December 11, 2024

Mr. Michael Squire, P.E.
NYSDEC
625 Broadway – 11th Floor
Albany, NY 12233

Via Electronic Transmission

RE: BCP Site #C344070
Former Material Research Corp.
542 Route 303
Orangetown, New York

Dear Mr. Squire:

On behalf of our client, Sony Electronics, Inc. (Sony), WSP USA (WSP) is pleased to submit this proposed Work Plan to conduct a supplemental environmental investigation for the onsite operable unit (OU-1) at the above-referenced site. This plan is in response to soil-vapor screening that was conducted at the site between July and August 2024.

This Work Plan presents a strategy to delineate potential source area(s) in the overburden soils within OU-1. Based on WSP's review of the soil-vapor screening, these supplemental tasks will include the installation of approximately 75 shallow soil borings in the areas identified during the soil-vapor screening. The soil-vapor screening results and proposed supplemental environmental investigation scope of work are discussed below in further detail.

The proposed soil boring drilling and sampling presented in this scope of work will be conducted in a similar manner at all of the proposed drilling locations. All field work will follow the Health and Safety Plan and Community Air Monitoring Plan included in the NYSDEC-approved Remedial Action Work Plan (May 2018).

OU-1 SOIL-VAPOR SCREENING

Soil-Vapor Survey Methodology

WSP conducted a passive soil-vapor survey in response to elevated groundwater quality detected during the January 2024 sampling event. Based on the concentrations documented in the water quality, a potential shallow soil source influencing the water quality was suspected. To further investigate potential shallow source(s), a passive soil-vapor survey was conducted was using Amplified Geochemical Imaging (AGI) samplers (formerly known as "Gore Sorbers") on the western side of the property (OU-1). Sixty-six (66) samplers were installed by hand with a two-man crew, using a hammer drill (1-inch diameter hole) to an approximate depth of 3 ft bg (feet below grade) between July 25 and July 26, 2024 and on July 30, 2024. The AGI samplers were located in a grid pattern with samplers spaced approximately 15 feet apart (Figure 1). These passive samplers were installed in accordance with the manufacturer's recommendations. Five of the locations (SV-C1, SV-G1, SV-D1, SV-J4 and SV-L3) were unable to extend the full 3 feet because refusal was encountered. The samplers at these locations

WSP USA
6 Research Drive, Suite 260
Shelton, CT 06484

Phone: +1 (203) 929-8555
Fax: +1 (203) 926-9140
wsp.com

were installed approximately 2.5 ft bg. All of the samplers were installed flush with grade. Each sample location was temporarily capped with a cork and string attached to the sampling device. All of the sampling equipment was provided by AGI. The samplers remained undisturbed until they were retrieved at the end of the survey period. The samplers were retrieved from the ground on July 31, August 1 and August 5, 2024 after being in the ground for six days. All of the samplers were recovered, with the exception of SV-K5, which was permanently damaged during the retrieval process. All sample holes located in the asphalt were filled with sand and capped with cold patch. The samples located in the grassy area were filled with sand and topsoil.

During the sampler installation and retrieval activities, the air space in the work area was monitored using a photoionization detector (PID). Because the sample points were limited in size and depth (1-inch diameter hole extending a maximum of 3 feet and then capped by a cork), particulate monitoring and continuous air monitoring was not conducted during the survey.

Prior to conducting the soil-vapor survey, an underground utility survey was performed by Underground Surveying LLC, on July 22, 2024, to locate the known gas lines and other buried utilities located on the western side of the property. Based on the survey, several sample locations were adjusted based on the utility locations and field conditions.

All of the passive soil-vapor samplers, including three trip blanks, were submitted to the AGI Laboratory in Newark, Delaware, for analysis. All of the samplers were analyzed using thermal desorption-gas chromatography/mass spectrometry instrumentation following modified U.S. EPA Method 8260.

Soil-Vapor Survey Results

The soil-vapor survey results indicate the highest concentrations of trichloroethene (TCE) and cis-1,2-dichlorothene (cis 1,2-DCE) were detected at the northeast corner of the sample area (SV-K4, SV-L5 and SV-J4). Concentrations of TCE were detected ranging from 266 to 2100 µg/m^3 (micrograms per cubic meter) and cis 1,2-DCE was detected at concentrations ranging from less than 418 to 13,300 µg/m^3 with the peak concentration detected at SV-K4. Elevated concentrations of TCE and cis 1,2-DCE were also observed along the western portion of the sample area (SV-J1, SV-I1, SV-I2, SV-I3, SV-G1 and SV-F1) and in the central portion of the sample area (SV-E4 and SV-F4). Concentrations of TCE were detected ranging from 167 to 1,260 µg/m^3 and cis 1,2-DCE was detected at concentrations ranging from 1,150 to 2,600 µg/m^3. Table 1 is a summary of the TCE and cis 1,2-DCE concentrations detected during the survey. Figures 2 and 3 are concentration contour maps of these two compounds.

In addition to TCE and cis 1,2-DCE, concentrations of 1,1,1-trichloroethane (TCA) and 1,1-dichloroethane (1,1-DCA) were detected along the northern portion of the sample area (SV-L4) and the western portion of the property (SV-I1, SV-I2, SV-H2, SV-F3, SV-G1, and SV-G3) (Figures 4 and 5). In this area, concentrations of TCA ranged from 771 to 3,020 µg/m^3 (SV-I2) and 1,1-DCA was detected at concentrations ranging from 1,370 to 4,260 µg/m^3 (SV-I2). The complete laboratory soil-vapor report is included in Attachment I.

OU-1 SUPPLEMENTAL INVESTIGATION SCOPE OF WORK

Soil Borings

As part of the Supplemental Investigation (SI), approximately 75 soil borings are proposed. The locations are based on the results from the soil-vapor survey and are shown on Figure 6. Each soil boring will be advanced to 5 ft bg. Ideally the borings will be advanced using the direct-push method, however, because of the dense underlying material, the hollow stem auger (HSA) drilling method may be required. Both drilling options will be considered. Prior to commencing the drilling activities, an underground

utility survey will be conducted in the proposed drilling area under WSP supervision. This survey will be performed to confirm that there are no underground utilities or structures present at the proposed soil boring locations. In addition, Call Before You Dig will be contacted prior to the drilling activities to mark-out the proposed drilling area. No drilling will occur within 5 feet of any underground utility or structure. Soil samples will be collected continuously from all of the soil borings. The soil sample collection method will be dependent on the drilling method (i.e., 2-inch outer diameter, 2-foot long split-spoon for HSA drilling, continuous dedicated macro-core samples for direct-push drilling). All soil samples will be geologically logged in accordance with ASTM D 2488 and ASTM D 2487.

Soil from each interval will be placed into a dedicated, sealed plastic bag and the headspace within the bag will be screened for the presence of VOCs (volatile organic compounds) with a PID with a 10.6 eV bulb that will be calibrated to an isobutylene standard and soil samples from each interval will be placed into laboratory-supplied glassware, properly labeled, and stored in chilled coolers. At a minimum, one soil sample from each soil boring will be submitted to York Analytical Laboratories (York) for analysis. York is a certified NYSDOH Environmental Laboratory Approval Program (ELAP) laboratory. Samples that show evidence of grossly impacted soil or have elevated VOC headspace readings will be submitted for halogenated VOCs by EPA Method 8260 analysis. If there are no obvious field screening observations at a boring location, then the soil collected from the 2- to 3-foot interval will be submitted for laboratory analysis. Additional soil borings for further horizontal characterization and/or soil samples requiring laboratory analysis will be based on actual field conditions observed during the drilling activities.

If borings are drilled using the HSA method, the split-spoon samplers will be washed with Alconox and water and rinsed between each use. Any wastewater generated during the drilling activities will be containerized and stored on the site until characterized and properly disposed. All borings will be backfilled with excess soil cuttings.

Reporting

A report summarizing all field work completed and detailing the results of the investigation will be submitted to the NYSDEC for comment and approval. Consideration for additional investigation and/or soil remediation at OU-1 will be determined based on the supplemental investigation results.

If you have any questions, please feel free to contact Karen directly at (475) 882-1706.

Kind regards,

WSP USA

Karen B. Destefanis, PG(NY)
Lead Hydrogeologist

Reviewed by:

Michael Manolakas, PG(NY)
Vice President

Enclosures
cc: Stephen Lawrence (NYSDOH)
Khalfani Pickett (Sony)
Megan McCarthy (Sony)
Scott Furman (SPR)

TABLE

TABLE 1
FORMER MATERIALS RESEARCH CORPORATION
542 ROUTE 303
ORANGETOWN, NEW YORK

Summary of Trichloroethylene and cis 1,2 Dichloroethylene Soil Vapor Results

Sample Location	Trichloroethylene	cis 1,2 Dichloroethylene
SV-B3	73.2	611
SV-B4	<54.4	<416
SV-A5	<54.4	<416
SV-B5	<54.4	503
SV-B6	86.5	661
SV-A6	<54.2	<416
SV-A4	279	<416
SV-B2	156	611
SV-B1	172	712.0
SV-A1	<54.4	<416
SV-A2	<54.4	<416
SV-C1	<54.4	<416
SV-C2	54.5	446
SV-C3	<54.6	586
SV-C4	<54.6	<417
SV-C5	<54.7	<417
SV-C6	<54.7	787
SV-D6	73.6	447
SV-D5	258	<418
SV-E6	123	<418
SV-E5	64.6	<418
SV-E4	227	993
SV-E3	381	614
SV-E2	132	419
SV-F2	55.5	<420
SV-F3	84.1	<420
SV-F4	65.3	909
SV-F6	<55.6	<420
SV-F5	88.8	<421
SV-G5	<55.6	<421
SV-G4	<55.6	618
SV-G3	<55.6	<421
SV-G2	479	<421
SV-G1	**1,260**	**1,150**
SV-D4	396	782
SV-D3	103	<415
SV-D2	<54.1	<415
SV-D1	293	584
SV-E1	184	760
SV-F1	357	**2,020**
SV-H1	131	<416
SV-H2	87	612
SV-H3	68.7	<417
SV-H4	<54.7	763
SV-H5	<54.7	<417
SV-I6	<54.8	<418

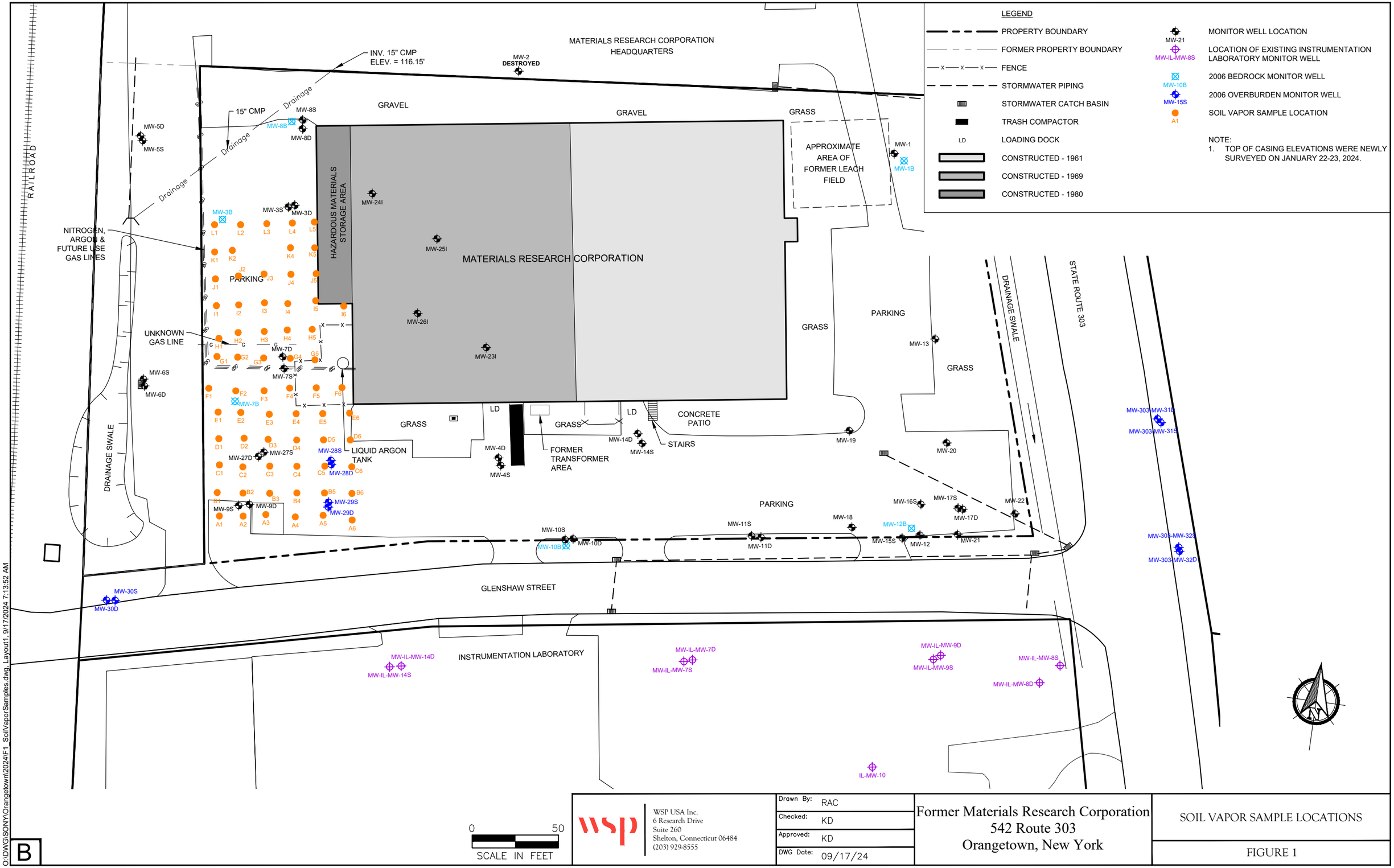
TABLE 1
FORMER MATERIALS RESEARCH CORPORATION
542 ROUTE 303
ORANGETOWN, NEW YORK

Summary of Trichloroethylene and cis 1,2 Dichloroethylene Soil Vapor Results

Sample Location	Trichloroethylene	cis 1,2 Dichloroethylene
SV-I5	64.4	<418
SV-I4	262	<418
SV-J4	266	<418
SV-J5	78.5	764
SV-K4	**2,100**	**13,300**
SV-L5	**1,670**	<418
SV-L4	69.3	740
SV-L3	<55.1	<419
SV-L2	87.9	<419
SV-L1	<55.1	<419
SV-A3	<54.2	<416
SV-I1	655	809
SV-J1	676	**2,600**
SV-I2	979	**1,980**
SV-I3	167	**1,440**
SV-J3	143	616
SV-K1	312	<420
SV-K2	285	536

1/ All concentrations reported in micrograms per cubic meter

FIGURES



WSP USA Inc.
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

Drawn By:	RAC
Checked:	KD
Approved:	KD
DWG Date:	09/17/24

Former Materials Research Corporation
542 Route 303
Orangetown, New York

SOIL VAPOR SAMPLE LOCATIONS

FIGURE 1

B

O:\DWG\SONY\Orangetown\2024\F1_SoilVaporSamples.dwg, Layout1, 9/17/2024 7:13:52 AM

643900
644000
810600
810500
N
MW-3S
MW-3D
MW-3B
SV-L1 <55.1
SV-L2 87.9
SV-L3 <55.1
SV-L4 69.3
SV-L5 1670
SV-K5
SV-K4 2100
SV-K2 285
SV-K1 312
SV-J5 78.5
SV-J4 266
SV-J3 142
SV-J2 74.5
SV-J1 676
MW-J1
MW-J3
SV-I6 <54.8
SV-I5 64.4
SV-I4 262
MW-J2
SV-I3 167
SV-I2 979
SV-I1 655
SV-H5 <54.7
MW-I4
SV-H4 <54.7
SV-H3 68.7
MW-I3
MW-I2
SV-H2 87
MW-I1
SV-H1 131
SV-G5 <55.6
MW-7D
SV-G4 <55.7
SV-G3 <55.8
MW-7S
SV-G2 479
MW-G2
SV-G1 1260
MW-G1
SV-F6 <55.6
SV-F5 88.8
SV-F4 65.3
SV-F3 84.1
MW-F3
SV-F2 <55.5
SV-F1 357
MW-F1
MW-F2
MW-7B
SV-E6 123
SV-E5 64.6
MW-E4
SV-E4 227
EW-2
SV-E3 381
SV-E2 132
SV-E1 184
EW-1
MW-E1
SV-D6 73.6
SV-D5 258
SV-D4 396
SV-D3 104
SV-D2 <54.1
IW-1
SV-D1 293
MW-D4
SV-C6 <54.7
MW-28S
MW-28D
SV-C5 <54.7
MW-27S
MW-27D
SV-C4 <54.6
SV-C3 <54.6
EW-4
SV-C2 54.5
SV-C1 <54.5
MW-D1
EW-3
SV-B6 86.5
MW-B4
SV-B5 <54.3
MW-C4
SV-B4 <54.4
MW-C2
SV-B3 73.2
MW-B3
SV-B2 156
SV-B1 172
MW-B1
MW-29S
MW-29D
SV-A6 <54.2
SV-A5 <54.3
SV-A4 279
MW-A4
MW-9S
MW-9D
SV-A3 <54.2
SV-A2 <54.4
SV-A1 <54.4
MW-A1
MW-A5

LEGEND

Field ID
Lost Sample Location

Field ID
Sample Location
Concentration

Monitoring Well

TCE Concentration (ug/m^3)
2100.0
54.80

5 0 5 10 15 m

10 0 10 20 30 40 ft

ESRI:103117	NAD_1983_2011_StatePlane_New_York_East_FIPS_3101_Ft_US	feet

The precision with regard to the exact location of the sample points is dependent on the information provided to AGI. In some instances the sample locations may have been digitized based on an image layer, and the precision may suffer as a result. Contact AGI for more information on the origin of the base layer.

AMPLIFIED GEOCHEMICAL IMAGING LLC
210 Executive Drive, Suite 1
Newark, DE 19702-3335
Phone: +1.302.266.2428
www.agisurveys.net

WSP, Inc.
Former MRC

Trichloroethene Distribution

DATE DRAWN: September 17, 2024	REV# / DATE: R1 / September 20, 2024	CLIENT PROJECT:Former MRC
DRAWN BY: RF	BASEMAP:Coordinates	AGI PROJECT: T02497

Figure 2

643900
644000
810600
810500
N
MW-3S
MW-3D
MW-3B
SV-L1 <419
SV-L2 <419
SV-L3 <419
SV-L4 740
SV-L5 <418
SV-K1 <420
SV-K2 536
SV-K4 13300
SV-K5
SV-J1 2600
SV-J2 <420
SV-J3 616
SV-J4 10800
SV-J5 764
MW-J1
MW-J3
SV-I1 809
SV-I2 1980
SV-I3 1440
SV-I4 <418
SV-I5 <418
SV-I6 <418
MW-J2
SV-H1 <416
SV-H2 612
SV-H3 <417
SV-H4 763
SV-H5 <417
MW-I1
MW-I2
MW-I3
MW-I4
SV-G1 1150
SV-G2 <421
SV-G3 <421
SV-G4 618
SV-G5 <421
MW-G1
MW-G2
MW-7D
MW-7S
SV-F1 2020
SV-F2 <420
SV-F3 <420
SV-F4 909
SV-F5 <421
SV-F6 <420
MW-F1
MW-F2
MW-F3
SV-E1 760
SV-E2 419
SV-E3 614
SV-E4 993
SV-E5 418
SV-E6 <418
MW-7B
EW-1
EW-2
MW-E4
SV-D1 584
SV-D2 <415
SV-D3 <415
SV-D4 782
SV-D5 <418
SV-D6 447
MW-E1
IW-1
MW-D4
SV-C1 <416
SV-C2 446
SV-C3 586
SV-C4 <417
SV-C5 <417
SV-C6 787
MW-D1
EW-3
EW-4
MW-27S
MW-27D
MW-28S
MW-28D
SV-B1 712
SV-B2 611
SV-B3 611
SV-B4 <416
SV-B5 503
SV-B6 661
MW-B1
MW-B3
MW-C2
MW-C4
MW-B4
SV-A1 <416
SV-A2 <416
SV-A3 <416
SV-A4 <416
SV-A5 <416
SV-A6 <415
MW-A1
MW-9S
MW-9D
MW-A4
MW-A5
MW-29S
MW-29D

LEGEND

Field ID
Lost Sample Location

Field ID
Sample Location
Concentration

Monitoring Well

c12DCE Concentration (ug/m^3)
13300
418.0

5 0 5 10 15 m

10 0 10 20 30 40 ft

ESRI:103117	NAD_1983_2011_StatePlane_New_York_East_FIPS_3101_Ft_US	feet

The precision with regard to the exact location of the sample points is dependent on the information provided to AGI. In some instances the sample locations may have been digitized based on an image layer, and the precision may suffer as a result. Contact AGI for more information on the origin of the base layer.

AMPLIFIED GEOCHEMICAL IMAGING LLC
210 Executive Drive, Suite 1
Newark, DE 19702-3335
Phone: +1.302.266.2428
www.agisurveys.net

WSP, Inc.
Former MRC

cis-1,2-Dichloroethene Distribution

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DRAWN BY: RF	BASEMAP:Coordinates	AGI PROJECT: T02497

Figure 3

5 0 5 10 15 m

10 0 10 20 30 40 ft

ESRI:103117	NAD_1983_2011_StatePlane_New_York_East_FIPS_3101_Ft_US	feet

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AMPLIFIED GEOCHEMICAL IMAGING LLC
210 Executive Drive, Suite 1
Newark, DE 19702-3335
Phone: +1.302.266.2428
www.agisurveys.net

WSP, Inc.
Former MRC

1,1,1-Trichloroethane Distribution

DATE DRAWN: September 17, 2024	REV# / DATE: R1 / September 20, 2024	CLIENT PROJECT:Former MRC
DRAWN BY: RF	BASEMAP:Coordinates	AGI PROJECT: T02497

Figure 4

643900
644000
810600
810500
N
MW-3S
MW-3D
MW-3B
SV-L1 <504
SV-L2 <504
SV-L3 <504
SV-L4 1350
SV-L5 <504
SV-K1 <506
SV-K2 663
SV-K4 <504
SV-K5
SV-J1 1210
SV-J2 <505
SV-J3 <505
SV-J4 <503
SV-J5 <503
MW-J1
MW-J3
SV-I1 2930
SV-I2 4260
SV-I3 <505
SV-I4 <503
SV-I5 <503
SV-I6 <503
MW-J2
SV-H1 <501
SV-H2 1370
SV-H3 <502
SV-H4 <502
SV-H5 503
MW-I1
MW-I2
MW-I3
MW-I4
SV-G1 1580
SV-G2 702
SV-G3 1970
SV-G4 884
SV-G5 <506
MW-G1
MW-G2
MW-7D
MW-7S
SV-F1 909
SV-F2 <506
SV-F3 2160
SV-F4 988
SV-F5 <506
SV-F6 <506
MW-F1
MW-F2
MW-F3
MW-7B
SV-E1 <501
SV-E2 584
SV-E3 879
SV-E4 <504
SV-E5 504
SV-E6 <504
EW-1
EW-2
MW-E4
SV-D1 838
SV-D2 <500
SV-D3 <500
SV-D4 <500
SV-D5 842
SV-D6 <503
MW-E1
IW-1
MW-D4
SV-C1 <502
SV-C2 <502
SV-C3 <502
SV-C4 <502
SV-C5 <502
SV-C6 <503
MW-D1
EW-3
EW-4
MW-27S
MW-27D
MW-28S
MW-28D
SV-B1 <501
SV-B2 <501
SV-B3 <501
SV-B4 <501
SV-B5 <501
SV-B6 <501
MW-B1
MW-B3
MW-C2
MW-C4
MW-B4
SV-A1 <501
SV-A2 <501
SV-A3 <501
SV-A4 <501
SV-A5 <501
SV-A6 <500
MW-A1
MW-9S
MW-9D
MW-A4
MW-A5
MW-29S
MW-29D

LEGEND

Field ID
Lost Sample Location

Field ID
Sample Location
Concentration

Monitoring Well

11DCA Concentration (ug/m^3)
4260.0
503.0

5 0 5 10 15 m

10 0 10 20 30 40 ft

ESRI:103117	NAD_1983_2011_StatePlane_New_York_East_FIPS_3101_Ft_US	feet

The precision with regard to the exact location of the sample points is dependent on the information provided to AGI. In some instances the sample locations may have been digitized based on an image layer, and the precision may suffer as a result. Contact AGI for more information on the origin of the base layer.

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WSP, Inc.
Former MRC

1,1-Dichloroethane Distribution

DATE DRAWN: September 17, 2024	REV# / DATE: R1 / September 20, 2024	CLIENT PROJECT:Former MRC
DRAWN BY: RF	BASEMAP:Coordinates	AGI PROJECT: T02497

Figure 5

MATERIALS RESEARCH CORPORATION
HEADQUARTERS

INV. 15" CMP
ELEV. = 116.15'

MW-2
DESTROYED

15" CMP

Drainage

GRAVEL

GRASS

MW-5D
MW-5S

MW-8S
MW-8B
MW-8D

RAILROAD

APPROXIMATE
AREA OF
FORMER LEACH
FIELD

MW-1
MW-1B

HAZARDOUS MATERIALS
STORAGE AREA

MW-24I

MW-3D
MW-3S
MW-3B

NITROGEN,
ARGON &
FUTURE USE
GAS LINES

MW-25I

MATERIALS RESEARCH CORPORATION

PARKING

MW-26I

MW-23I

UNKNOWN
GAS LINE

MW-7D
MW-7S

MW-6S
MW-6D

MW-7B

DRAINAGE SWALE

GRASS

LD

CONCRETE
PATIO

MW-4D
MW-4S

FORMER
TRANSFORMER
AREA

MW-14D
MW-14S

STAIRS

LIQUID ARGON
TANK

MW-27D
MW-27S
MW-28S
MW-28D

MW-19

MW-20

MW-29S
MW-29D
MW-9S
MW-9D

PARKING

MW-16S
MW-17S
MW-17D
MW-22

MW-18

MW-10S
MW-10B
MW-10D

MW-11S
MW-11D

MW-12B
MW-15S
MW-12
MW-21

MW-13

GRASS

DRAINAGE SWALE

ROUTE 303

MW-30S
MW-30D

GLENSHAW STREET

LEGEND

- PROPERTY BOUNDARY
- FORMER PROPERTY BOUNDARY
- FENCE
- STORMWATER PIPING
- STORMWATER CATCH BASIN
- TRASH COMPACTOR
- LD — LOADING DOCK
- CONSTRUCTED - 1961
- CONSTRUCTED - 1969
- CONSTRUCTED - 1980
- MW-21 — MONITOR WELL LOCATION
- MW-10B — 2006 BEDROCK MONITOR WELL
- MW-15S — 2006 OVERBURDEN MONITOR WELL
- A1 — SOIL VAPOR SAMPLE LOCATION
- TCE AND 1,2 DCE CONCENTRATIONS > 900 ug/m3
- 1,1,1 TCA AND 1,1 DCA >1,000 ug/m3
- PROPOSED SHALLOW SOIL BORING

NOTE:
1. TOP OF CASING ELEVATIONS WERE NEWLY SURVEYED ON JANUARY 22-23, 2024.

0 40
SCALE IN FEET

WSP USA Inc.
6 Research Drive
Suite 260
Shelton, Connecticut 06484
(203) 929-8555

Drawn By:	RAC
Checked:	KD
Approved:	KD
DWG Date:	11/08/24

Former Materials Research Corporation
542 Route 303
Orangetown, New York

PROPOSED SHALLOW SOIL
BORING LOCATIONS

FIGURE 6

B

O:\DWG\SONY\Orangetown\2024\F6_ShallowSoilBorings.dwg, Layout1, 11/8/2024 9:12:34 AM

ATTACHMENT I

AMPLIFIED GEOCHEMICAL IMAGING, LLC

Laboratory Report

Site: Former MRC

Prepared for:

WSP USA
6 Research Drive, Suite 260
Shelton, CT 06484
USA

Prepared on:
August 30, 2024

Revised (R1) on:
November 8, 2024

Project Summary and Objective

Amplified Geochemical Imaging, LLC (AGI) provided the AGI Environmental Survey used at:

Former MRC

The service provided by AGI included delivery of the required quantity of AGI Universal Samplers, analysis by the method described below for the requested organic compounds, reporting of the data, and contour mapping (as needed).

This report includes results for only the samples noted under the Laboratory Sample Report section. If contour maps are part of the project deliverable, the maps will be prepared and issued under a separate report cover, upon receipt of a usable sitemap (electronic) and compound choices for contouring.

Written/submitted by:

Ray Fenstermacher, P.G.
Project Manager

Reviewed/approved by:

Scott Kirlin
Inside Sales/Assistant Project Manager

Analytical data approved by:

Kellie-Ann Kelly
Chemist

Quality Assurance Statement

The AGI Laboratory, at Amplified Geochemical Imaging's facility in Newark, DE USA, operates under the guidelines of its ISO Standard 17025 DoD ELAP accreditation, and its Quality Assurance Manual, Operating Procedures, and Methods (SOP-QA-0462).

For this project, the analytical method, results, and observations reported do not fall within the scope of AGI's ISO 17025:2017 accreditation.

Screening/Concentration Method

The AGI Universal Samplers are analyzed at AGI's fixed laboratory using thermal desorption-gas chromatography/mass spectrometry (TD-GC/MS) instrumentation following modified U.S. EPA Method 8260 (SPG-WI-0292) which includes the following:

- **BFB Tuning Frequency:** A BFB tune is analyzed at the start of each analytical run and after every 30 samples.
- **Initial Calibration:** A minimum of a five point calibration curve is analyzed prior to the analysis of samples.
- **Initial Calibration Verification (ICV):** Following the calibration a second-source reference standard is analyzed to verify the accuracy of the calibration. Acceptance criteria for the ICV is +/- 30%.
- **Linearity of Target Compounds:** If the RSD of any target analyte is less than or equal to 25% then average response factor can be used for quantitation. If the RSD exceeds 25% for a target compound a regression equation can be used for quantitation.
- **Continuing Calibration Verification:** After every 10 samples, and at the end of each analytical batch, a mid-level second-source Reference Standard is analyzed. The acceptance criteria for all target analytes in the reference standards are +/- 50% of the true value.
- **Method Blank:** Analyzed prior to the analysis of field samples and every 30 samples.

Note: Analyte levels reported for the field-deployed AGI Universal Samplers that exceed trip and method blank levels, and/or the reporting limit, are more likely to have originated from on-site sources.

Media Sampled:	SOIL GAS
Chemist - sample analysis:	Earl Austin
Chemist - data processor:	Kellie-Ann Kelly
Chemist - data review:	Scott Kirlin

Method deviations: None

Please note that data file names ending with R are rerun samples using the second pair of sorbers, in which the original results were not reported. Data file names ending in D are duplicate analysis results for the second set of sorbers from the same sampler, and are reported.

Additional Report Information

- Comments
- Laboratory Sample Report
- Chain of Custody
- Installation and Retrieval Log
- Data Table(s) and Key
- Concentration Calculation Method Summary
- Total Ion Chromatograms

Project Specific Comments

One sample was lost in the field (210735). Sample 210751 was returned unused and was not analyzed. All other samplers were returned and analyzed including trip blanks 210752, 210753, and 210754.

This revision (R1) is being issued to synchronize the date of this laboratory report with the mapping report.

Survey period [1]	Samplers were installed between July 25 and July 30, 2024 and they were retrieved between July 31 and August 5, 2024 for an exposure period of six (6) days.	
Tamper seal intact:	No	
Date received:	8/6/2024 12:00 am	By: Chris Bellemare
COC returned:	No	
Comments:	None	

1 - Installation start to end of retrieval, as reported. See installation and retrieval log for individual deployment and retrieval dates and times (i.e., sampler exposure time).

General Comments

Analytical QA/QC

Laboratory instrumentation consists of gas chromatographs equipped with mass selective detectors, coupled with automated thermal desorption units. Sample preparation involves cutting the tip off the bottom of the AGI Universal Sampler, and transferring one or more "sorbers" to a thermal desorption tube for analysis. The insertion/retrieval cord prevents soil, water and other interferences from coming in contact with the adsorbent. No further sample preparation is required. Any replicate sorbers not consumed in the initial analysis will be discarded fifteen (15) days from the date of the laboratory report.

Data are archived and stored in a secure manner as per AGI's Quality Assurance program (SOP-QA-0462).

Total petroleum hydrocarbons (TPH), gasoline-range petroleum hydrocarbons (GRPH), and/or diesel range petroleum hydrocarbons (DRPH), when reported, are calculated using the area under the peaks observed in m/z 55 and 57 selected ion chromatograms. Quantitation of the mass values was performed using the response factor for a specific alkane (present in the calibration standards). TPH values include the entire chromatogram and provide estimates for aliphatic hydrocarbon ranges of C4 to C20. GRPH and DRPH include only the relevant regions of the chromatograms and provide estimates for C4 to C10 and C10 to C20 aliphatic hydrocarbons, respectively.

