± 0.1242	0.0694	± 0.0077
Si	0.8724	± 0.0497	1.246	± 0.1917	0.1212	± 0.0092
* P	0.0316	± 0.0170	0.0452	± 0.0251	0.0044	± 0.0024
S	2.481	± 0.1243	3.545	± 0.5367	0.3446	± 0.0244
Cl	1.611	± 0.0825	2.302	± 0.3493	0.2238	± 0.0160
K	0.2011	± 0.0158	0.2873	± 0.0469	0.0279	± 0.0026
Ca	0.3322	± 0.0181	0.4746	± 0.0726	0.0461	± 0.0034
* Sc	0.0102	± 0.0068	0.0145	± 0.0099	0.0014	± 0.0009
Ti	0.0339	± 0.0056	0.0484	± 0.0106	0.0047	± 0.0008
* V	0.0124	± 0.0045	0.0178	± 0.0069	0.0017	± 0.0006
* Cr	0.0000	± 0.0045	0.0000	± 0.0065	0.0000	± 0.0006
* Mn	0.0203	± 0.0102	0.0291	± 0.0151	0.0028	± 0.0014
Fe	0.4667	± 0.0237	0.6667	± 0.1011	0.0648	± 0.0046
* Co	0.0011	± 0.0068	0.0016	± 0.0097	0.0002	± 0.0009
* Ni	0.0000	± 0.0045	0.0000	± 0.0065	0.0000	± 0.0006
Cu	0.0282	± 0.0034	0.0404	± 0.0075	0.0039	± 0.0005
Zn	0.0814	± 0.0045	0.1162	± 0.0178	0.0113	± 0.0008
* Ga	0.0000	± 0.0023	0.0000	± 0.0032	0.0000	± 0.0003
* As	0.0000	± 0.0045	0.0000	± 0.0065	0.0000	± 0.0006
* Se	0.0056	± 0.0034	0.0081	± 0.0050	0.0008	± 0.0005
Br	0.0192	± 0.0034	0.0274	± 0.0062	0.0027	± 0.0005
* Rb	0.0000	± 0.0034	0.0000	± 0.0048	0.0000	± 0.0005
* Sr	0.0000	± 0.0045	0.0000	± 0.0065	0.0000	± 0.0006
* Y	0.0045	± 0.0056	0.0065	± 0.0081	0.0006	± 0.0008
* Zr	0.0068	± 0.0056	0.0097	± 0.0082	0.0009	± 0.0008
* Nb	0.0000	± 0.0079	0.0000	± 0.0113	0.0000	± 0.0011
* Mo	0.0079	± 0.0102	0.0113	± 0.0146	0.0011	± 0.0014
* Ag	0.0170	± 0.0260	0.0242	± 0.0373	0.0024	± 0.0036
* Cd	0.0102	± 0.0260	0.0145	± 0.0372	0.0014	± 0.0036
* In	0.0000	± 0.0316	0.0000	± 0.0452	0.0000	± 0.0044
* Sn	0.1119	± 0.0486	0.1598	± 0.0731	0.0155	± 0.0068
* Sb	0.0000	± 0.0667	0.0000	± 0.0952	0.0000	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0161	0.0000	± 0.0016
Ba	0.0644	± 0.0124	0.0920	± 0.0221	0.0089	± 0.0018
* La	0.0192	± 0.0113	0.0274	± 0.0166	0.0027	± 0.0016
* Ce	0.0068	± 0.0113	0.0097	± 0.0162	0.0009	± 0.0016
* Sm	0.0000	± 0.0136	0.0000	± 0.0194	0.0000	± 0.0019
* Eu	0.0000	± 0.0215	0.0000	± 0.0307	0.0000	± 0.0030
* Tb	0.0000	± 0.0305	0.0000	± 0.0436	0.0000	± 0.0042
* Hf	0.0034	± 0.0102	0.0048	± 0.0145	0.0005	± 0.0014
* Ta	0.0102	± 0.0102	0.0145	± 0.0147	0.0014	± 0.0014
* W	0.0023	± 0.0068	0.0032	± 0.0097	0.0003	± 0.0009
* Ir	0.0000	± 0.0056	0.0000	± 0.0081	0.0000	± 0.0008
* Au	0.0102	± 0.0068	0.0145	± 0.0099	0.0014	± 0.0009
* Hg	0.0124	± 0.0079	0.0178	± 0.0116	0.0017	± 0.0011
* Pb	0.0000	± 0.0113	0.0000	± 0.0161	0.0000	± 0.0016

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T1724
Site: CRC PM2.5
Sample Date: 7/15/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	85.	± 10.			11.81	± 1.509
XRF						
Na	2.054	± 0.4486	2.417	± 0.5995	0.2853	± 0.0639
* Mg	0.2486	± 0.1085	0.2925	± 0.1322	0.0345	± 0.0152
Al	0.2870	± 0.0486	0.3377	± 0.0696	0.0399	± 0.0070
Si	0.3842	± 0.0305	0.4520	± 0.0642	0.0534	± 0.0050
* P	0.0260	± 0.0170	0.0306	± 0.0203	0.0036	± 0.0024
S	2.539	± 0.1277	2.987	± 0.3822	0.3527	± 0.0250
Cl	0.9673	± 0.0520	1.138	± 0.1472	0.1343	± 0.0099
K	0.1842	± 0.0158	0.2167	± 0.0316	0.0256	± 0.0025
Ca	0.1797	± 0.0124	0.2114	± 0.0288	0.0250	± 0.0021
* Sc	0.0090	± 0.0068	0.0106	± 0.0081	0.0013	± 0.0009
* Ti	0.0090	± 0.0056	0.0106	± 0.0068	0.0013	± 0.0008
* V	0.0045	± 0.0045	0.0053	± 0.0054	0.0006	± 0.0006
* Cr	0.0000	± 0.0045	0.0000	± 0.0053	0.0000	± 0.0006
* Mn	0.0000	± 0.0102	0.0000	± 0.0120	0.0000	± 0.0014
Fe	0.2701	± 0.0147	0.3177	± 0.0412	0.0375	± 0.0028
* Co	0.0034	± 0.0068	0.0040	± 0.0080	0.0005	± 0.0009
* Ni	0.0000	± 0.0045	0.0000	± 0.0053	0.0000	± 0.0006
Cu	0.0384	± 0.0034	0.0452	± 0.0066	0.0053	± 0.0005
Zn	0.0746	± 0.0045	0.0877	± 0.0116	0.0104	± 0.0008
Ga	0.0090	± 0.0023	0.0106	± 0.0029	0.0013	± 0.0003
* As	0.0102	± 0.0045	0.0120	± 0.0055	0.0014	± 0.0006
* Se	0.0045	± 0.0034	0.0053	± 0.0040	0.0006	± 0.0005
* Br	0.0090	± 0.0034	0.0106	± 0.0042	0.0013	± 0.0005
* Rb	0.0045	± 0.0045	0.0053	± 0.0054	0.0006	± 0.0006
* Sr	0.0079	± 0.0045	0.0093	± 0.0054	0.0011	± 0.0006
* Y	0.0045	± 0.0056	0.0053	± 0.0067	0.0006	± 0.0008
* Zr	0.0045	± 0.0056	0.0053	± 0.0067	0.0006	± 0.0008
* Nb	0.0124	± 0.0090	0.0146	± 0.0108	0.0017	± 0.0013
* Mo	0.0011	± 0.0113	0.0013	± 0.0133	0.0002	± 0.0016
* Ag	0.0599	± 0.0260	0.0705	± 0.0317	0.0083	± 0.0036
* Cd	0.0079	± 0.0260	0.0093	± 0.0306	0.0011	± 0.0036
* In	0.0000	± 0.0316	0.0000	± 0.0372	0.0000	± 0.0044
* Sn	0.0768	± 0.0475	0.0904	± 0.0568	0.0107	± 0.0066
* Sb	0.0000	± 0.0667	0.0000	± 0.0784	0.0000	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0133	0.0000	± 0.0016
Ba	0.0429	± 0.0113	0.0505	± 0.0146	0.0060	± 0.0016
* La	0.0192	± 0.0113	0.0226	± 0.0136	0.0027	± 0.0016
* Ce	0.0170	± 0.0113	0.0199	± 0.0135	0.0024	± 0.0016
* Sm	0.0000	± 0.0147	0.0000	± 0.0173	0.0000	± 0.0020
* Eu	0.0068	± 0.0215	0.0080	± 0.0253	0.0009	± 0.0030
* Tb	0.0000	± 0.0260	0.0000	± 0.0306	0.0000	± 0.0036
* Hf	0.0034	± 0.0102	0.0040	± 0.0120	0.0005	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0120	0.0000	± 0.0014
* W	0.0147	± 0.0068	0.0173	± 0.0082	0.0020	± 0.0009
* Ir	0.0000	± 0.0056	0.0000	± 0.0066	0.0000	± 0.0008
* Au	0.0000	± 0.0068	0.0000	± 0.0080	0.0000	± 0.0009
* Hg	0.0079	± 0.0079	0.0093	± 0.0094	0.0011	± 0.0011
* Pb	0.0090	± 0.0113	0.0106	± 0.0134	0.0013	± 0.0016

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T1690
Site: VFW PM10
Sample Date: 7/15/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM10

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	144.	± 10.			20.00	± 1.711
XRF						
Na	4.102	± 0.4972	2.849	± 0.3979	0.5697	± 0.0747
Mg	1.257	± 0.1345	0.8726	± 0.1113	0.1745	± 0.0206
Al	2.346	± 0.1300	1.629	± 0.1447	0.3258	± 0.0243
Si	5.918	± 0.3017	4.110	± 0.3540	0.8219	± 0.0587
P	0.0904	± 0.0192	0.0628	± 0.0140	0.0126	± 0.0027
S	2.882	± 0.1458	2.001	± 0.1719	0.4002	± 0.0285
Cl	2.743	± 0.1390	1.905	± 0.1637	0.3809	± 0.0271
K	0.5729	± 0.0316	0.3979	± 0.0353	0.0796	± 0.0059
Ca	1.242	± 0.0622	0.8624	± 0.0738	0.1725	± 0.0122
Sc	0.0429	± 0.0102	0.0298	± 0.0074	0.0060	± 0.0014
Ti	0.1729	± 0.0102	0.1201	± 0.0109	0.0240	± 0.0019
* V	0.0011	± 0.0056	0.0008	± 0.0039	0.0002	± 0.0008
* Cr	0.0000	± 0.0056	0.0000	± 0.0039	0.0000	± 0.0008
Mn	0.0475	± 0.0136	0.0330	± 0.0097	0.0066	± 0.0019
Fe	2.358	± 0.1175	1.638	± 0.1400	0.3275	± 0.0231
* Co	0.0000	± 0.0090	0.0000	± 0.0063	0.0000	± 0.0013
* Ni	0.0079	± 0.0045	0.0055	± 0.0032	0.0011	± 0.0006
Cu	0.0452	± 0.0045	0.0314	± 0.0038	0.0063	± 0.0007
Zn	0.1277	± 0.0068	0.0887	± 0.0078	0.0177	± 0.0013
* Ga	0.0056	± 0.0023	0.0039	± 0.0016	0.0008	± 0.0003
* As	0.0000	± 0.0056	0.0000	± 0.0039	0.0000	± 0.0008
* Se	0.0011	± 0.0034	0.0008	± 0.0024	0.0002	± 0.0005
* Br	0.0090	± 0.0034	0.0063	± 0.0024	0.0013	± 0.0005
* Rb	0.0056	± 0.0045	0.0039	± 0.0032	0.0008	± 0.0006
Sr	0.0147	± 0.0045	0.0102	± 0.0032	0.0020	± 0.0006
* Y	0.0000	± 0.0056	0.0000	± 0.0039	0.0000	± 0.0008
* Zr	0.0136	± 0.0056	0.0094	± 0.0040	0.0019	± 0.0008
* Nb	0.0124	± 0.0090	0.0086	± 0.0063	0.0017	± 0.0013
* Mo	0.0271	± 0.0124	0.0188	± 0.0087	0.0038	± 0.0017
* Ag	0.0000	± 0.0260	0.0000	± 0.0180	0.0000	± 0.0036
* Cd	0.0000	± 0.0260	0.0000	± 0.0180	0.0000	± 0.0036
* In	0.0000	± 0.0429	0.0000	± 0.0298	0.0000	± 0.0060
* Sn	0.0429	± 0.0475	0.0298	± 0.0330	0.0060	± 0.0066
* Sb	0.0000	± 0.0667	0.0000	± 0.0463	0.0000	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0078	0.0000	± 0.0016
* Ba	0.0000	± 0.0249	0.0000	± 0.0173	0.0000	± 0.0035
* La	0.0000	± 0.0147	0.0000	± 0.0102	0.0000	± 0.0020
* Ce	0.0068	± 0.0158	0.0047	± 0.0110	0.0009	± 0.0022
* Sm	0.0000	± 0.0147	0.0000	± 0.0102	0.0000	± 0.0020
* Eu	0.0000	± 0.0215	0.0000	± 0.0149	0.0000	± 0.0030
* Tb	0.0000	± 0.0633	0.0000	± 0.0439	0.0000	± 0.0088
* Hf	0.0000	± 0.0102	0.0000	± 0.0071	0.0000	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0071	0.0000	± 0.0014
* W	0.0000	± 0.0090	0.0000	± 0.0063	0.0000	± 0.0013
* Ir	0.0000	± 0.0068	0.0000	± 0.0047	0.0000	± 0.0009
* Au	0.0102	± 0.0068	0.0071	± 0.0047	0.0014	± 0.0009
* Hg	0.0000	± 0.0079	0.0000	± 0.0055	0.0000	± 0.0011
* Pb	0.0294	± 0.0124	0.0204	± 0.0087	0.0041	± 0.0017

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T1692
Site: Impact PM10
Sample Date: 7/15/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM10

