December 12, 2024

Mr. Daniel Atkinson, PE
Holt Consulting Company, LLC
2801 Devine Street, Suite 201
Columbia, SC 29205
and
South Carolina Department of Transportation
Columbia, SC 29201

RE: Phase II Environmental Site Assessment
S-80 (S. Hudson St.) Bridge Over Reedy River
Greenville, Greenville County, South Carolina
FME Project G6982.000

Dear Daniel,

F&ME Consultants, Inc. (FME) has performed Phase II Environmental Site Assessment (Phase II ESA) services on sites within the S-80 Replacement Bridge Over Reedy River (Project Area). FME previously identified fifteen (15) Recognized Environmental Conditions (REC)/Controlled Environmental Conditions (CREC) sites within the Project Area in the *Limited Phase I Environmental Site Assessment (ESA) Report* dated October 20, 2023. Six (6) of the fifteen (15) REC/CREC sites were identified by Holt Consulting Company, LLC (Holt) and South Carolina Department of Transportation (SCDOT) for further assessment due to proposed new Right-Of-Way on/adjacent to these sites. Nine (9) of the REC/CREC sites identified in the *Limited Phase I ESA Report* were eliminated from further assessment as no impacts are anticipated from the proposed replacement bridge.

FME-designated Parcel identification numbers were assigned to each of the parcels of the Project Area for ease of identification within the *Limited Phase I ESA Report*. These parcel identification numbers carry over to this Phase II ESA Report for convenience. However, the SCDOT Parcel numbers are also provided for convenience on the attached Figure 2 and in brackets below. Each of the six (6) REC/CREC sites chosen for further assessment are summarized below.

- FME Parcels 3, 4, and 5 – City of Greenville Garage / City of Greenville / Greenville City Maintenance / City of Greenville Public Works 348 S. Hudson Street / 360 S. Hudson Street / 40 Mayberry Street (CREC 2) [SCDOT Parcels 16, 17, 18].
- FME Parcel 6 – Reedy River (REC 3) [No SCDOT Parcel #].

- FME Parcels 7, 8, and 9 – Welborn Street Property / 320 South Hudson Street / Corner of Welborn and South Hudson Street, 320 S. Hudson Street (CREC 4) [SCDOT Parcels 15, 59].
- FME Parcel 25 – 331 South Hudson Street Site / Smart Property, 331 S. Hudson Street (CREC 8) [SCDOT Parcel 33].
- FME Parcel 26 – Vacant Service Station Building 1 / Carter & Taylor Service, 413 to 415 S. Hudson Street (REC 9) [SCDOT Parcel 32].
- FME Parcels 23 and 24 – Beer Warehouse / Railroad, 325 S. Hudson Street (REC 15) [SCDOT Parcels 34, 35].

Each of the Parcels of the Project Area are located on S-80 (S. Hudson Street) within the City of Greenville, Greenville County, South Carolina. The assessment was performed at the request of Holt and SCDOT, the "Users" of this report. The Phase II ESA was performed as part of proposed bridge replacement efforts. Please refer to the Site Vicinity Map which includes location of the Project Area in Attachment #1, Figure 1. Please refer to the Phase II Environmental Assessment Plan which depict Parcel numbers and boring locations included in Attachment #1, Figure 2.

Background Information

As previously noted above, based on the findings of FME's *Limited Phase I ESA Report* dated October 20, 2023, fifteen (15) REC/CREC sites were identified as environmental risks to the Project Area. However, in consultation with Holt and SCDOT only six (6) of the fifteen (15) REC/CREC sites were selected for additional Phase II ESA assessment due each site's proximity to the newly proposed right-of-way as well as the environmental risk of encountering contamination. In essence, the remaining nine (9) REC/CREC sites, which were identified within the *Limited Phase I ESA Report* but were not selected for additional Phase II assessment were determined by Holt and SCDOT to fall outside of the newly proposed right-of-way and/or bridge replacement activities. Further assessment of the six (6) selected REC/CREC sites was recommended to determine if past operations adversely effected the subsurface of these Parcels of the Project Area. Please refer to the Phase II Environmental Assessment Plan which includes the Phase I ESA assessment limits (i.e., in red) and sampling locations within the Project Area in Attachment #1, Figure 2.

Surface and Subsurface Soil Sample Collection

On November 25 and 26, 2024, FME personnel collected surface and subsurface soil samples from the Project Area slated for additional assessment. Additionally, two (2) sediment samples were collected from the banks of the Reedy River adjacent to the proposed replacement bridge location. Surface and sediment samples were collected from an approximate depth of 0 to six (6) inches below ground surface (bgs) via a decontaminated stainless-steel trowel. The eight (8) subsurface soil borings were installed using direct-push technology (i.e., macrocore or Geoprobe™). A macrocore is a stainless-steel tube, which is five (5) feet long, and fitted with a polyethylene sleeve. This tube is pushed into the ground, filling the sleeve with a continuous core of subsurface soils. Subsurface soil samples were collected to a maximum depth of ten (10) feet bgs (i.e., the

presumed maximum depth of construction impacts during bridge replacement). The equipment was decontaminated between each sample location. Soil boring logs were created and include a summary of field sampling locations, depths of borings, soil characteristics, and organic vapor analyzer (OVA)/photo-ionization detector (PID) readings from subsurface boring locations. While the maximum depth of ten (10) feet bgs was attempted within each of the subsurface soil boring locations, the maximum depth was achieved in six (6) soil boring locations. Two (2) soil boring locations fell short of the maximum depth. Probe refusal occurred within soil boring B-5 at nine (9) feet bgs and within B-6 at seven (7) feet bgs. FME offset B-6 three (3) feet north and again encountered probe refusal at seven (7) feet bgs, due to brick debris. It should be noted that rock, asphalt, brick, pottery, glass, metal debris, etc. were also noted within many of the soil boring locations within the Project Area. The soil boring logs and field information sheets are available in Attachment #2 of this report.

Due to a maximum depth of ten (10) feet bgs, encountering groundwater was not anticipated. However, groundwater was encountered within soil boring B-4, located adjacent to Reedy River. Additionally, a monitoring well was observed adjoining the west side of FME Parcel 24 (i.e., between Parcel 24 and Reedy River). It should be noted that, this monitoring well appears to be located within the newly proposed right-of-way. Please refer to the Phase II Environmental Assessment Plan which includes the approximate location of the observed monitoring well within the Project Area in Attachment #1, Figure 2.

Each collected soil sample was assessed by an environmental professional from FME for physical evidence of contamination, such as staining or odors. As volatile organic compounds (VOC) are a potential constituents of concern (CoC), soil samples were field screened using an OVA/PID. FME's initial soil assessment protocol was to choose the soil interval with the highest OVA/PID reading for laboratory analysis to characterize the maximum concentrations of CoC within each subsurface soil boring. If no VOC impacts were observed within the soil boring locations, a soil sample would be collected from the deepest interval above the level of groundwater (if encountered) or the terminus of the boring.

FME personnel conducted/oversaw the collection of a total of fifteen (15) surface soil, subsurface soil, and river sediment samples from the Parcels of the Project Area (i.e., five (5) surface soil samples, two (2) sediment samples, and eight (8) subsurface soil samples). Sample analysis for the fifteen (15) samples from the Project Area varied depending on the past operations and likely contaminants. Selected analysis included Target Analyte List (TAL) Metals, herbicides, pesticides, polychlorinated biphenyls (PCB), Target Compound List (TCL) VOC and polycyclic aromatic hydrocarbons (PAH). The fifteen (15) samples from the Project Area were analyzed for the following CoC (depending on past usage):

<u>Analyzed for TAL Metals, pesticides, and herbicides</u>

- Former Railroad (1"-3").
- B-5 (1"-3").
- B-6 (1"-3").
- B-7 (2"-4").

- B-8 (1”-3”).

Analyzed for TAL Metals, PCB, and TCL VOC

- River Sediment North Side.
- River Sediment South Side.

Analyzed for TCL VOC

- B-1 (7.5’-10.0’).
- B-2 (7.5’-10.0’).
- B-3 (7.5’-10.0’).
- B-4 (5.0’-7.5’).
- B-7 (7.5’-10.0’).
- B-8 (7.5’-10.0’).

Analyzed for TCL VOC and PAH

- B-5 (7.5’-9.0’).
- B-6 (5.0’-7.0’).

Prior to being removed from the site, a chain of custody was filled out to document the shipping and handling process to ensure sample integrity. The complete laboratory deliverables package is included here as Attachment #3. Soil laboratory results were compared with the United States Environmental Protection Agency (EPA) Regional Screening Level (RSL)[1].

For quality assurance/quality control (QA/QC) purposes, duplicate soil samples were also collected from River Sediment North (i.e., designated DUP-#1), surface soil from B-6 (1”-3”) (i.e., designated DUP-#2), and subsurface soil from B-6 (5.0’-7.0’) (i.e., designated DUP-#3). These samples were to verify the laboratory accuracy. Please refer to Attachment #1, Figure 2 for the soil sample locations. The soil boring logs and field information sheets include more details regarding soils of the Project Area and are available in Attachment #2 of this report.

Laboratory Results for Surface Soils and Sediments

Surface soil and sediment analytical results were compared with the US EPA Residential and Industrial Regional Screening Levels (RSL). The collected surface soil and sediment sample locations, Former Railroad (1”-3”), River Sediment North Side, River Sediment South Side, B-5 (1”-3”), B-6 (1”-3”), B-7 (2”-4”), and B-8 (1”-3”) were analyzed for the presence of TAL Metals due to past industrial operations summarized within FME *Limited Phase I ESA Report*.

A total of 23 TAL Metals constituents were detected within the surface soil and sediment samples collected. Three (3) of the 23 TAL Metals constituents detected within the surface soil/sediment samples exceeded the US EPA Residential RSL for soils within the Project Area, namely arsenic,

1 US EPA Regional Screening Levels, November 2024 (TR+1E-06, THQ=1.0).

lead, and thallium. Further, arsenic also exceeded the US EPA Industrial RSL within surface soils/sediments identified as, Former Railroad (1”-3”), River Sediment North Side, B-5 (1”-3”), B-6 (1”-3”), B-7 (2”-4”), and B-8 (1”-3”). Lead exceeded the US EPA Industrial RSL within B-5 (1”-3”). Refer to Attachment #1, Table 1 for a summary of detected Metals constituents within surface soils/sediment and Figure 2 for surface soil/sediment sample locations.

Based on FME’s experience with South Carolina soils and many past assessments, elevated arsenic concentrations in excess of the Industrial RSL in the Project Area soils may likely be naturally occurring. Elevated arsenic levels within South Carolina soils are also corroborated in technical publications, as South Carolina soils typically exhibit metals concentrations above the nationwide norms and averages. Based on the technical publication *Elements in South Carolina Inferred Background Soil and Stream Sediment Samples* (Canova, 1999), the mean concentration of arsenic within South Carolina’s Piedmont soil is 11 milligrams per kilogram (mg/kg). The maximum concentration of arsenic within collected surface soil/sediment samples is found in B-5 (1”-3”) at 9.5 mg/kg. Each of the collected surface soil and sediment samples have arsenic concentrations below the cited South Carolina’s Piedmont mean concentration of 11 mg/kg. Therefore, it is FME’s opinion that the arsenic concentrations found within each of the surface soil and sediment samples are consistent with naturally occurring levels within the Piedmont of South Carolina. See Attachment #5 for *Elements in South Carolina Inferred Background Soil and Stream Sediment Samples* (Canova, 1999).

Eleven (11) PCB and pesticide constituents were detected within the surface soil and sediment samples collected. The collected surface soil/sediment sample locations, Former Railroad (1”-3”), River Sediment North Side, River Sediment South Side, B-5 (1”-3”), B-6 (1”-3”), B-7 (2”-4”), and B-8 (1”-3”) were analyzed for the presence of PCB and/or pesticide constituents due to past industrial operations summarized within FME *Limited Phase I ESA Report*. However, no PCB or pesticide constituents were found to exceed either the established Residential RSL or Industrial RSL. Refer to Attachment #1, Table 2 for a summary of detected PCB and pesticide constituents within surface soils/sediments and Figure 2 for surface soil/sediment sample locations. The complete Laboratory Analytical Package is included in Attachment #3.

A total of eight (8) TCL VOC constituents were detected within the sediment samples collected. The collected sediment sample locations, River Sediment North Side and River Sediment South Side, were analyzed for the presence of TCL VOC constituents due to past industrial operations summarized within FME *Limited Phase I ESA Report*. However, no VOC constituents within the sediment samples were found to exceed either the established Residential RSL or Industrial RSL. Refer to Attachment #1, Table 3 for a summary of detected TCL VOC constituents within sediment samples.

Laboratory Results for Subsurface Soils

A total of nine (9) VOC constituents were detected within the subsurface soil samples collected. The collected surface soil sample locations, B-1 (7.5'-10.0'), B-2 (7.5'-10.0'), B-3 (7.5'-10.0'), B-4 (5.0'-7.5'), B-5 (7.5'-9.0'), B-6 (5.0'-7.0'), B-7 (7.5'-10.0'), and B-8 (7.5'-10.0') were analyzed for the presence of TCL VOC constituents due to past industrial operations. However, no VOC constituents were found within subsurface soils to exceed either the established Residential RSL or Industrial RSL. Refer to Attachment #1, Table 3 for a summary of detected TCL VOC constituents within subsurface soils.

A total of eleven (11) PAH constituents were detected within the subsurface soil samples collected. The collected surface soil sample locations B-5 (7.5'-9.0') and B-6 (5.0'-7.0') were analyzed for the presence of PAH constituents due to past industrial operations. Only one subsurface soil sample, B-6 (5.0'-7.0'), was found to exceed the established Residential RSL for benzo[a]pyrene at 0.51 mg/kg (i.e., EPA Residential RSL of 0.11 mg/kg). However, the analyzed concentration of 0.51 mg/kg is below the Industrial RSL for Industrial soils. Refer to Attachment #1, Table 3 for a summary of detected PAH constituents within subsurface soils.

Conclusion

Laboratory analysis of each collected surface soil and sediment samples from the Project Area indicate that concentrations of arsenic are above the EPA Residential RSL and six (6) locations exhibited soils/sediments containing arsenic at concentrations greater than the EPA Industrial RSL. Based upon published technical information and FME's experience, it is FME's opinion that the elevated arsenic concentrations found within the collected soil and sediment samples are naturally occurring and not the result of past operations onsite. No additional assessment of arsenic is recommended at this time.

While thallium was found within the River Sediment North Side sample above the EPA Residential RSL, the result was listed as a "J-value." A "J-value" is an estimated value which indicates that the analyzed concentration below the Reporting Limit (RL) but above the method detection limit (MDL). However, the detected concentration of thallium within River Sediment North Side was found to be below the EPA Industrial RSL. Therefore, no additional assessment of arsenic or thallium are recommended.

Lead was found within surface soil sample B-5 (1"-3") at a concentration of 1,600 mg/kg which is greater than the EPA Industrial RSL of 800 mg/kg. This sample location is located on the FME Parcel 25, identified as CREC 8 within the FME *Limited Phase I ESA Report*. This site was identified as 331 South Hudson Street / Smart Property, a US Brownfields, State Hazardous Waste Site (SHWS), and

State Voluntary Cleanup Program (VCP) site. This elevated lead concentration in soils is likely from the former operations on FME Parcel 25. FME does not recommend additional assessment at this time. However, a Site-Specific Health and Safety Plan (HASP) should be prepared prior to working on FME Parcel 25 [SCDOT Parcel 33] to determine what personal protective equipment (PPE) may be warranted. Further, it is recommended that any excavated soils from this parcel should remain onsite if possible. If soils from this parcel need to be removed offsite, FME recommends proper waste characterization and waste profiling to facilitate proper disposal.

Although PCB, pesticides, and TCL VOC constituents were found within some surface soil, sediment, and subsurface soils Project Area, no PCB, pesticides, or TCL VOC constituents were found to exceed the US EPA RSL for Residential or Industrial soils. Therefore, no additional action is warranted for these constituents.

PAH constituents were detected within the several of the subsurface soil samples collected. However, only one subsurface soil sample, B-6 (5.0'-7.0'), was found to contain a PAH constituent at a concentration that exceeds the established Residential RSL. Benzo[a]pyrene was found within subsurface soil sample B-6 (5.0'-7.0') at a concentration of 0.51 mg/kg (which exceeds the EPA Residential RSL of 0.11 mg/kg). This laboratory result is also listed with a laboratory qualifier F1 which indicates, "the matrix spike (MS) and/or matrix spike duplicate (MSD) recovery exceeds control limits." DUP-#3 from B-6 (5'-7') was also found to exceed the Residential RSL at 0.30 mg/kg. However, this result was listed as a "J-value, " which is an estimated value below the laboratory reporting limit. As the benzo(a)pyrene concentrations are qualified by the laboratory and the reported concentration is below the EPA Industrial RSL, no additional assessment is warranted with respect to PAH.

Recommendations

FME does not recommend additional assessment at this time. However, due to elevated lead concentrations within soils on FME Parcel 25 [SCDOT Parcel 33], a Site-Specific HASP should be prepared prior to working on FME Parcel 25 [SCDOT Parcel 33] to determine what risk the lead-impacted soils pose to workers and to determine appropriate PPE. Additionally, any excavated soils should remain onsite for this parcel if possible. If soils from this parcel need to be removed offsite, FME recommends proper waste characterization and waste profiling to facilitate proper disposal.

If you have any questions concerning the contents of this correspondence or if we can provide any additional information, please feel free to contact us at 803-254-4540.

Sincerely,

F&ME CONSULTANTS

Rodney W. Wingard
Environmental Manager

Christine A. Cafagna
Senior Environmental Manager

Attachments:

Attachment #1 – Figures and Tables
Attachment #2 – Soil Boring Logs and Field Information
Attachment #3 – Laboratory Analytical Package
Attachment #4 – Technical Publication *Elements in SC Inferred Background Soil and Stream Sediment Samples* (Canova, 1999)

Attachment #1

Figures and Tables

Figure 1. Site Plan

Figures 2. Phase II Environmental Assessment Plan

Table 1. Summary of Surface Soil and Sediment Analytical Results for Detections of Metals (mg/kg)

Table 2. Summary of Surface Soil and Sediment Analytical Results for Detections of PCB and Pesticides (mg/kg)

Table 3. Summary of Subsurface and Soil Sediment Analytical Results for Detections of TCL VOC and PAH (mg/kg)

1:72,000

0 0.5 1 2 mi

0 0.75 1.5 3 km

F&ME CONSULTANTS, INC.
COLUMBIA, SC

REV.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

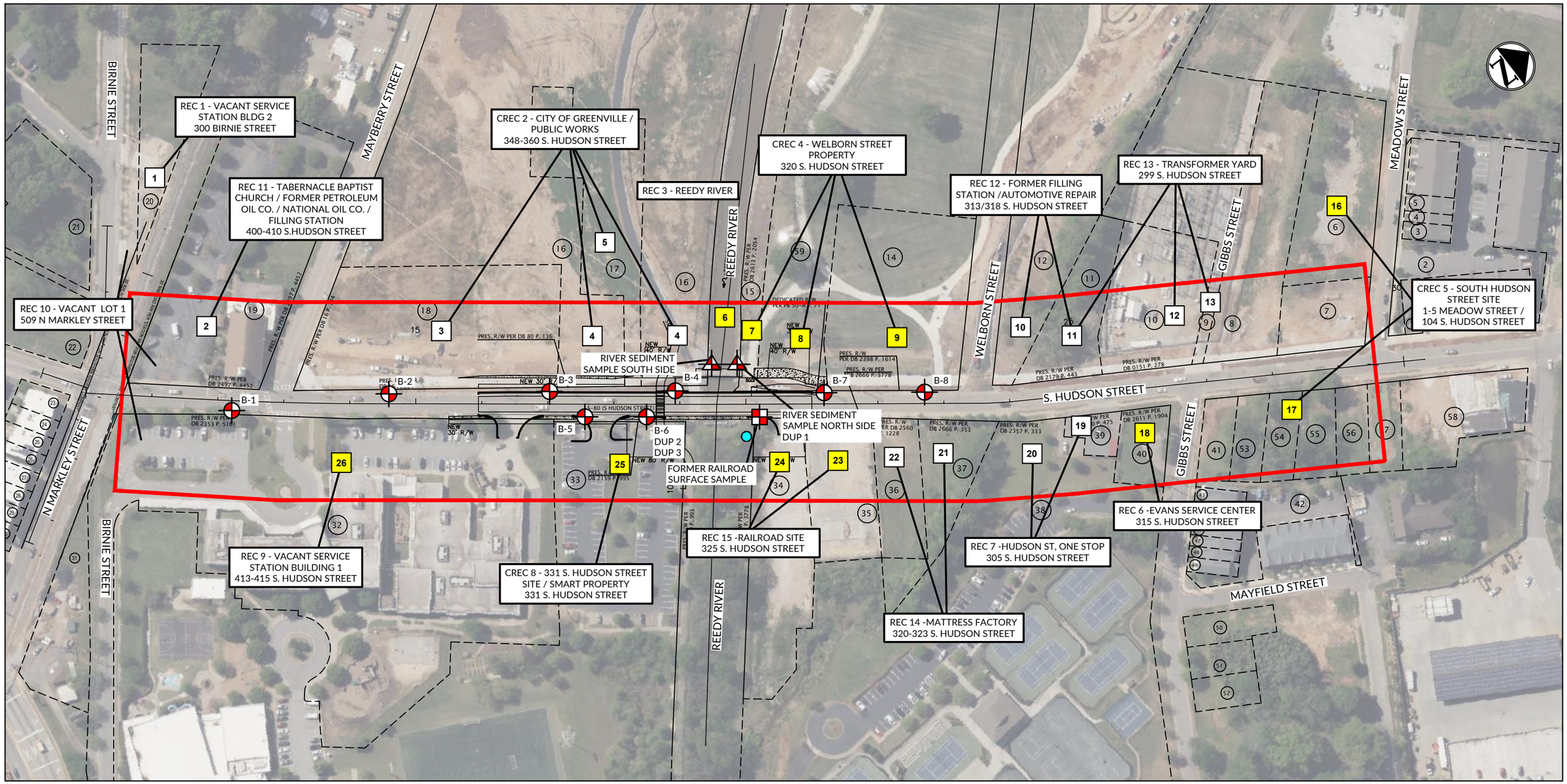
TOPO. ____ DATE ____
DWG. CTC DATE 9.22.23 GROUP ____ - ____
R/W ____ DATE ____

S-80 (HUDSON STREET) RBO REEDY RIVER
GREENVILLE COUNTY, SOUTH CAROLINA

SITE LOCATION PLAN

F&ME JOB NO. G6982.000

SCALE: As Noted | **FIGURE 1**



LEGEND:

- LIMITED PHASE I PROPERTY ASSESSMENT AREA (PROJECT AREA)
- PROPERTY LINES
- # SCDOT PARCEL IDENTIFIER
- # FME PARCEL IDENTIFIER
- # FME IDENTIFIED PARCELS SELECTED FOR PHASE II ESA ASSESSMENT
- BORING LOCATION
- RIVER SEDIMENT SAMPLE LOCATION
- FORMER RAILROAD SURFACE SAMPLE
- DUP DUPLICATE SOIL SAMPLE
- MONITORING WELL

F&ME CONSULTANTS, INC.
COLUMBIA, SC

REV.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			
TOPO.		DATE	
DWG.	CTC	DATE	12.2.24
R/W		DATE	

GROUP ____ - ____

S-80 (S. HUDSON STREET) RBO REEDY RIVER
GREENVILLE COUNTY, SOUTH CAROLINA

PHASE II ENVIRONMENTAL ASSESSMENT PLAN

F&ME JOB NO. G6982.000

SCALE: 1"=150' | FIGURE 2

Table 1: Summary of Surface Soil and Sediment Analytical Results for Detections of Metals (mg/kg)

Metals																					
Sample ID	Aluminum	Antimony	Arsenic *	Barium	Beryllium	Cadmium	Calcium	Chromium (total)	Cobalt	Copper	Iron	Lead	Magnesium	Manganese (Non -Diet)	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
Residential RSL	77,000	31	0.68	15,000	160	7.1	NS	NS	23	3,100	55,000	200	NS	1,800	7.1	1,400	NS	390	390	NS	0.78	390	23,000
Industrial RSL	1,100,000	470	3.0	220,000	2,300	100	NS	NS	350	47,000	820,000	800	NS	26,000	30	17,000	NS	5,800	5,800	NS	12	5,800	350,000
Surface Soil and Sediment Samples																							
Former Railroad (1"-3")	20,000	0.76 J F1	4.1	80	0.54 J	0.19 J	2,400	17 F1	5.6	24 F1	30,000	58	1,600	280	0.062 J	4.5	2,500	BRL	BRL	240	BRL	58 F1	85
River Sediment North Side	29,000	1.7 J	6.3	180	1.2 J	0.69 J	3,600	55	10	46	41,000	58	2,600	780	BRL	12	2,600	1.7	BRL	570	1.1 J	68	180
River Sediment South Side	6,800	0.42 J	1.2 J	50	0.26 J	0.15 J	780	19	2.8	9.6	10,000	17	850	180	BRL	4.8	840	BRL	BRL	150	BRL	18	45
B-5 (1"-3")	12,000	20	9.5	460	0.66 J	1.2 J	7,000	24	3.9	460	30,000	1,600	2,100	230	0.24	10	1,400	0.70 J	0.81 J	1,200	BRL	29	700
B-6 (1"-3")	13,000	0.93 J	4.1	64	0.32 J	0.26 J	1,900	16	2.8	25	25,000	95	730	190	0.048 J	4.4	1,100	BRL	0.071 J	200	BRL	30	140
DUP-#2 (B-6 (1"-3"))	13,000	0.85 J	4.5	68	0.34 J	0.23 J	2,400	23	3.2	23	22,000	94	1,200	180	BRL	4.2	1,300	BRL	BRL	210	BRL	40	120
B-7 (2"-4")	34,000	0.73 J	4.2	130	0.62 J	0.27 J	3,900	20	9.9	61	44,000	100	2,600	360	0.096 J	7.3	3,000	0.89 J	0.48 J	390	BRL	72	110
B-8 (1"-3")	30,000	1.1 J	3.6	120	0.56 J	0.31 J	4,500	16	7.0	41	35,000	110	2,600	290	0.16	6.8	2,800	0.80 J	0.10 J	380	BRL	58	230

Notes:

= Results are above the Residential Regional Screening Levels (RSL) from USEPA Regional Screening Level (RSL) Summary Table (TR= 1E-06, HQ=1) November 2024.

= Results are above the Industrial and Residential Regional Screening Levels (RSL) from USEPA Regional Screening Level (RSL) Summary Table (TR= 1E-06, HQ=1) November 2024.

Samples Collected November 25-26, 2024.

Concentrations were reported in milligrams per kilogram (mg/kg) for comparison with regulatory standards.

NS = No Standard Exist

J = indicates analyzed concentration is below the Reporting Limit (RL) but above method detection limit (MDL).

F1 = Matrix spike (MS) and/or matrix spike duplicate (MSD) recovery exceeds control limits.

BRL = indicates analyzed concentration is below the Reporting Limit (RL).

DUP = Duplicate sample for QA/QC purposes.

* = Value of naturally occuring arsenic within Piedmont Soils of South Carolina is 11 mg/kg per *Elements in South Carolina Inferred Background Soil and Stream Sediment Samples* (Canova, 1999).

Table 2: Summary of Surface Soil and Sediment Analytical Results for Detections of PCB and Pesticides (mg/kg)

	PCB			Pesticides								
Sample ID	PCB-1248	PCB-1254	PCB-1260	alpha-BHC	Endosulfan II	Endrin	Endrin aldehyde	Heptachlor	Methoxychlor	4,4'-DDE	4,4'-DDT
Residential RSL	0.23	0.24	0.24	0.086	NS	19	NS	0.13	320	2.0	1.9
Industrial RSL	0.94	0.97	0.99	0.36	NS	250	NS	0.63	4,100	9.3	8.5
Surface Soil and Sediment Samples											
Former Railroad (1"-3")	NA	NA	NA	BRL	BRL	BRL	0.00089 J	BRL	BRL	0.00079 J	0.00084 J
River Sediment North Side	0.025 J	0.051 J	0.019 J	NA	NA	NA	NA	NA	NA	NA	NA
DUP-#1 (River Sediment North Side)	0.016 J	0.038 J	0.017 J	NA	NA	NA	NA	NA	NA	NA	NA
River Sediment South Side	BRL	0.013 J	BRL	NA	NA	NA	NA	NA	NA	NA	NA
B-5 (1"-3")	NA	NA	NA	BRL	0.0031 J	BRL	0.0012 J	BRL	BRL	0.0020 J	0.0015 J
B-6 (1"-3")	NA	NA	NA	BRL	BRL	0.0011 J	BRL	BRL	0.0019 J	0.0018 J	0.0015 J
DUP-#2 (B-6 (1"-3"))	BRL	0.0063 J	BRL	0.00061 J	0.00061 J	0.0022 J	BRL	BRL	0.0029 J	0.0020 J	0.0019 J
B-7 (2"-4")	NA	NA	NA	BRL	0.00063 J	BRL	BRL	BRL	BRL	0.0031 J	0.0021 J
B-8 (1"-3")	NA	NA	NA	BRL	0.0030 J	BRL	BRL	0.0010 J	BRL	0.00071 J	0.00090 J

Notes:

= Results are above the Residential Regional Screening Levels (RSL) from USEPA Regional Screening Level (RSL) Summary Table (TR= 1E-06, HQ=1) November 2024.

= Results are above the Industrial and Residential Regional Screening Levels (RSL) from USEPA Regional Screening Level (RSL) Summary Table (TR= 1E-06, HQ=1) November 2024.

Samples Collected November 25-26, 2024.

Concentrations were reported in milligrams per kilogram (mg/kg) for comparison with regulatory standards.

J = indicates analyzed concentration is below the Reporting Limit (RL) but above method detection limit (MDL).

BRL = indicates analyzed concentration is below the Reporting Limit (RL).

DUP = Duplicate sample for QA/QC purposes.

NA = Not analyzed for constituent.

NS = No Standard Exist

Table 3: Summary of Subsurface and Soil Sediment Analytical Results for Detections of TCL VOC and PAH (mg/kg)

	TCL VOC										PAH										
Sample ID	Acetone	Benzene	Carbon Disulfide	Isopropylbenzene	2-Butanone (MEK)	Methyl Acetate	4-Methyl-2-pentanone	Toluene	XyleneS, Total	o-Xylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Fluoranthene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene
Residential RSL	70,000	1.2	770	1,900	27,000	78,000	33,000	4,900	580	640	18,000	1.1	0.11	1.1	NS	11	110	2,400	1.1	NS	1,800
Industrial RSL	1,100,000	5.1	3,500	9,900	190,000	1,200,000	140,000	47,000	2,500	2,800	230,000	21	2.1	21	NS	210	2,100	30,000	21	NS	23,000
Sediment Samples																					
River Sediment North Side	0.28	BRL	BRL	0.0033 JB	0.020 J	0.013	0.015 J	0.0017 J	0.0032 J	0.0032 JB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
River Sediment South Side	0.044 J	BRL	BRL	0.0019 JB	BRL	BRL	0.0063 J	BRL	0.0018 JB	0.0018 JB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Subsurface Soil Samples																					
B-1 (7.5'-10.0')	BRL	BRL	BRL	0.0020 JB	BRL	BRL	0.0062 J	BRL	0.0018 JB	0.0018 JB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-2 (7.5'-10.0')	BRL	BRL	BRL	0.0017 JB	BRL	BRL	0.0054 J	BRL	0.0016 JB	0.0016 JB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-3 (7.5'-10.0')	0.053 J	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0018 JB	0.0018 JB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-4 (5.0'-7.5')	0.030 J	BRL	BRL	0.0019 JB	BRL	BRL	0.0060 J	BRL	0.0018 JB	0.0018 JB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-5 (7.5'-9.0')	0.073 J	0.0035 J	0.0094	0.0016 JB	0.0072 J	BRL	BRL	BRL	0.0015 JB	0.0015 JB	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
B-6 (5.0-'7.0')	0.098 J	0.0077	BRL	BRL	0.018 J	BRL	0.0071 J	0.0039 J	0.0023 JB	0.0023 JB	0.20 J	0.61	0.51 F1	0.74	0.33 J	0.27 J	0.55	1.2 F1	0.29 J	0.78 F1	1.0
DUP-#3 (B-6 (5'-7'))	0.074 J	0.0066	BRL	0.0021 JB	0.013 J	BRL	0.0069 J	0.0039 J	0.0022 JB	0.0022 JB	BRL	0.35 J	0.30 J	0.44	0.19 J	BRL	0.32 J	0.69	BRL	0.39	0.58
B-7 (7.5'-10.0')	0.066 J	0.0012 J	BRL	BRL	BRL	BRL	0.0055 J	BRL	0.0017 JB	0.0017 JB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B-8 (7.5'-10.0')	0.072 J	BRL	BRL	0.0022 JB	0.0080 J	BRL	0.0069 J	BRL	0.0021 JB	0.0021 JB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

= Results are above the Residential Regional Screening Levels (RSL) from USEPA Regional Screening Level (RSL) Summary Table (TR= 1E-06, HQ=1) November 2024.

= Results are above the Industrial and Residential Regional Screening Levels (RSL) from USEPA Regional Screening Level (RSL) Summary Table (TR= 1E-06, HQ=1) November 2024.

Samples Collected November 25-26, 2024.

Concentrations were reported in milligrams per kilogram (mg/kg) for comparison with regulatory standards.

J = indicates analyzed concentration is below the Reporting Limit (RL) but above method detection limit (MDL).

B = Compound was found in the blank and sample.

BRL = indicates analyzed concentration is below the Reporting Limit (RL).

F1 = Matrix spike (MS) and/or matrix spike duplicate (MSD) recovery exceeds control limits.

DUP-#3 = Duplicate sample for QA/QC purposes.

NS = No Standard Exist

NA = Not analyzed for constituent.

Attachment #2

Boring Logs and Field Information

BORING LOG: B-1

PROJECT:	Phase II ESA - S-80 RBO Reedy River
LOCATION:	S. Hudson Street, Greenville, SC (Greenville County)
PROJECT NUMBER:	G6982.000

DRILLING CONTRACTOR:	W. Walker Environmental Services, LLC	BORING LOCATION:	See Boring Location Plan
DRILLER:	Wesley Franks	DATE STARTED:	11/25/2024
F&ME REPRESENTATIVE:	Jeff Leary	DATE COMPLETED:	11/25/2024
DRILLING METHOD:	Direct Push - Geoprobe 7822DT	WATER LEVEL (T.O.B)	None
SAMPLING METHOD:	60" Microcore Tube	TOTAL BORING DEPTH:	10.0'

DRILLING DETAILS			MATERIAL DESCRIPTION		
Depth (ft)	Sample Interval for OVA	OVA (ppm)	DESCRIPTION	Notes	Depth (ft)
	1"-2.5'	0.0	1" grassmat, topsoil, and root matter ~1' Brown and orange F/M sandy SILT with micaeous fines	4' Recov. V. Moist	
	2.5'-5.0'	0.0	~3' Brown F/M sandy SILT with mica. and some pieces of quartz (more sand than before)		
5	5.0'-7.5'	0.0	Orange F/M sandy SILT	5' Recov. Moist	5
	7.5'-10.0'	0.0	SAME		
10	10.0'-12.5'		B.T. @ 10.0' Subsurface Sample 7.5'-10.0'		10
	12.5'-15.0'				
15	15.0'-17.5'				15
	17.5'-20.0'				
20	20.0'-22.5'				20
	22.5'-25.0'				
25	25.0'-27.5'				25
	27.5'-30.0'				
30					30

BORING LOG: B-2

PROJECT:	Phase II ESA - S-80 RBO Reedy River
LOCATION:	S. Hudson Street, Greenville, SC (Greenville County)
PROJECT NUMBER:	G6982.000

DRILLING CONTRACTOR:	W. Walker Environmental Services, LLC	BORING LOCATION:	See Boring Location Plan
DRILLER:	Wesley Franks	DATE STARTED:	11/25/2024
F&ME REPRESENTATIVE:	Jeff Leary	DATE COMPLETED:	11/25/2024
DRILLING METHOD:	Direct Push - Geoprobe 7822DT	WATER LEVEL (T.O.B)	None
SAMPLING METHOD:	60" Microcore Tube	TOTAL BORING DEPTH:	10.0'

DRILLING DETAILS			MATERIAL DESCRIPTION		
Depth (ft)	Sample Interval for OVA	OVA (ppm)	DESCRIPTION	Notes	Depth (ft)
	1"-2.5'	0.0	Landscapped Area: ~1" mulch and topsoil ~1' Dk. Brown and orange F/M sandy SILT with micaeous fines with some debri (pieces of rock/coal slag)	3' Recov. Moist	
	2.5'-5.0'	0.0	~2' lt. brown and orange F/C sandy SILT with mica.		
5	5.0'-7.5'	0.0	~2' SAME but a orange, brown, and lt. grey color	4' Recov. Damp	5
	7.5'-10.0'	0.0	Grey and Black F/C SAND with some silt and some pieces of rock, large and small pieces		
10	10.0'-12.5'		B.T. @ 10.0' Subsurface Sample 7.5'-10.0'		10
	12.5'-15.0'				
15	15.0'-17.5'				15
	17.5'-20.0'				
20	20.0'-22.5'				20
	22.5'-25.0'				
25	25.0'-27.5'				25
	27.5'-30.0'				
30					30

BORING LOG: B-3

PROJECT:	Phase II ESA - S-80 RBO Reedy River
LOCATION:	S. Hudson Street, Greenville, SC (Greenville County)
PROJECT NUMBER:	G6982.000

DRILLING CONTRACTOR:	W. Walker Environmental Services, LLC	BORING LOCATION:	See Boring Location Plan
DRILLER:	Wesley Franks	DATE STARTED:	11/25/2024
F&ME REPRESENTATIVE:	Jeff Leary	DATE COMPLETED:	11/25/2024
DRILLING METHOD:	Direct Push - Geoprobe 7822DT	WATER LEVEL (T.O.B)	None
SAMPLING METHOD:	60" Microcore Tube	TOTAL BORING DEPTH:	10.0'

DRILLING DETAILS			MATERIAL DESCRIPTION		
Depth (ft)	Sample Interval for OVA	OVA (ppm)	DESCRIPTION	Notes	Depth (ft)
	1"-2.5'	0.0	Landscapped Area: ~1" mulch ~1' Brown F/M sandy SILT From ~1.5' to 5.0' Orange F/M sandy SILT with mica.	5' Recov. Moist	
	2.5'-5.0'	0.0			
5					5
	5.0'-7.5'	0.0	SAME from 5.0'-10.0' but a orange and brown color	5' Recov. Very Moist	
	7.5'-10.0'	0.0			
10					10
	10.0'-12.5'		B.T. @ 10.0' Subsurface Sample 7.5'-10.0'		
	12.5'-15.0'				
15					15
	15.0'-17.5'				
	17.5'-20.0'				
20					20
	20.0'-22.5'				
	22.5'-25.0'				
25					25
	25.0'-27.5'				
	27.5'-30.0'				
30					30

BORING LOG: B-4

PROJECT:	Phase II ESA - S-80 RBO Reedy River
LOCATION:	S. Hudson Street, Greenville, SC (Greenville County)
PROJECT NUMBER:	G6982.000

DRILLING CONTRACTOR:	W. Walker Environmental Services, LLC	BORING LOCATION:	See Boring Location Plan
DRILLER:	Wesley Franks	DATE STARTED:	11/25/2024
F&ME REPRESENTATIVE:	Jeff Leary	DATE COMPLETED:	11/25/2024
DRILLING METHOD:	Direct Push - Geoprobe 7822DT	WATER LEVEL (T.O.B)	8.30' BGS
SAMPLING METHOD:	60" Microcore Tube	TOTAL BORING DEPTH:	10.0'

DRILLING DETAILS			MATERIAL DESCRIPTION		
Depth (ft)	Sample Interval for OVA	OVA (ppm)	DESCRIPTION	Notes	Depth (ft)
	1"-2.5'	0.0	Landscapped Area: ~1" mulch ~1' Brown silty F/M SAND Orange/Brown F/M sandy, silty CLAY with mica.	3' Recov. Damp to Very Moist	
	2.5'-5.0'	0.0			
5					5
	5.0'-7.5'	0.0	From 5.0'-6.0' SAME but a Dk. Orange color From 6.0'-8.0' Grey F/M sandy CLAY	5' Recov. Moist to Wet	
	7.5'-10.0'	0.0	From 8.0'-10.0 Grey clayey F/M SAND		
10					10
	10.0'-12.5'		B.T. @ 10.0' Subsurface Sample 5.0'-7.5' (Above water level)		
	12.5'-15.0'				
15					15
	15.0'-17.5'				
	17.5'-20.0'				
20					20
	20.0'-22.5'				
	22.5'-25.0'				
25					25
	25.0'-27.5'				
	27.5'-30.0'				
30					30

BORING LOG: B-5

PROJECT:	Phase II ESA - S-80 RBO Reedy River
LOCATION:	S. Hudson Street, Greenville, SC (Greenville County)
PROJECT NUMBER:	G6982.000

DRILLING CONTRACTOR:	W. Walker Environmental Services, LLC	BORING LOCATION:	See Boring Location Plan
DRILLER:	Wesley Franks	DATE STARTED:	11/25/2024
F&ME REPRESENTATIVE:	Jeff Leary	DATE COMPLETED:	11/25/2024
DRILLING METHOD:	Direct Push - Geoprobe 7822DT	WATER LEVEL (T.O.B)	None
SAMPLING METHOD:	60" Microcore Tube	TOTAL BORING DEPTH:	9.0'

DRILLING DETAILS			MATERIAL DESCRIPTION		
Depth (ft)	Sample Interval for OVA	OVA (ppm)	DESCRIPTION	Notes	Depth (ft)
	1"-2.5'	0.0	~1" grassmat, root matter, and topsoil Lt. brown and orange F/M sandy SILT with micaeous fines and some quartz fragments	Damp	
	2.5'-5.0'	0.0	At 2.5' SAME but a brown, orange, and black color with debri (apshalt, brick, glass)	Very Moist	
5	5.0'-7.5'	0.0	From 7.5'-8.5' Orange F/M sandy CLAY From 8.5'-9.0' grey clayey F/M SAND	Very Moist	5
	7.5'-9.0'	0.0		Slightly Wet	
10	10.0'-12.5'		B.T. @ 9.0' Due to refusal Surface Sample 1"-3" (0 ppm on OVA reading) Subsurface Sample 7.5'-9.0'		10
	12.5'-15.0'				
15	15.0'-17.5'				15
	17.5'-20.0'				
20	20.0'-22.5'				20
	22.5'-25.0'				
25	25.0'-27.5'				25
	27.5'-30.0'				
30					30

BORING LOG: B-6

PROJECT:	Phase II ESA - S-80 RBO Reedy River
LOCATION:	S. Hudson Street, Greenville, SC (Greenville County)
PROJECT NUMBER:	G6982.000

DRILLING CONTRACTOR:	W. Walker Environmental Services, LLC	BORING LOCATION:	See Boring Location Plan
DRILLER:	Wesley Franks	DATE STARTED:	11/25/2024
F&ME REPRESENTATIVE:	Jeff Leary	DATE COMPLETED:	11/25/2024
DRILLING METHOD:	Direct Push - Geoprobe 7822DT	WATER LEVEL (T.O.B)	None
SAMPLING METHOD:	60" Microcore Tube	TOTAL BORING DEPTH:	7.0'

DRILLING DETAILS			MATERIAL DESCRIPTION		
Depth (ft)	Sample Interval for OVA	OVA (ppm)	DESCRIPTION	Notes	Depth (ft)
	1"-2.5'	0.0	~1" grassmat, root matter, and topsoil ~1 Lt. brown with orange silty/clayey F/M SAND From 1'-5' brown clayey/silty F/M SAND with debri mixed in (asphalt/glass)	Moist 5' Recov.	
	2.5'-5.0'	0.0			
5	5.0'-7.0'	0.0	Tan, orange, and brown silty F/M SAND with debri (brick and metal pieces)	1' Recov.	5
	7.5'-9.0'		B.T. @ 7.0' Due to refusal (Brick Debri) Offset 3' north and had refusal again at 7.0' Surface Sample 1"-3" (0 ppm on OVA reading) Subsurface Sample 5.0'-7.0'		
10	10.0'-12.5'				10
	12.5'-15.0'				
15	15.0'-17.5'				15
	17.5'-20.0'				
20	20.0'-22.5'				20
	22.5'-25.0'				
25	25.0'-27.5'				25
	27.5'-30.0'				
30					30

BORING LOG: B-7

PROJECT:	Phase II ESA - S-80 RBO Reedy River
LOCATION:	S. Hudson Street, Greenville, SC (Greenville County)
PROJECT NUMBER:	G6982.000

DRILLING CONTRACTOR:	W. Walker Environmental Services, LLC	BORING LOCATION:	See Boring Location Plan
DRILLER:	Wesley Franks	DATE STARTED:	11/26/2024
F&ME REPRESENTATIVE:	Jeff Leary	DATE COMPLETED:	11/26/2024
DRILLING METHOD:	Direct Push - Geoprobe 7822DT	WATER LEVEL (T.O.B)	Collapsed at 8.70' BGS
SAMPLING METHOD:	60" Microcore Tube	TOTAL BORING DEPTH:	10.0'

DRILLING DETAILS			MATERIAL DESCRIPTION		
Depth (ft)	Sample Interval for OVA	OVA (ppm)	DESCRIPTION	Notes	Depth (ft)
	2"-2.5'	0.0	Landscapped Area: ~2" mulch ~1' Dk. Orange SILT with some pieces of gravel ~2' Orange, red, and grey F/M sandy/silty CLAY with some debri (brick, pottery)	3' Recov. Damp to Very Moist	
	2.5'-5.0'	0.0			
5					5
	5.0'-7.5'	0.0	~6" brown clayey/silty F/M SAND with debri ~2.5' burnt orange F/M sandy/clayey SILT	3' Recov. Very Moist to Slightly Wet	
	7.5'-10.0'	0.0			
10					10
	10.0'-12.5'		B.T. @ 10.0' Surface Sample 2"-4" (O ppm on OVA reading) Subsurface Sample 7.5'-10.0'		
	12.5'-15.0'				
15					15
	15.0'-17.5'				
	17.5'-20.0'				
20					20
	20.0'-22.5'				
	22.5'-25.0'				
25					25
	25.0'-27.5'				
	27.5'-30.0'				
30					30

BORING LOG: B-8

PROJECT:	Phase II ESA - S-80 RBO Reedy River
LOCATION:	S. Hudson Street, Greenville, SC (Greenville County)
PROJECT NUMBER:	G6982.000

DRILLING CONTRACTOR:	W. Walker Environmental Services, LLC	BORING LOCATION:	See Boring Location Plan
DRILLER:	Wesley Franks	DATE STARTED:	11/26/2024
F&ME REPRESENTATIVE:	Jeff Leary	DATE COMPLETED:	11/26/2024
DRILLING METHOD:	Direct Push - Geoprobe 7822DT	WATER LEVEL (T.O.B)	Collapsed at 6.0' BGS
SAMPLING METHOD:	60" Microcore Tube	TOTAL BORING DEPTH:	10.0'

DRILLING DETAILS			MATERIAL DESCRIPTION		
Depth (ft)	Sample Interval for OVA	OVA (ppm)	DESCRIPTION	Notes	Depth (ft)
	1"-2.5'	0.0	Landscapped Area: ~1" mulch ~1.5' Orange, brown, and grey silty/clayey F/M SAND with debri (brick, asphalt)	3.5' Recov.	
	2.5'-5.0'	0.0	~2.5' SAME but a brown, black, and grey color (a little less debri)	Damp to Very Moist	
5					5
	5.0'-7.5'	0.0	~6" Brown, black, and tan silty F/M SAND ~2' Grey silty CLAY with trace of fine sand	2.5' Recov.	
	7.5'-10.0'	0.0		Wet to Very Wet	
10					10
	10.0'-12.5'		B.T. @ 10.0' Surface Sample 1"-3" (O ppm on OVA reading) Subsurface Sample 7.5'-10.0'		
	12.5'-15.0'				
15					15
	15.0'-17.5'				
	17.5'-20.0'				
20					20
	20.0'-22.5'				
	22.5'-25.0'				
25					25
	25.0'-27.5'				
	27.5'-30.0'				
30					30

Attachment #3

Laboratory Deliverable Package

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

F&ME Consultants
Attn: Christine Cafagna

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JOB DESCRIPTION

S-80 RBO Reedy River - Phase II ESA
F&ME Consultants

JOB NUMBER

705-13954-1

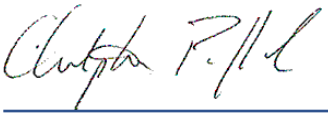
Eurofins Atlanta
3080 Presidential Dr
Atlanta GA 30340

See page two for job notes and contact information.