Trip blanks were provided to document potential exposures that were not part of the signal of interest (e.g., impact during sampler shipment, installation and/or retrieval, and storage). The trip blanks are identically manufactured and packaged AGI Universal Samplers to those samplers deployed in the field . The trip blanks remain unopened during all phases of the project. Levels reported on the trip blanks may indicate potential impact to the samplers other than the contaminant source of interest.

Unresolved peak envelopes (UPEs) are represented as a series of compound peaks clustered together around a central gas chromatograph elution time in the total ion chromatogram. UPEs may be indicative of complex fluid mixtures. UPEs observed early in the chromatograms are considered to indicate presence of more volatile fluids, while UPEs observed later in the chromatogram may indicate the presence of less volatile fluids. Multiple UPEs may indicate the presence of multiple complex fluids.

Total ion chromatograms (TICs) are included in the Attachments. The six-digit serial number of each sampler is incorporated in the TIC identification (e.g., 123456.D represents AGI Universal Sample 123456).

General Comments

Soil Gas Sampling

For soil gas sampling, the AGI Environmental Survey reports mass levels migrating through the open pore spaces of the soil and diffusing through the sampler membrane for sorption by the engineered, hydrophobic adsorbents, housed within the membrane tube. During the migration of the soil gas away from the source to the AGI Universal Sampler, the vapors are subject to a variety of attenuation factors. The soil gas masses reported on the samplers compare favorably with the concentrations reported in the soil or groundwater (e.g., where soil gas levels are reported at greater levels to other sampled locations on the site, the matrix data should reveal the same pattern, and vice versa). However, due to a variety of factors, a perfect comparison between matrix data and soil gas levels can rarely be achieved.

Soil gas concentrations (µg/m3) are calculated following the method described in the Additional Report Information section.

Soil gas signals reported by this method cannot be correlated specifically to soil adsorbed, groundwater, and /or free-phase contamination. The soil gas signal reported from each AGI Universal Sampler can evolve from all of these sources. Differentiation between soil and groundwater contamination can only be achieved with prior knowledge of the site history (i.e., the site is known to have groundwater contamination only).

Air Sampling

For indoor, outdoor, and crawlspace air sampling, the AGI Environmental Survey reports mass levels present in the air and diffusing through the sampler membrane for sorption by the engineered adsorbents housed within the membrane tube.

Air concentrations (µg/m3) are calculated following the method described in the Additional Report Information section.

Groundwater and Sediment Porewater Sampling

For groundwater and sediment porewater sampling, the AGI Environmental Survey reports the mass levels of compounds present in the water which, when coming in contact with the sampler membrane, partitions out of solution, and diffuses through the sampler membrane for sorption by the engineered adsorbents.

Water concentrations (µg/L) are calculated using the quantified mass, exposure period and the compound specific uptake rate. The rates were measured under controlled experimental conditions. The uptake rates are corrected for water pressure (depth of the AGI Universal Sampler below the water table), water temperature and the aquifer flow rate. For sediment porewater, the uptake rate is corrected for the reduced volume of water in the sediment, by multiplying the uptake rate by the pore water fraction.

Laboratory Sample Report

AGI Sample ID	Field ID	Sample Type
210679	SV-B3	FIELD_SAMPLE
210680	SV-B4	FIELD_SAMPLE
210681	SV-A5	FIELD_SAMPLE
210682	SV-B5	FIELD_SAMPLE
210683	SV-B6	FIELD_SAMPLE
210684	SV-A6	FIELD_SAMPLE
210685	SV-A4	FIELD_SAMPLE
210686	SV-B2	FIELD_SAMPLE
210687	SV-B1	FIELD_SAMPLE
210688	SV-A2	FIELD_SAMPLE
210689	SV-A1	FIELD_SAMPLE
210690	SV-C1	FIELD_SAMPLE
210691	SV-C2	FIELD_SAMPLE
210692	SV-C3	FIELD_SAMPLE
210693	SV-C4	FIELD_SAMPLE
210694	SV-C5	FIELD_SAMPLE
210695	SV-C6	FIELD_SAMPLE
210696	SV-D6	FIELD_SAMPLE
210697	SV-D5	FIELD_SAMPLE
210704	SV-E6	FIELD_SAMPLE
210705	SV-E5	FIELD_SAMPLE
210706	SV-E4	FIELD_SAMPLE
210707	SV-E3	FIELD_SAMPLE
210708	SV-E2	FIELD_SAMPLE
210709	SV-F2	FIELD_SAMPLE
210710	SV-F3	FIELD_SAMPLE
210711	SV-F4	FIELD_SAMPLE
210712	SV-F6	FIELD_SAMPLE
210713	SV-F5	FIELD_SAMPLE
210714	SV-G5	FIELD_SAMPLE
210715	SV-G4	FIELD_SAMPLE
210716	SV-G3	FIELD_SAMPLE
210717	SV-G2	FIELD_SAMPLE
210718	SV-G1	FIELD_SAMPLE
210719	SV-D4	FIELD_SAMPLE
210720	SV-D3	FIELD_SAMPLE
210721	SV-D2	FIELD_SAMPLE
210722	SV-D1	FIELD_SAMPLE
210723	SV-E1	FIELD_SAMPLE
210724	SV-F1	FIELD_SAMPLE
210725	SV-H1	FIELD_SAMPLE

Laboratory Sample Report

AGI Sample ID	Field ID	Sample Type
210726	SV-H2	FIELD_SAMPLE
210727	SV-H3	FIELD_SAMPLE
210728	SV-H4	FIELD_SAMPLE
210729	SV-H5	FIELD_SAMPLE
210730	SV-I6	FIELD_SAMPLE
210731	SV-I5	FIELD_SAMPLE
210732	SV-I4	FIELD_SAMPLE
210733	SV-J4	FIELD_SAMPLE
210734	SV-J5	FIELD_SAMPLE
210735	SV-K5	LOST
210736	SV-K4	FIELD_SAMPLE
210737	SV-L5	FIELD_SAMPLE
210738	SV-L4	FIELD_SAMPLE
210739	SV-L3	FIELD_SAMPLE
210740	SV-L2	FIELD_SAMPLE
210741	SV-L1	FIELD_SAMPLE
210742	SV-A3	FIELD_SAMPLE
210743	SV-I1	FIELD_SAMPLE
210744	SV-J1	FIELD_SAMPLE
210745	SV-I2	FIELD_SAMPLE
210746	SV-I3	FIELD_SAMPLE
210747	SV-I2	FIELD_SAMPLE
210748	SV-J3	FIELD_SAMPLE
210749	SV-K1	FIELD_SAMPLE
210750	SV-K2	FIELD_SAMPLE
210751	UNUSED	UNUSED
210752		TRIP_BLANK
210753		TRIP_BLANK
210754		TRIP_BLANK

Total # Field Samples: 65
Total # Trip Blanks: 3
Total # Unused: 1
Total # Lost: 1

AMPLIFIED GEOCHEMICAL IMAGING LLC

210 Executive Drive
Newark, Delaware 19702 USA
ph: +1-302-266-2428
www.agisurveys.net

AGI Universal Passive Sampler Chain of Custody
Soil gas and/or Air Sampling

Production Order #: ENV T02497

Customer Name: WSP USA

Address: 6 Research Drive
Suite 260
Shelton, CT 06484
USA

Site Name: Former MRC

Site Address:

Project Manager:

COPY

Serial # of Samplers Shipped
210679 - 210697
210704 - 210754

# of Samplers for Installation 67
Total Samplers Shipped 70
Total Samplers Received _____ Pieces
Total Samplers Installed _____ Pieces

# of Trip Blanks 3 Pieces

Serial # of Trip Blanks (Client Decides)

Insertion Rods

Tips Shipped: 1

Rod Bodies Shipped 3

Prepared By: Chris Bell

Verified By: Darlene Gellaway

Installation Method: (Circle those that apply)
Slide Hammer Hammer Drill Auger
Other

Installation Performed By:
Name: _____
Company: _____

Retrieval Performed By:
Name: _____
Company: _____

Installation Start Date / Time: _____
Installation Complete Date / Time: _____

Retrieval Start Date / Time: _____
Retrieval Complete Date / Time: _____

Total Samplers Retrieved: _____
Total Samplers Lost In Field: _____
Total Unused Samplers Returned: _____
Insertion Rod Sections Returned: _____

Relinquished By: Chris Bell **Date/Time** 07/17/24 12:00 pm
Company: AGI

Received By: Chris Bell **Date/Time** 08/06/24 12:00 PM
Company: AGI

Relinquished By: _____ **Date/Time**
Company: _____

Received By: _____ **Date/Time**
Company: _____

FCO-ENV-3296 R6 Soil Gas and Air Monitoring Chain of Custody

AMPLIFIED GEOCHEMICAL IMAGING, LLC

210 Executive Drive, Suite 1
Newark, DE USA 19702-3335
ph: 302-266-2428

AGI Project No. ENV T02497
Site Name: Former MRC
Site Location: 542 NY-303, Orangeburg NY 10962

AGI Soil Gas Sampling
Installation & Retrieval Log

Company Name: WSP USA
Location: 6 Research Drive Suite 260, Shelton CT 06484
Samples collected by: Patrick Staub

*** Optional or as needed**

SAMPLER SERIAL NO.	FIELD ID* (e.g., arbitrary, US EPA)	TYPE of SAMPLE (Field, Trip Blank)	INSTALLATION DATE & TIME MM/DD/YYYY HH:MM (24 Hour) ex. 12/27/2000 13:00	RETRIEVAL DATE & TIME MM/DD/YYYY HH:MM (24 Hour) ex. 12/30/2000 13:00	OBSERVATIONS/COMMENTS* (e.g., sample depth, location description, missing, pulled from hole, etc. - as needed)	SAMPLE ENVIRONMENT* (e.g., grass, bare soil, through slab)	YES / NO		
							EVIDENCE OF LIQUID PETROLEUM HYDROCARBONS?	ODOR ?	WATER IN INSTALLATION HOLE?
210679	SV-B3	FIELD_SAMPLE	7/25/24 9:26	7/31/24 10:54		ASPHALT	No	No	No
210680	SV-B4	FIELD_SAMPLE	7/25/24 9:13	7/31/24 10:52		ASPHALT	No	No	No
210681	SV-A5	FIELD_SAMPLE	7/25/24 8:51	7/31/24 10:51		ASPHALT	No	No	No
210682	SV-B5	FIELD_SAMPLE	7/25/24 8:43	7/31/24 10:50		ASPHALT	No	No	No
210683	SV-B6	FIELD_SAMPLE	7/25/24 8:31	7/31/24 10:46		ASPHALT	No	No	No
210684	SV-A6	FIELD_SAMPLE	7/25/24 8:21	7/31/24 10:45		ASPHALT	No	No	No
210685	SV-A4	FIELD_SAMPLE	7/25/24 9:34	7/31/24 10:55		ASPHALT	No	No	No
210686	SV-B2	FIELD_SAMPLE	7/25/24 9:44	7/31/24 11:17		ASPHALT	No	No	No
210687	SV-B1	FIELD_SAMPLE	7/25/24 9:56	7/31/24 11:18		ASPHALT	No	No	No
210688	SV-A2	FIELD_SAMPLE	7/25/24 10:02	7/31/24 11:19		GRASS	No	No	No
210689	SV-A1	FIELD_SAMPLE	7/25/24 10:05	7/31/24 11:19		GRASS	No	No	No
210690	SV-C1	FIELD_SAMPLE	7/25/24 10:17	7/31/24 11:21	2.5ft deep - refused on rock	ASPHALT	No	No	No
210691	SV-C2	FIELD_SAMPLE	7/25/24 10:26	7/31/24 11:22		ASPHALT	No	No	No
210692	SV-C3	FIELD_SAMPLE	7/25/24 10:38	7/31/24 11:23		ASPHALT	No	No	No
210693	SV-C4	FIELD_SAMPLE	7/25/24 10:58	7/31/24 11:24		ASPHALT	No	No	No
210694	SV-C5	FIELD_SAMPLE	7/25/24 11:13	7/31/24 11:25		ASPHALT	No	No	No
210695	SV-C6	FIELD_SAMPLE	7/25/24 11:24	7/31/24 11:26		ASPHALT	No	No	No
210696	SV-D6	FIELD_SAMPLE	7/25/24 11:36	7/31/24 11:28		ASPHALT	No	No	No
210697	SV-D5	FIELD_SAMPLE	7/25/24 11:45	7/31/24 11:30		ASPHALT	No	No	No
210704	SV-E6	FIELD_SAMPLE	7/25/24 12:45	7/31/24 11:35		ASPHALT	No	No	No
210705	SV-E5	FIELD_SAMPLE	7/25/24 12:49	7/31/24 11:36		ASPHALT	No	No	No
210706	SV-E4	FIELD_SAMPLE	7/25/24 12:57	7/31/24 11:38		ASPHALT	No	No	No
210707	SV-E3	FIELD_SAMPLE	7/25/24 13:02	7/31/24 11:39		ASPHALT	No	No	No
210708	SV-E2	FIELD_SAMPLE	7/25/24 13:43	7/31/24 11:40		ASPHALT	No	No	No
210709	SV-F2	FIELD_SAMPLE	7/25/24 15:10	7/31/24 11:42		ASPHALT	No	No	No
210710	SV-F3	FIELD_SAMPLE	7/25/24 15:32	7/31/24 11:43		ASPHALT	No	No	No
210711	SV-F4	FIELD_SAMPLE	7/25/24 15:36	7/31/24 11:44		ASPHALT	No	No	No
210712	SV-F6	FIELD_SAMPLE	7/25/24 15:41	7/31/24 11:46		ASPHALT	No	No	No
210713	SV-F5	FIELD_SAMPLE	7/25/24 15:47	7/31/24 11:45		ASPHALT	No	No	No
210714	SV-G5	FIELD_SAMPLE	7/25/24 15:51	7/31/24 11:47		CONCRETE	No	No	No
210715	SV-G4	FIELD_SAMPLE	7/25/24 15:56	7/31/24 11:48		ASPHALT	No	No	No
210716	SV-G3	FIELD_SAMPLE	7/25/24 16:01	7/31/24 11:19		ASPHALT	No	No	No
210717	SV-G2	FIELD_SAMPLE	7/25/24 16:07	7/31/24 11:50		ASPHALT	No	No	No
210718	SV-G1	FIELD_SAMPLE	7/25/24 16:32	7/31/24 11:51	2.5ft deep - refused	ASPHALT	No	No	No
210719	SV-D4	FIELD_SAMPLE	7/26/24 8:07	8/1/24 11:17		ASPHALT	No	No	No
210720	SV-D3	FIELD_SAMPLE	7/26/24 8:16	8/1/24 11:19		ASPHALT	No	No	No
210721	SV-D2	FIELD_SAMPLE	7/26/24 8:35	8/1/24 11:21		ASPHALT	No	No	No
210722	SV-D1	FIELD_SAMPLE	7/26/24 9:04	8/1/24 11:23	2ft deep - refused	ASPHALT	No	No	No
210723	SV-E1	FIELD_SAMPLE	7/26/24 9:11	8/1/24 11:24		ASPHALT	No	No	Yes
210724	SV-F1	FIELD_SAMPLE	7/26/24 9:23	8/1/24 11:27		ASPHALT	No	No	No
210725	SV-H1	FIELD_SAMPLE	7/26/24 10:18	8/1/24 11:29		ASPHALT	No	No	No
210726	SV-H2	FIELD_SAMPLE	7/26/24 10:29	8/1/24 11:30		ASPHALT	No	No	No
210727	SV-H3	FIELD_SAMPLE	7/26/24 10:37	8/1/24 11:31		ASPHALT	No	No	No

AMPLIFIED GEOCHEMICAL IMAGING, LLC

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Newark, DE USA 19702-3335
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AGI Project No. ENV T02497
Site Name: Former MRC
Site Location: 542 NY-303, Orangeburg NY 10962

AGI Soil Gas Sampling
Installation & Retrieval Log

Company Name: WSP USA
Location: 6 Research Drive Suite 260, Shelton CT 06484
Samples collected by: Patrick Staub

*** Optional or as needed**

SAMPLER SERIAL NO.	FIELD ID* (e.g., arbitrary, US EPA)	TYPE of SAMPLE (Field, Trip Blank)	INSTALLATION DATE & TIME MM/DD/YYYY HH:MM (24 Hour) ex. 12/27/2000 13:00	RETRIEVAL DATE & TIME MM/DD/YYYY HH:MM (24 Hour) ex. 12/30/2000 13:00	OBSERVATIONS/COMMENTS* (e.g., sample depth, location description, missing, pulled from hole, etc. - as needed)	SAMPLE ENVIRONMENT* (e.g., grass, bare soil, through slab)	YES / NO		
							EVIDENCE OF LIQUID PETROLEUM HYDROCARBONS?	ODOR ?	WATER IN INSTALLATION HOLE?
210728	SV-H4	FIELD_SAMPLE	7/26/24 11:26	8/1/24 11:32		ASPHALT	No	No	No
210729	SV-H5	FIELD_SAMPLE	7/26/24 11:38	8/1/24 11:34		CONCRETE	No	No	Yes
210730	SV-I6	FIELD_SAMPLE	7/26/24 11:55	8/1/24 11:35		CONCRETE	No	No	Yes
210731	SV-I5	FIELD_SAMPLE	7/26/24 12:05	8/1/24 11:38		CONCRETE	No	No	No
210732	SV-I4	FIELD_SAMPLE	7/26/24 12:19	8/1/24 11:40		ASPHALT	No	No	No
210733	SV-J4	FIELD_SAMPLE	7/26/24 12:38	8/1/24 11:51	2.5ft deep - refused	ASPHALT	No	No	No
210734	SV-J5	FIELD_SAMPLE	7/26/24 12:47	8/1/24 11:55		CONCRETE	No	No	Yes
210735	SV-K5	FIELD_SAMPLE	7/26/24 12:58	NOT RECOVERED		CONCRETE	No	No	No
210736	SV-K4	FIELD_SAMPLE	7/26/24 13:07	8/1/24 11:57		ASPHALT	No	No	No
210737	SV-L5	FIELD_SAMPLE	7/26/24 13:14	8/1/24 11:58		CONCRETE	No	No	No
210738	SV-L4	FIELD_SAMPLE	7/26/24 13:21	8/1/24 12:00		ASPHALT	No	No	No
210739	SV-L3	FIELD_SAMPLE	7/26/24 13:34	8/1/24 12:01	2.5ft deep - refused	ASPHALT	No	No	No
210740	SV-L2	FIELD_SAMPLE	7/26/24 13:41	8/1/24 12:02		ASPHALT	No	No	No
210741	SV-L1	FIELD_SAMPLE	7/26/24 13:52	8/1/24 12:04		ASPHALT	No	No	No
210742	SV-A3	FIELD_SAMPLE	7/30/24 8:40	8/5/24 10:50		PATIO PAVERS	No	No	No
210743	SV-I1	FIELD_SAMPLE	7/30/24 9:45	8/5/24 10:37	Wet on retrieval	ASPHALT	No	No	No
210744	SV-J1	FIELD_SAMPLE	7/30/24 10:12	8/5/24 10:39	Wet on retrieval	ASPHALT	No	No	No
210745	SV-I2	FIELD_SAMPLE	7/30/24 10:48	8/5/24 10:40	Wet on retrieval	ASPHALT	No	No	No
210746	SV-I3	FIELD_SAMPLE	7/30/24 13:05	8/5/24 10:41	Shallow water in hole - ~3" below asphalt base. Wet on retrieval	ASPHALT	No	No	Yes
210747	SV-I2	FIELD_SAMPLE	7/30/24 13:37	8/5/24 10:42	Wet on retrieval	ASPHALT	No	No	No
210748	SV-J3	FIELD_SAMPLE	7/30/24 13:50	8/5/24 10:44	Wet on retrieval	ASPHALT	No	No	No
210749	SV-K1	FIELD_SAMPLE	7/30/24 14:02	8/5/24 10:45		ASPHALT	No	No	No
210750	SV-K2	FIELD_SAMPLE	7/30/24 14:10	8/5/24 10:47	Wet on retrieval	ASPHALT	No	No	No
210751	UNUSED	FIELD_SAMPLE							
210752		TRIP_BLANK							
210753		TRIP_BLANK							
210754		TRIP_BLANK							

AGI Soil Gas Sampling
Installation & Retrieval Log

* Optional or as needed

	AT MINIMUM PROVIDE SOIL TYPE						
SAMPLER SERIAL NO.	SOIL TYPE AT MODULE DEPTH (clay, loamy sand etc.)	TOTAL SOIL POROSITY AT MODULE DEPTH* (total volume of pores/total volume)	WATER FILLED SOIL POROSITY AT MODULE DEPTH* (volume of water/volume of pores)	PROJECTED COORDINATES X (EASTING)	PROJECTED COORDINATES Y (NORTHING)	COORDINATE SYSTEM* (e.g., UTM Zone, Stateplane, etc.)	COORDINATE DATUM* (e.g., WGS 84)
210679	SILTY_CLAY	0.300	0.300	643941.43	810473.39	State Plane NY East	NAD83
210680	SILTY_CLAY	0.300	0.300	643956.27	810475.54	State Plane NY East	NAD83
210681	SILTY_CLAY	0.300	0.300	643973.27	810462.85	State Plane NY East	NAD83
210682	SILTY_CLAY	0.300	0.300	643971.11	810477.70	State Plane NY East	NAD83
210683	SILTY_CLAY	0.300	0.300	643985.96	810479.85	State Plane NY East	NAD83
210684	SILTY_CLAY	0.300	0.300	643988.11	810465.01	State Plane NY East	NAD83
210685	SILTY_CLAY	0.300	0.300	643958.42	810460.70	State Plane NY East	NAD83
210686	SILTY_CLAY	0.300	0.300	643926.58	810471.24	State Plane NY East	NAD83
210687	SILTY_CLAY	0.300	0.300	643911.74	810469.08	State Plane NY East	NAD83
210688	SILTY_CLAY	0.300	0.300	643928.73	810456.39	State Plane NY East	NAD83
210689	SILTY_CLAY	0.300	0.300	643913.89	810454.24	State Plane NY East	NAD83
210690	SILTY_CLAY	0.300	0.300	643909.58	810483.93	State Plane NY East	NAD83
210691	SILTY_CLAY	0.300	0.300	643924.43	810486.08	State Plane NY East	NAD83
210692	SILTY_CLAY	0.300	0.300	643939.27	810488.23	State Plane NY East	NAD83
210693	SILTY_CLAY	0.300	0.300	643954.12	810490.39	State Plane NY East	NAD83
210694	SILTY_CLAY	0.300	0.300	643968.96	810492.54	State Plane NY East	NAD83
210695	SILTY_CLAY	0.300	0.300	643983.81	810494.69	State Plane NY East	NAD83
210696	SILTY_CLAY	0.300	0.300	643981.65	810509.54	State Plane NY East	NAD83
210697	SILTY_CLAY	0.300	0.300	643966.81	810507.39	State Plane NY East	NAD83
210704	SILTY_CLAY	0.300	0.300	643979.50	810524.38	State Plane NY East	NAD83
210705	SILTY_CLAY	0.300	0.300	643964.65	810522.23	State Plane NY East	NAD83
210706	SILTY_CLAY	0.300	0.300	643949.81	810520.08	State Plane NY East	NAD83
210707	SILTY_CLAY	0.300	0.300	643934.96	810517.92	State Plane NY East	NAD83
210708	SILTY_CLAY	0.300	0.300	643920.12	810515.77	State Plane NY East	NAD83
210709	SILTY_CLAY	0.300	0.300	643917.97	810530.61	State Plane NY East	NAD83
210710	SILTY_CLAY	0.300	0.300	643932.81	810532.77	State Plane NY East	NAD83
210711	SILTY_CLAY	0.300	0.300	643947.66	810534.92	State Plane NY East	NAD83
210712	SILTY_CLAY	0.300	0.300	643977.35	810539.23	State Plane NY East	NAD83
210713	SILTY_CLAY	0.300	0.300	643962.50	810537.07	State Plane NY East	NAD83
210714	SILTY_CLAY	0.300	0.300	643960.35	810551.92	State Plane NY East	NAD83
210715	SILTY_CLAY	0.300	0.300	643945.50	810549.77	State Plane NY East	NAD83
210716	SILTY_CLAY	0.300	0.300	643930.66	810547.61	State Plane NY East	NAD83
210717	SILTY_CLAY	0.300	0.300	643915.81	810545.46	State Plane NY East	NAD83
210718	SILTY_CLAY	0.300	0.300	643900.97	810543.31	State Plane NY East	NAD83
210719	SILTY_CLAY	0.300	0.300	643951.96	810505.23	State Plane NY East	NAD83
210720	SILTY_CLAY	0.300	0.300	643937.12	810503.08	State Plane NY East	NAD83
210721	SILTY_CLAY	0.300	0.300	643922.27	810500.92	State Plane NY East	NAD83
210722	SILTY_CLAY	0.300	0.300	643907.43	810498.77	State Plane NY East	NAD83
210723	SILTY_CLAY	0.300	0.300	643905.28	810513.62	State Plane NY East	NAD83
210724	SILTY_CLAY	0.300	0.300	643903.12	810528.46	State Plane NY East	NAD83
210725	SILTY_CLAY	0.300	0.300	643898.82	810558.15	State Plane NY East	NAD83
210726	SILTY_CLAY	0.300	0.300	643913.66	810560.30	State Plane NY East	NAD83
210727	SILTY_CLAY	0.300	0.300	643928.50	810562.46	State Plane NY East	NAD83

AGI Soil Gas Sampling
Installation & Retrieval Log

* Optional or as needed

	AT MINIMUM PROVIDE SOIL TYPE						
SAMPLER SERIAL NO.	SOIL TYPE AT MODULE DEPTH (clay, loamy sand etc.)	TOTAL SOIL POROSITY AT MODULE DEPTH* (total volume of pores/total volume)	WATER FILLED SOIL POROSITY AT MODULE DEPTH* (volume of water/volume of pores)	PROJECTED COORDINATES X (EASTING)	PROJECTED COORDINATES Y (NORTHING)	COORDINATE SYSTEM* (e.g., UTM Zone, Stateplane, etc.)	COORDINATE DATUM* (e.g., WGS 84)
210728	SILTY_CLAY	0.300	0.300	643943.35	810564.61	State Plane NY East	NAD83
210729	SILTY_CLAY	0.300	0.300	643958.19	810566.76	State Plane NY East	NAD83
210730	SILTY_CLAY	0.300	0.300	643970.88	810583.76	State Plane NY East	NAD83
210731	SILTY_CLAY	0.300	0.300	643956.04	810581.61	State Plane NY East	NAD83
210732	SILTY_CLAY	0.300	0.300	643941.20	810579.45	State Plane NY East	NAD83
210733	SILTY_CLAY	0.300	0.300	643939.04	810594.30	State Plane NY East	NAD83
210734	SILTY_CLAY	0.300	0.300	643953.89	810596.45	State Plane NY East	NAD83
210735	SILTY_CLAY	0.300	0.300	643951.73	810611.30	State Plane NY East	NAD83
210736	SILTY_CLAY	0.300	0.300	643936.89	810609.14	State Plane NY East	NAD83
210737	SILTY_CLAY	0.300	0.300	643949.58	810626.14	State Plane NY East	NAD83
210738	SILTY_CLAY	0.300	0.300	643934.73	810623.99	State Plane NY East	NAD83
210739	SILTY_CLAY	0.300	0.300	643919.89	810621.84	State Plane NY East	NAD83
210740	SILTY_CLAY	0.300	0.300	643905.05	810619.68	State Plane NY East	NAD83
210741	SILTY_CLAY	0.300	0.300	643890.20	810617.53	State Plane NY East	NAD83
210742	SILTY_CLAY	0.300	0.300	643943.58	810458.54	State Plane NY East	NAD83
210743	SILTY_CLAY	0.300	0.300	643896.66	810572.99	State Plane NY East	NAD83
210744	SILTY_CLAY	0.300	0.300	643894.51	810587.84	State Plane NY East	NAD83
210745	SILTY_CLAY	0.300	0.300	643911.51	810575.15	State Plane NY East	NAD83
210746	SILTY_CLAY	0.300	0.300	643926.35	810577.30	State Plane NY East	NAD83
210747	SILTY_CLAY	0.300	0.300	643911.51	810575.15	State Plane NY East	NAD83
210748	SILTY_CLAY	0.300	0.300	643924.20	810592.15	State Plane NY East	NAD83
210749	SILTY_CLAY	0.300	0.300	643892.35	810602.68	State Plane NY East	NAD83
210750	SILTY_CLAY	0.300	0.300	643907.20	810604.84	State Plane NY East	NAD83
210751							
210752							
210753							
210754							

SPG-FCD-8929 Soil Gas R6

AMPLIFIED GEOCHEMICAL IMAGING, LLC
210 EXECUTIVE DRIVE, SUITE 1, NEWARK, DE 19702
WSP USA
STANDARD TARGET VOCs/SVOCs
FORMER MRC
ORDER # T02497