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	104.	± 10.			14.44	± 1.565
XRF						
Na	3.589	± 0.5051	3.451	± 0.5882	0.4985	± 0.0744
Mg	0.6712	± 0.1209	0.6454	± 0.1318	0.0932	± 0.0174
Al	1.036	± 0.0723	0.9964	± 0.1184	0.1439	± 0.0124
Si	2.410	± 0.1243	2.318	± 0.2529	0.3348	± 0.0240
P	0.0893	± 0.0170	0.0858	± 0.0183	0.0124	± 0.0024
S	2.599	± 0.1311	2.499	± 0.2713	0.3610	± 0.0256
Cl	2.604	± 0.1322	2.503	± 0.2722	0.3616	± 0.0258
K	0.3537	± 0.0215	0.3401	± 0.0387	0.0491	± 0.0039
Ca	0.5492	± 0.0294	0.5281	± 0.0581	0.0763	± 0.0056
* Sc	0.0192	± 0.0068	0.0185	± 0.0068	0.0027	± 0.0010
Ti	0.0588	± 0.0079	0.0565	± 0.0093	0.0082	± 0.0012
* V	0.0102	± 0.0056	0.0098	± 0.0055	0.0014	± 0.0008
* Cr	0.0000	± 0.0045	0.0000	± 0.0043	0.0000	± 0.0006
* Mn	0.0192	± 0.0136	0.0185	± 0.0132	0.0027	± 0.0019
Fe	1.043	± 0.0520	1.003	± 0.1086	0.1449	± 0.0102
* Co	0.0000	± 0.0068	0.0000	± 0.0065	0.0000	± 0.0009
* Ni	0.0023	± 0.0045	0.0022	± 0.0044	0.0003	± 0.0006
Cu	0.0396	± 0.0056	0.0380	± 0.0065	0.0055	± 0.0008
Zn	0.0915	± 0.0056	0.0880	± 0.0101	0.0127	± 0.0010
* Ga	0.0000	± 0.0023	0.0000	± 0.0022	0.0000	± 0.0003
* As	0.0000	± 0.0045	0.0000	± 0.0043	0.0000	± 0.0006
* Se	0.0000	± 0.0034	0.0000	± 0.0033	0.0000	± 0.0005
Br	0.0181	± 0.0034	0.0174	± 0.0037	0.0025	± 0.0005
Rb	0.0102	± 0.0034	0.0098	± 0.0034	0.0014	± 0.0005
* Sr	0.0113	± 0.0045	0.0109	± 0.0045	0.0016	± 0.0006
* Y	0.0045	± 0.0056	0.0043	± 0.0054	0.0006	± 0.0008
* Zr	0.0102	± 0.0056	0.0098	± 0.0055	0.0014	± 0.0008
* Nb	0.0011	± 0.0090	0.0011	± 0.0087	0.0002	± 0.0013
* Mo	0.0068	± 0.0113	0.0065	± 0.0109	0.0009	± 0.0016
* Ag	0.0000	± 0.0260	0.0000	± 0.0250	0.0000	± 0.0036
* Cd	0.0328	± 0.0260	0.0315	± 0.0252	0.0046	± 0.0036
* In	0.0000	± 0.0429	0.0000	± 0.0413	0.0000	± 0.0060
* Sn	0.0282	± 0.0475	0.0272	± 0.0457	0.0039	± 0.0066
* Sb	0.0565	± 0.0667	0.0543	± 0.0643	0.0078	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0109	0.0000	± 0.0016
Ba	0.1458	± 0.0170	0.1402	± 0.0211	0.0202	± 0.0026
La	0.0644	± 0.0113	0.0619	± 0.0124	0.0089	± 0.0016
* Ce	0.0136	± 0.0158	0.0130	± 0.0153	0.0019	± 0.0022
* Sm	0.0000	± 0.0147	0.0000	± 0.0141	0.0000	± 0.0020
* Eu	0.0000	± 0.0215	0.0000	± 0.0206	0.0000	± 0.0030
* Tb	0.0305	± 0.0429	0.0293	± 0.0414	0.0042	± 0.0060
* Hf	0.0000	± 0.0102	0.0000	± 0.0098	0.0000	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0098	0.0000	± 0.0014
* W	0.0000	± 0.0068	0.0000	± 0.0065	0.0000	± 0.0009
* Ir	0.0000	± 0.0056	0.0000	± 0.0054	0.0000	± 0.0008
* Au	0.0056	± 0.0068	0.0054	± 0.0065	0.0008	± 0.0009
* Hg	0.0056	± 0.0079	0.0054	± 0.0076	0.0008	± 0.0011
* Pb	0.0215	± 0.0113	0.0206	± 0.0110	0.0030	± 0.0016

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T1715
Site: Florin PM10
Sample Date: 7/15/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM10

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	107.	± 10.			14.86	± 1.575
XRF						
Na	3.866	± 0.4859	3.613	± 0.5659	0.5369	± 0.0726
Mg	1.061	± 0.1209	0.9917	± 0.1461	0.1474	± 0.0183
Al	1.817	± 0.1017	1.698	± 0.1850	0.2524	± 0.0189
Si	4.570	± 0.2316	4.271	± 0.4541	0.6347	± 0.0452
P	0.1300	± 0.0181	0.1214	± 0.0204	0.0180	± 0.0027
S	2.800	± 0.1412	2.617	± 0.2779	0.3889	± 0.0276
Cl	2.861	± 0.1446	2.674	± 0.2841	0.3974	± 0.0283
K	0.6238	± 0.0328	0.5830	± 0.0625	0.0866	± 0.0063
Ca	1.009	± 0.0508	0.9431	± 0.1001	0.1402	± 0.0099
* Sc	0.0249	± 0.0090	0.0232	± 0.0087	0.0035	± 0.0013
Ti	0.1684	± 0.0102	0.1574	± 0.0175	0.0234	± 0.0018
* V	0.0079	± 0.0056	0.0074	± 0.0053	0.0011	± 0.0008
* Cr	0.0000	± 0.0045	0.0000	± 0.0042	0.0000	± 0.0006
Mn	0.0328	± 0.0102	0.0306	± 0.0099	0.0046	± 0.0014
Fe	1.557	± 0.0780	1.455	± 0.1543	0.2163	± 0.0153
* Co	0.0000	± 0.0090	0.0000	± 0.0084	0.0000	± 0.0013
* Ni	0.0102	± 0.0045	0.0095	± 0.0043	0.0014	± 0.0006
Cu	0.0452	± 0.0045	0.0422	± 0.0058	0.0063	± 0.0007
Zn	0.1209	± 0.0068	0.1130	± 0.0123	0.0168	± 0.0013
* Ga	0.0000	± 0.0023	0.0000	± 0.0021	0.0000	± 0.0003
* As	0.0000	± 0.0045	0.0000	± 0.0042	0.0000	± 0.0006
* Se	0.0000	± 0.0034	0.0000	± 0.0032	0.0000	± 0.0005
* Br	0.0079	± 0.0034	0.0074	± 0.0032	0.0011	± 0.0005
* Rb	0.0000	± 0.0045	0.0000	± 0.0042	0.0000	± 0.0006
* Sr	0.0124	± 0.0045	0.0116	± 0.0044	0.0017	± 0.0006
* Y	0.0000	± 0.0056	0.0000	± 0.0053	0.0000	± 0.0008
* Zr	0.0136	± 0.0056	0.0127	± 0.0054	0.0019	± 0.0008
* Nb	0.0023	± 0.0079	0.0021	± 0.0074	0.0003	± 0.0011
* Mo	0.0079	± 0.0102	0.0074	± 0.0095	0.0011	± 0.0014
* Ag	0.0000	± 0.0260	0.0000	± 0.0243	0.0000	± 0.0036
* Cd	0.0000	± 0.0260	0.0000	± 0.0243	0.0000	± 0.0036
* In	0.0463	± 0.0316	0.0433	± 0.0298	0.0064	± 0.0044
* Sn	0.1175	± 0.0486	0.1098	± 0.0466	0.0163	± 0.0068
* Sb	0.0486	± 0.0667	0.0454	± 0.0625	0.0067	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0106	0.0000	± 0.0016
* Ba	0.0000	± 0.0215	0.0000	± 0.0201	0.0000	± 0.0030
* La	0.0045	± 0.0147	0.0042	± 0.0137	0.0006	± 0.0020
* Ce	0.0282	± 0.0158	0.0264	± 0.0150	0.0039	± 0.0022
* Sm	0.0000	± 0.0136	0.0000	± 0.0127	0.0000	± 0.0019
* Eu	0.0000	± 0.0215	0.0000	± 0.0201	0.0000	± 0.0030
* Tb	0.0350	± 0.0531	0.0327	± 0.0497	0.0049	± 0.0074
* Hf	0.0000	± 0.0102	0.0000	± 0.0095	0.0000	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0095	0.0000	± 0.0014
* W	0.0000	± 0.0068	0.0000	± 0.0063	0.0000	± 0.0009
* Ir	0.0034	± 0.0056	0.0032	± 0.0053	0.0005	± 0.0008
* Au	0.0000	± 0.0068	0.0000	± 0.0063	0.0000	± 0.0009
* Hg	0.0000	± 0.0079	0.0000	± 0.0074	0.0000	± 0.0011
* Pb	0.0000	± 0.0113	0.0000	± 0.0106	0.0000	± 0.0016

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T1721
Site: Sump50 PM10
Sample Date: 7/15/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM10

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	82.	± 10.			11.39	± 1.501
XRF						
Na	3.833	± 0.4825	4.674	± 0.8193	0.5324	± 0.0721
Mg	1.103	± 0.1220	1.345	± 0.2215	0.1532	± 0.0186
Al	1.670	± 0.0949	2.037	± 0.2740	0.2320	± 0.0176
Si	3.876	± 0.1966	4.727	± 0.6243	0.5383	± 0.0383
P	0.1593	± 0.0181	0.1943	± 0.0324	0.0221	± 0.0027
S	2.880	± 0.1458	3.513	± 0.4638	0.4001	± 0.0285
Cl	2.614	± 0.1322	3.187	± 0.4208	0.3630	± 0.0258
K	0.4916	± 0.0282	0.5995	± 0.0808	0.0683	± 0.0052
Ca	0.9266	± 0.0463	1.130	± 0.1489	0.1287	± 0.0091
* Sc	0.0203	± 0.0090	0.0248	± 0.0114	0.0028	± 0.0013
Ti	0.1356	± 0.0090	0.1654	± 0.0230	0.0188	± 0.0016
* V	0.0023	± 0.0056	0.0028	± 0.0069	0.0003	± 0.0008
* Cr	0.0000	± 0.0045	0.0000	± 0.0055	0.0000	± 0.0006
* Mn	0.0237	± 0.0102	0.0289	± 0.0129	0.0033	± 0.0014
Fe	1.453	± 0.0723	1.772	± 0.2334	0.2018	± 0.0142
* Co	0.0000	± 0.0090	0.0000	± 0.0110	0.0000	± 0.0013
* Ni	0.0000	± 0.0045	0.0000	± 0.0055	0.0000	± 0.0006
Cu	0.0373	± 0.0034	0.0455	± 0.0069	0.0052	± 0.0005
Zn	0.1085	± 0.0068	0.1323	± 0.0181	0.0151	± 0.0012
Ga	0.0113	± 0.0023	0.0138	± 0.0032	0.0016	± 0.0003
* As	0.0045	± 0.0045	0.0055	± 0.0056	0.0006	± 0.0006
* Se	0.0068	± 0.0034	0.0083	± 0.0043	0.0009	± 0.0005
* Br	0.0068	± 0.0034	0.0083	± 0.0043	0.0009	± 0.0005
* Rb	0.0034	± 0.0045	0.0041	± 0.0055	0.0005	± 0.0006
Sr	0.0136	± 0.0045	0.0165	± 0.0059	0.0019	± 0.0006
* Y	0.0011	± 0.0056	0.0014	± 0.0069	0.0002	± 0.0008
Zr	0.0192	± 0.0056	0.0234	± 0.0075	0.0027	± 0.0008
* Nb	0.0000	± 0.0079	0.0000	± 0.0096	0.0000	± 0.0011
* Mo	0.0023	± 0.0113	0.0028	± 0.0138	0.0003	± 0.0016
* Ag	0.0396	± 0.0260	0.0482	± 0.0322	0.0055	± 0.0036
* Cd	0.0147	± 0.0260	0.0179	± 0.0318	0.0020	± 0.0036
* In	0.0000	± 0.0429	0.0000	± 0.0524	0.0000	± 0.0060
* Sn	0.0000	± 0.0475	0.0000	± 0.0579	0.0000	± 0.0066
* Sb	0.0000	± 0.0667	0.0000	± 0.0813	0.0000	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0138	0.0000	± 0.0016
* Ba	0.0000	± 0.0215	0.0000	± 0.0262	0.0000	± 0.0030
* La	0.0000	± 0.0147	0.0000	± 0.0179	0.0000	± 0.0020
* Ce	0.0000	± 0.0158	0.0000	± 0.0193	0.0000	± 0.0022
* Sm	0.0000	± 0.0136	0.0000	± 0.0165	0.0000	± 0.0019
* Eu	0.0000	± 0.0215	0.0000	± 0.0262	0.0000	± 0.0030
* Tb	0.0000	± 0.0497	0.0000	± 0.0606	0.0000	± 0.0069
* Hf	0.0000	± 0.0102	0.0000	± 0.0124	0.0000	± 0.0014
* Ta	0.0011	± 0.0102	0.0014	± 0.0124	0.0002	± 0.0014
* W	0.0000	± 0.0090	0.0000	± 0.0110	0.0000	± 0.0013
* Ir	0.0000	± 0.0056	0.0000	± 0.0069	0.0000	± 0.0008
* Au	0.0000	± 0.0068	0.0000	± 0.0083	0.0000	± 0.0009
* Hg	0.0000	± 0.0079	0.0000	± 0.0096	0.0000	± 0.0011
* Pb	0.0124	± 0.0113	0.0152	± 0.0139	0.0017	± 0.0016

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T1691
Site: ST56 PM10
Sample Date: 7/15/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM10