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Authorized for release by
Christopher Pafford, Customer Service Manager
christopher.pafford@et.eurofinsus.com
(770)457-8177

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

Metals

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Access Lab Report #: _____

Sub Lab (if applicable): _____ / Sub Report # _____

ACCESS ANALYTICAL, INC.

Access Analytical, Inc.
15 Thames Valley Rd. ~ Irmo, SC 29063
Phone: 803-781-4243 / www.axs-inc.com
SC DES Lab Certification # 32571

Chain of Custody Record

Client:	F&ME Consultants
Attn:	Christine Cafagna
Address:	211 Business Park Blvd.
City:	Columbia
State:	SC
Zip Code:	29203
Phone:	803-254-4540
Email:	ccafagna@fmeconsultants.com
Project Name:	S-80 RBO Reedy River - Phase II ESA
Sampled By (Signature):	

Matrix: GW = ground water, WW = waste water, DW = drinking water, S = soil/sludge

Program Area Codes: CWA = Clean Water Act (wastewater), SDWA = Safe Drinking Water Act, SHW = Solid Hazardous Wastes

Lab ID:	Sample Name:	Date Collected:	Time Collected:	G=Grab C=Comp	Matrix (see codes)	Program Area (see codes)	Total # Containers	Preservatives (see codes)								Bottle Types (see codes)								Notes / Comments
												Ø				Ø				G	G	G	G	G				
								REQUESTED LAB ANALYSIS:		TAL Metals	Pesticides/Herbicides	PCB	TCL VOCs	PAH											
	Former Railroad (1"-3")	11-26-24	1340	G	S	SHW	2	# Containers per Test >>		1	1													Cooler #1
	River Sediment North side		1355				6	# Containers per Test >>		1		1	4											VOC - Cooler 2, TAL Metals, PCB #1
	River Sediment South side		1415				6	# Containers per Test >>		1		1	4											VOCs Cooler #2, TAL Metals/PCB #1
	B-1 (7.5'-10.0')		1435				4	# Containers per Test >>					4											Cooler #2
	B-2 (7.5'-10.0')		1445				4	# Containers per Test >>					4											" #2
	B-3 (7.5'-10.0')		1450				4	# Containers per Test >>					4											" #2
	B-4 (5.0'-7.5')		1455				4	# Containers per Test >>					4											#2
	B-5 (1"-3")		1510				2	# Containers per Test >>		1	1													#1
	B-5 (7.5'-9.0')		1520				5	# Containers per Test >>					4	1										VOC #2, PAH #1
	B-6 (1"-3")		1535				2	# Containers per Test >>		1	1													#1

Preservation Codes / Lot Numbers

Record Chemical Lot Following Proper Preservative

0 = None
1 = HCl _____
2 = HNO_3 _____
3 = H_2SO_4 _____
4 = NaOH _____
5 = $Na_2S_2O_3$ _____
6 = NaOH/ZnOAC _____
7 = cooled to ≤6°C
8 = cooled to ≤10°C
9 = Amm.Cl _____
10 = Ascorbic Acid / HCl
Other:

***Container Type:** G = Glass, P = Plastic

Auto Sampler Data (composite samples only): Composite Harvest Temp (°C) = _____

Date/Time Set On: _____ by whom: _____

Date/Time Off: _____ by whom: _____

Composite ID: _____

Meter Reading After: _____

Meter Reading Before: _____

Difference: _____

X _____(factor): _____

705-13954 COC

Turnaround Time Requested:		Project Location:		Relinquished By:	Received By:	Date:	Time (24hr):	Samples Received on Ice:
Standard		SC	V			11-27-24	1100	✓Y ___N ___N/A
Rush *	3 DAY TAT	NC				11/27	4:42PM	___Y ___N ___N/A
*Date Required		Other (Specify):						___Y ___N ___N/A
						11/27	8:31PM	___Y ___N ___N/A

Rush data emailed by end of business day on date required. Standard TAT is within 10 business days.

Chain of Custody Page 1 of 3

Received in lab by: _____

Sample Temp. Receipt in Lab: 0.9 (°C) 0.6, 0.5 #2665
Ref: RT1 Ref: RT2

White Copy: Lab Original / Canary Copy: Client

NOTE: Relinquishing samples via this Chain of Custody document constitutes client acceptance of Access Analytical terms and conditions.

Access Lab Report #: _____

Sub Lab (if applicable): _____ / Sub Report # _____

ACCESS ANALYTICAL, INC.

Access Analytical, Inc.
15 Thames Valley Rd. ~ Irmo, SC 29063
Phone: 803-781-4243 / www.axs-inc.com
SC DES Lab Certification # 32571

Chain of Custody Record

Client:	F&ME Consultants
Attn:	Christine Cafagna
Address:	211 Business Park Blvd.
City:	Columbia
State:	SC
Zip Code:	29203
Phone:	803-254-4540
Email:	ccafagna@fmeconsultants.com
Project Name:	S-80 RBO Reedy River. Phase II ESA
Sampled By (Signature):	

Preservatives (see codes):

Bottle Types (see codes): G G G G G

Preservation Codes / Lot Numbers

Record Chemical Lot Following Proper Preservative

0 = None
1 = HCl _____
2 = HNO_3 _____
3 = H_2SO_4 _____
4 = NaOH _____
5 = $Na_2S_2O_3$ _____
6 = NaOH/ZnOAC _____
7 = cooled to ≤6°C
8 = cooled to ≤10°C
9 = Amm.Cl _____
10 = Ascorbic Acid / HCl
Other:

***Container Type:** G = Glass, P = Plastic

Matrix:
GW = ground water, WW = waste water, DW = drinking water, S = soil/sludge

Program Area Codes:
CWA = Clean Water Act (wastewater), SDWA = Safe Drinking Water Act, SHW = Solid Hazardous Wastes

Lab ID:	Sample Name:	Date Collected:	Time Collected:	G=Grab C=Comp	Matrix (see codes)	Program Area (see codes)	Total # Containers	# Containers per Test >> TAL Metals	Pesticides / Herbicides	PCB's	TCL VOCs	PAH
	B-6 (5'-7')	11-26-24	1550	G	S	SHW	5				4	1
	B-7 (2"-4")		1605				2	1	1			
	B-7 (7.5'-10.0')		1610				4				4	
	B-8 (1"-3")		1615				2	1	1			
	B-8 (7.5'-10.0')		1620				4				4	
	DUP #1		—	G			1			1		
	DUP #2		—	G			2	1	1			
	DUP #3		—	G			5				4	1
	Equip Blank	11-25-24	1285	G	W							

Notes / Comments

Cooler # 2. VOC, Cooler # 1 PAH
#1
#2
Cooler #1
#2
Cooler #1
Cooler #1
VOC #2, PAH #1

Auto Sampler Data (composite samples only): Composite Harvest Temp (°C) = _____

Date/Time Set On: _____ by whom: _____

Date/Time Off: _____ by whom: _____

Composite ID: _____

Meter Reading After: _____

Meter Reading Before: _____

Difference: _____

X _____(factor): _____

Turnaround Time Requested:		Project Location:		Relinquished By:	Received By:	Date:	Time (24hr):	Samples Received on Ice:
Standard		SC	✓			11/27/24	1150	✓ Y ___N ___N/A
Rush *	3 DAY TAT	NC				11/27	4:42PM	___Y ___N ___N/A
*Date Required		Other (Specify):						___Y ___N ___N/A
						11/27	8:31PM	___Y ___N ___N/A

Rush data emailed by end of business day on date required. Standard TAT is within 10 business days.

Chain of Custody Page 2 **of** 3

Received in lab by: _____

Sample Temp. Receipt in Lab: 0.9 (°C) 0.6, 0.5/#2665
Ref: RT1 Ref: RT2

White Copy: Lab Original / Canary Copy: Client

NOTE: Relinquishing samples on this Chain of Custody document constitutes client acceptance of Access Analytical terms and conditions.

12/6/2024

Access Lab Report #: _____

Sub Lab (if applicable): _____ / Sub Report # _____

ACCESS ANALYTICAL, INC.

Access Analytical, Inc.
15 Thames Valley Rd. ~ Irmo, SC 29063
Phone: 803-781-4243 / www.axs-inc.com
SC DES Lab Certification # 32571

Chain of Custody Record

Client:	F&ME Consu/Hants
Attn:	Christine Catagna
Address:	211 Business Park Blvd
City:	Columbia
State:	SC
Zip Code:	29203
Phone:	803-254-4540
Email:	ccatagna@fmeconsulting.com
Project Name:	5-80 RBO Reedy River - Phase II ESA
Sampled By (Signature):	

Preservatives (see codes): 1 0 2 0 0

Bottle Types (see codes): G G P G G

Matrix: GW = ground water, WW = waste water, DW = drinking water, S = soil/sludge

Program Area Codes: CWA = Clean Water Act (wastewater), SDWA = Safe Drinking Water Act, SHW = Solid Hazardous Wastes

Lab ID:	Sample Name:	Date Collected:	Time Collected:	G=Grab C=Comp	Matrix (see codes)	Program Area (see codes)	Total # Containers	# Containers per Test >>	TCL VOC	PAH	TAL Metals	Herbicide	Pesticide/PCB	Notes / Comments
	Equip. Blank	11-25-24	1235	G	W	SHW	9	3	1	1	2	2		Cooler #3
	Trip Blank #1	—	—	—	W		1	1						#1
	Trip Blank #2	—	—	—	W		1	1						#2
	Trip Blank #3	—	—	—	W		1	1						#3

Preservation Codes / Lot Numbers

Record Chemical Lot Following Proper Preservative

0 = None
1 = HCl _____
2 = HNO_3 _____
3 = H_2SO_4 _____
4 = NaOH _____
5 = $Na_2S_2O_3$ _____
6 = NaOH/ZnOAC _____
7 = cooled to ≤6°C
8 = cooled to ≤10°C
9 = Amm.Cl _____
10 = Ascorbic Acid / HCl
Other:

***Container Type:** G = Glass, P = Plastic

Auto Sampler Data (composite samples only): Composite Harvest Temp (°C) = _____

Date/Time Set On: _____ by whom: _____

Date/Time Off: _____ by whom: _____

Composite ID: _____

Meter Reading After: _____

Meter Reading Before: _____

Difference: _____

X _____(factor): _____

Turnaround Time Requested:		Project Location:		Relinquished By:	Received By:	Date:	Time (24hr):	Samples Received on Ice:
Standard		SC	✓			11-27-24	1100	✓ Y ___N ___N/A
Rush *	3 DAY TAT	NC				11/27	4:42 PM	___Y ___N ___N/A
*Date Required		Other (Specify):						___Y ___N ___N/A
Rush data emailed by end of business day on date required. Standard TAT is within 10 business days.						11/27	8:31 PM	___Y ___N ___N/A

Chain of Custody Page 3 **of** 3

Received in lab by: _____

Sample Temp. Receipt in Lab: 0.9 (°C) 0.6, 0.5 / #2665

Ref: RT1 **Ref: RT2**

White Copy: Lab Original / Canary Copy: Client

NOTE: Relinquishing samples via this Chain of Custody document constitutes client acceptance of Access Analytical terms and conditions.

Job ID: 705-13954-1 Eurofins Atlanta

Job Narrative
705-13954-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/27/2024 8:31 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.5°C, 0.6°C and 0.9°C.

GC/MS VOA
Method 8260D_SC: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 705-24406 recovered outside control limits for the following analytes: 2-Butanone and Acetone. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_SC: The method blank for preparation batch 705-25285 and analytical batch 705-25283 contained Isopropylbenzene, o-Xylene and Xylenes, Total above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8260D_SC: Internal standard (ISTD) low response for 1,4-Dichlorobenzene-d4 for the following samples in analytical batch 705-25283 was outside acceptance criteria: B-6 (5'-7') (705-13954-11) and DUP #3 (705-13954-18). There were no hits in the corresponding analytes; therefore, data was reported.

Method 8260D_SC: Internal standard (ISTD) low response for 1,4-Dichlorobenzene-d4 for the following sample in analytical batch 705-25365 was outside acceptance criteria: (705-13954-C-15-A DU). There were no hits in the corresponding analytes; therefore, data was reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270E_SC: Surrogate recovery for the following samples were outside the upper control limit: Equip. Blank (705-13954-19), (MB 705-24507/1-A), (705-13954-D-19-A MS) and (705-13954-D-19-B MSD). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8270E_SC: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 705-24507 and analytical batch 705-24734 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8270E_SC: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 705-24774 and analytical batch 705-24850 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8082A_SC: The following samples required a sulfuric acid clean-up, via EPA Method 3665A, to reduce matrix interferences: River Sediment Northside (705-13954-2), (705-13954-B-2-A MS) and (705-13954-B-2-B MSD).

Method 8082A_SC: The following sample required a sulfuric acid clean-up, via EPA Method 3665A, to reduce matrix interferences:

River Sediment Southside (705-13954-3).

Method 8151A_SC: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 705-24674 and analytical batch 705-25386 recovered outside control limits for the following analyte(s): Silvex (2,4,5-TP) and 2,4-D. Silvex (2,4,5-TP) and 2,4-D have been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. The samples associated with this LCS were non-detects for the affected analytes; therefore, the data have been reported.

Method 8081B_SC: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 705-24543 and analytical batch 705-25270 recovered outside control limits for the following analytes: Endrin aldehyde. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8081B_SC: The matrix spike duplicate (MSD) recoveries and precision for preparation batch 705-24543 and analytical batch 705-25270 was outside control limits. Sample matrix interference and/or non-homogeneity is suspected.

Method 8081B_SC: Surrogate recovery for the following sample was outside control limits: B-7 (2"-4") (705-13954-12). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6010D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 705-25064 and analytical batch 705-25364 25064 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample ID: Former Railroad (1"-3")

Lab Sample ID: 705-13954-1

Date Collected: 11/26/24 13:40
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 83.8

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0040	0.00074	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
4,4'-DDE	**0.00079**	**J**	0.0040	0.00057	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
4,4'-DDT	**0.00084**	**J**	0.0040	0.00063	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
Aldrin	ND		0.0020	0.00051	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
alpha-BHC	ND		0.0020	0.00044	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
alpha-Chlordane	ND		0.0020	0.00046	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
beta-BHC	ND		0.0020	0.00039	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
Chlordane (technical)	ND		0.040	0.0038	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
delta-BHC	ND		0.0020	0.00043	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
Dieldrin	ND		0.0040	0.00055	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
Endosulfan I	ND		0.0020	0.00076	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
Endosulfan II	ND		0.0040	0.00052	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
Endosulfan sulfate	ND		0.0040	0.00046	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
Endrin	ND		0.0040	0.00061	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
Endrin aldehyde	**0.00089**	**J**	0.0040	0.00080	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
Endrin ketone	ND		0.0040	0.00065	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
gamma-BHC (Lindane)	ND		0.0020	0.00047	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
gamma-Chlordane	ND		0.0020	0.00045	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
Heptachlor	ND		0.0020	0.00065	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
Heptachlor epoxide	ND		0.0020	0.00046	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
Methoxychlor	ND		0.020	0.0020	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1
Toxaphene	ND		0.20	0.010	mg/Kg	☼	12/02/24 09:00	12/04/24 18:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*79*		*45 - 124*	*12/02/24 09:00*	*12/04/24 18:10*	*1*
Tetrachloro-m-xylene (Surr)	*82*		*44 - 117*	*12/02/24 09:00*	*12/04/24 18:10*	*1*

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	ND	*-	0.039	0.014	mg/Kg	☼	12/03/24 06:56	12/05/24 13:15	1
2,4-D	ND	*-	0.039	0.016	mg/Kg	☼	12/03/24 06:56	12/05/24 13:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA (Surr)	*71*		*40 - 122*	*12/03/24 06:56*	*12/05/24 13:15*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**20000**		3600	290	mg/Kg	☼	12/04/24 14:15	12/05/24 15:09	100
Antimony	**0.76**	**J F1**	1.8	0.28	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Arsenic	**4.1**		1.8	0.34	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Barium	**80**		3.6	0.28	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Beryllium	**0.54**	**J**	1.8	0.080	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Cadmium	**0.19**	**J**	1.8	0.079	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Calcium	**2400**		36	21	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Chromium	**17**	**F1**	1.8	0.24	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Cobalt	**5.6**		1.8	0.10	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Copper	**24**	**F1**	1.8	0.22	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Iron	**30000**		3600	550	mg/Kg	☼	12/04/24 14:15	12/05/24 15:09	100
Lead	**58**		3.6	0.29	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Magnesium	**1600**		36	1.6	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: Former Railroad (1"-3")
Date Collected: 11/26/24 13:40
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-1
Matrix: Solid
Percent Solids: 83.8

Method: SW846 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	280		3.6	0.076	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Nickel	4.5		3.6	0.69	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Potassium	2500		71	22	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Selenium	ND		2.5	0.50	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Silver	ND		1.8	0.064	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Sodium	240		71	20	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Thallium	ND		0.71	0.47	mg/Kg	☼	12/04/24 14:15	12/05/24 15:05	1
Vanadium	58	F1	3.6	0.073	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1
Zinc	85		3.6	1.3	mg/Kg	☼	12/04/24 14:15	12/05/24 14:14	1

Method: SW846 7473 - Mercury (AAS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.062	J	0.12	0.050	mg/Kg	☼		12/02/24 15:19	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: River Sediment Northside
Date Collected: 11/26/24 13:55
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-2
Matrix: Solid
Percent Solids: 51.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0084	0.0024	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
1,1,2,2-Tetrachloroethane	ND		0.0084	0.0022	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
1,1,2-Trichloroethane	ND		0.0084	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
1,1-Dichloroethane	ND		0.0084	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
1,1-Dichloroethene	ND		0.0084	0.0020	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
1,2,4-Trichlorobenzene	ND		0.0084	0.0034	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
1,2-Dibromo-3-Chloropropane	ND		0.0084	0.0034	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
1,2-Dibromoethane	ND		0.0084	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
1,2-Dichlorobenzene	ND		0.0084	0.0018	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
1,2-Dichloroethane	ND		0.0084	0.0020	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
1,2-Dichloropropane	ND		0.0084	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
1,3-Dichlorobenzene	ND		0.0084	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
1,4-Dichlorobenzene	ND		0.0084	0.0019	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
2-Butanone	**0.020**	**J**	0.084	0.0093	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
2-Hexanone	ND		0.017	0.012	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
4-Methyl-2-pentanone	**0.015**	**J**	0.017	0.0054	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Acetone	**0.28**		0.17	0.037	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Benzene	ND		0.0084	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Bromodichloromethane	ND		0.0084	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Bromoform	ND		0.0084	0.0035	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Bromomethane	ND		0.0084	0.0033	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Carbon disulfide	ND		0.017	0.0043	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Carbon tetrachloride	ND		0.0084	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Chlorobenzene	ND		0.0084	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Chloroethane	ND		0.017	0.0032	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Chloroform	ND		0.0084	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Chloromethane	ND		0.017	0.0025	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
cis-1,2-Dichloroethene	ND		0.0084	0.0020	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
cis-1,3-Dichloropropene	ND		0.0084	0.0020	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Cyclohexane	ND		0.0084	0.0027	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Dibromochloromethane	ND		0.0084	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Dichlorodifluoromethane	ND		0.017	0.0030	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Ethylbenzene	ND		0.0084	0.0018	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Freon 113	ND		0.017	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Isopropylbenzene	**0.0033**	**J B**	0.0084	0.0025	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
m,p-Xylene	ND		0.0084	0.0036	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Methyl acetate	**0.013**		0.0084	0.0026	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Methyl tert-butyl ether	ND		0.0084	0.0029	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Methylcyclohexane	ND		0.0084	0.0024	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Methylene Chloride	ND		0.033	0.0094	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
o-Xylene	**0.0032**	**J B**	0.0084	0.0022	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Styrene	ND		0.0084	0.0042	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Tetrachloroethene	ND		0.0084	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Toluene	**0.0017**	**J**	0.0084	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
trans-1,2-Dichloroethene	ND		0.0084	0.0020	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
trans-1,3-Dichloropropene	ND		0.0084	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Trichloroethene	ND		0.0084	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Trichlorofluoromethane	ND		0.0084	0.0032	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Vinyl chloride	ND		0.017	0.0028	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1

Client Sample ID: River Sediment Northside

Lab Sample ID: 705-13954-2

Date Collected: 11/26/24 13:55
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 51.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		0.0084	0.0020	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1
Xylenes, Total	**0.0032**	**J B**	0.0084	0.0022	mg/Kg	☼	12/04/24 18:19	12/04/24 20:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*67 - 127*	*12/04/24 18:19*	*12/04/24 20:22*	*1*
Dibromofluoromethane (Surr)	*95*		*70 - 130*	*12/04/24 18:19*	*12/04/24 20:22*	*1*
Toluene-d8 (Surr)	*91*		*71 - 129*	*12/04/24 18:19*	*12/04/24 20:22*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.064	0.0098	mg/Kg	☼	12/02/24 09:00	12/02/24 15:49	1
PCB-1221	ND		0.064	0.0098	mg/Kg	☼	12/02/24 09:00	12/02/24 15:49	1
PCB-1232	ND		0.064	0.0098	mg/Kg	☼	12/02/24 09:00	12/02/24 15:49	1
PCB-1242	ND		0.064	0.0098	mg/Kg	☼	12/02/24 09:00	12/02/24 15:49	1
PCB-1248	**0.025**	**J**	0.064	0.0098	mg/Kg	☼	12/02/24 09:00	12/02/24 15:49	1
PCB-1254	**0.051**	**J**	0.064	0.0098	mg/Kg	☼	12/02/24 09:00	12/02/24 15:49	1
PCB-1260	**0.019**	**J**	0.064	0.0098	mg/Kg	☼	12/02/24 09:00	12/02/24 15:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*63*	*S1-*	*70 - 130*	*12/02/24 09:00*	*12/02/24 15:49*	*1*
Tetrachloro-m-xylene (Surr)	*88*		*70 - 130*	*12/02/24 09:00*	*12/02/24 15:49*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**29000**		6500	530	mg/Kg	☼	12/04/24 14:15	12/05/24 15:35	100
Antimony	**1.7**	**J**	3.2	0.51	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Arsenic	**6.3**		3.2	0.61	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Barium	**180**		6.5	0.50	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Beryllium	**1.2**	**J**	3.2	0.15	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Cadmium	**0.69**	**J**	3.2	0.14	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Calcium	**3600**		65	38	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Chromium	**55**		3.2	0.44	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Cobalt	**10**		3.2	0.18	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Copper	**46**		3.2	0.40	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Iron	**41000**		6500	990	mg/Kg	☼	12/04/24 14:15	12/05/24 15:35	100
Lead	**58**		6.5	0.53	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Magnesium	**2600**		65	2.9	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Manganese	**780**		650	14	mg/Kg	☼	12/04/24 14:15	12/05/24 15:35	100
Nickel	**12**		6.5	1.2	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Potassium	**2600**		130	40	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Selenium	**1.7**	**J**	4.5	0.90	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Silver	ND		3.2	0.12	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Sodium	**570**		130	36	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Thallium	**1.1**	**J**	1.3	0.85	mg/Kg	☼	12/04/24 14:15	12/05/24 15:08	1
Vanadium	**68**		6.5	0.13	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1
Zinc	**180**		6.5	2.4	mg/Kg	☼	12/04/24 14:15	12/05/24 14:31	1

Method: SW846 7473 - Mercury (AAS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.19	0.081	mg/Kg	☼		12/02/24 15:27	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: River Sediment Southside
Date Collected: 11/26/24 14:15
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-3
Matrix: Solid
Percent Solids: 69.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0047	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
1,1,2,2-Tetrachloroethane	ND		0.0047	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
1,1,2-Trichloroethane	ND		0.0047	0.00085	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
1,1-Dichloroethane	ND		0.0047	0.00086	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
1,1-Dichloroethene	ND		0.0047	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
1,2,4-Trichlorobenzene	ND		0.0047	0.0019	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
1,2-Dibromo-3-Chloropropane	ND		0.0047	0.0020	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
1,2-Dibromoethane	ND		0.0047	0.00083	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
1,2-Dichlorobenzene	ND		0.0047	0.0010	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
1,2-Dichloroethane	ND		0.0047	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
1,2-Dichloropropane	ND		0.0047	0.00065	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
1,3-Dichlorobenzene	ND		0.0047	0.00075	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
1,4-Dichlorobenzene	ND		0.0047	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
2-Butanone	ND		0.047	0.0053	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
2-Hexanone	ND		0.0095	0.0070	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
4-Methyl-2-pentanone	**0.0063**	**J**	0.0095	0.0031	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Acetone	**0.044**	**J**	0.095	0.021	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Benzene	ND		0.0047	0.00072	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Bromodichloromethane	ND		0.0047	0.00089	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Bromoform	ND		0.0047	0.0020	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Bromomethane	ND		0.0047	0.0019	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Carbon disulfide	ND		0.0095	0.0024	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Carbon tetrachloride	ND		0.0047	0.00090	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Chlorobenzene	ND		0.0047	0.00080	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Chloroethane	ND		0.0095	0.0018	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Chloroform	ND		0.0047	0.00092	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Chloromethane	ND		0.0095	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
cis-1,2-Dichloroethene	ND		0.0047	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
cis-1,3-Dichloropropene	ND		0.0047	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Cyclohexane	ND		0.0047	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Dibromochloromethane	ND		0.0047	0.00075	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Dichlorodifluoromethane	ND		0.0095	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Ethylbenzene	ND		0.0047	0.0010	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Freon 113	ND		0.0095	0.00094	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Isopropylbenzene	**0.0019**	**J B**	0.0047	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
m,p-Xylene	ND		0.0047	0.0021	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Methyl acetate	ND		0.0047	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Methyl tert-butyl ether	ND		0.0047	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Methylcyclohexane	ND		0.0047	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Methylene Chloride	ND		0.019	0.0053	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
o-Xylene	**0.0018**	**J B**	0.0047	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Styrene	ND		0.0047	0.0024	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Tetrachloroethene	ND		0.0047	0.00077	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Toluene	ND		0.0047	0.00093	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
trans-1,2-Dichloroethene	ND		0.0047	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
trans-1,3-Dichloropropene	ND		0.0047	0.00098	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Trichloroethene	ND		0.0047	0.00066	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Trichlorofluoromethane	ND		0.0047	0.0018	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Vinyl chloride	ND		0.0095	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1

Client Sample ID: River Sediment Southside

Lab Sample ID: 705-13954-3

Date Collected: 11/26/24 14:15
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 69.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		0.0047	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1
Xylenes, Total	**0.0018**	**J B**	0.0047	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 20:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*67 - 127*	*12/04/24 18:19*	*12/04/24 20:47*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*	*12/04/24 18:19*	*12/04/24 20:47*	*1*
Toluene-d8 (Surr)	*95*		*71 - 129*	*12/04/24 18:19*	*12/04/24 20:47*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.048	0.0073	mg/Kg	☼	12/02/24 09:00	12/02/24 17:41	1
PCB-1221	ND		0.048	0.0073	mg/Kg	☼	12/02/24 09:00	12/02/24 17:41	1
PCB-1232	ND		0.048	0.0073	mg/Kg	☼	12/02/24 09:00	12/02/24 17:41	1
PCB-1242	ND		0.048	0.0073	mg/Kg	☼	12/02/24 09:00	12/02/24 17:41	1
PCB-1248	ND		0.048	0.0073	mg/Kg	☼	12/02/24 09:00	12/02/24 17:41	1
PCB-1254	**0.013**	**J**	0.048	0.0073	mg/Kg	☼	12/02/24 09:00	12/02/24 17:41	1
PCB-1260	ND		0.048	0.0073	mg/Kg	☼	12/02/24 09:00	12/02/24 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*52*	*S1-*	*70 - 130*	*12/02/24 09:00*	*12/02/24 17:41*	*1*
Tetrachloro-m-xylene (Surr)	*82*		*70 - 130*	*12/02/24 09:00*	*12/02/24 17:41*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**6800**		46	3.7	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Antimony	**0.42**	**J**	2.3	0.36	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Arsenic	**1.2**	**J**	2.3	0.43	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Barium	**50**		4.6	0.35	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Beryllium	**0.26**	**J**	2.3	0.10	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Cadmium	**0.15**	**J**	2.3	0.10	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Calcium	**780**		46	27	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Chromium	**19**		2.3	0.31	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Cobalt	**2.8**		2.3	0.13	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Copper	**9.6**		2.3	0.29	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Iron	**10000**		460	70	mg/Kg	☼	12/04/24 14:15	12/05/24 16:02	10
Lead	**17**		4.6	0.38	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Magnesium	**850**		46	2.0	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Manganese	**180**		4.6	0.098	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Nickel	**4.8**		4.6	0.88	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Potassium	**840**		92	28	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Selenium	ND		3.2	0.64	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Silver	ND		2.3	0.082	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Sodium	**150**		92	25	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Thallium	ND		0.92	0.60	mg/Kg	☼	12/04/24 14:15	12/05/24 15:17	1
Vanadium	**18**		4.6	0.093	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1
Zinc	**45**		4.6	1.7	mg/Kg	☼	12/04/24 14:15	12/05/24 14:34	1

Method: SW846 7473 - Mercury (AAS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.14	0.060	mg/Kg	☼		12/02/24 15:35	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-1 (7.5'-10.0')
Date Collected: 11/26/24 14:35
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-4
Matrix: Solid
Percent Solids: 77.1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0050	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
1,1,2,2-Tetrachloroethane	ND		0.0050	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
1,1,2-Trichloroethane	ND		0.0050	0.00090	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
1,1-Dichloroethane	ND		0.0050	0.00090	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
1,1-Dichloroethene	ND		0.0050	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
1,2,4-Trichlorobenzene	ND		0.0050	0.0020	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
1,2-Dibromo-3-Chloropropane	ND		0.0050	0.0020	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
1,2-Dibromoethane	ND		0.0050	0.00087	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
1,2-Dichlorobenzene	ND		0.0050	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
1,2-Dichloroethane	ND		0.0050	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
1,2-Dichloropropane	ND		0.0050	0.00068	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
1,3-Dichlorobenzene	ND		0.0050	0.00079	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
1,4-Dichlorobenzene	ND		0.0050	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
2-Butanone	ND		0.050	0.0055	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
2-Hexanone	ND		0.0099	0.0073	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
4-Methyl-2-pentanone	**0.0062**	**J**	0.0099	0.0032	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Acetone	ND		0.099	0.022	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Benzene	ND		0.0050	0.00075	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Bromodichloromethane	ND		0.0050	0.00093	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Bromoform	ND		0.0050	0.0021	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Bromomethane	ND		0.0050	0.0020	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Carbon disulfide	ND		0.0099	0.0025	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Carbon tetrachloride	ND		0.0050	0.00094	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Chlorobenzene	ND		0.0050	0.00083	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Chloroethane	ND		0.0099	0.0019	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Chloroform	ND		0.0050	0.00096	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Chloromethane	ND		0.0099	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
cis-1,2-Dichloroethene	ND		0.0050	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
cis-1,3-Dichloropropene	ND		0.0050	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Cyclohexane	ND		0.0050	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Dibromochloromethane	ND		0.0050	0.00079	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Dichlorodifluoromethane	ND		0.0099	0.0018	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Ethylbenzene	ND		0.0050	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Freon 113	ND		0.0099	0.00099	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Isopropylbenzene	**0.0020**	**J B**	0.0050	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
m,p-Xylene	ND		0.0050	0.0022	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Methyl acetate	ND		0.0050	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Methyl tert-butyl ether	ND		0.0050	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Methylcyclohexane	ND		0.0050	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Methylene Chloride	ND		0.020	0.0056	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
o-Xylene	**0.0018**	**J B**	0.0050	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Styrene	ND		0.0050	0.0025	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Tetrachloroethene	ND		0.0050	0.00081	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Toluene	ND		0.0050	0.00098	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
trans-1,2-Dichloroethene	ND		0.0050	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
trans-1,3-Dichloropropene	ND		0.0050	0.0010	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Trichloroethene	ND		0.0050	0.00069	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Trichlorofluoromethane	ND		0.0050	0.0019	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Vinyl chloride	ND		0.0099	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-1 (7.5'-10.0')
Date Collected: 11/26/24 14:35
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-4
Matrix: Solid
Percent Solids: 77.1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		0.0050	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1
Xylenes, Total	**0.0018**	**J B**	0.0050	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 21:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*67 - 127*	*12/04/24 18:19*	*12/04/24 21:11*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*	*12/04/24 18:19*	*12/04/24 21:11*	*1*
Toluene-d8 (Surr)	*97*		*71 - 129*	*12/04/24 18:19*	*12/04/24 21:11*	*1*

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-2 (7.5'-10.0')
Date Collected: 11/26/24 14:45
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-5
Matrix: Solid
Percent Solids: 92.1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0044	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
1,1,2,2-Tetrachloroethane	ND		0.0044	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
1,1,2-Trichloroethane	ND		0.0044	0.00079	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
1,1-Dichloroethane	ND		0.0044	0.00079	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
1,1-Dichloroethene	ND		0.0044	0.0010	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
1,2,4-Trichlorobenzene	ND		0.0044	0.0018	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
1,2-Dibromo-3-Chloropropane	ND		0.0044	0.0018	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
1,2-Dibromoethane	ND		0.0044	0.00076	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
1,2-Dichlorobenzene	ND		0.0044	0.00094	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
1,2-Dichloroethane	ND		0.0044	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
1,2-Dichloropropane	ND		0.0044	0.00060	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
1,3-Dichlorobenzene	ND		0.0044	0.00070	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
1,4-Dichlorobenzene	ND		0.0044	0.0010	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
2-Butanone	ND		0.044	0.0049	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
2-Hexanone	ND		0.0087	0.0064	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
4-Methyl-2-pentanone	**0.0054**	**J**	0.0087	0.0028	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Acetone	ND		0.087	0.019	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Benzene	ND		0.0044	0.00066	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Bromodichloromethane	ND		0.0044	0.00082	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Bromoform	ND		0.0044	0.0019	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Bromomethane	ND		0.0044	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Carbon disulfide	ND		0.0087	0.0022	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Carbon tetrachloride	ND		0.0044	0.00083	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Chlorobenzene	ND		0.0044	0.00073	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Chloroethane	ND		0.0087	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Chloroform	ND		0.0044	0.00085	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Chloromethane	ND		0.0087	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
cis-1,2-Dichloroethene	ND		0.0044	0.0010	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
cis-1,3-Dichloropropene	ND		0.0044	0.0010	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Cyclohexane	ND		0.0044	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Dibromochloromethane	ND		0.0044	0.00069	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Dichlorodifluoromethane	ND		0.0087	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Ethylbenzene	ND		0.0044	0.00093	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Freon 113	ND		0.0087	0.00087	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Isopropylbenzene	**0.0017**	**J B**	0.0044	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
m,p-Xylene	ND		0.0044	0.0019	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Methyl acetate	ND		0.0044	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Methyl tert-butyl ether	ND		0.0044	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Methylcyclohexane	ND		0.0044	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Methylene Chloride	ND		0.017	0.0049	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
o-Xylene	**0.0016**	**J B**	0.0044	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Styrene	ND		0.0044	0.0022	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Tetrachloroethene	ND		0.0044	0.00071	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Toluene	ND		0.0044	0.00086	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
trans-1,2-Dichloroethene	ND		0.0044	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
trans-1,3-Dichloropropene	ND		0.0044	0.00090	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Trichloroethene	ND		0.0044	0.00061	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Trichlorofluoromethane	ND		0.0044	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Vinyl chloride	ND		0.0087	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-2 (7.5'-10.0')
Date Collected: 11/26/24 14:45
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-5
Matrix: Solid
Percent Solids: 92.1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		0.0044	0.0010	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1
Xylenes, Total	**0.0016**	**J B**	0.0044	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 21:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*67 - 127*	*12/04/24 18:19*	*12/04/24 21:36*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*	*12/04/24 18:19*	*12/04/24 21:36*	*1*
Toluene-d8 (Surr)	*95*		*71 - 129*	*12/04/24 18:19*	*12/04/24 21:36*	*1*

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-3 (7.5'-10.0')
Date Collected: 11/26/24 14:50
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-6
Matrix: Solid
Percent Solids: 75.8

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0049	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
1,1,2,2-Tetrachloroethane	ND		0.0049	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
1,1,2-Trichloroethane	ND		0.0049	0.00088	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
1,1-Dichloroethane	ND		0.0049	0.00089	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
1,1-Dichloroethene	ND		0.0049	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
1,2,4-Trichlorobenzene	ND		0.0049	0.0020	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
1,2-Dibromo-3-Chloropropane	ND		0.0049	0.0020	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
1,2-Dibromoethane	ND		0.0049	0.00086	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
1,2-Dichlorobenzene	ND		0.0049	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
1,2-Dichloroethane	ND		0.0049	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
1,2-Dichloropropane	ND		0.0049	0.00067	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
1,3-Dichlorobenzene	ND		0.0049	0.00078	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
1,4-Dichlorobenzene	ND		0.0049	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
2-Butanone	ND		0.049	0.0055	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
2-Hexanone	ND		0.0098	0.0072	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
4-Methyl-2-pentanone	ND		0.0098	0.0032	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Acetone	**0.053**	**J**	0.098	0.022	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Benzene	ND		0.0049	0.00074	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Bromodichloromethane	ND		0.0049	0.00092	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Bromoform	ND		0.0049	0.0021	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Bromomethane	ND		0.0049	0.0019	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Carbon disulfide	ND		0.0098	0.0025	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Carbon tetrachloride	ND		0.0049	0.00093	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Chlorobenzene	ND		0.0049	0.00082	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Chloroethane	ND		0.0098	0.0019	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Chloroform	ND		0.0049	0.00095	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Chloromethane	ND		0.0098	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
cis-1,2-Dichloroethene	ND		0.0049	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
cis-1,3-Dichloropropene	ND		0.0049	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Cyclohexane	ND		0.0049	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Dibromochloromethane	ND		0.0049	0.00078	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Dichlorodifluoromethane	ND		0.0098	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Ethylbenzene	ND		0.0049	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Freon 113	ND		0.0098	0.00098	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Isopropylbenzene	ND		0.0049	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
m,p-Xylene	ND		0.0049	0.0021	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Methyl acetate	ND		0.0049	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Methyl tert-butyl ether	ND		0.0049	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Methylcyclohexane	ND		0.0049	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Methylene Chloride	ND		0.020	0.0055	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
o-Xylene	**0.0018**	**J B**	0.0049	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Styrene	ND		0.0049	0.0025	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Tetrachloroethene	ND		0.0049	0.00080	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Toluene	ND		0.0049	0.00097	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
trans-1,2-Dichloroethene	ND		0.0049	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
trans-1,3-Dichloropropene	ND		0.0049	0.0010	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Trichloroethene	ND		0.0049	0.00068	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Trichlorofluoromethane	ND		0.0049	0.0019	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Vinyl chloride	ND		0.0098	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-3 (7.5'-10.0')
Date Collected: 11/26/24 14:50
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-6
Matrix: Solid
Percent Solids: 75.8

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		0.0049	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1
Xylenes, Total	**0.0018**	**J B**	0.0049	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 22:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*67 - 127*	*12/04/24 18:19*	*12/04/24 22:01*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*	*12/04/24 18:19*	*12/04/24 22:01*	*1*
Toluene-d8 (Surr)	*96*		*71 - 129*	*12/04/24 18:19*	*12/04/24 22:01*	*1*