DATAFILE	FIELD	DATE/ TIME																	
NAME	ID	ANALYZED	DF	TPH, ug	MTBE, ug	t12DCE, ug	11DCA, ug	c12DCE, ug	CHCl3, ug	111TCA, ug	12DCA, ug	BENZ, ug	CCl4, ug	TCE, ug	112TCA, ug	TOL, ug	OCT, ug	PCE, ug	ClBENZ, ug
RL =				5.00	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
MDL =				0.50	0.02	0.01	0.07	0.02	0.02	0.01	0.01	0.02	0.02	0.01	0.02	0.02	0.02	0.01	0.02
210679	SV-B3	8/25/24 1:14 PM	1	17.1	<0.20	<0.10	<0.10	0.17	<0.10	<0.10	<0.10	<0.10	<0.10	0.14	<0.10	0.37	<0.10	<0.10	<0.10
210680	SV-B4	8/25/24 4:20 PM	1		<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	3.79	0.12	<0.10	<0.10
210680-DIL	SV-B4	8/30/24 1:42 AM	13	93.9															
210681	SV-A5	8/23/24 8:39 PM	1	6.66	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210682	SV-B5	8/25/24 1:40 PM	1	12.7	<0.20	<0.10	<0.10	0.13	<0.10	<0.10	<0.10	0.20	<0.10	<0.10	<0.10	0.41	0.16	<0.10	<0.10
210683	SV-B6	8/25/24 2:07 PM	1		<0.20	<0.10	<0.10	0.19	<0.10	<0.10	<0.10	<0.10	<0.10	0.17	<0.10	0.18	0.10	<0.10	<0.10
210683-DIL	SV-B6	8/30/24 5:16 AM	12	17.8															
210684	SV-A6	8/23/24 7:46 PM	1		<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210684-DIL	SV-A6	8/29/24 7:00 PM	13	14.2															
210685	SV-A4	8/25/24 8:42 AM	1	15.0	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.64	<0.10	0.10	<0.10	<0.10	<0.10
210686	SV-B2	8/24/24 2:24 AM	1	18.2	<0.20	<0.10	<0.10	0.17	<0.10	<0.10	<0.10	0.12	<0.10	0.33	<0.10	0.10	<0.10	<0.10	<0.10
210687	SV-B1	8/24/24 12:38 AM	1	15.9	<0.20	<0.10	<0.10	0.21	<0.10	<0.10	<0.10	0.13	<0.10	0.37	<0.10	0.20	<0.10	<0.10	<0.10
210688	SV-A2	8/24/24 2:50 AM	1	12.0	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210689	SV-A1	8/24/24 4:10 AM	1	15.4	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210689-DUP	SV-A1-DUP	8/25/24 4:16 AM	1	20.2 E	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210690	SV-C1	8/23/24 9:06 PM	1		<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210690-DIL	SV-C1	8/29/24 7:27 PM	12	40.9															
210691	SV-C2	8/24/24 6:59 PM	1	15.0	<0.20	<0.10	<0.10	0.11	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.16	<0.10	<0.10	<0.10
210692	SV-C3	8/23/24 5:33 PM	1		<0.20	<0.10	<0.10	0.16	<0.10	<0.10	<0.10	0.14	<0.10	<0.10	<0.10	0.16	<0.10	<0.10	<0.10
210692-DIL	SV-C3	8/29/24 6:33 PM	12	21.7															
210693	SV-C4	8/25/24 1:11 AM	1		<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210693-DIL	SV-C4	8/30/24 1:15 AM	14	19.1															
210694	SV-C5	8/23/24 10:52 PM	1	16.8	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.13	<0.10	<0.10	<0.10	0.27	<0.10	<0.10	<0.10
210695	SV-C6	8/24/24 3:17 AM	1	13.7	<0.20	<0.10	<0.10	0.24	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.51	<0.10	<0.10	<0.10
210696	SV-D6	8/24/24 12:11 AM	1	12.1	<0.20	<0.10	<0.10	0.11	<0.10	<0.10	<0.10	<0.10	<0.10	0.14	<0.10	0.15	<0.10	<0.10	<0.10
210697	SV-D5	8/23/24 6:53 PM	1	<5.00	<0.20	<0.10	0.19	<0.10	<0.10	0.29	<0.10	<0.10	<0.10	0.58	<0.10	<0.10	<0.10	<0.10	<0.10
210704	SV-E6	8/25/24 12:47 PM	1	13.7	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.25	<0.10	<0.10	<0.10	<0.10	<0.10
210705	SV-E5	8/25/24 6:29 AM	1	7.41	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.12	<0.10	<0.10	<0.10	<0.10	<0.10
210706	SV-E4	8/24/24 11:51 PM	1	9.62	<0.20	<0.10	<0.10	0.33	<0.10	<0.10	<0.10	<0.10	<0.10	0.50	<0.10	0.33	<0.10	<0.10	<0.10
210707	SV-E3	8/23/24 4:14 PM	1		<0.20	<0.10	0.20	0.17	<0.10	<0.10	<0.10	<0.10	<0.10	0.90	<0.10	0.10	0.15	<0.10	<0.10
210707-DIL	SV-E3	8/29/24 6:06 PM	11	29.1															
210708	SV-E2	8/25/24 3:00 PM	1	10.0	<0.20	<0.10	0.12	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.27	<0.10	0.31	<0.10	<0.10	<0.10
210709	SV-F2	8/23/24 7:19 PM	1	25.0 E	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210709-DUP	SV-F2-DUP	8/24/24 11:25 PM	1	23.5 E	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210710	SV-F3	8/24/24 1:04 AM	1	13.4	<0.20	<0.10	0.61	<0.10	<0.10	0.50	<0.10	<0.10	<0.10	0.16	<0.10	0.89	<0.10	<0.10	<0.10
210711	SV-F4	8/23/24 3:20 PM	1	12.2	<0.20	<0.10	0.23	0.29	<0.10	<0.10	<0.10	<0.10	<0.10	0.12	<0.10	<0.10	<0.10	<0.10	<0.10
210712	SV-F6	8/23/24 2:54 PM	1	7.50	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210713	SV-F5	8/25/24 5:36 AM	1	6.58	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.17	<0.10	<0.10	<0.10	<0.10	<0.10
210714	SV-G5	8/23/24 8:13 PM	1	6.34	<0.20	<0.10	<0.10	<0.10	<0.10	0.45	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210715	SV-G4	8/23/24 4:40 PM	1	10.9	<0.20	<0.10	0.20	0.17	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210716	SV-G3	8/23/24 2:27 PM	1		<0.20	<0.10	0.54	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210716-DIL	SV-G3	8/29/24 5:39 PM	12	31.2															
210717	SV-G2	8/25/24 7:22 AM	1	17.1	<0.20	<0.10	0.15	<0.10	<0.10	0.81	<0.10	<0.10	<0.10	1.15	<0.10	<0.10	<0.10	<0.10	<0.10
210717-DUP	SV-G2-DUP	8/25/24 12:21 PM	1	15.6	<0.20	<0.10	0.14	<0.10	<0.10	0.81	<0.10	<0.10	<0.10	1.13	<0.10	<0.10	<0.10	<0.10	<0.10
210718	SV-G1	8/24/24 8:19 PM	1		<0.20	<0.10	0.41	0.40	<0.10	0.73	<0.10	<0.10	<0.10	3.43	<0.10	<0.10	<0.10	0.11	<0.10
210718-DIL	SV-G1	8/29/24 11:55 PM	12	40.5															
210719	SV-D4	8/25/24 2:57 AM	1	17.7	<0.20	<0.10	<0.10	0.24	<0.10	<0.10	<0.10	<0.10	<0.10	0.96	<0.10	0.17	<0.10	<0.10	<0.10
210720	SV-D3	8/25/24 1:37 AM	1		<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.21	<0.10	0.72	<0.10	<0.10	<0.10
210720-DIL	SV-D3	8/30/24 2:09 AM	14	19.2															
210721	SV-D2	8/24/24 7:26 PM	1		<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210721-DIL	SV-D2	8/30/24 4:11 PM	14	33.9															
210722	SV-D1	8/25/24 7:49 AM	1		<0.20	<0.10	0.19	0.16	<0.10	0.26	<0.10	0.36	<0.10	0.68	<0.10	0.57	<0.10	<0.10	<0.10

AMPLIFIED GEOCHEMICAL IMAGING, LLC
210 EXECUTIVE DRIVE, SUITE 1, NEWARK, DE 19702
WSP USA
STANDARD TARGET VOCs/SVOCs
FORMER MRC
ORDER # T02497

DATAFILE	FIELD	DATE/ TIME																	
NAME	ID	ANALYZED	DF	TPH, ug	MTBE, ug	t12DCE, ug	11DCA, ug	c12DCE, ug	CHCl3, ug	111TCA, ug	12DCA, ug	BENZ, ug	CCl4, ug	TCE, ug	112TCA, ug	TOL, ug	OCT, ug	PCE, ug	ClBENZ, ug
RL =				5.00	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
MDL =				0.50	0.02	0.01	0.07	0.02	0.02	0.01	0.01	0.02	0.02	0.01	0.02	0.02	0.02	0.01	0.02
210722-DIL	SV-D1	8/30/24 4:50 AM	15	16.2															
210723	SV-E1	8/23/24 9:59 PM	1	5.52	<0.20	<0.10	<0.10	0.23	<0.10	<0.10	<0.10	<0.10	<0.10	0.40	<0.10	<0.10	<0.10	<0.10	<0.10
210724	SV-F1	8/25/24 6:55 AM	1	18.6	<0.20	<0.10	0.21	0.89	<0.10	0.12	<0.10	0.19	<0.10	0.85	<0.10	0.21	<0.10	<0.10	<0.10
210725	SV-H1	8/24/24 5:13 PM	1		<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.27	<0.10	<0.10	<0.10	<0.10	<0.10
210725-DIL	SV-H1	8/29/24 9:14 PM	11	88.3															
210726	SV-H2	8/24/24 8:45 PM	1	10.6	<0.20	<0.10	0.35	0.17	<0.10	0.42	<0.10	<0.10	<0.10	0.17	<0.10	<0.10	<0.10	<0.10	<0.10
210727	SV-H3	8/23/24 5:07 PM	1	19.1	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.13	<0.10	<0.10	<0.10	<0.10	<0.10
210728	SV-H4	8/23/24 3:47 PM	1	10.0	<0.20	<0.10	<0.10	0.23	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210729	SV-H5	8/25/24 12:18 AM	1	<5.00	<0.20	<0.10	0.10	<0.10	<0.10	0.13	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210730	SV-I6	8/24/24 6:06 PM	1	<5.00	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210731	SV-I5	8/23/24 10:25 PM	1	<5.00	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.12	<0.10	<0.10	<0.10	<0.10	<0.10
210732	SV-I4	8/24/24 7:52 PM	1		<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.59	<0.10	<0.10	<0.10	<0.10	<0.10
210732-DIL	SV-I4	8/29/24 11:28 PM	13	27.5															
210733	SV-J4	8/25/24 2:30 AM	1	20.0	<0.20	0.16	<0.10	8.90	<0.10	<0.10	<0.10	<0.10	<0.10	0.60	<0.10	<0.10	<0.10	<0.10	<0.10
210734	SV-J5	8/23/24 2:01 PM	1	<5.00	<0.20	<0.10	<0.10	0.23	<0.10	<0.10	<0.10	<0.10	<0.10	0.15	<0.10	<0.10	<0.10	<0.10	<0.10
210736	SV-K4	8/24/24 1:31 AM	1		<0.20	0.26	<0.10	11.8	<0.10	<0.10	<0.10	0.73	<0.10	6.24	<0.10	<0.10	<0.10	<0.10	<0.10
210736-DIL	SV-K4	8/29/24 8:20 PM	14	18.3															
210737	SV-L5	8/25/24 8:15 AM	1	6.66	<0.20	<0.10	<0.10	<0.10	<0.10	0.30	<0.10	<0.10	<0.10	4.83	<0.10	0.12	<0.10	1.07	<0.10
210738	SV-L4	8/25/24 2:33 PM	1		<0.20	<0.10	0.34	0.22	<0.10	<0.10	<0.10	<0.10	<0.10	0.13	<0.10	<0.10	<0.10	<0.10	<0.10
210738-DIL	SV-L4	8/30/24 5:43 AM	13	44.8															
210739	SV-L3	8/24/24 5:39 PM	1		<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210739-DIL	SV-L3	8/29/24 9:41 PM	13	82.8															
210740	SV-L2	8/25/24 12:44 AM	1		<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.17	<0.10	<0.10	<0.10	<0.10	<0.10
210740-DIL	SV-L2	8/30/24 12:48 AM	13	32.0															
210741	SV-L1	8/25/24 3:26 PM	1		<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210741-DIL	SV-L1	8/30/24 2:36 AM	14	26.9															
210742	SV-A3	8/25/24 2:04 AM	1	<5.00	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210743	SV-I1	8/24/24 3:43 AM	1		<0.20	<0.10	0.90	0.25	<0.10	1.06	<0.10	<0.10	<0.10	1.68	<0.10	<0.10	<0.10	0.32	<0.10
210743-DIL	SV-I1	8/29/24 8:47 PM	13	51.9															
210744	SV-J1	8/23/24 9:32 PM	1		<0.20	<0.10	0.30	1.25	<0.10	0.12	<0.10	<0.10	<0.10	1.74	<0.10	0.20	<0.10	<0.10	<0.10
210744-DIL	SV-J1	8/29/24 7:53 PM	12	85.2															
210745	SV-I2	8/24/24 6:33 PM	1	12.4	<0.20	0.15	1.43	0.86	<0.10	2.25	<0.10	<0.10	<0.10	2.64	<0.10	<0.10	<0.10	0.51	<0.10
210746	SV-I3	8/25/24 6:02 AM	1		<0.20	<0.10	<0.10	0.55	<0.10	<0.10	<0.10	<0.10	<0.10	0.35	<0.10	<0.10	<0.10	<0.10	<0.10
210746-DIL	SV-I3	8/30/24 4:23 AM	12	28.1															
210747	SV-I2	8/25/24 5:09 AM	1		<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.14	<0.10	<0.10	<0.10	<0.10	<0.10
210747-DIL	SV-I2	8/30/24 3:02 AM	14	25.0															
210748	SV-J3	8/25/24 4:43 AM	1	19.3	<0.20	<0.10	<0.10	0.17	<0.10	<0.10	<0.10	<0.10	<0.10	0.29	<0.10	<0.10	<0.10	<0.10	<0.10
210749	SV-K1	8/24/24 9:12 PM	1		<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.71	<0.10	<0.10	0.36	<0.10	<0.10
210749-DIL	SV-K1	8/30/24 12:22 AM	13	393 E															
210750	SV-K2	8/24/24 1:57 AM	1	16.7	<0.20	<0.10	0.14	0.14	<0.10	<0.10	<0.10	<0.10	<0.10	0.64	<0.10	<0.10	<0.10	<0.10	<0.10
210751T	TRIP_BLANK	8/24/24 10:32 PM	1	<5.00	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210753T	TRIP_BLANK	8/23/24 1:34 PM	1	<5.00	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
210754T	TRIP_BLANK	8/24/24 10:58 PM	1	<5.00	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
cmBLK-1	METHOD_BLANK	8/22/24 6:20 PM	1	<5.00	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
cmBLK-1	METHOD BLANK	8/29/24 5:13 PM	1	<5.00	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
cmBLK-2	METHOD_BLANK	8/23/24 1:07 PM	1	<5.00	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
cmBLK-2	METHOD BLANK	8/30/24 12:04 PM	1	<5.00	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
cmBLK-3	METHOD_BLANK	8/24/24 7:16 AM	1	<5.00	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
cmBLK-4	METHOD_BLANK	8/25/24 11:54 AM	1	<5.00	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

AMPLIFIED GEOCHEMICAL IMAGING, LLC
210 EXECUTIVE DRIVE, SUITE 1, NEWARK, DE 19702
WSP USA
STANDARD TARGET VOCs/SVOCs
FORMER MRC
ORDER # T02497

DATAFILE	FIELD															
NAME	ID	1112TetCA, ug	ETBENZ, ug	mpXYL, ug	oXYL, ug	1122TetCA, ug	135TMB, ug	124TMB, ug	13DCB, ug	14DCB, ug	12DCB, ug	UNDEC, ug	NAPH, ug	TRIDEC, ug	2MeNAPH, ug	Acenaphthylene, ug
RL =		0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.50
MDL =		0.01	0.02	0.01	0.02	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
210679	SV-B3	<0.10	0.18	0.66	0.31	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	3.64	<0.10	1.52	<0.50
210680	SV-B4	<0.10	0.23	0.26	0.14	<0.10	<0.10	0.25	<0.10	<0.10	<0.10	<0.10		0.38		0.68
210680-DIL	SV-B4												249		102	
210681	SV-A5	<0.10	0.11	0.38	0.17	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210682	SV-B5	<0.10	0.20	0.59	0.26	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	<0.10	<0.10	<0.50
210683	SV-B6	<0.10	0.16	0.26	0.13	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.31	<0.10	0.20	<0.10	<0.50
210683-DIL	SV-B6															
210684	SV-A6	<0.10	<0.10	0.12	0.10	<0.10	0.38	0.45	<0.10	<0.10	<0.10	0.18	<0.10	<0.10	<0.10	<0.50
210684-DIL	SV-A6															
210685	SV-A4	<0.10	0.15	0.46	0.18	<0.10	0.12	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210686	SV-B2	<0.10	0.25	0.79	0.29	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210687	SV-B1	<0.10	0.23	0.76	0.27	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210688	SV-A2	<0.10	<0.10	0.18	0.11	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210689	SV-A1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.16	<0.10	<0.10	<0.10	<0.50
210689-DUP	SV-A1-DUP	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210690	SV-C1	<0.10	0.10	0.38	0.22	<0.10	<0.10	0.15	<0.10	<0.10	<0.10	0.11	0.24	0.13	0.10	<0.50
210690-DIL	SV-C1															
210691	SV-C2	<0.10	0.12	0.27	0.11	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210692	SV-C3	<0.10	1.26	4.41	2.03	<0.10	<0.10	0.11	<0.10	<0.10	<0.10	0.11	0.12	0.11	<0.10	<0.50
210692-DIL	SV-C3															
210693	SV-C4	<0.10	0.25	0.91	0.57	<0.10	<0.10	0.17	<0.10	<0.10	<0.10	0.19	0.60	0.26	0.11	<0.50
210693-DIL	SV-C4															
210694	SV-C5	<0.10	0.26	0.76	0.32	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.12	<0.10	0.13	<0.10	<0.50
210695	SV-C6	<0.10	0.16	0.52	0.21	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210696	SV-D6	<0.10	0.22	0.84	0.44	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210697	SV-D5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210704	SV-E6	<0.10	0.39	1.80	0.89	<0.10	<0.10	0.15	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210705	SV-E5	<0.10	0.10	0.33	0.13	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210706	SV-E4	<0.10	0.19	0.70	0.37	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210707	SV-E3	<0.10	0.15	0.56	0.28	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.16	<0.10	<0.10	<0.10	<0.50
210707-DIL	SV-E3															
210708	SV-E2	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210709	SV-F2	<0.10	0.84	2.75	1.27	<0.10	0.20	0.32	<0.10	<0.10	<0.10	0.43	0.11	0.15	0.14	<0.50
210709-DUP	SV-F2-DUP	<0.10	1.08	3.84	1.78	<0.10	0.19	0.28	<0.10	<0.10	<0.10	0.20	<0.10	<0.10	<0.10	<0.50
210710	SV-F3	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210711	SV-F4	<0.10	0.11	0.35	0.16	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210712	SV-F6	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210713	SV-F5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210714	SV-G5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210715	SV-G4	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210716	SV-G3	<0.10	0.66	2.78	1.22	<0.10	<0.10	0.11	<0.10	<0.10	<0.10	0.20	<0.10	0.22	0.13	<0.50
210716-DIL	SV-G3															
210717	SV-G2	<0.10	0.48	1.30	0.50	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210717-DUP	SV-G2-DUP	<0.10	0.51	1.39	0.54	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210718	SV-G1	<0.10	0.45	1.58	0.72	<0.10	<0.10	0.12	<0.10	<0.10	<0.10	0.69	0.16	1.20	0.11	<0.50
210718-DIL	SV-G1															
210719	SV-D4	<0.10	0.16	0.45	0.18	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.12	<0.10	0.33	<0.10	<0.50
210720	SV-D3	<0.10	0.22	0.63	0.24	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.11	0.18	<0.50
210720-DIL	SV-D3															
210721	SV-D2	<0.10	0.14	0.48	0.20	<0.10	<0.10	0.11	<0.10	<0.10	<0.10	0.24	0.23	0.23	0.31	<0.50
210721-DIL	SV-D2															
210722	SV-D1	<0.10	0.44	1.20	0.50	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.35	<0.10	0.25	<0.10	<0.50

AMPLIFIED GEOCHEMICAL IMAGING, LLC
210 EXECUTIVE DRIVE, SUITE 1, NEWARK, DE 19702
WSP USA
STANDARD TARGET VOCs/SVOCs
FORMER MRC
ORDER # T02497

DATAFILE	FIELD															
NAME	ID	1112TetCA, ug	ETBENZ, ug	mpXYL, ug	oXYL, ug	1122TetCA, ug	135TMB, ug	124TMB, ug	13DCB, ug	14DCB, ug	12DCB, ug	UNDEC, ug	NAPH, ug	TRIDEC, ug	2MeNAPH, ug	Acenaphthylene, ug
RL =		0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.50
MDL =		0.01	0.02	0.01	0.02	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
210722-DIL	SV-D1															
210723	SV-E1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210724	SV-F1	<0.10	0.18	0.59	0.28	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210725	SV-H1	<0.10	0.15	0.10	0.45	<0.10	1.61	2.28	<0.10	<0.10	<0.10	1.16	2.45	2.08	2.52	<0.50
210725-DIL	SV-H1															
210726	SV-H2	<0.10	0.16	0.48	0.18	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210727	SV-H3	<0.10	0.41	1.26	0.52	<0.10	<0.10	0.16	<0.10	<0.10	<0.10	0.21	<0.10	<0.10	<0.10	<0.50
210728	SV-H4	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.11	<0.50
210729	SV-H5	<0.10	<0.10	0.18	0.13	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210730	SV-I6	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210731	SV-I5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210732	SV-I4	<0.10	0.30	0.75	0.37	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.28	<0.10	0.54	<0.10	<0.50
210732-DIL	SV-I4															
210733	SV-J4	<0.10	0.43	1.42	0.57	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.14	<0.10	0.14	<0.10	<0.50
210734	SV-J5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210736	SV-K4	<0.10	0.55	2.02	0.86	<0.10	<0.10	0.14	<0.10	<0.10	<0.10	0.26	0.16	0.30	<0.10	<0.50
210736-DIL	SV-K4															
210737	SV-L5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	2.20	<0.10	<0.10	<0.10	<0.10	<0.50
210738	SV-L4	<0.10	1.19	4.19	1.76	<0.10	<0.10	0.14	<0.10	<0.10	<0.10	0.25	0.20	0.29	<0.10	<0.50
210738-DIL	SV-L4															
210739	SV-L3	<0.10	0.12	0.56	0.26	<0.10	<0.10	0.10	<0.10	<0.10	<0.10	0.32	0.62	0.49	0.42	<0.50
210739-DIL	SV-L3															
210740	SV-L2	<0.10	1.64	6.99	2.89	<0.10	<0.10	0.18	<0.10	<0.10	<0.10	0.19	0.13	0.28	<0.10	<0.50
210740-DIL	SV-L2															
210741	SV-L1	<0.10	0.50	2.36	1.16	<0.10	<0.10	0.16	<0.10	<0.10	<0.10	0.33	0.15	0.28	0.10	<0.50
210741-DIL	SV-L1															
210742	SV-A3	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210743	SV-I1	<0.10	0.14	0.47	0.29	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.37	<0.10	1.03	<0.10	<0.50
210743-DIL	SV-I1															
210744	SV-J1	<0.10	0.20	0.39	0.27	<0.10	0.35	0.69	<0.10	<0.10	<0.10	1.85	0.59	0.44	0.20	<0.50
210744-DIL	SV-J1															
210745	SV-I2	<0.10	<0.10	0.19	0.14	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210746	SV-I3	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.13	<0.50
210746-DIL	SV-I3															
210747	SV-I2	<0.10	<0.10	0.21	0.28	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.21	0.11	0.33	0.10	<0.50
210747-DIL	SV-I2															
210748	SV-J3	<0.10	0.14	0.60	0.29	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210749	SV-K1	<0.10	0.20	0.62	0.42	<0.10	0.26	0.37	<0.10	<0.10	<0.10	2.10	0.21	1.48	0.33	<0.50
210749-DIL	SV-K1															
210750	SV-K2	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210751T	TRIP_BLANK	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210753T	TRIP_BLANK	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
210754T	TRIP_BLANK	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
cmBLK-1	METHOD_BLANK	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
cmBLK-1	METHOD BLANK	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
cmBLK-2	METHOD_BLANK	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
cmBLK-2	METHOD BLANK	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
cmBLK-3	METHOD_BLANK	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50
cmBLK-4	METHOD_BLANK	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50

AMPLIFIED GEOCHEMICAL IMAGING, LLC
210 EXECUTIVE DRIVE, SUITE 1, NEWARK, DE 19702
WSP USA
STANDARD TARGET VOCs/SVOCs
FORMER MRC
ORDER # T02497

DATAFILE	FIELD			
NAME	ID	PENTADEC, ug	Acenaphthene, ug	Fluorene, ug
RL =		0.50	0.50	0.50
MDL =		0.01	0.01	0.04
210679	SV-B3	<0.50	1.30	0.68
210680	SV-B4	<0.50		
210680-DIL	SV-B4		43.4	32.0
210681	SV-A5	<0.50	<0.50	<0.50
210682	SV-B5	<0.50	<0.50	<0.50
210683	SV-B6	<0.50	<0.50	<0.50
210683-DIL	SV-B6			
210684	SV-A6	<0.50	<0.50	<0.50
210684-DIL	SV-A6			
210685	SV-A4	<0.50	<0.50	<0.50
210686	SV-B2	<0.50	<0.50	<0.50
210687	SV-B1	<0.50	<0.50	<0.50
210688	SV-A2	<0.50	<0.50	<0.50
210689	SV-A1	<0.50	<0.50	<0.50
210689-DUP	SV-A1-DUP	<0.50	<0.50	<0.50
210690	SV-C1	<0.50	<0.50	<0.50
210690-DIL	SV-C1			
210691	SV-C2	<0.50	<0.50	<0.50
210692	SV-C3	<0.50	<0.50	<0.50
210692-DIL	SV-C3			
210693	SV-C4	<0.50	<0.50	<0.50
210693-DIL	SV-C4			
210694	SV-C5	<0.50	<0.50	<0.50
210695	SV-C6	<0.50	<0.50	<0.50
210696	SV-D6	<0.50	<0.50	<0.50
210697	SV-D5	<0.50	<0.50	<0.50
210704	SV-E6	<0.50	<0.50	<0.50
210705	SV-E5	<0.50	<0.50	<0.50
210706	SV-E4	<0.50	<0.50	<0.50
210707	SV-E3	<0.50	<0.50	<0.50
210707-DIL	SV-E3			
210708	SV-E2	<0.50	<0.50	<0.50
210709	SV-F2	<0.50	<0.50	<0.50
210709-DUP	SV-F2-DUP	<0.50	<0.50	<0.50
210710	SV-F3	<0.50	<0.50	<0.50
210711	SV-F4	<0.50	<0.50	<0.50
210712	SV-F6	<0.50	<0.50	<0.50
210713	SV-F5	<0.50	<0.50	<0.50
210714	SV-G5	<0.50	<0.50	<0.50
210715	SV-G4	<0.50	<0.50	<0.50
210716	SV-G3	<0.50	<0.50	<0.50
210716-DIL	SV-G3			
210717	SV-G2	<0.50	<0.50	<0.50
210717-DUP	SV-G2-DUP	<0.50	<0.50	<0.50
210718	SV-G1	0.72	<0.50	<0.50
210718-DIL	SV-G1			
210719	SV-D4	<0.50	<0.50	<0.50
210720	SV-D3	<0.50	<0.50	<0.50
210720-DIL	SV-D3			
210721	SV-D2	<0.50	<0.50	<0.50
210721-DIL	SV-D2			
210722	SV-D1	<0.50	<0.50	<0.50

AMPLIFIED GEOCHEMICAL IMAGING, LLC
210 EXECUTIVE DRIVE, SUITE 1, NEWARK, DE 19702
WSP USA
STANDARD TARGET VOCs/SVOCs
FORMER MRC
ORDER # T02497

DATAFILE	FIELD			
NAME	ID	PENTADEC, ug	Acenaphthene, ug	Fluorene, ug
RL =		0.50	0.50	0.50
MDL =		0.01	0.01	0.04
210722-DIL	SV-D1			
210723	SV-E1	<0.50	<0.50	<0.50
210724	SV-F1	<0.50	<0.50	<0.50
210725	SV-H1	1.10	<0.50	<0.50
210725-DIL	SV-H1			
210726	SV-H2	<0.50	<0.50	<0.50
210727	SV-H3	<0.50	<0.50	<0.50
210728	SV-H4	<0.50	<0.50	<0.50
210729	SV-H5	<0.50	<0.50	<0.50
210730	SV-I6	<0.50	<0.50	<0.50
210731	SV-I5	<0.50	<0.50	<0.50
210732	SV-I4	<0.50	<0.50	<0.50
210732-DIL	SV-I4			
210733	SV-J4	<0.50	<0.50	<0.50
210734	SV-J5	<0.50	<0.50	<0.50
210736	SV-K4	<0.50	<0.50	<0.50
210736-DIL	SV-K4			
210737	SV-L5	<0.50	<0.50	<0.50
210738	SV-L4	<0.50	<0.50	<0.50
210738-DIL	SV-L4			
210739	SV-L3	0.56	<0.50	<0.50
210739-DIL	SV-L3			
210740	SV-L2	<0.50	<0.50	<0.50
210740-DIL	SV-L2			
210741	SV-L1	<0.50	<0.50	<0.50
210741-DIL	SV-L1			
210742	SV-A3	<0.50	<0.50	<0.50
210743	SV-I1	<0.50	<0.50	<0.50
210743-DIL	SV-I1			
210744	SV-J1	<0.50	<0.50	<0.50
210744-DIL	SV-J1			
210745	SV-I2	<0.50	<0.50	<0.50
210746	SV-I3	<0.50	<0.50	<0.50
210746-DIL	SV-I3			
210747	SV-I2	<0.50	<0.50	<0.50
210747-DIL	SV-I2			
210748	SV-J3	<0.50	<0.50	<0.50
210749	SV-K1	<0.50	<0.50	<0.50
210749-DIL	SV-K1			
210750	SV-K2	<0.50	<0.50	<0.50
210751T	TRIP_BLANK	<0.50	<0.50	<0.50
210753T	TRIP_BLANK	<0.50	<0.50	<0.50
210754T	TRIP_BLANK	<0.50	<0.50	<0.50
cmBLK-1	METHOD_BLANK	<0.50	<0.50	<0.50
cmBLK-1	METHOD BLANK	<0.50		
cmBLK-2	METHOD_BLANK	<0.50	<0.50	<0.50
cmBLK-2	METHOD BLANK	<0.50		
cmBLK-3	METHOD_BLANK	<0.50	<0.50	<0.50
cmBLK-4	METHOD_BLANK	<0.50	<0.50	<0.50

AMPLIFIED GEOCHEMICAL IMAGING, LLC
210 EXECUTIVE DRIVE, SUITE 1, NEWARK, DE 19702
WSP USA
STANDARD TARGET VOCs/SVOCs
ESTIMATED SOIL GAS CONCENTRATIONS
FORMER MRC
ORDER # T02497