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	142.	± 10.			19.72	± 1.703
XRF						
Na	3.863	± 0.4916	2.721	± 0.3957	0.5366	± 0.0734
Mg	1.008	± 0.1209	0.7098	± 0.0987	0.1400	± 0.0182
Al	2.239	± 0.1220	1.576	± 0.1404	0.3109	± 0.0230
Si	6.016	± 0.3062	4.237	± 0.3681	0.8356	± 0.0596
P	0.1164	± 0.0181	0.0820	± 0.0140	0.0162	± 0.0026
S	2.813	± 0.1424	1.981	± 0.1718	0.3906	± 0.0278
Cl	3.216	± 0.1627	2.265	± 0.1964	0.4467	± 0.0318
K	0.6814	± 0.0362	0.4799	± 0.0423	0.0946	± 0.0069
Ca	1.305	± 0.0655	0.9191	± 0.0795	0.1813	± 0.0128
Sc	0.0373	± 0.0102	0.0263	± 0.0074	0.0052	± 0.0014
Ti	0.2011	± 0.0124	0.1416	± 0.0133	0.0279	± 0.0022
V	0.0215	± 0.0068	0.0151	± 0.0049	0.0030	± 0.0010
* Cr	0.0000	± 0.0045	0.0000	± 0.0032	0.0000	± 0.0006
Mn	0.0362	± 0.0102	0.0255	± 0.0074	0.0050	± 0.0014
Fe	2.089	± 0.1051	1.471	± 0.1273	0.2902	± 0.0206
* Co	0.0090	± 0.0090	0.0064	± 0.0064	0.0013	± 0.0013
* Ni	0.0034	± 0.0045	0.0024	± 0.0032	0.0005	± 0.0006
Cu	0.0475	± 0.0045	0.0334	± 0.0040	0.0066	± 0.0007
Zn	0.1322	± 0.0068	0.0931	± 0.0081	0.0184	± 0.0013
* Ga	0.0045	± 0.0023	0.0032	± 0.0016	0.0006	± 0.0003
* As	0.0090	± 0.0045	0.0064	± 0.0032	0.0013	± 0.0006
* Se	0.0000	± 0.0034	0.0000	± 0.0024	0.0000	± 0.0005
Br	0.0113	± 0.0034	0.0080	± 0.0025	0.0016	± 0.0005
* Rb	0.0034	± 0.0045	0.0024	± 0.0032	0.0005	± 0.0006
* Sr	0.0079	± 0.0045	0.0056	± 0.0032	0.0011	± 0.0006
* Y	0.0068	± 0.0056	0.0048	± 0.0040	0.0009	± 0.0008
* Zr	0.0034	± 0.0056	0.0024	± 0.0040	0.0005	± 0.0008
* Nb	0.0192	± 0.0079	0.0135	± 0.0057	0.0027	± 0.0011
* Mo	0.0000	± 0.0102	0.0000	± 0.0072	0.0000	± 0.0014
* Ag	0.0102	± 0.0260	0.0072	± 0.0183	0.0014	± 0.0036
* Cd	0.0000	± 0.0260	0.0000	± 0.0183	0.0000	± 0.0036
* In	0.0090	± 0.0429	0.0064	± 0.0302	0.0013	± 0.0060
* Sn	0.1006	± 0.0475	0.0708	± 0.0338	0.0140	± 0.0066
* Sb	0.0610	± 0.0667	0.0430	± 0.0470	0.0085	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0080	0.0000	± 0.0016
Ba	0.1695	± 0.0260	0.1194	± 0.0201	0.0235	± 0.0038
La	0.0734	± 0.0158	0.0517	± 0.0117	0.0102	± 0.0023
* Ce	0.0294	± 0.0158	0.0207	± 0.0112	0.0041	± 0.0022
* Sm	0.0000	± 0.0136	0.0000	± 0.0095	0.0000	± 0.0019
* Eu	0.0000	± 0.0215	0.0000	± 0.0151	0.0000	± 0.0030
* Tb	0.0056	± 0.0610	0.0040	± 0.0430	0.0008	± 0.0085
* Hf	0.0000	± 0.0102	0.0000	± 0.0072	0.0000	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0072	0.0000	± 0.0014
* W	0.0000	± 0.0090	0.0000	± 0.0064	0.0000	± 0.0013
* Ir	0.0000	± 0.0056	0.0000	± 0.0040	0.0000	± 0.0008
* Au	0.0000	± 0.0068	0.0000	± 0.0048	0.0000	± 0.0009
* Hg	0.0192	± 0.0079	0.0135	± 0.0057	0.0027	± 0.0011
* Pb	0.0124	± 0.0113	0.0088	± 0.0080	0.0017	± 0.0016

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T1701
Site: CRC PM10
Sample Date: 7/15/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM10

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	131.	± 10.			18.19	± 1.660
XRF						
Na	3.658	± 0.4836	2.792	± 0.4263	0.5080	± 0.0718
Mg	0.8735	± 0.1175	0.6668	± 0.1031	0.1213	± 0.0174
Al	1.294	± 0.0814	0.9877	± 0.0977	0.1797	± 0.0144
Si	3.427	± 0.1752	2.616	± 0.2403	0.4760	± 0.0340
P	0.0633	± 0.0170	0.0483	± 0.0135	0.0088	± 0.0024
S	2.604	± 0.1311	1.987	± 0.1817	0.3616	± 0.0257
Cl	2.537	± 0.1288	1.937	± 0.1775	0.3523	± 0.0251
K	0.4430	± 0.0260	0.3381	± 0.0326	0.0615	± 0.0047
Ca	0.6272	± 0.0328	0.4787	± 0.0443	0.0871	± 0.0063
* Sc	0.0192	± 0.0068	0.0147	± 0.0053	0.0027	± 0.0010
Ti	0.0927	± 0.0068	0.0707	± 0.0075	0.0129	± 0.0011
V	0.0170	± 0.0045	0.0129	± 0.0036	0.0024	± 0.0006
* Cr	0.0000	± 0.0045	0.0000	± 0.0035	0.0000	± 0.0006
* Mn	0.0181	± 0.0102	0.0138	± 0.0078	0.0025	± 0.0014
Fe	1.132	± 0.0565	0.8643	± 0.0788	0.1573	± 0.0111
* Co	0.0011	± 0.0068	0.0009	± 0.0052	0.0002	± 0.0009
* Ni	0.0079	± 0.0045	0.0060	± 0.0035	0.0011	± 0.0006
Cu	0.0418	± 0.0045	0.0319	± 0.0042	0.0058	± 0.0007
Zn	0.0870	± 0.0056	0.0664	± 0.0067	0.0121	± 0.0010
Ga	0.0102	± 0.0023	0.0078	± 0.0018	0.0014	± 0.0003
* As	0.0068	± 0.0045	0.0052	± 0.0035	0.0009	± 0.0006
* Se	0.0000	± 0.0034	0.0000	± 0.0026	0.0000	± 0.0005
Br	0.0113	± 0.0034	0.0086	± 0.0027	0.0016	± 0.0005
Rb	0.0158	± 0.0034	0.0121	± 0.0027	0.0022	± 0.0005
* Sr	0.0045	± 0.0045	0.0035	± 0.0035	0.0006	± 0.0006
* Y	0.0000	± 0.0056	0.0000	± 0.0043	0.0000	± 0.0008
Zr	0.0203	± 0.0056	0.0155	± 0.0045	0.0028	± 0.0008
* Nb	0.0000	± 0.0079	0.0000	± 0.0060	0.0000	± 0.0011
Mo	0.0429	± 0.0113	0.0328	± 0.0090	0.0060	± 0.0016
* Ag	0.0000	± 0.0260	0.0000	± 0.0198	0.0000	± 0.0036
* Cd	0.0000	± 0.0260	0.0000	± 0.0198	0.0000	± 0.0036
* In	0.0000	± 0.0316	0.0000	± 0.0242	0.0000	± 0.0044
* Sn	0.0000	± 0.0475	0.0000	± 0.0362	0.0000	± 0.0066
* Sb	0.0000	± 0.0667	0.0000	± 0.0509	0.0000	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0086	0.0000	± 0.0016
Ba	0.1040	± 0.0203	0.0794	± 0.0167	0.0144	± 0.0029
La	0.0350	± 0.0113	0.0267	± 0.0089	0.0049	± 0.0016
* Ce	0.0090	± 0.0158	0.0069	± 0.0121	0.0013	± 0.0022
* Sm	0.0000	± 0.0136	0.0000	± 0.0104	0.0000	± 0.0019
* Eu	0.0000	± 0.0215	0.0000	± 0.0164	0.0000	± 0.0030
* Tb	0.0023	± 0.0463	0.0017	± 0.0354	0.0003	± 0.0064
* Hf	0.0000	± 0.0102	0.0000	± 0.0078	0.0000	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0078	0.0000	± 0.0014
* W	0.0170	± 0.0068	0.0129	± 0.0053	0.0024	± 0.0009
* Ir	0.0000	± 0.0068	0.0000	± 0.0052	0.0000	± 0.0009
* Au	0.0000	± 0.0068	0.0000	± 0.0052	0.0000	± 0.0009
* Hg	0.0000	± 0.0079	0.0000	± 0.0060	0.0000	± 0.0011
* Pb	0.0090	± 0.0113	0.0069	± 0.0086	0.0013	± 0.0016

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T2024
Site: VFW PM2.5
Sample Date: 7/21/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	107.	± 10.			14.86	± 1.575
XRF						
Na	6.699	± 0.5899	6.260	± 0.8039	0.9304	± 0.0942
Mg	1.078	± 0.1288	1.008	± 0.1528	0.1497	± 0.0194
Al	1.266	± 0.0814	1.183	± 0.1342	0.1758	± 0.0143
Si	3.343	± 0.1706	3.124	± 0.3327	0.4642	± 0.0332
P	0.0554	± 0.0181	0.0517	± 0.0176	0.0077	± 0.0025
S	3.108	± 0.1571	2.904	± 0.3086	0.4316	± 0.0307
Cl	6.730	± 0.3390	6.290	± 0.6678	0.9348	± 0.0663
K	0.5560	± 0.0294	0.5196	± 0.0558	0.0772	± 0.0056
Ca	0.8147	± 0.0418	0.7614	± 0.0812	0.1132	± 0.0081
* Sc	0.0000	± 0.0090	0.0000	± 0.0084	0.0000	± 0.0013
Ti	0.0949	± 0.0068	0.0887	± 0.0104	0.0132	± 0.0011
* V	0.0000	± 0.0056	0.0000	± 0.0053	0.0000	± 0.0008
* Cr	0.0000	± 0.0045	0.0000	± 0.0042	0.0000	± 0.0006
Mn	0.0350	± 0.0102	0.0327	± 0.0100	0.0049	± 0.0014
Fe	1.238	± 0.0622	1.157	± 0.1228	0.1720	± 0.0122
* Co	0.0000	± 0.0068	0.0000	± 0.0063	0.0000	± 0.0009
* Ni	0.0068	± 0.0045	0.0063	± 0.0043	0.0009	± 0.0006
Cu	0.0429	± 0.0045	0.0401	± 0.0056	0.0060	± 0.0007
Zn	0.0836	± 0.0056	0.0781	± 0.0090	0.0116	± 0.0010
* Ga	0.0023	± 0.0023	0.0021	± 0.0021	0.0003	± 0.0003
* As	0.0034	± 0.0045	0.0032	± 0.0042	0.0005	± 0.0006
* Se	0.0011	± 0.0034	0.0011	± 0.0032	0.0002	± 0.0005
Br	0.0147	± 0.0034	0.0137	± 0.0034	0.0020	± 0.0005
* Rb	0.0000	± 0.0045	0.0000	± 0.0042	0.0000	± 0.0006
* Sr	0.0056	± 0.0045	0.0053	± 0.0043	0.0008	± 0.0006
* Y	0.0011	± 0.0056	0.0011	± 0.0053	0.0002	± 0.0008
* Zr	0.0034	± 0.0056	0.0032	± 0.0053	0.0005	± 0.0008
* Nb	0.0000	± 0.0079	0.0000	± 0.0074	0.0000	± 0.0011
* Mo	0.0136	± 0.0102	0.0127	± 0.0096	0.0019	± 0.0014
* Ag	0.0588	± 0.0260	0.0549	± 0.0248	0.0082	± 0.0036
* Cd	0.0000	± 0.0260	0.0000	± 0.0243	0.0000	± 0.0036
* In	0.0734	± 0.0316	0.0686	± 0.0303	0.0102	± 0.0044
* Sn	0.0000	± 0.0475	0.0000	± 0.0444	0.0000	± 0.0066
* Sb	0.0000	± 0.0667	0.0000	± 0.0623	0.0000	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0106	0.0000	± 0.0016
* Ba	0.0000	± 0.0192	0.0000	± 0.0180	0.0000	± 0.0027
* La	0.0000	± 0.0147	0.0000	± 0.0137	0.0000	± 0.0020
* Ce	0.0000	± 0.0158	0.0000	± 0.0148	0.0000	± 0.0022
* Sm	0.0000	± 0.0136	0.0000	± 0.0127	0.0000	± 0.0019
* Eu	0.0011	± 0.0215	0.0011	± 0.0201	0.0002	± 0.0030
* Tb	0.0045	± 0.0463	0.0042	± 0.0433	0.0006	± 0.0064
* Hf	0.0102	± 0.0102	0.0095	± 0.0095	0.0014	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0095	0.0000	± 0.0014
* W	0.0068	± 0.0068	0.0063	± 0.0064	0.0009	± 0.0009
* Ir	0.0000	± 0.0056	0.0000	± 0.0053	0.0000	± 0.0008
* Au	0.0000	± 0.0068	0.0000	± 0.0063	0.0000	± 0.0009
* Hg	0.0023	± 0.0079	0.0021	± 0.0074	0.0003	± 0.0011
* Pb	0.0237	± 0.0124	0.0222	± 0.0118	0.0033	± 0.0017

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T2023
Site: Impact PM2.5
Sample Date: 7/21/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	88.	± 10.			12.22	± 1.517
XRF						
Na	6.372	± 0.5288	7.241	± 1.019	0.8850	± 0.0857
Mg	1.144	± 0.1232	1.300	± 0.2035	0.1588	± 0.0189
Al	0.7684	± 0.0610	0.8732	± 0.1211	0.1067	± 0.0100
Si	1.590	± 0.0836	1.807	± 0.2262	0.2208	± 0.0160
* P	0.0181	± 0.0181	0.0205	± 0.0207	0.0025	± 0.0025
S	2.727	± 0.1379	3.099	± 0.3854	0.3787	± 0.0269
Cl	6.017	± 0.3028	6.838	± 0.8498	0.8357	± 0.0593
K	0.3853	± 0.0215	0.4379	± 0.0554	0.0535	± 0.0040
Ca	0.4961	± 0.0260	0.5637	± 0.0705	0.0689	± 0.0050
* Sc	0.0000	± 0.0068	0.0000	± 0.0077	0.0000	± 0.0009
Ti	0.0588	± 0.0056	0.0668	± 0.0099	0.0082	± 0.0009
* V	0.0045	± 0.0045	0.0051	± 0.0052	0.0006	± 0.0006
* Cr	0.0000	± 0.0045	0.0000	± 0.0051	0.0000	± 0.0006
* Mn	0.0226	± 0.0102	0.0257	± 0.0119	0.0031	± 0.0014
Fe	0.6543	± 0.0328	0.7435	± 0.0923	0.0909	± 0.0064
* Co	0.0056	± 0.0068	0.0064	± 0.0077	0.0008	± 0.0009
* Ni	0.0079	± 0.0045	0.0090	± 0.0052	0.0011	± 0.0006
Cu	0.0497	± 0.0045	0.0565	± 0.0082	0.0069	± 0.0007
Zn	0.0734	± 0.0045	0.0835	± 0.0108	0.0102	± 0.0008
Ga	0.0090	± 0.0023	0.0103	± 0.0028	0.0013	± 0.0003
* As	0.0045	± 0.0045	0.0051	± 0.0052	0.0006	± 0.0006
* Se	0.0079	± 0.0034	0.0090	± 0.0040	0.0011	± 0.0005
* Br	0.0090	± 0.0034	0.0103	± 0.0040	0.0013	± 0.0005
* Rb	0.0023	± 0.0034	0.0026	± 0.0039	0.0003	± 0.0005
Sr	0.0158	± 0.0045	0.0180	± 0.0055	0.0022	± 0.0006
* Y	0.0000	± 0.0034	0.0000	± 0.0039	0.0000	± 0.0005
* Zr	0.0068	± 0.0056	0.0077	± 0.0065	0.0009	± 0.0008
* Nb	0.0000	± 0.0079	0.0000	± 0.0090	0.0000	± 0.0011
* Mo	0.0000	± 0.0102	0.0000	± 0.0116	0.0000	± 0.0014
* Ag	0.0429	± 0.0260	0.0488	± 0.0301	0.0060	± 0.0036
* Cd	0.0000	± 0.0260	0.0000	± 0.0295	0.0000	± 0.0036
* In	0.0000	± 0.0429	0.0000	± 0.0488	0.0000	± 0.0060
* Sn	0.0757	± 0.0475	0.0860	± 0.0548	0.0105	± 0.0066
* Sb	0.0000	± 0.0667	0.0000	± 0.0758	0.0000	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0128	0.0000	± 0.0016
* Ba	0.0000	± 0.0158	0.0000	± 0.0180	0.0000	± 0.0022
* La	0.0000	± 0.0113	0.0000	± 0.0128	0.0000	± 0.0016
* Ce	0.0079	± 0.0113	0.0090	± 0.0129	0.0011	± 0.0016
* Sm	0.0000	± 0.0136	0.0000	± 0.0154	0.0000	± 0.0019
* Eu	0.0000	± 0.0215	0.0000	± 0.0244	0.0000	± 0.0030
* Tb	0.0000	± 0.0362	0.0000	± 0.0411	0.0000	± 0.0050
* Hf	0.0124	± 0.0102	0.0141	± 0.0117	0.0017	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0116	0.0000	± 0.0014
* W	0.0000	± 0.0068	0.0000	± 0.0077	0.0000	± 0.0009
* Ir	0.0000	± 0.0056	0.0000	± 0.0064	0.0000	± 0.0008
* Au	0.0000	± 0.0068	0.0000	± 0.0077	0.0000	± 0.0009
* Hg	0.0158	± 0.0079	0.0180	± 0.0092	0.0022	± 0.0011
* Pb	0.0136	± 0.0113	0.0154	± 0.0130	0.0019	± 0.0016