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-4 (5.0'-7.5')
Date Collected: 11/26/24 14:55
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-7
Matrix: Solid
Percent Solids: 71.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0048	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
1,1,2,2-Tetrachloroethane	ND		0.0048	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
1,1,2-Trichloroethane	ND		0.0048	0.00086	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
1,1-Dichloroethane	ND		0.0048	0.00087	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
1,1-Dichloroethene	ND		0.0048	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
1,2,4-Trichlorobenzene	ND		0.0048	0.0019	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
1,2-Dibromo-3-Chloropropane	ND		0.0048	0.0020	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
1,2-Dibromoethane	ND		0.0048	0.00084	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
1,2-Dichlorobenzene	ND		0.0048	0.0010	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
1,2-Dichloroethane	ND		0.0048	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
1,2-Dichloropropane	ND		0.0048	0.00066	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
1,3-Dichlorobenzene	ND		0.0048	0.00076	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
1,4-Dichlorobenzene	ND		0.0048	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
2-Butanone	ND		0.048	0.0053	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
2-Hexanone	ND		0.0096	0.0071	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
4-Methyl-2-pentanone	**0.0060**	**J**	0.0096	0.0031	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Acetone	**0.030**	**J**	0.096	0.021	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Benzene	ND		0.0048	0.00073	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Bromodichloromethane	ND		0.0048	0.00090	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Bromoform	ND		0.0048	0.0020	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Bromomethane	ND		0.0048	0.0019	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Carbon disulfide	ND		0.0096	0.0025	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Carbon tetrachloride	ND		0.0048	0.00091	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Chlorobenzene	ND		0.0048	0.00080	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Chloroethane	ND		0.0096	0.0018	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Chloroform	ND		0.0048	0.00093	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Chloromethane	ND		0.0096	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
cis-1,2-Dichloroethene	ND		0.0048	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
cis-1,3-Dichloropropene	ND		0.0048	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Cyclohexane	ND		0.0048	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Dibromochloromethane	ND		0.0048	0.00076	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Dichlorodifluoromethane	ND		0.0096	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Ethylbenzene	ND		0.0048	0.0010	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Freon 113	ND		0.0096	0.00095	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Isopropylbenzene	**0.0019**	**J B**	0.0048	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
m,p-Xylene	ND		0.0048	0.0021	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Methyl acetate	ND		0.0048	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Methyl tert-butyl ether	ND		0.0048	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Methylcyclohexane	ND		0.0048	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Methylene Chloride	ND		0.019	0.0054	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
o-Xylene	**0.0018**	**J B**	0.0048	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Styrene	ND		0.0048	0.0024	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Tetrachloroethene	ND		0.0048	0.00078	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Toluene	ND		0.0048	0.00094	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
trans-1,2-Dichloroethene	ND		0.0048	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
trans-1,3-Dichloropropene	ND		0.0048	0.00099	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Trichloroethene	ND		0.0048	0.00067	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Trichlorofluoromethane	ND		0.0048	0.0018	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Vinyl chloride	ND		0.0096	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-4 (5.0'-7.5')
Date Collected: 11/26/24 14:55
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-7
Matrix: Solid
Percent Solids: 71.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		0.0048	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1
Xylenes, Total	**0.0018**	**J B**	0.0048	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 22:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*67 - 127*	*12/04/24 18:19*	*12/04/24 22:25*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*	*12/04/24 18:19*	*12/04/24 22:25*	*1*
Toluene-d8 (Surr)	*94*		*71 - 129*	*12/04/24 18:19*	*12/04/24 22:25*	*1*

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-5 (1"-3")

Date Collected: 11/26/24 15:10
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-8

Matrix: Solid
Percent Solids: 81.6

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0041	0.00076	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
4,4'-DDE	**0.0020**	**J**	0.0041	0.00059	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
4,4'-DDT	**0.0015**	**J**	0.0041	0.00065	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
Aldrin	ND		0.0020	0.00052	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
alpha-BHC	ND		0.0020	0.00045	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
alpha-Chlordane	ND		0.0020	0.00048	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
beta-BHC	ND		0.0020	0.00040	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
Chlordane (technical)	ND		0.041	0.0039	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
delta-BHC	ND		0.0020	0.00044	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
Dieldrin	ND		0.0041	0.00056	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
Endosulfan I	ND		0.0020	0.00078	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
Endosulfan II	**0.0031**	**J**	0.0041	0.00053	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
Endosulfan sulfate	ND		0.0041	0.00048	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
Endrin	ND		0.0041	0.00062	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
Endrin aldehyde	**0.0012**	**J**	0.0041	0.00082	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
Endrin ketone	ND		0.0041	0.00067	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
gamma-BHC (Lindane)	ND		0.0020	0.00049	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
gamma-Chlordane	ND		0.0020	0.00047	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
Heptachlor	ND		0.0020	0.00066	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
Heptachlor epoxide	ND		0.0020	0.00048	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
Methoxychlor	ND		0.020	0.0020	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1
Toxaphene	ND		0.20	0.010	mg/Kg	☼	12/02/24 09:00	12/04/24 18:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*88*		*45 - 124*	*12/02/24 09:00*	*12/04/24 18:48*	*1*
Tetrachloro-m-xylene (Surr)	*84*		*44 - 117*	*12/02/24 09:00*	*12/04/24 18:48*	*1*

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	ND	*-	0.040	0.015	mg/Kg	☼	12/03/24 06:56	12/05/24 13:38	1
2,4-D	ND	*-	0.040	0.016	mg/Kg	☼	12/03/24 06:56	12/05/24 13:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA (Surr)	*80*		*40 - 122*	*12/03/24 06:56*	*12/05/24 13:38*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12000**		1800	150	mg/Kg	☼	12/05/24 10:19	12/05/24 16:07	50
Antimony	**20**		1.8	0.28	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1
Arsenic	**9.5**		1.8	0.34	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1
Barium	**460**		180	14	mg/Kg	☼	12/05/24 10:19	12/05/24 16:07	50
Beryllium	**0.66**	**J**	1.8	0.080	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1
Cadmium	**1.2**	**J**	1.8	0.079	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1
Calcium	**7000**		36	21	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1
Chromium	**24**		1.8	0.24	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1
Cobalt	**3.9**		1.8	0.10	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1
Copper	**460**		1.8	0.22	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1
Iron	**30000**		1800	270	mg/Kg	☼	12/05/24 10:19	12/05/24 16:07	50
Lead	**1600**		3.6	0.29	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1
Magnesium	**2100**		36	1.6	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1

Client: Access Analytical Services
Job ID: 705-13954-1
Project/Site: S-80 RBO Reedy River - Phase II ESA
SDG: F&ME Consultants

Client Sample ID: B-5 (1"-3")
Lab Sample ID: 705-13954-8
Date Collected: 11/26/24 15:10
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 81.6

Method: SW846 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	230		3.6	0.076	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1
Nickel	10		3.6	0.68	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1
Potassium	1400		71	22	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1
Selenium	0.70	J	2.5	0.50	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1
Silver	0.81	J	1.8	0.064	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1
Sodium	1200		71	20	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1
Thallium	ND		0.71	0.46	mg/Kg	☼	12/05/24 10:19	12/05/24 16:07	1
Vanadium	29		3.6	0.073	mg/Kg	☼	12/05/24 10:19	12/05/24 16:04	1
Zinc	700		180	66	mg/Kg	☼	12/05/24 10:19	12/05/24 16:07	50

Method: SW846 7473 - Mercury (AAS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.24		0.12	0.051	mg/Kg	☼		12/02/24 15:43	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-5 (7.5'-9.0')
Date Collected: 11/26/24 15:20
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-9
Matrix: Solid
Percent Solids: 75.8

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0040	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
1,1,2,2-Tetrachloroethane	ND		0.0040	0.0010	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
1,1,2-Trichloroethane	ND		0.0040	0.00072	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
1,1-Dichloroethane	ND		0.0040	0.00072	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
1,1-Dichloroethene	ND		0.0040	0.00095	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
1,2,4-Trichlorobenzene	ND		0.0040	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
1,2-Dibromo-3-Chloropropane	ND		0.0040	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
1,2-Dibromoethane	ND		0.0040	0.00070	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
1,2-Dichlorobenzene	ND		0.0040	0.00086	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
1,2-Dichloroethane	ND		0.0040	0.00097	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
1,2-Dichloropropane	ND		0.0040	0.00055	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
1,3-Dichlorobenzene	ND		0.0040	0.00064	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
1,4-Dichlorobenzene	ND		0.0040	0.00093	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
2-Butanone	**0.0072**	**J**	0.040	0.0045	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
2-Hexanone	ND		0.0080	0.0059	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
4-Methyl-2-pentanone	ND		0.0080	0.0026	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Acetone	**0.073**	**J**	0.080	0.018	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Benzene	**0.0035**	**J**	0.0040	0.00061	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Bromodichloromethane	ND		0.0040	0.00075	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Bromoform	ND		0.0040	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Bromomethane	ND		0.0040	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Carbon disulfide	**0.0094**		0.0081	0.0021	mg/Kg	☼	12/04/24 18:19	12/05/24 16:12	1
Carbon tetrachloride	ND		0.0040	0.00076	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Chlorobenzene	ND		0.0040	0.00067	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Chloroethane	ND		0.0080	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Chloroform	ND		0.0040	0.00078	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Chloromethane	ND		0.0080	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
cis-1,2-Dichloroethene	ND		0.0040	0.00096	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
cis-1,3-Dichloropropene	ND		0.0040	0.00094	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Cyclohexane	ND		0.0040	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Dibromochloromethane	ND		0.0040	0.00064	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Dichlorodifluoromethane	ND		0.0080	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Ethylbenzene	ND		0.0040	0.00086	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Freon 113	ND		0.0080	0.00079	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Isopropylbenzene	**0.0016**	**J B**	0.0040	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
m,p-Xylene	ND		0.0040	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Methyl acetate	ND		0.0040	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Methyl tert-butyl ether	ND		0.0040	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Methylcyclohexane	ND		0.0040	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Methylene Chloride	ND		0.016	0.0045	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
o-Xylene	**0.0015**	**J B**	0.0040	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Styrene	ND		0.0040	0.0020	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Tetrachloroethene	ND		0.0040	0.00065	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Toluene	ND		0.0040	0.00079	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
trans-1,2-Dichloroethene	ND		0.0040	0.00097	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
trans-1,3-Dichloropropene	ND		0.0040	0.00082	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Trichloroethene	ND		0.0040	0.00056	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Trichlorofluoromethane	ND		0.0040	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Vinyl chloride	ND		0.0080	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1

Client Sample ID: B-5 (7.5'-9.0')
Date Collected: 11/26/24 15:20
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-9
Matrix: Solid
Percent Solids: 75.8

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		0.0040	0.00096	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1
Xylenes, Total	**0.0015**	**J B**	0.0040	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 22:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*88*		*67 - 127*	*12/04/24 18:19*	*12/04/24 22:50*	*1*
4-Bromofluorobenzene	*90*		*67 - 127*	*12/04/24 18:19*	*12/05/24 16:12*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*	*12/04/24 18:19*	*12/04/24 22:50*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*	*12/04/24 18:19*	*12/05/24 16:12*	*1*
Toluene-d8 (Surr)	*96*		*71 - 129*	*12/04/24 18:19*	*12/04/24 22:50*	*1*
Toluene-d8 (Surr)	*97*		*71 - 129*	*12/04/24 18:19*	*12/05/24 16:12*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.44	0.17	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1
Acenaphthene	ND		0.44	0.18	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1
Acenaphthylene	ND		0.44	0.19	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1
Anthracene	ND		0.44	0.20	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1
Benzo[a]anthracene	ND		0.44	0.19	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1
Benzo[a]pyrene	ND		0.44	0.19	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1
Benzo[b]fluoranthene	ND		0.44	0.22	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1
Benzo[g,h,i]perylene	ND		0.44	0.21	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1
Benzo[k]fluoranthene	ND		0.44	0.23	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1
Chrysene	ND		0.44	0.20	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1
Dibenz(a,h)anthracene	ND		0.44	0.16	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1
Fluoranthene	ND		0.44	0.18	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1
Fluorene	ND		0.44	0.18	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1
Indeno[1,2,3-cd]pyrene	ND		0.44	0.28	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1
Naphthalene	ND		0.44	0.17	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1
Phenanthrene	ND		0.44	0.19	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1
Pyrene	ND		0.44	0.22	mg/Kg	☼	12/03/24 12:34	12/03/24 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*55 - 120*	*12/03/24 12:34*	*12/03/24 19:52*	*1*
Nitrobenzene-d5 (Surr)	*73*		*45 - 120*	*12/03/24 12:34*	*12/03/24 19:52*	*1*
p-Terphenyl-d14 (Surr)	*68*		*54 - 120*	*12/03/24 12:34*	*12/03/24 19:52*	*1*

Client Sample ID: B-6 (1"-3")

Date Collected: 11/26/24 15:35
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-10

Matrix: Solid
Percent Solids: 87.4

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0038	0.00071	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
4,4'-DDE	**0.0018**	**J**	0.0038	0.00055	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
4,4'-DDT	**0.0015**	**J**	0.0038	0.00060	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
Aldrin	ND		0.0019	0.00049	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
alpha-BHC	ND		0.0019	0.00042	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
alpha-Chlordane	ND		0.0019	0.00044	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
beta-BHC	ND		0.0019	0.00038	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
Chlordane (technical)	ND		0.038	0.0036	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
delta-BHC	ND		0.0019	0.00041	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
Dieldrin	ND		0.0038	0.00052	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
Endosulfan I	ND		0.0019	0.00073	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
Endosulfan II	ND		0.0038	0.00050	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
Endosulfan sulfate	ND		0.0038	0.00044	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
Endrin	**0.0011**	**J**	0.0038	0.00058	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
Endrin aldehyde	ND		0.0038	0.00076	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
Endrin ketone	ND		0.0038	0.00062	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
gamma-BHC (Lindane)	ND		0.0019	0.00045	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
gamma-Chlordane	ND		0.0019	0.00043	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
Heptachlor	ND		0.0019	0.00062	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
Heptachlor epoxide	ND		0.0019	0.00044	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
Methoxychlor	**0.0019**	**J**	0.019	0.0019	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1
Toxaphene	ND		0.19	0.0098	mg/Kg	☼	12/02/24 09:00	12/04/24 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*63*		*45 - 124*	*12/02/24 09:00*	*12/04/24 19:00*	*1*
Tetrachloro-m-xylene (Surr)	*77*		*44 - 117*	*12/02/24 09:00*	*12/04/24 19:00*	*1*

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	ND	*-	0.038	0.014	mg/Kg	☼	12/03/24 06:56	12/05/24 12:51	1
2,4-D	ND	*-	0.038	0.015	mg/Kg	☼	12/03/24 06:56	12/05/24 12:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA (Surr)	*86*		*40 - 122*	*12/03/24 06:56*	*12/05/24 12:51*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13000**		3800	310	mg/Kg	☼	12/04/24 14:15	12/05/24 15:41	100
Antimony	**0.93**	**J**	1.9	0.30	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Arsenic	**4.1**		1.9	0.36	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Barium	**64**		3.8	0.29	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Beryllium	**0.32**	**J**	1.9	0.086	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Cadmium	**0.26**	**J**	1.9	0.085	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Calcium	**1900**		38	22	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Chromium	**16**		1.9	0.26	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Cobalt	**2.8**		1.9	0.11	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Copper	**25**		1.9	0.24	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Iron	**25000**		3800	580	mg/Kg	☼	12/04/24 14:15	12/05/24 15:41	100
Lead	**95**		3.8	0.31	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Magnesium	**730**		38	1.7	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-6 (1"-3")
Date Collected: 11/26/24 15:35
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-10
Matrix: Solid
Percent Solids: 87.4

Method: SW846 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	190		3.8	0.082	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Nickel	4.4		3.8	0.73	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Potassium	1100		76	23	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Selenium	ND		2.7	0.53	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Silver	0.071	J	1.9	0.069	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Sodium	200		76	21	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Thallium	ND		0.76	0.50	mg/Kg	☼	12/04/24 14:15	12/05/24 15:20	1
Vanadium	30		3.8	0.078	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1
Zinc	140		3.8	1.4	mg/Kg	☼	12/04/24 14:15	12/05/24 14:36	1

Method: SW846 7473 - Mercury (AAS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048	J	0.11	0.048	mg/Kg	☼		12/02/24 15:51	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-6 (5'-7')
Date Collected: 11/26/24 15:50
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-11
Matrix: Solid
Percent Solids: 85.4

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0055	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
1,1,2,2-Tetrachloroethane	ND		0.0055	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
1,1,2-Trichloroethane	ND		0.0055	0.00099	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
1,1-Dichloroethane	ND		0.0055	0.00099	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
1,1-Dichloroethene	ND		0.0055	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
1,2,4-Trichlorobenzene	ND		0.0055	0.0022	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
1,2-Dibromo-3-Chloropropane	ND		0.0055	0.0023	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
1,2-Dibromoethane	ND		0.0055	0.00096	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
1,2-Dichlorobenzene	ND		0.0055	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
1,2-Dichloroethane	ND		0.0055	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
1,2-Dichloropropane	ND		0.0055	0.00075	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
1,3-Dichlorobenzene	ND		0.0055	0.00087	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
1,4-Dichlorobenzene	ND		0.0055	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
2-Butanone	**0.018**	**J**	0.055	0.0061	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
2-Hexanone	ND		0.011	0.0081	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
4-Methyl-2-pentanone	**0.0071**	**J**	0.011	0.0036	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Acetone	**0.098**	**J**	0.11	0.024	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Benzene	**0.0077**		0.0055	0.00083	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Bromodichloromethane	ND		0.0055	0.0010	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Bromoform	ND		0.0055	0.0023	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Bromomethane	ND		0.0055	0.0022	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Carbon disulfide	ND		0.011	0.0028	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Carbon tetrachloride	ND		0.0055	0.0010	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Chlorobenzene	ND		0.0055	0.00092	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Chloroethane	ND		0.011	0.0021	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Chloroform	ND		0.0055	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Chloromethane	ND		0.011	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
cis-1,2-Dichloroethene	ND		0.0055	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
cis-1,3-Dichloropropene	ND		0.0055	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Cyclohexane	ND		0.0055	0.0018	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Dibromochloromethane	ND		0.0055	0.00087	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Dichlorodifluoromethane	ND		0.011	0.0019	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Ethylbenzene	ND		0.0055	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Freon 113	ND		0.011	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Isopropylbenzene	ND		0.0055	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
m,p-Xylene	ND		0.0055	0.0024	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Methyl acetate	ND		0.0055	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Methyl tert-butyl ether	ND		0.0055	0.0019	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Methylcyclohexane	ND		0.0055	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Methylene Chloride	ND		0.022	0.0062	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
o-Xylene	**0.0023**	**J B**	0.0055	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Styrene	ND		0.0055	0.0028	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Tetrachloroethene	ND		0.0055	0.00089	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Toluene	**0.0039**	**J**	0.0055	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
trans-1,2-Dichloroethene	ND		0.0055	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
trans-1,3-Dichloropropene	ND		0.0055	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Trichloroethene	ND		0.0055	0.00076	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Trichlorofluoromethane	ND		0.0055	0.0021	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Vinyl chloride	ND		0.011	0.0018	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1

Client Sample ID: B-6 (5'-7')
Date Collected: 11/26/24 15:50
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-11
Matrix: Solid
Percent Solids: 85.4

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		0.0055	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1
Xylenes, Total	**0.0023**	**J B**	0.0055	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 23:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*80*		*67 - 127*	*12/04/24 18:19*	*12/04/24 23:14*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*	*12/04/24 18:19*	*12/04/24 23:14*	*1*
Toluene-d8 (Surr)	*94*		*71 - 129*	*12/04/24 18:19*	*12/04/24 23:14*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.39	0.15	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1
Acenaphthene	ND		0.39	0.16	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1
Acenaphthylene	ND		0.39	0.17	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1
Anthracene	**0.20**	**J**	0.39	0.18	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1
Benzo[a]anthracene	**0.61**		0.39	0.17	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1
Benzo[a]pyrene	**0.51**	**F1**	0.39	0.17	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1
Benzo[b]fluoranthene	**0.74**		0.39	0.19	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1
Benzo[g,h,i]perylene	**0.33**	**J**	0.39	0.19	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1
Benzo[k]fluoranthene	**0.27**	**J**	0.39	0.21	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1
Chrysene	**0.55**		0.39	0.17	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1
Dibenz(a,h)anthracene	ND		0.39	0.14	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1
Fluoranthene	**1.2**	**F1**	0.39	0.16	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1
Fluorene	ND		0.39	0.16	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1
Indeno[1,2,3-cd]pyrene	**0.29**	**J**	0.39	0.25	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1
Naphthalene	ND		0.39	0.15	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1
Phenanthrene	**0.78**	**F1**	0.39	0.17	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1
Pyrene	**1.0**		0.39	0.19	mg/Kg	☼	12/03/24 12:34	12/03/24 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*		*55 - 120*	*12/03/24 12:34*	*12/03/24 20:16*	*1*
Nitrobenzene-d5 (Surr)	*75*		*45 - 120*	*12/03/24 12:34*	*12/03/24 20:16*	*1*
p-Terphenyl-d14 (Surr)	*71*		*54 - 120*	*12/03/24 12:34*	*12/03/24 20:16*	*1*

Client Sample ID: B-7 (2"-4")

Date Collected: 11/26/24 16:05
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-12

Matrix: Solid
Percent Solids: 80.7

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0041	0.00076	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
4,4'-DDE	**0.0031**	**J**	0.0041	0.00060	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
4,4'-DDT	**0.0021**	**J**	0.0041	0.00065	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
Aldrin	ND		0.0021	0.00053	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
alpha-BHC	ND		0.0021	0.00045	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
alpha-Chlordane	ND		0.0021	0.00048	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
beta-BHC	ND		0.0021	0.00041	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
Chlordane (technical)	ND		0.041	0.0039	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
delta-BHC	ND		0.0021	0.00044	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
Dieldrin	ND		0.0041	0.00057	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
Endosulfan I	ND		0.0021	0.00079	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
Endosulfan II	**0.00063**	**J**	0.0041	0.00054	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
Endosulfan sulfate	ND		0.0041	0.00048	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
Endrin	ND		0.0041	0.00063	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
Endrin aldehyde	ND		0.0041	0.00083	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
Endrin ketone	ND		0.0041	0.00067	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
gamma-BHC (Lindane)	ND		0.0021	0.00049	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
gamma-Chlordane	ND		0.0021	0.00047	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
Heptachlor	ND		0.0021	0.00067	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
Heptachlor epoxide	ND		0.0021	0.00048	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
Methoxychlor	ND		0.021	0.0020	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1
Toxaphene	ND		0.21	0.011	mg/Kg	☼	12/02/24 09:00	12/04/24 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*41*	*S1-*	*45 - 124*	*12/02/24 09:00*	*12/04/24 19:13*	*1*
Tetrachloro-m-xylene (Surr)	*80*		*44 - 117*	*12/02/24 09:00*	*12/04/24 19:13*	*1*

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	ND	*-	0.041	0.015	mg/Kg	☼	12/03/24 06:56	12/05/24 14:01	1
2,4-D	ND	*-	0.041	0.016	mg/Kg	☼	12/03/24 06:56	12/05/24 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA (Surr)	*75*		*40 - 122*	*12/03/24 06:56*	*12/05/24 14:01*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**34000**		4600	380	mg/Kg	☼	12/04/24 14:15	12/05/24 15:44	100
Antimony	**0.73**	**J**	2.3	0.37	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1
Arsenic	**4.2**		2.3	0.44	mg/Kg	☼	12/04/24 14:15	12/05/24 15:06	1
Barium	**130**		4.6	0.35	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1
Beryllium	**0.62**	**J**	2.3	0.10	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1
Cadmium	**0.27**	**J**	2.3	0.10	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1
Calcium	**3900**		46	27	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1
Chromium	**20**		2.3	0.31	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1
Cobalt	**9.9**		2.3	0.13	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1
Copper	**61**		2.3	0.29	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1
Iron	**44000**		4600	700	mg/Kg	☼	12/04/24 14:15	12/05/24 15:44	100
Lead	**100**		4.6	0.38	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1
Magnesium	**2600**		46	2.0	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1

Client: Access Analytical Services
Job ID: 705-13954-1
Project/Site: S-80 RBO Reedy River - Phase II ESA
SDG: F&ME Consultants

Client Sample ID: B-7 (2"-4")
Lab Sample ID: 705-13954-12
Date Collected: 11/26/24 16:05
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 80.7

Method: SW846 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	360		4.6	0.098	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1
Nickel	7.3		4.6	0.88	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1
Potassium	3000		92	28	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1
Selenium	0.89	J	3.2	0.64	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1
Silver	0.48	J	2.3	0.083	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1
Sodium	390		92	26	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1
Thallium	ND		0.92	0.60	mg/Kg	☼	12/04/24 14:15	12/05/24 15:23	1
Vanadium	72		4.6	0.094	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1
Zinc	110		4.6	1.7	mg/Kg	☼	12/04/24 14:15	12/05/24 14:45	1

Method: SW846 7473 - Mercury (AAS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.096	J	0.12	0.052	mg/Kg	☼		12/03/24 12:11	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-7 (7.5'-10.0')
Date Collected: 11/26/24 16:10
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-13
Matrix: Solid
Percent Solids: 72.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0045	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
1,1,2,2-Tetrachloroethane	ND		0.0045	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
1,1,2-Trichloroethane	ND		0.0045	0.00081	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
1,1-Dichloroethane	ND		0.0045	0.00081	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
1,1-Dichloroethene	ND		0.0045	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
1,2,4-Trichlorobenzene	ND		0.0045	0.0018	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
1,2-Dibromo-3-Chloropropane	ND		0.0045	0.0018	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
1,2-Dibromoethane	ND		0.0045	0.00078	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
1,2-Dichlorobenzene	ND		0.0045	0.00097	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
1,2-Dichloroethane	ND		0.0045	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
1,2-Dichloropropane	ND		0.0045	0.00061	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
1,3-Dichlorobenzene	ND		0.0045	0.00071	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
1,4-Dichlorobenzene	ND		0.0045	0.0010	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
2-Butanone	ND		0.045	0.0050	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
2-Hexanone	ND		0.0090	0.0066	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
4-Methyl-2-pentanone	**0.0055**	**J**	0.0090	0.0029	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Acetone	**0.066**	**J**	0.090	0.020	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Benzene	**0.0012**	**J**	0.0045	0.00068	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Bromodichloromethane	ND		0.0045	0.00084	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Bromoform	ND		0.0045	0.0019	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Bromomethane	ND		0.0045	0.0018	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Carbon disulfide	ND		0.0090	0.0023	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Carbon tetrachloride	ND		0.0045	0.00085	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Chlorobenzene	ND		0.0045	0.00075	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Chloroethane	ND		0.0090	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Chloroform	ND		0.0045	0.00087	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Chloromethane	ND		0.0090	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
cis-1,2-Dichloroethene	ND		0.0045	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
cis-1,3-Dichloropropene	ND		0.0045	0.0010	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Cyclohexane	ND		0.0045	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Dibromochloromethane	ND		0.0045	0.00071	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Dichlorodifluoromethane	ND		0.0090	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Ethylbenzene	ND		0.0045	0.00096	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Freon 113	ND		0.0090	0.00089	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Isopropylbenzene	ND		0.0045	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
m,p-Xylene	ND		0.0045	0.0019	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Methyl acetate	ND		0.0045	0.0014	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Methyl tert-butyl ether	ND		0.0045	0.0016	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Methylcyclohexane	ND		0.0045	0.0013	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Methylene Chloride	ND		0.018	0.0050	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
o-Xylene	**0.0017**	**J B**	0.0045	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Styrene	ND		0.0045	0.0023	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Tetrachloroethene	ND		0.0045	0.00073	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Toluene	ND		0.0045	0.00088	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
trans-1,2-Dichloroethene	ND		0.0045	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
trans-1,3-Dichloropropene	ND		0.0045	0.00092	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Trichloroethene	ND		0.0045	0.00062	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Trichlorofluoromethane	ND		0.0045	0.0017	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Vinyl chloride	ND		0.0090	0.0015	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-7 (7.5'-10.0')
Date Collected: 11/26/24 16:10
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-13
Matrix: Solid
Percent Solids: 72.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		0.0045	0.0011	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1
Xylenes, Total	**0.0017**	**J B**	0.0045	0.0012	mg/Kg	☼	12/04/24 18:19	12/04/24 23:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*67 - 127*	*12/04/24 18:19*	*12/04/24 23:39*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*	*12/04/24 18:19*	*12/04/24 23:39*	*1*
Toluene-d8 (Surr)	*94*		*71 - 129*	*12/04/24 18:19*	*12/04/24 23:39*	*1*

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-8 (1"-3")
Date Collected: 11/26/24 16:15
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-14
Matrix: Solid
Percent Solids: 79.4

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0042	0.00078	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
4,4'-DDE	**0.00071**	**J**	0.0042	0.00061	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
4,4'-DDT	**0.00090**	**J**	0.0042	0.00066	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
Aldrin	ND		0.0021	0.00054	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
alpha-BHC	ND		0.0021	0.00046	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
alpha-Chlordane	ND		0.0021	0.00049	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
beta-BHC	ND		0.0021	0.00041	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
Chlordane (technical)	ND		0.042	0.0040	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
delta-BHC	ND		0.0021	0.00045	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
Dieldrin	ND		0.0042	0.00058	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
Endosulfan I	ND		0.0021	0.00080	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
Endosulfan II	**0.0030**	**J**	0.0042	0.00055	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
Endosulfan sulfate	ND		0.0042	0.00049	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
Endrin	ND		0.0042	0.00064	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
Endrin aldehyde	ND		0.0042	0.00084	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
Endrin ketone	ND		0.0042	0.00068	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
gamma-BHC (Lindane)	ND		0.0021	0.00050	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
gamma-Chlordane	ND		0.0021	0.00048	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
Heptachlor	**0.0010**	**J**	0.0021	0.00068	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
Heptachlor epoxide	ND		0.0021	0.00049	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
Methoxychlor	ND		0.021	0.0021	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1
Toxaphene	ND		0.21	0.011	mg/Kg	☼	12/02/24 09:00	12/04/24 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*52*		*45 - 124*	*12/02/24 09:00*	*12/04/24 19:25*	*1*
Tetrachloro-m-xylene (Surr)	*74*		*44 - 117*	*12/02/24 09:00*	*12/04/24 19:25*	*1*

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	ND	*-	0.042	0.015	mg/Kg	☼	12/03/24 06:56	12/05/24 14:25	1
2,4-D	ND	*-	0.042	0.017	mg/Kg	☼	12/03/24 06:56	12/05/24 14:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA (Surr)	*75*		*40 - 122*	*12/03/24 06:56*	*12/05/24 14:25*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**30000**		3900	320	mg/Kg	☼	12/04/24 14:15	12/05/24 15:47	100
Antimony	**1.1**	**J**	1.9	0.31	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Arsenic	**3.6**		1.9	0.37	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Barium	**120**		3.9	0.30	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Beryllium	**0.56**	**J**	1.9	0.087	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Cadmium	**0.31**	**J**	1.9	0.086	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Calcium	**4500**		39	23	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Chromium	**16**		1.9	0.26	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Cobalt	**7.0**		1.9	0.11	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Copper	**41**		1.9	0.24	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Iron	**35000**		3900	600	mg/Kg	☼	12/04/24 14:15	12/05/24 15:47	100
Lead	**110**		3.9	0.32	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Magnesium	**2600**		39	1.7	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-8 (1"-3")
Date Collected: 11/26/24 16:15
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-14
Matrix: Solid
Percent Solids: 79.4

Method: SW846 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	290		3.9	0.083	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Nickel	6.8		3.9	0.75	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Potassium	2800		78	24	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Selenium	0.80	J	2.7	0.54	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Silver	0.10	J	1.9	0.070	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Sodium	380		78	22	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Thallium	ND		0.78	0.51	mg/Kg	☼	12/04/24 14:15	12/05/24 15:25	1
Vanadium	58		3.9	0.079	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1
Zinc	230		3.9	1.4	mg/Kg	☼	12/04/24 14:15	12/05/24 14:48	1

Method: SW846 7473 - Mercury (AAS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.16		0.13	0.053	mg/Kg	☼		12/02/24 15:59	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-8 (7.5'-10.0')
Date Collected: 11/26/24 16:20
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-15
Matrix: Solid
Percent Solids: 65.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0056	0.0016	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
1,1,2,2-Tetrachloroethane	ND		0.0056	0.0015	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
1,1,2-Trichloroethane	ND		0.0056	0.0010	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
1,1-Dichloroethane	ND		0.0056	0.0010	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
1,1-Dichloroethene	ND		0.0056	0.0013	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
1,2,4-Trichlorobenzene	ND		0.0056	0.0022	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
1,2-Dibromo-3-Chloropropane	ND		0.0056	0.0023	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
1,2-Dibromoethane	ND		0.0056	0.00097	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
1,2-Dichlorobenzene	ND		0.0056	0.0012	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
1,2-Dichloroethane	ND		0.0056	0.0014	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
1,2-Dichloropropane	ND		0.0056	0.00076	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
1,3-Dichlorobenzene	ND		0.0056	0.00089	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
1,4-Dichlorobenzene	ND		0.0056	0.0013	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
2-Butanone	**0.0080**	**J**	0.056	0.0062	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
2-Hexanone	ND		0.011	0.0082	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
4-Methyl-2-pentanone	**0.0069**	**J**	0.011	0.0036	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Acetone	**0.072**	**J**	0.11	0.025	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Benzene	ND		0.0056	0.00084	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Bromodichloromethane	ND		0.0056	0.0010	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Bromoform	ND		0.0056	0.0024	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Bromomethane	ND		0.0056	0.0022	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Carbon disulfide	ND		0.011	0.0029	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Carbon tetrachloride	ND		0.0056	0.0011	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Chlorobenzene	ND		0.0056	0.00094	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Chloroethane	ND		0.011	0.0021	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Chloroform	ND		0.0056	0.0011	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Chloromethane	ND		0.011	0.0017	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
cis-1,2-Dichloroethene	ND		0.0056	0.0013	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
cis-1,3-Dichloropropene	ND		0.0056	0.0013	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Cyclohexane	ND		0.0056	0.0018	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Dibromochloromethane	ND		0.0056	0.00089	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Dichlorodifluoromethane	ND		0.011	0.0020	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Ethylbenzene	ND		0.0056	0.0012	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Freon 113	ND		0.011	0.0011	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Isopropylbenzene	**0.0022**	**J B**	0.0056	0.0016	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
m,p-Xylene	ND		0.0056	0.0024	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Methyl acetate	ND		0.0056	0.0017	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Methyl tert-butyl ether	ND		0.0056	0.0020	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Methylcyclohexane	ND		0.0056	0.0016	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Methylene Chloride	ND		0.022	0.0063	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
o-Xylene	**0.0021**	**J B**	0.0056	0.0015	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Styrene	ND		0.0056	0.0028	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Tetrachloroethene	ND		0.0056	0.00091	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Toluene	ND		0.0056	0.0011	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
trans-1,2-Dichloroethene	ND		0.0056	0.0014	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
trans-1,3-Dichloropropene	ND		0.0056	0.0011	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Trichloroethene	ND		0.0056	0.00077	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Trichlorofluoromethane	ND		0.0056	0.0021	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Vinyl chloride	ND		0.011	0.0018	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-8 (7.5'-10.0')
Date Collected: 11/26/24 16:20
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-15
Matrix: Solid
Percent Solids: 65.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		0.0056	0.0013	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1
Xylenes, Total	**0.0021**	**J B**	0.0056	0.0015	mg/Kg	☼	12/04/24 18:19	12/05/24 00:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*67 - 127*	*12/04/24 18:19*	*12/05/24 00:03*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*	*12/04/24 18:19*	*12/05/24 00:03*	*1*
Toluene-d8 (Surr)	*96*		*71 - 129*	*12/04/24 18:19*	*12/05/24 00:03*	*1*

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: DUP #1
Date Collected: 11/26/24 00:00
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-16
Matrix: Solid
Percent Solids: 49.1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.068	0.010	mg/Kg	☼	12/02/24 09:00	12/02/24 18:06	1
PCB-1221	ND		0.068	0.010	mg/Kg	☼	12/02/24 09:00	12/02/24 18:06	1
PCB-1232	ND		0.068	0.010	mg/Kg	☼	12/02/24 09:00	12/02/24 18:06	1
PCB-1242	ND		0.068	0.010	mg/Kg	☼	12/02/24 09:00	12/02/24 18:06	1
PCB-1248	**0.016**	**J**	0.068	0.010	mg/Kg	☼	12/02/24 09:00	12/02/24 18:06	1
PCB-1254	**0.038**	**J**	0.068	0.010	mg/Kg	☼	12/02/24 09:00	12/02/24 18:06	1
PCB-1260	**0.017**	**J**	0.068	0.010	mg/Kg	☼	12/02/24 09:00	12/02/24 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*60*	*S1-*	*70 - 130*	*12/02/24 09:00*	*12/02/24 18:06*	*1*
Tetrachloro-m-xylene (Surr)	*80*		*70 - 130*	*12/02/24 09:00*	*12/02/24 18:06*	*1*

Client Sample ID: DUP #2

Date Collected: 11/26/24 00:00
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-17

Matrix: Solid
Percent Solids: 84.2

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0040	0.00073	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
4,4'-DDE	**0.0020**	**J**	0.0040	0.00057	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
4,4'-DDT	**0.0019**	**J**	0.0040	0.00063	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
Aldrin	ND		0.0020	0.00050	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
alpha-BHC	**0.00061**	**J**	0.0020	0.00043	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
alpha-Chlordane	ND		0.0020	0.00046	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
beta-BHC	ND		0.0020	0.00039	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
Chlordane (technical)	ND		0.040	0.0038	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
delta-BHC	ND		0.0020	0.00043	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
Dieldrin	ND		0.0040	0.00054	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
Endosulfan I	ND		0.0020	0.00076	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
Endosulfan II	**0.00061**	**J**	0.0040	0.00052	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
Endosulfan sulfate	ND		0.0040	0.00046	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
Endrin	**0.0022**	**J**	0.0040	0.00060	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
Endrin aldehyde	ND		0.0040	0.00079	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
Endrin ketone	ND		0.0040	0.00064	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
gamma-BHC (Lindane)	ND		0.0020	0.00047	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
gamma-Chlordane	ND		0.0020	0.00045	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
Heptachlor	ND		0.0020	0.00064	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
Heptachlor epoxide	ND		0.0020	0.00046	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
Methoxychlor	**0.0029**	**J**	0.020	0.0020	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1
Toxaphene	ND		0.20	0.010	mg/Kg	☼	12/03/24 10:06	12/04/24 22:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*90*		*45 - 124*	*12/03/24 10:06*	*12/04/24 22:44*	*1*
Tetrachloro-m-xylene (Surr)	*93*		*44 - 117*	*12/03/24 10:06*	*12/04/24 22:44*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.040	0.0060	mg/Kg	☼	12/02/24 09:00	12/02/24 17:54	1
PCB-1221	ND		0.040	0.0060	mg/Kg	☼	12/02/24 09:00	12/02/24 17:54	1
PCB-1232	ND		0.040	0.0060	mg/Kg	☼	12/02/24 09:00	12/02/24 17:54	1
PCB-1242	ND		0.040	0.0060	mg/Kg	☼	12/02/24 09:00	12/02/24 17:54	1
PCB-1248	ND		0.040	0.0060	mg/Kg	☼	12/02/24 09:00	12/02/24 17:54	1
PCB-1254	**0.0063**	**J**	0.040	0.0060	mg/Kg	☼	12/02/24 09:00	12/02/24 17:54	1
PCB-1260	ND		0.040	0.0060	mg/Kg	☼	12/02/24 09:00	12/02/24 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*91*		*70 - 130*	*12/02/24 09:00*	*12/02/24 17:54*	*1*
Tetrachloro-m-xylene (Surr)	*95*		*70 - 130*	*12/02/24 09:00*	*12/02/24 17:54*	*1*

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	ND	*-	0.039	0.014	mg/Kg	☼	12/03/24 06:56	12/05/24 14:48	1
2,4-D	ND	*-	0.039	0.016	mg/Kg	☼	12/03/24 06:56	12/05/24 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA (Surr)	*71*		*40 - 122*	*12/03/24 06:56*	*12/05/24 14:48*	*1*

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: DUP #2
Date Collected: 11/26/24 00:00
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-17
Matrix: Solid
Percent Solids: 84.2

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000		4200	340	mg/Kg	☼	12/04/24 14:15	12/05/24 15:50	100
Antimony	0.85	J	2.1	0.33	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Arsenic	4.5		2.1	0.39	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Barium	68		4.2	0.32	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Beryllium	0.34	J	2.1	0.093	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Cadmium	0.23	J	2.1	0.093	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Calcium	2400		42	25	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Chromium	23		2.1	0.28	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Cobalt	3.2		2.1	0.12	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Copper	23		2.1	0.26	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Iron	22000		4200	640	mg/Kg	☼	12/04/24 14:15	12/05/24 15:50	100
Lead	94		4.2	0.34	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Magnesium	1200		42	1.8	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Manganese	180		4.2	0.089	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Nickel	4.2		4.2	0.80	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Potassium	1300		83	26	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Selenium	ND		2.9	0.58	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Silver	ND		2.1	0.075	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Sodium	210		83	23	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Thallium	ND		0.83	0.54	mg/Kg	☼	12/04/24 14:15	12/05/24 15:28	1
Vanadium	40		4.2	0.085	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1
Zinc	120		4.2	1.5	mg/Kg	☼	12/04/24 14:15	12/05/24 14:51	1

Method: SW846 7473 - Mercury (AAS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.12	0.050	mg/Kg	☼		12/02/24 16:07	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: DUP #3
Date Collected: 11/26/24 00:00
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-18
Matrix: Solid
Percent Solids: 89.1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0053	0.0015	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
1,1,2,2-Tetrachloroethane	ND		0.0053	0.0014	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
1,1,2-Trichloroethane	ND		0.0053	0.00095	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
1,1-Dichloroethane	ND		0.0053	0.00096	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
1,1-Dichloroethene	ND		0.0053	0.0013	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
1,2,4-Trichlorobenzene	ND		0.0053	0.0021	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
1,2-Dibromo-3-Chloropropane	ND		0.0053	0.0022	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
1,2-Dibromoethane	ND		0.0053	0.00092	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
1,2-Dichlorobenzene	ND		0.0053	0.0011	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
1,2-Dichloroethane	ND		0.0053	0.0013	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
1,2-Dichloropropane	ND		0.0053	0.00072	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
1,3-Dichlorobenzene	ND		0.0053	0.00084	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
1,4-Dichlorobenzene	ND		0.0053	0.0012	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
2-Butanone	**0.013**	**J**	0.053	0.0059	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
2-Hexanone	ND		0.011	0.0078	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
4-Methyl-2-pentanone	**0.0069**	**J**	0.011	0.0034	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Acetone	**0.074**	**J**	0.11	0.023	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Benzene	**0.0066**		0.0053	0.00080	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Bromodichloromethane	ND		0.0053	0.00099	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Bromoform	ND		0.0053	0.0022	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Bromomethane	ND		0.0053	0.0021	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Carbon disulfide	ND		0.011	0.0027	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Carbon tetrachloride	ND		0.0053	0.0010	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Chlorobenzene	ND		0.0053	0.00089	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Chloroethane	ND		0.011	0.0020	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Chloroform	ND		0.0053	0.0010	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Chloromethane	ND		0.011	0.0016	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
cis-1,2-Dichloroethene	ND		0.0053	0.0013	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
cis-1,3-Dichloropropene	ND		0.0053	0.0012	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Cyclohexane	ND		0.0053	0.0017	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Dibromochloromethane	ND		0.0053	0.00084	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Dichlorodifluoromethane	ND		0.011	0.0019	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Ethylbenzene	ND		0.0053	0.0011	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Freon 113	ND		0.011	0.0010	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Isopropylbenzene	**0.0021**	**J B**	0.0053	0.0016	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
m,p-Xylene	ND		0.0053	0.0023	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Methyl acetate	ND		0.0053	0.0016	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Methyl tert-butyl ether	ND		0.0053	0.0018	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Methylcyclohexane	ND		0.0053	0.0015	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Methylene Chloride	ND		0.021	0.0059	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
o-Xylene	**0.0022**	**J B**	0.0053	0.0014	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Styrene	ND		0.0053	0.0027	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Tetrachloroethene	ND		0.0053	0.00086	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Toluene	**0.0039**	**J**	0.0053	0.0010	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
trans-1,2-Dichloroethene	ND		0.0053	0.0013	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
trans-1,3-Dichloropropene	ND		0.0053	0.0011	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Trichloroethene	ND		0.0053	0.00073	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Trichlorofluoromethane	ND		0.0053	0.0020	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Vinyl chloride	ND		0.011	0.0017	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1