DATAFILE	FIELD	DATE/ TIME	DATE/ TIME	DATE/ TIME	DATE/ TIME		estimated									
NAME	ID	INSTALLED	RETRIEVED	RECEIVED	ANALYZED	DF	TPH, ug/m^3	MTBE, ug/m^3	t12DCE, ug/m^3	11DCA, ug/m^3	c12DCE, ug/m^3	CHCl3, ug/m^3	111TCA, ug/m^3	12DCA, ug/m^3	BENZ, ug/m^3	CCl4, ug/m^3
RL =							236	984	1140	503	418	267	174	120	116	151
MDL =							25.7	168	296	396	138	80.2	24.6	18.7	26.0	38.3
210679	SV-B3	7/25/24 9:26	7/31/24 10:54	8/6/24 12:00	8/25/24 13:14	1	760	<980	<1130	<501	611	<265	<173	<119	<116	<150
210680	SV-B4	7/25/24 9:13	7/31/24 10:52	8/6/24 12:00	8/25/24 16:20	1		<979	<1130	<501	<416	<265	<173	<119	<116	<150
210680-DIL	SV-B4	7/25/24 9:13	7/31/24 10:52	8/6/24 12:00	8/30/24 1:42	13	3900									
210681	SV-A5	7/25/24 8:51	7/31/24 10:51	8/6/24 12:00	8/23/24 20:39	1	306	<979	<1130	<501	<416	<265	<172	<119	<115	<149
210682	SV-B5	7/25/24 8:43	7/31/24 10:50	8/6/24 12:00	8/25/24 13:40	1	567	<978	<1130	<501	503	<265	<172	<119	201	<149
210683	SV-B6	7/25/24 8:31	7/31/24 10:46	8/6/24 12:00	8/25/24 14:07	1		<978	<1130	<501	661	<265	<172	<119	<115	<149
210683-DIL	SV-B6	7/25/24 8:31	7/31/24 10:46	8/6/24 12:00	8/30/24 5:16	12	785									
210684	SV-A6	7/25/24 8:21	7/31/24 10:45	8/6/24 12:00	8/23/24 19:46	1		<978	<1130	<500	<415	<265	<172	<119	<115	<149
210684-DIL	SV-A6	7/25/24 8:21	7/31/24 10:45	8/6/24 12:00	8/29/24 19:00	13	633									
210685	SV-A4	7/25/24 9:34	7/31/24 10:55	8/6/24 12:00	8/25/24 8:42	1	668	<980	<1130	<501	<416	<266	<173	<120	<116	<150
210686	SV-B2	7/25/24 9:44	7/31/24 11:17	8/6/24 12:00	8/24/24 2:24	1	806	<980	<1130	<501	611	<265	<173	<119	134	<150
210687	SV-B1	7/25/24 9:56	7/31/24 11:18	8/6/24 12:00	8/24/24 0:38	1	709	<980	<1130	<501	712	<266	<173	<120	143	<150
210688	SV-A2	7/25/24 10:02	7/31/24 11:19	8/6/24 12:00	8/24/24 2:50	1	542	<980	<1130	<501	<416	<266	<173	<120	<116	<150
210689	SV-A1	7/25/24 10:05	7/31/24 11:19	8/6/24 12:00	8/24/24 4:10	1	688	<980	<1130	<501	<416	<266	<173	<120	<116	<150
210689-DUP	SV-A1-DUP	7/25/24 10:05	7/31/24 11:19	8/6/24 12:00	8/25/24 4:16	1	894 E	<980	<1130	<501	<416	<266	<173	<120	<116	<150
210690	SV-C1	7/25/24 10:17	7/31/24 11:21	8/6/24 12:00	8/23/24 21:06	1		<981	<1140	<502	<416	<266	<173	<120	<116	<150
210690-DIL	SV-C1	7/25/24 10:17	7/31/24 11:21	8/6/24 12:00	8/29/24 19:27	12	1760									
210691	SV-C2	7/25/24 10:26	7/31/24 11:22	8/6/24 12:00	8/24/24 18:59	1	671	<981	<1140	<502	446	<266	<173	<120	<116	<150
210692	SV-C3	7/25/24 10:38	7/31/24 11:23	8/6/24 12:00	8/23/24 17:33	1		<981	<1140	<502	586	<266	<173	<120	152	<150
210692-DIL	SV-C3	7/25/24 10:38	7/31/24 11:23	8/6/24 12:00	8/29/24 18:33	12	961									
210693	SV-C4	7/25/24 10:58	7/31/24 11:24	8/6/24 12:00	8/25/24 1:11	1		<982	<1140	<502	<417	<266	<173	<120	<116	<150
210693-DIL	SV-C4	7/25/24 10:58	7/31/24 11:24	8/6/24 12:00	8/30/24 1:15	14	852									
210694	SV-C5	7/25/24 11:13	7/31/24 11:25	8/6/24 12:00	8/23/24 22:52	1	754	<982	<1140	<502	<417	<266	<174	<120	143	<150
210695	SV-C6	7/25/24 11:24	7/31/24 11:26	8/6/24 12:00	8/24/24 3:17	1	619	<983	<1140	<503	787	<266	<174	<120	<116	<151
210696	SV-D6	7/25/24 11:36	7/31/24 11:28	8/6/24 12:00	8/24/24 0:11	1	549	<983	<1140	<503	447	<266	<174	<120	<116	<151
210697	SV-D5	7/25/24 11:45	7/31/24 11:30	8/6/24 12:00	8/23/24 18:53	1	<235	<983	<1140	842	<418	<267	462	<120	<116	<151
210704	SV-E6	7/25/24 12:45	7/31/24 11:35	8/6/24 12:00	8/25/24 12:47	1	625	<985	<1140	<504	<418	<267	<174	<120	<117	<151
210705	SV-E5	7/25/24 12:49	7/31/24 11:36	8/6/24 12:00	8/25/24 6:29	1	346	<985	<1140	<504	<418	<267	<174	<120	<117	<151
210706	SV-E4	7/25/24 12:57	7/31/24 11:38	8/6/24 12:00	8/24/24 23:51	1	444	<985	<1140	<504	993	<267	<174	<121	<117	<151
210707	SV-E3	7/25/24 13:02	7/31/24 11:39	8/6/24 12:00	8/23/24 16:14	1		<986	<1140	879	614	<267	<175	<121	<117	<151
210707-DIL	SV-E3	7/25/24 13:02	7/31/24 11:39	8/6/24 12:00	8/29/24 18:06	11	1290									
210708	SV-E2	7/25/24 13:43	7/31/24 11:40	8/6/24 12:00	8/25/24 15:00	1	465	<987	<1140	584	419	<268	<175	<121	<117	<152
210709	SV-F2	7/25/24 15:10	7/31/24 11:42	8/6/24 12:00	8/23/24 19:19	1	1130 E	<990	<1140	<506	<420	<269	<176	<121	<117	<152
210709-DUP	SV-F2-DUP	7/25/24 15:10	7/31/24 11:42	8/6/24 12:00	8/24/24 23:25	1	1060 E	<990	<1140	<506	<420	<269	<176	<121	<117	<152
210710	SV-F3	7/25/24 15:32	7/31/24 11:43	8/6/24 12:00	8/24/24 1:04	1	621	<991	<1140	2160	<420	<269	771	<121	<118	<153
210711	SV-F4	7/25/24 15:36	7/31/24 11:44	8/6/24 12:00	8/23/24 15:20	1	568	<991	<1140	988	909	<269	<176	<121	<118	<153
210712	SV-F6	7/25/24 15:41	7/31/24 11:46	8/6/24 12:00	8/23/24 14:54	1	356	<991	<1140	<506	<420	<269	<176	<121	<118	<153
210713	SV-F5	7/25/24 15:47	7/31/24 11:45	8/6/24 12:00	8/25/24 5:36	1	314	<991	<1140	<506	<421	<269	<176	<122	<118	<153
210714	SV-G5	7/25/24 15:51	7/31/24 11:47	8/6/24 12:00	8/23/24 20:13	1	303	<991	<1140	<506	<421	<269	701	<122	<118	<153
210715	SV-G4	7/25/24 15:56	7/31/24 11:48	8/6/24 12:00	8/23/24 16:40	1	512	<991	<1140	884	618	<269	<176	<122	<118	<153
210716	SV-G3	7/25/24 16:01	7/31/24 11:19	8/6/24 12:00	8/23/24 14:27	1		<992	<1140	1970	<421	<269	<177	<122	<118	<153
210716-DIL	SV-G3	7/25/24 16:01	7/31/24 11:19	8/6/24 12:00	8/29/24 17:39	12	1410									
210717	SV-G2	7/25/24 16:07	7/31/24 11:50	8/6/24 12:00	8/25/24 7:22	1	789	<992	<1140	702	<421	<269	1200	<122	<118	<153
210717-DUP	SV-G2-DUP	7/25/24 16:07	7/31/24 11:50	8/6/24 12:00	8/25/24 12:21	1	721	<992	<1140	664	<421	<269	1200	<122	<118	<153
210718	SV-G1	7/25/24 16:32	7/31/24 11:51	8/6/24 12:00	8/24/24 20:19	1		<992	<1140	1580	1150	<269	1090	<122	<118	<153
210718-DIL	SV-G1	7/25/24 16:32	7/31/24 11:51	8/6/24 12:00	8/29/24 23:55	12	1810									
210719	SV-D4	7/26/24 8:07	8/1/24 11:17	8/6/24 12:00	8/25/24 2:57	1	777	<976	<1130	<500	782	<264	<172	<119	<115	<149
210720	SV-D3	7/26/24 8:16	8/1/24 11:19	8/6/24 12:00	8/25/24 1:37	1		<977	<1130	<500	<415	<264	<172	<119	<115	<149
210720-DIL	SV-D3	7/26/24 8:16	8/1/24 11:19	8/6/24 12:00	8/30/24 2:09	14	840									
210721	SV-D2	7/26/24 8:35	8/1/24 11:21	8/6/24 12:00	8/24/24 19:26	1		<977	<1130	<500	<415	<265	<172	<119	<115	<149
210721-DIL	SV-D2	7/26/24 8:35	8/1/24 11:21	8/6/24 12:00	8/30/24 16:11	14	1460									
210722	SV-D1	7/26/24 9:04	8/1/24 11:23	8/6/24 12:00	8/25/24 7:49	1		<978	<1130	838	584	<265	414	<119	321	<149
210722-DIL	SV-D1	7/26/24 9:04	8/1/24 11:23	8/6/24 12:00	8/30/24 4:50	15	718									
210723	SV-E1	7/26/24 9:11	8/1/24 11:24	8/6/24 12:00	8/23/24 21:59	1	255	<978	<1130	<501	760	<265	<172	<119	<115	<149
210724	SV-F1	7/26/24 9:23	8/1/24 11:27	8/6/24 12:00	8/25/24 6:55	1	821	<979	<1130	909	2020	<265	204	<119	193	<149
210725	SV-H1	7/26/24 10:18	8/1/24 11:29	8/6/24 12:00	8/24/24 17:13	1		<980	<1130	<501	<416	<266	<173	<120	<116	<150
210725-DIL	SV-H1	7/26/24 10:18	8/1/24 11:29	8/6/24 12:00	8/29/24 21:14	11	3690									
210726	SV-H2	7/26/24 10:29	8/1/24 11:30	8/6/24 12:00	8/24/24 20:45	1	481	<981	<1140	1370	612	<266	646	<120	<116	<150
210727	SV-H3	7/26/24 10:37	8/1/24 11:31	8/6/24 12:00	8/23/24 17:07	1	849	<981	<1140	<502	<417	<266	<173	<120	<116	<150

AMPLIFIED GEOCHEMICAL IMAGING, LLC
210 EXECUTIVE DRIVE, SUITE 1, NEWARK, DE 19702
WSP USA
STANDARD TARGET VOCs/SVOCs
ESTIMATED SOIL GAS CONCENTRATIONS
FORMER MRC
ORDER # T02497

DATAFILE	FIELD	DATE/ TIME	DATE/ TIME	DATE/ TIME	DATE/ TIME		estimated									
NAME	ID	INSTALLED	RETRIEVED	RECEIVED	ANALYZED	DF	TPH, ug/m^3	MTBE, ug/m^3	t12DCE, ug/m^3	11DCA, ug/m^3	c12DCE, ug/m^3	CHCl3, ug/m^3	111TCA, ug/m^3	12DCA, ug/m^3	BENZ, ug/m^3	CCl4, ug/m^3
RL =							236	984	1140	503	418	267	174	120	116	151
MDL =							25.7	168	296	396	138	80.2	24.6	18.7	26.0	38.3
210728	SV-H4	7/26/24 11:26	8/1/24 11:32	8/6/24 12:00	8/23/24 15:47	1	458	<982	<1140	<502	763	<266	<174	<120	<116	<150
210729	SV-H5	7/26/24 11:38	8/1/24 11:34	8/6/24 12:00	8/25/24 0:18	1	<235	<983	<1140	503	<417	<266	221	<120	<116	<151
210730	SV-I6	7/26/24 11:55	8/1/24 11:35	8/6/24 12:00	8/24/24 18:06	1	<235	<983	<1140	<503	<418	<267	<174	<120	<116	<151
210731	SV-I5	7/26/24 12:05	8/1/24 11:38	8/6/24 12:00	8/23/24 22:25	1	<236	<984	<1140	<503	<418	<267	<174	<120	<116	<151
210732	SV-I4	7/26/24 12:19	8/1/24 11:40	8/6/24 12:00	8/24/24 19:52	1		<984	<1140	<503	<418	<267	<174	<120	<116	<151
210732-DIL	SV-I4	7/26/24 12:19	8/1/24 11:40	8/6/24 12:00	8/29/24 23:28	13	1220									
210733	SV-J4	7/26/24 12:38	8/1/24 11:51	8/6/24 12:00	8/25/24 2:30	1	894	<984	1530	<503	10800	<267	<174	<120	<116	<151
210734	SV-J5	7/26/24 12:47	8/1/24 11:55	8/6/24 12:00	8/23/24 14:01	1	<236	<984	<1140	<503	764	<267	<174	<120	<117	<151
210736	SV-K4	7/26/24 13:07	8/1/24 11:57	8/6/24 12:00	8/24/24 1:31	1		<985	2080	<504	13300	<267	<174	<120	571	<151
210736-DIL	SV-K4	7/26/24 13:07	8/1/24 11:57	8/6/24 12:00	8/29/24 20:20	14	822									
210737	SV-L5	7/26/24 13:14	8/1/24 11:58	8/6/24 12:00	8/25/24 8:15	1	312	<985	<1140	<504	<418	<267	478	<120	<117	<151
210738	SV-L4	7/26/24 13:21	8/1/24 12:00	8/6/24 12:00	8/25/24 14:33	1		<985	<1140	1350	740	<267	<174	<121	<117	<151
210738-DIL	SV-L4	7/26/24 13:21	8/1/24 12:00	8/6/24 12:00	8/30/24 5:43	13	1950									
210739	SV-L3	7/26/24 13:34	8/1/24 12:01	8/6/24 12:00	8/24/24 17:39	1		<986	<1140	<504	<419	<267	<175	<121	<117	<151
210739-DIL	SV-L3	7/26/24 13:34	8/1/24 12:01	8/6/24 12:00	8/29/24 21:41	13	3530									
210740	SV-L2	7/26/24 13:41	8/1/24 12:02	8/6/24 12:00	8/25/24 0:44	1		<986	<1140	<504	<419	<267	<175	<121	<117	<151
210740-DIL	SV-L2	7/26/24 13:41	8/1/24 12:02	8/6/24 12:00	8/30/24 0:48	13	1420									
210741	SV-L1	7/26/24 13:52	8/1/24 12:04	8/6/24 12:00	8/25/24 15:26	1		<986	<1140	<504	<419	<267	<175	<121	<117	<152
210741-DIL	SV-L1	7/26/24 13:52	8/1/24 12:04	8/6/24 12:00	8/30/24 2:36	14	1200									
210742	SV-A3	7/30/24 8:40	8/5/24 10:50	8/6/24 12:00	8/25/24 2:04	1	<232	<978	<1130	<501	<416	<265	<172	<119	<115	<149
210743	SV-I1	7/30/24 9:45	8/5/24 10:37	8/6/24 12:00	8/24/24 3:43	1		<981	<1140	2930	809	<266	1510	<120	<116	<150
210743-DIL	SV-I1	7/30/24 9:45	8/5/24 10:37	8/6/24 12:00	8/29/24 20:47	13	2220									
210744	SV-J1	7/30/24 10:12	8/5/24 10:39	8/6/24 12:00	8/23/24 21:32	1		<982	<1140	1210	2600	<266	205	<120	<116	<150
210744-DIL	SV-J1	7/30/24 10:12	8/5/24 10:39	8/6/24 12:00	8/29/24 19:53	12	3580									
210745	SV-I2	7/30/24 10:48	8/5/24 10:40	8/6/24 12:00	8/24/24 18:33	1	562	<983	1470	4260	1980	<266	3020	<120	<116	<151
210746	SV-I3	7/30/24 13:05	8/5/24 10:41	8/6/24 12:00	8/25/24 6:02	1		<988	<1140	<505	1440	<268	<175	<121	<117	<152
210746-DIL	SV-I3	7/30/24 13:05	8/5/24 10:41	8/6/24 12:00	8/30/24 4:23	12	1260									
210747	SV-I2	7/30/24 13:37	8/5/24 10:42	8/6/24 12:00	8/25/24 5:09	1		<989	<1140	<505	<420	<268	<175	<121	<117	<152
210747-DIL	SV-I2	7/30/24 13:37	8/5/24 10:42	8/6/24 12:00	8/30/24 3:02	14	1130									
210748	SV-J3	7/30/24 13:50	8/5/24 10:44	8/6/24 12:00	8/25/24 4:43	1	878	<989	<1140	<505	616	<268	<176	<121	<117	<152
210749	SV-K1	7/30/24 14:02	8/5/24 10:45	8/6/24 12:00	8/24/24 21:12	1		<989	<1140	<506	<420	<268	<176	<121	<117	<152
210749-DIL	SV-K1	7/30/24 14:02	8/5/24 10:45	8/6/24 12:00	8/30/24 0:22	13	16000 E									
210750	SV-K2	7/30/24 14:10	8/5/24 10:47	8/6/24 12:00	8/24/24 1:57	1	766	<990	<1140	663	536	<269	<176	<121	<117	<152
210751T	TRIP_BLANK			8/6/24 12:00	8/24/24 22:32	1	<236	<984	<1140	<503	<418	<267	<174	<120	<116	<151
210753T	TRIP_BLANK			8/6/24 12:00	8/23/24 13:34	1	<236	<984	<1140	<503	<418	<267	<174	<120	<116	<151
210754T	TRIP_BLANK			8/6/24 12:00	8/24/24 22:58	1	<236	<984	<1140	<503	<418	<267	<174	<120	<116	<151
cmBLK-1	METHOD_BLANK				8/22/24 18:20	1	<236	<984	<1140	<503	<418	<267	<174	<120	<116	<151
cmBLK-1	METHOD BLANK				8/29/24 17:13	1	<235	<983	<1140	<503	<418	<267	<174	<120	<116	<151
cmBLK-2	METHOD_BLANK				8/23/24 13:07	1	<236	<984	<1140	<503	<418	<267	<174	<120	<116	<151
cmBLK-2	METHOD BLANK				8/30/24 12:04	1	<235	<983	<1140	<503	<418	<267	<174	<120	<116	<151
cmBLK-3	METHOD_BLANK				8/24/24 7:16	1	<236	<984	<1140	<503	<418	<267	<174	<120	<116	<151
cmBLK-4	METHOD_BLANK				8/25/24 11:54	1	<236	<984	<1140	<503	<418	<267	<174	<120	<116	<151

AMPLIFIED GEOCHEMICAL IMAGING, LLC
210 EXECUTIVE DRIVE, SUITE 1, NEWARK, DE 19702
WSP USA
STANDARD TARGET VOCs/SVOCs
ESTIMATED SOIL GAS CONCENTRATIONS
FORMER MRC
ORDER # T02497

DATAFILE	FIELD				estimated			estimated							
NAME	ID	TCE, ug/m^3	112TCA, ug/m^3	TOL, ug/m^3	OCT, ug/m^3	PCE, ug/m^3	ClBENZ, ug/m^3	1112TetCA, ug/m^3	ETBENZ, ug/m^3	mpXYL, ug/m^3	oXYL, ug/m^3	1122TetCA, ug/m^3	135TMB, ug/m^3	124TMB, ug/m^3	13DCB, ug/m^3
RL =		54.8	10.7	14.6	15.1	11.9	7.49	5.52	6.98	6.55	8.62	5.52	9.14	7.09	5.76
MDL =		7.21	1.66	2.48	2.78	1.21	1.40	0.58	1.13	0.67	2.29	0.58	1.85	1.17	0.62
210679	SV-B3	73.2	<10.6	49.6	<14.9	<11.7	<7.40	<5.45	12.2	41.7	24.9	<5.45	<9.03	<7.01	<5.69
210680	SV-B4	<54.4	<10.5	447	17.8	<11.7	<7.39	<5.44	15.4	16.6	11.7	<5.44	<9.02	16.9	<5.68
210680-DIL	SV-B4														
210681	SV-A5	<54.3	<10.5	<14.4	<14.9	<11.7	<7.38	<5.43	7.54	24.1	14.1	<5.43	<9.00	<6.98	<5.67
210682	SV-B5	<54.3	<10.5	54.5	23.3	<11.7	<7.37	<5.42	13.4	37.2	21.0	<5.42	<8.99	<6.98	<5.66
210683	SV-B6	86.5	<10.5	25.0	14.9	<11.7	<7.37	<5.42	10.8	16.5	10.9	<5.42	<8.99	<6.97	<5.66
210683-DIL	SV-B6														
210684	SV-A6	<54.2	<10.5	<14.3	<14.9	<11.7	<7.36	<5.41	<6.86	7.70	8.47	<5.41	31.4	29.5	<5.65
210684-DIL	SV-A6														
210685	SV-A4	279	<10.6	14.4	<15.0	<11.7	<7.41	<5.45	10.2	29.2	14.9	<5.45	10.7	<7.01	<5.69
210686	SV-B2	156	<10.5	14.4	<14.9	<11.7	<7.40	<5.44	16.8	49.8	23.4	<5.44	<9.02	<7.00	<5.68
210687	SV-B1	172	<10.6	27.8	<15.0	<11.7	<7.41	<5.45	15.5	48.0	21.9	<5.45	<9.03	<7.01	<5.69
210688	SV-A2	<54.4	<10.6	<14.4	<15.0	<11.7	<7.41	<5.45	<6.90	11.6	9.33	<5.45	<9.04	<7.01	<5.69
210689	SV-A1	<54.4	<10.6	<14.4	<15.0	<11.7	<7.41	<5.45	<6.91	<6.48	<8.53	<5.45	<9.04	<7.02	<5.69
210689-DUP	SV-A1-DUP	<54.4	<10.6	<14.4	<15.0	<11.7	<7.41	<5.45	<6.91	<6.48	<8.53	<5.45	<9.04	<7.02	<5.69
210690	SV-C1	<54.5	<10.6	<14.5	<15.0	<11.7	<7.42	<5.46	6.91	24.3	18.0	<5.46	<9.05	10.4	<5.70
210690-DIL	SV-C1														
210691	SV-C2	54.5	<10.6	22.6	<15.0	<11.8	<7.43	<5.46	8.26	17.3	9.35	<5.46	<9.06	<7.03	<5.70
210692	SV-C3	<54.6	<10.6	22.6	<15.0	<11.8	<7.43	<5.47	80.8	274	149	<5.47	<9.07	7.71	<5.71
210692-DIL	SV-C3														
210693	SV-C4	<54.6	<10.6	<14.5	<15.0	<11.8	<7.45	<5.48	16.9	57.7	44.7	<5.48	<9.08	11.7	<5.72
210693-DIL	SV-C4														
210694	SV-C5	<54.7	<10.6	37.1	<15.0	<11.8	<7.46	<5.49	17.6	48.4	25.9	<5.49	<9.10	<7.06	<5.73
210695	SV-C6	<54.7	<10.6	67.8	<15.1	<11.8	<7.47	<5.50	11.0	33.3	17.4	<5.50	<9.11	<7.07	<5.74
210696	SV-D6	73.6	<10.7	21.3	<15.1	<11.8	<7.47	<5.50	15.0	53.5	35.1	<5.50	<9.11	<7.08	<5.74
210697	SV-D5	258	<10.7	<14.6	<15.1	<11.8	<7.48	<5.51	<6.97	<6.54	<8.60	<5.51	<9.12	<7.08	<5.75
210704	SV-E6	123	<10.7	<14.6	<15.2	<11.9	<7.52	<5.54	26.2	114	69.0	<5.54	<9.17	10.5	<5.78
210705	SV-E5	64.6	<10.7	<14.6	<15.2	<11.9	<7.52	<5.54	7.01	21.4	11.1	<5.54	<9.17	<7.12	<5.78
210706	SV-E4	227	<10.7	45.2	<15.2	<11.9	<7.53	<5.54	13.1	45.0	30.0	<5.54	<9.18	<7.13	<5.78
210707	SV-E3	381	<10.7	14.6	22.3	<11.9	<7.53	<5.55	10.4	36.1	23.0	<5.55	<9.18	<7.13	<5.79
210707-DIL	SV-E3														
210708	SV-E2	132	<10.8	42.8	<15.2	<12.0	<7.56	<5.57	<7.05	<6.61	<8.70	<5.57	<9.22	<7.16	<5.81
210709	SV-F2	<55.5	<10.9	<14.8	<15.4	<12.1	<7.63	<5.62	56.0	177	98.0	<5.62	17.8	22.0	<5.86
210709-DUP	SV-F2-DUP	55.5	<10.9	<14.8	<15.4	<12.1	<7.63	<5.62	71.5	246	135	<5.62	17.0	19.4	<5.86
210710	SV-F3	84.1	<10.9	117	<15.4	<12.1	<7.65	<5.64	<7.13	<6.69	<8.80	<5.64	<9.32	<7.24	<5.88
210711	SV-F4	65.3	<10.9	<14.9	<15.4	<12.1	<7.65	<5.64	7.82	23.1	13.7	<5.64	<9.32	<7.24	<5.88
210712	SV-F6	<55.6	<10.9	<14.9	<15.4	<12.1	<7.65	<5.64	<7.14	<6.69	<8.80	<5.64	<9.32	<7.24	<5.88
210713	SV-F5	88.8	<10.9	<14.9	<15.4	<12.1	<7.66	<5.64	<7.14	<6.70	<8.81	<5.64	<9.33	<7.25	<5.88
210714	SV-G5	<55.6	<10.9	<14.9	<15.4	<12.1	<7.66	<5.65	<7.14	<6.70	<8.81	<5.65	<9.33	<7.25	<5.89
210715	SV-G4	<55.7	<10.9	<14.9	<15.4	<12.1	<7.66	<5.65	<7.15	<6.70	<8.81	<5.65	<9.34	<7.25	<5.89
210716	SV-G3	<55.8	<10.9	<14.9	<15.5	<12.1	<7.69	<5.67	44.7	180	95.1	<5.67	<9.37	7.98	<5.91
210716-DIL	SV-G3														
210717	SV-G2	479	<10.9	<14.9	<15.4	<12.1	<7.67	<5.65	32.7	84.6	40.7	<5.65	<9.35	<7.26	<5.89
210717-DUP	SV-G2-DUP	472	<10.9	<14.9	<15.4	<12.1	<7.67	<5.65	34.7	90.4	43.7	<5.65	<9.35	<7.26	<5.89
210718	SV-G1	1260	<10.9	<14.9	<15.5	13.4	<7.69	<5.67	30.8	103	57.6	<5.67	<9.37	8.67	<5.91
210718-DIL	SV-G1														
210719	SV-D4	396	<10.5	23.6	<14.8	<11.6	<7.33	<5.39	10.8	28.3	14.7	<5.39	<8.94	<6.94	<5.63
210720	SV-D3	104	<10.5	92.3	<14.8	<11.6	<7.33	<5.39	14.7	39.5	19.4	<5.39	<8.95	<6.94	<5.63
210720-DIL	SV-D3														
210721	SV-D2	<54.1	<10.5	<14.3	<14.8	<11.6	<7.34	<5.40	9.48	30.2	16.3	<5.40	<8.96	7.62	<5.64
210721-DIL	SV-D2														
210722	SV-D1	293	<10.5	74.3	<14.9	<11.7	<7.36	<5.42	28.8	75.0	39.1	<5.42	<8.98	<6.97	<5.66
210722-DIL	SV-D1														
210723	SV-E1	184	<10.5	<14.4	<14.9	<11.7	<7.37	<5.42	<6.86	<6.44	<8.48	<5.42	<8.99	<6.98	<5.66
210724	SV-F1	357	<10.5	29.0	<14.9	<11.7	<7.37	<5.42	12.1	37.2	22.6	<5.42	<9.00	<6.98	<5.66
210725	SV-H1	131	<10.6	<14.4	<15.0	<11.7	<7.41	<5.46	10.2	6.48	35.6	<5.46	122	141	<5.70
210725-DIL	SV-H1														
210726	SV-H2	87.0	<10.6	<14.5	<15.0	<11.7	<7.42	<5.46	10.9	30.6	14.9	<5.46	<9.05	<7.03	<5.70
210727	SV-H3	68.7	<10.6	<14.5	<15.0	<11.8	<7.43	<5.47	27.2	79.4	40.9	<5.47	<9.06	11.0	<5.71

AMPLIFIED GEOCHEMICAL IMAGING, LLC
210 EXECUTIVE DRIVE, SUITE 1, NEWARK, DE 19702
WSP USA
STANDARD TARGET VOCs/SVOCs
ESTIMATED SOIL GAS CONCENTRATIONS
FORMER MRC
ORDER # T02497

DATAFILE	FIELD				estimated			estimated							
NAME	ID	TCE, ug/m^3	112TCA, ug/m^3	TOL, ug/m^3	OCT, ug/m^3	PCE, ug/m^3	ClBENZ, ug/m^3	1112TetCA, ug/m^3	ETBENZ, ug/m^3	mpXYL, ug/m^3	oXYL, ug/m^3	1122TetCA, ug/m^3	135TMB, ug/m^3	124TMB, ug/m^3	13DCB, ug/m^3
RL =		54.8	10.7	14.6	15.1	11.9	7.49	5.52	6.98	6.55	8.62	5.52	9.14	7.09	5.76
MDL =		7.21	1.66	2.48	2.78	1.21	1.40	0.58	1.13	0.67	2.29	0.58	1.85	1.17	0.62
210728	SV-H4	<54.7	<10.6	<14.5	<15.1	<11.8	<7.46	<5.49	<6.96	<6.52	<8.59	<5.49	<9.10	<7.07	<5.73
210729	SV-H5	<54.7	<10.6	<14.5	<15.1	<11.8	<7.47	<5.50	<6.96	11.7	11.0	<5.50	<9.11	<7.07	<5.74
210730	SV-I6	<54.8	<10.7	<14.6	<15.1	<11.8	<7.48	<5.51	<6.97	<6.54	<8.61	<5.51	<9.13	<7.08	<5.75
210731	SV-I5	64.4	<10.7	<14.6	<15.1	<11.8	<7.49	<5.51	<6.98	<6.54	<8.62	<5.51	<9.13	<7.09	<5.75
210732	SV-I4	262	<10.7	<14.6	<15.1	<11.9	<7.50	<5.52	20.3	48.0	29.9	<5.52	<9.14	<7.10	<5.76
210732-DIL	SV-I4														
210733	SV-J4	266	<10.7	<14.6	<15.1	<11.9	<7.50	<5.52	28.8	90.3	45.1	<5.52	<9.15	<7.10	<5.76
210734	SV-J5	78.5	<10.7	<14.6	<15.1	<11.9	<7.51	<5.53	<7.00	<6.56	<8.64	<5.53	<9.15	<7.11	<5.77
210736	SV-K4	2100	<10.7	<14.6	<15.2	<11.9	<7.52	<5.54	36.6	128	66.8	<5.54	<9.17	9.83	<5.78
210736-DIL	SV-K4														
210737	SV-L5	1670	<10.7	17.4	<15.2	125	<7.53	<5.54	<7.02	<6.58	<8.66	<5.54	<9.18	<7.13	<5.78
210738	SV-L4	69.3	<10.7	<14.6	<15.2	<11.9	<7.53	<5.55	77.5	264	132	<5.55	<9.18	9.84	<5.79
210738-DIL	SV-L4														
210739	SV-L3	<55.1	<10.7	<14.7	<15.2	<11.9	<7.54	<5.55	8.39	36.2	21.5	<5.55	<9.19	7.14	<5.79
210739-DIL	SV-L3														
210740	SV-L2	87.9	<10.7	<14.7	<15.2	<11.9	<7.54	<5.56	106	439	212	<5.56	<9.20	12.5	<5.80
210740-DIL	SV-L2														
210741	SV-L1	<55.1	<10.8	<14.7	<15.2	<11.9	<7.55	<5.56	33.5	150	89.0	<5.56	<9.21	11.2	<5.80
210741-DIL	SV-L1														
210742	SV-A3	<54.2	<10.5	<14.4	<14.9	<11.7	<7.37	<5.42	<6.87	<6.44	<8.48	<5.42	<8.99	<6.98	<5.66
210743	SV-I1	655	<10.6	<14.5	<15.0	37.2	<7.43	<5.47	9.59	30.0	23.5	<5.47	<9.06	<7.03	<5.71
210743-DIL	SV-I1														
210744	SV-J1	676	<10.6	27.9	<15.0	<11.8	<7.45	<5.48	13.6	25.0	22.0	<5.48	29.4	44.9	<5.72
210744-DIL	SV-J1														
210745	SV-I2	979	<10.7	<14.5	<15.1	59.5	<7.47	<5.50	<6.97	12.3	11.8	<5.50	<9.11	<7.08	<5.74
210746	SV-I3	167	<10.8	<14.7	<15.3	<12.0	<7.58	<5.58	<7.07	<6.63	<8.72	<5.58	<9.24	<7.18	<5.82
210746-DIL	SV-I3														
210747	SV-I2	74.5	<10.8	<14.8	<15.3	<12.0	<7.60	<5.60	<7.09	13.8	23.2	<5.60	<9.27	<7.20	<5.84
210747-DIL	SV-I2														
210748	SV-J3	142	<10.8	<14.8	<15.3	<12.0	<7.61	<5.61	9.84	39.1	24.1	<5.61	<9.28	<7.21	<5.85
210749	SV-K1	312	<10.9	<14.8	51.8	<12.0	<7.62	<5.62	13.9	40.5	34.2	<5.62	22.7	25.3	<5.86
210749-DIL	SV-K1														
210750	SV-K2	285	<10.9	<14.8	<15.4	<12.1	<7.63	<5.62	<7.11	<6.67	<8.77	<5.62	<9.29	<7.22	<5.86
210751T	TRIP_BLANK	<54.8	<10.7	<14.6	<15.1	<11.9	<7.49	<5.52	<6.98	<6.55	<8.62	<5.52	<9.14	<7.09	<5.76
210753T	TRIP_BLANK	<54.8	<10.7	<14.6	<15.1	<11.9	<7.49	<5.52	<6.98	<6.55	<8.62	<5.52	<9.14	<7.09	<5.76
210754T	TRIP_BLANK	<54.8	<10.7	<14.6	<15.1	<11.9	<7.49	<5.52	<6.98	<6.55	<8.62	<5.52	<9.14	<7.09	<5.76
cmBLK-1	METHOD_BLANK	<54.8	<10.7	<14.6	<15.1	<11.9	<7.49	<5.52	<6.98	<6.55	<8.62	<5.52	<9.14	<7.09	<5.76
cmBLK-1	METHOD BLANK	<54.8	<10.7	<14.6	<15.1	<11.8	<7.48	<5.51	<6.97	<6.54	<8.61	<5.51	<9.13	<7.09	<5.75
cmBLK-2	METHOD_BLANK	<54.8	<10.7	<14.6	<15.1	<11.9	<7.49	<5.52	<6.98	<6.55	<8.62	<5.52	<9.14	<7.09	<5.76
cmBLK-2	METHOD BLANK	<54.8	<10.7	<14.6	<15.1	<11.8	<7.48	<5.51	<6.97	<6.54	<8.61	<5.51	<9.13	<7.09	<5.75
cmBLK-3	METHOD_BLANK	<54.8	<10.7	<14.6	<15.1	<11.9	<7.49	<5.52	<6.98	<6.55	<8.62	<5.52	<9.14	<7.09	<5.76
cmBLK-4	METHOD_BLANK	<54.8	<10.7	<14.6	<15.1	<11.9	<7.49	<5.52	<6.98	<6.55	<8.62	<5.52	<9.14	<7.09	<5.76