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T2075
Site: Florin PM2.5
Sample Date: 7/21/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	67.	± 10.			9.306	± 1.465
XRF						
Na	6.455	± 0.5752	9.634	± 1.675	0.8965	± 0.0916
Mg	0.9334	± 0.1254	1.393	± 0.2798	0.1296	± 0.0186
Al	0.4407	± 0.0576	0.6578	± 0.1305	0.0612	± 0.0086
Si	0.7311	± 0.0463	1.091	± 0.1769	0.1015	± 0.0082
* P	0.0441	± 0.0181	0.0658	± 0.0287	0.0061	± 0.0025
S	3.033	± 0.1526	4.527	± 0.7130	0.4212	± 0.0299
Cl	6.579	± 0.3311	9.819	± 1.547	0.9137	± 0.0648
K	0.3752	± 0.0226	0.5599	± 0.0901	0.0521	± 0.0041
Ca	0.8859	± 0.0452	1.322	± 0.2086	0.1230	± 0.0088
* Sc	0.0215	± 0.0090	0.0320	± 0.0143	0.0030	± 0.0013
* Ti	0.0124	± 0.0056	0.0186	± 0.0089	0.0017	± 0.0008
* V	0.0045	± 0.0045	0.0067	± 0.0068	0.0006	± 0.0006
* Cr	0.0000	± 0.0045	0.0000	± 0.0067	0.0000	± 0.0006
* Mn	0.0023	± 0.0102	0.0034	± 0.0152	0.0003	± 0.0014
Fe	0.3548	± 0.0192	0.5296	± 0.0841	0.0493	± 0.0036
* Co	0.0000	± 0.0068	0.0000	± 0.0101	0.0000	± 0.0009
* Ni	0.0023	± 0.0045	0.0034	± 0.0068	0.0003	± 0.0006
Cu	0.0339	± 0.0034	0.0506	± 0.0091	0.0047	± 0.0005
Zn	0.0531	± 0.0045	0.0793	± 0.0136	0.0074	± 0.0007
* Ga	0.0000	± 0.0034	0.0000	± 0.0051	0.0000	± 0.0005
* As	0.0000	± 0.0045	0.0000	± 0.0067	0.0000	± 0.0006
* Se	0.0011	± 0.0034	0.0017	± 0.0051	0.0002	± 0.0005
Br	0.0102	± 0.0034	0.0152	± 0.0055	0.0014	± 0.0005
* Rb	0.0023	± 0.0045	0.0034	± 0.0068	0.0003	± 0.0006
* Sr	0.0079	± 0.0045	0.0118	± 0.0070	0.0011	± 0.0006
* Y	0.0000	± 0.0056	0.0000	± 0.0084	0.0000	± 0.0008
* Zr	0.0000	± 0.0056	0.0000	± 0.0084	0.0000	± 0.0008
* Nb	0.0000	± 0.0090	0.0000	± 0.0135	0.0000	± 0.0013
* Mo	0.0056	± 0.0113	0.0084	± 0.0169	0.0008	± 0.0016
* Ag	0.0000	± 0.0260	0.0000	± 0.0388	0.0000	± 0.0036
* Cd	0.0215	± 0.0260	0.0320	± 0.0391	0.0030	± 0.0036
* In	0.0000	± 0.0429	0.0000	± 0.0641	0.0000	± 0.0060
* Sn	0.0000	± 0.0475	0.0000	± 0.0708	0.0000	± 0.0066
* Sb	0.0000	± 0.0667	0.0000	± 0.0995	0.0000	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0169	0.0000	± 0.0016
Ba	0.0904	± 0.0124	0.1349	± 0.0274	0.0126	± 0.0018
La	0.0362	± 0.0113	0.0540	± 0.0187	0.0050	± 0.0016
* Ce	0.0011	± 0.0113	0.0017	± 0.0169	0.0002	± 0.0016
* Sm	0.0000	± 0.0147	0.0000	± 0.0219	0.0000	± 0.0020
* Eu	0.0000	± 0.0215	0.0000	± 0.0320	0.0000	± 0.0030
* Tb	0.0000	± 0.0260	0.0000	± 0.0388	0.0000	± 0.0036
* Hf	0.0000	± 0.0102	0.0000	± 0.0152	0.0000	± 0.0014
Ta	0.0362	± 0.0102	0.0540	± 0.0172	0.0050	± 0.0014
* W	0.0090	± 0.0068	0.0135	± 0.0103	0.0013	± 0.0009
* Ir	0.0113	± 0.0056	0.0169	± 0.0088	0.0016	± 0.0008
* Au	0.0000	± 0.0068	0.0000	± 0.0101	0.0000	± 0.0009
* Hg	0.0090	± 0.0079	0.0135	± 0.0120	0.0013	± 0.0011
* Pb	0.0124	± 0.0113	0.0186	± 0.0171	0.0017	± 0.0016

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T2073
Site: Sump50 PM2.5
Sample Date: 7/21/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	72.	± 10.			10.00	± 1.476
XRF						
Na	7.752	± 0.5978	10.77	± 1.710	1.0766	± 0.0989
Mg	1.128	± 0.1300	1.566	± 0.2827	0.1566	± 0.0197
Al	0.4814	± 0.0588	0.6686	± 0.1236	0.0669	± 0.0088
Si	0.7966	± 0.0497	1.106	± 0.1685	0.1106	± 0.0088
* P	0.0305	± 0.0192	0.0424	± 0.0273	0.0042	± 0.0027
S	2.949	± 0.1480	4.096	± 0.6049	0.4096	± 0.0290
Cl	7.165	± 0.3605	9.952	± 1.470	0.9952	± 0.0706
K	0.3571	± 0.0215	0.4959	± 0.0751	0.0496	± 0.0039
Ca	0.4034	± 0.0215	0.5603	± 0.0833	0.0560	± 0.0041
* Sc	0.0068	± 0.0068	0.0094	± 0.0095	0.0009	± 0.0009
Ti	0.0203	± 0.0056	0.0282	± 0.0088	0.0028	± 0.0008
* V	0.0000	± 0.0045	0.0000	± 0.0063	0.0000	± 0.0006
* Cr	0.0000	± 0.0045	0.0000	± 0.0063	0.0000	± 0.0006
* Mn	0.0011	± 0.0102	0.0016	± 0.0141	0.0002	± 0.0014
Fe	0.3672	± 0.0192	0.5101	± 0.0757	0.0510	± 0.0037
* Co	0.0000	± 0.0068	0.0000	± 0.0094	0.0000	± 0.0009
* Ni	0.0011	± 0.0045	0.0016	± 0.0063	0.0002	± 0.0006
Cu	0.0373	± 0.0034	0.0518	± 0.0086	0.0052	± 0.0005
Zn	0.0678	± 0.0045	0.0942	± 0.0145	0.0094	± 0.0008
Ga	0.0102	± 0.0023	0.0141	± 0.0037	0.0014	± 0.0003
* As	0.0011	± 0.0045	0.0016	± 0.0063	0.0002	± 0.0006
* Se	0.0056	± 0.0034	0.0078	± 0.0048	0.0008	± 0.0005
Br	0.0181	± 0.0034	0.0251	± 0.0059	0.0025	± 0.0005
* Rb	0.0045	± 0.0034	0.0063	± 0.0048	0.0006	± 0.0005
* Sr	0.0124	± 0.0045	0.0173	± 0.0067	0.0017	± 0.0006
* Y	0.0000	± 0.0056	0.0000	± 0.0078	0.0000	± 0.0008
* Zr	0.0079	± 0.0056	0.0110	± 0.0080	0.0011	± 0.0008
* Nb	0.0023	± 0.0079	0.0031	± 0.0110	0.0003	± 0.0011
* Mo	0.0011	± 0.0113	0.0016	± 0.0157	0.0002	± 0.0016
* Ag	0.0282	± 0.0260	0.0392	± 0.0365	0.0039	± 0.0036
* Cd	0.0000	± 0.0260	0.0000	± 0.0361	0.0000	± 0.0036
* In	0.0271	± 0.0316	0.0377	± 0.0443	0.0038	± 0.0044
* Sn	0.0294	± 0.0475	0.0408	± 0.0662	0.0041	± 0.0066
* Sb	0.0000	± 0.0667	0.0000	± 0.0926	0.0000	± 0.0093
* Cs	0.0328	± 0.0113	0.0455	± 0.0169	0.0046	± 0.0016
Ba	0.0610	± 0.0124	0.0848	± 0.0209	0.0085	± 0.0018
* La	0.0158	± 0.0113	0.0220	± 0.0160	0.0022	± 0.0016
* Ce	0.0000	± 0.0113	0.0000	± 0.0157	0.0000	± 0.0016
* Sm	0.0000	± 0.0136	0.0000	± 0.0188	0.0000	± 0.0019
* Eu	0.0000	± 0.0215	0.0000	± 0.0298	0.0000	± 0.0030
* Tb	0.0000	± 0.0260	0.0000	± 0.0361	0.0000	± 0.0036
* Hf	0.0158	± 0.0102	0.0220	± 0.0145	0.0022	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0141	0.0000	± 0.0014
* W	0.0124	± 0.0068	0.0173	± 0.0097	0.0017	± 0.0009
* Ir	0.0000	± 0.0056	0.0000	± 0.0078	0.0000	± 0.0008
* Au	0.0000	± 0.0068	0.0000	± 0.0094	0.0000	± 0.0009
* Hg	0.0056	± 0.0079	0.0078	± 0.0110	0.0008	± 0.0011
* Pb	0.0079	± 0.0113	0.0110	± 0.0158	0.0011	± 0.0016

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T2072
Site: ST56 PM2.5
Sample Date: 7/21/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	95.	± 10.			13.19	± 1.538
XRF						
Na	6.597	± 0.5842	6.944	± 0.9552	0.9162	± 0.0932
Mg	0.9277	± 0.1254	0.9766	± 0.1673	0.1289	± 0.0186
Al	0.6328	± 0.0622	0.6661	± 0.0959	0.0879	± 0.0097
Si	1.555	± 0.0825	1.637	± 0.1929	0.2160	± 0.0157
* P	0.0305	± 0.0181	0.0321	± 0.0193	0.0042	± 0.0025
S	3.001	± 0.1514	3.159	± 0.3688	0.4168	± 0.0296
Cl	7.274	± 0.3661	7.657	± 0.8934	1.0102	± 0.0717
K	0.3718	± 0.0226	0.3913	± 0.0476	0.0516	± 0.0041
Ca	0.6769	± 0.0350	0.7125	± 0.0836	0.0940	± 0.0068
* Sc	0.0192	± 0.0068	0.0202	± 0.0074	0.0027	± 0.0010
Ti	0.0339	± 0.0056	0.0357	± 0.0070	0.0047	± 0.0008
* V	0.0045	± 0.0045	0.0048	± 0.0048	0.0006	± 0.0006
* Cr	0.0000	± 0.0045	0.0000	± 0.0048	0.0000	± 0.0006
* Mn	0.0102	± 0.0102	0.0107	± 0.0108	0.0014	± 0.0014
Fe	0.4949	± 0.0249	0.5210	± 0.0608	0.0687	± 0.0049
* Co	0.0034	± 0.0068	0.0036	± 0.0071	0.0005	± 0.0009
* Ni	0.0056	± 0.0045	0.0059	± 0.0048	0.0008	± 0.0006
Cu	0.0384	± 0.0034	0.0404	± 0.0056	0.0053	± 0.0005
Zn	0.0780	± 0.0045	0.0821	± 0.0099	0.0108	± 0.0008
* Ga	0.0056	± 0.0023	0.0059	± 0.0025	0.0008	± 0.0003
* As	0.0000	± 0.0045	0.0000	± 0.0048	0.0000	± 0.0006
* Se	0.0023	± 0.0034	0.0024	± 0.0036	0.0003	± 0.0005
Br	0.0136	± 0.0034	0.0143	± 0.0039	0.0019	± 0.0005
* Rb	0.0000	± 0.0045	0.0000	± 0.0048	0.0000	± 0.0006
Sr	0.0215	± 0.0045	0.0226	± 0.0053	0.0030	± 0.0006
* Y	0.0023	± 0.0056	0.0024	± 0.0060	0.0003	± 0.0008
* Zr	0.0000	± 0.0056	0.0000	± 0.0059	0.0000	± 0.0008
* Nb	0.0000	± 0.0079	0.0000	± 0.0083	0.0000	± 0.0011
* Mo	0.0000	± 0.0113	0.0000	± 0.0119	0.0000	± 0.0016
* Ag	0.0068	± 0.0260	0.0071	± 0.0274	0.0009	± 0.0036
* Cd	0.0000	± 0.0260	0.0000	± 0.0274	0.0000	± 0.0036
* In	0.0305	± 0.0316	0.0321	± 0.0335	0.0042	± 0.0044
* Sn	0.0791	± 0.0475	0.0833	± 0.0507	0.0110	± 0.0066
* Sb	0.0915	± 0.0667	0.0963	± 0.0709	0.0127	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0119	0.0000	± 0.0016
Ba	0.0701	± 0.0124	0.0737	± 0.0152	0.0097	± 0.0018
* La	0.0260	± 0.0113	0.0274	± 0.0122	0.0036	± 0.0016
* Ce	0.0000	± 0.0113	0.0000	± 0.0119	0.0000	± 0.0016
* Sm	0.0000	± 0.0136	0.0000	± 0.0143	0.0000	± 0.0019
* Eu	0.0000	± 0.0215	0.0000	± 0.0226	0.0000	± 0.0030
* Tb	0.0000	± 0.0305	0.0000	± 0.0321	0.0000	± 0.0042
* Hf	0.0045	± 0.0102	0.0048	± 0.0107	0.0006	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0107	0.0000	± 0.0014
* W	0.0000	± 0.0090	0.0000	± 0.0095	0.0000	± 0.0013
* Ir	0.0000	± 0.0056	0.0000	± 0.0059	0.0000	± 0.0008
* Au	0.0034	± 0.0068	0.0036	± 0.0071	0.0005	± 0.0009
* Hg	0.0000	± 0.0079	0.0000	± 0.0083	0.0000	± 0.0011
* Pb	0.0000	± 0.0113	0.0000	± 0.0119	0.0000	± 0.0016