Client Sample ID: DUP #3
Date Collected: 11/26/24 00:00
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-18
Matrix: Solid
Percent Solids: 89.1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		0.0053	0.0013	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1
Xylenes, Total	**0.0022**	**J B**	0.0053	0.0014	mg/Kg	☼	12/04/24 18:19	12/05/24 00:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*82*		*67 - 127*	*12/04/24 18:19*	*12/05/24 00:28*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*	*12/04/24 18:19*	*12/05/24 00:28*	*1*
Toluene-d8 (Surr)	*92*		*71 - 129*	*12/04/24 18:19*	*12/05/24 00:28*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.37	0.14	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1
Acenaphthene	ND		0.37	0.15	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1
Acenaphthylene	ND		0.37	0.16	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1
Anthracene	ND		0.37	0.17	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1
Benzo[a]anthracene	**0.35**	**J**	0.37	0.16	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1
Benzo[a]pyrene	**0.30**	**J**	0.37	0.16	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1
Benzo[b]fluoranthene	**0.44**		0.37	0.19	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1
Benzo[g,h,i]perylene	**0.19**	**J**	0.37	0.18	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1
Benzo[k]fluoranthene	ND		0.37	0.20	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1
Chrysene	**0.32**	**J**	0.37	0.17	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1
Dibenz(a,h)anthracene	ND		0.37	0.13	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1
Fluoranthene	**0.69**		0.37	0.15	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1
Fluorene	ND		0.37	0.15	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1
Indeno[1,2,3-cd]pyrene	ND		0.37	0.24	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1
Naphthalene	ND		0.37	0.14	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1
Phenanthrene	**0.39**		0.37	0.16	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1
Pyrene	**0.58**		0.37	0.19	mg/Kg	☼	12/03/24 12:34	12/03/24 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*65*		*55 - 120*	*12/03/24 12:34*	*12/03/24 20:40*	*1*
Nitrobenzene-d5 (Surr)	*65*		*45 - 120*	*12/03/24 12:34*	*12/03/24 20:40*	*1*
p-Terphenyl-d14 (Surr)	*60*		*54 - 120*	*12/03/24 12:34*	*12/03/24 20:40*	*1*

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: Equip. Blank
Date Collected: 11/25/24 12:35
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-19
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.23	ug/L			11/30/24 22:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.23	ug/L			11/30/24 22:07	1
1,1,2-Trichloroethane	ND		1.0	0.21	ug/L			11/30/24 22:07	1
1,1-Dichloroethane	ND		1.0	0.21	ug/L			11/30/24 22:07	1
1,1-Dichloroethene	ND		1.0	0.28	ug/L			11/30/24 22:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.70	ug/L			11/30/24 22:07	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.45	ug/L			11/30/24 22:07	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			11/30/24 22:07	1
1,2-Dichlorobenzene	ND		1.0	0.32	ug/L			11/30/24 22:07	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/30/24 22:07	1
1,2-Dichloropropane	ND		1.0	0.21	ug/L			11/30/24 22:07	1
1,3-Dichlorobenzene	ND		1.0	0.34	ug/L			11/30/24 22:07	1
1,4-Dichlorobenzene	ND		1.0	0.32	ug/L			11/30/24 22:07	1
2-Butanone	ND	*+	10	2.8	ug/L			11/30/24 22:07	1
2-Hexanone	ND		10	3.5	ug/L			11/30/24 22:07	1
4-Methyl-2-pentanone	ND		10	3.2	ug/L			11/30/24 22:07	1
Acetone	ND	*+	10	4.0	ug/L			11/30/24 22:07	1
Benzene	ND		1.0	0.20	ug/L			11/30/24 22:07	1
Bromodichloromethane	ND		1.0	0.22	ug/L			11/30/24 22:07	1
Bromoform	ND		1.0	0.46	ug/L			11/30/24 22:07	1
Bromomethane	ND		1.0	0.47	ug/L			11/30/24 22:07	1
Carbon disulfide	ND		2.0	0.53	ug/L			11/30/24 22:07	1
Carbon tetrachloride	ND		1.0	0.22	ug/L			11/30/24 22:07	1
Chlorobenzene	ND		1.0	0.20	ug/L			11/30/24 22:07	1
Chloroethane	ND		1.0	0.37	ug/L			11/30/24 22:07	1
Chloroform	**0.24**	**J**	1.0	0.22	ug/L			11/30/24 22:07	1
Chloromethane	ND		1.0	0.37	ug/L			11/30/24 22:07	1
cis-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/30/24 22:07	1
cis-1,3-Dichloropropene	ND		1.0	0.23	ug/L			11/30/24 22:07	1
Cyclohexane	ND		2.0	0.55	ug/L			11/30/24 22:07	1
Dibromochloromethane	ND		1.0	0.44	ug/L			11/30/24 22:07	1
Dichlorodifluoromethane	ND		1.0	0.34	ug/L			11/30/24 22:07	1
Ethylbenzene	ND		1.0	0.28	ug/L			11/30/24 22:07	1
Freon 113	ND		5.0	0.27	ug/L			11/30/24 22:07	1
Isopropylbenzene	ND		1.0	0.27	ug/L			11/30/24 22:07	1
m,p-Xylene	ND		2.0	0.37	ug/L			11/30/24 22:07	1
Methyl acetate	ND		2.0	0.45	ug/L			11/30/24 22:07	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			11/30/24 22:07	1
Methylcyclohexane	ND		1.0	0.31	ug/L			11/30/24 22:07	1
Methylene Chloride	ND		5.0	2.4	ug/L			11/30/24 22:07	1
o-Xylene	ND		1.0	0.27	ug/L			11/30/24 22:07	1
Styrene	ND		1.0	0.19	ug/L			11/30/24 22:07	1
Tetrachloroethene	ND		1.0	0.19	ug/L			11/30/24 22:07	1
Toluene	ND		1.0	0.20	ug/L			11/30/24 22:07	1
trans-1,2-Dichloroethene	ND		1.0	0.27	ug/L			11/30/24 22:07	1
trans-1,3-Dichloropropene	ND		2.0	0.43	ug/L			11/30/24 22:07	1
Trichloroethene	ND		1.0	0.21	ug/L			11/30/24 22:07	1
Trichlorofluoromethane	ND		1.0	0.40	ug/L			11/30/24 22:07	1
Vinyl chloride	ND		1.0	0.30	ug/L			11/30/24 22:07	1

Client Sample ID: Equip. Blank

Lab Sample ID: 705-13954-19

Date Collected: 11/25/24 12:35

Matrix: Water

Date Received: 11/27/24 20:31

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		2.0	0.23	ug/L			11/30/24 22:07	1
Xylenes, Total	ND		3.0	0.27	ug/L			11/30/24 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 126*		*11/30/24 22:07*	*1*
Dibromofluoromethane (Surr)	*97*		*77 - 121*		*11/30/24 22:07*	*1*
Toluene-d8 (Surr)	*98*		*79 - 119*		*11/30/24 22:07*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		8.5	1.8	ug/L		12/02/24 10:51	12/03/24 09:22	1
Acenaphthene	ND		8.5	1.6	ug/L		12/02/24 10:51	12/03/24 09:22	1
Acenaphthylene	ND		8.5	1.7	ug/L		12/02/24 10:51	12/03/24 09:22	1
Anthracene	ND		8.5	1.0	ug/L		12/02/24 10:51	12/03/24 09:22	1
Benzo[a]anthracene	ND		8.5	1.1	ug/L		12/02/24 10:51	12/03/24 09:22	1
Benzo[a]pyrene	ND		8.5	1.4	ug/L		12/02/24 10:51	12/03/24 09:22	1
Benzo[b]fluoranthene	ND		8.5	1.2	ug/L		12/02/24 10:51	12/03/24 09:22	1
Benzo[g,h,i]perylene	ND		8.5	1.2	ug/L		12/02/24 10:51	12/03/24 09:22	1
Benzo[k]fluoranthene	ND		8.5	1.2	ug/L		12/02/24 10:51	12/03/24 09:22	1
Chrysene	ND		8.5	0.88	ug/L		12/02/24 10:51	12/03/24 09:22	1
Dibenz(a,h)anthracene	ND		8.5	1.3	ug/L		12/02/24 10:51	12/03/24 09:22	1
Fluoranthene	ND	F1	8.5	1.3	ug/L		12/02/24 10:51	12/03/24 09:22	1
Fluorene	ND		8.5	1.4	ug/L		12/02/24 10:51	12/03/24 09:22	1
Indeno[1,2,3-cd]pyrene	ND		8.5	1.4	ug/L		12/02/24 10:51	12/03/24 09:22	1
Naphthalene	ND		8.5	1.8	ug/L		12/02/24 10:51	12/03/24 09:22	1
Phenanthrene	ND		8.5	0.74	ug/L		12/02/24 10:51	12/03/24 09:22	1
Pyrene	ND		8.5	1.1	ug/L		12/02/24 10:51	12/03/24 09:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*136*	*S1+*	*48 - 126*	*12/02/24 10:51*	*12/03/24 09:22*	*1*
Nitrobenzene-d5 (Surr)	*132*	*S1+*	*41 - 129*	*12/02/24 10:51*	*12/03/24 09:22*	*1*
p-Terphenyl-d14 (Surr)	*162*	*S1+*	*48 - 130*	*12/02/24 10:51*	*12/03/24 09:22*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.10	0.014	ug/L		12/02/24 12:14	12/03/24 20:57	1
4,4'-DDE	ND		0.10	0.016	ug/L		12/02/24 12:14	12/03/24 20:57	1
4,4'-DDT	ND		0.10	0.028	ug/L		12/02/24 12:14	12/03/24 20:57	1
Aldrin	ND		0.050	0.016	ug/L		12/02/24 12:14	12/03/24 20:57	1
alpha-BHC	ND	F1	0.050	0.020	ug/L		12/02/24 12:14	12/03/24 20:57	1
alpha-Chlordane	ND		0.050	0.014	ug/L		12/02/24 12:14	12/03/24 20:57	1
beta-BHC	ND	F1	0.050	0.016	ug/L		12/02/24 12:14	12/03/24 20:57	1
delta-BHC	ND		0.050	0.015	ug/L		12/02/24 12:14	12/03/24 20:57	1
Dieldrin	ND		0.10	0.013	ug/L		12/02/24 12:14	12/03/24 20:57	1
Endosulfan I	ND		0.050	0.015	ug/L		12/02/24 12:14	12/03/24 20:57	1
Endosulfan II	ND		0.10	0.014	ug/L		12/02/24 12:14	12/03/24 20:57	1
Endosulfan sulfate	ND	F2	0.10	0.015	ug/L		12/02/24 12:14	12/03/24 20:57	1
Endrin	ND		0.10	0.015	ug/L		12/02/24 12:14	12/03/24 20:57	1
Endrin aldehyde	ND	*+	0.10	0.025	ug/L		12/02/24 12:14	12/03/24 20:57	1
Endrin ketone	ND		0.10	0.013	ug/L		12/02/24 12:14	12/03/24 20:57	1

Client Sample ID: Equip. Blank
Lab Sample ID: 705-13954-19
Date Collected: 11/25/24 12:35
Matrix: Water
Date Received: 11/27/24 20:31

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane)	ND	F1	0.050	0.013	ug/L		12/02/24 12:14	12/03/24 20:57	1
Heptachlor	ND	F1	0.050	0.025	ug/L		12/02/24 12:14	12/03/24 20:57	1
Heptachlor epoxide	ND		0.050	0.015	ug/L		12/02/24 12:14	12/03/24 20:57	1
Methoxychlor	ND		0.50	0.053	ug/L		12/02/24 12:14	12/03/24 20:57	1
Toxaphene	ND		5.0	0.16	ug/L		12/02/24 12:14	12/03/24 20:57	1
gamma-Chlordane	ND		0.050	0.013	ug/L		12/02/24 12:14	12/03/24 20:57	1
Chlordane (technical)	ND		0.50	0.12	ug/L		12/02/24 12:14	12/03/24 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*89*		*32 - 129*	*12/02/24 12:14*	*12/03/24 20:57*	*1*
Tetrachloro-m-xylene (Surr)	*114*		*43 - 127*	*12/02/24 12:14*	*12/03/24 20:57*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.15	ug/L		12/02/24 12:19	12/04/24 05:38	1
PCB-1221	ND		0.50	0.15	ug/L		12/02/24 12:19	12/04/24 05:38	1
PCB-1232	ND		0.50	0.15	ug/L		12/02/24 12:19	12/04/24 05:38	1
PCB-1242	ND		0.50	0.15	ug/L		12/02/24 12:19	12/04/24 05:38	1
PCB-1248	ND		0.50	0.15	ug/L		12/02/24 12:19	12/04/24 05:38	1
PCB-1254	ND		0.50	0.15	ug/L		12/02/24 12:19	12/04/24 05:38	1
PCB-1260	ND		0.50	0.15	ug/L		12/02/24 12:19	12/04/24 05:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*77*		*70 - 130*	*12/02/24 12:19*	*12/04/24 05:38*	*1*
Tetrachloro-m-xylene (Surr)	*102*		*70 - 130*	*12/02/24 12:19*	*12/04/24 05:38*	*1*

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		2.0	0.91	ug/L		12/02/24 10:35	12/03/24 18:43	1
Silvex (2,4,5-TP)	ND		2.0	0.75	ug/L		12/02/24 10:35	12/03/24 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA (Surr)	*83*		*48 - 124*	*12/02/24 10:35*	*12/03/24 18:43*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	63	ug/L		12/04/24 12:10	12/04/24 17:31	1
Antimony	ND		20	7.5	ug/L		12/04/24 12:10	12/04/24 17:31	1
Arsenic	ND		50	9.9	ug/L		12/04/24 12:10	12/04/24 17:31	1
Barium	ND		20	3.5	ug/L		12/04/24 12:10	12/04/24 17:31	1
Beryllium	ND		10	1.4	ug/L		12/04/24 12:10	12/04/24 17:31	1
Cadmium	ND		5.0	0.80	ug/L		12/04/24 12:10	12/04/24 17:31	1
Calcium	ND		100	38	ug/L		12/04/24 12:10	12/04/24 17:31	1
Chromium	ND		10	3.8	ug/L		12/04/24 12:10	12/04/24 17:31	1
Cobalt	ND		20	1.5	ug/L		12/04/24 12:10	12/04/24 17:31	1
Copper	ND		10	2.1	ug/L		12/04/24 12:10	12/04/24 17:31	1
Iron	ND		100	35	ug/L		12/04/24 12:10	12/04/24 17:31	1
Lead	ND		10	6.1	ug/L		12/04/24 12:10	12/04/24 17:31	1
Magnesium	ND		100	36	ug/L		12/04/24 12:10	12/04/24 17:31	1
Manganese	ND		15	1.3	ug/L		12/04/24 12:10	12/04/24 17:31	1
Nickel	ND		20	10	ug/L		12/04/24 12:10	12/04/24 17:31	1

Client: Access Analytical Services
Job ID: 705-13954-1
Project/Site: S-80 RBO Reedy River - Phase II ESA
SDG: F&ME Consultants

Client Sample ID: Equip. Blank
Lab Sample ID: 705-13954-19
Date Collected: 11/25/24 12:35
Matrix: Water
Date Received: 11/27/24 20:31

Method: SW846 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	ND		500	320	ug/L		12/04/24 12:10	12/04/24 17:31	1
Selenium	ND		20	11	ug/L		12/04/24 12:10	12/04/24 17:31	1
Silver	ND		10	1.7	ug/L		12/04/24 12:10	12/04/24 17:31	1
Sodium	ND		1000	39	ug/L		12/04/24 12:10	12/04/24 17:31	1
Thallium	ND		20	15	ug/L		12/04/24 12:10	12/04/24 17:31	1
Vanadium	ND		10	0.93	ug/L		12/04/24 12:10	12/04/24 17:31	1
Zinc	ND		20	9.7	ug/L		12/04/24 12:10	12/04/24 17:31	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00017	mg/L		12/04/24 12:55	12/04/24 18:31	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: Trip Blank #1
Date Collected: 11/27/24 20:31
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-20
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.23	ug/L			11/30/24 22:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.23	ug/L			11/30/24 22:31	1
1,1,2-Trichloroethane	ND		1.0	0.21	ug/L			11/30/24 22:31	1
1,1-Dichloroethane	ND		1.0	0.21	ug/L			11/30/24 22:31	1
1,1-Dichloroethene	ND		1.0	0.28	ug/L			11/30/24 22:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.70	ug/L			11/30/24 22:31	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.45	ug/L			11/30/24 22:31	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			11/30/24 22:31	1
1,2-Dichlorobenzene	ND		1.0	0.32	ug/L			11/30/24 22:31	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/30/24 22:31	1
1,2-Dichloropropane	ND		1.0	0.21	ug/L			11/30/24 22:31	1
1,3-Dichlorobenzene	ND		1.0	0.34	ug/L			11/30/24 22:31	1
1,4-Dichlorobenzene	ND		1.0	0.32	ug/L			11/30/24 22:31	1
2-Butanone	ND	*+	10	2.8	ug/L			11/30/24 22:31	1
2-Hexanone	ND		10	3.5	ug/L			11/30/24 22:31	1
4-Methyl-2-pentanone	ND		10	3.2	ug/L			11/30/24 22:31	1
Acetone	ND	*+	10	4.0	ug/L			11/30/24 22:31	1
Benzene	ND		1.0	0.20	ug/L			11/30/24 22:31	1
Bromodichloromethane	ND		1.0	0.22	ug/L			11/30/24 22:31	1
Bromoform	ND		1.0	0.46	ug/L			11/30/24 22:31	1
Bromomethane	ND		1.0	0.47	ug/L			11/30/24 22:31	1
Carbon disulfide	ND		2.0	0.53	ug/L			11/30/24 22:31	1
Carbon tetrachloride	ND		1.0	0.22	ug/L			11/30/24 22:31	1
Chlorobenzene	ND		1.0	0.20	ug/L			11/30/24 22:31	1
Chloroethane	ND		1.0	0.37	ug/L			11/30/24 22:31	1
Chloroform	**0.56**	**J**	1.0	0.22	ug/L			11/30/24 22:31	1
Chloromethane	ND		1.0	0.37	ug/L			11/30/24 22:31	1
cis-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/30/24 22:31	1
cis-1,3-Dichloropropene	ND		1.0	0.23	ug/L			11/30/24 22:31	1
Cyclohexane	ND		2.0	0.55	ug/L			11/30/24 22:31	1
Dibromochloromethane	ND		1.0	0.44	ug/L			11/30/24 22:31	1
Dichlorodifluoromethane	ND		1.0	0.34	ug/L			11/30/24 22:31	1
Ethylbenzene	ND		1.0	0.28	ug/L			11/30/24 22:31	1
Freon 113	ND		5.0	0.27	ug/L			11/30/24 22:31	1
Isopropylbenzene	ND		1.0	0.27	ug/L			11/30/24 22:31	1
m,p-Xylene	ND		2.0	0.37	ug/L			11/30/24 22:31	1
Methyl acetate	ND		2.0	0.45	ug/L			11/30/24 22:31	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			11/30/24 22:31	1
Methylcyclohexane	ND		1.0	0.31	ug/L			11/30/24 22:31	1
Methylene Chloride	ND		5.0	2.4	ug/L			11/30/24 22:31	1
o-Xylene	ND		1.0	0.27	ug/L			11/30/24 22:31	1
Styrene	ND		1.0	0.19	ug/L			11/30/24 22:31	1
Tetrachloroethene	ND		1.0	0.19	ug/L			11/30/24 22:31	1
Toluene	ND		1.0	0.20	ug/L			11/30/24 22:31	1
trans-1,2-Dichloroethene	ND		1.0	0.27	ug/L			11/30/24 22:31	1
trans-1,3-Dichloropropene	ND		2.0	0.43	ug/L			11/30/24 22:31	1
Trichloroethene	ND		1.0	0.21	ug/L			11/30/24 22:31	1
Trichlorofluoromethane	ND		1.0	0.40	ug/L			11/30/24 22:31	1
Vinyl chloride	ND		1.0	0.30	ug/L			11/30/24 22:31	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: Trip Blank #1
Date Collected: 11/27/24 20:31
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-20
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		2.0	0.23	ug/L			11/30/24 22:31	1
Xylenes, Total	ND		3.0	0.27	ug/L			11/30/24 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 126*		*11/30/24 22:31*	*1*
Dibromofluoromethane (Surr)	*94*		*77 - 121*		*11/30/24 22:31*	*1*
Toluene-d8 (Surr)	*98*		*79 - 119*		*11/30/24 22:31*	*1*

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: Trip Blank #2
Date Collected: 11/27/24 20:31
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-21
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.23	ug/L			11/30/24 22:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.23	ug/L			11/30/24 22:54	1
1,1,2-Trichloroethane	ND		1.0	0.21	ug/L			11/30/24 22:54	1
1,1-Dichloroethane	ND		1.0	0.21	ug/L			11/30/24 22:54	1
1,1-Dichloroethene	ND		1.0	0.28	ug/L			11/30/24 22:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.70	ug/L			11/30/24 22:54	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.45	ug/L			11/30/24 22:54	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			11/30/24 22:54	1
1,2-Dichlorobenzene	ND		1.0	0.32	ug/L			11/30/24 22:54	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/30/24 22:54	1
1,2-Dichloropropane	ND		1.0	0.21	ug/L			11/30/24 22:54	1
1,3-Dichlorobenzene	ND		1.0	0.34	ug/L			11/30/24 22:54	1
1,4-Dichlorobenzene	ND		1.0	0.32	ug/L			11/30/24 22:54	1
2-Butanone	ND	*+	10	2.8	ug/L			11/30/24 22:54	1
2-Hexanone	ND		10	3.5	ug/L			11/30/24 22:54	1
4-Methyl-2-pentanone	ND		10	3.2	ug/L			11/30/24 22:54	1
Acetone	ND	*+	10	4.0	ug/L			11/30/24 22:54	1
Benzene	ND		1.0	0.20	ug/L			11/30/24 22:54	1
Bromodichloromethane	ND		1.0	0.22	ug/L			11/30/24 22:54	1
Bromoform	ND		1.0	0.46	ug/L			11/30/24 22:54	1
Bromomethane	ND		1.0	0.47	ug/L			11/30/24 22:54	1
Carbon disulfide	ND		2.0	0.53	ug/L			11/30/24 22:54	1
Carbon tetrachloride	ND		1.0	0.22	ug/L			11/30/24 22:54	1
Chlorobenzene	ND		1.0	0.20	ug/L			11/30/24 22:54	1
Chloroethane	ND		1.0	0.37	ug/L			11/30/24 22:54	1
Chloroform	**0.64**	**J**	1.0	0.22	ug/L			11/30/24 22:54	1
Chloromethane	ND		1.0	0.37	ug/L			11/30/24 22:54	1
cis-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/30/24 22:54	1
cis-1,3-Dichloropropene	ND		1.0	0.23	ug/L			11/30/24 22:54	1
Cyclohexane	ND		2.0	0.55	ug/L			11/30/24 22:54	1
Dibromochloromethane	ND		1.0	0.44	ug/L			11/30/24 22:54	1
Dichlorodifluoromethane	ND		1.0	0.34	ug/L			11/30/24 22:54	1
Ethylbenzene	ND		1.0	0.28	ug/L			11/30/24 22:54	1
Freon 113	ND		5.0	0.27	ug/L			11/30/24 22:54	1
Isopropylbenzene	ND		1.0	0.27	ug/L			11/30/24 22:54	1
m,p-Xylene	ND		2.0	0.37	ug/L			11/30/24 22:54	1
Methyl acetate	ND		2.0	0.45	ug/L			11/30/24 22:54	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			11/30/24 22:54	1
Methylcyclohexane	ND		1.0	0.31	ug/L			11/30/24 22:54	1
Methylene Chloride	ND		5.0	2.4	ug/L			11/30/24 22:54	1
o-Xylene	ND		1.0	0.27	ug/L			11/30/24 22:54	1
Styrene	ND		1.0	0.19	ug/L			11/30/24 22:54	1
Tetrachloroethene	ND		1.0	0.19	ug/L			11/30/24 22:54	1
Toluene	ND		1.0	0.20	ug/L			11/30/24 22:54	1
trans-1,2-Dichloroethene	ND		1.0	0.27	ug/L			11/30/24 22:54	1
trans-1,3-Dichloropropene	ND		2.0	0.43	ug/L			11/30/24 22:54	1
Trichloroethene	ND		1.0	0.21	ug/L			11/30/24 22:54	1
Trichlorofluoromethane	ND		1.0	0.40	ug/L			11/30/24 22:54	1
Vinyl chloride	ND		1.0	0.30	ug/L			11/30/24 22:54	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: Trip Blank #2
Date Collected: 11/27/24 20:31
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-21
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		2.0	0.23	ug/L			11/30/24 22:54	1
Xylenes, Total	ND		3.0	0.27	ug/L			11/30/24 22:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 126*		*11/30/24 22:54*	*1*
Dibromofluoromethane (Surr)	*95*		*77 - 121*		*11/30/24 22:54*	*1*
Toluene-d8 (Surr)	*98*		*79 - 119*		*11/30/24 22:54*	*1*

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: Trip Blank #3
Date Collected: 11/27/24 20:31
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-22
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.23	ug/L			11/30/24 23:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.23	ug/L			11/30/24 23:18	1
1,1,2-Trichloroethane	ND		1.0	0.21	ug/L			11/30/24 23:18	1
1,1-Dichloroethane	ND		1.0	0.21	ug/L			11/30/24 23:18	1
1,1-Dichloroethene	ND		1.0	0.28	ug/L			11/30/24 23:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.70	ug/L			11/30/24 23:18	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.45	ug/L			11/30/24 23:18	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			11/30/24 23:18	1
1,2-Dichlorobenzene	ND		1.0	0.32	ug/L			11/30/24 23:18	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/30/24 23:18	1
1,2-Dichloropropane	ND		1.0	0.21	ug/L			11/30/24 23:18	1
1,3-Dichlorobenzene	ND		1.0	0.34	ug/L			11/30/24 23:18	1
1,4-Dichlorobenzene	ND		1.0	0.32	ug/L			11/30/24 23:18	1
2-Butanone	ND	*+	10	2.8	ug/L			11/30/24 23:18	1
2-Hexanone	ND		10	3.5	ug/L			11/30/24 23:18	1
4-Methyl-2-pentanone	ND		10	3.2	ug/L			11/30/24 23:18	1
Acetone	ND	*+	10	4.0	ug/L			11/30/24 23:18	1
Benzene	ND		1.0	0.20	ug/L			11/30/24 23:18	1
Bromodichloromethane	ND		1.0	0.22	ug/L			11/30/24 23:18	1
Bromoform	ND		1.0	0.46	ug/L			11/30/24 23:18	1
Bromomethane	ND		1.0	0.47	ug/L			11/30/24 23:18	1
Carbon disulfide	ND		2.0	0.53	ug/L			11/30/24 23:18	1
Carbon tetrachloride	ND		1.0	0.22	ug/L			11/30/24 23:18	1
Chlorobenzene	ND		1.0	0.20	ug/L			11/30/24 23:18	1
Chloroethane	ND		1.0	0.37	ug/L			11/30/24 23:18	1
Chloroform	**0.58**	**J**	1.0	0.22	ug/L			11/30/24 23:18	1
Chloromethane	ND		1.0	0.37	ug/L			11/30/24 23:18	1
cis-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/30/24 23:18	1
cis-1,3-Dichloropropene	ND		1.0	0.23	ug/L			11/30/24 23:18	1
Cyclohexane	ND		2.0	0.55	ug/L			11/30/24 23:18	1
Dibromochloromethane	ND		1.0	0.44	ug/L			11/30/24 23:18	1
Dichlorodifluoromethane	ND		1.0	0.34	ug/L			11/30/24 23:18	1
Ethylbenzene	ND		1.0	0.28	ug/L			11/30/24 23:18	1
Freon 113	ND		5.0	0.27	ug/L			11/30/24 23:18	1
Isopropylbenzene	ND		1.0	0.27	ug/L			11/30/24 23:18	1
m,p-Xylene	ND		2.0	0.37	ug/L			11/30/24 23:18	1
Methyl acetate	ND		2.0	0.45	ug/L			11/30/24 23:18	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			11/30/24 23:18	1
Methylcyclohexane	ND		1.0	0.31	ug/L			11/30/24 23:18	1
Methylene Chloride	ND		5.0	2.4	ug/L			11/30/24 23:18	1
o-Xylene	ND		1.0	0.27	ug/L			11/30/24 23:18	1
Styrene	ND		1.0	0.19	ug/L			11/30/24 23:18	1
Tetrachloroethene	ND		1.0	0.19	ug/L			11/30/24 23:18	1
Toluene	ND		1.0	0.20	ug/L			11/30/24 23:18	1
trans-1,2-Dichloroethene	ND		1.0	0.27	ug/L			11/30/24 23:18	1
trans-1,3-Dichloropropene	ND		2.0	0.43	ug/L			11/30/24 23:18	1
Trichloroethene	ND		1.0	0.21	ug/L			11/30/24 23:18	1
Trichlorofluoromethane	ND		1.0	0.40	ug/L			11/30/24 23:18	1
Vinyl chloride	ND		1.0	0.30	ug/L			11/30/24 23:18	1

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: Trip Blank #3
Date Collected: 11/27/24 20:31
Date Received: 11/27/24 20:31

Lab Sample ID: 705-13954-22
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		2.0	0.23	ug/L			11/30/24 23:18	1
Xylenes, Total	ND		3.0	0.27	ug/L			11/30/24 23:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*70 - 126*		*11/30/24 23:18*	*1*
Dibromofluoromethane (Surr)	*96*		*77 - 121*		*11/30/24 23:18*	*1*
Toluene-d8 (Surr)	*99*		*79 - 119*		*11/30/24 23:18*	*1*

Detection Summary

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: Former Railroad (1"-3") — Lab Sample ID: 705-13954-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	0.00079	J	0.0040	0.00057	mg/Kg	1	☼	8081B	Total/NA
4,4'-DDT	0.00084	J	0.0040	0.00063	mg/Kg	1	☼	8081B	Total/NA
Endrin aldehyde	0.00089	J	0.0040	0.00080	mg/Kg	1	☼	8081B	Total/NA
Aluminum	20000		3600	290	mg/Kg	100	☼	6010D	Total/NA
Antimony	0.76	J F1	1.8	0.28	mg/Kg	1	☼	6010D	Total/NA
Arsenic	4.1		1.8	0.34	mg/Kg	1	☼	6010D	Total/NA
Barium	80		3.6	0.28	mg/Kg	1	☼	6010D	Total/NA
Beryllium	0.54	J	1.8	0.080	mg/Kg	1	☼	6010D	Total/NA
Cadmium	0.19	J	1.8	0.079	mg/Kg	1	☼	6010D	Total/NA
Calcium	2400		36	21	mg/Kg	1	☼	6010D	Total/NA
Chromium	17	F1	1.8	0.24	mg/Kg	1	☼	6010D	Total/NA
Cobalt	5.6		1.8	0.10	mg/Kg	1	☼	6010D	Total/NA
Copper	24	F1	1.8	0.22	mg/Kg	1	☼	6010D	Total/NA
Iron	30000		3600	550	mg/Kg	100	☼	6010D	Total/NA
Lead	58		3.6	0.29	mg/Kg	1	☼	6010D	Total/NA
Magnesium	1600		36	1.6	mg/Kg	1	☼	6010D	Total/NA
Manganese	280		3.6	0.076	mg/Kg	1	☼	6010D	Total/NA
Nickel	4.5		3.6	0.69	mg/Kg	1	☼	6010D	Total/NA
Potassium	2500		71	22	mg/Kg	1	☼	6010D	Total/NA
Sodium	240		71	20	mg/Kg	1	☼	6010D	Total/NA
Vanadium	58	F1	3.6	0.073	mg/Kg	1	☼	6010D	Total/NA
Zinc	85		3.6	1.3	mg/Kg	1	☼	6010D	Total/NA
Mercury	0.062	J	0.12	0.050	mg/Kg	1	☼	7473	Total/NA

Client Sample ID: River Sediment Northside — Lab Sample ID: 705-13954-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	0.020	J	0.084	0.0093	mg/Kg	1	☼	8260D	Total/NA
4-Methyl-2-pentanone	0.015	J	0.017	0.0054	mg/Kg	1	☼	8260D	Total/NA
Acetone	0.28		0.17	0.037	mg/Kg	1	☼	8260D	Total/NA
Isopropylbenzene	0.0033	J B	0.0084	0.0025	mg/Kg	1	☼	8260D	Total/NA
Methyl acetate	0.013		0.0084	0.0026	mg/Kg	1	☼	8260D	Total/NA
o-Xylene	0.0032	J B	0.0084	0.0022	mg/Kg	1	☼	8260D	Total/NA
Toluene	0.0017	J	0.0084	0.0016	mg/Kg	1	☼	8260D	Total/NA
Xylenes, Total	0.0032	J B	0.0084	0.0022	mg/Kg	1	☼	8260D	Total/NA
PCB-1248	0.025	J	0.064	0.0098	mg/Kg	1	☼	8082A	Total/NA
PCB-1254	0.051	J	0.064	0.0098	mg/Kg	1	☼	8082A	Total/NA
PCB-1260	0.019	J	0.064	0.0098	mg/Kg	1	☼	8082A	Total/NA
Aluminum	29000		6500	530	mg/Kg	100	☼	6010D	Total/NA
Antimony	1.7	J	3.2	0.51	mg/Kg	1	☼	6010D	Total/NA
Arsenic	6.3		3.2	0.61	mg/Kg	1	☼	6010D	Total/NA
Barium	180		6.5	0.50	mg/Kg	1	☼	6010D	Total/NA
Beryllium	1.2	J	3.2	0.15	mg/Kg	1	☼	6010D	Total/NA
Cadmium	0.69	J	3.2	0.14	mg/Kg	1	☼	6010D	Total/NA
Calcium	3600		65	38	mg/Kg	1	☼	6010D	Total/NA
Chromium	55		3.2	0.44	mg/Kg	1	☼	6010D	Total/NA
Cobalt	10		3.2	0.18	mg/Kg	1	☼	6010D	Total/NA
Copper	46		3.2	0.40	mg/Kg	1	☼	6010D	Total/NA
Iron	41000		6500	990	mg/Kg	100	☼	6010D	Total/NA
Lead	58		6.5	0.53	mg/Kg	1	☼	6010D	Total/NA
Magnesium	2600		65	2.9	mg/Kg	1	☼	6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: River Sediment Northside (Continued) — Lab Sample ID: 705-13954-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	780		650	14	mg/Kg	100	☼	6010D	Total/NA
Nickel	12		6.5	1.2	mg/Kg	1	☼	6010D	Total/NA
Potassium	2600		130	40	mg/Kg	1	☼	6010D	Total/NA
Selenium	1.7	J	4.5	0.90	mg/Kg	1	☼	6010D	Total/NA
Sodium	570		130	36	mg/Kg	1	☼	6010D	Total/NA
Thallium	1.1	J	1.3	0.85	mg/Kg	1	☼	6010D	Total/NA
Vanadium	68		6.5	0.13	mg/Kg	1	☼	6010D	Total/NA
Zinc	180		6.5	2.4	mg/Kg	1	☼	6010D	Total/NA

Client Sample ID: River Sediment Southside — Lab Sample ID: 705-13954-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Methyl-2-pentanone	0.0063	J	0.0095	0.0031	mg/Kg	1	☼	8260D	Total/NA
Acetone	0.044	J	0.095	0.021	mg/Kg	1	☼	8260D	Total/NA
Isopropylbenzene	0.0019	J B	0.0047	0.0014	mg/Kg	1	☼	8260D	Total/NA
o-Xylene	0.0018	J B	0.0047	0.0013	mg/Kg	1	☼	8260D	Total/NA
Xylenes, Total	0.0018	J B	0.0047	0.0013	mg/Kg	1	☼	8260D	Total/NA
PCB-1254	0.013	J	0.048	0.0073	mg/Kg	1	☼	8082A	Total/NA
Aluminum	6800		46	3.7	mg/Kg	1	☼	6010D	Total/NA
Antimony	0.42	J	2.3	0.36	mg/Kg	1	☼	6010D	Total/NA
Arsenic	1.2	J	2.3	0.43	mg/Kg	1	☼	6010D	Total/NA
Barium	50		4.6	0.35	mg/Kg	1	☼	6010D	Total/NA
Beryllium	0.26	J	2.3	0.10	mg/Kg	1	☼	6010D	Total/NA
Cadmium	0.15	J	2.3	0.10	mg/Kg	1	☼	6010D	Total/NA
Calcium	780		46	27	mg/Kg	1	☼	6010D	Total/NA
Chromium	19		2.3	0.31	mg/Kg	1	☼	6010D	Total/NA
Cobalt	2.8		2.3	0.13	mg/Kg	1	☼	6010D	Total/NA
Copper	9.6		2.3	0.29	mg/Kg	1	☼	6010D	Total/NA
Iron	10000		460	70	mg/Kg	10	☼	6010D	Total/NA
Lead	17		4.6	0.38	mg/Kg	1	☼	6010D	Total/NA
Magnesium	850		46	2.0	mg/Kg	1	☼	6010D	Total/NA
Manganese	180		4.6	0.098	mg/Kg	1	☼	6010D	Total/NA
Nickel	4.8		4.6	0.88	mg/Kg	1	☼	6010D	Total/NA
Potassium	840		92	28	mg/Kg	1	☼	6010D	Total/NA
Sodium	150		92	25	mg/Kg	1	☼	6010D	Total/NA
Vanadium	18		4.6	0.093	mg/Kg	1	☼	6010D	Total/NA
Zinc	45		4.6	1.7	mg/Kg	1	☼	6010D	Total/NA

Client Sample ID: B-1 (7.5'-10.0') — Lab Sample ID: 705-13954-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Methyl-2-pentanone	0.0062	J	0.0099	0.0032	mg/Kg	1	☼	8260D	Total/NA
Isopropylbenzene	0.0020	J B	0.0050	0.0015	mg/Kg	1	☼	8260D	Total/NA
o-Xylene	0.0018	J B	0.0050	0.0013	mg/Kg	1	☼	8260D	Total/NA
Xylenes, Total	0.0018	J B	0.0050	0.0013	mg/Kg	1	☼	8260D	Total/NA

Client Sample ID: B-2 (7.5'-10.0') — Lab Sample ID: 705-13954-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Methyl-2-pentanone	0.0054	J	0.0087	0.0028	mg/Kg	1	☼	8260D	Total/NA
Isopropylbenzene	0.0017	J B	0.0044	0.0013	mg/Kg	1	☼	8260D	Total/NA
o-Xylene	0.0016	J B	0.0044	0.0012	mg/Kg	1	☼	8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B-2 (7.5'-10.0') (Continued)

Lab Sample ID: 705-13954-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	0.0016	J B	0.0044	0.0012	mg/Kg	1	☼	8260D	Total/NA

Client Sample ID: B-3 (7.5'-10.0')

Lab Sample ID: 705-13954-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.053	J	0.098	0.022	mg/Kg	1	☼	8260D	Total/NA
o-Xylene	0.0018	J B	0.0049	0.0013	mg/Kg	1	☼	8260D	Total/NA
Xylenes, Total	0.0018	J B	0.0049	0.0013	mg/Kg	1	☼	8260D	Total/NA

Client Sample ID: B-4 (5.0'-7.5')

Lab Sample ID: 705-13954-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Methyl-2-pentanone	0.0060	J	0.0096	0.0031	mg/Kg	1	☼	8260D	Total/NA
Acetone	0.030	J	0.096	0.021	mg/Kg	1	☼	8260D	Total/NA
Isopropylbenzene	0.0019	J B	0.0048	0.0014	mg/Kg	1	☼	8260D	Total/NA
o-Xylene	0.0018	J B	0.0048	0.0013	mg/Kg	1	☼	8260D	Total/NA
Xylenes, Total	0.0018	J B	0.0048	0.0013	mg/Kg	1	☼	8260D	Total/NA

Client Sample ID: B-5 (1"-3")

Lab Sample ID: 705-13954-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	0.0020	J	0.0041	0.00059	mg/Kg	1	☼	8081B	Total/NA
4,4'-DDT	0.0015	J	0.0041	0.00065	mg/Kg	1	☼	8081B	Total/NA
Endosulfan II	0.0031	J	0.0041	0.00053	mg/Kg	1	☼	8081B	Total/NA
Endrin aldehyde	0.0012	J	0.0041	0.00082	mg/Kg	1	☼	8081B	Total/NA
Aluminum	12000		1800	150	mg/Kg	50	☼	6010D	Total/NA
Antimony	20		1.8	0.28	mg/Kg	1	☼	6010D	Total/NA
Arsenic	9.5		1.8	0.34	mg/Kg	1	☼	6010D	Total/NA
Barium	460		180	14	mg/Kg	50	☼	6010D	Total/NA
Beryllium	0.66	J	1.8	0.080	mg/Kg	1	☼	6010D	Total/NA
Cadmium	1.2	J	1.8	0.079	mg/Kg	1	☼	6010D	Total/NA
Calcium	7000		36	21	mg/Kg	1	☼	6010D	Total/NA
Chromium	24		1.8	0.24	mg/Kg	1	☼	6010D	Total/NA
Cobalt	3.9		1.8	0.10	mg/Kg	1	☼	6010D	Total/NA
Copper	460		1.8	0.22	mg/Kg	1	☼	6010D	Total/NA
Iron	30000		1800	270	mg/Kg	50	☼	6010D	Total/NA
Lead	1600		3.6	0.29	mg/Kg	1	☼	6010D	Total/NA
Magnesium	2100		36	1.6	mg/Kg	1	☼	6010D	Total/NA
Manganese	230		3.6	0.076	mg/Kg	1	☼	6010D	Total/NA
Nickel	10		3.6	0.68	mg/Kg	1	☼	6010D	Total/NA
Potassium	1400		71	22	mg/Kg	1	☼	6010D	Total/NA
Selenium	0.70	J	2.5	0.50	mg/Kg	1	☼	6010D	Total/NA
Silver	0.81	J	1.8	0.064	mg/Kg	1	☼	6010D	Total/NA
Sodium	1200		71	20	mg/Kg	1	☼	6010D	Total/NA
Vanadium	29		3.6	0.073	mg/Kg	1	☼	6010D	Total/NA
Zinc	700		180	66	mg/Kg	50	☼	6010D	Total/NA
Mercury	0.24		0.12	0.051	mg/Kg	1	☼	7473	Total/NA

Client Sample ID: B-5 (7.5'-9.0')

Lab Sample ID: 705-13954-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	0.0072	J	0.040	0.0045	mg/Kg	1	☼	8260D	Total/NA
Acetone	0.073	J	0.080	0.018	mg/Kg	1	☼	8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-5 (7.5'-9.0') (Continued)

Lab Sample ID: 705-13954-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.0035	J	0.0040	0.00061	mg/Kg	1	☼	8260D	Total/NA
Carbon disulfide	0.0094		0.0081	0.0021	mg/Kg	1	☼	8260D	Total/NA
Isopropylbenzene	0.0016	J B	0.0040	0.0012	mg/Kg	1	☼	8260D	Total/NA
o-Xylene	0.0015	J B	0.0040	0.0011	mg/Kg	1	☼	8260D	Total/NA
Xylenes, Total	0.0015	J B	0.0040	0.0011	mg/Kg	1	☼	8260D	Total/NA

Client Sample ID: B-6 (1"-3")

Lab Sample ID: 705-13954-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	0.0018	J	0.0038	0.00055	mg/Kg	1	☼	8081B	Total/NA
4,4'-DDT	0.0015	J	0.0038	0.00060	mg/Kg	1	☼	8081B	Total/NA
Endrin	0.0011	J	0.0038	0.00058	mg/Kg	1	☼	8081B	Total/NA
Methoxychlor	0.0019	J	0.019	0.0019	mg/Kg	1	☼	8081B	Total/NA
Aluminum	13000		3800	310	mg/Kg	100	☼	6010D	Total/NA
Antimony	0.93	J	1.9	0.30	mg/Kg	1	☼	6010D	Total/NA
Arsenic	4.1		1.9	0.36	mg/Kg	1	☼	6010D	Total/NA
Barium	64		3.8	0.29	mg/Kg	1	☼	6010D	Total/NA
Beryllium	0.32	J	1.9	0.086	mg/Kg	1	☼	6010D	Total/NA
Cadmium	0.26	J	1.9	0.085	mg/Kg	1	☼	6010D	Total/NA
Calcium	1900		38	22	mg/Kg	1	☼	6010D	Total/NA
Chromium	16		1.9	0.26	mg/Kg	1	☼	6010D	Total/NA
Cobalt	2.8		1.9	0.11	mg/Kg	1	☼	6010D	Total/NA
Copper	25		1.9	0.24	mg/Kg	1	☼	6010D	Total/NA
Iron	25000		3800	580	mg/Kg	100	☼	6010D	Total/NA
Lead	95		3.8	0.31	mg/Kg	1	☼	6010D	Total/NA
Magnesium	730		38	1.7	mg/Kg	1	☼	6010D	Total/NA
Manganese	190		3.8	0.082	mg/Kg	1	☼	6010D	Total/NA
Nickel	4.4		3.8	0.73	mg/Kg	1	☼	6010D	Total/NA
Potassium	1100		76	23	mg/Kg	1	☼	6010D	Total/NA
Silver	0.071	J	1.9	0.069	mg/Kg	1	☼	6010D	Total/NA
Sodium	200		76	21	mg/Kg	1	☼	6010D	Total/NA
Vanadium	30		3.8	0.078	mg/Kg	1	☼	6010D	Total/NA
Zinc	140		3.8	1.4	mg/Kg	1	☼	6010D	Total/NA
Mercury	0.048	J	0.11	0.048	mg/Kg	1	☼	7473	Total/NA