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ESTIMATED SOIL GAS CONCENTRATIONS
FORMER MRC
ORDER # T02497

DATAFILE	FIELD			estimated	estimated	estimated	estimated	estimated	estimated	estimated	estimated
NAME	ID	14DCB, ug/m^3	12DCB, ug/m^3	UNDEC, ug/m^3	NAPH, ug/m^3	TRIDEC, ug/m^3	2MeNAPH, ug/m^3	Acenaphthylene, ug/m^3	PENTADEC, ug/m^3	Acenaphthene, ug/m^3	Fluorene, ug/m^3
RL =		5.74	5.47	5.47	5.47	5.47	5.47	25.7	25.7	25.7	25.7
MDL =		0.64	0.60	0.70	0.70	0.60	0.70	0.98	0.70	0.60	2.03
210679	SV-B3	<5.67	<5.40	<5.40	171	<5.40	74.0	<25.4	<25.4	63.7	34.1
210680	SV-B4	<5.66	<5.39	<5.39		19.5		34.1	<25.4		
210680-DIL	SV-B4				9970		4240			1860	1390
210681	SV-A5	<5.65	<5.38	<5.38	<5.38	<5.38	<5.38	<25.3	<25.3	<25.3	<25.3
210682	SV-B5	<5.65	<5.38	5.38	<5.38	<5.38	<5.38	<25.3	<25.3	<25.3	<25.3
210683	SV-B6	<5.64	<5.37	16.0	<5.37	10.5	<5.37	<25.3	<25.3	<25.3	<25.3
210683-DIL	SV-B6										
210684	SV-A6	<5.64	<5.37	9.45	<5.37	<5.37	<5.37	<25.3	<25.3	<25.3	<25.3
210684-DIL	SV-A6										
210685	SV-A4	<5.67	<5.40	<5.40	<5.40	<5.40	<5.40	<25.4	<25.4	<25.4	<25.4
210686	SV-B2	<5.67	<5.40	<5.40	<5.40	<5.40	<5.40	<25.4	<25.4	<25.4	<25.4
210687	SV-B1	<5.67	<5.40	<5.40	<5.40	<5.40	<5.40	<25.4	<25.4	<25.4	<25.4
210688	SV-A2	<5.68	<5.41	<5.41	<5.41	<5.41	<5.41	<25.4	<25.4	<25.4	<25.4
210689	SV-A1	<5.68	<5.41	8.50	<5.41	<5.41	<5.41	<25.4	<25.4	<25.4	<25.4
210689-DUP	SV-A1-DUP	<5.68	<5.41	<5.41	<5.41	<5.41	<5.41	<25.4	<25.4	<25.4	<25.4
210690	SV-C1	<5.68	<5.41	5.93	12.6	6.97	5.41	<25.5	<25.5	<25.5	<25.5
210690-DIL	SV-C1										
210691	SV-C2	<5.69	<5.42	<5.42	<5.42	<5.42	<5.42	<25.5	<25.5	<25.5	<25.5
210692	SV-C3	<5.69	<5.42	5.95	6.46	5.95	<5.42	<25.5	<25.5	<25.5	<25.5
210692-DIL	SV-C3										
210693	SV-C4	<5.71	<5.43	10.1	30.5	13.6	5.96	<25.6	<25.6	<25.6	<25.6
210693-DIL	SV-C4										
210694	SV-C5	<5.71	<5.44	6.49	<5.44	7.01	<5.44	<25.6	<25.6	<25.6	<25.6
210695	SV-C6	<5.72	<5.45	<5.45	<5.45	<5.45	<5.45	<25.6	<25.6	<25.6	<25.6
210696	SV-D6	<5.72	<5.45	<5.45	<5.45	<5.45	<5.45	<25.7	<25.7	<25.7	<25.7
210697	SV-D5	<5.73	<5.46	<5.46	<5.46	<5.46	<5.46	<25.7	<25.7	<25.7	<25.7
210704	SV-E6	<5.76	<5.49	<5.49	<5.49	<5.49	<5.49	<25.8	<25.8	<25.8	<25.8
210705	SV-E5	<5.76	<5.49	<5.49	<5.49	<5.49	<5.49	<25.8	<25.8	<25.8	<25.8
210706	SV-E4	<5.77	<5.49	<5.50	<5.50	<5.50	<5.50	<25.8	<25.8	<25.8	<25.8
210707	SV-E3	<5.77	<5.50	8.64	<5.50	<5.50	<5.50	<25.9	<25.9	<25.9	<25.9
210707-DIL	SV-E3										
210708	SV-E2	<5.79	<5.52	<5.52	<5.52	<5.52	<5.52	<26.0	<26.0	<26.0	<26.0
210709	SV-F2	<5.84	<5.57	22.7	6.11	8.23	7.70	<26.2	<26.2	<26.2	<26.2
210709-DUP	SV-F2-DUP	<5.84	<5.57	10.9	<5.57	<5.57	<5.57	<26.2	<26.2	<26.2	<26.2
210710	SV-F3	<5.86	<5.58	<5.58	<5.58	<5.58	<5.58	<26.3	<26.3	<26.3	<26.3
210711	SV-F4	<5.86	<5.58	<5.59	<5.59	<5.59	<5.59	<26.3	<26.3	<26.3	<26.3
210712	SV-F6	<5.86	<5.59	<5.59	<5.59	<5.59	<5.59	<26.3	<26.3	<26.3	<26.3
210713	SV-F5	<5.87	<5.59	<5.59	<5.59	<5.59	<5.59	<26.3	<26.3	<26.3	<26.3
210714	SV-G5	<5.87	<5.59	<5.59	<5.59	<5.59	<5.59	<26.3	<26.3	<26.3	<26.3
210715	SV-G4	<5.87	<5.59	<5.60	<5.60	<5.60	<5.60	<26.3	<26.3	<26.3	<26.3
210716	SV-G3	<5.89	<5.62	10.9	<5.62	12.0	7.23	<26.4	<26.4	<26.4	<26.4
210716-DIL	SV-G3										
210717	SV-G2	<5.88	<5.60	<5.60	<5.60	<5.60	<5.60	<26.3	<26.3	<26.3	<26.3
210717-DUP	SV-G2-DUP	<5.88	<5.60	<5.60	<5.60	<5.60	<5.60	<26.3	<26.3	<26.3	<26.3
210718	SV-G1	<5.89	<5.61	36.0	8.83	61.3	6.15	<26.4	37.5	<26.4	<26.4
210718-DIL	SV-G1										
210719	SV-D4	<5.61	<5.34	6.37	<5.34	16.9	<5.34	<25.1	<25.1	<25.1	<25.1
210720	SV-D3	<5.62	<5.35	5.35	<5.35	5.86	9.41	<25.2	<25.2	<25.2	<25.2
210720-DIL	SV-D3										
210721	SV-D2	<5.62	<5.36	12.4	11.9	11.9	15.9	<25.2	<25.2	<25.2	<25.2
210721-DIL	SV-D2										
210722	SV-D1	<5.64	<5.37	17.9	<5.37	13.0	<5.37	<25.3	<25.3	<25.3	<25.3
210722-DIL	SV-D1										
210723	SV-E1	<5.64	<5.37	<5.38	<5.38	<5.38	<5.38	<25.3	<25.3	<25.3	<25.3
210724	SV-F1	<5.65	<5.38	<5.38	<5.38	<5.38	<5.38	<25.3	<25.3	<25.3	<25.3
210725	SV-H1	<5.68	<5.41	57.2	117	100	121	<25.4	54.3	<25.4	<25.4
210725-DIL	SV-H1										
210726	SV-H2	<5.68	<5.41	<5.42	<5.42	<5.42	<5.42	<25.5	<25.5	<25.5	<25.5
210727	SV-H3	<5.69	<5.42	11.1	<5.42	<5.42	<5.42	<25.5	<25.5	<25.5	<25.5

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DATAFILE	FIELD			estimated	estimated	estimated	estimated	estimated	estimated	estimated	estimated
NAME	ID	14DCB, ug/m^3	12DCB, ug/m^3	UNDEC, ug/m^3	NAPH, ug/m^3	TRIDEC, ug/m^3	2MeNAPH, ug/m^3	Acenaphthylene, ug/m^3	PENTADEC, ug/m^3	Acenaphthene, ug/m^3	Fluorene, ug/m^3
RL =		5.74	5.47	5.47	5.47	5.47	5.47	25.7	25.7	25.7	25.7
MDL =		0.64	0.60	0.70	0.70	0.60	0.70	0.98	0.70	0.60	2.03
210728	SV-H4	<5.72	<5.45	<5.45	<5.45	<5.45	5.97	<25.6	<25.6	<25.6	<25.6
210729	SV-H5	<5.72	<5.45	<5.45	<5.45	<5.45	<5.45	<25.6	<25.6	<25.6	<25.6
210730	SV-I6	<5.73	<5.46	<5.46	<5.46	<5.46	<5.46	<25.7	<25.7	<25.7	<25.7
210731	SV-I5	<5.74	<5.46	<5.47	<5.47	<5.47	<5.47	<25.7	<25.7	<25.7	<25.7
210732	SV-I4	<5.74	<5.47	14.7	<5.47	27.7	<5.47	<25.7	<25.7	<25.7	<25.7
210732-DIL	SV-I4										
210733	SV-J4	<5.75	<5.48	7.57	<5.48	7.57	<5.48	<25.8	<25.8	<25.8	<25.8
210734	SV-J5	<5.75	<5.48	<5.48	<5.48	<5.48	<5.48	<25.8	<25.8	<25.8	<25.8
210736	SV-K4	<5.76	<5.49	13.8	8.63	15.8	<5.49	<25.8	<25.8	<25.8	<25.8
210736-DIL	SV-K4										
210737	SV-L5	<5.77	107	<5.49	<5.49	<5.49	<5.49	<25.8	<25.8	<25.8	<25.8
210738	SV-L4	<5.77	<5.50	13.3	10.7	15.3	<5.50	<25.9	<25.9	<25.9	<25.9
210738-DIL	SV-L4										
210739	SV-L3	<5.78	<5.50	16.8	31.8	25.4	21.9	<25.9	28.9	<25.9	<25.9
210739-DIL	SV-L3										
210740	SV-L2	<5.78	<5.51	10.2	7.09	14.8	<5.51	<25.9	<25.9	<25.9	<25.9
210740-DIL	SV-L2										
210741	SV-L1	<5.78	<5.51	17.4	8.14	14.8	5.51	<25.9	<25.9	<25.9	<25.9
210741-DIL	SV-L1										
210742	SV-A3	<5.65	<5.38	<5.38	<5.38	<5.38	<5.38	<25.3	<25.3	<25.3	<25.3
210743	SV-I1	<5.69	<5.42	19.1	<5.42	51.1	<5.42	<25.5	<25.5	<25.5	<25.5
210743-DIL	SV-I1										
210744	SV-J1	<5.70	<5.43	90.0	30.0	22.6	10.6	<25.6	<25.6	<25.6	<25.6
210744-DIL	SV-J1										
210745	SV-I2	<5.72	<5.45	<5.45	<5.45	<5.45	<5.45	<25.7	<25.7	<25.7	<25.7
210746	SV-I3	<5.81	<5.53	<5.53	<5.53	<5.53	7.12	<26.0	<26.0	<26.0	<26.0
210746-DIL	SV-I3										
210747	SV-I2	<5.82	<5.55	11.3	6.08	17.5	5.55	<26.1	<26.1	<26.1	<26.1
210747-DIL	SV-I2										
210748	SV-J3	<5.83	<5.56	<5.56	<5.56	<5.56	<5.56	<26.1	<26.1	<26.1	<26.1
210749	SV-K1	<5.84	<5.56	104	11.4	74.3	17.5	<26.2	<26.2	<26.2	<26.2
210749-DIL	SV-K1										
210750	SV-K2	<5.84	<5.57	<5.57	<5.57	<5.57	<5.57	<26.2	<26.2	<26.2	<26.2
210751T	TRIP_BLANK	<5.74	<5.47	<5.47	<5.47	<5.47	<5.47	<25.7	<25.7	<25.7	<25.7
210753T	TRIP_BLANK	<5.74	<5.47	<5.47	<5.47	<5.47	<5.47	<25.7	<25.7	<25.7	<25.7
210754T	TRIP_BLANK	<5.74	<5.47	<5.47	<5.47	<5.47	<5.47	<25.7	<25.7	<25.7	<25.7
cmBLK-1	METHOD_BLANK	<5.74	<5.47	<5.47	<5.47	<5.47	<5.47	<25.7	<25.7	<25.7	<25.7
cmBLK-1	METHOD BLANK	<5.73	<5.46	<5.46	<5.46	<5.46	<5.46	<25.7	<25.7	<25.7	<25.7
cmBLK-2	METHOD_BLANK	<5.74	<5.47	<5.47	<5.47	<5.47	<5.47	<25.7	<25.7	<25.7	<25.7
cmBLK-2	METHOD BLANK	<5.73	<5.46	<5.46	<5.46	<5.46	<5.46	<25.7	<25.7	<25.7	<25.7
cmBLK-3	METHOD_BLANK	<5.74	<5.47	<5.47	<5.47	<5.47	<5.47	<25.7	<25.7	<25.7	<25.7
cmBLK-4	METHOD_BLANK	<5.74	<5.47	<5.47	<5.47	<5.47	<5.47	<25.7	<25.7	<25.7	<25.7

KEY TO DATA TABLE

UNITS

µg	micrograms, relative mass value
µg/m^3	micrograms per cubic meter; estimated soil gas concentration
µg/L	micrograms per Liter; calculated water concentration

DATA QUALIFIERS

>	greater than; value exceeds calibration range, estimated value
<	less than; compound value is below the LOD and RL
J	mass value below LOQ or RL, but above LOD, estimated mass value
E	mass value exceeds upper calibration level, estimated mass value
Q	one or more quality control parameters failed for the compound

ABBREVIATIONS

AVG RL	average reporting limit; calculated based on individual field sample RLs
LOD	limit of detection
LOQ	limit of quantification
MDL	method detection limit
RL	reporting limit

1112TetCA	1,1,1,2-tetrachloroethane
111TCA	1,1,1-trichloroethane
1122TetCA	1,1,2,2-tetrachloroethane
112TCA	1,1,2-trichloroethane
11DCA	1,1-dichloroethane
11DCE	1,1-dichloroethene
124TMB	1,2,4-trimethylbenzene
12DCA	1,2-dichloroethane
12DCB	1,2-dichlorobenzene
135TMB	1,3,5-trimethylbenzene
13DCB	1,3-dichlorobenzene
14DCB	1,4-dichlorobenzene
2MeNAPH	2-methyl naphthalene
BENZ	benzene
BTEX	combined masses of benzene, toluene, ethylbenzene, and total xylenes (Gasoline Range Aromatics)
C11,C13&C15	combined masses of undecane, tridecane, and pentadecane (C11+C13+C15) (Diesel Range Alkanes)
c12DCE	cis-1,2-dichloroethene
CCl4	carbon tetrachloride
CHC13	chloroform
ClBENZ	chlorobenzene
ct12DCE	cis- & trans-1,2-dichloroethene
EtBENZ	ethylbenzene
mpXYL	m-, p-xylene
MTBE	methyl t-butyl ether
NAPH	naphthalene
OCT	octane
oXYL	o-xylene
PCE	tetrachloroethene
PENTADEC	pentadecane
PHEN	phenanthrene
t12DCE	trans-1,2-dichloroethene
TCE	trichloroethene
TMBs	combined masses of 1,3,5-trimethylbenzene and 1,2,4-trimethylbenzene
TOL	toluene
TPH	total petroleum hydrocarbons
TRIDEC	tridecane
UNDEC	undecane
VC	vinyl chloride

SUMMARY OF SAMPLING RATE CALIBRATION FOR AGI SPG-0008 SAMPLER IN A GAS PHASE

PURPOSE:

The purpose of this document is to:

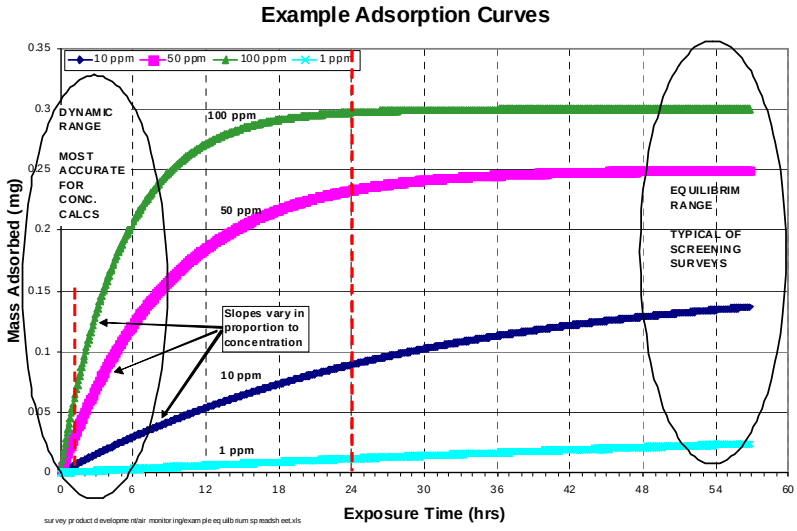
1. Summarize the test protocol,
2. Summarize the methodology for analysis of data,
3. Present general results for generating concentration calibration

of the AGI Sampler, SPG-0008, in a gas phase (air or soil gas) following AGI's "Standard practice for determining the sampling rate of passive diffusion samplers in various environmental media," SPG-SOP-0493. The work will be summarized in two parts: Part 1: air, Part 2: soil gas.

Principle of Operation of the AGI Sampler

The AGI Sampler is designed with solid adsorbents enclosed inside a tubular microporous PTFE membrane. When placed in soil or saturated soil, the pores and hydrophobic nature of the PTFE keep liquid water from entering the membrane. The membrane will not keep water vapor from entering but the adsorbents are very hydrophobic and testing of the SPG-0008 sampler has validated it to be unaffected by this moisture vapor. Compounds in air with vapor pressures above about 1 millionth of a mm of Hg will diffuse through the microporous membrane and be immediately captured on the solid adsorbent housed inside. The membrane porosity and dimensions are well controlled as is the mass of the adsorbent contained inside the sampler. The average pore diameter of the membrane is 1000 times larger that of the compounds of interest, meaning the membrane offers a minimal resistance. On the other hand, the membrane pore size is small enough that colloidal particles and microbes can not pass through the membrane. This keeps the adsorbent from getting contaminated and eliminates any need to add preservative or chill during storage or transportation.

When a sampler is exposed to compounds in air, mass from the volatile compound are collected on the solid adsorbent inside the microporous PTFE membrane. To the right is a generalized example of mass uptake with time for this sampler.



Notice the initial slope and ultimate equilibrium mass both increase with increasing concentrations. For shorter time the increase is virtually

linear but as the mass increases toward the steady state, mass uptake slows and mass eventually reaches an asymptote. The initial range is referred to as the dynamic linear range while the later stage is referred to as the equilibrium range.

The sampling rate calibration for this passive sampler will apply to the linear and near-linear dynamic range, where accuracy and precision are best.

Temperature can affect both the diffusivity in air, which is part of the sampling rate but also the binding energy of the compound to the adsorbent. In general passive sampling devices are not highly affected by temperature although the effect will be more important for lower MW compounds. It is not uncommon to have an Arrhenius factor, -Ea/R of <1000, which means a 5°C temperature change will make less than a 5% change in sampling rate.

In soil, the matrix of particles and water creates a resistance to soil gas diffusion. Millington (Millington 1959) has modeled this resistance and developed a model to correct the diffusion for this added resistance based upon the porosity of the soil and the fraction of pores filled with water. This "Soil Effectiveness Factor" can lower the sampling rate in soil to 40% to 10% of that in free air. This will discussed further in Part 2.

PART 1: Calibration in Air

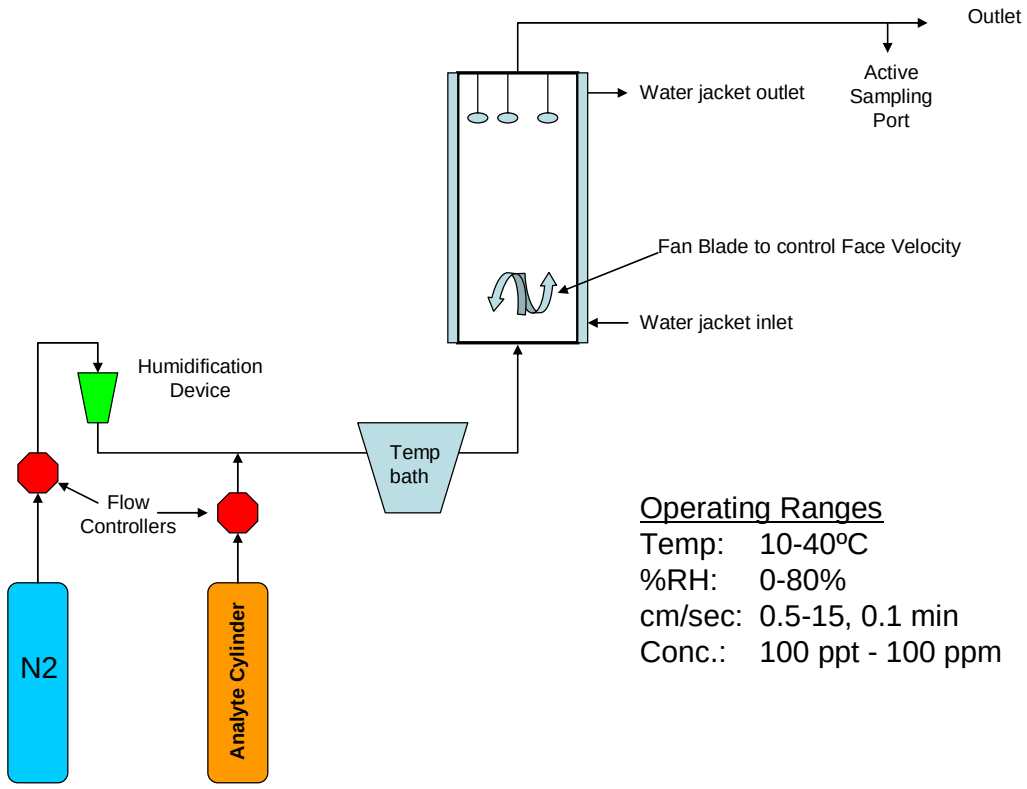
Part 1 summarizes the work in free air generating calibration data, evaluating the physical and chemical factors affecting the sampling rate, and measurement of the actual sampling rates or regression calibration equations needed to determine concentrations.

Sample Generation in Air

In this calibration work, gaseous mixtures of analytes at known concentrations were generated inside a 3 liter glass vessel by mixing flow from gaseous standard cylinders with nitrogen using electronic flow controllers. A diagram of the set up is shown below. Total flow through the vessel ranged from 2 to 50 liters/min with an aim, where possible, of using a flow 20 or more times the combined sampling rate of AGI® Sampler being tested.

This gas mixture was temperature controlled by running it through a coil in a temperature controlled chiller. Similarly, the glass vessel was also temperature controlled by circulating the chiller fluid through the vessel jacket. A mercury thermometer in the vessel was used to determine the experiment temperature. The humidity level of the mixed gas was modified by passing the nitrogen portion of the gas mixture through a bubbler. Different humidity levels could be achieved by using water or saturated salt solutions in the bubbler that generate different relative humidities.

Passive Diffusion Sampling Rate Measurement Apparatus



Internal wind velocity was controlled using a propeller blade attached to a shaft and motor. RPM was measured to calculate air velocity based on propeller pitch and rpm.

Before each experiment, the system was run for minutes to hours to allow temperature, humidity, and compound density on the vessel walls to stabilize. When changing concentrations, a stabilization time, typically, 2-10 hours, was provided to allow the vessel walls to reach a new equilibrium with the analyte concentrations and wall temperature.

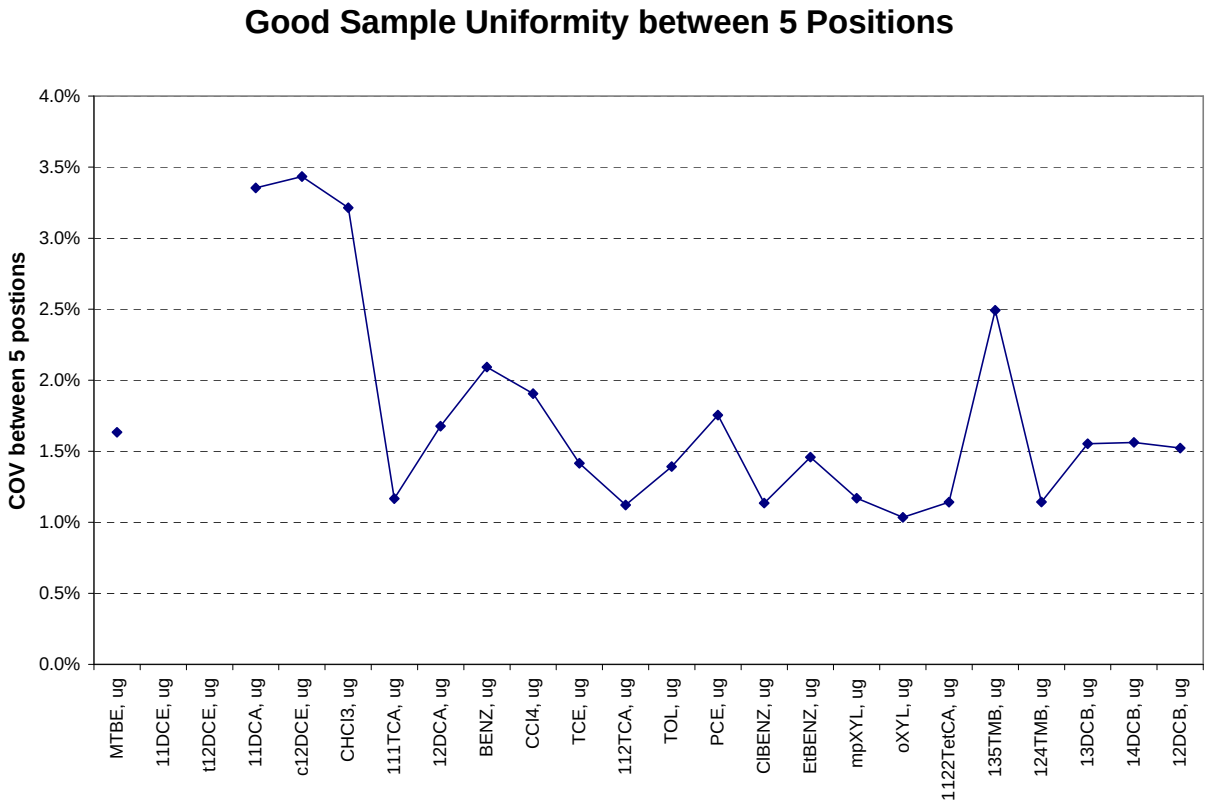
AGI sampler were hung inside the vessel at time zero. They were removed at various intervals to generate samples along with duplicates that showed mass increasing with exposure time. The sampler exposure time was selected to span minutes to hours and was generally reduced for high concentration tests to maintain uptake with time, in roughly the linear dynamic range. Sampler were removed and placed back into their original jars for analysis. They were analyzed by AGI's 8260C method (SPG-WI-0318 or SPG-WI-10028) in duplicate, which is based on EPA SW846 Method 8260C.

Vessel concentration was also measured during the tests using a TO-17 type of method. A MSA pump pulled about 1.5 L/hr of atmosphere from the chamber through two thermal desorption tubes in series, the first packed with Tenax-TA, and the second packed with a strong adsorbent carbon molecular sieve. Flow rate through the series of tubes was measured at the start and end of the pumping. Analysis of the thermal desorption tubes were performed by appropriate

analytical methods. Each Tenax-TA tube was analyzed by AGI's 8260C method (SPG-WI-0319 or SPG-WI-10028) and each carbonaceous tube by AGI's screening method (SPG-WI-0292). Typically only a small portion of the lower molecular weight compounds, such as DCA & DCE passed through the Tenax-TA tube to be captured on the carbon tube. Concentration was determined by

(sum of mass on both tubes)/(avg flow rate x hours) = ug/L

Up to five sampler can be placed simultaneously in the chamber. Testing confirmed good sample uniformity among the locations as shown by coefficients of variation generally below 3% in the chart below.



Most of the runs were performed using a TO-15 mix of compounds in a cylinder made up at nominally 1 ppm. Using nitrogen dilution, sampling rate measurements were done at concentrations from about 1 ppb to 50 ppb. Higher concentration cylinders can be used to generate concentrations in the ppm range if desired.

Sampling rate calibrations were run using multiple concentrations, typically 5-50 ppb and temperatures, typically 5°C to 35°C. Samples were run in duplicate. A total of 94 data points were generated using 23 compounds from AGI's standard compounds list. In addition, another 23 compounds were tested from those in the TO-15 mix. This is a living calibration and as additional data are generated, they may be qualified and added to this data set to improve the precision of the sampling rate calibration and broaden the compound list.

Key Variable Effects

Based on theory, at short to moderate exposure times mass will increase roughly linearly proportional to exposure time, as well as, proportional to concentration. For passive samplers in air, temperature generally does not have a major effect on sampling rate. Even so, this work examined the impact of temperature because it could have a small effect on diffusivity in air and potentially adsorption strength for low MW compounds.

Except in indoor environments, air velocity is expected to be low and of inconsequential importance. The passive adsorbent is protected by wind stopping AGI membrane. Even so, we looked at velocity effects. Based on the hydrophobic nature of the adsorbents in SPG-0008 sampler, humidity is not expected to impact sampling rate.

Sampling rate has been found to be generally independent of concentration and time at mass values significantly below saturation. In the following sections we have characterized the sampling rate for each compound as affected by temperature and also developed calibrations using regression which account for the minor impact of time, and mass.

Concentration using Simple Sampling Rate Determination

A simple way to determine concentration is to measure mass on the AGI sampler, divide by exposure time, and divide by sampling rate, SR.

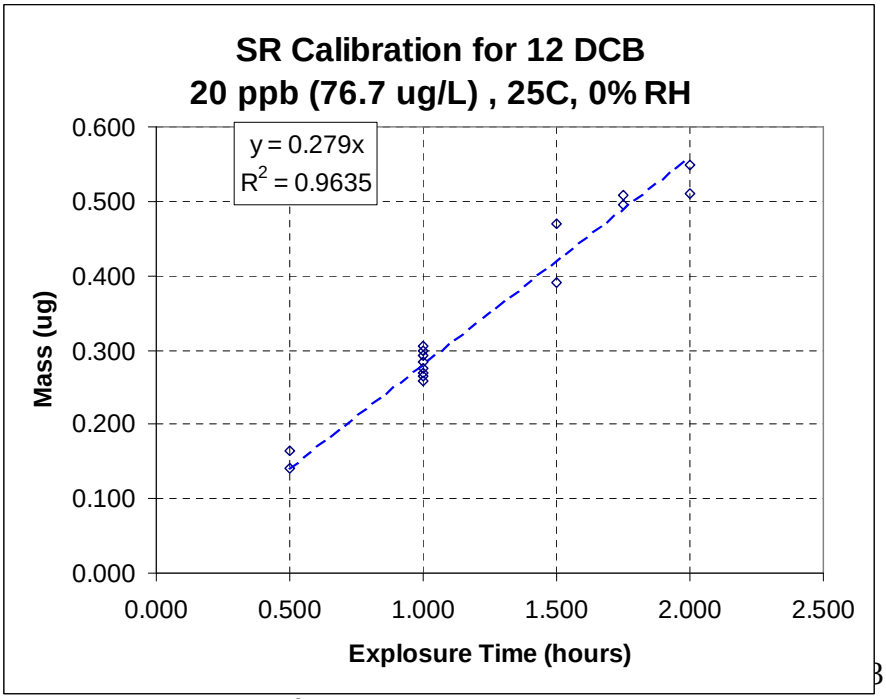
Conc [ug/L] = mass/time/SR (1)

The sampling rate can be determined via measurements of mass versus time at a known concentration and temperature according to the following modification of equation (1).

SR = mass/time/concentration (2)

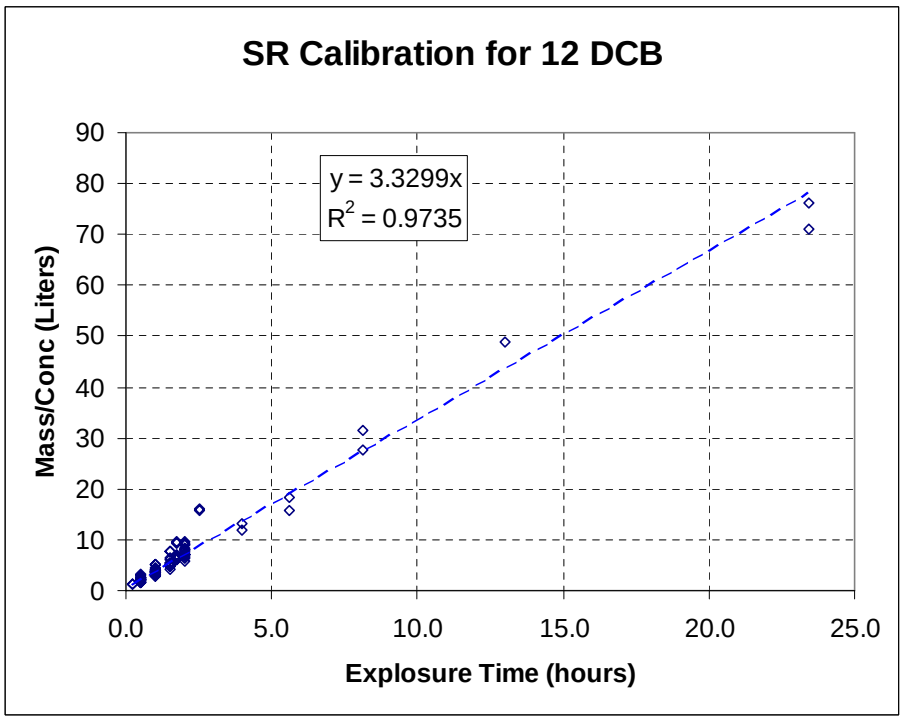
Sampling rates in L/hr were determined by measuring the trend or regression mass uptake versus time and dividing by the concentration. Such a sampling rate can be measured at any concentration and temperature.