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T2077
Site: CRC PM2.5
Sample Date: 7/21/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM2.5

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	72.	± 10.			10.00	± 1.476
XRF						
Na	6.669	± 0.5831	9.263	± 1.520	0.9263	± 0.0933
Mg	1.049	± 0.1277	1.456	± 0.2690	0.1456	± 0.0192
Al	0.4554	± 0.0576	0.6325	± 0.1188	0.0632	± 0.0086
Si	0.6577	± 0.0441	0.9134	± 0.1409	0.0913	± 0.0076
P	0.0610	± 0.0181	0.0848	± 0.0277	0.0085	± 0.0025
S	3.083	± 0.1548	4.281	± 0.6323	0.4281	± 0.0303
Cl	6.406	± 0.3220	8.897	± 1.314	0.8897	± 0.0631
K	0.3390	± 0.0215	0.4708	± 0.0719	0.0471	± 0.0038
Ca	0.4170	± 0.0226	0.5791	± 0.0863	0.0579	± 0.0043
* Sc	0.0102	± 0.0068	0.0141	± 0.0096	0.0014	± 0.0009
Ti	0.0226	± 0.0056	0.0314	± 0.0090	0.0031	± 0.0008
* V	0.0011	± 0.0056	0.0016	± 0.0079	0.0002	± 0.0008
* Cr	0.0000	± 0.0045	0.0000	± 0.0063	0.0000	± 0.0006
* Mn	0.0000	± 0.0136	0.0000	± 0.0188	0.0000	± 0.0019
Fe	0.2588	± 0.0147	0.3594	± 0.0539	0.0359	± 0.0027
* Co	0.0000	± 0.0068	0.0000	± 0.0094	0.0000	± 0.0009
* Ni	0.0000	± 0.0045	0.0000	± 0.0063	0.0000	± 0.0006
Cu	0.0271	± 0.0034	0.0377	± 0.0070	0.0038	± 0.0005
Zn	0.0554	± 0.0045	0.0769	± 0.0124	0.0077	± 0.0007
Ga	0.0102	± 0.0023	0.0141	± 0.0037	0.0014	± 0.0003
* As	0.0000	± 0.0045	0.0000	± 0.0063	0.0000	± 0.0006
* Se	0.0000	± 0.0034	0.0000	± 0.0047	0.0000	± 0.0005
Br	0.0226	± 0.0034	0.0314	± 0.0064	0.0031	± 0.0005
* Rb	0.0000	± 0.0045	0.0000	± 0.0063	0.0000	± 0.0006
* Sr	0.0079	± 0.0045	0.0110	± 0.0065	0.0011	± 0.0006
* Y	0.0000	± 0.0056	0.0000	± 0.0078	0.0000	± 0.0008
* Zr	0.0000	± 0.0056	0.0000	± 0.0078	0.0000	± 0.0008
* Nb	0.0181	± 0.0090	0.0251	± 0.0130	0.0025	± 0.0013
* Mo	0.0203	± 0.0113	0.0282	± 0.0162	0.0028	± 0.0016
* Ag	0.0000	± 0.0260	0.0000	± 0.0361	0.0000	± 0.0036
* Cd	0.0000	± 0.0260	0.0000	± 0.0361	0.0000	± 0.0036
* In	0.0452	± 0.0429	0.0628	± 0.0603	0.0063	± 0.0060
* Sn	0.0260	± 0.0475	0.0361	± 0.0661	0.0036	± 0.0066
* Sb	0.0418	± 0.0667	0.0581	± 0.0929	0.0058	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0157	0.0000	± 0.0016
* Ba	0.0000	± 0.0113	0.0000	± 0.0157	0.0000	± 0.0016
* La	0.0000	± 0.0113	0.0000	± 0.0157	0.0000	± 0.0016
* Ce	0.0000	± 0.0113	0.0000	± 0.0157	0.0000	± 0.0016
* Sm	0.0000	± 0.0147	0.0000	± 0.0204	0.0000	± 0.0020
* Eu	0.0000	± 0.0215	0.0000	± 0.0298	0.0000	± 0.0030
* Tb	0.0079	± 0.0260	0.0110	± 0.0361	0.0011	± 0.0036
* Hf	0.0136	± 0.0102	0.0188	± 0.0144	0.0019	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0141	0.0000	± 0.0014
* W	0.0102	± 0.0068	0.0141	± 0.0096	0.0014	± 0.0009
* Ir	0.0000	± 0.0056	0.0000	± 0.0078	0.0000	± 0.0008
* Au	0.0000	± 0.0068	0.0000	± 0.0094	0.0000	± 0.0009
* Hg	0.0000	± 0.0079	0.0000	± 0.0110	0.0000	± 0.0011
* Pb	0.0136	± 0.0113	0.0188	± 0.0159	0.0019	± 0.0016

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T2021
Site: VFW PM10
Sample Date: 7/21/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM10

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	267.	± 10.			37.08	± 2.317
XRF						
Na	11.81	± 0.8554	4.423	± 0.3607	1.6401	± 0.1444
Mg	2.368	± 0.1797	0.8871	± 0.0750	0.3290	± 0.0299
Al	2.727	± 0.1537	1.021	± 0.0691	0.3787	± 0.0285
Si	7.551	± 0.3898	2.828	± 0.1804	1.0487	± 0.0754
P	0.1650	± 0.0237	0.0618	± 0.0092	0.0229	± 0.0035
S	3.874	± 0.1978	1.451	± 0.0919	0.5380	± 0.0384
Cl	15.12	± 0.7639	5.663	± 0.3561	2.0999	± 0.1493
K	0.9808	± 0.0508	0.3674	± 0.0235	0.1362	± 0.0098
Ca	1.776	± 0.0893	0.6653	± 0.0417	0.2467	± 0.0175
Sc	0.0508	± 0.0102	0.0190	± 0.0039	0.0071	± 0.0015
Ti	0.2305	± 0.0124	0.0863	± 0.0057	0.0320	± 0.0024
* V	0.0079	± 0.0056	0.0030	± 0.0021	0.0011	± 0.0008
* Cr	0.0000	± 0.0045	0.0000	± 0.0017	0.0000	± 0.0006
Mn	0.0554	± 0.0102	0.0207	± 0.0039	0.0077	± 0.0015
Fe	2.784	± 0.1390	1.043	± 0.0651	0.3867	± 0.0273
* Co	0.0000	± 0.0113	0.0000	± 0.0042	0.0000	± 0.0016
* Ni	0.0102	± 0.0045	0.0038	± 0.0017	0.0014	± 0.0006
Cu	0.0576	± 0.0045	0.0216	± 0.0019	0.0080	± 0.0007
Zn	0.1119	± 0.0068	0.0419	± 0.0030	0.0155	± 0.0012
Ga	0.0068	± 0.0023	0.0025	± 0.0009	0.0009	± 0.0003
* As	0.0056	± 0.0045	0.0021	± 0.0017	0.0008	± 0.0006
* Se	0.0000	± 0.0034	0.0000	± 0.0013	0.0000	± 0.0005
Br	0.0282	± 0.0045	0.0106	± 0.0017	0.0039	± 0.0007
Rb	0.0113	± 0.0034	0.0042	± 0.0013	0.0016	± 0.0005
Sr	0.0226	± 0.0045	0.0085	± 0.0017	0.0031	± 0.0006
* Y	0.0045	± 0.0056	0.0017	± 0.0021	0.0006	± 0.0008
Zr	0.0181	± 0.0056	0.0068	± 0.0021	0.0025	± 0.0008
* Nb	0.0000	± 0.0079	0.0000	± 0.0030	0.0000	± 0.0011
* Mo	0.0000	± 0.0102	0.0000	± 0.0038	0.0000	± 0.0014
* Ag	0.0000	± 0.0260	0.0000	± 0.0097	0.0000	± 0.0036
* Cd	0.0000	± 0.0260	0.0000	± 0.0097	0.0000	± 0.0036
* In	0.0000	± 0.0316	0.0000	± 0.0119	0.0000	± 0.0044
* Sn	0.0113	± 0.0475	0.0042	± 0.0178	0.0016	± 0.0066
* Sb	0.0000	± 0.0667	0.0000	± 0.0250	0.0000	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0042	0.0000	± 0.0016
* Ba	0.0000	± 0.0260	0.0000	± 0.0097	0.0000	± 0.0036
* La	0.0000	± 0.0181	0.0000	± 0.0068	0.0000	± 0.0025
* Ce	0.0203	± 0.0158	0.0076	± 0.0059	0.0028	± 0.0022
* Sm	0.0000	± 0.0136	0.0000	± 0.0051	0.0000	± 0.0019
* Eu	0.0000	± 0.0215	0.0000	± 0.0080	0.0000	± 0.0030
* Tb	0.0000	± 0.0678	0.0000	± 0.0254	0.0000	± 0.0094
* Hf	0.0000	± 0.0102	0.0000	± 0.0038	0.0000	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0038	0.0000	± 0.0014
* W	0.0000	± 0.0068	0.0000	± 0.0025	0.0000	± 0.0009
* Ir	0.0000	± 0.0056	0.0000	± 0.0021	0.0000	± 0.0008
* Au	0.0023	± 0.0068	0.0008	± 0.0025	0.0003	± 0.0009
* Hg	0.0023	± 0.0079	0.0008	± 0.0030	0.0003	± 0.0011
Pb	0.0429	± 0.0124	0.0161	± 0.0047	0.0060	± 0.0018

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T1700
Site: Impact PM10
Sample Date: 7/21/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM10

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	144.	± 10.			20.00	± 1.711
XRF						
Na	11.59	± 0.8373	8.051	± 0.8067	1.6102	± 0.1414
Mg	1.956	± 0.1616	1.358	± 0.1466	0.2717	± 0.0262
Al	2.037	± 0.1198	1.415	± 0.1287	0.2830	± 0.0218
Si	5.116	± 0.2622	3.552	± 0.3066	0.7105	± 0.0509
P	0.1062	± 0.0226	0.0738	± 0.0165	0.0148	± 0.0032
S	3.884	± 0.1966	2.697	± 0.2318	0.5394	± 0.0384
Cl	15.28	± 0.7695	10.61	± 0.9102	2.1219	± 0.1506
K	0.9311	± 0.0486	0.6466	± 0.0562	0.1293	± 0.0093
Ca	1.391	± 0.0701	0.9660	± 0.0829	0.1932	± 0.0137
* Sc	0.0000	± 0.0113	0.0000	± 0.0078	0.0000	± 0.0016
Ti	0.1503	± 0.0102	0.1044	± 0.0101	0.0209	± 0.0018
V	0.0170	± 0.0056	0.0118	± 0.0040	0.0024	± 0.0008
* Cr	0.0000	± 0.0045	0.0000	± 0.0031	0.0000	± 0.0006
Mn	0.0452	± 0.0102	0.0314	± 0.0074	0.0063	± 0.0014
Fe	1.944	± 0.0972	1.350	± 0.1155	0.2699	± 0.0191
* Co	0.0000	± 0.0090	0.0000	± 0.0063	0.0000	± 0.0013
* Ni	0.0102	± 0.0045	0.0071	± 0.0032	0.0014	± 0.0006
Cu	0.0588	± 0.0045	0.0408	± 0.0042	0.0082	± 0.0007
Zn	0.1085	± 0.0056	0.0753	± 0.0065	0.0151	± 0.0011
Ga	0.0090	± 0.0023	0.0063	± 0.0016	0.0013	± 0.0003
* As	0.0011	± 0.0045	0.0008	± 0.0031	0.0002	± 0.0006
* Se	0.0023	± 0.0034	0.0016	± 0.0024	0.0003	± 0.0005
Br	0.0328	± 0.0045	0.0228	± 0.0035	0.0046	± 0.0007
* Rb	0.0045	± 0.0045	0.0031	± 0.0031	0.0006	± 0.0006
Sr	0.0282	± 0.0045	0.0196	± 0.0034	0.0039	± 0.0007
* Y	0.0000	± 0.0056	0.0000	± 0.0039	0.0000	± 0.0008
* Zr	0.0045	± 0.0056	0.0031	± 0.0039	0.0006	± 0.0008
* Nb	0.0011	± 0.0079	0.0008	± 0.0055	0.0002	± 0.0011
* Mo	0.0124	± 0.0102	0.0086	± 0.0071	0.0017	± 0.0014
* Ag	0.0000	± 0.0260	0.0000	± 0.0180	0.0000	± 0.0036
* Cd	0.0520	± 0.0260	0.0361	± 0.0182	0.0072	± 0.0036
* In	0.0000	± 0.0429	0.0000	± 0.0298	0.0000	± 0.0060
* Sn	0.1153	± 0.0486	0.0800	± 0.0342	0.0160	± 0.0068
* Sb	0.0000	± 0.0667	0.0000	± 0.0463	0.0000	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0078	0.0000	± 0.0016
Ba	0.1978	± 0.0215	0.1373	± 0.0177	0.0275	± 0.0033
La	0.0746	± 0.0158	0.0518	± 0.0116	0.0104	± 0.0023
* Ce	0.0056	± 0.0158	0.0039	± 0.0110	0.0008	± 0.0022
* Sm	0.0000	± 0.0136	0.0000	± 0.0094	0.0000	± 0.0019
* Eu	0.0000	± 0.0215	0.0000	± 0.0149	0.0000	± 0.0030
* Tb	0.0000	± 0.0576	0.0000	± 0.0400	0.0000	± 0.0080
* Hf	0.0000	± 0.0102	0.0000	± 0.0071	0.0000	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0071	0.0000	± 0.0014
* W	0.0147	± 0.0068	0.0102	± 0.0048	0.0020	± 0.0009
* Ir	0.0000	± 0.0056	0.0000	± 0.0039	0.0000	± 0.0008
* Au	0.0113	± 0.0068	0.0078	± 0.0047	0.0016	± 0.0009
* Hg	0.0000	± 0.0079	0.0000	± 0.0055	0.0000	± 0.0011
* Pb	0.0056	± 0.0113	0.0039	± 0.0079	0.0008	± 0.0016