Client Sample ID: B-6 (5'-7')

Lab Sample ID: 705-13954-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	0.018	J	0.055	0.0061	mg/Kg	1	☼	8260D	Total/NA
4-Methyl-2-pentanone	0.0071	J	0.011	0.0036	mg/Kg	1	☼	8260D	Total/NA
Acetone	0.098	J	0.11	0.024	mg/Kg	1	☼	8260D	Total/NA
Benzene	0.0077		0.0055	0.00083	mg/Kg	1	☼	8260D	Total/NA
o-Xylene	0.0023	J B	0.0055	0.0014	mg/Kg	1	☼	8260D	Total/NA
Toluene	0.0039	J	0.0055	0.0011	mg/Kg	1	☼	8260D	Total/NA
Xylenes, Total	0.0023	J B	0.0055	0.0014	mg/Kg	1	☼	8260D	Total/NA
Anthracene	0.20	J	0.39	0.18	mg/Kg	1	☼	8270E	Total/NA
Benzo[a]anthracene	0.61		0.39	0.17	mg/Kg	1	☼	8270E	Total/NA
Benzo[a]pyrene	0.51	F1	0.39	0.17	mg/Kg	1	☼	8270E	Total/NA
Benzo[b]fluoranthene	0.74		0.39	0.19	mg/Kg	1	☼	8270E	Total/NA
Benzo[g,h,i]perylene	0.33	J	0.39	0.19	mg/Kg	1	☼	8270E	Total/NA
Benzo[k]fluoranthene	0.27	J	0.39	0.21	mg/Kg	1	☼	8270E	Total/NA
Chrysene	0.55		0.39	0.17	mg/Kg	1	☼	8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B-6 (5'-7') (Continued)

Lab Sample ID: 705-13954-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	1.2	F1	0.39	0.16	mg/Kg	1	☼	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.29	J	0.39	0.25	mg/Kg	1	☼	8270E	Total/NA
Phenanthrene	0.78	F1	0.39	0.17	mg/Kg	1	☼	8270E	Total/NA
Pyrene	1.0		0.39	0.19	mg/Kg	1	☼	8270E	Total/NA

Client Sample ID: B-7 (2"-4")

Lab Sample ID: 705-13954-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	0.0031	J	0.0041	0.00060	mg/Kg	1	☼	8081B	Total/NA
4,4'-DDT	0.0021	J	0.0041	0.00065	mg/Kg	1	☼	8081B	Total/NA
Endosulfan II	0.00063	J	0.0041	0.00054	mg/Kg	1	☼	8081B	Total/NA
Aluminum	34000		4600	380	mg/Kg	100	☼	6010D	Total/NA
Antimony	0.73	J	2.3	0.37	mg/Kg	1	☼	6010D	Total/NA
Arsenic	4.2		2.3	0.44	mg/Kg	1	☼	6010D	Total/NA
Barium	130		4.6	0.35	mg/Kg	1	☼	6010D	Total/NA
Beryllium	0.62	J	2.3	0.10	mg/Kg	1	☼	6010D	Total/NA
Cadmium	0.27	J	2.3	0.10	mg/Kg	1	☼	6010D	Total/NA
Calcium	3900		46	27	mg/Kg	1	☼	6010D	Total/NA
Chromium	20		2.3	0.31	mg/Kg	1	☼	6010D	Total/NA
Cobalt	9.9		2.3	0.13	mg/Kg	1	☼	6010D	Total/NA
Copper	61		2.3	0.29	mg/Kg	1	☼	6010D	Total/NA
Iron	44000		4600	700	mg/Kg	100	☼	6010D	Total/NA
Lead	100		4.6	0.38	mg/Kg	1	☼	6010D	Total/NA
Magnesium	2600		46	2.0	mg/Kg	1	☼	6010D	Total/NA
Manganese	360		4.6	0.098	mg/Kg	1	☼	6010D	Total/NA
Nickel	7.3		4.6	0.88	mg/Kg	1	☼	6010D	Total/NA
Potassium	3000		92	28	mg/Kg	1	☼	6010D	Total/NA
Selenium	0.89	J	3.2	0.64	mg/Kg	1	☼	6010D	Total/NA
Silver	0.48	J	2.3	0.083	mg/Kg	1	☼	6010D	Total/NA
Sodium	390		92	26	mg/Kg	1	☼	6010D	Total/NA
Vanadium	72		4.6	0.094	mg/Kg	1	☼	6010D	Total/NA
Zinc	110		4.6	1.7	mg/Kg	1	☼	6010D	Total/NA
Mercury	0.096	J	0.12	0.052	mg/Kg	1	☼	7473	Total/NA

Client Sample ID: B-7 (7.5'-10.0')

Lab Sample ID: 705-13954-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Methyl-2-pentanone	0.0055	J	0.0090	0.0029	mg/Kg	1	☼	8260D	Total/NA
Acetone	0.066	J	0.090	0.020	mg/Kg	1	☼	8260D	Total/NA
Benzene	0.0012	J	0.0045	0.00068	mg/Kg	1	☼	8260D	Total/NA
o-Xylene	0.0017	J B	0.0045	0.0012	mg/Kg	1	☼	8260D	Total/NA
Xylenes, Total	0.0017	J B	0.0045	0.0012	mg/Kg	1	☼	8260D	Total/NA

Client Sample ID: B-8 (1"-3")

Lab Sample ID: 705-13954-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	0.00071	J	0.0042	0.00061	mg/Kg	1	☼	8081B	Total/NA
4,4'-DDT	0.00090	J	0.0042	0.00066	mg/Kg	1	☼	8081B	Total/NA
Endosulfan II	0.0030	J	0.0042	0.00055	mg/Kg	1	☼	8081B	Total/NA
Heptachlor	0.0010	J	0.0021	0.00068	mg/Kg	1	☼	8081B	Total/NA
Aluminum	30000		3900	320	mg/Kg	100	☼	6010D	Total/NA
Antimony	1.1	J	1.9	0.31	mg/Kg	1	☼	6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B-8 (1"-3") (Continued) — Lab Sample ID: 705-13954-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.6		1.9	0.37	mg/Kg	1	☼	6010D	Total/NA
Barium	120		3.9	0.30	mg/Kg	1	☼	6010D	Total/NA
Beryllium	0.56	J	1.9	0.087	mg/Kg	1	☼	6010D	Total/NA
Cadmium	0.31	J	1.9	0.086	mg/Kg	1	☼	6010D	Total/NA
Calcium	4500		39	23	mg/Kg	1	☼	6010D	Total/NA
Chromium	16		1.9	0.26	mg/Kg	1	☼	6010D	Total/NA
Cobalt	7.0		1.9	0.11	mg/Kg	1	☼	6010D	Total/NA
Copper	41		1.9	0.24	mg/Kg	1	☼	6010D	Total/NA
Iron	35000		3900	600	mg/Kg	100	☼	6010D	Total/NA
Lead	110		3.9	0.32	mg/Kg	1	☼	6010D	Total/NA
Magnesium	2600		39	1.7	mg/Kg	1	☼	6010D	Total/NA
Manganese	290		3.9	0.083	mg/Kg	1	☼	6010D	Total/NA
Nickel	6.8		3.9	0.75	mg/Kg	1	☼	6010D	Total/NA
Potassium	2800		78	24	mg/Kg	1	☼	6010D	Total/NA
Selenium	0.80	J	2.7	0.54	mg/Kg	1	☼	6010D	Total/NA
Silver	0.10	J	1.9	0.070	mg/Kg	1	☼	6010D	Total/NA
Sodium	380		78	22	mg/Kg	1	☼	6010D	Total/NA
Vanadium	58		3.9	0.079	mg/Kg	1	☼	6010D	Total/NA
Zinc	230		3.9	1.4	mg/Kg	1	☼	6010D	Total/NA
Mercury	0.16		0.13	0.053	mg/Kg	1	☼	7473	Total/NA

Client Sample ID: B-8 (7.5'-10.0') — Lab Sample ID: 705-13954-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	0.0080	J	0.056	0.0062	mg/Kg	1	☼	8260D	Total/NA
4-Methyl-2-pentanone	0.0069	J	0.011	0.0036	mg/Kg	1	☼	8260D	Total/NA
Acetone	0.072	J	0.11	0.025	mg/Kg	1	☼	8260D	Total/NA
Isopropylbenzene	0.0022	J B	0.0056	0.0016	mg/Kg	1	☼	8260D	Total/NA
o-Xylene	0.0021	J B	0.0056	0.0015	mg/Kg	1	☼	8260D	Total/NA
Xylenes, Total	0.0021	J B	0.0056	0.0015	mg/Kg	1	☼	8260D	Total/NA

Client Sample ID: DUP #1 — Lab Sample ID: 705-13954-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.016	J	0.068	0.010	mg/Kg	1	☼	8082A	Total/NA
PCB-1254	0.038	J	0.068	0.010	mg/Kg	1	☼	8082A	Total/NA
PCB-1260	0.017	J	0.068	0.010	mg/Kg	1	☼	8082A	Total/NA

Client Sample ID: DUP #2 — Lab Sample ID: 705-13954-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	0.0020	J	0.0040	0.00057	mg/Kg	1	☼	8081B	Total/NA
4,4'-DDT	0.0019	J	0.0040	0.00063	mg/Kg	1	☼	8081B	Total/NA
alpha-BHC	0.00061	J	0.0020	0.00043	mg/Kg	1	☼	8081B	Total/NA
Endosulfan II	0.00061	J	0.0040	0.00052	mg/Kg	1	☼	8081B	Total/NA
Endrin	0.0022	J	0.0040	0.00060	mg/Kg	1	☼	8081B	Total/NA
Methoxychlor	0.0029	J	0.020	0.0020	mg/Kg	1	☼	8081B	Total/NA
PCB-1254	0.0063	J	0.040	0.0060	mg/Kg	1	☼	8082A	Total/NA
Aluminum	13000		4200	340	mg/Kg	100	☼	6010D	Total/NA
Antimony	0.85	J	2.1	0.33	mg/Kg	1	☼	6010D	Total/NA
Arsenic	4.5		2.1	0.39	mg/Kg	1	☼	6010D	Total/NA
Barium	68		4.2	0.32	mg/Kg	1	☼	6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP #2 (Continued)

Lab Sample ID: 705-13954-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.34	J	2.1	0.093	mg/Kg	1	☼	6010D	Total/NA
Cadmium	0.23	J	2.1	0.093	mg/Kg	1	☼	6010D	Total/NA
Calcium	2400		42	25	mg/Kg	1	☼	6010D	Total/NA
Chromium	23		2.1	0.28	mg/Kg	1	☼	6010D	Total/NA
Cobalt	3.2		2.1	0.12	mg/Kg	1	☼	6010D	Total/NA
Copper	23		2.1	0.26	mg/Kg	1	☼	6010D	Total/NA
Iron	22000		4200	640	mg/Kg	100	☼	6010D	Total/NA
Lead	94		4.2	0.34	mg/Kg	1	☼	6010D	Total/NA
Magnesium	1200		42	1.8	mg/Kg	1	☼	6010D	Total/NA
Manganese	180		4.2	0.089	mg/Kg	1	☼	6010D	Total/NA
Nickel	4.2		4.2	0.80	mg/Kg	1	☼	6010D	Total/NA
Potassium	1300		83	26	mg/Kg	1	☼	6010D	Total/NA
Sodium	210		83	23	mg/Kg	1	☼	6010D	Total/NA
Vanadium	40		4.2	0.085	mg/Kg	1	☼	6010D	Total/NA
Zinc	120		4.2	1.5	mg/Kg	1	☼	6010D	Total/NA

Client Sample ID: DUP #3

Lab Sample ID: 705-13954-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	0.013	J	0.053	0.0059	mg/Kg	1	☼	8260D	Total/NA
4-Methyl-2-pentanone	0.0069	J	0.011	0.0034	mg/Kg	1	☼	8260D	Total/NA
Acetone	0.074	J	0.11	0.023	mg/Kg	1	☼	8260D	Total/NA
Benzene	0.0066		0.0053	0.00080	mg/Kg	1	☼	8260D	Total/NA
Isopropylbenzene	0.0021	J B	0.0053	0.0016	mg/Kg	1	☼	8260D	Total/NA
o-Xylene	0.0022	J B	0.0053	0.0014	mg/Kg	1	☼	8260D	Total/NA
Toluene	0.0039	J	0.0053	0.0010	mg/Kg	1	☼	8260D	Total/NA
Xylenes, Total	0.0022	J B	0.0053	0.0014	mg/Kg	1	☼	8260D	Total/NA
Benzo[a]anthracene	0.35	J	0.37	0.16	mg/Kg	1	☼	8270E	Total/NA
Benzo[a]pyrene	0.30	J	0.37	0.16	mg/Kg	1	☼	8270E	Total/NA
Benzo[b]fluoranthene	0.44		0.37	0.19	mg/Kg	1	☼	8270E	Total/NA
Benzo[g,h,i]perylene	0.19	J	0.37	0.18	mg/Kg	1	☼	8270E	Total/NA
Chrysene	0.32	J	0.37	0.17	mg/Kg	1	☼	8270E	Total/NA
Fluoranthene	0.69		0.37	0.15	mg/Kg	1	☼	8270E	Total/NA
Phenanthrene	0.39		0.37	0.16	mg/Kg	1	☼	8270E	Total/NA
Pyrene	0.58		0.37	0.19	mg/Kg	1	☼	8270E	Total/NA

Client Sample ID: Equip. Blank

Lab Sample ID: 705-13954-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.24	J	1.0	0.22	ug/L	1		8260D	Total/NA

Client Sample ID: Trip Blank #1

Lab Sample ID: 705-13954-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.56	J	1.0	0.22	ug/L	1		8260D	Total/NA

Client Sample ID: Trip Blank #2

Lab Sample ID: 705-13954-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.64	J	1.0	0.22	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: Trip Blank #3

Lab Sample ID: 705-13954-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.58	J	1.0	0.22	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Login Sample Receipt Checklist

Client: Access Analytical Services

Job Number: 705-13954-1
SDG Number: F&ME Consultants

Login Number: 13954
List Number: 1
Creator: Maguire, Parris

List Source: Eurofins Atlanta

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: Former Railroad (1"-3")

Lab Sample ID: 705-13954-1

Date Collected: 11/26/24 13:40
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24526	ASA	EET ATL	12/02/24 08:24

Client Sample ID: Former Railroad (1"-3")

Lab Sample ID: 705-13954-1

Date Collected: 11/26/24 13:40
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			24487	IH	EET ATL 2	12/02/24 09:00
Total/NA	Analysis	8081B		1	25247	UH	EET ATL	12/04/24 18:10
Total/NA	Prep	8151A			24674	ZS	EET ATL	12/03/24 06:56
Total/NA	Analysis	8151A		1	25386	AF	EET ATL	12/05/24 13:15
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		1	25356	DAB	EET ATL	12/05/24 15:05
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		1	25364	KB	EET ATL	12/05/24 14:14
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		100	25364	KB	EET ATL	12/05/24 15:09
Total/NA	Analysis	7473		1	24633	GR	EET ATL	12/02/24 15:19

Client Sample ID: River Sediment Northside

Lab Sample ID: 705-13954-2

Date Collected: 11/26/24 13:55
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24526	ASA	EET ATL	12/02/24 08:24

Client Sample ID: River Sediment Northside

Lab Sample ID: 705-13954-2

Date Collected: 11/26/24 13:55
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 51.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			25285	RC	EET ATL	12/04/24 18:19
Total/NA	Analysis	8260D		1	25283	RC	EET ATL	12/04/24 20:22
Total/NA	Prep	3546			24473	IH	EET ATL 2	12/02/24 09:00
Total/NA	Analysis	8082A		1	24642	NT	EET ATL	12/02/24 15:49
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		1	25356	DAB	EET ATL	12/05/24 15:08
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		1	25364	KB	EET ATL	12/05/24 14:31
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		100	25364	KB	EET ATL	12/05/24 15:35
Total/NA	Analysis	7473		1	24633	GR	EET ATL	12/02/24 15:27

Lab Chronicle

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: River Sediment Southside
Lab Sample ID: 705-13954-3
Date Collected: 11/26/24 14:15
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24526	ASA	EET ATL	12/02/24 08:24

Client Sample ID: River Sediment Southside
Lab Sample ID: 705-13954-3
Date Collected: 11/26/24 14:15
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 69.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			25285	RC	EET ATL	12/04/24 18:19
Total/NA	Analysis	8260D		1	25283	RC	EET ATL	12/04/24 20:47
Total/NA	Prep	3546			24473	IH	EET ATL 2	12/02/24 09:00
Total/NA	Analysis	8082A		1	24762	NT	EET ATL	12/02/24 17:41
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		1	25356	DAB	EET ATL	12/05/24 15:17
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		1	25364	KB	EET ATL	12/05/24 14:34
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		10	25364	KB	EET ATL	12/05/24 16:02
Total/NA	Analysis	7473		1	24633	GR	EET ATL	12/02/24 15:35

Client Sample ID: B-1 (7.5'-10.0')
Lab Sample ID: 705-13954-4
Date Collected: 11/26/24 14:35
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24526	ASA	EET ATL	12/02/24 08:24

Client Sample ID: B-1 (7.5'-10.0')
Lab Sample ID: 705-13954-4
Date Collected: 11/26/24 14:35
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 77.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			25285	RC	EET ATL	12/04/24 18:19
Total/NA	Analysis	8260D		1	25283	RC	EET ATL	12/04/24 21:11

Client Sample ID: B-2 (7.5'-10.0')
Lab Sample ID: 705-13954-5
Date Collected: 11/26/24 14:45
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24526	ASA	EET ATL	12/02/24 08:24

Lab Chronicle

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Client Sample ID: B-2 (7.5'-10.0')

Lab Sample ID: 705-13954-5
Date Collected: 11/26/24 14:45
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			25285	RC	EET ATL	12/04/24 18:19
Total/NA	Analysis	8260D		1	25283	RC	EET ATL	12/04/24 21:36

Client Sample ID: B-3 (7.5'-10.0')

Lab Sample ID: 705-13954-6
Date Collected: 11/26/24 14:50
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24569	BMS	EET ATL	12/02/24 10:28

Client Sample ID: B-3 (7.5'-10.0')

Lab Sample ID: 705-13954-6
Date Collected: 11/26/24 14:50
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 75.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			25285	RC	EET ATL	12/04/24 18:19
Total/NA	Analysis	8260D		1	25283	RC	EET ATL	12/04/24 22:01

Client Sample ID: B-4 (5.0'-7.5')

Lab Sample ID: 705-13954-7
Date Collected: 11/26/24 14:55
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24526	ASA	EET ATL	12/02/24 08:24

Client Sample ID: B-4 (5.0'-7.5')

Lab Sample ID: 705-13954-7
Date Collected: 11/26/24 14:55
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 71.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			25285	RC	EET ATL	12/04/24 18:19
Total/NA	Analysis	8260D		1	25283	RC	EET ATL	12/04/24 22:25

Client Sample ID: B-5 (1"-3")

Lab Sample ID: 705-13954-8
Date Collected: 11/26/24 15:10
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24569	BMS	EET ATL	12/02/24 10:28

Client Sample ID: B-5 (1"-3")
Lab Sample ID: 705-13954-8
Date Collected: 11/26/24 15:10
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 81.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			24487	IH	EET ATL 2	12/02/24 09:00
Total/NA	Analysis	8081B		1	25247	UH	EET ATL	12/04/24 18:48
Total/NA	Prep	8151A			24674	ZS	EET ATL	12/03/24 06:56
Total/NA	Analysis	8151A		1	25386	AF	EET ATL	12/05/24 13:38
Total/NA	Prep	3050B			25064	BR	EET ATL	12/05/24 10:19
Total/NA	Analysis	6010D		1	25356	DAB	EET ATL	12/05/24 16:07
Total/NA	Prep	3050B			25064	BR	EET ATL	12/05/24 10:19
Total/NA	Analysis	6010D		1	25364	KB	EET ATL	12/05/24 16:04
Total/NA	Prep	3050B			25064	BR	EET ATL	12/05/24 10:19
Total/NA	Analysis	6010D		50	25364	KB	EET ATL	12/05/24 16:07
Total/NA	Analysis	7473		1	24633	GR	EET ATL	12/02/24 15:43

Client Sample ID: B-5 (7.5'-9.0')
Lab Sample ID: 705-13954-9
Date Collected: 11/26/24 15:20
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24569	BMS	EET ATL	12/02/24 10:28

Client Sample ID: B-5 (7.5'-9.0')
Lab Sample ID: 705-13954-9
Date Collected: 11/26/24 15:20
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 75.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			25285	RC	EET ATL	12/04/24 18:19
Total/NA	Analysis	8260D		1	25283	RC	EET ATL	12/04/24 22:50
Total/NA	Prep	5035			25285	RC	EET ATL	12/04/24 18:19
Total/NA	Analysis	8260D		1	25365	RC	EET ATL	12/05/24 16:12
Total/NA	Prep	3550C			24774	KE	EET ATL 2	12/03/24 12:34
Total/NA	Analysis	8270E		1	24850	TNT	EET ATL	12/03/24 19:52

Client Sample ID: B-6 (1"-3")
Lab Sample ID: 705-13954-10
Date Collected: 11/26/24 15:35
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24526	ASA	EET ATL	12/02/24 08:24

Client Sample ID: B-6 (1"-3")
Lab Sample ID: 705-13954-10
Date Collected: 11/26/24 15:35
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			24487	IH	EET ATL 2	12/02/24 09:00
Total/NA	Analysis	8081B		1	25247	UH	EET ATL	12/04/24 19:00

Lab Chronicle

Client: Access Analytical Services
Job ID: 705-13954-1
Project/Site: S-80 RBO Reedy River - Phase II ESA
SDG: F&ME Consultants

Client Sample ID: B-6 (1"-3")
Lab Sample ID: 705-13954-10
Date Collected: 11/26/24 15:35
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	8151A			24674	ZS	EET ATL	12/03/24 06:56
Total/NA	Analysis	8151A		1	25386	AF	EET ATL	12/05/24 12:51
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		1	25356	DAB	EET ATL	12/05/24 15:20
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		1	25364	KB	EET ATL	12/05/24 14:36
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		100	25364	KB	EET ATL	12/05/24 15:41
Total/NA	Analysis	7473		1	24633	GR	EET ATL	12/02/24 15:51

Client Sample ID: B-6 (5'-7')
Lab Sample ID: 705-13954-11
Date Collected: 11/26/24 15:50
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24526	ASA	EET ATL	12/02/24 08:24

Client Sample ID: B-6 (5'-7')
Lab Sample ID: 705-13954-11
Date Collected: 11/26/24 15:50
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			25285	RC	EET ATL	12/04/24 18:19
Total/NA	Analysis	8260D		1	25283	RC	EET ATL	12/04/24 23:14
Total/NA	Prep	3550C			24774	KE	EET ATL 2	12/03/24 12:34
Total/NA	Analysis	8270E		1	24850	TNT	EET ATL	12/03/24 20:16

Client Sample ID: B-7 (2"-4")
Lab Sample ID: 705-13954-12
Date Collected: 11/26/24 16:05
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24526	ASA	EET ATL	12/02/24 08:24

Client Sample ID: B-7 (2"-4")
Lab Sample ID: 705-13954-12
Date Collected: 11/26/24 16:05
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 80.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			24487	IH	EET ATL 2	12/02/24 09:00
Total/NA	Analysis	8081B		1	25247	UH	EET ATL	12/04/24 19:13
Total/NA	Prep	8151A			24674	ZS	EET ATL	12/03/24 06:56
Total/NA	Analysis	8151A		1	25386	AF	EET ATL	12/05/24 14:01
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		1	25356	DAB	EET ATL	12/05/24 15:23

Client Sample ID: B-7 (2"-4")
Lab Sample ID: 705-13954-12
Date Collected: 11/26/24 16:05
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 80.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		1	25364	KB	EET ATL	12/05/24 14:45
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		1	25364	KB	EET ATL	12/05/24 15:06
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		100	25364	KB	EET ATL	12/05/24 15:44
Total/NA	Analysis	7473		1	24803	GR	EET ATL	12/03/24 12:11

Client Sample ID: B-7 (7.5'-10.0')
Lab Sample ID: 705-13954-13
Date Collected: 11/26/24 16:10
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24569	BMS	EET ATL	12/02/24 10:28

Client Sample ID: B-7 (7.5'-10.0')
Lab Sample ID: 705-13954-13
Date Collected: 11/26/24 16:10
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 72.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			25285	RC	EET ATL	12/04/24 18:19
Total/NA	Analysis	8260D		1	25283	RC	EET ATL	12/04/24 23:39

Client Sample ID: B-8 (1"-3")
Lab Sample ID: 705-13954-14
Date Collected: 11/26/24 16:15
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24836	PM	EET ATL	12/03/24 12:36

Client Sample ID: B-8 (1"-3")
Lab Sample ID: 705-13954-14
Date Collected: 11/26/24 16:15
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 79.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			24487	IH	EET ATL 2	12/02/24 09:00
Total/NA	Analysis	8081B		1	25247	UH	EET ATL	12/04/24 19:25
Total/NA	Prep	8151A			24674	ZS	EET ATL	12/03/24 06:56
Total/NA	Analysis	8151A		1	25386	AF	EET ATL	12/05/24 14:25
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		1	25356	DAB	EET ATL	12/05/24 15:25
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		1	25364	KB	EET ATL	12/05/24 14:48
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		100	25364	KB	EET ATL	12/05/24 15:47

Client Sample ID: B-8 (1"-3")
Lab Sample ID: 705-13954-14
Date Collected: 11/26/24 16:15
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 79.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7473		1	24633	GR	EET ATL	12/02/24 15:59

Client Sample ID: B-8 (7.5'-10.0')
Lab Sample ID: 705-13954-15
Date Collected: 11/26/24 16:20
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24569	BMS	EET ATL	12/02/24 10:28

Client Sample ID: B-8 (7.5'-10.0')
Lab Sample ID: 705-13954-15
Date Collected: 11/26/24 16:20
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 65.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			25285	RC	EET ATL	12/04/24 18:19
Total/NA	Analysis	8260D		1	25283	RC	EET ATL	12/05/24 00:03

Client Sample ID: DUP #1
Lab Sample ID: 705-13954-16
Date Collected: 11/26/24 00:00
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24836	PM	EET ATL	12/03/24 12:36

Client Sample ID: DUP #1
Lab Sample ID: 705-13954-16
Date Collected: 11/26/24 00:00
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 49.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			24473	IH	EET ATL 2	12/02/24 09:00
Total/NA	Analysis	8082A		1	24794	UH	EET ATL	12/02/24 18:06

Client Sample ID: DUP #2
Lab Sample ID: 705-13954-17
Date Collected: 11/26/24 00:00
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24526	ASA	EET ATL	12/02/24 08:24

Client Sample ID: DUP #2
Lab Sample ID: 705-13954-17
Date Collected: 11/26/24 00:00
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 84.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			24711	IH	EET ATL 2	12/03/24 10:06
Total/NA	Analysis	8081B		1	25247	UH	EET ATL	12/04/24 22:44

Client Sample ID: DUP #2

Lab Sample ID: 705-13954-17
Date Collected: 11/26/24 00:00
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 84.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			24473	IH	EET ATL 2	12/02/24 09:00
Total/NA	Analysis	8082A		1	24794	UH	EET ATL	12/02/24 17:54
Total/NA	Prep	8151A			24674	ZS	EET ATL	12/03/24 06:56
Total/NA	Analysis	8151A		1	25386	AF	EET ATL	12/05/24 14:48
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		1	25356	DAB	EET ATL	12/05/24 15:28
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		1	25364	KB	EET ATL	12/05/24 14:51
Total/NA	Prep	3050B			25064	BR	EET ATL	12/04/24 14:15
Total/NA	Analysis	6010D		100	25364	KB	EET ATL	12/05/24 15:50
Total/NA	Analysis	7473		1	24633	GR	EET ATL	12/02/24 16:07

Client Sample ID: DUP #3

Lab Sample ID: 705-13954-18
Date Collected: 11/26/24 00:00
Matrix: Solid
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	D 2216		1	24569	BMS	EET ATL	12/02/24 10:28

Client Sample ID: DUP #3

Lab Sample ID: 705-13954-18
Date Collected: 11/26/24 00:00
Matrix: Solid
Date Received: 11/27/24 20:31
Percent Solids: 89.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			25285	RC	EET ATL	12/04/24 18:19
Total/NA	Analysis	8260D		1	25283	RC	EET ATL	12/05/24 00:28
Total/NA	Prep	3550C			24774	KE	EET ATL 2	12/03/24 12:34
Total/NA	Analysis	8270E		1	24850	TNT	EET ATL	12/03/24 20:40

Client Sample ID: Equip. Blank

Lab Sample ID: 705-13954-19
Date Collected: 11/25/24 12:35
Matrix: Water
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	24406	ZHZ	EET ATL	11/30/24 22:07
Total/NA	Prep	3511			24507	SH	EET ATL	12/02/24 10:51
Total/NA	Analysis	8270E		1	24734	TNT	EET ATL	12/03/24 09:22
Total/NA	Prep	3510C			24543	AN	EET ATL	12/02/24 12:14
Total/NA	Analysis	8081B		1	25270	NT	EET ATL	12/03/24 20:57
Total/NA	Prep	3510C			24551	AN	EET ATL	12/02/24 12:19
Total/NA	Analysis	8082A		1	25271	NT	EET ATL	12/04/24 05:38
Total/NA	Prep	8151A			24331	TT	EET ATL	12/02/24 10:35
Total/NA	Analysis	8151A		1	25072	AF	EET ATL	12/03/24 18:43
Total/NA	Prep	3010A			24992	BR	EET ATL	12/04/24 12:10
Total/NA	Analysis	6010D		1	25191	DAB	EET ATL	12/04/24 17:31

Lab Chronicle

Client: Access Analytical Services
Job ID: 705-13954-1
Project/Site: S-80 RBO Reedy River - Phase II ESA
SDG: F&ME Consultants

Client Sample ID: Equip. Blank
Lab Sample ID: 705-13954-19
Date Collected: 11/25/24 12:35
Matrix: Water
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			25080	GR	EET ATL	12/04/24 12:55
Total/NA	Analysis	7470A		1	25172	GR	EET ATL	12/04/24 18:31

Client Sample ID: Trip Blank #1
Lab Sample ID: 705-13954-20
Date Collected: 11/27/24 20:31
Matrix: Water
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	24406	ZHZ	EET ATL	11/30/24 22:31

Client Sample ID: Trip Blank #2
Lab Sample ID: 705-13954-21
Date Collected: 11/27/24 20:31
Matrix: Water
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	24406	ZHZ	EET ATL	11/30/24 22:54

Client Sample ID: Trip Blank #3
Lab Sample ID: 705-13954-22
Date Collected: 11/27/24 20:31
Matrix: Water
Date Received: 11/27/24 20:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	24406	ZHZ	EET ATL	11/30/24 23:18

Laboratory References:

EET ATL = Eurofins Atlanta, 3080 Presidential Dr, Atlanta, GA 30340, TEL (770)457-8177

EET ATL 2 = Eurofins Atlanta Building A, 3080 Presidential Pkwy, Atlanta, GA 30340, TEL (770)457-8177

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 705-24406/7
Matrix: Water
Analysis Batch: 24406

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.23	ug/L			11/30/24 17:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.23	ug/L			11/30/24 17:07	1
1,1,2-Trichloroethane	ND		1.0	0.21	ug/L			11/30/24 17:07	1
1,1-Dichloroethane	ND		1.0	0.21	ug/L			11/30/24 17:07	1
1,1-Dichloroethene	ND		1.0	0.28	ug/L			11/30/24 17:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.70	ug/L			11/30/24 17:07	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.45	ug/L			11/30/24 17:07	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			11/30/24 17:07	1
1,2-Dichlorobenzene	ND		1.0	0.32	ug/L			11/30/24 17:07	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/30/24 17:07	1
1,2-Dichloropropane	ND		1.0	0.21	ug/L			11/30/24 17:07	1
1,3-Dichlorobenzene	ND		1.0	0.34	ug/L			11/30/24 17:07	1
1,4-Dichlorobenzene	ND		1.0	0.32	ug/L			11/30/24 17:07	1
2-Butanone	ND		10	2.8	ug/L			11/30/24 17:07	1
2-Hexanone	ND		10	3.5	ug/L			11/30/24 17:07	1
4-Methyl-2-pentanone	ND		10	3.2	ug/L			11/30/24 17:07	1
Acetone	ND		10	4.0	ug/L			11/30/24 17:07	1
Benzene	ND		1.0	0.20	ug/L			11/30/24 17:07	1
Bromodichloromethane	ND		1.0	0.22	ug/L			11/30/24 17:07	1
Bromoform	ND		1.0	0.46	ug/L			11/30/24 17:07	1
Bromomethane	ND		1.0	0.47	ug/L			11/30/24 17:07	1
Carbon disulfide	ND		2.0	0.53	ug/L			11/30/24 17:07	1
Carbon tetrachloride	ND		1.0	0.22	ug/L			11/30/24 17:07	1
Chlorobenzene	ND		1.0	0.20	ug/L			11/30/24 17:07	1
Chloroethane	ND		1.0	0.37	ug/L			11/30/24 17:07	1
Chloroform	ND		1.0	0.22	ug/L			11/30/24 17:07	1
Chloromethane	ND		1.0	0.37	ug/L			11/30/24 17:07	1
cis-1,2-Dichloroethene	ND		1.0	0.23	ug/L			11/30/24 17:07	1
cis-1,3-Dichloropropene	ND		1.0	0.23	ug/L			11/30/24 17:07	1
Cyclohexane	ND		2.0	0.55	ug/L			11/30/24 17:07	1
Dibromochloromethane	ND		1.0	0.44	ug/L			11/30/24 17:07	1
Dichlorodifluoromethane	ND		1.0	0.34	ug/L			11/30/24 17:07	1
Ethylbenzene	ND		1.0	0.28	ug/L			11/30/24 17:07	1
Freon 113	ND		5.0	0.27	ug/L			11/30/24 17:07	1
Isopropylbenzene	ND		1.0	0.27	ug/L			11/30/24 17:07	1
m,p-Xylene	ND		2.0	0.37	ug/L			11/30/24 17:07	1
Methyl acetate	ND		2.0	0.45	ug/L			11/30/24 17:07	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			11/30/24 17:07	1
Methylcyclohexane	ND		1.0	0.31	ug/L			11/30/24 17:07	1
Methylene Chloride	ND		5.0	2.4	ug/L			11/30/24 17:07	1
o-Xylene	ND		1.0	0.27	ug/L			11/30/24 17:07	1
Styrene	ND		1.0	0.19	ug/L			11/30/24 17:07	1
Tetrachloroethene	ND		1.0	0.19	ug/L			11/30/24 17:07	1
Toluene	ND		1.0	0.20	ug/L			11/30/24 17:07	1
trans-1,2-Dichloroethene	ND		1.0	0.27	ug/L			11/30/24 17:07	1
trans-1,3-Dichloropropene	ND		2.0	0.43	ug/L			11/30/24 17:07	1
Trichloroethene	ND		1.0	0.21	ug/L			11/30/24 17:07	1
Trichlorofluoromethane	ND		1.0	0.40	ug/L			11/30/24 17:07	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 705-24406/7
Matrix: Water
Analysis Batch: 24406

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0	0.30	ug/L			11/30/24 17:07	1
1,2-Dichloroethene, Total	ND		2.0	0.23	ug/L			11/30/24 17:07	1
Xylenes, Total	ND		3.0	0.27	ug/L			11/30/24 17:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 126*		*11/30/24 17:07*	*1*
Dibromofluoromethane (Surr)	*95*		*77 - 121*		*11/30/24 17:07*	*1*
Toluene-d8 (Surr)	*96*		*79 - 119*		*11/30/24 17:07*	*1*

Lab Sample ID: LCS 705-24406/1002
Matrix: Water
Analysis Batch: 24406

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	20.0	20.3		ug/L		101	70 - 130
1,1,2,2-Tetrachloroethane	20.0	20.8		ug/L		104	70 - 130
1,1,2-Trichloroethane	20.0	20.9		ug/L		105	70 - 130
1,1-Dichloroethane	20.0	18.7		ug/L		93	70 - 130
1,1-Dichloroethene	20.0	19.1		ug/L		95	60 - 140
1,2,4-Trichlorobenzene	20.0	21.0		ug/L		105	70 - 130
1,2-Dibromo-3-Chloropropane	20.0	23.8		ug/L		119	70 - 130
1,2-Dibromoethane	20.0	22.6		ug/L		113	70 - 130
1,2-Dichlorobenzene	20.0	21.0		ug/L		105	70 - 130
1,2-Dichloroethane	20.0	20.5		ug/L		103	70 - 130
1,2-Dichloropropane	20.0	20.4		ug/L		102	70 - 130
1,3-Dichlorobenzene	20.0	21.6		ug/L		108	70 - 130
1,4-Dichlorobenzene	20.0	20.3		ug/L		101	70 - 130
2-Butanone	40.0	63.8	*+	ug/L		159	70 - 130
2-Hexanone	40.0	50.6		ug/L		127	70 - 130
4-Methyl-2-pentanone	40.0	43.7		ug/L		109	70 - 130
Acetone	40.0	65.3	*+	ug/L		163	70 - 130
Benzene	20.0	20.3		ug/L		101	70 - 130
Bromodichloromethane	20.0	20.7		ug/L		103	70 - 130
Bromoform	20.0	22.6		ug/L		113	70 - 130
Bromomethane	20.0	19.1		ug/L		96	70 - 130
Carbon disulfide	40.0	38.0		ug/L		95	70 - 130
Carbon tetrachloride	20.0	21.8		ug/L		109	70 - 130
Chlorobenzene	20.0	21.2		ug/L		106	70 - 130
Chloroethane	20.0	19.2		ug/L		96	70 - 130
Chloroform	20.0	18.8		ug/L		94	70 - 130
Chloromethane	20.0	16.9		ug/L		84	70 - 130
cis-1,2-Dichloroethene	20.0	19.0		ug/L		95	70 - 130
cis-1,3-Dichloropropene	20.0	21.7		ug/L		108	70 - 130
Cyclohexane	20.0	19.9		ug/L		100	70 - 130
Dibromochloromethane	20.0	21.7		ug/L		109	70 - 130
Dichlorodifluoromethane	20.0	20.7		ug/L		103	70 - 130
Ethylbenzene	20.0	21.4		ug/L		107	70 - 130
Freon 113	20.0	21.5		ug/L		107	70 - 130

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 705-24406/1002
Matrix: Water
Analysis Batch: 24406

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isopropylbenzene	20.0	21.7		ug/L		109	70 - 130
m,p-Xylene	40.0	43.9		ug/L		110	70 - 130
Methyl acetate	20.0	23.3		ug/L		117	70 - 130
Methyl tert-butyl ether	20.0	19.6		ug/L		98	70 - 130
Methylcyclohexane	20.0	20.9		ug/L		105	70 - 130
Methylene Chloride	20.0	17.9		ug/L		90	70 - 130
o-Xylene	20.0	21.4		ug/L		107	70 - 130
Styrene	20.0	22.3		ug/L		111	70 - 130
Tetrachloroethene	20.0	22.6		ug/L		113	70 - 130
Toluene	20.0	21.5		ug/L		107	70 - 130
trans-1,2-Dichloroethene	20.0	19.5		ug/L		97	70 - 130
trans-1,3-Dichloropropene	20.0	22.2		ug/L		111	70 - 130
Trichloroethene	20.0	21.0		ug/L		105	70 - 130
Trichlorofluoromethane	20.0	21.1		ug/L		105	70 - 130
Vinyl chloride	20.0	18.8		ug/L		94	70 - 130
1,2-Dichloroethene, Total	40.0	38.5		ug/L		96	70 - 130
Xylenes, Total	60.0	65.3		ug/L		109	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*70 - 126*
Dibromofluoromethane (Surr)	*95*		*77 - 121*
Toluene-d8 (Surr)	*99*		*79 - 119*

Lab Sample ID: 705-13303-B-7 MS
Matrix: Water
Analysis Batch: 24406

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND		20.0	21.3		ug/L		107	69 - 135
1,1,2,2-Tetrachloroethane	ND		20.0	21.1		ug/L		105	68 - 132
1,1,2-Trichloroethane	ND		20.0	21.1		ug/L		105	71 - 133
1,1-Dichloroethane	ND		20.0	19.9		ug/L		99	70 - 133
1,1-Dichloroethene	ND		20.0	20.3		ug/L		102	69 - 139
1,2,4-Trichlorobenzene	ND		20.0	19.5		ug/L		97	61 - 135
1,2-Dibromo-3-Chloropropane	ND		20.0	22.8		ug/L		114	62 - 127
1,2-Dibromoethane	ND		20.0	21.5		ug/L		107	76 - 129
1,2-Dichlorobenzene	ND		20.0	20.7		ug/L		103	76 - 125
1,2-Dichloroethane	ND		20.0	21.4		ug/L		107	71 - 133
1,2-Dichloropropane	ND		20.0	20.2		ug/L		101	69 - 132
1,3-Dichlorobenzene	ND		20.0	21.4		ug/L		107	76 - 126
1,4-Dichlorobenzene	ND		20.0	19.8		ug/L		99	76 - 124
2-Butanone	ND	*+ F1	40.0	57.3		ug/L		143	50 - 150
2-Hexanone	ND		40.0	44.7		ug/L		112	50 - 150
4-Methyl-2-pentanone	ND		40.0	41.0		ug/L		102	50 - 150
Acetone	ND	F1 *+	40.0	63.0	F1	ug/L		158	50 - 150
Benzene	0.29	J	20.0	20.8		ug/L		103	71 - 133
Bromodichloromethane	ND		20.0	20.9		ug/L		105	68 - 133
Bromoform	ND		20.0	21.2		ug/L		106	59 - 130

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 705-13303-B-7 MS
Matrix: Water
Analysis Batch: 24406

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	ND		20.0	20.2		ug/L		101	50 - 150
Carbon disulfide	ND		40.0	39.7		ug/L		99	50 - 150
Carbon tetrachloride	ND		20.0	23.5		ug/L		118	70 - 1369
Chlorobenzene	0.24	J	20.0	20.5		ug/L		101	78 - 128
Chloroethane	ND		20.0	20.2		ug/L		101	50 - 150
Chloroform	ND		20.0	19.8		ug/L		99	70 - 132
Chloromethane	ND		20.0	18.0		ug/L		90	50 - 150
cis-1,2-Dichloroethene	ND		20.0	20.2		ug/L		101	72 - 133
cis-1,3-Dichloropropene	ND		20.0	19.1		ug/L		96	70 - 128
Cyclohexane	ND		20.0	21.6		ug/L		108	50 - 150
Dibromochloromethane	ND		20.0	21.1		ug/L		105	69 - 130
Dichlorodifluoromethane	ND		20.0	23.5		ug/L		117	50 - 150
Ethylbenzene	ND		20.0	20.7		ug/L		103	75 - 131
Freon 113	ND		20.0	23.0		ug/L		115	50 - 150
Isopropylbenzene	ND		20.0	21.5		ug/L		107	72 - 135
m,p-Xylene	0.47	J	40.0	43.7		ug/L		108	73 - 133
Methyl acetate	ND		20.0	23.8		ug/L		119	50 - 150
Methyl tert-butyl ether	ND		20.0	19.5		ug/L		98	70 - 130
Methylcyclohexane	ND		20.0	22.3		ug/L		112	50 - 150
Methylene Chloride	ND		20.0	18.9		ug/L		94	66 - 132
o-Xylene	ND		20.0	21.5		ug/L		107	73 - 132
Styrene	ND		20.0	21.6		ug/L		108	73 - 133
Tetrachloroethene	ND		20.0	22.2		ug/L		111	74 - 135
Toluene	ND		20.0	20.8		ug/L		104	72 - 134
trans-1,2-Dichloroethene	ND		20.0	20.3		ug/L		101	71 - 132
trans-1,3-Dichloropropene	ND		20.0	20.3		ug/L		101	60 - 125
Trichloroethene	ND		20.0	21.6		ug/L		108	77 - 136
Trichlorofluoromethane	ND		20.0	24.3		ug/L		121	69 - 133
Vinyl chloride	ND		20.0	20.4		ug/L		102	66 - 138
1,2-Dichloroethene, Total	ND		40.0	40.5		ug/L		101	70 - 138
Xylenes, Total	0.47	J	60.0	65.2		ug/L		108	74 - 131

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*70 - 126*
Dibromofluoromethane (Surr)	*100*		*77 - 121*
Toluene-d8 (Surr)	*99*		*79 - 119*