The chart to the right shows a plot of mass versus time at 12DCB in nitrogen at nominally 20 ppb or 76.7 ug/cu m and



297K. This is actual data for one test run. The slope of 0.279 ug/hr divided by the concentration of 0.0767 ug/L yields a sampling rate, SR, of 3.64 L/hr.

The data could also be plotted as mass/Conc vs. time in which case the slope is the sampling rate directly as shown in the chart below. This allows the use of a larger data set incorporating multiple concentration tests.



Rigorous Concentration using Regression

A preferred method for determining concentration that will yield improved accuracy over a wide range of concentrations, exposure times, and temperatures is to use all data in a regression analysis. This allows adjustments for the minor non-linear influences of mass and time as well as the effects of temperature. This is done by regressing equation (1) or a universal version of equation (1)

$$Conc = (mass)^{b} / (time)^{-d} / [SRo*exp(-Ea/R/T)] \quad (3)$$

The subtle non-linear effects of mass and time will be evident in the deviation of coefficients b and d from 1.0. This regression generates four constants b, d, SRo, and –Ea/R by regressing ln(conc) versus ln(mass), ln(time), 1/temp. These four constants can be used to determine concentration via the equation:

$$Conc = (mass)^{b} / (time)^{-d} / [SRo \times exp(-Ea/R(1/T))] \quad (4)$$

Where conc is in ug/L, mass is in ug, time in hours, T in degrees Kelvin.

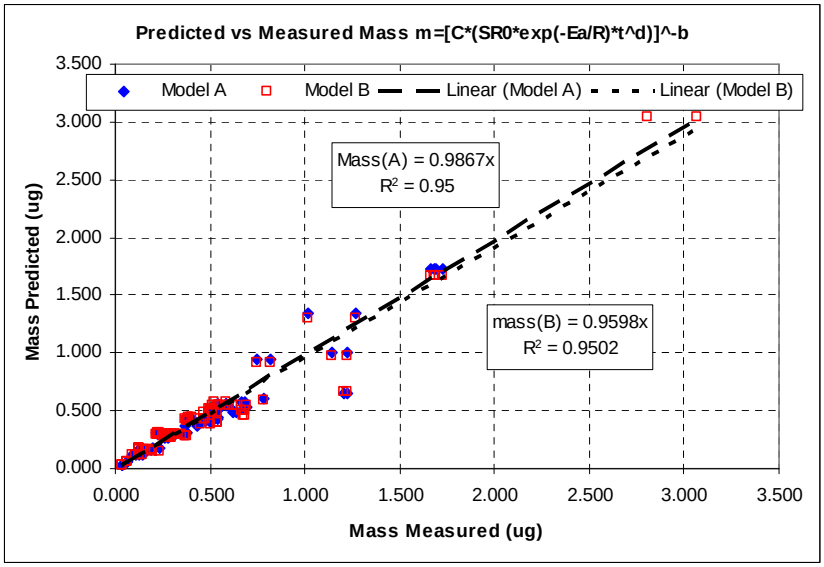
Equation (4) can also be expressed at a reference temperature, Tr, such as 15°C by

$$Conc = (mass)^{b} / (time)^{-d} / [SRr \times \exp(-Ea/R(1/Tr-1/T))] \quad (5)$$

This allows sampling rates, SRr, at any reference temperature, Tr, and for any analyte to easily be compared. These values of SRr at 25°C 298.14°K can be found in Table A.

The chart to the right is a plot of the 12DCB predicted mass from the 4 constant regression compared to the measured mass. Agreement is excellent for the 95 data points.

Model A or the blue points are the 4 constant model, while Model B or the red squares are a 3 constant model ignoring temperature. Error for 12DCB is slightly lower for Model A and for lower MW compounds it is much better.



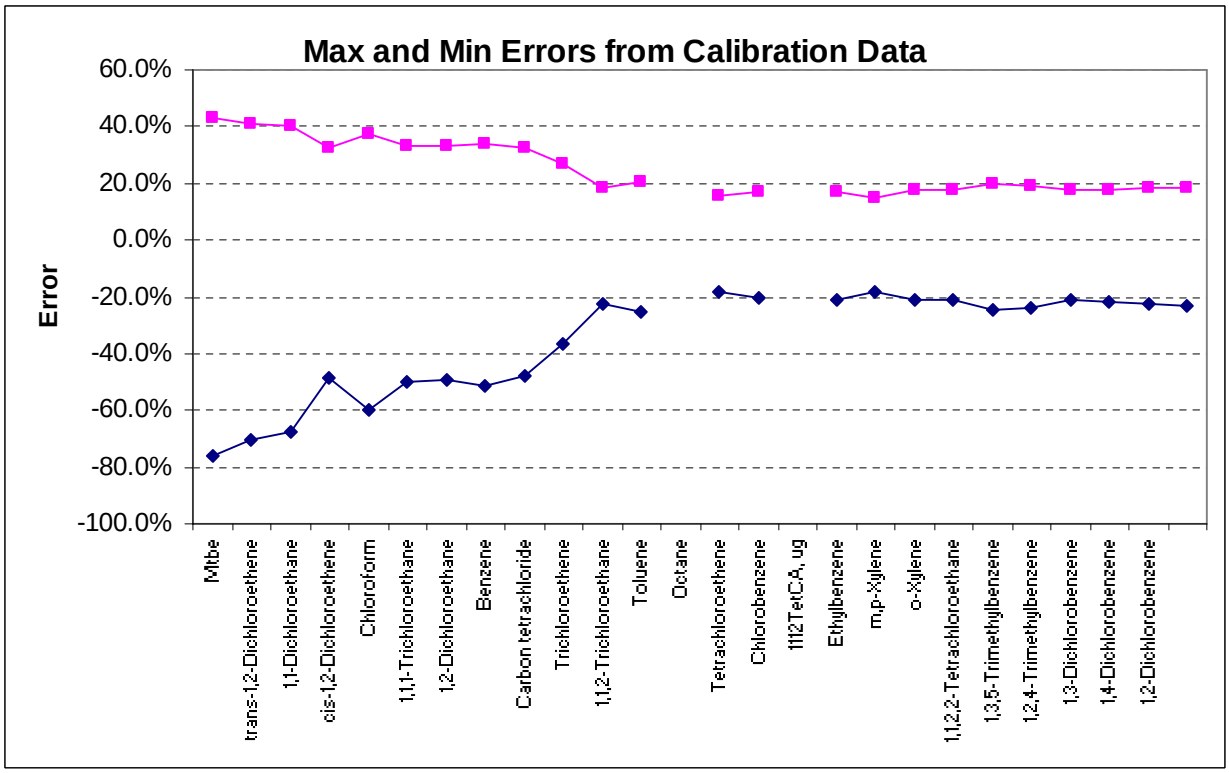
The 4 constant equation has been adopted for determining concentration in the gas phase.

Table B shows the tabulated summary of the 4 constants regression with Rsq values and error estimates for the 4 constants for each analyte. With the exception of MTBE and t12DCE the regression Rsq values are 0.9 or greater for each analyte. In general, temperature is more important for early eluting compounds where -Ea/R ranges from 2000 to 4000 while later eluting compounds (112TCA and above) are in the range of 500 to 1000 meaning they are less affected by temperature. Similarly, early eluting compounds have mass and time coefficients, b and d respectively, that deviate from 1.0.

Error Estimates

Table C shows the error in the mass values from the 8260C low sensitivity method (SPG-WI-318), which at a 95% confidence level is typically 10% - 15%. The error between the primary sample and the duplicate in the sampler is generally about 5% and shown in table D.

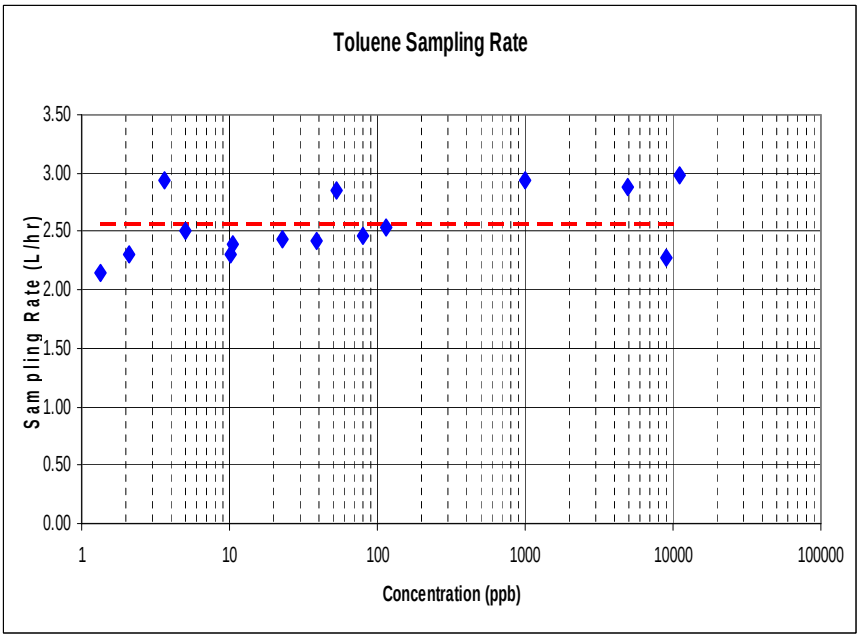
The standard error of the regression and standard errors of the constants can be found in table B. For each compound we have measured the error between the derived concentration and the actual concentration. This is tabulated in table D and shown below by compounds.



The maximum total error range is +/-20% for 112TCA and later eluting compounds. The maximum error range increases for compounds that elute earlier than 112TCA.

Effect of Concentration

The measurement of sampling rate, SR, is effectively independent of concentration. The chart below shows statistically consistent sampling rate over four decades of concentration change for toluene. This has also been observed for other tested compounds.



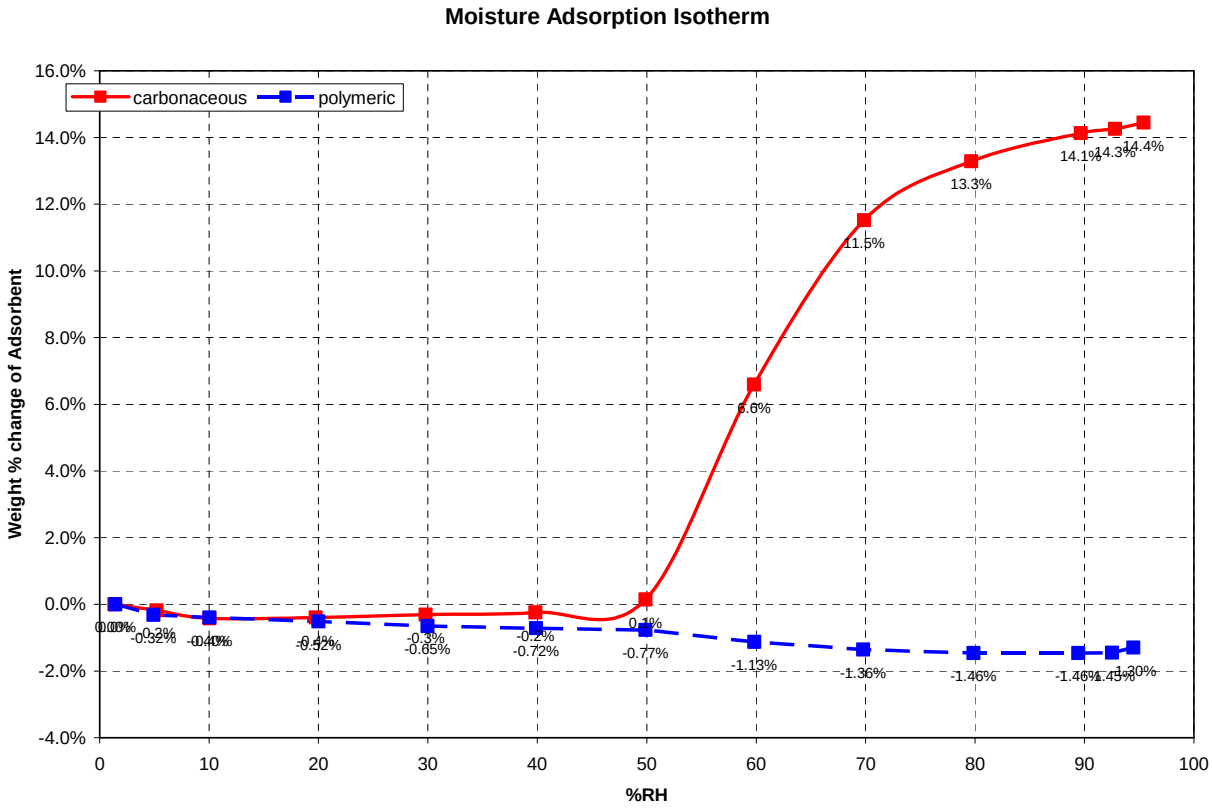
Sorbent Saturation

As mass increases on a solid sorbent and approaches saturation, reverse diffusion can occur causing the sampling rate to drop. Eventually the mass level will reach a maximum steady state value at any concentration. A rate of mass uptake with time that deviates significantly from linear, indicates that sorbent saturation could be an issue. When using equation (1), staying in the linear range to avoid the effects of adsorbent saturation is important. We recommend keeping the total mass on the sampler below 50 ug or flagging when this is exceeded.

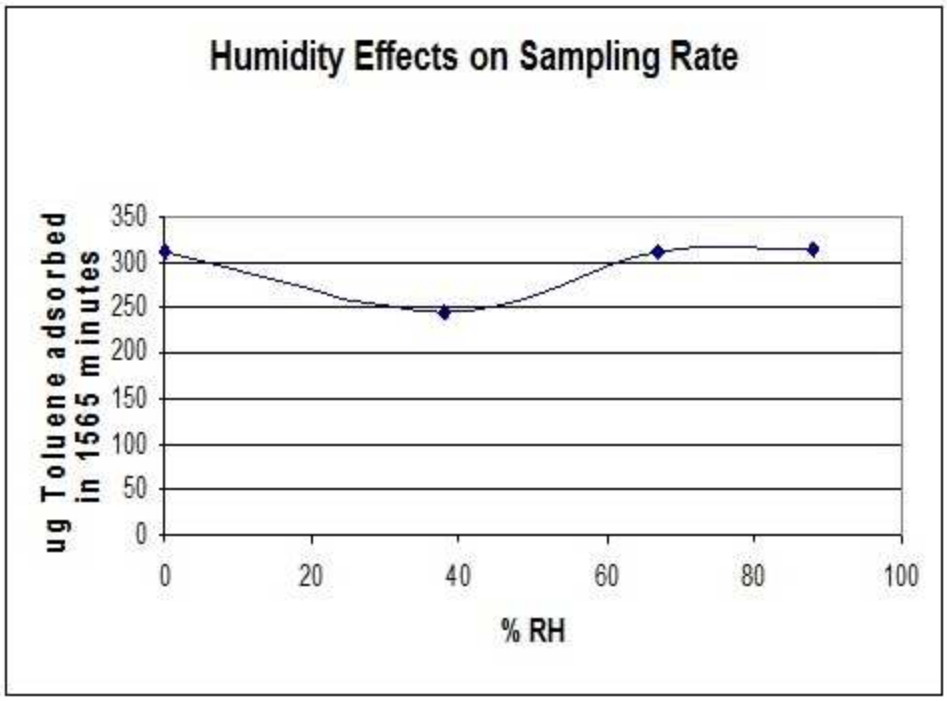
The 4 constant regression accounts for some of the non linearity allowing good accuracy at higher mass levels. From the experimental data we have found this safe range can be extended potentially up to 100 ug.

Effect of Relative Humidity

The adsorbent system used in the SPG-0008 sampler is a proprietary multi-polymer system. It was tested compared to a carbon adsorbent in a RH chamber for weight gain and found to be effectively unaffected by moisture.



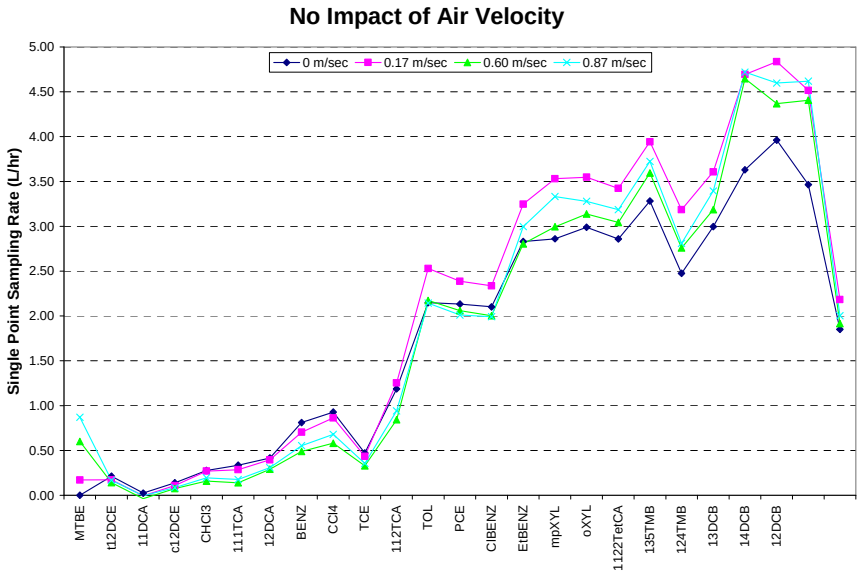
Additionally, mass adsorption was relatively constant at relative humidity ranging from 0% to 95%.



Impact of Air Velocity

To examine the potential impact of air velocity on sampling rate, five samplers were exposed for varying times up to 2 hours at 20 ppb of TO-15 mixture.

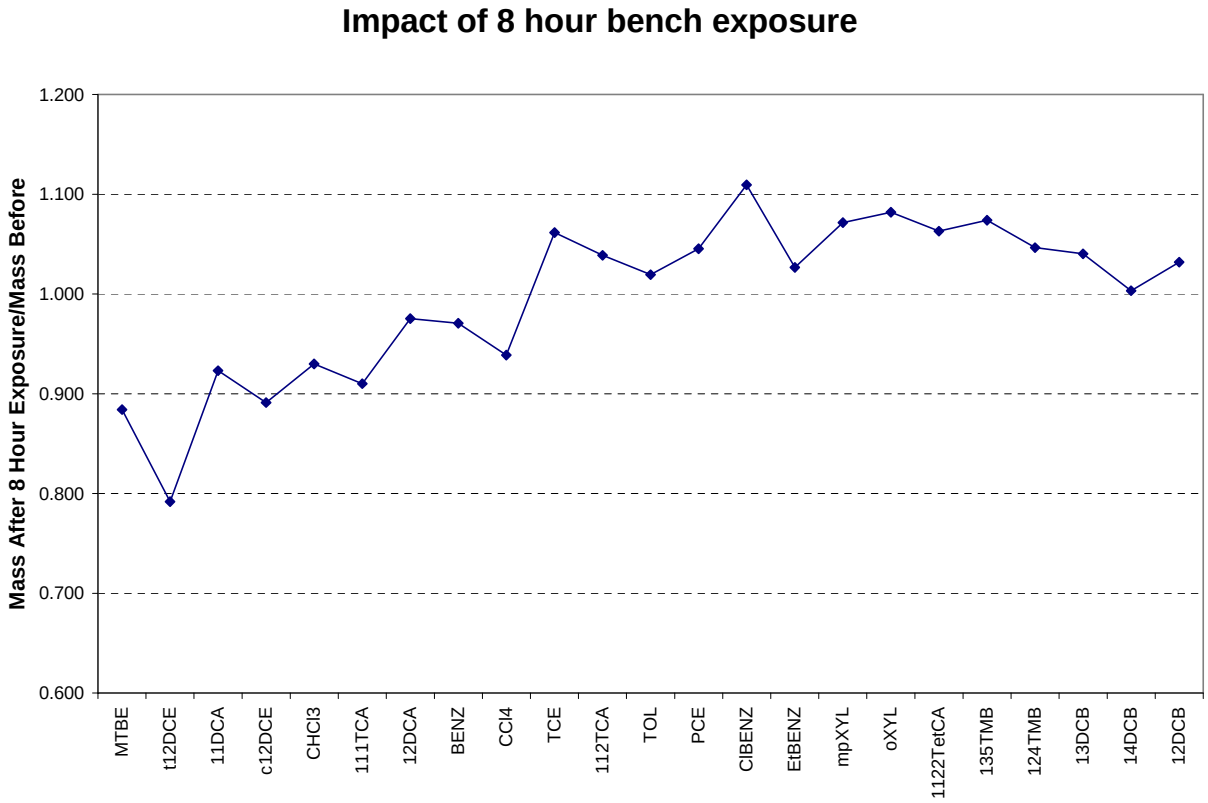
The chart to the right shows the calculated sampling rates from zero to 0.87 m/sec velocity. There is no structured impact of velocity on sampling rate.



Impact of Open Sampler Jar

Typically returning the exposed sampler to its jar and tightening the lid will maintain the mass. A test was run to look at the unexpected consequence of leaving the sampler in fresh air for 7.5 hours after exposure to 20 ppm of TO-15 mixture for 1 hour. Three sampler were tested without ambient air exposure and two with exposure and their mass levels measured. The chart below shows most compounds masses after the 7.5 hour exposure to fresh air are within 10%. One compound, t12DCE, is more affected losing 20% in this time.

Ambient air exposure post sampling would typically be expected to be < 5 minutes, so based on this we do not expect this will cause significant errors in reported mass or concentration. Care should be taken not to pinch the sampler between the jar and lid, which could allow contamination into the sample or loss of lower molecular weight compounds.



Part 2: Calibration in Soil

Part 2 describes the effect of soil on the sampling rate and concentration measurement.

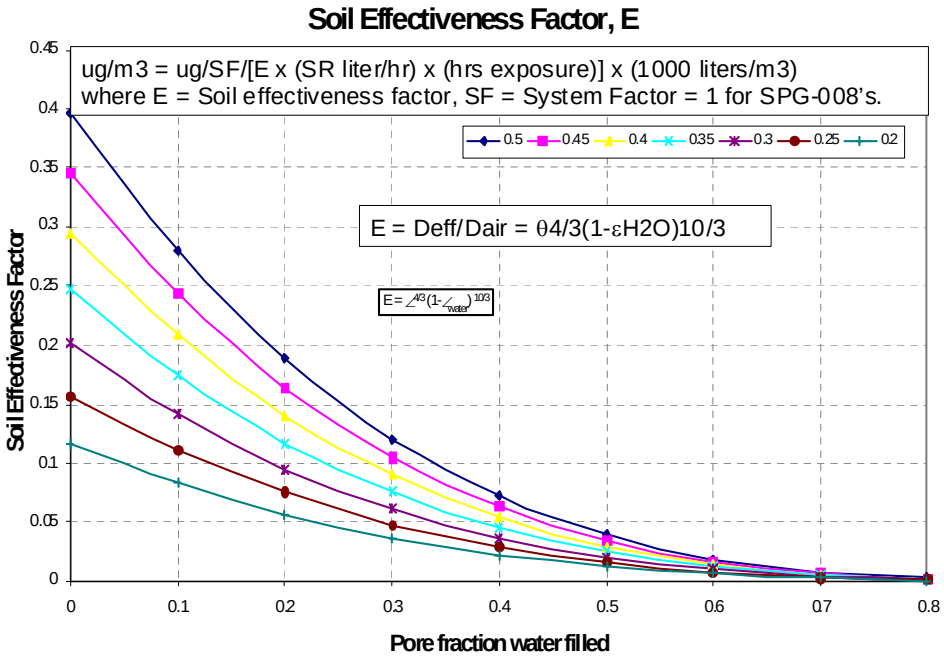
In a porous media, such as soil, diffusion of the analyte in the soil gas to the sampler is restricted. More porous soils have less restriction. This restriction has been experimentally modeled by Millington (Millington, R, J., "Gas Diffusion in Porous Media", Science, (1959), Vol. 130, 100-102) and found to be represented by the equation below:

$$SR_{soil} = E(SR_{air}) \quad (6)$$

where E is the "Soil Effectiveness Factor" expressed a function of total soil porosity (θ) and water filled porosity (ε, volume of water/volume of pores) as:

$$E = \theta^{(4/3)}(1-\varepsilon)^{(10/3)} \quad (7)$$

The chart to the right shows how E varies with soil porosity and fraction of pores filled with water.



Summary

The AGI Sampler can be used to determine the concentration of volatile and semi-volatile compounds in a gas phase. This requires knowing the exposure time and temperature and if in soil also requires values or estimates for soil porosity and the fraction of pores filled with water. Regressions of large amounts of data were used to generate a four constant equation to generate concentration values in air. Potential error in the concentration values is excellent typically less than 20% when used in gas phase sampling within the following conditions:

Condition	**Acceptable Range**
Temperature	0°C to 35°C
Velocity	0 to 0.9 m/sec
Relative Humidity	0 – 95%
Mass Level	0.01 – 50 ug

TABLE A
AIR SAMPLING RATES STANDARD LIST

	SR @ 298.94
MTBE	1.10
t12DCE	1.08
11DCA	0.96
c12DCE	1.51
CHCl3	1.18
111TCA	0.75
12DCA	1.87
BENZ	1.91
CCl4	0.93
TCE	1.83
112TCA	2.40
TOL	2.54
OCT	
PCE	2.33
ClBENZ	3.05
1112TetCA	
EtBENZ	3.02
mpXYL	3.02
oXYL	3.10
1122TetCA	3.35
135TMB	3.19
124TMB	3.35
13DCB	3.97
14DCB	4.09
12DCB	3.93
Total mass	1.80

Values in L/hr, Total mass does not include Oct, 1112TetCA (23 compounds)

TABLE B

4 CONSTANT REGRESSION OUTPUT

	Adjusted Rsq	Standard Error	ln(SR0)	b	-Ea/R	d	Std Error ln(SR0)	Std Error b	Std Error -Ea/R	Std Error d
MTBE	0.77	0.2684	6.1531	0.7137	-1862	-0.2973	1.1215	0.0421	309	0.0346
t12DCE	0.80	0.2498	14.2118	0.6315	-4261	-0.1411	1.2463	0.0358	343	0.0323
11DCA	0.91	0.2016	13.7734	0.8038	-4094	-0.2544	0.8973	0.0294	251	0.0258
c12DCE	0.89	0.2092	9.4567	0.7241	-2941	-0.2710	0.8774	0.0286	248	0.0267
CHCl3	0.91	0.2048	12.2405	0.8364	-3699	-0.3365	0.8737	0.0294	246	0.0261
111TCA	0.94	0.1701	8.3160	0.9176	-2393	-0.5136	0.6652	0.0257	189	0.0222
12DCA	0.92	0.1921	9.0559	0.8093	-2886	-0.4404	0.7728	0.0275	220	0.0248
BENZ	0.89	0.2178	7.6871	0.7990	-2485	-0.4583	0.8687	0.0326	247	0.0286
CCl4	0.91	0.2219	7.0239	0.8972	-2071	-0.5182	0.8597	0.0324	246	0.0289
TCE	0.94	0.1680	7.0333	0.8809	-2276	-0.5871	0.6541	0.0244	188	0.0224
112TCA	0.97	0.1401	3.0297	0.9933	-1165	-0.8405	0.5251	0.0205	153	0.0202
TOL	0.96	0.1468	2.9135	0.9448	-1147	-0.7896	0.5506	0.0220	160	0.0213
OCT										
PCE	0.97	0.1229	2.2557	0.9912	-925	-0.8337	0.4611	0.0183	134	0.0178
ClBENZ	0.97	0.1410	1.2078	0.9832	-693	-0.8819	0.5267	0.0210	153	0.0211
1112TetCA										
EtBENZ	0.96	0.1521	0.4685	0.9696	-469	-0.9107	0.5663	0.0226	165	0.0231
mpXYL	0.96	0.1505	0.7733	0.9883	-560	-0.9123	0.5594	0.0227	163	0.0229
oXYL	0.96	0.1554	0.5660	0.9495	-506	-0.8713	0.5776	0.0233	169	0.0234
1122TetCA	0.95	0.1715	0.5319	0.9793	-519	-0.9313	0.6375	0.0252	186	0.0262
135TMB	0.94	0.1783	1.1480	0.9370	-688	-0.8545	0.6646	0.0266	194	0.0266
124TMB	0.95	0.1702	1.4973	0.9590	-807	-0.8819	0.6368	0.0255	185	0.0257
13DCB	0.95	0.1641	0.9194	0.9644	-685	-0.8908	0.6115	0.0245	178	0.0250
14DCB	0.95	0.1619	1.4086	0.9556	-840	-0.8854	0.6030	0.0242	176	0.0246
12DCB	0.95	0.1713	0.9920	0.9620	-704	-0.9037	0.6388	0.0254	186	0.0261
Total mass	0.966	0.1302	3.4894	0.9213	-1215	-0.7716	0.4835	0.0195	142	0.0190

TABLE C
8260C MASS UNCERTAINTY

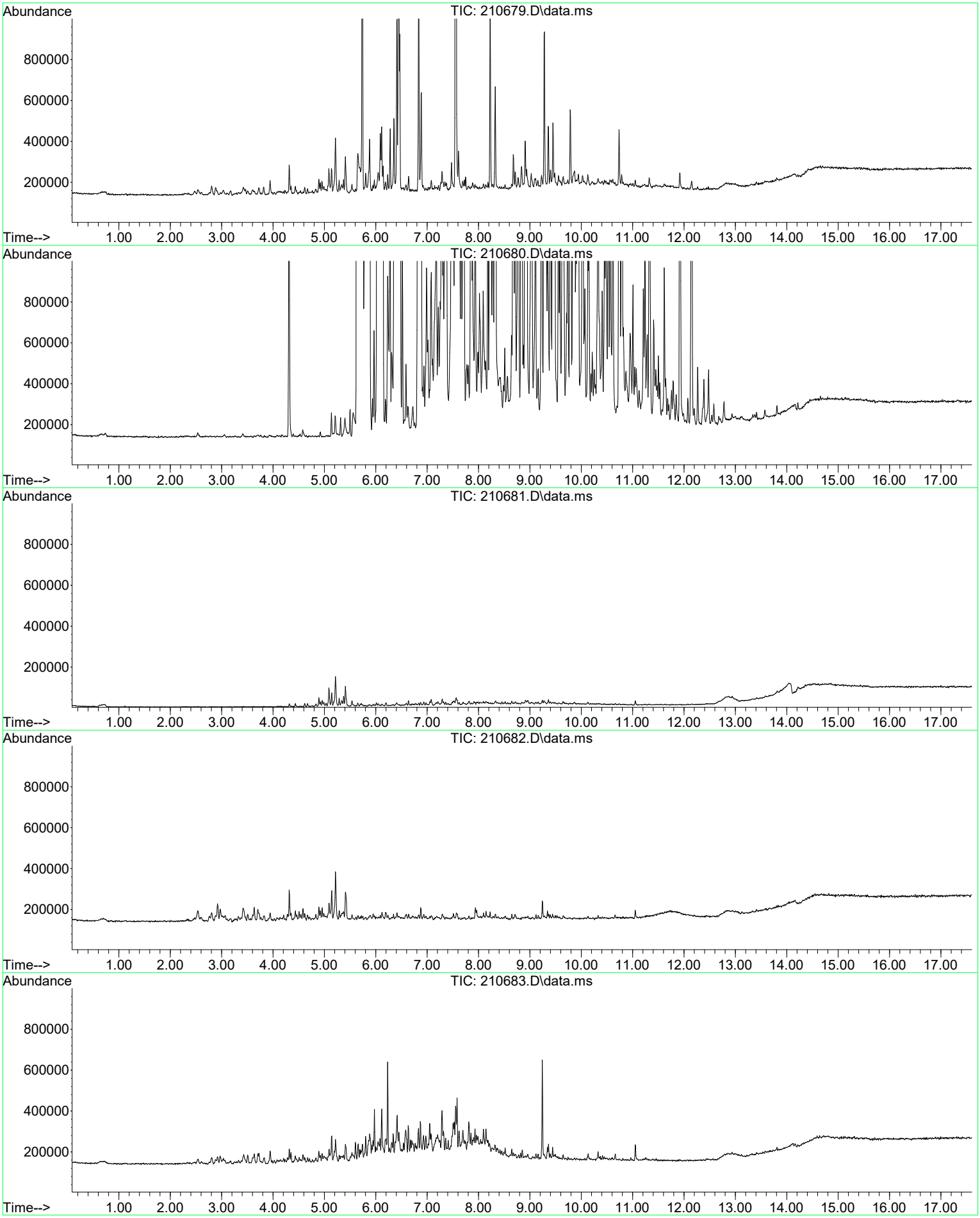
AGI 8260C Method for Mass using SPG-0008 Sampler

	99% Uncertainty Range +/-	95% Uncertainty Range +/-
MTBE	20%	14%
t12DCE	22%	15%
11DCA	18%	12%
c12DCE	18%	12%
CHCl3	16%	11%
111TCA	18%	12%
12DCA	20%	13%
BENZ	16%	10%
CCl4	19%	12%
TCE	15%	10%
112TCA	18%	12%
TOL	15%	10%
OCT	20%	13%
PCE	16%	11%
ClBENZ	18%	12%
1112TetCA	19%	13%
EtBENZ	18%	12%
mpXYL	18%	12%
oXYL	18%	12%
1122TetCA	23%	15%
135TMB	21%	14%
124TMB	20%	14%
13DCB	19%	13%
14DCB	19%	13%
12DCB	20%	14%
NAPH	21%	14%
2MeNAPH	25%	17%