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T2076
Site: Florin PM10
Sample Date: 7/21/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM10

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	148.	± 10.			20.56	± 1.728
XRF						
Na	10.96	± 0.8136	7.403	± 0.7432	1.5217	± 0.1362
Mg	2.209	± 0.1763	1.493	± 0.1561	0.3068	± 0.0289
Al	2.519	± 0.1424	1.702	± 0.1499	0.3498	± 0.0264
Si	6.556	± 0.3356	4.430	± 0.3755	0.9106	± 0.0652
P	0.1333	± 0.0237	0.0901	± 0.0172	0.0185	± 0.0034
S	4.001	± 0.2034	2.704	± 0.2286	0.5557	± 0.0396
Cl	15.31	± 0.7718	10.35	± 0.8721	2.1266	± 0.1510
K	1.072	± 0.0554	0.7246	± 0.0616	0.1489	± 0.0107
Ca	1.697	± 0.0859	1.147	± 0.0968	0.2357	± 0.0168
* Sc	0.0000	± 0.0113	0.0000	± 0.0076	0.0000	± 0.0016
Ti	0.2328	± 0.0124	0.1573	± 0.0135	0.0323	± 0.0024
* V	0.0000	± 0.0079	0.0000	± 0.0053	0.0000	± 0.0011
* Cr	0.0000	± 0.0045	0.0000	± 0.0031	0.0000	± 0.0006
* Mn	0.0339	± 0.0136	0.0229	± 0.0093	0.0047	± 0.0019
Fe	2.261	± 0.1130	1.528	± 0.1284	0.3140	± 0.0222
* Co	0.0000	± 0.0090	0.0000	± 0.0061	0.0000	± 0.0013
* Ni	0.0056	± 0.0045	0.0038	± 0.0031	0.0008	± 0.0006
Cu	0.0429	± 0.0045	0.0290	± 0.0036	0.0060	± 0.0007
Zn	0.1040	± 0.0056	0.0702	± 0.0061	0.0144	± 0.0011
Ga	0.0079	± 0.0023	0.0053	± 0.0016	0.0011	± 0.0003
* As	0.0000	± 0.0045	0.0000	± 0.0031	0.0000	± 0.0006
* Se	0.0045	± 0.0034	0.0031	± 0.0023	0.0006	± 0.0005
Br	0.0305	± 0.0045	0.0206	± 0.0034	0.0042	± 0.0007
* Rb	0.0000	± 0.0045	0.0000	± 0.0031	0.0000	± 0.0006
Sr	0.0158	± 0.0045	0.0107	± 0.0031	0.0022	± 0.0006
* Y	0.0045	± 0.0056	0.0031	± 0.0038	0.0006	± 0.0008
Zr	0.0271	± 0.0068	0.0183	± 0.0047	0.0038	± 0.0010
* Nb	0.0113	± 0.0079	0.0076	± 0.0054	0.0016	± 0.0011
* Mo	0.0000	± 0.0113	0.0000	± 0.0076	0.0000	± 0.0016
* Ag	0.0000	± 0.0260	0.0000	± 0.0176	0.0000	± 0.0036
* Cd	0.0282	± 0.0260	0.0191	± 0.0176	0.0039	± 0.0036
* In	0.0170	± 0.0429	0.0115	± 0.0290	0.0024	± 0.0060
* Sn	0.0000	± 0.0475	0.0000	± 0.0321	0.0000	± 0.0066
* Sb	0.0113	± 0.0667	0.0076	± 0.0451	0.0016	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0076	0.0000	± 0.0016
* Ba	0.0000	± 0.0260	0.0000	± 0.0176	0.0000	± 0.0036
* La	0.0000	± 0.0181	0.0000	± 0.0122	0.0000	± 0.0025
* Ce	0.0203	± 0.0158	0.0137	± 0.0107	0.0028	± 0.0022
* Sm	0.0000	± 0.0147	0.0000	± 0.0099	0.0000	± 0.0020
* Eu	0.0000	± 0.0215	0.0000	± 0.0145	0.0000	± 0.0030
* Tb	0.0000	± 0.0633	0.0000	± 0.0428	0.0000	± 0.0088
* Hf	0.0000	± 0.0102	0.0000	± 0.0069	0.0000	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0069	0.0000	± 0.0014
* W	0.0000	± 0.0090	0.0000	± 0.0061	0.0000	± 0.0013
* Ir	0.0000	± 0.0056	0.0000	± 0.0038	0.0000	± 0.0008
* Au	0.0000	± 0.0068	0.0000	± 0.0046	0.0000	± 0.0009
* Hg	0.0090	± 0.0079	0.0061	± 0.0054	0.0013	± 0.0011
* Pb	0.0068	± 0.0113	0.0046	± 0.0076	0.0009	± 0.0016

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T2074
Site: Sump50 PM10
Sample Date: 7/21/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM10

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	177.	± 10.			24.58	± 1.855
XRF						
Na	10.27	± 0.8080	5.804	± 0.5620	1.4268	± 0.1330
Mg	1.886	± 0.1661	1.066	± 0.1115	0.2619	± 0.0265
Al	1.940	± 0.1164	1.096	± 0.0903	0.2695	± 0.0210
Si	4.823	± 0.2486	2.725	± 0.2084	0.6698	± 0.0481
P	0.0949	± 0.0237	0.0536	± 0.0137	0.0132	± 0.0034
S	3.786	± 0.1921	2.139	± 0.1624	0.5258	± 0.0375
Cl	14.80	± 0.7458	8.363	± 0.6331	2.0560	± 0.1459
K	0.9436	± 0.0486	0.5331	± 0.0408	0.1310	± 0.0094
Ca	1.329	± 0.0667	0.7508	± 0.0567	0.1846	± 0.0131
Sc	0.0362	± 0.0102	0.0204	± 0.0059	0.0050	± 0.0014
Ti	0.1559	± 0.0090	0.0881	± 0.0071	0.0217	± 0.0017
* V	0.0113	± 0.0056	0.0064	± 0.0032	0.0016	± 0.0008
* Cr	0.0000	± 0.0056	0.0000	± 0.0032	0.0000	± 0.0008
Mn	0.0452	± 0.0102	0.0255	± 0.0059	0.0063	± 0.0014
Fe	1.707	± 0.0859	0.9646	± 0.0730	0.2371	± 0.0168
* Co	0.0011	± 0.0090	0.0006	± 0.0051	0.0002	± 0.0013
* Ni	0.0023	± 0.0045	0.0013	± 0.0026	0.0003	± 0.0006
Cu	0.0475	± 0.0045	0.0268	± 0.0030	0.0066	± 0.0007
Zn	0.0780	± 0.0045	0.0441	± 0.0036	0.0108	± 0.0008
* Ga	0.0000	± 0.0034	0.0000	± 0.0019	0.0000	± 0.0005
* As	0.0000	± 0.0045	0.0000	± 0.0026	0.0000	± 0.0006
* Se	0.0000	± 0.0034	0.0000	± 0.0019	0.0000	± 0.0005
Br	0.0373	± 0.0045	0.0211	± 0.0028	0.0052	± 0.0007
* Rb	0.0011	± 0.0045	0.0006	± 0.0026	0.0002	± 0.0006
Sr	0.0260	± 0.0045	0.0147	± 0.0027	0.0036	± 0.0007
* Y	0.0034	± 0.0056	0.0019	± 0.0032	0.0005	± 0.0008
* Zr	0.0000	± 0.0068	0.0000	± 0.0038	0.0000	± 0.0009
* Nb	0.0000	± 0.0090	0.0000	± 0.0051	0.0000	± 0.0013
* Mo	0.0000	± 0.0113	0.0000	± 0.0064	0.0000	± 0.0016
* Ag	0.0350	± 0.0260	0.0198	± 0.0147	0.0049	± 0.0036
* Cd	0.0000	± 0.0260	0.0000	± 0.0147	0.0000	± 0.0036
* In	0.0689	± 0.0316	0.0389	± 0.0180	0.0096	± 0.0044
* Sn	0.0723	± 0.0475	0.0409	± 0.0269	0.0100	± 0.0066
* Sb	0.0339	± 0.0667	0.0192	± 0.0377	0.0047	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0064	0.0000	± 0.0016
* Ba	0.0000	± 0.0249	0.0000	± 0.0140	0.0000	± 0.0035
* La	0.0000	± 0.0181	0.0000	± 0.0102	0.0000	± 0.0025
* Ce	0.0011	± 0.0158	0.0006	± 0.0089	0.0002	± 0.0022
* Sm	0.0000	± 0.0147	0.0000	± 0.0083	0.0000	± 0.0020
* Eu	0.0000	± 0.0215	0.0000	± 0.0121	0.0000	± 0.0030
* Tb	0.0192	± 0.0554	0.0109	± 0.0313	0.0027	± 0.0077
* Hf	0.0000	± 0.0102	0.0000	± 0.0057	0.0000	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0057	0.0000	± 0.0014
* W	0.0000	± 0.0090	0.0000	± 0.0051	0.0000	± 0.0013
* Ir	0.0000	± 0.0068	0.0000	± 0.0038	0.0000	± 0.0009
* Au	0.0124	± 0.0068	0.0070	± 0.0039	0.0017	± 0.0009
* Hg	0.0000	± 0.0079	0.0000	± 0.0045	0.0000	± 0.0011
* Pb	0.0226	± 0.0124	0.0128	± 0.0071	0.0031	± 0.0017

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T1699
Site: ST56 PM10
Sample Date: 7/21/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM10

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	205.	± 10.			28.47	± 1.989
XRF						
Na	12.28	± 0.8803	5.992	± 0.5194	1.7060	± 0.1491
Mg	2.452	± 0.1864	1.196	± 0.1081	0.3406	± 0.0310
Al	3.109	± 0.1718	1.516	± 0.1118	0.4318	± 0.0322
Si	8.280	± 0.4260	4.039	± 0.2864	1.1499	± 0.0825
P	0.1130	± 0.0226	0.0551	± 0.0113	0.0157	± 0.0032
S	4.100	± 0.2090	2.000	± 0.1411	0.5694	± 0.0407
Cl	16.61	± 0.8385	8.103	± 0.5688	2.3071	± 0.1639
K	1.216	± 0.0622	0.5931	± 0.0419	0.1689	± 0.0121
Ca	1.888	± 0.0949	0.9211	± 0.0645	0.2623	± 0.0186
Sc	0.0384	± 0.0113	0.0187	± 0.0056	0.0053	± 0.0016
Ti	0.2452	± 0.0136	0.1196	± 0.0088	0.0341	± 0.0025
V	0.0215	± 0.0068	0.0105	± 0.0033	0.0030	± 0.0010
* Cr	0.0000	± 0.0045	0.0000	± 0.0022	0.0000	± 0.0006
Mn	0.0768	± 0.0102	0.0375	± 0.0053	0.0107	± 0.0015
Fe	2.840	± 0.1424	1.385	± 0.0969	0.3944	± 0.0279
* Co	0.0000	± 0.0113	0.0000	± 0.0055	0.0000	± 0.0016
* Ni	0.0045	± 0.0045	0.0022	± 0.0022	0.0006	± 0.0006
Cu	0.0508	± 0.0045	0.0248	± 0.0025	0.0071	± 0.0007
Zn	0.1028	± 0.0056	0.0502	± 0.0037	0.0143	± 0.0011
* Ga	0.0023	± 0.0023	0.0011	± 0.0011	0.0003	± 0.0003
* As	0.0000	± 0.0045	0.0000	± 0.0022	0.0000	± 0.0006
* Se	0.0000	± 0.0034	0.0000	± 0.0017	0.0000	± 0.0005
Br	0.0339	± 0.0045	0.0165	± 0.0023	0.0047	± 0.0007
* Rb	0.0056	± 0.0045	0.0028	± 0.0022	0.0008	± 0.0006
Sr	0.0226	± 0.0045	0.0110	± 0.0023	0.0031	± 0.0006
* Y	0.0000	± 0.0056	0.0000	± 0.0028	0.0000	± 0.0008
* Zr	0.0068	± 0.0056	0.0033	± 0.0028	0.0009	± 0.0008
* Nb	0.0023	± 0.0079	0.0011	± 0.0039	0.0003	± 0.0011
* Mo	0.0000	± 0.0102	0.0000	± 0.0050	0.0000	± 0.0014
* Ag	0.0000	± 0.0260	0.0000	± 0.0127	0.0000	± 0.0036
* Cd	0.0237	± 0.0260	0.0116	± 0.0127	0.0033	± 0.0036
* In	0.0000	± 0.0429	0.0000	± 0.0209	0.0000	± 0.0060
* Sn	0.0000	± 0.0475	0.0000	± 0.0232	0.0000	± 0.0066
* Sb	0.0000	± 0.0667	0.0000	± 0.0325	0.0000	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0055	0.0000	± 0.0016
* Ba	0.0000	± 0.0282	0.0000	± 0.0138	0.0000	± 0.0039
* La	0.0000	± 0.0181	0.0000	± 0.0088	0.0000	± 0.0025
* Ce	0.0215	± 0.0158	0.0105	± 0.0077	0.0030	± 0.0022
* Sm	0.0000	± 0.0136	0.0000	± 0.0066	0.0000	± 0.0019
* Eu	0.0056	± 0.0215	0.0028	± 0.0105	0.0008	± 0.0030
* Tb	0.0226	± 0.0701	0.0110	± 0.0342	0.0031	± 0.0097
* Hf	0.0000	± 0.0102	0.0000	± 0.0050	0.0000	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0050	0.0000	± 0.0014
* W	0.0000	± 0.0068	0.0000	± 0.0033	0.0000	± 0.0009
* Ir	0.0000	± 0.0056	0.0000	± 0.0028	0.0000	± 0.0008
* Au	0.0056	± 0.0068	0.0028	± 0.0033	0.0008	± 0.0009
* Hg	0.0000	± 0.0079	0.0000	± 0.0039	0.0000	± 0.0011
* Pb	0.0249	± 0.0124	0.0121	± 0.0061	0.0035	± 0.0017