Lab Sample ID: 705-13303-B-7 MSD
Matrix: Water
Analysis Batch: 24406

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		20.0	20.2		ug/L		101	69 - 135	6	20
1,1,2,2-Tetrachloroethane	ND		20.0	20.4		ug/L		102	68 - 132	3	19
1,1,2-Trichloroethane	ND		20.0	21.7		ug/L		109	71 - 133	3	20
1,1-Dichloroethane	ND		20.0	18.3		ug/L		91	70 - 133	8	22
1,1-Dichloroethene	ND		20.0	18.5		ug/L		92	69 - 139	9	56
1,2,4-Trichlorobenzene	ND		20.0	18.7		ug/L		94	61 - 135	4	26

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 705-13303-B-7 MSD
Matrix: Water
Analysis Batch: 24406

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	ND		20.0	23.0		ug/L		115	62 - 127	1	20
1,2-Dibromoethane	ND		20.0	21.4		ug/L		107	76 - 129	0	20
1,2-Dichlorobenzene	ND		20.0	19.1		ug/L		96	76 - 125	8	20
1,2-Dichloroethane	ND		20.0	20.0		ug/L		100	71 - 133	7	41
1,2-Dichloropropane	ND		20.0	20.5		ug/L		102	69 - 132	2	20
1,3-Dichlorobenzene	ND		20.0	19.5		ug/L		98	76 - 126	9	20
1,4-Dichlorobenzene	ND		20.0	18.7		ug/L		94	76 - 124	6	20
2-Butanone	ND	*+ F1	40.0	60.8	F1	ug/L		152	50 - 150	6	20
2-Hexanone	ND		40.0	50.3		ug/L		126	50 - 150	12	50
4-Methyl-2-pentanone	ND		40.0	43.0		ug/L		108	50 - 150	5	50
Acetone	ND	F1 *+	40.0	62.8	F1	ug/L		157	50 - 150	0	50
Benzene	0.29	J	20.0	19.7		ug/L		97	71 - 133	6	42
Bromodichloromethane	ND		20.0	20.6		ug/L		103	68 - 133	2	20
Bromoform	ND		20.0	21.1		ug/L		106	59 - 130	1	20
Bromomethane	ND		20.0	18.8		ug/L		94	50 - 150	8	100
Carbon disulfide	ND		40.0	36.6		ug/L		91	50 - 150	8	50
Carbon tetrachloride	ND		20.0	21.8		ug/L		109	70 - 1369	8	22
Chlorobenzene	0.24	J	20.0	19.9		ug/L		98	78 - 128	3	50
Chloroethane	ND		20.0	18.7		ug/L		94	50 - 150	8	100
Chloroform	ND		20.0	18.5		ug/L		92	70 - 132	7	20
Chloromethane	ND		20.0	18.2		ug/L		91	50 - 150	2	100
cis-1,2-Dichloroethene	ND		20.0	18.3		ug/L		92	72 - 133	10	14
cis-1,3-Dichloropropene	ND		20.0	19.5		ug/L		97	70 - 128	2	14
Cyclohexane	ND		20.0	20.2		ug/L		101	50 - 150	7	50
Dibromochloromethane	ND		20.0	20.9		ug/L		105	69 - 130	1	20
Dichlorodifluoromethane	ND		20.0	21.8		ug/L		109	50 - 150	7	100
Ethylbenzene	ND		20.0	19.9		ug/L		100	75 - 131	4	28
Freon 113	ND		20.0	21.3		ug/L		106	50 - 150	8	50
Isopropylbenzene	ND		20.0	19.8		ug/L		99	72 - 135	8	20
m,p-Xylene	0.47	J	40.0	41.4		ug/L		102	73 - 133	5	28
Methyl acetate	ND		20.0	23.0		ug/L		115	50 - 150	3	50
Methyl tert-butyl ether	ND		20.0	19.4		ug/L		97	70 - 130	1	30
Methylcyclohexane	ND		20.0	20.3		ug/L		102	50 - 150	9	50
Methylene Chloride	ND		20.0	17.8		ug/L		89	66 - 132	6	20
o-Xylene	ND		20.0	20.3		ug/L		101	73 - 132	6	50
Styrene	ND		20.0	21.4		ug/L		107	73 - 133	1	20
Tetrachloroethene	ND		20.0	20.8		ug/L		104	74 - 135	7	20
Toluene	ND		20.0	20.0		ug/L		100	72 - 134	4	42
trans-1,2-Dichloroethene	ND		20.0	18.7		ug/L		93	71 - 132	8	20
trans-1,3-Dichloropropene	ND		20.0	21.0		ug/L		105	60 - 125	3	20
Trichloroethene	ND		20.0	20.2		ug/L		101	77 - 136	7	23
Trichlorofluoromethane	ND		20.0	22.3		ug/L		111	69 - 133	9	50
Vinyl chloride	ND		20.0	20.2		ug/L		101	66 - 138	1	28
1,2-Dichloroethene, Total	ND		40.0	37.0		ug/L		93	70 - 138	9	20
Xylenes, Total	0.47	J	60.0	61.7		ug/L		102	74 - 131	6	

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*70 - 126*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 705-13303-B-7 MSD
Matrix: Water
Analysis Batch: 24406

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	*97*		*77 - 121*
Toluene-d8 (Surr)	*101*		*79 - 119*

Lab Sample ID: LCS 705-25283/1001
Matrix: Solid
Analysis Batch: 25283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	0.0500	0.0498		mg/Kg			
1,1,2,2-Tetrachloroethane	0.0500	0.0491		mg/Kg			
1,1,2-Trichloroethane	0.0500	0.0506		mg/Kg			
1,1-Dichloroethane	0.0500	0.0484		mg/Kg			
1,1-Dichloroethene	0.0500	0.0531		mg/Kg			
1,2,4-Trichlorobenzene	0.0500	0.0594		mg/Kg			
1,2-Dibromo-3-Chloropropane	0.0500	0.0512		mg/Kg			
1,2-Dibromoethane	0.0500	0.0540		mg/Kg			
1,2-Dichlorobenzene	0.0500	0.0506		mg/Kg			
1,2-Dichloroethane	0.0500	0.0486		mg/Kg			
1,2-Dichloropropane	0.0500	0.0501		mg/Kg			
1,3-Dichlorobenzene	0.0500	0.0511		mg/Kg			
1,4-Dichlorobenzene	0.0500	0.0495		mg/Kg			
2-Butanone	0.100	0.115		mg/Kg			
2-Hexanone	0.100	0.107		mg/Kg			
4-Methyl-2-pentanone	0.100	0.103		mg/Kg			
Acetone	0.100	0.105		mg/Kg			
Benzene	0.0500	0.0509		mg/Kg			
Bromodichloromethane	0.0500	0.0526		mg/Kg			
Bromoform	0.0500	0.0485		mg/Kg			
Bromomethane	0.0500	0.0408		mg/Kg			
Carbon disulfide	0.100	0.112		mg/Kg			
Carbon tetrachloride	0.0500	0.0486		mg/Kg			
Chlorobenzene	0.0500	0.0489		mg/Kg			
Chloroethane	0.0500	0.0487		mg/Kg			
Chloroform	0.0500	0.0472		mg/Kg			
Chloromethane	0.0500	0.0459		mg/Kg			
cis-1,2-Dichloroethene	0.0500	0.0530		mg/Kg			
cis-1,3-Dichloropropene	0.0500	0.0544		mg/Kg			
Cyclohexane	0.0500	0.0539		mg/Kg			
Dibromochloromethane	0.0500	0.0537		mg/Kg			
Dichlorodifluoromethane	0.0500	0.0493		mg/Kg			
Ethylbenzene	0.0500	0.0592		mg/Kg			
Freon 113	0.0500	0.0449		mg/Kg			
Isopropylbenzene	0.0500	0.0638		mg/Kg			
m,p-Xylene	0.100	0.120		mg/Kg			
Methyl acetate	0.0500	0.0535		mg/Kg			
Methyl tert-butyl ether	0.0500	0.0498		mg/Kg			
Methylcyclohexane	0.0500	0.0558		mg/Kg			
Methylene Chloride	0.0500	0.0500		mg/Kg			

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 705-25283/1001
Matrix: Solid
Analysis Batch: 25283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.0500	0.0559		mg/Kg			
Styrene	0.0500	0.0558		mg/Kg			
Tetrachloroethene	0.0500	0.0496		mg/Kg			
Toluene	0.0500	0.0500		mg/Kg			
trans-1,2-Dichloroethene	0.0500	0.0533		mg/Kg			
trans-1,3-Dichloropropene	0.0500	0.0579		mg/Kg			
Trichloroethene	0.0500	0.0496		mg/Kg			
Trichlorofluoromethane	0.0500	0.0461		mg/Kg			
Vinyl chloride	0.0500	0.0493		mg/Kg			
1,2-Dichloroethene, Total	0.100	0.106		mg/Kg			
Xylenes, Total	0.150	0.176		mg/Kg			

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene			
Dibromofluoromethane (Surr)			
Toluene-d8 (Surr)			

Lab Sample ID: MRL 705-25283/2
Matrix: Solid
Analysis Batch: 25283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	5.00	4.11	J	ug/L		82	50 - 150
1,1,2,2-Tetrachloroethane	5.00	4.33	J	ug/L		87	50 - 150
1,1,2-Trichloroethane	5.00	4.41	J	ug/L		88	50 - 150
1,1-Dichloroethane	5.00	4.52	J	ug/L		90	50 - 150
1,1-Dichloroethene	5.00	4.07	J	ug/L		81	50 - 150
1,2,4-Trichlorobenzene	5.00	4.33	J	ug/L		87	50 - 150
1,2-Dibromo-3-Chloropropane	5.00	4.35	J	ug/L		87	50 - 150
1,2-Dibromoethane	5.00	4.32	J	ug/L		86	50 - 150
1,2-Dichlorobenzene	5.00	4.00	J	ug/L		80	50 - 150
1,2-Dichloroethane	5.00	4.45	J	ug/L		89	50 - 150
1,2-Dichloropropane	5.00	4.17	J	ug/L		83	50 - 150
1,3-Dichlorobenzene	5.00	3.98	J	ug/L		80	50 - 150
1,4-Dichlorobenzene	5.00	4.17	J	ug/L		83	50 - 150
2-Butanone	10.0	10.6	J	ug/L		106	50 - 150
2-Hexanone	10.0	10.6		ug/L		106	50 - 150
4-Methyl-2-pentanone	10.0	11.2		ug/L		112	50 - 150
Acetone	10.0	12.1	J	ug/L		121	50 - 150
Benzene	5.00	4.14	J	ug/L		83	50 - 150
Bromodichloromethane	5.00	4.02	J	ug/L		80	50 - 150
Bromoform	5.00	3.09	J	ug/L		62	50 - 150
Bromomethane	5.00	5.69		ug/L		114	50 - 150
Carbon disulfide	10.0	8.54		ug/L		85	50 - 150
Carbon tetrachloride	5.00	4.12	J	ug/L		82	50 - 150
Chlorobenzene	5.00	4.27	J	ug/L		85	50 - 150
Chloroethane	5.00	6.22	J	ug/L		124	50 - 150
Chloroform	5.00	4.60	J	ug/L		92	50 - 150

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MRL 705-25283/2
Matrix: Solid
Analysis Batch: 25283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	5.00	6.05	J	ug/L		121	50 - 150
cis-1,2-Dichloroethene	5.00	3.70	J	ug/L		74	50 - 150
cis-1,3-Dichloropropene	5.00	5.10		ug/L		102	50 - 150
Cyclohexane	5.00	4.61	J	ug/L		92	50 - 150
Dibromochloromethane	5.00	4.21	J	ug/L		84	50 - 150
Dichlorodifluoromethane	5.00	5.26	J	ug/L		105	50 - 150
Ethylbenzene	5.00	3.87	J	ug/L		77	50 - 150
Freon 113	5.00	4.45	J	ug/L		89	50 - 150
Isopropylbenzene	5.00	4.72	J	ug/L		94	50 - 150
m,p-Xylene	10.0	7.97		ug/L		80	50 - 150
Methyl acetate	5.00	4.53	J	ug/L		91	50 - 150
Methyl tert-butyl ether	5.00	3.56	J	ug/L		71	50 - 150
Methylcyclohexane	5.00	3.48	J	ug/L		70	50 - 150
Methylene Chloride	5.00	4.69	J	ug/L		94	50 - 150
o-Xylene	5.00	4.71	J	ug/L		94	50 - 150
Styrene	5.00	4.62	J	ug/L		92	50 - 150
Tetrachloroethene	5.00	3.81	J	ug/L		76	50 - 150
Toluene	5.00	3.98	J	ug/L		80	50 - 150
trans-1,2-Dichloroethene	5.00	3.94	J	ug/L		79	50 - 150
trans-1,3-Dichloropropene	5.00	3.89	J	ug/L		78	50 - 150
Trichloroethene	5.00	4.00	J	ug/L		80	50 - 150
Trichlorofluoromethane	5.00	5.52		ug/L		110	50 - 150
Vinyl chloride	5.00	5.58		ug/L		112	50 - 150
1,2-Dichloroethene, Total	10.0	7.64		ug/L		76	50 - 150
Xylenes, Total	15.0	12.7		ug/L		85	50 - 150

Surrogate	*MRL %Recovery*	*MRL Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*67 - 127*
Dibromofluoromethane (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*100*		*71 - 129*

Lab Sample ID: MB 705-25285/1-A
Matrix: Solid
Analysis Batch: 25283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25285

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0050	0.0014	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
1,1,2,2-Tetrachloroethane	ND		0.0050	0.0013	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
1,1,2-Trichloroethane	ND		0.0050	0.00090	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
1,1-Dichloroethane	ND		0.0050	0.00091	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
1,1-Dichloroethene	ND		0.0050	0.0012	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
1,2,4-Trichlorobenzene	ND		0.0050	0.0020	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
1,2-Dibromo-3-Chloropropane	ND		0.0050	0.0021	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
1,2-Dibromoethane	ND		0.0050	0.00087	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
1,2-Dichlorobenzene	ND		0.0050	0.0011	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
1,2-Dichloroethane	ND		0.0050	0.0012	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
1,2-Dichloropropane	ND		0.0050	0.00069	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
1,3-Dichlorobenzene	ND		0.0050	0.00080	mg/Kg		12/04/24 18:19	12/04/24 19:33	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 705-25285/1-A
Matrix: Solid
Analysis Batch: 25283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25285

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.0050	0.0012	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
2-Butanone	ND		0.050	0.0056	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
2-Hexanone	ND		0.010	0.0074	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
4-Methyl-2-pentanone	ND		0.010	0.0033	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Acetone	ND		0.10	0.022	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Benzene	ND		0.0050	0.00076	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Bromodichloromethane	ND		0.0050	0.00094	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Bromoform	ND		0.0050	0.0021	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Bromomethane	ND		0.0050	0.0020	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Carbon disulfide	ND		0.010	0.0026	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Carbon tetrachloride	ND		0.0050	0.00095	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Chlorobenzene	ND		0.0050	0.00084	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Chloroethane	ND		0.010	0.0019	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Chloroform	ND		0.0050	0.00097	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Chloromethane	ND		0.010	0.0015	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
cis-1,2-Dichloroethene	ND		0.0050	0.0012	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
cis-1,3-Dichloropropene	ND		0.0050	0.0012	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Cyclohexane	ND		0.0050	0.0016	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Dibromochloromethane	ND		0.0050	0.00080	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Dichlorodifluoromethane	ND		0.010	0.0018	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Ethylbenzene	ND		0.0050	0.0011	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Freon 113	ND		0.010	0.00099	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Isopropylbenzene	0.00197	J	0.0050	0.0015	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
m,p-Xylene	ND		0.0050	0.0022	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Methyl acetate	ND		0.0050	0.0015	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Methyl tert-butyl ether	ND		0.0050	0.0018	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Methylcyclohexane	ND		0.0050	0.0014	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Methylene Chloride	ND		0.020	0.0056	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
o-Xylene	0.00190	J	0.0050	0.0013	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Styrene	ND		0.0050	0.0025	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Tetrachloroethene	ND		0.0050	0.00081	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Toluene	ND		0.0050	0.00098	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
trans-1,2-Dichloroethene	ND		0.0050	0.0012	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
trans-1,3-Dichloropropene	ND		0.0050	0.0010	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Trichloroethene	ND		0.0050	0.00069	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Trichlorofluoromethane	ND		0.0050	0.0019	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Vinyl chloride	ND		0.010	0.0017	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
1,2-Dichloroethene, Total	ND		0.0050	0.0012	mg/Kg		12/04/24 18:19	12/04/24 19:33	1
Xylenes, Total	0.00190	J	0.0050	0.0013	mg/Kg		12/04/24 18:19	12/04/24 19:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*67 - 127*	*12/04/24 18:19*	*12/04/24 19:33*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*	*12/04/24 18:19*	*12/04/24 19:33*	*1*
Toluene-d8 (Surr)	*96*		*71 - 129*	*12/04/24 18:19*	*12/04/24 19:33*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 705-13954-13 MS
Matrix: Solid
Analysis Batch: 25365

Client Sample ID: B-7 (7.5'-10.0')
Prep Type: Total/NA
Prep Batch: 25285

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND		0.0443	0.0420		mg/Kg	☼	95	61 - 125
1,1,2,2-Tetrachloroethane	ND		0.0443	0.0480		mg/Kg	☼	108	64 - 129
1,1,2-Trichloroethane	ND		0.0443	0.0416		mg/Kg	☼	94	67 - 130
1,1-Dichloroethane	ND		0.0443	0.0421		mg/Kg	☼	95	60 - 127
1,1-Dichloroethene	ND		0.0443	0.0424		mg/Kg	☼	96	56 - 130
1,2,4-Trichlorobenzene	ND		0.0443	0.0369		mg/Kg	☼	83	59 - 135
1,2-Dibromo-3-Chloropropane	ND		0.0443	0.0383		mg/Kg	☼	86	60 - 129
1,2-Dibromoethane	ND		0.0443	0.0455		mg/Kg	☼	103	70 - 128
1,2-Dichlorobenzene	ND		0.0443	0.0461		mg/Kg	☼	104	63 - 126
1,2-Dichloroethane	ND		0.0443	0.0433		mg/Kg	☼	98	61 - 126
1,2-Dichloropropane	ND		0.0443	0.0445		mg/Kg	☼	100	66 - 126
1,3-Dichlorobenzene	ND		0.0443	0.0480		mg/Kg	☼	108	60 - 130
1,4-Dichlorobenzene	ND		0.0443	0.0456		mg/Kg	☼	103	61 - 126
2-Butanone	ND		0.0886	0.0863		mg/Kg	☼	97	43 - 121
2-Hexanone	ND		0.0886	0.0837		mg/Kg	☼	94	41 - 122
4-Methyl-2-pentanone	0.0055	J	0.0886	0.0777		mg/Kg	☼	81	40 - 127
Acetone	0.066	J	0.0886	0.127		mg/Kg	☼	69	32 - 128
Benzene	0.0012	J	0.0443	0.0474		mg/Kg	☼	104	63 - 126
Bromodichloromethane	ND		0.0443	0.0435		mg/Kg	☼	98	
Bromoform	ND		0.0443	0.0418		mg/Kg	☼	94	63 - 130
Bromomethane	ND		0.0443	0.0331		mg/Kg	☼	75	50 - 150
Carbon disulfide	ND		0.0886	0.0838		mg/Kg	☼	95	40 - 151
Carbon tetrachloride	ND		0.0443	0.0446		mg/Kg	☼	101	60 - 127
Chlorobenzene	ND		0.0443	0.0441		mg/Kg	☼	99	60 - 128
Chloroethane	ND		0.0443	0.0408		mg/Kg	☼	92	50 - 150
Chloroform	ND		0.0443	0.0401		mg/Kg	☼	90	62 - 123
Chloromethane	ND		0.0443	0.0386		mg/Kg	☼	87	50 - 150
cis-1,2-Dichloroethene	ND		0.0443	0.0416		mg/Kg	☼	94	63 - 129
cis-1,3-Dichloropropene	ND		0.0443	0.0421		mg/Kg	☼	95	64 - 137
Cyclohexane	ND		0.0443	0.0429		mg/Kg	☼	97	25 - 132
Dibromochloromethane	ND		0.0443	0.0462		mg/Kg	☼	104	64 - 128
Dichlorodifluoromethane	ND		0.0443	0.0387		mg/Kg	☼	87	50 - 150
Ethylbenzene	ND		0.0443	0.0522		mg/Kg	☼	118	60 - 133
Freon 113	ND		0.0443	0.0423		mg/Kg	☼	96	34 - 124
Isopropylbenzene	ND		0.0443	0.0563	B	mg/Kg	☼	127	60 - 136
m,p-Xylene	ND		0.0886	0.106		mg/Kg	☼	120	60 - 132
Methyl acetate	ND		0.0443	0.0428		mg/Kg	☼	97	45 - 128
Methyl tert-butyl ether	ND		0.0443	0.0414		mg/Kg	☼	93	51 - 131
Methylcyclohexane	ND		0.0443	0.0493		mg/Kg	☼	111	31 - 126
Methylene Chloride	ND		0.0443	0.0405		mg/Kg	☼	91	56 - 129
o-Xylene	0.0017	J B	0.0443	0.0475	B	mg/Kg	☼	103	60 - 132
Styrene	ND		0.0443	0.0451		mg/Kg	☼	102	64 - 133
Tetrachloroethene	ND		0.0443	0.0480		mg/Kg	☼	108	60 - 129
Toluene	ND		0.0443	0.0438		mg/Kg	☼	99	61 - 130
trans-1,2-Dichloroethene	ND		0.0443	0.0430		mg/Kg	☼	97	61 - 128
trans-1,3-Dichloropropene	ND		0.0443	0.0470		mg/Kg	☼	106	62 - 136
Trichloroethene	ND		0.0443	0.0433		mg/Kg	☼	98	61 - 129
Trichlorofluoromethane	ND		0.0443	0.0391		mg/Kg	☼	88	50 - 150

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 705-13954-13 MS
Matrix: Solid
Analysis Batch: 25365

Client Sample ID: B-7 (7.5'-10.0')
Prep Type: Total/NA
Prep Batch: 25285

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Vinyl chloride	ND		0.0443	0.0393		mg/Kg	☼	89	58 - 134
1,2-Dichloroethene, Total	ND		0.0886	0.0846		mg/Kg	☼	95	63 - 128
Xylenes, Total	0.0017	J B	0.133	0.154	B	mg/Kg	☼	114	60 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*91*		*67 - 127*
Dibromofluoromethane (Surr)	*107*		*70 - 130*
Toluene-d8 (Surr)	*102*		*71 - 129*

Lab Sample ID: 705-13954-15 DU
Matrix: Solid
Analysis Batch: 25365

Client Sample ID: B-8 (7.5'-10.0')
Prep Type: Total/NA
Prep Batch: 25285

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
1,1,1-Trichloroethane	ND		ND		mg/Kg	☼		
1,1,2,2-Tetrachloroethane	ND		ND		mg/Kg	☼		
1,1,2-Trichloroethane	ND		ND		mg/Kg	☼		
1,1-Dichloroethane	ND		ND		mg/Kg	☼		
1,1-Dichloroethene	ND		ND		mg/Kg	☼		
1,2,4-Trichlorobenzene	ND		ND		mg/Kg	☼		
1,2-Dibromo-3-Chloropropane	ND		ND		mg/Kg	☼		
1,2-Dibromoethane	ND		ND		mg/Kg	☼		
1,2-Dichlorobenzene	ND		ND		mg/Kg	☼		
1,2-Dichloroethane	ND		ND		mg/Kg	☼		
1,2-Dichloropropane	ND		ND		mg/Kg	☼		
1,3-Dichlorobenzene	ND		ND		mg/Kg	☼		
1,4-Dichlorobenzene	ND		ND		mg/Kg	☼		
2-Butanone	0.0080	J	0.0102	J	mg/Kg	☼		
2-Hexanone	ND		ND		mg/Kg	☼		
4-Methyl-2-pentanone	0.0069	J	ND		mg/Kg	☼		
Acetone	0.072	J	0.0749	J	mg/Kg	☼		
Benzene	ND		ND		mg/Kg	☼		
Bromodichloromethane	ND		ND		mg/Kg	☼		
Bromoform	ND		ND		mg/Kg	☼		
Bromomethane	ND		ND		mg/Kg	☼		
Carbon disulfide	ND		ND		mg/Kg	☼		
Carbon tetrachloride	ND		ND		mg/Kg	☼		
Chlorobenzene	ND		ND		mg/Kg	☼		
Chloroethane	ND		ND		mg/Kg	☼		
Chloroform	ND		ND		mg/Kg	☼		
Chloromethane	ND		ND		mg/Kg	☼		
cis-1,2-Dichloroethene	ND		ND		mg/Kg	☼		
cis-1,3-Dichloropropene	ND		ND		mg/Kg	☼		
Cyclohexane	ND		ND		mg/Kg	☼		
Dibromochloromethane	ND		ND		mg/Kg	☼		
Dichlorodifluoromethane	ND		ND		mg/Kg	☼		
Ethylbenzene	ND		ND		mg/Kg	☼		
Freon 113	ND		ND		mg/Kg	☼		

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 705-13954-15 DU
Matrix: Solid
Analysis Batch: 25365

Client Sample ID: B-8 (7.5'-10.0')
Prep Type: Total/NA
Prep Batch: 25285

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Isopropylbenzene	0.0022	J B		0.00215	J	mg/Kg	☼				
m,p-Xylene	ND			ND		mg/Kg	☼				
Methyl acetate	ND			ND		mg/Kg	☼				
Methyl tert-butyl ether	ND			ND		mg/Kg	☼				
Methylcyclohexane	ND			ND		mg/Kg	☼				
Methylene Chloride	ND			ND		mg/Kg	☼				
o-Xylene	0.0021	J B		0.00207	J	mg/Kg	☼				
Styrene	ND			ND		mg/Kg	☼				
Tetrachloroethene	ND			ND		mg/Kg	☼				
Toluene	ND			ND		mg/Kg	☼				
trans-1,2-Dichloroethene	ND			ND		mg/Kg	☼				
trans-1,3-Dichloropropene	ND			ND		mg/Kg	☼				
Trichloroethene	ND			ND		mg/Kg	☼				
Trichlorofluoromethane	ND			ND		mg/Kg	☼				
Vinyl chloride	ND			ND		mg/Kg	☼				
1,2-Dichloroethene, Total	ND			ND		mg/Kg	☼				
Xylenes, Total	0.0021	J B		0.00207	J	mg/Kg	☼				

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
4-Bromofluorobenzene	*84*		*67 - 127*
Dibromofluoromethane (Surr)	*104*		*70 - 130*
Toluene-d8 (Surr)	*94*		*71 - 129*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 705-24507/1-A
Matrix: Water
Analysis Batch: 24734

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24507

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		8.6	1.8	ug/L		12/02/24 10:51	12/03/24 07:49	1
Acenaphthene	ND		8.6	1.6	ug/L		12/02/24 10:51	12/03/24 07:49	1
Acenaphthylene	ND		8.6	1.7	ug/L		12/02/24 10:51	12/03/24 07:49	1
Anthracene	ND		8.6	1.0	ug/L		12/02/24 10:51	12/03/24 07:49	1
Benzo[a]anthracene	ND		8.6	1.1	ug/L		12/02/24 10:51	12/03/24 07:49	1
Benzo[a]pyrene	ND		8.6	1.4	ug/L		12/02/24 10:51	12/03/24 07:49	1
Benzo[b]fluoranthene	ND		8.6	1.2	ug/L		12/02/24 10:51	12/03/24 07:49	1
Benzo[g,h,i]perylene	ND		8.6	1.2	ug/L		12/02/24 10:51	12/03/24 07:49	1
Benzo[k]fluoranthene	ND		8.6	1.2	ug/L		12/02/24 10:51	12/03/24 07:49	1
Chrysene	ND		8.6	0.88	ug/L		12/02/24 10:51	12/03/24 07:49	1
Dibenz(a,h)anthracene	ND		8.6	1.3	ug/L		12/02/24 10:51	12/03/24 07:49	1
Fluoranthene	ND		8.6	1.3	ug/L		12/02/24 10:51	12/03/24 07:49	1
Fluorene	ND		8.6	1.4	ug/L		12/02/24 10:51	12/03/24 07:49	1
Indeno[1,2,3-cd]pyrene	ND		8.6	1.4	ug/L		12/02/24 10:51	12/03/24 07:49	1
Naphthalene	ND		8.6	1.8	ug/L		12/02/24 10:51	12/03/24 07:49	1
Phenanthrene	ND		8.6	0.74	ug/L		12/02/24 10:51	12/03/24 07:49	1
Pyrene	ND		8.6	1.1	ug/L		12/02/24 10:51	12/03/24 07:49	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 705-24507/1-A
Matrix: Water
Analysis Batch: 24734

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24507

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	126		48 - 126	12/02/24 10:51	12/03/24 07:49	1
Nitrobenzene-d5 (Surr)	140	S1+	41 - 129	12/02/24 10:51	12/03/24 07:49	1
p-Terphenyl-d14 (Surr)	153	S1+	48 - 130	12/02/24 10:51	12/03/24 07:49	1

Lab Sample ID: LCS 705-24507/2-A
Matrix: Water
Analysis Batch: 24734

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24507

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Methylnaphthalene	28.6	32.5		ug/L		114	70 - 130
Acenaphthene	28.6	30.4		ug/L		106	70 - 130
Acenaphthylene	28.6	32.3		ug/L		113	70 - 130
Anthracene	28.6	29.9		ug/L		105	70 - 130
Benzo[a]anthracene	28.6	32.3		ug/L		113	70 - 130
Benzo[a]pyrene	28.6	30.1		ug/L		105	70 - 130
Benzo[b]fluoranthene	28.6	28.3		ug/L		99	70 - 130
Benzo[g,h,i]perylene	28.6	29.2		ug/L		102	70 - 130
Benzo[k]fluoranthene	28.6	28.6		ug/L		100	70 - 130
Chrysene	28.6	29.5		ug/L		103	70 - 130
Dibenz(a,h)anthracene	28.6	28.0		ug/L		98	70 - 130
Fluoranthene	28.6	33.8		ug/L		118	70 - 130
Fluorene	28.6	29.8		ug/L		104	70 - 130
Indeno[1,2,3-cd]pyrene	28.6	29.5		ug/L		103	70 - 130
Naphthalene	28.6	29.5		ug/L		103	70 - 130
Phenanthrene	28.6	30.8		ug/L		108	70 - 130
Pyrene	28.6	32.6		ug/L		114	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	125		48 - 126
Nitrobenzene-d5 (Surr)	122		41 - 129
p-Terphenyl-d14 (Surr)	127		48 - 130

Lab Sample ID: 705-13954-19 MS
Matrix: Water
Analysis Batch: 24734

Client Sample ID: Equip. Blank
Prep Type: Total/NA
Prep Batch: 24507

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-Methylnaphthalene	ND		28.5	34.4		ug/L		121	50 - 150
Acenaphthene	ND		28.5	33.0		ug/L		116	50 - 129
Acenaphthylene	ND		28.5	35.5		ug/L		124	61 - 129
Anthracene	ND		28.5	33.0		ug/L		116	51 - 130
Benzo[a]anthracene	ND		28.5	33.7		ug/L		118	57 - 130
Benzo[a]pyrene	ND		28.5	33.4		ug/L		117	54 - 130
Benzo[b]fluoranthene	ND		28.5	32.3		ug/L		113	54 - 131
Benzo[g,h,i]perylene	ND		28.5	29.9		ug/L		105	50 - 150
Benzo[k]fluoranthene	ND		28.5	33.3		ug/L		117	50 - 150
Chrysene	ND		28.5	31.5		ug/L		110	60 - 130
Dibenz(a,h)anthracene	ND		28.5	28.7		ug/L		101	50 - 125

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 705-13954-19 MS
Matrix: Water
Analysis Batch: 24734

Client Sample ID: Equip. Blank
Prep Type: Total/NA
Prep Batch: 24507

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoranthene	ND	F1	28.5	35.9		ug/L		126	58 - 130
Fluorene	ND		28.5	34.9		ug/L		123	53 - 132
Indeno[1,2,3-cd]pyrene	ND		28.5	29.8		ug/L		105	50 - 150
Naphthalene	ND		28.5	33.0		ug/L		116	53 - 129
Phenanthrene	ND		28.5	33.8		ug/L		119	50 - 150
Pyrene	ND		28.5	35.6		ug/L		125	51 - 131

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*135*	*S1+*	*48 - 126*
Nitrobenzene-d5 (Surr)	*132*	*S1+*	*41 - 129*
p-Terphenyl-d14 (Surr)	*134*	*S1+*	*48 - 130*

Lab Sample ID: 705-13954-19 MSD
Matrix: Water
Analysis Batch: 24734

Client Sample ID: Equip. Blank
Prep Type: Total/NA
Prep Batch: 24507

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Methylnaphthalene	ND		28.5	36.3		ug/L		127	50 - 150	6	30
Acenaphthene	ND		28.5	35.0		ug/L		123	50 - 129	6	37
Acenaphthylene	ND		28.5	35.2		ug/L		124	61 - 129	1	49
Anthracene	ND		28.5	31.5		ug/L		111	51 - 130	4	43
Benzo[a]anthracene	ND		28.5	34.0		ug/L		119	57 - 130	1	46
Benzo[a]pyrene	ND		28.5	33.7		ug/L		118	54 - 130	1	26
Benzo[b]fluoranthene	ND		28.5	35.1		ug/L		123	54 - 131	9	33
Benzo[g,h,i]perylene	ND		28.5	32.3		ug/L		113	50 - 150	8	30
Benzo[k]fluoranthene	ND		28.5	34.1		ug/L		120	50 - 150	3	30
Chrysene	ND		28.5	31.1		ug/L		109	60 - 130	1	46
Dibenz(a,h)anthracene	ND		28.5	28.8		ug/L		101	50 - 125	0	36
Fluoranthene	ND	F1	28.5	37.9	F1	ug/L		133	58 - 130	5	32
Fluorene	ND		28.5	33.0		ug/L		116	53 - 132	6	45
Indeno[1,2,3-cd]pyrene	ND		28.5	32.4		ug/L		114	50 - 150	8	30
Naphthalene	ND		28.5	33.9		ug/L		119	53 - 129	3	47
Phenanthrene	ND		28.5	33.6		ug/L		118	50 - 150	1	30
Pyrene	ND		28.5	37.3		ug/L		131	51 - 131	5	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*137*	*S1+*	*48 - 126*
Nitrobenzene-d5 (Surr)	*132*	*S1+*	*41 - 129*
p-Terphenyl-d14 (Surr)	*142*	*S1+*	*48 - 130*

Lab Sample ID: MB 705-24774/1-A
Matrix: Solid
Analysis Batch: 24850

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24774

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.33	0.13	mg/Kg		12/03/24 12:34	12/03/24 18:13	1
Acenaphthene	ND		0.33	0.14	mg/Kg		12/03/24 12:34	12/03/24 18:13	1
Acenaphthylene	ND		0.33	0.15	mg/Kg		12/03/24 12:34	12/03/24 18:13	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 705-24774/1-A
Matrix: Solid
Analysis Batch: 24850

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24774

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.33	0.15	mg/Kg		12/03/24 12:34	12/03/24 18:13	1
Benzo[a]anthracene	ND		0.33	0.15	mg/Kg		12/03/24 12:34	12/03/24 18:13	1
Benzo[a]pyrene	ND		0.33	0.15	mg/Kg		12/03/24 12:34	12/03/24 18:13	1
Benzo[b]fluoranthene	ND		0.33	0.17	mg/Kg		12/03/24 12:34	12/03/24 18:13	1
Benzo[g,h,i]perylene	ND		0.33	0.16	mg/Kg		12/03/24 12:34	12/03/24 18:13	1
Benzo[k]fluoranthene	ND		0.33	0.18	mg/Kg		12/03/24 12:34	12/03/24 18:13	1
Chrysene	ND		0.33	0.15	mg/Kg		12/03/24 12:34	12/03/24 18:13	1
Dibenz(a,h)anthracene	ND		0.33	0.12	mg/Kg		12/03/24 12:34	12/03/24 18:13	1
Fluoranthene	ND		0.33	0.14	mg/Kg		12/03/24 12:34	12/03/24 18:13	1
Fluorene	ND		0.33	0.14	mg/Kg		12/03/24 12:34	12/03/24 18:13	1
Indeno[1,2,3-cd]pyrene	ND		0.33	0.21	mg/Kg		12/03/24 12:34	12/03/24 18:13	1
Naphthalene	ND		0.33	0.13	mg/Kg		12/03/24 12:34	12/03/24 18:13	1
Phenanthrene	ND		0.33	0.15	mg/Kg		12/03/24 12:34	12/03/24 18:13	1
Pyrene	ND		0.33	0.17	mg/Kg		12/03/24 12:34	12/03/24 18:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*55 - 120*	*12/03/24 12:34*	*12/03/24 18:13*	*1*
Nitrobenzene-d5 (Surr)	*79*		*45 - 120*	*12/03/24 12:34*	*12/03/24 18:13*	*1*
p-Terphenyl-d14 (Surr)	*74*		*54 - 120*	*12/03/24 12:34*	*12/03/24 18:13*	*1*

Lab Sample ID: LCS 705-24774/2-A
Matrix: Solid
Analysis Batch: 24850

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24774

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Methylnaphthalene	1.67	1.35		mg/Kg		81	70 - 130
Acenaphthene	1.67	1.31		mg/Kg		78	70 - 130
Acenaphthylene	1.67	1.29		mg/Kg		77	70 - 130
Anthracene	1.67	1.36		mg/Kg		81	70 - 130
Benzo[a]anthracene	1.67	1.34		mg/Kg		80	70 - 130
Benzo[a]pyrene	1.67	1.21		mg/Kg		72	70 - 130
Benzo[b]fluoranthene	1.67	1.35		mg/Kg		81	70 - 130
Benzo[g,h,i]perylene	1.67	1.22		mg/Kg		73	70 - 130
Benzo[k]fluoranthene	1.67	1.31		mg/Kg		79	70 - 130
Chrysene	1.67	1.25		mg/Kg		75	70 - 130
Dibenz(a,h)anthracene	1.67	1.29		mg/Kg		77	70 - 130
Fluoranthene	1.67	1.30		mg/Kg		78	70 - 130
Fluorene	1.67	1.36		mg/Kg		82	70 - 130
Indeno[1,2,3-cd]pyrene	1.67	1.25		mg/Kg		75	70 - 130
Naphthalene	1.67	1.28		mg/Kg		77	70 - 130
Phenanthrene	1.67	1.38		mg/Kg		83	70 - 130
Pyrene	1.67	1.33		mg/Kg		80	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*76*		*55 - 120*
Nitrobenzene-d5 (Surr)	*81*		*45 - 120*
p-Terphenyl-d14 (Surr)	*76*		*54 - 120*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 705-13954-11 MS
Matrix: Solid
Analysis Batch: 24850

Client Sample ID: B-6 (5'-7')
Prep Type: Total/NA
Prep Batch: 24774

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-Methylnaphthalene	ND		1.95	1.46		mg/Kg	☼	75	50 - 150
Acenaphthene	ND		1.95	1.36		mg/Kg	☼	70	45 - 120
Acenaphthylene	ND		1.95	1.39		mg/Kg	☼	71	50 - 150
Anthracene	0.20	J	1.95	1.48		mg/Kg	☼	66	50 - 150
Benzo[a]anthracene	0.61		1.95	1.82		mg/Kg	☼	62	51 - 122
Benzo[a]pyrene	0.51	F1	1.95	1.49	F1	mg/Kg	☼	50	59 - 131
Benzo[b]fluoranthene	0.74		1.95	1.92		mg/Kg	☼	61	48 - 132
Benzo[g,h,i]perylene	0.33	J	1.95	1.30		mg/Kg	☼	50	50 - 150
Benzo[k]fluoranthene	0.27	J	1.95	1.45		mg/Kg	☼	61	50 - 128
Chrysene	0.55		1.95	1.68		mg/Kg	☼	58	50 - 150
Dibenz(a,h)anthracene	ND		1.95	1.18		mg/Kg	☼	61	51 - 120
Fluoranthene	1.2	F1	1.95	2.25		mg/Kg	☼	52	50 - 150
Fluorene	ND		1.95	1.43		mg/Kg	☼	73	50 - 150
Indeno[1,2,3-cd]pyrene	0.29	J	1.95	1.31		mg/Kg	☼	53	50 - 150
Naphthalene	ND		1.95	1.37		mg/Kg	☼	70	52 - 120
Phenanthrene	0.78	F1	1.95	1.93		mg/Kg	☼	59	50 - 150
Pyrene	1.0		1.95	2.12		mg/Kg	☼	57	49 - 117

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*67*		*55 - 120*
Nitrobenzene-d5 (Surr)	*70*		*45 - 120*
p-Terphenyl-d14 (Surr)	*68*		*54 - 120*

Lab Sample ID: 705-13954-11 MSD
Matrix: Solid
Analysis Batch: 24850

Client Sample ID: B-6 (5'-7')
Prep Type: Total/NA
Prep Batch: 24774

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Methylnaphthalene	ND		1.95	1.38		mg/Kg	☼	71	50 - 150	5	34
Acenaphthene	ND		1.95	1.32		mg/Kg	☼	68	45 - 120	3	31
Acenaphthylene	ND		1.95	1.32		mg/Kg	☼	68	50 - 150	6	23
Anthracene	0.20	J	1.95	1.47		mg/Kg	☼	65	50 - 150	1	23
Benzo[a]anthracene	0.61		1.95	1.76		mg/Kg	☼	59	51 - 122	3	21
Benzo[a]pyrene	0.51	F1	1.95	1.42	F1	mg/Kg	☼	46	59 - 131	5	20
Benzo[b]fluoranthene	0.74		1.95	1.86		mg/Kg	☼	58	48 - 132	3	20
Benzo[g,h,i]perylene	0.33	J	1.95	1.43		mg/Kg	☼	56	50 - 150	9	23
Benzo[k]fluoranthene	0.27	J	1.95	1.43		mg/Kg	☼	59	50 - 128	2	24
Chrysene	0.55		1.95	1.60		mg/Kg	☼	54	50 - 150	5	22
Dibenz(a,h)anthracene	ND		1.95	1.26		mg/Kg	☼	64	51 - 120	6	20
Fluoranthene	1.2	F1	1.95	2.01	F1	mg/Kg	☼	40	50 - 150	11	18
Fluorene	ND		1.95	1.42		mg/Kg	☼	73	50 - 150	1	30
Indeno[1,2,3-cd]pyrene	0.29	J	1.95	1.40		mg/Kg	☼	57	50 - 150	6	26
Naphthalene	ND		1.95	1.26		mg/Kg	☼	65	52 - 120	8	20
Phenanthrene	0.78	F1	1.95	1.72	F1	mg/Kg	☼	48	50 - 150	11	40
Pyrene	1.0		1.95	1.96		mg/Kg	☼	49	49 - 117	8	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*66*		*55 - 120*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 705-13954-11 MSD
Matrix: Solid
Analysis Batch: 24850

Client Sample ID: B-6 (5'-7')
Prep Type: Total/NA
Prep Batch: 24774

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	*65*		*45 - 120*
p-Terphenyl-d14 (Surr)	*66*		*54 - 120*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 705-24487/1-A
Matrix: Solid
Analysis Batch: 25247

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24487

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0033	0.00062	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
4,4'-DDE	ND		0.0033	0.00048	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
4,4'-DDT	ND		0.0033	0.00053	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
Aldrin	ND		0.0017	0.00043	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
alpha-BHC	ND		0.0017	0.00037	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
alpha-Chlordane	ND		0.0017	0.00039	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
beta-BHC	ND		0.0017	0.00033	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
delta-BHC	ND		0.0017	0.00036	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
Dieldrin	ND		0.0033	0.00046	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
Endosulfan I	ND		0.0017	0.00064	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
Endosulfan II	ND		0.0033	0.00044	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
Endosulfan sulfate	ND		0.0033	0.00039	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
Endrin	ND		0.0033	0.00051	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
Endrin aldehyde	ND		0.0033	0.00067	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
Endrin ketone	ND		0.0033	0.00054	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
gamma-BHC (Lindane)	ND		0.0017	0.00040	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
Heptachlor	ND		0.0017	0.00054	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
Heptachlor epoxide	ND		0.0017	0.00039	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
Methoxychlor	ND		0.017	0.0017	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
Toxaphene	ND		0.17	0.0086	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
gamma-Chlordane	ND		0.0017	0.00038	mg/Kg		12/02/24 09:00	12/04/24 19:50	1
Chlordane (technical)	ND		0.033	0.0032	mg/Kg		12/02/24 09:00	12/04/24 19:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	*95*		*45 - 124*	*12/02/24 09:00*	*12/04/24 19:50*	*1*
Tetrachloro-m-xylene (Surr)	*103*		*44 - 117*	*12/02/24 09:00*	*12/04/24 19:50*	*1*