TABLE D
4 CONSTANT AIR CONCENTRATION UNCERTAINTY

ERROR IN CONCENTRATION REPORTING (1)

	Primary-Duplicate Error	Minimum Error	Maximum Error
MTBE	4.3%	-76%	43%
t12DCE	10.4%	-70%	41%
11DCA	5.2%	-68%	40%
c12DCE	6.0%	-49%	33%
CHCl3	4.8%	-60%	37%
111TCA	5.4%	-50%	33%
12DCA	5.4%	-49%	33%
BENZ	4.4%	-52%	34%
CCl4	5.3%	-48%	32%
TCE	5.7%	-37%	27%
112TCA	5.9%	-23%	18%
TOL	5.3%	-26%	20%
OCT			
PCE	5.7%	-18%	15%
ClBENZ	3.9%	-20%	17%
1112TetCA			
EtBENZ	5.1%	-21%	17%
mpXYL	4.5%	-18%	15%
oXYL	4.7%	-21%	17%
1122TetCA	5.2%	-21%	18%
135TMB	8.0%	-25%	20%
124TMB	7.0%	-24%	19%
13DCB	6.7%	-21%	18%
14DCB	6.1%	-22%	18%
12DCB	7.4%	-22%	18%
Total Mass	4.3%	-23%	18%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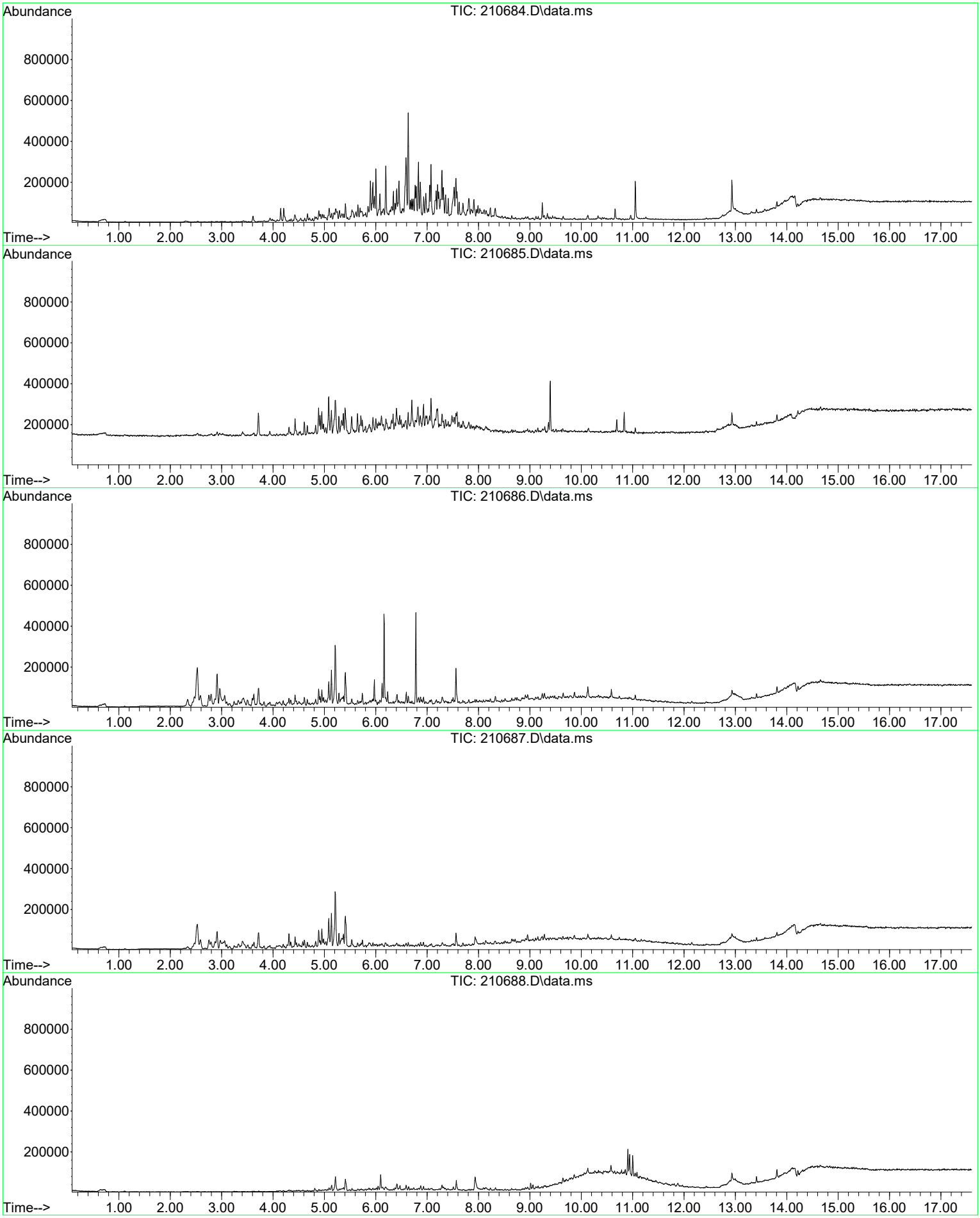
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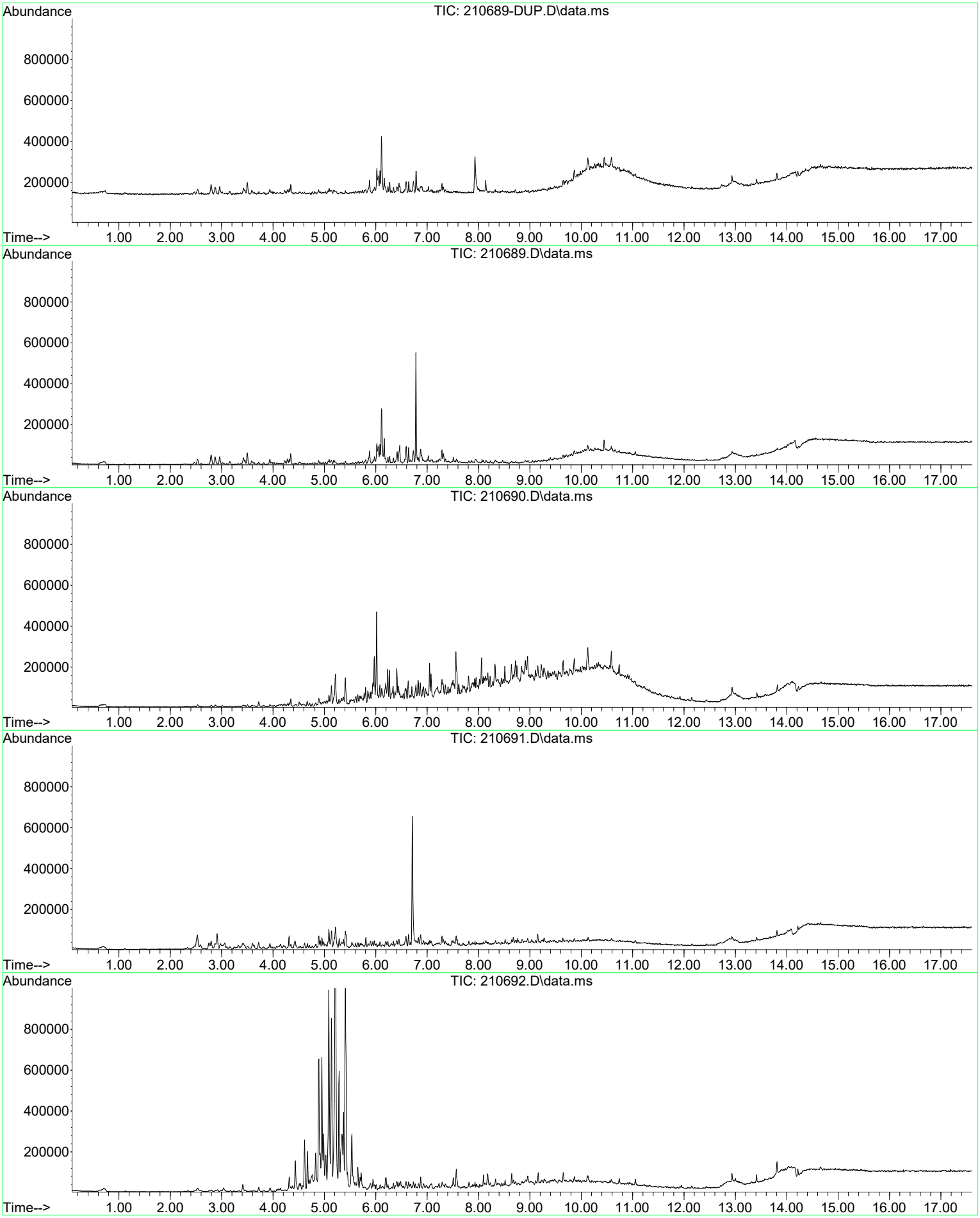
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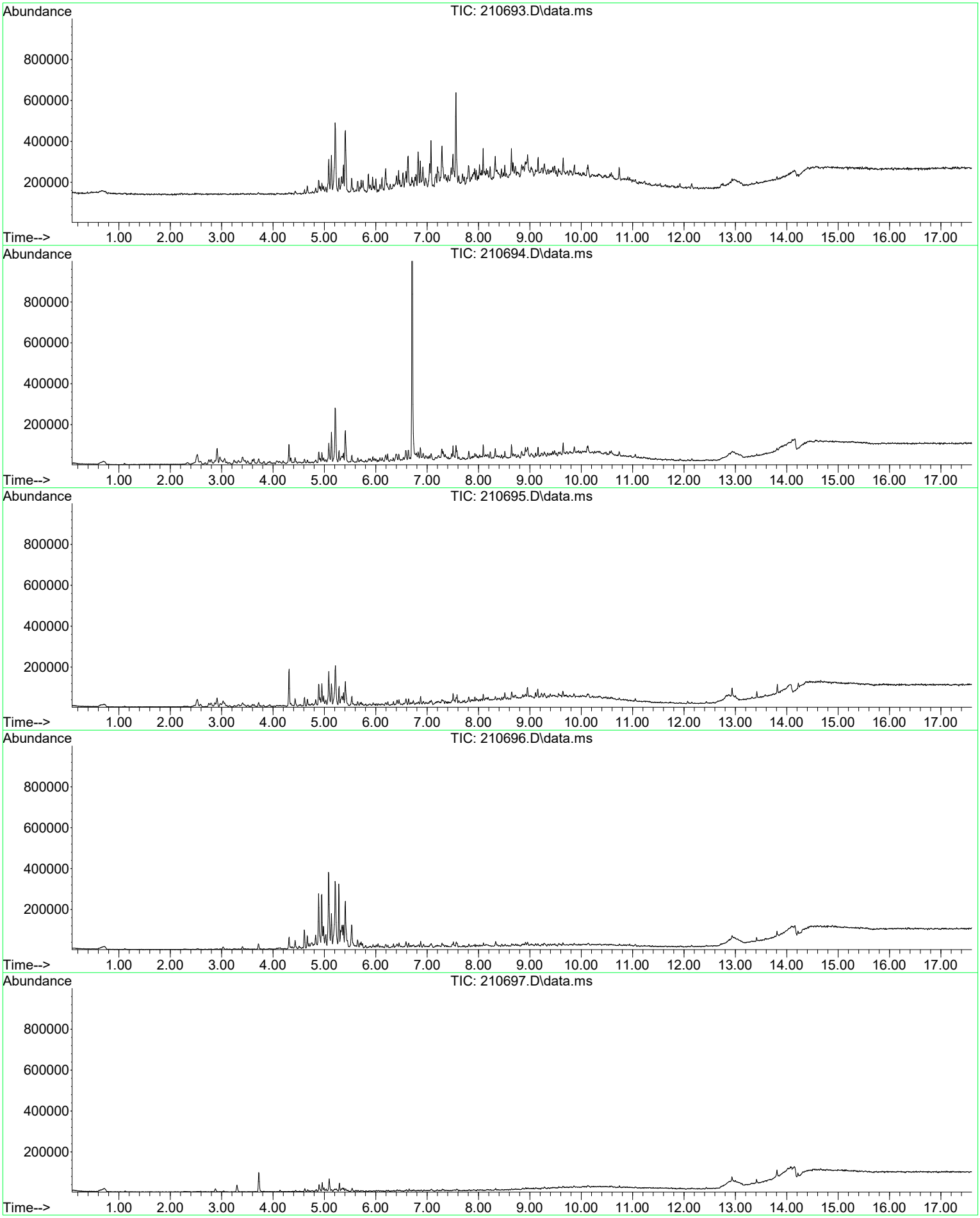
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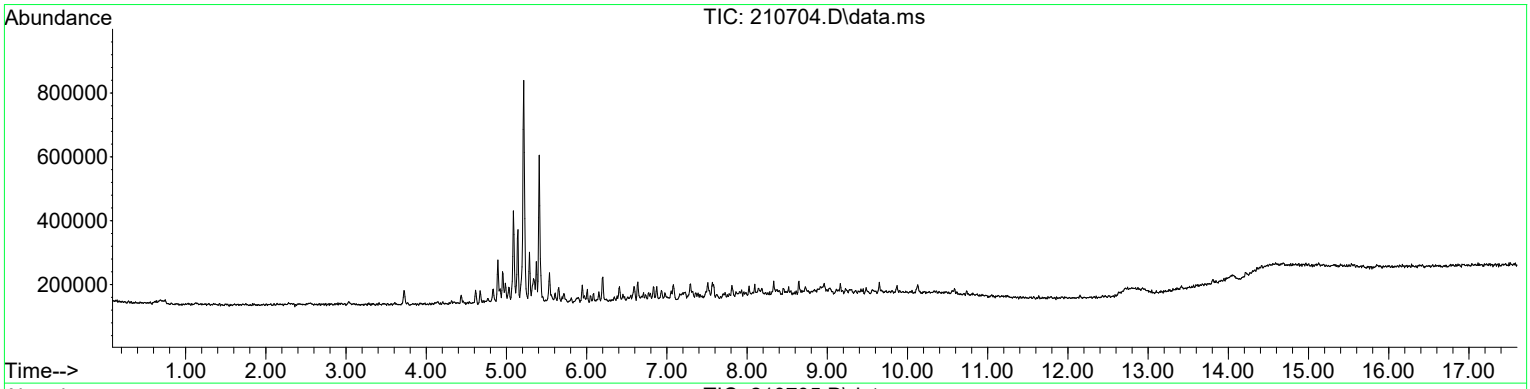

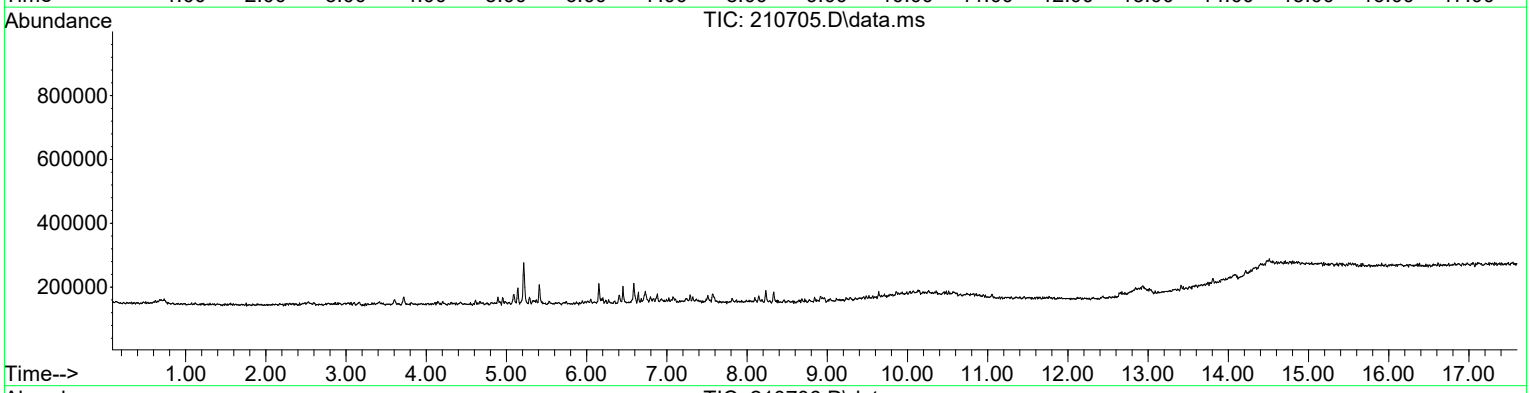

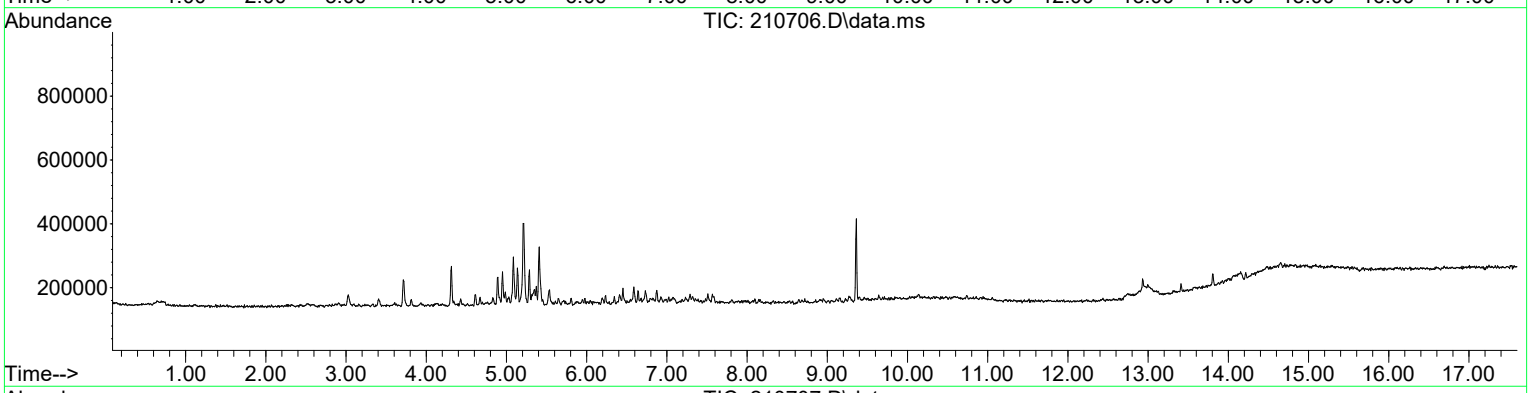

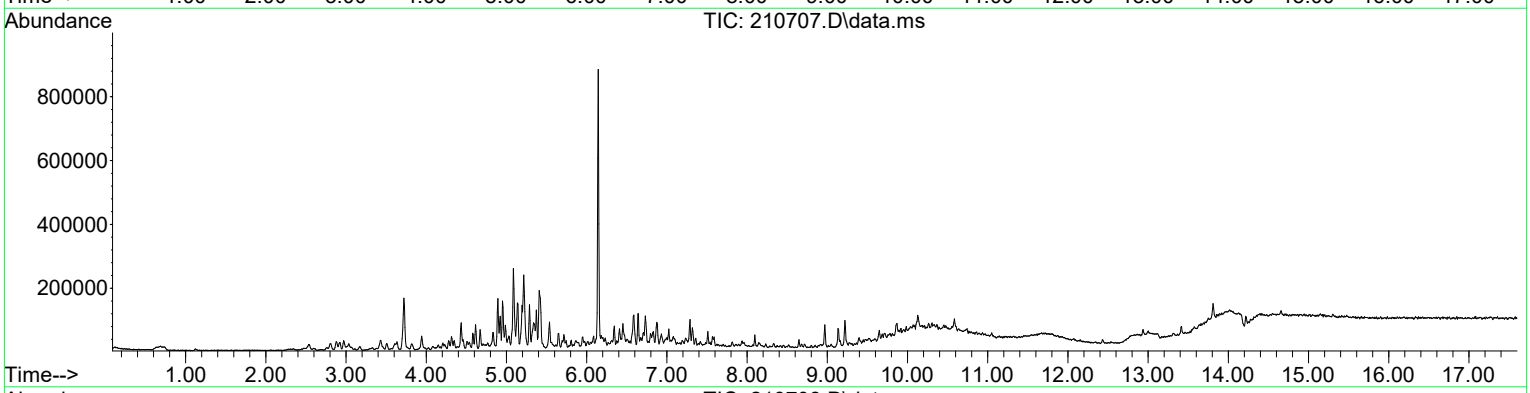

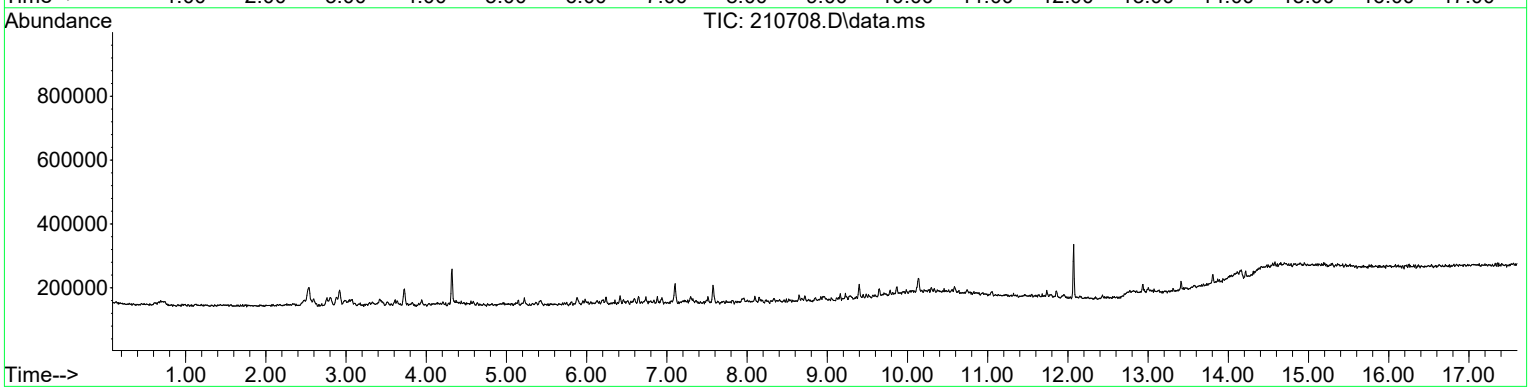

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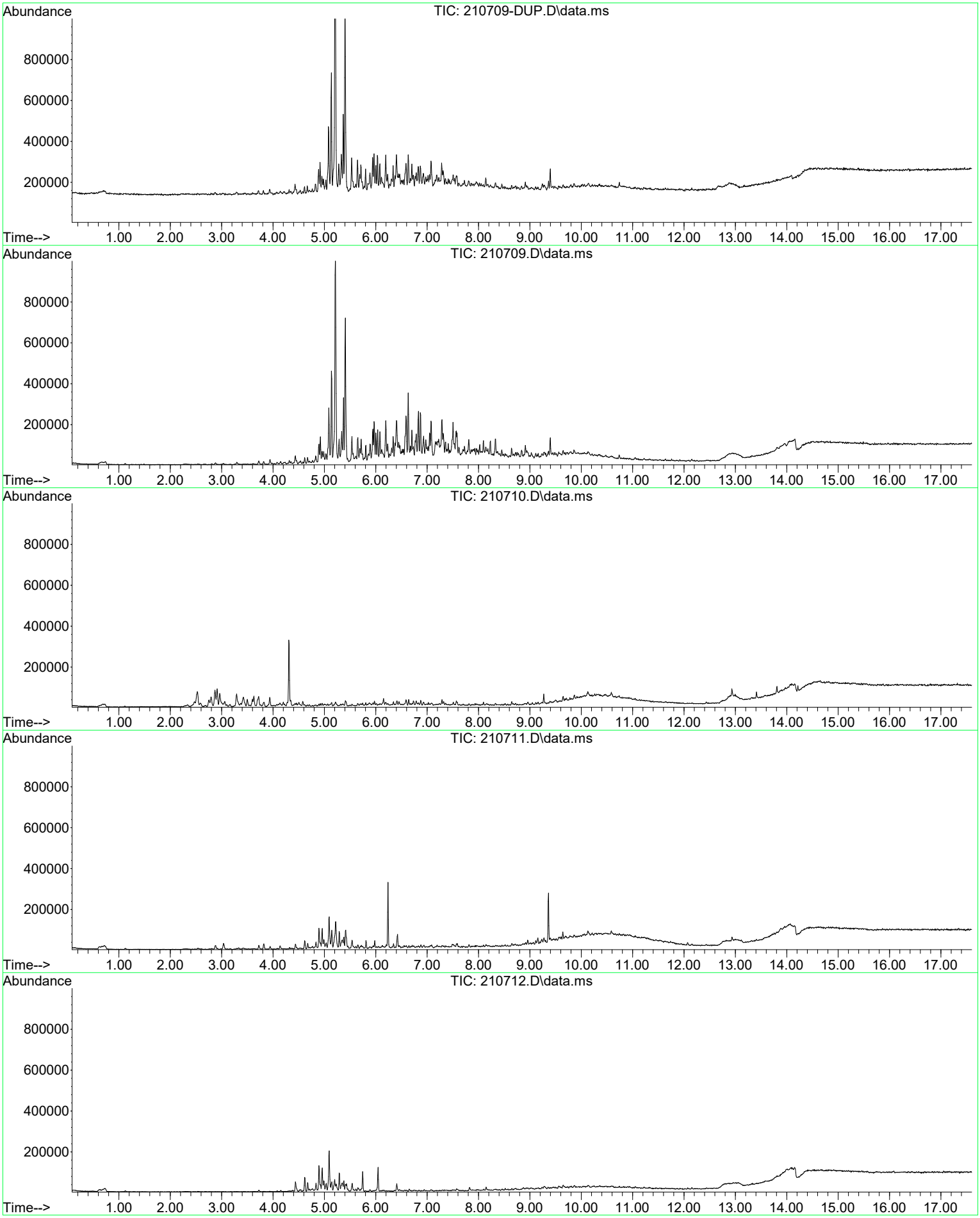

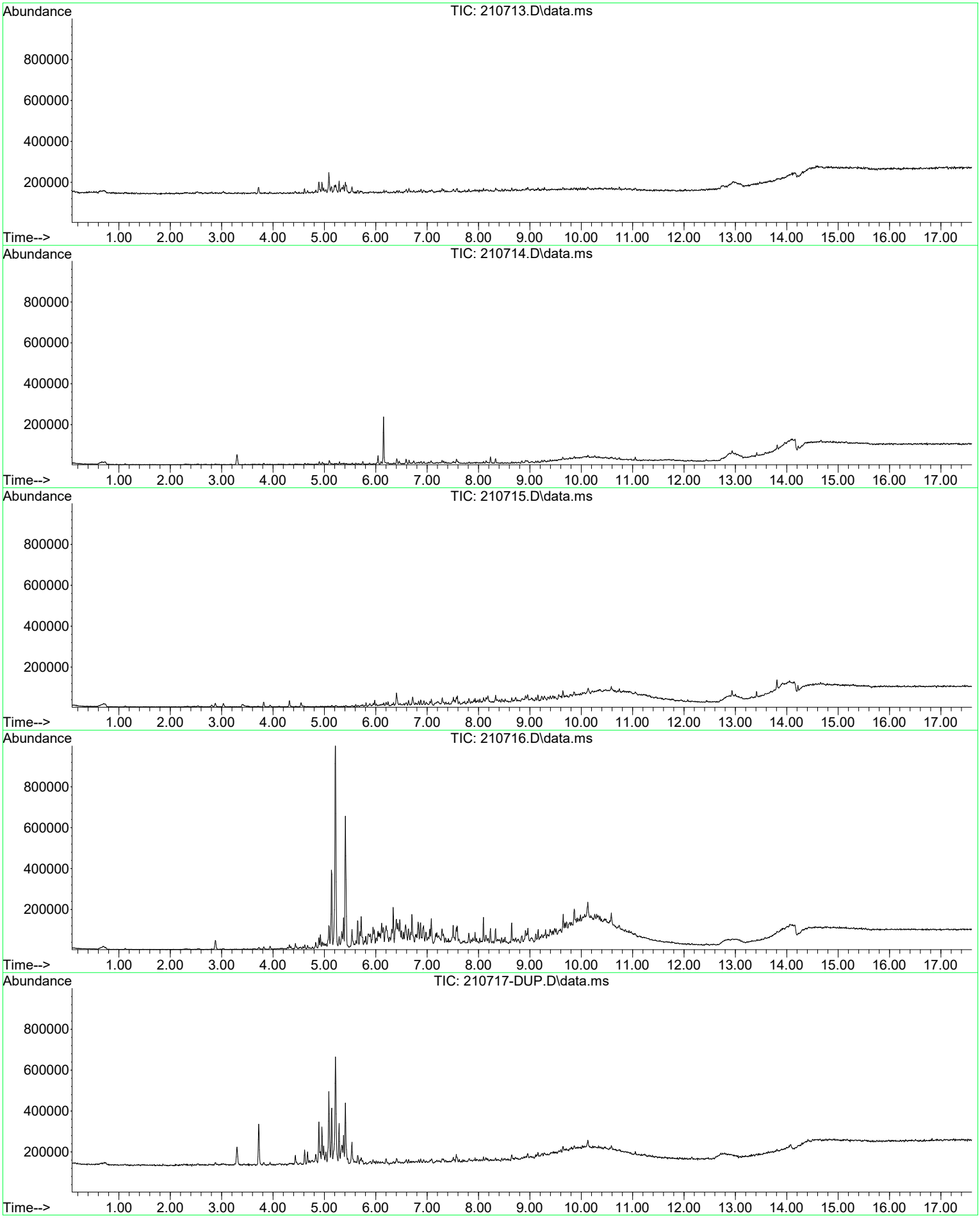
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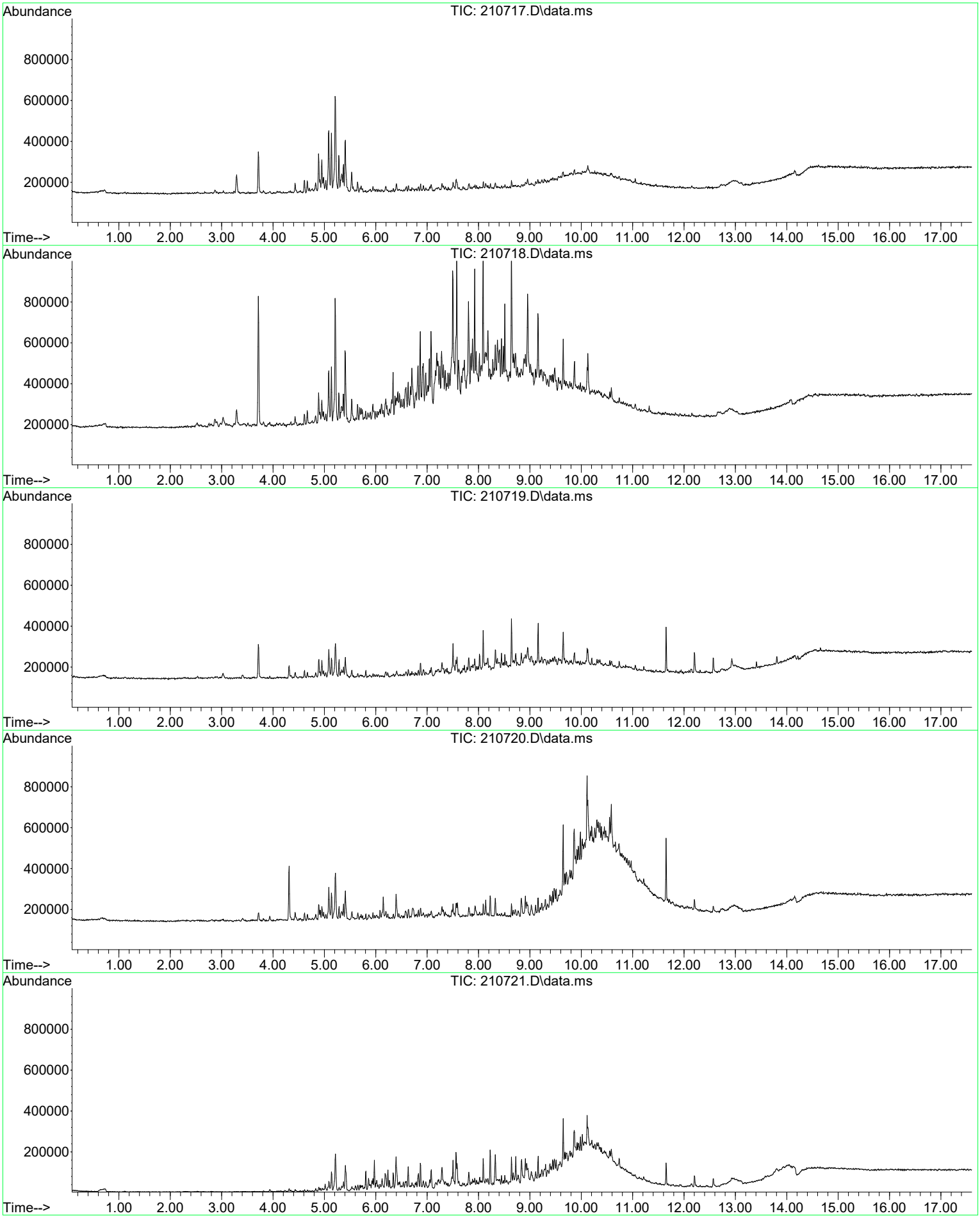