* - XRF Concentration is less than three times the uncertainty

Lab ID: 21-T2022
Site: CRC PM10
Sample Date: 7/21/21
Filter Lot #: P46601032
Volume: 7.200 ± 0.360 m³
Deposit Area: 11.3 cm²
Size Fraction: PM10

Analyte	µg/filter		percent		µg/m ³	
Gravimetry						
Net Mass	148.	± 10.			20.56	± 1.728
XRF						
Na	10.23	± 0.7661	6.909	± 0.6971	1.4202	± 0.1279
Mg	2.074	± 0.1661	1.401	± 0.1468	0.2880	± 0.0272
Al	2.067	± 0.1198	1.396	± 0.1243	0.2871	± 0.0220
Si	5.322	± 0.2723	3.596	± 0.3048	0.7392	± 0.0529
P	0.0859	± 0.0215	0.0580	± 0.0150	0.0119	± 0.0030
S	3.765	± 0.1910	2.544	± 0.2149	0.5229	± 0.0372
Cl	14.75	± 0.7424	9.964	± 0.8396	2.0481	± 0.1453
K	0.8984	± 0.0463	0.6070	± 0.0516	0.1248	± 0.0090
Ca	1.286	± 0.0644	0.8689	± 0.0731	0.1786	± 0.0126
Sc	0.0418	± 0.0102	0.0282	± 0.0071	0.0058	± 0.0014
Ti	0.1729	± 0.0102	0.1168	± 0.0105	0.0240	± 0.0019
* V	0.0090	± 0.0056	0.0061	± 0.0038	0.0013	± 0.0008
* Cr	0.0000	± 0.0045	0.0000	± 0.0031	0.0000	± 0.0006
Mn	0.0316	± 0.0102	0.0214	± 0.0070	0.0044	± 0.0014
Fe	1.779	± 0.0893	1.202	± 0.1012	0.2470	± 0.0175
* Co	0.0000	± 0.0090	0.0000	± 0.0061	0.0000	± 0.0013
* Ni	0.0045	± 0.0045	0.0031	± 0.0031	0.0006	± 0.0006
Cu	0.0407	± 0.0045	0.0275	± 0.0036	0.0056	± 0.0007
Zn	0.0836	± 0.0056	0.0565	± 0.0054	0.0116	± 0.0010
* Ga	0.0023	± 0.0023	0.0015	± 0.0015	0.0003	± 0.0003
* As	0.0000	± 0.0045	0.0000	± 0.0031	0.0000	± 0.0006
* Se	0.0034	± 0.0034	0.0023	± 0.0023	0.0005	± 0.0005
Br	0.0328	± 0.0045	0.0221	± 0.0034	0.0046	± 0.0007
* Rb	0.0056	± 0.0034	0.0038	± 0.0023	0.0008	± 0.0005
* Sr	0.0102	± 0.0045	0.0069	± 0.0031	0.0014	± 0.0006
* Y	0.0079	± 0.0045	0.0053	± 0.0031	0.0011	± 0.0006
* Zr	0.0000	± 0.0056	0.0000	± 0.0038	0.0000	± 0.0008
* Nb	0.0000	± 0.0079	0.0000	± 0.0053	0.0000	± 0.0011
* Mo	0.0090	± 0.0102	0.0061	± 0.0069	0.0013	± 0.0014
* Ag	0.0113	± 0.0260	0.0076	± 0.0176	0.0016	± 0.0036
* Cd	0.0000	± 0.0260	0.0000	± 0.0176	0.0000	± 0.0036
* In	0.0000	± 0.0429	0.0000	± 0.0290	0.0000	± 0.0060
* Sn	0.1164	± 0.0486	0.0786	± 0.0333	0.0162	± 0.0068
* Sb	0.0000	± 0.0667	0.0000	± 0.0450	0.0000	± 0.0093
* Cs	0.0000	± 0.0113	0.0000	± 0.0076	0.0000	± 0.0016
* Ba	0.0000	± 0.0249	0.0000	± 0.0168	0.0000	± 0.0035
* La	0.0147	± 0.0147	0.0099	± 0.0099	0.0020	± 0.0020
* Ce	0.0226	± 0.0158	0.0153	± 0.0107	0.0031	± 0.0022
* Sm	0.0000	± 0.0136	0.0000	± 0.0092	0.0000	± 0.0019
* Eu	0.0079	± 0.0215	0.0053	± 0.0145	0.0011	± 0.0030
* Tb	0.0000	± 0.0554	0.0000	± 0.0374	0.0000	± 0.0077
* Hf	0.0000	± 0.0102	0.0000	± 0.0069	0.0000	± 0.0014
* Ta	0.0000	± 0.0102	0.0000	± 0.0069	0.0000	± 0.0014
* W	0.0181	± 0.0068	0.0122	± 0.0047	0.0025	± 0.0010
* Ir	0.0068	± 0.0056	0.0046	± 0.0038	0.0009	± 0.0008
* Au	0.0000	± 0.0068	0.0000	± 0.0046	0.0000	± 0.0009
* Hg	0.0000	± 0.0079	0.0000	± 0.0053	0.0000	± 0.0011
* Pb	0.0034	± 0.0113	0.0023	± 0.0076	0.0005	± 0.0016

* - XRF Concentration is less than three times the uncertainty

CHESTER LabNet**Quant'X 1020 XRF Analytical Quality Assurance Report****Client: Sacramento Metro AQMD****Report: 21-328****Analysis Period: August 2 through 3, 2021****Number of Samples: 23****1. Precision Data**

Micromatter Multi-elemental Quality Control Standard: 34103

QC Standard Results

Analyte	n	micrograms per square centimeter			c.v.	%E
		Calib.	Meas.	S.D.		
Si	3	7.91	7.08	0.05	0.75	-10.47
Ti	3	10.84	9.96	0.03	0.32	-8.18
Fe	3	11.22	10.36	0.01	0.08	-7.70
Se	3	5.19	4.74	0.03	0.74	-8.78
Cd	3	6.87	6.52	0.13	2.00	-5.05
Pb	3	12.57	11.92	0.03	0.25	-5.17

2. Accuracy Data

NIST Standard Reference Materials: SRM 2783

Analyte/ SRM	n	Certified Value($\mu\text{g}/\text{cm}^2$)	Measured Value ($\mu\text{g}/\text{cm}^2$)			% Rec.
			High	Low	Average	
K 2783	4	0.5301	0.4681	0.4527	0.4597 +/- 0.0060	86.7
Ca 2783	4	1.3253	1.1297	1.1170	1.1217 +/- 0.0048	84.6
Ti 2783	4	0.1496	0.1409	0.1346	0.1366 +/- 0.0025	91.3
Fe 2783	4	2.6606	2.5615	2.5075	2.5310 +/- 0.0228	95.1
Cu 2783	4	0.0406	0.0373	0.0328	0.0348 +/- 0.0017	85.7
Zn 2783	4	0.1797	0.2172	0.2133	0.2157 +/- 0.0015	120.1
Pb 2783	4	0.0318	0.0343	0.0298	0.0327 +/- 0.0017	102.7

3. Addendum

Micromatter Certified Reference Materials

CRM	Analytes	Certified Value($\mu\text{g}/\text{cm}^2$)	Measured Value($\mu\text{g}/\text{cm}^2$)	% Rec.
39149	Cr	53.7	52.3	97.5
39150	Cu	49.4	46.5	94.1
39151	Zn, Te	49.8	48.8	98.1
39152	Ga, As	50.9	50.2	98.7
39153	Se, Cd	47.1	46.5	98.8
39154	Pb	47.9	46.3	96.7

NIST: National Institute of Standards and Technology

% Rec: Percent Recovery = (Experimental/Given) x 100

n: Number of Observations

S.D.: Standard Deviation

c.v.: Coefficient of Variation = (S.D./Measured) x 100

% E: Percent Error = [(Measured-Calibrated)/Calibrated] x 100

QUANT'X 1020 REPLICATE REPORT

1.98

Original ID: 21T1700

Replicate ID: RT1700

Element	Original ug/cm ²			Replicate ug/cm ²			Difference ug/cm ²			RPD			
Na	1.0410	+-	0.0741	0.9898	+-	0.0711	0.0512	+-	0.1027	+	5.0	+-	10.1
Mg	0.1731	+-	0.0143	0.1856	+-	0.0148	-0.0125	+-	0.0206	+	-7.0	+-	11.5
Al	0.1809	+-	0.0106	0.1785	+-	0.0104	0.0024	+-	0.0148	+	1.3	+-	8.2
Si	0.4527	+-	0.0232	0.4322	+-	0.0222	0.0205	+-	0.0321	+	4.6	+-	7.3
P	0.0094	+-	0.0020	0.0100	+-	0.0020	-0.0006	+-	0.0028	+	-6.2	+-	29.0
S	0.3437	+-	0.0174	0.3451	+-	0.0175	-0.0014	+-	0.0247	+	-0.4	+-	7.2
Cl	1.3521	+-	0.0681	1.3475	+-	0.0679	0.0046	+-	0.0962	+	0.3	+-	7.1
K	0.0824	+-	0.0043	0.0789	+-	0.0041	0.0035	+-	0.0059	+	4.3	+-	7.3
Ca	0.1231	+-	0.0062	0.1199	+-	0.0060	0.0032	+-	0.0087	+	2.6	+-	7.1
Sc	0.0000	+-	0.0010	0.0029	+-	0.0009	-0.0029	+-	0.0013				
Ti	0.0133	+-	0.0009	0.0133	+-	0.0008	0.0000	+-	0.0012	+	0.2	+-	9.3
V	0.0015	+-	0.0005	0.0012	+-	0.0005	0.0003	+-	0.0008				
Cr	0.0000	+-	0.0004	0.0000	+-	0.0004	0.0000	+-	0.0006				
Mn	0.0040	+-	0.0009	0.0030	+-	0.0009	0.0010	+-	0.0013	+	28.6	+-	36.9
Fe	0.1720	+-	0.0086	0.1648	+-	0.0083	0.0072	+-	0.0119	+	4.3	+-	7.1
Co	0.0000	+-	0.0008	0.0000	+-	0.0008	0.0000	+-	0.0012				
Ni	0.0009	+-	0.0004	0.0005	+-	0.0004	0.0004	+-	0.0005				
Cu	0.0052	+-	0.0004	0.0045	+-	0.0004	0.0008	+-	0.0005	0	15.7	+-	11.3
Zn	0.0096	+-	0.0005	0.0080	+-	0.0005	0.0016	+-	0.0007	-	18.4	+-	8.3
Ga	0.0008	+-	0.0002	0.0001	+-	0.0002	0.0007	+-	0.0003				
As	0.0001	+-	0.0004	0.0000	+-	0.0004	0.0001	+-	0.0006				
Se	0.0002	+-	0.0003	0.0003	+-	0.0003	-0.0001	+-	0.0004				
Br	0.0029	+-	0.0004	0.0029	+-	0.0004	0.0000	+-	0.0005	+	0.7	+-	17.3
Rb	0.0004	+-	0.0004	0.0001	+-	0.0004	0.0004	+-	0.0005				
Sr	0.0025	+-	0.0004	0.0017	+-	0.0004	0.0007	+-	0.0006	0	35.2	+-	26.7
Y	0.0000	+-	0.0005	0.0005	+-	0.0005	-0.0005	+-	0.0007				
Zr	0.0004	+-	0.0005	0.0007	+-	0.0005	-0.0002	+-	0.0008				
Nb	0.0001	+-	0.0007	0.0004	+-	0.0007	-0.0003	+-	0.0010				
Mo	0.0011	+-	0.0009	0.0000	+-	0.0009	0.0011	+-	0.0013				
Ag	0.0000	+-	0.0023	0.0012	+-	0.0023	-0.0012	+-	0.0032				
Cd	0.0046	+-	0.0023	0.0000	+-	0.0023	0.0046	+-	0.0033				
In	0.0000	+-	0.0038	0.0004	+-	0.0028	-0.0004	+-	0.0047				
Sn	0.0102	+-	0.0043	0.0000	+-	0.0042	0.0102	+-	0.0060				
Sb	0.0000	+-	0.0059	0.0000	+-	0.0059	0.0000	+-	0.0083				
Cs	0.0000	+-	0.0010	0.0000	+-	0.0010	0.0000	+-	0.0014				
Ba	0.0175	+-	0.0019	0.0106	+-	0.0020	0.0069	+-	0.0028	-	49.1	+-	19.7
La	0.0066	+-	0.0014	0.0035	+-	0.0014	0.0031	+-	0.0019	0	61.4	+-	38.5
Ce	0.0005	+-	0.0014	0.0010	+-	0.0014	-0.0005	+-	0.0020				
Sm	0.0000	+-	0.0012	0.0000	+-	0.0012	0.0000	+-	0.0017				
Eu	0.0000	+-	0.0019	0.0000	+-	0.0019	0.0000	+-	0.0028				
Tb	0.0000	+-	0.0051	0.0000	+-	0.0049	0.0000	+-	0.0071				
Hf	0.0000	+-	0.0009	0.0000	+-	0.0009	0.0000	+-	0.0013				
Ta	0.0000	+-	0.0009	0.0000	+-	0.0009	0.0000	+-	0.0012				
W	0.0013	+-	0.0006	0.0007	+-	0.0006	0.0007	+-	0.0008				
Ir	0.0000	+-	0.0005	0.0003	+-	0.0005	-0.0003	+-	0.0006				
Au	0.0011	+-	0.0006	0.0000	+-	0.0006	0.0011	+-	0.0008				
Hg	0.0000	+-	0.0007	0.0000	+-	0.0007	0.0000	+-	0.0009				
Pb	0.0005	+-	0.0010	0.0000	+-	0.0010	0.0005	+-	0.0015				

RPD: Relative Percent Difference $(X_1 - X_2) / [(X_1 + X_2)/2] * 100$. RPD is calculated when original value is greater than three times its uncertainty.