Lab Sample ID: LCS 705-24487/2-A
Matrix: Solid
Analysis Batch: 25247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24487

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.0333	0.0303		mg/Kg		91	70 - 130
4,4'-DDE	0.0333	0.0282		mg/Kg		85	70 - 130
4,4'-DDT	0.0333	0.0285		mg/Kg		86	70 - 130
Aldrin	0.0333	0.0270		mg/Kg		81	70 - 130
alpha-BHC	0.0333	0.0276		mg/Kg		83	70 - 130
alpha-Chlordane	0.0333	0.0266		mg/Kg		80	70 - 130

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 705-24487/2-A
Matrix: Solid
Analysis Batch: 25247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24487

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
beta-BHC	0.0333	0.0271		mg/Kg		81	70 - 130
delta-BHC	0.0333	0.0261		mg/Kg		78	70 - 130
Dieldrin	0.0333	0.0310		mg/Kg		93	70 - 130
Endosulfan I	0.0333	0.0302		mg/Kg		90	70 - 130
Endosulfan II	0.0333	0.0279		mg/Kg		84	70 - 130
Endosulfan sulfate	0.0333	0.0267		mg/Kg		80	70 - 130
Endrin	0.0333	0.0314		mg/Kg		94	70 - 130
Endrin aldehyde	0.0333	0.0259		mg/Kg		78	70 - 130
Endrin ketone	0.0333	0.0283		mg/Kg		85	70 - 130
gamma-BHC (Lindane)	0.0333	0.0311		mg/Kg		93	70 - 130
Heptachlor	0.0333	0.0308		mg/Kg		92	70 - 130
Heptachlor epoxide	0.0333	0.0268		mg/Kg		80	70 - 130
Methoxychlor	0.100	0.0937		mg/Kg		94	70 - 130
gamma-Chlordane	0.0333	0.0290		mg/Kg		87	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*83*		*45 - 124*
Tetrachloro-m-xylene (Surr)	*93*		*44 - 117*

Lab Sample ID: 705-13954-1 MS
Matrix: Solid
Analysis Batch: 25247

Client Sample ID: Former Railroad (1"-3")
Prep Type: Total/NA
Prep Batch: 24487

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	ND		0.0398	0.0339		mg/Kg	☼	85	50 - 135
4,4'-DDE	0.00079	J	0.0398	0.0323		mg/Kg	☼	79	51 - 120
4,4'-DDT	0.00084	J	0.0398	0.0345		mg/Kg	☼	85	54 - 131
Aldrin	ND		0.0398	0.0301		mg/Kg	☼	76	46 - 120
alpha-BHC	ND		0.0398	0.0303		mg/Kg	☼	76	49 - 120
alpha-Chlordane	ND		0.0398	0.0296		mg/Kg	☼	74	45 - 128
beta-BHC	ND		0.0398	0.0287		mg/Kg	☼	72	49 - 120
delta-BHC	ND		0.0398	0.0279		mg/Kg	☼	70	43 - 120
Dieldrin	ND		0.0398	0.0352		mg/Kg	☼	89	43 - 125
Endosulfan I	ND		0.0398	0.0337		mg/Kg	☼	85	42 - 117
Endosulfan II	ND		0.0398	0.0393		mg/Kg	☼	99	44 - 121
Endosulfan sulfate	ND		0.0398	0.0305		mg/Kg	☼	77	41 - 118
Endrin	ND		0.0398	0.0366		mg/Kg	☼	92	53 - 133
Endrin aldehyde	0.00089	J	0.0398	0.0252		mg/Kg	☼	61	55 - 133
Endrin ketone	ND		0.0398	0.0362		mg/Kg	☼	91	51 - 124
gamma-BHC (Lindane)	ND		0.0398	0.0343		mg/Kg	☼	86	49 - 121
Heptachlor	ND		0.0398	0.0342		mg/Kg	☼	86	48 - 130
Heptachlor epoxide	ND		0.0398	0.0293		mg/Kg	☼	74	41 - 124
Methoxychlor	ND		0.119	0.112		mg/Kg	☼	94	49 - 131
gamma-Chlordane	ND		0.0398	0.0316		mg/Kg	☼	79	46 - 118

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*76*		*45 - 124*
Tetrachloro-m-xylene (Surr)	*82*		*44 - 117*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: 705-13954-1 MSD
Matrix: Solid
Analysis Batch: 25247

Client Sample ID: Former Railroad (1"-3")
Prep Type: Total/NA
Prep Batch: 24487

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	ND		0.0398	0.0330		mg/Kg	☼	83	50 - 135	3	51
4,4'-DDE	0.00079	J	0.0398	0.0313		mg/Kg	☼	77	51 - 120	3	29
4,4'-DDT	0.00084	J	0.0398	0.0326		mg/Kg	☼	80	54 - 131	6	46
Aldrin	ND		0.0398	0.0293		mg/Kg	☼	74	46 - 120	3	46
alpha-BHC	ND		0.0398	0.0305		mg/Kg	☼	77	49 - 120	1	38
alpha-Chlordane	ND		0.0398	0.0288		mg/Kg	☼	72	45 - 128	3	50
beta-BHC	ND		0.0398	0.0283		mg/Kg	☼	71	49 - 120	1	37
delta-BHC	ND		0.0398	0.0272		mg/Kg	☼	68	43 - 120	3	37
Dieldrin	ND		0.0398	0.0338		mg/Kg	☼	85	43 - 125	4	50
Endosulfan I	ND		0.0398	0.0321		mg/Kg	☼	81	42 - 117	5	35
Endosulfan II	ND		0.0398	0.0385		mg/Kg	☼	97	44 - 121	2	37
Endosulfan sulfate	ND		0.0398	0.0290		mg/Kg	☼	73	41 - 118	5	41
Endrin	ND		0.0398	0.0354		mg/Kg	☼	89	53 - 133	3	38
Endrin aldehyde	0.00089	J	0.0398	0.0246		mg/Kg	☼	60	55 - 133	2	41
Endrin ketone	ND		0.0398	0.0341		mg/Kg	☼	86	51 - 124	6	40
gamma-BHC (Lindane)	ND		0.0398	0.0334		mg/Kg	☼	84	49 - 121	3	48
Heptachlor	ND		0.0398	0.0334		mg/Kg	☼	84	48 - 130	2	35
Heptachlor epoxide	ND		0.0398	0.0287		mg/Kg	☼	72	41 - 124	2	39
Methoxychlor	ND		0.119	0.106		mg/Kg	☼	89	49 - 131	5	43
gamma-Chlordane	ND		0.0398	0.0309		mg/Kg	☼	78	46 - 118	2	41

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*76*		*45 - 124*
Tetrachloro-m-xylene (Surr)	*82*		*44 - 117*

Lab Sample ID: MB 705-24543/1-A
Matrix: Water
Analysis Batch: 25270

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24543

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.10	0.014	ug/L		12/02/24 12:14	12/03/24 20:26	1
4,4'-DDE	ND		0.10	0.016	ug/L		12/02/24 12:14	12/03/24 20:26	1
4,4'-DDT	ND		0.10	0.028	ug/L		12/02/24 12:14	12/03/24 20:26	1
Aldrin	ND		0.050	0.016	ug/L		12/02/24 12:14	12/03/24 20:26	1
alpha-BHC	ND		0.050	0.020	ug/L		12/02/24 12:14	12/03/24 20:26	1
alpha-Chlordane	ND		0.050	0.014	ug/L		12/02/24 12:14	12/03/24 20:26	1
beta-BHC	ND		0.050	0.016	ug/L		12/02/24 12:14	12/03/24 20:26	1
delta-BHC	ND		0.050	0.015	ug/L		12/02/24 12:14	12/03/24 20:26	1
Dieldrin	ND		0.10	0.013	ug/L		12/02/24 12:14	12/03/24 20:26	1
Endosulfan I	ND		0.050	0.015	ug/L		12/02/24 12:14	12/03/24 20:26	1
Endosulfan II	ND		0.10	0.014	ug/L		12/02/24 12:14	12/03/24 20:26	1
Endosulfan sulfate	ND		0.10	0.015	ug/L		12/02/24 12:14	12/03/24 20:26	1
Endrin	ND		0.10	0.015	ug/L		12/02/24 12:14	12/03/24 20:26	1
Endrin aldehyde	ND		0.10	0.025	ug/L		12/02/24 12:14	12/03/24 20:26	1
Endrin ketone	ND		0.10	0.013	ug/L		12/02/24 12:14	12/03/24 20:26	1
gamma-BHC (Lindane)	ND		0.050	0.013	ug/L		12/02/24 12:14	12/03/24 20:26	1
Heptachlor	ND		0.050	0.025	ug/L		12/02/24 12:14	12/03/24 20:26	1
Heptachlor epoxide	ND		0.050	0.015	ug/L		12/02/24 12:14	12/03/24 20:26	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 705-24543/1-A
Matrix: Water
Analysis Batch: 25270

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24543

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor	ND		0.50	0.053	ug/L		12/02/24 12:14	12/03/24 20:26	1
Toxaphene	ND		5.0	0.16	ug/L		12/02/24 12:14	12/03/24 20:26	1
gamma-Chlordane	ND		0.050	0.013	ug/L		12/02/24 12:14	12/03/24 20:26	1
Chlordane (technical)	ND		0.50	0.12	ug/L		12/02/24 12:14	12/03/24 20:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*89*		*32 - 129*	*12/02/24 12:14*	*12/03/24 20:26*	*1*
Tetrachloro-m-xylene (Surr)	*111*		*43 - 127*	*12/02/24 12:14*	*12/03/24 20:26*	*1*

Lab Sample ID: LCS 705-24543/2-A
Matrix: Water
Analysis Batch: 25270

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24543

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	1.00	1.04		ug/L		104	70 - 130
4,4'-DDE	1.00	0.960		ug/L		96	70 - 130
4,4'-DDT	1.00	0.979		ug/L		98	70 - 130
Aldrin	1.00	0.899		ug/L		90	70 - 130
alpha-BHC	1.00	1.23		ug/L		123	70 - 130
alpha-Chlordane	1.00	0.898		ug/L		90	70 - 130
beta-BHC	1.00	1.21		ug/L		121	70 - 130
delta-BHC	1.00	1.21		ug/L		121	70 - 130
Dieldrin	1.00	1.04		ug/L		104	70 - 130
Endosulfan I	1.00	1.01		ug/L		101	70 - 130
Endosulfan II	1.00	1.14		ug/L		114	70 - 130
Endosulfan sulfate	1.00	1.14		ug/L		114	70 - 130
Endrin	1.00	1.08		ug/L		108	70 - 130
Endrin aldehyde	1.00	1.39	*+	ug/L		139	70 - 130
Endrin ketone	1.00	1.21		ug/L		121	70 - 130
gamma-BHC (Lindane)	1.00	1.24		ug/L		124	70 - 130
Heptachlor	1.00	1.16		ug/L		116	70 - 130
Heptachlor epoxide	1.00	1.06		ug/L		106	70 - 130
Methoxychlor	3.00	3.17		ug/L		106	70 - 130
gamma-Chlordane	1.00	0.927		ug/L		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*98*		*32 - 129*
Tetrachloro-m-xylene (Surr)	*106*		*43 - 127*

Lab Sample ID: 705-13954-19 MS
Matrix: Water
Analysis Batch: 25270

Client Sample ID: Equip. Blank
Prep Type: Total/NA
Prep Batch: 24543

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	ND		1.00	1.11		ug/L		111	57 - 135
4,4'-DDE	ND		1.00	1.13		ug/L		113	52 - 133
4,4'-DDT	ND		1.00	1.06		ug/L		106	50 - 135
Aldrin	ND		1.00	1.06		ug/L		106	47 - 130

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 705-13954-19 MS
Matrix: Water
Analysis Batch: 25270

Client Sample ID: Equip. Blank
Prep Type: Total/NA
Prep Batch: 24543

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
alpha-BHC	ND	F1	1.00	1.22		ug/L		122	64 - 132
alpha-Chlordane	ND		1.00	1.02		ug/L		102	56 - 134
beta-BHC	ND	F1	1.00	1.11		ug/L		111	61 - 127
delta-BHC	ND		1.00	0.982		ug/L		98	63 - 133
Dieldrin	ND		1.00	1.06		ug/L		106	53 - 131
Endosulfan I	ND		1.00	1.02		ug/L		102	63 - 128
Endosulfan II	ND		1.00	0.986		ug/L		99	62 - 135
Endosulfan sulfate	ND	F2	1.00	0.836		ug/L		84	64 - 129
Endrin	ND		1.00	1.08		ug/L		108	58 - 135
Endrin aldehyde	ND	*+	1.00	0.709		ug/L		71	57 - 132
Endrin ketone	ND		1.00	1.09		ug/L		109	64 - 128
gamma-BHC (Lindane)	ND	F1	1.00	1.21		ug/L		121	58 - 135
Heptachlor	ND	F1	1.00	1.22		ug/L		122	52 - 131
Heptachlor epoxide	ND		1.00	1.05		ug/L		105	62 - 133
Methoxychlor	ND		3.00	3.25		ug/L		108	63 - 129
gamma-Chlordane	ND		1.00	1.05		ug/L		105	56 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*95*		*32 - 129*
Tetrachloro-m-xylene (Surr)	*112*		*43 - 127*

Lab Sample ID: 705-13954-19 MSD
Matrix: Water
Analysis Batch: 25270

Client Sample ID: Equip. Blank
Prep Type: Total/NA
Prep Batch: 24543

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	ND		1.00	1.24		ug/L		124	57 - 135	11	19
4,4'-DDE	ND		1.00	1.22		ug/L		122	52 - 133	8	21
4,4'-DDT	ND		1.00	1.18		ug/L		118	50 - 135	10	29
Aldrin	ND		1.00	1.12		ug/L		112	47 - 130	6	31
alpha-BHC	ND	F1	1.00	1.40	F1	ug/L		140	64 - 132	14	18
alpha-Chlordane	ND		1.00	1.13		ug/L		113	56 - 134	10	21
beta-BHC	ND	F1	1.00	1.29	F1	ug/L		129	61 - 127	15	19
delta-BHC	ND		1.00	1.17		ug/L		117	63 - 133	17	18
Dieldrin	ND		1.00	1.20		ug/L		120	53 - 131	12	26
Endosulfan I	ND		1.00	1.17		ug/L		117	63 - 128	13	19
Endosulfan II	ND		1.00	1.14		ug/L		114	62 - 135	15	19
Endosulfan sulfate	ND	F2	1.00	1.05	F2	ug/L		105	64 - 129	23	20
Endrin	ND		1.00	1.21		ug/L		121	58 - 135	12	29
Endrin aldehyde	ND	*+	1.00	0.852		ug/L		85	57 - 132	18	20
Endrin ketone	ND		1.00	1.28		ug/L		128	64 - 128	16	20
gamma-BHC (Lindane)	ND	F1	1.00	1.36	F1	ug/L		136	58 - 135	12	27
Heptachlor	ND	F1	1.00	1.34	F1	ug/L		134	52 - 131	9	34
Heptachlor epoxide	ND		1.00	1.19		ug/L		119	62 - 133	13	17
Methoxychlor	ND		3.00	3.70		ug/L		123	63 - 129	13	29
gamma-Chlordane	ND		1.00	1.15		ug/L		115	56 - 130	9	25

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 705-13954-19 MSD
Matrix: Water
Analysis Batch: 25270

Client Sample ID: Equip. Blank
Prep Type: Total/NA
Prep Batch: 24543

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	*97*		*32 - 129*
Tetrachloro-m-xylene (Surr)	*84*		*43 - 127*

Lab Sample ID: MB 705-24711/1-A
Matrix: Solid
Analysis Batch: 25247

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24711

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.0033	0.00062	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
4,4'-DDE	ND		0.0033	0.00048	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
4,4'-DDT	ND		0.0033	0.00053	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
Aldrin	ND		0.0017	0.00043	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
alpha-BHC	ND		0.0017	0.00037	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
alpha-Chlordane	ND		0.0017	0.00039	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
beta-BHC	ND		0.0017	0.00033	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
delta-BHC	ND		0.0017	0.00036	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
Dieldrin	ND		0.0033	0.00046	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
Endosulfan I	ND		0.0017	0.00064	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
Endosulfan II	ND		0.0033	0.00044	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
Endosulfan sulfate	ND		0.0033	0.00039	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
Endrin	ND		0.0033	0.00051	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
Endrin aldehyde	ND		0.0033	0.00067	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
Endrin ketone	ND		0.0033	0.00054	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
gamma-BHC (Lindane)	ND		0.0017	0.00040	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
Heptachlor	ND		0.0017	0.00054	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
Heptachlor epoxide	ND		0.0017	0.00039	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
Methoxychlor	ND		0.017	0.0017	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
Toxaphene	ND		0.17	0.0086	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
gamma-Chlordane	ND		0.0017	0.00038	mg/Kg		12/03/24 10:06	12/04/24 23:34	1
Chlordane (technical)	ND		0.033	0.0032	mg/Kg		12/03/24 10:06	12/04/24 23:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	*88*		*45 - 124*	*12/03/24 10:06*	*12/04/24 23:34*	*1*
Tetrachloro-m-xylene (Surr)	*90*		*44 - 117*	*12/03/24 10:06*	*12/04/24 23:34*	*1*

Lab Sample ID: LCS 705-24711/2-A
Matrix: Solid
Analysis Batch: 25247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24711

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.0333	0.0317		mg/Kg		95	70 - 130
4,4'-DDE	0.0333	0.0286		mg/Kg		86	70 - 130
4,4'-DDT	0.0333	0.0300		mg/Kg		90	70 - 130
Aldrin	0.0333	0.0276		mg/Kg		83	70 - 130
alpha-BHC	0.0333	0.0285		mg/Kg		85	70 - 130
alpha-Chlordane	0.0333	0.0266		mg/Kg		80	70 - 130
beta-BHC	0.0333	0.0285		mg/Kg		85	70 - 130
delta-BHC	0.0333	0.0274		mg/Kg		82	70 - 130

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 705-24711/2-A
Matrix: Solid
Analysis Batch: 25247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24711

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dieldrin	0.0333	0.0318		mg/Kg		95	70 - 130
Endosulfan I	0.0333	0.0307		mg/Kg		92	70 - 130
Endosulfan II	0.0333	0.0289		mg/Kg		87	70 - 130
Endosulfan sulfate	0.0333	0.0280		mg/Kg		84	70 - 130
Endrin	0.0333	0.0326		mg/Kg		98	70 - 130
Endrin aldehyde	0.0333	0.0280		mg/Kg		84	70 - 130
Endrin ketone	0.0333	0.0298		mg/Kg		90	70 - 130
gamma-BHC (Lindane)	0.0333	0.0318		mg/Kg		95	70 - 130
Heptachlor	0.0333	0.0317		mg/Kg		95	70 - 130
Heptachlor epoxide	0.0333	0.0272		mg/Kg		82	70 - 130
Methoxychlor	0.100	0.0967		mg/Kg		97	70 - 130
gamma-Chlordane	0.0333	0.0294		mg/Kg		88	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*92*		*45 - 124*
Tetrachloro-m-xylene (Surr)	*100*		*44 - 117*

Lab Sample ID: 705-13974-B-20-B MS
Matrix: Solid
Analysis Batch: 25247

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 24711

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	ND		0.0436	0.0457		mg/Kg	☼	105	50 - 135
4,4'-DDE	ND		0.0436	0.0397		mg/Kg	☼	91	51 - 120
4,4'-DDT	ND		0.0436	0.0417		mg/Kg	☼	96	54 - 131
Aldrin	ND		0.0436	0.0371		mg/Kg	☼	85	46 - 120
alpha-BHC	ND		0.0436	0.0387		mg/Kg	☼	89	49 - 120
alpha-Chlordane	ND		0.0436	0.0361		mg/Kg	☼	83	45 - 128
beta-BHC	ND		0.0436	0.0396		mg/Kg	☼	91	49 - 120
delta-BHC	ND		0.0436	0.0375		mg/Kg	☼	86	43 - 120
Dieldrin	ND		0.0436	0.0446		mg/Kg	☼	102	43 - 125
Endosulfan I	ND		0.0436	0.0405		mg/Kg	☼	93	42 - 117
Endosulfan II	ND		0.0436	0.0386		mg/Kg	☼	89	44 - 121
Endosulfan sulfate	ND		0.0436	0.0402		mg/Kg	☼	92	41 - 118
Endrin	ND		0.0436	0.0468		mg/Kg	☼	107	53 - 133
Endrin aldehyde	ND		0.0436	0.0337		mg/Kg	☼	77	55 - 133
Endrin ketone	ND		0.0436	0.0433		mg/Kg	☼	99	51 - 124
gamma-BHC (Lindane)	ND		0.0436	0.0433		mg/Kg	☼	99	49 - 121
Heptachlor	ND		0.0436	0.0429		mg/Kg	☼	98	48 - 130
Heptachlor epoxide	ND		0.0436	0.0375		mg/Kg	☼	86	41 - 124
Methoxychlor	ND		0.131	0.137		mg/Kg	☼	105	49 - 131
gamma-Chlordane	ND		0.0436	0.0403		mg/Kg	☼	92	46 - 118

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*86*		*45 - 124*
Tetrachloro-m-xylene (Surr)	*98*		*44 - 117*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 705-13974-B-20-C MSD
Matrix: Solid
Analysis Batch: 25247

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 24711

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	ND		0.0436	0.0474		mg/Kg	☼	109	50 - 135	4	51
4,4'-DDE	ND		0.0436	0.0415		mg/Kg	☼	95	51 - 120	4	29
4,4'-DDT	ND		0.0436	0.0438		mg/Kg	☼	100	54 - 131	5	46
Aldrin	ND		0.0436	0.0391		mg/Kg	☼	90	46 - 120	5	46
alpha-BHC	ND		0.0436	0.0403		mg/Kg	☼	92	49 - 120	4	38
alpha-Chlordane	ND		0.0436	0.0379		mg/Kg	☼	87	45 - 128	5	50
beta-BHC	ND		0.0436	0.0411		mg/Kg	☼	94	49 - 120	4	37
delta-BHC	ND		0.0436	0.0398		mg/Kg	☼	91	43 - 120	6	37
Dieldrin	ND		0.0436	0.0468		mg/Kg	☼	107	43 - 125	5	50
Endosulfan I	ND		0.0436	0.0442		mg/Kg	☼	101	42 - 117	9	35
Endosulfan II	ND		0.0436	0.0430		mg/Kg	☼	99	44 - 121	11	37
Endosulfan sulfate	ND		0.0436	0.0432		mg/Kg	☼	99	41 - 118	7	41
Endrin	ND		0.0436	0.0488		mg/Kg	☼	112	53 - 133	4	38
Endrin aldehyde	ND		0.0436	0.0396		mg/Kg	☼	91	55 - 133	16	41
Endrin ketone	ND		0.0436	0.0455		mg/Kg	☼	104	51 - 124	5	40
gamma-BHC (Lindane)	ND		0.0436	0.0456		mg/Kg	☼	105	49 - 121	5	48
Heptachlor	ND		0.0436	0.0454		mg/Kg	☼	104	48 - 130	6	35
Heptachlor epoxide	ND		0.0436	0.0390		mg/Kg	☼	89	41 - 124	4	39
Methoxychlor	ND		0.131	0.145		mg/Kg	☼	111	49 - 131	5	43
gamma-Chlordane	ND		0.0436	0.0422		mg/Kg	☼	97	46 - 118	4	41

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*93*		*45 - 124*
Tetrachloro-m-xylene (Surr)	*104*		*44 - 117*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 705-24473/1-A
Matrix: Solid
Analysis Batch: 24642

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24473

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.033	0.0051	mg/Kg		12/02/24 09:00	12/02/24 15:24	1
PCB-1221	ND		0.033	0.0051	mg/Kg		12/02/24 09:00	12/02/24 15:24	1
PCB-1232	ND		0.033	0.0051	mg/Kg		12/02/24 09:00	12/02/24 15:24	1
PCB-1242	ND		0.033	0.0051	mg/Kg		12/02/24 09:00	12/02/24 15:24	1
PCB-1248	ND		0.033	0.0051	mg/Kg		12/02/24 09:00	12/02/24 15:24	1
PCB-1254	ND		0.033	0.0051	mg/Kg		12/02/24 09:00	12/02/24 15:24	1
PCB-1260	ND		0.033	0.0051	mg/Kg		12/02/24 09:00	12/02/24 15:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*99*		*70 - 130*	*12/02/24 09:00*	*12/02/24 15:24*	*1*
Tetrachloro-m-xylene (Surr)	*99*		*70 - 130*	*12/02/24 09:00*	*12/02/24 15:24*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 705-24473/2-A
Matrix: Solid
Analysis Batch: 24642

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24473

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			0.167	0.164		mg/Kg		99	70 - 130		
PCB-1260			0.167	0.152		mg/Kg		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*100*		*70 - 130*
Tetrachloro-m-xylene (Surr)	*102*		*70 - 130*

Lab Sample ID: 705-13954-2 MS
Matrix: Solid
Analysis Batch: 24642

Client Sample ID: River Sediment Northside
Prep Type: Total/NA
Prep Batch: 24473

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016	ND		0.322	0.296		mg/Kg	☼	92	52 - 129		
PCB-1260	0.019	J	0.322	0.251		mg/Kg	☼	72	51 - 131		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*56*	*S1-*	*70 - 130*
Tetrachloro-m-xylene (Surr)	*79*		*70 - 130*

Lab Sample ID: 705-13954-2 MSD
Matrix: Solid
Analysis Batch: 24642

Client Sample ID: River Sediment Northside
Prep Type: Total/NA
Prep Batch: 24473

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	ND		0.322	0.326		mg/Kg	☼	101	52 - 129	10	20
PCB-1260	0.019	J	0.322	0.285		mg/Kg	☼	83	51 - 131	13	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*76*		*70 - 130*
Tetrachloro-m-xylene (Surr)	*94*		*70 - 130*

Lab Sample ID: MB 705-24551/1-A
Matrix: Water
Analysis Batch: 25271

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24551

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.15	ug/L		12/02/24 12:19	12/04/24 05:07	1
PCB-1221	ND		0.50	0.15	ug/L		12/02/24 12:19	12/04/24 05:07	1
PCB-1232	ND		0.50	0.15	ug/L		12/02/24 12:19	12/04/24 05:07	1
PCB-1242	ND		0.50	0.15	ug/L		12/02/24 12:19	12/04/24 05:07	1
PCB-1248	ND		0.50	0.15	ug/L		12/02/24 12:19	12/04/24 05:07	1
PCB-1254	ND		0.50	0.15	ug/L		12/02/24 12:19	12/04/24 05:07	1
PCB-1260	ND		0.50	0.15	ug/L		12/02/24 12:19	12/04/24 05:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*81*		*70 - 130*	*12/02/24 12:19*	*12/04/24 05:07*	*1*
Tetrachloro-m-xylene (Surr)	*99*		*70 - 130*	*12/02/24 12:19*	*12/04/24 05:07*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 705-24551/2-A
Matrix: Water
Analysis Batch: 25271

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24551

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			5.00	4.82		ug/L		96	70 - 130		
PCB-1260			5.00	4.31		ug/L		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*77*		*70 - 130*
Tetrachloro-m-xylene (Surr)	*95*		*70 - 130*

Lab Sample ID: 705-13954-19 MS
Matrix: Water
Analysis Batch: 25271

Client Sample ID: Equip. Blank
Prep Type: Total/NA
Prep Batch: 24551

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016	ND		5.00	4.77		ug/L		95	68 - 130		
PCB-1260	ND		5.00	4.39		ug/L		88	63 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*72*		*70 - 130*
Tetrachloro-m-xylene (Surr)	*100*		*70 - 130*

Lab Sample ID: 705-13954-19 MSD
Matrix: Water
Analysis Batch: 25271

Client Sample ID: Equip. Blank
Prep Type: Total/NA
Prep Batch: 24551

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	ND		5.00	4.77		ug/L		95	68 - 130	0	20
PCB-1260	ND		5.00	4.25		ug/L		85	63 - 130	3	23

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*75*		*70 - 130*
Tetrachloro-m-xylene (Surr)	*103*		*70 - 130*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 705-24331/1-A
Matrix: Water
Analysis Batch: 25072

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24331

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	ND		2.0	0.75	ug/L		12/02/24 10:35	12/03/24 14:19	1
2,4-D	ND		2.0	0.91	ug/L		12/02/24 10:35	12/03/24 14:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA (Surr)	*66*		*48 - 124*	*12/02/24 10:35*	*12/03/24 14:19*	*1*

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 705-24331/2-A
Matrix: Water
Analysis Batch: 25386

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24331

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Silvex (2,4,5-TP)			5.00	3.86		ug/L		77	70 - 130		
2,4-D			5.00	3.80		ug/L		76	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCAA (Surr)	*86*		*48 - 124*

Lab Sample ID: 705-13817-B-3-A MS
Matrix: Water
Analysis Batch: 25072

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 24331

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Silvex (2,4,5-TP)	ND		5.00	3.47		ug/L		69	47 - 120		
2,4-D	ND		5.00	3.92		ug/L		78	40 - 127		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCAA (Surr)	*83*		*48 - 124*

Lab Sample ID: 705-13817-B-3-B MSD
Matrix: Water
Analysis Batch: 25072

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 24331

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	ND		5.00	3.47		ug/L		69	47 - 120	0	31
2,4-D	ND		5.00	3.41		ug/L		68	40 - 127	14	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCAA (Surr)	*81*		*48 - 124*

Lab Sample ID: MB 705-24674/1-A
Matrix: Solid
Analysis Batch: 25386

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24674

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	ND		0.033	0.012	mg/Kg		12/03/24 06:56	12/05/24 16:45	1
2,4-D	ND		0.033	0.013	mg/Kg		12/03/24 06:56	12/05/24 16:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA (Surr)	*62*		*40 - 122*	*12/03/24 06:56*	*12/05/24 16:45*	*1*

Lab Sample ID: LCS 705-24674/2-A
Matrix: Solid
Analysis Batch: 25386

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24674

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Silvex (2,4,5-TP)			0.167	0.109	*-	mg/Kg		66	70 - 130		
2,4-D			0.167	0.0997	*-	mg/Kg		60	70 - 130		

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 705-24674/2-A
Matrix: Solid
Analysis Batch: 25386

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24674

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCAA (Surr)	71		40 - 122

Lab Sample ID: 705-13954-10 MS
Matrix: Solid
Analysis Batch: 25386

Client Sample ID: B-6 (1"-3")
Prep Type: Total/NA
Prep Batch: 24674

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silvex (2,4,5-TP)	ND	*-	0.191	0.141		mg/Kg	☼	74	43 - 120
2,4-D	ND	*-	0.191	0.123		mg/Kg	☼	64	41 - 124

Surrogate	MS %Recovery	MS Qualifier	Limits
DCAA (Surr)	89		40 - 122

Lab Sample ID: 705-13954-10 MSD
Matrix: Solid
Analysis Batch: 25386

Client Sample ID: B-6 (1"-3")
Prep Type: Total/NA
Prep Batch: 24674

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	ND	*-	0.191	0.144		mg/Kg	☼	75	43 - 120	2	38
2,4-D	ND	*-	0.191	0.123		mg/Kg	☼	64	41 - 124	0	51

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCAA (Surr)	93		40 - 122

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 705-24992/1-A
Matrix: Water
Analysis Batch: 25191

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24992

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	63	ug/L		12/04/24 12:10	12/04/24 17:25	1
Antimony	ND		20	7.5	ug/L		12/04/24 12:10	12/04/24 17:25	1
Arsenic	ND		50	9.9	ug/L		12/04/24 12:10	12/04/24 17:25	1
Barium	ND		20	3.5	ug/L		12/04/24 12:10	12/04/24 17:25	1
Beryllium	ND		10	1.4	ug/L		12/04/24 12:10	12/04/24 17:25	1
Cadmium	ND		5.0	0.80	ug/L		12/04/24 12:10	12/04/24 17:25	1
Calcium	ND		100	38	ug/L		12/04/24 12:10	12/04/24 17:25	1
Chromium	ND		10	3.8	ug/L		12/04/24 12:10	12/04/24 17:25	1
Cobalt	ND		20	1.5	ug/L		12/04/24 12:10	12/04/24 17:25	1
Copper	ND		10	2.1	ug/L		12/04/24 12:10	12/04/24 17:25	1
Iron	ND		100	35	ug/L		12/04/24 12:10	12/04/24 17:25	1
Lead	ND		10	6.1	ug/L		12/04/24 12:10	12/04/24 17:25	1
Magnesium	ND		100	36	ug/L		12/04/24 12:10	12/04/24 17:25	1
Manganese	ND		15	1.3	ug/L		12/04/24 12:10	12/04/24 17:25	1
Nickel	ND		20	10	ug/L		12/04/24 12:10	12/04/24 17:25	1
Potassium	ND		500	320	ug/L		12/04/24 12:10	12/04/24 17:25	1
Selenium	ND		20	11	ug/L		12/04/24 12:10	12/04/24 17:25	1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 705-24992/1-A
Matrix: Water
Analysis Batch: 25191

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24992

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		10	1.7	ug/L		12/04/24 12:10	12/04/24 17:25	1
Sodium	58.3	J	1000	39	ug/L		12/04/24 12:10	12/04/24 17:25	1
Thallium	ND		20	15	ug/L		12/04/24 12:10	12/04/24 17:25	1
Vanadium	ND		10	0.93	ug/L		12/04/24 12:10	12/04/24 17:25	1
Zinc	ND		20	9.7	ug/L		12/04/24 12:10	12/04/24 17:25	1

Lab Sample ID: LCS 705-24992/2-A
Matrix: Water
Analysis Batch: 25191

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24992

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10000	9780		ug/L		98	80 - 120
Antimony	1000	1000		ug/L		100	80 - 120
Arsenic	1000	990		ug/L		99	80 - 120
Barium	1000	1010		ug/L		101	80 - 120
Beryllium	1000	992		ug/L		99	80 - 120
Cadmium	1000	999		ug/L		100	80 - 120
Calcium	10000	9750		ug/L		97	80 - 120
Chromium	1000	978		ug/L		98	80 - 120
Cobalt	1000	1010		ug/L		101	80 - 120
Copper	1000	945		ug/L		95	80 - 120
Iron	10000	10000		ug/L		100	80 - 120
Lead	1000	1000		ug/L		100	80 - 120
Magnesium	10000	9640		ug/L		96	80 - 120
Manganese	1000	1010		ug/L		101	80 - 120
Nickel	1000	1020		ug/L		102	80 - 120
Potassium	10000	9930		ug/L		99	80 - 120
Selenium	1000	973		ug/L		97	80 - 120
Silver	100	98.8		ug/L		99	80 - 120
Sodium	10000	10400		ug/L		104	80 - 120
Thallium	1000	962		ug/L		96	80 - 120
Vanadium	1000	1010		ug/L		101	80 - 120
Zinc	1000	1030		ug/L		103	80 - 120

Lab Sample ID: 705-13954-19 MS
Matrix: Water
Analysis Batch: 25191

Client Sample ID: Equip. Blank
Prep Type: Total/NA
Prep Batch: 24992

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	ND		10000	8950		ug/L		90	75 - 125
Antimony	ND		1000	983		ug/L		98	75 - 125
Arsenic	ND		1000	903		ug/L		90	75 - 125
Barium	ND		1000	931		ug/L		93	75 - 125
Beryllium	ND		1000	913		ug/L		91	75 - 125
Cadmium	ND		1000	916		ug/L		92	75 - 125
Calcium	ND		10000	9050		ug/L		90	75 - 125
Chromium	ND		1000	907		ug/L		91	75 - 125
Cobalt	ND		1000	931		ug/L		93	75 - 125
Copper	ND		1000	864		ug/L		86	75 - 125

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 705-13954-19 MS
Matrix: Water
Analysis Batch: 25191

Client Sample ID: Equip. Blank
Prep Type: Total/NA
Prep Batch: 24992

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	ND		10000	9230		ug/L		92	75 - 125
Lead	ND		1000	921		ug/L		92	75 - 125
Magnesium	ND		10000	8880		ug/L		89	75 - 125
Manganese	ND		1000	934		ug/L		93	75 - 125
Nickel	ND		1000	940		ug/L		94	75 - 125
Potassium	ND		10000	9080		ug/L		91	75 - 125
Selenium	ND		1000	865		ug/L		86	75 - 125
Silver	ND		100	91.3		ug/L		91	75 - 125
Sodium	ND		10000	9490		ug/L		95	75 - 125
Thallium	ND		1000	875		ug/L		87	75 - 125
Vanadium	ND		1000	928		ug/L		93	75 - 125
Zinc	ND		1000	938		ug/L		94	75 - 125

Lab Sample ID: 705-13954-19 MSD
Matrix: Water
Analysis Batch: 25191

Client Sample ID: Equip. Blank
Prep Type: Total/NA
Prep Batch: 24992

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	ND		10000	9700		ug/L		97	75 - 125	8	20
Antimony	ND		1000	995		ug/L		99	75 - 125	1	20
Arsenic	ND		1000	979		ug/L		98	75 - 125	8	20
Barium	ND		1000	1000		ug/L		100	75 - 125	7	20
Beryllium	ND		1000	984		ug/L		98	75 - 125	7	20
Cadmium	ND		1000	990		ug/L		99	75 - 125	8	20
Calcium	ND		10000	9690		ug/L		97	75 - 125	7	20
Chromium	ND		1000	976		ug/L		98	75 - 125	7	20
Cobalt	ND		1000	1000		ug/L		100	75 - 125	7	20
Copper	ND		1000	933		ug/L		93	75 - 125	8	20
Iron	ND		10000	9930		ug/L		99	75 - 125	7	20
Lead	ND		1000	990		ug/L		99	75 - 125	7	20
Magnesium	ND		10000	9590		ug/L		96	75 - 125	8	20
Manganese	ND		1000	1010		ug/L		101	75 - 125	7	20
Nickel	ND		1000	1010		ug/L		101	75 - 125	7	20
Potassium	ND		10000	9860		ug/L		99	75 - 125	8	20
Selenium	ND		1000	953		ug/L		95	75 - 125	10	20
Silver	ND		100	98.1		ug/L		98	75 - 125	7	20
Sodium	ND		10000	10300		ug/L		103	75 - 125	8	20
Thallium	ND		1000	949		ug/L		95	75 - 125	8	20
Vanadium	ND		1000	1000		ug/L		100	75 - 125	7	20
Zinc	ND		1000	1010		ug/L		101	75 - 125	8	20

Lab Sample ID: MB 705-25064/1-A
Matrix: Solid
Analysis Batch: 25364

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25064

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		50	4.1	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Antimony	ND	^3+	2.5	0.40	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Arsenic	ND		2.5	0.47	mg/Kg		12/04/24 14:15	12/05/24 14:09	1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 705-25064/1-A
Matrix: Solid
Analysis Batch: 25364

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25064

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		5.0	0.39	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Beryllium	ND		2.5	0.11	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Cadmium	ND		2.5	0.11	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Calcium	ND		50	29	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Chromium	ND		2.5	0.34	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Cobalt	ND		2.5	0.14	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Copper	ND		2.5	0.31	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Iron	ND		50	7.7	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Lead	ND		5.0	0.41	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Magnesium	ND		50	2.2	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Manganese	ND		5.0	0.11	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Nickel	ND		5.0	0.96	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Potassium	ND		100	31	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Selenium	ND	^3+	3.5	0.70	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Silver	ND		2.5	0.090	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Sodium	ND		100	28	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Thallium	ND		1.0	0.65	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Vanadium	ND		5.0	0.10	mg/Kg		12/04/24 14:15	12/05/24 14:09	1
Zinc	ND		5.0	1.8	mg/Kg		12/04/24 14:15	12/05/24 14:09	1

Lab Sample ID: LCS 705-25064/2-A
Matrix: Solid
Analysis Batch: 25364

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25064

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	500	484		mg/Kg		97	80 - 120
Antimony	50.0	46.7	^3+	mg/Kg		93	80 - 120
Arsenic	50.0	47.1		mg/Kg		94	80 - 120
Barium	50.0	49.5		mg/Kg		99	80 - 120
Beryllium	50.0	49.1		mg/Kg		98	80 - 120
Cadmium	50.0	48.4		mg/Kg		97	80 - 120
Calcium	500	494		mg/Kg		99	80 - 120
Chromium	50.0	49.7		mg/Kg		99	80 - 120
Cobalt	50.0	49.5		mg/Kg		99	80 - 120
Copper	50.0	51.2		mg/Kg		102	80 - 120
Iron	500	504		mg/Kg		101	80 - 120
Lead	50.0	48.8		mg/Kg		98	80 - 120
Magnesium	500	486		mg/Kg		97	80 - 120
Manganese	50.0	50.2		mg/Kg		100	80 - 120
Nickel	50.0	50.1		mg/Kg		100	80 - 120
Potassium	500	498		mg/Kg		100	80 - 120
Selenium	50.0	43.6	^3+	mg/Kg		87	80 - 120
Silver	5.00	4.87		mg/Kg		97	80 - 120
Sodium	500	500		mg/Kg		100	80 - 120
Thallium	50.0	47.3		mg/Kg		95	80 - 120
Vanadium	50.0	50.1		mg/Kg		100	80 - 120
Zinc	50.0	48.1		mg/Kg		96	80 - 120

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 705-13954-1 MS
Matrix: Solid
Analysis Batch: 25364

Client Sample ID: Former Railroad (1"-3")
Prep Type: Total/NA
Prep Batch: 25064

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.76	J F1	35.7	13.7	F1	mg/Kg	☼	36	75 - 125
Arsenic	4.1		35.7	35.3		mg/Kg	☼	87	75 - 125
Barium	80		35.7	118		mg/Kg	☼	107	75 - 125
Beryllium	0.54	J	35.7	34.8		mg/Kg	☼	96	75 - 125
Cadmium	0.19	J	35.7	35.2		mg/Kg	☼	98	75 - 125
Calcium	2400		357	2880	4	mg/Kg	☼	124	75 - 125
Chromium	17	F1	35.7	54.7		mg/Kg	☼	104	75 - 125
Cobalt	5.6		35.7	40.8		mg/Kg	☼	99	75 - 125
Copper	24	F1	35.7	76.1	F1	mg/Kg	☼	146	75 - 125
Lead	58		35.7	95.4		mg/Kg	☼	105	75 - 125
Magnesium	1600		357	2030	4	mg/Kg	☼	120	75 - 125
Manganese	280		35.7	344	4	mg/Kg	☼	172	75 - 125
Nickel	4.5		35.7	38.9		mg/Kg	☼	96	75 - 125
Potassium	2500		357	2980	4	mg/Kg	☼	134	75 - 125
Selenium	ND		35.7	28.7		mg/Kg	☼	80	75 - 125
Silver	ND		3.57	3.51		mg/Kg	☼	98	75 - 125
Sodium	240		357	640		mg/Kg	☼	111	75 - 125
Thallium	10		35.7	46.1		mg/Kg	☼	101	75 - 125
Vanadium	58	F1	35.7	92.9		mg/Kg	☼	97	75 - 125
Zinc	85		35.7	121		mg/Kg	☼	99	75 - 125

Lab Sample ID: 705-13954-1 MS
Matrix: Solid
Analysis Batch: 25364

Client Sample ID: Former Railroad (1"-3")
Prep Type: Total/NA
Prep Batch: 25064

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	20000		357	26300	4	mg/Kg	☼	1792	75 - 125
Iron	30000		357	31200	4	mg/Kg	☼	328	75 - 125

Lab Sample ID: 705-13954-1 MSD
Matrix: Solid
Analysis Batch: 25364

Client Sample ID: Former Railroad (1"-3")
Prep Type: Total/NA
Prep Batch: 25064

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.76	J F1	35.8	13.3	F1	mg/Kg	☼	35	75 - 125	3	20
Arsenic	4.1		35.8	34.8		mg/Kg	☼	86	75 - 125	1	20
Barium	80		35.8	117		mg/Kg	☼	104	75 - 125	1	20
Beryllium	0.54	J	35.8	34.7		mg/Kg	☼	95	75 - 125	0	20
Cadmium	0.19	J	35.8	35.1		mg/Kg	☼	98	75 - 125	0	20
Calcium	2400		358	2910	4	mg/Kg	☼	132	75 - 125	1	20
Chromium	17	F1	35.8	66.7	F1	mg/Kg	☼	138	75 - 125	20	20
Cobalt	5.6		35.8	40.6		mg/Kg	☼	98	75 - 125	1	20
Copper	24	F1	35.8	66.4		mg/Kg	☼	119	75 - 125	14	20
Lead	58		35.8	95.1		mg/Kg	☼	104	75 - 125	0	20
Magnesium	1600		358	2070	4	mg/Kg	☼	130	75 - 125	2	20
Manganese	280		35.8	333	4	mg/Kg	☼	143	75 - 125	3	20
Nickel	4.5		35.8	39.5		mg/Kg	☼	98	75 - 125	2	20
Potassium	2500		358	3080	4	mg/Kg	☼	160	75 - 125	3	20
Selenium	ND		35.8	28.8		mg/Kg	☼	81	75 - 125	0	20

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 705-13954-1 MSD — **Client Sample ID: Former Railroad (1"-3")**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 25364 — **Prep Batch: 25064**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	ND		3.58	3.48		mg/Kg	☼	97	75 - 125	1	20
Sodium	240		358	639		mg/Kg	☼	110	75 - 125	0	20
Thallium	10		35.8	46.4		mg/Kg	☼	102	75 - 125	1	20
Vanadium	58	F1	35.8	103	F1	mg/Kg	☼	126	75 - 125	11	20
Zinc	85		35.8	121		mg/Kg	☼	100	75 - 125	0	20

Lab Sample ID: 705-13954-1 MSD — **Client Sample ID: Former Railroad (1"-3")**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 25364 — **Prep Batch: 25064**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	20000		358	25500	4	mg/Kg	☼	1574	75 - 125	3	20
Iron	30000		358	35500	4	mg/Kg	☼	1529	75 - 125	13	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 705-25080/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 25172 — **Prep Batch: 25080**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00017	mg/L		12/04/24 12:55	12/04/24 18:23	1

Lab Sample ID: LCS 705-25080/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 25172 — **Prep Batch: 25080**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00400	0.00418		mg/L		105	80 - 120

Lab Sample ID: 705-13954-19 MS — **Client Sample ID: Equip. Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 25172 — **Prep Batch: 25080**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00400	0.00413		mg/L		103	75 - 125

Lab Sample ID: 705-13954-19 MSD — **Client Sample ID: Equip. Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 25172 — **Prep Batch: 25080**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00400	0.00413		mg/L		103	75 - 125	0	20

Client: Access Analytical Services
Project/Site: S-80 RBO Reedy River - Phase II ESA

Job ID: 705-13954-1
SDG: F&ME Consultants

Method: 7473 - Mercury (AAS)

Lab Sample ID: MB 705-24803/5
Matrix: Solid
Analysis Batch: 24803

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.10	0.042	mg/Kg			12/03/24 09:07	1

Lab Sample ID: LCS 705-24803/6
Matrix: Solid
Analysis Batch: 24803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			1.00	0.836		mg/Kg		84	80 - 120		

Lab Sample ID: 705-13954-12 MS
Matrix: Solid
Analysis Batch: 24803

Client Sample ID: B-7 (2"-4")
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	0.096	J	1.09	1.28		mg/Kg	☼	109	80 - 120		

Lab Sample ID: 705-13954-12 MSD
Matrix: Solid
Analysis Batch: 24803

Client Sample ID: B-7 (2"-4")
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.096	J	1.09	1.35		mg/Kg	☼	115	80 - 120	5	20

Accreditation/Certification Summary

Client: Access Analytical Services
Job ID: 705-13954-1
Project/Site: S-80 RBO Reedy River - Phase II ESA
SDG: F&ME Consultants

Laboratory: Eurofins Atlanta

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
South Carolina	State	98016	06-30-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
D 2216		Solid	Percent Moisture

END OF REPORT

Attachment #4

Technical Publication, *Elements in South Carolina Inferred Background Soil and Stream Sediment Samples* (Canova, 1999)

ELEMENTS IN SOUTH CAROLINA INFERRED BACKGROUND SOIL AND STREAM SEDIMENT SAMPLES

(South Carolina Geology, 1999, v.41, p. 11-25)

JUDY L. CANOVA
South Carolina Department of
Health and Environmental Control

D H E C
PROMOTE PROTECT PROSPER

South Carolina Geology, 1999, v. 41, p. 11-25

ELEMENTS IN SOUTH CAROLINA INFERRED BACKGROUND SOIL AND STREAM SEDIMENT SAMPLES

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ABSTRACT

From 1985 to 1995, 254 inferred background soil samples and 95 inferred background stream sediment samples collected in South Carolina were analyzed for various inorganic elements. Means, ranges, variances, and upper confidence limits for elements in South Carolina inferred background soil and sediment were determined. Averages for a number of elements were obtained for the Piedmont and Coastal Plain. Except for calcium, mean and maximum concentrations and percentage of detections were higher for the Piedmont group. Correlations between aluminum and iron, aluminum and vanadium, and vanadium and iron were noted. Mean concentrations for soil are, as follows:

Element(ppm)	Coastal Plain	Piedmont
Aluminum	5405	24,255
Arsenic	2	11
Barium	19	59
Chromium	7	29
Copper	5	13
Iron	5271	28,467
Magnesium	260	1916
Manganese	22	235
Nickel	4	9
Potassium	227	1588
Vanadium	11	67
Zinc	14	34

Element	Statewide
Antimony	ND
Beryllium	0.6
Cadmium	1
Calcium	804
Cobalt	4
Cyanide	1
Lead	16
Mercury	0.18
Selenium	ND
Silver	4
Sodium	194
Thallium	ND

Generally, mean concentrations of elements in sediment were similar to soil means. The lower concentrations of most elements in Coastal Plain samples appear to reflect the effects of weathering.