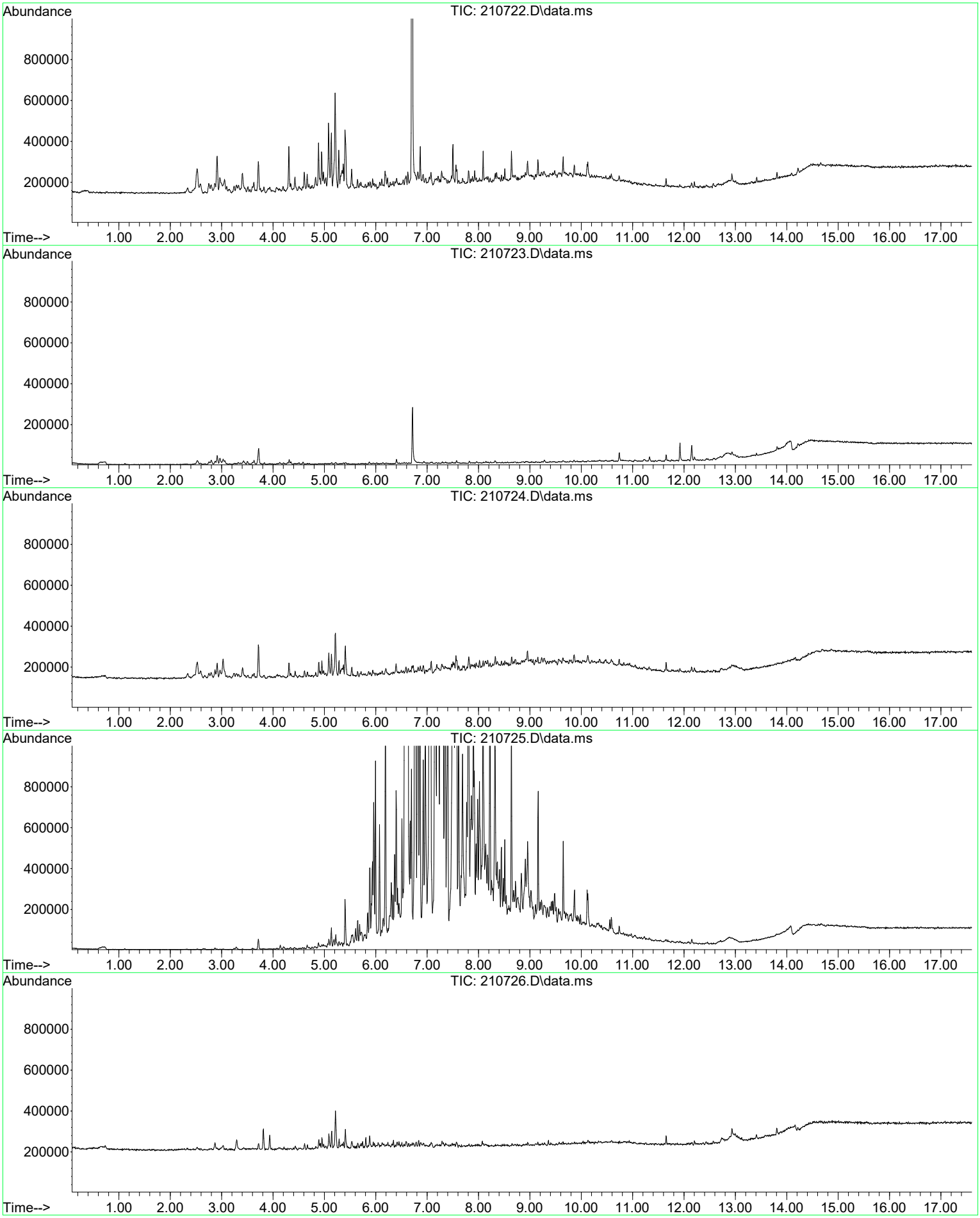
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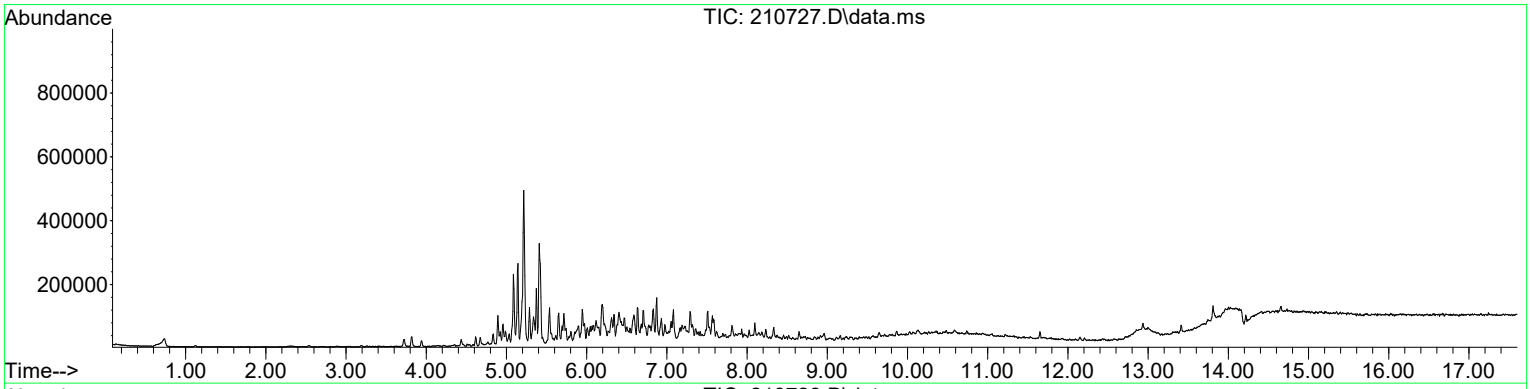

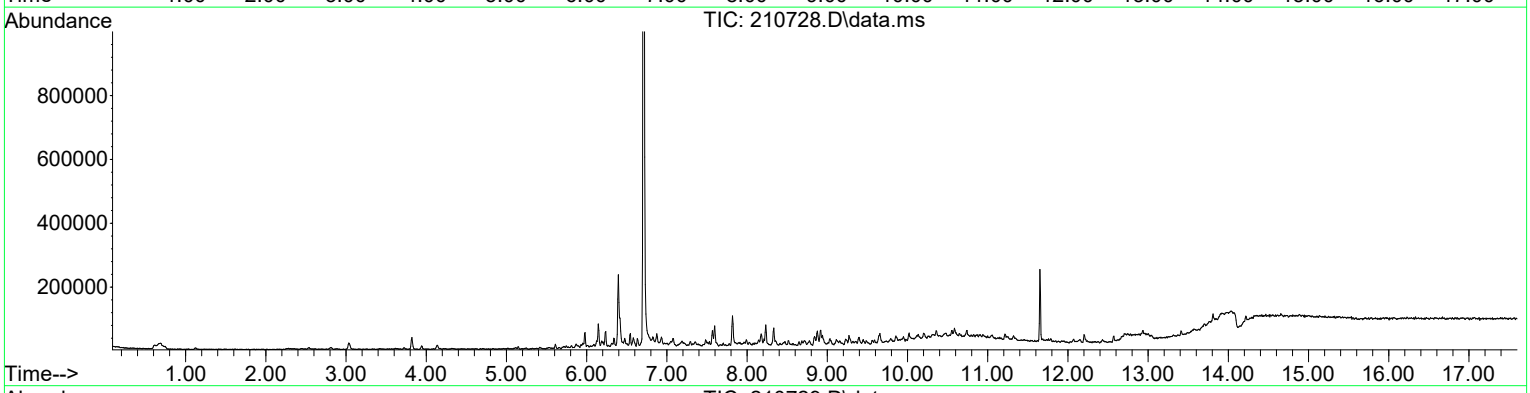

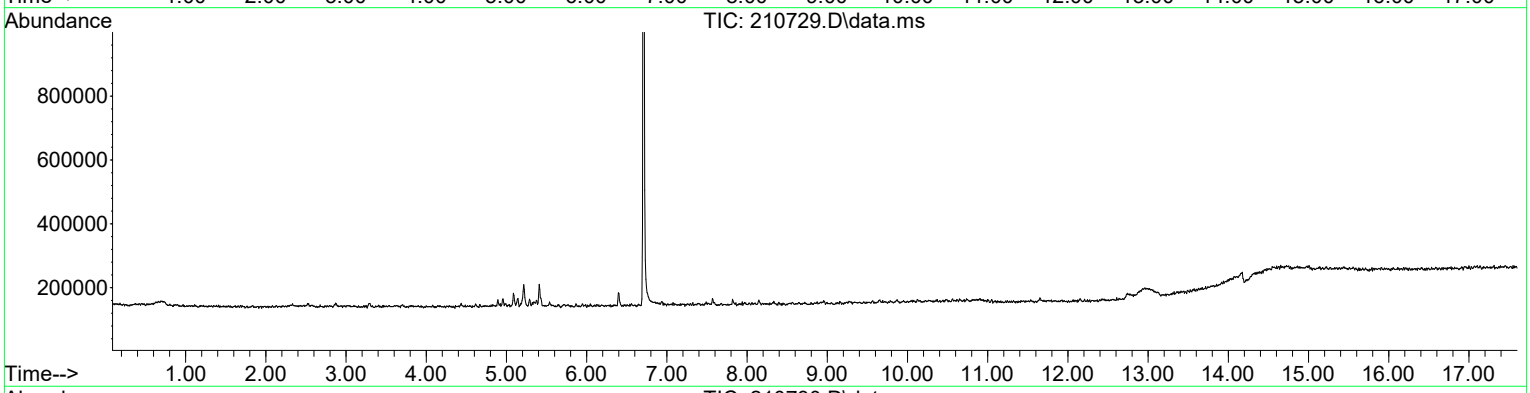

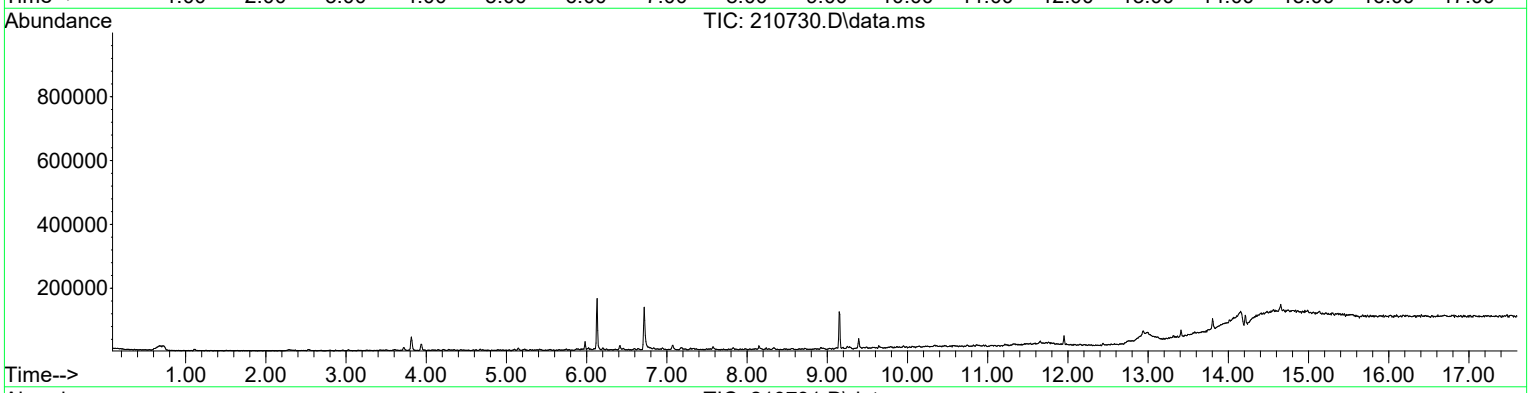

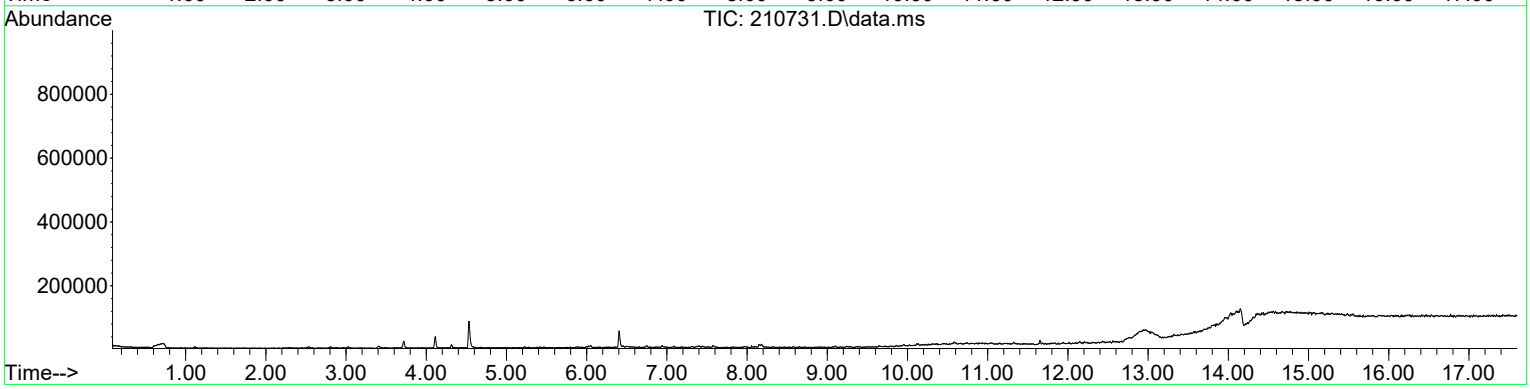

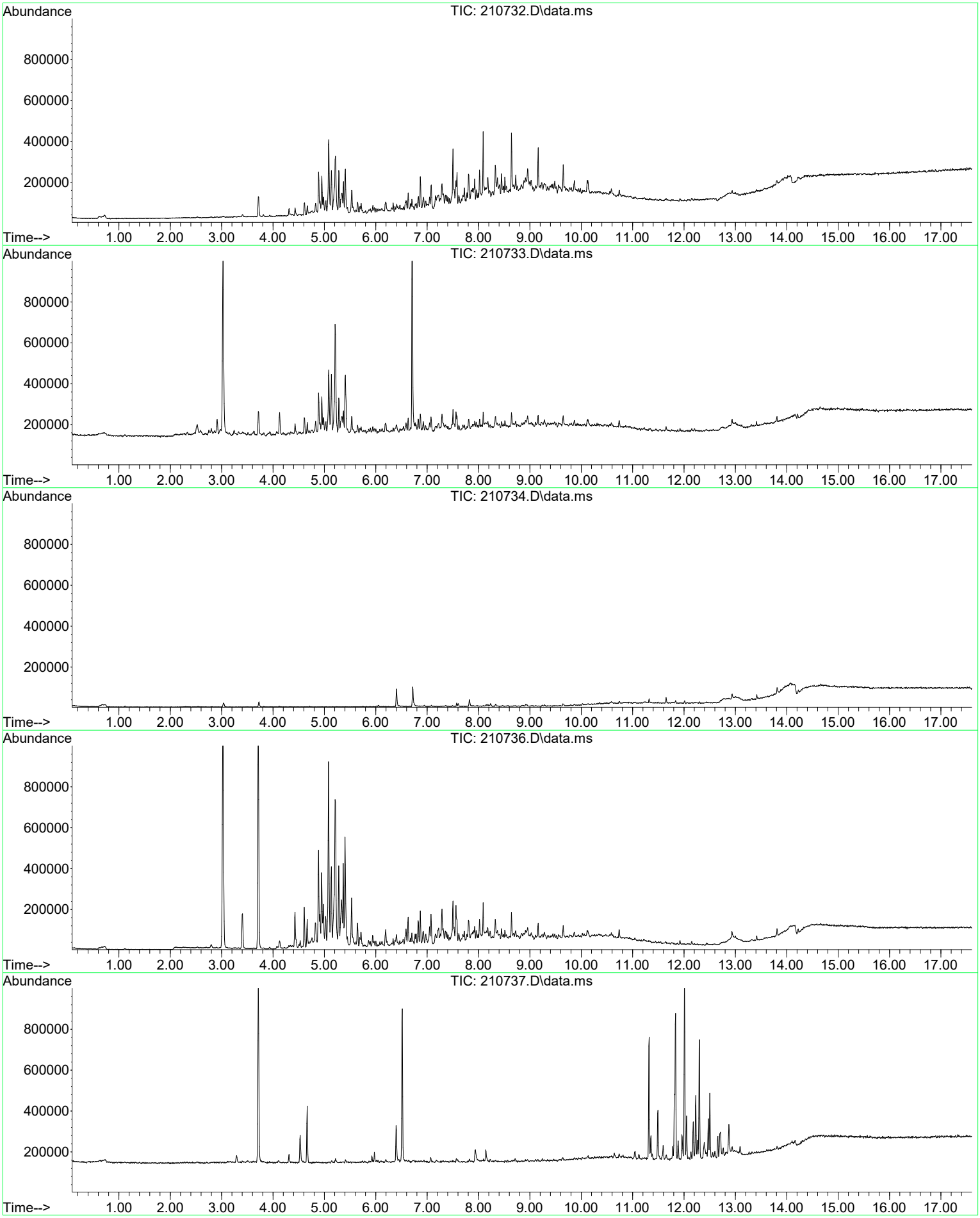
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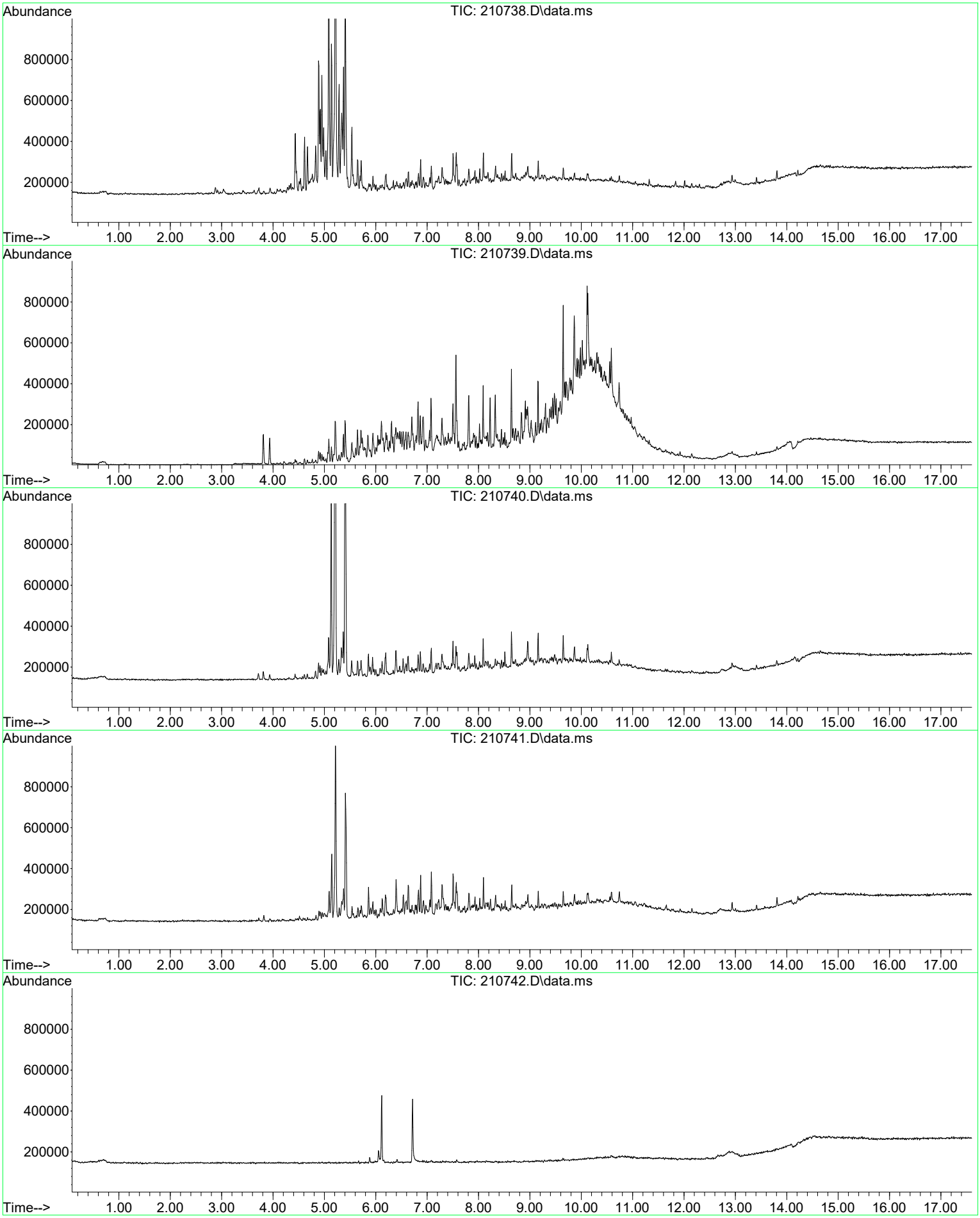

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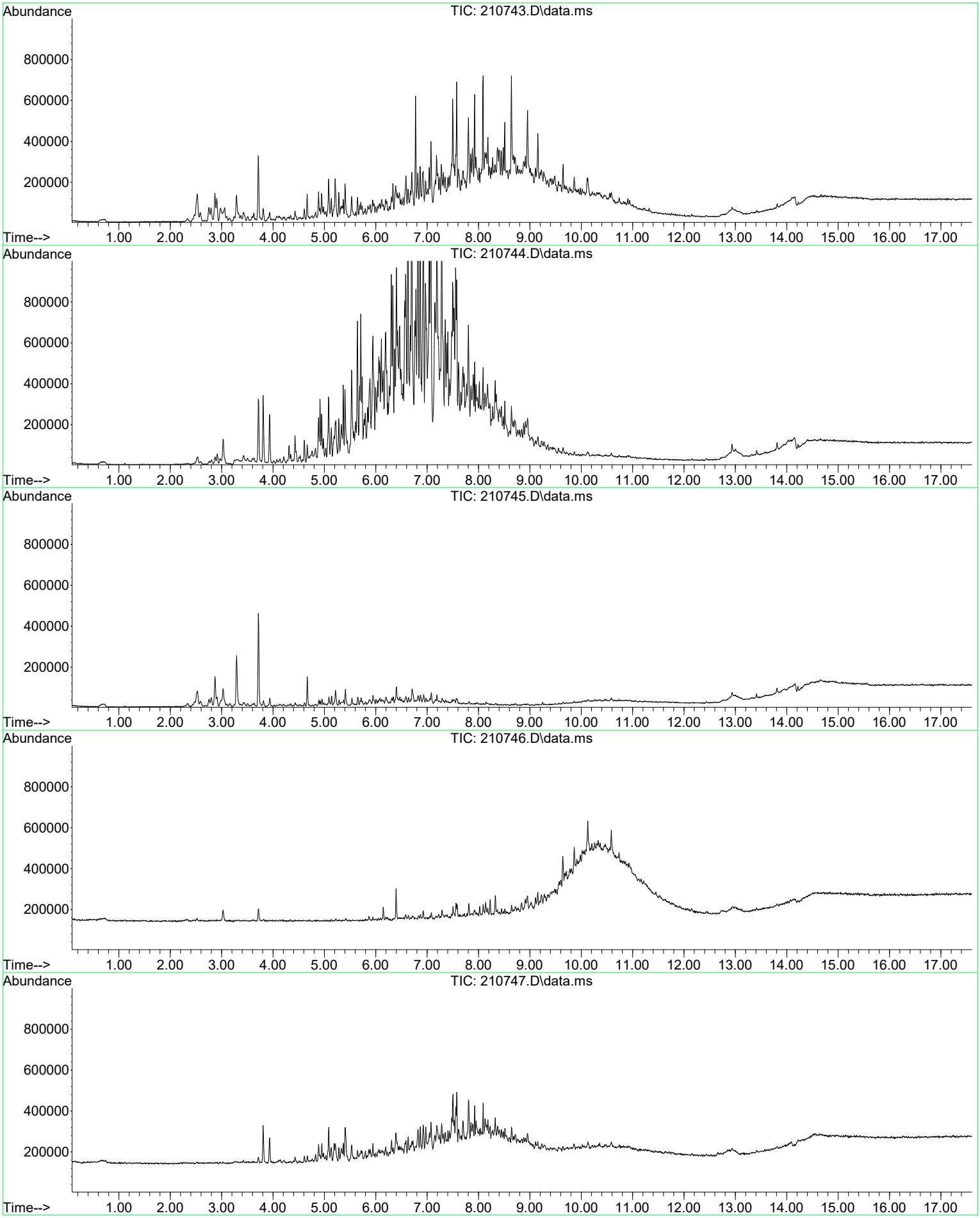

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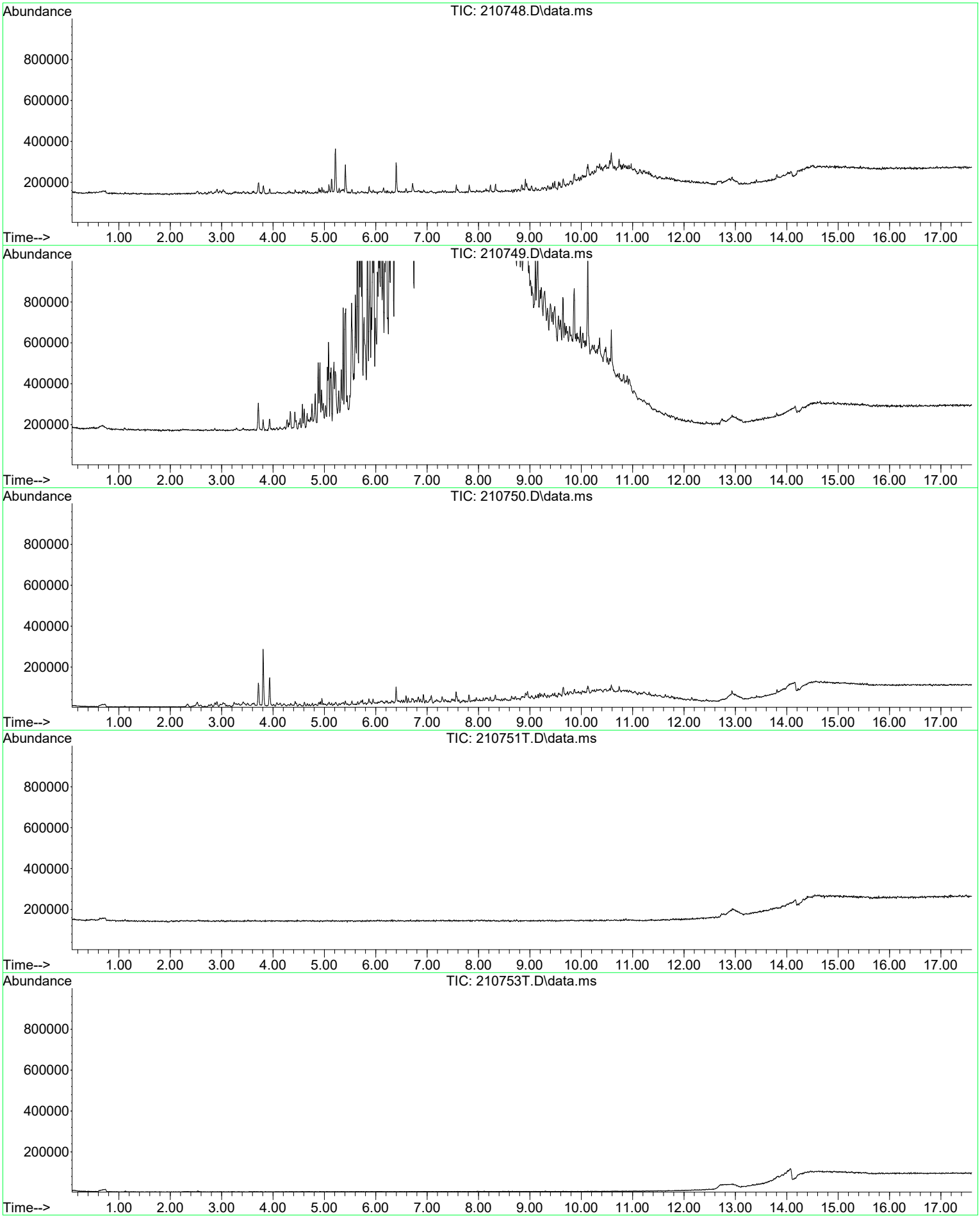

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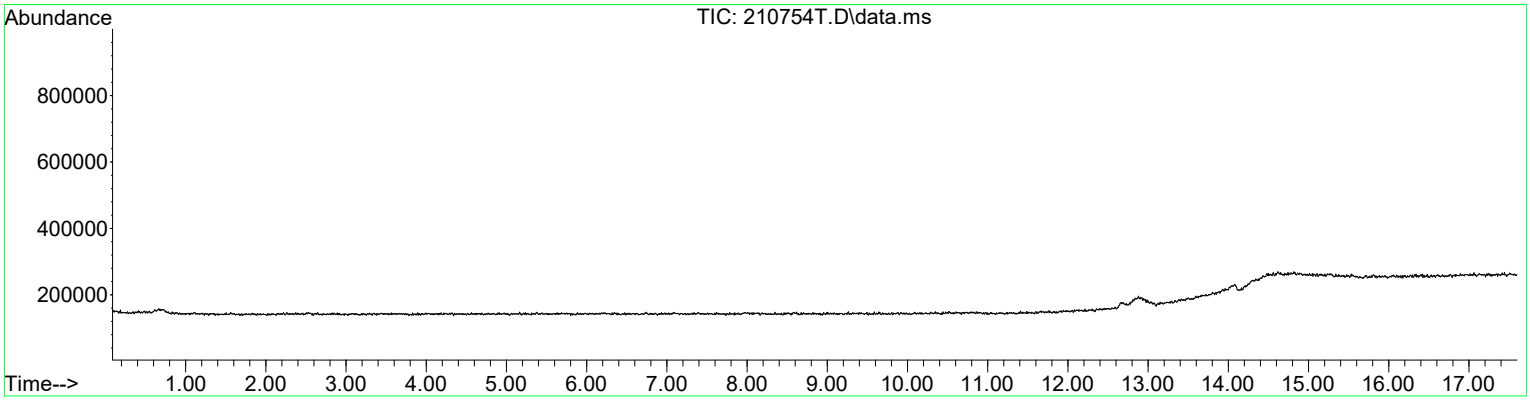

Delaware Office and AGI Laboratory:
210 Executive Drive, Suite 1
Newark, Delaware 19702-3335 USA
Phone: +1-302-266-2428
Fax: +1-302-266-2429

Corporate Office:
7112 W. Jefferson Avenue, Suite 106
Lakewood, CO 80235 USA
Phone: +1-303-988-1968
Fax: +1-303-986-2898

www.agisurveys.net

Department of Environmental Conservation

KATHY HOCHUL
Governor

AMANDA LEFTON
Acting Commissioner

Transmitted via Email

April 22, 2025

Karen Destefanis
WSP USA
6 Research Drive, Suite 260
Shelton, CT 06484
Karen.Destefanis@wsp.com

Re: Supplemental Investigation Plan
NYSDEC Site C344070 Former Materials Research Corporation
Orangeburg, Rockland County

Dear Ms. Destefanis,

The New York State Department of Environmental Conservation (NYSDEC), in consultation with the Department of Health (NYSDOH), has reviewed the Supplemental Investigation Work Plan (work plan) for the Former Materials Research Corporation site (site) dated December 11, 2024. The NYSDEC hereby approves the work plan with the following modification:

Please increase the depth of soil borings at locations G1, I1, I2, J1, and K4 to 5 feet below the groundwater interface, as TCE detected in the soil vapor survey were highest at these locations.

You may include this letter as an attachment in an updated work plan to document this modification. In accordance with 6 NYCRR 375-1.6(a)(4), please provide the NYSDEC with a 7-day notice prior to carrying out the work plan. If you have any comments or questions, you may contact me at 518-402-9546 or michael.squire@dec.ny.gov.

Sincerely,

Michael Squire
Project Manager
Division of Environmental Remediation

ec: Amen Omorogbe, NYSDEC
Stephen Lawrence, NYSDOH
Khalfani Pickett, Sony khalfani.pickett@sony.com
DECDocs