QUANT'X 1020 REPLICATE REPORT

2.62

Original ID: 21T2021

Replicate ID: RT2021

Element	Original ug/cm ²			Replicate ug/cm ²			Difference ug/cm ²			RPD			
Na	1.0600	+-	0.0757	1.0678	+-	0.0767	-0.0078	+-	0.1078	+	-0.7	+-	10.1
Mg	0.2096	+-	0.0159	0.2229	+-	0.0164	-0.0133	+-	0.0229	+	-6.2	+-	10.6
Al	0.2418	+-	0.0136	0.2553	+-	0.0142	-0.0135	+-	0.0196	+	-5.4	+-	7.9
Si	0.6682	+-	0.0345	0.6630	+-	0.0342	0.0052	+-	0.0486	+	0.8	+-	7.3
P	0.0146	+-	0.0021	0.0124	+-	0.0020	0.0022	+-	0.0029	+	16.3	+-	21.3
S	0.3430	+-	0.0175	0.3514	+-	0.0179	-0.0084	+-	0.0251	+	-2.4	+-	7.2
Cl	1.3376	+-	0.0676	1.3343	+-	0.0674	0.0033	+-	0.0955	+	0.2	+-	7.1
K	0.0868	+-	0.0045	0.0927	+-	0.0048	-0.0059	+-	0.0066	+	-6.6	+-	7.3
Ca	0.1572	+-	0.0079	0.1576	+-	0.0079	-0.0004	+-	0.0112	+	-0.3	+-	7.1
Sc	0.0045	+-	0.0009	0.0032	+-	0.0010	0.0013	+-	0.0013	+	33.8	+-	35.0
Ti	0.0204	+-	0.0011	0.0194	+-	0.0011	0.0009	+-	0.0016	+	4.7	+-	7.8
V	0.0007	+-	0.0005	0.0009	+-	0.0005	-0.0003	+-	0.0008				
Cr	0.0000	+-	0.0004	0.0000	+-	0.0004	0.0000	+-	0.0006				
Mn	0.0049	+-	0.0009	0.0051	+-	0.0009	-0.0001	+-	0.0013	+	-3.0	+-	26.1
Fe	0.2464	+-	0.0123	0.2566	+-	0.0128	-0.0102	+-	0.0178	+	-4.1	+-	7.1
Co	0.0000	+-	0.0010	0.0000	+-	0.0010	0.0000	+-	0.0015				
Ni	0.0009	+-	0.0004	0.0007	+-	0.0004	0.0001	+-	0.0005				
Cu	0.0051	+-	0.0004	0.0044	+-	0.0004	0.0007	+-	0.0005	0	14.6	+-	11.5
Zn	0.0099	+-	0.0006	0.0094	+-	0.0005	0.0005	+-	0.0008	+	4.9	+-	8.1
Ga	0.0006	+-	0.0002	0.0000	+-	0.0002	0.0006	+-	0.0003				
As	0.0005	+-	0.0004	0.0000	+-	0.0004	0.0005	+-	0.0006				
Se	0.0000	+-	0.0003	0.0000	+-	0.0003	0.0000	+-	0.0004				
Br	0.0025	+-	0.0004	0.0028	+-	0.0004	-0.0003	+-	0.0005	+	-12.9	+-	18.9
Rb	0.0010	+-	0.0003	0.0001	+-	0.0004	0.0010	+-	0.0005	-	181.0	+-	86.4
Sr	0.0020	+-	0.0004	0.0028	+-	0.0004	-0.0008	+-	0.0006	0	-32.4	+-	23.5
Y	0.0004	+-	0.0005	0.0000	+-	0.0005	0.0004	+-	0.0007				
Zr	0.0016	+-	0.0005	0.0017	+-	0.0005	-0.0001	+-	0.0008				
Nb	0.0000	+-	0.0007	0.0000	+-	0.0007	0.0000	+-	0.0010				
Mo	0.0000	+-	0.0009	0.0020	+-	0.0009	-0.0020	+-	0.0013				
Ag	0.0000	+-	0.0023	0.0035	+-	0.0023	-0.0035	+-	0.0032				
Cd	0.0000	+-	0.0023	0.0013	+-	0.0023	-0.0013	+-	0.0032				
In	0.0000	+-	0.0028	0.0000	+-	0.0028	0.0000	+-	0.0039				
Sn	0.0010	+-	0.0042	0.0156	+-	0.0043	-0.0146	+-	0.0060				
Sb	0.0000	+-	0.0059	0.0000	+-	0.0059	0.0000	+-	0.0083				
Cs	0.0000	+-	0.0010	0.0000	+-	0.0010	0.0000	+-	0.0014				
Ba	0.0000	+-	0.0023	0.0000	+-	0.0023	0.0000	+-	0.0033				
La	0.0000	+-	0.0016	0.0000	+-	0.0016	0.0000	+-	0.0023				
Ce	0.0018	+-	0.0014	0.0000	+-	0.0014	0.0018	+-	0.0020				
Sm	0.0000	+-	0.0012	0.0000	+-	0.0012	0.0000	+-	0.0017				
Eu	0.0000	+-	0.0019	0.0000	+-	0.0019	0.0000	+-	0.0028				
Tb	0.0000	+-	0.0060	0.0000	+-	0.0062	0.0000	+-	0.0086				
Hf	0.0000	+-	0.0009	0.0000	+-	0.0009	0.0000	+-	0.0013				
Ta	0.0000	+-	0.0009	0.0000	+-	0.0009	0.0000	+-	0.0012				
W	0.0000	+-	0.0006	0.0000	+-	0.0006	0.0000	+-	0.0008				
Ir	0.0000	+-	0.0005	0.0011	+-	0.0005	-0.0011	+-	0.0006				
Au	0.0002	+-	0.0006	0.0000	+-	0.0006	0.0002	+-	0.0008				
Hg	0.0002	+-	0.0007	0.0000	+-	0.0007	0.0002	+-	0.0009				
Pb	0.0038	+-	0.0011	0.0026	+-	0.0011	0.0012	+-	0.0015	+	37.5	+-	46.8

RPD: Relative Percent Difference $(X_1 - X_2)/[(X_1 + X_2)/2] * 100$. RPD is calculated when original value is greater than three times its uncertainty.

QUANT'X 1020 REPLICATE REPORT

1.65

Original ID: 21T2076

Replicate ID: RT2076

Element	Original ug/cm ²			Replicate ug/cm ²			Difference ug/cm ²			RPD			
Na	0.9696	+-	0.0720	1.0382	+-	0.0748	-0.0686	+-	0.1038	+	-6.8	+-	10.3
Mg	0.1955	+-	0.0156	0.2089	+-	0.0156	-0.0134	+-	0.0221	+	-6.6	+-	10.9
Al	0.2229	+-	0.0126	0.2416	+-	0.0134	-0.0186	+-	0.0184	0	-8.0	+-	7.9
Si	0.5802	+-	0.0297	0.5847	+-	0.0300	-0.0045	+-	0.0422	+	-0.8	+-	7.2
P	0.0118	+-	0.0021	0.0162	+-	0.0021	-0.0044	+-	0.0029	0	-31.4	+-	20.8
S	0.3541	+-	0.0180	0.3542	+-	0.0180	-0.0001	+-	0.0254	+	0.0	+-	7.2
Cl	1.3550	+-	0.0683	1.3599	+-	0.0686	-0.0049	+-	0.0968	+	-0.4	+-	7.1
K	0.0949	+-	0.0049	0.0963	+-	0.0050	-0.0014	+-	0.0070	+	-1.5	+-	7.3
Ca	0.1502	+-	0.0076	0.1523	+-	0.0077	-0.0021	+-	0.0108	+	-1.4	+-	7.1
Sc	0.0000	+-	0.0010	0.0054	+-	0.0009	-0.0054	+-	0.0013				
Ti	0.0206	+-	0.0011	0.0172	+-	0.0011	0.0034	+-	0.0016	-	18.2	+-	8.3
V	0.0000	+-	0.0007	0.0017	+-	0.0005	-0.0017	+-	0.0009				
Cr	0.0000	+-	0.0004	0.0000	+-	0.0005	0.0000	+-	0.0006				
Mn	0.0030	+-	0.0012	0.0032	+-	0.0012	-0.0003	+-	0.0017				
Fe	0.2001	+-	0.0100	0.1966	+-	0.0098	0.0035	+-	0.0140	+	1.8	+-	7.1
Co	0.0000	+-	0.0008	0.0000	+-	0.0008	0.0000	+-	0.0012				
Ni	0.0005	+-	0.0004	0.0009	+-	0.0004	-0.0004	+-	0.0005				
Cu	0.0038	+-	0.0004	0.0038	+-	0.0004	0.0000	+-	0.0005	+	0.3	+-	13.4
Zn	0.0092	+-	0.0005	0.0111	+-	0.0006	-0.0019	+-	0.0008	-	-18.5	+-	8.0
Ga	0.0007	+-	0.0002	0.0002	+-	0.0003	0.0005	+-	0.0004				
As	0.0000	+-	0.0004	0.0000	+-	0.0004	0.0000	+-	0.0006				
Se	0.0004	+-	0.0003	0.0009	+-	0.0003	-0.0006	+-	0.0004				
Br	0.0027	+-	0.0004	0.0031	+-	0.0004	-0.0004	+-	0.0005	+	-12.5	+-	17.6
Rb	0.0000	+-	0.0004	0.0000	+-	0.0004	0.0000	+-	0.0005				
Sr	0.0014	+-	0.0004	0.0019	+-	0.0004	-0.0004	+-	0.0006	+	-26.3	+-	33.8
Y	0.0004	+-	0.0005	0.0000	+-	0.0005	0.0004	+-	0.0007				
Zr	0.0024	+-	0.0006	0.0008	+-	0.0005	0.0017	+-	0.0008	-	104.8	+-	49.2
Nb	0.0010	+-	0.0007	0.0000	+-	0.0007	0.0010	+-	0.0010				
Mo	0.0000	+-	0.0010	0.0005	+-	0.0010	-0.0005	+-	0.0014				
Ag	0.0000	+-	0.0023	0.0014	+-	0.0023	-0.0014	+-	0.0032				
Cd	0.0025	+-	0.0023	0.0039	+-	0.0023	-0.0014	+-	0.0033				
In	0.0015	+-	0.0038	0.0000	+-	0.0038	0.0015	+-	0.0054				
Sn	0.0000	+-	0.0042	0.0000	+-	0.0042	0.0000	+-	0.0060				
Sb	0.0010	+-	0.0059	0.0010	+-	0.0059	0.0000	+-	0.0083				
Cs	0.0000	+-	0.0010	0.0000	+-	0.0010	0.0000	+-	0.0014				
Ba	0.0000	+-	0.0023	0.0128	+-	0.0022	-0.0128	+-	0.0032				
La	0.0000	+-	0.0016	0.0050	+-	0.0014	-0.0050	+-	0.0021				
Ce	0.0018	+-	0.0014	0.0011	+-	0.0014	0.0007	+-	0.0020				
Sm	0.0000	+-	0.0013	0.0000	+-	0.0013	0.0000	+-	0.0018				
Eu	0.0000	+-	0.0019	0.0016	+-	0.0019	-0.0016	+-	0.0028				
Tb	0.0000	+-	0.0056	0.0000	+-	0.0056	0.0000	+-	0.0079				
Hf	0.0000	+-	0.0009	0.0000	+-	0.0009	0.0000	+-	0.0013				
Ta	0.0000	+-	0.0009	0.0000	+-	0.0009	0.0000	+-	0.0012				
W	0.0000	+-	0.0008	0.0000	+-	0.0008	0.0000	+-	0.0011				
Ir	0.0000	+-	0.0005	0.0000	+-	0.0005	0.0000	+-	0.0006				
Au	0.0000	+-	0.0006	0.0004	+-	0.0006	-0.0004	+-	0.0008				
Hg	0.0008	+-	0.0007	0.0003	+-	0.0007	0.0005	+-	0.0009				
Pb	0.0006	+-	0.0010	0.0000	+-	0.0010	0.0006	+-	0.0015				

RPD: Relative Percent Difference $(X_1 - X_2) / [(X_1 + X_2)/2] * 100$. RPD is calculated when original value is greater than three times its uncertainty.

CHESTER LabNet

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CHAIN-OF-CUSTODY RECORD

CLIENT INFORMATION		
Company Name: SMAQMD	Email: Iford@airquality.org	
Contact: Levi Ford	Office: 916-874-4868	
Cell:	Billing Address: 777 12th Street	
Report To: <u>Levi Ford</u>	Sacramento, CA 95814	
777 12th Street		
Sacramento, CA 95814		

Project Name: AB617

PO#:

LabNet ID	Field Sample ID	Site	Sample Date	Volume (m³)	Particle Size	Gravimetry			OC/EC	ICP	IC	XRF	IC	Turn Around Time Requested	Page 1 of 2 COCs
						ICP	IC	XRF							
21T1689	J	VFW PM2.5	7/15/21	7.2	2.5µm	X	X								
21T1687	J	Impact PM2.5	7/15/21	7.2	2.5µm	X	X								
		Florin PM2.5													
21T1719	J	Sump50 PM2.5	7/15/21	7.2	2.5µm	X	X								
21T1688	J	ST56 PM2.5	7/15/21	7.2	2.5µm	X	X								
21T1724	J	CRC PM2.5	7/15/21	7.2	2.5µm	X	X								
21T1690	J	VFW PM10	7/15/21	7.2	10µm										
21T1692	J	Impact PM10	7/15/21	7.2	10µm										
21T1715	J	Florin PM10	7/15/21	7.2	10µm										
21T1721	J	SUMP50 PM10	7/15/21	7.2	10µm										

Do the samples pose any potential hazards? Yes No

If yes please explain:

Are samples for compliance? Yes No

Special Instructions/QC Requirements & Comments:

Relinquished by:

Date/Time: 7/21/21 Received By: Tad D
Relinquished by:

Date/Time: 7/21/21 Received By:

Laboratory Receipt Comments:

Date/Time/Temp:	<u>7/21/21 1145</u>	Received By:	<u>Tad D</u>
Date/Time/Temp:	<u>7/21/21 920</u>	Received By:	<u>Tad D</u>

Date/Time/Temp:

Date/Time/Temp:

For use by Lab:	<input checked="" type="checkbox"/>
Report #:	<u>21-328</u>

CHESTER LabNet

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CHAIN-OFF-CUSTODY RECORD

CLIENT INFORMATION	
Company Name: SMAQMD	
Contact: Levi Ford	Email: ford@airquality.org
Cel:	Office: 916-874-4868
Report To: <u>Levi Ford</u>	Billing Address: 777 12th Street Sacramento, CA 95814
	777 12th Street Sacramento, CA 95814

For use by Lab:
Report #: Z1-328

CHESTER LabNet

12242 SW Garden Place ♦ Tigard, OR 97223 ♦ (503) 624-2183 ♦ www.chesterlab.net

CHAIN-OFF-CUSTODY RECORD

CLIENT INFORMATION	
Company Name: SMAQMD	
Contact: Levi Ford	Email: lf@airquality.org Office: 916-874-4868
Cell:	
Report To: <u>Levi Ford</u>	Billing Address: 777 12th Street 777 12th Street Sacramento, CA 95814
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For use by Lab:
Report #: 21-823

RAW DATA

Available upon request