INTRODUCTION

Most elements occur naturally in soil and sediment. Sediment is herein defined as soil or other solid material in contact with surface water at the time of sample collection. Elevated values may occur as a result of chemical release by man or naturally as a result of weathering of certain parent materials. To date, several studies which describe the natural occurrence of metals in soils in the United States (Shacklette and Boerngen, 1984) and in the world (Ure and Berrow, 1983; Bowen, 1979; Lindsay, 1979) have been completed. However, very little information has been published regarding naturally occurring metals in South Carolina soils.

During the evaluation of potentially contaminated sites to determine whether they qualify for the federal Superfund program, up slope or upstream control samples are normally collected. In many cases, the control samples appear to be true background samples. In other cases, the up slope or upstream samples may be downhill or downstream from other sites not included in the investigation. Data from all inferred background and selected control samples from 1985 through 1995 were compiled into a data base to determine the distribution of naturally occurring metals in inferred background soil and sediment samples across South Carolina. Concentrations of various metals in 254 soil samples and 95 sediment samples were determined and evaluated statistically.

The proposed inferred background upper confidence limits (95th percentile) and ranges of concentrations are not substitutes for site-specific data. However, site-specific data may be compared to these upper confidence limits to determine if the site background concentrations are similar to the background values calculated for the state or the appropriate physiographic province. For the 95th percentile upper confidence limit, it is expected that five percent of the sample group will exceed the upper limit. In a few cases, concentrations were detected well in excess of the calculated upper confidence limits. In these cases, the upper confidence limit, not the maximum concentration,

per confidence limits. In these cases, the upper confidence limit, not the maximum concentration, is most likely representative of background conditions, and additional research would be needed to determine whether the source of elevated concentrations was natural or manmade. Although every attempt was made during sample collection to avoid manmade contamination, samples exhibiting concentrations significantly above the upper confidence limit may have been collected inadvertently from an impacted area.

METHODS

Sample collection and analysis

The samples were collected by South Carolina Department of Health and Environmental Control (SCDHEC) personnel, the United States Environmental Protection Agency (EPA), and their contractors. While standard sampling techniques, equipment, and materials were used, considerable variation in techniques and methods between individuals and collecting groups is likely to have occurred.

Of the 254 soil samples collected, 71% were collected from surface soil (0 to 30 cm), 11% were collected from shallow subsurface soil (30 to 90 cm), and 18% were collected from depths greater than 90 cm. Soil samples were collected using decontaminated augers and stainless steel spoons in accordance with methods published by the US Environmental Protection Agency (EPA, 1986, SW-846). All material from a 15-cm interval from a predetermined depth was mixed in a decontaminated glass bowl using a pre-cleaned stainless steel spoon. Approximately 100 g of the mixed material was placed into a clean polyethylene or glass container and sealed. The samples were then transported to the laboratory for analysis. At approximately forty percent of the sampling locations, a description of the soil material was included with the sampling log.

Samples were analyzed by SCDHEC and private laboratories under the Contract Laboratory Program (CLP). Samples were subjected to acid leach digestion using concentrated nitric acid and 30% hydrogen peroxide with a concentrated nitric or hydrochloric acid reflux. The method of analysis for mercury was the atomic absorption cool vapor method, and the colorimetric method was used for cyanide analysis. Inductively coupled plasma (ICP), atomic absorption furnace, and atomic absorption direct aspiration methods were used for analysis of the remaining inorganic constituents. For specific SW-846 analytical method numbers, please refer to Table 1. Methods of digestion and analysis are described in SW-846 (EPA, 1986) for samples collected in late 1986 and beyond. Samples collected in 1985 and early 1986 were analyzed in accordance with EPA-600/4-79-020 (EPA, 1979) (200 series). All samples were extracted and analyzed within specified holding times. Detection limits varied slightly between the different laboratories and over time, and only usable data were incorporated into the calculation of upper confidence limits. Usability of the data was determined and reported by the laboratory based on internal quality assurance and quality control procedures and audits. Laboratory data designated "unusable" reflects failure of the laboratory to guarantee data accuracy, precision, and/or reproducibility.

Data compilation

Files were reviewed for all South Carolina sites that were sampled for the purpose of Superfund evaluation. Details regarding the sample collection including sample identification number, identification of the sample as background or control, sample location, soil type, site location, and latitude/longitude were recorded along with the analytical results.

In many cases, it was uncertain whether individual control samples represented background conditions. For this reason, the data were screened in a two-part process. The first step was based on the assumption that if a sample contained one or more volatile or semi-volatile organic compounds, the control sample was not from a true background location. Those samples that were analyzed but were shown to contain no volatile or semi-volatile organic compounds above detection limits were assumed to be representative of true background. After all true background data were identified, segregated and compiled, the background data were used to determine inferred ranges of concentrations of each inorganic constituent. Then, two groups of control samples were evaluated: (1) those that contained one or more volatile or semi-volatile organic compounds and (2) those that were not analyzed for organic compounds. Samples in the control group were suspected not to be representative of true background. The concentrations of individual elements in the control group were compared to the previously identified true background maximum concentrations. If concentrations of each element in the control sample were below respective true background maximum concentrations (determined by the first screening), the control data point was incorporated into the calculation of upper confidence limits. If even one element was in excess of the inferred background maximum, all analytical data for that control sample were discarded.

Data evaluation

The soil and sediment sample locations were plotted on a state map using Arcview, a GIS system (Figure 1 and Figure 2). For each element, the number of samples and the number of detections were noted. When detection limits were not available, but a report indicated a particular element was not detected, the data

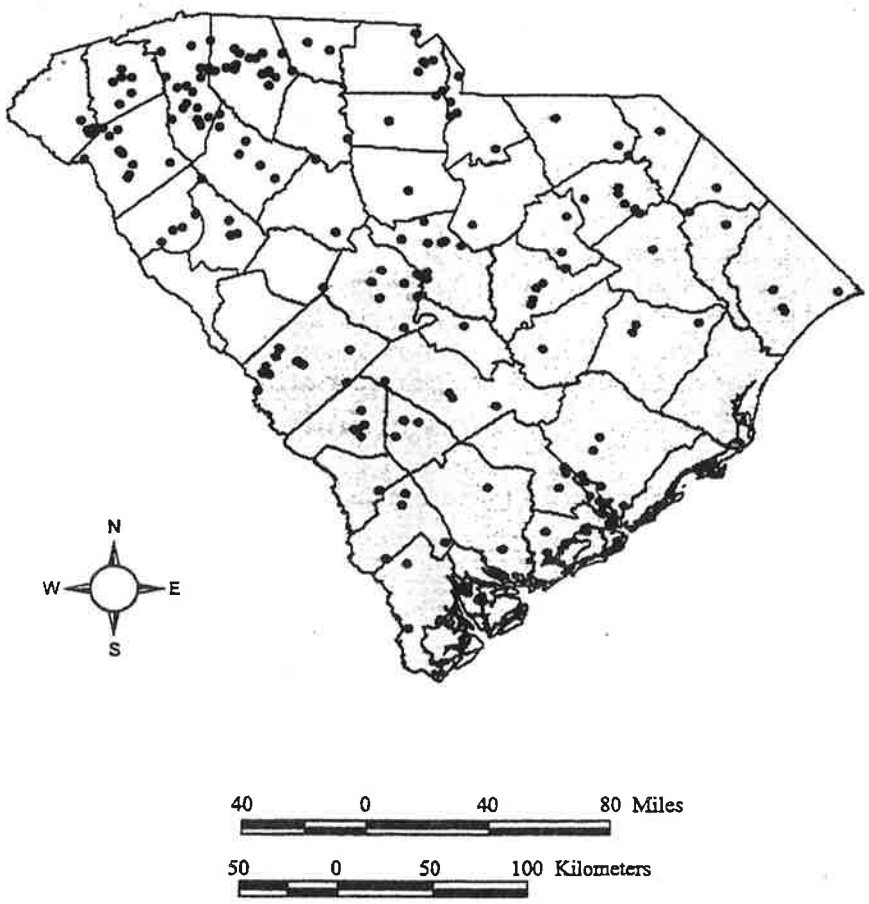

Figure 1. South Carolina background soil sample locations. Gray shaded area is Coastal Plain physiographic province. White shaded area is Piedmont physiographic province.

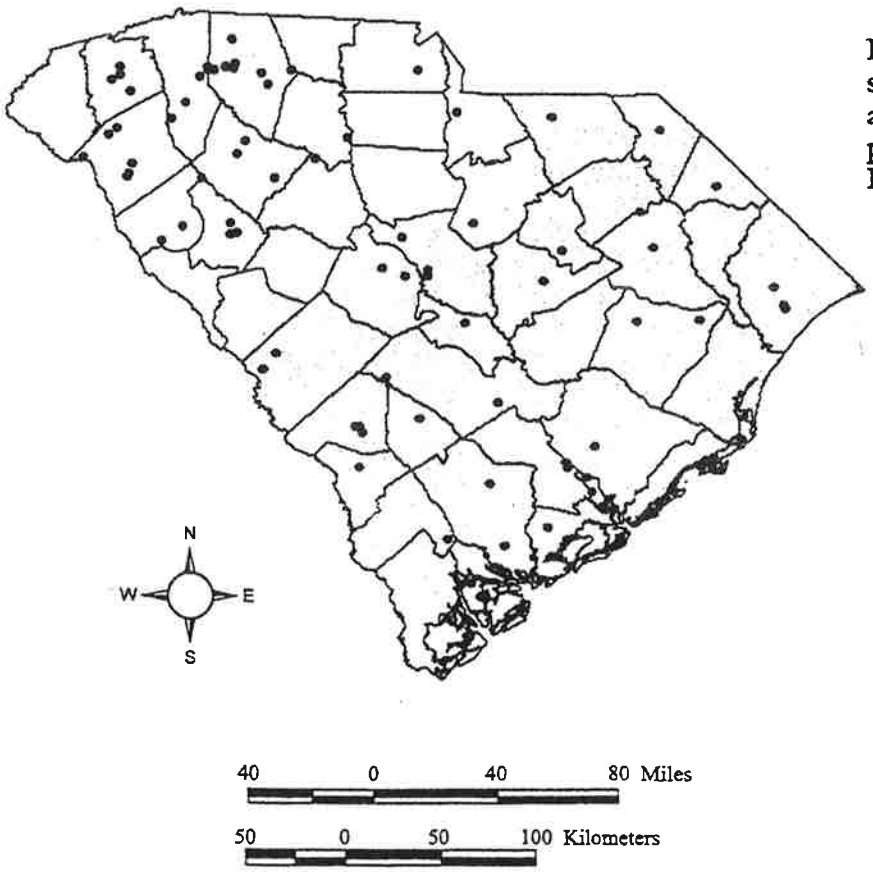

Figure 2. South Carolina background sediment sample locations. Gray shaded area is Coastal Plain physiographic province. White shaded area is Piedmont physiographic province.

Because of the large number of samples, division and comparison of subgroups was possible for selected elements. Coastal Plain and Piedmont subgroups were evaluated for those elements which were detected in fifty percent or more of the samples or which were detected in at least one hundred samples. A t-test was used to determine whether concentrations of elements in the Coastal Plain and Piedmont were different using the 95th and 99th percent level of significance. If, based on the t-test, the groups were not different, statewide means and upper confidence limits were determined. If a significant difference was noted, upper confidence limits were calculated for each group. Insufficient data points were available for a statistical comparison among the various geologic divisions such as Cretaceous, Paleocene, Pliocene, Inner Piedmont belt, Charlotte belt, and Carolina Slate belt.

All samples were below detection limits for one or more elements. In these cases, the detection limit divided by the square root of two was incorporated into the calculation because the element is more likely to be present at concentrations closer to the detection limit than to be absent from the sample.

The normality of the data was evaluated using the Kolmogorov-Smirnov method and the SCOUT statistical program developed by the United States EPA. Once the distribution of the data was determined, evaluation of the population means and upper confidence limits was completed.

Correlation coefficients for selected elements were determined. Data used in calculating correlations included all concentrations equal to or below the upper confidence limit and above the detection limit for each element evaluated.

Duplicate background samples were not collected as part of the Superfund site evaluation process. In the absence of sample replication, a quantile analysis (Gilbert, 1989) was used to provide an estimate of replicate sample variance for elements with a detection percentage in excess of fifty percent. For the quantile analysis, data were ranked in descending order, and the rank of each data point was divided by the highest rank number to obtain a percentile. The 50th and 84th percentiles were compared to provide an estimate of sample variance that may have been caused by variation in laboratories, sample collection techniques, analytical techniques, and other artifacts. That is $S_q = X_{50} - X_{84}$.

RESULTS

Statistical summaries of results are included in Tables 2 through 6. Table 2 summarizes the upper confidence limit, number of samples, number of detections, concentration range, standard deviation, replicate standard deviation estimates and means for all elements on a statewide and regional basis. For those elements that were determined to have a lognormal distribution, MvU standard deviation and MvU means are also presented in Table 2. Table 3 presents the same information for sediment samples. To facilitate comparison of the sediment and soil data, Table 4 provides means, percent detected, and maximum concentrations for all elements evaluated. Table 5 provides the results of t-test calculations which were used to determine if soil samples from the Piedmont were significantly different from soil samples from the Coastal Plain. Table 6 provides the same information for sediment samples.

Distribution of elemental concentrations in soil

For the statewide sample group, the following elements were lognormally distributed in soil: aluminum, barium, calcium, chromium, and sodium. The remaining elements exhibited non-normal distributions, but the data sets were significantly improved with a log transformation. Concentrations of the following elements were lognormally distributed in both the Piedmont and Coastal Plain soil groups: calcium, chromium, potassium, and vanadium. The Coastal Plain soil sample group had lognormal distributions of aluminum, barium, iron, manganese, and zinc. For the Piedmont, nickel was lognormally distributed in soil samples. The remaining elements did not exhibit normal or lognormal distributions. Because of the large data set, confidence limits are still valid (Gilbert, 1989).

Distribution of elemental concentrations in sediment

In the statewide sediment sample group, barium, calcium, chromium, iron, magnesium, manganese, potassium, sodium, and vanadium were distributed lognormally. For sediment in the Piedmont and Coastal Plain groups, aluminum, calcium, chromium, magnesium, manganese, and zinc concentrations were lognormally distributed. The Coastal Plain sediment sample group exhibited lognormal distribution of iron. Barium, copper, and vanadium were lognormally distributed in Piedmont sediment samples.

Upper confidence limits (95th) for soil and sediment

For soil, upper confidence limits were calculated for twelve of the twenty-four elements that were divided into Piedmont/Coastal Plain groups (Table 2). Ten of the twenty-four elements were divided into the Piedmont/Coastal Plain groups for evaluation of the sediment data (Table 3). For the remainder of the elements, there was an insufficient percentage of detections, an insufficient number of samples for segregation into the Piedmont/Coastal Plain groups, or the groups were similar, and a statewide upper confidence limit was determined.

Comparison of Piedmont and Coastal Plain soil samples

The twelve elements that were segregated into Piedmont and Coastal Plain groups for further evaluation were aluminum, arsenic, barium, chromium, copper, iron, magnesium, manganese, nickel, potassium, vanadium, and zinc. For all these parameters except arsenic, the criteria for a significant difference at the a=0.01 confidence level was met or exceeded (Table 5). For arsenic the criteria of a=0.05 was met. The percentage of detections was higher for the Piedmont soil samples relative to the Coastal Plain soil samples for barium, chromium, copper, manganese, potassium, vanadium, and zinc. The maximum concentrations for each element in soil were higher in the Piedmont than in the Coastal Plain. Mean concentrations of constituents were higher in the Piedmont soils relative to the Coastal Plain for applicable elements.

Comparison of Piedmont and Coastal Plain sediment samples

The data were segregated into Piedmont and Coastal Plain groups for the following elements: aluminum, barium, calcium, chromium, copper, iron, magnesium, manganese, vanadium, and zinc (Table 6). The percentage of detections was higher for the Piedmont sediment samples relative to the Coastal Plain sediment samples for barium, chromium, copper, magnesium, manganese, vanadium, and zinc. Except for barium and calcium, the maximum concentrations for each element in sediment were higher in the Piedmont than in the Coastal Plain. Mean concentrations of constituents were higher in the Piedmont sediment sample group except for calcium.

Comparison of soil and sediment samples

Based on the results of t-tests using a confidence level of 0.05, soil and sediment samples are not significantly different with respect to mean concentrations of most elements. The t-tests did show a significant difference (a = 0.01) between soil and sediment for aluminum (t=3.99, 280 degrees of freedom for the statewide group; t = 5.1, 117 degrees of freedom for the Piedmont group), iron and manganese (Piedmont data set only; t = 4.09, 87 degrees of freedom for iron data; t = 5.68, 151 degrees of freedom for manganese data), and selenium and thallium (t = 6.75 with 325 degrees of freedom for statewide selenium data; t = 3.49 with 258 degrees of freedom for statewide thallium data). Mean sediment concentrations were higher than soil for thallium and selenium. For the remainder of elements that exhibited a significant difference between soil and sediment, concentrations were higher in the soil (Table 4).

Table 1. Summary of SW-846 methods for analysis of South Carolina inferred background soil samples

Element	Method	Element	Method
Aluminum	7020[1], 6010[2]	Magnesium	7450, 6010
Antimony	7040, 7041, 6010	Manganese	7461, 6010
Arsenic	7060[3]	Mercury	7471[4]
Barium	7080, 7081, 6010	Nickel	7520, 6010
Beryllium	7090, 7091, 6010	Potassium	7610, 6010
Cadmium	7130, 7131, 6010	Selenium	7740[5]
Calcium	7140, 6010	Silver	7760, 7761, 6010
Chromium	7190, 7191, 6010	Sodium	7770, 6010
Cobalt	7200, 7201, 6010	Thallium	7840, 7841
Copper	7210, 6010	Vanadium	7910, 7911, 6010
Iron	7380, 7381, 6010	Zinc	7950, 7951, 6010
Lead	7420, 7421	Cyanide	9010[6]

[1]All methods in the 7000 series are atomic absorption. Except for procedures noted below, even 7000 series numbers refer to Direct Aspiration techniques and odd numbers refer to Furnace techniques (EPA, 1986, SW-846).

[2]Inductively Coupled Plasma(ICP) - Atomic Emission Spectroscopy method.

[3]Furnace technique.

[4]Cold Vapor technique.

[5]Furnace technique.

[6]Colorimetric and titration methods.

Table 2: Statistical summary of inorganic elements in South Carolina soil samples

Element	Region	Number of Samples	Number Detected	Upper Confidence Limit (95th)	Average (ppm)	MvU Average	Standard Deviation	MvU Standard Deviation	Replicate Sample Standard Deviation (Estimate)	Range of Concentrations (ppm)	Detection Limit Range (ppm)
Aluminum	Statewide	199	196			13,528		2.1E4	4530	560 - 89,000	NA
	C. Plain	114	114	6279		5405		5060		560-27,000	NA
	Piedmont	83	83	32,695	24,255		19,981			890-89,000	NA
Antimony	Statewide	173	1	6	NA		NA		NA	NA	0.25 - 50.0
Arsenic	Statewide	251	115		6.1		26.9		1.73	ND-210	0.23 - 45.0
	C.Plain	129	55	2	2		3.3			ND-45	0.23 - 45.0
	Piedmont	105	59	18	11		39.3			ND-210	0.48 - 10.0
Barium	Statewide	252	215			38		50	24	ND-370	5.0 - 50.0
	C.Plain	140	118	22		19		19.6		ND-176	5.0 - 50.0
	Piedmont	112	98	68	59		57			ND-370	5.0 - 50.0
Beryllium	Statewide	189	55	0.6	0.6		0.53		NA	ND - 3.8	0.02 - 3.0
Cadmium	Statewide	243	13	1	1		1.8		NA	ND - 17	0.06 - 20
Calcium	Statewide	137	99	928		699		1590	305	ND - 8,500	19 - 780
Chromium	Statewide	254	224			16		27	6.1	ND - 140	1.0 - 30
	C.Plain	140	125	9		7		8		ND - 42	1.0 - 5.0
	Piedmont	112	101	38		29		48		ND-140	1.0 - 30.0
Cobalt	Statewide	194	78	5	4		5.5		NA	ND - 34	0.42 - 7
Copper	Statewide	232	139		9		13.8		4.7	ND - 92	0.42 - 70
	C.Plain	119	68	7	5		11.8			ND - 92	0.42 - 30
	Piedmont	98	71	16	13		14.6			ND - 92	0.64 - 70
Cyanide	Statewide	110	3	1	1		1.3		NA	NA	0.1 - 10

Table 2 Continued

Element	Region	Number of Samples	Number Detected	Upper Confidence Limit (95th)	Average (ppm)	MvU Average	Standard Deviation	MvU Standard Deviation	Replicate Sample Standard Deviation (Estimate)	Range of Concentrations (ppm)	Detection Limit Range
Iron	Statewide	136	134		15,608		18,024		5,200	160 - 73,000	NA
	C.Plain	73	73	7784		5271		9,220			NA
	Piedmont	61	61	32,412	28,467		19,257				NA
Lead	Statewide	254	186	15.1	16		24		7.7	ND - 200	3 - 20
Magnesium	Statewide	136	134		988		2116		227.3	7.4 - 17,000	27 - 210
	C. Plain	64	64	329	260		344				NA
	Piedmont	57	57	2529	1916		2893				NA
Manganese	Statewide	248	234		120		261		41.4	ND - 2,400	0.79 - 10.0
	C. Plain	135	123	30		22		44.8		ND - 99	
	Piedmont	112	110	288	235		354			ND - 2,400	
Mercury	Statewide	242	17	0.23	0.18		0.43			ND - 0.38	0.02 - 1
Nickel	Statewide	248	107		6		10.9		NA	ND - 52	0.96 - 9.2
	C. Plain	127	36	5	4		6.8			ND - 52	0.96 - 9.0
	Piedmont	111	71	10.4	9		9.2			ND - 47	1.2 - 9.2
Potassium	Statewide	136	60		856		1816		NA	ND - 15,000	60 -1,400
	C. Plain	64	22	281		227		212		ND - 1,520	75 - 1,400
	Piedmont	57	38	2843		1588		3317		ND - 15,000	60 - 1,120
Selenium	Statewide	236	12	1	0.9		0.9		NA	ND - 2.4	0.21 - 9.3
Silver	Statewide	230	43	5	4		7.2		NA	ND - 61	0.11 - 47
Sodium	Statewide	128	36	256		194		312	NA	ND - 1250	15 - 763
Thallium	Statewide	184	7	13	4.5		7.4		NA	ND - 2.6	0.15 - 70
	C. Plain	111	90	15		11		16.2		ND - 61	0.47 - 30
	Piedmont	82	80	86		67		81.6		ND - 270	4 - 110
Zinc	Statewide	206	152		23		27		9.9	ND - 170	1 - 70
	C. Plain	102	77	19		14		26		ND - 130	1 - 20
	Piedmont	87	74	39	34		30.3			ND - 170	1 - 70

Table 3: Statistical summary of inorganic elements in South Carolina background sediment samples

Element	Region	Number of Samples	Number Detected	Upper Confidence Limit (95th)	Average (ppm)	MvU Average	Standard Deviation	MvU Standard Deviation	Range of Concentrations (ppm)	Detection Limit Range (ppm)
Aluminum	Statewide	83	83		13,977		14,898		64 - 29,000	NA
	C. Plain	47	47	4964		3429		5291	900 - 11,000	NA
	Piedmont	36	36	9490		7073		6633	64 - 29,000	NA
Antimony	Statewide	75	2	6	5.6		3.6		ND - 11.4	1 - 20
Arsenic	Statewide	95	33	2	1.5		2.7		ND - 16	0.26 - 10
Barium	Statewide	95	84			32		32	ND - 240	3.3 - 50
	C.Plain	54	45	29	22		34		ND - 240	3.3 - 20
	Piedmont	41	39	56		44		36	ND - 170	50
Beryllium	Statewide	82	19	0.6	0.5		0.37		ND - 2	0.08 - 2
Cadmium	Statewide	92	2	1.0	0.8		1.1		ND - 10	0.13 - 3
Calcium	Statewide	56	46			1119		1476	ND - 44,500	170 - 660
	C. Plain	26	23	5164		2044		5099	ND - 44,500	170 - 250
	Piedmont	25	23	793		509		566	ND - 4800	520 - 660
Chromium	Statewide	95	81			11		13.1	ND - 47	1 - 12
	C.Plain	50	38	8		5		7.4	ND - 38	1 - 12
	Piedmont	45	43	24		17		22.3	ND - 47	1.8 - 2.1
Cobalt	Statewide	81	30	5	4		6.6		ND - 52	0.52 - 5.6
Copper	Statewide	94	53		6		8.3		ND - 30	0.64 - 90
	C.Plain	52	27	5	4		4		ND - 20	0.64 - 20
	Piedmont	38	26	15		9		15.5	ND - 30	0.66 - 90
Cyanide	Statewide	44	1	2	1.5		2.7		NA	0.14 - 20

Table 3 Continued

Element	Region	Number of Samples	Number Detected	Upper Confidence Limit (95th)	Average (ppm)	MvU Average	Standard Deviation	MvU Standard Deviation	Range of Concentrations (ppm)	Detection Limit Range
Iron	Statewide	56	52			10,797		10,345	240 - 48,000	NA
	C.Plain	25	25	7323		4060		6480	240 - 16,000	NA
	Piedmont	28	27	15,860	12,311		11,735		1,210 - 48,000	NA
Lead	Statewide	95	65	13	11		13		ND - 76	0.57 - 20
Magnesium	Statewide	57	46			958		1691	ND - 4,400	20 - 670
	C. Plain	26	20	811		333		751	ND - 3,900	20 - 60
	Piedmont	28	26	2003		1253		1,643	ND - 4,400	30 - 670
Manganese	Statewide	95	88			137		379	ND - 620	1 - 3
	C. Plain	53	48	65		36		104	ND - 340	1 - 3
	Piedmont	41	40	309		199		326	ND - 620	2
Mercury	Statewide	90	1	0.17	0.15		0.12		ND - 0.25	0.025 - 1.0
Nickel	Statewide	95	29	6	5		6.6		ND - 51	1.5 - 11
Potassium	Statewide	54	20	866		579		713	ND - 4,000	30 - 1,370
Selenium	Statewide	91	3	1	0.8		0.9		0.6 - 1.8	0.21 - 8.0
Silver	Statewide	91	6	2	2		1.9		ND - 15	0.19 - 5.0
Sodium	Statewide	52	15	474		260		404	ND - 5,800	10 - 821
Thallium	Statewide	76	1	11	8.9		12.9		0.650	0.15 - 70
Vanadium	Statewide	83	63			18		23	ND - 200	1.9 - 9.1
	C. Plain	45	31	10	8		9		ND - 42	1.9 - 6.2
	Piedmont	35	32	48		31		44.2	ND - 200	2.0 - 9.1
Zinc	Statewide	80	27		23		30		ND - 200	1.0 - 40
	C. Plain	47	37	29		17.4		37	ND - 110	1.0 - 30
	Piedmont	33	27	52		34		46.4	ND - 200	1.0 - 40

Table 4: Comparison of elements in South Carolina background samples

Element	Region	Average (ppm) Sediment	Average (ppm) Soil	Percent Detected Sediment	Percent Detected Soil	Maximum Concentration (ppm) Sediment	Maximum Concentration (ppm) Soil
Aluminum	Statewide	4,878	13,528	100	100	29,000	89,000
	C. Plain	3,429	5,405	100	100	29,000	27,000
	Piedmont	7,073	24,255	100	100	11,000	89,000
Antimony	Statewide	5.6	NA	3	1	11.4	NA
Arsenic	Statewide	1.5	6.1	35	46	16	210
Barium	Statewide	32	38	88	85	240	370
	C.Plain	22	19	83	84	240	176
	Piedmont	44	59	95	88	170	370
Beryllium	Statewide	0.5	0.6	23	29	2	3.8
Cadmium	Statewide	0.8	1	2	5	10	17
Calcium	Statewide	1,119	699	82	72	44,500	8,500
Chromium	Statewide	11	16	85	88	47	140
	C.Plain	5	7	76	89	38	42
	Piedmont	17	29	96	90	47	140
Cobalt	Statewide	4	4	37	40	52	34
Copper	Statewide	6	9	56	60	30	92
	C.Plain	4	5	52	57	20	92
	Piedmont	9	13	68	72	30	92
Cyanide	Statewide	1.5	1	2	3	NA	NA
Iron	Statewide	10,797	15,608	93	99	48,000	73,000
	C.Plain	4,060	5,271	100	100	16,000	28,000
	Piedmont	12,311	28,467	96	100	48,000	73,000
Lead	Statewide	11	16	68	73	76	200
	C. Plain	13.3	12	66	77	76	150
	Piedmont	7.8	19.4	73	77	31	200
Magnesium	Statewide	958	988	81	89	4,400	17,000
	C. Plain	333	260	77	100	3,900	1,900
	Piedmont	1253	1916	93	100	4,400	17,000

Table 4 Continued

Element	Region	Average (ppm) Sediment	Average (ppm) Soil	Percent Detected Sediment	Percent Detected Soil	Maximum Concentration Sediment (ppm)	Maximum Concentration Soil (ppm)
Manganese	Statewide	137	120	93	94	620	2,400
	C. Plain	36	22	91	91	340	99
	Piedmont	199	235	98	98	620	2,400
Mercury	Statewide	0.15	0.18	1	7	0.25	0.38
Nickel	Statewide	5	6	31	43	51	52
Potassium	Statewide	579	856	37	44	4,000	15,000
	C. Plain	341	227	45	34		1,520
	Piedmont	774	1,588	38	67		15,000
Selenium	Statewide	0.8	0.8	3	5	1.8	2.4
Silver	Statewide	2	4	7	19	15	61
Sodium	Statewide	260	194	29	28	5,800	1,250
Thallium	Statewide	9	10.9	1	4	0.650	2.6
Vanadium	Statewide	18	32	76	86	200	270
	C. Plain	8	11	69	81	42	61
	Piedmont	31	67	91	98	200	270
Zinc	Statewide	23	23	57	74	200	170
	C. Plain	17.4	14	79	75	110	130
	Piedmont	34	34	82	85	200	170

Table 5. Results of t-test evaluation of Piedmont and Coastal Plain inferred background soil samples.

Element	Degrees of freedom	t value	Approximate Critical Value of t (a=0.01)	(a=0.05)
Aluminum	195	9.7	3.16	
Arsenic	232	2.76	3.16	2.61
Barium	250	7.5	3.16	
Chromium	250	4.25	3.16	
Copper	215	4.67	3.16	
Iron	132	9.22	3.16	
Lead	249	2.4	3.16	
Magnesium	119	4.57	3.16	
Manganese	245	6.82	3.16	
Nickel	236	4.5	3.16	
Potassium	119	4.25	3.16	
Vanadium	191	10.01	3.16	
Zinc	187	5.4	3.16	

Table 6. Results of t-test evaluation of Piedmont and Coastal Plain inferred background sediment samples.

Element	Degrees of freedom	t value	Approximate Critical Value of t (a=0.05)	(a = 0.01)
Aluminum	81	4.7	2.66	3.16
Barium	93	3.08	2.66	3.16
Calcium	49	2.7	2.7	3.23
Chromium	93	5.4	2.66	3.16
Copper	88	2.8	2.66	3.16
Iron	51	3.6	2.7	3.23
Magnesium	52	5.4	2.7	3.23
Manganese	92	7.8	2.66	3.16
Vanadium	78	5.9	2.66	3.16
Zinc	78	3.5	2.66	3.16

Replicate sample standard deviation estimates

Estimates of replicate sample standard deviation were obtained for eleven elements (Table 2). Those elements having an estimated replicate sample standard deviation less than twenty percent of the respective usual standard deviation included arsenic, chromium, magnesium, and manganese. Aluminum, calcium, iron, lead, vanadium, and zinc had estimated replicate sample standard deviations that were twenty to fifty percent of the usual standard deviations. The estimated replicate sample standard deviation for barium exceeded fifty percent of the true standard deviation for barium.

Correlation of elements

On a statewide basis, correlations between aluminum and iron, iron and vanadium, and aluminum and vanadium concentrations in soil samples were noted (Figure 3). When subdivided into Piedmont and Coastal Plain groups, the correlations fell below significant levels.

DISCUSSION

In general, mean and maximum concentrations of constituents as well as percentage of detections are higher in the Piedmont than in the Coastal Plain. The Piedmont represents the source of the majority of the soil and sediment found in the Coastal Plain. All of these comparisons suggest that the Coastal Plain contains more highly weathered material relative to the Piedmont, as would be expected. Therefore, as the material was weathered, eroded, transported and deposited, concentrations of constituents decreased except for calcium. Decrease of constituent concentrations likely occurred through dissolution of more soluble minerals, settling of heavy minerals, or chemical reactions caused by weathering.

Ure and Berrow (1983) provide explanations for several of the observed correlations between different elements. Trivalent vanadium and trivalent iron have an almost identical octahedral radius; therefore, vanadium often is associated with iron in mineral formation. Al^{3+} and Fe^{3+} are similar in terms of chemical properties and ion size; therefore, these elements are expected to behave similarly especially during weathering processes, and they tend to be concentrated in clays. Aluminum and vanadium occur in clay minerals, amphiboles, pyroxenes, and biotite. Both elements tend to remain in the residuum of weathered material and are considered resistant to weathering. Vanadium is known to coprecipitate with aluminum in secondary soil minerals such as various types of aluminum oxides

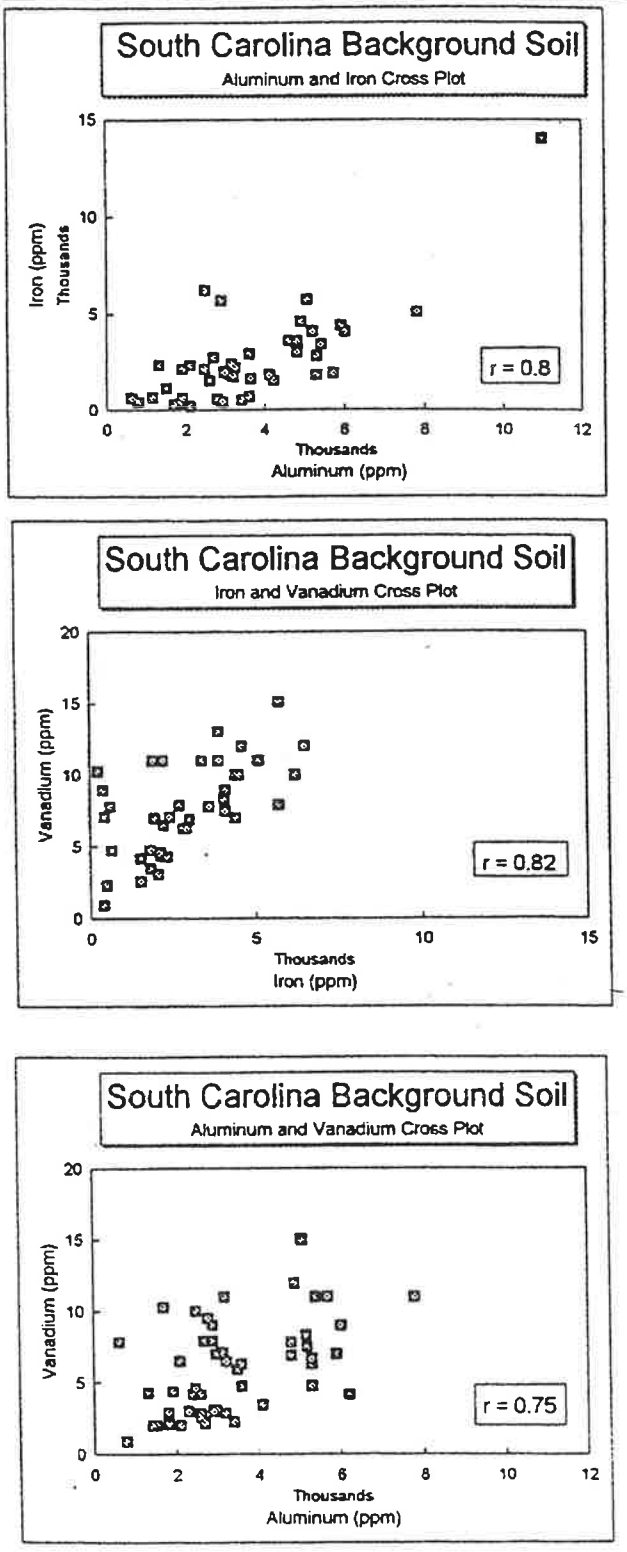

Figure 3: Correlation of iron,vanadium, and aluminum concentrations in South Carolinabackground soil samples.

similar in terms of chemical properties and ion size; therefore, these elements are expected to behave similarly especially during weathering processes, and they tend to be concentrated in clays. Aluminum and vanadium occur in clay minerals, amphiboles, pyroxenes, and biotite. Both elements tend to remain in the residuum of weathered material and are considered resistant to weathering. Vanadium is known to coprecipitate with aluminum in secondary soil minerals such as various types of aluminum oxides (Sposito, 1989, p. 12). The similar response to weathering in addition to coprecipitation may have caused the observed correlation between aluminum and vanadium.

While natural variation in occurrence is most likely, it is possible that the correlations are an artifact of the acid-leach digestion method used in this study. Correlations of resistant element pairs or easily leached element pairs may be a function of the effectiveness of the acid-leach digestion method.

The estimate of replicate sample standard deviation suggests that variability in sampling techniques, analytical methods, laboratory, personnel, and other artifacts affected the data. For arsenic, chromium, magnesium, and manganese, the effects of artifacts appear to be minimal. For barium, the effect appears to be significant.

One factor that may have affected the replicate standard deviation estimates as well as the distribution of the elements is the method of digestion. The samples were not completely digested as many commonly occurring minerals and certain soil types are resistant to total dissolution by nitric acid, hydrochloric acid, and hydrogen peroxide. The resistance to digestion may have caused a higher percentage of samples to exhibit lower concentrations and thus may have resulted in a lognormal distribution. The incompleteness of dissolution would likely affect analytical results of replicate samples and thus may have contributed to the replicate standard deviation estimates. A lognormal distribution may also reflect the tendency of trace elements to occur at low concentrations at many locations and at higher concentrations at a few locations.

As previously mentioned, it is expected that a certain percentage of the inferred background sample population will exceed the upper confidence limit. An exceedance of an upper confidence limit may suggest that the sample was not collected from a true background location or that the naturally occurring inorganic materials are in excess of what is expected. When exceedances of upper confidence limits are noted, additional investigation would be needed to determine if the elevated result is natural, statistical or manmade.

CONCLUSIONS

Upper confidence limits have been proposed for twenty-four inorganic elements in inferred background soil. Soil samples from the Piedmont often contained higher mean and maximum concentrations as well as a higher percentage of detection of constituents than the Coastal Plain samples suggesting that Coastal Plain material has been subjected to a greater degree of weathering. Because of the significant differences between the physiographic provinces, region-specific upper confidence limits are proposed for twelve elements in soil and are higher for Piedmont soil. Statewide correlations were observed for aluminum and iron, vanadium and iron, and aluminum and vanadium. Although geochemical explanations exist for many of the correlations, it is possible that the method of sample digestion caused an artificial correlation. Aluminum, barium, calcium, chromium, and sodium concentrations were lognormally distributed in soil samples from South Carolina. For each of these elements, the data were skewed toward the detection limit. This skewness may represent a common tendency for many trace metals in soil: a higher number of samples contain lower concentrations and only a few samples contain higher concentrations. Although the tendency may occur naturally, it may have been introduced into the data set artificially by means of incomplete sample digestion.

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